



CITY OF PORTSMOUTH

Planning Department
1 Junkins Avenue
Portsmouth, New
Hampshire 03801
(603) 610-7216

PLANNING BOARD

June 24, 2019

Borthwick Forest, LLC
210 Commerce Way, Suite 300
Portsmouth, NH 03801

RE: Amended Site Plan Application for properties located on Borthwick Avenue and Islington Street

Dear Applicant:

The Planning Board, at its regularly scheduled meeting of Thursday, June 20, 2019, considered your application for Amended Site Plan Review approval for the conversion of a ground level parking garage to office space and associated parking lot expansion and stormwater management improvements. Said property is shown on Assessor Map 241 Lots 25 & 26 and lies within the Office Research District. As a result of said consideration, the Board voted to grant Amended Site Plan Review Approval with the following stipulations:

- 1) Prior to construction of the reserve parking area in the future, the plans shall be submitted to the Conservation Commission for review.
- 2) The required note referencing the stormwater maintenance plan and annual inspection and maintenance schedule shall be included on the recordable plan sheet.
- 3) The Stormwater Maintenance Plan shall be updated to revise Section 1.3.3 to note that any updates to the plan (and deed) will require further review and approval as required by the Site Plan Review Regulations.
- 4) The site plan shall be reviewed for pre-approval by the Rockingham County Registry of Deeds and subsequently recorded, as deemed appropriate by the Planning Department.

The Board's decision may be appealed up to thirty (30) days after the vote. Any action taken by the applicant pursuant to the Board's decision during this appeal period shall be at the applicant's risk. Please contact the Planning Department for more details about the appeals process.

This site plan approval shall not be effective until a site plan agreement has been signed satisfying the requirements of Section 2.12 of the City's Site Review Approval Regulations.

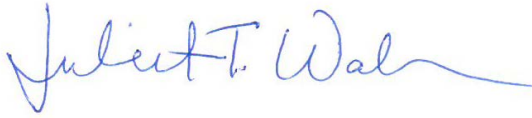
Unless otherwise indicated above, applicant is responsible for applying for and securing a building permit from the Inspection Department prior to starting any project work.

The Planning Director must certify that all stipulations of approval have been completed prior to issuance of a building permit unless otherwise indicated above.

This site plan approval shall expire unless a building permit is issued within a period of one (1) year from the date granted by the Planning Board unless an extension is granted by the Planning Board in accordance with Section 2.14 of the Site Review Regulations.

The minutes and audio recording of this meeting are available by contacting the Planning Department.

Very truly yours,

A handwritten signature in blue ink that reads "Juliet T. Walker". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Juliet T. H. Walker, AICP, Planning Director
for Dexter Legg, Chairman of the Planning Board

cc:

Patrick Crimmins, PE, Tighe & Bond
Rosann Maurice-Lentz, City Assessor
Robert Marsilia, Building Inspector
Peter Rice, Director of Public Works



PROPOSED SUBDIVISION ROAD & OFFICE BUILDING DEVELOPMENT

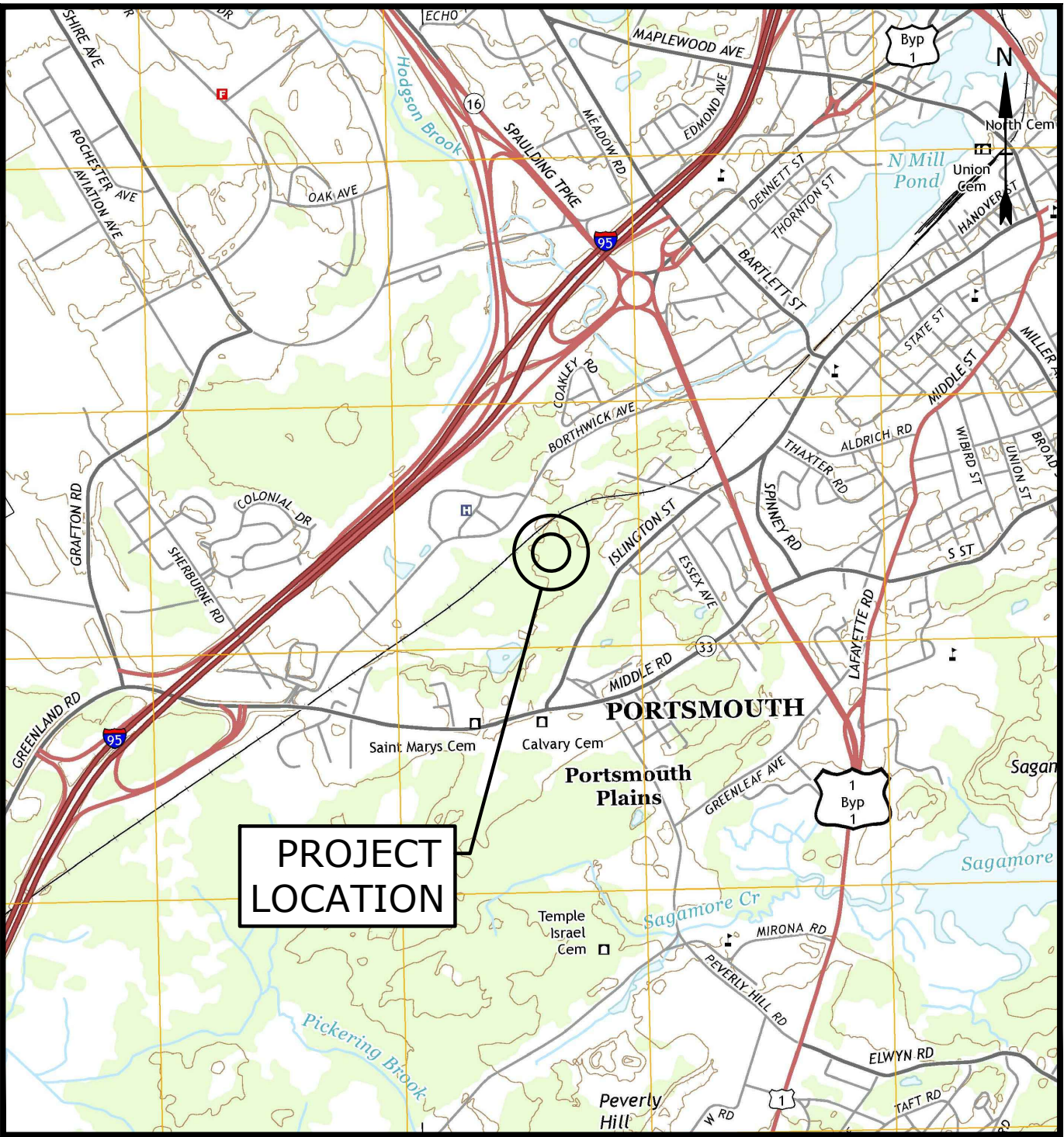
PORTSMOUTH, NEW HAMPSHIRE

PERMIT DRAWINGS

MARCH 20, 2017

LAST REVISED: NOVEMBER 18, 2019

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	11/18/2019
1 OF 6	LOT CONSOLIDATION, RE-SUBDIVISION & EASEMENT PLAN	11/18/2019
2 OF 6	LOT CONSOLIDATION, RE-SUBDIVISION & EASEMENT PLAN	11/18/2019
3 OF 6	LOT CONSOLIDATION, RE-SUBDIVISION & EASEMENT PLAN	11/18/2019
4 OF 6	LOT CONSOLIDATION, RE-SUBDIVISION & EASEMENT PLAN	11/18/2019
5 OF 6	LOT CONSOLIDATION, RE-SUBDIVISION & EASEMENT PLAN	11/18/2019
6 OF 6	LOT CONSOLIDATION, RE-SUBDIVISION & EASEMENT PLAN	11/18/2019
G-101	GENERAL NOTES, ABBREVIATIONS & LEGEND SHEET	11/18/2019
C-101	OVERALL EXISTING CONDITIONS PLAN	03/25/2019
C-101.1	EXISTING CONDITIONS/DEMOLITION PLAN	06/11/2019
C-101.2	EXISTING CONDITIONS/DEMOLITION PLAN	06/11/2019
C-102	OVERALL SITE PLAN	11/18/2019
C-102.1	SITE PLAN & ROADWAY PROFILE	11/18/2019
C-102.2	SITE PLAN	11/18/2019
C-103.1	GRADING, DRAINAGE & EROSION CONTROL PLAN	11/18/2019
C-103.2	GRADING, DRAINAGE & EROSION CONTROL PLAN	11/18/2019
C-104.1	UTILITY PLAN & PROFILES	11/18/2019
C-104.2	UTILITY PLAN	11/18/2019
C-105.1	LANDSCAPE PLAN	11/18/2019
C-105.2	LANDSCAPE PLAN	11/18/2019
C-106	BUFFER RESTORATION & PLANTING SEQUENCING PLAN	11/18/2019
C-300	EASEMENT PLAN	11/18/2019
C-501	EROSION CONTROL NOTES SHEET	03/25/2019
C-502	DETAILS SHEET	03/25/2019
C-503	DETAILS SHEET	11/18/2019
C-504	DETAILS SHEET	11/18/2019
C-505	DETAILS SHEET	03/25/2019
C-506	DETAILS SHEET	03/25/2019
C-507	DETAILS SHEET	03/25/2019
C-508	DETAILS SHEET	03/25/2019
C-509	DETAILS SHEET	06/11/2019
1 OF 2	PHOTOMETRICS PLAN	05/13/2019
1 OF 2	PHOTOMETRICS PLAN	05/13/2019
2 OF 2	PHOTOMETRICS PLAN	05/13/2019
A3.01	EXTERIOR ELEVATIONS	05/15/2019
A3.02	EXTERIOR ELEVATIONS	05/15/2019

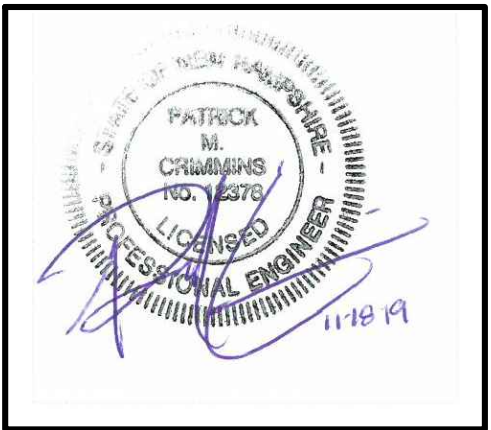


LOCATION MAP
SCALE: 1" = 2,000'

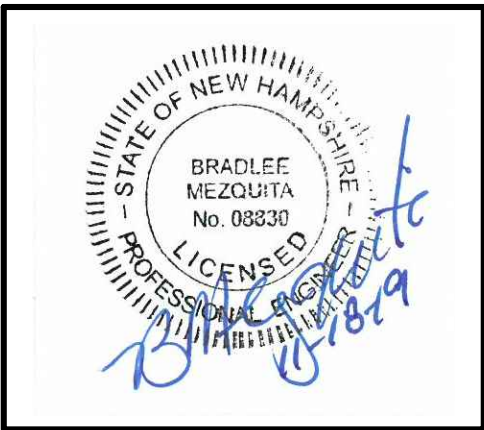
- CONSTRUCTION NOTES:
1. THE CONTRACTOR SHALL NOT RELY ON SCALED DIMENSIONS AND SHALL CONTACT THE ENGINEER FOR CLARIFICATION IF A REQUIRED DIMENSION IS NOT PROVIDED ON THE PLANS.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, AND FOR SITE CONDITIONS THROUGHOUT CONSTRUCTION. 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, PE



BRAD MEZQUITA, PE

Applicant:

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

Survey Consultant:

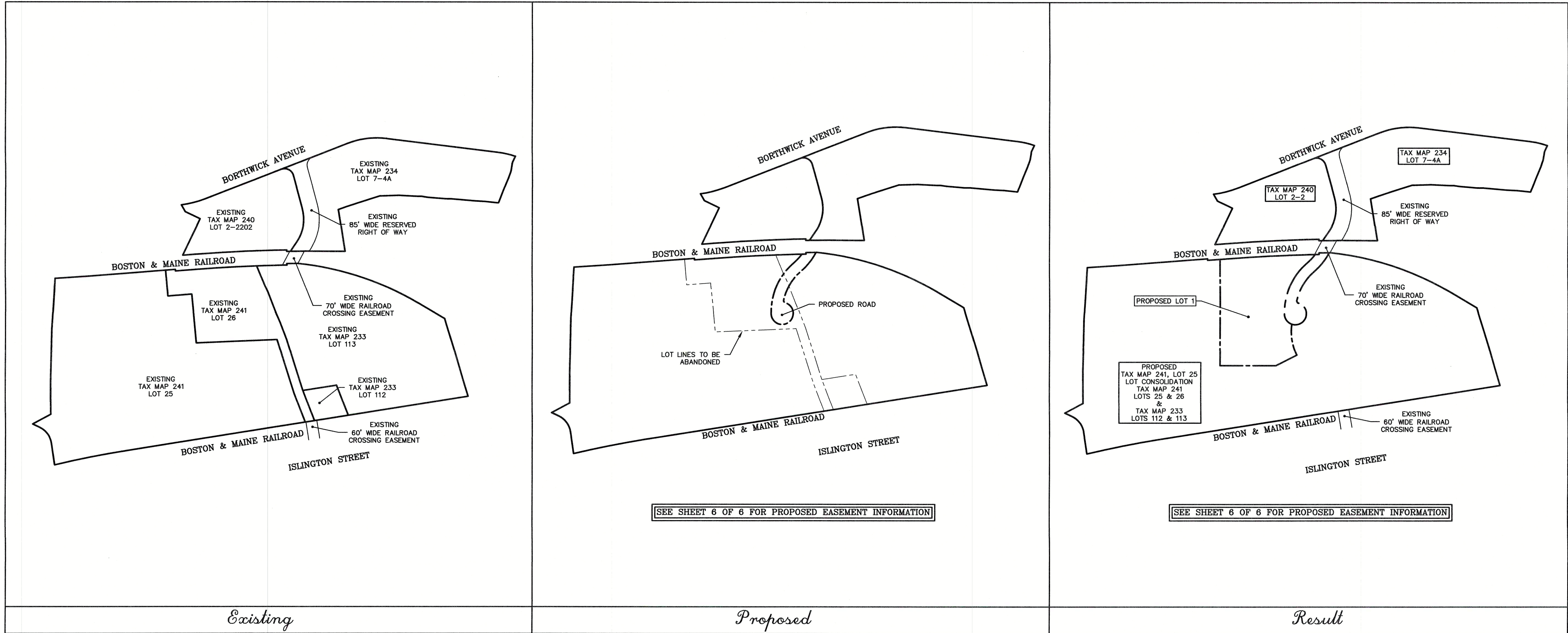
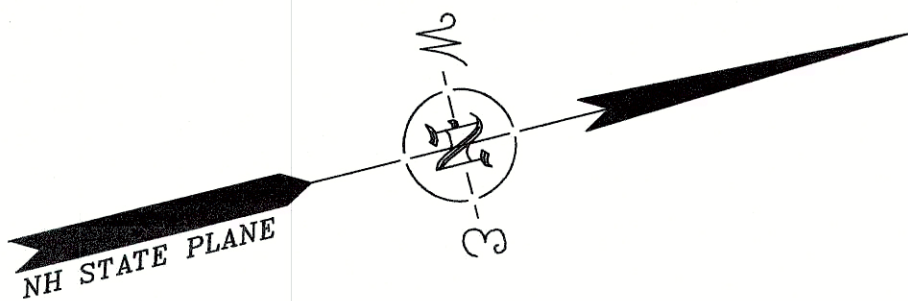


Wetland Consultant:

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

LIST OF PERMITS & APPROVALS		
STATE	STATUS	DATE
NHDES - SEWER CONNECTION PERMIT	APPROVED	10/24/2018
NHDES - ALTERATION OF TERRAIN PERMIT	APPROVED	9/5/2017
LOCAL		
SITE PLAN REVIEW PERMIT	APPROVED	6/24/2019
SUBDIVISION PERMIT	APPROVED	5/22/2017

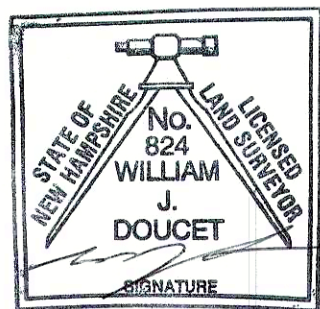
COMPLETE SET 36 SHEETS



Key Plan (n.t.s.)

LEGEND

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



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.

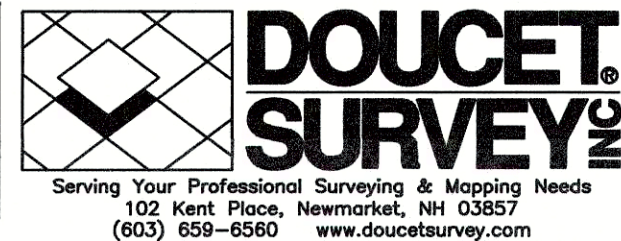
W.J. Doucet L.L.S. #824
11-13-15 DATE

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.

THIS PLAN IS A REVISION OF PLAN D-40905, RECORDED WITH THE SAME TITLE. THE REVISION IS LIMITED TO A CHANGE IN LOCATION OF THE ACCESS EASEMENT RUNNING FROM THE CUL-DE-SAC TO ISLINGTON STREET.

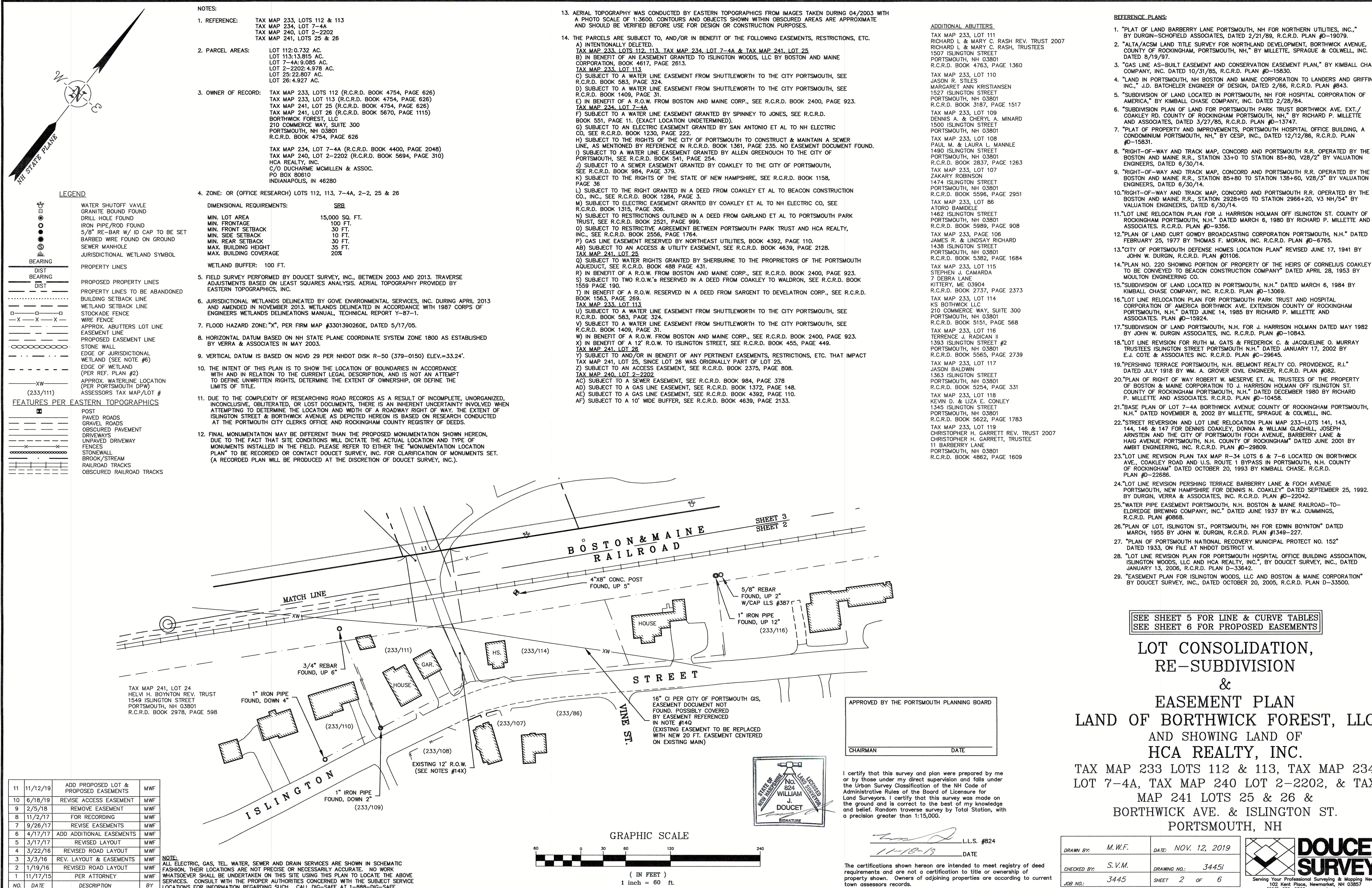
LOT CONSOLIDATION,
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LAND OF BORTHWICK FOREST, LLC
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TAX MAP 233 LOTS 112 & 113, TAX MAP 234
LOT 7-4A, TAX MAP 240 LOT 2-2202, & TAX
MAP 241 LOTS 25 & 26 &
BORTHWICK AVE. & ISLINGTON ST.
PORTSMOUTH,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

DRAWN BY:	M.W.F.	DATE:	NOV. 12, 2019
CHECKED BY:	S.V.M.	DRAWING NO.:	3445/1
JOB NO.:	3445	SHEET	1 OF 6



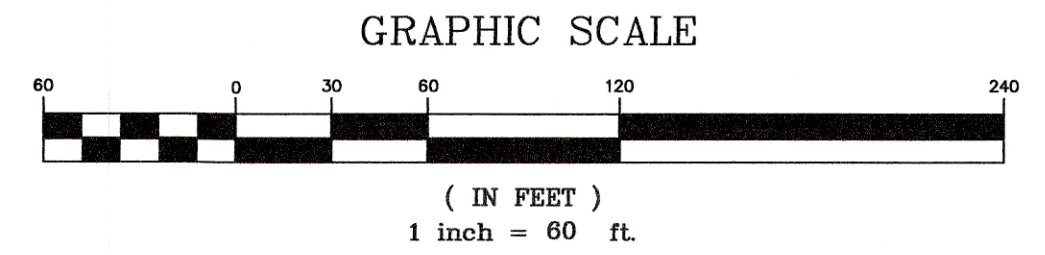
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6	4/17/17	ADD ADDITIONAL EASEMENTS	MWF
5	3/17/17	REVISED LAYOUT	MWF
4	3/22/16	REVISED ROAD LAYOUT	MWF
3	3/3/16	REV. LAYOUT & EASEMENTS	MWF
2	1/19/16	REVISED ROAD LAYOUT	MWF
1	11/17/15	PER ATTORNEY	MWF
NO.	DATE	DESCRIPTION	BY

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.



NO.	DATE	DESCRIPTION	BY
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APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN	DATE

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.

[Signature] L.L.S. #824
11-18-19 DATE

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REFERENCE PLANS:

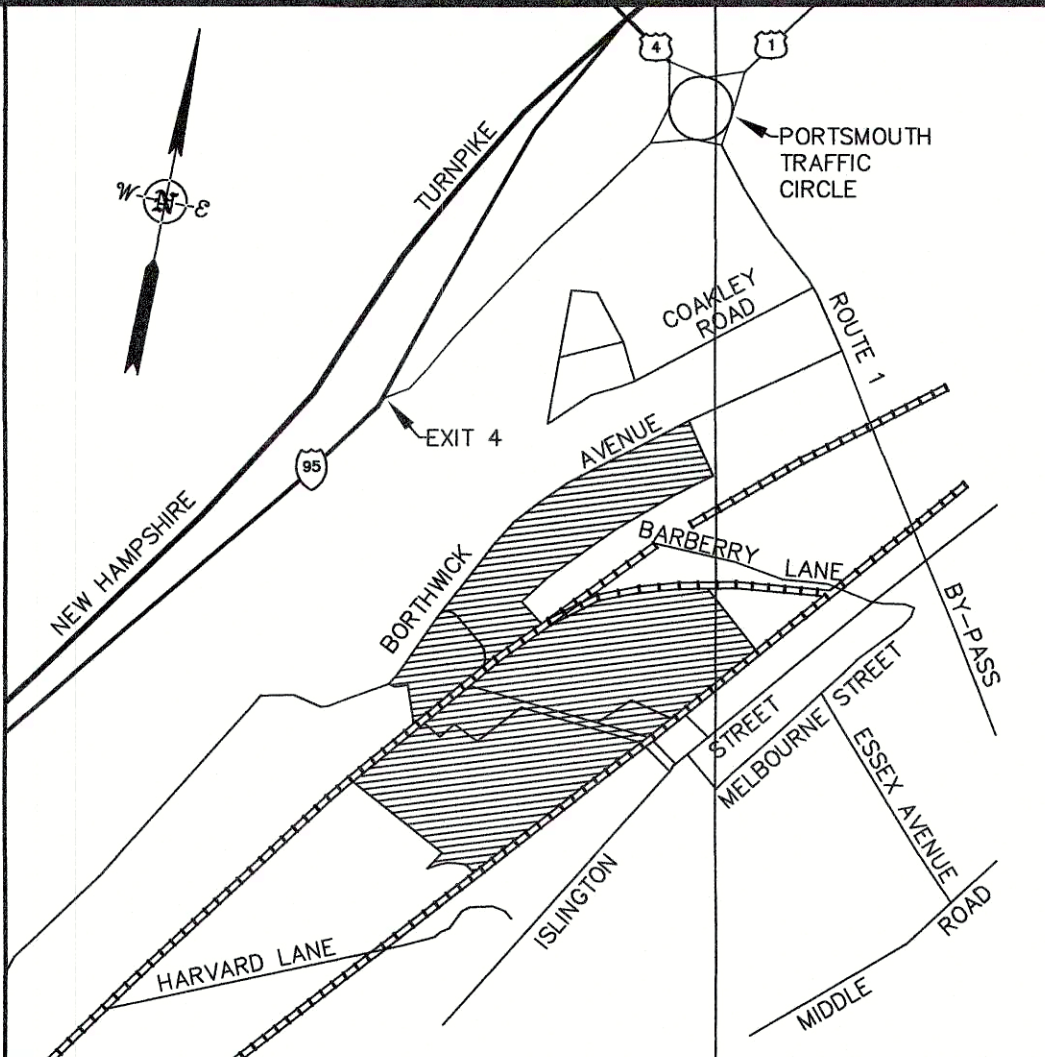
- "PLAT OF LAND BARBERRY LANE PORTSMOUTH, NH FOR NORTHERN UTILITIES, INC.," BY DURGIN-SCHOFIELD ASSOCIATES, DATED 2/21/89, R.C.R.D. PLAN #19079.
- "ALTA/ACSM LAND TITLE SURVEY FOR NORTHLAND DEVELOPMENT, BORTHWICK AVENUE, COUNTY OF ROCKINGHAM, PORTSMOUTH, NH.," BY MILLETTE, SPRAGUE & COLWELL, INC. DATED 8/19/97.
- "GAS LINE AS-BUILT EASEMENT AND CONSERVATION EASEMENT PLAN," BY KIMBALL CHASE COMPANY, INC. DATED 10/31/85, R.C.R.D. PLAN #15830.
- "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 #843.
- "SUBDIVISION OF LAND LOCATED IN PORTSMOUTH, NH FOR HOSPITAL CORPORATION OF AMERICA," BY KIMBALL CHASE COMPANY, INC. DATED 2/28/84.
- "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 #13747.
- "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 #15831.
- "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 8/30/14.
- "RIGHT-OF-WAY AND TRACK MAP, CONCORD AND PORTSMOUTH R.R. OPERATED BY THE BOSTON AND MAINE R.R., STATION 85+80 TO STATION 138+60, V28/3" BY VALUATION ENGINEERS, DATED 6/30/14.
- "RIGHT-OF-WAY AND TRACK MAP, CONCORD AND PORTSMOUTH R.R. OPERATED BY THE BOSTON AND MAINE R.R., STATION 2928+05 TO STATION 2966+20, V3 NH/54" BY VALUATION ENGINEERS, DATED 6/30/14.
- "LOT LINE RELOCATION PLAN FOR J. HARRISON HOLMAN OFF ISLINGTON ST. COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." DATED MARCH 6, 1980 BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. PLAN #9356.
- "PLAN OF LAND CURT GOWDY BROADCASTING CORPORATION PORTSMOUTH, N.H." DATED FEBRUARY 25, 1977 BY THOMAS F. MORAN, INC. R.C.R.D. PLAN #6765.
- "CITY OF PORTSMOUTH DEFENSE HOMES LOCATION PLAN" REVISED JUNE 17, 1941 BY JOHN W. DURGIN, R.C.R.D. PLAN #0106.
- "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.
- "SUBDIVISION OF LAND LOCATED IN PORTSMOUTH, N.H." DATED MARCH 6, 1984 BY KIMBALL CHASE COMPANY, INC. R.C.R.D. PLAN #13069.
- "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. PLAN #15924.
- "SUBDIVISION OF LAND PORTSMOUTH, N.H. FOR J. HARRISON HOLMAN DATED MAY 1982 BY JOHN W. DURGIN ASSOCIATES, INC. R.C.R.D. PLAN #10843.
- "LOT LINE REVISION FOR RUTH M. GATS & FREDERICK C. & JACQUELINE O. MURRAY TRUSTEES ISLINGTON STREET PORTSMOUTH, N.H." DATED JANUARY 17, 2002 BY E.J. COTE & ASSOCIATES INC. R.C.R.D. PLAN #29645.
- "PERSHING TERRACE PORTSMOUTH, N.H. BELMONT REALTY CO. PROVIDENCE, R.I." DATED JULY 1918 BY WM. A. GROVER CIVIL ENGINEER, R.C.R.D. PLAN #082.
- "PLAN OF RIGHT OF WAY ROBERT W. MESERVE ET. AL TRUSTEES OF THE PROPERTY OF BOSTON & MAINE CORPORATION TO J. HARRISON HOLMAN OFF ISLINGTON ST. COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." DATED DECEMBER 1980 BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. PLAN #10458.
- "BASE PLAN OF LOT 7-4A BORTHWICK AVENUE COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." DATED NOVEMBER 8, 2002 BY MILLETTE, SPRAGUE & COLWELL, INC.
- "STREET REVERSION AND LOT LINE RELOCATION PLAN MAP 233-LOTS 141, 143, 144, 146 & 147 FOR DENNIS COAKLEY, DONNA & WILLIAM GLADHILL, 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 #29809.
- "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 #22866.
- "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 #22042.
- "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 #0868.
- "PLAN OF LOT, ISLINGTON ST., PORTSMOUTH, NH FOR EDWIN BOYNTON" DATED MARCH, 1955 BY JOHN W. DURGIN, R.C.R.D. PLAN #1349-227.
- "PLAN OF PORTSMOUTH NATIONAL RECOVERY MUNICIPAL PROTECT NO. 152" DATED 1933, ON FILE AT NHDOT DISTRICT VI.
- "LOT LINE REVISION PLAN FOR PORTSMOUTH HOSPITAL OFFICE BUILDING ASSOCIATION, ISLINGTON WOODS, LLC AND HCA REALTY, INC.," BY DOUCET SURVEY, INC., DATED JANUARY 13, 2006, R.C.R.D. PLAN D-33642.
- "EASEMENT PLAN FOR ISLINGTON WOODS, LLC AND BOSTON & MAINE CORPORATION" BY DOUCET SURVEY, INC., DATED OCTOBER 20, 2005, R.C.R.D. PLAN D-33500.

SEE SHEET 5 FOR LINE & CURVE TABLES
SEE SHEET 6 FOR PROPOSED EASEMENTS

LOT CONSOLIDATION,
RE-SUBDIVISION
&
EASEMENT PLAN
LAND OF BORTHWICK FOREST, LLC
AND SHOWING LAND OF
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BORTHWICK AVE. & ISLINGTON ST.
PORTSMOUTH, NH

DRAWN BY:	M.W.F.	DATE:	NOV. 12, 2019
CHECKED BY:	S.V.M.	DRAWING NO.:	34451
JOB NO.:	3445	SHEET	2 OF 6

DOUCET SURVEY
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www.doucetsurvey.com



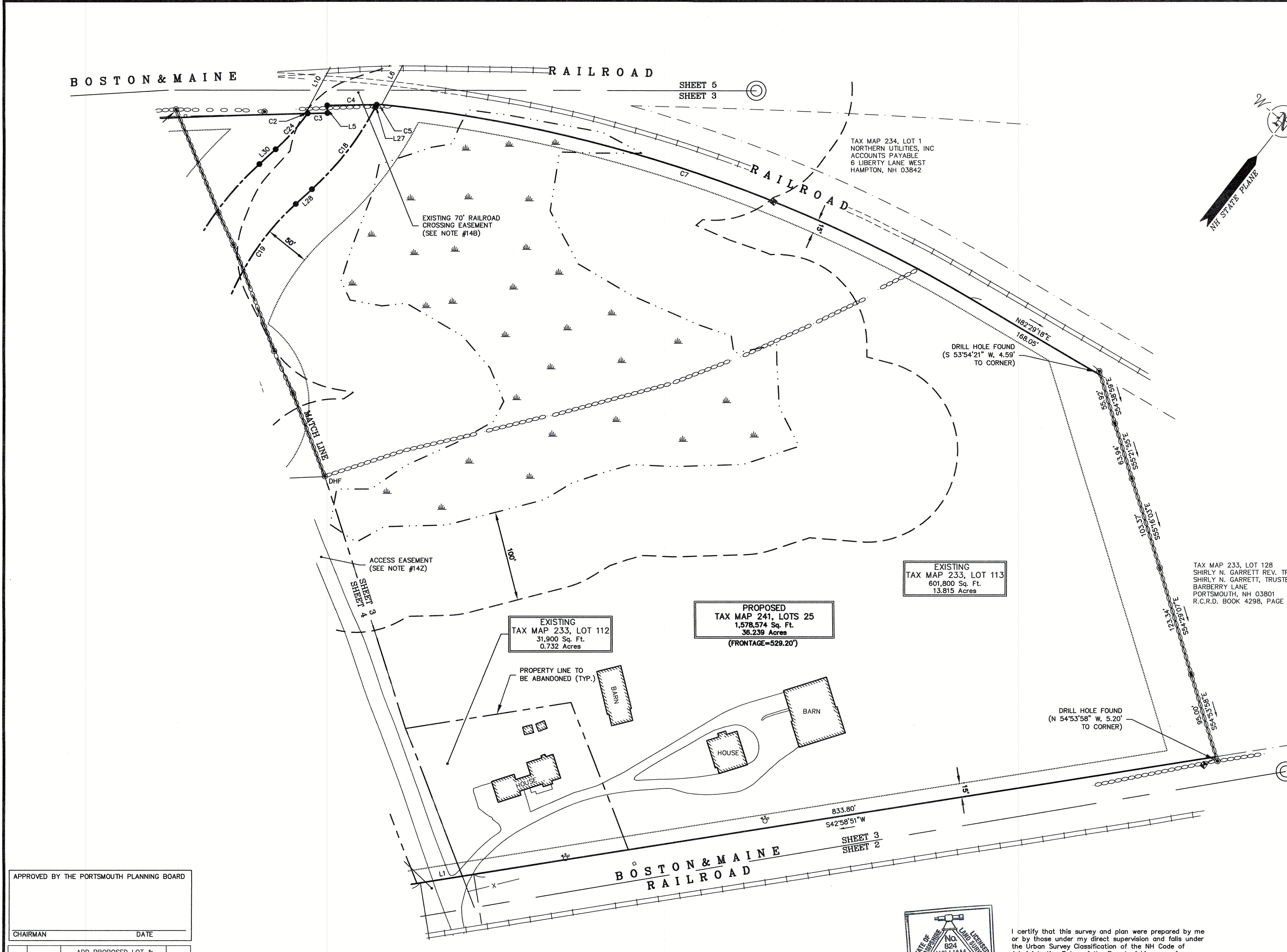
Location Map (n.t.s.)

LEGEND	
	WATER SHUTOFF VALVE
	GRANITE BOUND FOUND
	DRILL HOLE FOUND
	IRON PIPE/ROD FOUND
	5/8" RE-BAR W/ ID CAP TO BE SET
	BARGED WIRE FOUND ON GROUND
	SEWER MANHOLE
	JURISDICTIONAL WETLAND SYMBOL
PROPERTY LINES	
PROPOSED PROPERTY LINES	
PROPERTY LINES TO BE ABANDONED	
BUILDING SETBACK LINE	
WETLAND 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

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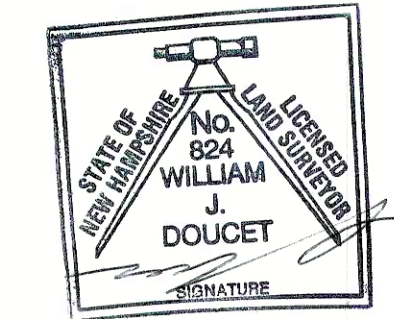
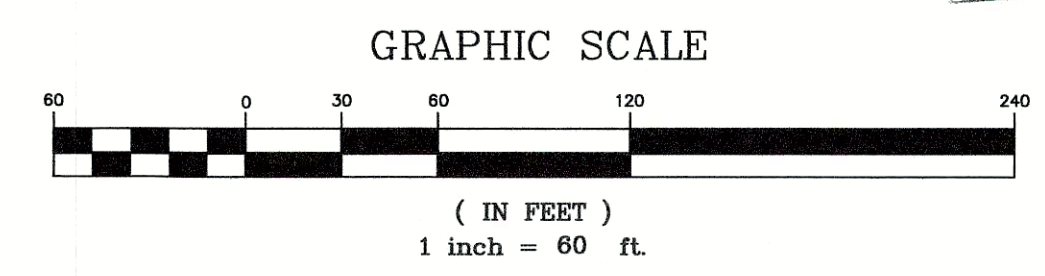
DRAWN BY:	M.W.F.	DATE:	NOV. 12, 2019
CHECKED BY:	S.V.M.	DRAWING NO.:	3445/1
JOB NO.:	3445	SHEET	3 OF 6



APPROVED BY THE PORTSMOUTH PLANNING BOARD			
CHAIRMAN	DATE		

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SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE
LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.



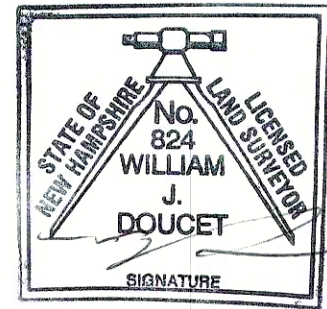
I certify that this survey and plan were prepared by me
or by those under my direct supervision and falls under
the Urban Survey Classification of the NH Code of
Administrative Rules of the Board of Licensure for
Land Surveyors. I certify that this survey was made on
the ground and is correct to the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

L.L.S. #824
11-19-19 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 240, LOT 2-2001
CITY OF PORTSMOUTH
DPW
PO BOX 628
PORTSMOUTH, NH 03802
R.C.R.D. BOOK 2648, PAGE 901

LOT CONSOLIDATION,
RE-SUBDIVISION
&
EASEMENT 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



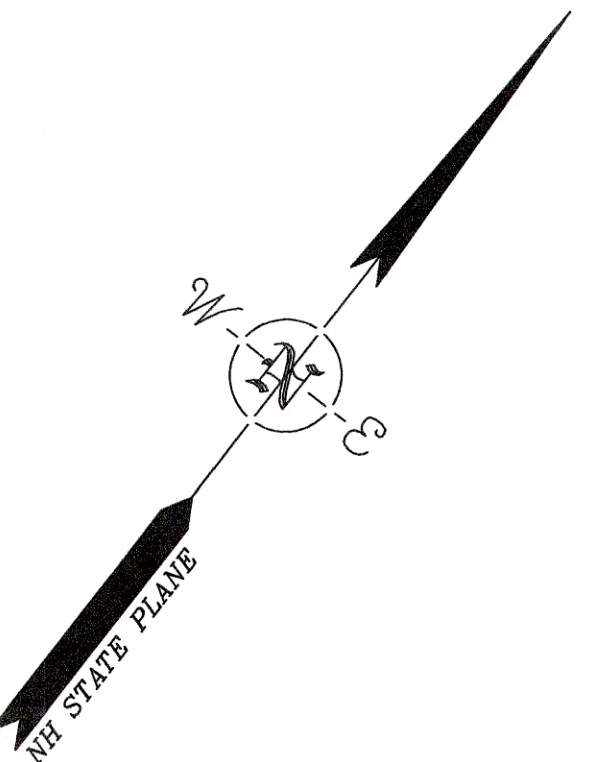
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[Signature] L.L.S. #824
11-19-19 DATE

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APPROVED BY THE PORTSMOUTH PLANNING BOARD

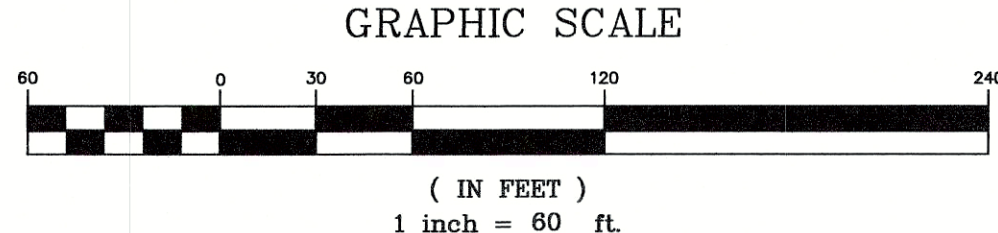
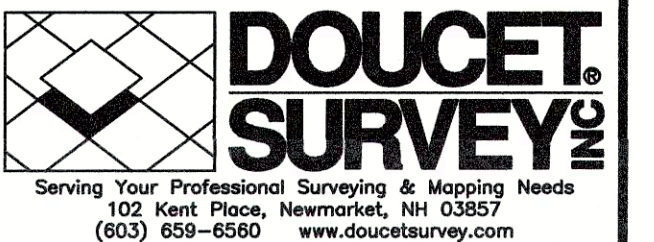
CHAIRMAN _____ DATE _____



NO.	DATE	DESCRIPTION	BY
11	11/12/19	ADD PROPOSED LOT & PROPOSED EASEMENTS	MWF
10	6/18/19	REVISE ACCESS EASEMENT	MWF
9	2/5/18	REMOVE EASEMENT	MWF
8	11/2/17	FOR RECORDING	MWF
7	9/28/17	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

SEE SHEET 5 FOR LINE & CURVE TABLES
SEE SHEET 6 FOR PROPOSED EASEMENTS

DRAWN BY:	M.W.F.	DATE:	NOV. 12, 2019
CHECKED BY:	S.V.M.	DRAWING NO.:	3445/1
JOB NO.:	3445	SHEET	4 OF 6



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.

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

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

16" CI PER CITY OF PORTSMOUTH GIS,
EASEMENT DOCUMENT NOT
FOUND, POSSIBLY COVERED
BY EASEMENT REFERENCED
IN NOTE #140
(EXISTING EASEMENT TO BE REPLACED
WITH NEW 20 FT. EASEMENT CENTERED
ON EXISTING MAIN)

L=109.91'
R=112.59'
Δ=055°55'55"W
CB=N74°27'58"W
CL=105.60'

L=400.13'
R=5180.55'
Δ=004°25'31"
CB=S40°46'06"W
CL=400.03'

L=182.92'
R=8632.42'
Δ=001°12'51"
CB=N48°12'25"E
CL=182.92'

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

PROPOSED LOT 1
231,594 Sq. Ft.
5.317 Acres
FRONTAGE=451.10'

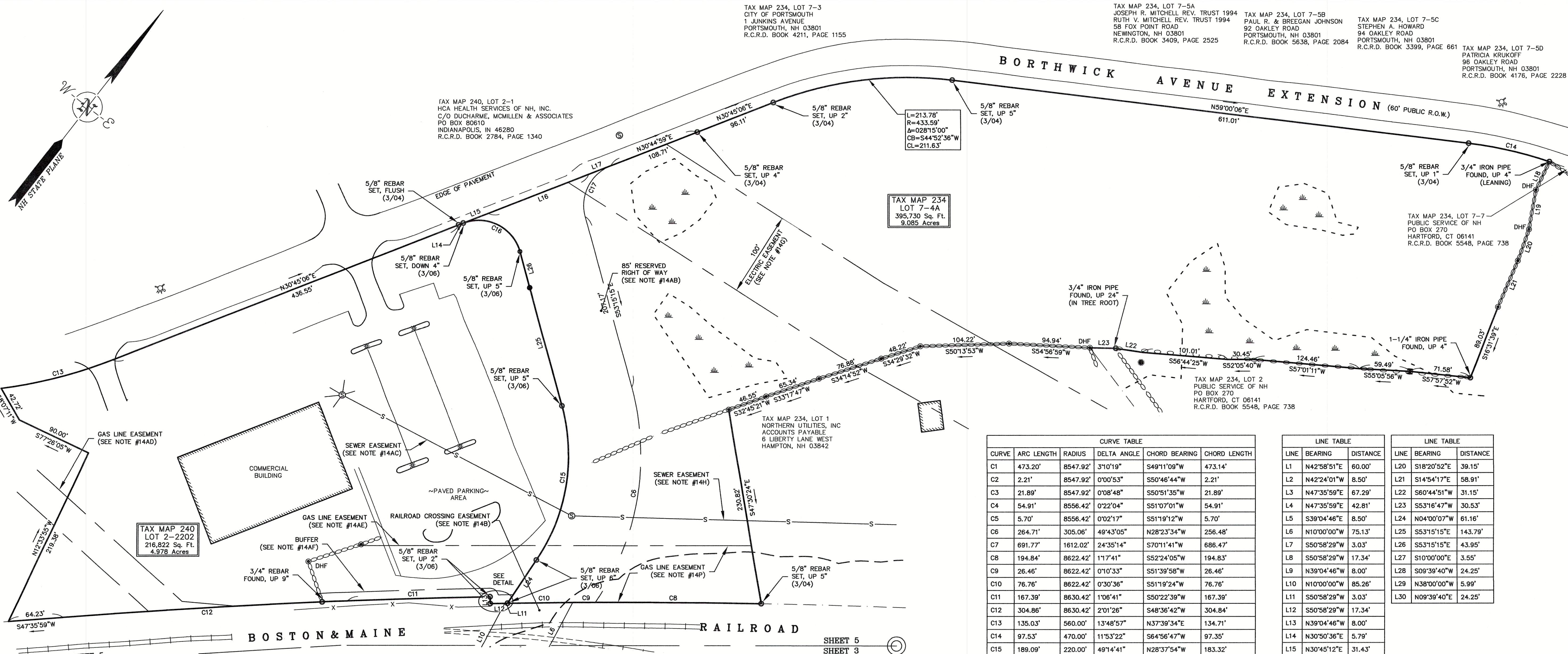
EXISTING
TAX MAP 241, LOT 25
993,493 Sq. Ft.
22.807 Acres

PROPOSED
TAX MAP 241, LOTS 25
1,578,574 Sq. Ft.
36.239 Acres
(FRONTAGE=529.20')

PROPOSED ROAD
31,660 Sq. Ft.
0.727 Acres

1" IRON PIPE
FOUND, UP 24"
LEANING

DRILL HOLE FOUND
(S 60°16'09" E, 14.68'
TO CORNER)



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

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L.L.S. #824
DATE 11-13-19

Detail (n.t.s.)

11	11/12/19	ADD PROPOSED LOT & PROPOSED EASEMENTS	MWF
10	6/18/19	REVISE ACCESS EASEMENT	MWF
9	2/5/18	REMOVE EASEMENT	MWF
8	11/2/17	FOR RECORDING	MWF
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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

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
BUILDING SETBACK LINE
WETLAND 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

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	473.20'	8547.92'	3°10'19"	S49°11'09"W	473.14'
C2	2.21'	8547.92'	0°00'53"	S50°46'44"W	2.21'
C3	21.89'	8547.92'	0°08'48"	S50°51'35"W	21.89'
C4	54.91'	8556.42'	0°22'04"	S51°07'01"W	54.91'
C5	5.70'	8556.42'	0°02'17"	S51°19'12"W	5.70'
C6	264.71'	305.06'	49°43'05"	N28°23'34"W	256.48'
C7	691.77'	1612.02'	24°35'14"	S70°11'41"W	686.47'
C8	194.84'	8622.42'	1°17'41"	S52°24'05"W	194.83'
C9	26.46'	8622.42'	0°10'33"	S51°39'58"W	26.46'
C10	76.76'	8622.42'	0°30'36"	S51°19'24"W	76.76'
C11	167.39'	8630.42'	1°06'41"	S50°22'39"W	167.39'
C12	304.86'	8630.42'	2°01'26"	S48°36'42"W	304.84'
C13	135.03'	560.00'	13°48'57"	N37°39'34"E	134.71'
C14	97.53'	470.00'	11°53'22"	S64°56'47"W	97.35'
C15	189.09'	220.00'	49°14'41"	N28°37'54"W	183.32'
C16	83.77'	50.00'	95°59'41"	S78°44'56"W	74.31'
C17	73.31'	50.00'	84°00'20"	S11°15'05"E	66.92'
C18	115.30'	336.00'	19°39'40"	N00°10'10"W	114.73'
C19	175.22'	292.00'	34°22'55"	S07°31'47"E	172.61'
C20	19.74'	13.00'	87°00'10"	S68°13'20"E	17.90'
C21	191.13'	60.00'	182°31'02"	N20°27'54"W	119.97'
C22	74.57'	60.00'	7°12'23"	S73°36'12"E	69.86'
C23	292.81'	352.00'	47°39'40"	S14°10'10"E	284.44'
C24	53.50'	276.00'	11°06'19"	N04°06'31"E	53.41'
C25	173.03'	285.00'	34°47'05"	S47°23'13"E	170.38'

LOT CONSOLIDATION, RE-SUBDIVISION & EASEMENT 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: NOV. 12, 2019

CHECKED BY: S.V.M. DRAWING NO.: 3445/

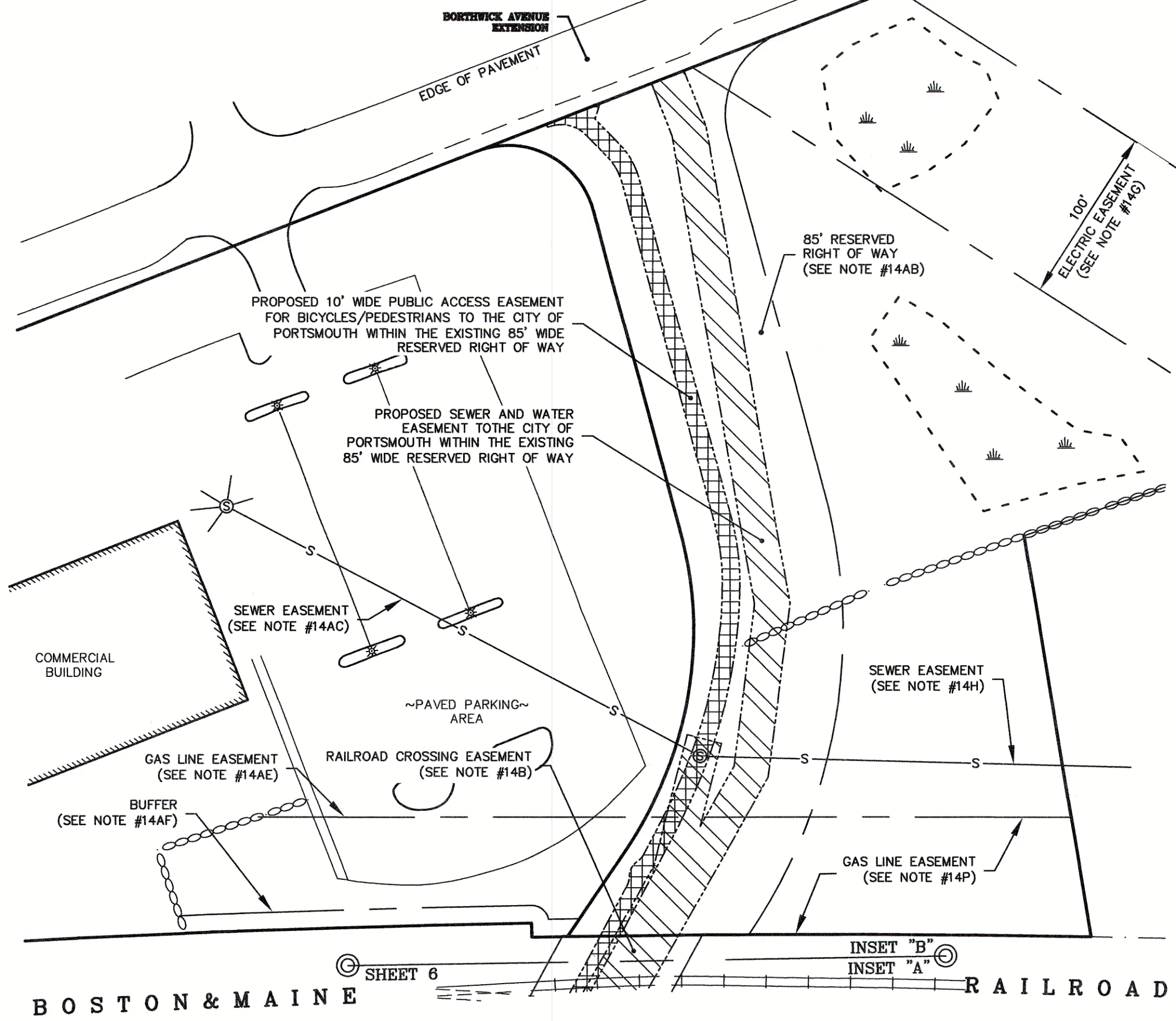
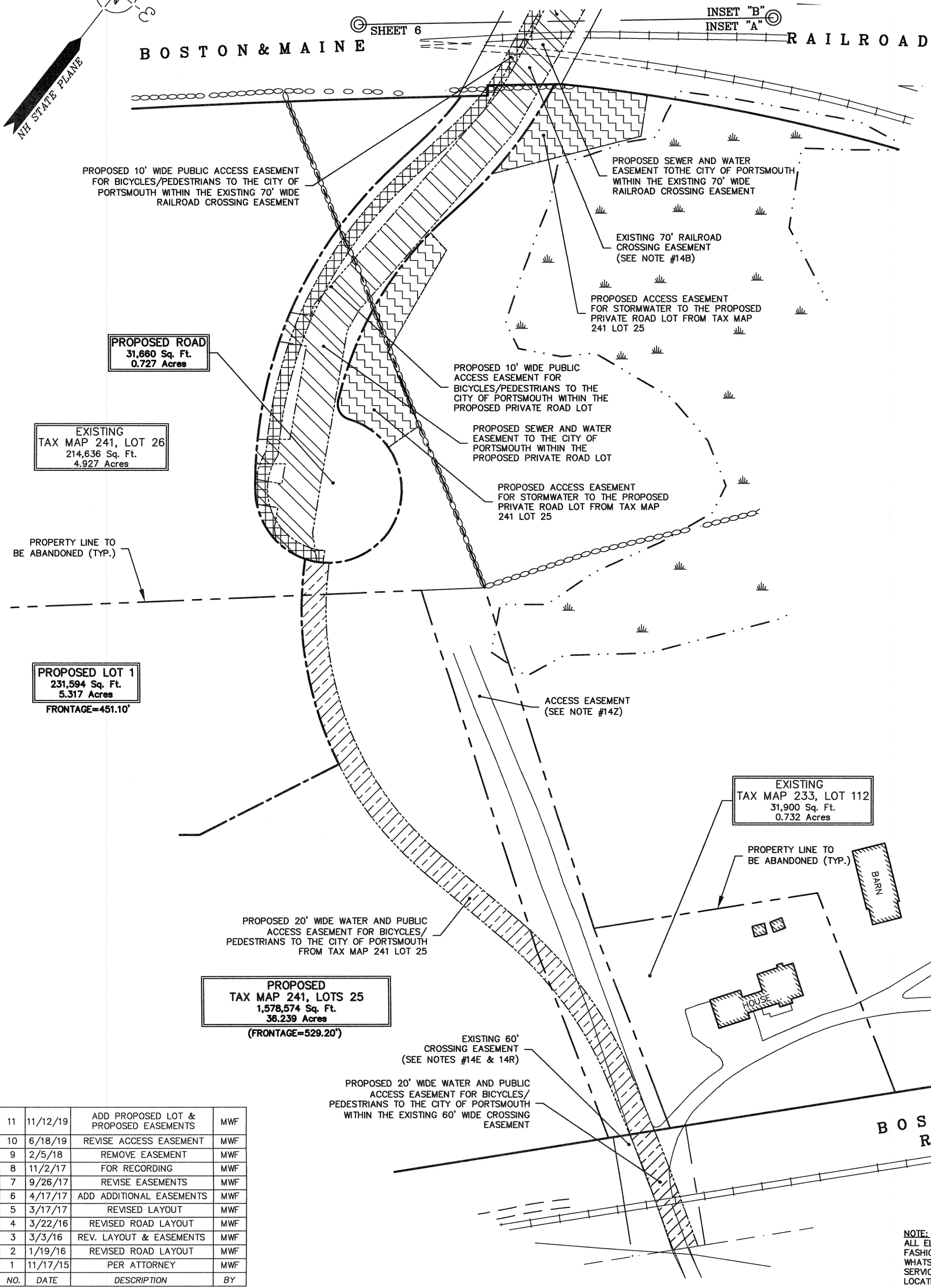
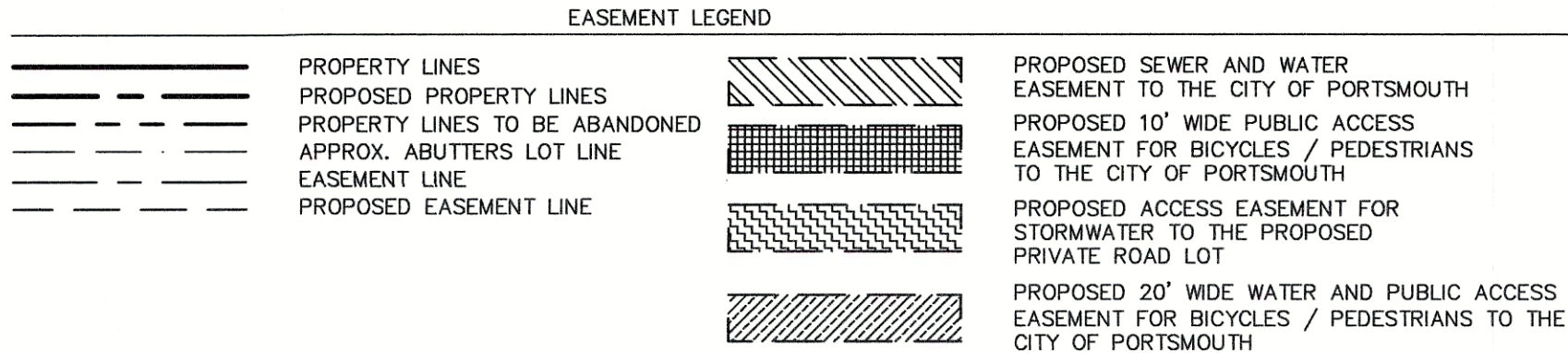
JOB NO.: 3445 SHEET 5 OF 6

SEE SHEET 6 FOR PROPOSED EASEMENTS

DOUCET SURVEY

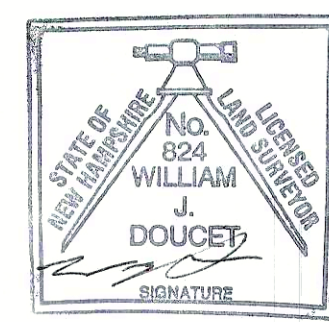
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102 Kent Place, Newmarket, NH 03857
(603) 659-6580 www.doucetsurvey.com

BEARINGS, DISTANCES AND AREAS WILL BE
ADDED TO THE INDIVIDUAL EASEMENTS ONCE
THE LOCATIONS HAVE BEEN FINALIZED



APPROVED BY THE PORTSMOUTH PLANNING BOARD

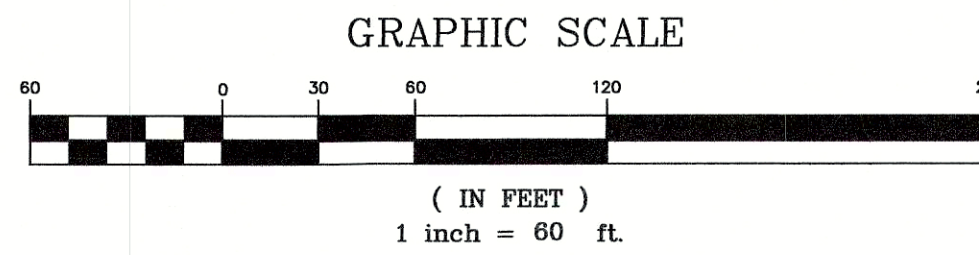
CHAIRMAN _____ DATE _____



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11/15/15 L.L.S. #824
DATE

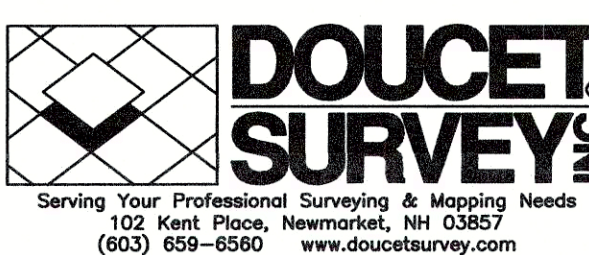
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SEE SHEET 2 FOR EXISTING EASEMENT NOTES

LOT CONSOLIDATION,
RE-SUBDIVISION
&
EASEMENT 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:	NOV. 12, 2019
CHECKED BY:	S.V.M.	DRAWING NO.:	3445/1
JOB NO.:	3445	SHEET	6 OF 6



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Last Save Date: June 11, 2019 11:41 AM By: CML
Plot Date: Tuesday, June 11, 2019 Plotted By: Craig M. Langton
File Location: J:\K0076 The Kene 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.
- UPON FINAL APPROVAL THE APPLICATION AGREES TO PROVIDE ALL REQUIRED PROPERTY LINE MONUMENTATIONS, BENCHMARKS, AND HOUSE NUMBER AS SPECIFIED IN THE SUBDIVISION RULES AND REGULATIONS TO THE CITY OF PORTSMOUTH PLANNING DEPARTMENT.
- APPLICANT SHALL BE RESPONSIBLE FOR IMPLEMENTING THE APPROVED OPERATION AND MAINTENANCE PLAN INCLUDING THE MAINTENANCE REQUIREMENTS FOR THE PROPOSED RAIN GARDEN AND GRAVEL WETLAND SYSTEMS OUTLINED ON SHEET C-103.2. THE APPROVED OPERATION AND MAINTENANCE PLAN SHALL BE RECORDED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.

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 - UNITIL
 - 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.
- 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	NHDES	NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
AC	ACRES	NRCC	NORTHEAST REGIONAL CLIMATE CENTER
ADA	AMERICANS WITH DISABILITIES ACT	NRCS	NATURAL RESOURCES CONSERVATION SERVICE
AGGR	AGGREGATE	OC	ON CENTER
AOT	ALTERATION OF TERRIAN	OD	OUTSIDE DIAMETER
BLDG	BUILDING	PAD	PROPOSED AREA DRAIN
BMP(S)	BEST MANAGEMENT PRACTICE(S)	PC	POINT OF CURVATURE
BOC	BOTTOM OF CURB	PCB	PROPOSED CATCH BASIN
BOW	BOTTOM OF WALL	PDMH	PROPOSED DRAINAGE MANHOLE
CB	CATCH BASIN	PI	POINT OF INTERSECTION
CCB	CAPE COD BERM	POS	PROPOSED OUTLET STRUCTURE
CMP	CORRUGATED METAL PIPE	PROP	PROPOSED
CONST	CONSTRUCT	PSMH	PROPOSED SEWER MANHOLE
COORD	COORDINATE	PT	POINT OF TANGENCY
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE
DIP	DUCTILE IRON PIPE	PVMT	PAVEMENT
DMH	DRAINAGE MANHOLE	PVD	PROPOSED YARD DRAIN
DWG	DRAWING	R	RADIUS
ELEV	ELEVATION	RCP	REINFORCED CONCRETE PIPE
EP	EDGE OF PAVEMENT	RL	ROOF LEADER
EXIST	EXISTING	ROW	RIGHT OF WAY
FES	FLARED END SECTION	SF	SQUARE FEET
FF	FINISHED FLOOR	SSSNE	SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND
HDPE	HIGH DENSITY POLYETHYLENE	STD	STANDARD
HMA	HOT MIX ASPHALT	TBR	TO BE REMOVED
HMP	HOT MIX PAVEMENT	TOC	TOP OF CURB
HW	HEADWALL	TOW	TOP OF WALL
HYD	HYDRAULIC	TYP	TYPICAL
ID	INSIDE DIAMETER	UD	UNDERDRAIN
INV	INVERT	USCS	UNIFIED SOIL CLASSIFICATION SYSTEM
L	LENGTH	USDA	UNITED STATES DEPARTMENT OF AGRICULTURE
LF	LINEAR FEET	W	WIDTH
MAX	MAXIMUM	W/	WITH
MIN	MINIMUM	YD	YARD
NCSS	NATIONAL COOPERATIVE SURVEY		DARIN

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 AB BUTTERS LINE
	STREAM
	ZONING BOUNDARY
	PROPOSED RIGHT OF WAY LINE
	100' WETLAND BUFFER LINE
	SETBACK LINE
	PROPOSED TREELINE
	PROPOSED GAS SERVICE
	PROPOSED UNDERGROUND 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

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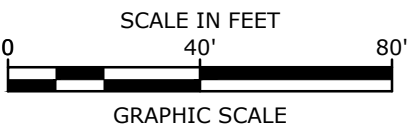
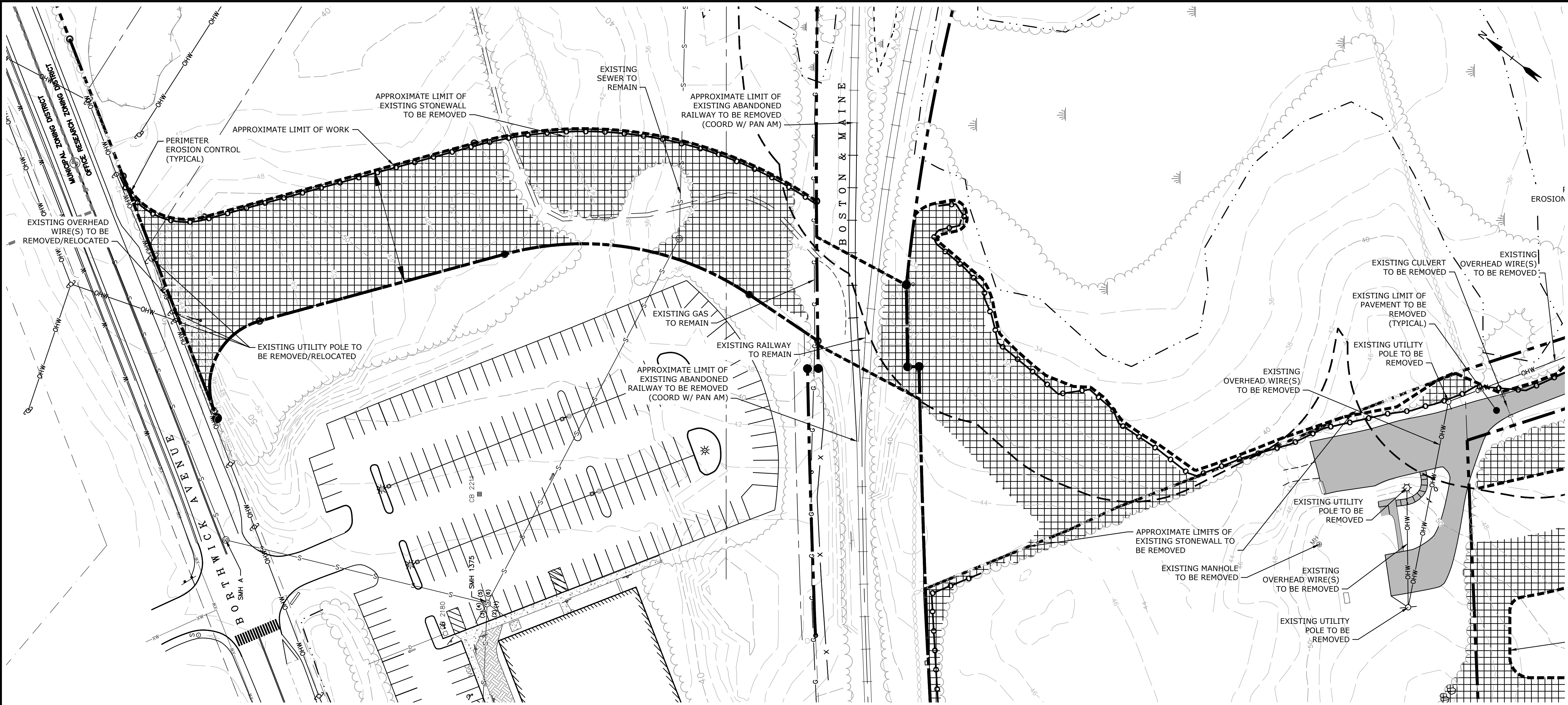
**Proposed
Subdivision Road
& Office Building
Development**

Borthwick Forest, LLC

Portsouth,
New Hampshire

N	3/4/2019	Rev Pricing Drawings / Admin Approval
M	5/8/2018	Submitted for Final Approval
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G	8/31/2017	Revised TAC Submission
F	6/2/2017	AoT Submission
E	5/11/2017	Planning Board Submission
R	6/11/2019	To PB for Amended Site Plan Approval
Q	5/20/2019	Amended Site Plan Approval
P	3/25/2019	Construction Drawings
O	3/20/2019	Revised GMP 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		
SCALE: AS SHOWN		
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Tighe&Bond
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BRADLEE MEZQUITA

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PROFESSIONAL ENGINEER

5/11/19

6/11/19

STATE OF NEW HAMPSHIRE

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PROFESSIONAL ENGINEER

5/11/19

6/11/19

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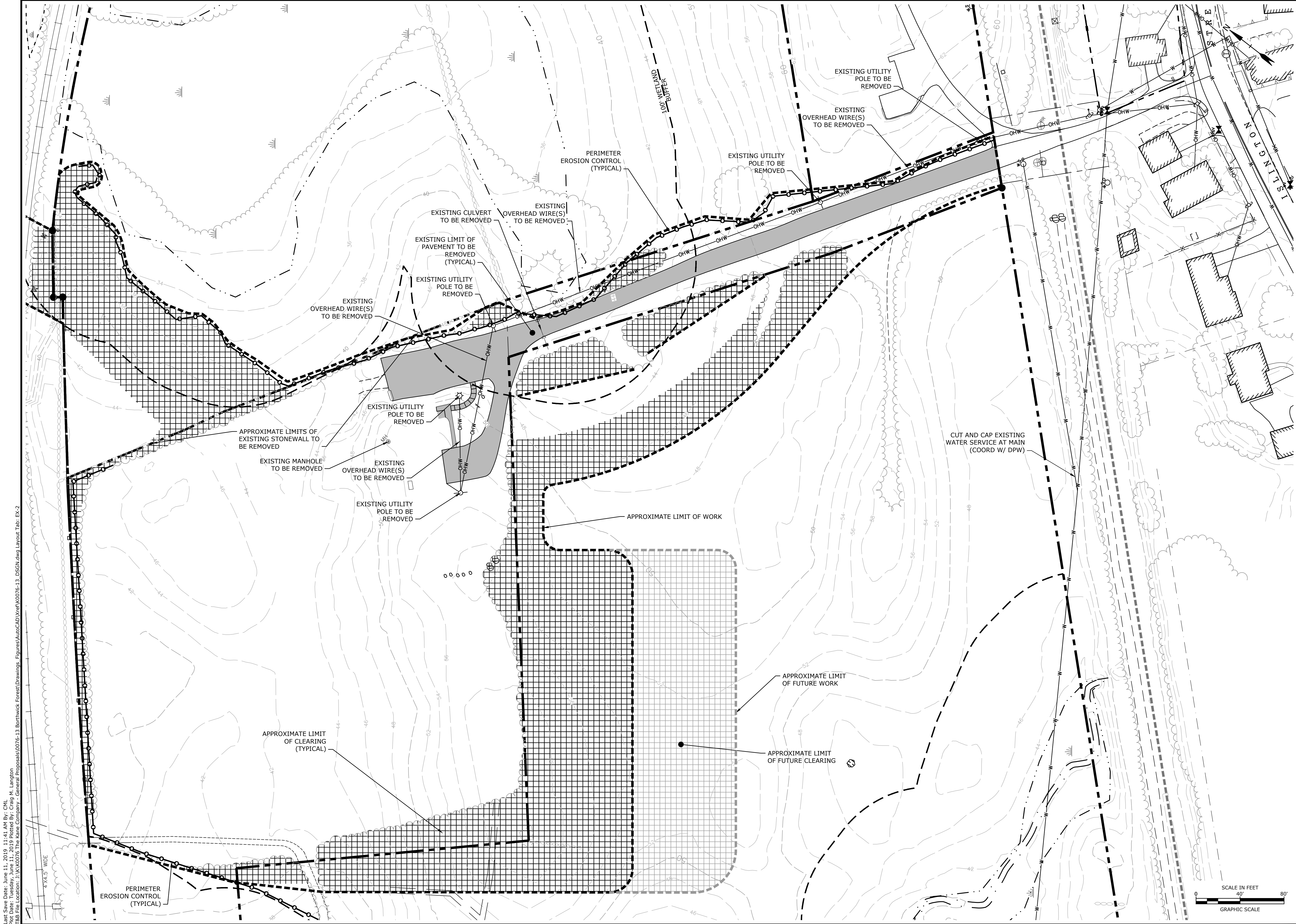
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EXISTING CONDITIONS/
DEMOLITION PLAN

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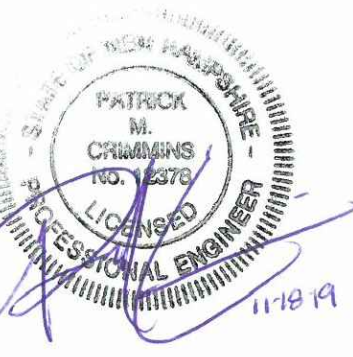
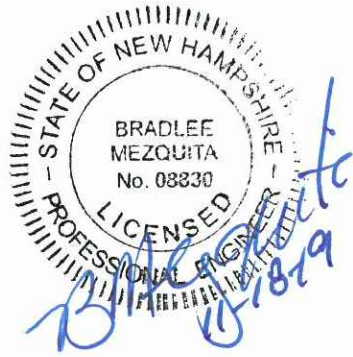
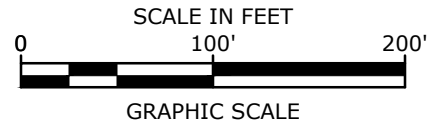
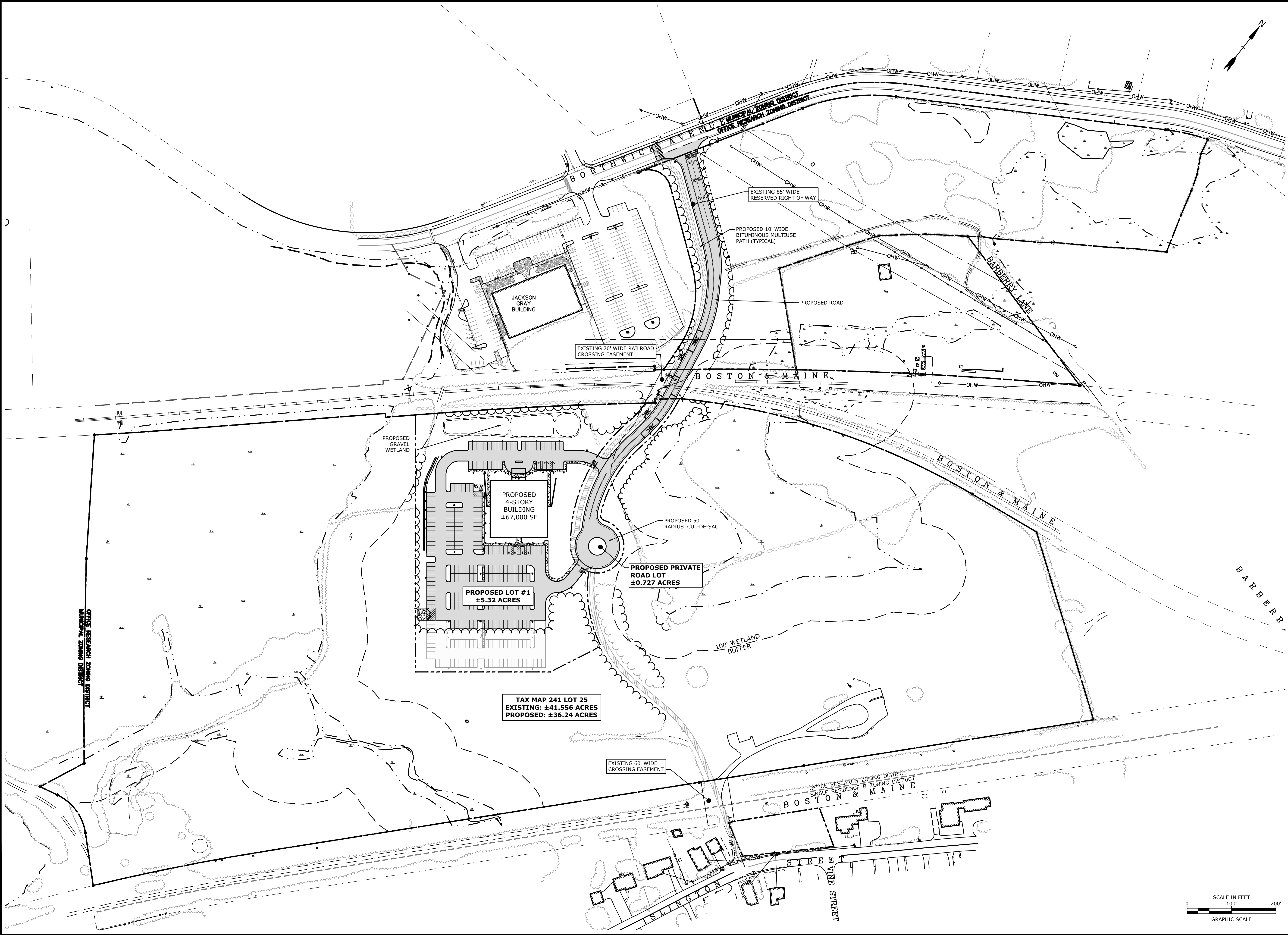
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EXISTING CONDITIONS/
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Q	11/18/2019	Amended Subdivision Approval & Registry Plans
P	7/2/2019	Submitted for Revised Final Approval
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OVERALL SITE PLAN

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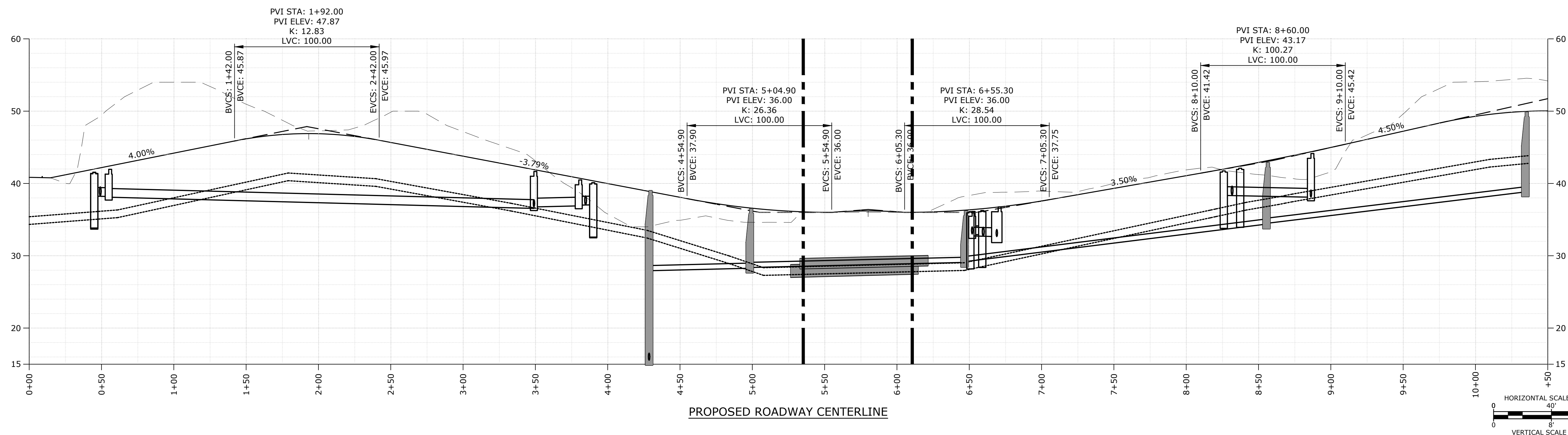
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Portsmouth,
New Hampshire

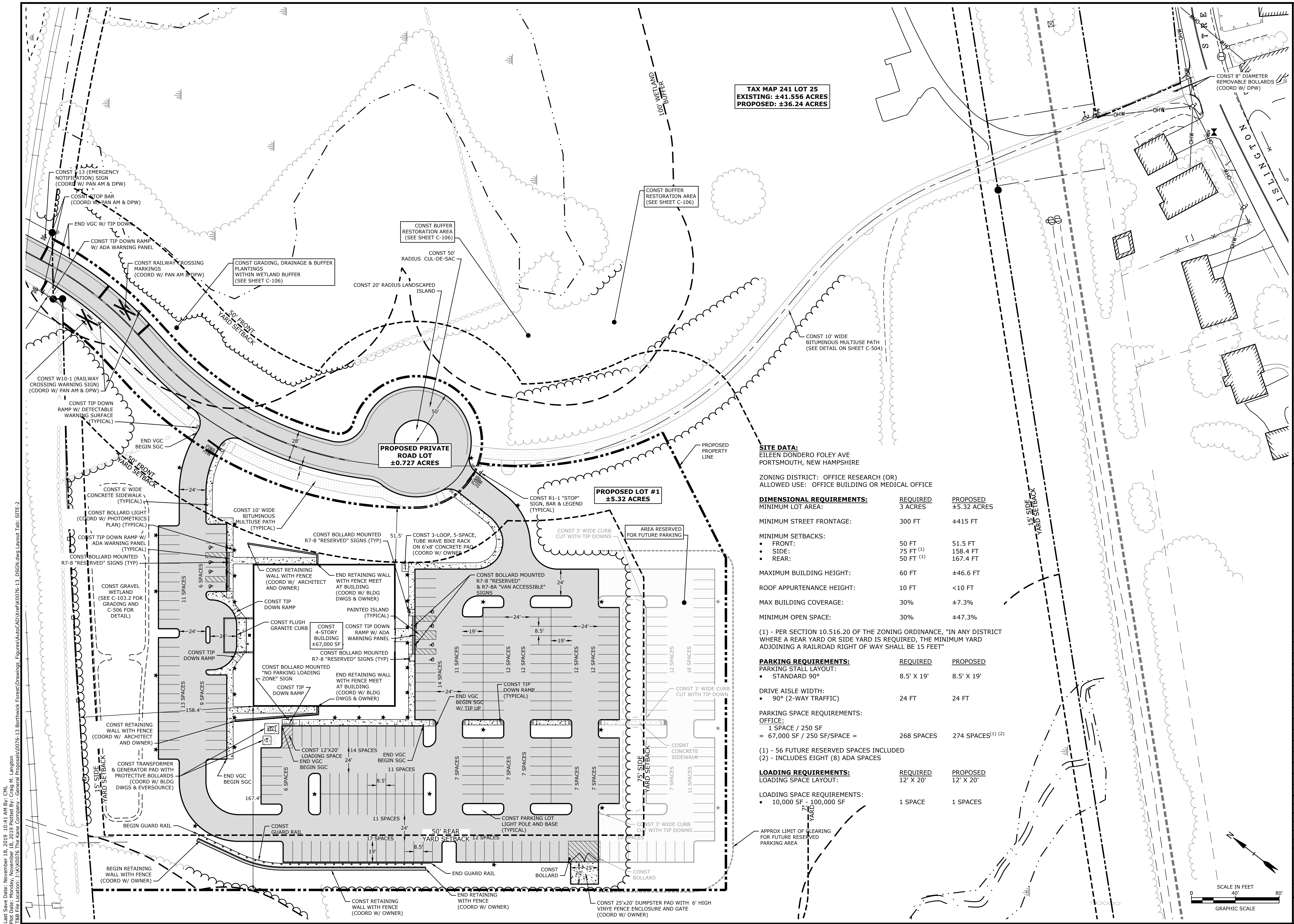
N	3/4/2019	Rev Pricing Drawings / Admin Approval
M	5/8/2018	Submitted for Final Approval
L	5/4/2018	Revised RCRD Submission
K	2/6/2018	Planning Board Submission
J	1/12/2018	GMP Submission
I	11/3/2017	For Submission to RCRD
H	8/21/2017	Revised TAC Submission
G	8/3/2017	Per AoT Comments
T	11/18/2019	Amended Subdivision Approval & Registry Plans
S	7/2/2019	Submitted for Revised Final Approval
R	6/11/2019	10 PB for Amended Site Plan Approval
Q	5/20/2019	Amended Site Plan Approval
P	3/25/2019	Construction Drawings
O	3/20/2019	Revised GMP Submission
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-102.2





Proposed
Subdivision Road
& Office Building
Development

Borthwick Forest, LLC

Portsmouth,
New Hampshire

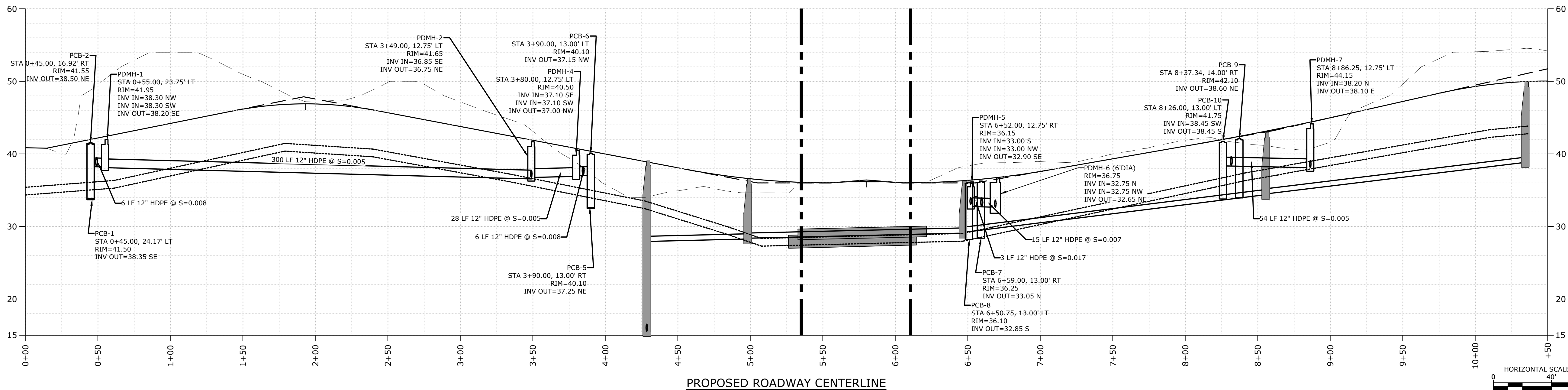
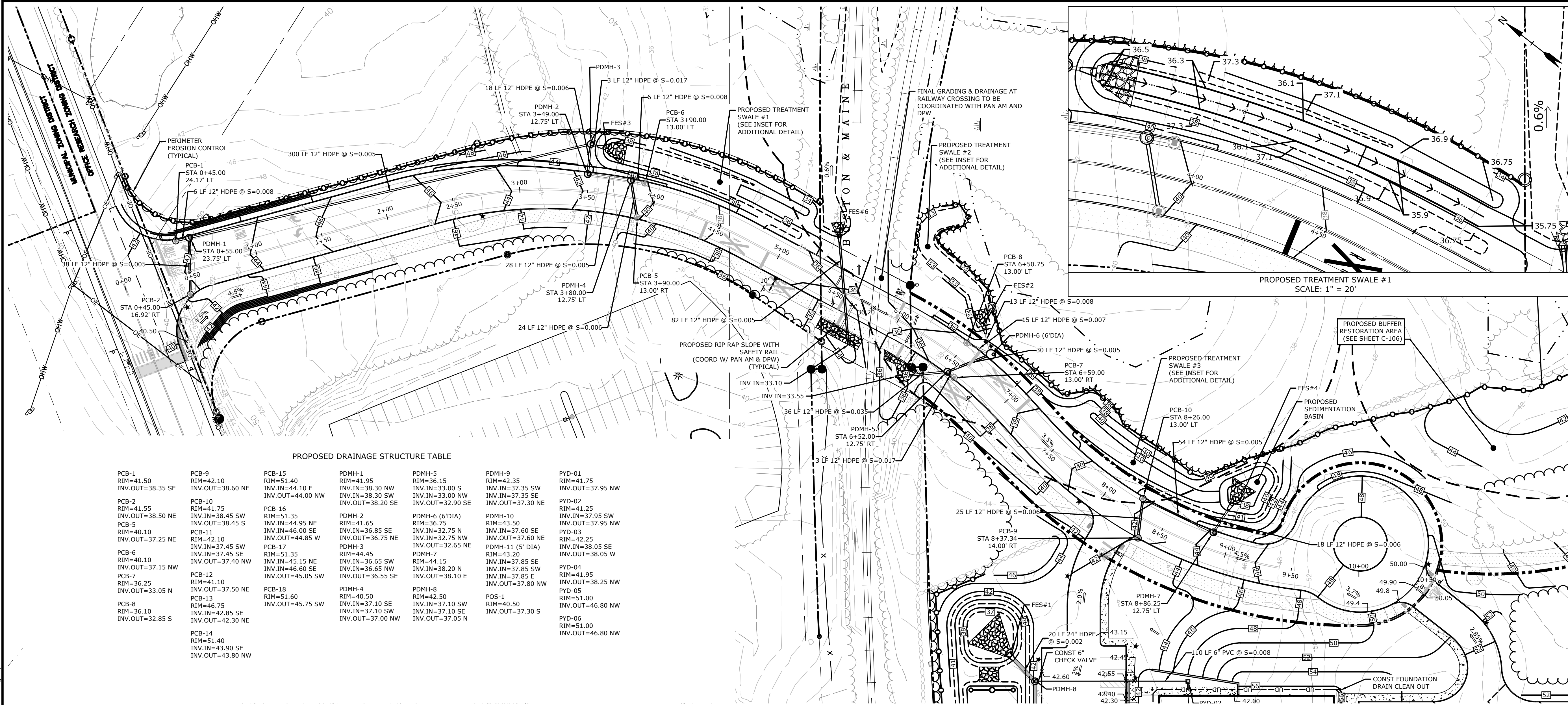
MARK	DATE	DESCRIPTION
N	3/25/2019	Construction Drawings
M	3/20/2019	Revised GMP Submission
L	3/4/2019	Rev Pricing Drawings / Admin Approval
K	5/8/2018	Submitted for Final Approval
J	2/26/2018	GMP Submission
I	2/6/2018	Planning Board Submission
H	1/12/2018	GMP Submission
G	8/21/2017	Revised TAC Submission
F	6/2/2017	AsT Submission
E	5/11/2017	Planning Board Submission
D	4/24/2017	TAC & ConCom Submission
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P	6/11/2019	10 PB for Amended Site Plan Approval
O	5/20/2019	Amended Site Plan Approval

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

GRADING, DRAINAGE &
EROSION CONTROL PLAN

SCALE: AS SHOWN

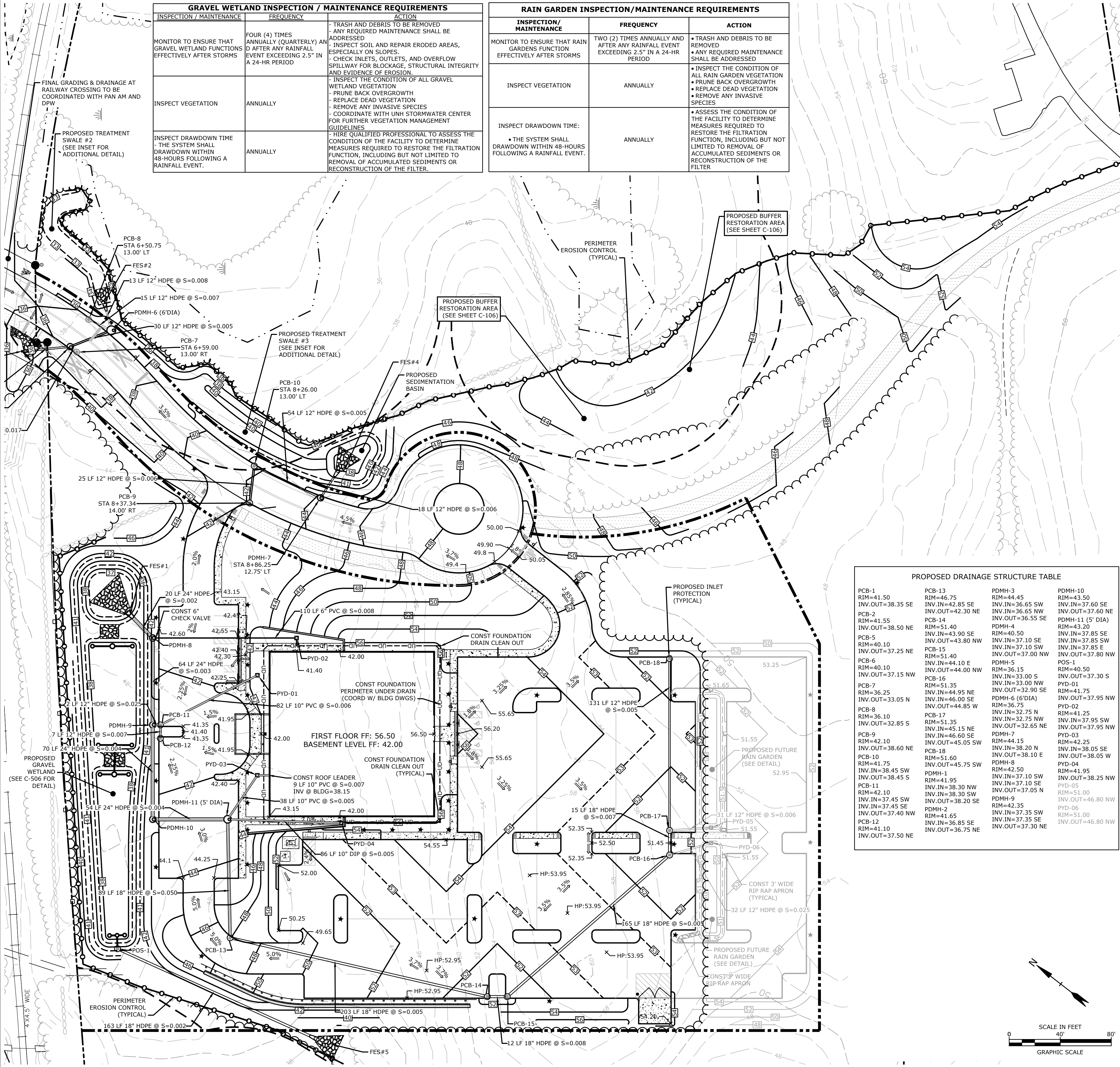
C-103.1



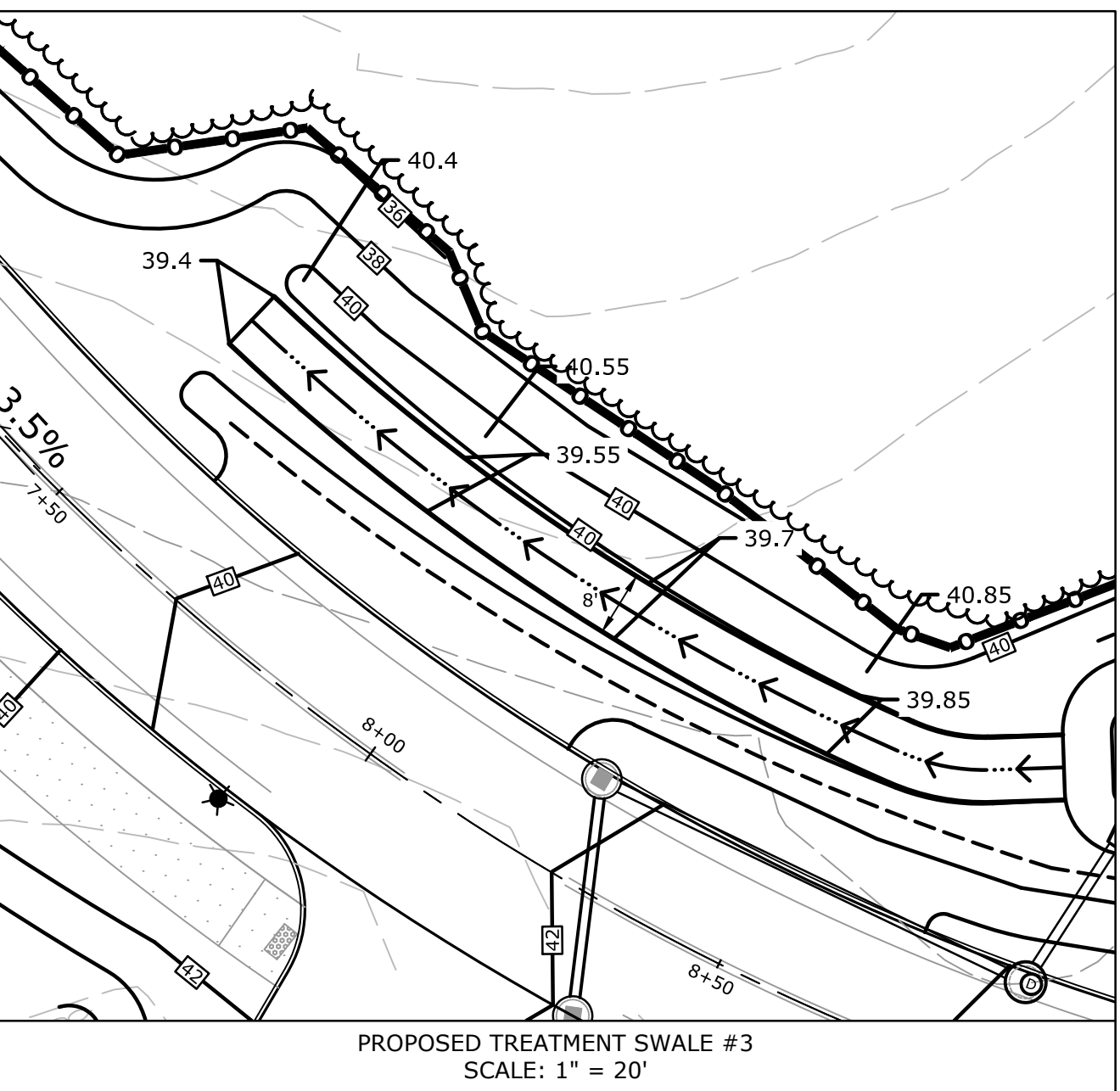
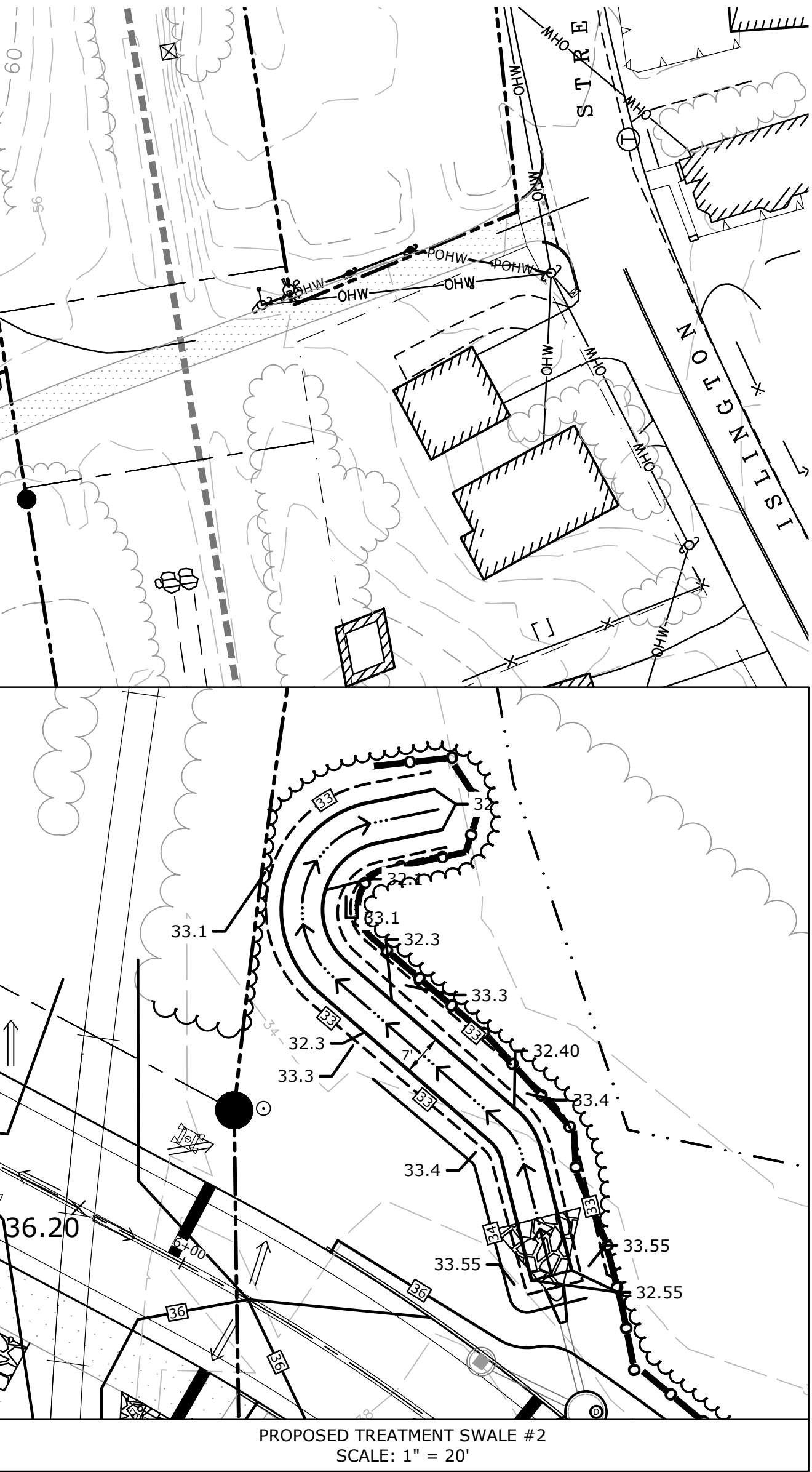
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Plot Date: Monday, November 18, 2019 Plotted By: Craig M. Langton
File Location: Z:\K0076 The Kane Company - General Proposals\K0076-13 Borthwick Forest\Drawings - Final\K0076-13.DSGN.dwg Layout Tab: GRADE-2

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 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.

RAIN GARDEN INSPECTION/MAINTENANCE REQUIREMENTS		
INSPECTION / MAINTENANCE	FREQUENCY	ACTION
MONITOR TO ENSURE THAT RAIN GARDENS FUNCTION EFFECTIVELY AFTER STORMS	TWO (2) TIMES ANNUALLY 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 VEGETATION	ANNUALLY	- INSPECT THE CONDITION OF ALL RAIN GARDEN VEGETATION - PRUNE BACK OVERGROWTH - REPLACE DEAD VEGETATION - REMOVE ANY INVASIVE SPECIES
INSPECT DRAWDOWN TIME: - THE SYSTEM SHALL DRAWDOWN WITHIN 48-HOURS FOLLOWING A RAINFALL EVENT.	ANNUALLY	- ASSESS 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



PROPOSED DRAINAGE STRUCTURE TABLE			
PCB-1 RIM=41.50 INV.OUT=38.35 SE	PCB-13 RIM=46.75 INV.IN=42.85 SE INV.OUT=42.30 NE	PDMH-3 RIM=44.45 INV.IN=36.65 SW INV.OUT=36.55 SE	PDMH-10 RIM=43.50 INV.IN=37.60 SE INV.OUT=37.60 NE
PCB-2 RIM=41.55 INV.OUT=38.50 NE	PCB-14 RIM=51.40 INV.IN=43.90 SE INV.OUT=43.80 NW	PDMH-4 RIM=40.50 INV.IN=37.10 SE INV.OUT=37.00 NW	PDMH-11 (5' DIA) RIM=43.20 INV.IN=37.85 SE INV.IN=37.85 SW INV.IN=37.85 E INV.OUT=37.80 NW
PCB-5 RIM=40.10 INV.OUT=37.25 NE	PCB-15 RIM=51.40 INV.IN=44.10 E INV.OUT=44.00 NW	PDMH-5 RIM=36.15 INV.IN=33.00 S INV.IN=33.00 NW INV.OUT=32.90 SE	POS-1 RIM=40.50 INV.OUT=37.30 S
PCB-6 RIM=40.10 INV.OUT=37.15 NW	PCB-16 RIM=51.35 INV.IN=44.95 NE INV.IN=46.00 SE INV.OUT=44.85 W	PDMH-6 (6'DIA) RIM=36.75 INV.IN=32.75 N INV.IN=32.75 NW INV.OUT=32.65 NE	PYD-01 RIM=41.75 INV.OUT=37.95 NW
PCB-7 RIM=36.25 INV.OUT=33.05 N	PCB-17 RIM=51.35 INV.IN=45.15 NE INV.IN=46.60 SE INV.OUT=45.05 SW	PDMH-7 RIM=44.15 INV.IN=38.20 N INV.IN=38.10 E INV.OUT=37.05 N	PYD-02 RIM=41.25 INV.IN=37.95 SW INV.OUT=37.95 NW
PCB-8 RIM=36.10 INV.OUT=32.85 S	PCB-18 RIM=51.60 INV.IN=45.75 SW INV.OUT=45.75 SW	PDMH-8 RIM=42.50 INV.IN=37.10 SW INV.IN=37.10 SE INV.OUT=37.05 N	PYD-03 RIM=42.25 INV.IN=38.05 SE INV.OUT=38.05 W
PCB-9 RIM=42.10 INV.OUT=38.60 NE	PDMH-1 RIM=41.95 INV.IN=38.30 NW INV.IN=38.30 SW INV.OUT=37.45 SE INV.OUT=37.40 NW	PDMH-9 RIM=42.35 INV.IN=37.35 SW INV.IN=37.35 SE INV.OUT=37.30 NE	PYD-04 RIM=41.95 INV.OUT=38.25 NW
PCB-10 RIM=41.75 INV.IN=38.45 SW INV.OUT=38.45 S	PCB-11 RIM=42.10 INV.IN=38.30 NW INV.IN=38.30 SW INV.OUT=37.45 SE INV.OUT=37.40 NW	PDMH-10 RIM=42.35 INV.IN=37.35 SW INV.IN=37.35 SE INV.OUT=37.30 NE	PYD-05 RIM=51.00 INV.OUT=46.80 NW
PCB-11 RIM=41.35 INV.IN=41.95 INV.OUT=41.95	PCB-12 RIM=41.10 INV.OUT=37.50 NE		PYD-06 RIM=51.00 INV.OUT=46.80 NW



Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth, New Hampshire

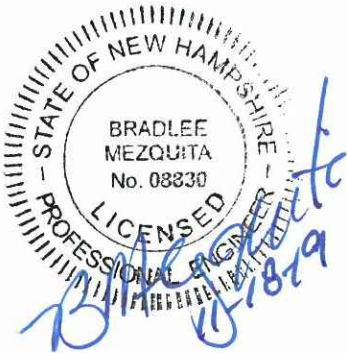
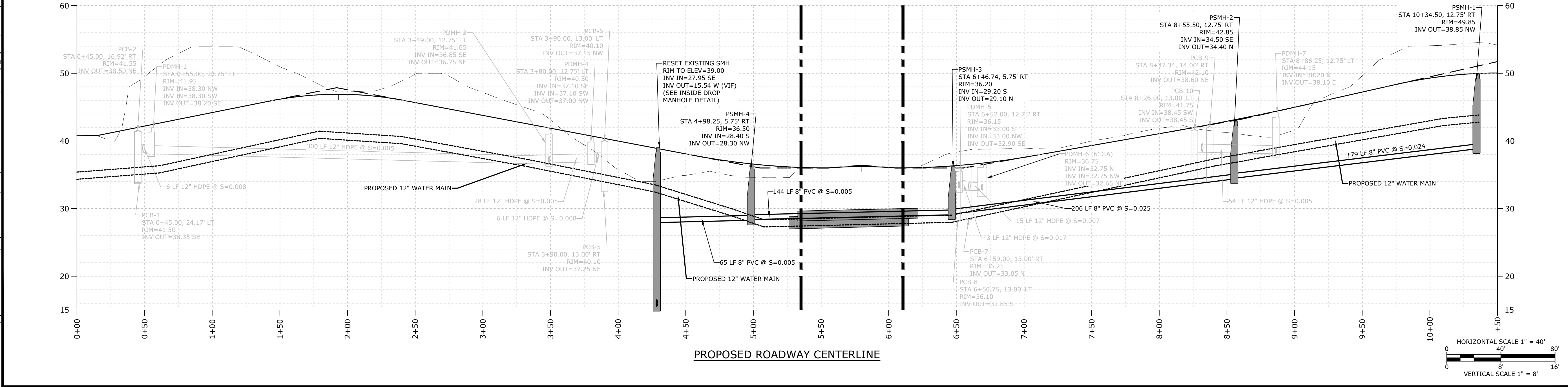
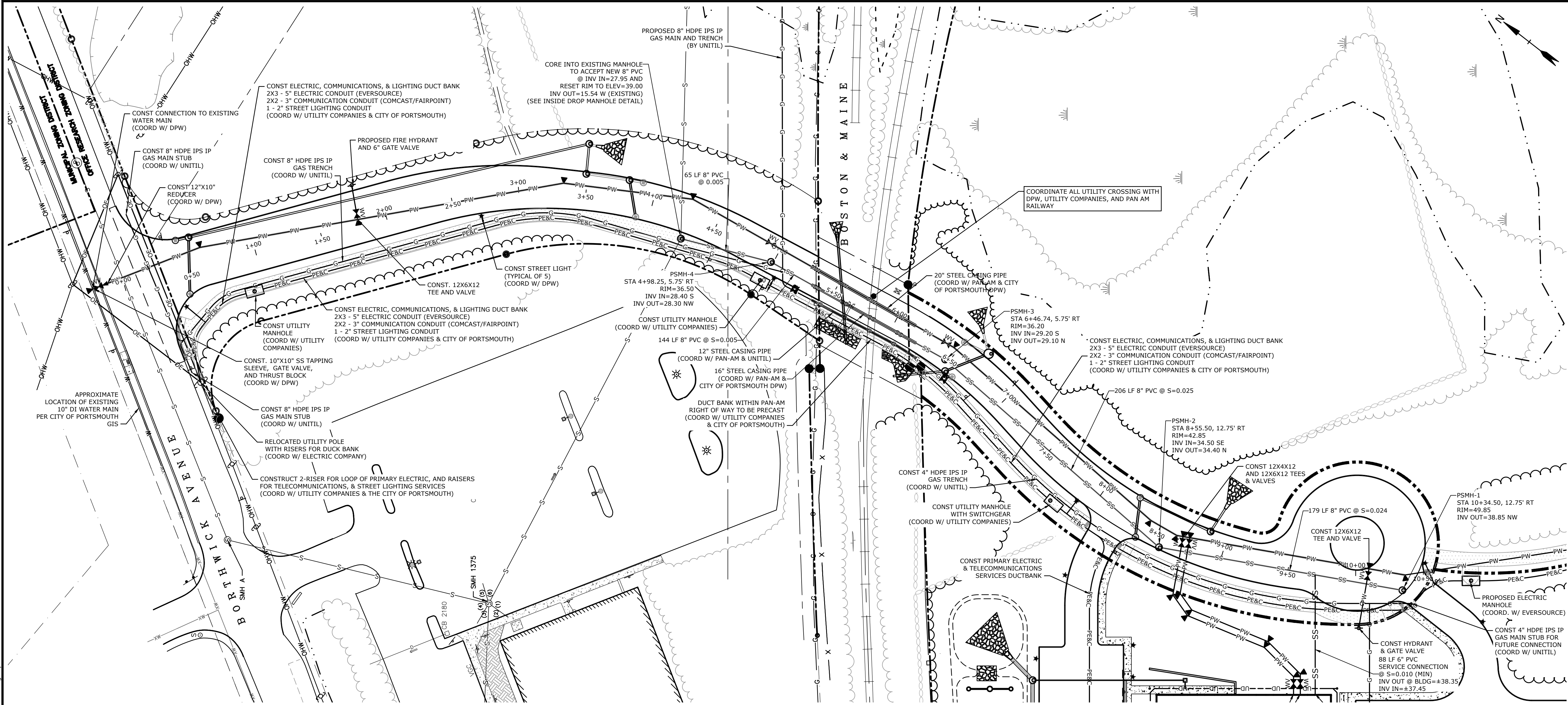
MARK	DATE	DESCRIPTION
N	3/25/2019	Construction Drawings
M	3/20/2019	Revised GMP Submission
L	3/4/2019	Revising Drawings / Admin Approval
K	5/8/2018	Submitted for Final Approval
J	2/26/2018	GMP Submission
I	2/6/2018	Planning Board Submission
H	1/12/2018	GMP Submission
G	8/21/2017	Revised TAC Submission
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Q	7/2/2019	Submitted for Revised Final Approval
P	6/11/2019	To PB for Amended Site Plan Approval
O	5/20/2019	Amended Site Plan Approval

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

GRADING, DRAINAGE & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-103.2



Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth,
New Hampshire

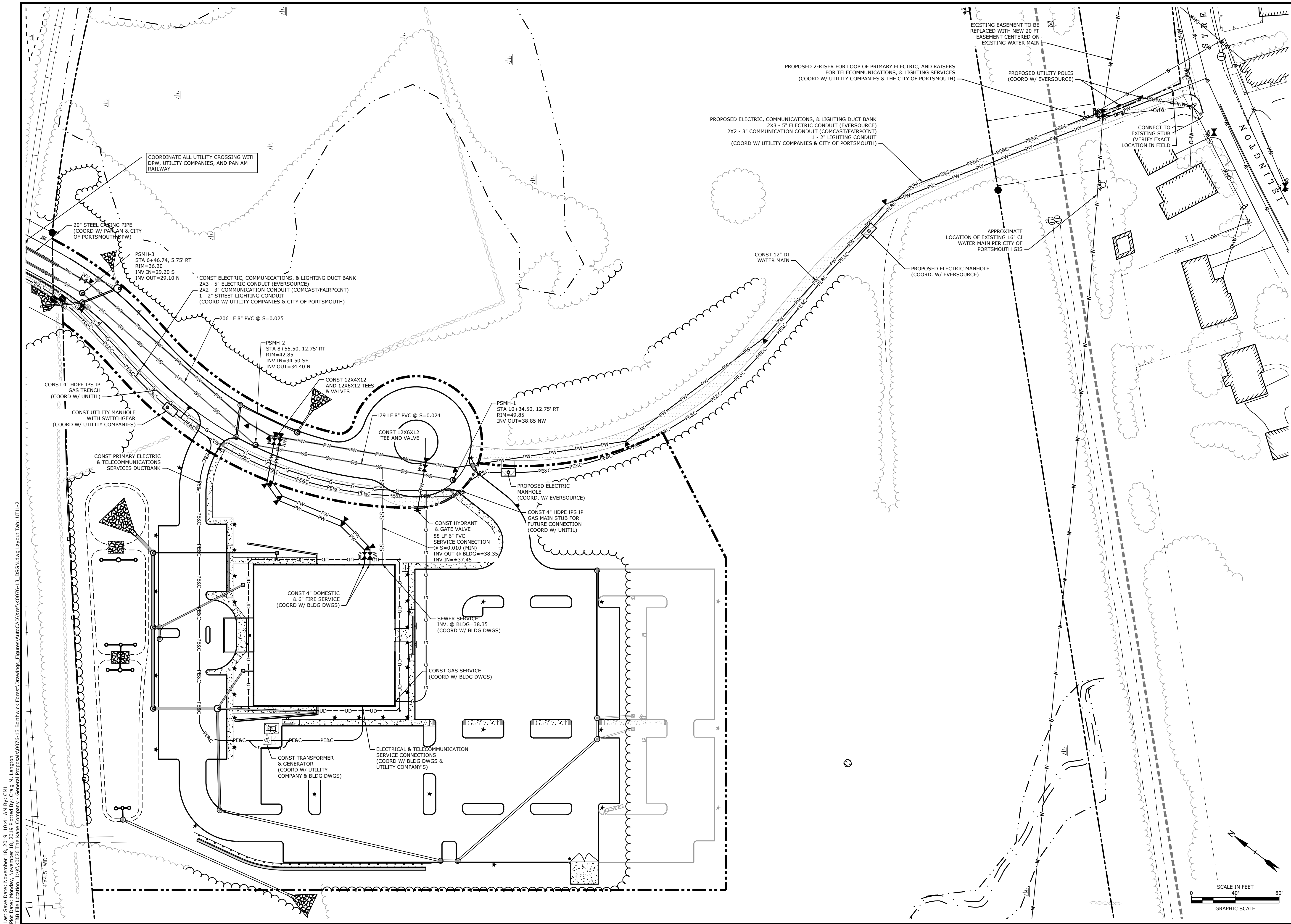
N	3/4/2019	Rev Pricing Drawings / Admin Approval
M	10/22/2018	Rev. per NHDES Sewer Connection Permit Comments
L	6/13/2018	Submitted for Sewer Connection Permit Application
K	5/8/2018	Submitted for Final Approval
J	2/26/2018	GMP Submission
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DATE:	3/20/2017
FILE:	K0076-13.DSGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM

UTILITY PLAN

SCALE: AS SHOWN

C-104.1



Last Save Date: November 18, 2019 10:41 AM By: CML
Plot Date: Monday, November 18, 2019 Plotted By: Craig M. Langton
File Location: Z:\K0076 The Kane Company - General Proposals\Drawings\Drawings\AutoCAD\Xref\K0076-13_DSGN.dwg Layout Tab: UTIL-2

Tighe&Bond
Engineers | Environmental Specialists

11/28/19

Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
N	3/4/2019	Rev Pricing Drawings / Admin Approval
M	10/22/2018	Rev. per NHDES Sewer Connection Permit Comments
L	6/13/2018	Submitted for Sewer Connection Permit Application
K	5/8/2018	Submitted for Final Approval
J	2/26/2018	GMP Submission
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PROJECT NO: K0076-13
DATE: 3/20/2017
FILE: K0076-13_DSGN.DWG
DRAWN BY: CML
CHECKED: PMC
APPROVED: BLM

UTILITY PLAN

SCALE: AS SHOWN

C-104.2



Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth,
New Hampshire

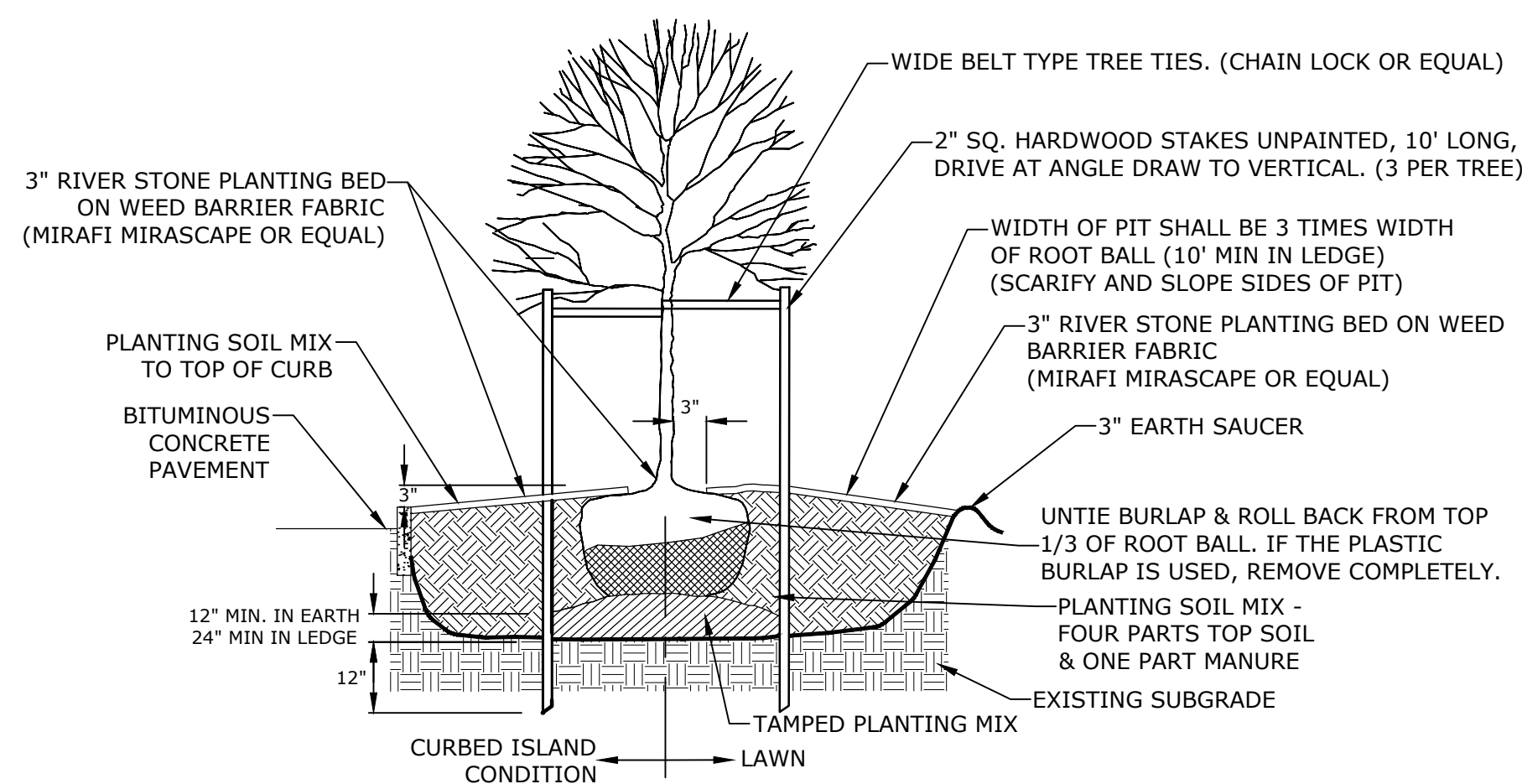
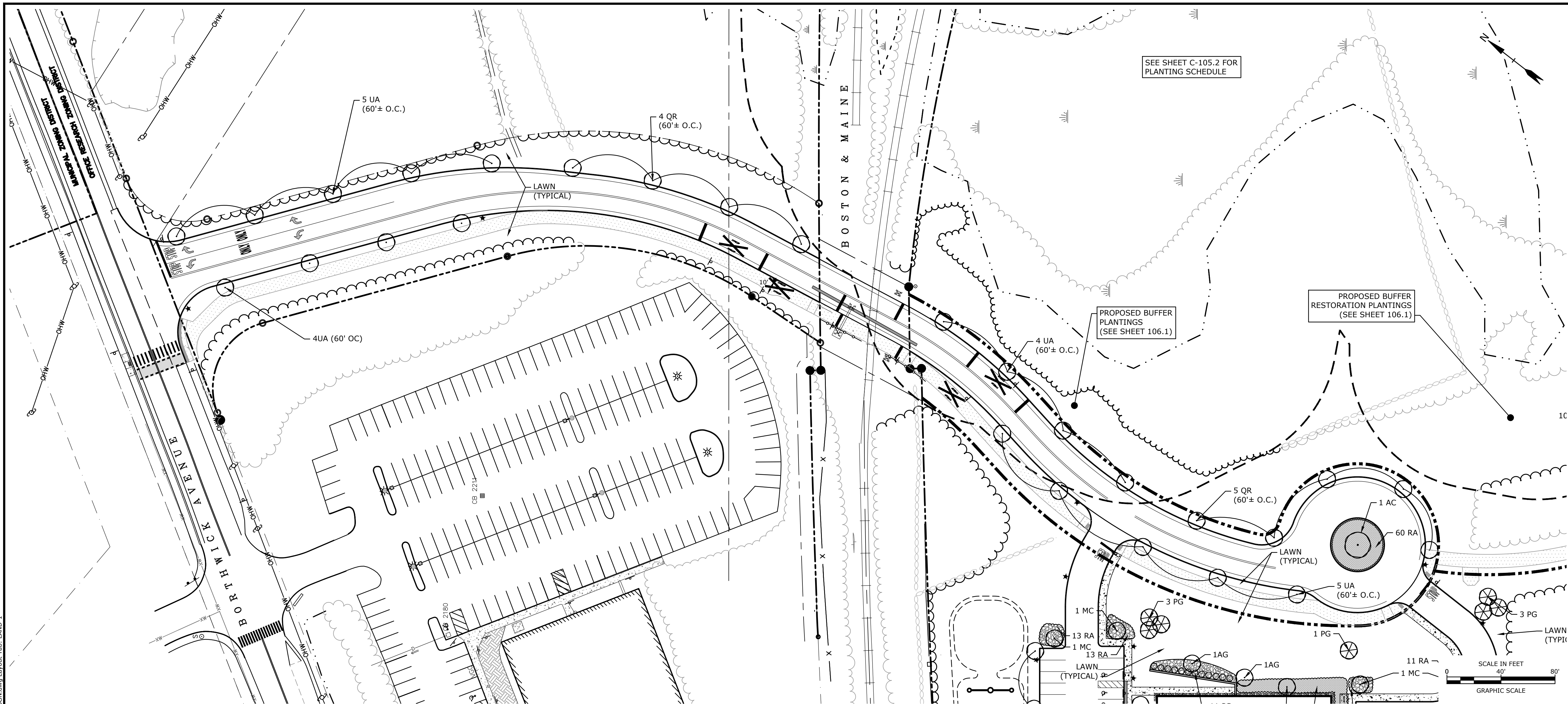
N	3/25/2019	Construction Drawings
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MARK	DATE	DESCRIPTION

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

LANDSCAPE PLAN

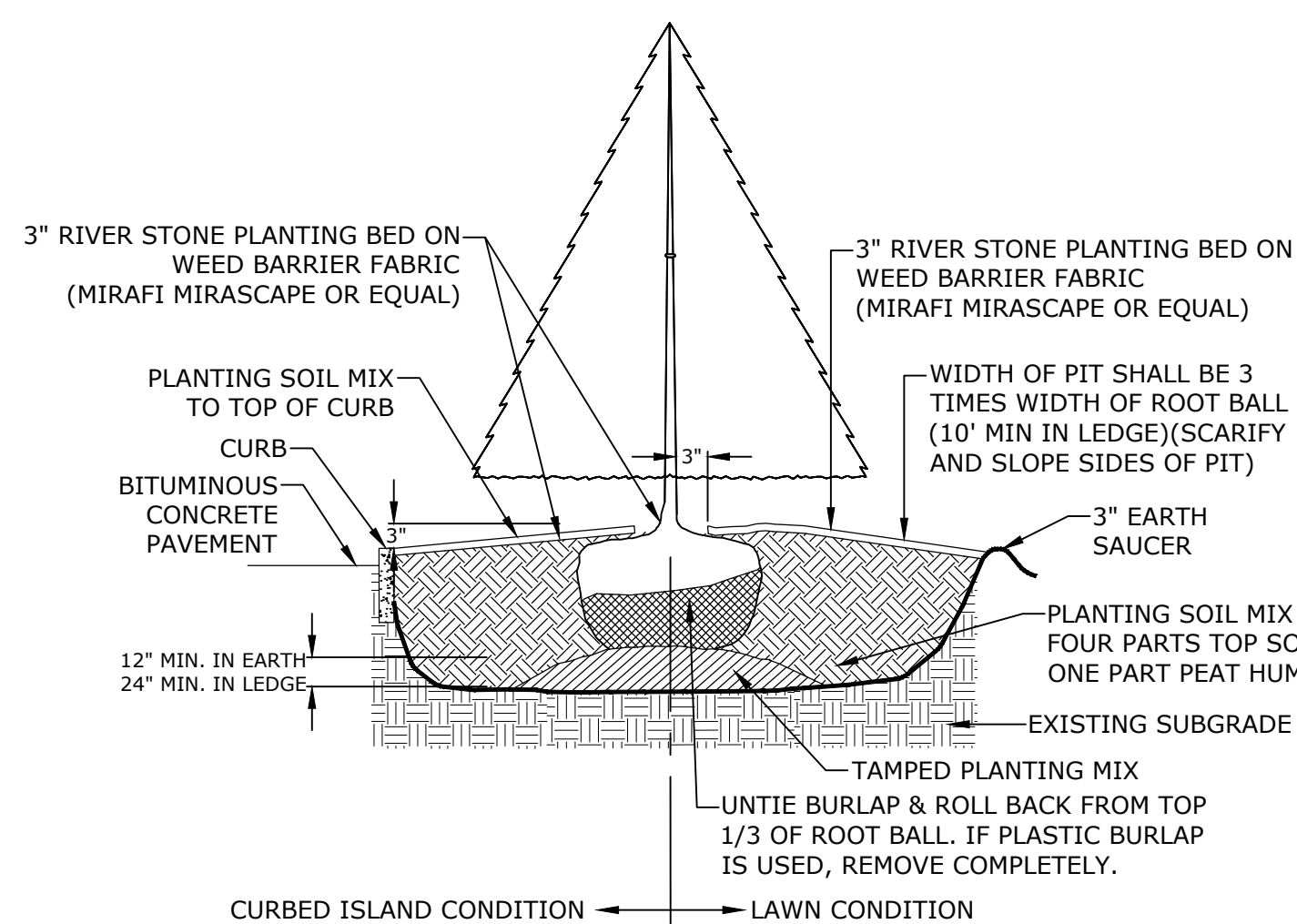
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C-105.1



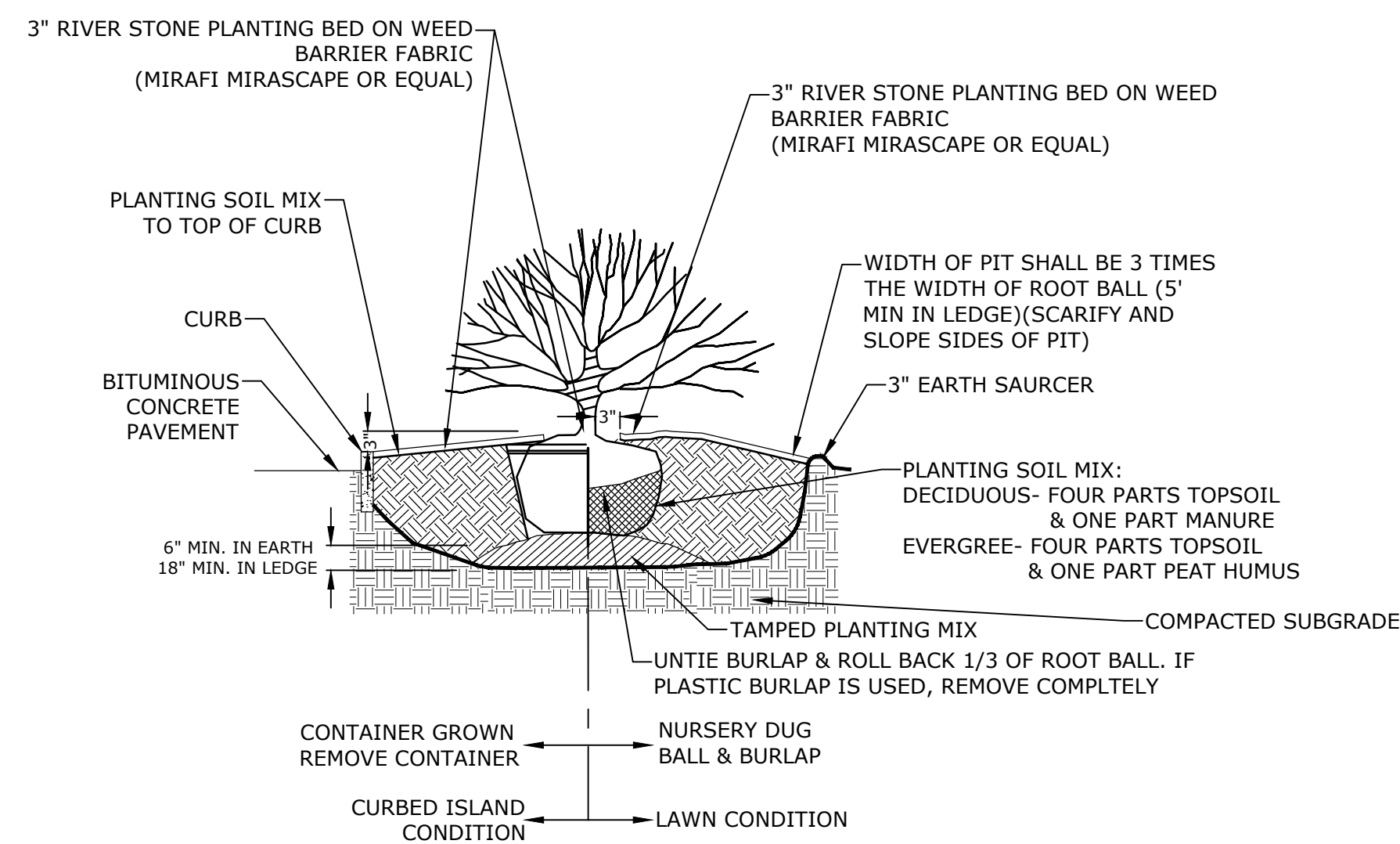
NOTE:
PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED OR WITHIN 2" ABOVE.

DECIDUOUS TREE PLANTING



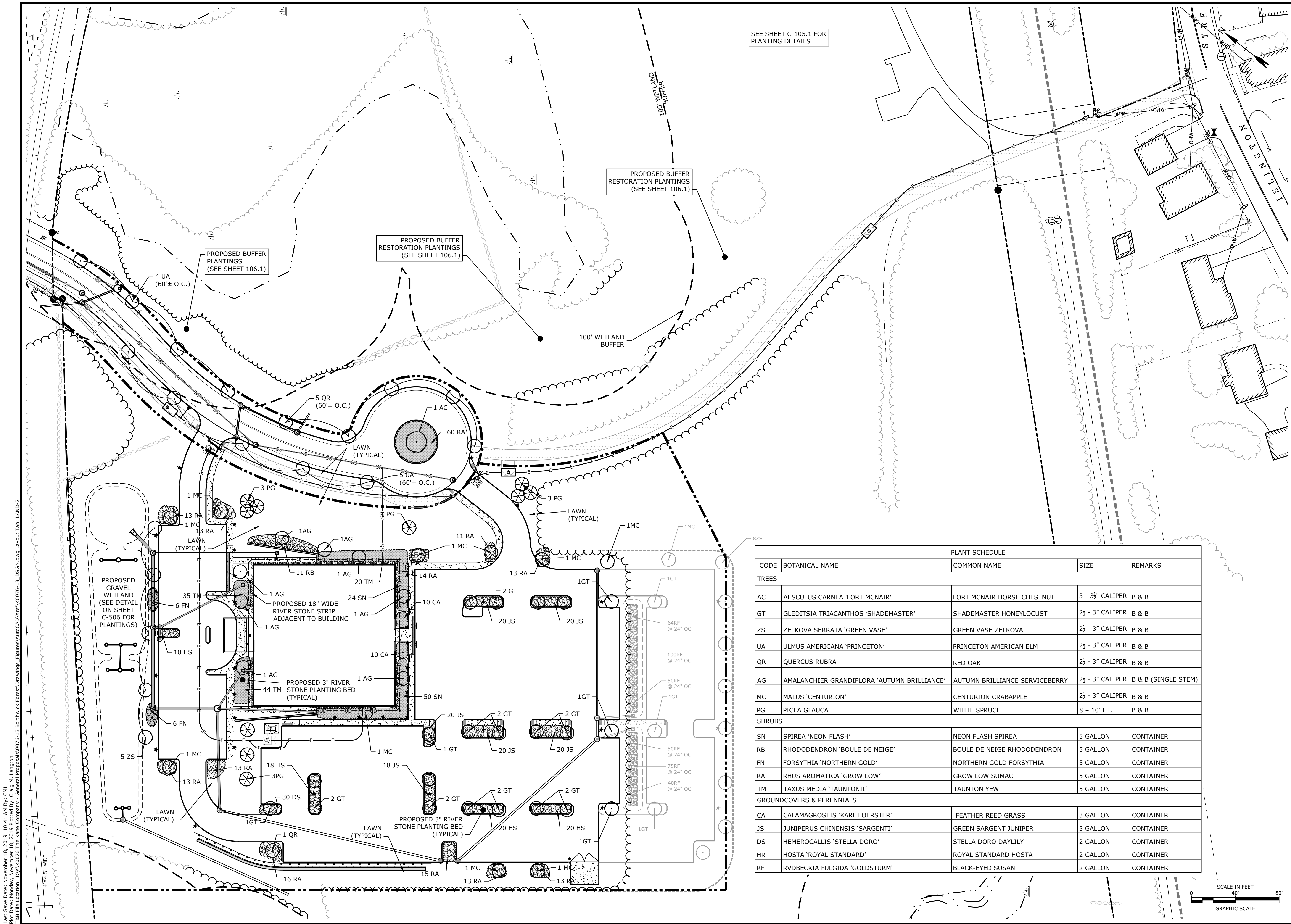
NOTE:
PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED
IN NURSERY, OR WITHIN 2" ABOVE.

EVERGREEN TREE PLANTING
NO SCALE



NOTE:
PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED, OR WITHIN 2" ABOVE.

SHRUB PLANTING
NO SCALE



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Plot Date: Monday, November 18, 2019 Plotted By: Craig M. Langton
File Location: J:\K0076 The Kane Company - General Proposals\K0076-13 Borthwick Forest\Drawings - Figures\AutoCAD\Xref\K0076-13_DSGN.dwg Layout Tab: LAND-2

Tighe&Bond
Engineers | Environmental Specialists

STATE OF NEW HAMPSHIRE
BRADLEE
MEZDURIA
No. 08330
LICENSED
PROFESSIONAL ENGINEER
10/18/19

STATE OF NEW HAMPSHIRE
PATRICK
M. CHAMBERS
No. 14375
LICENSED
PROFESSIONAL ENGINEER
11/18/19

**Proposed
Subdivision Road
& Office Building
Development**

Borthwick Forest, LLC

Portsmouth,
New Hampshire

N	3/25/2019	Construction Drawings
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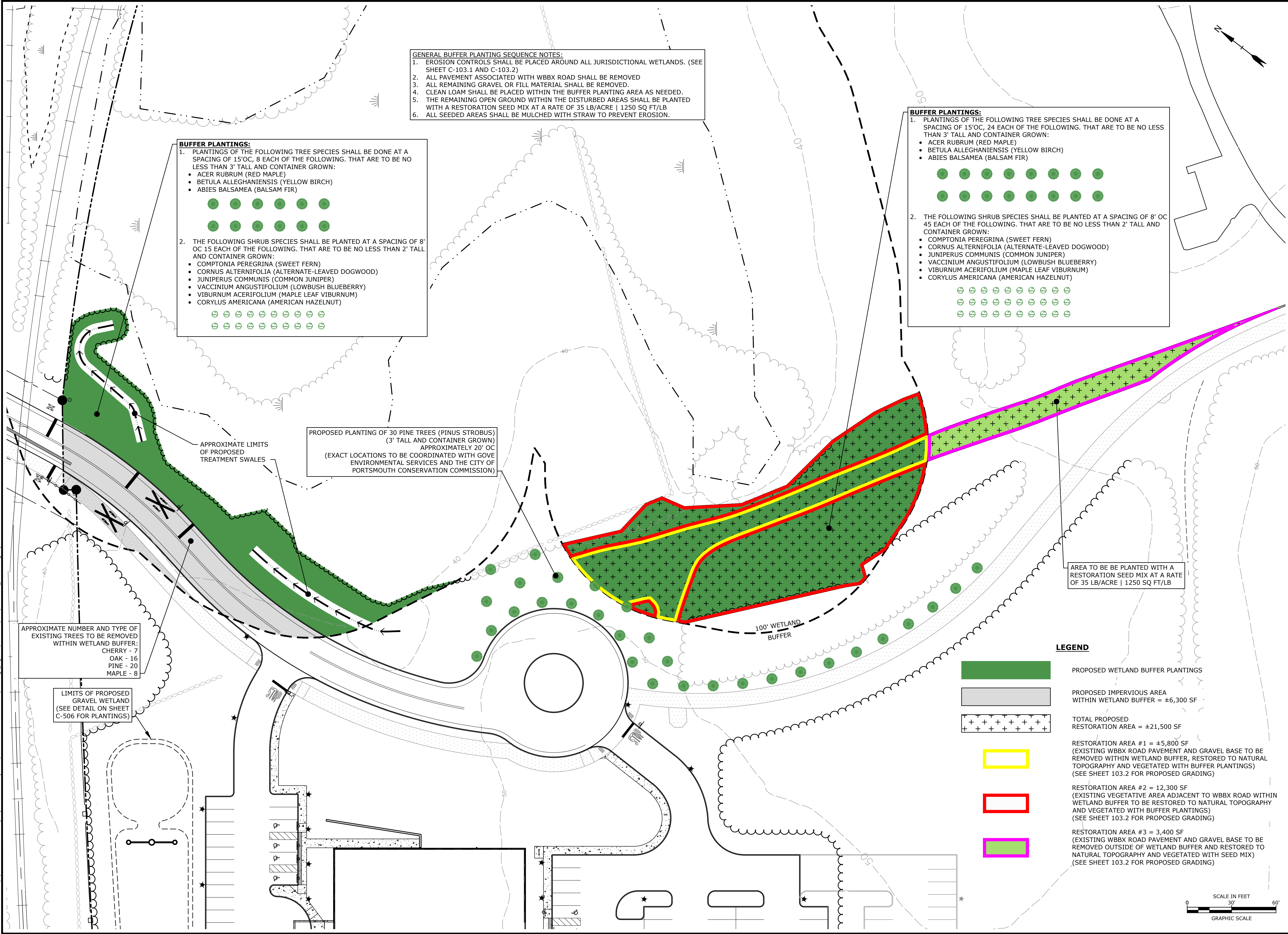
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PROJECT NO: K0076-13		
DATE: 3/20/2017		
FILE: K0076-13_DSGN.DWG		
DRAWN BY: CML		
CHECKED: PMC		
APPROVED: BLM		

LANDSCAPE PLAN

SCALE: AS SHOWN

C-105.2

Last Save Date: November 18, 2019 10:41 AM By: CML
Plot Date: Monday, November 18, 2019 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: BUFF



Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

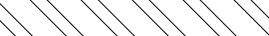

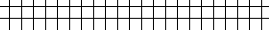

Portsmouth, New Hampshire

N	6/11/2019	To PB for Amended Site Plan Approval
M	5/20/2019	Amended Site Plan Approval
L	3/25/2019	Construction Drawings
K	3/20/2019	Revised GMP Submission
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D	6/2/2017	AsT Submission
C	5/11/2017	Planning Board Submission
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O	7/2/2019	Submitted for Revised Final Approval
MARK	DATE	DESCRIPTION

PROJECT NO:	K0076-13
DATE:	4/24/2017
FILE:	K0076-13_DSGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM

BUFFER RESTORATION & PLANTING SEQUENCING PLAN

SCALE: AS SHOWN

	PROPOSED SEWER AND WATER EASEMENT TO THE CITY OF PORTSMOUTH
	PROPOSED 10' WIDE PUBLIC ACCESS EASEMENT FOR BICYCLES / PEDESTRIANS TO THE CITY OF PORTSMOUTH
	PROPOSED ACCESS EASEMENT FOR STORMWATER TO THE PROPOSED PRIVATE ROAD LOT
	PROPOSED 20' WIDE WATER AND PUBLIC ACCESS EASEMENT FOR BICYCLES / PEDESTRIANS TO THE CITY OF PORTSMOUTH

TAX MAP 241 LOT 25
EXISTING: ±41.556 ACRES
PROPOSED: ±36.24 ACRES

**PROPOSED
LOT #1
5.32 ACRES**

**PROPOSED PRIVATE
ROAD LOT
±0.727 ACRES**

PROPOSED 10' WIDE PUBLIC
ACCESS EASEMENT FOR BICYCLES
/ PEDESTRIANS TO THE CITY OF
PORTSMOUTH WITHIN THE
PROPOSED PRIVATE ROAD LOT

PROPOSED SEWER AND WATER
EASEMENT TO THE CITY OF
PORTSMOUTH WITHIN THE
PROPOSED PRIVATE ROAD LOT

PROPOSED ACCESS EASEMENT FOR
STORMWATER TO THE PROPOSED
PRIVATE ROAD LOT FROM MAP 241 LOT 25

PROPOSED SEWER AND WATER
EASEMENT TO THE CITY OF PORTSMOUTH
WITHIN THE EXISTING 70' WIDE
RAILROAD CROSSING EASEMENT

PROPOSED SEWER AND WATER
EASEMENT TO THE CITY OF
PORTSMOUTH WITHIN THE EXISTING
35' WIDE RESERVED RIGHT OF WAY

PROPOSED 10' WIDE PUBLIC ACCESS
EASEMENT FOR BICYCLES /
PEDESTRIANS TO THE CITY OF
PORTSMOUTH WITHIN THE EXISTING
85' WIDE RESERVED RIGHT OF WAY

EXISTING 70' WIDE RAILROAD
CROSSING EASEMENT

PROPOSED 10' WIDE PUBLIC ACCESS EASEMENT
FOR BICYCLES / PEDESTRIANS TO THE CITY OF
PORTSMOUTH WITHIN THE EXISTING 70' WIDE
RAILROAD CROSSING EASEMENT

Portsmouth,
New Hampshire

[illegible]

A	11/18/2019	Amended Subdivision Approval
MARK	DATE	DESCRIPTION
PROJECT NO: K0076-13		
DATE: 11/18/2019		
FILE: K0076-13_DSGN.DWG		
DRAWN BY: CML		
CHECKED: PMC		
APPROVED: BLM		

C-300

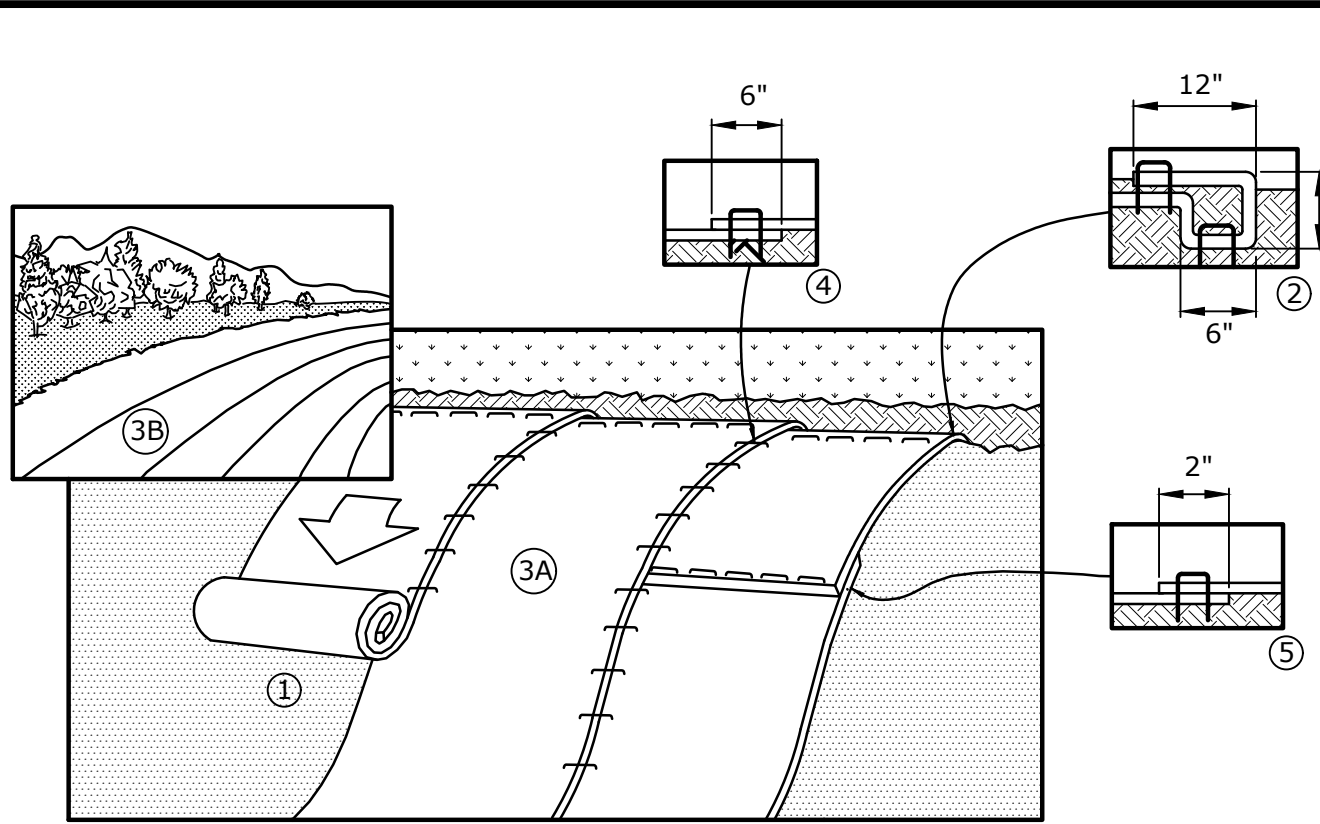
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Last Save Date: November 18, 2019 10:41 AM By: CML
Plot Date: Monday, November 18, 2019 Plotted By: Craig M. Langton
P&B File Location: J:\K0076 The Kane Company - General Proposals\0076-13 Borthwick Forest\Drawings Figures\AutoCAD\Xref\X0076-13.DSGN.DWG Layout Tab: Easement Plan

PROJECT OWNER: BORTHWICK FOREST, LLC c/o THE KANE COMPANY
210 COMERCE WAY
PORTSMOUTH, NEW HAMPSHIRE 03801
PROJECT NAME: PROPOSED SUBDIVISION ROAD & OFFICE BUILDING DEVELOPMENT
PROJECT ADDRESS: BORTHWICK AVENUE
PORTSMOUTH, NEW HAMPSHIRE 03801
PROJECT LATITUDE: 43°-08'-14"N
PROJECT LONGITUDE: 70°-56'-22"W

Last Save Date: March 25, 2019 11:13 AM By: CML
Plot Date: Monday, March 25, 2019 Plotted By: Craig M. Langton
IT&B File Location: J:\K\K0076 The Kane Company - General Properties

Last Save Date: March 25, 2019 11:13 AM By: CHL
Plot Date: Monday, March 25, 2019 Plotted By: Craig M. Langton
File Location: J:\K0076-13 Borthwick Forest\Drawings - General\Proposals\K0076-13 Borthwick Forest\Drawings - General\Proposals\K0076-13 DTLS.dwg Layout Tab: C-502

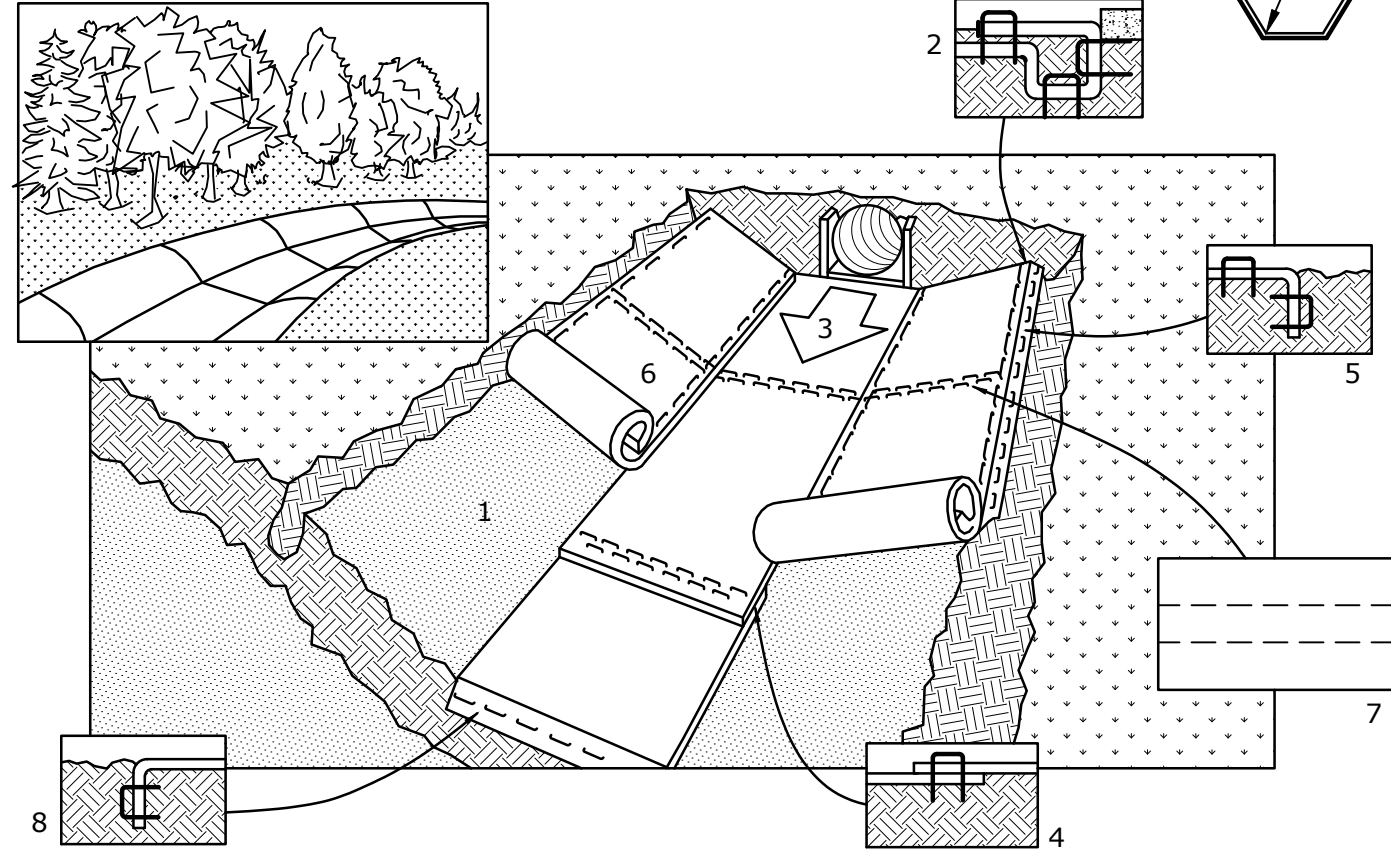


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE, 36" OVER THE GRADE BREAK, BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UPSLOPE PORTION OF THE 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

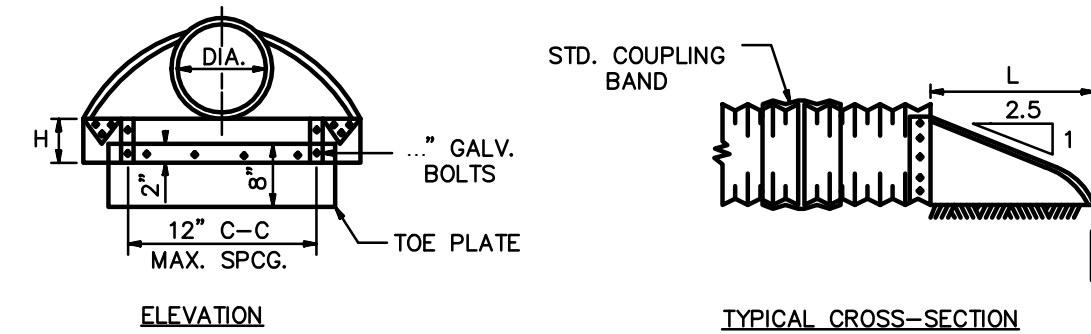
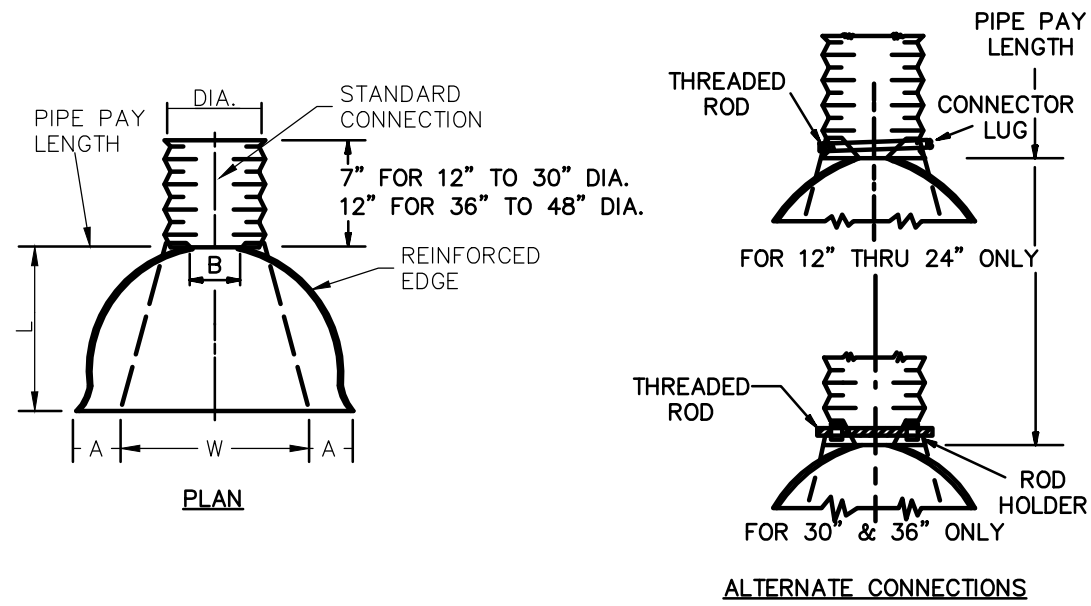
NOTE:
HORIZONTAL STAPLE SPACING SHOUL BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE RECOMMENDATIONS FOR CHANNELS.



- 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.

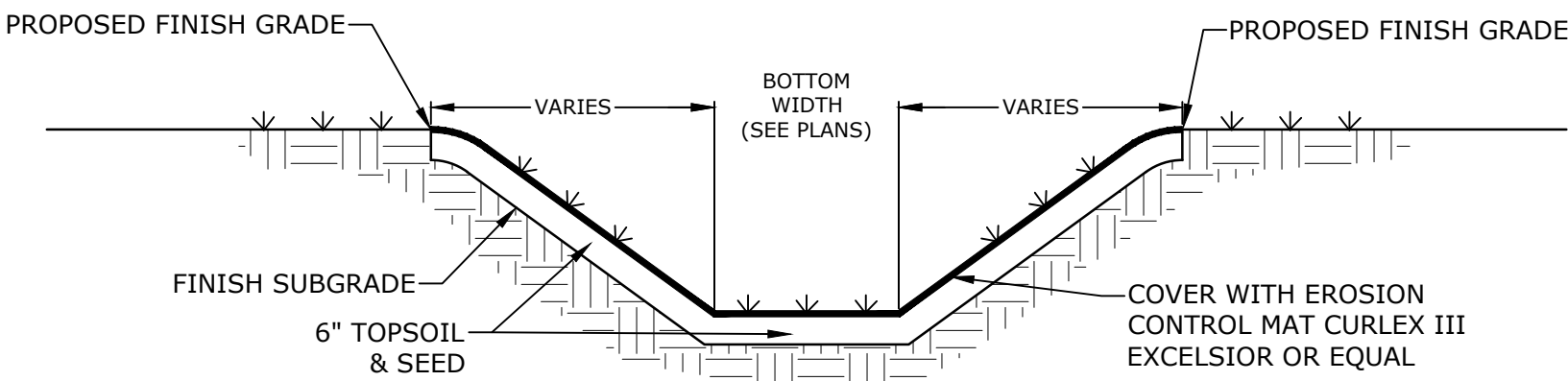
EROSION CONTROL BLANKET INSTALLATION

NO SCALE



METAL FLARED END SECTION

NO SCALE



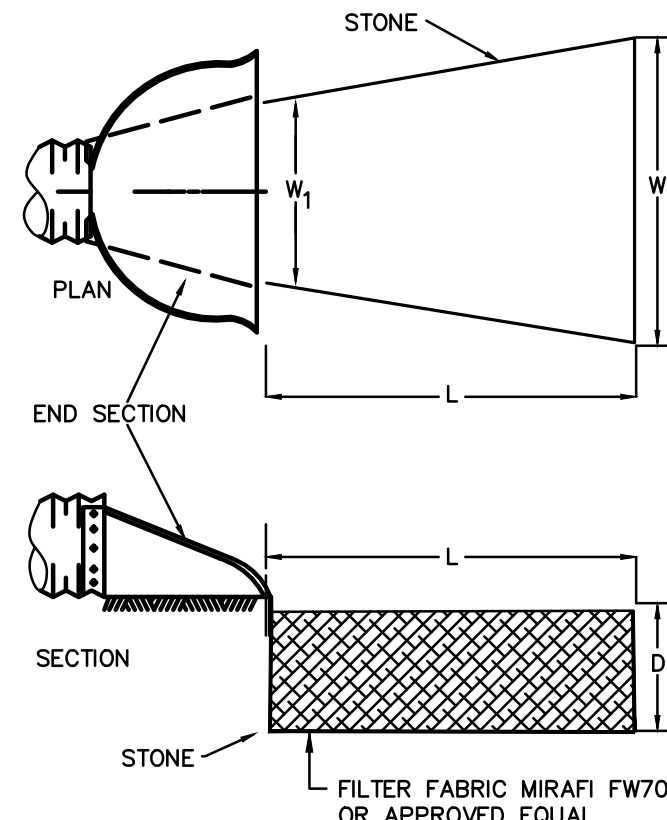
- NOTES:
1. THE FOUNDATION AREA OF THE WATERWAY SHALL BE CLEARED AND GRUBBED OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL. MATERIALS REMOVED SHALL BE DISPOSED OF SO THEY WILL NOT INTERFERE WITH THE CONSTRUCTION OR PROPER FUNCTIONING OF THE WATERWAY.
 2. THE WATERWAY SHALL BE EXCAVATED 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

NO SCALE

- CRITICAL POINTS
- A. OVERLAPS AND SEAMS
 - B. PROJECTED WATER LINE
 - C. CHANNEL BOTTOM/SIDE SLOPE VERTICIES

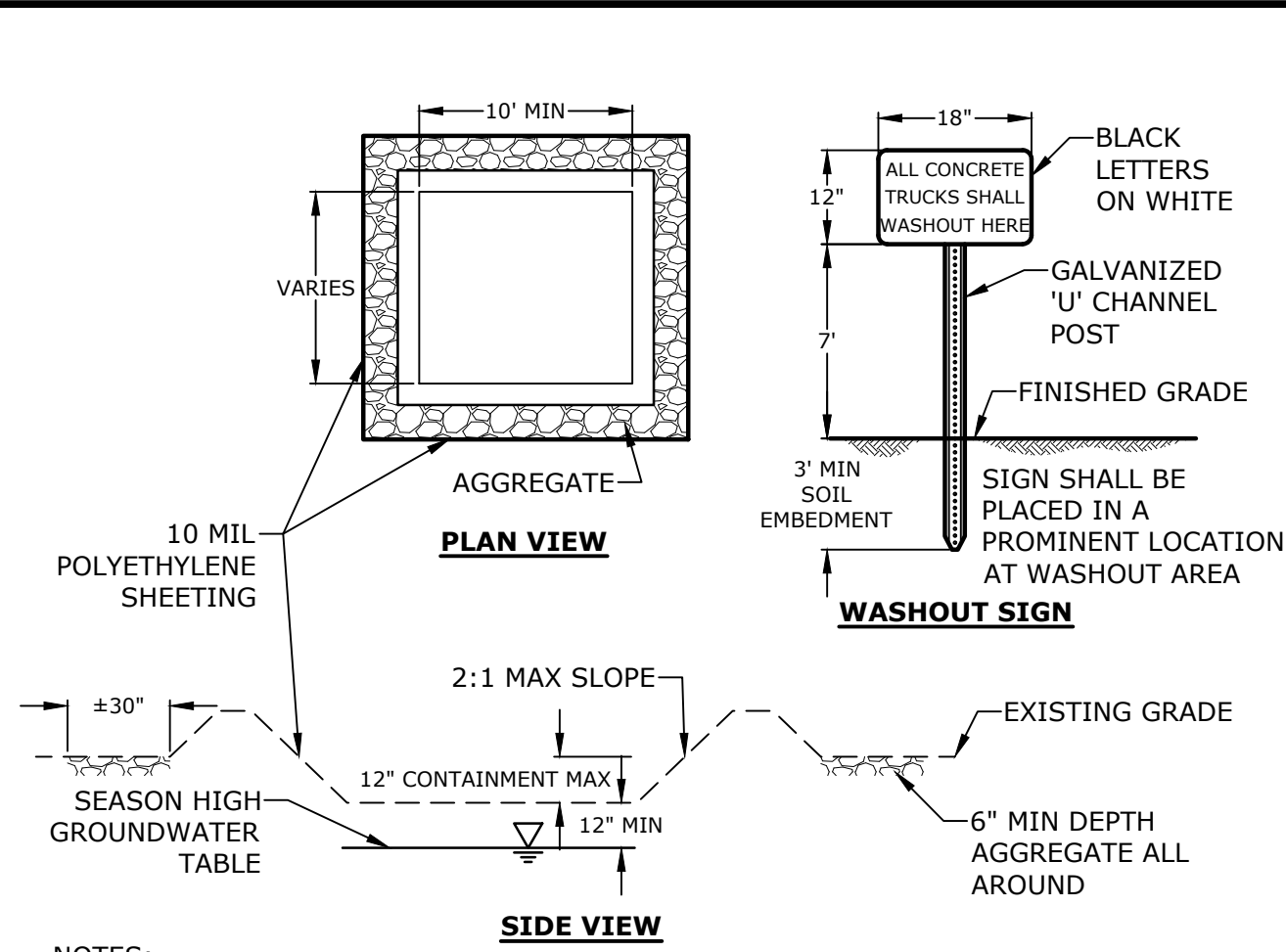
- NOTES:
1. STONE SIZE AND MAT DIMENSIONS DETAILED ON TABLE BELOW.
 2. STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNIFORM QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. FLAT OR ROUND ROCKS ARE NOT ACCEPTABLE. THE STONE SHALL BE HARD AND OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON 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					
	W ₁	W ₂	L	D ₅₀	D
FES #1	6'	32'	26'	7"	13"
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

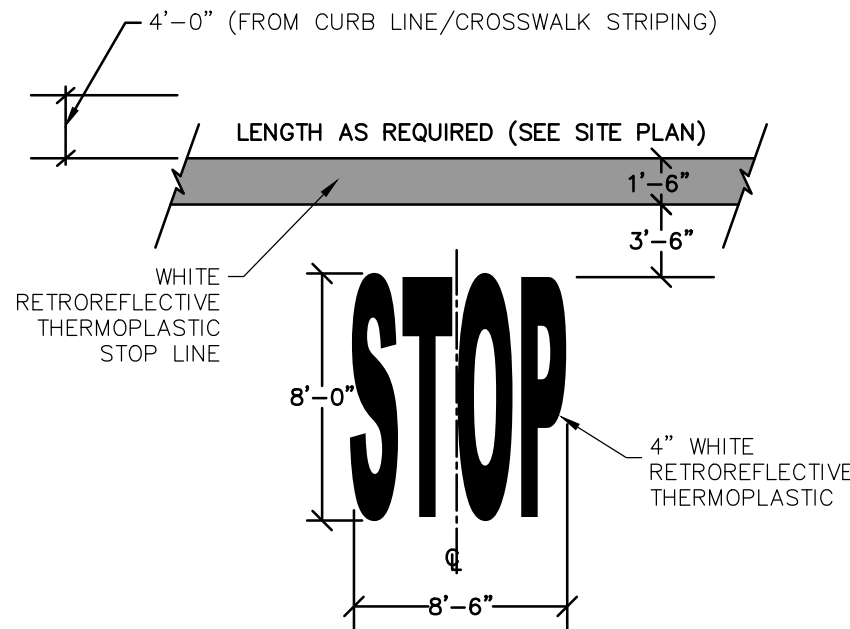
NO SCALE



- 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

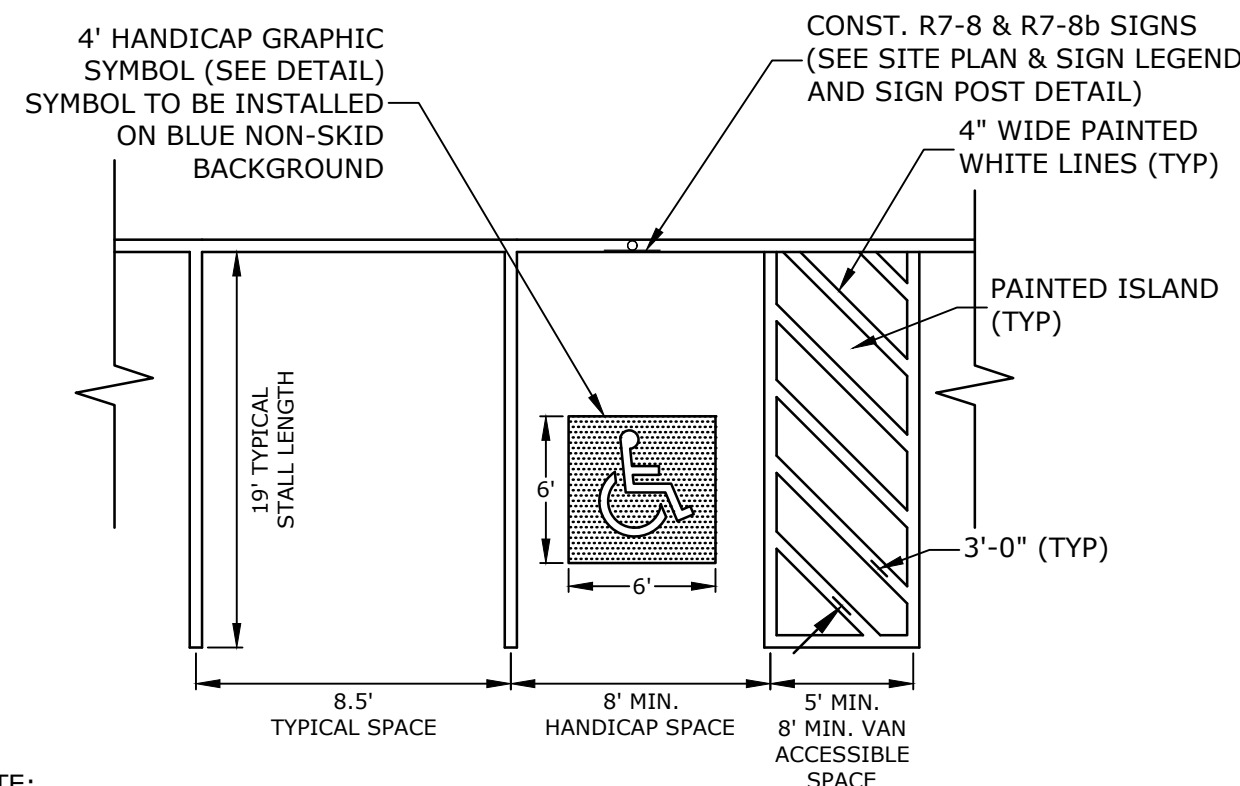
NO SCALE



- NOTE:
- PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.

STOP BAR & LEGEND

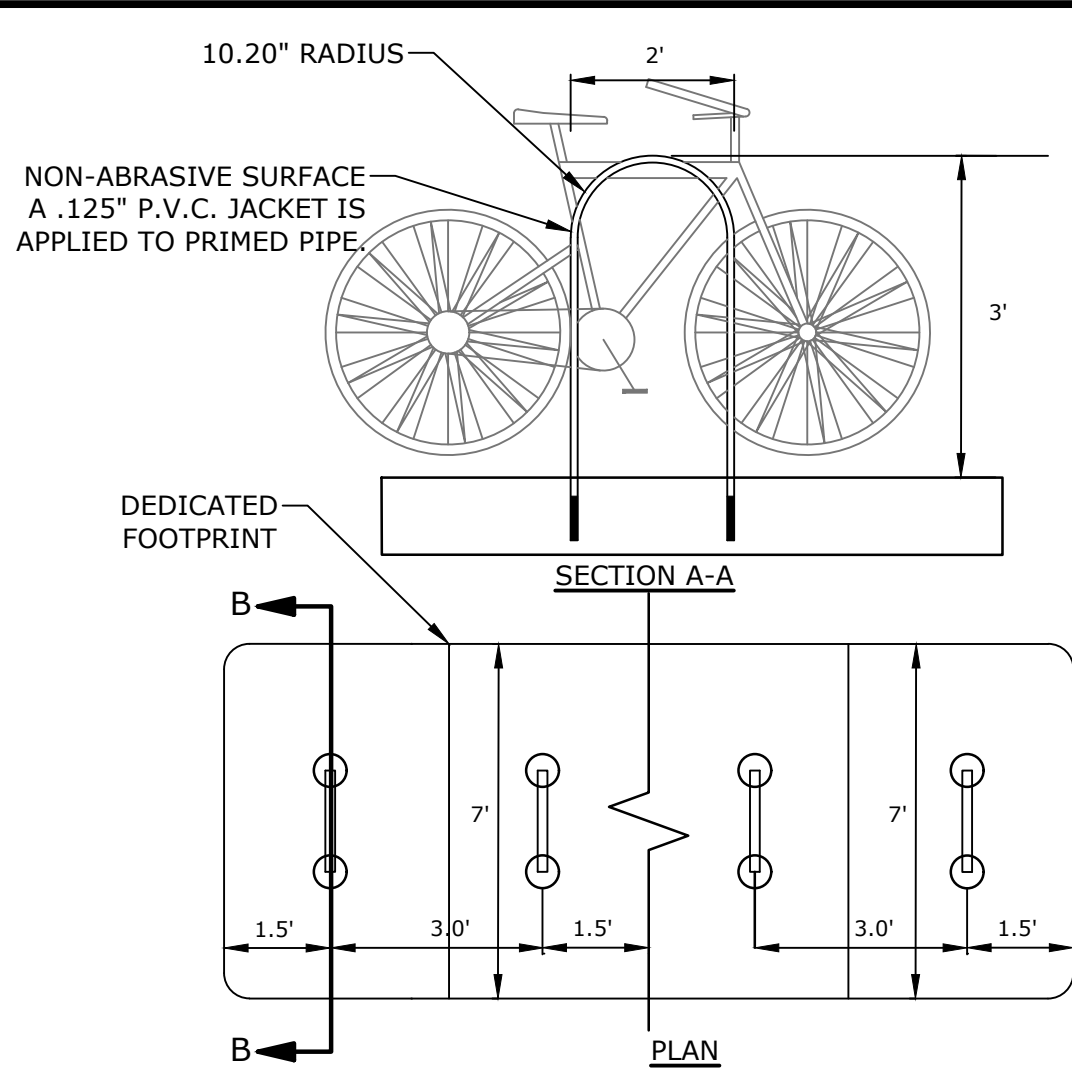
NO SCALE



- 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.

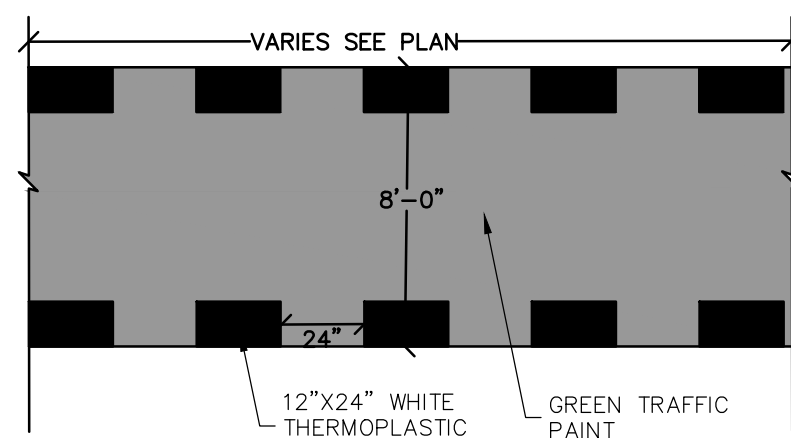
STALL STRIPING-SINGLE STRIPE

NO SCALE



BIKE RACK

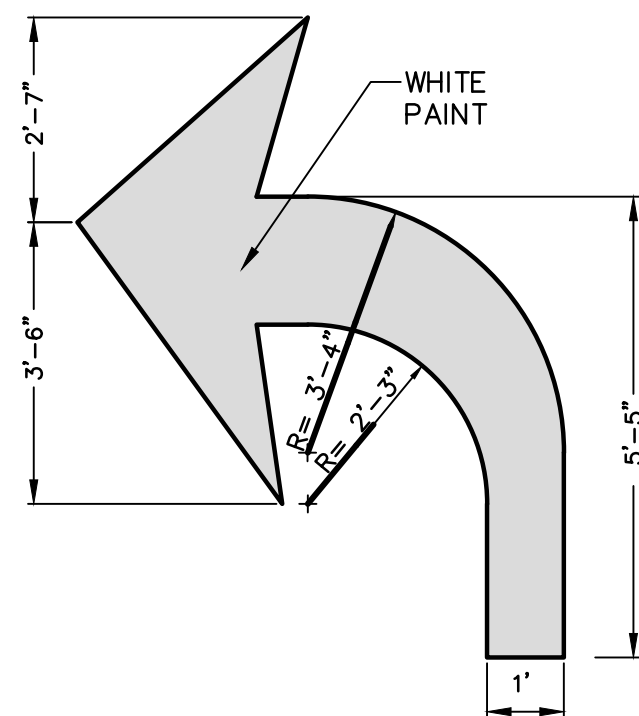
NO SCALE



- NOTE:
1. STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED 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

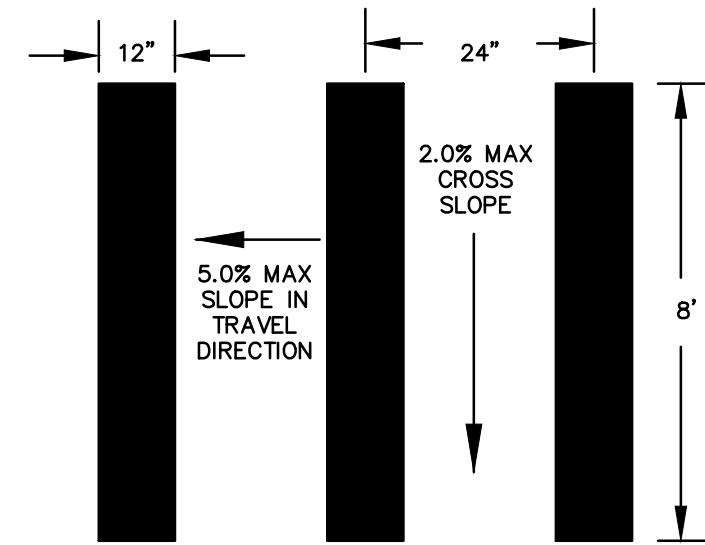
NO SCALE



- NOTES:
- 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:
- STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED 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

MARK	DATE	DESCRIPTION
K	3/25/2019	Construction Drawings
J	3/20/2019	Revised GMP Submission
I	3/4/2019	Rev Pricing Drawings / Admin Approval
H	5/8/2018	Submitted for Final Approval
G	2/26/2018	GMP Submission
F	2/6/2018	Planning Board Submission
E	1/12/2018	GMP Submission
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

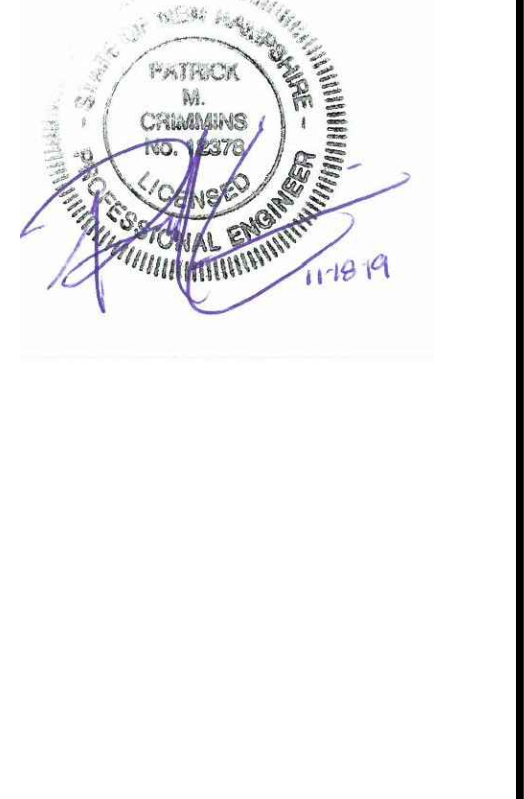
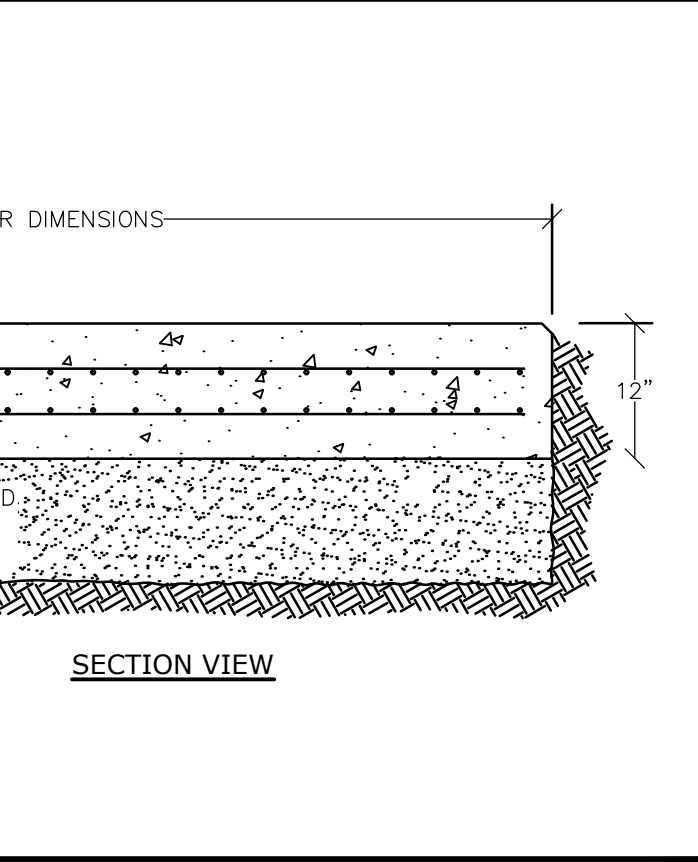
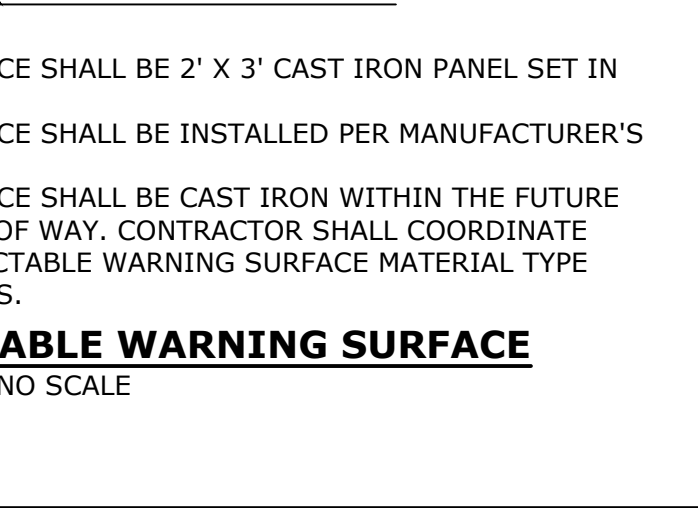
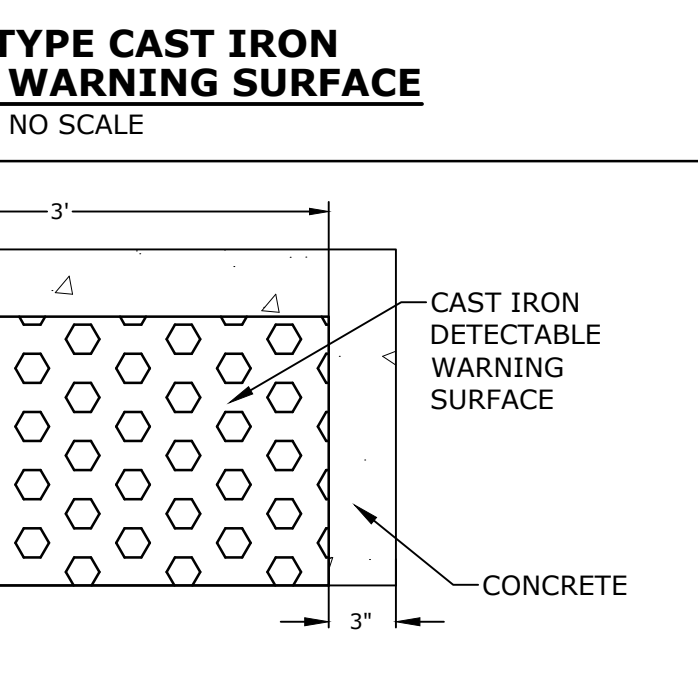
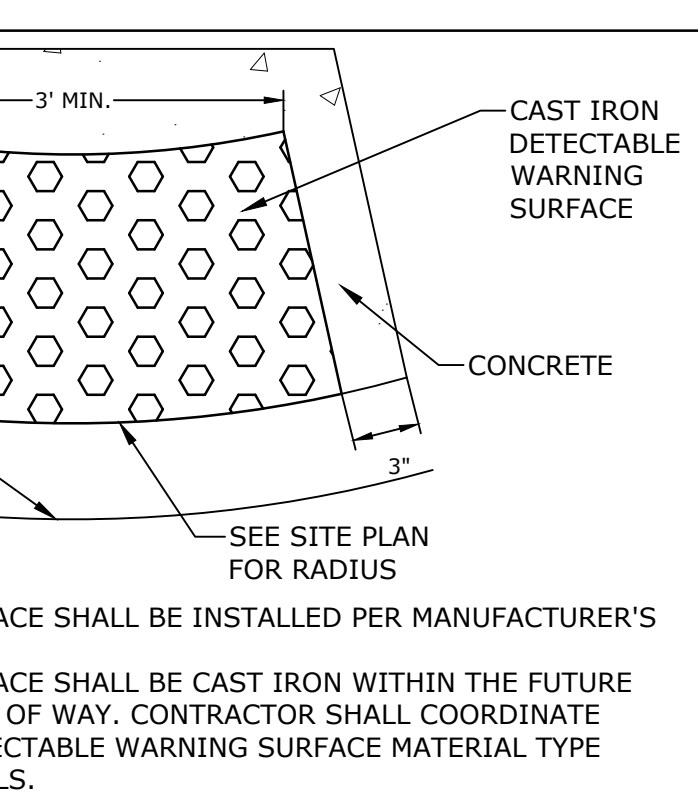
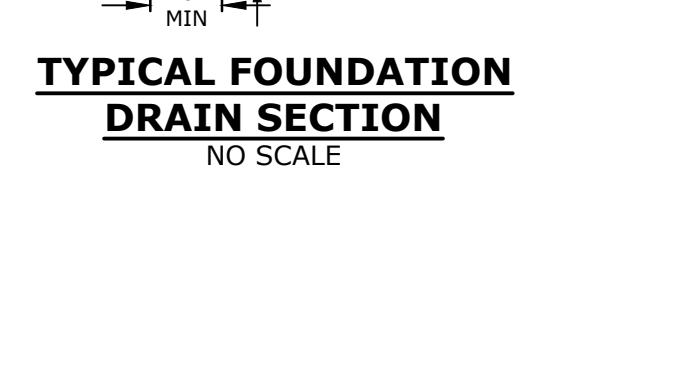
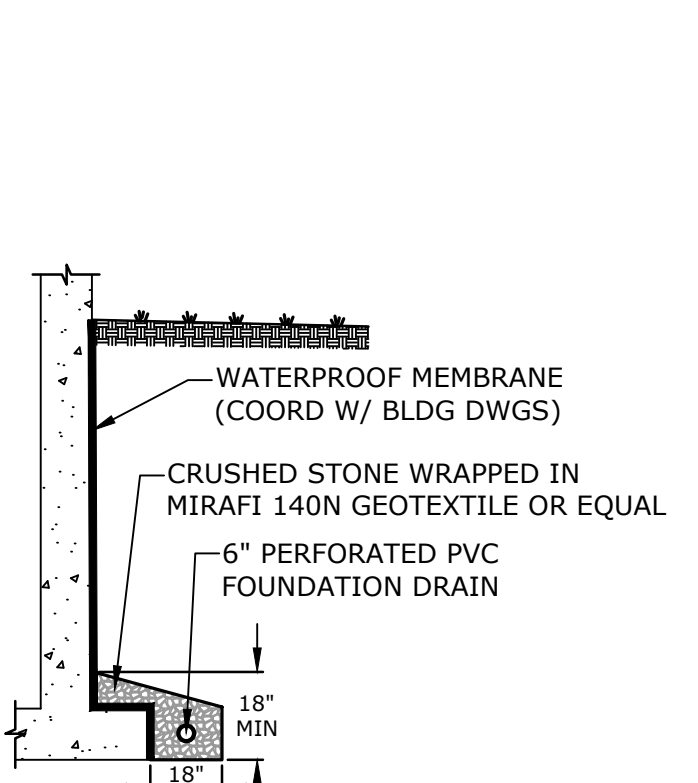
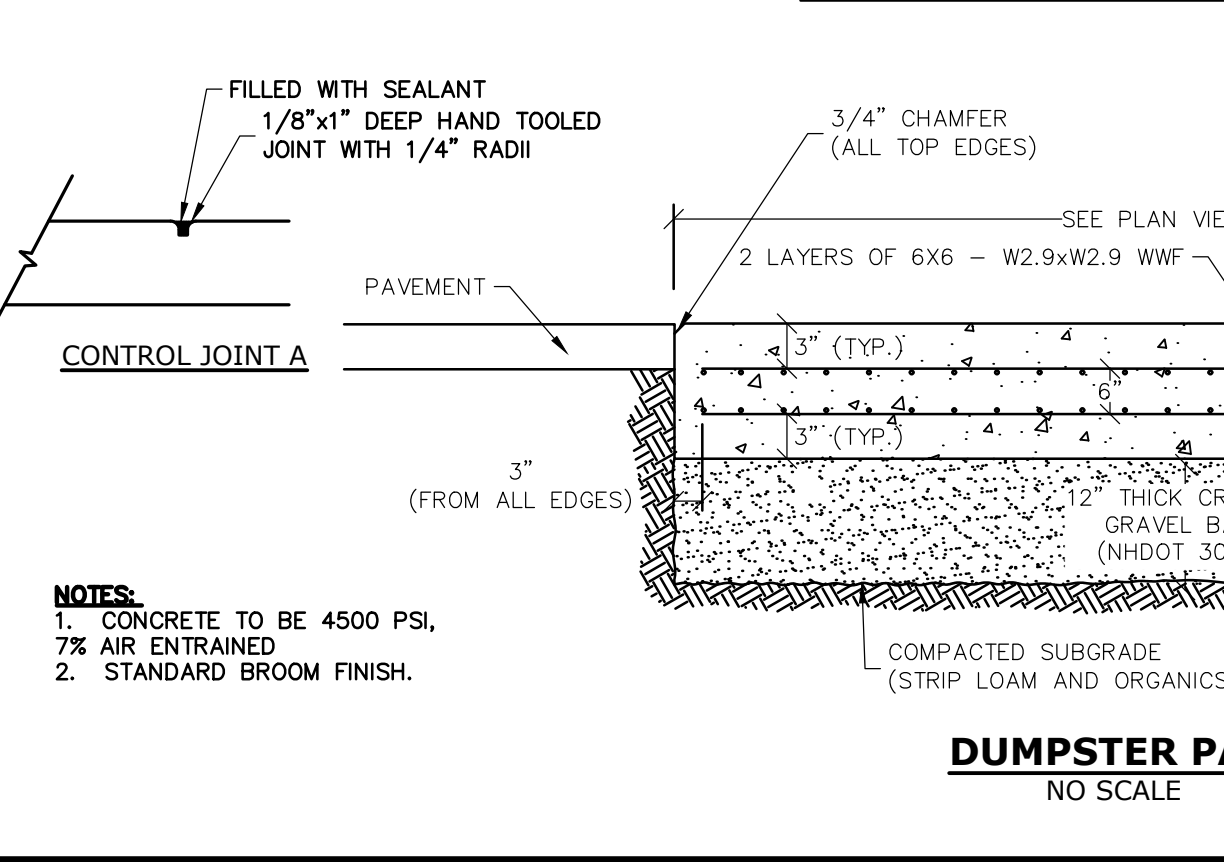
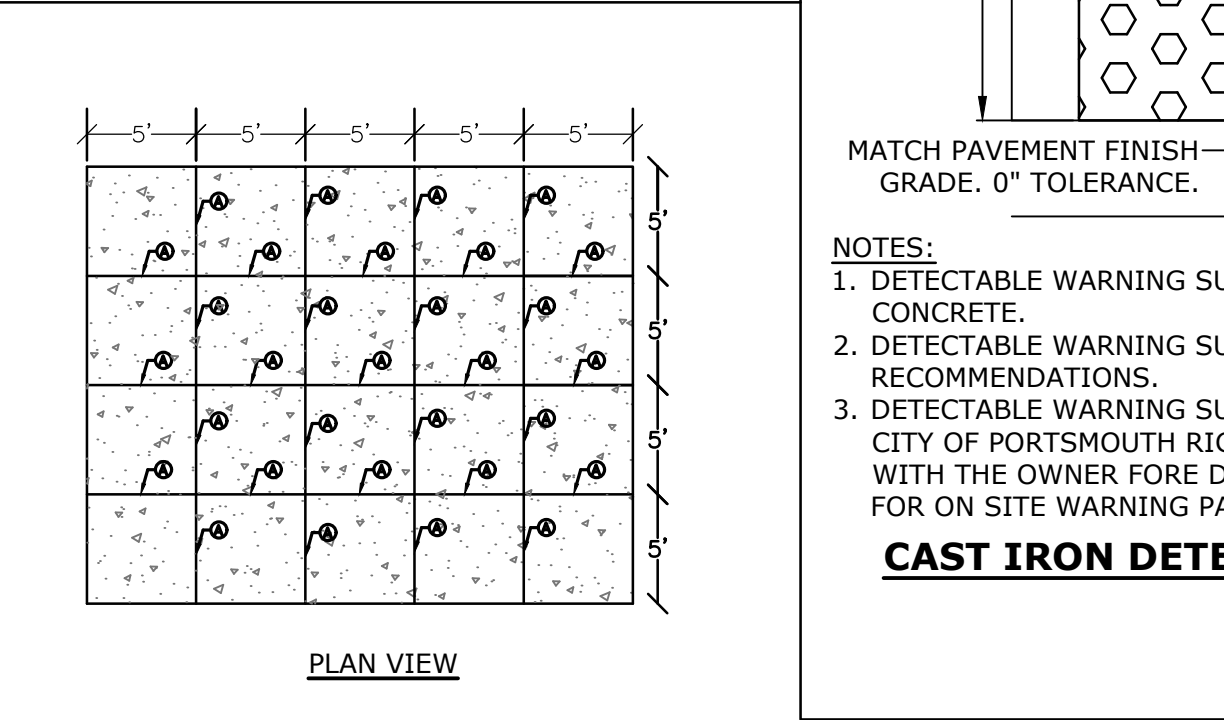
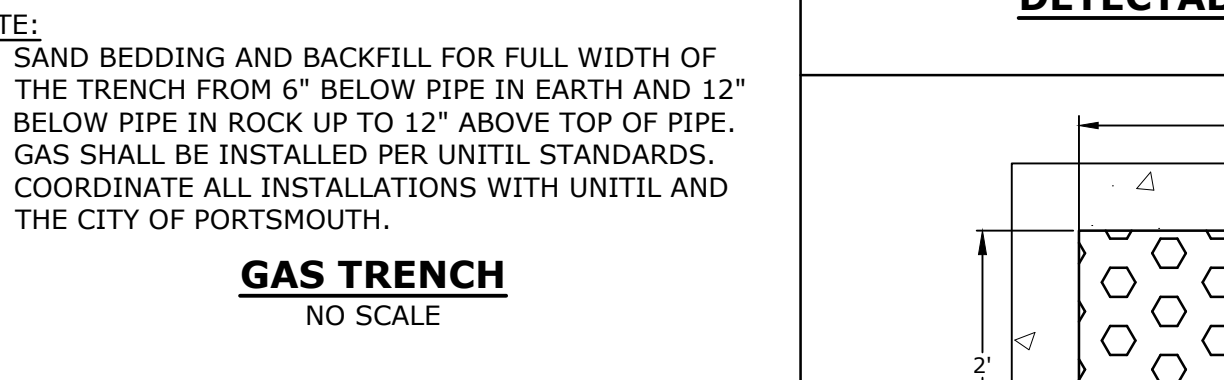
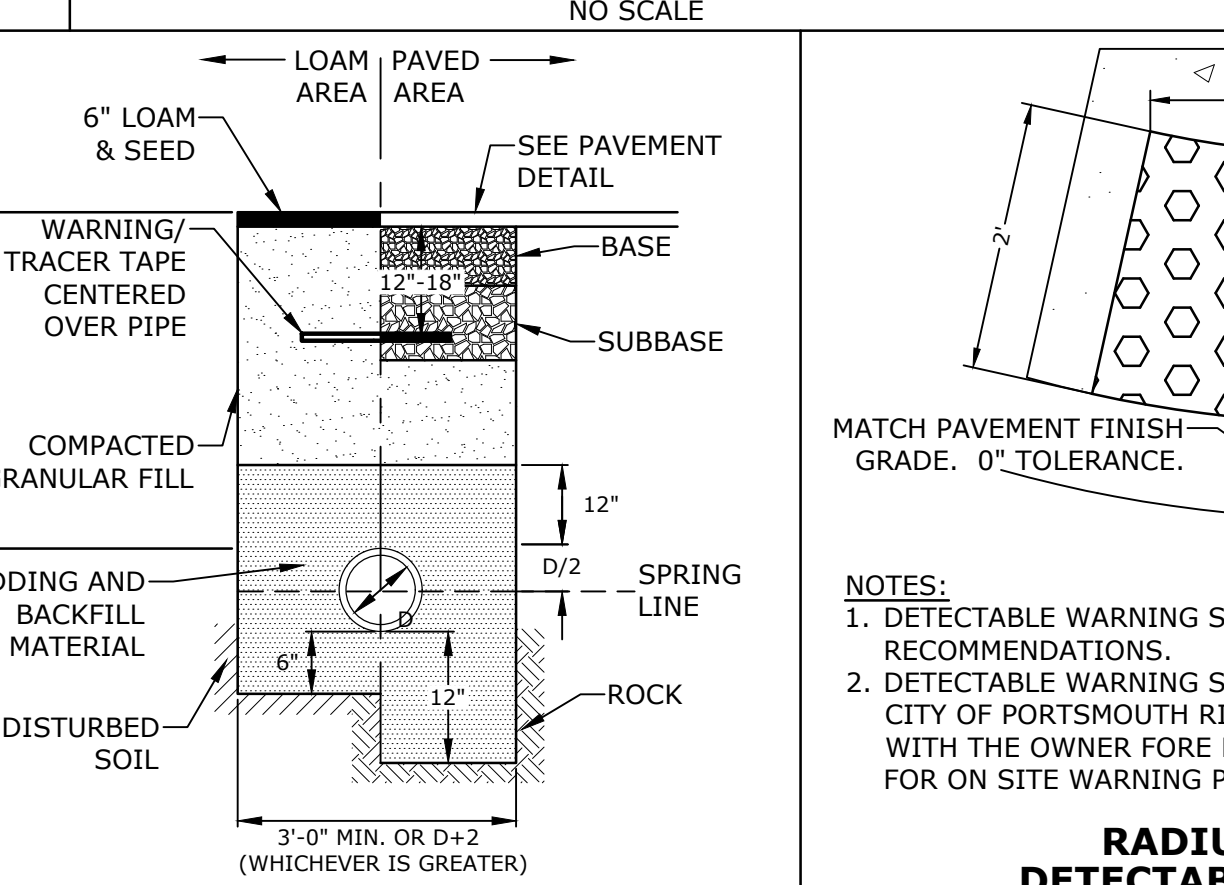
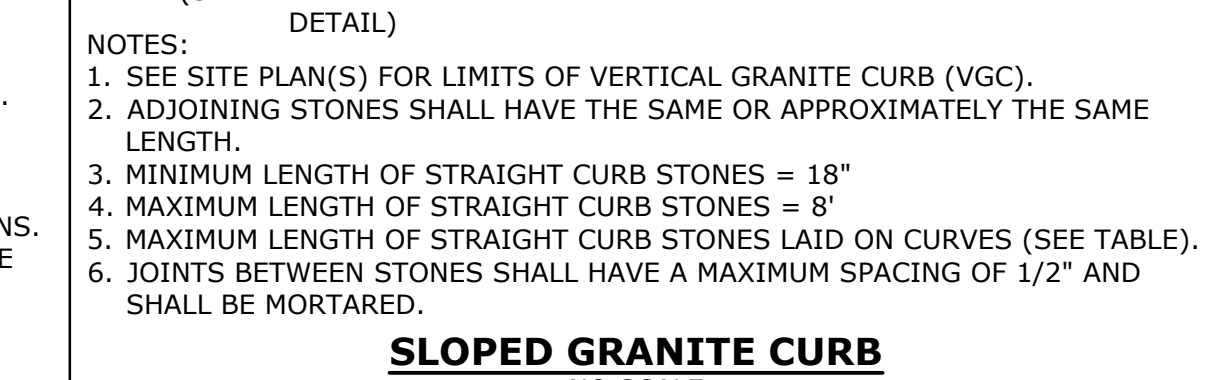
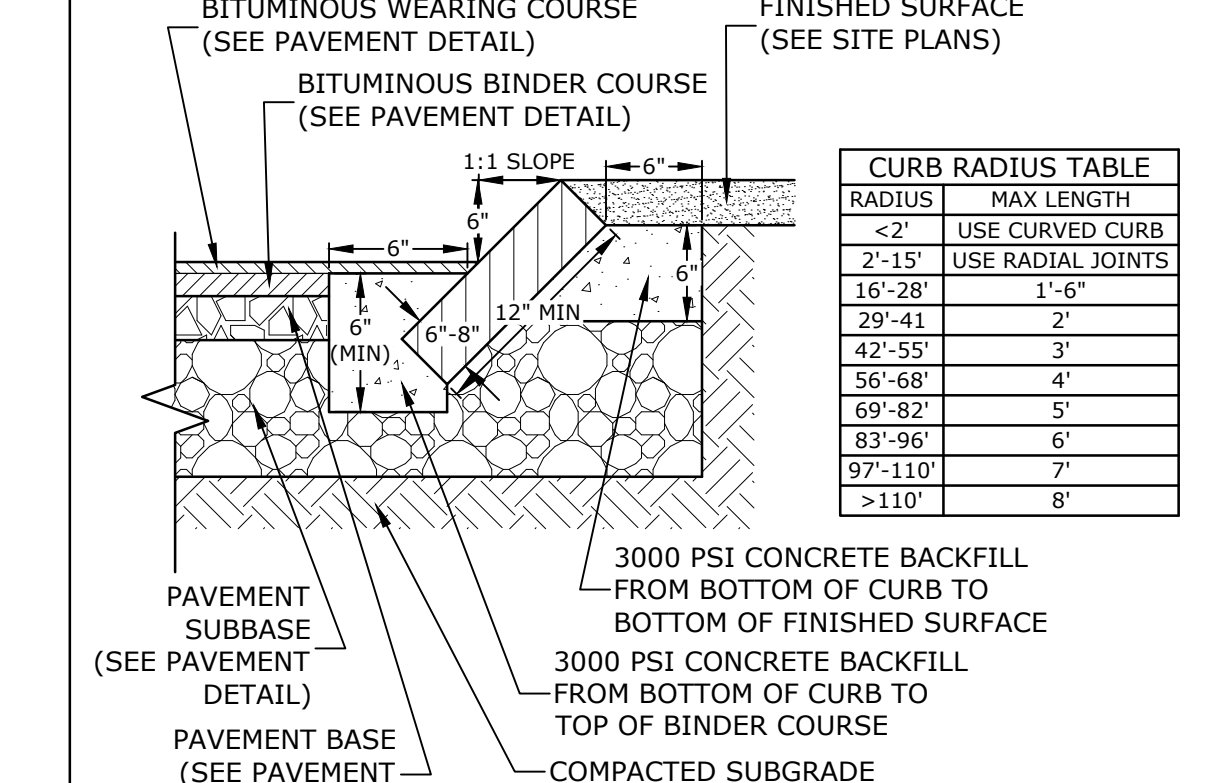
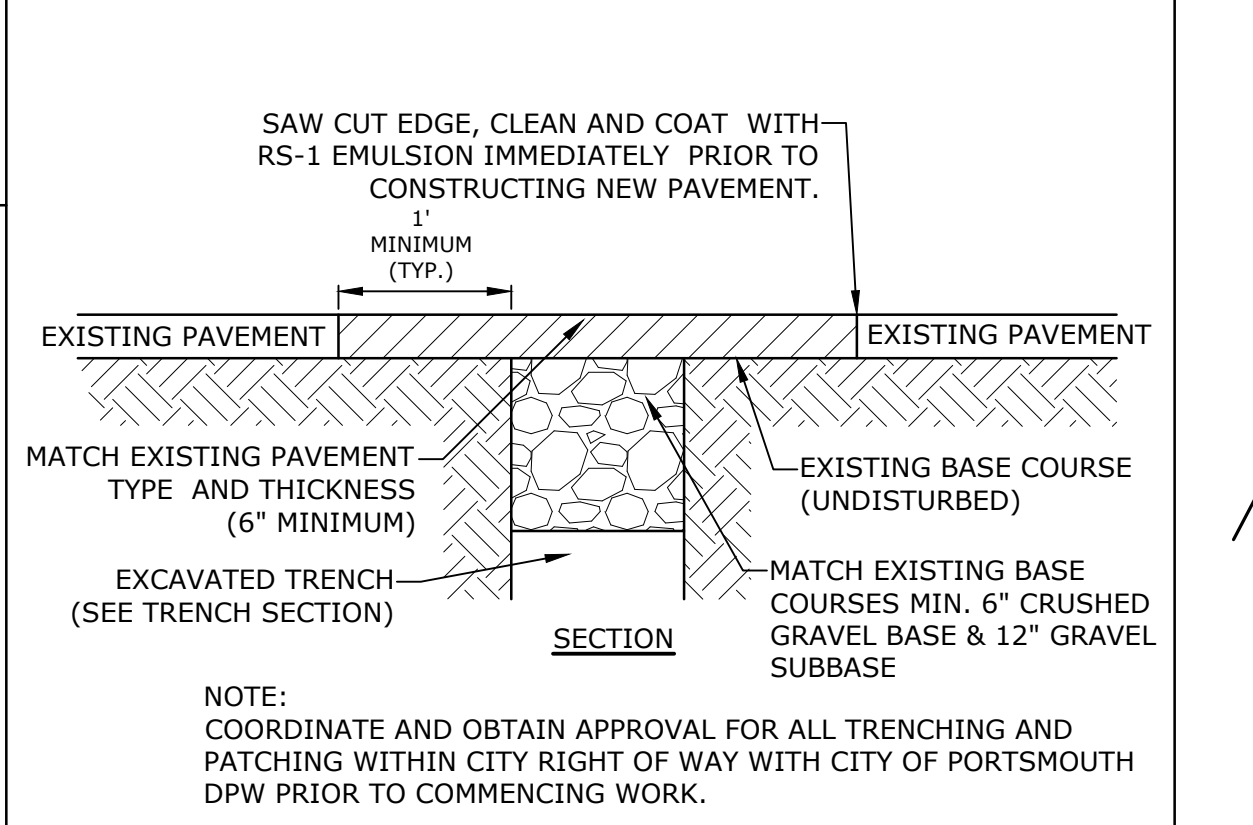
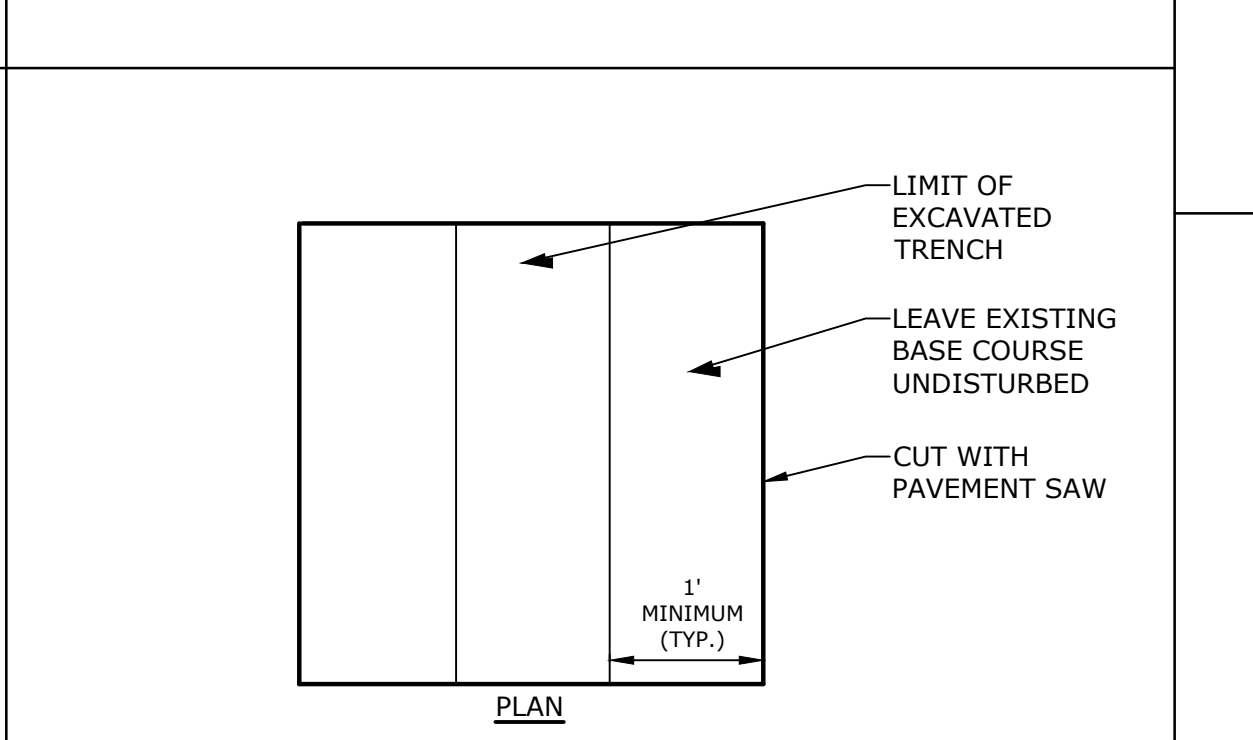
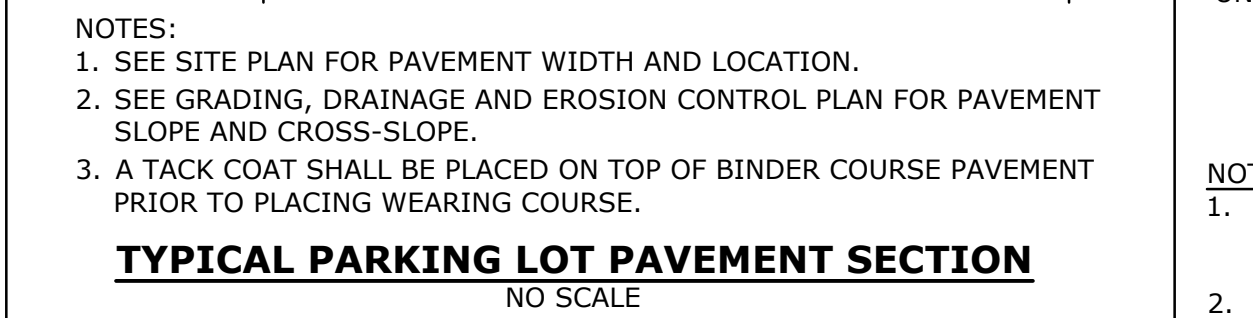
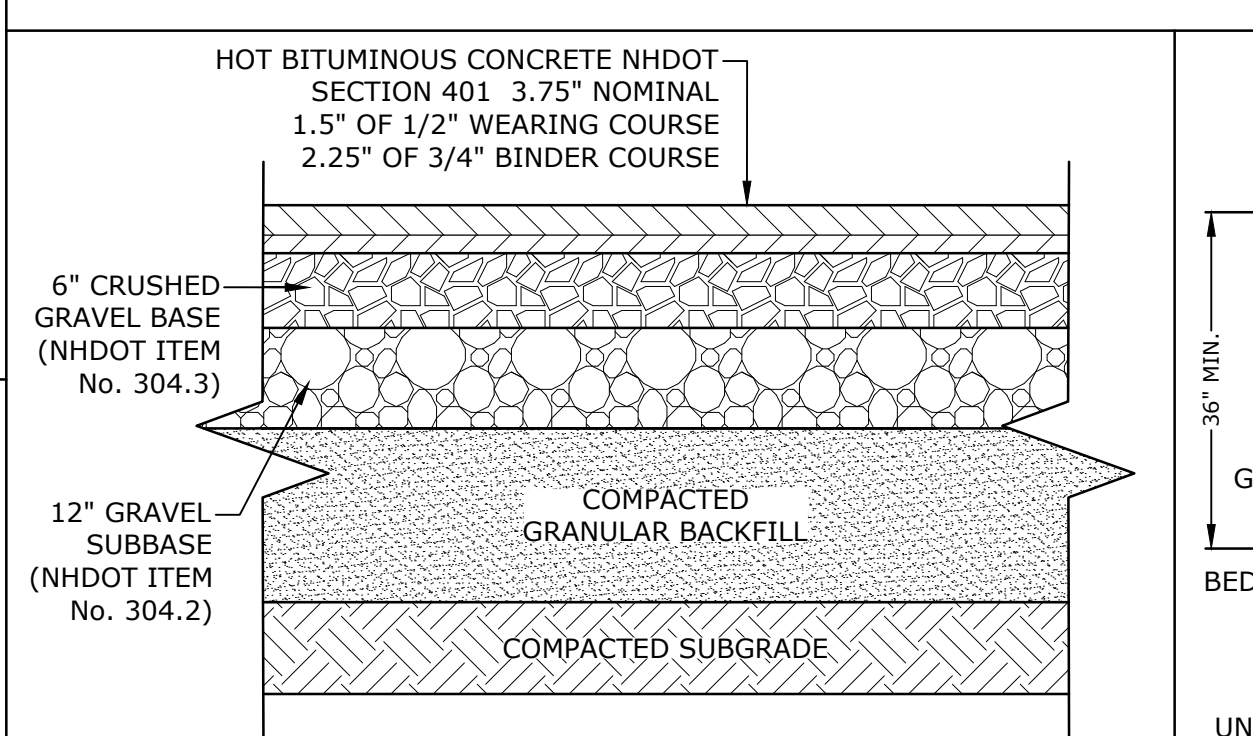
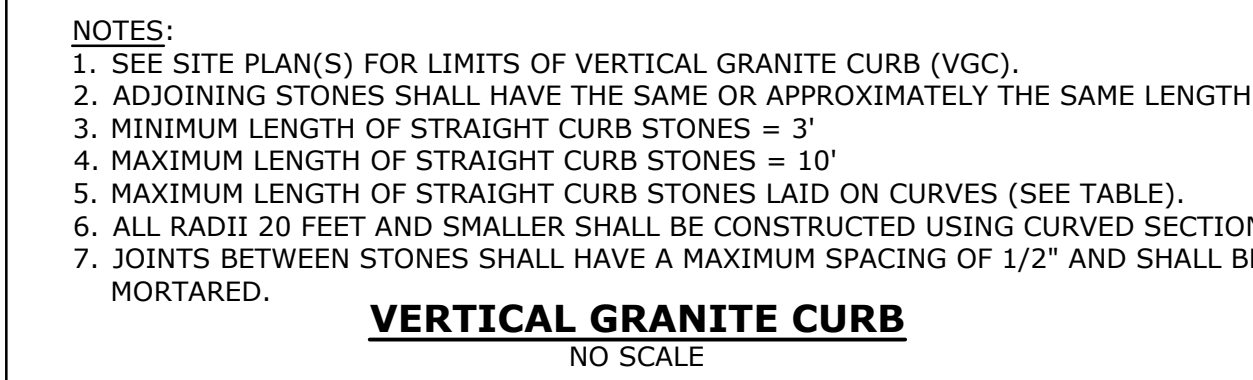
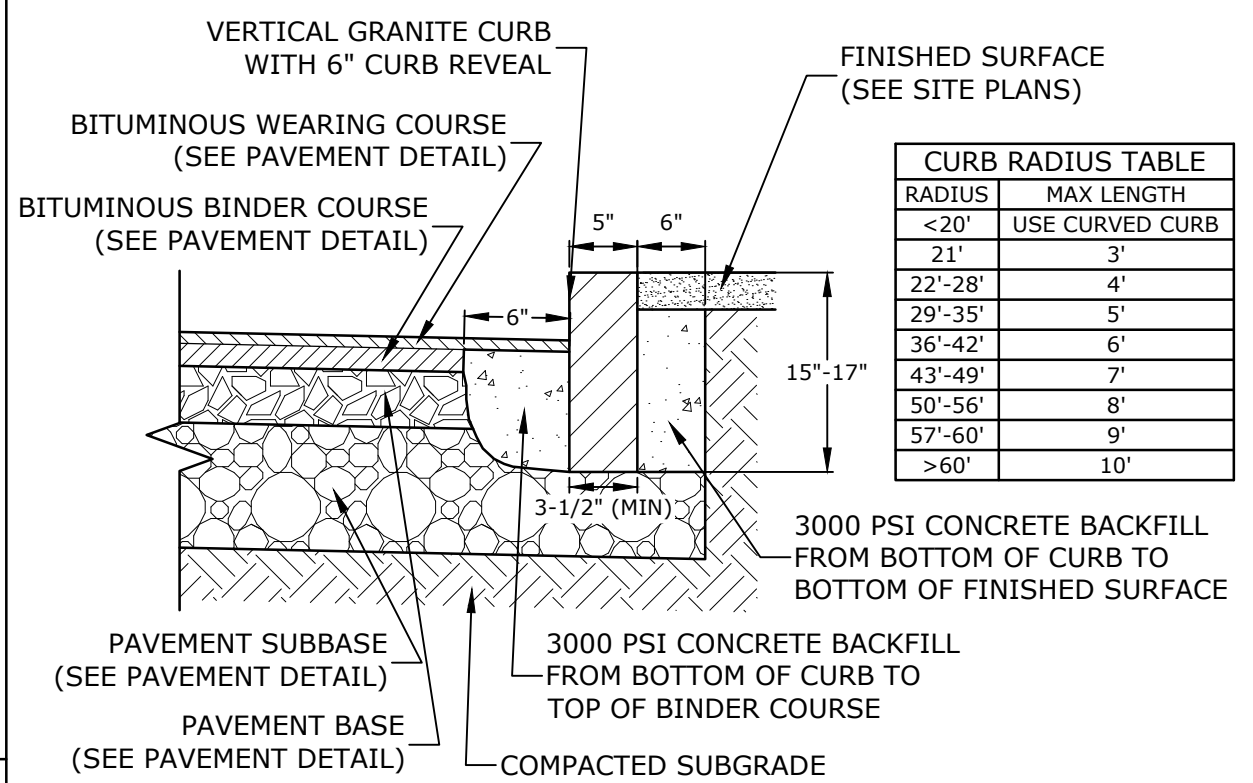
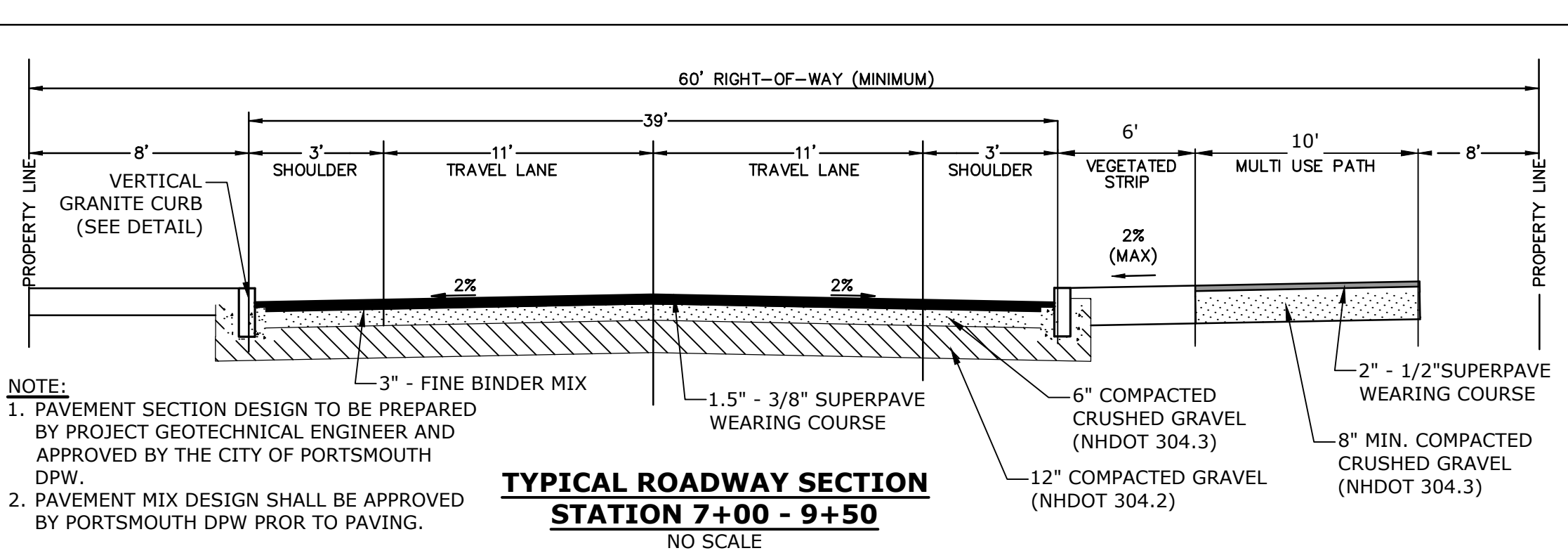
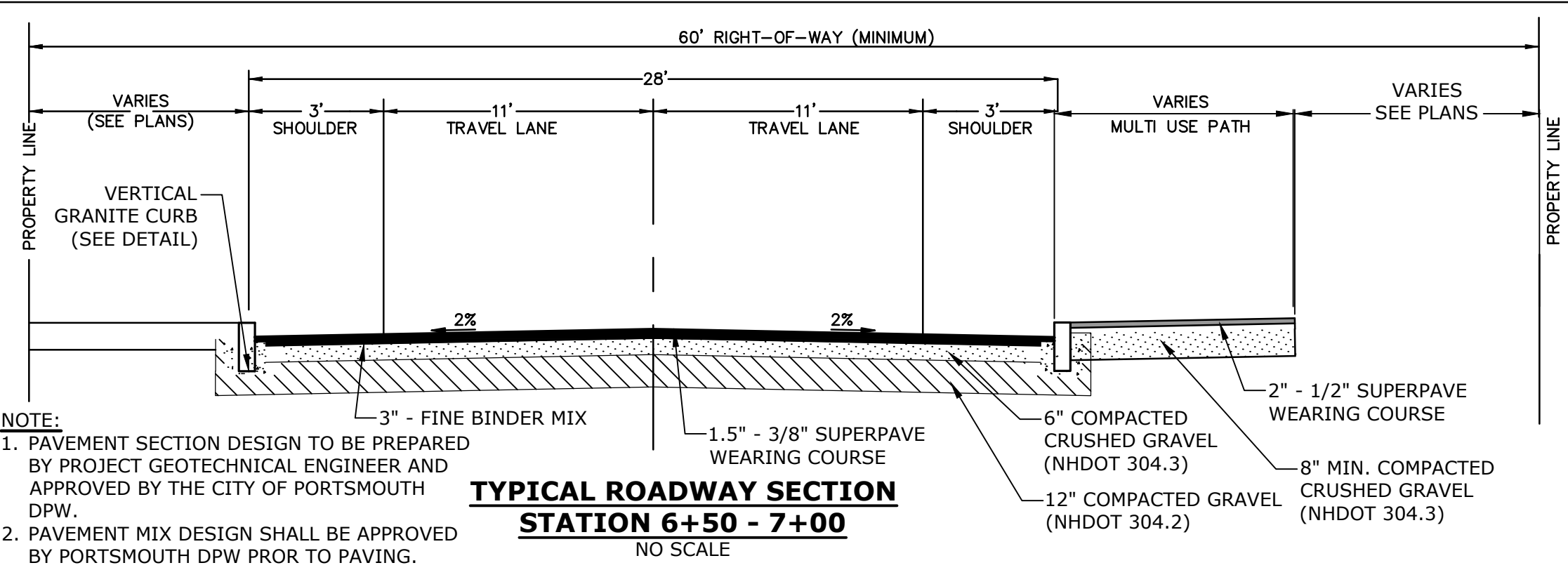
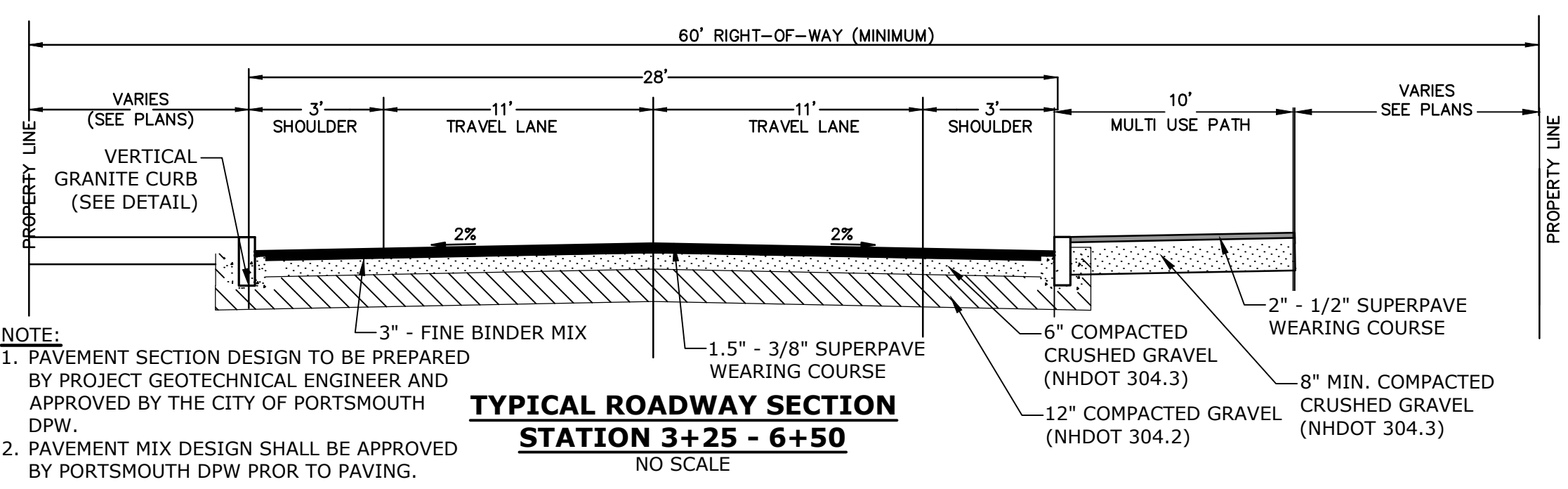
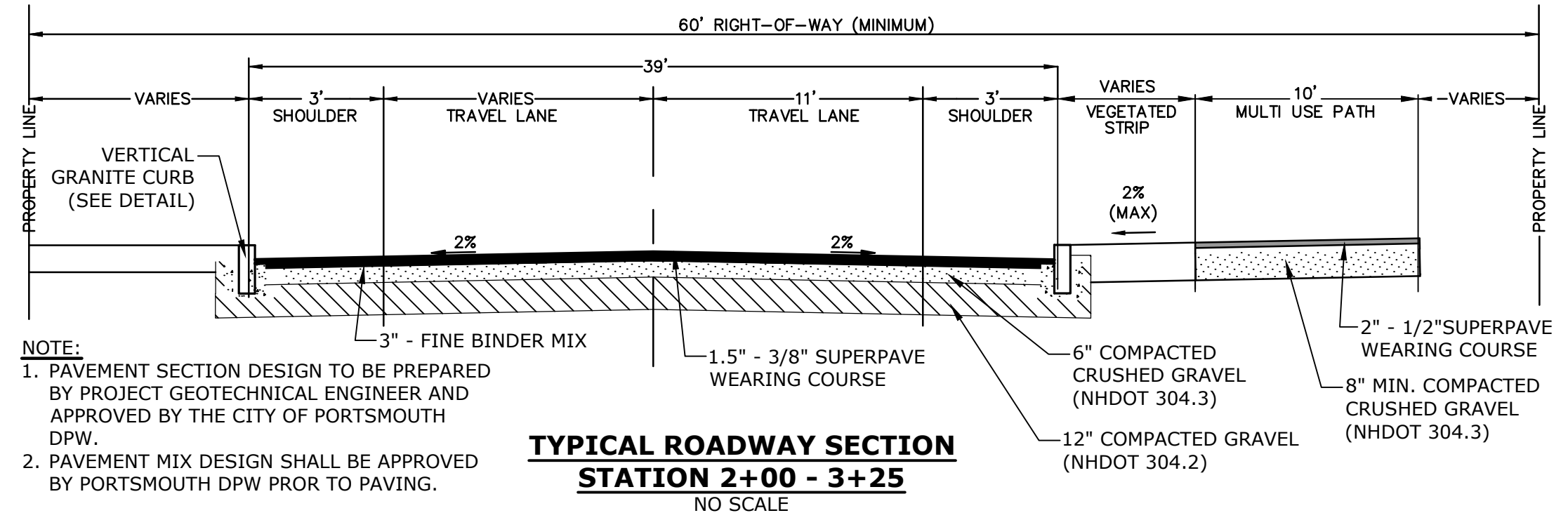
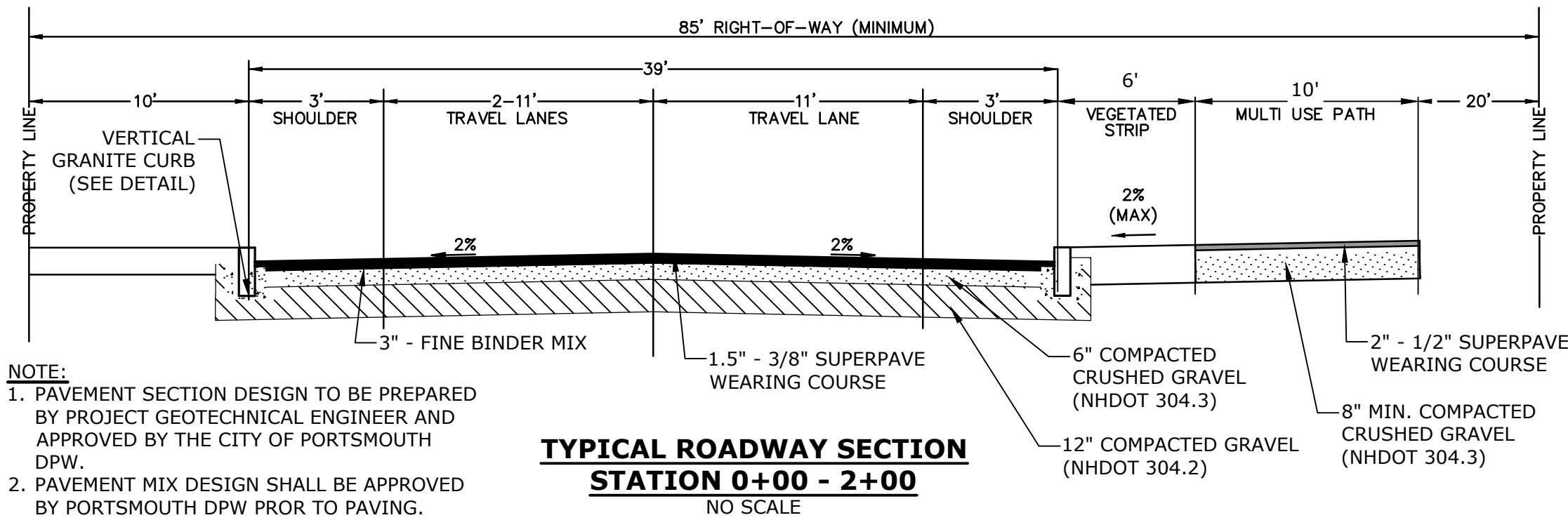
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DATE:	3/20/2017
FILE:	K0076-13_DTLS.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM

DETAILS SHEET

SCALE: AS SHOWN

C-502

Last Save Date: November 18, 2019 10:24 AM By: CML
Plot Date: Monday, November 18, 2019 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-503

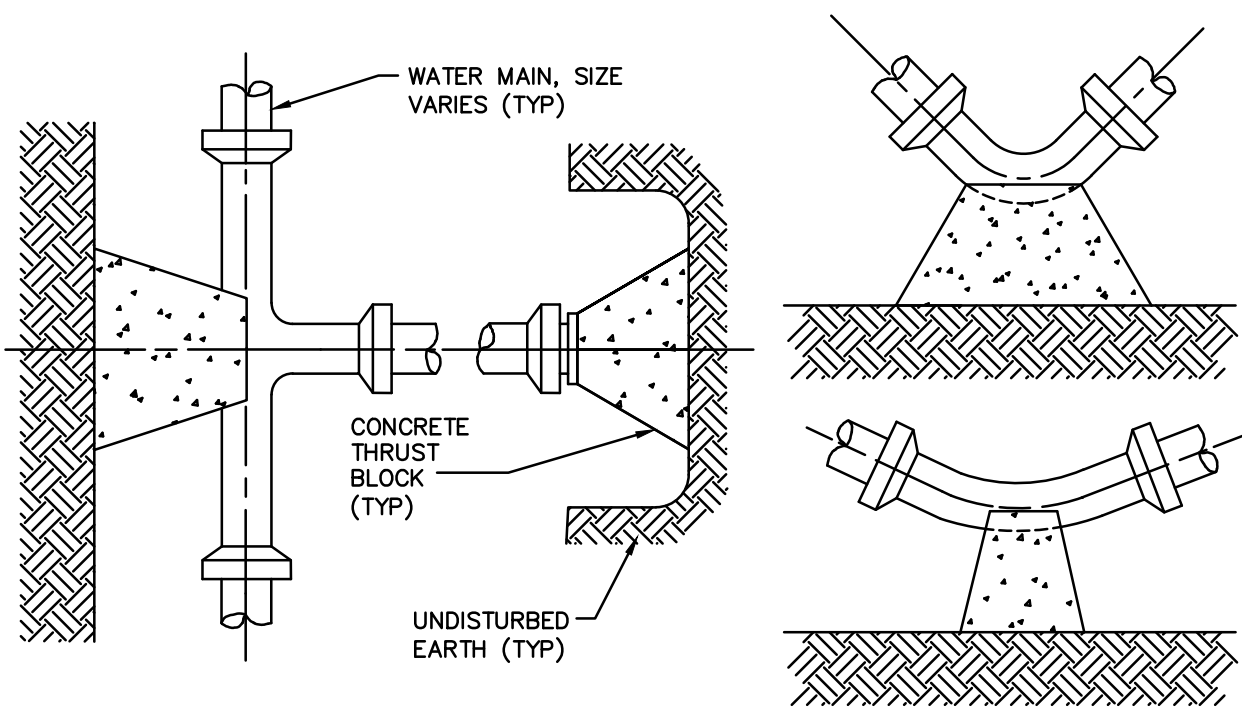


Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
M	11/18/2019	Amended Subdivision Approval
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CHECKED: PMC		
APPROVED: BLM		
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C-503		

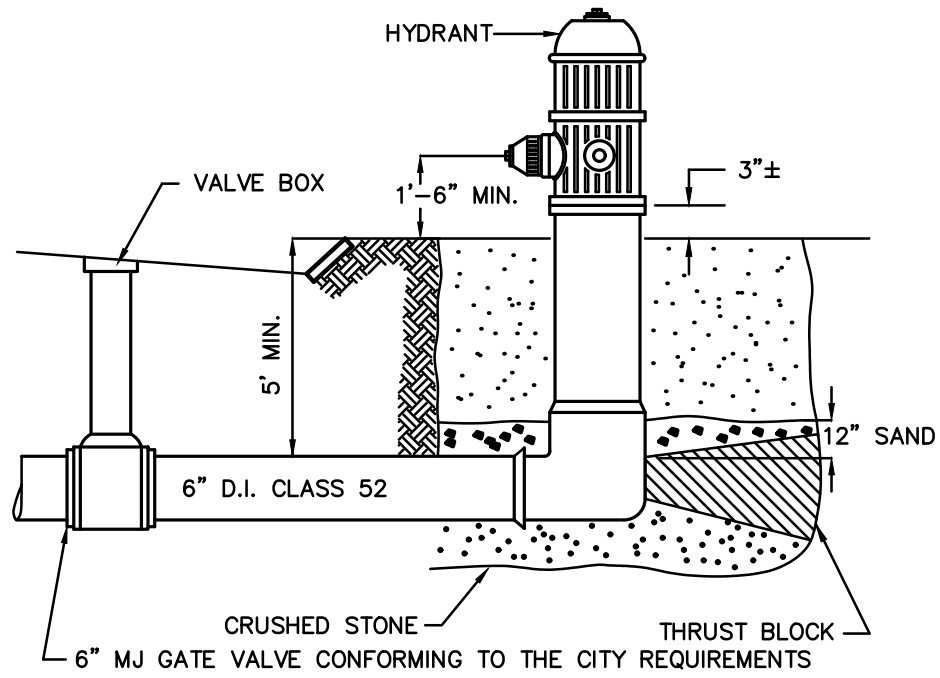


THRUST BLOCKING DETAIL
NOT TO SCALE

TEST PRESSURE = 200psi

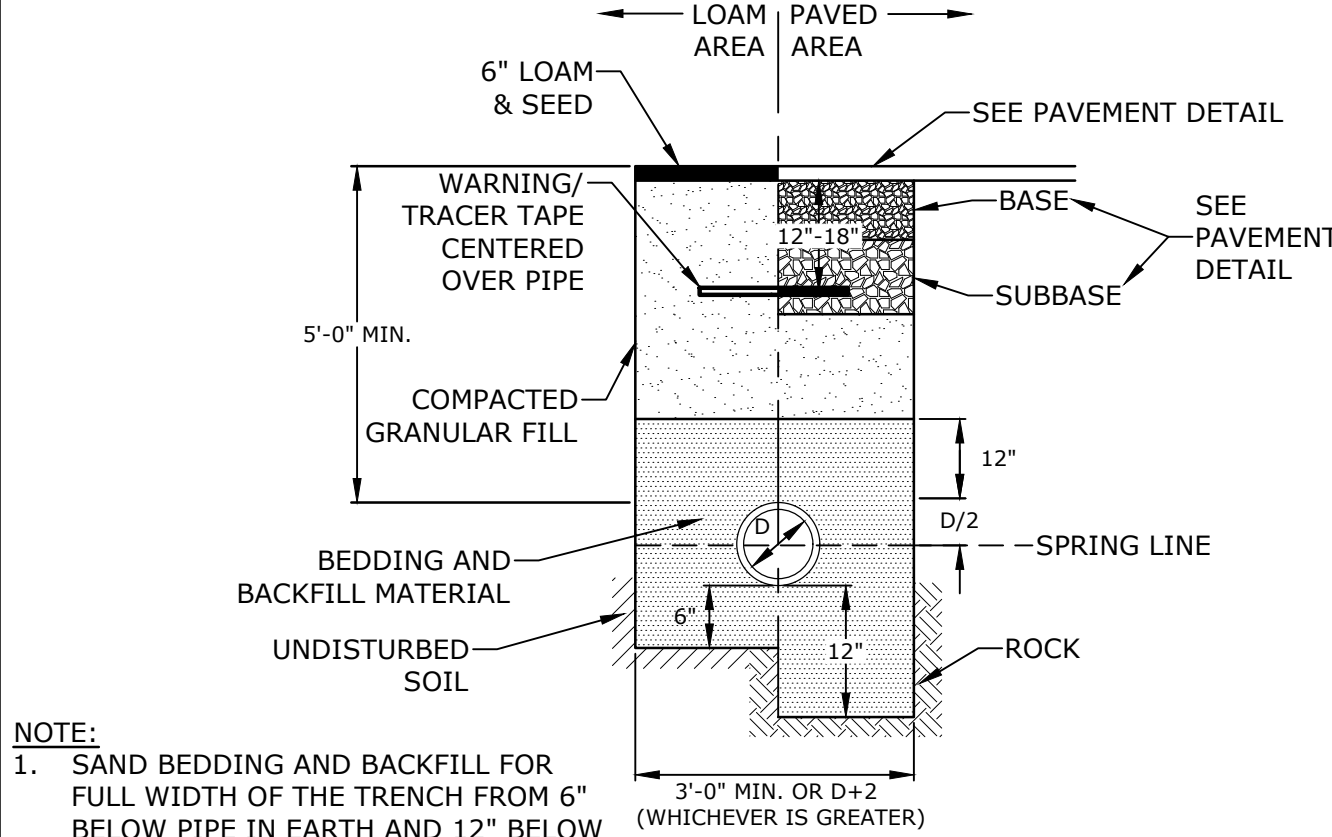
SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL						
REACTION TYPE	PIPE SIZE					
	4"	6"	8"	10"	12"	
A 90°	0.89	2.19	3.82	11.14	17.24	
B 180°	0.65	1.55	2.78	8.38	12.00	
C 45°	0.48	1.19	2.12	6.02	9.32	
D 22-1/2°	0.25	0.60	1.06	3.08	4.74	
E 11-1/4°	0.13	0.30	0.54	1.54	2.38	

- 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 BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
 3. PLACE BOARD 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.



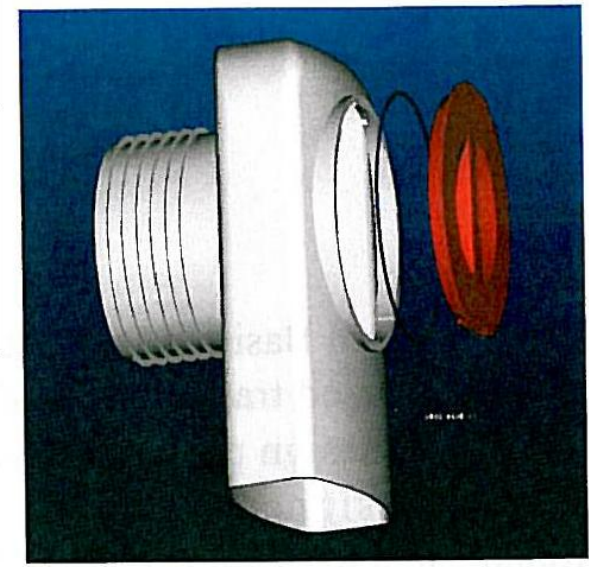
- NOTES:**
1. HYDRANT TO BE KENNEDY TYPE K-81, RIGHT OPEN (NO EQUAL). COORDINATE WITH CITY OF PORTSMOUTH WATER DEPARTMENT AND CITY OF PORTSMOUTH FIRE DEPARTMENT.
 2. PAINT HYDRANT IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS AFTER INSTALLATION.

FIRE HYDRANT DETAIL
NOT TO SCALE



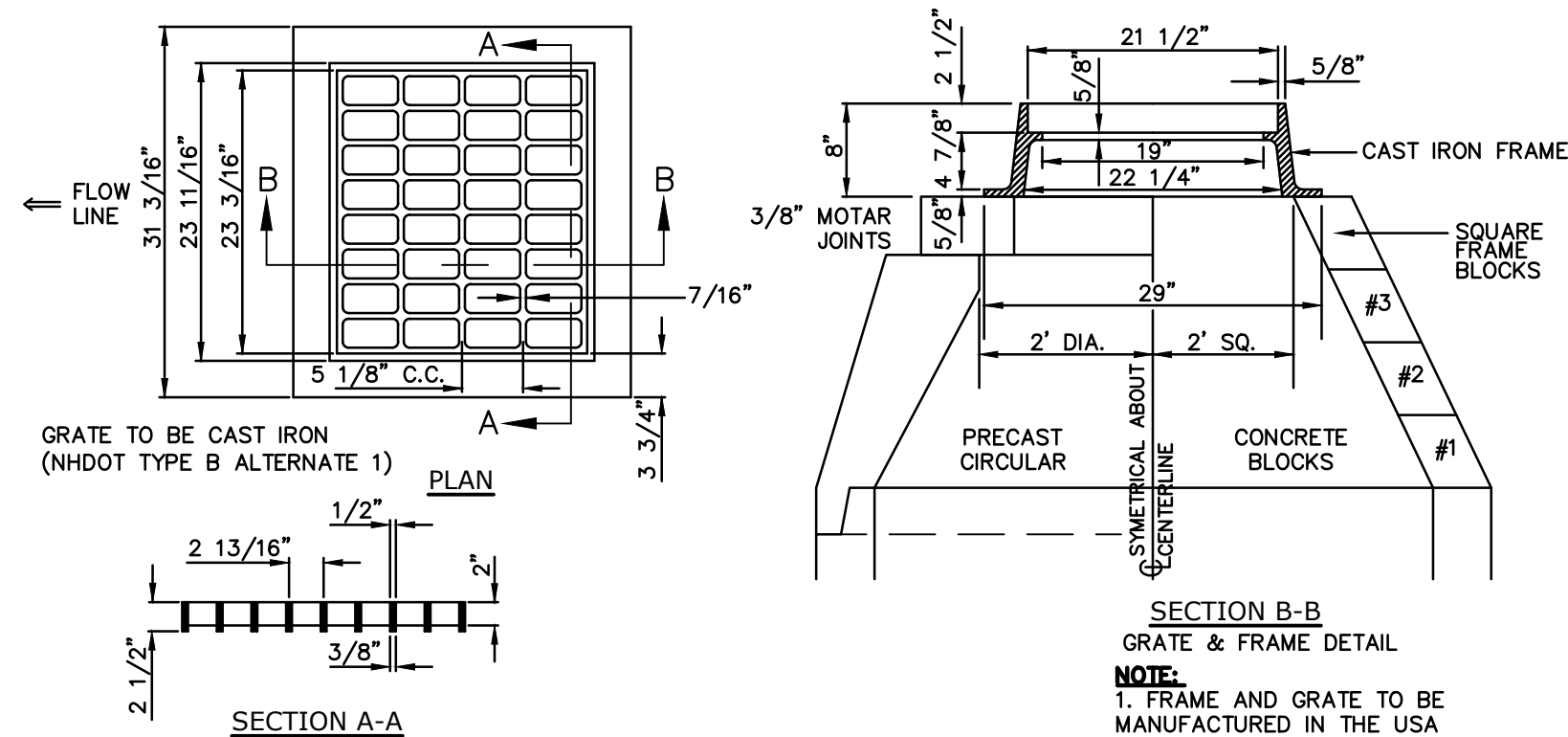
- NOTE:**
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
 2. WATER MAIN SHALL BE INSTALLED PER CITY OF PORTSMOUTH STANDARDS. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

WATER TRENCH
NO SCALE

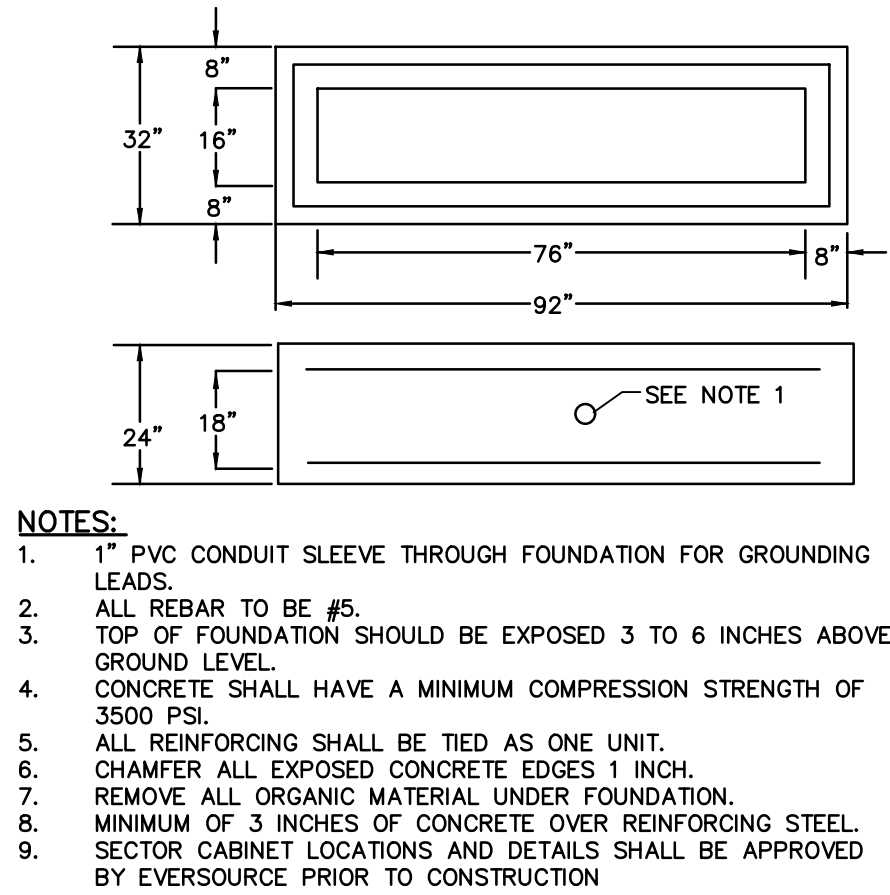


- NOTES:**
1. ALL CATCH BASIN OUTLETS WITHIN CITY OF PORTSMOUTH RIGHT OF WAY TO HAVE "ELIMINATOR" OIL AND FLOATING DEBRIS TRAP MANUFACTURED BY KLEANSTREAM (NO EQUAL)

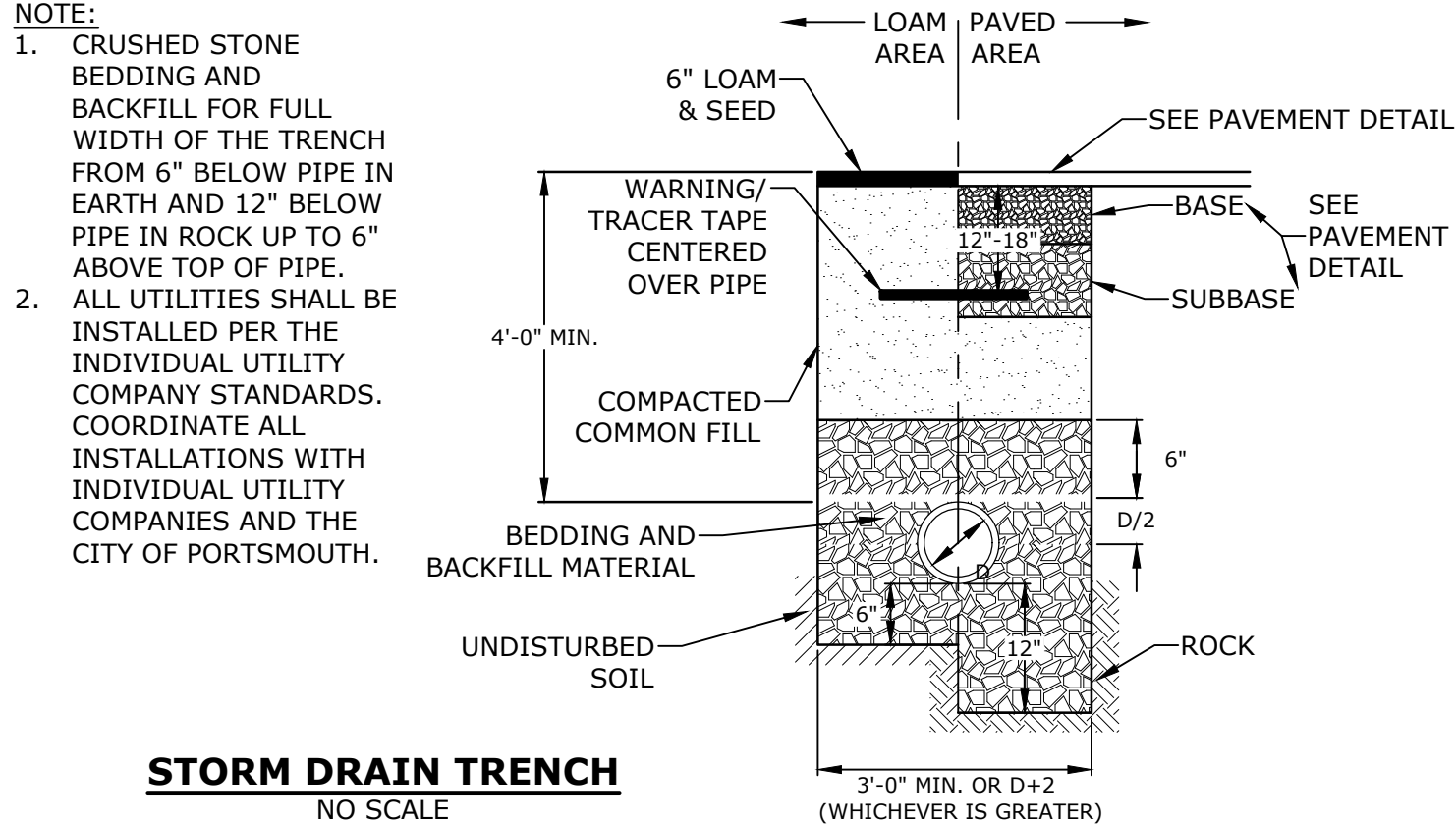
"ELIMINATOR" OIL & FLOATING DEBRIS TRAP
NOT TO SCALE



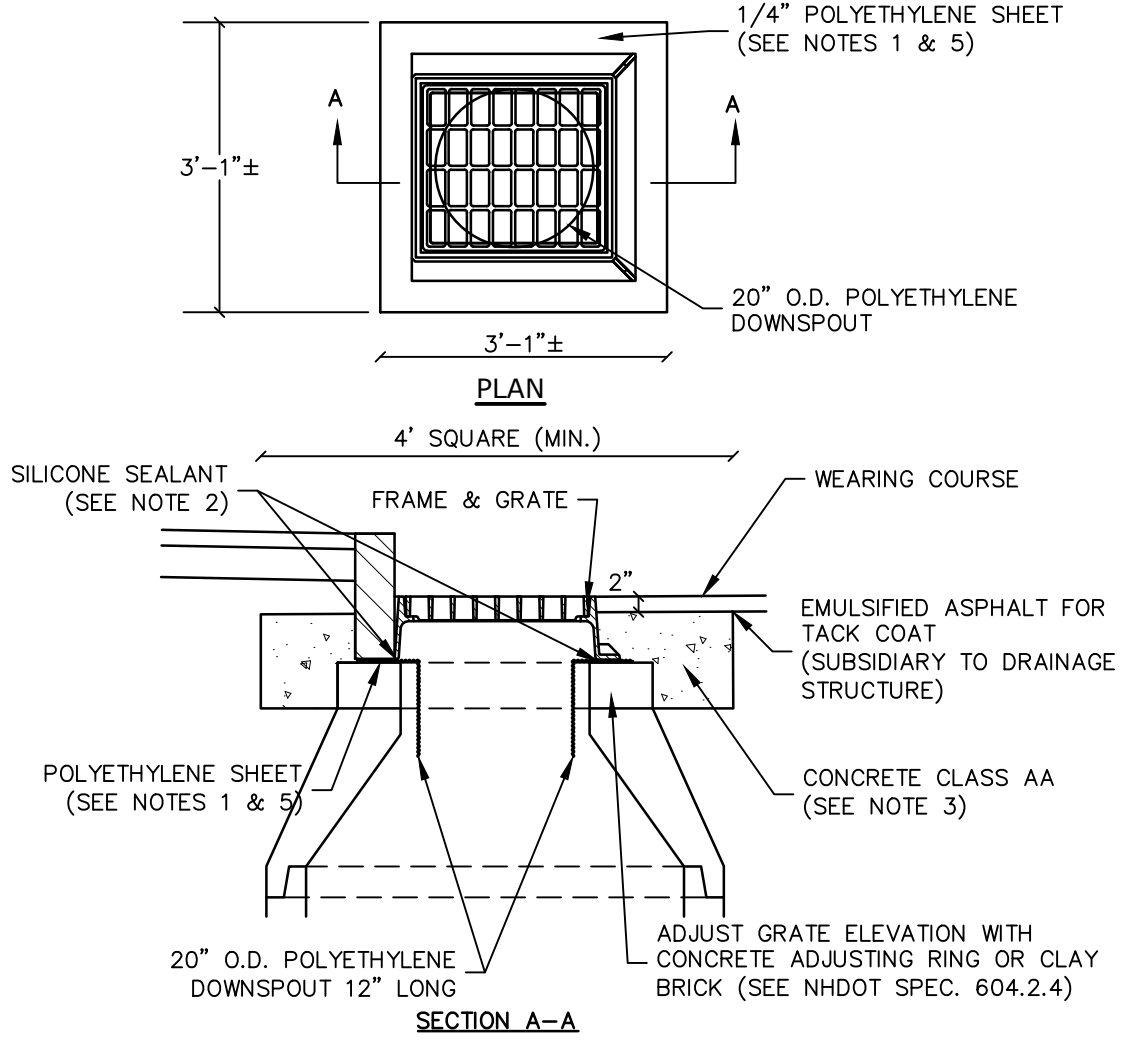
CATCHBASIN FRAME & GRATE
NOT TO SCALE



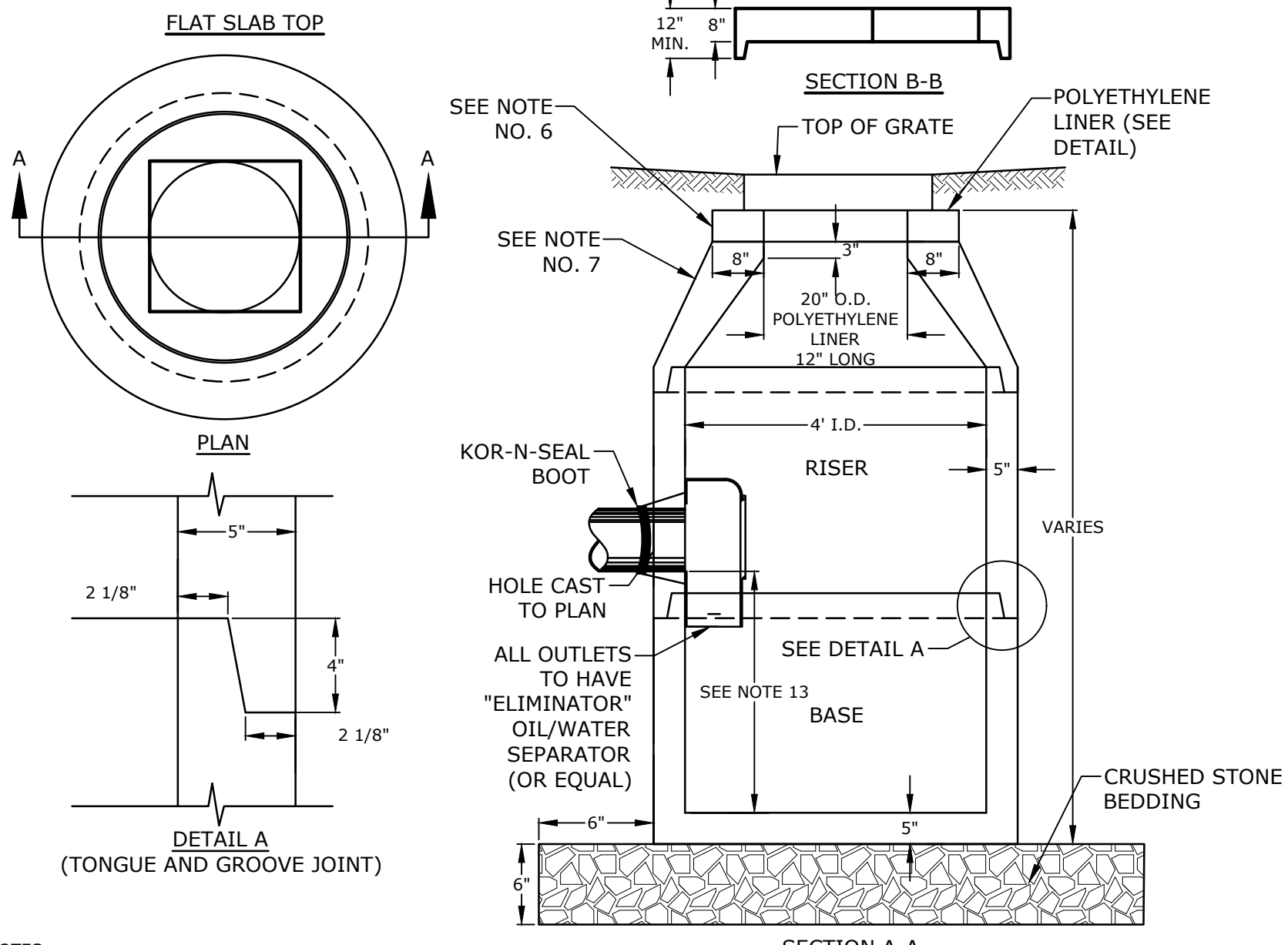
TYPICAL THREE PHASE SECTOR CABINET FOUNDATION DETAIL
NOT TO SCALE



STORM DRAIN TRENCH
NO SCALE

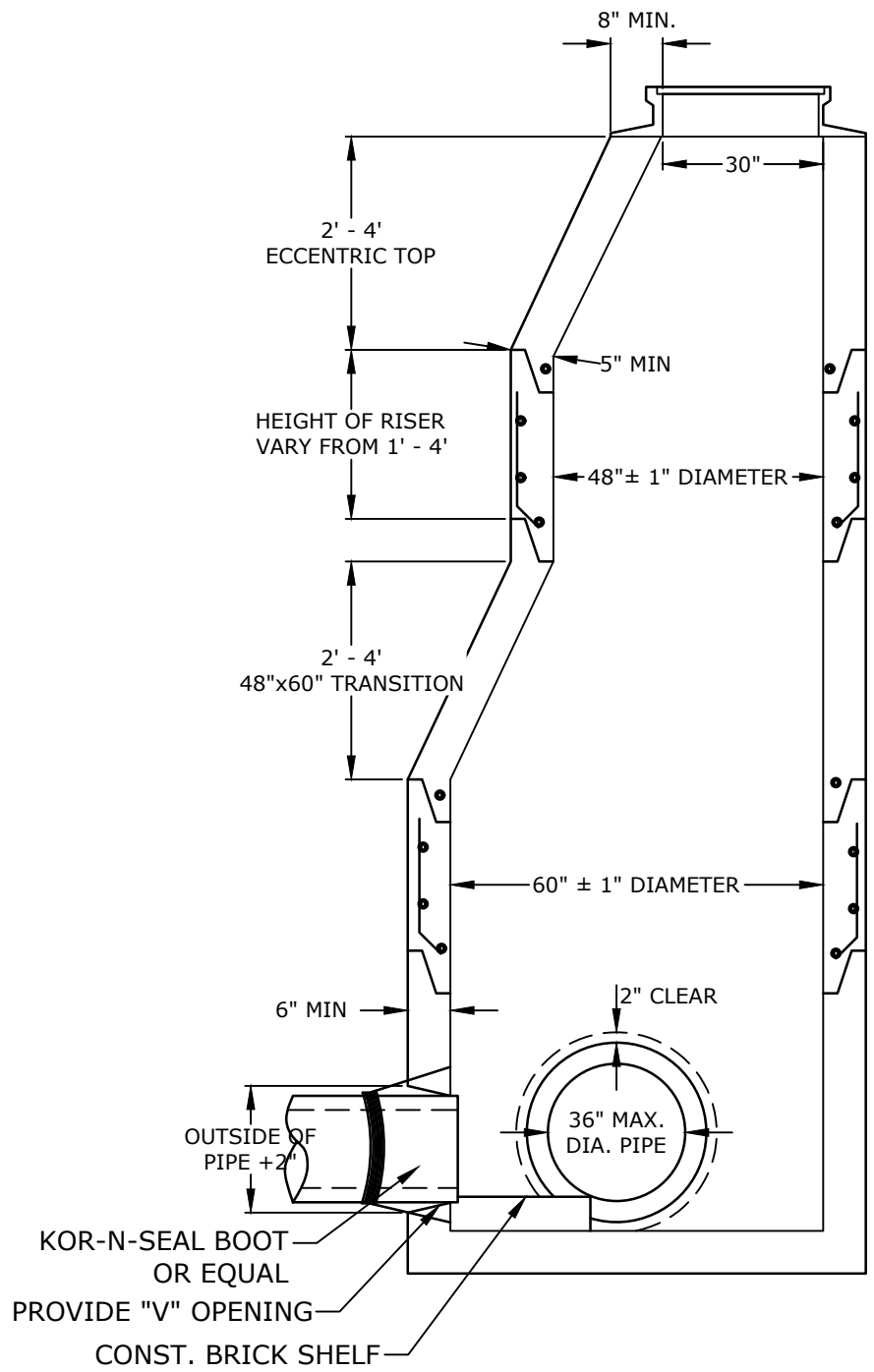


POLYETHYLENE LINER
NO SCALE

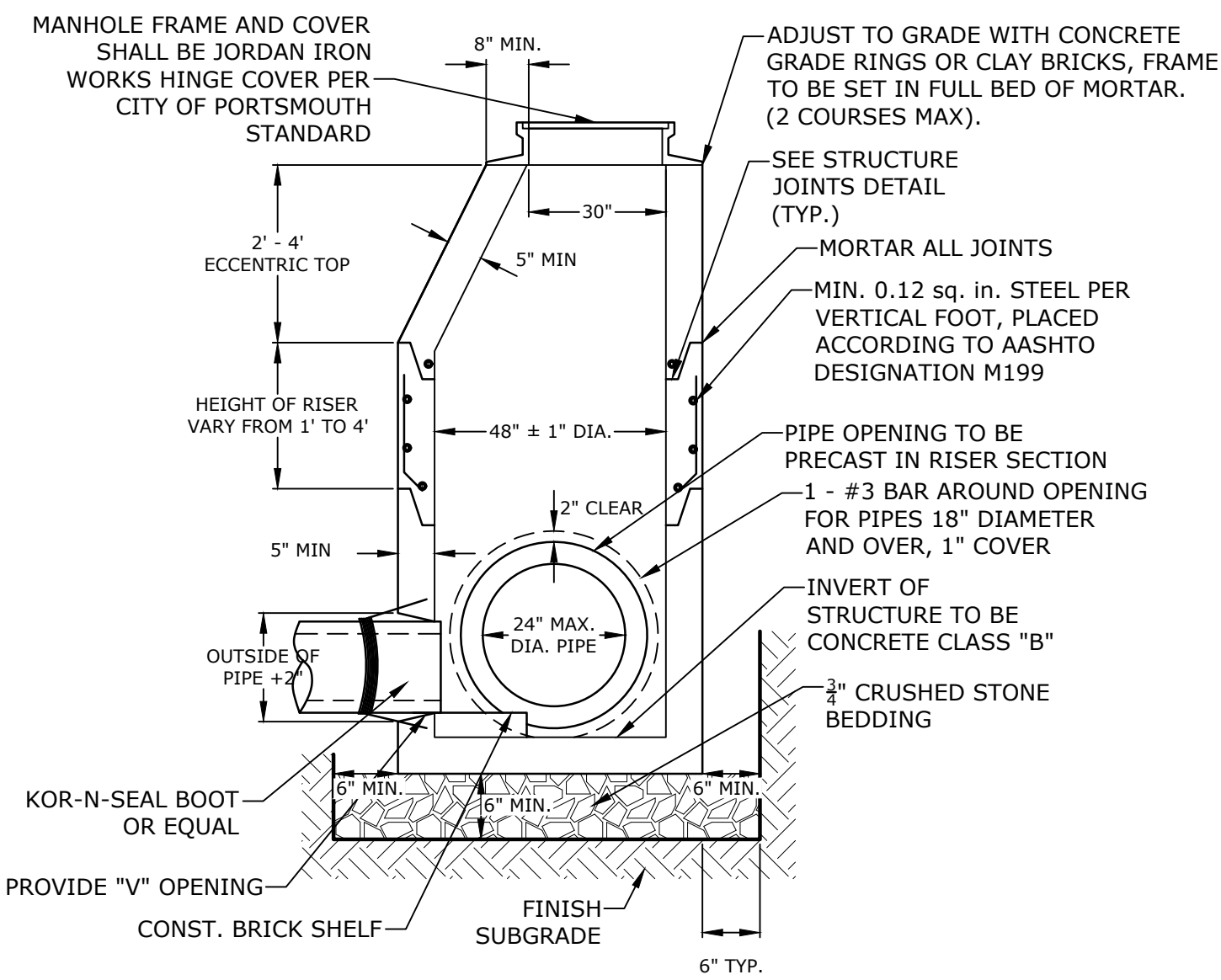


- NOTES:**
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 psi).
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ.IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
 4. RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
 5. THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 6. FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
 7. CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
 8. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 9. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
 10. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
 11. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
 12. "ELIMINATOR" OIL/WATER SEPARATOR SHALL BE INSTALLED TIGHT TO INSIDE OF CATCHBASINS WITHIN THE FUTURE CITY OF PORTSMOUTH RIGHT OF WAY.
 13. SUMP FOR CATCH BASINS WITHIN THE FUTURE CITY OF PORTSMOUTH RIGHT OF WAY SHALL BE 4'. THERE SHALL BE NO SUMPS FOR CATCH BASINS ON SITE

4' DIAMETER CATCHBASIN
NO SCALE



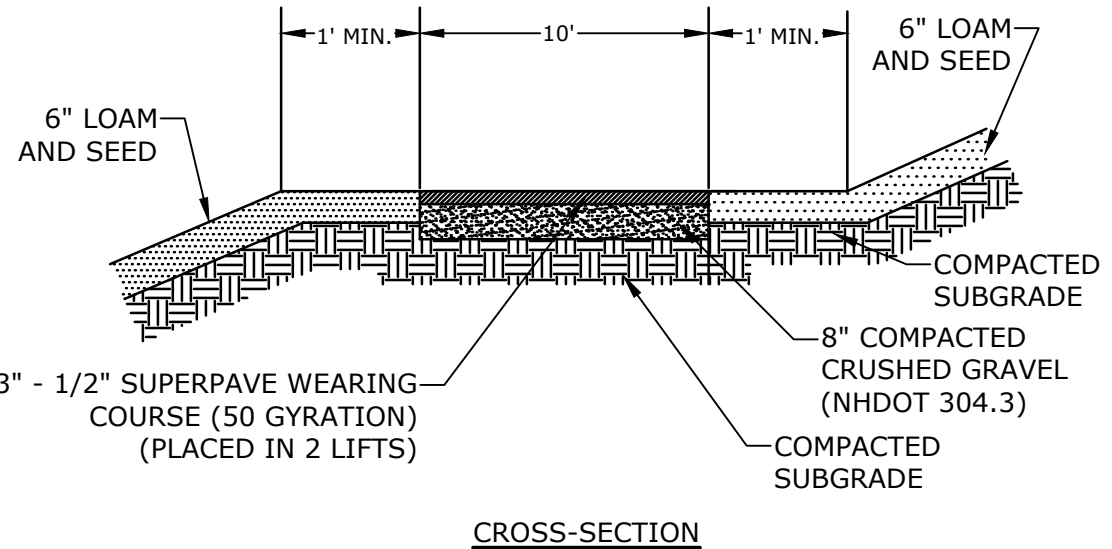
5' DIAMETER DRAIN MANHOLE
NO SCALE



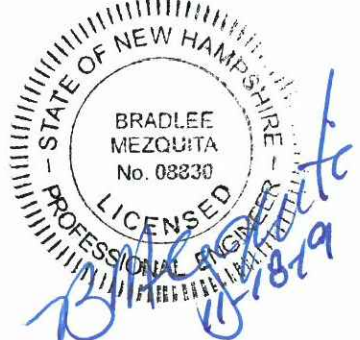
4' DIAMETER DRAIN MANHOLE
NO SCALE

- NOTES:**
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE AND 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 H2O LOADING.
 5. CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6" MINIMUM THICKNESS) THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
 6. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 7. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
 8. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
 9. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
 10. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

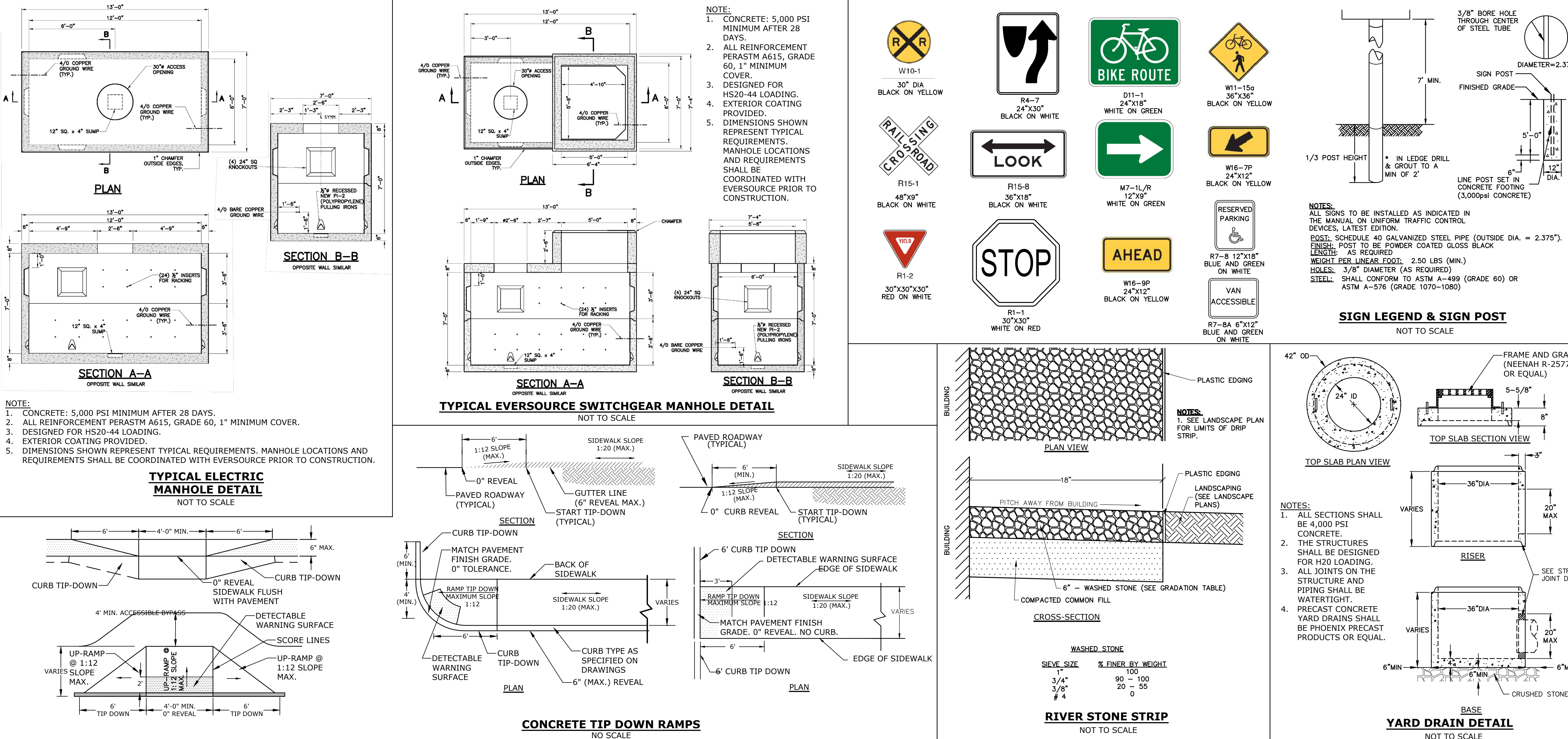
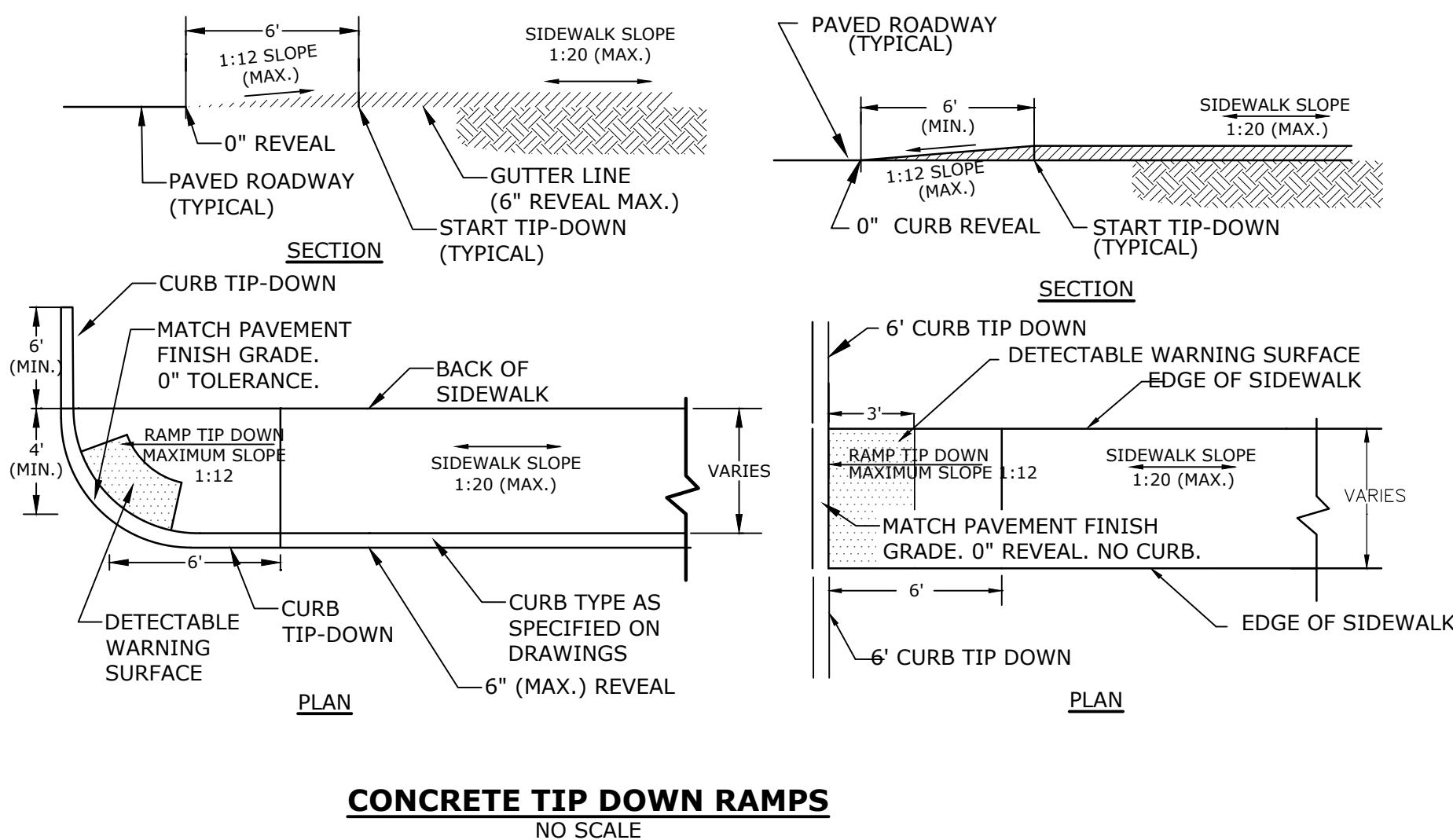
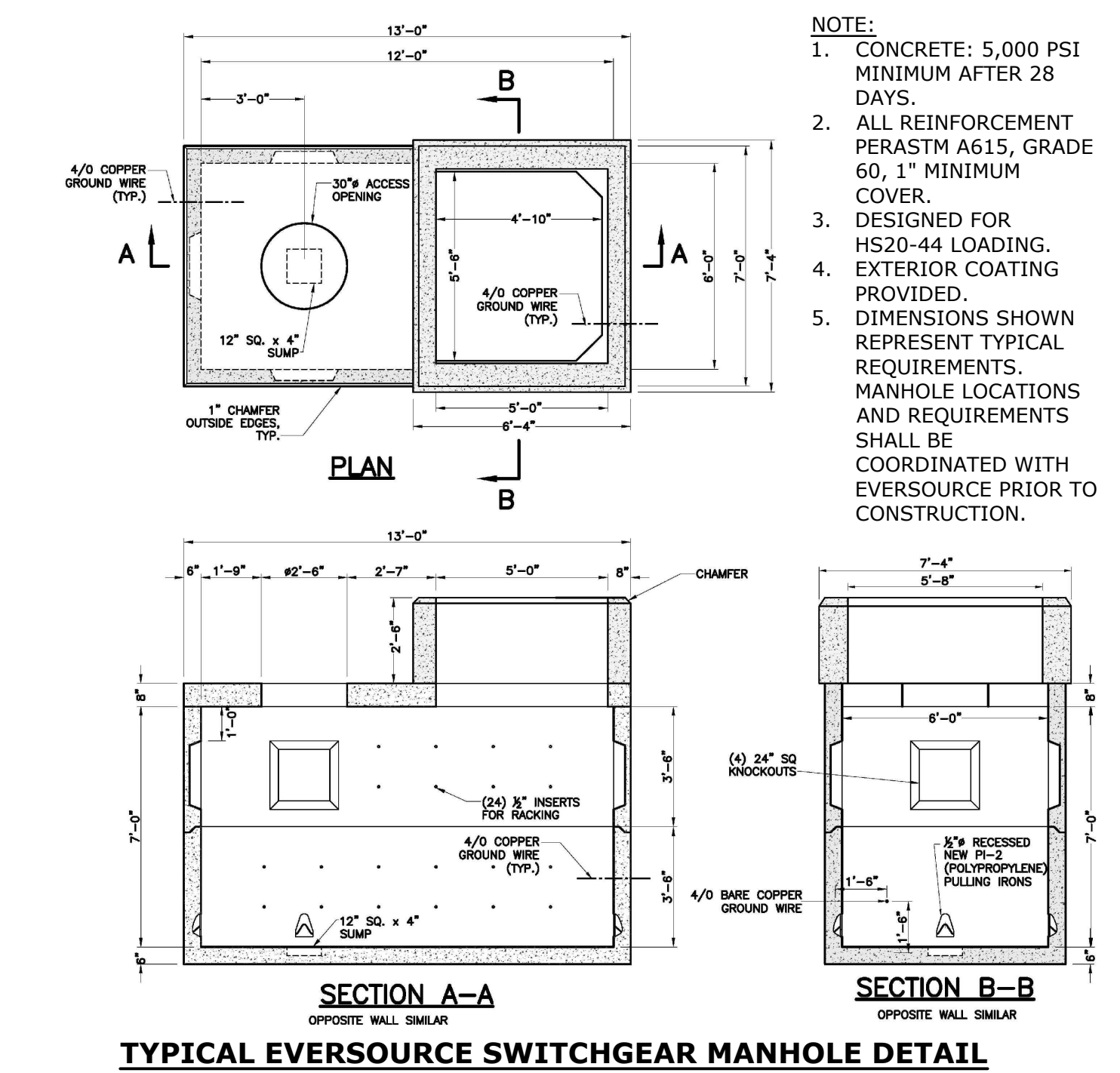
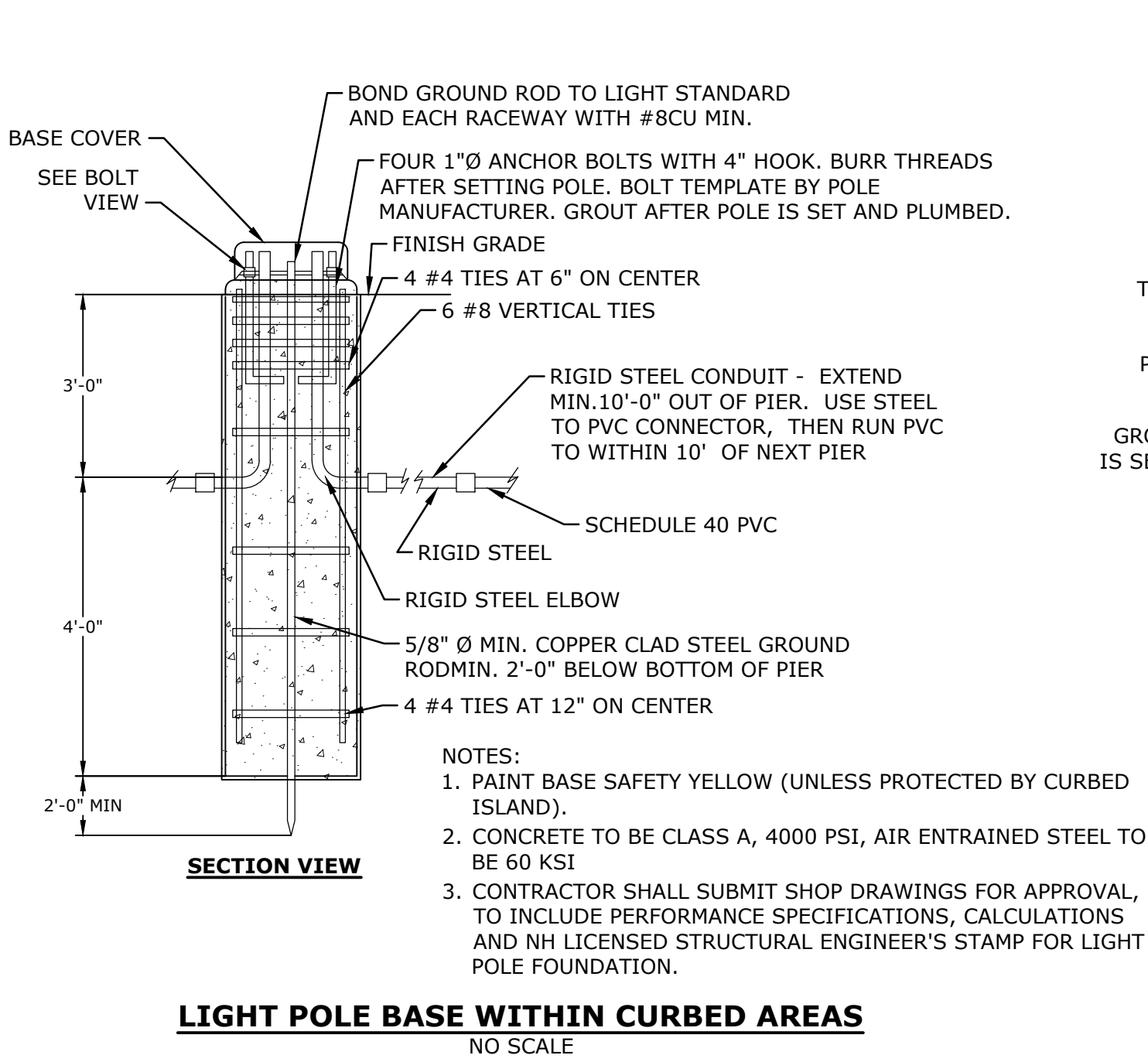
DRAIN MANHOLE
NO SCALE



MULTI-USE PATH
NOT TO SCALE

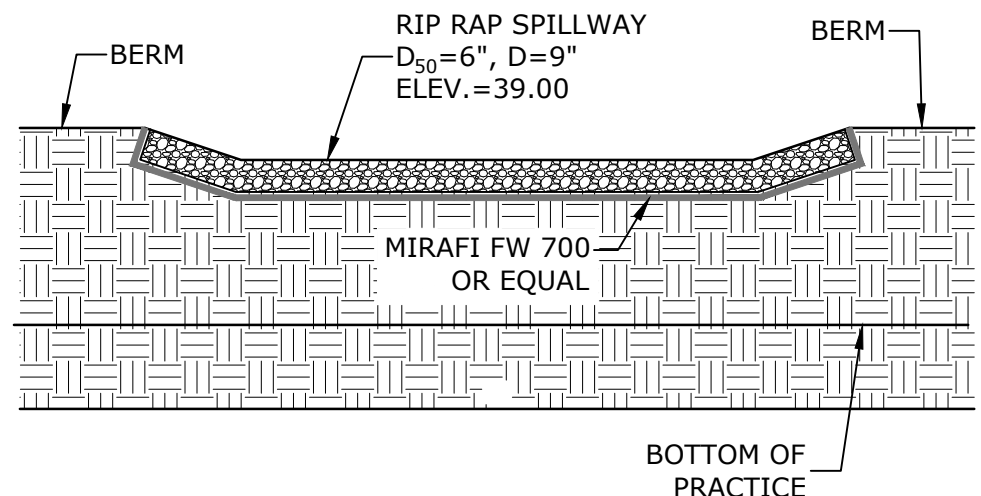


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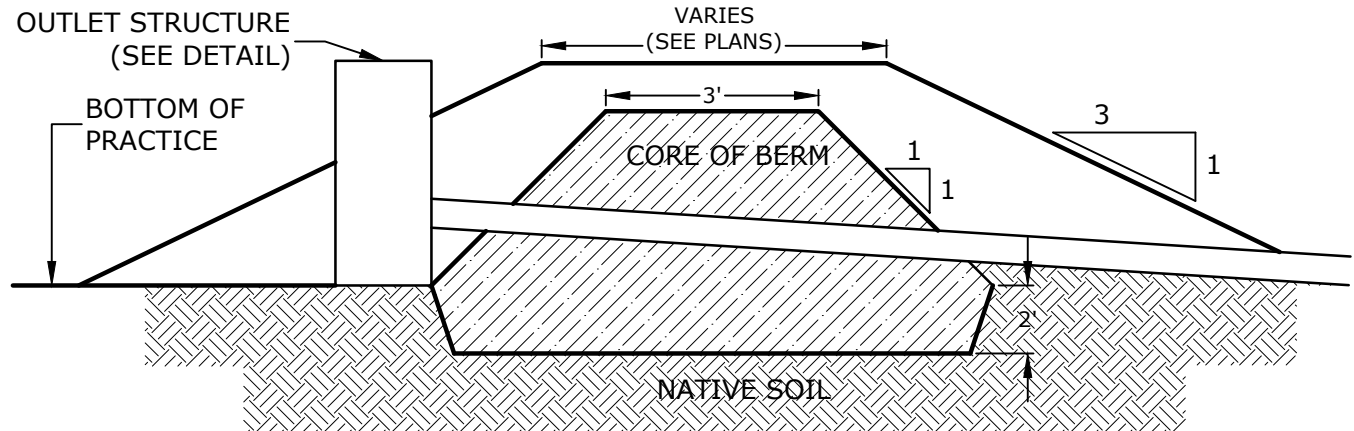
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Last Save Date: March 25, 2019 11:13 AM By: CML
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NOTES:
1. SEE GRADING & DRAINAGE PLAN(S) FOR LOCATION(S) AND DIMENSIONS.

RIP RAP SPILLWAY NO SCALE

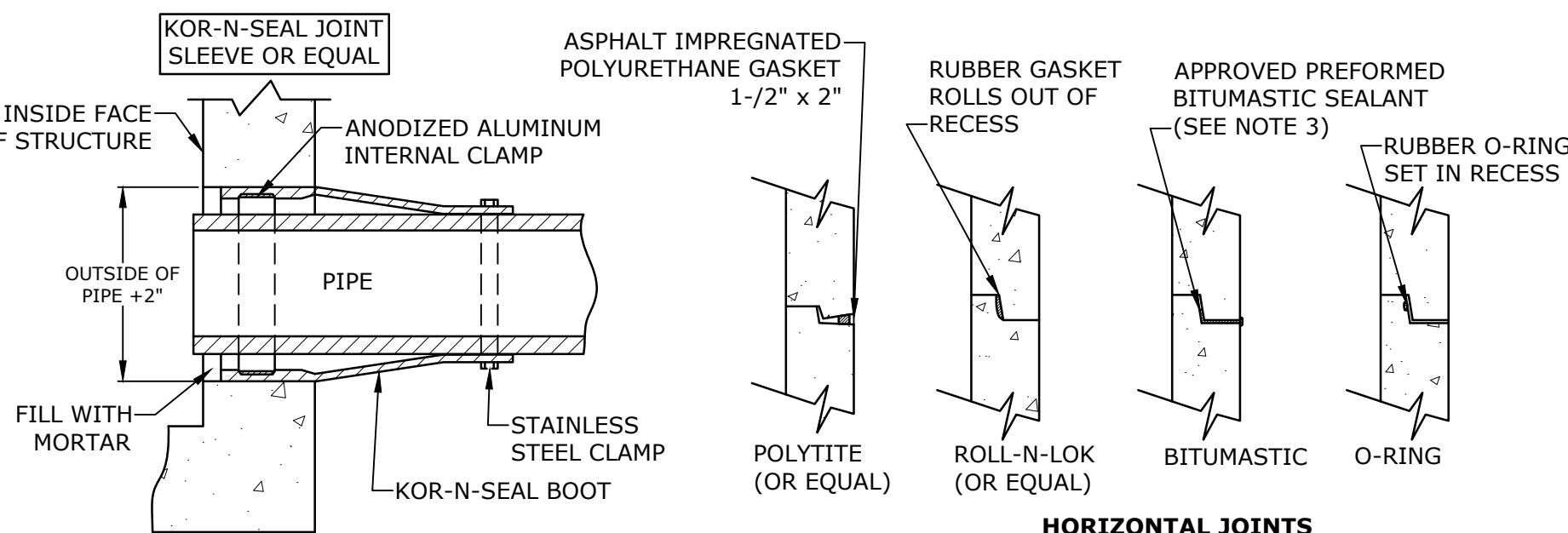


NOTES:
1. CORE MATERIAL SHALL MEET USGS CLASSIFICATION SC, SM, CL OR ML AND HAVE A MAXIMUM PARTICLE SIZE OF 3" AND A PERMEABILITY LESS THAN 0.000005 CM/S, AND MEET THE FOLLOWING GRADATION:

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

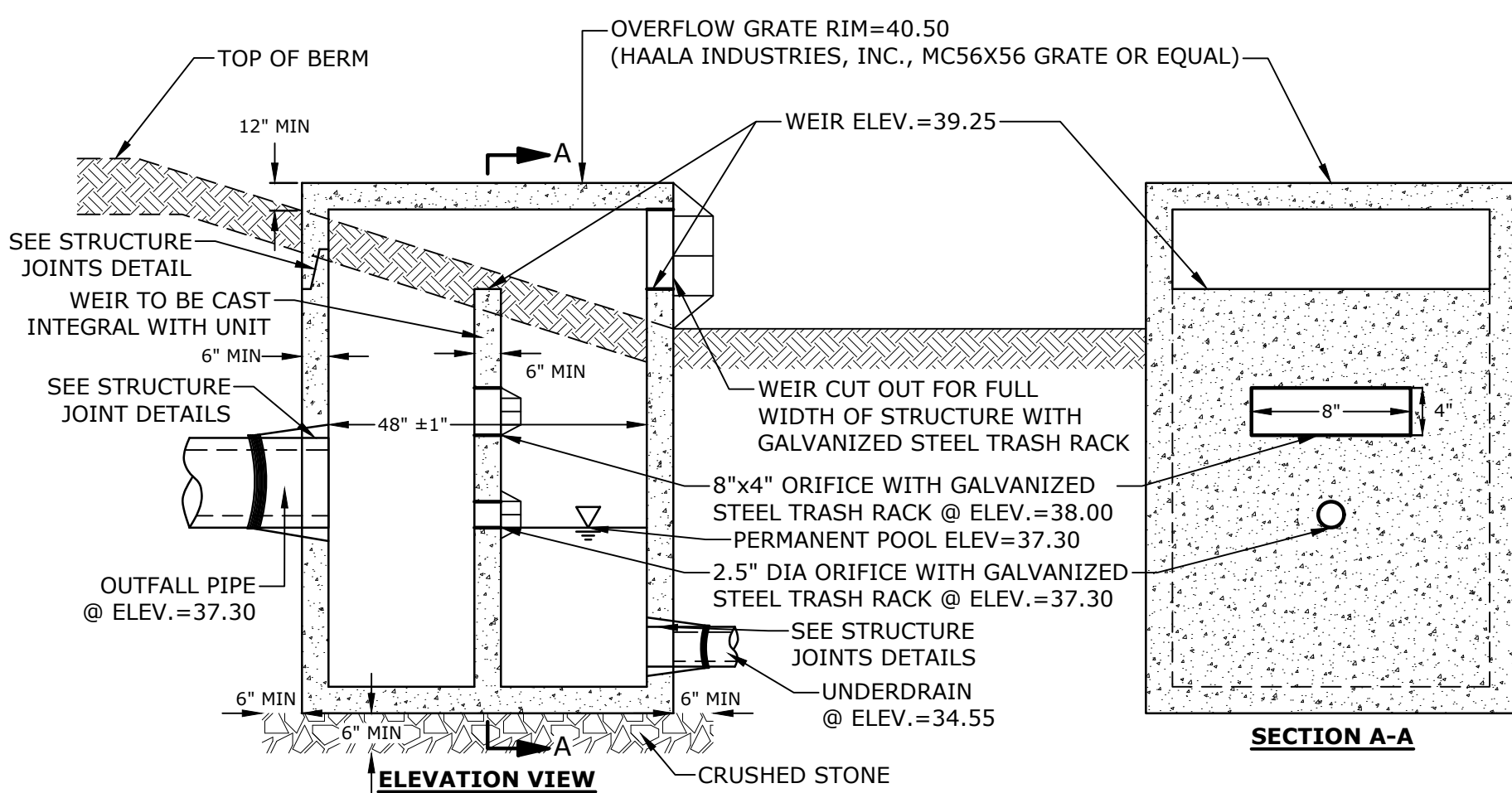
2. PIPE SHALL BE FULLY EMBEDDED IN CORE TO ELIMINATE SEEPAGE

CLAY CORE BERM NO SCALE



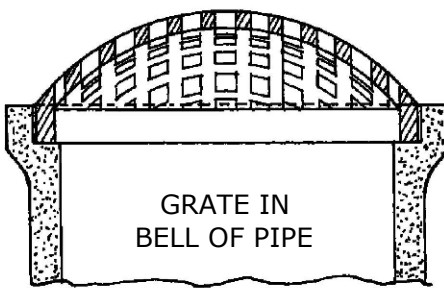
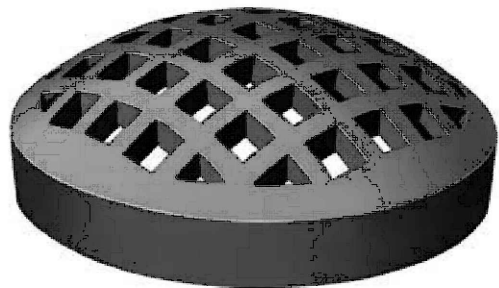
NOTES:
1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.
2. PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.
3. FOR BITUMASTIC 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



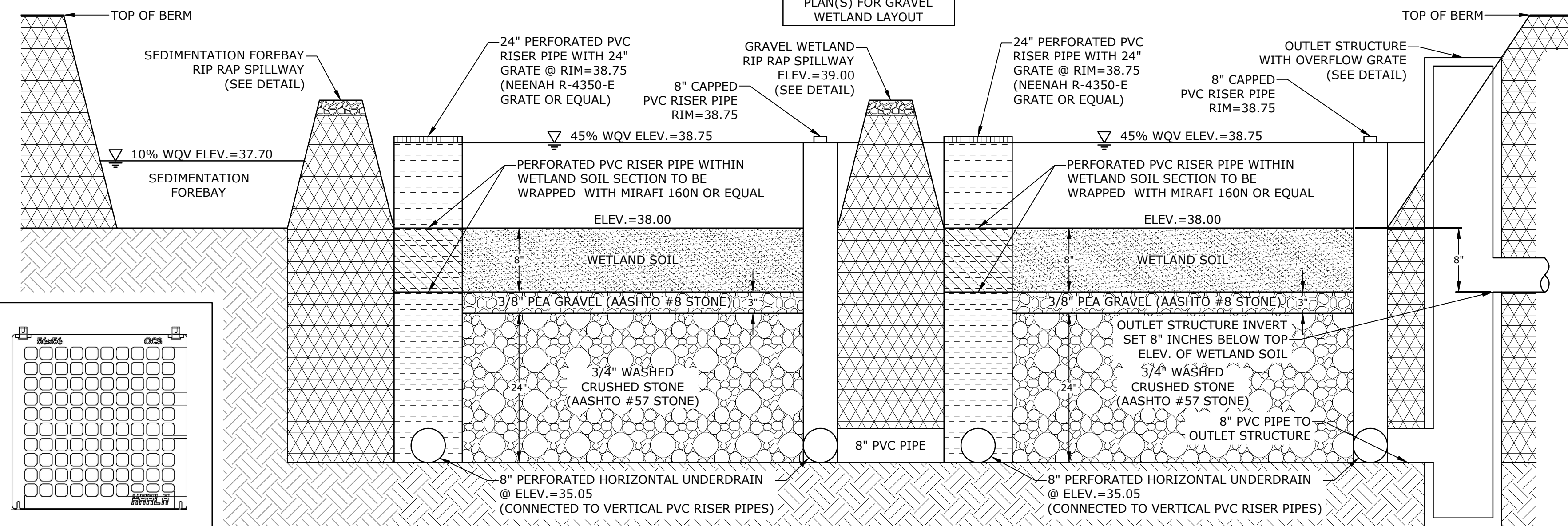
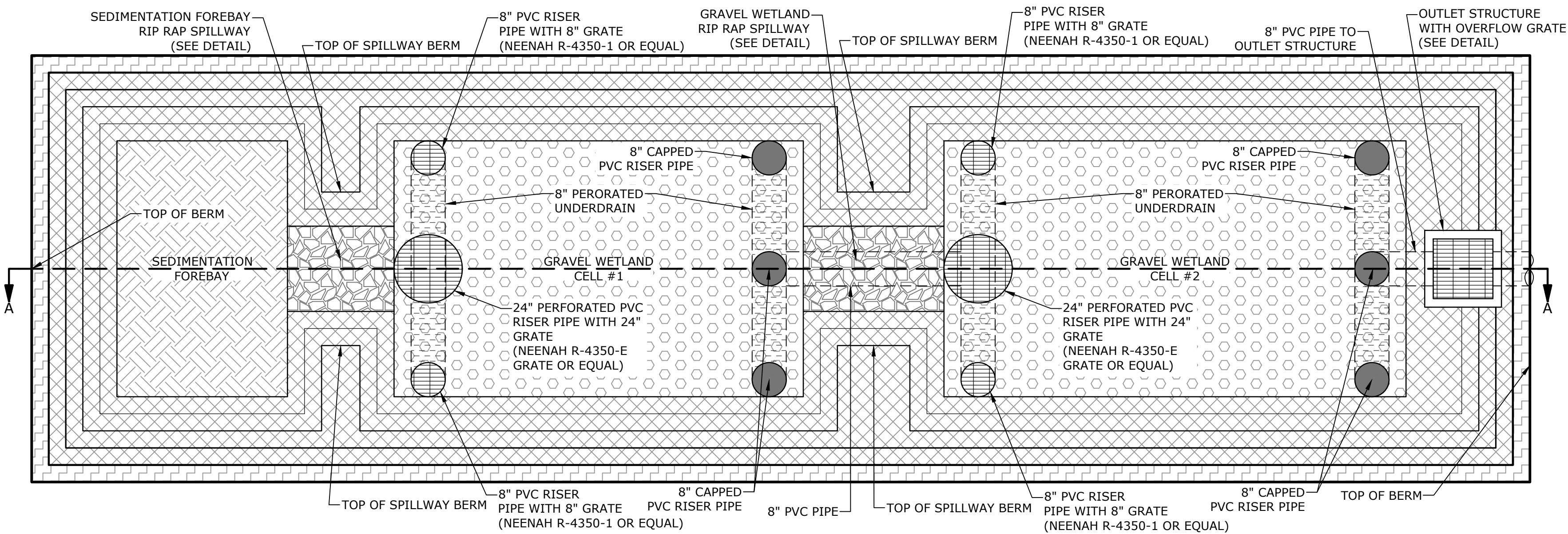
NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE (TYPE II CEMENT).
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE THIRD WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
4. THE STRUCTURES SHALL BE DESIGNED FOR H2O 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 AMOMMUM		
AND	2'-3'	8'-10' ON CENTER
"HIGHBUSH BLUEBERRY" VACCINIUM CORYBOSSUSUM		

Tighe&Bond
Engineers | Environmental Specialists



Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth,
New Hampshire

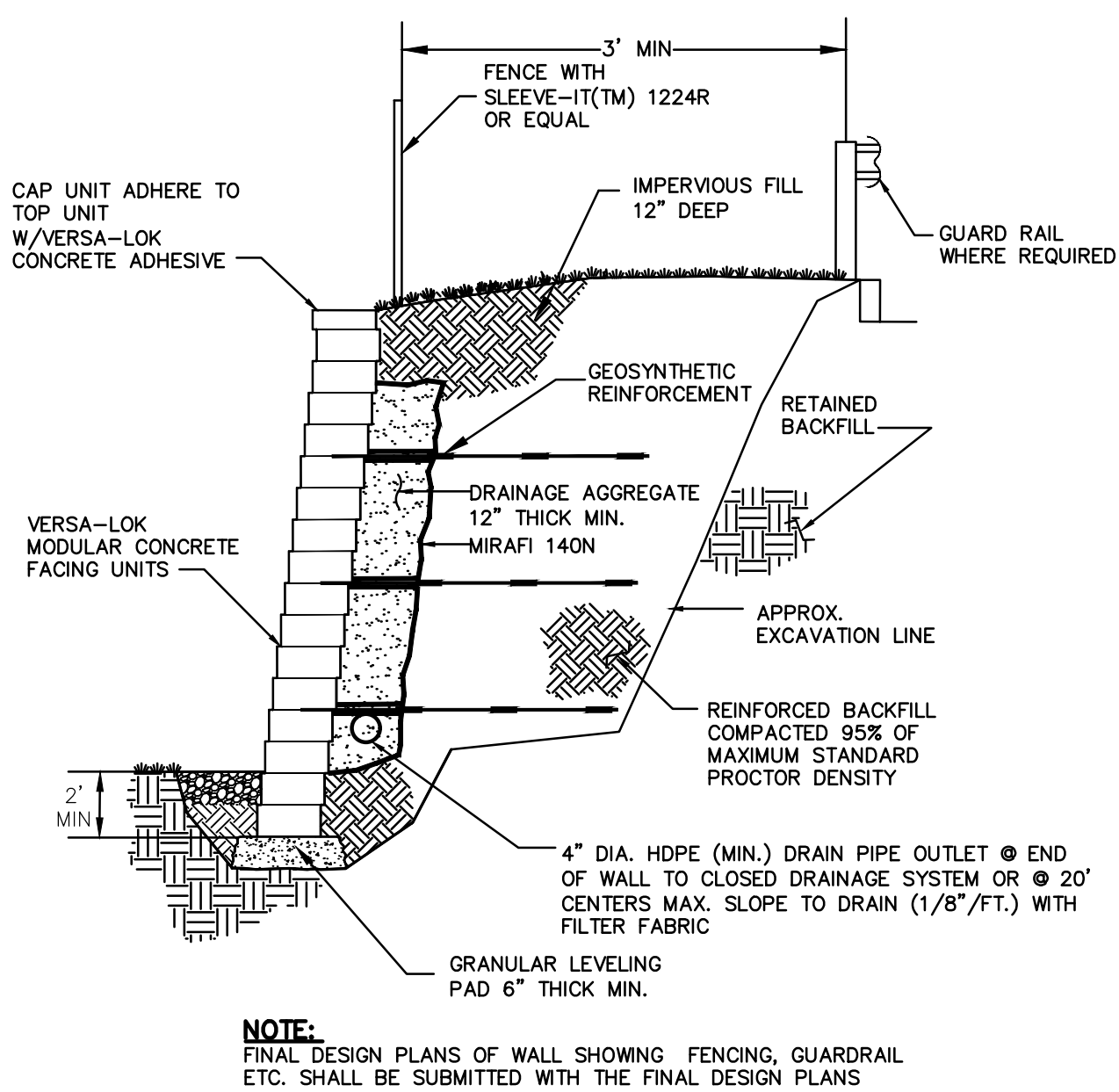
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DETAILS SHEET

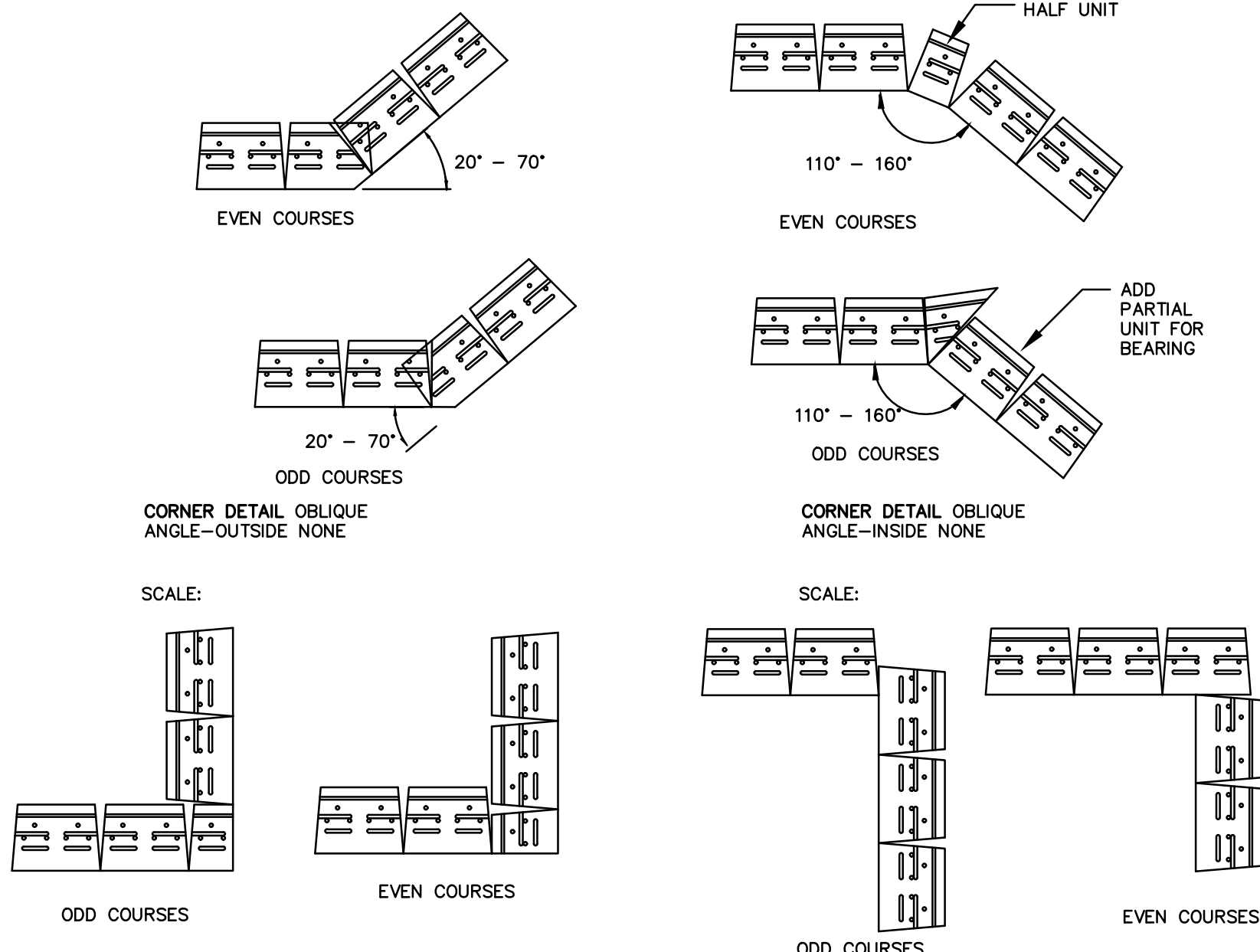
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TYPICAL SECTION REINFORCED RETAINING WALL
NOT TO SCALE



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.

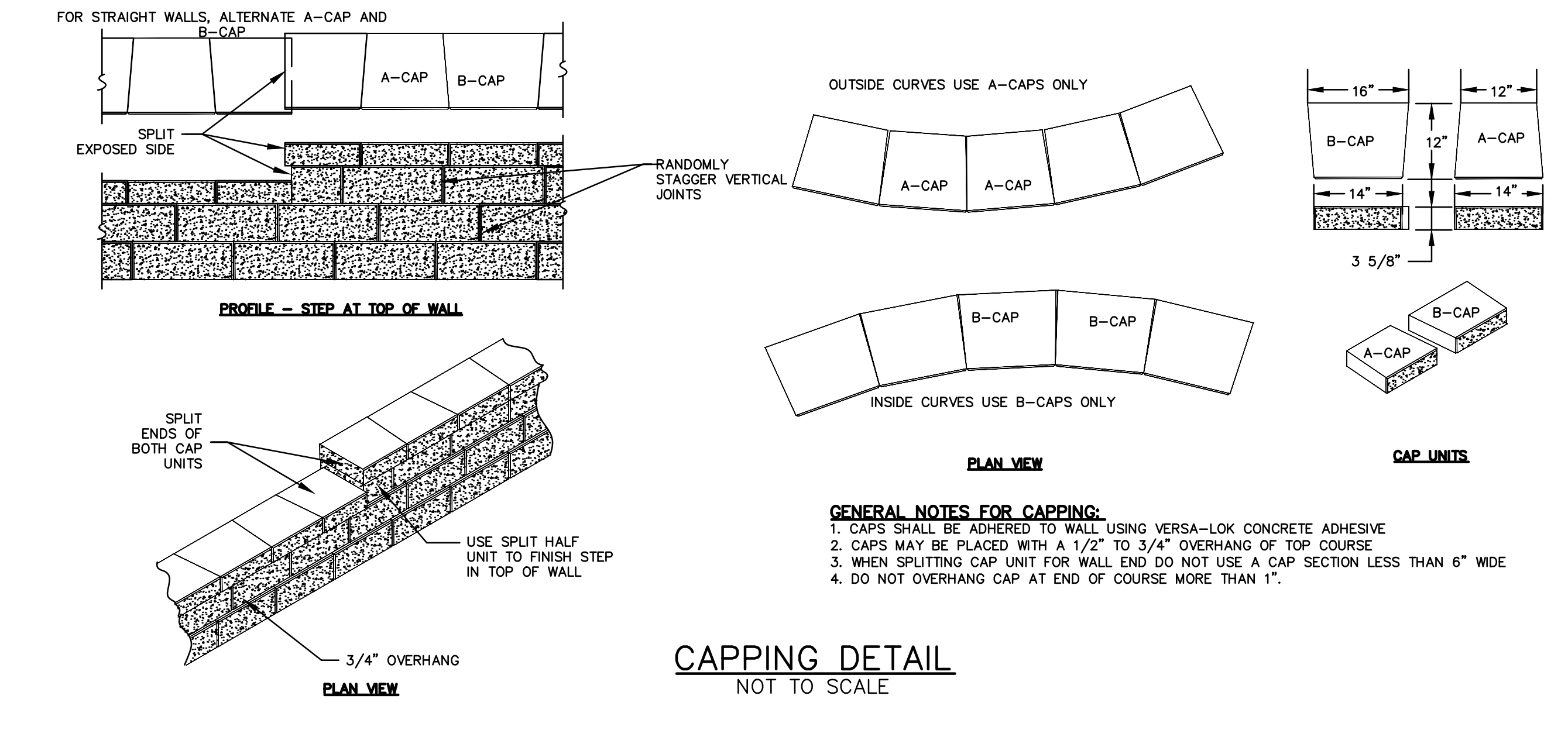
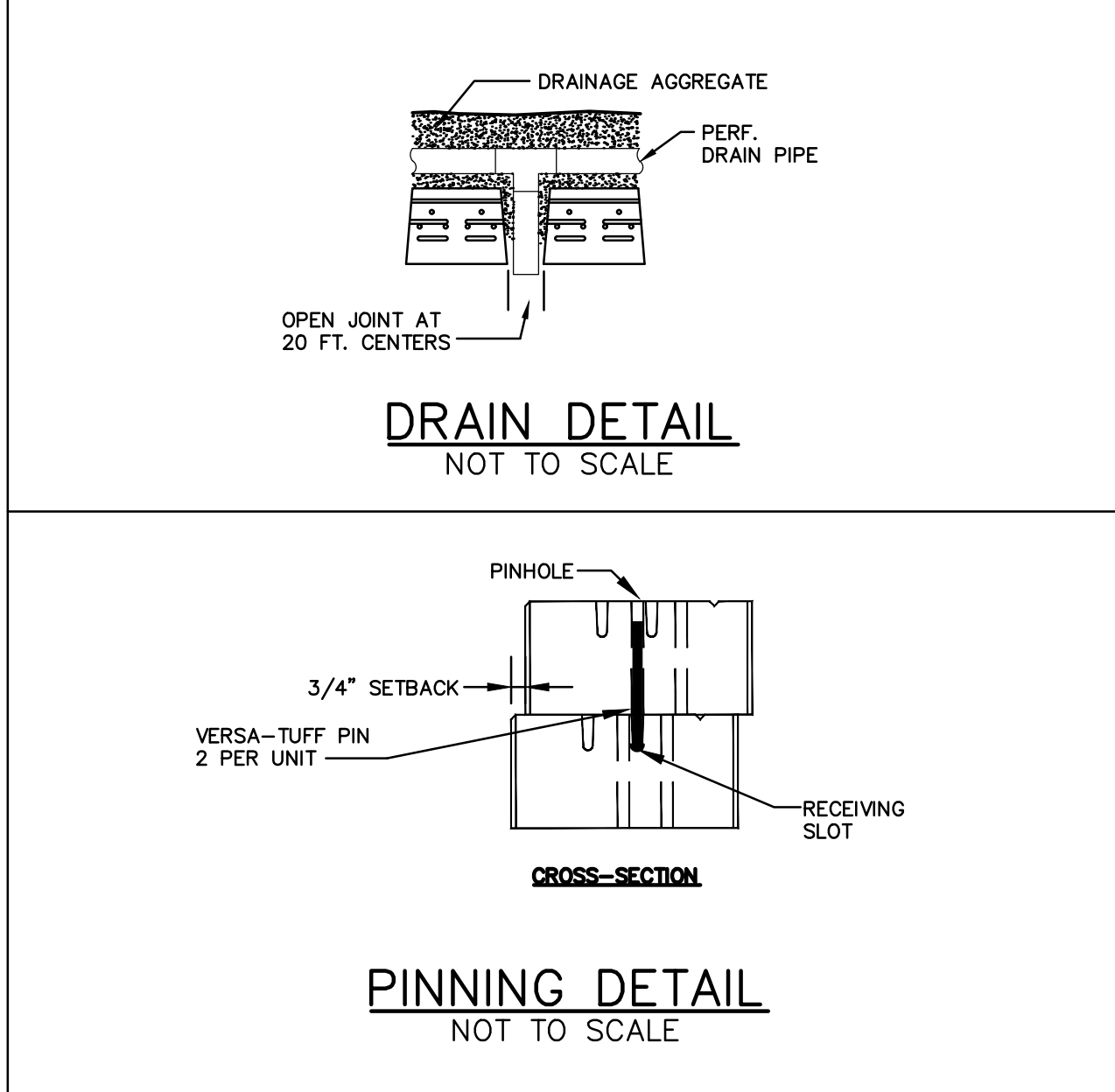
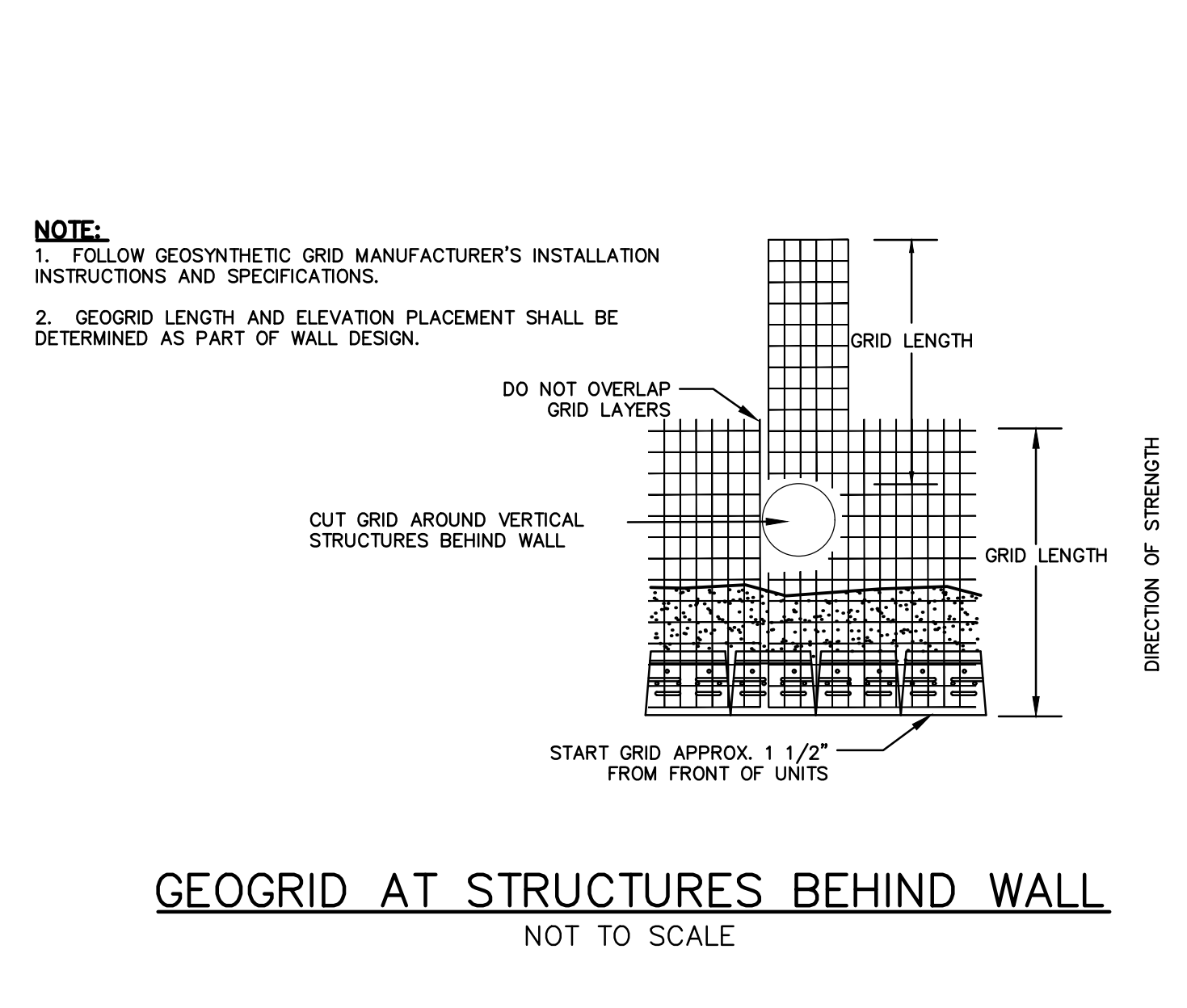
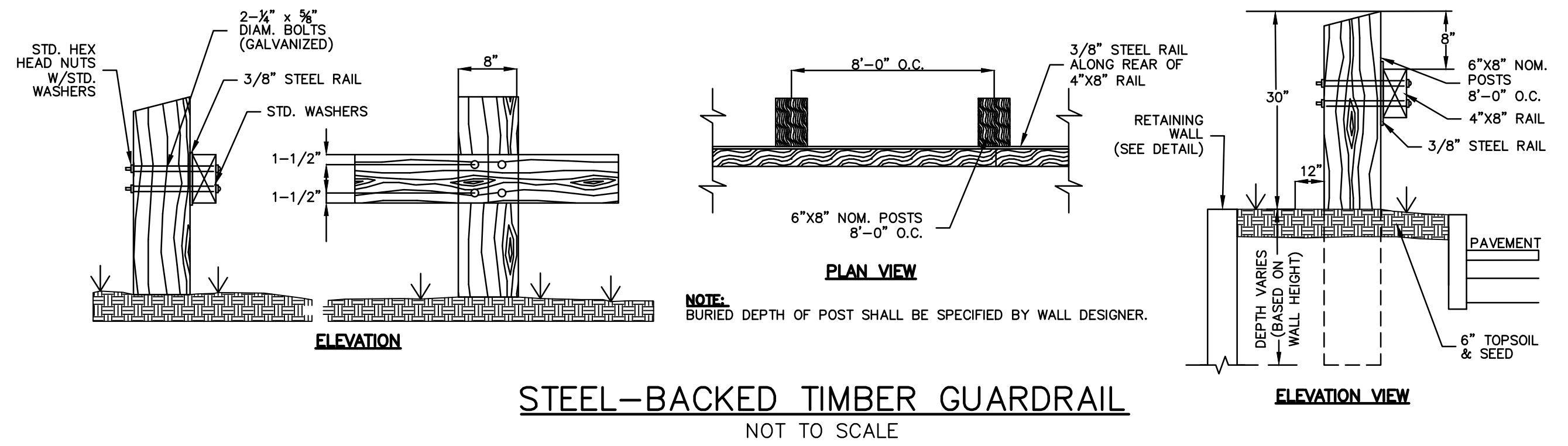
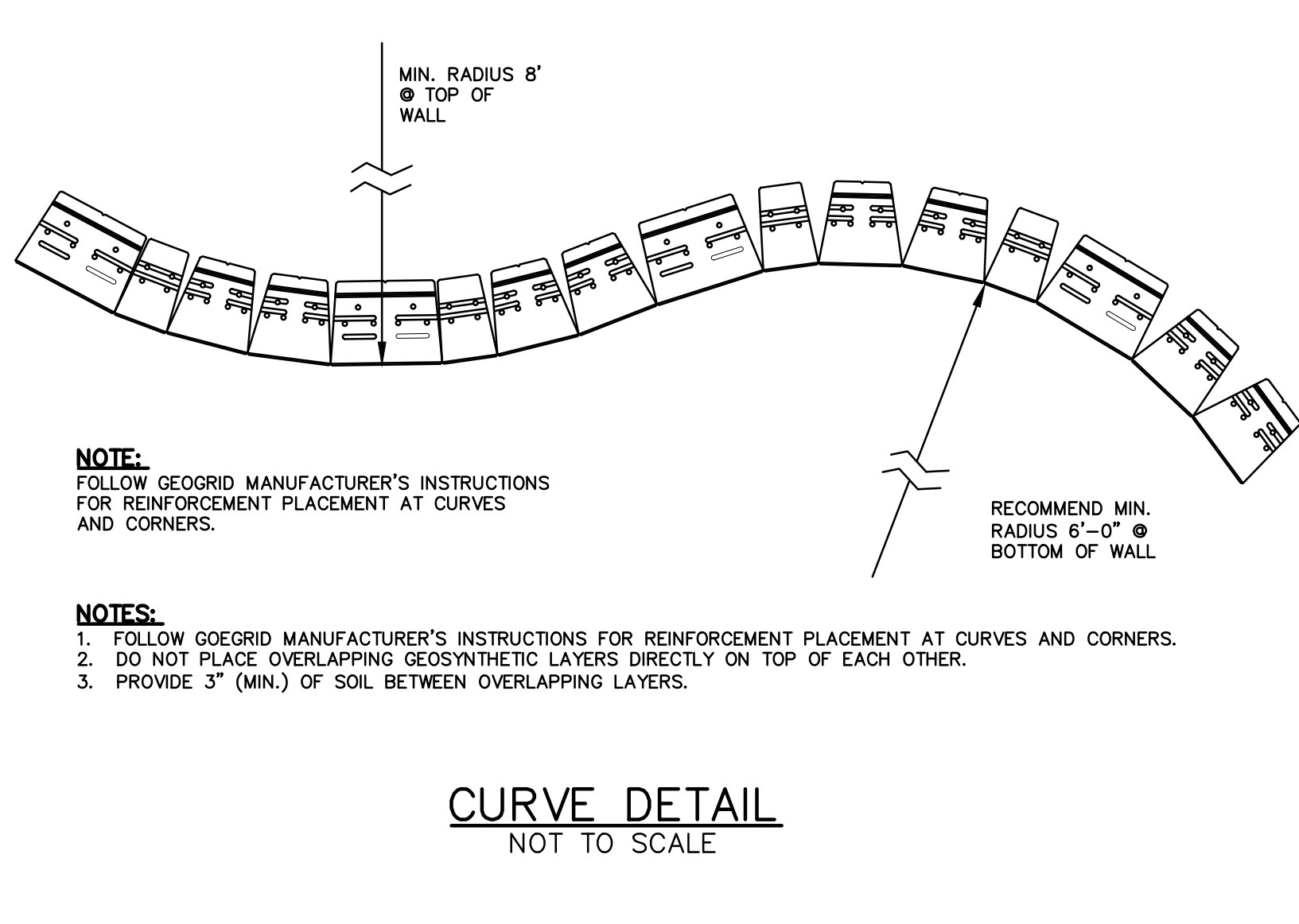
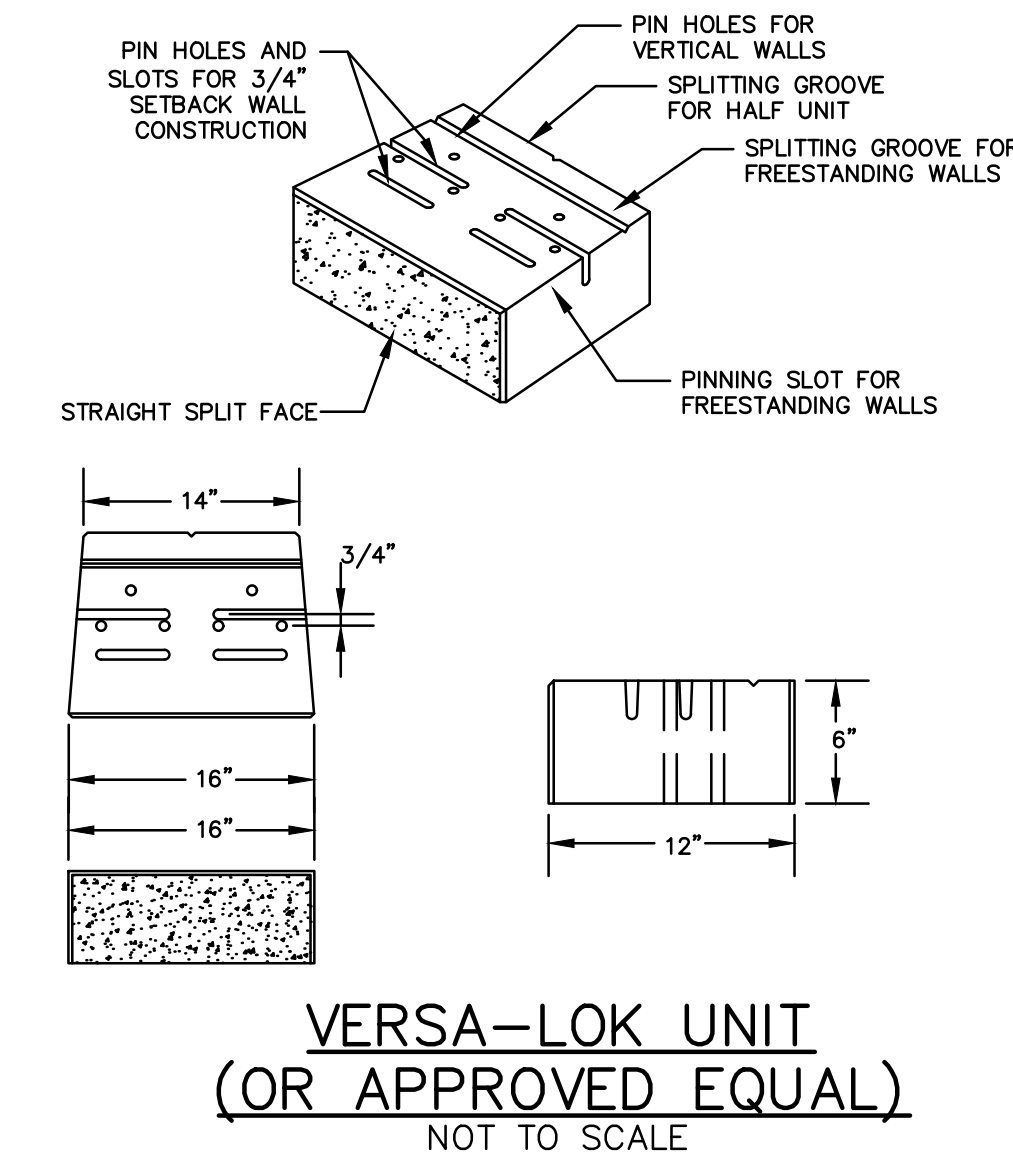
LEVELING PAD	
LEVELING PAD MATERIAL SHALL CONSIST OF HARD DURABLE PARTICLES OR FRAGMENTS OF STONE OR GRAVEL. FINE PARTICLES SHALL CONSIST OF NATURAL OR PROCESSED SAND. THE MATERIAL SHALL MEET THE FOLLOWING GRADATION:	
SIEVE SIZE	% PASSING BY WEIGHT
3 INCH	100
1 INCH	55-85
No. 4	27-52
No. 200*	0-12

* 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.



Proposed Subdivision Road & Office Building Development

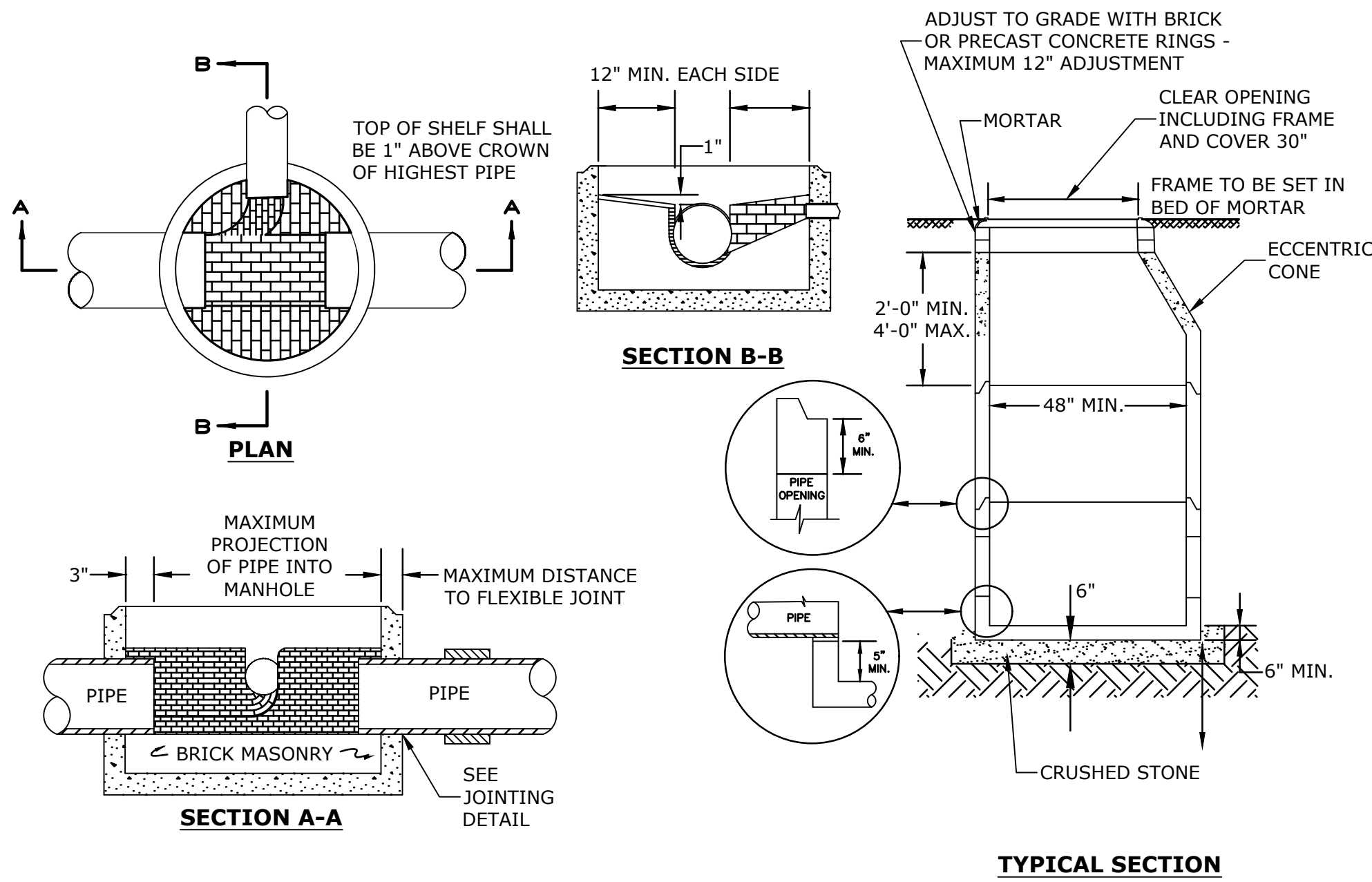
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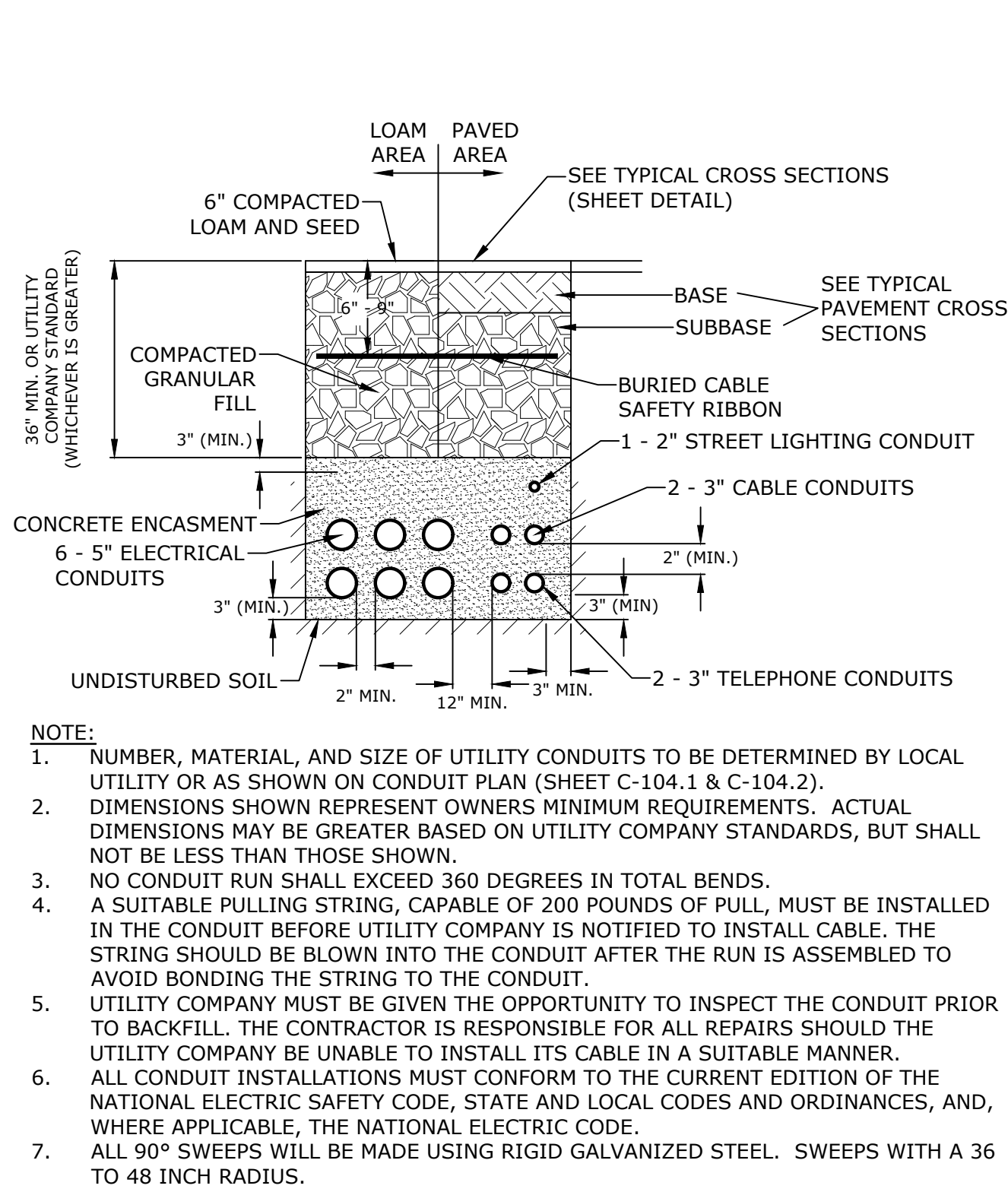
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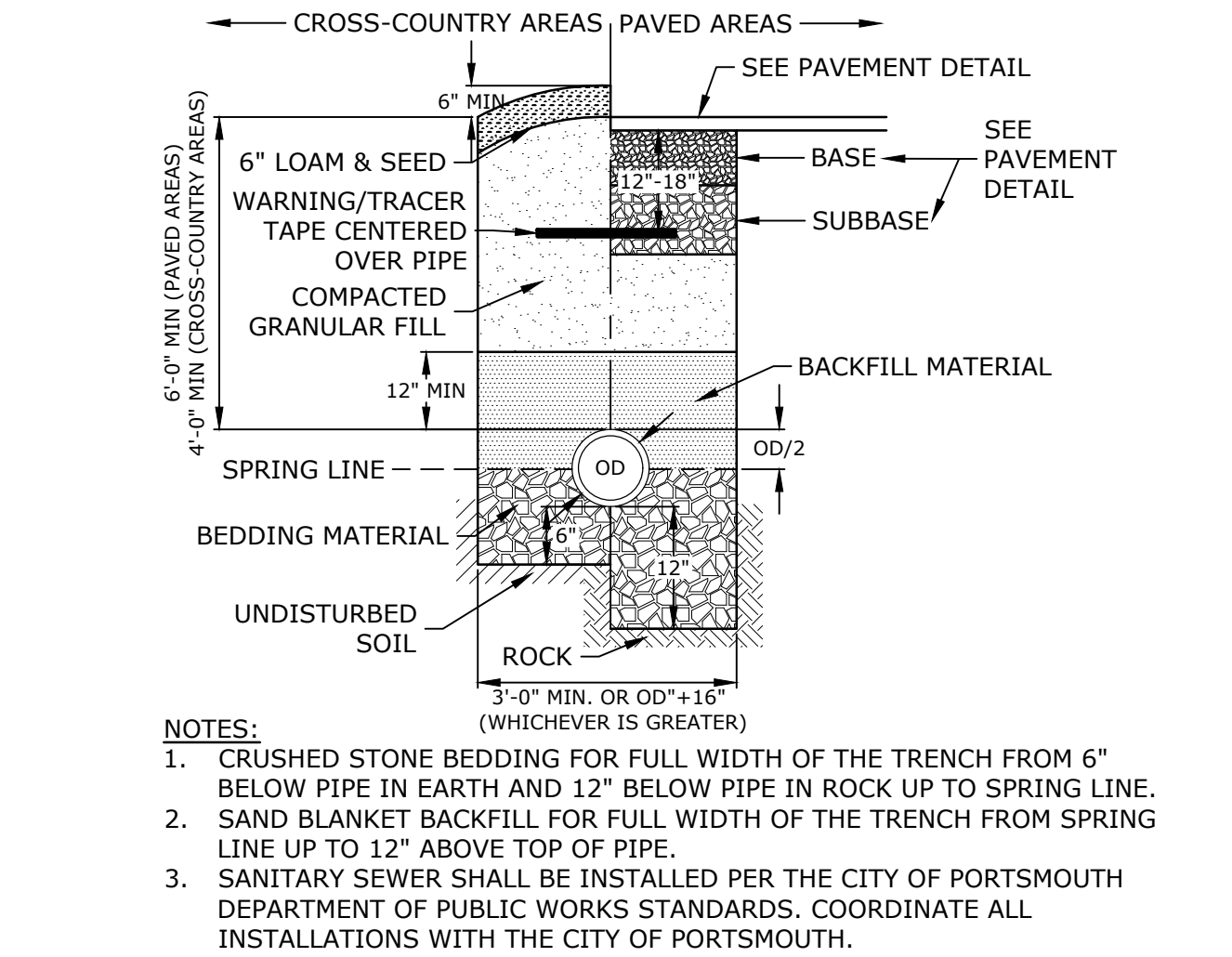


- NOTES:**
1. INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.
 2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
 3. INVERT BRICKS SHALL BE LAID ON EDGE.
 4. BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
 5. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS WITHIN CITY RIGHT OF WAY SHALL BE CITY STANDARD HINGE COVERS MANUFACTURED BY E.J. 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.

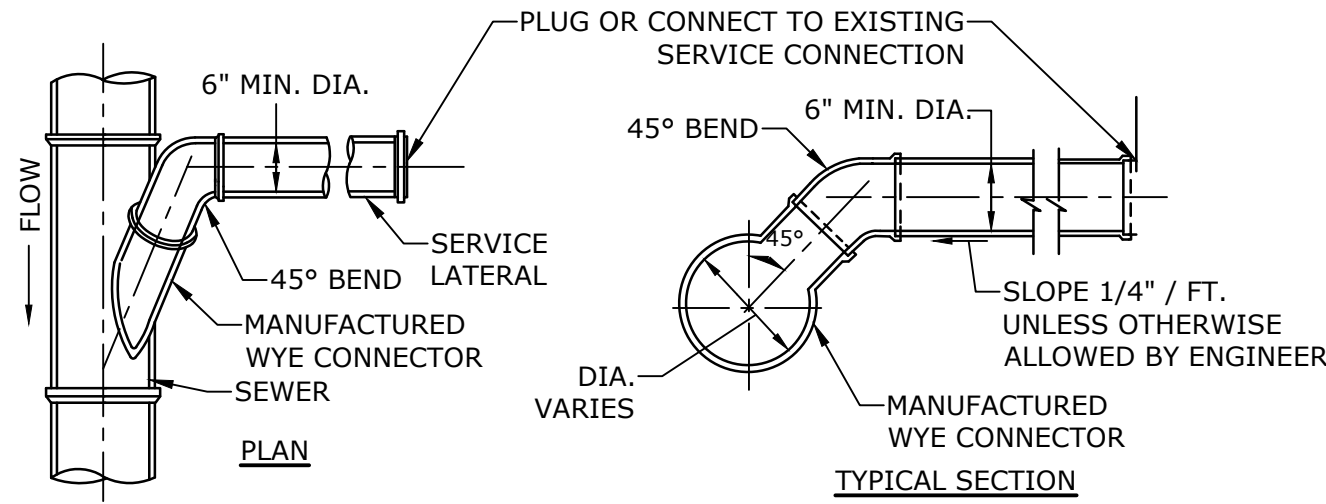
SEWER MANHOLE
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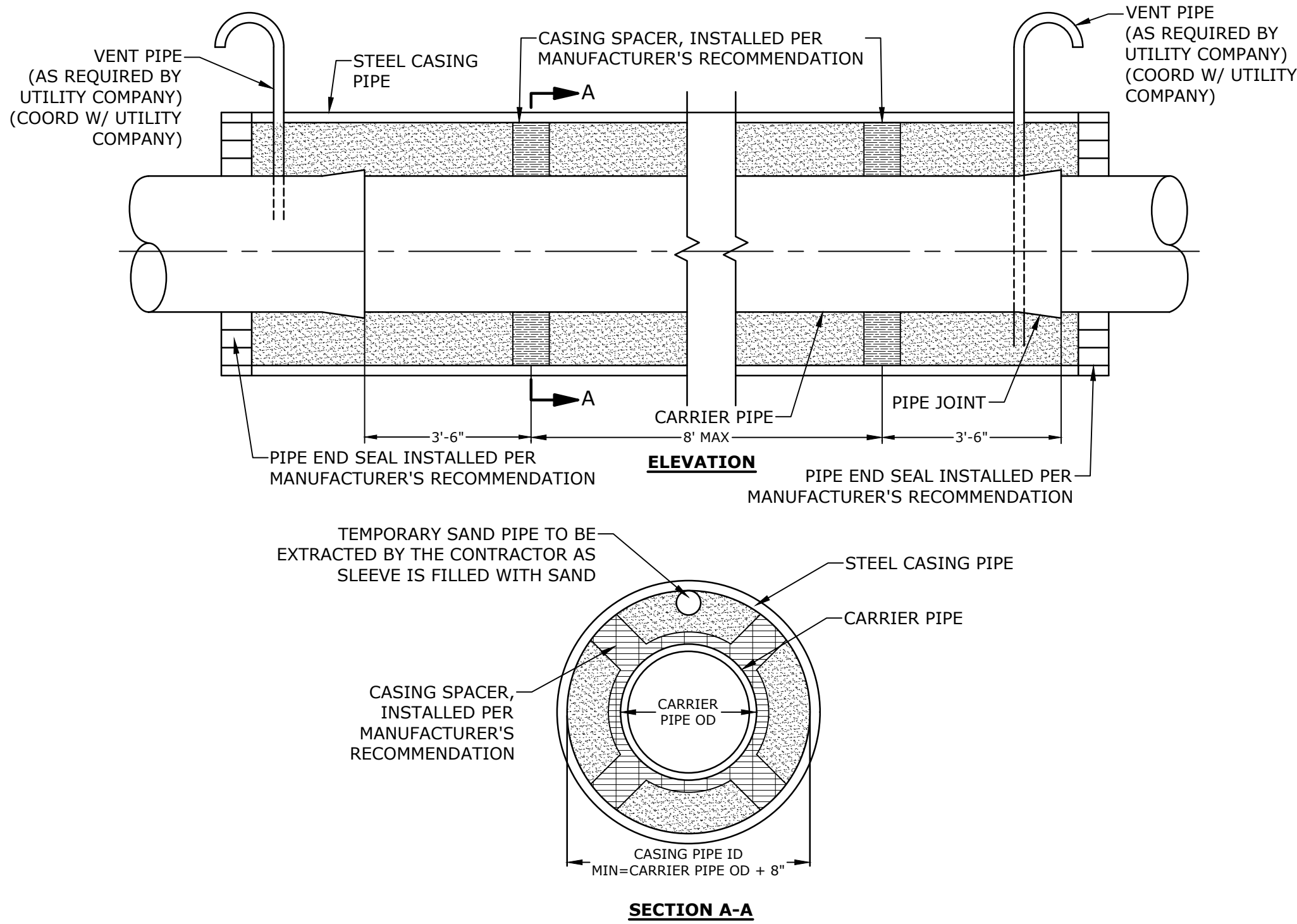
ELECTRICAL AND COMMUNICATION CONDUIT
NO SCALE



SEWER TRENCH
NO SCALE

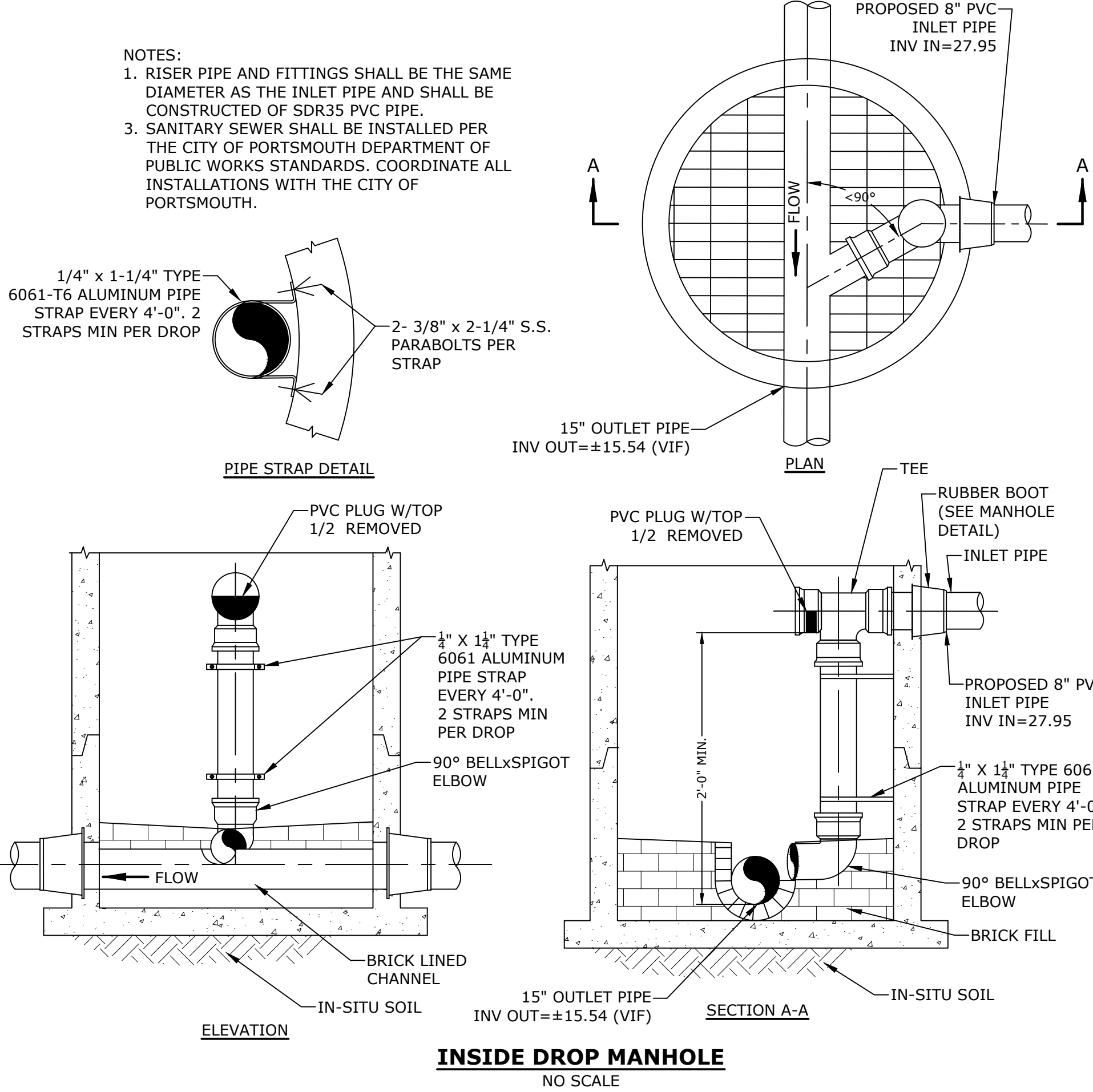


STANDARD SERVICE LATERAL CONNECTION
NO SCALE

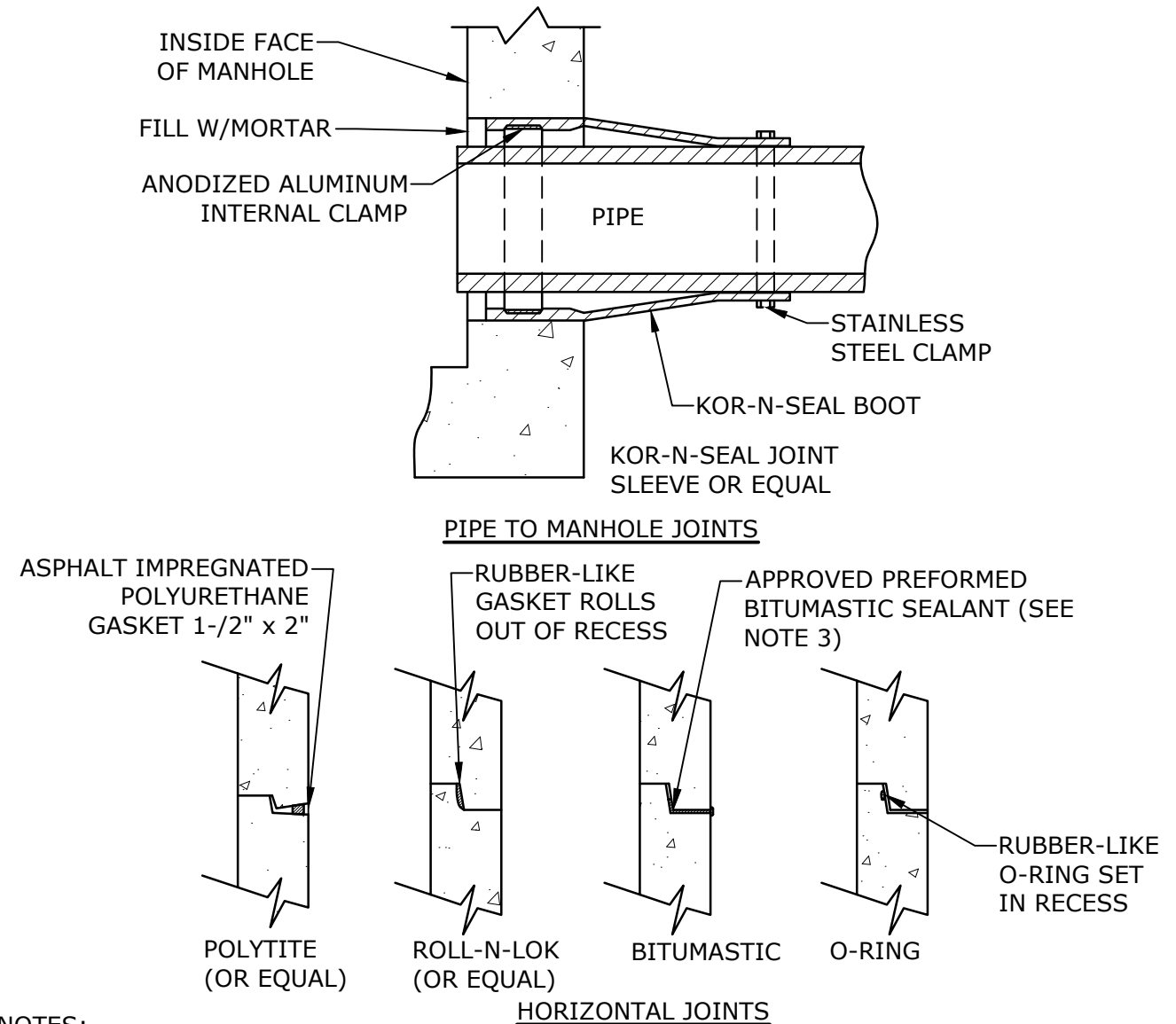


- NOTES:**
1. SEAL ENDS OF SLEEVE TO PREVENT MIGRATION OF MATERIAL AND WATER THROUGH ANNULAR SPACE BETWEEN CASING PIPE AND CARRIER PIPE
 2. STEEL CASING PIPE SHALL MEET COOPERS E-80 RAILROAD LOADING WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI AND SHALL CONFORM TO THE LATEST REVISIONS OF THE REQUIREMENTS 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
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.

MANHOLE JOINTS
NO SCALE



Proposed Subdivision Road & Office Building Development

Borthwick Forest, LLC

Portsmouth, New Hampshire

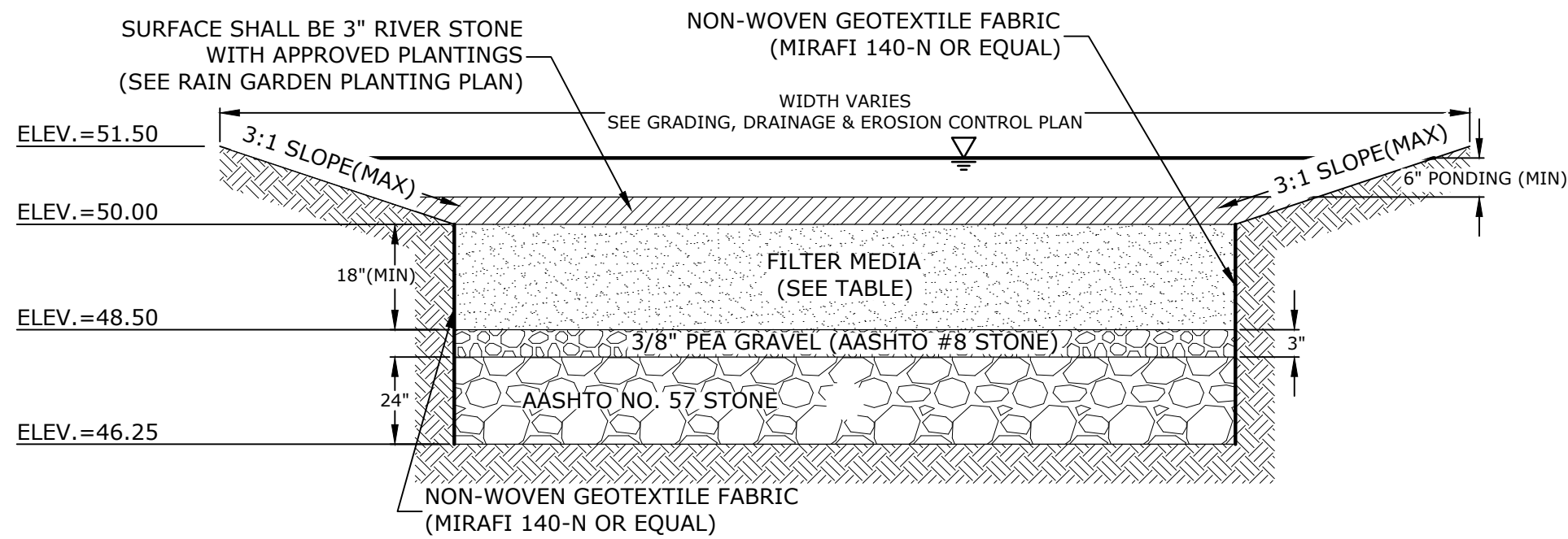
MARK	DATE	DESCRIPTION
H	3/20/2019	Revised GMP Submission
G	3/4/2019	Rev Pricing Drawings / Admin Approval
F	10/22/2018	Rev. per NHDES Sewer Connection Permit Comments
E	6/13/2018	FOR NHDES Sewer Connection Permit Application
D	5/8/2018	Submitted for Final Approval
C	2/26/2018	GMP Submission
B	2/6/2018	Planning Board Submission
A	1/12/2018	GMP Submission
PROJECT NO: K0076-13		
DATE: 1/12/2018		
FILE: K0076-13_DTLS.DWG		
DRAWN BY: CML		
CHECKED: PMC		
APPROVED: BLM		

DETAILS SHEET

SCALE: AS SHOWN

C-508

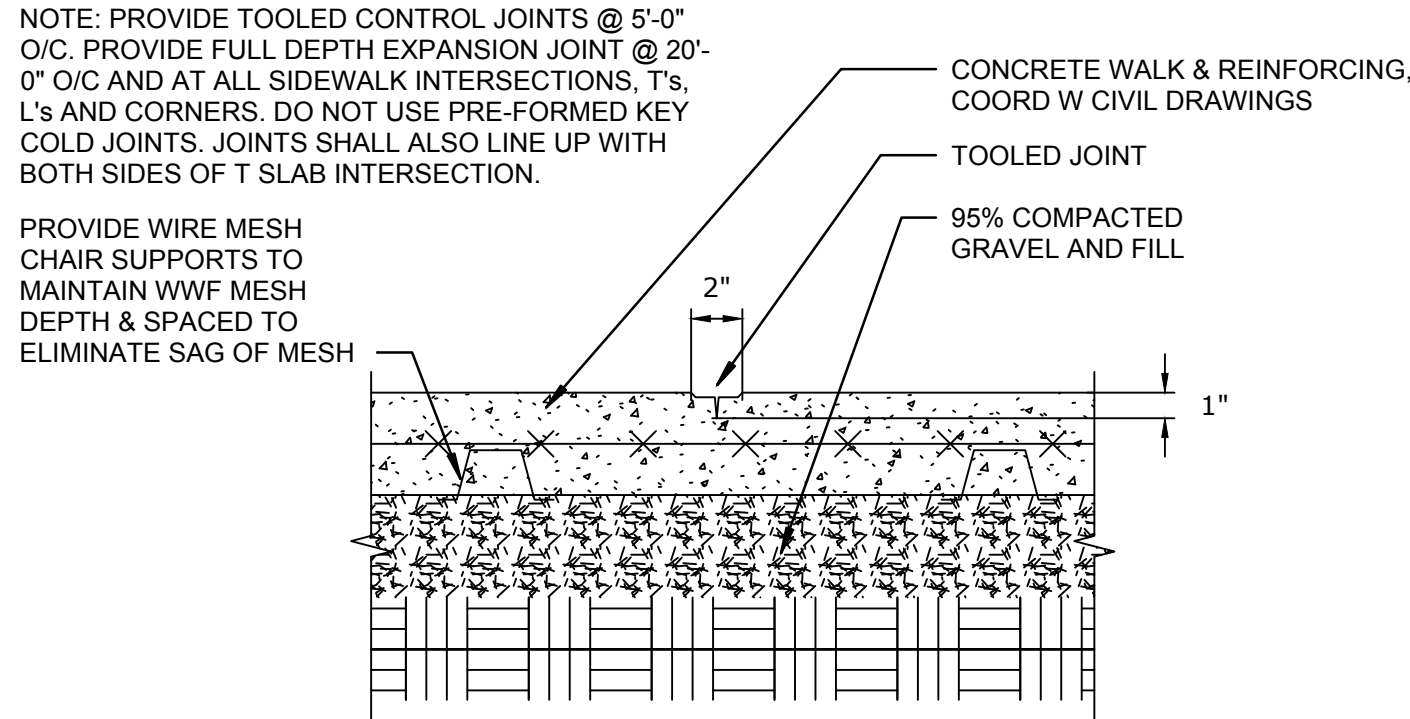
Last Save Date: May 21, 2019 8:32 AM By: CML
Plot Date: Tuesday, June 11, 2019 Plotted By: Craig M. Langton
2x8 File Location: J:\K0076 The Kane Company - General Proposals\0076-13 Borthwick Forest\Drawings - Figures\AutoCAD\Xref\K0076-13 DTLS.dwg Layout Tab: C-509



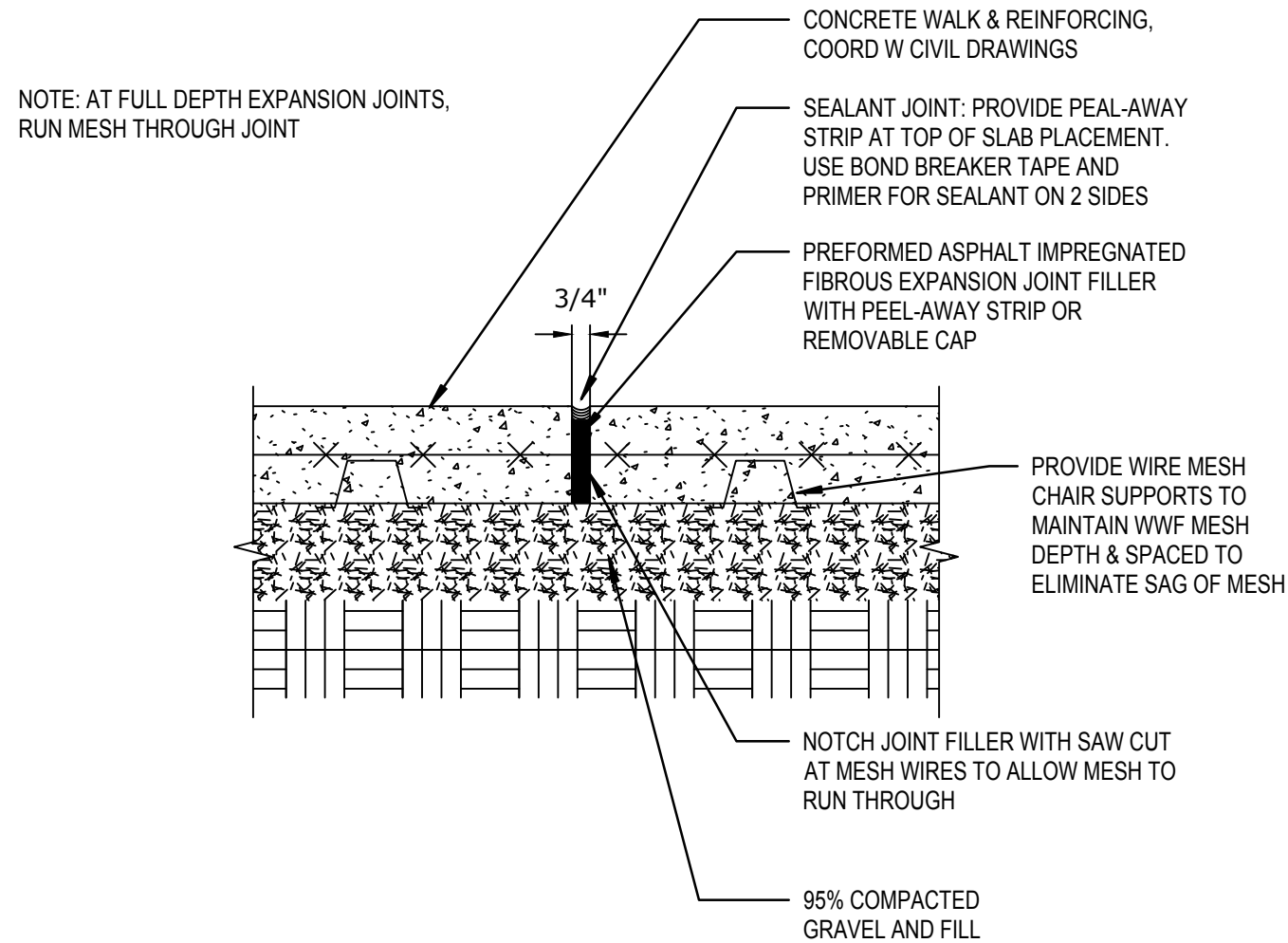
FILTER MEDIA COMPOSITION:			
COMPONENT MATERIAL	PERCENT BY MIXTURE BY VOLUME	GRADATION OF MATERIAL SIEVE NO.	PERCENT PASSING
ASTM C-33 CONCRETE SAND	50-55	SEE NOTE #5	
LOAMY SAND TOPSOIL	20-30	200	15-25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH	20-30	200	5 MAX

- NOTES:
- RAIN GARDENS SHALL NOT BE PLACED INTO SERVICE UNTIL THE PRACTICE HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
 - DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL KEEP ALL EXCAVATION EQUIPMENT OUTSIDE OF THE LIMIT OF THE RAIN GARDEN.
 - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR LOCATIONS, LAYOUTS, AND ELEVATIONS.
 - THE SAND PORTION OF THE FILTER MEDIA SHALL MEET THE FOLLOWING GRADATION (ASTM C-33):
- | SIEVE SIZE | PERCENT PASSING |
|------------|-----------------|
| 3/8" | 100 |
| #4 | 95-100 |
| #8 | 80-100 |
| #16 | 50-85 |
| #30 | 25-60 |
| #50 | 5-30 |
| #100 | 0-10 |

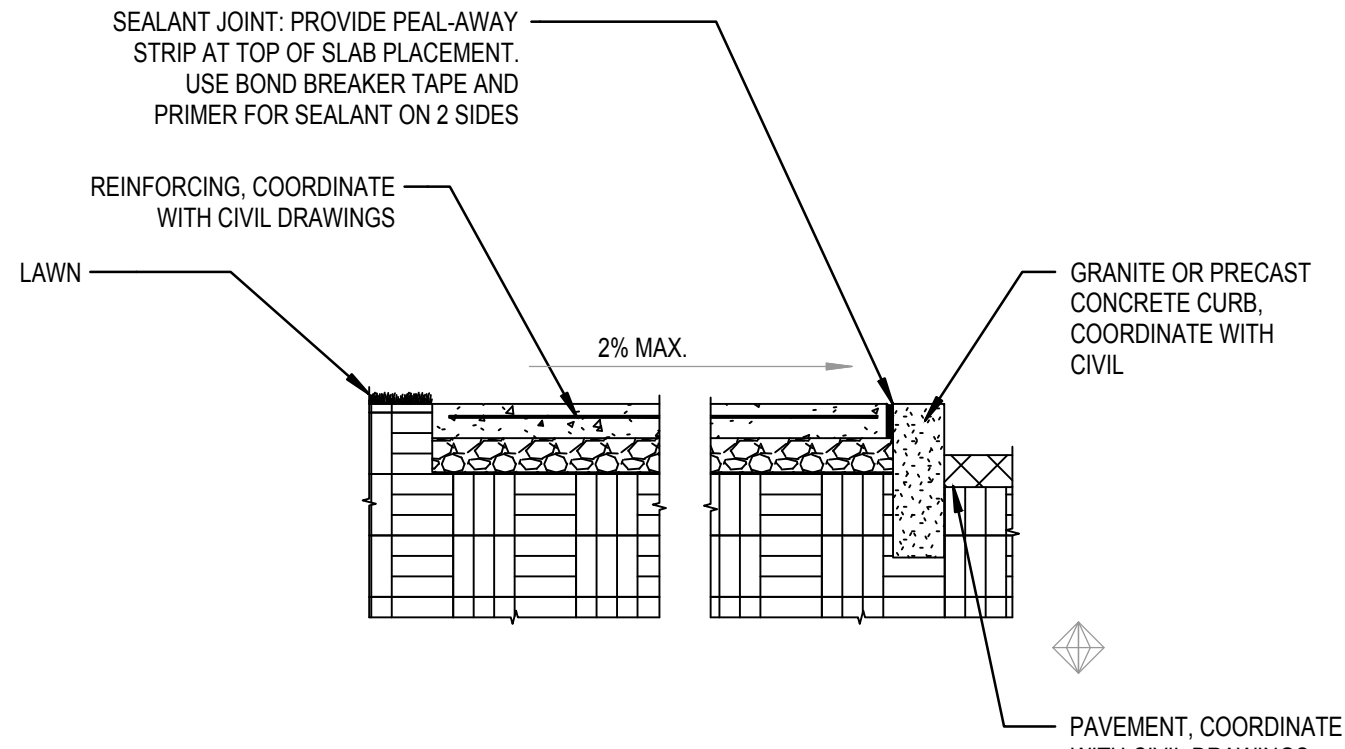
FUTURE RAIN GARDENS
NO SCALE



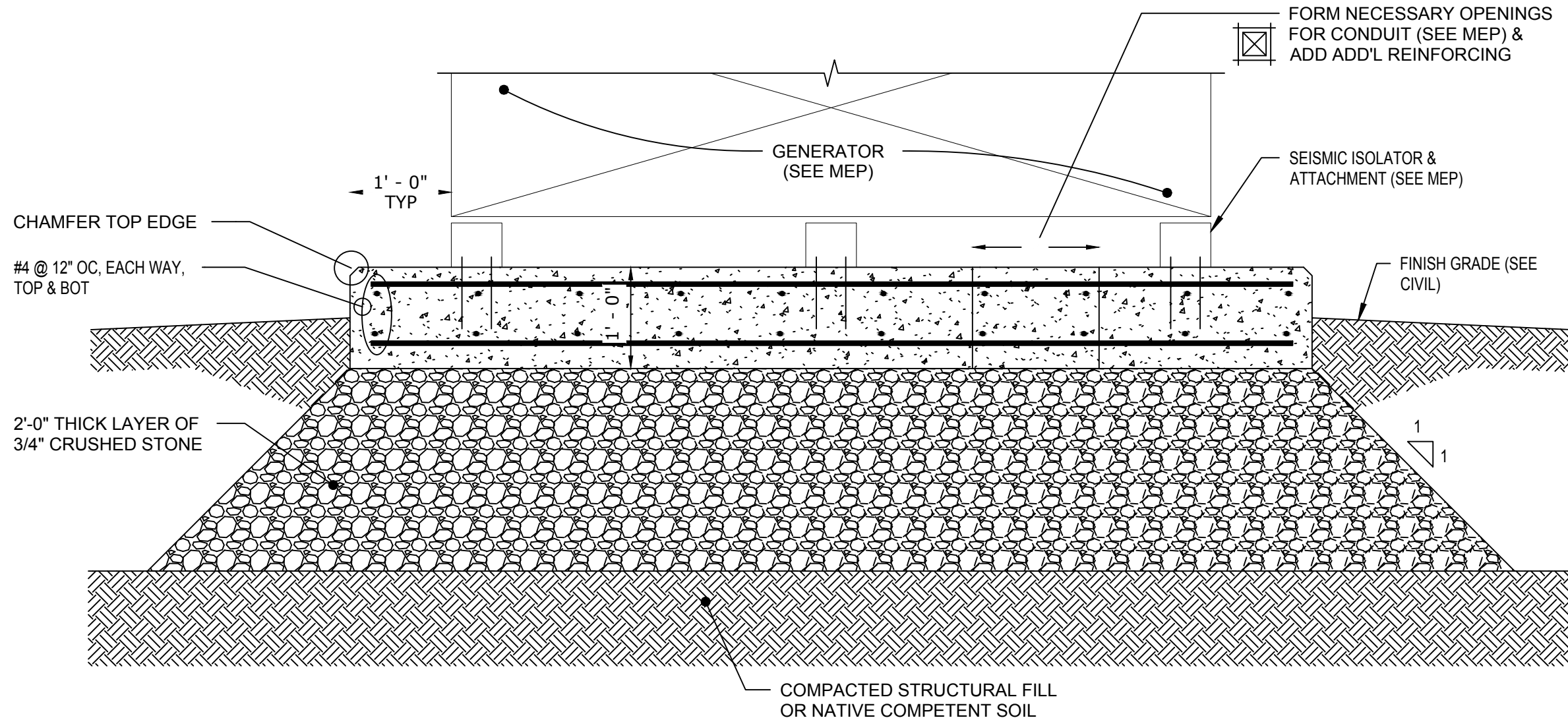
FLATWORK DETAIL - SIDEWALK TOOLED JOINT
NOT TO SCALE



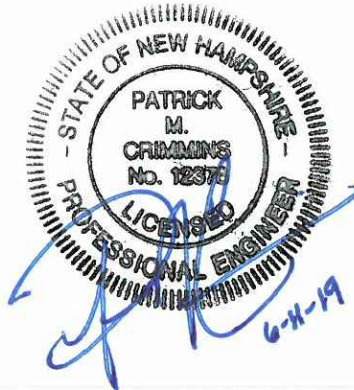
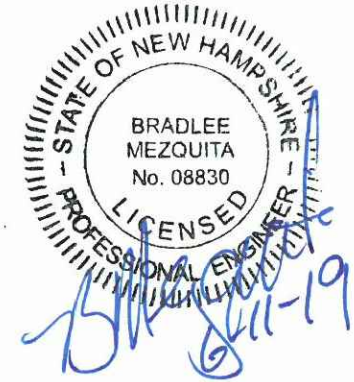
FLATWORK DETAIL - SIDEWALK EXPANSION JOINT
NOT TO SCALE



FLATWORK DETAIL - SIDEWALK SECTION @ GRANITE CURB
NOT TO SCALE



FLATWORK DETAIL - GENERATOR PAD
NOT TO SCALE



**Proposed
Subdivision Road
& Office Building
Development**

Borthwick Forest, LLC

Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
D	6/11/2019	To PB for Amended Site Plan Approval
C	5/20/2019	Amended Site Plan Approval
B	3/25/2019	Construction Drawings
A	3/20/2019	Revised GMP Submission

PROJECT NO:	K0076-13
DATE:	3/20/2019
FILE:	K0076-13_DTLS.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM

DETAILS SHEET

SCALE: AS SHOWN

C-509

FLATWORK DETAILS
PROVIDED BY PROCON,
INC. ON MARCH 14, 2019



Statistics				
Description	Symbol	Avg	Max	Min
Front sidewalk	◇	3.2 f.c.	10.4 f.c.	0.4 f.c.
Parking	+	3.0 f.c.	10.1 f.c.	0.4 f.c.
Rear sidewalk	□	3.6 f.c.	11.8 f.c.	0.7 f.c.

Luminaire Locations											
Location						Aim					
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z	
1	A	115.01	-181.45	19.50	19.50	360.00	0.00	115.01	-180.20	0.00	
2	A	-157.73	-145.89	19.50	19.50	44.07	0.00	-158.86	-145.00	0.00	
3	A	213.68	-129.07	19.50	19.50	270.00	0.00	212.43	-129.07	0.00	
4	A	-193.75	-75.92	19.50	19.50	90.00	0.00	-192.54	-75.92	0.00	
5	A	213.68	-57.91	19.50	19.50	270.00	0.00	212.43	-57.91	0.00	
6	A	-193.75	-7.95	19.50	19.50	90.00	0.00	-192.54	-7.95	0.00	
7	A	213.68	58.93	19.50	19.50	270.00	0.00	212.43	58.93	0.00	
8	A	-193.75	68.49	19.50	19.50	90.00	0.00	-192.54	68.49	0.00	
9	A	-193.75	119.55	19.50	19.50	90.00	0.00	-192.54	119.55	0.00	
10	A	137.74	147.56	19.50	19.50	235.58	0.00	136.71	146.85	0.00	
11	A	-172.07	181.49	19.50	19.50	103.83	0.00	-170.80	181.19	0.00	
2	B	-48.84	-116.49	19.50	19.50	360.00	0.00	-48.84	-115.24	0.00	
3	B	56.60	-116.49	19.50	19.50	360.00	0.00	56.60	-115.24	0.00	
4	B	105.00	-57.91	19.50	19.50	270.00	0.00	103.75	-57.91	0.00	
6	B	104.99	58.93	19.50	19.50	270.00	0.00	103.74	58.93	0.00	
1	C	-101.39	-37.11	12.00	12.00	180.00	0.00	-101.39	-37.11	0.00	
2	C	-75.39	-37.11	12.00	12.00	180.00	0.00	-75.39	-37.11	0.00	
3	C	-49.39	-37.11	12.00	12.00	180.00	0.00	-49.39	-37.11	0.00	
4	C	-99.36	94.22	12.00	12.00	0.00	0.00	-99.36	94.22	0.00	
5	C	-74.36	94.22	12.00	12.00	0.00	0.00	-74.36	94.22	0.00	
6	C	-49.36	94.22	12.00	12.00	0.00	0.00	-49.36	94.22	0.00	
1	E	-121.79	-73.37	3.50	3.50	270.00	0.00	-121.79	-73.37	0.00	
2	E	-121.79	-49.87	3.50	3.50	270.00	0.00	-121.79	-49.87	0.00	
2	E	-20.14	-46.31	3.50	3.50	180.00	0.00	-20.14	-46.31	0.00	
4	E	-8.16	-46.31	3.50	3.50	180.00	0.00	-8.16	-46.31	0.00	
5	E	13.82	-46.31	3.50	3.50	180.00	0.00	13.82	-46.31	0.00	
6	E	-121.79	-25.37	3.50	3.50	270.00	0.00	-121.79	-25.37	0.00	
7	E	35.82	-23.83	3.50	3.50	90.00	0.00	35.82	-23.83	0.00	
8	E	-121.79	-1.87	3.50	3.50	270.00	0.00	-121.79	-1.87	0.00	
9	E	35.83	-1.03	3.50	3.50	90.00	0.00	35.83	-1.03	0.00	
10	E	-121.79	59.14	3.50	3.50	270.00	0.00	-121.79	59.14	0.00	
11	E	36.10	59.66	3.50	3.50	90.00	0.00	36.10	59.66	0.00	
12	E	-121.79	82.64	3.50	3.50	270.00	0.00	-121.79	82.64	0.00	
13	E	36.10	83.66	3.50	3.50	90.00	0.00	36.10	83.66	0.00	
14	F	-121.79	106.64	3.50	3.50	270.00	0.00	-121.79	106.14	0.00	
15	E	-121.79	129.64	3.50	3.50	270.00	0.00	-121.79	129.64	0.00	
1	F	35.84	-46.32	3.50	3.50	0.00	0.00	35.84	-46.32	0.00	
2	F	35.84	21.48	3.50	3.50	0.00	0.00	35.84	21.48	0.00	
3	F	36.10	35.66	3.50	3.50	90.00	0.00	36.10	35.66	0.00	
1	G	-127.20	16.41	13.00	13.00	0.00	0.00	-127.20	16.41	0.00	
2	G	-115.20	16.41	13.00	13.00	0.00	0.00	-115.20	16.41	0.00	
3	G	-127.20	28.41	13.00	13.00	0.00	0.00	-127.20	28.41	0.00	
4	G	-115.20	28.41	13.00	13.00	0.00	0.00	-115.20	28.41	0.00	
5	G	-127.20	40.41	13.00	13.00	0.00	0.00	-127.20	40.41	0.00	
6	G	-115.20	40.41	13.00	13.00	0.00	0.00	-115.20	40.41	0.00	

Schedule										
Symbol	Label	Quantity	Manufacturer	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
□ o a	A	11	Lithonia Lighting	DSX2 LED P1 50K T4M MVOLT with Inceoxide shield	LED	1	DSX2_LED_P1_50K_T4M_M_VOLT_HS.ies	14580	1	140
□ a	B	4	Lithonia Lighting	DSX2 LED P4 50K T5M MVOLT	LED	1	DSX2_LED_P4_50K_T5M_M_VOLT.ies	35104	1	270
□	C	6	Lithonia Lighting	DSXW1 LED WITH (1) 10 LED LIGHT ENGINES, TYPE T3M OPTIC, 5000K, @ 350ma	LED	1	DSXW1_LED_10C_350_50K_T3M_MVOLT.ies	1497	1	13.3
□	D	0	Lithonia Lighting	DSXW2 LED WITH 2 LIGHT ENGINES, 20 LED's, 350ma DRIVER, 5000K LED, TYPE 4 MEDIUM OPTIC	LED	1	DSXW2_LED_20C_350_50K_T4M_MVOLT.ies	2977	1	25
⊙	E	15	Lithonia Lighting	D-SERIES BOLLARD WITH 12 5000K LEDS OPERATED AT 350ma AND ASYMMETRIC DISTRIBUTION	LED	1	DSXB_LED_12C_350_50K_ASY.ies	1291	1	16
⊙	F	3	Lithonia Lighting	D-SERIES BOLLARD WITH 16 5000K LEDS OPERATED AT 350ma AND SYMMETRIC DISTRIBUTION	LED	1	DSXB_LED_16C_350_50K_SY.ies	1685	1	20
○	G	6	Lithonia Lighting	6IN LDW, 3500K, 1500LM, 80CRI, CLEAR, MATTE DIFFUSE REFLECTOR	LED	1	LDN6_35_15_LOSAR_ID.ies	1365	1	20.48

Plan View
Scale: 1"=20'



Statistics				
Description	Symbol	Avg	Max	Min
Front sidewalk	◊	3.2 fc	10.4 fc	0.4 fc
Future Parking	×	3.0 fc	7.5 fc	0.7 fc
parking	+	3.2 fc	10.1 fc	0.4 fc
Rear sidewalk	□	3.6 fc	11.8 fc	0.7 fc

Luminaire Locations												
Location												
Aim												
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z	MH	Orientation
1	A	115.01	-181.45	19.50	19.50	360.00	0.00	115.01	-180.20	0.00		
2	A	-157.73	-145.89	19.50	19.50	44.07	0.00	-156.86	-145.90	0.00		
3	A	319.46	-129.07	19.50	19.50	270.00	0.00	318.21	-129.07	0.00		
4	A	-103.70	-75.92	19.50	19.50	90.00	0.00	-102.54	-75.92	0.00		
5	A	319.46	-56.51	19.50	19.50	270.00	0.00	318.21	-56.51	0.00		
6	A	-193.79	-7.95	19.50	19.50	90.00	0.00	-192.54	-7.95	0.00		
7	A	319.46	58.93	19.50	19.50	270.00	0.00	318.21	58.93	0.00		
8	A	-193.79	68.49	19.50	19.50	90.00	0.00	-192.54	68.49	0.00		
9	A	-193.79	119.55	19.50	19.50	90.00	0.00	-192.54	119.55	0.00		
10	A	137.74	147.56	19.50	19.50	235.58	0.00	136.71	146.85	0.00		
11	A	-102.07	181.49	19.50	19.50	103.83	0.00	-100.86	181.19	0.00		
1	B	213.69	-129.07	19.50	19.50	270.00	0.00	212.44	-129.07	0.00		
2	B	-48.84	-116.49	19.50	19.50	360.00	0.00	-48.84	-115.24	0.00		
3	B	56.60	-116.49	19.50	19.50	360.00	0.00	56.60	-115.24	0.00		
4	B	104.99	-57.79	19.50	19.50	270.00	0.00	103.74	-57.79	0.00		
5	B	213.78	-57.79	19.50	19.50	270.00	0.00	212.53	-57.79	0.00		
6	B	104.99	58.83	19.50	19.50	270.00	0.00	103.74	58.83	0.00		
7	B	213.69	58.93	19.50	19.50	270.00	0.00	212.44	58.93	0.00		
1	C	-101.39	-37.11	12.00	12.00	180.00	0.00	-101.39	-37.11	0.00		
2	C	-75.39	-37.11	12.00	12.00	180.00	0.00	-75.39	-37.11	0.00		
3	C	-49.39	-37.11	12.00	12.00	180.00	0.00	-49.39	-37.11	0.00		
4	C	-99.36	94.22	12.00	12.00	0.00	0.00	-99.36	94.22	0.00		
5	C	-74.36	94.22	12.00	12.00	0.00	0.00	-74.36	94.22	0.00		
6	C	-49.36	94.22	12.00	12.00	0.00	0.00	-49.36	94.22	0.00		
1	E	-121.79	-73.37	3.50	3.50	270.00	0.00	-121.79	-73.37	0.00		
2	F	-121.79	-49.87	3.50	3.50	270.00	0.00	-121.79	-49.87	0.00		
3	E	-30.14	-46.34	3.50	3.50	180.00	0.00	-30.14	-46.34	0.00		
4	E	-8.16	-46.31	3.50	3.50	180.00	0.00	-8.16	-46.31	0.00		
5	E	13.62	-46.31	3.50	3.50	180.00	0.00	13.62	-46.31	0.00		
6	E	-121.79	-25.37	3.50	3.50	270.00	0.00	-121.79	-25.37	0.00		
7	E	35.82	-23.83	3.50	3.50	90.00	0.00	35.82	-23.83	0.00		
8	E	-121.79	-1.87	3.50	3.50	270.00	0.00	-121.79	-1.87	0.00		
9	F	35.83	-1.03	3.50	3.50	90.00	0.00	35.83	-1.03	0.00		
10	E	-121.79	59.14	3.50	3.50	270.00	0.00	-121.79	59.14	0.00		
11	E	36.10	59.66	3.50	3.50	90.00	0.00	36.10	59.66	0.00		
12	E	-121.79	82.64	3.50	3.50	270.00	0.00	-121.79	82.64	0.00		
13	E	36.10	83.66	3.50	3.50	90.00	0.00	36.10	83.66	0.00		
14	E	-121.79	106.14	3.50	3.50	270.00	0.00	-121.79	106.14	0.00		
15	E	-121.79	129.64	3.50	3.50	270.00	0.00	-121.79	129.64	0.00		
1	F	35.84	-46.32	3.50	3.50	0.00	0.00	35.84	-46.32	0.00		
2	F	35.84	21.48	3.50	3.50	0.00	0.00	35.84	21.48	0.00		
3	F	36.10	35.66	3.50	3.50	90.00	0.00	36.10	35.66	0.00		
1	G	-127.20	16.41	13.00	13.00	0.00	0.00	-127.20	16.41	0.00		
2	G	-115.20	16.41	13.00	13.00	0.00	0.00	-115.20	16.41	0.00		
3	G	-127.20	28.41	13.00	13.00	0.00	0.00	-127.20	28.41	0.00		
4	G	-115.20	28.41	13.00	13.00	0.00	0.00	-115.20	28.41	0.00		
5	G	-127.20	40.41	13.00	13.00	0.00	0.00	-127.20	40.41	0.00		
6	G	-115.20	40.41	13.00	13.00	0.00	0.00	-115.20	40.41	0.00		

Symbol	Label	Quantity	Manufacturer	Description	Lamp	Number Lenses	Filename	Lumens Per Lamp	Light Loss Factor	Wattage	Catalog Number
	A	11	Lithonia Lighting	DSX2 LED P1 SOK T4M MVOLT with hexacode shield	LED	1	DSX2_LED_P1_SOK_T4M_M_Volt_HSies	14580	1	140	DSX2 LED P1 SOK T4M MVOLT HS
	B	7	Lithonia Lighting	DSX2 LED P4 SOK TSM MVOLT	LED	1	DSX2_LED_P4_SOK_TSM_M_Volt_HSies	35104	1	270	DSX2 LED P4 SOK TSM MVOLT
	C	6	Lithonia Lighting	DSXW1 LED WITH (1) 10 LED LIGHT ENGINES, TYPE T3M OPTIC, 5000K, @ 350mA	LED	1	DSXW1_LED_10C_30K_T3M_MVOLTies	1497	1	13.3	DSXW1 LED 10C 30K T3M MVOLT
	D	0	Lithonia Lighting	DSXW2 LED WITH 2 LIGHT ENGINES, 20 LED's, 350mA DRIVER, 5000K LED, TYPE 4 MEDIUM OPTIC	LED	1	DSXW2_LED_20C_30K_T4M_MVOLTies	2977	1	25	DSXW2 LED 20C 30K T4M MVOLT
	E	15	Lithonia Lighting	D-SERIES BOLLARD WITH 12 5000K LEDS OPERATED AT 350mA AND ASYMMETRIC DISTRIBUTION	LED	1	DSXB_LED_12C_30K_50K_ASYies	1291	1	16	DSXB LED 12C 30K 50K ASY
	F	3	Lithonia Lighting	D-SERIES BOLLARD WITH 16 5000K LEDS OPERATED AT 350mA AND SYMMETRIC DISTRIBUTION	LED	1	DSXB_LED_16C_30K_50K_SYies	1685	1	20	DSXB LED 16C 30K 50K SYM
	G	6	Lithonia Lighting	6IN LDN, 3500K, 1500LM, 80CRI, CLEAR, MATTE DIFFUSE REFLECTOR	LED	1	LDN6_35_15_LOSAR_IDies	1365	1	20.48	LDN6 35/15 LOSAR LD

Plan View
Scale: 1" = 20'

Portsmouth Medical Park
Portsmouth NH
Future Parking Area Included

Designer
REMCarthy
Date
05/13/2019
Scale
Not to Scale
Drawing No.



d-series

D-Series Size 2 LED Area Luminaire

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a **shaded background**. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **shaded background**

To learn more about A+, visit www.acuitybrands.com/aplus.

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately. [Link to Roam](#); [Link to DTL DLL](#)

Specifications

EPA: 1.1 ft² (0.10 m²)

Length: 42" (107.6 cm)

Width: 15" (38.1 cm)


Height: 7 1/4" (18.4 cm)

Weight (max): 36 lbs (16.3 kg)

Ordering Information

EXAMPLE: DSX2 LED P7 T3M MVOLT SPA DDBXD

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	Forward optics P1 P5 P2 P6 P3 P7 P4 P8 P10 P13 P11 P14 P12	30K 3000K 40K 4000K 50K 5000K AMBP Amber phosphor converted SPHWA Square pole universal mounting adapter RPMABA Round pole universal mounting adapter	T15 Type I Short T25 Type II Medium T3M Type III Medium T4M Type IV Medium T7M Forward Throw Medium RCCO Right corner cutoff	T5V5 Type V5 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short	MVOLT SPA Square pole mounting SPA Square pole mounting WMA Wallmount SPHWA Square pole universal mounting adapter RPMABA Round pole universal mounting adapter KIDAB DDBXD Non-inverting buck voltage booster



d-series

D-Series Size 2 LED Wall Luminaire

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a **shaded background**. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **shaded background**

To learn more about A+, visit www.acuitybrands.com/aplus.

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately. [Link to Roam](#); [Link to DTL DLL](#)

Specifications

EPA: 1.1 ft² (0.10 m²)

Length: 42" (107.6 cm)

Width: 15" (38.1 cm)

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Weight (max): 36 lbs (16.3 kg)

Ordering Information

EXAMPLE: DSX2 LED P7 T3M MVOLT SPA DDBXD

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	Forward optics P1 P5 P2 P6 P3 P7 P4 P8 P10 P13 P11 P14 P12	30K 3000K 40K 4000K 50K 5000K AMBP Amber phosphor converted SPHWA Square pole universal mounting adapter RPMABA Round pole universal mounting adapter	T15 Type I Short T25 Type II Medium T3M Type III Medium T4M Type IV Medium T7M Forward Throw Medium RCCO Right corner cutoff	T5V5 Type V5 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short	MVOLT SPA Square pole mounting SPA Square pole mounting WMA Wallmount SPHWA Square pole universal mounting adapter RPMABA Round pole universal mounting adapter KIDAB DDBXD Non-inverting buck voltage booster

EXAMPLE: DSX2 LED P7 T3M MVOLT SPA DDBXD					
Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	Forward optics P1 P5 P2 P6 P3 P7 P4 P8 P10 P13 P11 P14 P12	30K 3000K 40K 4000K 50K 5000K AMBP Amber phosphor converted SPHWA Square pole universal mounting adapter RPMABA Round pole universal mounting adapter	T15 Type I Short T25 Type II Medium T3M Type III Medium T4M Type IV Medium T7M Forward Throw Medium RCCO Right corner cutoff	T5V5 Type V5 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short T3V3 Type V3 Very Short	MVOLT SPA Square pole mounting SPA Square pole mounting WMA Wallmount SPHWA Square pole universal mounting adapter RPMABA Round pole universal mounting adapter KIDAB DDBXD Non-inverting buck voltage booster



d-series

D-Series LED Bollard

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a **shaded background**. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **shaded background**

To learn more about A+, visit www.acuitybrands.com/aplus.

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately. [Link to Roam](#); [Link to DTL DLL](#)

Specifications

Diameter: 8" Round (20.3 cm)


Height: 42" (106.7 cm)

Weight (max): 27 lbs (12.2 kg)

Ordering Information

EXAMPLE: DSXB LED 16C 700 40K SYM MVOLT DDBXD

Series	LEDs	Color temperature	Distribution	Voltage	Control options	Other options	Finish (optional)
DSXB LED	Asymmetric 12C 12 LED Symmetric 16C 16 LED	350 350 mA 450 450 mA 530 530 mA 700 700 mA	30K 3000K 40K 4000K 50K 5000K AMBP Amber phosphor converted AMBWL Amber lensed wandlength	ASY Asymmetric SYM Symmetric	MVOLT PE Photocentric DMS 0-10V dimming driver ELCW Emergency battery backup	SP Single face DF Double face H24 24" overall height H30 30" overall height H36 36" overall height H6 Grand-dish fixture outlet LUB Without anchor bolts LUBA 4-bolt anchor base without anchor bolts	DDBXD White DDBXD Natural aluminum DDBXD Dark bronze DDBXD Textured dark bronze DDBXD Textured black DDBXD Textured dark bronze DDBXD Textured black DDBXD Textured natural aluminum DDBXD Textured white



d-series

D-Series LED Bollard

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a **shaded background**. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **shaded background**

To learn more about A+, visit www.acuitybrands.com/aplus.

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately. [Link to Roam](#); [Link to DTL DLL](#)

Specifications

Diameter: 8" Round (20.3 cm)

Height: 42" (106.7 cm)

Weight (max): 27 lbs (12.2 kg)

Ordering Information

EXAMPLE: DSXB LED 16C 700 40K SYM MVOLT DDBXD

Series	LEDs	Color temperature	Distribution	Voltage	Control options	Other options	Finish (optional)
DSXB LED	Asymmetric 12C 12 LED Symmetric 16C 16 LED	350 350 mA 450 450 mA 530 530 mA 700 700 mA	30K 3000K 40K 4000K 50K 5000K AMBP Amber phosphor converted AMBWL Amber lensed wandlength	ASY Asymmetric SYM Symmetric	MVOLT PE Photocentric DMS 0-10V dimming driver ELCW Emergency battery backup	SP Single face DF Double face H24 24" overall height H30 30" overall height H36 36" overall height H6 Grand-dish fixture outlet LUB Without anchor bolts LUBA 4-bolt anchor base without anchor bolts	DDBXD White DDBXD Natural aluminum DDBXD Dark bronze DDBXD Textured dark bronze DDBXD Textured black DDBXD Textured dark bronze DDBXD Textured black DDBXD Textured natural aluminum DDBXD Textured white


Accessories

Order accessories and optional accessories.

MSB8U Amber bulb for DDBXD

Notes:

- Only available in the 12C, ASY version.
- Only available in the 16C, SYM version.
- Only available with 450 AMBWL version.
- Not available with DDBXD.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 voltages only when ordering with fusing (SE, DF, options).
- Not available with 357V. Not available with fusing. Not available with 450 AMBWL.
- Specify fuse (SF) requires 120, 277, or 347 voltage option. Double face (DF) requires 208 or 240 voltage option.
- MVOLT not available with DDBXD option.



d-series

D-Series Size 2 LED Wall Luminaire

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a **shaded background**. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **shaded background**

To learn more about A+, visit www.acuitybrands.com/aplus.

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately. [Link to Roam](#); [Link to DTL DLL](#)

Specifications

Width: 18-1/2" (46.8 cm)

Depth: 10" (25.4 cm)

Height: 7 5/8" (19.4 cm)

Weight: 21 lbs (9.5 kg)

Back Box (BBW)

Width: 5-1/2" (14.0 cm)

Depth: 1-1/2" (3.8 cm)

Height: 4" (10.2 cm)

Weight: 1 lbs (0.5 kg)

Ordering Information

EXAMPLE: DSXW2 LED 30C 700 40K T3M MVOLT DDBTD

Series	LEDs	Color temperature	Distribution	Voltage	Mounting	Control options
DSXW2 LED	20C 20 LED 30C 30 LED 40C 40 LED 50C 50 LED	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA	30K 3000K 40K 4000K 50K 5000K AMBP Amber phosphor converted	T25 Type I Short T3M Type II Medium T4M Type IV Medium T7M Forward Throw Medium ASYDF Asymmetric diffuse	MVOLT 120" 120" 240" 240" 277" 277" 347" 347" 480" 480"	Shipped included PE Photocentric DMS 0-10V dimming driver ELCW Emergency battery backup RPMABA Round pole universal mounting adapter KIDAB DDBTD Non-inverting buck voltage booster

EXAMPLE: DSXW2 LED 30C 700 40K T3M MVOLT DDBTD					
Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSXW2 LED	20C 20 LED 30C 30 LED 40C 40 LED 50C 50 LED	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA	30K 3000K 40K 4000K 50K 5000K AMBP Amber phosphor converted	T25 Type I Short T3M Type II Medium T4M Type IV Medium T7M Forward Throw Medium ASYDF Asymmetric diffuse	MVOLT 120" 120" 240" 240" 277" 277" 347" 347" 480" 480"



LITHONIA LIGHTING

FEATURES & SPECIFICATIONS

INTERIOR USE — Typical applications include corridors, lobbies, conference rooms and private offices.

CONSTRUCTION — Galvanized steel mounting/driver frame; galvanized steel junction box with bottom hinged access covers and spring latches. Reflectors are retained by torsion springs. Vertically adjustable mounting brackets with commercial bar hangers provide a 3-1/4" total adjustment. Two combination 1/2"-3/4" and four 1/2" knockouts for straight through conduits. Capacity 8 (4 in, 4 out), No. 12 AWG conductor, rated for 90°C.

ACCOMMODATE 12"-24" joint spacing.

PASSIVE COOLING Thermal management for 25°C standard, high ambient (40°C) option available. Light engine and drivers are accessible from above or below ceiling.

MAX CEILING THICKNESS 1-1/2".

OPTICS — LEDs are binned to a 3-step SDCM, 80 CRI minimum.

LED LIGHT SOURCE concealed with diffusing optical lens.

GENERAL ILLUMINATION lighting with 12.5 SMD and SMD, up to 50° beam angle and source image. Self-dumped anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.

ELECTRICAL — Made with 120-277V, 50/60Hz (0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level available).

0-10V DIMMING feature requires two (2) additional low voltage wires to be pulled.

90% LUMEN MAINTENANCE at 50,000 hours.

LISTINGS — Compliant to UL and Canadian safety standards. Dump location standard (wet location, covered ceiling optional). ENERGY STAR® certified product.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomResources/terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-use environment and application.


All values are design or typical values, measured under laboratory conditions at 25°C.

Specifications subject to change without notice.

LDN6

6" OPEN and WALLWASH LED

Non-IC New Construction Downlight



LITHONIA LIGHTING

FEATURES & SPECIFICATIONS

INTERIOR USE — Typical applications include corridors, lobbies, conference rooms and private offices.

CONSTRUCTION — Galvanized steel mounting/driver frame; galvanized steel junction box with bottom hinged access covers and spring latches. Reflectors are retained by torsion springs. Vertically adjustable mounting brackets with commercial bar hangers provide a 3-1/4" total adjustment. Two combination 1/2"-3/4" and four 1/2" knockouts for straight through conduits. Capacity 8 (4 in, 4 out), No. 12 AWG conductor, rated for 90°C.

ACCOMMODATE 12"-24" joint spacing.

PASSIVE COOLING Thermal management for 25°C standard, high ambient (40°C) option available. Light engine and drivers are accessible from above or below ceiling.

MAX CEILING THICKNESS 1-1/2".

OPTICS — LEDs are binned to a 3-step SDCM, 80 CRI minimum.

LED LIGHT SOURCE concealed with diffusing optical lens.

GENERAL ILLUMINATION lighting with 12.5 SMD and SMD, up to 50° beam angle and source image. Self-dumped anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.

ELECTRICAL — Made with 120-277V, 50/60Hz (0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level available).

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WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomResources/terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-use environment and application.


All values are design or typical values, measured under laboratory conditions at 25°C.

Specifications subject to change without notice.

LDN6

6" OPEN and WALLWASH LED

Non-IC New Construction Downlight



d-series

D-Series Size 1 LED Wall Luminaire

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a **shaded background**. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **shaded background**

To learn more about A+, visit www.acuitybrands.com/aplus.

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately. [Link to Roam](#); [Link to DTL DLL](#)

Specifications

Width: 13-3/4" (34.9 cm)

Depth: 10" (25.4 cm)

Height: 6-3/8" (16.2 cm)

Weight: 12 lbs (5.4 kg)

Back Box (BBW, ELCW)

Width: 13-3/4" (34.9 cm)

Depth: 10" (25.4 cm)

Height: 6-3/8" (16.2 cm)

Weight: 5 lbs (2.3 kg)

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTD

Series	LEDs	Color temperature	Distribution	Voltage	Mounting	Control options
DSXW1 LED	10C 10 LED 20C 20 LED 30C 30 LED 40C 40 LED 50C 50 LED	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA	30K 3000K 40K 4000K 50K 5000K AMBP Amber phosphor converted	T25 Type I Short T3M Type II Medium T4M Type IV Medium T7M Forward Throw Medium ASYDF Asymmetric diffuse	MVOLT 120" 120" 240" 240" 277" 277" 347" 347" 480" 480"	Shipped included PE Photocentric DMS 0-10V dimming driver ELCW Emergency battery backup RPMABA Round pole universal mounting adapter KIDAB DDBTD Non-inverting buck voltage booster

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTD					
Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSXW1 LED	10C 10 LED 20C 20 LED 30C 30 LED 40C 40 LED 50C 50 LED	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA	30K 3000K 40K 4000K 50K 5000K AMBP Amber phosphor converted	T25 Type I Short T3M Type II Medium T4M Type IV Medium T7M Forward Throw Medium ASYDF Asymmetric diffuse	MVOLT 120" 120" 240" 240" 277" 277" 347" 347" 480" 480"



LITHONIA LIGHTING

FEATURES & SPECIFICATIONS

INTERIOR USE — Typical applications include corridors, lobbies, conference rooms and private offices.

CONSTRUCTION — Galvanized steel mounting/driver frame; galvanized steel junction box with bottom hinged access covers and spring latches. Reflectors are retained by torsion springs. Vertically adjustable mounting brackets with commercial bar hangers provide a 3-1/4" total adjustment. Two combination 1/2"-3/4" and four 1/2" knockouts for straight through conduits. Capacity 8 (4 in, 4 out), No. 12 AWG conductor, rated for 90°C.

ACCOMMODATE 12"-24" joint spacing.

PASSIVE COOLING Thermal management for 25°C standard, high ambient (40°C) option available. Light engine and drivers are accessible from above or below ceiling.

MAX CEILING THICKNESS 1-1/2".

OPTICS — LEDs are binned to a 3-step SDCM, 80 CRI minimum.

LED LIGHT SOURCE concealed with diffusing optical lens.

GENERAL ILLUMINATION lighting with 12.5 SMD and SMD, up to 50° beam angle and source image. Self-dumped anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.

ELECTRICAL — Made with 120-277V, 50/60Hz (0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level available).

0-10V DIMMING feature requires two (2) additional low voltage wires to be pulled.

90% LUMEN MAINTENANCE at 50,000 hours.

LISTINGS — Compliant to UL and Canadian safety standards. Dump location standard (wet location, covered ceiling optional). ENERGY STAR® certified product.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomResources/terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-use environment and application.

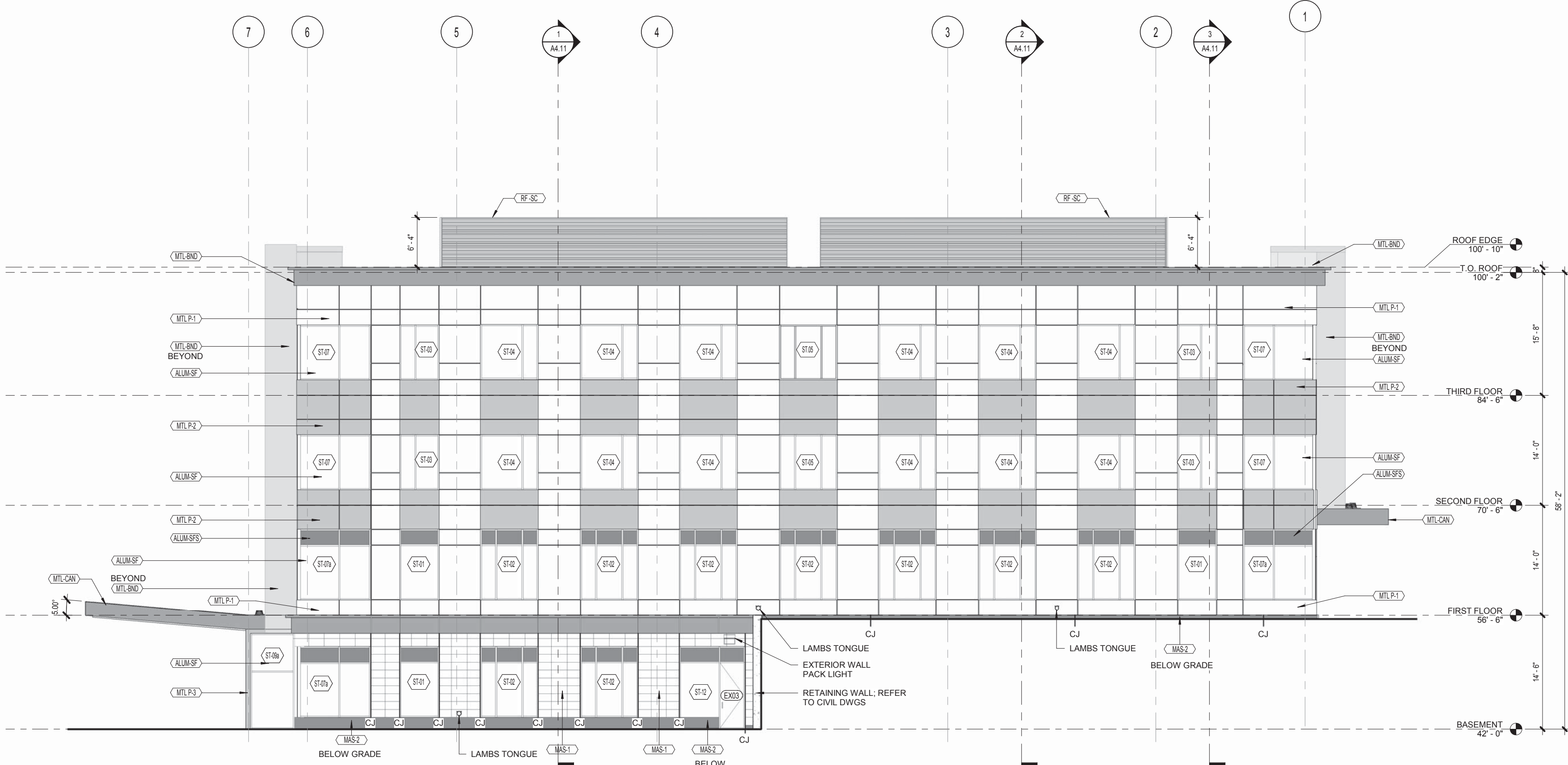
All values are design or typical values, measured under laboratory conditions at 25°C.

Specifications subject to change without notice.

LDN6

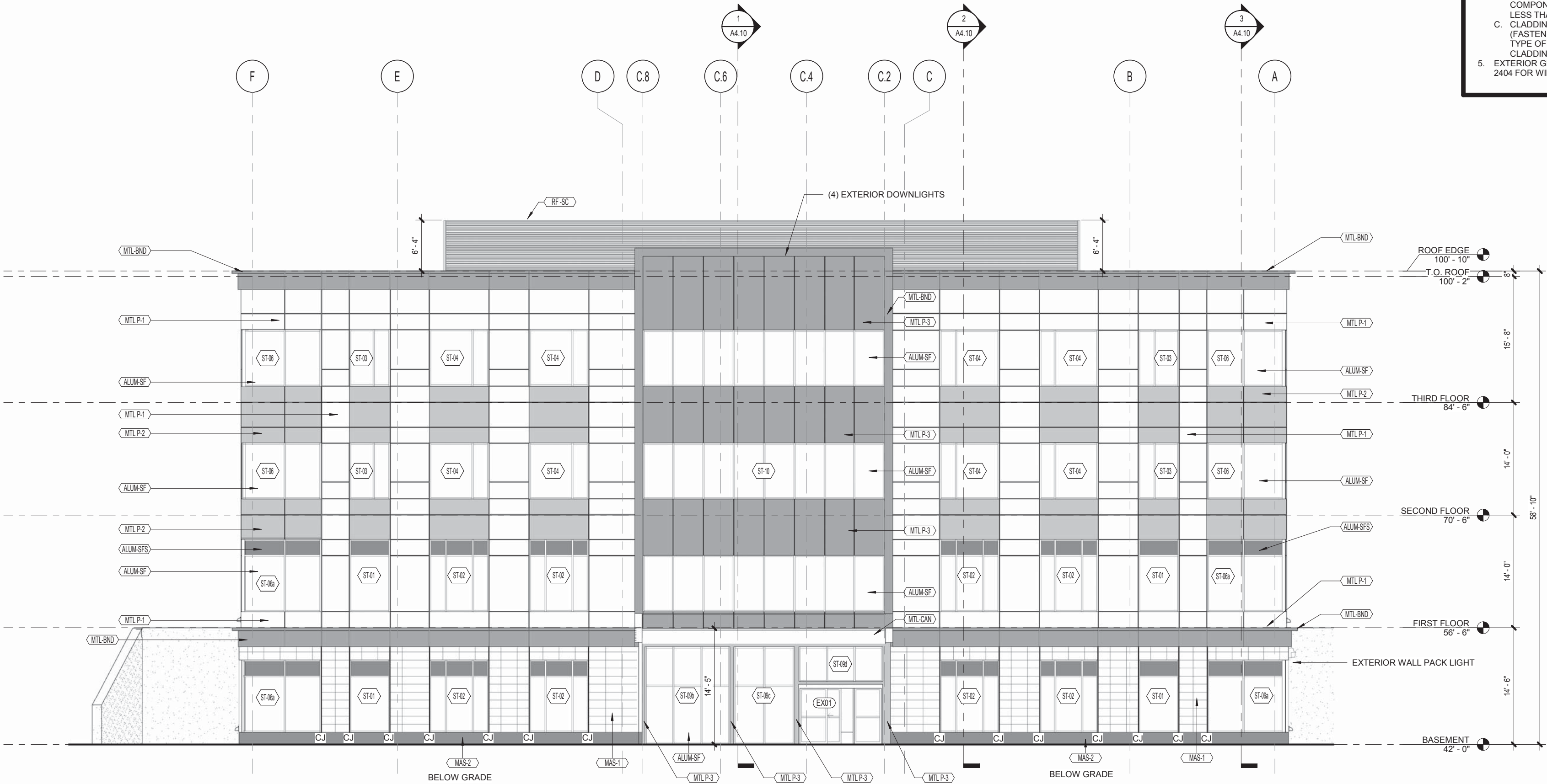
6" OPEN and WALLWASH LED

Non-IC New Construction Downlight



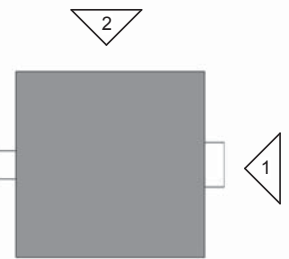
2
A3.01
EXTERIOR ELEVATION - NORTH
1/8" = 1'-0" RE SHEET: 1 / A1.00

- GENERAL NOTES - EXTERIOR ELEVATIONS**
- COMPONENT AND CLADDING ELEMENTS SHALL BE INSTALLED TO SATISFY THE REQUIREMENTS OF THE - 2009 INTERNATIONAL BUILDING CODE - WIND LOADS.
 - 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.
 - FOR THIS BUILDING DESIGN WINDLOAD IS TO BE **100 MPH EXPOSURE B** - REFER TO DRAWING S0.1 FOR WIND PRESSURES.
 - THESE COMPONENTS AND CLADDING SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - ROOFING INCLUDING SHEATHING, TRIM, SHINGLES, MEMBRANE ROOFING, ETC.
 - FENESTRATIONS INCLUDING WINDOWS, STOREFRONT, ENTRANCES, DOORS, ETC. (MANUFACTURED COMPONENTS SHALL BE LABELED TO CLEARLY INDICATE THE WINDLOAD DESIGN PRESSURE BUT NOT LESS THAN 31 PSF.)
 - 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.)
 - EXTERIOR GLASS AND GLAZING IN WINDOWS AND STOREFRONTS SHALL COMPLY WITH MA 780 CMR SECTION 2404 FOR WIND, SNOW, SEISMIC AND DEAD LOADING

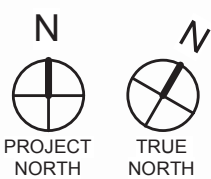


1
A3.01
EXTERIOR ELEVATION - EAST
1/8" = 1'-0" RE SHEET: 1 / A1.00

EXTERIOR ELEVATION FINISHES	
MTL.BND	MASONRY VENEER: ARRISCRRAFT RENAISSANCE COLOR: WHITE
MAS.2	BELOW GRADE MASONRY VENEER: ADAIR LIMESTONE COLOR: BLUE GREY VEINED
MTL.P.1	METAL PANEL: ALUCOBOND COLOR: RUSTED METAL REFER TO EXTERIOR ELEVATIONS FOR REVEALS
MTL.P.2	METAL PANEL: ALUCOBOND COLOR: BRILLIANT SILVER METALLIC REFER TO EXTERIOR ELEVATIONS FOR REVEALS
MTL.P.3	METAL PANEL: ALUCOBOND COLOR: BRUSHED 50 REFER TO EXTERIOR ELEVATIONS FOR REVEALS
MTL.BND	METAL PANEL BAND: ALUCOBOND COLOR: BRUSHED 50 REFER TO EXTERIOR ELEVATIONS FOR REVEALS
MTL.FAS	METAL FASCIA ALUCOBOND COLOR: BRUSHED 50 REFER TO EXTERIOR ELEVATIONS FOR REVEALS
MTL.CAN	METAL CANOPY ALUCOBOND COLOR: BRUSHED 50 REFER TO EXTERIOR ELEVATIONS FOR REVEALS
ALUM.SP	KAWNEER STOREFRONT SYSTEM COLOR: TO BE DETERMINED OR AS APPROVED FROM MANUF. FULL RANGE OF COLOR SAMPLES
ALUM.SP	KAWNEER STOREFRONT SYSTEM SPANDRAL OR AS APPROVED FROM MANUF. FULL RANGE OF COLOR SAMPLES
DR.DR	HOLLOW METAL DOOR & FRAME (INSULATED) COLOR: TO BE DETERMINED REFER TO DOOR SCHEDULE FOR MORE INFORMATION
DR.DR	INSULATED ROLL-UP DOOR: COLOR: GREY REFER TO DOOR SCHEDULE FOR MORE INFORMATION
RF.SC	ROOF SCREEN: COLOR: GREY REFER TO SPECIFICATION FOR MORE INFORMATION
LOUVER	LOUVER: COLOR: GREY REFER TO SPECIFICATION FOR MORE INFORMATION



KEYPLAN A3.01



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

Date	Issue Description
9/20/2019	ISSUED FOR GMP
AS/005	5/15/2019 AS/005

Architect: JAL
Drawn By: JW
Project No.: 301701
Copyright: 2019 PROCON, LLC.

Drawing Sheet Title:
EXTERIOR ELEVATIONS

Drawing Sheet Number:

A3.01



1. COMPONENT AND CLADDING ELEMENTS SHALL BE INSTALLED TO SATISFY THE REQUIREMENTS OF THE - 2009 INTERNATIONAL BUILDING CODE - WIND LOADS.
2. THE COMPONENTS AND CLADDING ELEMENTS WHICH ARE ELEMENTS OF THE BUILDING ENVELOPE THAT DO NOT QUALIFY AS PART OF THE MAIN WINDFORCING 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 CATEGORY SHALL BE **100 MPH EXPOSURE B** - REFER TO DRAWING 501 FOR WIND PRESSURES.
4. THE COMPONENTS AND CLADDING SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - A. ROOFING INCLUDING SHEATHING, TRIM, SHINGLES, MEMBRANE ROOFING, ETC.
 - B. PENETRATIONS INCLUDING WINDOWS, STOREFRONT, ENTRANCES, DOORS, ETC., MANUFACTURED COMPONENTS SHALL BE LABELED TO CLEARLY INDICATE THEIR WIND DESIGN WIND PRESSURE BUT NOT LESS THAN 31 PSF.)
 - C. CLADDING INCLUDING VINYL, SIDING, FIBER CEMENT SIDING, BRICK, TRIM, FLASHINGS, AND GUTTERS
5. FASTENERS SHALL BE DESIGNED TO RESIST THE WIND LOADS AND WIND UPLIFT IN ACCORDANCE WITH THE TYPE AND TYPE OF FASTENER DESIGNED TO INDIVIDUALLY SUPPORT THE TRIBUTARY AREA OF THE COMPONENT OR CLADDING SUPPORTED BY INDIVIDUAL FASTENER.)
6. EXTERIOR GLASS AND GLAZING IN WINDOW OR STOREFRONT SHALL COMPLY WITH MA 780 CMR SECTION 2404 FOR WIND, SNOW, SEISMIC AND DEAD LOADING.



	Date	Issue Description
	3/20/2019	ISSUED FOR GMP
ASI 005	5/15/2019	ASI005

Architect:	JAL
Drawn By:	JW
Project No.:	301701
Copyright:	2019 PROCON, LLC.

Drawing Sheet Title:

**EXTERIOR
ELEVATIONS**

Drawing Sheet Number:

A3.02