

THE HOTEL AT FOUNDRY PLACE, "LOT 3": 165 DEER STREET, ASSESSORS MAP 125 LOT 17, AND RELATED IMPROVEMENTS TO LOTS 2, 4 & 5



ARCHITECTS
INTERIORS
PLANNERS

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801
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GEOSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDERSEN, INC.
LANDSCAPE ARCHITECT
PORTSMOUTH, NEW HAMPSHIRE

AMBIT ENGINEERING, INC.
SURVEY
PORTSMOUTH, NEW HAMPSHIRE

ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPFP ENGINEER
WOBURN, MASSACHUSETTS

THE HOTEL AT
FOUNDRY PLACE, "LOT
3": 165 DEER STREET,
ASSESSORS MAP 125
LOT 17, AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5

PORTSMOUTH, NH 03801

OWNER:
Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)

7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E Seal:



Scale:
Date: 2/06/2018
Project Number: 14837.02

REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	3/17/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017
6	PLANNING BOARD	2/06/2018

SITE PLAN REVIEW

COVER SHEET

T.01 T

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DESIGN TEAM

GEOTECH & CIVIL
GEOSIGHT, INC.
186 GRANITE STREET, 3RD FLOOR, SUITE A
MANCHESTER, NEW HAMPSHIRE
(603) 314-0820

SURVEY
AMBIT ENGINEERING
200 GRIFFIN RD, UNIT 3
PORTSMOUTH, NEW HAMPSHIRE

LANDSCAPE ARCHITECT
GREENMAN-PEDERSEN, INC.
21 DANIEL STREET, SECOND FLOOR
PORTSMOUTH, NEW HAMPSHIRE
(603) 891-2213

ELECTRICAL ENGINEER
ENGINEERED BUILDING SYSTEMS
22 MANCHESTER ROAD, #8A
DERRY, NEW HAMPSHIRE
(603) 870-9009

ARCHITECT
JSA INC.
SUITE 100
273 CORPORATE DRIVE
PORTSMOUTH NEW HAMPSHIRE
603.436.2551

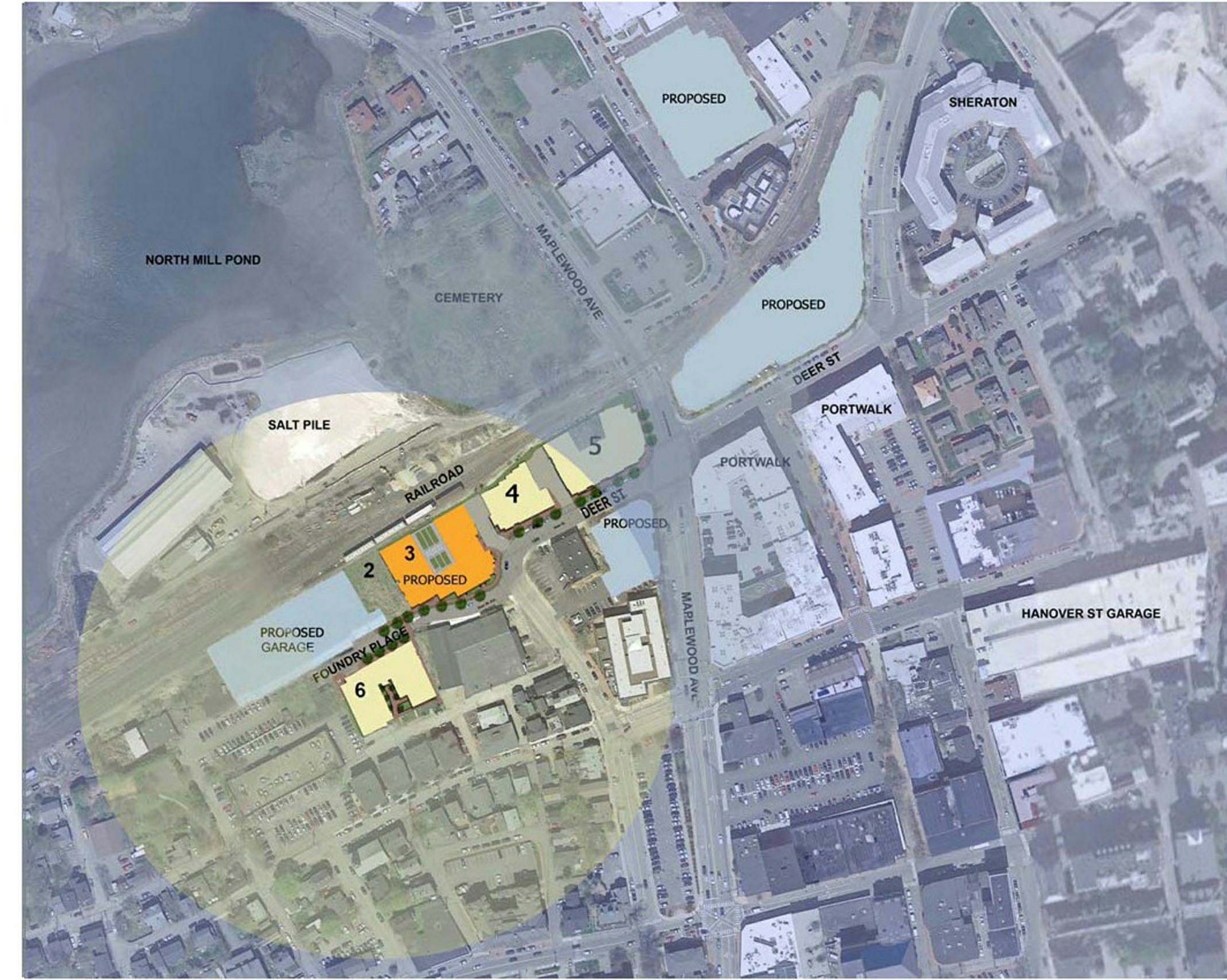
MECHANICAL / PLUMBING AND FIRE PROTECTION ENGINEER
ENGINEERED SYSTEMS INC.
237 LEXINGTON STREET, SUITE 207
WOBURN, MASSACHUSETTS
(781) 569-6525

STRUCTURAL ENGINEER
JSN ASSOCIATES, INC.
1 AUTUM STREET
PORTSMOUTH, NEW HAMPSHIRE
(603) 433-8639

LIGHTING
J & M LIGHTING DESIGN, INC.
PO BOX 1959
KENNEBUNKPORT, MAINE
(207) 967-5223

TRAFFIC
GORRILL PALMER
707 SABLE OAKS DRIVE, SUITE 30
SOUTH PORTLAND, MAINE
(207) 772-2515

SIGNAGE & WAYFINDING
CHARLES GIBSON DESIGN
318 BROOK HOLLOW
HANOVER, NEW HAMPSHIRE
(603) 643-3264



SITE PLAN REVIEW
FEBRUARY 6, 2018

DRAWING SHEET LIST					
SHEET NO.	NAME	3/17/2017	11/17/2017	12/19/2017	01/16/2018
COVER SHEETS					
T.01 T	COVER SHEET				
T.02 T	ZONING ORDINANCE REQUIREMENTS				
SURVEY					
X1	EXISTING CONDITIONS SITE PLAN - LOTS 1 THROUGH 6				
X2	EXISTING CONDITIONS SITE PLAN - LOT 3 DETAIL				
CIVIL					
C1.0	GENERAL NOTES 1 OF 2				
C1.1	GENERAL NOTES 2 OF 2				
C2.0	DEMOLITION PLAN				
C3.0	SITE PLAN - OVERALL				
C3.1	SITE PLAN - DETAIL (1 OF 3)				
C3.2	SITE PLAN - DETAIL (2 OF 3)				
C3.3	SITE PLAN - DETAIL (3 OF 3)				
C3.4	DEVELOPMENT INCENTIVES PLAN				
C3.5	OPEN SPACE PLAN				
C3.6	VEHICLE TURNING EXHIBIT				
C3.6	WASTE SERVICE TRUCK TURNING TEMPLATE				
EXB-1	MANEUVERING PLAN FOR P-SIZE DELIVERY VAN				
C3.6	AASHTO WB-40 TRUCK TURNING TEMPLATE				
EXB-2	GRADING AND DRAINAGE PLAN				
EXB-3	GRADING - DETAIL LOTS 3 & 4				
C4.0	GRADING - DETAIL LOT 2				
C4.1	AVERAGE GRADE CALCULATION				
C4.2	UTILITY PLAN - SANITARY SEWER				
C4.3	UTILITY PLAN - WATER, GAS & ELECTRICAL				
C5.0	UTILITY PLAN - ELECTRICAL FOR VFW AND CITY LIGHTS				
C5.1	EROSION AND SEDIMENT CONTROL PLAN				
C5.2	EROSION CONTROL DETAILS				
C6.0	SANITARY SEWER AND DRAINAGE PROFILES				
C6.1	SITE DETAILS				
C7.0	TRAFFIC DETAILS				
C8.0	DRAINAGE DETAILS				
C8.1	UTILITY DETAILS 1 OF 2				
C8.2	UTILITY DETAILS 2 OF 2				
C8.3	INFILTRATION DETAILS				
C8.4	EASEMENT PLAN LOT 2				
C8.5	EASEMENT PLAN LOT 3				
E1	EASEMENT PLAN LOT 4				
E2					
E3					
SITE ELECTRICAL					
SE1.1	BUILDING #3 ELECTRICAL & COMMUNICATIONS PLAN				
SE1.2	BUILDING #3 LIGHTING PLAN				
SE1.3	BUILDING #3 PHOTOMETRIC PLAN				
SE2.1	SITE ELECTRICAL DETAILS				
SE2.2	SITE ELECTRICAL DETAILS				
SE2.3	SITE ELECTRICAL DETAILS				
SE3.1	SITE ELECTRICAL PLAN				
SE3.2	SITE COMMUNICATION PLAN				
SE3.2	SITE ELECTRICAL DEMOLITION PLAN - EXISTING CONDITIONS				
LANDSCAPE					
L1	MATERIALS PLAN				
L2	PLANTING PLAN				
L3.1	DETAILS				
L3.2	DETAILS - PLANTS				
L4	INTERIM LOT 4 ACCESS DRIVEWAY AND MATERIALS PLAN				
L5	INTERIM LOT 4 ACCESS DRIVEWAY AND PLANTING PLAN				
ARCHITECTURAL					
A1.01 T	FIRST FLOOR PLAN				
A1.03 T	ROOF PLAN				
A2.01 T	EXTERIOR ELEVATIONS				
A2.02 T	EXTERIOR ELEVATIONS				
A2.03 T	EXTERIOR ELEVATIONS				
A3.00 T	3D VIEWS				

NOTE:
1. ALL CONDITIONS ON THIS PLAN SET SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.

CITY OF PORTSMOUTH PLANNING BOARD

CHAIRPERSON _____ DATE _____

The Hotel at Foundry Place - Area and Use Summary

January 16, 2018	
Building Name	Use
Building 3 (development incentive 10.5A46.10)	

AREA ANALYSIS							
Ground Floor (below grade) Area SF	1st Floor Area SF	2nd Floor Area SF	3rd Floor Area SF	4th Floor Area SF	5th Floor Area SF	Total Gross Floor Area - to outside face of exterior wall	Total Unit Count
	11,489					11,489	
					4,060	4,060	0
		77	77	77	1,377	1,608	
	2,160					2,160	
	8,328	22,944	19,683	19,717	14,031	84,703	128
	21,977	23,021	19,760	19,794	19,468	104,020	128

Building 3 (development incentive 10.5A46.10)	
Parking Garage	
Multi-Family Dwelling	
Bar	
Balconies and Decks	
Café	
Hotel	
total area	

Building 3							
	11,489					11,489	
					4,060	4,060	0
		77	77	77	1,377	1,608	
	2,160					2,160	
	8,328	22,944	19,683	19,717	14,031	84,703	128
	21,977	23,021	19,760	19,794	19,468	104,020	128

The Hotel at Foundry Place - Parking Summary

January 16, 2018	
Building Name	Use
Building 3 (development incentive 10.5A46.10)	

PARKING ANALYSIS									
Parking required - Downtown Overlay District 10.1115.20		Parking required - Development Incentive 10.5A47.10		Downtown overlay district - 10.1115.23	Total parking spaces required	Parking spaces provided on site	Parking spaces provided at Municipal Garage (see references below)	Total parking spaces provided	Surplus Parking Spaces
Spaces per residential unit	Quantity	Spaces per residential unit	Quantity	Reduction = 4 parking spaces	Quantity	Quantity	Quantity	Quantity	Quantity
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
0.75	96	0	0	0	0	0	0	0	0
-	96	-	-	(4.00)	92	78	33	111	19

Building 3 (development incentive 10.5A46.10)	
Parking Garage	
Multi-Family Dwelling	
Bar	
Retail Sales	
Restaurant	
Hotel	
total area	

Building 3									
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
0.75	96	0	0	0	0	0	0	0	0
-	96	-	-	(4.00)	92	78	33	111	19

New Municipal Foundry Place Parking Garage	
Reference City/DSA Post Closing Obligations Agreement & Parking Agreement documents dated 9/09/2016, and per Section 10.1113.111 Municipal Garage Spaces qualify as "off-street parking" as held by City Legal Department.	
DSA Parking Garage spaces - interior	58
DSA Flex Parking Spaces - exterior / interior	10
Total spaces	68

PORTSMOUTH CHARACTER ZONING - D5 - DEER STREET LOT 3 - HOTEL		
	PER CDS	PROPOSED
BUILDING PLACEMENT - PRINCIPAL BUILDING*		
MAXIMUM PRINCIPAL FRONT YARD	5 FT	> 5 FT
MAXIMUM SECONDARY FRONT YARD	5 FT	> 5 FT
SIDE YARD	NR	NR
MINIMUM REAR YARD	GREATER OF 5 FT FROM REAR LOT LINE OR 10 FT FROM CENTER LINE OF ALLEY	5 FT
* EXCEPT FOR ITEMS LISTED UNDER SECTION 10.5A42.12		
BUILDING AND LOT OCCUPATION		
MAXIMUM BUILDING BLOCK LENGTH	225 FT	174'-9"
MAXIMUM FAÇADE MODULATION LENGTH	100 FT	68'-8" FT
MAXIMUM ENTRANCE SPACING	50 FT	MAX <50 FT
MAXIMUM BUILDING COVERAGE	95%	83%
MAXIMUM BUILDING FOOTPRINT (INCLUDES INCREASED FOOTPRINT INCENTIVE)	30,000 SF	21,977
MINIMUM LOT AREA	NR	NR
MINIMUM LOT AREA PER DWELLING UNIT	NR	NR
MINIMUM OPEN SPACE	5%	7.1%
MINIMUM OPEN SPACE OF WHICH IS PERMEABLE	50.0%	53.9%
BUILDING FORM - PRINCIPAL BUILDING		
BUILDING HEIGHT (INCLUDES INCREASED HEIGHT INCENTIVE)	50 FT + 10 FT + 2 FT	49 FT-9" + 10 FT + 2 FT = 61 FT-9"
BUILDING STORIES (INCLUDES INCREASED HEIGHT INCENTIVE)	4 STORIES + 1 STORY	5 STORIES
MAXIMUM FINISHED FLOOR SURFACE OF GROUND FLOOR ABOVE SIDEWALK GRADE	36 INCHES	< 36 INCHES
MINIMUM GROUND STORY HEIGHT	12 FT	15 FT
MINIMUM SECOND STORY HEIGHT	10 FT	13 FT
FAÇADE GLAZING		
SHOPFRONT FAÇADE	70% MIN.	72%
OTHER FAÇADE TYPES	20% MIN TO 50% MAX	38%
ROOF TYPE	FLAT, GABLE, HIP, GAMBREL, MANSARD	FLAT
ROOF PITCH, IF ANY	FLAT	FLAT

SUMMARY OF APPROVED VARIANCES BY LOT

- LOT 2 (APPROVED JULY 18, 2017)**
- A VARIANCE FROM SECTION 10.440 TO ALLOW A SURFACE PARKING LOT AS A PRINCIPAL USE WHERE SUCH USE IS NOT ALLOWED.
 - A VARIANCE FROM SECTION 10.5A44 TO ALLOW A PARKING LOT THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF THE ORDINANCE.
- LOT 3 (APPROVED MAY 16, 2017)**
- A VARIANCE FROM SECTION 10.516.20 TO ALLOW A 5' +/- REAR YARD ADJOINING A RAILROAD RIGHT-OF-WAY WHERE 15' IS REQUIRED.
 - A VARIANCE FROM SECTION 10.1114.21 TO ALLOW 62 PARKING SPACES UTILIZING A TWO-CAR LIFT SYSTEM IN EACH BAY THAT DOES NOT MEET THE REQUIRED DIMENSIONS FOR PARKING SPACES.
 - A VARIANCE FROM SECTION 10.1114.32(a) TO ALLOW VEHICLES TO ENTER AND LEAVE PARKING SPACES BY PASSING OVER ANOTHER PARKING SPACE OR REQUIRING THE MOVING OF ANOTHER VEHICLE.
- LOT 4 (APRIL 18, 2017)**
- A VARIANCE UNDER SECTION 10.440, USE #19.40 TO ALLOW A DRIVE-THROUGH FACILITY AS AN ACCESSORY USE.
 - A VARIANCE FROM SECTION 10.516.20 TO ALLOW A 5' +/- REAR YARD ADJOINING A RAILROAD RIGHT-OF-WAY WHERE 15' IS REQUIRED.
 - A VARIANCE FROM 10.5A41.10D TO ALLOW A FRONT LOT LINE BUILDOUT OF 66% +/- WHERE 80% IS REQUIRED.
 - A VARIANCE FROM SECTION 10.835.31 TO ALLOW AN OUTDOOR SERVICE FACILITY (ATM) 49.7' +/- FROM THE REAR LOT LINE AND 48' +/- FROM THE FRONT LOT LINE WHERE 50' IS REQUIRED FOR EACH.
 - A VARIANCE FROM SECTION 10.835.32 TO ALLOW A DRIVE-THROUGH BYPASS LANE 11.3' +/- FROM A LOT LINE WHERE 30' IS REQUIRED.

SUMMARY OF SITE PLAN REVIEW & ZONING ORDINANCE VESTED STATUS

LOT 3 - per Zoning Ordinance, Adopted 12/21/2009, Effective 01/01/2010, as Amended through 01/09/2017:

"Design Review" Planning Board Hearings: December 15, 2016; continued on January 19, 2017 (VESTED)

"Site Plan Review" TAC Worksession: February 22, 2017
 "Site Plan Review" TAC Public Hearing 1: April 4, 2017
 "Site Plan Review" TAC Public Hearing 2: December 5, 2017
 "Site Plan Review" TAC Public Hearing 3: January 2, 2018
 "Site Plan Review" TAC Public Hearing 4: January 30, 2018



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INTERIORS
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T 603.436.2551 www.jsainc.com

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DERRY, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPFP ENGINEER
WOBURN, MASSACHUSETTS

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5

PORTSMOUTH, NH 03801

OWNER:

Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E Seal:



Scale:
Date: 2/06/2018
Project Number: 14837.02

REVISIONS		
NO.	DESCRIPTION	DATE
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017
4	TAC PUBLIC HEARING	1/16/2018

SITE PLAN REVIEW

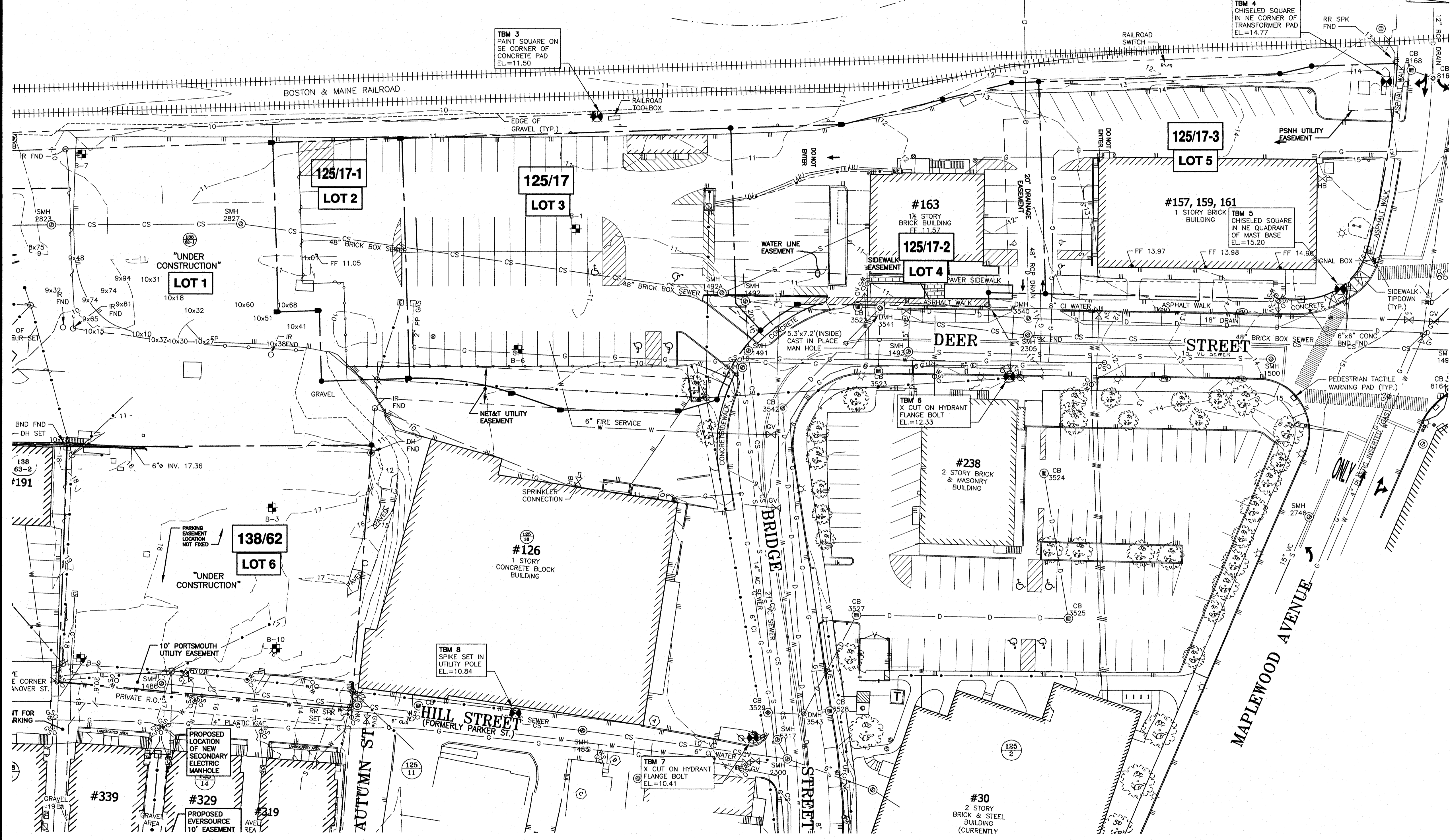
ZONING ORDINANCE REQUIREMENTS

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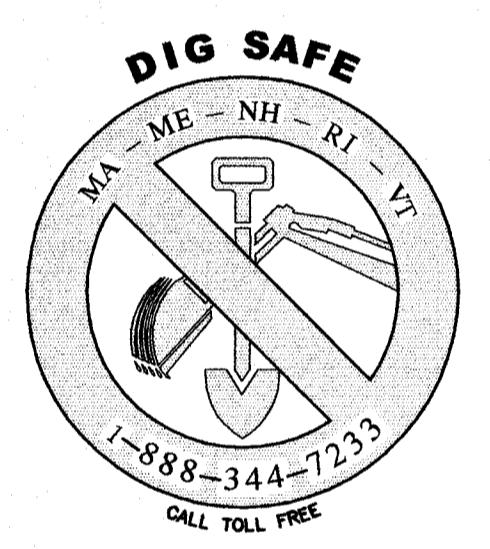
ABUTTERS LIST

- | | | | | | | |
|---|---|--|--|---|---|--|
| 125
1
N/F HANOVER APARTMENTS, LLC
c/o CATHARTIS PRIVATE INVESTMENTS
11 BEACON STREET, SUITE 1120
BOSTON, MA 02108
5387/2814 | 125
3
N/F EMERSON HOVEY
POST 168 VW
238 DEER STREET
PORTSMOUTH, N.H. 03801 | 125
14
N/F HILL HANOVER GROUP, LLC
c/o JPK PROPERTIES, LLC
1 NEW HAMPSHIRE AVENUE, #125
PORTSMOUTH, N.H. 03801
4356/10 | 125
21
N/F NORTH END
MASTER DEVELOPMENT L.P.
501 DANFORTH STREET
PORTLAND, ME 04102
5569/2553 | 138
60
N/F CITY OF PORTSMOUTH
P.O. BOX 628
PORTSMOUTH, N.H. 03802 | 138
63
N/F KEARSARGE MILL
CONDOMINIUM ASSOCIATION
191 HILL STREET
PORTSMOUTH, N.H. 03801
2596/1585
D-14855 | 164
4
N/F BOSTON & MAINE
CORPORATION
IRON HORSE PARK
HIGH STREET
NORTH BILLERICA, MA 01862 |
| 125
2
N/F THIRTY MAPLEWOOD, LLC
117 BOW STREET
PORTSMOUTH, N.H. 03801
5099/2424 | 125
11
N/F 136 HILL STREET
CONDOMINIUM ASSOCIATION
136 HILL STREET
PORTSMOUTH, N.H. 03801
4823/873
C-34853 | 125
16
N/F JOHN W. GRAY REVOCABLE TRUS
BRADFORD A. GRAY REVOCABLE TRUS
7 PATRIOTS WAY
RYE, N.H. 03870
3895/643 | 126
24
N/F GOWEN G. EDWARD, Jr.
REVOCABLE LIVING TRUST
GOWEN G. EDWARD, Jr., TRUSTEE
355 GREAT BAY ROAD
GREENLAND, N.H. 03840
4327/2531 | 138
61
N/F PETER HAPPNY
66 ROCK STREET
PORTSMOUTH, N.H. 03801
2302/1079
D-31107 | 138
64
N/F HANOVER PLACE
CONDOMINIUM ASSOCIATION
349 HANOVER STREET
PORTSMOUTH, N.H. 03801
4607/16
D-33379 | |



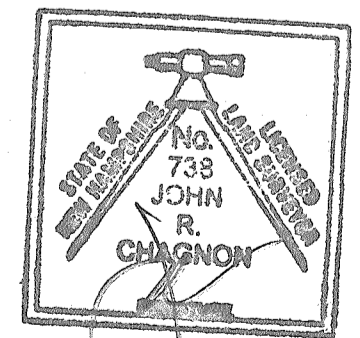
AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 438-2315

- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) SEE SHEETS X2 FOR LOT 3 PARCEL INFORMATION.
 - 4) THE PROPERTIES INCLUDE A RESTRICTIVE COVENANT GRANTED BY BOSTON & MAINE RAILROAD TO PRECLUDE CONSTRUCTION OF ANY PERMANENT OR TEMPORARY BUILDINGS WITHIN 10' OF THE NORTHERLY PROPERTY LINE OF LOTS 125/17 TO 17-3. SEE RCRD BOOK 5791 PAGE 2556 & RCRD D-39951.



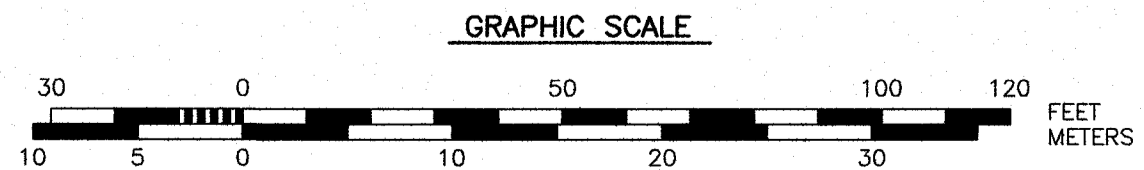
DEER STREET ASSOCIATES, INC. SITE REDEVELOPMENT PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
2	REVISED FEATURES	12/19/17
1	NOTE 4	2/9/17
0	ISSUED FOR COMMENT	11/14/16



SCALE: 1" = 30' OCTOBER 2016

EXISTING CONDITIONS SITE PLAN **X1**



Overlay Districts

- DOD Downtown Overlay District
- HD Historic District

Character Districts

- CD5 Character District 5
- CD4 Character District 4
- CD4-W Character District 4-W
- CD4-L1 Character District 4-L1
- CD4-L2 Character District 4-L2

Civic District

- CIVIC Civic District

Other Districts

- M Municipal District
- TC Transportation Corridor

Legend

Height requirement area

- 1 Story 20'
- 2 Stories 35'
- 2-3 Stories (short 3rd) 35'
- 2-3 Stories 40'
- 2-3 Stories (short 4th) 45'
- 2-4 Stories 50'
- 2-4 Stories (short 5th) 60'
- 2-5 Stories 60'

Maximum building height*

Incentive Overlay Districts

Within the Incentive Overlay Districts, certain specified development standards, including height, density and parking, may be modified pursuant to Section 10.5A47.

- North End Incentive Overlay District

Legend

Required Façade Types

- Shopfront façade type
- Step, stoop or recessed entry façade type
- Officefront façade type

EASEMENT AND RESTRICTION NOTES:

- SUBJECT PARCELS ARE SUBJECT TO ALL MATTERS SET FORTH IN R.C.R.D. 5751/1470 INCLUDING, BUT NOT LIMITED TO:
 - AN ACCESS EASEMENT ACROSS TAX MAP 138 LOT 62-1 BENEFITING TAX MAP 125 LOT 17 TAX AND MAP 125 LOT 17-1.
 - BENEFITING FROM AN ACCESS EASEMENT FOR VEHICULAR AND PEDESTRIAN INGRESS AND EGRESS TO AND FROM BRIDGE STREET, AS DESCRIBED IN R.C.R.D. 2602/564 AND AMENDED IN R.C.R.D. 5701/2460.
 - THE RIGHT TO RELOCATE ANY UNDERGROUND FACILITIES, DRAINAGE CULVERTS, WALLS, CROSSINGS AND/OR OTHER STRUCTURES ON THE SUBJECT PARCEL.
- RESTRICTIONS REGARDING CLAIMS AGAINST BOSTON AND MAINE CORPORATION FOR ENVIRONMENTAL ISSUES, SEE R.C.R.D. 5453/138.
- RIGHTS OF THE CITY AND PUBLIC IN AND TO EXISTING SEWER AND STORM WATER LINES.
- EASEMENT TO PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, SEE R.C.R.D. 3017/615.
- ALL STATE OF FACTS AS APPEAR ON A PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY, PORTION OF TAX MAP 138 LOT 62 & TAX MAP 125 LOT 17, OWNER OF RECORD: DEER STREET ASSOCIATES" DATED APRIL 2016, PREPARED BY AMBIT ENGINEERING, INC.
- ALL MATTERS NOTED, DESCRIBED, OR SHOWN ON R.C.R.D. PLAN D-39699.

- SEE ALSO RELEASE DEEDS FROM BOSTON AND MAINE CORPORATION TO DEER STREET ASSOCIATES, R.C.R.D. 5751/1440, 5757/1443, 5751/1449, 5757/1451, AND 5751/1455.
- SEE ALSO AMENDMENT TO LEASE AND NOTICE OF LEASE, R.C.R.D. 5751/1466.
- SUBJECT PARCEL 17-1 SUBJECT TO A PERMANENT CONSTRUCTION AND MAINTENANCE EASEMENT FOR THE BENEFIT OF TAX MAP 138 LOT 62-1. SEE R.C.R.D. 5751/1492.
- SEE ALSO R.C.R.D. 5751/1504 FOR AGREEMENT REGARDING RELOCATION OF UNDERGROUND UTILITIES.
- PARCELS ARE BEFITTED BY A DECLARATION OF RESTRICTIVE COVENANT RECORDED AT RCRD 5791/2556.

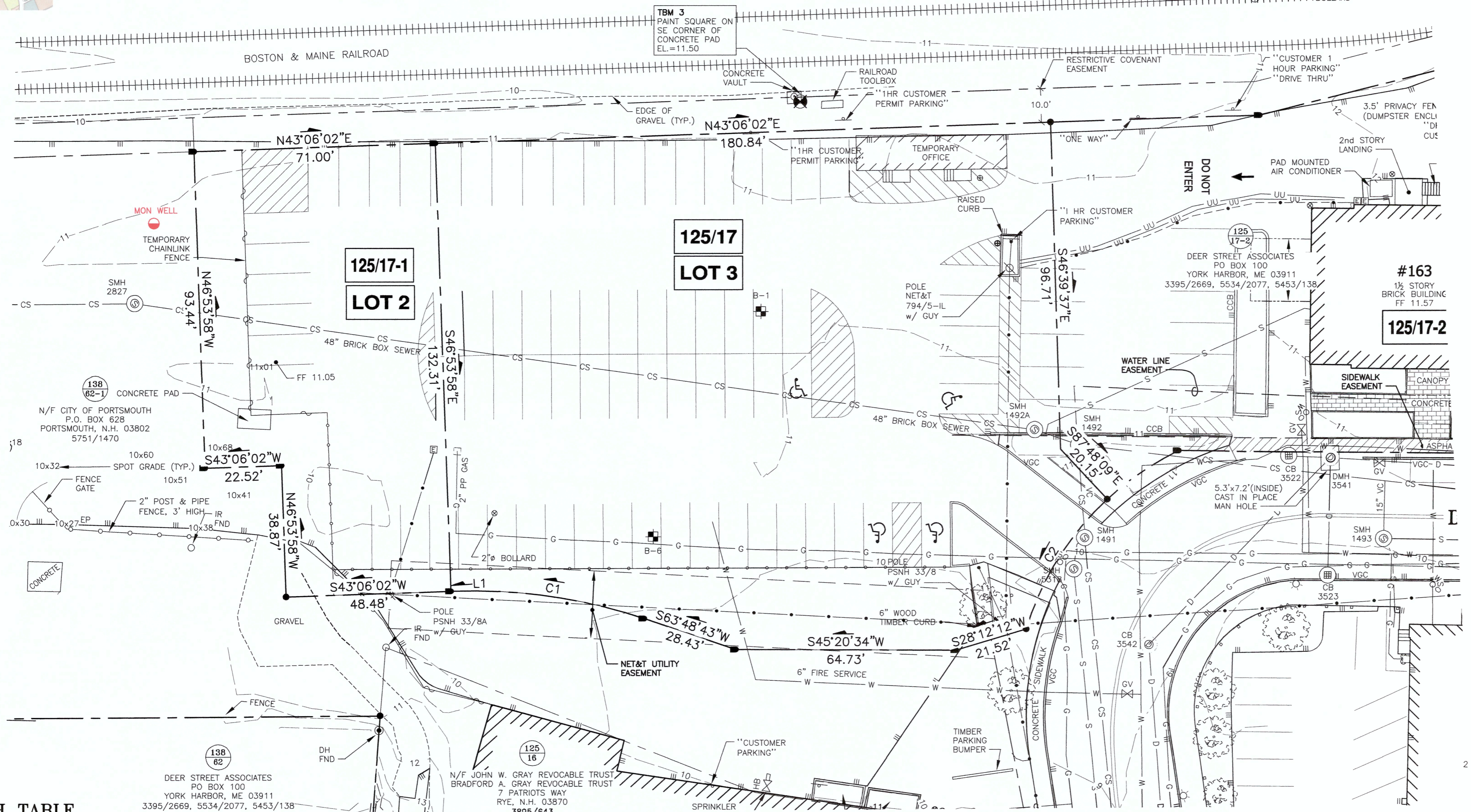
LEGEND:

N/F	NOW OR FORMERLY RECORD OF PROBATE	HYD	HYDRANT
RP	ROCKINGHAM COUNTY REGISTRY OF DEEDS	W/E	METER (GAS, WATER, ELECTRIC)
RCRD	MAP 11 / LOT 21	CB	CATCH BASIN
RR SPK FND	RAILROAD SPIKE FOUND/SET	DMH	TELEPHONE MANHOLE
IR FND	IRON ROD FOUND/SET	SMH	SEWER MANHOLE
IP FND	IRON PIPE FOUND/SET	DMH	DRAIN MANHOLE
DH FND	DRILL HOLE FOUND/SET	B-1	TEST BORING
CONC BND w/DH	CONCRETE BOUND w/ DRILL HOLE	AC	AIR CONDITIONER UNIT SIGNS
ST BND w/DH	STONE BOUND w/DRILL HOLE	CI	ASBESTOS CEMENT PIPE
FM	FORCE MAIN	DI	CAST IRON PIPE
S	SEWER LINE	DI	DUCTILE IRON PIPE
G	GAS LINE	PVC	POLYVINYL CHLORIDE PIPE
D	STORM DRAIN	RCP	REINFORCED CONCRETE PIPE
W	WATER LINE	VC	VITRIFIED CLAY PIPE
UNDERGROUND ELECTRIC OVERHEAD ELECTRIC/WIRES		PP	PLASTIC PIPE
CHAIN LINK FENCE		EL	ELEVATION
CONTOUR		EP	EDGE OF PAVEMENT
100	SPOT ELEVATION	FF	FINISHED FLOOR
97x3	EDGE OF PAVEMENT (EP)	INV	INVERT
U/P	UTILITY POLE (w/ GUY)	TBM	TEMPORARY BENCHMARK
SHUT OFF (GAS / WATER)		TYP.	TYPICAL
GATE VALVE		VGC/SGC	VERTICAL/SLOPED GRANITE CURB
		CCB	CAPE COD BERM
		AG	ABOVE GRADE

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

- PARCELS ARE SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 125 AS LOTS 17-1 AND 17.
- OWNERS OF RECORD:
DEER STREET ASSOCIATES
PO BOX 100
YORK HARBOR, ME
3395/2669, 5534/2077, 5453/138
- PARCEL IS NOT IN A FLOOD HAZARD ZONE AS SHOWN ON FIRM PANEL 330150295E, EFFECTIVE DATE MAY 17, 2005.
- EXISTING LOT AREAS:
LOT 17:
26,503 S.F.
0.6084 ACRES
LOT 17-1:
8,519 S.F.
0.1956 ACRES
- PARCEL IS LOCATED IN THE CD5 CHARACTER BASED ZONING DISTRICT.
- DIMENSIONAL REQUIREMENTS:
SEE ZONING ORDINANCE
- THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON THE SUBJECT PARCELS.
- HORIZONTAL DATUM AND BASIS OF BEARING IS NEW HAMPSHIRE STATE PLANE NAD83(2011). BASIS OF HORIZONTAL DATUM IS RTK GPS OBSERVATIONS.
- VERTICAL DATUM IS MEAN SEA LEVEL-NAVD88. BASIS OF VERTICAL DATUM IS NGS PID 0C0290 - B 2 1923, ELEVATION 19.55.
- THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

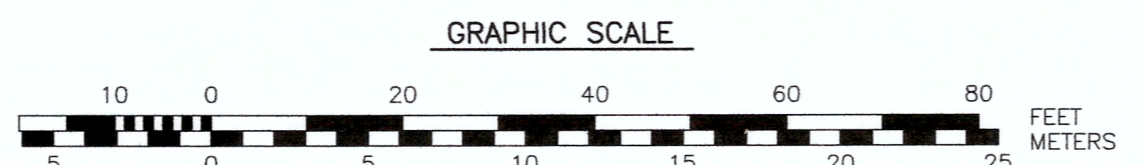


LENGTH TABLE

LINE	BEARING	DISTANCE
L1	S43°06'02"W	1.34'

CURVE TABLE

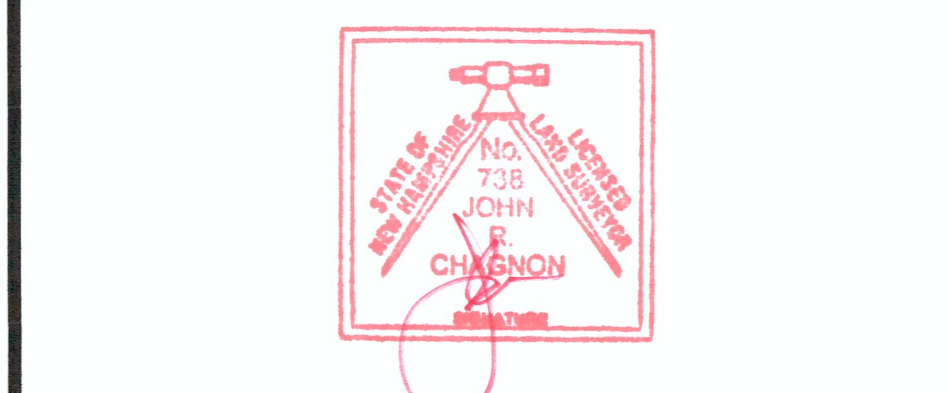
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	155.00'	56.30'	55.99'	S53°24'20"W	20°48'45"
C2	86.00'	45.63'	45.10'	S13°00'13"E	30°24'08"



DEER STREET ASSOCIATES, INC. SITE REDEVELOPMENT PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	ISSUED FOR SUBMISSION	12/19/17
0	ISSUED FOR COMMENT	11/16/17

REVISIONS



SCALE: 1" = 20' NOVEMBER 2017

EXISTING CONDITIONS SITE PLAN

X2

GENERAL CONSTRUCTION NOTES

- THESE PLANS ARE BASED ON THE "EXISTING CONDITIONS SITE PLAN" PRODUCED BY AMBIT ENGINEERING, INC. WITH AN INITIAL ISSUED DATE OF 11/14/16 AND "FOUNDRY PLACE PARKING GARAGE" BY TIGHE AND BOND, INC WITH AN ISSUE DATE OF 07/28/2017. SEE THE EXISTING CONDITION SITE PLAN FOR BENCHMARK INFORMATION AND THE FOUNDRY PLACE PARKING GARAGE PLAN SET FOR FOUNDRY PLACE DETAILS.
- THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT IN RELATIONSHIP TO THE EXISTING SITE SURVEY. THE CONTRACTOR SHALL ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, INSPECTIONS, BONDS, ETC., AND OTHER APPROVAL RELATED ITEMS. NO CONSTRUCTION SHALL COMMENCE UNTIL SUCH PERMITS HAVE BEEN SECURED.
- METHODS AND MATERIALS USED IN THE CONSTRUCTION OF IMPROVEMENTS FOR THIS PROJECT SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE NHDOT, STATE, AND CITY OF PORTSMOUTH REGULATIONS, SPECIFICATIONS, AND ORDINANCES, UTILITY EASEMENTS, AND APPLICABLE CODES.
- CONTRACTOR TO CONFIRM AND VERIFY THE VALIDITY, LOCATION, MATERIAL, AND AVAILABILITY TO USE EXISTING UTILITIES ON OR NEAR THE PROJECT SITE PROPERTY. CONTRACTOR TO LOCATE EXISTING UTILITIES AND CONFIRM SAID UTILITIES WITH ALL APPLICABLE MUNICIPALITIES AND UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION. ONCE UTILITIES HAVE BEEN CONFIRMED IN THE FIELD BY CONTRACTOR AND VERIFIED BY APPLICABLE MUNICIPALITY AND UTILITY COMPANY AND CONNECTION HAS BEEN APPROVED BY ENTITY, ONLY THEN SHALL THE CONTRACTOR CONSTRUCT AND UTILIZE THESE UTILITIES. CONTRACTOR TO IMMEDIATELY INFORM THE ENGINEER OF RECORD OF ANY DEVIATIONS TO PLANS.
- THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE ANY EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT AND THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREIN AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST THREE WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. ALL WATER, SEWER, ELECTRIC, AND OTHER UTILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- RELOCATION OF ANY UTILITIES SHALL BE AT THE CONTRACTOR'S EXPENSE AND COMPLETED WITH THE UTILITY WORK. THE OWNER AND ENGINEER SHALL BE NOTIFIED IN WRITING AS TO THE RELOCATIONS REQUIRED AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, WALKS, CURBS, ETC., THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.
- AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE DOCUMENTS AND SUBSEQUENT ISSUED PLAN REVISIONS. ANY DEVIATIONS FROM THESE DOCUMENTS SHALL REQUIRE NOTIFICATION TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTING ANY CHANGE. THE CONTRACTOR WILL OTHERWISE BE WORKING AT THEIR OWN RISK.
- ALL WATER, DRAIN, AND SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF PORTSMOUTH RULES, SPECIFICATIONS, AND REGULATIONS.
- GROUNDWATER SHALL BE TEMPORARILY LOWERED TO A MINIMUM OF 2' BELOW EXCAVATIONS. CONTRACTOR SHALL REPAIR ADVERSE IMPACTS FROM REMOVAL OF SOIL AT ITS OWN EXPENSE.
- DISCHARGE FROM DEWATERING ACTIVITIES SHALL BE INFILTRATED ONSITE. IF DISCHARGE IS UNABLE TO BE INFILTRATED THEN CONTRACTOR SHALL OBTAIN A DEWATERING PERMIT FROM THE CITY TO DISCHARGE INTO THE CITY'S STORM DRAIN OR SEWER, OR PROPERLY TRANSPORT AND DISPOSE OF OFFSITE PER FEDERAL, STATE AND LOCAL REGULATIONS.
- THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS UTILITY SERVICE AND ACCESS TO EXISTING BUSINESSES AND HOMES THROUGHOUT THE CONSTRUCTION PERIOD. IF A TEMPORARY DISCONNECT OF UTILITIES OR ACCESS IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, THE OWNER, AND THE PLACE OF BUSINESS OR HOME OWNER 3 DAYS PRIOR TO THE DAY OF THE DISCONNECTION.
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS, LATEST REVISIONS.

- 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.
- THE CONTRACTOR SHALL MAINTAIN AS-BUILT PLANS WITH ALL UPDATED INFORMATION ON THE PROJECT SITE AND INPUT INFORMATION TO A DIGITAL/ ELECTRONIC FORMAT AT LEAST MONTHLY. AS-BUILT INFORMATION MUST BE FORWARDED TO THE OWNER AND ENGINEER MONTHLY FOR APPROVAL, AND BE USED TO PREPARE A FINISHED SET OF PLANS.

DEMOLITION NOTES:

- THE DEMOLITION PLAN OR THE EXISTING CONDITIONS SITE PLAN DOES NOT NECESSARILY DEPICT THE EXACT LOCATION AND SIZE OF ALL UTILITIES WHICH MAY EXIST AT THE TIME OF DEMOLITION INSIDE OR OUTSIDE OF EXISTING OR PROPOSED BUILDINGS, ON THE SUBJECT PROPERTY, WITHIN THE STREET ROW, OR ON ABUTTING LOTS.
- THE CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES. REQUEST FOR MARKINGS CAN BE MADE BY CALLING DIG-SAFE AT 1-888-344-7233, AND THE CITY OF PORTSMOUTH DPW AT 603-427-1530 AT LEAST 72 HOURS PRIOR TO EXCAVATION. STREET OPENING PERMITS SHOULD ALSO BE FILED AT THAT TIME.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE NOT GUARANTEED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE AND EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL PERMIT APPROVALS.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
- 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.
- ALL EXISTING UTILITY SERVICE CONNECTIONS TO BUILDING BEING REMOVED SHALL BE ABANDONED UNLESS NOTED OTHERWISE. THE WATER AND SEWER SERVICES SHALL BE CUT AND CAPPED AT THE MAIN IN THE STREET BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY OF PORTSMOUTH STANDARDS. THE EXISTING GAS, ELECTRIC AND/OR CATV INSTALLATION AND ABANDONMENT OF EXISTING CONNECTIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE RESPECTIVE COMPANIES.
- ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED BY THE OWNER. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES, AND CODES.
- FINAL DEMARCATION POINTS FOR GAS, ELECTRIC, TELEPHONE, AND COMMUNICATION SERVICE ENTRANCES ARE SUBJECT TO APPROVALS OF EACH PROVIDER.
- THE CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING ANY COURTESY ABUTTER NOTIFICATIONS THAT MAY BE WARRANTED.
- THE CONTRACTOR SHALL SAWCUT AND REMOVE PAVEMENT FOR UTILITY CONSTRUCTION OR REMOVAL AND CONSTUCT TRENCH PATCH AFTER INSTALLATION.
- NO TRENCHES ARE ALLOWED TO REMAIN OPEN OVERNIGHT. ALL TRENCHES SHALL BE BACKFILLED AT THE END OF THE WORK DAY OR COVERED WITH STEEL PLATES PER STATE AND LOCAL REGULATIONS AND SPECIFICATIONS. IF STEEL PLATES ARE USED, THE TOTAL LENGTH OF PLATES IN THE TRAVELED WAY SHALL BE LIMITED TO 50'.
- 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, UNDERGROUND PIPING, POLES, SIGNS, FENCES, RAMPS, WALLS, BOLLARDS, TREES AND LANDSCAPING AS MAY BE APPLICABLE.
- 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. THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR TO REPLACE ANY DISTURBED MONUMENTATION.

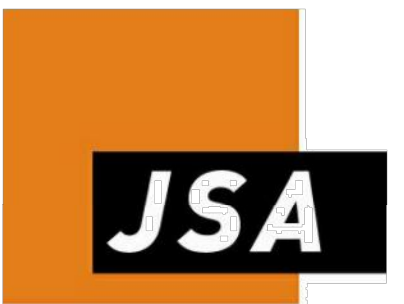
GENERAL UTILITY NOTES:

- COORDINATE WORK WITH OTHER CONTRACTORS AS MAY BE APPLICABLE. ALSO COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
 - WATER & SEWER: CITY OF PORTSMOUTH
CONTACT: DAVE DESFOSSES
PHONE: (603) 427-1530
 - ELECTRIC: EVERSOURCE ENERGY
CONTACT: NICK KOSKO
PHONE: (603) 332-4227 EXT. 5555334
 - TELEPHONE/DATA: FAIRPOINT COMMUNICATIONS
CONTACT: JOSEPH CONSIDINE
PHONE: (603) 427-5525
 - CABLE/DATA: COMCAST
CONTACT: MIKE COLLINS
PHONE: (603) 679-5695 EXT. 1037
 - GAS: UNITIL
CONTACT: DAVID BEAULIEU
PHONE: (603) 294-5144
 - FIBER/DATA: FIRSTLIGHT
CONTACT: JEFF TOUGAS
PHONE: (603) 766-1669
- PROPOSED GAS LINE, AND ELECTRIC, TELEPHONE, DATA, AND CABLE CONDUIT LOCATIONS AND CONFIGURATIONS ARE APPROXIMATE. PRIOR TO CONSTRUCTION CONTRACTOR TO COORDINATE FINAL LOCATION, MATERIALS AND SPECIFICATIONS WITH INDIVIDUAL UTILITY COMPANIES.
- WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHENEVER IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE WORK.
- ALL EXISTING UTILITY SERVICES LOCATED WITHIN THE WORK AREA ARE TO BE CUT, CAPPED AND ABANDONED AT THE MAIN (OR SOURCE) OR AS DIRECTED BY THE DEPARTMENT OF PUBLIC WORKS OR APPLICABLE UTILITY PROVIDER.
- ALL UTILITIES SHOWN ON THIS SITE ARE TO THE EXTERIOR OF THE BUILDING FOUNDATION ONLY. UTILITIES THROUGH THE FOUNDATION, ABOVE FINISH GRADE AND CONNECTED TO THE BUILDING, AND INSIDE THE BUILDING ARE THE RESPONSIBILITY OF THE MECHANICAL AND/ OR PLUMBING ENGINEER AS SHOWN ON THE BUILDING AND/OR ARCHITECTURAL PLANS.
- ALL UTILITY WORK PERFORMED WITHIN RIGHT-OF-WAY SHALL BE PERFORMED BY A CONTRACTOR LICENSED BY THE CITY OF PORTSMOUTH AND WHO HAS OBTAINED A PERMIT FOR SUCH WORK FROM THE DPW, IF REQUIRED.
- ALL DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS, AND NOT BE ALLOWED TO ACCUMULATE FOR MORE THAN THREE CONSECUTIVE DAYS. SITE SHALL BE KEPT FREE AND CLEAR OF ALL DEBRIS AND TRASH AT ALL TIMES. ALL DEBRIS SHALL BE STORED IN SEGREGATED RECYCLING TOTES/ BINS/ CONTAINERS AND TRANSPORTED TO AN APPROPRIATE RECYCLING CENTER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL UTILITIES AS SHOWN ON THESE PLANS IN ACCORDANCE WITH THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS AND STANDARDS FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SPECIFICATIONS OF MATERIALS AND INSTALLATION PROCEDURES AND INSTALL IN ACCORDANCE WITH APPLICABLE REGULATIONS.
- THE CONTRACTOR IS RESPONSIBLE TO CONTACT AND DETERMINE, COORDINATE AND SCHEDULE ALL NECESSARY INSPECTIONS AND MONITORING WITH ALL APPROPRIATE UTILITY COMPANIES.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO PERFORM THE WORK.

- ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE PROJECT BENCHMARK AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE RESTORATION AND CLEAN UP UPON COMPLETION OF ITS WORK.
- WATER AND SEWER TESTING TO CONFORM TO CITY OF PORTSMOUTH REGULATIONS, REQUIREMENTS, AND SPECIFICATIONS. COORDINATE TESTING OF SEWER AND WATER LINE CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
- ALL MECHANICAL JOINTS TO BE MEGALUG SERIES 1100 INSTALLED IN ACCORDING WITH MANUFACTURER RECOMMENDATIONS OR APPROVED EQUAL.
- ALL SEWER AND WATER PIPE MATERIALS, STRUCTURES, APPURTENANCES AND INSTALLATION SHALL BE IN ACCORDANCE TO THE CITY OF PORTSMOUTH CONSTRUCTION SPECIFICATIONS AND REQUIREMENTS.
- ALL GRAVITY SEWER PIPE SHALL BE PVC (SDR35) AND BE GREEN IN COLOR, UNLESS PLANS STATE OTHERWISE.
- ALL WATER MAIN AND SERVICE PIPE SHALL BE DUCTILE IRON CEMENT LINED (DICL) CLASS 52.
- ALL HYDRANTS, VALVES, AND FITTINGS SHALL MEET CITY OF PORTSMOUTH SPECIFICATIONS AND REQUIREMENTS.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, COVERS, PLATES, ANCILLARY MATERIALS AND HARDWARE, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION COMPLETE AND OPERATIONAL AND ACCEPTABLE TO THE CITY OF PORTSMOUTH AND PRIVATE UTILITIES.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION SHALL BE FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- TRENCH AREAS FOR THE CONSTRUCTION OF THE UNDERGROUND UTILITIES ARE TO BE REPATCHED WITH SAME MATERIAL AT THE SAME DEPTH AS THE EXISTING MATERIAL (SEE UTILITY TRENCH DETAILS). THE AREAS OF TRENCHING SHALL BE NEATLY SAW-CUT AND THE NEW REPATCHING MATERIAL SHALL BE PROPERLY SEALED IN ACCORDANCE WITH THE PLAN DETAILS AND THE CITY OF PORTSMOUTH SPECIFICATIONS AND REQUIREMENTS.
- DURING EXCAVATION AND CONSTRUCTION OF PIPES AND STRUCTURES, TRENCHES MUST BE ADEQUATELY BRACED AND PROTECTED AGAINST CAVE-IN.
- SEE ELECTRICAL AND PLUMBING PLANS FOR ADDITIONAL UTILITY NOTES.
- CONTRACTOR SHALL COORDINATE ALL FINAL APPROVALS ASSOCIATED WITH GAS, ELECTRIC, TELEPHONE, AND CABLE WITH APPROPRIATE UTILITY PROVIDER.

EROSION CONTROL NOTE:

SEE SHEET C6.1 FOR GENERAL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.



ARCHITECTS
INTERIORS
PLANNERS

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801
T 603.436.2551 www.jsainc.com

GEINSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDERSEN, INC.
LANDSCAPE ARCHITECT
PORTSMOUTH, NEW HAMPSHIRE

AMBIT ENGINEERING, INC.
SURVEY
PORTSMOUTH, NEW HAMPSHIRE

ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPPF ENGINEER
WOBURN, MASSACHUSETTS

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5**

PORTSMOUTH, NH 03801

OWNER:

Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E Seal:



Scale:
Date: 2/06/2018
Project Number: 14837.02
(Geolnsight 8090)

REVISIONS		
NO.	DESCRIPTION	DATE
6	PLANNING BOARD	2/06/2018

SITE PLAN REVIEW

**GENERAL
NOTES
1 OF 2**

C1.0

PROJECT NOTES:

- 1.1. PROPERTY LOCATION: 157, 159, 161, 163, & 165 DEER STREET & LOT 17-1 OFF DEER STREET
PORTSMOUTH, NH 03801
2. ASSESSORS MAP: MAP 125 : LOTS 17, 17-1,17-2, & 17-3
3. ZONE: CHARACTER DISTRICT 5
4. USE: HOTEL AND RESTAURANT
5. OWNER/APPLICANT: LOTS 2 AND 3 - FOUNDRY PLACE, LLC.
LOTS 4 AND 5 - DEER STREET ASSOCIATES
7 BANKS ROCK ROAD
YORK HARBOR, ME 03911
TEL: (207) 363-3540
6. CIVIL & GEOTECH: GEOINSIGHT, INC.
186 GRANITE STREET, 3RD FLOOR SUITE A
MANCHESTER, NH 03101
TEL: (603) 314-0820
7. ARCHITECT: JSA INC.
273 CORPORATE DRIVE, SUITE 100
PORTSMOUTH, NH 03801
TEL: (603) 436-2551
8. LANDSCAPE ARCHITECT GREENMAN - PEDERSEN, INC.
21 DANIELS STREET
PORTSMOUTH, NH 03801
TEL: (802) 359-4070
9. STRUCTURAL: JSN ASSOCIATES, INC.
1 AUTUMN STREET
PORTSMOUTH, NH 03801
TEL: (603) 433-8639
10. MPPF ENGINEER ENGINEERED SYSTEMS, INC.
237 LEXINGTON STREET, SUITE 207
WOBURN, MA 01801
TEL: (781) 569-6520
11. ELECTRICAL ENGINEER: ENGINEERED BUILDING SYSTEMS, INC.
22 MANCHESTER RD, SUITE 8-A
DERRY, NH 03038
TEL: (603) 870-9009
12. LAND SURVEYOR: AMBIT ENGINEERING, INC.
200 GRIFFIN RD, UNIT 3
PORTSMOUTH, NH 03801
TEL: (603) 430-9282
13. ELEVATIONS ARE BASED ON THE MEAN SEA LEVEL, NORTH AMERICAN VERTICAL DATUM (NAVD-88).
14. FOR BENCHMARK INFORMATION SEE "EXISTING CONDITIONS SITE PLAN" BY AMBIT ENGINEERING, INC. WITH DATE OF NOVEMBER 14, 2016.
15. PARCELS ARE NOT IN A FLOOD HAZARD ZONE AS SHOWN ON FIRM PANEL 33015C0259E. MAY 17, 2005.
16. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXECUTE THE NPDES CONSTRUCTION GENERAL PERMIT, NOI, AND SWPPP AND PROVIDE A COPY TO THE CITY OF PORTSMOUTH.
17. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL PREPARE AND SUBMIT AS-BUILT MYLARS AND DIGITAL FORMAT (.DWG FILE) TO THE ENGINEER FOR REVIEW. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER AND CONFORM TO THE CITY OF PORTSMOUTH STANDARDS.
18. ALL WATER AND SEWER CONSTRUCTION ACTIVITIES MUST BE PERFORMED BY A LICENSED CITY DRAIN LAYER. ALL TESTING RESULTS FOR THE UTILITIES AND SERVICE TIE CARDS ARE REQUIRED TO BE SUBMITTED TO THE CITY OF PORTSMOUTH DPW.
19. ANY DAMAGES BY THE CONTRACTOR TO ANY CITY OR ABUTTING PROPERTIES SHALL BE REPAIRED BY THE CONTRACTOR. COSTS SHALL BE ABSORBED BY THE CONTRACTOR WITH NO COST TO THE OWNER. REPAIRS TO CITY FACILITIES SHALL BE COORDINATED WITH THE CITY AND PERFORMED TO CITY SPECIFICATIONS.

20. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN THE FOLLOWING LOCAL PERMITS FROM THE CITY PRIOR TO CONSTRUCTION ACTIVITIES:

CITY OF PORTSMOUTH

- A. SEWER CONNECTION PERMIT
- B. WATER CONNECTION PERMIT
- C. STORMWATER PERMIT
- D. DRIVEWAY PERMIT
- E. TEMPORARY DEWATERING PERMIT (AS REQ'D)

NHDES

SEWER CONNECTION PERMIT

USEPA

NPDES CONSTRUCTION GENERAL PERMIT (CGP)

23. THE CONTRACTOR SHALL REVIEW AND BE FAMILIAR WITH THE FOLLOWING DOCUMENTS PROVIDED BY THE OWNER:

- 23.1. GEOTECHNICAL AND ENVIRONMENTAL REPORT BY GEOINSIGHT TITLED, *GEOTECHNICAL ENGINEERING AND LIMITED ENVIRONMENTAL ASSESSMENT* FOR THE PROPOSED DEER STREET DEVELOPMENT WITH A DATE OF MARCH 30, 2017.

GRADING AND DRAINAGE NOTES:

1. A DUST EMISSION CONTROL PLAN SHALL BE DEVELOPED AND IMPLEMENTED BY THE CONTRACTOR IF CONDITIONS WARRANT. ALL STORM DRAIN PIPES SHALL BE ADS HP STORM UNLESS NOTED OTHERWISE.
2. 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.
3. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" OF LOAM WITH SEED, FERTILIZER AND MULCH.
4. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT'S STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
5. SEE GEOTECHNICAL REPORT PREPARED BY GEOINSIGHT, INC. FOR SOIL FILL MATERIAL AND COMPACTION REQUIREMENTS.
6. ALL DRAIN PIPE SHALL MEET THE FOLLOWING SPECIFICATIONS.
 - ALL ROOF AND STORM DRAINS SHALL BE PVC (SDR 35) UP TO BUILDING CONNECTION. SEE BUILDING PLUMBING PLANS (BY OTHERS) FOR CONTINUATION UNDER BUILDING.
7. ALL MANHOLES, CATCH BASINS, VALVE BOXES, CURB BOXES, ETC WITHIN THE LIMIT OF WORK SHALL BE ADJUSTED TO FINISH GRADE.
8. CONTRACTOR SHALL VERIFY EXISTING INVERT ELEVATIONS IN FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE OWNER'S CONSTRUCTION REPRESENTATIVE IF ELEVATIONS DIFFER FROM PLAN.
19. A TEMPORARY DEWATERING PERMIT WILL BE REQUIRED FOR ANY GROUNDWATER DISCHARGED INTO THE CITY STORM DRAIN.

SITE NOTES

1. EXTERIOR PAVEMENT MARKINGS SHALL BE INSTALLED AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ACCESSIBLE SYMBOLS, PAINTED ISLANDS, FIRE LANES, AND CENTERLINES. ALL MARKINGS SHALL BE WHITE UNLESS NOTED OTHERWISE. ALL THERMOPLASTIC PAVEMENT MARKINGS INCLUDING LEGENDS, ARROWS, CROSSWALKS, AND STOP BARS SHALL MEET THE AASHTO M249 REQUIREMENTS. ALL PAINTED PAVEMENT MARKINGS SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F".
2. ALL PAVEMENT MARKINGS, ROADWAY SIGNAGE SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE AMERICANS WITH DISABILITIES ACT, AND "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", LATEST EDITIONS.
3. STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE, WHITE THERMOPLASTIC AND CONFORM TO CURRENT MUTCD STANDARDS.
4. EDGE, LANE, AND CENTERLINES SHALL BE FOUR (4) INCH WIDE LINES.
5. EDGE AND LANE DEMARCATION LINES SHALL BE PAINTED WHITE.
6. LANE DEMARCATION MARKINGS SEPARATING OPPOSING TRAFFIC DIRECTIONS SHALL BE PAINTED YELLOW.
7. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
8. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED ENGINEER/SURVEYOR TO DETERMINE ALL LINES AND GRADES.
9. ALL WORK SHALL CONFORM THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORK'S STANDARD SPECIFICATIONS.
10. CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED.
11. ANY DAMAGES BY THE APPLICANT TO ANY PUBLIC ROADWAY, CURBING, OR SIDEWALK DURING CONSTRUCTION SHALL BE REPAIRED BY THE APPLICANT PER CITY SPECIFICATIONS.

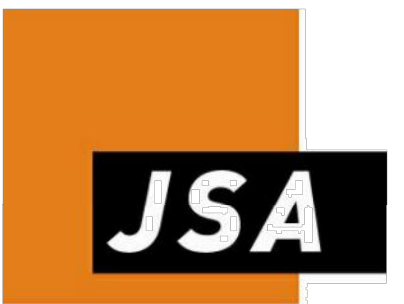
CIVIL ABBREVIATIONS

ADD	ADDITIONAL INFORMATION
APPROX.	APPROXIMATE
BIT CONC	BITUMINOUS CONCRETE
BC	BOTTOM OF CURB
BH	BORING HOLE
BLDG	BUILDING
BOW	BOTTOM OF WALL
BOT	BOTTOM
DPW	CITY DEPARTMENT OF PUBLIC WORKS
CI	CAST IRON
CO	CLEAN OUT
COMM	COMMUNICATIONS
CONC	CONCRETE
COORD	COORDINATE
CY	CUBIC YARD
DICL	DUCTILE IRON CEMENT LINED PIPE
DSYL	DOUBLE SOLID YELLOW CENTER LINE
ECB	EXISTING CATCH BASIN
EDMH	EXISTING DRAIN MANHOLE
ELE	ELEVATION
EOP	EDGE OF PAVEMENT
ESMH	EXISTING SEWER MANHOLE
ETC	ELECTRIC TELEPHONE CABLE
EX	EXISTING
FE	FLANGED END
FEET	FEET
GFA	GROSS FLOOR AREA
GV	GATE VALVE
HBP	HOT BITUMINOUS PAVEMENT
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
HYD	HYDRANT
INV	INVERT
LOC.	LOCATION
LOW	LIMIT OF WORK
LP	LIGHT POLE
MJ	MECHANICAL JOINT
N/F	NOW OR FORMERLY
OHW	OVER HEAD WIRE
PC	POINT OF CURVATURE
PCB	PROPOSED CATCH BASIN
PDMH	PROPOSED DRAIN MANHOLE
PFES	PROPOSED FLARED END SECTION
PGT	PROPOSED GREASE TRAP
PHW	PROPOSED HEADWALL
POS	PROPOSED OUTLET STRUCTURE
PSMH	PROPOSED SEWER MANHOLE
PROP	PROPOSED
PT	POINT OF TANGENCY
PVC	PIPE POLYVINYL CHLORIDE PIPE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
ROW	RIGHT OF WAY
SC	STORM CEPTOR
SF	SQUARE FEET
SGC	SLOPED GRANITE CURB
STA	STATION
SSWL	SINGLE SOLID WHITE LINE
SSYL	SINGLE SOLID YELLOW LINE
SDWL	SINGLE DASHED WHITE LINE
SDYL	SINGLE DASHED YELLOW LINE
SYL	SOLID YELLOW LINE
SY	SQUARE YARD
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TOW	TOP OF WALL
TP	TEST PIT
TYP	TYPICAL
UGE	UNDER GROUND ELECTRIC
UP	UTILITY POLE
VGC	VERTICAL GRANITE CURB
W	WITH

LEGEND

	PROPERTY LINE
	SETBACK LINE
	ABUTTING PROPERTY LINE
	PROPOSED BUILDING
	CURB
	RETAINING WALL
	TRAFFIC ARROWS
	PASSENGER PARKING COUNT
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED STORM DRAIN
	PROP. SPOT GRADE
	PROPOSED SEWER MANHOLE
	PROPOSED SANITARY SEWER LINE
	PROPOSED WATER MAIN
	PROPOSED WATER VALVE
	PROPOSED HYDRANT
	PROPOSED GAS LINE
	PROPOSED GAS VALVE
	PROPOSED UNDERGROUND POWER
	PROPOSED UNDERGROUND COMMUNICATIONS
	PROPOSED TRANSFORMER
	EXISTING GRADE
	PROPOSED GRADE
	PROPOSED ELECTRICAL HANDHOLE
	PROPOSED COMMUNICATION MANHOLE
	CITY PROPOSED WATER LINE
	CITY PROPOSED GAS LINE
	CITY PROPOSED UNDERGROUND ELEC. LINE
	CITY PROPOSED COMMUNICATION LINE

SEE EXISTING CONDITIONS SITE PLAN FOR EXISTING CONDITION SYMBOLS AND LEGEND



ARCHITECTS
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GEOTECH & CIVIL
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LANDSCAPE ARCHITECT
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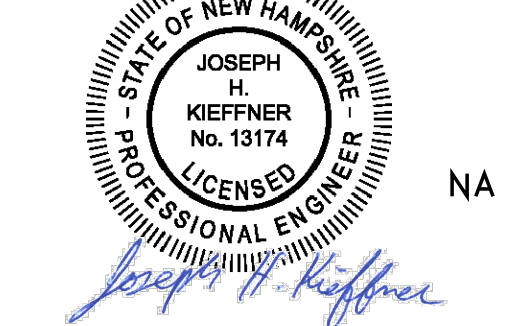
**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5**

PORTSMOUTH, NH 03801

OWNER:

Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E Seal:



Scale:

Date: 2/06/2018

Project Number: 14837.02

(Geolnsight 8090)

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SITE PLAN REVIEW

**GENERAL
NOTES
2 OF 2**

C1.1



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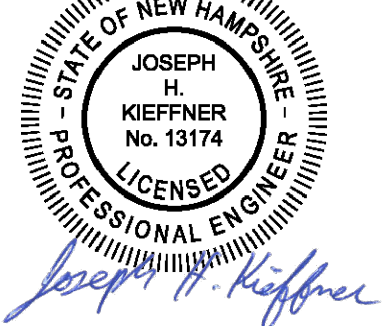
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SITE PLAN REVIEW

DEMOLITION
PLAN

C2.0

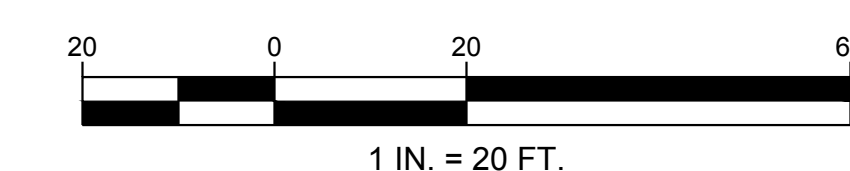
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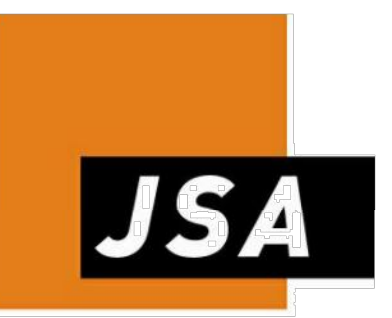
ABBREVIATIONS:
 G: GAS
 W: WATER
 S: SEWER
 CS: COMBINED SEWER
 TEMP: TEMPORARY
 COORD: COORDINATE
 PROP: PROPOSED

LEGEND:
 [Symbol] DEMOLITION OF OVERHEAD POWER AND COMMUNICATION LINES AND POLES
 [Symbol] DEMOLITION OF PAVEMENT, CONCRETE SLABS, AND UTILITIES ON LOT 3
 [Symbol] DEMOLITION OF PAVEMENT FOR SOIL IMPROVEMENTS
 [Symbol] 1" MILL AND OVERLAY
 [Symbol] ABANDONED SEWER LINE TO BE REMOVED OR FILLED
 [Symbol] LIMIT OF WORK
 [Symbol] TEMP. CONSTRUCTION FENCE
 [Symbol] WATTLE/SILT SOCK

- NOTES:
- CONTRACTOR TO INSTALL NEW UGE POWER AND COMM CONDUITS TO ABUTTERS BEFORE DEMOLITION OF EXISTING LINES.
 - CONTRACTOR SHALL PROVIDE CONTINUOUS PEDESTRIAN ACCESS FROM THE GARAGE TO DEER STREET THROUGHOUT THE DURATION OF THE CONSTRUCTION.
 - PEDESTRIAN ACCESS DURING CONSTRUCTION SHALL BE MEET ALL FEDERAL, STATE, AND LOCAL REGULATIONS AND REQUIREMENTS.
 - OVERHEAD WIRES TO BE REMOVED BY UTILITY OWNER.
 - POWERPOLES TO BE REMOVED BY EVERSOURCE.
 - EXISTING VERTICAL GRANITE CURB IN CITY ROW STATED TO BE REMOVED SHALL BE RESET TO PROPOSED CURB LOCATIONS IN CITY ROW UPON APPROVAL BY OWNER AND CITY.



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A/E Seal:
STATE OF NEW HAMPSHIRE
JOSEPH H. KIEFFNER
No. 13174
LICENSED
PROFESSIONAL ENGINEER
Joseph H. Kieffner

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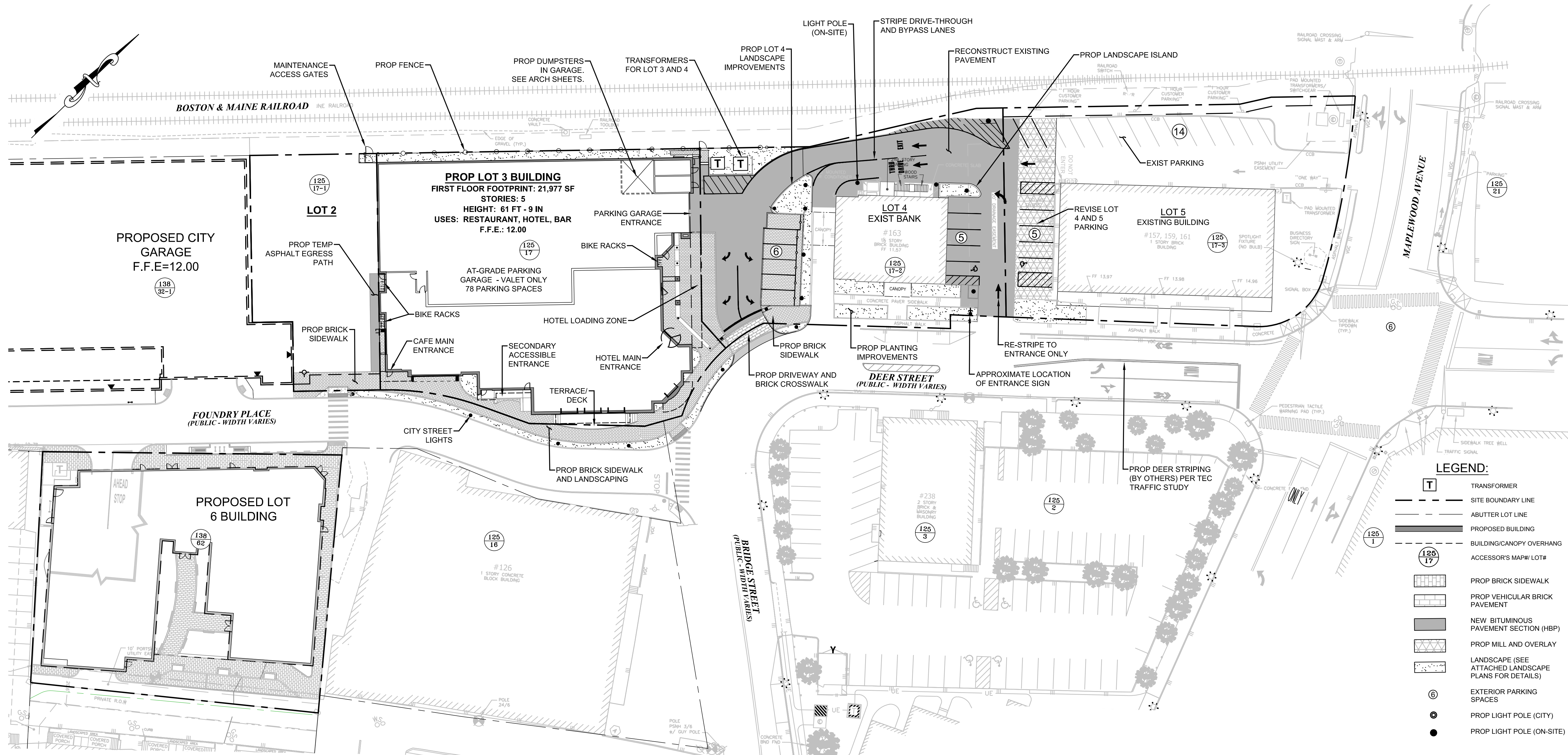
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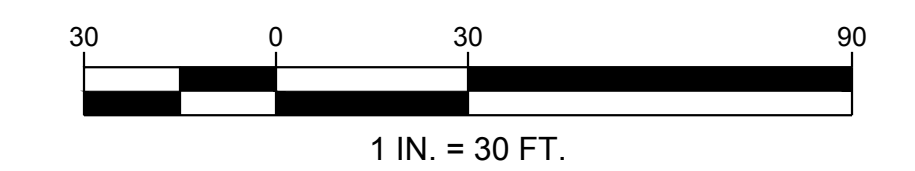
SITE PLAN-
OVERALL

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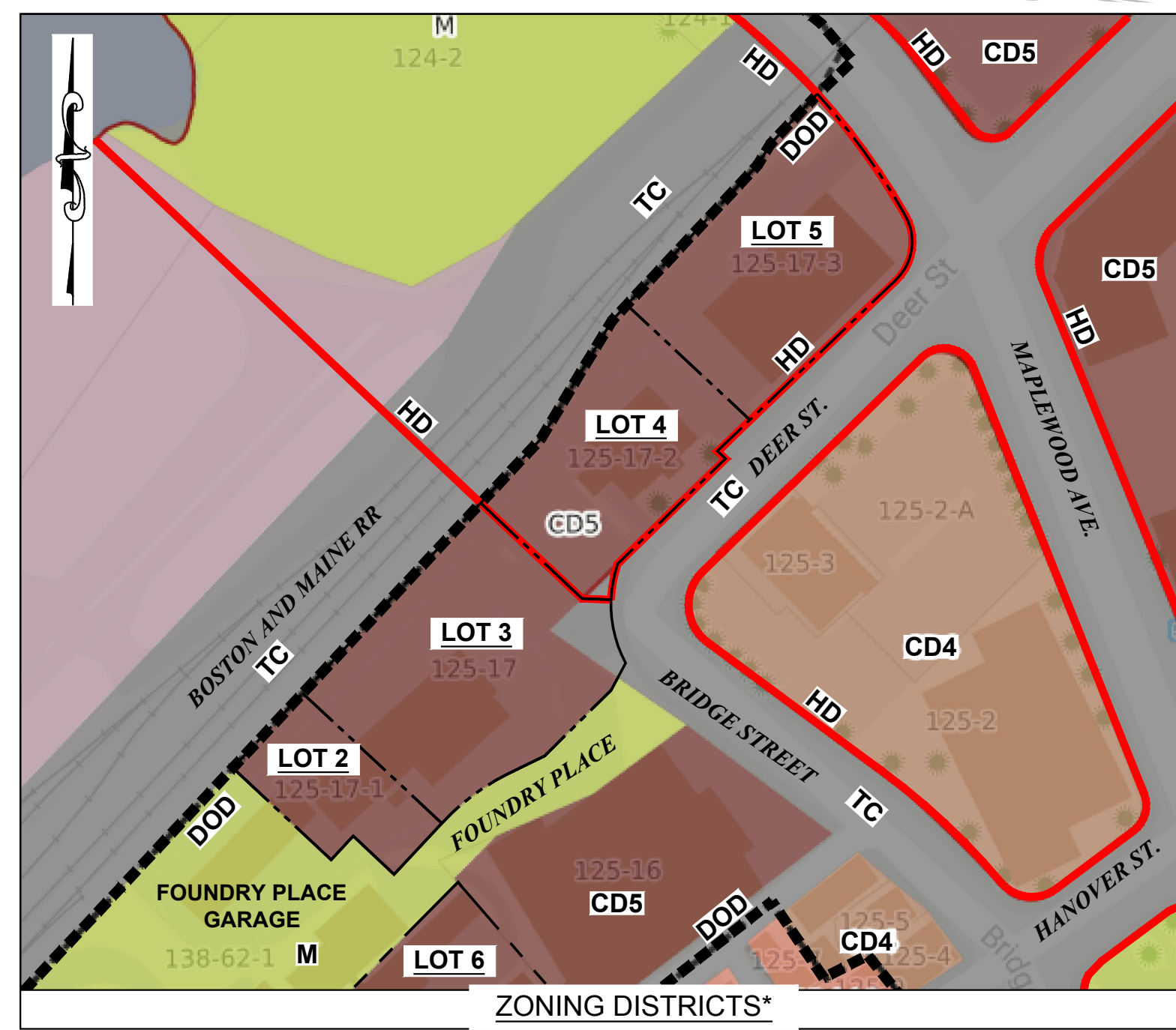
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- LEGEND:
[Symbol] TRANSFORMER
[Symbol] SITE BOUNDARY LINE
[Symbol] ABUTTER LOT LINE
[Symbol] PROPOSED BUILDING
[Symbol] BUILDING/CANOPY OVERHANG
[Symbol] ACCESSOR'S MAP# / LOT#
[Symbol] PROP BRICK SIDEWALK
[Symbol] PROP VEHICULAR BRICK PAVEMENT
[Symbol] NEW BITUMINOUS PAVEMENT SECTION (HBP)
[Symbol] PROP MILL AND OVERLAY
[Symbol] LANDSCAPE (SEE ATTACHED LANDSCAPE PLANS FOR DETAILS)
[Symbol] EXTERIOR PARKING SPACES
[Symbol] PROP LIGHT POLE (CITY)
[Symbol] PROP LIGHT POLE (ON-SITE)



- ABBREVIATIONS:
HBP HOT BITUMINOUS PAVEMENT
LSA LANDSCAPED AREA
PROP PROPOSED
SSWL SINGLE SOLID WHITE LINE
TYP TYPICAL
TD CURB TIP DOWN
VGC VERTICAL GRANITE CURB
LP AREA LIGHT POLE
- NOTES:
1. FOR DETAILED LAYOUT AND MATERIALS OF SITE PLAN SEE SHEETS C3.1-C3.3.
2. SEE ARCHITECTURE SHEET T.02T FOR FULL BUILDING AND SITE INFORMATION.
3. SEE ARCHITECTURAL SHEET A1.01T FOR PARKING AND FIRST FLOOR LAYOUT.
4. SOLID WASTE DUMPSTERS ARE LOCATED WITHIN GARAGE. SEE ARCHITECTURAL SHEETS FOR DETAILS.
5. SEE LANDSCAPE SHEET (L SERIES) FOR LANDSCAPE AND STREETScape LAYOUT AND DETAILS.
6. SEE LIGHTING AND ELECTRICAL SHEETS FOR SITE LIGHTING DETAILS.
7. ALL CONDITIONS OF THE PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.
8. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
9. ALL IMPROVEMENTS SHOWN ON THIS 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.
10. VEHICULAR RATED BRICK PAVEMENT SHALL BE USE IN ALL VEHICULAR TRAFFIC AREAS.
11. BRICK COLOR IN VEHICULAR TRAVEL LANES AND PASSENGER LOADING AREAS SHALL BE IN CONTRAST TO SIDEWALK BRICK COLOR.
12. ALL SNOW REMOVED FOR LOTS 3 AND SHALL BE DISPOSED OF OFF SITE AND SHALL NOT BE STORED ON CITY PROPERTY.
13. BRICK DRIVEWAY CROSSWALK SHALL BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND BE KEPT IN GOOD REPAIR AND SHALL BE REPAIRED WITHIN 90 DAYS OF THE DATE OF NOTICE FROM THE CITY.
14. STAIRWELLS AND EMERGENCY COMMAND CENTER SHALL BE PRESSURIZED PER SECTION 11.8.6 OF THE NFPA 101, 2015 EDITION. NOT ALL REQUIREMENTS OF SECTION 11.8.6.2 WILL APPLY.
15. PARKING GARAGE SPRINKLERS SHALL BE PROVIDED TO PROVIDE ADEQUATE COVERAGE TO UPPER AND LOWER VEHICLE LIFTS.
16. A LICENSE AGREEMENT TO ALLOW AN OUTDOOR DINING AREA SHALL BE OBTAINED FROM THE CITY.
17. THE SITE AND STORMWATER FACILITIES SHALL BE MAINTAINED (AT MINIMUM) PER THE LONG TERM OPERATIONS AND MAINTENANCE PLAN INCLUDED IN THE STORMWATER MANAGEMENT PLAN.
18. THE LANDSCAPE SHEETS (L-SERIES) ARE MADE PART OF THIS SITE PLAN.
19. A TEMPORARY DEWATERING PERMIT WILL BE REQUIRED FOR ANY TEMPORARY GROUNDWATER DISCHARGES INTO THE CITY STORM DRAIN.
20. THE CONSTRUCTION OF A DECK WITHIN THE PUBLIC ROW SHALL REQUIRE A LICENSE.
21. ENTRY SIGNS AND WAYFINDING SIGNS WILL REQUIRED A SEPARATE PERMIT.



- ZONING LEGEND*:
[Symbol] CD5 CHARACTER DISTRICT 5
[Symbol] CD4 CHARACTER DISTRICT 4
[Symbol] M MUNICIPAL DISTRICT
[Symbol] DOD DOWNTOWN OVERLAY DISTRICT
[Symbol] HD HISTORIC DISTRICT
[Symbol] TC TRANSPORTATION CORRIDOR

*ZONING IMAGE AND INFORMATION TAKEN FROM THE CITY OF PORTSMOUTH MAPGEO WEBSITE.

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LICENSED PROFESSIONAL ENGINEER
Joseph H. Kieffner

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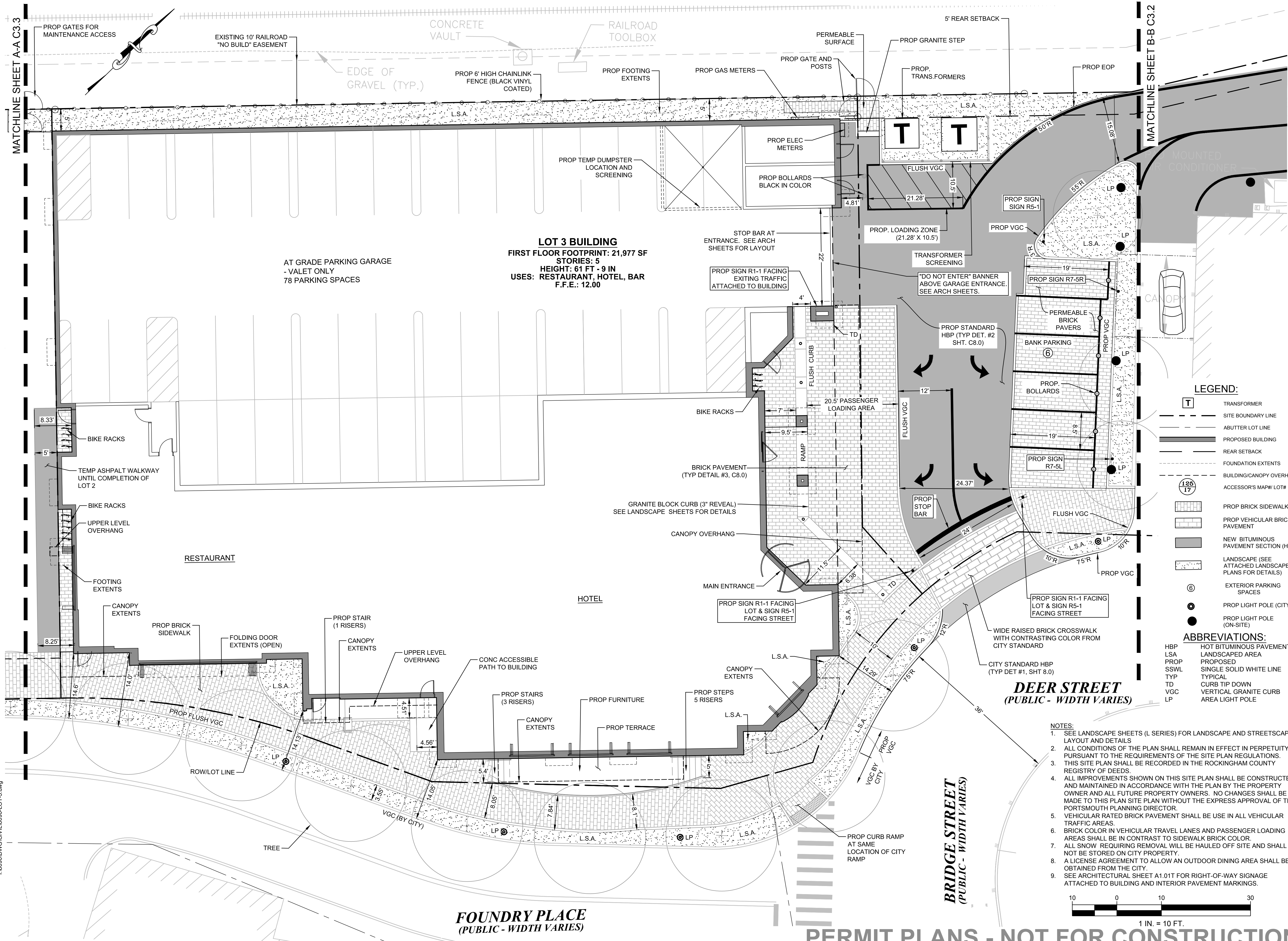
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SITE PLAN REVIEW

SITE PLAN-
DETAIL
(SHEET 1 OF 3)

C3.1

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LOT 3 BUILDING
FIRST FLOOR FOOTPRINT: 21,977 SF
STORIES: 5
HEIGHT: 61 FT - 9 IN
USES: RESTAURANT, HOTEL, BAR
F.F.E.: 12.00

AT GRADE PARKING GARAGE
- VALET ONLY
78 PARKING SPACES

RESTAURANT

HOTEL

DEER STREET
(PUBLIC - WIDTH VARIES)

BRIDGE STREET
(PUBLIC - WIDTH VARIES)

FOUNDRY PLACE
(PUBLIC - WIDTH VARIES)

LEGEND:

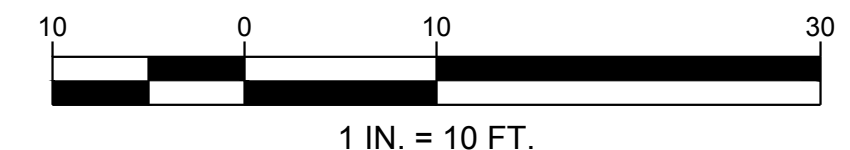
- T TRANSFORMER
- SITE BOUNDARY LINE
- - - ABUTTER LOT LINE
- ▬ PROPOSED BUILDING
- - - REAR SETBACK
- - - FOUNDATION EXTENTS
- BUILDING/CANOPY OVERHANG
- 125/17 ACCESSOR'S MAP# / LOT#
- PROP BRICK SIDEWALK
- PROP VEHICULAR BRICK PAVEMENT
- NEW BITUMINOUS PAVEMENT SECTION (HBP)
- LANDSCAPE (SEE ATTACHED LANDSCAPE PLANS FOR DETAILS)
- ⊙ EXTERIOR PARKING SPACES
- PROP LIGHT POLE (CITY)
- PROP LIGHT POLE (ON-SITE)

ABBREVIATIONS:

- HBP HOT BITUMINOUS PAVEMENT
- LSA LANDSCAPED AREA
- PROP PROPOSED
- SSWL SINGLE SOLID WHITE LINE
- TYP TYPICAL
- TD CURB TIP DOWN
- VGC VERTICAL GRANITE CURB
- LP AREA LIGHT POLE

NOTES:

- SEE LANDSCAPE SHEETS (L SERIES) FOR LANDSCAPE AND STREETScape LAYOUT AND DETAILS
- ALL CONDITIONS OF THE PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.
- THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
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- ALL SNOW REQUIRING REMOVAL WILL BE HAULED OFF SITE AND SHALL NOT BE STORED ON CITY PROPERTY.
- A LICENSE AGREEMENT TO ALLOW AN OUTDOOR DINING AREA SHALL BE OBTAINED FROM THE CITY.
- SEE ARCHITECTURAL SHEET A1.01T FOR RIGHT-OF-WAY SIGNAGE ATTACHED TO BUILDING AND INTERIOR PAVEMENT MARKINGS.



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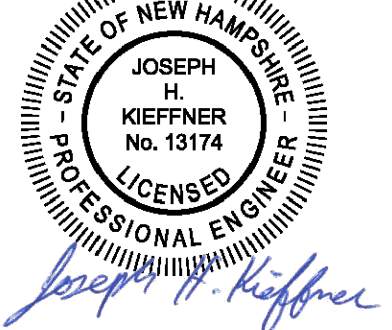
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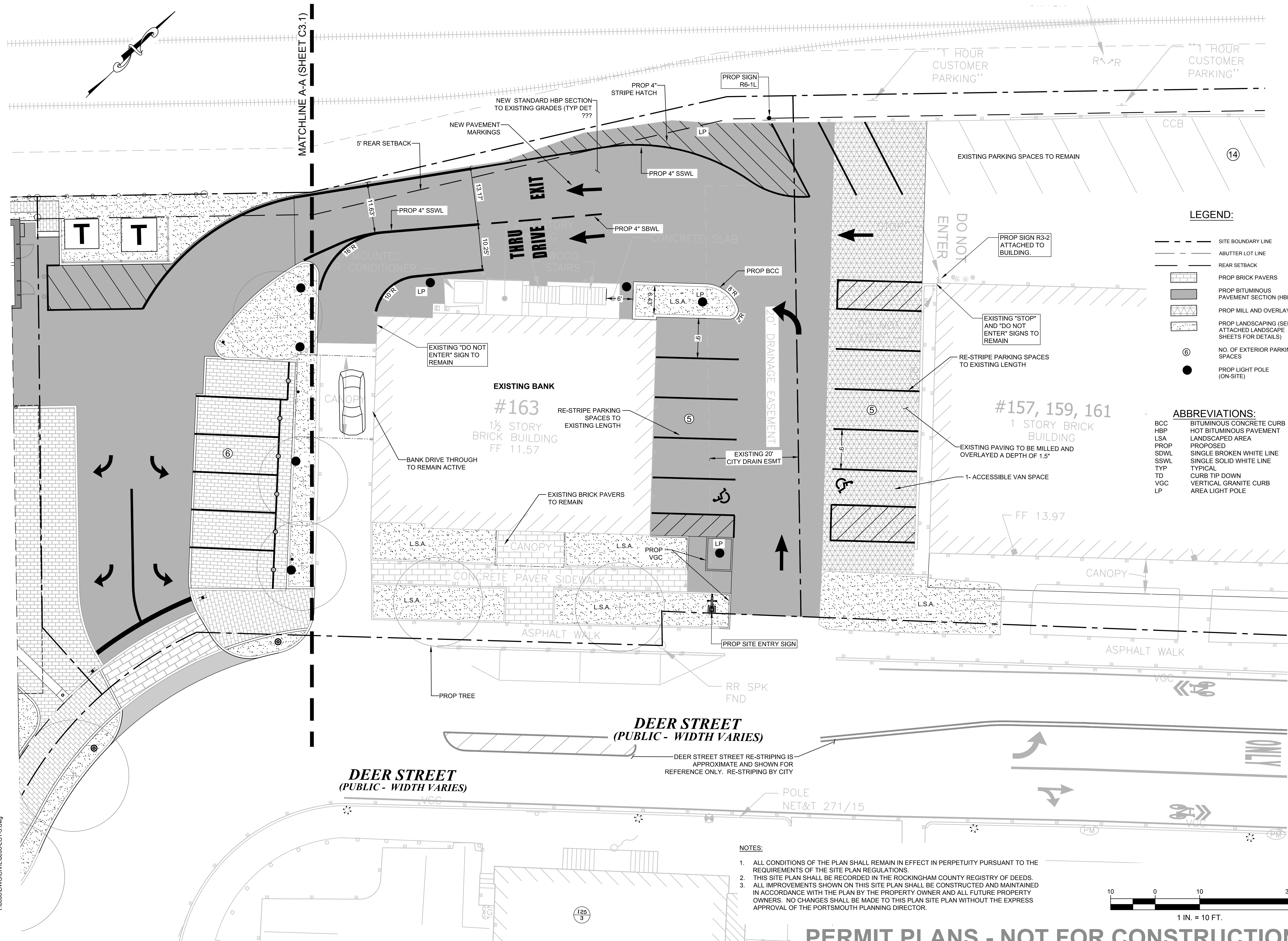
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NO.	DESCRIPTION	DATE
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SITE PLAN REVIEW

SITE PLAN -
DETAIL
(SHEET 2 OF 3)

C3.2

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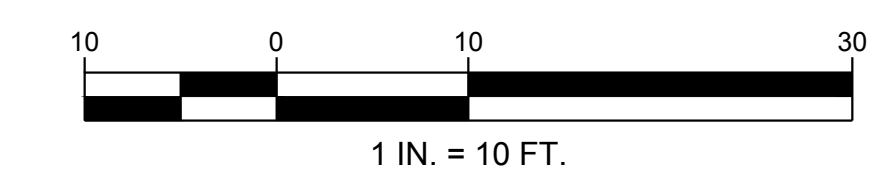
LEGEND:

- SITE BOUNDARY LINE
- - - ABUTTER LOT LINE
- - - REAR SETBACK
- [Pattern] PROP BRICK PAVERS
- [Pattern] PROP BITUMINOUS PAVEMENT SECTION (HBP)
- [Pattern] PROP MILL AND OVERLAY
- [Pattern] PROP LANDSCAPING (SEE ATTACHED LANDSCAPE SHEETS FOR DETAILS)
- ⊙ NO. OF EXTERIOR PARKING SPACES
- PROP LIGHT POLE (ON-SITE)

ABBREVIATIONS:

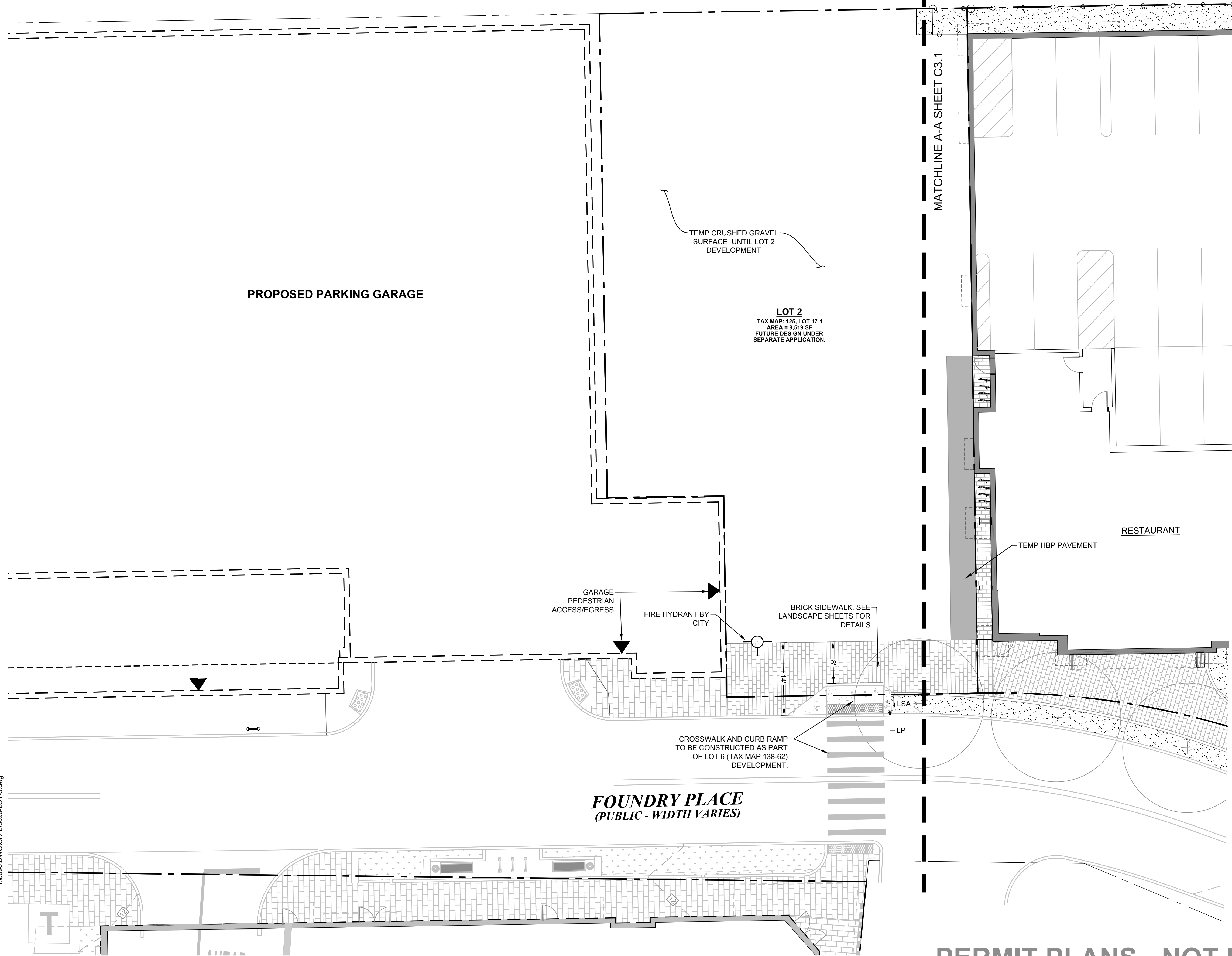
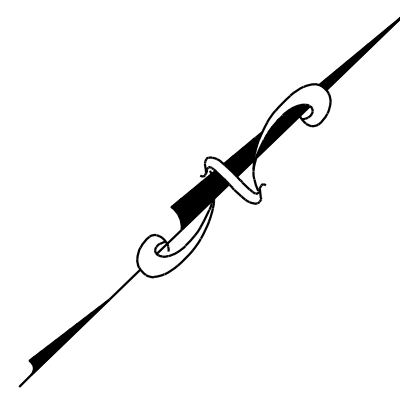
- BCC BITUMINOUS CONCRETE CURB
- HBP HOT BITUMINOUS PAVEMENT
- LSA LANDSCAPED AREA
- PROP PROPOSED
- SDWL SINGLE BROKEN WHITE LINE
- SSWL SINGLE SOLID WHITE LINE
- TYP TYPICAL
- TD CURB TIP DOWN
- VGC VERTICAL GRANITE CURB
- LP AREA LIGHT POLE

- NOTES:**
- ALL CONDITIONS OF THE PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.
 - THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
 - ALL IMPROVEMENTS SHOWN ON THIS 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 PLAN SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.



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I:\8090\DWG\CIVIL\8090-LOT-3.dwg



LOT 2
TAX MAP: 125, LOT 17-1
AREA = 8,519 SF
FUTURE DESIGN UNDER
SEPARATE APPLICATION.

MATCHLINE A-A SHEET C3.1

LEGEND:

- SITE BOUNDARY LINE
- - - ABUTTER LOT LINE
- - - REAR SETBACK
- [Pattern] PROP BRICK SIDEWALK
- [Pattern] PROP BITUMINOUS PAVEMENT SECTION (HBP)
- [Pattern] PROP LANDSCAPING (SEE ATTACHED LANDSCAPE SHEETS FOR DETAILS)
- PROP LIGHT POLE (CITY)

ABBREVIATIONS:

- HBP HOT BITUMINOUS PAVEMENT
- LSA LANDSCAPED AREA
- PROP PROPOSED
- TEMP TEMPORARY
- TYP TYPICAL

NOTES:

1. ALL CONDITIONS OF THE PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.
2. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
3. ALL IMPROVEMENTS SHOWN ON THIS 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 PLAN SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.



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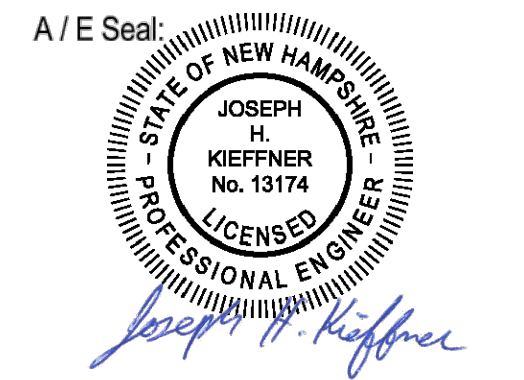
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MPPF ENGINEER
WOBURN, MASSACHUSETTS

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5**
PORTSMOUTH, NH 03801

OWNER:
Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME

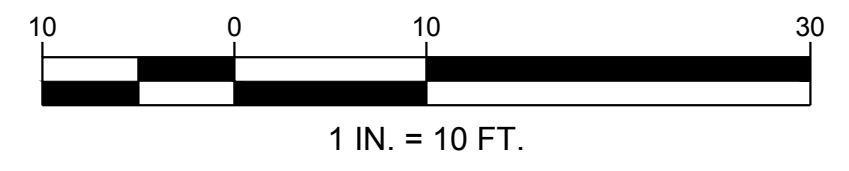


Scale:
Date: 2/06/2018
Project Number: 14837.02
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SITE PLAN REVIEW

**SITE PLAN -
DETAIL
(SHEET 3 OF 3)**



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C3.3

1:8090DWG\CIVIL\8090-LOT-3.dwg



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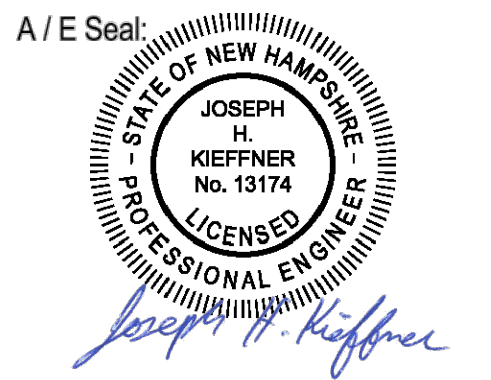
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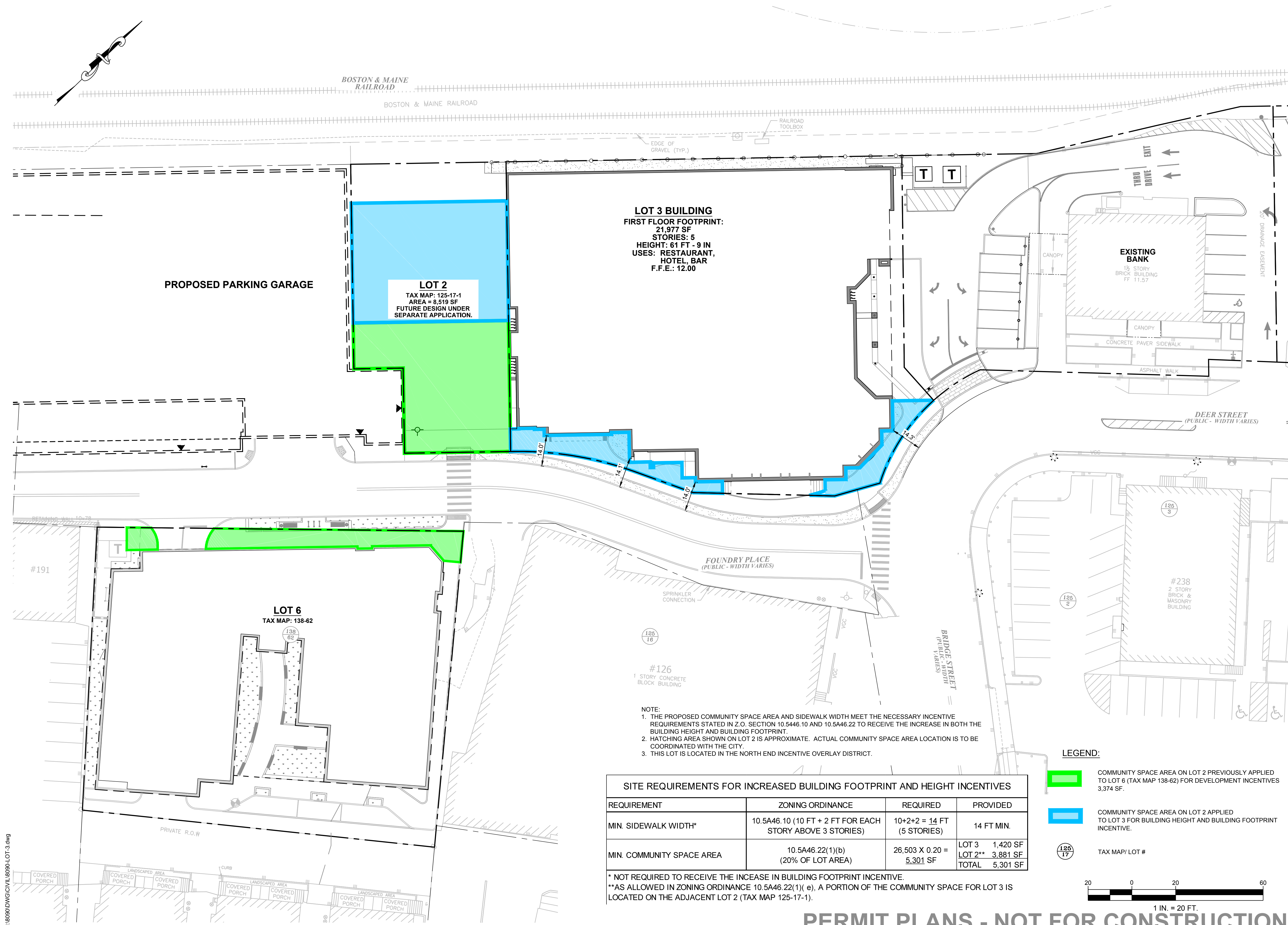
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SITE PLAN REVIEW

DEVELOPMENT INCENTIVES PLAN

C3.4

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LOT 3 BUILDING
FIRST FLOOR FOOTPRINT:
21,977 SF
STORIES: 5
HEIGHT: 61 FT - 9 IN
USES: RESTAURANT,
HOTEL, BAR
F.F.E.: 12.00

LOT 2
TAX MAP: 125-17-1
AREA = 8,519 SF
FUTURE DESIGN UNDER
SEPARATE APPLICATION.

LOT 6
TAX MAP: 138-62

- NOTE:
1. THE PROPOSED COMMUNITY SPACE AREA AND SIDEWALK WIDTH MEET THE NECESSARY INCENTIVE REQUIREMENTS STATED IN Z.O. SECTION 10.5A46.10 AND 10.5A46.22 TO RECEIVE THE INCREASE IN BOTH THE BUILDING HEIGHT AND BUILDING FOOTPRINT.
 2. HATCHING AREA SHOWN ON LOT 2 IS APPROXIMATE. ACTUAL COMMUNITY SPACE AREA LOCATION IS TO BE COORDINATED WITH THE CITY.
 3. THIS LOT IS LOCATED IN THE NORTH END INCENTIVE OVERLAY DISTRICT.

SITE REQUIREMENTS FOR INCREASED BUILDING FOOTPRINT AND HEIGHT INCENTIVES			
REQUIREMENT	ZONING ORDINANCE	REQUIRED	PROVIDED
MIN. SIDEWALK WIDTH*	10.5A46.10 (10 FT + 2 FT FOR EACH STORY ABOVE 3 STORIES)	10+2+2 = 14 FT (5 STORIES)	14 FT MIN.
MIN. COMMUNITY SPACE AREA	10.5A46.22(1)(b) (20% OF LOT AREA)	26,503 X 0.20 = 5,301 SF	LOT 3 1,420 SF LOT 2** 3,881 SF TOTAL 5,301 SF

* NOT REQUIRED TO RECEIVE THE INCREASE IN BUILDING FOOTPRINT INCENTIVE.
**AS ALLOWED IN ZONING ORDINANCE 10.5A46.22(1)(e), A PORTION OF THE COMMUNITY SPACE FOR LOT 3 IS LOCATED ON THE ADJACENT LOT 2 (TAX MAP 125-17-1).

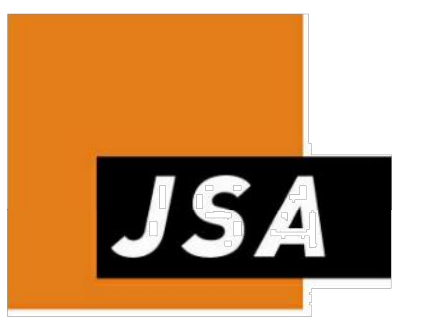
LEGEND:

- COMMUNITY SPACE AREA ON LOT 2 PREVIOUSLY APPLIED TO LOT 6 (TAX MAP 138-62) FOR DEVELOPMENT INCENTIVES 3,374 SF.
- COMMUNITY SPACE AREA ON LOT 2 APPLIED TO LOT 3 FOR BUILDING HEIGHT AND BUILDING FOOTPRINT INCENTIVE.
- TAX MAP/ LOT #



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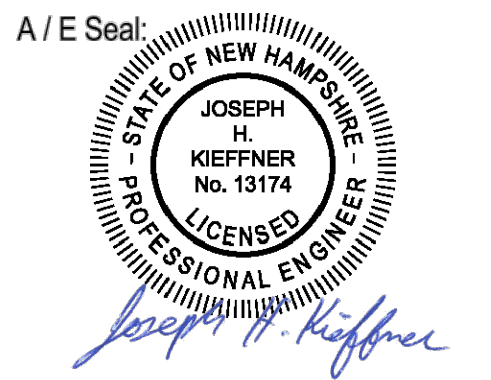
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MAP 125 LOT 17, AND
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7 BANKS ROCK ROAD
YORK HARBOR, ME



Scale:
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Project Number: 14837.02
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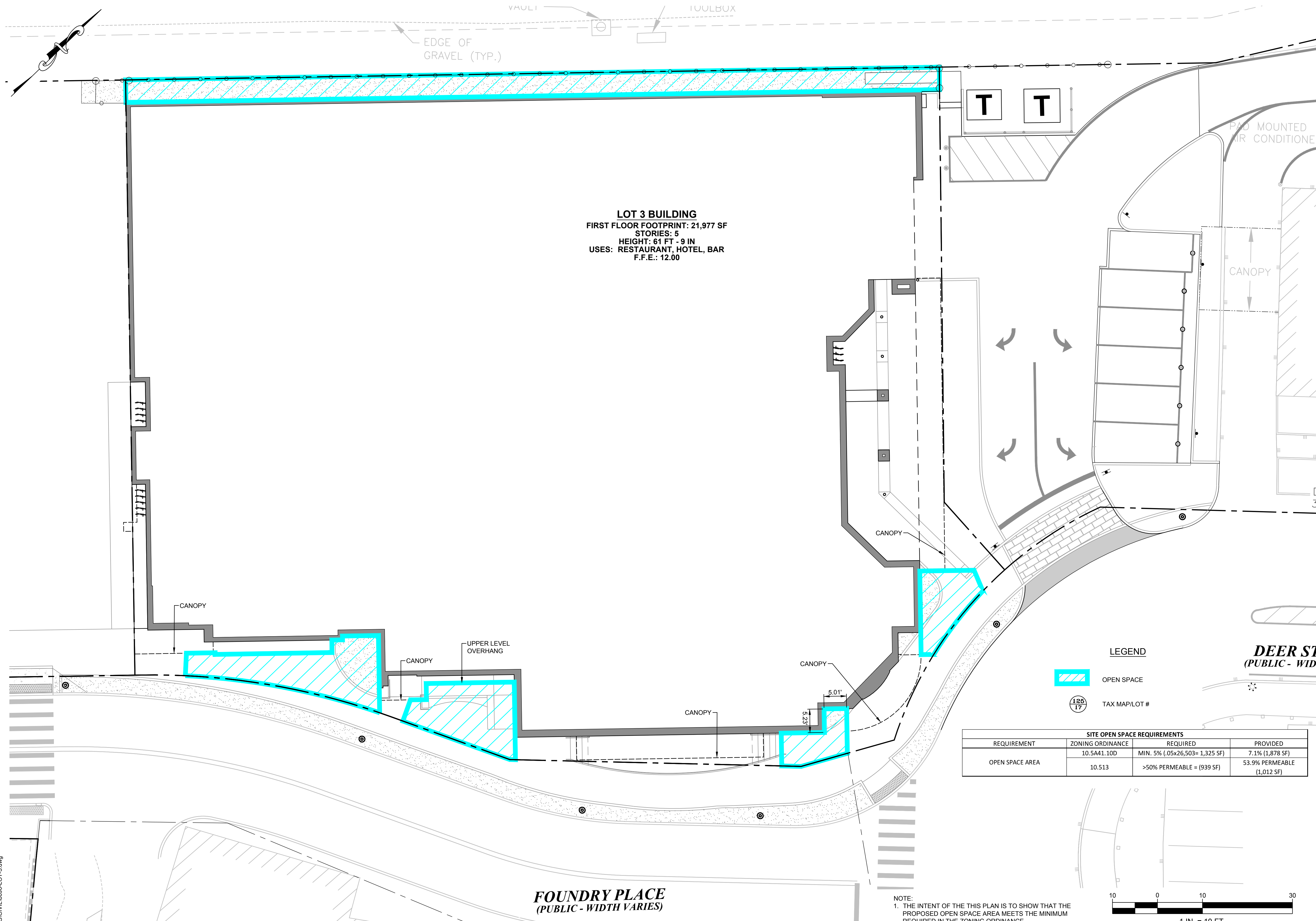
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SITE PLAN REVIEW

**OPEN SPACE
PLAN**

C3.5

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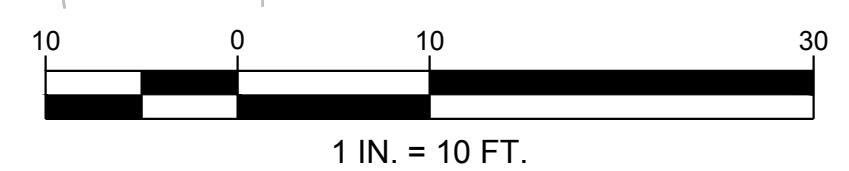
LOT 3 BUILDING
FIRST FLOOR FOOTPRINT: 21,977 SF
STORIES: 5
HEIGHT: 61 FT - 9 IN
USES: RESTAURANT, HOTEL, BAR
F.F.E.: 12.00

LEGEND

- OPEN SPACE
- TAX MAP/LOT #

SITE OPEN SPACE REQUIREMENTS			
REQUIREMENT	ZONING ORDINANCE	REQUIRED	PROVIDED
	10.5A41.10D	MIN. 5% (0.5x26,503= 1,325 SF)	7.1% (1,878 SF)
OPEN SPACE AREA	10.513	>50% PERMEABLE = (939 SF)	53.9% PERMEABLE (1,012 SF)

NOTE:
1. THE INTENT OF THIS PLAN IS TO SHOW THAT THE PROPOSED OPEN SPACE AREA MEETS THE MINIMUM REQUIRED IN THE ZONING ORDINANCE.



FOUNDRY PLACE
(PUBLIC - WIDTH VARIES)

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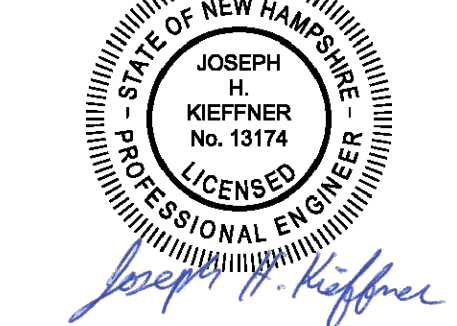
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MAP 125 LOT 17, AND
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OWNER:

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Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME

A/E Seal:



Scale:

Date: 2/06/2018

Project Number: 14837.02

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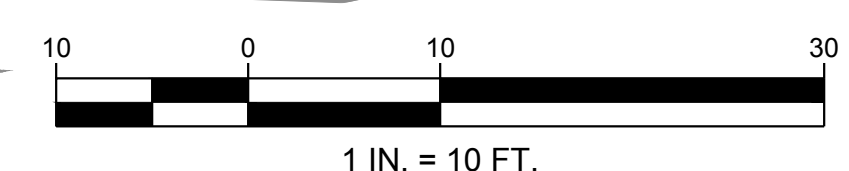
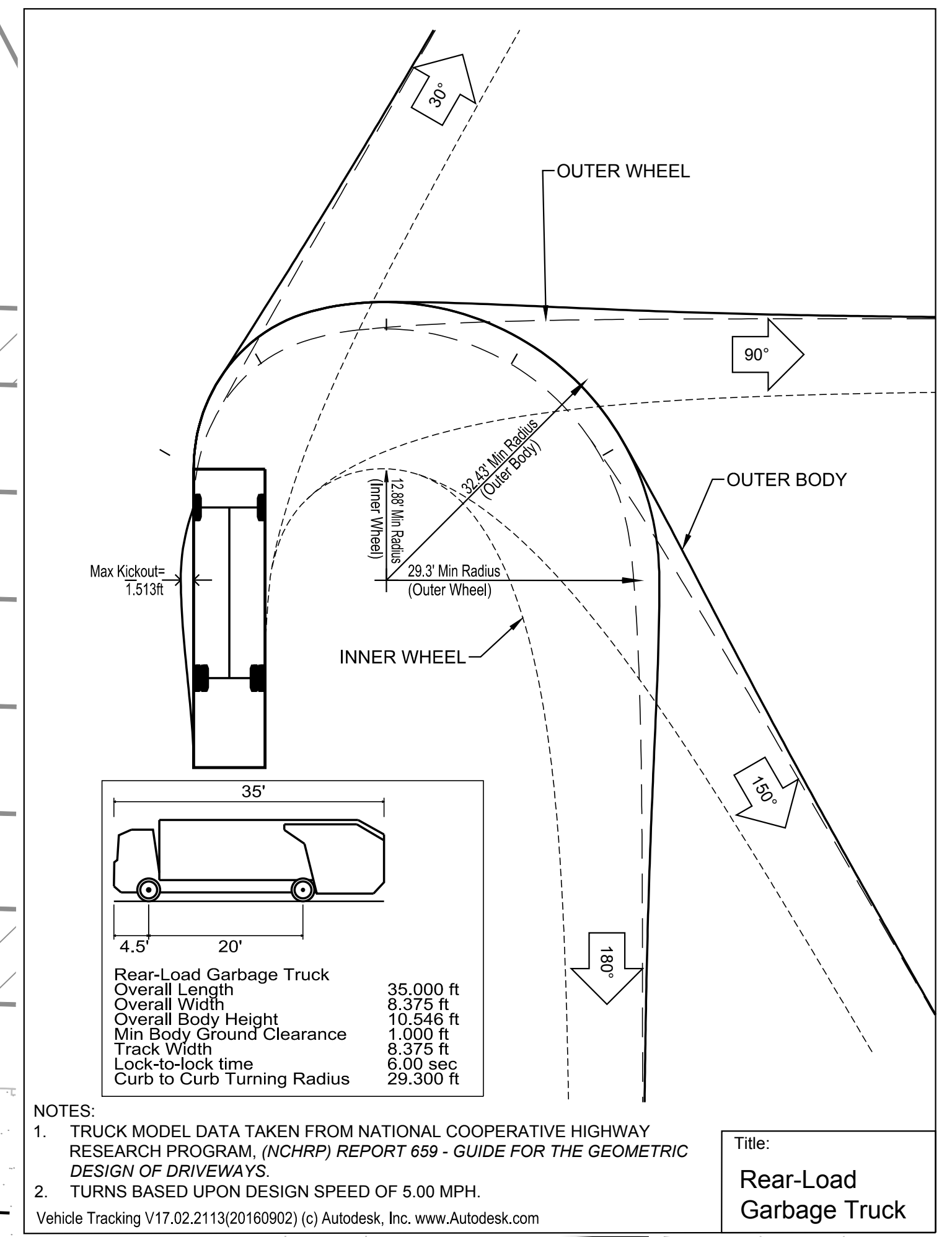
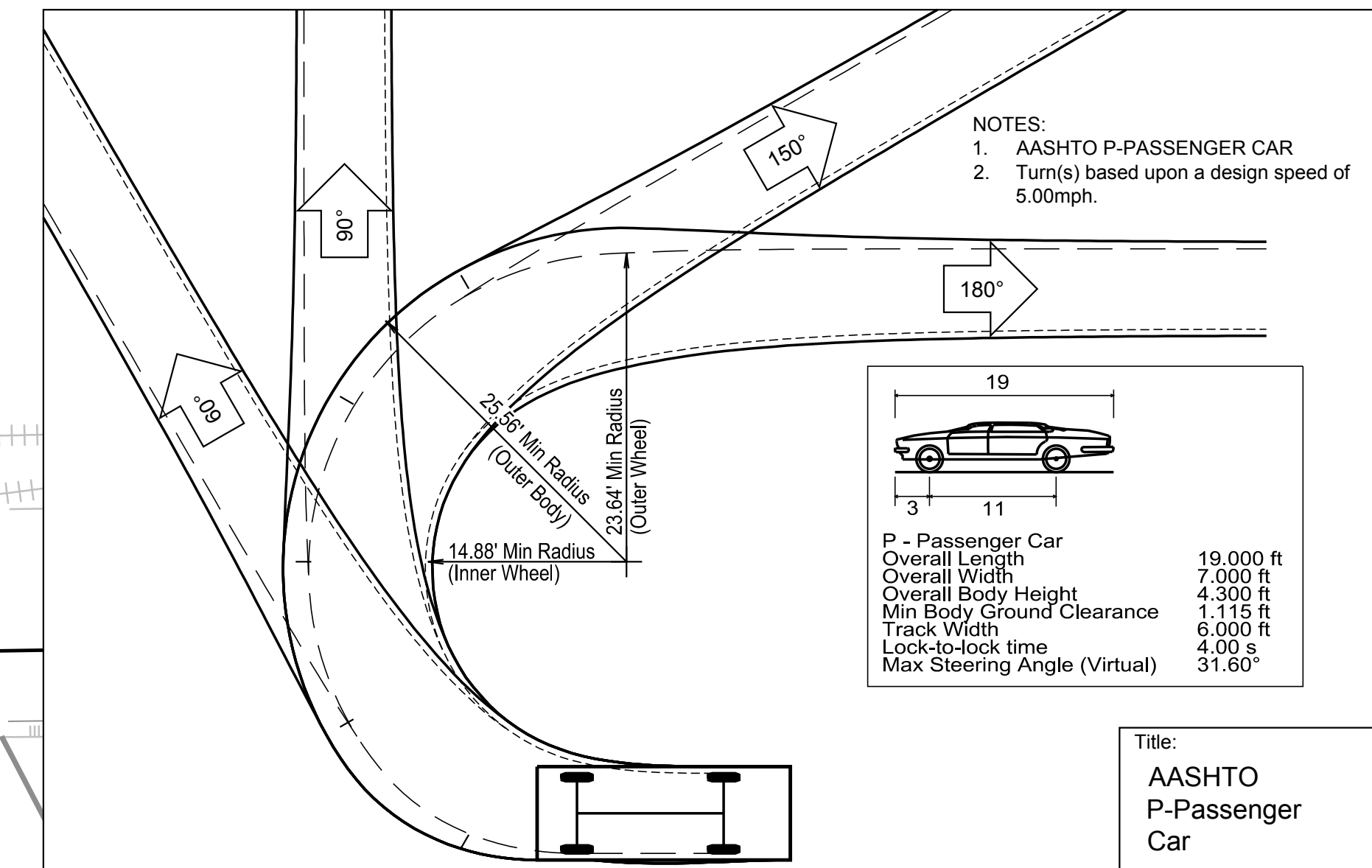
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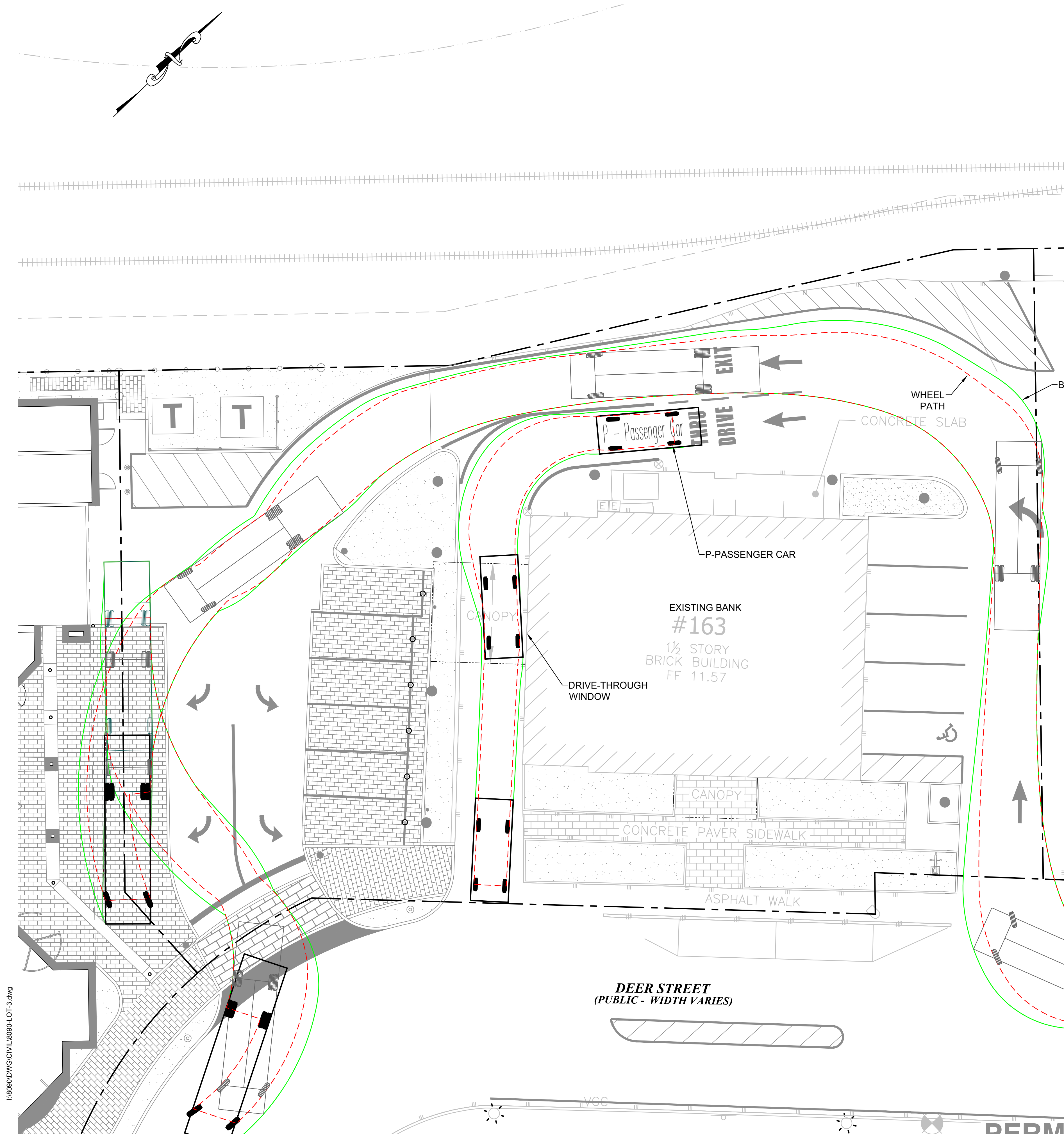
SITE PLAN REVIEW
WASTE SERVICE
TRUCK TURNING
EXHIBIT

EXB-1

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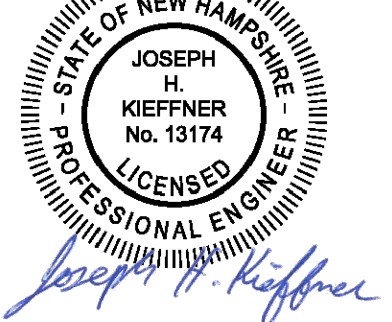
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PORTSMOUTH, NH 03801

OWNER:

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7 BANKS ROCK ROAD
YORK HARBOR, ME

A/E Seal:



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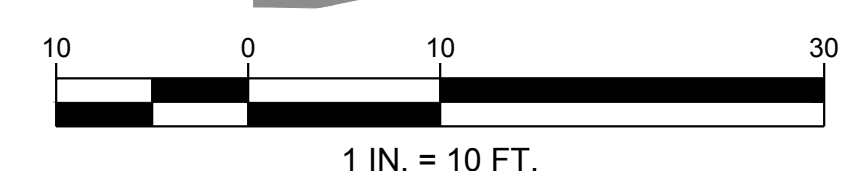
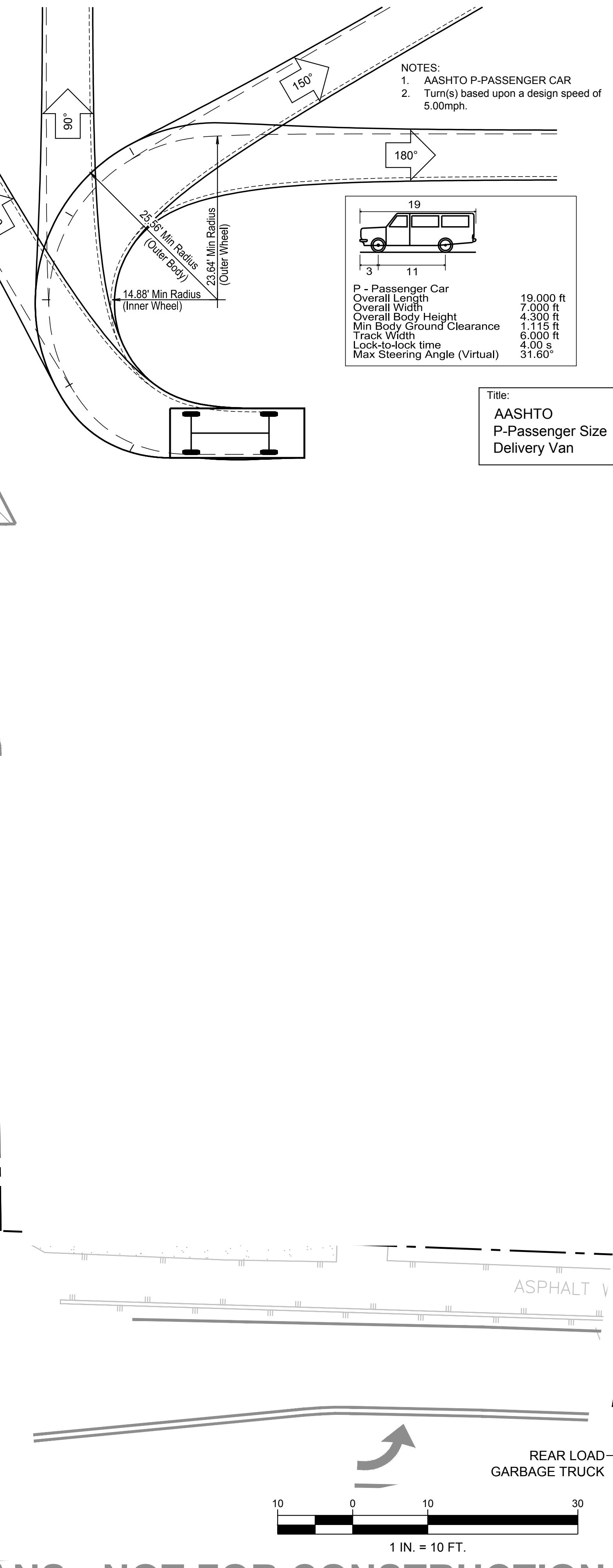
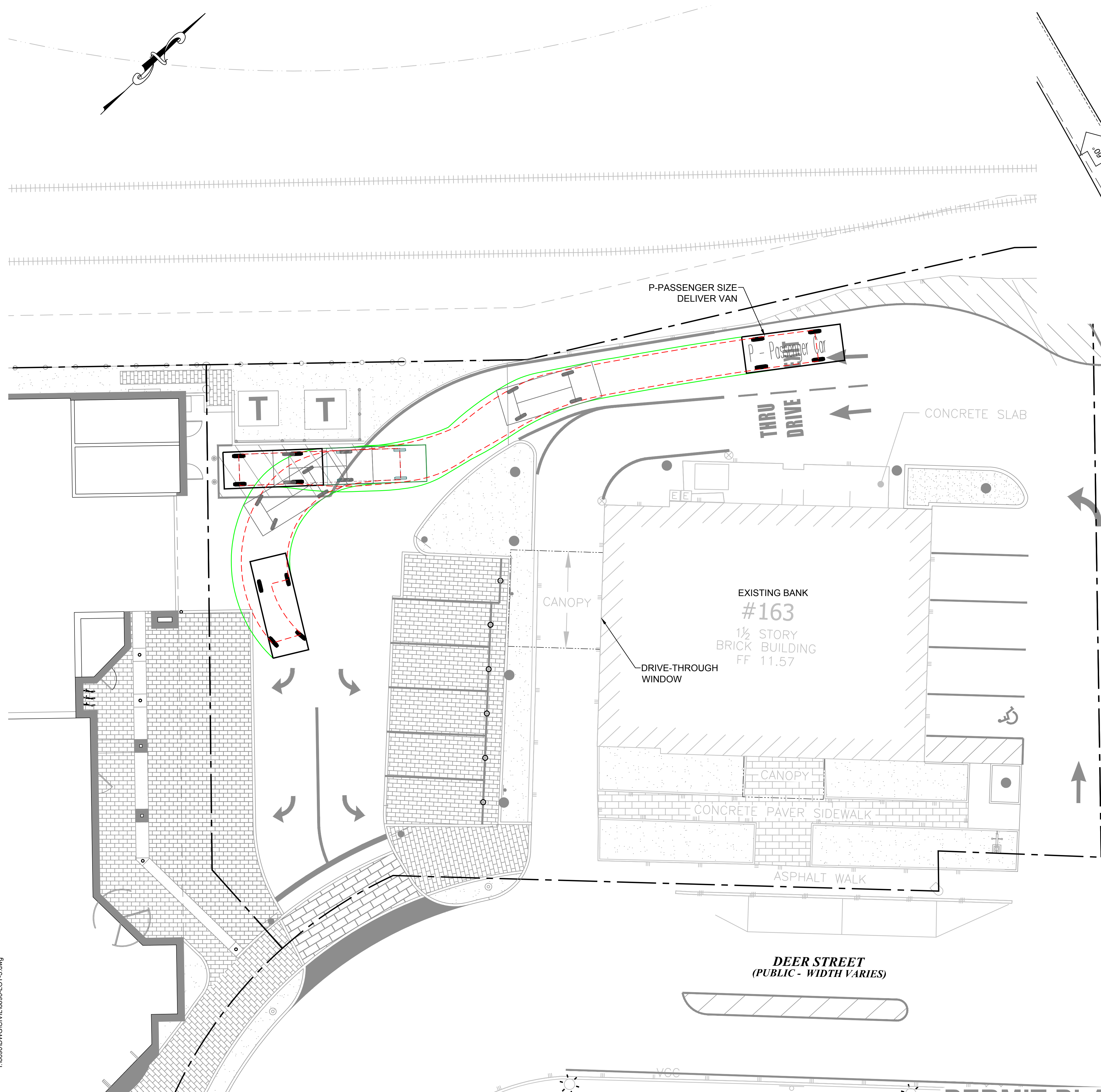
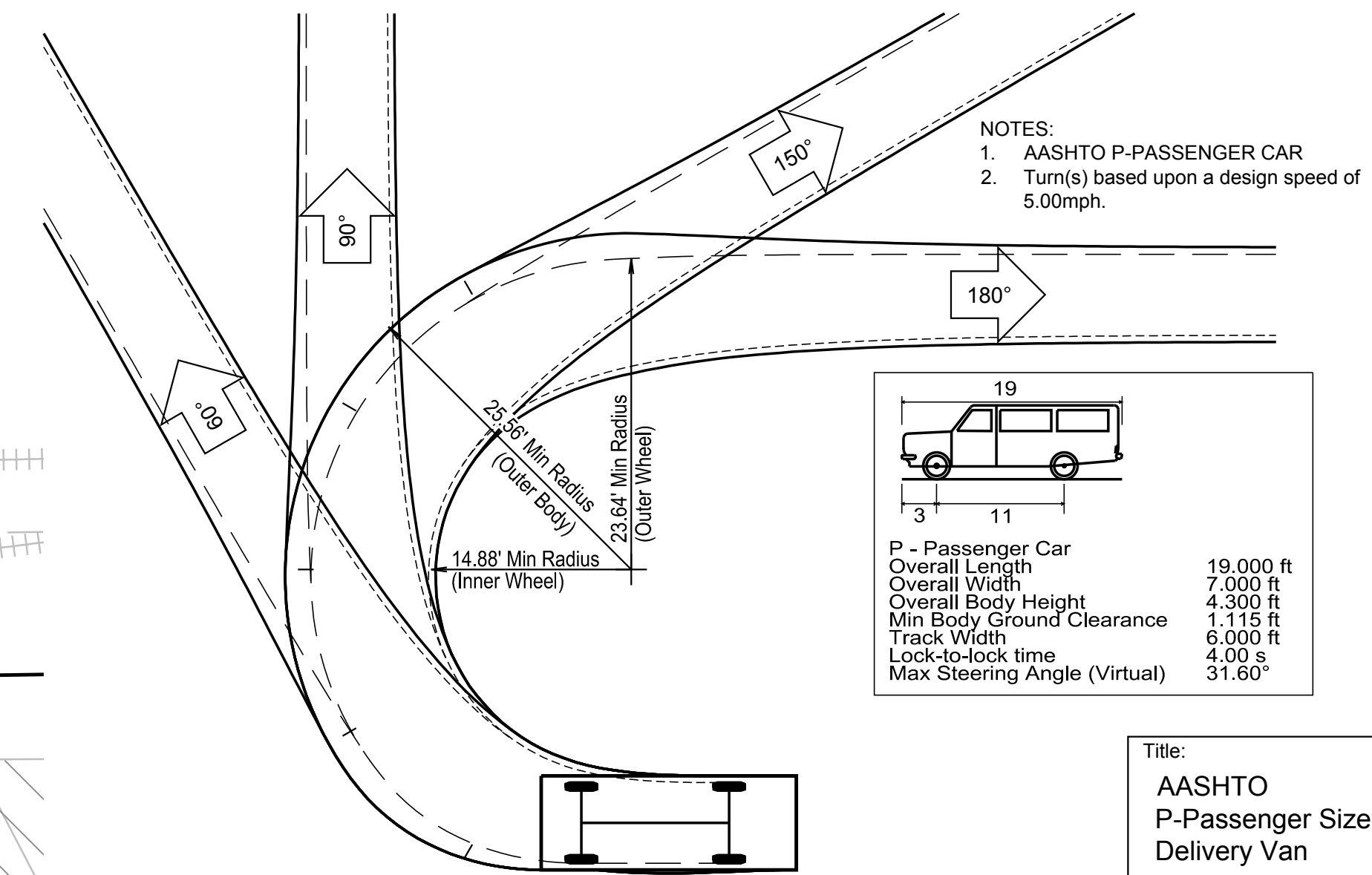
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SITE PLAN REVIEW

MANEUVERING
PLAN FOR
P-SIZE SIZE
DELIVER VAN

EXB-2

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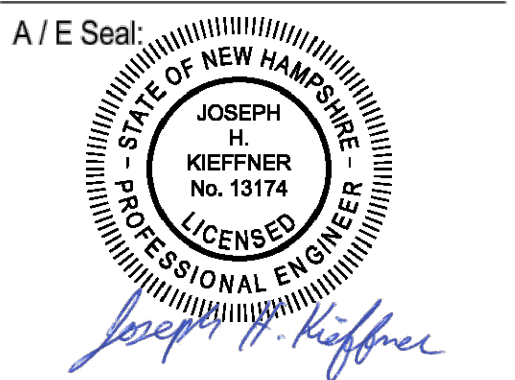
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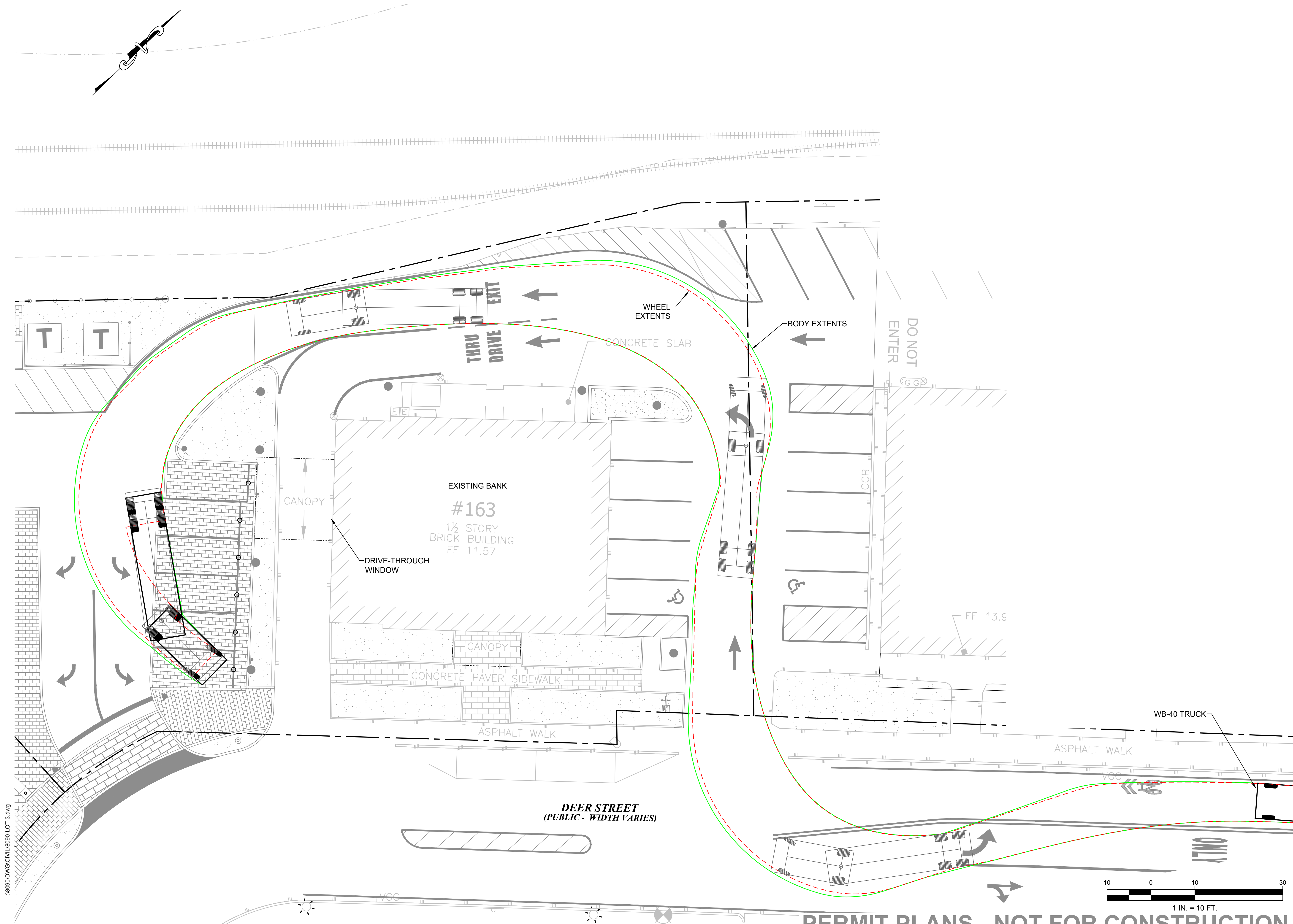
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SITE PLAN REVIEW
AASHTO WB-40
TRUCK
TURNING
TEMPLATE

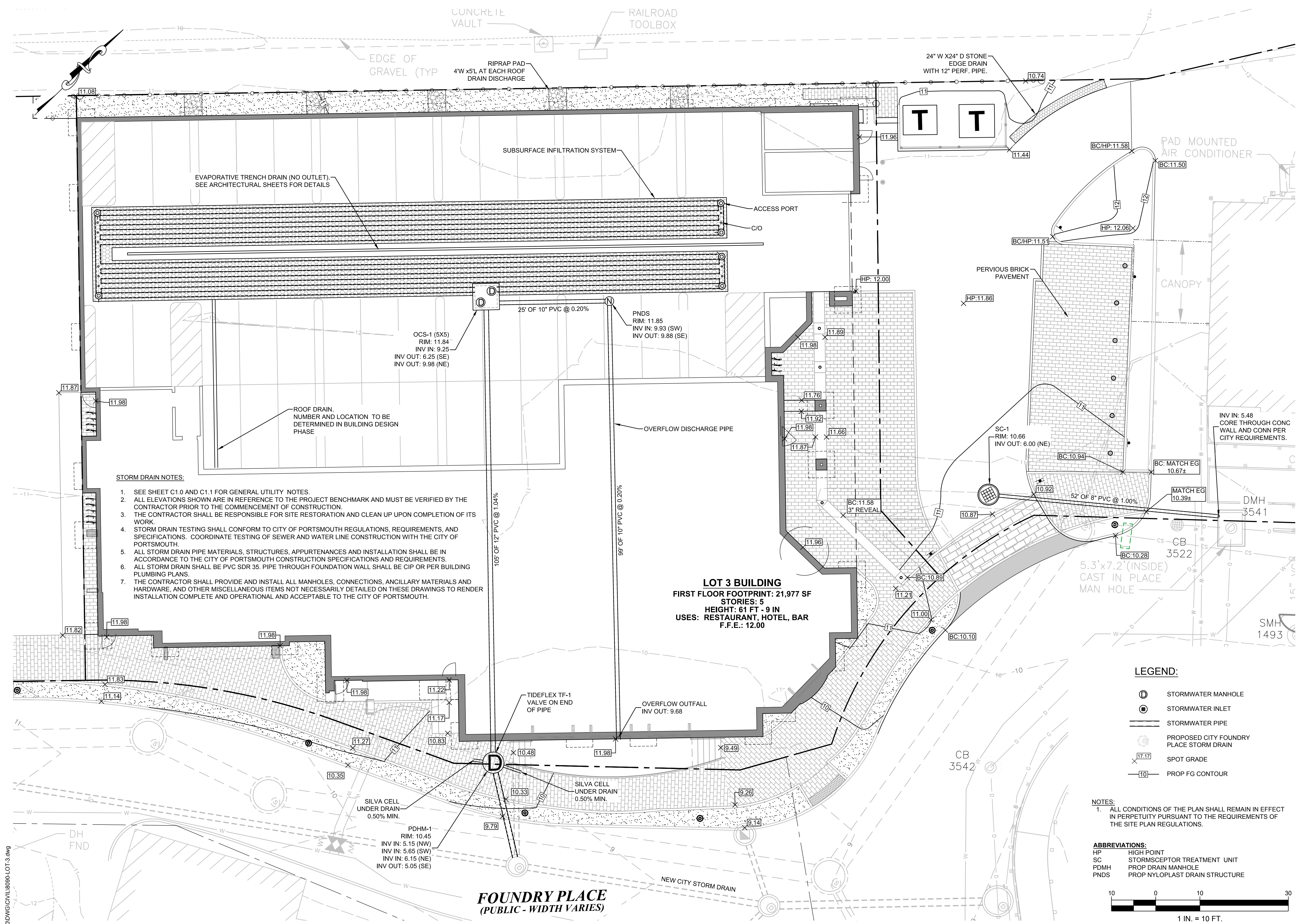
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STORM DRAIN NOTES:

- SEE SHEET C1.0 AND C1.1 FOR GENERAL UTILITY NOTES.
- ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE PROJECT BENCHMARK AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE RESTORATION AND CLEAN UP UPON COMPLETION OF ITS WORK.
- STORM DRAIN TESTING SHALL CONFORM TO CITY OF PORTSMOUTH REGULATIONS, REQUIREMENTS, AND SPECIFICATIONS. COORDINATE TESTING OF SEWER AND WATER LINE CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
- ALL STORM DRAIN PIPE MATERIALS, STRUCTURES, APPURTENANCES AND INSTALLATION SHALL BE IN ACCORDANCE TO THE CITY OF PORTSMOUTH CONSTRUCTION SPECIFICATIONS AND REQUIREMENTS.
- ALL STORM DRAIN SHALL BE PVC SDR 35. PIPE THROUGH FOUNDATION WALL SHALL BE CIP OR PER BUILDING PLUMBING PLANS.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, CONNECTIONS, ANCILLARY MATERIALS AND HARDWARE, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION COMPLETE AND OPERATIONAL AND ACCEPTABLE TO THE CITY OF PORTSMOUTH.

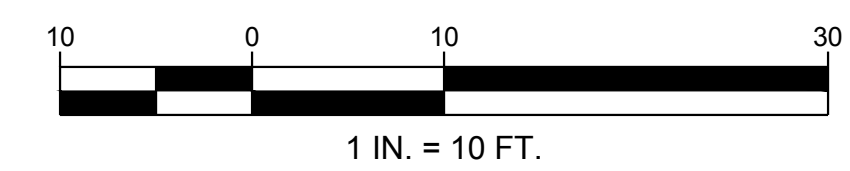
LOT 3 BUILDING
 FIRST FLOOR FOOTPRINT: 21,977 SF
 STORIES: 5
 HEIGHT: 61 FT - 9 IN
 USES: RESTAURANT, HOTEL, BAR
 F.F.E.: 12.00

LEGEND:

- ⊙ STORMWATER MANHOLE
- ⊙ STORMWATER INLET
- STORMWATER PIPE
- ⊙ PROPOSED CITY FOUNDRY PLACE STORM DRAIN
- × SPOT GRADE
- PROP FG CONTOUR

NOTES:
 1. ALL CONDITIONS OF THE PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.

ABBREVIATIONS:
 HP HIGH POINT
 SC STORMSCCEPTOR TREATMENT UNIT
 PMDM PROP DRAIN MANHOLE
 PNDS PROP NYLOPLAST DRAIN STRUCTURE



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 SURVEY
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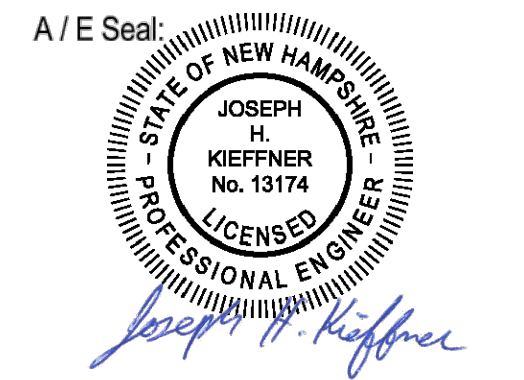
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SITE PLAN REVIEW

GRADING AND DRAINAGE PLAN

C4.0

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MATCHLINE A-A (SHEET C4.2)

EDGE OF GRAVEL (TYP.)



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T 603.436.2551 www.jsainc.com

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MANCHESTER, NEW HAMPSHIRE

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PORTSMOUTH, NEW HAMPSHIRE

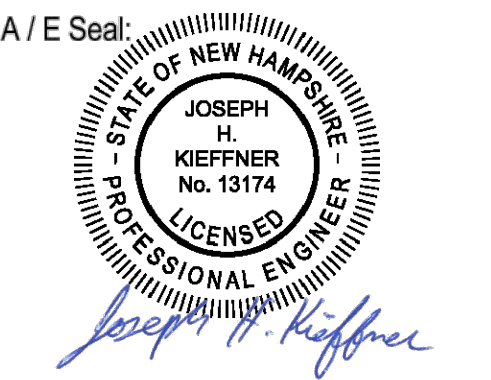
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ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPPF ENGINEER
WOBURN, MASSACHUSETTS

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5
PORTSMOUTH, NH 03801

OWNER:
Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME



Scale:
Date: 2/06/2018
Project Number: 14837.02
(Geolnsight 8090)

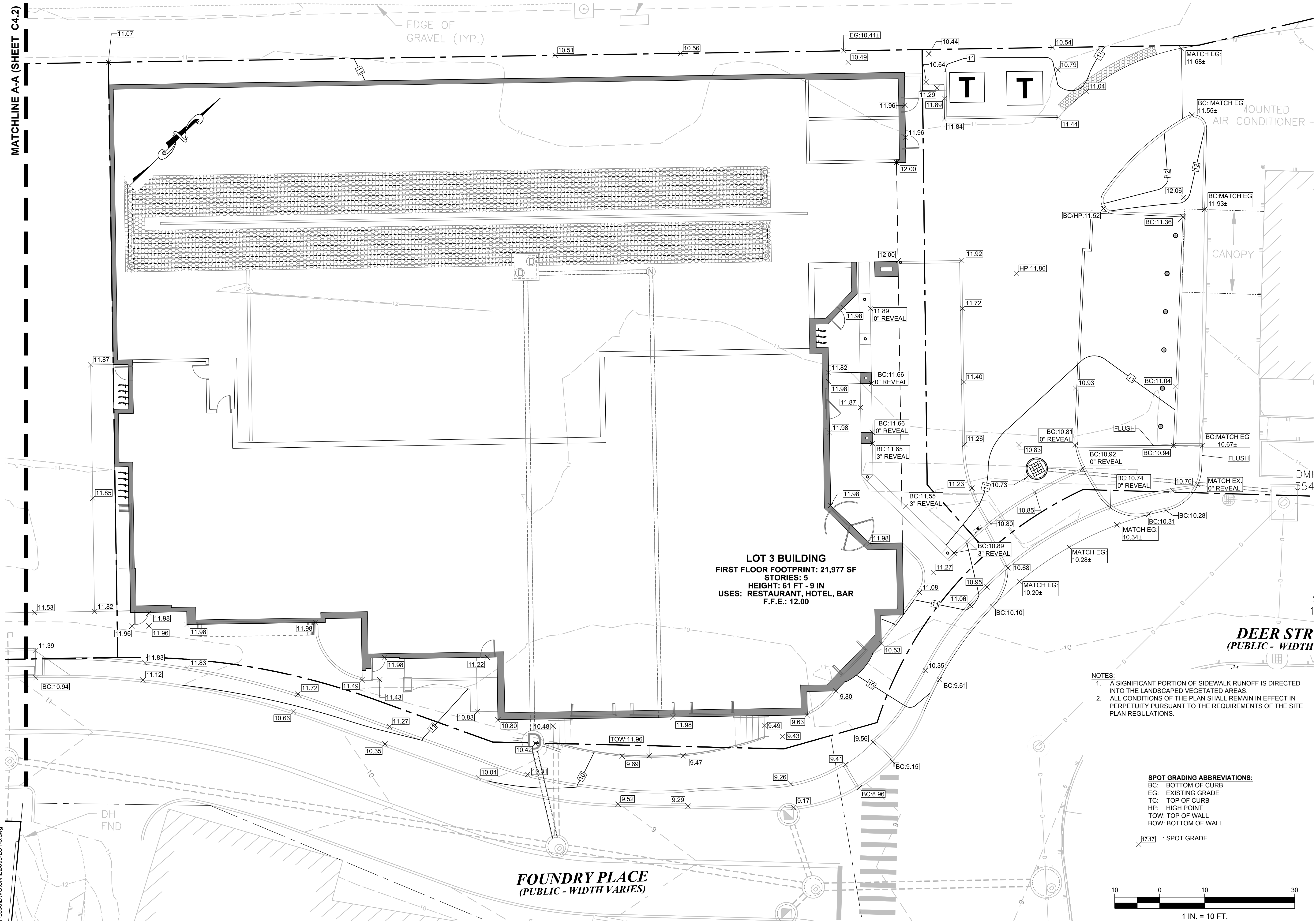
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SITE PLAN REVIEW

GRADING-
DETAIL

C4.1

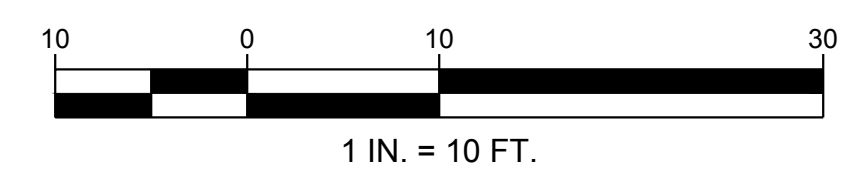
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LOT 3 BUILDING
 FIRST FLOOR FOOTPRINT: 21,977 SF
 STORIES: 5
 HEIGHT: 61 FT - 9 IN
 USES: RESTAURANT, HOTEL, BAR
 F.F.E.: 12.00

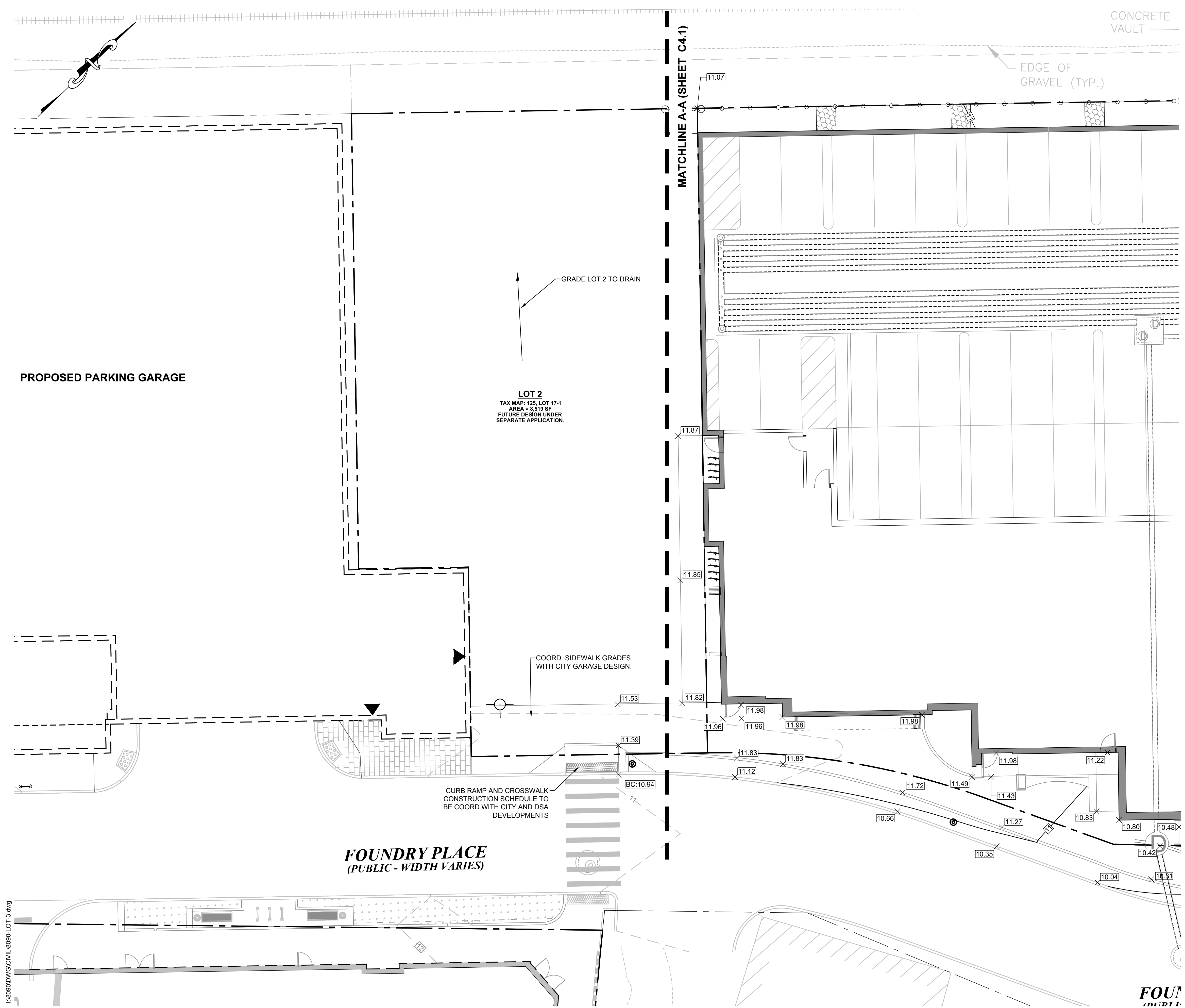
- NOTES:
- A SIGNIFICANT PORTION OF SIDEWALK RUNOFF IS DIRECTED INTO THE LANDSCAPED VEGETATED AREAS.
 - ALL CONDITIONS OF THE PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.

SPOT GRADING ABBREVIATIONS:
 BC: BOTTOM OF CURB
 EG: EXISTING GRADE
 TC: TOP OF CURB
 HP: HIGH POINT
 TOW: TOP OF WALL
 BOW: BOTTOM OF WALL
 X 17.17 : SPOT GRADE



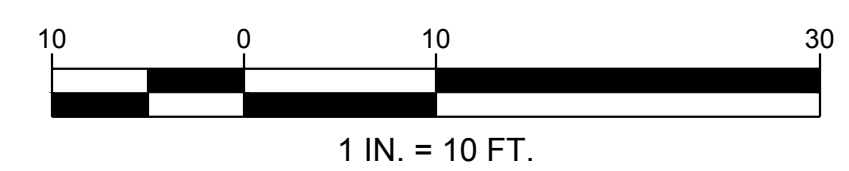
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- NOTES:
1. THE GARAGE FLOOR PITCHES INTO THE BUILDING FROM THE ENTRANCE. WATER WITHIN THE GARAGE WILL BE COLLECTED WITHIN AN EVAPORATIVE TRENCH DRAIN.
 2. A SIGNIFICANT PORTION OF SIDEWALK RUNOFF IS DIRECTED INTO THE LANDSCAPED VEGETATED AREAS.
 3. ALL CONDITIONS OF THE PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.

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AMBIT ENGINEERING, INC.
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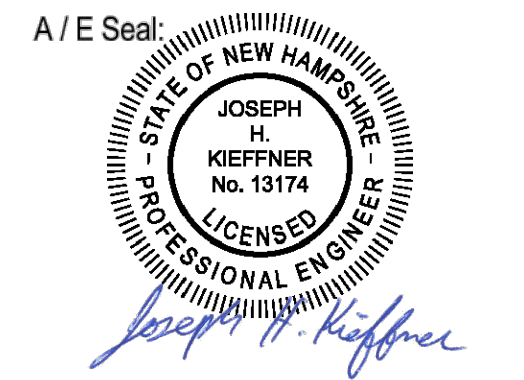
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 "LOT 3": 165 DEER
 STREET, ASSESSORS
 MAP 125 LOT 17, AND
 RELATED
 IMPROVEMENTS TO
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Deer Street Associates (Lots 4&5)
 7 BANKS ROCK ROAD
 YORK HARBOR, ME



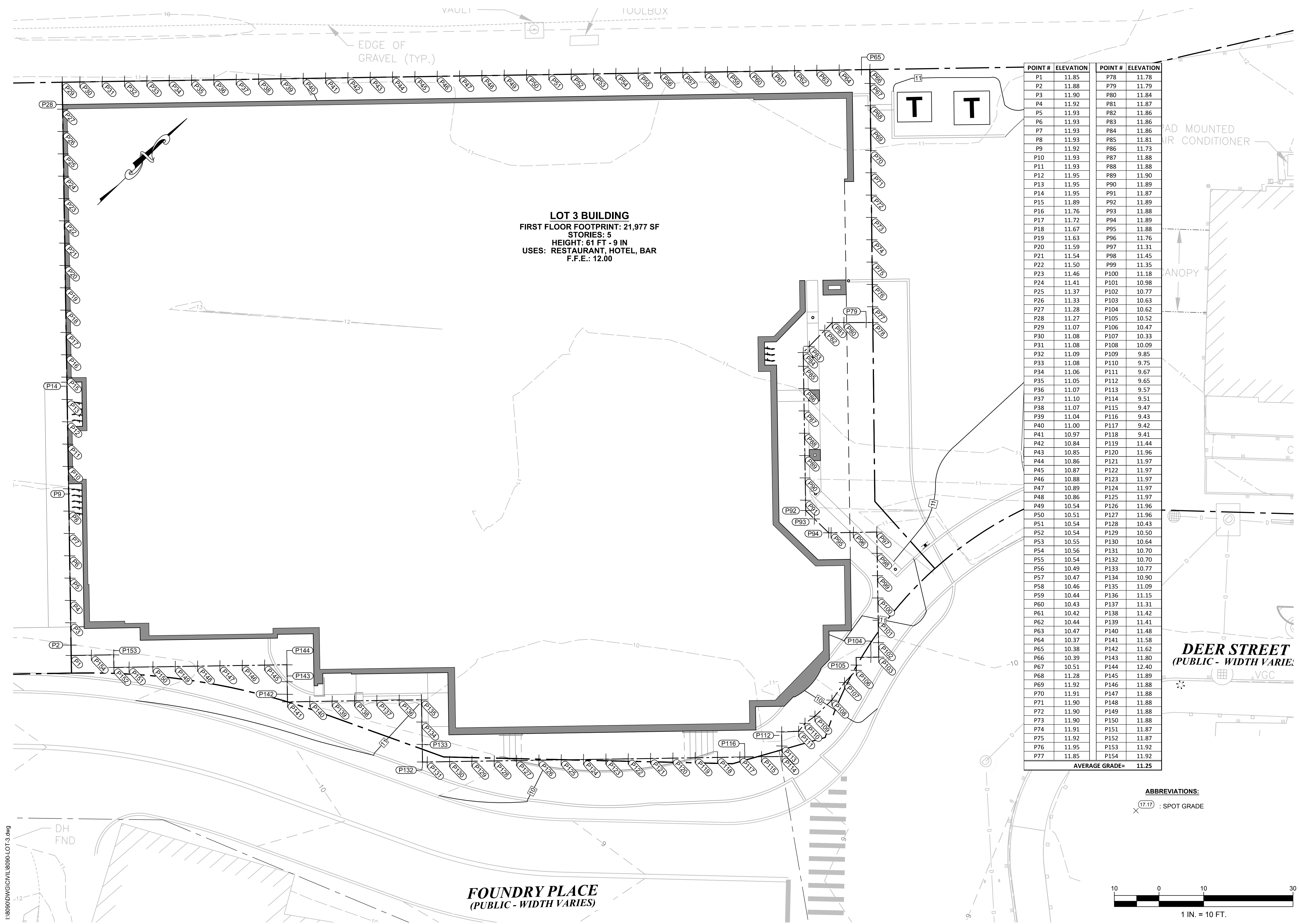
Scale:
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SITE PLAN REVIEW

**GRADING -
 DETAIL
 LOT 2**

C4.2

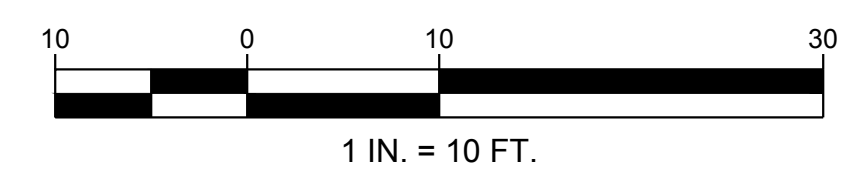


LOT 3 BUILDING
 FIRST FLOOR FOOTPRINT: 21,977 SF
 STORIES: 5
 HEIGHT: 61 FT - 9 IN
 USES: RESTAURANT, HOTEL, BAR
 F.F.E.: 12.00

POINT #	ELEVATION	POINT #	ELEVATION
P1	11.85	P78	11.78
P2	11.88	P79	11.79
P3	11.90	P80	11.84
P4	11.92	P81	11.87
P5	11.93	P82	11.86
P6	11.93	P83	11.86
P7	11.93	P84	11.86
P8	11.93	P85	11.81
P9	11.92	P86	11.73
P10	11.93	P87	11.88
P11	11.93	P88	11.88
P12	11.95	P89	11.90
P13	11.95	P90	11.89
P14	11.95	P91	11.87
P15	11.89	P92	11.89
P16	11.76	P93	11.88
P17	11.72	P94	11.89
P18	11.67	P95	11.88
P19	11.63	P96	11.76
P20	11.59	P97	11.31
P21	11.54	P98	11.45
P22	11.50	P99	11.35
P23	11.46	P100	11.18
P24	11.41	P101	10.98
P25	11.37	P102	10.77
P26	11.33	P103	10.63
P27	11.28	P104	10.62
P28	11.27	P105	10.52
P29	11.07	P106	10.47
P30	11.08	P107	10.33
P31	11.08	P108	10.09
P32	11.09	P109	9.85
P33	11.08	P110	9.75
P34	11.06	P111	9.67
P35	11.05	P112	9.65
P36	11.07	P113	9.57
P37	11.10	P114	9.51
P38	11.07	P115	9.47
P39	11.04	P116	9.43
P40	11.00	P117	9.42
P41	10.97	P118	9.41
P42	10.84	P119	11.44
P43	10.85	P120	11.96
P44	10.86	P121	11.97
P45	10.87	P122	11.97
P46	10.88	P123	11.97
P47	10.89	P124	11.97
P48	10.86	P125	11.97
P49	10.54	P126	11.96
P50	10.51	P127	11.96
P51	10.54	P128	10.43
P52	10.54	P129	10.50
P53	10.55	P130	10.64
P54	10.56	P131	10.70
P55	10.54	P132	10.70
P56	10.49	P133	10.77
P57	10.47	P134	10.90
P58	10.46	P135	11.09
P59	10.44	P136	11.15
P60	10.43	P137	11.31
P61	10.42	P138	11.42
P62	10.44	P139	11.41
P63	10.47	P140	11.48
P64	10.37	P141	11.58
P65	10.38	P142	11.62
P66	10.39	P143	11.80
P67	10.51	P144	12.40
P68	11.28	P145	11.89
P69	11.92	P146	11.88
P70	11.91	P147	11.88
P71	11.90	P148	11.88
P72	11.90	P149	11.88
P73	11.90	P150	11.88
P74	11.91	P151	11.87
P75	11.92	P152	11.87
P76	11.95	P153	11.92
P77	11.85	P154	11.92

AVERAGE GRADE= 11.25

ABBREVIATIONS:
 (17.17) : SPOT GRADE



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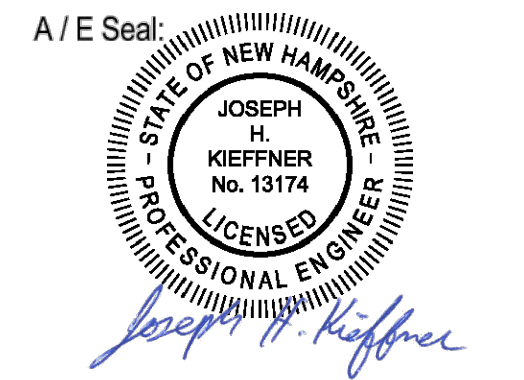
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Scale:
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SITE PLAN REVIEW

AVERAGE
 GRADE
 CALCULATION

C4.3

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Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME

A/E Seal:

Joseph H. Kieffner

Scale:
Date: 2/06/2018
Project Number: 14837.02
(Geolnsight 8090)

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SITE PLAN REVIEW

UTILITY PLAN
- SANITARY
SEWER

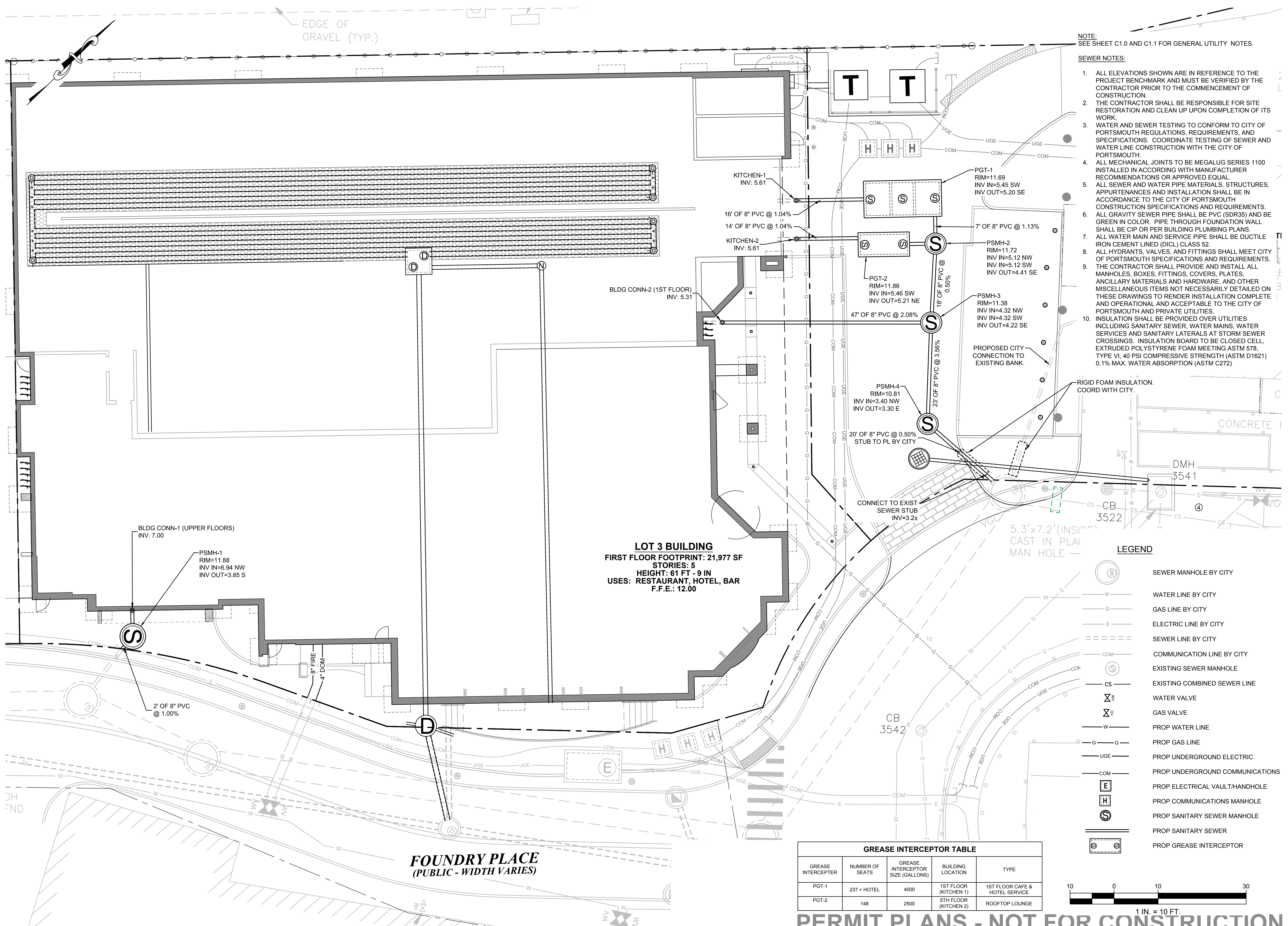
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NOTE:
SEE SHEET C1.0 AND C1.1 FOR GENERAL UTILITY NOTES.

SEWER NOTES:

1. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE PROJECT BENCHMARK AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE RESTORATION AND CLEAN UP UPON COMPLETION OF ITS WORK.
3. WATER AND SEWER TESTING TO CONFORM TO CITY OF PORTSMOUTH REGULATIONS, REQUIREMENTS, AND SPECIFICATIONS. COORDINATE TESTING OF SEWER AND WATER LINE CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
4. ALL MECHANICAL JOINTS TO BE MEGALUG SERIES 1100 INSTALLED IN ACCORDING WITH MANUFACTURER RECOMMENDATIONS OR APPROVED EQUAL.
5. ALL SEWER AND WATER PIPE MATERIALS, STRUCTURES, APPURTENANCES AND INSTALLATION SHALL BE IN ACCORDANCE TO THE CITY OF PORTSMOUTH CONSTRUCTION SPECIFICATIONS AND REQUIREMENTS. ALL GRAVITY SEWER PIPE SHALL BE PVC (SDR35) AND BE GREEN IN COLOR. PIPE THROUGH FOUNDATION WALL SHALL BE CIP OR PER BUILDING PLUMBING PLANS.
6. ALL WATER MAIN AND SERVICE PIPE SHALL BE DUCTILE IRON CEMENT LINED (DICI) CLASS 52.
7. ALL HYDRANTS, VALVES, AND FITTINGS SHALL MEET CITY OF PORTSMOUTH SPECIFICATIONS AND REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, COVERS, PLATES, ANCILLARY MATERIALS AND HARDWARE, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION COMPLETE AND OPERATIONAL AND ACCEPTABLE TO THE CITY OF PORTSMOUTH AND PRIVATE UTILITIES.
8. INSULATION SHALL BE PROVIDED OVER UTILITIES INCLUDING SANITARY SEWER, WATER MAINS, WATER SERVICES AND SANITARY LATERALS AT STORM SEWER CROSSINGS. INSULATION BOARD TO BE CLOSED CELL, EXTRUDED POLYSTYRENE FOAM MEETING ASTM 578, TYPE VI, 40 PSI COMPRESSIVE STRENGTH (ASTM D1621) 0.1% MAX. WATER ABSORPTION (ASTM C272)



LOT 3 BUILDING
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HEIGHT: 61 FT - 9 IN
USES: RESTAURANT, HOTEL, BAR
F.F.E.: 12.00

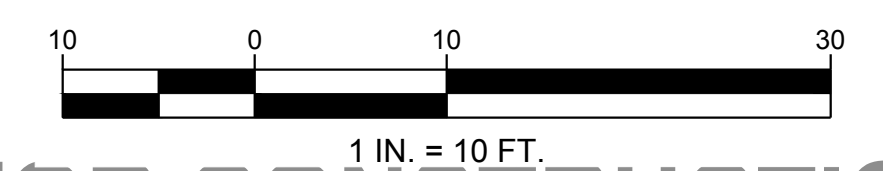
FOUNDRY PLACE
(PUBLIC - WIDTH VARIES)

LEGEND

- SEWER MANHOLE BY CITY
- WATER LINE BY CITY
- GAS LINE BY CITY
- ELECTRIC LINE BY CITY
- SEWER LINE BY CITY
- COMMUNICATION LINE BY CITY
- EXISTING SEWER MANHOLE
- EXISTING COMBINED SEWER LINE
- WATER VALVE
- GAS VALVE
- PROP WATER LINE
- PROP GAS LINE
- PROP UNDERGROUND ELECTRIC
- PROP UNDERGROUND COMMUNICATIONS
- PROP ELECTRICAL VAULT/HANDHOLE
- PROP COMMUNICATIONS MANHOLE
- PROP SANITARY SEWER MANHOLE
- PROP SANITARY SEWER
- PROP GREASE INTERCEPTOR

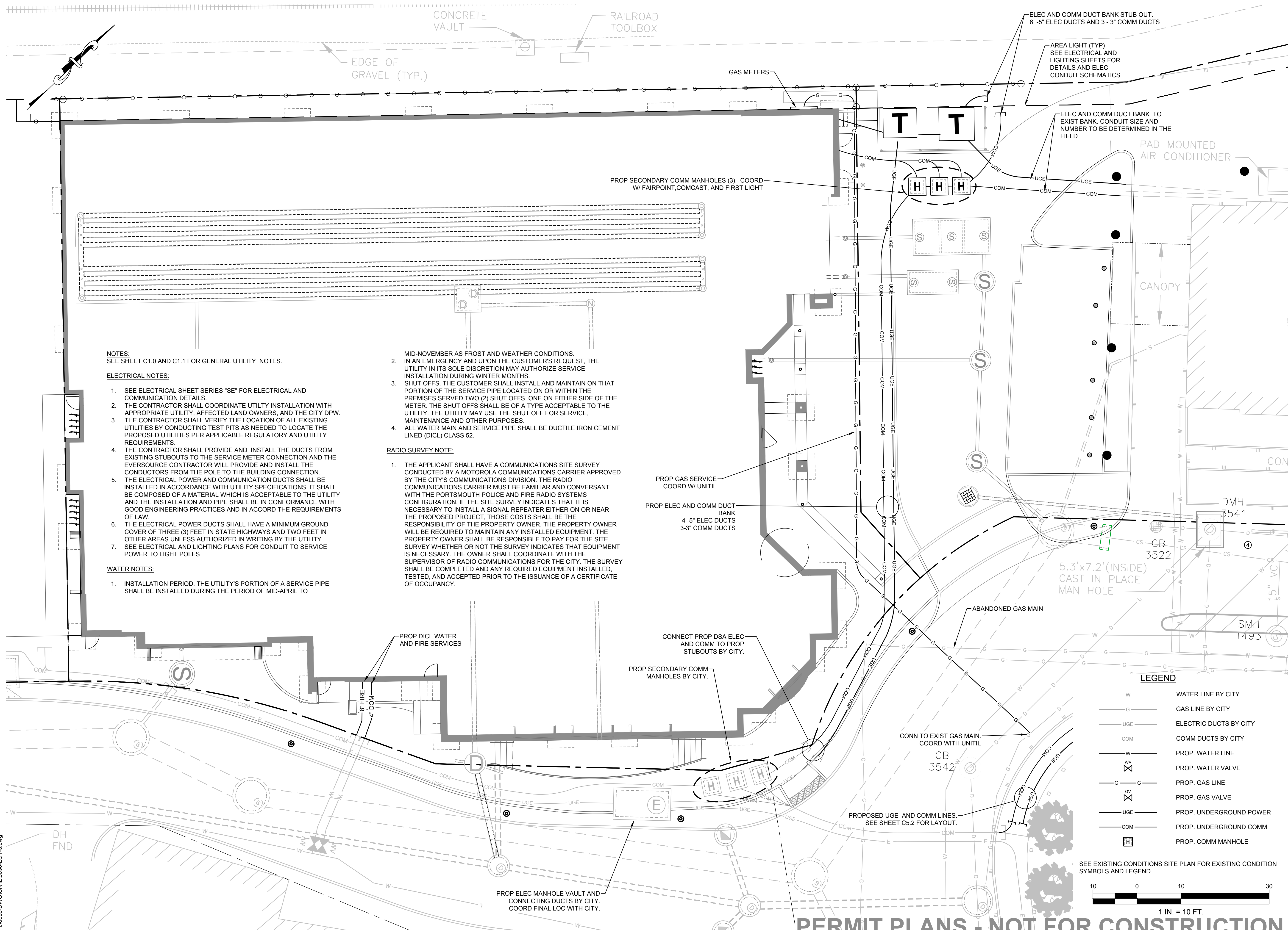
GREASE INTERCEPTOR TABLE

GREASE INTERCEPTOR	NUMBER OF SEATS	GREASE INTERCEPTOR SIZE (GALLONS)	BUILDING LOCATION	TYPE
PGT-1	237 + HOTEL	4000	1ST FLOOR (KITCHEN 1)	1ST FLOOR CAFE & HOTEL SERVICE
PGT-2	148	2500	5TH FLOOR (KITCHEN 2)	ROOFTOP LOUNGE



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NOTES:
SEE SHEET C1.0 AND C1.1 FOR GENERAL UTILITY NOTES.

ELECTRICAL NOTES:

- SEE ELECTRICAL SHEET SERIES "SE" FOR ELECTRICAL AND COMMUNICATION DETAILS.
- THE CONTRACTOR SHALL COORDINATE UTILITY INSTALLATION WITH APPROPRIATE UTILITY, AFFECTED LAND OWNERS, AND THE CITY DPW.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES BY CONDUCTING TEST PITS AS NEEDED TO LOCATE THE PROPOSED UTILITIES PER APPLICABLE REGULATORY AND UTILITY REQUIREMENTS.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL THE DUCTS FROM EXISTING STUBOUTS TO THE SERVICE METER CONNECTION AND THE EVERSOURCE CONTRACTOR WILL PROVIDE AND INSTALL THE CONDUCTORS FROM THE POLE TO THE BUILDING CONNECTION.
- THE ELECTRICAL POWER AND COMMUNICATION DUCTS SHALL BE INSTALLED IN ACCORDANCE WITH UTILITY SPECIFICATIONS. IT SHALL BE COMPOSED OF A MATERIAL WHICH IS ACCEPTABLE TO THE UTILITY AND THE INSTALLATION AND PIPE SHALL BE IN CONFORMANCE WITH GOOD ENGINEERING PRACTICES AND IN ACCORD THE REQUIREMENTS OF LAW.
- THE ELECTRICAL POWER DUCTS SHALL HAVE A MINIMUM GROUND COVER OF THREE (3) FEET IN STATE HIGHWAYS AND TWO FEET IN OTHER AREAS UNLESS AUTHORIZED IN WRITING BY THE UTILITY.
- SEE ELECTRICAL AND LIGHTING PLANS FOR CONDUIT TO SERVICE POWER TO LIGHT POLES

WATER NOTES:

- INSTALLATION PERIOD. THE UTILITY'S PORTION OF A SERVICE PIPE SHALL BE INSTALLED DURING THE PERIOD OF MID-APRIL TO

- MID-NOVEMBER AS FROST AND WEATHER CONDITIONS.
- IN AN EMERGENCY AND UPON THE CUSTOMER'S REQUEST, THE UTILITY IN ITS SOLE DISCRETION MAY AUTHORIZE SERVICE INSTALLATION DURING WINTER MONTHS.
- SHUT OFFS. THE CUSTOMER SHALL INSTALL AND MAINTAIN ON THAT PORTION OF THE SERVICE PIPE LOCATED ON OR WITHIN THE PREMISES SERVED TWO (2) SHUT OFFS, ONE ON EITHER SIDE OF THE METER. THE SHUT OFFS SHALL BE OF A TYPE ACCEPTABLE TO THE UTILITY. THE UTILITY MAY USE THE SHUT OFF FOR SERVICE, MAINTENANCE AND OTHER PURPOSES.
- ALL WATER MAIN AND SERVICE PIPE SHALL BE DUCTILE IRON CEMENT LINED (DI CL) CLASS 52.

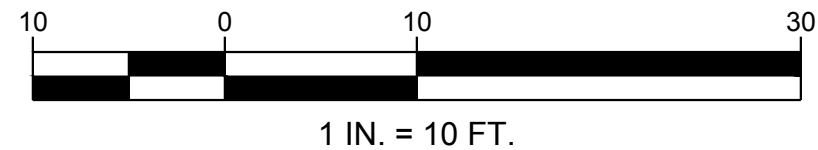
RADIO SURVEY NOTE:

- THE APPLICANT SHALL HAVE A COMMUNICATIONS SITE SURVEY CONDUCTED BY A MOTOROLA COMMUNICATIONS CARRIER APPROVED BY THE CITY'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE PORTSMOUTH POLICE AND FIRE RADIO SYSTEMS CONFIGURATION. IF THE SITE SURVEY INDICATES THAT 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 PROPERTY OWNER WILL BE REQUIRED TO MAINTAIN ANY INSTALLED EQUIPMENT. THE PROPERTY OWNER SHALL BE RESPONSIBLE TO PAY FOR THE SITE SURVEY WHETHER OR NOT THE SURVEY INDICATES THAT EQUIPMENT IS NECESSARY. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR THE CITY. THE SURVEY SHALL BE COMPLETED AND ANY REQUIRED EQUIPMENT INSTALLED, TESTED, AND ACCEPTED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

LEGEND

- W — WATER LINE BY CITY
- G — GAS LINE BY CITY
- UGE — ELECTRIC DUCTS BY CITY
- COM — COMM DUCTS BY CITY
- W — PROP. WATER LINE
- ⊗ PROP. WATER VALVE
- G — PROP. GAS LINE
- ⊗ PROP. GAS VALVE
- UGE — PROP. UNDERGROUND POWER
- COM — PROP. UNDERGROUND COMM
- ⊠ PROP. COMM MANHOLE

SEE EXISTING CONDITIONS SITE PLAN FOR EXISTING CONDITION SYMBOLS AND LEGEND.



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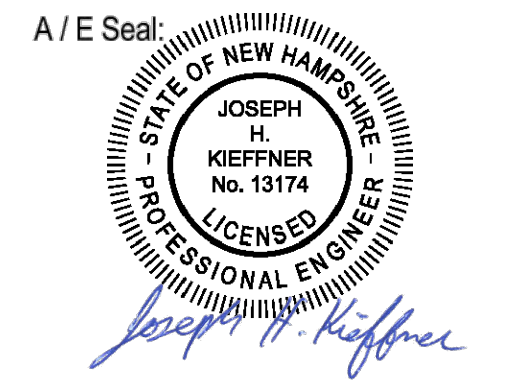
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SITE PLAN REVIEW

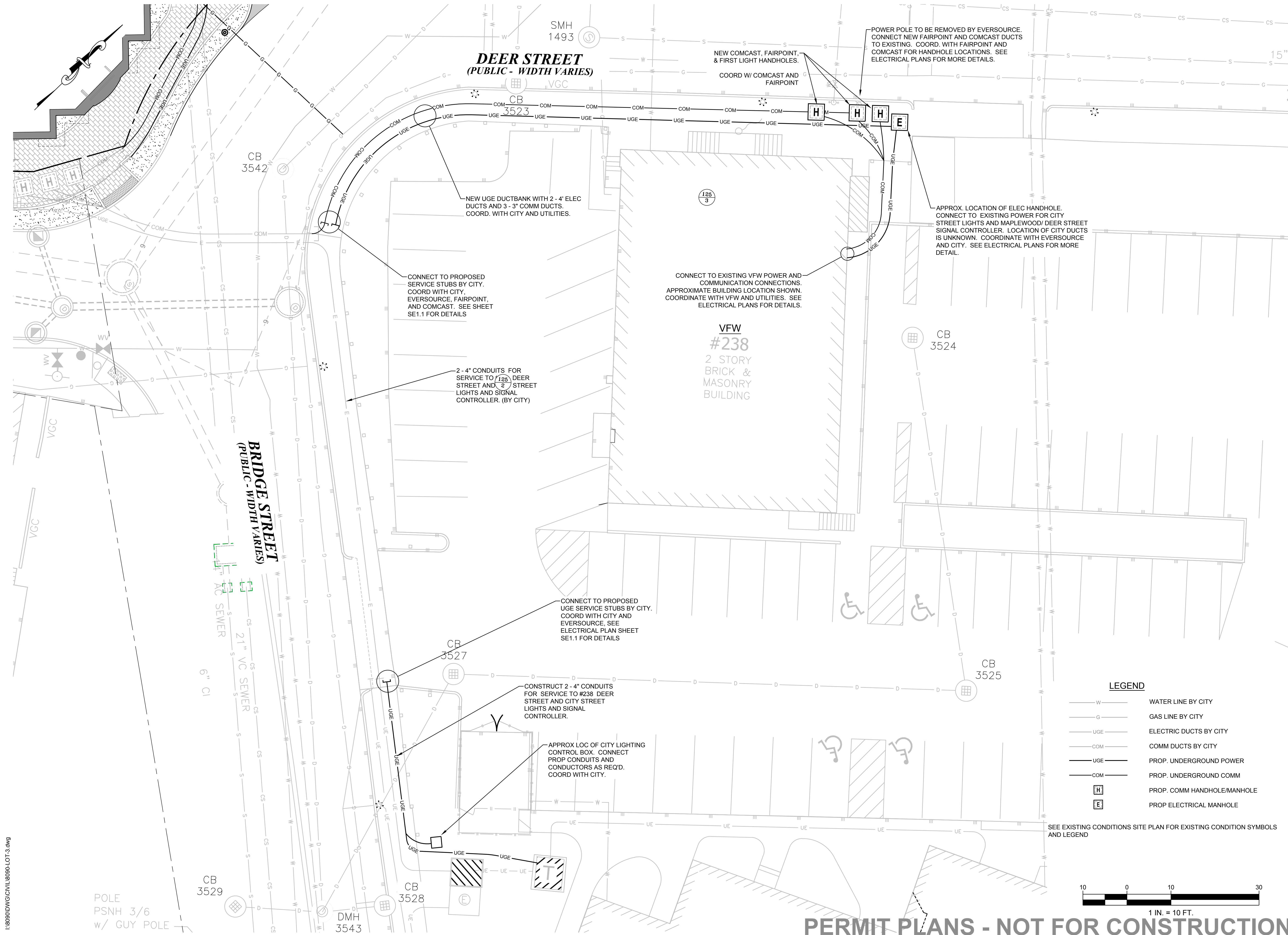
**UTILITY PLAN -
WATER, GAS, &
ELECTRICAL**

C5.1

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**DEER STREET
(PUBLIC - WIDTH VARIES)**

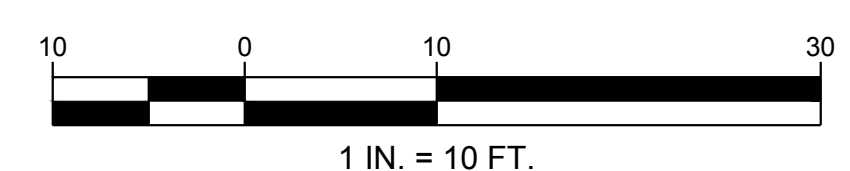
**BRIDGE STREET
(PUBLIC - WIDTH VARIES)**

**VFW
#238**
2 STORY
BRICK &
MASONRY
BUILDING

LEGEND

- W — WATER LINE BY CITY
- G — GAS LINE BY CITY
- UGE — ELECTRIC DUCTS BY CITY
- COM — COMM DUCTS BY CITY
- UGE — PROP. UNDERGROUND POWER
- COM — PROP. UNDERGROUND COMM
- [H] PROP. COMM HANDHOLE/MANHOLE
- [E] PROP ELECTRICAL MANHOLE

SEE EXISTING CONDITIONS SITE PLAN FOR EXISTING CONDITION SYMBOLS AND LEGEND



PERMIT PLANS - NOT FOR CONSTRUCTION



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SURVEY
PORTSMOUTH, NEW HAMPSHIRE

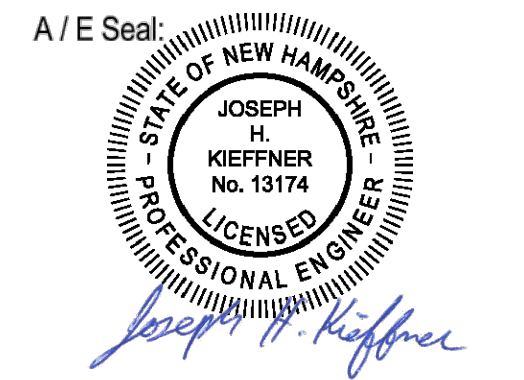
ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPPF ENGINEER
WOBURN, MASSACHUSETTS

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5**
PORTSMOUTH, NH 03801

OWNER:
Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME



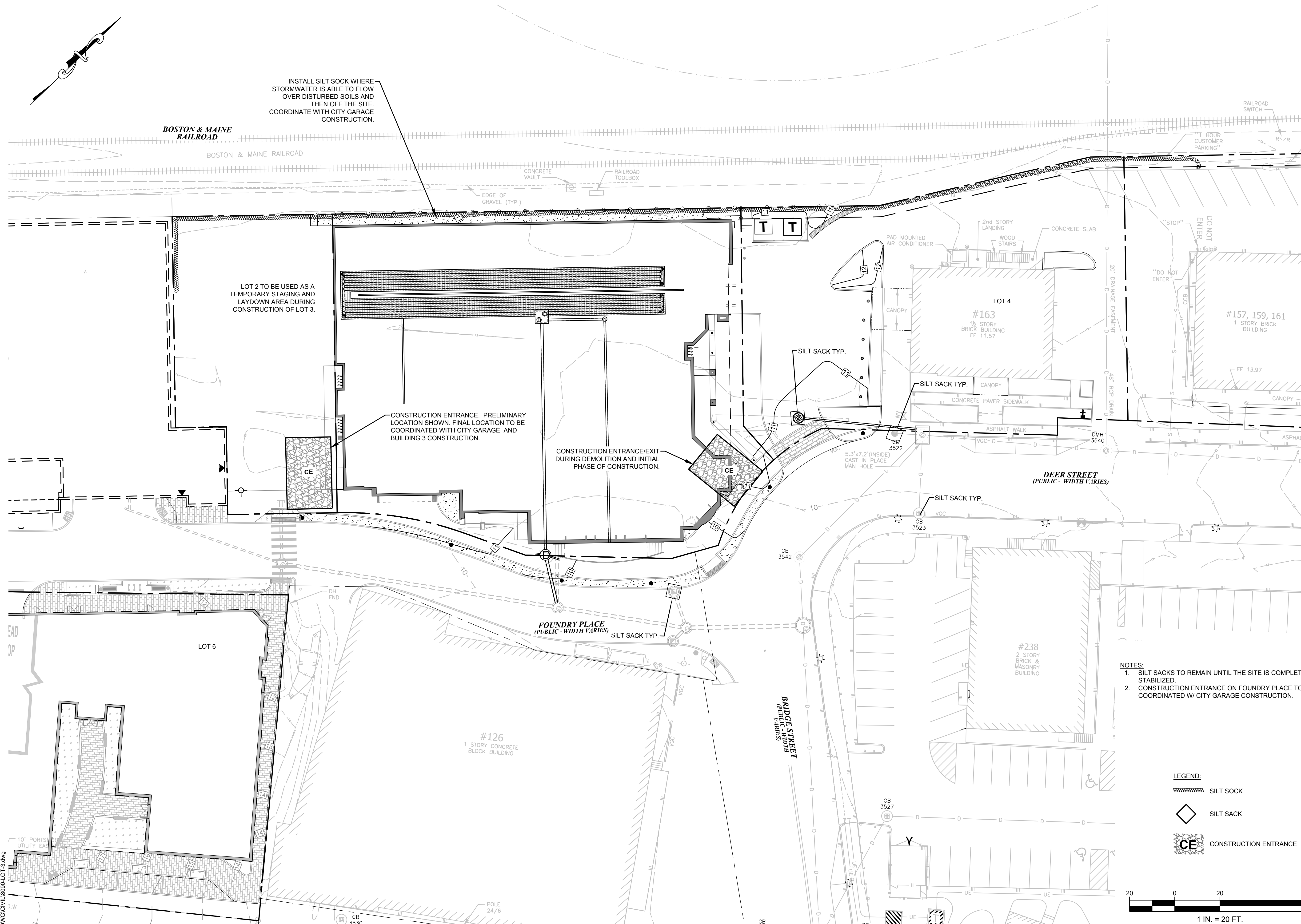
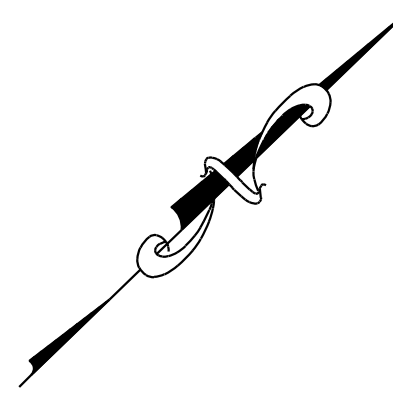
Scale:
Date: 2/06/2018
Project Number: 14837.02
(Geolnsight 8090)

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6	PLANNING BOARD	2/06/2018

SITE PLAN REVIEW

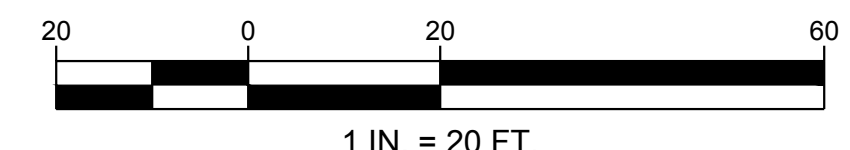
**UTILITY PLAN -
ELECTICAL
FOR VFW AND
CITY LIGHTS**

C5.2



- NOTES:**
1. SILT SOCKS TO REMAIN UNTIL THE SITE IS COMPLETE STABILIZED.
 2. CONSTRUCTION ENTRANCE ON FOUNDRY PLACE TO BE COORDINATED W/ CITY GARAGE CONSTRUCTION.

- LEGEND:**
- SILT SOCK
 - SILT SACK
 - CONSTRUCTION ENTRANCE



ARCHITECTS
INTERIORS
PLANNERS

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PORTSMOUTH, NH 03801
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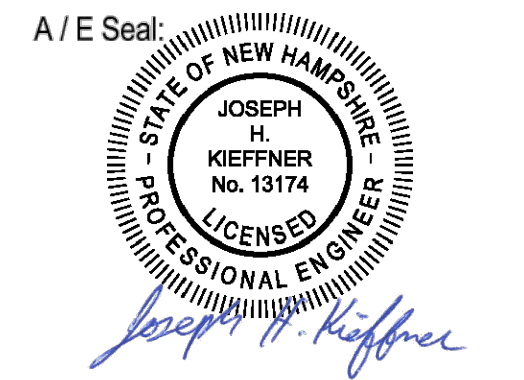
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SITE PLAN REVIEW

EROSION & SEDIMENT CONTROL PLAN

C6.0

PERMIT PLANS - NOT FOR CONSTRUCTION

GENERAL EROSION CONTROL NOTES

- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLAN. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE TERMS AND CONDITIONS OF THE CONSTRUCTION GENERAL PERMIT ISSUED BY THE EPA AND THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SUBMITTED WITH THE PERMIT DOCUMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE TIMELY INSPECTION, MAINTENANCE, AND/OR REPLACEMENT OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES TO ENSURE PROPER OPERATION THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT OR UNTIL IT IS ACCEPTED BY THE OWNER. THE OWNER IS RESPONSIBLE THEREAFTER.
- NO DUST WILL BE ALLOWED ON OR OFF THE WORK SITE. CONTRACTOR MUST CONDUCT CONTINUOUS EFFORTS TO CONTROL DUST. LACK OF SUFFICIENT DUST CONTROL COULD CAUSE THE PROJECT TO BE STOPPED UNTIL ISSUES ARE RESOLVED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN ROADS, CONTROL DUST, AND TAKE ALL NECESSARY MEASURES TO ENSURE THAT THE SITE AND ALL ADJACENT ROADS BE MAINTAINED IN A MUD AND DUST-FREE CONDITION AT ALL TIMES THROUGHOUT THE LIFE OF THE CONTRACT. DUST CONTROL SHALL INCLUDE, BUT IS NOT LIMITED TO, CAREFUL USE OF WATER, CALCIUM CHLORIDE, AND/OR CRUSHED STONE OR COARSE GRAVEL AS CONTROL BMPs.
- ALL PROPOSED CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS AND DETAILS. ALL VEHICLE TRAFFIC ENTERING OR EXITING THE WORK AREA SHALL PASS OVER THE CONSTRUCTION ENTRANCES TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE SURROUNDING ROADWAYS UNTIL THE SITE IS STABILIZED.
- THE CONTRACTOR SHALL INSTALL ALL PERIMETER SEDIMENT CONTROL BARRIERS AS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE OR SILT SOCK SHALL ALSO BE INSTALLED AROUND ANY SOIL STOCKPILE AREAS. THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS AS QUICKLY AS PRACTICABLE. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESEDED, RESEEDING, OR OTHERWISE STABILIZED OR RESTORED TO THEIR ORIGINAL STATE. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHEREVER FEASIBLE.
- THE CONTRACTOR MAY USE TEMPORARY SEDIMENTATION AND/OR INFILTRATION BASINS ON THE SITE DURING CONSTRUCTION. THESE STRUCTURES SHOULD BE STRATEGICALLY LOCATED AND SIZED COMMENSURATE WITH THE PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL REMOVE AND STABILIZE THESE STRUCTURES WHEN NO LONGER REQUIRED.
- TEMPORARY COVERINGS OR OTHER APPROVED STABILIZATION METHOD SHALL BE APPLIED TO ANY DISTURBED AREAS (INCLUDING SOIL STOCKPILE AREAS) THAT HAVE NOT YET REACHED FINISHED GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS.
- PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO ALL DISTURBED SOIL AREAS THAT HAVE REACHED FINISHED LANDSCAPE GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS PERMANENTLY CEASED. THE RECOMMENDED PERMANENT SEEDING DATES ARE APRIL 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 1. WHERE AREAS HAVE REACHED FINISHED GRADE AND ARE NOT INTENDED TO BE VEGETATED, TEMPORARY TARPS OR OTHER STABILIZING COVERS MAY BE PLACED.
- AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING IN ADDITION TO AREAS WHICH CANNOT BE SEEDED WITHIN THE RECOMMENDED SEEDING DATES AND ANY SOIL STOCKPILE AREAS. TEMPORARY MULCHING SHOULD BE PERFORMED AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS. STRAW OR HAY MULCH, WOOD FIBER MULCH, AND HYDROMULCH ARE RECOMMENDED MULCHES.
- IF SEEDING CANNOT BE COMPLETED IMMEDIATELY OR WITHIN THE RECOMMENDED SEEDING DATES, USE THE TEMPORARY MULCHING MEASURE TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- WHERE TEMPORARY COVERS ARE USED OVER STOCKPILES AND/OR DISTURBED SOIL AREAS, THE COVERS SHALL BE SUFFICIENTLY ANCHORED AGAINST WIND. THE CONTRACTOR MUST ANTICIPATE AND MANAGE RUNOFF FROM SUCH COVERINGS.
- ANY EXISTING OR PROPOSED CATCH BASINS THAT MAY BE SUBJECT TO SEDIMENTATION PROCESSES SHALL HAVE SILT SACKS INSTALLED TO PREVENT SEDIMENT FROM ENTERING THE PROPOSED STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED SITE. THE PROPER INLET PROTECTION DEVICES SHALL BE INSTALLED WHERE STORM DRAIN INLETS ARE TO BE MADE OPERATIONAL BEFORE PERMANENT STABILIZATION OF ANY DISTURBED DRAINAGE AREA.
- ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES AND THE NEW HAMPSHIRE STORM WATER MANAGEMENT HANDBOOK.
- WASTE DISPOSAL: MATERIALS WHICH COULD BE A POTENTIAL SOURCE OF STORM WATER POLLUTION SUCH AS GASOLINE, DIESEL FUEL, HYDRAULIC

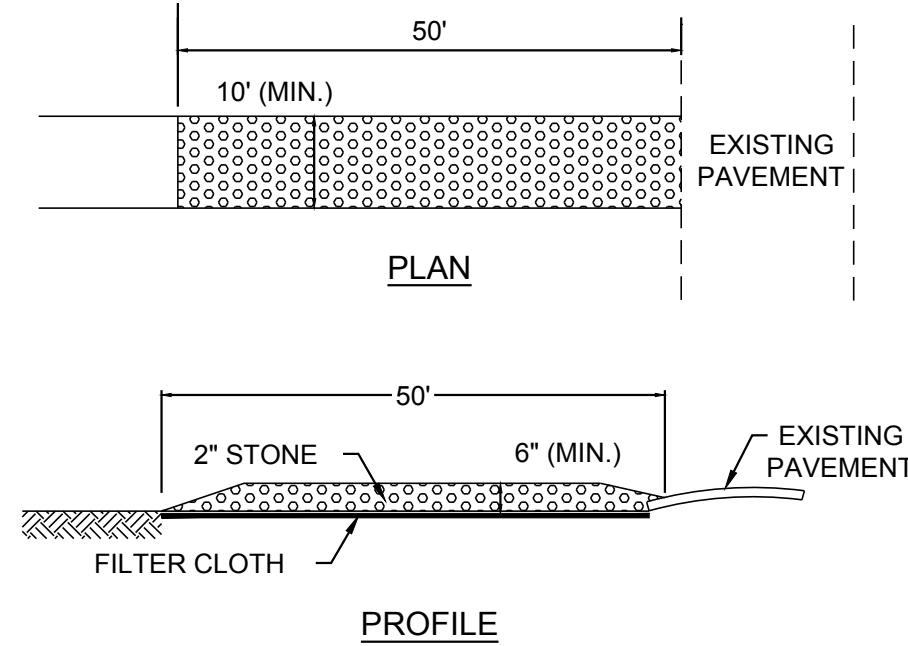
OIL, ETC., SHALL BE STORED AT THE END OF EACH DAY IN A STORAGE TRAILER OR COVERED LOCATION AND TAKEN OFF-SITE AND PROPERLY DISPOSED OF. ALL TYPES OF WASTE GENERATED AT THIS SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND/OR REGULATIONS.

- GOOD HOUSEKEEPING: THE PROJECT SITE SHALL PROVIDE FOR THE MINIMIZATION OF EXPOSURE OF CONSTRUCTION DEBRIS (INCLUDING, BUT NOT LIMITED TO, INSULATION, WIRING, PAINTS AND PAINT CANS, SOLVENTS, WALL BOARD, ETC.) TO PRECIPITATION BY MEANS OF DISPOSAL AND/OR PROPER SHELTER OR COVER. IN ADDITION, CONSTRUCTION WASTE MUST BE PROPERLY DISPOSED OF IN ORDER TO AVOID EXPOSURE TO PRECIPITATION AT THE END OF EACH WORKING DAY.
- REPAIRS OR REPLACEMENT OF DRAINAGE STRUCTURES, SWALES, OR OTHER DRAINAGE ELEMENTS SHOULD BE DONE WITHIN 14 DAYS OF DEFICIENCY REPORTS. IF AN EMERGENCY SITUATION IS IMMINENT THEN REPAIR/REPLACEMENT MUST BE DONE IMMEDIATELY TO AVERT FAILURE OR IMPACT TO NEARBY RESIDENTS.
- IMMEDIATELY PRIOR TO THE END OF CONSTRUCTION OR ACCEPTANCE BY THE OWNER, THE CONTRACTOR SHALL INSPECT ALL ON-SITE STORMWATER MANAGEMENT FACILITIES AND CLEAN AND FLUSH AS NECESSARY.
- THE CONTRACTOR OR NOMINEE WILL BE THE PARTY RESPONSIBLE FOR THE INSPECTION, MAINTENANCE, AND REQUIRED DOCUMENTATION OF ALL STORMWATER STRUCTURES UNTIL FORMAL PROJECT COMPLETION.

PROJECT SPECIFIC CONSTRUCTION SEQUENCING:

DESCRIBED BELOW ARE THE MAJOR CONSTRUCTION ACTIVITIES ANTICIPATED. THEY ARE PRESENTED IN THE ORDER (OR SEQUENCE) THEY ARE EXPECTED TO BEGIN, BUT EACH ACTIVITY WILL NOT NECESSARILY BE COMPLETED BEFORE THE NEXT BEGINS. ALSO, THESE ACTIVITIES COULD OCCUR IN A DIFFERENT ORDER IF NECESSARY TO MAINTAIN ADEQUATE EROSION AND SEDIMENTATION CONTROL. ALL ACTIVITIES AND THE TIMEFRAME (BEGINNING AND ENDING DATES) SHALL BE RECORDED BY THE CONTRACTOR:

- CONTRACTOR TO REVIEW ALL APPLICABLE LOCAL, STATE AND FEDERAL PERMITS.
- REVIEW AND CERTIFY THE STORMWATER POLLUTION PREVENTION PLAN.
- INSTALL TEMPORARY CONSTRUCTION FENCING.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE
- INSTALL EROSION CONTROL MEASURES PRIOR TO EARTH MOVING OPERATIONS.
- DECOMMISSION AND DEMOLISH EXISTING STRUCTURES AND UTILITIES AFTER UTILITY APPROVAL.
- BEGIN ROUGH GRADING, TEMPORARY EARTH SUPPORT, AND EARTHWORK OPERATIONS FOR FOUNDATION AND UTILITY CONSTRUCTION.
- CONSTRUCT BUILDING FOUNDATION AND EXTERIOR WALLS TO ABOVE PROPOSED GRADES.
- CONSTRUCT CONCRETE BOX DETENTION AND DRAINAGE FACILITIES.
- CONSTRUCT SANITARY SEWER STRUCTURES AND CONNECTING FACILITIES.
- FINISH BUILDING STRUCTURE CONSTRUCTION.
- SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED NO LATER THAN 72-HOURS AFTER CONSTRUCTION ACTIVITIES CEASE. IF EARTHWORK TEMPORARILY CEASES ON A PORTION OF OR ON THE ENTIRE SITE, AND WILL NOT RESUME WITHIN 21-DAYS, THE AREA SHALL BE STABILIZED. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS OR TEMPORARY TARPING HAVE BEEN PROPERLY INSTALLED.
- INSTALL AND CONNECT ALL UNDERGROUND UTILITIES.
- CONSTRUCT ROADWAYS AND DRIVEWAYS ACCORDING TO THE PLAN. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.
- SURFACE TREATMENT OF ALL DISTURBED AREAS NOT BUILT UPON, PAVED OR OTHERWISE LANDSCAPED SHALL BE TREATED WITH 4" OF LOAM AND SEED.
- INSPECT AND MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL MEASURES CONSISTENT WITH THE PROCEDURE AND SCHEDULE OUTLINED IN THE STORMWATER POLLUTION PREVENTION PLAN.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING, AND OTHER SURFACE STABILIZATION.
- REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER ALL AREAS ARE STABILIZED WITH A SUITABLE STAND OF GRASS, PAVEMENT COMPACTED GRAVELS, OR OTHER INTENDED FINAL COVERINGS.

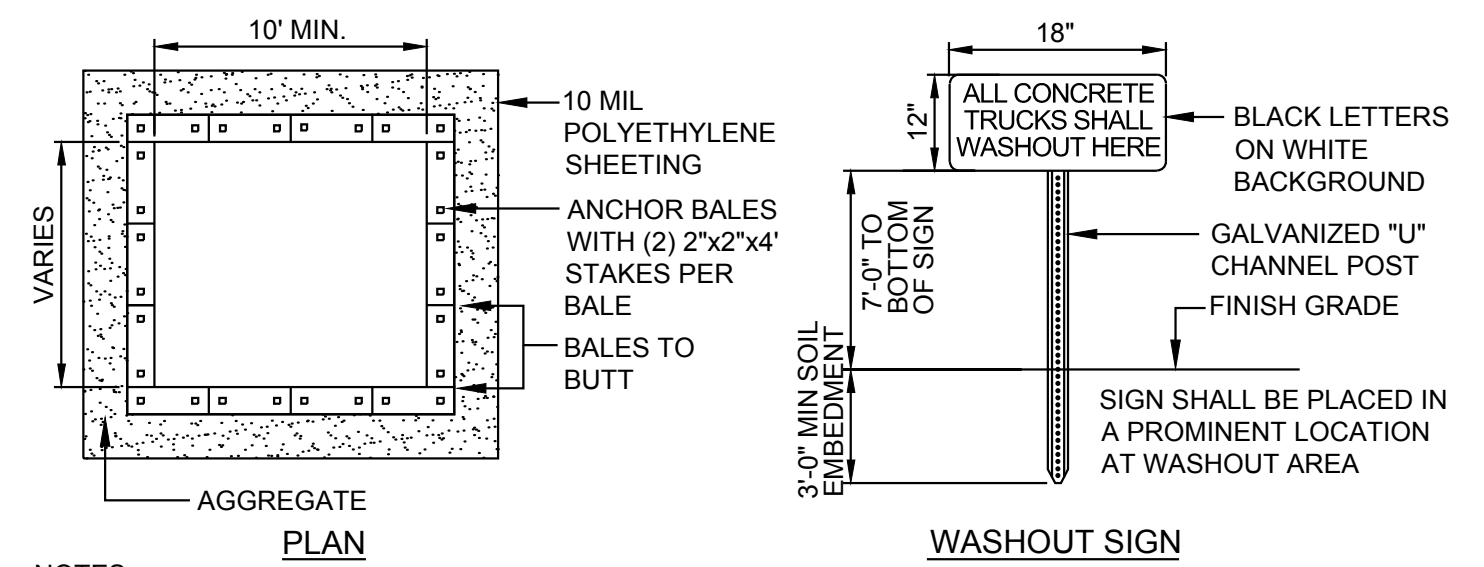


CONSTRUCTION SPECIFICATIONS:

- USE 2" DIAMETER STONE OR RECLAIMED/RECYCLED CONCRETE EQUIVALENT.
- RECOMMENDED LENGTH GREATER THAN 50 FEET WHERE PRACTICAL.
- THICKNESS NOT LESS THAN 6 INCHES.
- 10 FOOT MINIMUM WIDTH, BUT NOT LESS THAN FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCUR.
- FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WILL BE PERMITTED.
- ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED BY THE CONTRACTOR.
- REMOVE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO PLACEMENT OF BITUMINOUS CONCRETE PAVEMENT.

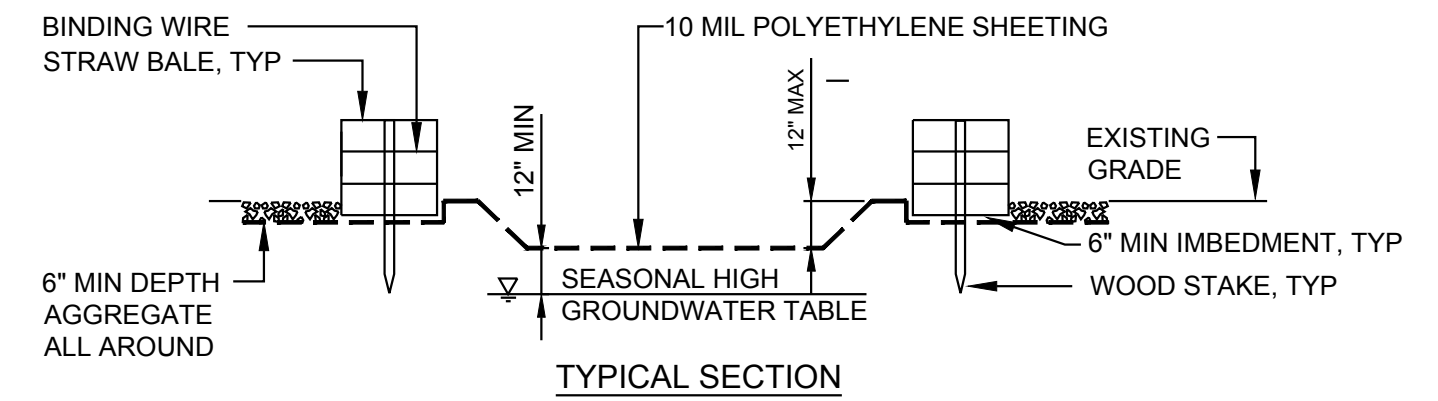
STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



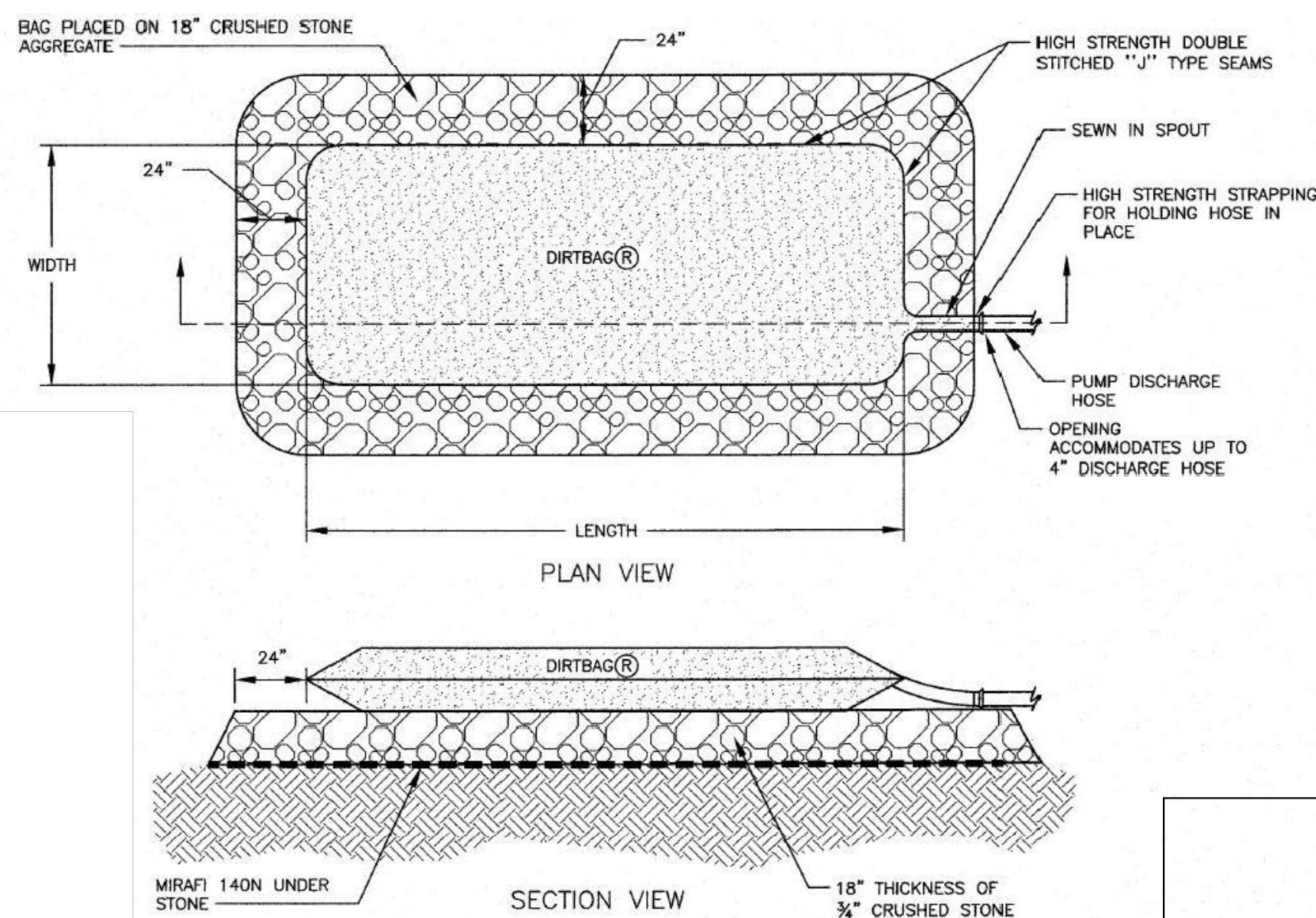
NOTES:

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



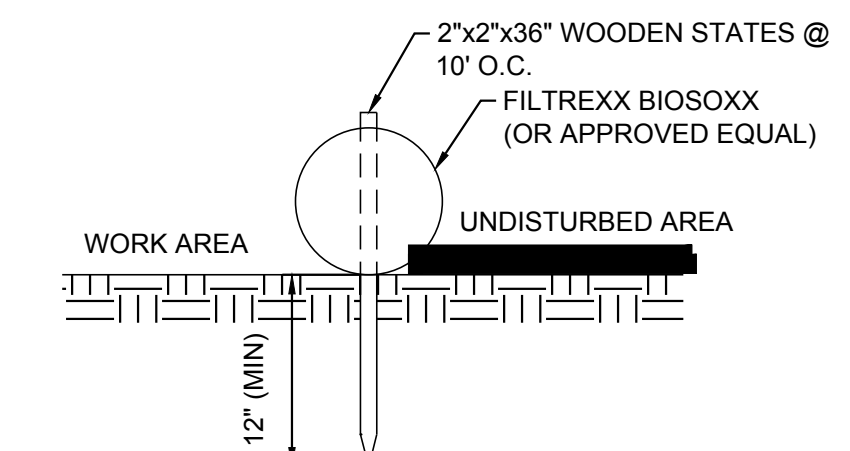
TYPICAL SECTION CONCRETE WASHOUT AREA

NOT TO SCALE



SILT BAG INSTALLATION DETAIL

NOT TO SCALE



MAINTENANCE NOTES:

- FILTER SOCK SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
- IF THE FABRIC SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, REPLACE PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- SEDIMENT DEPOSITS SHALL BE REMOVED WITH FILTER SOCK UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

FILTER SOCK INSTALLATION DETAIL

NOT TO SCALE

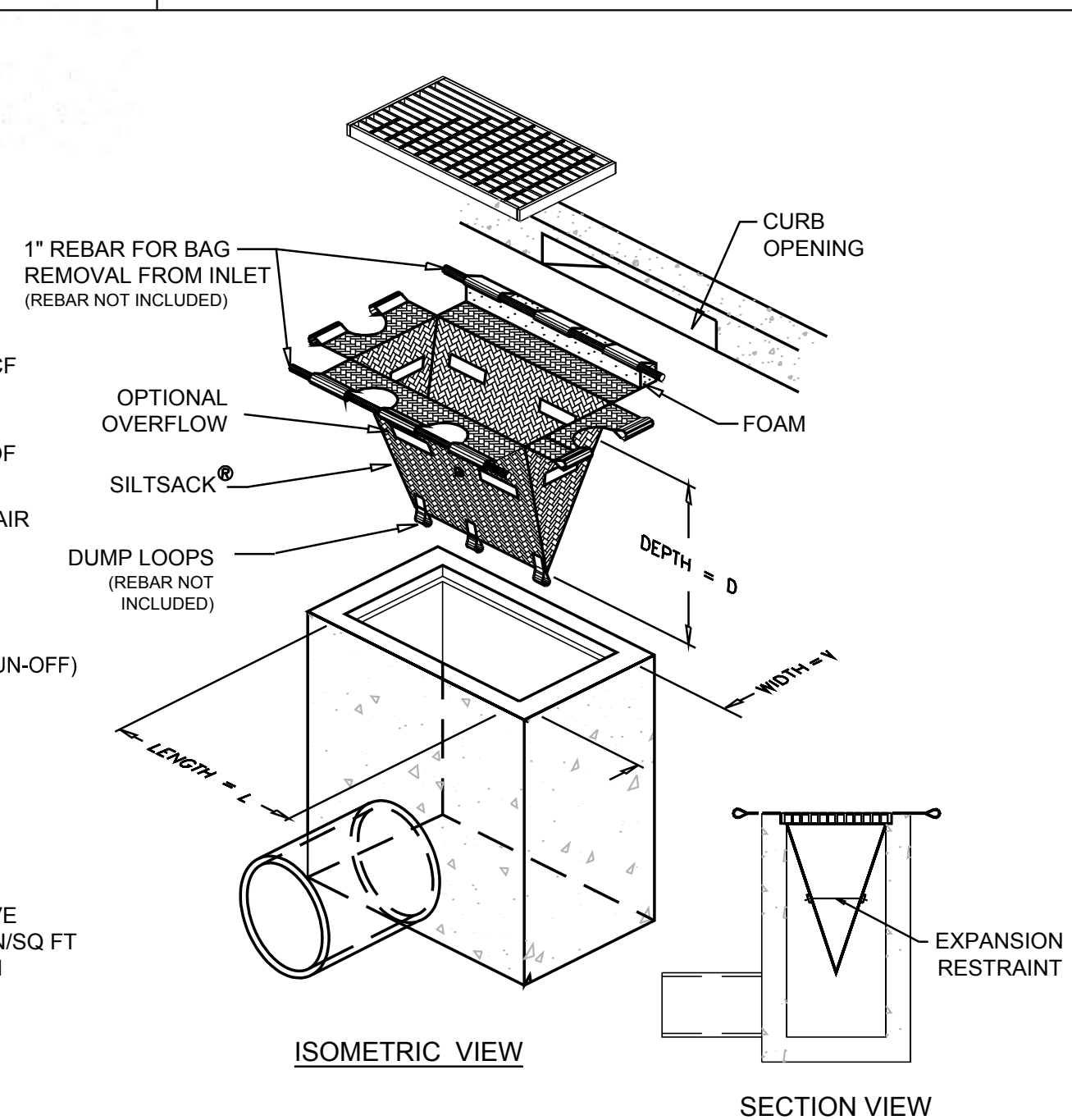
SILTSACK NOTES:

- CATCH BASIN PROTECTION TO BE "SILTSACK" (BY ACF ENVIRONMENTAL) OR "STREAM GUARD" (BY FOSS ENVIRONMENTAL SERVICES) OR EQUAL.
- INSERT TO BE EMPTIED AND PROPERLY DISPOSED OF WHEN IT IS 1/2 FULL OF SEDIMENT.
- INSPECT INSERT AFTER ALL RAINFALL EVENTS, REPAIR AND MAINTAIN AS REQUIRED.

REGULAR FLOW SILTSACK

(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1



SILT SACK INSTALLATION DETAIL

NOT TO SCALE



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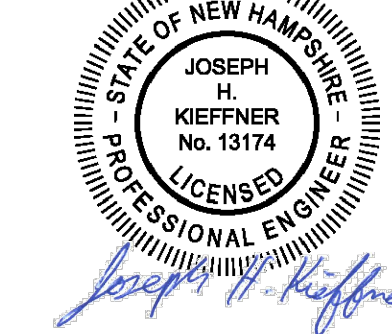
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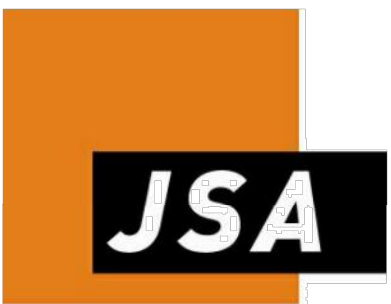
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SITE PLAN REVIEW

EROSION CONTROL DETAILS

C6.1



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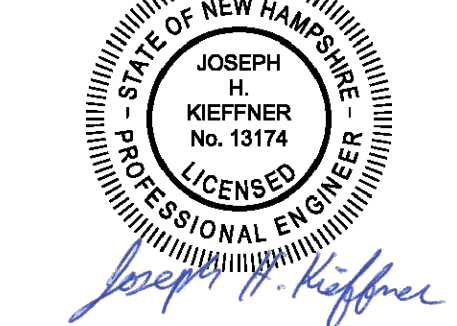
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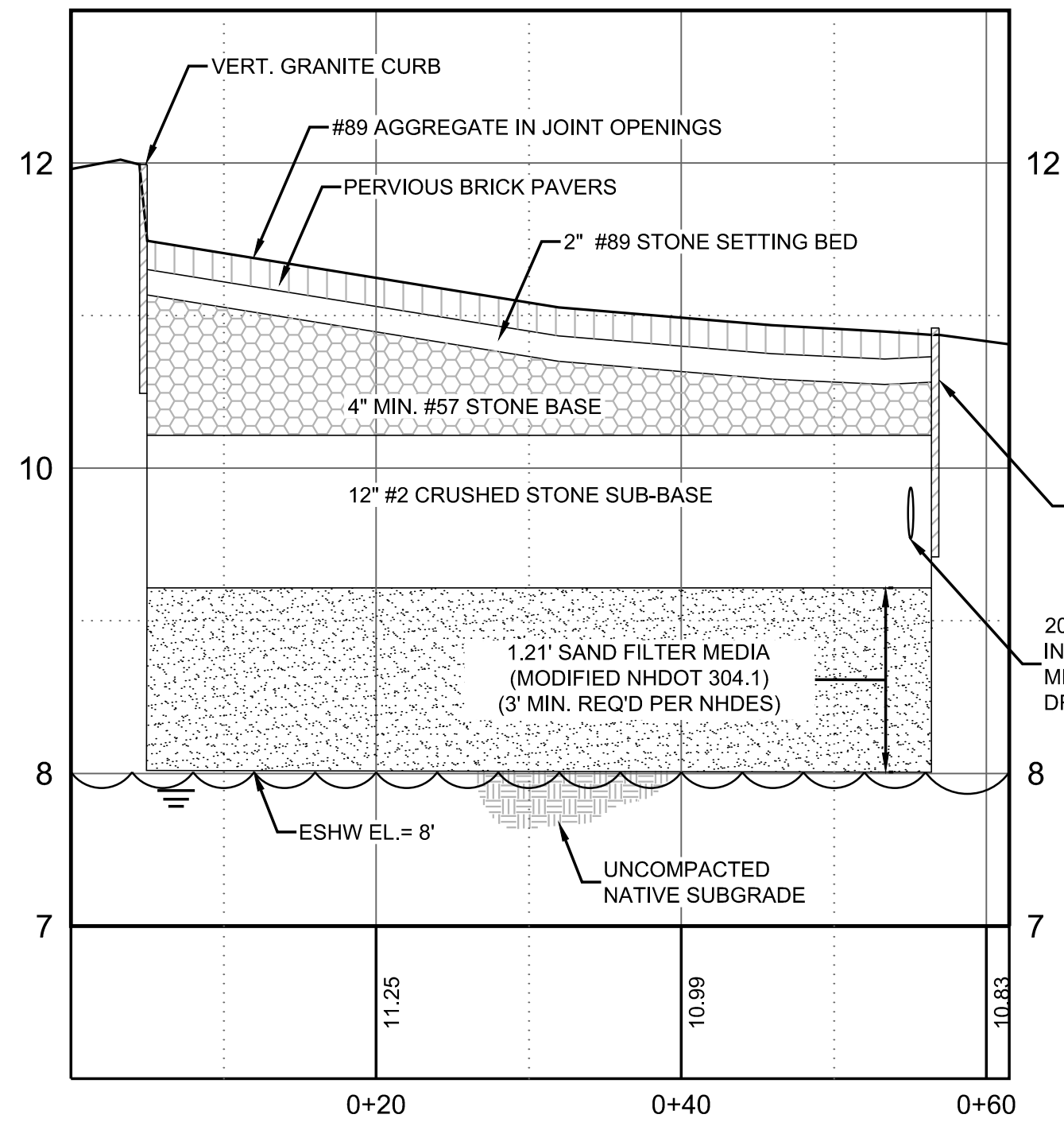
**SANITARY
SEWER AND
DRAINAGE
PROFILES**

C7.0

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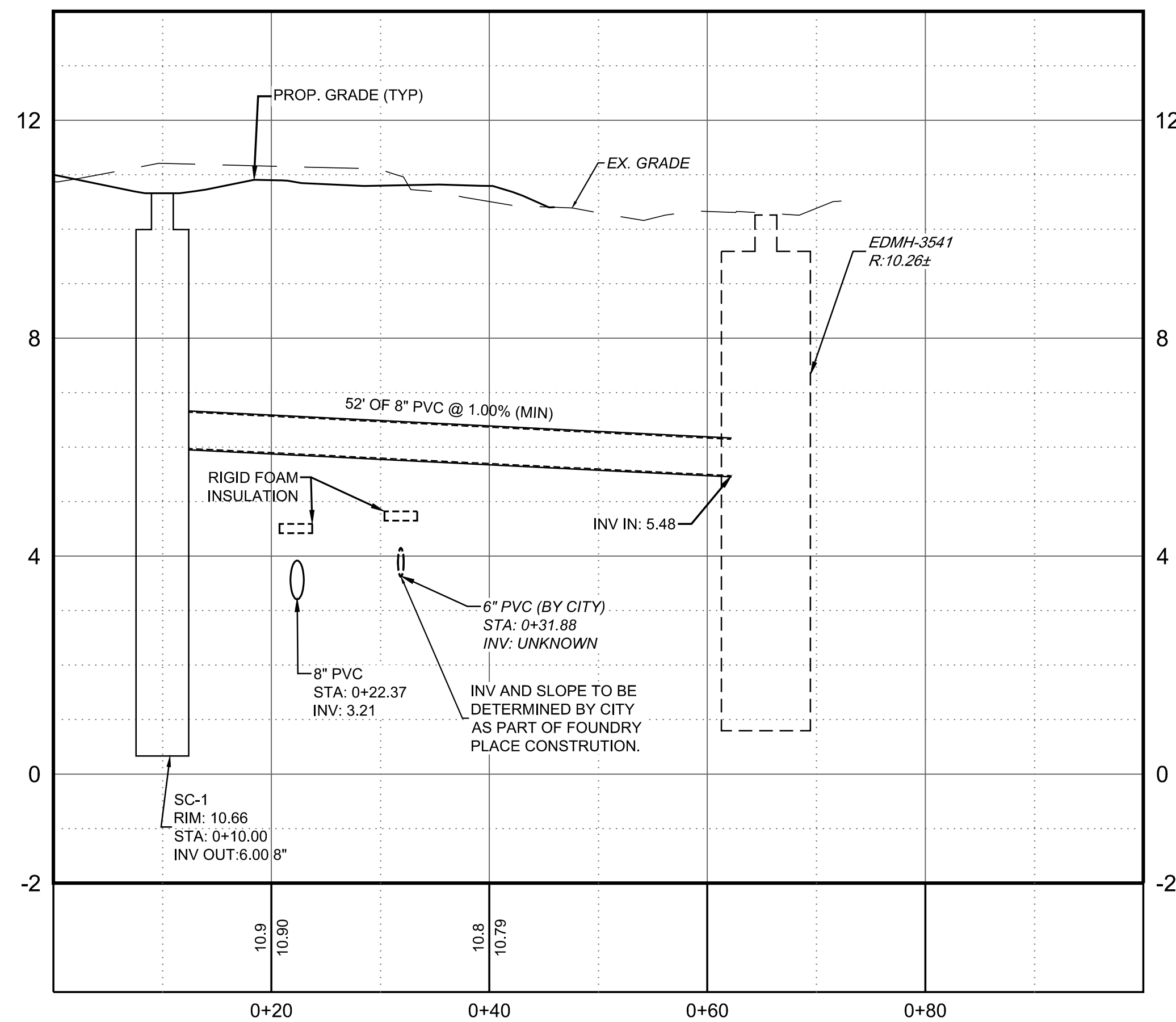
PERMEABLE PAVER NOTES:

- BRICK PAVERS SHALL BE 2.25" PINEHALL STORMPAVE. SEE LANDSCAPE SHEETS FOR COLOR.
- STONE SHALL CONFORM TO ASTM D448.
- CRUSHED STONE SHALL BE WASHED AND OPEN GRADED.
- NO STORMWATER RUNOFF SHALL BE CONVEYED TO PERMEABLE PAVEMENT UNTIL INSTALLATION IS COMPLETED. CONTRACTOR SHALL PERFORM EXCAVATION AND INSTALLATION OF PAVEMENT IN A MANNER THAT DOES NOT COMPACT SUBGRADE SOILS.
- SOILS SHALL BE COMPACTED TO 95% PER ASTM D698/AASHTO T99.

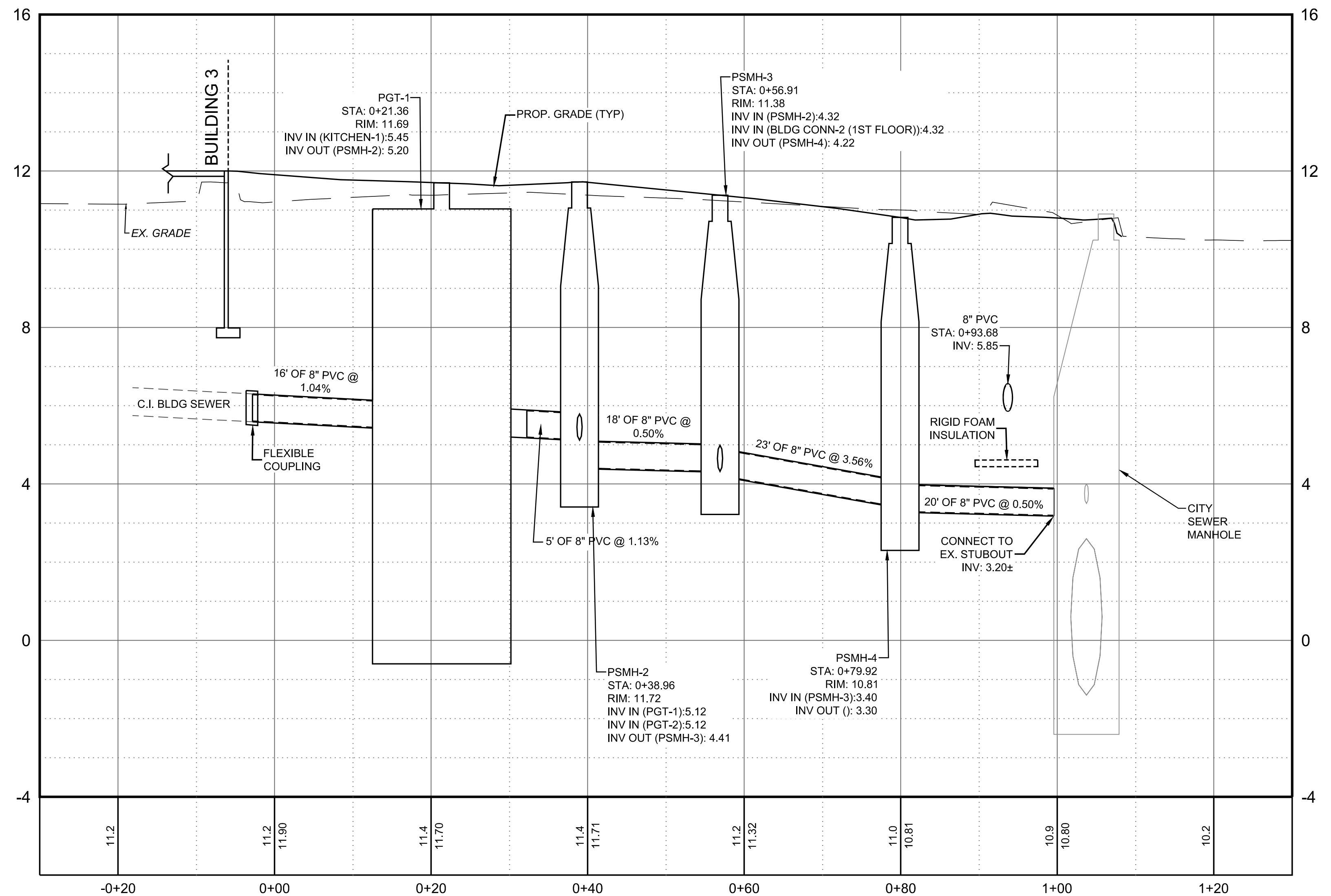


AGGREGATE COURSE MATERIALS NHDOT SECTION 304	
ITEM NO.	MODIFIED 304.1
SIEVE SIZE	% PASSING BY WEIGHT
6"	100
3"	---
2"	---
1"	---
#4	75-100
#200	0 - 6**
** PREFERABLE LESS THAN 4% FINES	

PERVIOUS PAVEMENT X-SECTION
SCALE=1"=1 VERT: 1"=10 HORIZ.



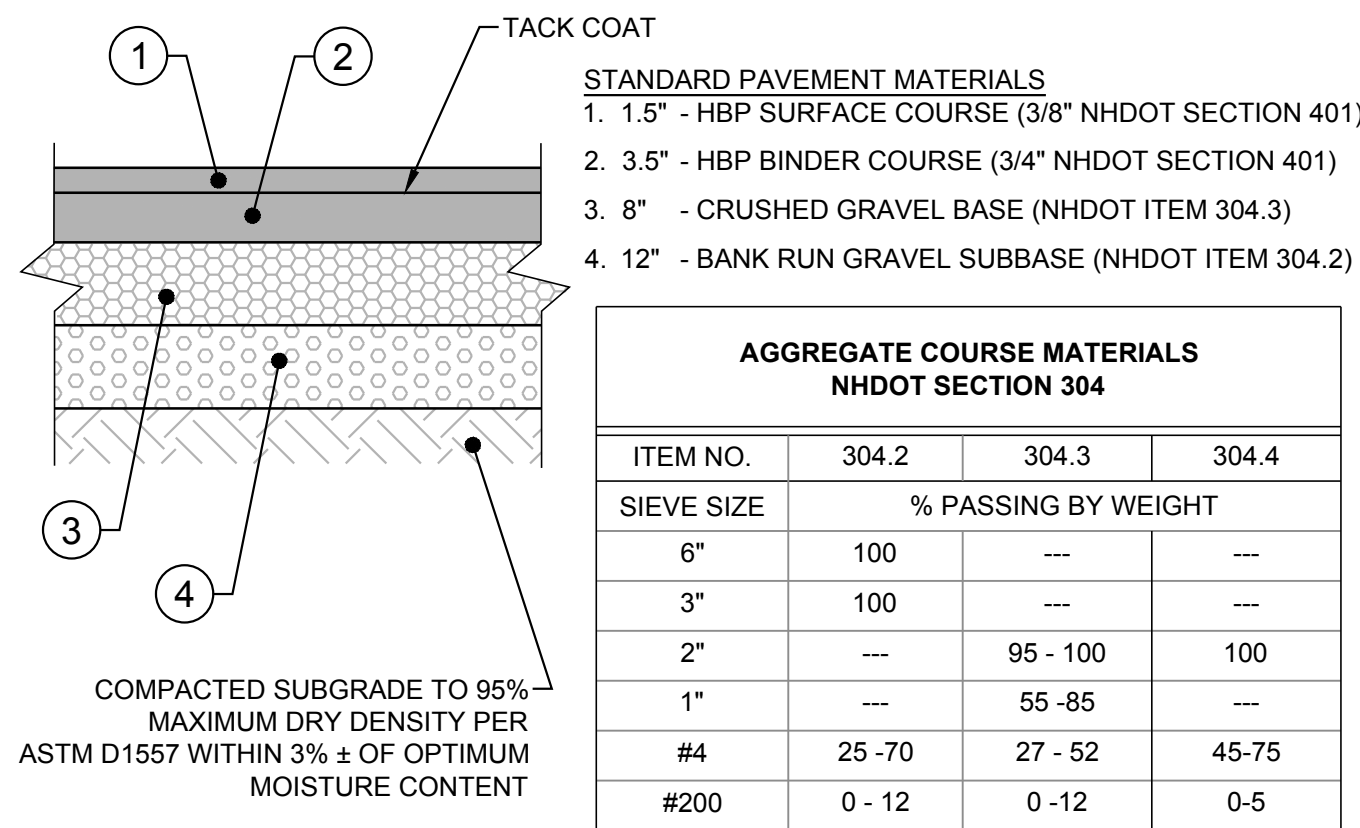
PROPOSED STORMCEPTOR
SCALE=1"=2 VERT: 1"=10 HORIZ.



SANITARY SEWER - 1
SCALE=1"=2 VERT: 1"=10 HORIZ.

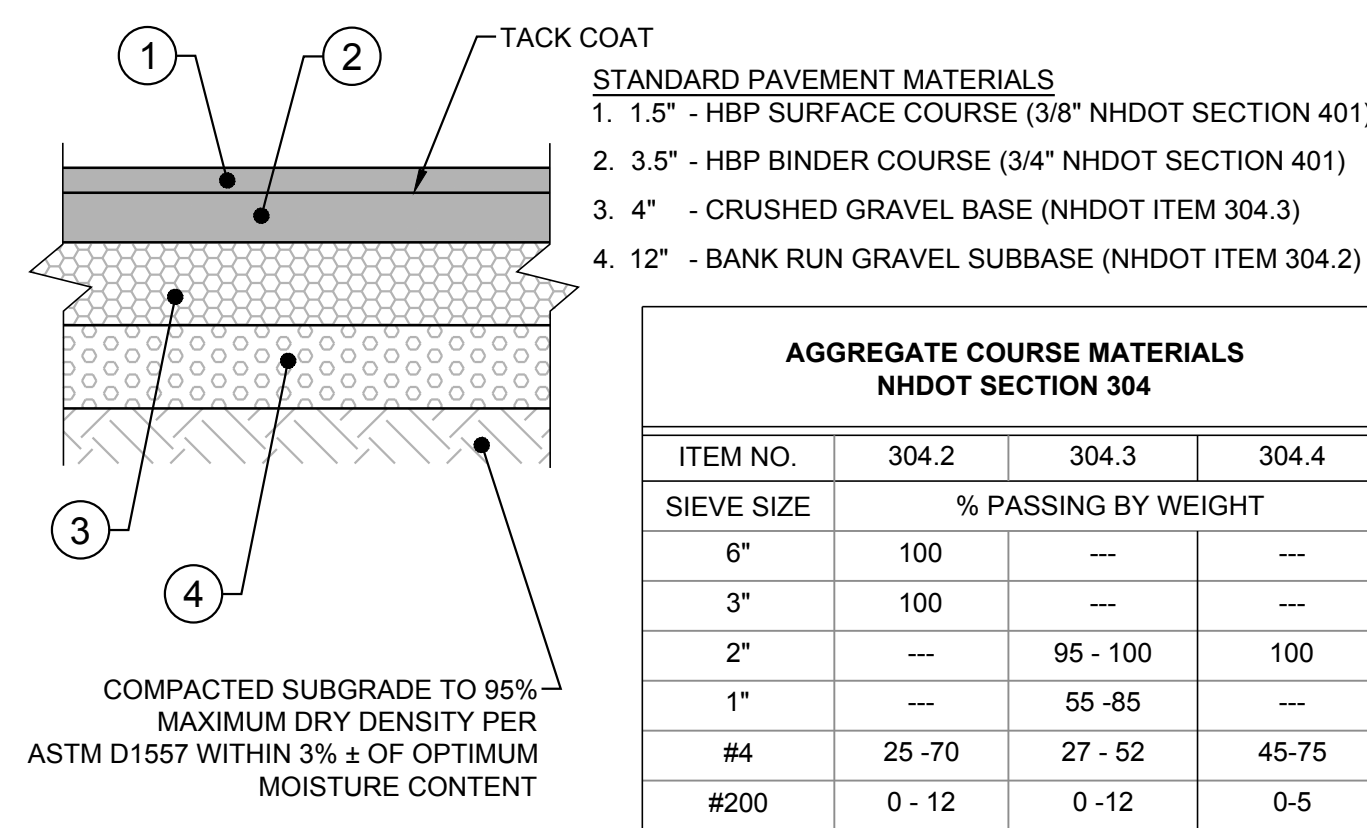


PERMIT PLANS - NOT FOR CONSTRUCTION



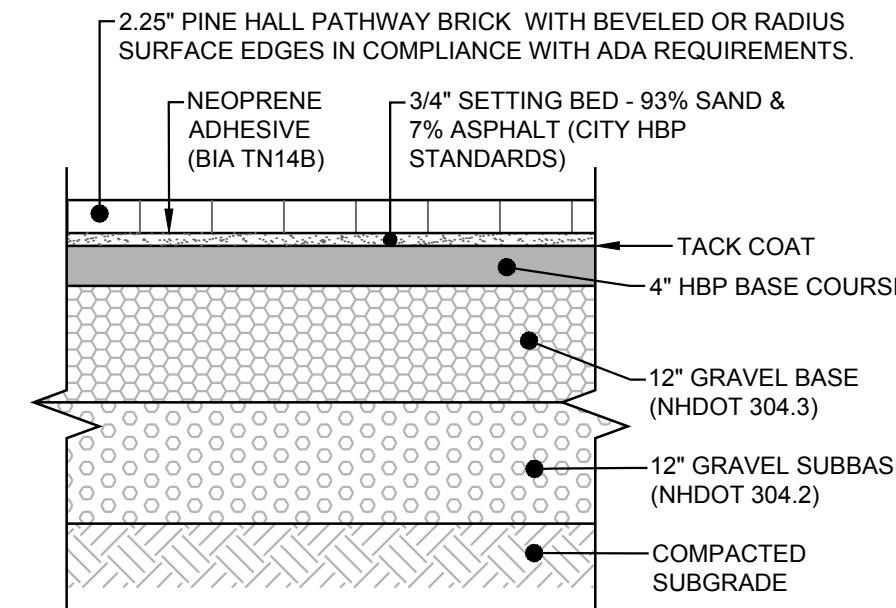
- NOTES:
- SEE SITE PLANS FOR PROPOSED PAVEMENT LOCATIONS.
 - SEE GRADING AND DRAINAGE PLAN FOR PAVEMENT GRADES.
 - REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.
 - CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 401 OF THE NHDOT STANDARD SPECIFICATIONS AND PORTSMOUTH SPECIFICATIONS.
 - A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PRIOR TO PLACING WEARING COURSE.
 - HBP - HOT BITUMINOUS PAVEMENT

1 CITY BITUMINOUS PAVEMENT SECTION
N.T.S.



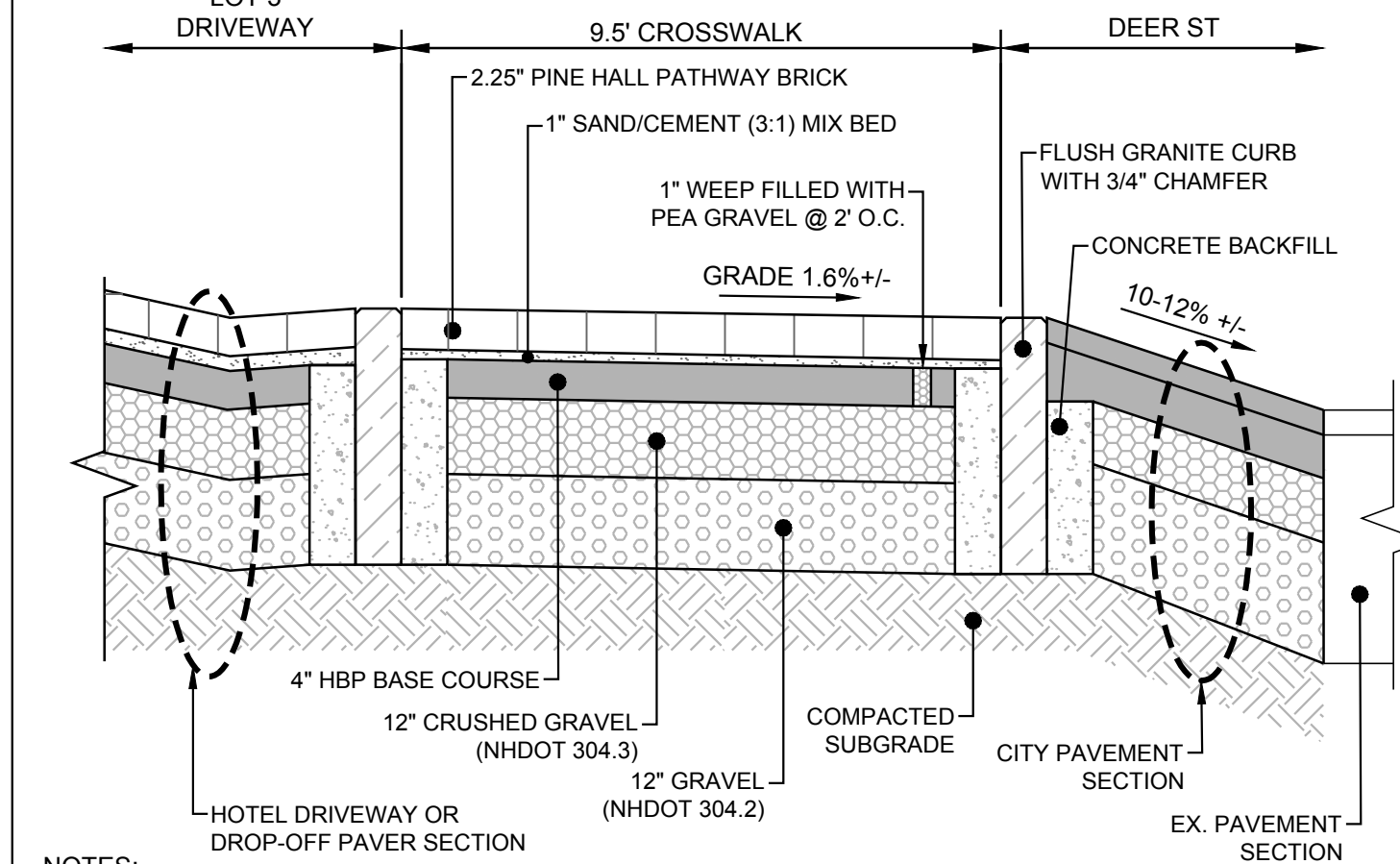
- NOTES:
- SEE SITE PLANS FOR PROPOSED PAVEMENT LOCATIONS.
 - SEE GRADING AND DRAINAGE PLAN FOR PAVEMENT GRADES.
 - REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.
 - CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 401 OF THE NHDOT STANDARD SPECIFICATIONS AND PORTSMOUTH SPECIFICATIONS.
 - A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PRIOR TO PLACING WEARING COURSE.
 - HBP - HOT BITUMINOUS PAVEMENT

2 STANDARD BITUMINOUS PAVEMENT SECTION
N.T.S.



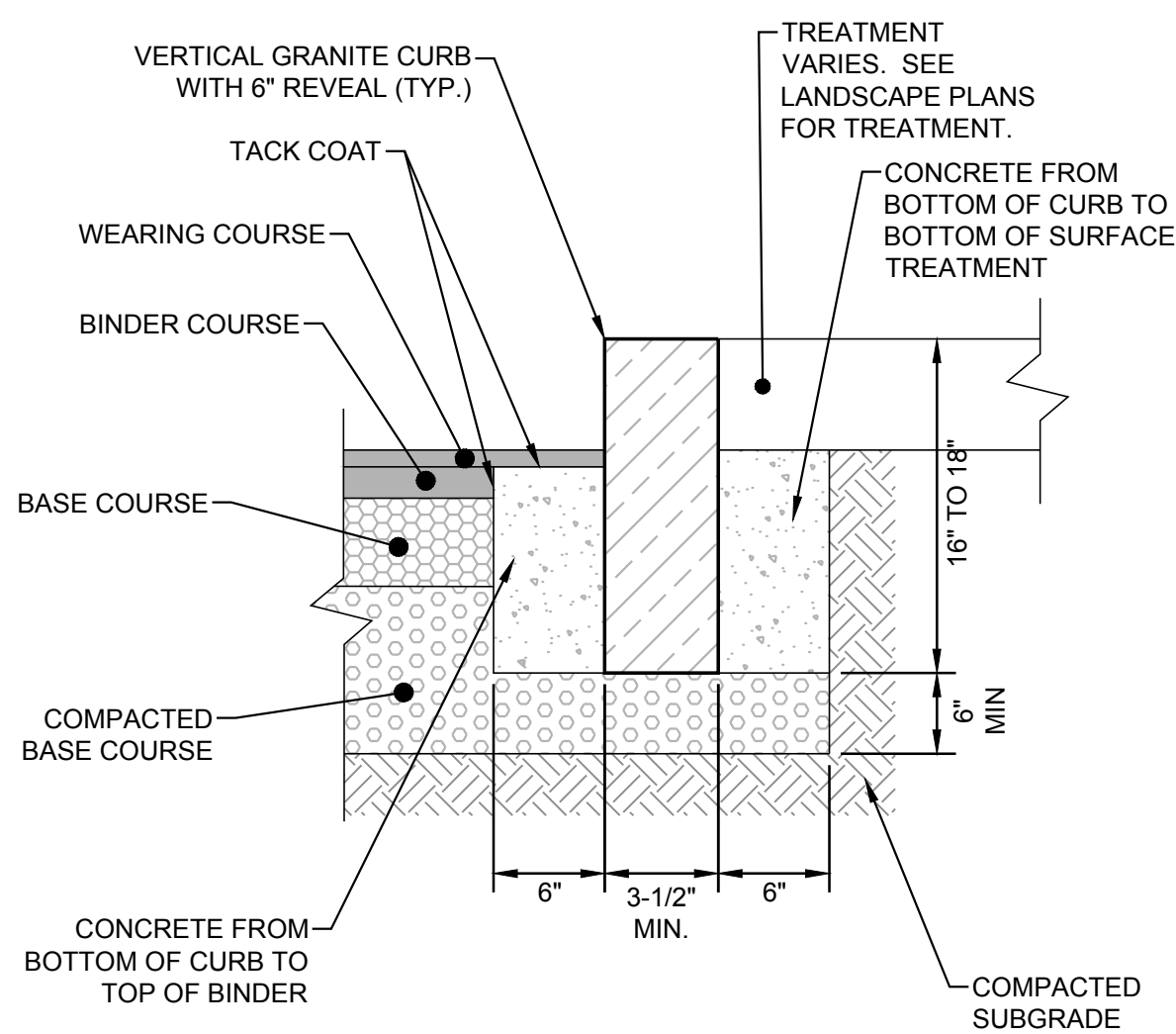
- NOTES:
- PAVER SHALL CONFORM TO ASTM C902, CLASS SX, TYPE 1, APPLICATION PX, AND ASTM C67 (FREEZE/THAW).
 - COLOR SHALL CONTRAST WITH SIDEWALK BRICK COLOR. SEE LANDSCAPE PLANS FOR COLOR.
 - 1" WEEPS SHALL BE DRILLED/CORED THROUGH THE ASPHALT BASE AT LOW POINTS AND EVERY 2' ALONG AN EDGE RESTRAINTS.
 - WEEPS SHOULD BE FILLED WITH PEA GRAVEL OR OTHER SIMILAR OPEN GRADED STONE.
 - CHAMFERED OR RADIUS EDGES SHALL BE ADA COMPLIANT.
 - CLAY PAVER SECTIONS SHALL BE INSTALLED ACCORDING TO THE BIA'S TECHNICAL NOTE (TN)148- PAVING SYSTEMS USING CLAY PAVERS ON A BITUMINOUS SETTING BED.

3 HOTEL DROP-OFF AREA VEHICULAR PAVER SECTION
N.T.S.



- NOTES:
- PAVER SHALL CONFORM TO ASTM C902, CLASS SX, TYPE 1, APPLICATION PX, AND ASTM C67 (FREEZE/THAW).
 - COLOR SHALL CONTRAST WITH SIDEWALK BRICK COLOR. SEE LANDSCAPE PLANS FOR COLOR.
 - WEEP HOLES SHALL BE PLACED THROUGH THE ASPHALT BASE AT EDGE RESTRAINTS. A SEPARATION/DRAINAGE GEOTEXTILE SHOULD BE PROVIDED AT EACH WEEP HOLE.
 - PAVER SURFACE EDGES SHALL HAVE A RADIUS OR BEVEL AND SHALL COMPLY WITH ADA REQUIREMENTS.
 - WEEPS SHOULD BE FILLED WITH PEA GRAVEL OR OTHER SIMILAR OPEN GRADED STONE.

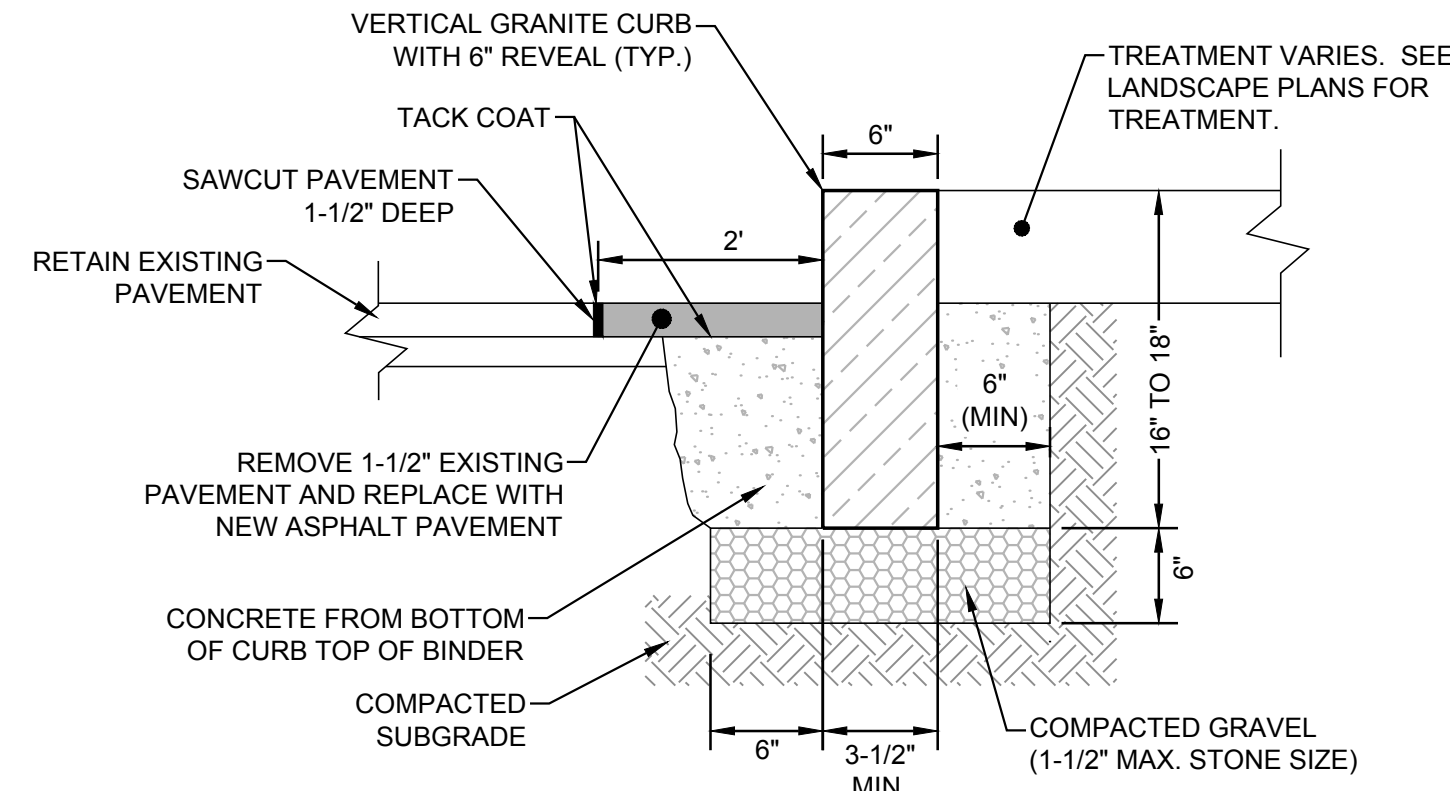
4 BRICK PAVER CROSSWALK PAVEMENT SECTION
N.T.S.



CURB RADIUS TABLE	
RADIUS	MAX. LENGTH
< 21'	USE CURVED CURB
21'	3'
22' - 28'	4'
29' - 35'	5'
36' - 42'	6'
43' - 49'	7'
50' - 56'	8'
57' - 60'	9'
> 60'	10'

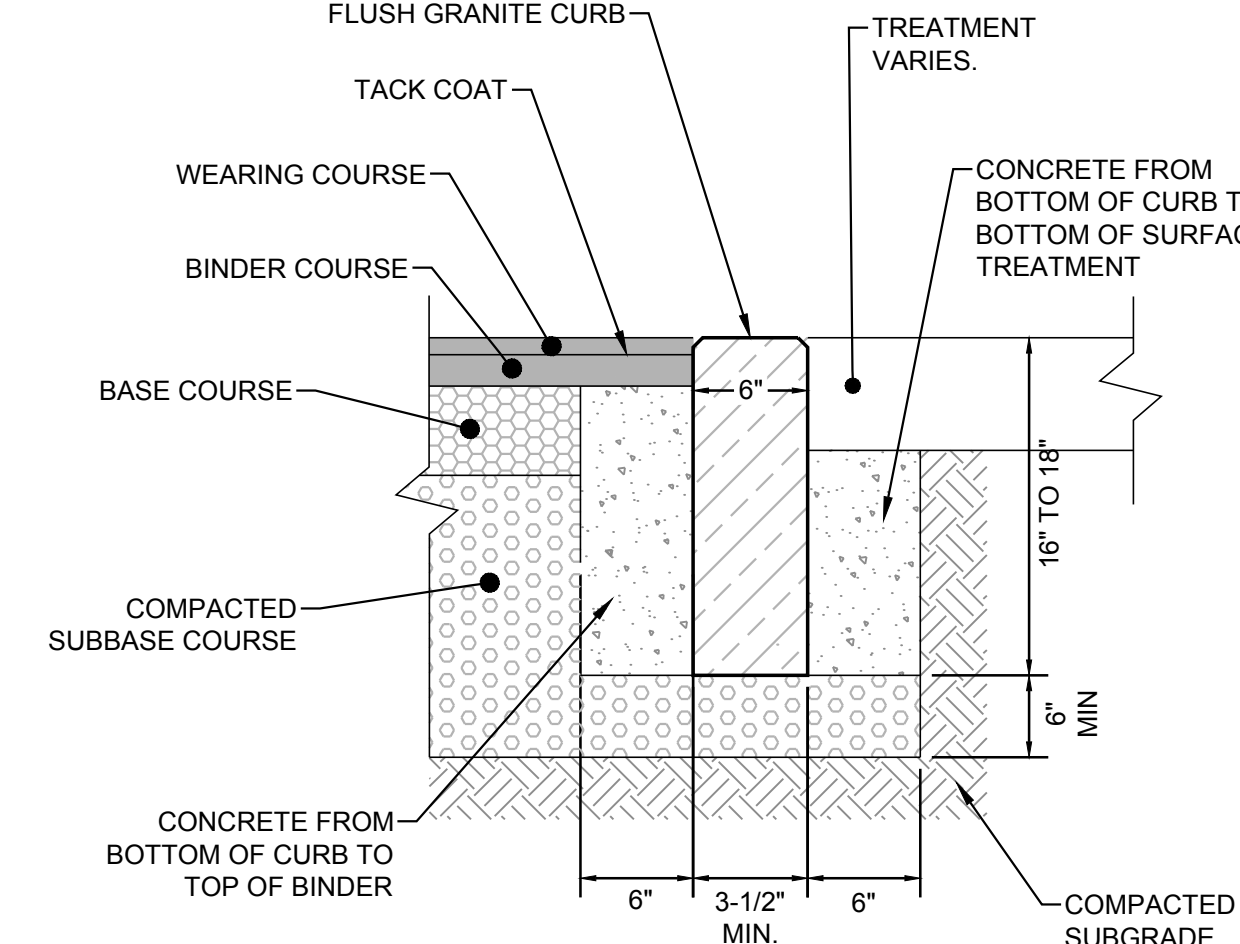
- NOTES:
- REVEAL IS 6" UNLESS NOTED OTHERWISE. REVEAL IS 0" AT PEDESTRIAN SIDEWALK (CURB) RAMPS.
 - SEE SITE PLAN(S) FOR PROPOSED VERTICAL GRANITE CURB (VGC) LOCATIONS
 - CONCRETE SHALL BE 4000 PSI AT 28 DAYS
 - ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH
 - MINIMUM LENGTH OF STRAIGHT CURB STONES - 3'
 - MAXIMUM LENGTH OF STRAIGHT CURB STONES - 10'
 - MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART
 - ALL RADII LESS THAN 21' SHALL HAVE CURVED SECTIONS
 - SEE TYPICAL PAVEMENT DETAIL THIS SHEET FOR PAVEMENT REQUIREMENTS.

5 VERTICAL GRANITE CURB
N.T.S.



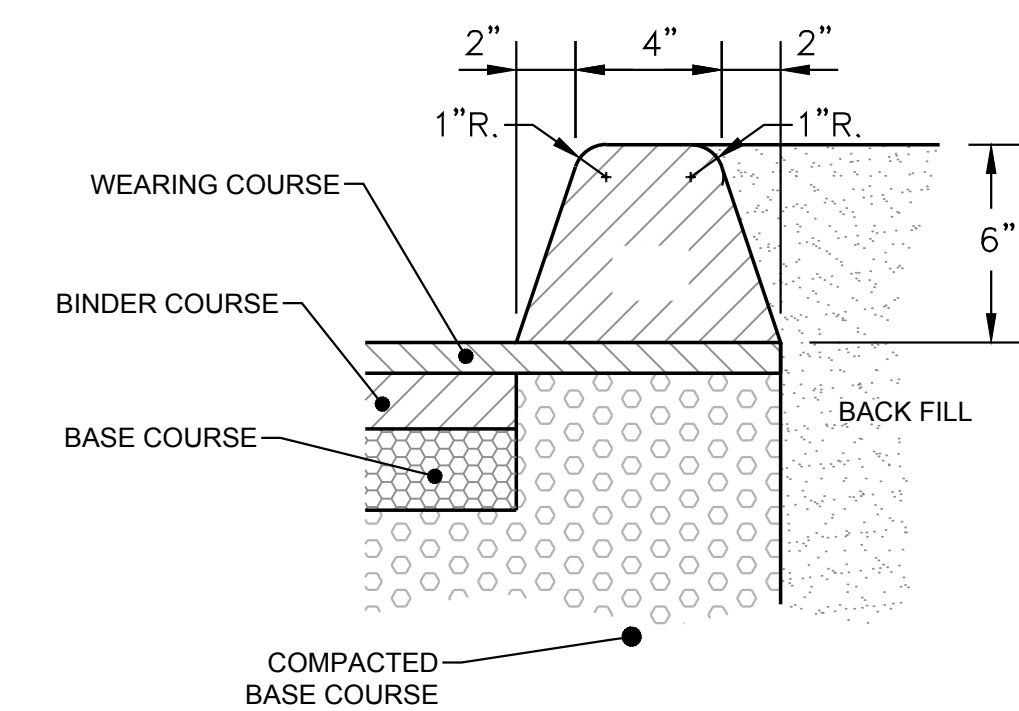
- NOTES:
- REVEAL IS 6" (TYP.) UNLESS NOTED OTHERWISE. REVEAL IS 0" AT PEDESTRIAN SIDEWALK (CURB) RAMPS.
 - SEE SITE PLAN(S) FOR PROPOSED VERTICAL GRANITE CURB (VGC) LOCATIONS.
 - CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINE WITH A TACK COAT PRIOR TO PLACING WEARING COURSE.
 - FOR RADIUS DETAILS SEE VERTICAL GRANITE CURB DETAIL - THIS SHEET.

6 VERTICAL GRANITE CURB IN EXISTING PAVEMENT
N.T.S.

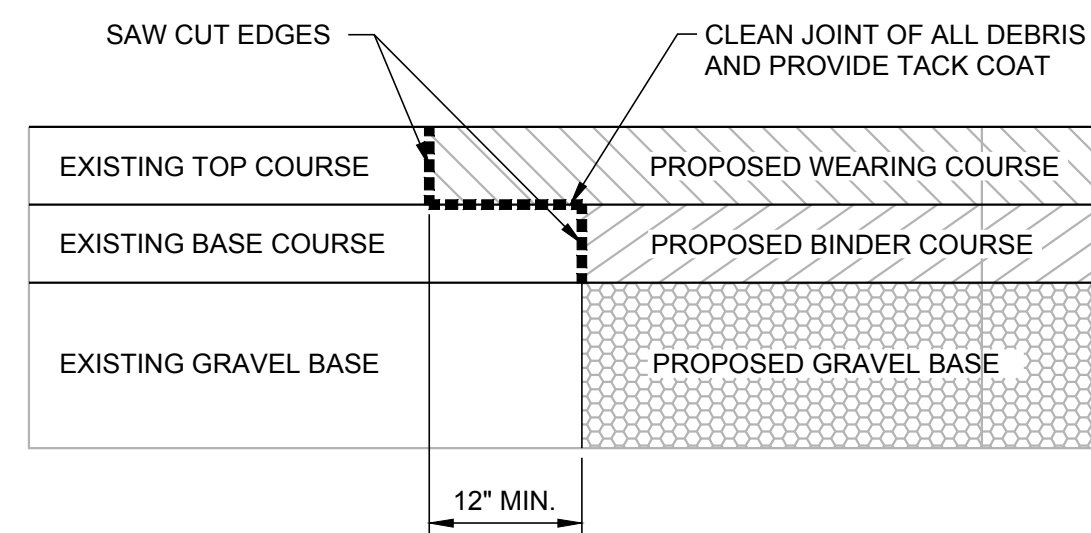


- NOTES:
- CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
 - SEE TYPICAL PAVEMENT DETAILS THIS SHEET FOR VEHICULAR PAVEMENT REQUIREMENTS.
 - FOR SIDEWALK SURFACE TREATMENTS SEE LANDSCAPE SHEETS.
 - FLUSHED CURB IN VEHICULAR TRAFFIC AREAS SHALL HAVE A 3/4" CHAMFER.

7 FLUSH GRANITE CURB
N.T.S.

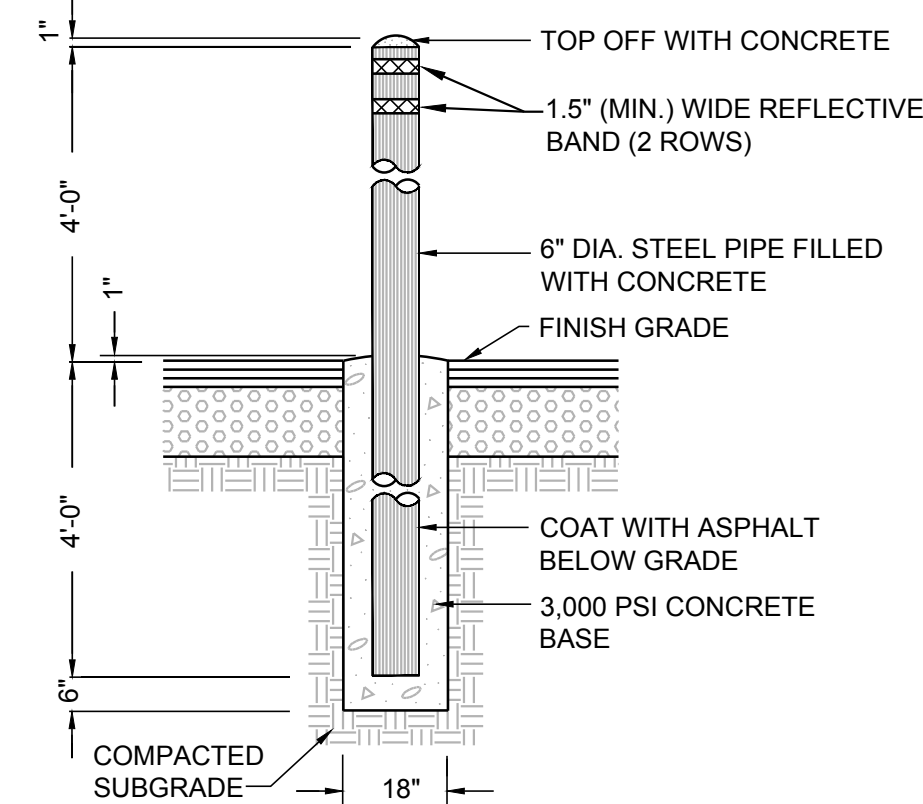


8 TYPE 3 BITUMINOUS CURB
N.T.S.



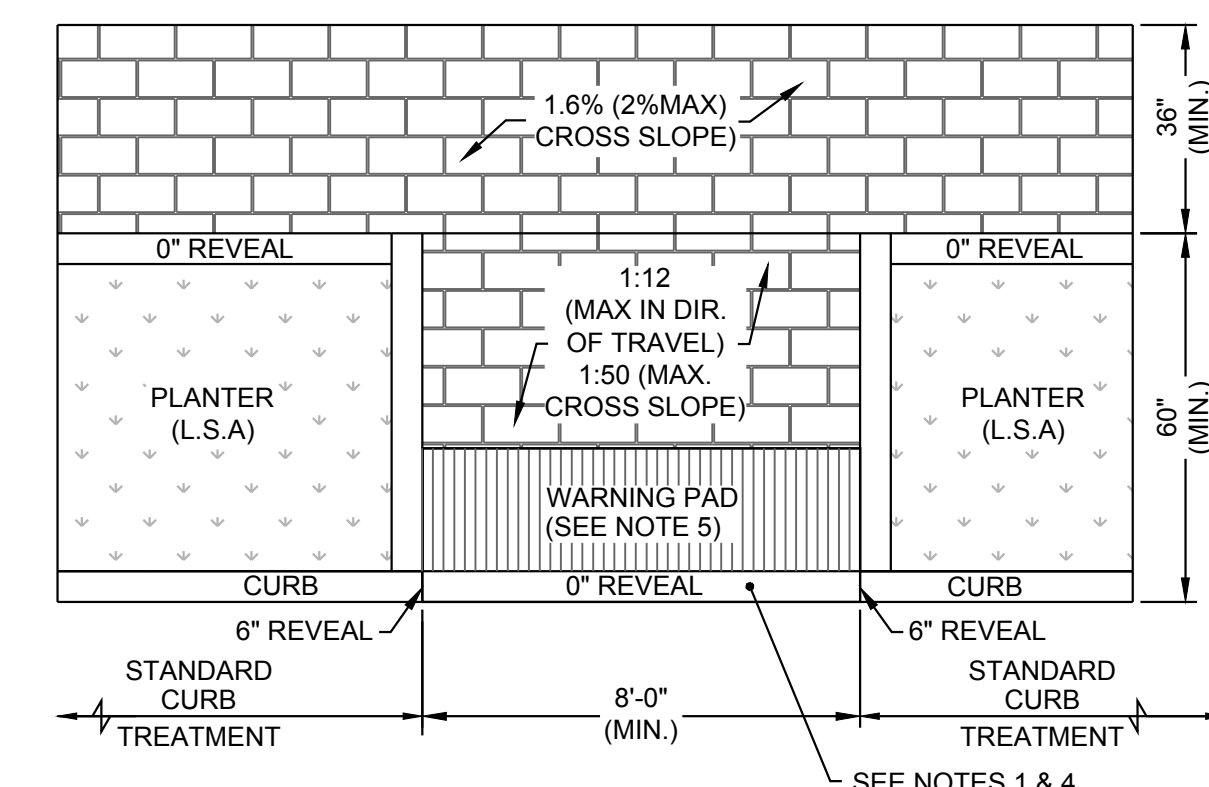
- NOTE:
- TACK COAT - PROVIDE EMULSIFIED ASPHALT WHICH CONFORMS TO THE REQUIREMENTS OF THE STATE SPECIFICATIONS, DILUTED WITH ONE PART WATER TO ONE PART ASPHALT FOLLOWING AASHTO M140/ASTM D997, OR AASHTO M208/ASTM D2397, SS-1H, CSS-1, OR CSS-1H.

9 PAVEMENT CUT KEY DETAIL
N.T.S.



- NOTE:
- BOLLARD SHALL BE PAINTED FLAT BLACK AND HAVE TWO ROWS OF REFLECTIVE BANDING NEAR THE TOP

10 TYPICAL 6" PIPE BOLLARD DETAIL
N.T.S.



- ACCESSIBLE CURB RAMP NOTES:
- RAMPS SHALL BE IN CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND STATE AND LOCAL REQUIREMENTS.
 - FOR ROADWAY CURB MATERIALS AND INSTALLATION DETAILS, SEE THIS SHEET.
 - FOR SIDEWALK DETAILS, SEE LANDSCAPE SHEETS.
 - DETECTABLE WARNING PANELS SHALL BE THE FULL WIDTH OF THE LANDING, BLENDED TRANSITION, OR CURB RAMP.
 - THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP, BLENDED TRANSITION, OR LANDING AND THE STREET.
 - WARNING PAD SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.

11 FOUNDRY PLACE ACCESSIBLE CURB RAMP
N.T.S.

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801
T 603.436.2551 www.jsainc.com

GEOSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDESEN, INC.
LANDSCAPE ARCHITECT
PORTSMOUTH, NEW HAMPSHIRE

AMBIT ENGINEERING, INC.
SURVEY
PORTSMOUTH, NEW HAMPSHIRE

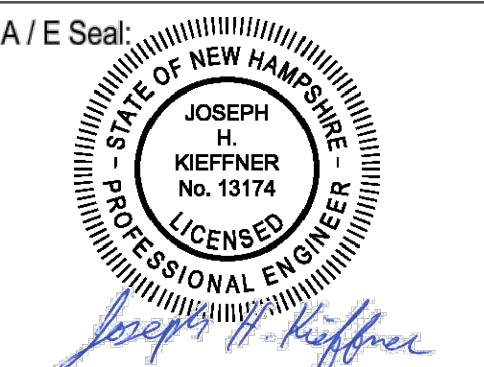
ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPPF ENGINEER
WOBBURN, MASSACHUSETTS

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5**
PORTSMOUTH, NH 03801

OWNER:
Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME



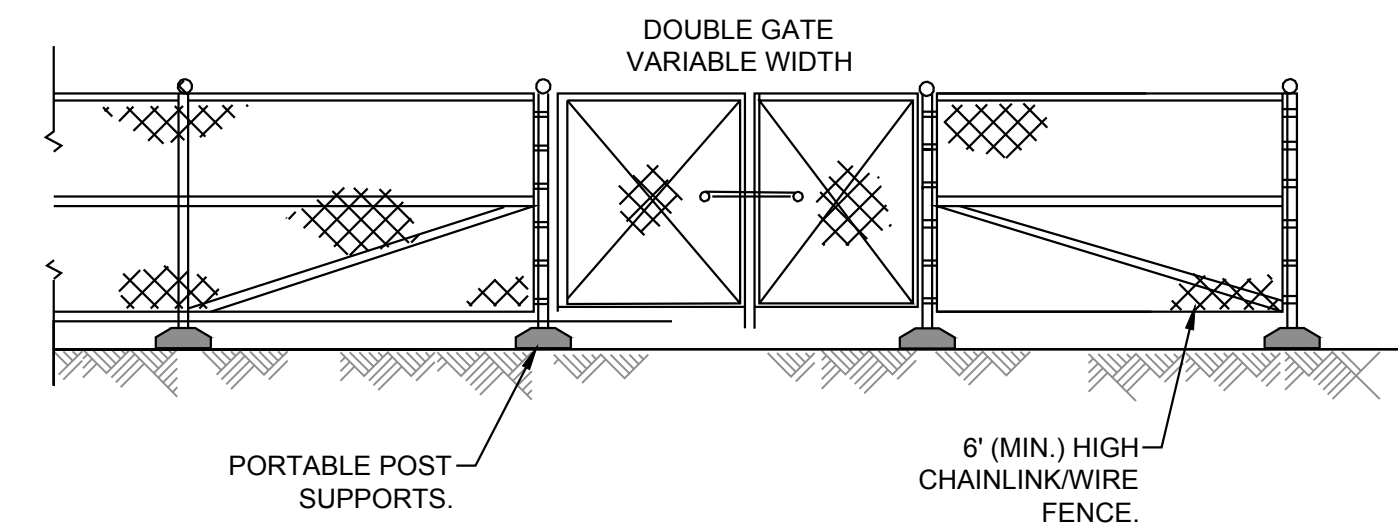
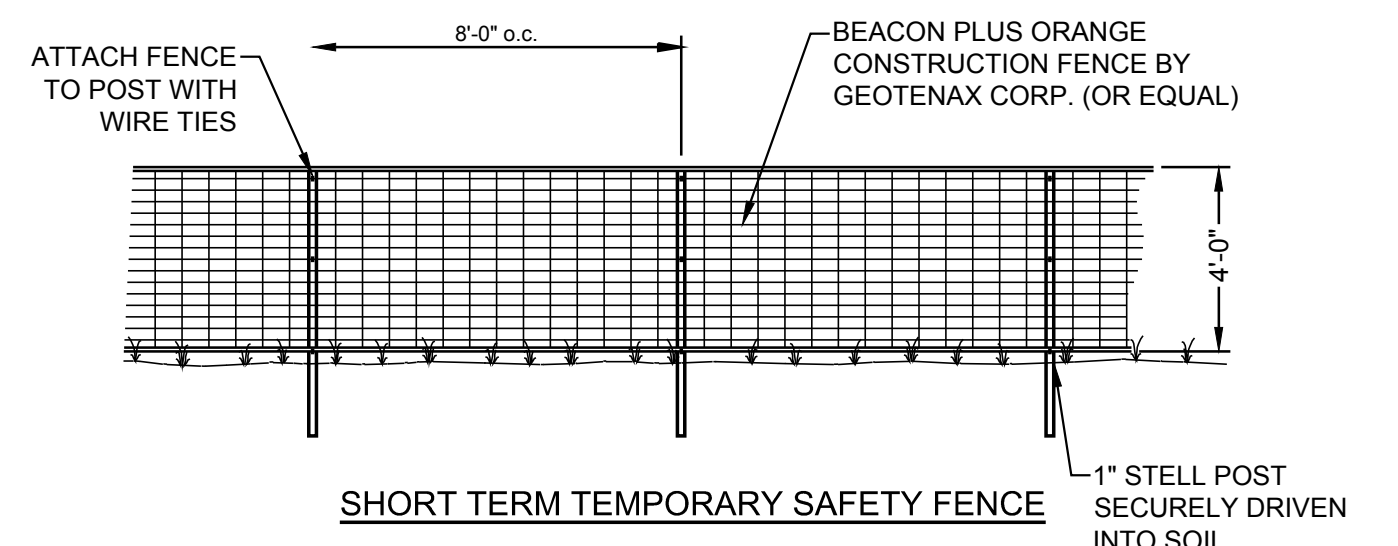
Scale:
Date: 2/06/2018
Project Number: 14837.02
(Geolnsight 8090)

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SITE PLAN REVIEW

**SITE
DETAILS**

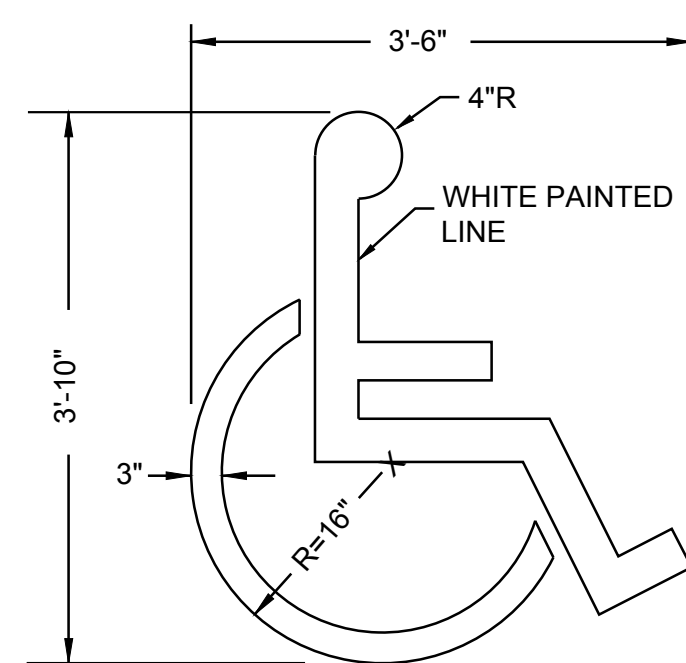
C8.0



- NOTES:
- CONTRACTOR MAY USE CAST-IN-PLACE SUPPORTS IF DESIRED.
 - FENCE LAYOUT AND DESIGN TO BE PROVIDED BY CONTRACTOR.

LONG TERM TEMPORARY CONSTRUCTION FENCE

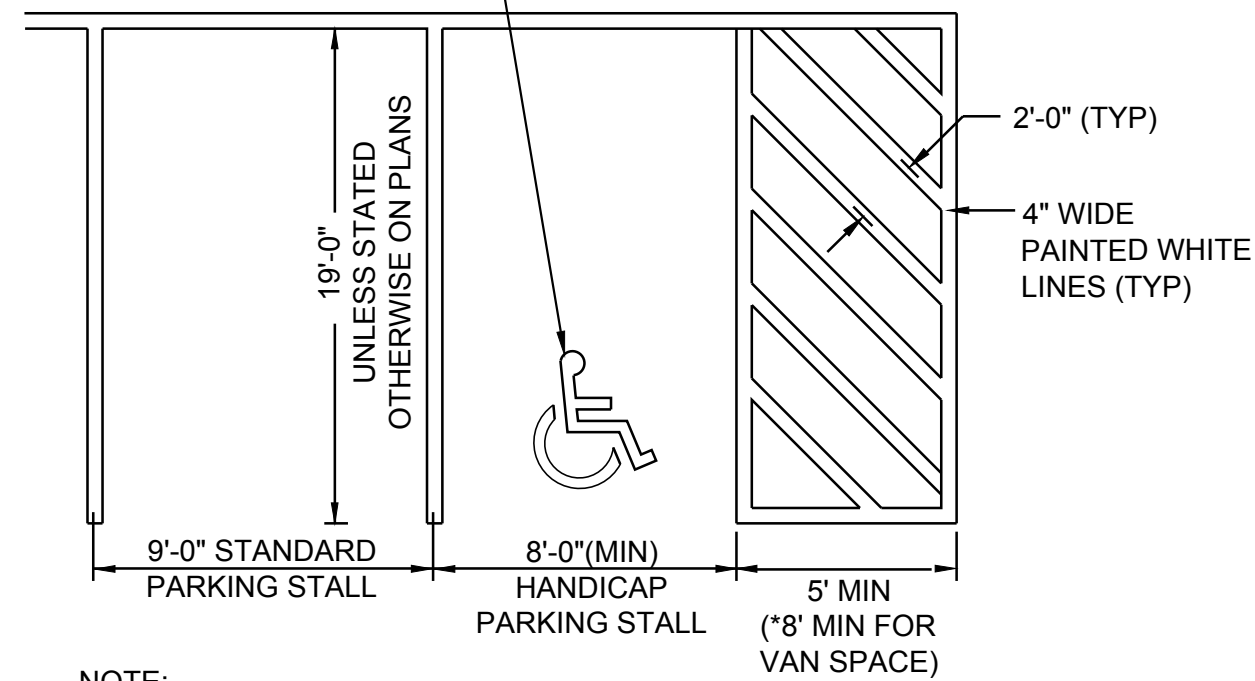
12 TEMPORARY CONSTRUCTION FENCE
N.T.S.



PAINTED HANDICAP SYMBOL

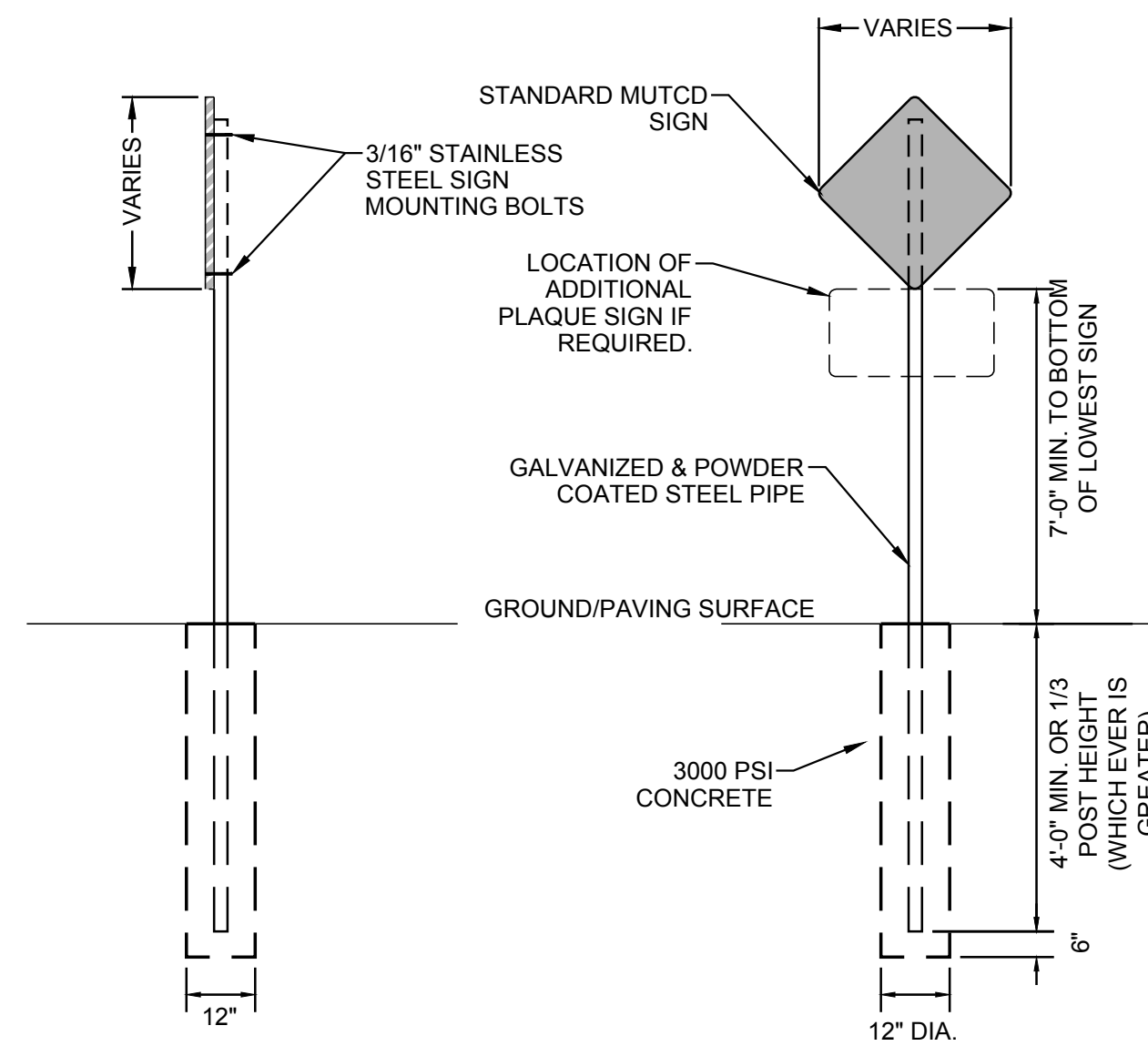
IF NOT EXISTING, INSTALL R7-8 AT FRONT STRIPE LINE, 6" BEHIND CURB OR ON BUILDING. COORDINATE FINAL LOCATION WITH OWNER

HANDICAP GRAPHIC SYMBOL (PAINTED WHITE) TO BE CENTERED IN SPACE



- NOTE:
- ALL PAINT SHALL BE FAST DRYING WHITE TRAFFIC PAINT MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
 - SYMBOLS, SIGNS, & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WITH DISABILITIES ACT.
 - *SEE SITE PLAN FOR VAN LOCATIONS

17 PARKING STALL STRIPING DETAIL
N.T.S.



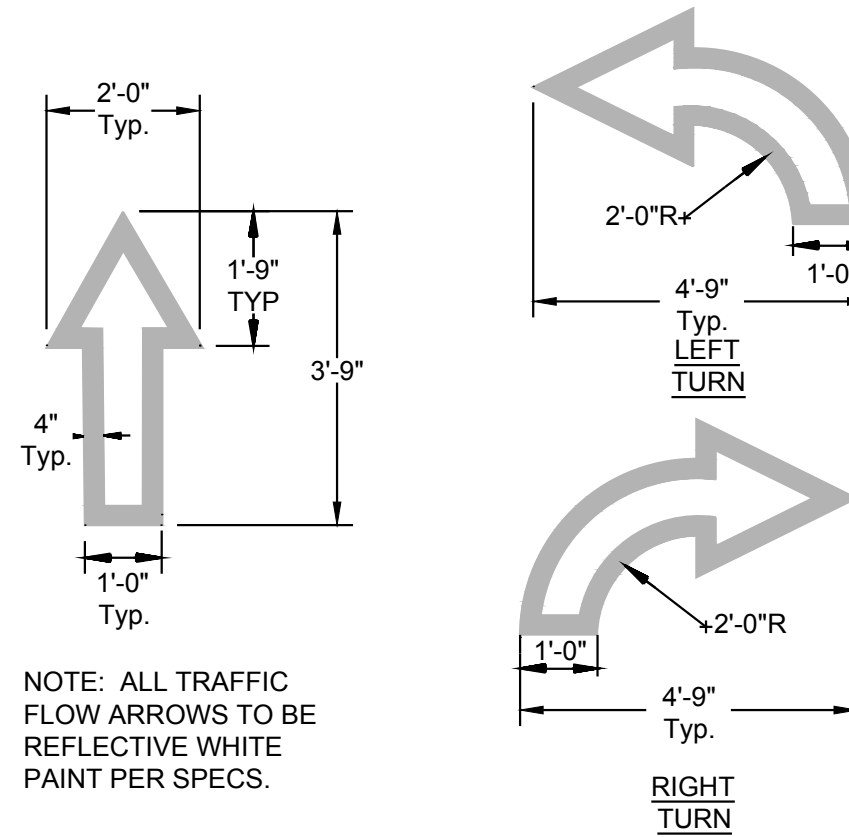
SIDE VIEW

FRONT VIEW

SIGN POST NOTES:

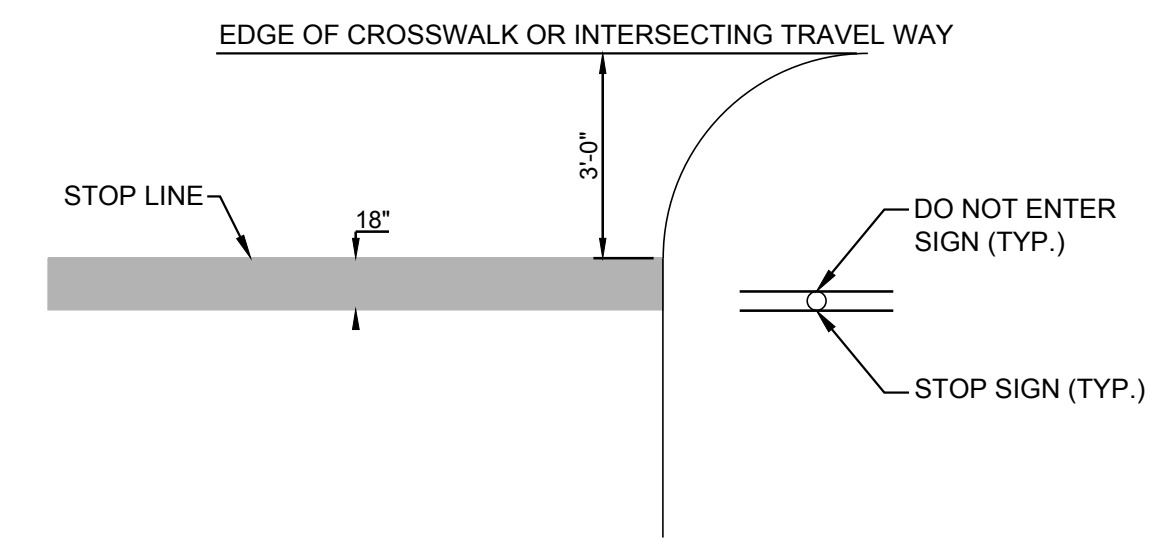
- ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED.
- MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SIGN MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH NHDOT STANDARD SPECIFICATIONS AND LOCAL REQUIREMENTS.
- STEEL POSTS
 - STEEL POST SHALL BE SCHEDULE 40 WITH O.D. OF 2.375"
 - STEEL POSTS SHALL CONFORM TO ASTM A-499, GRADE 60) OR ASTM A 576, GRADE 1070-1080.
 - COATINGS SHALL BE IN ACCORDANCE TO NHDOT STANDARD SPECIFICATION SECTION 708, DUPLEX COATINGS - POWDER COATING OVER GALVANIZING
 - GALVANIZED SURFACE SHALL BE PREPARED FOR POWDER COATING PER ASTM D7803
 - WEIGHT BE 2.5LBS/FT MINIMUM.
 - 3/8" HOLES SHALL BE DRILLED OR PUNCHED BEFORE COATINGS ARE APPLIED. HOLES SHALL BEGIN 1" FROM TOP OF POSTS AND CONTINUE AT 1" CENTERS FOR THE ENTIRE LENGTH OF POSTS.
 - POST SHALL BE POWDER COATED GLOSS BLACK.

13 SIGN POST DETAILS
N.T.S.



NOTE: ALL TRAFFIC FLOW ARROWS TO BE REFLECTIVE WHITE PAINT PER SPECS.

14 TRAFFIC ARROW DETAIL
N.T.S.



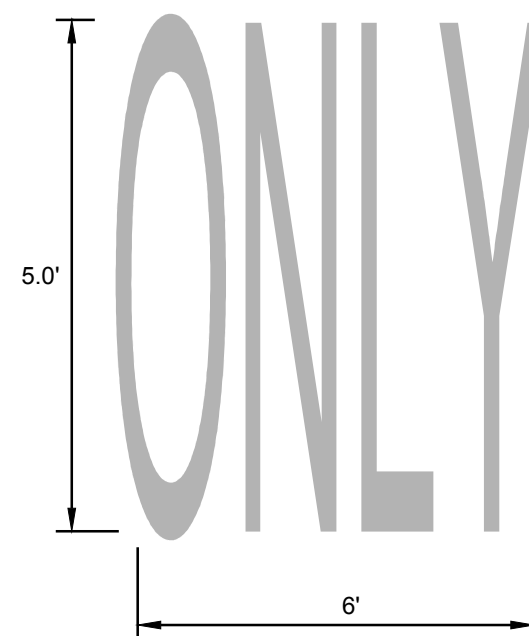
NOTES:

- LINES SHALL BE APPLIED IN ACCORDANCE WITH SECTIONS 3B.16 AND 3B.20 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- BARS ARE TO BE PAINTED RETROREFLECTIVE WHITE.

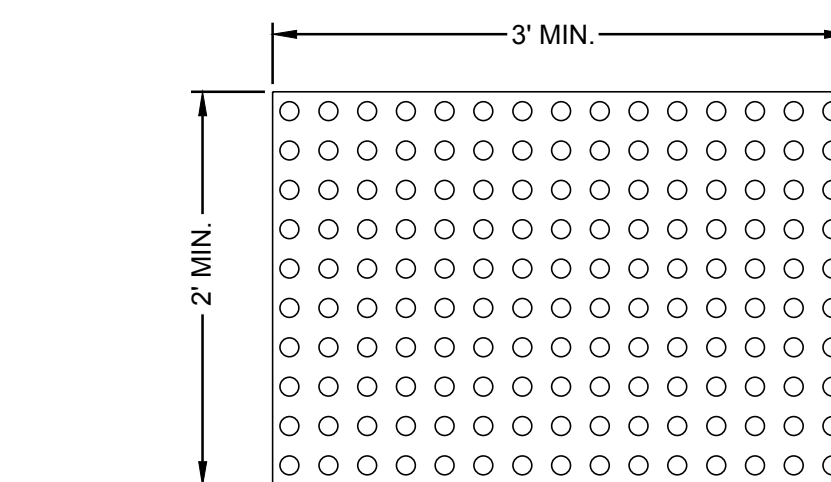
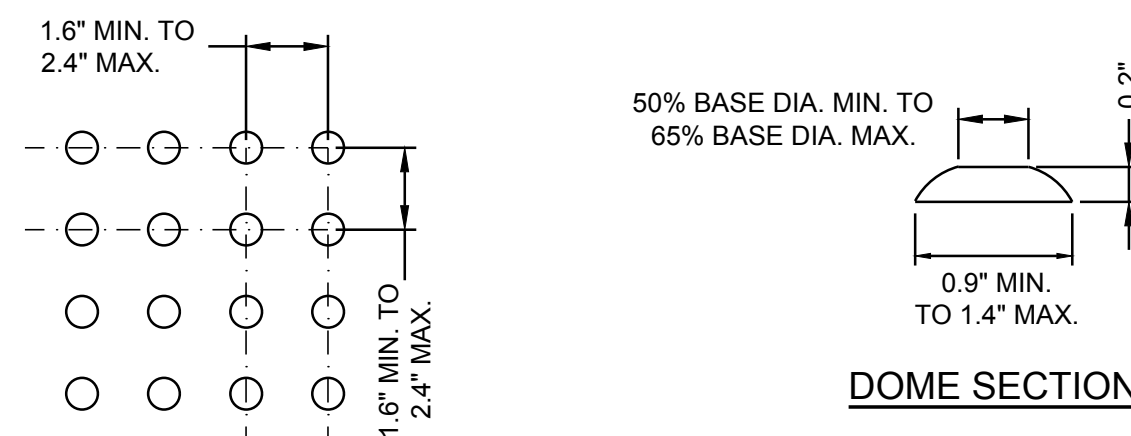
15 STOP BAR DETAIL
N.T.S.

NOTES:

- WORDS AND LINES SHALL BE APPLIED IN ACCORDANCE WITH SECTIONS 3B.16 AND 3B.20 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- WORDS AND BARS ARE TO BE PAINTED RETROREFLECTIVE WHITE.

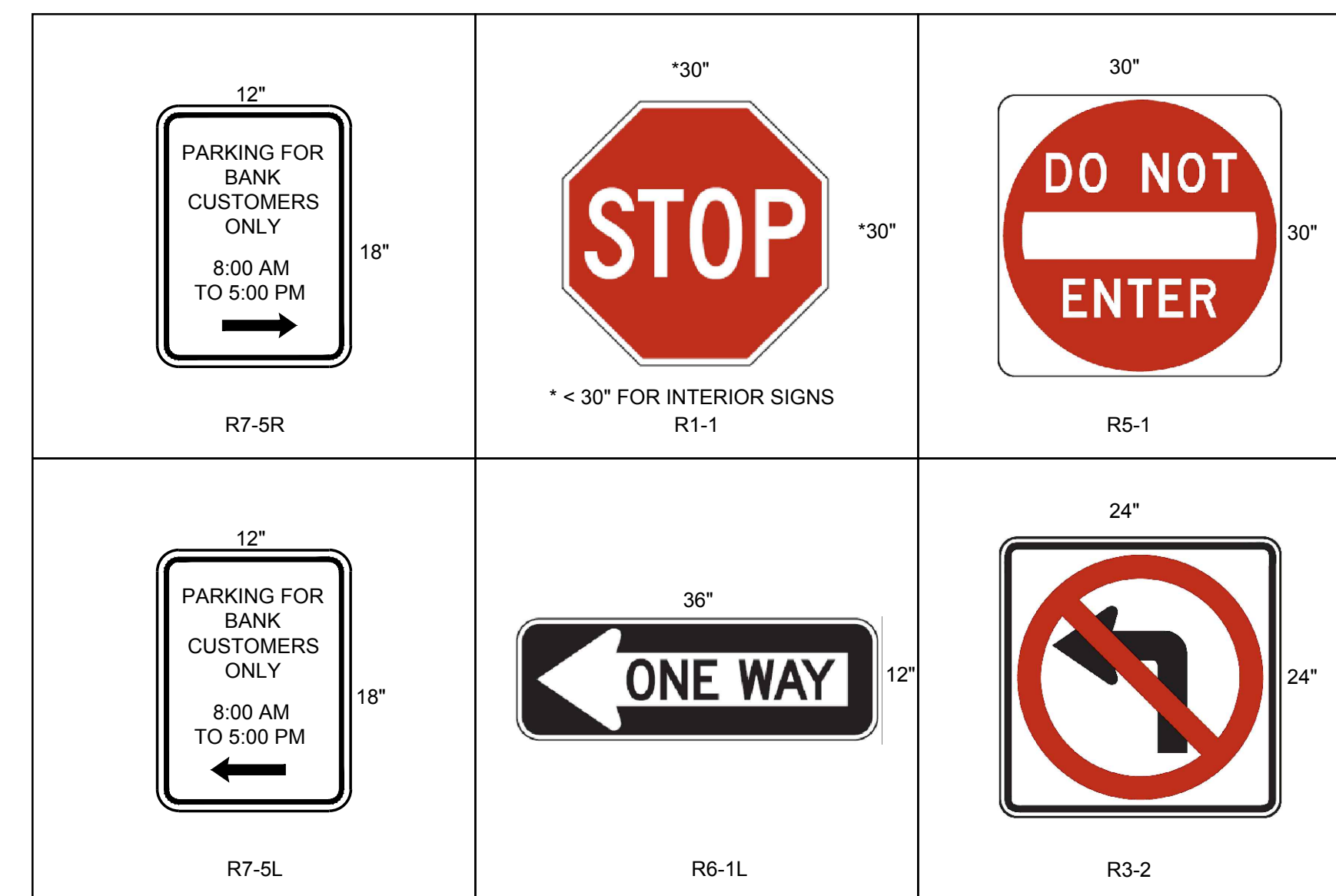


16 PAVEMENT LETTERING DETAIL
N.T.S.



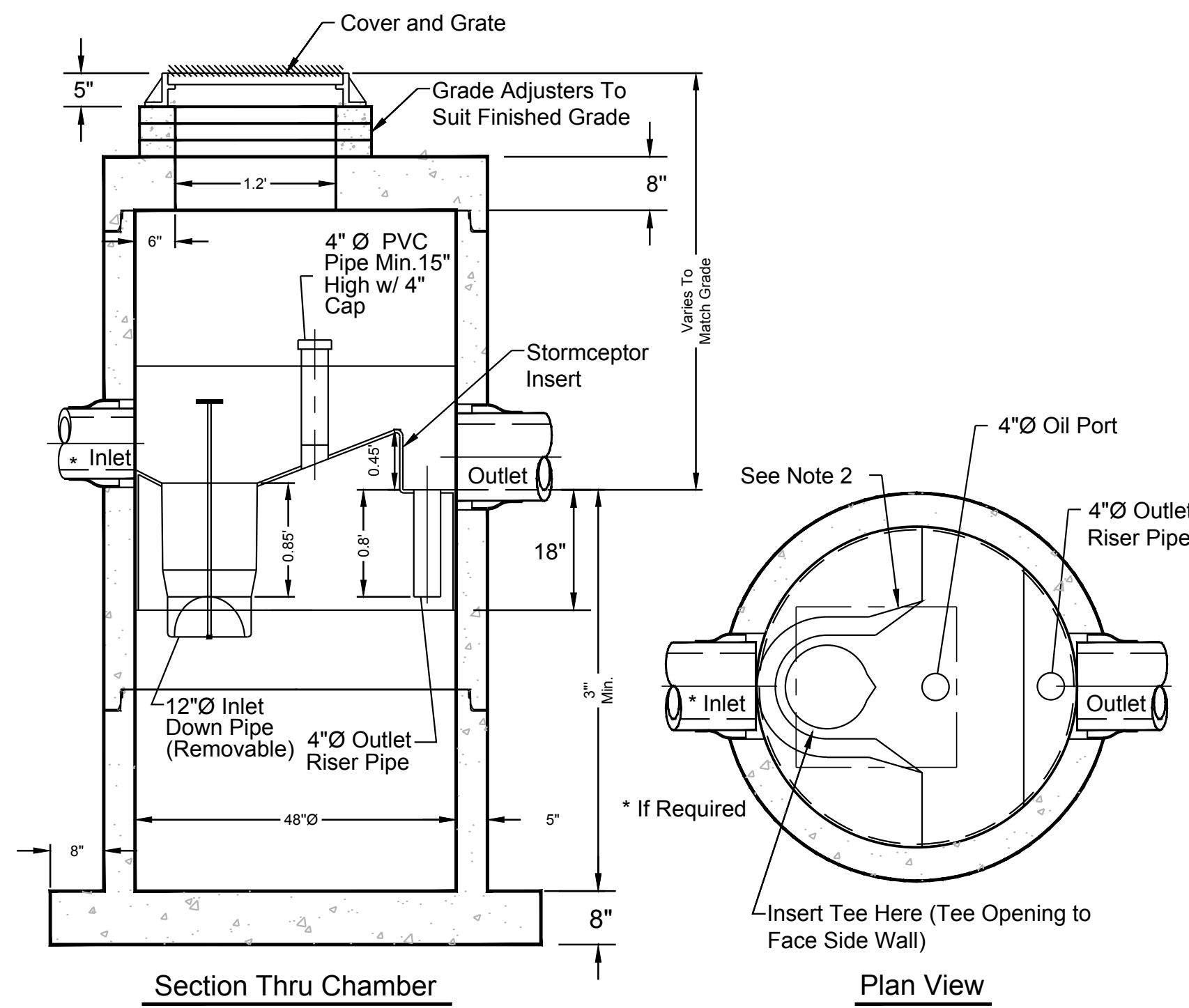
- NOTES:
- DETECTABLE WARNING PANELS SHALL BE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND STATE AND LOCAL REQUIREMENTS.

18 CAST IRON DETECTABLE WARNING SURFACE
N.T.S.

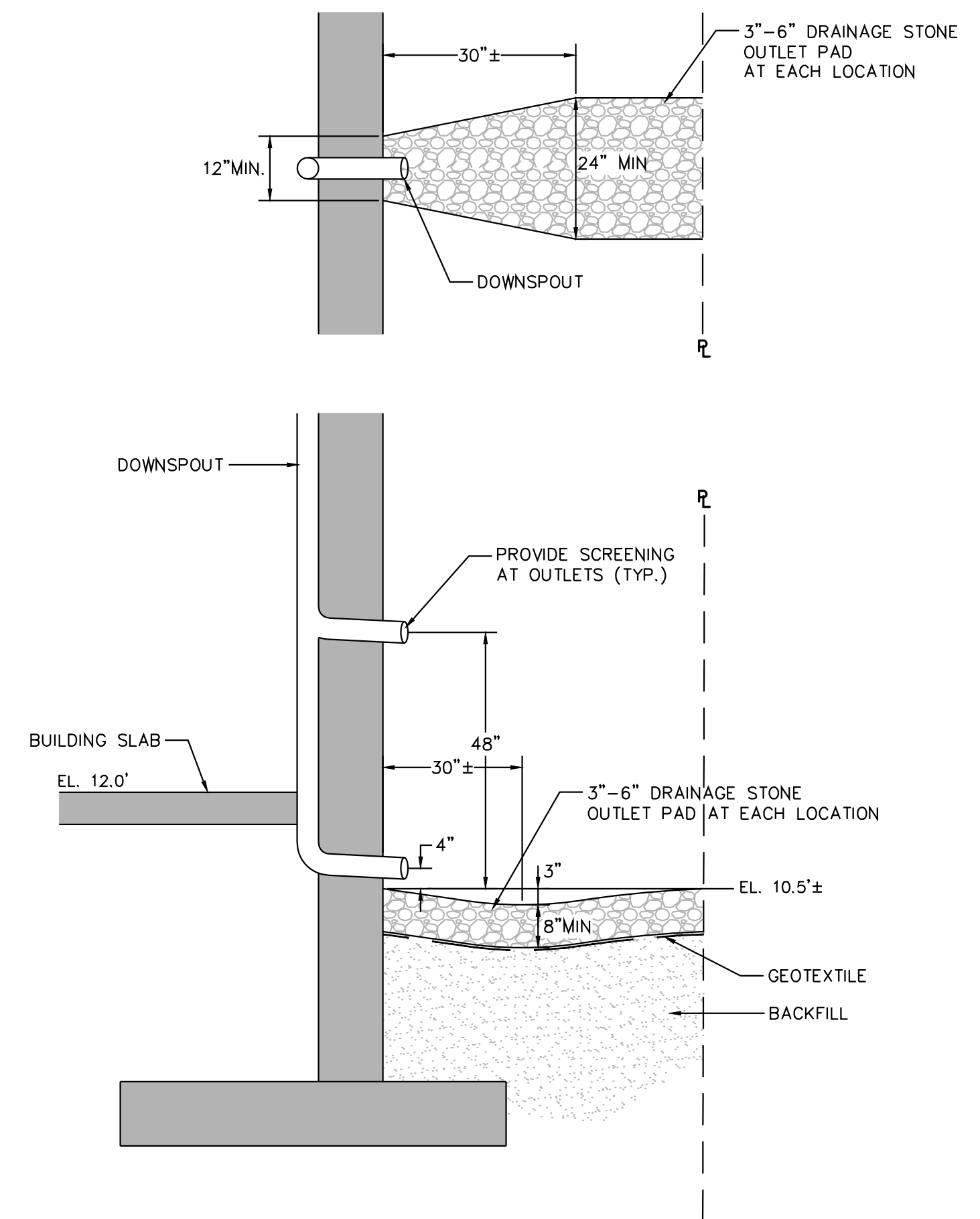


19 TRAFFIC SIGNAGE DETAILS
N.T.S.

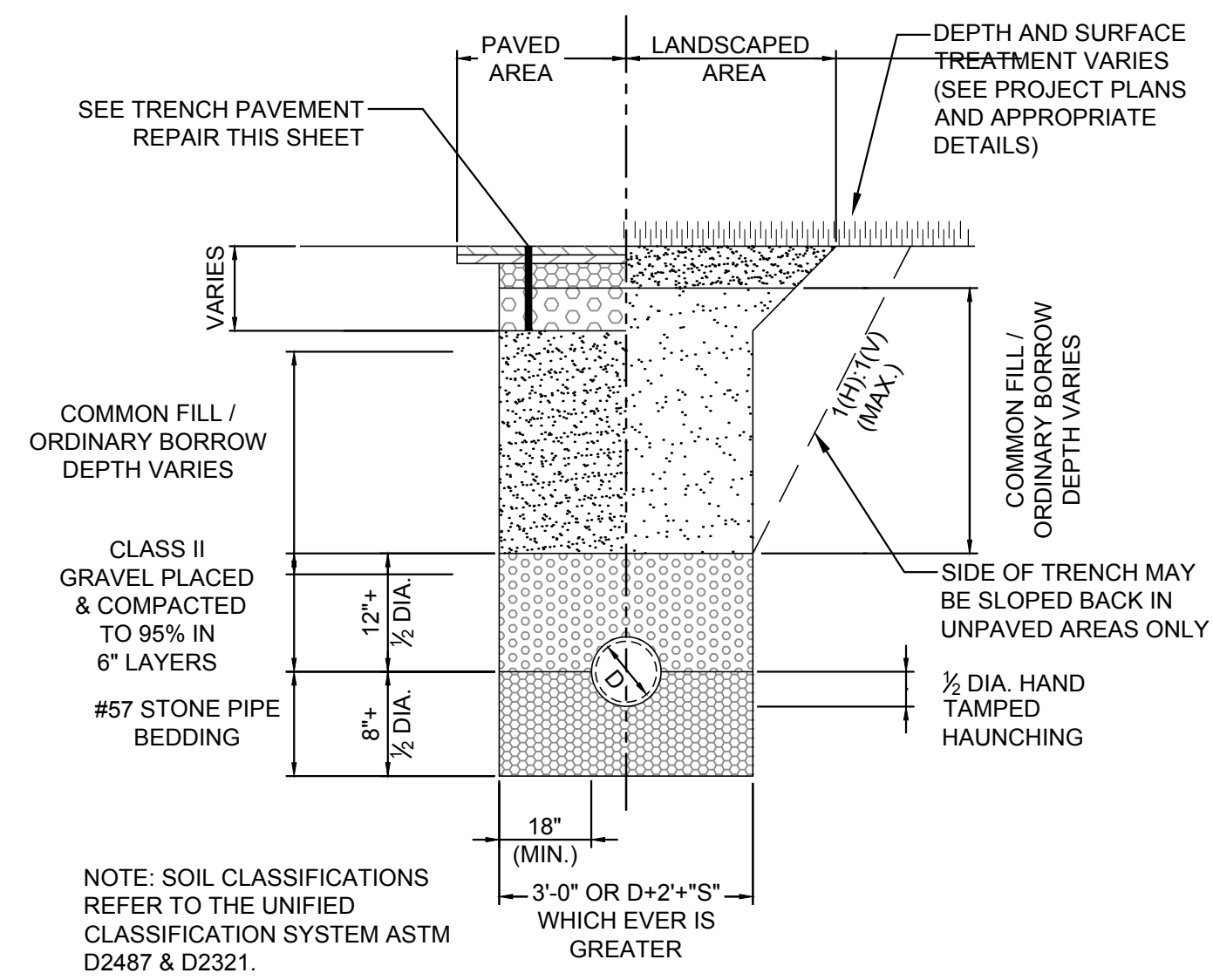
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20 STC 450i PRECAST CONCRETE STORMCEPTOR
N.T.S.

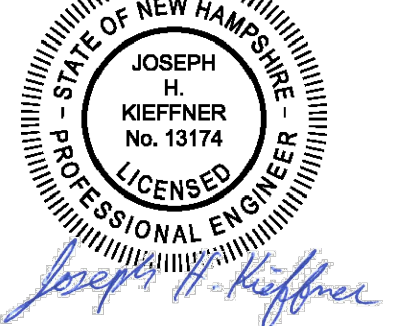


22 ROOF DRAIN DETAIL AT REAR OF BUILDING
N.T.S.

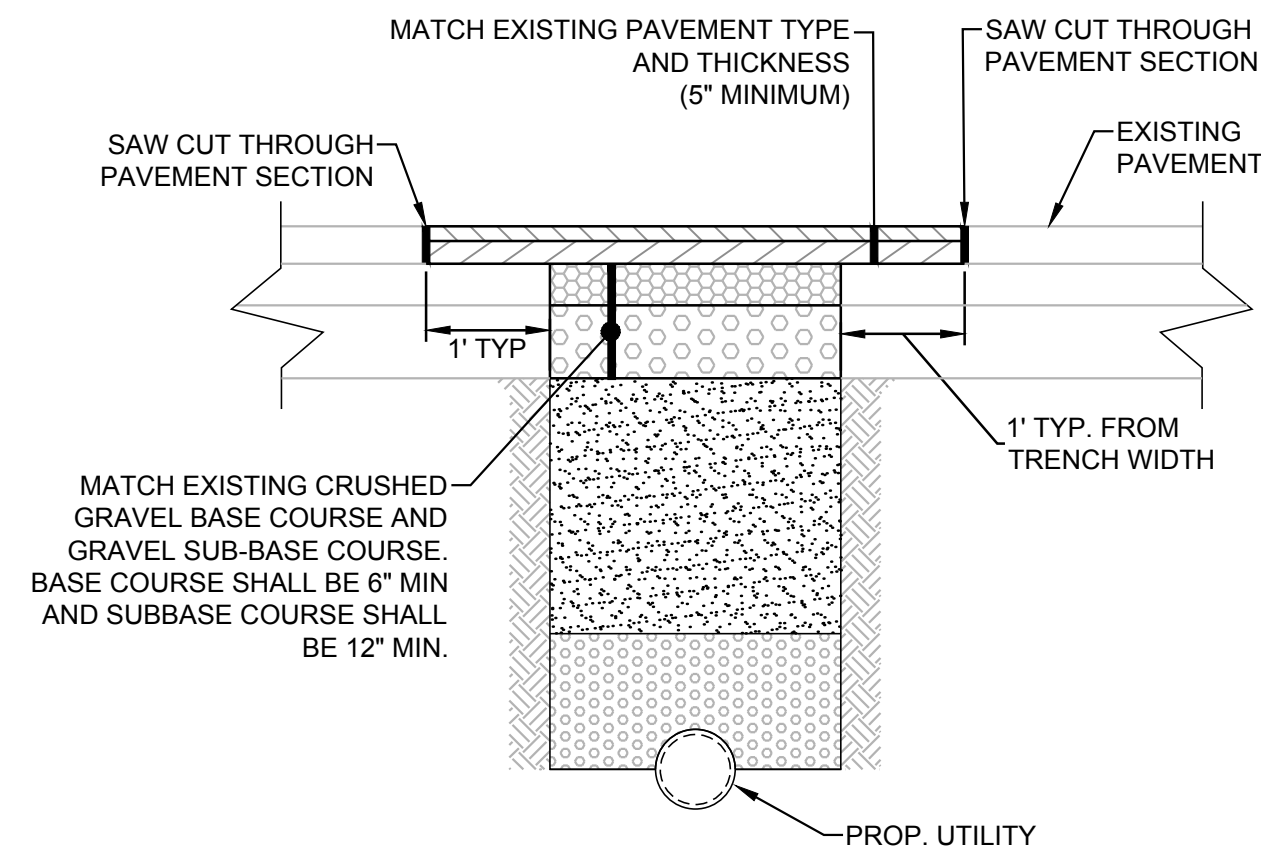


- NOTES:
1. STORM DRAIN PIPE MAIN SHALL BE INSTALLED PER THE MUNICIPAL STANDARDS AND SPECIFICATIONS.
 2. TRENCH PROTECTION SHALL BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 3. "S" = TRENCH PROTECTION WALL WIDTH
 4. PIPE INSULATION UNDER STORM DRAIN AT SANITARY SEWER CROSSING: INSTALL 2" THICK RIGID FOAM INSULATION 6" CLEAR (MIN.) OVER SEWER AT STORM DRAIN CROSSING WHERE SEWER PIPE IS WITHIN 2' OF THE STORM DRAIN. EXTEND INSULATION 4 FEET EITHER SIDE OF STORM DRAIN ALONG SEWER. INSULATION SHALL COMPLY WITH ASTM C578, TYPE VII.

23 TYPICAL STORM DRAIN TRENCH DETAIL
N.T.S.

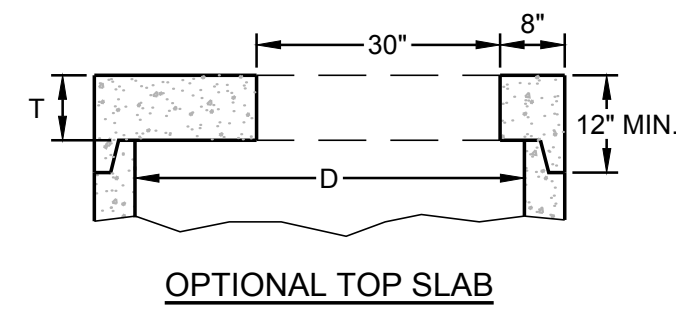


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6	PLANNING BOARD	2/06/2018

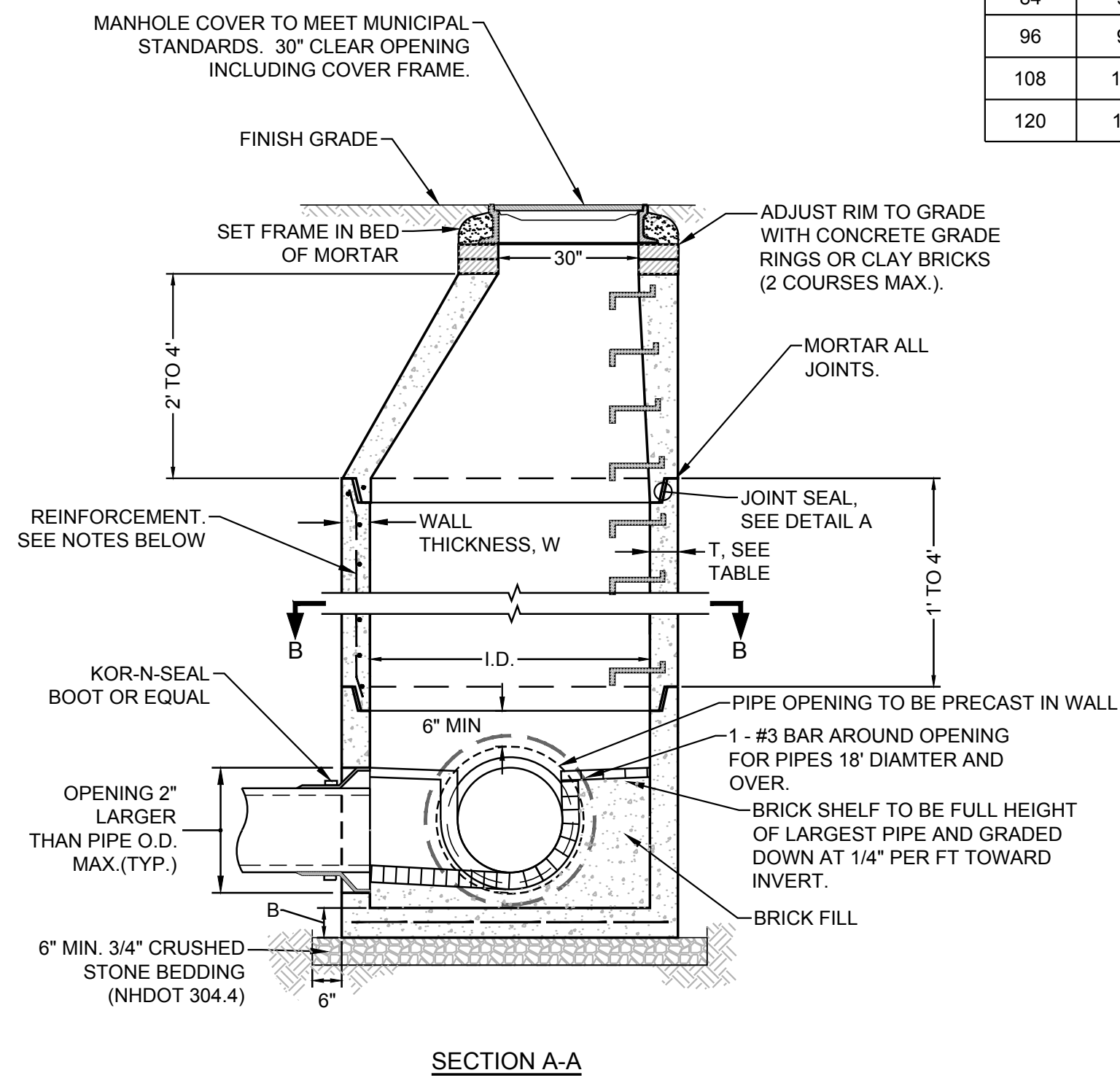


- NOTES:
- REFER TO MUNICIPAL SPECIFICATIONS FOR ASPHALT MIX DESIGN.
 - CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 401 OF THE NHDOT STANDARD SPECIFICATIONS AND MUNICIPAL SPECIFICATIONS.
 - A TACK COAT SHALL BE PLACED ON CLEANED AND STRAIGHT VERTICAL SAWCUT SURFACE PRIOR TO PLACING BINDER AND WEARING COURSE.
 - TACK COAT SHALL BE RS-1 EMULSION PER NHDOT AND MUNICIPAL SPECIFICATIONS.
 - A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE OF PRIOR TO PLACING WEARING COURSE.

24 TYPICAL UTILITY TRENCH PERMANENT PAVEMENT REPAIR DETAIL
N.T.S.

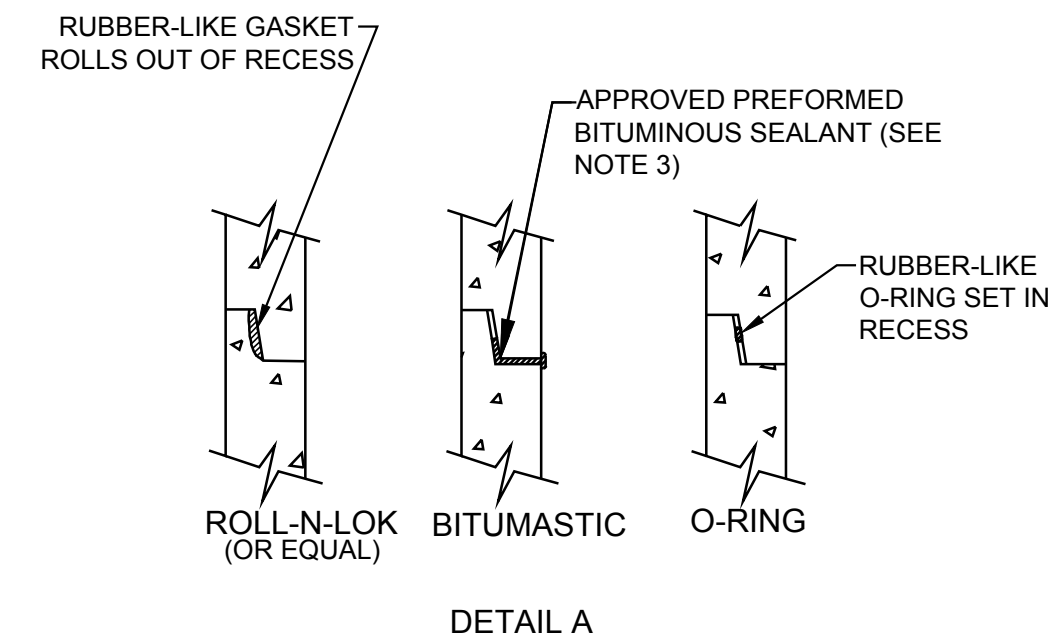
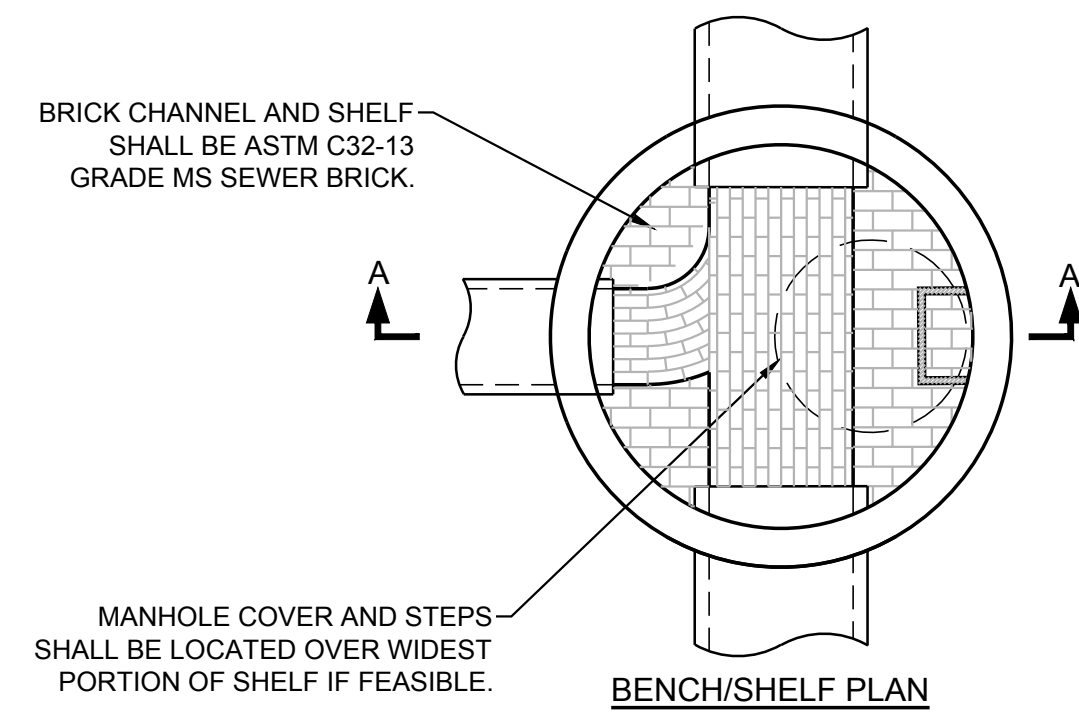


I.D. (IN)	W (IN)	B (IN)	T (IN)
48	5	6	8
60	6	8	8
72	7	8	8
84	9	10	10
96	9	10	12
108	10	10	12
120	11	10	12

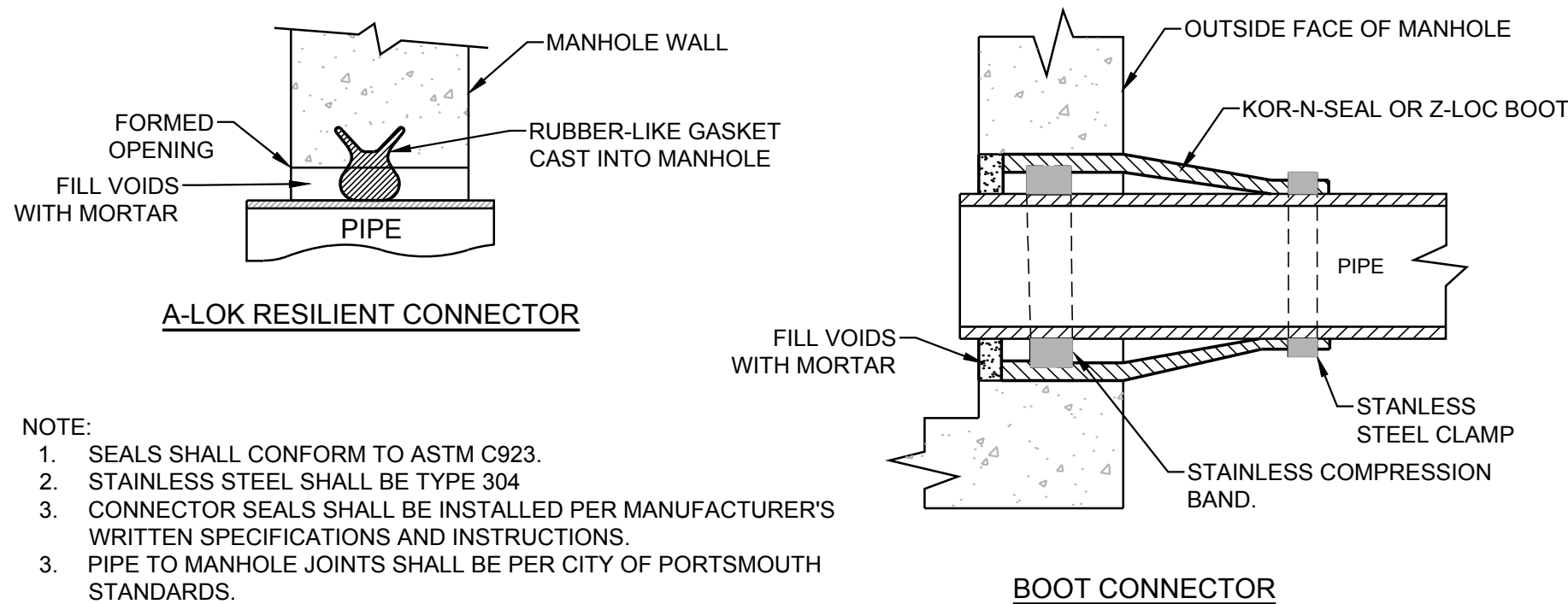


25 TYPICAL PRECAST CONCRETE JUNCTION MANHOLE
N.T.S.

- NOTES:
- MANHOLE I.D. SHALL BE 48" UNLESS STATED OTHERWISE ON PLANS.
 - THESE MANHOLE DETAILS TO BE USED FOR BOTH SANITARY SEWER AND STORM DRAIN MANHOLES.
 - PRECAST MANHOLES SHALL CONFORM TO AASHTO M199/ASTM C478 SPECIFICATIONS.
 - REINFORCEMENT:
 - DEFORMED BARS SHALL CONFORM TO ASTM A-615 GRADE 60.
 - WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185
 - ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 - REIN. STEEL SHALL HAVE 1" MINIMUM COVER.
 - THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FOOT.
 - THE STRUCTURES SHALL BE DESIGNED FOR HS 20-44 LOADING.
 - CRUSHED STONE BEDDING SHALL CONFORM TO NHDOT 304.4.
 - PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 - OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
 - ALL STRUCTURES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND NO HOLES CLOSER THAN 6" TO JOINTS.
 - SANITARY SEWER MANHOLES SHALL HAVE AN EXTERIOR ASPHALTIC WATER PROOF COATING APPLIED (2 COATS MIN.).
 - BASE SHALL BE A SINGLE POUR MONOLITHIC SECTION TO A MINIMUM OF 6" PIPE OPENING
 - INVERTS AND SHELVES:
 - BRICK SHALL BE ASTM C32-13 GRADE MS SEWER BRICK.
 - BRICK SHELVES SHALL BE CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW.
 - AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO WALL OF THE PIPE.
 - SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE CHANNEL
 - INVERTS AND SHELVES SHALL ONLY BE PLACED AFTER LEAKAGE TESTS ARE PERFORMED.
 - SURFACE BRICKS SHALL BE PLACED ON EDGE
 - FRAMES AND COVERS:
 - FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN
 - 4" (MINIMUM) HEIGHT LETTERS SHALL BE USED FOR COVER LETTERS. SEWERS SHALL HAVE "SEWER" AND STORM DRAIN COVERS SHALL HAVE "DRAIN" CAST INTO THE CENTER OF EACH COVER.
 - LEAKAGE TEST SHALL CONFORM TO MUNICIPAL SPECIFICATIONS.
 - ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND SPECIFICATIONS.

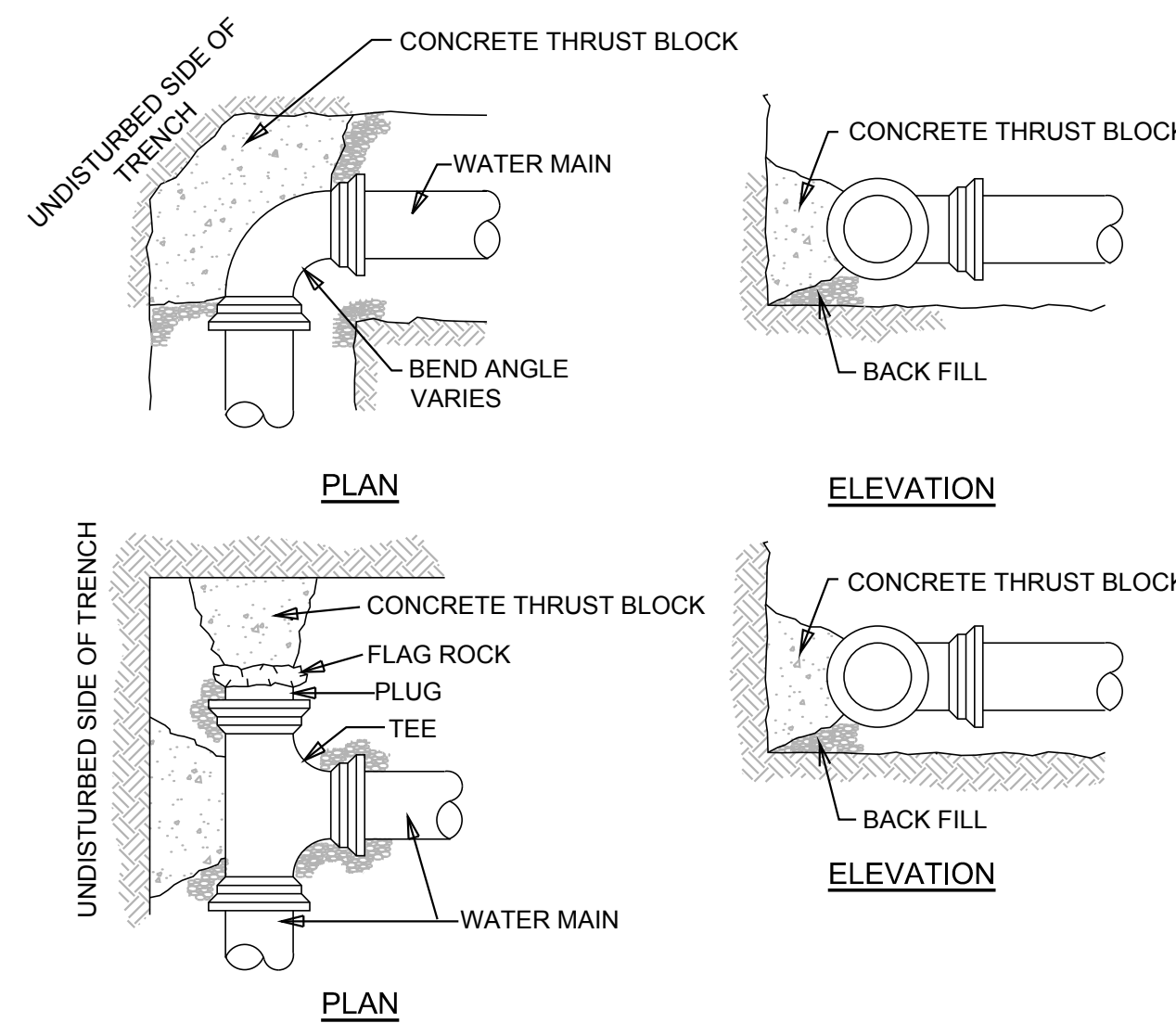


- NOTES:
- FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
 - HORIZONTAL JOINT SEAL SHALL BE PREFORMED BITUMASTIC SEALANT OR RUBBER-LIKE O-RING AND INSTALLED ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND SPECIFICATIONS.
 - HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER THE CITY OF PORTSMOUTH STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE GASKET.



- NOTE:
- SEALS SHALL CONFORM TO ASTM C923.
 - STAINLESS STEEL SHALL BE TYPE 304
 - CONNECTOR SEALS SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN SPECIFICATIONS AND INSTRUCTIONS.
 - PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARDS.

26 PIPE CONNECTIONS TO CONCRETE STRUCTURES
N.T.S.



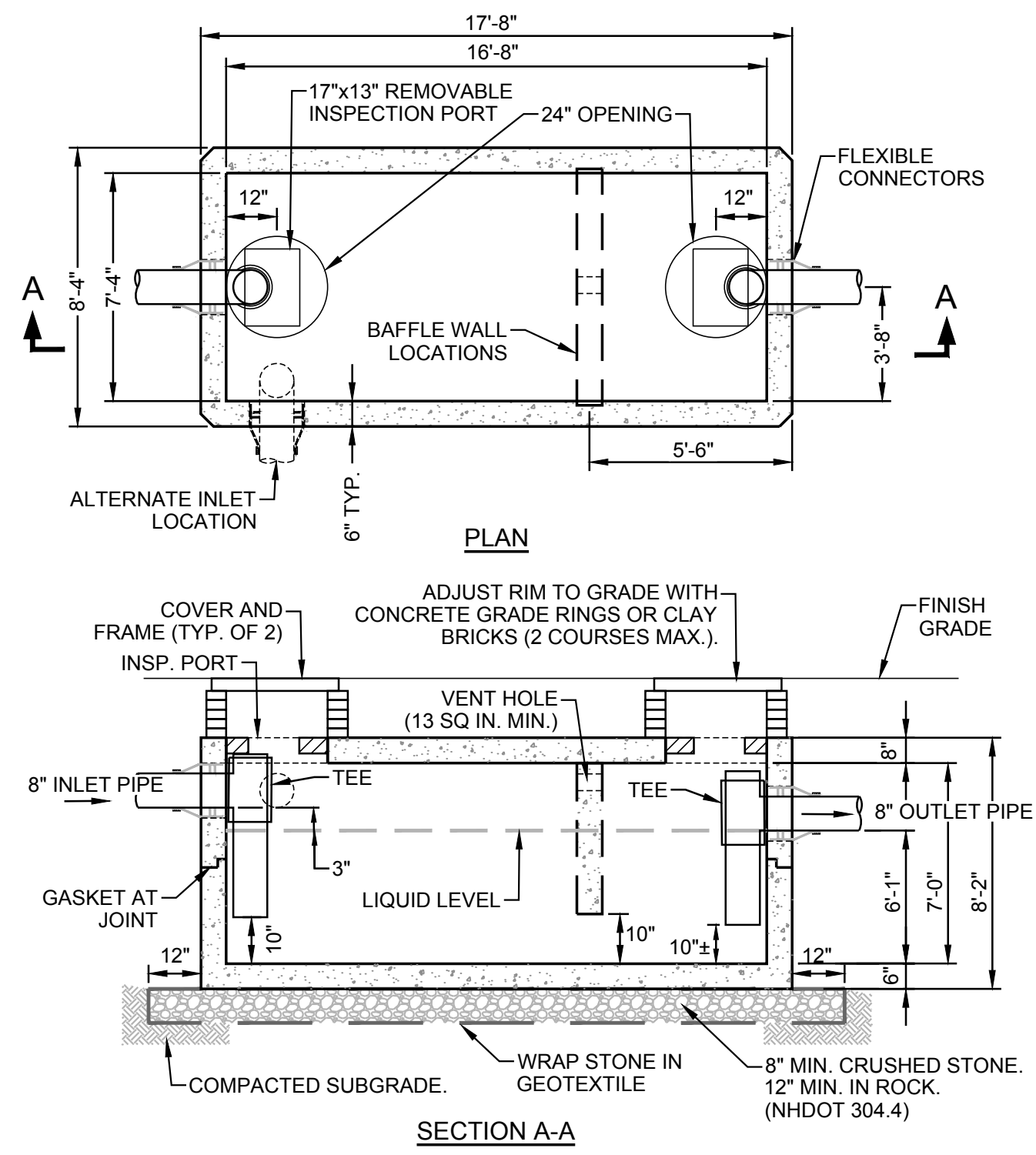
- NOTES:
- ALL WATER MAIN FITTINGS, BENDS, TEES, PLUGS ETC. SHALL BE RESTRAINED W/ THRUST BLOCKS EXCEPT WHERE NOTED.
 - ALL THRUST BLOCKS & COLLARS SHALL BE INSTALLED SO THAT THEY BEAR AGAINST UNDISTURBED EARTH.
 - SIZE OF CONCRETE THRUST BLOCKS SHALL BE AS NOTED BELOW.
 - MINIMUM COMPRESSIVE STRENGTH OF THRUST BLOCK CONCRETE SHALL BE 3,000 P.S.I.
 - KEEP CONCRETE CLEAR OF MECHANICAL JOINTS.
 - THE BELOW PRECATED ON A WATER PRESSURE OF 225 PSI AND A SOIL RESISTANCE OF 2000 PSF (TILL). FOR OTHER SOILS THE VALUES IN THE BELOW TABLE SHALL BE MULTIPLIED BY:

SOFT CLAY	4
SAND	2
SAND & GRAVEL	1.33
SHALE	0.4

PIPE DIAMETER	90° BEND (SQ. FT.)	45° BEND (SQ. FT.)	22.5° BEND (SQ. FT.)	TEES, PLUGS, CAPS & HYDRANTS (SQ. FT.)
6"	5	3	2	4
8"	8	5	3	6
10"	13	7	4	9
12"	18	10	5	13

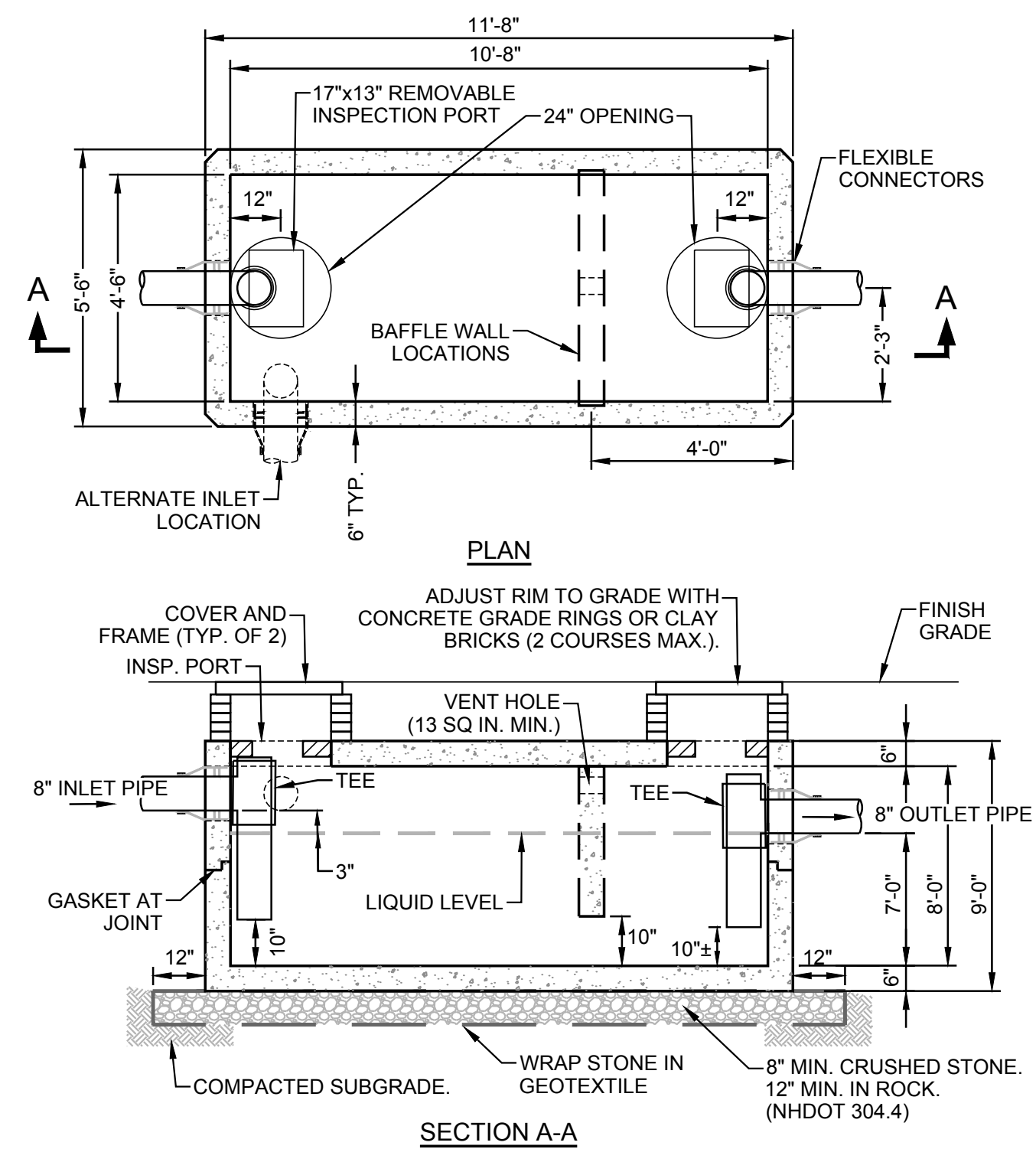
27 TYPICAL THRUST BLOCK DETAIL
N.T.S.

NO.	DESCRIPTION	DATE
6	PLANNING BOARD	2/06/2018



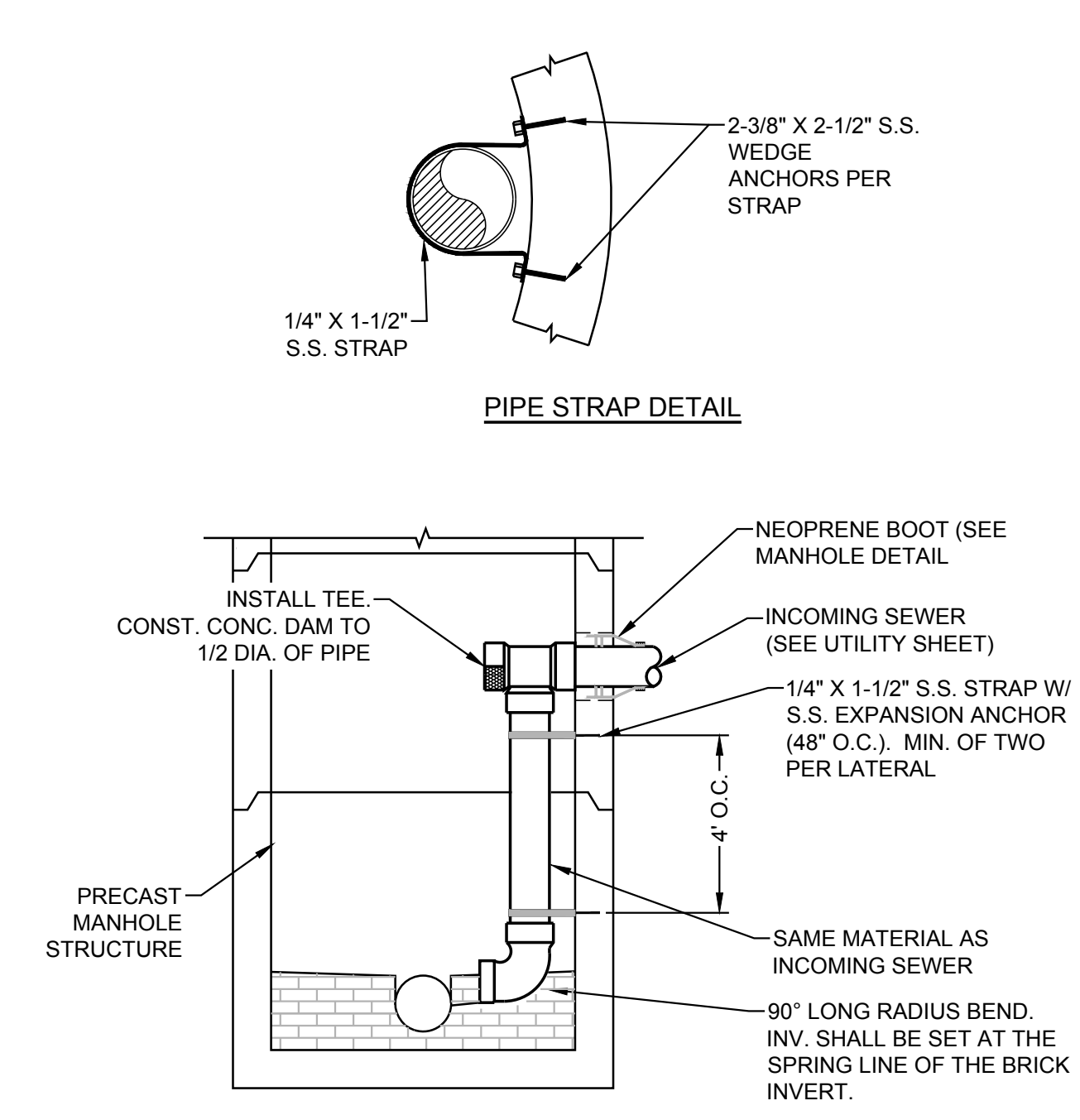
- GREASE INTERCEPTOR NOTES**
- GREASE TRAP SHALL BE HS20-44 LOAD RATED.
 - INTERCEPTOR DESIGN SHALL CONFORM TO ASTM C1613, NHDES, AND CITY OF PORTSMOUTH REQUIREMENTS AND SPECIFICATIONS.
 - GREASE TRAP SHALL HAVE A MIN. OF 2 INTERIOR BAFFLES OR TEES OR COMBINATION THEREOF.
 - REINFORCEMENT: AS REQUIRED FOR WATER, SOIL, TRAFFIC, AND HYDRAULIC PRESSURE LOADING.
 - GREASE TRAP BY CONCRETE SYSTEMS, INC. (CSI) OR EQUAL.
 - COVER AND FRAME TO MEET MUNICIPAL STANDARD FOR SANITARY SEWER.
 - GEOTEXTILE SHALL BE MIRAFI 600X.
 - TANK PIPING AND TEE DIAMETERS SHALL MATCH CONNECTING PIPES. MATERIAL SHALL BE PVC SDR 35.
 - PIPING RISERS SHALL BE BRACED WITH A MINIMUM OF TWO 1/4" X 1-1/2" S.S. STRAP W/ S.S. EXPANSION ANCHORS.
 - INSPECTION PORTS SHALL BE REMOVABLE AND MATERIAL SHALL BE S.S. OR 6061 ALUMINUM.

28 4,000 GAL PRECAST GREASE INTERCEPTOR
N.T.S.



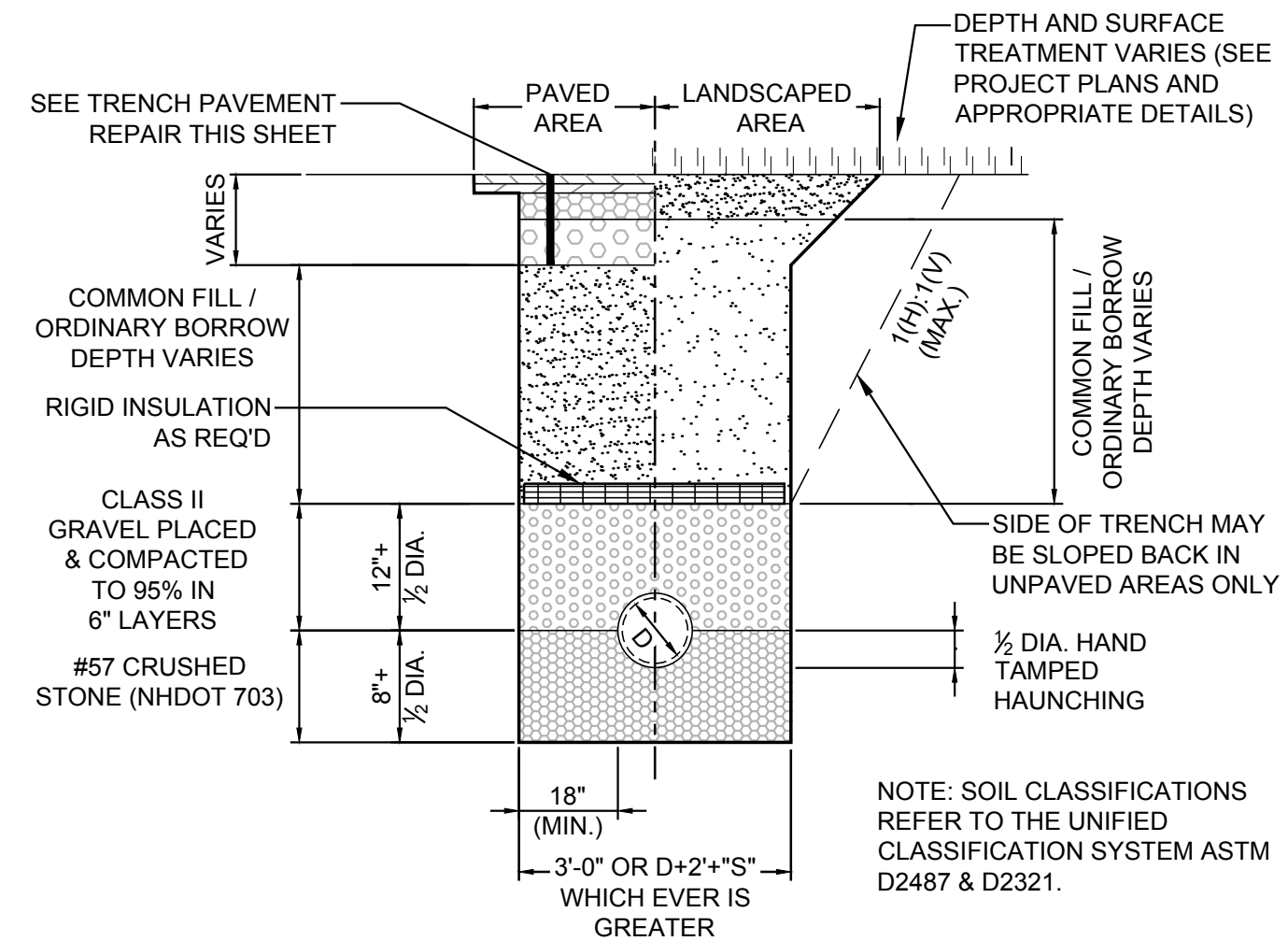
- GREASE INTERCEPTOR NOTES**
- GREASE TRAP SHALL BE HS20-44 LOAD RATED.
 - INTERCEPTOR DESIGN SHALL CONFORM TO ASTM C1613, NHDES, AND CITY OF PORTSMOUTH REQUIREMENTS AND SPECIFICATIONS.
 - GREASE TRAP SHALL HAVE A MIN. OF 2 INTERIOR BAFFLES OR TEES OR COMBINATION THEREOF.
 - REINFORCEMENT: AS REQUIRED FOR WATER, SOIL, TRAFFIC, AND HYDRAULIC PRESSURE LOADING.
 - GREASE TRAP BY CONCRETE SYSTEMS, INC. (CSI) OR EQUAL.
 - COVER AND FRAME TO MEET MUNICIPAL STANDARD FOR SANITARY SEWER.
 - GEOTEXTILE SHALL BE MIRAFI 600X.
 - TANK PIPING AND TEE DIAMETERS SHALL MATCH CONNECTING PIPES. MATERIAL SHALL BE PVC SDR 35.
 - PIPING RISERS SHALL BE BRACED WITH A MINIMUM OF TWO 1/4" X 1-1/2" S.S. STRAP W/ S.S. EXPANSION ANCHORS.
 - INSPECTION PORTS SHALL BE REMOVABLE AND MATERIAL SHALL BE S.S. OR 6061 ALUMINUM.

29 2,500 GAL PRECAST GREASE INTERCEPTOR
N.T.S.



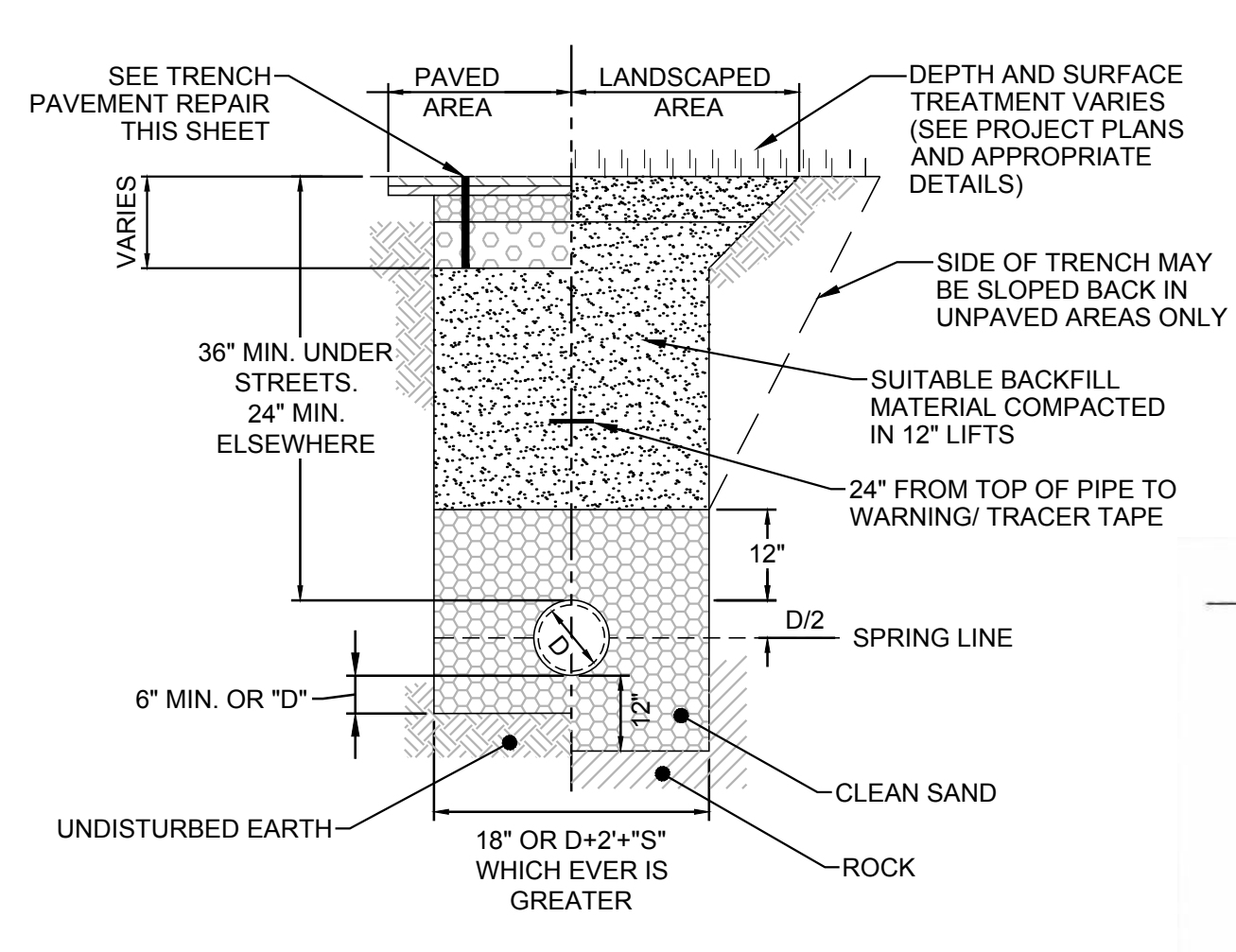
- NOTES:**
- INTERIOR MANHOLE DROP SHALL ONLY BE INSTALLED IN 5' DIA. OR LARGER MANHOLES.
 - DROP CONNECTION SHALL BE USED WHERE THE INCOMING PIPE INVERT IS 24" HIGHER THAN BRICK OUTLET PIPE INVERT.
 - DROP PIPE AND FITTINGS SHALL BE THE SAME MATERIAL AND DIAMETER OF INCOMING PIPE.
 - ALL HARDWARE SHALL BE STAINLESS STEEL (S.S.).
 - STAINLESS STEEL SHALL BE TYPE 304 FOR STORM WATER STRUCTURES AND TYPE 316 FOR SANITARY SEWER STRUCTURES.
 - DROP PIPE INVERT ELEVATIONS:
 - WHEN DROP PIPE DIA. IS EQUAL TO THE MANHOLE OUTLET PIPE THEN THE DROP INVERT SHALL BE 0.1' ABOVE OUTLET INVERT.
 - WHEN DROP PIPE DIA. IS LESS THEN OUTLET PIPE DIA. THEN DROP INVERT SHALL BE SET AT THE MID POINT OF THE BRICK SHELF.
 - SEE TYPICAL MANHOLE DETAIL FOR MANHOLE CONSTRUCTION.

30 TYPICAL MANHOLE INTERIOR DROP CONNECTION
N.T.S.



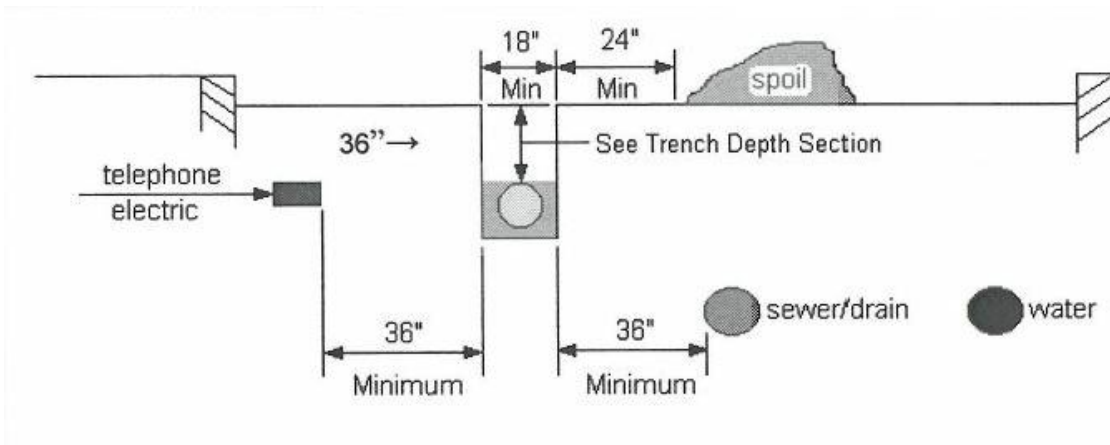
- NOTES:**
- SEWER MAIN SHALL BE INSTALLED PER THE MUNICIPAL STANDARDS AND SPECIFICATIONS.
 - TRENCH PROTECTION SHALL BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - "S" = TRENCH PROTECTION WALL WIDTH
 - PROVIDE 2" THICK RIGID FOAM INSULATION FOR ALL PIPING WITH LESS THAN 4' OF COVER AND WHERE WITHIN 2' OF STORM DRAIN. INSULATION SHALL EXTEND 4' FROM STORM DRAIN ALONG SANITARY SEWER. INSULATION SHALL COMPLY WITH ASTM C578, TYPE VII.

31 TYPICAL SANITARY SEWER TRENCH DETAIL
N.T.S.

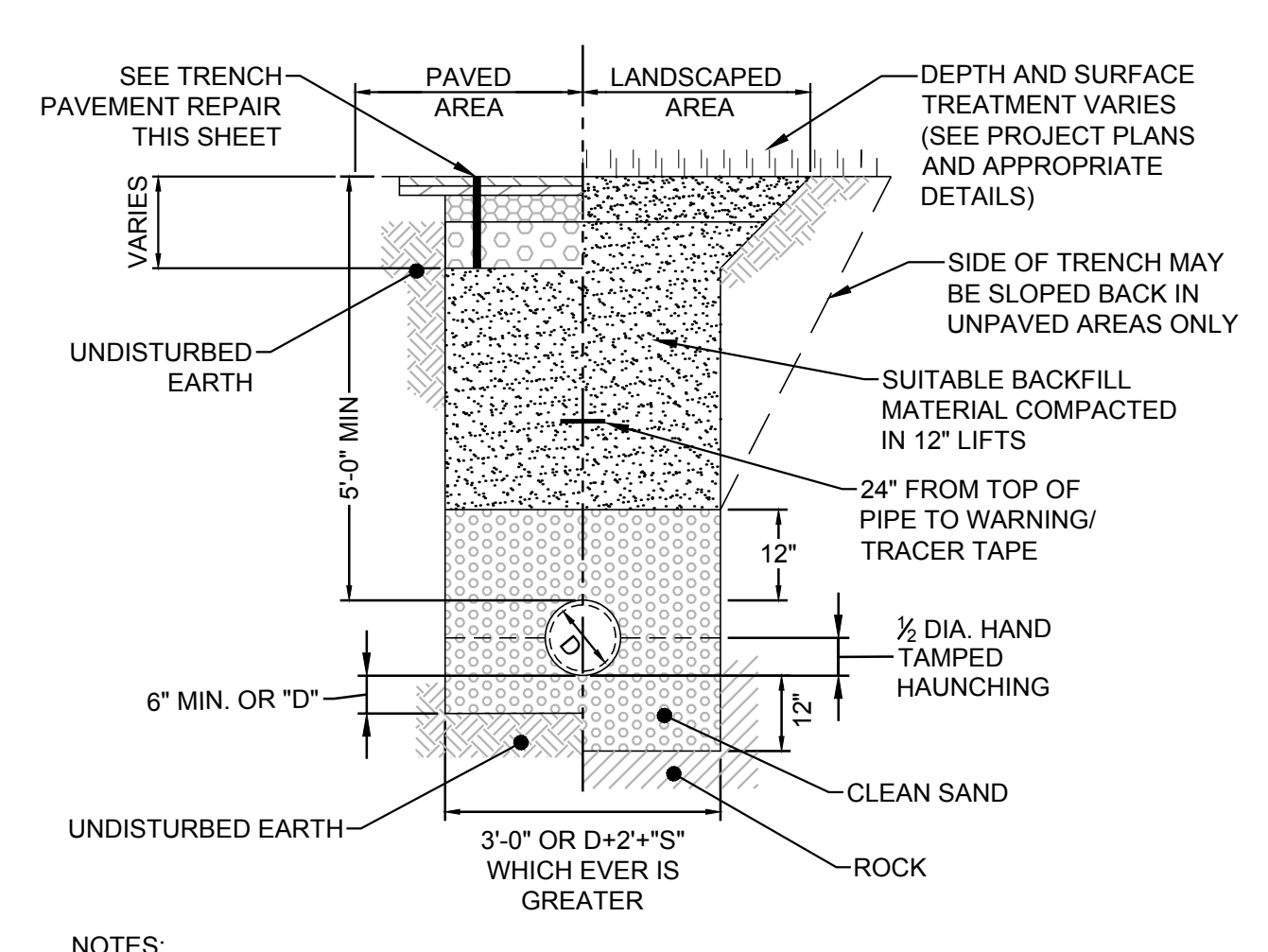


- NOTES:**
- GAS PIPE SHALL BE INSTALLED PER UTILITY AND STANDARDS AND SPECIFICATIONS.
 - COORDINATE ALL INSTALLATIONS WITH UNIL AND CITY OR PORTSMOUTH.
 - TRENCH PROTECTION SHALL BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - "S" = TRENCH PROTECTION WALL WIDTH

32 TYPICAL GAS SERVICE TRENCH DETAIL
N.T.S.



SERVICE SPACING



- NOTES:**
- WATER MAIN SHALL BE INSTALLED PER THE MUNICIPAL STANDARDS AND SPECIFICATIONS.
 - DOMESTIC WATER SERVICE AND FIRE SERVICE MAIN MAY BE PLACED IN A SINGLE TRENCH WITH 3' CENTER TO CENTER SEPARATION OR A MIN. OF 2' CLEAR SPACE BETWEEN PIPES WHICH EVER IS GREATER.
 - TRENCH PROTECTION SHALL BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - "S" = TRENCH PROTECTION WALL WIDTH

33 TYPICAL DI WATER MAIN TRENCH DETAIL
N.T.S.

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801
T 603.436.2551 www.jsainc.com

GEINSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDERSEN, INC.
LANDSCAPE ARCHITECT
PORTSMOUTH, NEW HAMPSHIRE

AMBIT ENGINEERING, INC.
SURVEY
PORTSMOUTH, NEW HAMPSHIRE

ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPPF ENGINEER
WOBURN, MASSACHUSETTS

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5**
PORTSMOUTH, NH 03801

OWNER:
Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME

A/E Seal:

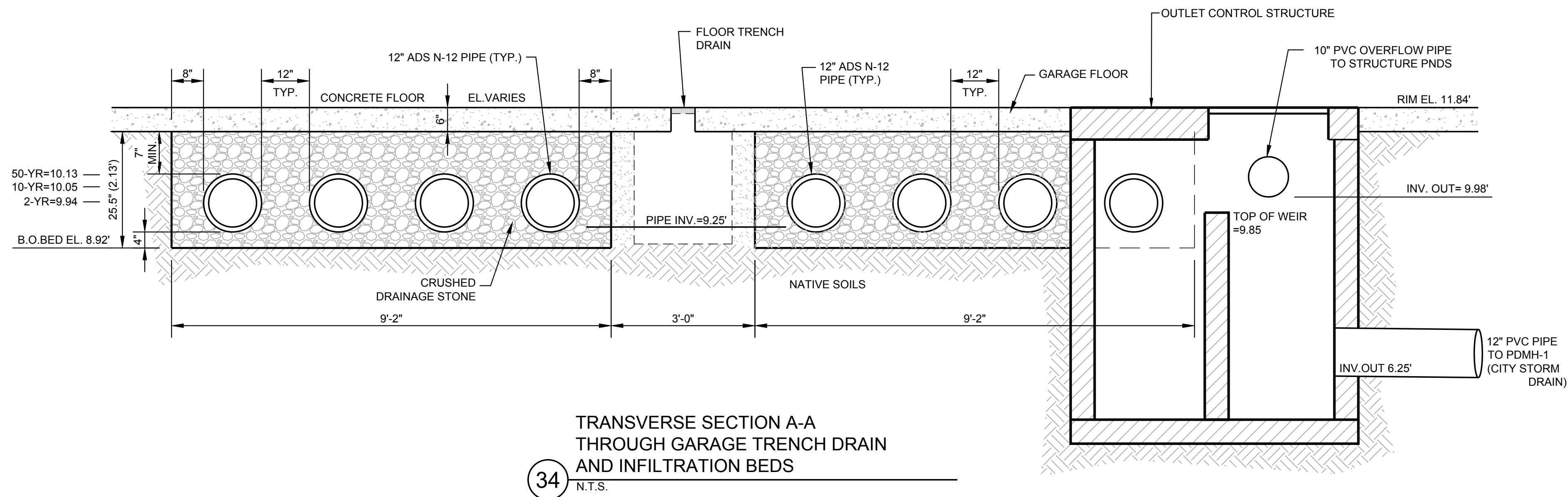
Scale:
Date: 2/06/2018
Project Number: 14837.02 (Geolnsight 8090)

REVISIONS		
NO.	DESCRIPTION	DATE
6	PLANNING BOARD	2/06/2018

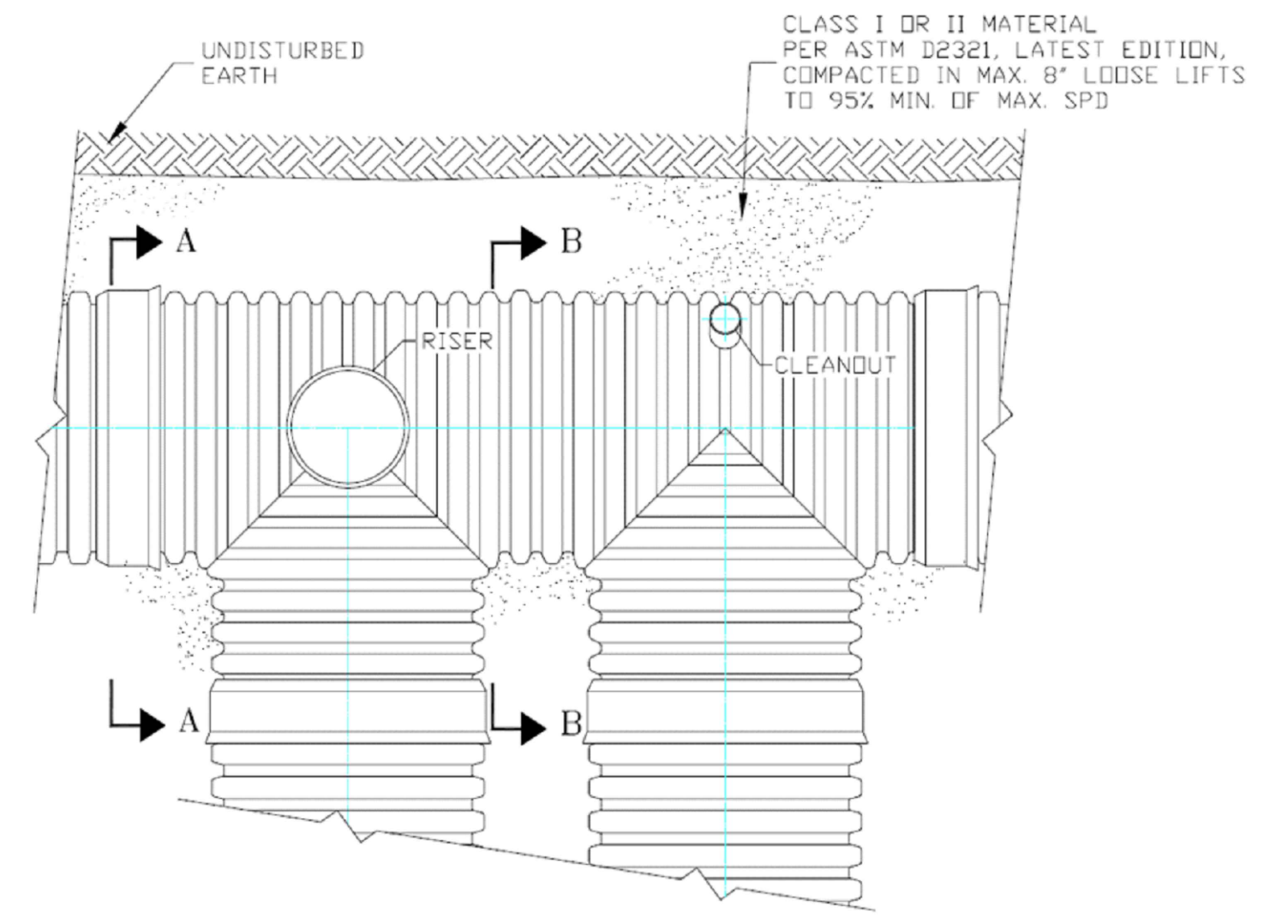
SITE PLAN REVIEW

**UTILITIES
DETAILS
2 OF 2**

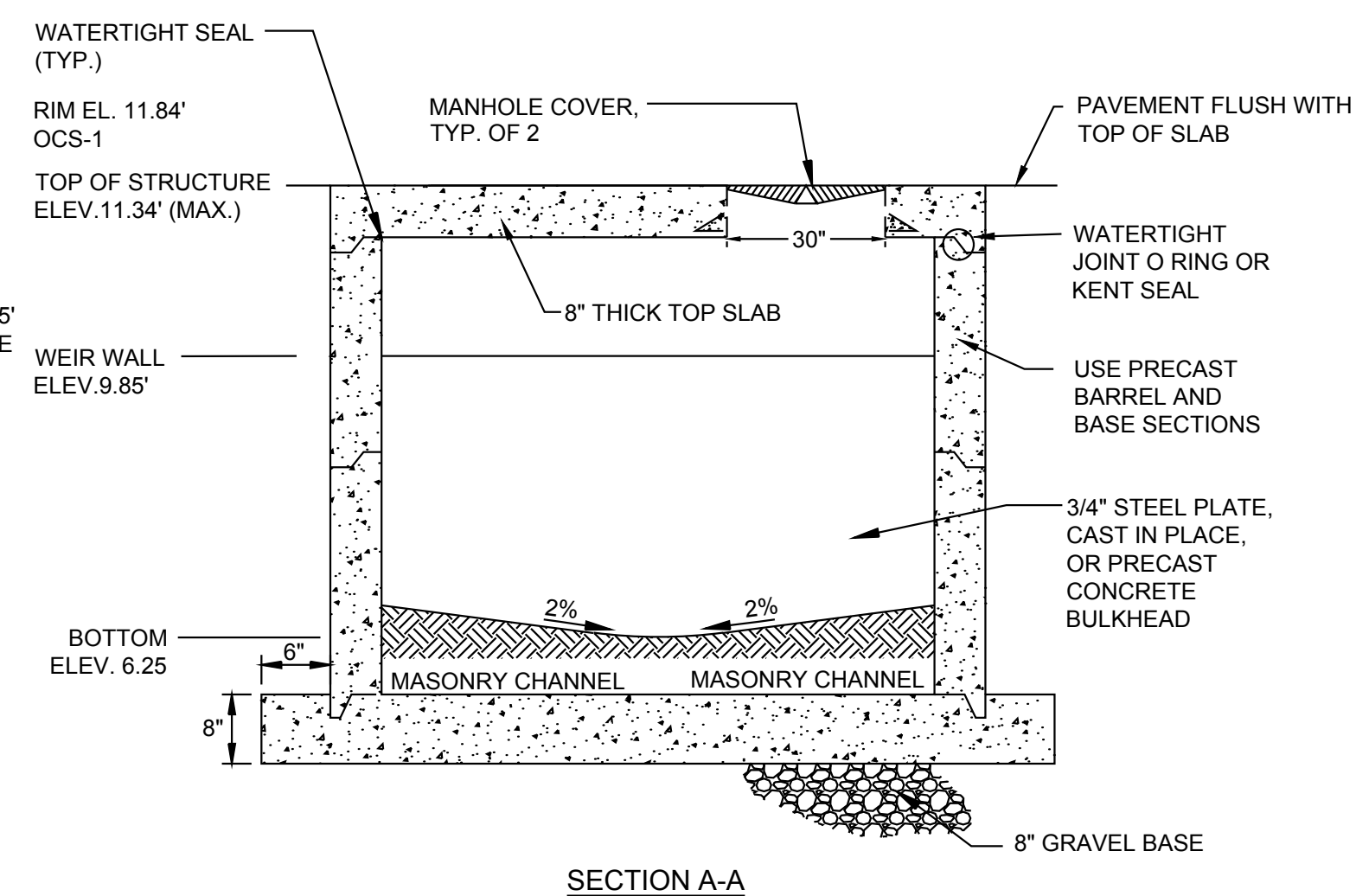
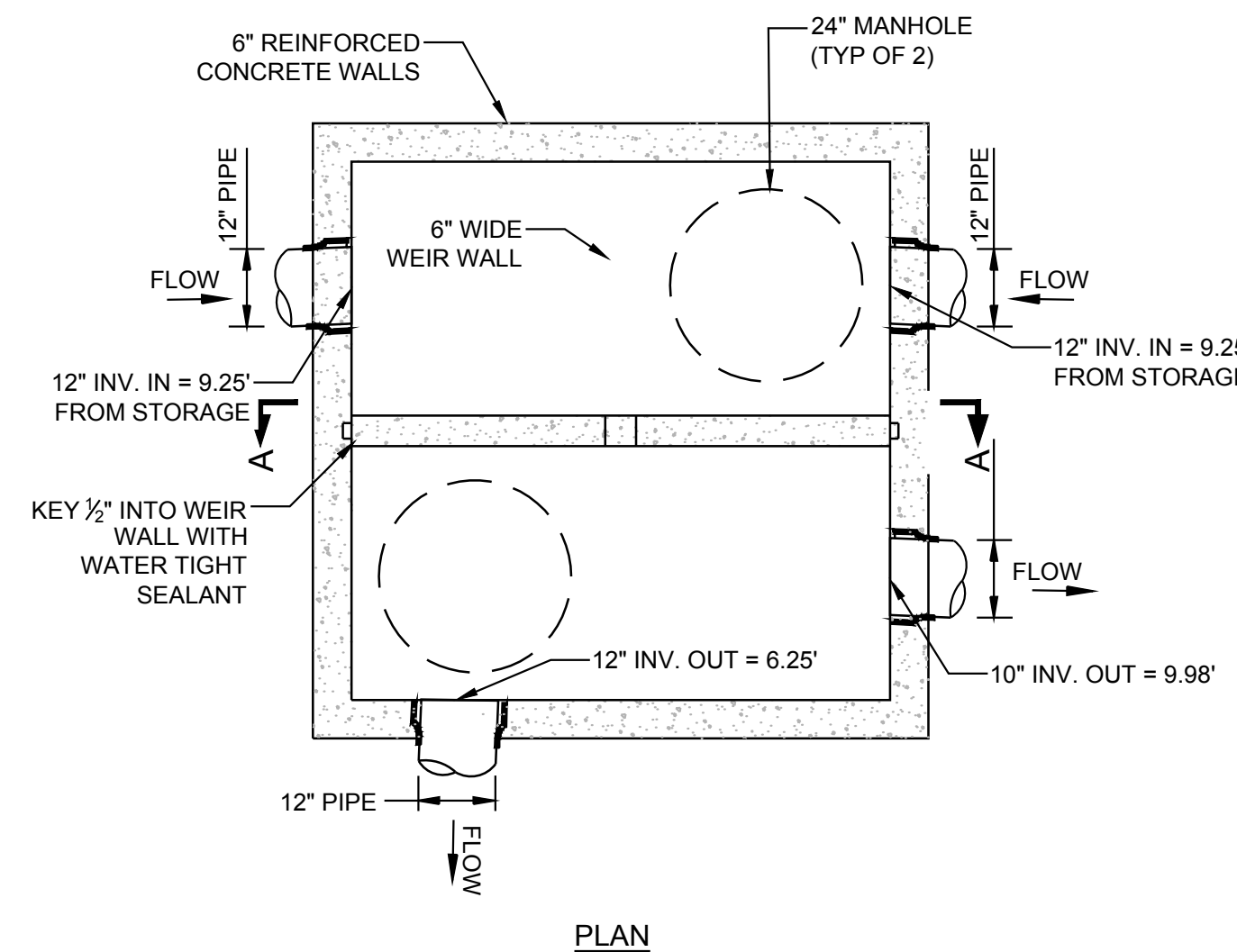
C8.4



34 TRANSVERSE SECTION A-A THROUGH GARAGE TRENCH DRAIN AND INFILTRATION BEDS
N.T.S.

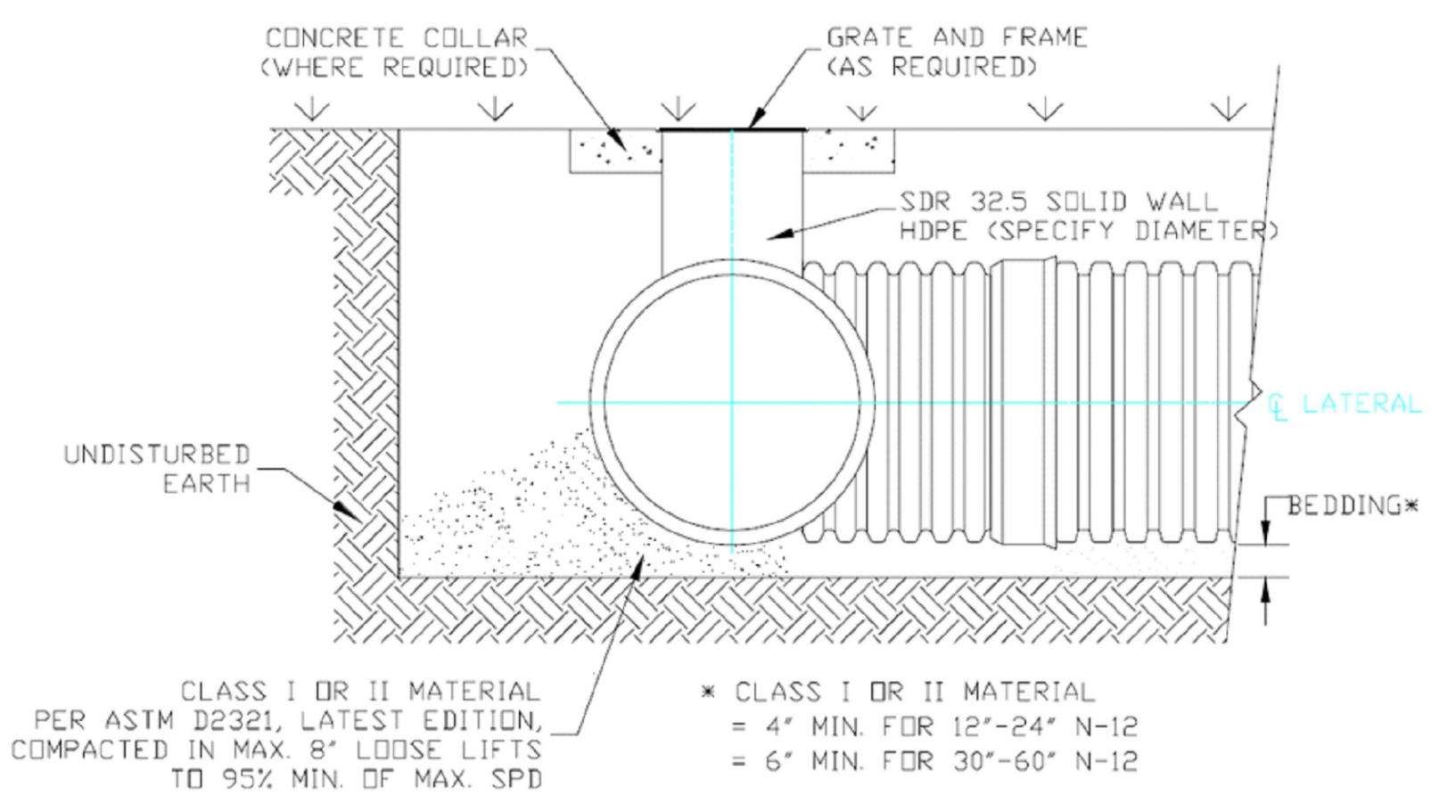


38 ADS N-12 CLEANOUT AND RISER PLAN DETAIL
N.T.S.

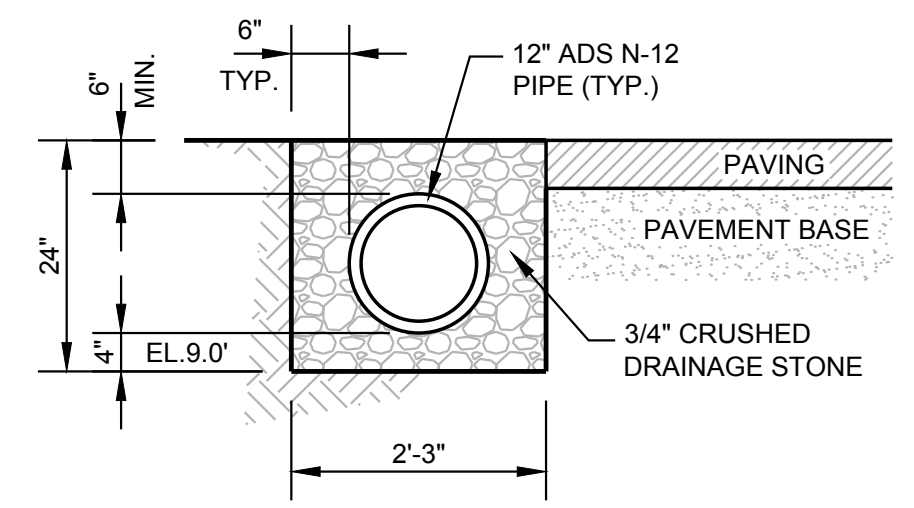


- NOTES:
1. PRECAST BOX STRUCTURE SHALL CONFORM TO ASTM C913 SPECIFICATIONS.
 2. SEE DETAIL TITLE PIPE CONNECTION TO PRECAST MANHOLE STRUCTURES (THIS SHEET).
 3. REINFORCEMENT:
 - 3.1. DEFORMED BARS SHALL CONFORM TO ASTM A-615 GRADE 60.
 - 3.2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185-GRADE 70.
 4. ALL SECTIONS SHALL BE 5,000 PSI CONCRETE.
 5. REIN. STEEL SHALL HAVE 1" MINIMUM COVER.
 6. THE STRUCTURE SHALL BE DESIGNED FOR HS 20-44 LOADING AND TO PREVENT FLOTATION IF FULLY SUBMERGED.
 7. CRUSHED STONE BEDDING SHALL CONFORM TO NHDOT 304.4.
 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.

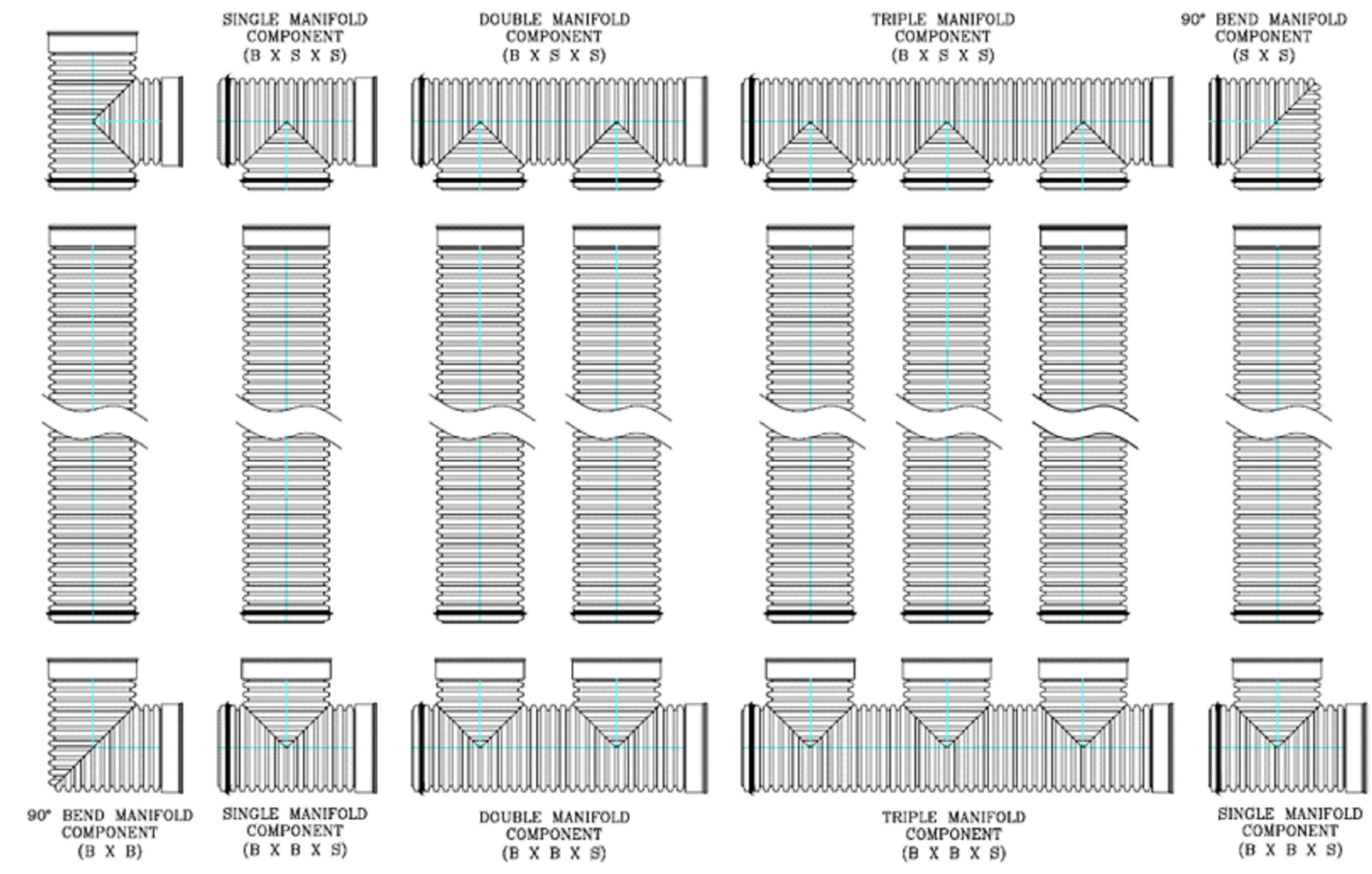
35 6'x6' OUTLET CONTROL STRUCTURE
N.T.S.



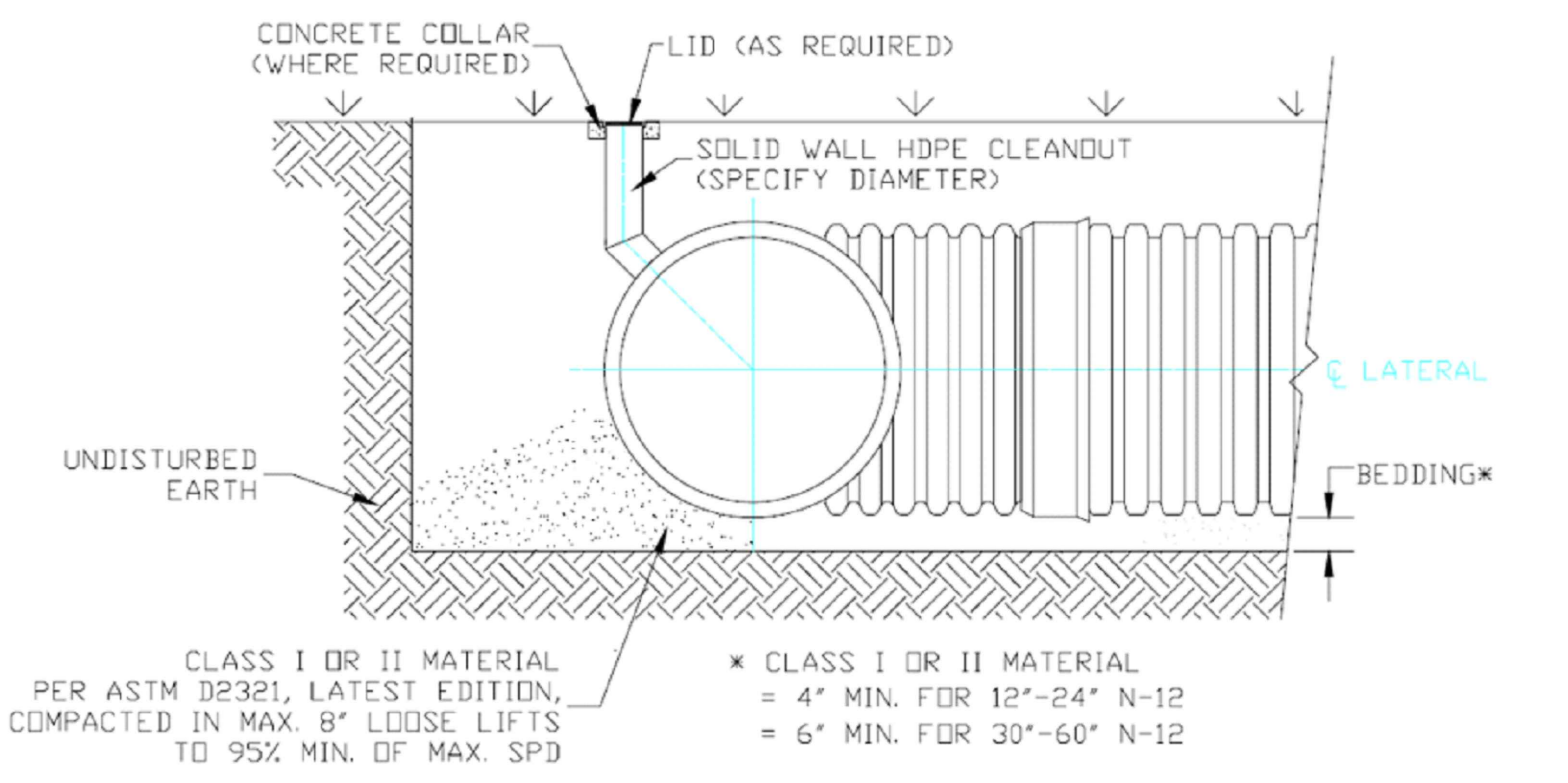
39 ADS SECTION A-A RISER DETAIL
N.T.S.



36 SECTION THROUGH PAVEMENT EDGE INFILTRATION TRENCH
N.T.S.



37 ADS N-12 PIPING AND MANIFOLDS
N.T.S.



40 ADS SECTION B-B CLEANOUT DETAIL
N.T.S.

JSA
ARCHITECTS
INTERIORS
PLANNERS

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801
T 603.436.2551 www.jsainc.com

GEOSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDERSEN, INC.
LANDSCAPE ARCHITECT
PORTSMOUTH, NEW HAMPSHIRE

AMBIV ENGINEERING, INC.
SURVEY
PORTSMOUTH, NEW HAMPSHIRE

ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPPF ENGINEER
WOBURN, MASSACHUSETTS

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5**
PORTSMOUTH, NH 03801

OWNER:
Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME

A/E Seal:
JOSEPH H. KIEFFNER
No. 13174
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW HAMPSHIRE

Scale:
Date: 2/06/2018
Project Number: 14837.02
(Geosight 8090)

REVISIONS		
NO.	DESCRIPTION	DATE
6	PLANNING BOARD	2/06/2018

SITE PLAN REVIEW

**INFILTRATION
DETAILS**

C8.5

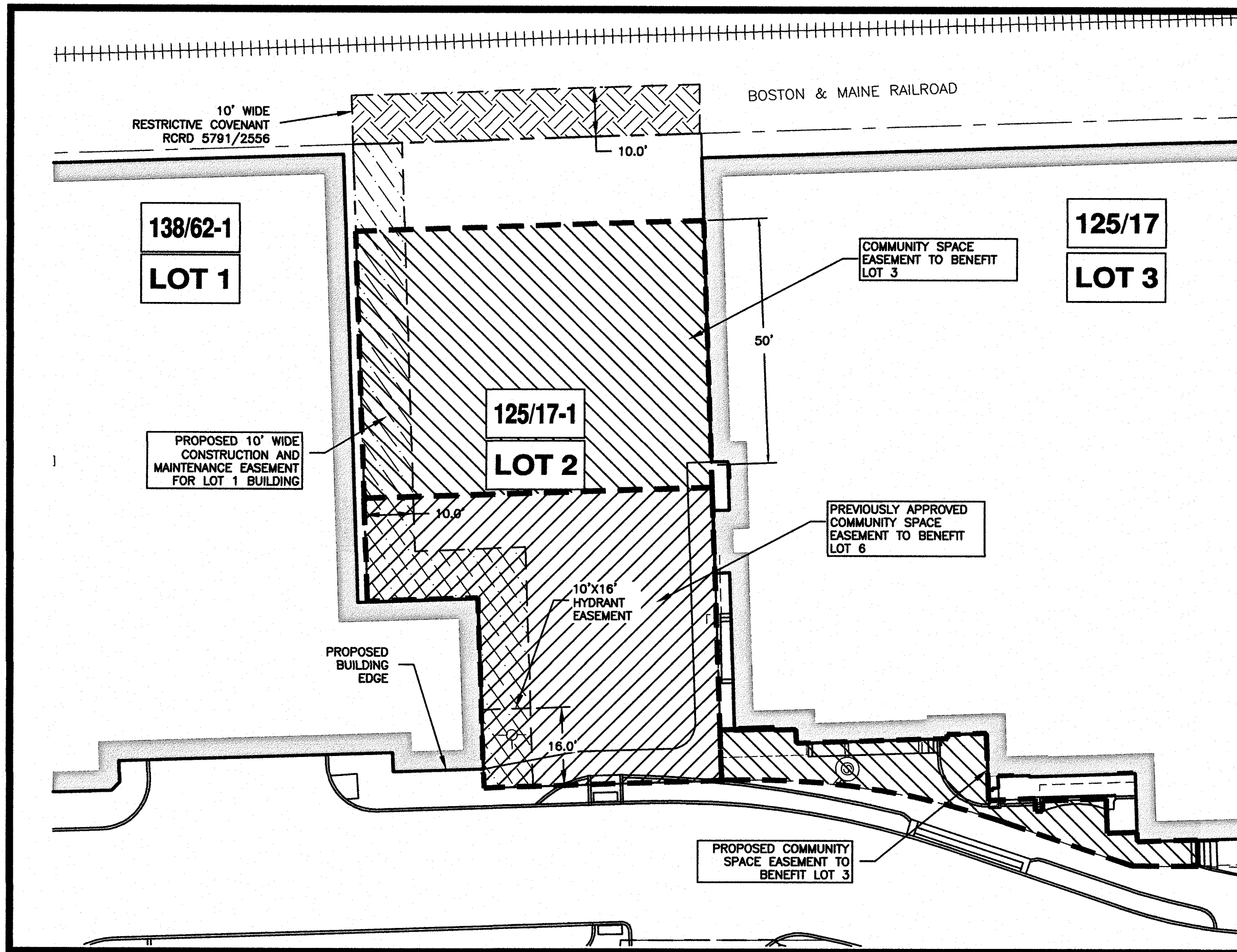
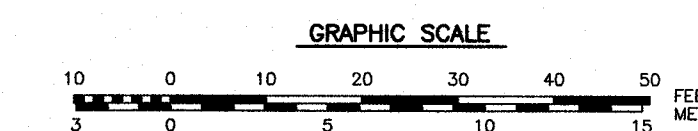
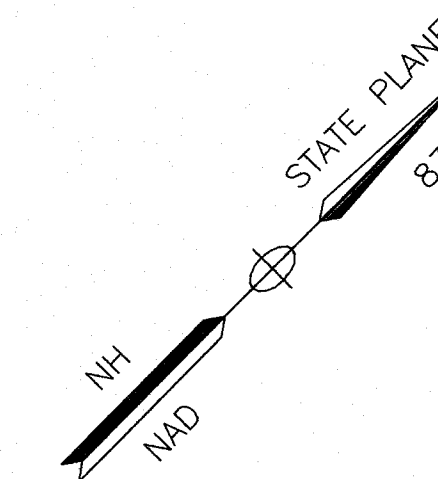


AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

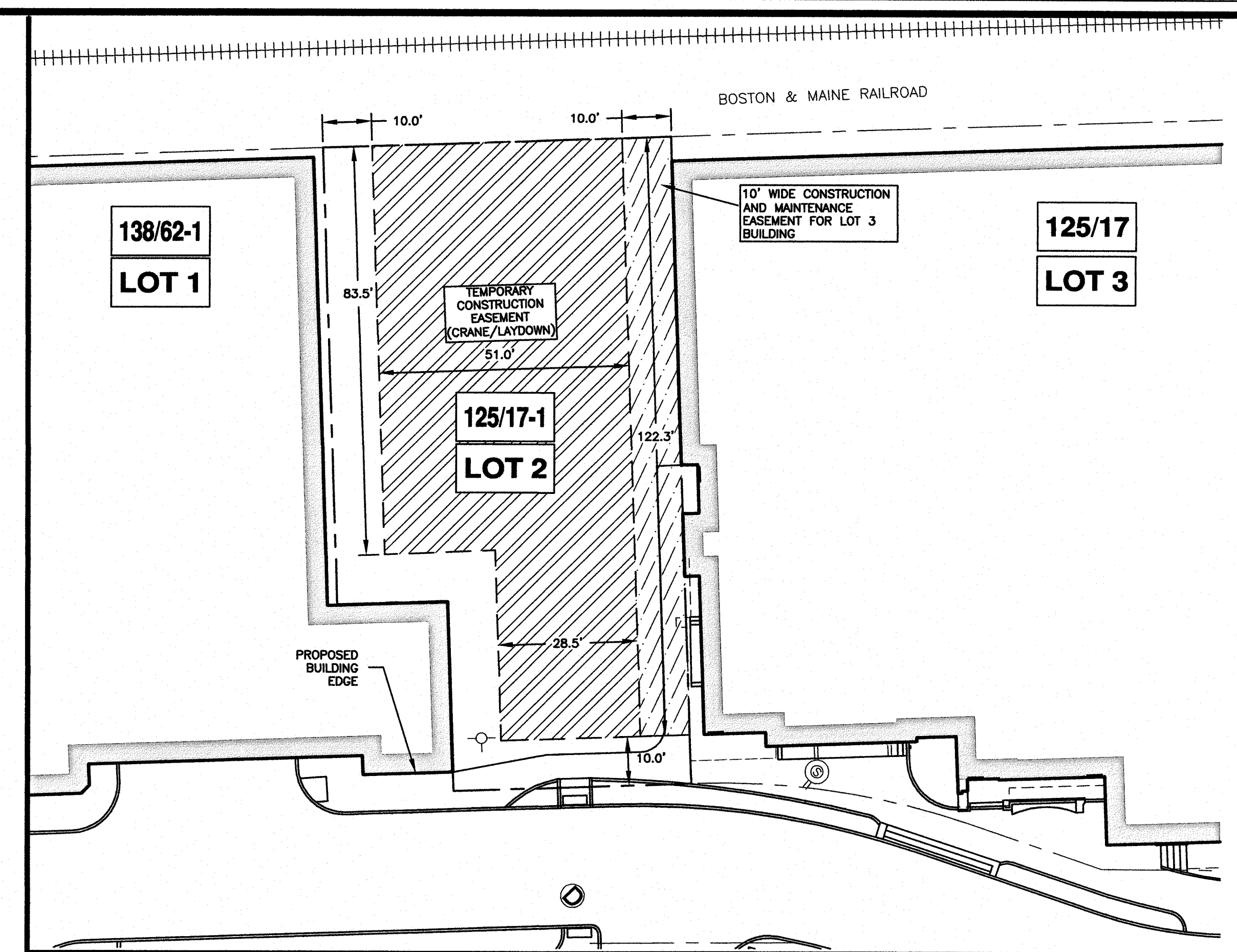
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

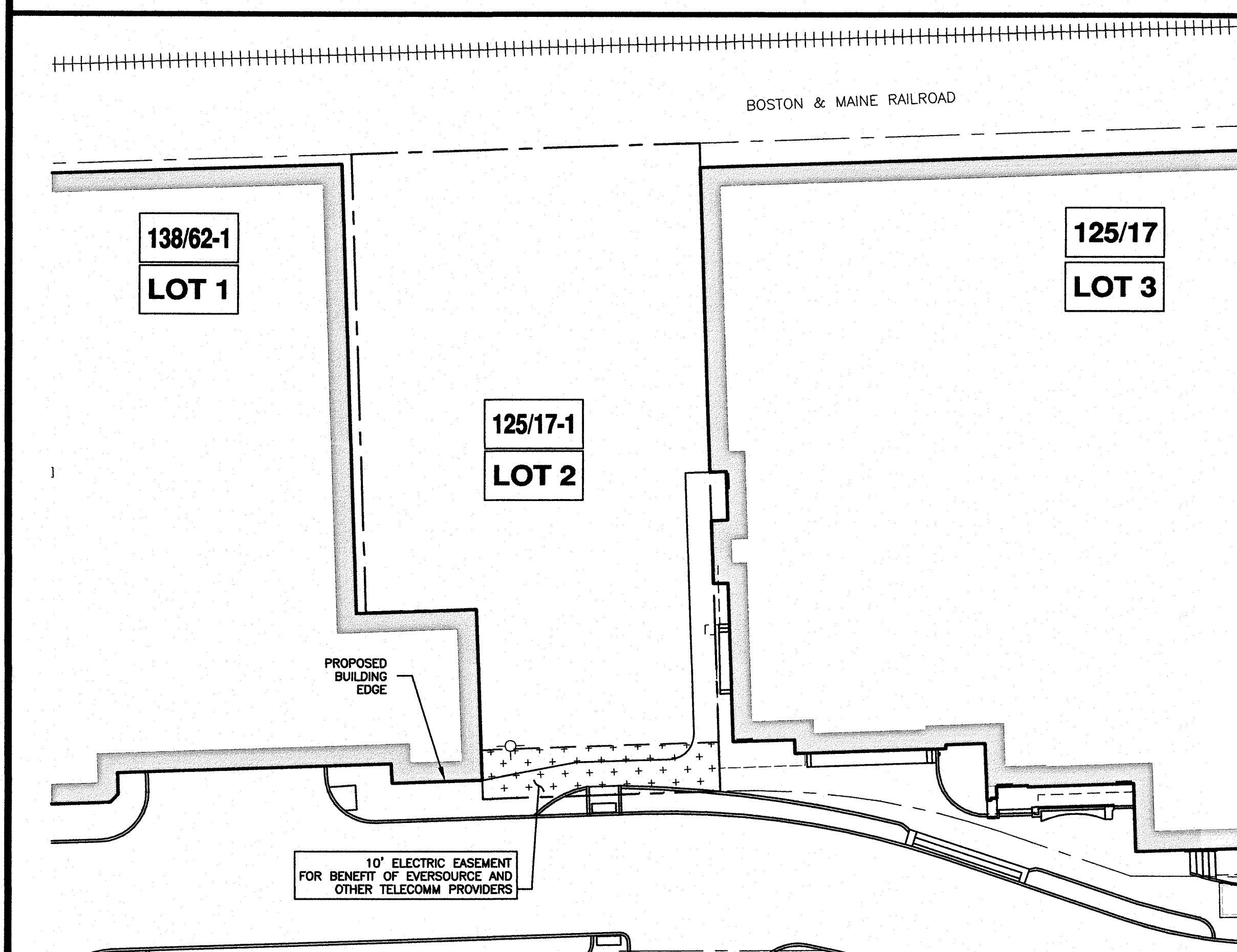
- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAPS AS MAP 125 LOT 17-1.
- 2) OWNER:
DEER STREET ASSOCIATES
PO BOX 100
YORK HARBOR, ME 03911
3395/2669, 5534/2077, & 5453/138
D-39699
- 3) THE PURPOSE OF THIS PLAN IS TO SHOW PROPOSED EASEMENTS FOR REVIEW AND APPROVAL FOR TAX MAP 125-17-1 (SUBDIVISION LOT 2).



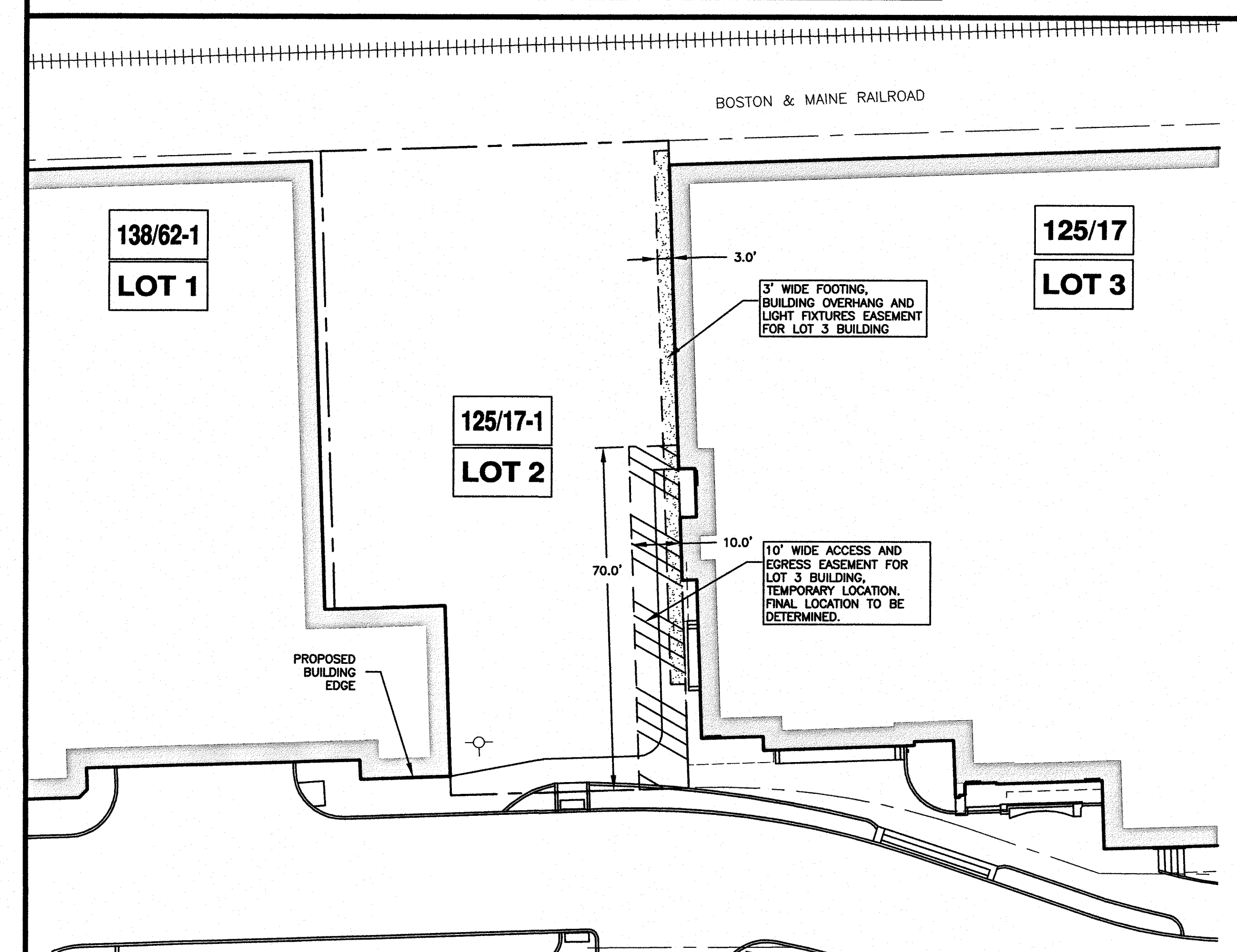
EASEMENT TO THE CITY OF PORTSMOUTH



CONSTRUCTION AND MAINTENANCE EASEMENT



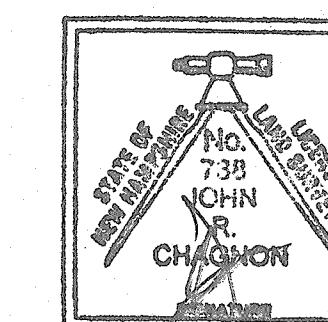
EASEMENT TO EVERSOURCE AND TELECOMM



ACCESS AND FOOTING EASEMENT

**DEER STREET ASSOCIATES
FOUNDRY PLACE
PORTSMOUTH, NH**

REVISIONS		
NO.	DESCRIPTION	DATE
2	LOT 2 COMMUNITY SPACE EASEMENT LABEL	1/11/18
1	ISSUED FOR SUBMISSION	12/19/17
0	ISSUED FOR COMMENT	11/16/17



SCALE: 1"=20' NOVEMBER 2017

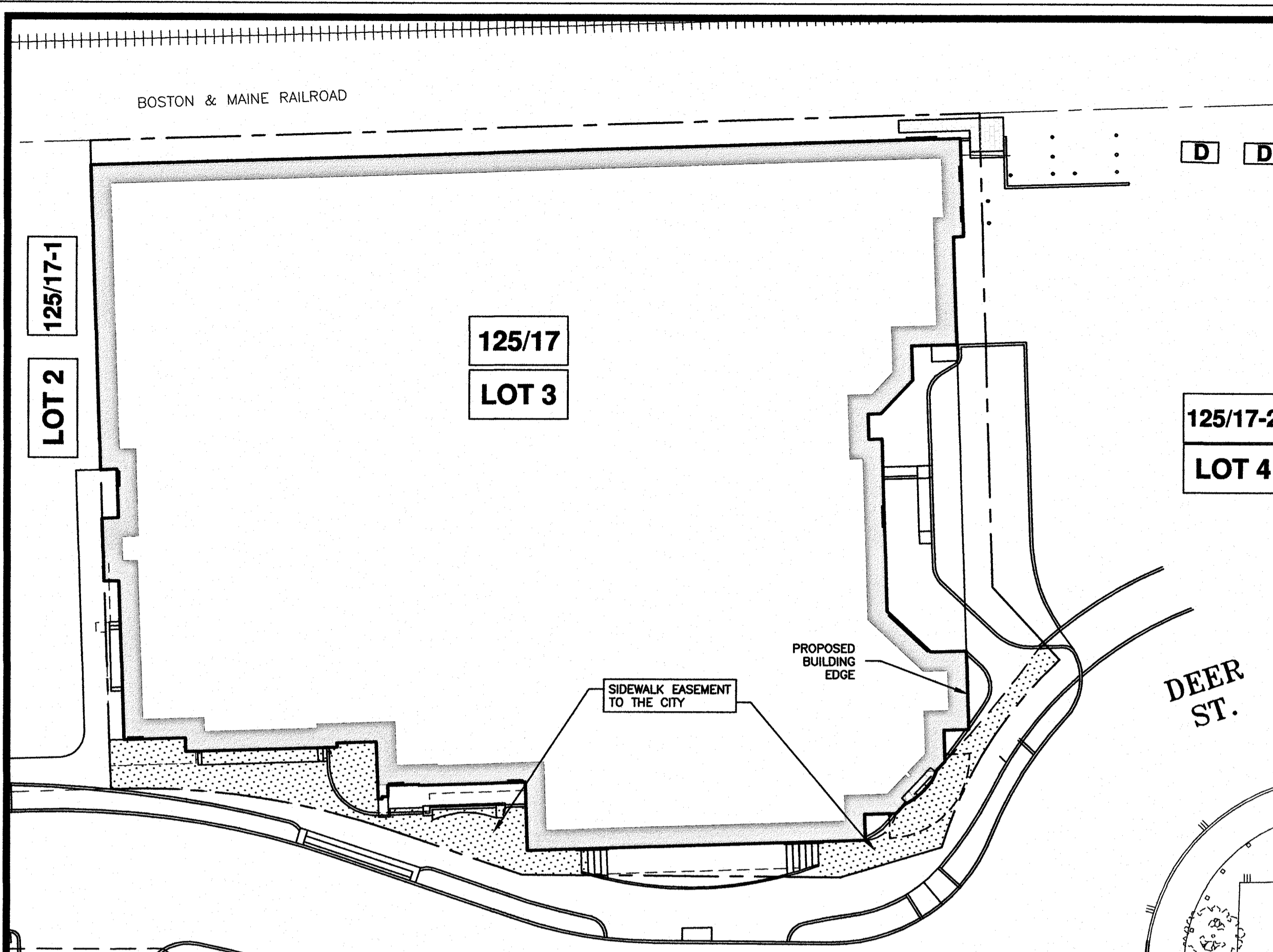
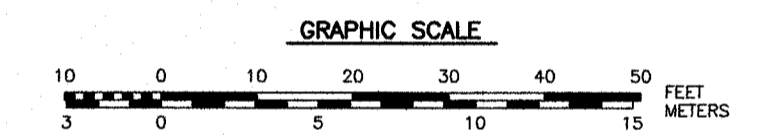
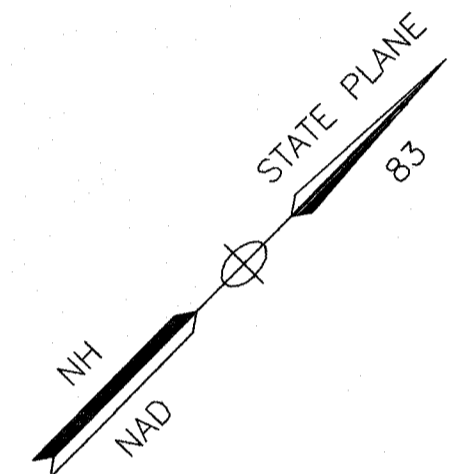
EASEMENT PLAN
TAX MAP 125 LOT 17-1
SUBDIVISION LOT 2 **E1**



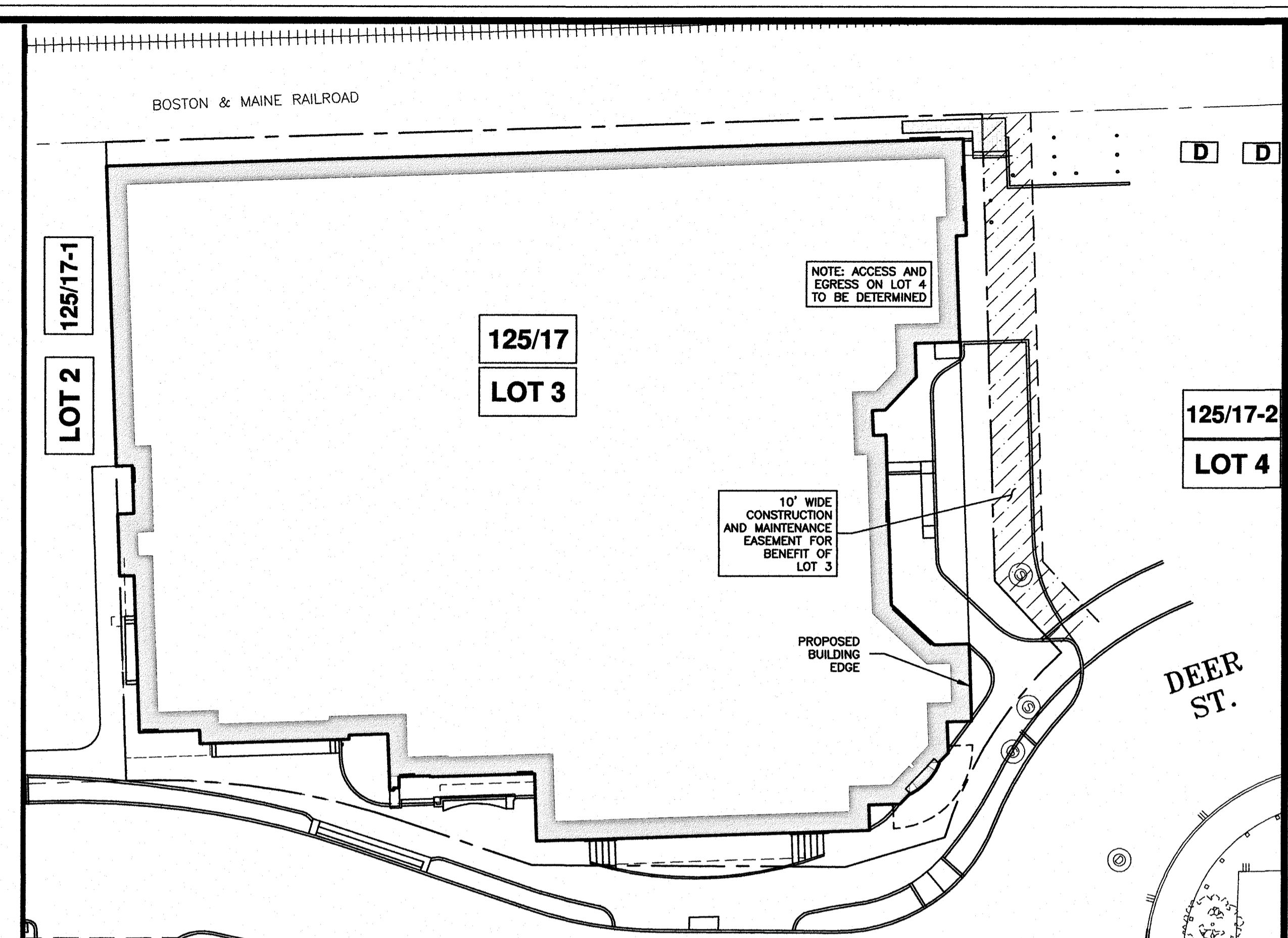
AMBIT ENGINEERING, INC.
 Civil Engineers & Land Surveyors
 200 Griffin Road - Unit 3
 Portsmouth, N.H. 03801-7114
 Tel (603) 430-9282
 Fax (603) 430-2315

NOTES:

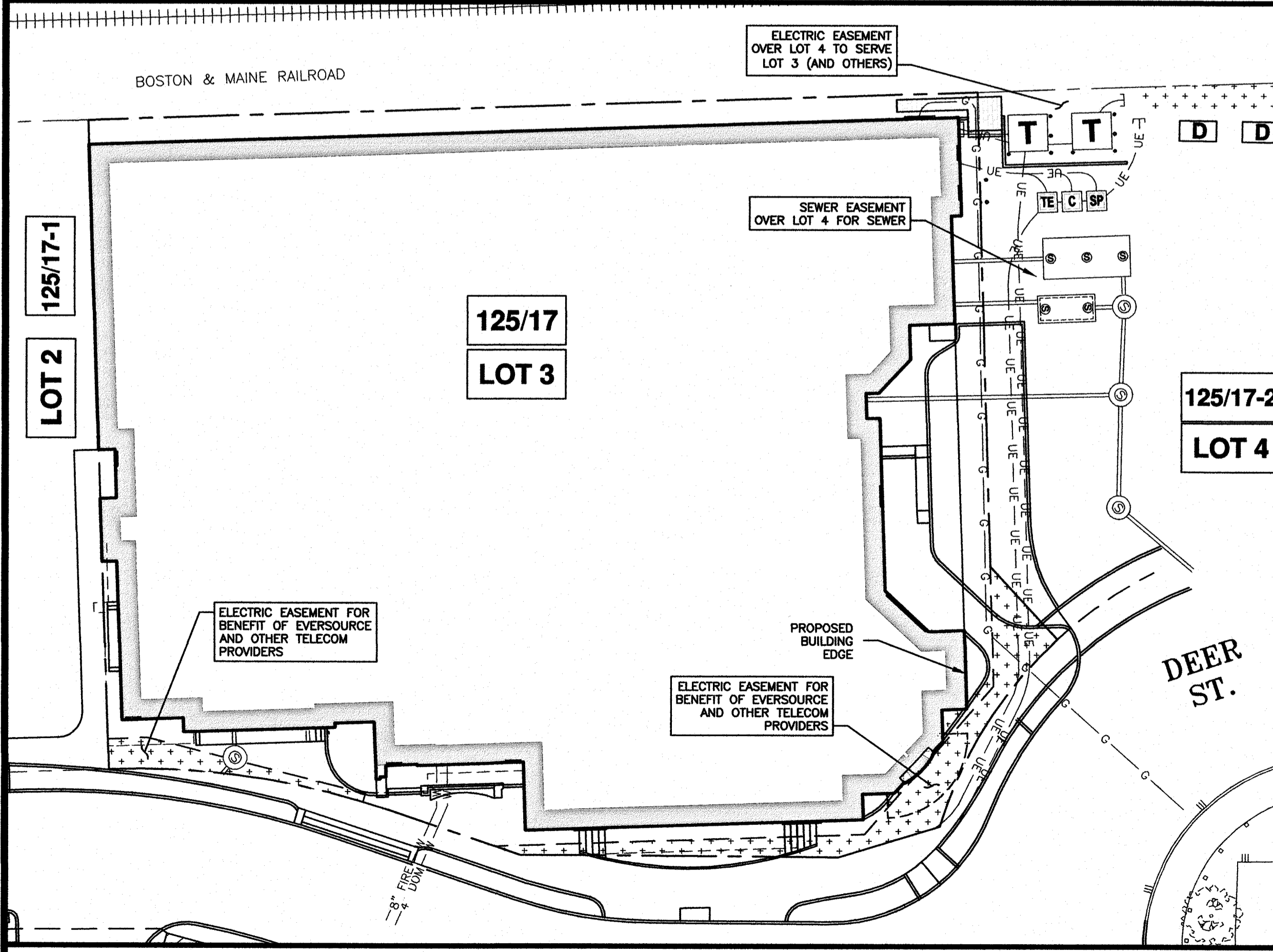
- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAPS AS MAP 125 LOT 17.
- 2) OWNER:
 DEER STREET ASSOCIATES
 PO BOX 100
 YORK HARBOR, ME 03911
 3395/2669, 5534/2077, & 5453/138
 D-39699
- 3) THE PURPOSE OF THIS PLAN IS TO SHOW PROPOSED EASEMENTS FOR REVIEW AND APPROVAL FOR TAX MAP 125-17 (SUBDIVISION LOT 3).



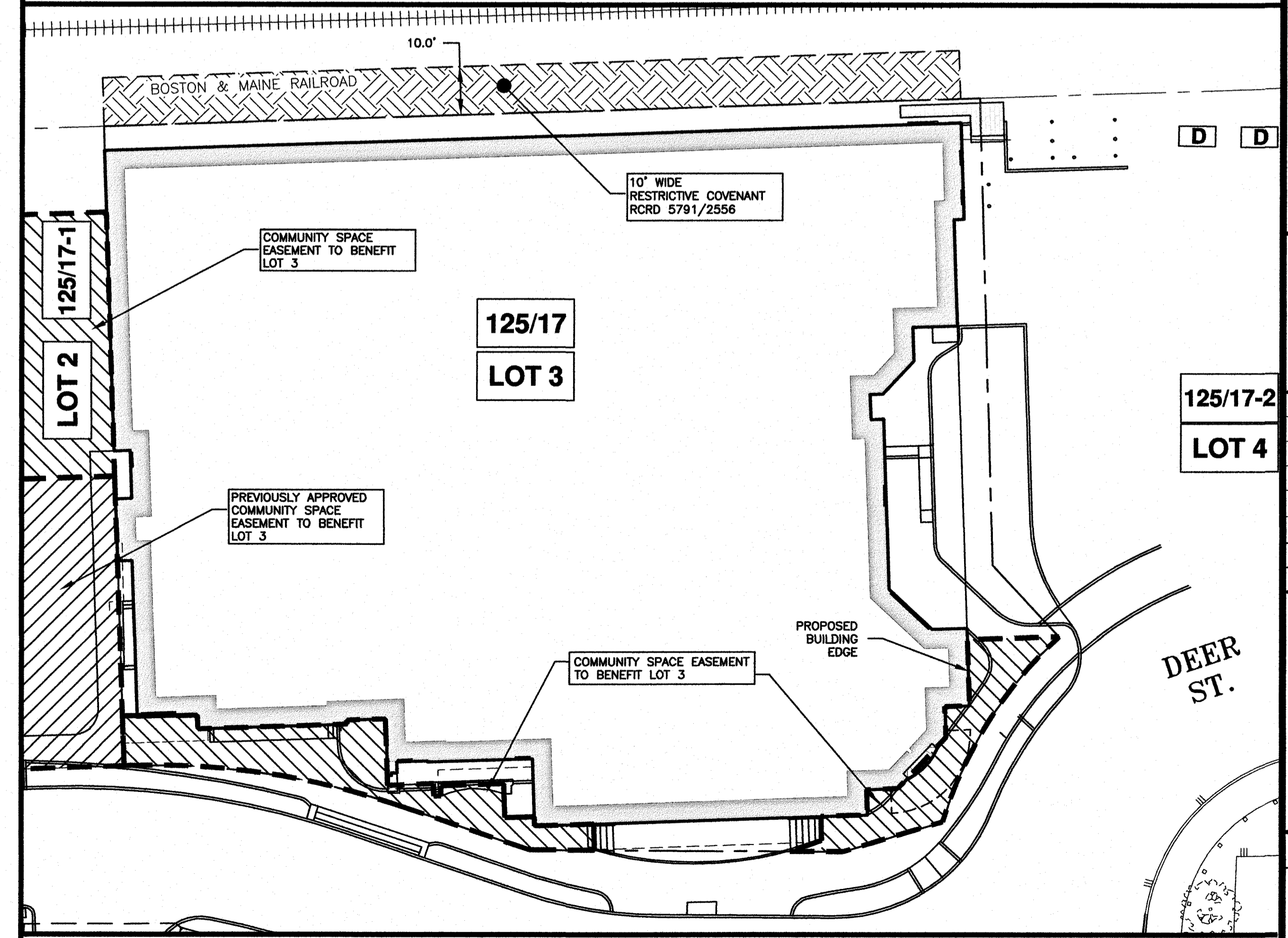
EASEMENTS TO THE CITY OF PORTSMOUTH



ACCESS, CONSTRUCTION AND MAINTENANCE EASEMENT



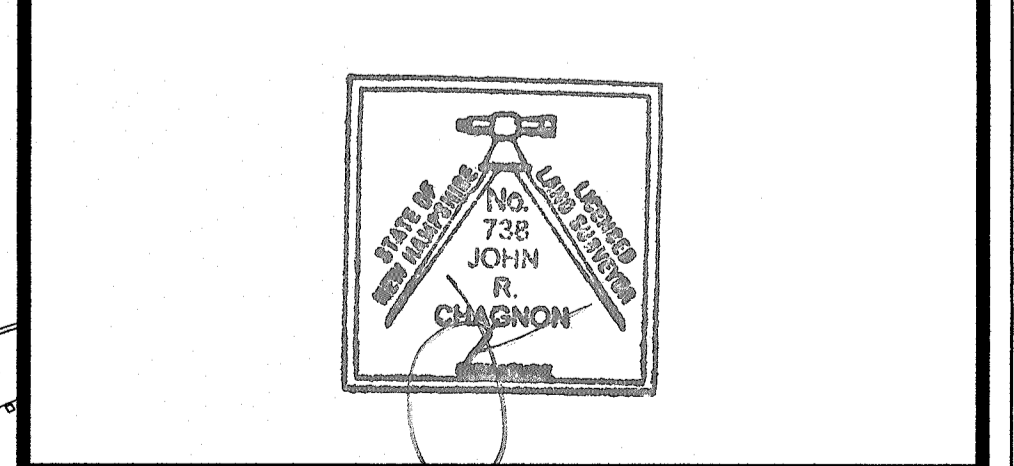
EASEMENT TO EVERSOURCE AND TELECOMM



COMMUNITY SPACE EASEMENTS AND BUILDING RIGHTS (BENEFIT)

**DEER STREET ASSOCIATES
 FOUNDRY PLACE
 PORTSMOUTH, NH**

NO.	DESCRIPTION	DATE
1	ISSUED FOR SUBMISSION	12/19/17
0	ISSUED FOR COMMENT	11/16/17



SCALE: 1"=20' NOVEMBER 2017

**EASEMENT PLAN
 TAX MAP 125 LOT 17
 SUBDIVISION LOT 3**

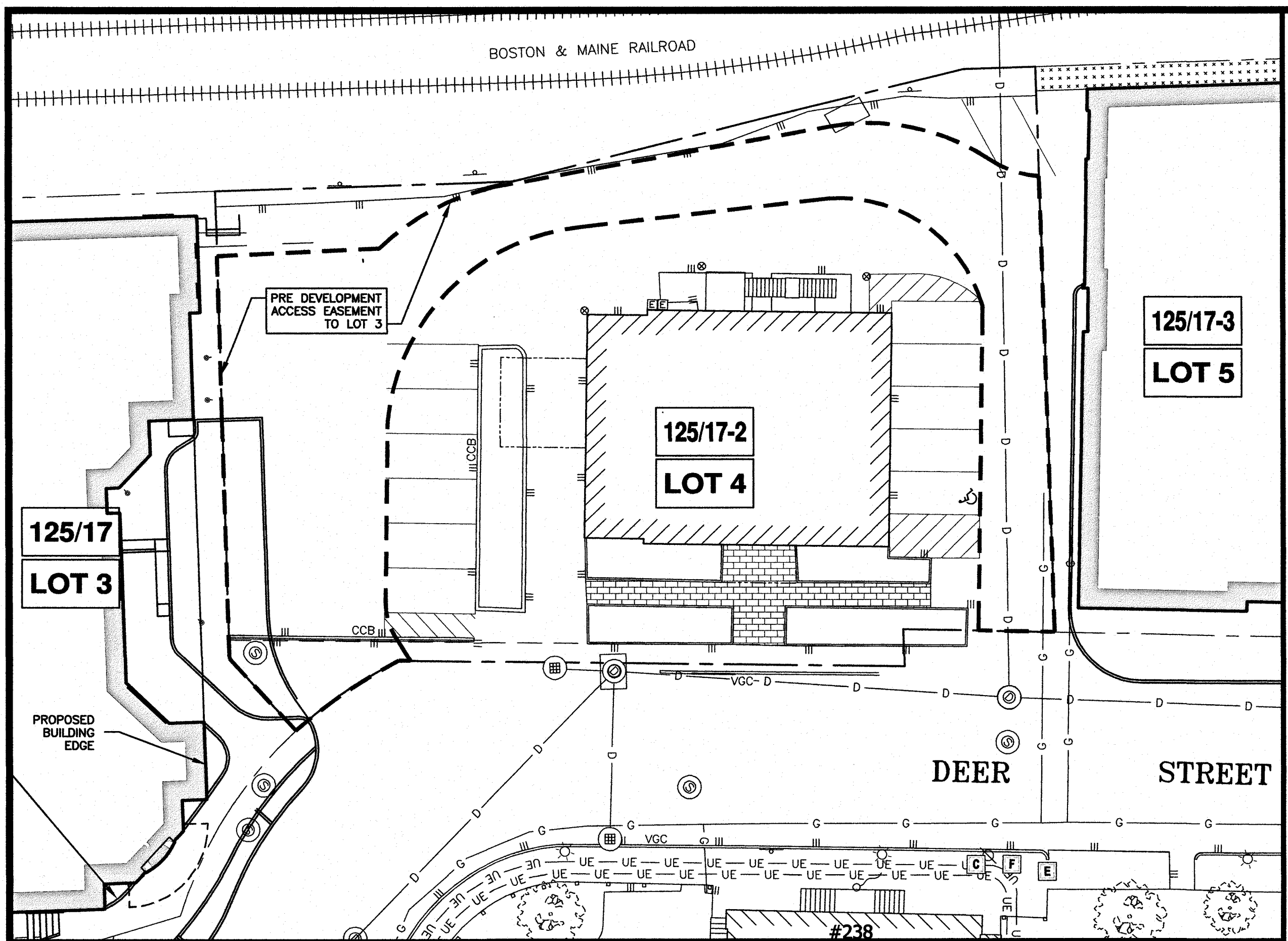
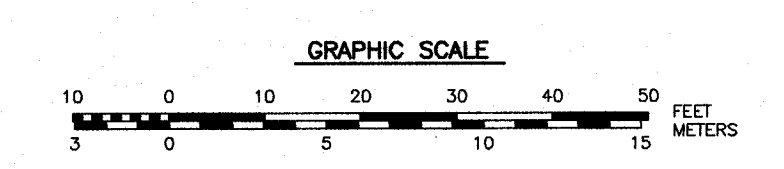
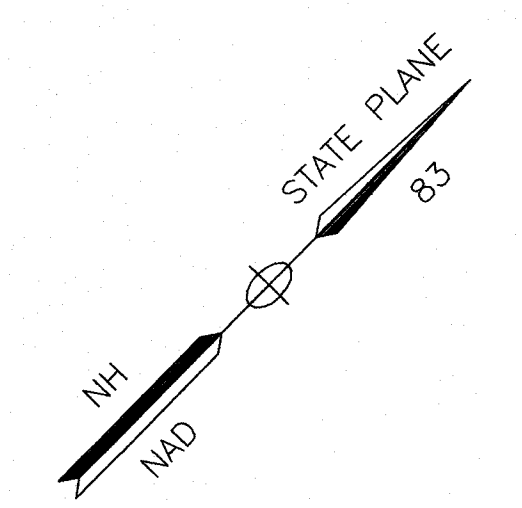
E2



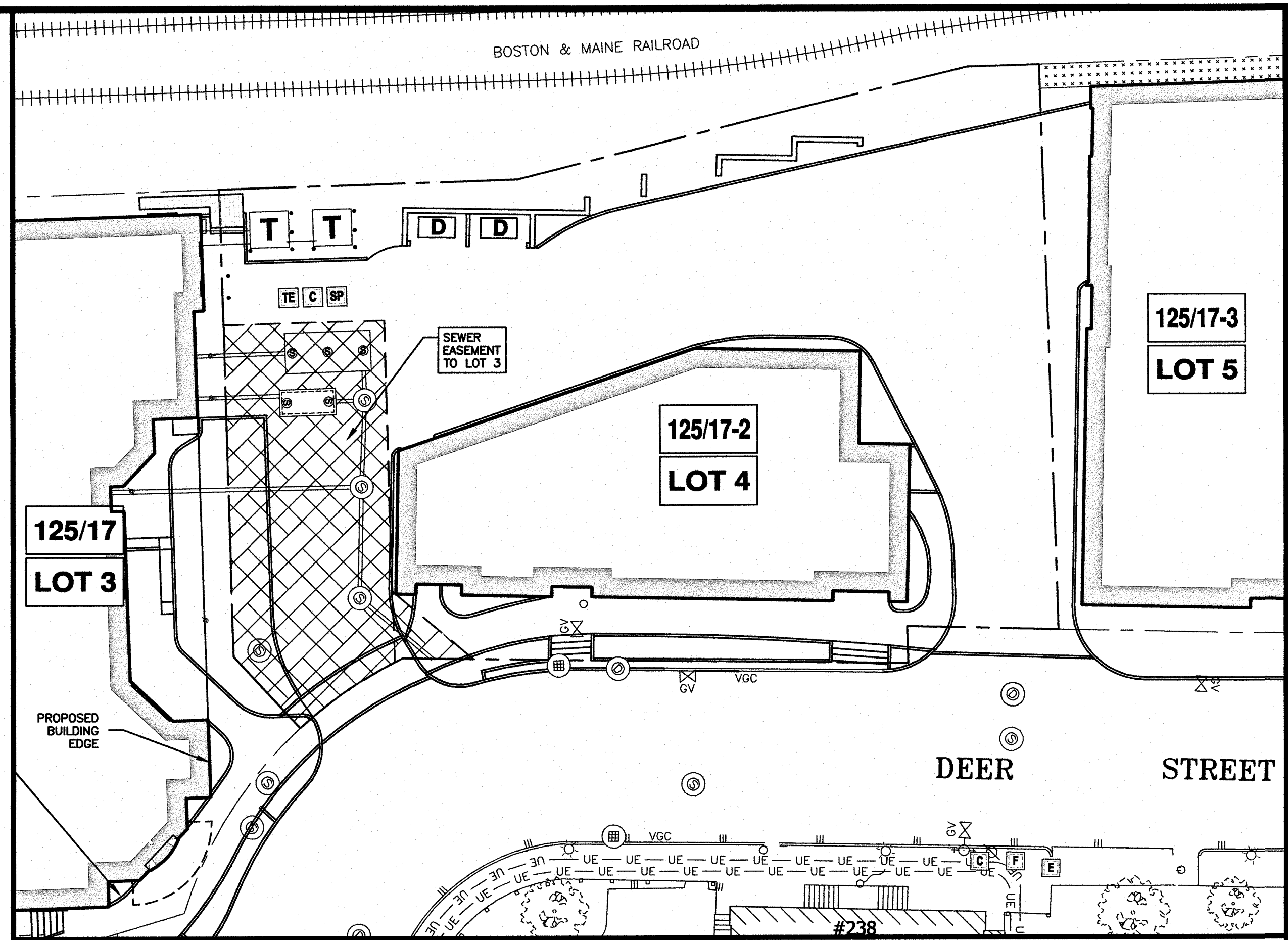
AMBIT ENGINEERING, INC.
 Civil Engineers & Land Surveyors
 200 Griffin Road - Unit 3
 Portsmouth, N.H. 03801-7114
 Tel (603) 430-9282
 Fax (603) 436-2515

NOTES:

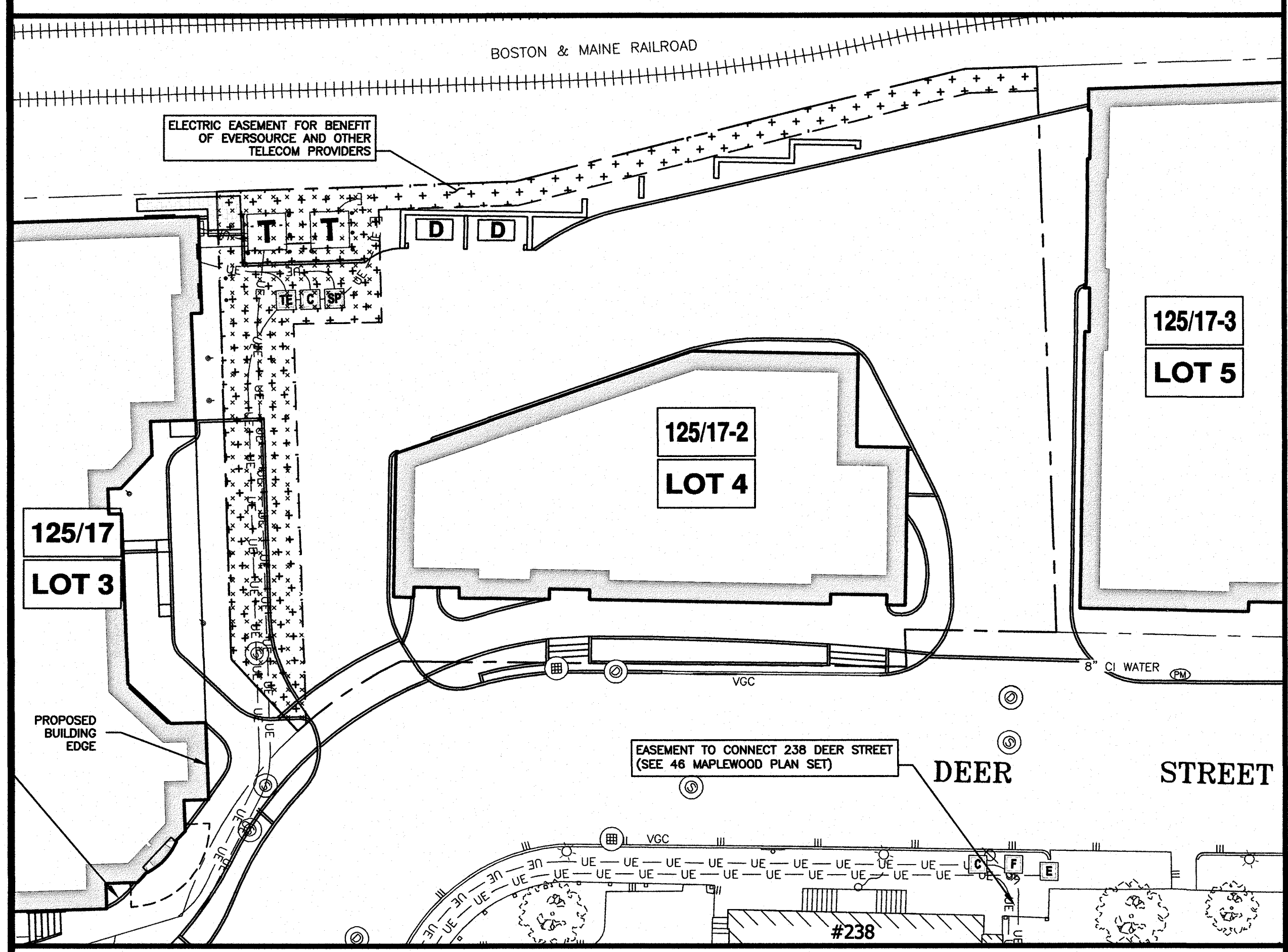
- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAPS AS MAP 125 LOT 17-2.
- 2) OWNER:
 DEER STREET ASSOCIATES
 PO BOX 100
 YORK HARBOR, ME 03911
 3395/2669, 5534/2077, & 5453/138
 D-39699
- 3) THE PURPOSE OF THIS PLAN IS TO SHOW PROPOSED EASEMENTS FOR REVIEW AND APPROVAL FOR TAX MAP 125-17-2 (SUBDIVISION LOT 4).



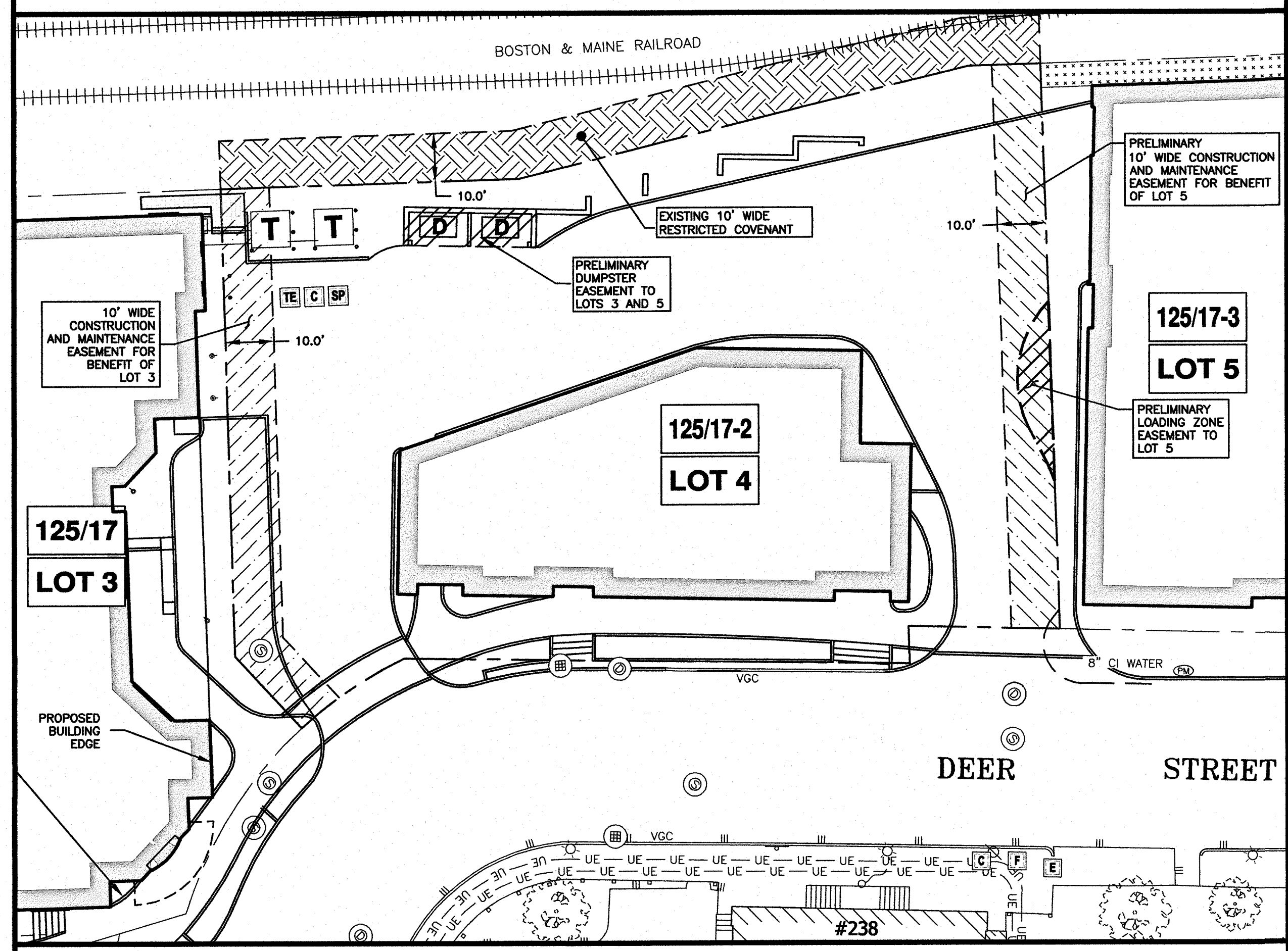
PRE DEVELOPMENT ACCESS EASEMENT TO LOT 3



SEWER EASEMENT TO LOT 3 AND LOT 5



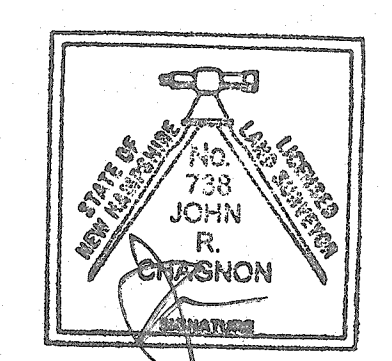
EASEMENT TO EVERSOURCE AND TELECOMM



CONSTRUCTION EASEMENTS

**DEER STREET ASSOCIATES
 FOUNDRY PLACE
 PORTSMOUTH, NH**

NO.	DESCRIPTION	DATE
2	REMOVE SIDEWALK EASEMENT	1/11/18
1	REVISED FOR LOT 3 SUBMISSION	12/19/17
0	ISSUED FOR COMMENT	5/26/17



SCALE: 1"=20' MAY 2017

**EASEMENT PLAN
 TAX MAP 125 LOT 17-2
 SUBDIVISION LOT 4**

E3

- (1) METER FOR HOTEL
- (1) METER FOR ROOFTOP RESTAURANT
- (1) METER FOR HOUSE LOADS
- (1) METER FOR 1ST FLOOR BISTRO
- (1) METER FOR PV SYSTEM

NOTE: THE ELECTRICAL CONTRACTOR SHALL PROVIDE AN EMERGENCY RESPONDER RAPID REPEATER SYSTEM FOR THE BUILDING IN ACCORDANCE WITH THE REQUIREMENTS OF 2009 INTERNATIONAL BUILDING CODE, SECTION 915 IF DEEMED NECESSARY BY THE PORTSMOUTH FIRE DEPARTMENT.

NATURAL GAS FIRED ROOFTOP STANDBY/EMERGENCY GENERATOR

GEN

NEW PAD MOUNTED EVERSOURCE TRANSFORMER FOR BUILDING 3

NEW PAD MOUNTED EVERSOURCE TRANSFORMER FOR BUILDING 4

STUB FOR FUTURE USE FOR BUILDING 5

EXISTING BUILDING 4 ELEC-METER

CONNECT EXISTING BUILDING 4 POWER TO BUILDING 3 TRANSFORMER

BUILDING #3

BUILDING #

NEW 60A 120/208V 1Ø 3W SERVICE FOR EXISTING TRAFFIC CONTROLLER POWER CONNECTION

COUPLE TO PRIMARY, CATV, AND VOICE UNDERGROUND PROVIDED BY OTHERS UNDER A SEPARATE CONTRACT

NEW CONDUIT FOR FUTURE CITY STREET LIGHTING. CUT IN AND SWEEP TO NEW BASES BY OTHERS



ARCHITECTS
INTERIORS
PLANNERS

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LANDSCAPE ARCHITECT
PORTSMOUTH, NEW HAMPSHIRE

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPFP ENGINEER
WOBURN, MASSACHUSETTS

ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5
PORTSMOUTH, NH 03801

OWNER:

Deer Street Associates



Scale: 1"=10'
Date: 3/17/2017
Project Number: 14837.03

REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	6/15/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017

2/06/2018

SITE PLAN REVIEW

BUILDING #3
ELECTRICAL &
COMMUNICATIONS
PLAN

SE1.1

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PLANNERS

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GEOTECH & CIVIL
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PORTSMOUTH, NEW HAMPSHIRE

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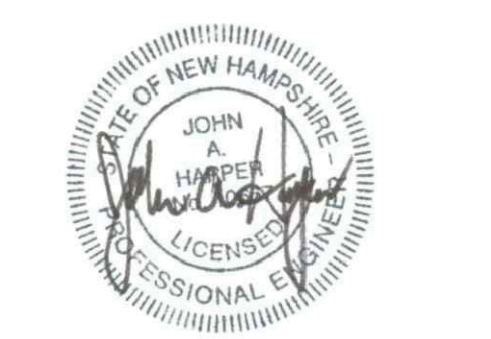
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ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

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"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17

PORTSMOUTH, NH 03801

OWNER:

Deer Street Associates



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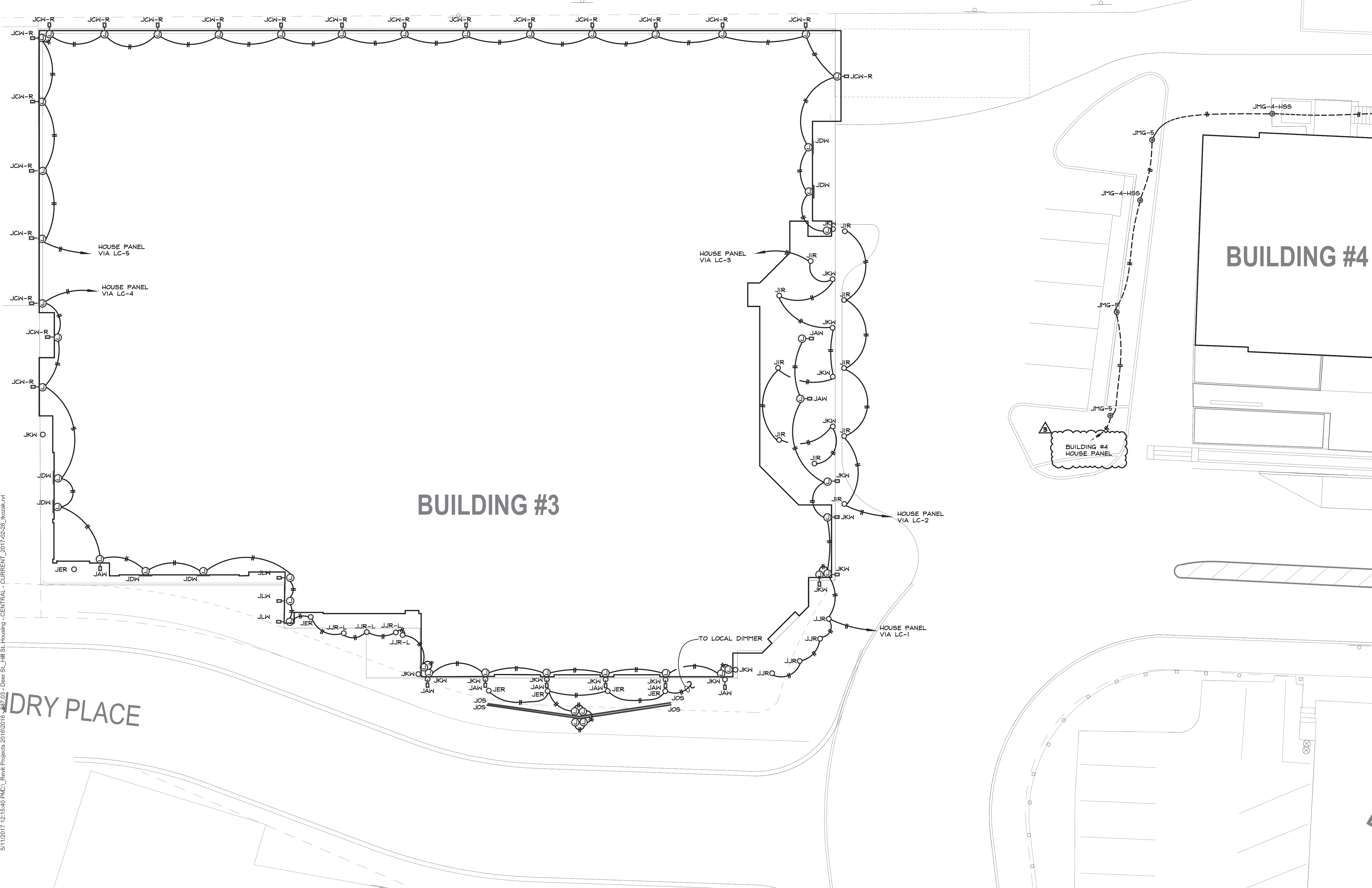
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1	TAC PUBLIC HEARING	6/15/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	1/18/2018

2/06/2018

SITE PLAN REVIEW

BUILDING #3
LIGHTING
PLAN

SE1.2

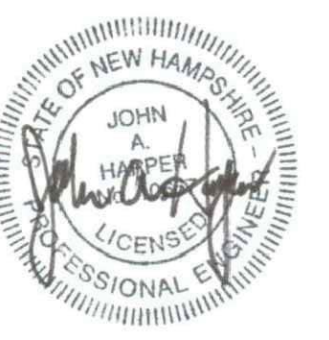


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PORTSMOUTH, NH 03801
OWNER:

Deer Street Associates



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Date: 3/17/2017
Project Number: 14837.03

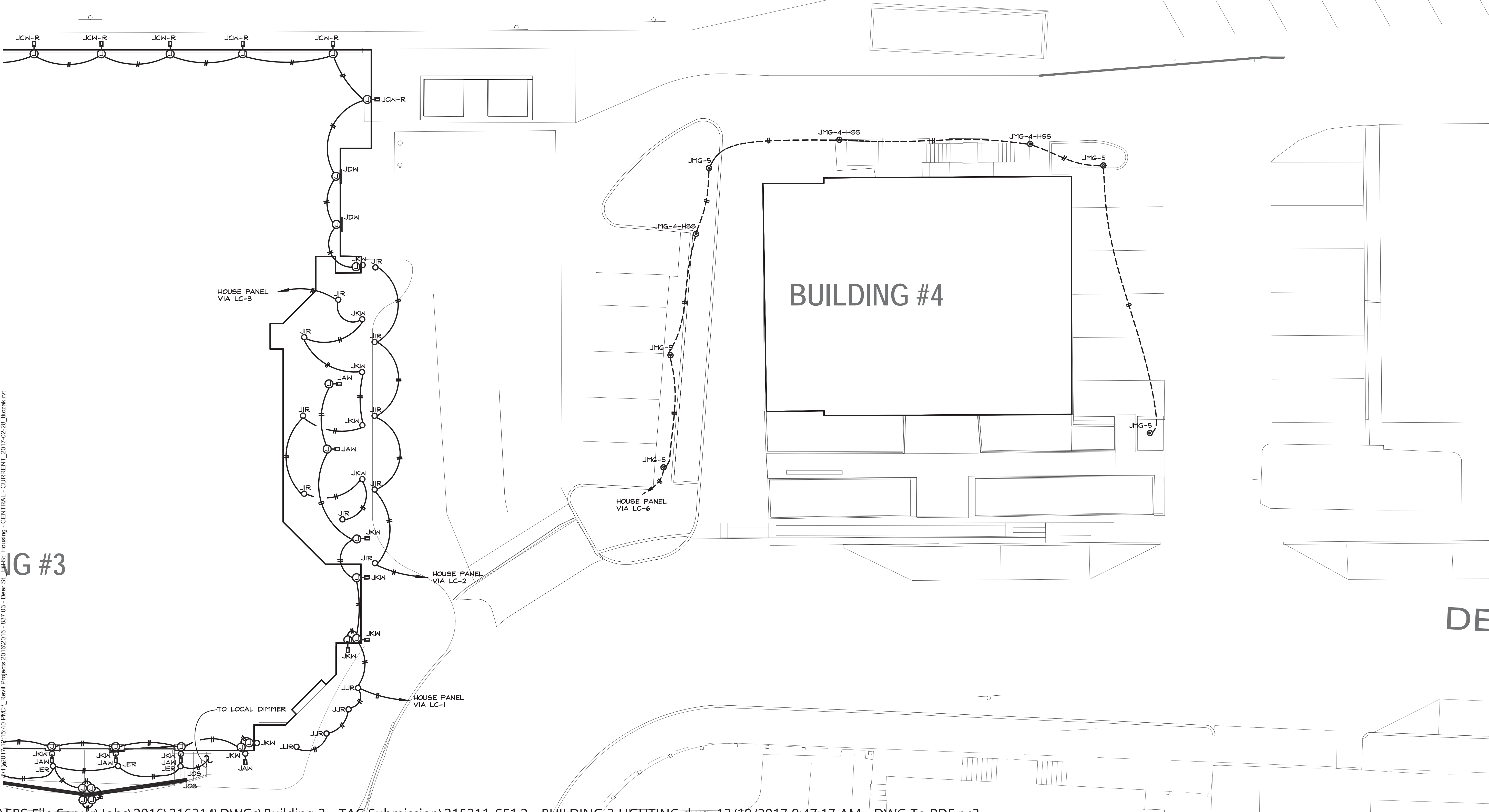
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NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	6/15/2017
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3	TAC PUBLIC HEARING	12/19/2017

2/06/2018

SITE PLAN REVIEW

**INTERIM LOT
4 LIGHTING
PLAN**

SE1.2b



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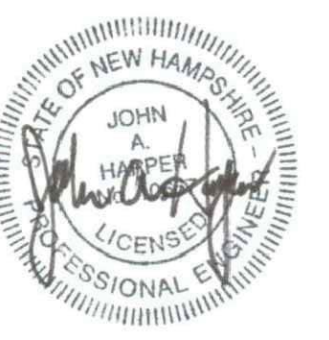
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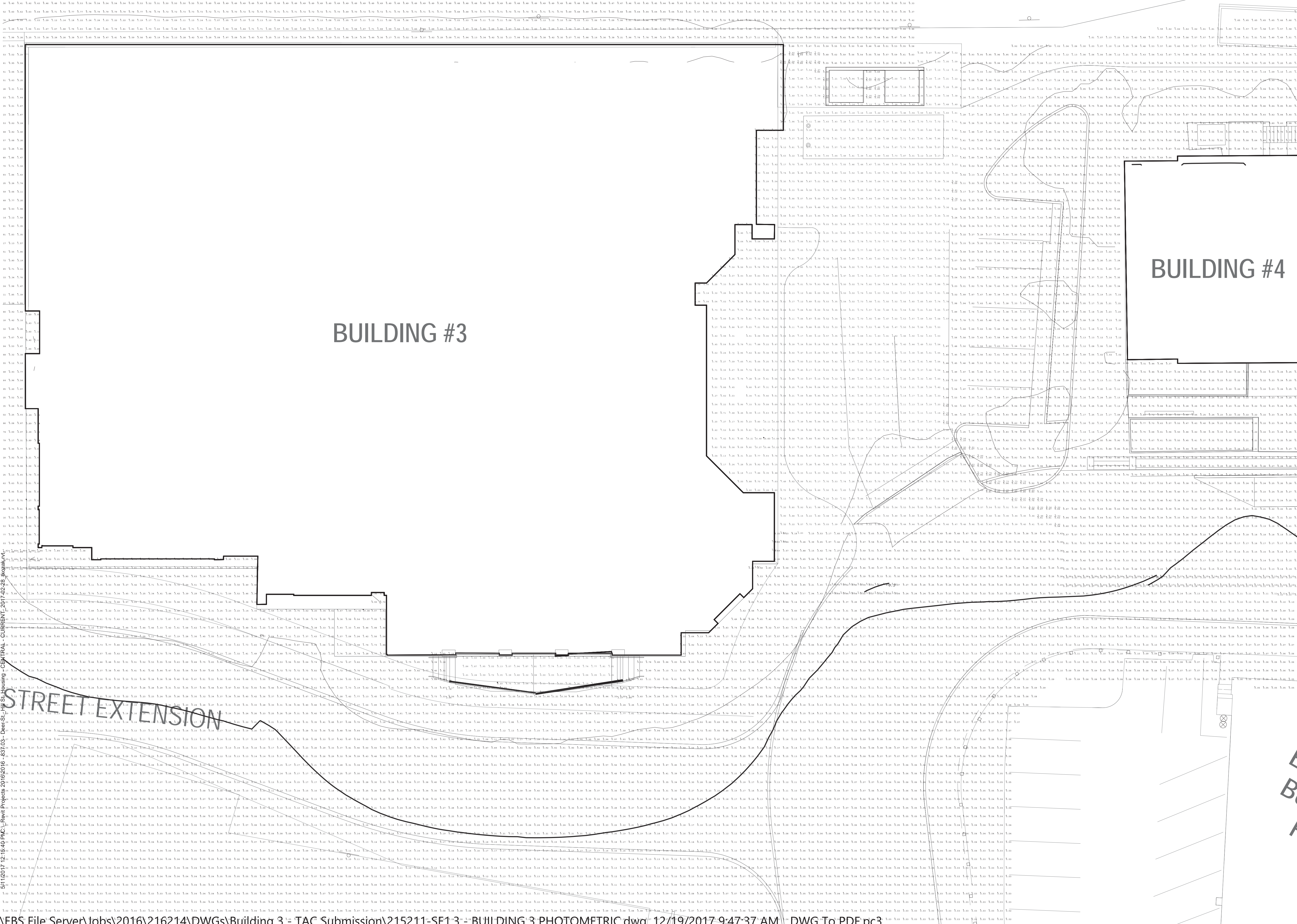
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SITE PLAN REVIEW

BUILDING #3
PHOTOMETRIC
PLAN

SE1.3a

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BUILDING #3

BUILDING #4

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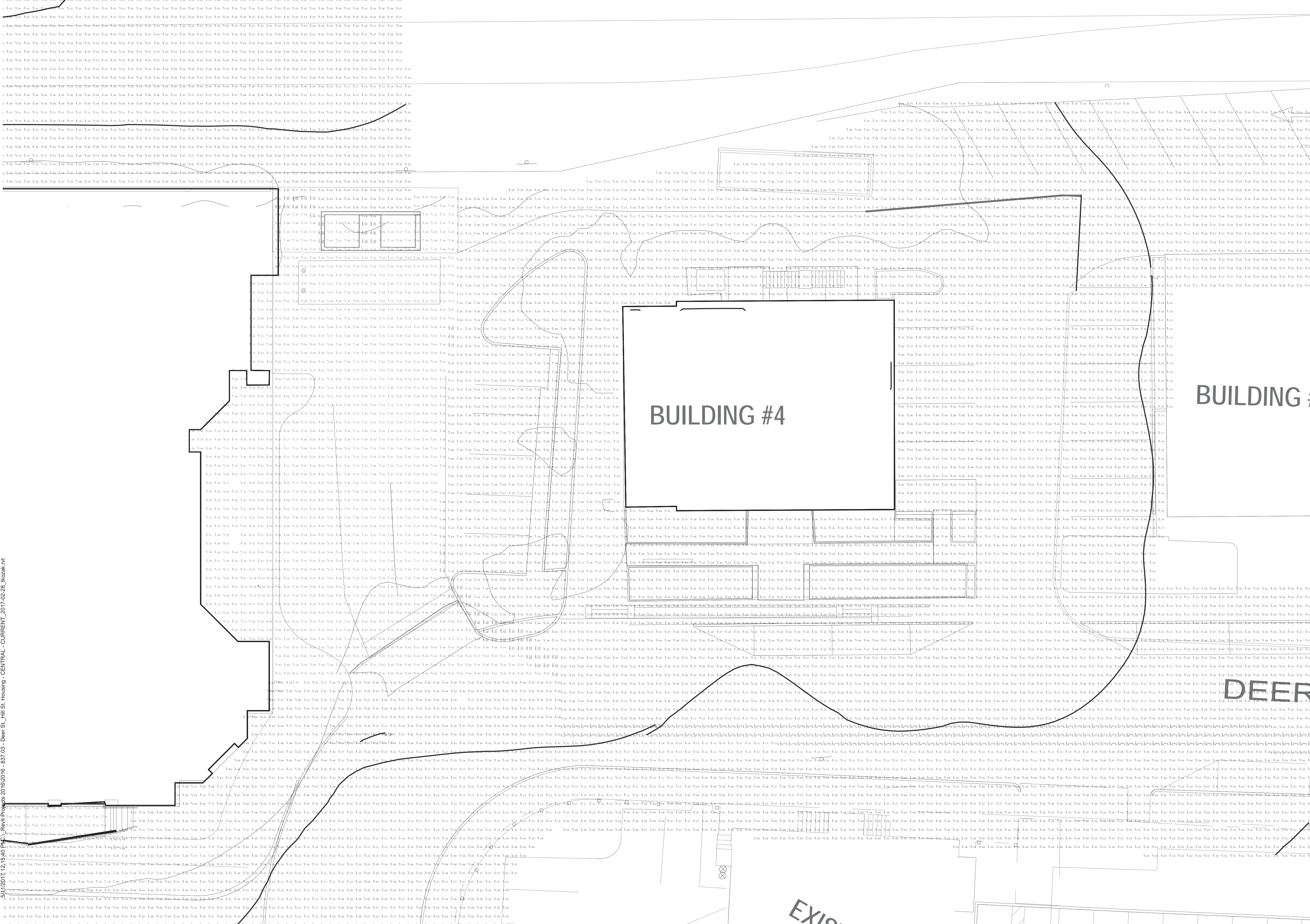
2/6/2018

SITE PLAN REVIEW

INTERIM LOT
4
PHOTOMETRIC
PLAN

SE1.3b

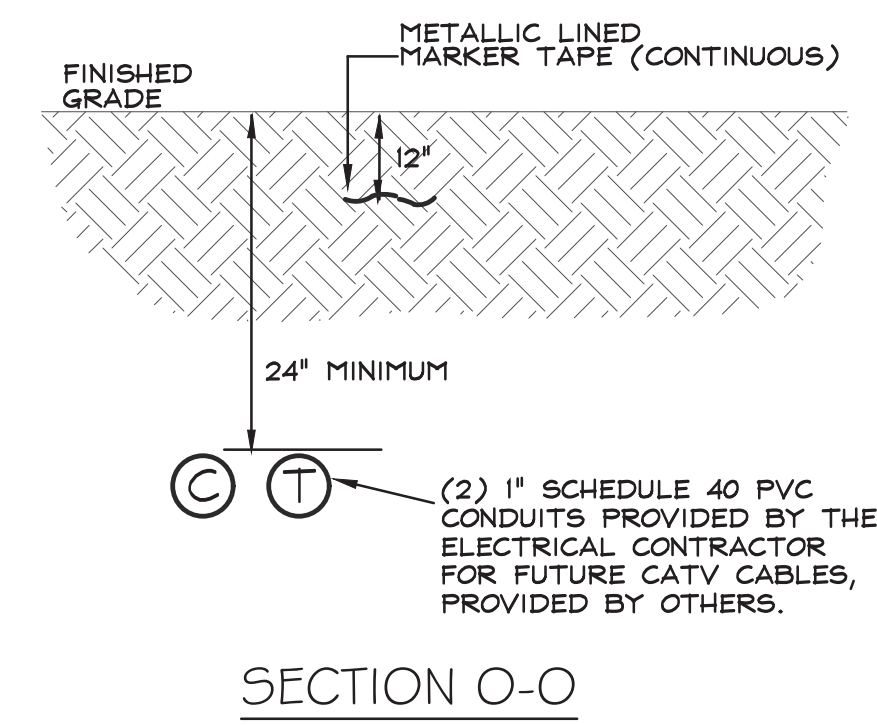
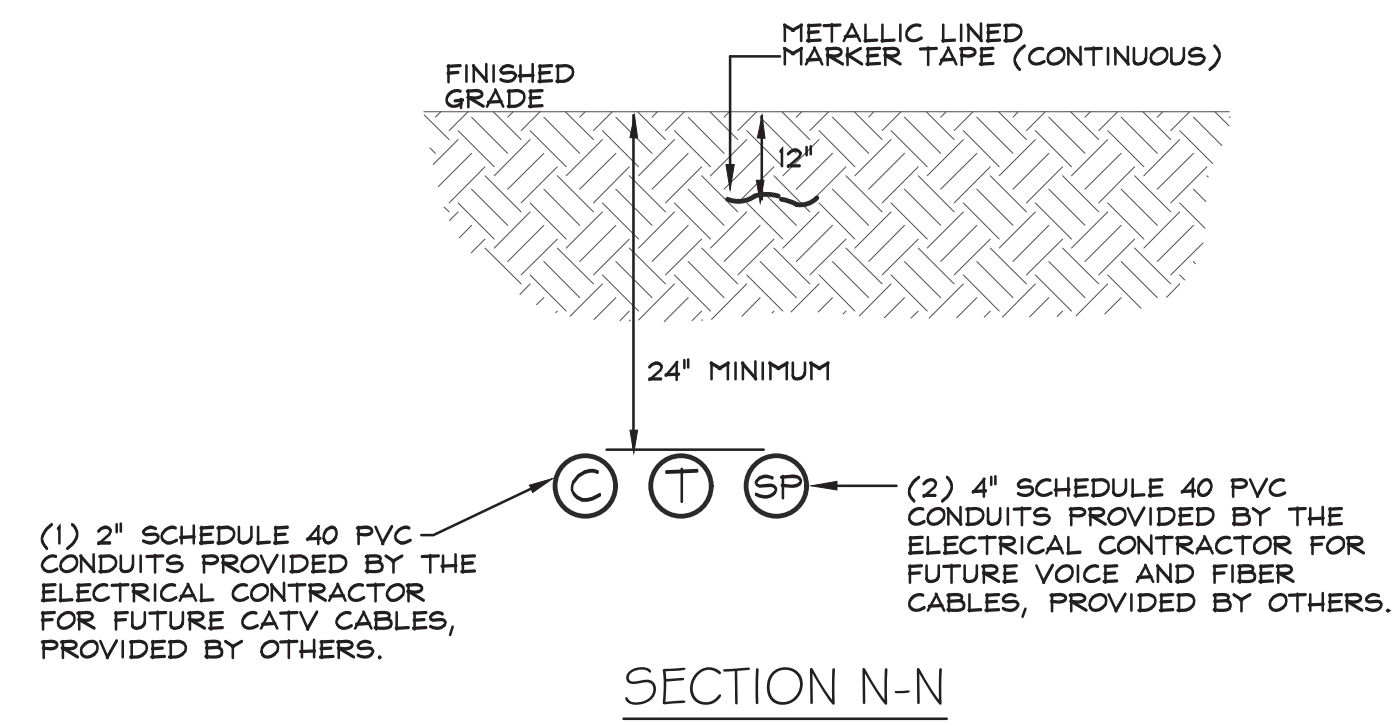
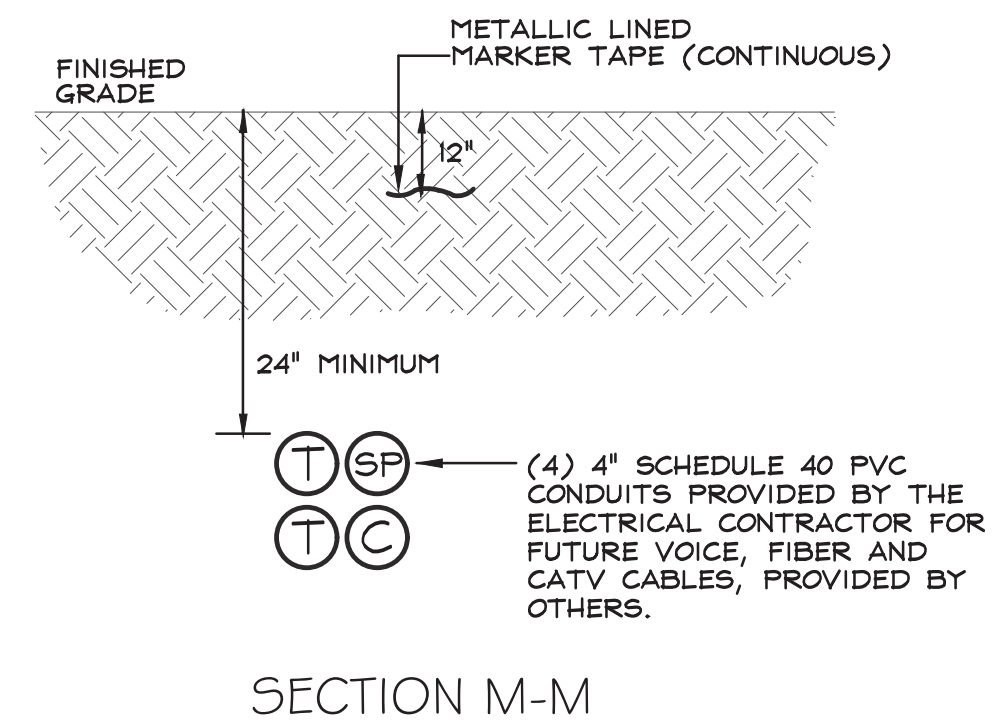
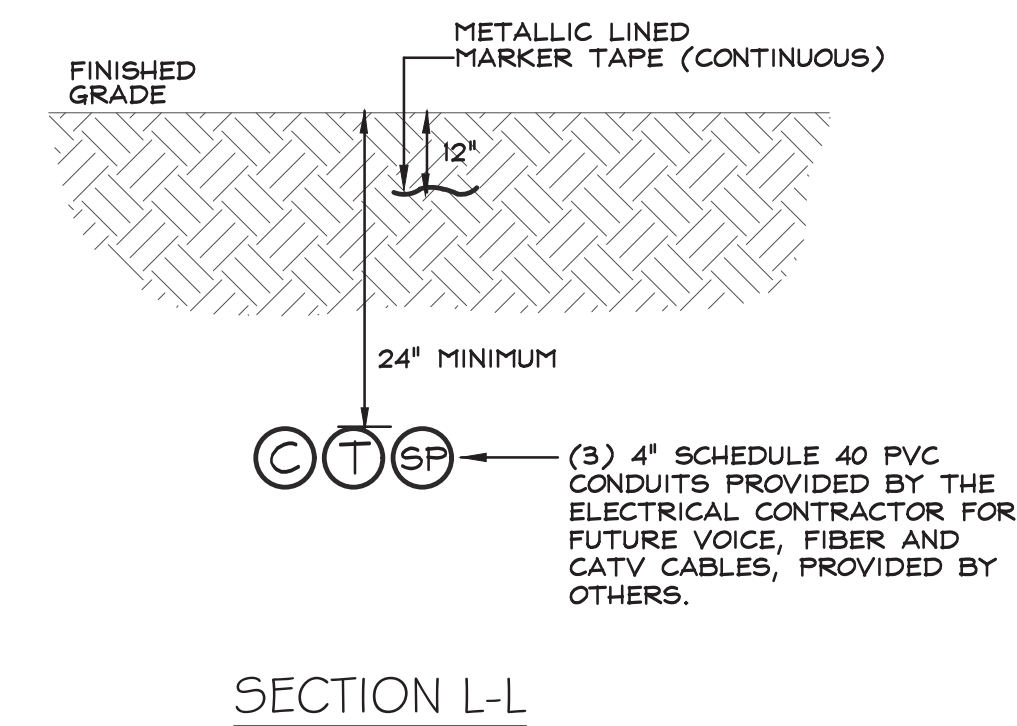
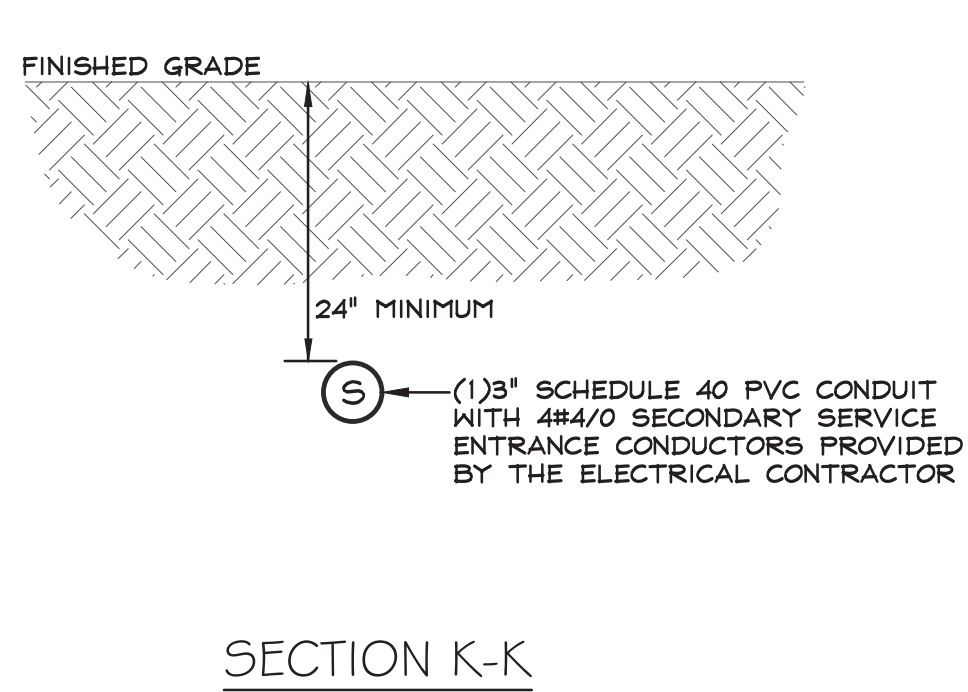
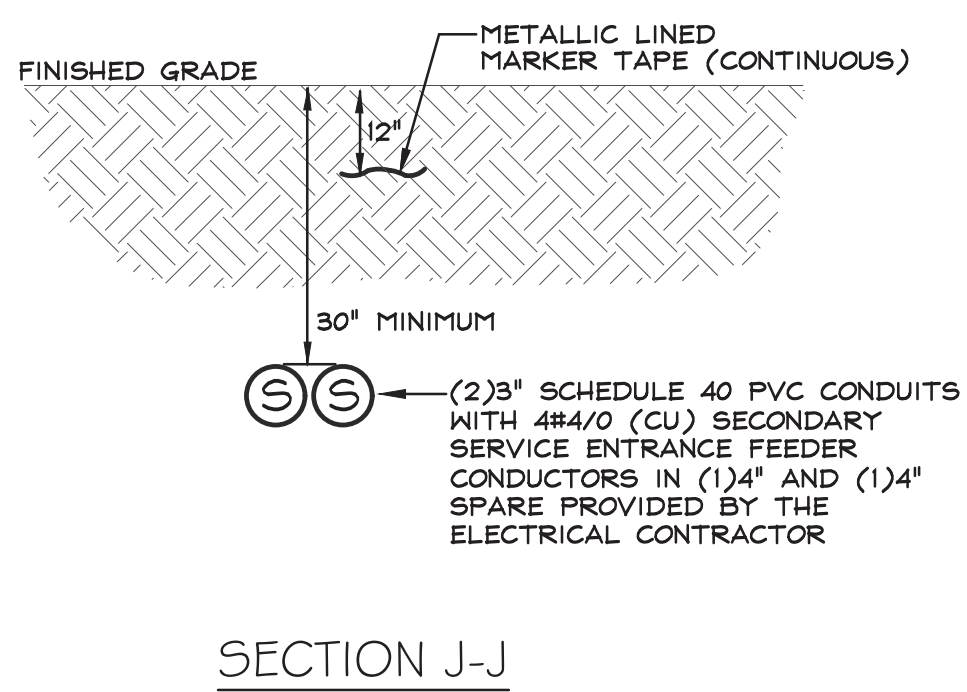
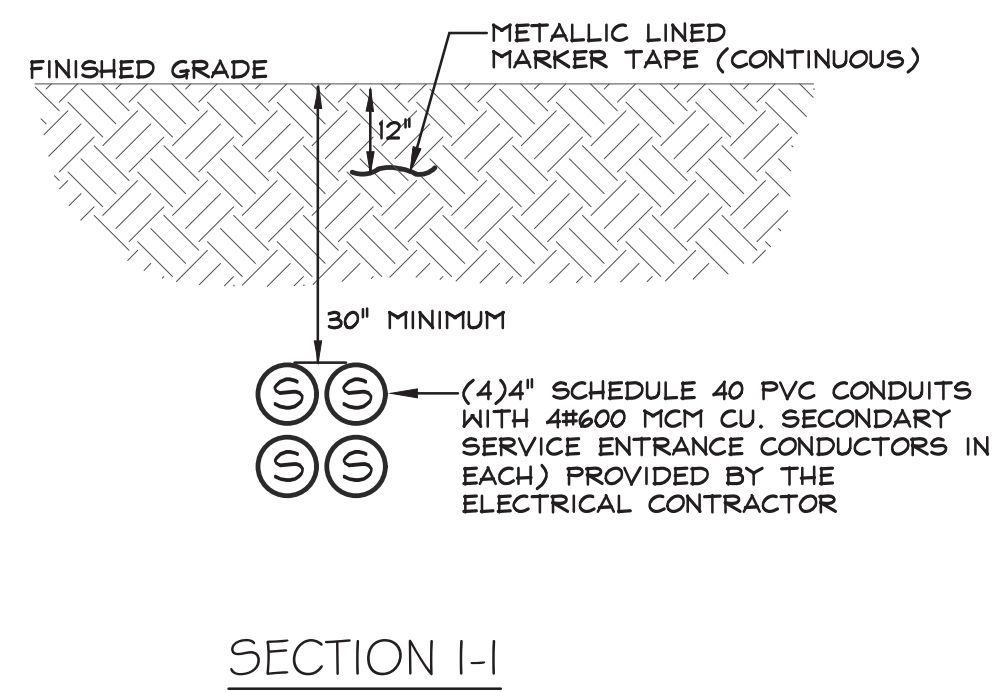
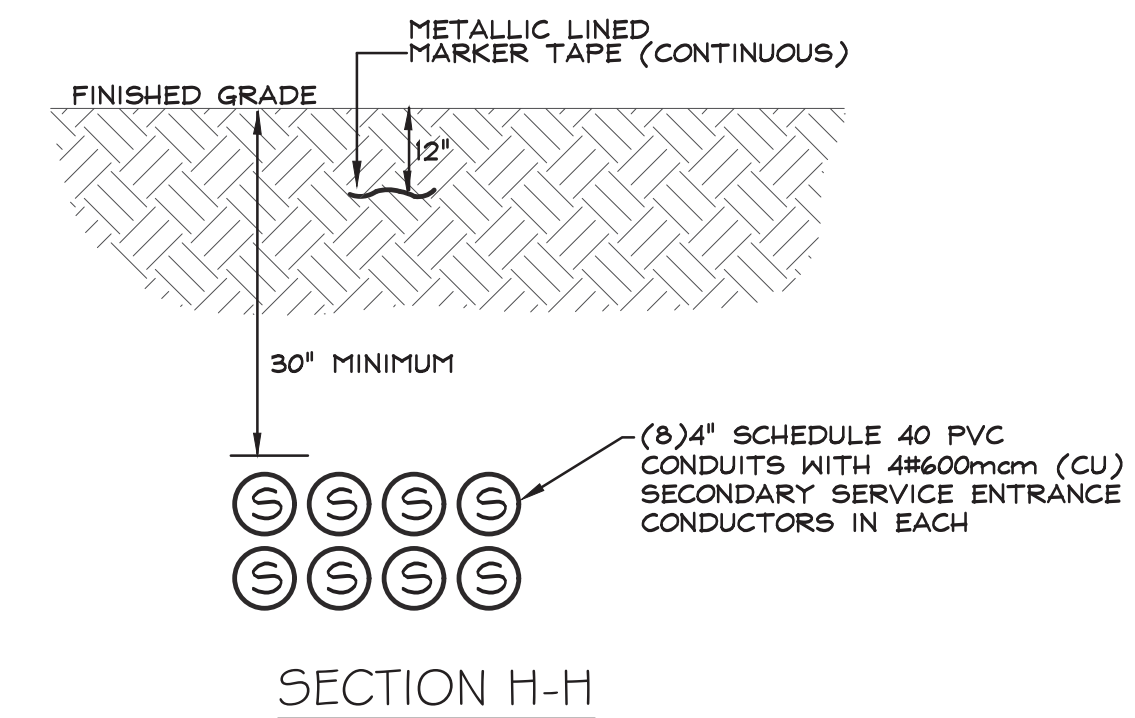
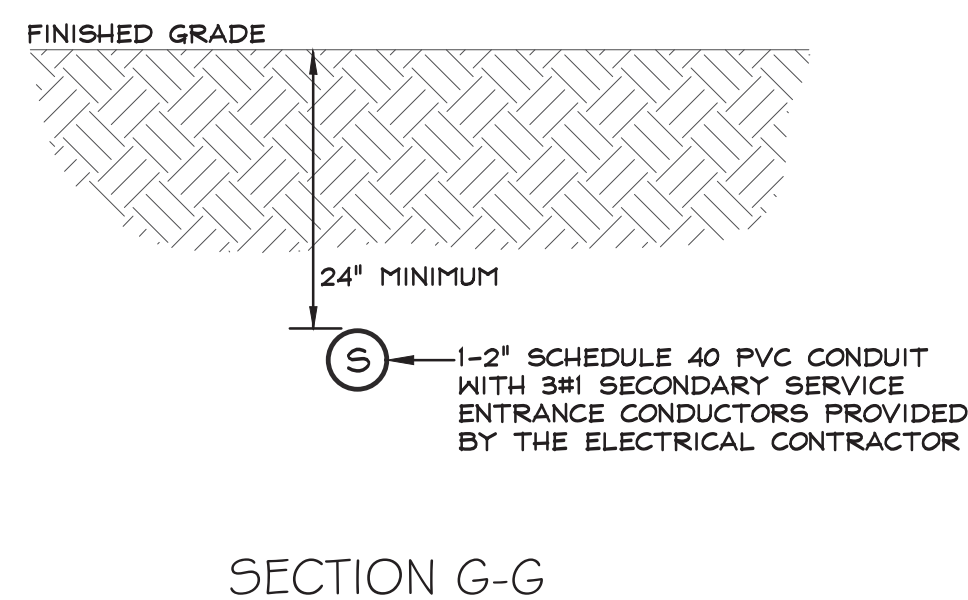
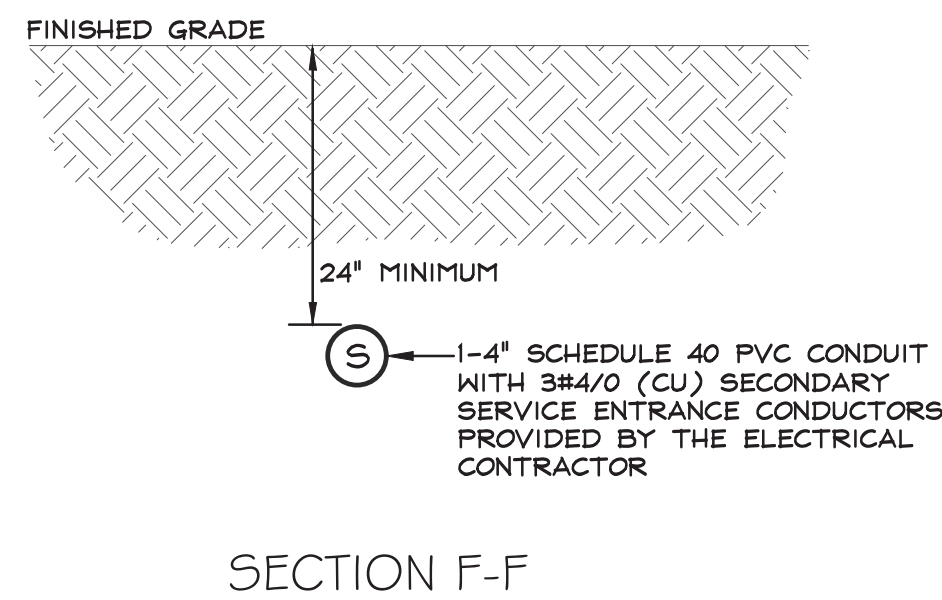
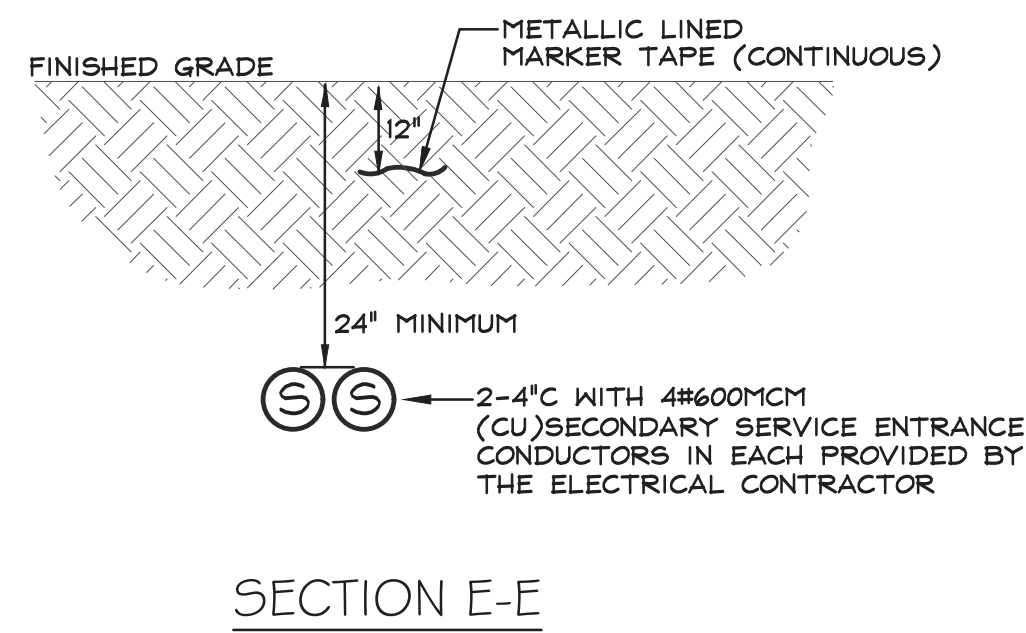
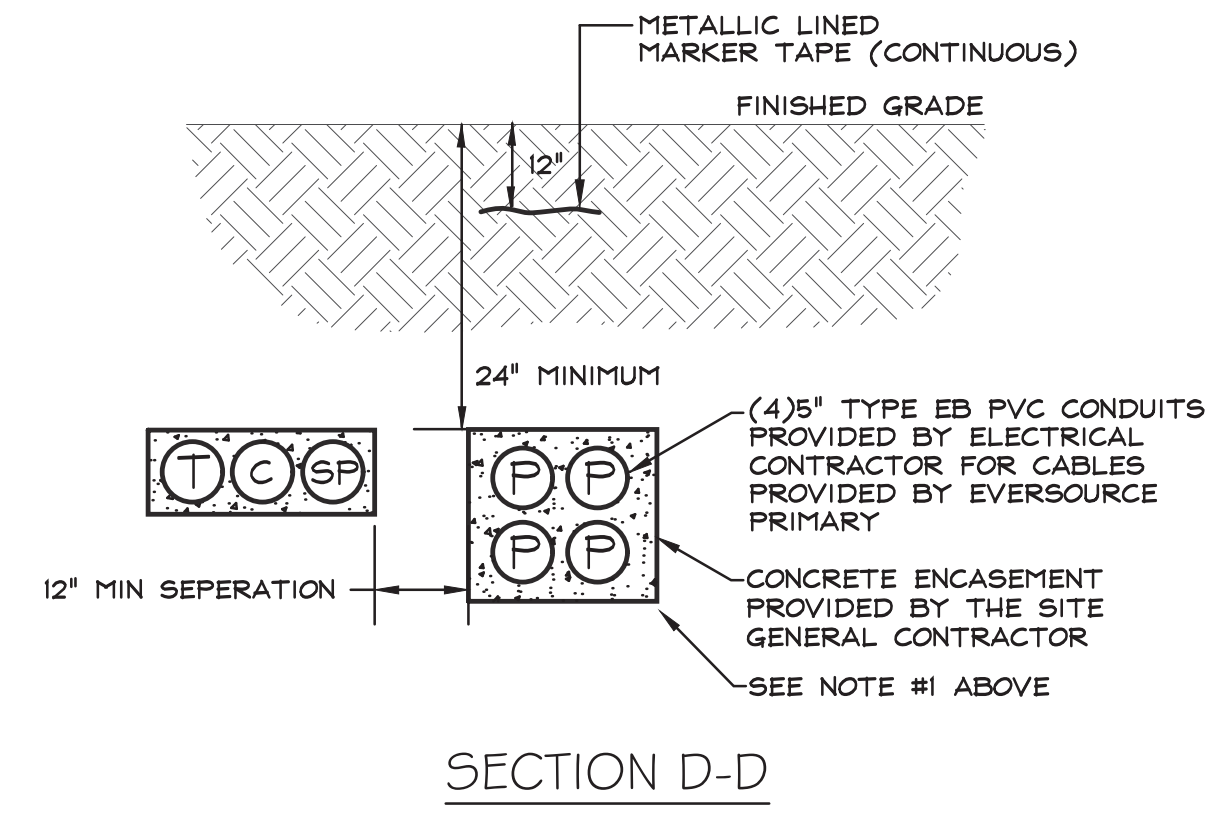
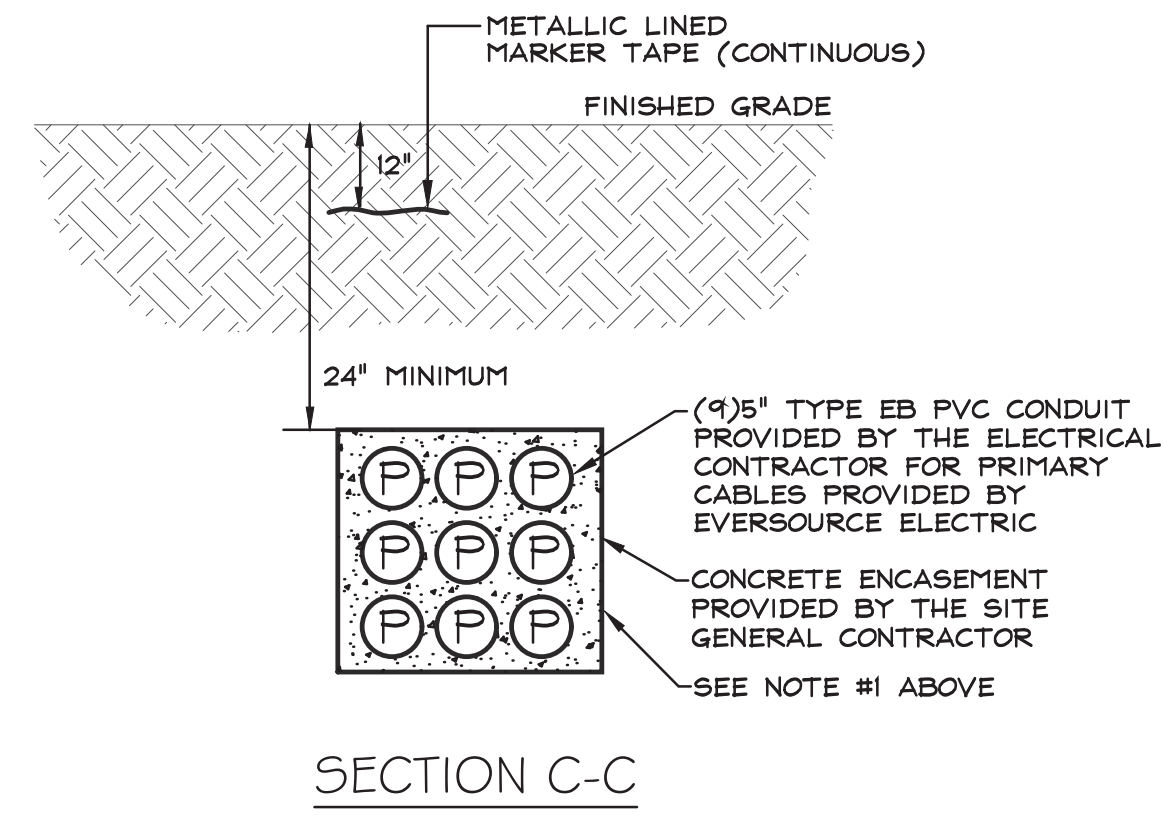
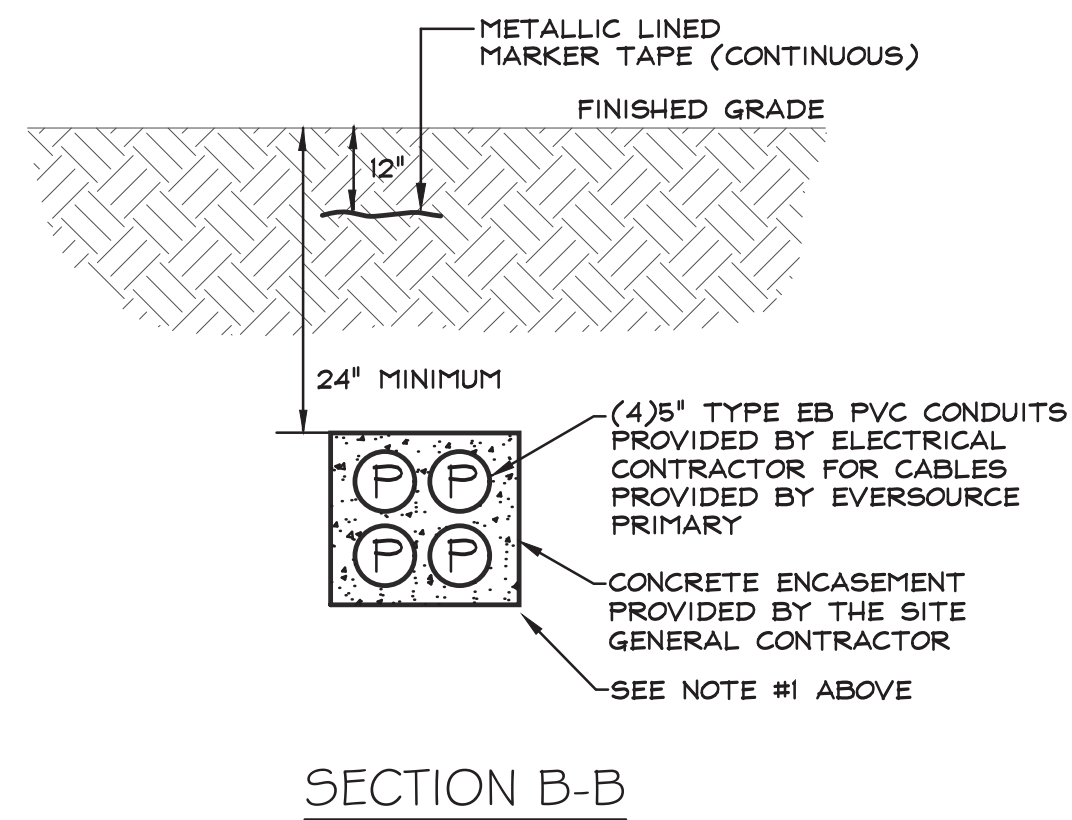
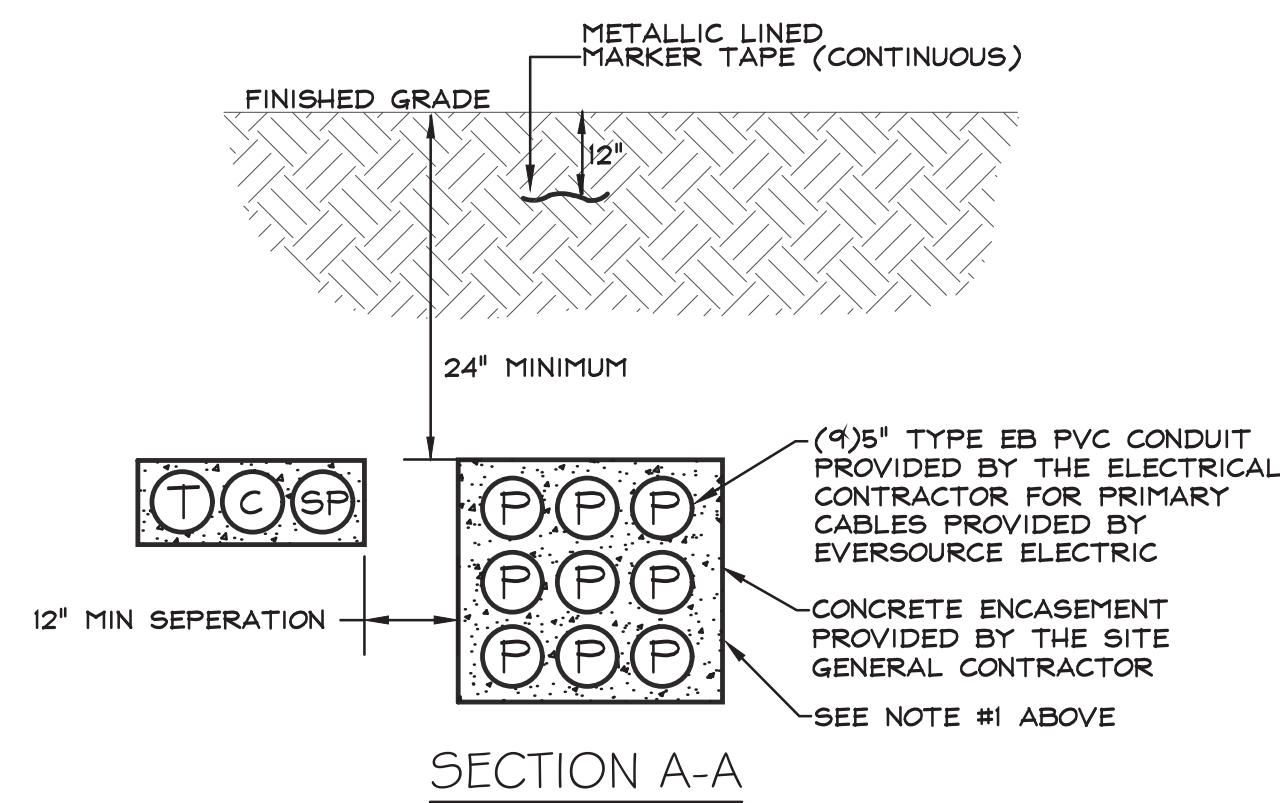
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UNDERGROUND CONDUIT BANK DETAILS

NOTES:
 1. CONCRETE ENCASUREMENT OF UNDERGROUND DUCT BANKS SHALL BE PROVIDED BY THE SITE OR GENERAL CONTRACTOR IN ACCORDANCE WITH LOCAL UTILITY COMPANY STANDARDS.
 2. ALL SCHEDULE 40 PVC RACEWAYS UTILIZED SHALL BE UL LISTED ELECTRICAL CONDUITS.
 3. ALL UNDERGROUND CONDUIT BANKS AND CABLING SHALL COMPLY WITH EVERSOURCE, FAIRPOINT, COMCAST AND BAYRING RULES, REGULATIONS AND DESIGN STANDARDS.



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2/06/2018

SITE PLAN REVIEW

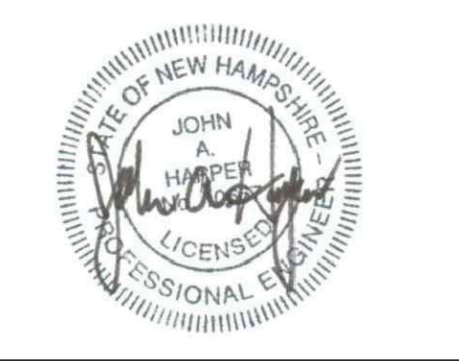
SITE ELECTRICAL DETAILS

SE2.1

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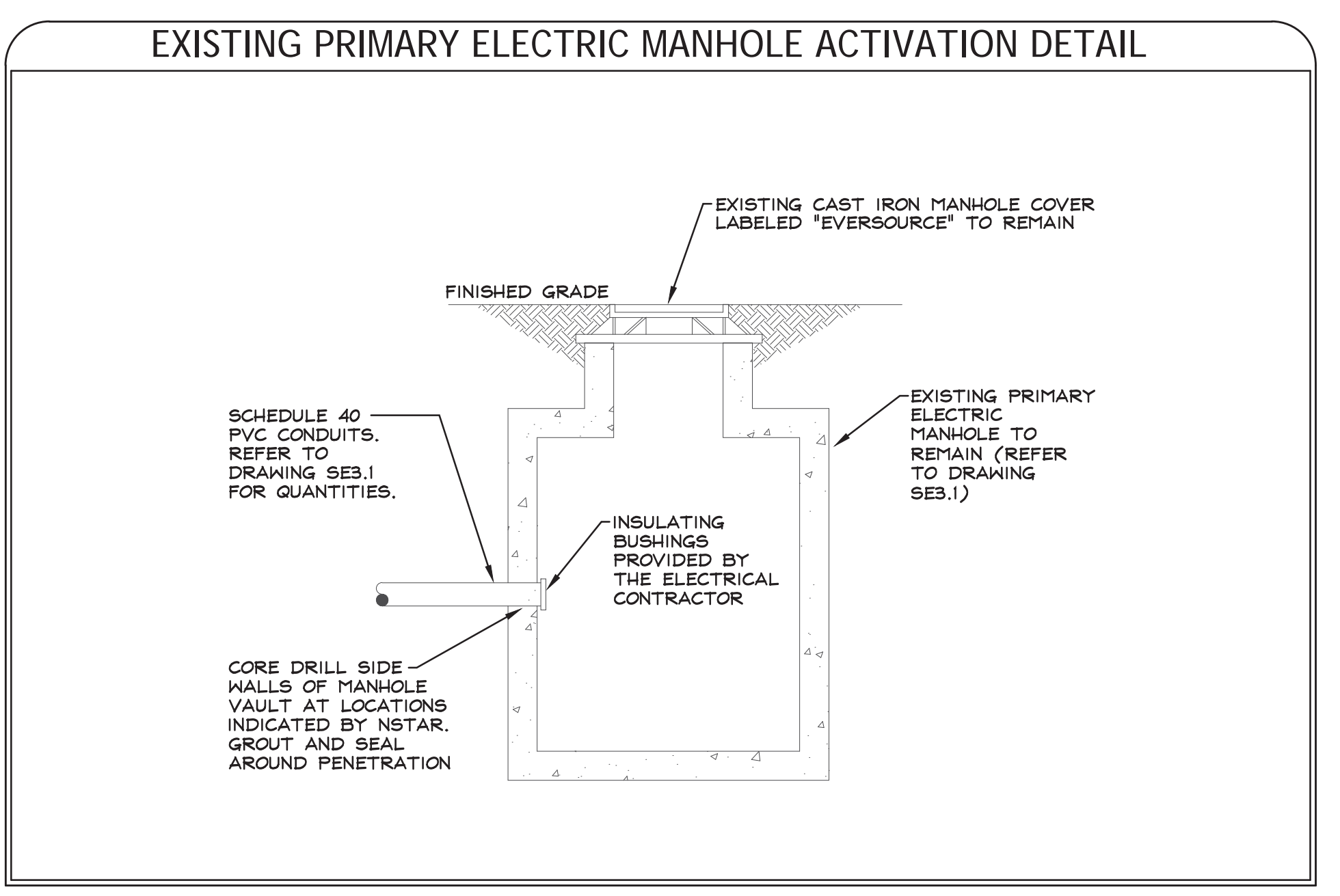
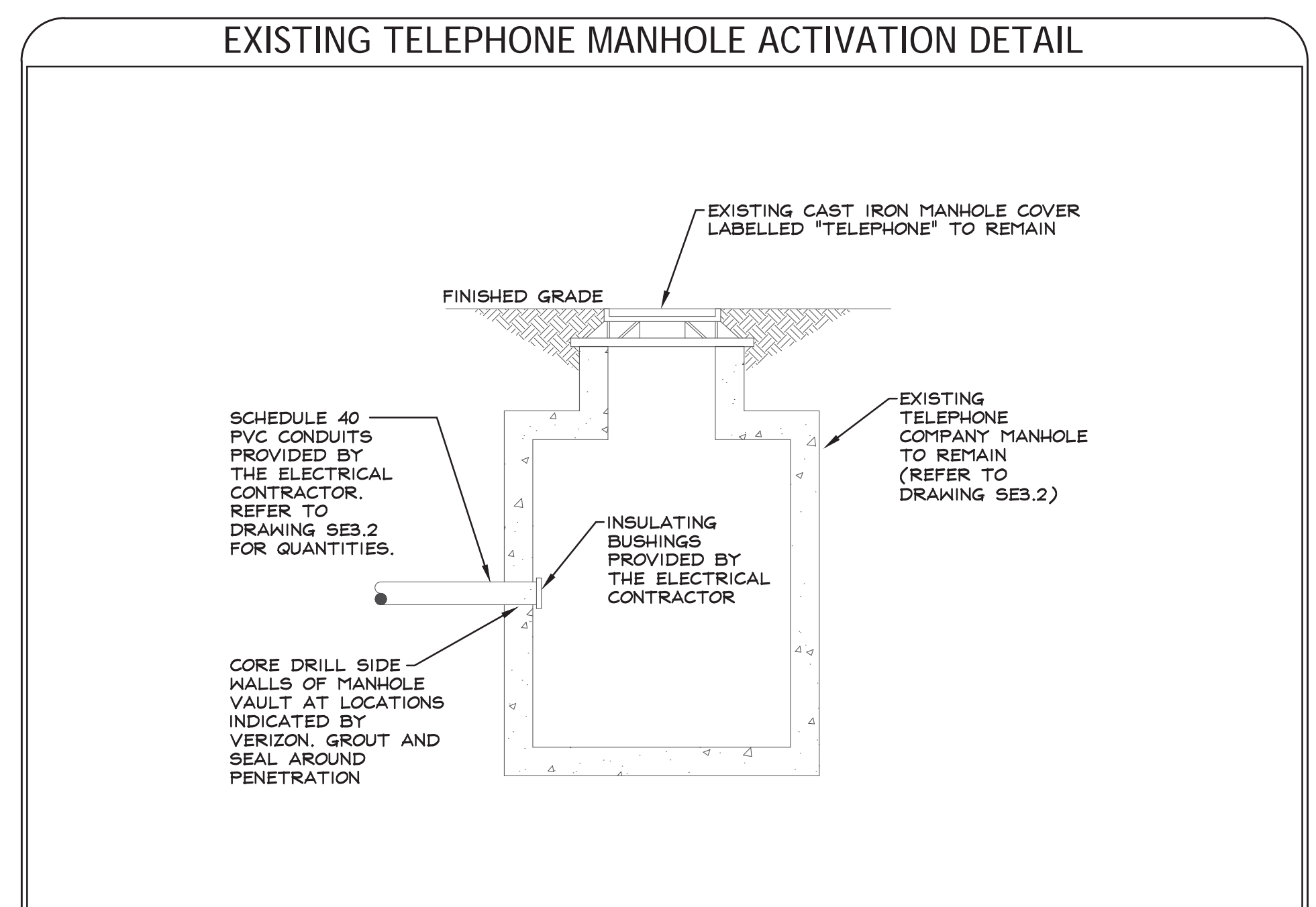
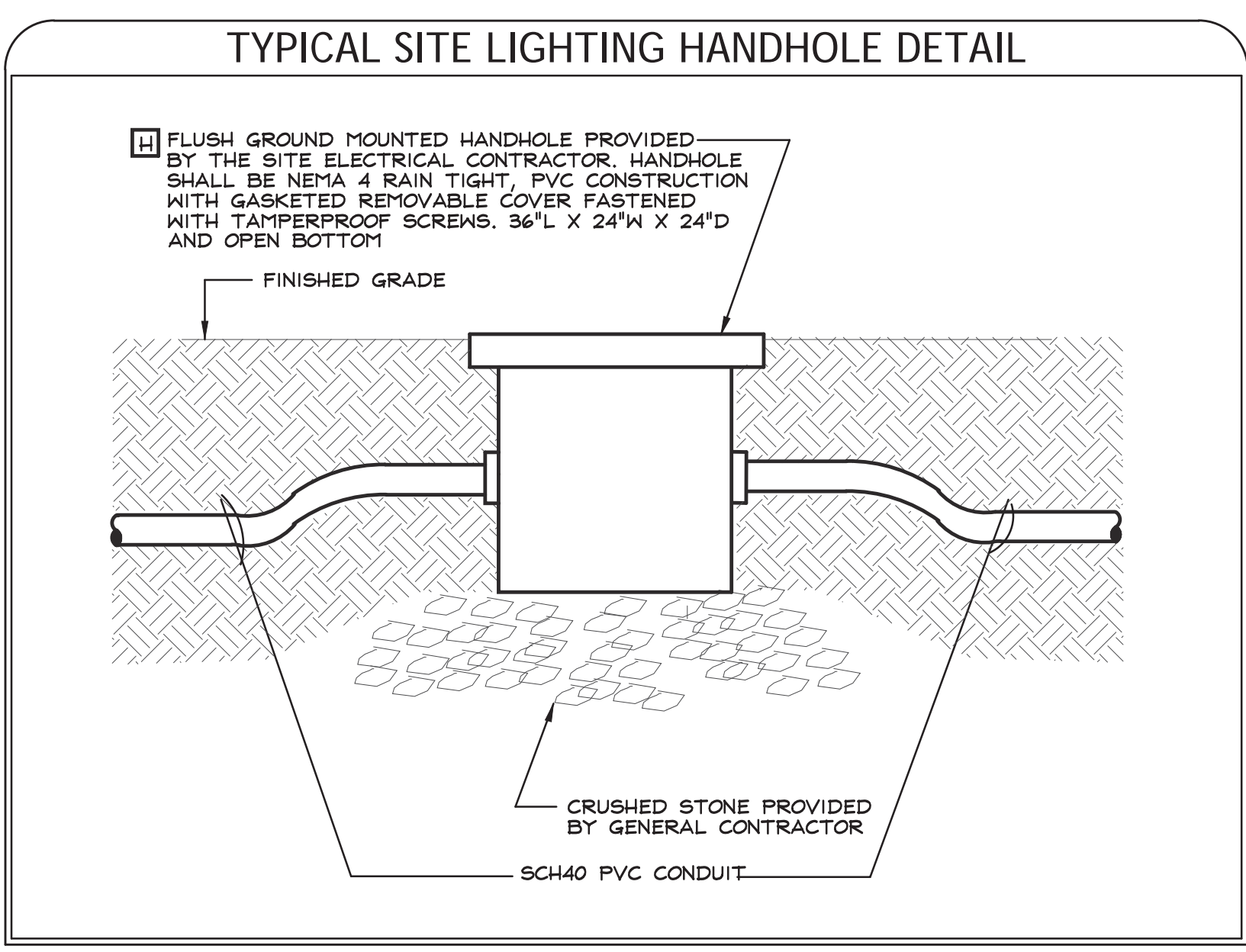
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2/06/2018

SITE PLAN REVIEW

SITE ELECTRICAL DETAILS

SE2.2



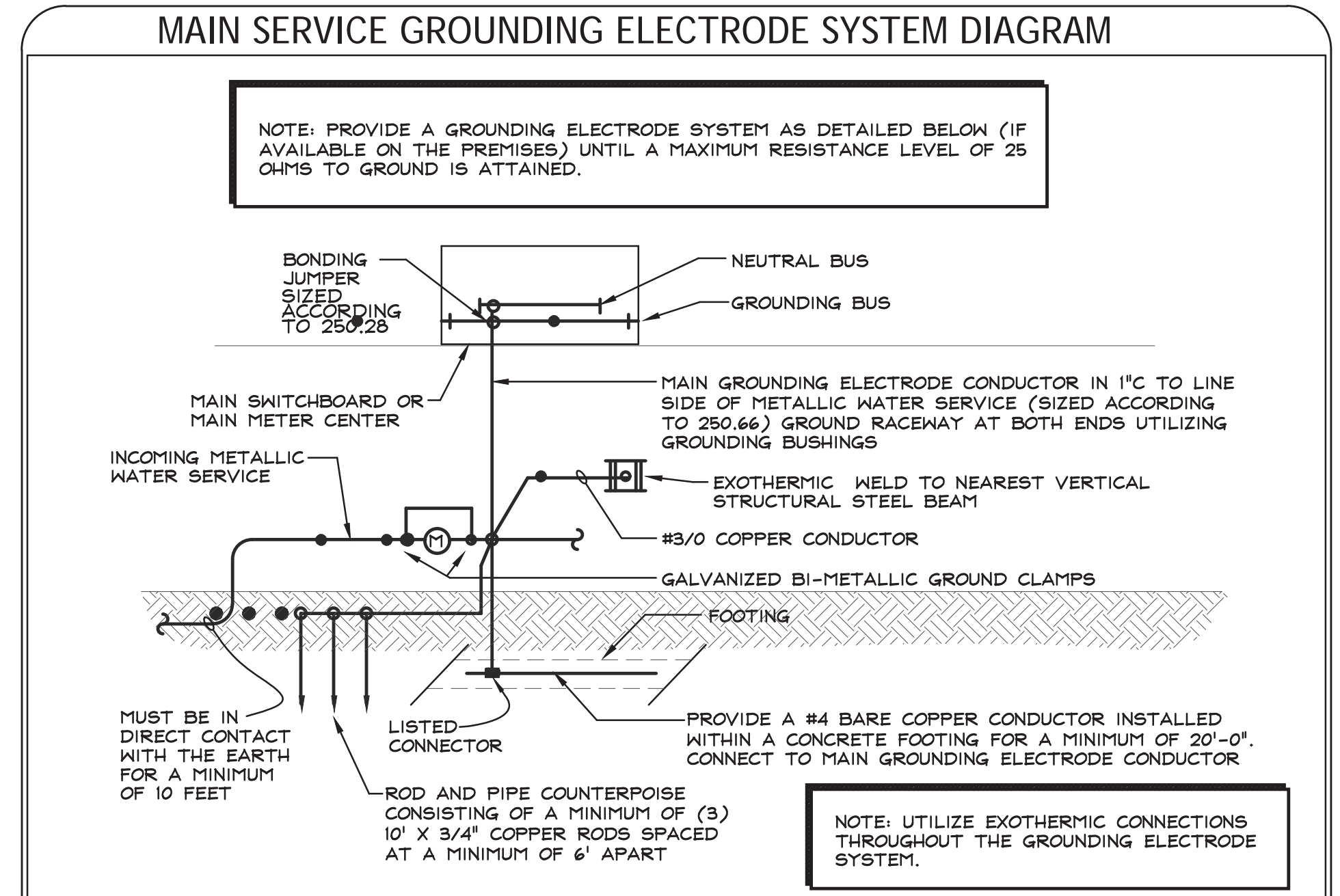
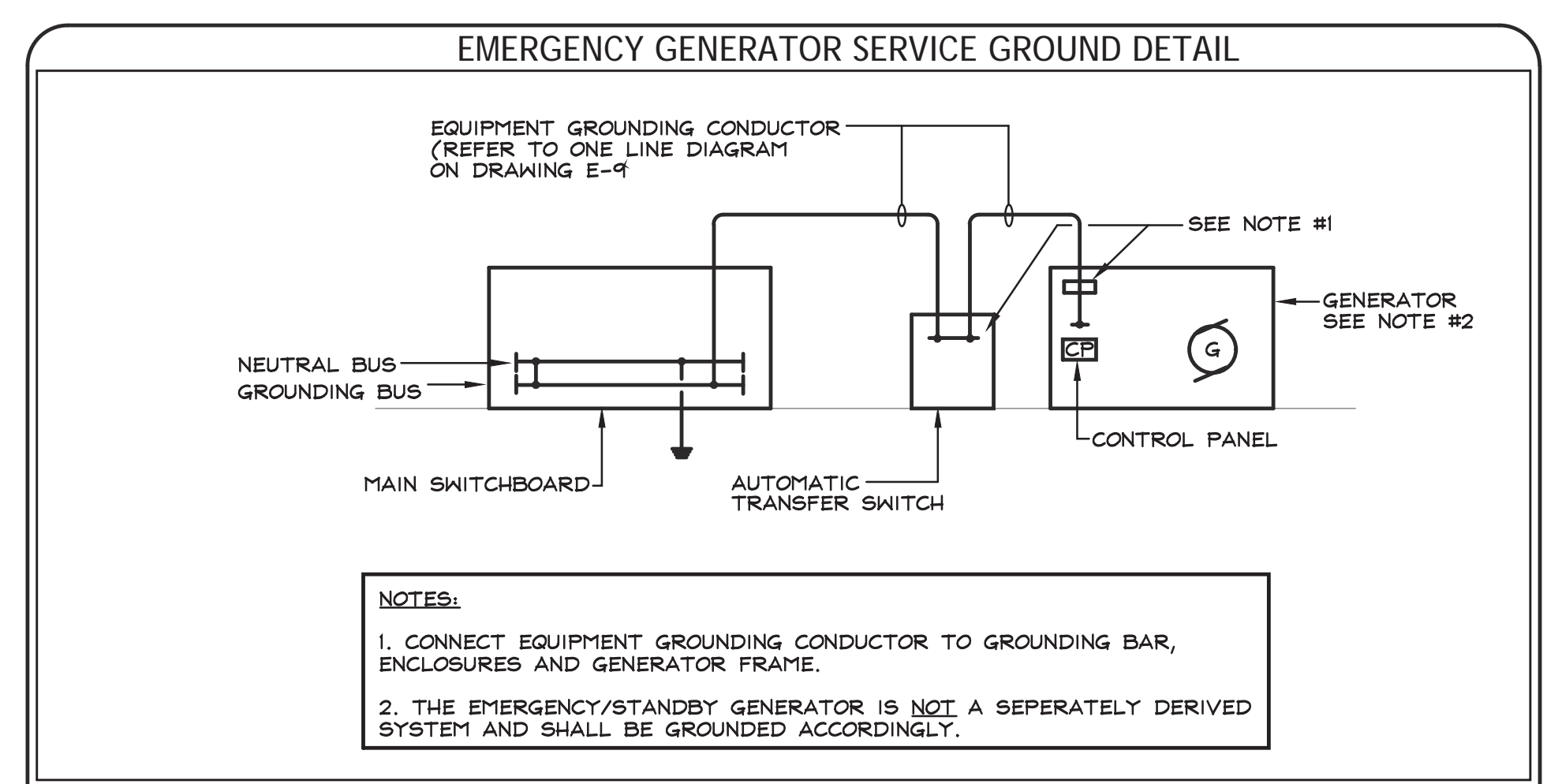
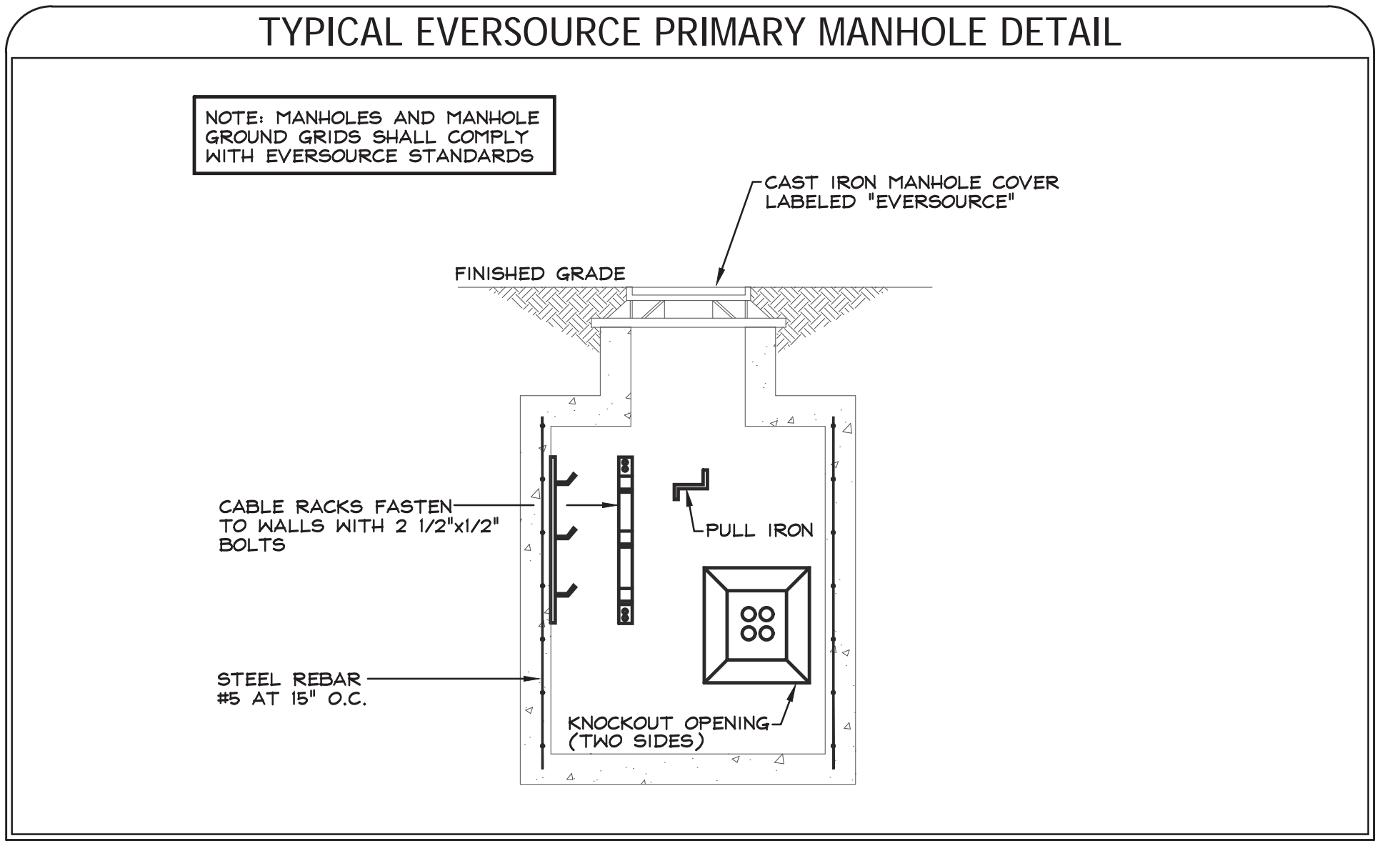
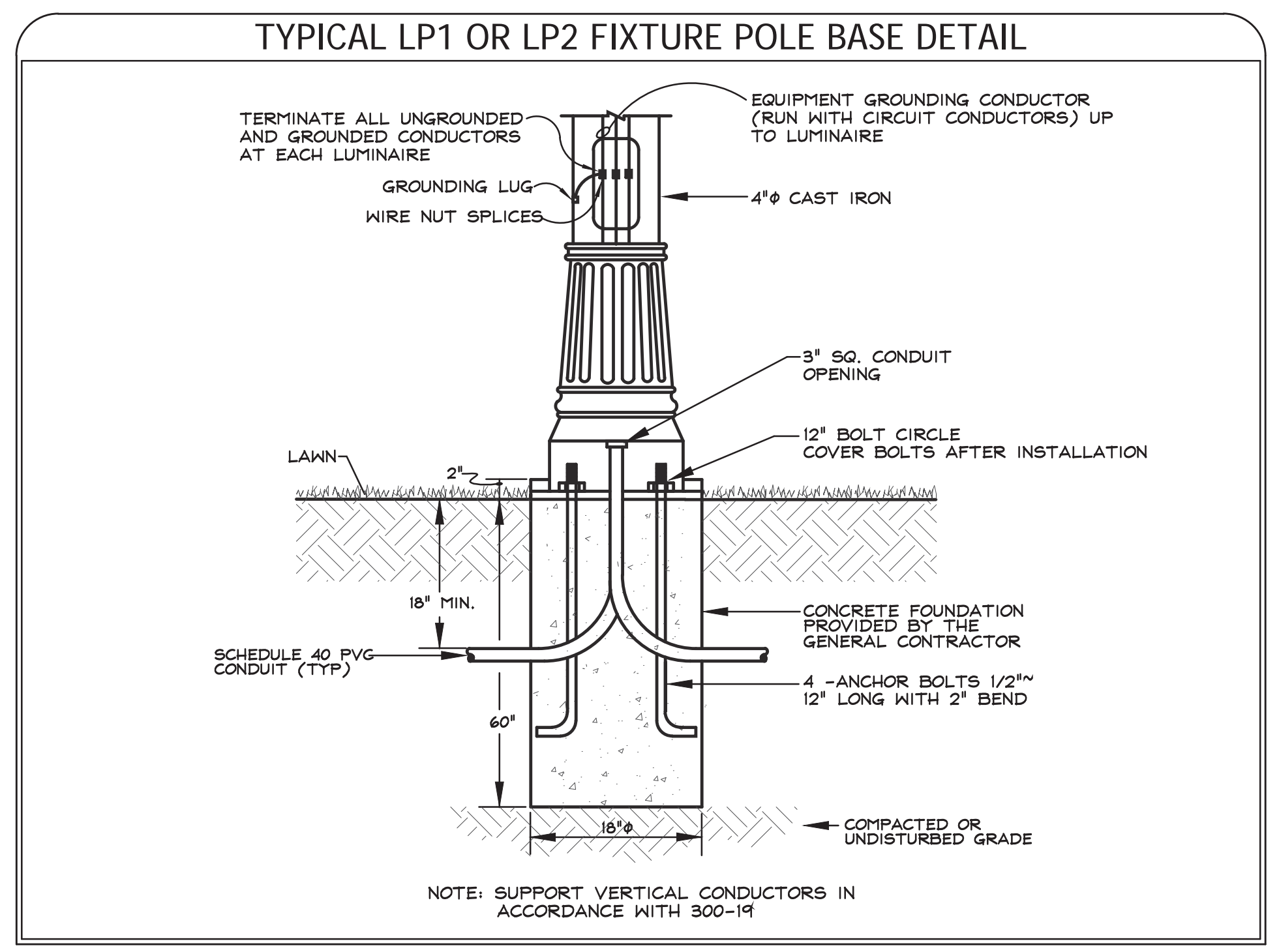
BUILDING 6 - ELECTRICAL LOAD CALCULATIONS

Engineered Building Systems, Inc.
 Consulting Engineers

DEER STREET DEVELOPMENT - B6
 43 UNITS + RETAIL + OFFICE
 PRELIMINARY TOTAL BUILDING CALCULATIONS
 USING OPTIONAL CALCULATION METHOD 220.84

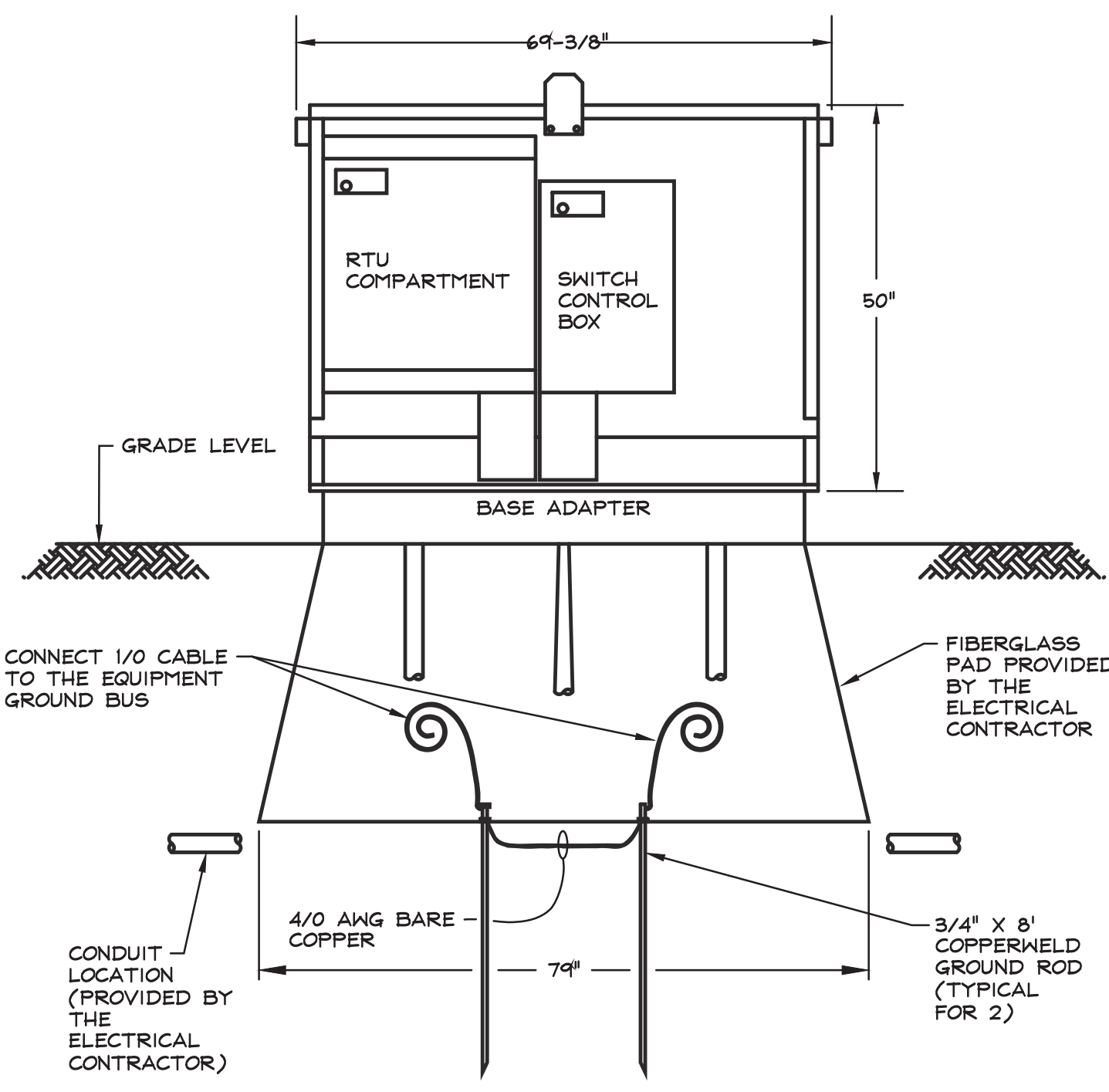
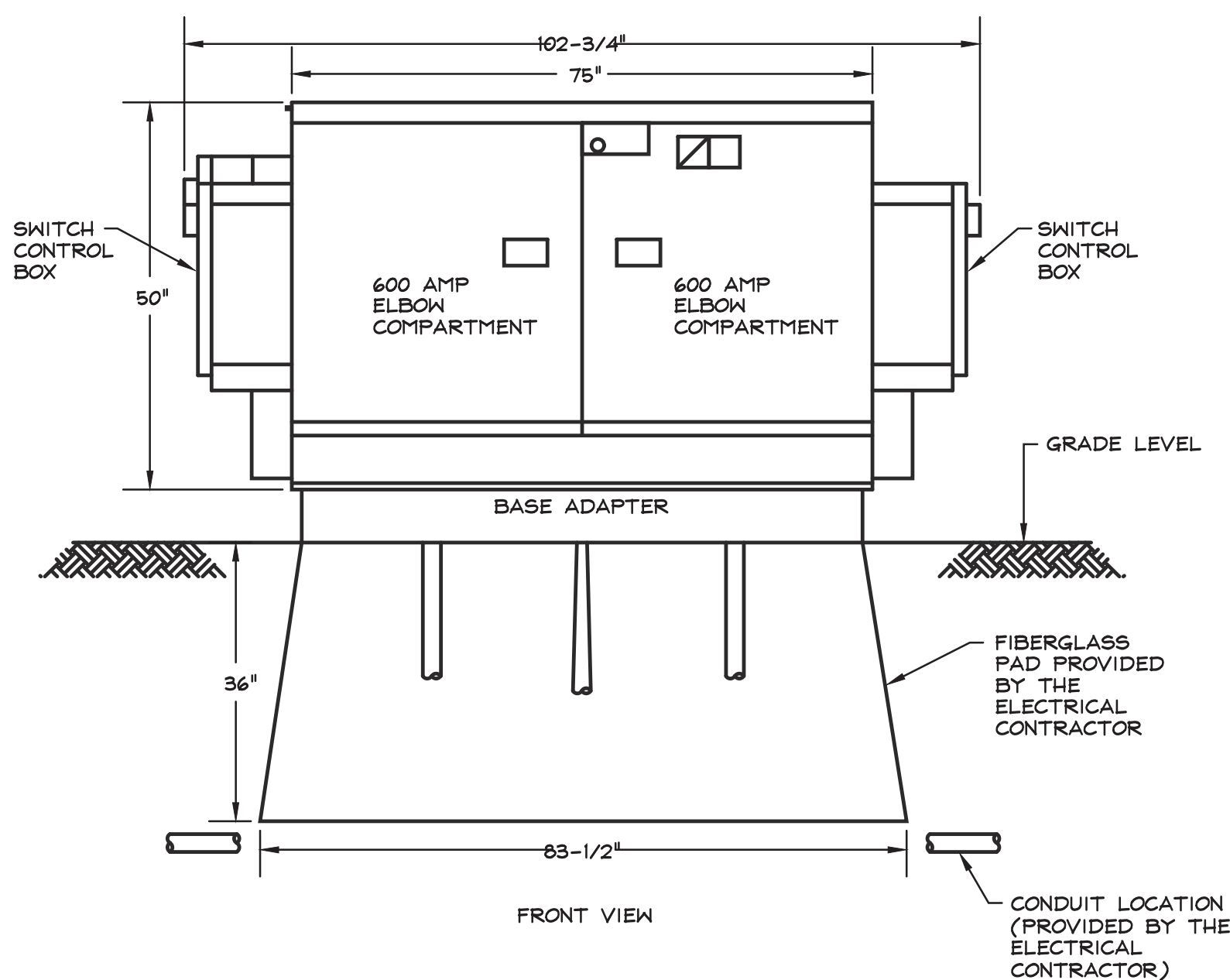
DWELLING UNIT LOADS	DEMAND KW
General Lighting load (220-12) = 2.7 KW unit x 43 Units = 116.1	116.1
Small Appliance 220-52(a)(b) = 3.0 KW unit x 43 Units = 129.0	129.0
Fixed Appliance Load (220-53) = 2.7 KW x 43 Units = 116.1	116.1
Clothes Dryer (Common) (220-54) = 5.0 KW x 43 Units = 215.0	215.0
Range/Cooktop (Electric) (220-55) = 8.0 KW x 43 Units = 344.0	328.0
Heating System (Electric) (220.60) = -0 KW unit x 43 Units = -0	-0
Air Conditioning Load (Electric) = 4.0 KW x 43 Units = 172.0	172.0
Hot Water (Gas Central) = -0 KW x 43 Units = 0.0	-0
Ventilation Systems = 0.5 KW x 43 Units = 21.5	21.5
Subtotal Dwelling Electrical Load =	1113.7
1113.7 KW x 27% =	300.7
NON-DWELLING UNIT LOADS	DEMAND KW
Exterior Lighting 3.0 KW @ 100% =	3.0
Lighting 16.0 KW @ 100% =	16.0
1 Elevator 40.0 KW @ 100% =	40.0
Miscellaneous 10.0 KW @ 100% =	10.0
Ventilation Systems 8.0 KW @ 100% =	8.0
Heat Load -0 KW @ 0% =	-0
Fire Pump Load -0 KW @ 0% =	-0
A/C Load 20 Tons x 1.5 KW =	30.0
Laundry Load 0.0 KW @ 0% =	-0
Subtotal Non-Dwelling Unit Electrical Load	107.0
OFFICE ELECTRICAL LOADS	DEMAND KW
3,000 SQ. FT. x 12w/sq. ft.	36.0
RETAIL ELECTRICAL LOADS	DEMAND KW
1,800 SQ. FT. x 20w/sq. ft.	36.0
Total Building Demand Load	480.7

479.7 KW @ 208 Volts, 3 Phase = 1331 AMPS
Recommend Minimum 1600 Ampere Service @ 120/208 Volts, 3 Phase, 4 Wire



EVERSOURCE PRIMARY SWITCH BOX DETAIL

NOTE: PRIMARY SWITCH IS FURNISHED AND INSTALLED BY NSTAR, ELECTRIC GROUNDING GRID PROVIDED BY THE ELECTRICAL CONTRACTOR

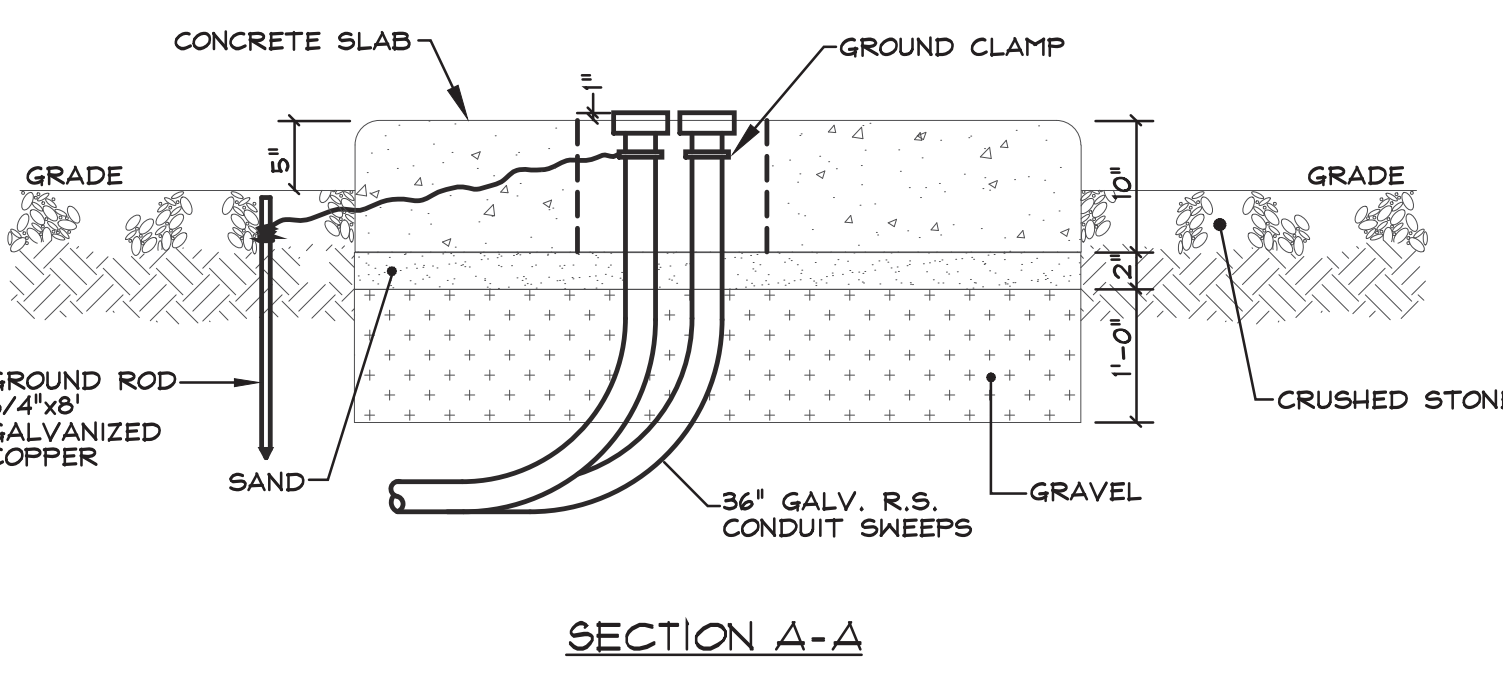
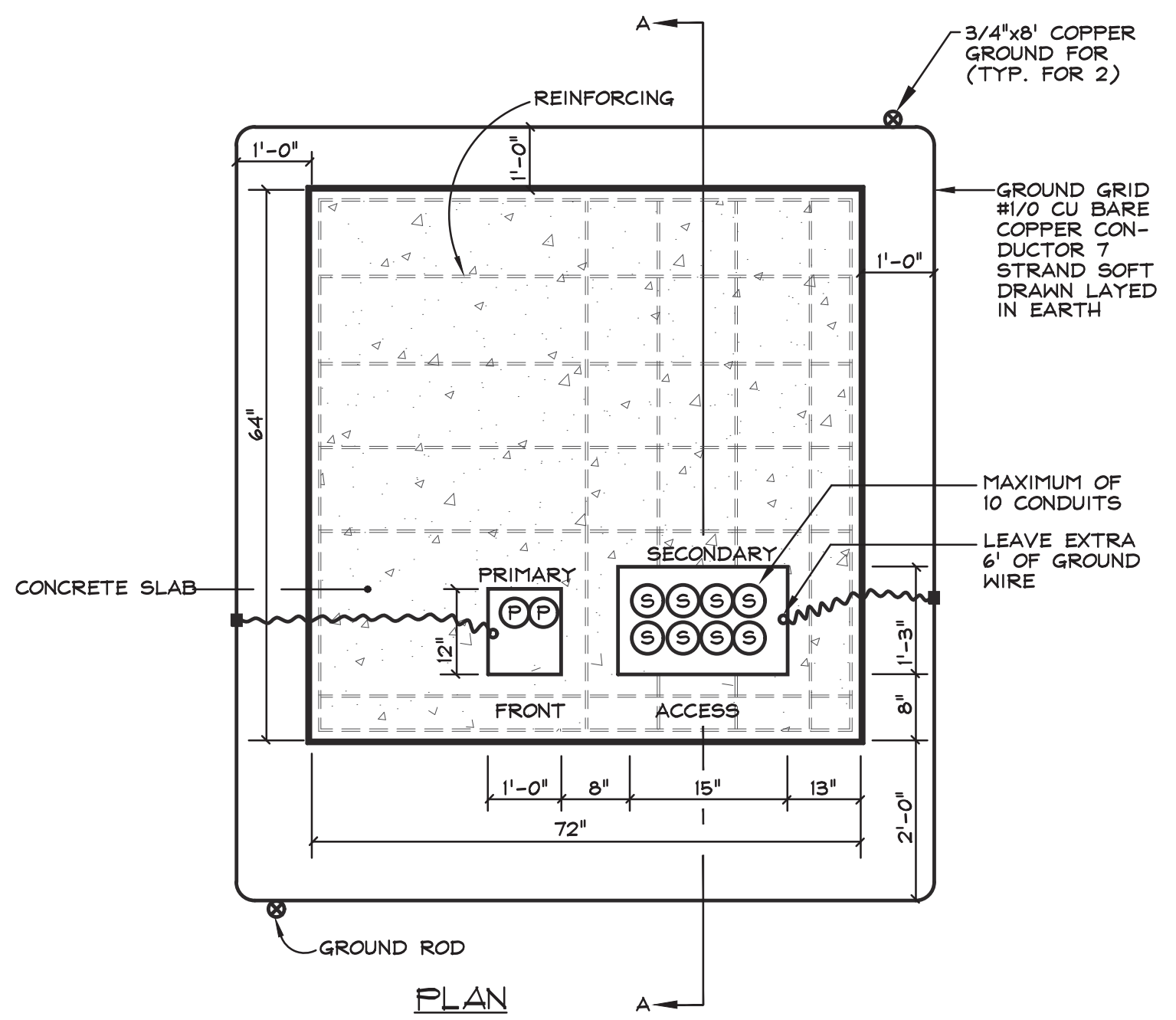


EVERSOURCE DISTRIBUTION TRANSFORMER PAD DETAIL

PAD CONSTRUCTION NOTES

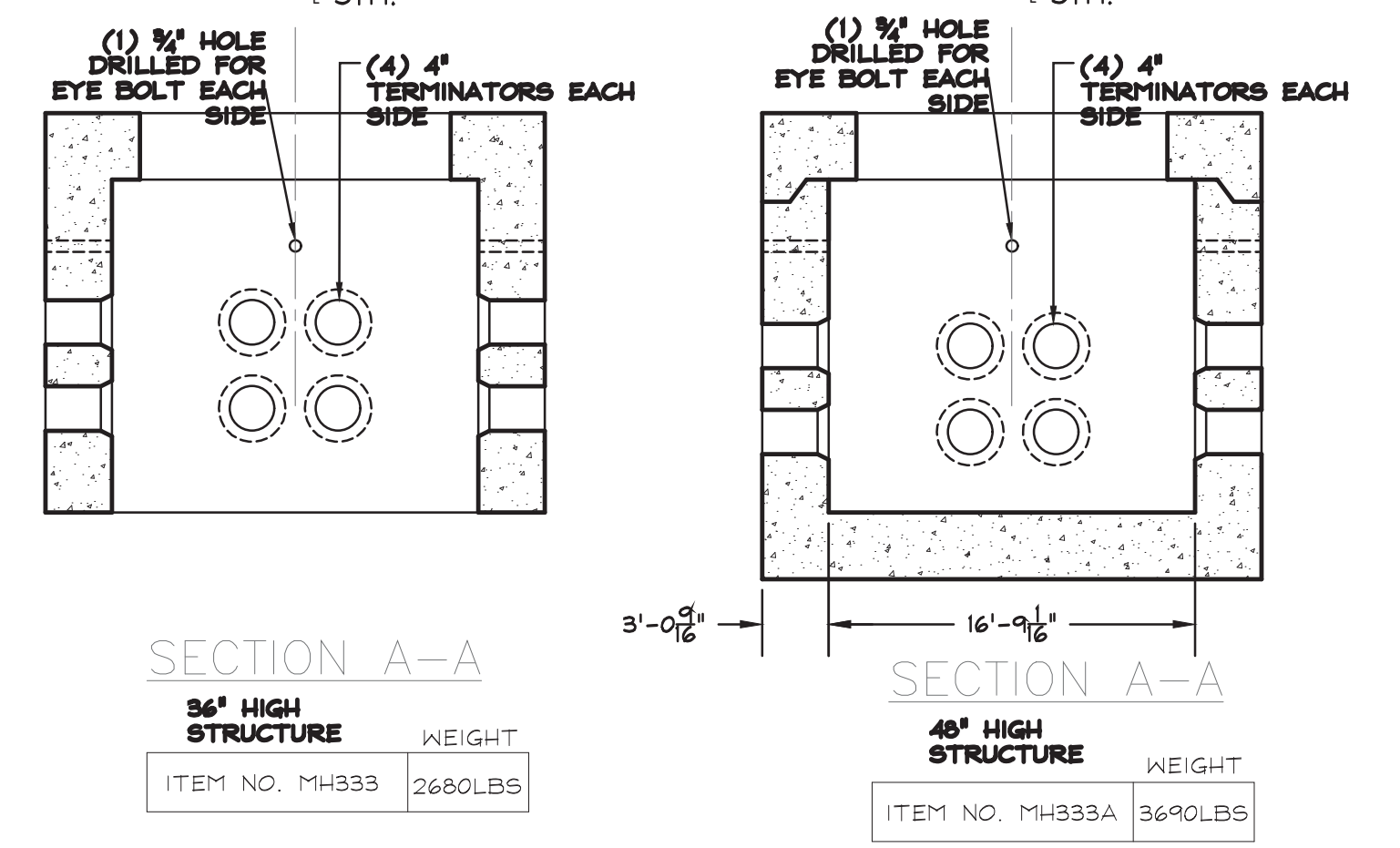
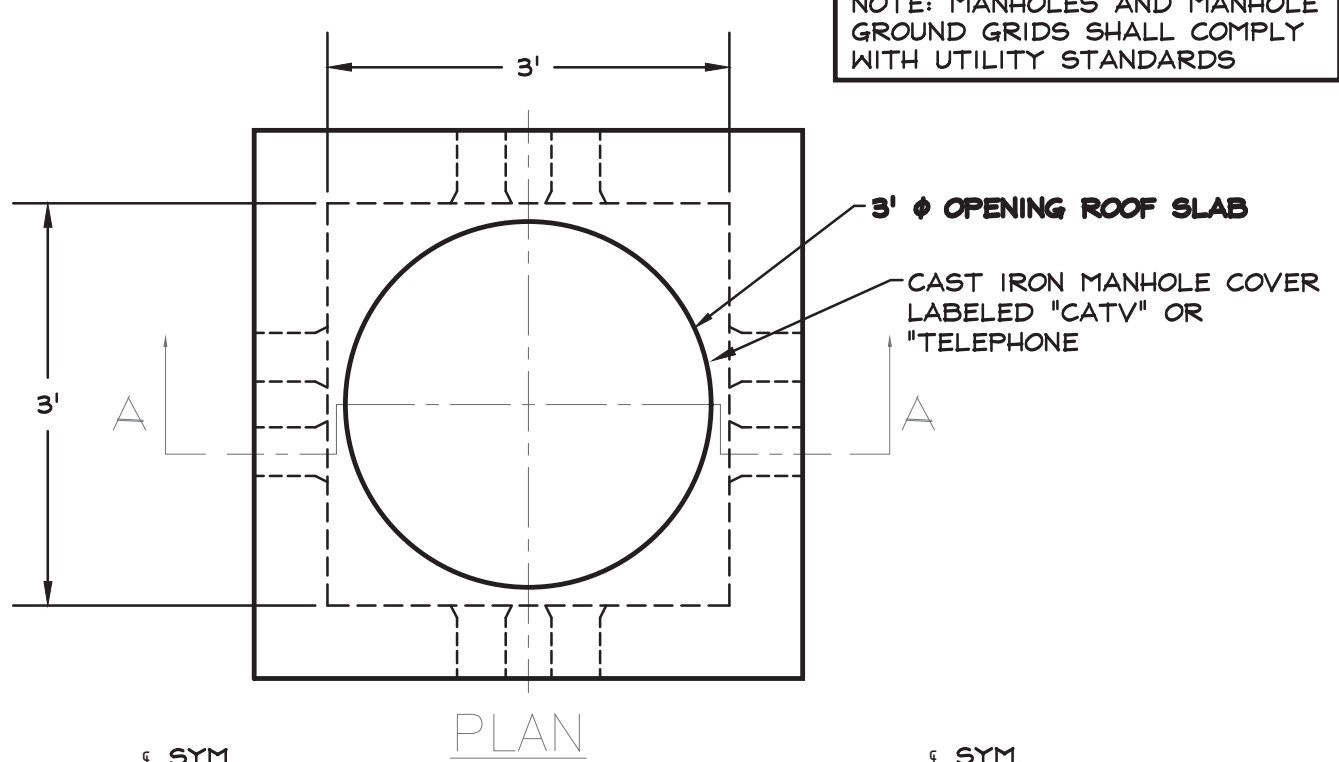
1. NO ABOVE GROUND STRUCTURES, SHRUBS, ETC. SHALL BE INSTALLED WITHIN 4 FEET OF PAD AND WITHIN 6 FEET OF TRANSFORMER DOORS.
2. PRIMARY CONDUIT SWEEPS TO BE 5" STEEL PIPES T.&C.
3. FOR PAD MOUNTED TRANSFORMERS LARGER THAN 1000 KVA, INCREASE THE WIDTH OF THE PAD FROM 7'-2" TO 10' AND THE DEPTH FROM 6'-5" TO 9'.
4. THE GENERAL CONTRACTOR MUST CALL EVERSOURCE ENERGY PRIOR TO POURING PAD.
5. TRANSFORMER PAD MUST BE LOCATED 15' FROM EGRESS DOORS OR OPERABLE WINDOWS.

PAD MATERIAL:
CONCRETE, 4000 PSI MIX, NOT MORE THAN 5 1/2 GALLONS OF WATER PER BAG OF CEMENT.



TYPICAL CATV AND TELEPHONE HANDHOLE DETAIL

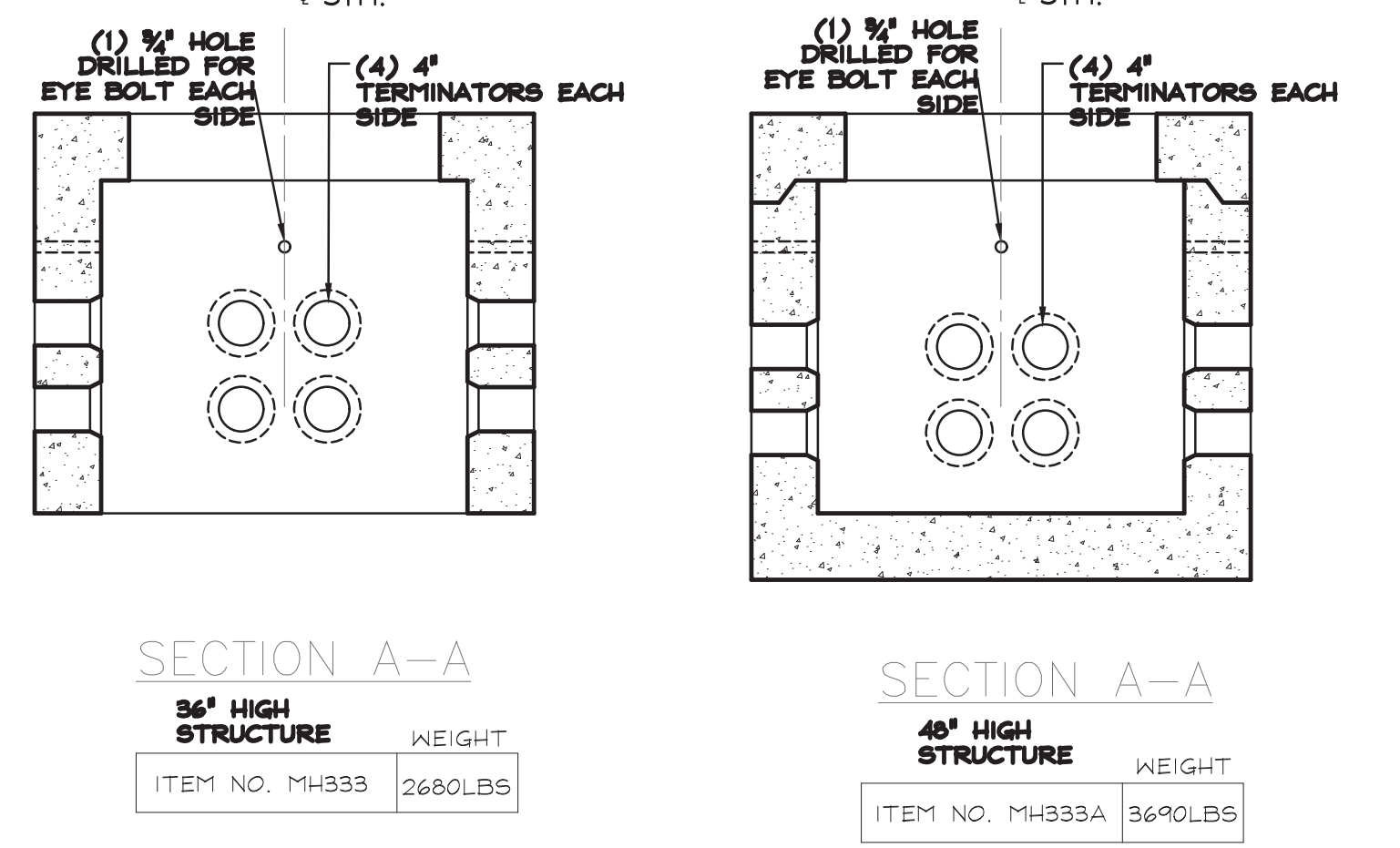
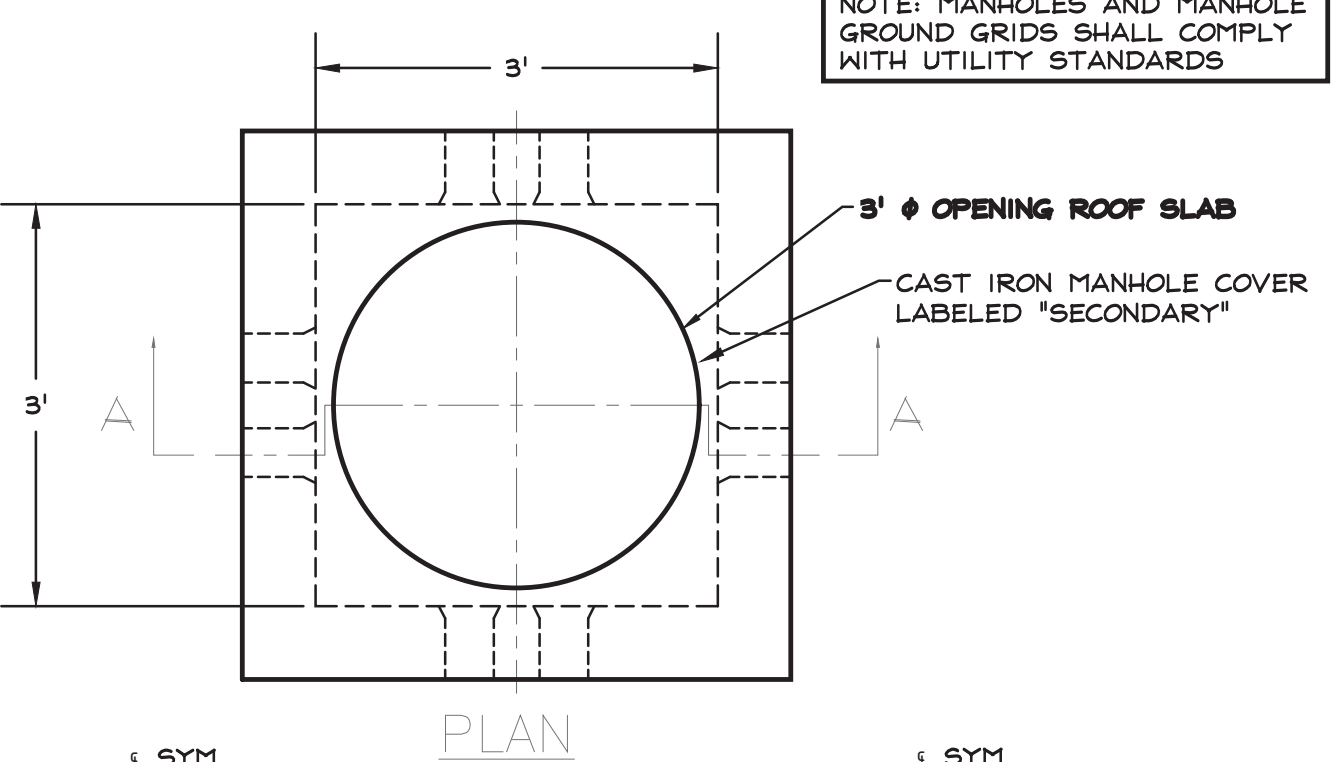
NOTE: MANHOLES AND MANHOLE GROUND GRIDS SHALL COMPLY WITH UTILITY STANDARDS



- NOTES:
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
 2. STEEL REINFORCEMENT CONFORMS TO ASTM A615, GRADE 60. MINIMUM STEEL COVER 1".
 3. DESIGN LOADING: AASHTO H20-44, 0 TO 5 FEET COVER.
 4. OPTIONAL OPENINGS AVAILABLE BY SPECIAL ORDER.

TYPICAL SECONDARY HANDHOLE DETAIL

NOTE: MANHOLES AND MANHOLE GROUND GRIDS SHALL COMPLY WITH UTILITY STANDARDS



- NOTES:
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
 2. STEEL REINFORCEMENT CONFORMS TO ASTM A615, GRADE 60. MINIMUM STEEL COVER 1".
 3. DESIGN LOADING: AASHTO H20-44, 0 TO 5 FEET COVER.
 4. OPTIONAL OPENINGS AVAILABLE BY SPECIAL ORDER.



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SITE PLAN REVIEW

SITE
ELECTRICAL
DETAILS

SE2.3

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MFPF ENGINEER
WOBURN, MASSACHUSETTS

ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5
PORTSMOUTH, NH 03801

OWNER:
Deer Street Associates



Scale: 1"=40'
Date: 3/17/2017
Project Number: 14837.03

REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	6/15/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017

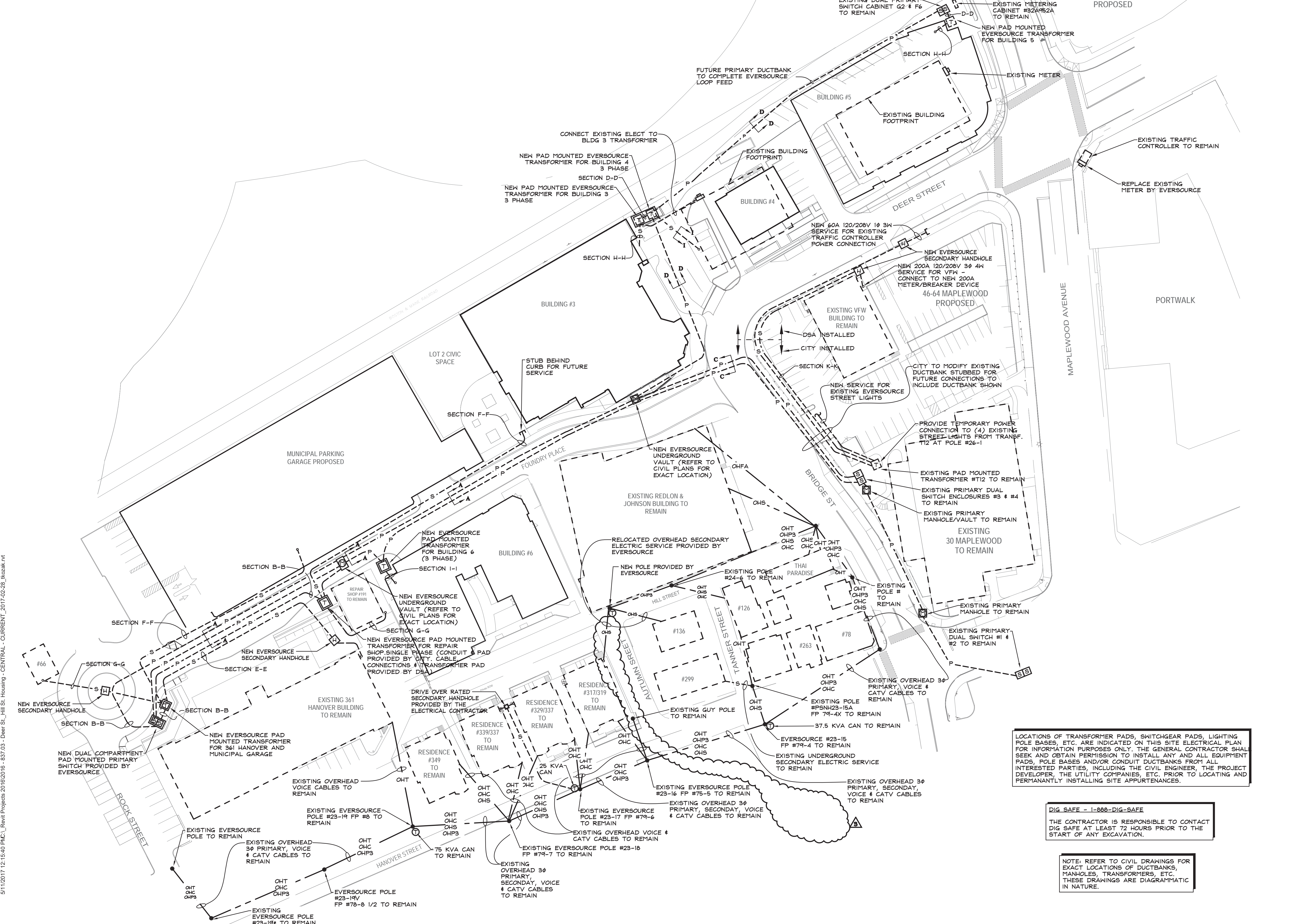
2/06/2018

SITE PLAN REVIEW

SITE ELECTRICAL PLAN

SE3.1

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LOCATIONS OF TRANSFORMER PADS, SWITCHGEAR PADS, LIGHTING POLE BASES, ETC. ARE INDICATED ON THIS SITE ELECTRICAL PLAN FOR INFORMATION PURPOSES ONLY. THE GENERAL CONTRACTOR SHALL SEEK AND OBTAIN PERMISSION TO INSTALL ANY AND ALL EQUIPMENT PADS, POLE BASES AND/OR CONDUIT DUCTBANKS FROM ALL INTERESTED PARTIES, INCLUDING THE CIVIL ENGINEER, THE PROJECT DEVELOPER, THE UTILITY COMPANIES, ETC. PRIOR TO LOCATING AND PERMANENTLY INSTALLING SITE APPURTENANCES.

DIG SAFE - 1-888-DIG-SAFE
THE CONTRACTOR IS RESPONSIBLE TO CONTACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF ANY EXCAVATION.

NOTE: REFER TO CIVIL DRAWINGS FOR EXACT LOCATIONS OF DUCTBANKS, MANHOLES, TRANSFORMERS, ETC. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE.

5/11/2017 12:15:40 PM C:\Revit Projects 2016\2016 - 837.03 - Deer St., Hill St., Housing - CENTRAL - CURRENT_2017-02-28_ikozak.rvt



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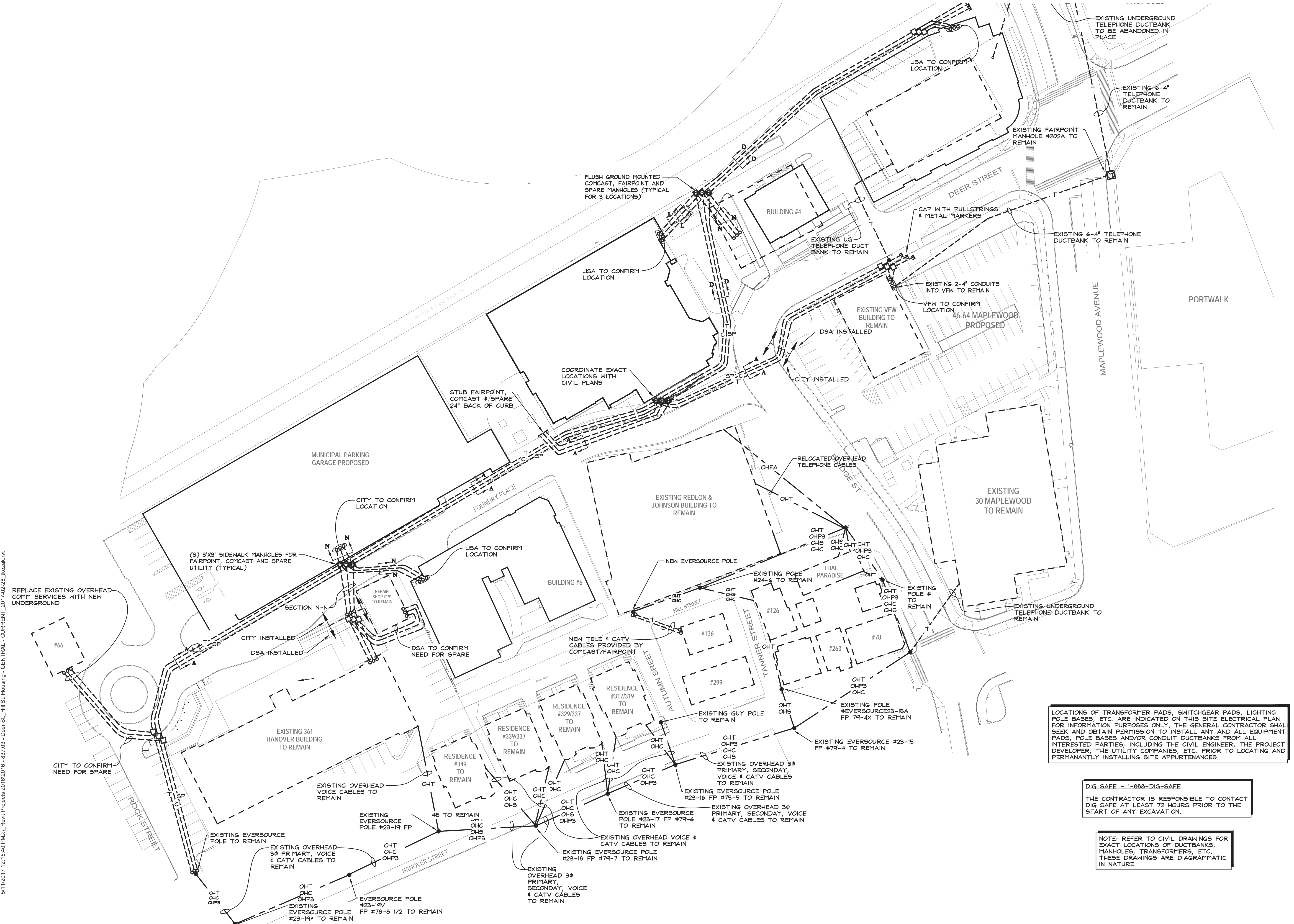
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SITE PLAN REVIEW

SITE COMMUNICATION PLAN

SE3.2

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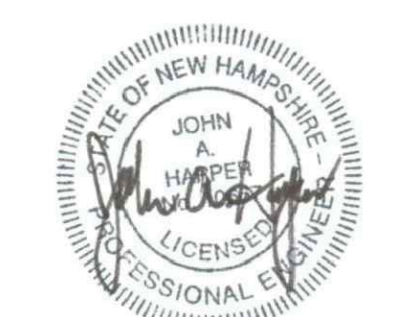
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2/06/2018

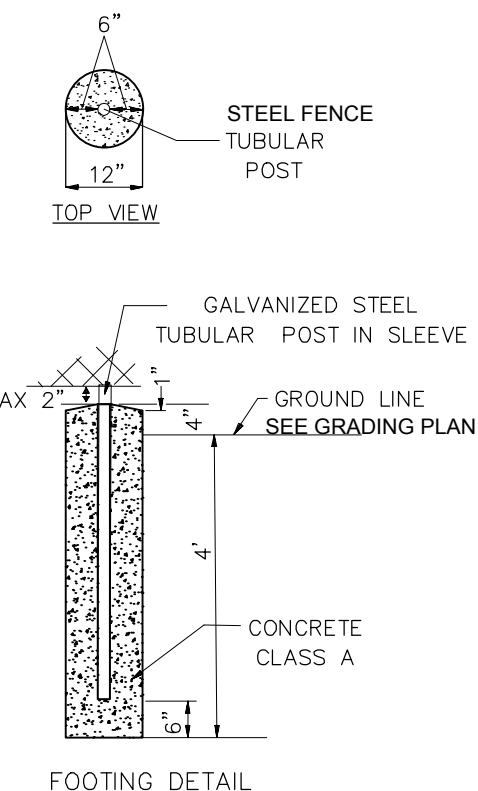
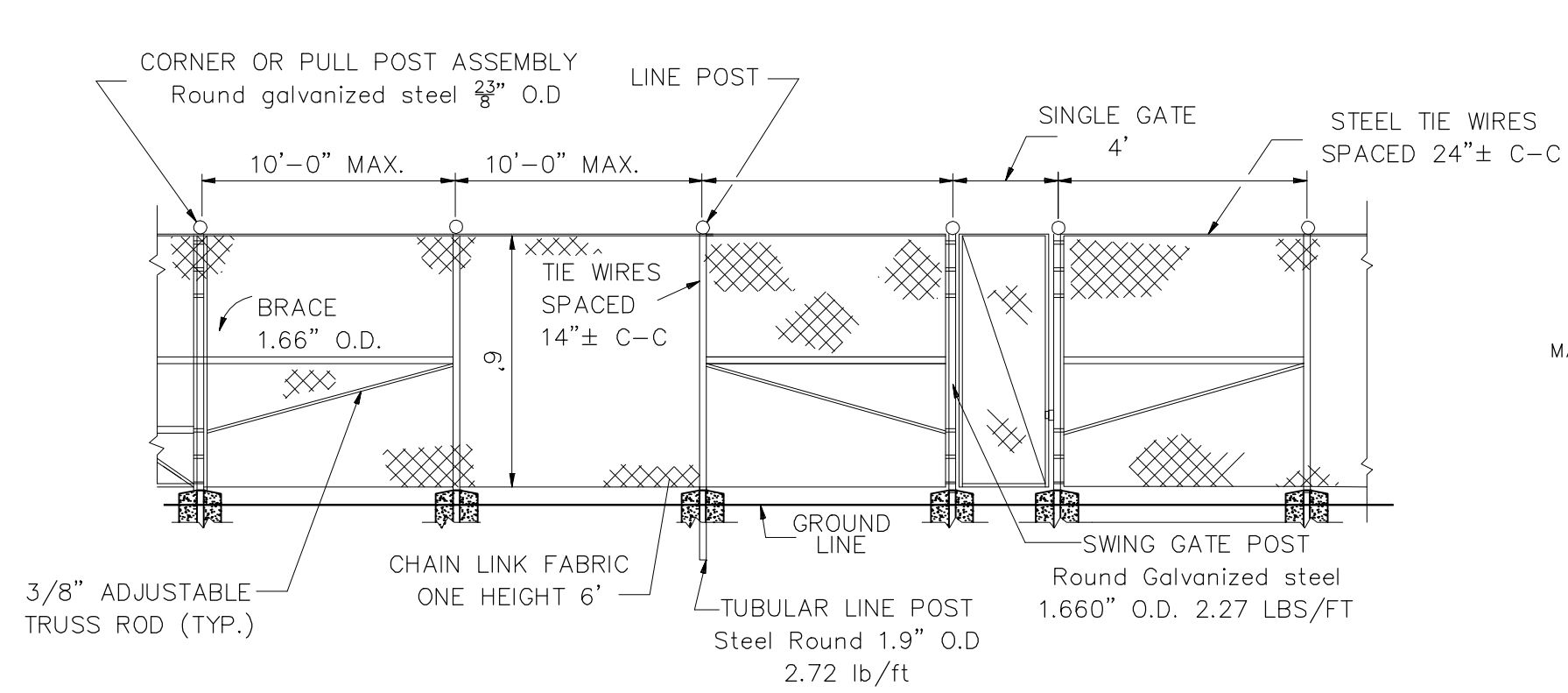
SITE PLAN REVIEW

SITE ELECTRICAL
DEMOITION PLAN
- EXISTING
CONDITIONS

SED1.1

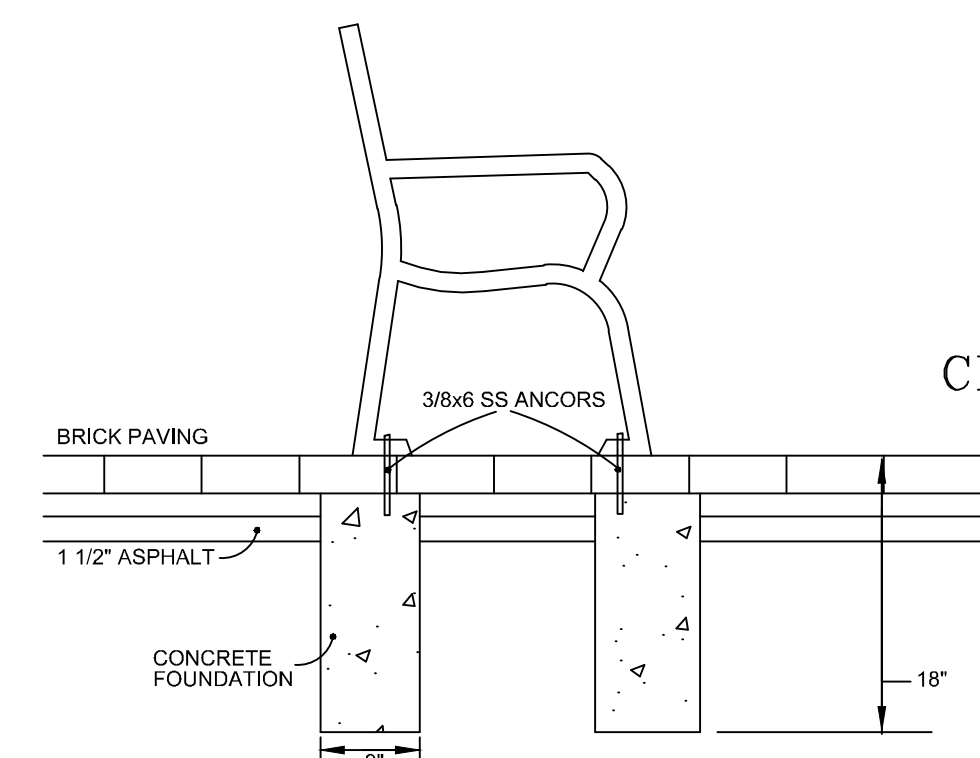
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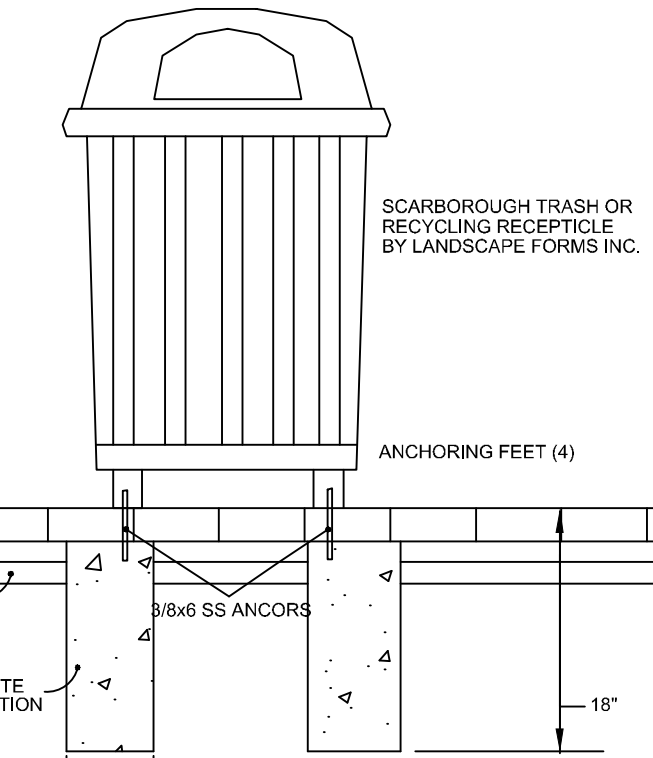
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1 C L F F
SCALE 1" = 10'

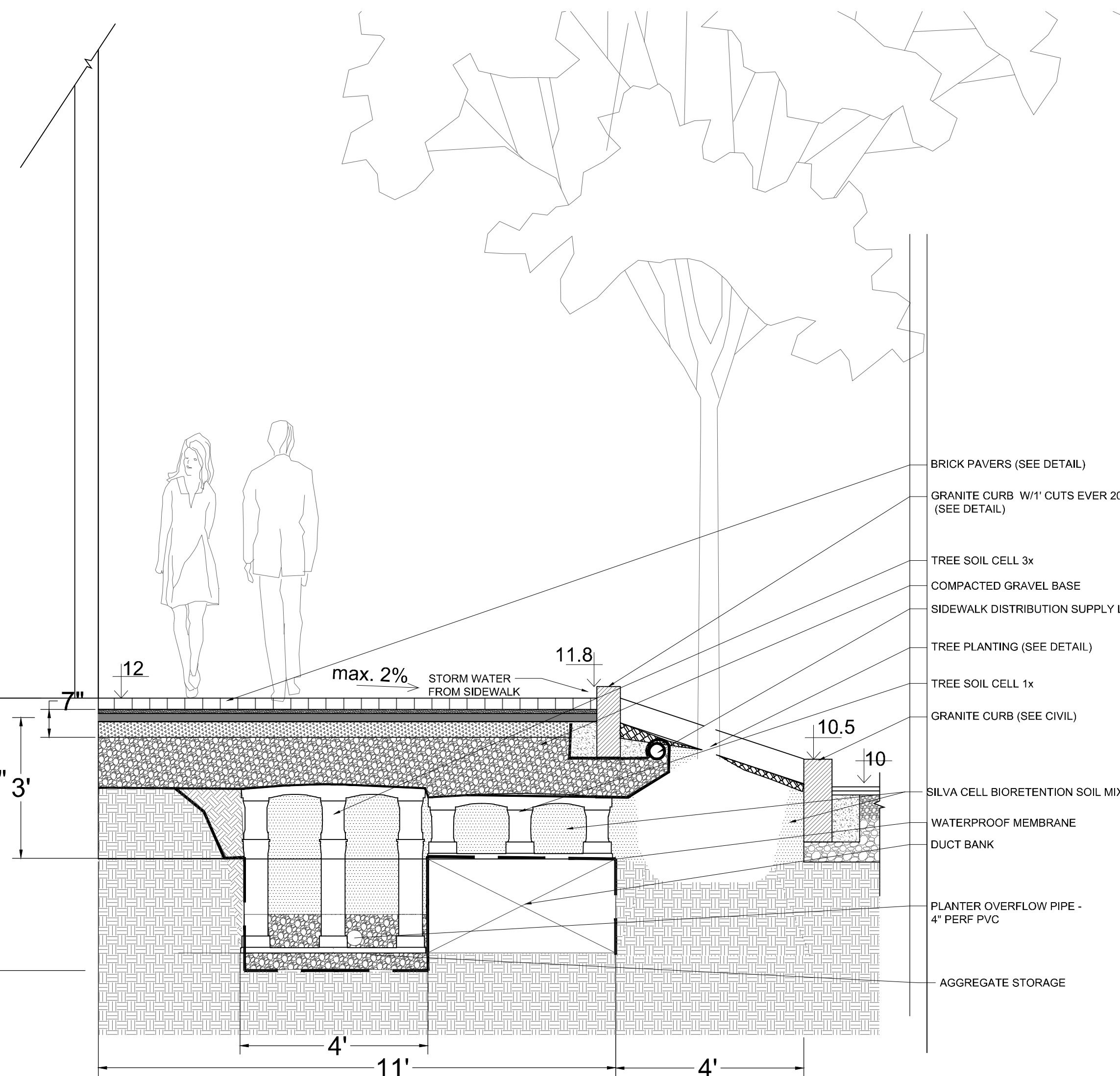


4 V B
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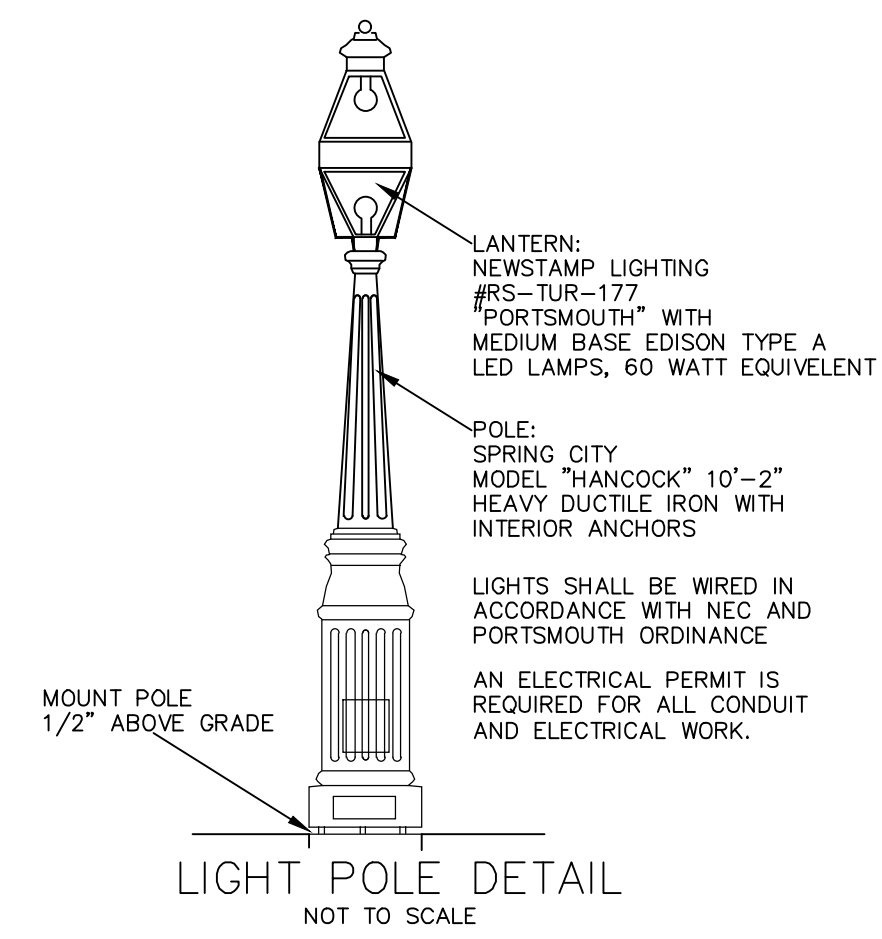
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DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH
NEW HAMPSHIRE



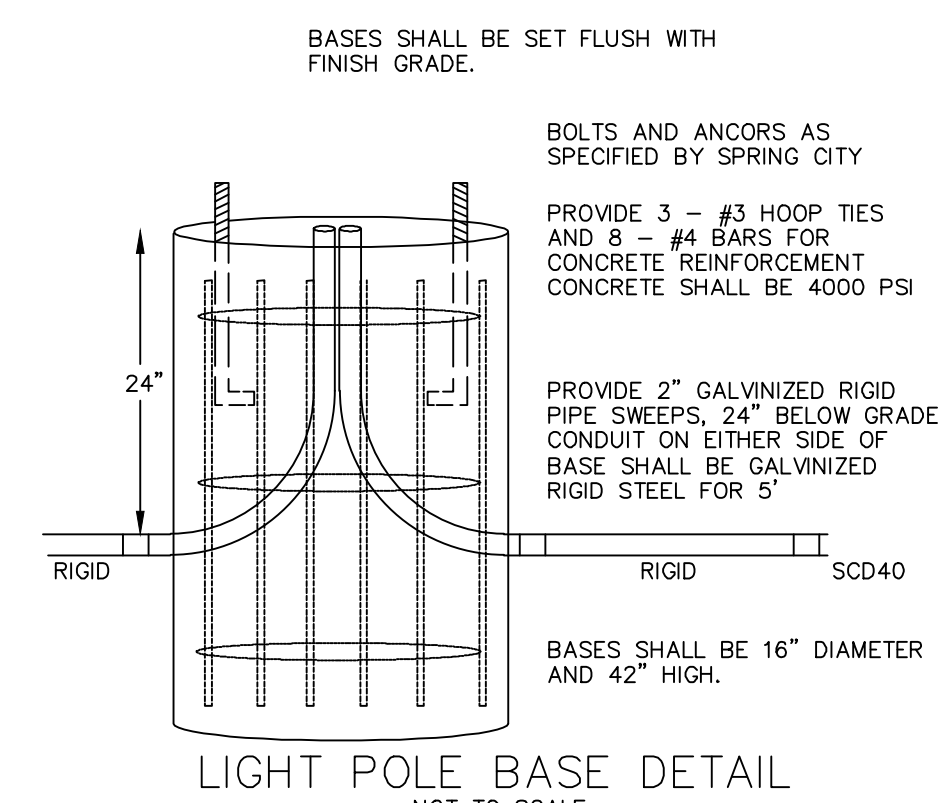
6 Tr R
SCALE 1" = 10'



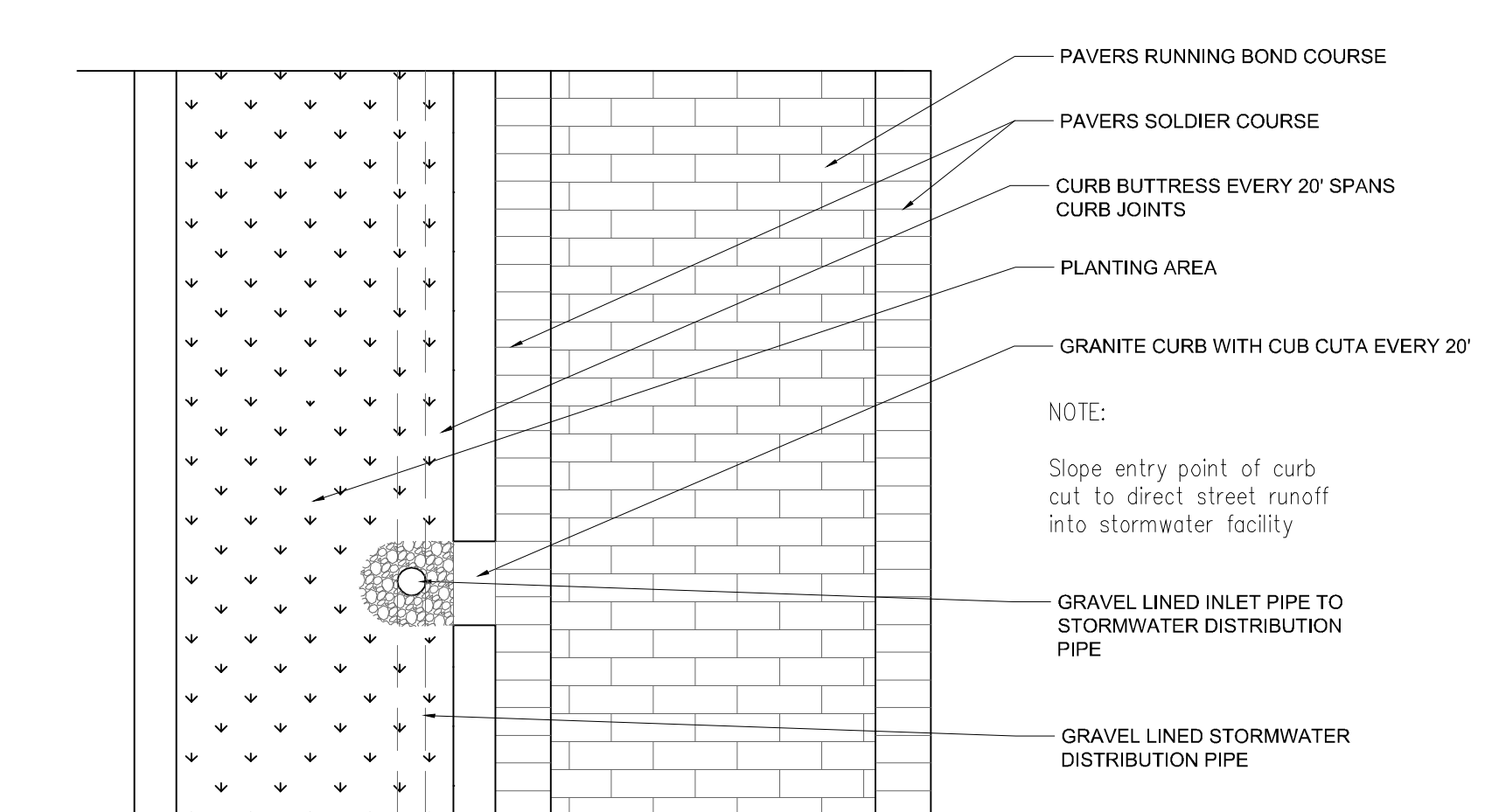
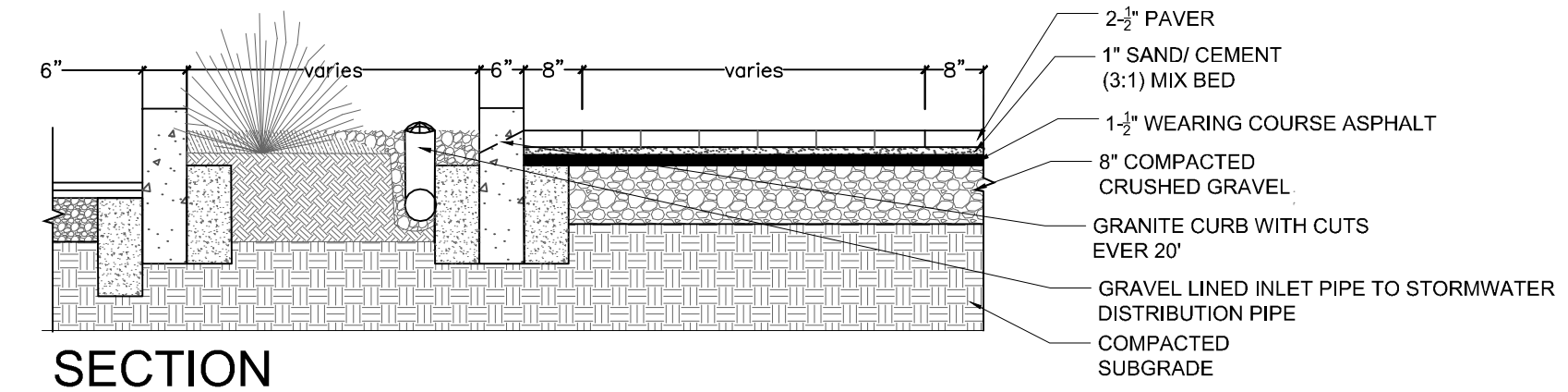
2 T Sd S-C S
SCALE 1/2" = 1'-0"



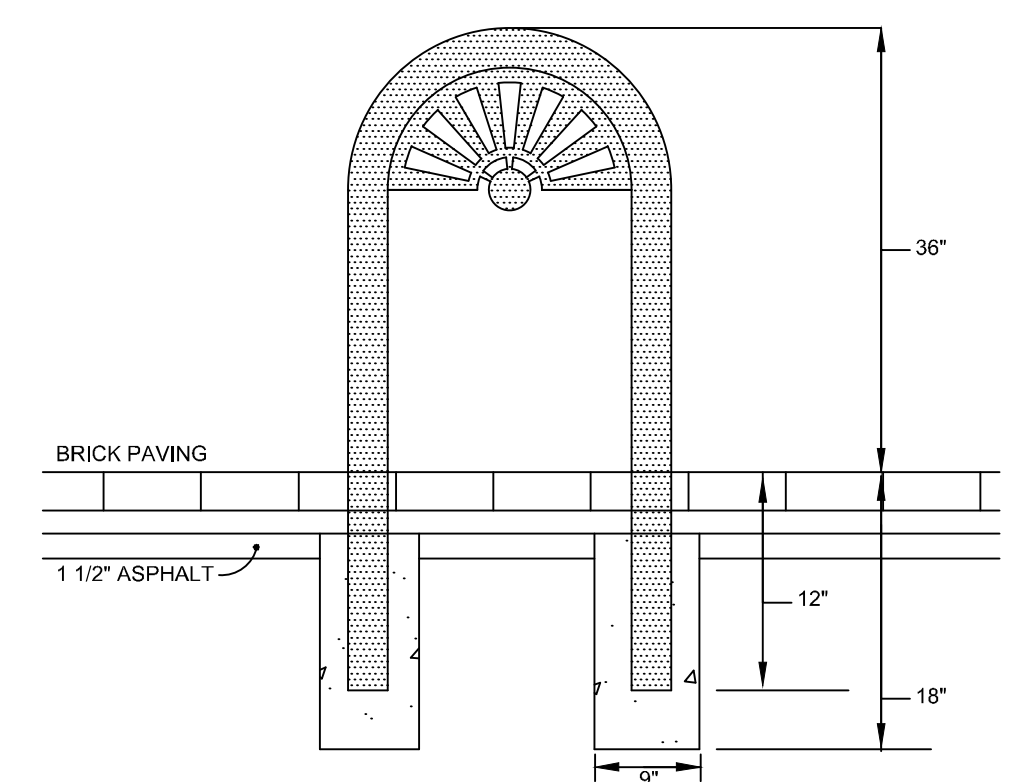
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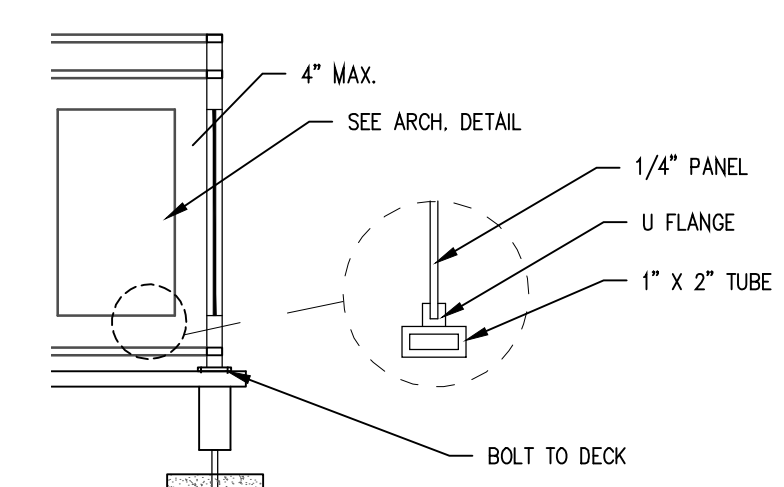
7 L P B
SCALE 1" = 10'



3 T Sd D
SCALE 6" = 1'-0"



8 B R
SCALE 1" = 10'



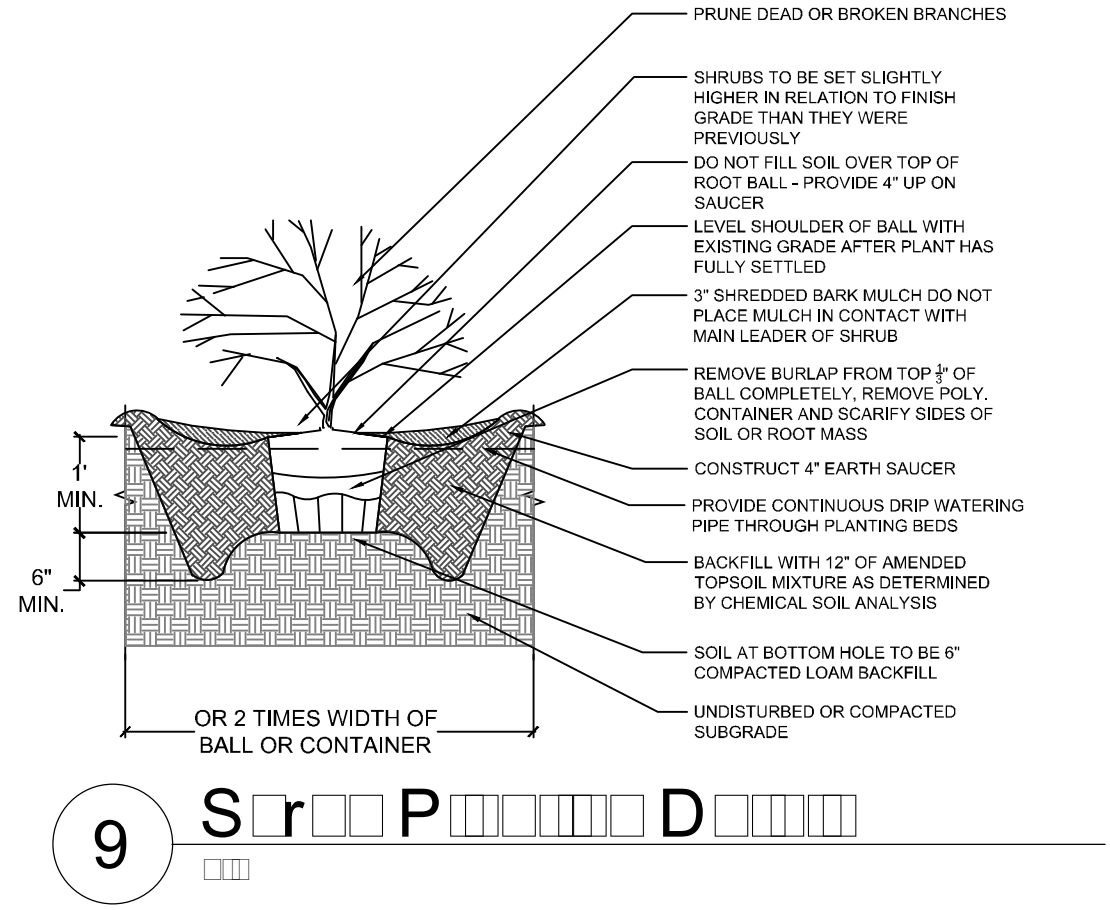
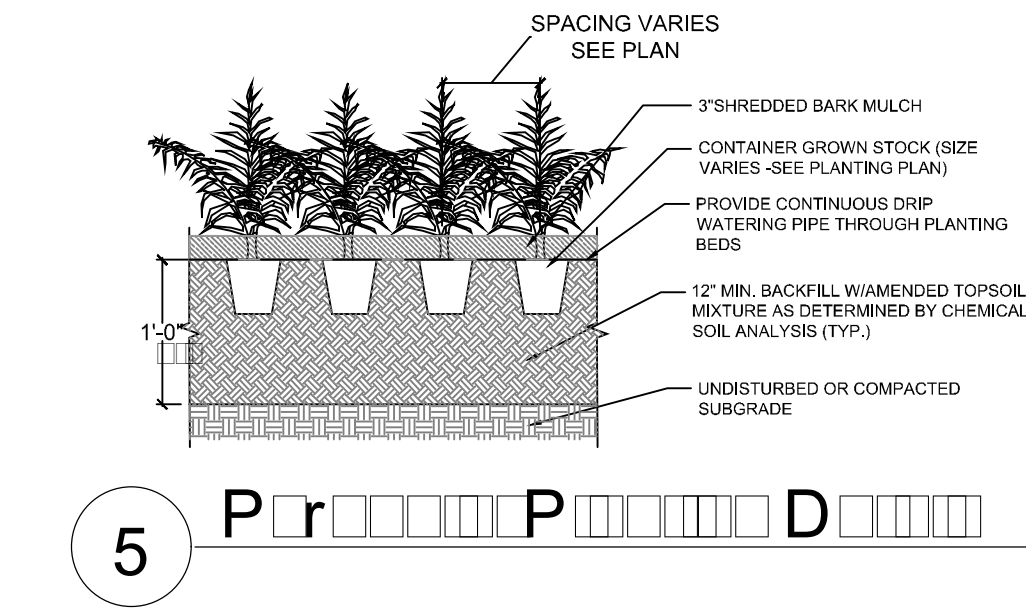
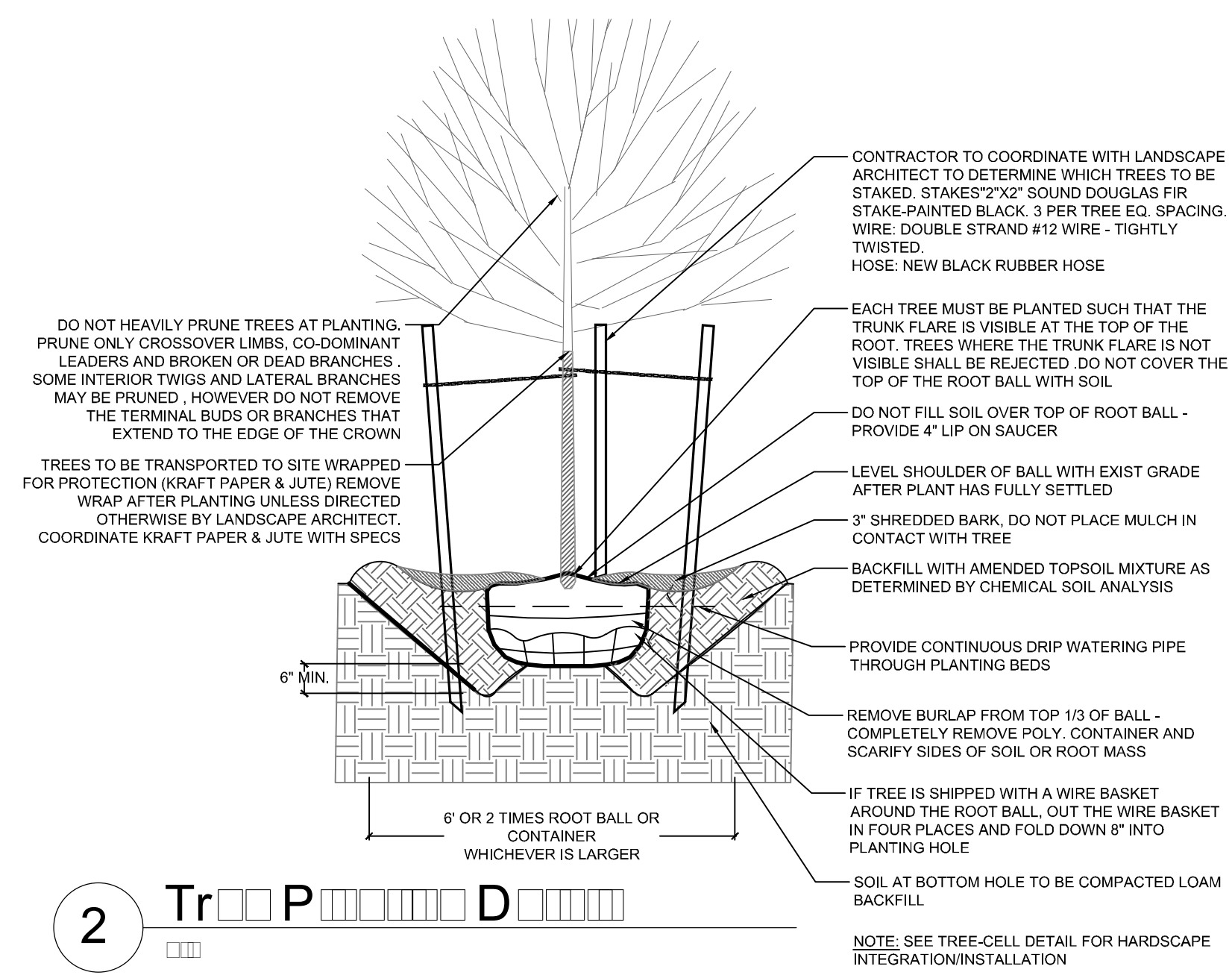
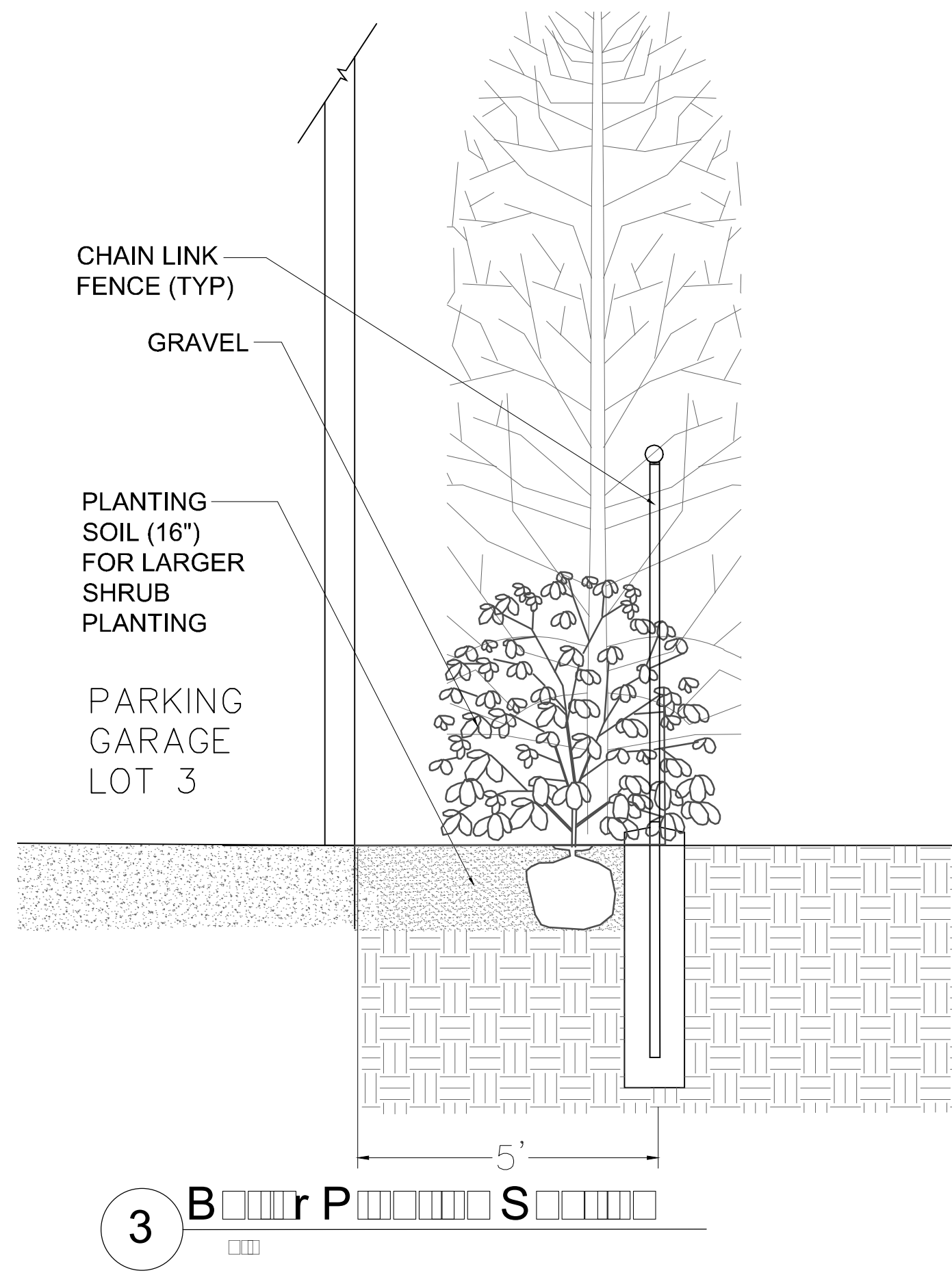
9 D R D
SCALE 6" = 1'-0"

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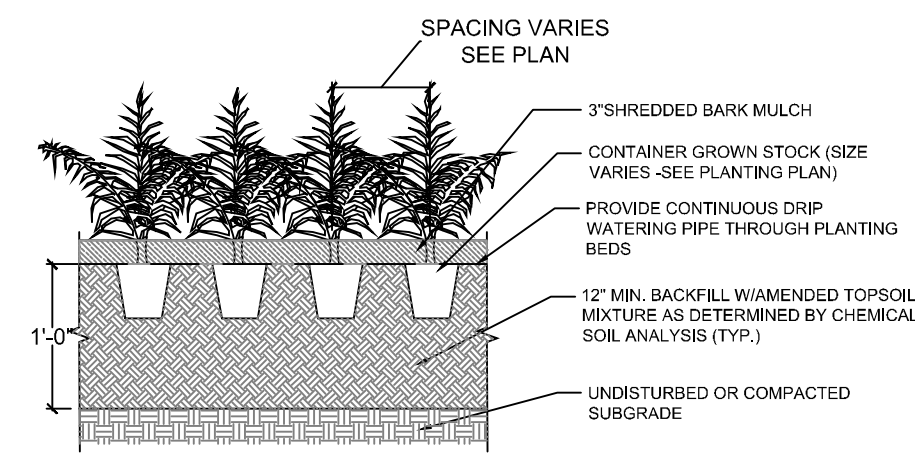
SITE PLAN REVIEW

DETAILS
MATERIALS

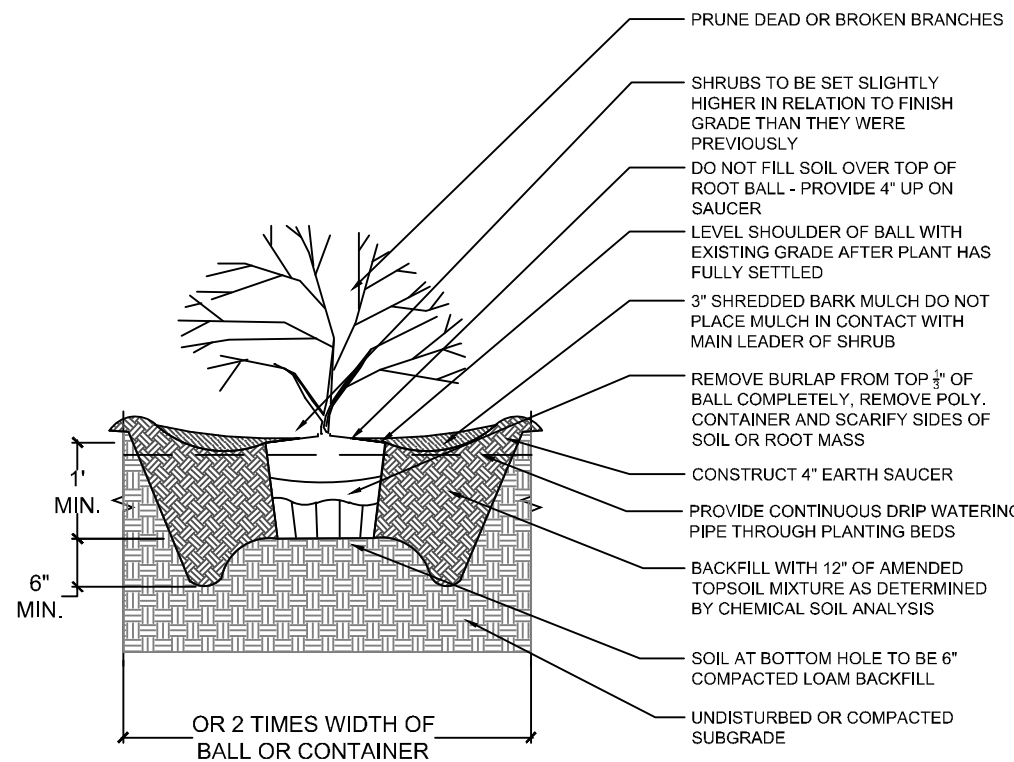
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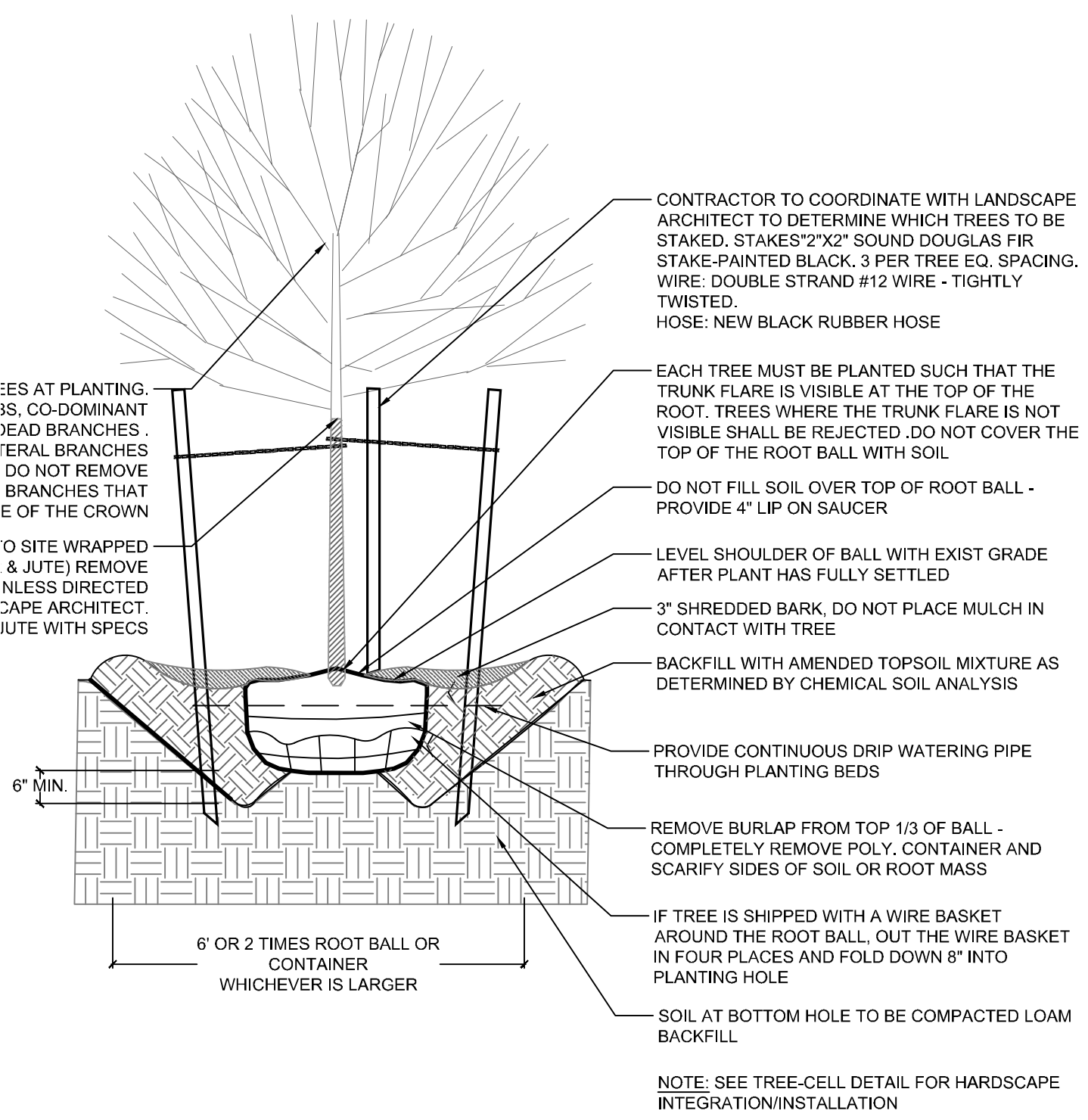
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NO.	DESCRIPTION	DATE



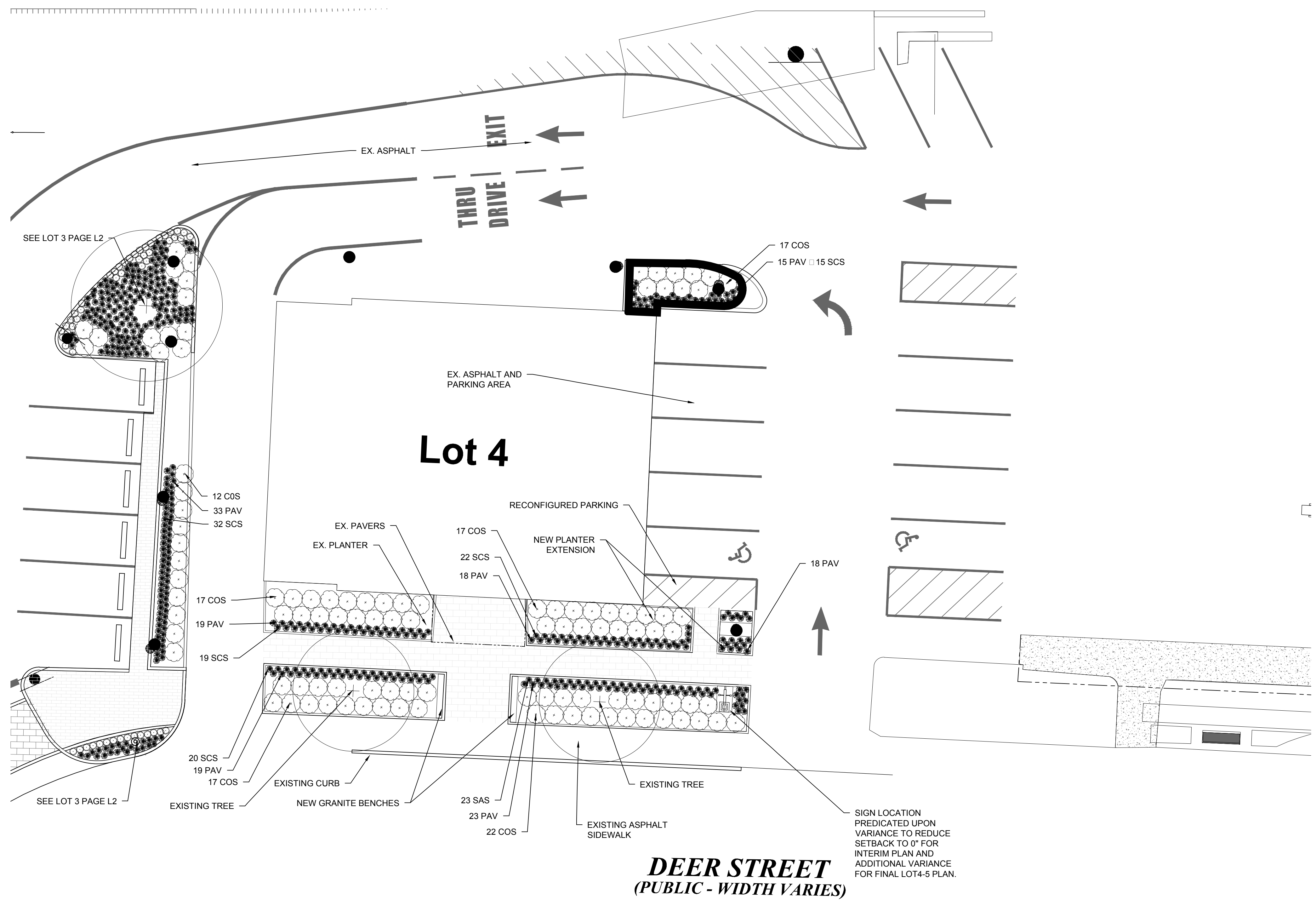
1 Pr P D



2 Sr P D



3 Tr P D



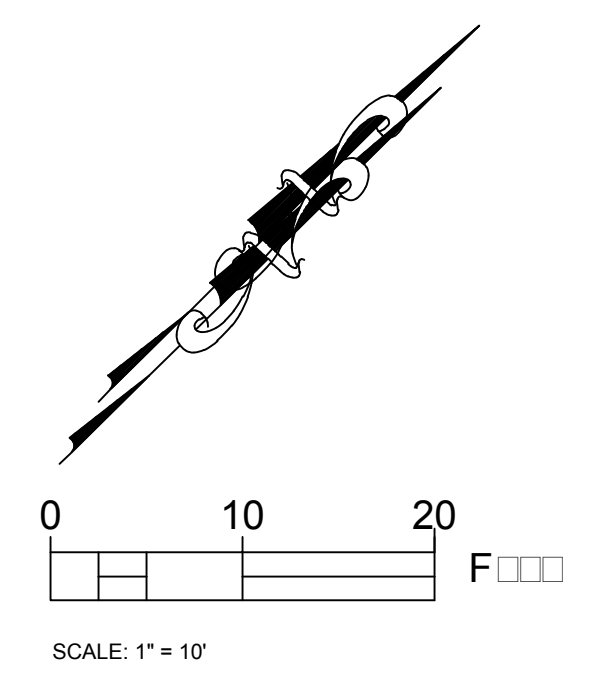
Planting Schedule

Symbol	Scientific Name	Common Name	Size	Spacing	Mature Height	Crown Spread	Growth Habit	Notes
Shrubs								
COS	CORNUS sericea 'Artic Fire'	Dogwood, Artic-Fire Red-Osier	3-4' ht	see plan	3-4'	3-4'	Rounded	Compact, dense form growing wider than tall. Bright red bark
Ornamental Grasses								
PAV	PANICUM virgatum 'Shenandoah'	Switch Grass	#2 cont.	18" o.c.	3-4'	2-3'	Upright	Green leaves in early summer turning to dark red
SCS	SCHIZACHYRIUM scoparium	Little bluestem	#2 cont.	18" o.c.	1-2'	1-2'	Clump	Finely textured clumping grass with a blue-green summer color

- LANDSCAPE NOTES**
1. [Symbol] required screening and landscape materials.
 2. [Symbol] free of refuse and debris. All required fences and walls shall be maintained in good repair.
 3. [Symbol]

DEER STREET
(PUBLIC - WIDTH VARIES)

SIGN LOCATION PREDICATED UPON VARIANCE TO REDUCE SETBACK TO 0" FOR INTERIM PLAN AND ADDITIONAL VARIANCE FOR FINAL LOT4-5 PLAN.



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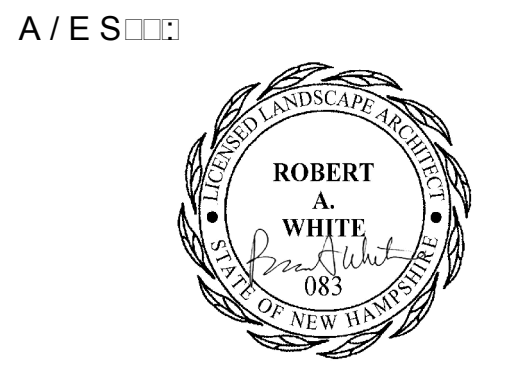
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Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME



S: [Symbol]
D: [Symbol] 2/06/2018
Pr: [Symbol] 14837.02

REVISIONS

NO.	DESCRIPTION	DATE

SITE PLAN REVISION

**INTERIM LOT 4
ACCESS
DRIVEWAY
PLANTING PLAN**

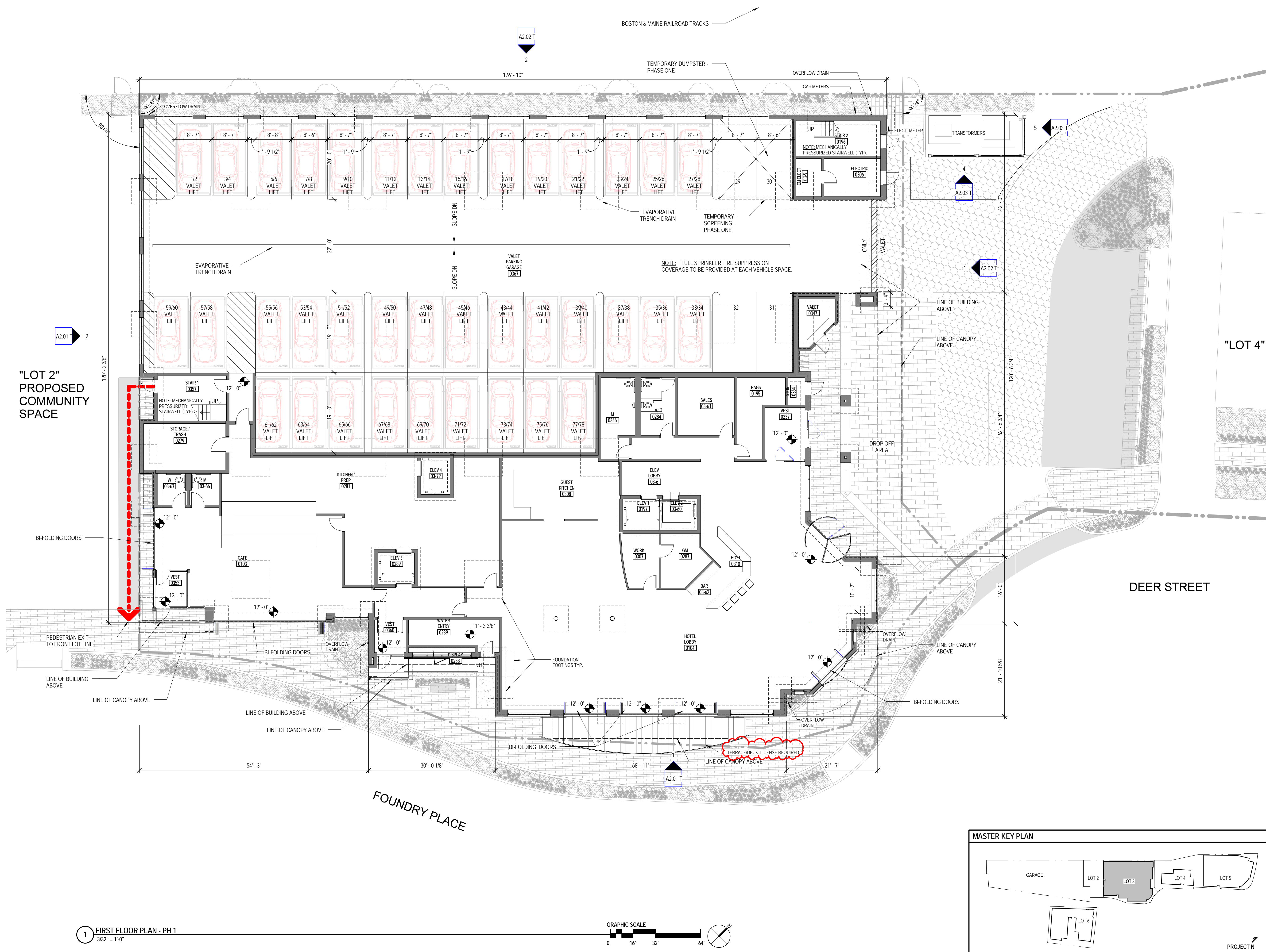


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6	PLANNING BOARD	2/06/2018

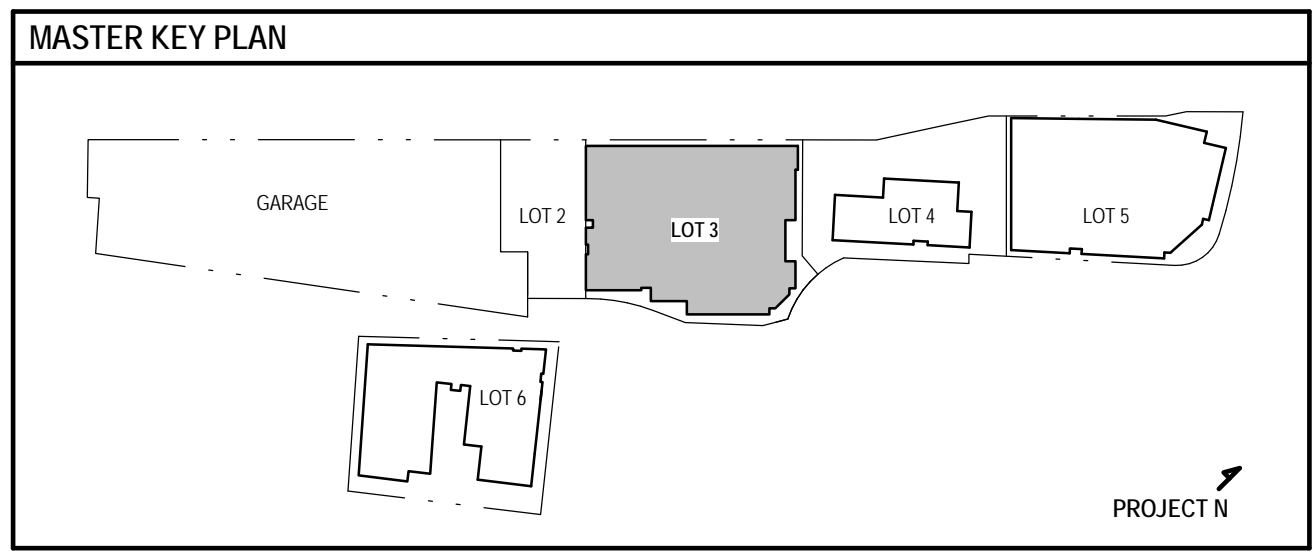
SITE PLAN REVIEW

**FIRST FLOOR
PLAN**

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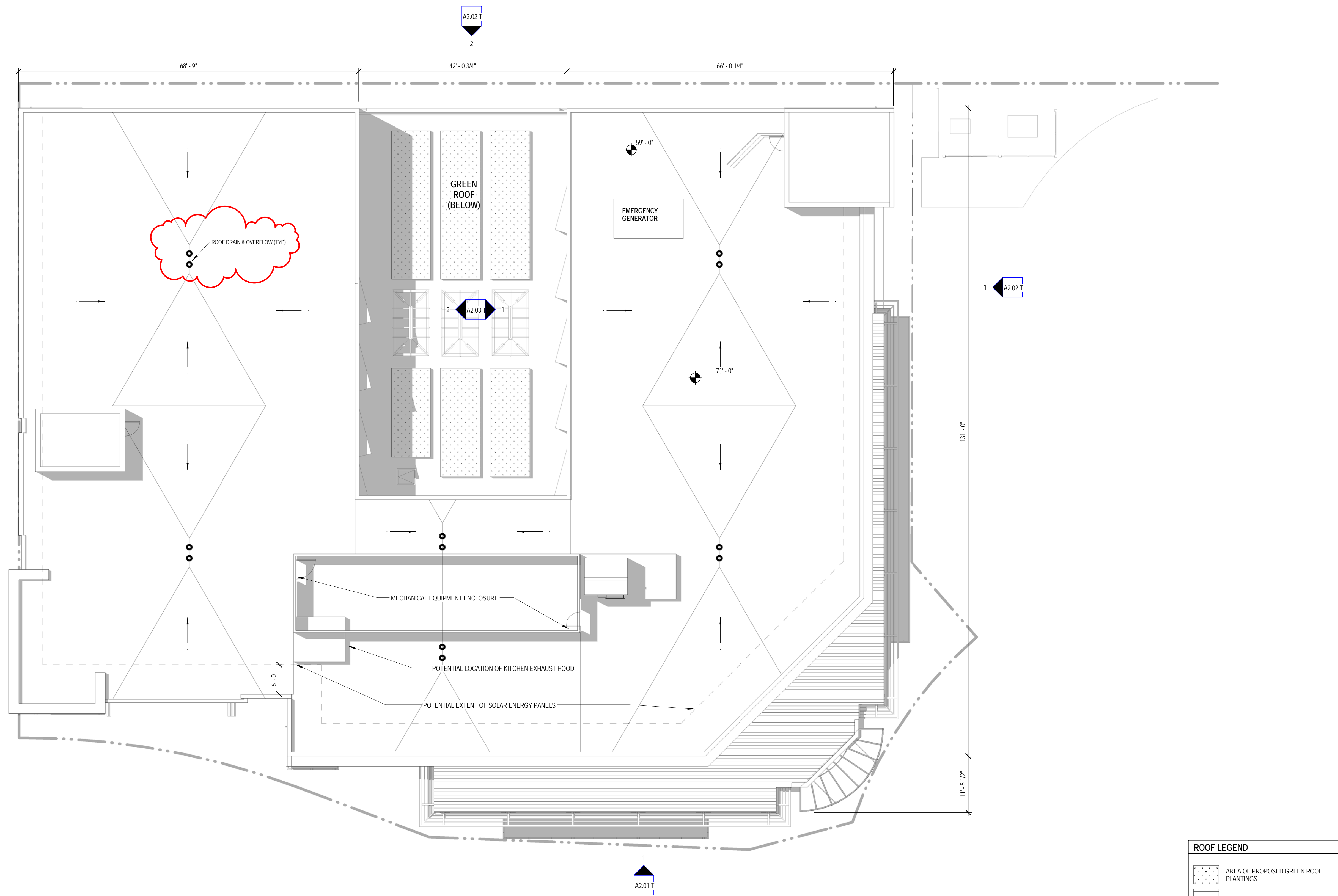


1 FIRST FLOOR PLAN - PH 1
3/32" = 1'-0"

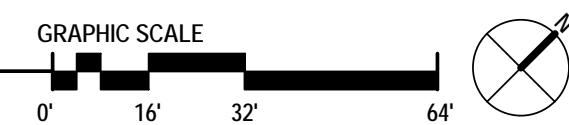


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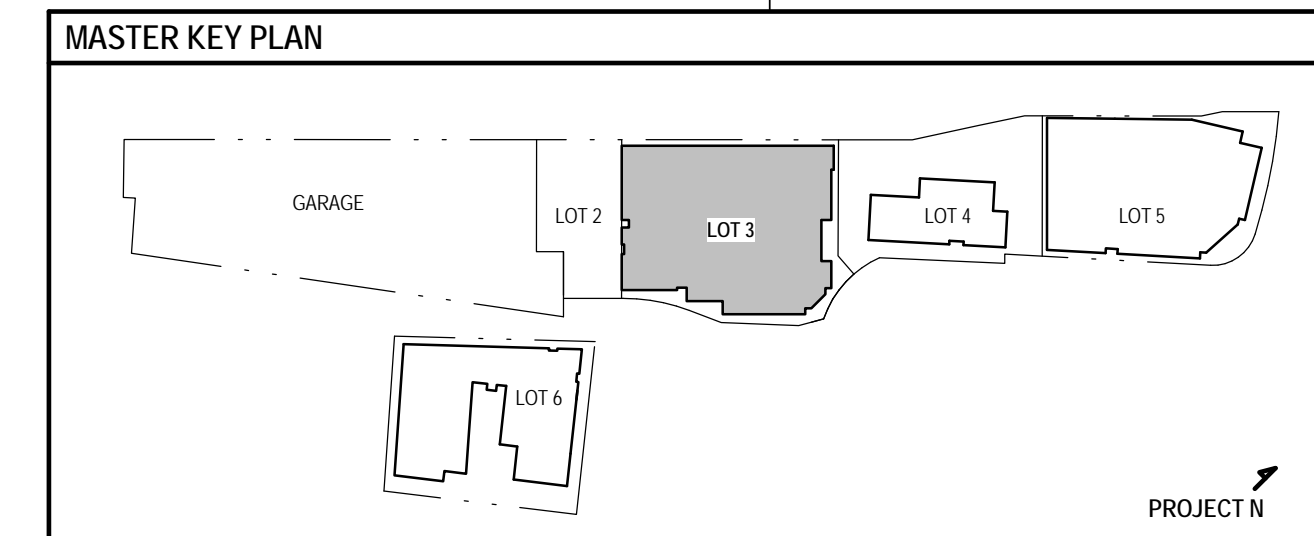


1 ROOF PLAN
3/32" = 1'-0"



ROOF LEGEND

	AREA OF PROPOSED GREEN ROOF PLANTINGS
	AREA OF ROOF TERRACES



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SITE PLAN REVIEW

ROOF PLAN

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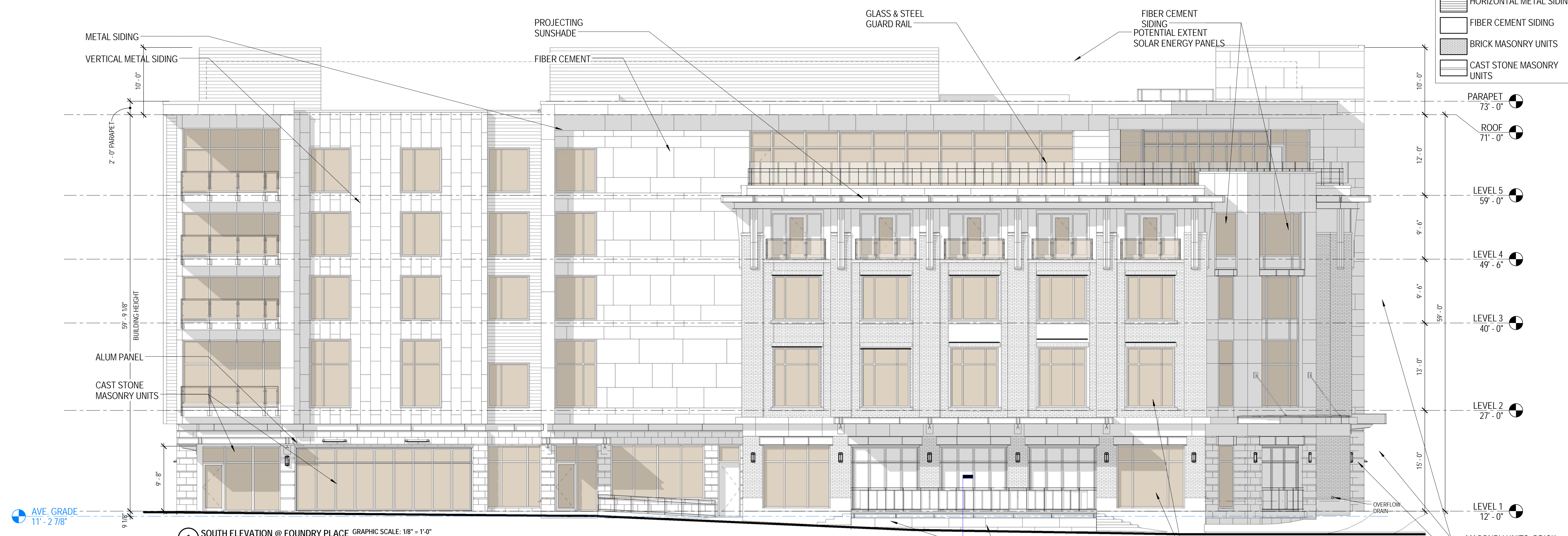
**EXTERIOR
ELEVATIONS**

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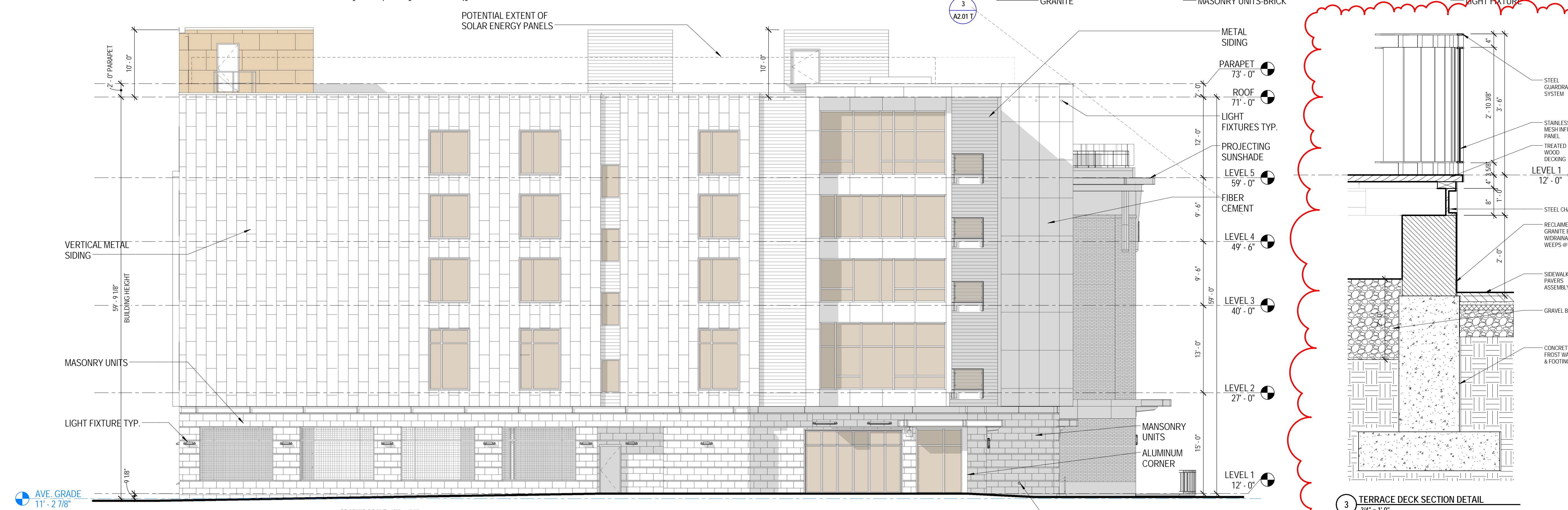
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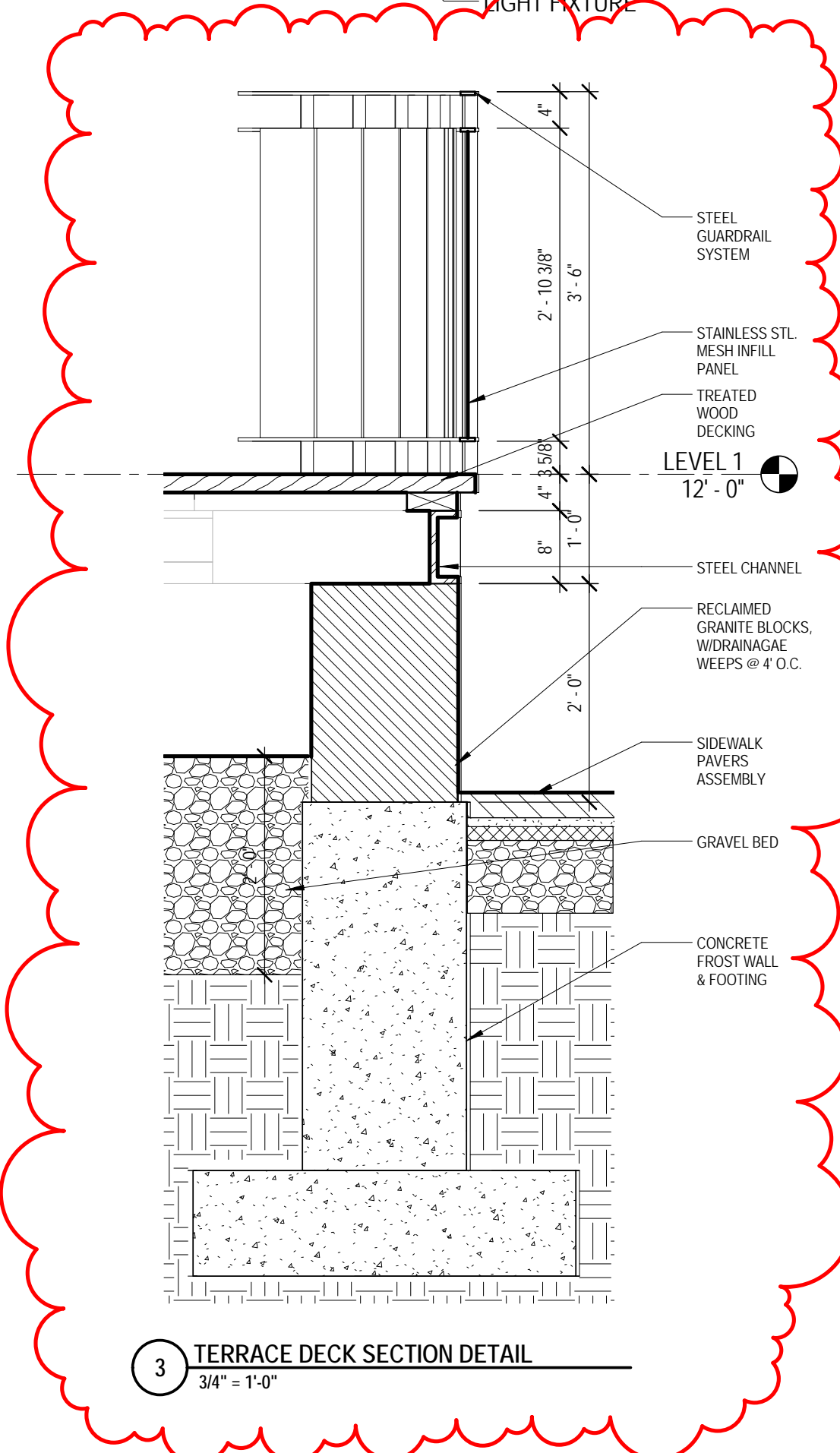
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	HORIZONTAL METAL SIDING
	FIBER CEMENT SIDING
	BRICK MASONRY UNITS
	CAST STONE MASONRY UNITS



1 SOUTH ELEVATION @ FOUNDRY PLACE
1/8" = 1'-0" GRAPHIC SCALE: 1/8" = 1'-0"



2 WEST ELEVATION @ LOT 2
1/8" = 1'-0" GRAPHIC SCALE: 1/8" = 1'-0"



3 TERRACE DECK SECTION DETAIL
3/4" = 1'-0"

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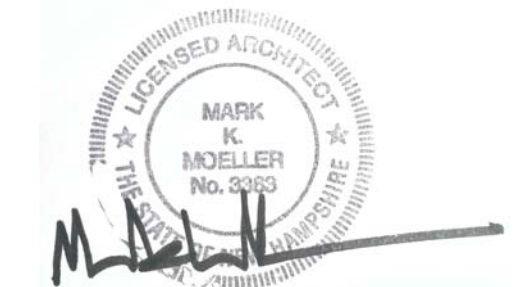
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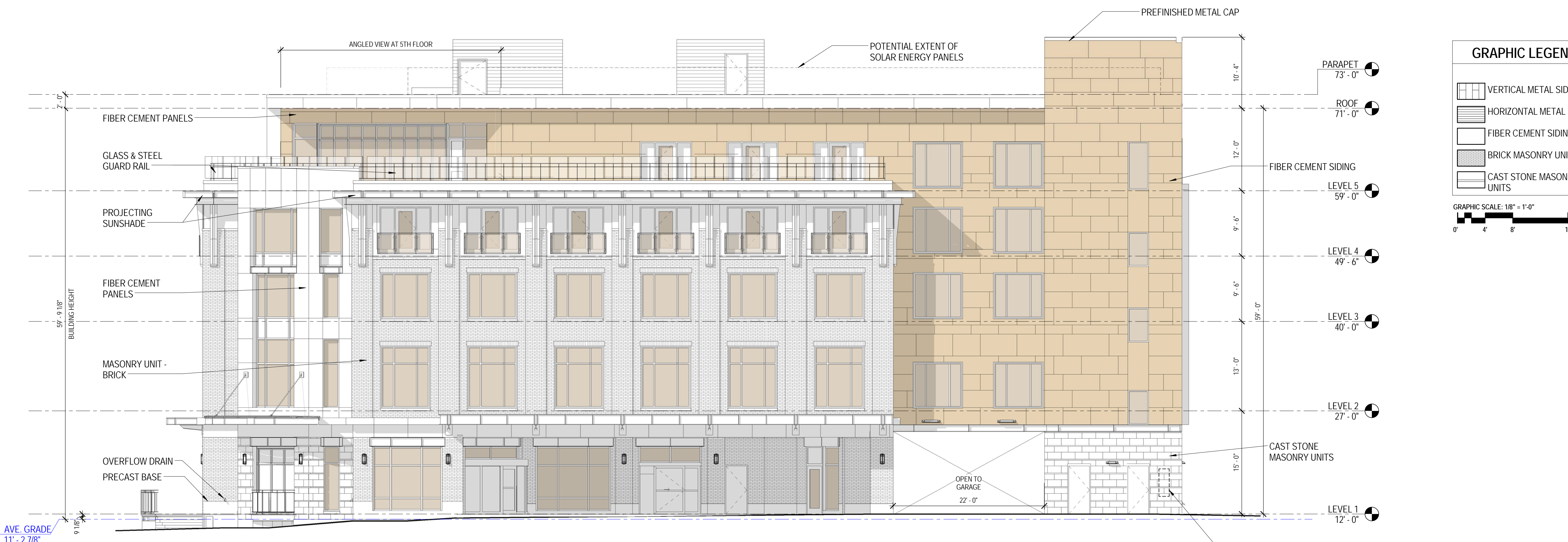
EXTERIOR
ELEVATIONS

A2.02 T

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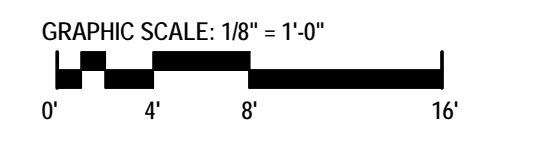
2 NORTH ELEVATION @ R.R.
1/8" = 1'-0"



1 EAST ELEVATION @ LOT 4
1/8" = 1'-0"

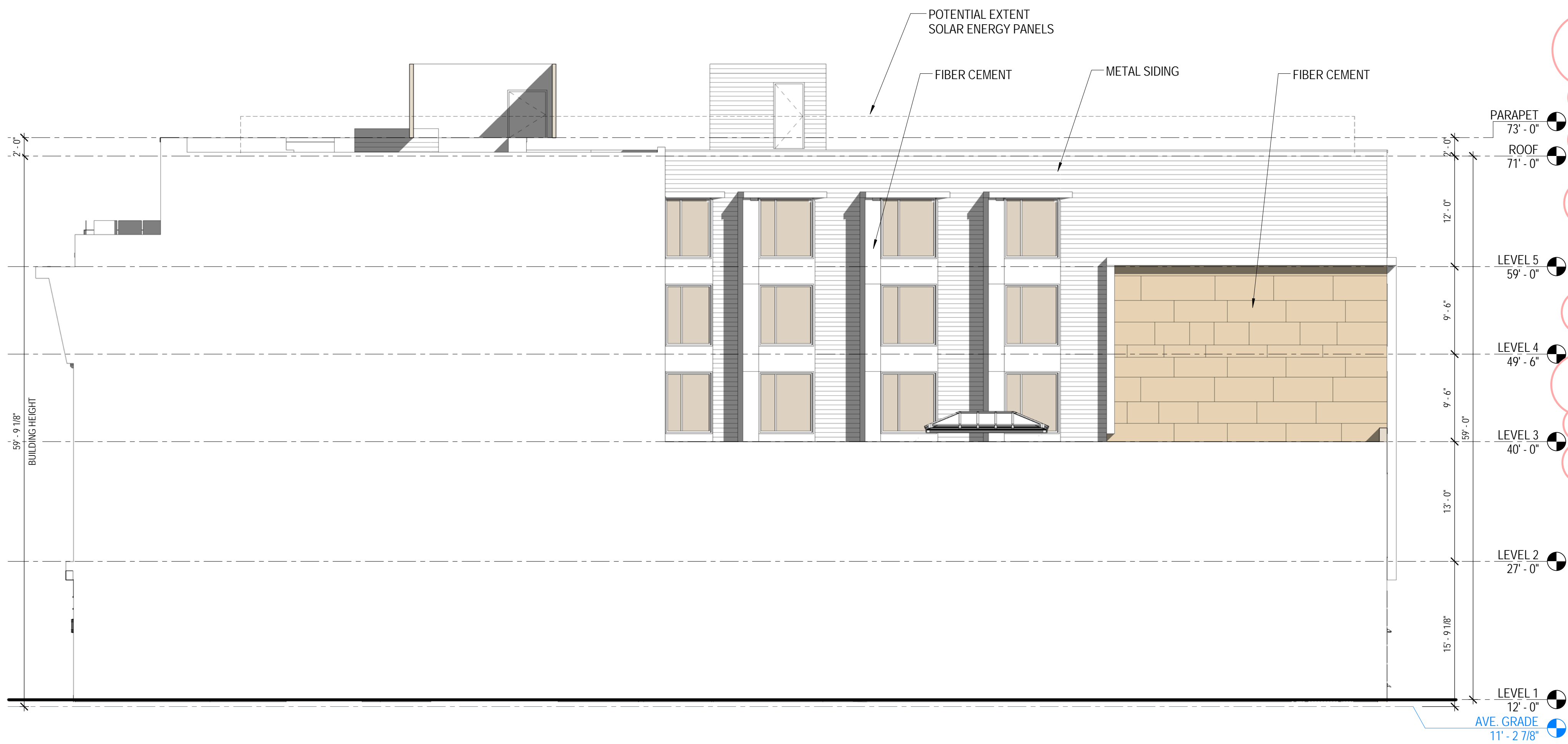
GRAPHIC LEGEND

- VERTICAL METAL SIDING
- HORIZONTAL METAL SIDING
- FIBER CEMENT SIDING
- BRICK MASONRY UNITS
- CAST STONE MASONRY UNITS



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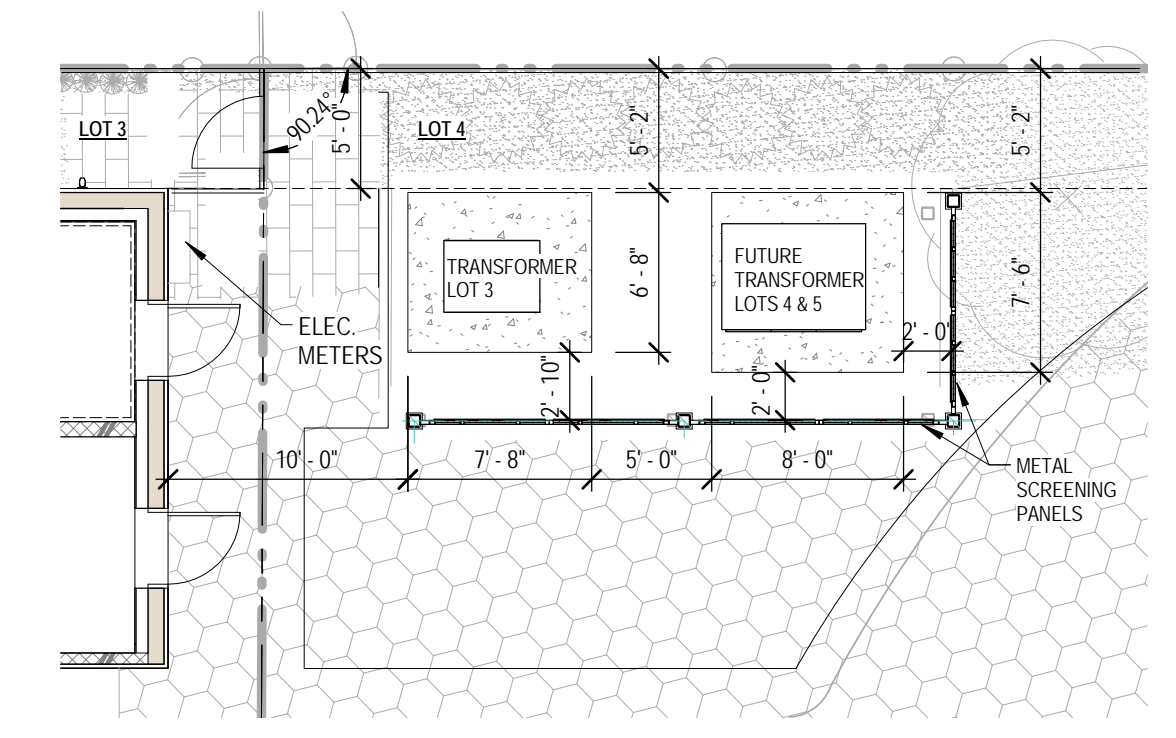
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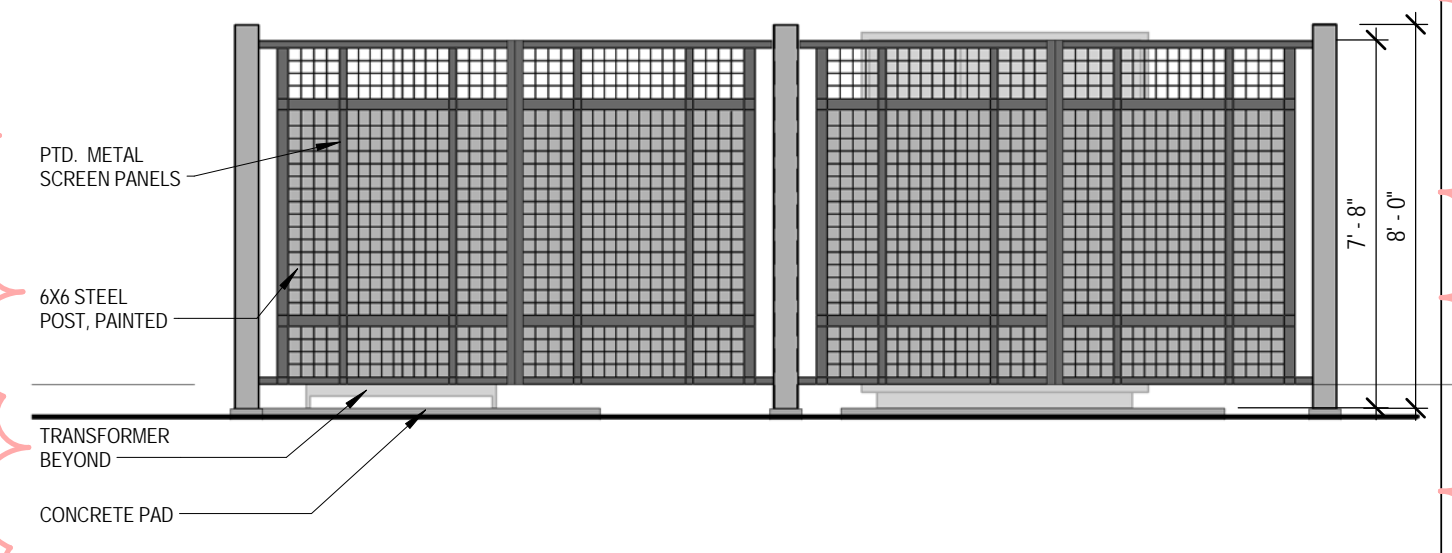
2 COURTYARD ELEVATION 2
1/8" = 1'-0"
GRAPHIC SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



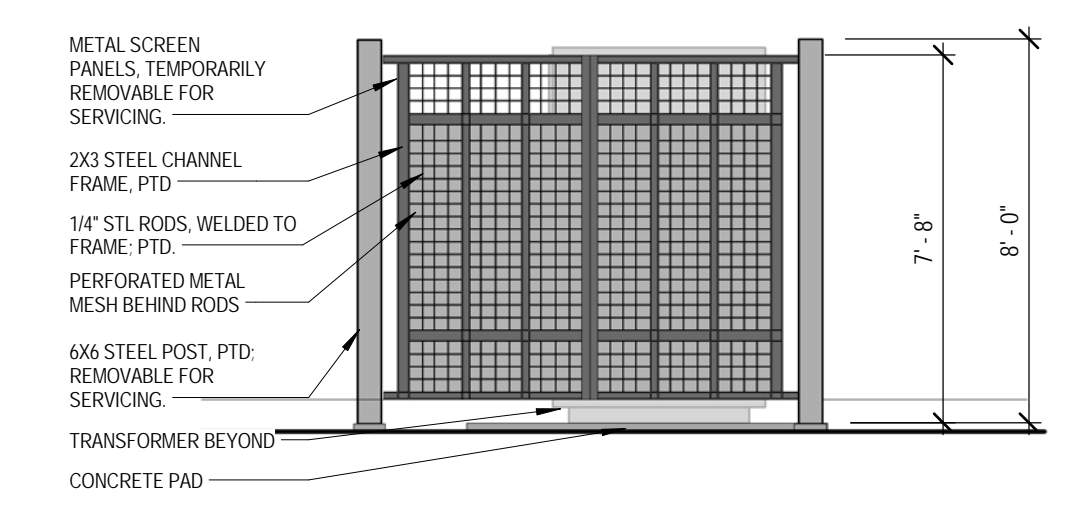
1 COURTYARD ELEVATION 1
1/8" = 1'-0"
GRAPHIC SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



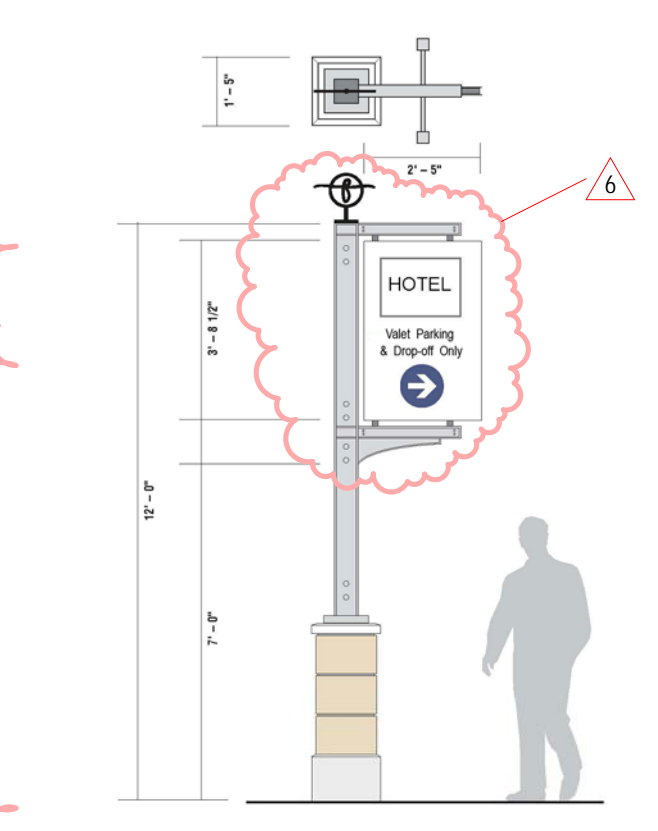
3 TRANSFORMER SCREEN - PLAN
1/8" = 1'-0"



4 TRANSFORMER SCREEN - FRONT ELEVATION
1/4" = 1'-0"



5 TRANSFORMER SCREEN - SIDE ELEVATION 34x24
1/4" = 1'-0"



6 LOT 4 SIGN DETAIL

GRAPHIC LEGEND

	VERTICAL METAL SIDING
	HORIZONTAL METAL SIDING
	FIBER CEMENT SIDING
	BRICK MASONRY UNITS
	CAST STONE MASONRY UNITS



JSA
ARCHITECTS
INTERIORS
PLANNERS

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801
T 603.436.2551 www.jsainc.com

GEOINSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDERSEN, INC.
LANDSCAPE ARCHITECT
PORTSMOUTH, NEW HAMPSHIRE

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DERRY, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPFP ENGINEER
WOBURN, MASSACHUSETTS

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17, AND
RELATED
IMPROVEMENTS TO
LOTS 2, 4 & 5**
PORTSMOUTH, NH 03801

OWNER:
Foundry Place, LLC (Lots 2&3)
Deer Street Associates (Lots 4&5)
7 BANKS ROCK ROAD
YORK HARBOR, ME

A/E Seal:



Scale: As indicated
Date: 2/06/2018
Project Number: 14837.02

REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	3/17/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017
4	TAC PUBLIC HEARING	1/16/2018
6	PLANNING BOARD	2/06/2018

SITE PLAN REVIEW

**EXTERIOR
ELEVATIONS**

A2.03 T

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VIEW OF EAST FACADE FROM BRIDGE AND DEER STREETS



VIEW OF WEST FACADE, FROM FOUNDRY PLACE



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**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
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PORTSMOUTH, NH 03801

OWNER:

Foundry Place, LLC (Lots 2&3)
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7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E Seal:



Scale:
Date: 2/06/2018
Project Number: 14837.02

REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	3/17/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017

SITE PLAN REVIEW

3D VIEWS

A3.00 T

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**THE HOTEL AT FOUNDRY PLACE, "LOT 3":
165 DEER STREET, ASSESSORS MAP 125
LOT 17, AND RELATED IMPROVEMENTS
TO LOTS 2, 4, AND 5**

REVISIONS		
No.	Description	DATE
1	4/5/17 TAC Hearing Comments and Other Updates	11/17/17
2	12/5/17 TAC Hearing #2 Comments and Other Updates	12/18/18
3	Updated Stormwater Management Report	12/15/17
4	Updated Traffic Memorandum	1/03/18
5	1/02/18 TAC Hearing #3 Comments and Other Updates	1/16/18
6	Comment-Response of Traffic Memo Peer Review	1/22/18
7	Comment-Response to Stormwater Peer Review	1/24/18
8	1/30/18 TAC Hearing #4 Comments and Other Updates	2/6/18

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ATTACHMENT D – Parking Lift Cut Sheets

ATTACHMENT E – Stormwater Management Report (12/15/17), 3rd Party Peer Review, and Applicant Response

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CITY OF PORTSMOUTH NEW HAMPSHIRE

SITE REVIEW APPLICATION

Building Permit Application Number _____

Case Number _____

Application includes multiple Lots: Refer to Attached Summary Sheet

Fee _____

Application includes multiple
Lots: Refer to Attached
Summary Sheet

Map _____ Lot _____ Zone CD5 Wetlands: Inland _____ Coastal _____ Lot Area _____

Date of Approvals (Indicate if Pending)			Refer to Attached Summary of Variances
Conservation Commission _____	Conditional Use _____	Board of Adjustment _____	
Historic District Commission <u>Pending</u>	Subdivision _____	Other _____	

Street Address Application includes multiple Lots: Refer to Attached Summary Sheet

Description of Project including all use(s) New Mixed Use Building on Lot 3 to include first story parking, cafe, and hotel lobby; hotel rooms on the second, third, and fourth floors; and hotel rooms, a bar, and a restaurant on the fifth floor. Proposed development will affect three additional lots (i.e., Lot 2, Lot 4, and Lot 5), where various improvements are planned for the benefit of Lot 3.

Building(s) Footprint 22,073 Gross Floor Area 104,020 #of Stories 5

92 (78 on Lot 3 and 33 reserved in City Garage)

of Dwelling Units 128 Hotel Rooms Number of Parking Spaces: Existing NA Proposed _____

Print Information Below

Property Owner's Name Foundry Place, LLC (Lot 2 and Lot 3) and Deer Street Associates (Lot 4 and Lot 5)

Street Address PO Box 100 City/Town York State ME Zip 03911

207.363.3540 Telephone # _____ Cell Phone # _____ Fax # _____ Email Address ania@glogrogers.com

Print Information Below

Applicant's / Developer's Name Foundry Place, LLC (Lot 2 and Lot 3) and Deer Street Associates (Lot 4 and Lot 5)

Street Address PO Box 100 City/Town York State ME Zip 03911

207.363.3540 Telephone # _____ Cell Phone # _____ Fax # _____ Email Address ania@glogrogers.com

Print Information Below (Include Additional Contact Information on Next Page)

Check One: Owner's Attorney Applicant's Attorney Engineer Surveyor Other If other, state relationship Architect

Representative's Name Tracy Kozak, JSA, Inc.

Street Address 273 Corporate Drive City/Town Portsmouth State NH Zip 03801

603.436.2551 Telephone # _____ Cell Phone # _____ Fax # _____ Email Address tkozak@jsainc.com

I hereby apply for Site Review and acknowledge that I will comply with all the ordinances and any stipulations of the Site Review Committee of the City of Portsmouth in the development and construction of this project.

Owner's Signature _____ **Kim Rogers, Foundry Place LLC and Deer Street Associates** 12/18/17
Print Owner's Name Date

Applicant's/Developer's Signature _____ **Kim Rogers, Foundry Place LLC and Deer Street Associates** 12/18/17
Print Applicant's/Developer's Name Date

Print Information Below

Check One: Owner's Attorney Applicant's Attorney Engineer Surveyor Other If other, state relationship _____

Representative's Name Michael Penney, GeoInsight, Inc.

Street Address 186 Granite Street, 3rd Fl, Ste A City/Town Manchester State NH Zip 03101

603.314.0820 mcpenney@geoinc.com

Telephone # Cell Phone # Fax # Email Address

Print Information Below

Check One: Owner's Attorney Applicant's Attorney Engineer Surveyor Other If other, state relationship _____

Representative's Name _____

Street Address _____ City/Town _____ State _____ Zip _____

Telephone # Cell Phone # Fax # Email Address

Print Information Below

Check One: Owner's Attorney Applicant's Attorney Engineer Surveyor Other If other, state relationship _____

Representative's Name _____

Street Address _____ City/Town _____ State _____ Zip _____

Telephone # Cell Phone # Fax # Email Address

Attachments

The following materials must be submitted to the Planning Department along with the completed Application Form:

- Site Plan Application Checklist
- Ten (10) stamped and folded copies of the site plan – four (4) full-size (22" x 34") and six (6) reduced (11" x 17")
- Digital copy of any plans and/or exhibits (in PDF format)
- Application Fee (already paid)
- Any required State or Federal Permits NA

SUMMARY OF LOT INFORMATION

**FOUNDRY PLACE, LLC AND DEER STREET ASSOCIATES
DEVELOPMENT DESIGN APPROVAL PACKAGE
LOT 3 (165 DEER STREET) / MAP 125 LOT 17
AND ACCOMPANYING RELATED IMPROVEMENTS TO
LOT 2 / MAP 125 LOT 17-1
LOT 4 (163 DEER STREET) / MAP 125 LOT 17-2
LOT 5 (157-161 DEER STREET) / MAP 125 LOT 17-3**

SITE PLAN REVIEW

PRIMARY LOT:

ADDRESS	MAP	LOT	REFERENCE	AREA	OWNER
165 Deer Street	125	17	Lot 3	26,503 sf	Foundry Place, LLC

RELATED LOTS:

ADDRESS	MAP	LOT	REFERENCE	AREA	OWNER
Off Bridge Street	125	17-1	Lot 2	8,519 sf	Foundry Place, LLC
163 Deer Street	125	17-2	Lot 4	18,347 sf	Deer Street Associates
157-161 Deer Street	125	17-3	Lot 5	22,667 sf	Deer Street Associates

SUMMARY OF VARIANCES SOUGHT AND APPROVED

THE HOTEL AT FOUNDRY PLACE, "LOT 3": 165 DEER STREET, ASSESSORS MAP 125 LOT 17, AND RELATED IMPROVEMENTS TO LOTS 2, 4 AND 5 SITE PLAN REVIEW

For Lot 2:

1. A Variance from Section 10.440 to allow a surface parking lot as a principal use where such use is not allowed.
2. A Variance from Section 10.5A44 to allow a parking lot that does not comply with the requirements of the ordinance.

Approved July 18, 2017.

For Lot 3:

1. A Variance from Section 10.516.20 to allow 5'+- rear yard adjoining a railroad right-of-way where 15' is required.
2. A Variance from Section 10.1114.21 to allow 62 parking spaces utilizing a two-car lift system in each bay that does not meet the required dimensions for parking spaces.
3. A Variance from Section 10.1114.32(a) to allow vehicles to enter and leave parking spaces by passing over another parking space or requiring the moving of another vehicle.

Approved May 16, 2017.

For Lot 4

1. A Variance under Section 10.440, Use #19.40 to allow a drive-through facility as an accessory use.
2. A Variance from Section 10.516.20 to allow a 5'± rear yard adjoining a railroad right-of-way where 15' is required.
3. A Variance from 10.5A41.10D to allow a front lot line buildout of 66%± where 80% is required.
4. A Variance from Section 10.835.31 to allow an outdoor service facility (ATM) 49.7'± from the rear lot line and 48'± from the front lot line where 50' is required for each.
5. A Variance from Section 10.835.32 to allow a drive-through bypass lane 11.3'± from a lot line where 30' is required.

Approved April 18,2017



City of Portsmouth, New Hampshire

Site Plan Application Checklist

This site plan application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all site plan review requirements. Please refer to the Site Plan review regulations for full details.

Applicant Responsibilities (Section 2.5.2): Applicable fees are due upon application submittal along with required attachments. The application shall be complete as submitted and provide adequate information for evaluation of the proposed site development. Waiver requests must be submitted in writing with appropriate justification.

Name of Owner/Applicant: Foundry Place LLC and Deer Street Associates Date Submitted: 12/18/17

Phone Number: 207.363.3540 E-mail: ania@glrogers.com

Site Address: 165 Deer Street and Related Properties - See Attached Property Summary Sheet Map: Lot:
See Attached Property Summary Sheet

Project: Hotel At Foundry Place Zoning District: CD5 Lot area: sq. ft.
See Attached Property Summary Sheet

Application Requirements			
<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)	Waiver Requested
<input checked="" type="checkbox"/>	Fully executed and signed Application form. (2.5.2.3)	Attached	N/A
<input checked="" type="checkbox"/>	All application documents, plans, supporting documentation and other materials provided in digital Portable Document Format (PDF) on compact disc, DVD or flash drive. (2.5.2.8)	Attached	N/A

Site Plan Review Application Required Information			
<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
<input checked="" type="checkbox"/>	Statement that lists and describes "green" building components and systems. (2.5.3.1A)	Refer to Attachment J of the 12/5/17 TAC submittal package	
<input checked="" type="checkbox"/>	Gross floor area and dimensions of all buildings and statement of uses and floor area for each floor. (2.5.3.1B)	Sheet T.02T	
<input checked="" type="checkbox"/>	Tax map and lot number, and current zoning of all parcels under Site Plan Review. (2.5.3.1C)	Zoning on Sheets T.02T, X1 and X2, and Map and Lot numbers are in Title Blocks	
<input checked="" type="checkbox"/>	Owner's name, address, telephone number, and signature. Name, address, and telephone number of applicant if different from owner. (2.5.3.1D)	On Application	

Site Plan Review Application Required Information

<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
<input checked="" type="checkbox"/>	Names and addresses (including Tax Map and Lot number and zoning districts) of all direct abutting property owners (including properties located across abutting streets) and holders of existing conservation, preservation or agricultural preservation restrictions affecting the subject property. (2.5.3.1E)	Refer to Existing Conditions Plans X1 and X2	
<input checked="" type="checkbox"/>	Names, addresses and telephone numbers of all professionals involved in the site plan design. (2.5.3.1F)	Refer to Cover Sheet of Design Plan Set	
<input checked="" type="checkbox"/>	List of reference plans. (2.5.3.1G)	Refer to Cover Sheet of Design Plan	
<input checked="" type="checkbox"/>	List of names and contact information of all public or private utilities servicing the site. (2.5.3.1H)	Refer to Attachment K of package submitted for 12/5/17 TAC Hearing	

Site Plan Specifications

<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
<input checked="" type="checkbox"/>	Full size plans shall not be larger than 22 inches by 34 inches with match lines as required, unless approved by the Planning Director. Submittals shall be a minimum of 11 inches by 17 inches as specified by Planning Dept. staff. (2.5.4.1A)	Required on all plan sheets	N/A
<input checked="" type="checkbox"/>	Scale: Not less than 1 inch = 60 feet and a graphic bar scale shall be included on all plans. (2.5.4.1B)	Required on all plan sheets	N/A
<input checked="" type="checkbox"/>	GIS data should be referenced to the coordinate system New Hampshire State Plane, NAD83 (1996), with units in feet. (2.5.4.1C)	Required on all plan sheets	N/A
<input checked="" type="checkbox"/>	Plans shall be drawn to scale. (2.5.4.1D)	Required on all plan sheets	N/A
<input checked="" type="checkbox"/>	Plans shall be prepared and stamped by a NH licensed civil engineer. (2.5.4.1D)	Required on all plan sheets	N/A
<input type="checkbox"/>	Wetlands shall be delineated by a NH certified wetlands scientist. (2.5.4.1E)	Not Applicable	N/A
<input type="checkbox"/>	Wetland delineations shall be stamped by a NH certified wetlands scientist. (2.5.4.1E)	Not Applicable	N/A
<input checked="" type="checkbox"/>	Title (name of development project), north point, scale, legend. (2.5.4.2A)	Required on all plan sheets	N/A
<input checked="" type="checkbox"/>	Date plans first submitted, date and explanation of revisions. (2.5.4.2B)	Required on all plan sheets	N/A
<input checked="" type="checkbox"/>	Individual plan sheet title that clearly describes the information that is displayed.	Required on all plan sheets	N/A

Site Plan Specifications			
<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
	(2.5.4.2C)		
<input checked="" type="checkbox"/>	Source and date of data displayed on the plan. (2.5.4.2D)	Required on all plan sheets	N/A
<input checked="" type="checkbox"/>	A note shall be provided on the Site Plan stating: "All conditions on this Plan shall remain in effect in perpetuity pursuant to the requirements of the Site Plan Review Regulations." (2.5.4.2E)	Required on all plan sheets	N/A
<input checked="" type="checkbox"/>	Plan sheets submitted for recording shall include the following notes: <ul style="list-style-type: none"> a. "This Site Plan shall be recorded in the Rockingham County Registry of Deeds." b. "All improvements shown on this 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." (2.13.3)	Included on Sheets C3.0 to C3.4	N/A
<input checked="" type="checkbox"/>	Plan sheets showing landscaping and screening shall also include the following additional notes: <ul style="list-style-type: none"> a. "The property owner and all future property owners shall be responsible for the maintenance, repair and replacement of all required screening and landscape materials." b. "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." c. "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." (2.13.4)	Sheet L2, and Draft Landscape Maintenance Agreement provided for review and comment by City	N/A

Site Plan Specifications – Required Exhibits and Data

<input checked="" type="checkbox"/>	1. Existing Conditions: (2.5.4.3A)	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
<input checked="" type="checkbox"/>	a. Surveyed plan of site showing existing natural and built features;		
<input type="checkbox"/>	b. Zoning boundaries;		
<input checked="" type="checkbox"/>	c. Dimensional Regulations;	Sheet T.02T	
<input type="checkbox"/>	d. Wetland delineation, wetland function and value assessment;	Not Applicable	
<input type="checkbox"/>	e. SFHA, 100-year flood elevation line and BFE data.	Not Applicable	
	2. Buildings and Structures: (2.5.4.3B)		
<input checked="" type="checkbox"/>	a. Plan view: Use, size, dimensions, footings, overhangs, 1st fl. elevation;	Sheet C3.1	
<input checked="" type="checkbox"/>	b. Elevations: Height, massing, placement, materials, lighting, façade treatments;	Sheets A2.01T thru A2.03T	
<input checked="" type="checkbox"/>	c. Total Floor Area;	Sheet T.02T	
<input checked="" type="checkbox"/>	d. Number of Usable Floors;	Sheet T.02T	
<input checked="" type="checkbox"/>	e. Gross floor area by floor and use.	Sheet T.02T	
	3. Access and Circulation: (2.5.4.3C)		
<input checked="" type="checkbox"/>	a. Location/width of access ways within site;	Sheets C3.0 to C3.3	
<input checked="" type="checkbox"/>	b. Location of curbing, right of ways, edge of pavement and sidewalks;	Sheets C3.0 to C3.3	
<input checked="" type="checkbox"/>	c. Location, type, size and design of traffic signing (pavement markings);	Sheets C3.0 to C3.3	
<input checked="" type="checkbox"/>	d. Names/layout of existing abutting streets;	Sheet C3.0	
<input checked="" type="checkbox"/>	e. Driveway curb cuts for abutting prop. and public roads;	Sheets C3.0 to C3.3	
<input type="checkbox"/>	f. If subdivision; Names of all roads, right of way lines and easements noted;	Not Applicable	
<input checked="" type="checkbox"/>	g. AASHTO truck turning templates, description of minimum vehicle allowed being a WB-50 (unless otherwise approved by TAC).	Sheet C3.6	
	4. Parking and Loading: (2.5.4.3D)		
<input checked="" type="checkbox"/>	a. Location of off street parking/loading areas, landscaped areas/buffers;	Sheets C3.0 to C3.3	
<input checked="" type="checkbox"/>	b. Parking Calculations (# required and the # provided).	Sheet T.02T	
	5. Water Infrastructure: (2.5.4.3E)		
<input checked="" type="checkbox"/>	a. Size, type and location of water mains, shut-offs, hydrants & Engineering data;	Sheets C5.1, C8.3 and C8.4 and Attachment D	
<input type="checkbox"/>	b. Location of wells and monitoring wells (include protective radii).	Not Applicable	
	6. Sewer Infrastructure: (2.5.4.3F)		
<input checked="" type="checkbox"/>	a. Size, type and location of sanitary sewage facilities & Engineering data.	Sheets C5.0, C7.0, C8.3 and C8.4, and Attachment D	
	7. Utilities: (2.5.4.3G)		
<input checked="" type="checkbox"/>	a. The size, type and location of all above & below ground utilities;	Sheets C5.0, C5.1, and C5.2	
<input checked="" type="checkbox"/>	b. Size type and location of generator pads, transformers and other fixtures.	Sheets C5.1 and C5.2	
<input type="checkbox"/>	8. Solid Waste Facilities: (2.5.4.3H)		
<input checked="" type="checkbox"/>	a. The size, type and location of solid waste facilities.	Sheets C3.1 (notes) and Sheet A101T	
	9. Storm water Management: (2.5.4.3I)	Item Location	Waiver Requested

<input type="checkbox"/>	a. The location, elevation and layout of all storm-water drainage.		
	10. Outdoor Lighting: (2.5.4.3J)		
<input checked="" type="checkbox"/>	a. Type and placement of all lighting (exterior of building, parking lot and any other areas of the site) and; b. photometric plan.	Refer to Attachment G of the submittal package and Sheets A2.01T TO A2.03T	
<input checked="" type="checkbox"/>	11. Indicate where dark sky friendly lighting measures have been implemented. (10.1)	Refer to Attachment G of the submittal package	
	12. Landscaping: (2.5.4.3K)		
<input type="checkbox"/>	a. Identify all undisturbed area, existing vegetation and that which is to be retained;	Not Applicable	
<input checked="" type="checkbox"/>	b. Location of any irrigation system and water source.	Municipal water to be used for all landscaped areas	
	13. Contours and Elevation: (2.5.4.3L)		
<input checked="" type="checkbox"/>	a. Existing/Proposed contours (2 foot minimum) and finished grade elevations.	Sheets X1 and X2 and Sheets C4.1, C4.2 and C4.3	
	14. Open Space: (2.5.4.3M)		
<input checked="" type="checkbox"/>	a. Type, extent and location of all existing/proposed open space.	Sheet C3.6	
<input checked="" type="checkbox"/>	15. All easements, deed restrictions and non-public rights of ways. (2.5.4.3N)	Sheets E1, E2 and E3, and Attachment B	
<input type="checkbox"/>	16. Location of snow storage areas and/or off-site snow removal. (2.5.4.3O)	Refer to note on Sheet C3.1	
<input checked="" type="checkbox"/>	17. Character/Civic District (All following information shall be included): (2.5.4.3Q)		
	a. Applicable Building Height (10.5A21.20 & 10.5A43.30);	Sheet T.02T	
	b. Applicable Special Requirements (10.5A21.30);	Sheet T.02T	
	c. Proposed building form/type (10.5A43);	Sheets T.02T, A2.02T and A2.03T	
	d. Proposed community space (10.5A46).	Sheet C3.4	

Other Required Information			
<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
<input checked="" type="checkbox"/>	Traffic Impact Study or Trip Generation Report, as required. <i>(Four (4) hardcopies of the full study/report and Six (6) summaries to be submitted with the Site Plan Application) (3.2.1-2)</i>	Refer to Attachment C of the 12/5/17 TAC submittal package	
<input checked="" type="checkbox"/>	Indicate where Low Impact Development Design practices have been incorporated. (7.1)	Refer to the Stormwater Report In Attachment C	
<input type="checkbox"/>	Indicate whether the proposed development is located in a wellhead protection or aquifer protection area. Such determination shall be approved by the Director of the Dept. of Public Works. (7.3.1)	Not Applicable	
<input checked="" type="checkbox"/>	Indicate where measures to minimize impervious surfaces have been implemented. (7.4.3)	Refer to the Stormwater Report In Attachment C	
<input checked="" type="checkbox"/>	Calculation of the maximum effective impervious surface as a percentage of the site. (7.4.3.2)	Refer to the Stormwater Report In Attachment C	
<input checked="" type="checkbox"/>	Stormwater Management and Erosion Control Plan. <i>(Four (4) hardcopies of the full plan/report and Six (6) summaries to be submitted with the Site Plan Application) (7.4.4.1)</i>	Sheets C6.0 and C6.1	

Final Site Plan Approval Required Information

<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
<input checked="" type="checkbox"/>	All local approvals, permits, easements and licenses required, including but not limited to: <ol style="list-style-type: none"> a. Waivers; b. Driveway permits; c. Special exceptions; d. Variances granted; e. Easements; f. Licenses. (2.5.3.2A)	Refer to Sheets E1, E2, and E3, and Attachment B for a summary of Easements, and Sheet T.02T for a summary of variances	
<input checked="" type="checkbox"/>	Exhibits, data, reports or studies that may have been required as part of the approval process, including but not limited to: <ol style="list-style-type: none"> a. Calculations relating to stormwater runoff; b. Information on composition and quantity of water demand and wastewater generated; c. Information on air, water or land pollutants to be discharged, including standards, quantity, treatment and/or controls; d. Estimates of traffic generation and counts pre- and post-construction; e. Estimates of noise generation; f. A Stormwater Management and Erosion Control Plan; g. Endangered species and archaeological / historical studies; h. Wetland and water body (coastal and inland) delineations; i. Environmental impact studies. (2.5.3.2B)	<ol style="list-style-type: none"> a. Refer to Attachment C for the Stormwater Report; b. Refer to Attachment D for the Building Load Calculations; c. Refer to Attachment K of the 12/5/17 TAC submittal for Sustainable Strategies; d. Refer to Attachment C of the 12/5/17 TAC submittal; f. Refer to Attachment C and Sheets 6.0 and 6.1; g. Refer to Attachment I of the 12/5/17 TAC submittal; and e., h., and i.: Not requested or N/A 	
<input checked="" type="checkbox"/>	A document from each of the required private utility service providers indicating approval of the proposed site plan and indicating an ability to provide all required private utilities to the site. (2.5.3.2D)	Refer to Attachment E for evidence of utility commitments.	
<input type="checkbox"/>	A list of any required state and federal permit applications required for the project and the status of same. (2.5.3.2E)	NA	

Applicant's Signature: _____ **Date:** _____

Reviewed by: _____ **Date Reviewed:** _____



GeoInsight®

Environmental Strategy & Engineering
Practical in Nature

February 6, 2018

GeoInsight Project 8090-000

Mr. Dexter Legg
Planning Board Chairman
City of Portsmouth
City Hall, 3rd Floor
1 Junkins Avenue
Portsmouth, NH 03801

RE: Application for Site Plan Review
The Hotel At Foundry Place, "Lot 3"
165 Deer Street, Assessors Map 125 Lot 17
And Related Improvements To Lots 2, 4 And 5
Foundry Place LLC and Deer Street Associates
Portsmouth, NH 03801

Mr. Legg and Planning Board Members:

On behalf of Foundry Place LLC and Deer Street Associates (Foundry Place/DSA, the owners), GeoInsight, Inc. (GeoInsight) prepared this letter and attachments for the City of Portsmouth (the City) Planning Board (TAC) for the January 15, 2018 Public Hearing regarding the above reference project. This submittal seeks approval of the proposed redevelopment of Lot 3 and also approval of proposed improvements to two adjacent properties and one nearby by property; the proposed off-site improvements are required for the proposed development of Lot 3.

Please note that a change of ownership occurred on December 13, 2017 that affected the above lots. Foundry Place, LLC now owns Lots 2 and 3, and Deer Street Associates still owns Lots 4 and 5. Both Foundry Place, LLC and Deer Street Associates are held by GL Rogers and Company, Inc. of York, Maine. Foundry Place, LLC and Deer Street Associates are correctly referenced in some of the submittal materials, including title blocks on the plans, but not all of the information contained within the attached submittal package has been modified reflect the ownership change. Therefore, we respectfully request that the Planning Board accept the submission with the understanding that any references to Deer Street Associates or "DSA" with specific regard to Lot 2 or Lot 3 actual mean Foundry Place, LLC.

The Lot 3 design, and the improvements to Lots 2, 4, and 5, are based upon numerous meetings with City representatives and comments provided by the Technical Advisory Committee (TAC) after

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GeoInsight, Inc.
4 Market Place Drive, 2nd Floor
York, ME 03909
Tel (207) 606-1043



several public hearings. A letter from TAC dated February 2, 2018 documented Site Plan approval with stipulations for the Lot 3 project. These comments have been or are in the process of being addressed as follows:

Item 1.1: The Planting List on Sheet L2 was updated to reflect the updated list on drawing SK-L.1.

Item 1.2: On-site signs regarding valet parking have been updated and off-site signs will be located and designed to reflect TAC specifications, as well as being noted that they will require a special permit.

Item 1.3: Six proposed wheel stops at the hotel drop off area have been replaced with bollards.

Item 1.4: The R3-2 sign has been updated to a 24" by 24" size.

Item 1.5: The crosswalk referenced was removed so the striping comment is no longer relevant.

Item 1.6: A note has been added indicating that the construction of the deck located in the Deer Street ROW shall require a license from the City.

Item 1.7: A note has been added regarding references to snow removal that snow will not be stored on City property.

Item 2: Based upon comments received from the City and its third-party peer reviewer (CMA Engineers), the following modifications to the stormwater management design have been made and are identified on Sheet C4.0:

Pervious Pavers: A parking area currently next to the bank on Lot 4 includes six spaces that will be modified with pervious pavers and a draining underlayer. A cross section of the pavers, storage media, and filter sand are included on Sheet C7.0. This will add approximately 1,188 square feet of pervious surface and provide a static infiltration volume of 474 cubic feet.

Strip Drain in Drive-Around At the rear area of the drive-around between Lot 3 and Lot 4, a new infiltration strip has been added to collect first flush runoff from the area. The strip will consist of a trench approximately 2-feet deep by 2-feet wide by 24-feet long which will be filled with crushed stone set within filter fabric and containing a 12-inch perforated pipe for additional storage. This feature will accommodate approximately 42 cubic feet of runoff for infiltration. Overflow from the strip drain will travel as sheet flow onto the adjacent railroad property for infiltration, consistent with (but at lower flow conditions than) pre-development conditions. A typical section of the strip drain is shown on Sheet C8.5, detail #35.

Roof Runoff A 2,430 square foot area has been included within the main drive aisle of the Lot 3 parking garage that will be dedicated to infiltration of roof runoff. The system will be comprised of perforated piping set within crushed stone with a static infiltration of 995 cubic feet storage. An outlet control structure will route this runoff toward the Deer Street storm drain system.



A transverse cross-section of the system and outlet control structure are shown on Sheet C8.5, detail #34.

Sidewalk Landscaping Areas A new cross section has been created for the vegetated strips and tree wells that will accommodate more runoff for infiltration and capture more sidewalk runoff for treatment. The project L-series plans and details show the layout of this system. Silva cells are provided in the project plan located underneath the sidewalk and they have several applications:

1. **SOIL GROWTH VOLUME FOR STREET TREES:** Deciduous street trees are provided at approximately 30-foot spacing according to city design guidelines. Urban tree planting standards suggests that 700 cubic feet of soil be provided for each tree for optimal growth to maturity. The volume of soil in the landscape buffer does not attain that tree volume. Thus, two bays of Silva cells are proposed. The first bay is to be positioned along the top of the buried telecom/electric duct bank protected by an impervious membrane. A second line of Silva cells are positioned directly inside the duct bank at a deeper level for the balance of the soils required for the trees. Underdrains are provided so that the soils are not permanently saturated. The underdrains will overflow into the City's drainage system in Deer Street.
2. **SIDEWALK RUNOFF:** The brick sidewalks are cross-sloped towards Deer Street and will drain through the curbing at 20-foot intervals into a stone-lined bed with perforated pipe that will conduct the sidewalk stormwater equally through the planting bed. The soils in the planting bed will be designed to absorb that stormwater and as it percolates into the planting beds, some of the water will seep across the Silva cells into the additional tree planting soils. There is more than adequate soil volume within the landscape areas to accommodate the sidewalk runoff stormwater volumes.

Summary As requested by the City and CMA, and as summarized above, we have made revisions to the stormwater management features to further reduce stormwater volume into the City's municipal storm drain system. It is acknowledged that infiltration proposed is located within areas where impacted urban fill is present; however, groundwater quality in the area is ubiquitously degraded by the urban fill already and we do not believe the proposed infiltration will adversely change those conditions, and therefore the overriding goal of reducing volume is acceptable. Geolnsight is currently revising the Stormwater Report for the Lot 3 project, including updating the modeling to include the revisions described above. The new infiltration and treatment features with provide further reduction in peak flow and volume.

Item 3: Foundry Place LLC intends to continue working with the City regarding reaching fair share development mitigation contributions proposed by TAC.

Item 4: A draft sidewalk maintenance agreement consistent with a City template will be provided to the Planning Department prior to February 15, 2018.

Item 5: Foundry Place, LLC understands that a standard surety will be required for Lot 3 and Lot 2 prior to issuance of a building permit.



Item 6: Foundry Place, LLC understands that a license will be required from the City to allow the outdoor dining areas currently planned in front of the hotel.

Item 7: Foundry Place, LLC will prepare a Construction Management and Mitigation Plan for review and approval by the City.

The Foundry Place, LLC/DSA team appreciates the opportunity to work with the Planning Board and interested members of the public on this project. If you have questions about the information in this cover letter or attached materials, please contact us at (603) 314-0820.

Sincerely,
GEOINSIGHT, INC.

Michael C. Penney, P.E.
Senior Engineer/Senior Associate

Enc.

ATTACHMENT A
Summary of DSA Redevelopment Progression

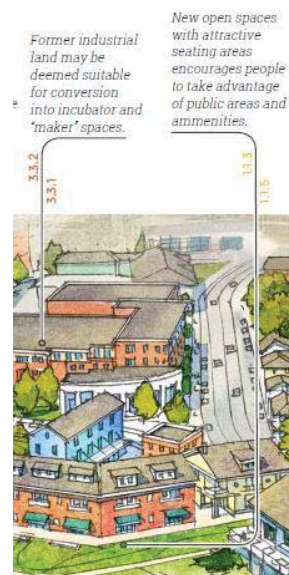
Project Vision

The vision for this project is to create a vibrant and pedestrian friendly neighborhood experience. The proposed Lot 3 development by Foundry Place LLC, and the City's new municipal parking garage are being developed and coordinated concurrently. The project goal is to create a harmonious Portsmouth experience throughout this neighborhood area for residents and visitors to enjoy. With these ideas in mind, special consideration is given to support *Zoning Ordinance Section 10.121 "General Purpose and Intent: The Ordinance is intended to implement the goals and objectives of the Master Plan..."*.



Objectives

- **Welcoming, vibrant & pedestrian friendly atmosphere**
 - Activated street level -- Mixed use with restaurants & retail
 - Human scale – façade massings, modulations, details & textures
 - Enhanced streetscape – wide sidewalks, enhanced hardscapes, plantings, lighting and furnishings
- **Sense of place** – a destination with distinctive and historically compatible character
 - Historic legacy -- Train Station, Steam Factory, machine shops, tannery and foundry
 - Edge boundary of Historic District, transition zone
 - Arrival into city – a balanced contextual entranceway
 - Spatial relationships between two types of surroundings:
 - Urban open space (streets, sidewalks) as a city “rooms” defined by deliberate building edges.
 - Rural open space (pond, cemetery), reduced massing & scale with stepbacks and courtyards.
- **Fulfill goals of City Master Plan and North End Vision Plan**
 - **Connectivity** - Enhanced visual and pedestrian connections within and between neighborhoods (*Master Plan 1.1.2, 1.1.3, 2.2.1*)
 - Open Civic Space – extra wide sidewalks, and community space plazas
 - Maintain views along entrance into city by creating larger gaps between buildings with smaller footprints. A variance is required for Lot 4, for building frontage less than minimum required in CD5.
 - **Building design**
 - “...an opportunity for more contemporary building design, styles and materials to help define the North End as a separate district.”
 - “...the North End as a unique entity while complementing and contrasting with historic character of the larger downtown.” (*Master Plan, pg. 108-110; Northend Vision Plan Pg.1*)
 - **Human scale**; a rich urban experience; scaled to fit surroundings, per Character-Based Zoning
 - **Land use** (*Master Plan 3.2.2 & 3.3; ZO Incentive 10.5A46.20*) Diversity; mixed-income housing with both workforce and market rate housing at Lot 5
 - **Vibrancy**, support for the Arts -- Extra high ceilings and open floor plans at Lot 4 office space, for flexible, creative usage options such as “incubator and maker spaces” (*Master Plan 3.3.2*)



- **Sustainability** (*Master Plan 5.4*).
 - Improve and exceed code minimums for energy performance by 50%, for reduced carbon footprint.
 - Locally sourced and durable materials.
 - Innovative construction methods and materials technologies for long lasting, enduring buildings.

- **Coastal Resiliency** (*Master Plan 5.1*) Raised floor heights for flood events and water mitigation strategies for below grade parking.

ATTACHMENT B
Summary of Easements/Agreements

Lot 2	Type	From	To	Purpose	Description
Lot 2	Easement	Foundry Place, LLC Lot 2	Eversource	Permanent ROW	Buried Utility Access
Lot 2	Easement	Foundry Place, LLC Lot 2	Verizon/AT&T	Permanent ROW	Buried Utility Access
Lot 2	Easement	Foundry Place, LLC Lot 2	Comcast/Fairpoint	Permanent ROW	Buried Utility Access
Lot 2	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	No-Build Zone	No structures within 30' of Lot 3 Property Line
Lot 2	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Construction and Maintenance	Equipment Operation, Materials Laydown, Temporary Disturbance and Exterior Cleaning & Repair
Lot 2	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Encroachment	Building Features and Projections Beyond Property Line
Lot 2	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Community Space	Count Lot 2 Space Toward Lot 3
Lot 2	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Encroachment	Light Spillage
Lot 2	Agreement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Temporary Parking	During Construction
Lot 2	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Permanent Access	Side Door Egress
Lot 2	Easement	Foundry Place, LLC Lot 2	City of Portsmouth	Sewer	Buried Utility Access
Lot 2	Easement	Foundry Place, LLC Lot 2	City of Portsmouth	Water	Hydrant Easement
Lot 2	Easement	Foundry Place, LLC Lot 2	City of Portsmouth	Construction and Maintenance	Equipment Operation, Materials Laydown, Temporary Disturbance and Exterior Cleaning & Repair
Lot 2	Easement	B&M Railroad	Foundry Place, LLC Lot 2	No-Build Zone	No structures within 10' of Rear Property Line
Lot 2	Easement	Foundry Place, LLC Lot 2	DSA Lot 6	Community Space	Count Lot 2 Space Toward Lot 6

Lot 3	Type	From	To	Purpose	Description
Lot 3	Easement	Foundry Place, LLC Lot 3	Eversource	Permanent ROW	Buried Utility Access
Lot 3	Easement	Foundry Place, LLC Lot 3	Verizon/AT&T	Permanent ROW	Buried Utility Access
Lot 3	Easement	Foundry Place, LLC Lot 3	Comcast/Fairpoint	Permanent ROW	Buried Utility Access
Lot 3	Easement	Foundry Place, LLC Lot 3	City of Portsmouth	Right of Use	Community Space
Lot 3	Easement	Foundry Place, LLC Lot 3	City of Portsmouth	Right of Use	Public Use of Sidewalk
Lot 3	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Construction and Maintenance Easement	Equipment Operation, Materials Laydown, Temporary Disturbance and Exterior Cleaning & Repair
Lot 3	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Encroachment	Building Features and Projections Beyond Property Line
Lot 3	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Community Space	Count Lot 2 Space Toward Lot 3
Lot 3	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Encroachment	Light Spillage
Lot 3	Agreement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Temporary Parking	During Construction
Lot 3	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	Permanent Access	Side Door Egress
Lot 3	Easement	Foundry Place, LLC Lot 2	Foundry Place, LLC Lot 3	No-Build Zone	No structures within 30' of Lot 3 Property Line
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Construction and Maintenance	Equipment Operation, Materials Laydown, Temporary Disturbance and Exterior Cleaning & Repair
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Eversource Transformer?
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Unitil Gas
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Eversource
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Verizon/AT&T
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Comcast/Fairpoint
Lot 3	Agreement	DSA Lot 4	Foundry Place, LLC Lot 3	Temporary Parking	During Construction
Lot 3	Agreement	DSA Lot 3	DSA Lot 4	Designated Parking	Accommodate Displaced Bank Parking
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Temporary Lighting	Drive Around Area
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Signs	Wayfinding
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Access and Egress	Use of Lot 4 Driveway and Loading Zone
Lot 3	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Sanitary Sewer	Grease Traps/Sewer Lines
Lot 3	Easement	PanAm RR	Foundry Place, LLC Lot 3	No-Build Zone	No structures within 10' of Rear Property Line
Lot 3	Agreement	PanAm RR	Foundry Place, LLC Lot 3	Permanent Maintenance	Exterior Cleaning & Repair

Lot 4	Type	From	To	Purpose	Description
Lot 4	Easement	DSA Lot 4	Eversource	Permanent ROW	Lot 4 Buried Utility Access
Lot 4	Easement	DSA Lot 4	Verizon/AT&T	Permanent ROW	Lot 4 Buried Utility Access
Lot 4	Easement	DSA Lot 4	Comcast/Fairpoint	Permanent ROW	Lot 4 Buried Utility Access
Lot 4	Easement	DSA Lot 4	Unitil Gas	Permanent ROW	Lot 4 Buried Utility Access
Lot 4	Easement	DSA Lot 4	City of Portsmouth	Sanitary Sewer	For Sewer Main Portion
Lot 4	Easement	DSA Lot 4	City of Portsmouth	Right of Use	Public Use of Sidewalk
Lot 4	Easement	DSA Lot 4	City of Portsmouth	Storm Sewer	20' Wide, Buried Utility Access
Lot 4	Easement	B&M Railroad	DSA 4	No-Build Zone	No structures within 10' of Rear Property Line
Lot 4	Agreement	DSA Lot 4	Foundry Place, LLC Lot 3	Temporary Lighting	Drive Around Area
Lot 4	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Signs	Wayfinding
Lot 4	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Construction and Maintenance	Equipment Operation, Materials Laydown, Temporary Disturbance and Exterior Cleaning & Repair
Lot 4	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Eversource
Lot 4	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Unitil Gas
Lot 4	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Eversource
Lot 4	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Verizon/AT&T
Lot 4	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Service	Comcast/Fairpoint
Lot 4	Agreement	DSA Lot 4	Foundry Place, LLC Lot 3	Temporary Parking	During Construction
Lot 4	Agreement	Foundry Place, LLC Lot 3	DSA Lot 4	Designated Parking	Accommodate Displaced Bank Parking
Lot 4	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Access and Egress	Use of Lot 4 Driveway and Loading Zone
Lot 4	Easement	DSA Lot 4	Foundry Place, LLC Lot 3	Sanitary Sewer	Grease Traps/Sewer Lines
Lot 4	Easement	DSA Lot 4	DSA Lot 5		
Lot 4	Easement	DSA Lot 4	DSA Lot 5	Construction and Maintenance	Equipment Operation, Materials Laydown, Temporary Disturbance and Exterior Cleaning & Repair
Lot 4	Easement	DSA Lot 5	DSA Lot 5	Access and Egress	Use of Lot 4 Driveway and Loading Zone

ATTACHMENT C
Traffic Reports, 3rd Party Peer Review, and Response

**TEC Traffic Impact and Access Study – Peer Review
Deer Street Redevelopment
Portsmouth, New Hampshire**

Date: March 8, 2017
Subject: TEC Traffic Impact and Access Study Peer Review
Deer Street Redevelopment – Portsmouth, New Hampshire
To: Ania Rogers, GL Rogers
From: Randy Dunton / Emily Tynes, Gorrill Palmer (JN 3256)

Per the request of GL Rogers and Company, Gorrill Palmer (GP) has completed a macroscopic review of the TEC Traffic Impact and Access Study (TIAS) dated December 19, 2016 for the redevelopment of Deer Street in Portsmouth, New Hampshire. This includes a review of the general methodologies, assumptions, and conclusions of the study for consistency with generally accepted practices and standards. Overall, we find the study to be well done and completed using generally accepted practices. The following is a summary of the review for each section of the TIAS:

I. Introduction

Purpose of Study

Building Program – Based on a spreadsheet dated February 13, 2017 that was provided by GL Rogers and Company, the Building Program in the TIAS does not correspond with the most recent uses and sizes for Lots 3-6. Lot 4 now includes a drive-through ATM for the commercial bank in Building 5 and the retail in Building 5 has been specified as a pharmacy. As can be expected for a large, mixed-use development in the initial stages, there have been changes to the sizes of each uses in the Deer Street Associates (DSA) Lots 3-6. Although these changes are not anticipated to have a significant impact on the overall site impact on the existing roadway network, GP recommends including the updated Building Program for future analyses.

Site Access – The site access locations provided in the TIAS appear to be consistent with the most recent site plans for Lot 1. The site accesses for Lots 3, 4, and 5 have changed to one entrance driveway 200 feet west of Maplewood Avenue and an exit only driveway opposite Bridge Street. Additionally, Lot 6 will have a second access for 14 parking spaces on the northerly side of Hill Street.



Methodology

The methodology appears to be acceptable for evaluating the traffic operations of the proposed projects on the existing roadway network.

II. Existing Conditions

Traffic Study Area

The study area appears to be inclusive of significant intersections in the vicinity of the project.

Existing Traffic Volumes

The utilization of the October 2016 turning movement counts to estimate the existing traffic volumes appears to be reasonable. It should be noted that the month of October could be considered off peak, however with the seasonal adjustments the volumes appear to be appropriate.

Adjustments to Existing Traffic Volumes

GP agrees that a seasonal adjustment should be made to the October 2016 traffic volumes, since the peak traffic volumes typically occur during the summer months. Additionally, the methodology used to determine the seasonal adjustments to the peak hours and the results of the adjustments appear to be reasonable.

Public Transportation

The public transportation discussed appears to be inclusive of the most relevant public transportation in Downtown Portsmouth.

Crash Data

GP agrees with the use of the most recent three-year period in evaluating the crash history of the area. If available, police reports for the angled collisions and rear-end collisions or at any intersections with a high crash rate would be helpful in determining the cause of the crash patterns identified.



Summary of Crash Data

Based on a review of the crash data in Appendix E, the summary of crash data for the intersections appears to be reasonable. If the information is available, the crash history for the roadways between the study area intersections should be considered as well.

Sight Distance Measurements

Based on a review of the included intersections, the sight distance at the following locations should be considered:

- Deer Street at Lot 4 Exit Only Driveway
- Deer Street Extension at Lot 6 Driveway
- Hill Street at Lot 6 Driveway

Additionally, the New Hampshire DOT minimum required sight distance should also be considered in addition to AASHTO and mention made of how they compare.

III. Future Conditions

Currently Planned Infrastructure Projects

The infrastructure projects that were included in the No-Build and Build conditions appear to be appropriate.

Opening and Future Year Traffic Volumes

The selected opening year of 2018 appears reasonable for the first phases of the Deer Street redevelopment. The 2028 future year complies with the NHDOT standards of a 10-year future planning horizon.

Background Traffic Growth

General Ambient Growth – GP concurs with the use of the traffic volume data from permanent count stations in Portsmouth and North Hampton to estimate an ambient growth rate. The growth rate of 1.0 percent per year appears reasonable.

Route 1 Bypass Redistribution – The Route 1 Bypass redistribution methodology appears to be reasonable.



Specific Developments by Others – The addition of other developments in the background traffic appears to be reasonable.

Market Street at Russell Street Roundabout Redistribution – The redistribution of left turns to Market Street northbound appears to be reasonable.

No-Build Traffic Volumes – The methodology used to estimate the 2018 and 2028 No-Build traffic volumes appears to be reasonable.

Existing Tenant Traffic

The uses outlined in this section seem to be consistent with the existing site. GP concurs with the removal of traffic generated by the currently occupied uses. The trip generation for the two occupied uses is based on the Institute of Transportation Engineers' publication *Trip Generation*, Ninth Edition, Land Use Code (LUC) 826 – Specialty Retail and LUC 912 – Drive-In Bank. Since LUC 826 does not provide trip generation rates for the AM peak hour or the Saturday peak hour, TEC used the trip generation rates from LUC 820 – Shopping Center to estimate the trip generation during these time periods. An alternative to this method is the utilization of a ratio of AM to PM peak hours and Saturday to PM peak hours for LUC 820 to apply to the LUC 826 PM peak hour. This estimates a trip generation that is proportional to the LUC 826 PM peak hour.

For Eastern Bank, TEC based the trip generation on the number of drive-through lanes. Eastern Bank is a commercial bank and may generate fewer trip ends during a peak hour than a retail bank. Additionally, based on information provided by Eastern Bank, the drive-through has a significantly lower usage than a typical bank. GP typically recommends that the trip generation for the bank is based on both the number of drive-through lanes and the gross floor area of the bank. For this specific bank, we offer an alternative approach to better reflect the specific type of bank in the next section.

Based on the TEC TIAS, only 5,400 sf of the 7,200 sf multi-tenant building is occupied. An alternative to using LUC 826 for all three possible uses, the trip generation could be based on which of the uses are currently occupied. GP suggests the following LUCs for each use:

- Wells Fargo: LUC 911 – Walk-In Bank
- Studio 139 Frame Shop: LUC 826 – Specialty Retail
- Harbor EyeCare Center: LUC 720 – Medical/Dental Office



Site Generated Traffic Volumes

As mentioned previously, the Building Program has been modified since the December 19, 2016 submission of the TIAS. GP recommends updating the site generated traffic volumes to reflect the changes to the Building Program for future analyses.

Phase I – The assumptions used to estimate trip generation for the City parking garage appear to be reasonable. An alternative method for estimating the AM and Saturday peak hour trip generation for LUC 826 is using ratios of AM to PM trip generation rates and Saturday to PM trip generation rates from LUC 820 – Shopping Center. The trip assignment also appears to be reasonable. GP concurs with adding the Phase I traffic to the build out year and future year before adding Deer Street Associates development traffic to the study area.

Deer Street Associates Development: Phase 2-4 – The Deer Street Associates (DSA) Development phasing has been updated since the completion of the TIAS. However, since the trip generation for the DSA development has been added to the no-build traffic volumes as a whole development, the updated phasing would not impact the results of the study. As mentioned previously, GP recommends updating the trip generation for Lots 3-6 to reflect the currently proposed uses and sizes in each building for future analyses. GP reviewed the trip generation calculations provided in Appendix I and offer the following comments:

- GP concurs with the use of ITE *Trip Generation*, Ninth Edition to estimate trip generation
- Lot 3:
 - The methodology for trip generation for the residential uses appears to be reasonable
 - The methodology for trip generation for the hotel appears to be reasonable.
 - The methodology for trip generation for the retail uses appears to be reasonable. However, like in the City parking garage, an alternative to this method is the utilization of a ratio of AM to PM peak hours and Saturday to PM peak hours for LUC 820 to apply to the LUC 826 PM peak hour. This estimates a trip generation that is proportional to the LUC 826 PM peak hour.
 - Based on information from Tracy Kozak, with JSA, the bar use in Building 3 is associated with the hotel. The description for ITE LUC 310 – Hotel from *Trip Generation*, Ninth Edition states that hotels provide “supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, limited recreational facilities (pool, fitness room), and/or other retail and service shops.” Based on this description, a bar could be included in a hotel use and the trip generation may not need to be calculated separately from the hotel.
 - Based on information from Tracy Kozak, with JSA, the first floor of the restaurant space is for public use and the second floor is provided for hotel guest’s use only.



Based on the ITE description above, the trip generation for the restaurant that is associated with hotel use may not need to be calculated separately from the hotel. The trip generation for the restaurant for public use would still need to be estimated. GP concurs with the methodology used to forecast trip generation for the restaurant use.

- Lot 4:
 - GP concurs with the methodology used to forecast the trip generation for the office use.
 - GP concurs with the methodology used to forecast the trip generation for the restaurant use.
 - The trip generation for the drive-up ATM that is associated with the bank in Building 5 should be included in the trip generation for Lot 4. As described previously, this is a commercial bank and is only expected to have 12 vehicles per day on average.
- Lot 5:
 - GP concurs with the methodology used to forecast the trip generation for the office space and the residential units.
 - The methodology used to forecast the trip generation for the retail space appears to be reasonable. However, the retail space has been identified as a Pharmacy, so in the future LUC 880 – Pharmacy/Drugstore without Drive-Through should be considered.
 - Although Eastern Bank in Building 5 will have a drive-through associated with it, the drive-through is not in the same building as the rest of the bank. For this reason, the trip generation may be different than that of a typical bank with a drive-through. An alternative to LUC 912 for the entire bank would be utilizing LUC 911 – Walk-In Bank for the portion of the bank in Building 5 and using information from Eastern Bank for the drive-through ATM trip generation on Lot 4.
- Lot 6:
 - GP concurs with the methodology used to forecast trip generation for both the residential units and the office space.
 - The methodology used to forecast the trip generation for the retail appears reasonable. GP offers the same alternative method for the AM and Saturday peak hour trip generation as the retail in Buildings 3 and 5.

Internal Trip Capture – GP concurs with the use of shared trip reduction for Lots 3-6. The ITE information for mixed-use trips appears to be reasonable and appropriate for this use. An alternative method for calculating an internal trip capture would be the use of the National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture spreadsheet for the AM and PM peak hours. The NCHRP 684 spreadsheet is based on ITE information, so similar internal trip capture rates would be expected.



Transit Trips – The 1.5% reduction in trip generation for transit trips appears to be reasonable. It is our understanding that this reduction is based on the entire City of Portsmouth. The reduction may have been higher if data from only Downtown Portsmouth was utilized.

Walking and Bicycling Trips – The 8% reduction in trip generation for walking and bicycling trips appears to be reasonable. Similar to the transit trip reduction, the reduction may have been greater if only data from Downtown Portsmouth was utilized.

Pass-By Trips – GP concurs with the pass-by trips applied to the retail and restaurant uses. Not applying pass-by trips to office, hotel, and residential uses appears to be reasonable.

Deer Street Associates Development Trip Distribution – The methodology used to distribute the DSA Development trip generation appears to be reasonable. However, GP reviewed Figures 14A, 14B, and 14C and could not replicate the trip generation for Lots 3-6 based on the trip distribution.

Phases 2-4 Build Traffic Volumes – GP concurs with the methodology used to yield the 2018 and 2028 Build Conditions.

Traffic Impact Summary

The discussions of the impact of the parking garage traffic and the DSA development traffic appear to be reasonable based on the anticipated trip generation for the sites. Additional comments on the traffic impact summary are provided in Section V: Traffic Impact Analysis Summary.

IV. Mitigation Summary

Off-Site Improvements

The use of Synchro and SimTraffic computer analysis software appears to be appropriate for determining mitigation. However, it is inconsistent with the capacity analyses completed for the other development scenarios. To compare the scenarios GP recommends using the same methodology for scenarios without mitigation and the scenarios with mitigation to evaluate the impact of the mitigation on the operation of the roadway network. By doing this, you are comparing “apples to apples”.



Deer Street Parking Garage Mitigation – City of Portsmouth

The TEC TIAS recommended the following mitigation for the Deer Street parking garage:

- Deer Street, Deer Street Extension, and Bridge Street:
 - Construct Deer Street Extension
 - Provide a new sidewalk and defined curb cuts and driveway aprons on the west side of Bridge Street
 - Restripe Deer Street eastbound between Deer Street Extension and Maplewood avenue to include a westbound receiving lane, an eastbound left turn lane, and an eastbound through-right lane
 - Stripe tracking pavement markings along Deer Street through the intersection for westbound motorists on Deer Street
 - Update signage and pavement markings on Bridge Street at Islington Street to reflect the changes in layout
- Maplewood Avenue / Middle Street Corridor
 - Modify traffic signal timing and coordination along the corridor between Deer Street and State Street
 - Reestablish traffic signal coordination at the intersection of Middle Street / State Street
- Dynamic Parking Message Signs at four locations in the Downtown area
- Multi-modal Accommodations in various locations in the vicinity of the parking garage such as sidewalks, accessible ramps and driveway aprons, “sharrows” on Deer Street and Bridge Street, bicycle sharing opportunities, bicycle racks, and posted transit maps and schedules in the parking garage

The mitigation for the parking garage appears to be reasonable (exceptions noted in next section). GP reviewed the capacity and queue analysis summary tables in Section V, which show that the Phase I mitigation does maintain or improve the levels of service for most intersection approaches. Since the City has its own very capable Traffic Department, and they will be the owners of the parking garage, we did not scrutinize the mitigation associated with the parking garage as provided in the TIAS.

Deer Street Associates (DSA) Development Mitigation (Private)

The TEC TIAS recommended the following mitigation for Deer Street Associates. We have underlined those items that are discussed in more detail following the list:

- Deer Street, Deer Street Extension, and Bridge Street
 - After utility improvements and reconstruction of the sidewalk, reset northerly curb line to match City’s restriping



- Provide ADA accessible ramps on corners of the intersection of Maplewood Avenue / Deer Street that would be impacted by construction
- Provide a mill and overlay for Deer Street and Bridge Street from Maplewood Avenue to Hanover Street
- Maplewood Avenue / Middle Street Corridor
 - Install “Do Not Block Intersection” pavement markings and signage along the corridor at Deer Street, Hanover Street, Islington Street, and State Street
 - Introduce concurrent pedestrian phasing along the corridor from Deer Street to State Street
 - Replace pedestrian signal heads at Middle Street / State Street intersection
 - Install video detection along the corridor from Deer Street and State Street
 - Modify signal phasing on Middle Street northbound at Islington Street to include a protected left-turn advance phase, which will require replacing at least one signal head
 - Modify signal timing and coordination along the corridor from Deer Street to State Street
- Multi-modal Accommodations including a sidewalk on the northerly side of Deer Street, accessible ramps along the building frontage or intersection corners, secure interior bicycle racks, and posting transit maps and schedules in the DSA buildings
- A contribution to the Market Street Roundabout of approximately \$50,000
- A contribution to the Downtown Traffic Modeling Study

Typically, there is a specific accepted methodology generally used to establish mitigation associated with a specific development. First, is that a deficiency or need is identified that is created or exacerbated by the specific development. Then, mitigation is identified that addresses that deficiency. If it is an existing deficiency, the applicant typically contributes proportionately toward a larger mitigation effort, so no single development is responsible for existing deficiencies. Based on our review, some of the identified mitigation items do not appear to have followed this standard practice. Keeping the methodology in mind, those items are discussed in more detail as follows:

- Provide a mill and overlay for Deer Street and Bridge Street from Maplewood Avenue to Hanover Street – Mill and overlay appears reasonable for Deer Street in front of the site where there are impacts to curbing, striping, utilities, and minor roadway impacts. However, it is unclear from a traffic standpoint, and there is no supporting discussion in the TIAS, why DSA is being requested to pay for mill and overlay for Bridge Street.
- Install “Do Not Block Intersection” pavement markings and signage along the corridor at Deer Street, Hanover Street, Islington Street, and State Street – There is no discussion with supporting documentation as to why DSA is being requested to pay for this mitigation, other than under the general heading of “...improve traffic operations and



safety on the major adjacent corridor...” What traffic operations and safety items are trying to be addressed? Are these specific issues created by DSA? If not, why is DSA being requested to pay? Why is this not a mitigation identified for the Parking Garage as well? How much is DSA contributing to the total entering volume of these intersections?

- Introduce concurrent pedestrian phasing along the corridor from Deer Street to State Street – Switching from exclusive to concurrent pedestrian phasing can improve the capacity of an intersection, especially if the intersections are coordinated. While GP concurs with the TIAS on the positive impacts of concurrent pedestrian phasing, there was no supporting documentation or discussion as to why the DSA development is being asked to contribute toward this specific mitigation. What deficiencies specific to the DSA development are trying to be addressed? Are these specific issues created by DSA? If not, why is DSA being requested to pay? Why isn't this a mitigation identified for the Parking Garage as well, especially since a parking garage will generate more pedestrians on the adjacent roadway network than an on-site use? How much is DSA contributing to the total entering volume of these intersections?
- Replace pedestrian signal heads at Middle Street / State Street intersection – Similar to the other mitigation items identified above, there is no discussion, supporting documentation or analysis as to why the DSA development is being asked to pay or contribute toward this item or what deficiency is created specific to the DSA development that is being addressed.
- Install video detection along the corridor from Deer Street to State Street – Similar to the other items, there is no discussion, supporting documentation or analysis as to why the DSA development is being asked to pay or contribute toward this item or what deficiency that is created by the DSA development is being addressed. The TIAS states “The video detection will include an added benefit of providing real-time traffic volume counting capabilities that can be utilized as traffic monitoring for the DSA Development project;”. Why would an approved DSA Development need to be monitored after the fact? What deficiency specific to only the DSA development is being mitigated by this mitigation?
- A contribution to the Market Street Roundabout of approximately \$50,000 – A DSA contribution to the Market Street Roundabout appears to be reasonable. However, it should be proportional to the percentage increase in traffic volumes due to the DSA development traffic. The HarborCorp project was required to contribute \$50,000. That project resulted in an average increase in traffic of 6.6% during the peak hours of the build out year (2015). The DSA development results in an average increase of 3.2% during the peak hours of the build out year (2018). Since the DSA development results in a lower



average increase than the HarborCorp project, the DSA contribution to the Market Street Roundabout should be less than half of the HarborCorp contribution.

- A contribution to the Downtown Traffic Modeling Study - A contribution to the Downtown Traffic Modeling Study also appears to be reasonable. However, like the roundabout contribution, the DSA contribution to the study should be proportional to the percentage increase in Downtown traffic due to the DSA development. The DSA development increases the traffic entering or exiting the study area by approximately 5%.

Costs of mitigation: It is our recommendation that whatever mitigation is ultimately identified, a cost be determined, prior to approval, for that mitigation such that DSA knows what the “mitigation cap” is to their investment and can seek financing and plan accordingly.

Overall Comments on Mitigation Items

Based on our review, there are some mitigation items that appear appropriate. However, there are numerous mitigation items that, in our opinion, need to either be removed, reduced in scope, or cost distributed more proportionately.

It should be noted that in the Post Closing Obligations Agreement (PCOA) between the City and DSA it states that “in no event shall the City’s share of [the costs of improvements to public or intended public rights of way (other than Deer Street Extension)] exceed the sum of Fifty Thousand Dollars (\$50,000.00).” The requirements in the PCOA should be considered when determining the required mitigation and the proportional contribution by all contributing parties.

V. Traffic Impact Analysis Summary

Methodology

The overall methodology used to conduct capacity and queue analyses appears to be reasonable. However, when an intersection or approach nears capacity, the results from Synchro 9.0 become less representative of expected conditions. When the volume to capacity ratio (V/C) is equal to or greater than 1.00, the intersection is at or over capacity. The closer the V/C is to 1.00, the less representative of future conditions the results may be. There are several approaches that have a V/C of 0.95 or greater, which indicates that the results may not be completely representative of the forecast conditions in the intersection. Another method for capacity analyses would be using Synchro as well as SimTraffic computer analysis software and using the average of five SimTraffic runs to evaluate the delay per vehicle and queue lengths.



Parameters for Traffic Impact Analysis

GP concurs with the levels of service in relation to control delay per vehicle for unsignalized intersections, signalized intersections, and roundabouts.

Traffic Impact Analysis Results

The results of the capacity and queue analyses appear to be reasonable overall. GP recommends additional evaluation of intersections that have V/C's greater than or equal to 1.00 to ensure results are representative of the expected operation of the intersections.

VI. Conclusion

Overall the methods, results, and conclusions of this TIAS appear to be reasonable. Since the building program has changed since the original TIAS, future analyses should be updated to reflect the new uses. Additionally, the changes to the site accesses should be updated in future analyses. The overall mitigation items appear reasonable for the two projects with some exceptions noted herein.

**Preliminary Queue Analyses and Circulation Evaluation
 Deer Street Mixed Use Development
 Portsmouth, New Hampshire**

Date: May 4, 2017
Subject: Preliminary Queue Analysis and Circulation Evaluation
To: Ania Rogers, DSA
From: Randy Dunton, P.E., PTOE, Gorrill Palmer

Gorrill Palmer (GP) has been retained by DSA to review site circulation and complete queue analyses for the vehicle elevator in Building 5, the bank drive-through lane on Building 4, and the driveway exit on Lot 4 for the proposed Deer Street mixed use development in Portsmouth, New Hampshire. In addition, potential traffic impacts to Hill Street were also evaluated. The proposed development consists of six lots, including the City owned Deer Street Parking Garage, but Lots 3, 4, and 5 share a site driveway. The site driveway is enter only to the east of Building 4 and exit only to the west of Building 4, with traffic circulating around Building 4 counterclockwise. Buildings 4 and 5 on Lots 4 and 5 both have site uses that have the potential to create queues that may impact vehicle circulation. The following is summary of the assumptions, methodology, and conclusions of the queue analyses.

Building 5 Vehicle Elevator Estimated Queue

Building 5 is proposed to be a five story mixed use structure that is a combination of 45 apartments, a bank, a pharmacy, and a parking garage. The parking garage is proposed to be accessed with a two vehicle elevators (one to bring vehicles up and one to bring vehicles down). There are 43 parking spaces proposed in the parking garage. The site plan shows a storage length for five vehicles outside the elevator (two of which are under the garage canopy), in a separate lane so they do not conflict with circulating site traffic. If the expected queue is longer than five vehicles it could interfere with vehicles entering the site from Deer Street.

Since there are a variety of uses in Building 5, the 43 parking spaces will be designated for different users. Of the 43 parking spaces, 18 will be dedicated to retail uses on weekdays (10 for the bank and 8 for the pharmacy). The remaining 25 spaces will be dedicated for residential use full time. The 10 spaces dedicated to the bank are proposed to be flex spaces and will be available for use by the residents during evenings, weekends, and holidays, when the bank is not open (5:00 PM to 8:30 AM). The 8 spaces for the pharmacy will also be available for residents to use when the pharmacy is closed (10:00 PM to 8:00 AM). The following table summarizes the use of the parking spaces at each time period:

Parking Space Designation by Time Period

Time Period	Residential	Bank	Pharmacy
10:00 PM – 8:00 AM	43	0	0
8:00 AM – 5:00 PM	25	10	8
5:00 PM – 10:00 PM	35	0	8



As shown in the table, the distribution of the parking spaces changes throughout the day, which will impact the number of vehicles entering the parking garage during a peak hour. For this reason, GP evaluated four scenarios based on the time periods above:

- Scenario 1 – AM peak hour, 43 residential spaces
- Scenario 2 – AM peak hour, 25 residential spaces, 10 bank spaces, 8 pharmacy spaces
- Scenario 3 – PM peak hour, 25 residential spaces, 10 bank spaces, 8 pharmacy spaces
- Scenario 4 – PM peak hour, 35 residential spaces, 8 pharmacy spaces

To estimate the arrival rate, GP estimated the number of vehicles that would be entering the parking garage for each scenario. For the residential use, GP used the Institute of Transportation Engineers' publication, *Trip Generation*, Ninth Edition, Land Use Code (LUC) 220 – Apartments, to calculate the peak hour trip generation for 45 apartments. The apartments are forecast to generate 25 trip ends during the AM peak hour of the generator (8 in / 17 out) and 30 trip ends during the PM peak hour of the generator (18 in / 12 out). Since the 43 parking spaces are not all for the residential units at all times of day, some of the trip ends generated by the residential units are expected to park elsewhere during those time periods. For the scenarios that do not have all 43 spaces dedicated to residential units, GP has taken the ratio of residential spaces to overall spaces and applied it to the trip generation and distribution to estimate the trips generated by the apartments that would use the available spaces. For example, in Scenarios 2 and 3, 25 out of 43 parking spaces are residential, which would give a residential trip generation for the parking garage of 15 trip ends (5 in / 10 out) for the AM peak hour and 17 trip ends (10 in / 7 out) for the PM peak hour. Since only vehicles entering the site would impact the queue of traffic waiting to enter the garage, GP used the forecasted number of entering trip ends during the peak hour to estimate the queue length.

For the retail uses (the bank and pharmacy) GP has assumed that while they are open, the spaces turn over twice an hour, which generates 20 bank vehicles per hour and 16 pharmacy vehicles per hour. The following table summarizes the estimated number of vehicles entering the parking garage during each scenario:

Peak Hour Entering Vehicles

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Residential	8	5	10	15
Bank	0	20	20	0
Pharmacy	0	16	16	16
Total	8	41	46	31

GP used the total number of entering vehicles for each scenario to estimate arrival rates. To evaluate the impact of the arrival rate on the queue length, GP used the arrival rates for two time periods; all vehicles arriving during a 60 minute period and to be conservative, all vehicles arriving during a 30 minute period.



The following table summarizes the arrival rates for the two time periods in each scenario:

Average Vehicle Arrival Rates

Time Period	Arrival Rate
Scenario 1 – AM Residential	
60 minutes	1 veh every 7 min 30 sec
30 minutes	1 veh every 3 min 45 sec
Scenario 2 – AM Residential/Bank/Pharmacy	
60 minutes	1 veh every 1 min 28 sec
30 minutes	1 veh every 44 sec
Scenario 3 – PM Residential/Bank/Pharmacy	
60 minutes	1 veh every 1 min 18 sec
30 minutes	1 veh every 39 sec
Scenario 4 – PM Residential/Pharmacy	
60 minutes	1 veh every 1 min 56 sec
30 minutes	1 veh every 58 sec

According to information provided by DSA from American Custom Lifts, the elevator manufacturer, the car elevator has a total cycle time of 68.43 seconds, not including vehicle loading and unloading. Assuming that it takes 10 seconds each for loading and unloading, the total service time is estimated at 1 minute and 30 seconds. The loading and unloading time is based on the manufacturer recommendation. It should be noted that the vehicles do not have to back in or out of the elevator, so the loading and unloading times may be conservative.

GP used the arrival rates and service times to estimate the queue length at the end of each time period for each scenario. The following table summarizes the results of the evaluation:

Arrival Rate vs. Estimated Queue Length by Scenario

Arrival Rate	Estimated Queue Length (veh)*
Scenario 1 – AM Residential	
8 vehicles / 60 min	0
8 vehicles / 30 min	0
Scenario 2 – AM Residential/Bank/Pharmacy	
41 vehicles / 60 min	1
41 vehicles / 30 min	21
Scenario 3 – PM Residential/Bank/Pharmacy	
46 vehicles / 60 min	6
46 vehicles / 30 min	26
Scenario 4 – PM Residential/Pharmacy	
31 vehicles / 60 min	0
31 vehicles / 30 min	11

*Based on a service time of 1 minute and 30 seconds

As shown in the table, the queue lengths for the 60 minute periods are the shortest in all scenarios and can be accommodated on site. Scenario 3 shows a 6 vehicle queue; however, this would occur at the end of the hour



and last most likely a minute or less. In all scenarios except scenario 1, the queue lengths for the 30 minute period cannot be accommodated on site. In scenarios 2-4 the estimated queue length is expected to exceed the available storage length if vehicles arrive more quickly than during a 60 minute period. This indicates that the proposed storage length of five vehicles in a separate lane may not be adequate during all scenarios and time periods.

Building 5 Recommendations

To mitigate the queue lengths of vehicles entering Building 5, GP recommends that a dynamic sign be installed at the beginning of the queue lane for entering Building 5. When the queue of vehicles reaches five, a dynamic sign would be activated that reads “Seek Alternate Parking” that would be displayed to those vehicles that enter the site and the queue lane is full. This sign could also be activated when the Lot 5 parking garage is full.

Building 4 Commercial Bank Estimated Queue

The back of Building 4 is proposed to be a commercial bank drive through lane. This type of bank typically serves businesses, rather than individuals, so their drive through use differs from a standard bank. Eastern Bank provided drive through utilization information for their Portsmouth location, which averages 72 cars per week, or 12 cars per day that utilize the drive-through.

The drive-through lane for Building 4 has a storage length of four vehicles. Similar to the queuing for the vehicle elevator, if the expected queue is longer than the storage length, it could impact the flow of traffic around the site.

Eastern Bank stated that of the 12 cars per day that use the drive-through, the maximum they typically experience is 7 vehicles arriving during the peak hour. To evaluate the impact of the arrival rate on the queue length, GP used the arrival rates for two time periods; all vehicles arriving during a 60 minute period and all vehicles arriving during a 30 minute period.

Based on information from Eastern Bank, the average service time per vehicle is 6 minutes. GP used the two arrival rates and this average service time to estimate the queue length at the end of each time period. The following table summarizes the results of the evaluation:

Arrival Rate vs. Estimated Queue Length by Scenario

Arrival Rate	Estimated Queue Length (veh)
7 vehicles / 60 min	0
7 vehicles / 30 min	2

As shown in the table, if the 7 vehicles arrive over a 60 minute or 30 minute period, the queue lengths can be accommodated by the available storage length of four vehicles. This indicates that the proposed storage length of four vehicles in the drive through lane will be adequate.

Lot 4 Driveway Queue Length

The Lot 4 driveway serves Buildings 3, 4, and 5. It is a one way loop, with vehicles entering on the east side of Building 4, traveling counterclockwise around the building and exiting onto Deer Street on the west side of Building



4. The exit side of the driveway has separate left and right turn lanes onto Deer Street. There is space for approximately three vehicles to queue in either exit lane of the driveway without impacting the bank drive-through lane. To estimate the queue lengths of vehicles exiting the site onto Deer Street, GP forecasted the amount of traffic anticipated to use the Lot 4 site driveway using the following Land Use Codes from ITE *Trip Generation*, Ninth Edition:

- LUC 220 – Apartment
- LUC 310 – Hotel
- LUC 710 – General Office Building
- LUC 826 – Specialty Retail Center
- LUC 911 – Walk-In Bank
- LUC 925 – Drinking Place
- LUC 932 – High Turnover (Sit Down) Restaurant

GP based the trip generation calculations on the uses and sizes provided by DSA in the spreadsheet “Deer St Area & Uses Calcs 2017_02_08”. TEC applied three reductions to the overall trip generation; a transit reduction of 1.5%, a walking and biking reduction of 8%, and a shared use reduction of 6% for the AM and 21% for the PM. GP applied these reductions to the calculated trip generation for the site. TEC also included pass-by trips, however due to their distribution of the traffic, this differentiation does not impact the traffic at the site driveway. GP determined that the forecast trip generation for the Lot 4 driveway is 180 trip ends entering the site and 113 trip ends exiting the site during the AM peak hour and 136 trip ends entering the site and 159 trip ends exiting during the PM peak hour. The trip assignment for Lot 4 was based on the same TEC trip assignment used in the Traffic Impact and Access Study (TIAS).

Since Lot 6 would also be completed when the other three buildings are completed, the traffic going to and from Lot 6 was also calculated using the same methodology as Lots 3, 4, and 5. GP evaluated the Deer Street 2018 Opening Year and the 2028 Future Year found in TEC’s TIAS. The forecast traffic generated by Lots 3, 4, 5, and 6 was added to the 2018 Opening Year Build Phase I and the 2028 Future Year Build Phase I Deer Street traffic volumes from TEC’s TIAS.

To evaluate the anticipated queue length of the site driveway for 2018 and 2028, GP used Synchro/SimTraffic computer analysis software. The reported queue lengths are the average of five SimTraffic runs. The following table summarizes the 95th percentile queue lengths of the Lot 4 exiting driveway and the Deer Street eastbound approach at the Lot 4 entrance. The detailed results of the analyses are attached.

Queue Length Summary

Approach	95 th Percentile Queue Lengths (veh)			
	2018 Postdevelopment		2028 Postdevelopment	
	AM	PM	AM	PM
Lot 4 Exit				
Right Turn Lane	2	2	2	2
Left Turn Lane	3	3	3	3
Deer Street / Entrance				
Deer St EB	2	2	2	2



The reported queue lengths are not forecast to exceed 3 vehicles in either the 2018 condition or the 2028 condition. Based on this evaluation, the vehicles waiting to exit the site are not anticipated to interfere with site circulation and the Deer Street is not forecast to be impacted significantly by traffic turning into the site. Vehicles in the hotel pick-up / drop-off area may be momentarily blocked by queued vehicles, but this is not uncommon to parking on a regular street adjacent to an intersection. If some cars will be parked by valets, this will assist in traffic management in the immediate area.

Hill Street Evaluation

GP was asked to evaluate the potential vehicular impact to Hill Street created by the project, and more specifically as a result of Lot 6 development. It is our understanding Lot 6 will provide two levels of parking garage that are separate from each other. One access will be located off Foundry Place (public way) and is intended to service the Lot 6 tenants. The second parking area will be accessed via Hill Street (private way). The parking garage located off Hill Street will provide access to 16 parking spaces. Of these 16 parking spaces, 14 will provide spaces to the residential units that are located on the opposite side of Hill Street. This is a requirement of an easement for the Lot 6 property. The remaining 2 parking spaces will be provided for residences within the proposed Lot 6 building. It should be noted that as part of constructing the proposed building on Lot 6, several buildings will be razed, including two residential units which currently generate traffic and require parking. Since the Hill Street garage spaces will serve existing demand, no new vehicular trips are forecast to be generated.

In addition to the parking garage access on Hill Street. Three short term (potentially 1 hour parking limit) parking spaces will be provided along Hill Street in front of Lot 6. It is expected these spaces will serve drivers who may be visiting the area for a short duration, inclusive of the residential units along Hill Street. These spaces will not be promoted for, nor are they expected to attract those drivers visiting the non-residential uses in the area. Therefore, the increase of traffic on Hill Street as a result of these three short term parking spaces is expected to be minimal.

Conclusion

- The five car storage length for Building 5 is anticipated to be adequate if the entering vehicles arrive throughout a peak hour with a service time of approximately 1 minute and 30 seconds. If the vehicles arrive over a shorter time period, the queue lengths are anticipated to exceed the available storage lengths, except in scenario 1. Scenario 1 is not anticipated to experience queue lengths that exceed the available storage lengths at either of the arrival rates. To mitigate the potential for vehicles blocking the site entrance, GP recommends installing a dynamic sign at the beginning of the queue lane for Building 5 that reads “Seek Alternate Parking” when the queue length reaches five vehicles.
- For the commercial bank drive through, GP determined that if the anticipated maximum 7 vehicles arrive either over a peak hour, or even over a 30 minute period the proposed storage length (four vehicles) in the drive-through lane is anticipated to be adequate to accommodate the estimated queue lengths.
- Based on a Synchro/SimTraffic queue analysis, the queue lengths of the Lot 4 exit onto Deer Street are not forecast to interfere with the bank drive-through or the vehicles exiting the parking garage in Building 3.
- The proposed project is expected to have minimal impact to the existing traffic on Hill Street.



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DEVELOPMENT,
LOT 5: 157-161
DEER
STREET, ASSESSORS
MAP 125 LOT 17-3
PORTSMOUTH, NH 03801

Deer Street Associates

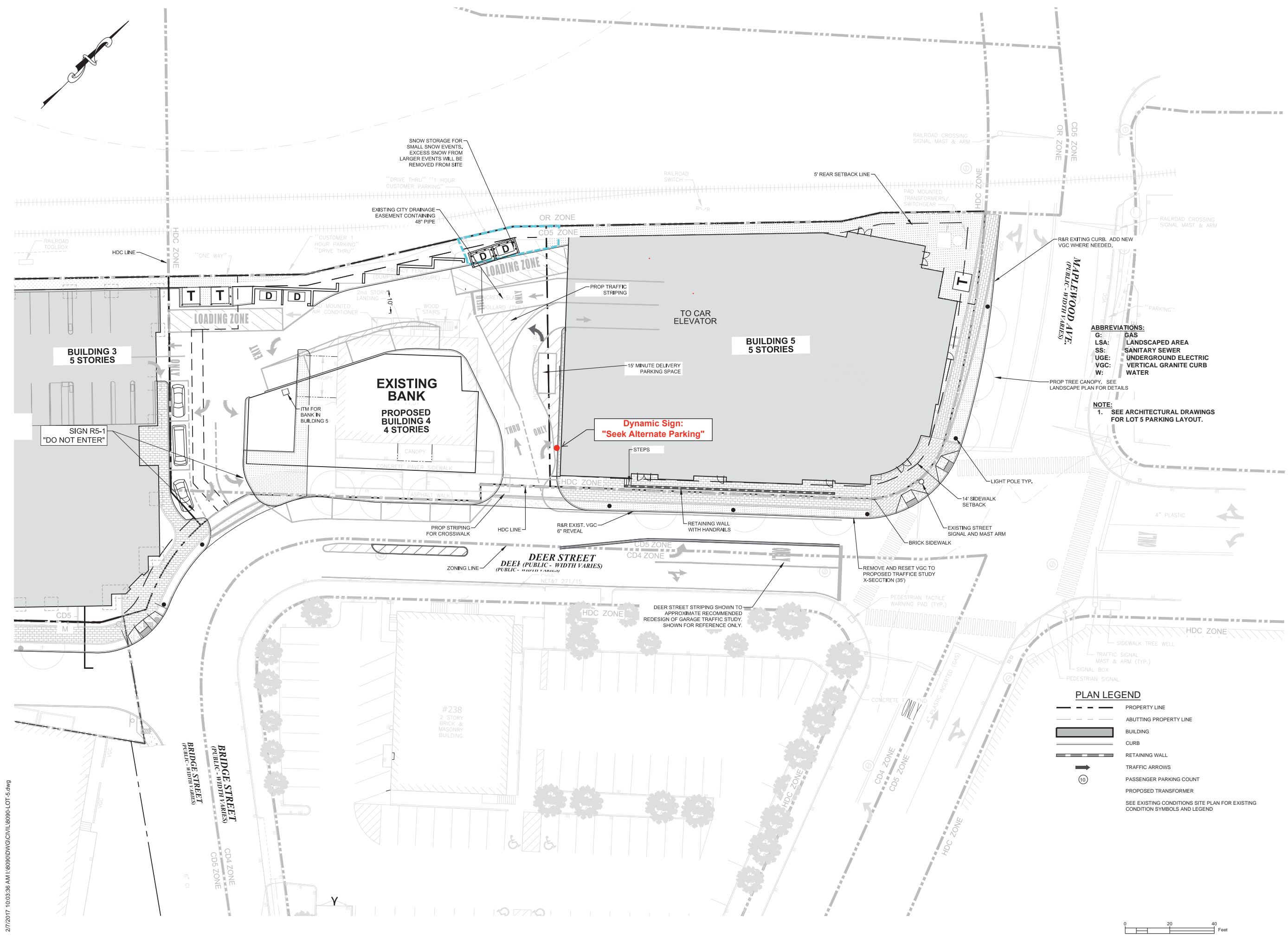
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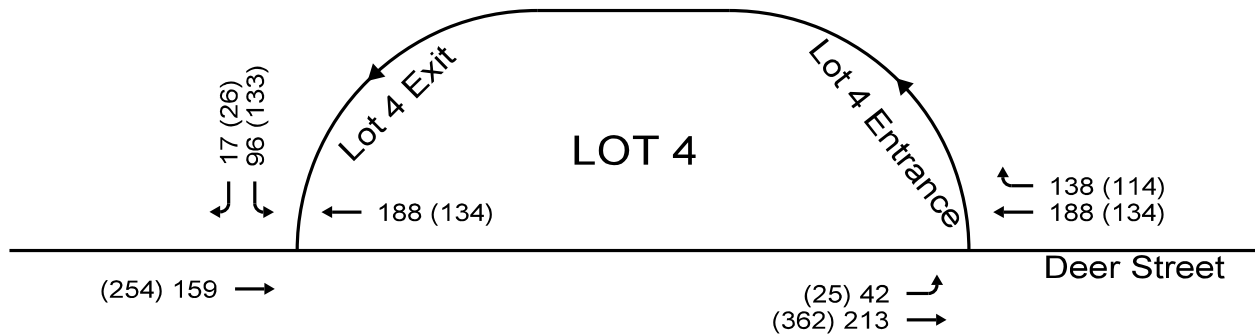
SITE PLAN REVIEW

SITE PLAN-
TEMPORARY
DRIVEWAY
LAYOUT

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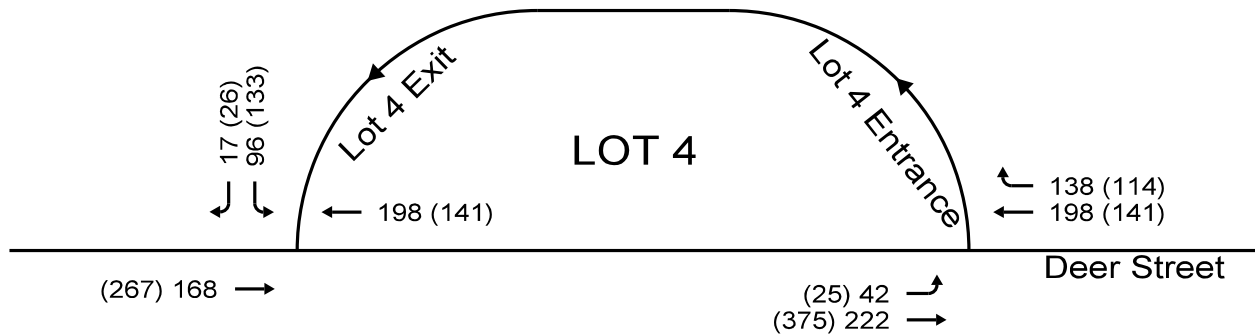


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xx = AM Peak Hour
(xx) = PM Peak Hour

DEER STREET REDEVELOPMENT PORTSMOUTH, NEW HAMPSHIRE



xx = AM Peak Hour
 (xx) = PM Peak Hour

DEER STREET REDEVELOPMENT
 PORTSMOUTH, NEW HAMPSHIRE

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	592	623	587	627	555	597
Vehs Exited	592	623	585	625	550	595
Starting Vehs	3	5	3	4	1	2
Ending Vehs	3	5	5	6	6	4
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	0
Travel Distance (mi)	72	75	70	75	67	72
Travel Time (hr)	3.2	3.3	3.1	3.4	3.0	3.2
Total Delay (hr)	0.4	0.4	0.4	0.4	0.4	0.4
Total Stops	115	110	106	123	126	115
Fuel Used (gal)	3.0	3.2	2.9	3.2	2.8	3.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	592	623	587	627	555	597
Vehs Exited	592	623	585	625	550	595
Starting Vehs	3	5	3	4	1	2
Ending Vehs	3	5	5	6	6	4
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	0
Travel Distance (mi)	72	75	70	75	67	72
Travel Time (hr)	3.2	3.3	3.1	3.4	3.0	3.2
Total Delay (hr)	0.4	0.4	0.4	0.4	0.4	0.4
Total Stops	115	110	106	123	126	115
Fuel Used (gal)	3.0	3.2	2.9	3.2	2.8	3.0

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.3	0.2
Total Del/Veh (s)	0.8	0.8	0.8
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.8	0.2	0.0	0.3
Total Del/Veh (s)	5.9	0.2	0.3	1.6
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	2.1
Denied Entry Before	0
Denied Entry After	0

Intersection: 3: Deer Street & Lot 4 Entrance

Movement	NE
Directions Served	LT
Maximum Queue (ft)	52
Average Queue (ft)	8
95th Queue (ft)	34
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	71	31
Average Queue (ft)	34	13
95th Queue (ft)	59	38
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	681	728	644	636	647	667
Vehs Exited	679	724	646	635	641	666
Starting Vehs	2	0	3	3	1	0
Ending Vehs	4	4	1	4	7	4
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	84	90	79	78	80	82
Travel Time (hr)	3.7	4.0	3.5	3.4	3.5	3.6
Total Delay (hr)	0.5	0.6	0.5	0.4	0.5	0.5
Total Stops	171	184	163	157	162	168
Fuel Used (gal)	3.5	3.7	3.2	3.2	3.2	3.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	681	728	644	636	647	667
Vehs Exited	679	724	646	635	641	666
Starting Vehs	2	0	3	3	1	0
Ending Vehs	4	4	1	4	7	4
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	84	90	79	78	80	82
Travel Time (hr)	3.7	4.0	3.5	3.4	3.5	3.6
Total Delay (hr)	0.5	0.6	0.5	0.4	0.5	0.5
Total Stops	171	184	163	157	162	168
Fuel Used (gal)	3.5	3.7	3.2	3.2	3.2	3.4

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.6	0.7	0.6
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.8	0.2	0.0	0.3
Total Del/Veh (s)	6.3	0.3	0.3	2.0
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.4
Total Del/Veh (s)	2.4
Denied Entry Before	0
Denied Entry After	0

Intersection: 3: Deer Street & Lot 4 Entrance

Movement	NE
Directions Served	LT
Maximum Queue (ft)	55
Average Queue (ft)	4
95th Queue (ft)	26
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	78	52
Average Queue (ft)	41	19
95th Queue (ft)	65	47
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	630	667	604	638	576	623
Vehs Exited	631	666	603	637	569	622
Starting Vehs	4	5	3	4	1	1
Ending Vehs	3	6	4	5	8	6
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	77	81	73	77	70	75
Travel Time (hr)	3.4	3.6	3.2	3.5	3.1	3.4
Total Delay (hr)	0.4	0.4	0.4	0.5	0.4	0.4
Total Stops	113	117	108	127	132	120
Fuel Used (gal)	3.2	3.4	3.0	3.3	2.9	3.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	630	667	604	638	576	623
Vehs Exited	631	666	603	637	569	622
Starting Vehs	4	5	3	4	1	1
Ending Vehs	3	6	4	5	8	6
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	77	81	73	77	70	75
Travel Time (hr)	3.4	3.6	3.2	3.5	3.1	3.4
Total Delay (hr)	0.4	0.4	0.4	0.5	0.4	0.4
Total Stops	113	117	108	127	132	120
Fuel Used (gal)	3.2	3.4	3.0	3.3	2.9	3.2

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.3	0.2
Total Del/Veh (s)	0.7	0.8	0.8
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.8	0.2	0.0	0.2
Total Del/Veh (s)	6.1	0.2	0.4	1.6
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	2.1
Denied Entry Before	0
Denied Entry After	0

Intersection: 3: Deer Street & Lot 4 Entrance

Movement	NE
Directions Served	LT
Maximum Queue (ft)	47
Average Queue (ft)	8
95th Queue (ft)	34
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	71	31
Average Queue (ft)	35	13
95th Queue (ft)	57	38
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	692	697	664	656	670	676
Vehs Exited	688	698	668	654	665	674
Starting Vehs	3	4	9	4	5	4
Ending Vehs	7	3	5	6	10	6
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	123	124	118	116	119	120
Travel Time (hr)	5.1	5.1	4.9	4.8	4.9	5.0
Total Delay (hr)	0.6	0.6	0.5	0.5	0.5	0.5
Total Stops	163	168	170	167	160	166
Fuel Used (gal)	4.5	4.6	4.3	4.2	4.3	4.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	692	697	664	656	670	676
Vehs Exited	688	698	668	654	665	674
Starting Vehs	3	4	9	4	5	4
Ending Vehs	7	3	5	6	10	6
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	123	124	118	116	119	120
Travel Time (hr)	5.1	5.1	4.9	4.8	4.9	5.0
Total Delay (hr)	0.6	0.6	0.5	0.5	0.5	0.5
Total Stops	163	168	170	167	160	166
Fuel Used (gal)	4.5	4.6	4.3	4.2	4.3	4.4

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.6	0.8	0.7
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.9	0.2	0.0	0.4
Total Del/Veh (s)	6.4	0.3	0.3	2.0
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.4
Total Del/Veh (s)	2.5
Denied Entry Before	0
Denied Entry After	0

Intersection: 3: Deer Street & Lot 4 Entrance

Movement	NE
Directions Served	LT
Maximum Queue (ft)	52
Average Queue (ft)	4
95th Queue (ft)	26
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	75	49
Average Queue (ft)	42	19
95th Queue (ft)	66	45
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

**Mitigation Methodology and Evaluation Memo
Deer Street Redevelopment
Portsmouth, New Hampshire**

Date: June 22, 2017
Subject: Mitigation Methodology and Evaluation
Deer Street Redevelopment – Portsmouth, New Hampshire
To: Ania Rogers, Steve Leonard
From: Randy Dunton / Emily Tynes, Gorrill Palmer (JN 3256)

Per your request, Gorrill Palmer (GP) has prepared this memo to address mitigation items identified in the TEC Traffic Impact and Access Study (TIAS) dated December 19, 2016 for the redevelopment of Deer Street in Portsmouth, New Hampshire. The purpose of this memo is to propose methodology and approaches to determine an appropriate contribution for Deer Street Associates (DSA) and the City Garage to mitigate traffic associated with their proposed developments.

The typical methodology for determining mitigation associated with a development includes identifying deficiencies or needs that are created or exacerbated by the development, then identifying mitigation that may improve the deficiency. If it is an existing deficiency, the development should contribute proportionally to the mitigation effort, so no one development is required to remedy an existing deficiency. It should be noted that this memo focuses on the DSA impact and that other developments in the area as well as the City would be expected to also contribute to the mitigation where appropriate.

Of special note, 46-64 Maplewood was included by TEC in the No Build traffic conditions before evaluating the impact of the City Garage and the DSA projects. It is our understanding that this project is not ahead of the DSA project in the approval process. This could potentially change the results and incorrectly lower the Level of Service (LOS) evaluations for the intersections reviewed in the Full Build Out projections for the City Garage and DSA developments.

Additionally, projects that follow the City Garage and DSA projects would be anticipated to contribute to mitigation items that are impacted by their traffic. These projects should follow similar methodology to determine their fair share contribution.



City Garage Mitigation Items Proposed by TEC

TEC proposed a variety of mitigation items for the City Garage at several locations throughout the study area. The following is a summary of the mitigation items at each location, with our comments following each item. We have stated our opinion if DSA should be responsible for contribution toward each mitigation item, and if so, have determined an appropriate contribution.

Deer Street, Deer Street Extension (now Foundry Place), and Bridge Street

City 1: Construct Foundry Place:

“Construct the Deer Street Extension [now called Foundry Place] near the existing apex of Deer Street / Bridge Street to provide access and egress for the proposed parking garage.”

Rationale: Although this item may be considered a mitigation item found in a typical traffic study, the construction of Foundry Place is directly related to the construction of the City Garage project, and therefore should not be an allocated mitigation cost.

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	100%	--	--

City 2a: Redlon & Johnson Sidewalk:

“Coordinate with the adjacent property and business operator, Redlon & Johnson, to investigate an opportunity to provide a new sidewalk (possibly with a landscape strip) and defined curb cuts and driveway aprons to create a more inviting walking environment on the west side of Bridge Street near the proposed parking garage.”

Rationale: The sidewalk is a reasonable mitigation item that should be allocated between all parties based on their pro-rata share of traffic generated. Using an average of the AM, PM, and Saturday peak hour traffic that each source is contributing to the specific area of the mitigation, we have calculated that DSA’s portion of this item should be 63.2% and the City Garage and 46-64 Maplewood is 29.2% and 7.6%, respectively.



Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	29.2%	63.2%	7.6%

City 2b: Redlon & Johnson Landscape Strip

“Coordinate with the adjacent property and business operator, Redlon & Johnson, to investigate an opportunity to provide a new sidewalk (possibly with a landscape strip) and defined curb cuts and driveway aprons to create a more inviting walking environment on the west side of Bridge Street near the proposed parking garage.”

Rationale: The landscape strip does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

City 3: Restripe Deer Street:

“Restripe the Deer Street eastbound approach between the Deer Street Extension [now Foundry Place] and Maplewood Avenue, within the existing curb lines, to include a westbound receiving lane, an eastbound left-turn lane and an eastbound shared through/right-turn lane with shoulders on each roadway edge.”

Rationale: This is a reasonable mitigation item that should be allocated between all parties based on their pro-rata share of traffic generated. Using an average of the AM, PM, and Saturday peak hour traffic that each source is contributing to the specific area of the mitigation, we have calculated that DSA’s portion of this item should be 72.6% and the City Garage and 46-64 Maplewood is 19.0% and 8.4%, respectively.

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	19.0%	72.6%	8.4%

City 4: Tracking Pavement Markings:

“Stripe dashed "tracking" pavement markings along Deer Street through the intersection to provide positive guidance for westbound motorists on Deer Street as they cross Maplewood Avenue”



Rationale: This is a reasonable mitigation item that should be allocated between all parties based on their pro-rata share of traffic generated. Using an average of the AM, PM, and Saturday peak hour traffic that each source is contributing to the specific area of the mitigation, we have calculated that DSA's portion of this item should be 73.1% and the City Garage and 46-64 Maplewood is 19.5% and 7.4%, respectively.

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	19.5%	73.1%	7.4%

City 5: Bridge Street No Left Turn Signs:

“Replace the existing 'No Left Turn' signs for the Bridge Street southbound approach to Islington Street and apply new right turn arrow and 'ONLY' pavement markings”

Rationale: This is a reasonable mitigation item that should be allocated between all parties based on their pro-rata share of traffic generated. Using an average of the AM, PM, and Saturday peak hour traffic that each source is contributing to the specific area of the mitigation, we have calculated that DSA's portion of this item should be 65.9% and the City Garage and 46-64 Maplewood is 25.0% and 9.1%, respectively.

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	25.0%	65.9%	9.1%

Maplewood Avenue / Middle Street Corridor

City 6: City Adjust Signals for Garage Impact:

“Modify existing traffic signal timing and coordination parameters along Maplewood Avenue / Middle Street corridor between Deer Street and State Street, to optimize operations and efficiency”

Rationale: It is our opinion that the City Garage should be responsible for adjusting the signal timing to operate efficiently after their development is completed.



Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	100%	--	--

City 7: Middle & State Signal Coordination:

“Reestablish traffic signal coordination at the intersection of Middle Street / State Street to allow for improved vehicle progression along the Maplewood Avenue / Middle Street corridor”

Rationale: This is a reasonable mitigation item that should be allocated between all parties based on their pro-rata share of traffic generated. Using an average of the AM, PM, and Saturday peak hour traffic that each source is contributing to the specific area of the mitigation, we have calculated that DSA’s portion of this item should be 62.4% and the City Garage and 46-64 Maplewood is 29.8% and 7.8%, respectively.

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	29.8%	62.4%	7.8%

Dynamic Parking Message Signs

City 8: Dynamic Parking Garage Signs:

“Consider additional dynamic parking garage message signs at key gateway locations within Downtown Portsmouth” (Recommendation: Install 3 New signs: 1. Maplewood Avenue southbound, north of Raynes Avenue; 2. Middle Street northbound, south of Court Street; 3. Memorial Bridge southbound, north of Bow Street. Replace 1 existing dynamic sign at Maplewood Avenue southbound, north of Russell Street)

Rationale: Dynamic Signs are typically considered “way finding” devices, and in our opinion do not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.



Multi-modal Accommodations

City 9: Sidewalks to Connect Garage:

“Construct a sidewalk connecting the proposed Deer Street Parking Garage to the sidewalk network along Deer Street and Bridge Street. The sidewalk should provide curbing to vertically separate vehicular and pedestrian traffic flows.”

Rationale: Although this item might be considered a mitigation item found in a typical traffic study, the construction of Foundry Place and connecting sidewalks are a stated part of the City Garage project and therefore should not be an allocated mitigation cost.

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	100%	--	--

City 10: Ramps & Driveway Aprons:

“Construct or reconstruct accessible ramps and driveway aprons along Deer Street between the proposed Deer Street Parking Garage and Maplewood Avenue to comply with Americans with Disabilities Act (ADA) standards”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

City 11: Stripe Share-Use Markings on Deer & Bridge:

“Stripe shared-use lane markings "sharrows" along Deer Street and Bridge Street between Maplewood Avenue and Hanover Street”

Rationale: This is a reasonable mitigation item that should be allocated between all parties based on their pro-rata share of traffic generated. Using an average of the AM, PM, and Saturday peak hour traffic that each source is contributing to the specific area of the mitigation, we have calculated that DSA’s portion of this item should be 68.1% and the City Garage and 46-64 Maplewood is 23.3% and 8.6%, respectively.



Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	23.3%	68.1%	8.6%

City 12: Bicycle Sharing:

“Provide opportunities for bicycle sharing at the parking garage”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

City 13: Bicycle Racks:

“Provide bicycle racks to encourage bicycling, particularly for residents that may use the facility”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

City 14: Public Transit Maps:

“Post COAST and Wildcat Transit maps and schedules within the parking garage to identify opportunities for visitors to utilize public transportation to/from Downtown”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

DSA Mitigation Items Proposed by TEC

TEC proposed a variety of mitigation items for DSA at several locations throughout the study area. The following is a summary of the mitigation items at each location, with GP's comments following each item. GP has stated below our opinion if DSA should be responsible for contribution toward each mitigation item, and if so, GP has determined an appropriate contribution.



Deer Street, Deer Street Extension (now Foundry Place), and Bridge Street

DSA 1: Reset Curbs on Deer Street:

“Upon reconstruction of the sidewalk and other utility improvements along the northerly side of Deer Street specific to the new development, remove and reset the northerly curb line to provide a consistent cross-section along Deer Street, as restriped by the City’s parking garage project, while providing a standardized curb reveal for the reconstructed sidewalk along the site frontage;”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

DSA 2: ADA Ramps at Maplewood & Deer:

“Provide updated ADA accessible ramps on the northwest and southwest corners of the Maplewood Avenue / Deer Street intersection that would be affected by the proposed sidewalk or roadway construction;”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

DSA 3: Mill & Overlay on Deer & Bridge:

“In conjunction with the utility work for the DSA Development, provide a mill and overlay for the entire length of Deer Street and Bridge Street between Maplewood Avenue and Hanover Street”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

Maplewood Avenue / Middle Street Corridor

DSA 4: “Do Not Block the Intersection” Pavement Markings & Signage:

“Install “Do Not Block Intersection” pavement marking and signage (R10-7) along the Maplewood Avenue / Middle Street corridor at the intersections with Deer Street, Hanover Street, Islington Street, and State Street”



Rationale: To determine if the traffic attributed to the DSA development is forecast to cause Maplewood Avenue queue lengths to exceed the available storage lengths between intersections, GP reviewed the 95th percentile queue lengths summarized in the TEC TIAS. Based on this review of the queue lengths on Maplewood Avenue at each of the intersections, there are several approaches where the 95th percentile queue lengths exceed the available storage lengths (either the length of a storage lane or the distance between intersections) with the 2018 or 2028 no-build volumes, indicating that the queue lengths are an existing condition. For example, at Deer Street, the Maplewood Avenue through lane is forecast to exceed the distance between intersections during the 2016 existing PM and Saturday peak hours.

The DSA development traffic is forecast to increase these queue lengths and exacerbate the existing condition, so an appropriate contribution by DSA would be reasonable. The contribution could be calculated based on the increase in traffic on the corridor due to the DSA development. Based on a review of the 2018 and 2028 traffic volumes, DSA contributes an average of 9.43% during the peak hours of the 2018 full build-out and an average of 8.71% during the peak hours of the 2028 full-build out, yielding an overall average of 9%. Using the same methodology, the City Garage and 46-64 Maplewood contribute approximately 3% and 1.5%, respectively.

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	3%	9%	1.5%

DSA 5: Concurrent Pedestrian Phasing at Maplewood / Middle Corridor:

“Introduce concurrent pedestrian phasing at intersections along the Maplewood Avenue / Middle Street corridor, between Deer Street and State Street.”

Rationale: Although the DSA development vehicular traffic is forecast to decrease the operation of some intersections in the corridor by one level of service, all of the intersections in the corridor are forecast to operate at an overall level of service ‘D’ or better during the 2018 full build-out condition, which is typically considered to be an acceptable level of service. During the 2028 full build-out conditions, two intersections fall to an overall level of service ‘E’ during a peak hour due to the additional development (both the City Parking Garage and DSA). Since the DSA traffic is anticipated to exacerbate an existing condition, but not create the deficiency, it would be reasonable for DSA to contribute an amount proportional to the traffic added to the corridor by their development and not be responsible for the entire cost.



In addition, the DSA development is not anticipated to add a significant amount of pedestrian traffic to the corridor, since most pedestrian traffic will stay on-site. A reduction of 8% was applied to the DSA development vehicular trip generation forecast, which indicates that an estimated 8% of site visitors will walk or bicycle to the DSA site. However, the City Parking Garage is anticipated to generate more pedestrians on the adjacent roadway network because people will park in the garage then walk to other downtown locations, whereas only the estimated 8% of DSA site visitors will be walking to and from the site. For these reasons, this item would not address a pedestrian deficiency created or exacerbated by DSA, and DSA should not be responsible for the entire cost of this item.

Similar to the previous mitigation item, an appropriate contribution by DSA for this item should be based on the traffic volumes. Based on a review of the 2018 and 2028 traffic volumes, DSA contributes an average of 9.43% during the peak hours of the 2018 full build-out and an average of 8.71% during the peak hours of the 2028 full-build out, yielding an overall average of 9%. Using the same methodology, the City Garage and 46-64 Maplewood contribute approximately 3% and 1.5%, respectively.

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	3%	9%	1.5%

DSA 6: Pedestrian Signal Heads at Middle & State:

“Replace existing pedestrian signal heads at Middle Street / State Street with new countdown pedestrian signal heads;”

Rationale: DSA is not anticipated to significantly increase the number of pedestrians on the adjacent roadway network. This proposed mitigation item does not address a deficiency that was created or exacerbated by the DSA development, since the pedestrian signal head would not necessarily improve the operation of the intersection. Therefore, it is our opinion that this item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.



DSA 7: Video Detection along the Corridor:

“Install video detection infrastructure along the Maplewood Avenue / Middle Street corridor, between Deer Street and State Street to improve detection capabilities along the coordinated corridor.”

Rationale: Similar to the previous mitigation item, this mitigation neither addresses a deficiency created by the development nor does it appear to address an existing deficiency exacerbated by the development. Therefore, it is our opinion that this item should not be the responsibility of DSA. The TEC TIAS stated that this item could act as a traffic monitoring system for the DSA development (in addition to all other developments in the area), but does not indicate why the development would need to be monitored.

DSA 8: Signal Phasing at Middle & Congress:

“Modify the vehicle signal phasing on the Middle Street northbound approach to Congress / Islington to provide a protected left-turn advance phase (with green arrow) to improve the northbound flow. This will require the replacement of one or more vehicle signal heads;”

Rationale: It is reasonable for the DSA development to be responsible for a portion of this item, since the DSA development is anticipated to increase the number of left turns on Middle Street northbound at Islington Street. Based on our review of the traffic volumes, DSA’s proportional share of traffic counts would be 62.3%. The City Garage share is 30.4% and the 46-64 Maplewood share is 7.3%

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	30.4%	62.3%	7.3%

DSA 9: DSA Signal Timing along Maplewood Corridor:

“Modify existing traffic signal timing, coordination parameters, and cycle lengths along the Maplewood Avenue / Middle Street corridor, between Deer Street and State Street, to optimize operations and efficiency in conjunction with the proposed concurrent pedestrian phasing.”

Rationale: DSA should be responsible for adjusting the signal timing to operate efficiently after their development is completed.



Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	--	100%	--

Other Mitigation Items and Locations

According to the TEC study, “To enhance the walkability and bike-ability for the proposed development, TEC recommends that DSA should incorporate the following multi-modal accommodations as part of the DSA Development:”

DSA 10: Rebuild Sidewalk on North Side of Deer:

“Reconstruct the sidewalk along the northerly side of Deer Street between Deer Street Extension and Maplewood Avenue. Provide streetscape opportunities where applicable to enhance the plaza-style sidewalk along the site frontage. The sidewalk should provide curbing to vertically separate vehicular and pedestrian traffic flows”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

DSA 11: ADA Ramps along Building Frontage:

“Construct or reconstruct accessible ramps along the building frontage, or other intersection corners, to comply with ADA standards if impacted by building construction or the intersection modifications noted above”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

DSA 12: Secure Interior Bicycle Racks:

“Provide secure interior bicycle racks for residents or employees to encourage bicycling”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.



DSA 13: Public Transit Maps:

“Post COAST and Wildcat Transit maps and schedules within the several buildings as part of the development to identify opportunities for residents, patrons, and employees to utilize public transportation to and from Downtown.”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.

DSA 14: Market Street Roundabout Contribution:

“Provide contributory funds towards the Market Street Roundabout Project proportionally consistent with contributions made by the North End Portsmouth Development”

Rationale: A DSA contribution to the Market Street Roundabout appears to be reasonable. However, the contribution should be proportional to the percentage of traffic added to the existing volumes by the DSA development. The HarborCorp project was required to contribute \$50,000 for its increase in traffic of 6.6% during the peak hours of its 2015 build out year. The DSA development results in an increase of 3.2% during the peak hours of 2018 (the DSA build out year). Based on this information, the DSA contribution should be approximately 48.5% of HarborCorp’s contribution. The City Garage and 46-64 Maplewood contributions were determined using the same methodology.

Mitigation Item Allocation Summary

Conclusion	City Garage	DSA	46-64 Maplewood
Fair Share Percentage	15.2% of HC	48.5% of HC	4.5% of HC

DSA 15: Traffic Modeling Study Contribution:

“Provide contributory funds towards the Downtown Traffic Modeling Study Project at the discretion of the City”

Rationale: This item does not meet the typical criteria for traffic mitigation associated with increased vehicle, pedestrian or bicycle traffic.



Conclusion

We concur that some of the mitigation items discussed in the TEC TIAS would improve the operation of the study area intersections. However, for a number of items the appropriate contribution by DSA and the City Garage should be proportional to the impact the development traffic is anticipated to have on the existing roadway network. For many items, this contribution is proportional to the percent increase in traffic due to the development. The attached table summarizes the proposed allocation to the DSA project, the City Garage, and 46-64 Maplewood. Requiring a proportional contribution to mitigation items allows roadway improvement costs to be properly and reasonably allocated.



	TEC Identified Off-Site Improvements	Contribution %			Note
		City Garage	DSA	46-64 Maplewood	
	I. Not Traffic Study Mitigation Items for this Project:				
City 2b	Redlon & Johnson Landscape Strip	--	--	--	3
City 8	Dynamic Parking Garage Signs	--	--	--	1
City 10	Ramps and Driveway Aprons	--	--	--	1
City 12	Bicycle Sharing at the Garage	--	--	--	1
City 13	Bicycle Racks	--	--	--	1
City 14	Public Transit Maps	--	--	--	1
DSA 1	Reset Curbs on Deer Street	--	--	--	1
DSA 2a	ADA Ramps Maplewood & Deer (NW Corner)	--	--	--	1
DSA 2b	ADA Ramps at Maplewood & Deer (SW Corner)	--	--	--	2
DSA 3	Mill & Overlay on Deer & Bridge	--	--	--	3
DSA 6	Pedestrian Signal Heads at Middle and State Streets	--	--	--	2
DSA 7	Video Detection at maplewood and Middle Street Corridor	--	--	--	3
DSA 10	Rebuild Sidewalk on North Side of Deer	--	--	--	1
DSA 11	ADA Ramps along Building Frontage	--	--	--	1
DSA 12	Secure Interior Bicycle Racks	--	--	--	1
DSA 13	Public Transit Maps	--	--	--	1
DSA 15	Traffic Modeling Study	--	--	--	2
	II. Items Directly Related to City Garage Only:				
City 1	Construct Foundry Place	100%	--	--	6
City 6	City Adjust Signals for Garage Impacts	100%	--	--	7
City 9	Sidewalks to Connect Garage	100%	--	--	6
	III. Items Directly Related to DSA Only:				
DSA 9a	DSA Signal Timing along the Maplewood Corridor for DSA Lot 6 Impacts	--	100%	--	7
DSA 9b	DSA Signal Timing along the Maplewood Corridor for DSA Lot 3 Impacts	--	100%	--	7
DSA 9c	DSA Signal Timing along the Maplewood Corridor for DSA Lot 5 Impacts	--	100%	--	7
DSA 9d	DSA Signal Timing along the Maplewood Corridor for DSA Lot 4 Impacts	--	100%	--	7
	IV. Fair Share of Proposed Traffic Study Mitigation Items:				
City 2a	Redlon & Johnson Sidewalk	29.2%	63.2%	7.6%	4
City 3	Restripe Deer Street	19.0%	72.6%	8.4%	4
City 4	Tracking Pavement Markings	19.5%	73.1%	7.4%	4
City 5	Bridge Street No Left Turn Signs	25.0%	65.9%	9.1%	4
City 7	Middle & State Signal Coordination	29.8%	62.4%	7.8%	4
City 11	Stripe Shared Use Markings on Deer and Bridge	23.3%	68.1%	8.6%	4
DSA 4	"Do Not Block Intersection" Pavement Markings & Signage	3%	9%	1.5%	4
DSA 5	Concurrent Pedestrian Phasing at Maplewood / Middle Corridor	3%	9%	1.5%	4
DSA 8	Signal Phasing at Middle & Congress	30.4%	62.3%	7.3%	4
DSA 14	Market Street Roundabout Contribution compared to HarborCorp's	15.2%	48.5%	4.5%	5

1. Item may be completed as part of property owner's project.
2. Does not address a deficiency since the item may already exist or would not necessarily improve the operation of the intersection.
3. Does not address a deficiency created or exacerbated by the DSA development.
4. TEC and GP identified mitigation items with fair share proration.
5. Percentage of HarborCorp's contribution based on HarborCorp increase in peak hour traffic of 6.6% versus 3.2% for DSA.
6. Item is the responsibility of the City Garage.
7. Item is to be completed as part of the property owner's project.

* TEC TIAS report identified the 46-64 Maplewood project as through Planning Board approvals, and included their projected traffic in the No Build traffic counts.

**Preliminary Queue Analyses and Circulation Evaluation
Deer Street Mixed Use Development
Portsmouth, New Hampshire**

Date: January 3, 2018
Subject: Lots 3 and 4 Queue Analysis and Circulation Evaluation
To: Ania Rogers, DSA
From: Randy Dunton, P.E., PTOE, Gorrill Palmer

Gorrill Palmer (GP) has been retained by Deer Street Associates (DSA) to review site circulation and complete queue analyses for the bank drive-through lane for Building 4 and the driveway exit on Lot 4 for the proposed Deer Street mixed use development in Portsmouth, New Hampshire. The proposed development consists of six lots, including the City owned Deer Street Parking Garage, but Lots 3, 4, and 5 share a site driveway. The site driveway is enter only to the east of Building 4 and exit only to the west of Building 4, with traffic circulating around Building 4 counterclockwise. Building 4 has the potential to create queues on Lot 4 that may impact vehicle circulation and Building 3 proposes to provide valet parking for Hotel guests that could include re-circulation of traffic. The following is summary of the assumptions, methodology, and conclusions of the queue analyses.

Building 4 Commercial Bank Estimated Queue

The back of Building 4 is proposed to be a commercial bank drive through lane. This type of bank typically serves businesses, rather than individuals, so their drive through use differs from a standard bank. Eastern Bank provided drive through utilization information for their Portsmouth location, which averages 72 cars per week, or 12 cars per day that utilize the drive-through.

The drive-through lane for Building 4 has a storage length of four vehicles. If the expected queue is longer than the storage length, it could impact the flow of traffic around the site.

Eastern Bank stated that of the 12 cars per day that use the drive-through, the maximum they typically experience is 7 vehicles arriving during the peak hour. To evaluate the impact of the arrival rate on the queue length, GP used the arrival rates for two time periods; all vehicles arriving during a 60 minute period and all vehicles arriving during a 30 minute period.

Based on information from Eastern Bank, the average service time per vehicle is approximately 6 minutes. GP used the two arrival rates and this average service time to estimate the queue length at the end of each time period. The following table summarizes the results of the evaluation:



Arrival Rate vs. Estimated Queue Length by Scenario

Arrival Rate	Estimated Queue Length (veh)
7 vehicles / 60 min	0
7 vehicles / 30 min	2

As shown in the table, if the 7 vehicles arrive over a 60 minute or 30 minute period, the queue lengths can be accommodated by the available storage length of four vehicles. This indicates that the proposed storage length of four vehicles in the drive through lane should be adequate.

Site Driveway Capacity and Queue Analysis

The site driveway serves Buildings 3, 4, and 5. It is a one way loop, with vehicles entering on the east side of Building 4, traveling counterclockwise around the building and exiting onto Deer Street on the west side of Building 4. This counterclockwise circulation pattern is standard for one-way driveways and it better accommodates the bank drive-thru and aids in reducing traffic from backing onto Deer Street. Since the area in front of the hotel may be a high activity area at times, the counterclockwise circulation pattern allows potential queuing on-site without backing onto Deer Street. If the circulation pattern were clockwise, there is a potential of traffic entering the site to need to stop momentarily, potentially queuing traffic onto Deer Street.

The exit side of the driveway is proposed to include separate left and right turn lanes onto Deer Street with enough length for approximately three vehicles to queue in each exit lane of the driveway without impacting the bank drive-through lane. To estimate the queue lengths of vehicles exiting the site onto Deer Street, GP forecasted the volume of traffic anticipated to use the site driveway using the following Land Use Codes from ITE *Trip Generation*, Ninth Edition:

- LUC 220 – Apartment
- LUC 310 – Hotel
- LUC 710 – General Office Building
- LUC 826 – Specialty Retail Center
- LUC 880 – Pharmacy/Drugstore without Drive-Through
- LUC 911 – Walk-In Bank
- LUC 925 – Drinking Place
- LUC 932 – High Turnover (Sit Down) Restaurant

GP based the trip generation calculations on the following uses and sizes provided by DSA in the spreadsheet “Deer St Area_Uses Calcs 2017_11_07”:



- Building 3:
 - 128 Room Hotel
 - 4,060 sf Bar
 - 2,160 sf Café
- Building 4:
 - 19,192 sf Office
 - 6,912 sf Restaurant
 - Drive-Through Commercial Bank ATM
- Building 5:
 - 45 Apartments
 - 3,145 sf Walk-In Bank
 - 9,945 sf Office
 - 14,765 sf Pharmacy

Parking is proposed to be provided on site for the hotel, the residential units in Building 5, and potentially a portion of the Building 5 bank and pharmacy visitors. Additionally, the customers utilizing the ATM would also enter and exit the driveway to use the service. GP assumed that the following uses would enter / exit the site:

- Building 3:
 - 128 Room Hotel
- Building 4:
 - Drive-Through Commercial Bank ATM
- Building 5:
 - 45 Apartments
 - 38 vehicles visiting the Bank or Pharmacy (assuming 19 retail parking spaces, with turnover two times per hour. Parking for the uses in Building 5 is still being determined. If these spaces are eliminated, the evaluation is conservative).

For the purposes of this assessment, GP has assumed that the vehicles not parking on site would park in the City Garage. TEC applied three reductions to the overall trip generation; a transit reduction of 1.5%, a walking and biking reduction of 8%, and a shared use reduction of 6% for the AM and 21% for the PM. GP applied these reductions to the calculated trip generation for the site (with the exception of the ATM visitors). TEC also included pass-by trips, however, due to their distribution of the traffic, this differentiation does not impact the traffic at the site driveway. GP determined that the forecast trip generation for the site driveway is 85 trip ends entering the site and 84 trip ends exiting the site during the AM peak hour and 84 trip ends entering the site and 79 trip ends exiting during the PM peak hour. The trip assignment has been based on the same TEC trip assignment used in the Traffic Impact and Access Study (TIAS).



Since Lot 6 would also be completed when the other three buildings are completed, the traffic going to and from Lot 6 was also calculated using the same methodology as Lots 3, 4, and 5, based on the following uses:

- Building 6:
 - 43 Apartments
 - 4,296 sf Office
 - 1,867 sf Retail

The attached table summarizes the trip generation for each building, as well as the trip generation anticipated to enter / exit the site.

GP evaluated the Deer Street 2018 Opening Year and the 2028 Future Year found in TEC's TIAS. The forecast traffic generated by Lots 3, 4, 5, and 6 was added to the 2018 Opening Year Build Phase I and the 2028 Future Year Build Phase I Deer Street traffic volumes from TEC's TIAS. The 2018 and 2028 Postdevelopment traffic volumes are shown on the attached Figures 1 and 2.

The location of the Building 3 valet station has not yet been finalized. If it is located at the front of the parking garage, valets will be able to pull the vehicles directly into the garage. If the valet station is located in front of the hotel entrance, during more congested site traffic conditions some vehicles being parked by the valet will be required to exit and re-enter the site to access the parking garage. This would increase the number of left turning vehicles out of the site and increases the left turning vehicles back into the site. GP has evaluated the capacity and queue lengths of the site entrance and exit for the following two conditions:

- Assuming no hotel traffic is required to exit and re-enter the site
- Assuming 50% of hotel traffic is required to exit and re-enter the site

The following summarizes the methodology and results of the capacity and queue analyses for the site driveway.

Capacity Analysis

To evaluate the operation of the site driveway for 2018 and 2028, GP used Synchro/SimTraffic computer analysis software. Levels of service are similar to the academic ranking system where an 'A' is good with little control delay and an 'F' represents poor traffic conditions. The following table summarizes the relationship between level of service and control delay per vehicle for unsignalized intersections.



Level of Service Criteria for Unsignalized Intersections

Level of Service	Control Delay per Vehicle (sec)
A	Less than 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

The following table summarizes the results of the capacity analysis. The results reflect the average of five SimTraffic runs. Detailed reports are attached.

Level of Service Summary

Approach	Level of Service							
	2018 Postdevelopment				2028 Postdevelopment			
	No Re-entry		50% Re-entry		No Re-entry		50% Re-entry	
	AM	PM	AM	PM	AM	PM	AM	PM
Deer Street / Exit								
Exit SE	A	A	A	A	A	A	A	A
Deer Street NE	A	A	A	A	A	A	A	A
Deer Street SW	A	A	A	A	A	A	A	A
Deer Street / Entrance								
Deer Street NE	A	A	A	A	A	A	A	A
Deer Street SW	A	A	A	A	A	A	A	A

As shown in the table the site driveway is forecast to operate at very good levels of service for all scenarios. Additionally, recirculating traffic from the hotel is not forecast to impact the levels of service of the site driveway or Deer Street traffic.

Queue Analysis

To evaluate the anticipated queue length of the site driveway for 2018 and 2028, GP used the same Synchro/SimTraffic computer analysis software that was used for the queue analysis. The results reflect the average of five SimTraffic runs. The detailed results are attached. The following table summarizes the 95th percentile queue lengths of the site driveway exit and the Deer Street eastbound approach at the site entrance.



Queue Length Summary

Approach	95 th Percentile Queue Lengths (Feet)							
	2018 Postdevelopment				2028 Postdevelopment			
	No Re-entry		50% Re-entry		No Re-entry		50% Re-entry	
	AM	PM	AM	PM	AM	PM	AM	PM
Exit from Site								
Right Turn Lane	40	35	40	40	35	35	35	40
Left Turn Lane	55	55	60	60	55	55	60	60
Deer Street / Entrance								
Deer St EB	25	30	35	35	30	20	35	25

As shown in the table, for all analysis scenarios, the queue lengths exiting the site driveway are forecast to be one to two vehicles in the right turn lane and two to three vehicles in the left turn lane, assuming the length of a vehicle and the associated gap between vehicles is 25 feet. The 95th percentile queue length of the through-left lane at the site entrance is forecast to be one to two vehicles. Overall, the addition of hotel traffic that could potentially be required to exit and re-enter the site is forecast to increase the 95th percentile queue lengths by approximately five feet, which is less than one vehicle. The queue lengths are not forecast to exceed three vehicles in the 2018 or 2028 conditions. Based on this evaluation, the vehicles waiting to exit the site are not anticipated to interfere with site circulation and Deer Street is not forecast to be impacted significantly by traffic turning into the site. If the valet station is located in front of Building 3, the vehicles waiting in the valet pick-up / drop-off area may be momentarily blocked by queued vehicles, but this is not uncommon to parking on a regular street adjacent to an intersection.

Conclusion

- For the commercial bank drive through, GP determined that if the anticipated maximum 7 vehicles arrive either over a peak hour, or even over a 30 minute period the proposed storage length (four vehicles) in the drive-through lane is anticipated to be adequate to accommodate the estimated queue lengths.
- Based on a Synchro/SimTraffic capacity analysis, the site driveway is forecast to operate at very high levels of service during the 2018 and 2028 conditions. Additionally, vehicles that are required to exit and re-enter the site to be valet parked in the Building 3 garage are not anticipated to significantly impact the operation of the site driveway or traffic on Deer Street.
- Based on a Synchro/SimTraffic queue analysis, the 95th percentile queue lengths of the right and left turn lanes exiting the site are not forecast to exceed three vehicles during the 2018 or 2028 conditions. The queue lengths of the site exit lanes onto Deer Street are not forecast to interfere with the bank drive-through or the vehicles exiting the parking garage in Building 3. Additionally, vehicles that are required to exit and re-enter the site to be valet parked in the Building 3 garage are not anticipated to significantly impact the queue lengths entering or exiting the site.

Trip Generation Summary

Lot 3	Size	LUC	AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
			entering	exiting	total	entering	exiting	total
Hotel	128 Rooms	310	41	27	68	38	39	77
Bar*	4,060 sf	N/A	--	--	--	--	--	--
Café*	2,160 sf	N/A	--	--	--	--	--	--
Subtotal			41	27	68	38	39	77
Transit Reduction (1.5%)			-1	0	-1	-1	-1	-2
Walking / Biking Reduction (8%)			-3	-2	-5	-3	-3	-6
Shared Use Reduction (6% AM, 21% PM)			-2	-2	-4	-8	-8	-16
Total			35	23	58	26	27	53

*ITE description includes cocktail lounges and other amenities for hotel guests. These have been considered part of the hotel trip generation

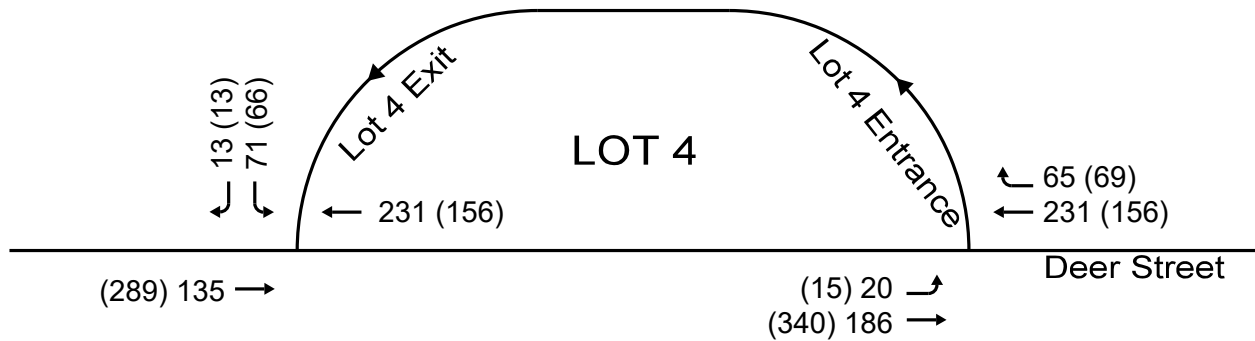
Lot 4	Size	LUC	AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
			entering	exiting	total	entering	exiting	total
Office	19,192 sf	710	46	5	51	7	42	49
Restaurant	6,912 sf	932	38	37	75	41	27	68
ATM*	N/A	N/A	7	7	14	7	7	14
Subtotal			91	49	140	55	76	131
Transit Reduction (1.5%)			-1	-1	-2	-1	-1	-2
Walking / Biking Reduction (8%)			-7	-3	-10	-4	-6	-10
Shared Use Reduction (6% AM, 21% PM)			-5	-3	-8	-10	-14	-24
Total			78	42	120	40	55	95

*Trip Generation based on information provided by the Bank

Lot 5	Size	LUC	AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
			entering	exiting	total	entering	exiting	total
Residential	45 units	220	5	18	23	18	10	28
Bank	3,145 sf	911	10	9	19	17	21	38
Office	9,945 sf	710	27	3	30	4	25	29
Pharmacy	14,765 sf	880	28	15	43	62	62	124
Subtotal			70	45	115	101	118	219
Transit Reduction (1.5%)			-1	-1	-2	-2	-2	-4
Walking / Biking Reduction (8%)			-6	-4	-10	-8	-9	-17
Shared Use Reduction (6% AM, 21% PM)			-4	-3	-7	-21	-25	-46
Total			59	37	96	70	82	152

Lot 6	Size	LUC	AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
			entering	exiting	total	entering	exiting	total
Residential	43 units	220	4	18	22	18	9	27
Office	4,296 sf	710	14	1	15	2	12	14
Retail	1,867 sf	826	1	0	1	2	3	5
Subtotal			19	19	38	22	24	46
Transit Reduction (1.5%)			0	0	0	0	0	0
Walking / Biking Reduction (8%)			-2	-2	-4	-2	-2	-4
Shared Use Reduction (6% AM, 21% PM)			-1	-1	-2	-5	-5	-10
Total			16	16	32	15	17	32

Total Traffic Entering Site	AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
	entering	exiting	total	entering	exiting	total
Lot 3 Hotel	35	23	58	26	27	53
Lot 4 ATM	7	7	14	7	7	14
Lot 5 Residential	5	16	21	13	7	20
Lot 5 Retail	38	38	76	38	38	76
Total	85	84	169	84	79	163

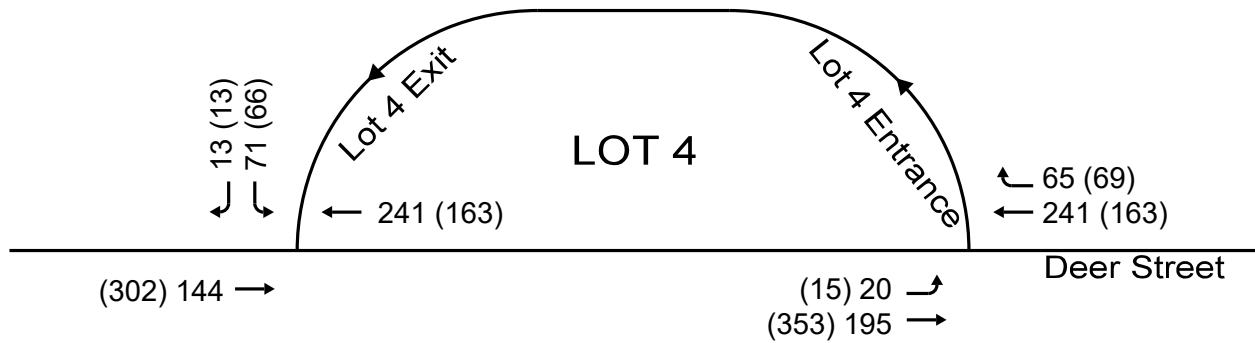


Note: Volumes do not include recirculating hotel traffic.

xx = AM Peak Hour

(xx) = PM Peak Hour

DEER STREET REDEVELOPMENT
PORTSMOUTH, NEW HAMPSHIRE



Note: Volumes do not include recirculating hotel traffic.

xx = AM Peak Hour
 (xx) = PM Peak Hour

DEER STREET REDEVELOPMENT
 PORTSMOUTH, NEW HAMPSHIRE

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	516	562	500	505	476	512
Vehs Exited	518	562	497	502	473	510
Starting Vehs	3	4	1	1	2	1
Ending Vehs	1	4	4	4	5	3
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	66	72	63	64	60	65
Travel Time (hr)	2.7	2.9	2.6	2.7	2.5	2.7
Total Delay (hr)	0.3	0.3	0.3	0.3	0.3	0.3
Total Stops	70	94	81	95	92	86
Fuel Used (gal)	2.5	2.8	2.4	2.5	2.4	2.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	516	562	500	505	476	512
Vehs Exited	518	562	497	502	473	510
Starting Vehs	3	4	1	1	2	1
Ending Vehs	1	4	4	4	5	3
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	66	72	63	64	60	65
Travel Time (hr)	2.7	2.9	2.6	2.7	2.5	2.7
Total Delay (hr)	0.3	0.3	0.3	0.3	0.3	0.3
Total Stops	70	94	81	95	92	86
Fuel Used (gal)	2.5	2.8	2.4	2.5	2.4	2.5

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.6	0.5	0.6
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.9	0.2	0.0	0.2
Total Del/Veh (s)	5.5	0.2	0.2	1.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	1.7
Denied Entry Before	0
Denied Entry After	0

Baseline**Intersection: 3: Deer Street & Lot 4 Entrance**

Movement	NE
Directions Served	LT
Maximum Queue (ft)	40
Average Queue (ft)	4
95th Queue (ft)	23
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	66	31
Average Queue (ft)	31	12
95th Queue (ft)	54	36
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	633	650	602	608	547	608
Vehs Exited	633	649	606	604	539	606
Starting Vehs	3	3	4	2	0	1
Ending Vehs	3	4	0	6	8	3
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	82	84	78	78	70	78
Travel Time (hr)	3.3	3.4	3.1	3.2	2.8	3.2
Total Delay (hr)	0.3	0.3	0.3	0.3	0.3	0.3
Total Stops	81	87	82	98	86	86
Fuel Used (gal)	3.0	3.1	2.8	2.9	2.6	2.9

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	633	650	602	608	547	608
Vehs Exited	633	649	606	604	539	606
Starting Vehs	3	3	4	2	0	1
Ending Vehs	3	4	0	6	8	3
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	82	84	78	78	70	78
Travel Time (hr)	3.3	3.4	3.1	3.2	2.8	3.2
Total Delay (hr)	0.3	0.3	0.3	0.3	0.3	0.3
Total Stops	81	87	82	98	86	86
Fuel Used (gal)	3.0	3.1	2.8	2.9	2.6	2.9

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.4	0.5	0.4
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.8	0.2	0.0	0.3
Total Del/Veh (s)	6.0	0.2	0.2	1.1
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	1.5
Denied Entry Before	0
Denied Entry After	0

Baseline**Intersection: 3: Deer Street & Lot 4 Entrance**

Movement	NE
Directions Served	LT
Maximum Queue (ft)	56
Average Queue (ft)	4
95th Queue (ft)	26
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	66	31
Average Queue (ft)	31	10
95th Queue (ft)	51	34
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Baseline

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	541	590	508	515	506	533
Vehs Exited	542	590	505	513	501	530
Starting Vehs	2	5	1	2	2	1
Ending Vehs	1	5	4	4	7	4
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	69	75	65	65	64	68
Travel Time (hr)	2.9	3.2	2.7	2.8	2.7	2.8
Total Delay (hr)	0.3	0.4	0.3	0.3	0.3	0.3
Total Stops	86	121	93	109	109	104
Fuel Used (gal)	2.7	3.0	2.5	2.6	2.6	2.7

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	541	590	508	515	506	533
Vehs Exited	542	590	505	513	501	530
Starting Vehs	2	5	1	2	2	1
Ending Vehs	1	5	4	4	7	4
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	69	75	65	65	64	68
Travel Time (hr)	2.9	3.2	2.7	2.8	2.7	2.8
Total Delay (hr)	0.3	0.4	0.3	0.3	0.3	0.3
Total Stops	86	121	93	109	109	104
Fuel Used (gal)	2.7	3.0	2.5	2.6	2.6	2.7

Baseline

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.8	0.5	0.7
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.7	0.2	0.0	0.2
Total Del/Veh (s)	6.0	0.2	0.2	1.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	2.0
Denied Entry Before	0
Denied Entry After	0

Baseline

Intersection: 3: Deer Street & Lot 4 Entrance

Movement	NE
Directions Served	LT
Maximum Queue (ft)	44
Average Queue (ft)	8
95th Queue (ft)	31
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	71	31
Average Queue (ft)	34	12
95th Queue (ft)	59	37
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Baseline

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	634	672	607	608	565	618
Vehs Exited	634	669	611	604	559	616
Starting Vehs	3	3	4	2	3	3
Ending Vehs	3	6	0	6	9	4
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	82	87	79	78	72	79
Travel Time (hr)	3.4	3.5	3.2	3.2	3.0	3.3
Total Delay (hr)	0.3	0.4	0.3	0.3	0.3	0.4
Total Stops	95	103	99	108	103	102
Fuel Used (gal)	3.1	3.3	2.9	3.0	2.7	3.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	634	672	607	608	565	618
Vehs Exited	634	669	611	604	559	616
Starting Vehs	3	3	4	2	3	3
Ending Vehs	3	6	0	6	9	4
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	82	87	79	78	72	79
Travel Time (hr)	3.4	3.5	3.2	3.2	3.0	3.3
Total Delay (hr)	0.3	0.4	0.3	0.3	0.3	0.4
Total Stops	95	103	99	108	103	102
Fuel Used (gal)	3.1	3.3	2.9	3.0	2.7	3.0

Baseline

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.5	0.5	0.5
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.7	0.2	0.0	0.3
Total Del/Veh (s)	6.1	0.3	0.2	1.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	1.7
Denied Entry Before	0
Denied Entry After	0

Baseline

Intersection: 3: Deer Street & Lot 4 Entrance

Movement	NE
Directions Served	LT
Maximum Queue (ft)	60
Average Queue (ft)	7
95th Queue (ft)	34
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	75	31
Average Queue (ft)	34	12
95th Queue (ft)	57	36
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	529	588	520	536	482	532
Vehs Exited	532	586	517	532	479	529
Starting Vehs	3	3	1	2	2	2
Ending Vehs	0	5	4	6	5	3
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	68	75	67	68	61	68
Travel Time (hr)	2.8	3.1	2.7	2.8	2.5	2.8
Total Delay (hr)	0.3	0.3	0.3	0.3	0.3	0.3
Total Stops	65	95	88	98	92	88
Fuel Used (gal)	2.6	2.9	2.5	2.7	2.4	2.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	529	588	520	536	482	532
Vehs Exited	532	586	517	532	479	529
Starting Vehs	3	3	1	2	2	2
Ending Vehs	0	5	4	6	5	3
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	68	75	67	68	61	68
Travel Time (hr)	2.8	3.1	2.7	2.8	2.5	2.8
Total Delay (hr)	0.3	0.3	0.3	0.3	0.3	0.3
Total Stops	65	95	88	98	92	88
Fuel Used (gal)	2.6	2.9	2.5	2.7	2.4	2.6

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.6	0.6	0.6
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.8	0.2	0.0	0.2
Total Del/Veh (s)	5.5	0.2	0.2	1.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	1.7
Denied Entry Before	0
Denied Entry After	0

Baseline**Intersection: 3: Deer Street & Lot 4 Entrance**

Movement	NE
Directions Served	LT
Maximum Queue (ft)	44
Average Queue (ft)	5
95th Queue (ft)	27
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	75	31
Average Queue (ft)	31	11
95th Queue (ft)	55	35
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	643	672	621	622	551	621
Vehs Exited	644	670	622	619	543	620
Starting Vehs	5	4	4	5	1	3
Ending Vehs	4	6	3	8	9	6
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	120	125	115	115	101	115
Travel Time (hr)	4.6	4.8	4.4	4.4	3.9	4.4
Total Delay (hr)	0.4	0.4	0.3	0.3	0.3	0.3
Total Stops	78	99	81	88	84	86
Fuel Used (gal)	4.0	4.2	3.8	3.8	3.4	3.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	643	672	621	622	551	621
Vehs Exited	644	670	622	619	543	620
Starting Vehs	5	4	4	5	1	3
Ending Vehs	4	6	3	8	9	6
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	120	125	115	115	101	115
Travel Time (hr)	4.6	4.8	4.4	4.4	3.9	4.4
Total Delay (hr)	0.4	0.4	0.3	0.3	0.3	0.3
Total Stops	78	99	81	88	84	86
Fuel Used (gal)	4.0	4.2	3.8	3.8	3.4	3.8

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.4	0.6	0.5
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.8	0.2	0.0	0.2
Total Del/Veh (s)	6.2	0.2	0.2	1.1
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	1.6
Denied Entry Before	0
Denied Entry After	0

Baseline**Intersection: 3: Deer Street & Lot 4 Entrance**

Movement	NE
Directions Served	LT
Maximum Queue (ft)	33
Average Queue (ft)	2
95th Queue (ft)	17
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	69	31
Average Queue (ft)	33	10
95th Queue (ft)	54	34
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Baseline

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	550	623	545	539	517	555
Vehs Exited	551	619	541	535	511	552
Starting Vehs	2	4	1	2	2	1
Ending Vehs	1	8	5	6	8	5
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	70	79	70	68	65	70
Travel Time (hr)	2.9	3.4	2.9	2.9	2.8	3.0
Total Delay (hr)	0.3	0.4	0.3	0.3	0.3	0.4
Total Stops	84	124	103	103	109	105
Fuel Used (gal)	2.8	3.2	2.7	2.7	2.6	2.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	550	623	545	539	517	555
Vehs Exited	551	619	541	535	511	552
Starting Vehs	2	4	1	2	2	1
Ending Vehs	1	8	5	6	8	5
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	70	79	70	68	65	70
Travel Time (hr)	2.9	3.4	2.9	2.9	2.8	3.0
Total Delay (hr)	0.3	0.4	0.3	0.3	0.3	0.4
Total Stops	84	124	103	103	109	105
Fuel Used (gal)	2.8	3.2	2.7	2.7	2.6	2.8

Baseline

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.8	0.6	0.7
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.7	0.2	0.0	0.2
Total Del/Veh (s)	5.9	0.2	0.2	1.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	2.0
Denied Entry Before	0
Denied Entry After	0

Baseline

Intersection: 3: Deer Street & Lot 4 Entrance

Movement	NE
Directions Served	LT
Maximum Queue (ft)	48
Average Queue (ft)	8
95th Queue (ft)	34
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	74	31
Average Queue (ft)	34	11
95th Queue (ft)	58	35
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Baseline

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	647	693	635	622	570	633
Vehs Exited	648	689	633	619	565	631
Starting Vehs	5	4	1	5	5	2
Ending Vehs	4	8	3	8	10	6
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	0
Travel Distance (mi)	119	128	117	114	104	116
Travel Time (hr)	4.6	5.0	4.5	4.4	4.1	4.5
Total Delay (hr)	0.4	0.4	0.4	0.4	0.4	0.4
Total Stops	94	115	97	108	99	102
Fuel Used (gal)	4.1	4.4	3.9	3.9	3.5	4.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	647	693	635	622	570	633
Vehs Exited	648	689	633	619	565	631
Starting Vehs	5	4	1	5	5	2
Ending Vehs	4	8	3	8	10	6
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	0
Travel Distance (mi)	119	128	117	114	104	116
Travel Time (hr)	4.6	5.0	4.5	4.4	4.1	4.5
Total Delay (hr)	0.4	0.4	0.4	0.4	0.4	0.4
Total Stops	94	115	97	108	99	102
Fuel Used (gal)	4.1	4.4	3.9	3.9	3.5	4.0

Baseline

3: Deer Street & Lot 4 Entrance Performance by approach

Approach	NE	SW	All
Denied Del/Veh (s)	0.0	0.2	0.1
Total Del/Veh (s)	0.5	0.6	0.5
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

5: Deer Street & Lot 4 Exit Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.8	0.2	0.0	0.3
Total Del/Veh (s)	6.5	0.3	0.2	1.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	1.9
Denied Entry Before	0
Denied Entry After	0

Baseline

Intersection: 3: Deer Street & Lot 4 Entrance

Movement	NE
Directions Served	LT
Maximum Queue (ft)	52
Average Queue (ft)	4
95th Queue (ft)	24
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Deer Street & Lot 4 Exit

Movement	SE	SE
Directions Served	L	R
Maximum Queue (ft)	76	31
Average Queue (ft)	36	13
95th Queue (ft)	58	37
Link Distance (ft)	221	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Memorandum

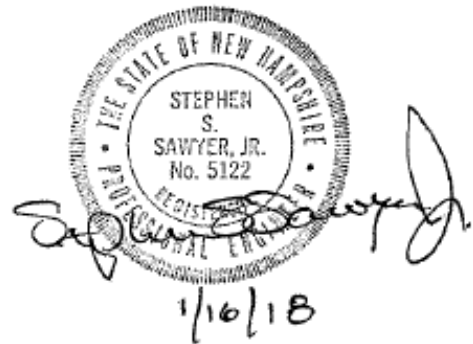
17540

To: Juliet Walker, AICP
Eric Eby, P.E.

From: Derek Caldwell, P.E., PTOE
Stephen Sawyer, P.E.

Date: January 16, 2018

Subject: DSA Building 3 – Hotel at Foundry Place
Traffic Peer Review



Sebago Technics has completed a Peer Review for the proposed Hotel at Foundry Place as part of the Deer Street Associates Development project located on Deer Street in Portsmouth. This review covers the submitted site plan titled *The Hotel at Foundry Place, Lot 2: 165 Deer Street, Assessors Map 125 Lot 17* by JSA Inc. dated March 17, 2017 with latest revisions December 19, 2017 and the memo entitled *Lots 3 and 4 Queue Analysis and Circulation Evaluation* completed by Gorrill Palmer dated January 3, 2018. We offer the following comments.

Queue Analysis and Circulation Evaluation Review

1. This queue analysis provides a queue estimation for the drive thru bank located in Building 4. Based upon the assumed arrival and service rates, the proposed drive thru should provide adequate storage for vehicles waiting for the drive-thru so as not to block the site entrance roadway.
2. This analysis assumes that some parking will be available for the pharmacy/retail portion of Building 5. Traffic entering the site is quantified based on the provided parking. However, it seems there would be the possibility for vehicles to enter the site, but find no parking available. Can the applicant clarify how the limited parking will function in light of the fact that the associated land uses are estimated to produce a greater volume of traffic than parking spaces. There is mention of dynamic signs to be installed, but these would only be visible once already in the site. It is understood that the excess vehicles would utilize the Deer Street Parking Garage, but vehicles may still circulate thru the site to see if parking is available. We point this out for clarification, but in reality this issue does not appear to be relevant until the development of Buildings 4/5.

Site Plan Review

3. A description of how servicing will occur at the proposed loading zone should be provided. The plan set includes a vehicle turning template showing a rear-load garbage truck circulating thru the site. More detail should be provided showing where the truck performs the servicing. As shown, the truck would need to stop and block circulating traffic. Are any deliveries anticipated from larger vehicles for the hotel/café? Vehicle templates should be provided showing the proposed loading zone being used.
4. Provide a description of how deliveries will be brought to the different areas of the hotel/restaurant from the proposed loading area. Is it anticipated that deliveries will be walked thru the valet parking area to the rear doors?
5. Provide signage/pavement markings at the internal intersection of the valet parking area and the circulation road to designate the proper right-of-way.
6. The plan shows a proposed site entry sign. Please clarify what content this sign will contain. Clear direction should be given to indicate that the entrance for the hotel is at this point and is valet/drop off-pickup only.
7. Add “no-left turn signage” at the interface of Lots 4 and 5 for vehicles leaving the existing angled parking spaces on Lot 5 destined for Deer Street. With the new one-way travel pattern on Lot 4, they will have to pass behind the bank building and in front of the hotel to get to Deer Street, which is not necessarily the case today.

Memorandum

To: Juliet Walker, AICP
Eric Eby, P.E.

From: Deer Street Associates Team

Date: January 23, 2018

Subject: Comment – Response for Peer Review of: Deer Street Associates, Lot 3

The Deer Street Associates' Team is pleased to have the opportunity to respond to the peer review Memorandum dated January 16, 2018 from Sebago Technics. Below please find responses to each of the comments provided in the Memorandum. For ease of review, the original comments are repeated below in *italics*, followed by our response.

Queue Analysis and Circulation Evaluation Review

- 1. Comment: "This queue analysis provides a queue estimation for the drive thru bank located in Building 4. Based upon the assumed arrival and service rates, the proposed drive thru should provide adequate storage for vehicles waiting for the drive-thru so as not to block the site entrance roadway."*

Response: No response required

- 2. Comment: "This analysis assumes that some parking will be available for the pharmacy/retail portion of Building 5. Traffic entering the site is quantified based on the provided parking. However, it seems there would be the possibility for vehicles to enter the site, but find no parking available. Can the applicant clarify how the limited parking will function in light of the fact that the associated land uses are estimated to produce a greater volume of traffic than parking spaces. There is mention of dynamic signs to be installed, but these would only be visible once already in the site. It is understood that the excess vehicles would utilize the Deer Street Parking Garage, but vehicles may still circulate thru the site to see if parking is available. We point this out for clarification, but in reality this issue does not appear to be relevant until the development of Buildings 4/5."*

Response: This item will be addressed with the application for Lots 4 & 5.



Site Plan Review

- 3. Comment: “A description of how servicing will occur at the proposed loading zone should be provided. The plan set includes a vehicle turning template showing a rear-load garbage truck circulating thru the site. More detail should be provided showing where the truck performs the servicing. As shown, the truck would need to stop and block circulating traffic. Are any deliveries anticipated from larger vehicles for the hotel/café? Vehicle templates should be provided showing the proposed loading zone being used.”*

Response: The Hotel operator will be responsible for scheduling trash pickups and hotel deliveries for off peak hours. Wheeled trash containers will be stored in the trash room located in the garage, and wheeled out to the garage entrance at time of trash pickup. The Hotel operator will notify vendors that the largest size delivery truck allowed will be a WB-40 vehicle. See attached Figure C3.6.

- 4. Comment: “Provide a description of how deliveries will be brought to the different areas of the hotel/restaurant from the proposed loading area. Is it anticipated that deliveries will be walked thru the valet parking area to the rear doors?”*

Response: As shown on sheet A1.0IT there is a service door from the garage area that goes directly to the storage and kitchen areas, and service elevator. All larger packages and food items will be delivered through this area. See attached Figure EXB-2.

- 5. Comment: “Provide signage/pavement markings at the internal intersection of the valet parking area and the circulation road to designate the proper right-of-way.”*

Response: A STOP sign will be erected inside the garage facing exiting traffic and will be supplemented with pavement markings as shown on the attached Figure C3.1.

- 6. Comment: “The plan shows a proposed site entry sign. Please clarify what content this sign will contain. Clear direction should be given to indicate that the entrance for the hotel is at this point and is valet/drop off-pickup only.”*

Response: See attached Figure.

- 7. Comment: “Add “no-left turn signage” at the interface of Lots 4 and 5 for vehicles leaving the existing angled parking spaces on Lot 5 destined for Deer Street. With the new one-way travel pattern on Lot 4, they will have to pass behind the bank building and in front of the hotel to get to Deer Street, which is not necessarily the case today.”*

Response: A “no-left turn sign” sign will be erected as shown on the attached Figure C3.2 that informs drivers exiting from behind the existing bank building that they cannot take a left and exit the proposed one-way entrance.



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DERRY, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5**

PORTSMOUTH, NH 03801

OWNER:

Deer Street Associates

7 BANKS ROCK ROAD
YORK HARBOR, ME

A/E Seal:



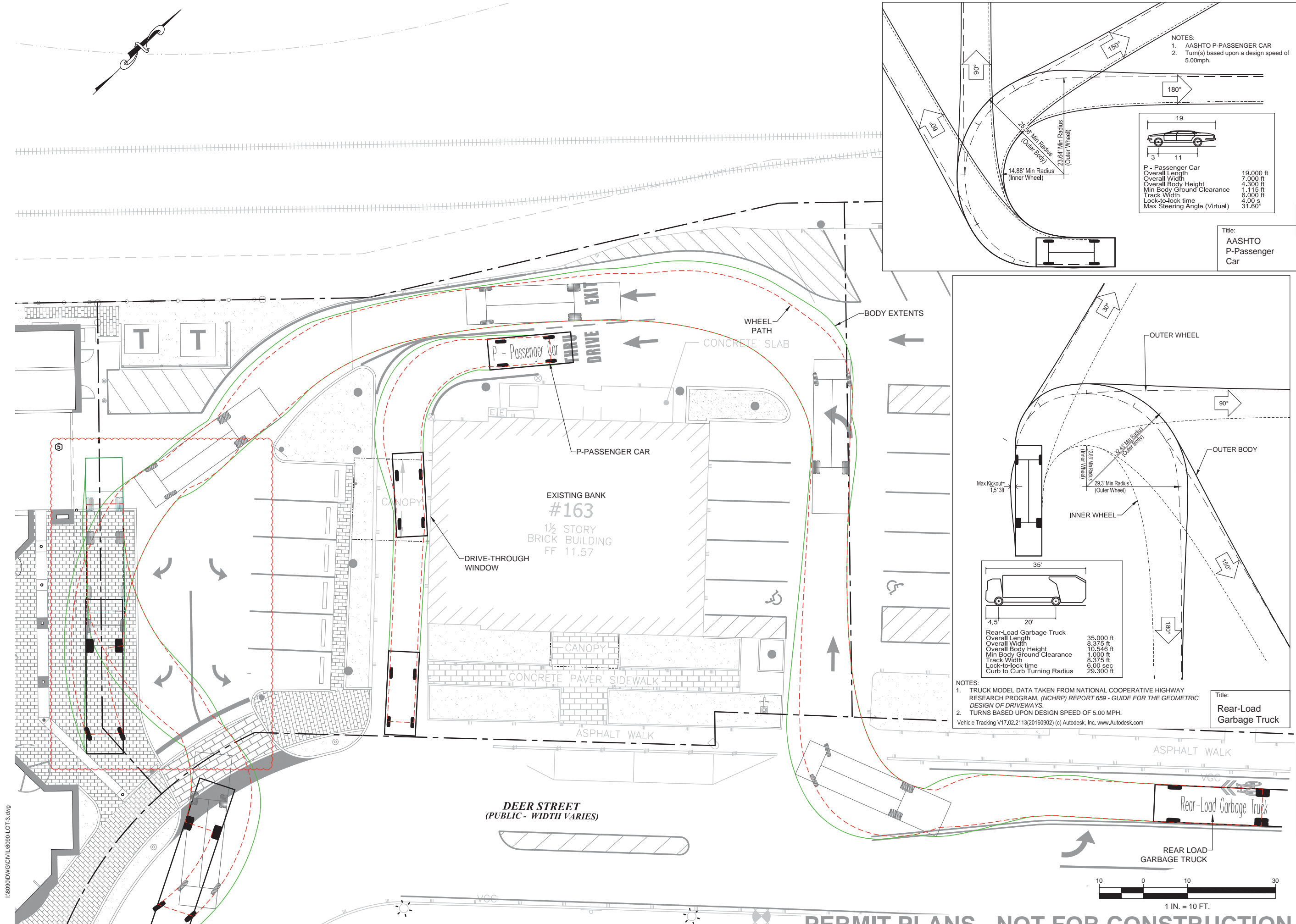
Scale:
Date: **3/17/2017**
Project Number: **14837.02**

REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	3/17/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017
4	TAC PUBLIC HEARING	01/16/2018
5	PEER REVIEW, RESPONSE	01/22/2018

SITE PLAN REVIEW

**VEHICLE
TURNING
EXHIBIT**

C3.6



I:\8090\DWG\CIVIL\8090-LOT-3.dwg

PERMIT PLANS - NOT FOR CONSTRUCTION

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5**

PORTSMOUTH, NH 03801

OWNER:

Deer Street Associates

7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E Seal:



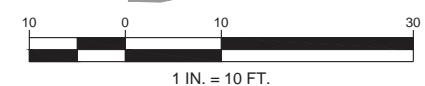
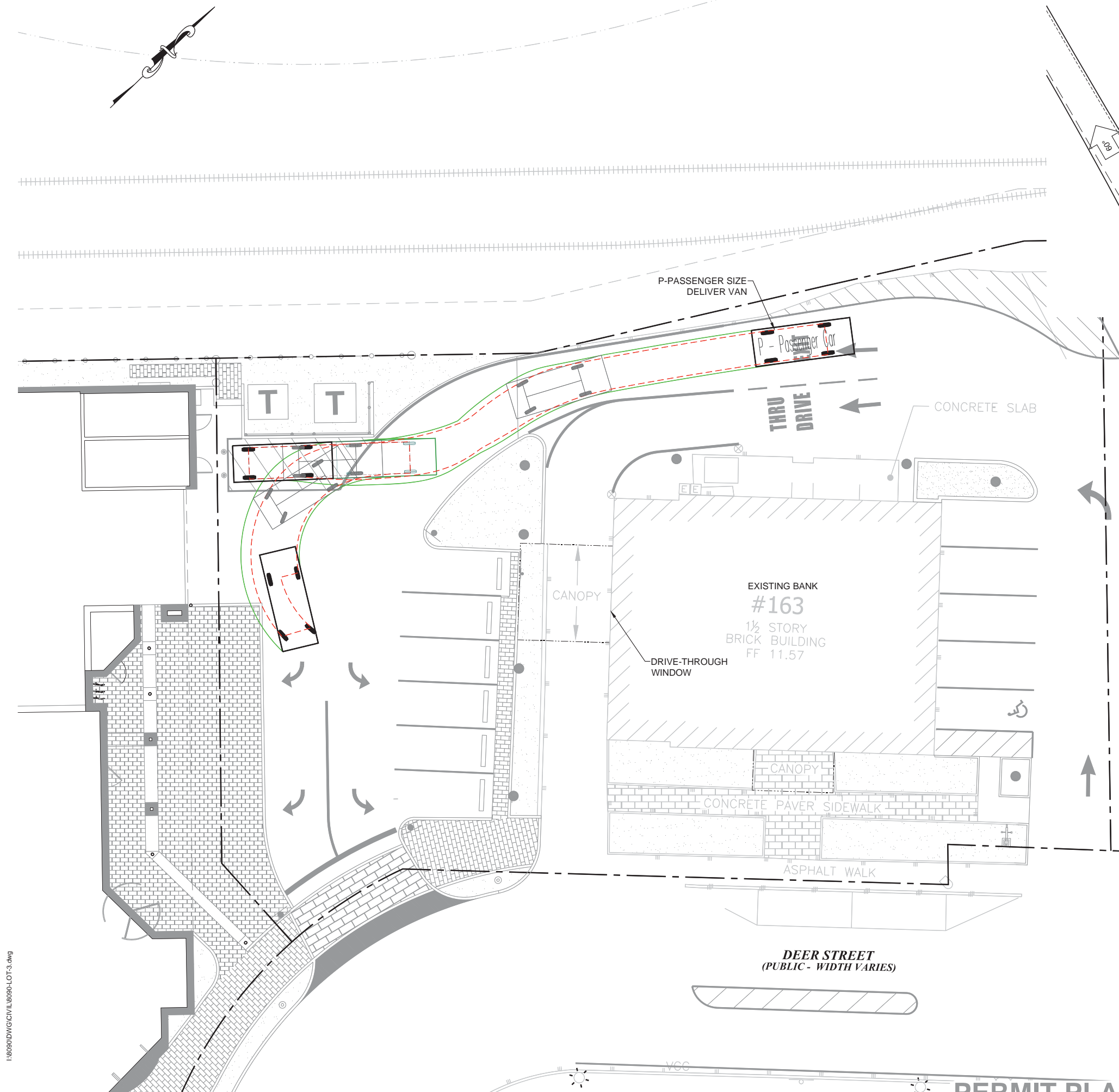
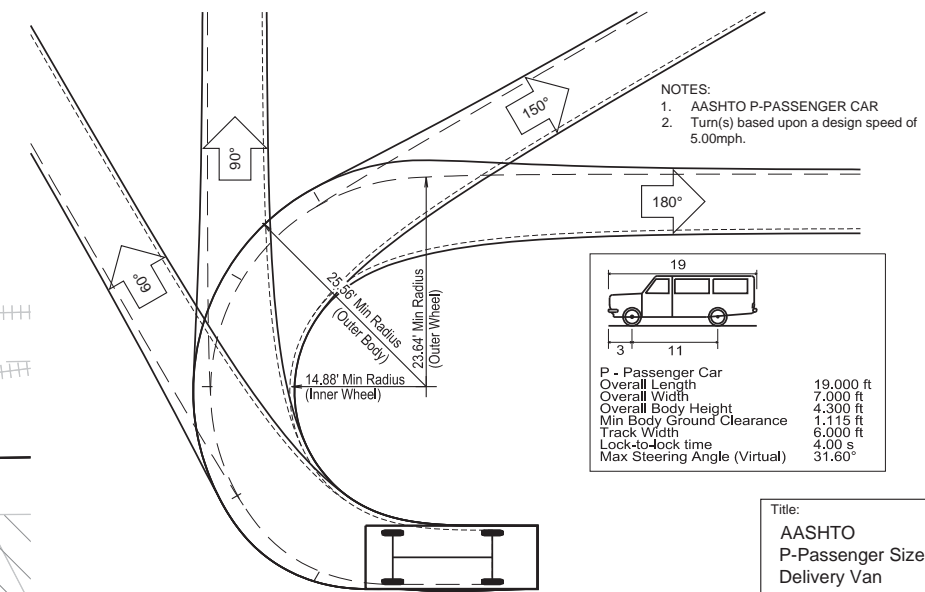
Scale:
Date: **3/17/2017**
Project Number: **14837.02**

REVISIONS		
NO.	DESCRIPTION	DATE

SITE PLAN REVIEW

**MANEUVERING
PLAN FOR
P-SIZE SIZE
DELIVER VAN**

EXB-2



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ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5**

PORTSMOUTH, NH 03801

OWNER:
Deer Street Associates

7 BANKS ROCK ROAD
YORK HARBOR, ME



Scale:
Date: **3/17/2017**
Project Number: **14837.02**

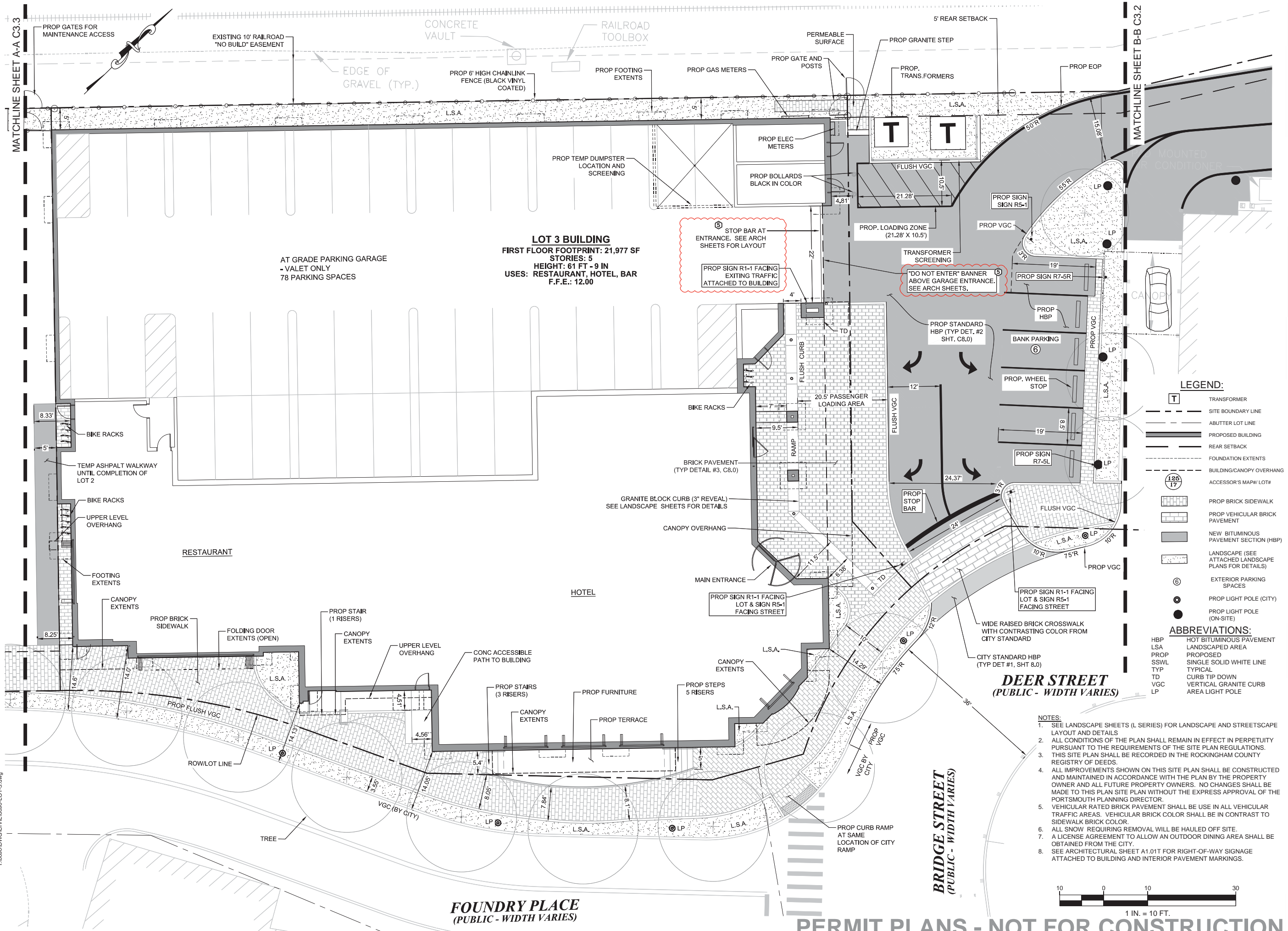
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2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017
4	TAC PUBLIC HEARING	01/16/2018
5	PEER RW. RESPONSE	01/22/2018

SITE PLAN REVIEW

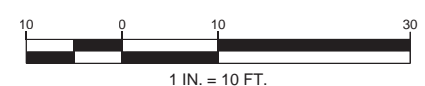
**SITE PLAN-
DETAIL
(SHEET 1 OF 3)**

C3.1

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- NOTES:**
- SEE LANDSCAPE SHEETS (L SERIES) FOR LANDSCAPE AND STREETScape LAYOUT AND DETAILS
 - ALL CONDITIONS OF THE PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.
 - THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
 - ALL IMPROVEMENTS SHOWN ON THIS 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 PLAN SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
 - VEHICULAR RATED BRICK PAVEMENT SHALL BE USE IN ALL VEHICULAR TRAFFIC AREAS. VEHICULAR BRICK COLOR SHALL BE IN CONTRAST TO SIDEWALK BRICK COLOR.
 - ALL SNOW REQUIRING REMOVAL WILL BE HAULED OFF SITE.
 - A LICENSE AGREEMENT TO ALLOW AN OUTDOOR DINING AREA SHALL BE OBTAINED FROM THE CITY.
 - SEE ARCHITECTURAL SHEET A1.01T FOR RIGHT-OF-WAY SIGNAGE ATTACHED TO BUILDING AND INTERIOR PAVEMENT MARKINGS.



PERMIT PLANS - NOT FOR CONSTRUCTION

14837.02.DWG CIVIL 18090-L03.dwg



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PORTSMOUTH, NH 03801

OWNER:

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7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E Seal:



Scale:
Date: **3/17/2017**
Project Number: **14837.02**

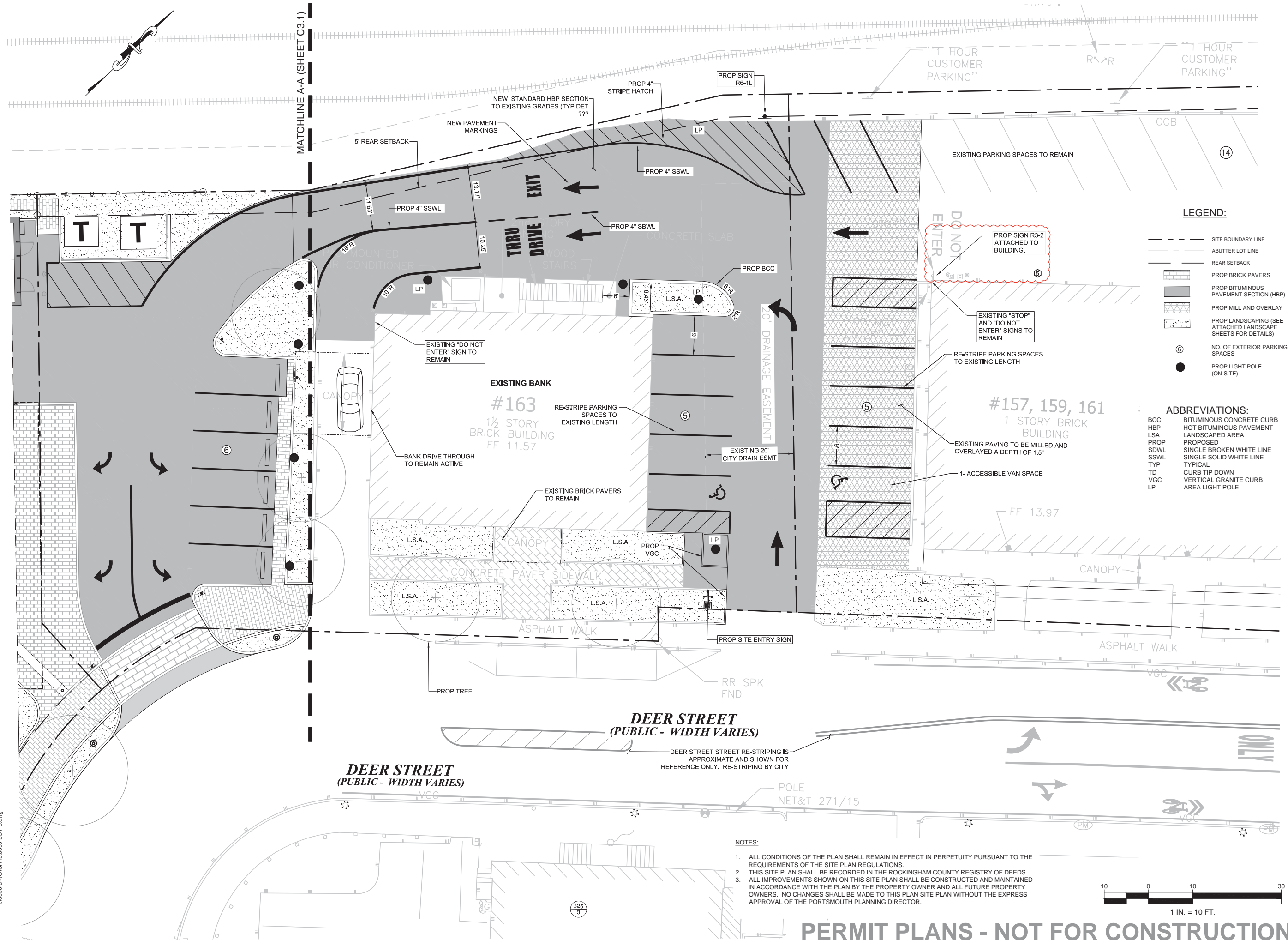
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2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017
4	TAC PUBLIC HEARING	01/16/2018
5	PEER RW, RESPONSE	01/22/2018

SITE PLAN REVIEW

**SITE PLAN -
DETAIL
(SHEET 2 OF 3)**

C3.2

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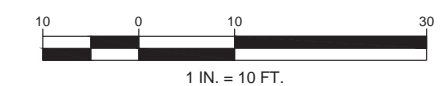
LEGEND:

- SITE BOUNDARY LINE
- - - ABUTTER LOT LINE
- - - REAR SETBACK
- [Pattern] PROP BRICK PAVERS
- [Pattern] PROP BITUMINOUS PAVEMENT SECTION (HBP)
- [Pattern] PROP MILL AND OVERLAY
- [Pattern] PROP LANDSCAPING (SEE ATTACHED LANDSCAPE SHEETS FOR DETAILS)
- ⊙ NO. OF EXTERIOR PARKING SPACES
- PROP LIGHT POLE (ON-SITE)

ABBREVIATIONS:

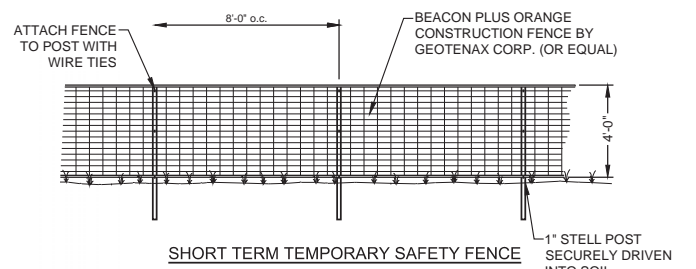
- BCC BITUMINOUS CONCRETE CURB
- HBP HOT BITUMINOUS PAVEMENT
- LSA LANDSCAPED AREA
- PROP PROPOSED
- SDWL SINGLE BROKEN WHITE LINE
- SSWL SINGLE SOLID WHITE LINE
- TYP TYPICAL
- TD CURB TIP DOWN
- VGC VERTICAL GRANITE CURB
- LP AREA LIGHT POLE

- NOTES:**
- ALL CONDITIONS OF THE PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.
 - THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
 - ALL IMPROVEMENTS SHOWN ON THIS 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 PLAN SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.

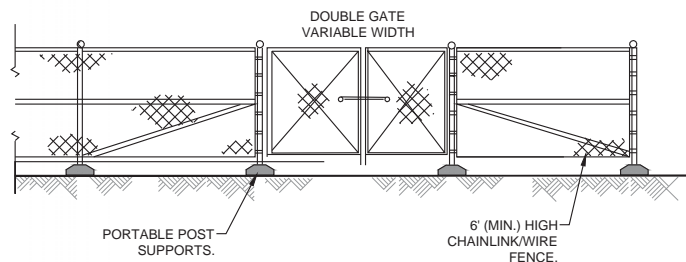


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SHORT TERM TEMPORARY SAFETY FENCE

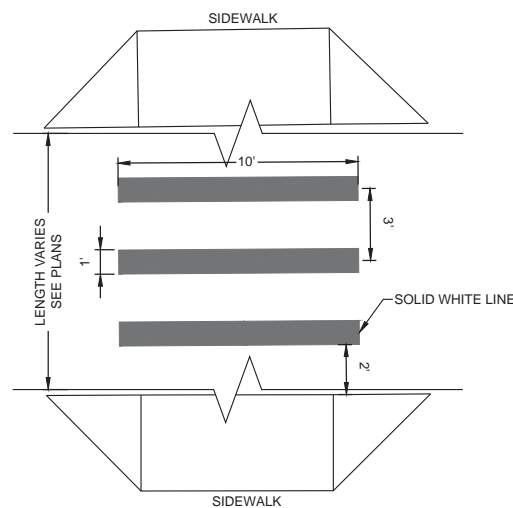


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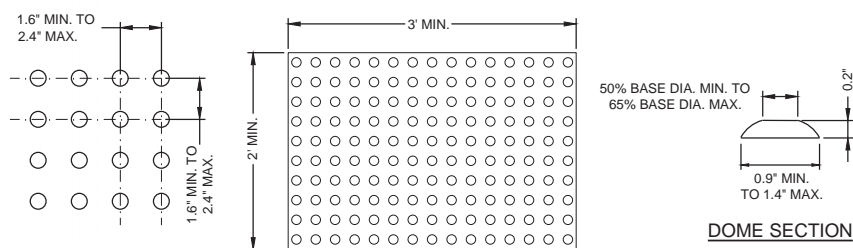
1. CONTRACTOR MAY USE CAST-IN-PLACE SUPPORTS IF DESIRED.
2. FENCE LAYOUT AND DESIGN TO BE PROVIDED BY CONTRACTOR.

LONG TERM TEMPORARY CONSTRUCTION FENCE

12 TEMPORARY CONSTRUCTION FENCE
N.T.S.



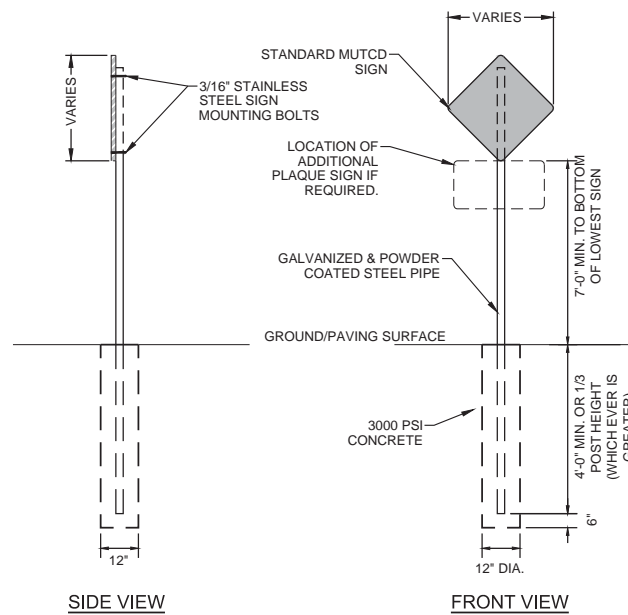
7 CROSSWALK STRIPING DETAILS
N.T.S.



NOTES:

1. DETECTABLE WARNING PANELS SHALL BE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND STATE AND LOCAL REQUIREMENTS.

17 CAST IRON DETECTABLE WARNING SURFACE
N.T.S.



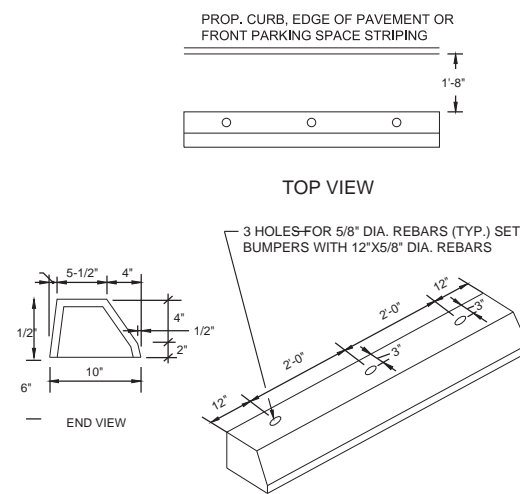
SIDE VIEW

FRONT VIEW

SIGN POST NOTES:

1. ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED.
2. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SIGN MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH NHDOT STANDARD SPECIFICATIONS AND LOCAL REQUIREMENTS.
3. SIGN MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH NHDOT STANDARD SPECIFICATIONS AND LOCAL REQUIREMENTS.
4. STEEL POSTS
 - STEEL POST SHALL BE SCHEDULE 40 WITH O.D. OF 2.375"
 - STEEL POSTS SHALL CONFORM TO ASTM A-499, GRADE 60 OR ASTM A 576, GRADE 1070-1080.
 - COATINGS SHALL BE IN ACCORDANCE TO NHDOT STANDARD SPECIFICATION SECTION 708, DUPLEX COATINGS - POWDER COATING OVER GALVANIZING
 - GALVANIZED SURFACE SHALL BE PREPARED FOR POWDER COATING PER ASTM D7803
 - WEIGHT BE 2.5LBS/FT MINIMUM.
 - 3/8" HOLES SHALL BE DRILLED OR PUNCHED BEFORE COATINGS ARE APPLIED. HOLES SHALL BEGIN 1" FROM TOP OF POSTS AND CONTINUE AT 1" CENTERS FOR THE ENTIRE LENGTH OF POSTS.
 - POST SHALL BE POWDER COATED GLOSS BLACK.

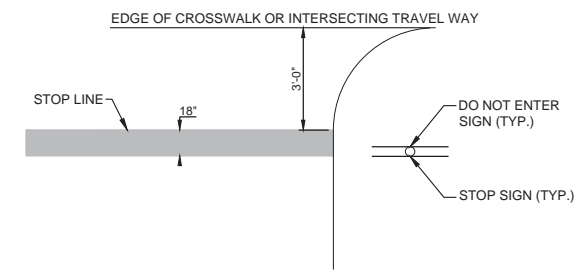
13 SIGN POST DETAILS
N.T.S.



NOTES:

- ALL STOPS SHOULD BE COATED WITH A CLEAR SEALER EACH FALL TO PROTECT FROM ROAD SALT DAMAGE. CHECK WITH MANUFACTURER FOR APPROPRIATE TYPE.
- CONCRETE SHALL BE 4000 PSI AT 28 DAYS.
- REINFORCED WITH TWO #4 REBARS.

14 PRECAST CONCRETE WHEEL STOP
N.T.S.



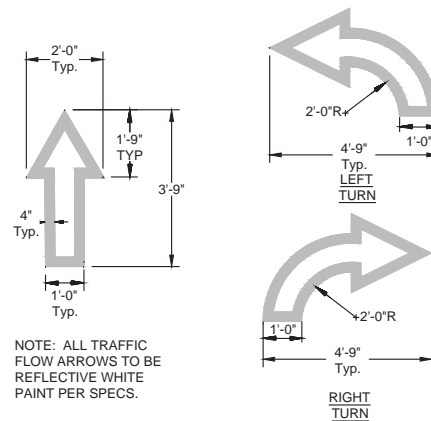
15 STOP BAR DETAIL
N.T.S.

NOTES:

1. WORDS AND LINES SHALL BE APPLIED IN ACCORDANCE WITH SECTIONS 3B.16 AND 3B.20 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. WORDS AND BARS ARE TO BE PAINTED RETROREFLECTIVE WHITE.

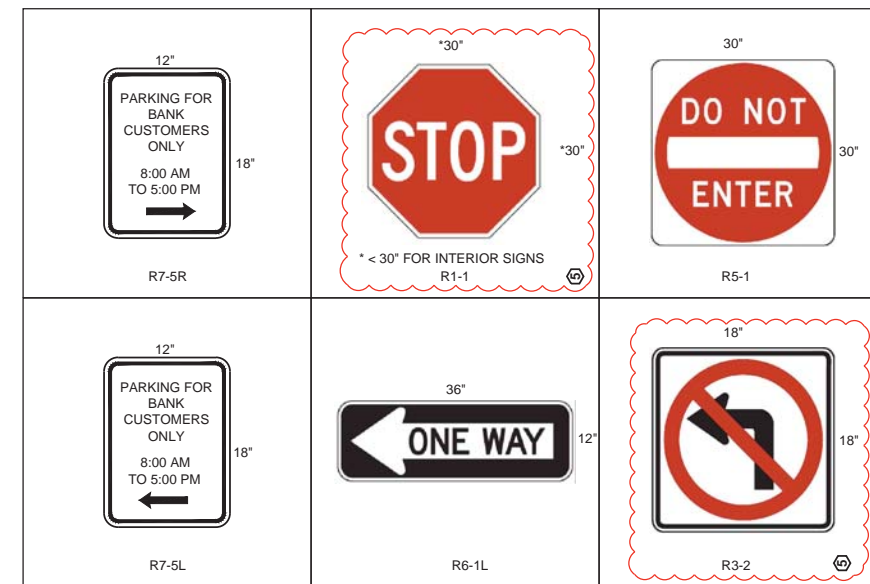


16 PAVEMENT LETTERING DETAIL
N.T.S.



NOTE: ALL TRAFFIC FLOW ARROWS TO BE REFLECTIVE WHITE PAINT PER SPECS.

18 TRAFFIC ARROW DETAIL
N.T.S.



19 TRAFFIC SIGNAGE DETAILS
N.T.S.

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801
T 603.436.2551
F 603.436.6973
www.jsainc.com

GEOSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDERSEN, INC.
LANDSCAPE ARCHITECT
PORTSMOUTH, NEW HAMPSHIRE

JSN ASSOCIATES, INC.
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ENGINEERED SYSTEMS INC.
MPFP ENGINEER
WOBBURN, MASSACHUSETTS

ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5**

PORTSMOUTH, NH 03801

OWNER:

Deer Street Associates

7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E Seal:



Scale:
Date: **3/17/2017**
Project Number: **14837.02**

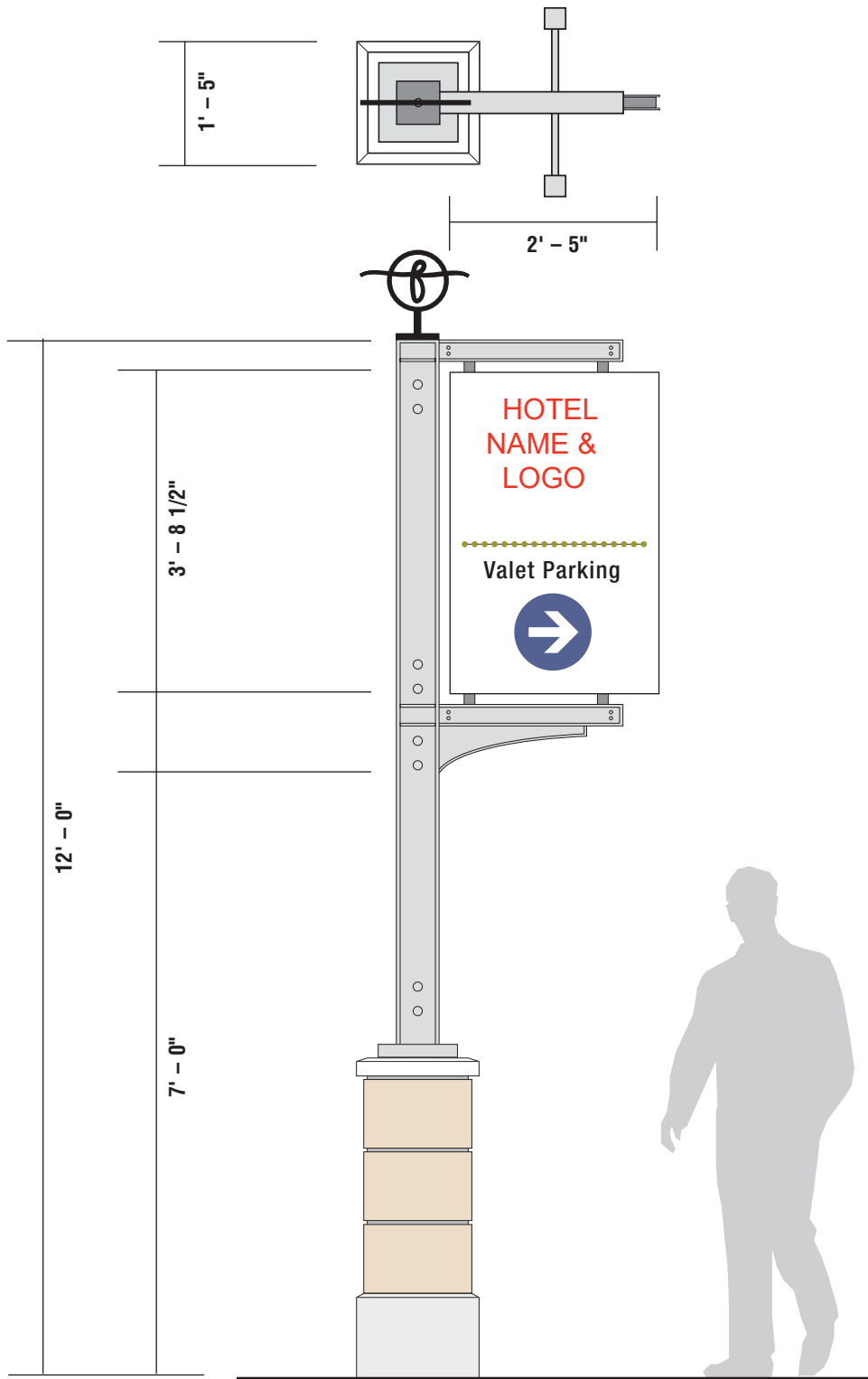
REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	3/17/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017
4	TAC PUBLIC HEARING	01/16/2018
5	PEER RWV. RESPONSE	01/22/2018

SITE PLAN REVIEW

**TRAFFIC
DETAILS**

C8.1

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B1xx

Front Elevation and Top View Scale: 1/2" = 1'

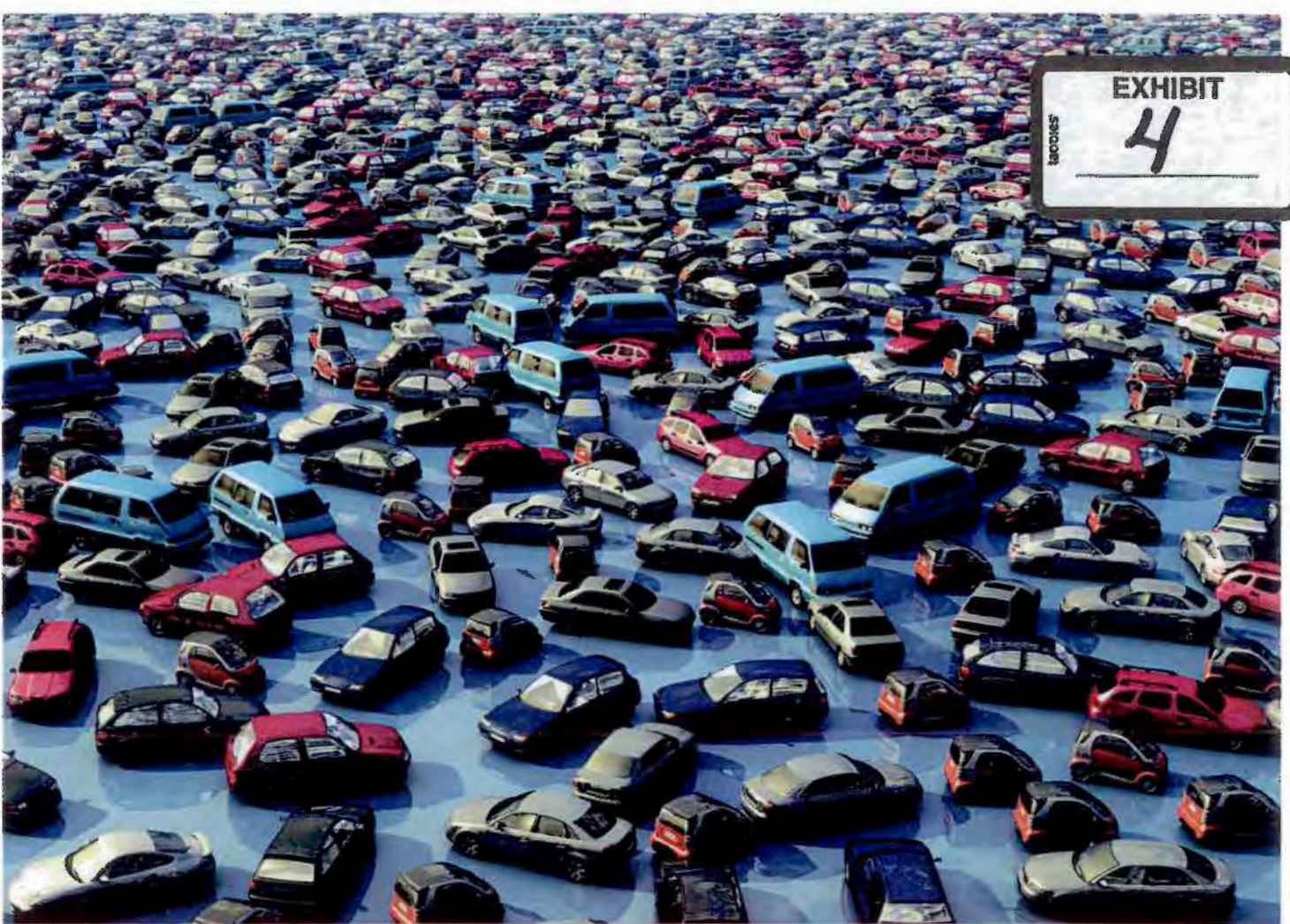
Primary Vehicular Directional
 (code compliant sign height measured from top edge of steel frame;
 base located in landscaped driveway corner at edge of property line);
 double-sided

Sign Types : Vehicular
 Date : 8 November 2017
 Drawn by : WCG
 Revision :

**Drawing
 Number**

12

ATTACHMENT D
Parking Lift Cut Sheets



One becomes two: SingleVario 2061

In the future, two cars can fit where only one stood before. This is made possible by the new SingleVario 2061.

Now is the time to upgrade!

The new SingleVario 2061 is also the ideal solution if you want to extend the number of the parking spaces later.

Heavy vehicles

... are handled easily by the SingleVario 2061. With a maximum load of up to 2,500 kilograms, the SingleVario 2061 is ready to take on heavyweights.

Remain flexible:

The great advantage of the new SingleVario 2061 is the amount of flexibility it provides. It can be adapted at any time to the space available and to different vehicle heights. Even at a later time.



Get happy without the pits.

With the new SingleVario 2061, you can create extra space without a pit and park two vehicles one above the other. That reduces work and dirt, and therefore saves a considerable amount of money.


KLAUS
www.multiparking.com



Loadable up to 2600 kg! A system for all height! Subsequently adjustable!

Dimensions

All space requirements are minimum finished dimensions.

Tolerances for space requirements* 3. Dimensions in cm.

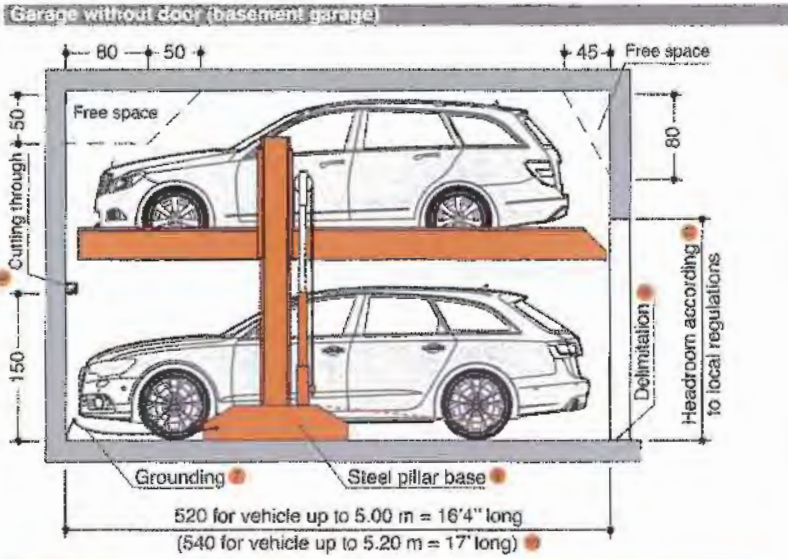
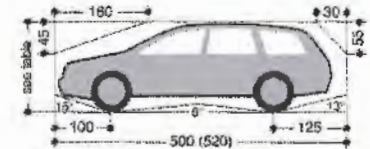
EB (single platform) = 2 vehicles

Suitable for

Standard passenger cars:
Limousine, station wagon, SUV, van according to clearance and maximal surface load.

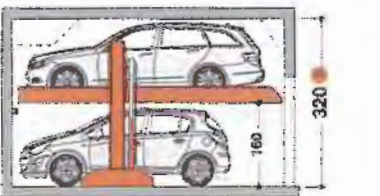
	Standard	Special
width	190 cm	190 cm
weight	max. 2000 kg	max. 2600 kg
wheel load	max. 500 kg	max. 650 kg

Clearance profile



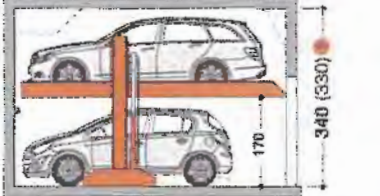
Before lowering the platform, the vehicle parked on the lower parking space must be driven off!

2061-160



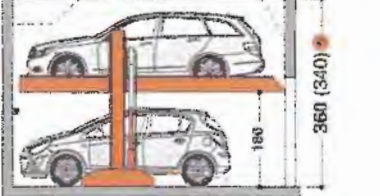
height	car height upper	car height lower
320	150	150

2061-170



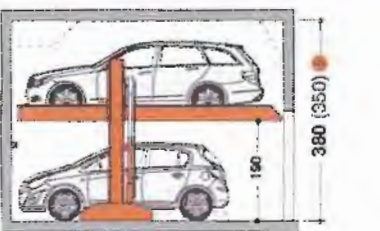
height	car height upper	car height lower
340 (330)	170 (150)	150 (160)

2061-185



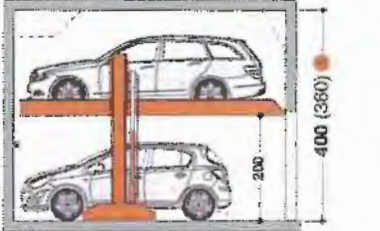
height	car height upper	car height lower
360 (340)	170 (150)	170 (170)

2061-190



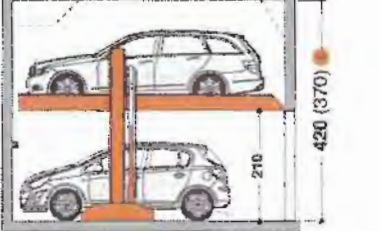
height	car height upper	car height lower
380 (350)	180 (150)	180 (180)

2061-200



height	car height upper	car height lower
400 (360)	190 (150)	190 (190)

2061-210



height	car height upper	car height lower
420 (370)	200 (150)	200 (200)

- Standard type
- Special system: maximum load for extra charge.
- To follow the minimum finished dimensions, make sure to consider the tolerances according to VOB, part C (DIN 18330 and 18331) and the DIN 18202.
- Car width for platform width 230 cm. If wider platforms are used it is also possible to park wider cars.
- If a higher ceiling height is available higher cars can be parked.
- For dividing walls: cutting through 10 x 10 cm.
- Potential equalization from foundation grounding connection to system (provided by the customer).
- In compliance with DIN EN 14 010, 10 cm wide yellow-black markings compliant to ISO 3864 must be applied by the customer to the edge of the platform in the access area to mark the danger zone in front of the supporting surface of the upper platform edge (see „Load Plan“ Page 4)
- Variable steel pillar bases in two sizes (see „Load Plan“ Page 4).
- For convenient use of your parking space and due to the fact that the cars keep becoming longer we recommend a length of 540 cm.
- Must be at least as high as the greatest car height + 5 cm.

Width dimensions for garage without door (basement garage)

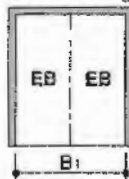
Dividing walls

Single Platform (EB)



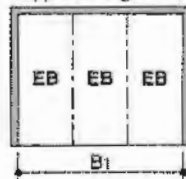
usable platform width	B1
230	260
240	270
250	280
260	290
270	300

Double arrangement (2 x EB)



usable platform width	B1
230	520
240	540
250	560
260	580
270	600

Tripple arrangement (3 x EB)

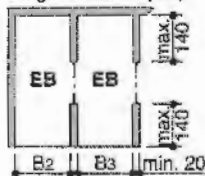


usable platform width	B1
230	780
240	810
250	840
260	870
270	900

Carrageway in accordance with local regulations

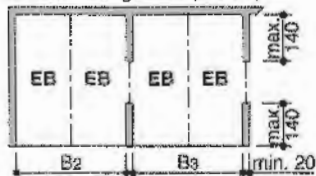
Columns in system zone

Single Platform (EB)



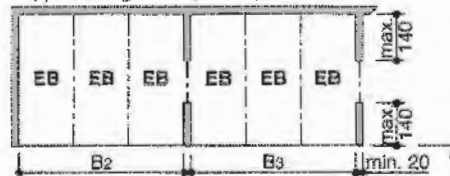
usable platform width	B2	B3
230	255	245
240	265	255
250	275	265
260	285	275
270	295	285

Double arrangement (2 x EB)



usable platform width	B2	B3
230	515	510
240	535	530
250	555	550
260	575	570
270	595	590

Tripple arrangement (3 x EB)

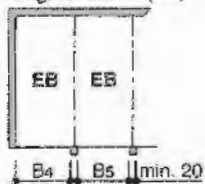


usable platform width	B2	B3
230	775	770
240	805	800
250	835	830
260	865	860
270	895	890

Carrageway in accordance with local regulations

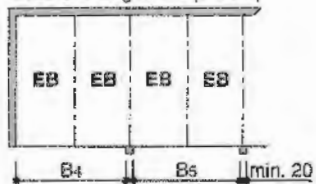
Columns outside of system zone

Single Platform (EB)



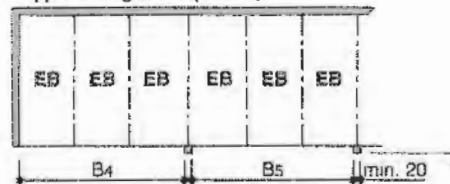
usable platform width	B4	B5
230	250	240
240	260	250
250	270	260
260	280	270
270	290	280

Double arrangement (2 x EB)



usable platform width	B4	B5
230	510	500
240	530	520
250	550	540
260	570	560
270	590	580

Tripple arrangement (3 x EB)



usable platform width	B4	B5
230	770	760
240	800	790
250	830	820
260	860	850
270	890	880

Carrageway in accordance with local regulations

! For parking boxes on the edges and boxes with intermediate walls we recommend our maximum platform width of 270 cm. Problems may occur if smaller platform widths are used (depending on car type, access and individual driving behaviour and capability).

For larger limousines and SUV wider driveways are necessary (in particular on the boxes on the sides due to the missing manoeuvring radius).

Page 1 Section Dimensions Clear data

Page 2 Width dim. without door

Page 3 Width dim. with door

Page 4 Approach

Page 5 Lead plate

Page 6 Installation Electrical installation

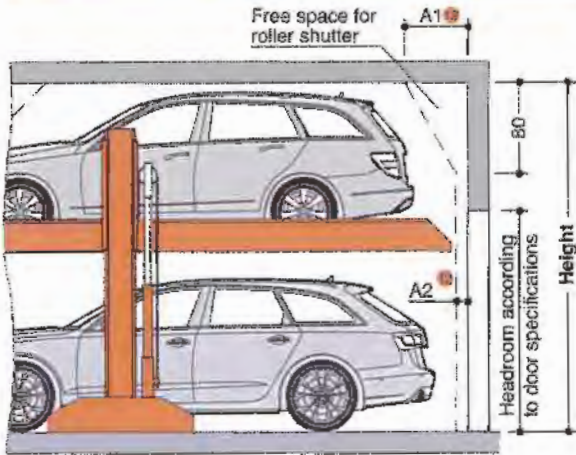
Page 7 Technical data

Page 8 To be performed by the customer

Page 9 Description

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without door
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- Page 6
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To be performed by the customer
Disassembly

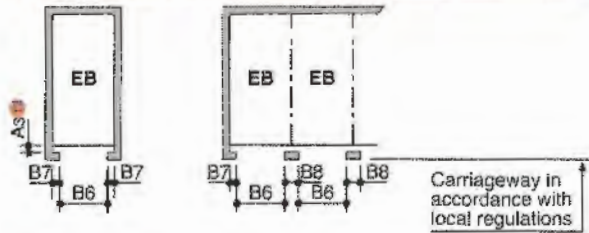
Garage with door



- 1 Dimensions A1, A2 and A3 must be coordinated with the door supplier (provided by the customer).
- 2 Seat-engaging surface (dimensions require coordination with door supplier.) Allround door dimensions require coordination between door supplier and local agency of KLAUS Multiparking.

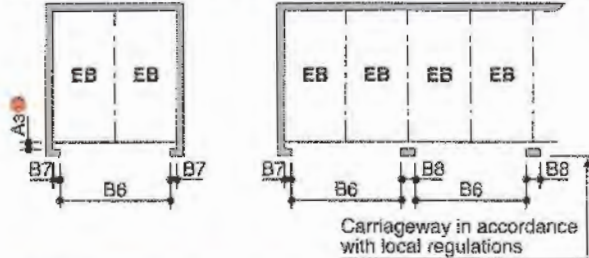
Width dimensions for garage with door

Single platform (EB)



usable platform width	door entrance width B6	B7	B8
230	230	15	30
240	240	15	30
250	250	15	30
260	260	15	30
270	270	15	30

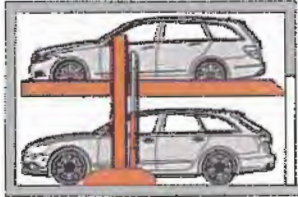
Double arrangement (2 x EB)



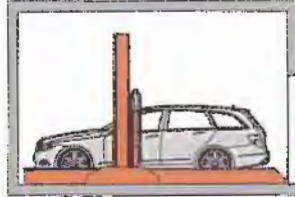
usable platform width	door entrance width B6	B7	B8
230	490	15	30
240	510	15	30
250	530	15	30
260	550	15	30
270	570	15	30

Function

System lifted

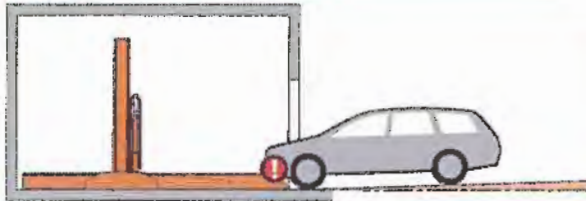


System lowered

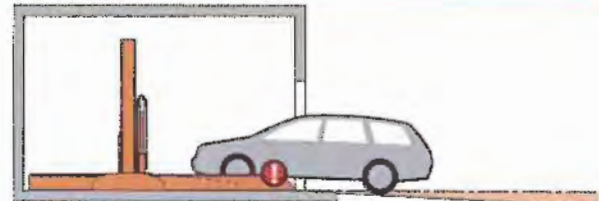


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with door
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- Page 7
To be perfo-
med by the
customer
Description

Approach



maximum
descending
slope 4 %



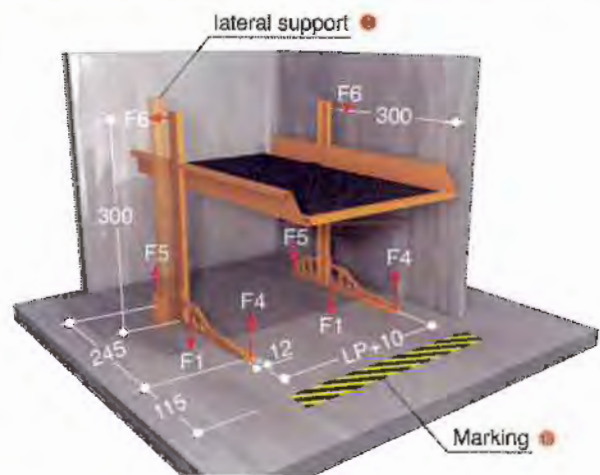
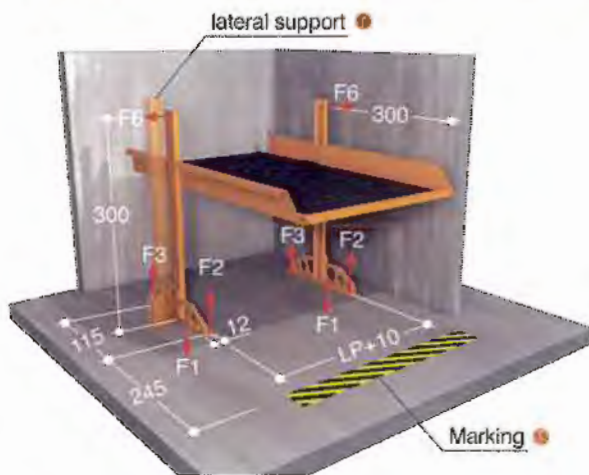
maximum
ascending
slope 14 %

! The illustrated maximum approach angles must not be exceeded. Incorrect approach angles will cause serious manoeuvring & positioning problems on the parking system for which the local agency of KLAUS Multiparking accepts no responsibility.

Load plan

Option 1: short steel pillar base

Option 2: long steel pillar base



platform load	F1	F2	F3	F4	F5	F6
2000 kg	30	1.1	7.4	0.5	7.7	±1
2600 kg	35	1.3	8.9	0.6	9.3	±1

! The steel pillar base can be selected optionally (short or long). Please make sure to note the corresponding forces that apply!

Units are dowelled to the floor. Drilling depth: approx. 15 cm.

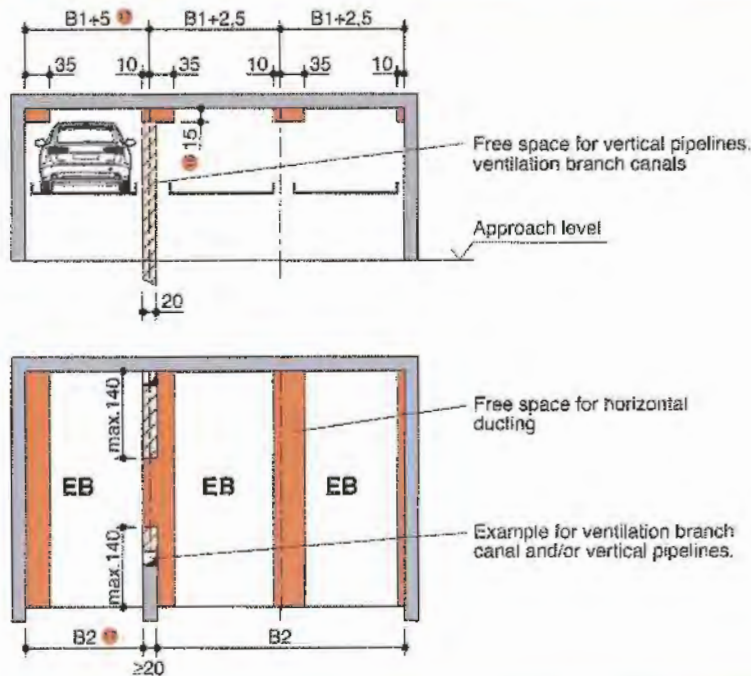
Floor and walls are to be made of concrete (quality minimum C20/25)!

The dimensions for the points of support are rounded values. If the exact position is required, please contact KLAUS Multiparking.

- !** The system must be laterally supported on both sides. If there are no walls on the sides, an additional stand must be attached. For this stand, a base area of 40 x 25 cm is required (quality minimum C20/25).
- !** Marking compliant to ISO 3864 (colors used in this illustration are not ISO 3864 compliant)
- !** All forces in kN

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without door
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To be performed
by the customer
Dimension

Installation data – Free space for longitudinal and vertical ducts (e.g. ventilation)

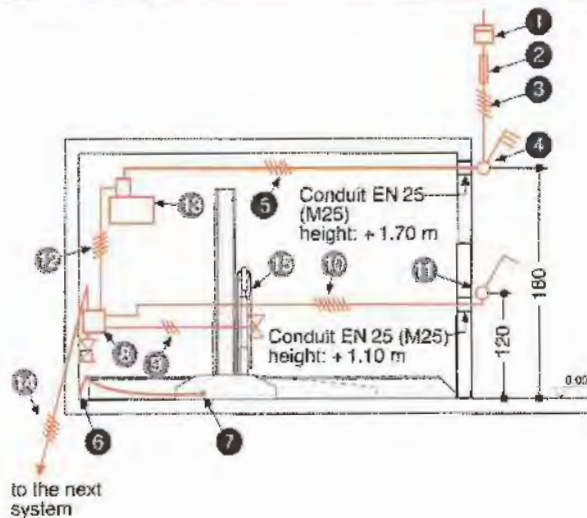


! Free space only applicable if vehicle is parked forwards = FRONT FIRST and driver's door on the left side.

- Size 15 cm is reduced to 5 cm for type 2061-160.
- Dimensions B1, B2 and B3 see page 2.

Electrical installation

Installation diagram



Electrical data (to be performed by the customer)

No.	Quantity	Description	Position	Frequency
1	1	Electricity meter	in the supply line	
2	1	Main fuse: 3 x fuse 16 A (slow) or circuit breaker 3 x 16 A (trigger characteristic K or C)	in the supply line	1 per unit
3	1	Supply line 5 x 2.5 mm ² (3 PH + N + PE) with marked wire and protective conductor	to main switch	1 per unit
4	1	Lockable main switch	defined at the plan evaluation	1 per unit
5	1	Supply line 5 x 2.5 mm ² (3 PH + N + PE) with marked wire and protective conductor	from main switch to unit	1 per unit
6	every 10 m	Foundation earth connector	corner pit floor	
7	1	Equipotential bonding in accordance with DIN EN 60204 from foundation earth connector to the system		1 per system

Electrical data (included in delivery of KLAUS Multiparking)

8	Terminal box
9	Control line 3 x 0.75 mm ² (PH + N + PE)
10	Control line 7 x 1.5 mm ² with marked wire and protective conductor
11	Operating device
12	Control line 5 x 1.5 mm ² with marked wire and protective conductor
13	Hydraulic unit 3.0 kW, three-phase current, 230/400 V / 50 Hz
14	Control line 5 x 1.5 mm ² with marked wire and protective conductor
15	Chain control

Page 1	Sector
Dimensions	
Page 2	Width and without door
Page 3	Width and with door
Page 4	Electrical installation
Page 5	Technical data
Page 6	Technical data
Page 7	To be provided by the customer
Page 8	Declaration

Technical data

Field of application

By default, the system can only be used for a fixed number of users.

If different users use the system – only on the lower parking spaces – (e.g. short-time parkers in office buildings or hotels) the Multiparking system needs to be adjusted. If required, would you please contact us.

Units

Low-noise power units mounted to rubber-bonded-to metal mountings are installed. Nevertheless we recommend that parking system's garage be built separately from the dwelling.

Available documents

- wall recess plans
- maintenance offer/contract
- declaration of conformity
- test sheet on airborne and slid-borne sound

Environmental conditions

Environmental conditions for the area of multiparking systems: Temperature range -10 to $+40^{\circ}$ C. Relative humidity 50% at a maximum outside temperature of $+40^{\circ}$ C.

If lifting or lowering times are specified, they refer to an environmental temperature of $+10^{\circ}$ C and with the system set up directly next to the hydraulic unit. At lower temperatures or with longer hydraulic lines, these times increase.

Sound insulation

According to DIN 4109 (Sound insulation in buildings), para. 4, annotation 4, KLAUS Multiparkers are part of the building services (garage systems).

Normal sound insulation:

DIN 4109, para. 4. Sound insulation against noises from building services.

Table 4 in para. 4.1 contains the permissible sound level values emitted from building services for personal living and working areas. According to line 2 the maximum sound level in personal living and working areas must not exceed 30 dB (A).

Noises created by users are not subject to the requirements (see table 4, DIN 4109).

The following measures are to be taken to comply with this value.

- Sound protection package according to offer/order (KLAUS Multiparking GmbH)
- Minimum sound insulation of building $R'_{w} = 57$ dB (to be provided by customer)

Increased sound insulation (special agreement):

Draft DIN 4109-10. Information on planning and execution, proposals for increased sound insulation.

Agreement: Maximum sound level in personal living and working areas 25 dB (A). Noises created by users are not subject to the requirements (see table 4, DIN 4109).

The following measures are to be taken to comply with this value.

- Sound protection package according to offer/order (KLAUS Multiparking GmbH)
- Minimum sound insulation of building $R'_{w} = 62$ dB (to be provided by customer)

Note: User noises are noises created by individual users in our Multiparking systems. These can be noises from accessing the platforms, slamming of vehicle doors, motor and brake noises.

Building application documents

According to LBO and GaVo (garage regulations) the Multiparking systems are subject to approval. We will provide the required building application documents.

Care

To avoid damages resulting from corrosion, make sure to follow our cleaning and care instructions and to provide good ventilation of your garage.

Corrosion protection

See separate sheet regarding corrosion protection.

Railings

If there are traffic routes next to or behind the installations, railings compliant to DIN EN ISO 13857 must be installed by the customer. Railings must also be in place during construction.

CE Certification

The systems on offer comply with DIN EN 14010 and EC Machine Directive 2006/42/EC. Furthermore, this system underwent voluntary conformity testing by TÜV SÜD.

ZERTIFIKAT ◆ CERTIFICATE ◆ 合格証書 ◆ CERTIFICADO ◆ CERTIFICADO



Certificate concerning the examination of conformity

Certificate no.	XP 6691
Certification body.	TÜV SÜD Industrie Service GmbH Zertifizierungs- & Prüfzettel-Produkte der Förderstraße Görlitz-Döhring-Str. 7 70794 Heidenbach - Germany
Applicant / Certification holder.	KLAUS Multiparking GmbH Heinrich-Kunze-Str. 2 88319 Aitrach - Germany
Date of application.	2014-09-30
Manufacturer.	KLAUS Multiparking GmbH Heinrich-Kunze-Str. 2 88319 Aitrach - Germany
Product.	Eq. prot. for cover driven parking of motor vehicles
Type.	SingleVario 2061 EB 2.000 kg SingleVario 2061 EB 2.000 kg
Test laboratory.	TÜV SÜD Industrie Service GmbH Prüfzentrum für Produkte der Fahrzeugtechnik Professoren Maschinen der Fahrzeugtechnik Görlitz-Döhring-Str. 7 70794 Heidenbach - Germany
Date and number of the test report / mark of conformity.	2014-11-20 RP 6691
Test specifications.	2014-12-EC Annex DIN EN 14210
Validity.	This Certificate is valid until 2019-11-30
Result.	The equipment fulfils the requirements of the test specifications for the respective scope of application stated in the annex (page 1) of this cert. form, keeping the mentioned conditions.
Date of issue.	2014-12-01

Certification only for the end brand



Christian Wollmann
Chief No. 1, 2nd No.



TUV®

To be performed by the customer**Safety fences**

Any constraints that may be necessary according to DIN EN ISO 13857 in order to provide protection, for pathways directly in front, next to or behind the unit. This is also valid during construction.

Numbering of parking spaces

Consecutive numbering of parking spaces.

Building services

Any required lighting, ventilation, fire extinguishing and fire alarm systems as well as clarification and compliance with the relevant regulatory requirements.

Warning

According to DIN EN 14 010, a warning that identifies this danger area must be placed in the entrance area that conforms to ISO 3864. This must be done according to EN 92/58/EWG for systems without a pit 10 cm from the edge of the platform.

Wall cuttings

Any necessary wall cuttings according to page 1.

Electrical supply to the main switch / Foundation earth connector

Suitable electrical supply to the main switch and the control wire line must be provided by the customer during installation. The functionality can be monitored on site by our filters together with the electrician. If this cannot be done during installation for some reason for which the customer is responsible, the customer must commission an electrician at their own expense and risk.

In accordance with DIN EN 60204 (Safety of Machinery, Electrical Equipment), grounding of the steel structure is necessary, provided by the customer (distance between grounding max. 10 m).

Description Single platform (EB)**General description**

Multiparking system providing dependent parking spaces for 2 cars, one on top of the other each. The lower vehicle parks directly on the floor plate. The vehicle parked on the bottom must be driven out before lowering the platform.

The height of the platform can be adjusted flexibly (even subsequently).

Adjustment of maximum load of 2.500 kg can be made subsequently. Dimensions are in accordance with the underlying dimensions of parking pit, height and width

The parking bays are accessed horizontally (installation deviation $\pm 1\%$).

Vehicles are positioned on the upper parking space using wheel stops on the right side (adjust according to operating instructions).

Operation via operating device with hold-to-run-device using master keys.

The operating elements are usually mounted either in front of the column or on the outside of the door frame

Operating instructions are attached to each operator's stand.

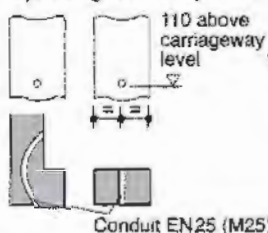
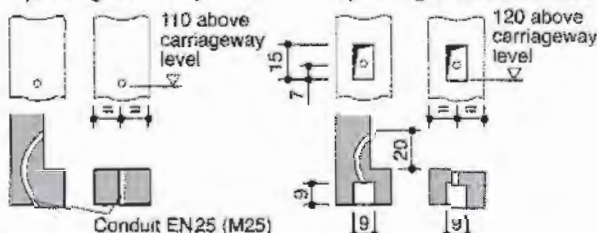
For garages with doors at the front of the parking system the special dimensional requirements have to be taken into account.

Multiparking system consisting of:

- 2 steel pillars with bases that are mounted on the floor (short or long steel pillar bases can be selected optionally).
- 2 sliding platforms (mounted to the steel pillars with sliding bearings)
- 1 platform
- 1 mechanic synchronization control system (to ensure synchronous operation of the hydraulic cylinders while lowering and lifting the platform)
- 1 hydraulic cylinder
- 1 automatic hydraulic safety valve (prevents accidental lowering of the platform while accessing the platform)
- Dowels, screws, connecting elements, bolts, etc.
- The platforms and parking spaces are end-to-end accessible for parking!

Operating device

Cable conduits and recesses for operating device (for double wing doors: please contact the local agency of KLAUS Multiparking).

Operating device exposed**Operating device concealed**

If the following are not included in the quotation, they will also have to be provided / paid for by the customer:

- Mounting of contactor and terminal box to the wall valve, complete wiring of all elements in accordance with the circuit diagram
- Costs for final technical approval by an authorized body
- Main switch
- Control line from main switch to hydraulic unit

Platforms consisting of:

- Platform base sections
- Adjustable wheel stops
- Canted access plates
- Side members
- Cross members
- Screws, nuts, washers, distance tubes, etc.

Hydraulic system consisting of:

- Hydraulic cylinder
- Solenoid valve
- Safety valve
- Hydraulic conduits
- Screwed joints
- High-pressure hoses
- Installation material

Electric system consisting of:

- Operating device (Emergency Stop, lock, 1 master key per parking space)
- Terminal box at wall valve
- Electrical locking device
- Chain control

Hydraulic unit consisting of:

- Hydraulic power unit (low-noise, installed onto a console with a rubber-bonded-to-metal mounting)
- Hydraulic oil reservoir
- Oil filling
- Internal geared wheel pump
- Pump holder
- Clutch
- 3-phase-AC-motor
- Contactor (with thermal overcurrent relay and control fuse)
- Test manometer
- Pressure relief valve
- Hydraulic hoses (which reduce noise transmission onto the hydraulic pipe)

We reserve the right to change this specification without further notice

KLAUS Multiparking reserves the right in the course of technical progress to use newer or other technologies, systems, processes, procedures or standards in the fulfillment of their obligations other than those originally offered provided the customer derives no disadvantage from their so doing.

ATTACHMENT E

**Stormwater Management Report (12/15/17), 3rd Party Peer
Review, and Applicant Response**

**STORMWATER MANAGEMENT PLAN
PROPOSED SITE DEVELOPMENT
165 DEER STREET
PORTSMOUTH, NH 03801
MAP 125, LOT 17 (LOT 3)**



Prepared For:

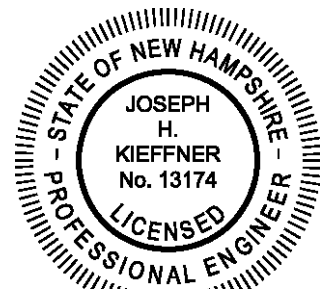
Foundry Place, LLC
c/o G.L. Rogers and Company, Inc., Manager
P. O. Box 100
York Harbor, Maine 03911

Prepared By:

GeoInsight, Inc.
186 Granite Street, 3rd Floor, Suite A
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REVISED 12-15-2017

GeoInsight Project 8090-000



Joseph H. Kieffner



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Environmental Strategy & Engineering

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APPENDIX B	Pre-Development Conditions Model
APPENDIX C	Post-Development Conditions Model
APPENDIX D	Operations and Maintenance Plan
APPENDIX E	Long Term Operations and Maintenance Plan
APPENDIX F	Existing Watershed Plan
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APPENDIX H	Erosion and Sedimentation Control Plan
APPENDIX I	Stormceptor [®] Data and Pipe Calculation

**STORMWATER MANAGEMENT PLAN
PROPOSED SITE DEVELOPMENT
165 DEER STREET
PORTSMOUTH, NH 03801**

1.1 INTRODUCTION

The applicant proposes to redevelop 165 Deer Street (Lot 3) located in Portsmouth, NH (the Site, refer to Figure 1), to include a new building with hotel and restaurant uses with related improvements to the adjacent property at 163 Deer Street (Lot 4) and in the City right-of-way (ROW). The project also consists of associated infrastructure including driveways, sidewalks, covered parking, landscaping, drainage facilities, and utilities. Drainage associated with the site redevelopment will be collected and routed through best management practice controls selected and sized to address the local stormwater regulations and provide treatment prior to discharge to the City of Portsmouth (the City) municipal storm drain system.

A temporary pedestrian egress path is also planned on Lot 2 (Map 125 Lot 17-1) to benefit Lot 3. Lot 2 is entirely impervious and is proposed to be a community space which is planned be developed with input from the City Planning Board at a future date. Therefore, the stormwater analysis for Lot 2 is not part of this report but will be submitted as part of the Lot 2 Site Plan Review application package.

1.2 SITE LOCATION AND DESCRIPTION

The area of the drainage study includes the areas where revised grading is proposed which includes all of Lot 3, a portion of Lot 4, and areas within the public ROW. The total studied drainage area is approximately 35,301 ft² which includes all of Lot 3 (approximately 26,504 ft²), approximately 6,304 ft² of Lot 4, and 2,493 in the public ROW. The remaining portion of Lot 4 will remain at existing grades that either drain directly to the railroad or Deer Street. Existing study area elevations range from a high of approximately 11.8 feet along most of the northwestern side of the study area along the railway, to a low of approximately 9.5 near the southeastern property line along the proposed City Foundry Place roadway curb. There existed one retail building on Lot 3 before being recently razed (refer to Figure 2 and Appendix F). This existing building and associated infrastructure has since been demolished as a part of this redevelopment.

The Natural Resource Conservation Service (NRCS) Soil Survey for Rockingham County does not have hydrologic soil group data for the site. Soil borings showed that the soil on the site is a combination of fill and native material comprised of primarily loamy sand, with properties of a Hydrologic Soil Group (HSG) type A soil with a layer of shallow native clay below (refer to Appendix A). The site is not located in a flood zone, as indicated on the FEMA FIRM map (refer to Figure 3).

1.3 EXISTING SITE CONDITIONS

The pre-development condition consists of five watershed areas contributing to two study points. Study Point #1 (SP-1) consists of overland flow onto Deer Street. Study Point #2 (SP-2) consists of overland flow to the northern corner of the site, which drains towards the railroad right-of-way. Existing surfaces include building roofs, parking areas, street pavement, concrete, and small landscape islands. The total area of existing impervious surfaces in the study area includes approximately 5,273 ft² of roof and 28,192 ft² of pavement with a combined area of 33,465 ft², or 94.8% of the total study area. See Table 1 for surface coverages and impervious calculations per lot. Table 2 presents the pre-development contributing areas to the SP-1 and SP-2. below Refer to Appendix B for existing watershed plan.

Table 1: Pre-Development Surface Coverages and Imperviousness by Lot

Study Area	Area Name	Roof (ft ²)	Pavement (ft ²)	Landscape (ft ²)
Lot 3	EWA-1	0	8,039	321
	EWA-2	5,189	12,641	313
	Lot 3 Total	5,189	20,680	634
	% Impervious = <u>97.6%</u> [(5,189+20,680)/26,503*100]			
Lot 4	EWA-3	84	3,908	555
	EWA-4	0	1,601	157
	Lot 4 Total	84	5,509	712
	% Impervious = <u>88.7%</u> [(84+5,509)/6,305*100]			
City ROW	EWA-5	0	2,003	490
	% Impervious = <u>80.3%</u> (2003/2,493*100)			
Total Study Area		5,273	28,192	1,836
% Impervious = 94.8%				

Table 2: Pre-Development Watershed Areas to Study Points

Study Point	Area Name	Area (ft ²)	Tc(min)	CN	Impervious (%)
SP-1	EWA-2	18,143	5	97	94.6
	EWA-3	4,547	5	91	
	EWA-5	2,493	5	86	
SP-2	EWA-1	8,360	5	96	95.3
	EWA-4	1,758	5	93	

1.4 PROPOSED SITE CONDITIONS

The applicant proposes to develop the site into a 5-story mixed use building that will occupy approximately 82.9% of the Lot 3 area. The project consists of the construction of the building, as well as associated infrastructure including driveways, landscaping, drainage facilities and utilities. Drainage will be managed through a series of roof drains, a water quality inlet (Stormceptor inlet), drain pipe, and street gutter. The entirety of Lot 3, as well as a portion of the adjacent Lot 4 and the City ROW will be disturbed during construction (Reference Appendix C).

The total impervious area in the proposed study area (including pavement, concrete pads, and roof) is 92.1%. The impervious area for the proposed development of Lot 3, the Lot 4 portion, and the ROW decrease from the existing conditions (refer to Table 3 for values). The 4th story courtyard will consist of a green roof, but it is still in the conceptual stage, and therefore this proposed drainage scheme is conservatively designed counting this area as impervious. Table 3 below summarizes the area of each surface type and percent impervious for Lot 3 and the portion of the study area on Lot 4 and the City ROW.

Table 3: Post-Development Surface Coverages and Imperviousness by Lot

Study Area	Area Name	Roof (ft ²)	Pavement (ft ²)	Landscape (ft ²)
Lot 3	PWA-1	0	203	911
	PWA-2	0	441	0
	PWA-3	0	1684	167
	PWA-4	15,850	0	0
	PWA-5	7,248	0	0
	Total	23,098	2,328	1,078
% Impervious = 95.9% [(23,098+2328)/26,503*100]				
Lot 4	PWA-1	0	1,801	636

	PWA-2	0	3,003	41
	PWA-3	84	487	252
	Lot 4 Total	84	5,291	929
	% Impervious = 85.3% [(84+5,291)/6,304*100]			
City ROW	PWA-6	0	1,712	782
	% Impervious = 68.7% (1712/2,493*100)			
Total Study Area		23,182	9,331	2,789
		% Impervious = 92.1%		

The stormwater model for proposed conditions analyzed flow into the same City storm drain systems (study points) as the model for existing conditions described above. Four sub-watersheds; PWA-2, PWA-3, PWA-4, and PWA-6; drain to SP-1, which represents flow into the Deer Street drainage system. SP-2 represents flow into the railroad area, and receives flow from PWA-1 and PWA-5. The study points are summarized in the Table 4 below.

Table 4: Post-Development Watershed Areas to Study Points

Study Point	Area Name	Area (ft ²)	Tc	CN	Impervious (%)
SP-1	PWA-2	3,485	5	97	94.9
	PWA-3	2,674	5	89	
	PWA-4	15,850	5	98	
	PWA-6	2,493	5	80	
SP-2	PWA-1	3,551	5	72	85.7
	PWA-5	7,248	5	98	

The flow from the Deer Street drainage system empties into North Mill Pond, a tidally influenced body of water. The mean higher high water (MHHW) level of the Piscataqua River, which influences the level of North Mill Pond, is 4.4-feet above NAVD, per the City of Portsmouth’s Climate Change Vulnerability Assessment and Adaptation Plan. This MHHW value affects the existing drainage system on Deer Street, as most existing invert elevations are below 2-feet NAVD. This MHHW value is not expected to affect the drainage system for the proposed Lot 3 site which connects to the drainage system in Deer Street Extension at an elevation of 6.5-feet NAVD. The finished floor elevation of the lowest-level slabs of the new building will be set at or above 12-feet NAVD, which is above the 11.2-feet NAVD elevation for the theoretical 100-year storm surge occurring at the MHHW, as provided in the *Portsmouth Climate Change Vulnerability Assessment and Adaptation Plan*.

On Lot 3, most of the proposed roof area (PWA-4) will flow toward the front of the building (Foundry Place) and directly into the proposed municipal storm drain system through roof drains and downspouts, and then into the Deer Street storm drain system. The remaining roof area at the rear (PWA-5) will convey stormwater via roof drains and downspouts to riprap velocity dissipation pads, and Watershed PWA-1 will drain towards the railroad. Both PWA-1 and PWA-5 discharge towards the grassed portion of the railroad area where the water has an opportunity to be filtered and infiltrated into the ground at near existing rates before entering railroad drainage inlets behind the new garage. PWA-2 will drains to a proposed Stormceptor unit inlet in the exit drive before discharging into the Deer Street drainage system. The Stormceptor unit was designed to remove at least 80% of the yearly average total suspended solids (TSS) loading from this catchment area.

No subsurface drainage (foundation drain) is proposed for this site, and no groundwater shall be collected or discharged into the City’s drainage system except for possible minor temporary construction dewatering. A permit will be obtained if dewatering discharges require management using the City’s drainage system.

1.4.1 Site Data for Stormwater Modeling

The values in the previous tables were calculated in HydroCAD using a Type III 24-hour storm event specific to Portsmouth, NH. The Cornell/NRCC extreme 24-hr rainfall values are used in the model and are shown in the table below. The flows were calculated using the NRCS TR-20 method and static routing between points.

Table 5: Cornell/NRCC Extreme 24-Hr Rainfall Values

Storm	Intensity (in/hr)
2-YR	3.20
10-YR	4.86
25-YR	6.16
50-YR	7.37

1.4.2 Peak Discharge Comparisons

The stormwater analysis concluded that the proposed development peak discharge would be less than the existing site for each to the four storm events required in the Site Plan Regulations. The following table presents the comparison of pre-development vs post-development discharges.

Table 6: Peak Discharge Comparison (cu. ft./sec.)

STUDY POINT 1 (To Deer Street)				
	2-YR	10-YR	25-YR	50-YR
Pre-Development	1.73	2.73	3.51	4.24
Post-Development	1.67	2.64	3.40	4.10
STUDY POINT 2 (To B&M Railroad)				
	2-YR	10-YR	25-YR	50 -YR
Pre-Development	0.71	1.12	1.43	1.72
Post-Development	0.62	1.02	1.35	1.66

1.4.3 Total Stormwater Runoff (Volume) Comparisons

The runoff volumes at each study point were calculated for the pre-development and post-developed study areas with the post-development runoff being less than the pre-development. See Table 7 for a comparison of the pre-development and post-development runoff volumes. The post-development analysis did not include the available storage and absorption of the landscape rain gardens with Silva Cells. This is expected to decrease the post-development volumes than in addition to what is shown in Table 7, particularly for the smaller storm events.

Table 7: Total Runoff Volume Comparison (cu. ft.)

STUDY POINT 1 (To Deer Street)				
	2-YR	10-YR	25-YR	50-YR
Pre-Development	5,556	8,966	11,660	14,178
Post-Development	5,504	8,802	11,413	13,854
STUDY POINT 2 (To B&M Railroad)				
	2-YR	10-YR	25-YR	50 -YR
Pre-Development	2,274	3,656	4,744	5,760
Post-Development	2,067	3,411	4,501	5,534

Although the proposed design does not increase the volume of run-off, an analysis was performed to determine if additional infiltration was feasible and practical. The analysis concluded that infiltration was impractical and largely impossible for the following reasons:

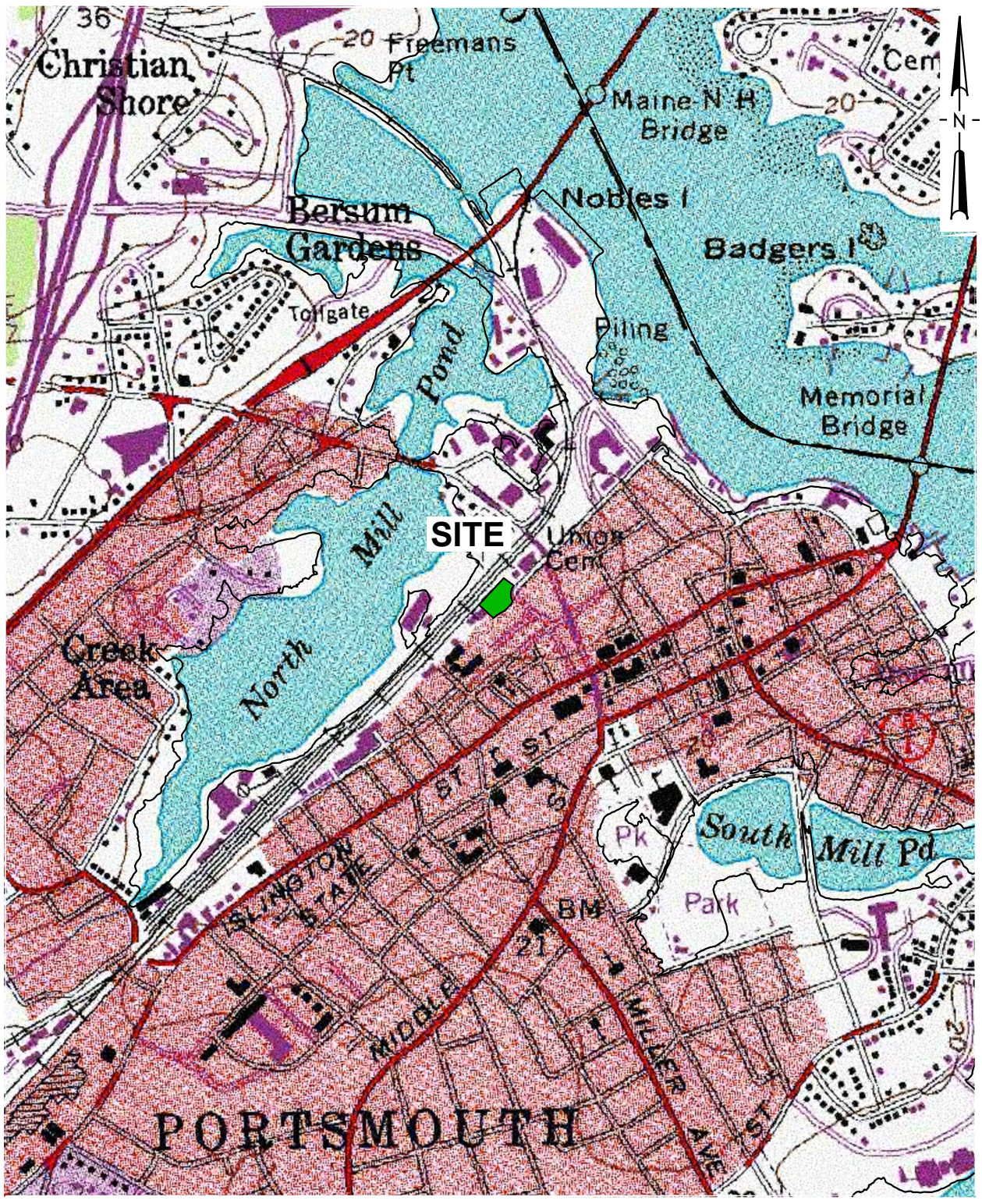
- The soils under Lot 3 and surrounding properties consisted of impermeable geology close the surface (i.e., clay, and dense silty till, see Appendix A for Soil Boring logs).

- Seasonal high-water elevations range from approximately 7.5 feet (NAVD) towards the middle of the site to approximately 8.5 feet near the eastern and western ends of the site which prevents achieving the required separation distance of 3 feet below sub-surface infiltration BMPs (see appendix A for the estimated seasonal high water levels). Soils below infiltration BMP's are required to have a minimum of 1-foot of native fill and 2-feet of filtering material soil above the seasonal high water to infiltrate through as required in the NHDES *New Hampshire Stormwater Manual, Volume 2*.
- Infiltration at the site could result in an elevated water table below Foundry Place and surrounding properties and decrease the stability of the subsurface conditions supporting the roadway and railroad.
- Precipitation infiltrated into the ground, or discharged into the municipal drain system per this engineered design, will eventually be received by the North Mill Pond. Based upon environmental testing and mapping by both the City and DSA, subsurface water flows towards the North Mill Pond. Therefore, infiltration does not reduce the volume entering the Pond.
- The existing site is underlaid by soil material classified by NHDES as urban fill which contains various contaminants. NHDES addresses groundwater quality at contaminated sites in Env-OR 600, and leaching of contaminants from impact soils due to infiltration would be prohibited if it caused exceedances of ambient groundwater quality standards established in Env-Or 603.03.

1.5 FINDINGS

The post-development drainage plan for both study points was designed to keep the peak flow rates and runoff volumes for the 2, 10, 25, and 50-year storms below the pre-development values. Due to the decrease in impervious cover in the post-development condition, no detention is expected to be needed to reduce the peak flow to the railroad or the City's drainage system. Drainage in PWA-2 flows to a Stormceptor inlet for removal of 80% of TSS before being discharged to the City's storm drain.

FIGURES



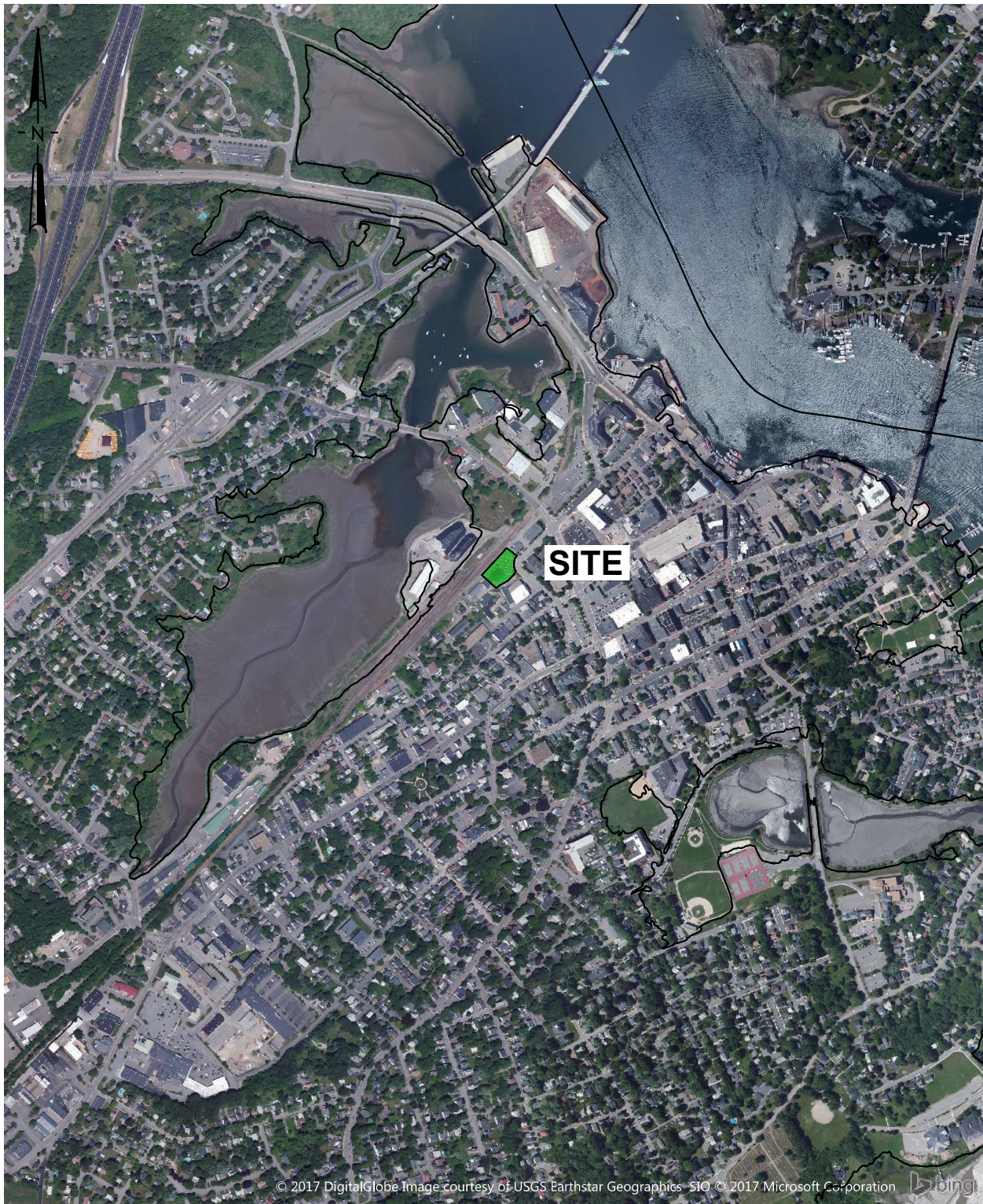
SOURCE:
 USGS QUAD FOR PORTSMOUTH



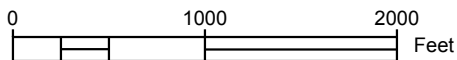
CLIENT:		FOUNDRY PLACE, LLC	
PROJECT:		LOT 3 - 165 DEER STREET PORTSMOUTH NH	
TITLE: USGS MAP			
DESIGNED:	DRAWN:	CHECKED:	APPROVED:
LM	LM		
SCALE:	DATE:	FILE NO.:	PROJECT NO.:
1" = 1000'	11.17.2017	8090LOCUS	8090



FIGURE NO.:
1



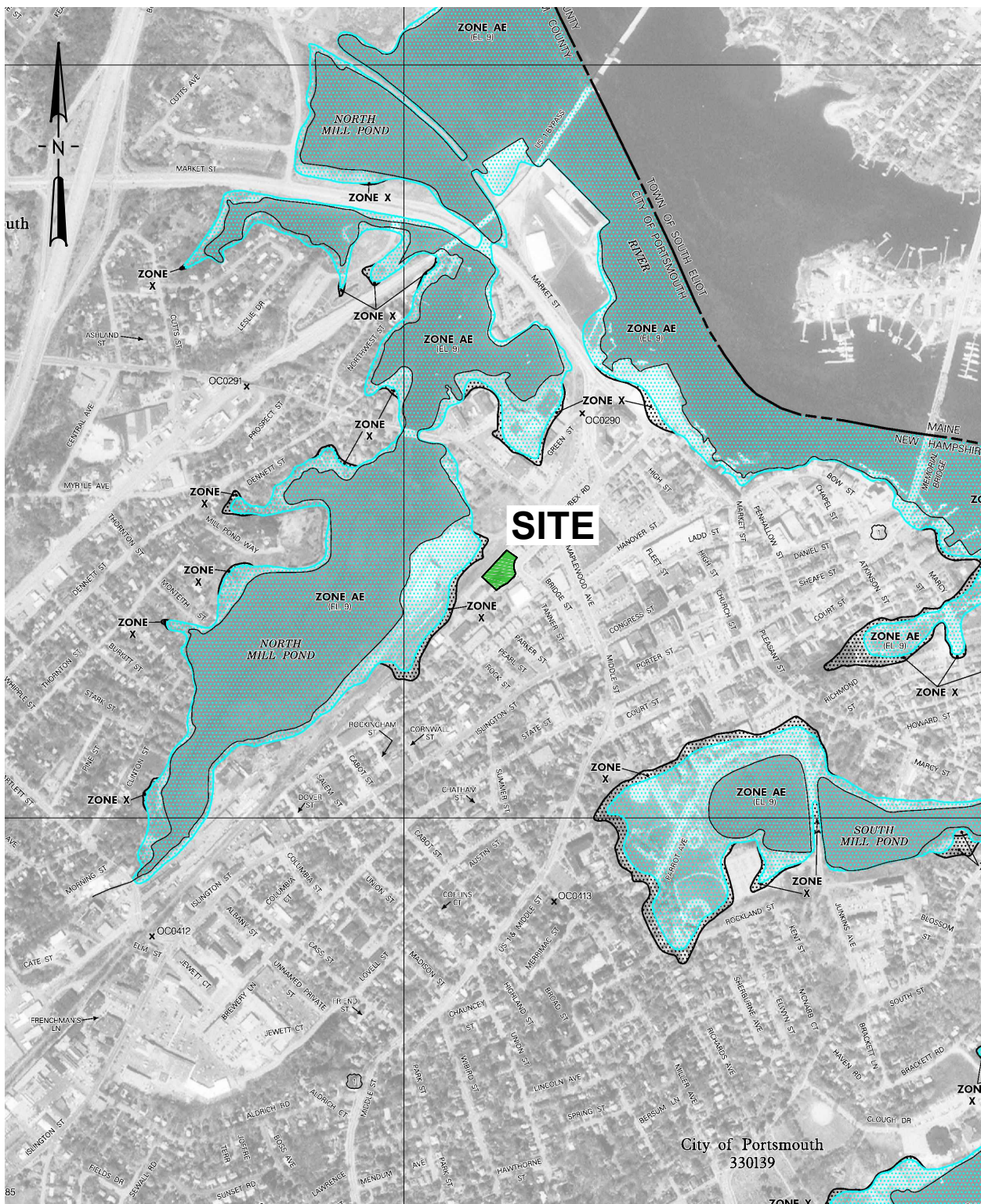
SOURCE:
 USGS EARTHSTAR GEOGRAPHICS



CLIENT: FOUNDRY PLACE, LLC AND DEVELOPMENT CORP.			
PROJECT: LOT 3 - 165 DEER STREET AND RELATED IMPROVEMENTS ON LOTS 2 -5			
TITLE: AERIAL MAP			
DESIGNED: LM	DRAWN: LM	CHECKED:	APPROVED:
SCALE: 1" = 1000'	DATE: 11.17.2017	FILE NO.: 8090LOCUS	PROJECT NO.: 8090

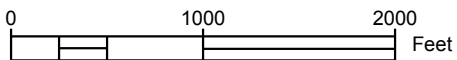


FIGURE NO.: 2



SOURCE:

FIRM PANEL 33015C0259E. MAY 17, 2005



CLIENT:		FOUNDRY PLACE, LLC	
PROJECT:		LOT 3 - 165 DEER STREET AND IMPROVEMENTS ON LOTS 2-5	
TITLE:		FEMA FIRM MAP	
DESIGNED:	DRAWN:	CHECKED:	APPROVED:
LM	LM		
SCALE:	DATE:	FILE NO.:	PROJECT NO.:
1" = 1000'	11.17.2017	8090LOCUS	8090

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FIGURE NO.: **3**

APPENDIX A
BORING LOGS
&
GROUND WATER TABLE CALCULATIONS



GeoInsight
Environmental Strategy & Engineering

SOIL BORING LOG

Client: Deer Street Associates
Project: Deer Street Development
Location: Portsmouth, NH

Boring Identification: B-106
Sheet: 1 of 3
Checked By: BTN
Project Number: 8090

Drilling Company: Technical Drilling Services, Inc. **Boring Location:**
Foreman: Gary **Ground Surface Elevation:** 11 ft **Datum:**
GeoInsight Engineer/Geologist: ATS **Date Started:** 10/24/16 **Date Completed:** 10/24/16

DRILLING METHOD	SAMPLER	GROUNDWATER MEASUREMENTS			
Vehicle: Truck	Type: SS (auto)	Date	Depth (ft)	Reference	Stabilization
Model: CME	Hammer (lb): 140	10/24/2016	10	Ground Surface	After Drilling
Method: HSA/4" Casing w/ Drive & Wash	Fall (in): 30				

DEPTH (ft)	SAMPLE INFORMATION				SAMPLE DESCRIPTION	STRATUM DESCRIPTION	FIELD SCREENING (ppm)	NOTE
	#	Pen/Rec (in)	Depth (ft)	Blows/6"				
0	S1	24/13	0-2	--	5 inches PAVEMENT	PAVEMENT		
1				4	S1: Loose, brown, fine to coarse SAND, little Gravel, trace Silt, Glass particles and Coal particles, damp.	FILL	1.1	1
				4				
				5				
2	S2	24/14	2-4	4	S2: Medium dense, brown and dark brown, fine to coarse SAND, little Gravel, trace Silt and Coal particles, damp.	FILL	<1	1
				6				
				9				
4				18	S3: Very dense, brown, fine to coarse SAND, trace Gravel and Silt, dry.	FILL	1.2	1
	S3	3/3	4-4.3	50/3"				
5					Note: Augered past Cobbles from 5 to 8 feet.			
6								
7								
8	S4A	6/6	8-8.5	7	S4A: Loose, brown, fine to coarse SAND and Organic SILT, damp.	ORGANICS	<1	
9	S4B	18/6	8.5-10	3	S4B: Medium stiff, gray, SILT and CLAY, damp.	NATIVE MARINE DEPOSIT		2
				3				
10				3	S5: Medium stiff, gray, SILT and CLAY, wet.	NATIVE MARINE DEPOSIT		
	S5	24/14	10-12	5				
11				3	S6: Stiff, gray, CLAY, wet.	NATIVE MARINE DEPOSIT		
				3				
12				4	S6: Stiff, gray, CLAY, wet.	NATIVE MARINE DEPOSIT		
				4				
13	S6	24/4	13-15	5	S6: Stiff, gray, CLAY, wet.	NATIVE MARINE DEPOSIT		
				5				
14				5	S6: Stiff, gray, CLAY, wet.	NATIVE MARINE DEPOSIT		
				6				
15				6	S6: Stiff, gray, CLAY, wet.	NATIVE MARINE DEPOSIT		
				6				
16								
17								
18								
19								
20								

GRANULAR SOILS		COHESIVE SOILS		NOTES
Blows/ft.	Density	Blows/ft.	Consistency	
0-4	V. LOOSE	<2	V. SOFT	1. Composite laboratory sample B106A collected. 2. Grab laboratory sample B106B collected.
5-10	LOOSE	2-4	SOFT	
11-30	M. DENSE	4-8	M. STIFF	
31-50	DENSE	8-15	STIFF	
>50	V. DENSE	15-30	V. STIFF	
		>30	HARD	



GeoInsight
Environmental Strategy & Engineering

SOIL BORING LOG

Client: Deer Street Associates
Project: Deer Street Development
Location: Portsmouth, NH

Boring Identification: B-106
Sheet: 2 of 3
Checked By: BTN
Project Number: 8090

Drilling Company: Technical Drilling Services, Inc. **Boring Location:**
Foreman: Gary **Ground Surface Elevation:** 11 ft **Datum:**
GeoInsight Engineer/Geologist: ATS **Date Started:** 10/24/16 **Date Completed:** 10/24/16

DRILLING METHOD	SAMPLER	GROUNDWATER MEASUREMENTS			
Vehicle: Truck	Type: SS (auto)	Date	Depth (ft)	Reference	Stabilization
Model: CME	Hammer (lb): 140	10/24/2016	10	Ground Surface	After Drilling
Method: HSA/4" Casing w/ Drive & Wash	Fall (in): 30				

DEPTH (ft)	SAMPLE INFORMATION				SAMPLE DESCRIPTION	STRATUM DESCRIPTION	FIELD SCREENING (ppm)	NOTE
	#	Pen/Rec (in)	Depth (ft)	Blows/6"				
20	S7	24/24	20-22	1	S7: Very soft, gray, CLAY, wet.	NATIVE MARINE DEPOSIT		
21				1/12"				
22				--				
23				1				
24								
25	S8	24/24	25-27	WOR/24"	S8: Very soft, gray, CLAY, wet.			
26				--				
27				--				
28								
29								
30	S9	24/24	30-32	WOR/24"	S9: Very soft, gray, CLAY, wet.			
31				--				
32				--				
33								
34								
35	S10	24/18	35-37	WOH/12"	S10: Very soft, gray, CLAY, wet.			
36				--				
37				1				
38				1				
39								
40								

GRANULAR SOILS		COHESIVE SOILS		NOTES
Blows/ft.	Density	Blows/ft.	Consistency	
0-4	V. LOOSE	<2	V. SOFT	
5-10	LOOSE	2-4	SOFT	
11-30	M. DENSE	4-8	M. STIFF	
31-50	DENSE	8-15	STIFF	
>50	V. DENSE	15-30	V. STIFF	
		>30	HARD	



GeoInsight
Environmental Strategy & Engineering

SOIL BORING LOG

Client: Deer Street Associates
Project: Deer Street Development
Location: Portsmouth, NH

Boring Identification: B-106
Sheet: 3 of 3
Checked By: BTN
Project Number: 8090

Drilling Company: Technical Drilling Services, Inc. **Boring Location:**
Foreman: Gary **Ground Surface Elevation:** 11 ft **Datum:**
GeoInsight Engineer/Geologist: ATS **Date Started:** 10/24/16 **Date Completed:** 10/24/16

DRILLING METHOD	SAMPLER	GROUNDWATER MEASUREMENTS			
Vehicle: Truck	Type: SS (auto)	Date	Depth (ft)	Reference	Stabilization
Model: CME	Hammer (lb): 140	10/24/2016	10	Ground Surface	After Drilling
Method: HSA/4" Casing w/ Drive & Wash	Fall (in): 30				

DEPTH (ft)	SAMPLE INFORMATION				SAMPLE DESCRIPTION	STRATUM DESCRIPTION	FIELD SCREENING (ppm)	NOTE
	#	Pen/Rec (in)	Depth (ft)	Blows/6"				
40	S11	24/3	40-42	WOR/24"	S11: Very soft, gray, CLAY, wet.	NATIVE MARINE DEPOSIT		
41				--				
42				--				
43				--				
44								
45	S12	24/14	45-47	8	S12: Dense, gray, finet coarse SAND, some Gravel, trace Silt, wet.	NATIVE GLACIAL TILL		
46				17				
47				22				
48				22				
49								
50								
51					End of Boring - 51 feet. Practical roller bit refusal on probable Bedrock.	BEDROCK		
52								
53								
54								
55								
56								
57								
58								
59								
60								

GRANULAR SOILS		COHESIVE SOILS		NOTES
Blows/ft.	Density	Blows/ft.	Consistency	
0-4	V. LOOSE	<2	V. SOFT	
5-10	LOOSE	2-4	SOFT	
11-30	M. DENSE	4-8	M. STIFF	
31-50	DENSE	8-15	STIFF	
>50	V. DENSE	15-30	V. STIFF	
		>30	HARD	



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SOIL BORING LOG

Client: Deer Street Associates
Project: Deer Street Development
Location: Portsmouth, NH

Boring Identification: B-107
Sheet: 1 of 2
Checked By: BTN
Project Number: 8090

Drilling Company: Technical Drilling Services, Inc. **Boring Location:**
Foreman: Gary **Ground Surface Elevation:** 11 ft **Datum:**
GeoInsight Engineer/Geologist: ATS **Date Started:** 10/26/16 **Date Completed:** 10/26/16

DRILLING METHOD	SAMPLER	GROUNDWATER MEASUREMENTS			
Vehicle: Truck	Type: SS (auto)	Date	Depth (ft)	Reference	Stabilization
Model: CME	Hammer (lb): 140	10/26/2016	11	Ground Surface	After Drilling
Method: HSA/4" Casing w/ Drive & Wash	Fall (in): 30				

DEPTH (ft)	SAMPLE INFORMATION				SAMPLE DESCRIPTION	STRATUM DESCRIPTION	FIELD SCREENING (ppm)	NOTE				
	#	Pen/Rec (in)	Depth (ft)	Blows/6"								
0	S1	24/8	0-2	--	5 inches PAVEMENT							
1				22	S1: Medium dense, gray, brown, fine to coarse SAND, some Gravel, trace Asphalt, Brick and Wood particles, damp.	FILL	5.3	1				
				11								
				10								
2	S2	24/12	2-4	10	S2: Similar to S1.		4.8	1				
				15								
				11								
3				9								
				9								
				9								
4	S3	24/8	4-6	4	S3: Loose, gray/brown, fine to coarse SAND, some Silt, trace Gravel, Clay and Brick particles, damp.		3.5	1				
				3								
				3								
5				3								
				3								
				3								
6	S4A	6/6	6-6.5	4	S4A: Similar to S3.		<1	1				
	S4B	18/8	6.5-8	3					S4B: Medium stiff, gray, CLAY and SILT, damp.			
				3								
7				5		NATIVE MARINE DEPOSIT						
8												
9												
10												
11												
12												
13	S5	24/18	13-15	2	S5: Very soft, Gray, Silty CLAY, wet.							
				1								
				1								
14				2								
15												
16												
17												
18												
19												
20												

GRANULAR SOILS		COHESIVE SOILS		NOTES
Blows/ft.	Density	Blows/ft.	Consistency	
0-4	V. LOOSE	<2	V. SOFT	1. Composite laboratory sample B107 collected.
5-10	LOOSE	2-4	SOFT	
11-30	M. DENSE	4-8	M. STIFF	
31-50	DENSE	8-15	STIFF	
>50	V. DENSE	15-30	V. STIFF	
		>30	HARD	



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Environmental Strategy & Engineering

SOIL BORING LOG

Client: Deer Street Associates
Project: Deer Street Development
Location: Portsmouth, NH

Boring Identification: B-107
Sheet: 2 of 2
Checked By: BTN
Project Number: 8090

Drilling Company: Technical Drilling Services, Inc. **Boring Location:**
Foreman: Gary **Ground Surface Elevation:** 11 ft **Datum:**
GeoInsight Engineer/Geologist: ATS **Date Started:** 10/26/16 **Date Completed:** 10/26/16

DRILLING METHOD	SAMPLER	GROUNDWATER MEASUREMENTS			
Vehicle: Truck	Type: SS (auto)	Date	Depth (ft)	Reference	Stabilization
Model: CME	Hammer (lb): 140	10/26/2016	11	Ground Surface	After Drilling
Method: HSA/4" Casing w/ Drive & Wash	Fall (in): 30				

DEPTH (ft)	SAMPLE INFORMATION				SAMPLE DESCRIPTION	STRATUM DESCRIPTION	FIELD SCREENING (ppm)	NOTE				
	#	Pen/Rec (in)	Depth (ft)	Blows/6"								
20												
21												
22												
23												
24												
25	S6	24/24	25-27	WOR	S6: Very soft, gray, CLAY, wet.	NATIVE MARINE DEPOSIT						
26				WOH/18"								
27				--								
28												
29												
30					Note: Glacial till deposit not indicated based upon roller bit resistance/wash water.							
31												
32												
33												
34												
35												
36												
37									End of Boring - 36.5 feet. Practical roller bit refusal on probable Bedrock.	BEDROCK		
38												
39												
40												

GRANULAR SOILS		COHESIVE SOILS		NOTES
Blows/ft.	Density	Blows/ft.	Consistency	
0-4	V. LOOSE	<2	V. SOFT	
5-10	LOOSE	2-4	SOFT	
11-30	M. DENSE	4-8	M. STIFF	
31-50	DENSE	8-15	STIFF	
>50	V. DENSE	15-30	V. STIFF	
		>30	HARD	



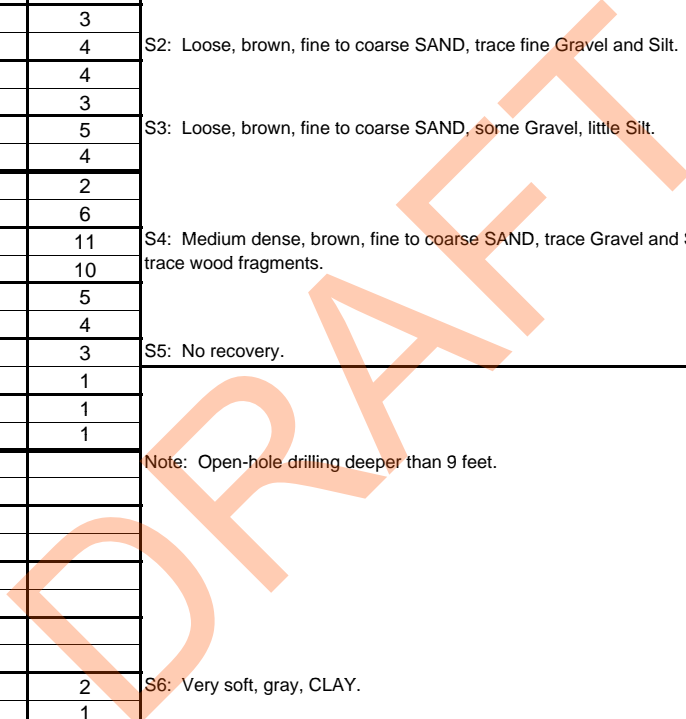
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SOIL BORING LOG

Project: Bridge Street Development
 Location: Deer St & Bridge St, Portsmouth, NH
 Drilling Co.: Northern Drilling
 Foreman: Tim Tucker
 GeoInsight Eng./Geol: ATS

Boring I.D.: **B-6**
 Sheet: 1 Of: 3
 Project Number: 7462
 Chkd. By: BTN
 Boring Location: See Plan
 Ground Surface Elevation: Datum:
 Date Started: 11/6/2014 Date Completed: 11/7/2014

DRILLING METHOD		SAMPLER		GROUND WATER READINGS				
Vehicle:	ATV	Type:	Split Spoon	DATE	DEPTH	REFERENCE	STABILIZATION	
Model:	Mobile B-48	Hammer(lb):	140					
Method:	Drive & Wash (4")	Fall (in):	30 (auto)					
DEPTH (ft)	SAMPLE				SAMPLE DESCRIPTION	STRATUM DESCRIPTION	FIELD SCREENING (ppm)	NOTE
	NO.	REC/PEN (in)	DEPTH (ft)	BLOWS/6"				
0					6 inches Asphalt PAVEMENT.			
	S1	10/24	0.5-2.5	17	S1: Medium dense, black/brown/tan, fine to coarse SAND, some Gravel, trace Silt and miscellaneous debris (brick particles).	Gravelly SAND (FILL)	<1	
				7				
				5				
				3				
	S2	12/18	2.5-4	4	S2: Loose, brown, fine to coarse SAND, trace fine Gravel and Silt.		<1	
				4				
				3				
	S3	8/24	4-6	5	S3: Loose, brown, fine to coarse SAND, some Gravel, little Silt.	<1		
				4				
5				2				
				6				
	S4	12/24	6-8	11	S4: Medium dense, brown, fine to coarse SAND, trace Gravel and Silt, trace wood fragments.	<1		
				10				
				5				
				4				
	S5	0/24	8-10	3	S5: No recovery.			
				1				
				1				
				1				
10					Note: Open-hole drilling deeper than 9 feet.	CLAY (Marine Deposit)		
	S6	24/24	14-16	2	S6: Very soft, gray, CLAY.			
				1				
				1				
				1				
15								
	S7	24/24	19-21	WOR/24"	S7: Very soft, gray, CLAY.			



GRANULAR SOILS		COHESIVE SOILS		Notes:
BLOWS/ft.	DENSITY	BLOWS/ft.	CONSISTENCY	
0-4	V. LOOSE	<2	V. SOFT	1. Soil samples field screened using a MiniRae2000 photoionization detector calibrated to read as benzene.
5-10	LOOSE	2-4	SOFT	
11-30	M. DENSE	5-8	M. STIFF	
31-50	DENSE	9-15	STIFF	
>50	V. DENSE	16-30	V. STIFF	
		>30	HARD	



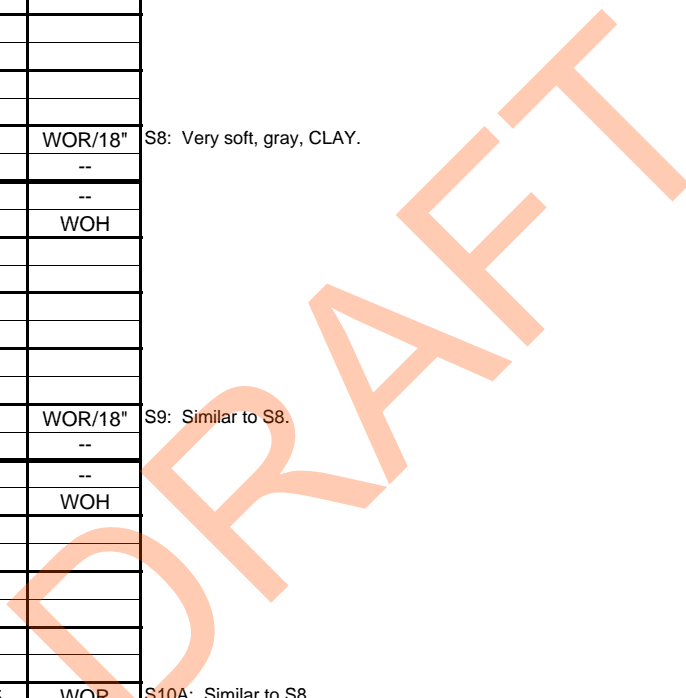
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SOIL BORING LOG

Project: Bridge Street Development
 Location: Deer St & Bridge St, Portsmouth, NH
 Drilling Co.: Northern Drilling
 Foreman: Tim Tucker
 GeoInsight Eng./Geol: ATS

Boring I.D.: **B-6**
 Sheet: 2 Of: 3
 Project Number: 7462
 Chkd. By: BTN
 Boring Location: See Plan
 Ground Surface Elevation: Datum:
 Date Started: 11/6/2014 Date Completed: 11/7/2014

DRILLING METHOD		SAMPLER		GROUND WATER READINGS				
Vehicle:	ATV	Type:	Split Spoon	DATE	DEPTH	REFERENCE	STABILIZATION	
Model:	Mobile B-48	Hammer(lb):	140					
Method:	Drive & Wash (4")	Fall (in):	30 (auto)					
DEPTH (ft)	SAMPLE				SAMPLE DESCRIPTION	STRATUM DESCRIPTION	FIELD SCREENING (ppm)	NOTE
	NO.	REC/PEN (in)	DEPTH (ft)	BLOWS/6"				
20	S7				S8: Very soft, gray, CLAY.	CLAY (Marine Deposit)		
	(cont.)							
25	S8	24/24	24-26	WOR/18"				
				--				
				--				
				WOH				
30	S9	24/24	29-31	WOR/18"	S9: Similar to S8.			
				--				
				--				
				WOH				
35	S10A	6/6	34-34.5	WOR	S10A: Similar to S8.	Gravelly SAND (GLACIAL TILL)		
	S10B	8/18	34.5-36	3	S10B: Medium dense, gray, fine to coarse SAND and GRAVEL, little Silt.			
				11				
				12				
					Note: Angular GRAVEL in return wash water.			
					Note: Borehole collapsing. Roller bit to termination depth. No further soil samples collected.			



GRANULAR SOILS		COHESIVE SOILS		Notes:
BLOWS/ft.	DENSITY	BLOWS/ft.	CONSISTENCY	
0-4	V. LOOSE	<2	V. SOFT	1. Soil samples field screened using a MiniRae2000 photoionization detector calibrated to read as benzene.
5-10	LOOSE	2-4	SOFT	
11-30	M. DENSE	5-8	M. STIFF	
31-50	DENSE	9-15	STIFF	
>50	V. DENSE	16-30	V. STIFF	
		>30	HARD	



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Environmental Strategy & Engineering
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December 16, 2016

GeoInsight Project 8090-000

Ania Rogers
Deer Street Associates
P.O. Box 100
York Harbor, ME 03911

Re: Groundwater Elevation Evaluation
Deer Street Development
Deer Street and Maplewood Avenue
Portsmouth, New Hampshire

Mrs. Rogers:

GeoInsight, Inc. (GeoInsight) prepared this letter for Deer Street Associates (DSA) to present the results of a seasonal high groundwater evaluation related to the proposed Deer Street development west of the intersection of Deer Street and Maplewood Avenue in Portsmouth, New Hampshire (the Site).

As part of GeoInsight's stormwater management design for the project, estimation of the seasonal high water table elevation is necessary. Based upon subsurface investigations performed by GeoInsight at the Site, near-surface soil conditions generally consist of a layer of fill placed over a native organic deposit and/or native marine fines deposit.

Estimation of seasonal high groundwater table is typically determined by observing the overburden soils for presence of iron concentrations or depletions (i.e., "mottles"). The mottles are created when soil is saturated for extended periods. Where static depths to groundwater were recorded in the subsurface explorations conducted at the Site (i.e., where monitoring wells were installed the borings), the depth to water was typically recorded near the top the native marine fines layer, and ranged from approximately 8 to 9 feet below ground surface (bgs). Soils above the observed water table generally included man-placed miscellaneous fill materials. In most cases, determination of the seasonal high water table is not possible in miscellaneous fill materials due to the general miscellaneous nature of the fill, which makes distinguishing soil mottles unreliable; or soil mottles may not be present.

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As one alternative to direct observation of soil mottles, groundwater levels can be monitored for extended periods of time to determine the typical seasonal high water table elevation. Subsurface explorations at the Site performed by GeoInsight were conducted in November 2014 and October 2014, which are typically not periods where seasonal high groundwater tables are most often present; therefore, another alternate method of seasonal high water table estimation was considered necessary. As such, GeoInsight performed an evaluation of the probable seasonal high water table elevation using a modification of the Frimpter Method.

The Frimpter Method is an estimation approach that considers the well-established seasonal fluctuation of groundwater levels at nearby U.S. Geological Society (USGS) monitoring wells and uses that data to relate water levels recorded at a given site (and a certain time period) to potential maximum groundwater levels at that site. This method is considered acceptable by the Massachusetts Department of Environmental Protection due to the Massachusetts-specific study that was performed to develop the method. While the Frimpter Method is not a recognized seasonal high water table estimation method by the New Hampshire Department of Environmental Services (NHDES), GeoInsight considered the method to be technically reasonable for this Site-specific evaluation.

GeoInsight conducted a modified Frimpter Method to calculate the probable estimated seasonal high water table (PESHWT) at the Site. Rather than using USGS monitoring well data, GeoInsight used groundwater level measurements collected by others from a nearby property located approximately 750 feet northwest of the Site (203 Maplewood Avenue). The 203 Maplewood Avenue data included a total of 26 water level measurements collected between 2006 and 2016. Using this relatively robust set of data, we statistically reduced the information to determine a theoretical increase to the water levels observed at the DSA Site. The PESHWT increase was applied to on-Site groundwater elevation data collected from four temporary groundwater monitoring wells on November 10, 2014 and October 24-25, 2016 (refer to Figure 1 for approximate on-Site well locations). The resulting statistical increase in water levels to the Site wells are summarized in Table 1, below.

Table 1 – Summary of Modified Frimpter Method Evaluation					
Exploration Identification	Ground Surface Elevation (feet)	Date of Groundwater Level Observation	Observed Groundwater Elevation (feet)	Estimated Increase in Seasonal High Water Table Above Observed Elevation (feet)	Estimated Elevation of Probable High Water Table (feet)
B-101	14.0	10-24-16	5.7	3.8	9.5
B-103	13.1	10-25-16	4.8	3.8	8.6
B-1	11.0	11-10-14	3.6	3.9	7.5
B-8	10.0	11-10-14	4.9	3.9	8.8

GeoInsight also reviewed other groundwater monitoring well data recorded in environmental reports for nearby properties obtained from the NHDES online OneStop database to further evaluate the PESHWT data presented above. Specifically, we reviewed water table fluctuations



at three other nearby properties, in addition to the 203 Maplewood property. The reviewed data is summarized in Table 2, below.

Table 2 – Summary of Nearby Water Table Fluctuation Data		
Property Address (Portsmouth, NH)	Number of Dates Groundwater Level Measurements Recorded	Maximum Observed Water Table Fluctuation (feet)
31 Raynes Avenue	4	1.4
233 Vaughan Street	6	3.0
Maplewood Ave & Route 1	2	0.9
203 Maplewood Ave	26	3.5

Based upon the above-referenced groundwater table fluctuation data recorded at nearby properties, the maximum recorded water table fluctuation of approximately 3.5 feet compares reasonably-well to the Site-specific modified Frimpter Method evaluation results presented in Table 1. Therefore, GeoInsight recommends using the PESHWT elevations presented in Table 1 for design of stormwater management structures at the Site.

GeoInsight appreciates the opportunity to be of service to DSA. If you have questions about this letter or any other matter, please contact the undersigned at (603) 314-0820.

Sincerely,
GEOINSIGHT, INC.

Brian T. Nereson, P.E.
Senior Project Engineer

Michael C. Penney, P.E., L.S.P.
Senior Engineer/Principal

Attachments: Figure 1 – Temporary Monitoring Well Locations

8090 Water Level Estimate Evaluation.docx

Note: Analysis based on modified Frimpter method (modified to use nearby groundwater level data)
 Note: Water levels may or may not be tidally influenced

Project Name Deer Street Development
 Project No. 8090
 Date 11/14/2016
 Analyst BTN

Exploration ID	Date	Sc	Well Measurement Date]	203 Maplewood Ave Well Data			Range of Water (Owr)	Sr	Sh	Est Increase from Obsevation Date (ft)	Ground El	GW EI
				GW Depth (Owc)	Max Recorded Level (Owmax)	Min Recorded Level						
B-101	10/24/2016	8.34	10/6/2016	8.23	5.62	8.3	2.68	3.9	4.5	3.8	14	9.5
B-103	10/25/2016	8.34	10/6/2016	8.23	5.62	8.3	2.68	3.9	4.5	3.8	13.1	8.6
B-1	11/10/2014	7.4	10/2/2014	8.88	6.06	8.9	2.84	3.9	3.5	3.9	11	7.5
B-8	11/10/2014	5.1	10/2/2014	8.88	6.06	8.9	2.84	3.9	1.2	3.9	10	8.8

^^GW depths interpolated between measured well data

^^90% confidence

$$S_h = S_c - (S_r / O_w r_r) (O_w c - O_w \max)$$

Sc = measured depth to water at the site

Sh = estimated depth to probable high water at the site

Owc = measured depth to water in the observation well used to correlate with water levels at the site

Owmax = depth to recorded maximum water level at the observation well which was used to correlate with the water levels at the site

Sr = range of water level where the site is located. Values of range with varying exceedance probabilities selected from figure below

Owr = recorded upper limit of annual range of water level at the observation well which is used to correlate with water levels at the site

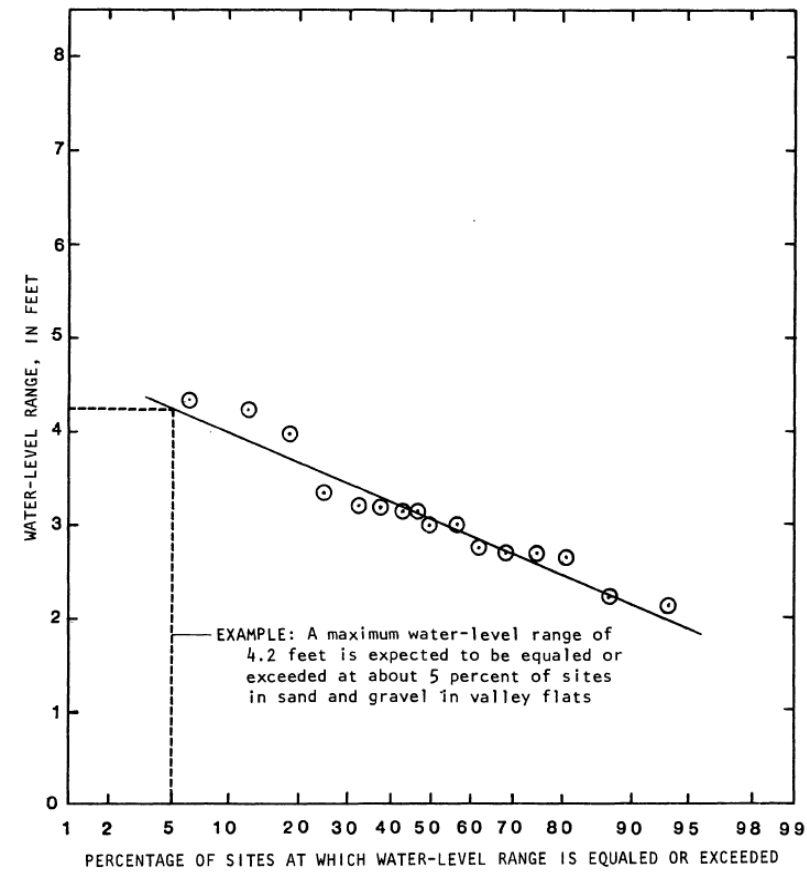
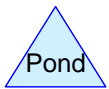
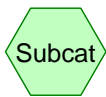
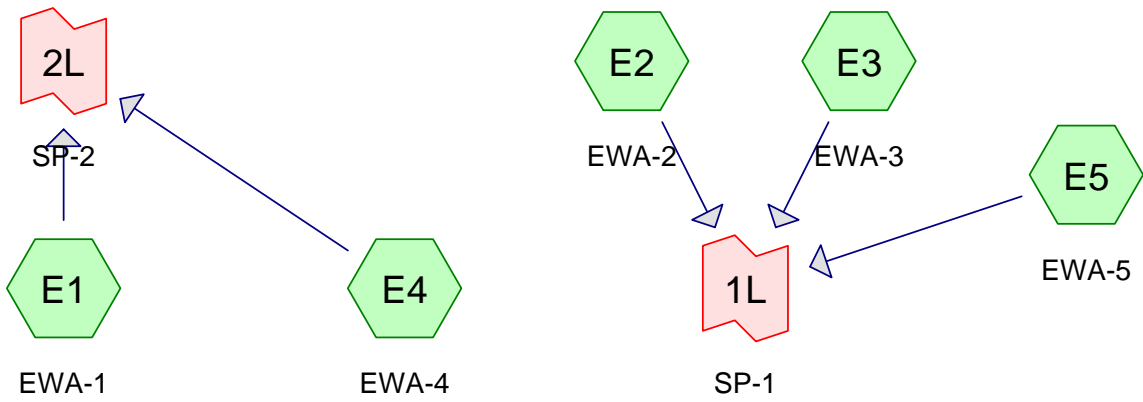


Figure 12.--Probability of water-level range in sand and gravel in valley flats

APPENDIX B

PRE-DEVELOPMENT CONDITIONS MODEL



8090 Exist Watershed LOT 3 2017-1218

Prepared by Microsoft

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Printed 12/21/2017

Page 2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
634	39	Lot 3, >75% Grass cover, Good, HSG A (E1, E2)
20,680	98	Lot 3, Paved parking, HSG A (E1, E2)
5,189	98	Lot 3, Roofs, HSG A (E2)
712	39	Lot 4, >75% Grass cover, Good, HSG A (E3, E4)
5,509	98	Lot 4, Paved parking, HSG A (E3, E4)
84	98	Lot 4, Roofs, HSG A (E3)
490	39	ROW, >75% Grass cover, Good, HSG A (E5)
2,003	98	ROW, Paved parking, HSG A (E5)
35,301	95	TOTAL AREA

8090 Exist Watershed LOT 3 2017-1218

Prepared by Microsoft

Printed 12/21/2017

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Page 3

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
634	0	0	0	0	634	Lot 3, >75% Grass cover, Good
20,680	0	0	0	0	20,680	Lot 3, Paved parking
5,189	0	0	0	0	5,189	Lot 3, Roofs
712	0	0	0	0	712	Lot 4, >75% Grass cover, Good
5,509	0	0	0	0	5,509	Lot 4, Paved parking
84	0	0	0	0	84	Lot 4, Roofs
490	0	0	0	0	490	ROW, >75% Grass cover, Good
2,003	0	0	0	0	2,003	ROW, Paved parking
35,301	0	0	0	0	35,301	TOTAL AREA

Summary for Subcatchment E1: EWA-1

Runoff = 0.60 cfs @ 12.07 hrs, Volume= 1,915 cf, Depth= 2.75"

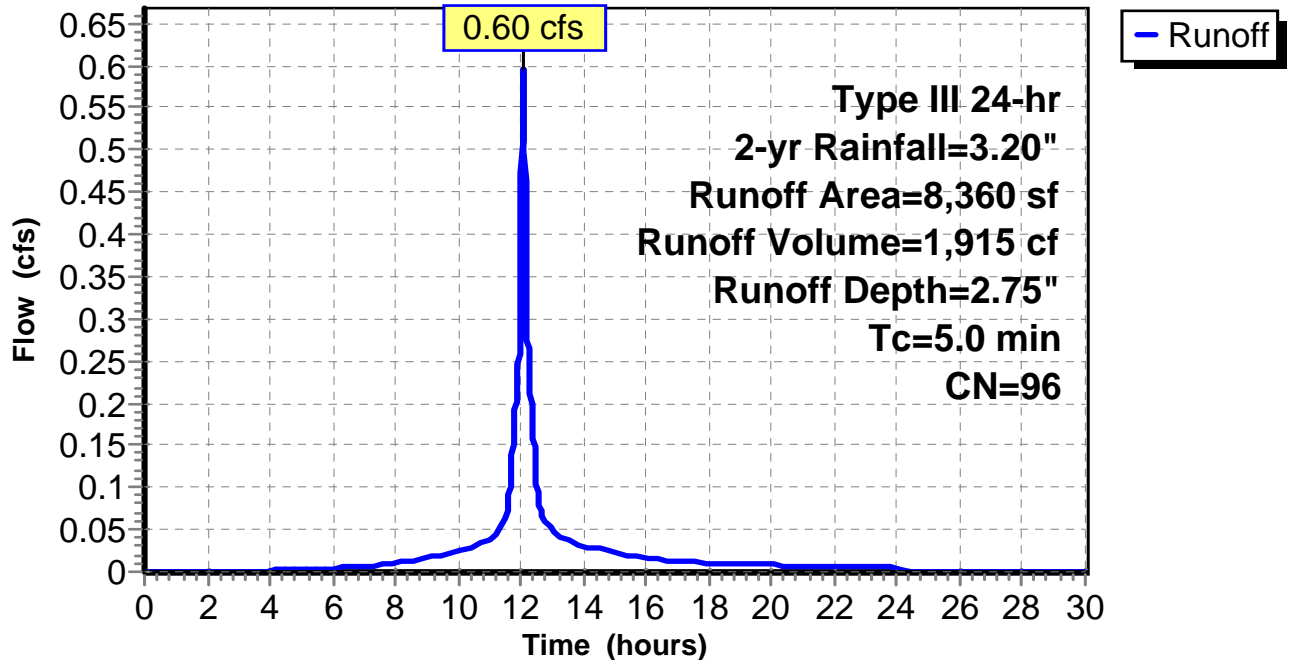
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 321	39	Lot 3, >75% Grass cover, Good, HSG A
* 8,039	98	Lot 3, Paved parking, HSG A
8,360	96	Weighted Average
321		3.84% Pervious Area
8,039		96.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment E1: EWA-1

Hydrograph



Summary for Subcatchment E2: EWA-2

Runoff = 1.32 cfs @ 12.07 hrs, Volume= 4,319 cf, Depth= 2.86"

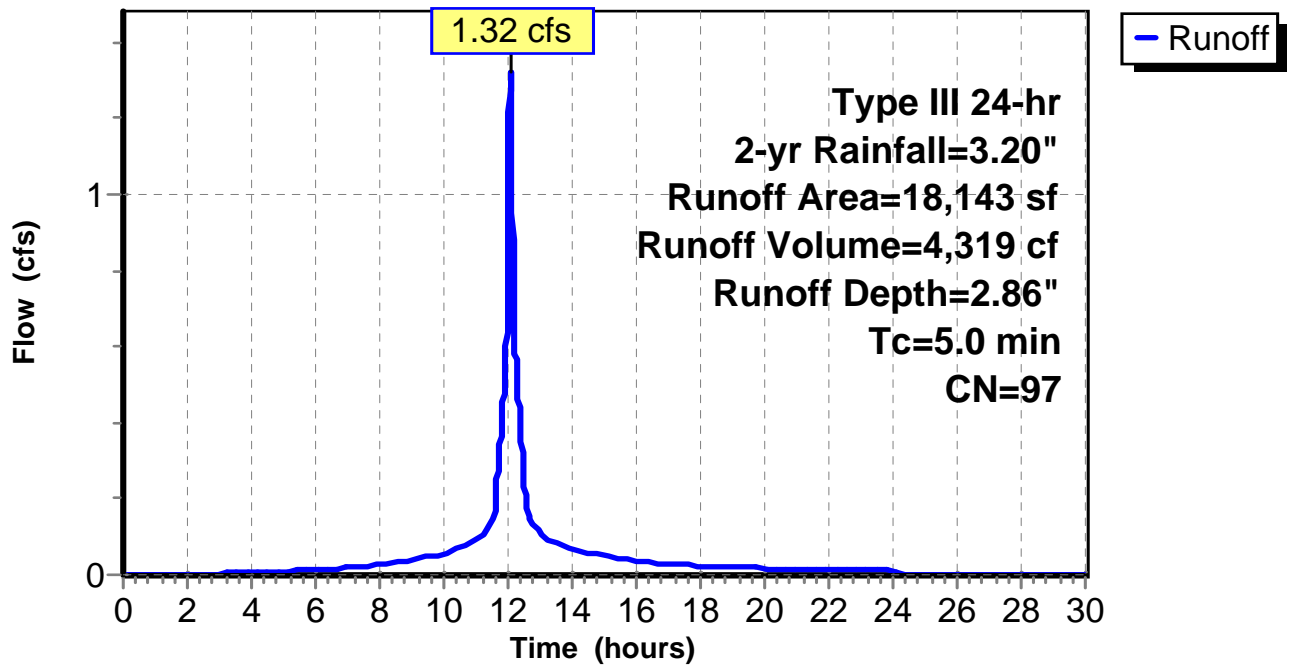
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 5,189	98	Lot 3, Roofs, HSG A
* 12,641	98	Lot 3, Paved parking, HSG A
* 313	39	Lot 3, >75% Grass cover, Good, HSG A
18,143	97	Weighted Average
313		1.73% Pervious Area
17,830		98.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment E2: EWA-2

Hydrograph



Summary for Subcatchment E3: EWA-3

Runoff = 0.28 cfs @ 12.07 hrs, Volume= 856 cf, Depth= 2.26"

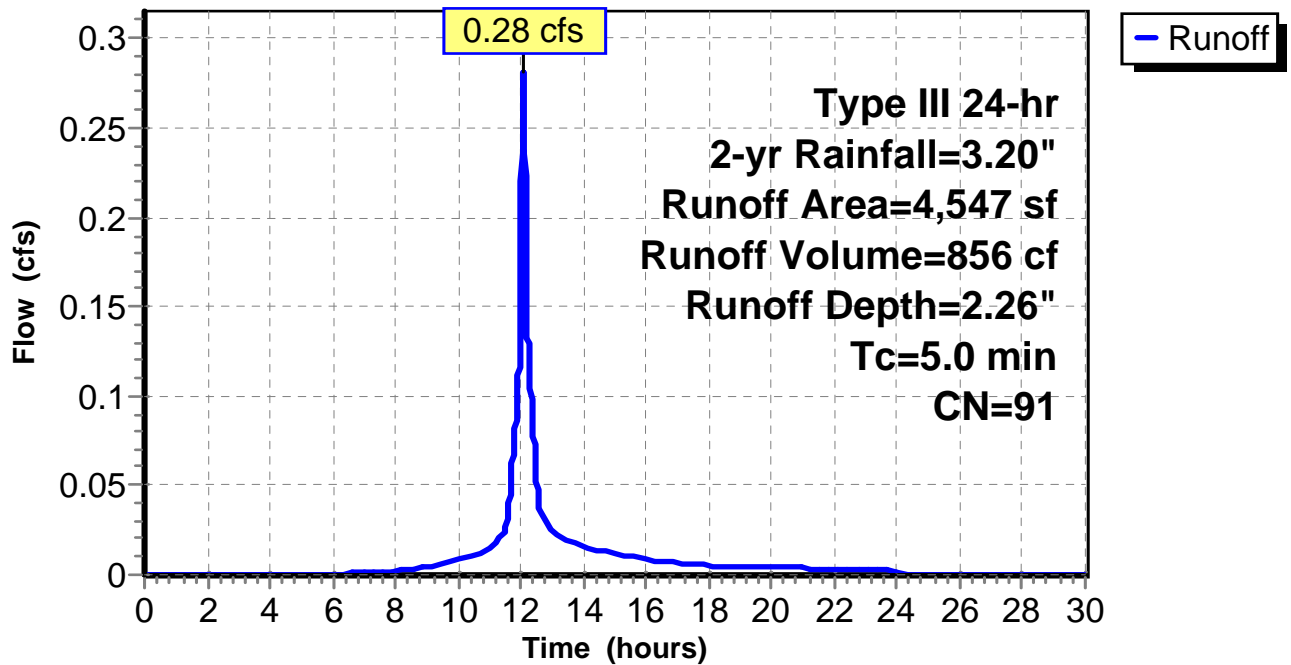
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 3,908	98	Lot 4, Paved parking, HSG A
* 555	39	Lot 4, >75% Grass cover, Good, HSG A
* 84	98	Lot 4, Roofs, HSG A
4,547	91	Weighted Average
555		12.21% Pervious Area
3,992		87.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment E3: EWA-3

Hydrograph



Summary for Subcatchment E4: EWA-4

Runoff = 0.12 cfs @ 12.07 hrs, Volume= 358 cf, Depth= 2.45"

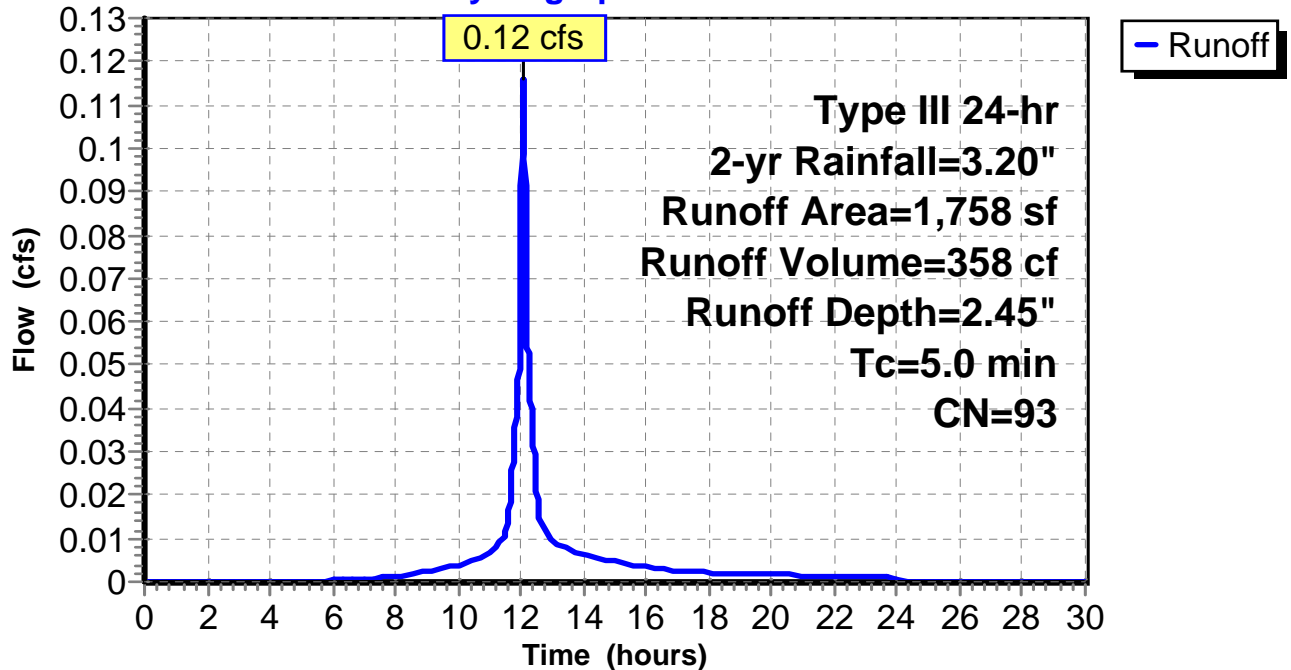
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 157	39	Lot 4, >75% Grass cover, Good, HSG A
* 1,601	98	Lot 4, Paved parking, HSG A
1,758	93	Weighted Average
157		8.93% Pervious Area
1,601		91.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment E4: EWA-4

Hydrograph



Summary for Subcatchment E5: EWA-5

Runoff = 0.13 cfs @ 12.07 hrs, Volume= 381 cf, Depth= 1.84"

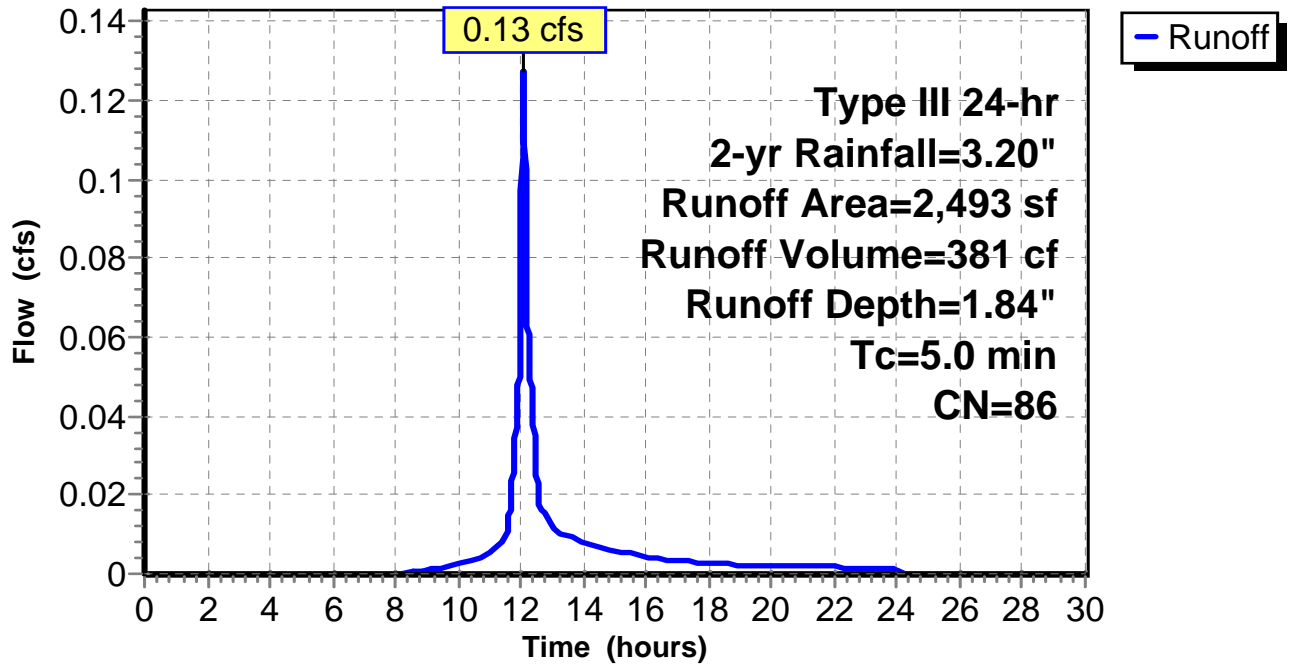
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 490	39	ROW, >75% Grass cover, Good, HSG A
* 2,003	98	ROW, Paved parking, HSG A
2,493	86	Weighted Average
490		19.66% Pervious Area
2,003		80.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment E5: EWA-5

Hydrograph

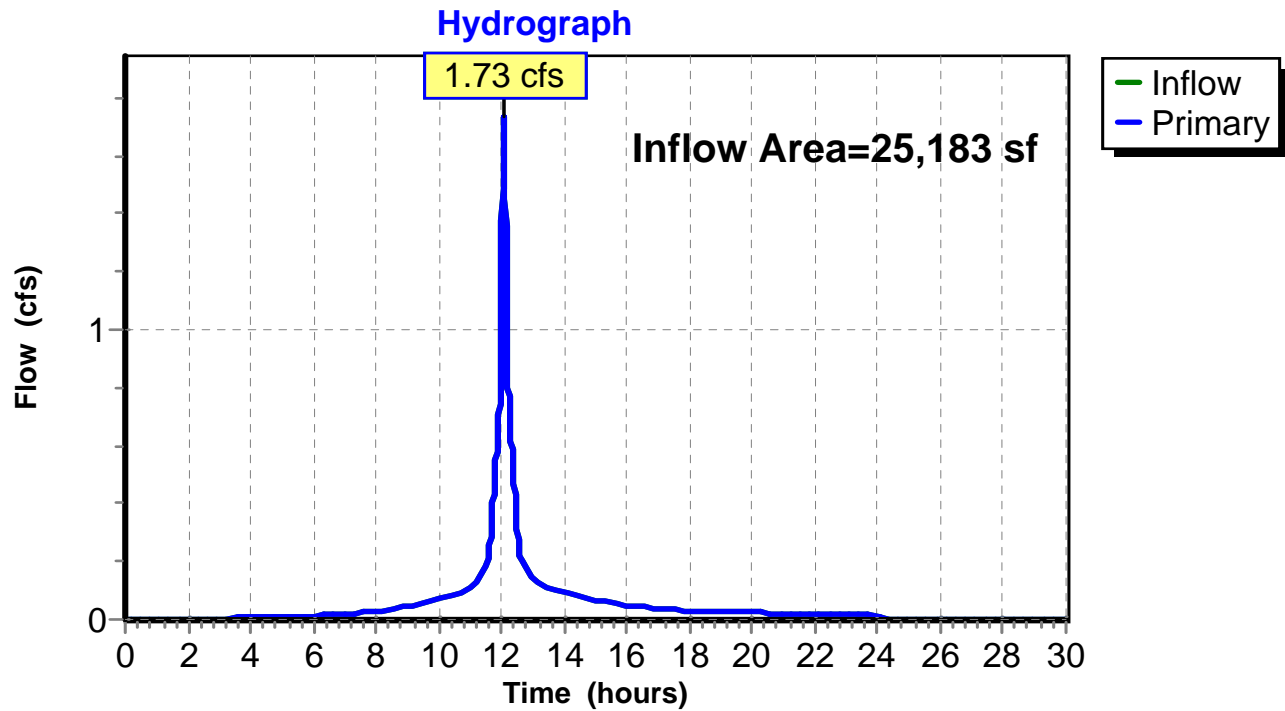


Summary for Link 1L: SP-1

Inflow Area = 25,183 sf, 94.61% Impervious, Inflow Depth = 2.65" for 2-yr event
Inflow = 1.73 cfs @ 12.07 hrs, Volume= 5,556 cf
Primary = 1.73 cfs @ 12.07 hrs, Volume= 5,556 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 1L: SP-1

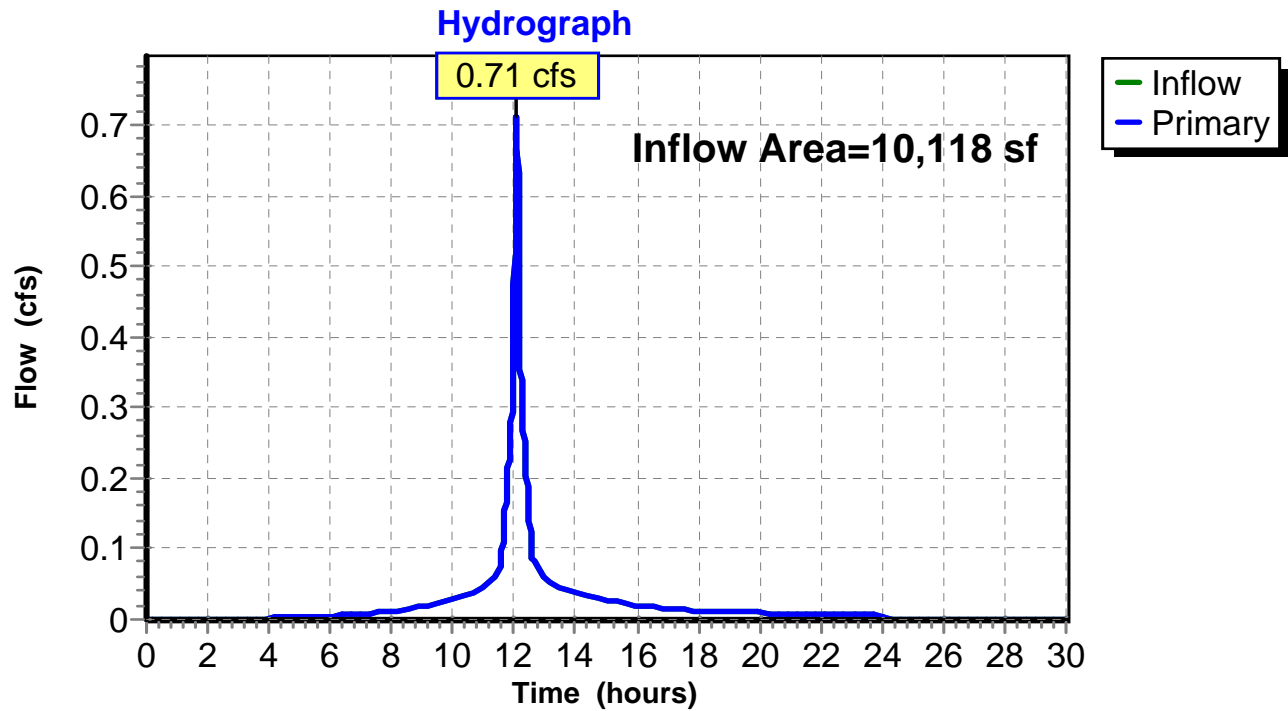


Summary for Link 2L: SP-2

Inflow Area = 10,118 sf, 95.28% Impervious, Inflow Depth = 2.70" for 2-yr event
Inflow = 0.71 cfs @ 12.07 hrs, Volume= 2,274 cf
Primary = 0.71 cfs @ 12.07 hrs, Volume= 2,274 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 2L: SP-2



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Type III 24-hr 10-yr Rainfall=4.86"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: EWA-1	Runoff Area=8,360 sf 96.16% Impervious Runoff Depth=4.39" Tc=5.0 min CN=96 Runoff=0.93 cfs 3,061 cf
Subcatchment E2: EWA-2	Runoff Area=18,143 sf 98.27% Impervious Runoff Depth=4.51" Tc=5.0 min CN=97 Runoff=2.04 cfs 6,815 cf
Subcatchment E3: EWA-3	Runoff Area=4,547 sf 87.79% Impervious Runoff Depth=3.85" Tc=5.0 min CN=91 Runoff=0.47 cfs 1,457 cf
Subcatchment E4: EWA-4	Runoff Area=1,758 sf 91.07% Impervious Runoff Depth=4.06" Tc=5.0 min CN=93 Runoff=0.19 cfs 595 cf
Subcatchment E5: EWA-5	Runoff Area=2,493 sf 80.34% Impervious Runoff Depth=3.34" Tc=5.0 min CN=86 Runoff=0.23 cfs 693 cf
Link 1L: SP-1	Inflow=2.73 cfs 8,966 cf Primary=2.73 cfs 8,966 cf
Link 2L: SP-2	Inflow=1.12 cfs 3,656 cf Primary=1.12 cfs 3,656 cf

Total Runoff Area = 35,301 sf Runoff Volume = 12,621 cf Average Runoff Depth = 4.29"
5.20% Pervious = 1,836 sf 94.80% Impervious = 33,465 sf

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Type III 24-hr 25-yr Rainfall=6.16"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: EWA-1 Runoff Area=8,360 sf 96.16% Impervious Runoff Depth=5.69"
Tc=5.0 min CN=96 Runoff=1.19 cfs 3,962 cf

Subcatchment E2: EWA-2 Runoff Area=18,143 sf 98.27% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=2.59 cfs 8,775 cf

Subcatchment E3: EWA-3 Runoff Area=4,547 sf 87.79% Impervious Runoff Depth=5.11"
Tc=5.0 min CN=91 Runoff=0.61 cfs 1,938 cf

Subcatchment E4: EWA-4 Runoff Area=1,758 sf 91.07% Impervious Runoff Depth=5.34"
Tc=5.0 min CN=93 Runoff=0.24 cfs 782 cf

Subcatchment E5: EWA-5 Runoff Area=2,493 sf 80.34% Impervious Runoff Depth=4.56"
Tc=5.0 min CN=86 Runoff=0.31 cfs 948 cf

Link 1L: SP-1 Inflow=3.51 cfs 11,660 cf
Primary=3.51 cfs 11,660 cf

Link 2L: SP-2 Inflow=1.43 cfs 4,744 cf
Primary=1.43 cfs 4,744 cf

Total Runoff Area = 35,301 sf Runoff Volume = 16,404 cf Average Runoff Depth = 5.58"
5.20% Pervious = 1,836 sf 94.80% Impervious = 33,465 sf

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Type III 24-hr 50-yr Rainfall=7.37"

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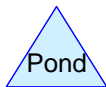
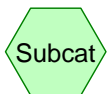
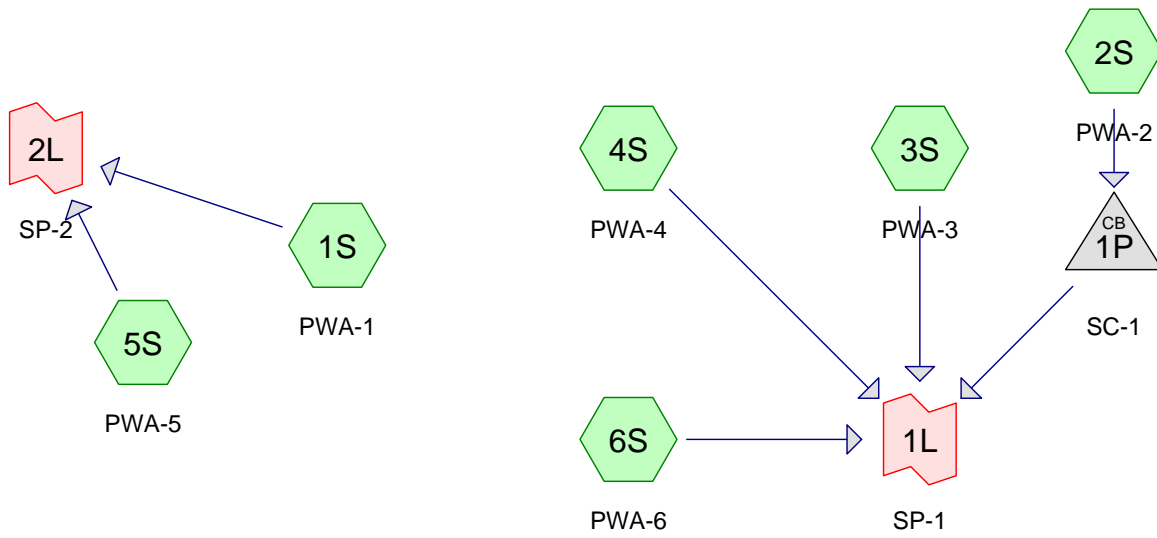
Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: EWA-1	Runoff Area=8,360 sf 96.16% Impervious Runoff Depth=6.89" Tc=5.0 min CN=96 Runoff=1.43 cfs 4,802 cf
Subcatchment E2: EWA-2	Runoff Area=18,143 sf 98.27% Impervious Runoff Depth=7.01" Tc=5.0 min CN=97 Runoff=3.11 cfs 10,601 cf
Subcatchment E3: EWA-3	Runoff Area=4,547 sf 87.79% Impervious Runoff Depth=6.30" Tc=5.0 min CN=91 Runoff=0.75 cfs 2,388 cf
Subcatchment E4: EWA-4	Runoff Area=1,758 sf 91.07% Impervious Runoff Depth=6.54" Tc=5.0 min CN=93 Runoff=0.29 cfs 958 cf
Subcatchment E5: EWA-5	Runoff Area=2,493 sf 80.34% Impervious Runoff Depth=5.72" Tc=5.0 min CN=86 Runoff=0.38 cfs 1,189 cf
Link 1L: SP-1	Inflow=4.24 cfs 14,178 cf Primary=4.24 cfs 14,178 cf
Link 2L: SP-2	Inflow=1.72 cfs 5,760 cf Primary=1.72 cfs 5,760 cf

Total Runoff Area = 35,301 sf Runoff Volume = 19,937 cf Average Runoff Depth = 6.78"
5.20% Pervious = 1,836 sf 94.80% Impervious = 33,465 sf

APPENDIX C

POST DEVELOPMENT CONDITIONS MODEL



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Page 2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
1,078	39	Lot 3, >75% Grass cover, Good, HSG A (1S, 3S)
2,328	98	Lot 3, Paved parking, HSG A (1S, 2S, 3S)
23,098	98	Lot 3, Roofs, HSG A (4S, 5S)
929	39	Lot 4, >75% Grass cover, Good, HSG A (1S, 2S, 3S)
5,291	98	Lot 4, Paved parking, HSG A (1S, 2S, 3S)
84	98	Lot 4, Roofs, HSG A (3S)
782	39	ROW, >75% Grass cover, Good, HSG A (6S)
1,712	98	ROW, Paved parking, HSG A (6S)
35,302	93	TOTAL AREA

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Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
1,078	0	0	0	0	1,078	Lot 3, >75% Grass cover, Good
2,328	0	0	0	0	2,328	Lot 3, Paved parking
23,098	0	0	0	0	23,098	Lot 3, Roofs
929	0	0	0	0	929	Lot 4, >75% Grass cover, Good
5,291	0	0	0	0	5,291	Lot 4, Paved parking
84	0	0	0	0	84	Lot 4, Roofs
782	0	0	0	0	782	ROW, >75% Grass cover, Good
1,712	0	0	0	0	1,712	ROW, Paved parking
35,302	0	0	0	0	35,302	TOTAL AREA

Summary for Subcatchment 1S: PWA-1

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 275 cf, Depth= 0.93"

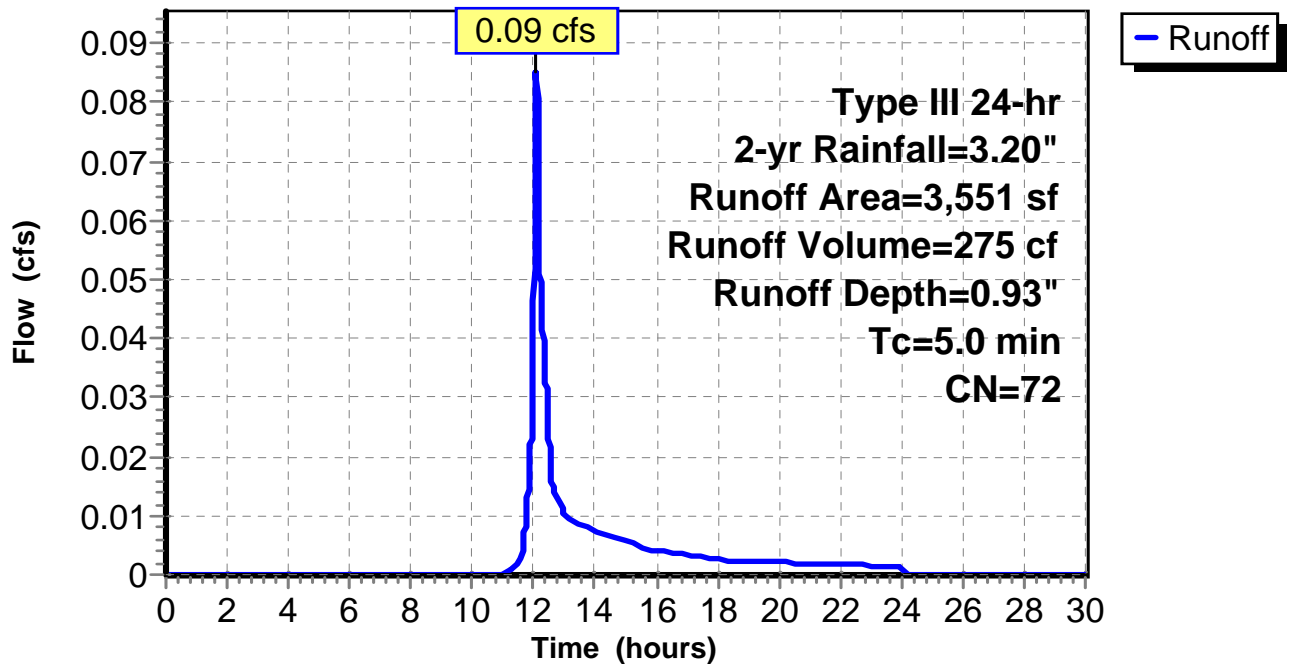
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 911	39	Lot 3, >75% Grass cover, Good, HSG A
* 636	39	Lot 4, >75% Grass cover, Good, HSG A
* 203	98	Lot 3, Paved parking, HSG A
* 1,801	98	Lot 4, Paved parking, HSG A
3,551	72	Weighted Average
1,547		43.57% Pervious Area
2,004		56.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 1S: PWA-1

Hydrograph



Summary for Subcatchment 2S: PWA-2

Runoff = 0.25 cfs @ 12.07 hrs, Volume= 830 cf, Depth= 2.86"

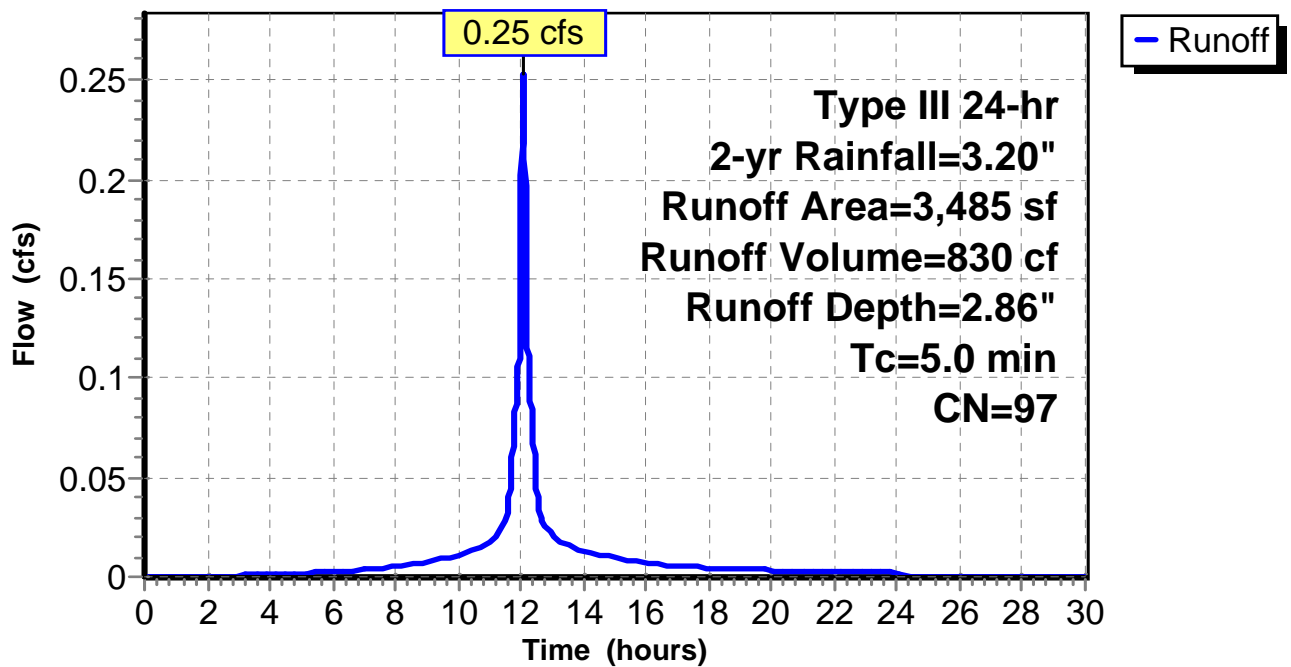
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 441	98	Lot 3, Paved parking, HSG A
* 3,003	98	Lot 4, Paved parking, HSG A
* 41	39	Lot 4, >75% Grass cover, Good, HSG A
3,485	97	Weighted Average
41		1.18% Pervious Area
3,444		98.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: PWA-2

Hydrograph



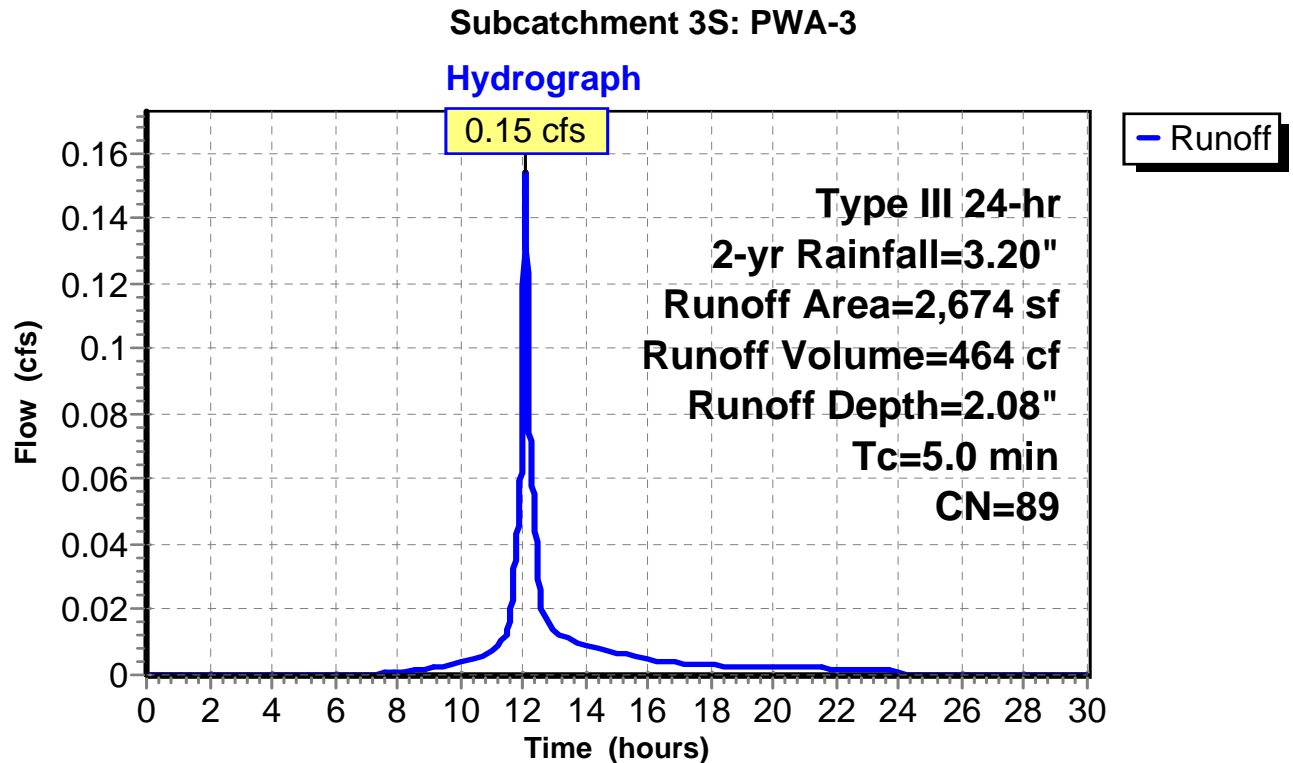
Summary for Subcatchment 3S: PWA-3

Runoff = 0.15 cfs @ 12.07 hrs, Volume= 464 cf, Depth= 2.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 252	39	Lot 4, >75% Grass cover, Good, HSG A
* 1,684	98	Lot 3, Paved parking, HSG A
* 487	98	Lot 4, Paved parking, HSG A
* 84	98	Lot 4, Roofs, HSG A
* 167	39	Lot 3, >75% Grass cover, Good, HSG A
2,674	89	Weighted Average
419		15.67% Pervious Area
2,255		84.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,



Summary for Subcatchment 4S: PWA-4

Runoff = 1.17 cfs @ 12.07 hrs, Volume= 3,920 cf, Depth= 2.97"

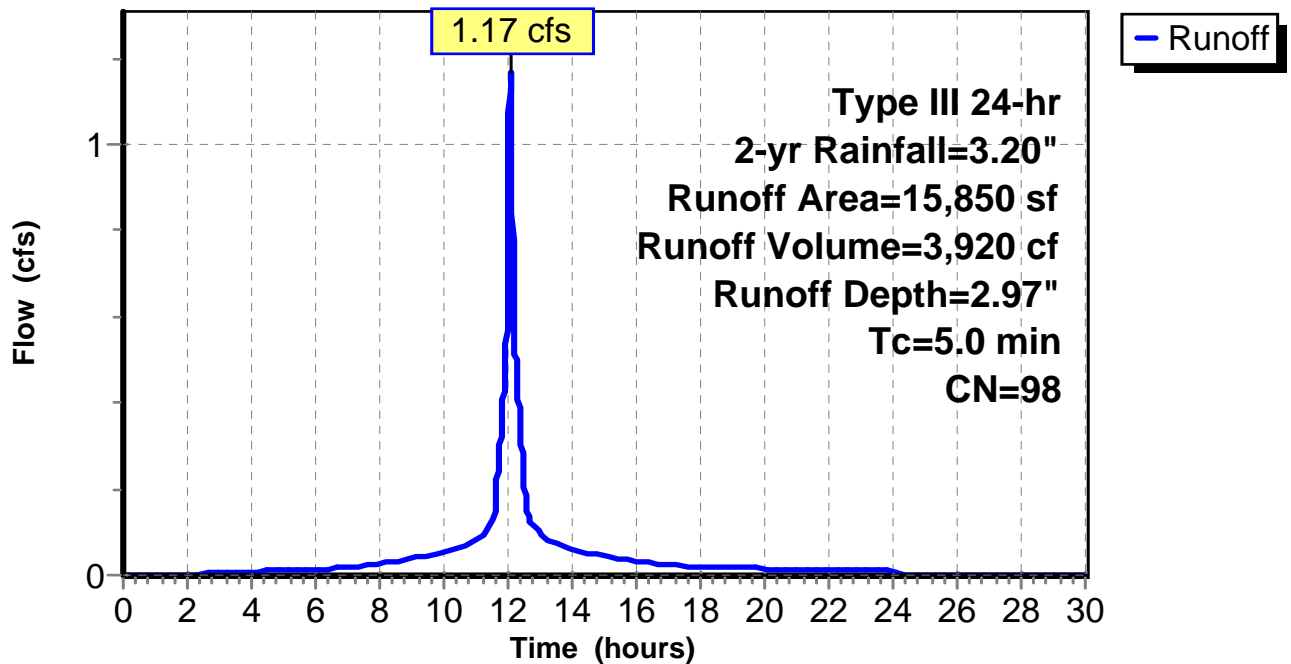
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 15,850	98	Lot 3, Roofs, HSG A
15,850		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 4S: PWA-4

Hydrograph



Summary for Subcatchment 5S: PWA-5

Runoff = 0.54 cfs @ 12.07 hrs, Volume= 1,792 cf, Depth= 2.97"

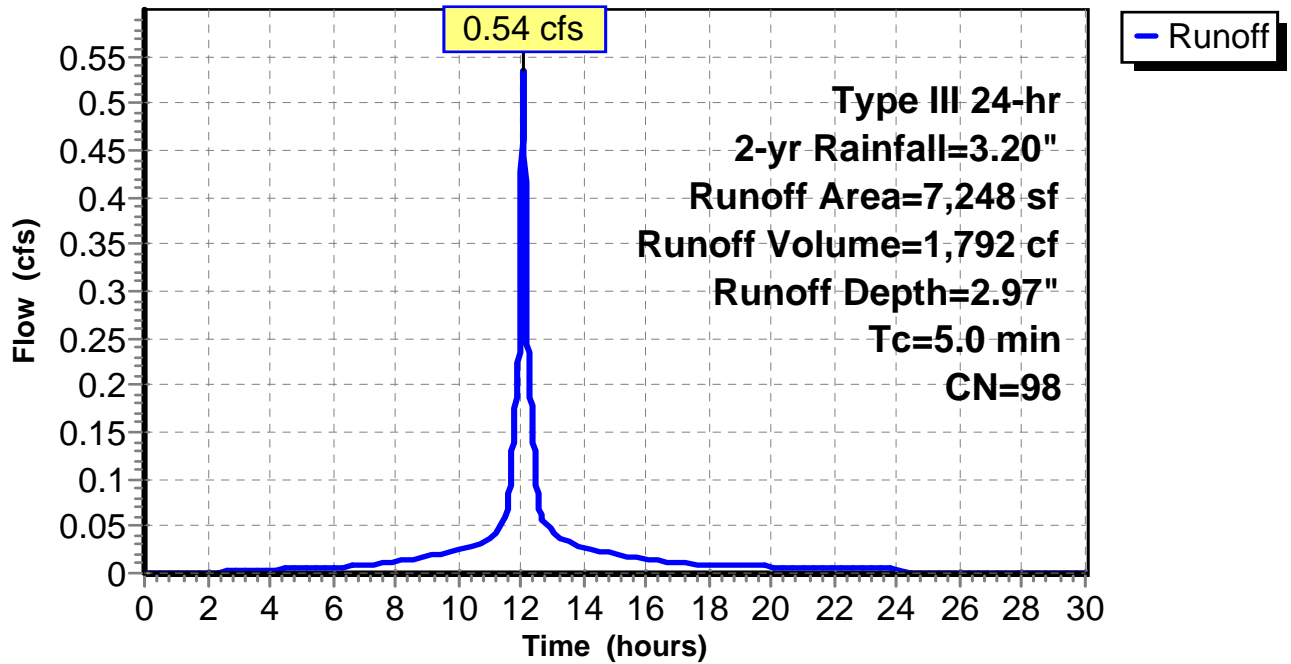
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

Area (sf)	CN	Description
* 7,248	98	Lot 3, Roofs, HSG A
7,248		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 5S: PWA-5

Hydrograph



Summary for Subcatchment 6S: PWA-6

Runoff = 0.10 cfs @ 12.08 hrs, Volume= 291 cf, Depth= 1.40"

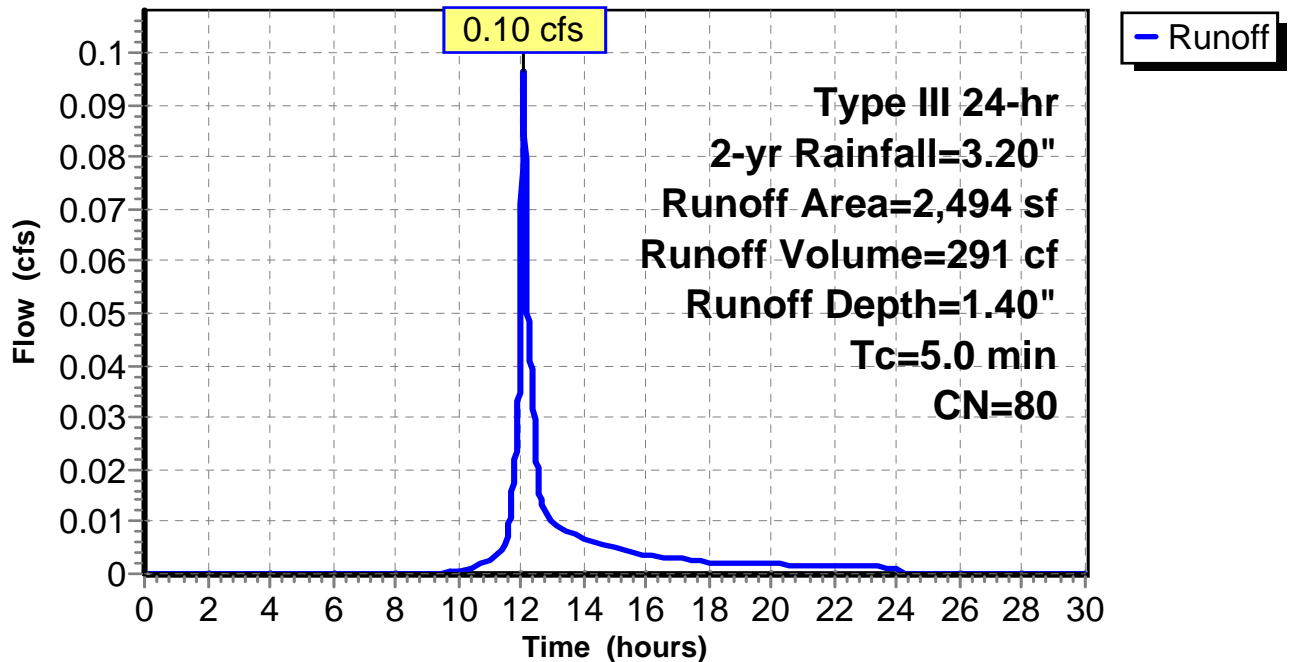
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-yr Rainfall=3.20"

	Area (sf)	CN	Description
*	1,712	98	ROW, Paved parking, HSG A
*	782	39	ROW, >75% Grass cover, Good, HSG A
	2,494	80	Weighted Average
	782		31.36% Pervious Area
	1,712		68.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 6S: PWA-6

Hydrograph



Summary for Pond 1P: SC-1

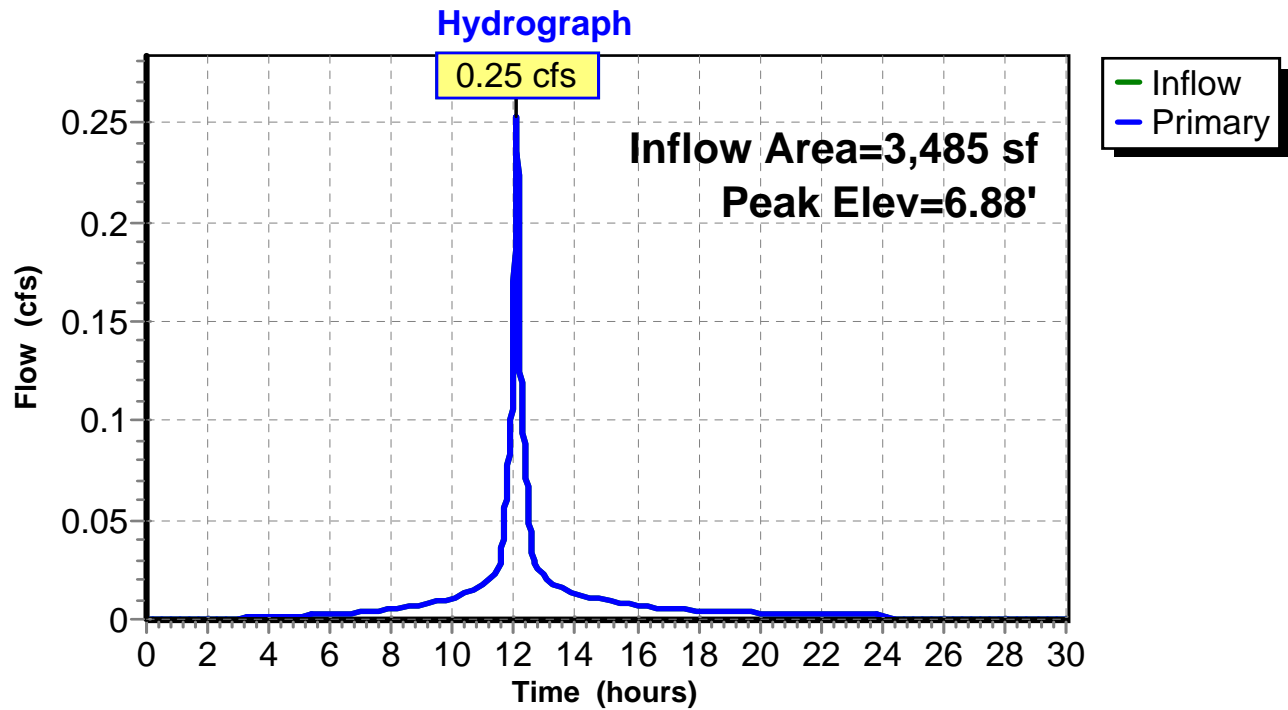
Inflow Area = 3,485 sf, 98.82% Impervious, Inflow Depth = 2.86" for 2-yr event
 Inflow = 0.25 cfs @ 12.07 hrs, Volume= 830 cf
 Outflow = 0.25 cfs @ 12.07 hrs, Volume= 830 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.25 cfs @ 12.07 hrs, Volume= 830 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 6.88' @ 12.07 hrs
 Flood Elev= 8.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	6.63'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.25 cfs @ 12.07 hrs HW=6.88' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.25 cfs @ 1.69 fps)

Pond 1P: SC-1

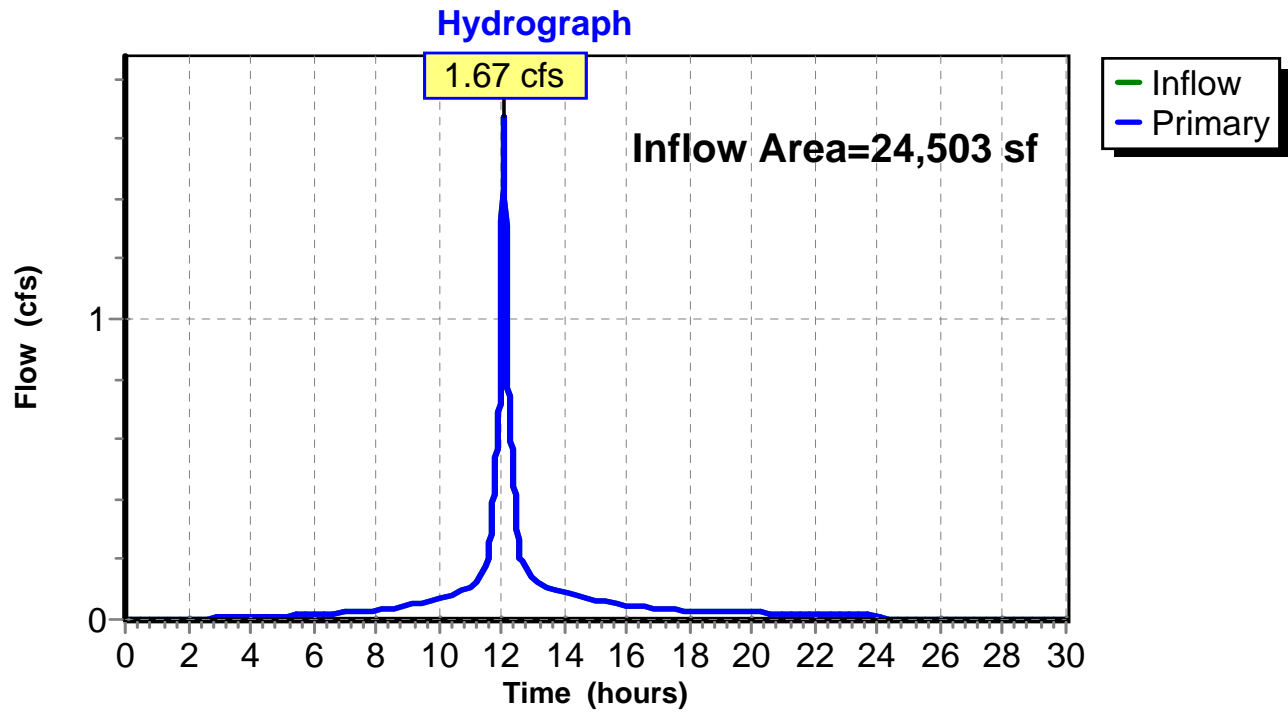


Summary for Link 1L: SP-1

Inflow Area = 24,503 sf, 94.93% Impervious, Inflow Depth = 2.70" for 2-yr event
Inflow = 1.67 cfs @ 12.07 hrs, Volume= 5,504 cf
Primary = 1.67 cfs @ 12.07 hrs, Volume= 5,504 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 1L: SP-1

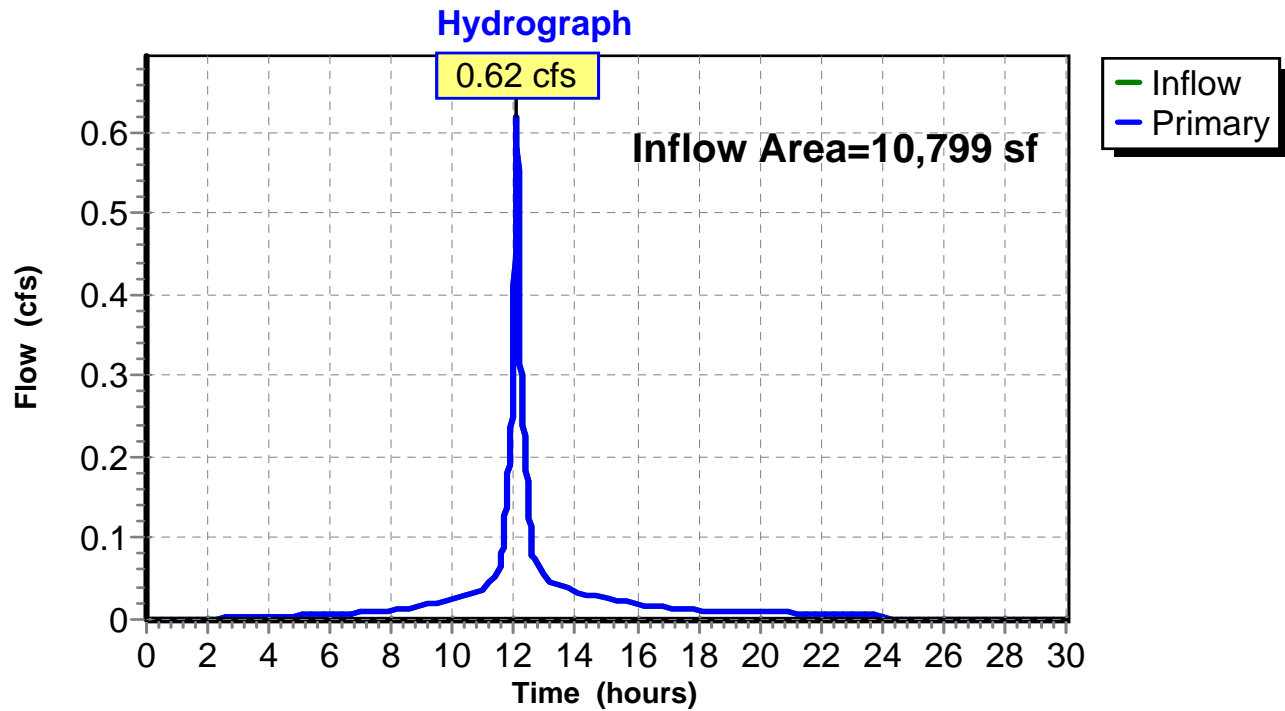


Summary for Link 2L: SP-2

Inflow Area = 10,799 sf, 85.67% Impervious, Inflow Depth = 2.30" for 2-yr event
Inflow = 0.62 cfs @ 12.07 hrs, Volume= 2,067 cf
Primary = 0.62 cfs @ 12.07 hrs, Volume= 2,067 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 2L: SP-2



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Type III 24-hr 10-yr Rainfall=4.86"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: PWA-1	Runoff Area=3,551 sf 56.43% Impervious Runoff Depth=2.09" Tc=5.0 min CN=72 Runoff=0.20 cfs 619 cf
Subcatchment 2S: PWA-2	Runoff Area=3,485 sf 98.82% Impervious Runoff Depth=4.51" Tc=5.0 min CN=97 Runoff=0.39 cfs 1,309 cf
Subcatchment 3S: PWA-3	Runoff Area=2,674 sf 84.33% Impervious Runoff Depth=3.64" Tc=5.0 min CN=89 Runoff=0.26 cfs 811 cf
Subcatchment 4S: PWA-4	Runoff Area=15,850 sf 100.00% Impervious Runoff Depth=4.62" Tc=5.0 min CN=98 Runoff=1.79 cfs 6,107 cf
Subcatchment 5S: PWA-5	Runoff Area=7,248 sf 100.00% Impervious Runoff Depth=4.62" Tc=5.0 min CN=98 Runoff=0.82 cfs 2,793 cf
Subcatchment 6S: PWA-6	Runoff Area=2,494 sf 68.64% Impervious Runoff Depth=2.77" Tc=5.0 min CN=80 Runoff=0.19 cfs 576 cf
Pond 1P: SC-1	Peak Elev=6.94' Inflow=0.39 cfs 1,309 cf Outflow=0.39 cfs 1,309 cf
Link 1L: SP-1	Inflow=2.64 cfs 8,802 cf Primary=2.64 cfs 8,802 cf
Link 2L: SP-2	Inflow=1.02 cfs 3,411 cf Primary=1.02 cfs 3,411 cf

Total Runoff Area = 35,302 sf Runoff Volume = 12,214 cf Average Runoff Depth = 4.15"
7.90% Pervious = 2,789 sf 92.10% Impervious = 32,513 sf

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Type III 24-hr 25-yr Rainfall=6.16"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: PWA-1 Runoff Area=3,551 sf 56.43% Impervious Runoff Depth=3.12"
Tc=5.0 min CN=72 Runoff=0.31 cfs 925 cf

Subcatchment 2S: PWA-2 Runoff Area=3,485 sf 98.82% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=0.50 cfs 1,686 cf

Subcatchment 3S: PWA-3 Runoff Area=2,674 sf 84.33% Impervious Runoff Depth=4.89"
Tc=5.0 min CN=89 Runoff=0.35 cfs 1,090 cf

Subcatchment 4S: PWA-4 Runoff Area=15,850 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=2.28 cfs 7,822 cf

Subcatchment 5S: PWA-5 Runoff Area=7,248 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=1.04 cfs 3,577 cf

Subcatchment 6S: PWA-6 Runoff Area=2,494 sf 68.64% Impervious Runoff Depth=3.93"
Tc=5.0 min CN=80 Runoff=0.27 cfs 816 cf

Pond 1P: SC-1 Peak Elev=6.98' Inflow=0.50 cfs 1,686 cf
Outflow=0.50 cfs 1,686 cf

Link 1L: SP-1 Inflow=3.40 cfs 11,413 cf
Primary=3.40 cfs 11,413 cf

Link 2L: SP-2 Inflow=1.35 cfs 4,501 cf
Primary=1.35 cfs 4,501 cf

Total Runoff Area = 35,302 sf Runoff Volume = 15,914 cf Average Runoff Depth = 5.41"
7.90% Pervious = 2,789 sf 92.10% Impervious = 32,513 sf

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Type III 24-hr 50-yr Rainfall=7.37"

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Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: PWA-1	Runoff Area=3,551 sf 56.43% Impervious Runoff Depth=4.15" Tc=5.0 min CN=72 Runoff=0.41 cfs 1,227 cf
Subcatchment 2S: PWA-2	Runoff Area=3,485 sf 98.82% Impervious Runoff Depth=7.01" Tc=5.0 min CN=97 Runoff=0.60 cfs 2,036 cf
Subcatchment 3S: PWA-3	Runoff Area=2,674 sf 84.33% Impervious Runoff Depth=6.07" Tc=5.0 min CN=89 Runoff=0.43 cfs 1,353 cf
Subcatchment 4S: PWA-4	Runoff Area=15,850 sf 100.00% Impervious Runoff Depth=7.13" Tc=5.0 min CN=98 Runoff=2.73 cfs 9,418 cf
Subcatchment 5S: PWA-5	Runoff Area=7,248 sf 100.00% Impervious Runoff Depth=7.13" Tc=5.0 min CN=98 Runoff=1.25 cfs 4,307 cf
Subcatchment 6S: PWA-6	Runoff Area=2,494 sf 68.64% Impervious Runoff Depth=5.04" Tc=5.0 min CN=80 Runoff=0.35 cfs 1,047 cf
Pond 1P: SC-1	Peak Elev=7.02' Inflow=0.60 cfs 2,036 cf Outflow=0.60 cfs 2,036 cf
Link 1L: SP-1	Inflow=4.10 cfs 13,854 cf Primary=4.10 cfs 13,854 cf
Link 2L: SP-2	Inflow=1.66 cfs 5,534 cf Primary=1.66 cfs 5,534 cf

Total Runoff Area = 35,302 sf Runoff Volume = 19,388 cf Average Runoff Depth = 6.59"
7.90% Pervious = 2,789 sf 92.10% Impervious = 32,513 sf

APPENDIX D
OPERATIONS AND MAINTENANCE PLAN

OPERATION AND MAINTENANCE PLAN

In accordance with the standards set forth by the United States Environmental Protection Agency, GeoInsight has prepared the following O&M Plan (Plan) for the stormwater management system that will be implemented for the proposed development located at 165 Deer Street in Portsmouth, New Hampshire.

This Plan is broken in to two major sections. The first section describes construction-related erosion and sedimentation controls. The second section is for a post-development O&M Plan.

CONSTRUCTION ACTIVITIES

1. Notify the City Engineering Department at least three (3) days prior to start of construction.
2. Install filter tubes, hay bales, silt fence, inlet silt sack, and/or construction fencing as shown on the Erosion and Sediment Control Plan, which can be found in the site plan construction set.
3. Site access shall be achieved only from the designated temporary construction entrance(s).
4. All erosion control measures shall be inspected weekly and after all rainfall events, and shall be maintained, repaired, or replaced as required or at the direction of the owner's engineer or the City's designated representative.
5. Sediment accumulation upstream of the hay bales, filter tubes, and/or silt fence greater than 6 inches in depth shall be removed and disposed of in accordance with all applicable regulations.
6. Temporary sediment traps should be inspected once every two weeks during construction until they are no longer needed, or they become part of the final stormwater control system.
7. Silt sacks shall be installed in all catch basins adjacent to the site. Sediment accumulation on all adjacent catch basin inlets shall be removed and the silt sack replaced if torn or damaged. Sediment in inlet silt sacks shall be removed per the silt sack manufacturer's recommendations.
8. The contractor shall comply with the General Conditions and Erosion Notes as shown on the Site Development Plans.

POST-DEVELOPMENT ACTIVITIES

Refer to “Long Term Operations and Maintenance Plan”

APPENDIX E

LONG TERM OPERATIONS AND MAINTENANCE PLAN

LONG TERM OPERATIONS AND MAINTENANCE PROGRAM

November 17, 2017

This Long-Term Operations and Maintenance Program Plan has been prepared in accordance with the New Hampshire Stormwater Handbook issued by the Department of Environmental Services (DES) for the *Deer Street Development*, a mixed-use building located at 165 Deer Street in Portsmouth, New Hampshire. Upon a period beginning twelve months after the completion of the site construction, all structural BMP's shall be inspected twice annually, once in April and once in November. The inspection shall be performed as indicated below:

Street Sweeping

Street sweeping is an effective method to reduce pollutant loading in runoff generated from paved areas. Street sweeping shall be performed quarterly at a minimum, with additional sweeping scheduled if obvious accumulation of significant solids is present.

Stormceptor STC 450i

The Stormceptor STC 450i unit will be inspected and/or cleaned at least four times per year. Two of the cleaning events shall coincide with the end of the foliage and snow removal seasons. More frequent inspections shall be performed if needed, to maintain the performance efficiency of the unit. Sediment shall be removed four times per year or whenever the depth of the deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the basin. Sediment shall be removed and disposed of with a truck-mounted vacuum unit or other appropriate apparatus. The sediment will be disposed of at an approved off-site location in accordance with all applicable local, state, and federal regulations. Inspect immediately after an oil, fuel, or chemical spill that may have reached the unit. A licensed waste management company should be retained to remove oil and sediment, and dispose of the material properly. See attached STC 450i maintenance manual for more details.

Snow Storage / Removal

Snow removed from the proposed driveways and walkways will be relocated or disposed of in accordance with the policies developed by DES. Snow from areas requiring removal that cannot be stored on site will be collected and hauled off site.

De-icing

De-icing of paved areas during the winter months shall be accomplished using calcium chloride (or approved equivalent) limited to the minimum amount practicable. Sand containing the minimum amount of calcium chloride (or approved equivalent) needed for improved traction may also be applied as part of the routine winter maintenance activities. Areas where sand is used during the winter will be targeted for sweeping and removal in early spring.

Vegetated Areas

Vegetated areas on the site shall be stabilized and maintained to control erosion. Disturbed areas shall be re-seeded as soon as practicable. Landscaped areas will be maintained to provide continued beneficial function.

OSHA Regulations

Work within drainage structures shall be performed in accordance with the latest Occupational Safety and Health Administration (OSHA) regulations, and only by individuals with appropriate OSHA certification.

Maintenance Responsibilities

Post-construction stormwater-related maintenance activities shall be documented and kept on file and made available to the proper City and State authorities upon request.

Transfer of Ownership

If ownership of the property is transferred, the new owner(s) shall become the responsible party(ies). The grantor will provide notice to the new owner of this plan.

Estimated Operations and Maintenance Budget

It is anticipated that the stormwater system including the Stormceptors and subsurface infiltration/detention system will be maintained by the operator. An annual budget of approximately \$5,000 a year is recommended to be specified in the owner's documents for operations and maintenance obligations.

Inspection and Maintenance. Easy. Convenient.

When it rains, oils, sediment and other contaminants are captured and contained by over 40,000 Stormceptor units operating worldwide. While Stormceptor's patented scour prevention technology ensures captured pollutants remain in the unit during all rainfall events, the accumulated pollutants must eventually be removed as part of a regular maintenance program.

If neglected, oil and sediment gradually build up and diminish any BMP's efficiency, harming the environment and leaving owners and operators vulnerable to fines, surcharges and bad publicity.

Maintenance is a must

Ease, frequency and cost of maintenance are often overlooked by specifiers when considering the merits of a stormwater treatment system. In reality, maintenance is fundamental to the long-term performance of any stormwater quality treatment device.

While regular maintenance is crucial, it shouldn't be complicated. An ongoing maintenance program with Stormceptor is convenient and practically effortless. With virtually no disruptions, you can concentrate on your core business.

Quick inspections

Inspections are easily carried out above ground from any standard surface access cover through a visual inspection of the orifice and drop tee components. A sludge judge and oil dip-stick are all that are needed for sediment and oil depth measurements.

Easy unit access

Maintenance is typically conducted from the same surface access cover, eliminating the need for confined space entry into the unit. Your site remains undisturbed, saving you time and money.



No muss, no fuss and fast

Maintenance is performed quickly and inexpensively with a standard vacuum truck. Servicing usually takes less than two hours, with no disruption to your site.

A complete stormwater management plan for Stormceptor extends beyond installation and performance to regular maintenance. It's the smart, cost-effective way to ensure your unit continues to remove more pollutants than any other separator for decades to come.



Stormceptor maintenance recommendations

- Units should be inspected post-construction, prior to being put into service.
- Inspect every six months for the first year of operation to determine the oil and sediment accumulation rate.
- In subsequent years, inspections can be based on first-year observations or local requirements.
- Cleaning is recommended once the sediment depth reaches 15% of storage capacity, (generally taking one year or longer). Local regulations for maintenance frequency may vary.
- Inspect the unit immediately after an oil, fuel or chemical spill.
- A licensed waste management company should remove captured petroleum waste products from any oil, chemical or fuel spills and dispose responsibly.

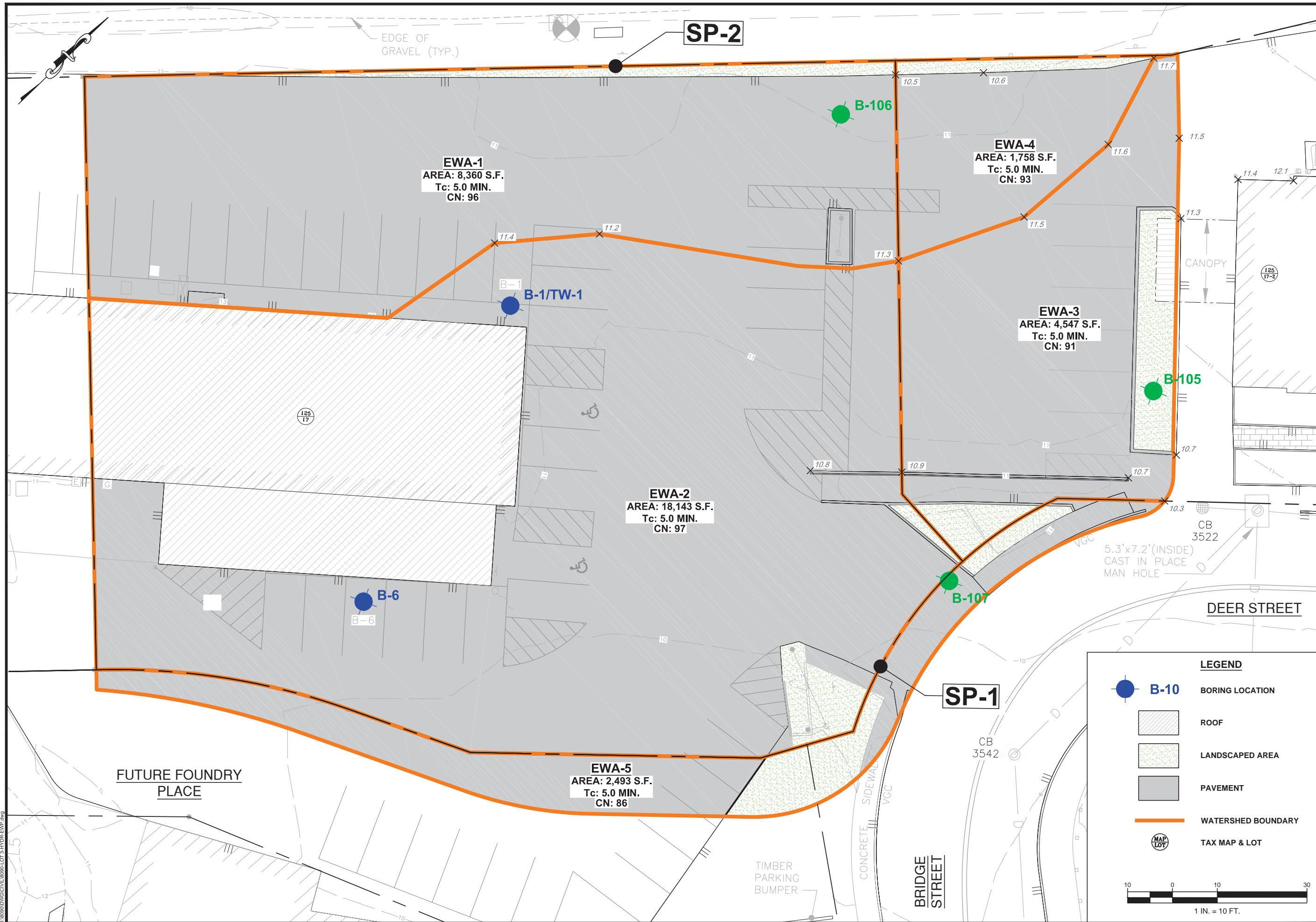
With over 40,000 units operating worldwide, Stormceptor performs and protects every day, in every storm.



www.imbriumsystems.com

USA: (888) 279 8626
CANADA: (800) 565 4801

APPENDIX F
EXISTING WATERSHED PLAN



SP-2

SP-1

EWA-1
 AREA: 8,360 S.F.
 Tc: 5.0 MIN.
 CN: 96

EWA-4
 AREA: 1,758 S.F.
 Tc: 5.0 MIN.
 CN: 93

EWA-3
 AREA: 4,547 S.F.
 Tc: 5.0 MIN.
 CN: 91

EWA-2
 AREA: 18,143 S.F.
 Tc: 5.0 MIN.
 CN: 97

EWA-5
 AREA: 2,493 S.F.
 Tc: 5.0 MIN.
 CN: 86

B-1/TW-1

B-6

B-106

B-107

B-105

EDGE OF GRAVEL (TYP.)

CANOPY

5.3'x7.2' (INSIDE)
 CAST IN PLACE
 MAN HOLE

DEER STREET

BRIDGE STREET

FUTURE FOUNDRY PLACE

TIMBER PARKING BUMPER

CONCRETE SIDEWALK

CB 3542

CB 3522

125 17-2

125 17

LEGEND

- B-10 BORING LOCATION
- ROOF
- LANDSCAPED AREA
- PAVEMENT
- WATERSHED BOUNDARY
- TAX MAP & LOT

10 0 10 30
 1 IN. = 10 FT.

PREPARED BY:

GeoInsight
Practical in Nature
 188 GRANITE STREET, SUITE 3A
 MANCHESTER, NEW HAMPSHIRE 03101
 PH: (603) 314-0820 FAX: (603) 314-0821
 ENVIRONMENTAL STRATEGY AND ENGINEERING

OWNER/APPLICANT:
DEER STREET ASSOCIATES
 7 BANKS ROCK ROAD
 YORK HARBOR, ME 03911
 PH: (207) 363-3540

DEER STREET ASSOCIATES
RESIDENCES AT FOUNDRY PLACE, LOTS 3 & 4
163 & 165 DEER STREET PORTSMOUTH, NH
(TAX MAP 125, LOTS 17 & 17-2)

REVISIONS

DATE	DESCRIPTION
11.17.2017	TAC SUBMISSION
12.15.2017	TAC #3 SUBMISSION

DWG SCALE: 1" = 10'	PREPARED BY: LM
DATE ISSUED: 11/17/17	CHECKED BY: JHK
PROJECT #: 8090	APPROVED BY: MCP

DRAWING TITLE:
EXISTING WATERSHED PLAN

DRAWING #:
EWP

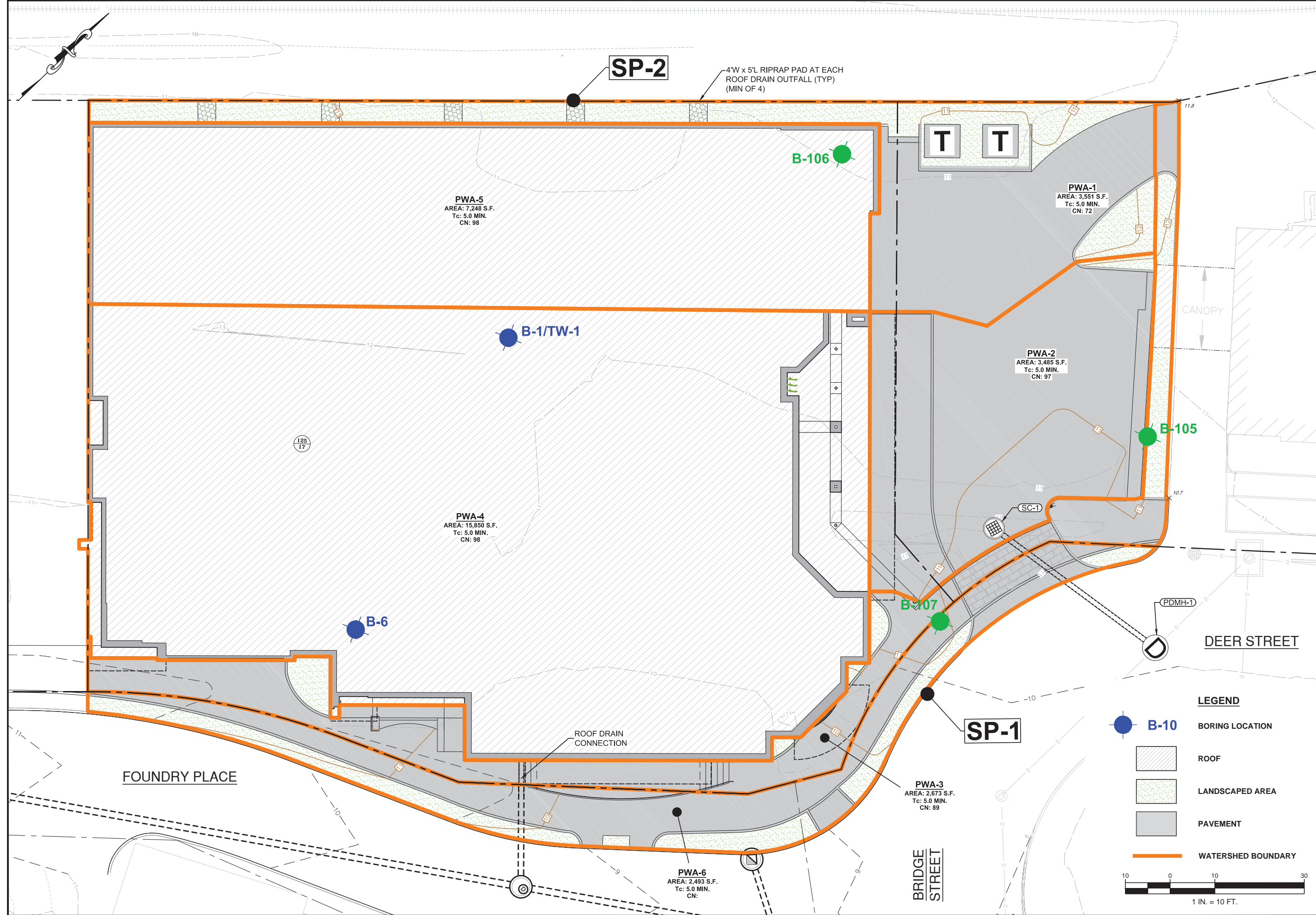
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APPENDIX G
PROPOSED WATERSHED PLAN






DEER SREET ASSOCIATES
RESIDENCES AT FOUNDRY PLACE, LOTS 3 & 4
163 & 165 DEER STREET PORTSMOUTH, NH
(TAX MAP 125, LOTS 17 & 17-2)

REVISIONS	
DATE	DESCRIPTION
11.17.2017	TAC SUBMISSION
12.15.2017	TAC #3 SUBMISSION

DWG SCALE: 1" = 10' PREPARED BY: LM
DATE ISSUED: 11/17/17 CHECKED BY: JHK
PROJECT #: 8090 APPROVED BY: MCP



LEGEND

-  **B-10** BORING LOCATION
-  ROOF
-  LANDSCAPED AREA
-  PAVEMENT
-  WATERSHED BOUNDARY

10 0 10 30
1 IN. = 10 FT.

APPENDIX H

EROSION AND SEDIMENTATION CONTROL PLAN



ARCHITECTS
INTERIORS
PLANNERS

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801
T 603.436.2551
F 603.436.6973
www.jsainc.com

GEOSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDERSEN, INC.
LANDSCAPE ARCHITECT
PORTSMOUTH, NEW HAMPSHIRE

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPP ENGINEER
WOBURN, MASSACHUSETTS

ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

**THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5**

PORTSMOUTH, NH 03801

OWNER:

Deer Street Associates

7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E Seal:



Scale:
Date: **3/17/2017**
Project Number: **14837.02**

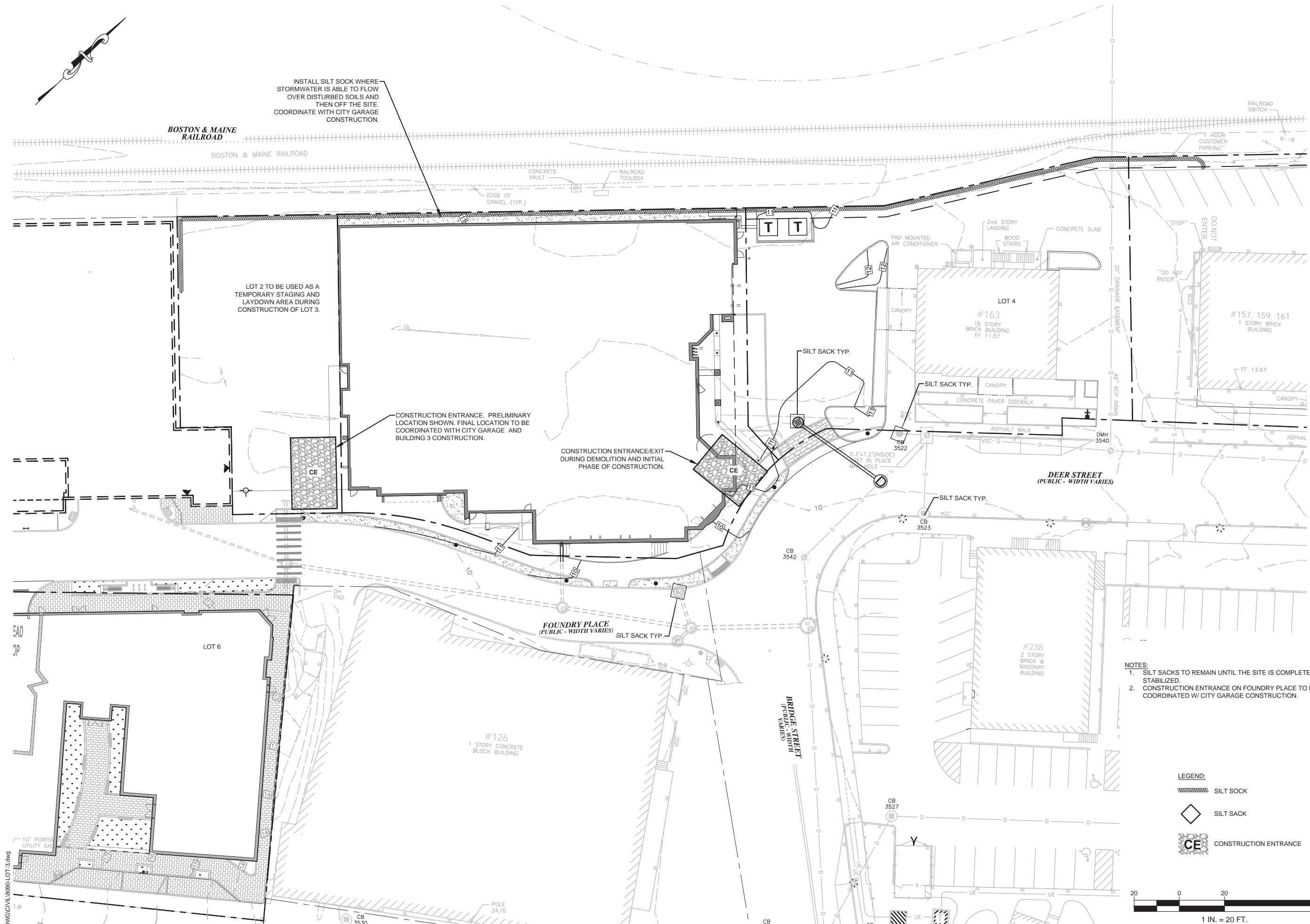
REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	3/17/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017

SITE PLAN REVIEW

**EROSION &
SEDIMENT
CONTROL
PLAN**

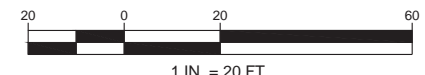
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- NOTES:
1. SILT SOCKS TO REMAIN UNTIL THE SITE IS COMPLETE STABILIZED.
 2. CONSTRUCTION ENTRANCE ON FOUNDRY PLACE TO BE COORDINATED W/ CITY GARAGE CONSTRUCTION.

- LEGEND:
- [Hatched Box] SILT SOCK
 - [Diamond] SILT SACK
 - [CE Box] CONSTRUCTION ENTRANCE



PERMIT PLANS - NOT FOR CONSTRUCTION

1:\80800\DVGCIV\18080-LOT-3.dwg

APPENDIX I

STORMCEPTOR[®] DATA AND PIPE CALCULATION

Detailed Stormceptor Sizing Report – Lot 3

Project Information & Location			
Project Name	Lot 3	Project Number	8090
City	Portsmouth	State/ Province	New Hampshire
Country	United States of America	Date	11/17/2017
Designer Information		EOR Information (optional)	
Name	Joseph Kieffner	Name	
Company	Geolnsight, Inc.	Company	
Phone #	603-314-0820	Phone #	
Email	jhkiefner@geoinc.com	Email	

Stormwater Treatment Recommendation

The recommended Stormceptor Model(s) which achieve or exceed the user defined water quality objective for each site within the project are listed in the below Sizing Summary table.

Site Name	Lot 3
Recommended Stormceptor Model	STC 450i
Target TSS Removal (%)	80.0
TSS Removal (%) Provided	
PSD	OK-110
Rainfall Station	BOSTON WSFO AP

The recommended Stormceptor model achieves the water quality objectives based on the selected inputs, historical rainfall records and selected particle size distribution.

Stormceptor Sizing Summary	
Stormceptor Model	% TSS Removal Provided
STC 450i	97
STC 900	98
STC 1200	98
STC 1800	99
STC 2400	99
STC 3600	99
STC 4800	99
STC 6000	99
STC 7200	100
STC 11000	100
STC 13000	100
STC 16000	100
StormceptorMAX	Custom

Stormceptor

The Stormceptor oil and sediment separator is sized to treat stormwater runoff by removing pollutants through gravity separation and flotation. Stormceptor’s patented design generates positive TSS removal for each rainfall event, including large storms. Significant levels of pollutants such as heavy metals, free oils and nutrients are prevented from entering natural water resources and the re-suspension of previously captured sediment (scour) does not occur. Stormceptor provides a high level of TSS removal for small frequent storm events that represent the majority of annual rainfall volume and pollutant load. Positive treatment continues for large infrequent events, however, such events have little impact on the average annual TSS removal as they represent a small percentage of the total runoff volume and pollutant load.

Design Methodology

Stormceptor is sized using PCSWMM for Stormceptor, a continuous simulation model based on US EPA SWMM. The program calculates hydrology using local historical rainfall data and specified site parameters. With US EPA SWMM’s precision, every Stormceptor unit is designed to achieve a defined water quality objective. The TSS removal data presented follows US EPA guidelines to reduce the average annual TSS load. The Stormceptor’s unit process for TSS removal is settling. The settling model calculates TSS removal by analyzing:

- Site parameters
- Continuous historical rainfall data, including duration, distribution, peaks & inter-event dry periods
- Particle size distribution, and associated settling velocities (Stokes Law, corrected for drag)
- TSS load
- Detention time of the system

Hydrology Analysis

PCSWMM for Stormceptor calculates annual hydrology with the US EPA SWMM and local continuous historical rainfall data. Performance calculations of Stormceptor are based on the average annual removal of TSS for the selected site parameters. The Stormceptor is engineered to capture sediment particles by treating the required average annual runoff volume, ensuring positive removal efficiency is maintained during each rainfall event, and preventing negative removal efficiency (scour). Smaller recurring storms account for the majority of rainfall events and average annual runoff volume, as observed in the historical rainfall data analyses presented in this section.

Rainfall Station

State/Province	Massachusetts	Total Number of Rainfall Events	10040
Rainfall Station Name	BOSTON WSFO AP	Total Rainfall (in)	2457.1
Station ID #	0770	Average Annual Rainfall (in)	42.4
Coordinates	42°21'38"N, 71°0'38"W	Total Evaporation (in)	215.0
Elevation (ft)	20	Total Infiltration (in)	28.8
Years of Rainfall Data	58	Total Rainfall that is Runoff (in)	2213.3

Notes

- Stormceptor performance estimates are based on simulations using PCSWMM for Stormceptor, which uses the EPA Rainfall and Runoff modules.
- Design estimates listed are only representative of specific project requirements based on total suspended solids (TSS) removal defined by the selected PSD, and based on stable site conditions only, after construction is completed.
- For submerged applications or sites specific to spill control, please contact your local Stormceptor representative for further design assistance.

Drainage Area	
Total Area (acres)	0.08
Imperviousness %	98.8

Water Quality Objective	
TSS Removal (%)	80.0
Runoff Volume Capture (%)	
Oil Spill Capture Volume (Gal)	
Peak Conveyed Flow Rate (CFS)	0.48
Water Quality Flow Rate (CFS)	

Up Stream Storage	
Storage (ac-ft)	Discharge (cfs)
0.000	0.000

Up Stream Flow Diversion	
Max. Flow to Stormceptor (cfs)	

Design Details	
Stormceptor Inlet Invert Elev (ft)	
Stormceptor Outlet Invert Elev (ft)	5.81
Stormceptor Rim Elev (ft)	10.66
Normal Water Level Elevation (ft)	
Pipe Diameter (in)	12
Pipe Material	HDPE - plastic
Multiple Inlets (Y/N)	No
Grate Inlet (Y/N)	Yes

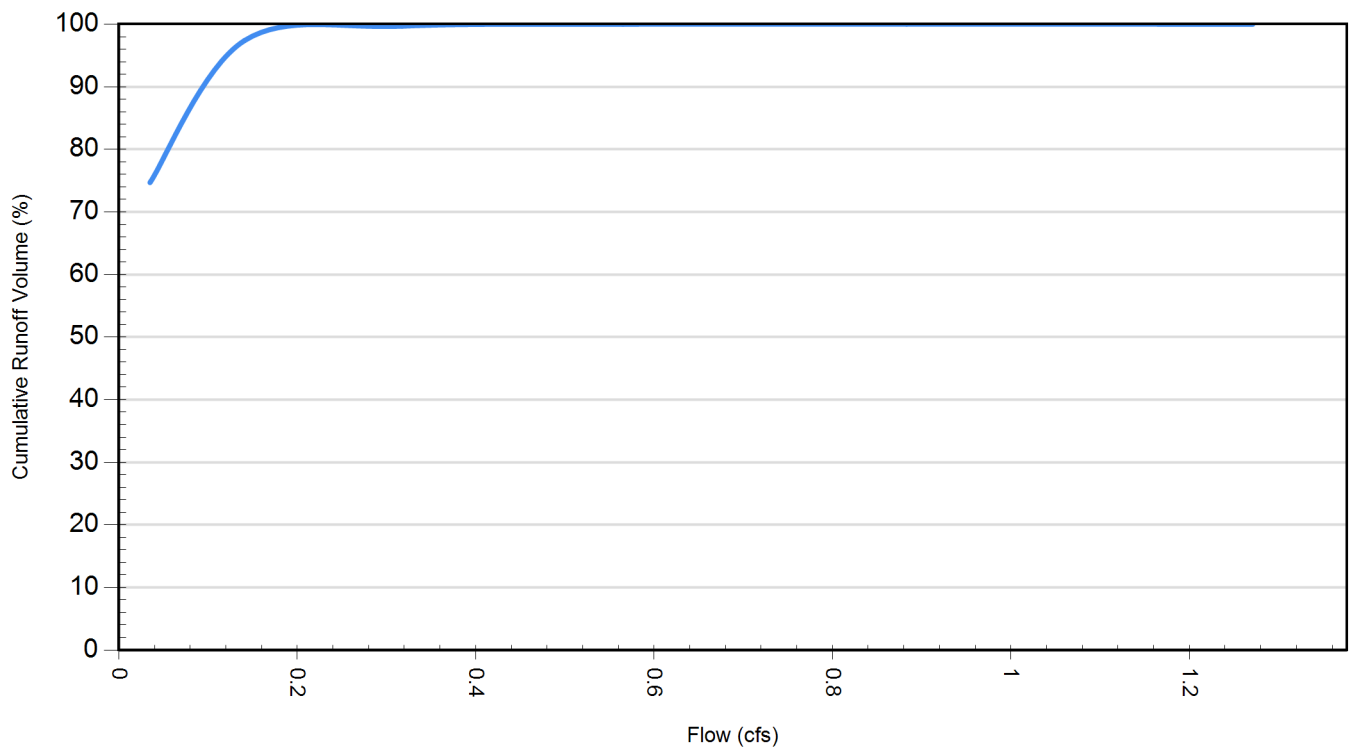
Particle Size Distribution (PSD)		
Removing the smallest fraction of particulates from runoff ensures the majority of pollutants, such as metals, hydrocarbons and nutrients are captured. The table below identifies the Particle Size Distribution (PSD) that was selected to define TSS removal for the Stormceptor design.		
OK-110		
Particle Diameter (microns)	Distribution %	Specific Gravity
1.0	0.0	2.65
53.0	3.0	2.65
75.0	15.0	2.65
88.0	25.0	2.65
106.0	41.0	2.65
125.0	15.0	2.65
150.0	1.0	2.65
212.0	0.0	2.65

Site Name		Lot 3	
Site Details			
Drainage Area		Infiltration Parameters	
Total Area (acres)	0.08	Horton's equation is used to estimate infiltration	
Imperviousness %	98.8	Max. Infiltration Rate (in/hr)	2.44
Surface Characteristics		Min. Infiltration Rate (in/hr)	0.4
Width (ft)	118.00	Decay Rate (1/sec)	0.00055
Slope %	2	Regeneration Rate (1/sec)	0.01
Impervious Depression Storage (in)	0.02	Evaporation	
Pervious Depression Storage (in)	0.2	Daily Evaporation Rate (in/day)	0.1
Impervious Manning's n	0.015	Dry Weather Flow	
Pervious Manning's n	0.25	Dry Weather Flow (cfs)	0
Maintenance Frequency		Winter Months	
Maintenance Frequency (months) >	12	Winter Infiltration	0
TSS Loading Parameters			
TSS Loading Function			
Buildup/Wash-off Parameters		TSS Availability Parameters	
Target Event Mean Conc. (EMC) mg/L		Availability Constant A	
Exponential Buildup Power		Availability Factor B	
Exponential Washoff Exponent		Availability Exponent C	
		Min. Particle Size Affected by Availability (micron)	

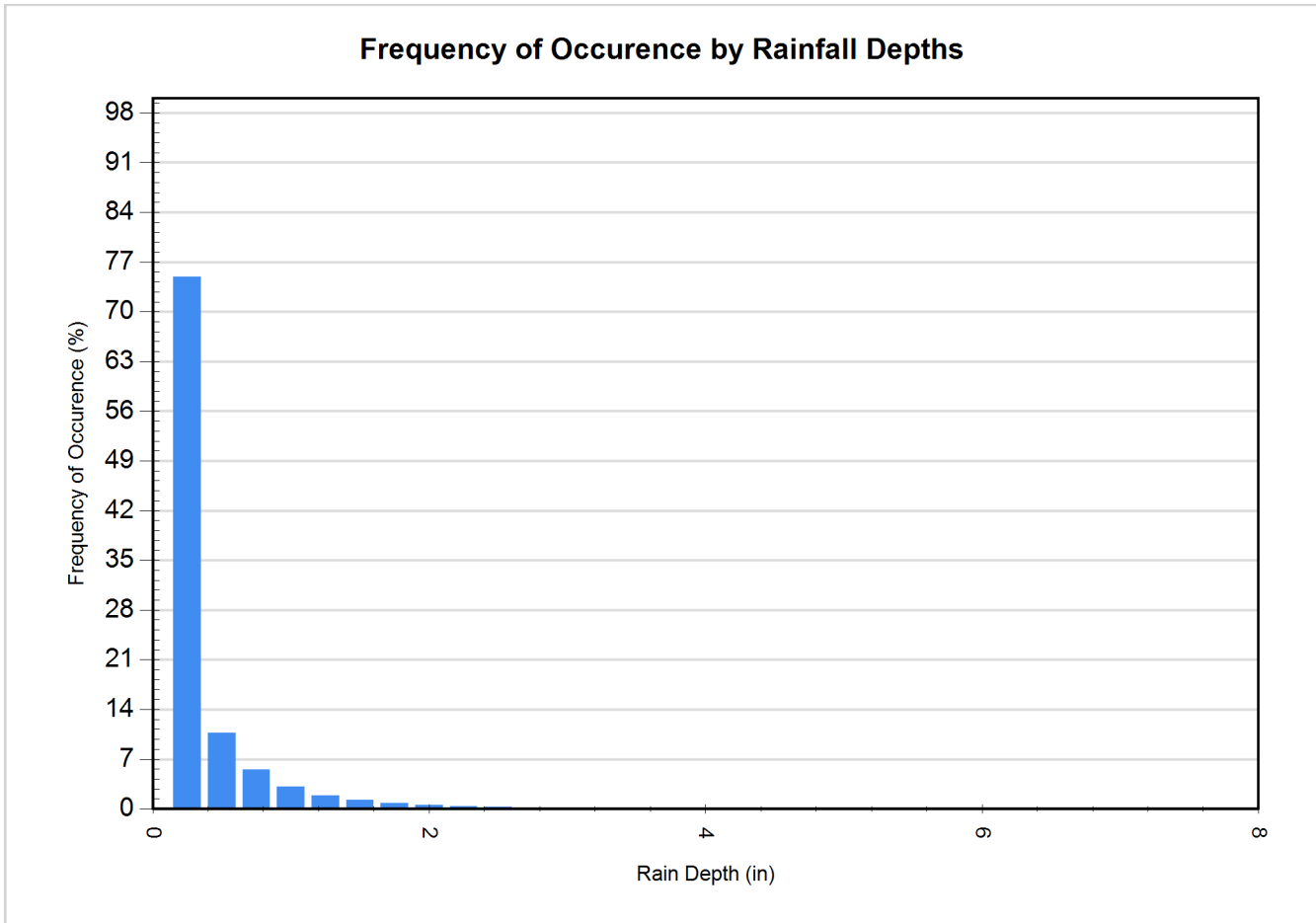
Cumulative Runoff Volume by Runoff Rate			
Runoff Rate (cfs)	Runoff Volume (ft³)	Volume Over (ft³)	Cumulative Runoff Volume (%)
0.035	497690	168556	74.7
0.141	648734	17429	97.4
0.318	664293	1851	99.7
0.565	666064	78	100.0
0.883	666141	0	100.0
1.271	666141	0	100.0

Cumulative Runoff Volume by Runoff Rate

For area: 0.08(ac), imperviousness: 98.8%, rainfall station: BOSTON WSFO AP



Rainfall Event Analysis				
Rainfall Depth (in)	No. of Events	Percentage of Total Events (%)	Total Volume (in)	Percentage of Annual Volume (%)
0.25	7519	74.9	454	18.5
0.50	1075	10.7	395	16.1
0.75	548	5.5	340	13.9
1.00	315	3.1	274	11.2
1.25	192	1.9	216	8.8
1.50	127	1.3	176	7.2
1.75	84	0.8	136	5.5
2.00	52	0.5	97	3.9
2.25	38	0.4	81	3.3
2.50	28	0.3	67	2.7
2.75	14	0.1	37	1.5
3.00	15	0.1	43	1.7
3.25	4	0.0	12	0.5
3.50	5	0.0	17	0.7
3.75	4	0.0	15	0.6
4.00	2	0.0	8	0.3
4.25	5	0.0	21	0.8
4.50	1	0.0	4	0.2
4.75	1	0.0	5	0.2
5.00	4	0.0	20	0.8
5.25	1	0.0	5	0.2
5.50	0	0.0	0	0.0
5.75	3	0.0	17	0.7
6.00	0	0.0	0	0.0
6.25	2	0.0	12	0.5
6.50	0	0.0	0	0.0
6.75	0	0.0	0	0.0
7.00	0	0.0	0	0.0
7.25	1	0.0	7	0.3
7.50	0	0.0	0	0.0
7.75	0	0.0	0	0.0



**For Stormceptor Specifications and Drawings Please Visit:
<http://www.imbriumsystems.com/technical-specifications>**



Computation Sheet

Title: Rational Method Pipe Sizing Spreadsheet
Project: Deer Street Development - Lot 3
Date: November 17, 2017
Project Number: 8090
Storm Event: 25-Year Storm
Cc-factor: 1.10

Location: Portsmouth, NH
Designed By: JHK
Checked By: MCP
Revised: 12/15/2017

LOCATION			DRAINAGE AREA					RUNOFF		FLOW IN PIPE											
Description	From	To	(Acres)					(cfs)		PIPE				FULL FLOW		DESIGN FLOW					
			Area Ac	Runoff Coeff., Cc	Increment CA	Sum CA	Duration (Tc)	Intensity (In/Hr)	Design Flow	Diam (In.)	Length (Ft.)	Slope (Ft./Ft.)	Manning Coeff.	Capacity (Cfs)	Velocity (Fps)	Depth (Ft.)	Velocity (Fps.)	Time In Section	Angle	Hydraulic Radius	PIPE % FULL
PWA Areas																					
PWA-4	ROOF	Foundry Place	0.364	1.00	0.36		5.0	7.7	2.77	12	29	0.0104	0.012	3.9	5.0	0.63	5.4	0.1	2.62	0.28	71
PWA-2	SC-1	PDMH-1	0.081	0.98	0.08		5.0	6.0	0.48	12	45	0.005	0.012	2.7	3.5	0.29	2.7	0.3	2.27	0.17	18

100 Yr value used by MEP per Plumbing Code for Building drains.
 Intensity values taken from the NECC/Cornel extreme precipitation data.

GARAGE EVAPORATIVE TRENCH DRAIN OPERATION & MAINTENANCE

The proper performance of evaporative trench drains relies upon maintaining the flow paths into the trench drain and maintaining the appropriate temporary storage volume in the drain structure.

Maintenance of flow paths includes making sure that objects or structures are not present that might block flow into the drain structure and also that there is not material (trash, frozen, snow, etc.) blocking the inlets into the drain.

Maintaining the volume includes periodically inspecting the level of the water inside the trench to see if it requires pumping and removal due to conditions being unlikely to promote evaporation. This inspection will also function to identify if there is significant sheen or other evidence of contaminants present visually that would be best removed proactively to minimize overall future maintenance efforts.

Otherwise, the normal maintenance will include regular cleaning (at least twice a year) by opening the cover/grate, and removing accumulated sediment, debris, and accumulated pollutant materials (grease and oil). These materials may be vacuumed by a specialty contractor or wiped out with disposable rags.

Sweeping of the garage floor may be beneficial to reduce the amount of materials that may accumulate in the trench drain.

The cleaning frequency is dependent upon the capacity of the trench drain and use of the garage.



January 10, 2018

Revised: January 18, 2018

Juliet T. H. Walker, AICP, Planning Director
Portsmouth Planning Department
City Hall, 1 Junkins Ave.
Portsmouth, NH 03801

**Re: Review of Deer Street Associates Lot 3 Stormwater and Drainage
Developer: Foundry Place LLC, York, ME
CMA #1093**

Dear Ms. Walker:

At the City's request, CMA Engineers has reviewed materials supporting the drainage analysis and design for the proposed development at Lot 3 of the Deer Street Associates (DSA) project, known as the Hotel at Foundry Place at 165 Deer Street in Portsmouth.

For this evaluation, we reviewed the following information:

1. Plans: *The Hotel at Foundry Place, "Lot 3": 165 Deer Street, Assessors Map 125 Lot 17, Site Plan Review*, dated November 17, 2017, as prepared by JSA and GeoInsight, Inc.
2. Stormwater Report & Analysis: *Deer Street Associates, LLP, Development Design Approval Package*, revision date 11/17/17, Attachment E, *Stormwater Management Plan*, prepared by GeoInsight, Inc.

We have reviewed the drainage plans and analysis for conformance with the City of Portsmouth's Site Plan Review Regulations and Ordinances.

REVIEW OF DRAINAGE ANALYSIS

The applicant proposes to redevelop 165 Deer Street with a new building that will consist of hotel, retail space and restaurant, with associated driveways, parking, sidewalks, outdoor seating, and landscaped areas. Currently, the 32,200-sf site is a paved parking lot used for construction worker parking with sections of gravel where buildings were demolished and removed. For the pre and post-development stormwater flow comparison, the analysis assumes the pre-development conditions consist of the former Gary's Beverage building and associated paved parking. Under that condition, the site was nearly all impervious (96.4%).

Similar to the pre-development conditions, the proposed development will cover much of the site with impervious surfaces (95.5%). Stormwater runoff from the site will discharge to the north onto the B&M

railroad tracks via roof downspouts or sheet flow; collect in a Stormceptor unit in the driveway that discharges to the municipal closed drainage system in Deer Street; or sheet flow to Deer Street where it will be collected in the Deer St closed drainage system. These watersheds ultimately discharge to North Mill Pond.

GoInsight prepared a HydroCAD analysis of the pre and post-development conditions consisting of two watersheds contributing to two Design Points. Design Point one is the stormwater runoff to Deer Street and Design Point two is the runoff to the railroad ROW. Because the pre-development condition was mostly impervious, there is little change in the proposed runoff volume or peak flow rates. There are no peak flow or runoff volume reduction features planned; the Stormceptor unit is the only water quality unit planned. The report mentions a planned “green roof” in the conceptual design stage, but does not include this feature in the analysis. There is an evaporative trench drain proposed for the parking garage, which does not discharge from the garage.

Based on our review, we offer the following comments, for consideration:

Site Plan Review Regulations

For items for which we had comments, we have included the applicable sections of the Site Plan Review Regulations in italics with our comments below.

1. **Section 4.3.1:** *Every effort shall be made to use pervious parking and pathway surfaces as an alternative to impervious asphalt or concrete for overflow parking areas, except in cases where it is determined that a traditional impervious parking lot with engineered stormwater systems renders greater protection of surface and groundwater resources than pervious pavement.*

The proposed plan includes no pervious parking or pathway surfaces. The applicant should describe why pervious surfaces are not viable for this project.

2. **Section 7.1:** *Applicants shall incorporate Low Impact Development (LID) design practices and techniques in all aspects of the site’s development.*

The only proposed LID’s for the site are the structural BMP (Stormceptor) and potentially a portion of green roof. Only 3,790 sf (approximately 12%) of the site drains to the Stormceptor. This configuration results in significant portions of impervious areas discharging untreated stormwater runoff.

3. **Section 7.4.1.3:** *The applicant shall submit documentation demonstrating how stormwater treatment devices shall be maintained.*

The parking garage includes an “evaporative trench drain” to collect water from rainwater/snowmelt off cars. The applicant should confirm this trench drain, with no discharge outlet, is appropriate for this application and include its required maintenance in the *Long-Term Operations and Maintenance Program*.

4. **Section 7.4.2.4:** *Snow storage areas shall be located such that no direct discharges to receiving waters are possible from the storage site. Runoff from snow storage areas shall enter treatment areas to remove suspended solids and other contaminants before being discharged to receiving waters or preferably be allowed to infiltrate into the groundwater.*

Snow storage areas were not identified on the Site Plan. There does not appear to be potential treatment areas for snow storage runoff.

5. **Section 7.4.2.6:** *Efforts shall be made to utilize methods that intercept, treat, and infiltrate runoff throughout the site including, but not limited to, infiltration trenches, drainfields, dry wells, bioretention areas, level spreaders, filter strips, wetlands, vegetated swales, gravel wetlands, rain gardens, and tree boxes.*

The plan includes no infiltration of groundwater recharge features. The report claims infiltration is not feasible on the site because of the shallow depth (4-feet) to the seasonal high-water table (SHWT) and native clay soil layer; however, the included borings show the shallowest groundwater depth to be 7.4-feet and the clay layer 5.5-feet from the ground surface (we note, the borings were done in the fall when groundwater depths may be low). This depth is probably adequate to provide filter and infiltration BMP's (filter strips, rain gardens/bioretention areas, permeable paving), which require no more than 1' separation from the bottom of the BMP to the SHWT.

6. **Section 7.4.2.7:** *Applicants shall demonstrate why on-site infiltration approaches are not possible or adequate before proposing the use of conventional systems that rely on collection and conveyance to remove runoff from the site.*

See comments 1 and 5.

7. **Section 7.4.2.8:** *Measures shall be taken to control the post-development peak rate of runoff so that it does not exceed pre-development runoff for the 2, 10, 25, and 50-year, 24-hour storm event.*

The post development runoff rates match the pre-development peak flow rates because the applicant considered the site impervious in the pre-development condition. However, the post-development analysis divided the runoff from the roof, which is significant (~75% of total runoff), between the design points. This division of runoff cannot be discerned from the plans reviewed. The applicant should provide a roof drainage plan that demonstrates how the roof drains and confirms the division directed to the railroad ROW and Deer St is as presented and equal to the pre-development peak flows.

8. **Section 7.4.2.10:** *For a storm event of ½ inch or less, the applicant shall demonstrate that stormwater management practices will remove contaminants from the stormwater runoff that leaves the site. The use of oil and grit traps in manholes, on-site vegetated waterways,*

and vegetated buffer strips along waterways and drainage swales, and the reduction in use of deicing salts and fertilizers may be required by the Planning Board.

Not provided. See also Comment 2.

9. **Section 7.4.3.1:** *All applications shall minimize the area of impervious surfaces, and address the potential negative impact of impervious surfaces on surface and groundwater resources.*

The proposed site is more than 95% impervious, similar to pre-development conditions.

City Ordinances, Chapter 16, Article II, Regulation of Discharges into Storm Water Drainage System

Under this ordinance, Section 16.207.A, the applicant is required to obtain a permit from the City to connect to the Stormwater drainage system.

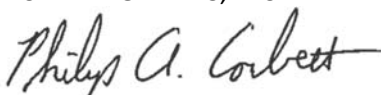
General Comments

1. Planned improvements that will serve this building on Lot 3 are on Lot 4, including the proposed Stormceptor and drain pipe. The applicant should have agreements and easements in place to ensure that current and future owners of Lot 3 have the rights to maintain and repair these systems, and to ensure these systems remain in-place and functional.
2. We understand from information provided from the City, that portions of the stormwater drainage system adjacent to the project will be separated from the sanitary sewer as a part of the development in the area. This separation will add stormwater runoff flows that previously discharged to the sanitary sewer to the stormwater drainage system and outfalls. The downstream stormwater drainage systems should be evaluated to ensure these systems have the capacity to accept additional flows.
3. The applicant should strive for greater treatment, infiltration, and volume reduction of the sites' stormwater runoff, or describe why such treatments are not viable. This redevelopment presents an opportunity to improve treatment and reduce the stormwater discharge from the site, compared to pre-development conditions. However, it appears that limited means are proposed to achieve this improvement.

Should you have any questions, please do not hesitate to contact us.

Very truly yours,

CMA ENGINEERS, INC.



Philip A. Corbett, P.E.

Project Manager

PAC/ams



Environmental Strategy & Engineering

January 24, 2018

GeoInsight Project 8090-000

Juliet T. H. Walker, AICP, Planning Director
Portsmouth Planning Department
City Hall, 1 Junkins Ave.
Portsmouth, NH 03801

Re: Response to Stormwater Management Report 3rd Party Review
Foundry Place LLC Lot 3 Stormwater & Drainage Report
165 Deer Street
Portsmouth, NH

Ms. Walker:

At the request of Foundry Place LLC, GeoInsight, Inc. (GeoInsight) prepared this letter to provide a response to a January 10, 2018 (*Revised: January 18, 2018*) letter report prepared on behalf of the City of Portsmouth by CMA Engineers, Inc. (CMA). The letter described CMA's 3rd party review of GeoInsight's Stormwater Management Report for the project known as the Hotel at Foundry Place at 165 Deer Street (Lot 3) in Portsmouth, being developed by Foundry Place, LLC. GeoInsight understands that CMA reviewed documents and drawings prepared by GeoInsight for their evaluation.

Importantly, it appears that CMA did not review the latest GeoInsight stormwater report (Revision 12/15/17) provided to the City for the stormwater peer review based on this statement from the CMA letter:

"For this evaluation, we reviewed the following information:

1. Plans: *The Hotel at Foundry Place, "Lot 3": 165 Deer Street, Assessors Map 125 Lot 17, Site Plan Review*, dated November 17, 2017, as prepared by JSA and GeoInsight, Inc.
2. Stormwater Report & Analysis: *Deer Street Associates, LLP, Development Design Approval Package*, revision date 11/17/17, Attachment E, *Stormwater Management Plan*, prepared by GeoInsight, Inc."

GeoInsight sent an email to the City on December 22, 2017 with a link to the updated December 15, 2017 report. Attachment A to this letter includes a copy of the email chain with the City referencing the availability of updated report and a link to it. The updated report can be found at this link:

GeoInsight, Inc.
186 Granite Street, 3rd Floor, Side A
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One Monarch Drive, Suite 201
Littleton, MA 01460-1440
Tel (978) 679-1600
Fax (978) 679-1601

GeoInsight, Inc.
200 Court Street, 2nd Floor
Middletown, CT 06457-3341
Tel (860) 894-1022
Fax (860) 894-1023

GeoInsight, Inc.
4 Market Place Dr, 2nd Flr
York, ME 03909
Tel (207) 606-1043



<https://www.dropbox.com/s/udvni3yqis0vy7h/Attachment%20C%20Updated%20Stormwater%20Management%20Report.pdf?dl=0>

Foundry Place, LLC. signed the CMA scope of work on January 2, 2018. The December 15, 2017 report has updated information in it that would have addressed several CMA's comments in their January 18, 2018 (revised) letter report.

In the interest of trying to maintain as prompt an approval schedule as possible with the City, GeoInsight has nonetheless provided responses to CMA's comments herein, and we have referenced the updated report where applicable.

CMA comment

1. Section 4.3.1: *Every effort shall be made to use pervious parking and pathway surfaces as an alternative to impervious asphalt or concrete for overflow parking areas, except in cases where it is determined that a traditional impervious parking lot with engineered stormwater systems renders greater protection of surface and groundwater resources than pervious pavement.*

The proposed plan includes no pervious parking or pathway surfaces. The applicant should describe why pervious surfaces are not viable for this project.

GeoInsight Response

Long-term maintenance costs outweigh benefits given the relatively small temporary parking and pathway areas exposed. A significant portion of the sidewalks that will be constructed as part of the development will belong to the City, and sidewalks for Lot 3 have been designed to city standards, similar to the city's new Foundry Place roadway and sidewalks. Because nearly all stormwater is intercepted and treated by swale/overland flow (roof runoff), water quality treatment (Stormceptor), and volume reduction (tree wells and vegetated areas), we feel the efforts proposed are reasonable for the site.

CMA comment

2. Section 7.1: *Applicants shall incorporate Low Impact Development (LID) design practices and techniques in all aspects of the site's development.*

The only proposed LID's for the site are the structural BMP (Stormceptor) and potentially a portion of green roof. Only 3,790 sf (approximately 12%) of the site drains to the Stormceptor. This configuration results in significant portions of impervious areas discharging untreated stormwater runoff.

GeoInsight Response

Approximately 31 percent of the proposed roof area and 38 percent of the proposed pavement will receive treatment from the 275-foot (plus) vegetated overland flow to B&M storm inlets. In addition, the proposed Stormceptor treatment unit will treat 37 percent of the pavement runoff and the proposed LID vegetated areas in the sidewalks will treat most of the runoff from the public sidewalk (Refer to Landscape Plan attached). While we know runoff from roof surfaces is not considered clean water, the roof pollutant load is significantly lower than pavement. The proposed development reduces the amount of pavement by 67 percent from the existing conditions. The proposed building roof occupies 69 percent of the



site area compared to only 16 percent in the pre-developed condition. The combined result is that the overall quality of runoff from the proposed conditions is a significant improvement over the existing condition, which CMA does not acknowledge.

CMA comment

3. Section 7.4.1.3: *The applicant shall submit documentation demonstrating how stormwater treatment devices shall be maintained.*

The parking garage includes an “evaporative trench drain” to collect water from rainwater/snowmelt off cars. The applicant should confirm this trench drain, with no discharge outlet, is appropriate for this application and include its required maintenance in the *Long-Term Operations and Maintenance Program*.

GeoInsight Response

An evaporative trench drain is a building feature and not a stormwater feature because there is no discharge anticipated from the garage. Evaporative drains are City standard and a very common method of managing de-minimus water in enclosed garages. GeoInsight has included narrative to describe maintenance of the trench drain in Attachment B.

CMA comment

Section 7.4.2.4: *Snow storage areas shall be located such that no direct discharges to receiving waters are possible from the storage site. Runoff from snow storage areas shall enter treatment areas to remove suspended solids and other contaminants before being discharged to receiving waters or preferably be allowed to infiltrate into the groundwater.*

Snow storage areas were not identified on the Site Plan. There does not appear to be potential treatment areas for snow storage runoff.

GeoInsight Response

Only a very small footprint on Lot 3 is subject to snow accumulation and these will be cleared after each storm. Accumulated snow will also be removed from Lot 4 areas in its current and interim phases until development. Lot 4 will eventually be mostly covered by building footprint, which will also significantly reduce the snow management requirements for this area. A note regarding the snow removal was provided on Sheet C3.0 (attached).

CMA comment

5. Section 7.4.2.6: *Efforts shall be made to utilize methods that intercept, treat, and infiltrate runoff throughout the site including, but not limited to, infiltration trenches, drainfields, dry wells, bioretention areas, level spreaders, filter strips, wetlands, vegetated swales, gravel wetlands, rain gardens, and tree boxes.*

The plan includes no infiltration of groundwater recharge features. The report claims infiltration is not feasible on the site because of the shallow depth (4-feet) to the seasonal high-water table (SHWT) and native clay soil layer; however, the included borings show the shallowest groundwater depth to be 7.4-feet and the clay layer 5.5-feet from the ground surface (we note, the borings were done in the fall when groundwater depths may be low). This depth is probably adequate to provide filter and infiltration BMP’s (filter strips, rain gardens/bioretention areas,



permeable paving), which require no more than 1' separation from the bottom of the BMP to the SHWT.

GeoInsight Response

GeoInsight used the Frimpter Method to evaluate the likely seasonal high water levels at the site and relate them in terms of elevations to better demonstrate limits of vertical space available for infiltration: this method resulted in water levels being significant higher than those indicated by the boring data (and other temporary wells installed by GeoInsight). The combination of the clay layer and the SHWT do not present the ability to infiltrate significant stormwater. In addition, infiltrated water would pass through impacted urban fill that is relatively ubiquitous throughout the area. Precipitation infiltrated into the ground, or discharged into the municipal drain system per our engineered designs, will eventually be received by the North Mill Pond. Based upon environmental testing and mapping by both the City and GeoInsight, subsurface water flows towards the North Mill Pond. Infiltrated water will become impacted by the urban fill conditions. NHDES addresses groundwater quality at contaminated sites in Env-OR 600, and leaching of contaminants from impact soils due to infiltration would be prohibited if it caused exceedances of ambient groundwater quality standards established in Env-Or 603.03. Furthermore, if precipitation is infiltrated at the Site, it could result in an elevated water table below Foundry Place/Deer Street and decrease the stability of the subsurface conditions supporting those roadways. Some infiltration of localized runoff is planned at proposed tree wells and vegetated strips: GeoInsight did not count these areas as infiltration and present a very minimal, if not negligible, potential for causing migration of impacts from urban fill.

CMA comment

6. Section 7.4.2.7: Applicants shall demonstrate why on-site infiltration approaches are not possible or adequate before proposing the use of conventional systems that rely on collection and conveyance to remove runoff from the site.

See comments 1 and 5.

GeoInsight Response

In addition to our responses to comments 1 and 5, there is not enough room or elevation separation available for proper function of infiltration approaches.

CMA comment

7. Section 7.4.2.8: Measures shall be taken to control the post-development peak rate of runoff so that it does not exceed pre-development runoff for the 2, 10, 25, and 50-year, 24-hour storm event.

The post development runoff rates match the pre-development peak flow rates because the applicant considered the site impervious in the pre-development condition. However, the post-development analysis divided the runoff from the roof, which is significant (~75% of total runoff), between the design points. This division of runoff cannot be discerned from the plans reviewed. The applicant should provide a roof drainage plan that demonstrates how the roof drains and confirms the division directed to the railroad ROW and Deer St is as presented and equal to the pre-development peak flows.



GeoInsight Response

The attached Exhibit 1 shows the proposed roof plan with the proposed division for areas directed to the railroad ROW and Deer Street drain.

CMA comment

8. Section 7.4.2.10: For a storm event of ½ inch or less, the applicant shall demonstrate that stormwater management practices will remove contaminants from the stormwater runoff that leaves the site. The use of oil and grit traps in manholes, on-site vegetated waterways, and vegetated buffer strips along waterways and drainage swales, and the reduction in use of deicing salts and fertilizers may be required by the Planning Board.

Not provided. See also Comment 2.

GeoInsight Response

The proposed Stormceptor specifically targets the portion of site with runoff that may be impacted (driveway and outside parking areas) and therefore, worth treating. This is also addressed in previous responses.

CMA comment

9. Section 7.4.3.1: All applications shall minimize the area of impervious surfaces, and address the potential negative impact of impervious surfaces on surface and groundwater resources.

The proposed site is more than 95% impervious, similar to pre-development conditions.

GeoInsight Response

The development proposed is consistent with that allowed by zoning and other areas of the City, and the proposed condition improves on the existing site as demonstrated in the above responses.

CMA comment

City Ordinances, Chapter 16, Article II, Regulation of Discharges into Storm Water Drainage System. Under this ordinance, Section 16.207.A, the applicant is required to obtain a permit from the City to connect to the Stormwater drainage system.

GeoInsight Response

GeoInsight and Foundry Place are aware of this requirement and it has also already been discussed the City as a future condition of approval.

General Comments By CMA

CMA comment

1. Planned improvements that will serve this building on Lot 3 are on Lot 4, including the proposed Stormceptor and drain pipe. The applicant should have agreements and easements in place to ensure that current and future owners of Lot 3 have the rights to maintain and repair these systems, and to ensure these systems remain in-place and functional.

GeoInsight Response

Such easements and agreement are already anticipated, planned, and described in the design package.



CMA comment

2. We understand from information provided from the City, that portions of the stormwater drainage system adjacent to the project will be separated from the sanitary sewer as a part of the development in the area. This separation will add stormwater runoff flows that previously discharged to the sanitary sewer to the stormwater drainage system and outfalls. The downstream stormwater drainage systems should be evaluated to ensure these systems have the capacity to accept additional flows.

GeoInsight Response

The stormwater flow patterns for this site still flow in the same general direction and to the same facilities as the pre-development condition. None of the stormwater runoff from Lots 2 through 5 flowed to the City combined sewer. The City is separating the sanitary and storm sewer, and it is not being done because of the development proposed by Foundry Place LLC. The City has requested Foundry Place LLC to contribute funding for an overall study related to this condition and Foundry Place LLC will evaluate that request along with other off-site mitigation contribution requests

CMA comment

3. The applicant should strive for greater treatment, infiltration, and volume reduction of the sites' stormwater runoff, or describe why such treatments are not viable. This redevelopment presents an opportunity to improve treatment and reduce the stormwater discharge from the site, compared to pre-development conditions. However, it appears that limited means are proposed to achieve this improvement.

GeoInsight Response

We disagree and believe the selected controls are appropriate and are consistent with the nature of the allowed development. The proposed design will provide stormwater runoff that is effectively much cleaner than existing conditions.

We trust this letter adequately addresses the concerns raised by CMA. Please feel free to contact the undersigned with questions at (603) 314-0820.

Sincerely,
GEOINSIGHT, INC.

Joseph H. Kieffner, P.E.
Project Engineer

Michael C. Penney, P.E.
Senior Engineer, Principal

ATTACHMENTS

ATTACHMENT A

EMAIL TO CITY

From: Joseph H. Kieffner [<mailto:jhkieffner@geoinc.com>]

Sent: Friday, December 22, 2017 1:32 PM

To: jmshouse@cityofportsmouth.com

Cc: Gregg Mikolaities <Gregg@augustpllc.com>; Juliet T.H. Walker <jthwalker@cityofportsmouth.com>; Michael C. Penney <MCPenney@geoinc.com>; Tracy Kozak <tkozak@jsainc.com>; 'Ania Szulc Rogers' <ania@glrogers.com>

Subject: RE: Foundry Place, LLC Lot 3 (and related lots) Site Plan Review Application

Jane,

Below is a dropbox link to the updated stormwater report for the Lot 3 TAC submittal and peer review. Please let me know if you have any issues downloading the file.

<https://www.dropbox.com/s/udvni3yqis0vy7h/Attachment%20C%20Updated%20Stormwater%20Management%20Report.pdf?dl=0>

Thanks,

Joseph H. Kieffner, P.E.

Project Engineer

GeoInsight, Inc.

186 Granite Street, 3rd Floor, Suite A

Manchester, NH 03101-2643

Tel: (603) 314-0820 ext. 210

Fax: (603) 314-0821

www.geoinsight.com

Environmental Strategy & Engineering

Practical in Nature

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From: Juliet T.H. Walker [<mailto:jthwalker@cityofportsmouth.com>]

Sent: Tuesday, December 19, 2017 2:45 PM

To: Michael C. Penney <MCPenney@geoinc.com>; 'Ania Szulc Rogers' <ania@glrogers.com>; Tracy Kozak <tkozak@jsainc.com>

Cc: Joseph H. Kieffner <jhkieffner@geoinc.com>; Gregg Mikolaities <Gregg@augustpllc.com>

Subject: RE: Foundry Place, LLC Lot 3 (and related lots) Site Plan Review Application

Ok, thanks.

Juliet T. H. Walker, AICP

Planning Director

Planning Department

1 Junkins Ave
Portsmouth, NH 03801
(603) 610-7296
www.planportsmouth.com
Twitter: @PlanPortsmouth

From: Michael C. Penney [<mailto:MCPenney@geoinc.com>]
Sent: Tuesday, December 19, 2017 2:06 PM
To: Juliet T.H. Walker <jthwalker@cityofportsmouth.com>; 'Ania Szulc Rogers' <ania@glrogers.com>; Tracy Kozak <tkozak@jsainc.com>
Cc: Joseph H. Kieffner <jhkieffner@geoinc.com>; Gregg Mikolaities <Gregg@augustpllc.com>
Subject: RE: Foundry Place, LLC Lot 3 (and related lots) Site Plan Review Application

Good Afternoon Juliet –

The GeoInsight Stormwater Report for the Lot 3 submittal is still being modified at this moment to accommodate some small changes to Lot 4. Therefore the Report will not be ready in time to meet today's submittal deadline for the January 2, 2018 meeting.

However, we expect the updates to be completed by tomorrow or Thursday, and we will forward the finalized report to you as soon as possible so that the City can deliver it to the third party reviewer. We will certainly be able to discuss the updated report with TAC on January 2, 2018 if needed.

Regards,
Mike

Michael C. Penney, PE, LSP
Senior Engineer/Principal
GeoInsight, Inc.
186 Granite Street, 3rd Floor, Suite A
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Tel: (603) 314-0820
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Environmental Strategy & Engineering
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ATTACHMENT B

GARAGE EVAPORATIVE TRENCH DRAIN
OPERATION AND MAINTENANCE

GARAGE EVAPORATIVE TRENCH DRAIN OPERATION & MAINTENANCE

The proper performance of evaporative trench drains relies upon maintaining the flow paths into the trench drain and maintaining the appropriate temporary storage volume in the drain structure.

Maintenance of flow paths includes making sure that objects or structures are not present that might block flow into the drain structure and also that there is not material (trash, frozen, snow, etc.) blocking the inlets into the drain.

Maintaining the volume includes periodically inspecting the level of the water inside the trench to see if it requires pumping and removal due to conditions being unlikely to promote evaporation. This inspection will also function to identify if there is significant sheen or other evidence of contaminants present visually that would be best removed proactively to minimize overall future maintenance efforts.

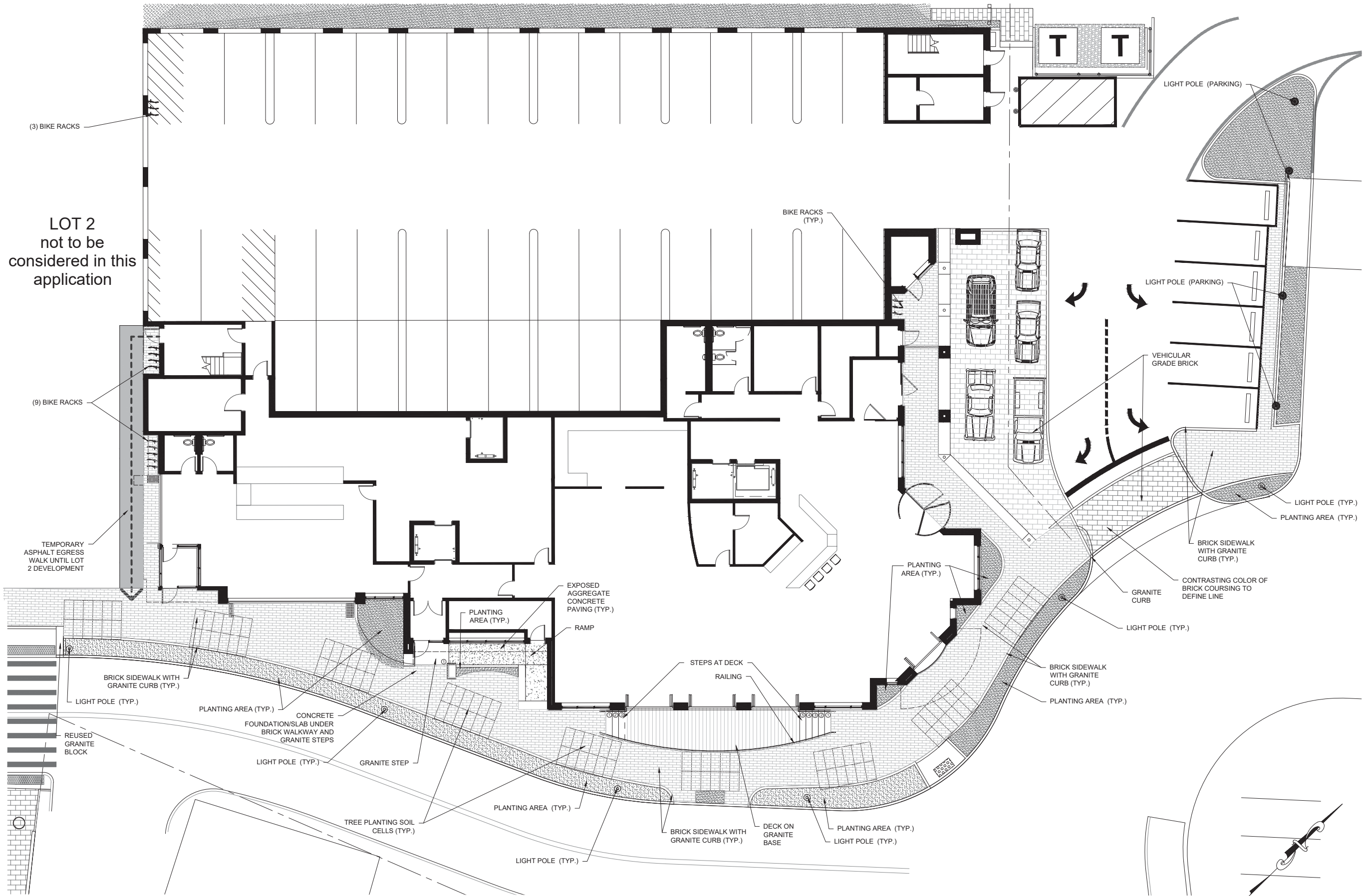
Otherwise, the normal maintenance will include regular cleaning (at least twice a year) by opening the cover/grate, and removing accumulated sediment, debris, and accumulated pollutant materials (grease and oil). These materials may be vacuumed by a specialty contractor or wiped out with disposable rags.

Sweeping of the garage floor may be beneficial to reduce the amount of materials that may accumulate in the trench drain.

The cleaning frequency is dependent upon the capacity of the trench drain and use of the garage.

ATTACHMENT C

LANDSCAPE PLANS



LOT 2
not to be
considered in this
application



ARCHITECTS
INTERIORS
PLANNERS

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GEOSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDERSEN, INC.
LANDSCAPE DESIGN
PORTSMOUTH, NEW HAMPSHIRE

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPFP ENGINEER
WOBURN, MASSACHUSETTS

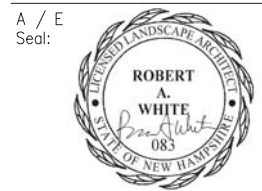
ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5

PORTSMOUTH, NH 03801

OWNER:
Deer Street Associates

7 BANKS ROCK ROAD
YORK HARBOR, ME



Scale: AS INDICATED
Date: 03/17/2017
Project Number: 14837.02

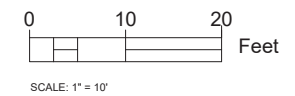
REVISIONS		
NO.	DESCRIPTION	DATE
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2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017

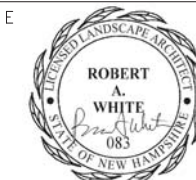
SITE PLAN REVIEW

MATERIALS
PLAN

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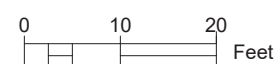
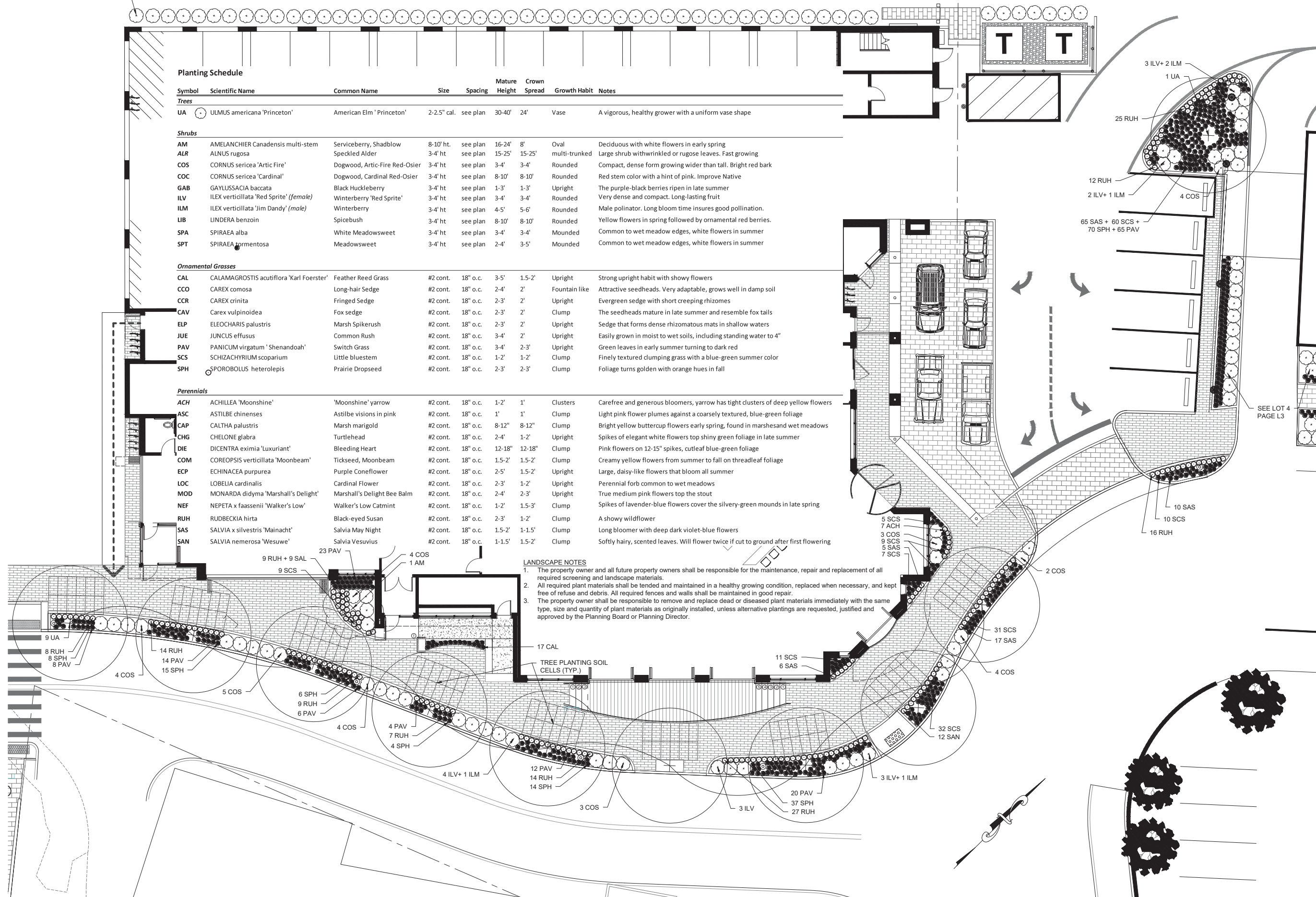
REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	03/17/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017

Planting Schedule

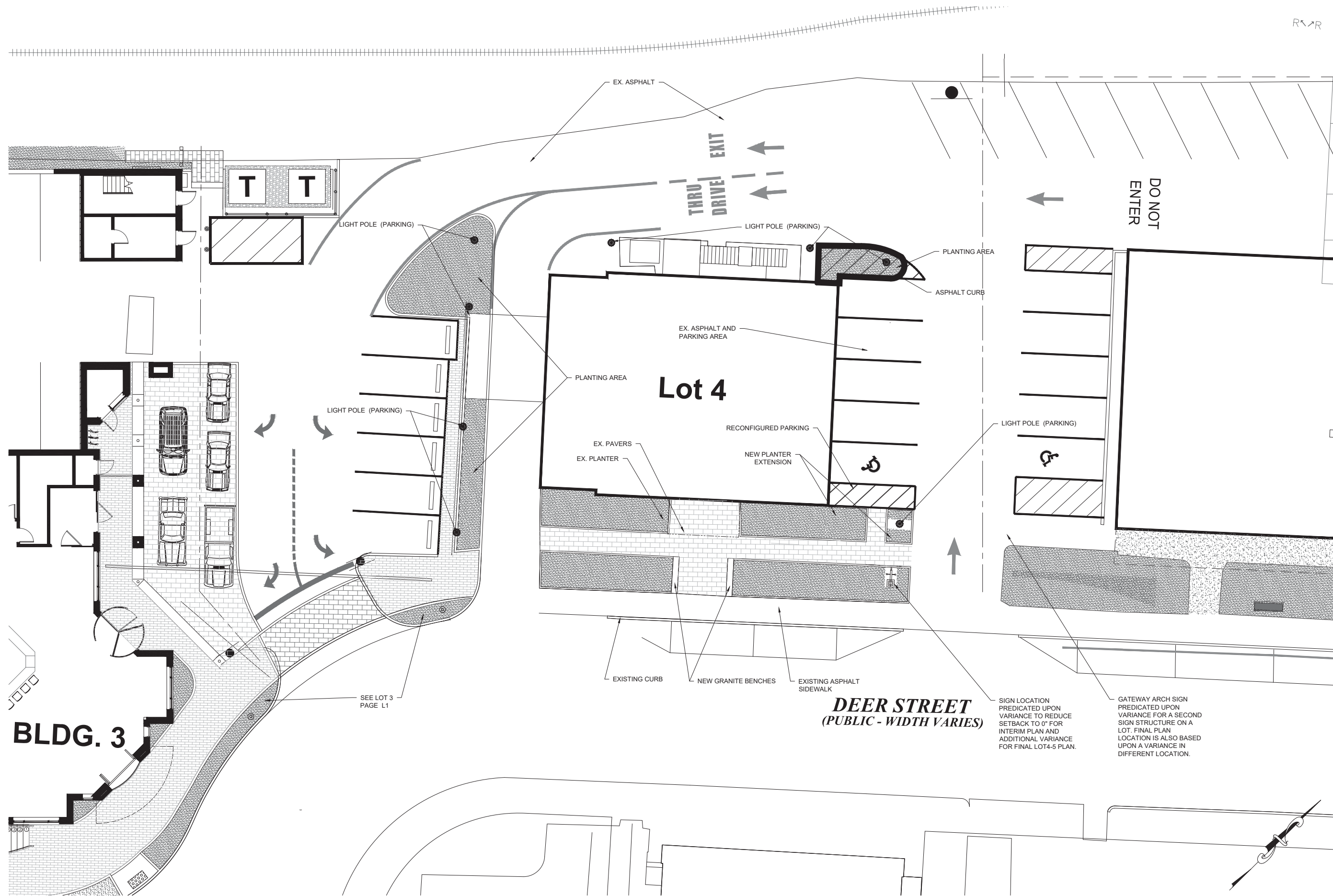
Symbol	Scientific Name	Common Name	Size	Spacing	Mature Height	Crown Spread	Growth Habit	Notes
Trees								
UA	ULMUS americana 'Princeton'	American Elm 'Princeton'	2-2.5' cal.	see plan	30-40'	24'	Vase	A vigorous, healthy grower with a uniform vase shape
Shrubs								
AM	AMELANCHIER Canadensis multi-stem	Serviceberry, Shadblow	8-10' ht.	see plan	16-24'	8'	Oval	Deciduous with white flowers in early spring
ALR	ALNUS rugosa	Speckled Alder	3-4' ht	see plan	15-25'	15-25'	multi-trunked	Large shrub with wrinkled or rugose leaves. Fast growing
COS	CORNUS sericea 'Artic Fire'	Dogwood, Artic-Fire Red-Osier	3-4' ht	see plan	3-4'	3-4'	Rounded	Compact, dense form growing wider than tall. Bright red bark
COC	CORNUS sericea 'Cardinal'	Dogwood, Cardinal Red-Osier	3-4' ht	see plan	8-10'	8-10'	Rounded	Red stem color with a hint of pink. Improve Native
GAB	GAYLUSSACIA baccata	Black Huckleberry	3-4' ht	see plan	1-3'	1-3'	Upright	The purple-black berries ripen in late summer
ILV	ILEX verticillata 'Red Sprite' (female)	Winterberry 'Red Sprite'	3-4' ht	see plan	3-4'	3-4'	Rounded	Very dense and compact. Long-lasting fruit
ILM	ILEX verticillata 'Jim Dandy' (male)	Winterberry	3-4' ht	see plan	4-5'	5-6'	Rounded	Male pollinator. Long bloom time insures good pollination.
LIB	LINDERA benzoin	Spicebush	3-4' ht	see plan	8-10'	8-10'	Rounded	Yellow flowers in spring followed by ornamental red berries.
SPA	SPIRAEA alba	White Meadowsweet	3-4' ht	see plan	3-4'	3-4'	Mounded	Common to wet meadow edges, white flowers in summer
SPT	SPIRAEA tomentosa	Meadowsweet	3-4' ht	see plan	2-4'	3-5'	Mounded	Common to wet meadow edges, white flowers in summer
Ornamental Grasses								
CAL	CALAMAGROSTIS acutiflora 'Karl Foerster'	Feather Reed Grass	#2 cont.	18" o.c.	3-5'	1.5-2'	Upright	Strong upright habit with showy flowers
CO	CAREX comosa	Long-hair Sedge	#2 cont.	18" o.c.	2-4'	2'	Fountain like	Attractive seedheads. Very adaptable, grows well in damp soil
CCR	CAREX crinita	Fringed Sedge	#2 cont.	18" o.c.	2-3'	2'	Upright	Evergreen sedge with short creeping rhizomes
CAV	Carex vulpinoidea	Fox sedge	#2 cont.	18" o.c.	2-3'	2'	Clump	The seedheads mature in late summer and resemble fox tails
ELP	ELEOCHARIS palustris	Marsh Spikerush	#2 cont.	18" o.c.	2-3'	2'	Upright	Sedge that forms dense rhizomatous mats in shallow waters
JUE	JUNCUS effusus	Common Rush	#2 cont.	18" o.c.	3-4'	2'	Upright	Easily grown in moist to wet soils, including standing water to 4"
PAV	PANICUM virgatum 'Shenandoah'	Switch Grass	#2 cont.	18" o.c.	3-4'	2-3'	Upright	Green leaves in early summer turning to dark red
SCS	SCHIZACHYRIUM scoparium	Little bluestem	#2 cont.	18" o.c.	1-2'	1-2'	Clump	Finely textured clumping grass with a blue-green summer color
SPH	SPOROBOLUS heterolepis	Prairie Dropseed	#2 cont.	18" o.c.	2-3'	2-3'	Clump	Foliage turns golden with orange hues in fall
Perennials								
ACH	ACHILLEA 'Moonshine'	'Moonshine' yarrow	#2 cont.	18" o.c.	1-2'	1'	Clusters	Carefree and generous bloomers, yarrow has tight clusters of deep yellow flowers
ASC	ASTILBE chinenses	Astilbe visions in pink	#2 cont.	18" o.c.	1'	1'	Clump	Light pink flower plumes against a coarsely textured, blue-green foliage
CAP	CALTHA palustris	Marsh marigold	#2 cont.	18" o.c.	8-12"	8-12"	Clump	Bright yellow buttercup flowers early spring, found in marshes and wet meadows
CHG	CHELONE glabra	Turtlehead	#2 cont.	18" o.c.	2-4'	1-2'	Upright	Spikes of elegant white flowers top shiny green foliage in late summer
DIE	DICENTRA eximia 'Luxuriant'	Bleeding Heart	#2 cont.	18" o.c.	12-18"	12-18"	Clump	Pink flowers on 12-15" spikes, cutleaf blue-green foliage
COM	COREOPSIS verticillata 'Moonbeam'	Tickseed, Moonbeam	#2 cont.	18" o.c.	1.5-2'	1.5-2'	Clump	Creamy yellow flowers from summer to fall on threadleaf foliage
ECP	ECHINACEA purpurea	Purple Coneflower	#2 cont.	18" o.c.	2-5'	1.5-2'	Upright	Large, daisy-like flowers that bloom all summer
LOC	LOBELIA cardinalis	Cardinal Flower	#2 cont.	18" o.c.	2-3'	1-2'	Upright	Perennial forb common to wet meadows
MOD	MONARDA didyma 'Marshall's Delight'	Marshall's Delight Bee Balm	#2 cont.	18" o.c.	2-4'	2-3'	Upright	True medium pink flowers top the stout
NEF	NEPETA x faassenii 'Walker's Low'	Walker's Low Catmint	#2 cont.	18" o.c.	1-2'	1.5-3'	Clump	Spikes of lavender-blue flowers cover the silvery-green mounds in late spring
RUH	RUDBECKIA hirta	Black-eyed Susan	#2 cont.	18" o.c.	2-3'	1-2'	Clump	A showy wildflower
SAS	SALVIA x silvestris 'Mainacht'	Salvia May Night	#2 cont.	18" o.c.	1.5-2'	1-1.5'	Clump	Long bloomer with deep dark violet-blue flowers
SAN	SALVIA nemerosa 'Wesuwe'	Salvia Vesuvius	#2 cont.	18" o.c.	1-1.5'	1.5-2'	Clump	Softly hairy, scented leaves. Will flower twice if cut to ground after first flowering

LANDSCAPE NOTES

- 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.



SCALE: 1" = 10'



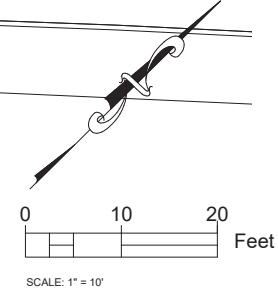
BLDG. 3

Lot 4

DEER STREET
(PUBLIC - WIDTH VARIES)

SIGN LOCATION
PREDICATED UPON
VARIANCE TO REDUCE
SETBACK TO 0" FOR
INTERIM PLAN AND
ADDITIONAL VARIANCE
FOR FINAL LOT4-5 PLAN.

GATEWAY ARCH SIGN
PREDICATED UPON
VARIANCE FOR A SECOND
SIGN STRUCTURE ON A
LOT. FINAL PLAN
LOCATION IS ALSO BASED
UPON A VARIANCE IN
DIFFERENT LOCATION.



THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5

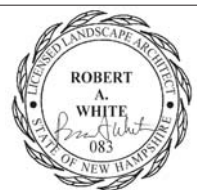
PORTSMOUTH, NH 03801

OWNER:

Deer Street Associates

7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E
Seal:



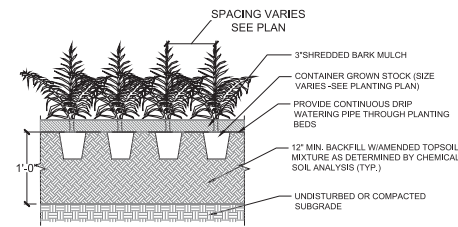
Scale: AS INDICATED
Date: 03/17/2017
Project Number: 14837.02

REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	03/17/2017
2	TAC PUBLIC HEARING	11/17/2017
3	TAC PUBLIC HEARING	12/19/2017

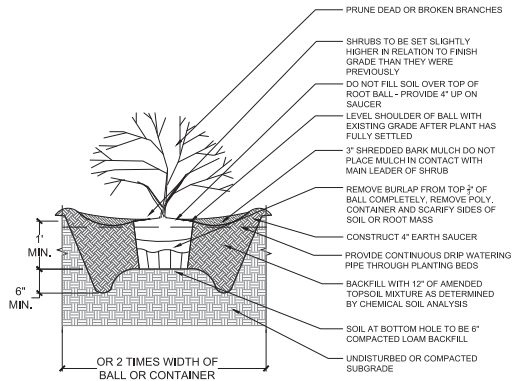
SITE PLAN REVIEW

**INTERIM LOT 4
ACCESS
DRIVEWAY AND
MATERIALS PLAN**

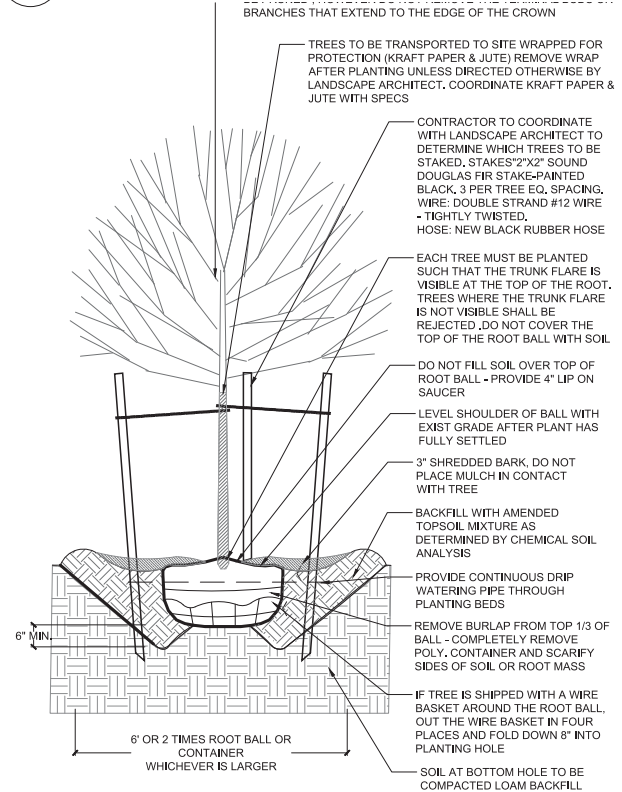
L3



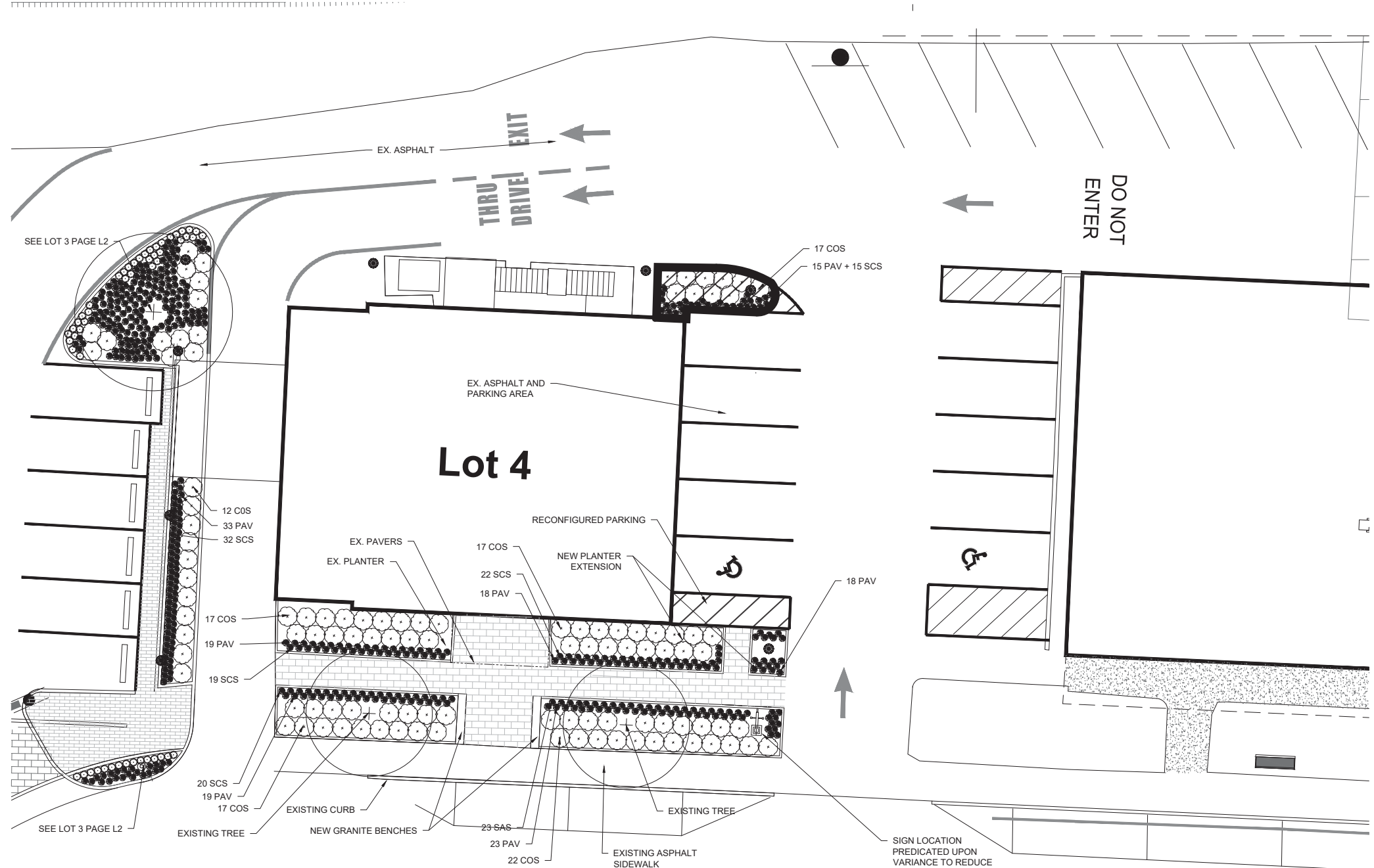
1 Perennial Planting Detail
nts



2 Shrub Planting Detail
nts



3 Tree Planting Detail
nts



DEER STREET
(PUBLIC - WIDTH VARIES)

Planting Schedule									
Symbol	Scientific Name	Common Name	Size	Spacing	Mature Height	Crown Spread	Growth Habit	Notes	
Shrubs									
COS	CORNUS sericea 'Artic Fire'	Dogwood, Artic-Fire Red-Osier	3-4' ht	see plan	3-4'	3-4'	Rounded	Compact, dense form growing wider than tall. Bright red bark	
Ornamental Grasses									
PAV	PANICUM virgatum 'Shenandoah'	Switch Grass	#2 cont.	18" o.c.	3-4'	2-3'	Upright	Green leaves in early summer turning to dark red	
SCS	SCHIZACHYRIUM scoparium	Little bluestem	#2 cont.	18" o.c.	1-2'	1-2'	Clump	Finely textured clumping grass with a blue-green summer color	

- LANDSCAPE NOTES**
- The property owner and all future property owners shall be responsible for the maintenance, repair and replacement of all required screening and landscape materials.
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SIGN LOCATION PREDICATED UPON VARIANCE TO REDUCE SETBACK TO 0' FOR INTERIM PLAN AND ADDITIONAL VARIANCE FOR FINAL LOT4-5 PLAN.

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801
T 603.436.2551
F 603.436.6973
www.jsainc.com

GEOSIGHT, INC.
GEOTECH & CIVIL
MANCHESTER, NEW HAMPSHIRE

GREENMAN-PEDERSEN, INC.
LANDSCAPE DESIGN
PORTSMOUTH, NEW HAMPSHIRE

JSN ASSOCIATES, INC.
STRUCTURAL ENGINEER
PORTSMOUTH, NEW HAMPSHIRE

ENGINEERED SYSTEMS INC.
MPFP ENGINEER
WOBURN, MASSACHUSETTS

ENGINEERED BUILDING SYSTEMS
ELECTRICAL ENGINEER
DERRY, NEW HAMPSHIRE

THE HOTEL AT
FOUNDRY PLACE,
"LOT 3": 165 DEER
STREET, ASSESSORS
MAP 125 LOT 17,
AND RELATED
IMPROVEMENTS TO
LOTS 2, 4 AND 5

PORTSMOUTH, NH 03801

OWNER:

Deer Street Associates

7 BANKS ROCK ROAD
YORK HARBOR, ME

A / E
Seal:

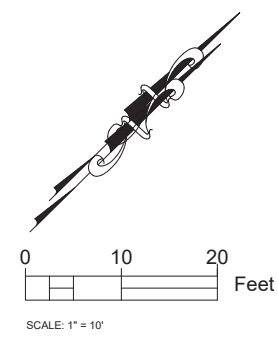


Scale: AS INDICATED
Date: 03/17/2017
Project Number: 14837.02

REVISIONS		
NO.	DESCRIPTION	DATE
1	TAC PUBLIC HEARING	03/17/2017
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SITE PLAN REVIEW

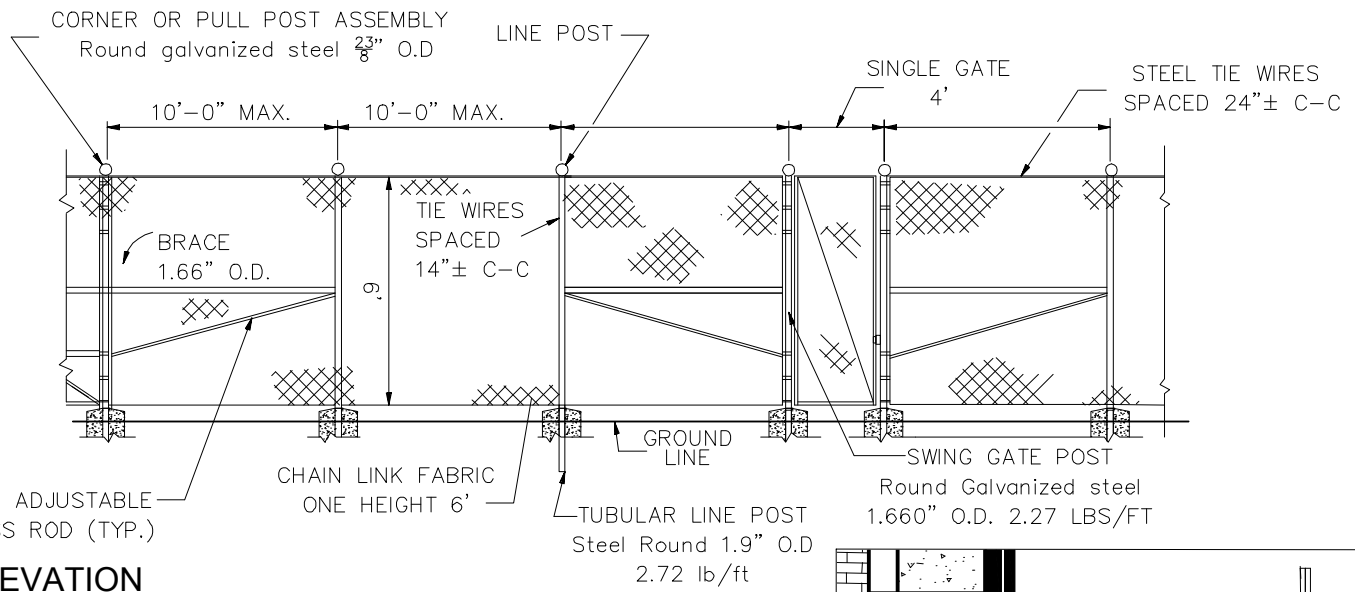
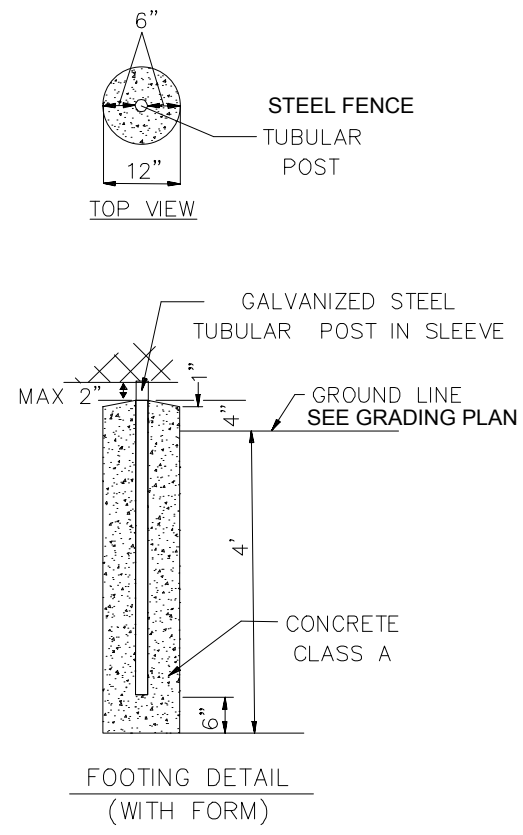
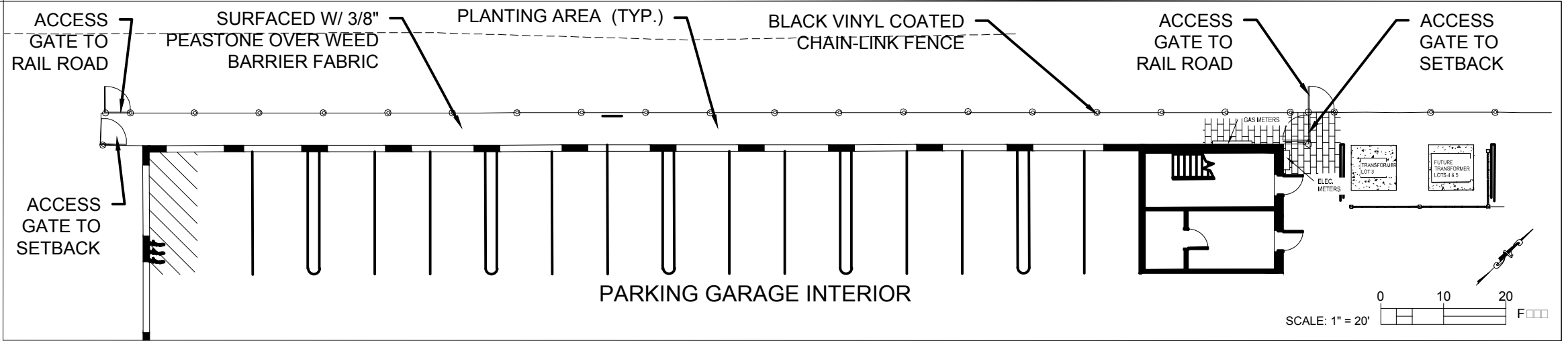
**INTERIM LOT 4
ACCESS
DRIVEWAY AND
PLANTING PLAN**



L4

C:\Users\j\OneDrive\Documents\2016 - 837.02 - D.D.S.L.L.3 H\CENTRAL - CURRENT 2017-09-11

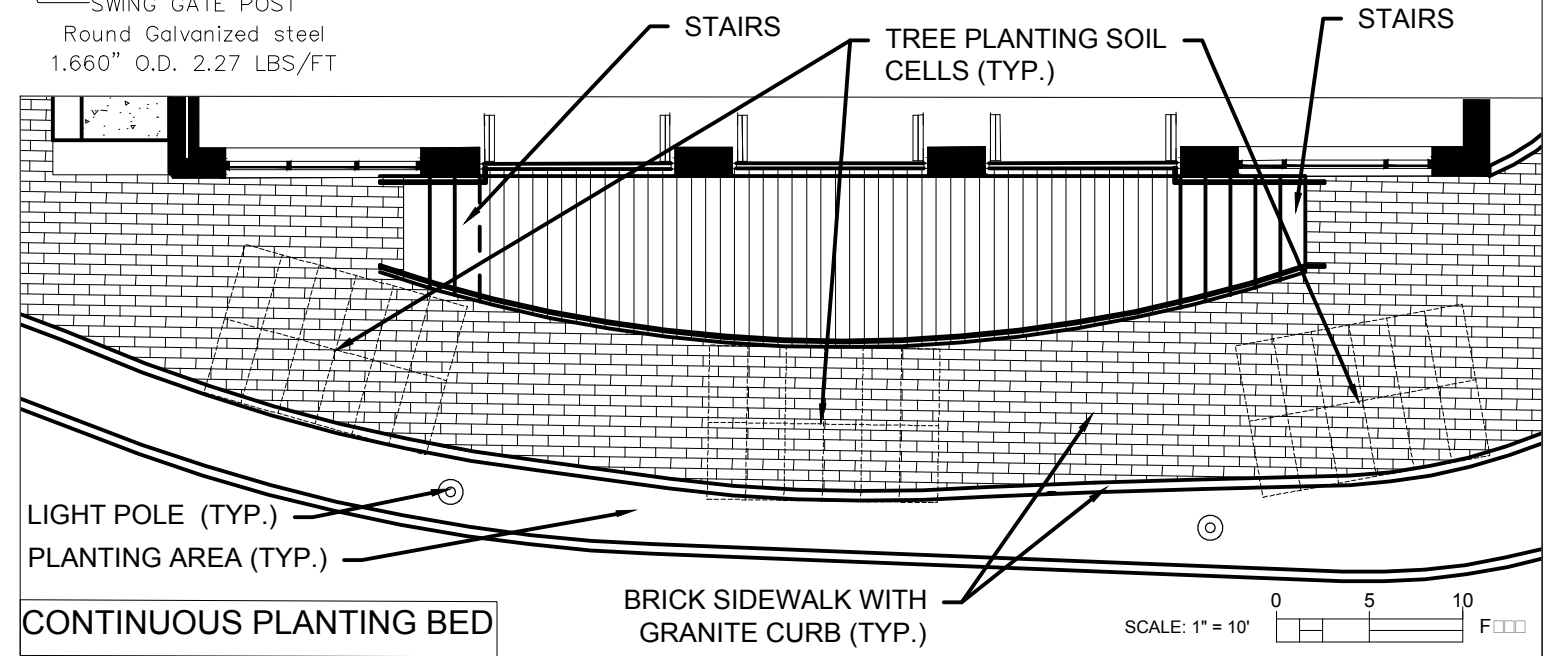
1/11/2018 10:05:56 AM



BLACK VINYL COATED CHAIN-LINK FENCE

GENERAL NOTES

1. ALL END POSTS SHALL HAVE ONE BRACE.
2. ALL CORNER AND INTERMEDIATE BRACE OR PULL POSTS SHALL HAVE TWO BRACES.
3. ALL POSTS SHALL BE INSTALLED VERTICALLY. WHERE POSTS ARE INSTALLED ON AN INCLINED SURFACE, THE ANGLE OF THE POST SHALL BE ADJUSTED SO THAT THE POST WILL BE VERTICAL



Deer Street Associates



GOOGT
 AMBIT ENGINEERING, INC.
 GREENMAN-PEDERSEN, INC.
 ENGINEERED BUILDING SYSTEMS
 ENGINEERED SYSTEMS INC.
 JSN ASSOCIATES, INC.

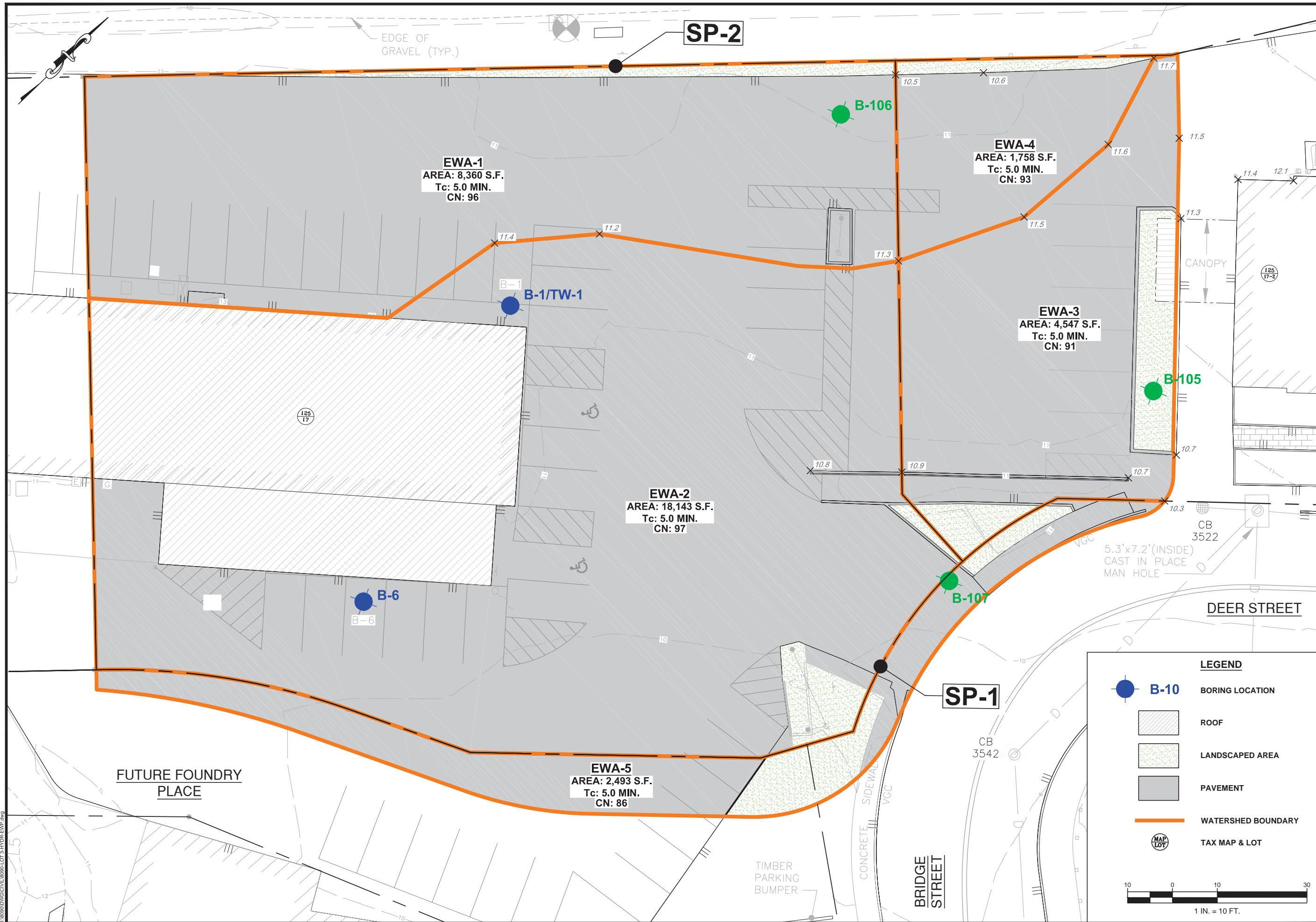
Project: **THE HOTEL AT FOUNDRY PLACE, "LOT 3": 165 DEER STREET, ASSESSORS MAP 125 LOT 17, AND RELATED IMPROVEMENTS TO LOTS 2, 4 AND 5**

Title: **L3 Ed. MRP**

Project No: 14837.02	Revision: LOT 3 L1
Scale: A	TAC: S
Drawn By: S	Checked By: S
Date: 1/16/2018	SK-L.1

ATTACHMENT D

WATERSHED PLANS



SP-2

SP-1

EWA-1
 AREA: 8,360 S.F.
 Tc: 5.0 MIN.
 CN: 96

EWA-4
 AREA: 1,758 S.F.
 Tc: 5.0 MIN.
 CN: 93

EWA-3
 AREA: 4,547 S.F.
 Tc: 5.0 MIN.
 CN: 91

EWA-2
 AREA: 18,143 S.F.
 Tc: 5.0 MIN.
 CN: 97

EWA-5
 AREA: 2,493 S.F.
 Tc: 5.0 MIN.
 CN: 86

B-1/TW-1

B-6

B-106

B-107

B-105

EDGE OF GRAVEL (TYP.)

CANOPY

5.3'x7.2' (INSIDE)
 CAST IN PLACE
 MAN HOLE

DEER STREET

BRIDGE STREET

FUTURE FOUNDRY PLACE

TIMBER PARKING BUMPER

CONCRETE SIDEWALK

CB 3542

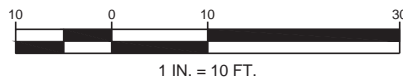
CB 3522

125
17-2

125
17

LEGEND

- B-10 BORING LOCATION
- ROOF
- LANDSCAPED AREA
- PAVEMENT
- WATERSHED BOUNDARY
- TAX MAP & LOT



PREPARED BY:

GeoInsight
Practical in Nature
 188 GRANITE STREET, SUITE 3A
 MANCHESTER, NEW HAMPSHIRE 03101
 PH: (603) 314-0820 FAX: (603) 314-0821
 ENVIRONMENTAL STRATEGY AND ENGINEERING

OWNER/APPLICANT:
DEER STREET ASSOCIATES
 7 BANKS ROCK ROAD
 YORK HARBOR, ME 03911
 PH: (207) 363-3540

DEER STREET ASSOCIATES
RESIDENCES AT FOUNDRY PLACE, LOTS 3 & 4
163 & 165 DEER STREET PORTSMOUTH, NH
(TAX MAP 125, LOTS 17 & 17-2)

REVISIONS	
DATE	DESCRIPTION
11.17.2017	TAC SUBMISSION
12.15.2017	TAC #3 SUBMISSION

DWG SCALE: 1" = 10' PREPARED BY: LM
 DATE ISSUED: 11/17/17 CHECKED BY: JHK
 PROJECT #: 8090 APPROVED BY: MCP

DRAWING TITLE:
EXISTING WATERSHED PLAN

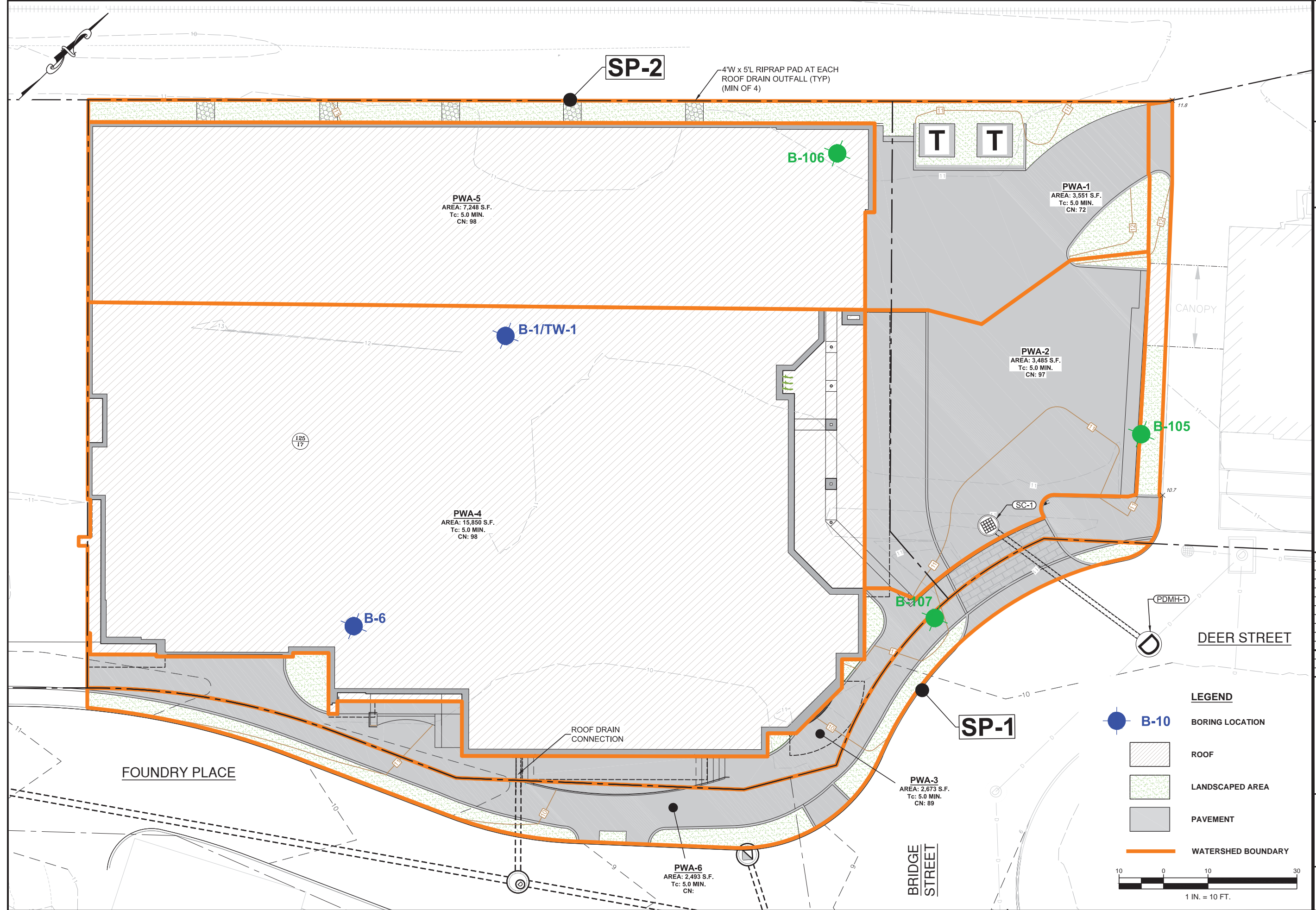
DRAWING #:
EWP

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DEER SREET ASSOCIATES
RESIDENCES AT FOUNDRY PLACE, LOTS 3 & 4
163 & 165 DEER STREET PORTSMOUTH, NH
(TAX MAP 125, LOTS 17 & 17-2)

REVISIONS	
DATE	DESCRIPTION
11.17.2017	TAC SUBMISSION
12.15.2017	TAC #3 SUBMISSION

DWG SCALE: 1" = 10' PREPARED BY: LM
 DATE ISSUED: 11/17/17 CHECKED BY: JHK
 PROJECT #: 8090 APPROVED BY: MCP



LEGEND

-  B-10 BORING LOCATION
-  ROOF
-  LANDSCAPED AREA
-  PAVEMENT
-  WATERSHED BOUNDARY

10 0 10 30
 1 IN. = 10 FT.

EXHIBIT B

ROOF DRAINAGE PLAN

ATTACHMENT F
Building Utility Load Information and
Utility Will Serve Letters

Hydrant Flow Test Report

Test Date 7/28/2014

Test Time 10:30

Location

Deer Street in front of VFW

Tested by

Atlantic Design Resources Ltd

Notes

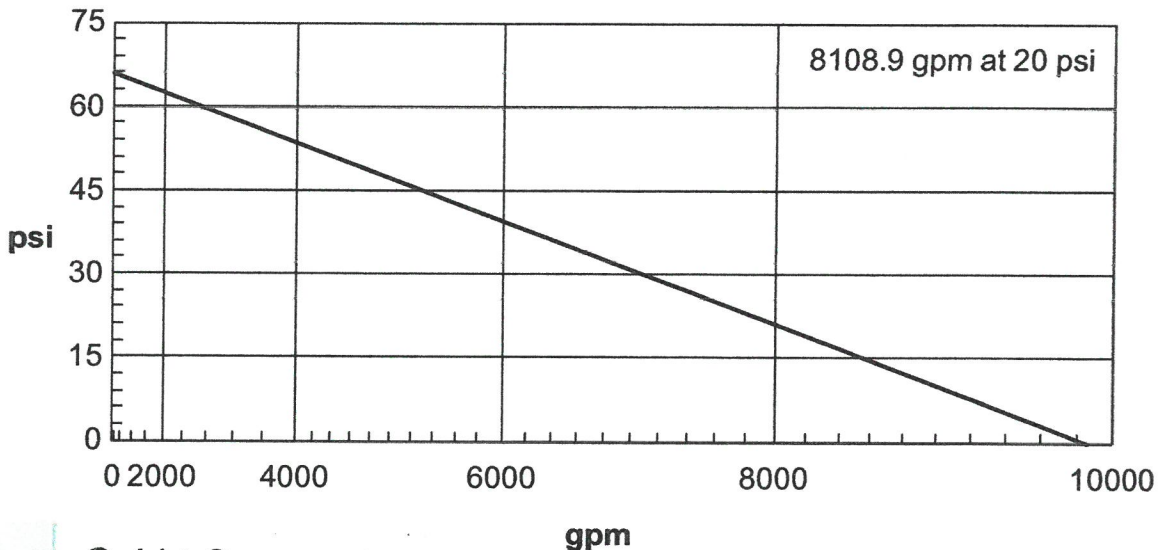
Read Hydrant

66 psi static pressure
64 psi residual pressure
3 ft hydrant elevation

Flow Hydrant(s)

Outlet	Elev	Size	C	Pitot Pressure	Flow
#1	3	4	.9	12	1489 gpm

Flow Graph



Gobbi Corporation

Joseph R. Gobbi, Jr.

Owner

P.O. Box 457

Greenland, NH 03840

P: 603-235-7842

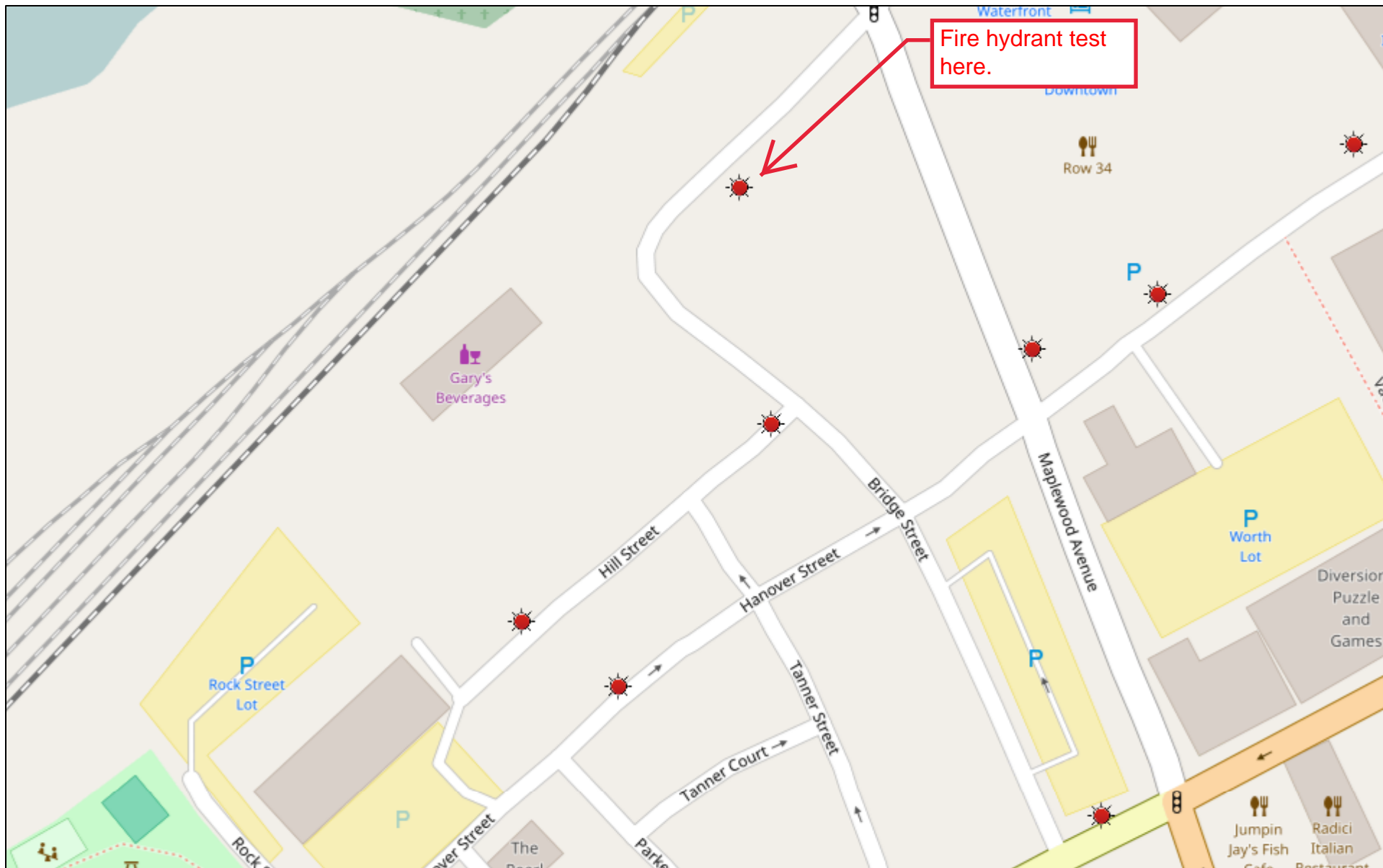
F: 603-427-1685

joegobbi@gmail.com

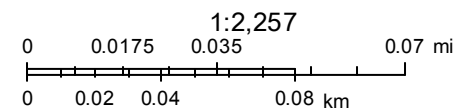
hydrant flow test program from www.igneusinc.com



Deer St_Hill St Fire Hydrants



October 23, 2016



Map data © OpenStreetMap contributors, CC-BY-SA

December 8, 2017

RE: JSA
Deer Street Associates
Building Concept
Utility Flow Rates

Lot 3 Building Concept: Mixed Use – (Business, Hotel)

Water flow rate: (Based on AWWA Table 5) 50 GPD per Bath 128 = 6,400 GPD
1ST & 5th Floor Restaurant water flow rates – 12 GPD Assume 700 patrons = 8400 GPD
Sewer flow rates: (Based on Type of Establishments)
Hotel @ 45 GPD per bedroom, 128 bedrooms = 5,760 GPD
Restaurants & Offices = 2,490 GPD
Storm Runoff: (Based on Roof Area) = 0.538 CF/S
Gas Load: (Based on 25 BTU/SF) = 2,678,300 BTU/Hr

Lot 4 Building Concept: (Restaurants/Office)

Water flow rate: (Based on AWWA Table 5) 12 GPD per patron (2-restaurants/Office) 350 = 4,200 GPD
Sewer flow rates: (Based on Type of Establishments)
Restaurant @ 8 GPD per patron, 300 patron = 2,400 GPD
Office @ 15 GPD per employee, 50 employees = 750 GPD
Storm Runoff: (Based on Roof Area) = 0.485 CF/S
Gas Load: (Based on 25 BTU/SF) = 803,825 BTU/Hr

Lot 5 Building Concept: (Mixed Use – parking Garage/Retail/Apartments)

Water flow rate: (Based on AWWA Table 5) 50 GPD per Bath 63 = 3,150 GPD
Sewer flow rates: (Based on Type of Establishments)
Apartment @ 110 GPD per bedroom unit, 47 bedrooms = 5,170 GPD
Retail @ 50 GPD per 1,000 SF = 550 GPD
Storm Runoff: (Based on Roof Area) = 1.06 CF/S
Gas Load: (Based on 25 BTU/SF) = 1,934,950 BTU/Hr

Lot 6 Building Concept: (Apartments)

Water flow rate: (Based on AWWA Table 5) 50 GPD per Bath 63 = 3,150 GPD
Sewer flow rates: (Based on Type of Establishments)
Apartment units @ 110 GPD per bedroom unit, 43 bedrooms = 4,730 GPD
Retail @ 50 GPD per 1,000 SF = 90 GPD
Storm Runoff: (Based on Roof Area) = 0.97 CF/S
Gas Load: (Based on 25 BTU/SF) = 1,493,270 BTU/Hr

WATER USAGE CALCULATIONS

DEER STREET- PORTSMOUTH, NH - -Water/Drainage Calculation					
Building #3					
Restaurant : Ground Floor Café -(250 seats) 600 commuters - 12-16 Hrs/Day					
Restaurant : Rooftop Lounge (100 seats) - 12 Hrs/Day					
Hotel Rooms: 128					
This calculation indicate flow rates per user group					
(note: Estimates are based on US standards for water usage and sewage strength.)					
Assumption: Restaurant - 2 meals/seat/day at least 30 Employees					
TYPE OF ESTABLISHMENT	QUANTITY	UNIT	GALLONS/DAY	MINIMUM ALLOWABLE GPD FOR SYSTEM DESIGN	
Restaurant - Gr. Flr.	500	per meal	3	1500	1500
Rooftop Bar/Restaurant	200	per meal	3	600	600
Hotel	128	per guest	45	45	5760
Office, Restaurants	30	per employee	13	13	390
Sub Total gal /day					8250
Sub Total gal/year					3011250
Sub Total CF/year					402574
Domestic Water Service - Ductile Iron Cement Lined		4" Diameter (DICL)			
Fire Water Service - Ductile Iron Cement Lined		8" Diameter (DICL) @ 750 GPM Standpipe Demand			
Storm Drain - Cast Iron		12" Diameter (C.I.)			
Sanitary Sewer - Cast Iron					

Uniform Plumbing Code Appendix H Interceptor Sizing

Sizing criteria for restaurant grease interceptor:

- (a) Parameters - The parameters for sizing a grease interceptor are hydraulic loading and grease storage capacity, for one or more fixtures.
- (b) Sizing Formula - The size of the interceptor shall be determined by the following formula:

Number of meals per <u>peak</u> hour (1)	X	Waste Flow Rate (2)	X	Retention Time (3)	X	Storage Factor (4)	=	Interceptor Size (liquid capacity in gallons)
237	X	6	X	2.5	X	1	=	3,555

(1) Number of meals served per peak hour - or maximum seating capacity

(2) Waste Flow Rate - per device

- a. With dishwashing machine connected to interceptor (not normally allowed) 6 gallon flow
- b. Without dishwashing machine connected to interceptor 5 gallon flow
- c. Single Service Kitchen (paper plates and utensils only) 2 gallon flow
- d. Food waste disposer 1 gallon flow

(3) Retention Time

- a. Commercial Kitchens 2.5 hours
- b. Single Service Kitchen 1.5 hours

(4) Storage Factors

Fully equipped commercial kitchen

- a. 8 hour operation 1
- b. 16 hour operation 2
- c. 24 hour operation 3

Single Service Kitchen (normal hours) 1.5

Engineer recommended size to install: 4,000

Facility Name: LOT #3 1st Floor Restaurant

Facility Address: _____

Property TMK: _____

Date: _____

Engineer: _____

Engineers Stamp
License Expiration Date _____

Uniform Plumbing Code Appendix H Interceptor Sizing

Sizing criteria for restaurant grease interceptor:

- (a) Parameters - The parameters for sizing a grease interceptor are hydraulic loading and grease storage capacity, for one or more fixtures.
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Number of meals per <u>peak</u> hour (1)	X	Waste Flow Rate (2)	X	Retention Time (3)	X	Storage Factor (4)	=	Interceptor Size (liquid capacity in gallons)
148	X	6	X	2.5	X	1	=	2,220

(1) Number of meals served per peak hour - or maximum seating capacity

(2) Waste Flow Rate - per device

- a. With dishwashing machine connected to interceptor (not normally allowed) 6 gallon flow
- b. Without dishwashing machine connected to interceptor 5 gallon flow
- c. Single Service Kitchen (paper plates and utensils only) 2 gallon flow
- d. Food waste disposer 1 gallon flow

(3) Retention Time

- a. Commercial Kitchens 2.5 hours
- b. Single Service Kitchen 1.5 hours

(4) Storage Factors

Fully equipped commercial kitchen

- a. 8 hour operation 1
- b. 16 hour operation 2
- c. 24 hour operation 3

Single Service Kitchen (normal hours) 1.5

Engineer recommended size to install: 2,500

Facility Name: LOT #3 5th Floor Restaurant Lounge

Facility Address: _____

Property TMK: _____

Date: _____

Engineer: _____

Engineers Stamp
License Expiration Date _____

Michael C. Penney

From: Wholey, James <James_Wholey@comcast.com>
Sent: Monday, December 18, 2017 11:56 AM
To: Joseph H. Kieffner
Cc: Collins, Mike - Epping, NH
Subject: RE: DSA Lot 3

Hi Joe,

We have reviewed sheets C5.1 and C5.2 of the Site Plan title The Hotel at Foundry Place, "Lot 3", 165 Deer Street, Assessors Map 125 Lot 17 plan set with revision date of 11/17/2017. Comcast gives preliminary approval of the conduit layout and will serve the property upon request.

Thanks,

Jim

Jim Wholey
180 Greenleaf Ave Portsmouth NH 03801
Commercial Market Development
Comcast Business-Greater Boston Region
Phone: (617)279-5840 Fax: (866)709-7324

COMCAST **B4B** BUILT FOR
BUSINESS BUSINESS



GeoInsight, Inc.

186 Granite Street, 3rd Floor, Suite A
Manchester, NH 03101-2643

FirstLight has reviewed sheets C5.1 and C5.2 of the Site Plan title *The Hotel at Foundry Place, "Lot 3", 165 Deer Street, Assessors Map 125 Lot 17* plan set with revision date of 11/17/2017. FirstLight gives preliminary approval of the conduit layout and will serve the property upon request.

Jeff Tougas

Sales Engineer

FirstLight

359 Corporate Dr. | Portsmouth, NH 03801
Office 603-766-1669
24x7 NOC 1-855-229-7464
jtougas@firstlight.net | www.firstlight.net



1/04/17

Deer Street Associates
c/o GL Rogers & Sons, Inc.
P.O. Box 100
York Harbor, ME 03911

Re: Approval of the proposed gas layout as shown on Sheet C5.1 of *The Hotel at Foundry Place, "Lot 3"...* plan set with revision date of 11/17/2017

Unitil's natural gas division has reviewed the requested sites for natural gas service.

Unitil hereby confirms natural gas service will be available from Bridge Street and Deer Street and can be provided to *Lot 3-6, Portsmouth, NH*. Installation of new gas services pending authorized installation agreement, & road opening permit from the City of Portsmouth.

Approval of the gas loads as stated on the utility load sheet titled "RE: JSA Deer Street Associates Building Concept Utility Flow Rates" by Engineering Systems with date of December 8, 2017

Please contact me with any questions at 603-294-5144.

Sincerely,

A handwritten signature in black ink that reads "David Beaulieu".

David Beaulieu
Business Development Representative
Unitil Natural Gas
325 West Road
Portsmouth, NH 03801

CUSTOMER ENERGY SOLUTIONS
325 West Road
Portsmouth, NH 03801

Michael C. Penney

From: Joseph H. Kieffner
Sent: Tuesday, January 16, 2018 10:17 AM
To: Michael C. Penney
Subject: Fwd: DSA Lot 3 Service Letter

Sent from my iPhone

Begin forwarded message:

From: "Beaulieu, David" <beaulieu@unitil.com>
Date: January 4, 2018 at 5:45:15 PM EST
To: "Joseph H. Kieffner" <jhkieffner@geoinc.com>
Cc: Gregg Mikolaities <Gregg@augustpllc.com>, "Michael C. Penney" <MCPenney@geoinc.com>
Subject: RE: DSA Lot 3 Service Letter

Yes, the existing gas main, without the extension to Foundry Place is sufficient to connect the new services to. Lot 6 will have to connect to Hill Street from behind.

Dave

David Beaulieu
Sr. Business Development Representative
Unitil | 325 West Road | Portsmouth NH
o: 603.294.5144 f: 603.294.5244
Beaulieu@unitil.com | www.unitil.com

From: Joseph H. Kieffner [<mailto:jhkieffner@geoinc.com>]
Sent: Thursday, January 04, 2018 5:42 PM
To: Beaulieu, David
Cc: Gregg Mikolaities; Michael C. Penney
Subject: RE: DSA Lot 3 Service Letter

David,

Does this mean the existing mains will supply the loads?

Thanks,

Joseph H. Kieffner, P.E.
Project Engineer
GeoInsight, Inc.
186 Granite Street, 3rd Floor, Suite A
Manchester, NH 03101-2643
Tel: (603) 314-0820 ext. 210
Fax: (603) 314-0821
www.geoinsight.com

Environmental Strategy & Engineering

Practical in Nature

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From: Beaulieu, David [<mailto:beaulieu@unitil.com>]
Sent: Thursday, January 04, 2018 5:39 PM
To: Joseph H. Kieffner <jhkieffner@geoinc.com>
Cc: Gregg Mikolaities <Gregg@augustpllc.com>; Michael C. Penney <MCPenney@geoinc.com>
Subject: RE: DSA Lot 3 Service Letter

Hi Joseph,

All set. Hopefully the top address is still correct from the previous letter.

Dave

David Beaulieu
Sr. Business Development Representative
Unitil | 325 West Road | Portsmouth NH
o: 603.294.5144 f: 603.294.5244
Beaulieu@unitil.com | www.unitil.com

From: Joseph H. Kieffner [<mailto:jhkieffner@geoinc.com>]
Sent: Thursday, January 04, 2018 2:28 PM
To: Beaulieu, David
Cc: Gregg Mikolaities; Michael C. Penney
Subject: Re: DSA Lot 3 Service Letter

David,

Have you heard anything back from your engineering department regarding DSA's proposed gas loads?

Thanks,
-Joseph

Sent from my iPhone

On Dec 19, 2017, at 1:19 PM, Beaulieu, David <beaulieu@unitil.com> wrote:

Hi Joseph,

Sorry for the delay. The cold weather shifts everyone into crazy busy mode.

I'll have our engineering department review for approval so I can get a letter out to you.

Dave

David Beaulieu
Sr. Business Development Representative

From: Joseph H. Kieffner [<mailto:jhkieffner@geoinc.com>]
Sent: Tuesday, December 12, 2017 12:57 PM
To: Beaulieu, David
Cc: Gregg Mikolaities; Michael C. Penney
Subject: RE: DSA Lot 3 Service Letter

David,

The City is wanting a letter stating that the current gas infrastructure is able to supply all of DSA's properties. I've attached the load letter for the 4 DSA properties and the Lot 3 utility plan sheet for your review.

Please include the following in your letter:

- Approval of the proposed gas layout as shown on 'Sheet C5.1 of *The Hotel at Foundry Place, "Lot 3"...* plan set with revision date of 11/17/2017'
- Approval of the gas loads as stated on the 'utility load sheet titled "RE: JSA Deer Street Associates Building Concept Utility Flow Rates" by Engineering Systems with date of December 8, 2017'

I will perform a follow up call around 1:45

Thanks,

Kind Regards,

Joseph H. Kieffner, P.E.
Project Engineer
GeoInsight, Inc.
186 Granite Street, 3rd Floor, Suite A
Manchester, NH 03101-2643
Tel: (603) 314-0820 ext. 210
Fax: (603) 314-0821
www.geoinsight.com

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From: Beaulieu, David [<mailto:beaulieu@unitil.com>]
Sent: Thursday, November 16, 2017 12:55 PM
To: Joseph H. Kieffner <jhkieffner@geoinc.com>
Cc: Gregg Mikolaities <Gregg@augustpllc.com>; Michael C. Penney <MCPenney@geoinc.com>
Subject: RE: DSA Lot 3 Service Letter

Hi Joe,

Attached is the requested Will Serve Document for Lot 3.

Dave

David Beaulieu
Sr. Business Development Representative
Unitil | 325 West Road | Portsmouth NH
o: 603.294.5144 f: 603.294.5244
Beaulieu@unitil.com | www.unitil.com

From: Joseph H. Kieffner [<mailto:jhkieffner@geoinc.com>]
Sent: Friday, November 10, 2017 11:59 AM
To: Beaulieu, David
Cc: Gregg Mikolaities; Michael C. Penney
Subject: DSA Lot 3 Service Letter

David,

Please find the attached Utility Plan for the DSA Lot 3 Development for your review and approval. Also attached is the "will serve" letter sent out for Lot 6 with requested changes for Lot 3.

Please call if you have any questions.

Kind Regards,

Joseph H. Kieffner, P.E.
Project Engineer
GeoInsight, Inc.
186 Granite Street, 3rd Floor, Suite A
Manchester, NH 03101-2643
Tel: (603) 314-0820 ext. 210
Fax: (603) 314-0821
www.geoinsight.com

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ATTACHMENT G
Lighting Fixture Cut Sheets

DEER STREET DEVELOPMENT
THE HOTEL AT FOUNDRY PLACE - LOT #3
165 DEER STREET, ASSESSOR'S MAP 125 LOT 17
LIGHTING PHOTOMETRIC LAYOUT SUPPORT DOCUMENTS
REVISED TO ILLUSTRATE ILLUMINATION LEVELS ON THE SOUTH SIDEWALK AFTER HOURS
AND
REVISED LOT #4 POLE LOCATIONS
12-18-2017

J & M LIGHTING DESIGN, INC
207-967-5223
jmlight2@roadrunner.com
NOV. 17, 2017

Luminaire Definition(s)

JAW

CL-ADA-XL-LED15-4K-EBU-SGR - ECLIPSE

Filename	102063649CHI-031.ies
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	2094
Luminaire Lumens	2094
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.900
Luminaire Watts	19.3
Arrangement Watts	19.3
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type IV, Very Short, N.A. (deprecated)
Upward Waste Light Ratio	0.50

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	51.5	N.A.	2.5
LCS-FM	307.5	N.A.	14.7
LCS-FH	361.4	N.A.	17.3
LCS-FVH	203.4	N.A.	9.7
LCS-BL	13.4	N.A.	0.6
LCS-BM	43.7	N.A.	2.1
LCS-BH	40.6	N.A.	1.9
LCS-BVH	22.0	N.A.	1.1
LCS-UL	225.7	N.A.	10.8
LCS-UH	824.4	N.A.	39.4
Total	2093.6	N.A.	100.0
BUG Rating	B0-U4-G2		
Indoor Classification	General Diffuse		
LER	108		

JAW-5

CL-ADA-XL-LED15-4K-EBU-SGR - ECLIPSE

Filename	102063649CHI-031.ies
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	2094
Luminaire Lumens	2094
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.500
Luminaire Watts	19.3
Arrangement Watts	19.3
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type IV, Very Short, N.A. (deprecated)
Upward Waste Light Ratio	0.50

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	51.5	N.A.	2.5
LCS-FM	307.5	N.A.	14.7

Luminaire Definition(s) - Cont.

LCS-FH	361.4	N.A.	17.3
LCS-FVH	203.4	N.A.	9.7
LCS-BL	13.4	N.A.	0.6
LCS-BM	43.7	N.A.	2.1
LCS-BH	40.6	N.A.	1.9
LCS-BVH	22.0	N.A.	1.1
LCS-UL	225.7	N.A.	10.8
LCS-UH	824.4	N.A.	39.4
Total	2093.6	N.A.	100.0
BUG Rating	B0-U4-G2		
Indoor Classification	General Diffuse		
LER	108		

JBW

WL-LED300-C-WT

Filename	WL-LED300-C-WT.IES		
Lumens Per Lamp	271		
Number of Lamps	1		
Total Lamp Lumens	271		
Arrangement Lamp Lumens	271		
Arrangement Luminaire Lumens	74		
Luminaire Lumens	74		
Luminaire Efficiency (%)	27		
Total Light Loss Factor	0.800		
Luminaire Watts	3.9		
Arrangement Watts	3.9		
Arrangement	SINGLE		
Arm Length	0		
Offset	0		
Road Classification	N.A., N.A., Full Cutoff (deprecated)		
Upward Waste Light Ratio	0.00		

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	9.7	3.6	13.1
LCS-FM	23.3	8.6	31.5
LCS-FH	4.6	1.7	6.3
LCS-FVH	0.3	0.1	0.4
LCS-BL	9.4	3.5	12.7
LCS-BM	21.8	8.1	29.5
LCS-BH	4.5	1.7	6.1
LCS-BVH	0.4	0.1	0.5
LCS-UL	0.0	0.0	0.0
LCS-UH	0.0	0.0	0.0
Total	74.0	27.4	100.0
BUG Rating	B0-U0-G0		
Indoor Classification	Direct		
LER	19		

JCW-R

AEL12-7W 4000K - LUMINAIRE

Filename	AEL12-10W-4000K.ies		
Lumens Per Lamp	N.A.		
Number of Lamps	28		
Total Lamp Lumens	N.A.		
Arrangement Lamp Lumens	N.A.		
Arrangement Luminaire Lumens	726		

Luminaire Definition(s) - Cont.

Luminaire Lumens	726
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.560
Luminaire Watts	10.8
Arrangement Watts	10.8
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type III, Very Short, N.A. (deprecated)
Upward Waste Light Ratio	0.00

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	133.9	N.A.	18.4
LCS-FM	398.4	N.A.	54.9
LCS-FH	117.9	N.A.	16.2
LCS-FVH	4.5	N.A.	0.6
LCS-BL	19.0	N.A.	2.6
LCS-BM	33.5	N.A.	4.6
LCS-BH	17.0	N.A.	2.3
LCS-BVH	1.7	N.A.	0.2
LCS-UL	0.0	N.A.	0.0
LCS-UH	0.0	N.A.	0.0
Total	725.9	N.A.	100.0
BUG Rating	B0-U0-G0		
Indoor Classification	Direct		
LER	67		

JDW

1403201050-001 MOD# AEL36-14W 4000K - LUMINAIRE

Filename	AEL36-15W-4000K.IES
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	1213
Luminaire Lumens	1213
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.800
Luminaire Watts	14.1
Arrangement Watts	14.1
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type II, Very Short, N.A. (deprecated)
Upward Waste Light Ratio	0.00

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	271.9	N.A.	22.4
LCS-FM	568.7	N.A.	46.9
LCS-FH	117.9	N.A.	9.7
LCS-FVH	6.3	N.A.	0.5
LCS-BL	108.6	N.A.	9.0
LCS-BM	114.2	N.A.	9.4
LCS-BH	24.4	N.A.	2.0
LCS-BVH	1.1	N.A.	0.1
LCS-UL	< 0.05	N.A.	0.0
LCS-UH	< 0.05	N.A.	0.0
Total	1213.1	N.A.	100.0

Luminaire Definition(s) - Cont.

BUG Rating B0-U1-G0
Indoor Classification Direct
LER 86

JER

1020-B1-S-10-LRTD4-9020-M2-30KS-80-NCSM - USAI

Filename 1020-B1-S-10-LRTD4-9020-M2-30KS-80.IES
Lumens Per Lamp N.A.
Number of Lamps 1
Total Lamp Lumens N.A.
Arrangement Lamp Lumens N.A.
Arrangement Luminaire Lumens 1037
Luminaire Lumens 1037
Luminaire Efficiency (%) N.A.
Total Light Loss Factor 0.800
Luminaire Watts 21.1
Arrangement Watts 21.1
Arrangement SINGLE
Arm Length 0
Offset 0
Road Classification Type V, Very Short, N.A. (deprecated)
Upward Waste Light Ratio 0.00

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	192.5	N.A.	18.6
LCS-FM	287.3	N.A.	27.7
LCS-FH	36.7	N.A.	3.5
LCS-FVH	1.9	N.A.	0.2
LCS-BL	192.5	N.A.	18.6
LCS-BM	287.3	N.A.	27.7
LCS-BH	36.7	N.A.	3.5
LCS-BVH	1.9	N.A.	0.2
LCS-UL	0.0	N.A.	0.0
LCS-UH	0.0	N.A.	0.0
Total	1036.8	N.A.	100.0

BUG Rating B1-U0-G0
Indoor Classification Direct
LER 49

JER-off

1020-B1-S-10-LRTD4-9020-M2-30KS-80-NCSM - USAI

Filename 1020-B1-S-10-LRTD4-9020-M2-30KS-80.IES
Lumens Per Lamp N.A.
Number of Lamps 1
Total Lamp Lumens N.A.
Arrangement Lamp Lumens N.A.
Arrangement Luminaire Lumens 1037
Luminaire Lumens 1037
Luminaire Efficiency (%) N.A.
Total Light Loss Factor 0.010
Luminaire Watts 21.1
Arrangement Watts 21.1
Arrangement SINGLE
Arm Length 0
Offset 0
Road Classification Type V, Very Short, N.A. (deprecated)

Luminaire Definition(s) - Cont.

Upward Waste Light Ratio	0.00		
Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	192.5	N.A.	18.6
LCS-FM	287.3	N.A.	27.7
LCS-FH	36.7	N.A.	3.5
LCS-FVH	1.9	N.A.	0.2
LCS-BL	192.5	N.A.	18.6
LCS-BM	287.3	N.A.	27.7
LCS-BH	36.7	N.A.	3.5
LCS-BVH	1.9	N.A.	0.2
LCS-UL	0.0	N.A.	0.0
LCS-UH	0.0	N.A.	0.0
Total	1036.8	N.A.	100.0
BUG Rating	B1-U0-G0		
Indoor Classification	Direct		
LER	49		

JIR

3021-B1-S-10-LRTD4-9033-C3-30KS-90-NC-120V -USAI

Filename	3021-B1-S-10-LRTD4-9033-C3-30KS-90.ies
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	1868
Luminaire Lumens	1868
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.800
Luminaire Watts	33.87
Arrangement Watts	33.87
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type V, Very Short, N.A. (deprecated)
Upward Waste Light Ratio	0.00

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	366.4	N.A.	19.6
LCS-FM	503.6	N.A.	27.0
LCS-FH	60.8	N.A.	3.3
LCS-FVH	3.2	N.A.	0.2
LCS-BL	366.4	N.A.	19.6
LCS-BM	503.6	N.A.	27.0
LCS-BH	60.8	N.A.	3.3
LCS-BVH	3.2	N.A.	0.2
LCS-UL	0.0	N.A.	0.0
LCS-UH	0.0	N.A.	0.0
Total	1868.0	N.A.	100.0
BUG Rating	B1-U0-G0		
Indoor Classification	Direct		
LER	55		

JJR

ReflLens-MedRefl-LpodXL-6_9W-XL50-direct -KLIKUSA

Filename	LPODXL50F-ReflLens-direct-MedRefl-LpodXL-6.9W-XL50-45
----------	---

Luminaire Definition(s) - Cont.

Lumens Per Lamp	653
Number of Lamps	1
Total Lamp Lumens	653
Arrangement Lamp Lumens	653
Arrangement Luminaire Lumens	578
Luminaire Lumens	578
Luminaire Efficiency (%)	89
Total Light Loss Factor	0.800
Luminaire Watts	8
Arrangement Watts	8
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type VS, Very Short, Full Cutoff (deprecated)
Upward Waste Light Ratio	0.00

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	200.1	30.6	34.6
LCS-FM	87.7	13.4	15.2
LCS-FH	0.0	0.0	0.0
LCS-FVH	0.0	0.0	0.0
LCS-BL	201.7	30.9	34.9
LCS-BM	88.9	13.6	15.4
LCS-BH	< 0.05	0.0	0.0
LCS-BVH	0.0	0.0	0.0
LCS-UL	0.0	0.0	0.0
LCS-UH	0.0	0.0	0.0
Total	578.4	88.5	100.0
BUG Rating	B1-U0-G0		
Indoor Classification	Direct		
LER	72		

JJR-L

ReflLens-XWideRefl-LpodXL-1_9W-XL50-direct

Filename	LPODXL50F-ReflLens-direct-XWideRefl-LpodXL-1.9W-XL50-
Lumens Per Lamp	215
Number of Lamps	1
Total Lamp Lumens	215
Arrangement Lamp Lumens	215
Arrangement Luminaire Lumens	190
Luminaire Lumens	190
Luminaire Efficiency (%)	88
Total Light Loss Factor	0.800
Luminaire Watts	2
Arrangement Watts	2
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type VS, Very Short, Full Cutoff (deprecated)
Upward Waste Light Ratio	0.00

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	57.2	26.6	30.2
LCS-FM	39.0	18.1	20.6
LCS-FH	< 0.05	0.0	0.0
LCS-FVH	0.0	0.0	0.0
LCS-BL	55.9	26.0	29.5
LCS-BM	37.5	17.4	19.8

Luminaire Definition(s) - Cont.

LCS-BH	< 0.05	0.0	0.0
LCS-BVH	0.0	0.0	0.0
LCS-UL	0.0	0.0	0.0
LCS-UH	0.0	0.0	0.0
Total	189.6	88.1	100.0
BUG Rating	B0-U0-G0		
Indoor Classification	Direct		
LER	95		

JKW

5SP_15W_40K_30_SMS-INT-1

Filename	5SP-15W-40K-30-SMS-INT-1.ies
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	814
Luminaire Lumens	814
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.800
Luminaire Watts	36.5
Arrangement Watts	36.5
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	N.A., N.A., N.A. (deprecated)
Indoor Classification	N.A.
LER	22
Flood NEMA Type	3H x 4V

JKW-30

5SP_15W_40K_30_SMS-INT-1

Filename	5SP-15W-40K-30-SMS-INT-1.ies
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	814
Luminaire Lumens	814
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.300
Luminaire Watts	36.5
Arrangement Watts	36.5
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	N.A., N.A., N.A. (deprecated)
Indoor Classification	N.A.
LER	22
Flood NEMA Type	3H x 4V

JLW

5SP_15W_40K_30_SMS-INT-1

Luminaire Definition(s) - Cont.

Filename	5SP-15W-40K-30-SMS-INT-1.ies
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	814
Luminaire Lumens	814
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.800
Luminaire Watts	36.5
Arrangement Watts	36.5
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	N.A., N.A., N.A. (deprecated)
Indoor Classification	N.A.
LER	22
Flood NEMA Type	3H x 4V

JMG-4-HSS

UCM-ANG-T4-32LED-3K-450-AWT-HSS

Filename	UCM-ANG-T4-32LED-3K-450-HSS.ies
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	3327
Luminaire Lumens	3327
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.800
Luminaire Watts	47.5
Arrangement Watts	47.5
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type IV, Very Short, N.A. (deprecated)
Upward Waste Light Ratio	0.00

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	43.2	N.A.	1.3
LCS-FM	1379.4	N.A.	41.5
LCS-FH	1706.0	N.A.	51.3
LCS-FVH	55.3	N.A.	1.7
LCS-BL	7.3	N.A.	0.2
LCS-BM	62.7	N.A.	1.9
LCS-BH	68.3	N.A.	2.1
LCS-BVH	5.1	N.A.	0.2
LCS-UL	0.0	N.A.	0.0
LCS-UH	0.0	N.A.	0.0
Total	3327.3	N.A.	100.0
BUG Rating	B0-U0-G1		
Indoor Classification	Direct		
LER	70		

JMG-5

UCM-ANG-T4-32LED-5K-450

Luminaire Definition(s) - Cont.

Filename	UCM-ANG-T5-32LED-3K-450.ies
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	4603
Luminaire Lumens	4603
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.800
Luminaire Watts	48
Arrangement Watts	48
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type VS, Short, N.A. (deprecated)
Upward Waste Light Ratio	0.00

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	95.3	N.A.	2.1
LCS-FM	1061.5	N.A.	23.1
LCS-FH	1051.8	N.A.	22.9
LCS-FVH	87.4	N.A.	1.9
LCS-BL	95.3	N.A.	2.1
LCS-BM	1061.5	N.A.	23.1
LCS-BH	1051.8	N.A.	22.9
LCS-BVH	87.4	N.A.	1.9
LCS-UL	5.8	N.A.	0.1
LCS-UH	4.8	N.A.	0.1
Total	4602.6	N.A.	100.0
BUG Rating	B3-U1-G1		
Indoor Classification	Direct		
LER	96		

JNS-PATTERN

iQ67-30-35-90-1_6-FOOT_0

Filename	iQ67-30-35-90-1.6-FOOT_0.ies
Lumens Per Lamp	N.A.
Number of Lamps	1
Total Lamp Lumens	N.A.
Arrangement Lamp Lumens	N.A.
Arrangement Luminaire Lumens	129
Luminaire Lumens	129
Luminaire Efficiency (%)	N.A.
Lamp Lumen Depreciation (LLD)	0.800
Luminaire Dirt Depreciation (LDD)	1.000
Ballast Factor (BF)	1.000
Total Light Loss Factor	0.800
Luminaire Watts	1.61
Arrangement Watts	1.61
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type VS, Very Short, N.A. (deprecated)
Upward Waste Light Ratio	0.03

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	16.9	N.A.	13.1
LCS-FM	33.0	N.A.	25.5

Luminaire Definition(s) - Cont.

LCS-FH	11.3	N.A.	8.8
LCS-FVH	1.4	N.A.	1.1
LCS-BL	16.9	N.A.	13.1
LCS-BM	33.1	N.A.	25.6
LCS-BH	11.2	N.A.	8.7
LCS-BVH	1.4	N.A.	1.1
LCS-UL	1.0	N.A.	0.8
LCS-UH	3.0	N.A.	2.3
Total	129.2	N.A.	100.0
BUG Rating	B0-U1-G0		
Indoor Classification	Direct		
LER	80		

JOS

iQ67-30-35-90-1_6-FOOT_0

Filename	iQ67-30-35-90-1.6-FOOT_0.ies		
Lumens Per Lamp	N.A.		
Number of Lamps	1		
Total Lamp Lumens	N.A.		
Arrangement Lamp Lumens	N.A.		
Arrangement Luminaire Lumens	129		
Luminaire Lumens	129		
Luminaire Efficiency (%)	N.A.		
Total Light Loss Factor	0.800		
Luminaire Watts	1.61		
Arrangement Watts	1.61		
Arrangement	SINGLE		
Arm Length	0		
Offset	0		
Road Classification	Type VS, Very Short, N.A. (deprecated)		
Upward Waste Light Ratio	0.03		

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	16.9	N.A.	13.1
LCS-FM	33.0	N.A.	25.5
LCS-FH	11.3	N.A.	8.8
LCS-FVH	1.4	N.A.	1.1
LCS-BL	16.9	N.A.	13.1
LCS-BM	33.1	N.A.	25.6
LCS-BH	11.2	N.A.	8.7
LCS-BVH	1.4	N.A.	1.1
LCS-UL	1.0	N.A.	0.8
LCS-UH	3.0	N.A.	2.3
Total	129.2	N.A.	100.0
BUG Rating	B0-U1-G0		
Indoor Classification	Direct		
LER	80		

JOS-off

iQ67-30-35-90-1_6-FOOT_0

Filename	iQ67-30-35-90-1.6-FOOT_0.ies		
Lumens Per Lamp	N.A.		
Number of Lamps	1		
Total Lamp Lumens	N.A.		
Arrangement Lamp Lumens	N.A.		
Arrangement Luminaire Lumens	129		

Luminaire Definition(s) - Cont.

Luminaire Lumens	129
Luminaire Efficiency (%)	N.A.
Total Light Loss Factor	0.001
Luminaire Watts	1.61
Arrangement Watts	1.61
Arrangement	SINGLE
Arm Length	0
Offset	0
Road Classification	Type VS, Very Short, N.A. (deprecated)
Upward Waste Light Ratio	0.03

Luminaire Classification System (LCS)	Lumens	% Lamp	% Luminaire
LCS-FL	16.9	N.A.	13.1
LCS-FM	33.0	N.A.	25.5
LCS-FH	11.3	N.A.	8.8
LCS-FVH	1.4	N.A.	1.1
LCS-BL	16.9	N.A.	13.1
LCS-BM	33.1	N.A.	25.6
LCS-BH	11.2	N.A.	8.7
LCS-BVH	1.4	N.A.	1.1
LCS-UL	1.0	N.A.	0.8
LCS-UH	3.0	N.A.	2.3
Total	129.2	N.A.	100.0
BUG Rating	B0-U1-G0		
Indoor Classification	Direct		
LER	80		

Luminaire Location(s)

Luminaire Locations

Project Name : Project_1

Coordinates in Feet

Lum. No.	Label	Aiming Point										
		X	Y	Z	Orient	Tilt	Roll	Spin	X	Y	Z	Status
17	JAW	152.948	34.616	11.52	270	0	0	0	152.948	34.616	11.52	On
18	JKW	152.938	34.642	39	270	0	0	0	152.938	34.642	39	On
23	JKW	218.743	34.642	39	270	0	0	0	218.743	34.642	39	On
24	JAW	218.743	34.642	11.52	270	0	0	0	218.743	34.642	11.52	On
25	JKW	151.277	35.565	39	180	0	0	0	151.277	35.565	39	On
26	JJR	229.083	35.884	15.56	0	0	0	0	229.083	35.884	15.56	On
27	JKW	220.881	36.603	39	0	0	0	0	220.881	36.603	39	On
28	JJR	235.202	38.517	15.56	0	0	0	0	235.202	38.517	15.56	On
29	JJR	239.694	43.435	15.56	0	0	0	0	239.694	43.435	15.56	On
30	JJR-L	147.549	44.294	3.5	0	0	0	0	147.549	44.294	3.5	On
31	JJR-L	134.608	44.696	6.92	0	0	0	0	134.608	44.696	6.92	On
32	JJR-L	146.07	44.851	3.5	0	0	0	0	146.07	44.851	3.5	On
33	JJR-L	139.681	44.928	5	0	0	0	0	139.681	44.928	5	On
35	JJR	241.591	47.811	15.56	0	0	0	0	241.591	47.811	15.56	On
36	JER	127.316	48.219	14.95	0	0	0	0	127.316	48.219	14.95	On
39	JKW	241.386	56.541	39	270	0	0	0	241.386	56.541	39	On
40	JDW	90.912	57.321	13.5	270	0	0	0	90.912	57.321	13.5	On
41	JDW	103.651	57.346	13.5	270	0	0	0	103.651	57.346	13.5	On
42	JKW	242.592	57.656	39	0	0	0	0	242.592	57.656	39	On
43	JER	75.126	58.785	16.5	0	0	0	0	75.126	58.785	16.5	On
44	JAW	80.815	59.49	11.52	270	0	0	0	80.815	59.49	11.52	On
45	JKW	242.592	70.324	39	0	0	0	0	242.592	70.324	39	On
46	JDW	70.495	72.628	13.5	180	0	0	0	70.495	72.628	13.5	On
47	JIR	245	73.146	16.5	0	0	0	0	245	73.146	16.5	On
48	JDW	70.552	78.978	13.5	180	0	0	0	70.552	78.978	13.5	On
49	JKW	242.592	79.182	39	0	0	0	0	242.592	79.182	39	On
51	JIR	238.462	82.072	16.5	0	0	0	0	238.462	82.072	16.5	On
52	JIR	230.68	87.311	16.5	0	0	0	0	230.68	87.311	16.5	On
53	JIR	245	88.146	16.5	0	0	0	0	245	88.146	16.5	On
54	JKW	242.592	90.262	39	0	0	0	0	242.592	90.262	39	On
55	JCW-R	67.053	99.13	10.84	180	0	0	0	67.053	99.13	10.84	On
56	JMG-5	300.194	98.891	23	176.634	0	0	0	300.194	98.891	23	On
57	JMG-5	402.489	99.63	23	0	0	0	0	402.489	99.63	23	On
58	JKW	242.592	101.228	39	0	0	0	0	242.592	101.228	39	On
59	JIR	230.444	103.148	16.5	0	0	0	0	230.444	103.148	16.5	On
60	JIR	245	103.146	16.5	0	0	0	0	245	103.146	16.5	On
61	JCW-R	70.46	110.011	10.84	180	0	0	0	70.46	110.011	10.84	On
62	JKW	242.592	112.018	39	0	0	0	0	242.592	112.018	39	On
63	JCW-R	67.035	117.458	10.84	180	0	0	0	67.035	117.458	10.84	On
64	JIR	245	118.146	16.5	0	0	0	0	245	118.146	16.5	On
65	JIR	230.68	119.1	16.5	0	0	0	0	230.68	119.1	16.5	On
66	JMG-5	301.613	121.699	23	176.634	0	0	0	301.613	121.699	23	On
67	JKW	242.592	122.744	39	0	0	0	0	242.592	122.744	39	On
68	JIR	237.613	126.742	16.5	0	0	0	0	237.613	126.742	16.5	On
69	JCW-R	67.002	131.821	10.84	180	0	0	0	67.002	131.821	10.84	On
70	JIR	245	133.146	16.5	0	0	0	0	245	133.146	16.5	On
71	JKW	242.592	133.78	39	0	0	0	0	242.592	133.78	39	On
72	JDW	238.321	142.017	15.54	0	0	0	0	238.321	142.017	15.54	On
73	JMG-4-HSS	303.148	145.71	23	177.955	0	0	0	303.148	145.71	23	On
74	JCW-R	67.025	146.652	10.84	180	0	0	0	67.025	146.652	10.84	On
75	JDW	238.155	151.764	15.54	0	0	0	0	238.155	151.764	15.54	On
78	JCW-R	67.254	161.936	10.84	180	0	0	0	67.254	161.936	10.84	On
79	JCW-R	244.628	167.452	14.53	0	0	0	0	244.628	167.452	14.53	On

Luminaire Location(s) - Cont.

80	JCW-R	67.254	175.915	10.84	180	0	0	0	67.254	175.915	10.84	On
81	JCW-R	69.674	177.716	10.84	90	0	0	0	69.674	177.716	10.84	On
82	JCW-R	81.851	177.716	10.84	90	0	0	0	81.851	177.716	10.84	On
83	JCW-R	93.574	177.716	10.84	90	0	0	0	93.574	177.716	10.84	On
84	JCW-R	107.071	177.716	10.84	90	0	0	0	107.071	177.716	10.84	On
85	JCW-R	120.798	177.716	10.84	90	0	0	0	120.798	177.716	10.84	On
86	JCW-R	134.231	177.716	10.84	90	0	0	0	134.231	177.716	10.84	On
87	JCW-R	148.008	177.716	10.84	90	0	0	0	148.008	177.716	10.84	On
88	JCW-R	161.614	177.716	10.84	90	0	0	0	161.614	177.716	10.84	On
89	JCW-R	175.744	177.716	10.84	90	0	0	0	175.744	177.716	10.84	On
90	JCW-R	189.442	177.716	10.84	90	0	0	0	189.442	177.716	10.84	On
91	JCW-R	203.415	177.716	10.84	90	0	0	0	203.415	177.716	10.84	On
92	JCW-R	218.179	177.716	10.84	90	0	0	0	218.179	177.716	10.84	On
93	JCW-R	236.495	177.716	10.84	90	0	0	0	236.495	177.716	10.84	On
104	JAW	236.828	96.316	11.52	0	0	0	0	236.828	96.316	11.52	On
105	JAW	237.206	109.628	11.52	0	0	0	0	237.206	109.628	11.52	On
258	JKW	68.031	88.45	39	180	0	0	0	68.031	88.45	39	On
259	JLW	121.421	45.71	60.34	180	0	0	0	121.421	45.71	60.34	On
260	JLW	121.576	50.357	60.34	180	0	0	0	121.576	50.357	60.34	On
261	JLW	121.421	55.391	60.34	180	0	0	0	121.421	55.391	60.34	On
96	JMG-4-HSS	378.506	162.55	23	90	0	0	0	378.506	162.55	23	On
13	JER-off	179.554	31.969	16.5	0	0	0	0	179.554	31.969	16.5	On
14	JER-off	166.581	32.008	16.5	0	0	0	0	166.581	32.008	16.5	On
15	JER-off	192.797	31.969	16.5	0	0	0	0	192.797	31.969	16.5	On
16	JER-off	205.499	31.969	16.5	0	0	0	0	205.499	31.969	16.5	On
19	JKW-30	165.834	34.642	39	270	0	0	0	165.834	34.642	39	On
20	JKW-30	179.442	34.642	39	270	0	0	0	179.442	34.642	39	On
21	JKW-30	205.626	34.602	39	270	0	0	0	205.626	34.602	39	On
22	JKW-30	192.39	34.642	39	270	0	0	0	192.39	34.642	39	On
100	JAW-5	192.682	34.41	11.52	270	0	0	0	192.682	34.41	11.52	On
101	JAW-5	179.458	34.449	11.52	270	0	0	0	179.458	34.449	11.52	On
102	JAW-5	205.79	34.158	11.52	270	0	0	0	205.79	34.158	11.52	On
103	JAW-5	165.76	34.449	11.52	270	0	0	0	165.76	34.449	11.52	On
94	JMG-5	310.417	159.574	23	90	0	0	0	310.417	159.574	23	On
95	JMG-4-HSS	339.736	163.376	23	90	0	0	0	339.736	163.376	23	On
76	JMG-5	396.638	158.769	23	55.407	0	0	0	396.638	158.769	23	On

Summary By Label

Project Name : Project_1

Label	On	Off	Total
JAW	5	0	5
JAW-5	4	0	4
JBW	0	0	0
JCW-R	21	0	21
JDW	6	0	6
JER	2	0	2
JER-off	4	0	4
JIR	10	0	10
JJR	4	0	4
JJR-L	4	0	4
JKW	14	0	14
JKW-30	4	0	4
JLW	3	0	3
JMG-4-HSS	3	0	3
JMG-5	5	0	5
JNS-PATTERN #	0	0	0
JOS	0	0	0
JOS-off	0	0	0

Luminaire Location(s) - Cont.

Luminaire Locations

Project Name : jmlld -Combined GPI 2017-10-20 -- 2017-Oct-25 17h-10m-57s

Coordinates in Feet

Lum. No.	Label	Aiming Point											Status
		X	Y	Z	Orient	Tilt	Roll	Spin	X	Y	Z		
98	JNS-PATTERN #	-84.746	87.301	3	272.125	0	0	0	-84.746	87.301	3	On	
99	JBW	-79.841	105.188	2	0	0	0	0	-79.841	105.188	2	On	
219	JOS	169.814	28.614	3.52	260.557	0	0	0	169.814	28.614	3.52	On	
241	JOS	176.074	28.042	3.52	260.557	0	0	0	176.074	28.042	3.52	On	
193	JOS	186.097	26.288	3.52	260.557	0	0	0	186.097	26.288	3.52	On	
253	JOS-off	169.005	29.084	3.52	260.557	0	0	0	169.005	29.084	3.52	On	
236	JOS-off	180.158	27.507	7.01	260.557	0	0	0	180.158	27.507	7.01	On	
235	JOS-off	179.014	27.667	7.01	260.557	0	0	0	179.014	27.667	7.01	On	
225	JOS-off	186.115	26.704	3.52	260.557	0	0	0	186.115	26.704	3.52	On	
226	JOS-off	185.119	26.851	7.01	260.557	0	0	0	185.119	26.851	7.01	On	
229	JOS-off	184.095	26.983	7.01	260.557	0	0	0	184.095	26.983	7.01	On	
232	JOS-off	183.124	27.13	7.01	260.557	0	0	0	183.124	27.13	7.01	On	
230	JOS-off	182.131	27.288	7.01	260.557	0	0	0	182.131	27.288	7.01	On	
231	JOS-off	181.137	27.399	7.01	260.557	0	0	0	181.137	27.399	7.01	On	
195	JOS	185.115	26.433	3.52	260.557	0	0	0	185.115	26.433	3.52	On	
197	JOS	184.116	26.6	3.52	260.557	0	0	0	184.116	26.6	3.52	On	
200	JOS	183.138	26.761	3.52	260.557	0	0	0	183.138	26.761	3.52	On	
199	JOS	182.127	26.884	3.52	260.557	0	0	0	182.127	26.884	3.52	On	
204	JOS	181.128	27.039	3.52	260.557	0	0	0	181.128	27.039	3.52	On	
202	JOS	180.111	27.194	3.52	260.557	0	0	0	180.111	27.194	3.52	On	
205	JOS	179.098	27.321	3.52	260.557	0	0	0	179.098	27.321	3.52	On	
208	JOS	178.084	27.468	3.52	260.557	0	0	0	178.084	27.468	3.52	On	
207	JOS	177.027	27.612	3.52	260.557	0	0	0	177.027	27.612	3.52	On	
240	JOS	178.042	27.825	7.01	260.557	0	0	0	178.042	27.825	7.01	On	
238	JOS-off	177.098	27.945	7.01	260.557	0	0	0	177.098	27.945	7.01	On	
242	JOS-off	175.058	28.209	3.52	260.557	0	0	0	175.058	28.209	3.52	On	
209	JOS	176.056	27.77	3.52	260.557	0	0	0	176.056	27.77	3.52	On	
212	JOS	175.04	27.939	3.52	260.557	0	0	0	175.04	27.939	3.52	On	
210	JOS	174.04	28.105	3.52	260.557	0	0	0	174.04	28.105	3.52	On	
245	JOS-off	174.075	28.374	7.01	260.557	0	0	0	174.075	28.374	7.01	On	
250	JOS-off	170.024	28.912	7.01	260.557	0	0	0	170.024	28.912	7.01	On	
249	JOS-off	171.032	28.749	7.01	260.557	0	0	0	171.032	28.749	7.01	On	
246	JOS-off	172.038	28.61	3.52	260.557	0	0	0	172.038	28.61	3.52	On	
248	JOS	173.062	28.463	3.52	260.557	0	0	0	173.062	28.463	3.52	On	
215	JOS	170.896	28.5	3.52	260.557	0	0	0	170.896	28.5	3.52	On	
214	JOS	171.934	28.36	3.52	260.557	0	0	0	171.934	28.36	3.52	On	
216	JOS	173.005	28.213	3.52	260.557	0	0	0	173.005	28.213	3.52	On	
221	JOS	168.814	28.766	3.52	260.557	0	0	0	168.814	28.766	3.52	On	
254	JOS-off	168.032	29.232	7.01	260.557	0	0	0	168.032	29.232	7.01	On	
222	JOS	167.807	28.913	3.52	260.557	0	0	0	167.807	28.913	3.52	On	
223	JOS	166.799	29.071	3.52	260.557	0	0	0	166.799	29.071	3.52	On	
255	JOS-off	167.031	29.386	7.01	260.557	0	0	0	167.031	29.386	7.01	On	
156	JOS	187.094	26.174	3.52	277.517	0	0	0	187.094	26.174	3.52	On	
181	JOS-off	193.197	27.518	7.02	277.517	0	0	0	193.197	27.518	7.02	On	
179	JOS-off	194.189	27.652	7.02	277.517	0	0	0	194.189	27.652	7.02	On	
183	JOS-off	192.207	27.389	7.02	277.517	0	0	0	192.207	27.389	7.02	On	
184	JOS-off	191.212	27.266	7.02	277.517	0	0	0	191.212	27.266	7.02	On	
186	JOS-off	190.213	27.124	3.52	277.517	0	0	0	190.213	27.124	3.52	On	
187	JOS-off	189.21	26.975	7.02	277.517	0	0	0	189.21	26.975	7.02	On	
188	JOS-off	188.207	26.837	7.02	277.517	0	0	0	188.207	26.837	7.02	On	
191	JOS-off	187.203	26.699	7.02	277.517	0	0	0	187.203	26.699	7.02	On	
176	JOS-off	196.17	27.977	7.02	277.517	0	0	0	196.17	27.977	7.02	On	
178	JOS-off	195.196	27.824	7.02	277.517	0	0	0	195.196	27.824	7.02	On	

Luminaire Location(s) - Cont.

174	JOS-off	197.203	28.135	7.02	277.517	0	0	197.203	28.135	7.02	On
172	JOS-off	198.194	28.265	7.02	277.517	0	0	198.194	28.265	7.02	On
169	JOS-off	200.271	28.615	7.02	277.517	0	0	200.271	28.615	7.02	On
171	JOS-off	199.272	28.452	7.02	277.517	0	0	199.272	28.452	7.02	On
165	JOS-off	203.209	29.084	7.02	277.517	0	0	203.209	29.084	7.02	On
167	JOS-off	202.197	28.929	7.02	277.517	0	0	202.197	28.929	7.02	On
168	JOS-off	201.218	28.79	7.02	277.517	0	0	201.218	28.79	7.02	On
159	JOS-off	206.291	29.548	7.02	277.517	0	0	206.291	29.548	7.02	On
161	JOS-off	205.287	29.407	7.02	277.517	0	0	205.287	29.407	7.02	On
163	JOS-off	204.251	29.245	7.02	277.517	0	0	204.251	29.245	7.02	On
106	JOS	206.453	28.934	3.52	277.517	0	0	206.453	28.934	3.52	On
107	JOS	205.476	28.81	3.52	277.517	0	0	205.476	28.81	3.52	On
108	JOS	204.479	28.68	3.52	277.517	0	0	204.479	28.68	3.52	On
126	JOS	203.448	28.555	3.52	277.517	0	0	203.448	28.555	3.52	On
128	JOS	202.411	28.43	3.52	277.517	0	0	202.411	28.43	3.52	On
127	JOS	201.407	28.295	3.52	277.517	0	0	201.407	28.295	3.52	On
129	JOS	200.405	28.185	3.52	277.517	0	0	200.405	28.185	3.52	On
131	JOS	199.391	28.052	3.52	277.517	0	0	199.391	28.052	3.52	On
132	JOS	198.322	27.876	3.52	277.517	0	0	198.322	27.876	3.52	On
133	JOS	197.284	27.737	3.52	277.517	0	0	197.284	27.737	3.52	On
144	JOS	196.247	27.599	3.52	277.517	0	0	196.247	27.599	3.52	On
145	JOS	195.264	27.474	3.52	277.517	0	0	195.264	27.474	3.52	On
146	JOS	194.262	27.319	3.52	277.517	0	0	194.262	27.319	3.52	On
147	JOS	193.189	27.154	3.52	277.517	0	0	193.189	27.154	3.52	On
148	JOS	192.114	27.016	3.52	277.517	0	0	192.114	27.016	3.52	On
149	JOS	191.06	26.847	3.52	277.517	0	0	191.06	26.847	3.52	On
150	JOS	190.058	26.688	3.52	277.517	0	0	190.058	26.688	3.52	On
152	JOS	189.037	26.542	3.52	277.517	0	0	189.037	26.542	3.52	On
154	JOS	188.005	26.407	3.52	277.517	0	0	188.005	26.407	3.52	On

Summary By Label

Project Name : jmlld -Combined GPI 2017-10-20 -- 2017-Oct-25 17h-10m-57s

Label	On	Off	Total
JAW	0	0	0
JAW-5	0	0	0
JBW	1	0	1
JCW-R	0	0	0
JDW	0	0	0
JER	0	0	0
JER-off	0	0	0
JIR	0	0	0
JJR	0	0	0
JJR-L	0	0	0
JKW	0	0	0
JKW-30	0	0	0
JLW	0	0	0
JMG-4-HSS	0	0	0
JMG-5	0	0	0
JNS-PATTERN #	1	0	1
JOS	43	0	43
JOS-off	37	0	37

Calculation Summary

BALCONY SE

Project: Project_1
2 Pt. Grid
Coordinates in Feet

Point Spacing L-R	2
Point Spacing T-B	2
Grid Orient	0
Grid Tilt	0
Meter Type	Horizontal

Illuminance (Fc)	
Average	2.56
Maximum	3.14
Minimum	1.93
Avg/Min	1.33
Max/Min	1.63

DECK OFF LOBBY

Project: Project_1
2 Pt. Grid
Coordinates in Feet

Point Spacing L-R	2
Point Spacing T-B	2
Grid Orient	0
Grid Tilt	0
Meter Type	Horizontal

Illuminance (Fc)	
Average	2.10
Maximum	8.23
Minimum	1.01
Avg/Min	2.08
Max/Min	8.15

drop-off

Project: Project_1
2 Pt. Grid
Coordinates in Feet

Point Spacing L-R	2
Point Spacing T-B	2
Grid Orient	0
Grid Tilt	0
Meter Type	Horizontal

Illuminance (Fc)	
Average	3.34
Maximum	10.63
Minimum	0.18
Avg/Min	18.56
Max/Min	59.06

Calculation Summary - Cont.

ground

Project: Project_1
2 Pt. Grid
Coordinates in Feet

Point Spacing L-R	2
Point Spacing T-B	2
Grid Orient	0
Grid Tilt	0
Meter Type	Horizontal

Illuminance (Fc)	
Average	0.49
Maximum	7.17
Minimum	0.00
Avg/Min	N.A.
Max/Min	N.A.

ground_1

Project: Project_1
2 Pt. Grid
Coordinates in Feet

Point Spacing L-R	2
Point Spacing T-B	2
Grid Orient	0
Grid Tilt	0
Meter Type	Horizontal

Illuminance (Fc)	
Average	0.46
Maximum	19.08
Minimum	0.00
Avg/Min	N.A.
Max/Min	N.A.

ramp

Project: Project_1
3 Pt. Grid
Coordinates in Feet

Point Spacing L-R	2
Point Spacing T-B	2
Grid Orient	91.05
Grid Tilt	0
Meter Type	Normal to grid

Illuminance (Fc)	
Average	3.45
Maximum	20.11
Minimum	0.39
Avg/Min	8.85
Max/Min	51.56

Calculation Summary - Cont.

stoop

Project: Project_1
2 Pt. Grid
Coordinates in Feet

Point Spacing L-R	2
Point Spacing T-B	2
Grid Orient	0
Grid Tilt	0
Meter Type	Horizontal

Illuminance (Fc)	
Average	2.72
Maximum	2.91
Minimum	2.55
Avg/Min	1.07
Max/Min	1.14

DROP OFF

Project: jmlld -Combined GPI 2017-10-20 -- 2017-Oct-25 17h-10m-57s
Illuminance (Fc)

Average =	6.90
Maximum =	10.6
Minimum =	1.3
Avg/Min =	5.31
Max/Min =	8.15

Lot #3-#4 Driveway Loading

Project: jmlld -Combined GPI 2017-10-20 -- 2017-Oct-25 17h-10m-57s
Illuminance (Fc)

Average =	2.06
Maximum =	8.7
Minimum =	0.5
Avg/Min =	4.12
Max/Min =	17.40

Lot #4 Parking and Driveway

Project: jmlld -Combined GPI 2017-10-20 -- 2017-Oct-25 17h-10m-57s
Illuminance (Fc)

Average =	1.00
Maximum =	2.4
Minimum =	0.1
Avg/Min =	10.00
Max/Min =	24.00

Lot #4 Parking Lighting

Calculation Summary - Cont.

Project: jmlld -Combined GPI 2017-10-20 -- 2017-Oct-25 17h-10m-57s
Illuminance (Fc)

Average = 1.60
Maximum = 2.4
Minimum = 0.8
Avg/Min = 2.00
Max/Min = 3.00

North Side Security

Project: jmlld -Combined GPI 2017-10-20 -- 2017-Oct-25 17h-10m-57s
Illuminance (Fc)

Average = 1.93
Maximum = 3.1
Minimum = 0.6
Avg/Min = 3.22
Max/Min = 5.17

South Side hotel deck

Project: jmlld -Combined GPI 2017-10-20 -- 2017-Oct-25 17h-10m-57s
Illuminance (Fc)

Average = 2.06
Maximum = 8.2
Minimum = 1.0
Avg/Min = 2.06
Max/Min = 8.20

South Side walkway

Project: jmlld -Combined GPI 2017-10-20 -- 2017-Oct-25 17h-10m-57s
Illuminance (Fc)

Average = 3.17
Maximum = 14.6
Minimum = 0.5
Avg/Min = 6.34
Max/Min = 29.20

DEER STREET DEVELOPMENT
THE HOTEL AT FOUNDRY PLACE - LOT #3
165 DEER STREET, ASSESSORS MAP 125, LOT 17
LIGHTING COMPLIANCE TO ZONING ORDINANCE
OUTDOOR LIGHTING
11-17-2017
REVISED 12-18-2017

SUBMITTED BY J & M LIGHTING DESIGN, INC
207-967-5223
jmlight2@roadrunner.com

CITY OF PORTSMOUTH, NEW HAMPSHIRE

ZONING ORDINANCE



Adopted by Portsmouth City Council: December 21, 2009
Effective Date: January 1, 2010

As Amended Through: January 9, 2017

Table of Articles and Sections

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Section 10.1140 Outdoor Lighting

10.1141 Purpose

The purpose of this section is to enhance public safety and welfare by providing for adequate and appropriate outdoor lighting, providing for lighting that will complement the character of the City, reduce glare, minimize light trespass, reduce the cost and waste of unnecessary energy consumption, and prevent the degradation of the night sky.

10.1142 General Requirement and Applicability

10.1142.10 All public and private new or replacement outdoor lighting installed in the City of Portsmouth shall be in conformance with the requirements established by this Ordinance.

DESIGNER COMMENTS 11-17-2017: Project shall follow all provisions of the ordinance. Illumination values calculated on photometric plots are maximum levels with all lights energized. Hotel operator shall have options to turn on and off groups of lights and change the intensity level of the lights. Dimmers shall be used to pre-set lower lighting levels for groups of lights used dusk to dawn.

DESIGNERS COMMENTS 12-18-2017 – Photometric plan illustrates reduced light levels on the south side of the building. Revised placement of luminaires on lot #4.

10.1142.20 Any luminaire that does not conform to the standards of this Ordinance but was lawfully in place prior to the adoption of these standards shall be permitted to remain. However, any luminaire that replaces a nonconforming luminaire, or any nonconforming luminaire that is moved, must meet the standards of this Ordinance.

DESIGNER COMMENTS 11-17-2017: No existing luminaires are on this project.

10.1142.30 The following types of lighting are exempt from the requirements of this section:

- 10.1142.31 All temporary lighting required for construction projects related to road construction and repair, installation of sewer and water facilities, and other public infrastructure.
- 10.1142.32 All temporary emergency lighting needed by the police or fire departments or other emergency services, as well as all vehicular luminaires.
- 10.1142.33 State or Federal regulated lighting such as airports, towers requiring lighting, highway signage and traffic signals, etc.
- 10.1142.34 Low wattage or low voltage temporary decorative lighting used for holidays, festivals and special events, provided they do not pose a safety or nuisance problem due to light trespass or glare.

DESIGNER COMMENTS 11-17-2017:
 Items 10.1142.31, 10.1142.32, 10.142.33 are exempt from this submittal. 10.1142.34 shall be on the project at some-time but not designed or submitted as part of this submission.

10.1143 Total Outdoor Light Output Allowance

- 10.1143.10 Total outdoor light output for a parcel shall not exceed the lumen limits given in the following table. Values in this table are upper limits and not design goals; design goals should be the lowest levels that meet requirements of the task.

Zoning Districts	Maximum Mean Lumens Per Net Acre
Airport District (AIR)	Exempt
All Business Districts, except within the Historic District All Industrial Districts Airport Industrial, Pease Industrial, Airport Business Commercial	300,000
All Residential Districts All Mixed Residential Districts All Conservation Districts Historic District	55,000

- 10.1143.20 The total lumens shall be 100 percent of the lumens from outdoor light fixtures installed on grade, on poles, and on the top or sides of buildings or other structures.

DESIGNER’S COMMENTS 11-17-2017:
 LOT #3 Project is in the Business District (CD5-District) allowing 300,000 mean lumens.

LOT #4 Project is in the Historic District allowing 55,000 mean

lumens.

Lighting in the indoor garages are not part of the defined outdoor light fixtures per 10.1143.40b.

- 10.1143.30 “Net acres” shall mean the total parcel area excluding the area of (a) proposed and existing streets within the parcel, and (b) sports playing fields exempted from the lumens per acre cap under Section 10.1143.50.

DESIGNER’S COMMENTS 11-17-2017:

Net acres for LOT #3 is 0.61 acres x 300,000 lumens allowance = 183,000 allowed lumens.

Net acres for LOT #4 is 0.42 acres x 55,000 lumens allowance = 23,100 allowed lumens.

There are no sport playing fields on this project.

Our LOT #3 net lumens equal 94,151.25 lumens of non-cut-off luminaires or 88,848.75 lumens under the allotted value, we are in compliance. (See 10.1143.40 for calculations)

Our LOT #4 net lumens equal 23,100 lumens under the allotted value, we are in compliance since all fixtures are “Full cut-off”

Lighting in the indoor garages are not part of the “Net Acres” lumen count per 10.1143.40b

- 10.1143.40 Outdoor lighting fixtures meeting one of the following conditions shall not be counted in determining the total light output:

- (a) Full cut-off fixtures installed under canopies, building overhangs, or roof eaves.

DESIGNER’S COMMENTS 11-17-2017:

LOT #3

Full-cut-off is a deprecated term. The Illuminating Engineering Society (IES) has replaced the designation by the “BUG” rating. All luminaires used have upward component of above U = “0”

LOT #3

The following fixtures are included in net lumen acre lumens values DUE TO NOT BEING A CUT-OFF CLASSIFICATION.

Type JAW	at	2094 x 9 =	18,846
Type JKW	at	814 x 18 =	14,652
Type JLW	at	814 x 3 =	2,442
Type JNS PATTERN #1	at	12,577 x 1 =	12,577
Type JNS PATTERN #2	at	14,673.7 x 1 =	14,673.7
Type JNS PATTERN #3	at	10,449 x 1 =	10,449
Type JNS-PATTERN #4	at	3,354 x 1 =	3,354
Type JOS	at	17,157 x 1 =	17,157

lumens
LOT #3

The following luminaires are NOT included due to a BUG rating of U-0 [Full cut-off].

Type JBW
Type JCW-R
Type JDW
Type JER
Type JIR
Type JJR

LOT #4

Type JMG-4-HSS
Type JMG-5

- (b) Light fixtures shielded by the canopy, building overhang, or roof eaves in such a manner that no lamp or vertical element of a lens or diffuser is visible from off-site.

DESIGNER'S COMMENTS 11-17-2017:

LOT #3

Light fixtures TYPE JNS-PATTERN #1, #2, are shielded by soffit above
Light fixtures TYPE JNS-PATTERN #3, #4- are directed towards the outdoor bar area.
Light Fixtures TYPE JOS shielded by railing design

- 10.1143.50 Sports venue lighting is exempt from any lumens per acre standard for the playing field only.

DESIGNER'S COMMENTS 11-17-2017: There are no sports venue lighting on this project.

10.1144 Luminaire Design and Height

- 10.1144.10 Any luminaire with a lamp or lamps rated at a total of more than 1,800 lumens (and any flood or spot luminaires of more than 900 lumens) shall be a full-cutoff fixture and shall not emit any direct light above a horizontal plane passing through the lowest part of the light-emitting luminaire

DESIGNER'S COMMENTS 11-17-2017: The following luminaires used on this project have a lumen output of under 1,800 lumens or 900 lumens.

Type JAW
Type JBW
Type JCW-R
Type JDR
Type JER
Type JJR

Type JJR-L
Type JKW (flood under 900 lumens)
Type JLW (flood under 900 lumens)

Luminaires that have a BUG rating of “U0” [full-cut-off classification] and a lumen output of over 1,800 lumens

Type JIR at 1,868 lumens
Type JNS-PATTERN #1 at 13,455 lumens over 97.5’
Type JNS-PATTERN #2 at 15,697.50 lumens over 113.75’
Type JNS-PATTERN #3 at 11,178 lumens over 81’
Type JNS-PATTERN #4 at 3,588 lumens over 26’
Type JOS – 17,157 lumens over 129’

- 10.1144.20 Any luminaire, regardless of lumen rating, shall be equipped with whatever additional shielding, lenses, or cutoff devices are required to prevent light trespass onto any residential property that adjoins or is directly across a street, highway or stream from the lot on which the luminaire is located, and to prevent glare perceptible to persons on such residential property.

DESIGNER’S COMMENTS 11-17-2017: TYPE JAW shall be visible from off site. Due to the commercial nature of the property there shall be illumination on the ground beyond the property line on the North and west sides.

- 10.1144.30 Building façades may be illuminated with low intensity lighting as follows:

- 10.1144.21 The light source for the building façade illumination shall be concealed.

DESIGNER’S COMMENTS 11-17-2017: Building facades shall be illuminated down-ward by the shielded luminaires (TYPE JKW & TYPE JLW) mounted to the building.

- 10.1144.22 Building entrances may be illuminated using recessed lighting in overhangs and soffits, or by use of spotlighting focused on the building entrances with the light source concealed (e.g., in landscaped areas).

DESIGNER’S COMMENTS 11-17-2017: On the East side of the building commercial entrances use recess luminaires. TYPE JIR On the south side over the deck recess luminaires are used. TYPE JER

- 10.1144.23 Direct lighting of limited exterior building areas is permitted when necessary for security purposes.

DESIGNER’S COMMENTS 11-17-2017: TYPE JCW-R used on the northside of the building shall be for security. Luminaires shall be

pre-set dimmed to an acceptable level.

10.1144.40 Increased lighting interrupts or changes the natural duration of night light and can prevent some trees from going into dormancy, thereby making them more susceptible to winter weather and can decrease their effectiveness in tolerating pollution.

10.1144.41 Wherever possible, placement of lighting should be done in such a way as to direct light away from trees.

DESIGNER'S COMMENTS 11-17-2017:

Trees and light placement are being coordinated by the responsible design disciplines.

10.1144.42 When lighting will be directed at trees, high pressure sodium lamps and any incandescent lamps are not allowed.

DESIGNER'S COMMENTS 11-17-2017: Ground light shall not be directed at the trees. Trees shall be illuminated from the lighting placed on the building. All lighting shall follow the ordinance by the use of LED 3,000 k, with a CRI of over 80 to be in compliance with the provisions of the section.

10.1144.43 When planting trees where supplemental lighting already exists, trees shall be selected that have low sensitivity to light.

DESIGNER'S COMMENTS 11-17-2017: SEE NARRATIVE ON LANDSCAPE PLAN.

10.1144.50 A flood or spot luminaire with a lamp or lamps rated at 900 lumens or less may be used without restriction to light distribution, provided that it is aimed, directed, or focused so as not to cause direct light from the luminaire to be directed toward any residential property that adjoins or is directly across a street, highway or stream from the lot on which the luminaire is located, or to create glare perceptible to persons operating motor vehicles on public ways.

DESIGNER'S COMMENTS 11-17-2017:

TYPE JKW & JLW shall be directed toward the project building and not focused off property.

10.1144.60 The maximum mounting height of a luminaire shall be 20 feet above grade except as follows:

10.1144.61 Flood or spot luminaires with a lamp or lamps rated at 900 lumens or less, and other luminaires with a lamp or lamps rated at a total of 1800 lumens or less, may be used without restriction to mounting height.

DESIGNER'S COMMENTS 11-17-2017:

LOT #3

We have luminaires installed above 20'-0" on the balconies and decks, but they have a lumen output of 74 lumens (TYPE JBW).

Project has 17 TYPE JKW mounted at 35'-8-3/4" but is in compliance with a lumen output of 814 under the 900 lumens requirement.

Project has a three fixture TYPE JLW mounted at 58'-0" but is in compliance with a lumen output of 814 lumens under the 900 lumens requirement.

LOT #4

TYPE JMG-4-HSS & TYPE JMG-5 bottom of light emitting surface shall be 20'-0" off the ground in compliance with this requirement

- 10.1144.62 Luminaires used for public-roadway illumination may be installed at a maximum height of 25 feet and may be positioned at that height up to the edge of any bordering property.

DESIGNER'S COMMENTS 11-17-2017: There are no luminaires used for public roadway illumination. In compliance.

- 10.1144.63 Luminaires used primarily for sign illumination may be mounted at any height to a maximum of 25 feet, regardless of lumen rating.

DESIGNER'S COMMENTS 11-17-2017: Sign Lighting is not part of this submission.

- 10.1144.64 Luminaires used for athletic fields are exempt from the height limitations.

DESIGNER'S COMMENTS 11-17-2017: There are no athletic fields on this project. In compliance

10.1145 Hours of Operation

- 10.1145.10 Outdoor lighting shall not be illuminated between 11:00 p.m. and 6:00 a.m. with the following exceptions:

- 10.1145.11 If the use is being operated, such as a business open to customers, or where employees are working or where an institution or place of public assembly is conducting an activity, normal illumination shall be allowed during the activity and for not more than one hour after the activity ceases.

DESIGNER'S COMMENTS 11-17-2017: This project is a hospitality business functioning 24 hours per day.

- 10.1145.12 Low level lighting sufficient for the security of persons or

property on the lot may be in operation between 11:00 p.m. and 6:00 am, provided the average illumination on the ground or on any vertical surface is not greater than 0.5 foot-Candles

DESIGNER'S COMMENTS 11-17-2017: See photometric plan for foot-candle illustrating compliance.

10.1146 Recreational Facilities

- 10.1146.10 Any light source permitted by this Ordinance may be used for lighting of outdoor recreational facilities (public or private), such as, but not limited to, football fields, soccer fields, baseball fields, softball fields, tennis courts, or show areas, provided all of the following conditions are met:
- 10.1146.11 All fixtures used for lighting recreational fields and facilities shall be full-cutoff fixtures.
- 10.1146.12 All lighting installations shall be designed to achieve no greater than the minimal illuminance levels for the activity as recommended by the Illuminating Engineering Society of North America (IESNA).
- 10.1146.13 All events shall be scheduled so as to complete all activity before or as near to 11:00 pm as practical, but under no circumstances shall any illumination of the playing field, court, or track be permitted after 11:00 pm except to conclude a scheduled event that was in progress before 11:00 pm and circumstances prevented concluding before 11:00 pm.

DESIGNER'S COMMENTS 11-17-2017: Does not apply. There are no outdoor recreational facilities on this project.

10.1147 Outdoor Display Lots

- 10.1147.10 Any light source permitted by this Ordinance may be used for lighting of outdoor display lots as defined by this Ordinance, provided that both of the following conditions are met:
- 10.1147.11 All fixtures used for lighting the display lots shall be full-cutoff fixtures.
- 10.1147.12 All lighting installations shall be designed to achieve no greater than the minimal illuminance levels for the activity as recommended by the Illuminating Engineering Society of North America (IESNA).

DESIGNER'S COMMENTS 11-17-2017: Does not apply. There are no Outdoor Display Lots on this project.

10.1148 Temporary Outdoor Lighting

10.1148.10 Any temporary outdoor lighting that conforms to the requirements of this Ordinance shall be allowed. Nonconforming temporary outdoor lighting may be permitted by the Board of Adjustment after considering:

- (a) the public and/or private benefits that will result from the temporary lighting;
- (b) any annoyance or safety problems that may result from the use of the temporary lighting; and
- (c) the duration of the temporary nonconforming lighting.

10.1148.20 The applicant shall submit a detailed description of the proposed temporary nonconforming lighting to the Board of Adjustment and shall comply with all procedures for special exceptions as stated in Article 2.

DESIGNER'S COMMENTS 11-17-2017: Project does not anticipate temporary lighting at this submission except for lighting for the holiday season.

10.1149 Prohibitions

The following uses and types of lighting are prohibited:

- 10.1149.10 The use of laser source light or any similar high intensity light for outdoor advertising or entertainment, when projected above the horizontal.
- 10.1149.20 The operation of searchlights except by civil authorities for public safety.
- 10.1149.30 The nighttime use of white or white strobe lighting on communication towers unless written proof of FAA requirement is provided.

DESIGNER'S COMMENTS 11-17-2017: Project shall be in conformance with section.

DEER STREET DEVELOPMENT
THE HOTEL AT FOUNDRY PLACE, LOT #3
165 DEER STREET, ASSESSORS MAP 125, LOT 62
LIGHTING COMPLIANCE TO SITE PLAN REVIEW
REGULATIONS
11-17-2017
REVISED 12-18-2017

SUBMITTED BY J & M LIGHTING DESIGN, INC
207-967-5223
jmlight2@roadrunner.com

CITY OF PORTSMOUTH, NEW HAMPSHIRE

SITE PLAN REVIEW REGULATIONS



Adopted by Planning Board: December 17, 2009
Amended: February 18, 2016

SITE PLAN REVIEW REGULATIONS

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Article 10 Outdoor Lighting

Section 10.1 General Provisions

All projects submitted for Site Plan Review shall provide dark sky friendly outdoor lighting according to these regulations in order to:

- (a) Permit reasonable uses of outdoor lighting for night-time safety, utility, security, productivity, enjoyment and commerce;
- (b) Minimize glare, obtrusive light, and artificial sky glow by limiting outdoor lighting that is misdirected, excessive, or unnecessary;
- (c) Conserve energy and resources to the greatest extent possible.

DESIGNER’S COMMENTS 11-17-2017: Project follows the above provisions.

Section 10.2 Compliance with Zoning Ordinance

All projects shall comply with the outdoor lighting dark sky friendly standards provided in the Zoning Ordinance.

DESIGNER’S COMMENTS 11-17-2017: Project is not completely in compliance. Light levels illustrated do not take into consideration the actual sloping contours of the site.

Section 10.3 Lighting Plan

1. When a proposed project includes outdoor lighting, the Site Plan shall include a lighting plan which shall show:
 - (a) The location on the site where outdoor lighting fixtures (both pole and mounted) will be installed.

DESIGNER'S COMMENTS 11-17-2017: See all architectural elevations for the building mounted luminaires. Those luminaires that are on balconies (Southwest corner) or on the 5th floor or above are not included in the ground calculations.

- (b) Scaled plans indicating the location of outdoor lighting fixtures on the site, the height of each fixture, the types of outdoor lighting proposed, and the level of wattage and initial lumens for all light sources.

DESIGNER'S COMMENTS 11-17-2017: See attached schedule for compliance verification. "Delivered lumens" values have been used for the calculations.

- (c) A description of the outdoor lighting fixtures including but not limited to manufacturer's catalog descriptions and drawings. The required plans and descriptions shall be sufficiently complete to enable the Planning Board to readily determine compliance with the requirements of this regulation.

DESIGNER'S COMMENTS 11-17-2017: See attached catalog pages, photometric report and in some cases photometric template for all fixtures specified

- (d) A photometric (iso-lux) plan indicating levels of illumination, in foot candles, at ground level.

DESIGNER'S COMMENTS 11-17-2017: See attached plots for illumination levels Calculation values are presented on 5'-0" centers and carried out to 2 decimal places. These values are initial foot-candles. Iso-lux contours have been provided to illustrate various light levels:

Light of a full moon 0.01 foot-candles with no atmospheric particulates

Light at 0.20 foot-candles a value usually used for minimum security lighting

Light level of 1.00 foot-candles an arbitrary level

- 2. The maintained horizontal illuminance standards set by the Illuminating Engineering Society of North America (IESNA) shall be observed.

DESIGNER'S COMMENTS 11-17-2017:

The following publications were used as references for the design

RP-33-2014 "Lighting for Exterior Environments"

RP-08-2014 "Roadway Lighting"

RP-20-2014 revised "Lighting for Parking Facilities"

IES 10th Edition Handbook.

3. Should any outdoor light fixture, or the type of light source therein, be changed after the building permit has been issued an amended site plan approval shall be required.

Section 10.4 Lamps

1. Lamp types shall be selected for optimum color rendering as measured by their color rendering index (CRI), as listed by the lamp manufacturer.

DESIGNER'S COMMENTS 11-17-2017: All lamps used have a CRI of 80 or above.

2. Lamps with a color rendering index lower than 50 are not permitted. This requirement shall not apply to decorative lighting which may include colored lamps, such as holiday lighting.

DESIGNER'S COMMENTS 11-17-2017: Project is in compliance with this criteria with all lamps having a CRI above 80.

3. Commercial lighting shall meet minimum IESNA illumination levels while not exceeding IESNA uniformity ratios and average illuminance recommendations.

East side sidewalk under canopy and Drop-off during business hours dusk till dawn.

Illumination levels shall be:

- 7.04 Average foot-candles
- 10.80 Maximum foot-candles
- 1.7 Minimum foot-candles
- 4.14:1 Average/minimum
- 6.35:1 Maximum/minimum

East side Lot #4 parking for hotel lighting; dusk to dawn.

Illumination levels shall be:

- 1.95 Average foot-candles
- 2.90 Maximum foot-candles
- 1.4 Minimum foot-candles
- 1.39:1 Average/minimum
- 2.07:1 Maximum/minimum

East side Lot #4 parking and Driveway lighting; dusk to dawn.

- 1.31 Average foot-candles
- 3.3 Maximum foot-candles
- 0.3 Minimum foot-candles
- 4.37:1 Average/minimum
- 11.00:1 Maximum/Minimum

East side Lot #3-#4 Driveway, Loading Zone and entrance to garage

2.47 Average foot-candles
8.8 Maximum foot-candles
0.6 Minimum foot-candles
4.12:1 Average/minimum
14.67:1 Maximum/Minimum

South side sidewalk Dusk till Dawn Public Sidewalk

4.11 Average foot-candles
19.7 Maximum foot-candles
0.5 Minimum foot-candles
8.22:1 Average/minimum
39.40:1 Maximum/Minimum

North side security lighting to property line; Dusk till Dawn

1.94 Average foot-candles
3.1 Maximum foot-candles
0.6 Minimum foot-candles
3.23:1 Average/minimum
5.17:1 Maximum/Minimum

At 11:00 P.M. automatic pre-set control shall allow reduction in illumination levels to under 0.50 average foot-candles.

South side hotel deck TYPE JAR, JER, JOS are dimmable, levels are maximum, separate dimmable circuits.

13.44 Average foot-candles
25.6 Maximum foot-candles
6.5 Minimum foot-candles
2.07:1 Average/minimum
3.94:1 Maximum/Minimum

REVISED LIGHT LEVELS 12-18-2017 SUBMISSION

East side sidewalk under canopy and Drop-off during business hours dusk till dawn.

Illumination levels shall be:

6.90 Average foot-candles
10.60 Maximum foot-candles
1.3 Minimum foot-candles
5.31:1 Average/minimum
8.15:1 Maximum/minimum

East side Lot #4 parking for hotel lighting; dusk to dawn.

Illumination levels shall be:

1.60 Average foot-candles
2.40 Maximum foot-candles
0.8 Minimum foot-candles
2.00:1 Average/minimum
3.00:1 Maximum/minimum

East side Lot #4 parking and Driveway lighting; dusk to dawn.

1.0 Average foot-candles
2.4 Maximum foot-candles
0.1 Minimum foot-candles
10.00:1 Average/minimum
24.00:1 Maximum/Minimum

East side Lot #3-#4 Driveway, Loading Zone and entrance to garage

2.06 Average foot-candles
8.7 Maximum foot-candles
0.5 Minimum foot-candles
4.12:1 Average/minimum
17.40:1 Maximum/Minimum

South side sidewalk Dusk till Dawn Public Sidewalk

3.17 Average foot-candles
14.6 Maximum foot-candles
0.5 Minimum foot-candles
6.34:1 Average/minimum
29.20:1 Maximum/Minimum

South side hotel deck TYPE JAR at 50%, JER & JOS are off, separate dimmable circuits.

2.06 Average foot-candles
8.2 Maximum foot-candles
1.0 Minimum foot-candles
2.06:1 Average/minimum
8.01:1 Maximum/Minimum

ATTACHMENT H
Landscaping Supplemental Pages

Memo of compliance for landscaping requirements

The Hotel at Foundry Place
Lot #3: 165 Deer Street
Assessors Map 125 Lot 17
Portsmouth, NH



View of proposed building and streetscape from Deer Street – Bridge Street corner looking down Foundry Way.

TAC and Site Plan Review submittal

Prepared by Robert A. White, RLA
GPI Greenman – Pedersen, Inc.

November 17, 2017



View of proposed building and streetscape from Foundry Way across from the parking garage.



View of proposed streetscape along Foundry Way standing on the sidewalk looking towards the garage shows the planted edge to take up grade changes provide stormwater treatment and soften the pavement and building.

ARTICLE 6 LANDSCAPING AND SCREENING STANDARDS

SECTION 6.1 GENERAL PROVISIONS

Landscaping shall be provided that:

- (a) Defines areas for pedestrian and vehicular circulation;
- (b) Breaks up the mass of buildings and impervious areas;
- (c) Incorporates existing native vegetation and other natural features into the site design;
- (d) Micromanages and controls stormwater at its source to minimize off-site impacts;
- (e) Conserves water and reduces outside water use on the site;
- (f) Provides buffers between incompatible land-uses or sites;
- (g) Softens architectural and structural materials;
- (h) Minimizes the introduction of pollutants to the environment.

Applicant response:

The projects design has sidewalk frontage areas that integrate the above standards:

Streetscapes and pedestrian walkways: The Foundry Way sidewalk and streetscape design along lot #3 presents a downtown streetscape design of brick sidewalks with planted edges or stone steps. A variation on the classic downtown commercial district has been pursued because of several factors:

- 1. We prefer to not use the traditional lighting fixtures which create glare along the street blinding viewers of the new building - in lieu of distinctive architectural lighting. (see lighting report).
- 2. Because of the traffic activity at the garage entrance down the street – and the desire for a streetscape that discourages pedestrian crossings except at crosswalk locations, a portion of the streetscape has a planted buffer at curbside location. This is modified from traditional downtown hardscape streetscapes to better function in a location that requires urban stormwater mitigation.
- 3. There is also more grade change between the street elevation and the proposed building finish floor - driven by flood elevations. The planted transition area and a location of granite steps take up the grade changes which are as much as 24”.
- 4. The planted buffer visually breaks up and softens the view of building and pavement, creates a shaded area for people. The planting buffer serves as a LID stormwater facility to remove stormwater contaminants from the impervious pavement sidewalks, converts sidewalk stormwater into landscape watering, serves to visually and physically separate the busy garage driveway from the proposed hotel building.

SECTION 6.2 LANDSCAPING PLAN

- 1. A landscaping plan shall be submitted with each application for Site Plan Review showing:
 - (a) Existing and proposed vegetation including trees, shrubs and plant beds including all vegetation that shall be retained as required by the Planning Board;
 - (b) Dimensions of undisturbed areas and measures that shall be used to protect during construction existing natural features that are to be retained;
 - (c) Location of all utilities above ground and below ground and related easements;
 - (d) Required front, side, and rear yards.

- 2. A plant schedule shall accompany the plan that includes the following information:
 - (a) Botanical and common names;
 - (b) Planting size and size at maturity;
 - (c) Quantity;

- (d) Growth habits (branching, crown spread, root spread);
- (e) Tolerance to urban conditions including road salt, soil; compaction, drought, heat, and air pollution;
- (f) Planting requirements.

Applicant response:

L1-L4 drawings present the landscape plans for the project, including the location of proposed plants. A detailed plant schedule shows the species, sizes and other requested information on the proposed planting design. L5 shows landscaping associated with the connector driveway through lot 4 and landscape and parking modifications to the bldg. at Lot 4.

All the plants proposed are either native plants from the Portsmouth region, or regionally “vernacular”, meaning that they would be long standing plants in accepted nursery practice of the non - invasive variety. Most of the plants come from accepted NH lists of appropriate plant materials as published by UNH, DRED, and USDA Agricultural Extension Service and the UNH stormwater research center.

Streetscape: A planning border along the street creates visual and LID stormwater buffer with three elm trees for shade and scale, as a landscape border of LID plantings of stormwater appropriate shrubs and perennials with appropriate stormwater treatment soils.

SECTION 6.3 GENERAL REQUIREMENTS

1. Areas not occupied by buildings or other structures, parking, loading, and accessways shall be landscaped to provide visual relief from expanses of paving and buildings while providing shade and stormwater management benefits.

Streetscapes are provided with landscaping and brick sidewalks and streetscapes to make them pedestrian friendly and to visually soften and break down the scale of buildings and pavements.

2. At a minimum, all yards, setbacks, and areas of open space as required by the Zoning Ordinance shall retain existing natural features or be landscaped as required herein.

Streetscapes are provided with landscaping and brick paving.

3. Landscaped areas shall consist of a combination of grass, flowers, vines, groundcovers, trees and/or shrubs. All planting areas shall be landscaped with a combination of climate tolerant plant material and protective groundcover. Bare soil is not permitted.

This has been provided with an extensive plant list of garden and shade canopy species.

4. Natural features, existing healthy mature trees, and other existing vegetation shall be identified on the landscaping plan and shall be retained when required by the Planning Board.

The existing site has little or no existing vegetation to be retained due to the nature of the site as a current building and parking area.

5. Existing invasive plant species shall be removed and destroyed if required by the Planning Board. Applicants shall refer to the *Prohibited Invasive Plant Species List* maintained by the NH Department of Agriculture.

Not applicable.

6. No loam or other topsoil shall be removed from the site as part of site development. Topsoil shall be appropriately stockpiled and stabilized for redistribution within new planting areas.

Not applicable.

7. Existing topography shall be maintained unless otherwise permitted by the Planning Board.

Not applicable.

Any areas disturbed during construction that will not be occupied by buildings or other structures, parking, loading, and access ways shall be replaced with a minimum of 6 inches of suitable topsoil and then shall be replanted according to the requirements herein.

The landscape beds will have a minimum of 24" of soil and in most areas - far more soil depth for garden species and trees. Trees are also supplemented with Silva cell structures to add up to 30" planting soil space for growth viability under the sidewalks appropriate for the growth of mature canopy street trees.

8. Plant material and landscape maintenance procedures that incorporate water conservation techniques are preferred.

As much as possible – landscaped areas shall be the destination of stormwater runoff into planting areas for watering and stormwater mitigation.

9. All local and state requirements for yards and sight distance shall take precedence for selection and placement of landscaping features, as applicable.

Sight distances have been preserved at both garage entrances.

10. No plantings shall be placed where they may impede or interfere with existing or proposed sewer, water, natural gas lines, or power lines.

Planting locations have avoided or been co – located adjacent but not impeding utilities in all possible locations.

11. The front yard landscaping area may contain any of the following:

(a) Public utility easements and open surface drainage easements that do not occupy more than thirty (30) percent of the required landscaped area. Such areas should be planted with perennials or groundcover so as not to interfere with utility connections;

(b) Underground utility connections and transformers, provided that they do not encroach more than five (5) feet into the required landscaped area. Such equipment shall be landscaped to soften the visual impact.

12. Wherever appropriate, applicants shall incorporate Low Impact Development (LID) design practices and technologies in all aspects of the site's landscaping.

There are no open drainage easements.

LID stormwater planting locations have been included in the project in all landscaping locations.

SECTION 6.4 PLANTING REQUIREMENTS

The purpose of planting requirements is to enhance the long-term survival prospects of the plant materials used in site landscaping. These standards are also meant to ensure that the benefits of site landscaping (buffering, aesthetic enhancement, erosion control, etc.) are realized as early after planting as possible. The following standards for planting requirements shall apply.

- (a) Planting holes for trees shall be at least two to three times the width of the root ball and shall be no deeper than the root ball.
- (b) Shrubs shall have a planting hole three to five times the width of the root ball and shall not be deeper than the root ball itself.
- (c) Evergreen trees shall be fully branched with a minimum 5-foot height at the time of planting.
- (d) Deciduous trees shall be fully branched and a minimum size of 2 inches in caliper at the time of planting
- (e) Shrubs shall be fully branched with a minimum of 2½ feet height at planting.
- (f) Existing landscaping, trees and planting materials to be retained shall be protected with a snow fence or other durable method as necessary during construction to avoid damage to root zones as well as above ground vegetation.
- (g) When appropriate for trees placed within sidewalks, tree grates shall be used to prevent excessive soil compaction and to add interest to the pavement. Tree grates shall be fabricated of a strong, durable material, installed flush with grade, and provide an expandable center opening to allow for continued tree growth.
- (h) Where applicable, tree guards shall be installed to protect the base of the tree from street activity.
- (i) Tree wells over 6 inches deep or other landscape features that have the potential to present a falling hazard to the public shall have grates, fences or other protective measures installed.
- (j) All trees where required shall be welled and protected against change of grade.

The space requirements above apply more to green field sites with unlimited yard space. Under urban conditions – we have allowed for the planting beds to have soil space for the length of the area but not the width. Plant selections have been made to allow plant growth within available soil areas.

SECTION 6.5 PLANT SELECTION

- 1. All proposed plantings shall be appropriate for the soils, weather and environmental conditions of the site. Particular attention shall be paid to tolerance to potential road salt and other deicing treatments. Sidewalk located plants are selected for salt tolerance.
- 2. Plant materials shall be of specimen quality conforming to the American Standards for Nursery Stock and shall be guaranteed for at least two growing seasons.
- 3. Plants on the *Prohibited Invasive Plant Species List* maintained by the NH Department of Agriculture shall not be planted.
- 4. Trees shall be selected for growing habits that are appropriate for the location. Consideration shall be given to crown height and canopy spread at maturity so as not to interfere with buildings, structures, pedestrian and bicycle facilities, or other site features.

The above requirements have been integrated into the project plans and details.

SECTION 6.6 LANDSCAPED AREAS

- 1. Side slopes for all landscaped areas shall not exceed thirty-three (33) percent (3:1 slope), and shall be appropriately stabilized with vegetation.
- 2. Within parking areas, landscaped islands shall be provided between adjacent rows of parking and between groups of parking spaces with the goal of breaking up large contiguously paved areas. Sidewalk located plants are selected for salt tolerance.
- 3. Landscaped islands shall be a minimum of nine (9) feet wide or as necessary to provide adequate

room for growth and so as not to interfere with access to vehicles, lines of sight, pedestrian travel, or the long-term health of the vegetation.

4. Landscaped areas shall consist of a combination of large and small trees, shrubs, perennial and/or annual flowers, and groundcover.
5. Landscaped areas shall be designed with a variety of plant species that provide seasonal variety.
6. Landscaping around building entrances, near parking spaces, and along pedestrian and bicycle ways shall not interfere or block line of sight, restrict travel, or present a hazard to personal property.
7. Any landscaping located within the safe site distance of a driveway entryway, as defined by AASHTO standards, shall be no more than 3 feet at mature height. This has been addressed in planting design
8. Areas between trees and shrubs shall be planted with groundcover spaced to cover the area within 3 years. Areas of exposed bare soil shall be avoided. Mulch shall not be considered a groundcover.
9. Pedestrian pathways made of permeable materials are encouraged where landscaping areas are of a size and shape to accommodate pedestrian passage.

The city standard for brick sidewalks uses an asphalt base thus is not permeable. However, the projects design slopes runoff to the planter bed over flush curbing to accept runoff and transmit it into LID stormwater planters for comparable if not superior treatment of stormwater as Permeable paving.

- 10.
11. Low Impact Development techniques such as rain gardens, bioretention areas, and tree boxes and other stormwater management landscaping techniques may be incorporated into landscaped areas and may replace required landscaping components as approved by the Planning Board. Same as above – LID is incorporated as an integral component of the landscape and streetscape design.

The above requirements have been integrated into the project plans and details.

SECTION 6.7 LANDSCAPING ALONG PUBLIC RIGHTS OF WAY

1. Where feasible or as required by the Planning Board, street trees may be planted along public rights-of-way with the goal of providing a tree-lined street.
2. Trees shall be spaced at a minimum of 1 tree per 30 lineal feet or farther apart if necessary to accommodate the mature crown spread of the tree. Trees shall not interfere with buildings, overhead utilities, pedestrian travel, or access to on-street parking spaces.

Both private and public street frontages have street trees planted as close to 30' spacing as utilities and design allow.

SECTION 6.8 PERIMETER LANDSCAPING

1. Parking areas shall be landscaped on the perimeter in order to soften the visual impact of the parking area while maintaining clear sight lines.
2. Landscaping between nonresidential uses is intended to provide visual relief from pavement. It may, however, encourage passage between nonresidential properties by (a) providing five (5) foot wide pedestrian pathways through landscaping elements at locations suitable for safe pedestrian circulation and

- (b) using landscaping materials that allow a clear sight line between properties at a height of three (3) feet.
- 3. A minimum nine (9) foot-wide landscaped buffer, including shade trees, between the street or accessway pavement and the sidewalk or pedestrian pathway shall be provided where adequate public right of way exists.

There are no surface parking areas in the plans.

SECTION 6.9 SCREENING

- 1. Where nonresidential uses and/or off-street parking facilities abut a residential zone the perimeter shall be screened to provide physical and visual separation between uses.
- 2. Natural screening shall consist of evergreen shrubs/trees planted in a line to form a continuous screen and growing to a height of 6 feet within 3 years. The remaining portion of the screening area shall consist of large and small trees, grass, flower beds, or other vegetative groundcover planted to fully cover the ground surface of the area within 3 years.
- 3. A 6-foot high fence or masonry wall may be substituted for natural screening if approved by the Planning Board. The wall or fence shall be placed on the exterior side of any landscaping.
- 4. All sites shall incorporate screening measures to prevent the headlights of vehicles from shining on adjoining residential areas.
- 5. All mechanical installations and equipment, solid waste collection equipment, pump stations, and outdoor storage shall be screened or softened with landscaping that is appropriate for the location.

The above requirements have been integrated into the project plans and details.

SECTION 6.10 MAINTENANCE AND REPLACEMENT OF LANDSCAPING AND SCREENING

- 1. The property owner shall be responsible for the maintenance, repair, and replacement of all required screening and landscaping materials.
- 2. 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.
- 3. The property owner will 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.

The above requirements have been integrated into the project plans and details. These notes appear on the project plans.

A draft maintenance agreement has been prepared for review with city staff.

SECTION 6.11 IRRIGATION

- 1. Irrigation should be minimized to the extent possible through use of native drought tolerant species and the use of landscaping that does not require permanent irrigation systems.
- 2. When irrigation is necessary to support the establishment and/or maintenance of landscaped areas smart controllers shall be used that limit irrigation during the day and during rain events.
- 3. Where appropriate, additional water conservation features including trickle and drip lines, rain barrels, cisterns or other water harvesting elements shall be used.
- 4. Applicants are encouraged to use recycled water for irrigation provided the harvesting and

circulation systems and water quality meet the requirements of the City's Utility Ordinance and state standards.

5. Irrigation systems shall be installed and operated in accordance with the City's Utility Ordinance

The above requirements have been integrated into the project plans and details. Watering sleeves for drip irrigation and small area watering will be provided for the plant establishment period of 2-3 years but can then be dissembled or simply not used once vigorous vegetation is established.

SECTION 6.12 INNOVATIVE LANDSCAPING PRACTICES

6.12.1 Green Roofs

Applicants are encouraged to use roofing materials that have a Solar Reflective Index (SRI) of at least 29 (greater for roofs with a slope of 2:12 or more) or install vegetated roofs.

The above requirements have been integrated into the project plans and details for the green roof at the fourth floor level of the bldg.. see architectural plans. Specific plants have not yet been determined for this area.

6.12.2 SOLAR ORIENTATION

Applicants are encouraged to incorporate landscaping techniques that help reduce energy consumption for heating and cooling of buildings on the site. Trees should be planted in order to provide shade on buildings and parking lots in the warm seasons and to allow solar heat during the cool seasons.

The above requirements have been integrated into the project plans and details. Street trees along Foundry Way are the most effective.

ARTICLE 7 WATER RESOURCES STANDARDS

SECTION 7.1 LOW IMPACT DEVELOPMENT (LID)

Applicants shall incorporate Low Impact Development (LID) design practices and techniques in all aspects of the site's development.

The above requirements have been integrated into the project plans and details.

ATTACHMENT I
Archeological Report



MONADNOCK
ARCHAEOLOGICAL CONSULTING, LLC

116 FOX HILL ROAD ▪ STODDARD, NH 03464 ▪ 603-446-2366
WWW.MONADARCH.COM

December 12, 2014

Ms. Ania Szulc Rogers
G.L. Rogers and Company, Inc.
PO Box 100
York Harbor, ME 03911

Dear Ms. Rogers:

This letter report summarizes the results of the recently completed Phase IA Archaeological Sensitivity Assessment for the proposed mixed use/public parking garage project on Deer, Hill, and Bridge Streets in Portsmouth, New Hampshire. This study followed guidelines for archaeological surveys established by the New Hampshire Division of Historical Resources (NHDHR) and was authorized under Section 106 of the Historic Preservation Act of 1966 (P.L. 89-665), as amended, and as implemented by regulations of the Advisory Council on Historic Preservation (36 CFR Part 800).

Site Setting

The proposed project area is an irregular section of land south of North Mill Pond in an extensively developed section of Portsmouth (Figures 1-3, Plates 1-9). It is bounded on the south by Hill and Deer Streets (Plates 1, 2, 8, 9); on the north by an active railroad yard (Plates 3-5); on the east by Bridge Street and Maplewood Avenue (Plate 1); and on the west by Rock Street (Figures 1-3; Plates 6, 7). North Mill Pond is fed from the west by Hodgson Brook and is a tidal inlet of the Piscataqua River to the east. The project area evolved from tidal flats grassland with stands of scrub pine and oak with exposed bedrock in the late Holocene period to rocky pasture land at the time of European settlement.

The ten standing structures in the project area include a mix of industrial buildings associated with the railroad and the Portsmouth Steam Factory, modern commercial buildings, and two residential buildings, all of which are surrounded by asphalt parking areas and roads (Plates 1-9). The project area is underlain by soils classified as Urban Land on soil survey maps, reflecting the extensive modern and historic development and disturbance in this area, although adjacent areas are underlain by shallow, well-drained till soils. Part of the project area is on land created by filling in portions of the original mill pond in preparation for the construction of the railroad in 1841. Prior to this, the shore line was used for a number of commercial and industrial activities such as boat building, boat slips and distilleries.

Methodology

This archaeological assessment included background research, visual inspection of the project area, and preparation of this letter report. Background research included review of previous archaeological studies in the vicinity of the project area (Goodby 1999; Harrington 1981; Pinello 1989), archaeological site files at the NHDHR, historic maps (Hale 1813; Hurd 1892; Walling 1850, 1877), town histories (Adams 1825; Brewster 1869; Candee 1992), and soil survey data. Visual inspection of the project area included observation of prevailing terrain and conditions and taking of representative photographs (Plates 1-9). Martha Pinello, M.A., served as Principal Investigator and Matthew Labbe, M.A., served as Project Archaeologist.

Archaeological Context and Historic Background

There are no previously recorded Native American sites in the vicinity of the project area, although a Merrimack-like point was recovered during excavations at the Deer Street site (DS 2.8B) by archaeologists from the Strawberry Banke Museum well to the north of the project area (Goodby 1999). Given that the underlying soils in the project area are either fill from the construction of the railroad or till soils extensively disturbed by historic and modern development, intact pre-Contact Native American sites are not expected to be present.

While there are no previously recorded historic archaeological sites within the project area, background research indicated it has a long and complex history. By the late 17th century and early 18th century the vicinity of the project area had developed into a series of estates owned by Nathaniel Adams, Charles Brewster, and William Hill. To the east of the project area, Nathan Meserve built a mansion and shipyard along the south shore of the North Mill Pond in 1744. The estate was later improved by George Boyd in 1774 (Figure 4). In the years between Meserve's death at the siege of Fort Louisburg in 1758 and George Boyd's ownership, Peter Livius purchased the property. Livius received the right to dam the creek for the power "capable of turning 7 or 8 different kinds of works besides the 4 grist mills" (Candee 1992:29).

Certain street names and their persistent location give evidence of former land use, owners, and economic practices. These include Tanner, Deer, Hill, Parker, and Rock Streets. Tanner Street was named for the tanneries on the south shore of the tidal mill pond owned by the Parker family in the eighteenth and nineteenth centuries. Deer Street was named for the Deer Tavern located near Market Street; Hill and Parker are streets named for the families who owned homes and land on the streets bearing their surnames; Rock Street is named for the rocky pasture land west of Rock Street.

In 1832, George Raynes (1799-1855) purchased the estate and continued to expand the shipyard. The Raynes' shipyard was Portsmouth's largest. The mansion was razed in 1938. Evidence of the shipyard can be seen in an 1822 landscape painting by Portsmouth native Samuel Blunt (Figure 5). Shipbuilding took place on the tidal mud flats with buildings for storing supplies and tools on the shore. The rope walk and buildings associated with sail and block making were also on the shore. The rope walk is depicted on Hale's 1813 map (Figure 6). The Blunt painting clearly shows that ship building could take place along the shores of the pond and may not have been confined to the area of the ropewalk, particularly when several ships were being built at

once. Evidence of ship building has been excavated at other Portsmouth sites, including the shores of Puddle Dock, where brass and copper nails and wood shavings were excavated at the Follett Wharf site (Harrington 1981).

The arrival of the railroad in Portsmouth in the 1840s changed the landscape of the North Mill Pond's south shore. The first mills were wool and cotton spinning mills located along Islington Street. The railroad allowed industrial production to "ship" from factory to markets directly. The south side of the pond was filled in to allow for more railroad lines. The use of steam power in the 1840s also brought foundries and lumber yards with more development in the area south of North Mill Pond. The Frank Jones Brewery was located a few blocks west on the south side of Islington Street.

The project area is between two major Portsmouth thoroughfares by 1790; Islington Street, which was the main land entrance in the city, and Elm, currently known as Bridge Street. West of the project area a reference to Rock Pasture, located between Islington Street and the pond, gives evidence of the rural nature of the area before industrial development in the mid-19th century (Brewster 1859). The street patterns and names changed from those of the eighteenth and nineteenth century due to general evolution of the community and the nature of their new place and roles in it.

During the nineteenth century, the land between Islington Street and the south shore of the North Mill Pond was owned by merchants whose homes lined it. The project area includes a portion of the Portsmouth Steam Factory, later the Kearsage Knitting Mill, and the seat of Nathaniel Adams, the Portsmouth annalist. Charles Brewster wrote of graves and flat stones being found when the steam factory drain was excavated in 1847. The flat stones may have been grave stones or "stone pavers" quarried in Durham and laid throughout Portsmouth in the 1790s to provide dry walking surfaces. There is a tale of an inquiry about the grave and a workman is said to have replied, on being cleaned off, the following inscription was found: "Here lies Mrs. ZERVIAH, wife of Mr. WILLIAM PARKER, Died August 18, 1718, Aged 53years" (<http://www.seacoastnh.com/brewster/23.html> Accessed 4.30.2014). Brewster adds credibility to this story as he grew up and lived in the neighborhood in 1847.

The historic maps illustrate the great change in the project area between 1813 and 1904 (Figures 6-11). It is expected excavation in the project area would encounter changes in the landscape from rural pasture, shoreline industries and trades, to the back lots and garden space of homes, and then factory and railroad assisted disturbances.

The Hale Map (Figure 6) created after the 1813 fire in Portsmouth depicts streets, buildings, and areas of particular note such as the limits of the devastating fire. This map has proven to be fairly accurate in its representation of the physical and architectural features of Portsmouth.

The shoreline of the North Mill Pond from the period of settlement until the construction of the railroad in 1841 was a combination of domestic lots with timber-lined slips at Bridge Street and work areas on the tidal flats. Ship building along the tidal mudflats, tanneries, and distilleries were among the industries documented in the project area. During the eighteenth and nineteenth centuries three estates, were the homes of Charles Brewster, William Hill and Nathaniel Adams,

ringed the southern shore of the mill pond. A portion of the former Adams estate is within the project area. All of these similar elements, including dwellings with access to the waterfront, outbuildings, paths, gardens and fences.

The 1850 map of Portsmouth (Figure 7) provides a revealing contrast to the 1813 map (Figure 6), as it illustrates the changes to the project area once the railroad was constructed in the 1840s. The project area includes the rail yard, a portion of the Portsmouth Steam Factory complex, and buildings and associated lots on the north side of Deer Street.

The 1877 Bird's eye view and city maps of Portsmouth (Figures 8, 9) depict buildings, streets, and the rail yard within the project area. The Portsmouth Steam Factory is the large building complex just west of the project area. The adjacent buildings within the project area also part of the Steam Mill. These buildings were reorganized as the Kearsage Mill and later a foundry, then the Portsmouth Machine Company (Figure 10). Residential buildings with shops and trade establishments are in the northeastern section of the project area.

The 1904 Sanborn Insurance map (Figure 11) was produced to depict properties with fire insurance; consequently the buildings are depicted by building materials, the number of stories and their use. The buildings depicted on this map include: a furniture storage building, one-story building and a second two story building with a one story ell, as well as the Boston and Maine Railroad freight building, a platform and "GW" storage.

The project area is situated at the western end of Portsmouth's Italian immigrant community. Italian immigrants were drawn to the region as railroad workers, quarry men, and masons. This influx of began with large groups of single men in the late nineteenth and early twentieth century. They were followed by family members as finances allowed. The western end of the Italian neighborhood included houses serving as single family and boarding residences as well as work places for men and women. Bakeries, shops, and clubs were established, particularly at the intersection of Deer and Market Streets east of the project area (Gumprecht 2014).

In addition to the changes described above, additional changes are indicated in a history of Portsmouth Fire Department that records a number of fires in the project area since the early nineteenth century (Portsmouth Fire Department 2014). Apart from occasional fires, the project area remained relatively stable during the 20th century until a federal urban renewal program in the 1970-1980s slated the North End for demolition and redevelopment. The vacant spaces within the project area are in part the result of the failed Urban Renewal project where demolition was not followed by redevelopment (Gumprecht 2014). Extensive alterations to this part of Portsmouth resulted from demolition and relocation of buildings along Deer, Hill, and Bridge Streets as well as on Maplewood Avenue. As a result, modern structures are often located alongside the earlier buildings, while many older buildings were demolished and not rebuilt.

Recommendations and Conclusion

The project area has evidence of commercial, industrial, and residential development from the late eighteenth through the early twentieth century, which remains today in the streetscape and

standing structures. While significant portion of the project area are composed of 19th century fill from the construction of the railroad (Figures 6, 7), and others have undergone extensive disturbance from modern development, cultural resources are likely to remain buried within portions of the project area at the site of standing structures and in the locations of razed buildings and changed street patterns. These resources may provide information regarding the landscape of urban lots and transformation of a neighborhood from tidal stream and pond to an industrial center for the city of Portsmouth. The impact to these potential resources is dependent on the nature of the plans for redevelopment. Once specific impacts to the proposed project are identified, potential impacts to archaeological resources, if any, can be identified and a plan for additional investigation be developed.

Martha Pinello, M.A.
Principal Investigator

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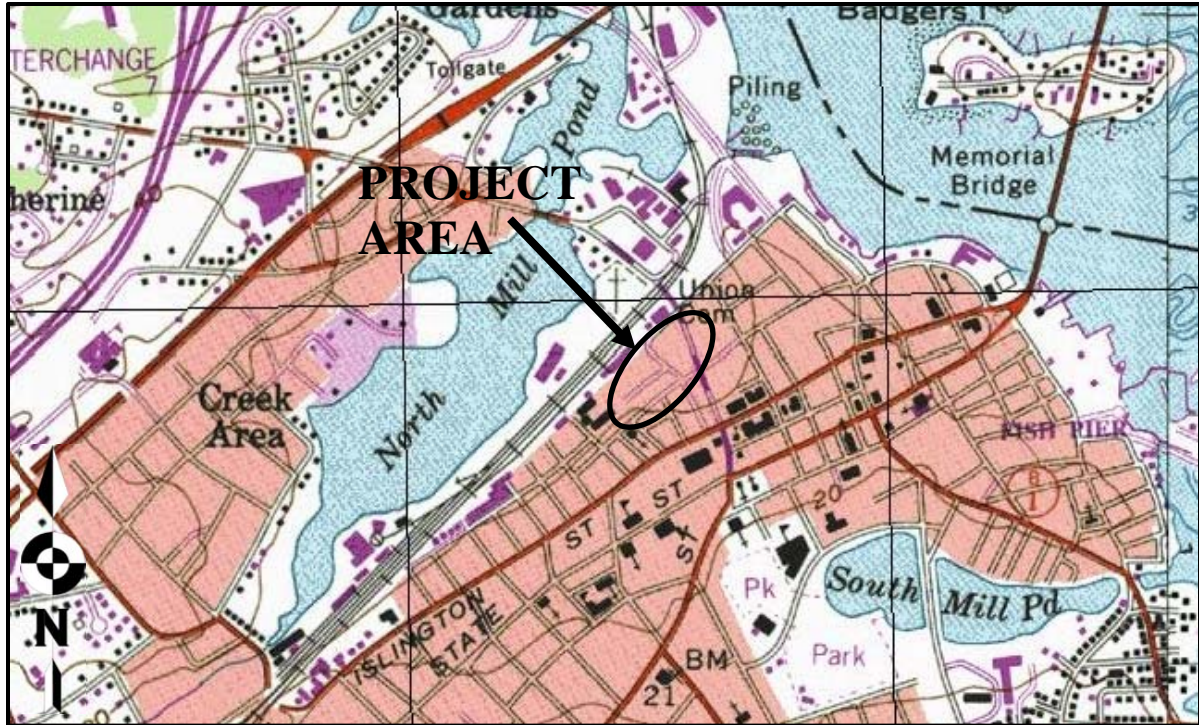


Figure 1. Project Area on USGS Portsmouth Quadrangle (1:24,000)

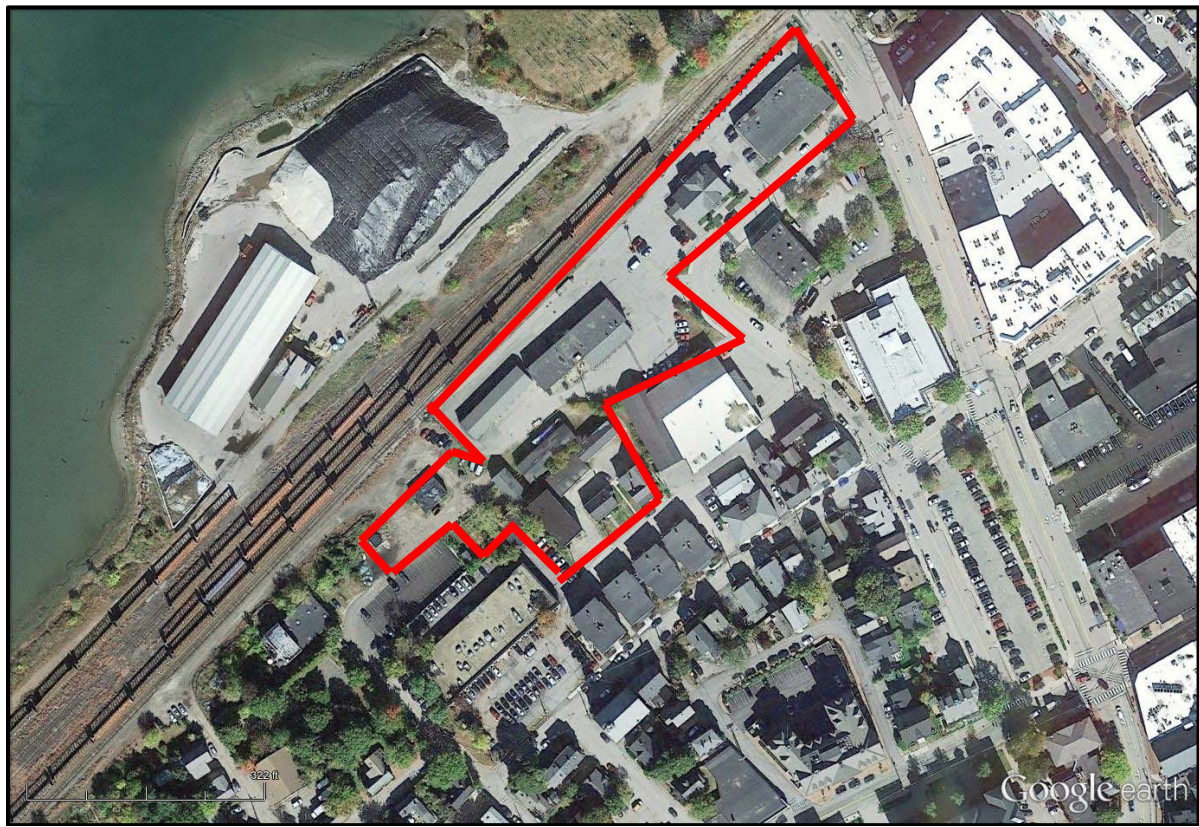


Figure 2. Project Area on Aerial Photograph Showing Extensive Development

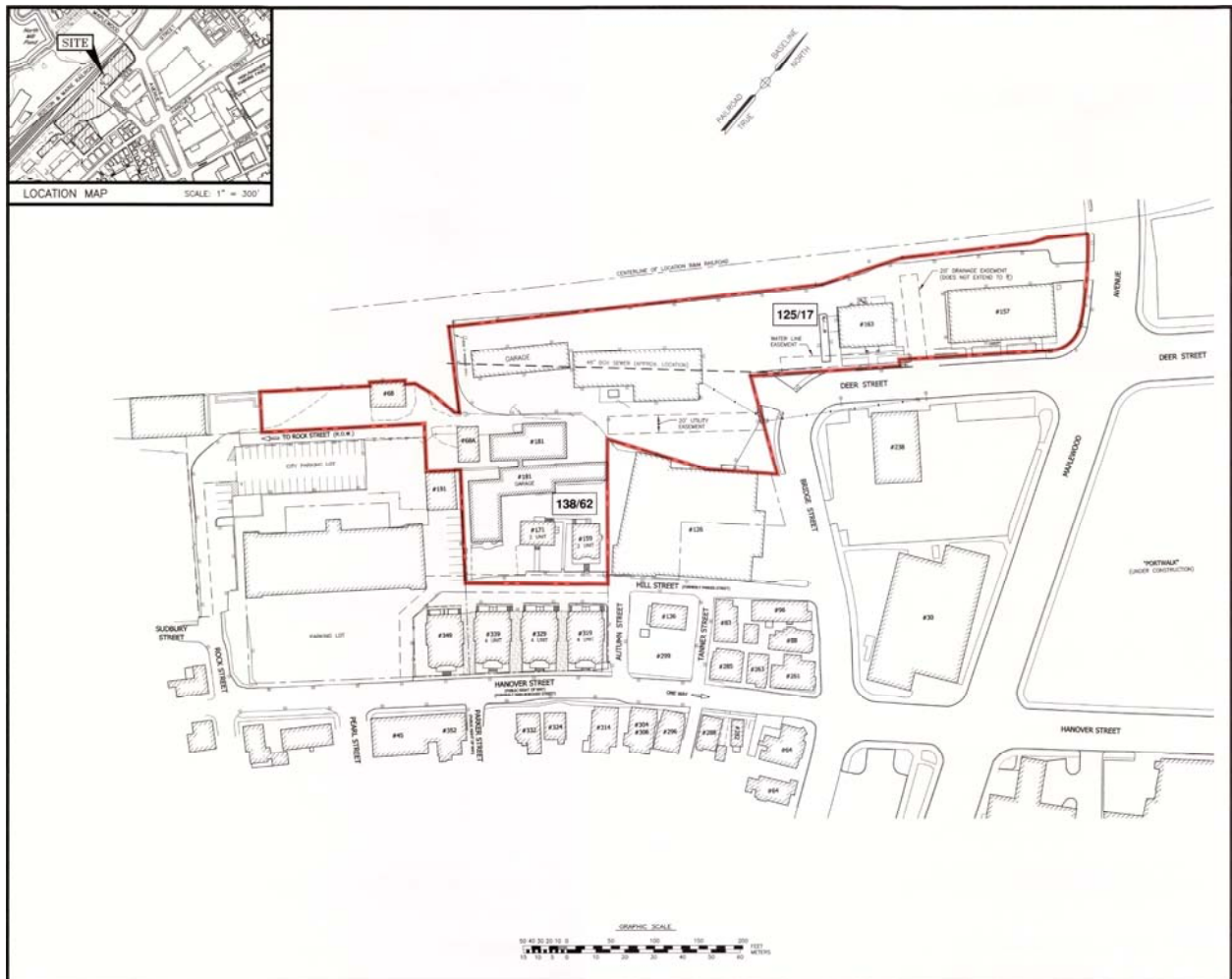


Figure 3. Project Area Existing Conditions and Boundaries



Figure 4. The South West Prospect of the Seat of Colonel George Boyd of Portsmouth, New Hampshire, 1744. Private Collection.



Figure 5. John S. Blunt (American, 1798-1835), North Mill Pond, Portsmouth, NH, circa 1822. Private Collection.

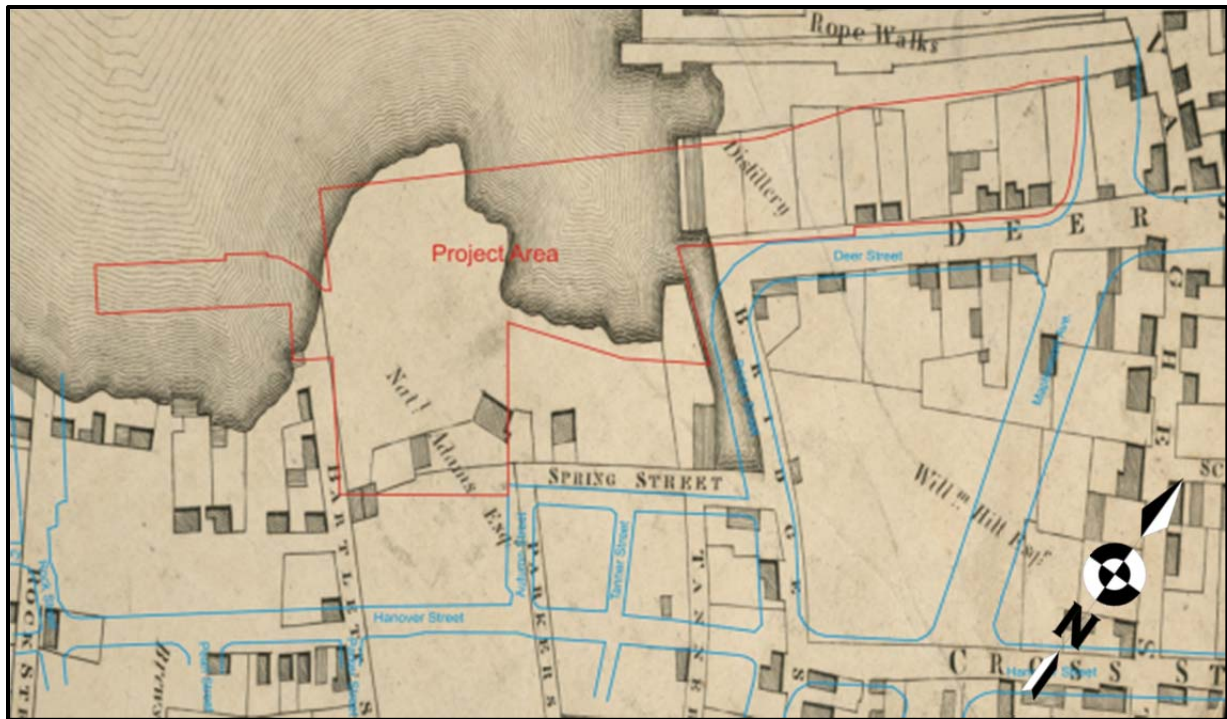


Figure 6. 1813 Map of Portsmouth with Project Boundaries Projected in Red and Modern Streets in Blue Overlay (Approximate Scale 1" = 200'; Hale 1813).

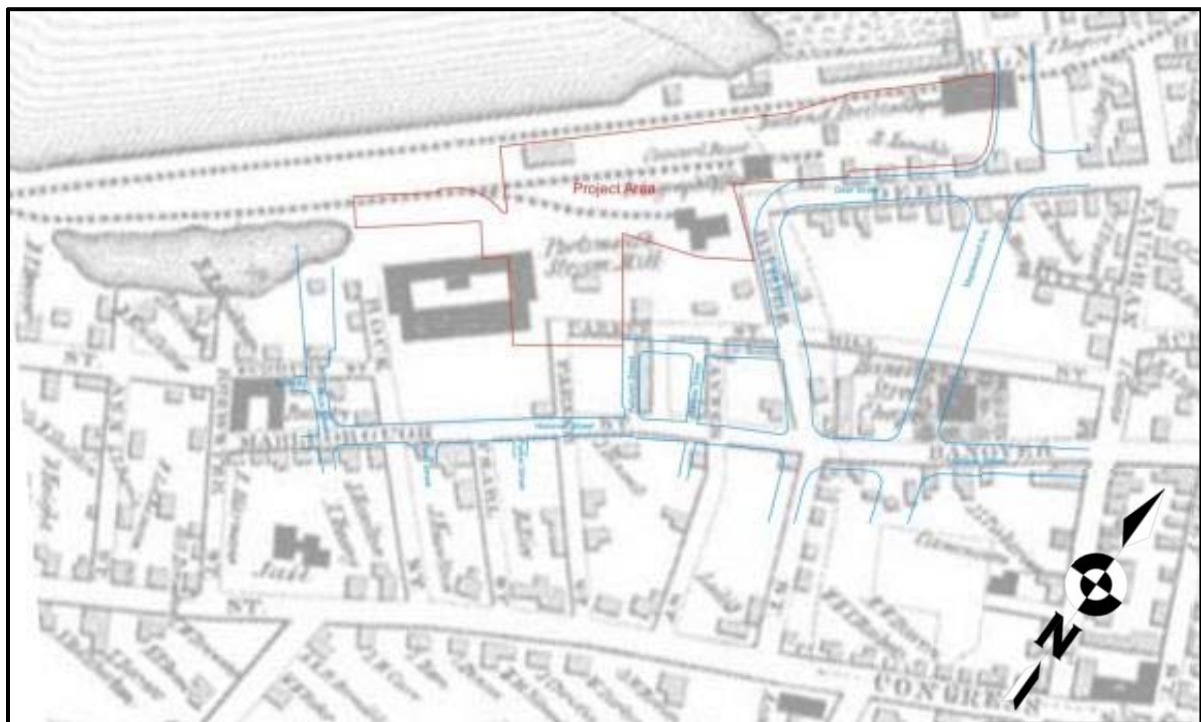


Figure 7. 1850 Map of Portsmouth with Project Boundaries in Red and Modern Streets in Blue Overlay (Approximate Scale 1" = 250'; Walling 1850).

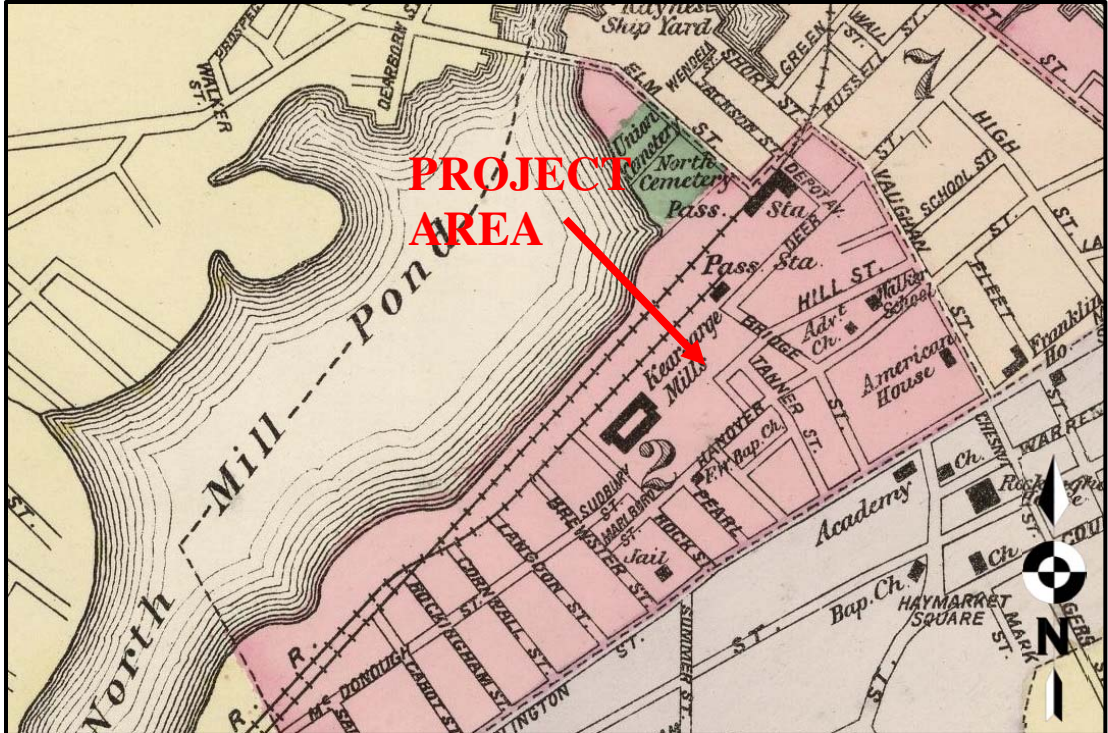


Figure 8. Project Area on 1877 Map of Portsmouth (Approximate Scale 1" = 400'; Walling 1877).

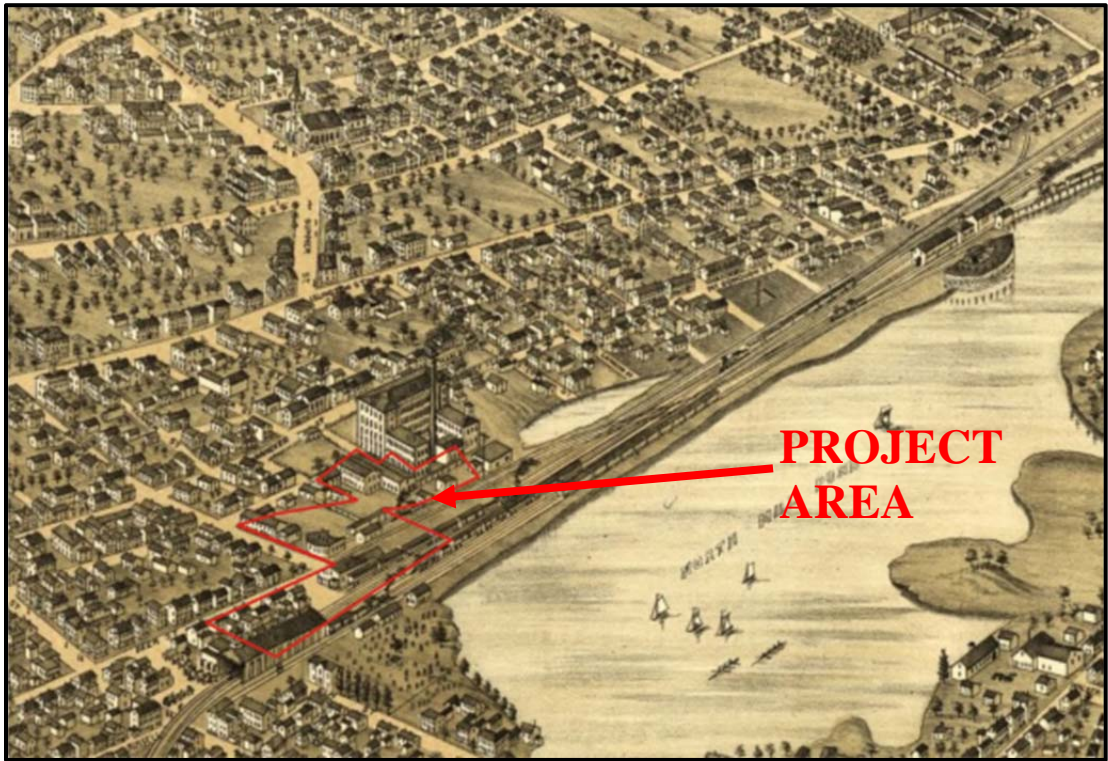


Figure 9. Project Area on 1877 Bird's Eye view of Portsmouth, View South (Ruger 1877)

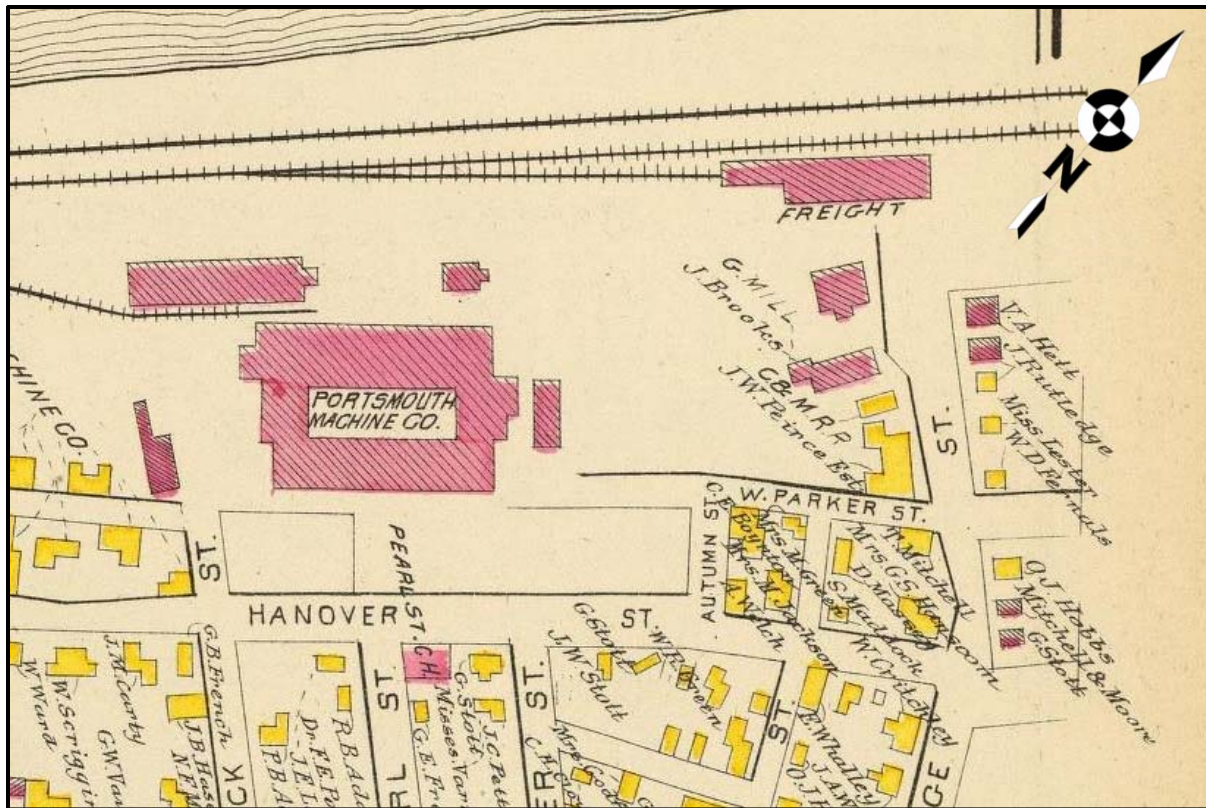


Figure 10. Project Area on 1892 Map of Portsmouth (Approximate Scale 1" = 150'; Hurd 1892)

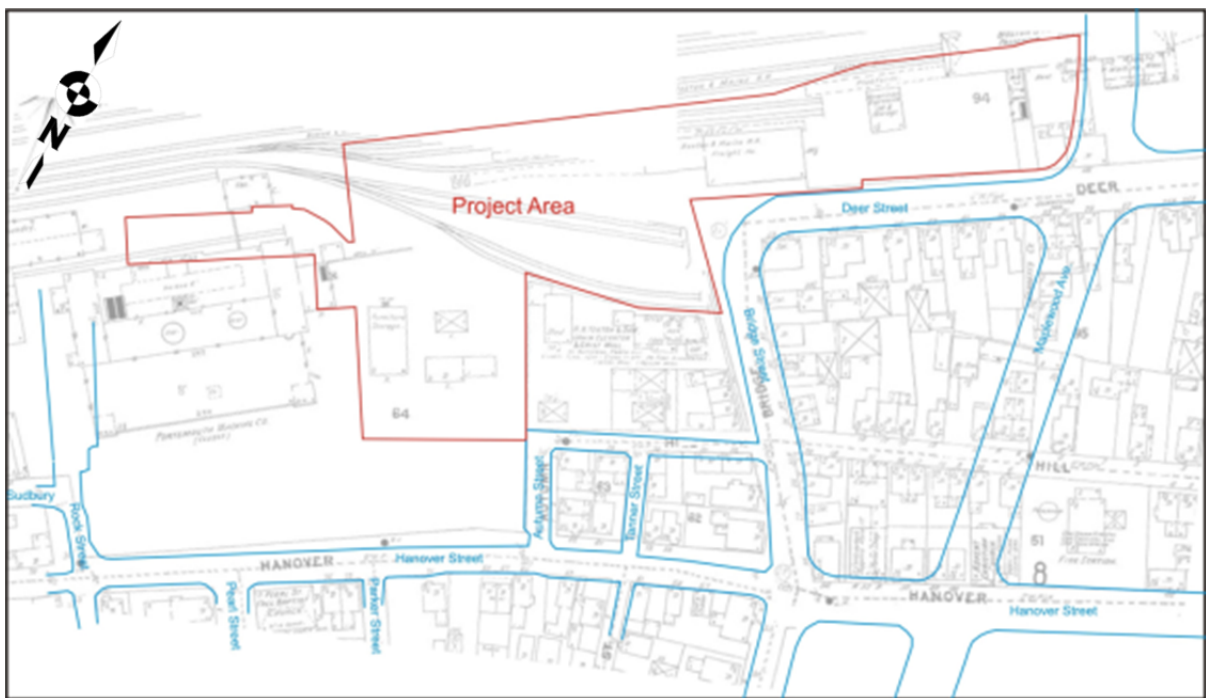


Figure 11. Project Area on 1904 Sanborn Insurance Map (Approximate Scale 1" = 175').



Plate 1. Northeastern Corner of the Project Area, Showing the Intersection of Deer Street and Maplewood Avenue, View West.



Plate 2. Gary's Beverages, 165 Deer Street, South Façade and Parking Lot, View Northwest.



Plate 3. Commercial Buildings and Parking Lot, View West. Note the railcars and tracks to the northwest of the image.



Plate 4. Brick Structure and Parking Lot with Railroad in Background, View North. This structure may be depicted on the 1850 map of Portsmouth as part of the railroad complex.



Plate 5. West Façade of Commercial Building, View East. The railroad tracks are to the north. This photograph was taken north of the structure in Plate 4 above. Note the brick building to the south.



Plate 6. Rock Street Community Garden South of the Rock Street Right of Way, View South. The building to the south in the background is not in the project area.



Plate 7. Fenced Storage Area East of the Rock Street Community Garden, South of the Rock Street Right-of-Way, View South. The brick building is not in the project area, but the two wooden structures are in the project area.



Plate 8. Hill Street, View West. The yellow dwelling and green garage on the north side of the street are in the project area. The brick building at the center of the picture, part of the Portsmouth Steam Factory, is not in the project area.



Plate 9. Hill Street, View Northwest. The three wooden structures in the image are in the project area.

ATTACHMENT J
Sustainable Strategies Summary



Deer Street Development

Site Plan Review, 02-13-2017

Sustainable Strategies Summary – Lot 3

SITE

- **Prevent Erosion / Sedimentation** of neighboring waterways - Meet NH-DEP wetlands & EPA SWWPP requirements.
- **Redevelop a brownfield** qualified site with soils removal, treatment, and/or containment strategies.

WATER

- **Protect water quality** – engineered storm water systems
- **Conserve Water** -- Target 30% reduction in fixtures water use over building code, meeting EPACT 2005.

ENERGY

- **Conserve Energy** -- Target 50% Energy Use Index (EUI) Reduction over code compliance (IECC2009) in each building. Achieve improved EUI for housing. Use early energy modeling to analyze effective scenarios. Provide enhance thermal envelope. Achieve Energy Star certification and associated rebates. Use Heat Recovery for all ventilation. Commission energy using systems. LED lighting throughout.
- **Renewable Energy** -- Pursue Solar Hot Water system for residential spaces. Pursue options for on-site Solar Electric photovoltaic array for portion of electric needs.
- **Building Performance** -- Use industry tools to annually monitor and benchmark buildings. Train staff on proper building operation with comprehensive Facilities Staff Training and Systems Manuals.
- **Reduce Low level ozone** (smog) -- Provide safe and secure bicycle storage. Use only low-VOC products for construction and operation.

MATERIALS & RESOURCES

- **Minimize waste** (during construction and operation)
- **Use regional materials**

INDOOR ENVIRONMENTAL QUALITY

- **Thermal comfort** -- Meet ASHRAE 55 Thermal Comfort Code. Address thermal envelope per above. Provide multiple zones of heating and cooling in each apartment.
- **Indoor air quality** (before and during occupancy) -- MEET ASHRAE 62 Ventilation Code in all occupied spaces. MEET LEED IEQ credit requirements.
- **Views / connection to outdoors** -- Provide views to outdoors for every regularly occupied space.
- **Daylighting** -- Achieve Daylight Factor of 2% minimum for every regularly occupied space.
- **Individual controls** (light, heat etc...) -- Provide individual controls for temperature and lighting.

ATTACHMENT K
List of Utility Providers, Contacts and Site Permits Required



Deer Street Development, Lot 3

Site Plan Review, 02-13-2017

Utilities Providers

WATER & SEWER:	CITY OF PORTSMOUTH CONTACT: DAVE DESFOSSÉS PHONE: (603) 427-1530
ELECTRIC:	EVERSOURCE ENERGY CONTACT: NICK KOSKO PHONE: (603) 332-4227 EXT. 5555334
TELEPHONE/DATA:	FAIRPOINT COMMUNICATIONS CONTACT: JOSEPH CONSIDINE PHONE: (603) 427-5525
CABLE/DATA:	COMCAST CONTACT: MIKE COLLINS PHONE: (603) 679-5695 EXT. 1037
GAS:	UNITIL CONTACT: DAVID BEAULIEU PHONE: (603) 329-5144

Site Permits

City of Portsmouth permits

- Driveway Permit
- Stormwater Permit
- Sewer Permit
- Water Permit
- Temporary Construction Dewatering Discharge Permit

Federal Permit

- EPA NPDES Construction General Permit (single permit covers all DSA lots 2-6)

ATTACHMENT L
Conceptual Summary of Overall Construction Sequencing



GeoInsight®

Environmental Strategy & Engineering
Practical in Nature

November 16, 2017

GeoInsight Project 8090-000

Ms. Juliet T. H. Walker
Planning Director (Chair)
City of Portsmouth Technical Advisory Committee
City Hall, 3rd Floor
1 Junkins Avenue
Portsmouth, NH 03801

RE: Deer Street Associates, LLP
Conceptual Construction Sequence Document
Foundry Place and Deer Street Development
Portsmouth, NH

Ms. Walker and TAC Members:

On behalf of Deer Street Associates, LLP (DSA) and as requested by the City of Portsmouth (the City), GeoInsight, Inc. prepared this narrative for the Technical Advisory Committee (TAC) to accompany our 165 Deer Street design package for the December 5, 2017 hearing continuation. This narrative and attached materials provide conceptual information regarding the expected sequence of construction planned as part of the overall Deer Street, Bridge Street, Foundry Place and Hill Street development (the project). The purpose of this document is to assist TAC, other City representatives, and the public with a general understanding of how the project is currently likely to progress. The document also demonstrates that the sequence has already been planned sufficiently to identify that it will be achievable with minimal adverse impact to the surrounding community and properties that are located within the project area. DSA welcomes comments and continued discussion regarding the scheduling of the overall project.

For ease of simplified reference, this narrative retains the property identification nomenclature originally initiated by DSA as follows:

- Lot 1 – Proposed City Parking Garage;
- Lot 2 – Proposed Community Space;
- Lot 3 – 165 Deer Street;
- Lot 4 – 163 Deer Street;

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- Lot 5 – 157-161 Deer Street; and
- Lot 6 – 181 Hill Street.

This narrative also refers to the new roadway that will be constructed to access the City Garage as Foundry Place.

The overall aspects of the planned work are expected to include the following primary stages:

- Obtaining Permits and Approvals
- Hazardous Materials Clearance of Structures to be Demolished on Lots 1, 2, and 3
- Relocate Tenants on Lots 1, 2, and 3
- Demolition of Structures on Lots 1, 2, and 3
- Establish Parking and Construction Staging Areas on Lot 1
- Establish Parking and Construction Staging Areas on Lots 2 and 3
- Hazardous Materials Clearance of Structures to be Demolished on Lot 6
- Demolition of Structures on Lot 6
- Relocation and Separation of City Combined Sewer
- Installation of New Utilities in Foundry Place
- Install New Electric Services to Lot 6 Abutters
- Installation of New Utilities in Deer Street and Bridge Street
- Repairs to Disturbed Areas of Deer Street and Bridge Street
- Install New Electric Service to VFW and City Intersection Lights
- Remove Buried and Overhead Utilities on Lots 2 and 3
- Construction of City Garage
- Foundry Place Binder Course Paving
- Remove Buried and Overhead Utilities on Lot 6
- Construction of Lot 6 Building
- Repairs to Hill Street Pavement
- Temporarily Modify Traffic Pattern on Lot 4
- Construction of Lot 3
- Construct Lot 2 Community Space
- Temporarily Modify Traffic Pattern on Lot 4
- Hazardous Materials Clearance of Structure to be Demolished on Lot 5
- Relocate Lot 5 Tenants
- Demolition of Lot 5 Building
- Construction of Lot 5 Building
- Hazardous Materials Clearance of Structure to be Demolished on Lot 4
- Relocate Lot 4 Tenants
- Demolition of Lot 4 Building
- Construction of Lot 4 Building



The activities above are described in somewhat further detail, along with estimated construction start and duration dates, in *Attachment One - Detailed Timeline of Anticipated Foundry Place and Deer Street Development*. Certain milestone activities are also schematically illustrated in *Attachment Two – Foundry Place and Deer Street Development Sequencing Schematics*. Attachment Two also serves to better illustrate locations of possible temporary construction access and laydown areas, temporary construction fencing (where applicable), and likely construction traffic access, where applicable.

As described in Geolnsight’s separate cover letter accompanying the 165 Deer Street TAC design submittal package, easements/consents/agreements will be required to coordinate and facilitate the Deer Street and Foundry Street development. This narrative and enclosures are not intended to supersede (or be in conflict with) formal easements and agreements currently expected to be necessary for the project. It is possible that there may also be future additional temporary (or permanent) agreements or easement that may benefit the coordination of work and anticipated schedules.

This narrative and enclosures were prepared in part based upon information provided by the City as of the date of this narrative. The proposed sequence of activities is fully intended to be conceptual and does not represent any guaranteed or final schedules by any parties. The City and/or DSA may need to make future construction schedule changes due to numerous considerations such as, but not limited to: changes in design by the City; unexpected results of construction bids; significant changes in construction means and methods, material prices, contractor availability, and/or tenant requirements; differing site conditions; weather events; and/or other unforeseen conditions.

Geolnsight appreciates the opportunity to work with TAC and interested members of the public on this project. If you have questions about the information in this cover letter or attached materials, please contact us at (603) 314-0820.

Sincerely,
GEOINSIGHT, INC.

Michael C. Penney, P.E.
Senior Engineer/Senior Associate



**ATTACHMENT ONE
DETAILED CONCEPTUAL TIMELINE OF ANTICIPATED
FOUNDRY PLACE AND DEER STREET DEVELOPMENT**

FALL 2016 TO FALL 2017

City of Portsmouth

Designed Foundry Place and City Garage
Obtained City Approval for Lot 1 Design
Obtained City Approval for Foundry Place Design
Complete Hazardous Materials Clearance of Lot 1 and Lot 2 Structures
Relocate Tenant(s) on Lot 1
Obtain Lot 1 and Lot 2 Demolition Permits
Demolish Storage Building (165 R) west of Former Gary's Beverage
Demolish Lot 1 storage building (Hill Street #181R and #68A)
Establish Parking and Construction Staging Areas on Lot 1
Install Temporary Construction Barriers/Entrances around Lot 1
Relocate City Combined Sewer

Deer Street Associates

Completed Hazardous Materials Clearance of Lot 2 and Lot 3 Structures
Relocated Tenants on Lots 2 and 3
Obtained Lots 2 and 3 Demolition Permits
Applied for Lot 6 Demolition Permits
Demolished Gary's Beverage
Begin temporary parking on paved portions of Lot 2 and Lot 3
Install traffic controls around portions of Lot 2 and Lot 3
Complete Hazardous Materials Clearance of Structures to be Demolished on Lot 6
Relocated Tenants on Lot 6
Obtain Lot 6 Demolition Permit
Obtain City Approval for Lot 6 Design
Demolish Two Residential Buildings on Lot 6 (Hill Street #171 and #159)
Demolish Lot 6 Storage and Garage Buildings (#181 Hill Street)
Install Erosion Controls around Lot 6
Install Temporary Construction Barrier/Entrances around Lot 6
Establish Construction Staging Areas on Lot 2 and Lot 3 (separate from parking areas)
Construct Grading Easement on Redlon Johnson property



FALL 2017 TO SPRING 2018

City of Portsmouth

Install New Utilities and Utility Stubs in Foundry Place
Install New Utilities in Deer Street and Bridge Street
Install Binder Course Pavement over Repaired Areas in Deer Street and Bridge Street
Begin Construction of City Garage
Install Binder Course on Foundry Place

Eversource

Begin Rerouting of Local Electrical Systems

Deer Street Associates

Install new Electric and Communications Services to Abutters southwest of Lot 6
Decommission Lot 6 Underground Utilities
Remove Utility Poles in Hill Street
Install New Electric and Communications Services to Lot 6 southeast Abutters
Decommission Lot 6 Overhead Utilities
Use Lot 3 and Lot 2 for Lot 6 Staging Areas
Begin Construction of Lot 6
Fill in Abandoned Combined City Sewer on Lot 2 and Lot 3

SPRING 2018 TO FALL 2018

City of Portsmouth

Complete City Garage Construction
Complete Foundry Place Garage Sidewalks
Install Temporary Sidewalks at DSA Frontage

FALL 2018 TO SPRING 2019

Deer Street Associates

Begin Construction of Lot 3 Building
Decommission Underground Utilities on Lot 3 (stub back to Deer Street)
Install New Underground Electric and Communications for VFW and City Traffic Lights
Install new transformers on Lot 4 (for Lot 4 and Lot 3)
Connect Lot 4 to New Underground Electric and Communications
Remove Overhead Utilities on Lot 2 and Lot 3
Make Initial Repairs to Hill Street Pavement Subgrade and Install Binder Course
Temporarily Modify Traffic Pattern on Lot 4 (for construction on Lot 3)
Connect Lot 6 to utilities in Foundry Place
Complete Lot 6 building
Use Portion of Lot 2 and Lot 3 for Construction Staging Areas





Connect Lot 3 to utilities in Deer Street
Temporarily Modify Traffic Pattern on Lot 4 for Lot 3 Construction

SPRING 2019 TO SPRING 2020

Deer Street Associates

Complete Lot 3 Building
Complete Lot 2 Community Space
Make Final Repairs to Hill Street Pavement (milling and overlay)
Hazardous Materials Clearance of Structure to be Demolished on Lot 5
Relocate Lot 5 Tenants
Install Erosion Controls around Lot 5
Install Traffic Controls around Lot 5
Install temporary construction barrier around Lot 5
Obtain Demolition Permit for Lot 5

SPRING 2020 TO FALL 2020

Deer Street Associates

Decommission Lot 5 Utilities (stub back to Deer Street)
Demolish Lot 5 building
Use north corner of Lot 5, north corner of Lot 4, and Lot 2 for Temporary Staging Areas
Begin Construction of Underground Garage and Building on Lot 5

FALL 2020 TO SUMMER 2021

Eversource

Connect Lot 5 transformer to new Lot 4 transformer

Deer Street Associates

Complete Lot 5 Building
Relocate Lot 4 Tenants into New Lot 5 Building

SUMMER 2021 TO FALL 2021

Deer Street Associates

Hazardous Materials Clearance of Structure to be Demolished on Lot 4
Obtain Demolition Permit for Lot 4
Modify Traffic Pattern and Controls around Lot 4
Install Erosion Controls around Lot 4
Install Temporary Construction Barrier around Lot 4
Demolition of Lot 4 Building
Decommission Utilities (stub back to Deer Street)





Begin Construction of Lot 4 Building

Use north corner of Lot 5, north corner of Lot 4, and Lot 2 for Temporary Staging Areas

FALL 2021 TO FALL 2022

Deer Street Associates

Complete Lot 4 Building

Install Erosion Controls around Lot 2

Install temporary construction barrier around Lot 2

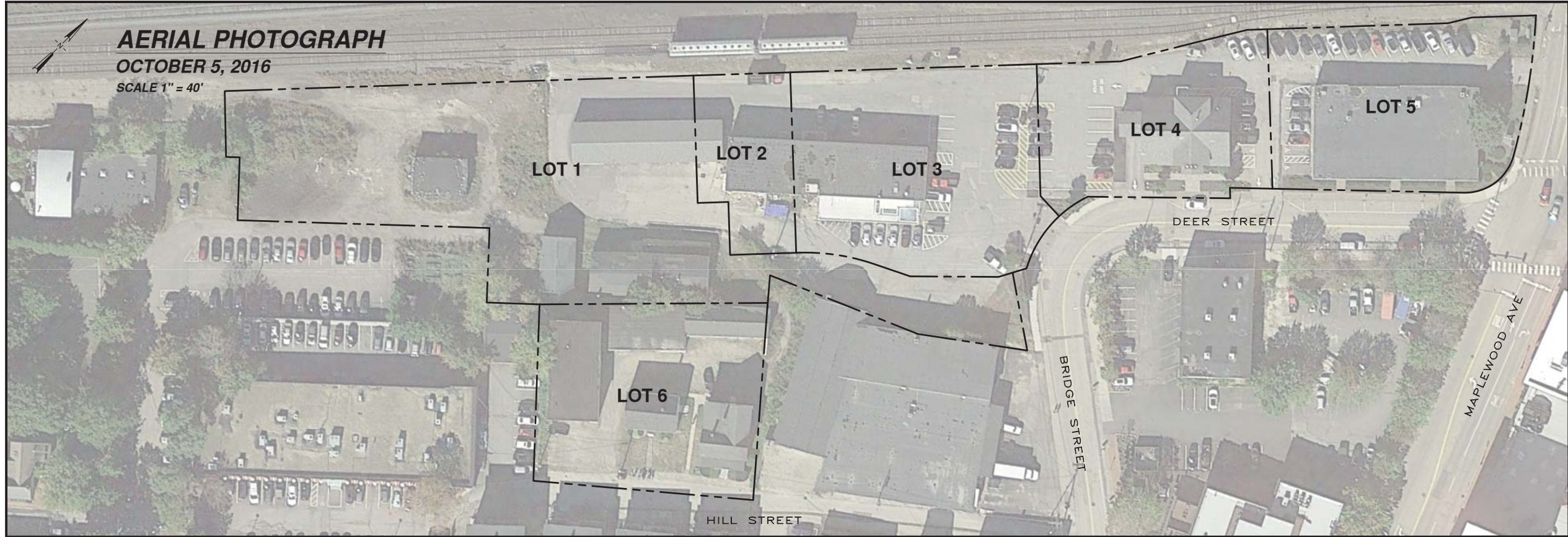
DSA Constructs Lot 2 Proposed Community Space





**ATTACHMENT TWO
FOUNDRY PLACE AND DEER STREET DEVELOPMENT
CONCEPTUAL SEQUENCING SCHEMATICS**





AERIAL PHOTOGRAPH
OCTOBER 5, 2016
SCALE 1" = 40'

PREPARED BY:



GeoInsight
Practical in Nature

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 7 BANKS ROCK ROAD
 YORK HARBOR, ME 03911
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**DEER STREET AND
 FOUNDRY STREET DEVELOPMENT
 CONCEPTUAL CONSTRUCTION SEQUENCING
 DEER STREET ASSOCIATES
 PORTSMOUTH NH**

REVISIONS	
DATE	DESCRIPTION

DWG SCALE: 1" = 40'	PREPARED BY: STM
DATE ISSUED: 06/14/17	CHECKED BY: MCP
PROJECT: 8090	APPROVED BY: MCP

LEGEND

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- UNDER CONSTRUCTION
- CONSTRUCTION COMPLETED
- PARKING AREA (TEMPORARY)
- COMPLETED ROADWAY OR PARKING
- TEMPORARY CONSTRUCTION STAGING/PARKING
- TEMPORARY CONSTRUCTION FENCE
- TEMPORARY CONSTRUCTION GATE

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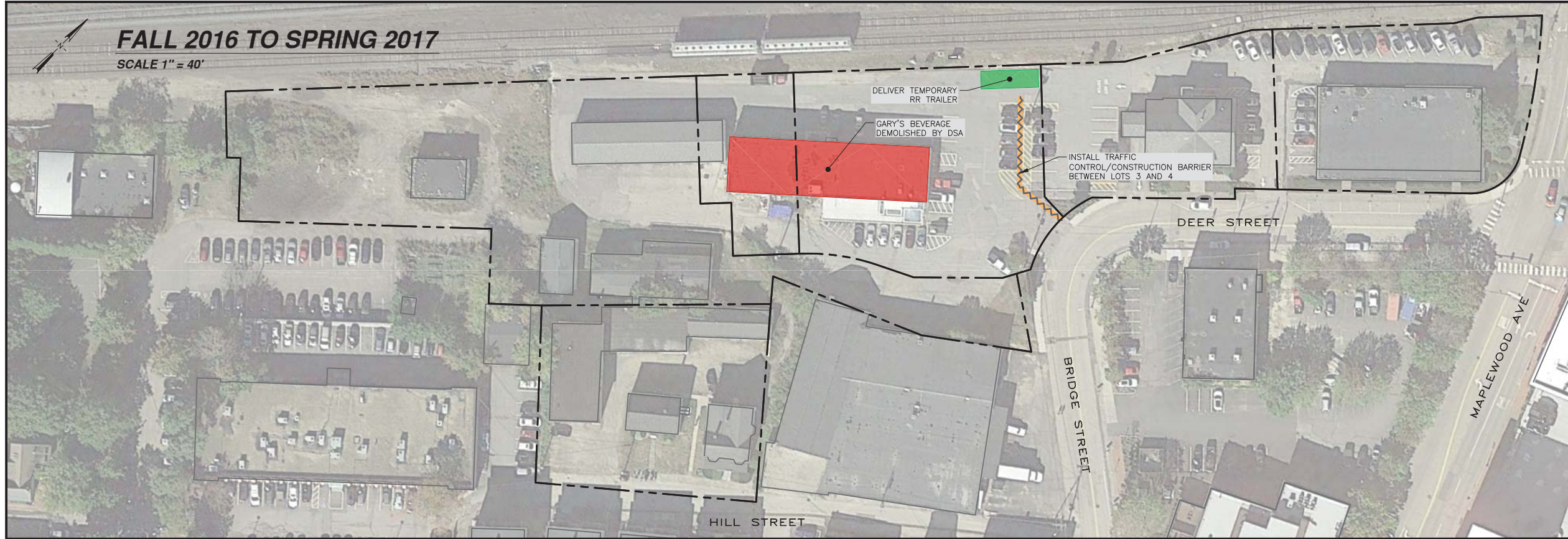
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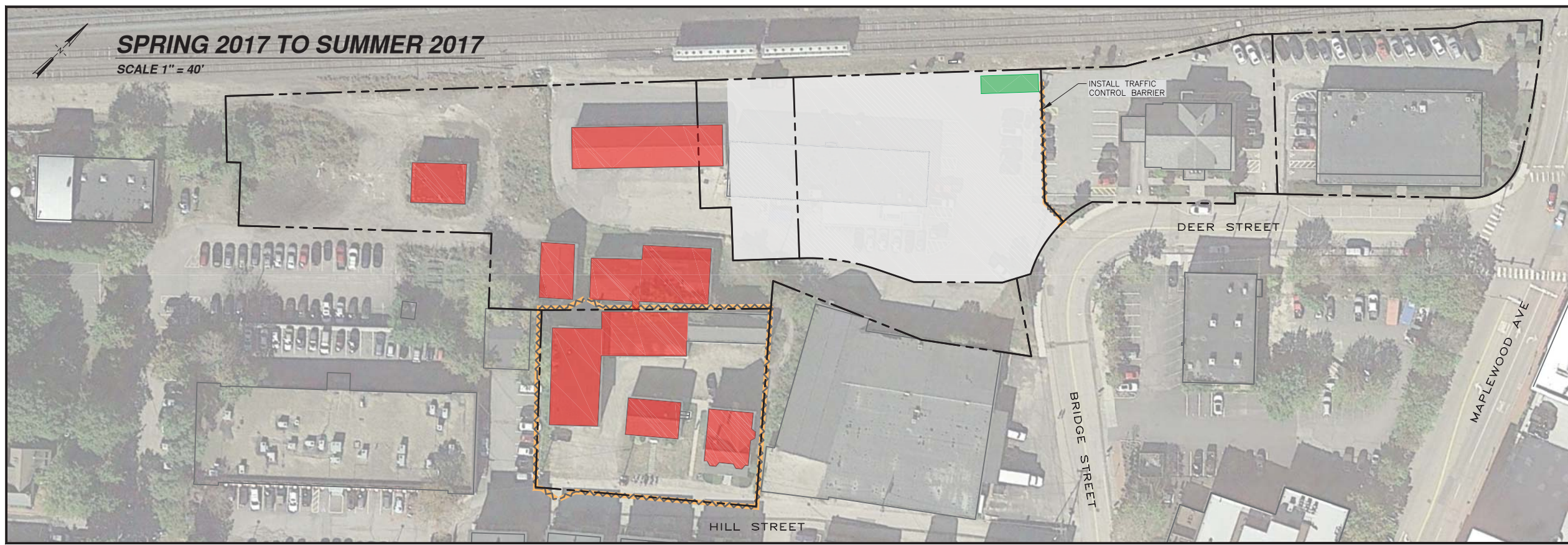
FALL 2016 TO SPRING 2017

SCALE 1" = 40'



SPRING 2017 TO SUMMER 2017

SCALE 1" = 40'



PREPARED BY:



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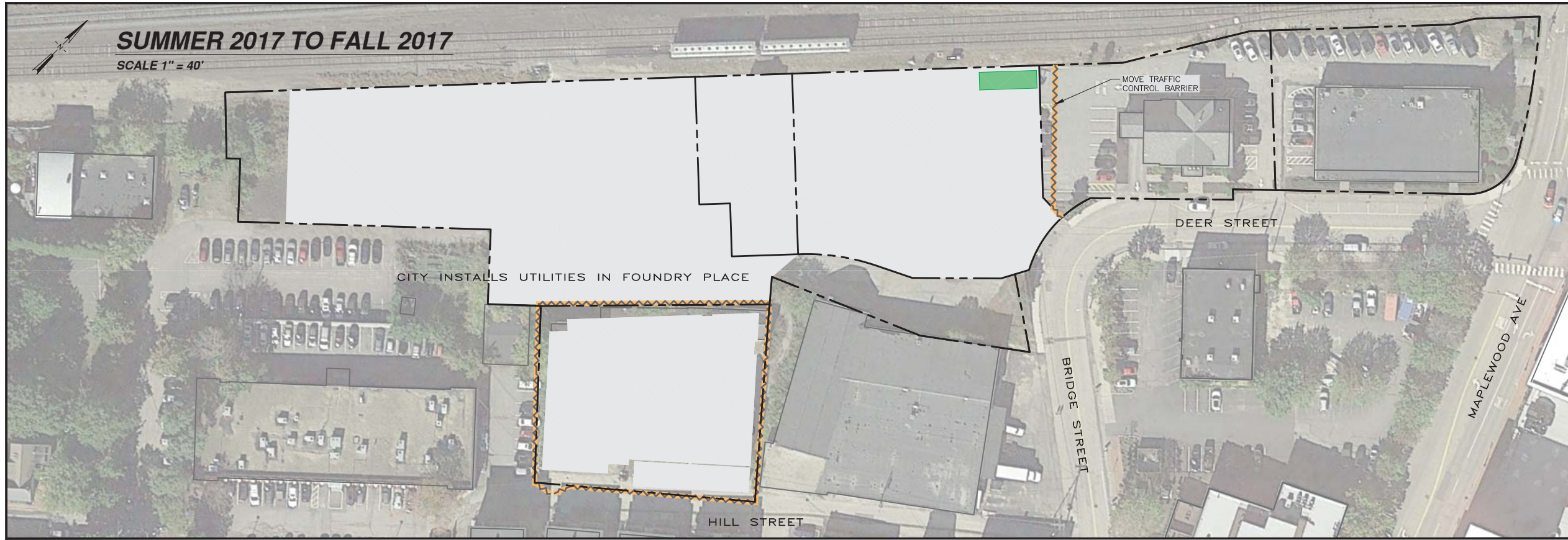
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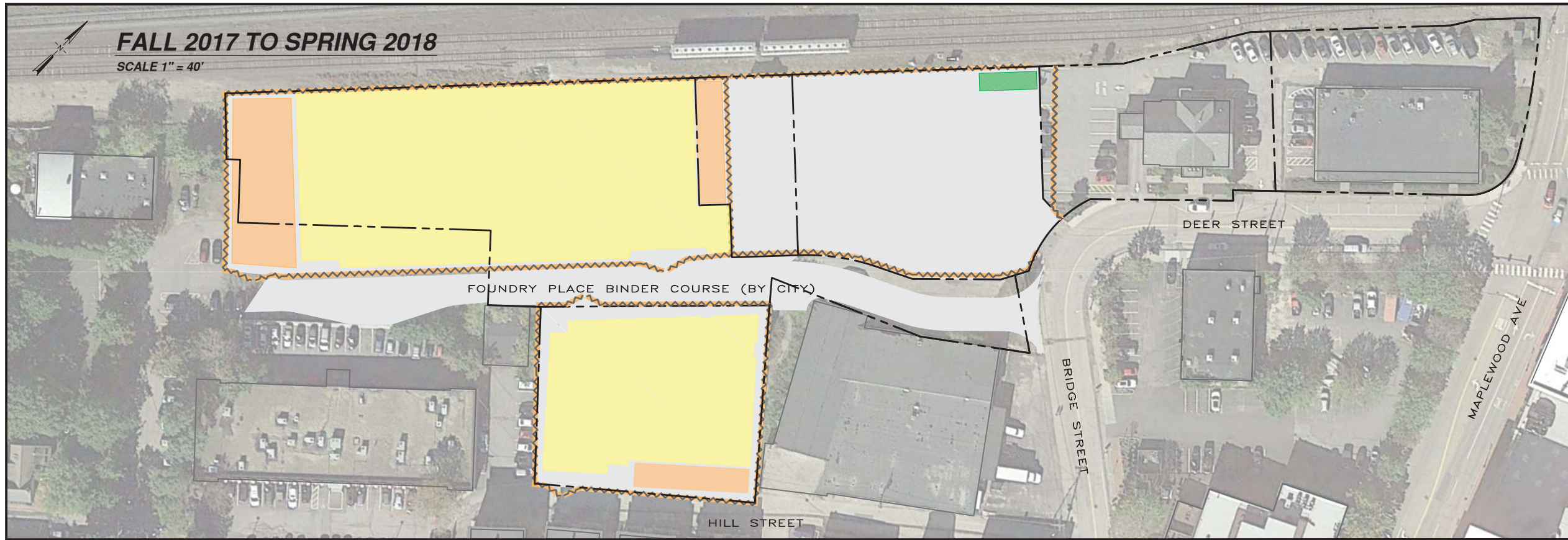
SUMMER 2017 TO FALL 2017

SCALE 1" = 40'



FALL 2017 TO SPRING 2018

SCALE 1" = 40'



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SPRING 2018 TO FALL 2018

SCALE 1" = 40'



FALL 2018 TO SPRING 2018

SCALE 1" = 40'



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**DEER STREET AND
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DEER STREET ASSOCIATES
PORTSMOUTH NH**

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PREPARED BY:

GeoInsight
Practical in Nature
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 ENVIRONMENTAL, STRATEGY AND ENGINEERING









OWNER/APPLICANT:
DEER STREET ASSOCIATES
 7 BANKS ROCK ROAD
 YORK HARBOR, ME 03911
 PH: (207) 363-3540

**DEER STREET AND
 FOUNDRY STREET DEVELOPMENT
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PREPARED BY:

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ATTACHMENT M
Draft Landscape Maintenance Agreement

DEER STREET/FOUNDRY PLACE RIGHT OF WAY
LANDSCAPING INSTALLATION AND MAINTENANCE AGREEMENT

THIS LANDSCAPING MAINTENANCE AGREEMENT (the "Agreement") is made as of the ____ day of _____, 2017 by and between the CITY OF PORTSMOUTH, a New Hampshire municipality (hereinafter, the "City"), and DEER STREET ASSOCIATES, a New Hampshire limited partnership (hereinafter "DSA").

WITNESSETH THAT

WHEREAS, the City proposes to construct a public roadway connecting Deer Street and Rock Street to be known as Foundry Place ("Foundry Place")(formerly known and sometimes shown as Deer Street Extension).

WHEREAS, DSA proposes to develop certain property located on Foundry Place and a portion of Deer Street, known as Lot 3, and further identified as City Tax Map 125, Lot 17, having a current street address of 165 Deer Street ("Lot 3").

WHEREAS, upon completion of the development of Lot 3 by DSA, DSA will be responsible for the installation and maintenance of plantings and other landscaping in the City rights of way for those portions of Foundry Place and Deer Street rights of way adjacent to Building/Lot 3.

WHEREAS, it is recognized by the City and DSA that it is desirable to determine and agree on the responsibilities of the parties with respect to such installation and maintenance of landscaping in the Lot 3 ROW.

NOW THEREFORE, in consideration of the mutual covenants, agreements and promises contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and DSA agree as follows:

AGREEMENT

1. Permitted Activities: The City hereby grants a license to DSA during the term of this Agreement to enter onto the Foundry Place and Deer Street rights of way abutting Lot 3 (the "Lot 3 ROW") and engage in such activities as are consistent with those set forth in Section 3(a)(1) of this Agreement.
2. Term: The term of this Agreement shall be ___ (__) years, starting the date of issuance of a building permit for the construction of the building on Lot 3 (the "Commencement Date") and proceeding for a period of ___ (__) years thereafter (the Termination Date"). The Term may be extended by DSA for __ (__) term(s) of ___ (__) years each upon the delivery of written notice by DSA to the City of DSA's intention to renew. This Agreement can be terminated sooner if one or more of the following occurs:
 - a. The City and DSA mutually agree to terminate this Agreement on a date certain, and on terms mutually agreeable; or
 - b. The City determines that public necessity requires termination of this Agreement, and provides written notice of the same to DSA at least six (6) months prior to the effective date of termination; or

- c. DSA terminates this Agreement on written notice to the City served at least six (6) months prior to the effective date of termination.

Upon termination of this Agreement for any reason, DSA shall have no obligations hereunder from and after the date of such termination, unless expressly stated otherwise in this Agreement.

3. Maintenance of the Lot 3 ROW:

- a. Maintenance shall be divided between the parties as follows:
 - i. DSA shall be responsible to prepare all planting beds, plant vegetation and other landscaping and to maintain and replace such plantings and other landscaping, as needed (collectively as "Landscaping"). The Landscaping will be in accordance with the landscaping plan(s) approved by the City Planning Board pursuant to its site plan review for Lot 3. DSA may complete its Landscaping responsibilities by use of its own personnel or through contracts with third parties.
 - ii. The City shall be responsible for all maintenance of all roadways, pavements, crosswalks, sidewalks and any other hardscapes in the Lot 3 ROW, including but not limited to paving, installation, repairs, street sweeping, snow plowing, and, removal of debris. In the event that the activities described in this section by the City, or their agents, result in damage to the Landscaping, then the City shall repair the Landscaping.
- b. Subject to the provisions described in this Agreement, the City may choose to maintain the Landscaping in the event DSA fails to do so; provided that the City shall first give DSA written notice of and a reasonable opportunity to cure any such purported failure.
- c. DSA shall bear the cost and expense of all obligations required under subsection 3.a.i hereof. The City shall bear the cost and expense of all obligations required under subsection 3.a.ii and 3.b hereof.

4. Personal Liability: No trustee, director, officer, shareholder, member, manager, agent or employee of DSA shall have any personal liability hereunder.

5. Assignment; Successors: This Agreement shall be binding upon and shall inure to the benefit of DSA's successors and assigns and DSA shall have no obligations hereunder from and after the date of such transfer, but only if DSA delivers to the City (i) written notice of the transfer of all of its rights and obligations under this Agreement within five (5) business days of any such transfer, and (ii) a true and complete copy of a final executed "Assignment and Assumption" instrument, which instrument shall provide that the entity comprising DSA's successor or assign agrees to perform and observe all of the terms, covenants, and conditions of this Agreement imposed on the assignor or predecessor from and after the date of transfer. The rights and obligations of DSA pursuant to this Agreement may be collaterally assigned or otherwise transferred as security to any lender which holds a mortgage with respect to Lot 3, and neither the grant of such security nor the exercise of lender's rights and remedies pursuant to the security instruments evidencing the same shall be subject to the requirements of this paragraph.

6. Notice: Any notice required to be given under this Agreement shall be in writing, sent by hand, by certified mail, return receipt requested, or by commercial overnight delivery, and addressed as follows:

If to the City: City of Portsmouth
1 Junkins Avenue
Portsmouth, NH 03801
Attn: Legal Department

If to DSA: Deer Street Associates
P.O. Box 100
York Harbor, ME 03911
Attn:

with copy to: R. Timothy Phoenix
Hoefle, Phoenix, Gormley & Roberts, PA
127 Parrott Avenue
Portsmouth, NH 03801

or such other substitute addresses as subsequently provided by either party to the other pursuant to this paragraph.

7. Governing Law; Counterparts; Integration; Amendments: This Agreement shall be governed and construed in accordance with the laws of the State of New Hampshire, as amended from time to time, without regard to principles of conflicts of laws. This Agreement may be executed in counterparts, which together, shall constitute but one original. This Agreement contains the entire agreement between the parties relating to the subject matter hereof and supercedes all oral statements and prior writing with respect thereto and may not be terminated or amended except as provided herein. This Agreement may be amended only in a writing executed by the parties.
8. Successors and Assigns: The term "City" shall be interpreted to include the City's successors and/or assigns. The term "DSA" shall be interpreted to include DSA's successors and/or assigns in accordance with paragraph 5 above.
9. Signage. DSA shall be permitted to place signage within the Lot 3 ROW to acknowledge that it is maintaining the Landscaping. Any signs shall be consistent with City regulations and shall be subject to the City's reasonable written objection.
10. Waiver. The failure by a party at any time to require performance of any provision of this Agreement shall not constitute a waiver of such provision and shall not affect the right of such party to require performance at a later time.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

CITY OF PORTSMOUTH

Witness

By: _____

Its duly authorized _____

DEER STREET ASSOCIATES

Witness

By: _____

Its duly authorized _____

ATTACHMENT N
Previous TAC Cover Letters



Site Plan Review Submission – Supporting Documents

March 17, 2017

“Lot 3”

Deer Street Development

165 Deer Street, Assessors Map 125 Lot 17

Portsmouth, NH

Table of Contents

1. Archeological Report
2. Utilities contacts & site permits
3. Sustainable Strategies
4. Waivers & variances
5. Product data sheets – automobile lifts
6. Storm-water management report
7. Traffic Report



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Environmental Strategy & Engineering
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November 17, 2017

GeoInsight Project 8090-000

Ms. Juliet T. H. Walker
Planning Director (Chair)
City of Portsmouth Technical Advisory Committee
City Hall, 3rd Floor
1 Junkins Avenue
Portsmouth, NH 03801

RE: Deer Street Associates, LLP
Lot 3 Design Approval
165 Deer Street, Tax Map 125 Lot 17
Portsmouth, NH 03801

Ms. Walker and TAC Members:

On behalf of Deer Street Associates, LLP (DSA) GeoInsight, Inc. (GeoInsight) is pleased to submit to the City of Portsmouth (the City) Technical Advisory Committee (TAC) the enclosed updated design package for the December 5, 2017 public hearing continuation for Lot 3 of the DSA project. The project involves redevelopment of the area formerly occupied by Gary's Beverage into a new mixed-use building to be referred to as the Hotel at Foundry Place. DSA intends for the new structure to be the key building among its proposed redevelopment, and the building is planned to be occupied by an upscale hotel with ground level valet parking, first floor cafe, fifth-floor restaurant and bar. This letter, and the attached documents and plan set, provide updated and additional information intended to assist with TAC's continued review of the project.

The updated design includes many changes since TAC's last review, with most of the changes resulting from input presented by the hotel branding design team. We have also participated in numerous meetings with City representatives to provide progress information and obtain interim feedback. The package included with this submittal addresses comments provided by TAC at the last hearing on April 4, 2017, and also includes additional updated information for review as part of the overall design package. The following sections in this letter summarize significant updates and changes.

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Fax (603) 314-0821

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One Monarch Drive, Suite 201
Littleton, MA 01460-1440
Tel (978) 679-1600
Fax (978) 679-1601

GeoInsight, Inc.
200 Court Street, 2nd Floor
Middletown, CT 06457-3341
Tel (860) 894-1022
Fax (860) 894-1023

GeoInsight, Inc.
4 Market Place Dr., 2nd Floor
York, ME 03909
Tel (207) 606-1043



CIVIL DESIGN

Community Space and Open Space calculations have been revised based upon modifications to the street scape along the front of Lot 3. The revised totals for Lot 3 and contributory space used from adjacent Lot 2 are presented in tables displayed on Sheet C3.3 and C3.4.

Easements required for the development were updated and include an agreement reached with the railroad to allow temporary construction access. Refer to Attachment B for an updated summary.

An additional traffic-related document was prepared by Gorrill-Palmer to independently evaluate the City-commissioned, TEC traffic study. Documentation from Gorrill-Palmer relevant to Lot 3 is presented in Attachment C.

Temporary lights and landscaping have been included in the drive-around space at the rear of Lot 4 to serve hotel patrons until Lot 4 is redeveloped. Also, minor changes to the temporary traffic controls (striping of drive lanes and parking areas) were established on Lot 4 to improve access Lot 3. These are indicated on Sheet C3.0 and C3.1.

A wayfinding sign will be installed at the corner of Lot 4 driveway entrance along Deer Street sidewalk area (refer to Sheet 3.1). A variance will be needed for this sign because it is within the required free-standing sign setback. Although the sign is on Lot 4, it is fundamental to the use of Lot 3, and is therefore included in the Lot 3 design package.

Major sidewalk changes were made to incorporate comments from the DPW and Planning Department (since the previous Lot 3 submittal to TAC). These changes included new alignments and grading. Steps have been installed instead of a sidewalk ramp system previously proposed for access. In addition, the hotel drop-off area was significantly re-designed and adjacent sidewalk and driveway grades were revised to reflect the new layout. Refer to Sheets 3.0, C4.0, C4.1, and C4.2.

The grading near the valet garage entrance and transformers was revised to allow stormwater to sheet flow towards the landscape areas adjacent to the railroad, which mimics the existing conditions. A stormceptor treatment unit was added to capture pavement runoff flowing towards Deer Street. This unit is expected to remove 80% or more of the TSS and provide gas/oil capture volume. Velocity reducing stone pads were added at anticipated roof discharge locations along the rear of the building. These are shown on Sheets C4.0 to C4.2, and the Stormceptor drain profile is included on Sheet C7.0. Revised spot grades are shown on Sheet C4.1 and C4.2. The updated stormwater report is included in Attachment E.

Water and sewer load calculations have been updated and are included in Attachment F.

Foundry Place and Bridge Street electric utility locations were modified to coordinate with the City's design of Foundry Place.



Off-site improvements include removing overhead power services for 238 Deer Street (the VFW Building), City street lights, and Maplewood intersection controller and placing them underground. Communication utilities to the VFW Building will also be placed underground. The power will extend to an existing transformer located at 30 Maplewood (Lot 125-2).

ARCHITECTURAL DESIGN

The main entrance into the building was relocated from the corner of Bridge and Deer Streets, to the east side of building facing the valet drop off driveway along Lot 4.

A raised terrace/deck area has been incorporated adjacent to the building along Foundry Place, in coordination with the revised grading of sidewalk in this area. A canopy has been added over part of this terrace. A handicapped accessible ramp has been added at the middle entrance along Foundry Place, to accommodate revised sidewalk grades.

The electrical room has been relocated from the 2nd floor to the ground floor at northeast corner, at rear of Lot 4 access drive. The total number of parking spaces provided on site was increased from 72 to 78 spaces. All spaces are now designated as “Valet Only” parking, whereas previously 10 spaces were self-park and 62 spaces were valet. All but two of these spaces now incorporate lifts, whereas previously 10 spaces did not incorporate lifts. Attachment D includes manufacture cut sheets for the parking lifts.

Floor to floor heights have been revised to be shallower at upper floors, and taller at first and second floors. Glazing percentages have been updated accordingly. The overall building height remains unchanged.

The storefront windows at first floor along the new terrace, and also at the Café along Foundry Place and at Lot 2 plaza have been changed to operable glass folding doors. The number of windows at upper floors on the West façade along Lot 2 has been reduced. Window patterns and siding details have been adjusted slightly at the North (railroad) and East (Lot 4) façades.

Rooftop mechanical screening limits and elevator overrun locations have been adjusted slightly. Heights of elevator overruns have been reduced.

Programmatic use areas have been adjusted slightly. The retail shop has been eliminated, the hotel lobby size increased, and the number of hotel guest rooms was increased from 125 to 128. The size of the rooftop bar was reduced by 20%. The overall gross square footage including all floors increased slightly from 99,307 sf to 104,020 sf.

DSA has recently retained a James M. Stockman, of J&M Lighting Design, Inc., as a lighting design expert. Revisions and enhancements have been made to previously proposed lighting plans to specifically enhance the project’s lighting to serve functional and aesthetic purposes, including the addition of new lights. Manufacturer’s information regarding proposed lighting is included in Attachment G.



LANDSCAPING DESIGN

The proposed transformer configuration was modified to include a removable screen around two sides of the pad. A new landscaping scheme was adopted for the new streetscape layout. The landscaping design and hardscape and site features have been detailed more thoroughly including the selection of plant species appropriate to the streetscape, and are shown on the landscaping drawings.

Supplementary pages in Attachment H present the plant material selection and hardscape and site furniture selections.

As requested by the City, DSA (and any future owners in perpetuity) shall assume the sole responsibility for maintenance of the planted areas in front of its property and specifically those areas in the City Right of Way along the project streetscape. DSA prepared a proposed Landscaping Maintenance Agreement between the City and DSA, in accordance with similar agreements in the past between developers and the City. DSA will request a meeting with City staff to begin discussions about the Landscaping Maintenance Agreement.

Unchanged Project Attachments

- Attachment A provides a reminder of the vision shared between DSA and the City for the redevelopment of the Deer Street area.
- Attachment I is an Archeological Report (unchanged from the previous TAC submittal) pertinent to the development.
- Attachment J is an unchanged summary of sustainable strategies that will be pursued for the development.
- Attachment K is an unchanged list of utility providers and contacts, and includes an unchanged list of expected permits for the project. Note that new utility feeds will be required, and several new utility permits will be required for the construction, as described previously.
- Attachment M is a slightly updated description of the currently expected sequence of overall DSA redevelopment and associated inter-relation of likely adjoining property use in a conceptual overall construction sequencing summary.

The DSA appreciates the opportunity to continue working with TAC and interested members of the public on this project. If you have questions about the information in this cover letter or attached materials, please contact us at (603) 314-0820.

Sincerely,
GEOINSIGHT, INC.

Michael C. Penney, P.E.
Senior Engineer/Senior Associate

November 17, 2017
GeoInsight Project 8090-000



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Environmental Strategy & Engineering
Practical in Nature

December 18, 2017

GeoInsight Project 8090-000

Ms. Juliet T. H. Walker
Planning Director (Chair)
City of Portsmouth Technical Advisory Committee
City Hall, 3rd Floor
1 Junkins Avenue
Portsmouth, NH 03801

RE: January 2, 2018 TAC Hearing Site Plan Review Submittal
The Hotel At Foundry Place, "Lot 3"
165 Deer Street, Assessors Map 125 Lot 17
And Related Improvements To Lots 2, 4 And 5
Foundry Place LLC and Deer Street Associates
Portsmouth, NH 03801

Ms. Walker and TAC Members:

On behalf of Foundry Place LLC and Deer Street Associates (Foundry Place/DSA, the owners), GeoInsight, Inc. (GeoInsight) prepared this letter and attachments for the City of Portsmouth (the City) Technical Advisory Committee (TAC) for the January 2, 2018 Public Hearing. As requested by the City, this submittal seeks approval of the proposed redevelopment of Lot 3 and also approval of proposed improvements to two adjacent properties and one nearby by property; the proposed off-site improvements are required for the proposed development of Lot 3. The design package was reformatted to include a single submittal for the proposed changes to each of the affected lots.

In addition, a change of ownership became effective on December 13, 2017, and now Foundry Place, LLC owns Lots 2 and 3, and Deer Street Associates owns Lots 4 and 5. Given the timing of the transition, both owners are named in some of the submittal materials, but not all of the information contained within the attached submittal package was able to be updated in time for the December 19, 2017 submittal date. We do anticipate updating the relevant information for the Planning Board submittal.

Revisions and additions to the Lot 3 design, and the improvements to Lots 2, 4, and 5, are based upon a written list of topics and comments provided by TAC on December 5, 2017 for the Lot 3 design, and also discussions and comments received during the December 5, 2017 TAC Hearing. These comments from TAC formed the basis of our response submittal that accompanies this cover letter. Included with this letter is a Comment Response Matrix (Table 1) prepared to track the

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individual issues identified by the City regarding the December 5, 2017 design submittal package, and the subsequent response from the Foundry Place/DSA team. As indicated on the table, most of the comments provided by TAC have been addressed. We anticipate that the items listed in Table A that are highlighted in yellow, as well as new changes made to the design, will form the basis of the January 2, 2018 TAC hearing discussions.

Also included with this cover letter are an updated Site Review Application Form and a Site Plan Application Checklist. Each of these two documents were formatted to address both the Lot 3 design and the improvements proposed for Lots 2, 4, and 5.

Additional updated or new information for consideration as part of the overall design package is included on the design plans and in the submittal Attachments. The following is a generalized summary of the changes in the design package.

1. Revised Vision Statement

The Vision Statement for the development of Lots 2 through 6 was updated to remove the “symbiotic” reference and removed Historic District zoning references, and is included at Attachment A.

2. Easement Modifications

The proposed easement plans related to Lot 3 were revised to include Lots 2, and 4. There are not easements needed for Lot 5 that are related to Lot 3. Easement Plans were updated along with the Easement Summary Table (Attachment B) to provide improved consistency.

3. Revised Stormwater Report

The Lot 3 stormwater report was updated to reflect the minor changes in grading and drainage design, and also additional information regarding the impracticality of infiltrating stormwater on or off the property. Also, as discussed during the December 5, 2017 TAC Hearing, the stormwater management approach being used for Lot 3 does take into account future stormwater management requirements for Lots 4 and 5, as preliminary evaluations for those other lots were initiated concurrently with the evaluation for Lot 3. The revised Stormwater Report is included in Attachment C.

4. Building Load Information

The water and sewer requirement calculations for the Lot 3 hotel building were updated for this submittal, as were the calculations for the grease traps. This information is included in Attachment D.

5. Utility Will Serve Letters and Confirmation of Utility Information

Based upon comments from TAC, utility providers were asked to provide a more definitive commitment with regard to their ability to service the proposed Lot 3 development. Geolnsight provide copies of proposed utility plans to the providers and has requested revised letters that specifically reference the proposed designs. Information received as of the date of this letter is included in Attachment E. Confirmation not included is anticipated to be provided by hand at the January 2, 2018 TAC Hearing.



6. Landscape Maintenance Agreement

Based upon the proposed use of vegetated strips within the City sidewalk right-of-way, TAC requested that a formal agreement be developed that would define the owner's responsibilities with regard to the plantings and the planting areas. Therefore, a Draft Landscape Maintenance Agreement (Attachment F) was prepared that includes spaces for City input and also suggested language. We request that the City review and comment on the document.

Evaluation of the Impact of Lot 3-Related Construction on Future Lot 4 Utilities

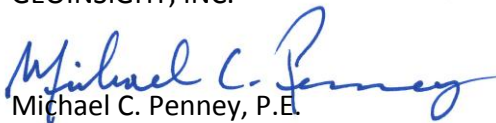
Numerous modifications to the Lot 4 property are planned for the benefit of the proposed Lot 3 development. These include gas, electric, communications, sewer, stormwater drainage, egress, signs, lighting, and other easements (refer to Attachment B). Despite these features occupying the southwest portion of Lot 4, the future development of Lot 4 is not expected to be significantly impacted by the Lot 3-related improvements because: the drive-around will remain for Lot 4 and future Lot 5 use; water, sewer, and gas are expected to connect directly to infrastructure in Deer Street; stormwater will be managed by the infrastructure already installed for Lot 3 and by being discharged to the City drainage infrastructure in Deer street; and electrical and communications services will be able to connect to the new infrastructure installed for Lot 3. Therefore, the proposed Lot 3 development and its reliance on a portion of Lot 4 for easements, is not expected to have an adverse influence on the future formal design for Lot 4.

Lot 2 Unencumbered Space

Geolinsight's previous and current drawing (Sheet C3.4) that addresses Community Space identifies what areas of the Foundry Place, LLC Lot 2 property were utilized by DSA for Lot 6 and will be utilized by Foundry Place, LLC for Lot 3. Because Lot 3 and Lot 6 will be counting some of the Lot 2 space toward development incentives, a formal arrangement is necessary to keep the Lot 2 area as Community Space in the future. With regard to the remaining space on Lot 2 that has not yet been appropriated for other future incentives, Foundry Place expects to reserve the right to use the space for future incentives or assign that right to DSA. However, the entirety of Lot 2 is still planned to be transferred to the City by Foundry Place, LLC at the end of the development process, whether there is unencumbered space remaining on Lot 2 at the time of the transfer or not.

The Foundry Place/DSA team appreciates the opportunity to work with the TAC and interested members of the public on this project. If you have questions about the information in this cover letter or attached materials, please contact us at (603) 314-0820.

Sincerely,
GEOINSIGHT, INC.


Michael C. Penney, P.E.
Senior Engineer/Senior Associate

Enc.

TABLE 1
RESOLUTION SUMMARY of DECEMBER 5, 2017 165 DEER STREET (DSA LOT 3) TAC HEARING COMMENTS

Comment #	Comment	Status	Response
1	Complete the Site Plan Review Checklist	Addressed	Site Plan Review Checklists completed for Lots 2, 3, and 4.
2	The driveway crossing area near the hotel drop-off should be asphalt, not brick.	Open Item	The crossing is still shown to be brick in the interest of engaging TAC in further discussion on this issue.
3	The dashed line shown in the drive-around should be solid.	Resolved	See Sheets C3.1 to C3.3
4	Dashed line leading to drive-thru can begin where arrows are located	Resolved	See Sheet C3.1 to C3.3
5	Stairs leading to Foundry Place from front sidewalk not preferred; need to deter pedestrians from crossing except at crosswalk.	Resolved	Use of vegetated strips in the sidewalk expanded along the Foundry Place to discourage leaving the sidewalk.
6	End of sidewalk nearest to City Garage is narrow. Will this be sufficient for pedestrian passage?	Addressed	The minimum sidewalk width at the southwest end of Lot 3 sidewalk is 8 feet, which is the same width as several other narrow locations in front of Lot 3 where the building projects out into the sidewalk. The width <u>meets</u> minimum criteria.
7	Due to improvements on adjacent Lots for the benefit of Lot 3, a joint application should be provided.	Resolved	A revised format was provided to allow the City to approve the proposed modifications to Lot 2, 4, and 5 for the purposes of developing Lot 3.
8	Impacts to Lot 4 including all easements, utilities, etc. to support adjacent developments (Lot 3, Lot 5) need to be clearly identified. Also, identify impacts to development/construction of Lot 4 building, utilities, etc. as a result.	Addressed	A response to this comment was provided at the December 5, 2017 Hearing and is also included in the Cover Letter for the January 2, 2018 Hearing.
9	Note #11 on the Site Notes (C1.1) should reference any public roadway, curbing, and sidewalks (not just Foundry Place).	Resolved	Note modified on Sheet C1.1.
10	Please confirm that your open space areas identified on sheet 3.6 conform with the zoning section 10.515.20 of the zoning ordinance.	Resolved - No Change Needed	Open space provided is 10% of Lot 3, where 5% is required, and 29% of the open space is pervious, where 20% is required.
11	Anywhere you reference a detail (TYP.) please refer to the specific detail sheet # and reference # in the plan set.	Resolved	Edits were made to Civil Sheets to include references to specific details on detail sheets, were applicable.
12	A removable screen is proposed around the transformer pad. We're not sure this complies with the site plan review requirements for screening in Section 6.9, we will need to discuss.	Unresolved	Further discussion with TAC is desired by the Lot 3 team.
13	Project Vision (Attachment A). City staff do not agree with your statement that this project and the parking garage "are being developed in collaboration and are symbiotic in nature."	Addressed	The Vision Plan (Attachment A) was revised to acknowledge the separate nature of designs being pursued by the City and Foundry Place, LLC and DSA, and clarifying what was intended to be meant by collaboration.
14	Stormwater Management Study needs to go out for third party review in respect to drainage and stormwater management, and should be considered in the context of other future DSA development projects in the vicinity.	Addressed	GeoInsight revised its Stormwater Management Report, and Foundry Place, LLC agreed to support City's need for third party review but requests expedited process.
15	3 rd party review of Traffic Report and proposed traffic pattern on Lot 4 / Lot 3 requested.	Addressed	Gorrill Palmer will issue a revised traffic memo specific to the proposed traffic patterns on Lots 3 and 4 , and their relation to Deer Street, and Foundry Place, LLC and DSA agreed to support City's need for third party review but requests expedited process.
16	A Construction Mitigation and Management Plan shall be required for this project once it receives Site Plan approval.	Acknowledged	A Construction Mitigation and Management Plan will be provided after the project receives Site Plan approval.

**TABLE 1
RESOLUTION SUMMARY of DECEMBER 5, 2017 165 DEER STREET (DSA LOT 3) TAC HEARING COMMENTS**

17	Final utility plan needs to be signed off (in writing, reference plan version) by Unutil, Eversource, Fairpoint, First Light, Comcast.	In Progress	In addition to Will Serve letters, Foundry Place, LLC and DSA expect to receive utility sign-offs on design plans in time for the January 2 Hearing.
18	No loading will be allowed on Foundry Place, therefore the walkways on that side shall be designed not to encourage that use.	Addressed	Refer to response to Comment #5.
19	Please provide drafts of proposed landscaping maintenance agreements for review by the City.	Addressed	A Draft Landscape Maintenance Agreement was included with the submittal package.
20	Explain sewer/water use calculations in Attachment F. Values appear inconsistent.	Addressed	Sewer and water use calculations were updated and included in Attachment D of the submittal package.
21	Calculations for grease trap sizing will need to be provided. Interior grease traps might be required in addition to exterior units per plumbing code requirements. Engineer to verify.	Addressed	Grease trap sizing calculations updated and included in Attachment D of the submittal package.
22	Update the Easement Table and Easement Figures to match; make sure it includes the electric easement on Lot 4 for Lot 3.	Resolved	Sheets E1, E2, and E3, and the Easement Summary Tables included in Attachment B were edited to be consistent and are included in the submittal.
23	City wants to control the ability to light the sidewalk, therefore they want decorative City street lights installed. Resolve light provided/guaranteed by building with City lights.	Addressed	Sidewalk lights are shown on Sheet L2. Updated building lighting information is included in Attachment G.
24	Update the zoning compliance table to include required dimensional information. Update square footage.	Addressed	Zoning compliance table updated. Dates of approvals for variances sought also included (Sheet T.02T).
25	Revisit Community Space calculation if outside tables are going to be used on sidewalks.	Addressed	Community Space calculations and illustrations (Sheet C3.3) was revised to exclude terrace area in front of hotel and is included.
26	Revise colors and locations of Open Space and Community Space sheets.	Addressed	Community Space and Open Space illustrations (Sheets C3.3 and C3.4) were updated for clarity.
27	Define how "unclaimed" portion of Community Space will be assigned.	Addressed	Addressed in cover letter. Area will be banked for future use as Community Space by DSA if possible, but will be turned over to the City with the remainder of the lot area.
28	City asked for Lot 2 frontage "surety."	Unresolved	Issue to be discussed further with City at the January 2, 2018 Hearing.
28	Define whether benches and other streetscape features are consistent with City specifications.	Addressed	Benches and other streetscape features will be consistent with City specifications.
29	Because City cannot access railroad side of building, the High-Rise provisions of the Code become effective which will mean pressurized sprinklers in stairwells and sprinklers may be required for lifts.	Pending	If required by Code, the required sprinklers will be provided.
30	Use non-flammable mulch at rear of building, if mulch is used at all.	Addressed	Mulch used on the property, if any, will be a non-combustible material. Stone will be used at the rear of the building.
31	Confirm gas company can supply the required volume and rate of gas to support hotel needs.	Pending	Communications were initiated with Unutil, but still awaiting a formal reply.
32	DPW requested additional information on comparison of DSA proposed street alignment and that proposed by Tighe and Bond.	Resolved	GeoInsight prepared an overlay plan showing both alignments.

Geo



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Practical in Nature

January 15, 2018

GeoInsight Project 8090-000

Ms. Juliet T. H. Walker
Planning Director (Chair)
City of Portsmouth Technical Advisory Committee
City Hall, 3rd Floor
1 Junkins Avenue
Portsmouth, NH 03801

RE: January 30, 2018 TAC Hearing Site Plan Review Submittal
The Hotel At Foundry Place, "Lot 3"
165 Deer Street, Assessors Map 125 Lot 17
And Related Improvements To Lots 2, 4 And 5
Foundry Place LLC and Deer Street Associates
Portsmouth, NH 03801

Ms. Walker and TAC Members:

On behalf of Foundry Place LLC and Deer Street Associates (Foundry Place/DSA, the owners), GeoInsight, Inc. (GeoInsight) prepared this letter and attachments for the City of Portsmouth (the City) Technical Advisory Committee (TAC) for the January 30, 2018 Public Hearing. As requested by the City and as presented in the January 2, 2018 meeting, this submittal seeks approval of the proposed redevelopment of Lot 3 and proposed improvements to two adjacent properties and one nearby by property (Lots 2, 4, and 5); the proposed off-site improvements are required for the proposed development of Lot 3. The design package includes a single submittal for the proposed changes to each of the affected lots.

Revisions and additions to the Lot 3 design, and the improvements to Lots 2, 4, and 5, are based upon a written list of topics and comments provided by TAC on January 2, 2018 for the Lot 3 design, and discussions and comments received during the January 2, 2018 TAC Hearing. These comments from TAC formed the basis of our response submittal that accompanies this cover letter. Included with this letter is a Comment Response Matrix (Table 1) prepared to track the individual issues identified by the City regarding the January 2, 2018 design submittal package, and the subsequent response from the Foundry Place/DSA team. As indicated on the table, most of the comments provided by TAC have been addressed. We anticipate that the items listed in Table A that are highlighted in yellow will form the basis of the January 30, 2018 TAC hearing discussions.

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Updated or new information that was requested to be incorporated into the Lot 3 design package and was of a minor nature is included in the electronic version of the entire package submittal. These include:

- notes added to the plans regarding Fire Department comments for sprinklers;
- references to Morin pavers removed from plans;
- plan set cover sheet updated to address all plans in the set;
- Community Space labeling between C3.4 and E1 corrected;
- reference to sidewalk easement for Lot 4 removed; and
- zoning boundaries now shown on civil plans.

Other changes for consideration as part of the overall design package are included as focused details presented in a hard copy fashion on 11 x 17-inch pages attached to this letter, and include:

- revised streetscape to eliminate breaks in vegetative strip;
- details of the proposed screen around the transformer pads;
- details for the landscaping to be installed along the Lot 3 rear property line along the fence;
- a revised drain manhole detail identifying the shelf to be composed entirely of brick;
- a revised drain manhole layout; and
- Hotel entrance sign detail.

The Foundry Place/DSA team appreciates the opportunity to work with the TAC and interested members of the public on this project. If you have questions about the information in this cover letter or attached materials, please contact us at (603) 314-0820.

Sincerely,
GEOINSIGHT, INC.

A handwritten signature in blue ink that reads "Michael C. Penney".

Michael C. Penney, P.E.
Senior Engineer/Principal

Enc.

**TABLE 1
LOT 3 - TAC COMMENT MATRIX**

	Item	Status	Comment
1	Brick crosswalk	Resolved	City to provide DSA with agreement for continued maintenance of crosswalk
2	Removable screen at transformer	Resolved	Screen detail to be shown on landscape plans provided (refer to attached submittal)
3	Stormwater peer review	Pending	Geolnsight to address peer review comments when received
4	Traffic peer review	Pending	GP to address peer review comments when received
5	Gas Will Serve letter	Resolved	Letter from Unitil attached
6	Lot 2 Surety	Resolved	DSA to provide standard surety for Lot 2 work in addition to Lot 3; this will be a condition of the construction permit
7	Pressurized stairwells	Resolved	Note added to plan to address Fire Dept. comment
8	Sprinklers at lifts	Resolved	Note added to plan to address Fire Dept. comment
9	Cost sharing for Deer St. water main replacement	Pending	DSA/Foundry Place team members to meet with City to discuss mitigation package
10	Traffic impacts mitigation	Pending	DSA/Foundry Place team members to meet with City to discuss mitigation
11	“Drop off” area on Foundry Place	Resolved	Landscape island extended to remove two “gaps” along Foundry Place (refer to attached submittal)
12	PDMH1	Resolved	Structure eliminated, connect into DMH 3541 (refer to attached submittal)
13	Area Stormwater Study	Pending	City requested contribution to area-wide stormwater study; City to provide estimated cost to DSA
14	Paver details	Resolved	All references to Morin pavers removed
15	Brick manhole shelves	Resolved	Details revised to show brick shelves to be made entirely of brick (refer to attached submittal)
16	Gateway Arch Sign	Resolved	Reference to Gateway Arch sign removed from plans
17	Entrance Sign	Resolved	Entrance sign detail on provided on plans (refer to attached submittal)
18	Sheet numbers	Resolved	Cover sheet of plan set updated to include all plans in the set
19	Sheet T.02T	Resolved	Note added that project is vested per date of design review meeting
20	Incentive Overlay district	Resolved	Section corrected to reference 10.5A46.10
21	Community space labeling	Resolved	Labeling coordinated to be consistent on sheets C3.4 and E1
22	Sidewalk easement Lot 4	Resolved	Note regarding sidewalk easement on Lot 4 for Lot 3 removed; this easement will be required for Lot 4 permitting
23	Show Zoning Boundary	Resolved	Zoning boundaries shown on plans
24	Building height	Resolved	Sheets C4.3, C4.0 revised to reflect 62 ft height listed on Sheet T.02T
25	License Agreement	Resolved	Note added to C3.1 regarding license agreement required from City Council to allow outdoor dining area
26	Railroad Planting Detail	Resolved	Details provided on plans (refer to attached submittal)