

Findings of Fact | Site Plan Review

City of Portsmouth Planning Board

Date: October 17, 2024

Property Address: 1900 Lafayette Road

Application #: LU-24-148

Decision: Approve Deny Approve with Conditions

Findings of Fact:

Per RSA 676:3, I: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of the conditions necessary to obtain final approval.

Site Plan Regulations Section 2.9 Evaluation Criteria - in order to grant site plan review approval, the TAC and the Planning Board shall find that the application satisfies evaluation criteria pursuant to NH State Law and listed herein. In making a finding, the TAC and the Planning Board shall consider all standards provided in Articles 3 through 11 of these regulations.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	Finding (Meets Standard/Criteria)	Supporting Information
1	Compliance with all City Ordinances and Codes and these regulations. <u>Applicable standards:</u>	Meets Does Not Meet	<u>Applicable standards:</u> - Portsmouth Zoning Ordinance - Portsmouth Site Plan Review Reg.
2	Provision for the safe development, change or expansion of use of the site.	Meets Does Not Meet	The site is an expansion of the existing use.
3	Adequate erosion control and stormwater management practices and other mitigative measures, if needed, to prevent adverse effects on downstream water quality and flooding of the property or that of another.	Meets Does Not Meet	Standard erosion control methods are proposed. There are no increases in stormwater flows per Portsmouth and AoT regulations.
4	Adequate protection for the		Separation from water table is observed.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	Finding (Meets Standard/Criteria)	Supporting Information
	quality of groundwater.	Meets Does Not Meet	Stormwater is being treated.
5	Adequate and reliable water supply sources.	Meets Does Not Meet	No water service or increase in usage is proposed as part of the parking lot expansions.
6	Adequate and reliable sewage disposal facilities, lines, and connections.	Meets Does Not Meet	No sewer service or increase in usage is proposed as part of the parking lot expansions.
7	Absence of undesirable and preventable elements of pollution such as smoke, soot, particulates, odor, wastewater, stormwater, sedimentation or any other discharge into the environment which might prove harmful to persons, structures, or adjacent properties.	Meets Does Not Meet	No undesirable elements are being released. Stormwater is being treated.
8	Adequate provision for fire safety, prevention and control.	Meets Does Not Meet	Plans have been reviewed by the City Fire Department to make sure they conform to City standards.
9	Adequate protection of natural features such as, but not limited to, wetlands.	Meets Does Not Meet	No wetlands are being impacted by the parking lot expansion and stormwater management.
10	Adequate protection of historical features on the site.	Meets Does Not Meet	No historic features are found in this site.
11	Adequate management of the volume and flow of traffic on the site and adequate traffic controls to protect public safety and prevent traffic congestion.	Meets Does Not Meet	Parking lot expansion is to parking demand and reduce parking on the street and offsite.
12	Adequate traffic controls and traffic management measures to prevent an unacceptable increase in safety hazards and traffic congestion off-site.	Meets Does Not Meet	The site follows City regulations in regard to parking aisles, parking spaces, and signage.
13	Adequate insulation from external noise sources.	Meets	Not applicable.

	Site Plan Review Regulations Section 2.9 Evaluation Criteria	Finding (Meets Standard/Criteria)	Supporting Information
		Does Not Meet	
14	Existing municipal solid waste disposal, police, emergency medical, and other municipal services and facilities adequate to handle any new demands on infrastructure or services created by the project.	Meets Does Not Meet	No additional services are being requested by this Site Plan Amendment.
15	Provision of usable and functional open spaces of adequate proportions, including needed recreational facilities that can reasonably be provided on the site	Meets Does Not Meet	Open space has been delineated on the Overall Site Plan per City regulations.
16	Adequate layout and coordination of on-site accessways and sidewalks in relationship to off-site existing or planned streets, accessways, bicycle paths, and sidewalks.	Meets Does Not Meet	The Parking Expansion connects to onsite sidewalks and safe access is provided to the existing parking building.
17	Demonstration that the land indicated on plans submitted with the application shall be of such character that it can be used for building purposes without danger to health.	Meets Does Not Meet	Plans were submitted, reviewed, and accepted by the Technical Advisory Committee (TAC).
18	Adequate quantities, type or arrangement of landscaping and open space for the provision of visual, noise and air pollution buffers.	Meets Does Not Meet	Landscaping islands in and bordering the parking area have been provided.
19	Compliance with applicable City approved design standards.	Meets Does Not Meet	The site amendment meets City approved standards.
	Other Board Findings:		



Civil Engineers
 Structural Engineers
 Traffic Engineers
 Land Surveyors
 Landscape Architects
 Scientists



September 25, 2024,

Peter Britz, Planning Director
 City of Portsmouth
 2 Junkins Avenue
 Portsmouth, NH 03801

**Re: Planning Board – Site Plan Amendment
 Parking Lot Expansion for 1900 Lafayette Road, Portsmouth, NH
 TFMoran Project: 45407.17**

Dear Peter:

On behalf of our client, Hammes Realty Services, LLC., we would like to submit the following plans and material for review by the Planning Board for Site Plan Amendment Approval. Included with this letter are the following materials:

- 1 Copy – Letter of Authorization;
- 1 Copy – Drainage Memo, last updated August 16, 2024
- 1 Copy – 22" x 34" copy of the Atlantic Orthopaedics Parking Expansion Plans 1900 Lafayette Road, Tax Map 267 – Lot 8, Portsmouth, New Hampshire, Owned by and Prepared for Hammes Realty Services, LLC, dated January 24, 2024, Last Revised September 17, 2024;
- 1 Copy – 11"x17" copy of the Atlantic Orthopaedics Parking Expansion Plans 1900 Lafayette Road, Tax Map 267 – Lot 8, Portsmouth, New Hampshire, Owned by and Prepared for Hammes Realty Services, LLC, dated January 24, 2024, Last Revised September 17, 2024;

The proposal adds 18 new parking spaces on the property to meet parking demands (22 new spaces with 4 existing spaces lost for the relocated dumpster).

We look forward to discussing this project with you at the Planning Board Meeting on October 17, 2024.

Sincerely,
TFMoran, Inc.


 Jack McTigue, PE, CPESC
 Project Manager

cc: Hammes Realty Services, LLC





Civil Engineers
 Structural Engineers
 Traffic Engineers
 Land Surveyors
 Landscape Architects
 Scientists



Letter of Authorization

I, J. Patrick Hammes, of HP III Boston Portsmouth, LLC hereby authorize TFMoran, Inc., 170 Commerce Way, Suite 102, Portsmouth, NH, to act on my behalf concerning property owned by HP III Boston Portsmouth, LLC, 1900 Lafayette Road, Portsmouth, New Hampshire, known as Tax Map 267, Lot 8.

I hereby appoint TFMoran, Inc. as my agent to act on my behalf in the review process, to include any required signatures.

August 9, 2024

Date

Client
 Name: J. Patrick Hammes
 Title: Its Authorized Representative

August 9, 2024

Date

Witness
 Name: Rachael R. Lang



PROJECT NARRATIVE

The subject property is located at 1900 Lafayette Road, Portsmouth, NH, identified as Map 267, Lot 8 on the Portsmouth assessor's maps. The current owner of the lot is Hammes Realty Services. The lot's current use is Medical. The lot contains a 2 Story Medical Office and a 2 Story Ambulatory Care Center.

The HydroCAD model has the full site integrated into it (497,281 SF). This report only looks at the area that is being impacted by the parking expansions and the area of the asbuilt infiltration basin (47,764 SF).

The development includes the moving the existing Trash Enclosure and the construction of a 7,653 SF parking extension. Associated improvements include and are not limited to access, grading, utilities, stormwater management system, lighting, and landscaping. The project proposes 7,816 SF of impervious area within the property lines and approximately 21,683 SF of disturbance.

In the pre-development condition, the total impervious area in the impacted area is 5,041 SF over a total drainage analysis area of 47,764 SF. In the post-development condition, the total impervious area is 12,503 SF over a total drainage analysis area of 47,764 SF. Stormwater runoff from the site primarily infiltrates into the Udorthents, smoothed soils via an underground infiltration system. Stormwater runoff is pretreated by deep sump catch basins and the ADS isolation row, which is part of the Subsurface Storage and infiltration System (PSuS3). It either infiltrates into the soil or discharges to the (north) of the development into the As-built Infiltration Basin (ADP01) and through the As-built Headwall (HW-02). The Headwall is used as the point of Interest.

The following table summarizes the pre- and post-development peak runoff rates for the 2-year, 10-year, 25-year and 50-year 24-hour Type III storm events for all discharges:

SURFACE WATER PEAK RUNOFF RATE COMPARISON					
POINT OF INTEREST		DESIGN STORM			
		2-year	10-year	25-year	50-year
AHW02	Pre	0.62	2.56	5.36	8.23
	Post	0.62	2.28	4.98	8.10

Table 1 – Surface Water Peak Runoff Rate Comparison
 (All flow rates shown are in cubic feet per second)

The following table summarizes the pre- and post-development peak runoff volume for the 2-year 24-hour Type III storm events for all discharges:


SURFACE WATER PEAK RUNOFF VOLUME COMPARISON		
POINT OF INTEREST		DESIGN STORM
		2-year
AHW02	Pre	20,224
	Post	19,150

Table 2 – Surface Water Peak Runoff Volume Comparison
 (All flow rates shown are in cubic feet)

The proposed project reduces peak rates of runoff compared to existing conditions for all storm events, in accordance with AoT requirements. Additionally, the 2-year 24-hour storm does not result in an increased peak flow volume from the pre-development to post-development condition. There will be no adverse effects on the abutting properties from the proposed stormwater management system.

If you have any questions or concerns, please do not hesitate to contact us.

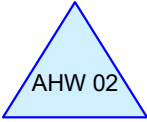
Respectfully,



Jack McTigue, FE, CPESC
Project Manager

To The City of
Portsmouth Closed
Drainage System

AS-BUILT DRAINAGE CALCULATIONS



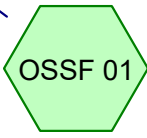
As-Built Head Wall 02



As-Built Detention /
Infiltration Pond 01 and
Outlet Control
Structure 2

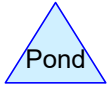
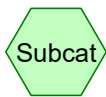


As-Built Catchment for
PDP 01



As-Built Catchment for
PSF 01

Remainder of
Site Drainage
(Unchanged)



Routing Diagram for 45407-17_Approved-Development
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45407-17_Approved-Development

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Page 2

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
32,312	61	>75% Grass cover, Good, HSG B (ASDP 01, OSSF 01)
10,411	74	>75% Grass cover, Good, HSG C (ASDP 01)
1,185	98	Paved parking, HSG B (ASDP 01)
178	98	Paved parking, HSG C (ASDP 01)
1,016	98	Paved parking, HSG D (OSSF 01)
2,662	98	Roofs, HSG D (OSSF 01)
47,764	68	TOTAL AREA

45407-17_Approved-Development

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Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
33,497	HSG B	ASDP 01, OSSF 01
10,589	HSG C	ASDP 01
3,678	HSG D	OSSF 01
0	Other	
47,764		TOTAL AREA

45407-17_Approved-Development

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As-Built Expansion

Type III 24-hr 2-Year Rainfall=3.23"

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Time span=0.00-48.00 hrs, dt=0.03 hrs, 1601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentASDP 01: As-Built Runoff Area=17,997 sf 7.57% Impervious Runoff Depth=0.90"
Flow Length=53' Slope=0.2870 '/' Tc=0.7 min CN=71 Runoff=0.46 cfs 1,344 cf

SubcatchmentOSSF 01: As-Built Runoff Area=29,767 sf 12.36% Impervious Runoff Depth=0.66"
Flow Length=326' Slope=0.0817 '/' Tc=6.7 min CN=66 Runoff=0.42 cfs 1,633 cf

Pond ADP01: As-Built Detention/ Infiltration Peak Elev=50.41' Storage=3,549 cf Inflow=1.52 cfs 20,846 cf
Primary=0.49 cfs 18,526 cf Secondary=0.00 cfs 0 cf Outflow=0.49 cfs 18,526 cf

Pond AHW 02: As-Built Head Wall 02 Peak Elev=48.24' Storage=16 cf Inflow=0.62 cfs 20,237 cf
18.0" Round Culvert x 2.00 n=0.012 L=18.0' S=0.0650 '/' Outflow=0.62 cfs 20,224 cf

Total Runoff Area = 47,764 sf Runoff Volume = 2,977 cf Average Runoff Depth = 0.75"
89.45% Pervious = 42,723 sf 10.55% Impervious = 5,041 sf

45407-17_Approved-Development

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As-Built Expansion

Type III 24-hr 10-Year Rainfall=4.91"

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Page 5

Time span=0.00-48.00 hrs, dt=0.03 hrs, 1601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentASDP 01: As-Built Runoff Area=17,997 sf 7.57% Impervious Runoff Depth=2.05"
Flow Length=53' Slope=0.2870 '/' Tc=0.7 min CN=71 Runoff=1.13 cfs 3,073 cf

SubcatchmentOSSF 01: As-Built Runoff Area=29,767 sf 12.36% Impervious Runoff Depth=1.67"
Flow Length=326' Slope=0.0817 '/' Tc=6.7 min CN=66 Runoff=1.23 cfs 4,134 cf

Pond ADP01: As-Built Detention/ Infiltration Peak Elev=51.17' Storage=6,592 cf Inflow=3.39 cfs 40,112 cf
Primary=2.41 cfs 37,787 cf Secondary=0.00 cfs 0 cf Outflow=2.41 cfs 37,787 cf

Pond AHW 02: As-Built Head Wall 02 Peak Elev=48.51' Storage=20 cf Inflow=2.56 cfs 41,268 cf
18.0" Round Culvert x 2.00 n=0.012 L=18.0' S=0.0650 '/' Outflow=2.56 cfs 41,254 cf

Total Runoff Area = 47,764 sf Runoff Volume = 7,207 cf Average Runoff Depth = 1.81"
89.45% Pervious = 42,723 sf 10.55% Impervious = 5,041 sf

45407-17_Approved-Development

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As-Built Expansion

Type III 24-hr 25-Year Rainfall=6.23"

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Time span=0.00-48.00 hrs, dt=0.03 hrs, 1601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentASDP 01: As-Built Runoff Area=17,997 sf 7.57% Impervious Runoff Depth=3.09"
Flow Length=53' Slope=0.2870 '/' Tc=0.7 min CN=71 Runoff=1.73 cfs 4,627 cf

SubcatchmentOSSF 01: As-Built Runoff Area=29,767 sf 12.36% Impervious Runoff Depth=2.61"
Flow Length=326' Slope=0.0817 '/' Tc=6.7 min CN=66 Runoff=2.00 cfs 6,479 cf

Pond ADP01: As-Built Detention/ Infiltration Peak Elev=51.43' Storage=7,817 cf Inflow=6.15 cfs 56,684 cf
Primary=4.83 cfs 54,357 cf Secondary=0.00 cfs 0 cf Outflow=4.83 cfs 54,357 cf

Pond AHW 02: As-Built Head Wall 02 Peak Elev=48.76' Storage=47 cf Inflow=5.36 cfs 59,352 cf
18.0" Round Culvert x 2.00 n=0.012 L=18.0' S=0.0650 '/' Outflow=5.36 cfs 59,339 cf

Total Runoff Area = 47,764 sf Runoff Volume = 11,106 cf Average Runoff Depth = 2.79"
89.45% Pervious = 42,723 sf 10.55% Impervious = 5,041 sf

45407-17_Approved-Development

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As-Built Expansion

Type III 24-hr 50-Year Rainfall=7.46"

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Time span=0.00-48.00 hrs, dt=0.03 hrs, 1601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentASDP 01: As-Built Runoff Area=17,997 sf 7.57% Impervious Runoff Depth=4.11"
Flow Length=53' Slope=0.2870 '/' Tc=0.7 min CN=71 Runoff=2.31 cfs 6,170 cf

SubcatchmentOSSF 01: As-Built Runoff Area=29,767 sf 12.36% Impervious Runoff Depth=3.57"
Flow Length=326' Slope=0.0817 '/' Tc=6.7 min CN=66 Runoff=2.77 cfs 8,855 cf

Pond ADP01: As-Built Detention/ Infiltration Peak Elev=51.51' Storage=8,233 cf Inflow=8.66 cfs 74,603 cf
Primary=7.44 cfs 72,274 cf Secondary=0.00 cfs 0 cf Outflow=7.44 cfs 72,274 cf

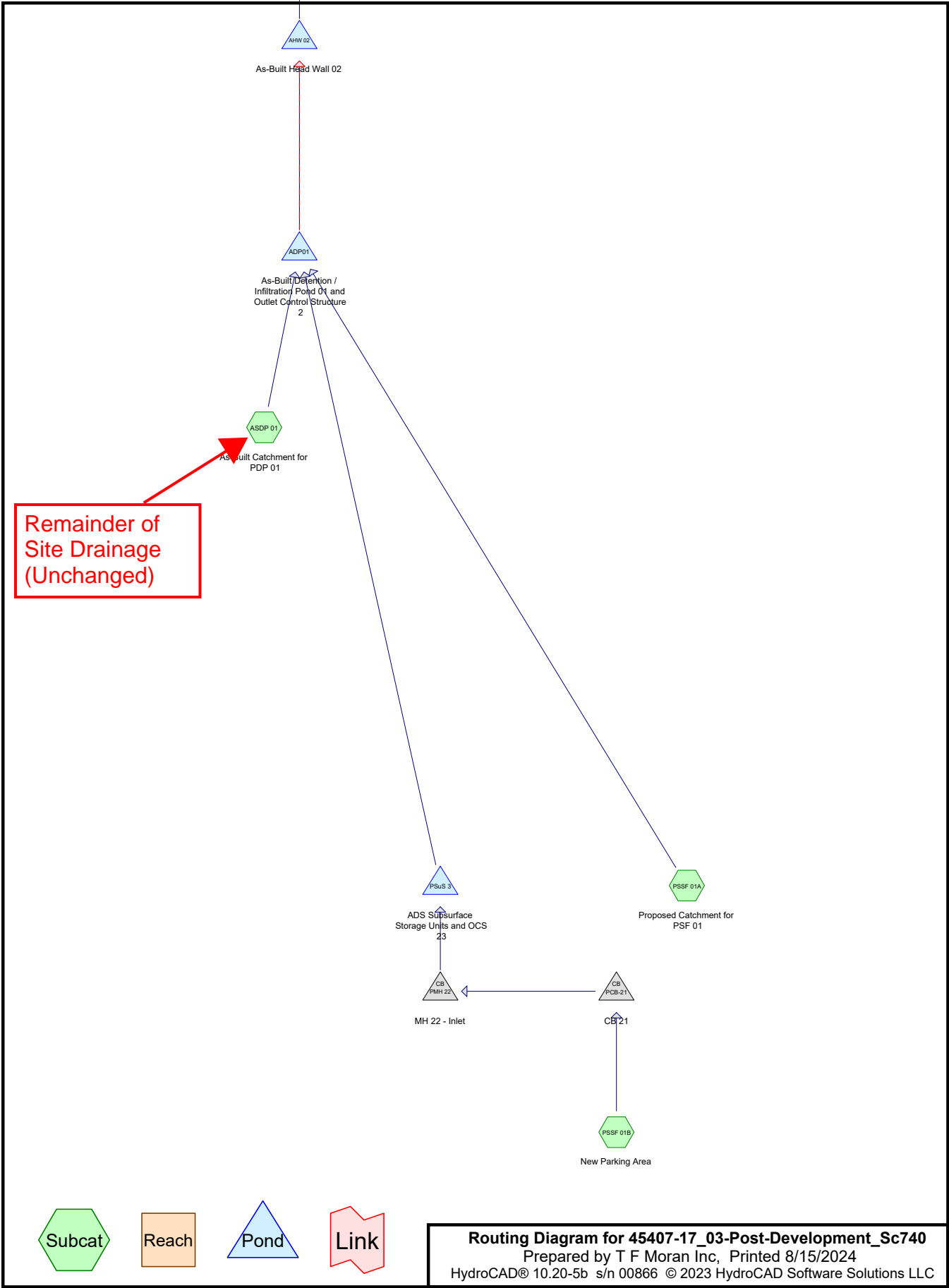
Pond AHW 02: As-Built Head Wall 02 Peak Elev=48.98' Storage=142 cf Inflow=8.24 cfs 78,737 cf
18.0" Round Culvert x 2.00 n=0.012 L=18.0' S=0.0650 '/' Outflow=8.23 cfs 78,723 cf

Total Runoff Area = 47,764 sf Runoff Volume = 15,024 cf Average Runoff Depth = 3.77"
89.45% Pervious = 42,723 sf 10.55% Impervious = 5,041 sf

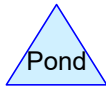
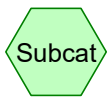
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To The City of
Portsmouth Closed
Drainage System

PROPOSED DRAINAGE
CALCULATIONS



Remainder of
Site Drainage
(Unchanged)



Routing Diagram for 45407-17_03-Post-Development_Sc740
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Page 2

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
24,850	61	>75% Grass cover, Good, HSG B (ASDP 01, PSSF 01A, PSSF 01B)
10,411	74	>75% Grass cover, Good, HSG C (ASDP 01)
8,647	98	Paved parking, HSG B (ASDP 01, PSSF 01B)
178	98	Paved parking, HSG C (ASDP 01)
1,246	98	Paved parking, HSG D (PSSF 01A, PSSF 01B)
2,432	98	Roofs, HSG D (PSSF 01B)
47,764	74	TOTAL AREA

45407-17_03-Post-Development_Sc740

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Page 3

Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
33,497	HSG B	ASDP 01, PSSF 01A, PSSF 01B
10,589	HSG C	ASDP 01
3,678	HSG D	PSSF 01A, PSSF 01B
0	Other	
47,764		TOTAL AREA

45407-17_03-Post-Development_Sc740

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Proposed Expansion

Type III 24-hr **2-Year Rainfall=3.23"**

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Page 4

Time span=0.00-48.00 hrs, dt=0.03 hrs, 1601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ASDP 01: As-Built Runoff Area=17,997 sf 7.57% Impervious Runoff Depth=0.90"
Flow Length=53' Slope=0.2870 '/' Tc=0.7 min CN=71 Runoff=0.46 cfs 1,344 cf

Subcatchment PSSF 01A: Proposed Runoff Area=13,611 sf 1.44% Impervious Runoff Depth=0.49"
Flow Length=326' Slope=0.1786 '/' Tc=5.0 min CN=62 Runoff=0.13 cfs 560 cf

Subcatchment PSSF 01B: New Parking Runoff Area=16,156 sf 67.74% Impervious Runoff Depth=1.86"
Tc=5.0 min CN=86 Runoff=0.83 cfs 2,506 cf

Pond ADP01: As-Built Detention/ Infiltration Peak Elev=50.38' Storage=3,464 cf Inflow=1.35 cfs 19,773 cf
Primary=0.45 cfs 17,453 cf Secondary=0.00 cfs 0 cf Outflow=0.45 cfs 17,453 cf

Pond AHW 02: As-Built Head Wall 02 Peak Elev=48.24' Storage=16 cf Inflow=0.62 cfs 19,164 cf
18.0" Round Culvert x 2.00 n=0.012 L=18.0' S=0.0650 '/' **Outflow=0.62 cfs 19,150 cf**

Pond PCB-21: CB 21 Peak Elev=56.88' Inflow=0.83 cfs 2,506 cf
12.0" Round Culvert n=0.013 L=27.0' S=0.0074 '/' Outflow=0.83 cfs 2,506 cf

Pond PMH 22: MH 22 - Inlet Peak Elev=56.85' Inflow=0.83 cfs 2,506 cf
24.0" Round Culvert n=0.013 L=4.0' S=0.0000 '/' Outflow=0.83 cfs 2,506 cf

Pond PSuS 3: ADS Subsurface Storage Units Peak Elev=56.85' Storage=1,007 cf Inflow=0.83 cfs 2,506 cf
Discarded=0.07 cfs 2,506 cf Primary=0.00 cfs 0 cf Outflow=0.07 cfs 2,506 cf

Total Runoff Area = 47,764 sf Runoff Volume = 4,410 cf Average Runoff Depth = 1.11"
73.82% Pervious = 35,261 sf 26.18% Impervious = 12,503 sf

45407-17_03-Post-Development_Sc740

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Proposed Expansion

Type III 24-hr 10-Year Rainfall=4.91"

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Page 5

Time span=0.00-48.00 hrs, dt=0.03 hrs, 1601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentASDP 01: As-Built Runoff Area=17,997 sf 7.57% Impervious Runoff Depth=2.05"
Flow Length=53' Slope=0.2870 '/' Tc=0.7 min CN=71 Runoff=1.13 cfs 3,073 cf

SubcatchmentPSSF 01A: Proposed Runoff Area=13,611 sf 1.44% Impervious Runoff Depth=1.38"
Flow Length=326' Slope=0.1786 '/' Tc=5.0 min CN=62 Runoff=0.48 cfs 1,569 cf

SubcatchmentPSSF 01B: New Parking Runoff Area=16,156 sf 67.74% Impervious Runoff Depth=3.38"
Tc=5.0 min CN=86 Runoff=1.49 cfs 4,555 cf

Pond ADP01: As-Built Detention/ Infiltration Peak Elev=51.09' Storage=6,203 cf Inflow=2.85 cfs 37,726 cf
Primary=2.15 cfs 35,401 cf Secondary=0.00 cfs 0 cf Outflow=2.15 cfs 35,401 cf

Pond AHW 02: As-Built Head Wall 02 Peak Elev=48.48' Storage=19 cf Inflow=2.28 cfs 38,882 cf
18.0" Round Culvert x 2.00 n=0.012 L=18.0' S=0.0650 '/' Outflow=**2.28 cfs** 38,869 cf

Pond PCB-21: CB 21 Peak Elev=59.18' Inflow=1.49 cfs 4,555 cf
12.0" Round Culvert n=0.013 L=27.0' S=0.0074 '/' Outflow=1.49 cfs 4,555 cf

Pond PMH 22: MH 22 - Inlet Peak Elev=59.18' Inflow=1.49 cfs 4,555 cf
24.0" Round Culvert n=0.013 L=4.0' S=0.0000 '/' Outflow=1.49 cfs 4,548 cf

Pond PSuS 3: ADS Subsurface Storage Units Peak Elev=59.18' Storage=2,174 cf Inflow=1.49 cfs 4,548 cf
Discarded=0.07 cfs 4,416 cf Primary=0.04 cfs 132 cf Outflow=0.11 cfs 4,548 cf

Total Runoff Area = 47,764 sf Runoff Volume = 9,196 cf Average Runoff Depth = 2.31"
73.82% Pervious = 35,261 sf 26.18% Impervious = 12,503 sf

45407-17_03-Post-Development_Sc740

Prepared by T F Moran Inc

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Proposed Expansion

Type III 24-hr **25-Year Rainfall=6.23"**

Printed 8/15/2024

Page 6

Time span=0.00-48.00 hrs, dt=0.03 hrs, 1601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ASDP 01: As-Built Runoff Area=17,997 sf 7.57% Impervious Runoff Depth=3.09"
Flow Length=53' Slope=0.2870 '/' Tc=0.7 min CN=71 Runoff=1.73 cfs 4,627 cf

Subcatchment PSSF 01A: Proposed Runoff Area=13,611 sf 1.44% Impervious Runoff Depth=2.25"
Flow Length=326' Slope=0.1786 '/' Tc=5.0 min CN=62 Runoff=0.82 cfs 2,551 cf

Subcatchment PSSF 01B: New Parking Runoff Area=16,156 sf 67.74% Impervious Runoff Depth=4.63"
Tc=5.0 min CN=86 Runoff=2.02 cfs 6,231 cf

Pond ADP01: As-Built Detention/ Infiltration Peak Elev=51.42' Storage=7,770 cf Inflow=5.46 cfs 54,353 cf
Primary=4.58 cfs 52,025 cf Secondary=0.00 cfs 0 cf Outflow=4.58 cfs 52,025 cf

Pond AHW 02: As-Built Head Wall 02 Peak Elev=48.73' Storage=40 cf Inflow=4.98 cfs 57,021 cf
18.0" Round Culvert x 2.00 n=0.012 L=18.0' S=0.0650 '/' **Outflow=4.98 cfs** 57,007 cf

Pond PCB-21: CB 21 Peak Elev=59.42' Inflow=2.02 cfs 6,231 cf
12.0" Round Culvert n=0.013 L=27.0' S=0.0074 '/' Outflow=2.02 cfs 6,231 cf

Pond PMH 22: MH 22 - Inlet Peak Elev=59.37' Inflow=2.02 cfs 6,231 cf
24.0" Round Culvert n=0.013 L=4.0' S=0.0000 '/' Outflow=2.02 cfs 6,227 cf

Pond PSuS 3: ADS Subsurface Storage Units Peak Elev=59.37' Storage=2,220 cf Inflow=2.02 cfs 6,227 cf
Discarded=0.07 cfs 4,880 cf Primary=1.05 cfs 1,347 cf Outflow=1.12 cfs 6,227 cf

Total Runoff Area = 47,764 sf Runoff Volume = 13,410 cf Average Runoff Depth = 3.37"
73.82% Pervious = 35,261 sf 26.18% Impervious = 12,503 sf

45407-17_03-Post-Development_Sc740

Prepared by T F Moran Inc

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Proposed Expansion

Type III 24-hr 50-Year Rainfall=7.46"

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Page 7

Time span=0.00-48.00 hrs, dt=0.03 hrs, 1601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentASDP 01: As-Built Runoff Area=17,997 sf 7.57% Impervious Runoff Depth=4.11"
Flow Length=53' Slope=0.2870 '/' Tc=0.7 min CN=71 Runoff=2.31 cfs 6,170 cf

SubcatchmentPSSF 01A: Proposed Runoff Area=13,611 sf 1.44% Impervious Runoff Depth=3.14"
Flow Length=326' Slope=0.1786 '/' Tc=5.0 min CN=62 Runoff=1.17 cfs 3,566 cf

SubcatchmentPSSF 01B: New Parking Runoff Area=16,156 sf 67.74% Impervious Runoff Depth=5.81"
Tc=5.0 min CN=86 Runoff=2.51 cfs 7,821 cf

Pond ADP01: As-Built Detention/ Infiltration Peak Elev=51.51' Storage=8,245 cf Inflow=9.00 cfs 72,206 cf
Primary=7.53 cfs 69,876 cf Secondary=0.00 cfs 0 cf Outflow=7.53 cfs 69,876 cf

Pond AHW 02: As-Built Head Wall 02 Peak Elev=48.97' Storage=136 cf Inflow=8.16 cfs 76,339 cf
18.0" Round Culvert x 2.00 n=0.012 L=18.0' S=0.0650 '/' **Outflow=8.10 cfs** 76,326 cf

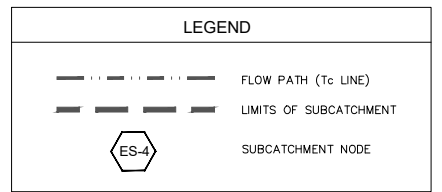
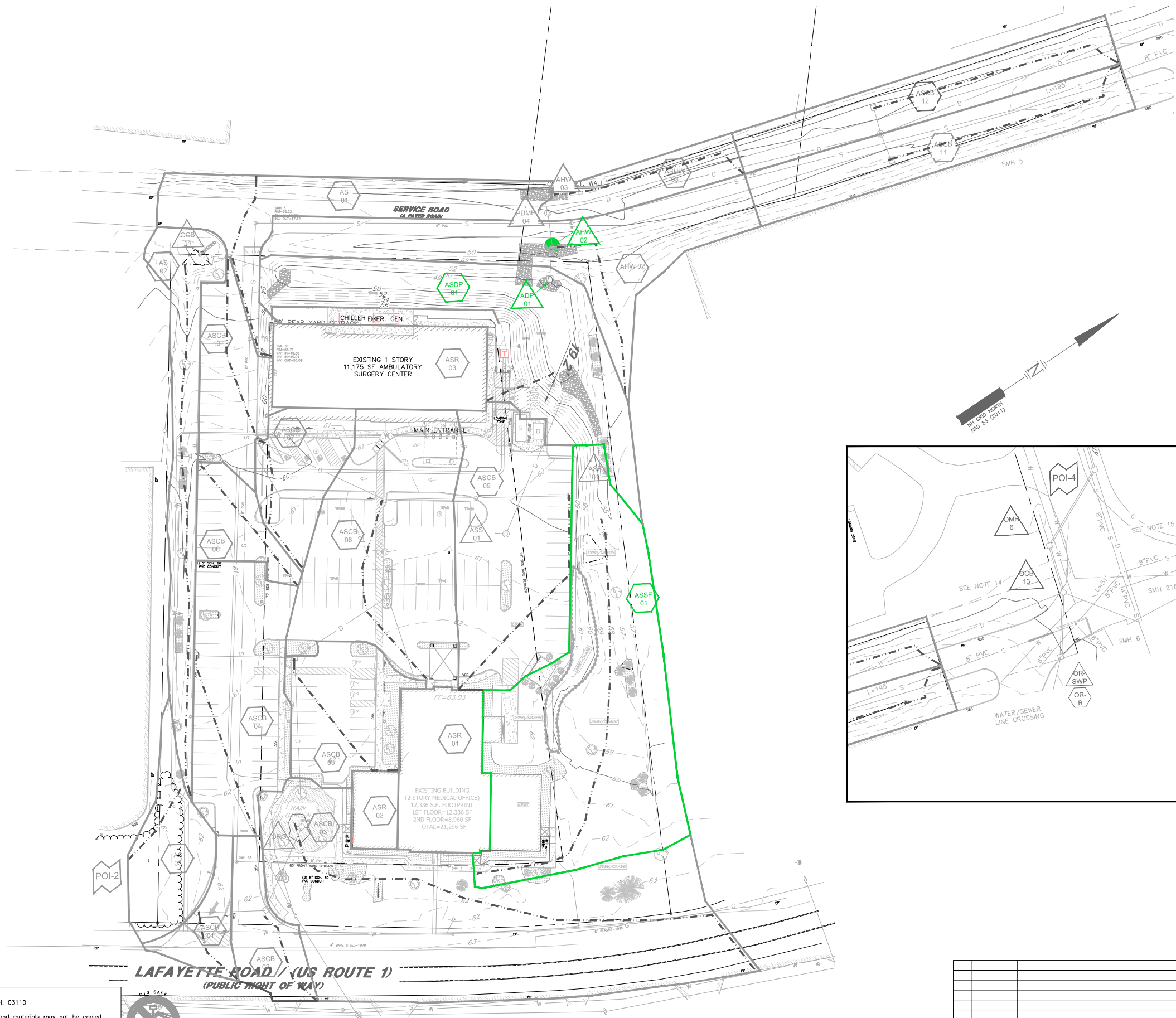
Pond PCB-21: CB 21 Peak Elev=59.91' Inflow=2.51 cfs 7,821 cf
12.0" Round Culvert n=0.013 L=27.0' S=0.0074 '/' Outflow=2.51 cfs 7,821 cf

Pond PMH 22: MH 22 - Inlet Peak Elev=59.72' Inflow=2.51 cfs 7,821 cf
24.0" Round Culvert n=0.013 L=4.0' S=0.0000 '/' Outflow=2.51 cfs 7,817 cf

Pond PSuS 3: ADS Subsurface Storage Units Peak Elev=59.70' Storage=2,270 cf Inflow=2.51 cfs 7,817 cf
Discarded=0.07 cfs 5,247 cf Primary=2.85 cfs 2,570 cf Outflow=2.92 cfs 7,817 cf

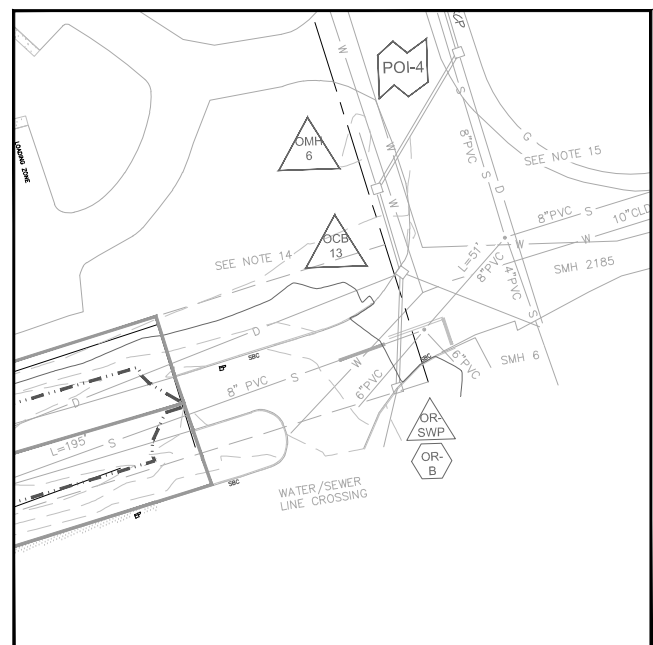
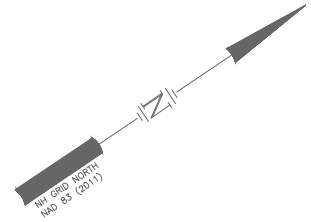
Total Runoff Area = 47,764 sf Runoff Volume = 17,556 cf Average Runoff Depth = 4.41"
73.82% Pervious = 35,261 sf 26.18% Impervious = 12,503 sf

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SOIL IDENTIFICATION LEGEND

SYMBOL	SOIL TAXONOMIC NAME	PARENT MATERIAL	HYDROLOGIC SOIL GROUP
299	UDORTMENTS, SMOOTHED	EXCAVATED, REGRADED FILL	B
900	ENDOQUENTS, SANDY	EXCAVATED, REGRADED FILL	C
900/P	ENDOQUENTS, SANDY POORLY DRAINED	EXCAVATED, REGRADED FILL	D



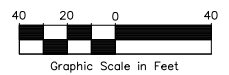
SITE DEVELOPMENT PLANS
 TAX MAP 267 LOT 8
AS-BUILT POST DEVELOPMENT DRAINAGE PLAN
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

1"=80' (11"x17')
SCALE: 1"=40' (22"x34') **JANUARY 24, 2024**

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REV	DATE	DESCRIPTION	DR	CK

Seacoast Division

TFM

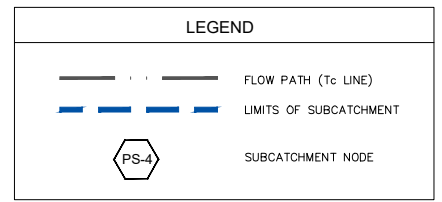
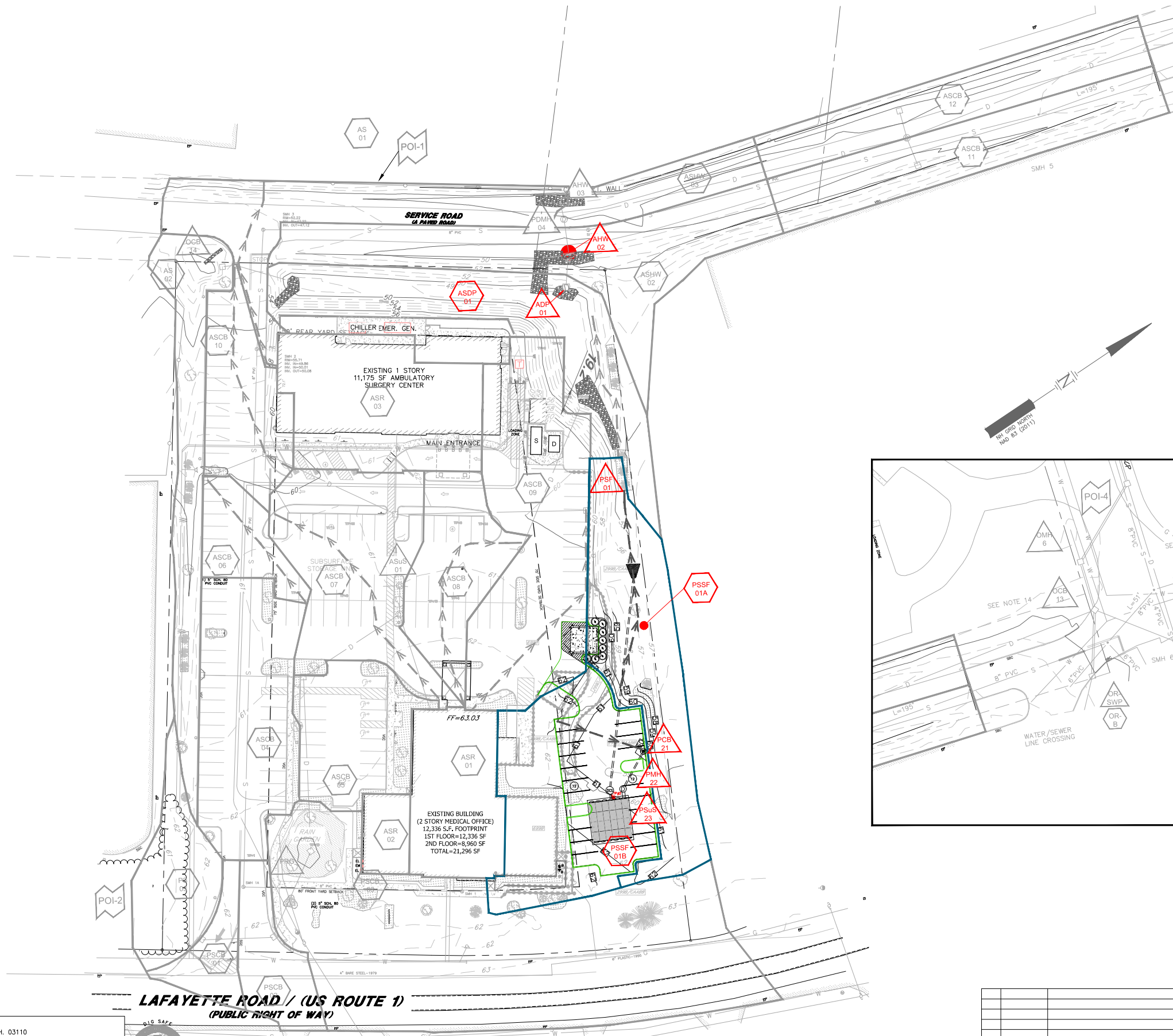
Civil Engineers
 Structural Engineers
 Traffic Engineers
 Land Surveyors
 Landscape Architects
 Scientists

170 Commerce Way, Suite 102
 Portsmouth, NH 03801
 Phone (603) 431-2222
 Fax (603) 431-0910
 www.tfmoran.com

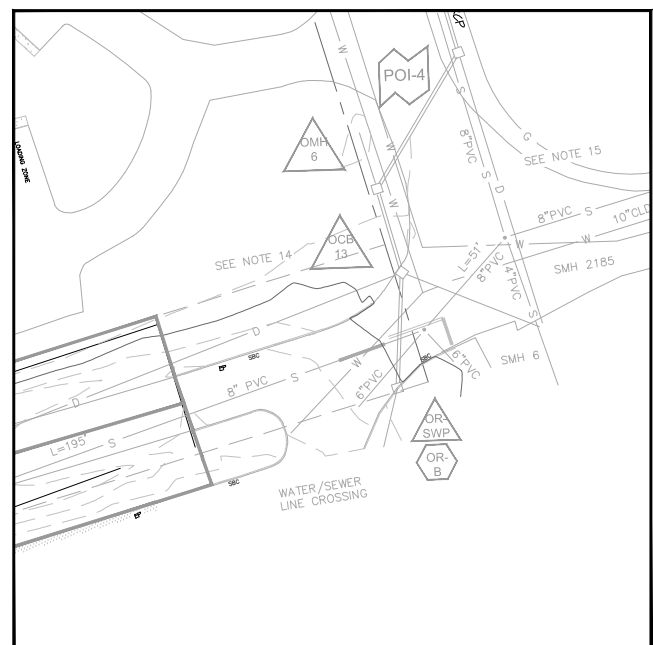
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SOIL IDENTIFICATION LEGEND			
SYMBOL	SOIL TAXONOMIC NAME	PARENT MATERIAL	HYDROLOGIC SOIL GROUP
289	UDORTMENTS, SMOOTHED	EXCAVATED, REGRADED FILL	B
900	ENDOQUENTS, SANDY	EXCAVATED, REGRADED FILL	C
900/P	ENDOQUENTS, SANDY POORLY DRAINED	EXCAVATED, REGRADED FILL	D



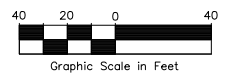
SITE DEVELOPMENT PLANS
 TAX MAP 267 LOT 8
PROPOSED POST DEVELOPMENT DRAINAGE PLAN
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

1"=80' (11"x17')
SCALE: 1"=40' (22"x34') **JANUARY 24, 2024**

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REV	DATE	DESCRIPTION	DR	CK

Seacoast Division

TFM

Civil Engineers
 Structural Engineers
 Traffic Engineers
 Land Surveyors
 Landscape Architects
 Scientists

170 Commerce Way, Suite 102
 Portsmouth, NH 03801
 Phone (603) 431-2222
 Fax (603) 431-0910
 www.tfmoran.com

F 45407.17
 L DR JKC FB
 E CK ORR CADFILE Pre and Post Flow Conditions D-02

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GENERAL INFORMATION

OWNER

HPIII BOSTON PORTSMOUTH LLC
C/O HAMMES REALTY SERVICE LLC
1400 N. WATER STREET, SUITE 500
MILWAUKEE, WISCONSIN 53202

RESOURCE LIST

PLANNING/ ZONING DEPARTMENT
1 JUNKINS AVENUE
PORTSMOUTH, NH 03801
(603) 610-7216
PETER BRITS, DIRECTOR OF PLANNING AND SUSTAINABILITY

BUILDING DEPARTMENT

1 JUNKINS AVENUE
PORTSMOUTH, NH 03801
(603) 610-7243
SHANTI WOLPH, CHIEF BUILDING INSPECTOR

PUBLIC WORKS

680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801
(603) 427-1530
PETER RICE, DIRECTOR

POLICE DEPARTMENT

3 JUNKINS AVENUE
PORTSMOUTH, NH 03801
(603) 427-1500
CHIEF MARK NEWPORT

FIRE DEPARTMENT

170 COURT STREET
PORTSMOUTH, NH 03801
(603) 427-1515

LIGHTING CONTRACTOR

EXPOSURE ESS
501 ISLINGTON STREET
PORTSMOUTH, NH 03801
(603) 459-1043
KEN SWEENEY, APPLICANT ENGINEER

ATLANTIC ORTHOPAEDICS PARKING EXPANSION

**1900 LAFAYETTE ROAD
PORTSMOUTH, NH
JANUARY 24, 2024
LAST REVISED OCTOBER 1, 2024**

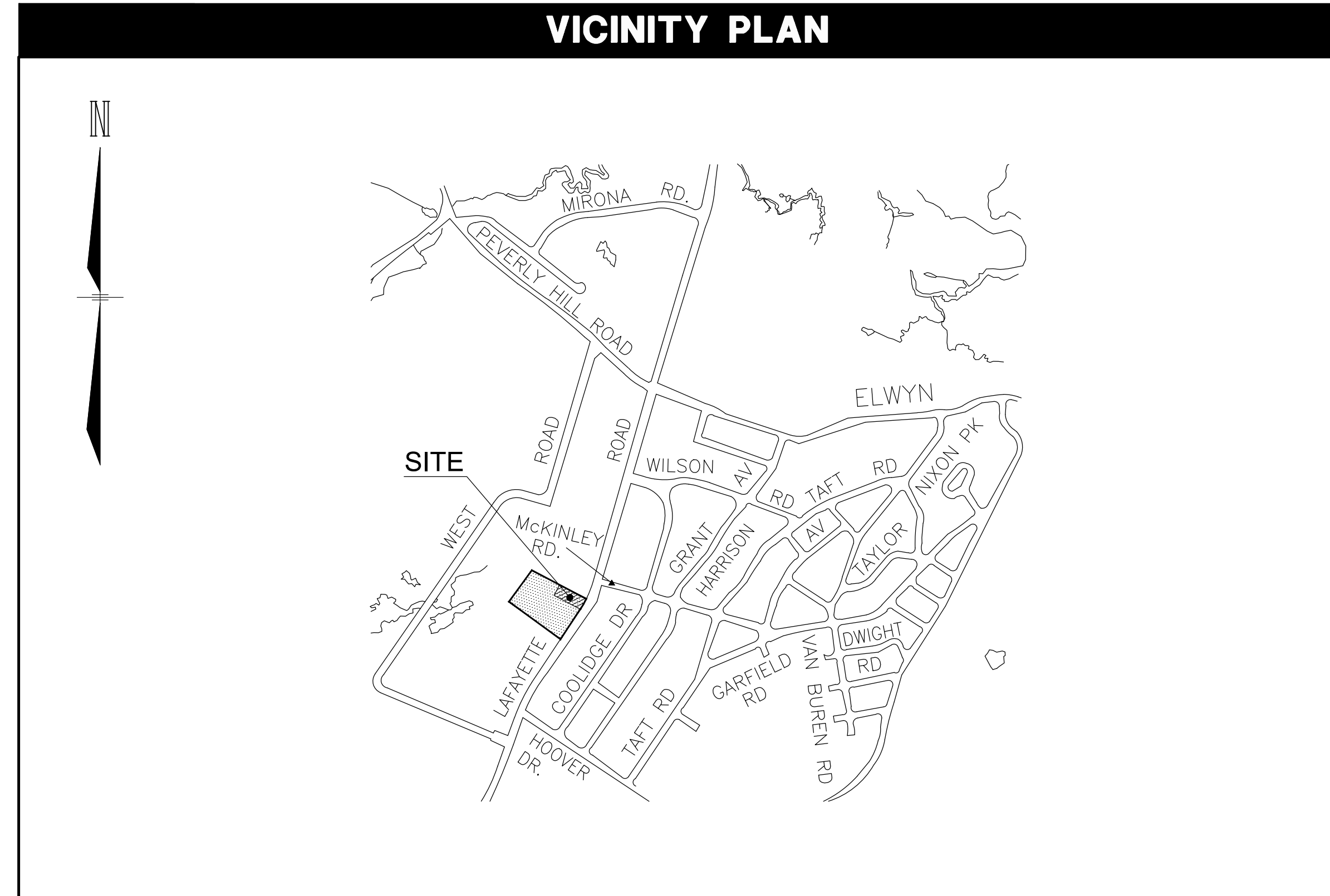
INDEX OF SHEETS

SHEET	SHEET TITLE
C-00	COVER
S-01	EXISTING CONDITIONS PLAN
C-01	NOTES & LEGEND
C-02	SITE PREPARATION PLAN
C-03	OVERALL SITE LAYOUT PLAN
C-04	SITE LAYOUT PLAN
C-05	GRADING AND DRAINAGE PLAN
C-06	LANDSCAPE PLAN
C-07	LANDSCAPE DETAILS
C-08	LIGHTING PLAN
C-09	EROSION CONTROL NOTES
C-10 to C-13	DETAIL SHEET 1S

PERMITS/APPROVALS

	NUMBER	APPROVED	EXPIRES
CITY OF PORTSMOUTH SITE PLAN APPROVAL	-	-	-
NHDES ALT. OF TERRAIN	-	-	-

VICINITY PLAN



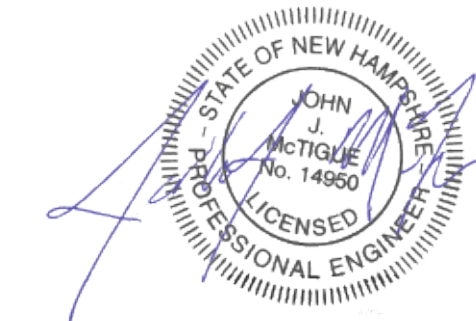
SITE DEVELOPMENT PLANS

TAX MAP 267 LOT 8
COVER

**PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH**
OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

SCALE: NTS

JANUARY 24, 2024



REV	DATE	DESCRIPTION	DR	CK
4	10/01/2024	NO REVISIONS THIS SHEET	JJM	
3	9/17/2024	UPDATE SHEET INDEX	JJM	CRR
2	9/9/2024	UPDATE DATES	JJM	
1	7/31/2024	REVISED INDEX OF SHEETS	BCH	JJM

Seacoast Division
Civil Engineers
Structural Engineers
Traffic Engineers
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Landscape Architects
Scientists

TFM

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DR: JKC
CK: CRR
CADFILE: 45407-17_Cover.dwg
C-00

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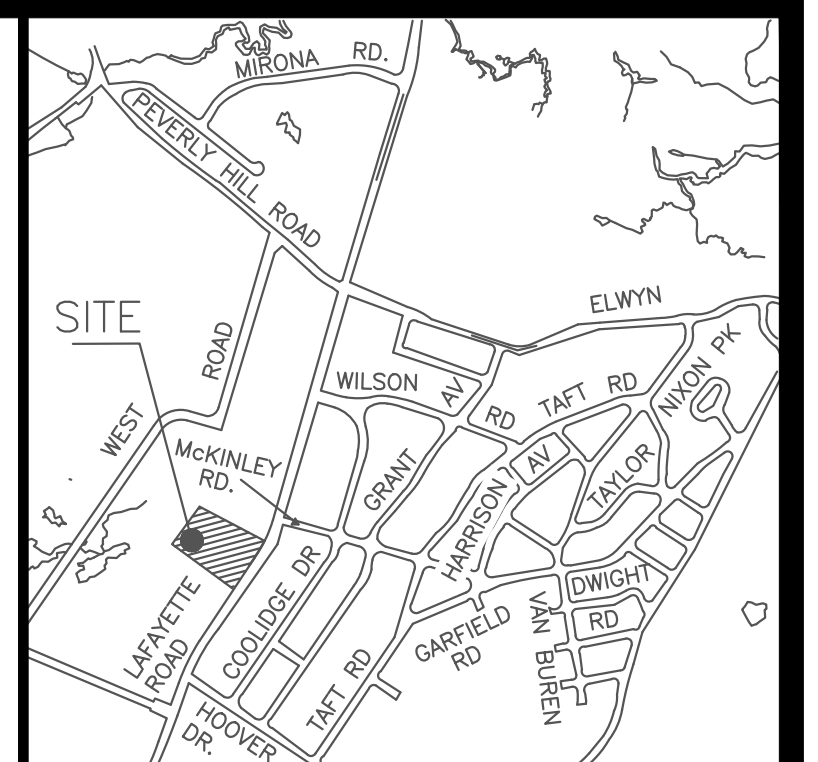


SOIL LEGEND (PER SITE SPECIFIC SOIL SURVEY)		
SYMBOL	DESCRIPTION	HYDROLOGIC SOIL GROUP
299/CAAB	UDORTHERTS, SMOOTHED (WELL DRAINED, NO NATURAL SOILS)	B
699	URBAN LAND	N/A

SUPPLEMENTAL SYMBOLS: C = WELL DRAINED, A = NO NATURAL SOILS, A = NO RESTRICTIVE LAYER, B = MODERATE KSAT, B = HSG B

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR INFILTRATION REQUIREMENTS BY THE NH DES ALTERATION OF TERRAIN BUREAU. IT WAS PRODUCED BY A PROFESSIONAL SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. THERE IS A REPORT THAT ACCOMPANIES THIS MAP.

THE SITE SPECIFIC SOIL MAP WAS PRODUCED 7/8/2024, AND WAS PREPARED BY JAMES P. GOVE, CSS # 004, GOVE ENVIRONMENTAL SERVICES, INC.



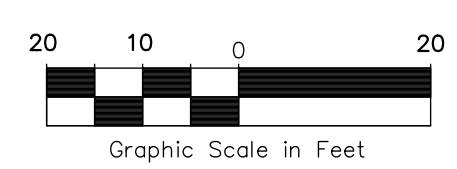
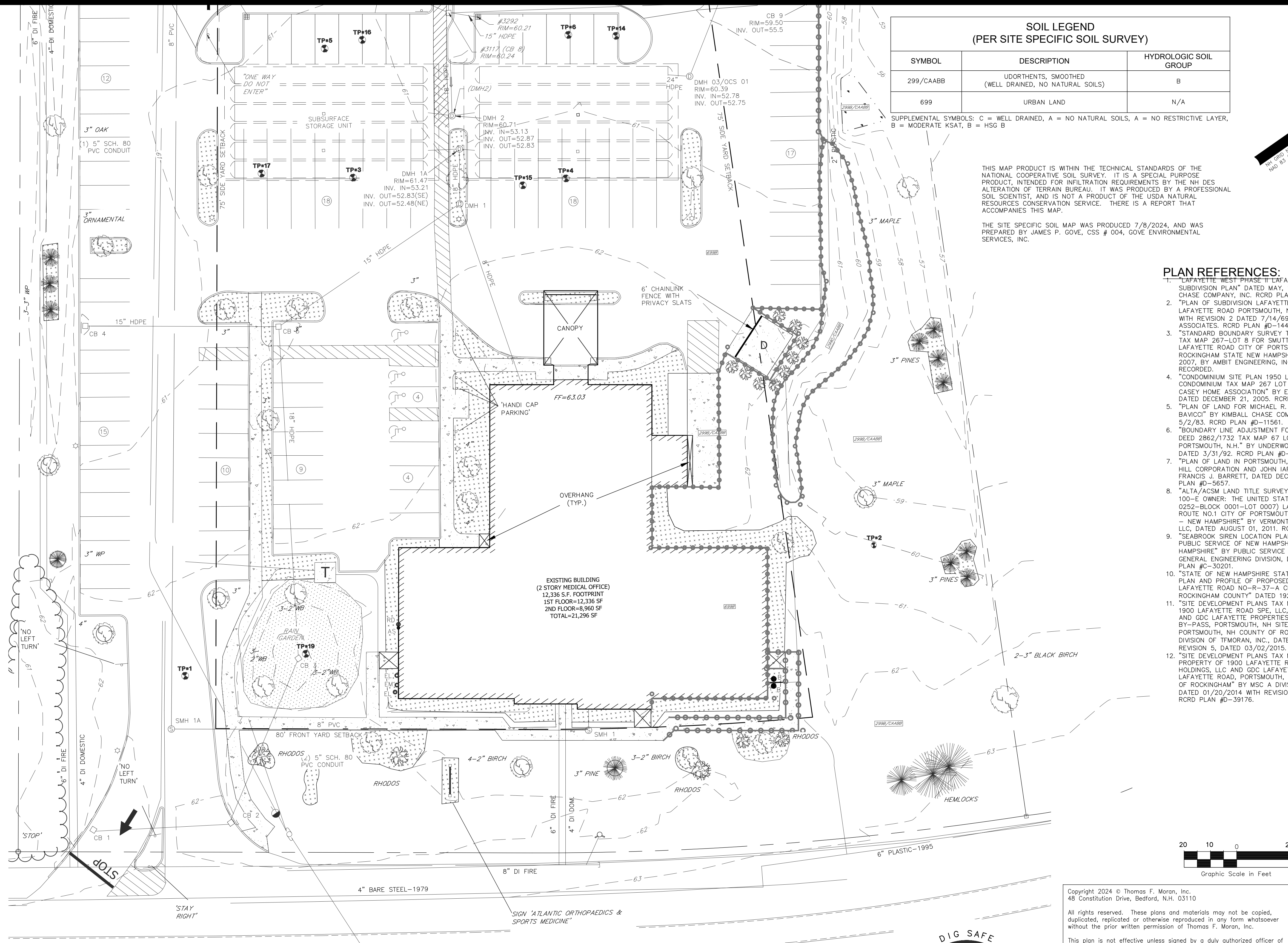
LOCATION PLAN

NOTES:

- THE PARCEL IS LOCATED IN THE OFFICE RESEARCH (OR) ZONE.
- THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 267 AS LOT 8.
- THE PARCEL IS LOCATED IN FLOOD ZONE X AS SHOWN ON FLOOD INSURANCE RATE MAP, ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 270 OF 681, MAP NUMBER 33015C0270E, EFFECTIVE DATE: MAY 17, 2005.
- OWNER OF RECORD:
 WSS LAFAYETTE PROPERTIES, LLC (20%) et als
 1900 LAFAYETTE ROAD
 PORTSMOUTH, NH 03801
 RCRD BK.#5970 PG.#1324
- THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH THE CURRENT LEGAL DESCRIPTIONS. IT IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP OR DEFINE THE LIMITS OF TITLE.
- HORIZONTAL DATUM IS NAD83 (2011) PER STATIC GPS OBSERVATIONS.
- FIELD SURVEY COMPLETED BY TODD C. EMERSON IN DECEMBER 2015 AND UPDATED IN APRIL 2019 USING A TOPCON DS103 AND TOPCON TESLA & FC-5000 DATA COLLECTOR.
- THE PURPOSE OF THIS PLAN IS TO SHOW THE CURRENT SITE FEATURES OF TAX MAP 267 LOT 8.
- THE CURRENT WETLANDS BOUNDARY SHOWN ON THIS PLAN WAS DELINEATED ON APRIL 3, 2019 BY CHRISTOPHER K. DANFORTH CWS #077 OF FMORAN, INC. THE WETLANDS WERE DELINEATED ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987) AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2, JANUARY 2012. DOMINANT HYDRIC SOILS WITHIN THE WETLAND(S) WERE IDENTIFIED USING EITHER FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, (VERSION 3), NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION (NEWPPCC), APRIL 2004 OR FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, A GUIDE FOR IDENTIFYING AND DELINEATING HYDRIC SOILS, VERSION 7.0, USDA, NRCS, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS, 2010. DOMINANCE OF HYDROPHYTIC VEGETATION WAS DETERMINED USING THE NORTHCENTRAL AND NORTHEAST 2013 REGIONAL WETLAND PLANT LIST, US ARMY CORPS OF ENGINEERS, 2013 (VER. 3.1) AND FIELD LOCATED BY MSC/JF MORAN.
- ELEVATIONS ARE BASED ON NHDOT GEODETIC CONTROL DISK Y49 RESET 1994, VERTICAL DATUM NAVD88.
- ZONING REQUIREMENTS: OFFICE RESEARCH (OR) ZONE
 MINIMUM LOT DIMENSIONS:
 LOT AREA: 3 ACRES
 CONTINUOUS STREET FRONTAGE: 300'
 LOT DEPTH: 300'
 MINIMUM YARD DIMENSIONS:
 FRONT: 80'
 SIDE: 75'
 REAR: 50'
 MAXIMUM STRUCTURE DIMENSIONS:
 STRUCTURE HEIGHT: 60'
 ROOF APURTENANCE HEIGHT: 10'
 BUILDING COVERAGE: 30%
 MINIMUM OPEN SPACE: 30%
 PER THE CITY OF PORTSMOUTH, NH ZONING ORDINANCE SECTION 10.531.
 * SEE SECTION 10.533.
- UTILITIES SHOWN HEREON ARE BASED ON OBSERVED EVIDENCE AND RECORD PLANS. THEY ARE APPROXIMATE LOCATIONS ONLY. CONTACT DIG SAFE @ 1-888-DIGSAFE TO VERIFY UTILITIES.
- C-900 SECTION OF PIPE WAS INSTALLED IN PLACE OF THE SDR 35 PIPE SHOWN ON THE APPROVED SITE PLANS AT THE WATERLINE CROSSING.
- SEWER MAIN INSULATION INSTALLED FROM SMH 2 AND EXTENDING 20'± NORTHERLY OF SMH 5 AND FROM 20'± SOUTHERLY OF SMH 6 TO SMH 2165.

PLAN REFERENCES:

- "LAFAYETTE WEST PHASE II" LAFAYETTE WEST CORP. SUBDIVISION PLAN DATED MAY, 12 1983, BY KIMBALL CHASE COMPANY, INC. RCRD PLAN #D-11744.
- "PLAN OF SUBDIVISION LAFAYETTE WEST DEVELOPMENT LAFAYETTE ROAD PORTSMOUTH, N.H." DATED MAY, 1969 WITH REVISION 2 DATED 7/14/69, BY MCKENNA ASSOCIATES. RCRD PLAN #D-1446.
- "STANDARD BOUNDARY SURVEY TAX MAP 252-LOT 1-7 & TAX MAP 267-LOT 8 FOR SMUTTYNOSE BREWERY LAFAYETTE ROAD CITY OF PORTSMOUTH COUNTY OF ROCKINGHAM STATE NEW HAMPSHIRE" DATED JANUARY 2007, BY AMBIT ENGINEERING, INC. PLAN IS NOT RECORDED.
- "CONDOMINIUM SITE PLAN 1950 LAFAYETTE, A CONDOMINIUM TAX MAP 267 LOT 7 FOR PORTSMOUTH CASEY HOME ASSOCIATION" BY ENGINEERING ALLIANCE, INC. DATED DECEMBER 21 2005. RCRD PLAN #D-33396.
- "PLAN OF LAND FOR MICHAEL R. IAFOLLA & FERRIS G. BAVICO" BY KIMBALL CHASE COMPANY, INC. DATED 5/2/83. RCRD PLAN #D-11561.
- "BOUNDARY LINE ADJUSTMENT FOR ROBERT J. IAFOLLA DEED 2862/1732 TAX MAP 67 LOT 1-4 LAFAYETTE ROAD, PORTSMOUTH, N.H." BY UNDERWOOD ENGINEERS, INC., DATED 3/31/92. RCRD PLAN #D-21559.
- "PLAN OF LAND IN PORTSMOUTH, N.H. OWNED BY PEVERLY HILL CORPORATION AND JOHN IAFOLLA COMPANY INC." BY FRANCIS J. BARRETT, DATED DECEMBER 16, 1975. RCRD PLAN #D-5657.
- "ALTA/ACSM LAND TITLE SURVEY TRACTS NO.100 AND 100-E OWNER: THE UNITED STATES OF AMERICA (TAX MAP 0252-BLOCK 0001-LOT 0007) LAFAYETTE ROAD ~ US ROUTE NO.1 CITY OF PORTSMOUTH - ROCKINGHAM COUNTY - NEW HAMPSHIRE" BY VERMONT SURVEY CONSULTANTS, LLC, DATED AUGUST 01, 2011. RCRD PLAN #D-36925.
- "SEABROOK SIREN LOCATION PLAN TAX MAP 52 LOT 1 PUBLIC SERVICE OF NEW HAMPSHIRE PORTSMOUTH, NEW HAMPSHIRE" BY PUBLIC SERVICE OF NEW HAMPSHIRE GENERAL ENGINEERING DIVISION, DATED 5/14/2002. RCRD PLAN #D-30201.
- "STATE OF NEW HAMPSHIRE STATE HIGHWAY DEPARTMENT PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT LAFAYETTE ROAD NO-R-37-A CITY OF PORTSMOUTH ROCKINGHAM COUNTY" DATED 1929.
- "SITE DEVELOPMENT PLANS TAX MAP 267 LOT 8 OWNER: 1900 LAFAYETTE ROAD SPE, LLC, SASTRY HOLDINGS, LLC AND GDC LAFAYETTE PROPERTIES, LLC 150 US HIGHWAY 1 BY-PASS, PORTSMOUTH, NH SITE: 1900 LAFAYETTE ROAD, PORTSMOUTH, NH COUNTY OF ROCKINGHAM" BY MSC A DIVISION OF TFMORAN, INC., DATED 01/20/2014 WITH REVISION 5, DATED 03/02/2015. RCRD PLAN #D-38824.
- "SITE DEVELOPMENT PLANS TAX MAP 267 LOT 8 PROPERTY OF 1900 LAFAYETTE ROAD SPE, LLC, SASTRY HOLDINGS, LLC AND GDC LAFAYETTE PROPERTIES, LLC 1900 LAFAYETTE ROAD, PORTSMOUTH, NEW HAMPSHIRE COUNTY OF ROCKINGHAM" BY MSC A DIVISION OF TFMORAN, INC., DATED 01/20/2014 WITH REVISION 7, DATED 09/22/2015. RCRD PLAN #D-39176.



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CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

REV.	DATE	DESCRIPTION	DR	CK

**LAFAYETTE ROAD / (US ROUTE 1)
 (PUBLIC RIGHT OF WAY)**

**TAX MAP 267 LOT 8
 EXISTING CONDITIONS PLAN
 1900 LAFAYETTE ROAD
 PORTSMOUTH, NEW HAMPSHIRE
 COUNTY OF ROCKINGHAM
 OWNED BY
 WSS LAFAYETTE PROPERTIES, LLC (20%) et als**

**SCALE: 1" = 20' (22x34)
 1" = 40' (11x17)**

JUNE 20, 2024

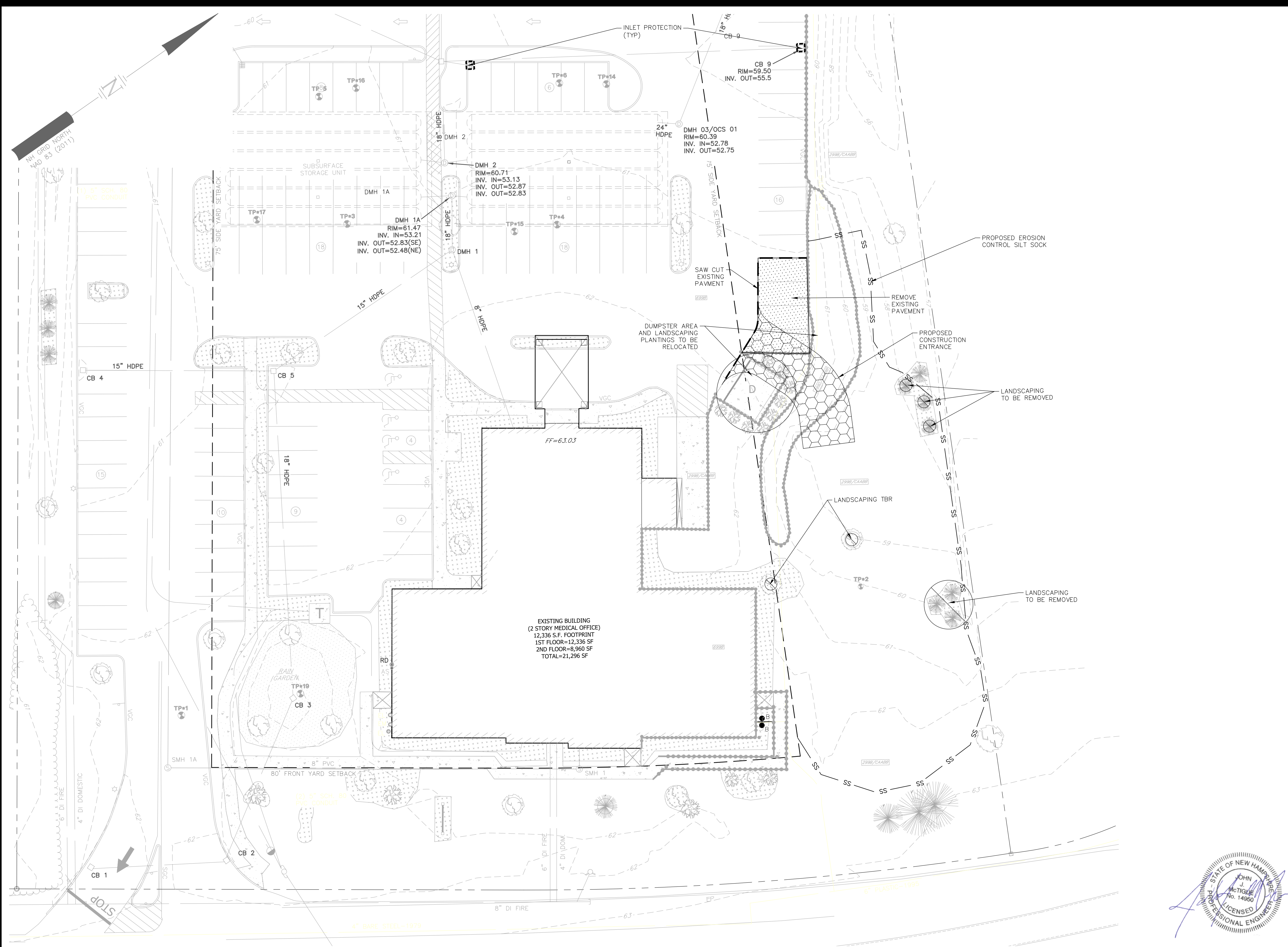
TFM A division of **TFMoran, Inc.**

Civil Engineers
 Structural Engineers
 Traffic Engineers
 Land Surveyors
 Landscape Architects
 Scientists

170 Commerce Way, Suite 102
 Portsmouth, NH 03801
 Phone (603) 431-2222
 Fax (603) 431-0910
 www.tfmoran.com

45407.17 DR IID FB
 CK BMK CADFILE S-01

Oct 02, 2024 - 10:40am
 F:\MISC Projects\45407-17 - Lafayette Road - Portsmouth\45407-17 Hammes Realty - 1900 Lafayette Road\Design\PRODUCTION DRWG\SM45407-17 Site-Prep.dwg



NOTES

- SEE NOTES ON SHEET C-01.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATIONS, SIZE, AND ELEVATIONS OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO THE START OF ANY DEMOLITION. THE LOCATIONS SHOWN ON THESE PLANS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED DEMOLITION TO DETERMINE APPROPRIATE ACTION TO BE TAKEN BEFORE PROCEEDING WITH THE WORK. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ANTICIPATE CONFLICTS AND REPAIR EXISTING UTILITIES AS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT ALL TIMES.
- THE CONTRACTOR SHALL VERIFY ALL SURVEY INFORMATION IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
- EXISTING UTILITY SERVICES TO BE DISCONTINUED ARE TO BE CAPPED AS REQUIRED BY THE RESPECTIVE UTILITY COMPANIES.
- CONSTRUCTION DEBRIS AND INVASIVE SPECIES SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A LEGAL MANNER.
- PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL PLACE ORANGE CONSTRUCTION FENCING AROUND EACH TREE TO BE RETAINED THROUGHOUT CONSTRUCTION. NO STOCKPILES OF MATERIAL ARE PERMITTED WITHIN THE DRIP-LINE OF THE TREES TO BE SAVED.
- CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY IF ANY TREES ARE DAMAGED DURING CONSTRUCTION.

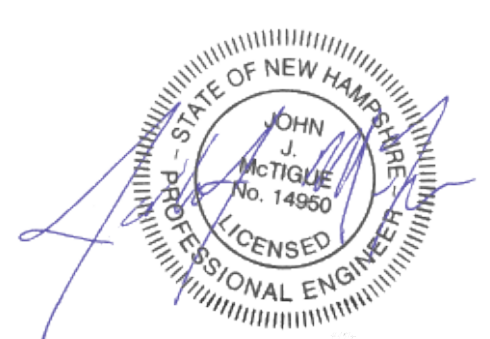
CONSTRUCTION SEQUENCE NOTES

- TO MINIMIZE EROSION AND SEDIMENTATION DUE TO CONSTRUCTION, CONSTRUCTION SHALL FOLLOW THIS GENERAL CONSTRUCTION SEQUENCE.
- MODIFICATIONS TO THE SEQUENCE NECESSARY DUE TO THE CONTRACTOR'S SCHEDULE SHALL INCLUDE APPROPRIATE TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES.
- THE CONTRACTOR SHALL SCHEDULE WORK SUCH THAT ANY CONSTRUCTION AREA IS STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE EXCEPT AS NOTED BELOW. NO MORE THAN 5 ACRES OF DISTURBED LAND SHALL BE UNSTABILIZED AT ANY ONE TIME.
- THE PROJECT SHALL BE MANAGED SO THAT IT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER ARG 3800 RELATIVE TO INVASIVE SPECIES.
- DO NOT TRAFFIC EXPOSED SOIL SURFACE OF INFILTRATION SYSTEMS WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
- DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO STORMWATER BMP'S. STORMWATER RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER BMP'S ARE STABILIZED.
- DO NOT PLACE STORMWATER BMP'S INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- AFTER THE INFILTRATION SYSTEM IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE THE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
- NOTIFY EASEMENT OWNERS PRIOR TO COMMENCEMENT OF WORK.
 - INSTALL ALL PERIMETER EROSION PROTECTION MEASURES AS INDICATED ON THE PLANS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 - STORMWATER TREATMENT PONDS AND SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
 - DURING CONSTRUCTION EVERY EFFORT SHALL BE MADE TO MANAGE SURFACE RUNOFF QUALITY.
 - DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT BARRIERS, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED. (TEMPORARY SEED MIXTURE OF WINTER RYE APPLIED AT A RATE OF 2.5 LBS/1000 SF SHALL BE USED).
 - CONDUCT MAJOR EARTHWORK, INCLUDING CLEARING AND GRUBBING, WITHIN THE LIMITS OF WORK. ALL CUT AND FILL SLOPES SHALL BE SEEDED WITHIN 72 HOURS AFTER GRADING.
 - ALL STRIPPED TOPSOIL AND OTHER EARTH MATERIALS SHALL BE STOCKPILED OUTSIDE THE IMMEDIATE WORK AND WETLAND AREAS. A SILT BARRIER SHALL BE CONSTRUCTED AROUND THESE PILES IN A MANNER TO PROVIDE ACCESS AND AVOID SEDIMENT OUTSIDE OF THE WORK AREA.
 - CONSTRUCT BUILDING PAD AND COMMENCE NEW BUILDING CONSTRUCTION.
 - CONSTRUCT TEMPORARY CULVERTS AND DIVERSIONS AS REQUIRED.
 - BEGIN PERMANENT AND TEMPORARY INSTALLATION OF SEED AND MULCH.
 - PERFORM EARTHWORK NECESSARY TO ESTABLISH ROUGH GRADING AROUND PARKING FIELDS AND ACCESS DRIVES. MANAGE EXPOSED SOIL SURFACES TO AVOID TRANSPORTING SEDIMENTS INTO WETLANDS. PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
 - INSTALL SUBSURFACE UTILITIES (WATER, SEWER, GAS, ELECTRIC, COMMUNICATIONS, DRAINAGE, DRAINAGE FACILITIES, ETC.).
 - CONSTRUCT PROPOSED ROADWAY, RAIN GARDENS, GRAVEL WETLANDS AND DRAINAGE SWALES. ALL DITCHES, SWALES, AND GRAVEL WETLANDS SHALL BE FULLY STABILIZED PRIOR TO DIRECTING FLOW TO THEM.
 - COMPLETE BUILDING AND ALL OFF-SITE IMPROVEMENTS.
 - COMPLETE SEEDING AND MULCHING. SEED TO BE APPLIED WITH BROADCAST SPREADER OR BY HYDRO-SEEDING, THEN ROLLED, RAKED, OR DRAGGED TO ASSURE SEED/SOIL CONTACT.
 - REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDED AREAS HAVE BECOME FIRMLY ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE.
 - DURING THE COURSE OF THE WORK AND UPON COMPLETION, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT DEPOSITS, EITHER ON OR OFF SITE, INCLUDING CATCH BASINS, AND SUMPS, DRAIN PIPES AND DITCHES, CURB LINES, ALONG SILT BARRIERS, ETC. RESULTING FROM SOIL AND/OR CONSTRUCTION OPERATIONS.
 - SEE WINTER CONSTRUCTION SEQUENCE FOR WORK CONDUCTED AFTER OCTOBER 15TH.

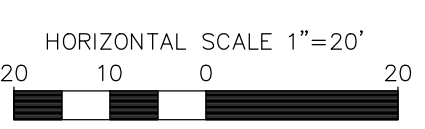
SITE DEVELOPMENT PLANS

TAX MAP 267 LOT 8
SITE PREPARATION PLAN
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

1"=40' (11"X17")
SCALE: 1"=20' (22"X34") **JANUARY 24, 2024**



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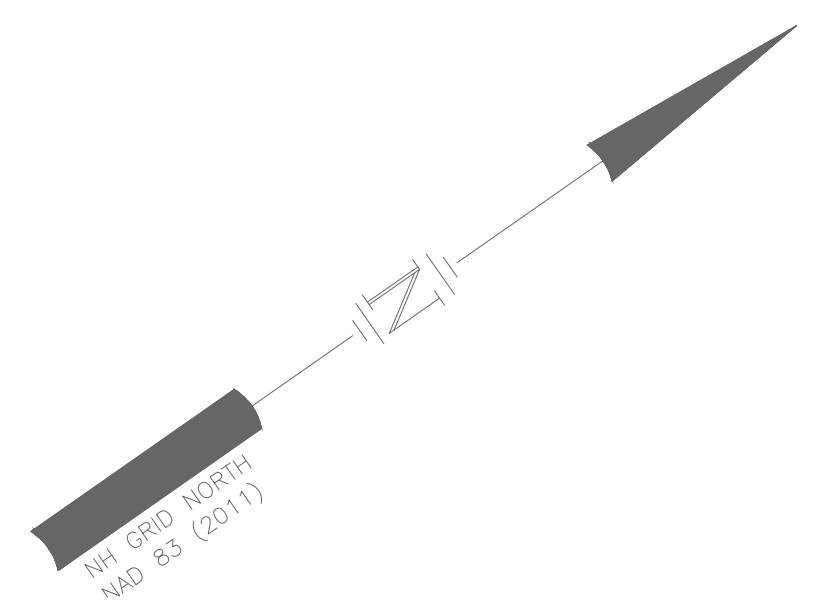
REV	DATE	DESCRIPTION	DR	CK
4	10/01/2024	NO REVISIONS THIS SHEET	JJM	
3	9/17/2024	NO REVISIONS THIS SHEET	JJM	
2	9/9/2024	NO REVISIONS THIS SHEET	JJM	
1	7/31/2024	No Revisions This Sheet		

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45407.17 DR JKC FB
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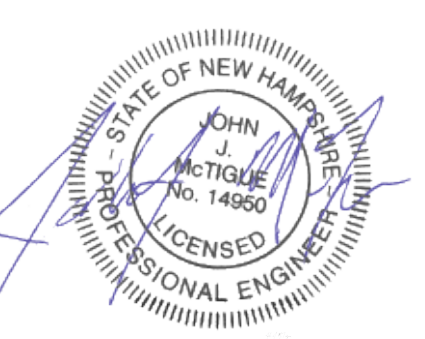


- OPEN SPACE (66,233sf ± = 38.2%)
- GRASSED BUT NOT OPEN AREA (1,179sf ± = 0.7%)
- IMPERVIOUS AREA (105,957sf ± = 61.1%)

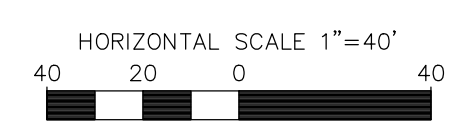
SITE DEVELOPMENT PLANS

TAX MAP 267 LOT 8
OVERALL SITE LAYOUT PLAN
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

1"=80' (11"X17')
SCALE: 1"=40' (22"X34') **SEPTEMBER 17, 2024**



MCKINLEY ROAD
(PUBLIC RIGHT OF WAY)



REV	DATE	DESCRIPTION	DR	CRR
4	10/1/2024	REVISED OPEN SPACE PER TAC COMMENTS	JJM	
3	9/17/2024	NO REVISIONS THIS SHEET	JJM	
2	9/9/2024	NO REVISIONS THIS SHEET	JJM	
1	9/17/2024	NEW SHEET	JJM	CRR

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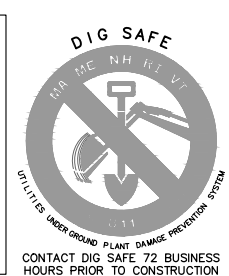
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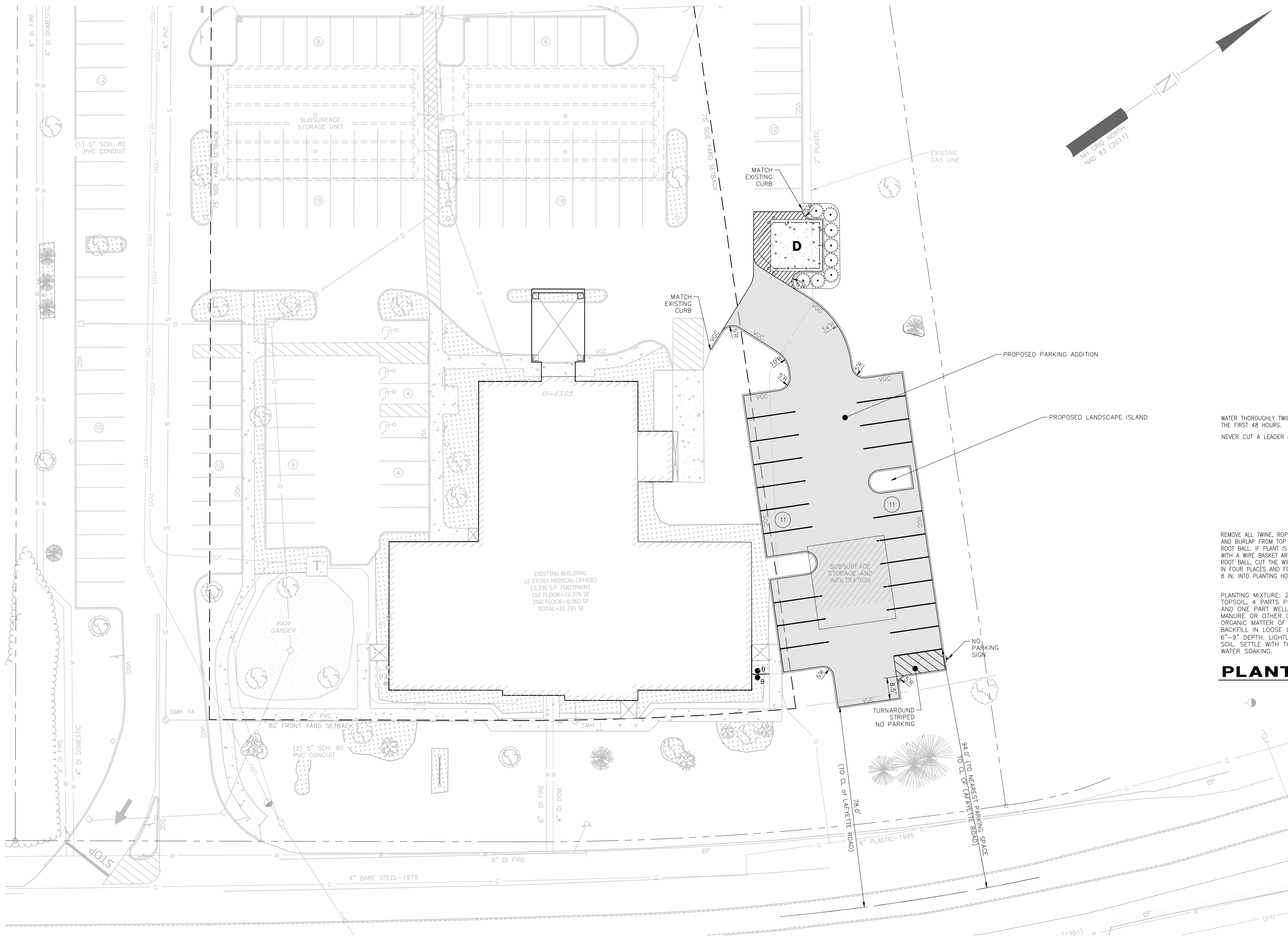
FILE NO: 45407.17
 DR: JKC
 CK: CRR
 FB: FB
 CADFILE: 45407-17_SITE-PLAN_OVERALL
 C-03

Oct 02, 2024 - 10:41am F:\MISC Projects\45407 - Lafayette Road - Portsmouth\45407-17 Hammes Realty - 1900 Lafayette Road\Design\PRODUCTION DRWG\M45407-17_Site-Plan_Overall.dwg

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SITE DATA

OWNER OF RECORD OF MAP 267 LOT 8: HPIII BOSTON PORTSMOUTH LLC C/O HAMMES REALTY SERVICES LLC
 DEED REFERENCE TO PARCEL IS BK 6431 PG 1522
 AREA OF PARCEL = 173,369± SF OR 3.98± ACRES

ZONED: OFFICE RESEARCH
 EXISTING USE: MEDICAL USE
 PROPOSED USE: MEDICAL USE

	REQUIRED:	EXISTING:	PROPOSED:
MINIMUM OPEN SPACE	30%		39%

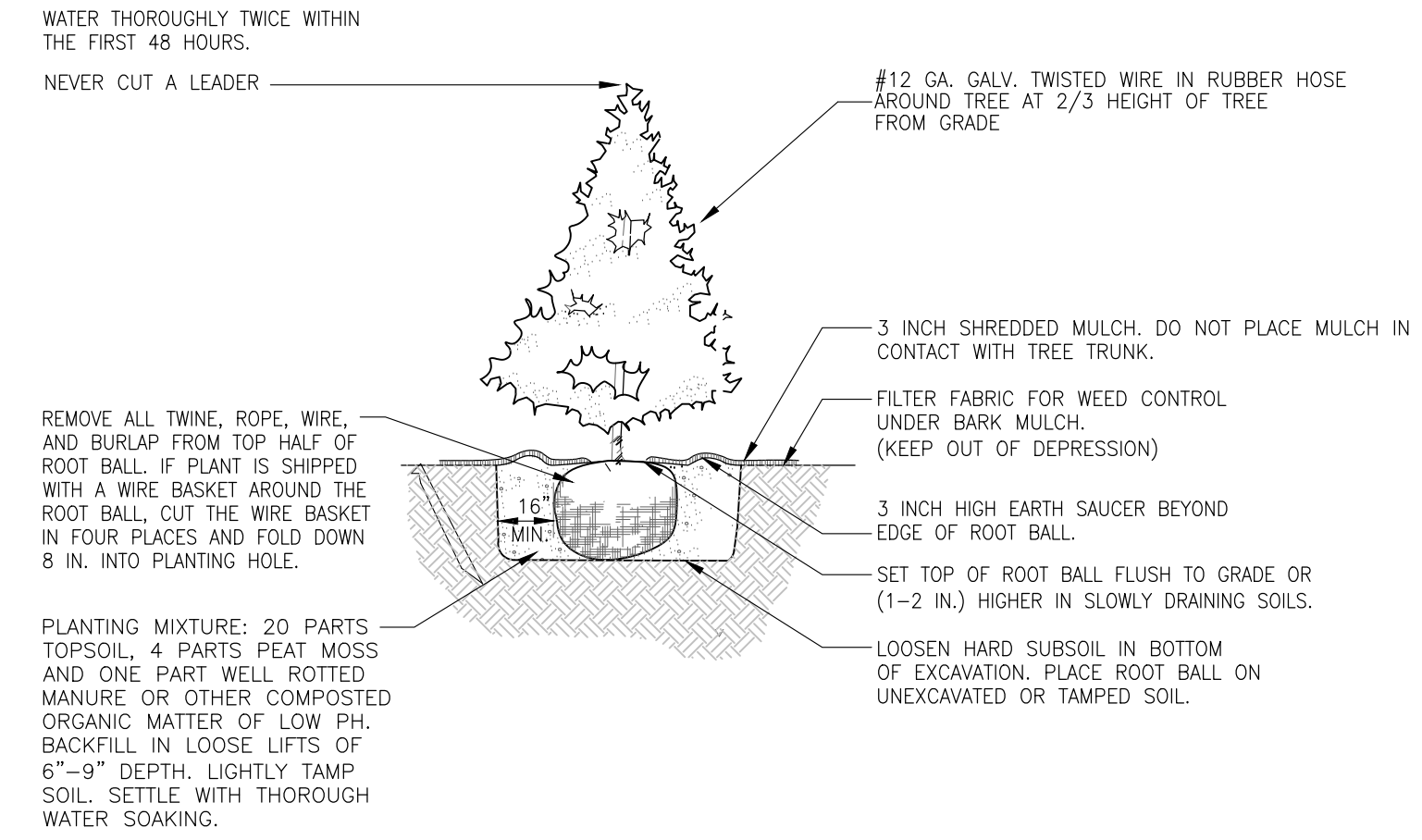
THE PURPOSE OF THIS PLAN IS TO DEPICT THE ADDITION OF PARKING TO THE EXISTING USE. ASSOCIATED IMPROVEMENTS INCLUDE AND ARE NOT LIMITED TO ACCESS, GRADING, STORMWATER MANAGEMENT SYSTEMS, UTILITIES, LIGHTING, AND LANDSCAPING.

PARKING CHANGES	REQUIRED	EXISTING:	PROPOSED:
PARKING SPACES	130-156 SPACES	139 SPACES	156 SPACES
ACCESSIBLE SPACES	6 SPACE	8 SPACES	8 SPACES
PARKING SPACE SIZE	9 FT X 19 FT	8.5 FT X 19 FT	9 FT X 19 FT
AISLE WIDTH	24 FT	24 FT	24 FT

PARKING CALCULATIONS:
 REQUIRED PARKING RATIO:
 MEDICAL OFFICE: 1 SPACE PER 250 SF GFA
 AMBULATORY MEDICAL CENTER: 1 SPACE PER 250 SF GFA

TOTAL REQUIRED:
 FRONT (2 STORY MEDICAL OFFICE): 21,296 SF * 1 SPACE / 250 SF = 85 SPACES
 REAR 1 STORY AMBUL. MED. CNTR: 11,175 SF * 1 SPACE / 250 SF = 45 SPACES
 130 SPACES

MAXIMUM NUMBER OF PARKING SPACES = 120% OF MINIMUM NUMBER OF PARKING SPACES
 120% X 130 SPACES = 156 SPACES



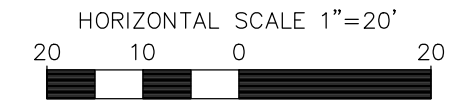
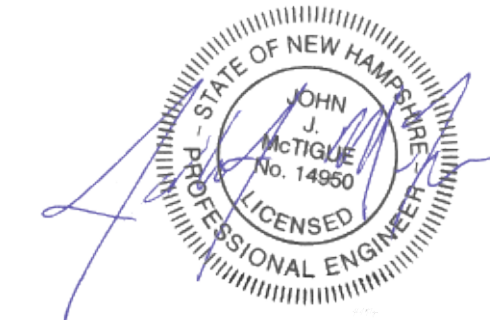
PLANTING DETAIL

NOT TO SCALE

SITE DEVELOPMENT PLANS
 TAX MAP 267 LOT 8
SITE LAYOUT PLAN
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

1"=40' (11"X17')
SCALE: 1"=20' (22"X34') **JANUARY 24, 2024**

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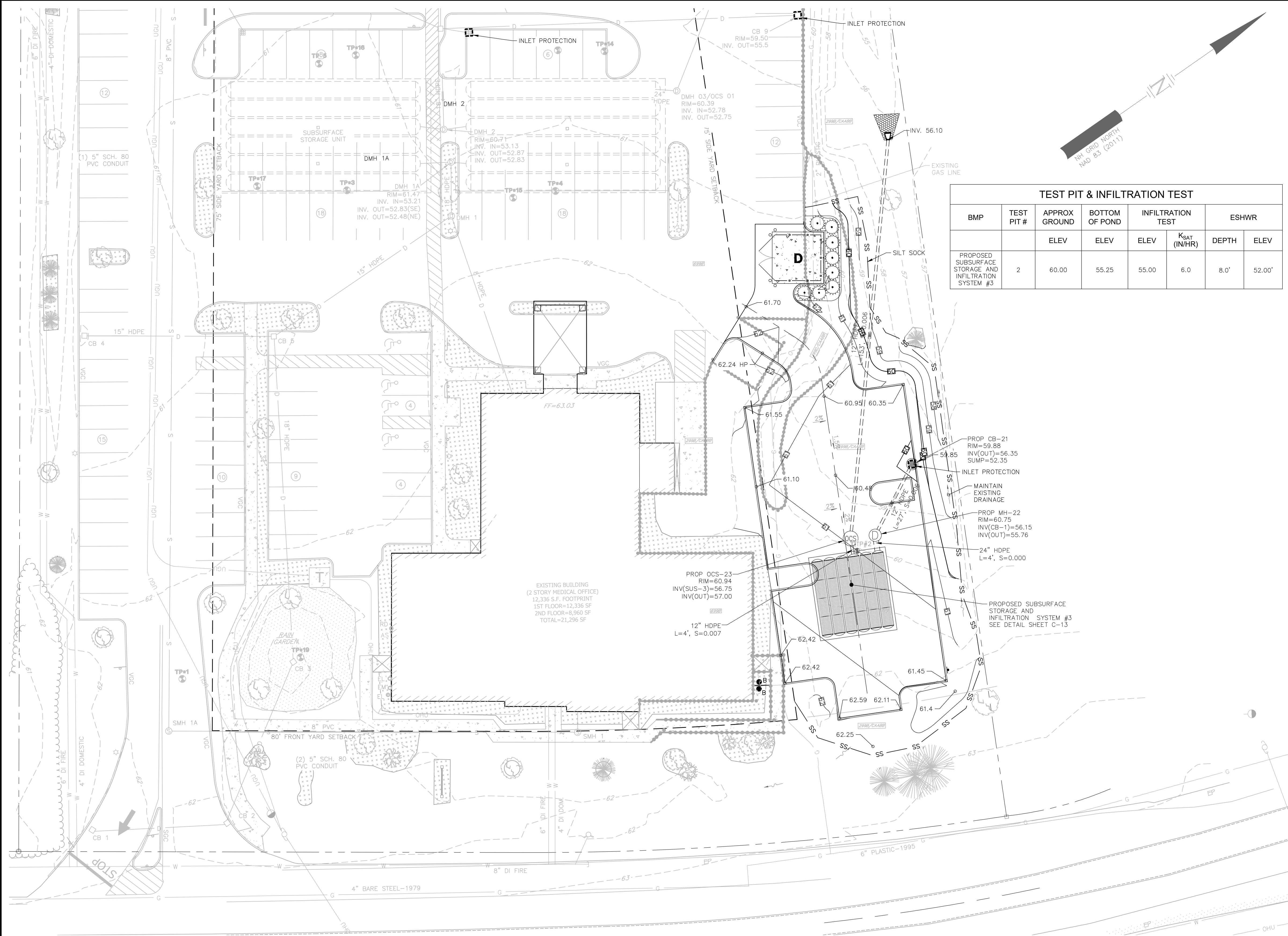
REV	DATE	DESCRIPTION	DR	CK
6	9/17/2024	ADD PARKING TURNAROUND	JJM	CRR
5	9/9/2024	REVISED PARKING CALCULATIONS	JJM	CRR
4	10/21/2023	MODIFIED PARKING CALCULATIONS	BDM	JJM
3	4/2/2024	REVISED PER CITY COMMENTS	JJM	CRR
2	10/30/2023	REVISED PER WETLAND SCIENTIST OBSERVATIONS	JJC	CRR
1	10/16/2023	ADDED PARKING SPACES	JJC	CRR

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 Portsmouth, NH 03801
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FILE: 45407.17
 DR: JJC
 CK: CRR
 FB: CADFILE
 45407-17_SITE-PLAN
 C-04

Oct 02, 2024 - 10:42am F:\MISC Projects\45407 - Lafayette Road - Portsmouth\45407-17 Hammes Realty - 1900 Lafayette Road\Design\PRODUCTION DRWG\M45407-17_Grading-Drainage-Plan.dwg



GRADING AND DRAINAGE NOTES

- SEE NOTES ON SHEET C-01.
- PROPOSED SPOT GRADES ARE PROVIDED TO THE NEAREST 0.05. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE FINISHED GRADES MEET ADA STANDARDS FOR WHEEL CHAIR RAMPS, HANDICAP SPACES AND ACCESS AISLES, CROSSWALKS, SIDEWALKS, ETC.
- ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED. CURBS HAVE A 6" REVEAL UNLESS OTHERWISE NOTED.
- LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE FIELD.
- ALL PROPOSED DRAINAGE PIPES SHALL BE 12" AND HDPE, UNLESS OTHERWISE NOTED ON THE PLAN.
- DRAINAGE PIPES WITH LESS THAN 3' COVER SHALL BE INSULATED (SEE UTILITY TRENCH DETAIL) AND DRAINAGE CATCH BASINS WITH LESS THAN 3.5' OF COVER OVER INVERTS SHALL USE SLAB TOP CATCH BASIN (SEE DETAILS).
- THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT AND ARCHITECTURAL PLANS FOR SUBDRAINAGE SYSTEMS FOR THE BUILDING FOUNDATION. SUBDRAINAGE MUST DAYLIGHT OR TIE INTO THE STORMWATER MANAGEMENT SYSTEM. COORDINATE SUBDRAINAGE SYSTEM DESIGN WITH THE ENGINEER OF RECORD.

EROSION CONTROL NOTES

- SEE NOTES ON SHEET C-01, EROSION CONTROL NOTES ON SHEET C-09, EROSION CONTROL DETAILS ON SHEET C-10, AND THE APPROVED SWPPP, AS APPLICABLE.
- INSTALL SILT BARRIER ALONG THE PERIMETER OF THE AREA TO BE DISTURBED AS FIRST ORDER OF WORK.
- PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED. INLET PROTECTION BARRIERS SHALL BE IN PLACE AT ALL CATCH BASINS PRIOR TO THE DISTURBANCE OF SOIL.
- DUST CONTROL SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. IT SHALL BE ACCOMPLISHED BY THE UNIFORM APPLICATION OF CALCIUM CHLORIDE AT THE RATE OF 1-1/2 POUNDS PER SQUARE YARD BY MEANS OF A LIME SPREADER OR OTHER APPROVED METHOD. WATER MAY ALSO BE USED FOR DUST CONTROL, AND APPLIED BY SPRINKLING WITH WATER TRUCK DISTRIBUTORS, AS REQUIRED.
- SILT PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS CONTAINED IN THIS PLAN SET.
- EROSION CONTROL MIX, AS SPECIFIED IN THE DETAILS, CAN BE USED IN PLACE OF SILT SOCK.
- CONSTRUCT JUTE MATTING ON ALL SLOPES STEEPER THAN 3:1, DISTURBED AREAS SLOPING TOWARDS WETLANDS AND ALL LOCATIONS SHOWN ON PLAN.
- INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RAIN STORM OF 0.25" OR GREATER. REPAIR/MODIFY SILT BARRIER AS NECESSARY TO MAXIMIZE FILTER EFFICIENCY. REMOVE SEDIMENT WHEN SEDIMENT IS 1/3 THE STRUCTURE HEIGHT.
- PROVIDE SILT BARRIERS AT THE BASE OF CUT AND FILL SLOPES UNTIL COMPLETION OF THE PROJECT OR UNTIL VEGETATION BECOMES ESTABLISHED ON SLOPES. EROSION PROTECTION BELOW FILL SLOPES SHALL BE PLACED IMMEDIATELY AFTER CLEARING, PRIOR TO EMBANKMENT CONSTRUCTION.
- ALL DISTURBED AREAS SHALL BE REVEGETATED AS QUICKLY AS POSSIBLE. ALL CUT AND FILL SLOPES SHALL BE SEEDED WITHIN 72 HOURS AFTER GRADING.
- ALL WORK AREAS TO BE STABILIZED AT THE END OF EACH WORK DAY AND PRIOR TO ANY PREDICTED SIGNIFICANT RAIN EVENT.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A. BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2, ARE INSTALLED IN AREAS TO BE PAVED
 - B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
 - C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- ALL CATCH BASINS, MANHOLES, AND DRAIN LINES SHALL BE THOROUGHLY CLEANED OF ALL SEDIMENT AND DEBRIS AFTER ALL AREAS HAVE BEEN STABILIZED.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SLOPE STABILITY DURING CONSTRUCTION.
- THE EROSION CONTROL PRACTICES SHOWN ON THESE PLANS ARE ILLUSTRATIVE ONLY AND SHALL BE SUPPLEMENTED BY THE SITE CONTRACTOR AS NEEDED.

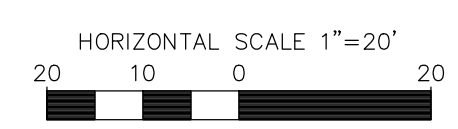
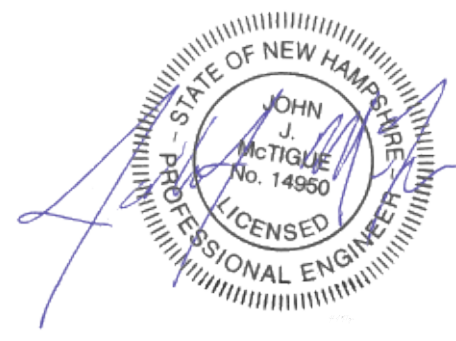
TEST PIT & INFILTRATION TEST						
BMP	TEST PIT #	APPROX GROUND ELEV	BOTTOM OF POND ELEV	INFILTRATION TEST		ESHWR
		ELEV	ELEV	ELEV	K _{SAT} (IN/HR)	DEPTH
PROPOSED SUBSURFACE STORAGE AND INFILTRATION SYSTEM #3	2	60.00	55.25	55.00	6.0	8.0'

SOIL LEGEND (PER SITE SPECIFIC SOIL SURVEY)		
SYMBOL	DESCRIPTION	HYDROLOGIC SOIL GROUP
299/CAABB	UDORTMENTS, SMOOTHED (WELL DRAINED, NO NATURAL SOILS)	B
699	URBAN LAND	N/A

SITE DEVELOPMENT PLANS
 TAX MAP 267 LOT 8
GRADING AND DRAINAGE PLAN
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

1"=40' (11"X17")
SCALE: 1"=20' (22"X34") **JANUARY 24, 2024**

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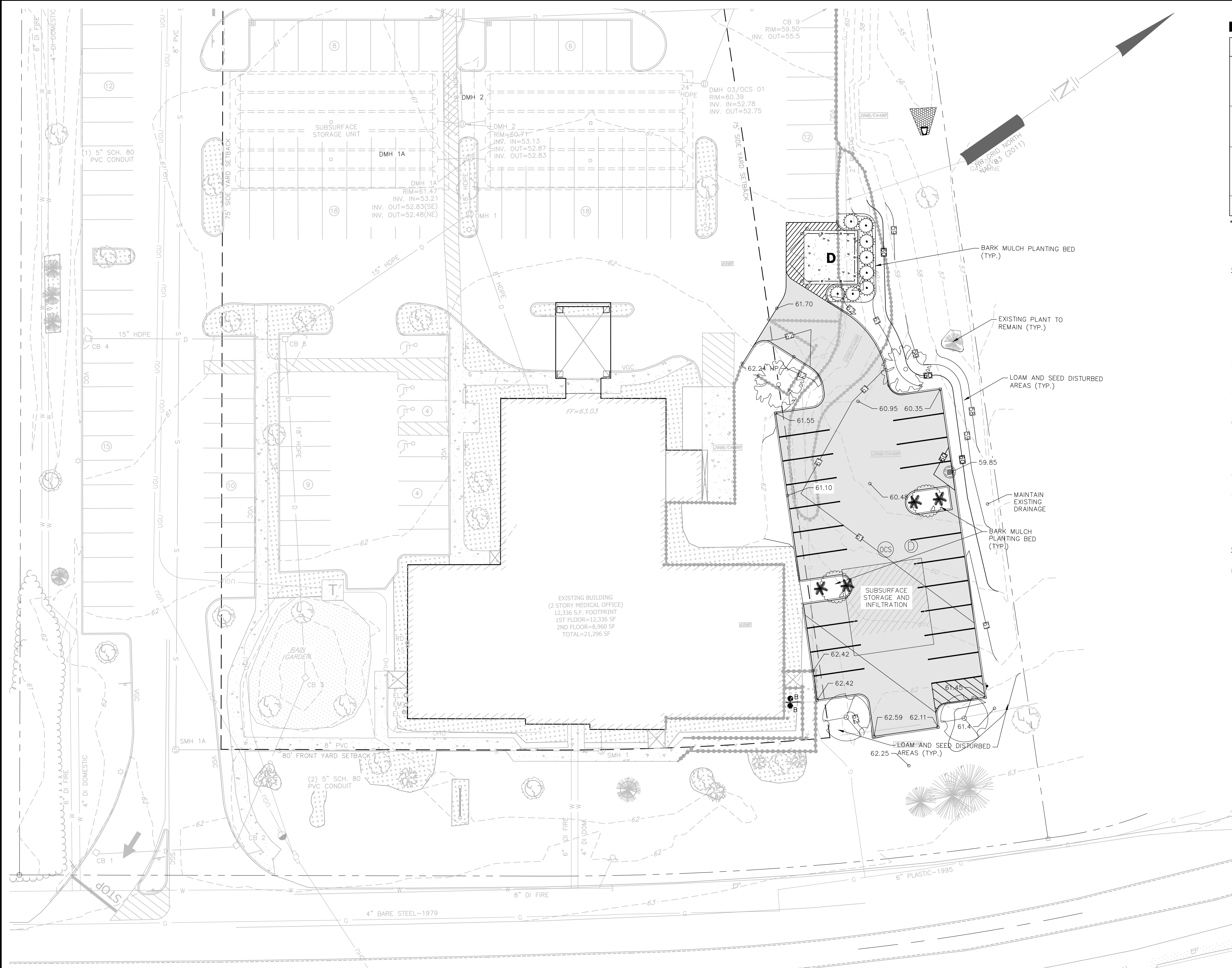
REV	DATE	DESCRIPTION	DR	CK
4	10/01/2024	NO REVISIONS THIS SHEET	JJM	
3	9/17/2024	UPDATE GRADING NEXT TO TURNAROUND	JJM	CRR
2	9/9/2024	NO REVISIONS THIS SHEET	JJM	
1	7/31/2024	REVISED SITE SOILS, REVISED TITLE BLOCK	BCH	JJM

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 Phone (603) 431-2222
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45407.17 DR JKC FB
 CK CRR CADFILE 45407-17_GRADING-DRAINAGE-PLAN C-05

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LANDSCAPE LEGEND

SYMBOL	QTY	BOTANICAL NAME COMMON NAME	PLANTING SIZE	REMARKS	MATURE SIZE (HEIGHT/SPREAD)	GROWTH HABIT
	2	ULMUS AMERICANA 'PRINCETON' PRINCETO AMERICAN ELM	3" CAL. MIN.	B&B	60'/40'-60'	VASE
	2	CRATAEGUS C.J. 'THORNLESS' THORNLESS COCKSPUR HAWTHORN	2" CAL. MIN.	B&B	15'-20'/15'-20'	ROUNDED
	2	PLATANUS X ACREFOLIA 'BLOODGOOD' BLOODGOOD LONDON PLANETREE	3" CAL. MIN.	B&B	60'+/60'	ROUNDED
	4	SPIRAEA X B. 'ANTHONY WATERER' ANTHONY WATERER SPIREA	3 GAL.	CONTAINER	3'-4'/4'-5'	MOUNDED

* ALL PLANTS CONTAINED IN LEGEND HAVE BEEN SELECTED FOR URBAN GROWING CONDITIONS.

LANDSCAPE NOTES

(SEE DETAILS FOR ADDITIONAL NOTES)

GENERAL

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE RULES, REGULATIONS, LAWS, AND ORDINANCES HAVING JURISDICTION OVER THIS PROJECT SITE.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND NOTIFY OWNER'S REPRESENTATIVE OF CONFLICTS.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON PLANS BEFORE PRICING THE WORK. ANY DIFFERENCE IN QUANTITIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION. LANDSCAPE QUANTITIES SHOWN ON THE PLAN SHALL SUPERCEDE QUANTITIES LISTED IN LANDSCAPE LEGEND.
- THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT PRIOR TO STARTING WORK AND VERIFY THAT THE PLANS IN THE CONTRACTOR'S POSSESSION ARE THE MOST CURRENT PLANS AVAILABLE AND ARE THE APPROVED PLAN SET FOR USE IN CONSTRUCTION.
- ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PLANTS SHALL BE FIRST CLASS AND SHALL BE REPRESENTATIVE OF THEIR NORMAL SPECIES AND/OR VARIETIES. ALL PLANTS MUST HAVE GOOD, HEALTHY, WELL-FORMED UPPER GROWTH AND A LARGE, FIBEROUS, COMPACT ROOT SYSTEM.
- ALL PLANTS SHALL BE FREE FROM DISEASE AND INSECT PESTS AND SHALL COMPLY WITH ALL APPLICABLE STATE AND FEDERAL LAWS PERTAINING TO PLANT DISEASES AND INFESTATIONS.
- ALL TREES SHALL BE BALLED AND BURLAPPED (B & B) UNLESS OTHERWISE NOTED OR APPROVED BY LANDSCAPE ARCHITECT.
- IF APPLICABLE, THE CONTRACTOR SHALL HAVE ALL FALL TRANSPLANTING HAZARD PLANTS DUG IN THE SPRING AND STORED FOR FALL PLANTING.
- ALL INVASIVE PLANT SPECIES FROM THE "NEW HAMPSHIRE PROHIBITED INVASIVE PLANT SPECIES LIST", TO BE REMOVED SHALL BE DONE SO IN ACCORDANCE WITH THE "INVASIVE SPECIES ACT, HB 1258-FN."

GUARANTEE

THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPE WORK FOR A PERIOD OF ONE YEAR, BEGINNING AT THE START OF THE MAINTENANCE PERIOD.

SITE DEVELOPMENT PLANS

TAX MAP 267 LOT 8
LANDSCAPE PLAN
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

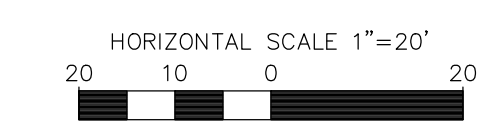
1"=40' (11"X17')
SCALE: 1"=20' (22"X34') **JANUARY 24, 2024**

Seacoast Division

 Civil Engineers
 Structural Engineers
 Traffic Engineers
 Land Surveyors
 Landscape Architects
 Scientists

170 Commerce Way, Suite 102
 Portsmouth, NH 03801
 Phone (603) 431-2222
 Fax (603) 431-0910
 www.tfmoran.com

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REV	DATE	DESCRIPTION	DR	CK
4	10/01/2024	NO REVISIONS THIS SHEET	JJM	
3	9/17/2024	UPDATED LANDSCAPE NEAR TURNAROUND	JJM	CRR
2	9/9/2024	NO REVISIONS THIS SHEET	JJM	
1	7/31/2024	No Revisions This Sheet	MK	

FILE	45407.17	DR	JJK	FB		
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LANDSCAPE SPECIFICATIONS

SITE AND SOIL PREPARATION

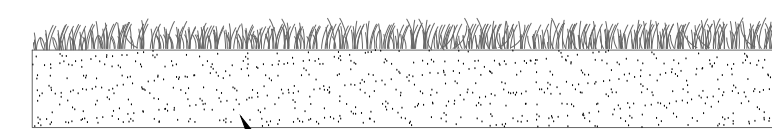
- WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR LEDGE, NOTIFY LANDSCAPE ARCHITECT/ENGINEER BEFORE PLANTING.
- ALL DISTURBED AREAS & PLANTING AREAS, INCLUDING AREAS TO BE SODDED, SHALL RECEIVE THE FOLLOWING SOIL PREPARATION PRIOR TO PLANTING: A MINIMUM OF 6 INCHES OF LIGHTLY COMPACTED TOPSOIL SHALL BE INSTALLED OVER THE SUBSOIL IF TOPSOIL HAS BEEN REMOVED OR IS NOT PRESENT.
- LOAM SHALL CONSIST OF LOOSE FRIABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE FROM STONES, LUMPS, STUMPS, OR SIMILAR OBJECTS LARGER THAN TWO INCHES (2") IN GREATEST DIAMETER. SUBSOIL, ROOTS, AND WEEDS: THE MINIMUM AND MAXIMUM PH VALUE SHALL BE FROM 5.5 TO 7.6. LOAM SHALL CONTAIN A MINIMUM OF THREE PERCENT (3%) AND A MAXIMUM OF TWENTY PERCENT (20%) ORGANIC MATTER AS DETERMINED BY LOSS BY IGNITION. NOT MORE THAN SIXTY-FIVE PERCENT (65%) SHALL PASS A NO. 200 SIEVE AS DETERMINED BY THE WASH TEST IN ACCORDANCE WITH ASTM D1140. IN NO INSTANCE SHALL MORE THAN 20% OF THAT MATERIAL PASSING THE #4 SIEVE CONSIST OF CLAY SIZE PARTICLES.
- NATURAL TOPSOIL NOT CONFORMING TO THE PARAGRAPH ABOVE OR CONTAINING EXCESSIVE AMOUNTS OF CLAY OR SAND SHALL BE TREATED BY THE CONTRACTOR TO MEET THOSE REQUIREMENTS.
- SUBMIT TEST RESULTS OBTAINED FROM SOURCE TO ENGINEER/LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL, PRIOR TO SPREADING OPERATIONS.
- APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT TO USE THE TOPSOIL WILL DEPEND UPON THE RESULTS OF THE SOIL TESTS.
- THE BURDEN OF PROOF OF SOIL AMENDMENT INSTALLATION RESTS WITH THE CONTRACTOR. SOIL TESTS MAY BE REQUIRED AT THE CONTRACTOR'S EXPENSE IN ORDER TO CONFIRM AMENDMENT INSTALLATION.

PLANTING

- EXCAVATE PITS, PLANTERS, BEDS AND TRENCHES WITH VERTICAL SIDES AND WITH BOTTOM OF EXCAVATION SLIGHTLY RAISED AT CENTER TO PROVIDE PROPER DRAINAGE. LOOSEN HARD SUBSOIL IN BOTTOM OF EXCAVATION.
- ANY LEDGE OR RUBBLE MATERIAL SHALL BE FRACTURED TO A DEPTH OF 3 FEET AND EXCAVATED TO A DEPTH OF 30 INCHES FOR TREE POCKETS AND 18 INCHES FOR SHRUB BEDS. THIS PROCEDURE SHALL BE HANDLED BY THE SITE CONTRACTOR. SITE TOPSOIL SHALL BE DEPOSITED IN ALL EXCAVATED POCKETS.
- DISPOSE OF SUBSOIL REMOVED FROM PLANTING EXCAVATIONS. DO NOT MIX WITH PLANTING SOIL OR USE AS BACKFILL.
- FILL EXCAVATIONS FOR TREES AND SHRUBS WITH WATER AND ALLOW TO PERCOLATE OUT BEFORE PLANTING.
- DISH TOP OF BACKFILL TO ALLOW FOR MULCH - PLANT SAUCERS SHALL BE AS SHOWN ON DETAIL SHEETS; 6" DIAMETER FOR ALL DECIDUOUS TREES, AND FOR EVERGREEN TREES A RADIUS 2' BEYOND THE OUTER MOST BRANCHES.
- MULCH TREES, SHRUBS, PLANTERS AND BEDS. PROVIDE NOT LESS THAN 3" THICKNESS OF BARK MULCH, 3/8"-2" OF WIDTH, AND WORK INTO TOP OF BACKFILL. FINISH LEVEL WITH ADJACENT FINISH GRADES AS DIRECTED IN THE FIELD.
- STAKE AND GUY TREES IMMEDIATELY AFTER PLANTING (TREE SUPPORT STAKES SHALL BE 2" X 3" X 6', WOOD STAKES, GUYING WIRE SHALL BE NO. 12 GAUGE GALVANIZED SOFT STEEL WIRE. HOSE FOR COVERING WIRE SHALL BE NEW OR USED TWO PLY RUBBER HOSE NOT LESS THAN 1/2 INCH INSIDE DIAMETER. (PLASTIC "CINCH-TIES" OR EQUIVALENT FASTENING DEVICE MAY BE AN ACCEPTABLE GUY WIRE AND HOSE PROTECTOR SUBSTITUTE.)
- TREEGATOR WATERING SYSTEM OR APPROVED EQUAL SHALL BE INSTALLED FOR ALL DECIDUOUS TREES AT TIME OF PLANTING AND REMOVED BEFORE FROST. WATERING RATE TO BE APPLIED PER MANUFACTURER'S SPECIFICATIONS.
- ALL PLANT MATERIALS SHALL HAVE DEAD OR DAMAGED BRANCHES REMOVED AT TIME OF PLANTING. ALL TAGS AND RIBBONS SHALL BE REMOVED AT THIS TIME.
- TREES TO REMAIN STAKED FOR 1 FULL GROWING SEASON.
- THE CONTRACTOR SHALL REQUEST A FINAL OBSERVATION BY THE OWNER'S REPRESENTATIVE UPON COMPLETION OF INSTALLATION.

SEEDING

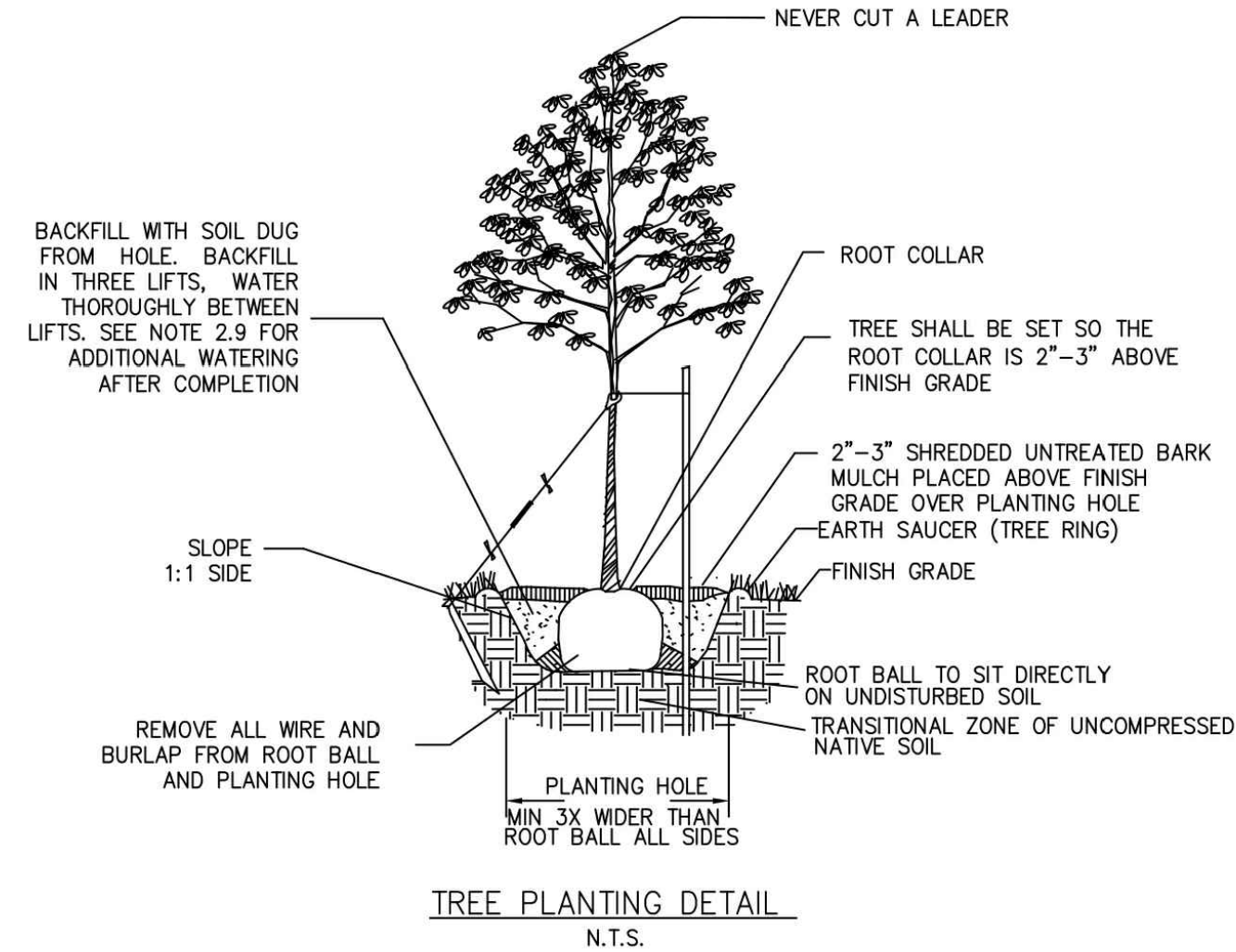
- SLOPES UP TO AND INCLUDING 3:1 GRADE, SEED WILL BE NEW ENGLAND EROSION CONTROL & RESTORATION MIX PER NEW ENGLAND WETLANDS PLANTS INC., AMHERST, MA.
- SLOPES STEEPER THAN 3:1 GRADE, SEED WILL BE NEW ENGLAND EROSION CONTROL & RESTORATION MIX PER NEW ENGLAND WETLANDS PLANTS INC., AMHERST, MA. SEE CIVIL FOR ADDITIONAL EROSION CONTROL MEASURES.
- GENERAL SEED WILL BE NHDOT SPECIFICATION SECTION 644, TABLE 644-1-PARK SEED TYPE 15, INCLUDING NOTES TO TABLE 1, 2 & 3.



6" LOAM (ITEM 641)
SEED (ITEM 644) LIMESTONE (ITEM 642) FERTILIZER (ITEM 643.11)
APPLY RATIOS OF LIMESTONE AND FERTILIZER PER MANUFACTURERS SPECIFICATION BASED ON SOIL TEST RESULTS.
STRAW MULCH SHALL BE UTILIZED FOR EROSION CONTROL AT A RATE OF 3 TONS PER ACRE. HYDROSEEDING MAYBE UTILIZED AS AN ALTERNATE METHOD. (SEE HYDROSEEDING NOTES)

LOAM & SEED

NOT TO SCALE



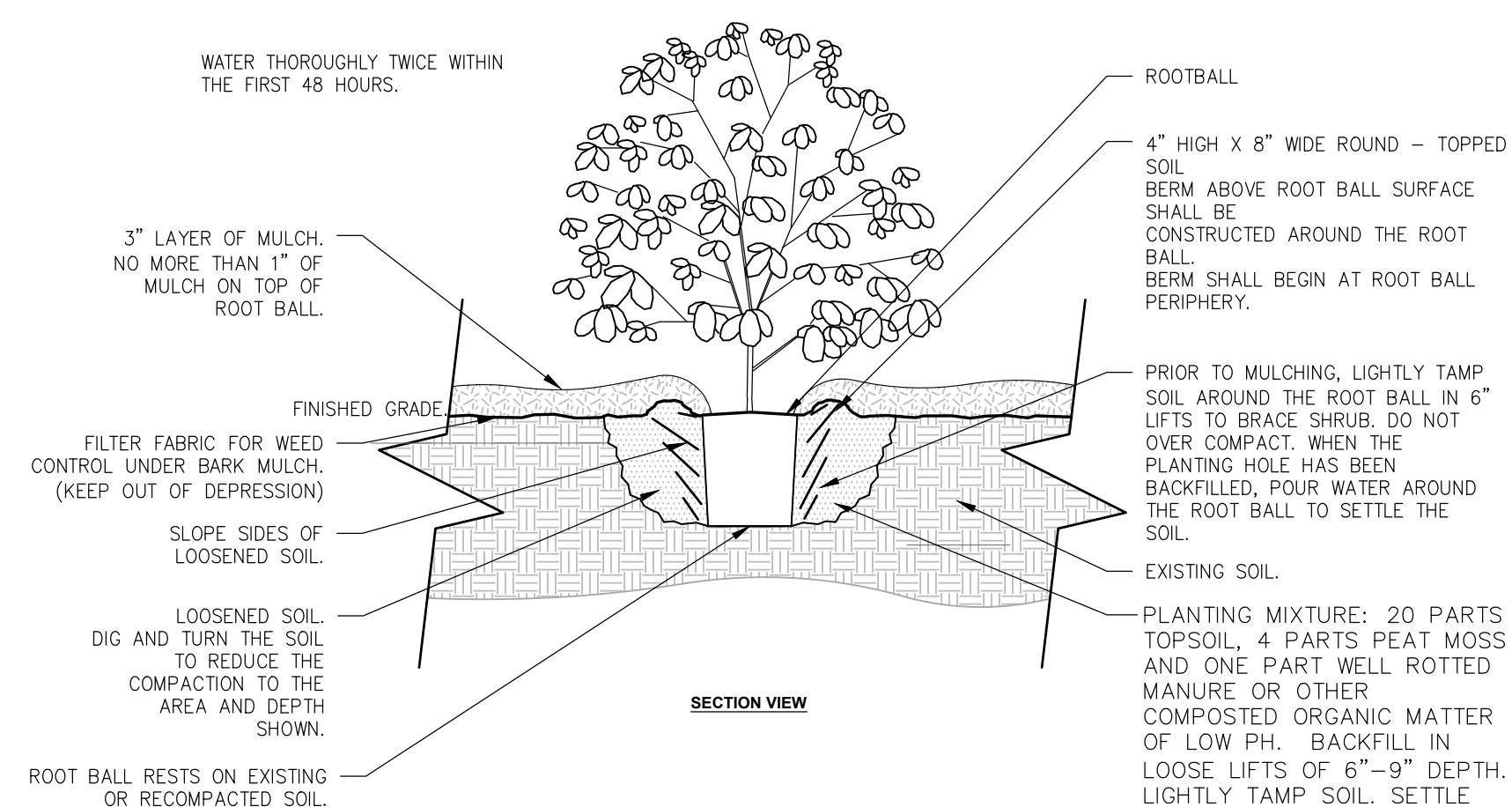
STANDARD DETAIL
OF
TREE
PLANTING
PORTSMOUTH, NEW HAMPSHIRE
DRAWING SCALE: NTS
March, 2019

PART 1 - GENERAL:

- THE BASE OF THE CITY OF PORTSMOUTH TREE PLANTING REQUIREMENTS IS THE ANSI A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPLANTING. ANSI A300 PART 6 LAYS OUT TERMS AND BASIC STANDARDS AS SET FORTH BY INDUSTRY BUT IT IS NOT THE "END ALL" FOR THE CITY OF PORTSMOUTH. THE FOLLOWING ARE THE CITY OF PORTSMOUTH, NH TREE PLANTING REQUIREMENTS THAT ARE IN ADDITION TO OR THAT GO BEYOND THE ANSI A300 PART 6.

PART 2 - EXECUTION:

- ALL PLANTING HOLES SHALL BE DUG BY HAND - NO MACHINES. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE NEW PLANTING PITS, PLANTING BEDS WITH GRANITE CURBING, AND PLANTING SITES WITH SILVA CELLS ARE BEING CREATED. IF A MACHINE IS USED TO DIG IN ANY OF THESE SITUATIONS AND PLANTING DEPTH NEEDS TO BE RAISED THE MATERIAL IN THE BOTTOM OF THE PLANTING HOLE MUST BE FIRMED WITH MACHINE TO PREVENT SINKING OF THE ROOT BALL.
- ALL WIRE AND BURLAP SHALL BE REMOVED FROM THE ROOT BALL AND PLANTING HOLE.
- THE ROOT BALL OF THE TREE SHALL BE WORKED SO THAT THE ROOT COLLAR OF THE TREE IS VISIBLE AND NO GIRDLING ROOTS ARE PRESENT.
- THE ROOT COLLAR OF THE TREE SHALL BE 2"-3" ABOVE GRADE OF PLANTING HOLE FOR FINISHING DEPTH.
- ALL PLANTINGS SHALL BE BACKFILLED WITH SOIL FROM THE SITE AND AMENDED NO MORE THAN 20% WITH ORGANIC COMPOST. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE ENGINEERED SOIL IS BEING USED IN CONJUNCTION WITH SILVA CELLS AND WHERE NEW PLANTING BEDS ARE BEING CREATED.
- ALL PLANTINGS SHALL BE BACKFILLED IN THREE LIFTS AND ALL LIFTS SHALL BE WATERED SO THE PLANTING WILL BE SET AND FREE OF AIR POCKETS - NO EXCEPTIONS.
- AN EARTH BERM SHALL BE PLACED AROUND THE PERIMETER OF THE PLANTING HOLE EXCEPT WHERE CURBED PLANTING BEDS OR PITS ARE BEING USED.
- 2"-3" OF MULCH SHALL BE PLACED OVER THE PLANTING AREA.
- AT THE TIME OF PLANTING IS COMPLETE THE PLANTING SHALL RECEIVE ADDITIONAL WATER TO ENSURE COMPLETE HYDRATION OF THE ROOTS, BACKFILL MATERIAL AND MULCH LAYER.
- STAKES AND GUYS SHALL BE USED WHERE APPROPRIATE AND/OR NECESSARY. GUY MATERIAL SHALL BE NON-DAMAGING TO THE TREE.
- ALL PLANTING STOCK SHALL BE SPECIMEN QUALITY, FREE OF DEFECTS, AND DISEASE OR INJURY. THE CITY OF PORTSMOUTH, NH RESERVES THE RIGHT TO REFUSE/REJECT ANY PLANT MATERIAL OR PLANTING ACTION THAT FAILS TO MEET THE STANDARDS SET FORTH IN THE ANSI A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPORTATION AND/OR THE CITY OF PORTSMOUTH, NH PLANTING REQUIREMENTS.



SHRUB PLANTING

NOT TO SCALE

SITE DEVELOPMENT PLANS

TAX MAP 267 LOT 8
LANDSCAPE DETAILS
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

1"=40' (11'X17')
SCALE: 1"=20' (22'X34') JANUARY 24, 2024

Seacoast Division



Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

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	CK	CR	CADFILE	45407-17_LANDSCAPE-PLAN	

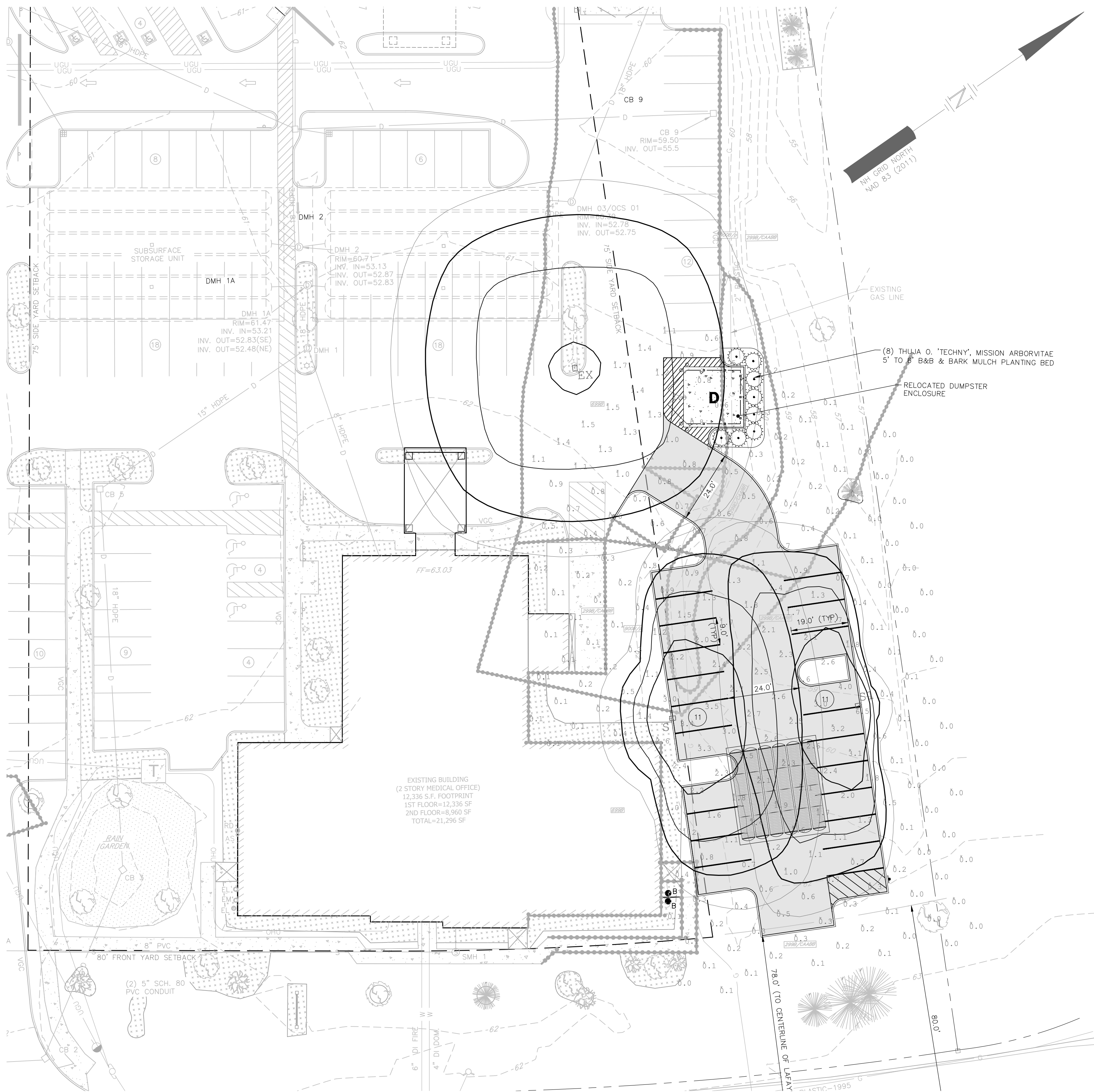
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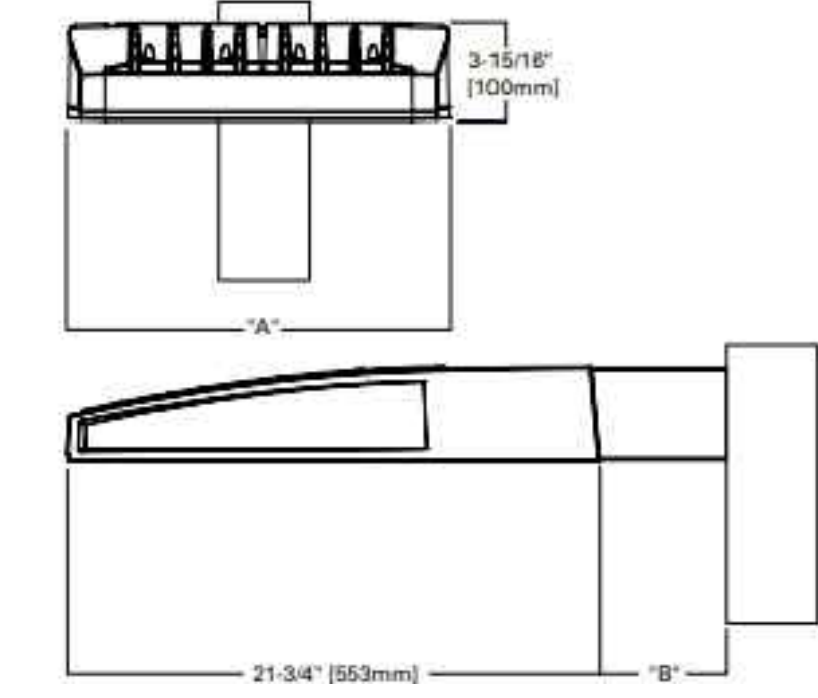
Oct 02, 2024 - 10:42am
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LUMINAIRE SCHEDULE				
SYMBOL	QTY	LABEL	ARRANGEMENT	DESCRIPTION
	1	S	SINGLE	GLEON-SA2A-740-U-T3 / 20' AFG
	1	S1	SINGLE	GLEON-SA2A-740-U-SL3-HSS / 20' AFG
	1	EX	SINGLE	EXISTING FIXTURE ON 20' POLE

PARKING LOT
ILLUMINANCE (FC)
AVERAGE = 2.02
MAXIMUM = 6.5
MINIMUM = 0.6
AVG/MIN RATIO = 3.37
MAX/MIN RATIO = 10.83

Dimensional Details



Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length ¹	"B" QM Arm Length	"B" OML Length	"B" OMEA Length
1-4	15'-1/2"	7'	10'	10'-5/8"	-	16'-9/16"
5-6	21'-5/8"	7'	10'	10'-5/8"	-	16'-9/16"
7-8	27'-5/8"	7'	13'	10'-5/8"	10'-5/16"	-
9-10	33'-3/4"	7'	16'	-	10'-5/16"	-

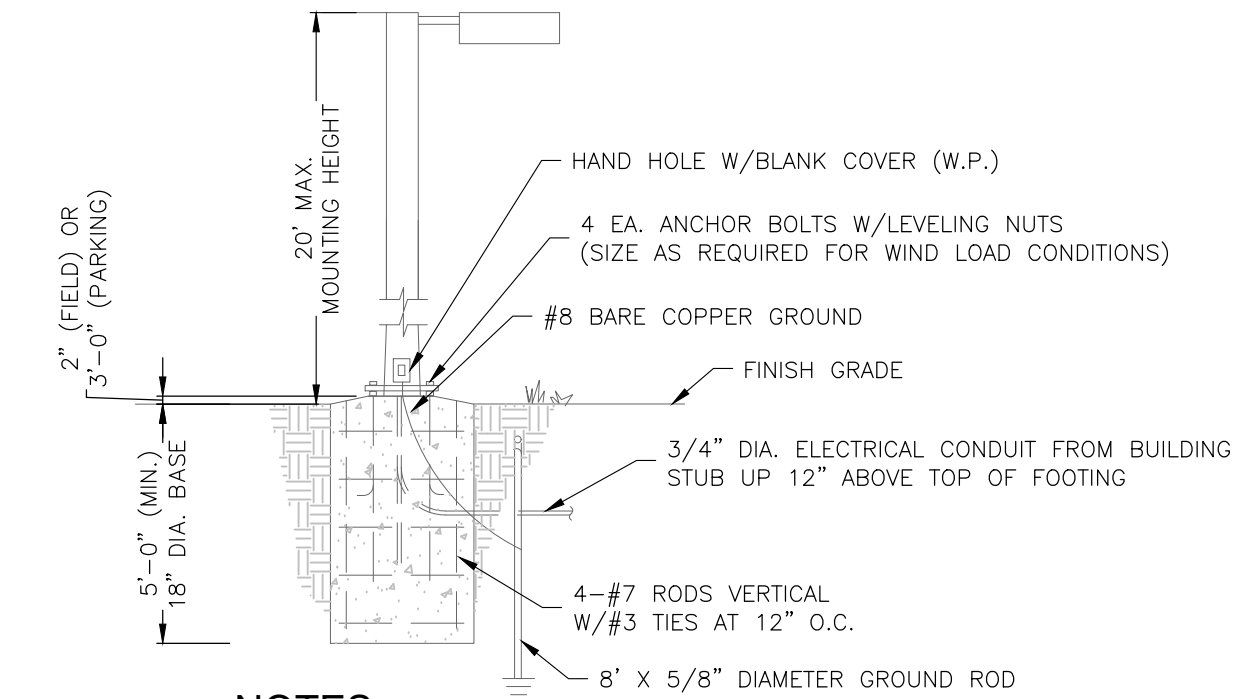
NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

NOTES

- ALL FIXTURES SHALL BE LED FIXTURES MEETING FULL CUT-OFF, DARK-SKY COMPLIANCE.
- ALL EXTERIOR CONDUITS FOR LIGHTING SHALL BE A MINIMUM 1 1/2" DIAMETER SCHEDULE 40 PVC. ALL CONDUITS UNDER ROADWAYS AND PARKING AREAS SHALL HAVE MINIMUM COVER OF 24 INCHES.
- ALL UNDERGROUND CONDUITS WILL HAVE NYLON PULL ROPE.
- ALL WORK SHALL MEET REQUIREMENTS OF NATIONAL ELECTRIC CODE.
- ALL POLE MOUNTED LIGHT FIXTURES SHALL BE RECESSED TO SHIELD THE ILLUMINATION SOURCE FROM THE VIEW OF ADJUTING PROPERTIES.
- LUMINAIRES AND FIXTURE MOUNTING HEIGHT SHALL BE SET AT A MAXIMUM OF A 20 FEET HIGH (SEE LUMINAIRE SCHEDULE).
- PROVIDE SHIMS AS REQUIRED AND SET ALL POLES PLUMB. PROVIDE FULL ANCHOR BOLT COVERS.
- POLES SHALL BE FACTORY CUT AS REQUIRED TO PROVIDE REQUIRED FIXTURE MOUNTING HEIGHT.
- ALL LIGHT BASES TO BE SQUARE.
- LIGHTING DESIGN, CALCULATIONS AND PHOTOMETRICS PROVIDED BY CHARRON, INC.



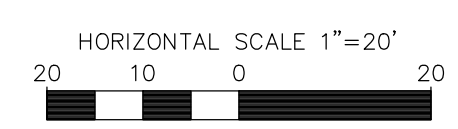
**McGRAW-EDISON
GLEON GALLEON
POLE FIXTURE**



NOTES

- BASE SHOWN IS PROTOTYPICAL. VERIFY THAT LIGHT POLE BASE INSTALLED MEETS LIGHT POLE MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH ELECTRICAL CONTRACTOR.
- WHERE LIGHT POLE BASES ARE PLACED IN AREAS NOT PROTECTED BY CURBING, A 3'-0" REVEAL OF BASE IS REQUIRED WITH REVEAL TO BE PAINTED SAFETY YELLOW. WHERE LIGHT POLE BASES ARE PLACED IN FIELD APPLICATIONS OR PROTECTED BY CURBING, THE BASE IS TO BE PLACED 2" ABOVE FINISHED GRADE.
- BASE CONCRETE TO BE 4,000 PSI, SMOOTH FINISH.
- POLES SHALL BE FACTORY CUT TO PROVIDE REQUIRED MOUNTING HEIGHTS.
- POLES AND LIGHT FIXTURES TO BE BRONZE.

LIGHT POLE BASE
NOT TO SCALE



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SITE DEVELOPMENT PLANS
TAX MAP 267 LOT 8
LIGHTING PLAN
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
OWNED BY & PREPARED FOR
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1"=40' (11"X17')
SCALE: 1"=20' (22"X34') **JANUARY 24, 2024**

Seacoast Division	Civil Engineers Structural Engineers Traffic Engineers Land Surveyors Landscape Architects Scientists	170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com
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FILE NO. 45407.17	DR JKC CK CRR	FB CADFILE	45407-17 LIGHTING	C-08
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SOIL CHARACTERISTICS

THE SOIL IN THE VICINITY OF THE SITE CONSIST OF UDORTHENTS (SMOOTHED) AND URBAN LAND, THE MAJORITY OF THE SOIL IS HSG TYPE B.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 13,510 SQUARE FEET (0.311 ACRES).

CRITICAL NOTE: THIS DRAWING IS PROVIDED FOR GENERAL GUIDANCE. ALL SPECIAL EROSION CONTROL MEASURES MUST BE EXECUTED IN ACCORDANCE WITH APPLICABLE CURRENT STATE AND LOCAL REGULATIONS, APPROVED SWPPP, AND PERMIT REQUIREMENTS.

SEQUENCE OF MAJOR ACTIVITIES

- 1. INSTALL PERIMETER CONTROLS, STABILIZED CONSTRUCTION ENTRANCE, AND TEMPORARY EROSION CONTROL MEASURES PER APPROVED SITE DEVELOPMENT PLANS, PERMITS, OR SWPPP IF REQUIRED, PRIOR TO EARTH MOVING OPERATIONS.
2. DEMOLISH EXISTING SITE WORK DESIGNATED FOR REMOVAL.
3. INSTALL STORMWATER TREATMENT PONDS AND SWALES BEFORE ROUGH GRADING OF THE SITE.
4. COMPLETE MAJOR GRADING OF SITE.
5. CONSTRUCT PARKING AREAS.
6. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND SITE IS STABILIZED, REMOVE ALL INLET PROTECTION, SILT BARRIERS, AND SEDIMENT THAT HAS BEEN TRAPPED BY THESE DEVICES.
7. CONSULT APPLICABLE REGULATIONS, PERMITS, AND CONDITIONS.

EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES AND DISTURBED AREAS WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR MORE THAN TWENTY ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

- 1. BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2, HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT BARRIERS. ALL STORM DRAIN INLETS SHALL BE PROVIDED WITH BARRIER FILTERS. STONE RIPRAP SHALL BE PROVIDED AT THE OUTLETS OF DRAINAGE PIPES WHERE ERODIVE VELOCITIES ARE ENCOUNTERED.

OFF SITE VEHICLE TRACKING

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED.

INSTALLATION, MAINTENANCE, AND INSPECTION OF EROSION AND SEDIMENT CONTROLS

A. GENERAL

THESE ARE THE GENERAL INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO IMPLEMENT THE PLAN.

- 1. STABILIZATION OF ALL SWALES, DITCHES, AND PONDS IS REQUIRED PRIOR TO DIRECTING FLOW TO THEM.
2. THE SMALLEST PRACTICAL PORTION OF THE SITE WILL BE DENUDE AT ONE TIME. (5 AC MAX)
3. ALL CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH APPLICABLE REGULATIONS, PERMITS, AND CONDITIONS AND AT LEAST EVERY 7 DAYS OR EVERY 14 DAYS AND AFTER A 0.25 INCHES RAIN EVENT OR GREATER.
4. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
5. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT BARRIER WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF THE BARRIER.
6. ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
7. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY GROWTH.
8. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
9. THE CONTRACTOR'S SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE, AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

B. FILTERS / BARRIERS

- 1. SILT SOCKS
A. KNOTTED MESH NETTING MATERIAL SHALL BE DELIVERED TO SITE IN A 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" MATERIAL, FILLED WITH COMPOST CONFORMING TO THE FOLLOWING REQUIREMENTS:
PHYSICAL PROPERTY TEST REQUIREMENTS
PH TMECC 04.11-A 5.0 TO 8.0
PARTICLE SIZE TMECC 02.02-B 2" SIEVE AND MIN. 60% GREATER THAN THE #8 SIEVE
MOISTURE CONTENT STND TESTING < 60%
MATERIAL SHALL BE RELATIVELY FREE OF INERT OR FOREIGN MAN-MADE MATERIALS
MATERIAL SHALL BE WEED FREE AND DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, FREE FROM ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH.
B. SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK SHALL BE REMOVED ONCE IT HAS REACHED 1/3 OF THE EXPOSED HEIGHT OF THE SILT SOCK.
C. SILT BARRIER SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAS BEEN PERMANENTLY STABILIZED.

SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.

- 3. MAINTENANCE
A. SILT BARRIERS SHALL BE INSPECTED WEEKLY AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
B. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
C. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) THE HEIGHT OF THE BARRIER.
D. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFIRM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

C. MULCHING

1. TIMING

IN ORDER FOR MULCH TO BE EFFECTIVE, IT MUST BE IN PLACE PRIOR TO MAJOR STORM EVENTS. THERE ARE TWO (2) TYPES OF STANDARDS WHICH SHALL BE USED TO ASSURE THIS:

- A. APPLY MULCH PRIOR TO ANY STORM EVENT.

THIS IS APPLICABLE WHEN WORKING WITHIN 100' OF WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS, USUALLY BY CONTACTING THE NATIONAL WEATHER SERVICE, TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.

- B. REQUIRED MULCHING WITHIN A SPECIFIED TIME PERIOD.

THE TIME PERIOD CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY ON AN AREA, WHERE THE LENGTH OF TIME VARIES WITH SITE CONDITIONS. PROFESSIONAL JUDGMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL ERODIBILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE TIME RESTRICTION.

2. GUIDELINES FOR WINTER MULCH APPLICATION.

WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 6,000 POUNDS OF HAY OR STRAW PER ACRE. A TACKIFIER MAY BE ADDED TO THE MULCH.

3. MAINTENANCE

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED.

D. VEGETATIVE PRACTICE

- 1. AFTER ROUGH GRADING OF THE SUBGRADE HAS BEEN COMPLETED AND APPROVED, THE SUB GRADE SURFACE SHALL BE SCARIFIED TO A DEPTH OF 4", THEN, FURNISH AND INSTALL A LAYER OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE PLANS. ANY DEPRESSIONS WHICH MAY OCCUR DURING ROLLING SHALL BE FILLED WITH ADDITIONAL LOAM, REGRADED AND REROLLED UNTIL THE SURFACE IS TRUE TO THE FINISHED LINES AND GRADES. ALL LOAM NECESSARY TO COMPLETE THE WORK UNDER THIS SECTION SHALL BE SUPPLIED BY THE SITE SUBCONTRACTOR.

- 2. ALL LARGE STIFF CLOUDS, LUMPS, BRUSH, ROOTS, DEBRIS, GLASS, STUMPS, LITTER, AND OTHER FOREIGN MATERIAL, AS WELL AS STONES OVER 1" IN DIAMETER, SHALL BE REMOVED FROM THE LOAM AND DISPOSED OF OFF SITE. THE LOAM SHALL BE RAKED SMOOTH AND EVEN.

- 3. THE LOAM SHALL BE PREPARED TO RECEIVE SEED BY REMOVING STONES, FOREIGN OBJECTS AND GRADING TO ELIMINATE WATER POCKETS AND IRREGULARITIES PRIOR TO PLACING SEED. FINISH GRADING SHALL RESULT IN STRAIGHT UNIFORM GRADES AND SMOOTH, EVEN SURFACES WITHOUT IRREGULARITIES TO LOW POINTS.

- 4. SHAPE THE AREAS TO THE LINES AND GRADES REQUIRED. THE SITE SUBCONTRACTOR'S ATTENTION IS DIRECTED TO THE SCHEDULING OF LOAMING AND SEEDING OF GRADED AREAS TO PERMIT SUFFICIENT TIME FOR THE STABILIZATION OF THESE AREAS. IT SHALL BE THE SITE SUBCONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE AREAS DURING THE CONSTRUCTION PERIOD AND REGRADE, LOAM AND RESEED ANY DAMAGED AREAS.

- 5. ALL AREAS DISTURBED BY CONSTRUCTION WITHIN THE PROPERTY LINES AND NOT COVERED BY STRUCTURES, PAVEMENT, OR MULCH SHALL BE LOAMED AND SEEDED.

- 6. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF 2 TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5.

- 7. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 500 POUNDS PER ACRE OF 10-20-20 FERTILIZER.

- 8. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4 1/2 POUNDS AND 5 1/2 POUNDS PER INCH OF WIDTH.

- 9. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN, IMMEDIATELY BEFORE SEEDING. THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4" AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH.

- 10. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AT A RATE OF 1.5 TO 2 TONS PER ACRE. MULCH THAT BLOWS OR WASHES AWAY SHALL BE REPLACED IMMEDIATELY AND ANCHORED USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.

- 11. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEED, AND ALL NOXIOUS WEEDS REMOVED.

- 12. THE SITE SUBCONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED, INCLUDING CUTTING, AS SPECIFIED HEREIN AFTER UNDER MAINTENANCE AND PROTECTION.
13. UNLESS OTHERWISE APPROVED, SEEDING SHALL BE DONE DURING THE APPROXIMATE PERIODS OF EARLY SPRING TO SEPTEMBER 30, WHEN SOIL CONDITIONS AND WEATHER ARE SUITABLE FOR SUCH WORK. IN NO CASE SHALL THE WEED CONTENT EXCEED 1 PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. FOR TEMPORARY PLANTINGS AFTER SEPTEMBER 30, TO EARLY SPRING AND FOR TEMPORARY PROTECTION OF DISTURBED AREAS:
A. FOLLOW ABOVE SLOPE, LOAM DEPTH AND GRADING REQUIREMENTS.
B. FERTILIZER SHALL BE SPREAD AND WORKED INTO THE SURFACE AT A RATE OF 500 POUNDS PER ACRE.

MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:
WINTER RYE (FALL SEEDING) 2.5 LBS/1,000 SF
OATS (SPRING SEEDING) 2.0 LBS/1,000 SF
MULCH 1.5 TONS/ACRE

E. CATCH BASIN INLET PROTECTION

1. INLET BASKET STRUCTURE

- A. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY PRIOR TO DISTURBING PAVEMENT AND SHALL REMAIN IN PLACE AND MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.

- B. MOLD 6X6, 42 LB. WIRE SUPPORT AROUND INLET FRAME AND GRATE AND EXTEND 6" BEYOND SIDES. SECURE FILTER FABRIC TO WIRE SUPPORT.

- C. THE FILTER FABRIC SHALL BE A GEOTEXTILE FABRIC; POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS:

GRAB STRENGTH: 45 LB. MINIMUM IN ANY PRINCIPAL DIRECTION (ASTM D1682)
MULLEN BURST STRENGTH: MIN. 60PSI (ASTM D774)

- D. THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 GPM.

- E. THE INLET PROTECTION SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.

- F. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

F. WINTER CONSTRUCTION SEQUENCE

- 1. ALL PROPOSED POST-DEVELOPMENT LANDSCAPED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1 AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENT.

- 2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

- 3. AFTER OCTOBER 15TH, INCOMPLETE PARKING AREAS WHERE ACTIVE CONSTRUCTION HAS STOPPED FOR THE WINTER ALL TRAVEL SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOWFALL AFTER EACH STORM EVENT.

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, SILT BARRIERS SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT BARRIERS AND ANY EARTH/DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.

FOR SINGLE/DUPLICATION FAMILY SUBDIVISIONS, WHEN LOT DEVELOPMENT IS NOT PART OF THE PERMIT, THEN LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

WASTE DISPOSAL

- 1. WASTE MATERIALS
ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN A DUMPSTER. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ON SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.

- 2. HAZARDOUS WASTE
ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.

- 3. SANITARY WASTE
ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

SPILL PREVENTION

- 1. MATERIAL MANAGEMENT PRACTICES
THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:

GOOD HOUSEKEEPING: THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:

- A. AN EFFORT WILL BE MADE TO STORE ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB.
B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
C. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
D. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
E. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
F. WHENEVER POSSIBLE ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.

HAZARDOUS PRODUCTS: THE FOLLOWING PRACTICES WILL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

- A. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
B. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.
C. SURPLUS PRODUCT THAT MUST BE DISPOSED OF WILL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.

- 2. PRODUCT SPECIFICATION PRACTICES
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:

PETROLEUM PRODUCTS: ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS: FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS: CONCRETE TRUCKS WILL DISCHARGE AND WASH OUT SURPLUS CONCRETE OR DRUM WASH WATER IN A CONTAINED AREA DESIGNATED ON SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

- A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

- B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

- C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

- D. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

- E. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

- F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEANUP THE SPILL IF IT RECURS. A DESCRIPTION OF THE SPILL, ITS CAUSE, AND THE CLEANUP MEASURES WILL BE INCLUDED.

- G. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

DUST CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL METHODS SHALL INCLUDE, BUT NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.

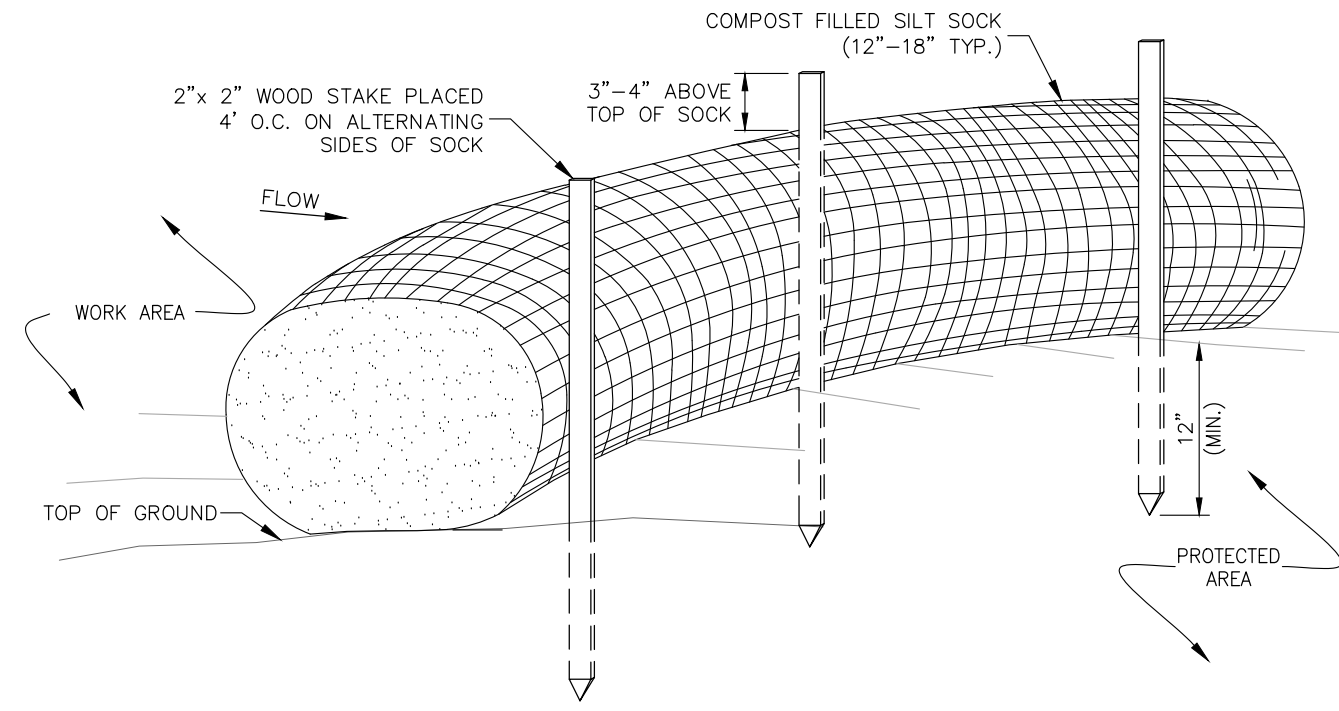
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Table with 5 columns: REV, DATE, DESCRIPTION, DR, CK. Row 1: 4, 10/01/2024, NO REVISIONS THIS SHEET, JJM. Row 2: 3, 9/17/2024, NO REVISIONS THIS SHEET, JJM. Row 3: 2, 9/9/2024, NO REVISIONS THIS SHEET, JJM. Row 4: 1, 7/31/2024, REVISED TITLE BLOCK, BCH, JJM. Row 5: REV, DATE, DESCRIPTION, DR, CK.



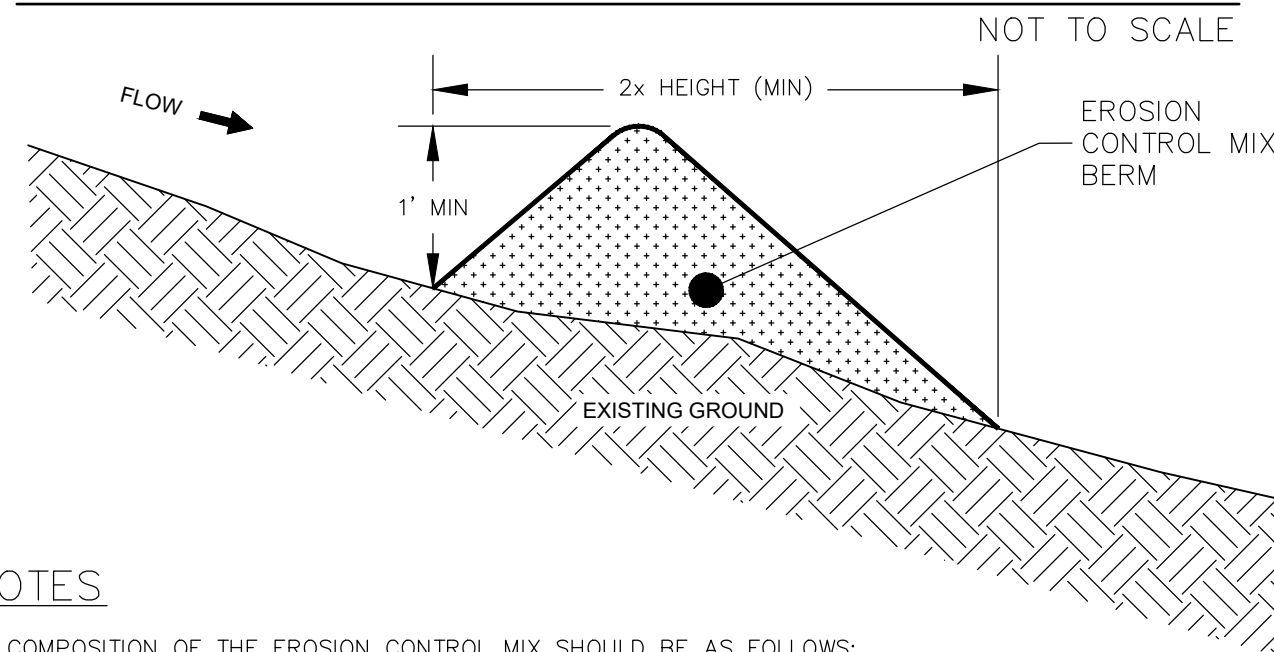
SITE DEVELOPMENT PLANS
TAX MAP 267 LOT 8
EROSION CONTROL NOTES
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC
SCALE: NTS JANUARY 24, 2024
Seacoast Division
TFM logo
Civil Engineers, Structural Engineers, Traffic Engineers, Land Surveyors, Landscape Architects, Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com
File 45407.17 DR JKC FB CK CRR CADFILE 45407-17_EROSION-CTR_NOTES C-09



NOTES

- SILT SOCK SHALL BE FILTREXXSM SILT SOCKSM OR APPROVED EQUIVALENT.
- SEE SPECIFICATIONS FOR SOCK SIZE AND COMPOST FILL REQUIREMENTS.
- SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED AS NEEDED.
- COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.

SILT SOCK

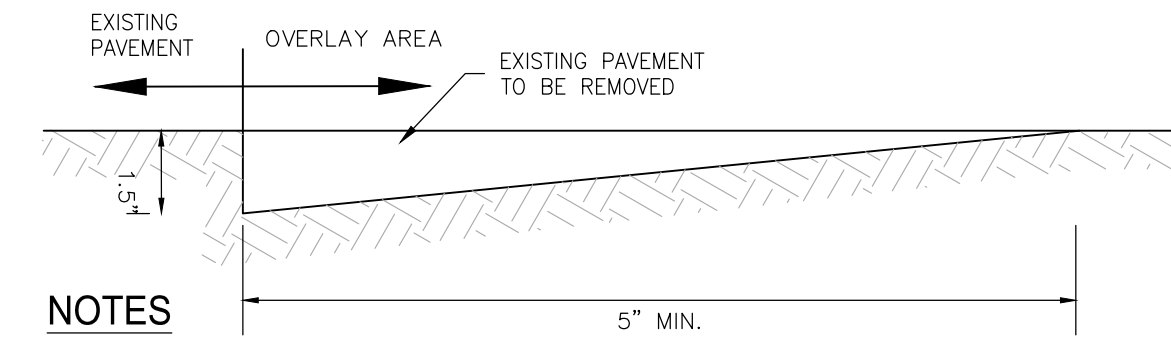


NOTES

- COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS:
 - EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHOULD MEET THE FOLLOWING STANDARDS:
 - THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 25% AND 65% DRY WEIGHT BASIS.
 - PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 3" SCREEN, 90% TO 100% PASSING A 1" SCREEN, 70% TO 100% PASSING A 3/4" SCREEN, AND A MAXIMUM OF 30% TO 75% PASSING A 1/4" SCREEN.
 - THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
 - THE MIX SHOULD NOT CONTAIN SILTS, CLAYS OR FINE SANDS.
 - SOLUBLE SALTS CONTENT SHOULD BE < 4.0 mmhos/cm.
 - THE pH SHOULD BE BETWEEN 5.0 AND 8.0.
- THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
- THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF TWO FEET WIDE.

EROSION CONTROL MIX BERM

NOT TO SCALE

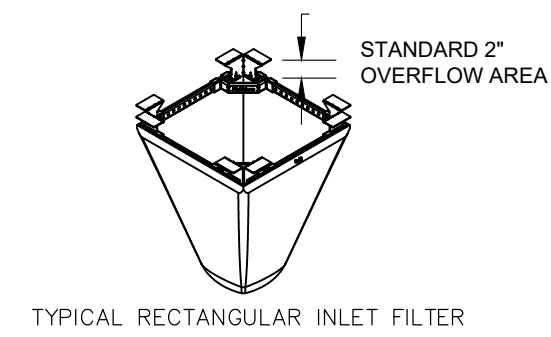


NOTES

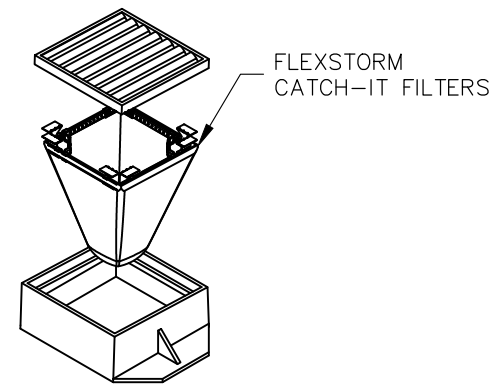
- USE KEY JOINT AT ALL LOCATIONS WHERE OVERLAY MEETS EXISTING PAVEMENT OR CONCRETE.
- NEW PAVEMENT SHALL BE FLUSH WITH EXISTING PAVEMENT AND SHALL MEET OVERLAY GRADE WHERE IT ABUTS EXISTING PAVEMENT TO BE OVERLAYED.

KEY JOINT

NOT TO SCALE



TYPICAL RECTANGULAR INLET FILTER



FLEXSTORM CATCH-IT FILTERS

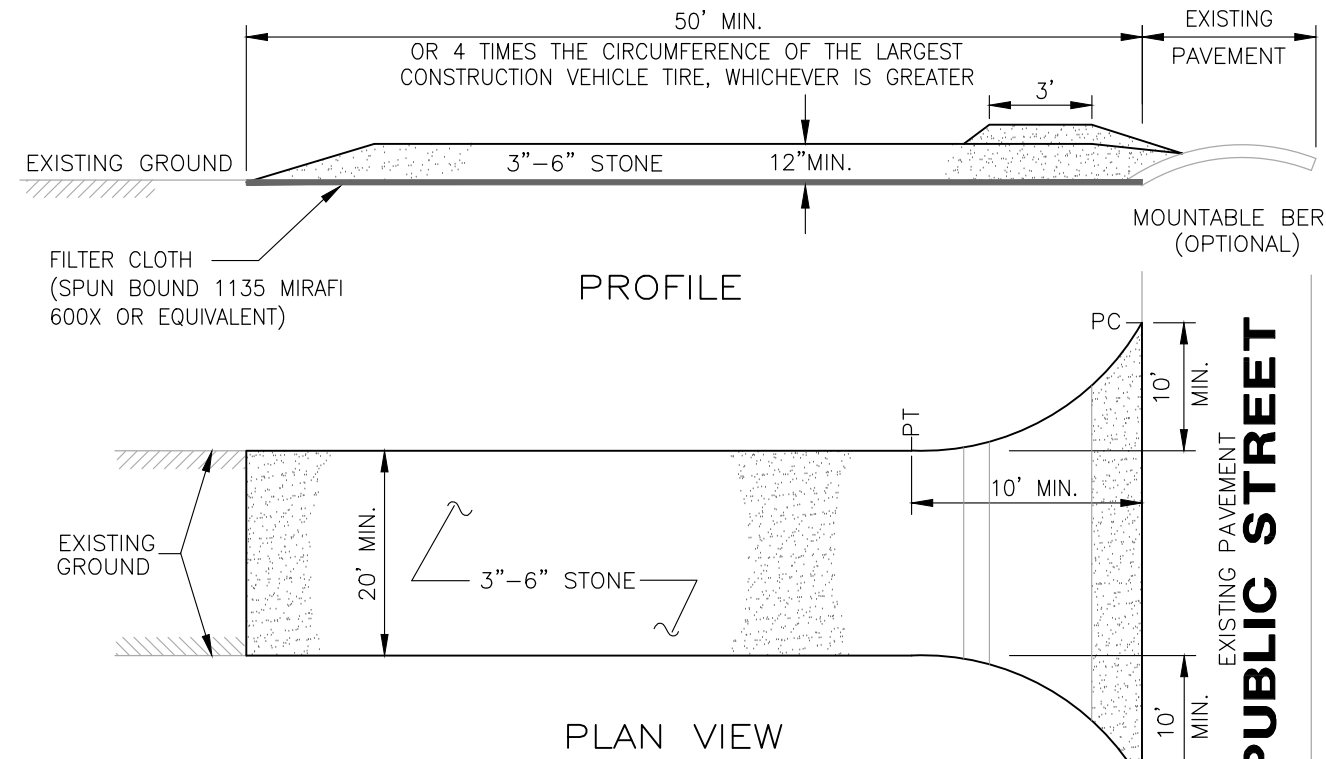
NOTES:

- INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT > 1/4".
- EMPTY THE SEDIMENT BAG PER MANUFACTURER'S SPECIFICATIONS.
- REMOVED CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM SPRAY WITH OPTIMAL FILTRATION.
- REPLACE BAG IF TORN OR PUNCTURED TO > 1/4" DIAMETER ON LOWER HALF OF BAG.

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC. A DIVISION OF ADS, INC. WWW.INLETFILTERS.COM (866) 287-8655 INFO@INLETFILTERS.COM

INLET PROTECTION

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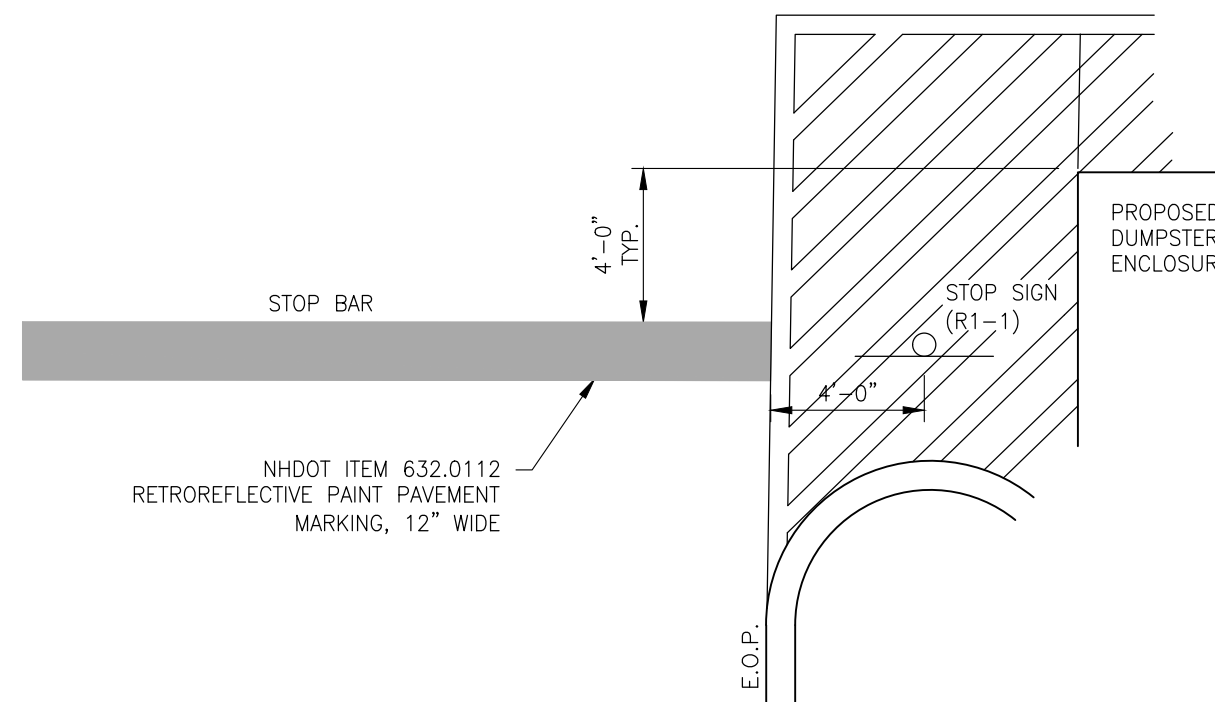


NOTES

- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE SURFACE.
- WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH 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.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN STORM EVENT.

STABILIZED CONSTRUCTION ENTRANCE

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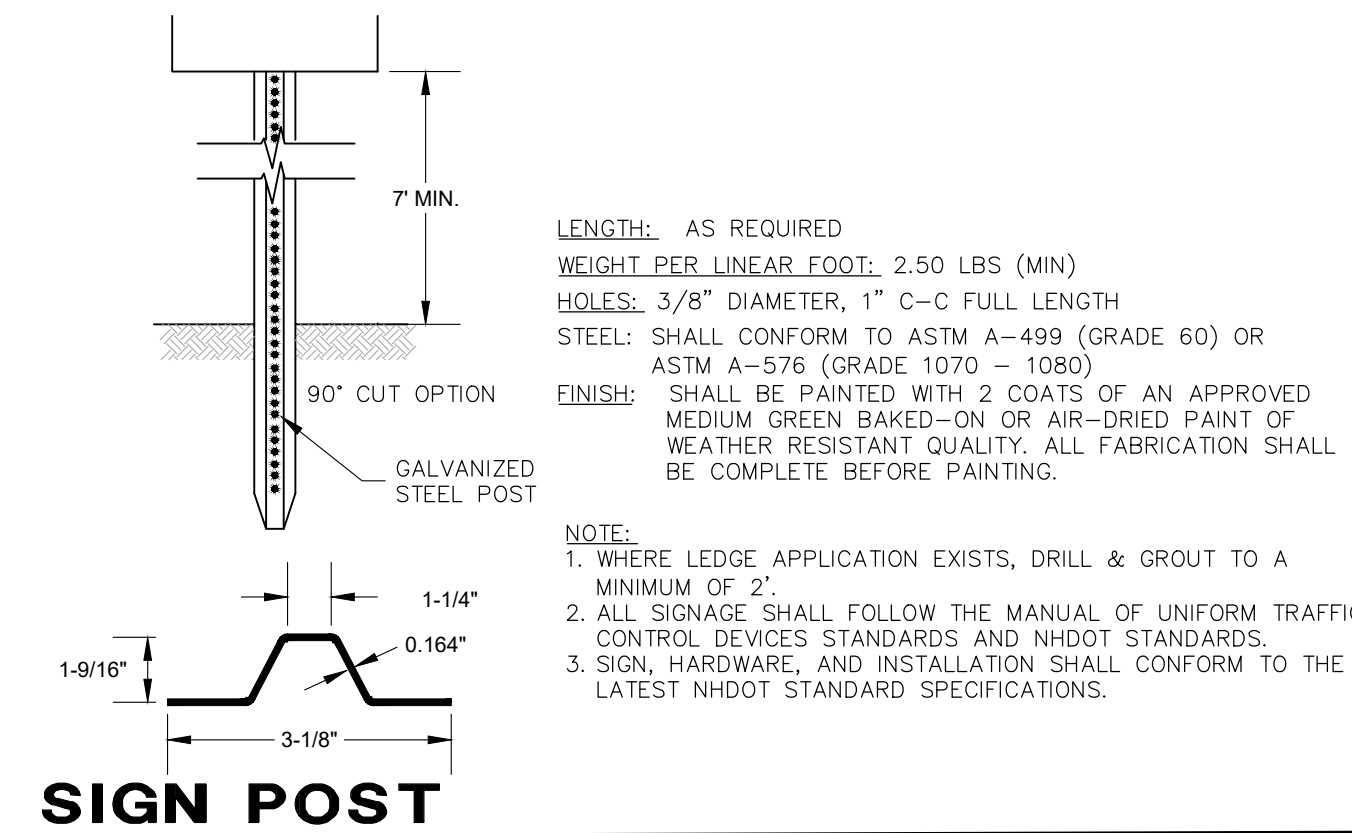


STOP BAR & STOP SIGN

NOT TO SCALE

NOTE

- STOP SIGN TO BE 30" WIDE X 30" HIGH.
- REFER TO THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS.

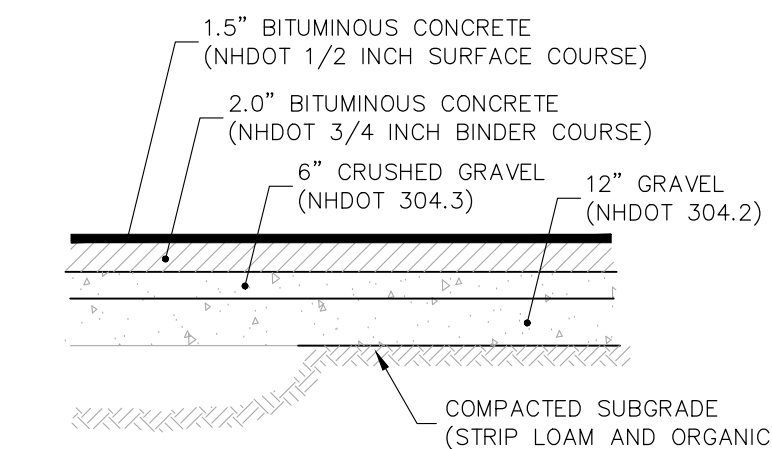


SIGN POST

NOT TO SCALE

- LENGTH: AS REQUIRED
 WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN)
 HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH
 STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070 - 1080)
 FINISH: SHALL BE PAINTED WITH 2 COATS OF AN APPROVED MEDIUM GREEN BAKED-ON OR AIR-DRIED PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.

- NOTE:**
- WHERE LEDGE APPLICATION EXISTS, DRILL & GROUT TO A MINIMUM OF 2".
 - ALL SIGNAGE SHALL FOLLOW THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES STANDARDS AND NHDOT STANDARDS.
 - SIGN, HARDWARE, AND INSTALLATION SHALL CONFORM TO THE LATEST NHDOT STANDARD SPECIFICATIONS.

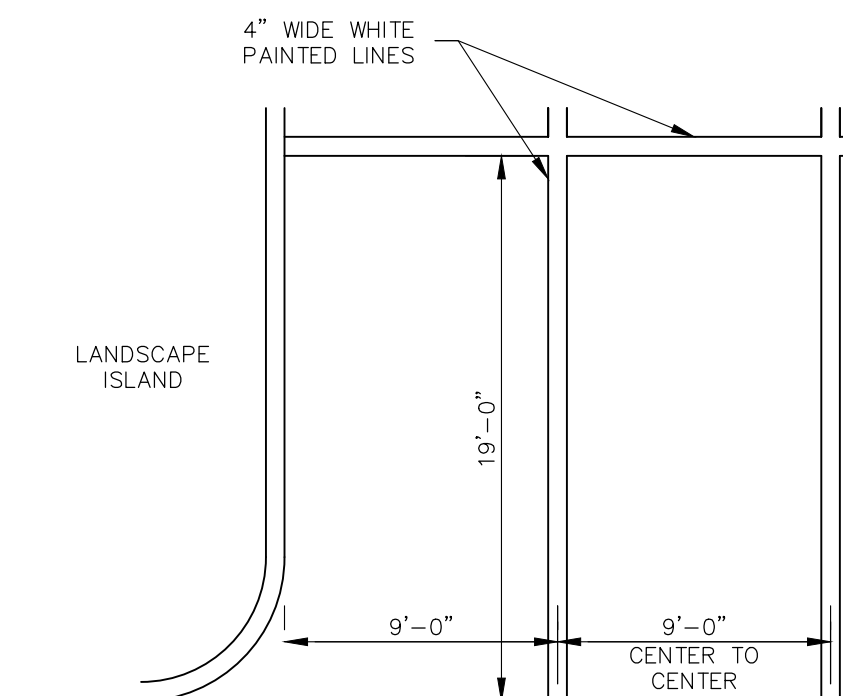


PAVEMENT SECTION

NOT TO SCALE

NOTES

- SEE GRADING & EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
- PROVIDE CLEAN BUTT TO EXISTING PAVEMENT- USE TACK COAT. A TACK COAT SHALL ALSO BE PLACED BETWEEN GRAVEL COURSE AND SUCCESSIVE LAYERS OF BITUMINOUS CONCRETE. SPECIFICALLY, A TACK COAT SHALL BE PLACED ATOP THE BINDER COURSE PAVEMENT PRIOR TO PLACING THE WEARING COURSE.
- REMOVE ALL LOAM AND/OR YIELDING MATERIAL BELOW PAVEMENT.
- BITUMINOUS MATERIALS SHALL CONFORM TO NHDOT SPECIFICATION SECTION 401.
- BITUMINOUS CONCRETE SHALL BE COMPACTED TO AT LEAST 92.5% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D2041 OR AASHTO T209. PLACEMENT TEMPERATURES OF BITUMINOUS CONCRETE MIXES, IN GENERAL, RANGE BETWEEN 270 AND 310 DEGREES FAHRENHEIT.
- PAVEMENT BASE COURSE AGGREGATE SHALL CONFORM TO NHDOT SPECIFICATION SECTION 304, ITEM 304.3 AND COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.
- PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOF ROLLED AND COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY.
- THE EXPOSED SOIL SUBGRADE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SUBBASE GRAVEL, AND SOFT AREAS SHOULD BE REPAIRED AND REPLACED.
- ALL PARKING SPACES SHALL BE STANDARD DUTY. ALL OTHER LOCATIONS SHALL BE HEAVY DUTY.

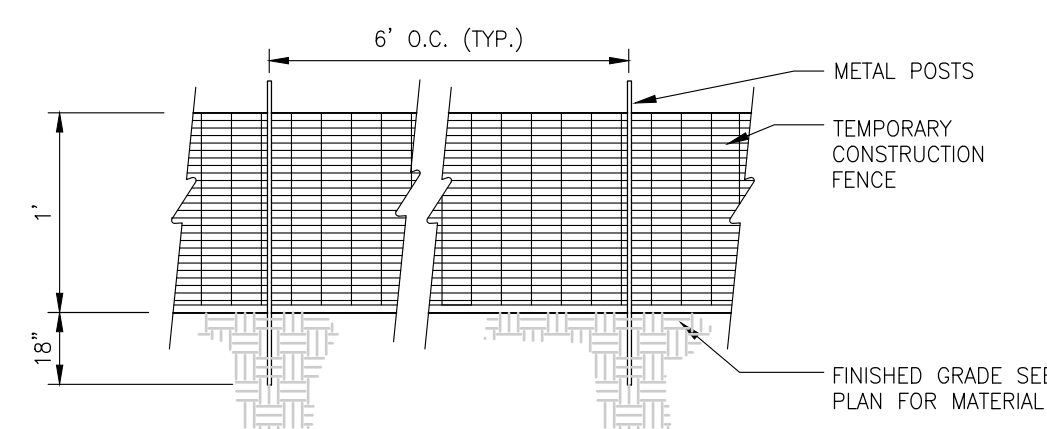


NOTE

- TRAFFIC PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER AND SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F". APPLY TWO COATS.
- SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT, LATEST EDITION.
- ALL PAINTED ISLANDS SHALL BE 4" WIDE DIAGONAL LINES AT 3'-0" OC BORDERED BY 4" WIDE LINES.
- 2% MAXIMUM CROSS SLOPE ALLOWED IN ACCESSIBLE PARKING SPACES AND ACCESS AISLES.

TYPICAL PARKING LAYOUT

NOT TO SCALE

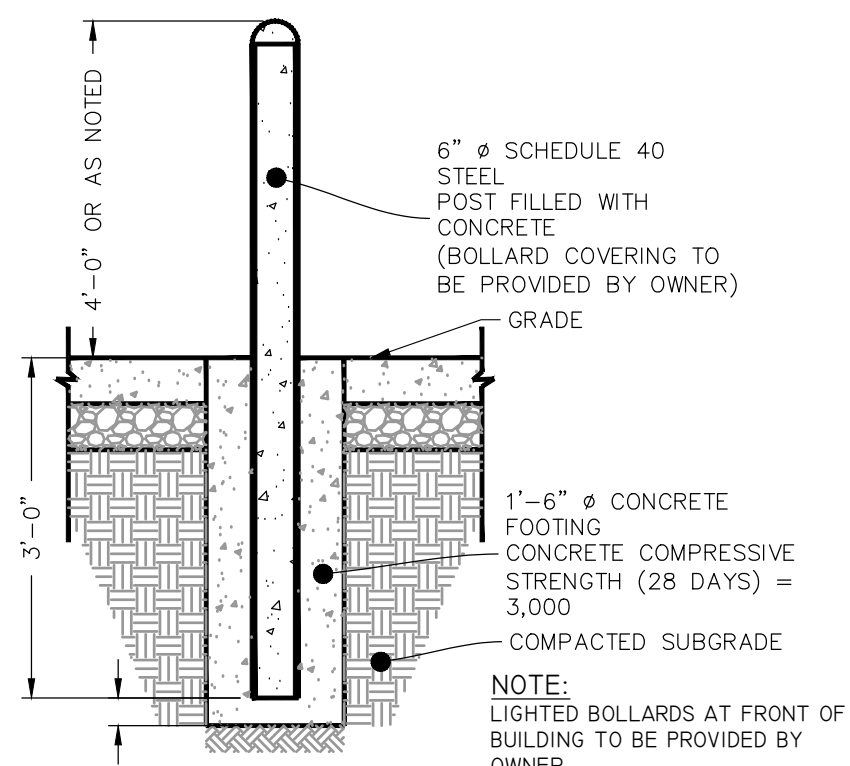


NOTE:

- CONSTRUCTION FENCE TO BE "VISUAL BARRIER FENCE" AS MANUFACTURED BY EXXON CHEMICAL COMPANY ATLANTA, GA; "KONTROL SAFETY FENCE" AS MANUFACTURED BY MIRAFI, CHARLOTTE, N.C. OR APPROVED EQUAL.

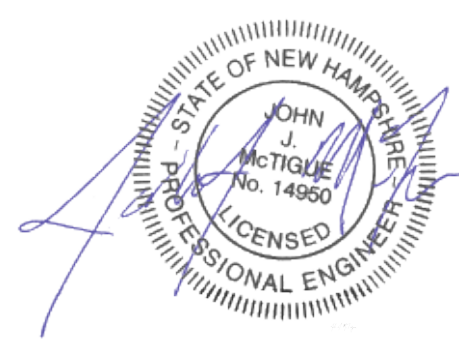
TEMPORARY CONSTRUCTION FENCE

NOT TO SCALE



BOLLARD DETAIL

NOT TO SCALE



SITE DEVELOPMENT PLANS

TAX MAP 267 LOT 8
DETAIL SHEET 1
PROPOSED PARKING EXPANSION
 1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

SCALE: NTS

JANUARY 24, 2024

Seacoast Division

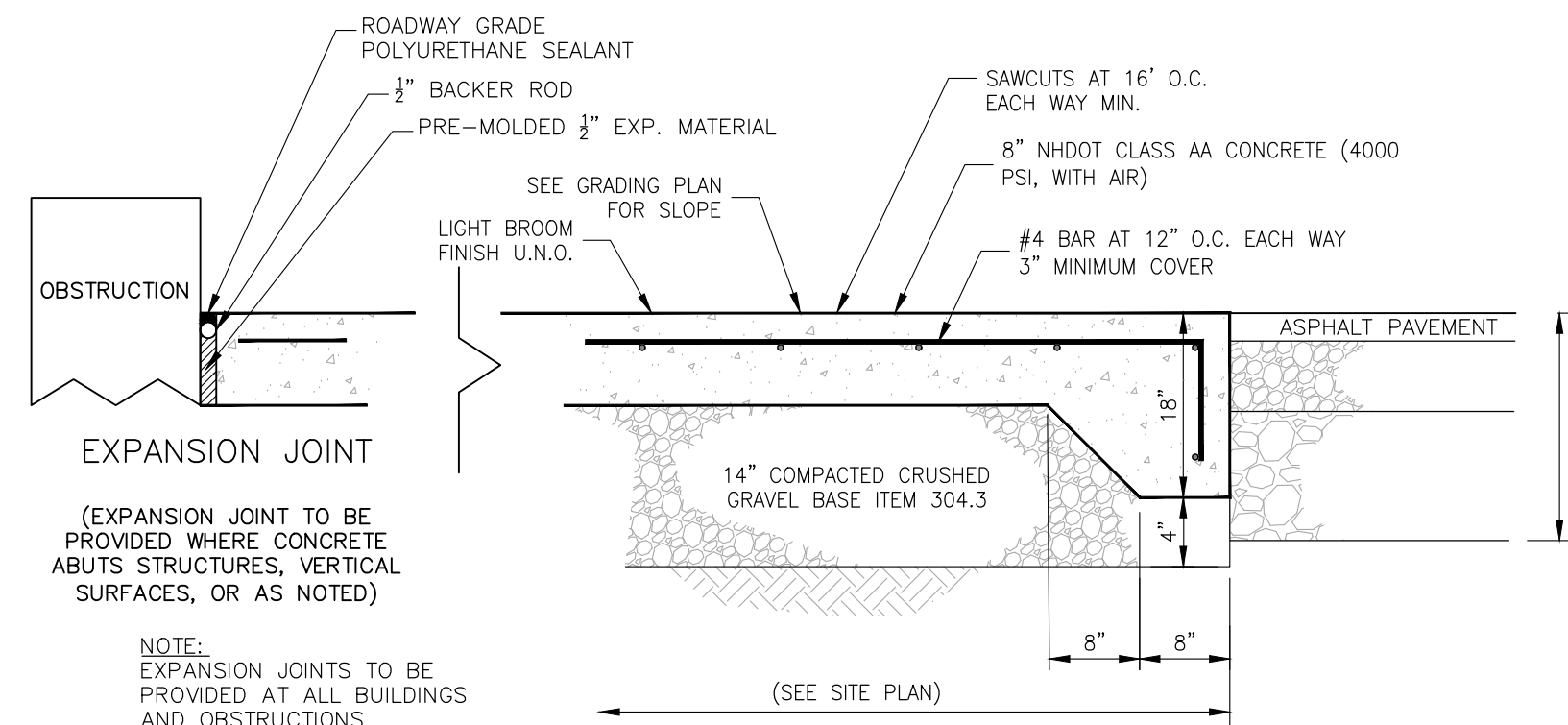


Civil Engineers
 Structural Engineers
 Traffic Engineers
 Land Surveyors
 Landscape Architects
 Scientists

170 Commerce Way, Suite 102
 Portsmouth, NH 03801
 Phone (603) 431-2222
 Fax (603) 431-0910
 www.tfmoran.com

REV	DATE	DESCRIPTION	DR	CK
4	10/1/2024	REVISED TYPICAL PARKING LAYOUT STRIPING	JJM	
3	9/17/2024	NO REVISIONS THIS SHEET	JJM	
2	9/9/2024	NO REVISIONS THIS SHEET	JJM	
1	7/31/2024	REVISED TITLE BLOCK	BCH	JJM

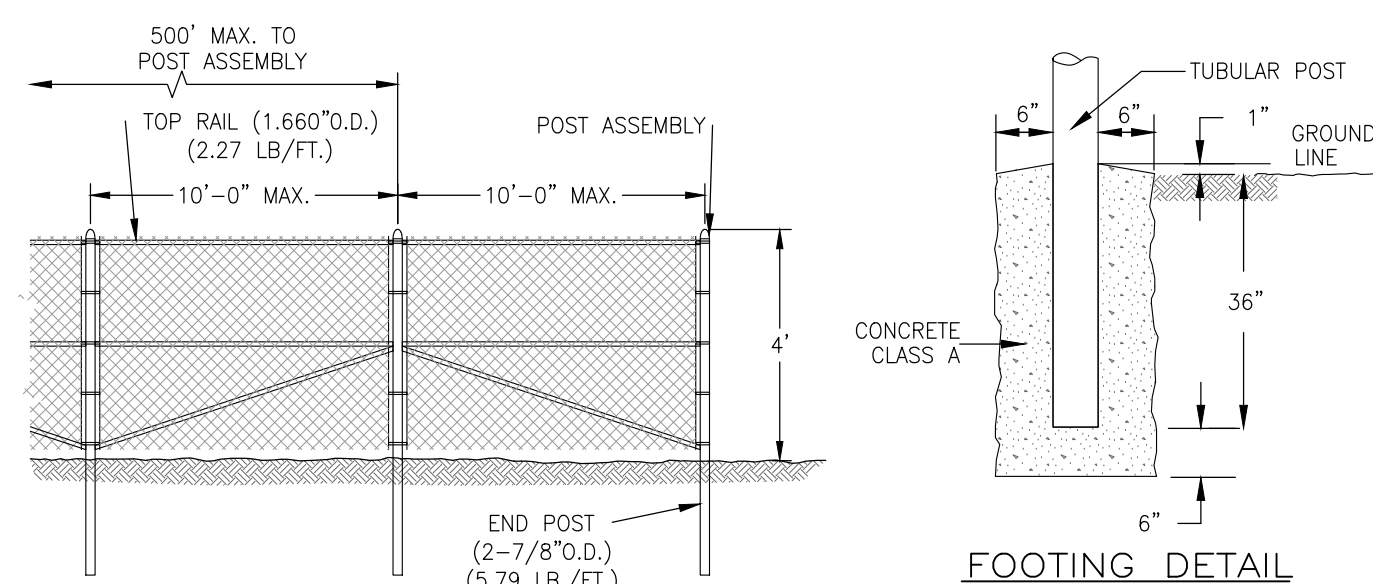
FILE NO.	45407.17	DR	JKC	FB	
CK	CK	CRR	CADFILE	45407-17-DETAILS	
					C-10



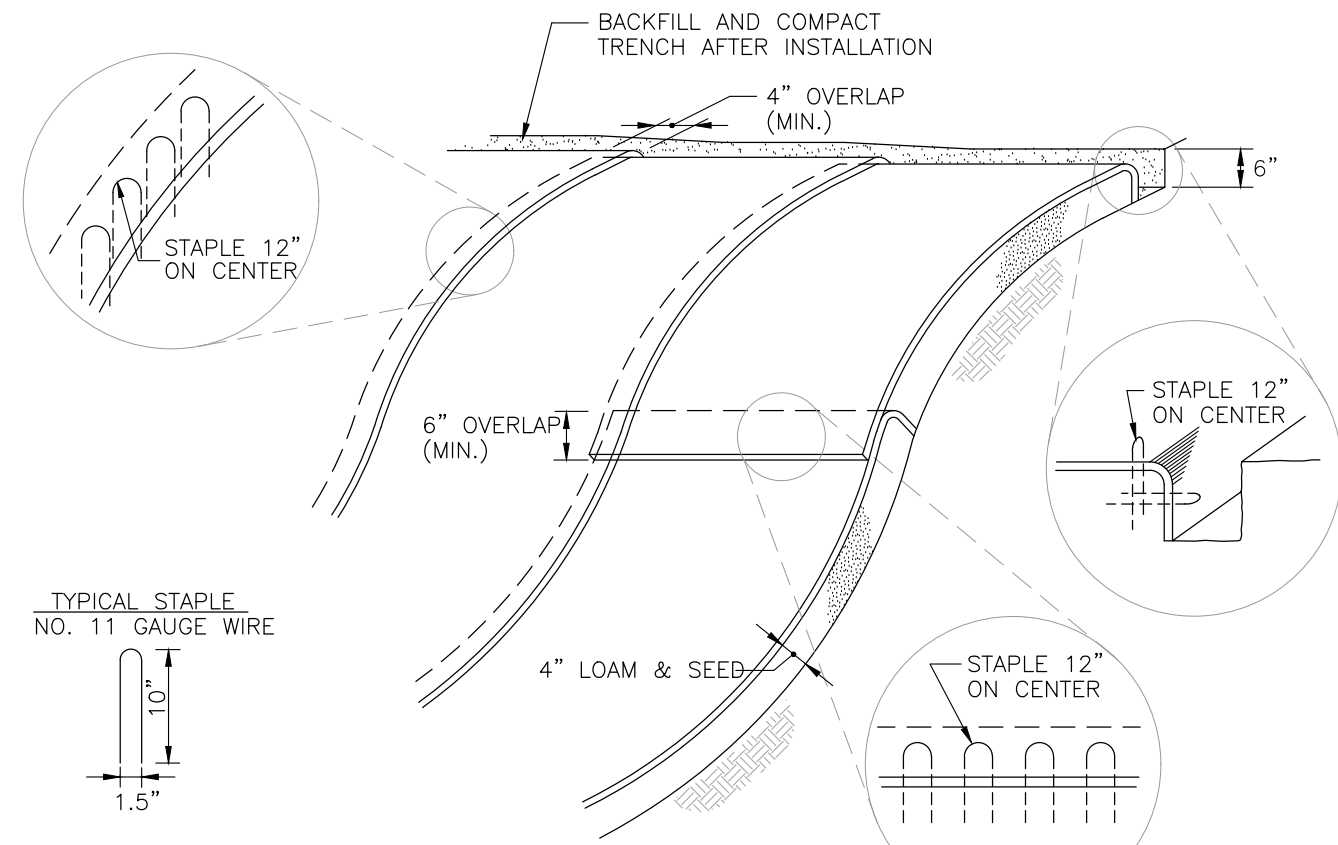
HEAVY DUTY CONCRETE PAD
NOT TO SCALE

NOTES

1. PROVIDE CLEAN BUTT TO EXISTING PAVEMENT - USE TACK COAT
2. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS



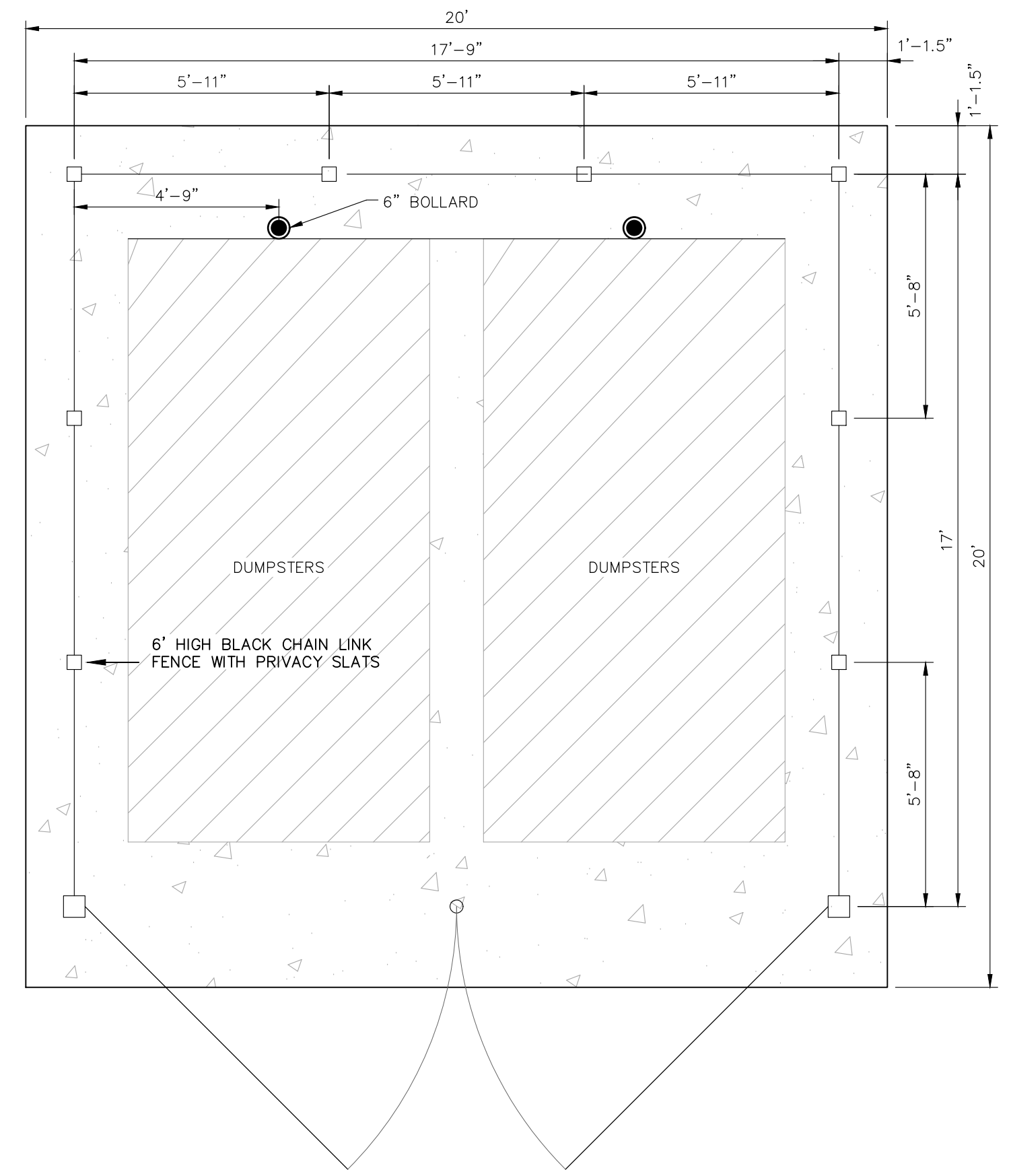
CHAIN LINK FENCE
NOT TO SCALE



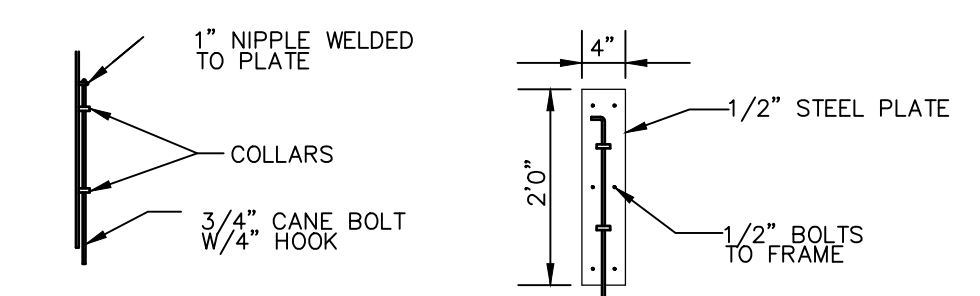
NOTES

1. INSTALL AT DISTURBED LOCATIONS WITH 2:1 SLOPES OR GREATER AND AS INDICATED PER PLANS.
2. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH. BACKFILL AND COMPACT TRENCH AFTER STAPLING.
3. ROLL THE BLANKET DOWN THE SLOPE OR SWALE IN THE DIRECTION OF THE WATER FLOW.
4. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE BLANKET END OVER END WITH 6 INCH (MIN.) OVERLAP AND ANCHOR DOWN SLOPE BLANKET IN A 6 INCH DEEP TRENCH.
6. BLANKET SHALL BE NORTH AMERICAN GREEN C125BN, EAST COAST EROSION CONTROL ECC-2B, AMERICAN EXCELSIOR COMPANY CURLEX III FIBRENET, ROLANKA GEONATURAL EROSION & SEDIMENT CONTROL MATTE JUTEMAT OR BIOD-DCF 30, OR APPROVED EQUAL.
7. BLANKET SHALL BE PLACED WITHIN 24-HRS AFTER SOWING SEE IN THE AREA BEING COVERED

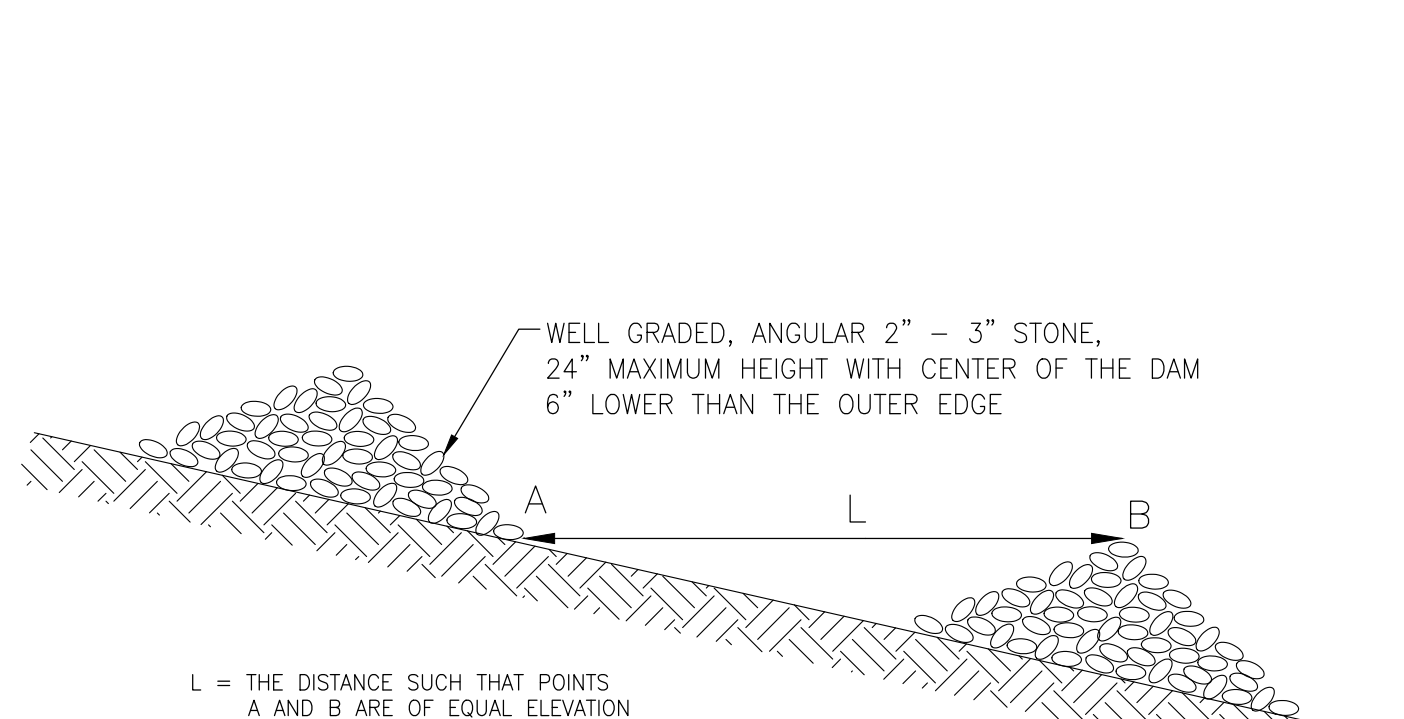
EROSION CONTROL BLANKET
NOT TO SCALE



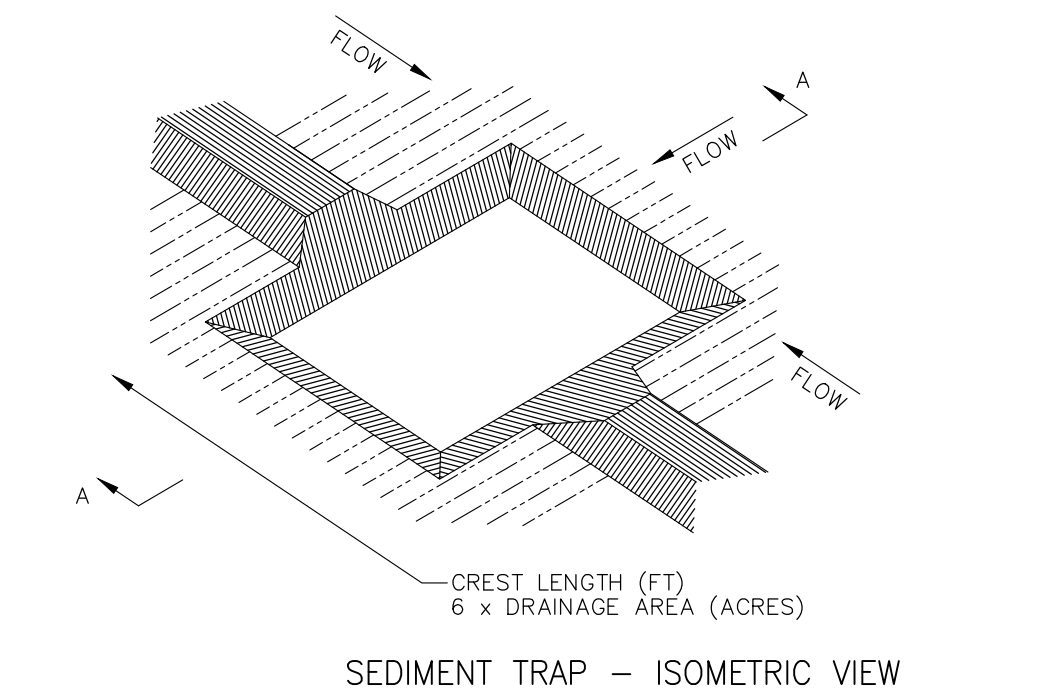
TRASH ENCLOSURE WITH RECYCLING PAN
NOT TO SCALE



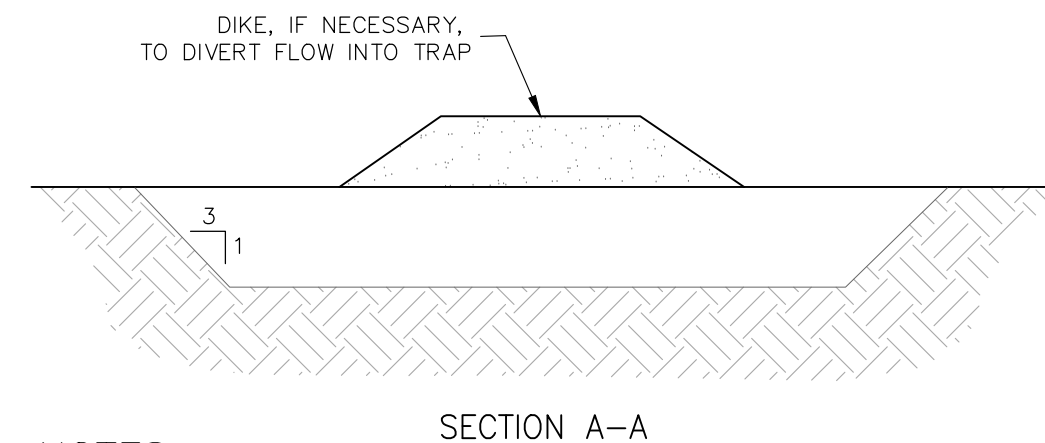
TRASH ENCLOSURE GATE STOP
NOT TO SCALE



STONE CHECK DAM
NOT TO SCALE



SEDIMENT TRAP - ISOMETRIC VIEW



SECTION A-A

NOTES

1. SEDIMENT TRAP TO BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL BASINS/PONDS ARE STABILIZED. IF IT IS DETERMINED THAT CONSTRUCTION OF A SEDIMENT TRAP IS WARRANTED, CONSULT WITH ENGINEER TO DETERMINE APPROPRIATE NUMBER AND DIMENSIONS.

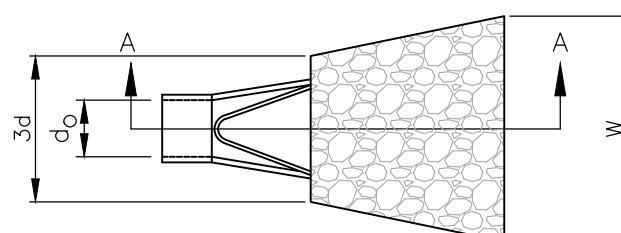
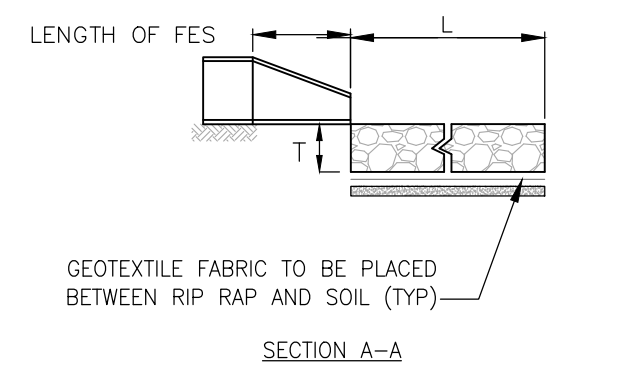
SEDIMENT TRAP
NOT TO SCALE

MAINTENANCE:

THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

CONSTRUCTION SPECIFICATIONS:

1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12".
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. ADD ANIMAL SCREEN TO FLARED END SECTION OUTLET.



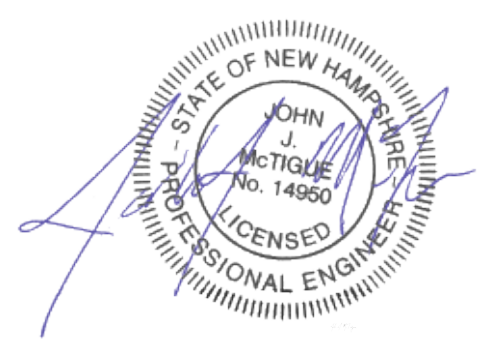
RIE RAP DIMENSIONS

LOCATION	FES-21
d50 STONE SIZE:	6"
LENGTH OF APRON (L):	9.0'
WIDTH OF APRON (W):	6.5'
DEPTH OF RIP RAP (T):	9"

% OF WEIGHT SMALLER THAN THE GIVEN SIZE OF STONE (INCHES)

100	9.00 TO 12.00
85	7.80 TO 10.80
50	6.00 TO 9.00
15	1.80 TO 3.00

RIE RAP AND FLARED END SECTION WITH OUTLET PROTECTION
NOT TO SCALE



REV	DATE	DESCRIPTION	DR	CK
4	10/01/2024	NO REVISIONS THIS SHEET	JJM	
3	9/17/2024	NO REVISIONS THIS SHEET	JJM	
2	9/9/2024	NO REVISIONS THIS SHEET	JJM	
1	7/31/2024	REVISED TITLE BLOCK	BCH	JJM

SITE DEVELOPMENT PLANS
TAX MAP 267 LOT 8
DETAIL SHEET 2
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

SCALE: NTS **JANUARY 24, 2024**

Seacoast Division
TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE NO: 45407.17
DR: JKC
CK: CRR
FB: CADFILE
DESCRIPTION: 45407-17-DETAILS
C-11

Oct 02, 2024 - 10:43am F:\MISC Projects\45407 - Lafayette Road - Portsmouth\45407-17 Hammes Realty - 1900 Lafayette Road\Design\PRODUCTION DRWGS\45407-17_Details.dwg

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SC-740 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN², AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

- STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4" (20-50 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- STORMTECH RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

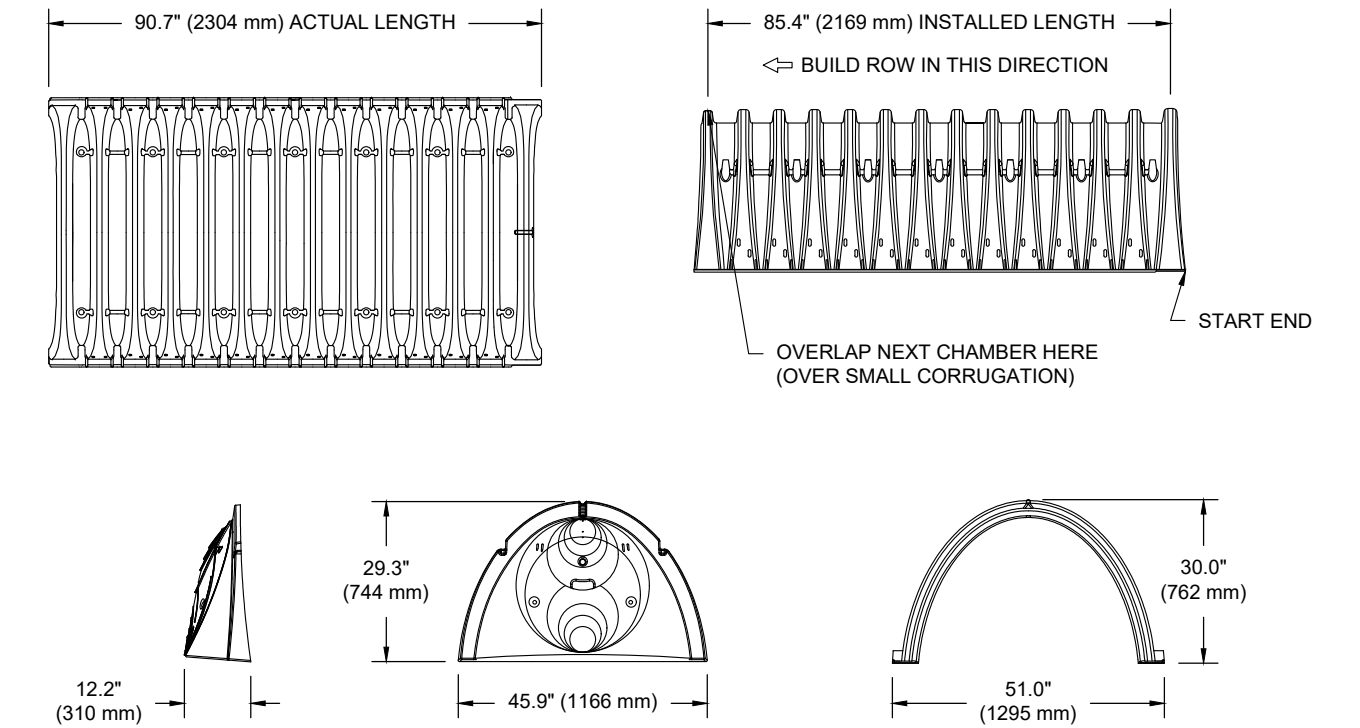
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
 - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXFORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

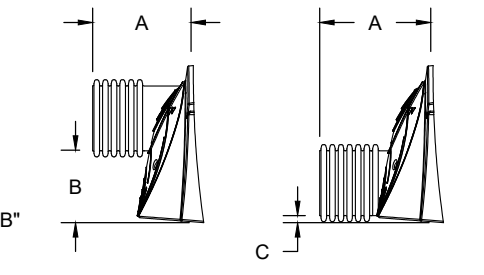
- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m ³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m ³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

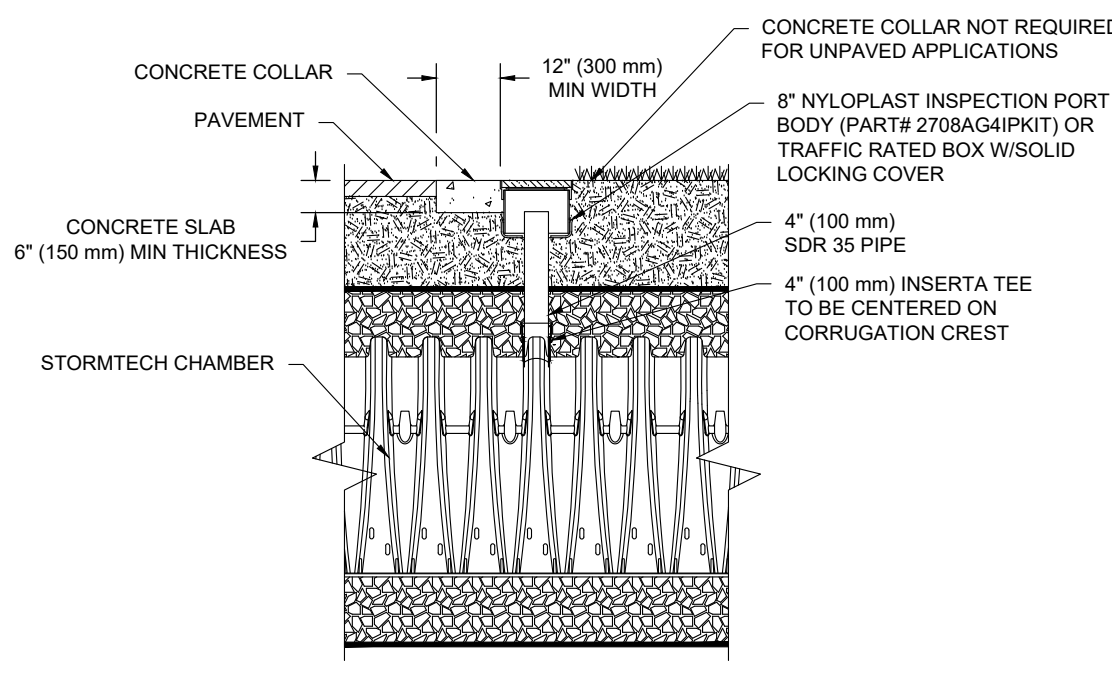
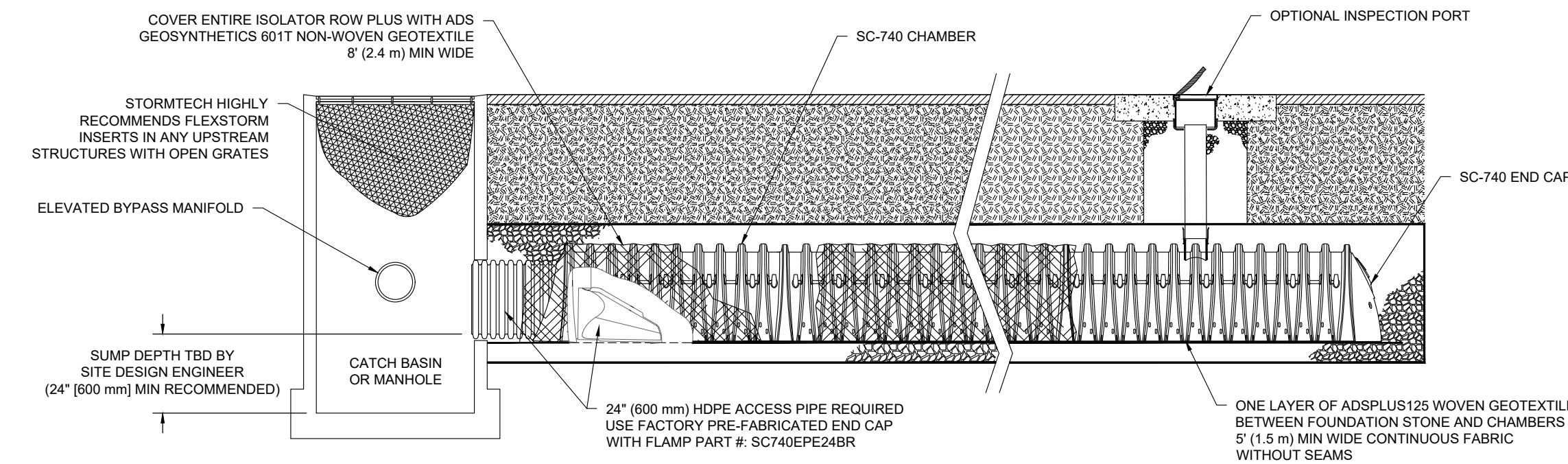


PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC	---	---	---	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC	---	---	---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC	---	---	---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC	---	---	---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC	---	---	---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC	---	---	---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)
SC740EPE24BR*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

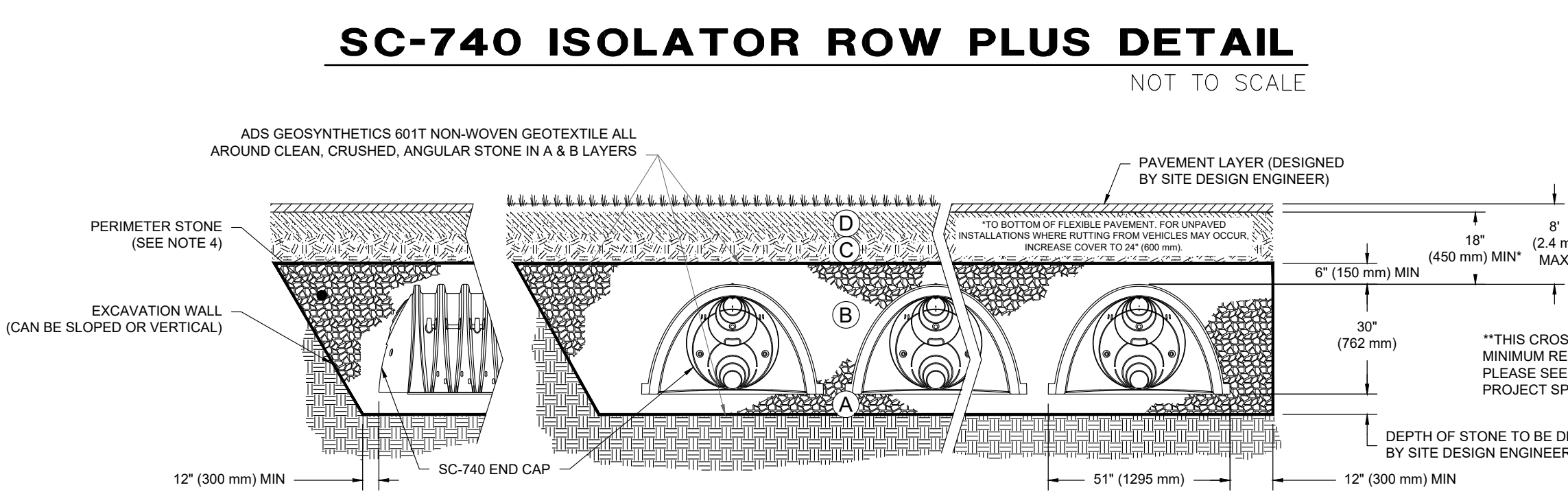
ALL STUBS, EXCEPT FOR THE SC740EPE24B/SC740EPE24BR ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B/SC740EPE24BR THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL.



4" INSPECTION PORT DETAIL
NOT TO SCALE



SC-740 TYPICAL CROSS SECTION DETAIL

- NOTES:
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
 - PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
 - REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN², AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 A-1, A-2, A-3 OR AASHTO M43 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 98% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

REV	DATE	DESCRIPTION	DR	CK
4	10/01/2024	NO REVISIONS THIS SHEET	JJM	
3	9/17/2024	NO REVISIONS THIS SHEET	JJM	
2	9/9/2024	NO REVISIONS THIS SHEET	JJM	
1	7/31/2024	REVISED TITLE BLOCK	BCH	JJM

SITE DEVELOPMENT PLANS

TAX MAP 267 LOT 8
DETAIL SHEET 3
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
HAMMES REALTY SERVICES, LLC

SCALE: NTS

JANUARY 24, 2024

Seacoast Division

TFM

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE NO. 45407.17

DR JKC FB
CK CRD CADFILE

45407-17-DETAILS

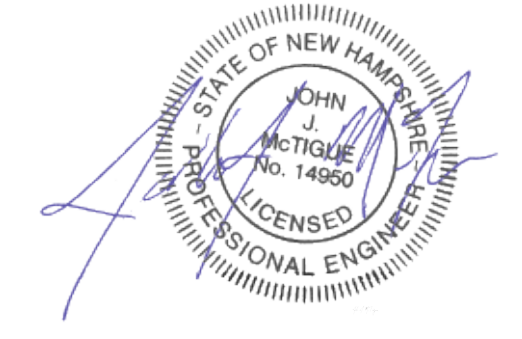
C-12

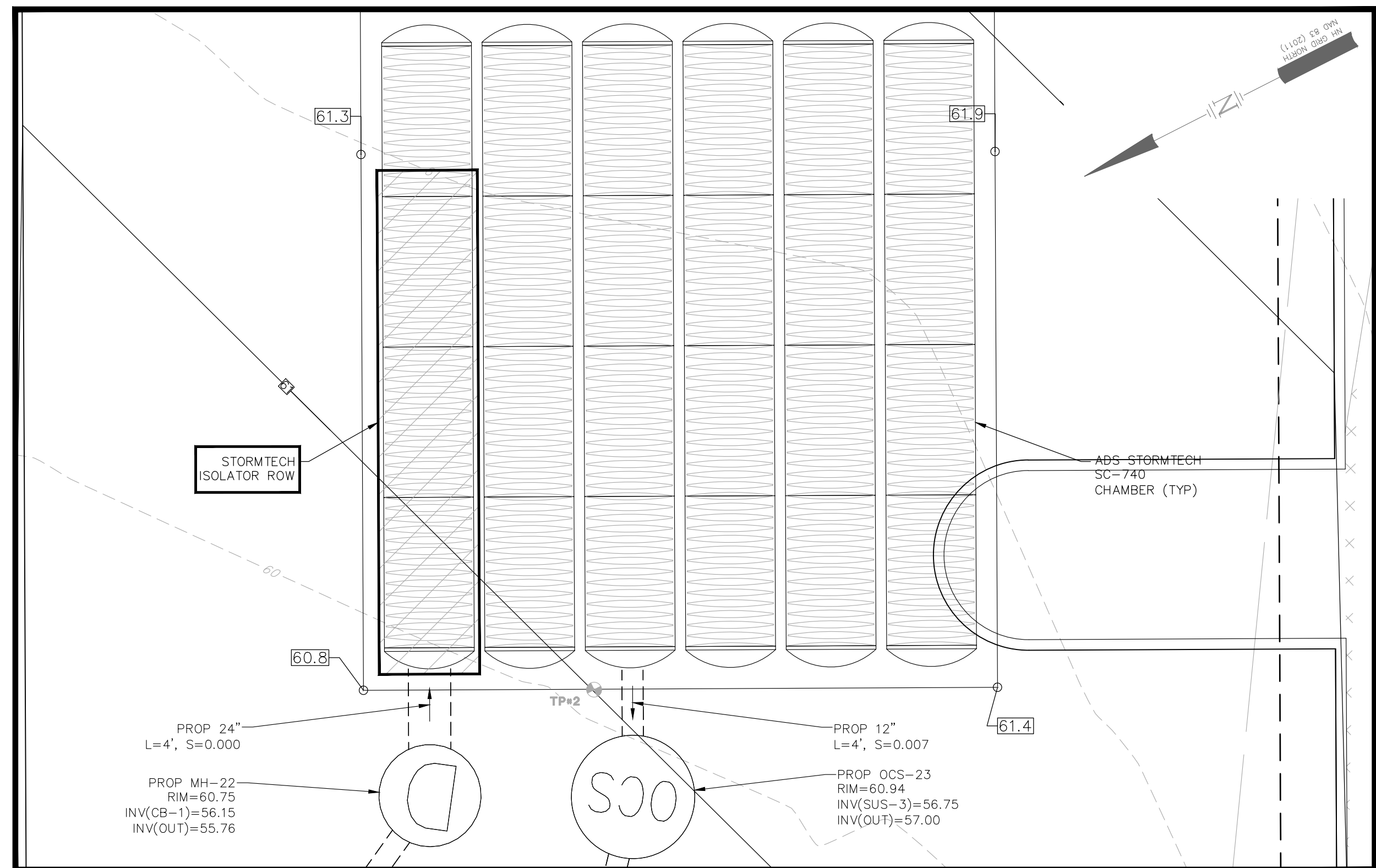
Oct 02, 2024 - 10:43am
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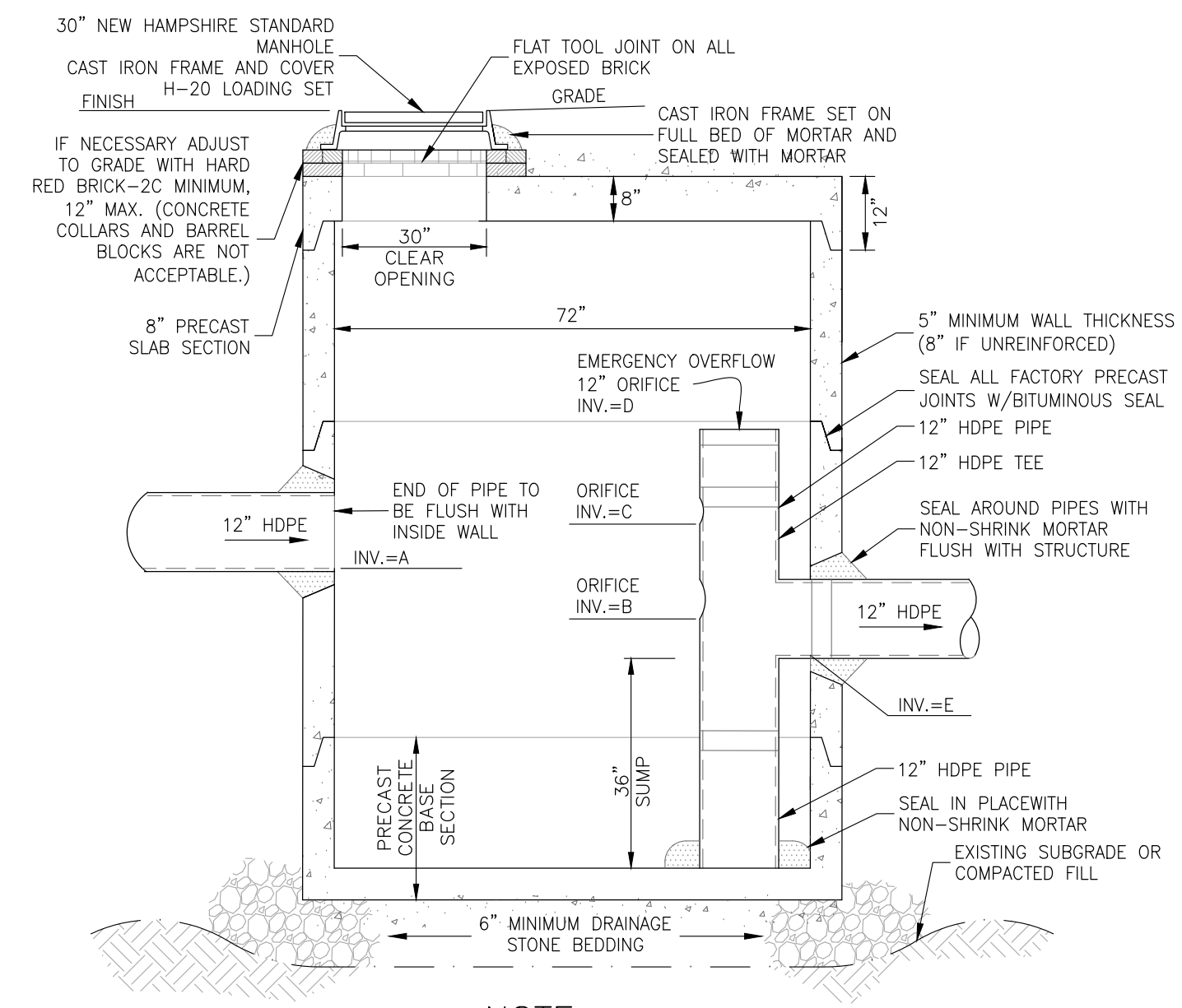
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SUBSURFACE STORAGE AND INFILTRATION SYSTEM #2

NOT TO SCALE



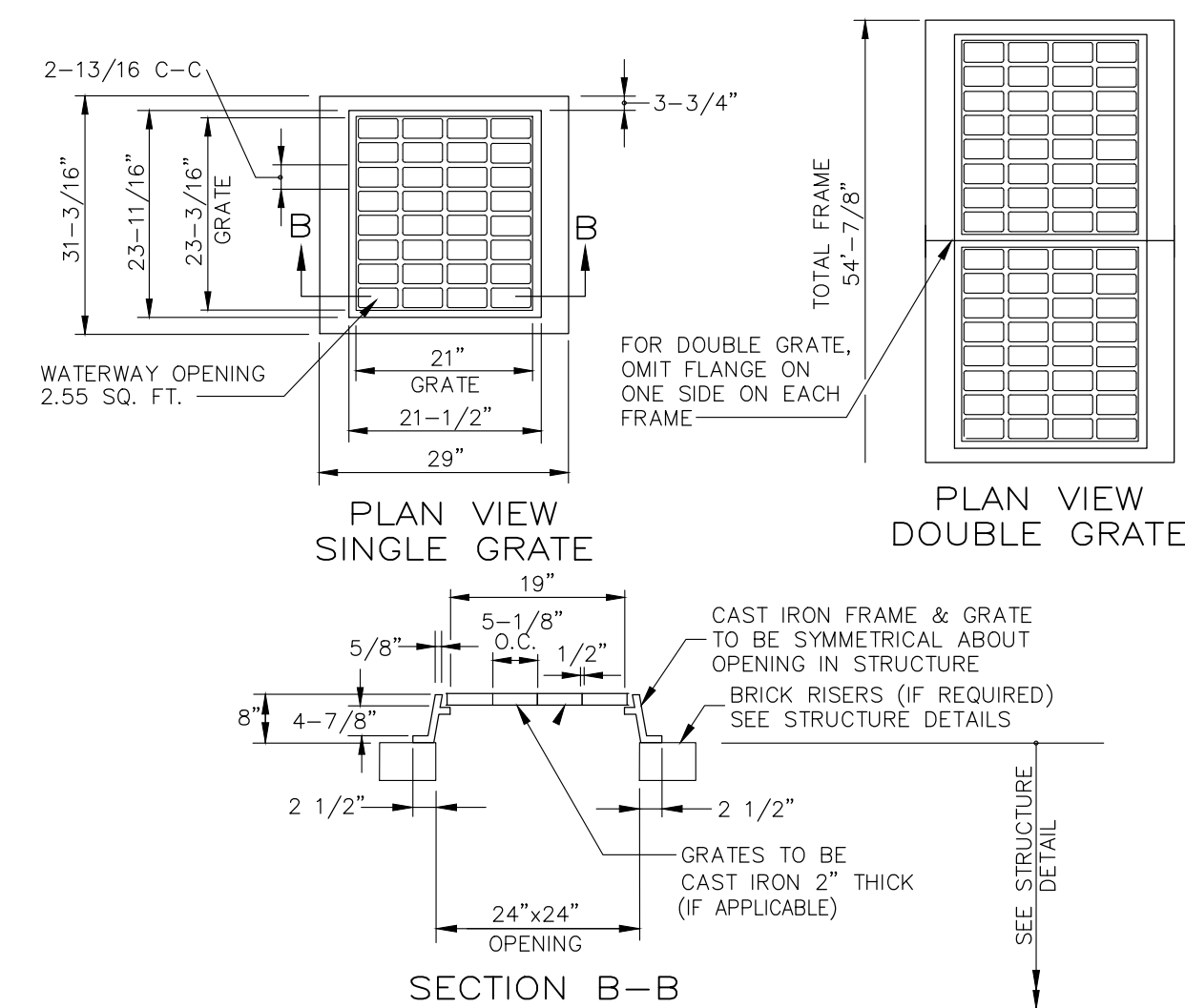
- NOTE**
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
 2. ALL PRECAST SECTIONS SHALL CONFORM TO ASTM C-478

OUTLET STRUCTURE

NOT TO SCALE

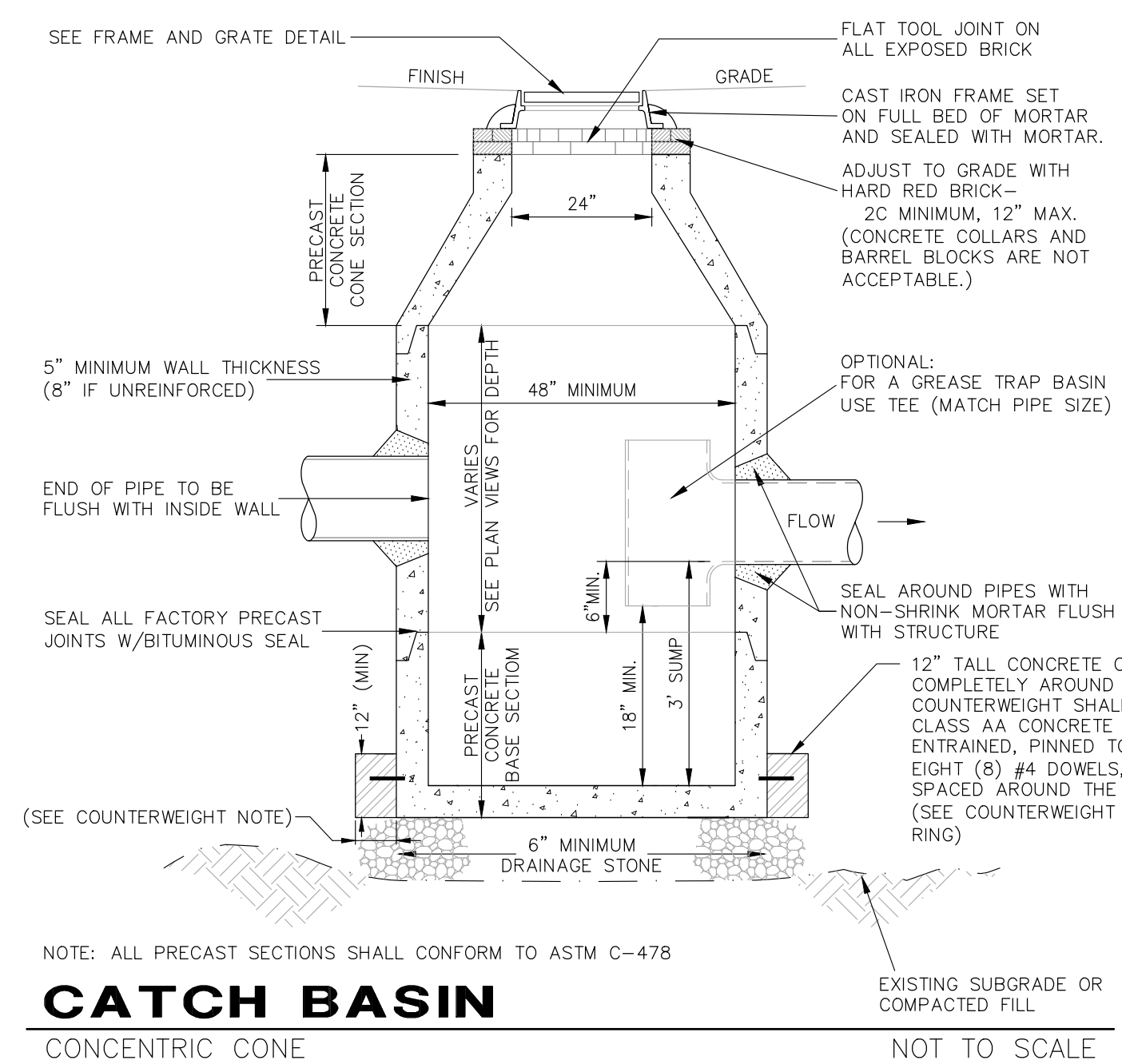
OUTLET CONTROL STRUCTURE TABLE

INV.	OCS-23
RIM	60.94
A	56.75
B	NA
C	NA
D	59.15
E	57.00



FRAME AND GRATE (NHDOT TYPE B ALT 1)

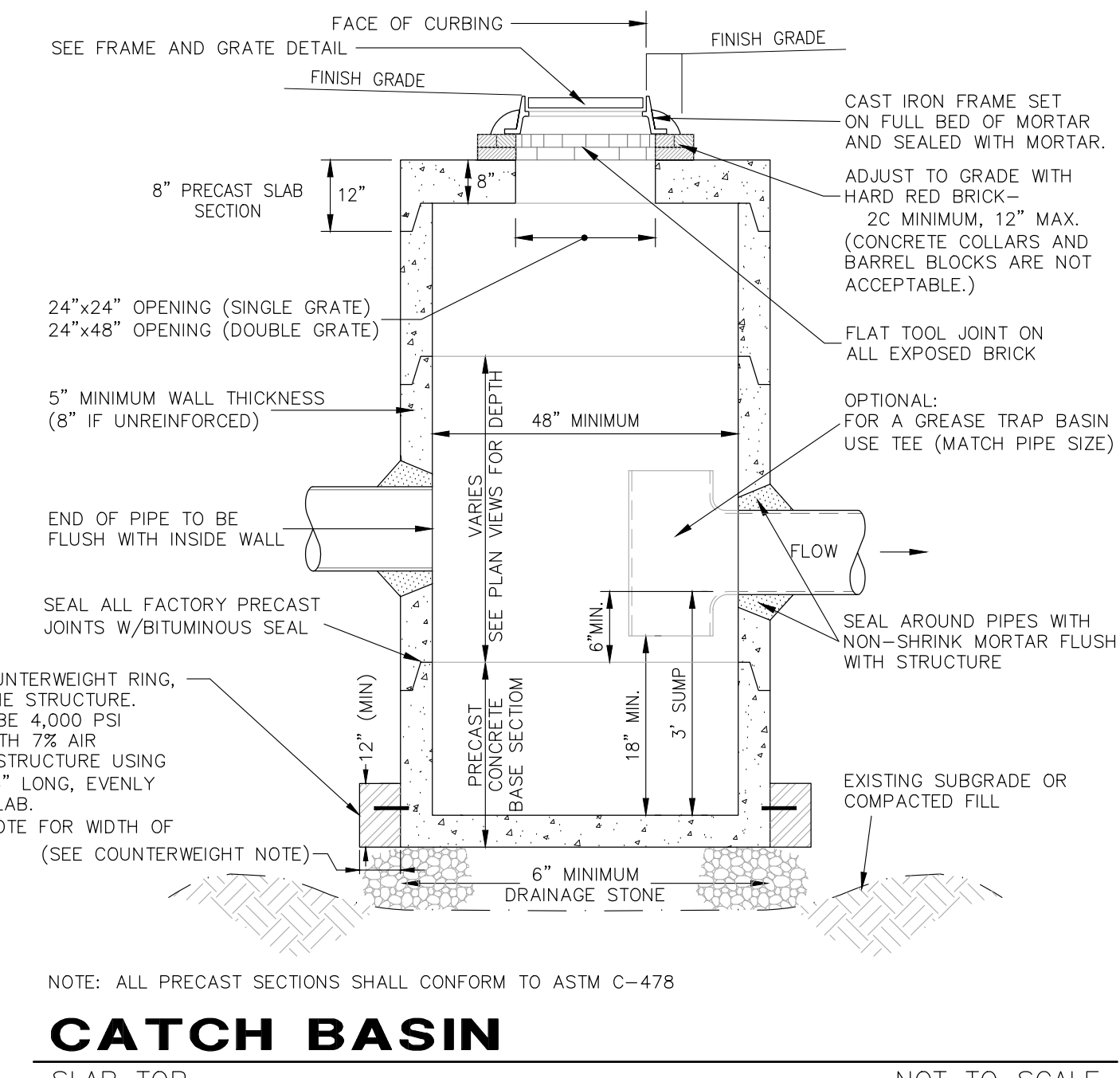
NOT TO SCALE



CATCH BASIN

CONCENTRIC CONE

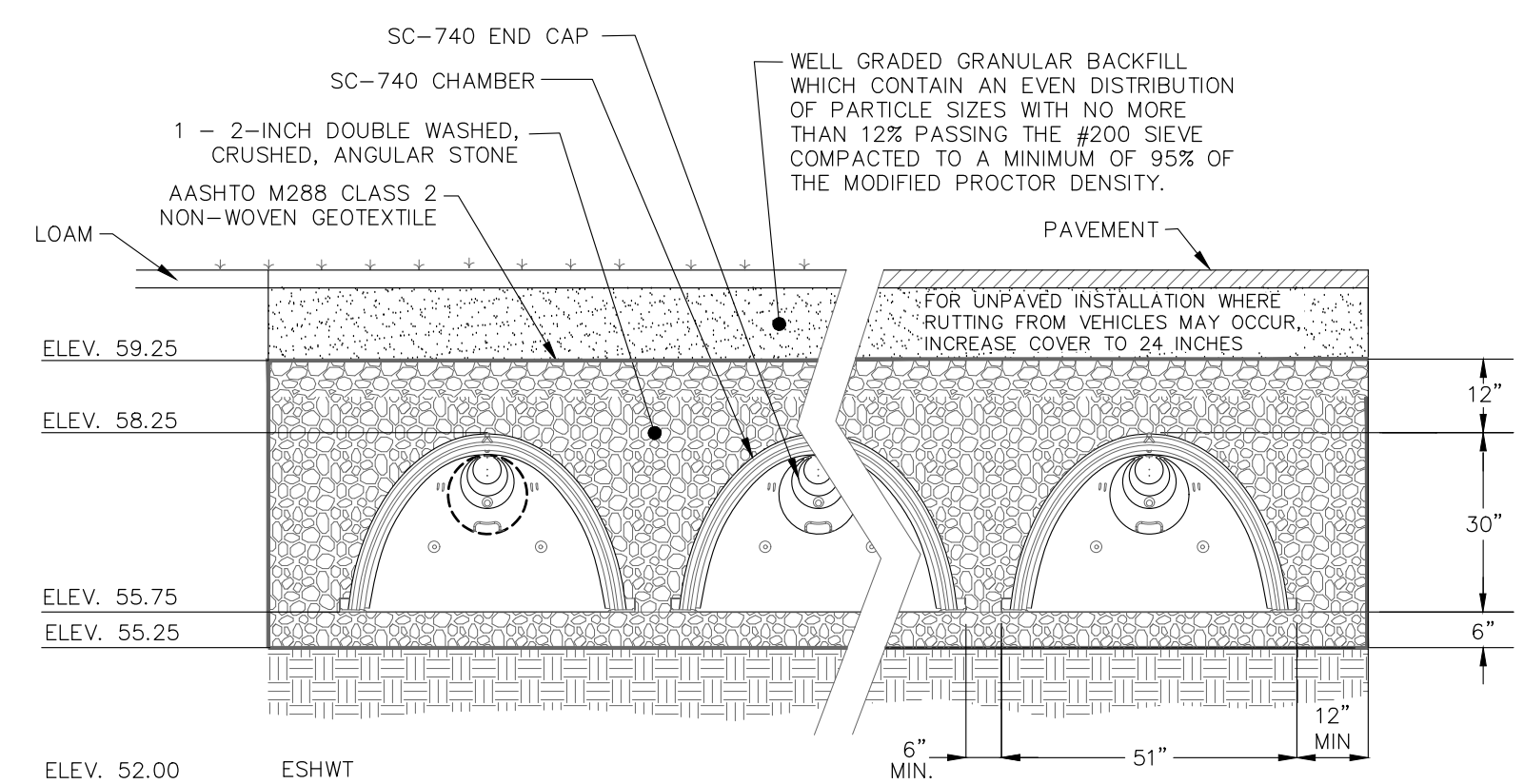
NOT TO SCALE



CATCH BASIN

SLAB TOP

NOT TO SCALE



STORMTECH SC-740 CHAMBER SYSTEM CROSS SECTION DETAIL

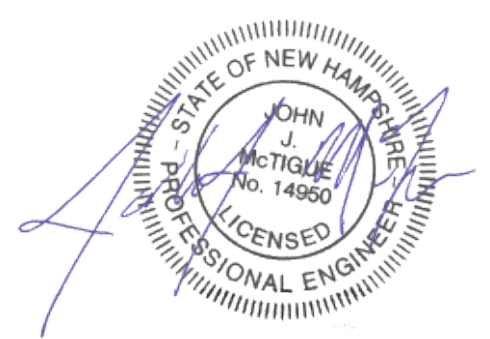
STORMTECH SYSTEM

SITE DEVELOPMENT PLANS

TAX MAP 267 LOT 8
DETAIL SHEET 4
PROPOSED PARKING EXPANSION
1900 LAFAYETTE ROAD, PORTSMOUTH, NH
 OWNED BY & PREPARED FOR
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SCALE: NTS

JANUARY 24, 2024



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