

**PLANNING BOARD
PORTSMOUTH, NEW HAMPSHIRE**

**EILEEN DONDERO FOLEY COUNCIL CHAMBERS
CITY HALL, MUNICIPAL COMPLEX, 1 JUNKINS AVENUE**

7:00 PM Public Hearings begin

April 17, 2025

AGENDA

REGULAR MEETING 7:00pm

I. APPROVAL OF MINUTES

- A. Approval of the March 20, 2025 meeting minutes.
- B. Approval of the March 27, 2025 Work Session minutes.

II. PUBLIC HEARINGS -- OLD BUSINESS

The Board's action in these matters has been deemed to be quasi-judicial in nature.

If any person believes any member of the Board has a conflict of interest, that issue should be raised at this point or it will be deemed waived.

- A. The request of **96 State Street LLC (Owner)**, for property located at **96 State Street** requesting a parking Conditional Use Permit from Section 10.1112.14 to allow zero (0) parking spaces where thirty (30) are required. Said property is located on Assessor Map 107 Lot 52 and lies within the Character District 4 (CD-4) and Historic District. (LU-25-28)

III. PUBLIC HEARINGS – NEW BUSINESS

The Board's action in these matters has been deemed to be quasi-judicial in nature.

If any person believes any member of the Board has a conflict of interest, that issue should be raised at this point or it will be deemed waived.

- A. **361 Hanover Steam Factory, LLC (Owner)**, for property located at **361 Hanover Street**, requesting Design Review for the construction of new residential buildings along Hanover Street and the renovation of the existing building with associated site improvements. Said property is located on Assessor Map 138 Lot 63 and lies within the Character District 5 (CD5), Downtown Overlay District (DOD), and North End Incentive Overlay District (NEIOD). (LUPD-25-2)

- B. The request of **David and Tracy Foster (Owners)**, for property located at **200 FW Hartford Drive** requesting a Wetland Conditional Use Permit from Section 10.1017.50 for the removal of six trees within the 100' wetland buffer. Said property is located on Assessor Map 270 Lot 33 and lies within the Single Residence B (SRB) District. (LU-25-23)

- C. The request of **Rainboth Revocable Trust (Owner)**, for property located at **56 Ridges Court** requesting a Wetland Conditional Use Permit in accordance with Section 10.1017.50 to merge three lots and construct an addition and deck on the existing dwelling for a proposed permanent buffer impact of 2,653 square feet. Applicant is proposing stormwater improvements and partial revegetation of the wetland buffer as part of this project. Said property is located on Assessor Map 207 Lot 63 and lies within the Single Residence B (SRB) District. (LU-25-13)

- D. **REQUEST TO POSTPONE** The request of **Aviation Avenue Group (Owner), Kane Management Group LLC (Applicant)**, for property located at **100 New Hampshire Avenue** requesting Amended Site Plan approval to modify a prior condition of approval. Said property is located on Assessor Map 308 Lot 1 and lies within the Pease Industrial (PI) District. **REQUEST TO POSTPONE** (LU-22-210)

- E. **REQUEST TO POSTPONE** The request of **909 West End LLC (Owner)**, for property located at **909 Islington St** requesting a Conditional Use Permit in accordance with Section 10.1112.62 to allow 114 parking spaces where 119 are required (*115 spaces were advertised*). Said property is located on Assessor Map 172 Lot 7 and lies within the Character District 4 (CD-4). **REQUEST TO POSTPONE** (LU-24-221)

- F. The request of **Kent and Jennifer Bonniwell (Owner)**, for property located at **332 Hanover Street** requesting Conditional Use Permit from Section 10.814 for construction of a new single-family dwelling containing an Attached Accessory Dwelling Unit. Said property is located on Assessor Map 126 Lot 43 and lies within the Character District 4-L1 (CD-4-L1) District. (LU-25-52)

V. **DESIGN REVIEW**

- A. **361 Hanover Street** - Design Review (*See above*)

VI. **CITY COUNCIL REFERRALS**

- A. Zoning Amendments – Hill/Hanover Street area, Downtown Overlay District & North End Incentive Overlay District

VII. OTHER BUSINESS

- A. Chairman updates and discussion items
- B. Board discussion of Regulatory Amendments, Master Plan Scope & other matters

VIII. ADJOURNMENT

**Members of the public also have the option to join this meeting over Zoom, a unique meeting ID and password will be provided once you register. To register, click on the link below or copy and paste this into your web browser:*

https://us06web.zoom.us/webinar/register/WN_hOuHiBUWShSs0Vypw2Us8Q



City of Portsmouth
Planning Department
1 Junkins Ave, 3rd Floor
Portsmouth, NH
(603)610-7216

Memorandum

To: Planning Board

From: Peter Stith, AICP
Planning Manager

Date: April 11, 2025

Re: Recommendations for the April 17, 2025 Planning Board Meeting

I. APPROVAL OF MINUTES

A. Approval of the March 20, 2025 and March 27, 2025 meeting minutes.

Planning Department Recommendation

1) Board members should determine if the draft minutes include all relevant details for the decision-making process that occurred at the March 20, 2025 and March 27, 2025 meetings and vote to approve meeting minutes with edits if needed.

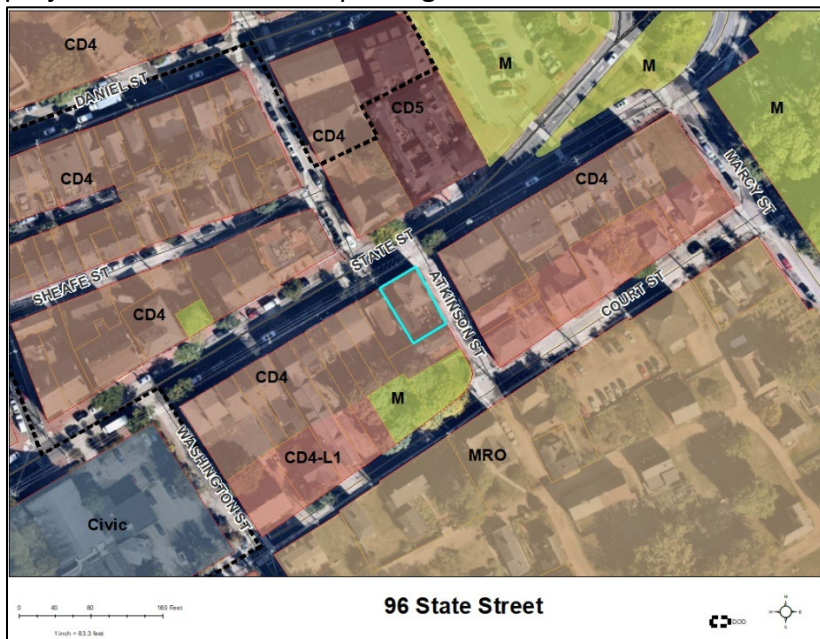
II. PUBLIC HEARINGS – OLD BUSINESS

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- A. The request of **96 Sate Street LLC (Owner)**, for property located at **96 State Street** requesting a parking Conditional Use Permit from Section 10.1112.14 to allow zero (0) parking spaces where thirty (30) are required. Said property is located on Assessor Map 107 Lot 52 and lies within the Character District 4 (CD-4) and Historic District.

Project Background Updated

The applicant is seeking a Conditional Use Permit as a result of a change of use to convert part of the restaurant and a prior commercial space into a second apartment. The prior addition to the second and third floor are no longer proposed and just the conversion of the second floor from restaurant to residential is proposed in the revised submission. The parking calculation remains the same, however the issues raised at the March meeting with the addition overhanging the lot line or interfering with the adjacent window have been removed with the revised plans. The lot does not have space to provide any off-street parking. The parking demand will decrease with the change of use from commercial and restaurant space to residential. The property is outside of the Downtown Overlay District (DOD); therefore, parking is required for all uses and parking must come into conformance with the Ordinance when there is a change of use on the property. If the property was in the DOD, they would receive a 4-space credit for the 2 apartments and with no parking requirement for the restaurant use, this project would not need a parking CUP.



Project Review, Discussion, and Recommendations

The project was before the Technical Advisory Committee and Historic District Commission. See below for details.

Historic District Commission

The Historic District Commission granted a certificate of approval for the addition at their regular meeting of Wednesday, September 4, 2024.

Technical Advisory Committee

The applicant began the site plan review process with TAC at their February 11, 2025 meeting to review the parking demand analysis as required under Section 10.1112.141. There were questions about the square footage and with the proposed additions to the second and third floor. The applicant was instructed to review and confirm the actual square footage allocation per use and submit to the DPW prior to submitting to Planning Board. The applicant revised the parking demand analysis based on comments from TAC and confirmed the square footage in the updated materials for the Planning Board.

Planning Department Recommendation

Parking Conditional Use Permit

1) *Vote to find that the Conditional Use Permit Application meets the requirements set forth in Section 10.1112.14 of the Ordinance and adopt the findings of fact as presented.*

(Alt.) Vote to find that the Conditional Use Permit Application meets the requirements set forth in Section 10.1112.14 of the Ordinance and adopt the findings of fact as amended.

2) *Vote to grant the Conditional Use Permit as presented.*

III. PUBLIC HEARINGS – NEW BUSINESS

The Board's action in these matters has been deemed to be quasi-judicial in nature. If any person believes any member of the Board has a conflict of interest, that issue should be raised at this point or it will be deemed waived.

- A. The 361 Hanover Steam Factory, LLC (Owner),** for property located at **361 Hanover Street**, requesting Design Review for the construction of new residential buildings along Hanover Street and the renovation of the existing building with associated site improvements. Said property is located on Assessor Map 138 Lot 63 and lies within the Character District 5 (CD5), Downtown Overlay District (DOD), and North End Incentive Overlay District (NEIOD).

Description

This item is a request for Design Review under the Site Plan Review Regulations. Under the State statute (RSA 676:4,II), the Design Review phase is an opportunity for the Planning Board to discuss the approach to a project before it is fully designed and before a formal application for Site Plan Review is submitted. The Design Review phase is not mandatory and is nonbinding on both the applicant and the Planning Board. The application was accepted at the March 20, 2025 meeting and scheduled for public hearing for Design Review at this meeting (April 17, 2025).

Although the State statute calls this pre-application phase “design review,” it does not encompass review of architectural design elements such as façade treatments, rooflines and window proportions. Rather, it refers to site planning and design issues such as the size and location of buildings, parking areas and open spaces on the lot; the interrelationships and functionality of these components, and the impact of the development on adjoining streets and surrounding properties.

The process as outlined in Section 2.4.3 of the Site Review regulations is that the Board first has to determine that the request for design review includes sufficient information to allow the Board to understand the project and identify potential issues and concerns, and, if so, vote to accept the request and schedule a public hearing. *Completion of the design review process also has the effect of vesting the project to the current zoning.* Design review discussions must take place in a public hearing. At the conclusion of the public hearing process, the Board decides the design review process for the application has ended.

Planning Department Recommendation

- 1) *Vote to find the design review process is complete.*

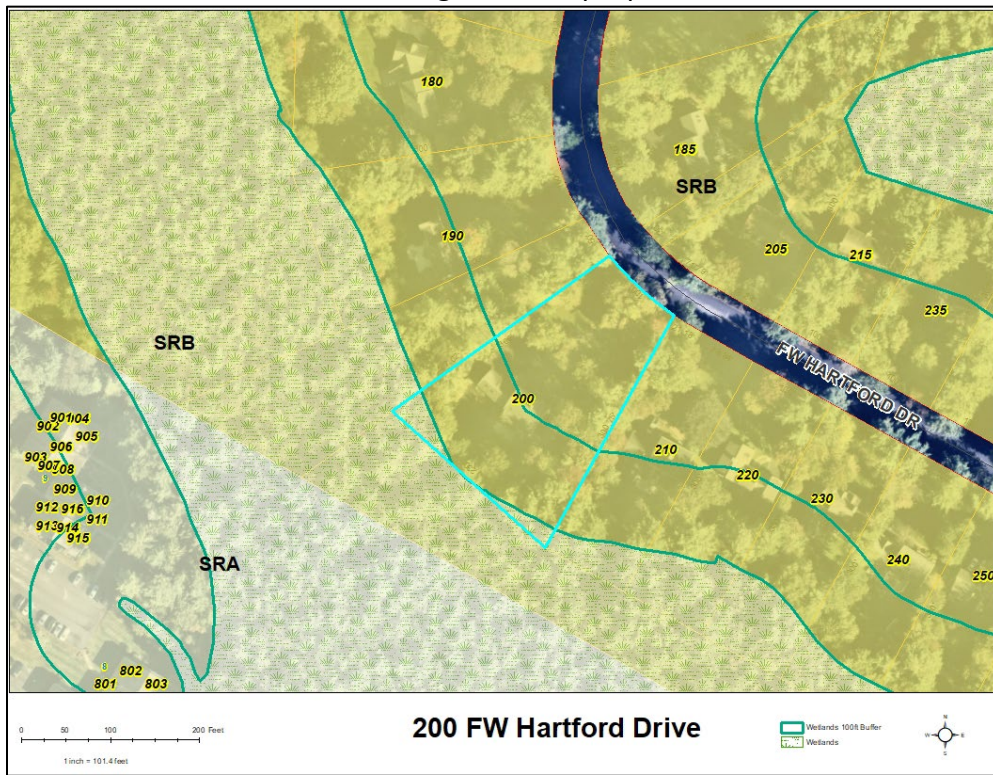
III. PUBLIC HEARINGS – NEW BUSINESS

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- B.** The request of **David and Tracy Foster (Owners)**, for property located at **200 FW Hartford Drive** requesting a Wetland Conditional Use Permit from Section 10.1017.50 for the removal of six trees within the 100' wetland buffer. Said property is located on Assessor Map 270 Lot 33 and lies within the Single Residence B (SRB) District.

Project Background

The applicant is seeking a Wetland Conditional Use Permit to remove six trees within the wetland buffer area towards the rear of the property at 200 FW Hartford Drive. These trees include four pines and two maple trees, one of which is diseased according to an ISA Certified Arborist. The applicant is proposing to leave the stumps in place and plant two new red maple trees and four new winterberry bushes close to where the existing trees are proposed to be removed.



Staff Analysis – Wetland CUP

According to Article 10 Section 10.1017.50 the applicant must satisfy the following conditions for approval of this project.

1. The land is reasonably suited to the use activity or alteration.

The six trees proposed to be removed are within the 100' wetland buffer which is a forested wetland.

2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.

The six trees are all located within the wetland buffer and while they serve as a vital function within the wetland buffer, the applicant is proposing a replacement of plantings in lieu of the trees to be removed.

3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.

The removal of these large trees will have an adverse impact on the wetland functional values as they serve as great habitat and carbon capture for this ecosystem. The installation of new plantings will help to boost this ecosystem, but it may not be sufficient to compete with the trees to be removed. The applicant should consider planting a greater ratio of trees to shrubs.

4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.

This project calls for the removal of six trees, all within the wetland buffer and most within the 25' no-cut buffer. A certified arborist has stated that only one of the proposed trees to be removed is diseased and unless the other five are a significant risk, the removal of the healthier trees does not seem necessary at this time.

5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.

This proposal appears to have some adverse impact at the removal of five healthy trees that are serving multiple functions within the wetland buffer. The proposed plantings will help to offset the impacts felt from removing those trees but it may be necessary to substitute more trees instead of or in addition to the winterberries to equate the loss of those six trees.

6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.

It appears that most of the trees to be removed are located in the vegetated buffer strip and proposed plantings will be in this general vicinity.

Conservation Commission

The applicant was before the Conservation Commission at its regularly scheduled meeting of Wednesday, March 12, 2025 and the Commission voted unanimously to recommend approval with the following conditions:

1. *It is recommended that the applicant consider a greater number of trees to be planted compared to shrubs. If the applicant increases the proportion of trees to be planted, they should plant within the 100' wetland buffer, where appropriate.*
2. *Applicant shall provide a report back to the Planning and Sustainability Department one year after the proposed landscaping area has been planted, demonstrating at least an 80% survival rate of new plantings within the wetland buffer.*
3. *In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. Markers are to be placed along the 25' vegetative buffer at 50-foot intervals and must be installed prior to the start of any construction.*

The applicant has addressed the Conservation Commission's recommended conditions in the Planning Board application or they have been added to the conditions below.

Planning Department Recommendation

Wetland Conditional Use Permit

1) *Vote to find that the Conditional Use Permit Application meets the requirements set forth in Section 10.1017.50 of the Ordinance and adopt the findings of fact as presented.*

(Alt.) Vote to find that the Conditional Use Permit Application meets the requirements set forth in Section 10.1017.50 of the Ordinance and adopt the findings of fact as amended.

2) *Vote to grant the Conditional Use Permit with the following conditions:*

- 2.1) *Applicant shall monitor the success of proposed seeded areas and prepare a memo to be sent to the Portsmouth Planning & Sustainability Department annually for the first two years after planting/seeding. If after two years, the seeded areas show a survival rate of less than 80%, applicant will replant/reseed.*
- 2.2) *Applicant shall provide a report back to the Planning and Sustainability Department one year after the proposed landscaping area has been planted, demonstrating at least an 80% survival rate of new plantings within the wetland buffer.*
- 2.3) *In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. Markers are to be placed along the 25' vegetative buffer at 50-foot intervals and must be installed prior to the start of any construction.*

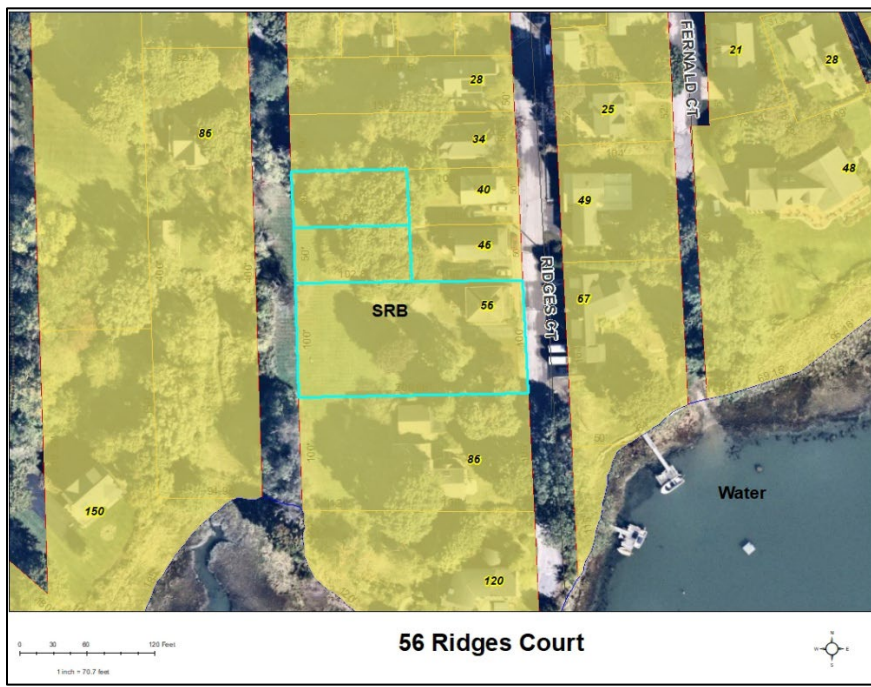
III. PUBLIC HEARINGS – NEW BUSINESS

The Board's action in these matters has been deemed to be quasi-judicial in nature. If any person believes any member of the Board has a conflict of interest, that issue should be raised at this point or it will be deemed waived.

- C. The request of **Rainboth Revocable Trust (Owner)**, for property located at **56 Ridges Court** requesting a Wetland Conditional Use Permit in accordance with Section 10.1017.50 to merge three lots and construct an addition and deck on the existing dwelling for a proposed permanent buffer impact of 2,653 square feet. Applicant is proposing stormwater improvements and partial revegetation of the wetland buffer as part of this project. Said property is located on Assessor Map 207 Lot 63 and lies within the Single Residence B (SRB) District.

Project Background

The application proposes work across three existing parcels which includes the demolition of an existing garage, shed, and deck, the removal of paved walkways, existing landscaped steps and the removal of vegetation for the purposes of construction for the new addition and deck. The proposal includes merging the three lots into one lot, new addition, reconstructed driveway, new decking, new permeable walkways, a shed and a garage. The existing impervious coverage within the 100' wetland buffer over all three lots is 2,715 s.f. and this application proposes a final impervious cover of 2,653 s.f., a decrease of 62 s.f. The project complies with dimensional requirements of the Ordinance and no variances are needed to construct the addition and deck.



Staff Analysis – Wetland CUP

According to Article 10 Section 10.1017.50 the applicant must satisfy the following conditions for approval of this project.

1. The land is reasonably suited to the use activity or alteration.

This project proposes the removal of existing structures and pavement from the wetland buffer with the installation of new structures and a driveway within the buffer but further away from the resource. The majority of the work is within the wetland buffer.

2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.

The majority of the work is proposed within the 100' wetland buffer and includes new structures in the buffer but an overall reduction in impervious surfaces. The proposed shed and deck are slightly further from the wetland but not outside of the buffer.

3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.

This project proposes the removal of four existing trees and one shrub within the buffer and the addition of six highbush blueberries and an 1,100 s.f. naturalized area in a portion of the 25' no-cut buffer. Some improvement to the wetland functional values as they exist today appear to be proposed. Proper care and maintenance of the wetland and wetland buffer would prevent adverse impacts. This should include no longer mowing the wetland resource. In addition, the applicant should come into compliance with the City's 25' no-cut vegetative buffer regulations.

4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.

This project proposes the removal of some existing vegetation to achieve construction goals and proposes replacement with blueberries and a small portion of the 25' no-cut buffer to be naturalized. Property owners have historically altered the vegetative state of a portion of the wetland and the entire 25' buffer through regular mowing. Staff suggest this practice ceases to comply with the vegetative buffer strip standards.

5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.

The proposal is not the alternative with the least adverse impact. The proposal

requests the continued mowing of some of the most sensitive ecosystems on the properties.

6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.

The large wetland lawn will be allowed to revert to a natural state. The 25-foot no cut buffer will be limited to two cuttings per year. The benefits of the improved stormwater management system, moving the impervious areas away from the resource and enhancing the wetland system and buffer meet the spirit and intent of the Ordinance.

Conservation Commission

The applicant was before the Conservation Commission at its regularly scheduled meeting of Wednesday, March 12, 2025 and the Commission voted 5-1 to recommend approval with the following conditions:

1. *The wetland resource shall no longer be mowed.*
2. *The property owner shall agree to mowing the 25' vegetated no-cut buffer no more than twice per year. Mowing cannot occur during the nesting bird season (April to July). Owners must abide by best management practices for mowing a sensitive wetland buffer.*
3. *In accordance with Section 10.1018.40 of the Zoning Ordinance, owner shall permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. Markers are to be placed along the 25' vegetated buffer at 50-foot intervals and must be installed prior to the start of any construction.*
4. *Owners shall permanently install markers such as boulders in between the proposed trees to be planted along the wetland edge. This physical barrier shall serve as a deterrent to mowing. Plans must be updated to show proposed location and marker type.*
5. *A maintenance plan for the property shall be included as part of this project for the purpose of educating current and future property owners. This plan shall address proper long-term maintenance of the permeable pavers and the swale, City cutting regulations within the wetland and wetland buffer, and mowing restrictions for this property (including best management practices for mowing of a wetland meadow buffer).*

The applicant has addressed the Conservation Commission's recommended conditions in the Planning Board application and have been added to the conditions below.

Planning Department Recommendation
Wetland Conditional Use Permit

1) *Vote to find that the Conditional Use Permit Application meets the requirements set forth in Section 10.1017.50 of the Ordinance and adopt the findings of fact as presented.*

(Alt.) Vote to find that the Conditional Use Permit Application meets the requirements set forth in Section 10.1017.50 of the Ordinance and adopt the findings of fact as amended.

2) *Vote to grant the Conditional Use Permit with the following conditions:*

2.1) *The wetland resource shall no longer be mowed.*

2.2) *The property owner shall agree to mowing the 25' vegetated no-cut buffer no more than twice per year. Mowing cannot occur during the nesting bird season (April to July). Owners must abide by best management practices for mowing a sensitive wetland buffer.*

2.3) *In accordance with Section 10.1018.40 of the Zoning Ordinance, owner shall permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. Markers are to be placed along the 25' vegetated buffer at 50-foot intervals and must be installed prior to the start of any construction.*

2.4) *Owners shall permanently install markers such as boulders in between the proposed trees to be planted along the wetland edge. This physical barrier shall serve as a deterrent to mowing. Plans must be updated to show proposed location and marker type.*

2.5) *A maintenance plan for the property shall be included as part of this project for the purpose of educating current and future property owners. This plan shall address proper long-term maintenance of the permeable pavers and the swale, City cutting regulations within the wetland and wetland buffer, and mowing restrictions for this property (including best management practices for mowing of a wetland meadow buffer).*

III. PUBLIC HEARINGS – NEW BUSINESS

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- D. REQUEST TO POSTPONE** The request of **Aviation Avenue Group (Owner), Kane Management Group LLC (Applicant)**, for property located at **100 New Hampshire Avenue** requesting Amended Site Plan approval to modify a prior condition of approval. Said property is located on Assessor Map 308 Lot 1 and lies within the Pease Industrial (PI) District.

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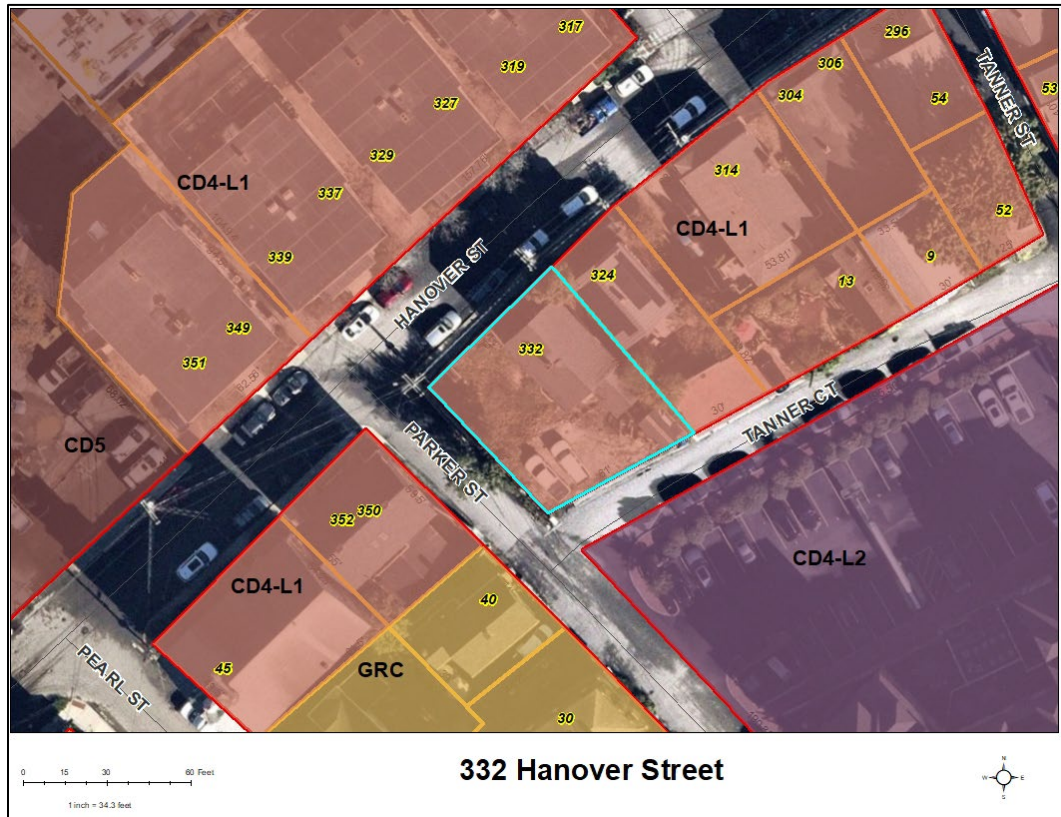
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- F. The request of **Kent and Jennifer Bonniwell (Owner)**, for property located at **332 Hanover Street** requesting Conditional Use Permit from Section 10.814 for construction of a new single-family dwelling containing an Attached Accessory Dwelling Unit. Said property is located on Assessor Map 126 Lot 43 and lies within the Character District 4-L1 (CD-4-L1) District.

Project Background

The applicant is proposing to construct a new single-family dwelling with a 749 square foot Attached Accessory Dwelling Unit (AADU) on the first floor. The applicant is not seeking any modifications from the Ordinance and the proposed dwelling complies with all dimensional requirements of the Ordinance. The proposal includes three car garage and three exterior spaces, where only three are required.



Planning Department Recommendation
Attached Accessory Dwelling Unit Conditional Use Permit

1) *Vote to find that the Conditional Use Permit Application meets the requirements set forth in Section 10.814.62 of the Ordinance and adopt the findings of fact as presented.*

(Alt.) Vote to find that the Conditional Use Permit Application meets the requirements set forth in Section 10.814.62 of the Ordinance and adopt the findings of fact as amended.

2) *Vote to grant the Conditional Use Permit with the following conditions:*

2.1) *Documentation of the conditional use permit approval shall be recorded at the Rockingham County Registry of Deeds, together with an affidavit that either the principal dwelling unit or the accessory dwelling unit will be occupied by the owner of the dwelling as the owner's principal place of residence, as required by Section 10.814.22.*

2.2) *A certificate of use issued by the Planning Department is required to verify compliance with the standards of this Section, including the owner occupancy and principal residency requirements. Said certificate shall be issued by the Planning Department upon issuance of a certificate of occupancy by the Inspection Department. A certificate of use shall not be issued prior to recording of documentation as required by this Ordinance.*

2.3) *The certificate of use shall be renewed annually upon submission of such documentation as the Planning Department may require to verify continued compliance with the standards of this Section. Failure to comply with this requirement shall be deemed a violation of the ordinance and may be enforced as provided in Article 2.*

VI. CITY COUNCIL REFERRALS [NOTE: ANY REFERRALS REQUIRING PUBLIC HEARING SHOULD BE INCLUDED ABOVE]

A. Hanover/Hill Street Area/Downtown Overlay District & North End Incentive Overlay District

Background

The City Council voted on August 5, 2024 to refer the letter (included in packet) from the Islington Creek neighborhood to the Planning Board for a report back on possible zoning changes that were originally presented to the Planning Board in 2020.

18. Letter from residents of Islington Creek regarding zoning of 361 Hanover Street – **Voted** to refer to the Planning Board for review and recommendation for the consideration of a zoning change.

The Planning Board has held 4 work sessions where this was discussed, September 26, 2024, October 24, 2024, February 27, 2025 and March 27, 2025. At the March 27th meeting, the Board reviewed options for rezoning several parcels along Hill, Hanover and Rock Street and changing the building height requirement along Bridge and Hill Street. In addition, the Board looked at modifying the boundary of the North End Incentive Overlay (NEIOD) and Downtown Overlay Districts (DOD). Maps below outline the consensus from the work session.

Zoning Changes

Staff provided the recommendation from January 2020 depicted in the map below where the front of 361 Hanover would change from CD5 to CD4-L1 and the back half and two other lots on Hill Street would change from CD5 to CD4. In addition, 66 Rock Street would change from CD5 to CD4. The main differences between CD4 and CD5 are the dimensional standards of the lot occupation by structures as provided in the table below. CD5 allows more coverage and a larger building footprint and less open space requirement where CD4 requires more open space, a slightly smaller footprint and less building coverage. There is no density (lot area per dwelling) requirement in CD4 or CD5 and the permitted uses in both districts are the same. CD4-L1 is less intense, with a max building footprint of 2,500 square feet, a density requirement of 3,000 square feet per dwelling and fewer permitted nonresidential uses. The Board considered and had general consensus on changing the zoning to CD4-W, which provides a step above CD4-L1, but not as intense as CD4 or CD5, as provided in the tables below. CD-W zoned parcels are only located in the west end and no where else in the City.

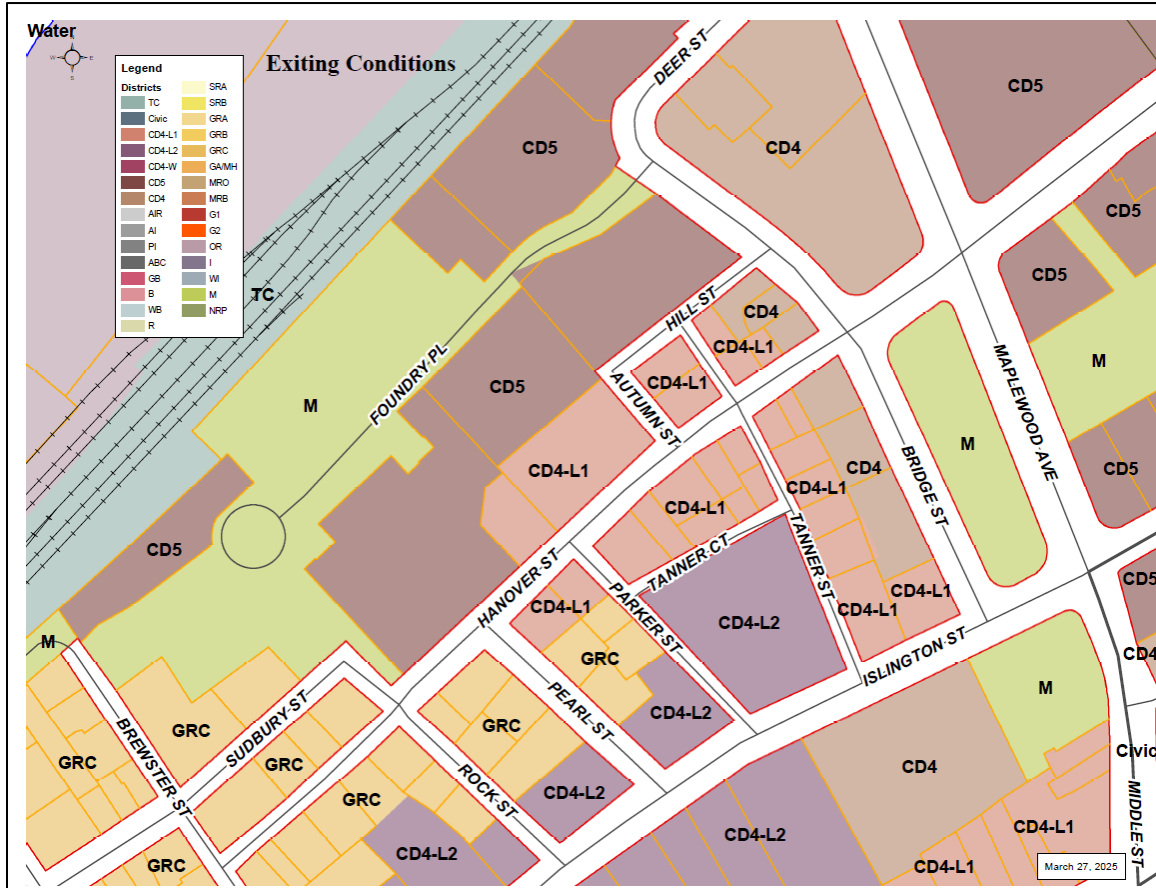
Dimensional Requirements

	CD5	CD4	CD4-L1	CD4-W
Yards (max.)	5'	5'-15'	5'-15'	10'-15'
Front Lot Line Buildout (min.)	80%	50%	60%-80%	50%
Building Coverage	95%	90%	60%	60%
Building Footprint	20,000 s.f.	15,000 s.f.	2,500 s.f.	15,000 s.f.
Building Block Length	225'	200'	80'	200'
Open Space (min.)	5%	10%	25%	15%
Lot area per dwelling unit	NR	NR	3,000 s.f.	2,500 s.f.

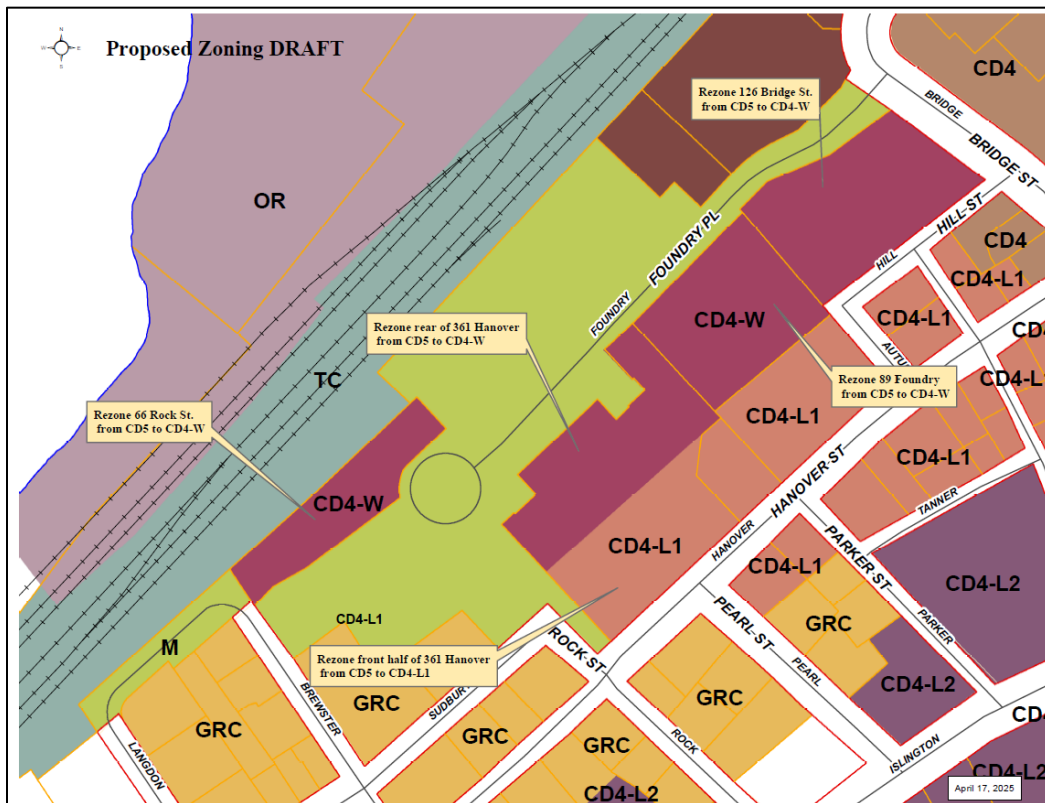
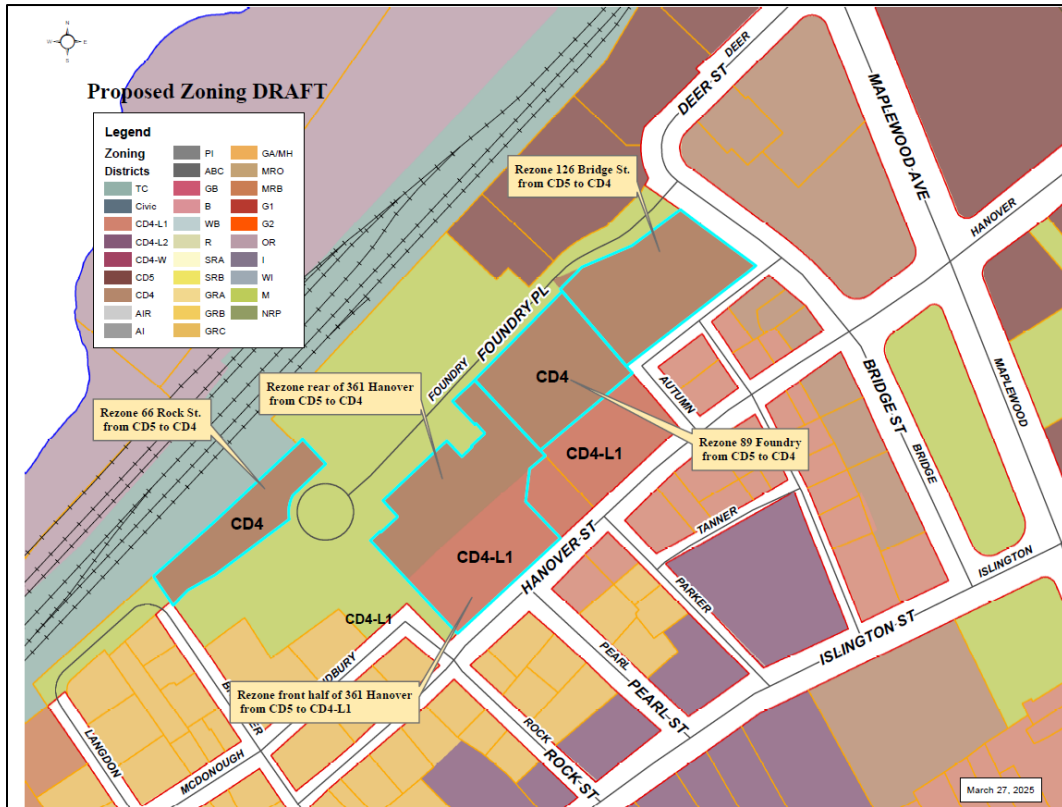
Use Categories

	CD5/CD4	CD4-L1	CD4-W
Residential (up to 8 units)	P	P	P
Residential (8+ units)	P	N	P
Assisted Living Center	P	N	P
Performance Facility	P/S	N	S/N
Cinema or other indoor amusement use	P	N	P
Health club/related use	P/S	S/N	P/S
Office	P	P	P
Retail bank	P	N	P
Outpatient clinic	P	S	P
Personal/consumer services	P	N	P
Laundry / dry cleaning	P/S	N	P
Retail	P	N	P/S
Eating/drinking places	P(500)/S(500+)	N	P(50)/S(250)

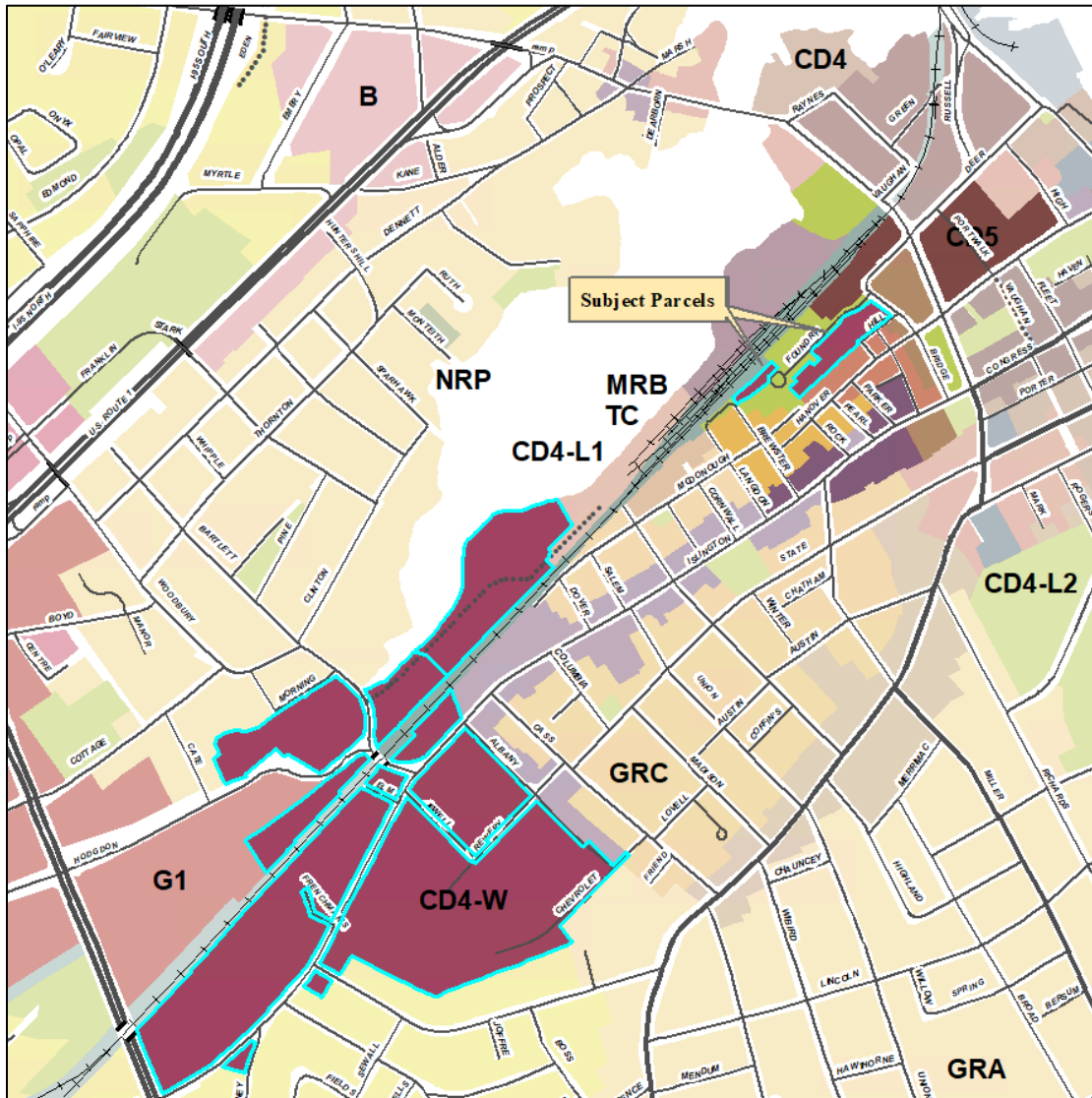
Existing zoning map below shows the subject parcels zoning CD5.



Proposed zoning map that was presented in January 2020 with the addition of 66 Rock Street.

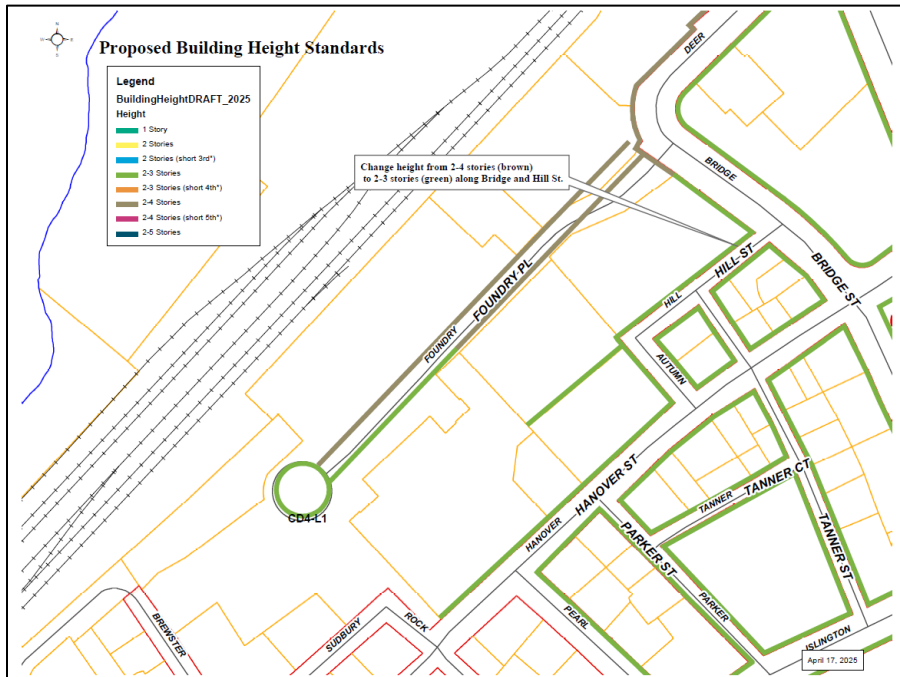
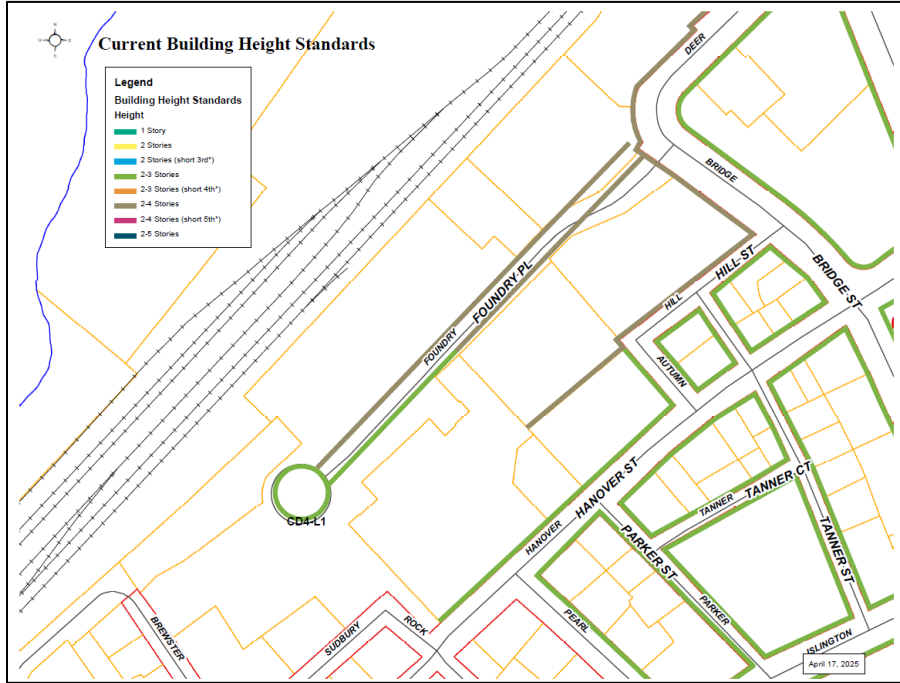


The map above represents the consensus the Board had at the March 27, 2025 work session which changes the subject parcels to CD4-W with the exception of the front of 361 Hanover, which would change to CD4-L1. The only area zoned CD4-W is the West End. The map below shows the current CD4-W zone and includes the subject parcels on Hanover and Hill Street if they were changed to CD4-W. While staff can agree with some of the logic for choosing this district, downzoning some of these parcels will make them nonconforming. For example, 89 Foundry contains a building with a footprint of over 16,000 square foot and 55 apartments on a 22,538 square foot lot. The current zoning allows for this footprint and density. Changing to CD4-W, the building footprint, coverage, open space and lot area per dwelling would all be nonconforming. The project at 361 Hanover will also be nonconforming for lot area per dwelling and building footprint if downzoned to CD4-W. **Staff would recommend the original proposal that was presented in 2020 with the additional change to 66 Rock Street.**



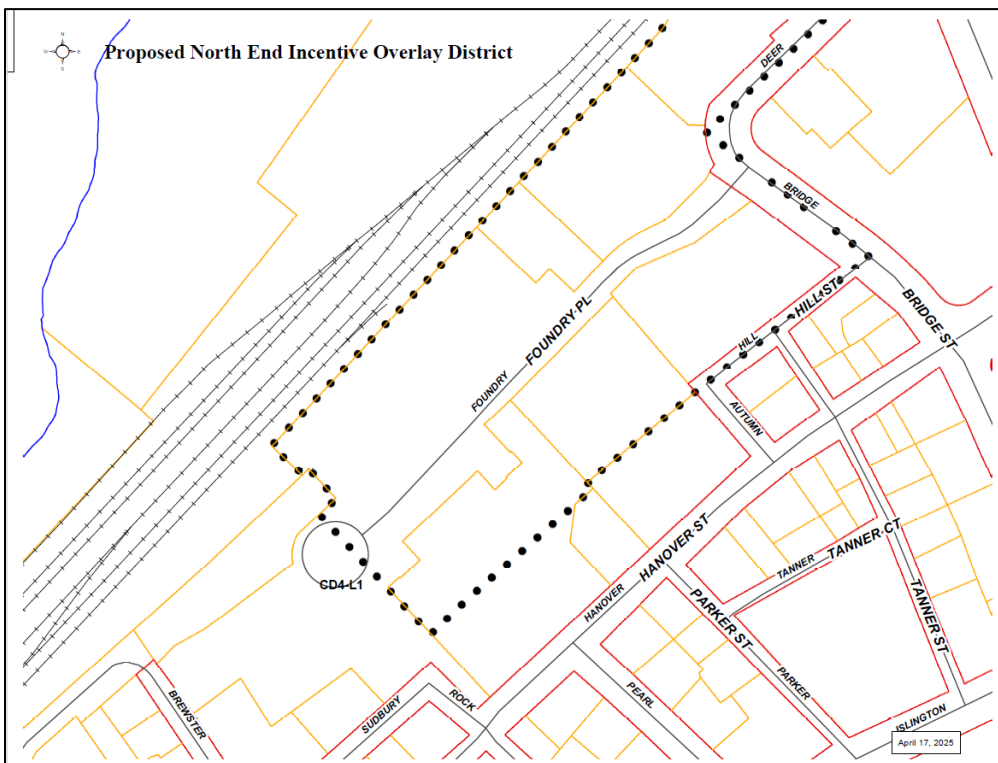
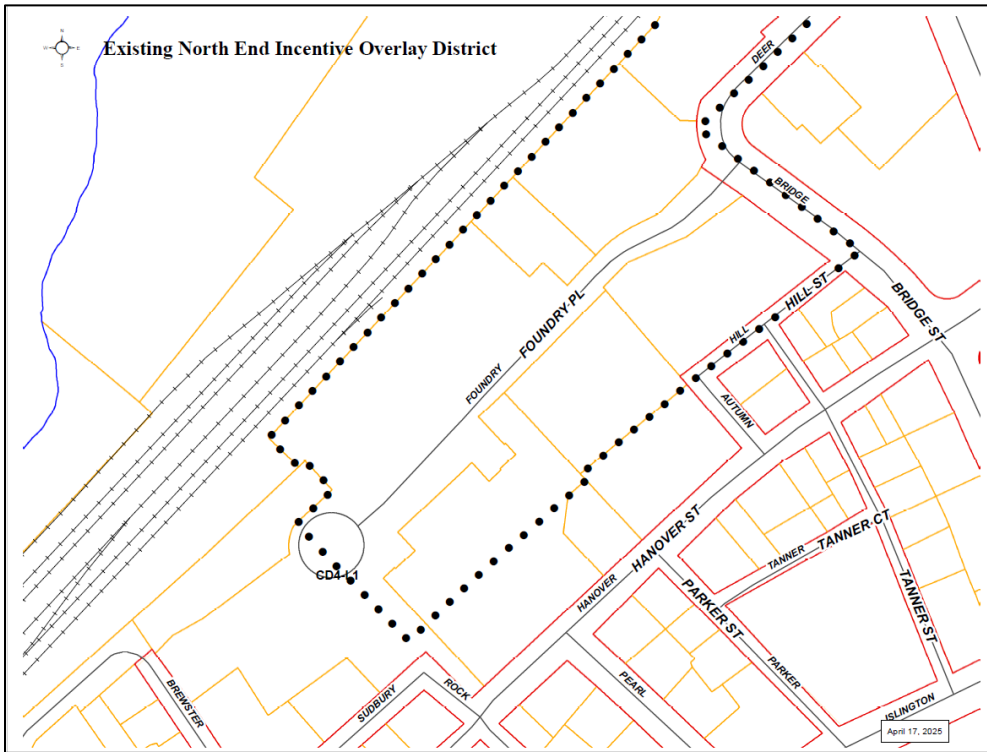
Building Height

The map below shows the current building height standards which allow 2-4 stories (50') along the south side of Bridge Street and down Hill Street. As discussed at the March 27th work session, the Board had consensus of changing the designation to 2-3 stories (40'), which is indicated by the green line. The properties that are located in the North End Incentive Overlay District would still be able to increase the building height by 10' or 1-story about the maximum, subject to the requirements of the overlay district.



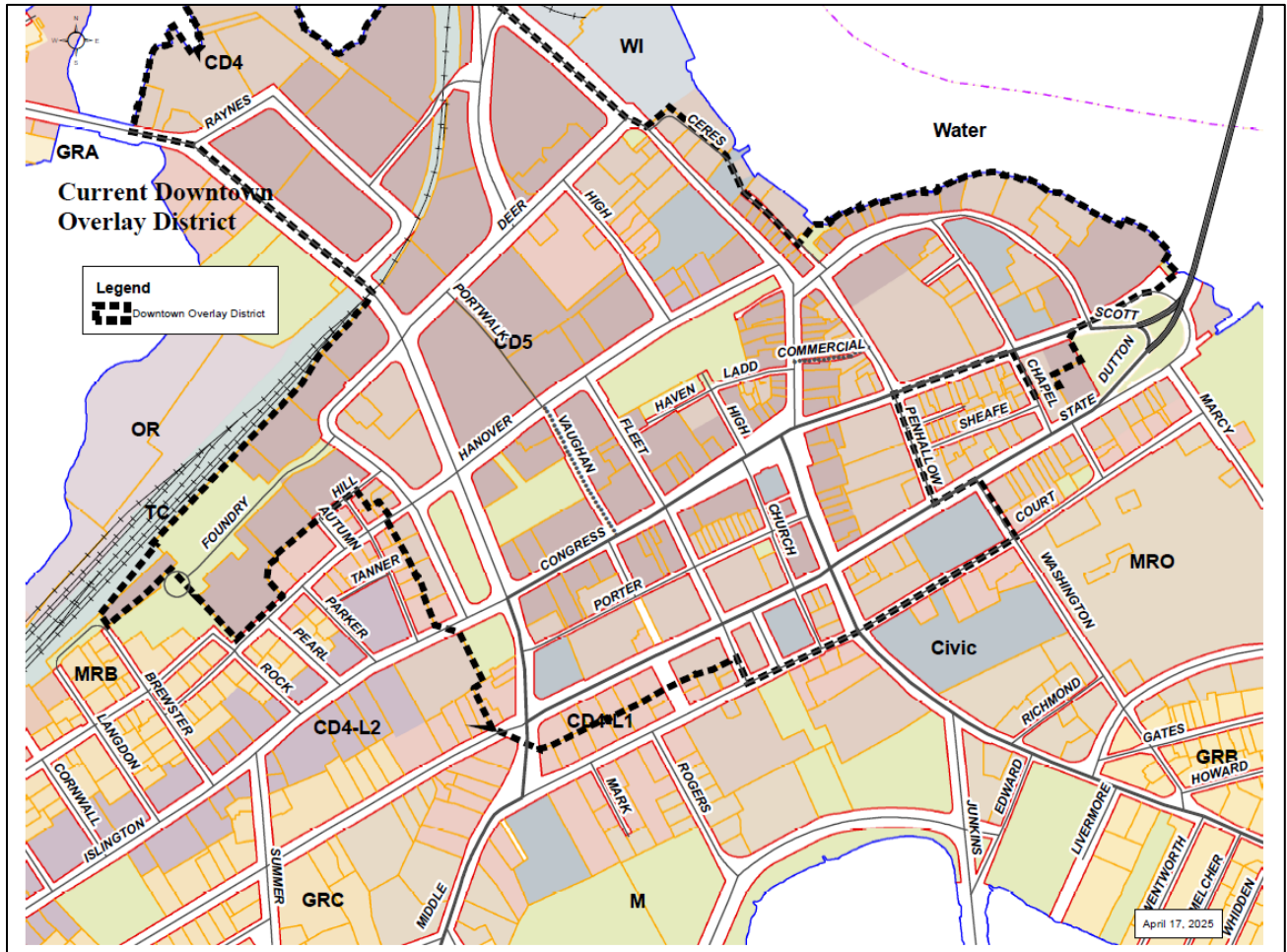
North End Incentive Overlay District (NEIOD)

Minor changes are proposed to the boundary of the NEIOD to better align with lot lines along 361 Hanover Street and 66 Rock Street.



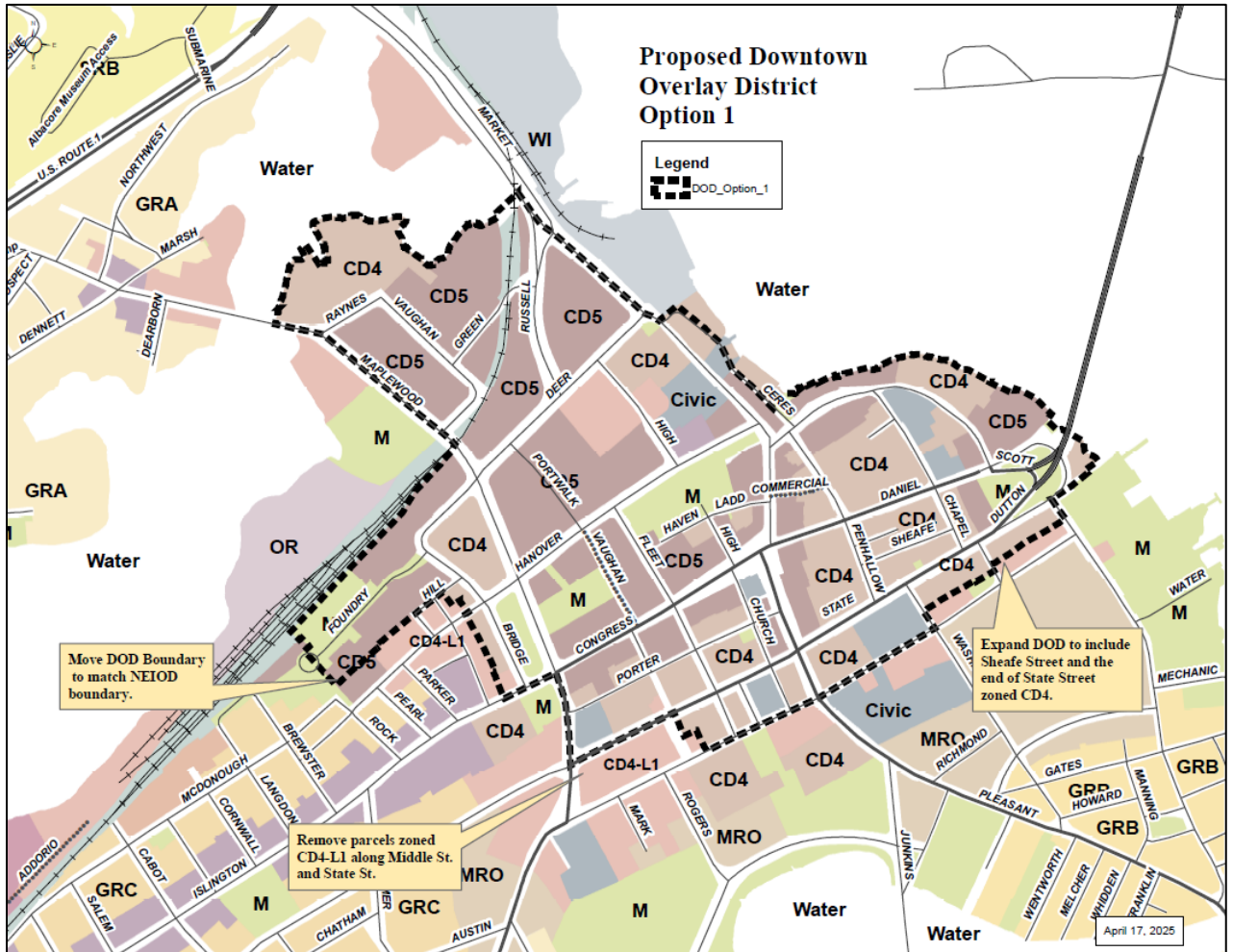
Downtown Overlay District

While the Board has been discussing zoning changes along Hill and Hanover Street, this included revising the boundary of the Downtown Overlay District (DOD) to follow the North End Incentive Overlay District. Below shows the current DOD boundary for reference when reviewing the two options that were discussed at the work session. The Board considered modifying the DOD boundary in other areas and below are 2 options the Board requested to see following the work session.



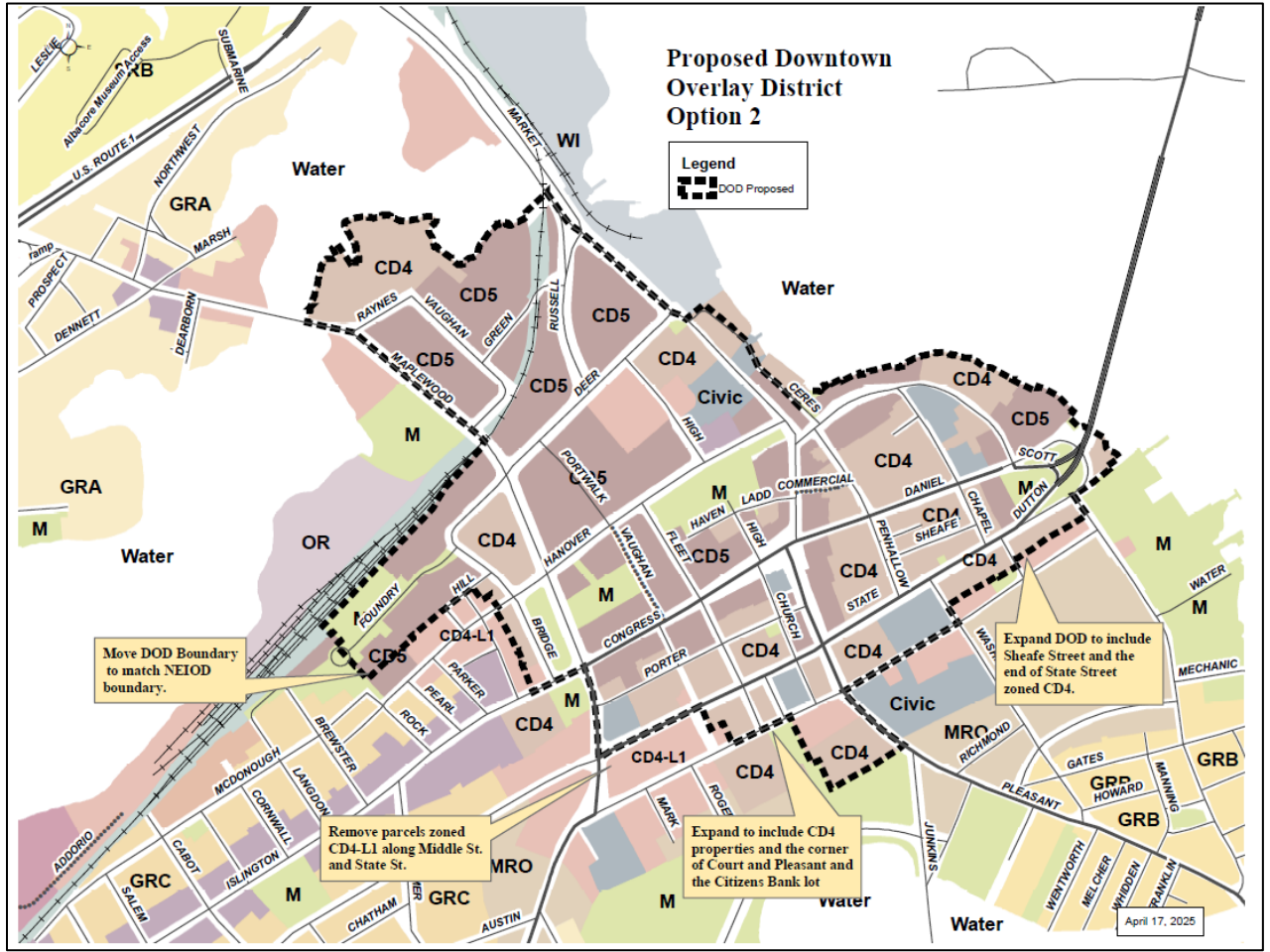
Option 1

Option 1 is outlined in the map below and moves the DOD boundary on 361 Hanover to match the North End Incentive boundary that bisects that parcel. Option 1 includes removing parcels zoned CD4-L1 along Middle Street and State Street and incorporating 2 parcels and a portion of a parcel on Court Street that are zoned CD4. The largest adjustment to the DOD includes moving the boundary to include Sheafe Street and the parcels fronting on State Street that are zoned CD4.



Option 2

Option 1 is outlined in the map below and incorporates all of the changes outlined in the paragraph above with the addition of capturing the corner of Court Street and Pleasant Street including the Citizens Bank property.



Planning Department Recommendation

1) Vote to recommend the City Council hold first reading on the proposed zoning map amendments as presented.

Or

1) Vote to recommend the City Council hold first reading on the proposed zoning map amendments as amended. (pending and Planning Board edits/revisions)

VI. OTHER BUSINESS

A. Chairman's Updates and Discussion Items

B. Board Discussion of Regulatory Amendments and Other Matters

VII. ADJOURNMENT

**PLANNING BOARD
PORTSMOUTH, NEW HAMPSHIRE**

**EILEEN DONDERO FOLEY COUNCIL CHAMBERS
CITY HALL, MUNICIPAL COMPLEX, 1 JUNKINS AVENUE**

7:00 PM Public Hearings begin

March 20, 2025

MEMBERS PRESENT: Rick Chellman, Chairman; Anthony Coviello, Vice-Chair; Karen Conard, City Manager; Joseph Almeida, Facilities Manager; Beth Moreau, City Councilor; Members Paul Giuliano, Andrew Samonas, William Bowen, Ryann Wolf, and Alternate Frank Perier

.....
ALSO PRESENT: Peter Stith, Planning Department Manager

MEMBERS ABSENT: None.
.....

I. APPROVAL OF MINUTES

- A. Approval of the **February 20, 2025** meeting minutes.
- B. Approval of the **February 27, 2025** Work Session minutes.

*Vice-Chair Coviello moved to approve both sets of minutes as presented, seconded by Mr. Almeida. The motion **passed** with all in favor.*

*Vice-Chair Coviello moved to take Section VI. Other Business, Items B, 581 Lafayette Road, and Item A, Co-living Amendments, out of order to bring forward for discussion. Ms. Conard seconded. The motion **passed** with all in favor.*

II. PUBLIC HEARINGS – NEW BUSINESS

- A. The request of **96 State Street LLC (Owner)**, for property located at **96 State Street** requesting a parking Conditional Use Permit from Section 10.1112.14 to allow zero (0) parking spaces where thirty (30) are required. Said property is located on Assessor Map 107 Lot 52 and lies within the Character District 4 (CD-4) and Historic District. (LU-25-28)

SPEAKING TO THE PETITION

[Timestamp 30:36] Attorney Darcy Peyser was present on behalf of the applicant and reviewed the petition. She said the Conditional Use Permit was necessary to allow the applicant to expand and convert the upper second and third floors to a residential use. She said the second floor would be occupied by the restaurant owner and the third floor would be occupied by restaurant employees. She noted that the Historic District Commission (HDC) approved drawings in

September 2024. She said the applicant wanted to add 575 square feet of residential space to the second floor and 300 square feet to the third floor. She said there was no designated off-street parking but that the applicant submitted a parking demand analysis by Altus Engineering that calculated the existing number of parking spaces at 46 spaces, based on the present use of the building. She further discussed why a Conditional Use Permit was needed. She said the applicant met with the Technical Advisory Committee (TAC) and corrected the parking demand analyses issues identified. She explained why the parking demand was reduced and where the residents could park. She said the current parking was more intense due to the restaurant use.

[Timestamp 38:50] Mr. Almeida said he was surprised that no site plan was presented to the Board. He said he followed the building over the years because he was a former HDC chairman and the project went before them multiple times. He said 102 State Street was an award-winning historic building next door and that he feared there were minor things with the design that would significantly impact that building, one of which was the addition's roof overhang that crossed the property line, and that it wasn't clear how the addition would connect to the neighboring building. He said he saw no need for the roof overhang. He noted that the little window was discussed in great detail with the HDC and the Building Department. He said it was a unique situation where the addition could be a few feet away and still work and that there was no reason for it to touch the next-door building. It was further discussed. Chair Chellman said the parking was related to the size of the proposed addition and that the applicant explained that the parking analysis calculations were based on the plans. He said he thought the plans were linked and that the Board should see them. He said the roof going over the property line also concerned him.

[Timestamp 43:08] Attorney Peyser said they were aware of the concerns and that if they were to revise the submitted plans so that the area that abuts the building is smaller, either the hip roof would be gone or the building would be moved back. She said the parking demand calculation remained at 1.3 spaces per dwelling unit over 750 square feet, so the ask remained the same, zero spaces where 30 are required and zero exist. She said any revisions to the plan would be addressed at the building permit issuance level and potentially submitted to the HDC for an administrative approval, but it did not change the nature of their request that night.

[Timestamp 44:31] Chair Chellman said that did not answer the Board's questions. He gave an example and said the approval needed was for a Conditional Use Permit, which included the approval of the calculations and the discretion that is built in, which the Board required more of. He asked if the applicant was proposing to change the plan for an administrative approval at the HDC to address the issues. Attorney Peyser said did not intend to do so but would if necessary, but the plans were approved by the HDC and that the applicant wanted to seek a Conditional Use Permit based on them. Mr. Samonas said Attorney Peyson said the building would be occupied by the restaurant owner and employees, but he said the Board did not have a way to tie that type of statement to the approval. Mr. Bowen asked if the Conditional Use Permit application met the requirements set forth. Chair Chellman said it was up to the Board to determine if it did, and it was further discussed.

[Timestamp 49:03] The floor plan was discussed. Mr. Almeida said the "flex living" room had no reason for it wall to follow the angle shown and tie into the building next door and that it

could come straight down perpendicular and meet the front wall and have a gap between the buildings at that level. He read the history of Ms. Bouffard's building's award-winning preservation renovation. He asked that the language in the ordinance be defined so that the wall could be recanted back and not touch the Ms. Bouffard's building and that it allow the tiny window to be used on the second floor instead of being encroached upon. Vice-Chair Coviello asked if the Board was positive that the roof overhang crossed the property line. Chair Chellman said if the roof did overhang, and it was further discussed. Vice-Chair Coviello said it could be elevations and that it seemed like there was a big gap between the buildings. Chair Chellman asked Attorney Peyson if the roof hung over the adjacent property. Attorney Peyson said the third-floor hip roof perhaps had an overhang but she didn't believe that the second floor roof would overhang at all, even though the drawing appeared to show that it would. Chair Chellman said the roof was on the third floor, so that was where the overhang would be and it appeared that it did cross the property line. Vice-Chair Coviello suggested postponing the application so that the Board could get facts and resolve the issue. Chair Chellman said the other issue was the one Mr. Almeida brought up on whether a distance separation based on building code was needed. He said the Board would need certification from the Building Department about it. The Board discussed what would happen to the calculations if the owner rented to others instead of the employees. Attorney Peyson said the third floor was residential now and would be the same calculation if it was rented to any tenant. Chair Chellman said it was at the discretion of the Board to consider that, and it was further discussed.

Chair Chellman opened the public hearing.

SPEAKING TO, FOR, OR AGAINST THE PETITION

[Timestamp 58:32] Attorney Tim Phoenix was present on behalf of Karen Bouffard, the owner of the LLC owning the abutting property 100-102 State Street. He said the small window that the architect indicated was installed without approval was actually installed after HDC review, and a building permit was given. He said Ms. Bouffard thought at first that the new building would be behind the window on the side of her building but then learned that the notch was proposed and would be against the building. Attorney Phoenix said they asked for the plans but the Inspection Department would not release them. He said they were concerned about the applicant's intention to connect the wall. He said the roof did look like it hung over Ms. Bouffard's property, but the response they received was that the applicant may pull the building away. He said Ms. Bouffard did not know what would happen and thought it was premature for the Board to make a decision.

Elizabeth Bratter of 159 McDonough Street said there was no overnight parking available in the south end. She said the Downtown Overlay District (DOD) allowed commercial to not have any parking requirement, so if the applicant were in the DOD, they would only need three spaces. She said it sounded like the owner was using a pseudo parking space to park their car, but if it was rented out to someone other than the owner, it would create a need for more parking, so it could be stipulated that at least one of the two apartments had to be owner-occupied.

Second Round Speakers [Timestamp 1:04:09]

Attorney Phoenix said the point of it all was that his client didn't know if they opposed the parking because they did not know what was going to be built, and they did not have a good feeling for what was happening inside the restaurant because they saw no plans. He said they did not know exactly what was going to be built. He said they were in favor of continuing the application until the applicant addressed the Board's concerns.

No one else spoke, and Chair Chellman closed the public hearing.

DECISION OF THE BOARD [Timestamp 1:06:25]

Vice-Chair Coviello moved that the Board vote to continue the application to the April meeting so the applicant can provide floor plans and parking calculations based on the final design, to address the roof overhang relationship with the boundary, and get clarification and any needed revisions due to code requirements for the proximity of the addition. Mr. Samonas seconded.

There was further discussion. Mr. Giuliano said he had studied the application for a Conditional Use Permit for parking and saw that the applicant went to the HDC in September and to TAC and that he thought it was a nonconforming use for parking. He said what the applicant proposed would make it less nonconforming, so he saw a pathway to approval. He asked how the award-winning historic property got overlooked in the HDC's approval, and he said he did not think he would have approved it if he had known about that. Chair Chellman said mistakes happen. He said the second floor was the expansion of the floor plan of an existing restaurant, and if that was all that was proposed, it would require site plan approval. He said the fact that they were calling it residential could be a way to get around site plan review, so it would be expanding a nonconforming use. Mr. Almeida there was always a need for a site plan.

The motion passed with all in favor.

- B.** The request of **HCA Health Services of NH INC, dba Ducharme McMillen and Associates (Owner)**, for property located at **333 Borthwick Avenue** requesting a Wetland Conditional Use Permit in accordance with Section 10.1017.50 for the removal of 3 existing 24" culverts and replacement with a Box Culvert. Said property is located on Assessor Map 240 Lot 2-1 and lies within the Office Research (OR) District. (LU-24-224)

SPEAKING TO THE PETITION

[Timestamp 1:11:48] Project engineer Matthew Hamby was present on behalf of the applicant. He said they wanted to replace three 24-ft culverts with a 3x10' box culvert to provide additional flow through the wetland. Chair Chellman asked if the City would have the right but not the obligation to maintain the drainage structures. Mr. Hamby agreed and said that one of the conditions of approval was to dedicate an easement along the discharge on the west side from Borthwick Avenue through that channel for City maintenance purposes. Chair Chellman said it could be part of the easement, that if the City had to maintain it, HCA would have to reimburse the City for that maintenance. Mr. Hamby said they would be agreeable to it.

Chair Chellman opened the public hearing.

SPEAKING TO, FOR, OR AGAINST THE PETITION

No one spoke, and Chair Chellman closed the public hearing.

DECISION OF THE BOARD

Wetland Conditional Use Permit

1) Vice-Chair Coviello moved that the Board find that the Conditional Use Permit Application meets the requirements set forth in Section 10.1017.50 of the Ordinance and adopt the findings of fact as presented. Mr. Almeida seconded. The motion passed with all in favor.

2) Vice-Chair Coviello moved that the Board **grant** the Conditional Use Permit with the following **conditions**:

2.1) Applicant shall monitor the success of proposed seeded areas and prepare a memo to be sent to the Portsmouth Planning & Sustainability Department annually for the first two years after planting/seeding. If after two years, the seeded areas show a survival rate of less than 80%, applicant will replant/reseed.

2.2) In order to maintain the existing stormwater flow, an easement shall be provided to the City to give the City the right, but not the obligation, to maintain the stormwater channel and its drainage improvements. The easement shall also contain language the if the City exercises its rights to conduct any such maintenance, the City will be reimbursed by the landowner. The applicant will work with the Legal Department to finalize the easement language.

Mr. Almeida seconded. The motion **passed** with all in favor.

III. PRELIMINARY CONCEPTUAL CONSULTATION

- A. The request of **Brora LLC (Owner)**, for property located at **0 Dunlin Way** **requesting** Site Plan Review approval to construct three (3), six (6) story multifamily residential buildings consisting of approximately 270 dwelling units with associate site improvements. Said property is located on Assessor Map 213 Lot 12 and lies within the Office Research (OR) District and Gateway Neighborhood Overlay District (GNOD). (LUPD-25-3)

[Timestamp 1:17:00] Project engineer Patrick Crimmins was present on behalf of the applicant, along with the project team. He said there were site constraints because the property sloped up about a third of the site toward the Osprey neighborhood but then got to a steep pitch at a 50-ft grade change. He reviewed the schematic plans and said there was a buffer between the rear neighborhood and that the buildings would be at market rate and would integrate as a

community. He discussed landscaping, hardscaping, and plaza areas and said there would be parking in the rear that would be screened from the road. He said they considered some structured parking but the steep slope was a challenge. He said the incentive to have a 6-story building on the site was a land transfer to the City.

[Timestamp 1:22:00] Mr. Giuliano asked how the rooftops would line up, noting that the applicant said there was a 50-ft grade change from Portsmouth Boulevard to the top of the hill. Mr. Crimmins said the building heights were six stories, so the buildings would be approximately 75 feet and slightly higher than the hill. He said there was a lot of mature vegetation at the top of the hill that would screen the tops of the roofs. Councilor Moreau said she would like to see sidewalks and the road rebuilt because it was falling apart, and that she also wanted some amenities from the recreation area that were child-friendly and safe. She also suggested solar panels. Mr. Bowen said he was interested in the recreation component, noting that it would be five percent of Portsmouth's population and the City had parks, baseball fields, and so on. He asked what the vision for the property was, as well as for the broader area, in terms of recreation. Mr. Crimmins said they had not designed a full master plan or future phase for the GNOD District yet but were focusing on getting the parcel permitted. He said they would retain the vegetation on the hill and were thinking of a trail network, and would use the existing recreation area for an outdoor amenity for the parcel. He said the larger vision would be similar and if future developments were introduced, they could connect all of them and create a neighborhood. Mr. Bowen noted that the property across the street had removed vegetation. Mr. Crimmins said that was a stormwater maintenance project. It was further discussed. Mr. Bowen encouraged the applicant to work with the City's recreation committee to get a robust recreational component. Chair Chellman suggested possible recreation opportunities and asked if the applicant could get housing on the structured parking. Mr. Crimmins said if the subsurface conditions worked, they would consider it. It was further discussed. Mr. Crimmins said the units would be a mixture of one and two bedrooms and studios and that there was no plan to differentiate the units in the different buildings. He said construction would start as soon as the permitting process was finished and thought it would be 6-9 months and that they planned to phase it all at once. He said the units would all be market rate ones but that an affordable piece would be achieved by transferring land that the City could use for affordable housing.

IV. DESIGN REVIEW APPLICATION ACCEPTANCE

- A. 361 Hanover Steam Factory, LLC (Owner),** for property located at **361 Hanover Street**, requesting Design Review application acceptance for the construction of new residential buildings along Hanover Street and the renovation of the existing building with associated site improvements. Said property is located on Assessor Map 138 Lot 63 and lies within the Character District 5 (CD5), Downtown Overlay District (DOD), and North End Incentive Overlay District (NEIOD). (LUPD-25-2)

Councilor Moreau and Mr. Samonas recused themselves from the following item, and Alternate Frank Perier took a voting seat.

[Timestamp 1:38:04] Co-owner Steve Wilson was present. He reviewed the history of the project and said they came up with an alternative plan that separated the new buildings and made them

more residential looking, with lower profiles. He said they received variances from the BOA that included eliminating the commercial use on the first floor and allowing duplex and rowhouse apartments. He said the Heinemann Building now had 27 residential units and all the necessary parking and there were four additional buildings, which he further described. He reviewed the parking. He said they would return to TAC for a formal review on April 1.

Vice-Chair Coviello moved that the Board accept the application for Design Review and schedule a public hearing at the April 17, 2025 Planning Board meeting. Ms. Conard seconded.

[Timestamp 1:47:59] Mr. Bowen said in the earlier version, a few spaces were below market rate, and he asked if the design change would impact that number. Mr. Wilson said they wound up with some smaller, more affordable units. He said when they went to TAC, they had proposed a multi-modal way that would have allowed a vertical expansion, and that they also found out that it needed to be a modal way for all forms of transportation, which he further explained. Mr. Bowen said the answer was that there would not be any units below market rate. Vice-Chair Coviello asked if a gate blocked the non-multi modal way and if people were allowed to walk through there. Mr. Wilson said the intention was to have a gate allowing limited access for vehicles, but the sidewalk leading to the property would allow pedestrians. Vice-Chair Coviello said there would then be a gate to prevent vehicles other than the residents' vehicles to get there. Mr. Wilson said the building next to them had the right to use their driveway to get to Hanover Street. He said the traffic going through there was untethered so they did not feel that it was good for the residences. He said the traffic study would preclude them from having traffic cut through. Vice-Chair Coviello said pedestrians would then not walk through that area. Mr. Wilson said they would use the property's sidewalk. Chair Chellman told the Board to be prepared to discuss pedestrian and vehicular circulation and multi modal issues at the next meeting. Mr. Perier asked how close the building heights would be to the Rock Street buildings. Mr. Wilson explained why he thought it would be a 33-ft average elevation, with the building set up 1-12 feet off the sidewalk and that the elevations were similar to others in the area. It was further discussed.

*The motion **passed** by a vote of 8-0, with members Councilor Moreau and Mr. Samonas abstaining.*

V. CITY COUNCIL REFERRALS

A. 25 Sims Avenue – Involuntary Merger Reversal (RIML-25-1)

[Timestamp 1:57:40] Mr. Stith said the property used to be three lots and the applicant was requesting to unmerge one of the lots. He said the applicant's aunt owned the property and built a house that crossed two of the houses in the 1960s, and then the third lot was bought. He said the City Assessor merged them all and that the applicant asked that the part of the property that was vacant, the third lot, be unmerged. He said the assessor recommended that the lot be unmerged. He said the City Council referred it to the assessor and the Planning Board for a report back. It was further discussed.

*Ms. Conard moved that the Board recommend that the City Council restore Lot 44 only. Councilor Moreau seconded. The motion **passed** with all in favor.*

VI. OTHER BUSINESS

A. Co-living Amendments

[Timestamp 2:02] Chair Chellman said the Legal Department added a few things since the last meeting, basically the licensing requirement with the city clerk's office.

*Vice-Chair Coviello moved that the Board recommend that the City Council hold first reading on the proposed zoning amendments as presented. Ms. Conard seconded. The motion **passed** with all in favor.*

Chair Chellman opened the public comment session.

SPEAKING TO, FOR, OR AGAINST THE CO-LIVING AMENDMENT

Patricia Martine of 139 Aldrich Road said co-living was a creative idea to meet the housing needs in Portsmouth. She said expanding the extended area via the ordinance should not create fear in the area. She said single room occupancy had been around forever and that urban communities had a unique opportunity to provide new construction, but many of the larger older homes would also be conducive to home sharing. She said there would also be many social benefits of home sharing. She said it would address the dire need for affordability.

Gerald Duffy of 428 Pleasant Street said he had advocated for affordable housing in Portsmouth, urging the construction of both subcontract rate and affordable market rate housing. He said he sent out housing updates to 230 citizens on a regular basis who wanted to follow the City's response to the housing crisis and that it grew out of the Portsmouth Listens housing dialogues. He said the takeaways were that residents want action instead of more reports, and a sense of urgency of the part of the City. He said the character of Portsmouth was changing and favoring the wealthy, and half the City's residents were renters and cost burdened and most affected. He said the co-living concept addressed one specific tier of housing needs and was a proven concept, and that it was a far cry from the problematic rooming houses of old. He said the housing crisis would only get worse because companies were continuing to expand. He said it was a unique opportunity for the Planning Board to approve an exciting new source of housing.

Marcio von Muhlen of 303 Thaxter Road said he was in support of co-living, whether it was downtown or anywhere in the City. He said there an extreme shortage of homes, and that he witnessed it with family members who were forced to leave after living in Portsmouth for many years. He said he currently owned a home but had benefited from co-living earlier in life.

Elizabeth Bratter of 159 McDonough Street asked if the Inspection and Fire Departments were consulted. She said Section 10.18.15.29 should have a note added to include the phrase 'as per definition' because the definitions were in the back of Chapter 15 and some people didn't realize that. She said she had thought it was going to be one space for every four residents but now saw that it was one space for every four co-living units, which she thought was unrealistic because there could be eight people and only one space. She said she thought the Board had said that the pods would be made up of units of 10, but the write-up said 40 per floor.

No one else spoke.

[Timestamp 12:22] Councilor Moreau said the Chamber Collaborative of Greater Portsmouth put together four questions. She said the first question was whether businesses were familiar with the concept of co-living, and that all but one out of 41 said they were. She said the second question was whether co-living was a desirable way to promote more affordable living options for people in the downtown area, and the answer was overall 78 percent, 77 percent from downtown businesses, and 86 percent from other businesses. She said the third question was if it was agreed that co-living units would be an added benefit to the downtown culture, and 76 percent agreed overall, 77 percent of downtown businesses agreed, and 79 percent of other businesses agreed. She said the fourth question was whether no parking requirement would be appropriate if co-living was within a short walk from a garage, and that 68 percent agreed overall, 64 percent of downtown businesses agreed, and 85 percent of other businesses agreed. Chair Chellman asked that it go to the City Council with the Board's recommendation.

Vice-Chair Coviello said he had no problem with moving it on to the City Council but pointed out that just square footage and not affordability was tied to the ordinance. He said other communities in New England had very tiny units that were \$7 a square foot but that it was typically \$3-4 per square foot in Portsmouth. He said the apartments were very tiny but still expensive, and his fear was that if it passed, Portsmouth would have just as expensive apartments but tiny areas to live in. Chair Chellman said the transition from the 10-person boarding house to the larger sizes might be the opportunity for adding a layer of affordability. He said he also heard from people that 24/7, 365-day inhouse management was expensive, so if there were a smaller number of units, it would tie into what Vice-Chair Coviello said. He said if the owner had an arrangement with a property management company that was 24/7 and 365 days a year but not necessarily in the building, it might be acceptable and more affordable. Mr. Bowen said the discussion was always about features but not about pricing. He said there was no cap on the way it was written or what the pricing might be. He said HUD had a set of dimensions based on the area medium income and how many people are in the unit. He said affordability was talked about but nothing was done to make sure that it was actually affordable. He said the Board could ask the City Council to add to the criteria for Conditional Use Permits one for affordability, and that the Board could require an extremely low income level, which is 30 percent of AMI, a very low which is 50 percent of AMI, and a low income, which is 80 percent of AMI. He said the Board could require that half the units, or a third, or all of them comply with any of the incomes. He said the construct of the way this is being done would presumably allow the developer to do that, but absent of such a provision, the contractor may or may not do that and would charge what the market would pay in the long run. He said if the Board did not want it to be market rate, then that provision should be added. Mr. Samonas suggested that further definition or changing the term of unit vs. facility would be advisable for clarity. Regarding the parking requirements, he said it could be clarified that if the use were changed, it would come back for a Conditional Use Permit. Mr. Stith said it was possible, unless the applicant could comply with the parking. Mr. Samonas said in Section 10.8.5.31, No. 2, on parking requirements, it stated that if no part of the co-living facility is located with 600 feet of a local parking garage, then off-street parking is required at the rate of one space per every four units. He asked if the Board had discussed that. Councilor Moreau said the Council discussed it. Mr. Samonas asked how many properties in the CD4 and CD5 that applied to, and with the change in criteria, he felt that it was more of a strain on parking

than being within 600 feet of a parking garage. He said his concern was that it was too little parking. He said 24/7 site management seemed like the bare minimum, but that was how the Board was governing the control. He said the property management would be a critical component and that he would not want to waiver on the on-site management. Mr. Almeida asked if there was a distance requirement that could be satisfied for management, e.g. if the management company was downtown but had 24/7 on call service. Mr. Samonas pointed out that even school dorms had resident assistants on every floor. Chair Chellman said he thought the Board felt that there should be a middle tier between a boarding house and the larger houses and more flexibility built into the regulation. It was further discussed. Vice-Chair Coviello said the Board needed time to see it in action and to see if something had to be tweaked because there were so many unknowns. Chair Chellman said it was purposely made relatively small and simple and easy to understand. Mr. Samonas said the Board did a lot of research to arrive at the criteria and parameters, and if they changed it on the smaller side of it, he wanted to hear from operators of other co-living facilities outside of the area and whether it was the financial economics or if it was the in-practice management that did not carry over. He said that was important to hear and respond to instead of putting it out there and hoping it works. Councilor Moreau said there was a request from the public about expanding it beyond CD4 and CD5. She said it would take some time before there was feedback, so they could expand to all character districts or the two Gateway districts. She said office buildings in the Gateway district could be converted to co-living. Mr. Bowen said a provision to ensure that the pricing was really affordable should be included. Mr. Stith said that in New Hampshire, a project had to be incentive based to require workforce housing. Mr. Bowen said he would like the City Attorney to look at it to see if a requirement for an affordability consideration could be added to the Conditional Use Permit requirements. Chair Chellman said he would add a discussion to the workshop about expanding co-living and would then follow up with the City Attorney.

B. 581 Lafayette Road- Requesting a 1-Year extension to the May 16, 2024 Conditional Use Permit and Site Plan approvals. (LU-23-189)

[Timestamp 1:33] *Councilor Moreau moved that the Board grant a one-year extension to the Planning Board Approval of the Site Plan and Conditional Use Permit to May 16, 2025. Mr. Almeida seconded. The motion passed with all in favor.*

C. 60 Pleasant Point Drive – Requesting a 1-year extension to the December 21, 2023 Wetland Conditional Use Permit approval. (LU-23-180)

[Timestamp 2:00:55] Chair Chellman said the wetland Conditional Use Permit expired in December, and in November an electronic request for extension as submitted but the required physical plan submission was not submitted, so it fell through the cracks, so it technically expired. He said if the Board was inclined to grant an extension from December they would have to make a finding that the intent was to ask for the extension last year. Project engineer Eric Weinberg was present via Zoom and said he erred by forgetting to add the paper copy.

Councilor Moreau moved that the Board grant a one-year extension to the Wetland Conditional Use Permit to December 21, 2025. Mr. Almeida seconded. The motion passed with all in favor.

D. Chairman Updates and Discussion Items

[Timestamp 2:04:05] Non-gaming was discussed. Mr. Giuliano said it wasn't listed in the ordinance as a use, yet there were other uses such as amusement parks that were not permitted in any zone. He said non-gaming was becoming a use in neighborhood communities and was something the Board should consider getting ahead of and planning for it. Councilor Moreau said the Board would have to ask the Legal Department.

Vice-Chair Coviello brought up the topic of building single-family homes to rent and one ownership vs. multiple owners. He said some communities have zoning that allow closer setbacks, like a townhouse. He suggested that the Board explore what other communities were doing for that type of zoning. He said it was often for people who could not afford down payments or for the elderly and was just a different type of housing that was growing.

Mr. Stith said there would be a work session the following week to discuss the Hanover/Hill Street area and the Downtown Overlay District.

E. Board Discussion of Regulatory Amendments and Other Matters

There was no discussion.

VII. ADJOURNMENT

The meeting adjourned at 9:10 pm

Submitted,

Joann Breault
Planning Board Meeting Minutes Taker

**PLANNING BOARD WORK SESSION
PORTSMOUTH, NEW HAMPSHIRE**

**EILEEN DONDERO FOLEY COUNCIL CHAMBERS
CITY HALL, MUNICIPAL COMPLEX, 1 JUNKINS AVENUE**

6:00 PM

March 27, 2025

MEMBERS PRESENT: Rick Chellman, Chairman; Anthony Coviello, Vice Chair; Beth Moreau, City Councilor; Paul Giuliano; William Bowen; Ryann Wolf; Frank Perier, Alternate

ALSO PRESENT: Peter Stith, Planning Department Manager

MEMBERS ABSENT: City Manager Karen Conard; Andrew Samonas; Facilities Manager Joe Almeida

Chair Chellman called the meeting to order at 6:00 p.m.

I. Zoning Amendments

A. Hanover/Hill Street Area/Downtown Overlay District

[Timestamp 8:25] Mr. Stith reviewed the Hanover/Hill Street Area/Downtown Overlay District zoning amendments. He said that after the last work session, the Board wanted to add CD4W to the comparison, so the dimensional charts compared CD5, CD4 and CD4L1 as well as adding CD4W and adding it to the use categories. He noted that a proposed map from the 2020 recommendation had one addition, that the lot at the end of Rock Street (66 Rock St) is currently CD5 and that it would be appropriate if it went to CD4. He reviewed the building heights along Bridge Street and Hill Street and said they were currently 2-4 stories. He said the Board discussed changing it along the front of Bridge Street and then down Hill Street, and had also discussed pulling the DOD to match the North End Incentive Overlay and cleaning it up along the lot line where it abuts the Foundry Garage, and changing some of the DOD boundary.

[Timestamp 11:19] The Board discussed the Hill Street height. Councilor Moreau said she was happy with it. Vice-Chair Coviello said it was a big jump in height, 65 feet on one side of the street and 35 feet on the other, and then just north of that towards Bridge St, it was back to 65 feet on both sides. Chair Chellman said it wasn't resolved what would happen with the City land near the retaining wall. Vice-Chair Coviello said he would rather look at a residential building from Sudbury Street that was 45 feet tall and a little bit of garage than a 30-ft garage. He said he could see the Foundry Garage from his house and it was a wall of light. Councilor Moreau said the lights kept the area safer. Vice-Chair Coviello said the neighborhood would appreciate the lower height. Chair Chellman said it was pretty much where the neighbors wanted it.

[Timestamp 18:10] Councilor Moreau said she looked at the comparison for CD4W with some of the other items and that eating and drinking establishments were more allowed in the CD4W

than CD4L1. She said if the front of the lot were placed in CD4L1, it would be better than CD4W. Mr. Stith said CD4W permitted up to 50 people occupancy and up to 250 with a special exception. It was further discussed. Councilor Moreau said CD4L1 was more restrictive and that she liked it where it was. Vice-Chair Coviello asked if 50 occupants in CD4W related to square footage. Mr. Stith agreed. Councilor Moreau said CD4 and CD4L were similar otherwise but the lot-area-per-dwelling was added in CD4W. Square footage was further discussed as well as performance facilities. Chair Chellman said the neighbors wanted CD4W where CD4 was proposed from CD5. Councilor Moreau said the neighbors asked for the back side of Foundry Place to be CD4W also. Mr. Stith said there was no difference in uses in CD4 and CD5, just the dimensional requirements.

[Timestamp 29:17] Chair Chellman asked about DOD changes. Councilor Moreau said she was fine with the changes. Mr. Stith said in the immediate area, it would move the DOD from Hanover Street to follow the North End Incentive Overlay. He said currently DOD included 66 Rock Street, so that would be pulled back to follow the North End Incentive around the municipal property. Vice-Chair Coviello asked why the City wasn't grabbing more existing properties that did not meet parking requirements. Chair Chellman said it was typically done at the back of the zone lines. He said it was odd that the DOD in this case came down to the street corner along Hanover Street, and he thought it was because of the idea of a corner store but that it did not fit the zoning across both streets from that location and that it was a concern of the neighbors. Vice-Chair Coviello said he agreed with it in principle but thought it was strange to move the line around that area and leave lots that were nonconforming. It was further discussed. Chair Chellman said things had changed since the map was created and that the downtown zoning needed to be closely looked at. He noted that some regulations had A and B streets but on Sheafe Street it was mostly residential. Mr. Bowen asked if the Board was trying to push the zoning ahead of the Master Plan. Chair Chellman disagreed and said they were only updating the Master Plan and should go ahead with the rezoning but should consider whether there should be immediate changes, like the Sheafe Street area. He said as they did the Master Plan, it would inform them on whether they needed to do more refined changes based on the downtown.

[Timestamp 42:10] Chair Chellman said the Board agreed that changes could be made for height, the CD4W, and the DOD with respect for the left side of the shown diagram. He said if the DOD were extended, some of those streets should perhaps be allowed to have residential on the first floor, like Sheafe Street, Custom House Court, and Court Street. Mr. Bowen said the Board got requests for development in those areas that ignored the parking requirement, and he asked if they should be brought into conformance with reality. Chair Chellman said a lot of the surface parking downtown was comprised of bank parking lots, church lots, and a few municipal lots, and that others had been developed by one principal developer, but he thought surface parking lots were not a good fit for a walkable downtown. He said the City needed another parking garage and needed it on the map, otherwise the private sector would build parking that would get dedicated to one owner. It was further discussed. Vice-Chair Coviello said he was fine with everything marked up if there were going to be a first-floor residential allowance, except for State Street. Chair Chellman said it would depend on what was done with the DOD. He asked if the Board should add a provision for streets that don't require ground floor residential. Councilor Moreau suggested expanding the DOD as discussed but waiting for more conversations. Mr.

Giuliano said he didn't consider Sheafe Street very walkable. Mr. Bowen said Sheafe Street called for more redevelopment of the buildings on it, and it was further discussed.

[Timestamp 51:24] Vice-Chair Coviello referred to the extension to cover the bank and said it was adjacent to a very used public parking facility and that allowing it to not have parking would put a lot of intensity next door to it. He noted that the property could be developed soon and said he would be more comfortable bringing it one lot up. Mr. Stith said he could provide two maps, showing it on one and not on the other. Chair Chellman said the Board could consider a provision that would allow a Conditional Use Permit if the property were on the edge of the DOD and that there could be special criteria. It was further discussed and decided that there would be two maps, with the intent of changing the parking requirements and the first-floor occupancy requirements in a part of the DOD. Vice-Chair Coviello said the parking side was less of an issue to him than the character, and it was further discussed.

B. Building Footprint

[Timestamp 1:05:55] Mr. Stith said the current definition of building footprint included buildings connected by a fire wall, so most of the buildings downtown would be included. Councilor Moreau said the intent was to not let new construction have an entire big box that took up an entire block, with no break. Chair Chellman said some locations downtown fronted on two different streets due to old configurations but connected in such a way that the footprint triggered the fact that they were now over it. He said that wasn't intended but noted that some larger buildings downtown could front two streets properly. Vice-Chair Coviello said he thought it should be a Conditional Use Permit unique to downtown blocks of buildings. Mr. Stith read several types of conditions that the buildings would have to qualify for. Vice-Chair Coviello said he had no problem with a historic building but wondered if there would be a problem with the ordinance moving forward on newer projects. Councilor Moreau said it did not work on rehabbing old buildings and that she would look at it as an exception if the building had existed before the definition was enacted. Chair Chellman suggested that the Board return with some language and perhaps have an exception for existing buildings.

C. Solar

[Timestamp 1:13:02] Mr. Stith said he didn't have a chance to do more on solar. Chair Chellman said a possible future alternate member of the Board worked for a solar company and would know more about it. The Board agreed to discuss it when they had more information.

D. Wetlands

[Timestamp 1:14:14] Chair Chellman said the wetlands draft was not circulated. He said presently there was a Conditional Use Permit allowing people to do things in the 100-ft wetlands buffer. He said sometimes applicants did not fully conform with the existing criteria, especially in areas that were previously developed, but there were a lot of areas downtown and in adjacent areas, like the south end, where the 100-ft buffer affected them. He said the draft indicated leaving everything the way it was but to provide an exclusion for existing conditions that were already built up. He said the applicant would have to show an improvement for the environment, which currently happened but the ordinance did not state it. He said the Conservation

Commission could further explain it and that the Board could make it conform to what they had been doing. It was agreed that it was really codifying what the Board was already doing.

II. Other Business

[Timestamp 1:16:55] Chair Chellman said he talked to the City Attorney about the affordability of co-housing and co-living and said the Board had to find a way to get part of it under innovative land use controls and the Statute. He said that he and the City Attorney thought relief could be provided for parking, but the New Hampshire Legislature had a lot of bills pending that restricted what they could do, so the City Attorney had advised that the Board wait. Chair Chellman said as the Board considered expanding co-living and co-housing downtown, they had to see what it would look like, and he thought it would look good in the right location. Councilor Moreau said that expanding co-living to other areas needed to be looked at as well. Chair Chellman said it would be interesting to see how it worked with a converted existing building and that it would also make sense using new construction. Mr. Stith said he met with the chair of the Economic Development Corporation (EDC) that day and that they wanted to help with the Master Plan process. He said they were excited to do what they could with the economic portions of the Master Plan and that they wanted to prepare the first draft to get the conversation going, based on the prior economic sections of the Master Plan. Vice-Chair Coviello referenced the House and Senate bills and said a big one was House Bill 631 that stated that any commercial use property in urban areas or any commercially-zoned property that had sewer and water in those areas will allow multi-family dwellings up to 65 feet with a limit in first-floor retail up to 20 percent. He said it could be an opportunity to highlight what Portsmouth had done. He said he wasn't supportive of it in the Historic District, however. Councilor Moreau suggested talking to City Attorney Jane Ferrini. It was further discussed.

Public Comment [Timestamp 1:27:20]

Elizabeth Bratter of 159 McDonough Street said she represented the Islington Creek neighborhood. She said CD4 and CD5 had the same uses, which was the reason for CD4. She said the difference between CD4W and CD5 was the amount of people who could be there. She said the neighborhood had lots of parking issues because people chose to use free parking in the neighborhood. She said there was a tunnel effect as one drove down Bridge Street. She said the neighborhood would prefer to have 40-ft buildings due to the grade on the Foundry Place side, and that they had also requested that the DOD be removed from the neighborhood and from the Foundry Place side. She said the North End Incentive Overlay District was a problem because it allowed for more height and for expanding the building footprint by adding ten more feet, resulting in the buildings getting taller than the Foundry Garage. She said the neighborhood did not want 50-ft and 60-ft buildings up against the historic houses.

[Timestamp 1:35:45] Mr. Bowen said there was an affordable housing component to co-living but nothing that the Board did was organized around the concept of workforce housing. He said 30 New Hampshire communities had overlay districts for workforce housing and that it might be worth thinking about that for Portsmouth. Chair Chellman asked him to email some examples to him. Ms. Wolfe asked if there were places in Portsmouth that had permanent parking. Vice-Chair Coviello said Hanover Street was the only one he knew of. Chair Chellman said it was a huge

issue and that GIS-based parking for residents had been discussed. He said free parking in the Islington Street neighborhood was a magnet to visitors. He said the residents would not be changed but that visitors would. It was further discussed.

III. Adjournment

The meeting adjourned at 7:42 p.m.

Submitted,

Joann Breault
Planning Board Meeting Minutes Taker

DRAFT

Findings of Fact | Parking Conditional Use Permit

City of Portsmouth Planning Board

Date: March 20, 2025

Property Address: 96 State Street

Application #: LU-25-18

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 all the conditions necessary to obtain final approval.

Parking Conditional Use Permit

10.1112.14 The Planning Board may grant a conditional use permit to allow a building or use to provide less than the minimum number of off-street parking spaces required by Section 10.1112.30, Section 10.1112.61, or Section 10.1115.20, as applicable, or to exceed the maximum number of off-street parking spaces allowed by Section 10.1112.51.

	Parking Conditional Use Permit 10.1112.14 Requirements	Finding (Meets Criteria/Requirement)	Supporting Information
1	10.1112.141 An application for a conditional use permit under this section shall include a parking demand analysis, which shall be reviewed by the City's Technical Advisory Committee prior to submission to the Planning Board, demonstrating that the proposed number of off-street parking spaces is sufficient for the proposed use.	Meets Does Not Meet	<ul style="list-style-type: none"> The Applicant submits the parking demand analysis prepared by Altus Engineering, revised February 20, 2025. Altus Engineering has determined that forty-six (46) off street parking spaces are required by the Ordinance for the existing uses. The off-street parking requirement for the residential conversion of the second floor as proposed is thirty (30) spaces, which constitutes a 35% reduction in required off-street parking spaces. The Applicant met with the City's Technical Advisory Committee on February 11, 2025 and incorporated the Committee's recommendations into the revised Parking Demand Analysis.
2	10.1112.142 An application for a conditional use permit under this section shall identify permanent evidence-based	Meets Does Not Meet	<ul style="list-style-type: none"> The conversion of the second floor of the building to a residential apartment for the owners and use of the third floor as housing for employees of the

	Parking Conditional Use Permit 10.1112.14 Requirements	Finding (Meets Criteria/Requirement)	Supporting Information
	<p>measures to reduce parking demand, including but not limited to provision of rideshare/microtransit services or bikeshare station(s) servicing the property, proximity to public transit, car/van-pool incentives, alternative transit subsidies, provisions for teleworking, and shared parking on a separate lot subject to the requirements of 10.1112.62.</p>		<p>restaurant will reduce current on-street parking demand as indicated in the Parking Demand Analysis. The owners and employees of the business that own a vehicle and reside in the residential units will have convenient access to overnight public parking options such as the garage on High Hanover Street and the 72-hour municipal parking lot on Parrott Avenue. There will be less employees commuting to work on a daily basis. This will eliminate the need to utilize on- street parking spaces downtown or in the residential neighborhoods during peak hours of the day, The Property is conveniently situated directly on the COAST bus route, both reducing the need for patrons of the restaurant to park and creating convenient access to the employees residing on the upper floors to public transit.</p>
<p>3</p>	<p>10.1112.143 The Planning Board may grant a conditional use permit only if it finds that the number of off-street parking spaces required or allowed by the permit will be adequate and appropriate for the proposed use of the property. In making this determination, the Board may accept, modify or reject the findings of the applicant's parking demand analysis.</p>	<p>Meets Does Not Meet</p>	<ul style="list-style-type: none"> The residential conversion of the second and third floors of the building reduces total parking demand based on the requirements set forth in the Ordinance and ITE Parking Generation Manual, Edition 6. The Property does not have any on-site parking nor does the potential to create any. If the entire building were to continue to be utilized as a restaurant or for other commercial purposes, the parking demand would be greater than it is with the residential conversion of the second floor, A restaurant use requires one (1) space per 100 sq. ft. of GFA. Section 10.1112.30. Even if the third floor was not considered, the parking demand based on the first and second floors alone would be forty-four (44) spaces. The residential conversion of the second floor reduces allocated restaurant space to 2,625 sq. ft. GFA, resulting in a reduced parking requirement of thirty (30) off-street spaces. Based on the ITE Parking Generation Manual (6th Edition), the parking demand is reduced from eighty-two (82) spaces to fifty-one (51).

	Parking Conditional Use Permit 10.1112.14 Requirements	Finding (Meets Criteria/Requirement)	Supporting Information
4	10.1112.144 At its discretion, the Planning Board may require more off-street parking spaces than the minimum number requested by the applicant, or may allow fewer spaces than the maximum number requested by the applicant.	Meets Does Not Meet	
5	<u>Other Board Findings:</u>		
6	<u>Additional Conditions of Approval:</u>		

DRAFT

**CITY OF PORTSMOUTH PLANNING BOARD
CONDITIONAL USE PERMIT APPLICATION**

**96 State LLC (“Applicant”)
96 State Street
Portsmouth, NH 03801
Tax Map 107, Lot 52**

PARKING CUP NARRATIVE**Introduction**

The Applicant, 96 State LLC, is submitting a revised Conditional Use Permit (“CUP”) application following a revision to the building drawings for a proposed project on its property located at 96 State Street in Portsmouth, identified on Tax Map 107 as Lot 52 (the “Property”). The application was considered by the Planning Board at its March 20, 2025 meeting, during which the Planning Board voted to continue the application to the April 17, 2025 meeting to allow time for the Applicant and an abutter to resolve outstanding questions relating to the building plans. The Applicant presented its application for a CUP to allow less off-street parking spaces than required by Section 10.1112.30 of the Portsmouth Zoning Ordinance (the “Ordinance”) to permit the conversion of the second floor of the Applicant’s property from restaurant to residential use with a small addition to be constructed on the second and third floors. Following comments from the Planning Board and an abutter of the Property, the Applicant has revised its plans to no longer include any addition to the second or third floor. The Applicant now seeks a CUP to allow for less parking than the minimum required by the Ordinance only to permit the conversion of the second floor of the Property from restaurant to residential use.

The Property is a 3,049 square foot parcel of land that contains a three-story commercial building. The Property is located within Character District 4 and is adjacent to but not located within the Downtown Overlay District. The ground and second floors of the building are occupied by the restaurant, Domo, which has been a staple of Portsmouth for the past decade. The top third floor of the building is presently used as housing for employees of the restaurant. In the past, the third floor was permitted as a spa, and used for residential purposes prior to that.

The Applicant, also the owner of the restaurant, intends to reside in the converted second floor apartment. A copy of the building design plans prepared by Winter Holben Architects is attached hereto as Exhibit A. The converted second floor would consist of a single residential dwelling unit of 1,740 square feet Gross Floor Area (“GFA”). The third floor residential dwelling unit will remain at 1,740 square feet GFA.

The Property has no designated off-street parking spaces but is located centrally downtown on State Street, which is lined with on-street parallel parking. Additionally, there is a small public parking lot between Scott Avenue and Dutton Avenue, along with the High-Hanover parking garage within 0.25 miles and the Parrott Avenue municipal lot within 0.5 miles. Additional

overnight parking is available on Washington Street and throughout the South End area. The Property has a rear alley that has been mostly used as a loading area and for tandem parking for the owners and employees of the restaurant, although it does not meet the City's standards for either use.

Due to the lack of parking spaces on-site, the Applicant seeks a CUP from the Planning Board to allow zero (0) off-street parking spaces where the minimum required by Section 10.1112.30 of the Portsmouth Zoning Ordinance (the "Ordinance") for the proposed use is thirty (30). Based on the existing use of the Property, the required number of off-street spaces is forty-six (46). The conversion of the second floor to residential use results in an overall decreased parking demand upon the Property.

Off-Street Parking Ordinance Criteria

Section 10.1112.14 of the Ordinance allows the Planning Board to grant a CUP to allow a building or use to provide less than the minimum number of off-street parking spaces required by Section 10.1112.30, Section 10.1112.61 or Section 10.1115.20, as applicable, or to exceed the maximum number of off-street parking spaces allowed by Section 10.1112.51. The applicable minimum off-street parking requirements relative to the Property are as set forth in Sections 10.1112.31, 10.1112.321 and 10.1112.60, below.

10.1112.31 Parking Requirements for Residential Uses

Dwelling Unit Floor Area over 750 sq. ft.: 1.3 spaces per unit

10.1112.321 Parking Requirements for Nonresidential Uses

All eating and drinking places: 1 space per 100 s.f. GFA

10.1112.60 Shared Parking: Developments that contain a mix of uses on the same parcel shall reduce the number of off-street parking spaces in accordance with the methodology set forth in Section 10.1112.61. The Applicant notes, however, that using the methodology set forth in that Section does not result in a reduced number of minimum parking spaces for the Property because the residential and restaurant uses set forth in the table share the same maximum parking occupancy rates for the weekday and weekend evening periods.

Conditional Use Criteria

Section 10.1112.141: An application for a conditional use permit under this section shall include a parking demand analysis, which shall be reviewed by the City's Technical Advisory Committee prior to submission to the Planning Board, demonstrating that the proposed number of off-street parking spaces is sufficient for the proposed use.

The Applicant submits the parking demand analysis prepared by Altus Engineering, revised April 3, 2025. Exhibit B (the "Parking Demand Analysis"). Altus Engineering has determined that forty-six (46) off street parking spaces are required by the Ordinance under the existing uses. The off-street parking requirement for the residential conversion of the second floor as proposed by the Applicant is thirty (30) spaces, which constitutes a 35% reduction in required

off-street parking spaces. See Exhibit B. The Applicant met with the City's Technical Advisory Committee on February 11, 2025 and incorporated the Committee's recommendations into the Parking Demand Analysis submitted herewith.

Section 10.1112.142: An application for a conditional use permit under this section shall identify permanent evidence-based measures to reduce parking demand, including but not limited to provision of rideshare/microtransit services or bikeshare station(s) servicing the property, proximity to public transit, car/van-pool incentives, alternative transit subsidies, provisions for teleworking, and shared parking on a separate lot subject to the requirements of 10.1112.62.

The conversion of the second floor of the building to a residential apartment for the owners will reduce current on-street parking demand as indicated in the Parking Demand Analysis prepared by Altus Engineering. See Exhibit B. The less intensive residential use created by the conversion of the second floor to a dwelling unit occupied by the owners will replace the more intensive restaurant use, which requires more parking to accommodate patrons. The owners and employees of the business that own a vehicle and reside in the residential units will have convenient access to overnight public parking options such as the garage on High Hanover Street and the 72-hour municipal parking lot on Parrott Avenue. This will eliminate the need to utilize on-street parking spaces downtown or in the residential neighborhoods during peak hours of the day. The Property is conveniently situated directly on the COAST bus route, both reducing the need for patrons of the restaurant to park and creating convenient access for the owners and employees residing on the upper floors to public transit. Therefore, the CUP will reduce parking demand on the Property for a number of reasons.

Section 10.1112.143: The Planning Board may grant a conditional use permit only if it finds that the number of off-street parking spaces required or allowed by the permit will be adequate and appropriate for the proposed use of the property. In making this determination, the Board may accept, modify or reject the findings of the applicant's parking demand analysis.

The residential conversion of the second floor of the building reduces total parking demand based on the requirements set forth in the Ordinance and ITE Parking Generation Manual, Edition 6. See Exhibit B. It is important to recognize that the Property does not have any on-site parking nor does the potential exist to create any. If the entire building were to continue to be utilized as a restaurant or for other commercial purposes, the parking demand would be greater than it is with the residential conversion of the second floor. A restaurant use requires one (1) space per 100 sq. ft. of GFA. Section 10.1112.30. Presently, the parking demand based on the first and second floors alone is forty-four (44) spaces (based on 4,365 sq. ft. GFA, rounded up in accordance with Section 10.1112.22). The residential conversion of the second floor reduces allocated restaurant space to 2,625 sq. ft. GFA, resulting in a reduced parking requirement of twenty-seven (27) off-street spaces for the first floor restaurant under the Ordinance. The parking requirement for the upper two floors is three (3) spaces (rounded up from 2.6 spaces in accordance with Section 10.1112.22), for a total parking demand of thirty (30) spaces. Using calculations based on the ITE Parking Generation Manual (6th Edition), the parking demand is reduced from eighty-two (82) spaces to fifty-one (51). See Exhibit B.

Due to the lack of off-street parking, the Property relies entirely on surrounding public parking options along State Street and surrounding streets. The reduction in the size of the restaurant and more intensive use associated with it will reduce the demand for off-street parking needs, particularly during peak hours of the day.

Respectfully Submitted,

96 State Street, LLC

By and Through Its Attorneys,
Durbin Law Offices PLLC

Dated: April 4, 2025

By:



Darcy Peyser, Esq.
Derek R. Durbin, Esq
144 Washington Street
Portsmouth, NH 03801
(603)-287-4764
darcy@durbinlawoffices.com
derek@durbinlawoffices.com

EXHIBIT A

PLAN GENERAL NOTES	
1.	DIMENSIONS TO FIXTURES ARE FROM FINISH FACE
2.	PLUMBING SUPPLY AND DRAIN MUST NOT ENCR OACH ON ADA CLEARANCES.
3.	REFER TO SPECIFICATION FOR MORE DETAILS ON FIXTURES.
4.	PLACE LAVATORY SINK AS FAR FORWARD AS POSSIBLE AND CUT OUT REMOVABLE PLASTIC PIPE PROTECTION.
5.	PROVIDE INSULATION ON PIPES, TYP.
6.	BACK OUTLET LAV. DRAIN TO MEET ADA REQUIREMENTS.
7.	COAT HOOKS TO BE INSTALLED ON THE BACK OF ALL BATHROOM DOORS.
8.	AT EXTERIOR WALL AND PARTITION INFILL LOCATIONS, INFILL TO MATCH ADJACENT MATERIALS AND FIRE RESISTANCE RATINGS
9.	ALL INTERIOR PARTITIONS TO BE TYPE NA U.N.O.
10.	ALL FURRED WALLS TO BE TYPE 1A U.N.O

PLAN KEYNOTES	
NO.	DESCRIPTION
1	REPLACE WINDOW OR GLAZING
2	EXTERIOR MOUNTED EQUIPMENT TO BE PLACED HERE. SEE MEP DRAWINGS
3	REMOVE DENTILS AS NEEDED FOR NEW CONSTRUCTION
4	NEW POST AND FOOTINGS. SEE STRUCTURAL
5	DISPLAY CASE WALL
6	MECHAICAL SHAFT. SEE MEP DRAWINGS FOR MORE DETAIL
7	ROOF DRAIN. COORDINATE WITH MEP
8	ALIGN WINDOW AND TRIM TO STOREFRONT BELOW
9	PROVIDE ALTERNATE PRICING TO REPLACE ALL EXTERIOR WINDOWS IN KIND
10	NEW SHINGLES
11	NEW MEMBRANE ROOF
12	SEE STRUCTURAL FOR MAX OPENING AS PART OF ALTERNATE 1

96 STATE ST.
Portsmouth, NH

CONSTRUCTION DOCUMENTS

Huai Ying Zheng

WINTER HOLBEN
architecture + design

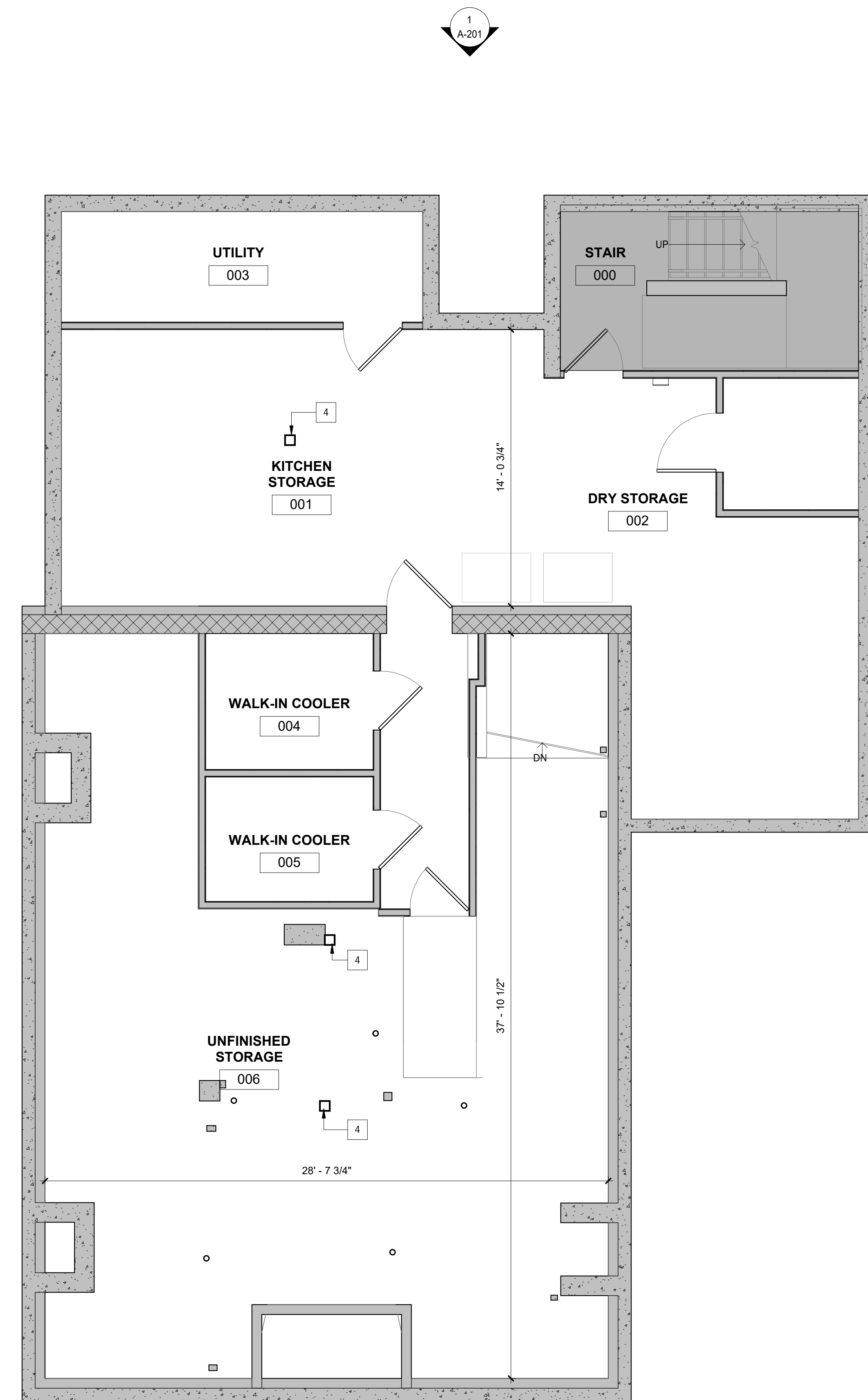
7 WALLINGFORD SQ
STE 2099
KITTERY, MAINE 03904
207.994.3104

Drawn By: PG
Drawing Checked By: BMH
Drawing Scale: As indicated
Drawing Date: 01/29/2025
Project Number: 24051

drawing revisions:
No. Description Date

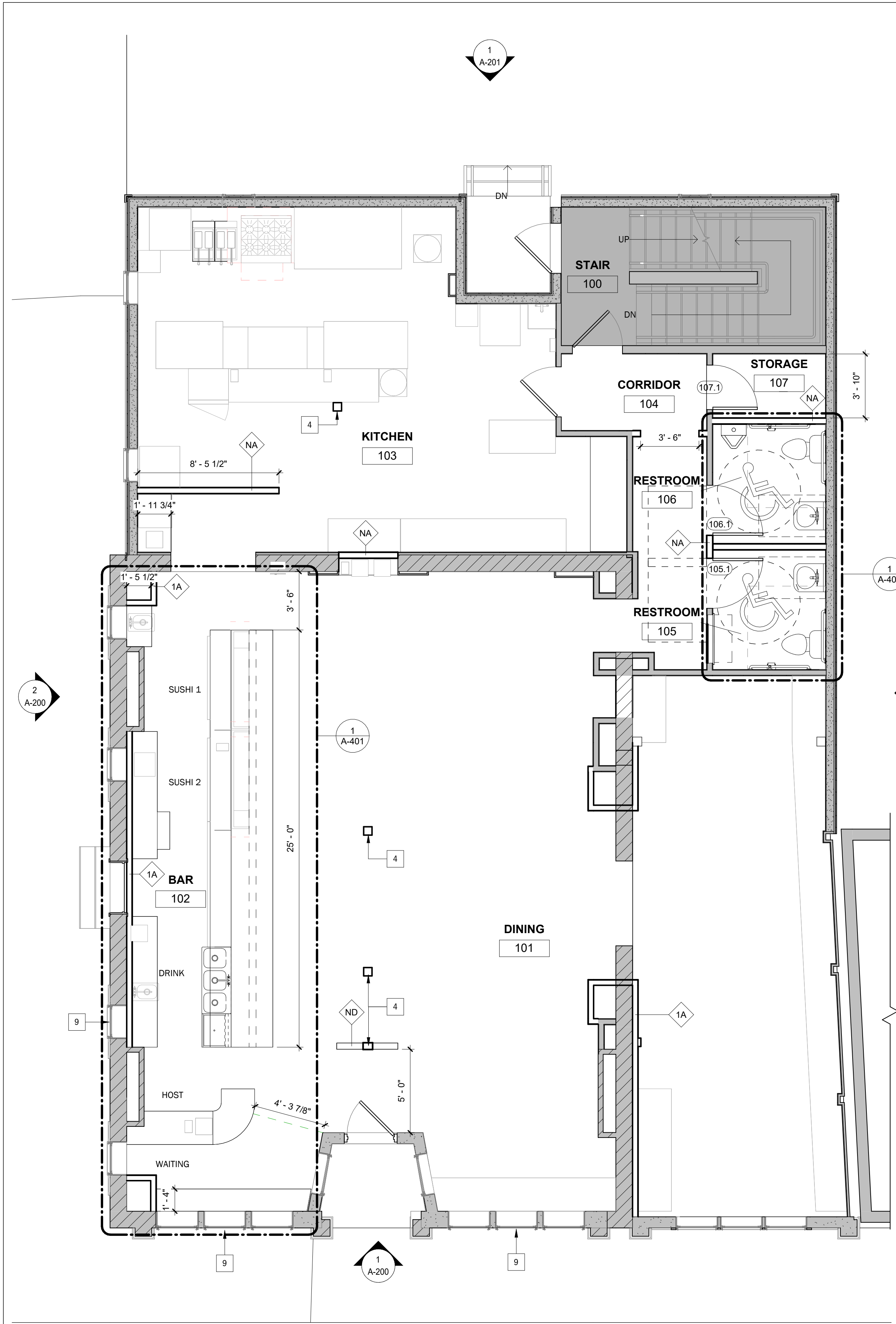
Basement Plan

A-110



① 00 - Lower Level
1/4" = 1'-0"

LEGEND	
	EXISTING WALL
	NEW WALL
	WINDOW TAG
	NOT IN SCOPE



- PLAN GENERAL NOTES**
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96 STATE ST.

Portsmouth, NH

CONSTRUCTION DOCUMENTS

Huai Ying Zheng

WINTER HOLBEN
architecture + design

7 WALLINGFORD SQ
STE 2099
KITTERY, MAINE 03904
207.994.3104

Drawn By: PG
Drawing Checked By: BMH
Drawing Scale: As indicated
Drawing Date: 01/29/2025
Project Number: 24051

drawing revisions:
No. Description Date

First Floor Plan

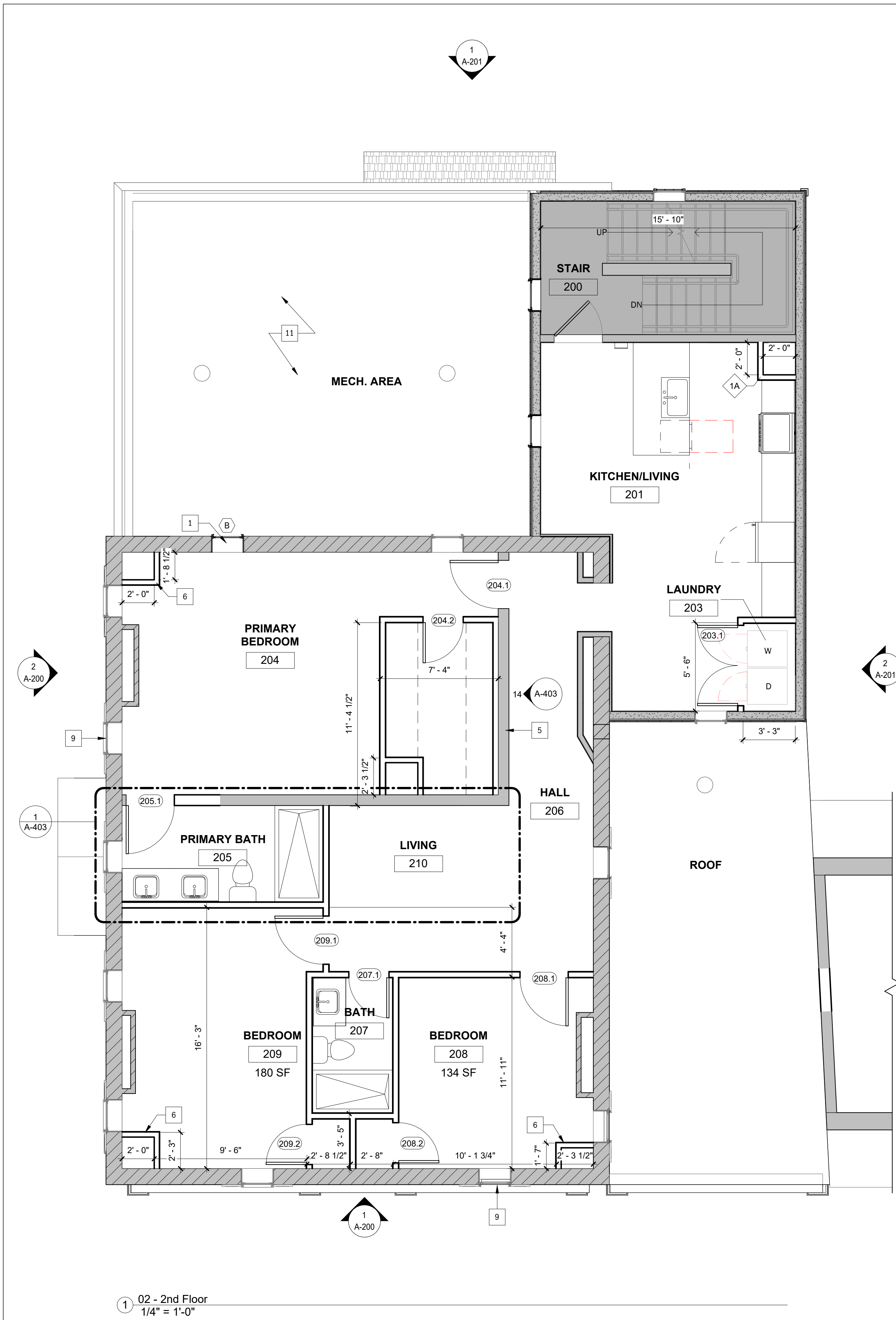
A-111

① 01 - 1st Floor
1/4" = 1'-0"

LEGEND

	EXISTING WALL
	NEW WALL
	WINDOW TAG
	NOT IN SCOPE

4/2/2025 2:02:00 PM



- PLAN GENERAL NOTES**
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96 STATE ST.

Portsmouth, NH

CONSTRUCTION DOCUMENTS

Huai Ying Zheng

WINTER HOLBEN
architecture + design

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STE 2099
KITTERY, MAINE 03904
207.994.3104

Drawn By: PG
Drawing Checked By: BH
Drawing Scale: As indicated
Drawing Date: 01/29/2025
Project Number: 24051

drawing revisions:
No. Description Date

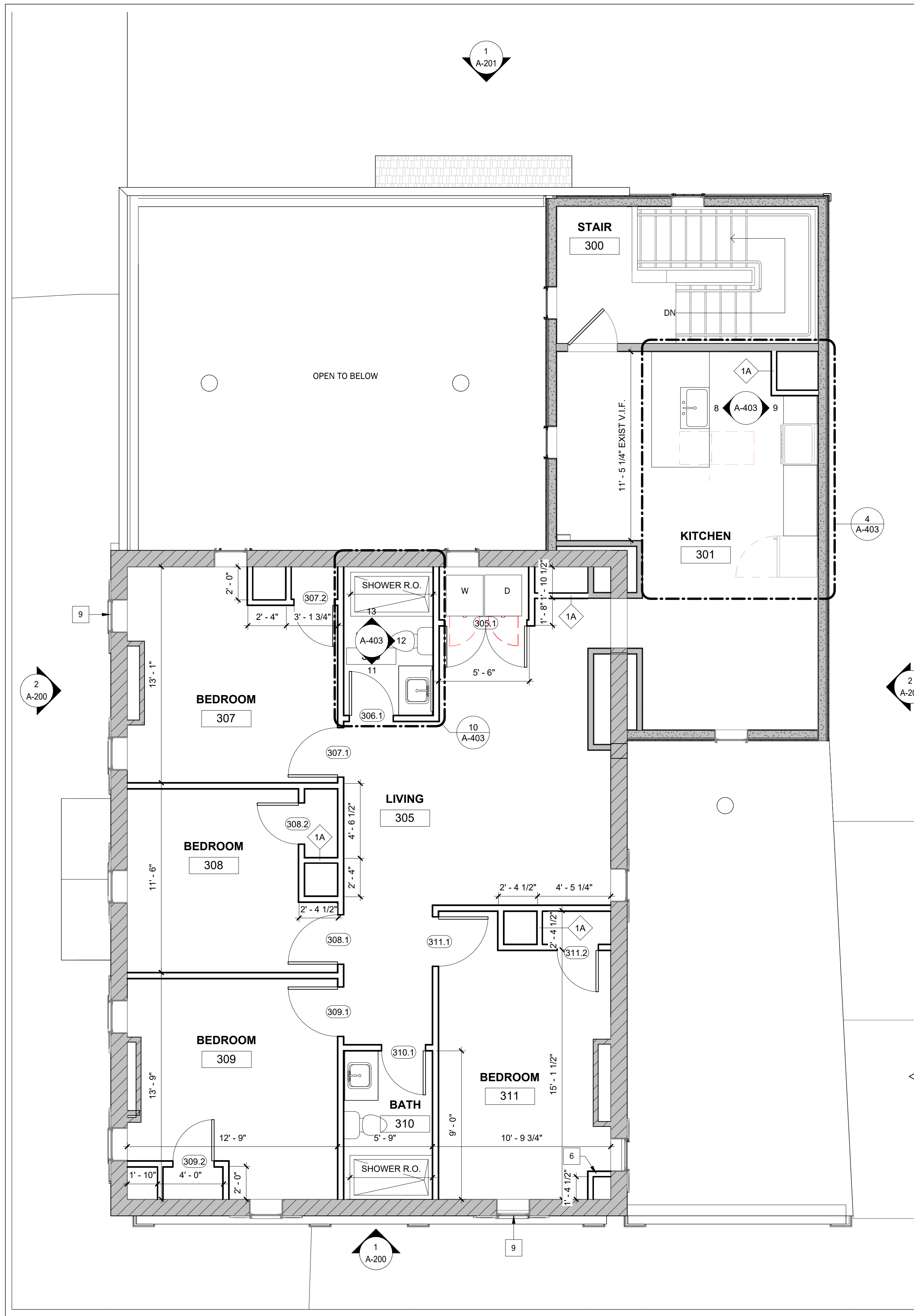
2nd Floor Plan

A-112

02 - 2nd Floor
1/4" = 1'-0"

LEGEND

	EXISTING WALL
	NEW WALL
	WINDOW TAG
	NOT IN SCOPE



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10	NEW SHINGLES
11	NEW MEMBRANE ROOF
12	SEE STRUCTURAL FOR MAX OPENING AS PART OF ALTERNATE 1

96 STATE ST.

Portsmouth, NH

CONSTRUCTION DOCUMENTS

Huai Ying Zheng

WINTER HOLBEN
architecture + design

7 WALLINGFORD SQ
STE 2099
KITTERY, MAINE 03904
207.994.3104

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Drawing Checked By:	BH
Drawing Scale:	As indicated
Drawing Date:	01/29/2025
Project Number:	24051

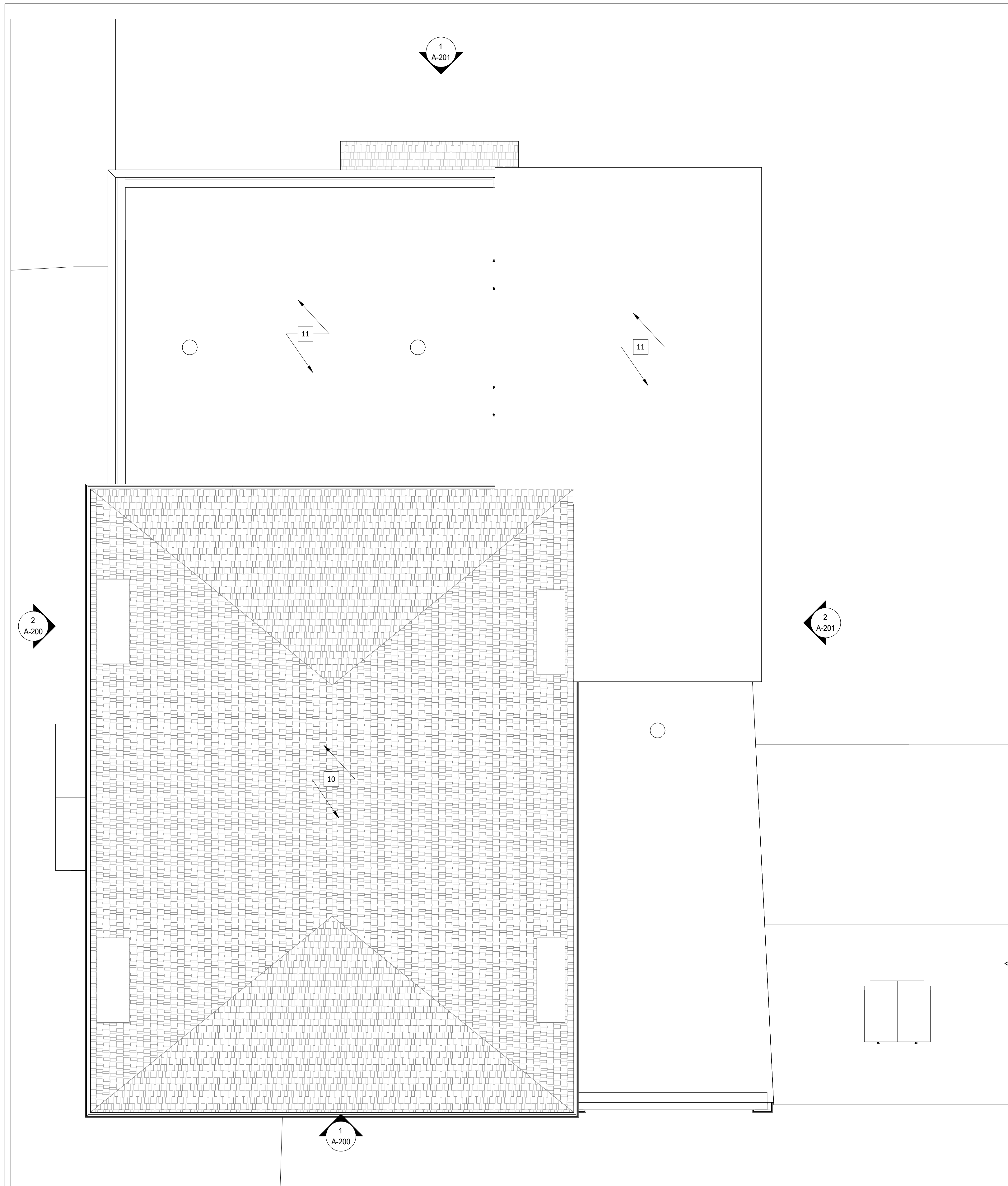
drawing revisions:		
No.	Description	Date

3rd Floor Plan

A-113

LEGEND	
	EXISTING WALL
	NEW WALL
	WINDOW TAG
	NOT IN SCOPE

03 - 3rd Floor
1/4" = 1'-0"



① 04 - Roof
1/4" = 1'-0"

PLAN GENERAL NOTES	
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11	NEW MEMBRANE ROOF
12	SEE STRUCTURAL FOR MAX OPENING AS PART OF ALTERNATE 1

LEGEND	
	EXISTING WALL
	NEW WALL
	WINDOW TAG
	NOT IN SCOPE

96 STATE ST.

Portsmouth, NH

CONSTRUCTION DOCUMENTS

Huai Ying Zheng

WINTER HOLBEN
architecture + design

7 WALLINGFORD SQ
STE 2099
KITTERY, MAINE 03904
207.994.3104

Drawn By: PG
Drawing Checked By: BH
Drawing Scale: As indicated
Drawing Date: 01/29/2025
Project Number: 24051

drawing revisions:
No. Description Date

Roof Plan

A-114

CONSTRUCTION DOCUMENTS

Huai Ying Zheng

WINTER HOLBEN
architecture + design

7 WALLINGFORD SQ
STE 2099
KITTERY, MAINE 03904
207.994.3104

Drawn By: PG
Drawing Checked By: BMH
Drawing Scale: As indicated
Drawing Date: 01/29/2025
Project Number: 24051

drawing revisions:
No. Description Date
0 Permit Comments 03/11/2025

Elevations

A-200



1 NORTH ELEVATION
1/4" = 1'-0"



2 EAST ELEVATION
1/4" = 1'-0"

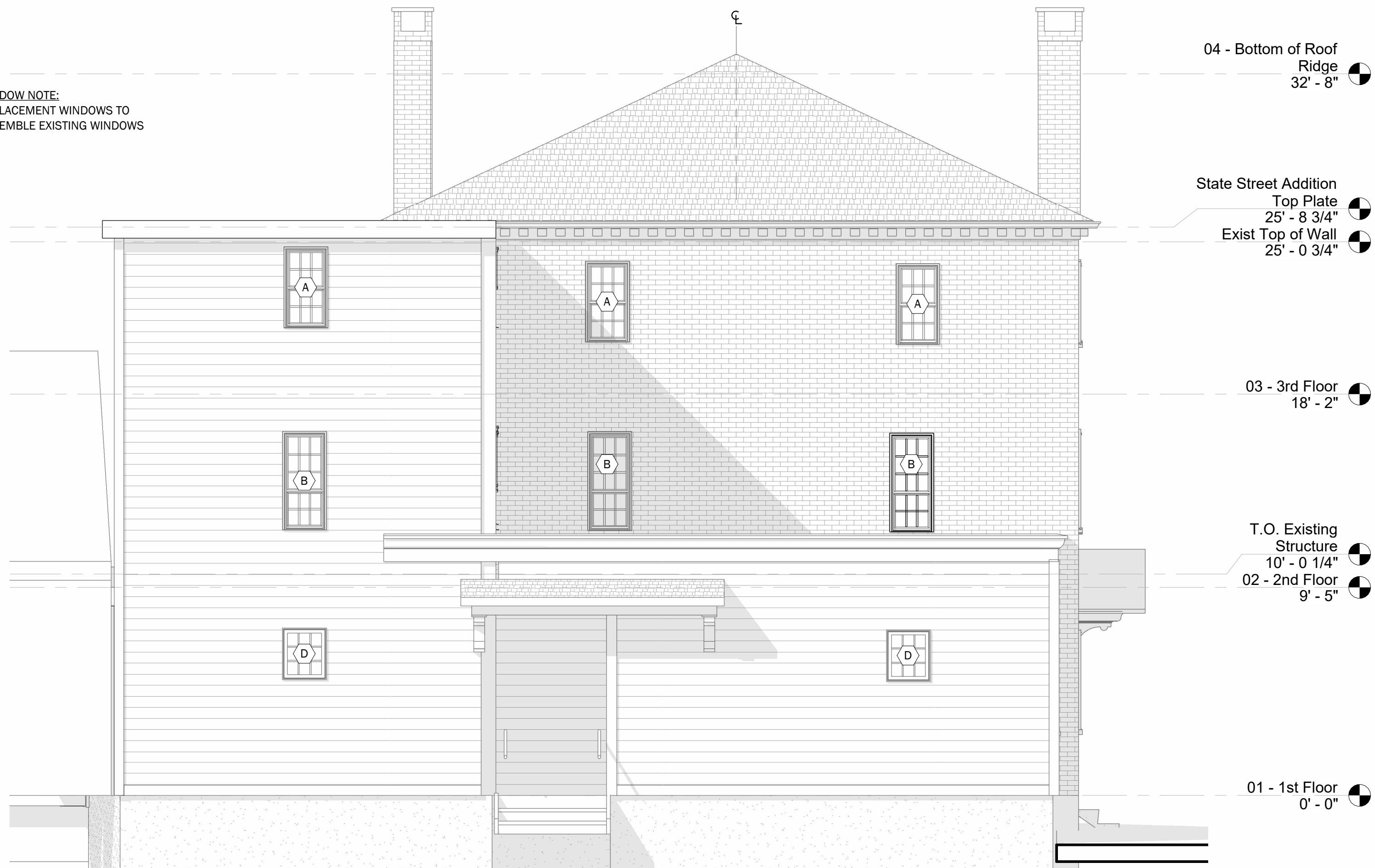
ELEVATION GENERAL NOTES

1. PREPARE AND REPAIR ADJACENT EXISTING SIDING AND ROOFING FOR NEW PAINT COATING, PER PAINT MANUFACTURER INSTRUCTION
2. PROPOSED WINDOWS TO RESEMBLE EXISTING WINDOWS PER HISTORIC DISTRICT COMMISSION APPROVAL
3. REFER TO MEP FOR ADDITIONAL INFORMATION ON ROOF MOUNTED EQUIPMENT

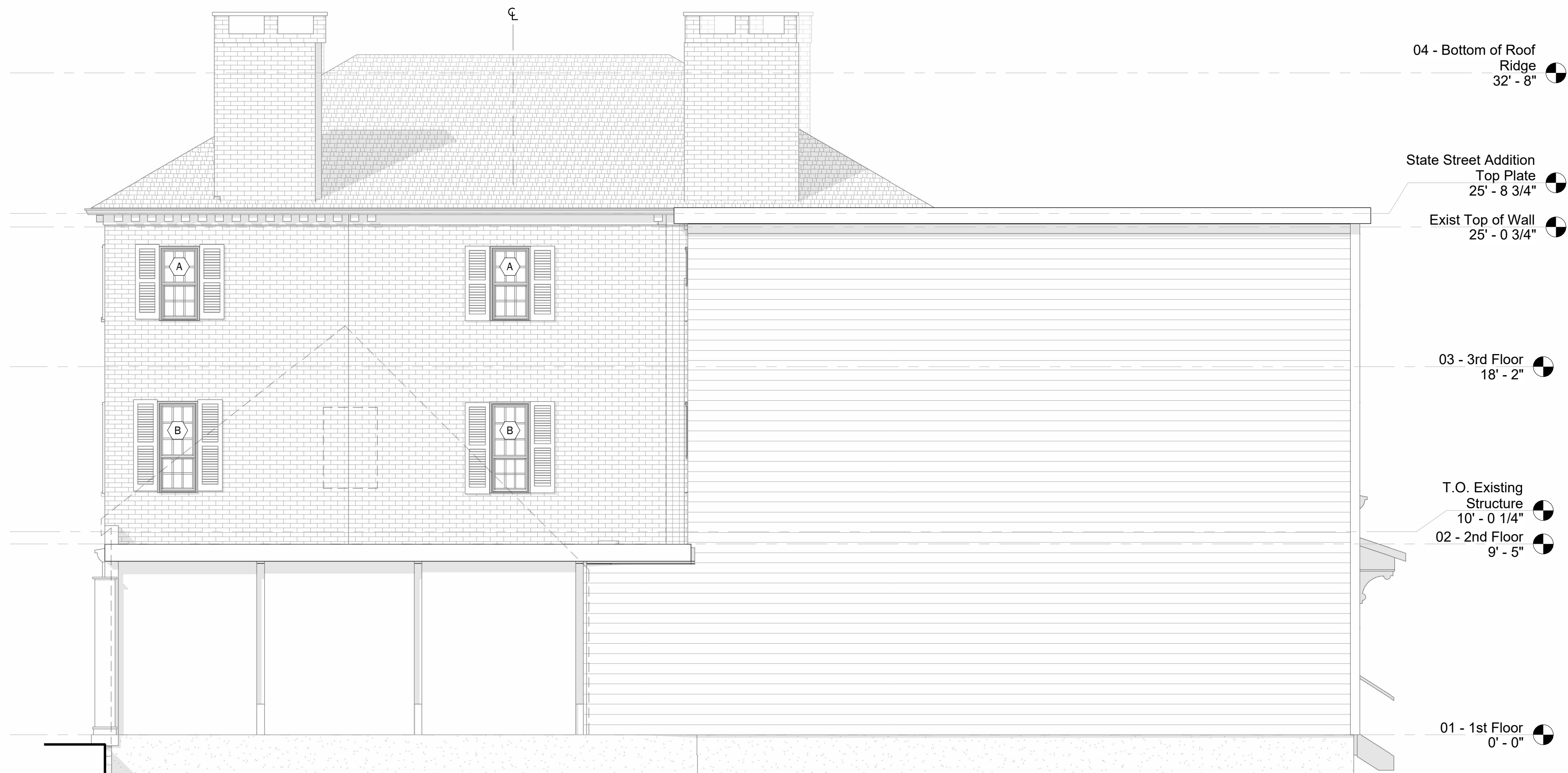
LEGEND

■ NOT IN SCOPE
⬢ WINDOW TAG

WINDOW NOTE:
REPLACEMENT WINDOWS TO
RESEMBLE EXISTING WINDOWS



① SOUTH ELEVATION
1/4" = 1'-0"



② WEST ELEVATION
1/4" = 1'-0"

ELEVATION GENERAL NOTES

1. PREPARE AND REPAIR ADJACENT EXISTING SIDING AND ROOFING FOR NEW PAINT COATING, PER PAINT MANUFACTURER INSTRUCTION
2. PROPOSED WINDOWS TO RESEMBLE EXISTING WINDOWS PER HISTORIC DISTRICT COMMISSION APPROVAL
3. REFER TO MEP FOR ADDITIONAL INFORMATION ON ROOF MOUNTED EQUIPMENT

LEGEND

■ NOT IN SCOPE

⬡ WINDOW TAG

96 STATE ST.

Portsmouth, NH

CONSTRUCTION DOCUMENTS

Huai Ying Zheng

WINTER HOLBEN
architecture + design

7 WALLINGFORD SQ
STE 2099
KITTERY, MAINE 03904
207.994.3104

Drawn By: PG
Drawing Checked By: BMH
Drawing Scale: As indicated
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Project Number: 24051

drawing revisions:
No. Description Date

Elevations

A-201

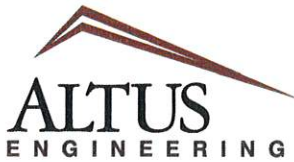


EXHIBIT B

*Civil
Site Planning
Environmental
Engineering*

133 Court Street
Portsmouth, NH
03801-4413

PARKING DEMAND ANALYSIS

**96 State Street
TAX MAP 107, LOT 52
PORTSMOUTH, NH**
Revised April 4, 2025

96 State Street, LLC owns the property located at 96 State Street. A commercial building is sited on the 0.07-acre (per City GIS) downtown, urban parcel. The parcel is located on the corner of State and Atkinson Streets. Altus has not inspected the interior of the building, the building uses and areas have been provided to us from Winter Holben Architects. The building has three levels. A restaurant, Domo, occupies the first and second floor. It is understood that the third floor is currently used as an apartment but was permitted as a spa.

The Owner is proposing to fully convert the second and third floors to residential uses with no expansion of the structure.

Altus prepared this Parking Demand Analysis based on the following uses:

CURRENT SPACE ALLOCATION

Basement	accessory storage	2,245 SF GFA
First floor	restaurant	2,625 SF GFA
Second floor	restaurant	1,740 SF GFA
Third floor	1 dwelling unit (> 750 SF GFA)	1,740 SF GFA

PROPOSED SPACE ALLOCATION

Basement	accessory storage	2,245 SF GFA
First floor	restaurant	2,625 SF GFA
Second floor	1 dwelling unit (> 750 SF GFA)	1,740 SF GFA
Third floor	1 dwelling unit (> 750 SF GFA)	1,740 SF GFA

Basement accessory storage has no requirements and does create any parking demand.

Parking spaces required for the City of Portsmouth Zoning Ordinance Section 10.1110 Off Street Parking

All eating and drinking places	1 space per 100 SF GFA
Dwelling units over 750 SF	1.3 spaces per unit

Existing Parking Stalls required

Restaurant 4,365 SF GFA/100 SF GFA	43.7 spaces (44)
1, 3 rd floor apartment (over 750 SF)	<u>1.3</u> spaces (2)
	46.0 spaces
	46 spaces required ¹

Proposed Parking Stalls required

Restaurant 2,625 SF GFA/100 SF GFA	26.3 spaces (27)
2, 2 nd and 3 rd floor apartments (over 750 SF)	2.6 spaces (3)
	30 spaces
	30 spaces required ¹

Based on the City Ordinance alone, the parking spaces required for Tax Map 107, Lot 52 is reduced from 46 spaces to 30 spaces, a 35 percent reduction. There is one alley/loading space on the property.

There is parallel parking along State Street as well as a small public parking lot between Dutton and Scott Avenues. Additionally, the High Hanover Street parking garage is within 0.25 miles of the site. The Parrott Avenue surface parking lot is less than 0.5 miles from the site.

To determine the expected parking that will be generated by the existing/proposed uses, Altus normally utilizes the ITE Parking Generation Manual, 6th Edition. It is our opinion that the setting/location falls under the General Urban/Suburban category. However, the manual has limitations when it comes to small traffic generators and unique end users like 2-unit apartment buildings. Additionally, ITE states that “it contains information that can also easily be misinterpreted without sound professional judgement...”

Land Use Code 931 Quality Restaurant

Peak Period Parking Demand on a Saturday 7:00 to 8:00 PM

Setting/Location: General Urban/Suburban

Average rate 18.23 vehicles per 1,000 SF GFA

¹ See Section 10.1112.22: “Where the computation of required off-street parking spaces results in a fractional number, the computation shall be rounded up to the next whole number.”

Land Use Code Residential 220 Multifamily housing (Low-Rise)
Peak Period Parking Demand on a Saturday
Average rate 1.18 spaces per dwelling unit

Existing Parking Demand

Restaurant
4,365 SF GFA x 18.23 vehicles per 1,000 SF GFA = 79.6 spaces (80)

1 dwelling unit x 1.18 spaces per dwelling unit = 1.3 spaces (2)
82 spaces
Existing 82 spaces demand

Proposed Parking Demand

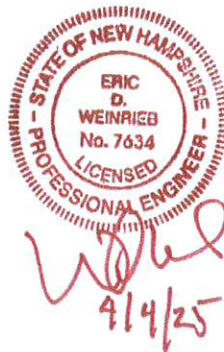
Restaurant
2,625 SF GFA x 18.23 vehicles per 1,000 SF GFA = 47.9 spaces (48)

2 dwelling units x 1.18 spaces per dwelling unit = 2.4 space (3)
50.3 spaces
Proposed 51 space demand

Based on ITE, it is reasonable to believe that the parking demand will be reduced by 31 spaces.

With the approval of this project, the parking demand will decrease. Thus, it is Altus' opinion that the existing building can function adequately without adverse impacts to the community with the conversion of the second and third floor spaces into two residential dwelling units.

Wde/5637 parking demand analysis rev-4 4-03-25.docx



27 March 2025

Rick Chellman, Planning Board Chair
City of Portsmouth
1 Junkins Avenue
Portsmouth, NH 03801

RE: Submission for Design Review Public Hearing at 361 Hanover Street, Site Development

Dear Mr. Chellman and Planning Board Members:

On behalf of 361 Hanover Steam Factory, LLC, we are pleased to submit the attached plan set for **Design Review Public Hearing** for the above-mentioned project and request that we be placed on the agenda for your **April 17, 2025**, Planning Board Meeting. The project consists of the addition of **new structures** and the renovation of the existing commercial building at 361 Hanover Street with the associated and required site improvements. The new structures will be entirely residential to add much needed housing stock in a desirable location where significant walkable amenities are in proximity. The project was reviewed by the Planning Board under Preliminary Conceptual Consultation at the March 20, 2025, meeting, where the Public Hearing date was set.

The Portsmouth Zoning Board, and their February 18, 2025, meeting granted the following Variances:

- Variance from Section 10.642 to allow residential principal uses on the ground floor of the buildings;
- Variance from Section 10.5A41 - Figure 10.5A41.10D to a) allow for "Apartment", "Rowhouse" and "Duplex" building types where they are not permitted; and
- b) allow a ground floor height of 10.5 feet where 12 feet is required.

Project Overview

The project is a re-purposing of the existing structure on the site being known as the Heinemann Building and Tax Map 138 – Lot 63, and the project is in the online portal as Land Use Application (LU) – 24 - 196. The property will be subdivided with the smaller building, known as the Last Chance Garage, placed on a separate lot. The site plan proposal is re-developing the larger lot with the Heinemann Building into entirely residential use by additions to the existing building and four proposed new buildings, according to the attached site plans. The project received some zoning relief as described above but otherwise is fully compliant with the Portsmouth Zoning Ordinance.



Subdivision

The applicant is proposing to subdivide the existing parcel into two conforming parcels, each with one of the existing buildings contained thereon. The Subdivision Plan details the proposed property division. The plan shows the configuration of the existing lot. The Property has a long history of Industrial and Commercial land use. Built in the late 19th century as a 5-story brick and heavy timber structure with a flat roof and slab basement level, the Heinemann Building was originally owned and occupied by the Portsmouth Steam Factory. In the late 19th century, a fire destroyed the building reducing the building to a two-story building. In the 1950s, the building was later occupied with an auto dealership and later, in the 1970s, with JSA, an architectural design firm. In the 21st Century, the building was occupied by Heinemann, an international publishing company. A single story “modern” block addition with a shed roof was added mid-century toward the rear facing Foundry Place which was used as a loading dock for shipping and receiving. The existing condition shows a paved parking area behind the Heinemann Building and a bump out of the property lines. The area to the northeast of the Heinemann Building, towards what is now Foundry Place and the Foundry Place Garage, previously housed the Portsmouth Department of Public Works (DPW) Rock Street facility. Between that facility and the Heinemann Building there was a parking area which had been leased to the Heinemann Building and used for parking, that lease has expired. The property is currently in Condominium ownership. The Condominium will be dissolved, and the unit owners will become fee simple owners of the individual lots. The plans show an access easement to Hanover Street to serve the new lot.

Site Plan Submission

The submission requirements of the City of Portsmouth Site Plan Regulations have been reviewed. The information supplied herein is intended to assist in a determination of the project’s compliance. Plans are drawn in accordance with scale and size requirements, with dates, titles, north orientation, Map and Lot, Zoning, revision blocks, and Legends. The proposed uses and Square footage of use are shown on the Architectural plans. The professional’s seals with license numbers are on the submitted plans. The Existing Conditions plan shows the site topography, building location with floor elevation, feature locations, and driveway access / egress and current parking configuration. Available utility information is shown. Subsequent plans show the proposed development with the associated site improvements and construction details.

Site Zoning

Consistent with other properties along Foundry Place and Hill Street, the property is zoned Character District 5 (CD5). The CD5 District is an urban zoning district that allows for a wide array of higher density commercial and residential uses. The Property is also subject to several Overlay Districts. The northern half of the property is located within the North End Incentive Overlay District (NEIOD) and the entire property is also located within the Downtown Overlay District (DOD).





The goals and objectives of the North End Vision Plan are focused on generating buildings, land uses, and site designs that support economic development while being respectful and sensitive to the surrounding context. Buildings are intended to step up or down in transitional areas - like the property at 361 Hanover Street – in response to the surrounding land use pattern. This stepping element is why the North End Incentive Overlay District (the “NEIOD”), and its encouragement of larger buildings, does not carry over to the parking lot portion of the property along Hanover Street. Additionally, the Vision Plan encourages ground-floor commercial uses to activate the sidewalk and enhance the pedestrian experience. Thus, the Downtown Overlay District (the “DOD”) was extended into much of the North End. Although the Downtown Overlay District (the “DOD”) includes 361 Hanover Street it is important to acknowledge that there are no other properties fronting on Hanover Street included in the DOD. This is a result of the DOD following property lines of the entire parcel. No other parcel spans the area between Foundry Place and Hanover Street.

The Project Site Plan C3 details information regarding the proposed uses, including building size and parking counts. The required parking under the Portsmouth Zoning Ordinance (PZO) is as follows:

- 2 Units between 500-750 SF = 2 Spaces Required
- 38 Units over 750 SF = 50 Spaces Required
- Visitor Spaces – 1 per 5 units = 8 Spaces Required
- DOD Overlay Space Reduction (Section 10.1115.23) = 4 Spaces Deducted
- Total Required Spaces = 56
- Total Spaces Provided = 72 Spaces

We submit that the 4-space reduction is part of the Visitor parking requirement. There are two exterior guest parking spaces, and there will be 2 parking spaces in Building A for guests who are at the invitation of the unit owners with garage door access code. As required the stacked parking spaces (12 in Building A and 6 in Building D) will be assigned to a specific unit within those Buildings. There are plenty of parking options (1 and 2) relating to the total number of units. Interior parking spaces are detailed on the Architectural plans.

Site Plan C3 shows the proposed open space / non-impervious areas. The proposed project reduces the impervious surface total for the project and brings it into conformance with the 5% Open Space requirement. The proposed building uses, all conforming under the property variance, are listed on this sheet. Information regarding other Zoning Development Standards are detailed in the Table in the upper left-hand corner of the sheet. The Building Elevation plans show the proposed building heights. Ordinance conforming bike racks, both inside and outside, are shown.

Vehicular and Pedestrian Circulation

The previous application package included a technical Memorandum prepared by Vanesse & Associates, Inc. (VAi), the project Traffic Consultant, calculating site Trip Generation utilizing Institute of Traffic Engineers (ITE) Trip Generation Calculations. The Memorandum detailed the changes in traffic generation due to the project and the potential impact on the adjacent roadway





HALEY WARD

network. The Summary and Recommendations (only) are included in this submission. Pedestrian access is shown on the site plans and consists of a sidewalk network. The tactile surface of the sidewalks vary where garage access is crossing. Turning movement plans are included in the Plan Set as Sheets T1 and T2, adjusted per discussion with the Portsmouth Fire Department.

Screening and Landscaping

The site currently is only landscaped with two trees at the existing building corners, which will have to be removed. The proposed landscaping improvements greatly expand the site landscaping along the Rock Street and Hanover Street frontages, as well as within the site. The space in front of the buildings at the street line is landscaped, and some more robust street trees are proposed along the Rock Street frontage. The tree locations require Portsmouth Tress and Greenery Committee approval which the developer will be on the agenda for approval. Some edits from the Preliminary Concept plan, based on feedback received already from the city, have been included in this submission. Landscaping is detailed on Landscape Plans L1 – L3.

Water and Sewage Systems

The site is served by municipal water and sewer. The development proposes appropriate connections to the water and sewer infrastructure on Hanover Street. The plan shows the subsequent Mill and Pave operation to restore the street surface. The utility demand generated by the additions and renovations are not expected to exceed the capacity of the existing infrastructure. Utilities are detailed on the Utility Plan C4.

Stormwater Management

The site drainage patterns are shown on Sheet C5. The proposed drainage system has been designed to capture site runoff and deliver it to the adjacent city closed pipe system. The roof drain filters provide post-development runoff treatment for a majority of the site. Erosion and sediment control practices will be implemented for both the temporary condition during construction and for final stabilization after construction. Therefore, there are no negative impacts to downstream receptors or adjacent properties anticipated as a result of this project.

Site Lighting

The re-development will introduce adequate lighting of the driveway and pedestrian corridors to provide a welcoming and safe pedestrian and vehicular experience. The lighting will all be building mounted. The lighting intensities are detailed on the Lighting Plan C6, and the proposed fixture cut sheets are included in the Supplemental Material submission.



Site Signage

The site will be served by building mounted street number identification signage, the final design will be determined with TAC input. The project will be a Condominium Development, so a general identification sign will be proposed. The only other signage is required traffic, delivery, and parking controls such as the ADA signage and the stop sign.

Site Utilities and Solid Waste

Site utilities include natural gas, underground electric and communications services. The existing services will be adjusted and new corridors and conduits constructed as needed. The developer has met with Eversource to understand the underground utility network and understand electrical primary lines and required transformers and switchgear. A redundant primary electrical line loop, for additional reliability, will be created.

Solid Waste for Building A will be collected in an interior trash room, with access for trash haulers to pick up the trash on a regular schedule. Solid Waste for Buildings B1, B2, C and D will be in unit collection with City of Portsmouth curbside pickup.

The following plans are included in our submission:

- Cover Sheet – This shows the Development Team, Legend, Site Location, and Site Zoning.
- Subdivision Plan – This plan shows the division of the existing parcel into two conforming lots.
- Site Orthophoto – This plan shows the site’s relationship to the surrounding properties.
- Existing Conditions Plan C1 – This plan shows the existing site conditions in detail.
- Demolition Plan C2 – This plan shows proposed site demolition prior to construction.
- Site Plan C3 – This plan shows the site development layout with the associated Zoning information and notations.
- Landscape Plans L1 to L3 - These plans show proposed landscaping and bike rack details.
- Utility Plan C4 – This plan shows concept site utilities.
- Grading Plan C5 - This plan show project site grading, structure locations and elevations.
- Lighting Plan C6 – This plan show proposed project lighting.
- Turning Template Plans T1 and T2 – These plans show turning movements for passenger car and Portsmouth Fire Apparatus.
- Architectural Plans – These plans show building floor plans and elevations and a Street Elevation.
- Detail Sheets D1 to D5: These plans show the associated construction details.





Also attached to this submission is additional material to aid in the review of the application:

- ✓ Proposed Plant material
- ✓ Stormwater Inspection and Maintenance Plan
- ✓ Green Building Statement
- ✓ Lighting Specifications
- ✓ Traffic Memorandum (Recommendations)

We look forward to Planning Board review and Public Comment related to this submission and look forward to an in-person presentation at your meeting.

Sincerely,

A handwritten signature in black ink, appearing to read "John R. Chagnon", with a long horizontal line extending to the right.

John R. Chagnon, PE

P:\NH\5010135-Hampshire_Development\2977.01-Hanover St., Portsmouth-JRC\JN 2977\2024 Site Plan\Applications\City of Portsmouth Site Plan Design Review\Planning Board Public Hearing Submission Letter 2025.03.27.doc

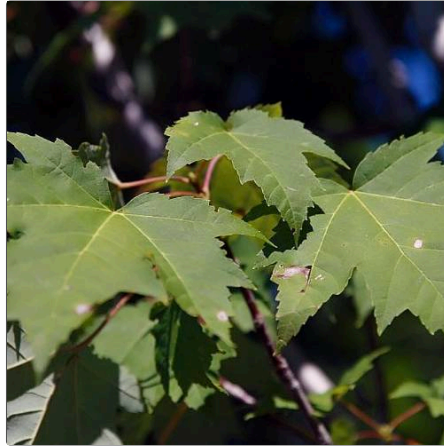


PLANTS BY TYPE

Trees

Acer rubrum 'Bowhall'

Bowhall Red Maple



PLANT TYPE

Tree

HEIGHT

40 ft.

WIDTH

15 ft.

SUN

Full, Half

WATER

Medium

SOIL

Loam

DESCRIPTION

40' tall with a 15' spread. Upright, pyramidal form. Reliable scarlet-red fall color.

LEAF SEASON

Deciduous

LEAF COLOR

Dark Green, Red

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

n/a

FRUIT TYPE

n/a

HABIT

Broad, Columnar, Pyramidal, Upright

DESIGN STYLES

Meadow, Ranch, Woodland

LOCATION USES

Lawn, Street Tree

ATTRACTS WILDLIFE

n/a

Carpinus betulus 'Frans Fontaine'

Upright European Hornbeam



PLANT TYPE

Tree

HEIGHT

40 ft.

WIDTH

15 ft.

SUN

Full, Half, Shade

WATER

Low

SOIL

Sandy, Clay, Loam

DESCRIPTION

Columnar in youth, more oval or vase shaped with age. Clean-looking tree. After 10 years, this beautiful tree is 20-25' tall and has spread 6-8'. It could end up being 50' tall! Foliage is deciduous and green in summer, turning gold in fall. It tolerates full sun to complete shade, clay or sandy soil, and is drought tolerant once it's established. It needs well draining soil. Great street or park tree since it can be easily pruned into a hedge. Columnar shaped in youth, becomes more oval or vase shape with age. Clean-looking tree.

[Learn More at Papervale Trees](#)



LEAF SEASON

Deciduous

LEAF COLOR

Green

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

n/a

FRUIT TYPE

Fleshy



HABIT

Upright, Vase

DESIGN STYLES

English Cottage, Formal, Japanese, Mediterranean, Ranch, Spanish, Woodland

LOCATION USES

Background, Shrub Border, Patio, Park, Parking Lot, Raised Planter, Roadside, Street Tree, Walls / Fences

ATTRACTS WILDLIFE

n/a

Juniperus virginiana 'Emerald Sentinel'

Emerald Sentinel Columnar Juniper



PLANT TYPE

Tree

HEIGHT

20 ft.

WIDTH

6 ft.

SUN

Full

WATER

Low

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

Emerald Sentinel Eastern Redcedar has green needles that are set off by vivid blue fruit in fall and winter. Evergreen foliage takes on purple tones in winter and is salt tolerant. The berry set makes this a wonderful cut green for winter arrangements. An excellent Conard-Pyle introduction and our favorite *J. virginiana*, bar none. It is also wet site tolerant.

LEAF SEASON

Evergreen

LEAF COLOR

Blue Green

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

Summer, Fall

FRUIT TYPE

n/a

HABIT

Columnar

DESIGN STYLES

Formal, Mediterranean, Ranch, Spanish

LOCATION USES

Background, Entry, Foundation, Walls / Fences

ATTRACTS WILDLIFE

n/a

Liquidambar sty. 'Slender Silhouette'

Slender Silhouette Liquidambar



PLANT TYPE
Tree

HEIGHT
20-40 ft.

WIDTH
3-6 ft.

SUN
Full

WATER
Medium

SOIL
Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

The exclamation point of the sweetgums forming an absolute pillar of foliage some 40' tall and only 6' wide at maturity. Makes a perfect, fast growing subject for narrow situations where vertical accent is required.



LEAF SEASON
Deciduous

LEAF COLOR
Green, Red

FLOWER COLOR
n/a

FLOWER SEASON
n/a

FRUIT SEASON
n/a

FRUIT TYPE
n/a



HABIT
Columnar

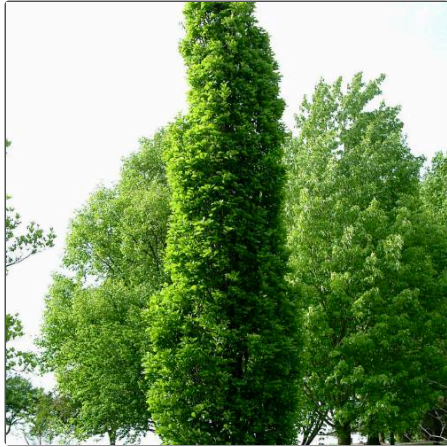
DESIGN STYLES
English Cottage, Formal, Meadow, Ranch, Woodland

LOCATION USES
Background, Parking Strip, Park, Street Tree

ATTRACTS WILDLIFE
n/a

Quercus x Kindred Spirit®

Kindred Spirit Hybrid Oak



PLANT TYPE

Tree

HEIGHT

20-40 ft.

WIDTH

5-10 ft.

SUN

Full

WATER

Medium

SOIL

Sandy, Clay, Loam

DESCRIPTION

Kindred Spirit® ('Nadler') Hybrid Oak is an interspecific hybrid of the Columnar English Oak (*Q. robur fastigiata*) and Swamp Oak (*Q. bicolor*). The habit is tightly columnar, and the foliage is clean and mildew resistant. The leaves are dark green with a silver underside, turning shades of yellow and bronze in fall. *Quercus x Kindred Spirit®* would make an excellent tall hedge, or be an attractive architectural element when used as a specimen.

LEAF SEASON

Deciduous

LEAF COLOR

Dark Green, Yellow

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

n/a

FRUIT TYPE

Nut / Nutlet

HABIT

Columnar

DESIGN STYLES

English Cottage, Formal, Ranch, Woodland

LOCATION USES

Background, Lawn, Park

ATTRACTS WILDLIFE

Birds

Shrubs

Chamaecyparis obtusa 'Nana Gracilis'

Hinoki Cypress



PLANT TYPE

Shrub

HEIGHT

9 ft.

WIDTH

4 ft.

SUN

Full, Half

WATER

Medium, Extra in Summer

SOIL

Sandy, Loam

DESCRIPTION

This beautiful conifer slowly (may take 10 years) reaches 3' but eventually may reach 9' tall and 4' wide. Mature habit is pyramidal or cone-shaped. Foliage is evergreen with flattened branches of dark green, scale-like leaves. It is aromatic if crushed. This shrub does best in full to part sun with well draining, moist, fertile soil. Plant in sheltered area, not in windy locations.



LEAF SEASON

Evergreen

LEAF COLOR

Dark Green

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Broad, Pyramidal

DESIGN STYLES

Formal, Japanese

LOCATION USES

Entry, Shrub Border, Foundation, Patio, Walkways

ATTRACTS WILDLIFE

n/a

Fothergilla gardenii

Dwarf Forthergilla



PLANT TYPE

Shrub

HEIGHT

2-3 ft.

WIDTH

3-4 ft.

SUN

Half, Shade

WATER

Medium, Extra in Summer

SOIL

Sandy, Loam

DESCRIPTION

A valuable compact ornamental shrub used for hedges and borders to provide multi-season interest in the landscape. Fragrant, creamy white, fuzzy, bottlebrush flowers cover the low, mounded, dense form in spring, followed by thick, toothy blue-green leaves in summer. Fall foliage is a brilliant medley of yellow, red, and orange. Deciduous.

LEAF SEASON

Deciduous

LEAF COLOR

Blue Green

FLOWER COLOR

White

FLOWER SEASON

Spring

FRUIT SEASON

n/a

FRUIT TYPE

n/a

HABIT

Round

DESIGN STYLES

English Cottage, Meadow, Water Garden, Wetlands, Woodland

LOCATION USES

Background, Raised Planter

ATTRACTS WILDLIFE

Pollinators, Bees, Butterflies

Ilex crenata 'Hetzii'

Heitz Japanese Holly



PLANT TYPE

Shrub

HEIGHT

3-8 ft.

WIDTH

4-6 ft.

SUN

Full, Half, Shade

WATER

Medium, Extra in Summer

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

Hetz's Japanese holly is an evergreen shrub, but it is a broadleaved, rather than a needled, evergreen. Its glossy, delicate leaves can make it a great choice if you are in the market for a bush with dense foliage that stays green year-round. Moderate-growing Hetz's Japanese holly is commonly confused with boxwood. These two popular shrubs are indeed similar, but they have subtle differences in appearance as well as pollination habits.



LEAF SEASON

Evergreen

LEAF COLOR

Dark Green

FLOWER COLOR

Green, White

FLOWER SEASON

Spring

FRUIT SEASON

Fall

FRUIT TYPE

Berry



HABIT

Upright

DESIGN STYLES

English Cottage, Formal, Mediterranean, Ranch, Woodland

LOCATION USES

Background, Shrub Border, Patio, Street Tree, Walls / Fences, With Rocks

ATTRACTS WILDLIFE

Birds

Juniperus communis 'Blueberry Delight'

Blueberry Delight Juniper



PLANT TYPE

Shrub

HEIGHT

0.8-1 ft.

WIDTH

4-5 ft.

SUN

Full, Half, Shade

WATER

Low

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

This beautiful plant was a native selection found in the rugged Dakota Badlands. Blueberry Delight Juniper (*Juniperus communis* var. *depressa* 'AmDak') is a tough little customer with a very exciting densely spreading growth habit. It's an ornamental evergreen that can grow in almost any dry condition.



LEAF SEASON

Evergreen

LEAF COLOR

Dark Green

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

Spring, Summer

FRUIT TYPE

n/a



HABIT

Prostrate

DESIGN STYLES

Japanese, Mediterranean, Seascape

LOCATION USES

Entry, Patio, Raised Planter, With Rocks

ATTRACTS WILDLIFE

n/a

Microbiota decussata

Siberian Carpet Cypress



PLANT TYPE

Shrub

HEIGHT

1.5-2 ft.

WIDTH

7-8 ft.

SUN

Full, Half, Shade

WATER

Very Low, Low, Medium

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

Microbiota decussata is an evergreen shrub. Neat sprawling shrub that resembles a trailing arborvitae. Grows to 1.5' tall, 7'-8' wide, with many horizontal or trailing plume-like branches closely set with scale-like leaves.



LEAF SEASON

Evergreen

LEAF COLOR

Green

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Arching, Prostrate

DESIGN STYLES

Japanese

LOCATION USES

Entry, Shrub Border, Foundation, Patio, Park, With Rocks

ATTRACTS WILDLIFE

n/a

Picea abies 'Nidiformis'

Bird's Nest Spruce



PLANT TYPE

Shrub

HEIGHT

3 ft.

WIDTH

4 ft.

SUN

Full, Half

WATER

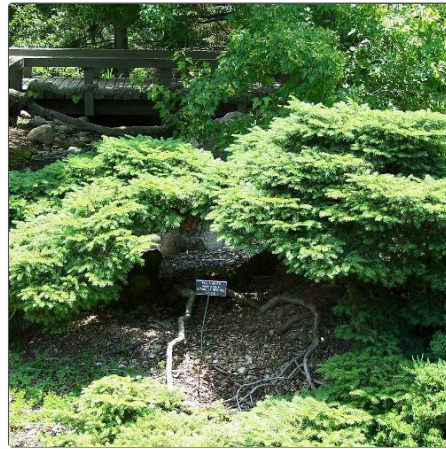
Medium

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

A stand-alone pendulous specimen that will grow as wide as it is high over time and add character to any rock garden or landscape. The unusual coning habit tends to modify the growth rate and shape.



LEAF SEASON

Evergreen

LEAF COLOR

Green, Light Green

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

Spring

FRUIT TYPE

n/a



HABIT

Pyramidal

DESIGN STYLES

Japanese, Ranch, Woodland

LOCATION USES

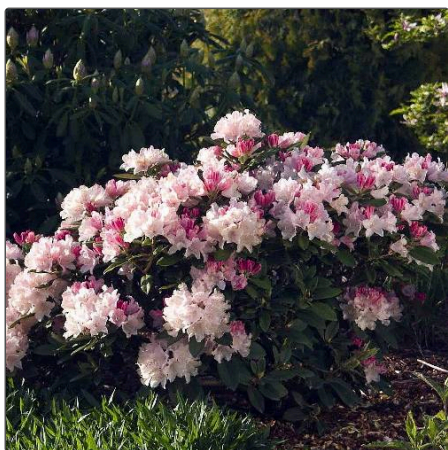
Entry, Shrub Border, Foundation, Park, With Rocks

ATTRACTS WILDLIFE

n/a

Rhododendron 'Yaku Princess'

Yaku Princess Rhododendron



PLANT TYPE

Shrub

HEIGHT

4-5 ft.

WIDTH

4-5 ft.

SUN

Half, Shade

WATER

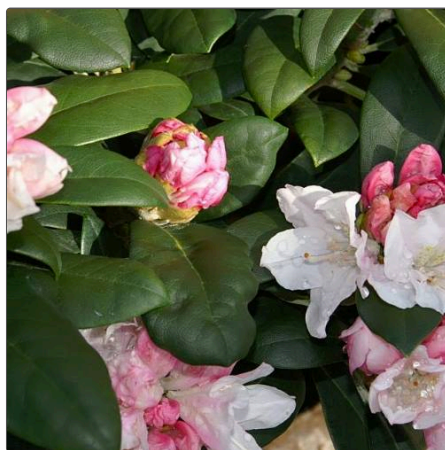
Medium

SOIL

Loam

DESCRIPTION

Yaku Princess Rhododendron is a unique variety with a compactly branched low growth; bushy. In mid spring spheres of pinkish-white blooms with deeper pink and green spotting on the florets appear; trusses of apple-blossom pink buds open to white in spring. The green foliage has long leaves that have fuzzy, tan-orange undersides. Yaku Princess is vigorous, sun tolerant, and a low maintenance rhododendron that is perfect for foundation plantings.



LEAF SEASON

Evergreen

LEAF COLOR

Yellow Green

FLOWER COLOR

Pink, White, Multi-Colored

FLOWER SEASON

Spring

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Mound, Round

DESIGN STYLES

English Cottage, Formal, Japanese, Woodland

LOCATION USES

Entry, Shrub Border, Raised Planter, Walkways, With Rocks

ATTRACTS WILDLIFE

n/a

Rhus aromatica Gro-Low

Gro-Low Fragrant Sumac



PLANT TYPE

Shrub

HEIGHT

2-3 ft.

WIDTH

6-8 ft.

SUN

Full

WATER

Very Low, Extra in Summer

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

Rhus aromatica, commonly called fragrant sumac, is a deciduous Missouri native shrub which occurs in open woods, glades and thickets throughout the State. A dense, low-growing, rambling shrub which spreads by root suckers to form thickets in the wild. Typically grows 2-4' tall (less frequently to 6') and spreads to 10' wide. Trifoliate, medium green leaves turn attractive shades of orange, red and purple in autumn. Leaves and twigs are aromatic when bruised (hence the species name). Although smaller, the leaves resemble in appearance those of the related poison ivy (*Rhus radicans*). - Missouri Botanical Garden



LEAF SEASON

Evergreen

LEAF COLOR

Green, Dark Green

FLOWER COLOR

White

FLOWER SEASON

Spring

FRUIT SEASON

Summer

FRUIT TYPE

Berry



HABIT

Mound, Round

DESIGN STYLES

Mediterranean, Ranch, Spanish

LOCATION USES

Background, Shrub Border, Park, Roadside, With Rocks

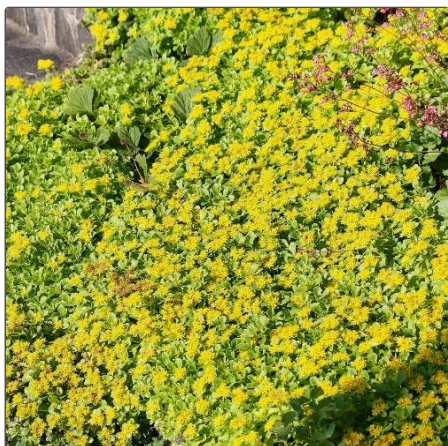
ATTRACTS WILDLIFE

n/a

Ground Covers

Sedum 'Weihenstephaner Gold'

Weihenstephaner Gold Stonecrop



PLANT TYPE
Ground cover

HEIGHT
0.25 ft.

WIDTH
2 ft.

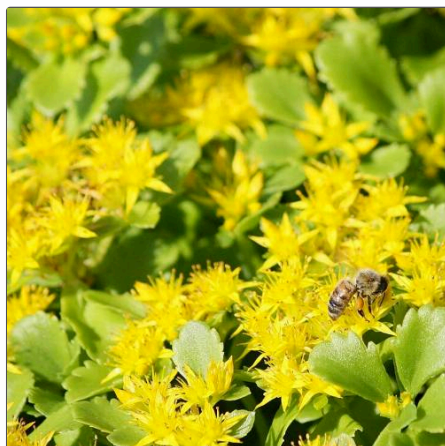
SUN
Full

WATER
Low, Medium

SOIL
Sandy, Rocky

DESCRIPTION

'Weihenstephaner Gold' is a cultivar that features starry pale yellow flowers which acquire pink tones with age, blooming in summer on plants clad with and silvery gray-green foliage. It typically grows to only 3-4" tall.



LEAF SEASON
Evergreen

LEAF COLOR
Yellow Green

FLOWER COLOR
Yellow

FLOWER SEASON
Spring

FRUIT SEASON
n/a

FRUIT TYPE
n/a



DESIGN STYLES
Meadow, Mediterranean, Ranch, Spanish

LOCATION USES
Entry, Perennial Border, Patio, Walkways, With Rocks

ATTRACTS WILDLIFE
Pollinators

Perennials

Ajuga reptans 'Gaiety'

Gaiety Bugleweed



PLANT TYPE

Perennial

HEIGHT

0.5-0.75 ft.

WIDTH

1 ft.

SUN

Full, Half

WATER

Medium, High, Extra in Summer

SOIL

Sandy, Loam, Rocky

DESCRIPTION

A vigorous, low growing and spreading selection that features oval, bronze-purple foliage; lilac-purple flower spikes appear in the spring and into the early summer; heat tolerant and low maintenance; deadhead spent flowers.



LEAF SEASON

Evergreen

LEAF COLOR

Bronze, Green

FLOWER COLOR

Blue

FLOWER SEASON

Spring, Summer

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Horizontal, Mound

DESIGN STYLES

Meadow, Spanish, Wetlands, Woodland

LOCATION USES

Perennial Border

ATTRACTS WILDLIFE

Pollinators

Amsonia hubrichtii

Arkansas Amsonia



PLANT TYPE

Perennial

HEIGHT

2-3 ft.

WIDTH

2-3 ft.

SUN

Full, Half

WATER

Medium

SOIL

Loam

DESCRIPTION

This southern native has very narrow, needle-like leaves that line the stems like bottle brushes. Surprisingly, they are soft as silk to the touch. From late spring thru early summer, 2-3 inch wide clusters of small, light blue, star-shaped flowers are borne above the short mound of ferny foliage. After blooming, it quickly grows to reach a height of about 3 feet. Amsonia adds a billowy, finely textured element to the landscape. It grows into a dense mass, much like a small shrub. The cool blue flowers can be useful in toning down adjacent flower colors. The most valuable feature of amsonia is its fall color; the entire plant turns a stunning shade of golden yellow. It makes an excellent backdrop for fall-blooming perennials such as sedums and garden mums.

LEAF SEASON

Deciduous

LEAF COLOR

Gold, Green

FLOWER COLOR

Blue

FLOWER SEASON

Spring, Summer

FRUIT SEASON

n/a

FRUIT TYPE

n/a

DESIGN STYLES

English Cottage, Formal, Japanese, Meadow, Mediterranean, Ranch, Water Garden, Wetlands, Wild Garden, Woodland

LOCATION USES

Perennial Border, Shrub Border, Foundation, Patio, Walkways, With Rocks

ATTRACTS WILDLIFE

Pollinators, Bees, Butterflies

Amsonia tab. 'Blue Ice'

Blue Ice Amsonia



PLANT TYPE

Perennial

HEIGHT

1-1.3 ft.

WIDTH

2 ft.

SUN

Full, Half

WATER

Medium

SOIL

Loam

DESCRIPTION

Blue Ice bears gorgeous plump navy blue buds in late spring, opening to vivid periwinkle blue, star-shaped flowers. They are larger than the species and are borne in clusters at the ends of each stem. The bright green, compact, slowly spreading foliage forms the perfect background for the delightful blossoms and then turns a rich shade of yellow in fall. Amsonia adds a billowy, finely textured element to the landscape. It grows into a dense mass, much like a small shrub.



LEAF SEASON

Evergreen

LEAF COLOR

Green

FLOWER COLOR

Blue

FLOWER SEASON

Spring, Summer

FRUIT SEASON

n/a

FRUIT TYPE

n/a



DESIGN STYLES

English Cottage, Formal, Japanese, Meadow, Mediterranean, Ranch, Water Garden, Wetlands, Wild Garden, Woodland

LOCATION USES

Perennial Border, Shrub Border, Foundation, Patio, Walkways, With Rocks

ATTRACTS WILDLIFE

Pollinators, Bees, Butterflies

Amsonia tabernaemontana

Amsonia



PLANT TYPE

Perennial

HEIGHT

2-3 ft.

WIDTH

2-3 ft.

SUN

Full, Half

WATER

Medium

SOIL

Loam

DESCRIPTION

Amsonia bears gorgeous blue buds in late spring, opening to vivid periwinkle blue, star-shaped flowers. They are larger than the species and are borne in clusters at the ends of each stem. The bright green, compact, slowly spreading foliage forms the perfect background for the delightful blossoms and then turns a rich shade of yellow in fall. Amsonia adds a billowy, finely textured element to the landscape. It grows into a dense mass, much like a small shrub.

LEAF SEASON

Evergreen

LEAF COLOR

Green

FLOWER COLOR

Blue

FLOWER SEASON

Spring, Summer

FRUIT SEASON

n/a

FRUIT TYPE

n/a

DESIGN STYLES

English Cottage, Formal, Japanese, Meadow, Mediterranean, Ranch, Water Garden, Wetlands, Wild Garden, Woodland

LOCATION USES

Perennial Border, Shrub Border, Foundation, Patio, Walkways, With Rocks

ATTRACTS WILDLIFE

Pollinators, Bees, Butterflies

Geranium macrorrhizum 'Bevan's Variety'

Bevan's Variety Geranium



PLANT TYPE

Perennial

HEIGHT

1 ft.

WIDTH

1.5 ft.

SUN

Full, Half

WATER

Low, Extra in Summer

SOIL

Loam

DESCRIPTION

This is the best Geranium for ground cover use. It spreads quickly (but not invasively) and produces a canopy of deeply cut, bright green leaves so dense that weeds have no hope of gaining a toehold. It tolerates dry shade, conditions under which most plants quickly perish. Yes, it does flower, putting on a good display of 1" soft pink blooms in May and June. The leaves are highly aromatic and provide fall color in shades of red and orange as a finishing touch.



LEAF SEASON

Evergreen

LEAF COLOR

Green

FLOWER COLOR

Purple

FLOWER SEASON

Spring, Summer

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Mound

DESIGN STYLES

English Cottage, Meadow, Mediterranean, Ranch, Spanish, Woodland

LOCATION USES

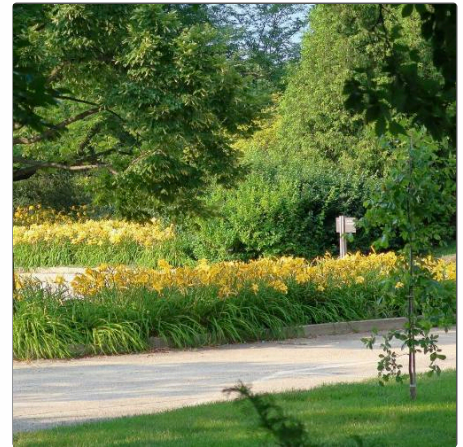
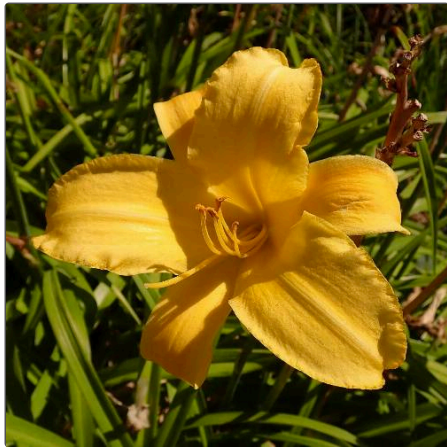
Entry, Perennial Border, Patio, Raised Planter, Walkways, With Rocks

ATTRACTS WILDLIFE

n/a

Hemerocallis 'Mary Todd'

Mary Todd Daylily



PLANT TYPE

Perennial

HEIGHT

2 ft.

WIDTH

2 ft.

SUN

Full, Half

WATER

Medium, Extra in Summer

SOIL

Loam

DESCRIPTION

Always Afternoon has 5½", dusky rose self with a striking plum purple eyezone and a green throat Petals are crimped with thin buff pink edges, sepals are smooth Semi-evergreen foliage stays nice all season

LEAF SEASON

Evergreen

LEAF COLOR

Green

FLOWER COLOR

Yellow

FLOWER SEASON

Summer, Fall

FRUIT SEASON

n/a

FRUIT TYPE

n/a

HABIT

Upright

DESIGN STYLES

English Cottage, Mediterranean, Ranch, Seascapes

LOCATION USES

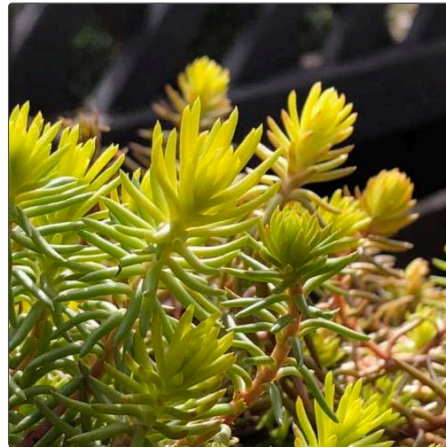
Entry, Perennial Border, Patio, Raised Planter, Walkways, With Rocks

ATTRACTS WILDLIFE

Birds, Hummingbirds, Butterflies, Wildlife

Sedum 'Angelina's Teacup'

Angelina's Teacup Stonecrop



PLANT TYPE

Perennial

HEIGHT

0.25 ft.

WIDTH

1.2 ft.

SUN

Full

WATER

Low, Medium

SOIL

Sandy, Rocky

DESCRIPTION

Sedum Angelina's Teacup is a wonderful addition to the Sunsparkler series. This Sedum has a bright color all year round without the use of fertilizers. In spring, summer and autumn, Angelina's Teacup is golden yellow; in winter, this Sedum turns more orange. Compared to Sedum Angelina, Angelina's Teacup has a more dense and better branched habit. Angelina's Teacup does not bloom and therefore retains her beautiful, compact shape. It is a perfect Sedum as a ground cover but can also be used as a garden or pot plant. Angelina's Teacup becomes about 10 cm tall and 45 cm wide. Is hardy up to -25°C. Plant Angelina's Teacup in a well-drained soil that is not too heavy. Angelina's Teacup can be placed in the full sun as well as the semi-shade, but she prefers a spot in the sun.

LEAF SEASON

Evergreen

LEAF COLOR

Yellow Green

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

n/a

FRUIT TYPE

n/a

DESIGN STYLES

Meadow, Mediterranean, Ranch, Spanish

LOCATION USES

Entry, Patio, Walkways, With Rocks

ATTRACTS WILDLIFE

Pollinators

Sedum Sunsparkler 'Dazzleberry'

Dazzleberry Stonecrop



PLANT TYPE

Perennial

HEIGHT

0.5 ft.

WIDTH

1-3'

SUN

Full

WATER

Low

SOIL

Sandy, Clay, Rocky

DESCRIPTION

Bold and beautiful, SunSparkler® 'Dazzleberry' Sedum sports smoky blue-grey foliage in 6-inch-tall mounds. Come late summer, raspberry flower clusters cover the plant for long-lasting color. Easy-to-grow and pollinator-friendly, it's a great low maintenance perennial for groundcovers, rock gardens, borders, and containers in sunny, dry areas. 'Dazzleberry' will naturalize and spread creating a carpet of easy-care color.



LEAF SEASON

Evergreen

LEAF COLOR

Blue Green, Purple

FLOWER COLOR

Pink

FLOWER SEASON

Summer, Fall

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Prostrate

DESIGN STYLES

Formal, Meadow, Mediterranean, Ranch, Spanish

LOCATION USES

Entry, Perennial Border, Parking Strip, Patio, Walkways, With Rocks

ATTRACTS WILDLIFE

Pollinators

Sedum sexangulare

Tasteless Stonecrop



PLANT TYPE

Perennial

HEIGHT

0.25-0.5 ft.

WIDTH

1-2 ft.

SUN

Full

WATER

Low, Medium

SOIL

Sandy, Rocky

DESCRIPTION

Sedum Angelina's Teacup is a wonderful addition to the Sunsparkler series. This Sedum has a bright color all year round without the use of fertilizers. In spring, summer and autumn, Angelina's Teacup is golden yellow; in winter, this Sedum turns more orange. Compared to Sedum Angelina, Angelina's Teacup has a more dense and better branched habit. Angelina's Teacup does not bloom and therefore retains her beautiful, compact shape. It is a perfect Sedum as a ground cover but can also be used as a garden or pot plant. Angelina's Teacup becomes about 10 cm tall and 45 cm wide. Is hardy up to -25°C. Plant Angelina's Teacup in a well-drained soil that is not too heavy. Angelina's Teacup can be placed in the full sun as well as the semi-shade, but she prefers a spot in the sun.



LEAF SEASON

Evergreen

LEAF COLOR

Yellow Green

FLOWER COLOR

Yellow

FLOWER SEASON

Spring

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Prostrate, Weeping

DESIGN STYLES

Meadow, Mediterranean, Ranch, Spanish

LOCATION USES

Entry, Patio, Walkways, With Rocks

ATTRACTS WILDLIFE

Pollinators

Waldsteinia ternata

Siberian Barren Strawberry



PLANT TYPE

Perennial

HEIGHT

0.5 ft.

WIDTH

1 ft.

SUN

Full, Half

WATER

Low, Extra in Summer

SOIL

Sandy, Clay, Loam

DESCRIPTION

Glossy semi-evergreen groundcover for sun or shade. Distinctive 3-5 lobed leaves on stems spreading by stolons. Yellow flowers in spring. Can be utilized as a drought tolerant, weed-smothering, evergreen groundcover, in shaded conditions.



LEAF SEASON

Evergreen, Semi-evergreen

LEAF COLOR

Green

FLOWER COLOR

Yellow

FLOWER SEASON

Spring

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Prostrate

DESIGN STYLES

Japanese

LOCATION USES

Entry, Shrub Border, Foundation, Parking Strip, Patio, Park, Parking Lot, Walkways

ATTRACTS WILDLIFE

n/a

Grasses

Carex pensylvanica

Pennsylvania Sedge



PLANT TYPE

Grass

HEIGHT

0.5-1 ft.

WIDTH

0.5-1 ft.

SUN

Half, Shade

WATER

High, Extra in Summer

SOIL

Loam

DESCRIPTION

Pennsylvania Sedge has narrow, low-growing foliage that forms a lush green carpet. Our most popular native sedge, it makes a fine lawn alternative or ground cover. It spreads slowly by rhizomes and is most effective when planted in masses. *Carex pensylvanica* is perfect for woodland gardens or shady areas; however, it doesn't mind being planted in sun in cooler climates if it gets sufficient moisture. This petite, eight-inch beauty flowers in May. *Carex pensylvanica* is a great pollinator plant, supporting several caterpillar species. In the wild, it provides shelter and nesting material for birds. It is semi-evergreen and drought tolerant once established. This graceful little sedge is found in meadows or forest floors from Maine to Alabama and into the Dakotas.



LEAF SEASON

Evergreen

LEAF COLOR

Green

FLOWER COLOR

White

FLOWER SEASON

Spring

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Mound

DESIGN STYLES

Japanese, Meadow, Water Garden, Wetlands, Woodland

LOCATION USES

Entry, Perennial Border, Patio, Walkways, With Rocks

ATTRACTS WILDLIFE

n/a

Carex woodii

Wood's Sedge



PLANT TYPE

Grass

HEIGHT

0.5-1 ft.

WIDTH

0.75 ft.

SUN

Full, Half

WATER

Medium

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

Carex woodii is a lovely perennial woodland sedge with narrow fine textured leaves. This sedge forms clonal colonies from underground rhizomes. In spring a sparse offering of yellow-green spikelets are held above the leaves. In the wild, this species occurs in well drained, moist or dry acidic or calcareous woods. In landscape situations, Carex woodii is an excellent groundcover for the shade garden.



LEAF SEASON

Evergreen

LEAF COLOR

Green

FLOWER COLOR

Green

FLOWER SEASON

Spring

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Mound

DESIGN STYLES

Meadow, Ranch, Water Garden, Wetlands, Wild Garden, Woodland

LOCATION USES

Perennial Border, Shrub Border, Lawn, Patio, Swimming Pool, Walkways, With Rocks

ATTRACTS WILDLIFE

n/a

Deschampsia cespitosa

Tufted Hair Grass



PLANT TYPE

Grass

HEIGHT

2 ft.

WIDTH

1 ft.

SUN

Full, Half, Shade

WATER

Low

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

The tufted hairgrass is a warm season, clumping grass that grows 10" tall with summer flowers that reach to 2' tall. This grass tolerates partial shade and heavy clay soils. It is good in waterside plantings and for mountain area meadows. This grass is a California native and is a beneficial insect plant. Flowers are insignificant.

LEAF SEASON

Deciduous

LEAF COLOR

Green

FLOWER COLOR

Yellow

FLOWER SEASON

Summer

FRUIT SEASON

n/a

FRUIT TYPE

n/a

HABIT

Upright

DESIGN STYLES

Meadow, Water Garden, Wetlands, Wild Garden, Woodland

LOCATION USES

Shrub Border, Raised Planter, With Rocks

ATTRACTS WILDLIFE

Wildlife

Panicum virgatum 'Shenandoah'

Shenandoah Switch Grass



PLANT TYPE
Grass

HEIGHT
4-5 ft.

WIDTH
1.5 ft.

SUN
Full, Half

WATER
Medium

SOIL
Sandy, Loam

DESCRIPTION

Shenandoah is a selection of our native prairie switchgrass grown for its burgundy colored foliage and pinkish flower spikes. This grass has especially nice fall color with the grass blades tinted with red and orange. Drought resistant/drought tolerant plant (xeric).



LEAF SEASON
Deciduous

LEAF COLOR
Green, Purple

FLOWER COLOR
Purple, Red

FLOWER SEASON
Summer

FRUIT SEASON
n/a

FRUIT TYPE
n/a



HABIT
Upright

DESIGN STYLES
Japanese, Meadow, Ranch, Spanish, Woodland

LOCATION USES
Entry, Perennial Border, Foundation, Parking Strip, Patio, Park, Parking Lot, Roadside, Walls / Fences, Walkways, With Rocks

ATTRACTS WILDLIFE
n/a

Schizachyrium scoparium 'The Blues'

The Blues Bluestem



PLANT TYPE

Grass

HEIGHT

2-4 ft.

WIDTH

2-3 ft.

SUN

Full

WATER

Low

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

'The Blues' typically grows 2-4' tall. Features erect, upright, broom-like clumps of slender leaves (1/4" wide) which are tinted blue. Pinkish-tinged culms (stems). Foliage acquires burgundy-red tones in autumn. Purplish-bronze flowers appear in 3" long racemes on branched stems rising above the foliage in August. Flowers give way to clusters of fluffy, silvery-white seed heads which may persist into early winter. Blue foliage and fall color are probably the best ornamental features of this grass. -Missouri Botanic Garden



LEAF SEASON

Deciduous

LEAF COLOR

Bronze, Green, Blue Green

FLOWER COLOR

Pink, White

FLOWER SEASON

Summer, Fall

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Upright

DESIGN STYLES

Meadow, Wild Garden, Woodland

LOCATION USES

Perennial Border, Park, With Rocks

ATTRACTS WILDLIFE

n/a

Sporobolus heterolepis

Prairie Dropseed



PLANT TYPE

Grass

HEIGHT

1.4 ft.

WIDTH

1.5 ft.

SUN

Full

WATER

Low

SOIL

Rocky, Unparticular

DESCRIPTION

This beautiful, reliable grass slowly reaches 15" tall and 18" wide. Leaves are thin, green, turning gold orange in fall, then bronze in winter. Slender airy panicles of pink or brown flowers rise above the foliage in summer. This grass needs full sun with well draining, dry, average soil. It tolerates gravelly soil also. Tiny seeds drop in fall and are not considered a nuisance but birds love them.

LEAF SEASON

Semi-evergreen

LEAF COLOR

Green

FLOWER COLOR

Pink

FLOWER SEASON

Summer

FRUIT SEASON

n/a

FRUIT TYPE

n/a

HABIT

Prostrate, Vase

DESIGN STYLES

Meadow, Mediterranean, Ranch, Spanish, Woodland

LOCATION USES

Entry, Patio, Park, Raised Planter, Swimming Pool, Walkways, With Rocks

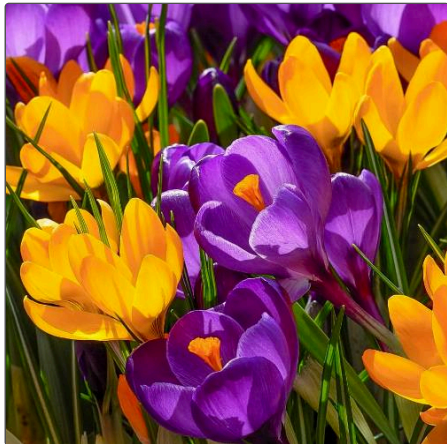
ATTRACTS WILDLIFE

Birds

Bulbs

Crocus hybrids

Crocus



PLANT TYPE

Bulb

HEIGHT

0.5-1 ft.

WIDTH

1-2 ft.

SUN

Full, Half

WATER

Medium

SOIL

Loam

DESCRIPTION

Crocus blooming is the signal for spring's arrival. It can be planted in borders, rock gardens, and even in the midst of a lawn. After flowering, the foliage must be left intact until it withers. Purple is the main color but they also come in white, lilac, or white stripes. Very early blooming; naturalizes in lawn. Provide full sun to light shade and average, well-drained soil.



LEAF SEASON

Deciduous

LEAF COLOR

Green

FLOWER COLOR

Purple, White

FLOWER SEASON

Spring

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Arching, Upright

DESIGN STYLES

English Cottage, Formal, Japanese, Meadow, Mediterranean, Ranch, Seascapes, Spanish, Wetlands, Wild Garden, Woodland

LOCATION USES

Entry, Perennial Border, Lawn, Swimming Pool, Walkways, With Rocks

ATTRACTS WILDLIFE

n/a

Conifers

Chamaecyparis obtusa 'Kosteri'

Hinoki Cypress



PLANT TYPE

Conifer

HEIGHT

4-5 ft.

WIDTH

4-5 ft.

SUN

Full, Half

WATER

Medium, Extra in Summer

SOIL

Sandy, Loam

DESCRIPTION

Chamaecyparis obtusa 'Kosteri' is a very choice, irregularly pyramidal dwarf selection of Hinoki cypress with ascending branches and shell-like sprays of light olive-green foliage that assumes a bit of a yellow cast in winter. This attractive evergreen shrub has a rounded form that matures into a dwarf pyramidal shape. Flat sprays of deep green foliage add handsome texture to the landscape. Excellent for rock gardens or mixed borders. Withstands brief dry spells, once established in the landscape.



LEAF SEASON

Evergreen

LEAF COLOR

Yellow Green

FLOWER COLOR

n/a

FLOWER SEASON

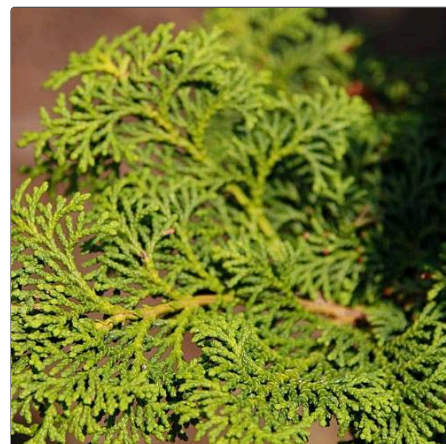
n/a

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Pyramidal, Round

DESIGN STYLES

Formal, Japanese

LOCATION USES

Entry, Shrub Border, Foundation, Patio, Walkways

ATTRACTS WILDLIFE

n/a

Juniperus procumbens 'Nana'

Dwarf Japanese Garden Juniper



PLANT TYPE

Conifer

HEIGHT

0.5-1 ft.

WIDTH

5-6 ft.

SUN

Full

WATER

Low

SOIL

Sandy, Clay, Loam, Rocky, Unparticular

DESCRIPTION

The very dense growth of this plant is highlighted by foliage of a bluish green color. Its growth habit is very low, spreading, and mound-like, resembling a natural bonsai. This variety is one of the best Junipers for small garden spaces. Junipers are highly combustible plants.



LEAF SEASON

Evergreen

LEAF COLOR

Blue Green

FLOWER COLOR

n/a

FLOWER SEASON

n/a

FRUIT SEASON

n/a

FRUIT TYPE

n/a



HABIT

Prostrate

DESIGN STYLES

Japanese, Seascape, Woodland

LOCATION USES

Entry, Shrub Border, Foundation, Parking Strip, Park, Raised Planter, With Rocks

ATTRACTS WILDLIFE

n/a

STORMWATER INSPECTION & MAINTENANCE PLAN

FOR

**361 Hanover Street
Portsmouth, NH**

Introduction

The intent of this plan is to provide 361 Hanover Street (herein referred to as “owner”) with a list of procedures that document the inspection and maintenance requirements of the drainage structures for this development.

The following inspection and maintenance program is necessary to keep the stormwater management system functioning properly. These measures will also help minimize potential environmental impacts. By following the enclosed procedures, the owner will be able to maintain the functionality of the drainage structures and maximize their ability to drain the site effectively from stormwater runoff.

Annual Report

The owner shall prepare an annual Inspection & Maintenance Report. The report shall include a summary of the system’s maintenance and repair by transmission of the Inspection & Maintenance Log and other information as required. A copy of the report shall be delivered annually to the City of Portsmouth Public Works Department.

Inspection & Maintenance Checklist/Log

The following pages contain a Stormwater Management System Inspection & Maintenance Checklist and a blank copy of the Stormwater Management System Inspection & Maintenance Log. These forms are provided to the owner as a guideline for performing the inspection and maintenance. This is a guideline and should be periodically reviewed for conformance with current practice and standards.

DRAINAGE STRUCTURE COMPONENTS

Non-Structural BMP’s

Non-Structural best management practices (BMP’s) include temporary and permanent measures that typically require less labor and capital inputs and are intended to provide protection against erosion of soils. Examples of non-structural BMP’s on this project include but are not limited to: temporary and permanent mulching, temporary and permanent grass cover, trees, shrubs and ground covers, miscellaneous landscape plantings, dust control, tree protection, topsoiling, sediment barriers, and a stabilized construction entrance.

Structural BMP's

Structural BMP's are more labor and capital-intensive structures or installations that require more specialized personnel to install. Examples on this project include but are not limited to storm drain catch basins, roof drains and pipes.

Inspection and Maintenance Requirements

The following summarizes the inspection and maintenance requirements for the various BMP's that may be found on this project.

- 1. Landscaped areas:** After each rain event of 0.5" or more during a 24-hour period, inspect landscaped areas for signs of disturbance, such as erosion. If damaged areas are discovered, immediately repair the damage. Repairs may include adding new topsoil, lime, seed, fertilizer and mulch.
- 2. Plantings:** Planting and landscaping (trees, shrubs) shall be monitored bi-monthly during the first year to insure viability and vigorous growth. Replace dead or dying vegetation with new stock and adjust the conditions that caused the dead or dying vegetation. During dryer times of the year, provide weekly watering or irrigation during the establishment period of the first year. Make the necessary adjustments to ensure long-term health of the vegetated covers, i.e. provide more permanent mulch or compost or other means of protection. Clean up dead leaves yearly to avoid drainage issues.
- 3. Storm Drain Catch Basins and Pipes:** Monitor drain inlets and outlets during construction. Monitor sediment levels in catch basin sumps and remove as necessary.
- 4. Roof Drains:** Maintain roof drains and review periodically for clogs. Roof drain filters will be installed within the buildings. Follow the Maintenance Specification as Detailed in the Plan Set.

Stormwater Management System

Inspection & Maintenance Checklist for Post Construction Condition—for 361 Hanover Street, Portsmouth, NH

BMP/System Component	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance/Cleanout Threshold
Closed Drainage System			
Drainage Pipes and Roof Drains	Yearly	<i>Check for sediment clogging, or soiled runoff.</i>	Clean entire drainage system and remove all sediments if discovered in piping.
Catch Basins	Bi-Annually	<i>Check for excessive accumulation of sediment in sump</i>	Remove sediment as necessary
Annual Report	Yearly	<i>Prepare Annual Report, including all Inspection & Maintenance Logs. Provide to City (if required).</i>	N/A

Stormwater Management System Maintenance Summary

Inspection & Maintenance Log—for 361 Hanover Street, Portsmouth, NH

BMP/System Component	Date Inspected	Inspector	Problems Noted, Required Maintenance <i>(List Items/Comments)</i>	Date of Maintenance	Performed By

Data Sheets



MEMORANDUM

DATE: March 14, 2025

TO: City of Portsmouth Planning Board

PROJECT: Redevelopment Plan at
361 Hanover Street
Portsmouth, NH 03801

REGARDING: Green Building/Energy Compliance Statement

Building energy compliance/performance will be measured by The Home Energy Rating System (HERS) Index. This is the industry standard by which a home's energy efficiency is measured. It's also the nationally recognized system for inspecting and calculating a home's energy performance. The target rating will be HERS 50 or less which far exceeds the 2018 IECC requirement of HERS 61 for Climate Zone 5.

Proposed buildings will exceed most of the requirements of the 2018 Energy Conservation Code including the following features:

Building Shell Features:

- Slab Insulation – R-10.0 Edge, R-10.0 Under
- Windows – U-Value: .280, SHGC: .4
- Exposed Floor – R-30.0
- Walls – R-20 plus R-5 cont. insulation
- Roof – R-49
- Infiltration Rate – 3.0 ACH50 (Blower Door Test)

Mechanical System Features:

- Building Load Calculations - Performed in accordance with ASHRAE 140
- Air Source Heat Pump – Electric Heating 10.0 HPSF, Cooling 18.0 SEER
- Water Heating – Conventional Electric, .92 EF, 40.0 Gal.
- Ventilation System – Balanced ERV, 150 CFM, 75.0 Watts, Compliance with ASHRAE 62
- Programmable Thermostats- Heating/Cooling
- Plumbing Fixtures - Fixture flow rates to comply with the International Green Construction Code (IgCC). Showers, Sinks and lavatories with flows of

SCOTT M BROWN

ESTD | ARCHITECTS | 2007

2.0/1.8/1.5gpm respectively.

- Toilets - Dual-flush tank-type toilets with flows of 0.9/1.28gal per flush

Lights and Appliance Features:

- Interior Lighting - 100% LED most being Energy Star and/or DLC (Design Lighting Consortium) rated.
- Exterior Lighting - 100% LED, to include auto daylight shutoffs.
- Lighting Controls - Use of Dimmers, Daylighting Control Sensors and Photoelectric Sensors which further enhance energy savings and meet energy codes.
- Refrigerator - <600 kWh/yr
- Dishwasher - <270 kWh/yr
- Range/Oven Fuel - Natural Gas, Electric Induction Cooktop Option
- Clothes Dryer Fuel - Electric

Building Features:

- Wiring for Electric Vehicle Ready Spaces - 1 per Unit
- Solar ready roof zones on roof pitches of 3/12 or less (oriented between 110° and 270° of true north) and capped roof penetration sleeves for future solar to be provided.

CLRv3 Select

Commercial Recessed LED Downlight

Product Description

Designed for both new construction and retrofit applications, the CLR Select series can be installed directly into drywall, a ceiling grid or an existing 4", 6" or 8" mounting frame using spring loaded retention tabs. The CCT and output selectable design allows for easy adjustment to 3000, 3500, 4000, or 5000K and standard, medium or high output. With Standard and Low Output models available, the lighting can be easily tailored to match the space or meet rebate levels. With accessory trims in black and offering a full range of dimming via 1-10 volts, the CLR Select is adaptable to most any environment. The versatility of this light source is perfect for commercial applications, such as educational, governmental, retail and grocery, office or hospitality lighting.

Construction

- Spun aluminum trim
- Plastic driver housing
- 3' flexible metal conduit (FMC) whip
- Matte white powder coat
- Black faceplates available

Optical System

- Precision engineered polystyrene diffuser provides high uniformity, and reduced glare
- No visible diodes, hot-spots, or shadows
- 4 CCT selection (3000K, 3500K, 4000K, 5000K) via switch on driver cover

Electrical

- 5 Wire whip - 3 Input (L,N,G) and 2 controls (DIM+, DIM-)
- Universal range input 120 - 277 VAC, 60Hz
- 3 wattage selection (Standard, Medium, High) via switch on driver cover
- Default Setting of 4000K and Standard output
- 2 models of output - Standard and Low

Controls

- Dimming via 1-10VDC controls
- Available Bluetooth Wireless Controls Accessory. See: www.nicorlighting.com/network-lighting-controls

Mounting and Installation

- Adjustable, spring loaded retention tabs ensure secure fixture retention on ceilings up to 1 1/2" thick
- Easy installation into most 4", 6" or 8" incandescent or fluorescent frames
- Frame not needed for new construction installation
- NON-IC Operating temperature of 0°F to 104°F (-18°C to 40°C)
- IC Operating temperature of 0°F to 77°F (-18° to 25°C)
- Metal rough-in templates and frames available
- For installations where power surge may be possible, NICOR recommends installing additional surge protection at the fixture or electrical distribution panel

Listings

- cULus 1598 Listed for wet locations
- Certified for direct contact with insulation - 4" model only
- Meets ASTM E283 airtight requirements
- TAA compliant
- RoHS compliant
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- TM-21 Reported L70(9k) life >72,000 hours
- LM-79, LM-80 testing performed in accordance with IESNA standards

Warranty

- 5-year limited system warranty standard
- Warranty does not cover product failure due to an overvoltage event (power surge)

Project

Catalog

Type

Date



CLRv3 Commercial LED Downlight 4", 6", 8" Diameters Selectable Wattage & CCT



1) 4" only

CLRv3 Select

Commercial Recessed LED Downlight

Ordering

Ordering Information							Example: CLR63SUS9WH
Series	Diameter	Version	Wattage	Voltage	CCT	CRI	Color
CLR	4 (4 inch)	3 (Version 3.0)	S (Selectable)	U (120-277V)	S (Selectable)	9 (90 CRI)	WH (White)
	6 (6 inch)		SL (Selectable Low Lumen)				
	8 (8 inch)						

Specifications and dimensions subject to change without notice.

Recommended Dimmers*

Lutron NTSTV-DV-WH
Lutron DVSTV
Cooper SF10P
Legrand RH4FBL3PW

Accessories

Accessories sold separately.

Black 4" Trim	CLR43-TR-BK
Black 6" Trim	CLR63-TR-BK
Black 8" Trim	CLR83-TR-BK
3", 4", 6" Rough In Flat Template	ROUGHIN-TEMPLATE-346
8" Rough in Template	ROUGHIN-TEMPLATE-8
4" Rough In Frame	DLE4-ROUGHIN-FRAME
6" Rough In Frame	DLE6-ROUGHIN-FRAME
3", 4", 6" Rough In Frame	MULTIFRAME-346-1
Emergency Battery Backup	EMI200-1-UNV
Bluetooth Wireless Controls	NLCDOWN1

CLRV3 Select

Commercial Recessed LED Downlight

Performance Data			Standard Output			Low Output		
Model Number	Output Setting	Nominal CCT	Light Output (lm)	Power Draw (W)	Efficiency (Lm/W)	Light Output (lm)	Power Draw (W)	Efficiency (Lm/W)
CLR43SUS9WH	Standard	3000	806	7.0	115.2	594	6.9	86.5
		3500	818		116.9	615	6.7	91.6
		4000	829		118.4	622	6.6	93.9
		5000	830		118.6	600	6.8	88.4
CLR43SLUS9WH	Medium	3000	1137	9.9	114.8	686	7.8	87.4
		3500	1164		117.6	710	7.7	92.6
		4000	1183		119.5	718	7.6	94.9
		5000	1174		118.6	693	7.8	89.3
	High	3000	1269	10.8	117.5	768	8.8	87.0
		3500	1300		120.4	795	8.6	92.2
		4000	1322		122.4	804	8.5	94.4
		5000	1309		121.2	776	8.7	88.9
CLR63SUS9WH	Standard	3000	1238	12.8	96.7	639	6.9	92.1
		3500	1288		100.6	685	6.7	102.5
		4000	1314		102.7	703	6.7	105.5
		5000	1319		103.0	681	6.9	98.8
CLR63SLUS9WH	Medium	3000	1654	17.5	94.5	798	8.9	89.6
		3500	1737		99.3	857	8.6	99.6
		4000	1782		101.8	879	8.6	102.6
		5000	1767		101.0	852	8.9	96.0
	High	3000	2119	24.0	88.3	1011	10.9	92.8
		3500	2132		88.8	1085	10.5	103.2
		4000	2250		93.8	1113	10.5	106.3
		5000	2273		94.7	1079	10.8	99.5
CLR83SUS9WH	Standard	3000	2602	24.9	104.5	1017	11.6	87.3
		3500	2750		110.4	1042	11.4	91.1
		4000	2802		112.5	1044	11.5	91.0
		5000	2764		111.0	1026	11.6	88.4
CLR83SLUS9WH	Medium	3000	2988	29.3	102.0	1525	15.5	98.3
		3500	3194		109.0	1564	15.3	102.5
		4000	3257		111.2	1566	15.3	102.4
		5000	3192		109.0	1539	15.5	99.5
	High	3000	3480	34.9	99.7	2135	21.3	100.0
		3500	3521		100.9	2189	21.0	104.4
		4000	3668		105.1	2193	21.0	104.2
		5000	3692		105.8	2154	21.3	101.3

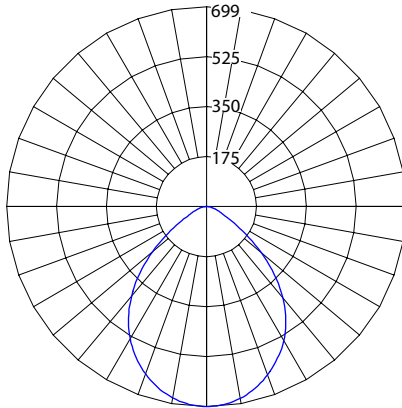
CLRV3 Select

Commercial Recessed LED Downlight

Photometric Data - Standard Output

CLR4 11W, 3000K

Input Voltage (VAC)	120-277
System Level Power (W)	10.8
Delivered Lumens (Lm)	1269
System Efficacy (Lm/W)	117.5
Correlated Color Temp (K)	3048
Color Rendering Index (CRI)	95 R9=64
Beam Angle	83.6
Spacing Criteria	1.16



Intensity Summary (Candle Power)	
Angle	Mean CP
0	699
5	696
15	663
25	594
35	480
45	312
55	150
65	73
75	37
85	10
90	0

Cone of Light Tabulation		
Mounted height (Inches)	Footcandles Beam Center	Diameter (Feet)
4	43.7	7.2
6	19.4	10.7
8	10.9	14.3
10	7.0	17.9
12	4.8	21.5
14	3.5	25.0
16	2.7	28.6

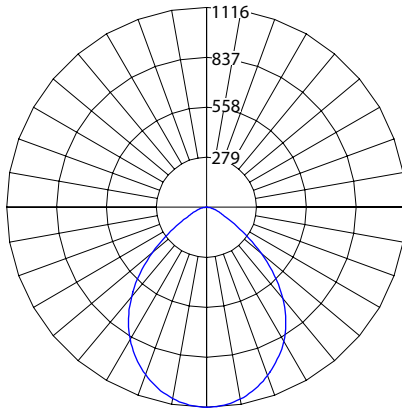
Data Multiplier				
	30K	35K	40K	50K
Low	0.635	0.645	0.653	0.654
Med	0.896	0.918	0.932	0.925
High	1.000	1.028	1.046	1.035

Zonal Lumen Summary		
Zone	Lumens	% of Luminaire
0-30	519	40.9%
0-40	806	63.6%
0-60	1156	91.1%
0-90	1269	100%
90-180	0	0%
0-180	1269	100%

Data Multiplier applies to Lumens, Candle Power, Cone of Light, and Zonal Lumen Summary. See Performance Table for Lm, Watts and LPW values.

CLR6 24W, 3000K

Input Voltage (VAC)	120-277
System Level Power (W)	24.0
Delivered Lumens (Lm)	2119
System Efficacy (Lm/W)	88.3
Correlated Color Temp (K)	3000
Color Rendering Index (CRI)	93 R9=61
Beam Angle	87.9
Spacing Criteria	1.16



Intensity Summary (Candle Power)	
Angle	Mean CP
0	1116
5	1108
15	1045
25	930
35	759
45	525
55	260
65	99
75	45
85	11
90	0

Cone of Light Tabulation		
Mounted height (Inches)	Footcandles Beam Center	Diameter (Feet)
4	69.7	7.7
6	30.9	11.6
8	17.4	15.4
10	11.1	19.3
12	7.7	23.1
14	5.6	27.0
16	4.3	30.8

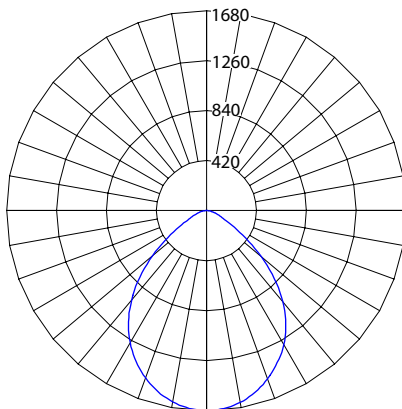
Data Multiplier				
	30K	35K	40K	50K
Low	0.548	0.608	0.620	0.622
Med	0.780	0.820	0.841	0.834
High	1.000	1.006	1.062	1.073

Zonal Lumen Summary		
Zone	Lumens	% of Luminaire
0-30	829	39.1%
0-40	1305	61.6%
0-60	1953	92.2%
0-90	2119	100%
90-180	0	0%
0-180	2119	100%

Data Multiplier applies to Lumens, Candle Power, Cone of Light, and Zonal Lumen Summary. See Performance Table for Lm, Watts and LPW values.

CLR8 34W, 3000K

Input Voltage (VAC)	120-277
System Level Power (W)	34.9
Delivered Lumens (Lm)	3480
System Efficacy (Lm/W)	99.7
Correlated Color Temp (K)	3065
Color Rendering Index (CRI)	93 R9=62
Beam Angle	93.8
Spacing Criteria	1.18



Intensity Summary (Candle Power)	
Angle	Mean CP
0	1678
5	1665
15	1574
25	1408
35	1183
45	895
55	551
65	208
75	61
85	15
90	0

Cone of Light Tabulation		
Mounted height (Inches)	Footcandles Beam Center	Diameter (Feet)
4	104.9	8.5
6	46.6	12.8
8	26.1	17.1
10	16.7	21.4
12	11.6	25.6
14	8.5	29.9
16	6.5	34.2

Data Multiplier				
	30K	35K	40K	50K
Low	0.748	0.790	0.805	0.794
Med	0.859	0.918	0.936	0.917
High	1.000	1.012	1.054	1.061

Zonal Lumen Summary		
Zone	Lumens	% of Luminaire
0-30	1252	36%
0-40	1992	57.2%
0-60	3178	91.3%
0-90	3480	100%
90-180	0	0%
0-180	3480	100%

Data Multiplier applies to Lumens, Candle Power, Cone of Light, and Zonal Lumen Summary. See Performance Table for Lm, Watts and LPW values.



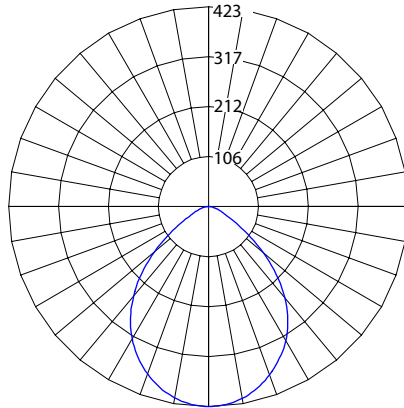
CLRV3 Select

Commercial Recessed LED Downlight

Photometric Data - Low Output

CLR4 9W, 3000K

Input Voltage (VAC)	120-277
System Level Power (W)	8.8
Delivered Lumens (Lm)	768
System Efficacy (Lm/W)	87.0
Correlated Color Temp (K)	3048
Color Rendering Index (CRI)	95 R9=64
Beam Angle	80.1
Spacing Criteria	1.16



Intensity Summary (Candle Power)

Angle	Mean CP
0	423
5	421
15	401
25	359
35	290
45	189
55	91
65	44
75	22
85	6
90	0

Cone of Light Tabulation

Mounted height (Inches)	Footcandles Beam Center	Diameter (Feet)
4	26.4	12.8
6	11.7	19.2
8	6.6	25.6
10	4.2	32.0
12	2.9	38.4
14	2.1	44.8
16	1.6	51.2

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	314	40.9%
0-40	488	63.6%
0-60	699	91.1%
0-90	768	100%
90-180	0	0%
0-180	768	100%

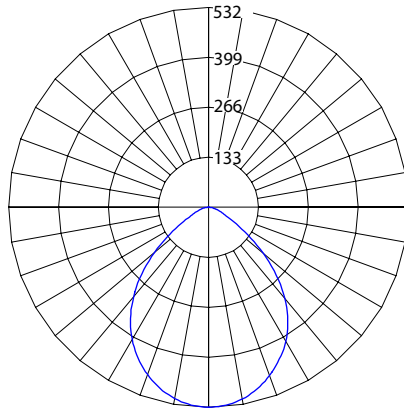
Data Multiplier applies to Lumens, Candle Power, Cone of Light, and Zonal Lumen Summary. See Performance Table for Lm, Watts and LPW values.

Data Multiplier

	30K	35K	40K	50K
Low	0.773	0.801	0.810	0.781
Med	0.893	0.924	0.935	0.902
High	1.000	1.035	1.047	1.010

CLR6 11W, 3000K

Input Voltage (VAC)	120-277
System Level Power (W)	10.9
Delivered Lumens (Lm)	1011
System Efficacy (Lm/W)	92.8
Correlated Color Temp (K)	3022
Color Rendering Index (CRI)	93 R9=61
Beam Angle	89.0
Spacing Criteria	1.16



Intensity Summary (Candle Power)

Angle	Mean CP
0	532
5	528
15	499
25	444
35	362
45	250
55	124
65	47
75	22
85	5
90	0

Cone of Light Tabulation

Mounted height (Inches)	Footcandles Beam Center	Diameter (Feet)
4	33.3	7.7
6	14.8	11.6
8	8.3	15.4
10	5.3	19.3
12	3.7	23.1
14	2.7	27.0
16	2.0	30.8

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	395	39.1%
0-40	623	61.6%
0-60	932	92.2%
0-90	1011	100%
90-180	0	0%
0-180	1011	100%

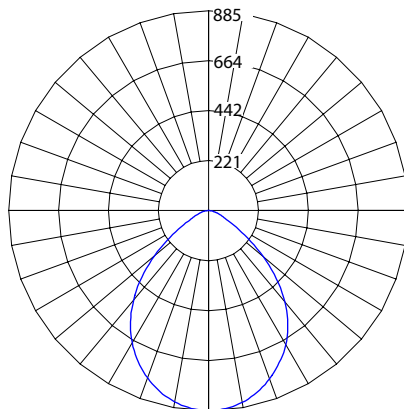
Data Multiplier applies to Lumens, Candle Power, Cone of Light, and Zonal Lumen Summary. See Performance Table for Lm, Watts and LPW values.

Data Multiplier

	30K	35K	40K	50K
Low	0.632	0.678	0.695	0.674
Med	0.789	0.848	0.869	0.843
High	1.000	1.073	1.101	1.067

CLR8 22W, 3000K

Input Voltage (VAC)	120-277
System Level Power (W)	21.3
Delivered Lumens (Lm)	2154
System Efficacy (Lm/W)	101.3
Correlated Color Temp (K)	3065
Color Rendering Index (CRI)	93 R9=62
Beam Angle	91.3
Spacing Criteria	1.18



Intensity Summary (Candle Power)

Angle	Mean CP
0	884
5	877
15	829
25	742
35	623
45	472
55	290
65	110
75	32
85	8
90	0

Cone of Light Tabulation

Mounted height (Inches)	Footcandles Beam Center	Diameter (Feet)
4	55.3	8.5
6	24.5	12.8
8	13.8	17.1
10	8.8	21.4
12	6.1	25.6
14	4.5	29.9
16	3.4	34.2

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	659	36%
0-40	1049	57.2%
0-60	1674	91.3%
0-90	1833	100%
90-180	0	0%
0-180	1833	100%

Data Multiplier applies to Lumens, Candle Power, Cone of Light, and Zonal Lumen Summary. See Performance Table for Lm, Watts and LPW values.

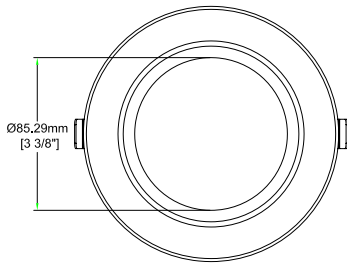
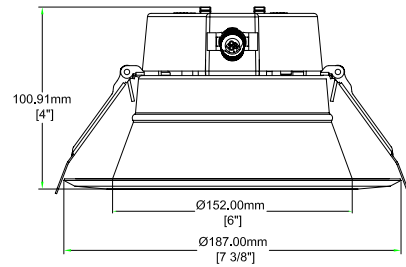
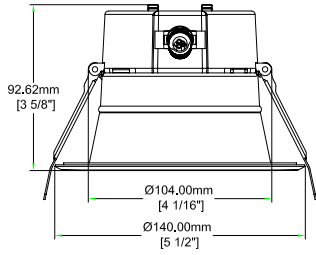
Data Multiplier

	30K	35K	40K	50K
Low	0.476	0.488	0.489	0.481
Med	0.714	0.733	0.733	0.721
High	1.000	1.025	1.027	1.009

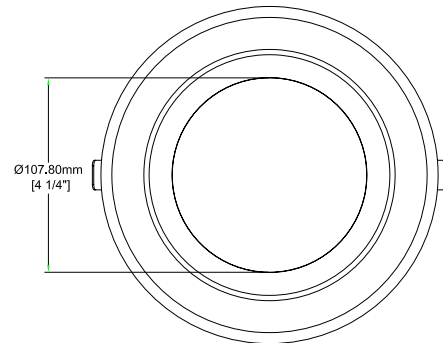
CLRv3 Select

Commercial Recessed LED Downlight

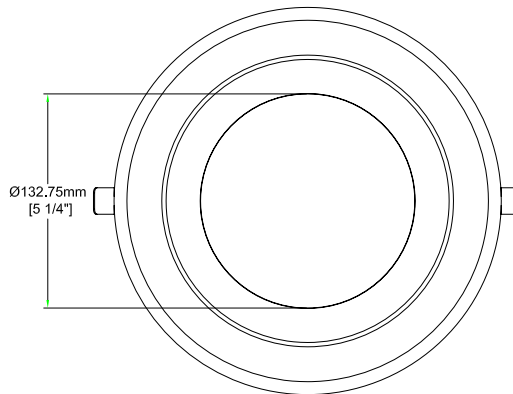
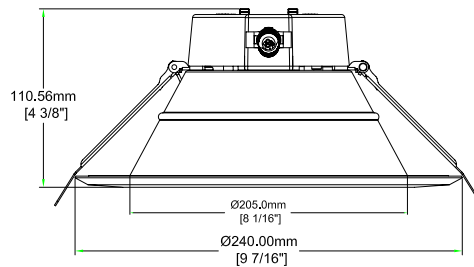
Dimensions



CLR4v3



CLR6v3



CLR8v3

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

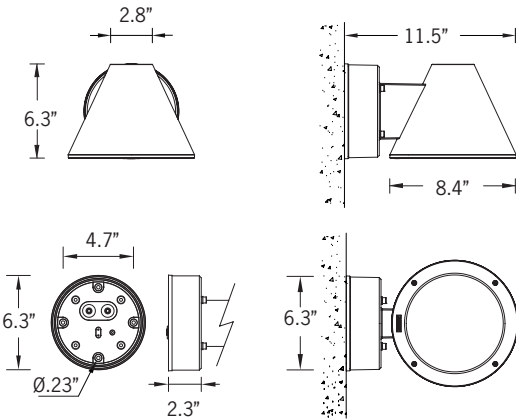
NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

UCI-30131

Cinati Type I, II, III & IV Surface



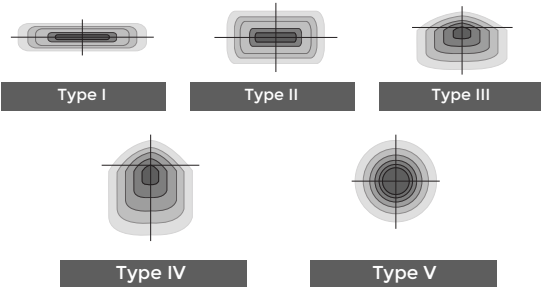
18w LED 2309 Lumens | 30w LED 3848 Lumens
21w COB 1984 Lumens
IP65 • Suitable For Wet Locations
IK08 • Impact Resistant (Vandal Resistant)
Weight 8 lbs



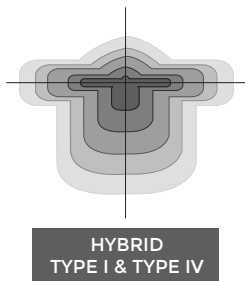
Mounting Detail



Ligman's micro Variable Optical System provides the ability to interchange, mix & rotate optics to provide specific light distributions for optimized spacing and uniformity.



The variable optic system allows for the designer to create hybrid distributions for precise lighting requirements.



Construction

Aluminum.
Less than 0.1% copper content - Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint
8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket
Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management
LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression
Standard 10kv surge suppressor provided with all fixtures.

BUG Rating
B2 - U0 - G0

Finishing.
All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint
UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

Inspired by Nature Finishes
The Inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish.

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

The Coating Process
After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact and corrosion and acts as the relief base color for the finalized metal decoration.

The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Our powder coatings are certified for indoor and outdoor applications and are backed by a comprehensive warranty. These coatings rise to the highest conceivable standard of performance excellence and design innovation.

- Added Benefits**
- Resistance to salt-acid room, accelerated aging
 - Boiling water, lime and condensed water resistant
 - Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
 - Super durable (UV resistant)
 - TGIC free (non-toxic)

Hardware
Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes
Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens
Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED
Precise optic design provides exceptional light control and precise distribution of light.
LED CRI > 80

Lumen - Maintenance Life
L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

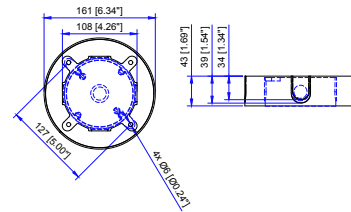
Cone-shaped wall-mounted downlight fixtures. Simple clean form hiding multiple high-performance glare free optic choices.

A cone shaped wall wash luminaire. Suitable for outdoor up, or down light applications. This luminaire is provided with precision optics and high powered LEDs, to provide narrow, medium, wide and very wide distributions. The vandal resistant tempered glass is available in clear or lightly frosted versions.

This product is suitable for commercial, as well as residential applications and with the selection of optics available can provide an excellent lighting solution. Integral electronic driver. Fixture is mounted over a 3" octagonal junction box.

To meet International Dark Sky criteria, 3000k or warmer LEDs must be selected and luminaire fix mounted (+/- 15° allowable to permit leveling).

Additional Options (Consult Factory For Pricing)



SCBT Surface Conduit Box Trim

NOTE: This trim covers a shallow single gang, surface mount junction box [Provided by contractor]
 Example: Hubbell: 5322-0 - 1-Gang Weatherproof Box, Five 1/2" in. Threaded Outlets - or - 5332-0 - 1-Gang Weatherproof Box, Five 3/4 in. Threaded Outlets



UCI-30131

Cinati Type I, II, III & IV Surface



PROJECT		DATE	
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QUANTITY		TYPE		NOTE	
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ORDERING EXAMPLE || UCI - 30131 - 18w - T2 - W30 - 02 - 120/277v - Options

UCI-30131					
LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE	
18w LED 2309 Lumens 30w LED 3848 Lumens 21w COB 1984 Lumens	For 18w and 30w LED Only T1 - Type I Distribution T2 - Type II Distribution T3 - Type III Distribution T4 - Type IV Distribution For 21w COB Only N - Narrow 8° M - Medium 16° W - Wide 36° VW - Very Wide 70°	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277v Other - Specify	

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ADDITIONAL OPTIONS

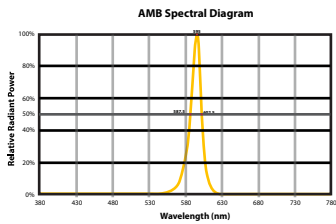
- NAT - Natatorium Rated
- DIM - 0-10v Dimming
- SCBT - Surface Conduit Box Trim
- F - Frosted Lens
- AMB - Turtle Friendly Amber LED

INSPIRED BY NATURE FINISHES

- SW01 - OAK FINISH
- SW02 - WALNUT FINISH
- SW03 - PINE FINISH
- DF - DOUGLAS FIR FINISH
- CW - CHERRY WOOD FINISH
- NW - NATIONAL WALNUT FINISH
- SU01 - CONCRETE FINISH
- SU02 - SOFTSCAPE FINISH
- SU03 - STONE FINISH
- SU04 - CORTEN FINISH

THERE IS AN ADDITIONAL COST FOR THESE FINISHES

CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT



Narrow-Spectrum Amber LEDs
 Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.

More Custom Finishes Available Upon Request

Consult factory for pricing and lead times

 Oak	 Cherry	 Beech	 Carbon
 Walnut	 Chestnut	 Bamboo	 Galvanized
 Pine	 Mahogany	 Birch	 Steel



Cinati Product Family



Cinati 1

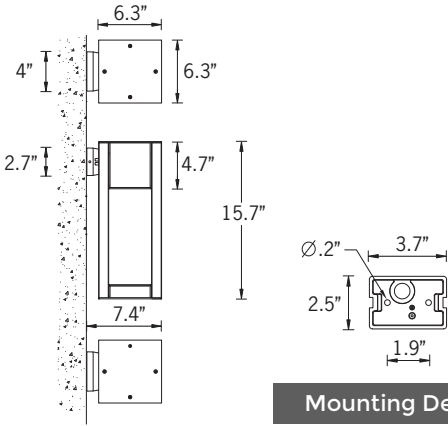
- UCI-30131-21w-1984lm
- UCI-30131-18w-2309lm
- UCI-30131-30w-3848lm

UVA-30001

Vancouver 24 Surface



8w COB 331 Lumens
 IP65 • Suitable For Wet Locations
 IK08 • Impact Resistant
 Weight 13.6 lbs



Mounting Detail

Construction

Aluminum

Less than 0.1% copper content - Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint

8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket

Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management

LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

BUG Rating

Contact Factory

Finishing

All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint

UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

Inspired by Nature Finishes

The Inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish.

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

The Coating Process

After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact and corrosion and acts as the relief base color for the finalized metal decoration.

The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Our powder coatings are certified for indoor and outdoor applications and are backed by a comprehensive warranty. These coatings rise to the highest conceivable standard of performance excellence and design innovation.

Added Benefits

- Resistance to salt-acid room, accelerated aging
- Boiling water, lime and condensed water resistant
- Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
- Super durable (UV resistant)
- TGIC free (non-toxic)

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes

Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens

Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED

Precise optic design provides exceptional light control and precise distribution of light.
 LED CRI > 80

Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

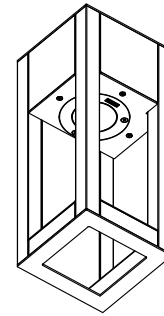
Contemporary urban lighting furniture. Open-sided, three lattice pattern options or your bespoke design.

A stylish Dark Sky Compliant square high performance wall mounted luminaire with downward light distribution using LED lamps. This light column offers optimal visual comfort through glare control by utilizing a controlled optics designed by Ligman. These luminaires have a square design providing a unique wide light distribution, offering an architecturally appealing shadow pattern on the mounted surface. The internal sides of the supporting pillars are accented by light from the LED.

Color temperature 2700K, 3000K, 3500K and 4000K. The minimalistic shape provides distinctive lighting effects by night and decorative urban effect during the day. Suitable for pedestrian areas, precincts, building surrounds, shopping centers, squares and parks. The Vancouver comes standard with a unique waterproof internal driver housing compartment that is situated at the top of the pole to stop water and dust from entering the electrical components. This fixture is supplied completely wired with powercord and waterproof gland from the driver enclosure to the base of the column to ensure quick trouble-free installation.

Custom heights are available, please specify in options. Designed to complement the Vancouver Light Column and bollard.

Additional Options (Consult Factory For Pricing)



OB
 Open Bottom



UVA-30001

Vancouver 24 Surface

PROJECT		DATE	
----------------	--	-------------	--

QUANTITY		TYPE		NOTE	
-----------------	--	-------------	--	-------------	--

ORDERING EXAMPLE || UVA - 30001 - 8w - W30 - 02 - 120/277v - Options

UVA-30001				
LAMP	LED COLOR	FINISH COLOR	VOLTAGE	
8w COB 331 Lumens	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277v Other - Specify	

ADDITIONAL OPTIONS		

- NAT - Natatorium Rated
- F - Frosted Lens
- OB - Open Bottom
- HGT - Custom Height [Specify]

INSPIRED BY NATURE FINISHES

- SW01 - OAK FINISH
- SW02 - WALNUT FINISH
- SW03 - PINE FINISH
- DF - DOUGLAS FIR FINISH
- CW - CHERRY WOOD FINISH
- NW - NATIONAL WALNUT FINISH
- SU01 - CONCRETE FINISH
- SU02 - SOFTSCAPE FINISH
- SU03 - STONE FINISH
- SU04 - CORTEN FINISH

THERE IS AN ADDITIONAL COST FOR THESE FINISHES

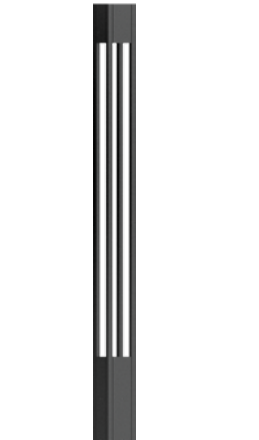
More Custom Finishes Available Upon Request

Consult factory for pricing and lead times

Oak	Cherry	Beech	Carbon
Walnut	Chestnut	Bamboo	Galvanized
Pine	Mahogany	Birch	Steel

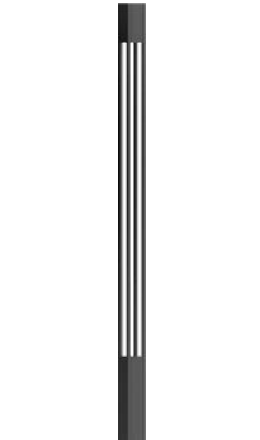


Vancouver Product Family



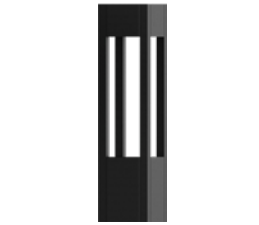
Vancouver 1

• UVA-20001-40w-2969lm [9.4"x9.4"-14.7']



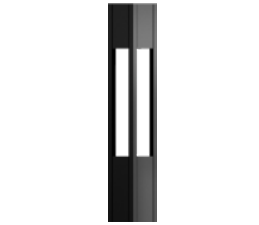
Vancouver 2

• UVA-20011-20w-1414lm [6.3"x6.3"-9.8']



Vancouver 3

• UVA-10001-21w-1270lm [9.4"x9.4"-39.3']



Vancouver 4

• UVA-10011-15w-837lm [6.3"x6.3"-39.3']



Vancouver 5

• UVA-20021-39/21w-1336/1673lm [9.4"x9.4"-13.3']
 • UVA-20022-39/2x21w-1336/2x1673lm [9.4"x9.4"-14.5']
 • UVA-20023-39/3x21w-1336/3x1673lm [9.4"x9.4"-15.7']



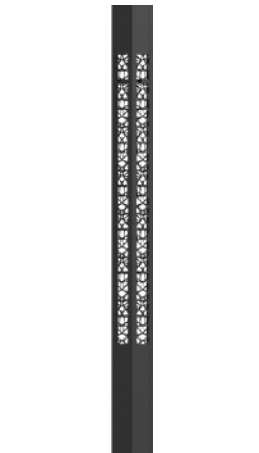
Vancouver 6

• UVA-20031-39/21w-1167/1673lm [9.4"x9.4"-13.3']
 • UVA-20032-39/2x21w-1167/2x1673lm [9.4"x9.4"-14.5']
 • UVA-20033-39/3x21w-1167/3x1673lm [9.4"x9.4"-15.7']



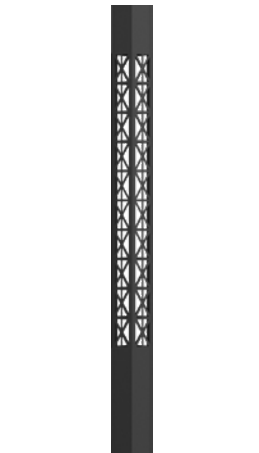
Vancouver 7

• UVA-20041-39/21w-1670/1673lm [9.4"x9.4"-13.3']
 • UVA-20042-39/2x21w-1670/2x1673lm [9.4"x9.4"-14.5']
 • UVA-20043-39/3x21w-1670/3x1673lm [9.4"x9.4"-15.7']



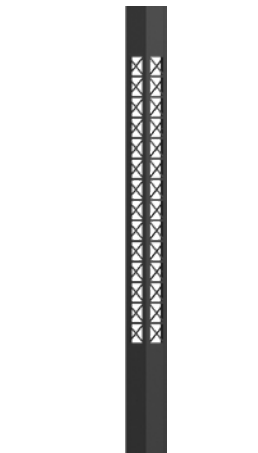
Vancouver 8

• UVA-20051-40w-1336lm [9.4"x9.4"-12.1']



Vancouver 9

• UVA-20061-40w-1167lm [9.4"x9.4"-12.1']



Vancouver 10

• UVA-20071-40w-1670lm [9.4"x9.4"-12.1']



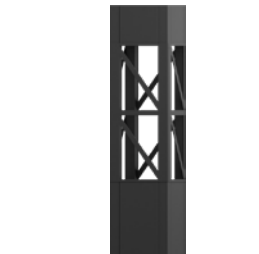
Vancouver 11

• UVA-10021-21w-570lm [9.4"x9.4"-39.3']



Vancouver 12

• UVA-10031-21w-490lm [9.4"x9.4"-39.3']



Vancouver 13

• UVA-10041-21w-704lm [9.4"x9.4"-39.3']



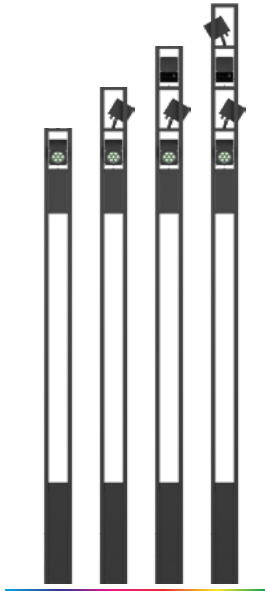
Vancouver 14

• UVA-70001-8w-331lm [6.3"x6.3"-15.7']



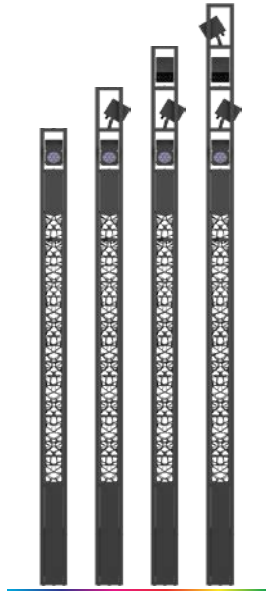
Vancouver 15

• UVA-70011-21w-815lm [9.4"x9.4"-15.7']



Vancouver 16

- UVA-20111-33w-1429lm [9.4'x9.4"-13.3']
- UVA-20112-66w-4287lm [9.4'x9.4"-14.5']
- UVA-20113-99w-5716lm [9.4'x9.4"-15.7']
- UVA-20114-132w-7145lm [9.4'x9.4"-17']



Vancouver 17

- UVA-20121-33w-2858 lm [9.4'x9.4"-13.3']
- UVA-20122-66w-4287lm [9.4'x9.4"-14.5']
- UVA-20123-99w-5716lm [9.4'x9.4"-15.7']
- UVA-20124-132w-7145lm [9.4'x9.4"-17']



Vancouver 18

- UVA-20131-33w-2858lm [9.4'x9.4"-13.3']
- UVA-20132-66w-4287lm [9.4'x9.4"-14.5']
- UVA-20133-99w-5716lm [9.4'x9.4"-15.7']
- UVA-20134-132w-7145lm [9.4'x9.4"-17']



Vancouver 19

- UVA-20141-33w-2858lm [9.4'x9.4"-13.3']
- UVA-20142-66w-4287lm [9.4'x9.4"-14.5']
- UVA-20143-99w-5716lm [9.4'x9.4"-15.7']
- UVA-20144-132w-7145lm [9.4'x9.4"-17']



Vancouver 20

- UVA-20151-33w-1429lm [9.4'x9.4"-12.1']



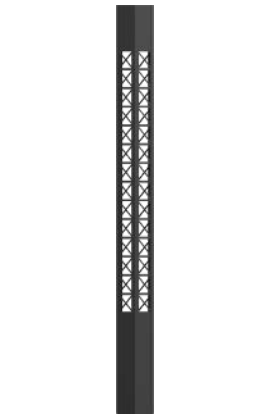
Vancouver 21

- UVA-20161-33w-1429lm [9.4'x9.4"-12.1']



Vancouver 22

- UVA-20171-33w-1429lm [9.4'x9.4"-12.1']



Vancouver 23

- UVA-20181-33w-1429lm [9.4'x9.4"-12.1']



Vancouver 24

- UVA-30001-8w-331lm [6.3'x6.3"-15.7']



Vancouver 25

- UVA-30011-21w-570lm [6.3'x6.3"-23.6"]



Vancouver 26

- UVA-30012-21w-490lm [6.3'x6.3"-23.6"]



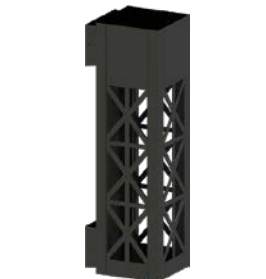
Vancouver 27

- UVA-30013-21w-740lm [6.3'x6.3"-23.6"]



Vancouver 28

- UVA-30021-39w-1336lm [9.4'x9.4"-39.3"]
- UVA-30031-33w RGBW-429lm [9.4'x9.4"-39.3"]



Vancouver 29

- UVA-30022-39w-1167lm [9.4'x9.4"-39.3"]
- UVA-30032-33w RGBW-1158lm [9.4'x9.4"-39.3"]



Vancouver 30

- UVA-30023-39w-1670lm [9.4'x9.4"-39.3"]
- UVA-30033-33w RGBW-439lm [9.4'x9.4"-39.3"]



Vancouver 31

• UVA-10101-7w-200lm [4.7' x 4.7' - 23.6"]



Vancouver 33

• UVA-10051-15w-1083lm [6.3' x 6.3' - 39.3"]



Vancouver 34

• UVA-10061-21w-1571lm [9.4' x 9.4' - 39.3"]



Vancouver 35

• UVA-10071-21w-1571lm [9.4' x 9.4' - 39.3"]



Vancouver 36

• UVA-10072-21w-1571lm [9.4' x 9.4' - 39.3"]



Vancouver 37

• UVA-10073-21w-1571lm [9.4' x 9.4' - 39.3"]



Vancouver 38

• UVA-10141-8w-95lm [4.7' x 4.7' - 23.6"]



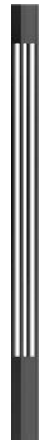
Vancouver 39

• UVA-10151-15w-418lm [6.3' x 6.3' - 39.3"]



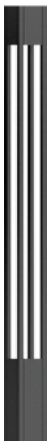
Vancouver 40

• UVA-10161-21w-635lm [9.4' x 9.4' - 39.3"]



Vancouver 41

• UVA-20191-20w-1326lm [6.3' x 6.3' - 9.8"]



Vancouver 42

• UVA-20201-40w-2969 lm [9.4' x 9.4' - 14.7"]



Vancouver 43

• UVA-20211-39/21w-2781/1688lm [9.4'x9.4'-13.3"]



Vancouver 44

• UVA-20212-39/2x21w-2781/2x1688lm [9.4'x9.4'-14.5"]



Vancouver 45

• UVA-20213-39/3x21w-2781/3x1688lm [9.4'x9.4'-15.7"]



Vancouver 46

• UVA-20221-39/21w-4469/1688lm [9.4'x9.4'-13.3"]



Vancouver 47

• UVA-20221-39/2x21w-4469/2x1688lm [9.4"x9.4"-14.5"]



Vancouver 48

• UVA-20223-39/3x21w-4469/3x1688lm [9.4"x9.4"-15.7"]



Vancouver 49

• UVA-20231-39/21w-2781/1688lm [9.4"x9.4"-13.3"]



Vancouver 50

• UVA-20232-39/2x21w-2781/2x1688lm [9.4"x9.4"-14.5"]



Vancouver 51

• UVA-20233-39/2x21w-2781/2x1688lm [9.4"x9.4"-15.7"]



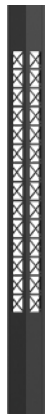
Vancouver 52

• UVA-20241-40w-2781lm [9.4"x9.4"-12"]



Vancouver 53

• UVA-20242-40w-2781lm [9.4"x9.4"-12"]



Vancouver 54

• UVA-20243-40w-2781lm [9.4"x9.4"-12"]



Vancouver 55

• UVA-20251-21w-710lm [6.3"x6.3"-9.8"]



Vancouver 56

• UVA-20261-40w-1485lm [9.4"x9.4"-14.7"]



Vancouver 60

• UVA-20281-76w-4140lm [9.4"x9.4"-12"]



Vancouver 61

• UVA-20282-76w-4140lm [9.4"x9.4"-12"]



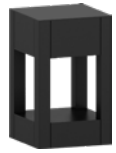
Vancouver 62

• UVA-20283-76w-4140lm [9.4"x9.4"-12"]



Vancouver 63

• UVA-70021-13w-437lm [6.3"x6.3"-15.7"]



Vancouver 64

• UVA-70031-20w-1362lm [9.4"x9.4"-15.7"]



Vancouver 65

• UVA-70041-8w-165lm [6.3"x6.3"-15.7"]



Vancouver 66

• UVA-70051-21w-410lm [9.4"x9.4"-15.7"]



Vancouver 67

• UVA-30041-20w-1326lm [6.3"x6.3"-23.6"]



Vancouver 68

• UVA-30042-20w-1326lm [6.3"x6.3"-23.6"]



Vancouver 69

• UVA-30043-20w-1326lm [6.3"x6.3"-23.6"]



Vancouver 70

• UVA-30051-40w-2781lm [9.4"x9.4"-39.3"]



Vancouver 71

• UVA-30052-40w-2781lm [9.4"x9.4"-39.3"]




Vancouver 72

• UVA-30053-40w-2781lm [9.4"x9.4"-39.3"]

MEMORANDUM

TO: 361 Hanover Steam Factory, LLC
c/o Mr. Shayne Forsley
Hampshire Development Corp.
41 Industrial Drive #20
Exeter, NH 03833

FROM: Mr. Jeffrey S. Dirk, P.E.*, PTOE, FITE 
Managing Partner *and*
Mr. Makenlove Marc
Transportation Engineer
Vanasse & Associates, Inc.
35 New England Business Center Drive
Suite 140
Andover, MA 01810-1066
(978) 269-6830
jdirk@rdva.com
**Professional Engineer in CT, MA, ME, NH, RI and VA*

DATE: March 7, 2025 **RE:** 10068

SUBJECT: Traffic Impact Study
Kearsarge Mill Residential Development – 361 Hanover Street
Portsmouth, New Hampshire

Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated with the proposed redevelopment of the Kearsarge Mill located at 361 Hanover Street in Portsmouth, New Hampshire, to accommodate a multifamily residential development (hereafter referred to as the “Project”). This study has been completed in accordance with the New Hampshire Department of Transportation (NHDOT) guidelines for the preparation of a TIS as defined in the Driveway Permit Policy and evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing traffic conditions and future traffic conditions, both with and without the Project, along Hanover Street and Bridge Street. Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the Institute of Transportation Engineer (ITE),¹ the Project is expected to generate approximately 384 vehicle trips on an average weekday (two-way, 24-hour volume), with approximately 38 vehicle trips expected during the weekday morning peak-hour and 41 vehicle trips expected during the weekday evening peak-hour;
2. The Project will not have a significant impact (increase) on motorist delays or vehicle queuing over Existing or anticipated future conditions without the Project (No-Build conditions), with no (0) changes in level of service (LOS) and all movements at the study area intersections shown to continue to operate at LOS B or better, where an LOS “D” or better is defined as “acceptable” operating conditions. Project-related impacts were generally defined as an increase in average motorist delay of up to 1.1 seconds that resulted in a corresponding increase in vehicle queuing of up to one (1) vehicle;

¹*Trip Generation*, 11th Edition; Institute of Transportation Engineers; Washington, DC; 2021.



3. Under 2025 Opening Year Build and 2035 Build conditions, all movements exiting the Project site driveway to Hanover Street were shown to operate at LOS A with negligible vehicle queuing. All movements along Hanover Street approaching the Project site driveway were shown to operate at LOS A, also with negligible vehicle queuing; and
4. Lines of sight at the intersection of the Project site driveway with Hanover Street were found to exceed the recommended minimum distance for the intersection to operate in a safe manner based on the appropriate speed.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations defined herein.

The following details our assessment of the Project.

PROJECT DESCRIPTION

The Project will entail the renovation of the Kearsarge Mill building located at 361 Hanover Street in Portsmouth, New Hampshire, and the construction of three (3) new multifamily residential buildings that will front along Hanover Street. When complete, up to 48 residential units will be provided and dispersed between four (4) buildings as follows: the existing four-story Kearsarge Mill building (Building “A”) will be renovated to accommodate up to 34 residential units; two new three story buildings (Buildings “B” and “C”) that will accommodate four (4) residential units and two (2) residential units, respectively; and a new three story building (Building “D”) that will accommodate eight (8) residential units. The Project site encompasses approximately 1.0± acres of land bounded by Foundry Place to the north; Hanover Street to the south; residential properties to the east; and Rock Street and the Rock Street park to the west. The Project site is currently improved with the Kearsarge Mill building and supporting parking and appurtenances. Figure 1 depicts the Project site location in relation to the existing roadway network.

Access to the Project site will be provided by way of a new driveway that will intersect the south side of Hanover Street approximately 60 feet east of Rock Street. On-site parking will be provided for 71 vehicles, consisting of both surface parking and covered parking beneath the residential units that are to be located in the Kearsarge Mill building.

STUDY METHODOLOGY

This study was prepared in consultation with the City of Portsmouth and NHDOT; was performed in accordance with the NHDOT guidelines for the preparation of TISs as defined in the Driveway Permit Policy and the standards of the Traffic Engineering and Transportation Planning Professions for the preparation of such reports; and was conducted in three distinct stages.

The first stage of the study involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics, pedestrian and bicycle facilities, and public transportation services; observations of traffic flow; and the collection of daily and peak-period traffic counts.

In the second stage of the study, future conditions on the transportation system were projected and analyzed. Specific travel demand forecasts for the Project were assessed along with future demands on the transportation system that are expected due to growth independent of the Project. In accordance with NHDOT guidelines for the preparation of TISs, four future conditions were evaluated: 1) 2025 No-Build



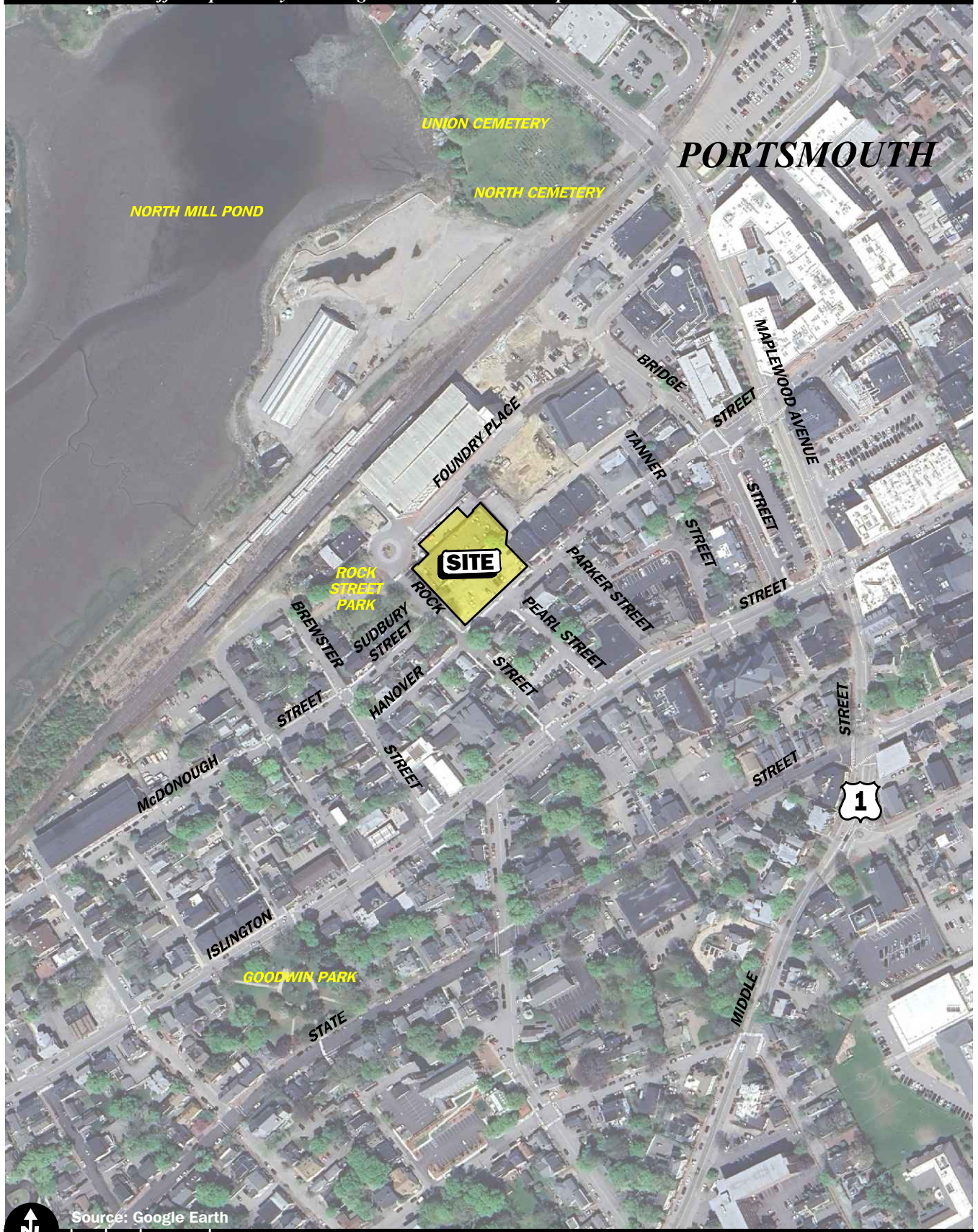


Figure 1
Site Location Map



conditions *without* the Project; 2) 2025 Opening-Year Build conditions *with* the Project; 3) 2035 No-Build conditions *without* the Project; and 4) 2035 Build conditions (ten-year projection from opening-year) *with* the Project. The analyses conducted in stage two of the study identify existing or projected future roadway capacity and traffic safety issues.

The third stage of the study presents and evaluates measures to address roadway and intersection capacity issues and safety concerns, if any, identified in stages one and two of the study.

EXISTING CONDITIONS

A comprehensive field inventory of existing conditions within the study area was conducted in August 2024. The field investigation consisted of an inventory of existing roadway geometrics; pedestrian and bicycle facilities; public transportation services; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The study area that was assessed for the Project consisted of Hanover Street, Rock Street, Pearl Street, Bridge Street, and Foundry Place, and the following intersections: Hanover Street at Rock Street; Hanover Street at Pearl Street; Hanover Street at Bridge Street; and Bridge Street at Foundry Place. The following describes the study area roadways and intersections.

Roadways

Hanover Street

Hanover Street is a Tier 5, Class 5, local roadway that is under City jurisdiction and traverses the study area in a general west-east direction, conveying traffic in a one-way eastbound direction between Pearl Street and Bridge Street and one-way westbound between Rock Street and Brewster Street, with two-way traffic between Pearl Street and Rock Street. The one-way roadway segments vary from 30 feet in width with one-street parking along both sides to 18-feet with on-street parking along one side. The two-way segment is approximately 27-feet in width with on-street parking along one side. A posted speed limit is not provided and, as such, the statutory speed limit pursuant to RSA 265:60 is 30 miles per hour (mph) in a residential district.² Sidewalks are provided along both sides of the roadway within the study area. Illumination is provided by way of streetlights mounted on wood poles. Land use along Hanover Street in the vicinity of the Project site consists of residential and commercial properties.

Rock Street

Rock Street is a Tier 5, Class 5, local roadway under City jurisdiction that traverses the study area in a general northwest-southeast direction, conveying one-way northbound traffic between Islington Street and Hanover Street and two-way traffic between Hanover Street and Sudbury Street. The one-way roadway segment is approximately 28-feet in width with on-street parking along one side, with the two-way segment varying from 16 to 20-feet in width. A posted speed limit is not provided and, as such, the statutory speed limit pursuant to RSA 265:60 is 30 mph in a residential district. Sidewalks are provided along both sides of the roadway. Illumination is provided by way of streetlights mounted on wood poles. Land use along Rock Street in the vicinity of the Project site consists of residential and commercial properties and the Rock Street Park.

²RSA 265:60 defines the “reasonable and prudent standard” as follows: “No person shall drive a vehicle on a way at a speed greater than is reasonable and prudent under the conditions and having regard to the actual and potential hazards then existing. In every event speed shall be so controlled as may be necessary to avoid colliding with any person, vehicle, or other conveyance on or entering the way in compliance with the legal requirements and the duty of all persons to use due care.”



Pearl Street

Pearl Street is a Tier 5, Class 5, local roadway under City jurisdiction that traverses the study area in a general northwest-southeast direction and accommodates two-way travel between Islington Street and Hanover Street. Within the study area, Pearl Street provides an approximate 28-foot wide traveled-way with parking along one side and a faded double-yellow centerline approaching Hanover Street. A posted speed limit is not provided and, as such, the statutory speed limit pursuant to RSA 265:60 is 30 mph in a residential district. Sidewalks are provided along both sides of the roadway. Illumination is provided by way of streetlights mounted on wood poles. Land use along Pearl Street in the vicinity of the Project site consists of residential and commercial properties.

Bridge Street

Bridge Street is a Tier 5, Class 5, local roadway under City jurisdiction that traverses the study area in a general northwest-southeast direction and conveys two-way traffic between Islington Street and Maplewood Avenue. Within the study area, Bridge Street provides two 10- to 19-foot-wide travel lanes separated by a double-yellow centerline with no marked shoulders and on-street parking along one or both sides of the roadway where defined by pavement markings. A posted speed limit is not provided and, as such, the statutory speed limit pursuant to RSA 265:60 is 30 mph in a residential district. Sidewalks are provided along both sides of the road within the study area. Illumination is provided by way of streetlights mounted on wood poles, steel poles, and ornamental lighting fixtures. Land use along Bridge Street in the vicinity of the Project site consists of residential and commercial properties.

Foundry Place

Foundry Place is a Tier 5, Class 5, local roadway under City jurisdiction that traverses the study area in a general northeast-southwest direction and conveys two-way traffic between Bridge Street its terminus in a cul-de-sac approximately 600 feet southwest of Bridge Street. Within the study area, Foundry Place provides two 12-foot-wide travel lanes separated by a double-yellow centerline with no marked shoulders. A posted speed limit is not provided and, as such, the statutory speed limit pursuant to RSA 265:60 is 30 mph in a residential district. A sidewalk is provided along the north side of the roadway within the study area. Illumination is provided by ornamental lighting fixtures. Land use along Foundry Place in the vicinity of the Project site consists of residential and commercial properties, Rock Street Park and the Foundry Place garage. Direct access to the Project will not be provided from Foundry Place.

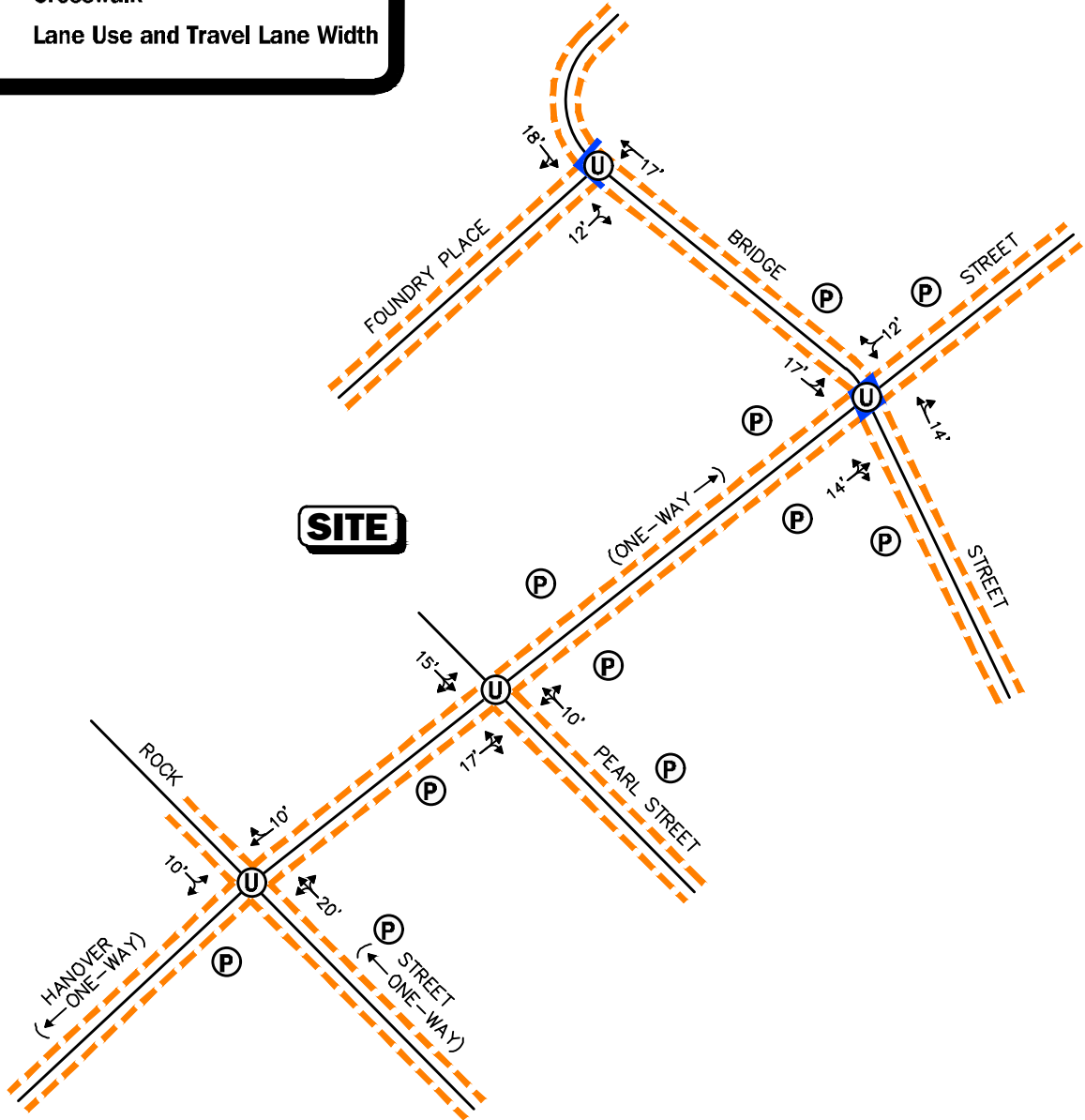
Intersections

Table 1 and Figure 2 summarize existing lane use, traffic control, and pedestrian and bicycle accommodations at the study area intersections as observed in August 2024.



Legend:

- Ⓢ Unsignalized Intersection
- Ⓟ Parking Lane
- Sidewalk
- Crosswalk
- xx' Lane Use and Travel Lane Width



Not To Scale



Figure 2

Existing Intersection Lane Use, Travel Lane Width, and Pedestrian Facilities

Table 1
STUDY AREA INTERSECTION DESCRIPTION

Intersection	Traffic Control Type^a	No. of Travel Lanes Provided	Shoulder Provided? (Yes/No/Width)	Pedestrian Accommodations? (Yes/No/Description)	Bicycle Accommodations? (Yes/No/Description)
Hanover St./ Rock St.	S	1 general-purpose lane provided on Hanover St. westbound and Rock St. southbound; Hanover St. west leg is one-way westbound; Rock St. south leg is one-way northbound on-street parking along one or both sides of Hanover St. and Rock St. south leg	No	Yes; sidewalks along both sides of the intersecting roadways	Yes; shared traveled-way ^b
Hanover St./ Pearl St	S	1 general-purpose lane provided on Hanover St. west leg and on Pearl St.; Hanover St. east leg is one-way eastbound; on-street parking along one or both sides of Hanover St. and Pearl St.	No	Yes; sidewalks along both sides of the intersecting roadways	Yes; shared traveled-way on Hanover St.
Hanover St./ Bridge St	S	1 general-purpose lane provided on Bridge St. and Hanover St. east leg; Hanover St. west leg is one-way eastbound; on-street parking along one or both sides of Hanover St. and Bridge St.	No	Yes; sidewalks along both sides of the intersecting roadways; crosswalks across all legs	Yes; shared traveled-way
Bridge St./ Foundry Pl.	S	1 general-purpose travel lane on all approaches	No	Yes; sidewalks along both sides of the intersecting roadways; crosswalks provided across Foundry Pl. and the Bridge St. north leg	Yes; shared traveled-way

^aS = stop signal control.

^bCombined shoulder and travel lane width equal to or exceeding 14 feet.

Existing Traffic Volumes

In order to determine existing traffic-volume demands and flow patterns within the study area, automatic traffic recorder (ATR) counts, turning movement counts (TMCs), and vehicle classification counts were completed in August 2024. The ATR counts were conducted on August 6th through 7th, 2024 (Tuesday through Wednesday, inclusive) on Hanover Street east of Rock Street in order to record weekday daily traffic conditions over an extended period, with weekday morning (7:00 to 9:00 AM) and evening (3:00 to 6:00 PM) peak-period TMCs performed at the study area intersections on Tuesday, August 6, 2024. These time periods were selected for analysis purposes as they are representative of the peak-traffic-volume hours for both the Project and the adjacent roadway network.



Traffic Volume Adjustments

In order to evaluate the potential for seasonal fluctuation of traffic volumes within the study area, 2019 peak-hour and average daily traffic count data were reviewed for NHDOT Continuous Count Station No. 02125001, which is located on Dover Point Road in Strafford, were reviewed. Based on a review of this data, it was determined that traffic volumes for the month of August are approximately 1.0 percent below peak-month (June) conditions. As such, the August traffic volumes were adjusted upward by 1.0 percent in order to be representative of peak-month conditions in accordance with NHDOT standards.

In order to account for the impact on the traffic volume and trip patterns resulting from the COVID-19 pandemic, traffic-volume data collected at NHDOT Continuous Count No. 02125001 was reviewed. Traffic-volume data for August 2024 was compared to data collected at the same location in August 2019. The following summarizes the comparison between the August 2024 and August 2019 traffic volumes:

- Average Daily Traffic Volumes: -0.3%
- Weekday Morning Peak-Hour Traffic Volumes: -3.0%
- Weekday Evening Peak-Hour Traffic Volumes: +2.4%

As such, the average weekday traffic volumes were adjusted upward by 0.3 percent (multiplied by 1.003) and the weekday morning peak-hour traffic volumes were adjusted upward by 3.0 percent (multiplied by 1.03); no adjustment was required to the weekday evening peak-hour traffic volumes as the August 2024 traffic volumes were found to be 2.4 percent higher than the traffic volumes in August 2019.

The 2024 Existing peak-month traffic volumes are summarized in Table 2, with the weekday morning and evening peak-month, peak-hour traffic volumes graphically depicted on Figures 3 and 4, respectively. Note that the peak-hour traffic volumes that are presented in Table 2 were obtained from the aforementioned figures.

Table 2
2024 EXISTING PEAK-MONTH TRAFFIC VOLUMES

Location/Peak Hour	AWT ^a	VPH ^b	K Factor ^c	Directional Distribution ^c
<i>Hanover Street, east of Rock Street:</i>	510	--	--	--
Weekday Morning (8:00 – 9:00 AM)	--	54	10.6	96.3% EB
Weekday Evening (3:45 – 4:45 PM)	--	42	8.2	90.5% EB

^aAverage weekday traffic in vehicles per day.

^bVehicles per hour.

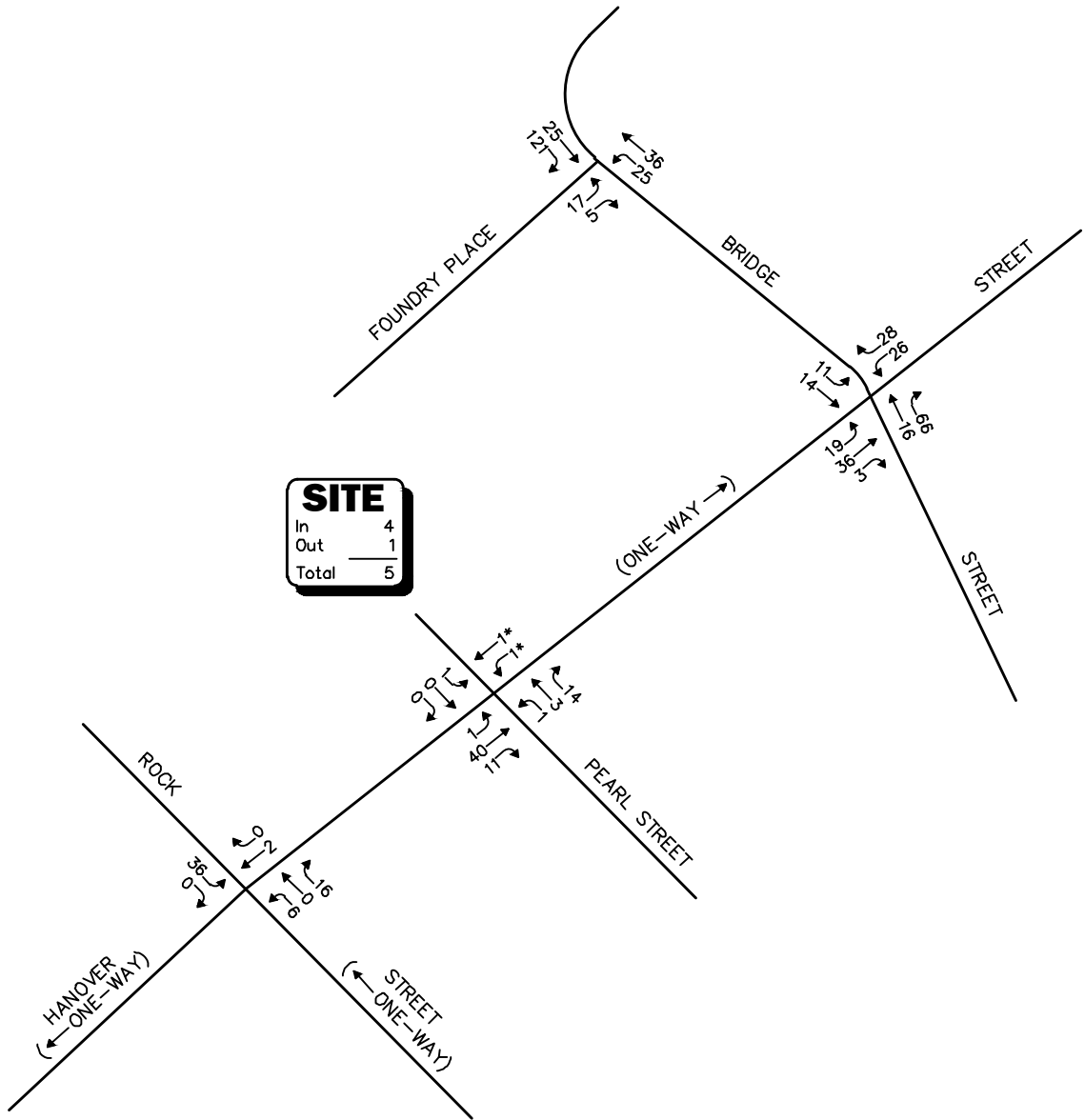
^cPercent of daily traffic occurring during the peak hour.

^dPercent traveling in peak direction.

EB = eastbound.

As can be seen in Table 2, Hanover Street east of Rock Street was found to accommodate approximately 510 vehicles on an average weekday (two-way, 24-hour volume) under peak-month conditions, with approximately 54 vehicles per hour (vph) during the weekday morning peak-hour and 42 vph during the weekday evening peak-hour.





*Illegal movement.

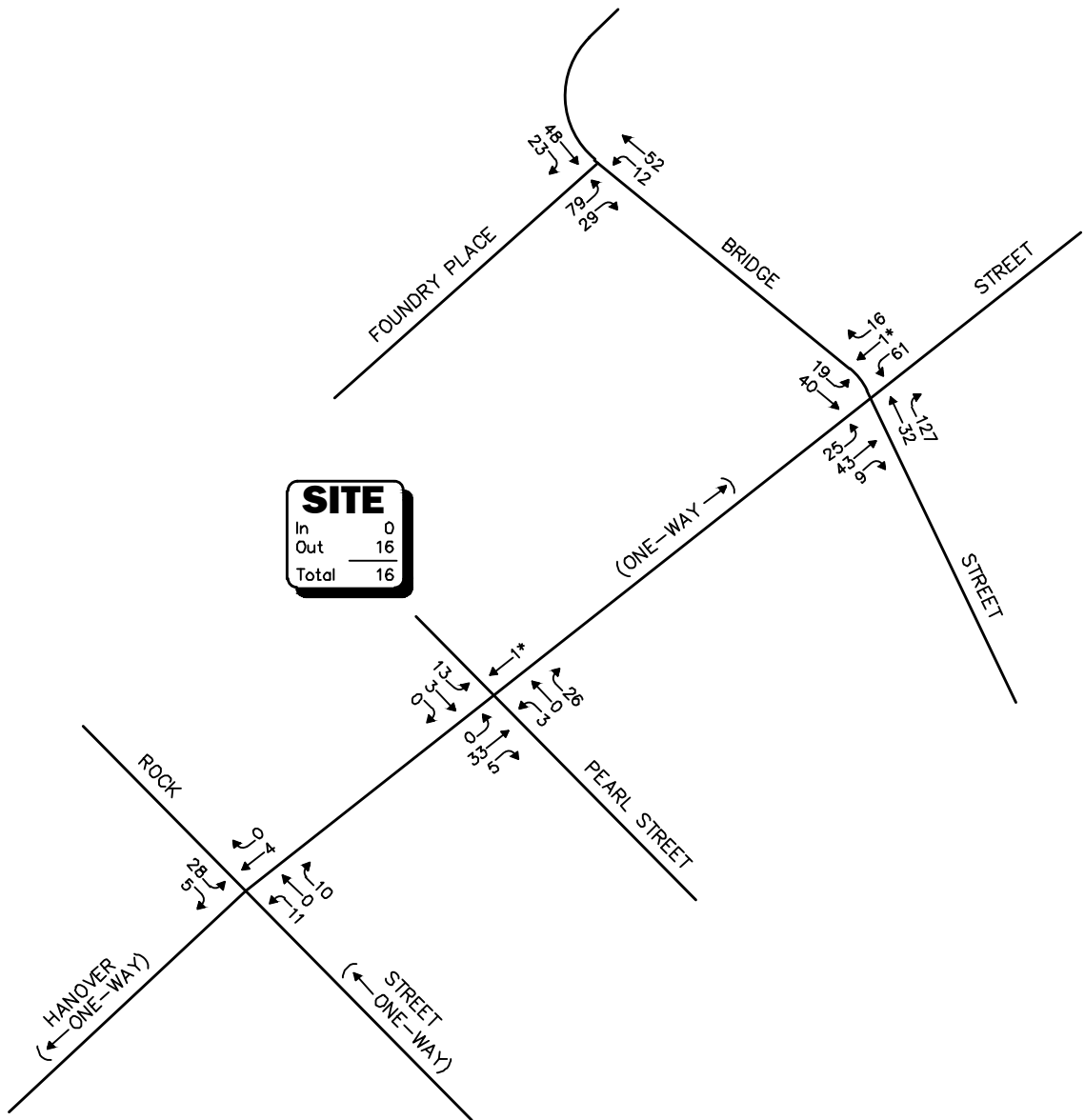
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale



Figure 3

**2024 Existing
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes**



*Illegal movement.

Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 4

2024 Existing
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes



Spot Speed Measurements

Vehicle travel speed measurements were performed on Hanover Street in the vicinity of the Project site in conjunction with the ATR counts, the results of which are summarized in Table 3.

Table 3
VEHICLE TRAVEL SPEED MEASUREMENTS

	Hanover Street	
	Eastbound	Westbound
Mean Travel Speed (mph)	13	11
85 th Percentile Speed (mph)	14	13
Statutory Speed Limit (mph)	30	30

mph = miles per hour.

As can be seen in Table 3, the mean vehicle travel speed along Hanover Street in the vicinity of the Project site was found to be 13 mph in the eastbound direction and 11 mph westbound. The measured 85th percentile vehicle travel speed, or the speed at which 85 percent of the observed vehicles traveled at or below, was found to be 14 mph in the eastbound direction and 13 mph westbound, which is 16 to 17 mph below the statutory speed limit (30 mph) in the vicinity of the Project site. The 85th percentile speed is used as the basis of engineering design and in the evaluation of sight distances and is often used in establishing posted speed limits.

Pedestrian and Bicycle Facilities

A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in August 2024. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadways, as well as the location of existing and planned future bicycle facilities. Sidewalks are provided along both sides of the study area roadways, with marked crosswalks provided at the Bridge Street/Hanover Street and Bridge Street/Foundry Place intersections. Formal bicycle facilities are not provided within the study area; however, the study area roadways generally provide sufficient width to accommodate bicycle travel in a shared-traveled-way configuration.³

Public Transportation

Regularly scheduled public transportation services are not provided within the study area; however, east of the Project site, the Cooperative Alliance for Seacoast Transportation (COAST) provides fixed-route bus services by way of the following routes:

- *Route 13*: Dover/Portsmouth
- *Route 40*: Islington/Borthwick Trolley
- *Route 41*: Lafayette Trolley

³A minimum combined travel lane and paved shoulder width of 14 feet is required to support bicycle travel in a shared-traveled-way condition.



- *Route 42:* Pease Shuttle
- *Route 43:* Newington/Portsmouth
- *Route 44:* Portsmouth City Hall/Kittery (PNSY Gate 1)

All six bus routes include a stop at Hanover Station, which is 0.3 mile to the northeast of the Project site, or an approximate 7-minute walking distance. Route 40 has a stop located at the Islington Street/Tenner Street intersection, which is located 0.1 miles to the southeast of the Project site, or an approximate 3-minute walking distance. In addition to fixed-route bus services, COAST provides paratransit services for eligible persons who cannot use fixed-route transit at all or some of the time due to a physical, cognitive, or mental disability in compliance with the Americans with Disabilities Act (ADA).

The public transportation schedules and fare information are attached.

Motor Vehicle Crash Data

Motor vehicle crash data for the study area intersections has been requested from the Portsmouth Police Department in order to examine motor vehicle crash trends occurring within the study area. The data will be summarized in a supplement to this TIS once the data is received.

FUTURE CONDITIONS

Traffic volumes in the study area were projected to the years 2025 and 2035, which reflect the anticipated opening-year of the Project and a ten-year planning horizon from opening-year, respectively, consistent with NHDOT TIS guidelines. The future condition traffic-volume projections incorporate identified specific development projects by others, as well as general background traffic growth as a result of development external to the study area and presently unforeseen projects. Anticipated Project-generated traffic volumes superimposed upon the 2025 and 2035 No-Build traffic volumes reflect the Build conditions with the Project.

Future Traffic Growth

Future traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic; however, potential population growth and development external to the study area would not be accounted for in the resulting traffic projections.

To provide a conservative analysis framework, both procedures were used, the salient components of which are described below.

Specific Development by Others

The City of Portsmouth Planning Department was contacted in order to determine if there were any projects planned within the Town that would have an impact on future traffic volumes within the study area. Based on this consultation, the following projects were identified for review in conjunction with this assessment:



- ***Proposed Lot 5, Deer Street Development, 70 Maplewood Avenue, Portsmouth, New Hampshire.*** This project entails the construction of a mixed-use development to be located at 70 Maplewood Avenue, east of the Project site. The Project will consist of a four-story mixed-use building with retail, office, hotel, and commercial space.
- ***Proposed Lot 2 Community Space, Foundry Place, Portsmouth, New Hampshire.*** This project entails the construction of community space to be located at Foundry Place, east of the Foundry Place garage. The community space will consist of an 8,521 sf open space plaza.
- ***Proposed Lot 3, Deer Street Development, Deer Street, Portsmouth, New Hampshire.*** This project entails the construction of a mixed-use development to be located at 165 Deer Street, northeast of the Project site. The Project will consist of a five-story hotel with a rooftop restaurant and bar.
- ***Proposed Lot 4, Deer Street Development, Deer Street, Portsmouth, New Hampshire.*** This project entails the construction of a mixed-use development to be located at 163 Deer Street, northeast of the Project site. The Project will consist of a four-story commercial and office building with a restaurant on the first floor.
- ***Proposed Lot 6, Deer Street Development, Deer Street, Portsmouth, New Hampshire.*** This project entails the construction of a mixed-use development to be located at 89 and 99 Foundry Place, east of the Project site. The project will consist of a four-story multifamily residential building with ground floor commercial space.

Traffic volumes associated with identified specific development projects by others were obtained from information filed with the City and using trip-generation data published by the ITE⁴ for similar land uses as those identified. No other developments were identified at this time that are expected to result in an increase in traffic within the study area beyond the general background traffic growth rate.

General Background Traffic Growth

Traffic-volume data compiled by NHDOT from count station No. 02125001 was reviewed in order to determine general traffic growth trends in the area. This data indicates that traffic volumes have fluctuated over the 10-year period between 2009 and 2019, with the average traffic growth rate found to be approximately 0.04 percent. In order to provide a prudent planning condition from which to assess the potential impact of the Project on the transportation infrastructure, a higher 1.0 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

Roadway Improvement Projects

The City of Portsmouth and NHDOT were contacted in order to determine if there were any planned roadway improvement projects expected to be completed within the study area. Based on these discussions, no roadway improvement projects are currently scheduled within the study area beyond routine maintenance activities.

⁴Institute of Transportation Engineers, op. cit. 1.



No-Build Traffic Volumes

The 2025 and 2035 No-Build peak-month, peak-hour traffic volumes were developed by applying the 1.0 percent per year compounded annual background traffic growth rate to the 2024 Existing peak-month, peak-hour traffic volumes and then adding the peak-hour traffic volumes associated with the identified specific development projects by others. The resulting 2025 No-Build weekday morning and evening peak-month, peak-hour traffic volumes are shown on Figures 5 and 6, respectively, with the corresponding 2035 No-Build peak-month, peak-hour traffic volumes shown on Figure 7 and 8.

PROJECT-GENERATED TRAFFIC

As proposed, the Project will entail the construction of up to 48 multifamily residential housing units. In order to develop the traffic characteristics of the Project, trip-generation statistics published by the ITE⁵ for a similar land use as that proposed were used. ITE Land Use Code (LUC) 220, *Multifamily Housing (Low Rise)*, was used to develop the anticipated traffic characteristics of the Project, the results of which are summarized in Table 4.

Table 4
TRIP GENERATION SUMMARY

Time Period	Vehicle Trips^a		
	Entering	Exiting	Total
Average Weekday	192	192	384
Weekday Morning Peak-Hour	9	29	38
Weekday Evening Peak-Hour	26	15	41

^aBased on ITE LUC 220, *Multifamily Housing (Low Rise)*; 48 units.

Project-Generated Traffic-Volume Summary

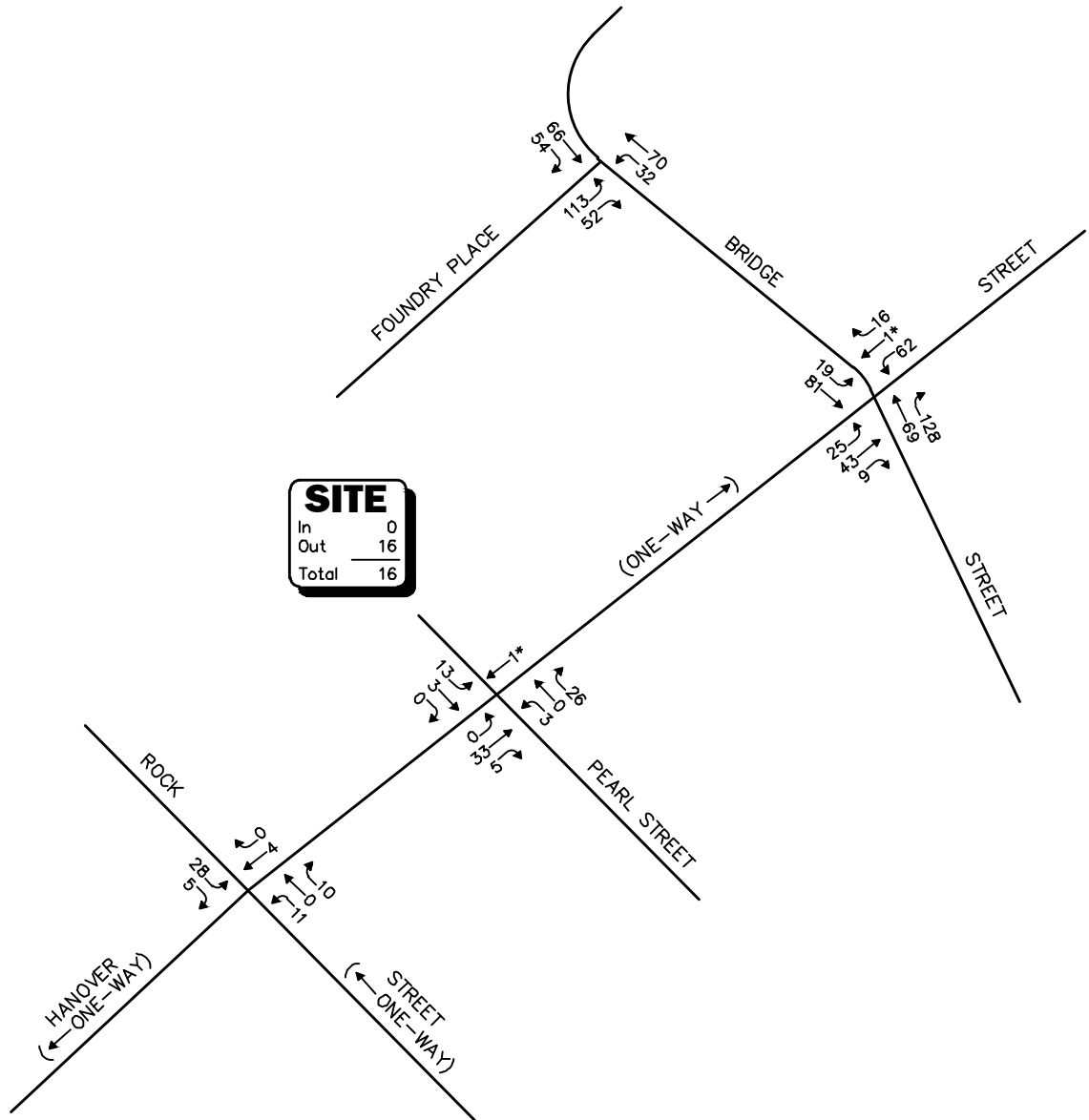
As can be seen in Table 4, the Project is predicted to generate approximately 384 vehicle trips on an average weekday (two-way, 24-hour volume, or 192 vehicles entering and 192 exiting) and approximately 38 vehicle trips (9 vehicles entering and 29 exiting) expected during the weekday morning peak-hour and 41 vehicle trips (26 vehicles entering and 15 exiting) expected during the weekday evening peak-hour.

Trip Distribution and Assignment

The directional distribution of generated trips to and from the Project site was determined based on a review of U.S. Census Journey-to-Work data for the City of Portsmouth and then refined based on a review of existing traffic patterns within the study area. The general trip distribution for the Project is graphically depicted on Figure 9, with the additional traffic expected to be generated by the Project assigned onto the study area roadway network as shown on Figures 10 and 11.

⁵Institute of Transportation Engineers, op. cit. 1.





*Illegal movement.

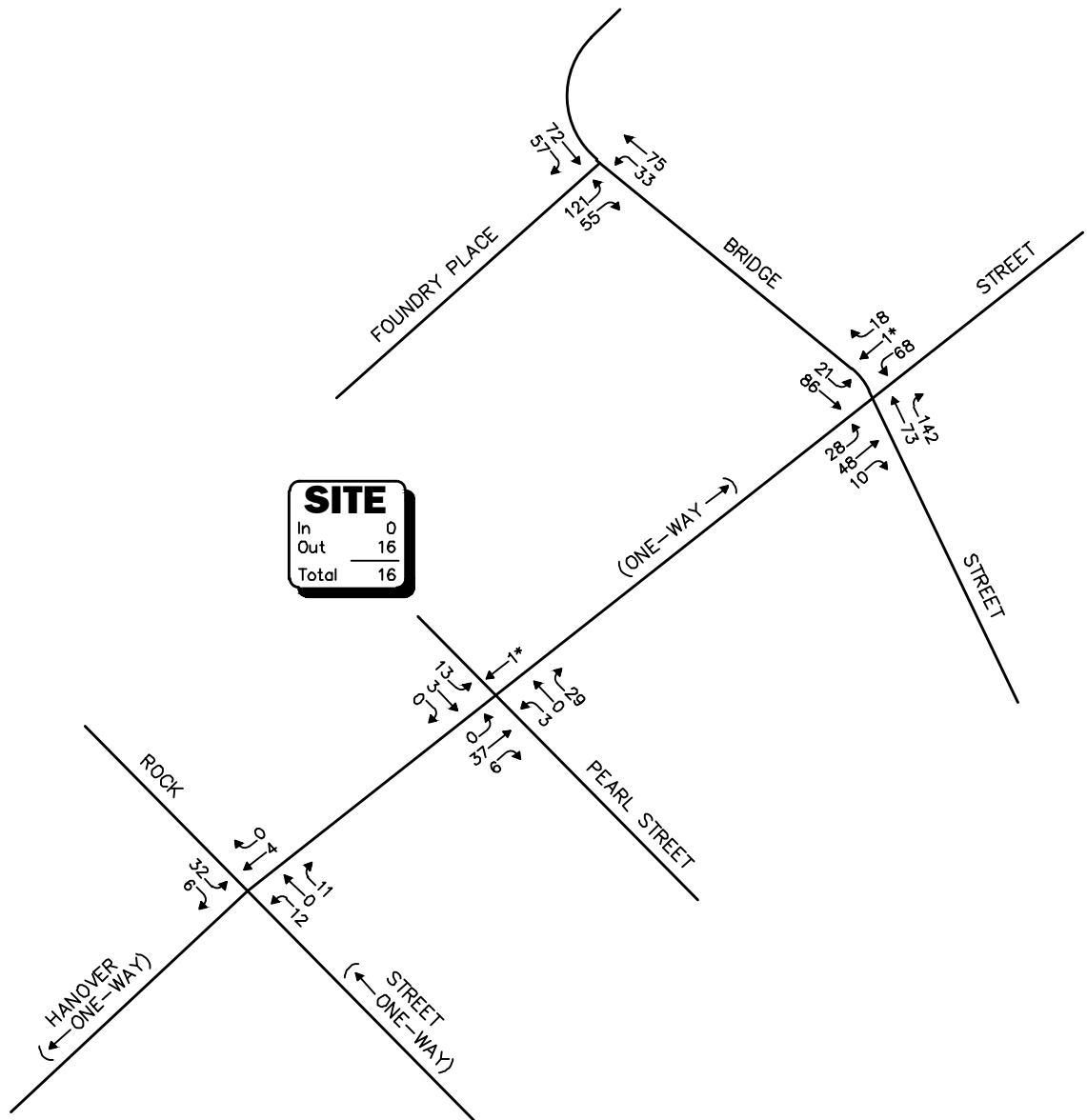
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale



Figure 6

**2025 No-Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes**



*Illegal movement.

Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

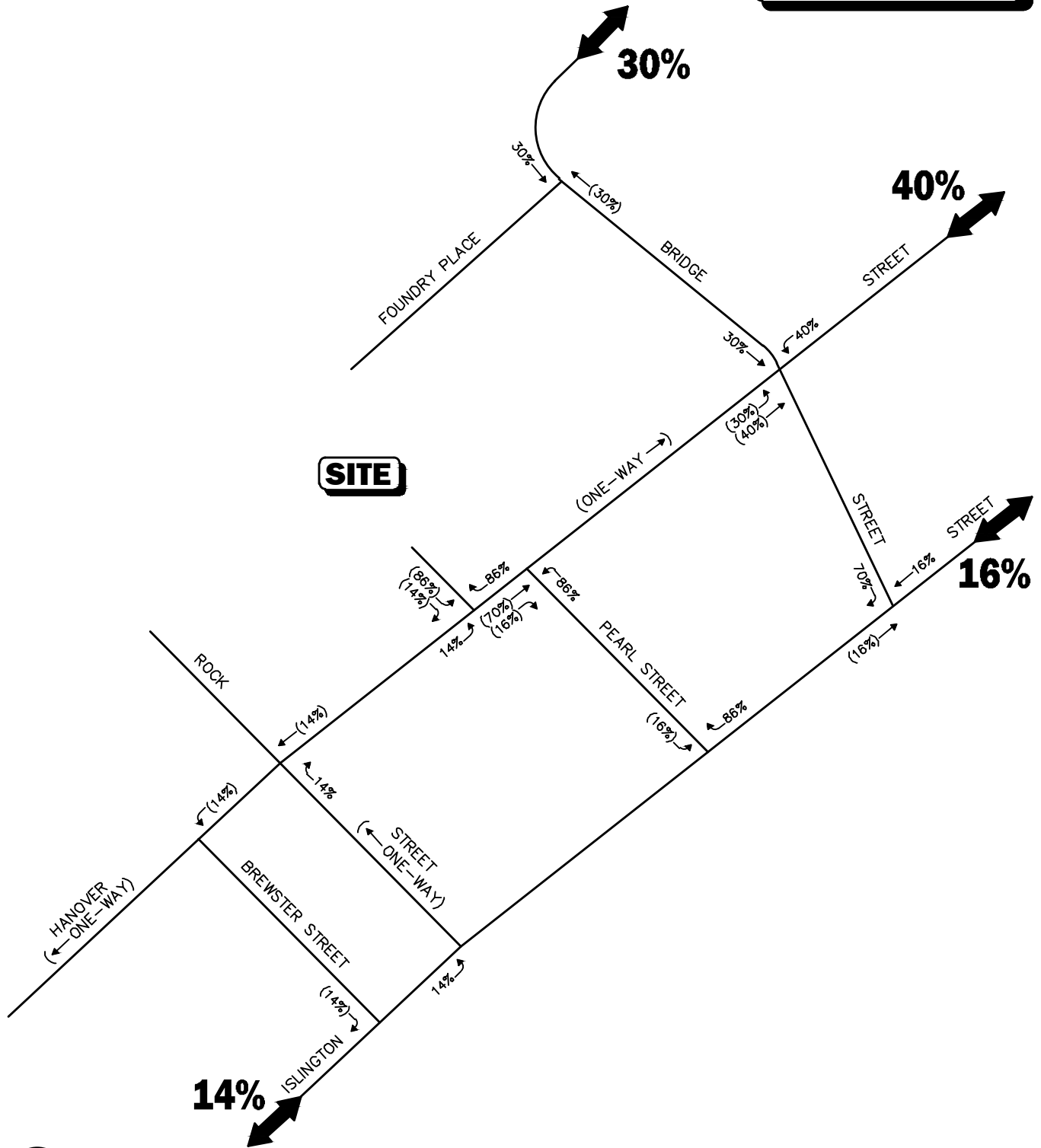
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Figure 8

**2035 No-Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes**

Legend:
 XX Entering Trips
 (XX) Exiting Trips



Not To Scale Figure 9

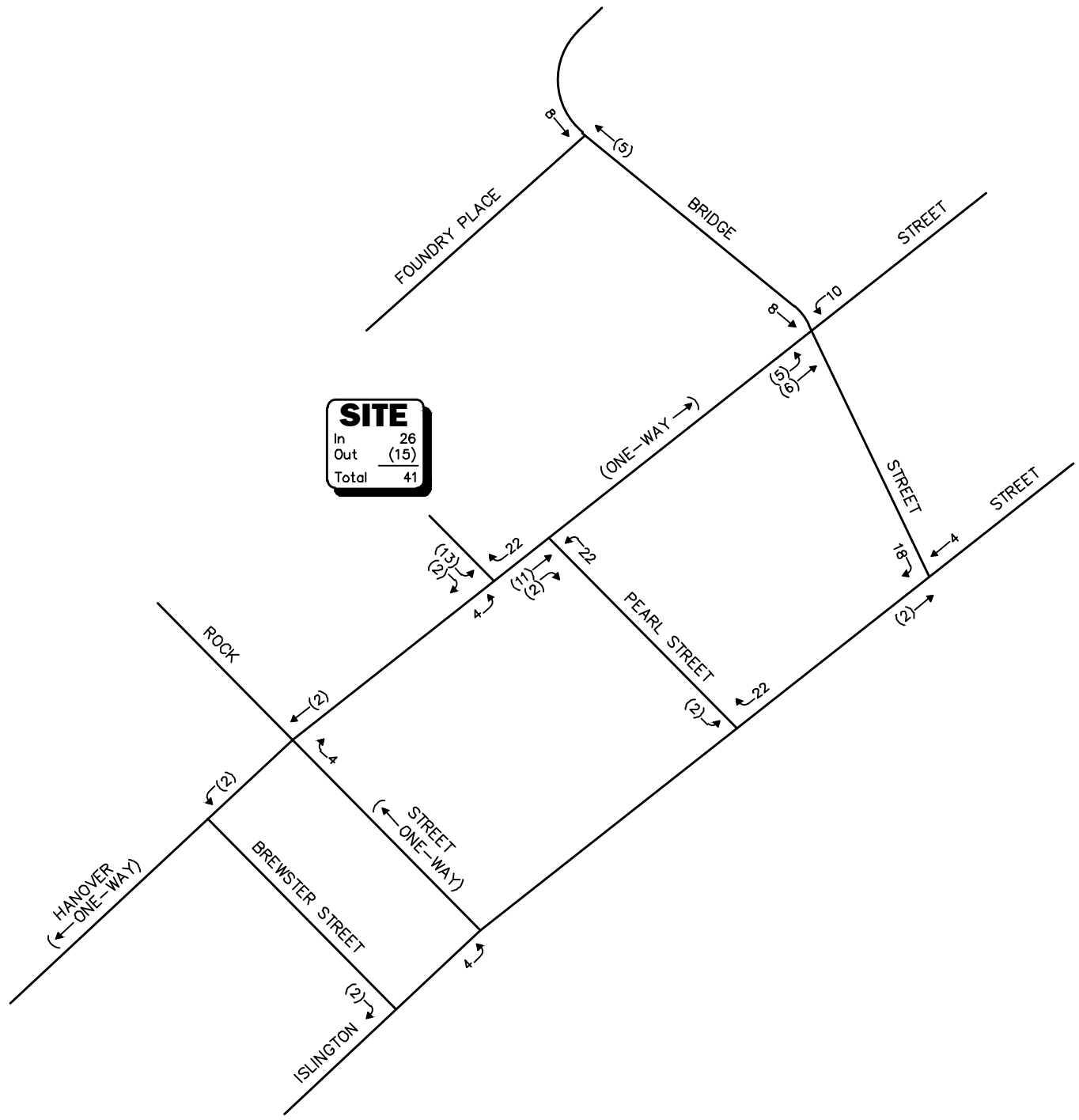


Trip Distribution Map

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Legend:

- XX Entering Trips
- (XX) Exiting Trips



SITE	
In	26
Out	(15)
Total	41

 Not To Scale

Figure 11



**Project-Generated
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes**

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Build Traffic Volumes

The 2025 Opening-Year Build and 2035 Build condition traffic volumes were developed by adding the peak-hour Project-generated traffic to the corresponding 2025 and 2035 No-Build peak-month, peak-hour traffic volumes. The resulting 2025 Opening-Year Build condition weekday morning and evening peak-hour traffic volumes are graphically depicted on Figures 12 and 13, respectively, with the corresponding 2035 Build condition peak-month, peak-hour traffic volumes depicted on Figures 14 and 15.

TRAFFIC OPERATIONS ANALYSIS

In order to assess the potential impact of the Project on the roadway network, a detailed traffic operations analysis (motorist delays, vehicle queuing, and level of service) was performed at the study area intersections. Capacity analyses provide an indication of how well transportation facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

In brief, six levels of service are defined for each type of facility. They are given letter designations ranging from A to F, with LOS “A” representing the best operating conditions and LOS “F” representing congested or constrained operations. An LOS of “E” is representative of a transportation facility that is operating at its design capacity while an LOS of “D” is generally defined as the limit of “acceptable” traffic operations. Since the level of service of a traffic facility is a function of the flows placed upon it, such a facility may operate at a wide range of levels of service depending on the time of day, day of week, or period of the year. The Synchro® 12 intersection capacity analysis software, which is based on the analysis methodologies and procedures presented in the *7th Edition Highway Capacity Manual (HCM)*⁶ for unsignalized intersections.

Analysis Results

Level-of-service and vehicle queue analyses were conducted for 2024 Existing, 2025 No-Build, 2025 Opening-Year Build, 2035 No-Build, and 2035 Build conditions for the study area intersections and the Project site driveway. The results of the intersections capacity and vehicle queue analyses are summarized in Table 5, with the detailed analysis results presented in the Attachment.

The following is a summary of the level-of-service and vehicle queue analyses for the intersections within the study area. For context, we note that an LOS of “D” or better is generally defined as “acceptable” operating conditions.

Hanover Street at Rock Street

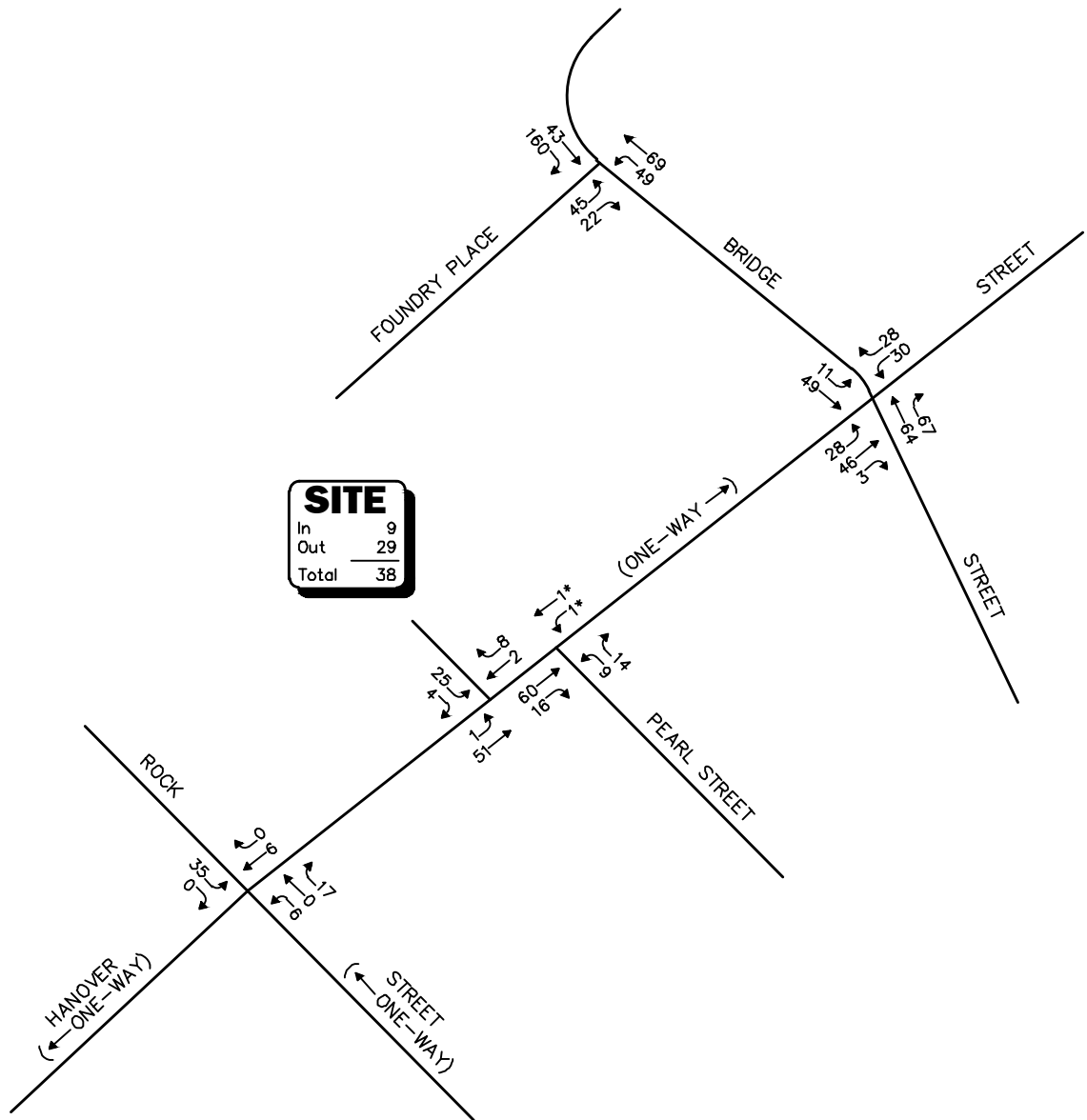
Under 2025 Opening-Year and 2035 Build peak-month conditions, no changes in level of service or vehicle queuing were shown to occur over No-Build conditions as a result of the addition of Project-related traffic, with all movements continuing to operate at LOS A with negligible vehicle queuing.

Hanover Street at Pearl Street

Under 2025 Opening-Year Build peak-month conditions, no changes in level of service or vehicle queuing were shown to occur over No-Build conditions as a result of the addition of Project-related traffic, with all movements continuing to operate at LOS A with negligible vehicle queuing.

⁶*Highway Capacity Manual*, Transportation Research Board; Washington, DC; 2022.





*Illegal movement.

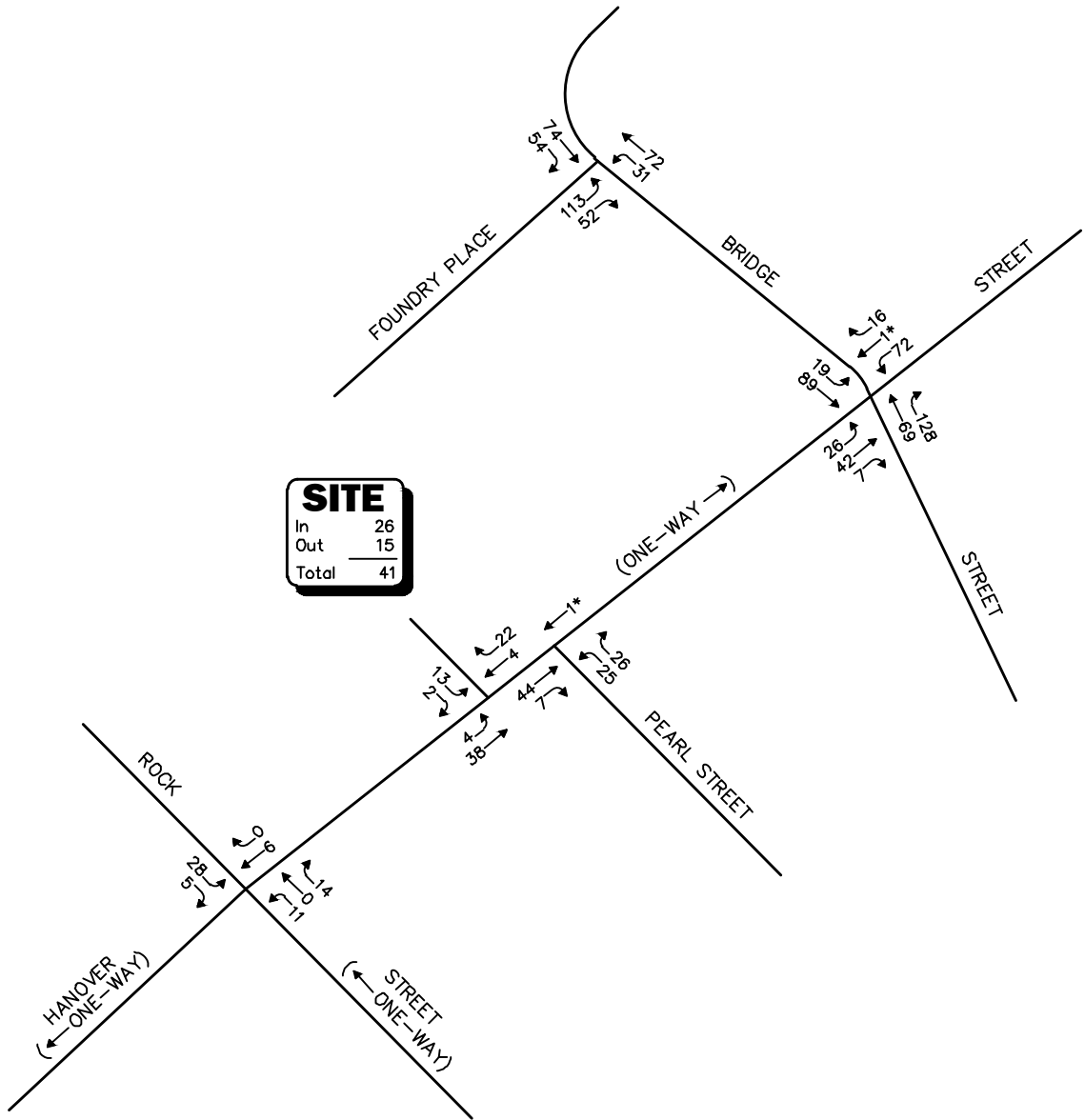
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale



Figure 12

2025 Opening-Year Build
 Peak-Month
 Weekday Morning
 Peak-Hour Traffic Volumes



*Illegal movement.

Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

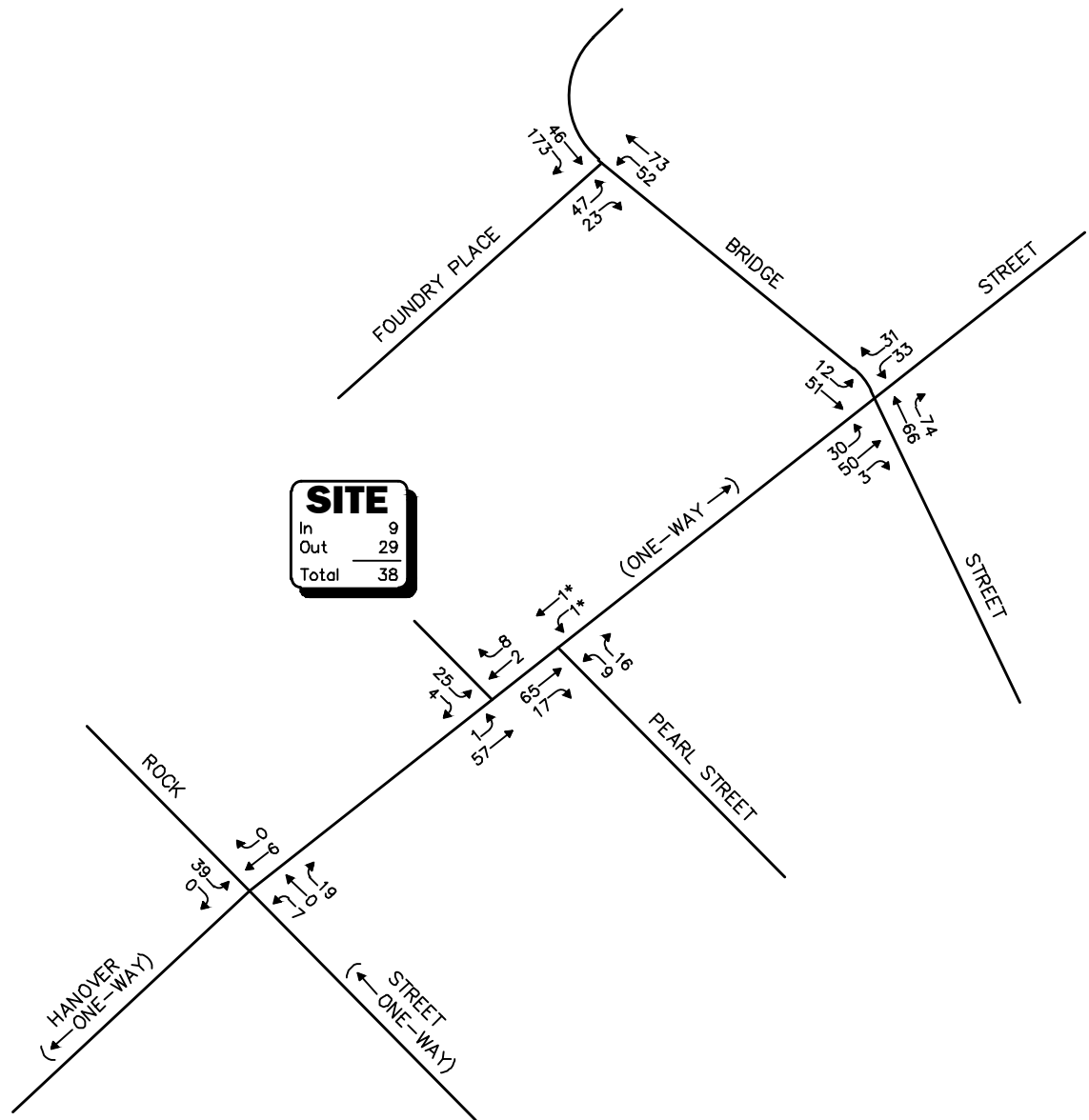
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Figure 13

**2025 Opening-Year Build
 Peak-Month
 Weekday Evening
 Peak-Hour Traffic Volumes**



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*Illegal movement.

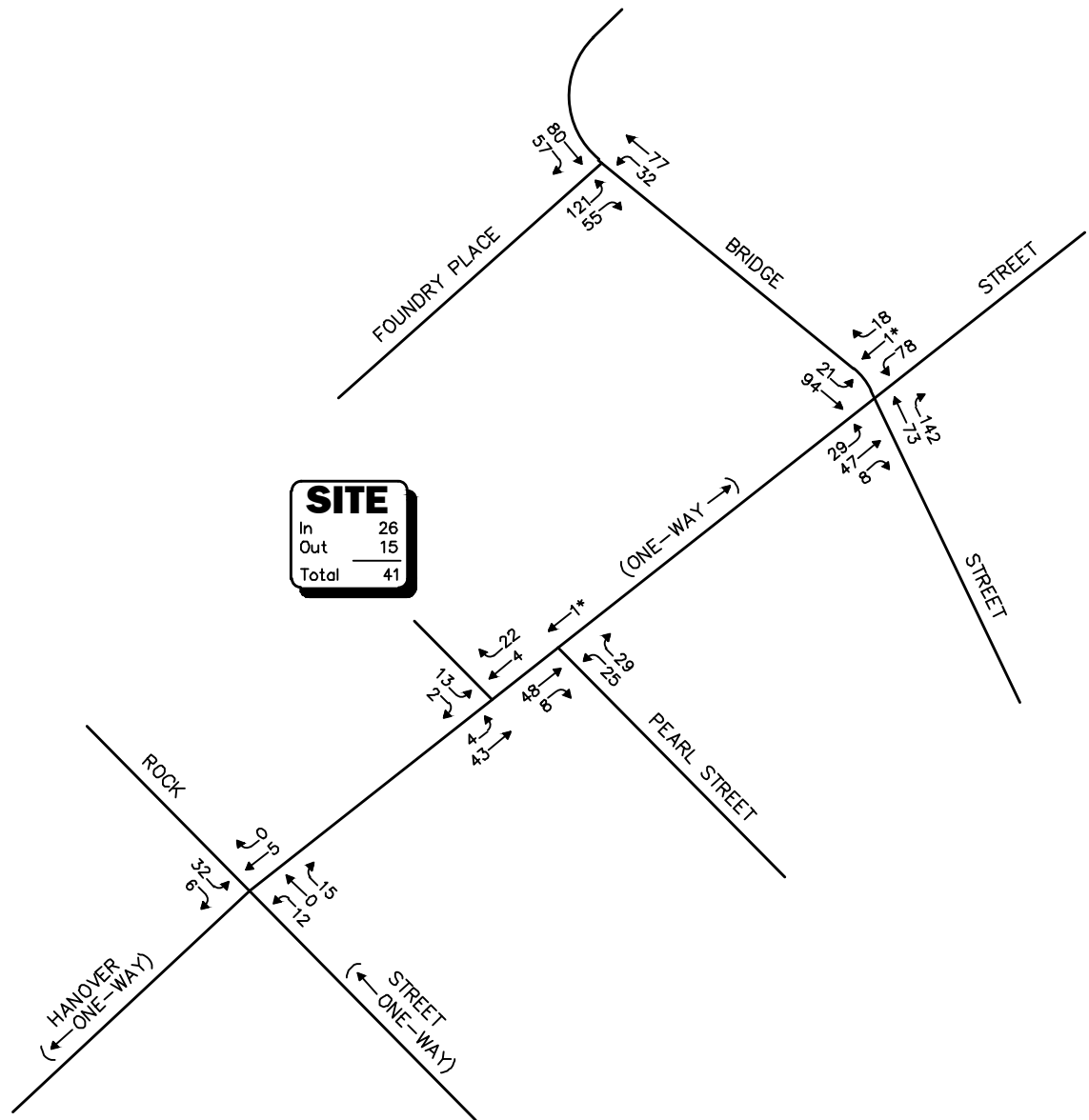
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 14

**2035 Build
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes**





*Illegal movement.

Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 15



**2035 Build
 Peak-Month
 Weekday Evening
 Peak-Hour Traffic Volumes**

Under 2035 Build peak-month conditions, no changes in level of service was shown to occur over No-Build conditions, with all movements at the intersection shown to continue to operate at LOS A. Project-related impacts were generally defined as an increase in an average motorist delay of less than 1.0 seconds that resulted in a corresponding increase in vehicle queuing of up to one (1) vehicle.

Hanover Street at Bridge Street

Under 2025 Opening-Year and 2035 Build peak-month conditions, no changes in level of service or vehicle queuing were shown to occur over No-Build conditions as a result of the addition of Project-related traffic, with all movements continuing to operate at LOS A with vehicle queues of up to one (1) vehicle.

Bridge Street at Foundry Place

Under 2025 Opening-Year and 2035 Build peak-month conditions, no changes in level of service or vehicle queuing were shown to occur over No-Build conditions as a result of the addition of Project-related traffic, with all movements continuing to operate at LOS B or better with vehicle queues of up to (2) vehicles.

Hanover Street at the Project Site Driveway

Under 2025 Opening-Year and 2035 Build peak-month conditions, all movements at the Project site driveway intersection with Hanover Street were shown to operate at LOS A during both the weekday morning and evening peak hours with negligible vehicle queuing predicted.



**Table 5
UNIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY**

Unsignalized Intersection/Peak Hour/Movement	2024 Existing				2025 No-Build				2025 Opening-Year Build				2035 No-Build				2035 Build			
	Demand ^a	Delay ^b	LOS ^c	Queue ^d 95 th	Demand	Delay	LOS	Queue 95 th	Demand	Delay	LOS	Queue 95 th	Demand	Delay	LOS	Queue 95 th	Demand	Delay	LOS	Queue 95 th
Hanover Street at Rock Street																				
<i>Weekday Morning:</i>																				
Hanover Street WB TH/RT	2	7.1	A	0	2	7.1	A	0	6	7.1	A	0	2	7.1	A	0	6	7.2	A	0
Rock Street NB LT/TH/RT	22	6.7	A	0	22	6.7	A	0	23	6.7	A	0	25	6.7	A	0	26	6.7	A	0
Rock Street SB LT/RT	36	7.3	A	0	36	7.3	A	0	35	7.4	A	0	40	7.4	A	0	39	7.4	A	0
<i>Weekday Evening:</i>																				
Hanover Street WB TH/RT	4	7.1	A	0	4	7.1	A	0	6	7.1	A	0	4	7.1	A	0	5	7.2	A	0
Rock Street NB LT/TH/RT	21	6.9	A	0	21	6.9	A	0	23	6.9	A	0	23	6.9	A	0	27	6.9	A	0
Rock Street SB LT/RT	33	7.2	A	0	33	7.2	A	0	33	7.3	A	0	27	7.3	A	0	38	7.3	A	0
Hanover Street at Pearl Street																				
<i>Weekday Morning:</i>																				
Hanover Street EB LT/TH/RT	52	0.1	A	0	52	0.1	A	0	76	0.1	A	0	58	0.1	A	0	82	0.1	A	0
Hanover Street WB LT/TH	2	2.6	A	0	2	2.6	A	0	2	2.6	A	0	2	2.6	A	0	2	2.6	A	0
Pearl Street NB LT/TH/RT	18	8.8	A	0	18	8.8	A	0	23	8.9	A	0	20	8.8	A	0	25	8.9	A	0
Pearl Street SB LT/TH/RT	1	8.3	A	0	1	8.3	A	0	--	--	--	--	1	8.3	A	0	--	--	--	--
<i>Weekday Evening:</i>																				
Hanover Street EB LT/TH/RT	38	0.0	A	0	38	0.0	A	0	51	0.0	A	0	43	0.0	A	0	56	0.0	A	0
Hanover Street WB TH	1	0.0	A	0	1	0.0	A	0	1	0.0	A	0	1	0.0	A	0	1	0.0	A	0
Pearl Street NB LT/TH/RT	29	8.8	A	0	29	8.8	A	0	51	9.0	A	0	32	8.9	A	0	54	9.1	A	1
Pearl Street SB LT/TH/RT	16	8.6	A	0	16	9.1	A	0	--	--	--	--	16	9.1	A	0	--	--	--	--
Hanover Street at Bridge Street																				
<i>Weekday Morning:</i>																				
Hanover Street EB LT/TH/RT	58	7.7	A	1	58	8.0	A	1	77	8.2	A	1	64	8.1	A	1	83	8.3	A	1
Hanover Street WB LT/RT	54	7.3	A	0	54	7.6	A	1	60	8.0	A	1	60	7.8	A	1	64	7.9	A	1
Bridge Street NB TH/RT	82	7.2	A	1	130	8.0	A	1	131	8.1	A	1	140	8.1	A	1	140	8.2	A	1
Bridge Street SB LT/TH	25	7.5	A	0	57	7.9	A	0	58	7.9	A	0	60	8.0	A	1	63	8.1	A	1
<i>Weekday Evening:</i>																				
Hanover Street EB LT/TH/RT	77	8.1	A	1	77	8.4	A	1	99	8.8	A	1	86	8.6	A	1	84	8.7	A	1
Hanover Street WB LT/TH/RT	78	8.3	A	1	79	8.6	A	1	75	8.6	A	1	87	8.8	A	1	97	9.0	A	1
Bridge Street NB TH/RT	159	7.9	A	1	197	8.5	A	1	197	8.6	A	1	215	8.8	A	1	215	8.9	A	1
Bridge Street SB LT/TH	59	8.1	A	1	100	8.6	A	1	108	8.7	A	1	107	8.8	A	1	115	8.9	A	1
Bridge Street at Foundry Place																				
<i>Weekday Morning:</i>																				
Foundry Place EB LT/RT	22	10.0	A	0	67	11.5	B	1	67	11.6	B	1	69	11.8	B	1	70	12.3	B	1
Bridge Street NB LT/TH	61	3.2	A	0	109	3.6	A	0	118	3.6	A	0	116	3.6	A	0	125	4.7	A	0
Bridge Street SB TH/RT	146	0.0	A	0	200	0.0	A	0	203	0.0	A	0	216	0.0	A	0	219	0.0	A	0
<i>Weekday Evening:</i>																				
Foundry Place EB LT/RT	108	10.5	B	1	165	12.5	B	2	165	12.7	B	2	176	13.1	B	2	176	13.2	B	2
Bridge Street NB LT/TH	64	1.4	A	0	102	2.4	A	0	103	2.4	A	0	108	2.3	A	0	109	2.3	A	0
Bridge Street SB TH/RT	71	0.0	A	0	120	0.0	A	0	128	0.0	A	0	129	0.0	A	0	137	0.0	A	0
Hanover at the Project Site Driveway																				
<i>Weekday Morning:</i>																				
Hanover Street EB TH/RT	--	--	--	--	--	--	--	--	52	0.1	A	0	--	--	--	--	58	0.1	A	0
Hanover Street WB LT/TH	--	--	--	--	--	--	--	--	10	0.0	A	0	--	--	--	--	10	0.0	A	0
Project Site Driveway SB LT/RT	--	--	--	--	--	--	--	--	29	8.9	A	0	--	--	--	--	29	8.9	A	0
<i>Weekday Evening:</i>																				
Hanover Street EB TH/RT	--	--	--	--	--	--	--	--	42	0.7	A	0	--	--	--	--	47	0.6	A	0
Hanover Street WB LT/TH	--	--	--	--	--	--	--	--	26	0.0	A	0	--	--	--	--	26	0.0	A	0
Project Site Driveway SB LT/RT	--	--	--	--	--	--	--	--	15	8.9	A	0	--	--	--	--	15	8.9	A	0

^aDemand in vehicles per hour.

^bAverage control delay per vehicle (in seconds).

^cLevel of service.

^dQueue length in vehicles.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

SIGHT DISTANCE MEASUREMENTS

Sight distance measurements were performed at the Project site driveway intersection with Hanover Street in accordance with the American Association of State Highway and Transportation Officials (AASHTO)⁷ requirements. Both stopping sight distance (SSD) and intersection sight distance (ISD) measurements were performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD or corner sight distance (CSD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an oncoming vehicle and safely complete a turning or crossing maneuver with oncoming traffic. In accordance with AASHTO standards, if the measured ISD is at least equal to the required SSD value for the appropriate design speed, the intersection can operate in a safe manner. Table 6 presents the measured SSD and ISD at the subject intersection.

Table 6
SIGHT DISTANCE MEASUREMENTS^a

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD) ^b	Measured
<i>Hanover Street at the Project Site Driveway</i>			
<i>Stopping Sight Distance:</i>			
Hanover Street approaching from the East	115	--	188
Hanover Street approaching from the West	115	--	281
<i>Intersection Sight Distance:</i>			
Looking to the East from the Project Driveway	115	195	146
Looking to the West from the Project Driveway	115	225	150

^aRecommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets*, 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018; and based on a 20-mph approach speed along Hanover Street.

^bValues shown are the intersection sight distance for a vehicle turning right or left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed.

As can be seen in Table 6, the available lines of sight to and from Hanover Street at its intersection with the Project site driveway exceed the recommended minimum sight distance to function in a safe manner (SSD) based on a 20-mph approach speed which is slightly higher than the measured 85th percentile vehicle travel speed (13/16 mph).

⁷*A Policy on Geometric Design of Highway and Streets*, 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2018.



SUMMARY

VAI has completed a detailed assessment of the potential impacts on the transportation infrastructure associated with the proposed redevelopment of the Kearsarge Mill located at 361 Hanover Street in Portsmouth, New Hampshire, to accommodate a multifamily residential development. This study has been completed in accordance with the NHDOT guidelines for the preparation of a TIS as defined in the Driveway Permit Policy and has evaluated the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; under existing and future conditions, both with and without the Project. Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the ITE,⁸ the Project is expected to generate approximately 384 vehicle trips on an average weekday (two-way, 24-hour volume), with approximately 38 vehicle trips expected during the weekday morning peak-hour and 41 vehicle trips expected during the weekday evening peak-hour;
2. The Project will not have a significant impact (increase) on motorist delays or vehicle queuing over Existing or anticipated future conditions without the Project (No-Build conditions), with no (0) changes in level of service and all movements at the study area intersections shown to continue to operate at LOS B or better, where an LOS “D” or better is defined as “acceptable” operating conditions. Project-related impacts were generally defined as an increase in average motorist delay of up to 1.1 seconds that resulted in a corresponding increase in vehicle queuing of up to one (1) vehicle;
3. Under 2025 Opening Year Build and 2035 Build conditions, all movements exiting the Project site driveway to Hanover Street were shown to operate at LOS A with negligible vehicle queuing. All movements along Hanover Street approaching the Project site driveway were shown to operate at LOS A, also with negligible vehicle queuing; and
4. Lines of sight at the intersection of the Project site driveway with Hanover Street were found to exceed the recommended minimum distance for the intersection to operate in a safe manner based on the appropriate speed.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with the implementation of the recommendations that follow.

RECOMMENDATIONS

Project Access

Access to the Project site will be provided by way of a new driveway that will intersect the south side of Hanover Street approximately 60 feet east of Rock Street. The following recommendations are offered with respect to the design and operation of the Project site access and internal circulations, many of which are reflected on the site plans:

⁸Institute of Transportation Engineers, op. cit. 1.



- The Project site driveway will be 24 feet in width and will be designed to accommodate the turning and maneuvering requirements of moving vans, trash/recycling vehicles and the largest anticipated responding emergency vehicle.
- Vehicles exiting the Project site to Hanover Street should be placed under STOP-sign control.
- Where perpendicular parking is proposed, the drive aisle behind the parking should be a minimum of 23 feet in order to facilitate parking maneuvers.
- All signs and pavement markings to be installed within the Project site should conform to the applicable standards of the *Manual on Uniform Traffic Control Devices (MUTCD)*.⁹
- Sidewalks have been provided within the Project site that link the existing and proposed buildings to the existing sidewalks along Hanover Street, Rock Street and Foundry Place and crosswalks are proposed for crossing Rock Street (two (2) locations), at the Hanover Street/Rock Street intersection and across Pearl Street.
- ADA-compliant wheelchair ramps should be provided at all pedestrian crossings to be constructed or modified in conjunction with the Project, including for crossing the Project site driveway, or the driveway should be designed so that the sidewalk crosses the driveway (i.e., pan-type drive).
- Signs and landscaping to be installed as a part of the Project within the intersection sight triangle areas should be designed and maintained so as not to restrict lines of sight.
- Snow accumulations (windrows) within sight triangle areas should be promptly removed where such accumulations would impede sightlines.
- Consideration should be given to providing electric vehicle (EV) charging stations for use by residents of the Project.

Transportation Demand Management

In an effort to encourage the use of alternative modes of transportation to single-occupant vehicles (SOVs), the following Transportation Demand Management (TDM) measures should be implemented as part of the Project:

- A transportation coordinator should be assigned for the Project, who may also have other duties and responsibilities, to coordinate the TDM program;
- A “welcome packet” should be provided to residents detailing available public transportation services, bicycle and walking alternatives, and other commuting options;
- A central maildrop should be provided within each building; and
- Secure bicycle parking should be provided at an appropriate location within the Project site, including exterior bicycle racks and interior weather protected bicycle parking.

With implementation of the aforementioned recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing transportation system.

⁹*Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.



PROPOSED DEVELOPMENT

361 HANOVER STREET PORTSMOUTH, NEW HAMPSHIRE SITE PERMIT PLANS

OWNER/APPLICANT:

361 HANOVER STEAM
FACTORY, LLC
41 INDUSTRIAL DRIVE UNIT 20
EXETER, NH 03833
TEL. (603) 235-5475

CIVIL ENGINEER/LAND SURVEYOR:

HALEY WARD, INC.
200 GRIFFIN ROAD, UNIT 3
PORTSMOUTH, N.H. 03801
TEL. (603) 430-9282

ARCHITECT:

SCOTT BROWN
29 WATER STREET, SUITE 209
NEWBURYPORT, MA 01950
TEL. (978) 465-3535

PLANNING CONSULTANT:

NICHOLAS CRACKNELL
TEL. (978) 270-4789

LAND USE ATTORNEY:

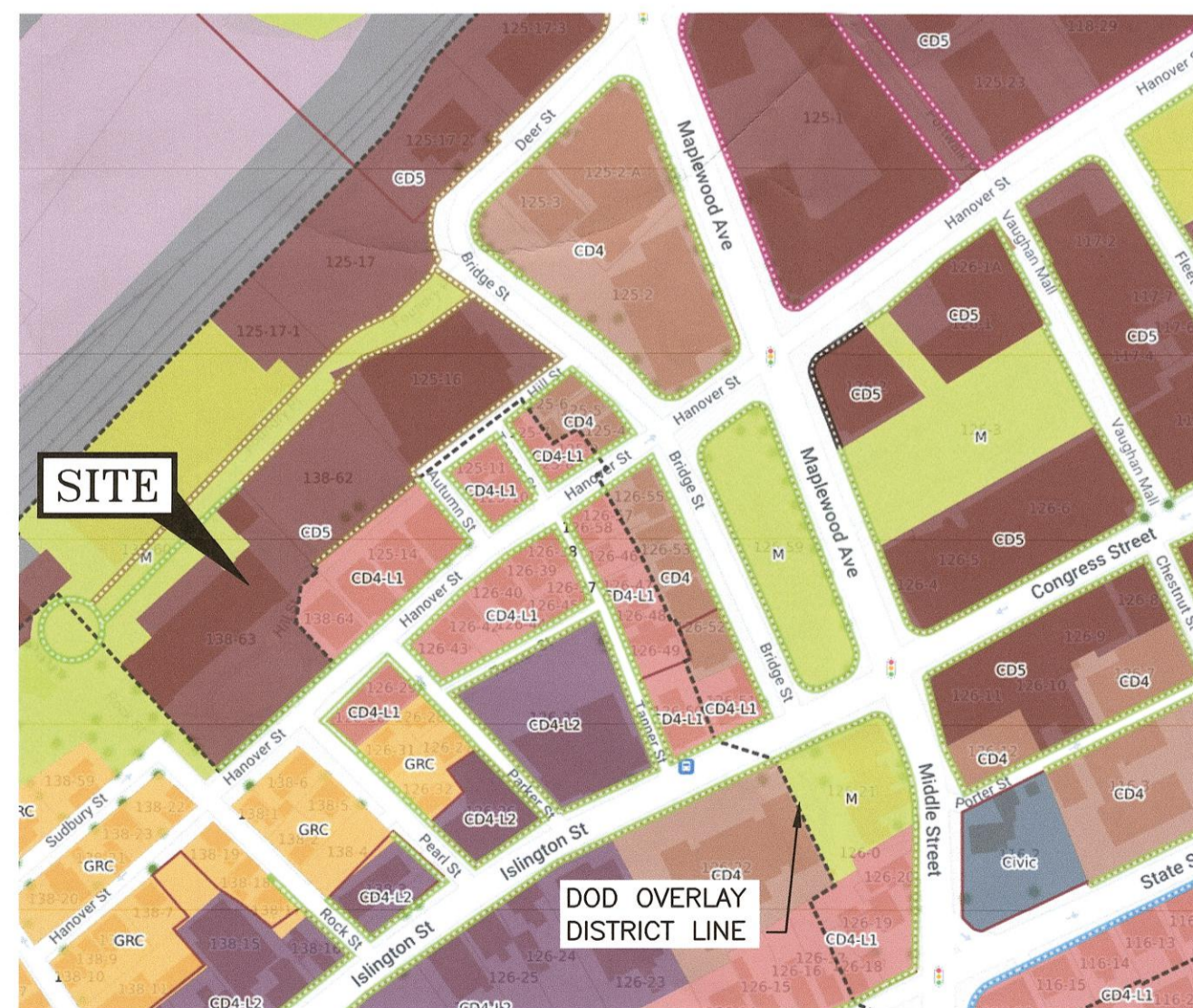
BOSEN & ASSOCIATES
266 MIDDLE STREET
PORTSMOUTH, N.H. 03801
TEL. (603) 427-5500

PERMIT LIST:
PORTSMOUTH HDC:
PORTSMOUTH ZONING BOARD: APPROVED
PORTSMOUTH SITE REVIEW:
PORTSMOUTH CONDITIONAL USE PERMIT: TBD

SITE EXCAVATION NOTE:
SITE EVACUATION SHALL FOLLOW PROCEDURES AS OUTLINED IN THE FOLLOWING STATUTES:
RSA 227-C:8-A DISCOVERY OF REMAINS AND NOTIFICATION OF AUTHORITIES (CONSTRUCTION SITES).
RSA 289:3 CEMETERIES-LOCATIONS (25 FEET FROM KNOWN CEMETERY LOCATION).
IF REMAINS ARE ENCOUNTERED CONTACT:
MARK DOPERALSKI
STATE ARCHAEOLOGIST
DIVISION OF HISTORICAL RESOURCES
NH DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
172 PEMBROKE ROAD
CONCORD, NH 03301
http://www.nh.gov/rhdhr

LEGEND:

EXISTING	PROPOSED	
---	---	PROPERTY LINE
---	---	SETBACK
S	S	SEWER PIPE
SL	SL	SEWER LATERAL
G	G	GAS LINE
D	D	STORM DRAIN
W	W	WATER LINE
WS	WS	WATER SERVICE
UGE	UGE	UNDERGROUND ELECTRIC
OHW	OHW	OVERHEAD ELECTRIC WIRES
---	UD	FOUNDATION DRAIN
---	---	EDGE OF PAVEMENT (EP)
100	100	CONTOUR
97x3	98x0	SPOT ELEVATION
○	○	UTILITY POLE
☀	☀	WALL MOUNTED EXTERIOR LIGHTS
☀	☀	TRANSFORMER ON CONCRETE PAD
☀	☀	ELECTRIC HANDHOLD
☀	☀	SHUT OFFS (WATER/GAS)
GV	GV	GATE VALVE
HYD	HYD	HYDRANT
CB	CB	CATCH BASIN
SMH	SMH	SEWER MANHOLE
DMH	DMH	DRAIN MANHOLE
TMH	TMH	TELEPHONE MANHOLE
14	14	PARKING SPACE COUNT
14	14	PARKING METER
LSA	LSA	LANDSCAPED AREA
TBD	TBD	TO BE DETERMINED
CI	CI	CAST IRON PIPE
COP	COP	COPPER PIPE
DI	DI	DUCTILE IRON PIPE
PVC	PVC	POLYVINYL CHLORIDE PIPE
RCP	RCP	REINFORCED CONCRETE PIPE
AC	AC	ASBESTOS CEMENT PIPE
VC	VC	VITRIFIED CLAY PIPE
EP	EP	EDGE OF PAVEMENT
EL	EL	ELEVATION
FF	FF	FINISHED FLOOR
INV	INV	INVERT
S =	S =	SLOPE FT/FT
TBM	TBM	TEMPORARY BENCH MARK
TYP	TYP	TYPICAL



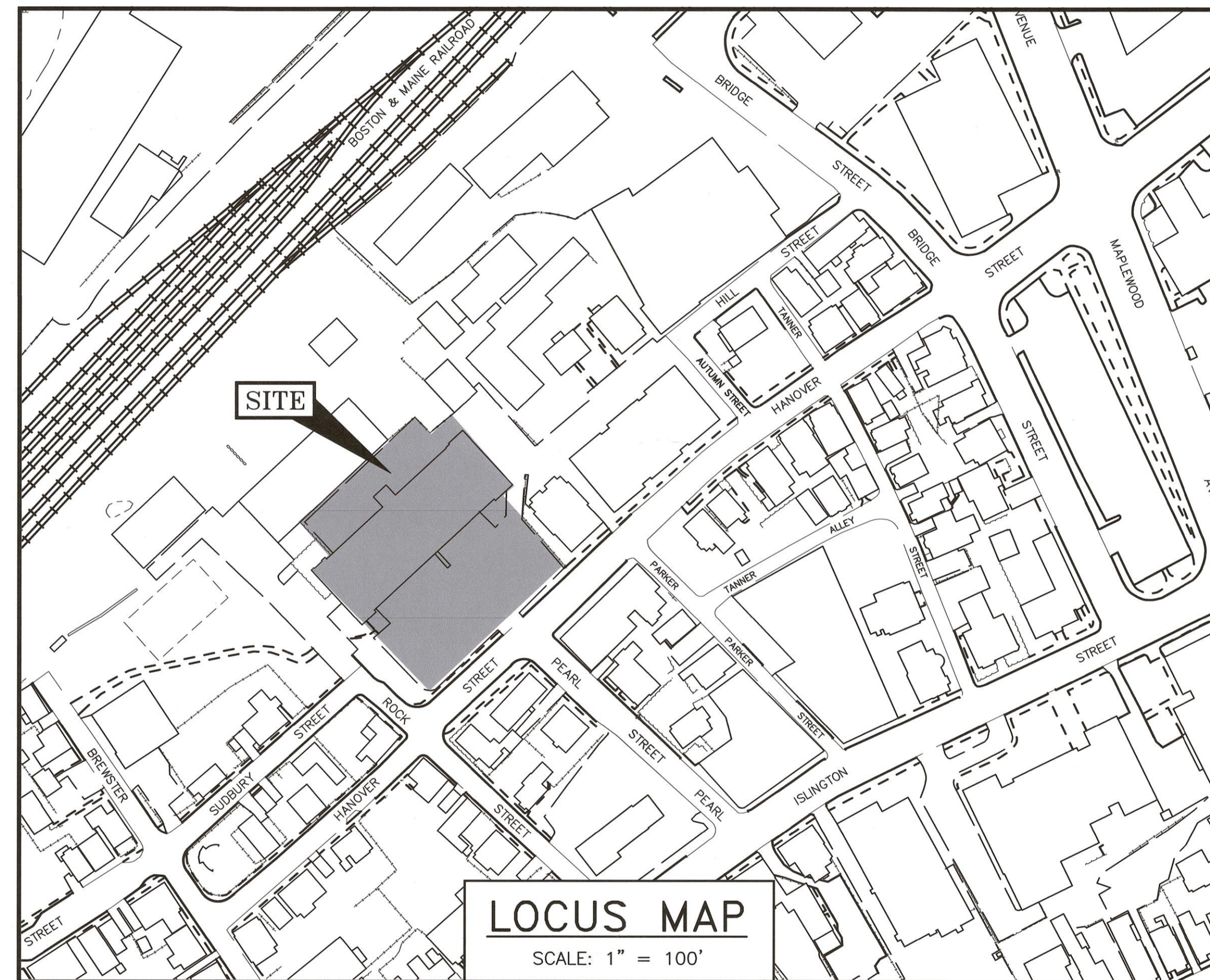
MAP 10.5A21A
CHARACTER DISTRICTS
AND CIVIC DISTRICTS

Character Districts	Civic District	Municipal District	Overlay Districts
CD5 Character District 5	Civic District	Municipal District	OSLD Osprey Landing Overlay District
CD4 Character District 4			Downtown Overlay District
CD4-W Character District 4-W			Historic District
CD4-L1 Character District 4-L1			
CD4-L2 Character District 4-L2			

MAP 10.5A21B
BUILDING HEIGHT
STANDARDS

Height requirement area	Maximum building height*
1 Story	20'
2 Stories	35'
2 Stories (short 3rd*)	35'
2-3 Stories	40'
2-3 Stories (short 4th*)	45'
2-4 Stories	50'
2-4 Stories (short 5th*)	60'
2-5 Stories	60'

*Penthouse Levels may exceed the building height by 2 feet.



LOCUS MAP

SCALE: 1" = 100'

UTILITY CONTACTS

ELECTRIC:
EVERSOURCE
1700 LAFAYETTE ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 436-7708, Ext. 555.5678
ATTN: NICHOLAS KOSKO

NATURAL GAS:
UNITIL
325 WEST ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 294-5144
ATTN: DAVE BEAULIEU

CABLE:
COMCAST
155 COMMERCE WAY
PORTSMOUTH, N.H. 03801
Tel. (603) 679-5695 (X1037)
ATTN: MIKE COLLINS

SEWER & WATER:
PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 427-1530
ATTN: DOUG SPARKS

COMMUNICATIONS:
FAIRPOINT COMMUNICATIONS
JOE CONSIDINE
1575 GREENLAND ROAD
GREENLAND, N.H. 03840
Tel. (603) 427-5525

DWG. NO.

-	SUBDIVISION PLAN
-	SITE ORTHOPHOTO
C1	EXISTING CONDITIONS PLAN
C2	DEMOLITION PLAN
C3	SITE PLAN
L1-L3	LANDSCAPE PLANS
C4	UTILITY PLAN
C5	GRADING PLAN
C6	LIGHTING PLAN
T1	PASSENGER VEHICLE TURNING TEMPLATE
T2	FIRE TRUCK TURNING TEMPLATE
-	ARCHITECTURAL PLANS
D1-D5	DETAILS

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

APPROVED BY THE PORTSMOUTH PLANNING BOARD

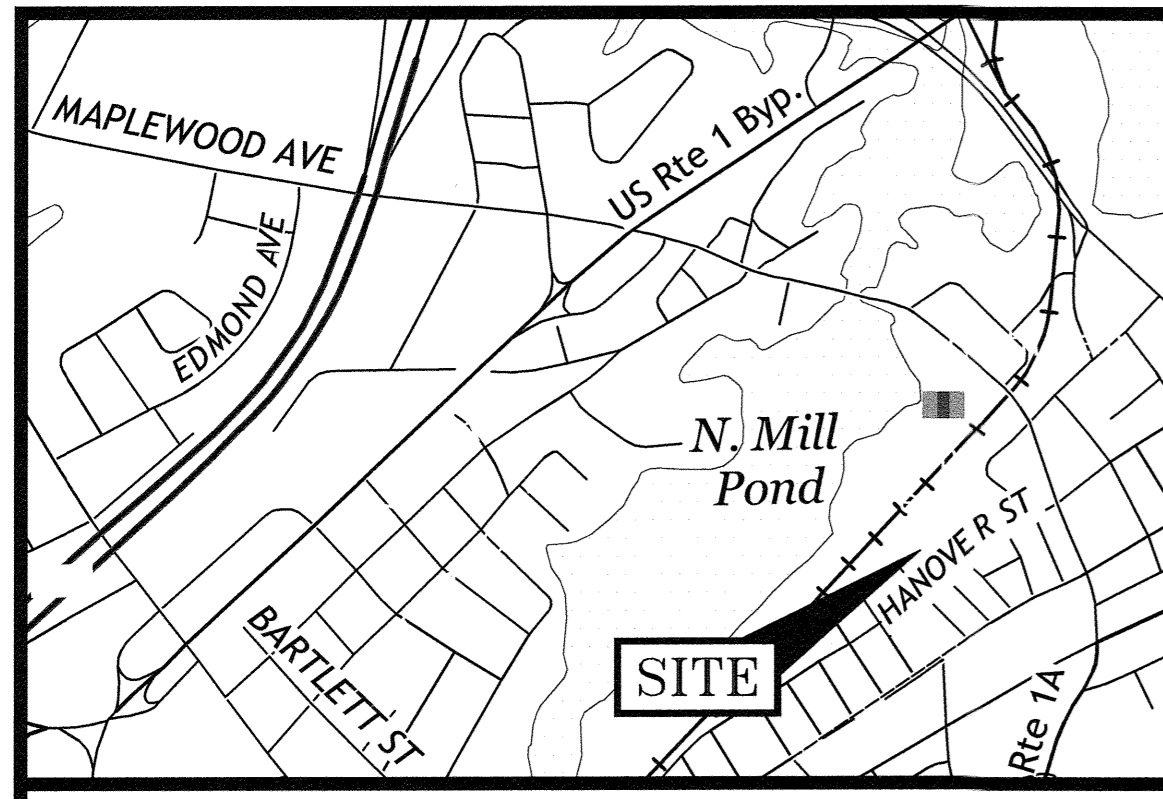
CHAIRMAN

DATE

**SITE PERMIT PLANS
PROPOSED DEVELOPMENT
361 HANOVER STREET
PORTSMOUTH, N.H.**

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Rd, Unit 14
Portsmouth, New Hampshire 03801
603.430.9282
WWW.HALEYWARD.COM

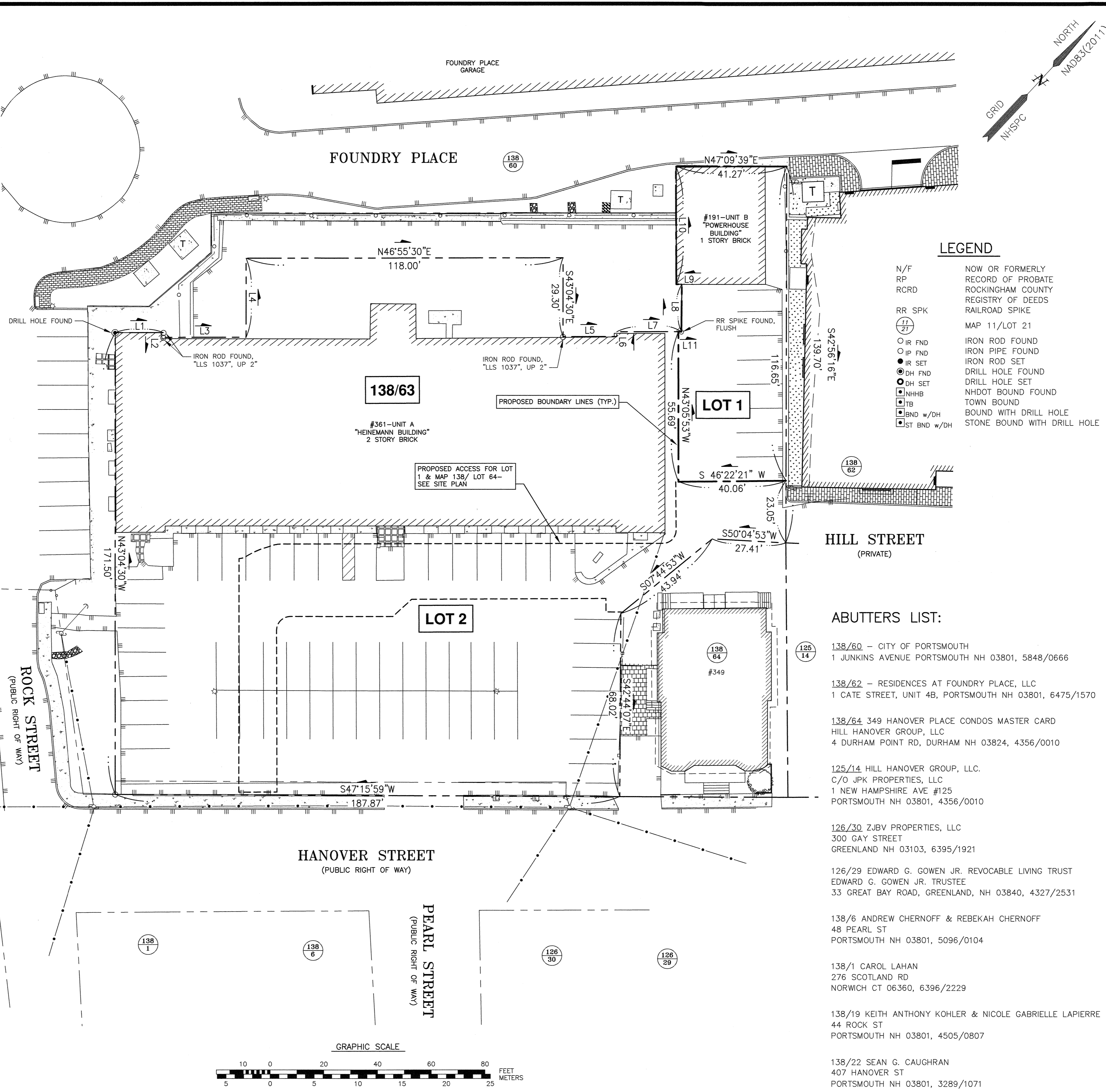
PLAN SET SUBMITTAL DATE: 26 MARCH 2025



LOCATION MAP SCALE: 1" = 1000'

PLAN REFERENCES:

- 1) "PLAN OF LAND IN PORTSMOUTH, N.H. PORTSMOUTH MFG & POWER CO. TO FRANKIE BROOKS" BY JOHN W. DURGIN. DA TED FEBRUARY 1918. RCRD PLAN 078.
- 2) "SUBDIVISION OF LAND OF PORTSMOUTH MFG. & POWER CO. PORTSMOUTH, N.H." BY JOHN W. DURGIN. DATED NOVEMBER 1925. RCRD PLAN #36B.
- 3) "LAND IN PORTSMOUTH, N.H. PORTS. MFG. & POWER CO. TO HAROLD S. WOODS" BY JOHN W. DURGIN. DATED NOVEMBER 1926. RCRD PLAN #389.
- 4) "CONDOMINIUM SITE PLAN FOR HANOVER PLACE CONDOMINIUM 349 HANOVER STREET COUNTY OF ROCKINGHAM PORTSMOUTH, NH" BY MILLETTE, SPRAGUE & COLWELL, INC. DATED SEPTEMBER 28, 2004 LAST REVISED DECEMBER 20, 2005. RCRD PLAN D-33379.
- 5) "CONSOLIDATION & SUBDIVISION PLAN TAX MAP 125, LOT 17 & TAX MAP 138, LOT 62 DEER STREET ASSOCIATES BRIDGE, DEER & HILL STREETS CITY OF PORTSMOUTH COUNTY OF ROCKINGHAM STATE OF NEW HAMPSHIRE" BY AMBIT ENGINEERING, INC. DA TED JULY 2015. RCRD PLAN D-39699.
- 6) "KEARSARGE MILLS CONDOMINIUM PLANS" BY KIMBALL CHASE COMPANY, INC. DATED APRIL 15, 1986. RCRD PLAN D-14855.
- 7) "BOUNDARY LINE AGREEMENT PLAN KEARSARGE MILL CONDOMINIUMS PORTSMOUTH, N.H." BY JONES & BEACH ENGINEERS, INC. DATED APRIL 10, 1997 LAST REVISED APRIL 21, 1997. RCRD PLAN D-25421.
- 8) "AMENDED SITE PLAN, KEARSARGE MILL CONDOMINIUMS, 1 HANOVER STREET PORTSMOUTH, NH" BY KIMBALL CHASE CONSULTING ENGINEERS DATED 04-14-06 AND LAST REVISED 02-16-07. RCRD PLAN D-34716.



LEGEND

- N/F NOW OR FORMERLY
- RP RECORD OF PROBATE
- RCRD ROCKINGHAM COUNTY
- RR SPK RAILROAD SPIKE
- RR SPIKE FOUND. FLUSH
- IR FND IRON ROD FOUND
- IP FND IRON PIPE FOUND
- IR SET IRON ROD SET
- DH FND DRILL HOLE FOUND
- DH SET DRILL HOLE SET
- NHNB NHDOT BOUND FOUND
- TB TOWN BOUND
- BND w/DH BOUND WITH DRILL HOLE
- ST BND w/DH STONE BOUND WITH DRILL HOLE

HILL STREET (PRIVATE)

ABUTTERS LIST:

- 138/60 - CITY OF PORTSMOUTH
1 JUNKINS AVENUE PORTSMOUTH NH 03801, 5848/0666
- 138/62 - RESIDENCES AT FOUNDY PLACE, LLC
1 CATE STREET, UNIT 4B, PORTSMOUTH NH 03801, 6475/1570
- 138/64 349 HANOVER PLACE CONDOS MASTER CARD
HILL HANOVER GROUP, LLC
4 DURHAM POINT RD, DURHAM NH 03824, 4356/0010
- 125/14 HILL HANOVER GROUP, LLC.
C/O JPK PROPERTIES, LLC
1 NEW HAMPSHIRE AVE #125
PORTSMOUTH NH 03801, 4356/0010
- 126/30 ZJBV PROPERTIES, LLC
300 GAY STREET
GREENLAND NH 03103, 6395/1921
- 126/29 EDWARD G. GOWEN JR. REVOCABLE LIVING TRUST
EDWARD G. GOWEN JR. TRUSTEE
33 GREAT BAY ROAD, GREENLAND, NH 03840, 4327/2531
- 138/6 ANDREW CHERNOFF & REBEKAH CHERNOFF
48 PEARL ST
PORTSMOUTH NH 03801, 5096/0104
- 138/1 CAROL LAHAN
276 SCOTLAND RD
NORWICH CT 06360, 6396/2229
- 138/19 KEITH ANTHONY KOHLER & NICOLE GABRIELLE LAPIERRE
44 ROCK ST
PORTSMOUTH NH 03801, 4505/0807
- 138/22 SEAN G. CAUGHRAN
407 HANOVER ST
PORTSMOUTH NH 03801, 3289/1071

LENGTH TABLE

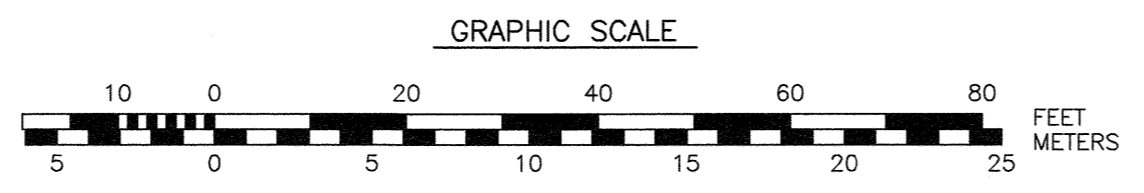
LINE	BEARING	DISTANCE
L1	N47°00'11"E	18.00'
L2	S43°03'50"E	1.78'
L3	N46°55'30"E	30.75'
L4	N43°04'30"W	29.30'
L5	N46°55'30"E	20.00'
L6	N43°04'30"W	1.80'
L7	N46°55'30"E	24.05'
L8	N42°30'12"W	17.65'
L9	S46°42'22"W	2.04'
L10	N43°17'38"W	43.88'
L11	N46°55'30"E	1.12'

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

John R. Chagnon 3-25-22
JOHN R. CHAGNON, LLS DATE

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE



AMBIT ENGINEERING, INC.
A DIVISION OF HALEY WARD, INC.

200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.436.2315

WWW.HALEYWARD.COM

- NOTES:**
- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSORS MAP 138 AS LOT 63.
 - 2) OWNERS OF RECORD:
UNIT A:
361 HANOVER STEAM FACTORY, LLC
41 INDUSTRIAL DRIVE UNIT 20
EXETER, N.H. 03833
6352/2959

UNIT B:
POWERHOUSE REALTY TRUST
C/O ADAMS DAVID B. TRUSTEE
210 GATES STREET
PORTSMOUTH, NH 03801
5419/1223
 - 3) PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE JANUARY 29, 2021.
 - 4) LOT AREAS:
EXISTING
43,245 S.F.
0.9928 AC.

PROPOSED LOT 1
4,717 S.F.
0.1083 AC.

PROPOSED LOT 2
38,528 S.F.
0.8845 AC.
 - 5) PARCEL IS LOCATED IN CHARACTER DISTRICT 5 (CD5), NORTH END INCENTIVE OVERLAY DISTRICT (NEIOD) AND DOWNTOWN OVERLAY DISTRICT.
 - 6) THE PURPOSE OF THIS PLAN IS TO SHOW A PROPOSED SUBDIVISION OF TAX MAP 139, LOT 63 IN PORTSMOUTH, NH INTO 2 LOTS.
 - 7) PARCEL IS BURDENED BY THE FOLLOWING EASEMENTS:
A) ACCESS EASEMENT TO THE CITY OF PORTSMOUTH TO ALLOW ACCESS TO A PARKING AREA. SEE R.C.R.D. 4735/2971

B) ACCESS EASEMENT TO HANOVER PLACE CONDOMINIUM ASSOCIATION. THIS EASEMENT TO BE RE-DEFINED.
 - 8) THE PARCEL HAS THE BENEFIT OF A REVOCABLE LICENSE BETWEEN THE CITY OF PORTSMOUTH AND THE KEARSARGE MILL UNIT ON THE PLAN ENTITLED "KEARSARGE MILL CONDOMINIUMS HANOVER STREET, PORTSMOUTH, NH SITE PLAN AMENDMENT" PREPARED BY KIMBALL CHASE CONSULTING ENGINEERS DATED APRIL 14, 2006. LICENSE AND SITE PLAN ARE AVAILABLE WITH THE RECORDS OF THE CITY OF PORTSMOUTH, SEE ALSO PLAN REFERENCE #6.
 - 9) PROPERTY CORNERS WILL BE SET PRIOR TO RECORDING.

NO.	DESCRIPTION	DATE
2	PARKING, ACCESS ESMT., ABUTTER DETAIL	3/25/25
1	NOTE 7	12/3/24
0	ISSUED FOR COMMENT	4/3/24

SUBDIVISION PLAN
TAX MAP 138 - LOT 63

KEARSARGE MILL UNIT OWNERS ASSOCIATION
OWNERS: 361 HANOVER STEAM FACTORY, LLC & POWERHOUSE REALTY TRUST
FOUNDY PLACE & HANOVER STREET
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE



NOTES:

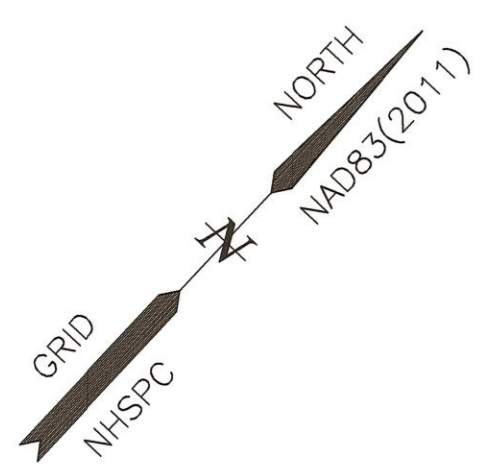
1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSORS MAP 138 AS LOT 63.

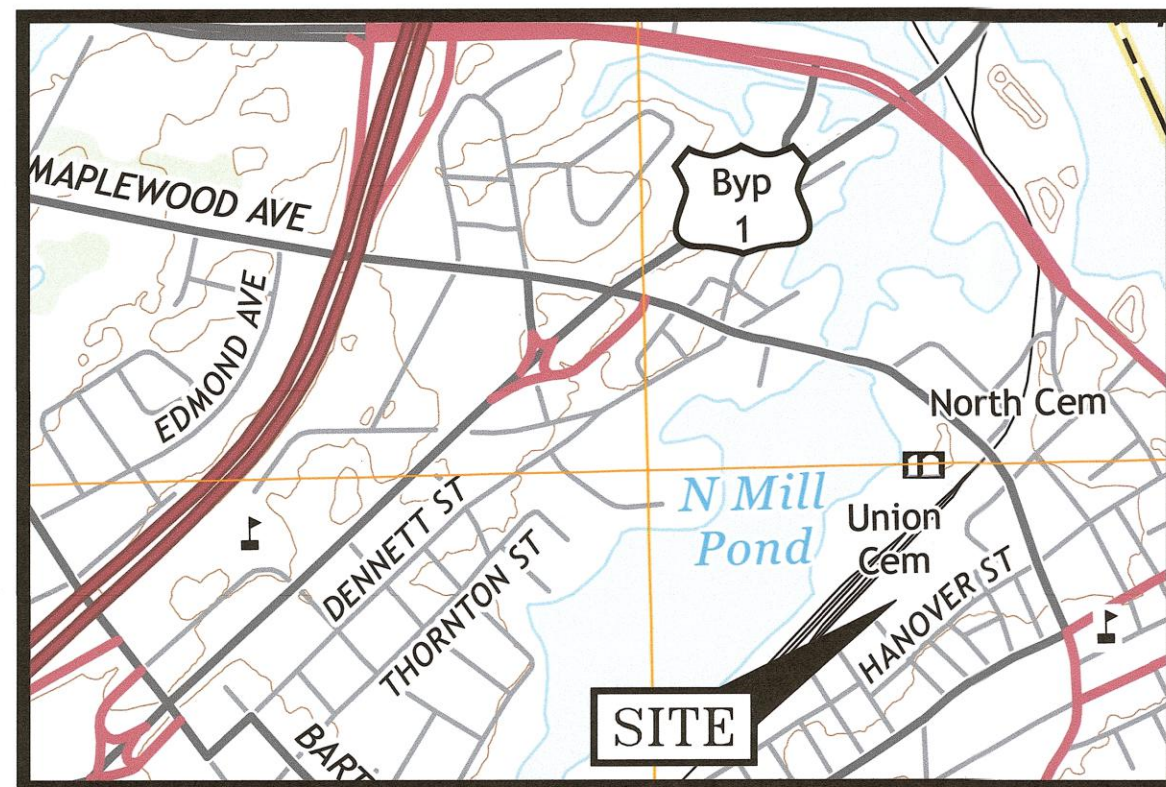
2) APPLICANT:
 361 HANOVER STEAM FACTORY, LLC
 41 INDUSTRIAL DRIVE UNIT 20
 EXETER, NH 03833
 6352/2959

3) THE PURPOSE OF THIS PLAN IS TO SHOW SITE FEATURES AS OF FEBRUARY 2023 ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 138 LOT 63.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	4/3/24
REVISIONS		

SITE ORTHOPHOTO
TAX MAP 138 - LOT 63
361 HANOVER STEAM FACTORY, LLC
FOUNDRY PLACE & ROCK STREET
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

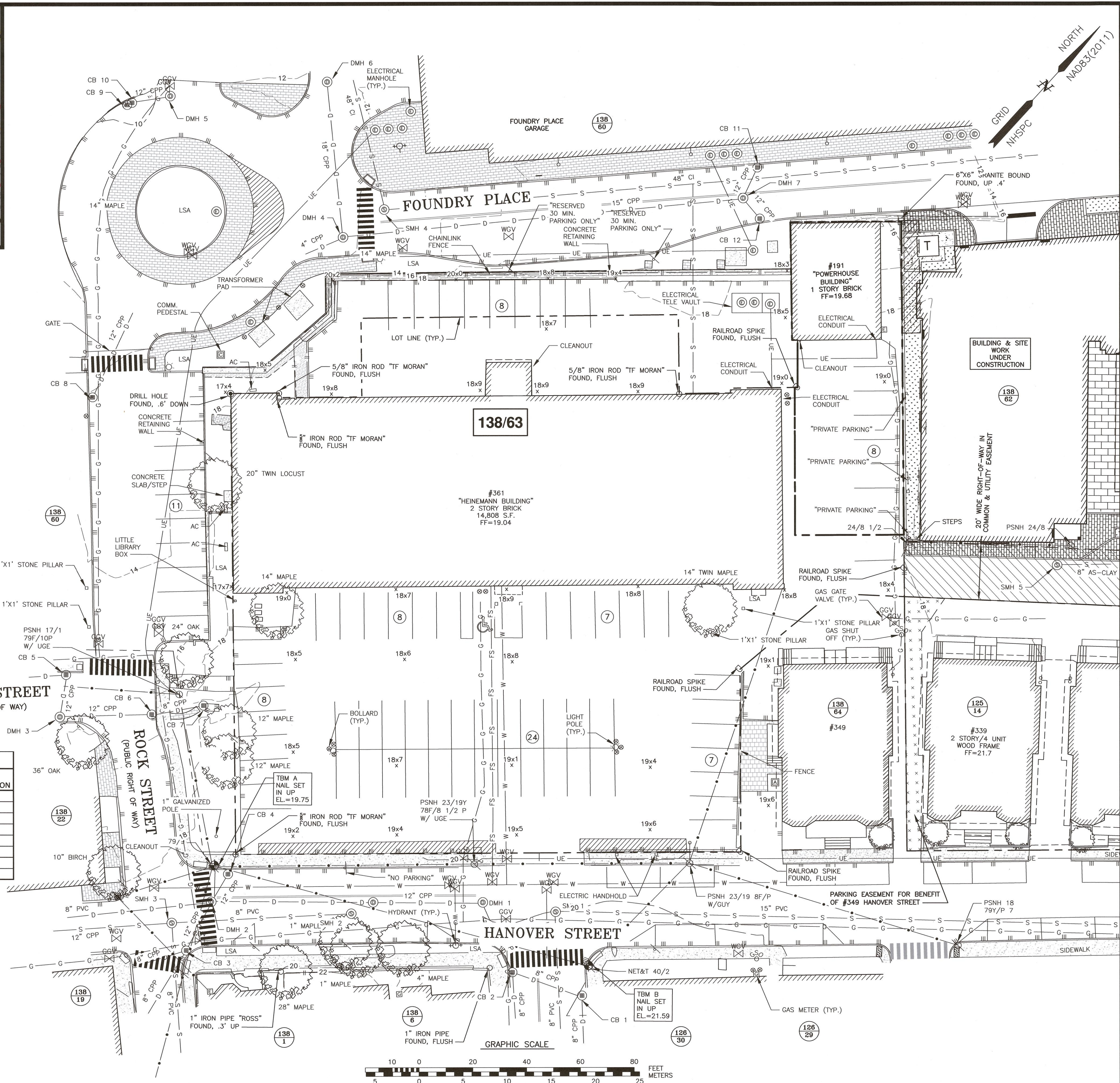




LOCATION MAP SCALE: 1"=1,000'

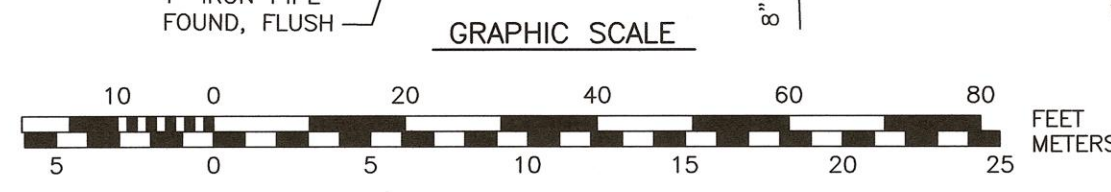
DRAINAGE STRUCTURE TABLE						
STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYP	INVERT IN	INVERT OUT	DIRECTION
CB 1	EX	20.66	8" CPP	17.51	17.46	SW
CB 2	EX	20.35	12" CPP	15.80	15.70	NW
CB 3	EX	19.29	12" CPP	16.50	15.64	NE
CB 4	EX	18.90	8" CPP	16.24	15.64	SW
CB 5	EX	15.00	12" CPP	16.29	10.00	SE
CB 6	EX	15.60	12" CPP	16.29	12.85	SW
CB 7	EX	17.43	8" CPP	13.20	16.28	NE
CB 8	EX	12.15	12" CPP	7.45	16.28	SW
CB 9&10	EX	9.76	12" CPP	5.86	7.45	NW
CB 11	EX	10.07	12" CPP	6.17	5.86	NE
CB 12	EX	10.22	12" CPP	6.92	6.17	SE
DMH 1	EX	19.81	12" CPP	15.56	15.56	SW
DMH 2	EX	19.08	12" CPP	15.03	15.03	E
DMH 3	EX	15.30	12" CPP	15.43	15.43	NW
DMH 4	EX	11.86	12" CPP	10.65	10.65	NE
DMH 5	EX	9.87	4" PVC	5.46	5.46	NW
DMH 6	EX	11.84	15" CPP	5.56	5.56	NE
DMH 7	EX	10.19	4" PVC	9.36	9.36	S
DMH 8	EX	10.19	18" CPP	6.29	6.29	SW
DMH 9	EX	10.19	12" CPP	6.44	6.44	NW
DMH 10	EX	10.19	12" CPP	6.39	6.39	E

SEWER STRUCTURE TABLE						
STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYP	INVERT IN	INVERT OUT	DIRECTION
SMH 1	EX	20.06	15" PVC	14.36	14.36	NE
SMH 2	EX	19.31	8" PVC	14.41	12.91	SE
SMH 3	EX	19.15	8" PVC	11.60	11.45	SW
SMH 4	EX	12.23	8" PVC	13.90	11.45	NE
SMH 5	EX	12.23	48" CI	-0.77	-0.77	SE
SMH 6	EX	12.23	48" CI	-0.77	-0.77	NW
SMH 7	EX	12.23	48" CI	-0.77	-0.77	NE



I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000'

John R. Chagnon 3.14.25
 JOHN R. CHAGNON, LLS DATE



- NOTES:**
- PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 138 AS LOT 63.
 - OWNER OF RECORD:
 361 HANOVER STEAM FACTORY, LLC
 41 INDUSTRIAL DRIVE UNIT 20
 EXETER, N.H. 03833
 6352/2959
 - PARCEL IS NOT IN A FLOOD HAZARD ZONE AS SHOWN ON FIRM PANEL 33015C0259F. JANUARY 29 2021.
 - EXISTING LOT AREA:
 38,528 S.F.
 - PARCEL IS LOCATED IN CHARACTER DISTRICT 5 (CD5), NORTH END INCENTIVE OVERLAY DISTRICT, AND DOWNTOWN OVERLAY DISTRICT.
 - DIMENSIONAL REQUIREMENTS:
 SEE ZONING ORDINANCE
 - THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON PORTSMOUTH ASSESSOR'S MAP 138 AS LOT 63, AS AMENDED.
 - VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.

**SITE REDEVELOPMENT
 361 HANOVER STREET
 PORTSMOUTH, N.H.**

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	03/14/25

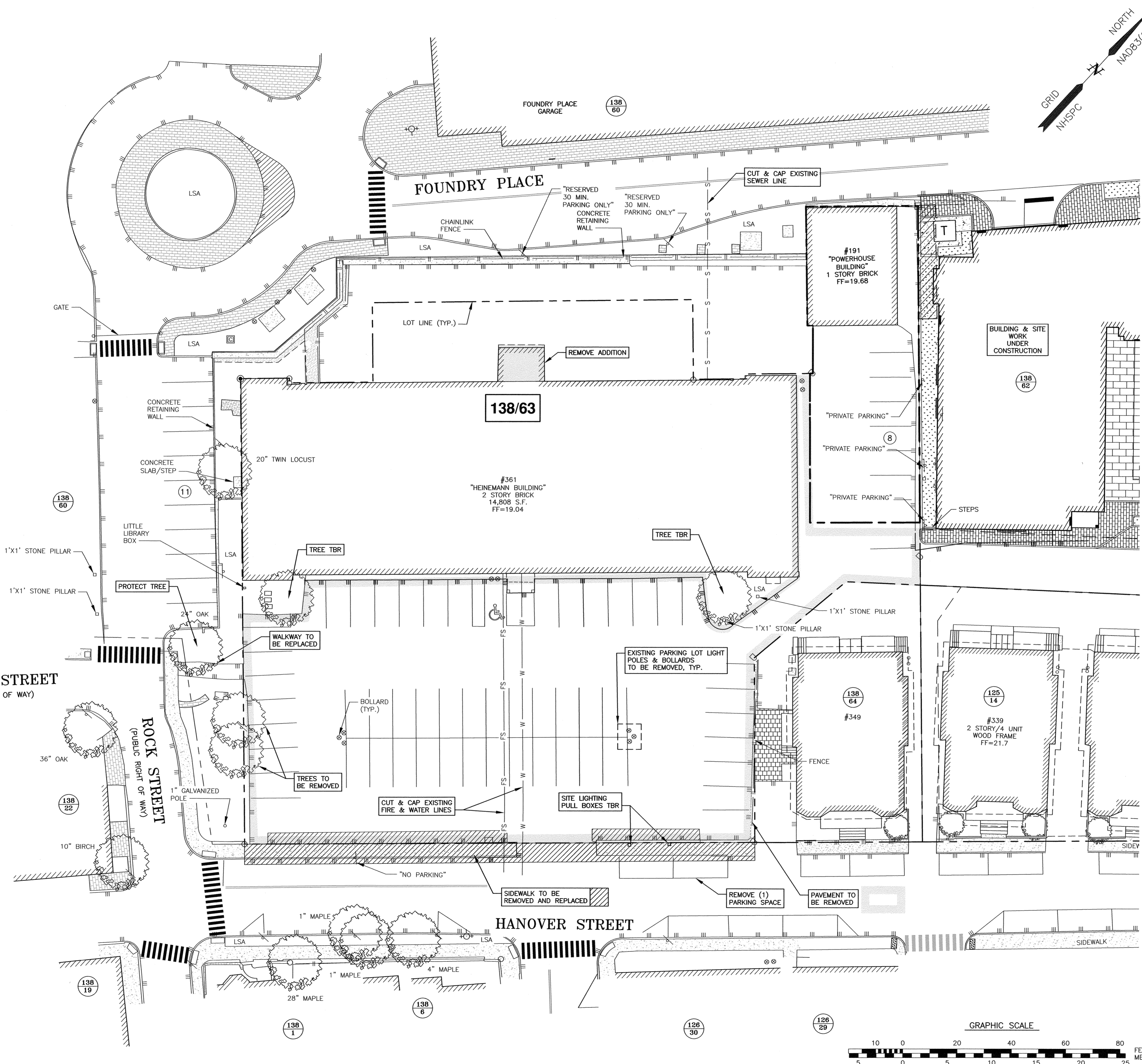


SCALE: 1"=20' JANUARY 2024

EXISTING CONDITIONS PLAN **C1**

DEMOLITION NOTES

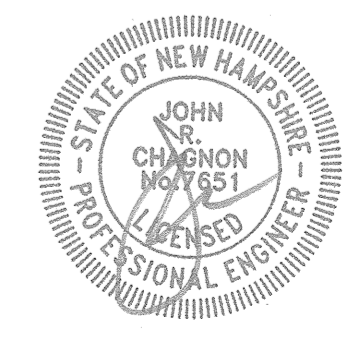
- A) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE DESIGNER. IT IS THE CONTRACTORS' RESPONSIBILITY TO LOCATE UTILITIES AND ANTICIPATE CONFLICTS. CONTRACTOR SHALL REPAIR EXISTING UTILITIES DAMAGED BY THEIR WORK AND RELOCATE EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED PRIOR TO COMMENCING ANY WORK IN THE IMPACTED AREA OF THE PROJECT.
- B) ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTORS UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES. THE CONTRACTOR SHALL COORDINATE REMOVAL, RELOCATION, DISPOSAL, OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
- C) ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION / DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO THE ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- D) THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
- E) SAWCUT AND REMOVE PAVEMENT ONE FOOT OFF PROPOSED EDGE OF PAVEMENT TRENCH IN AREAS WHERE PAVEMENT IS TO BE REMOVED.
- F) IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL THE PERMIT APPROVALS.
- G) THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL CONSTRUCTION PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR ANY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- H) THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE, UTILITIES, VEGETATION, PAVEMENT, AND CONTAMINATED SOIL WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ANY EXISTING DOMESTIC / IRRIGATION SERVICE WELLS IN THE PROJECT AREA IDENTIFIED DURING THE CONSTRUCTION AND NOT CALLED OUT ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER FOR PROPER CAPPING / RE-USE.
- I) PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS WITHIN CONSTRUCTION LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE HIGH FLOW SILT SACK BY ACF ENVIRONMENTAL OR APPROVED EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF WARRANTED OR FABRIC BECOMES CLOGGED. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
- J) THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
- K) ANY CONTAMINATED MATERIAL REMOVED DURING THE COURSE OF THE WORK WILL REQUIRE HANDLING IN ACCORDANCE WITH NHDES REGULATIONS. CONTRACTOR SHALL HAVE A HEALTH AND SAFETY PLAN IN PLACE, AND COMPLY WITH ALL APPLICABLE PERMITS, APPROVALS, AUTHORIZATIONS, AND REGULATIONS.



- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).
 - 4) COORDINATE ACCESS IN STREET/ROW AREAS ADJACENT TO DEMOLITION TO INSURE SAFE PASSAGE. UTILIZE DETOURS IF NEEDED.
 - 5) EXISTING UTILITIES TO BE ABANDONED SHALL BE REMOVED TO THE UTILITY MAIN AND CAPPED PER THE UTILITY COMPANY REQUIREMENT.

**SITE REDEVELOPMENT
361 HANOVER STREET
PORTSMOUTH, N.H.**

NO.	DESCRIPTION	DATE
1	LIMIT OF PAVEMENT DEMO	03/26/25
0	ISSUED FOR COMMENT	03/14/25



SCALE: 1"=20' JANUARY 2024

**DEMOLITION
PLAN**

C2

- NOTES:**
- PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 138 AS LOT 63.
 - APPLICANT:
 361 HANOVER STEAM FACTORY, LLC
 41 INDUSTRIAL DRIVE UNIT 20
 EXETER, N.H. 03833
 - PARCEL IS NOT IN A FLOOD HAZARD ZONE AS SHOWN ON FIRM PLAN 33015C0259F, JANUARY 29 2021.

- PROPOSED LOT AREAS:**
- LOT 138/63
 38,528 S.F. ±
 0.8845 AC
 - LOT 138/63-1
 4,717 S.F.
 0.1083 AC

- DIMENSIONAL REQUIREMENTS:**
 *SEE PORTSMOUTH ZONING ORDINANCE AND TABLE.
- MINIMUM LOT AREA: NR
 SETBACKS:
 FRONT: 5 FEET (MAXIMUM)
 SIDE: NR
 REAR: 5 FEET
 MAXIMUM BUILDING COVERAGE: 95%
 MINIMUM OPEN SPACE: 5%

- THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED SITE DEVELOPMENT ON ASSESSOR'S MAP 138 LOT 63.
- VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.
- PROPOSED USE:
 BUILDING A: 26 UNITS
 BUILDING B: 2 UNITS
 BUILDING B1: 2 UNITS
 BUILDING C: 2 UNITS
 BUILDING D: 8 UNITS
 TOTAL: 40 UNITS
- PARKING SPACES PROVIDED:
 BUILDING A: 42 SPACES
 BUILDING B: 4 SPACES
 BUILDING B1: 4 SPACES
 BUILDING C: 4 SPACES
 BUILDING D: 13 SPACES
 GUEST: 3 SPACES
 TOTAL: 72 SPACES

**SITE REDEVELOPMENT
 361 HANOVER STREET
 PORTSMOUTH, N.H.**

NO.	DESCRIPTION	DATE
1	IMPERVIOUS CALCS., GUEST PARKING	03/26/25
0	ISSUED FOR COMMENT	03/14/25

REVISIONS

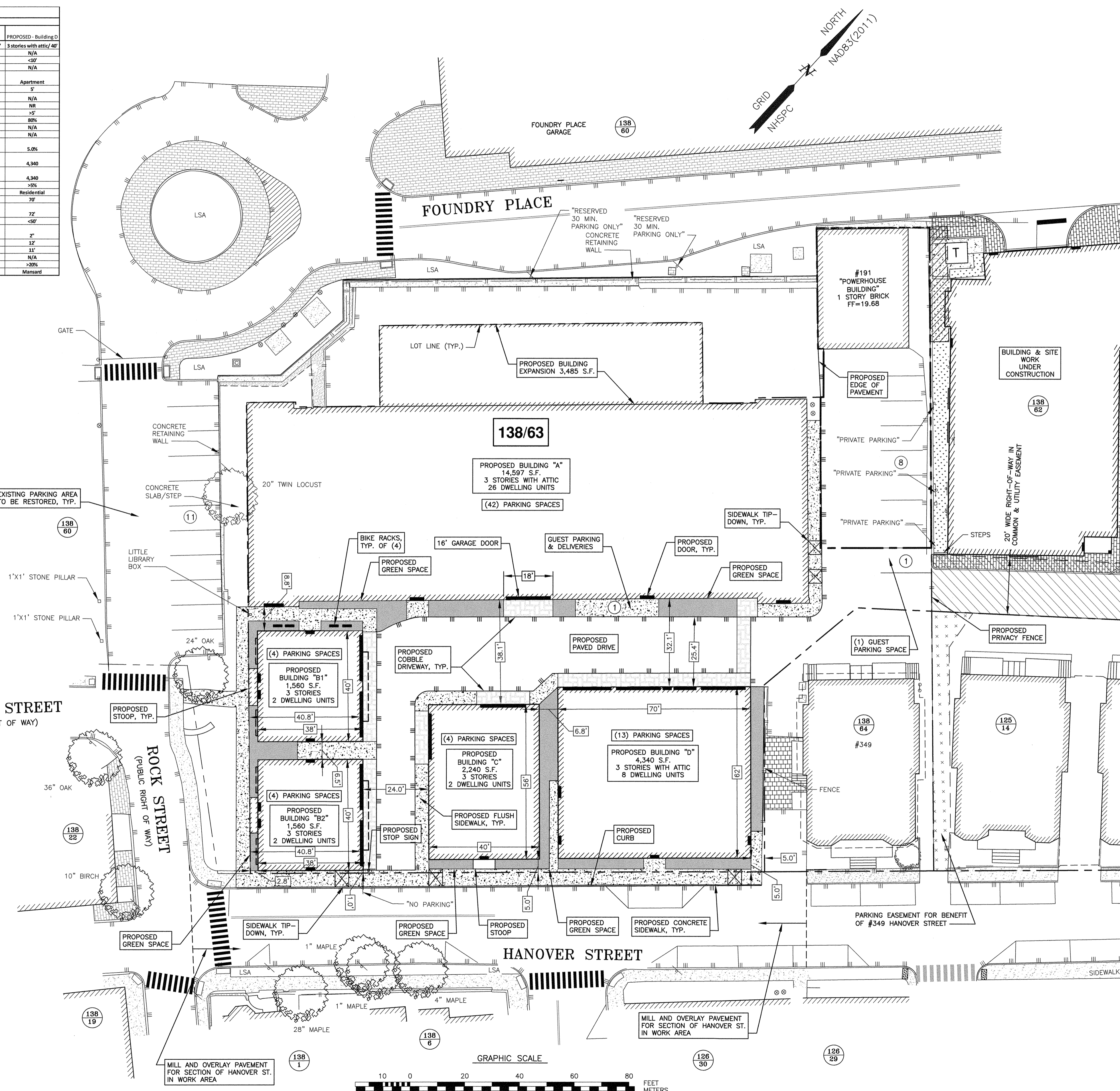
SCALE: 1"=20' JANUARY 2024

SITE PLAN **C3**

ZONING DEVELOPMENT STANDARD						
CD5: CHARACTER DISTRICT 5, DDD: DOWNTOWN OVERLAY DISTRICT	REQUIRED	EXISTING	PROPOSED - Building A	PROPOSED - Building B1/B2	PROPOSED - Building C	PROPOSED - Building D
Height	2-3 stories 40'	2 stories/ 18' +/-	3 stories with attic/ 40'	3 stories/ 36'	3 stories/ 36'	3 stories with attic/ 40'
Permitted uses	may exceed bldg height by 2'	N/A	N/A	N/A	N/A	N/A
Roof appearance	may exceed bldg height by 15'	<10'	<10'	No	No	<10'
Roof Types	N/A	N/A	N/A	N/A	N/A	N/A
Building Types	commercial, live-work, mixed use, flex space & community.	Commercial	Apartment	Duplex	Duplex	Apartment
Front (principle) max S/B	5'	9'	9'	5'	5'	5'
Front (secondary) max S/B	5'	0'	0'	2'	N/A	N/A
Side S/B	NR	NR	NR	NR	NR	NR
Rear yard S/B	5'	N/A	N/A	>5'	>5'	>5'
Front lotline buildout	80% min	100%	100%	80%	80%	80%
Lot area (sf)	NR	N/A	N/A	N/A	N/A	N/A
LOT area per dwelling	NR	N/A	N/A	N/A	N/A	N/A
Building coverage, maximum	95%	38%	47%	8%	6%	5.0%
Maximum building footprint	20,000	14,808	18,082	3,120	2,240	4,340
Ground floor area per use, max	15,000	14,808	<15,000	3,120	2,240	4,340
Open space, minimum	5%	<5%	>5%	>5%	>5%	>5%
Permitted uses	Commercial	Residential	Residential	Residential	Residential	Residential
Block length, max (ft)	225	205	205	40'	40'	70'
Block length, min (ft)	100	205	65'	82'	40'	72'
Entrance spacing, max (ft)	50	>50'	50	20'	20'	<50'
Floor height above sidewalk, max	36"	0'	0'	15"	15"	2"
Ground story height, min	12'	10'	12'	10.5'	12'	12'
Second story height, min	10'	10'	10.5'	11'	11'	11'
Glazing, storefront, min	70%	N/A	N/A	N/A	N/A	N/A
Glazing, other	20%-50%	>20%	>20%	>20%	>20%	>20%
Roof types	flat, gable, hip, gambrel, mansard	Flat	Mansard	Hip	Hip	Mansard

IMPERVIOUS SURFACE AREAS (TO PROPERTY LINE)		
STRUCTURE	PRE-CONSTRUCTION IMPERVIOUS (S.F.)	POST-CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURES	14615	27782
PAVEMENT	22,623	5,591
CONCRETE	656	1,916
WALKWAYS	117	1,211
STEPS/STOOPS	0	109
CURBING	31	0
TOTAL	38042	36609
LOT SIZE	38,528	38,528
% LOT COVERAGE	98.7%	95.0%

PROPOSED OPEN SPACE ON PROPOSED LOT 1: 356 S.F./7.5%

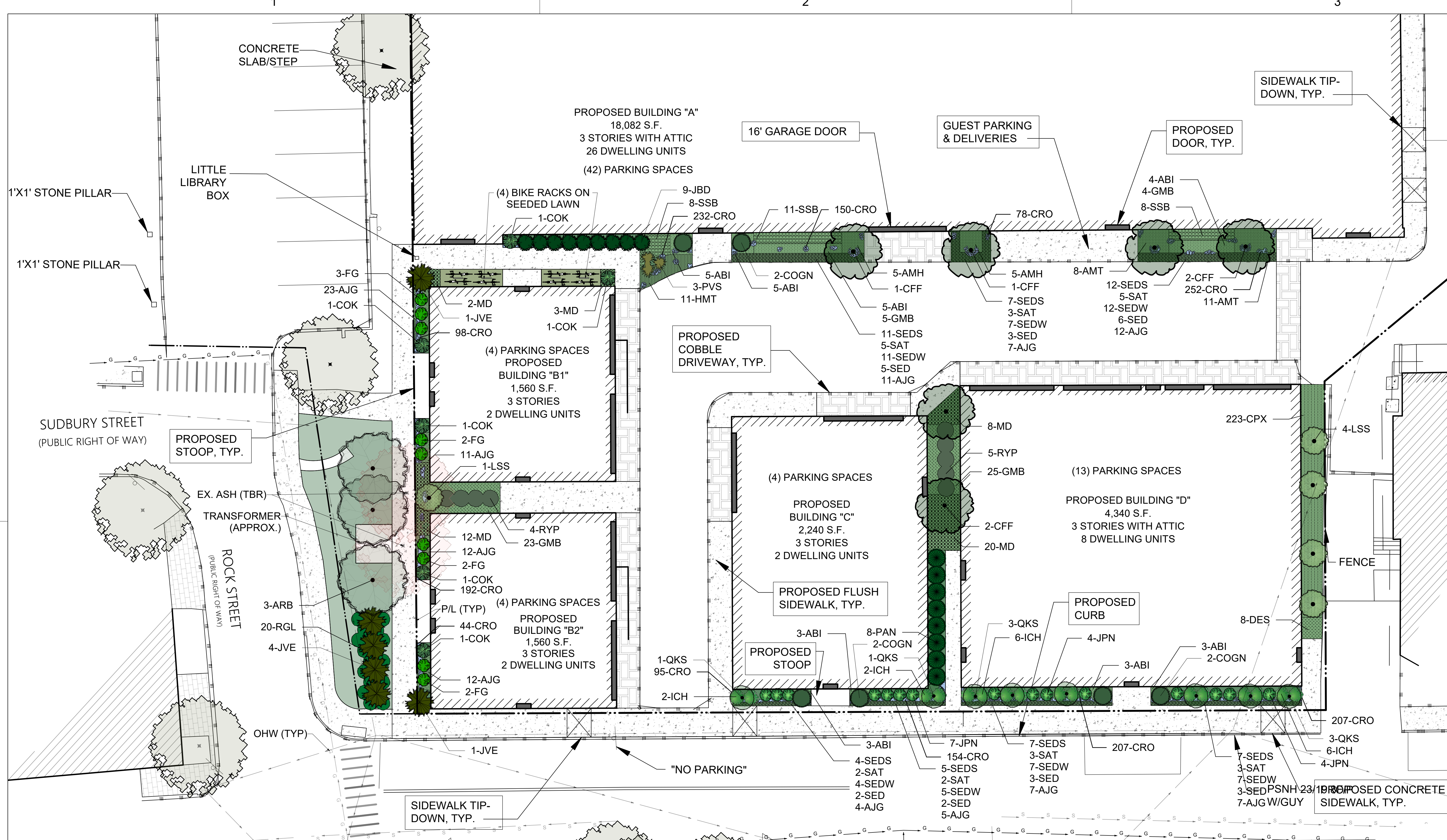


THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.

ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

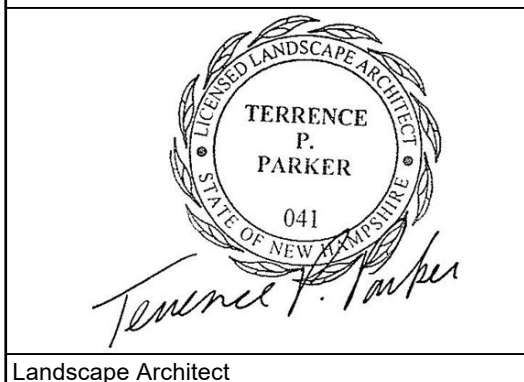


ID	Qty	Botanical Name	Common Name	Scheduled Size
ARB	3	Acer rubrum 'Bowhall'	Bowhall Red Maple	3 1/2" Cal.
CFF	6	Carpinus betulus 'Frans Fontaine'	Upright European Hornbeam	1 1/2" - 2" Cal.
COGN	6	Chamaecyparis obtusa 'Nana Gracilis'	Hinoki Cypress	2 1/2' Ht.
COK	6	Chamaecyparis obtusa 'Kosteri'	Kosteri Hinoki Cypress	3-4'
FG	9	Fothergilla gardenii	Dwarf Forthergilla	5 Gal.
ICH	16	Ilex crenata 'Hetzli'	Heltz Japanese Holly	5 Gal.
JBD	9	Juniperus communis 'Blueberry Delight'	Blueberry Delight Juniper	2 Gal.
JPN	15	Juniperus procumbens 'Nana'	Dwarf Japanese Garden Juniper	3 Gal.
JVE	6	Juniperus virginiana 'Emerald Sentinel'	Emerald Sentinel Columnar Juniper	8-10'
LSS	5	Liquidambar sty. 'Slender Silhouette'	Slender Silhouette Liquidambar	1 1/2" - 2" Cal.
MD	45	Microbiota decussata	Siberian Carpet Cypress	3 Gal.
PAN	8	Picea abies 'Nidiformis'	Bird's Nest Spruce	3-4'
QKS	8	Quercus x Kindred Spirit®	Kindred Spirit Hybrid Oak	1 1/2" - 2" Cal.
RGL	20	Rhus aromatica 'Gro Low'	Gro Low Sumac	2 Gal.
RYP	9	Rhododendron 'Yaku Princess'	Yaku Princess Rhododendron	2-3'

ID	Qty	Botanical Name	Common Name	Scheduled Size
ABI	31	Amsonia 'Blue Ice'	Blue Star Flower	2 QT
AJG	111	Ajuga reptans 'Gaiety'	Gaiety Bugleweed	2 QT
AMH	10	Amsonia hubrichtii	Arkansas Amsonia	1 Gal.
AMT	19	Amsonia tabernaemontana	Amsonia	1 Gal.
CPX	223	Carex pensylvanica	Pennsylvania Sedge	1 Gal.
CRO	1709	Crocus hybrids	Crocus	Bulb
DES	8	Deschampsia cespitosa	Tufted Hair Grass	1 Gal.
GMB	57	Geranium macrorrhizum 'Bevan's Variety'	Bevan's Variety Geranium	1 Gal.
HMT	11	Hemerocallis 'Mary Todd'	Mary Todd Daylily	2 QT
PVS	3	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	2 Gal.
SAT	23	Sedum 'Angelina's Teacup'	Angelina's Teacup Stonecrop	2 QT
SED	24	Sedum Sunsparkler 'Dazzleberry'	Dazzleberry Stonecrop	2 QT
SEDS	53	Sedum sexangulare	Stonecrop	2 QT
SEDW	53	Sedum 'Weihenstephaner Gold'	Weihenstephaner Gold Stonecrop	1 Gal.
SSB	27	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	1 Gal.



361 HANOVER
361 HANOVER STREET
PORTSMOUTH, NH



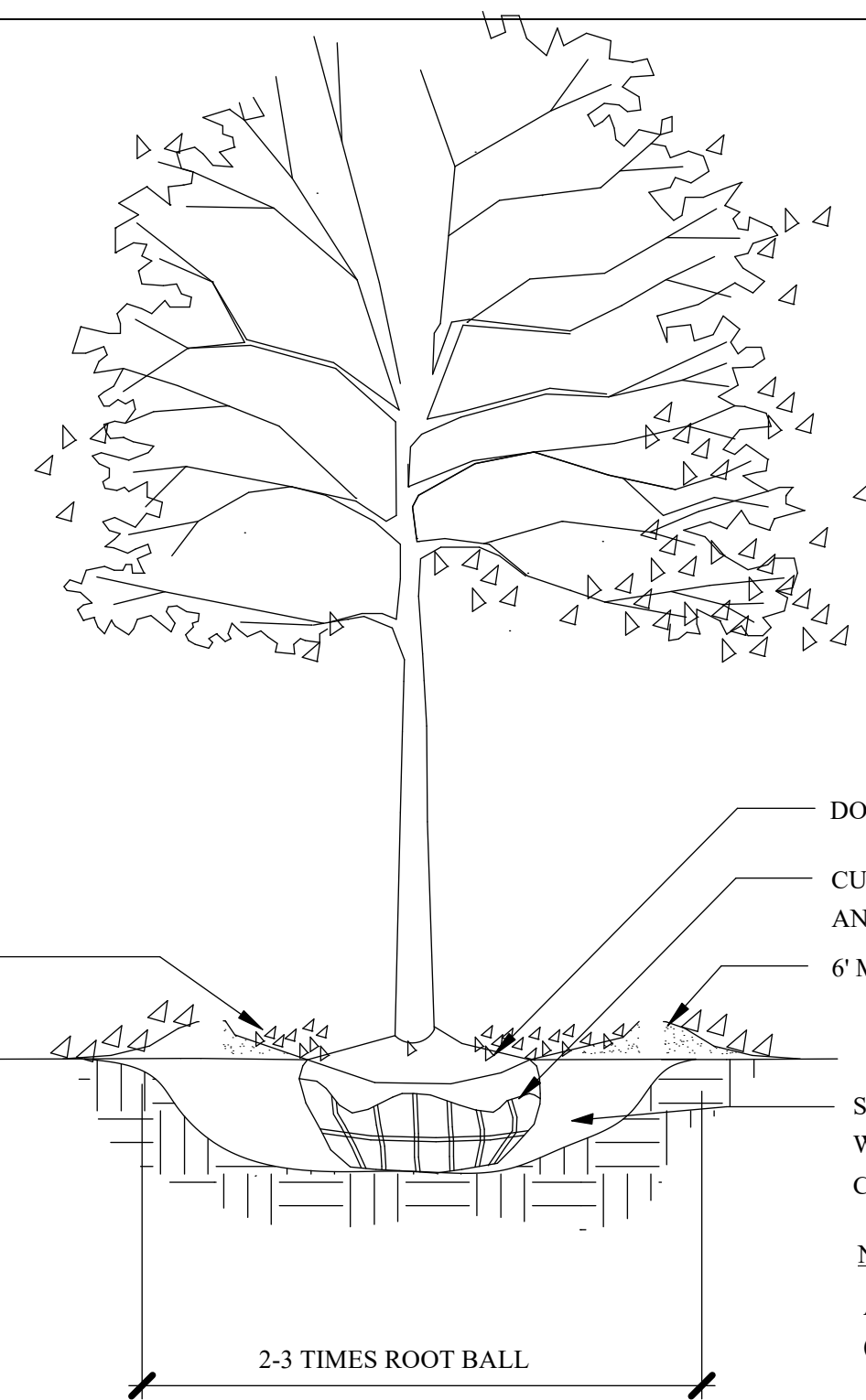
Landscape Architect
Scale: 1:120

REV	DATE	DESCRIPTION

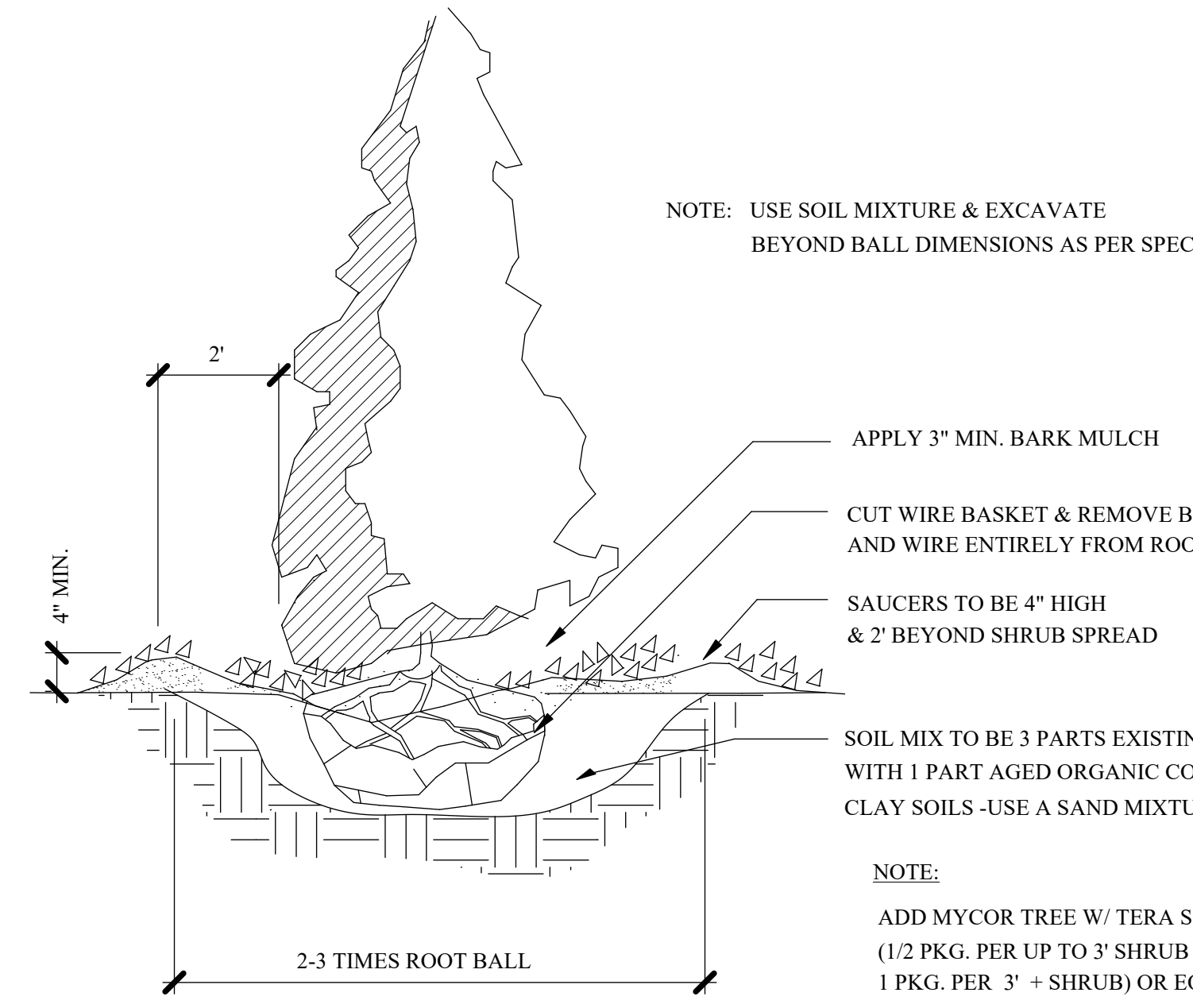
NO. DATE ISSUE NOTE
Project Manager: 3/21/2025
Date: 3/21/2025
Project ID: 361 HANOVER ST.

Sheet Title: LANDSCAPE DETAILS
Sheet No.: L-1

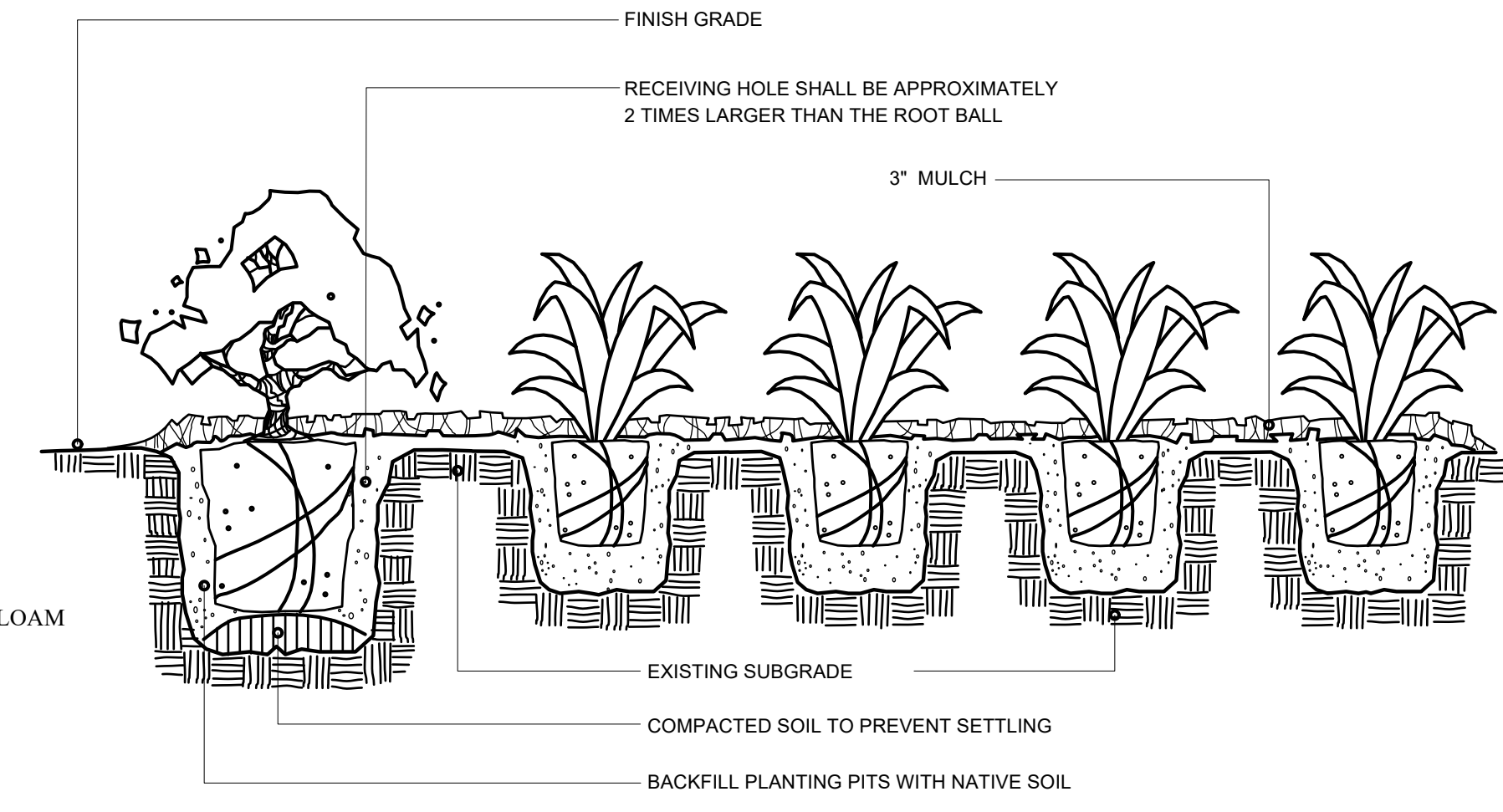
PLEASE NOTE: SHEET SIZE IS SCALED FOR ASME D. DO NOT REDUCE OR ENLARGE.



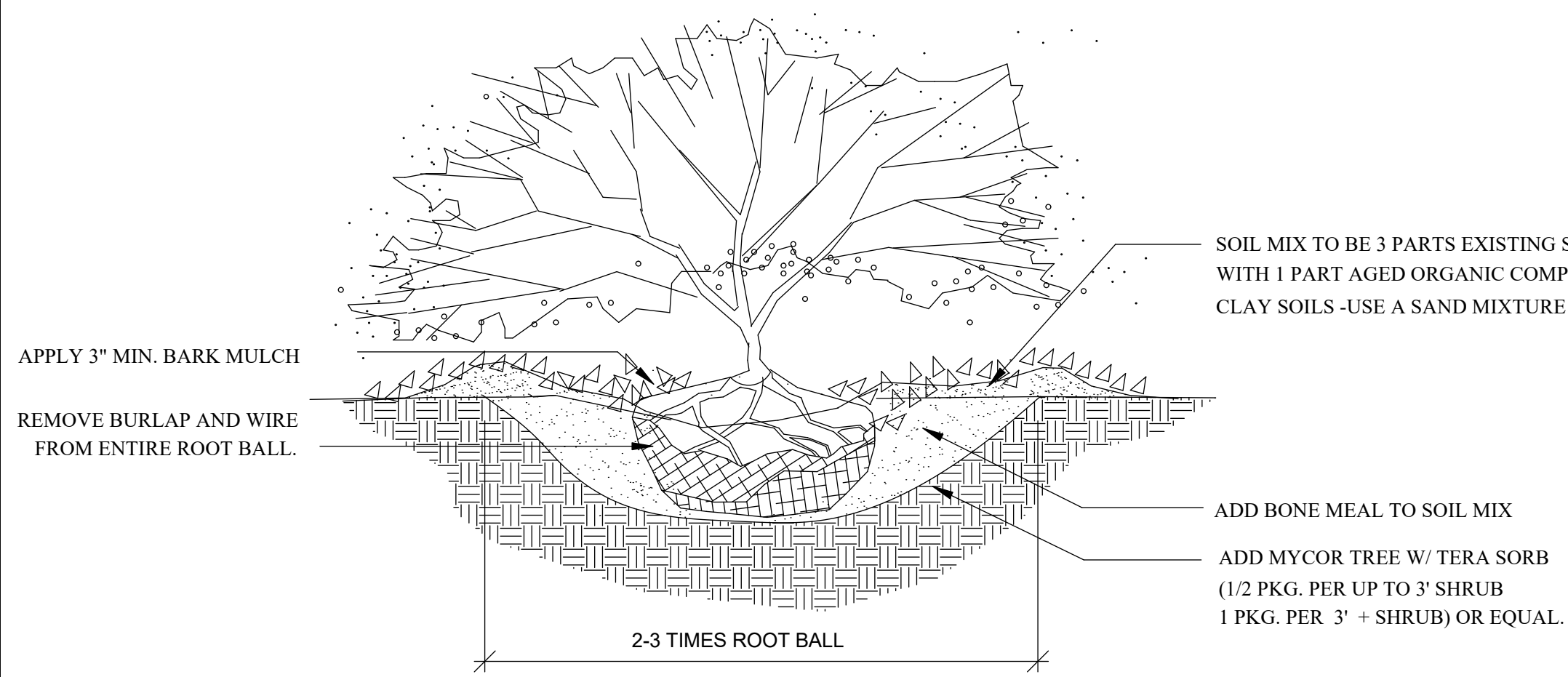
1
L-2
TREE PLANTING - 2"+ CAL.
SCALE: NTS



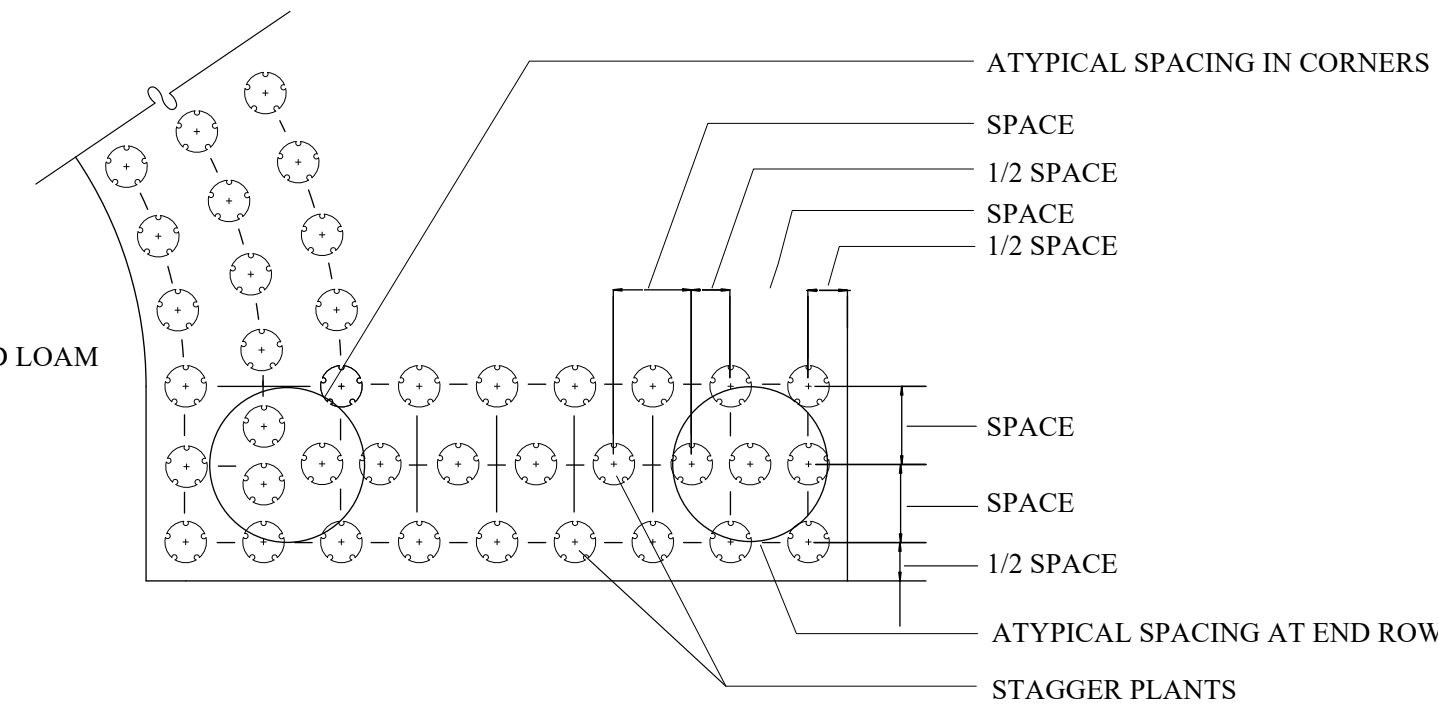
2
L-2
PYRAMIDAL EVERGREEN TREE PLANTING
SCALE: NTS



3
L-2
SHRUB/GROUND COVER PLANTING DETAIL
SCALE: NTS



4
L-2
B&B SHRUB PLANTING
SCALE: NTS



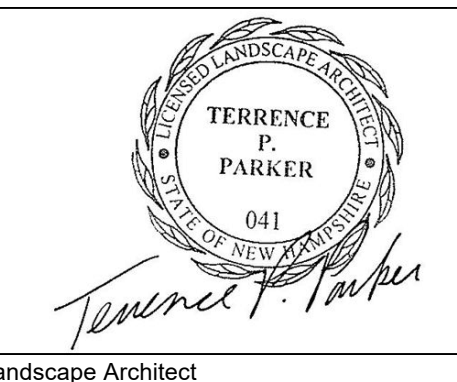
5
L-2
GROUND COVER SPACING DETAIL
SCALE: NTS

LANDSCAPE NOTES:

1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS.
3. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
4. ALL PLANT SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT.
5. ALL PLANT MATERIALS SHALL BE EXACTLY AS SPECIFIED BY THE LANDSCAPE ARCHITECT. IF PLANT SPECIES CULTIVARS ARE FOUND TO VARY FROM THAT SPECIFIED AT ANY TIME DURING THE GUARANTEE PERIOD, THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO HAVE THE CONTRACTOR REPLACE THAT PLANT MATERIAL. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT DELIVERED TO THE SITE FOR AESTHETIC REASONS BEFORE PLANTING. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE QUALITY FOR ALL THE PLANTS.
6. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ON-GOING TO CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
7. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT-BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
8. NO PLANT SHALL BE PUT IN THE GROUND BEFORE GRADING HAS BEEN FINISHED AND APPROVED BY THE LANDSCAPE ARCHITECT.
9. ALL PLANTS SHALL BE INSTALLED AND DETAILED PER PROJECT SPECIFICATIONS.
10. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN IF NECESSARY, DURING THE FIRST GROWING SEASON.
11. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR FOR NOT LESS THAN ONE FULL YEAR FROM THE TIME OF PROVISIONAL ACCEPTANCE. DURING THIS TIME, THE OWNER SHALL MAINTAIN ALL PLANT MATERIALS IN THE ABOVE MANNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE PLANTS TO ENSURE PROPER CARE. IF THE CONTRACTOR IS DISSATISFIED WITH THE CARE GIVEN, HE SHALL IMMEDIATELY, AND IN SUFFICIENT TIME TO PERMIT THE CONDITION TO BE RECTIFIED, NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OR OTHERWISE FORFEIT HIS CLAIM. LANDSCAPE CONTRACTOR SHALL PRUNE PLANTINGS OF DEAD LIMBS OR TWIGS DURING THE FIRST YEAR OF GROWTH.
12. FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT WILL BE MADE UPON THE CONTRACTOR'S REQUEST AFTER ALL CORRECTIVE WORK HAS BEEN COMPLETED.
13. LANDSCAPE CONTRACTOR SHOULD REPLACE DEAD PLANTINGS IMMEDIATELY UPON OWNER DIRECTION WITHIN THE WARRANTY PERIOD AND AGAIN AT THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAVE DIED, THAT HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESSIVE PRUNING OR INADEQUATE OR IMPROPER CARE, OR THAT ARE, IN THE OPINION OF THE LANDSCAPE ARCHITECT, IN UNHEALTHY OR UNSIGHTLY CONDITION.
14. ALL LANDSCAPE AREAS TO BE GRASS COMMON TO REGION EXCEPT FOR INTERIOR LANDSCAPED ISLANDS OR WHERE OTHER PLANT MATERIAL IS CALLED FOR.
15. ALL TREES AND SHRUBS TO BE PLANTED IN MULCH BEDS WITH DEFINED AND CUT EDGES TO SEPARATE TURF GRASS AREAS.
16. FOR ANY LANDSCAPE AREA SO DESIGNATED TO REMAIN, WHETHER ON OR OFF-SITE, REMOVE WEEDS, ROCKS, CONSTRUCTION ITEMS, ETC., THEN APPLY GRASS SEED OR PINE BARK MULCH AS DEPICTED ON PLANS.
17. LANDSCAPE CONTRACTOR SHALL FEED AND PRUNE EX. TREES, ON OR JUST OFF SITE, THAT HAVE EXPERIENCED ROOT BASE INTRUSION OR DAMAGE DURING CONSTRUCTION IMMEDIATELY AND FOR THE DURATION OF THE WARRANTY PERIOD AT THE DIRECTION OF THE LANDSCAPE ARCHITECT.
18. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY SNOW FENCING AT THE EDGE OF THE EX. TREE CANOPY THE CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS WITHIN THE LANDSCAPED AREAS. ANY DAMAGE TO EXISTING TREES, SHRUBS OR LAWN SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
19. ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH.
20. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.



361 HANOVER
361 HANOVER STREET
PORTSMOUTH, NH



Landscape Architect

Scale

NTS

REV. DATE DESCRIPTION

NO. DATE ISSUE NOTE

Project Manager

Date

3/13/2025

Project ID

361 HANOVER ST.

Sheet Title

LANDSCAPE DETAILS

Sheet No.

L-2

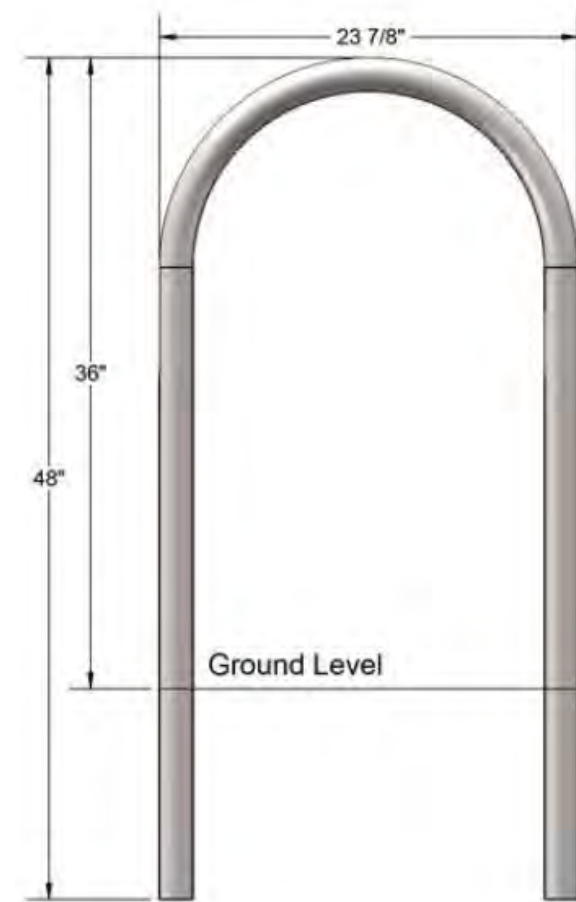


U Bike Rack – Inground Mount

Model #: 622br205-1



Side View



Front View

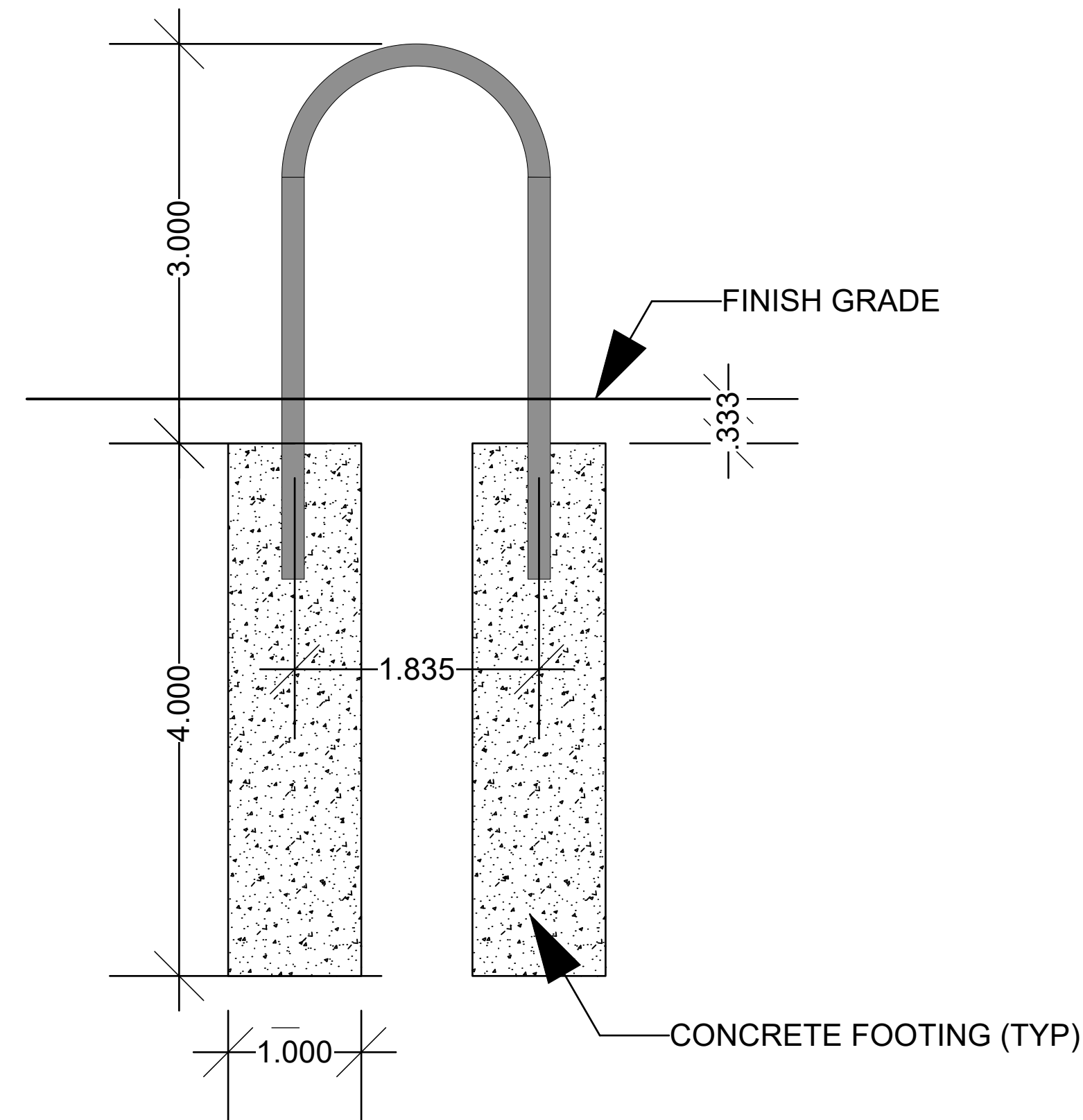


U Bike Rack – Inground Mount

Model #: 622br205

Safety Warnings & Equipment Inspection:

- ❖ Owners and installers please note these safety warnings and make use of this checklist on a regular basis.
- ❖ Follow installation instructions when erecting equipment.
- ❖ Ground surfaces around equipment should be restored as needed. Concrete footings should never be exposed. Surface depth should comply with ASTM and CPSC specifications.
- ❖ Check for and repair damage caused by wear or vandalism, a major factor in injury causing situation.
- ❖ All protruding bolts should be covered or cut off and finished smooth. Sharp edges on pipes should be capped or removed. Check for bent, broken, or severely worn pipe, and replace.
- ❖ All equipment should be free of rust and repainted whenever necessary to deter rusting.
- ❖ We provide our customers with layout sheets and installation instructions. Please keep on file the specifications sheet that contains the listing of every part used.
- ❖ Never add components not intended for use with this product
- ❖ Regular maintenance is necessary in this and all park and recreational equipment to ensure the safety of the user.
- ❖ Note: Proper maintenance of equipment requires regular tightening of all bolts, nuts, and setscrews.
- ❖ Note: Regular checking of all parts, castings, etc. should be made. If a part is broken or worn, it should be replaced immediately.
- ❖ Check to be sure all fittings are tight, and that bars and pipes do not move.
- ❖ Replace all worn S-hooks. S-hooks must be completely closed. Failure to close S-hooks can result in serious injury to the user. NEVER reuse S-hooks.
- ❖ Test for free movement of swing hanger and other moving attached parts.
- ❖ Check for worn chains and replace them
- ❖ A soft resilient surface should be placed under all swings extending at least twice the height of the top rail both front and back.

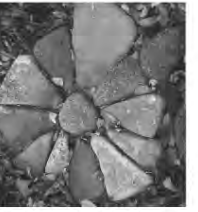


PARK WAREHOUSE U BIKE RACK OR EQUAL

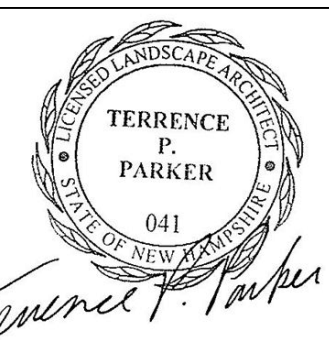
BIKE RACK DETAIL
SCALE: 1"=1'-0"

1
L-3

terra firma
landscape architecture
165 a court street - portsmouth, nh 03801
phone: 603.430.8988 | terrence@terrafirmalandscape.com



361 HANOVER
361 HANOVER STREET
PORTSMOUTH, NH



Landscape Architect

Scale

1"=1'-0"

REV. DATE DESCRIPTION

NO. DATE ISSUE NOTE

Project Manager

Drawn By

Date

Reviewed By

Project ID

361 HANOVER ST.

Sheet Title

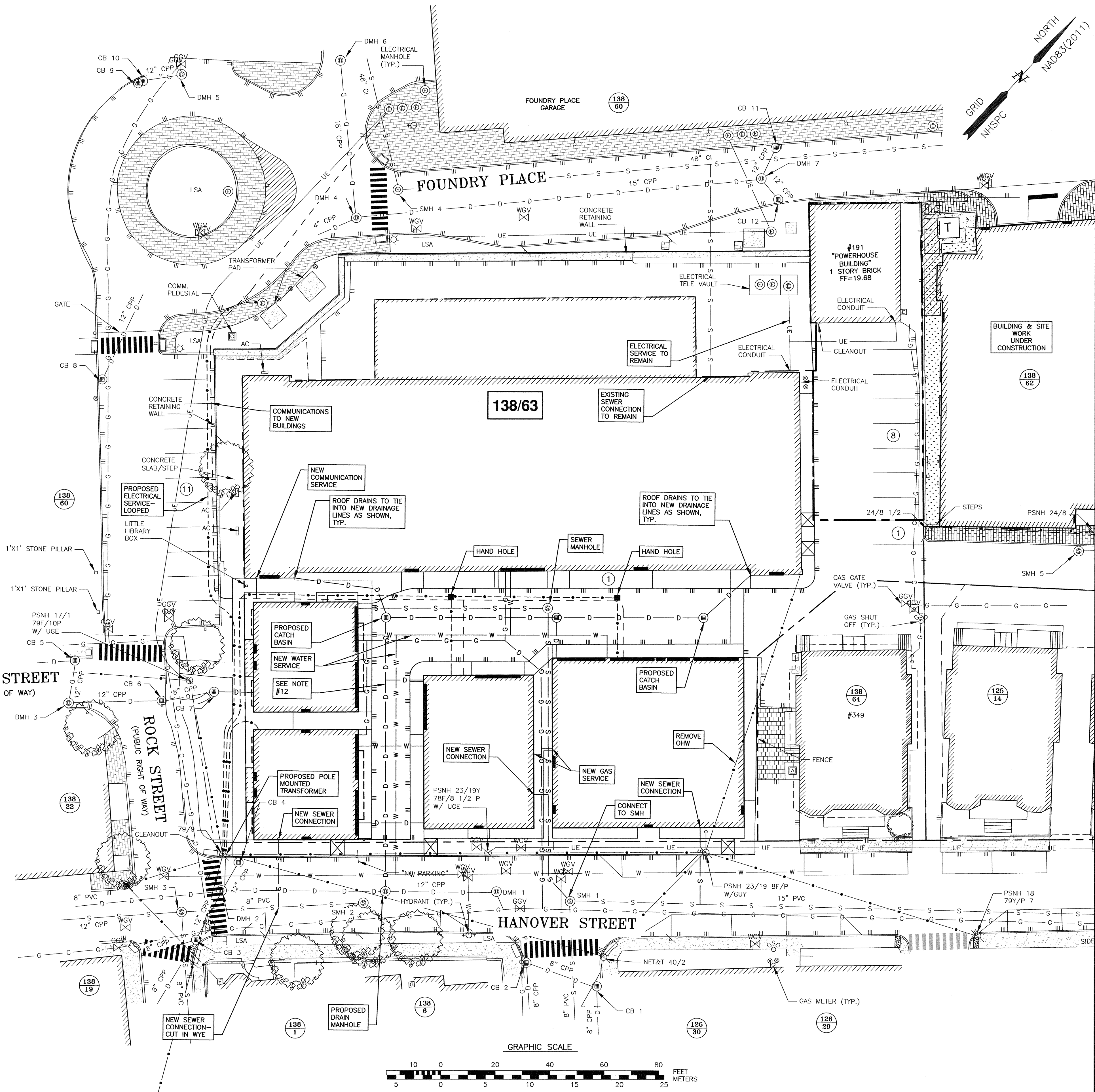
LANDSCAPE DETAILS

Sheet No.

L-3

UTILITY NOTES:

- 1) SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
- 2) COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY.
- 3) CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
- 4) ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, POLYWRAPPED, CEMENT LINED DUCTILE IRON PIPE.
- 5) ALL WATERMAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION AND BEFORE ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE WITH THE CITY OF PORTSMOUTH.
- 6) ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
- 7) ALL WORK WITHIN CITY R.O.W. SHALL BE COORDINATED WITH CITY OF PORTSMOUTH.
- 8) CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ADJACENT PROPERTIES THROUGHOUT CONSTRUCTION.
- 9) ANY CONNECTION TO EXISTING WATERMAIN SHALL BE CONSTRUCTED BY THE CITY OF PORTSMOUTH.
- 10) EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
- 11) ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
- 12) THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH BUILDING DRAWINGS AND UTILITY COMPANIES.
- 13) ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
- 14) ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
- 15) THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATED TO THE OWNER PRIOR TO THE COMPLETION OF PROJECT.
- 16) THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED IN THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
- 17) CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
- 18) A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS WATER ABOVE SEWER.
- 19) SAWCUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
- 20) GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
- 21) COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
- 22) ALL SEWER PIPES WITH LESS THAN 6' COVER SHALL BE INSULATED.



HALEYWARD
 ENGINEERING | ENVIRONMENTAL | SURVEYING
 200 Griffin Rd. Unit 14
 Portsmouth, New Hampshire 03801
 603.430.9282
 WWW.HALEYWARD.COM

- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 5, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION." (NHDES DECEMBER 2008).
 - 4) INSTALL CATCH BASIN INLET PROTECTION ON ALL EXISTING AND PROPOSED CATCH BASINS (IN THE PROJECT VICINITY) UNTIL CONSTRUCTION IS COMPLETED AND THE SITE IS STABILIZED.
 - 5) ALL WATER MAIN AND SANITARY SEWER WORK SHALL MEET THE STANDARDS OF THE NEW HAMPSHIRE STATE PLUMBING CODE AND CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS.
 - 6) UTILITY AS-BUILTS SHALL BE SUBMITTED TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS UPON COMPLETION OF THE PROJECT.
 - 7) EVERSOURCE WORK ORDER #XXXXXX
 - 8) PROPOSED SEWER FLOW:
 40 UNITS X 170 GPD/UNITS = 6,800 GPD
 TOTAL FLOW: 6,800 GPD
 - 9) THE APPLICANT SHALL HAVE A COMMUNICATIONS SITE SURVEY CONDUCTED BY A MOTOROLA COMMUNICATIONS CARRIER APPROVED BY THE PORTSMOUTH'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE PORTSMOUTH POLICE AND FIRE RADIO SYSTEMS CONFIGURATION. IF THE SITE SURVEY INDICATES THAT IT IS NECESSARY TO INSTALL A SIGNAL REPEATER EITHER ON OR NEAR THE PROPOSED PROJECT, THOSE COSTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE PROPERTY OWNER WILL BE REQUIRED TO MAINTAIN ANY INSTALLED EQUIPMENT. THE PROPERTY OWNER SHALL BE RESPONSIBLE TO PAY FOR THE SITE SURVEY WHETHER OR NOT THE SURVEY INDICATES THAT EQUIPMENT IS NECESSARY. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR PORTSMOUTH. THE SURVEY SHALL BE COMPLETED AND ANY REQUIRED EQUIPMENT INSTALLED, TESTED, AND ACCEPTED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
 - 10) FINAL CONDUIT LOCATION SUBJECT TO CONFIRMATION FROM UTILITY PROVIDERS.
 - 11) EXISTING UTILITIES TO BE ABANDONED SHALL BE REMOVED TO THE UTILITY MAIN AND CAPPED PER THE UTILITY COMPANY REQUIREMENT.
 - 12) ROOF LEADERS FOR BUILDING B, C, & D WILL CONNECT TO THIS DRAIN LINE.

**SITE REDEVELOPMENT
 361 HANOVER STREET
 PORTSMOUTH, N.H.**

1	TRANSFORMER	03/26/25
0	ISSUED FOR COMMENT	03/14/25
NO.	DESCRIPTION	DATE

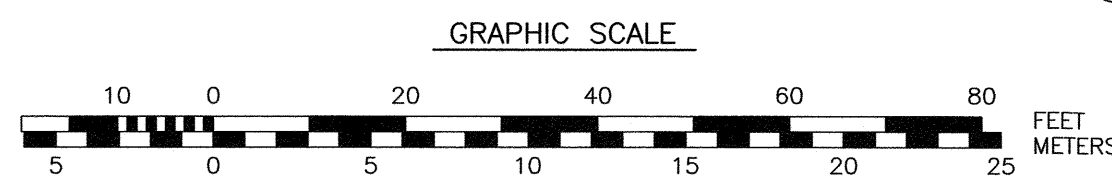
STATE OF NEW HAMPSHIRE
 JOHN CHAGNON
 No. 7651
 LICENSED PROFESSIONAL ENGINEER

SCALE: 1"=20' JANUARY 2024

UTILITY PLAN **C4**

SEWER STRUCTURE TABLE

STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYP	INVERT IN	INVERT OUT	DIRECTION
SMH 1	EX	20.06	15" PVC		14.36	NE
			8" PVC	14.41		SE
SMH 2	EX	19.31	8" PVC		12.91	SW
SMH 3	EX	19.15	8" PVC		11.45	SW
			8" PVC	11.60		NE
			8" PVC	13.90		SE
SMH 4	EX	12.23	48" CI		-0.77	NW
			48" CI		-0.77	NE

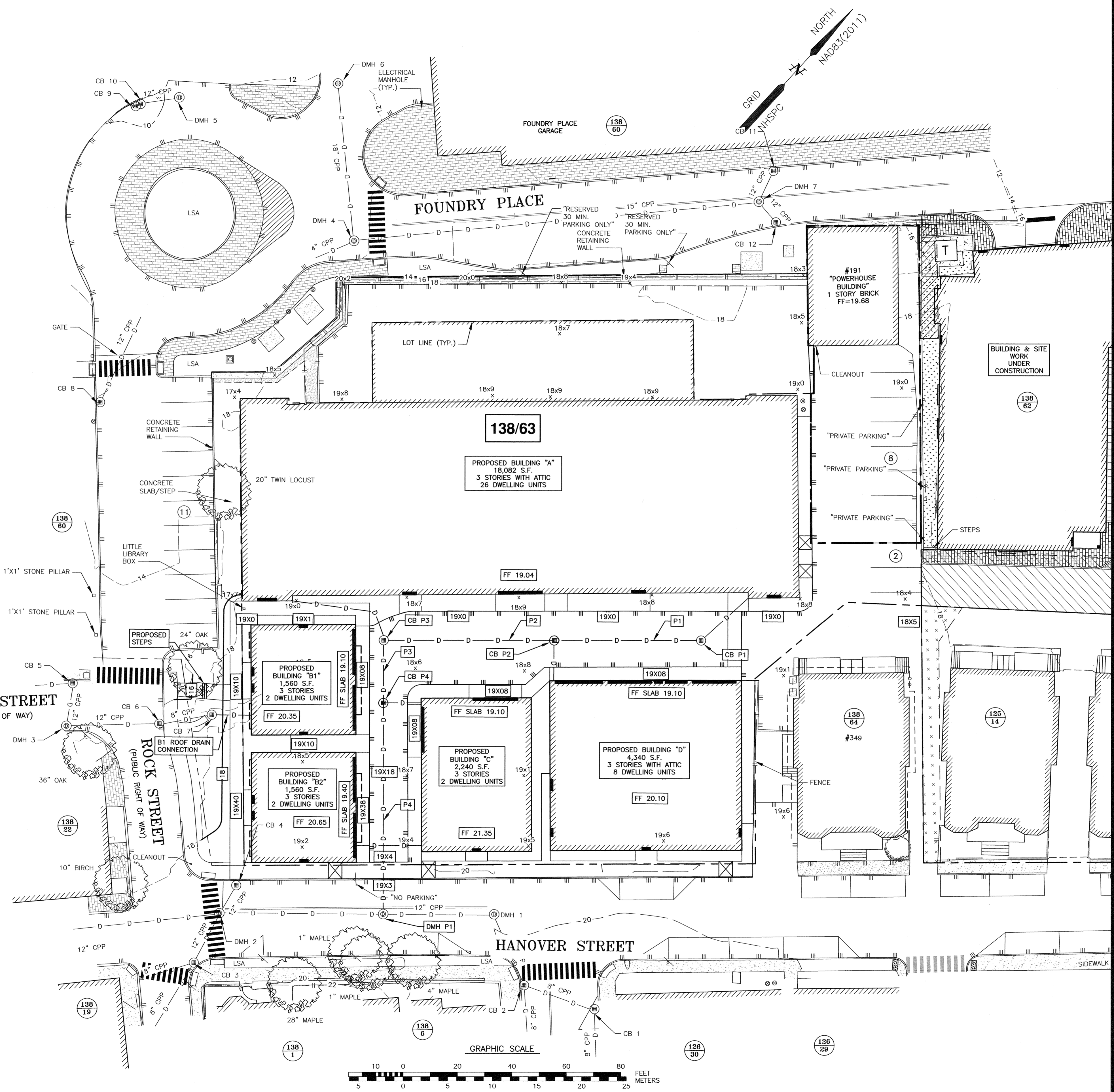


- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYPE	INVERT IN	INVERT OUT	DIRECTION
CB 1	EX	20.66	8" CPP	17.46	17.46	SW
CB 2	EX	20.35	12" CPP	15.80	15.70	NE
CB 3	EX	19.29	8" CPP	16.50	16.54	SE
CB 4	EX	18.90	8" CPP	16.24	16.29	NW
CB 5	EX	15.00	12" CPP	10.00	10.00	SW
CB 6	EX	15.60	12" CPP	10.00	12.85	SE
CB 7	EX	17.43	8" CPP	13.20	16.28	SW
CB 8	EX	12.15	12" CPP	7.45	7.45	NW
CB 9&10	EX	9.76	12" CPP	5.86	5.86	NE
CB 11	EX	10.07	12" CPP	6.17	6.17	SE
CB 12	EX	10.22	12" CPP	6.92	6.92	W
DMH 1	EX	19.81	12" CPP	15.56	15.56	SW
DMH 2	EX	19.08	12" CPP	15.03	15.03	E
DMH 3	EX	15.30	12" CPP	10.65	10.65	NE
DMH 4	EX	11.86	12" CPP	10.65	10.65	NW
DMH 5	EX	9.87	12" CPP	6.29	6.29	NE
DMH 6	EX	11.84	12" CPP	6.44	6.44	NW
DMH 7	EX	10.19	12" CPP	6.39	6.39	E

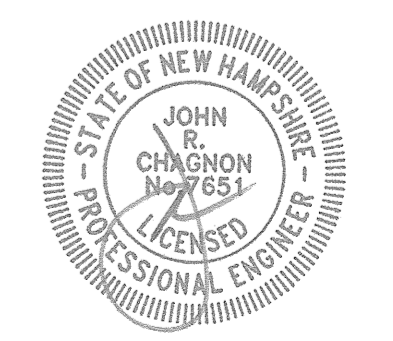
PIPE	PROP/EX	PIPE SIZE/TYPE	SLOPE
P1	PROP	50"X12" HDPE	0.004
P2	PROP	60"X12" HDPE	0.004
P3	PROP	18"X12" HDPE	0.004
P4	PROP	74"X12" HDPE	0.004

STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYPE	INVERT IN	INVERT OUT
CB P1	PROP	18.80	12" HDPE	16.58	16.58
CB P2	PROP	18.84	12" HDPE	16.38	16.38
CB P3	PROP	18.88	12" HDPE	16.04	16.28
CB P4	PROP	18.88	12" HDPE	15.87	15.94
DMH P1	PROP	MATCH GRADE	12" HDPE	15.47	15.77



**SITE REDEVELOPMENT
 361 HANOVER STREET
 PORTSMOUTH, N.H.**

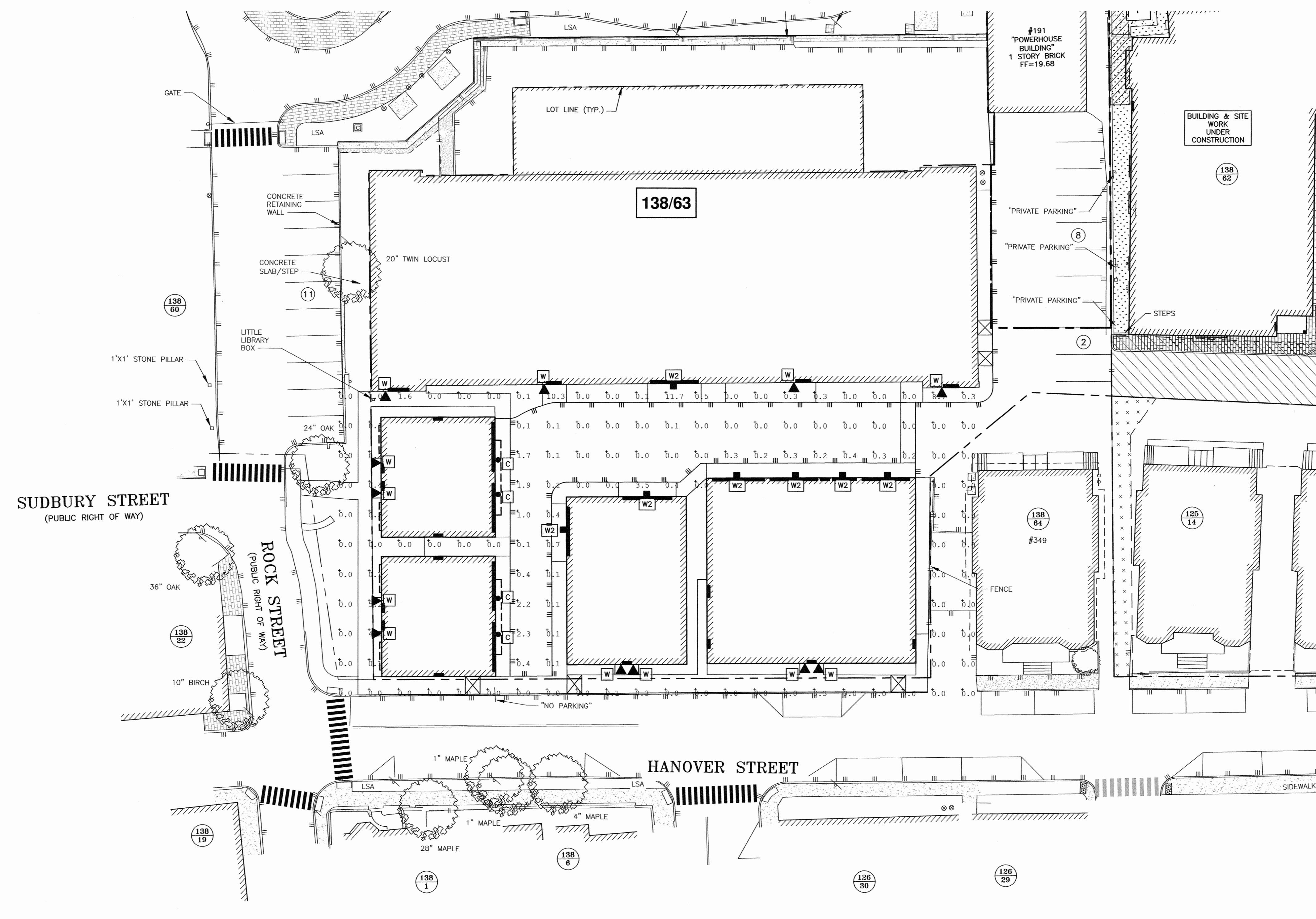
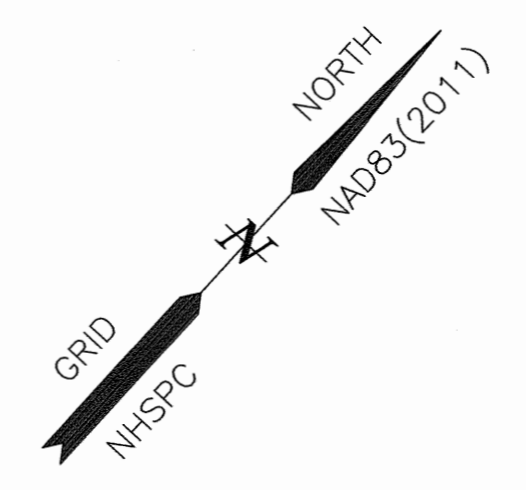
NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	03/14/25
REVISIONS		



SCALE: 1"=20' JANUARY 2024

GRADING & DRAINAGE PLAN **C5**

Luminaire Schedule					
Symbol	Qty	Label	Arrangement	[MANUFAC]	Description
●	4	C	Single	NICOR	CLR43SUS9WH (7W,806LM)
▲	12	W	Single	LIGMAN	UVA-30001-8W-W30-01-120/277V
■	7	W2	Single	LIGMAN	UCI-30131-21W-W-W30-01-120/277V

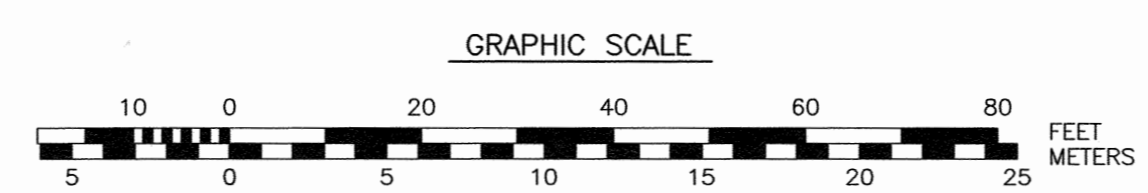


**SITE REDEVELOPMENT
 361 HANOVER STREET
 PORTSMOUTH, N.H.**

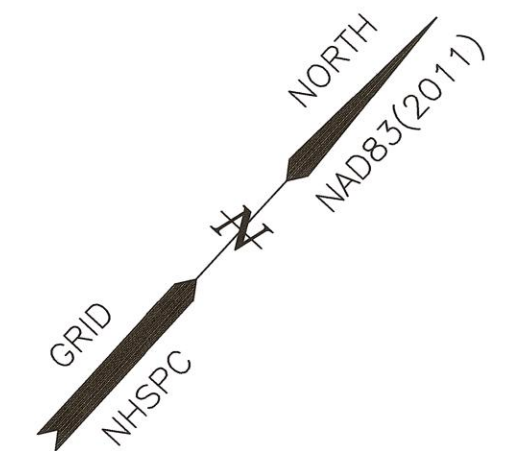
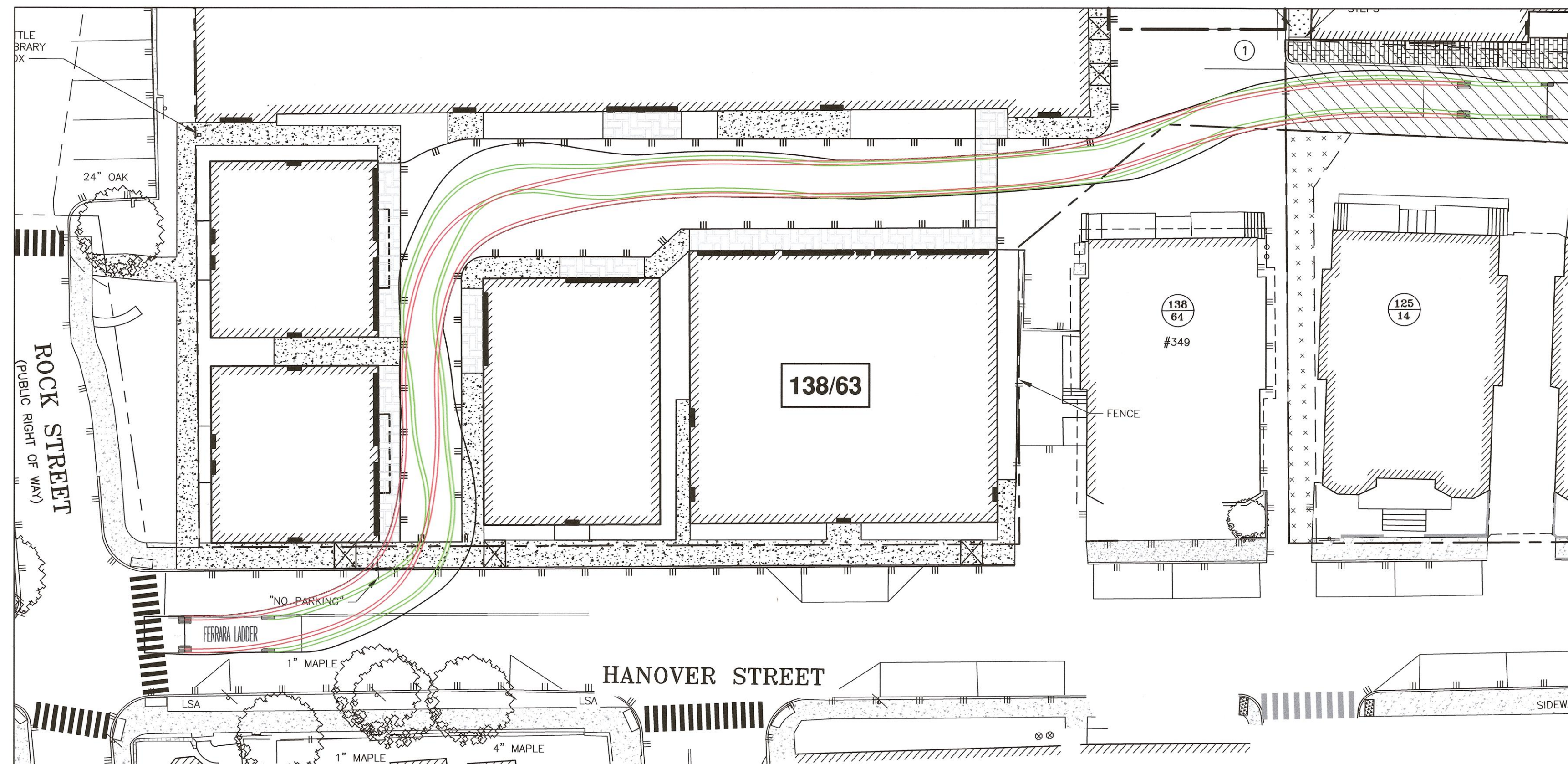
NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	03/14/25

SCALE: 1"=20' JANUARY 2024

LIGHTING PLAN **C6**

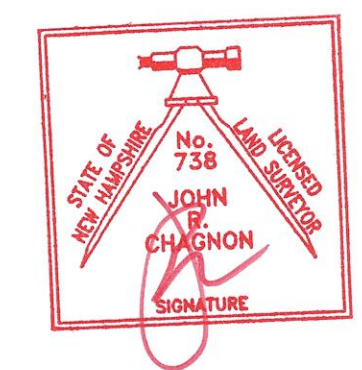


- NOTES:**
1. PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 138 AS LOT 63.
 2. APPLICANT:
361 HANOVER STEAM FACTORY, LLC
41 INDUSTRIAL DRIVE UNIT 20
EXETER, N.H. 03833
 3. PARCEL IS NOT IN A FLOOD HAZARD ZONE AS SHOWN ON FIRM PANEL 33015C0259F, JANUARY 29 2021.
- PROPOSED LOT AREAS:
 LOT 138/63
 38,528 S.F.±
 0.8845 AC
 LOT 138/63-1
 4,717 S.F.
 0.1083 AC
4. THE PURPOSE OF THIS PLAN IS TO SHOW A FIRE TRUCK TURNING TEMPLATE ON ASSESSOR'S MAP 138 LOT 63.



**SITE REDEVELOPMENT
 361 HANOVER STREET
 PORTSMOUTH, N.H.**

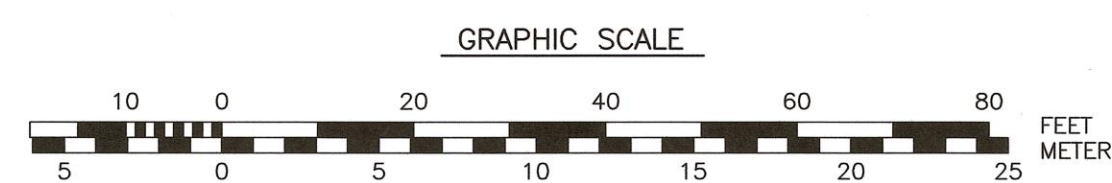
NO.	DESCRIPTION	DATE
1	FIRE TRUCK	3/26/25
0	ISSUED FOR COMMENT	03/14/25

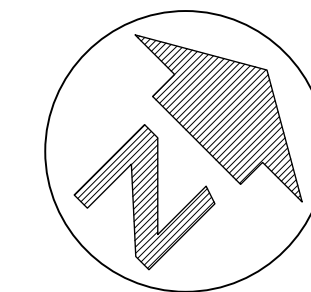


SCALE: 1"=20' JANUARY 2024

**FIRE TRUCK
 TURNING TEMPLATE**

T2





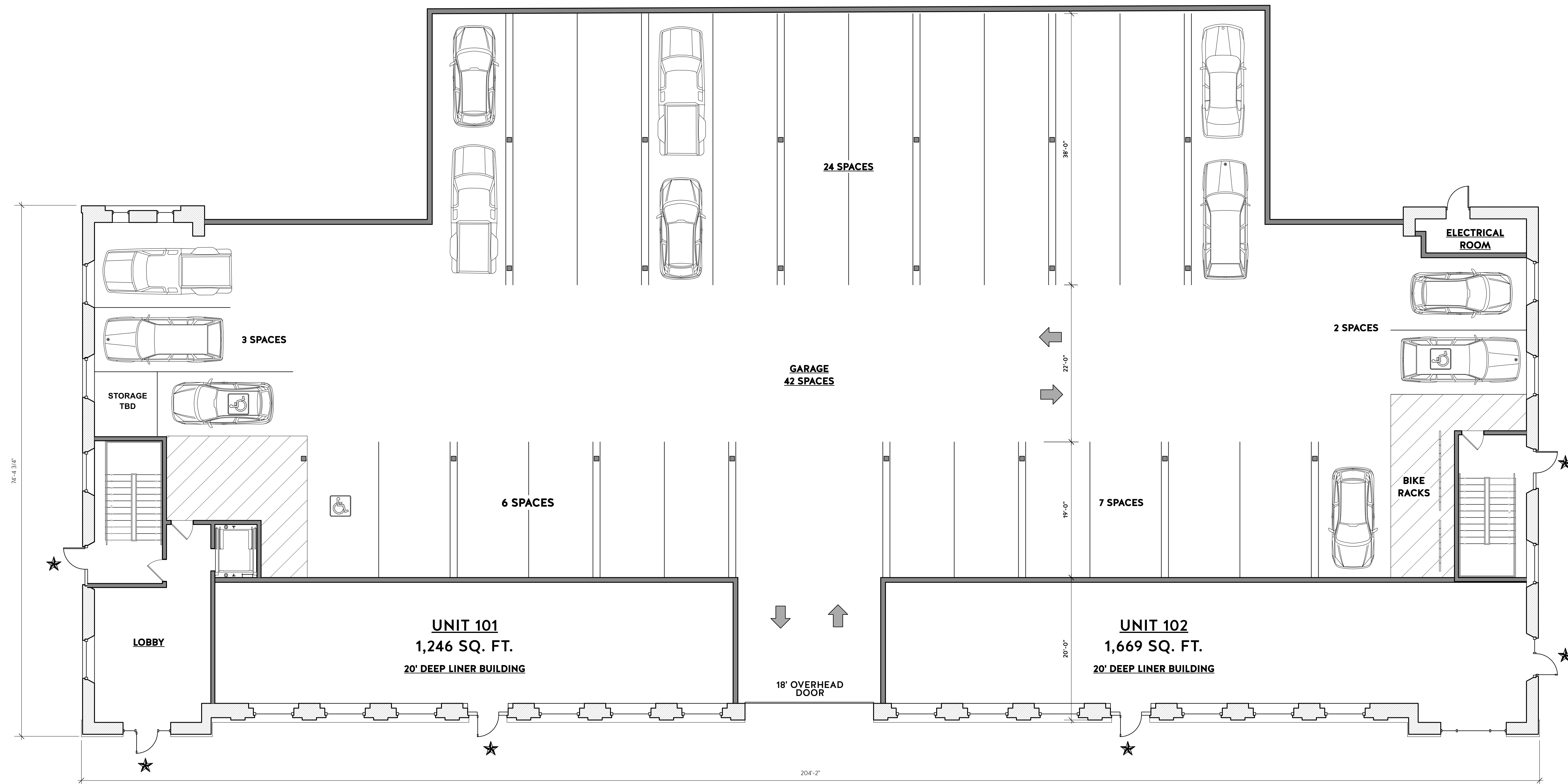
SCOTT M. BROWN

ESTD ARCHITECTS 2007

48 MARKET STREET
NEWBURYPORT, MA 01950
T. 978.465.3535

WWW.SCOTTBROWNARCHITECT.COM

BUILDING A AT 361 HANOVER STREET PORTSMOUTH, NH 03801



1 GROUND LEVEL PLAN
Scale: 1/8" = 1'-0"

REVISION & REISSUE NOTES

No.	Date	Notes
A	3-11-25	DESIGN REVIEW SUBMISSION
B	3-14-25	TAC SUBMISSION

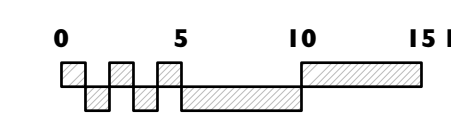
Project #	Project Manager	Date
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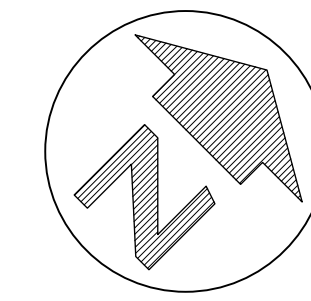
Scale: AS NOTED

GROUND LEVEL PLAN: BUILDING A

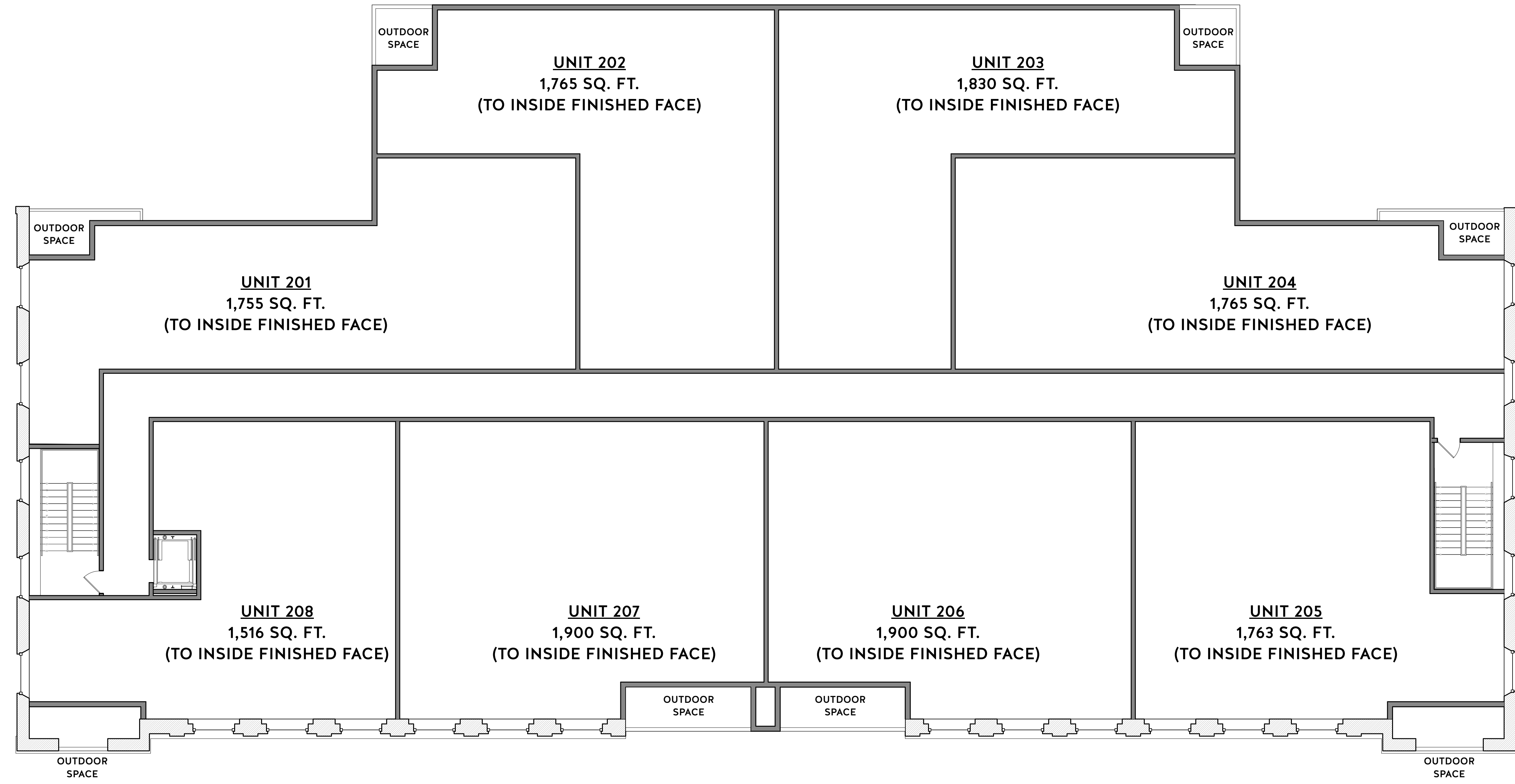
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BUILDING A
 AT
 361 HANOVER STREET
 PORTSMOUTH, NH 03801



REVISION & REISSUE NOTES

No.	Date	Notes
A	3-11-25	DESIGN REVIEW SUBMISSION
B	3-14-25	TAC SUBMISSION

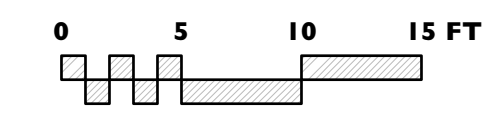
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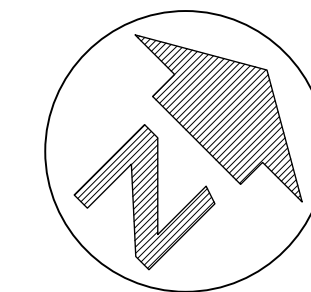
Scale: AS NOTED

SECOND LEVEL PLAN:
BUILDING A

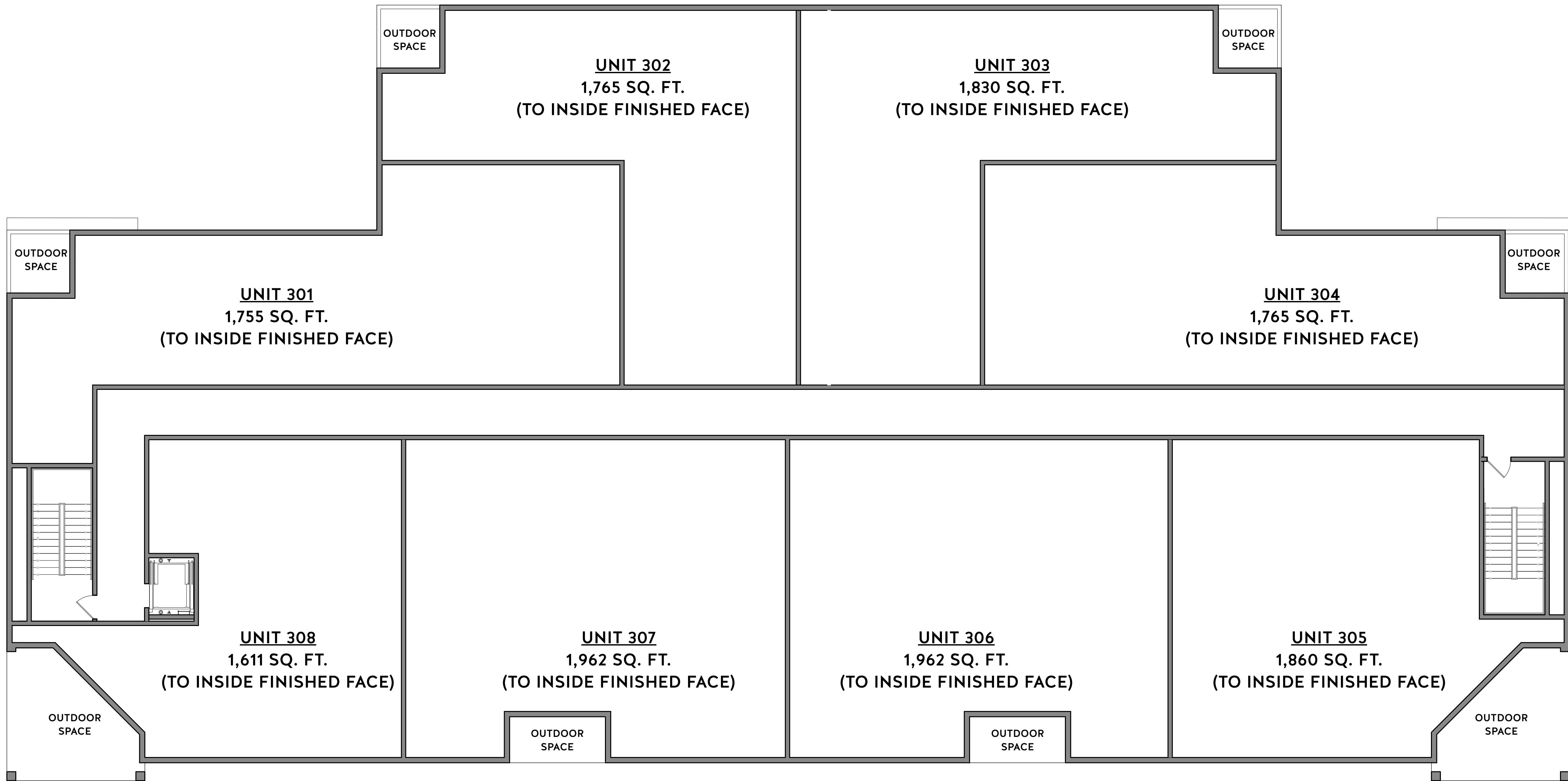
A1.2a

1 SECOND LEVEL PLAN
Scale: 1/8" = 1'-0"





BUILDING A
 AT
361 HANOVER STREET
 PORTSMOUTH, NH 03801



REVISION & REISSUE NOTES

No.	Date	Notes
A	3-11-25	DESIGN REVIEW SUBMISSION
B	3-14-25	TAC SUBMISSION

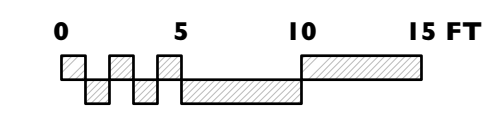
Project #	Project Manager	Date
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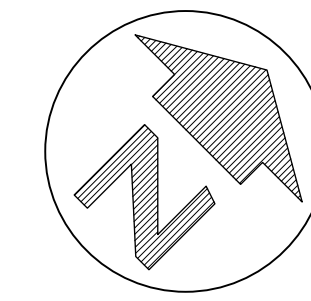
Scale: AS NOTED

**THIRD LEVEL PLAN:
 BUILDING A**

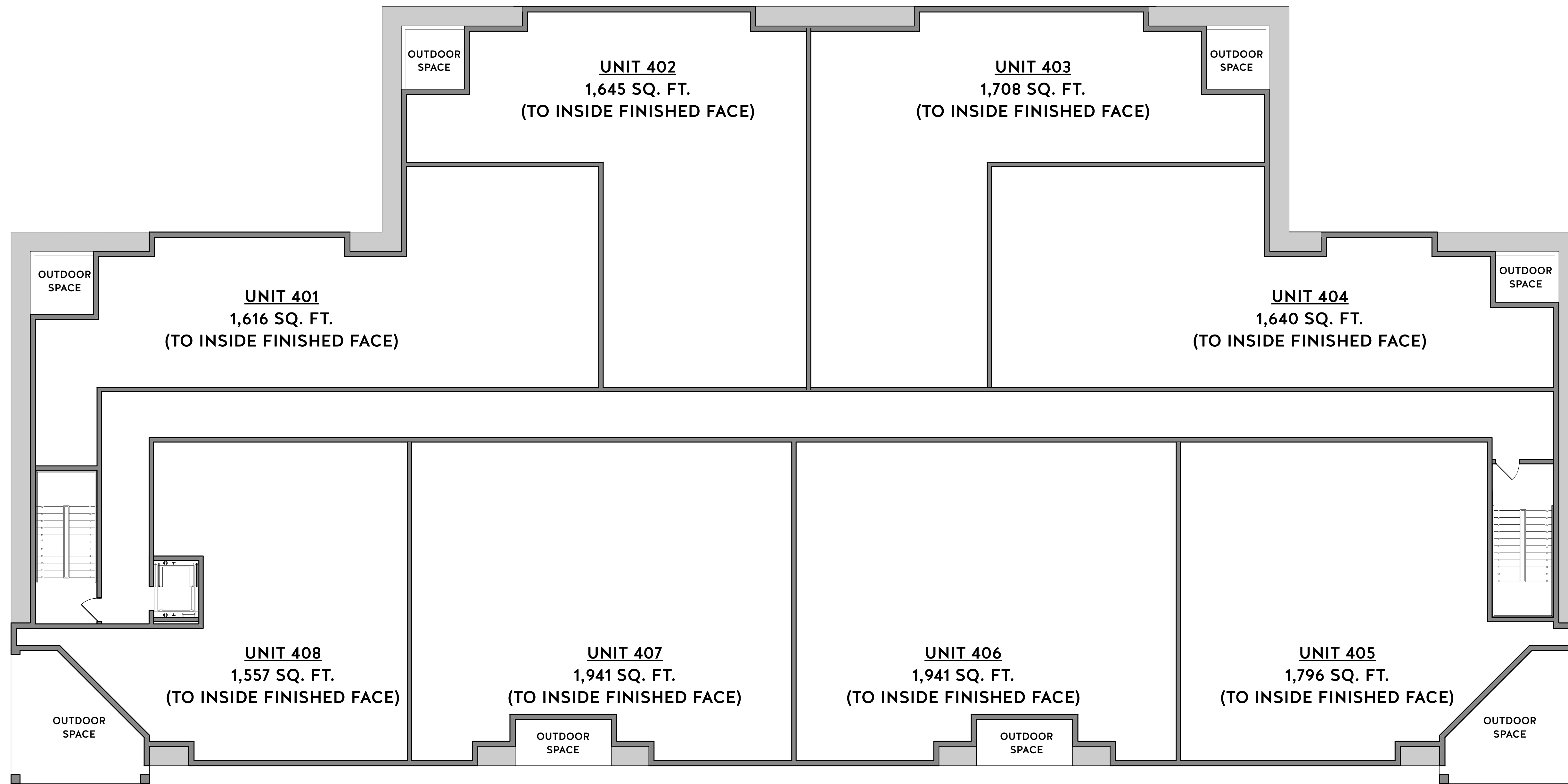
A1.3a

1 THIRD LEVEL PLAN
 Scale: 1/8" = 1'-0"





BUILDING A
 AT
 361 HANOVER STREET
 PORTSMOUTH, NH 03801



REVISION & REISSUE NOTES

No.	Date	Notes
A	3-11-25	DESIGN REVIEW SUBMISSION
B	3-14-25	TAC SUBMISSION

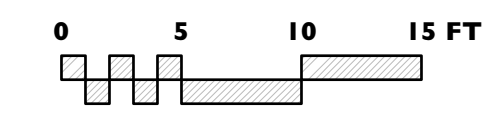
Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

FOURTH LEVEL PLAN:
 BUILDING A

A1.4a

1 FOURTH LEVEL PLAN
 Scale: 1/8" = 1'-0"



BUILDING A
AT
361 HANOVER STREET
PORTSMOUTH, NH 03801

REVISION & REISSUE NOTES

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Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

PROPOSED
ELEVATIONS:
BUILDING A

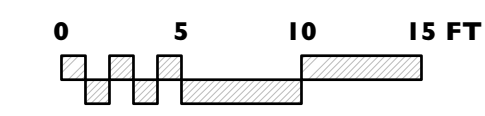
A2.1a



2 SOUTH (LEFT SIDE) ELEVATION
Scale: 1/8" = 1'-0"



1 EAST (FRONT) ELEVATION
Scale: 1/8" = 1'-0"



BUILDING A
AT
361 HANOVER STREET
PORTSMOUTH, NH 03801



2 NORTH (RIGHT SIDE) ELEVATION
Scale: 1/8" = 1'-0"



1 WEST (REAR) ELEVATION
Scale: 1/8" = 1'-0"

REVISION & REISSUE NOTES

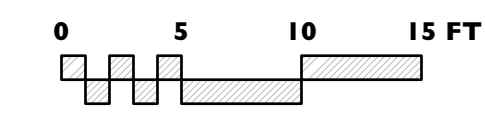
No.	Date	Notes
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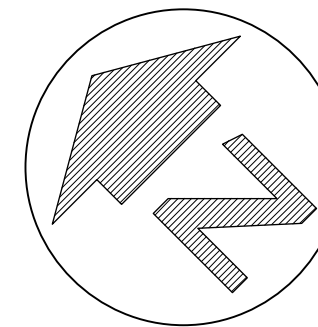
Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

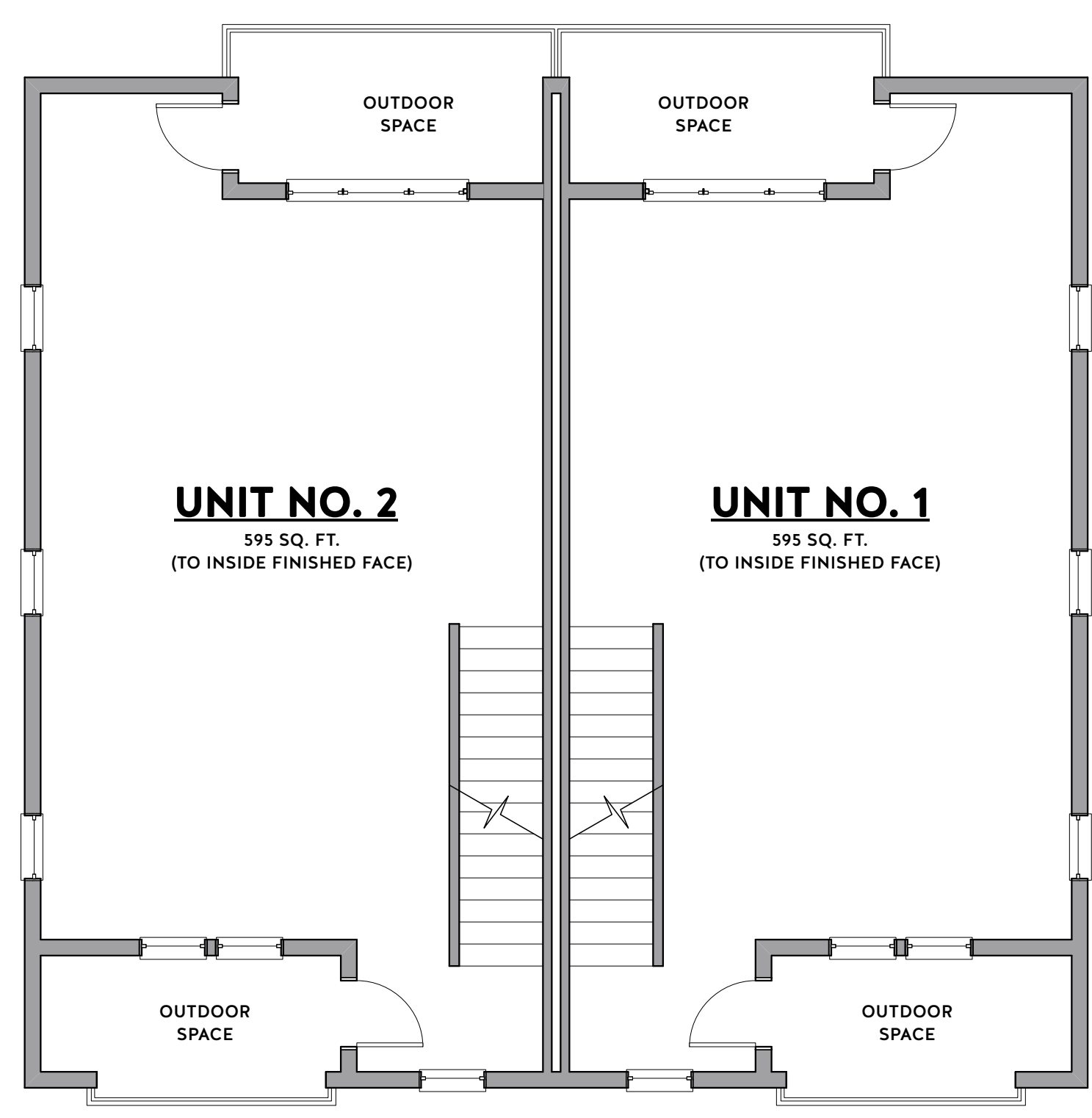
PROPOSED
ELEVATIONS:
BUILDING A

A2.2a

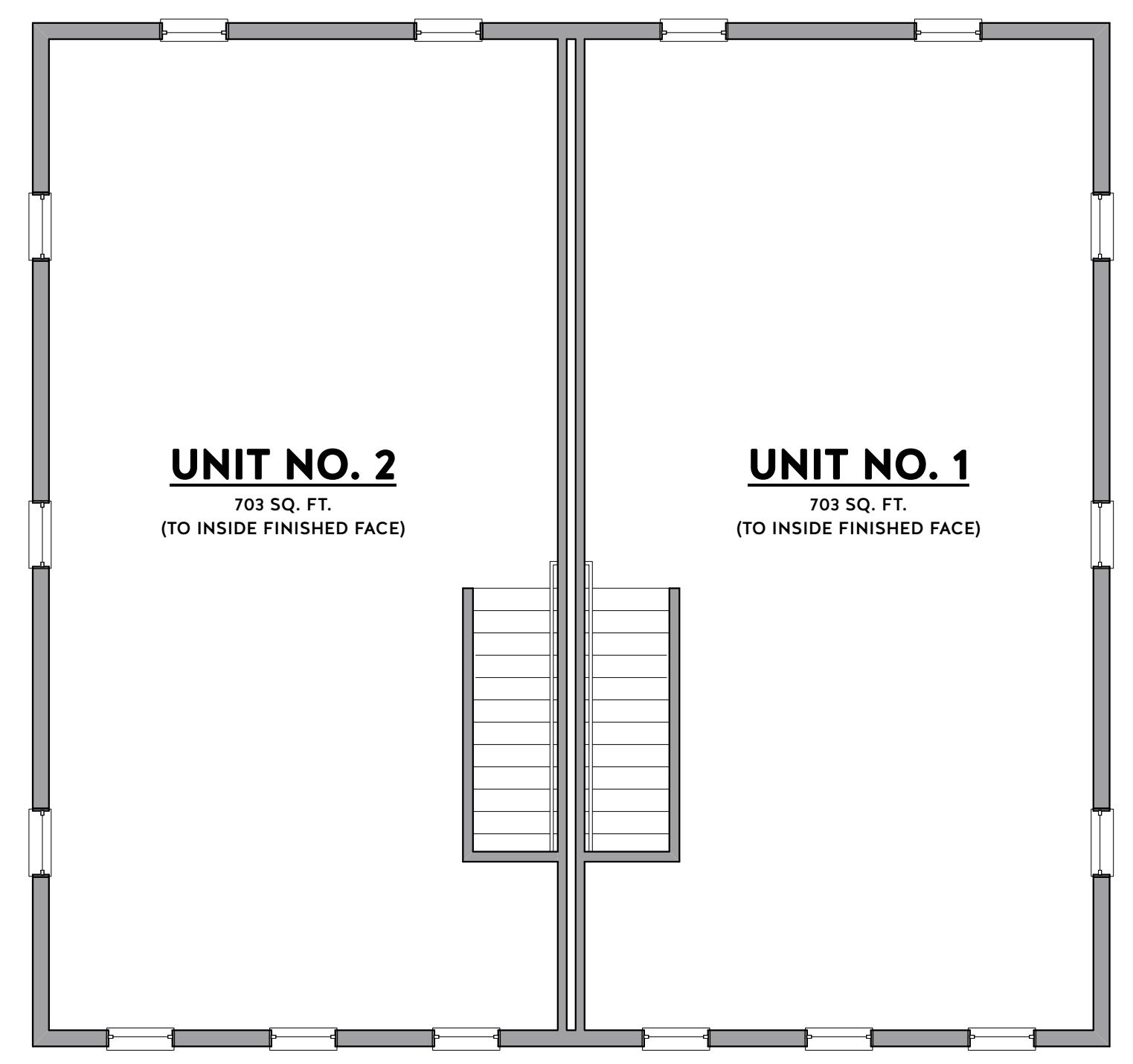




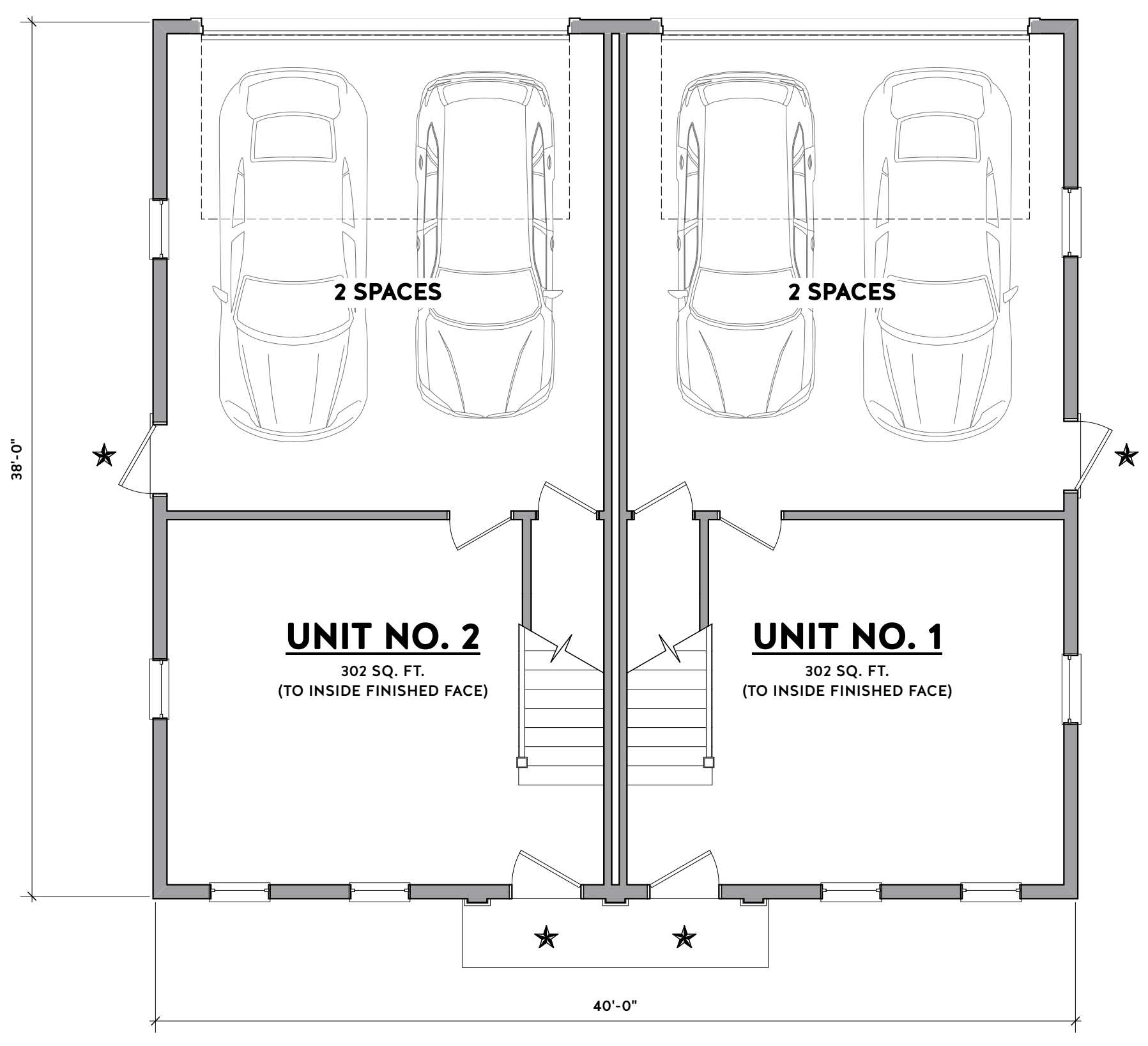
BUILDINGS B1/B2
AT
361 HANOVER STREET
PORTSMOUTH, NH 03801



2 SECOND FLOOR PLAN
Scale: 3/16" = 1'-0"



3 THIRD FLOOR PLAN
Scale: 3/16" = 1'-0"



1 GROUND FLOOR PLAN
Scale: 3/16" = 1'-0"

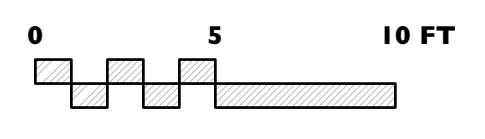
REVISION & REISSUE NOTES		
No.	Date	Notes
A	3-5-25	DESIGN REVIEW SUBMISSION
B	3-14-25	TAC SUBMISSION

Project # 2024-09	Project Manager X.X.	Date 3-14-25
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Scale: AS NOTED

LAYOUT PLANS:
BUILDINGS B1/B2

A1.1b



BUILDINGS B1/B2
AT
361 HANOVER STREET
PORTSMOUTH, NH 03801

REVISION & REISSUE NOTES

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Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

PROPOSED
ELEVATIONS:
BUILDING B1/B2

A2.1b



4 BUILDING B: NORTH (REAR) ELEVATION
Scale: 3/16" = 1'-0"



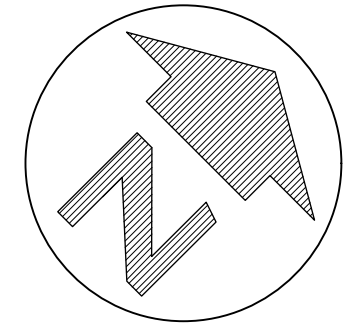
3 BUILDING B: WEST (LEFT SIDE) ELEVATION
Scale: 3/16" = 1'-0"



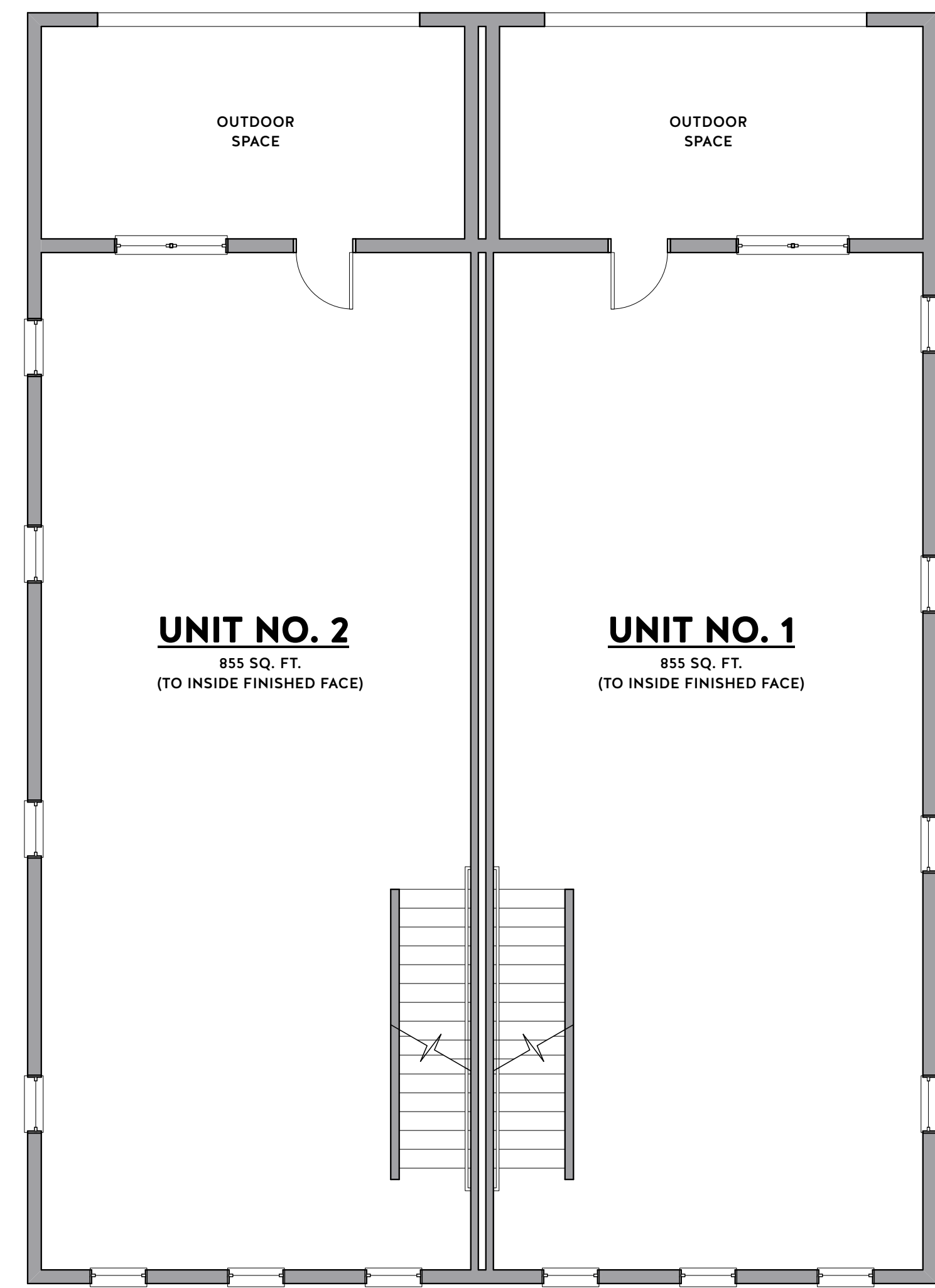
2 BUILDING B: EAST (RIGHT SIDE) ELEVATION
Scale: 3/16" = 1'-0"



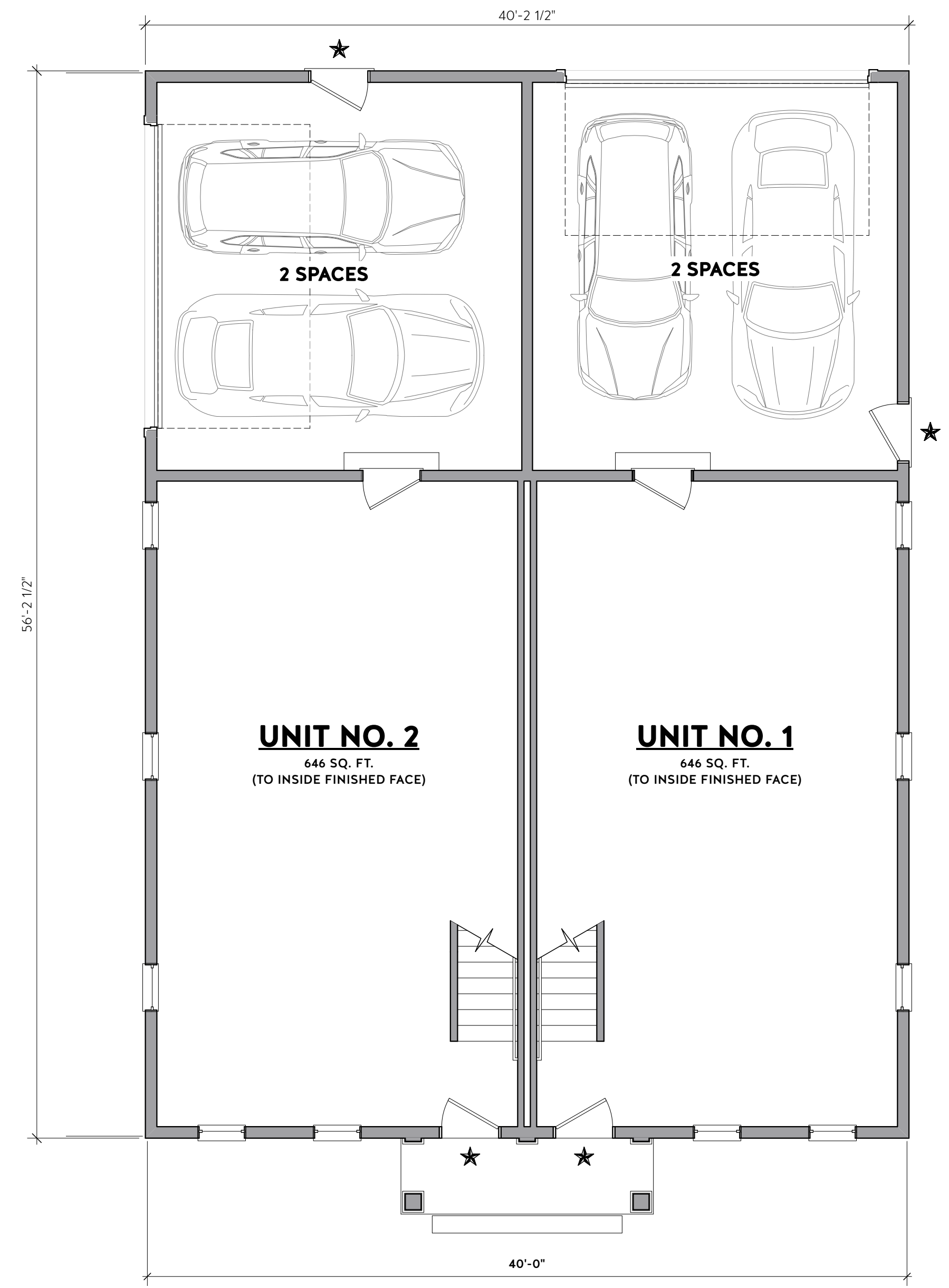
1 BUILDING B: SOUTH (FRONT) ELEVATION
Scale: 3/16" = 1'-0"



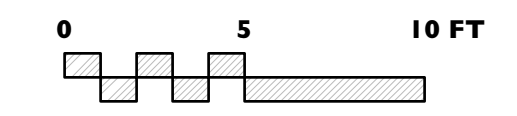
BUILDING C
 AT
 361 HANOVER STREET
 PORTSMOUTH, NH 03801



2 SECOND FLOOR PLAN
 Scale: 3/16" = 1'-0"



1 GROUND FLOOR PLAN
 Scale: 3/16" = 1'-0"



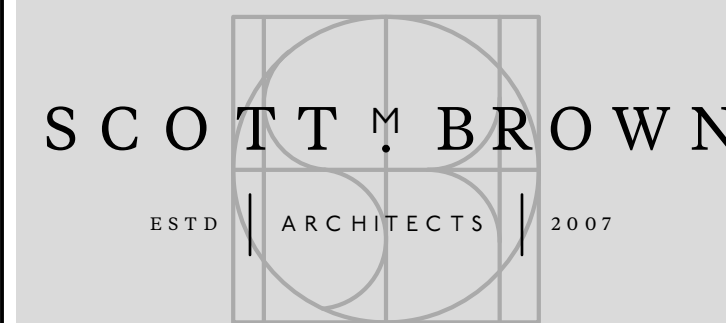
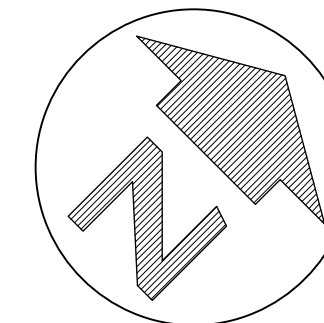
REVISION & REISSUE NOTES		
No.	Date	Notes
A	3-5-25	DESIGN REVIEW SUBMISSION
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Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

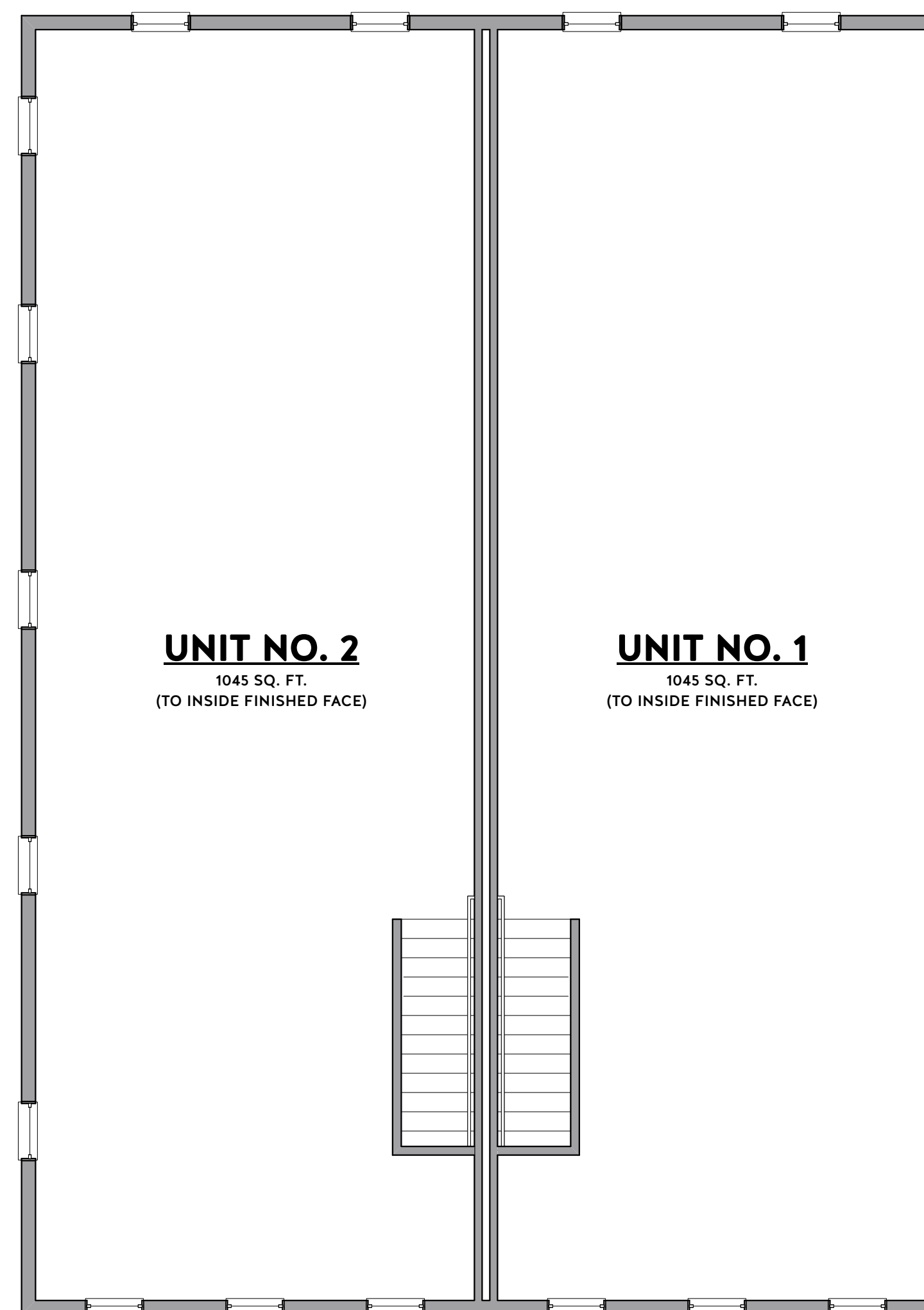
LAYOUT PLANS:
 BUILDING C

A1.1c



48 MARKET STREET
 NEWBURYPORT, MA 01950
 T. 978.465.3535
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BUILDING C
 AT
361 HANOVER STREET
 PORTSMOUTH, NH 03801



UNIT NO. 2
 1045 SQ. FT.
 (TO INSIDE FINISHED FACE)

UNIT NO. 1
 1045 SQ. FT.
 (TO INSIDE FINISHED FACE)

REVISION & REISSUE NOTES

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Project #	Project Manager	Date
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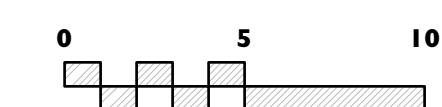
Scale: AS NOTED

**LAYOUT PLANS:
 BUILDING C**

A1.2c

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1 THIRD FLOOR PLAN
 Scale: 3/16" = 1'-0"



BUILDING C
AT
361 HANOVER STREET
PORTSMOUTH, NH 03801

REVISION & REISSUE NOTES

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Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

ELEVATION OPTIONS:
BUILDING C

A2.1c



4 BUILDING C: SOUTH (LEFT SIDE) ELEVATION
Scale: 3/16" = 1'-0"



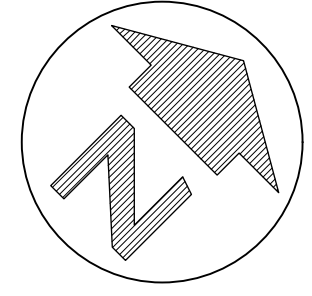
3 BUILDING C: WEST (REAR) ELEVATION
Scale: 3/16" = 1'-0"



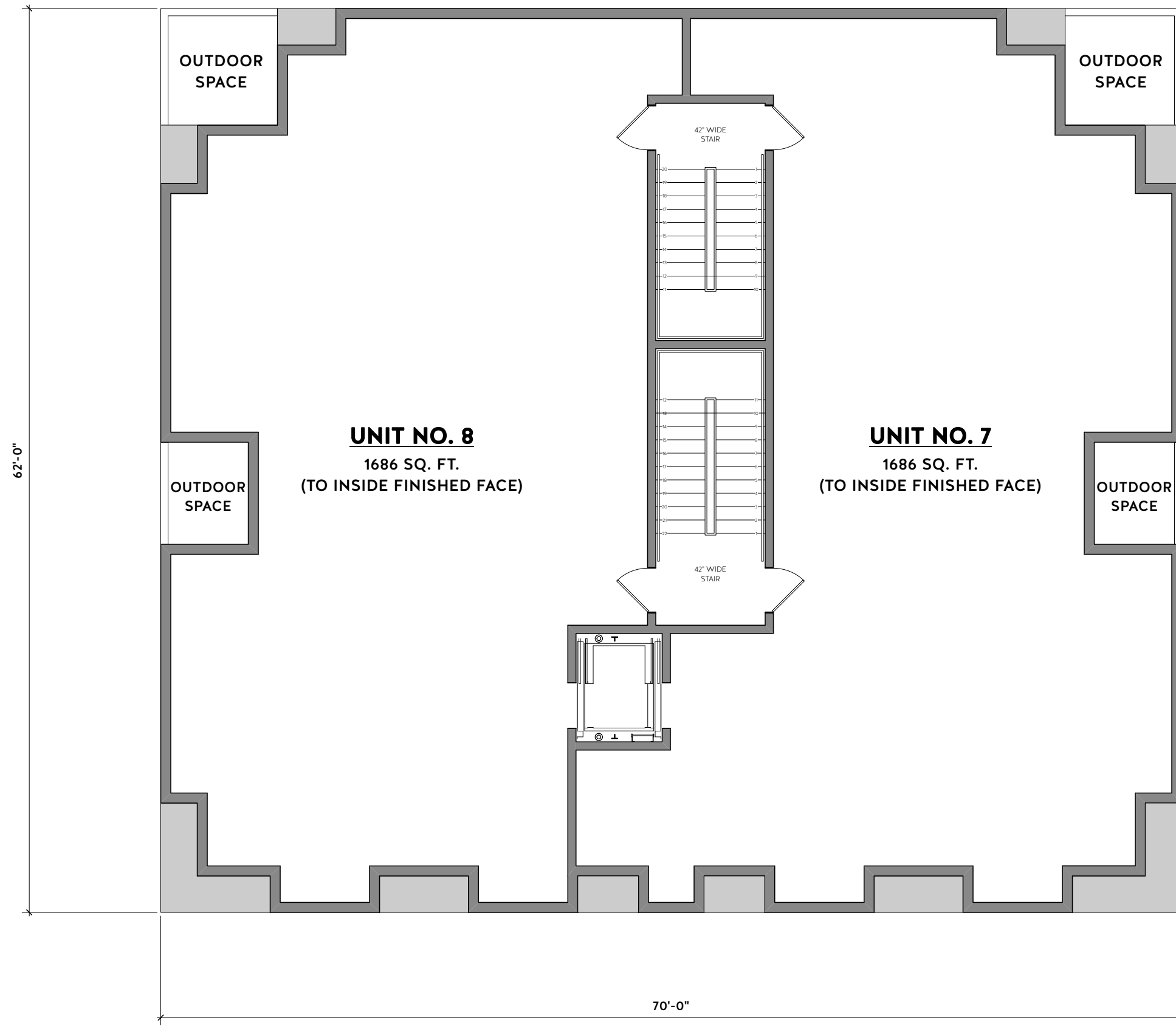
2 BUILDING C: NORTH (RIGHT SIDE) ELEVATION
Scale: 3/16" = 1'-0"



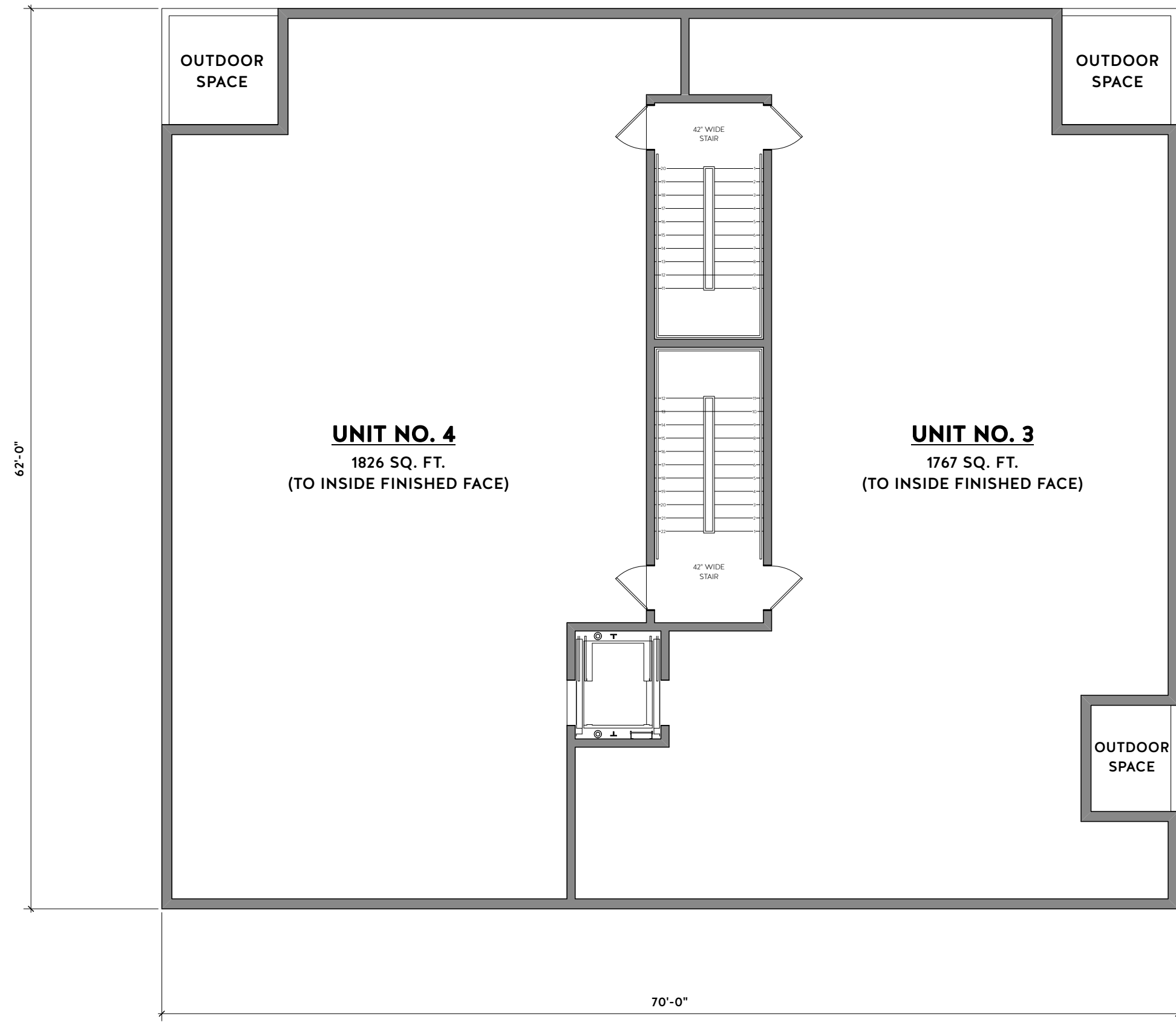
1 BUILDING C: EAST (FRONT) ELEVATION
Scale: 3/16" = 1'-0"



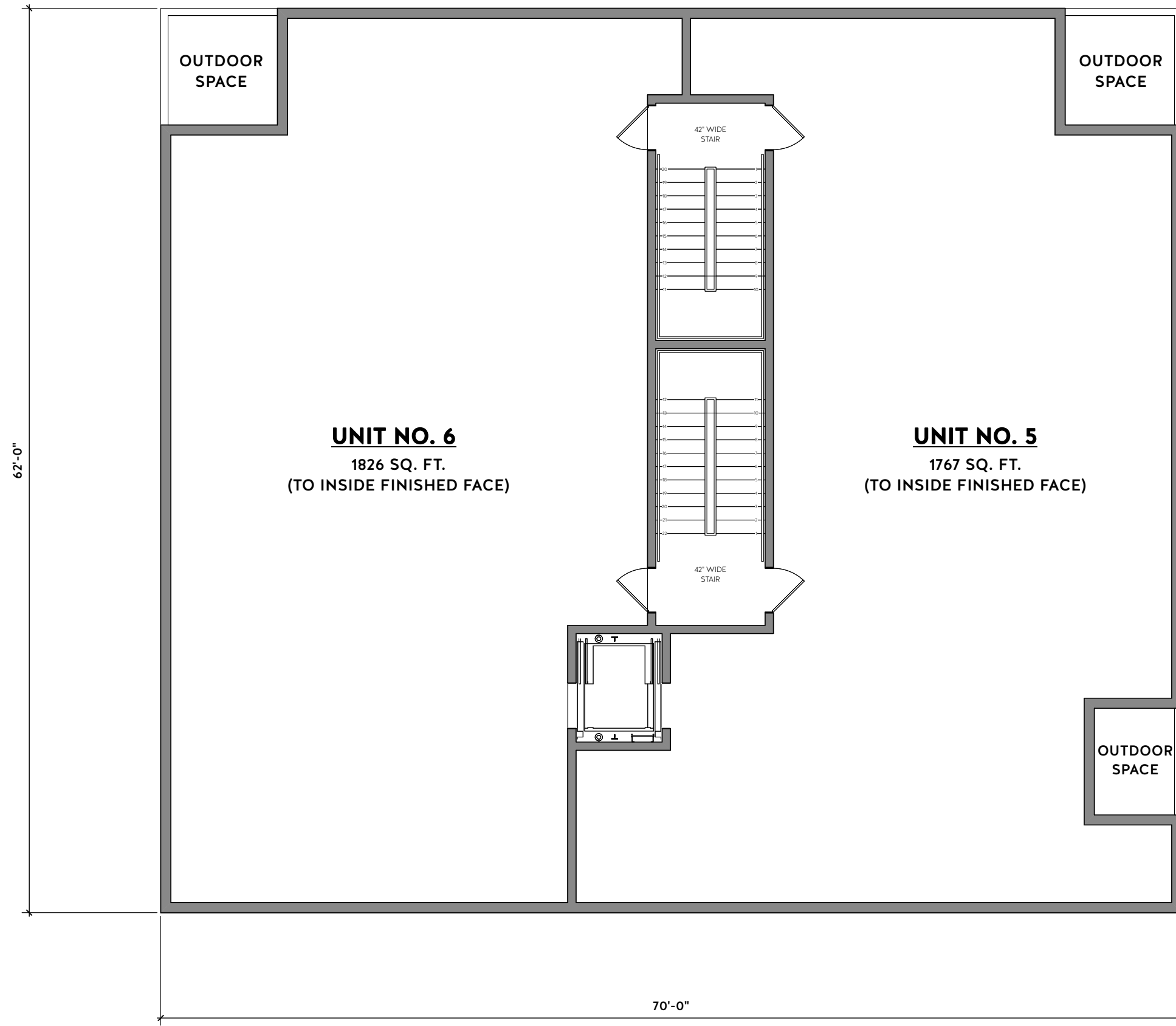
BUILDING D
 AT
 361 HANOVER STREET
 PORTSMOUTH, NH, 03801



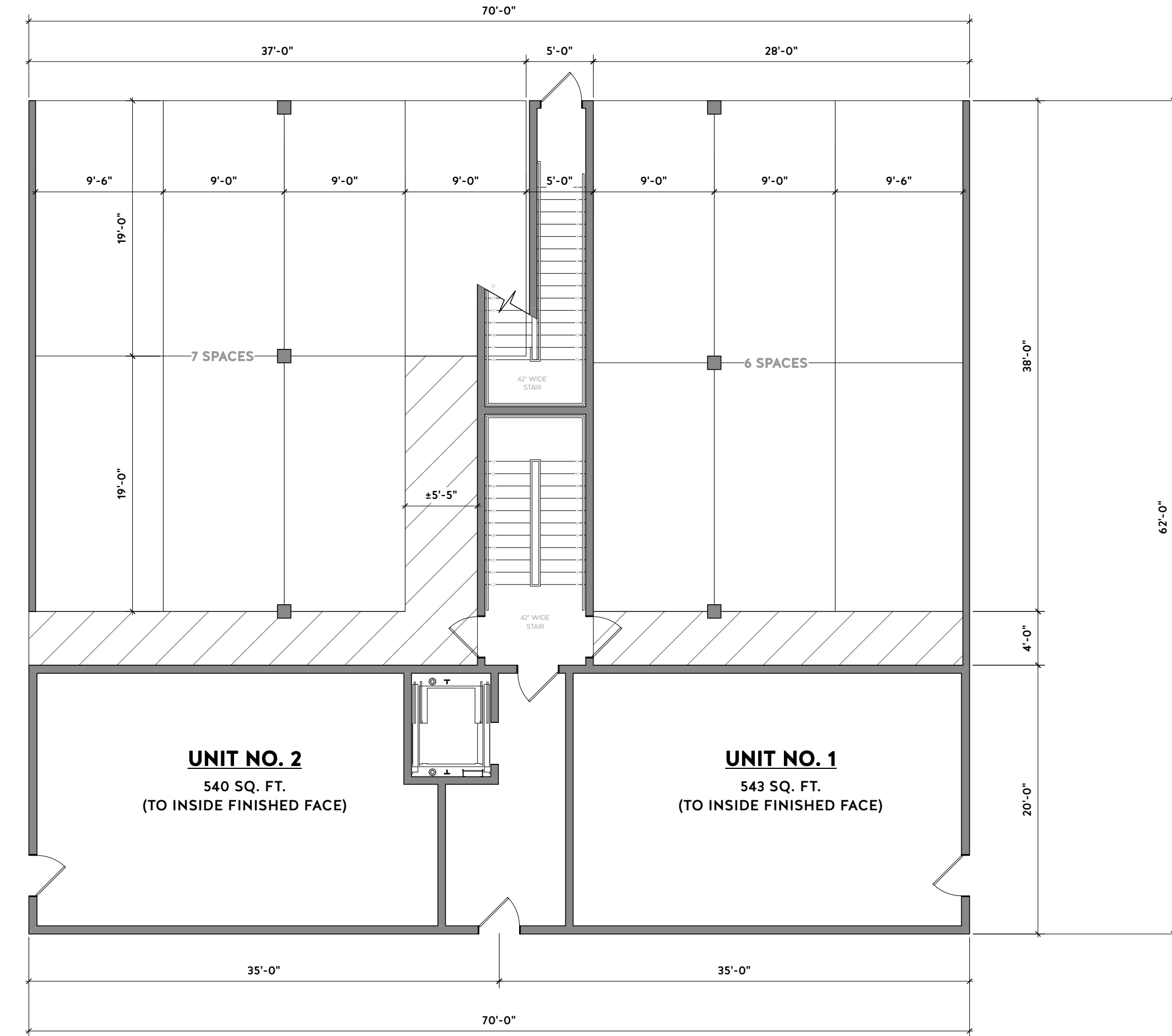
4 FOURTH FLOOR PLAN
 Scale: 1/8" = 1'-0"



2 SECOND FLOOR PLAN
 Scale: 1/8" = 1'-0"



3 THIRD FLOOR PLAN
 Scale: 1/8" = 1'-0"



1 GROUND LEVEL PLAN
 Scale: 1/8" = 1'-0"

REVISION & REISSUE NOTES

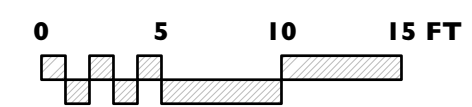
No.	Date	Notes
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Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

FLOOR LAYOUT
 PLANS: BUILDING D

A1.1d



BUILDING D
AT
361 HANOVER STREET
PORTSMOUTH, NH, 03801



2 BUILDING D: SOUTH (LEFT SIDE) ELEVATION
Scale: 3/16" = 1'-0"



1 BUILDING D: EAST (FRONT) ELEVATION
Scale: 3/16" = 1'-0"

REVISION & REISSUE NOTES

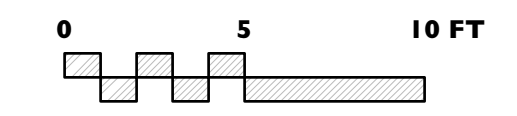
No.	Date	Notes
A	3-5-25	DESIGN REVIEW SUBMISSION
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Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

ELEVATIONS:
BUILDING D

A2.1d



BUILDING D
AT
361 HANOVER STREET
PORTSMOUTH, NH, 03801



2 BUILDING D: NORTH (RIGHT SIDE) ELEVATION
Scale: 3/16" = 1'-0"



1 BUILDING D: WEST (REAR) ELEVATION
Scale: 3/16" = 1'-0"

REVISION & REISSUE NOTES

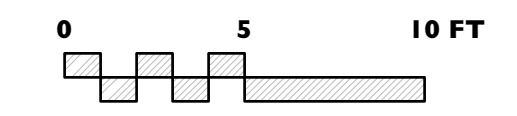
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Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

ELEVATIONS:
BUILDING D

A2.2d



STREET ELEVATIONS
AT
361 HANOVER STREET
PORTSMOUTH, NH, 03801

REVISION & REISSUE NOTES

No.	Date	Notes
A	3-14-25	TAC SUBMISSION

Project #	Project Manager	Date
2024-09	X.X.	3-14-25

Scale: AS NOTED

STREET ELEVATIONS

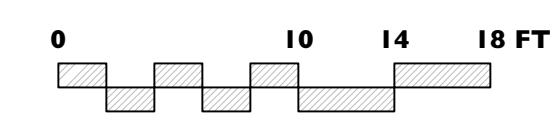
A2.1



2 ROCK STREET ELEVATION
Scale: 1/8" = 1'-0"



1 HANOVER STREET ELEVATION
Scale: 1/8" = 1'-0"



EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE

DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.

IF REQUIRED THE CONTRACTOR SHALL OBTAIN AN NPDES PHASE II STORMWATER PERMIT AND SUBMIT A NOTICE OF INTENT (N.O.I) BEFORE BEGINNING CONSTRUCTION AND SHALL HAVE ON SITE A STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) AVAILABLE FOR INSPECTION BY THE PERMITTING AUTHORITY DURING THE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THE S.W.P.P.P. AND INSPECTING AND MAINTAINING ALL BMP'S CALLED FOR BY THE PLAN. THE CONTRACTOR SHALL SUBMIT A NOTICE OF TERMINATION (N.O.T) FORM TO THE REGIONAL EPA OFFICE WITHIN 30 DAYS OF FINAL STABILIZATION OF THE ENTIRE SITE OR TURNING OVER CONTROL OF THE SITE TO ANOTHER OPERATOR.

THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT:

- OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER;
- AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR;
- A REPRESENTATIVE OF THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES;
- IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

INSTALL PERIMETER CONTROLS, i.e., SILTSOXX AND CATCH BASIN PROTECTION AROUND THE LIMITS OF DISTURBANCE BEFORE ANY EARTH MOVING OPERATIONS. THE USE OF HAYBALES IS NOT ALLOWED.

THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES. PLACE FODS AS NEEDED.

CUT AND GRUB ALL TREES, SHRUBS, SAPLINGS, BRUSH, VINES AND REMOVE OTHER DEBRIS AND RUBBISH AS REQUIRED. DEMOLISH BUILDINGS AND FENCES AS NEEDED.

ROUGH GRADE SITE.

LAYOUT AND INSTALL ALL BURIED UTILITIES AND SERVICES UP TO 10' OF THE PROPOSED BUILDING FOUNDATIONS, CAP AND MARK TERMINATIONS OR LOG SWING TIES.

CONSTRUCT BUILDING.

CONNECT UTILITIES.

PLACE BINDER LAYER OF PAVEMENT AND CONSTRUCT SIDEWALK BASE.

PLANT LANDSCAPING IN AREAS OUT OF WAY OF BUILDING CONSTRUCTION. PREPARE AND STABILIZE FINAL SITE GRADING BY ADDING TOPSOIL, SEED, MULCH AND FERTILIZER.

AFTER BUILDINGS ARE COMPLETED, FINISH ALL REMAINING LANDSCAPED WORK.

FINISH PAVE AND COMPLETE SIDEWALKS.

REMOVE TRAPPED SEDIMENTS FROM COLLECTION DEVICES AS APPROPRIATE, AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF FINAL STABILIZATION OF THE SITE.

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF A BUILDING REDEVELOPMENT AND ADDITIONS WITH ASSOCIATED UTILITIES AND PARKING.

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 0.820 ACRES.

BASED ON THE USCS WEB SOIL SURVEY THE SOILS ON SITE CONSIST OF URBAN LAND WHICH HAS AN UNSPECIFIED HYDROLOGIC SOIL GROUP RATING, ASSUMED D.

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA A CLOSED DRAINAGE SYSTEM TO THE CITY OF PORTSMOUTH CLOSED DRAINAGE SYSTEM WHICH ULTIMATELY FLOWS TO THE NORTH MILL POND.

GENERAL CONSTRUCTION NOTES

THE EROSION CONTROL PROCEDURES SHALL CONFORM TO SECTION 645 OF THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION" OF THE NHDOT, AND "STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE". THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED FOR MORE THAN 45 DAYS.

ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION.

THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

DUST CONTROL: DUST CONTROL MEASURES SHALL INCLUDE BUT ARE 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 ADJUTING AREAS.

IF TEMPORARY STABILIZATION PRACTICES, SUCH AS TEMPORARY VEGETATION AND MULCHING, DO NOT ADEQUATELY REDUCE DUST GENERATION, APPLICATION OF WATER OR CALCIUM CHLORIDE SHALL BE APPLIED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.

SILTSOXX SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. ALL DAMAGED SILTSOXX SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED IN A SECURED LOCATION.

ALL FILLS SHALL BE PLACED AND COMPACTED TO REDUCE EROSION, SUFFRAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.

ALL NON-STRUCTURAL, SITE-FILL SHALL BE PLACED AND COMPACTED TO 90% MODIFIED PROCTOR DENSITY IN LAYERS NOT EXCEEDING 18 INCHES IN THICKNESS UNLESS OTHERWISE NOTED.

FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIAL, TRASH, WOODY DEBRIS, LEAVES, BRUSH OR ANY DELETERIOUS MATTER SHALL NOT BE INCORPORATED INTO FILLS.

FILL MATERIAL SHALL NOT BE PLACED ON FROZEN FOUNDATION SUBGRADE.

DURING CONSTRUCTION AND UNTIL ALL DEVELOPED AREAS ARE FULLY STABILIZED, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH ONE HALF INCH OF RAINFALL.

THE CONTRACTOR SHALL MODIFY OR ADD EROSION CONTROL MEASURES AS NECESSARY TO ACCOMMODATE PROJECT CONSTRUCTION.

ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. ALL CUT AND FILL SLOPES SHALL BE SEEDDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED ON AREAS TO BE PAVED
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
 - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED
 - EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
 - IN AREAS TO BE PAVED, "STABLE" MEANS THAT BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM

304.2 HAVE BEEN INSTALLED.

STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL 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.

STABILIZATION MEASURES TO BE USED INCLUDE:
 - TEMPORARY SEEDING;
 - MULCHING.

- ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN THESE AREAS, SILTSOXX, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
- 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 SILTSOXX, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY OCTOBER 15.

MAINTENANCE AND PROTECTION

THE SILTSOXX BARRIER SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

SILTSOXX SHALL BE REMOVED ONCE SITE IS STABILIZED, AND DISTURBED AREAS RESULTING FROM SILTSOXX REMOVAL SHALL BE PERMANENTLY SEEDDED.

THE CATCH BASIN INLET BASKET 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. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

WINTER NOTES

ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, 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 INSTALLATION 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 EVENTS.

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

AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT;

STOCKPILES

- LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
- ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
- PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
- PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

CONCRETE WASHOUT AREA

THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE:

- THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY;
- IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;
- CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS;
- INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

ALLOWABLE NON-STORMWATER DISCHARGES

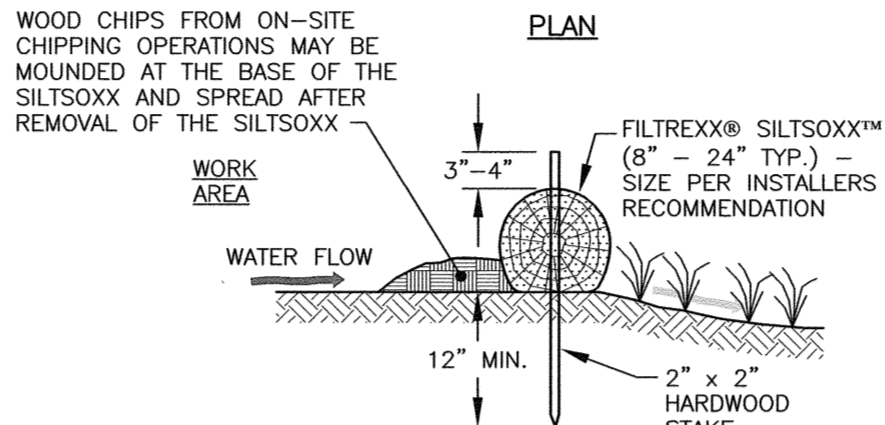
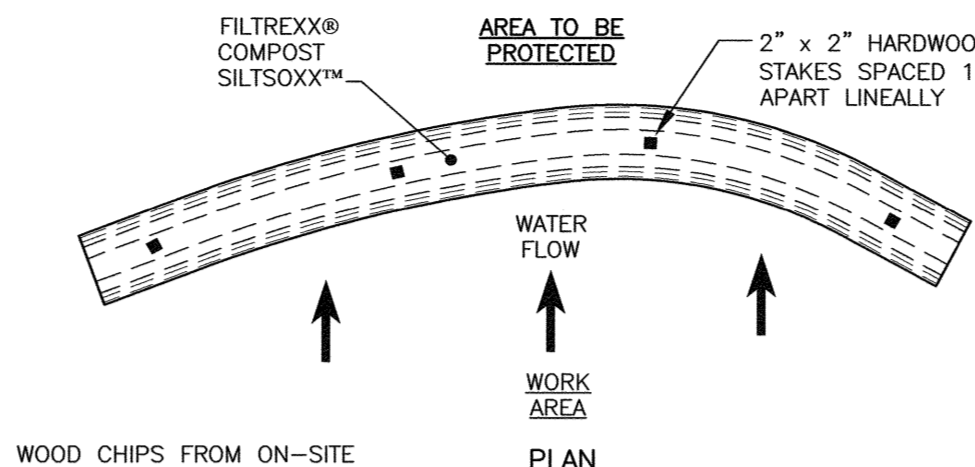
- FIRE-FIGHTING ACTIVITIES;
- FIRE HYDRANT FLUSHING;
- WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
- WATER USED TO CONTROL DUST;
- POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
- ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
- PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
- UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
- UNCONTAMINATED GROUND WATER OR SPRING WATER;
- FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
- UNCONTAMINATED EXCAVATION DEWATERING;
- LANDSCAPE IRRIGATION.

WASTE DISPOSAL

- WASTE MATERIAL
 - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
 - NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
 - ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
- HAZARDOUS WASTE
 - ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;
 - SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
- SANITARY WASTE
 - ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

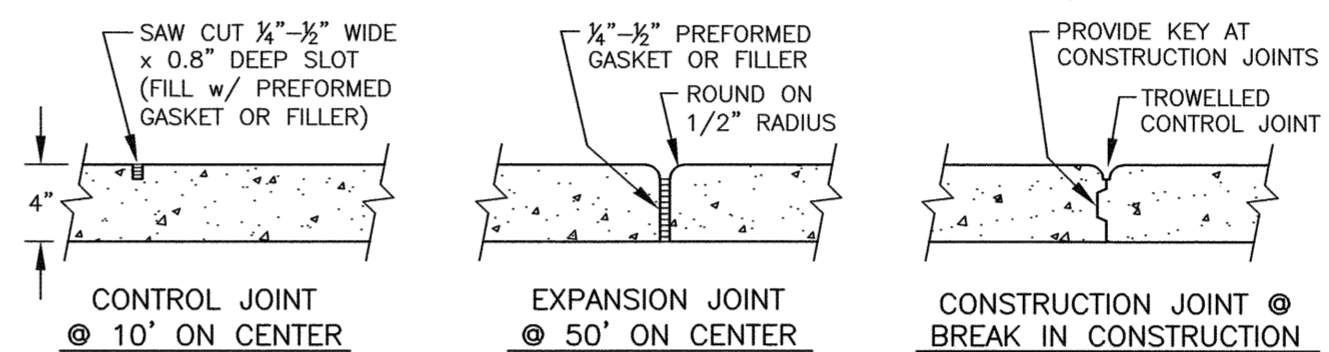
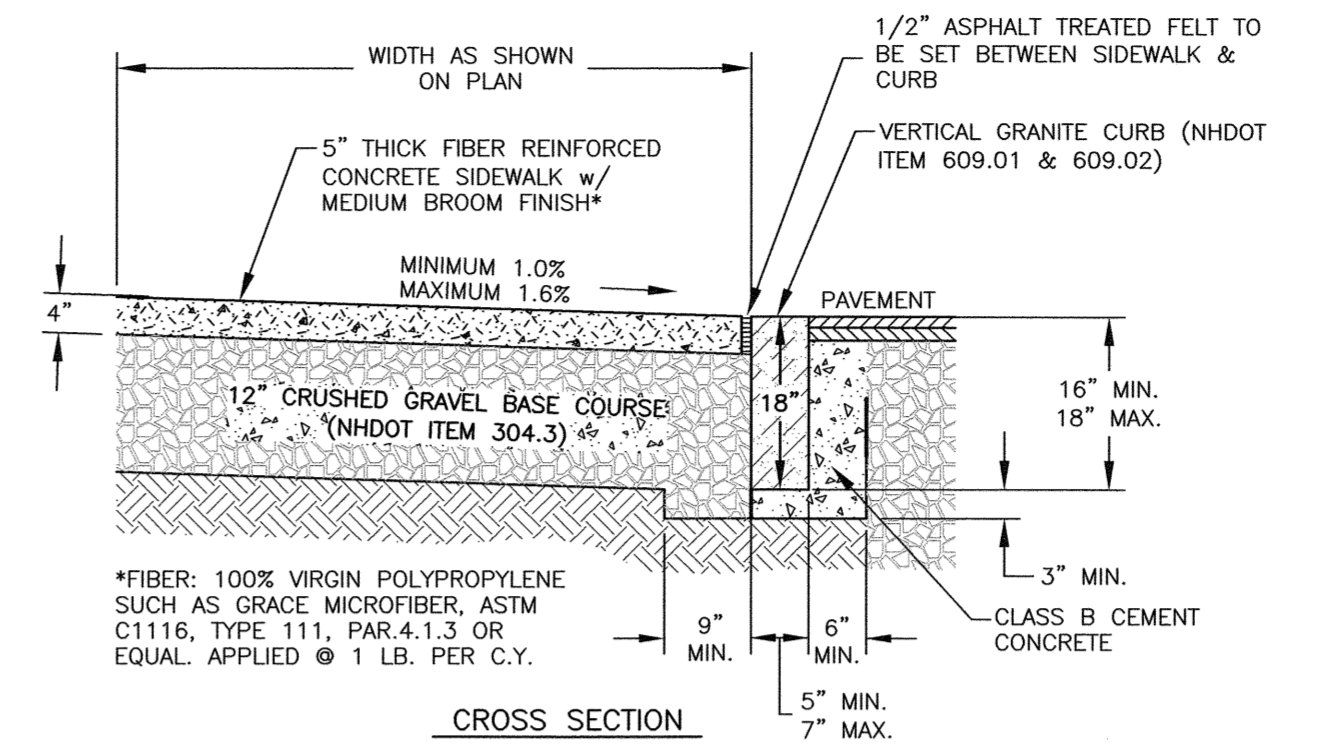
BLASTING NOTES

- CONTRACTOR SHALL CONTACT THE NHDES AND/OR LOCAL JURISDICTION PRIOR TO COMMENCING ANY BLASTING ACTIVITIES.
- FOR ANY PROJECT FOR WHICH BLASTING OF BEDROCK IS ANTICIPATED, THE APPLICANT SHALL SUBMIT A BLASTING PLAN THAT IDENTIFIES:
 - WHERE THE BLASTING ACTIVITIES ARE ANTICIPATED TO OCCUR;
 - THE ESTIMATED QUANTITY OF BLAST ROCK IN CUBIC YARDS; AND
 - SITE-SPECIFIC BLASTING BEST MANAGEMENT PRACTICES.



NOTES:

- ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
- FILTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
- THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
- SILTSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
- THE COMPOST FILTER MATERIAL WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.



C CONCRETE SIDEWALK W/FLUSH GRANITE CURB NTS

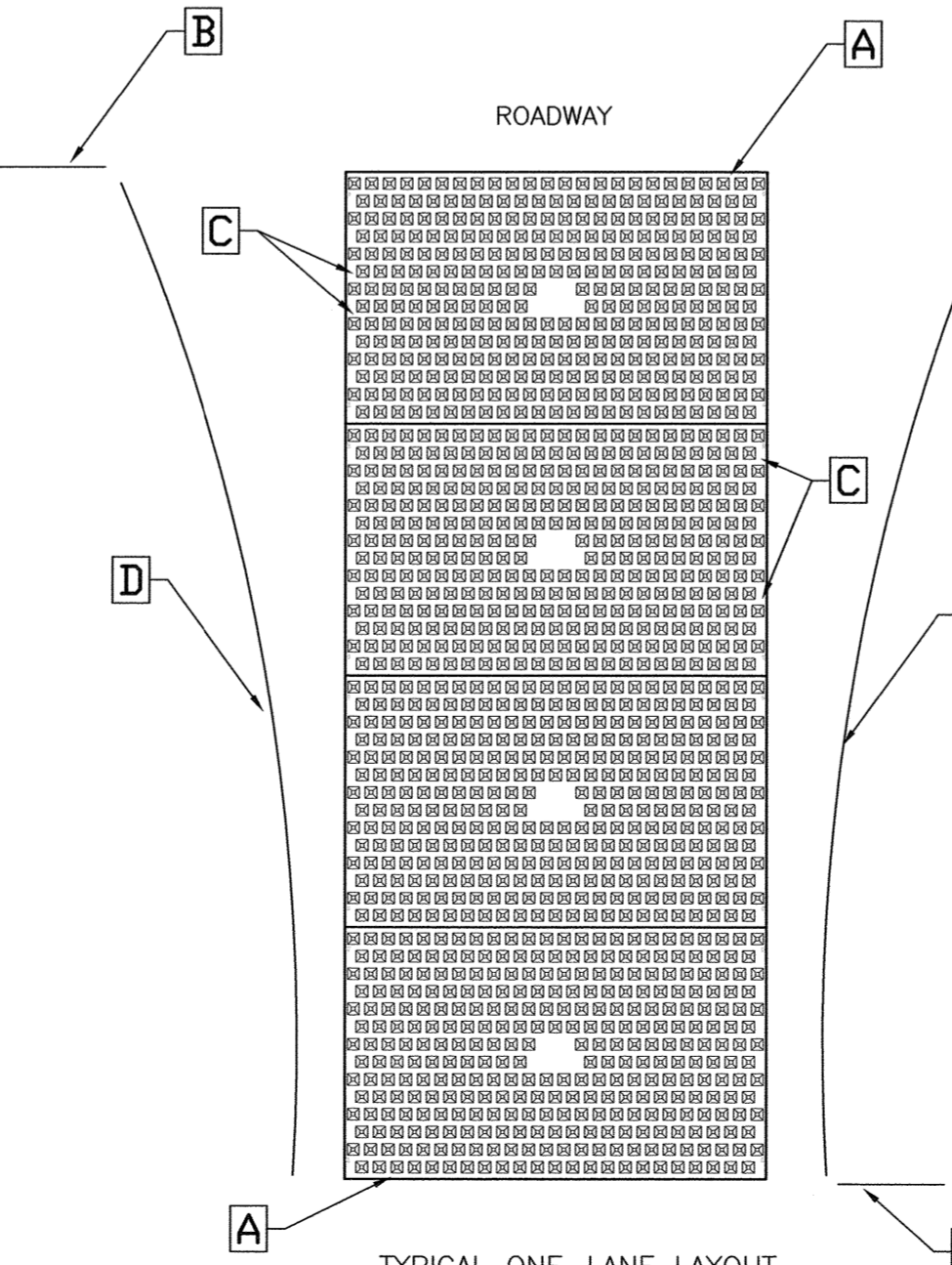
FODS TRACKOUT CONTROL SYSTEM

INSTALLATION:

THE PURPOSE AND DESIGN OF THE FODS TRACKOUT CONTROL SYSTEM IS TO EFFECTIVELY REMOVE MOST SEDIMENT FROM VEHICLE TIRES AS THEY EXIT A DISTURBED LAND AREA ONTO A PAVED STREET. THIS MANUAL IS A PLATFORM FROM WHICH TO INSTALL A FODS TRACKOUT CONTROL SYSTEM. (NOTE: THIS IS NOT A ONE SIZE FITS ALL GUIDE.) THE INSTALLATION MAY NEED TO BE MODIFIED TO MEET THE EXISTING CONDITIONS, EXPECTATIONS, OR DEMANDS OF A PARTICULAR SITE. THIS IS A GUIDELINE. ULTIMATELY THE FODS TRACKOUT CONTROL SYSTEM SHOULD BE INSTALLED SAFELY WITH PROPER ANCHORING AND SIGNS PLACED AT THE ENTRANCE AND EXIT TO CAUTION USERS AND OTHERS.

KEY NOTES:

- FODS TRACKOUT CONTROL SYSTEM MAT.
- FODS SAFETY SIGN.
- ANCHOR POINT.
- SILT OR ORANGE CONSTRUCTION FENCE.



INSTALLATION:

- THE SITE WHERE THE FODS TRACKOUT CONTROL SYSTEM IS TO BE PLACED SHOULD CORRESPOND TO BEST MANAGEMENT PRACTICES AS MUCH AS POSSIBLE. THE SITE WHERE FODS TRACKOUT CONTROL SYSTEM IS PLACED SHOULD ALSO MEET OR EXCEED THE LOCAL JURISDICTION OR STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS.
- CALL FOR UTILITY LOCATES 3 BUSINESS DAYS IN ADVANCE OF THE OF FODS TRACKOUT CONTROL SYSTEM INSTALLATION FOR THE MARKING OF UNDERGROUND UTILITIES. CALL THE UTILITY NOTIFICATION CENTER AT 811.
- ONCE THE SITE IS ESTABLISHED WHERE FODS TRACKOUT CONTROL SYSTEM IS TO BE PLACED, ANY EXCESSIVE UNEVEN TERRAIN SHOULD BE LEVELED OUT OR REMOVED SUCH AS LARGE ROCKS, LANDSCAPING MATERIALS, OR SUDDEN ABRUPT CHANGES IN ELEVATION.
- THE INDIVIDUAL MATS CAN START TO BE PLACED INTO POSITION. THE FIRST MAT SHOULD BE PLACED NEXT TO THE CLOSEST POINT OF EGRESS. THIS WILL ENSURE THAT THE VEHICLE WILL EXIT STRAIGHT FROM THE SITE ONTO THE PAVED SURFACE.
- AFTER THE FIRST MAT IS PLACED DOWN IN THE PROPER LOCATION, MATS SHOULD BE ANCHORED TO PREVENT THE POTENTIAL MOVEMENT WHILE THE ADJOINING MATS ARE INSTALLED. ANCHORS SHOULD BE PLACED AT EVERY ANCHOR POINT (IF FEASIBLE) TO HELP MAINTAIN THE MAT IN ITS CURRENT POSITION.
- AFTER THE FIRST MAT IS ANCHORED IN ITS PROPER PLACE, AN H BRACKET SHOULD BE PLACED AT THE END OF THE FIRST MAT BEFORE ANOTHER MAT IS PLACED ADJACENT TO THE FIRST MAT.
- ONCE THE SECOND MAT IS PLACED ADJACENT TO THE FIRST MAT, MAKE SURE THE H BRACKET IS CORRECTLY SITUATED BETWEEN THE TWO MATS, AND SLIDE MATS TOGETHER.
- NEXT THE CONNECTOR STRAPS SHOULD BE INSTALLED TO CONNECT THE TWO MATS TOGETHER.
- UPON PLACEMENT OF EACH NEW MAT IN THE SYSTEM, THAT MAT SHOULD BE ANCHORED AT EVERY ANCHOR POINT TO HELP STABILIZE THE MAT AND ENSURE THE SYSTEM IS CONTINUOUS WITH NO GAPS IN BETWEEN THE MATS.
- SUCCESSIVE MATS CAN THEN BE PLACED TO CREATE THE FODS TRACKOUT CONTROL SYSTEM REPEATING THE ABOVE STEPS.

USE AND MAINTENANCE

- VEHICLES SHOULD TRAVEL DOWN THE LENGTH OF THE TRACKOUT CONTROL SYSTEM AND NOT CUT ACROSS THE MATS.
- DRIVERS SHOULD TURN THE WHEEL OF THEIR VEHICLES SUCH THAT THE VEHICLE WILL MAKE A SHALLOW TURN ROUTE DOWN THE LENGTH OF THE FODS TRACKOUT CONTROL SYSTEM.
- MATS SHOULD BE CLEANED ONCE THE VOIDS BETWEEN THE PYRAMIDS BECOME FULL OF SEDIMENT. TYPICALLY THIS WILL NEED TO BE PERFORMED WITHIN TWO WEEKS AFTER A STORM EVENT. BRUSHING IS THE PREFERRED METHOD OF CLEANING, EITHER MANUALLY OR MECHANICALLY.
- THE USE OF ICE MELT, ROCK SALT, SNOW MELT, DE-ICER, ETC. SHOULD BE UTILIZED AS NECESSARY DURING THE WINTER MONTHS AND AFTER A SNOW EVENT TO PREVENT ICE BUILDUP.

REMOVAL

- REMOVAL OF FODS TRACKOUT CONTROL SYSTEM IS REVERSE ORDER OF INSTALLATION.
- STARTING WITH THE LAST MAT, THE MAT THAT IS PLACED AT THE INNERMOST POINT OF THE SITE OR THE MAT FURTHEST FROM THE EXIT OR PAVED SURFACE SHOULD BE REMOVED FIRST.
- THE ANCHORS SHOULD BE REMOVED.
- THE CONNECTOR STRAPS SHOULD BE UNBOLTED AT ALL LOCATIONS IN THE FODS TRACKOUT CONTROL SYSTEM.
- STARTING WITH THE LAST MAT IN THE SYSTEM, EACH SUCCESSIVE MAT SHOULD THEN BE MOVED AND STACKED FOR LOADING BY FORKLIFT OR EXCAVATOR ONTO A TRUCK FOR REMOVAL FROM THE SITE.

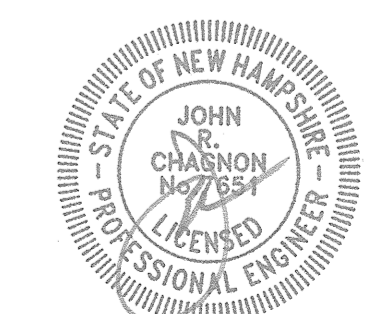
B FODS (USE AS REQUIRED) NTS

NOTES:

- THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

**SITE REDEVELOPMENT
 361 HANOVER STREET
 PORTSMOUTH, N.H.**

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	3/14/25
REVISIONS		

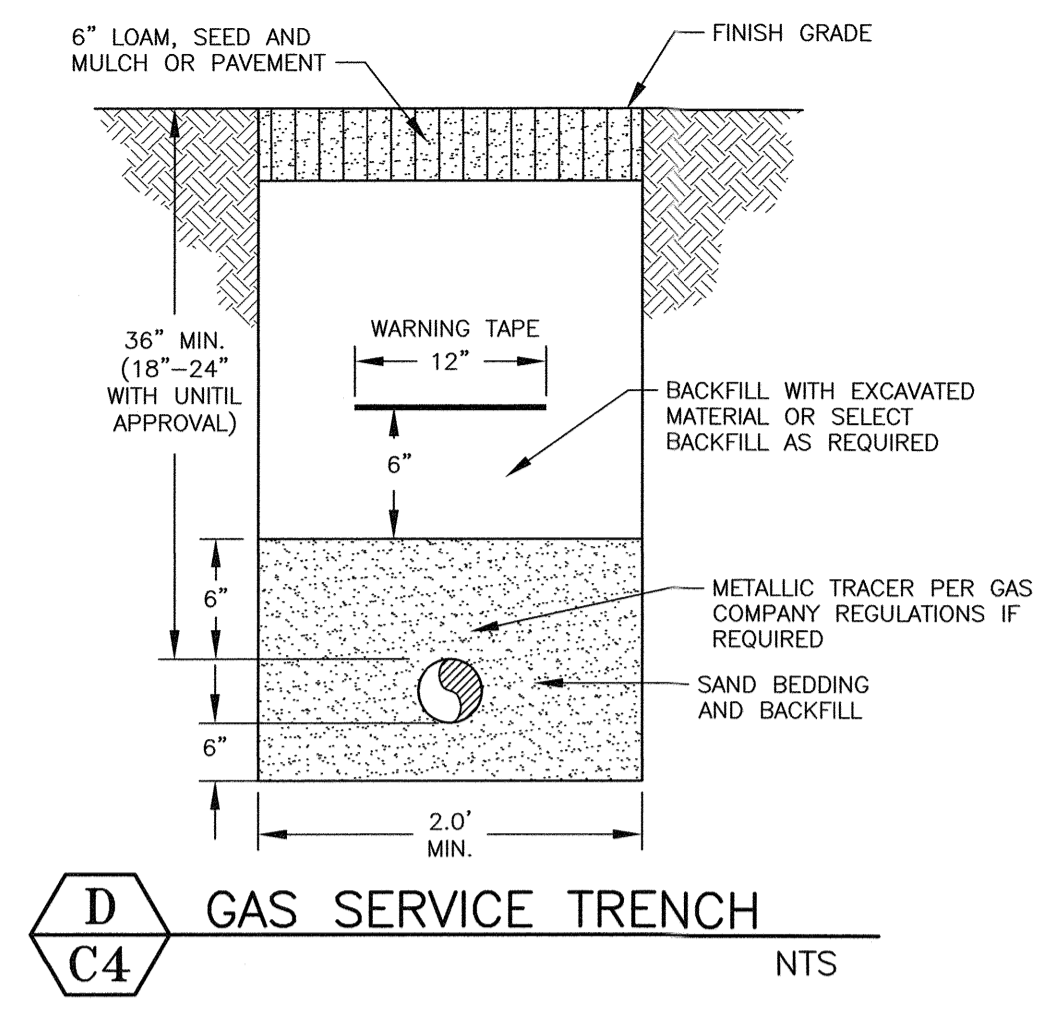


SCALE: AS SHOWN MARCH 2025

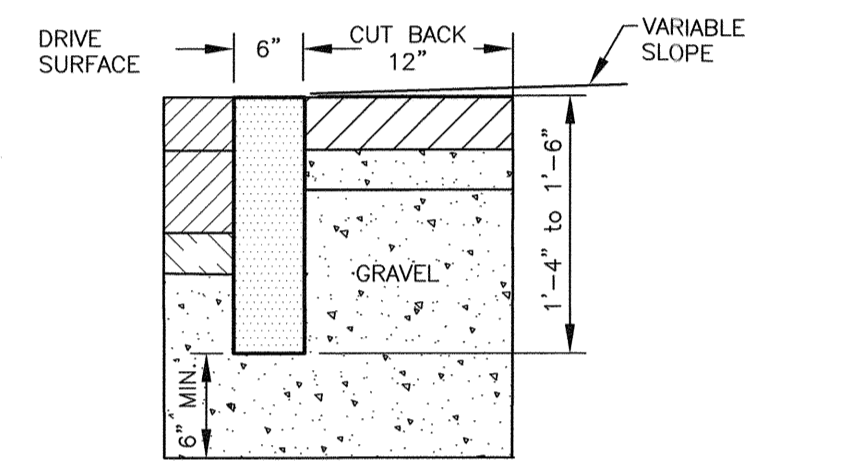
EROSION PROTECTION NOTES AND DETAILS D1

NOTES:

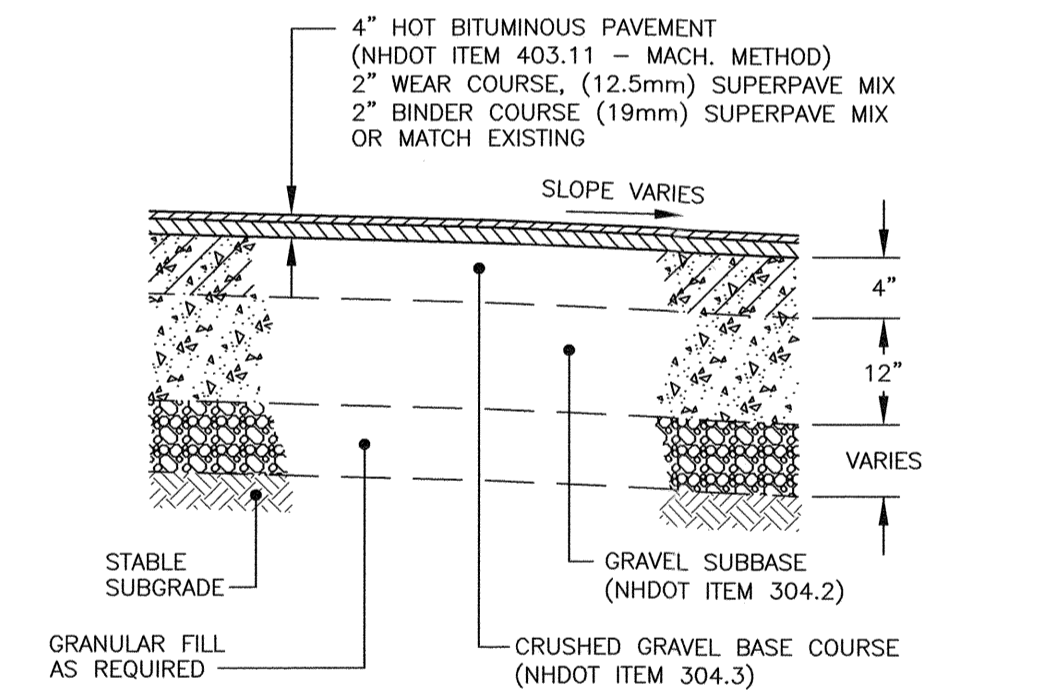
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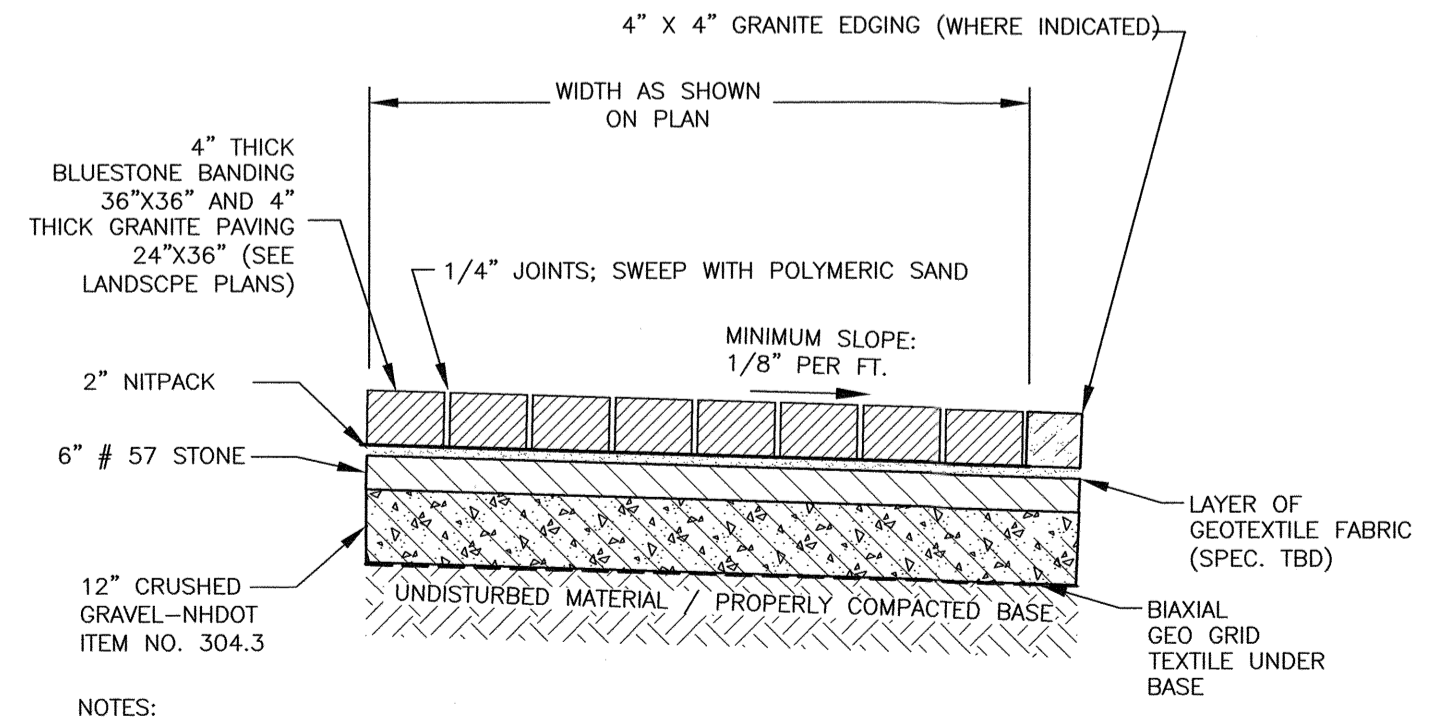
MIN. LENGTH OF CURB STONES 3FT.
 MAX. LENGTH OF CURB STONES 10FT.
 MAX. LENGTH OF STRAIGHT CURB STONES LAID ON CURVES SEE CHART
 NOTE: ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATE LENGTH.



E C3 FLUSHED GRANITE CURB NTS

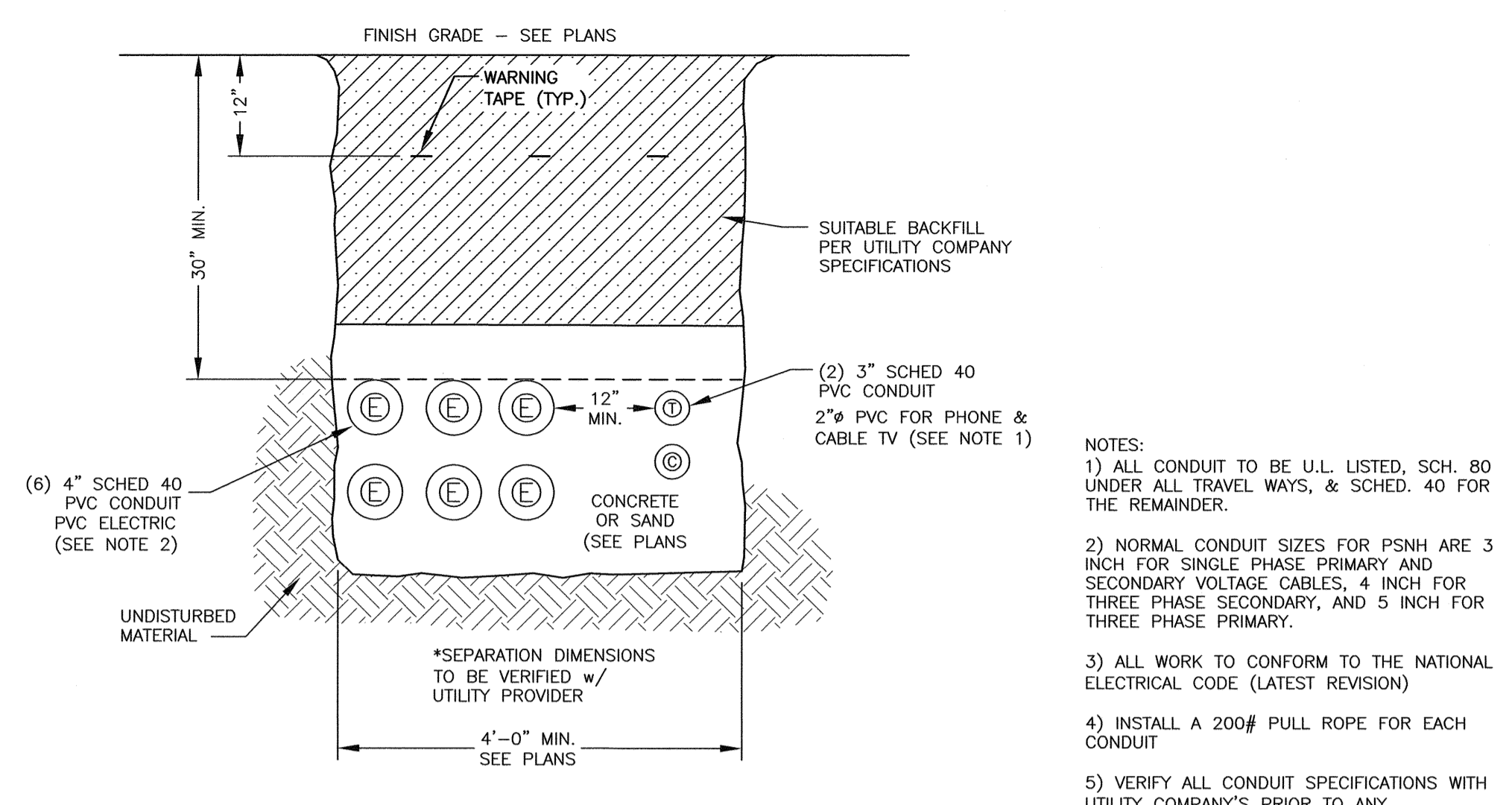


F C3 TYPICAL PAVEMENT CROSS-SECTION NTS



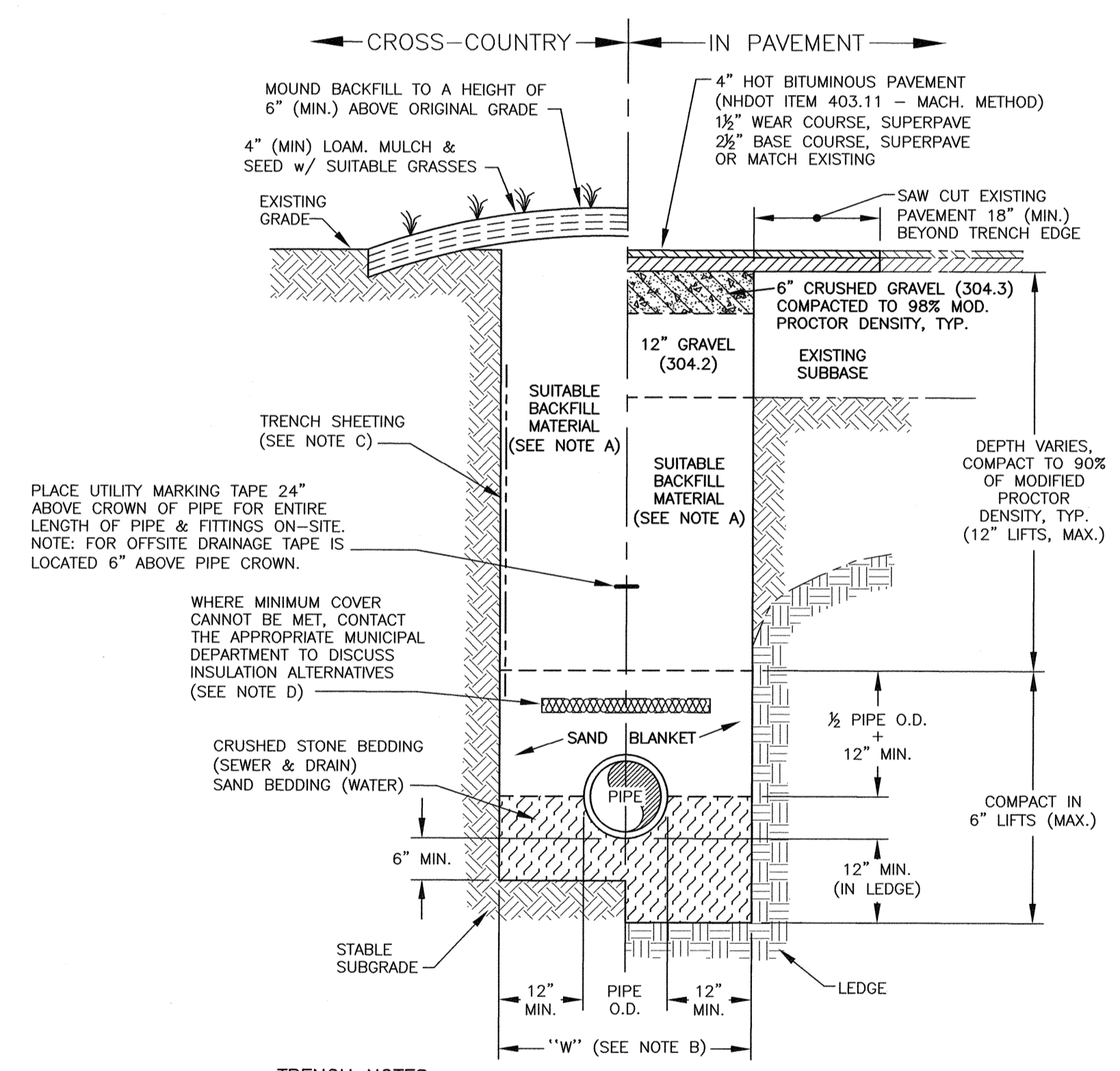
NOTES:
 1) ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY ORDINANCES & SPECIFICATIONS.

G C3 COBBLE / BLUESTONE DETAIL (DRIVEABLE) NTS



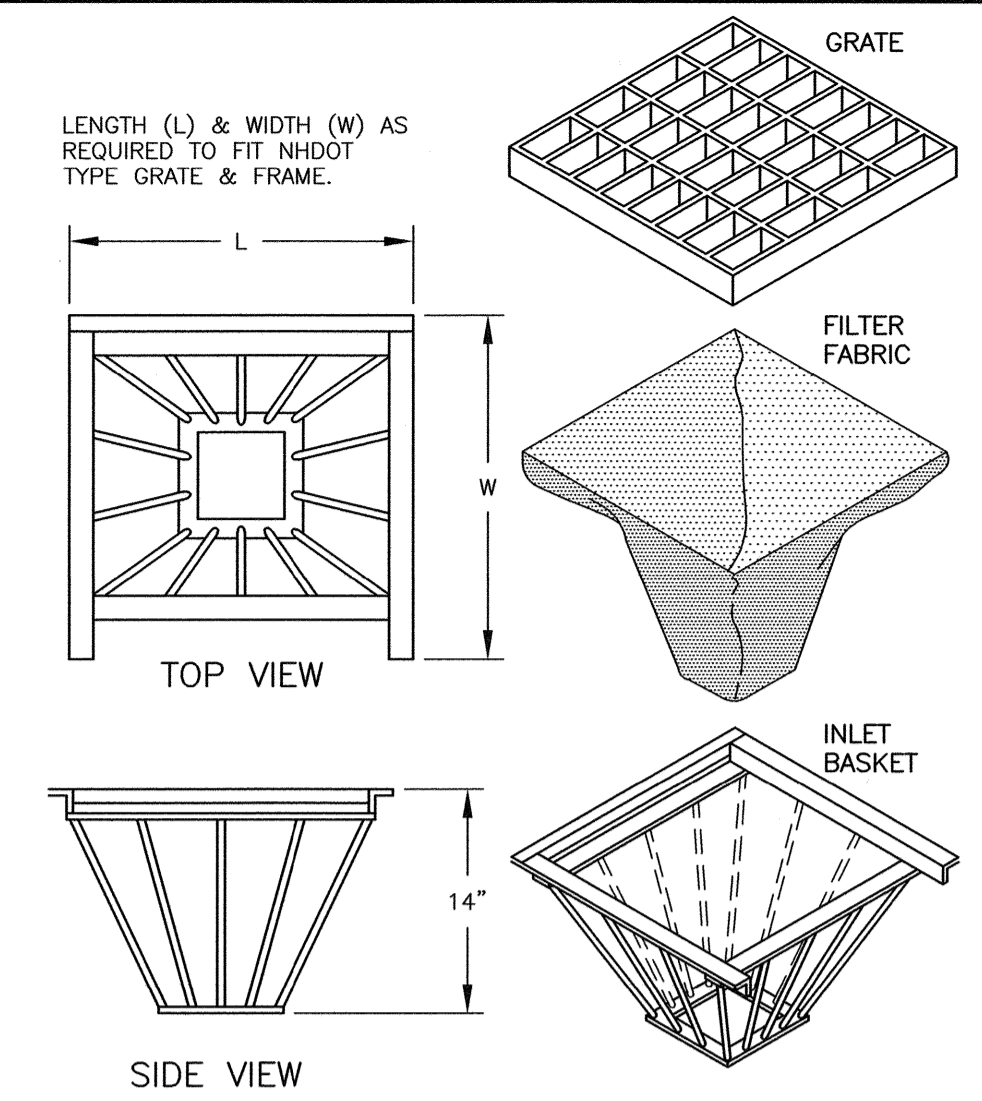
NOTES:
 1) ALL CONDUIT TO BE U.L. LISTED, SCH. 80 UNDER ALL TRAVEL WAYS, & SCHED. 40 FOR THE REMAINDER.
 2) NORMAL CONDUIT SIZES FOR PSNH ARE 3 INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4 INCH FOR THREE PHASE SECONDARY, AND 5 INCH FOR THREE PHASE PRIMARY.
 3) ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE (LATEST REVISION)
 4) INSTALL A 200# PULL ROPE FOR EACH CONDUIT
 5) VERIFY ALL CONDUIT SPECIFICATIONS WITH UTILITY COMPANY'S PRIOR TO ANY CONSTRUCTION.

H C4 BURIED ELEC/COMM CABLE NTS



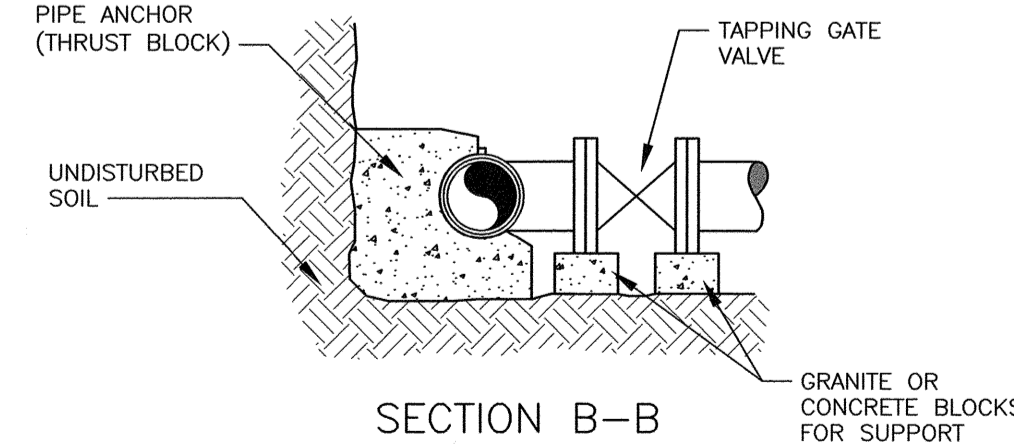
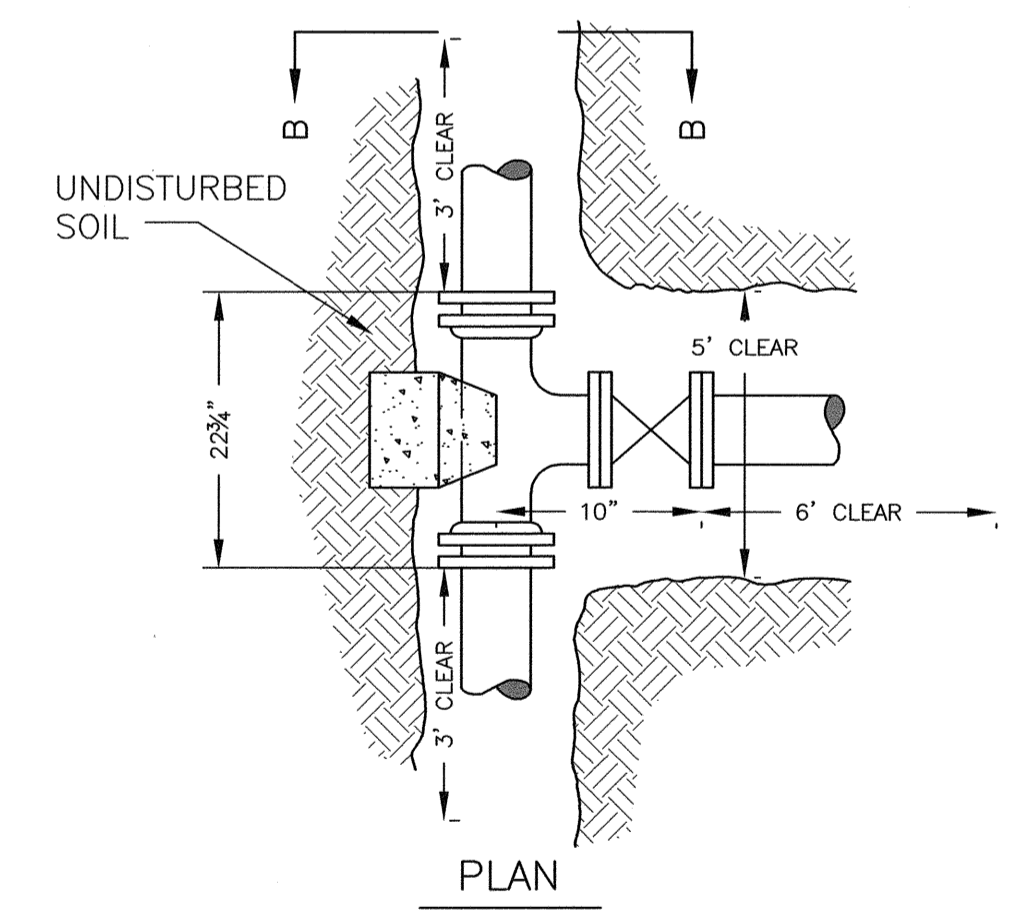
TRENCH NOTES:
 A) TRENCH BACKFILL:
 - IN PAVED AREAS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY; ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIALS DEEMED TO BE UNACCEPTABLE BY THE ENGINEER.
 - IN CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE.
 B) "W" = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D..
 C) TRENCH SHEETING:
 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFE EXCAVATION PRACTICES.
 D) MINIMUM PIPE COVER FOR UTILITY MAINS (UNLESS GOVERNED BY OTHER CODES):
 5' MINIMUM FOR SEWER (IN PAVEMENT)
 4' MINIMUM FOR SEWER (CROSS COUNTRY)
 3' MINIMUM FOR STORMWATER DRAINS
 5' MINIMUM FOR WATER MAINS
 E) ALL PAVEMENT CUTS SHALL BE REPAIRED BY THE INFRARED HEAT METHOD.

I C4 TYPICAL PIPE TRENCH NTS



1) INLET BASKETS SHALL BE INSTALLED IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION IS COMPLETE AND SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.
 2) FILTER FABRIC SHALL BE PUSHED DOWN AND FORMED TO THE SHAPE OF THE BASKET. THE SHEET OF FABRIC SHALL BE LARGE ENOUGH TO BE SUPPORTED BY THE BASKET FRAME WHEN HOLDING SEDIMENT AND, SHALL EXTEND AT LEAST 6" PAST THE FRAME. THE INLET GRATE SHALL BE PLACED OVER THE BASKET/FRAME AND WILL SERVE AS THE FABRIC ANCHOR.
 3) THE FILTER FABRIC SHALL BE A GEOTEXTILE FABRIC, POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS:
 -RAB STRENGTH: 45 LB. MIN. IN ANY PRINCIPAL DIRECTION (ASTM D1682)
 -MULLEN BURST STRENGTH: MIN. 60 psi (ASTM D774)
 4) THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 gpm/s.f. (MULTIPLY THE PERMITTIVITY IN SEC.-1 FROM ASTM 54491-85 CONSTANT HEAD TEST USING THE CONVERSION FACTOR OF 74.)
 5) THE INLET BASKET 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.
 6) SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

J C5 CATCH BASIN INLET BASKET NTS



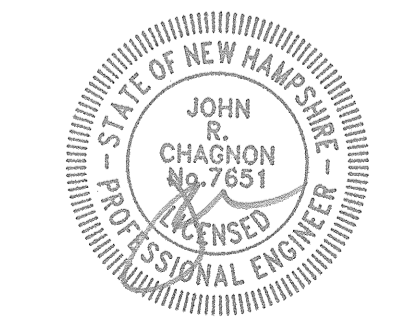
NOTES:
 1) ALL MATERIALS SHALL BE APPROVED BY THE PORTSMOUTH WATER DEPARTMENT PRIOR TO INSTALLATION AND USE.
 2) ALL JOINTS SHALL BE MECHANICAL.
 3) "CLEAR" DIMENSIONS SHOWN ARE REQUIRED FOR WORKSPACE.
 NO JOINTS ON PIPE BEING TAPPED WITHIN "CLEAR" AREA.
 4) FORD TYPE STAINLESS STEEL TAPPING SADDLES OR APPROVED EQUAL ARE ALSO ACCEPTABLE.

K C4 TAPPING SLEEVE AND GATE NTS

SITE REDEVELOPMENT
361 HANOVER STREET
PORTSMOUTH, N.H.

0	ISSUED FOR COMMENT	3/14/25
NO.	DESCRIPTION	DATE

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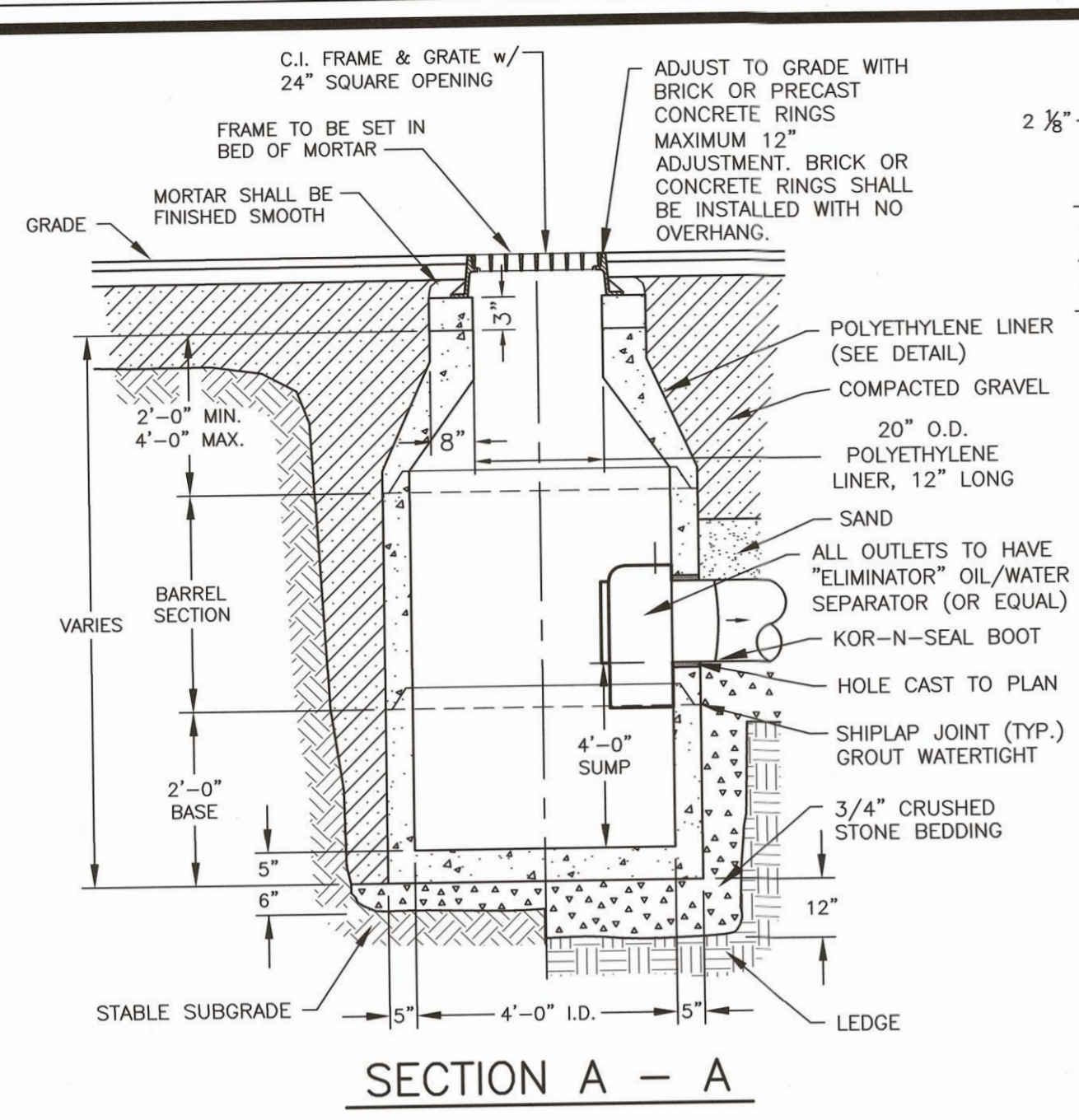


SCALE: AS SHOWN MARCH 2025

DETAILS **D2**

NOTES:

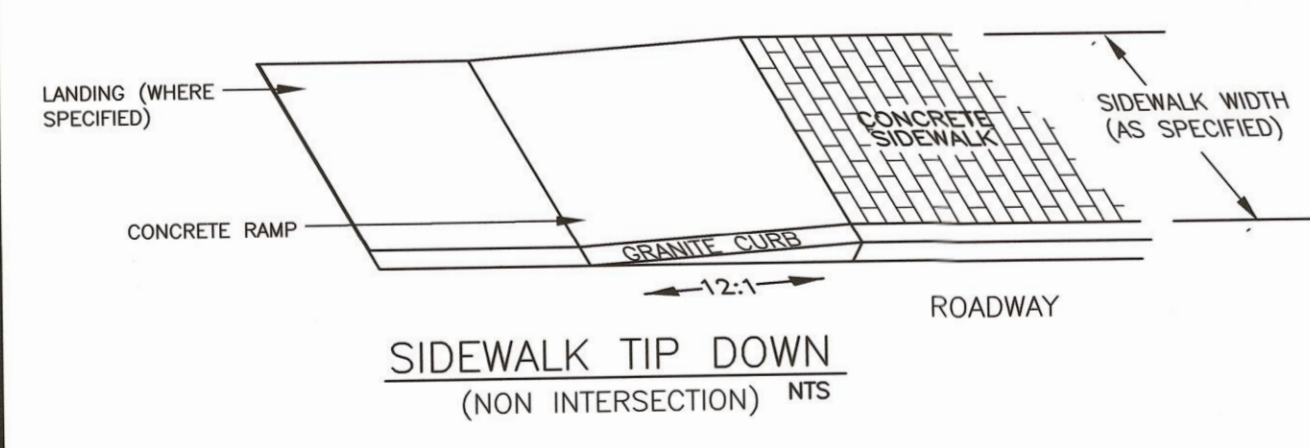
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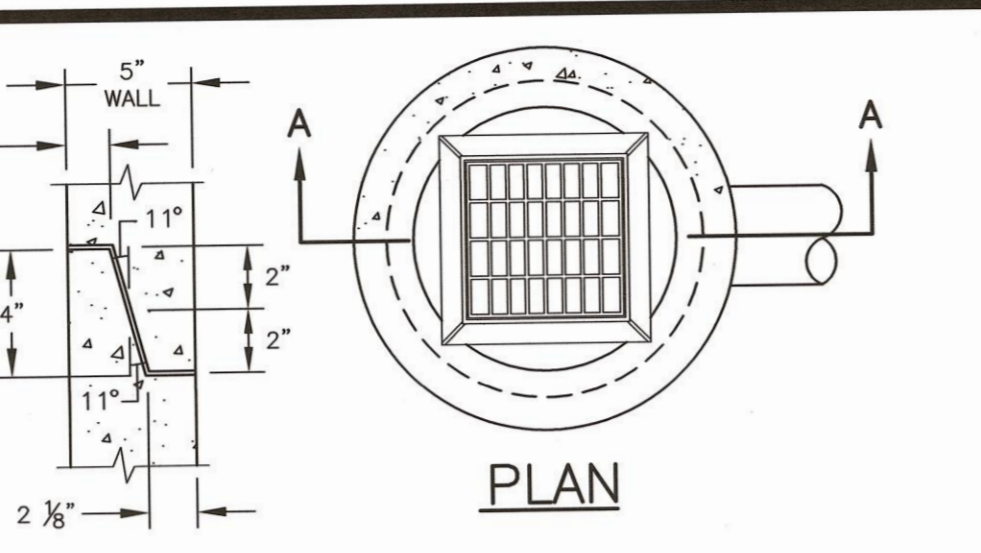
L
C5 CATCH BASIN DETAIL NTS

CATCH BASIN POLYETHYLENE LINER NOTES:

1. POLYETHYLENE LINER (ITEM 604.0007) SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
2. PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT (SUBSIDIARY TO ITEM 604.0007) BETWEEN FRAME AND POLYETHYLENE SHEET.
3. PLACE CLASS AA CONCRETE TO 2" BELOW THE TOP OF THE GRATE ELEVATION (SUBSIDIARY TO DRAINAGE STRUCTURE).
4. USE ON DRAINAGE STRUCTURES 4" MIN. DIAMETER ONLY.
5. TRIM POLYETHYLENE SHEET A MAXIMUM OF 4" OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE (EXCEPT AS SHOWN WHEN USED WITH 3-FLANGE FRAME AND CURB).
6. THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 6" FROM THE CENTER OF THE DOWNSPOUT IN ANY DIRECTION.
7. PLACED ONLY IN DRAINAGE STRUCTURES IN PAVEMENT.
8. SEE NHDOT DR-04, "DI-DB, UNDERDRAIN FLUSHING BASIN AND POLYETHYLENE LINER DETAILS," FOR ADDITIONAL INFORMATION.
9. CATCHBASINS WITHIN CITY RIGHT OF WAY SHALL HAVE A POLYETHYLENE LINER.

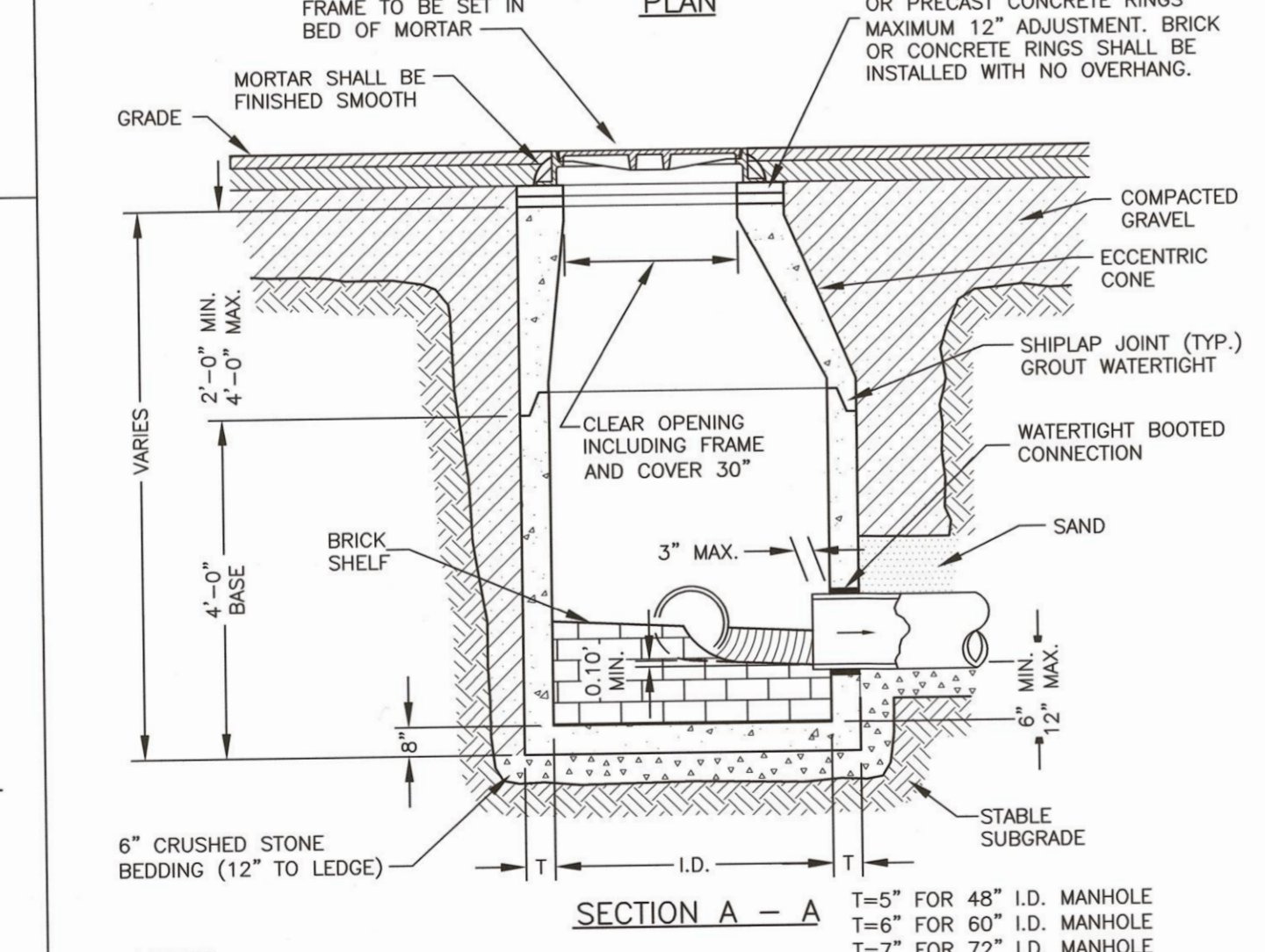
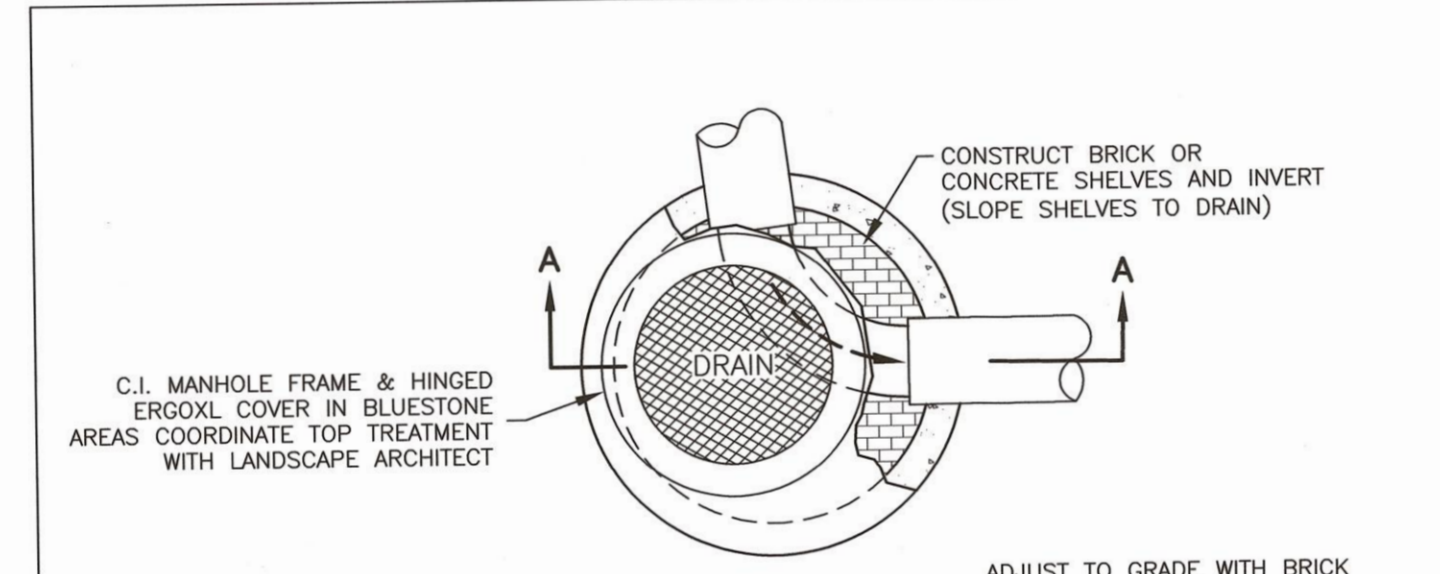


O
C3 TYPICAL SIDEWALK TIP DOWNS NTS



NOTES:

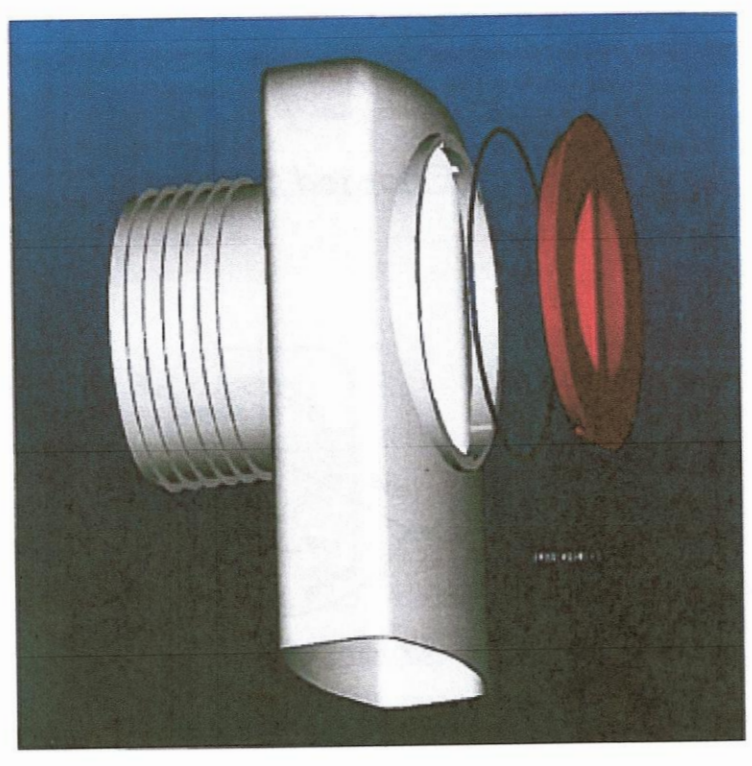
1. CONCRETE SHALL BE 4,000 P.S.I. AFTER 28 DAYS.
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FT. IN ALL SECTIONS & SHALL BE PLACED IN THE CENTER THIRD OF WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
4. EACH CASTING TO HAVE LIFTING HOLES CAST IN.
5. RISERS OF 1", 2", 3" & 4" CAN BE USED TO REACH DESIRED DEPTH.
6. THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
7. FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
8. CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
9. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
10. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
11. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
12. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
13. "ELIMINATOR" OIL/WATER SEPARATOR SHALL BE INSTALLED TIGHT TO INSIDE OF CATCHBASIN.



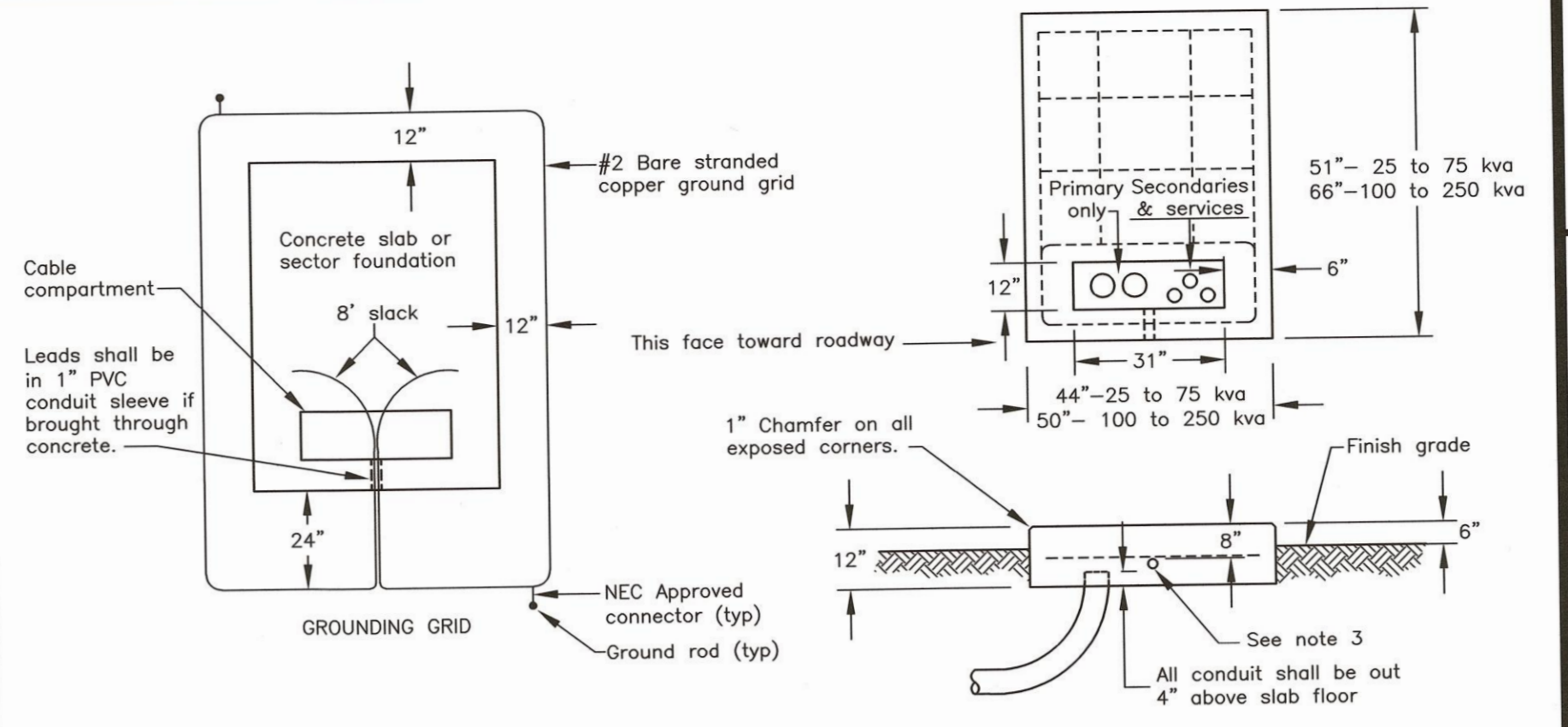
NOTES:

1. CONCRETE SHALL BE 4,000 P.S.I. AFTER 28 DAYS.
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FOOT.
4. EACH CASTING TO HAVE LIFTING HOLES CAST IN.
5. ALL MANHOLES SHALL BE 48" I.D. UNLESS SPECIFIED OTHERWISE ON THE PLANS.
6. MANHOLE SHALL BE DESIGNED AND CONSTRUCTED TO WITHSTAND H-20 LOADING.
7. PARGE SPACES BETWEEN PIPE AND MANHOLE WITH MORTAR.

P
C5 DRAIN MANHOLE WITH BOOT DETAIL NTS



M
C5 CATCH BASIN OIL TRAP THE "ELIMINATOR" NTS



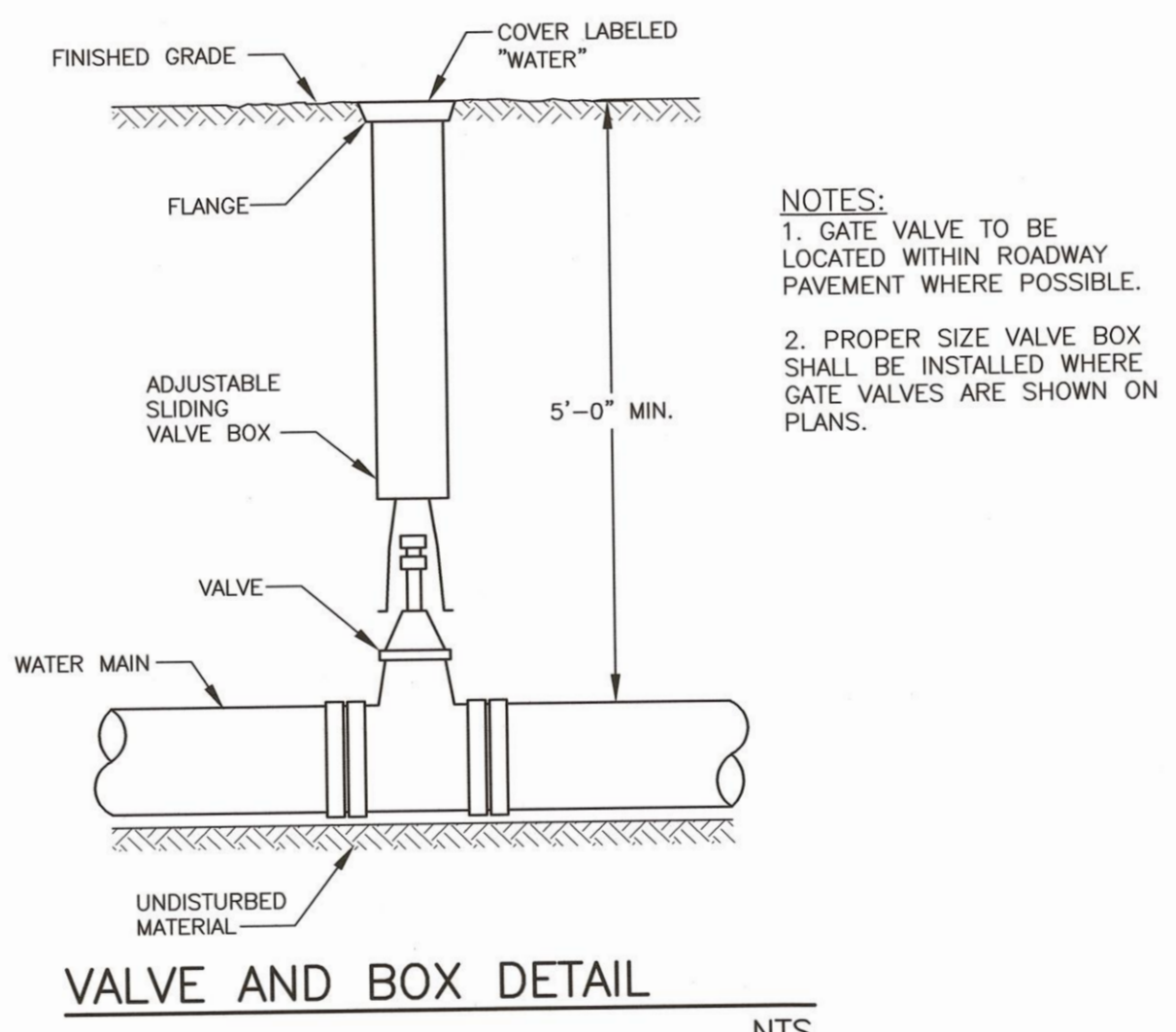
NOTES:

1. ALL CATCH BASIN OUTLETS TO HAVE "ELIMINATOR" OIL AND FLOATING DEBRIS TRAP MANUFACTURED BY KLEANSTREAM (NO EQUAL)
2. INSTALL DEBRIS TRAP TIGHT TO INSIDE OF STRUCTURE.
3. 1/4" HOLE SHALL BE DRILLED IN TOP OF DEBRIS TRAP.

NOTES:

1. See sheet "Requirements for Padmounted Transformer Slab Details".
2. All reinforcing to be #6 bars.
3. 1" PVC conduit sleeve for ground grid leads.
4. The ground grid shall be supplied and installed by the customer and is to be buried at least 12" below grade. Eight feet of extra wire for each ground grid leg shall be left exposed in the cable compartment to allow for the connection to the transformer. The two 8" ground rods may be either galvanized steel or copperweld and they shall be connected to the grid with NEC approved connectors.

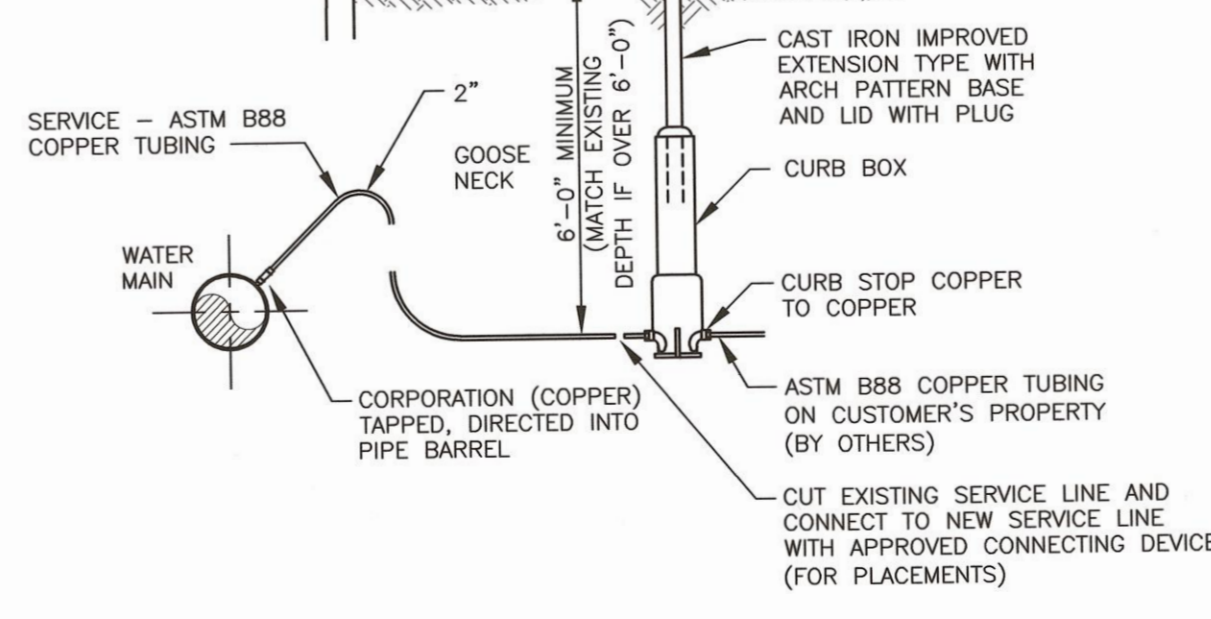
N
C4 TRANSFORMER PAD NTS



NOTES:

1. GATE VALVE TO BE LOCATED WITHIN ROADWAY PAVEMENT WHERE POSSIBLE.
2. PROPER SIZE VALVE BOX SHALL BE INSTALLED WHERE GATE VALVES ARE SHOWN ON PLANS.

NTS



Q
C4 WATER MAIN & SERVICE CONNECTION

HORIZONTAL ANCHOR DIMENSIONS FOR PIPE INSTALLATION IN ROCK UP TO 150 P.S.I. WORKING PRESSURE

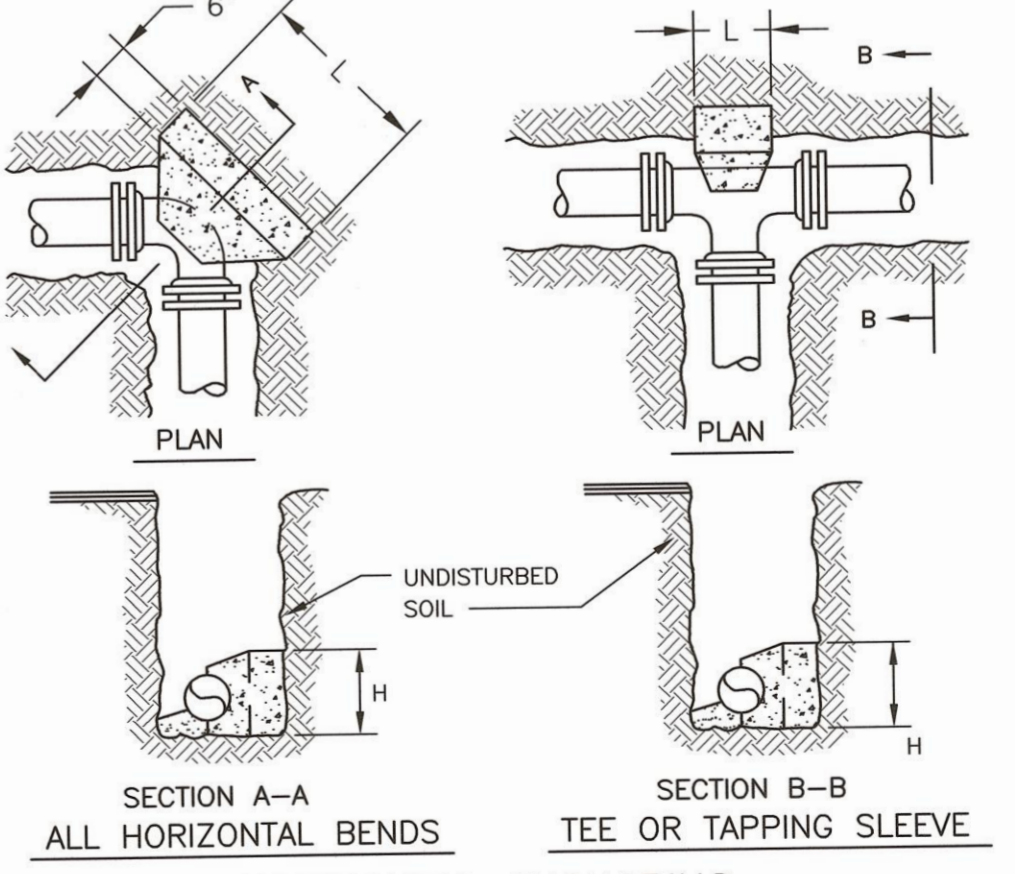
PIPE SIZE	TEE OR TAP SLEEVE		90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND	
	H	L	H	L	H	L	H	L	H	L
4"	0'-9"	1'-0"	0'-9"	1'-0"	0'-9"	1'-0"	0'-9"	1'-0"	0'-9"	1'-0"
6"	0'-9"	1'-0"	0'-9"	1'-0"	0'-9"	1'-0"	0'-9"	1'-0"	0'-9"	1'-0"
8"	1'-2"	1'-2"	1'-2"	1'-2"	1'-0"	1'-0"	0'-9"	1'-0"	0'-9"	1'-0"
10"	1'-4"	1'-4"	1'-4"	1'-4"	1'-0"	1'-0"	0'-9"	1'-0"	0'-9"	1'-0"
12"	1'-8"	1'-8"	1'-8"	1'-8"	1'-3"	1'-3"	1'-0"	1'-0"	0'-9"	1'-0"

HORIZONTAL ANCHOR DIMENSIONS FOR AVERAGE SOIL CONDITIONS UP TO 150 P.S.I. WORKING PRESSURE

PIPE SIZE	TEE OR TAP SLEEVE		90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND	
	H	L	H	L	H	L	H	L	H	L
4"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-4"	0'-9"	1'-0"	0'-6"	1'-0"
6"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-4"	0'-9"	1'-0"	0'-6"	1'-0"
8"	1'-4"	2'-8"	1'-4"	2'-8"	1'-4"	1'-6"	1'-0"	1'-0"	0'-9"	1'-0"
10"	1'-8"	3'-4"	1'-8"	3'-4"	1'-8"	2'-0"	1'-3"	1'-3"	1'-0"	1'-0"
12"	2'-0"	4'-0"	2'-0"	4'-0"	2'-0"	2'-2"	1'-6"	1'-6"	1'-3"	1'-3"

NOTES:

- 1) TABLES ARE BASED ON AN ALLOWABLE SOIL PRESSURE OF 3000 PSF ON UNDISTURBED EARTH BEHIND THE ANCHOR BLOCK. WHERE SOIL HAS BEEN DISTURBED BY ADJACENT EXCAVATIONS OR WHERE SOIL CANNOT WITHSTAND SUCH A PRESSURE, THE TABLE DOES NOT APPLY.
- 2) WHERE ENTIRE DEPTH OF PIPE IS BELOW THE TOP SURFACE OF SOUND ROCK, USE "HORIZONTAL ANCHOR DIMENSIONS FOR PIPE INSTALLATION IN ROCK" TABLE.



HORIZONTAL ANCHORING

SITE REDEVELOPMENT
361 HANOVER STREET
PORTSMOUTH, N.H.

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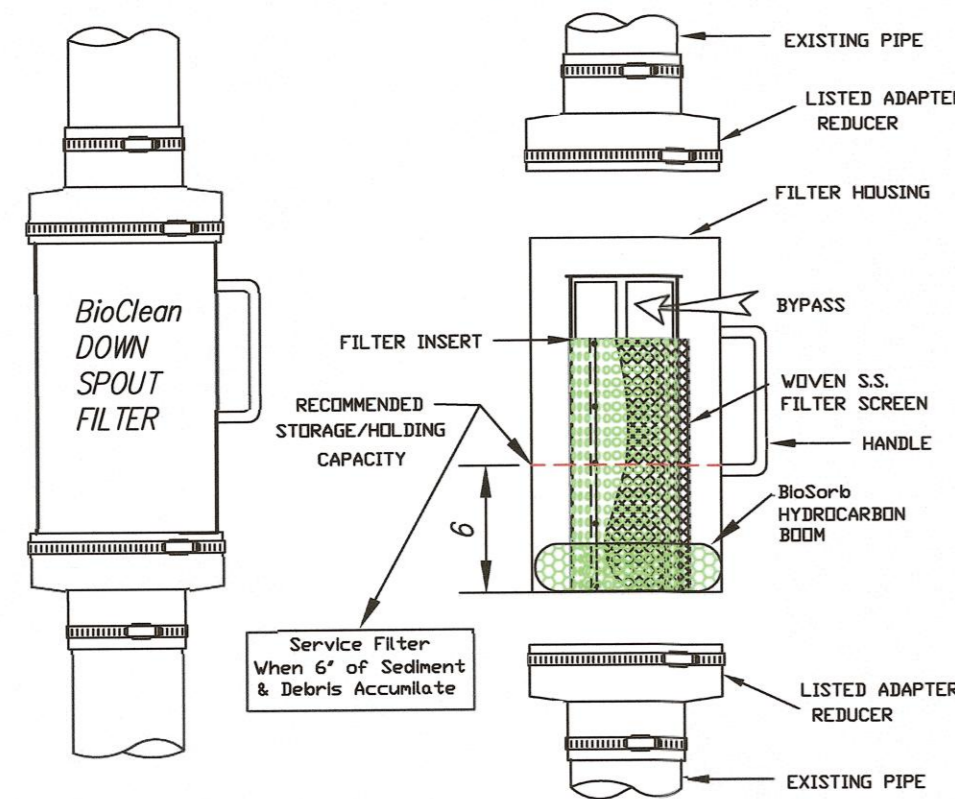
SCALE: AS SHOWN MARCH 2025

DETAILS **D3**

P:\NH\010135-Hampshire Development\2977.01-Hanover St., Portsmouth-1501\Portsmouth Plotter Canon TX3000 (US)RPSM-1501\Portsmouth Plotter Canon TX3000

SERVICE MANUAL
(Cleaning Procedures)

Bio Clean DOWNSPOUT FILTER
Screen Type With Hydrocarbon Boom



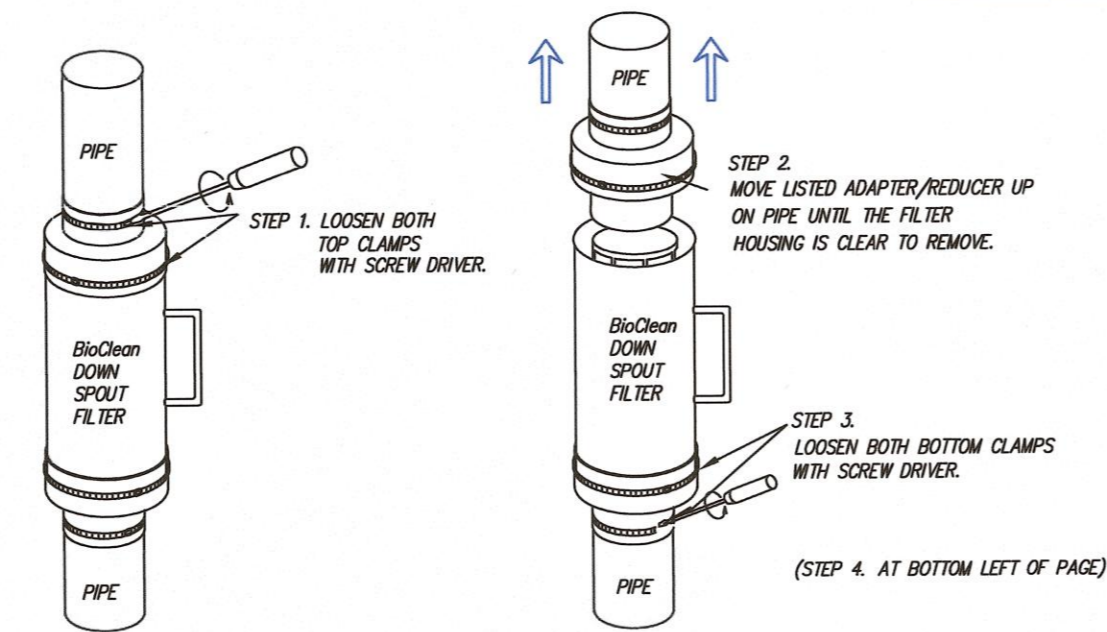
TOOLS AND EQUIPMENT NEEDED:

1. Medium size flat sored driver
2. BioSorb hydrocarbon boom. 25-1/2" X 2" dia. (Call Bio Clean to order)
3. Trash container or bag
4. Wooden dowel approx. 3' x 1/2" dia.

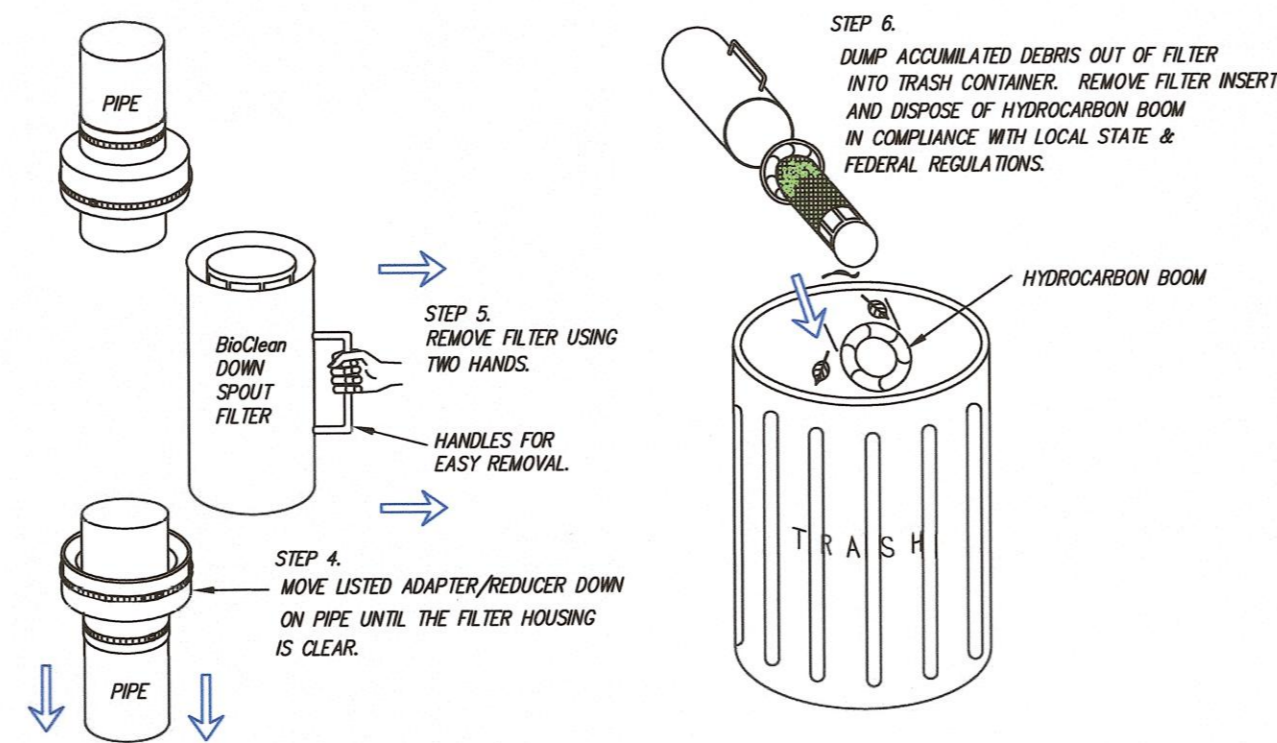


P.O. BOX 869, Oceanside, Ca. 92049
(760) 433-7640 Fax (760) 433-3176
www.biocleanenvironmental.net

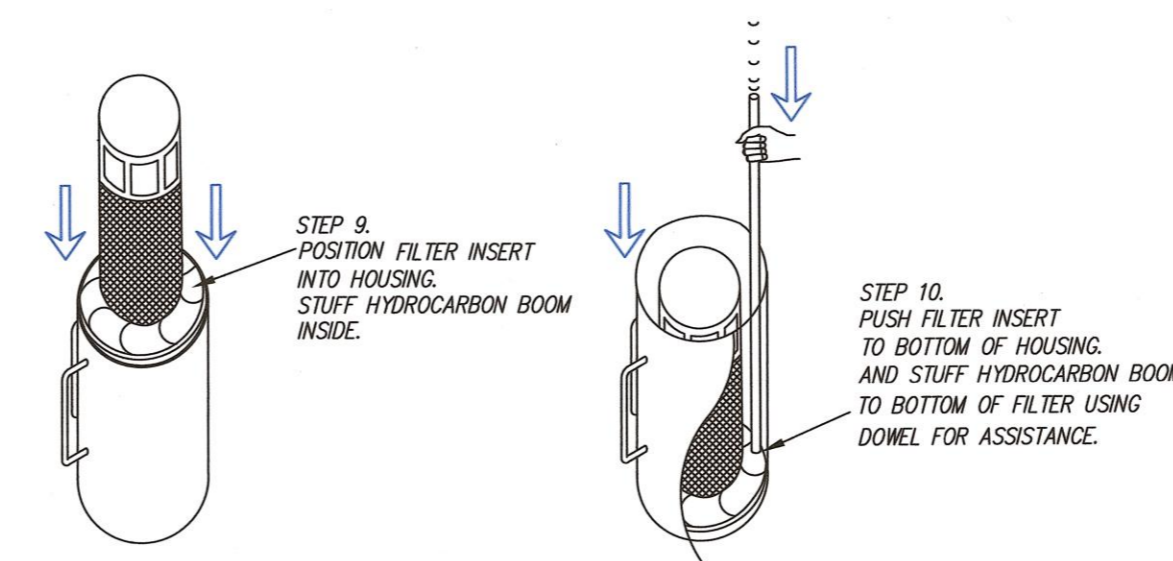
REMOVING FILTER



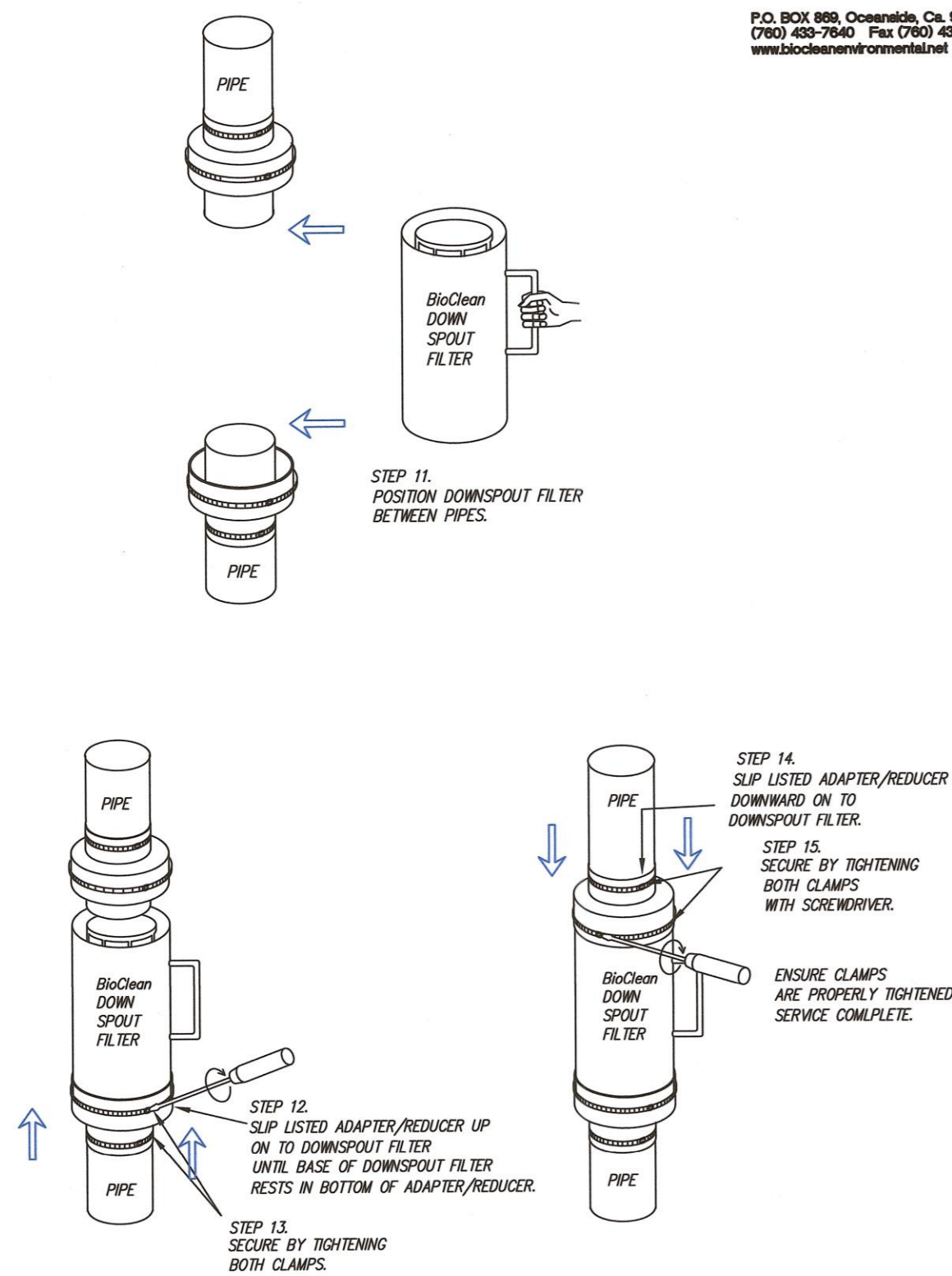
CLEANING FILTER



REPLACING FILTER INSERT

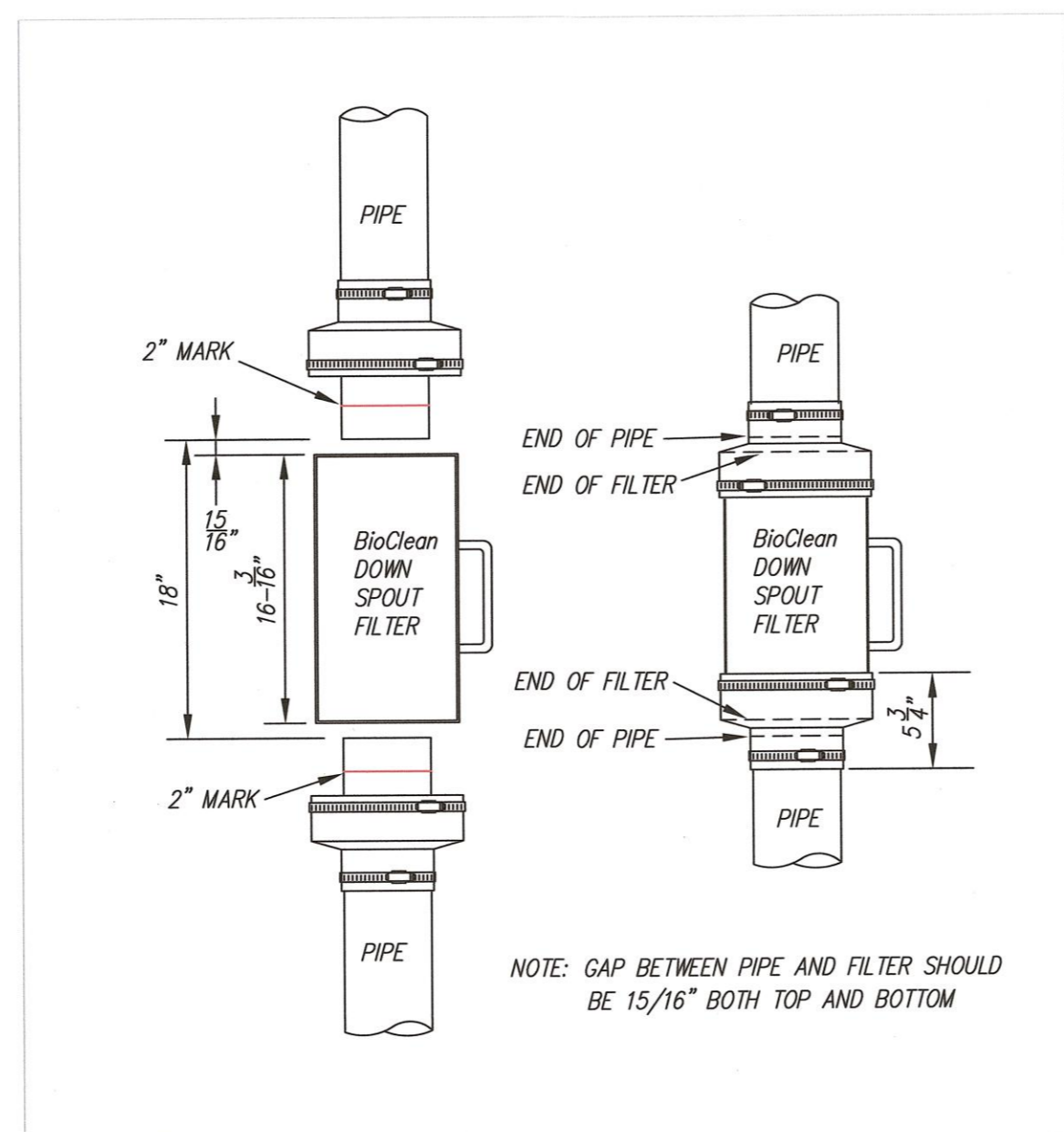


REPLACING FILTER



APPROPRIATE INSTALLATION

FILTER CENTERED BETWEEN PIPES WITH EVEN GAPS ON TOP AND BOTTOM



DOWNSPOUT FILTER

MAINTENANCE:

THE FILTER IS DESIGNED TO ALLOW FOR THE USE OF MANUAL OR VACUUM REMOVAL OF CAPTURED MATERIALS IN THE FILTER STRUCTURE. FILTERS CAN BE CLEANED EASILY BY SIMPLY LOOSENING THE METAL CLAMPS AND REMOVING THE FILTER. THE HYDROCARBON ADSORBENT MEDIA THEN IS REMOVED AND THE TRASH AND DEBRIS CAN BE REMOVED FROM THE STRUCTURE. AT EACH CLEANING, NEW HYDROCARBON ADSORBENT MEDIA SHOULD BE REINSTALLED.

MAINTENANCE NOTES:

1. BIO CLEAN ENVIRONMENTAL SERVICES, INC. RECOMMENDS CLEANING AND DEBRIS REMOVAL MAINTENANCE A MINIMUM OF TWO TO FOUR TIMES PER YEAR, AND REPLACEMENT OF MEDIA BOOMS A MINIMUM OF TWICE A YEAR.
2. THE DOWNSPOUT FILTER CAN BE CLEANED BY LOOSING THE METAL CLAMPS AT BOTTOM AND TOP OF RUBBER BOOTS. REMOVE THE FILTER BY GRASPING THE HANDLES, SLIDE DOWN THE BOTTOM BOOT OVER THE OUTFLOW PIPE AND SLIDE UP THE TOP BOOT OVER INFLOW PIPE. PLACE THE FILTER ON THE GROUND. DISPOSE OF ANY TRASH AND SEDIMENTS COLLECTED IN FILTER.
3. ONCE THE FILTER IS FREE, REMOVE THE INTERIOR INSERT. REMOVE THE HYDROCARBON ADSORBENT MEDIA BY UNWRAPPING IT FROM THE INTERIOR INSERT AND REPLACING WITH A NEW MEDIA, WRAPPING IT THE SAME WAY.
4. PLACE THE INTERIOR INSERT BACK INTO THE FILTER.
5. PLACE THE FILTER BACK IN LINE WITH THE PIPE AND SLIDE BACK THE TOP AND BOTTOM BOOTS IN PLACE AND TIGHTEN THE METAL CLAMPS SECURELY.
6. EVALUATION OF THE HYDROCARBON MEDIA SHALL BE PERFORMED AT EACH CLEANING. IF THE MEDIA IS FILLED WITH HYDROCARBONS AND OILS IT SHOULD BE REPLACED.
7. TRANSPORT ALL DEBRIS, TRASH, ORGANICS AND SEDIMENTS TO APPROVED FACILITY FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REQUIREMENTS.
8. THE HYDROCARBON MEDIA WITH ABSORBED HYDROCARBONS IS CONSIDERED HAZARDOUS WASTE AND NEEDS TO BE HANDLED AND DISPOSED OF AS HAZARDOUS MATERIAL. PLEASE REFER TO STATE AND LOCAL REGULATIONS FOR THE PROPER DISPOSAL OF USED MOTOR OIL/FILTERS.
9. FOLLOWING MAINTENANCE AND/OR INSPECTION, THE MAINTENANCE OPERATOR SHALL PREPARE A MAINTENANCE/INSPECTION RECORD. THE RECORD SHALL INCLUDE ANY MAINTENANCE ACTIVITIES PERFORMED, AMOUNT AND DESCRIPTION OF DEBRIS COLLECTED, AND CONDITION OF FILTER.
10. THE OWNER SHALL RETAIN THE MAINTENANCE/INSPECTION RECORD FOR A MINIMUM OF FIVE YEARS FROM THE DATE OF MAINTENANCE. THESE RECORDS SHALL BE MADE AVAILABLE TO THE GOVERNING MUNICIPALITY FOR INSPECTION UPON REQUEST AT ANY TIME.
11. ANY TOXIC SUBSTANCE OR ITEM FOUND IN THE FILTER IS CONSIDERED AS HAZARDOUS MATERIAL AND CAN ONLY BE HANDLED BY A CERTIFIED HAZARDOUS WASTE TRAINED PERSON (MINIMUM 24-HOUR HAZWOPER).

NOTES:

- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

**STORMWATER
TREATMENT
MAINTENANCE**

SITE REDEVELOPMENT
361 HANOVER STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
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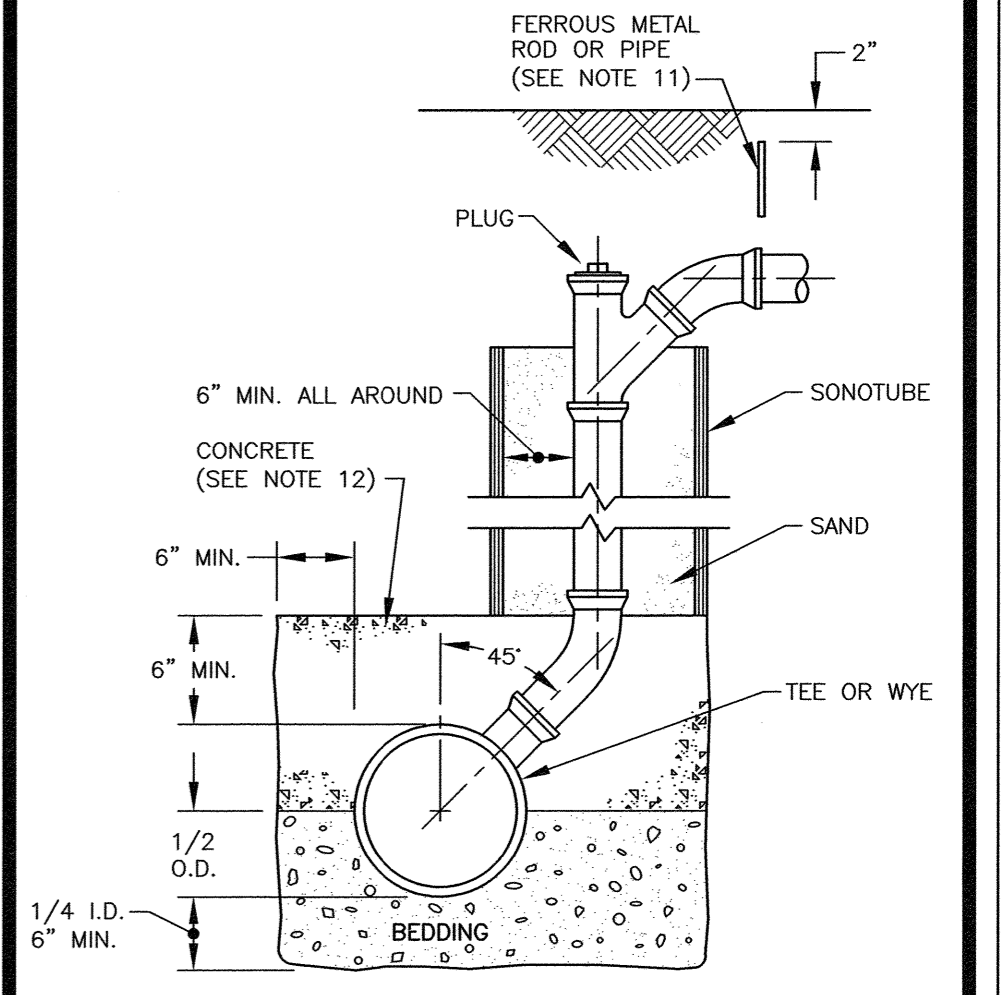
SCALE: AS SHOWN MARCH 2025

DETAILS

D4

NOTES:

- THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION." (NHDES DECEMBER 2008).

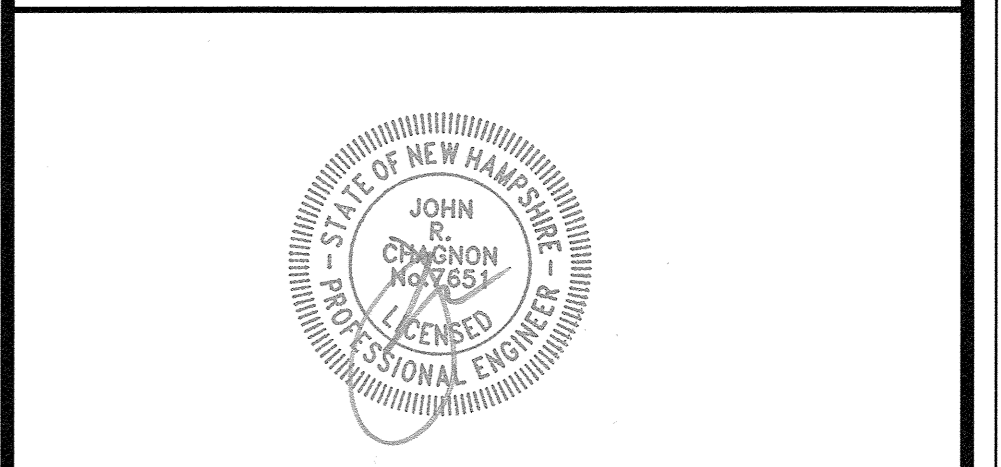


NO BACKFILLING BEFORE CONCRETE HAS TAKEN INITIAL SET (7 HRS. MIN.). BACKFILLING TO BE BROUGHT UP EVENLY ON ALL SIDES.

CHIMNEY (SEE NOTE)
 NOT TO SCALE

SITE REDEVELOPMENT
361 HANOVER STREET
PORTSMOUTH, N.H.

0	ISSUED FOR COMMENT	3/14/25
NO.	DESCRIPTION	DATE



SCALE: AS SHOWN MARCH 2025

SEWER DETAILS **D5**

GENERAL NOTES

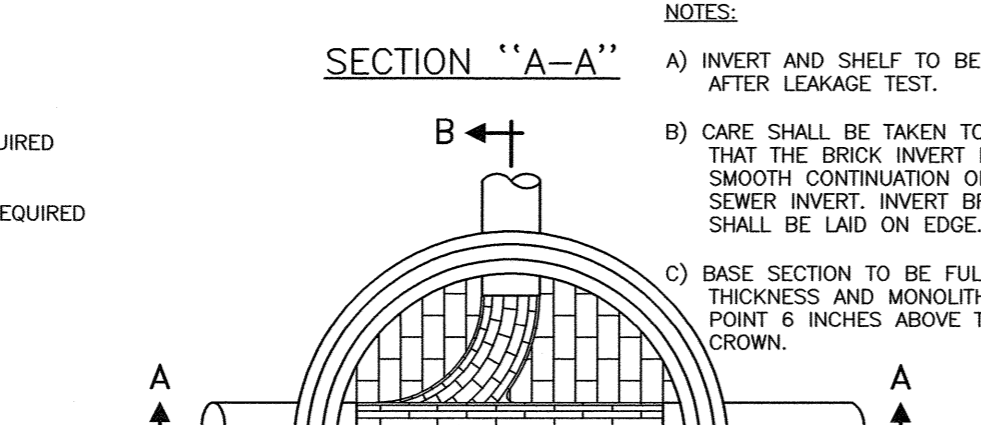
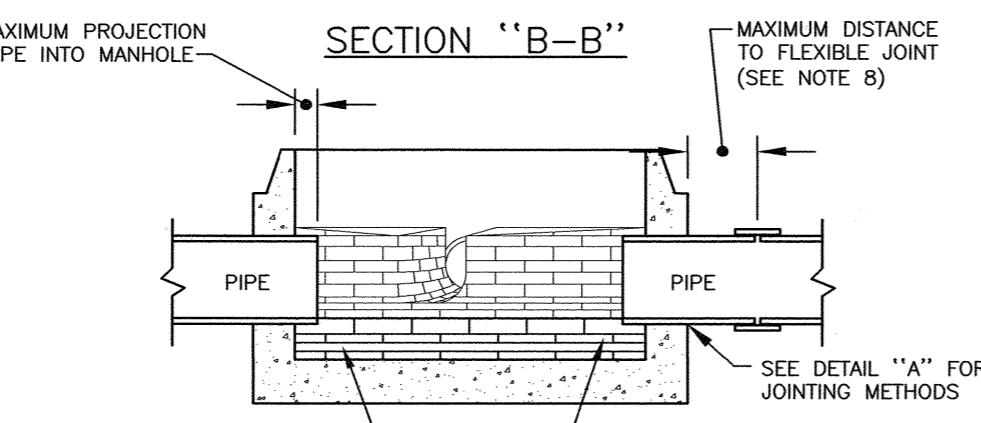
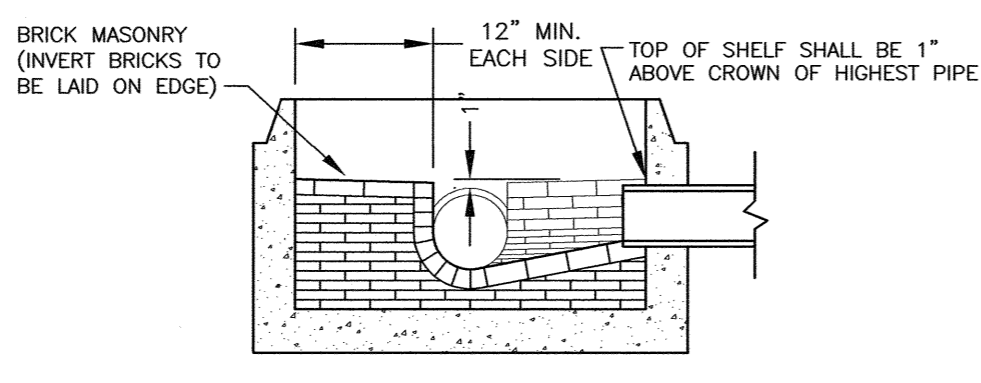
- IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAK RESISTANCE NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT, WITH ADEQUATE JOINTING, OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH REINFORCEMENT. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE, CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
- BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE, OR POURED IN PLACE REINFORCED CONCRETE IF POURED AS A COMPLETE MANHOLE.
- PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478.
- LEAKAGE TEST MAY NOT BE FEASIBLE, BUT SHALL CONFORM TO ENV-WQ 704.17.
- INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW. AT CHANGES IN DIRECTIONS, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE AND TANGENT TO THE CENTERLINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.
- FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING, A THREE INCH (MINIMUM HEIGHT) WORD "SEWER" FOR SEWERS AND "DRAIN" FOR DRAINS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER. CASTINGS SHALL CONFORM TO CLASS 30, ASTM A48.
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE, FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 STONE SIZE NO. 67.

100% PASSING	1 INCH SCREEN
90%-100% PASSING	3/4 INCH SCREEN
20%- 55% PASSING	3/8 INCH SCREEN
0%- 10% PASSING	#4 SIEVE
0%- 5% PASSING	#8 SIEVE

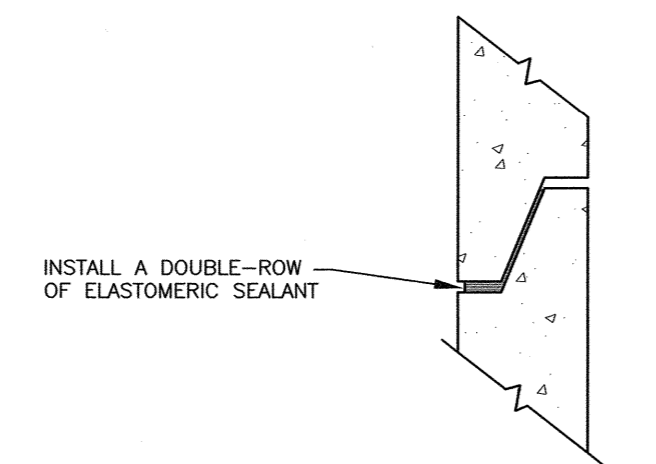
 WHEN ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED.
- FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES:

RCP & CI PIPE - ALL SIZES - 48"

- SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.
- MANHOLE STEPS MAY BE PERMITTED UPON REQUEST BY THE OWNER AS SECONDARY ADDITIONAL SAFETY FEATURE SUPPLEMENTARY TO THE PRIMARY PORTABLE LADDER ENTRY AND WHEN INSTALLED UNDER THE FOLLOWING CONDITIONS:
 - THE STEPS SHALL BE MANUFACTURED OF 5/8th INCH ROUND STAINLESS STEEL, PLASTIC COVERED STEEL OR PLASTIC. THEY SHALL BE SHAPED SO THAT THEY CANNOT BE PULLED OUT OF THE CONCRETE WALL IN WHICH THEY ARE EMBEDDED.
 - THE STEPS SHALL BE EMBEDDED IN THE CONCRETE BY THE MANUFACTURER DURING MANUFACTURE OR IMMEDIATELY FOLLOWING REMOVAL OF FORMS. SECURING THE STEPS WITH MORTAR IN DRILLED OR CAST HOLES, WILL NOT BE ACCEPTABLE.
 - THE STEPS SHALL BE OF THE DROP TYPE WITH A DEPRESSED SECTION FOR HANDHOLD, APPROXIMATELY 14" x 10" IN DIMENSION.

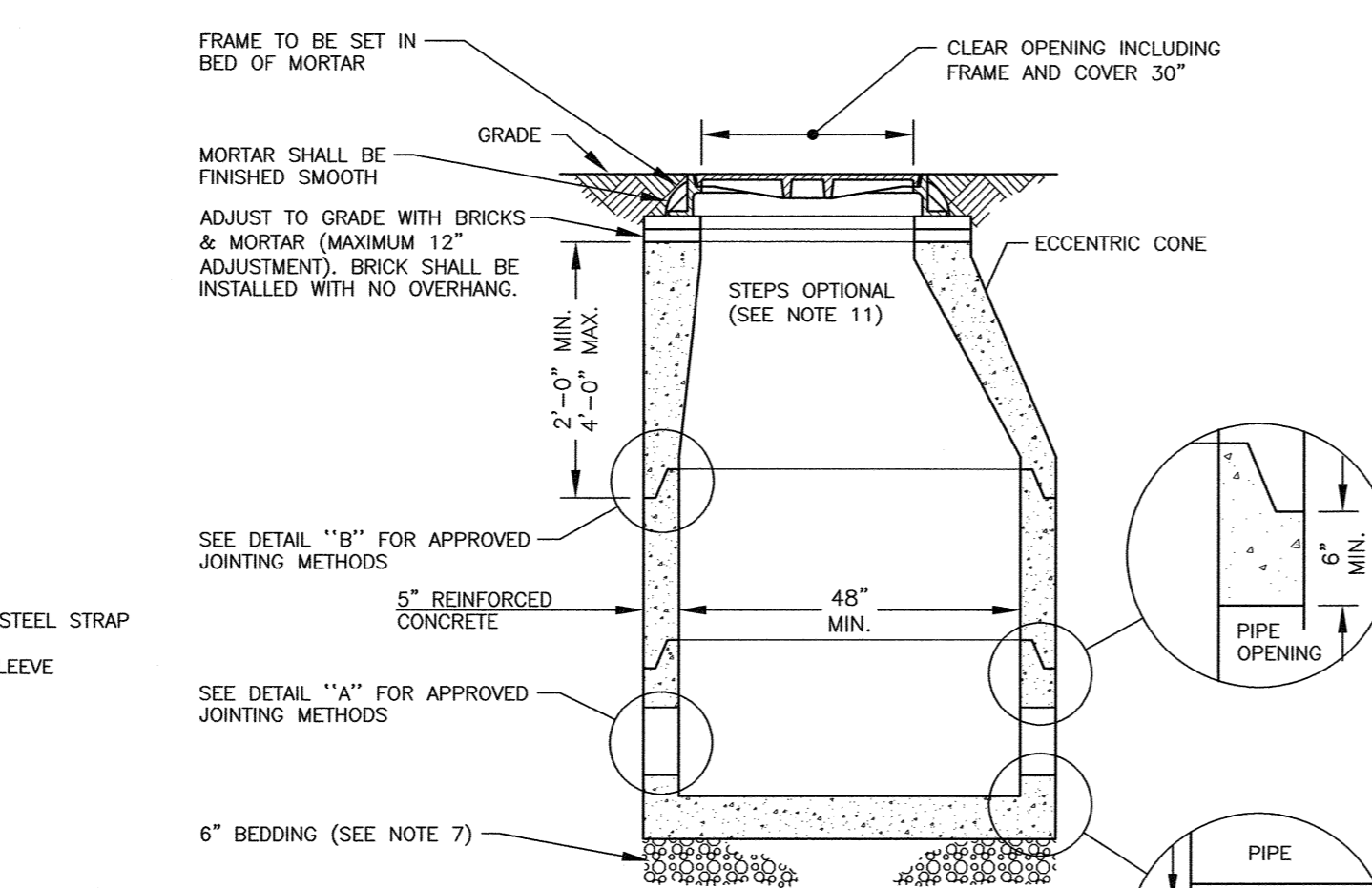


TYPICAL MANHOLE - PLAN VIEW

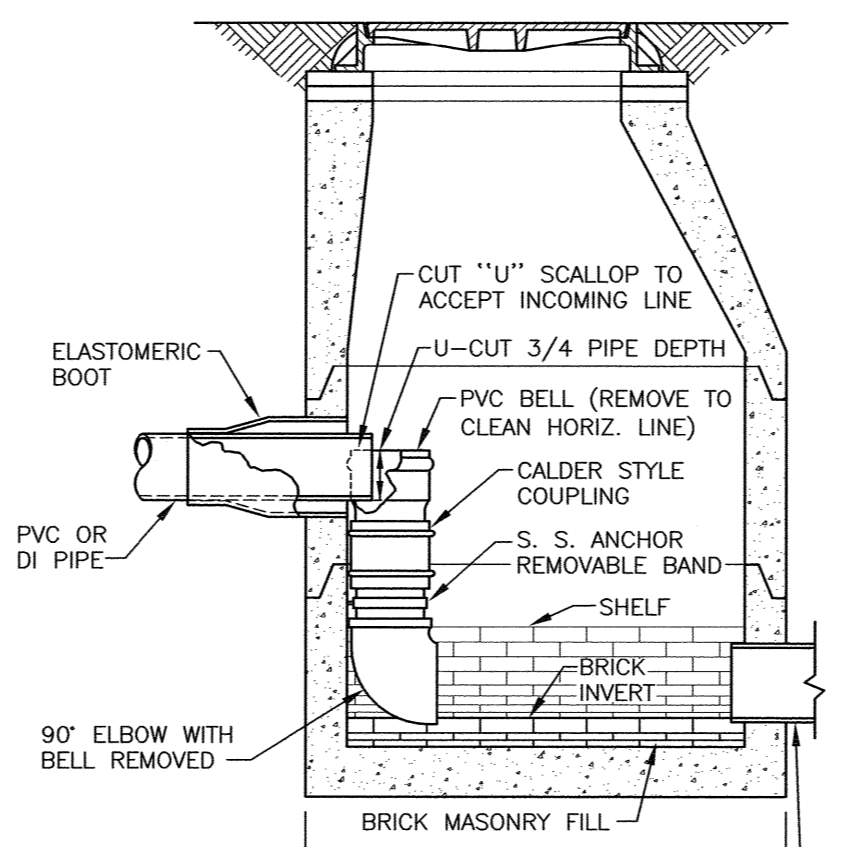


ELASTOMERIC SEALANT

DETAIL "B" - HORIZONTAL JOINTS



TYPICAL SECTION



INSIDE DROP MANHOLE

GENERAL NOTES

- MINIMUM PIPE SIZE FOR HOUSE SERVICE SHALL BE FOUR INCHES.
- PIPE AND JOINT MATERIALS:
 - PLASTIC SEWER PIPE

ASTM STANDARDS	GENERIC PIPE MATERIAL	SIZES APPROVED
D3034	*PVC (SOLID WALL)	8" THROUGH 15" (SDR 35)
F679	PVC (SOLID WALL)	18" THROUGH 27" (T-1 & T-2)
F794	PVC (RIBBED WALL)	8" THROUGH 36"
AWWA C900	PVC (SOLID WALL)	8" THROUGH 18"

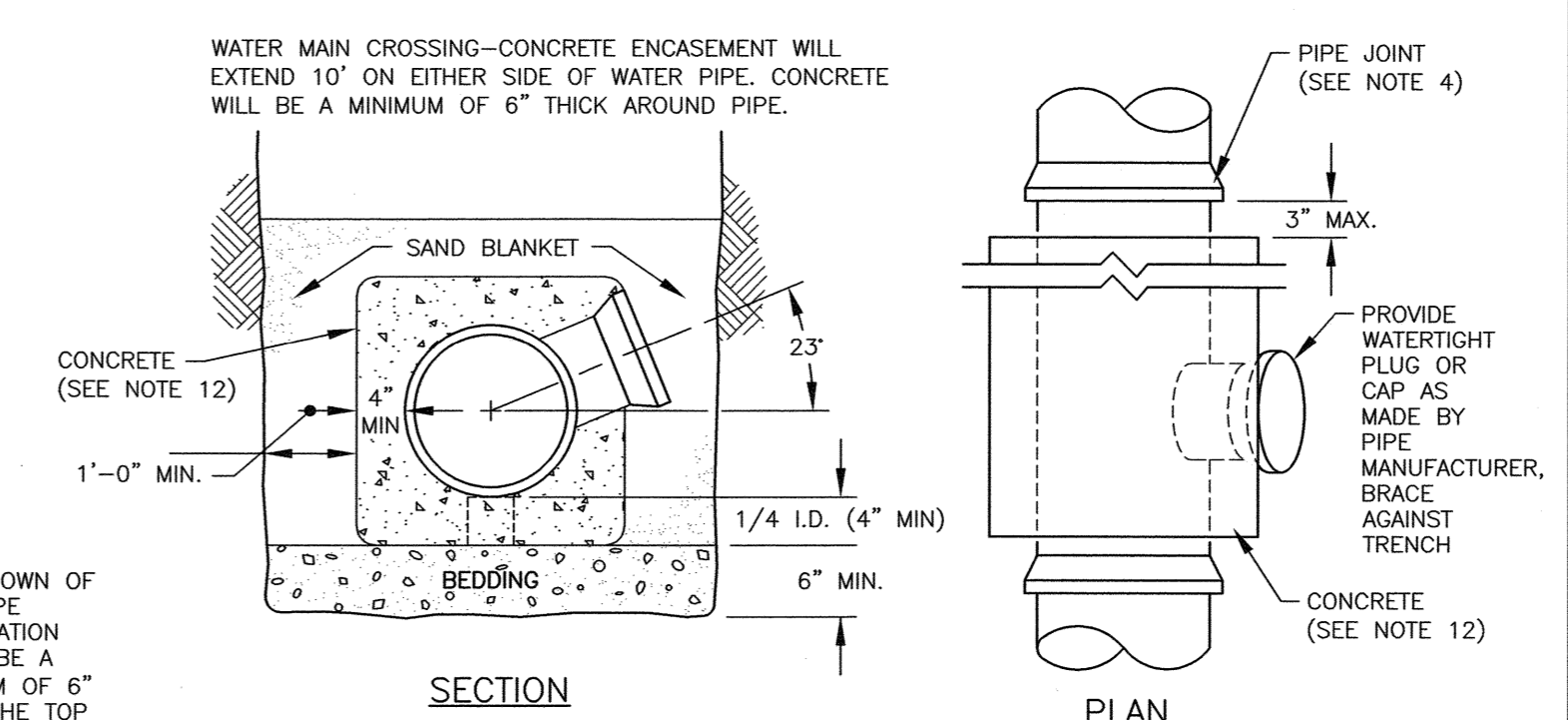
 *PVC: POLYVINYL CHLORIDE
 - JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON BELL AND SPIGOT TYPE.
- DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
- JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
- HOUSE SEWER INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 10. BEDDING AND REFILL FOR DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES.
- THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE FOUNDATION AT A GRADE OF NOT LESS THAN 1/4 INCH PER FOOT. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.
- TESTING: WHEN REQUIRED BY THE GOVERNING AUTHORITY, TESTING SHALL CONFORM TO ENV-WQ 704.09.
- ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM HOUSE TOILETS, SINKS, LAUNDRY ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS, SUMP PUMPS OR OTHER SIMILAR CONNECTIONS CARRYING RAIN WATER, DRAINAGE OR GROUND WATER SHALL NOT BE PERMITTED.
- HOUSE WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE, UNLESS IT IS ON A SHELF 12" HIGHER, AND 18" APART.
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE, FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 STONE SIZE NO. 67.

100% PASSING	1 INCH SCREEN
90%-100% PASSING	3/4 INCH SCREEN
20%- 55% PASSING	3/8 INCH SCREEN
0%- 10% PASSING	#4 SIEVE
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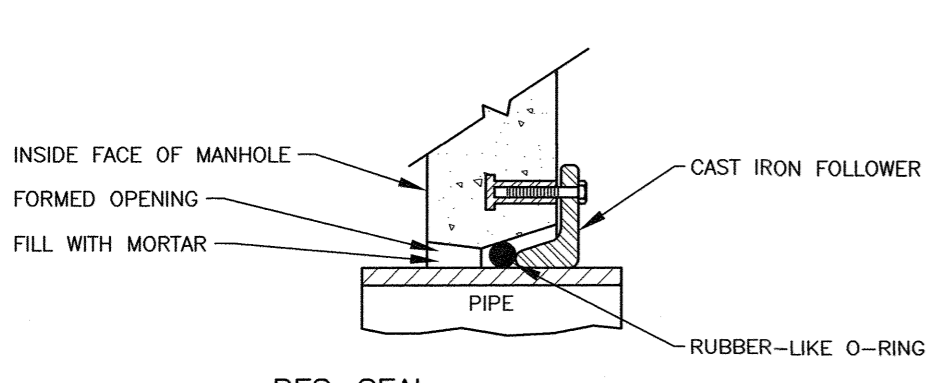
 WHERE ORDERED BY THE ENGINEER, OVEREXCAVATE UNSTABLE TRENCH BOTTOM AND BACKFILL WITH CRUSHED STONE.
- LOCATION: THE LOCATION OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS METAL ROD OR PIPE SHALL BE PLACED OVER THE TEE OR WYE AS DESCRIBED IN THE TYPICAL "CHIMNEY" DETAIL, TO AID IN LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PIPE FINDER.
- CAST-IN-PLACE CONCRETE: SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A (3000 PSI) CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS:

CEMENT: 6.0 BAGS PER CUBIC YARD
WATER: 5.75 GALLONS PER BAG OF CEMENT
MAXIMUM AGGREGATE SIZE: 3/4 INCH
- BACKFILL UP TO SUBBASE GRAVEL SHALL BE WITH EXCAVATED SOIL FROM TRENCHING OPERATIONS, COMPACT IN 8" LIFTS WITH VIBRATORY PLATE COMPACTORS TO 90% OF MODIFIED PROCTOR DENSITY. IF FINE-GRAINED, COMPACT WITH POGO STICKS OR SHEEPSFOOT ROLLERS. PLACE NO LARGE ROCKS WITHIN 24" OF PIPE. TRENCHES THAT ARE NOT ADEQUATELY COMPACTED SHALL BE RE-EXCAVATED AND BACKFILLED UNDER THE SUPERVISION OF THE DESIGN ENGINEER OR GOVERNING BODY. UNSUITABLE BACKFILL MATERIAL INCLUDES CHUNKS OF PAVEMENT, TOPSOIL, ROCKS OVER 6" IN SIZE, MUCK, PEAT OR PIECES OF PAVEMENT.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB-SITE SAFETY AND COMPLIANCE WITH GOVERNING REGULATIONS.
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE. REFILL WITH BEDDING MATERIAL. FOR TRENCH WIDTH SEE TRENCH DETAIL.
- SAND BLANKET: CLEAN SAND, FREE FROM ORGANIC MATTER, SO GRADED THAT 90% - 100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED THAT NO STONE LARGER THAN 2 INCHES IS IN CONTACT WITH THE PIPE.
- BASE COURSE GRAVEL, IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE:

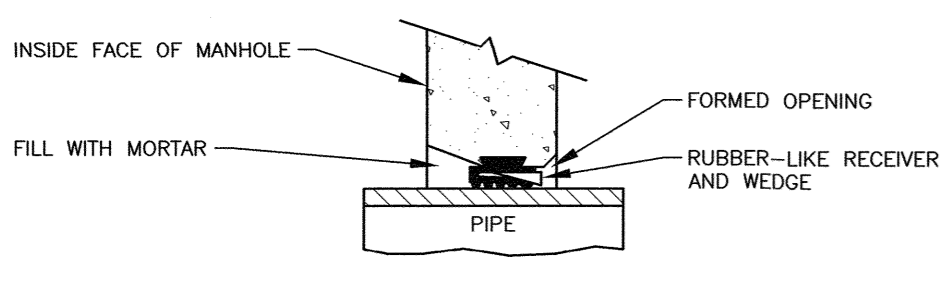
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION.
- IF FULL ENCASUREMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MIN.) BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.
- THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION.
- THE PURPOSE OF THIS PLAN IS TO SHOW STANDARDS FOR SEWER CONSTRUCTION.
- ALL WORK SHALL BE IN COMPLIANCE WITH NHDES CODE OF ADMINISTRATIVE RULES PART ENV-WQ 704 DESIGN OF SEWERAGE.



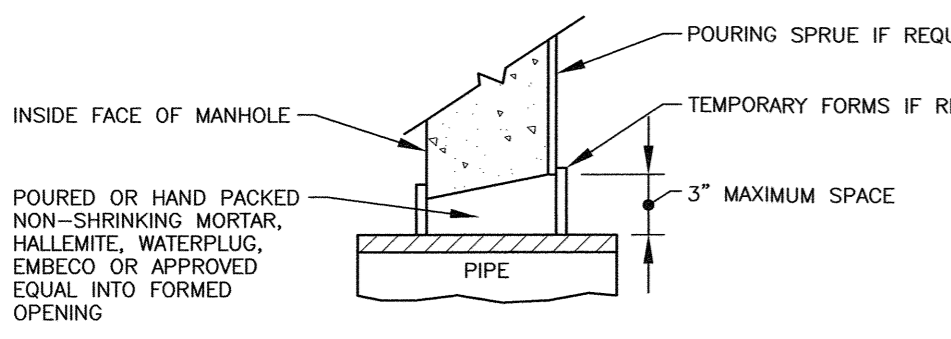
CONCRETE FULL ENCASUREMENT
 NOT TO SCALE



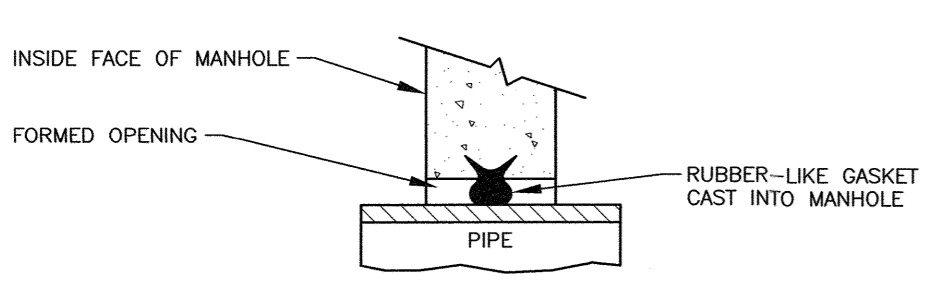
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 (OR ACCEPTABLE SUBSTITUTE)



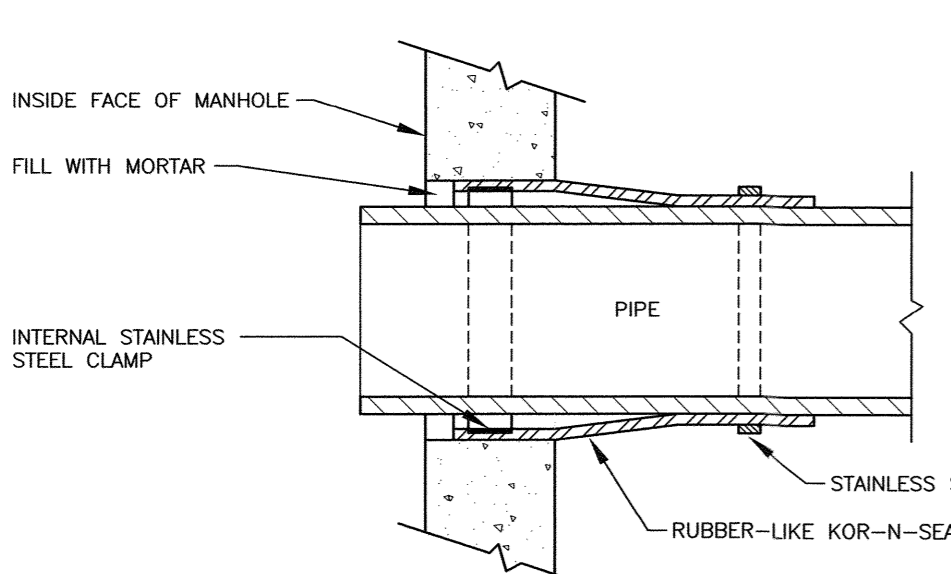
PRESS-WEDGE II
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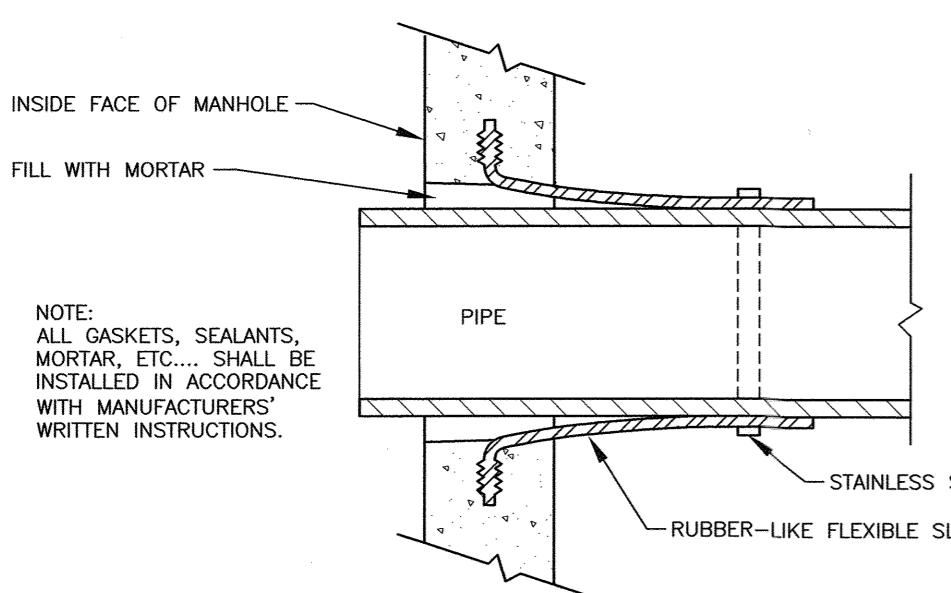
NON-SHRINKING MORTAR
 (OR ACCEPTABLE SUBSTITUTE)



A-LOK
 (OR ACCEPTABLE SUBSTITUTE)



KOR-N-SEAL JOINT SLEEVE
 (OR ACCEPTABLE SUBSTITUTE)



LOCK-JOINT FLEXIBLE MANHOLE SLEEVE
 (OR ACCEPTABLE SUBSTITUTE)

DETAIL "A" - PIPE TO MANHOLE JOINTS

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

P C4 SEWER MANHOLE DETAILS
 INSTALL PER PORTSMOUTH REQUIREMENTS NTS

Findings of Fact | Wetland Conditional Use Permit

City of Portsmouth Planning Board

Date: April 17, 2025

Property Address: 200 FW Hartford Dr.

Application #: LU-25-23

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 all conditions necessary to obtain final approval.

In order to grant Wetland Conditional Use permit approval the Planning Board shall find the application satisfies criteria set forth in the Section 10.1017.50 (Criteria for Approval) of the Zoning Ordinance.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
1	<i>1. The land is reasonably suited to the use activity or alteration.</i>	Meets Does Not Meet	The six trees proposed to be removed are within the 100' wetland buffer which is a forested wetland.
2	<i>2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.</i>	Meets Does Not Meet	The six trees are all located within the wetland buffer and while they serve as a vital function within the wetland buffer, the applicant is proposing a replacement of plantings in lieu of the trees to be removed.
3	<i>3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.</i>	Meets Does Not Meet	The removal of these large trees will have an adverse impact on the wetland functional values as they serve as great habitat and carbon capture for this ecosystem. The installation of new plantings will help to boost this ecosystem, but it may not be sufficient to compete with the trees to be removed. The applicant should consider planting a greater ratio of trees to shrubs.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
4	4. <i>Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.</i>	Meets Does Not Meet	This project calls for the removal of six trees, all within the wetland buffer and most within the 25' no-cut buffer. A certified arborist has stated that only one of the proposed trees to be removed is diseased and unless the other five are a significant risk, the removal of the healthier trees does not seem necessary at this time.
5	5. <i>The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.</i>	Meets Does Not Meet	This proposal appears to have some adverse impact at the removal of five healthy trees that are serving multiple functions within the wetland buffer. The proposed plantings will help to offset the impacts felt from removing those trees but it may be necessary to substitute more trees instead of or in addition to the winterberries to equate the loss of those six trees.
6	6. <i>Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.</i>	Meets Does Not Meet	It appears that most of the trees to be removed are located in the vegetated buffer strip and proposed plantings will be in this general vicinity.
7	<u>Other Board Findings:</u>		

Project Plan: Tree Removal, 200 F W Hartford Dr, Portsmouth, NH 03801

Tracey Foster

To: Portsmouth Planning Board

Subject: Backyard tree removal

Removal of six trees in the back yard, two maple and four pine trees. Stumps will remain in place.

2024 Winter we lost limbs from these trees towards the house. Growth of mold and moss on the house due to location of these trees and lack of sun.

Maple tree closest to the house is "at risk" per Chris Kemp, Plant Healthcare Manager, ISA Certified Arborist, due to disease, see attached photos.

See map of trees to be removed. Trees are located in the wetlands buffer.

With the stumps staying in place, we will plant two new trees and four new bushes. The new trees will be red maple. The bushes will be native Winterberry, *Ilex verticillata*.

The new bushes and trees will be planted in the same general area of the removed trees. The impact to the wetland buffer will be minimal, if any, due to the stumps remaining in place and new plants added.

Figure 1: Red "X" indicates tree to be removed. Red "X" with circle is tree that is "At Risk." Green dots is where the new bushes and trees will be planted.

Figure 2: Identifies that most of the house and all of the back yard are in the buffer zone, which remains untouched since built in 1983.

Approval stipulations from the March 12, 2025 Conservation Commission meeting are as follows:

1. It is recommended that the applicant consider a greater number of trees to be planted compared to shrubs. If the applicant increases the proportion of trees to be planted, they should plant within the 100' wetland buffer, where appropriate.
2. Applicant shall provide a report back to the Planning and Sustainability Department one year after the proposed landscaping area has been planted, demonstrating at least an 80% survival rate of new plantings within the wetland buffer.
3. In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall

permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. Markers are to be placed along the 25' vegetative buffer.

Thank you for your consideration in this matter.

Sincerely,

Tracey Foster

200 F W Hartford Dr

703-731-9241

Figure 1: Trees removed and new tree/bush locations.

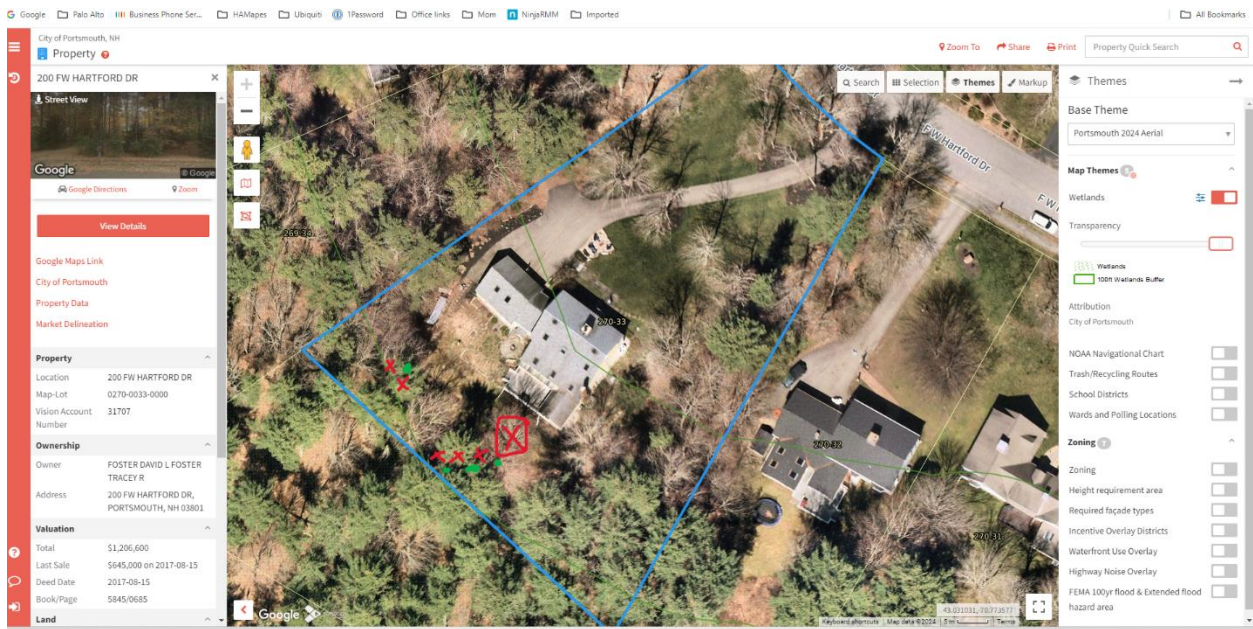
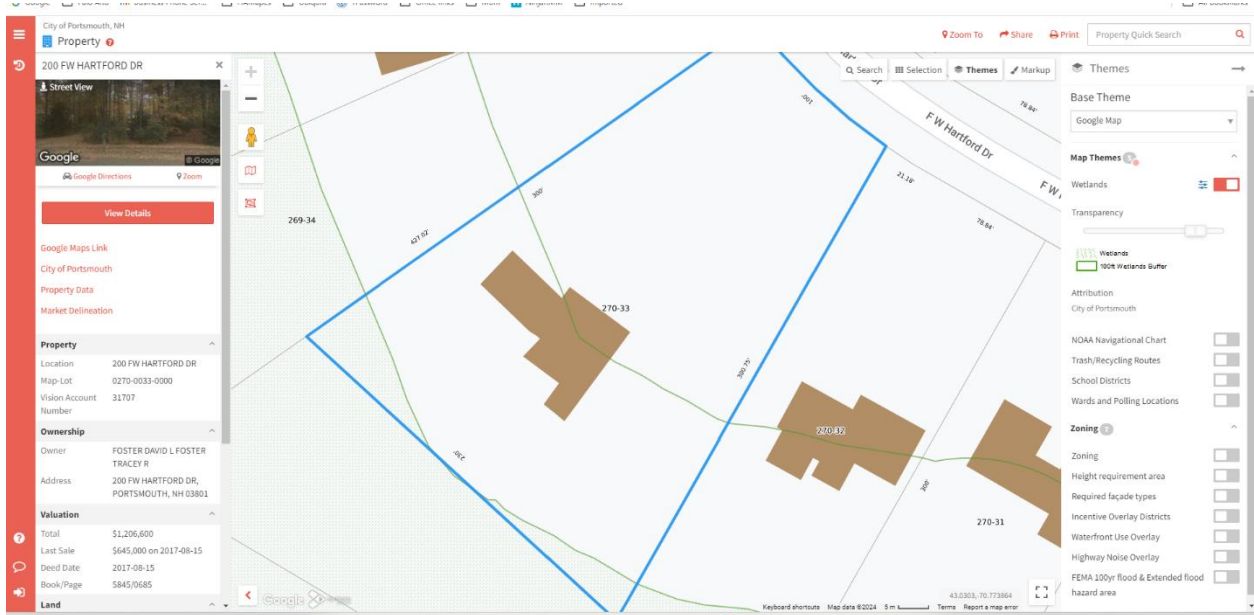


Figure 2: Wetlands map.













Findings of Fact | Wetland Conditional Use Permit

City of Portsmouth Planning Board

Date: April 17, 2025

Property Address: 56 Ridges Ct.

Application #: LU-25-13

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 all conditions necessary to obtain final approval.

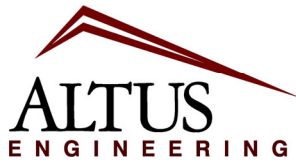
In order to grant Wetland Conditional Use permit approval the Planning Board shall find the application satisfies criteria set forth in the Section 10.1017.50 (Criteria for Approval) of the Zoning Ordinance.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
1	<i>1. The land is reasonably suited to the use activity or alteration.</i>	Meets Does Not Meet	This project proposes the removal of existing structures and pavement from the wetland buffer with the installation of new structures and a driveway within the buffer but further away from the resource. The majority of the work is within the wetland buffer.
2	<i>2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.</i>	Meets Does Not Meet	The majority of the work is proposed within the 100' wetland buffer and includes new structures in the buffer but an overall reduction in impervious surfaces. The proposed shed and deck are slightly further from the wetland but not outside of the buffer.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
3	3. <i>There will be no adverse impact on the wetland functional values of the site or surrounding properties.</i>	Meets Does Not Meet	This project proposes the removal of four existing trees and one shrub within the buffer and the addition of six highbush blueberries and an 1,100 s.f. naturalized area in a portion of the 25' no-cut buffer. Some improvement to the wetland functional values as they exist today appear to be proposed. Proper care and maintenance of the wetland and wetland buffer would prevent adverse impacts. This should include no longer mowing the wetland resource. In addition, the applicant should come into compliance with the City's 25' no-cut vegetative buffer regulations.
4	4. <i>Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.</i>	Meets Does Not Meet	This project proposes the removal of some existing vegetation to achieve construction goals and proposes replacement with blueberries and a small portion of the 25' no-cut buffer to be naturalized. Property owners have historically altered the vegetative state of a portion of the wetland and the entire 25' buffer through regular mowing. Staff suggest this practice ceases to comply with the vegetative buffer strip standards.
5	5. <i>The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.</i>	Meets Does Not Meet	The proposed project will impact approximately 8,800 SF of land area within the wetland buffer. All of the impacts will be within previously developed areas that are either lawn, building, or driveway. The design approach avoids impacting natural areas. The house addition is placed as close to the front lot line as reasonably possible and remains compliant with the zoning ordinance and provides natural flow of the interior of the existing house to the addition and garage, while providing adequate space for parking in the driveway for visitors as Ridges Court is narrow and has limited opportunities for street parking.
6	6. <i>Any area within the vegetated buffer strip will be returned to a natural state to the</i>	Meets Does Not	The large wetland lawn will be allowed to revert to a natural state. The 25-foot no cut buffer will be limited to two cuttings per year. The benefits of the improved

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
	<i>extent feasible.</i>	Meet	stormwater management system, moving the impervious areas away from the resource and enhancing the wetland system and buffer meet the spirit and intent of the Ordinance.
7	<u>Other Board Findings:</u>		

DRAFT



**Civil
Site Planning
Environmental
Engineering**

133 Court Street
Portsmouth, NH
03801-4413

March 25, 2025

Rick Chellman, Chairman
Portsmouth Planning Board
City of Portsmouth Municipal Complex
1 Junkins Avenue
Portsmouth, New Hampshire 03801

**Re: Application for Conditional Use Permit
Assessor's Map 207, Lots 63, 68 & 69
56 Ridges Court
Altus Project No. 5639**

Dear Mr. Chellman,

On behalf of Annemarie (Annie) and Michael Rainboth, Trustees of the Rainboth Revocable Trust of 2010, Altus Engineering LLC (Altus) and the design team are pleased to submit an application for a Conditional Use Permit to the Planning Board. Annie and Michael own the property located at 56 Ridges Court. They currently live a few houses away on the corner of Ridges Court and New Castle Avenue. They intend to renovate and expand the existing home.

The entire neighborhood was constructed prior to City wetland buffer regulations. Portions of the lot are within the NHDES 100-foot tidal buffer and the 250-foot Shoreland Buffer. No improvements are proposed within 100 feet of the highest observable tide line. A permit from the NHDES Shoreland program will be required.

The existing garage and shed will be razed. A garage addition with living space above is proposed along with a new shed. The structures will be further from the resource area than the existing buildings. Stormwater management improvements are proposed to enhance the wetland buffer.

On March 12, 2025, the Conservation Commission voted to recommend approval of the application with stipulations. Altus, working with the Rainboth's, have revised the application package to address the recommendations of the Commission.

1. The on-site wetland system that is maintained as a lawn will no longer be mowed and will naturalize.
2. The 25-foot no cut buffer adjacent to the wetland will be limited to two cuttings per year.

3. Wetland boundary markers will be installed along the 25-foot no cut buffer and along the wetland boundary at 50-foot intervals. Boundary markers will be installed prior to the commencement of earthwork activities.
4. Boulders, trees, or other natural features will be placed in between the proposed trees to create a physical barrier along the edge of the wetland.
5. A maintenance plan was submitted with the original submission to the Conservation Commission. It has been augmented to include Best Management Practices for mowing the wetland buffer.

Enclosed for the Planning Board's consideration please find the following:

- Letter of Authorization
- Conditional Use Permit Narrative (revised)
- Wetland Buffer Function and Values Assessment (Noel)
- Conditional Use Permit Application Checklist
- Drainage computations
- Stormwater O & M manual (revised)
- Project Site Plans (revised)

Please feel free to call or email me directly should you have any questions or need any additional information.

Sincerely,

ALTUS ENGINEERING, LLC




Enclosures

eCopy: Annie and Mike Rainboth
Joseph Noel, Wetlands Scientist
Amy Dutton
Timothy Phoenix, Esq.

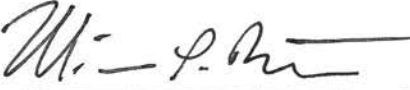
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Letter of Authorization

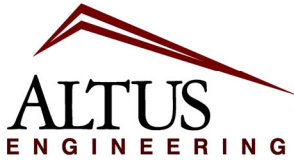
I, Annemarie Rainboth and Michael Rainboth, Trustees of The Rainboth Revocable Trust of 2010, owner of the property located at 56 Ridges Court, Portsmouth, NH, hereby authorize Altus Engineering, LLC of Portsmouth, NH to represent us as the Owner and Applicant in all matters concerning the engineering and related permitting on Portsmouth Tax Map 207, Lots 63, 68, and 69, Portsmouth, New Hampshire. This authorization shall include any signatures required for Federal, State and Municipal permit applications.

 1/8/2025
Signature Annemarie Rainboth Date

Sophia Howe Sophia Howe 1/8/2025
Witness Print Name Date

 1/8/2025
Signature Michael Rainboth Date

Sophia Howe Sophia Howe 1/8/2025
Witness Print Name Date



*Civil
Site Planning
Environmental
Engineering*

133 Court Street
Portsmouth, NH
03801-4413

**CONDITIONAL USE PERMIT APPLICATION
56 RIDGES COURT
NARRATIVE
Revised March 2025**

On behalf of the Applicant, Annemarie (Annie) and Michael Rainboth and the Rainboth Revocable Trust of 2010, Altus Engineering, LLC (Altus) respectfully submits a Wetlands Conditional Use Permit application for the expansion of a single-family residence at 56 Ridges Court. Annie and Mike propose to retain, renovate, and expand the 100-year-old home and raze the existing outbuildings.

The home is sited on Tax Map 207, Lot 63. Two additional vacant parcels, Tax Map 207 Lots 68 and 69, are contiguous to the Rainboth's future home. The vacant lots appear to have frontage on a paper street. For the basis of the computations, all three lots being contiguous are included.

The southeast corner of the parcel lies within the 100-foot tidal buffer. We are proposing to avoid impacting the tidal buffer. The southeastern portion of the lot is a freshwater wetland. The 100-foot buffer from the wetland encompasses a significant portion of the lot, making redevelopment of any sort nearly impossible without a Conditional Use Permit. The majority of the on-site wetland is maintained as lawn.

The house was constructed prior to City wetland buffer regulations and before most zoning ordinances were enacted. Based on the topography adjacent to the existing driveway, it appears that portions of the lot were regraded and filled.

The existing garage is over 80-feet from Ridges Court requiring a long driveway and turnaround area. The expanded attached garage with living space above will be sited closer to the street, reducing the driveway substantially.

The built infrastructure will be sited further from the resource area than the current buildings and pavement. Stormwater management treatment will be provided where none currently exists. The Rainboth's are good stewards of the land and are proposing to follow the recommendations of the Conservation Commission. They will allow the wetlands that are maintained as lawn to naturalize. They are also committed to allowing the 25-foot no cut wetland buffer to be minimally maintained. It will be mowed only twice a year. They are committed to avoiding the use of herbicides, pesticides, and fertilizers in the wetlands and across their whole property.

In accordance with Article 10 Environmental Protection Standards Section 10.1010 Wetland Protect, the redevelopment will require a Conditional Use Permit from the Planning Board. The project does not require any additional relief from the City of Portsmouth Zoning Ordinance. Per Section 10.1017.50 for criteria for approval of a Conditional Use Permit, Altus offers the following:

- (1) The land is reasonably suited to the use, activity, or alteration.

The property is within the SRB Zoning District, a residential zone. All of the abutting properties are residential. The parcel has been used as a single-family residence for nearly 100-years and will continue to do so. The minimum lot size in the zoning district is 15,000 SF. The existing lot is 20,585 SF in area. Consolidated, the lot will exceed 30,000 SF, enough land to subdivide the land into two parcels.

The existing home is served by municipal water supply and is connected to the municipal sewage collection system. Commercial use of the property is not allowed. As such, the only viable use of the property is a single-family residence.

- (2) There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity, or alteration.

Consolidated, the 30,962 SF parcel exceeds the minimum lot size for the zoning district. Only 3,550 SF of the lot is not within the wetland buffer and the majority of that area is within the front and side yard setbacks which are not buildable by right or are sited in the rear of the lot requiring a long access drive across the buffer for access. Only 725 SF of the lot exclusive of the existing building is viable for development without obtaining a variance or conditional use permit.

Thus, there is very little viable building envelope that meets both the zoning setbacks and is outside the wetland buffer area. The development proposed is sited as far from the resource area as reasonably possible. The Rainboth's are taking advantage of retaining the existing home and expanding it. Due to the layout of the existing structure and the desire to have a two-bay garage, the addition needs to be attached to the rear of the home and then will extend south to provide access to the garage.

- (3) There will be no adverse impact on the wetland functional values of the site or surrounding properties;

The majority of the on-site wetland system is maintained as lawn and has been for several decades.

Along the property line, the wetland transitions to a natural environment with scrub growth. The wetland/lawn encompasses 6,100 SF. The lawn/wetland will be allowed to naturalize. This will improve the functions as a stormwater filter, natural detention, and moderate the velocity of runoff discharging from the neighborhood.

Currently upgradient of the wetland is the house, garage/shed, and large paved driveway. The existing expansive driveway is within 32-feet of the wetlands. The building and pavement will be moved further from the wetland. The proposed deck, which will be permeable beneath, will be 51.5 feet from the wetland. Drip edges will be installed on the west side of the building to promote infiltration, reduce the rate of runoff, and provide treatment. Runoff from the east and north side of the building will be captured in gutters and will be directed to the infiltration system beneath the deck. The portion of the driveway within the wetland buffer will be constructed using permeable materials, either pavement or pavers. Runoff from the impervious portion of the new driveway will be routed across the lawn through a swale that will treat, reduce the velocity, and reduce runoff temperature before discharge into the wetland.

Stormwater quantity will be enhanced and volume and peak rate of runoff discharging from the site will be reduced.

The site effective impervious area will be slightly reduced in both the wetland buffer and the entire lot, as we are taking advantage of the area beneath the deck to provide groundwater recharge and infiltration.

- (4) Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals; and

The entire redevelopment project will be within areas that have previously been altered. Five trees and shrubs within the buffer will be removed. To offset the removal, 5 new wetland tolerant trees will be planted. Additionally, a ±1,100 SF portion of the existing lawn in the wetland buffer will be allowed to naturalize and will no longer be maintained as lawn. 6-high bush blueberry plants will be installed at the end of the swale adjacent to the wetlands. The wetland lawn will naturalize and the 25-foot no cut buffer will be limited to two cuttings per year.

- (5) The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this Section.

The proposed project will impact approximately 8,800 SF of land area within the wetland buffer. All of the impacts will be within previously developed areas that are either lawn, building, or driveway. The design approach avoids impacting

natural areas. The house addition is placed as close to the front lot line as reasonably possible and remain compliant with the zoning ordinance and provide natural flow of the interior of the existing house to the addition and garage, while providing adequate space for parking in the driveway for visitors as Ridges Court is narrow and has limited opportunities for street parking.

- (6) Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.

The large wetland lawn will be allowed to revert to a natural state. The 25-foot no cut buffer will be limited to two cuttings per year. The benefits of the improved stormwater management system, moving the impervious areas away from the resource and enhancing the wetland system and buffer meet the spirit and intent of the Ordinance.

5639-rev 1 cup narrative.docx

JOSEPH W. NOEL
P.O. BOX 174
SOUTH BERWICK, MAINE 03908
(207) 384-5587

CERTIFIED SOIL SCIENTIST * WETLAND SCIENTIST * LICENSED SITE EVALUATOR

January 22, 2025

Mr. Eric Weinrieb, P.E.
Altus Engineering
133 Court Street
Portsmouth, New Hampshire 03801

RE: 56 Ridges Court, Portsmouth, New Hampshire, JWN #23-142

Dear Eric:

Per your request, the following information is provided to assist you in the Conditional Use Permit Application requirements. Specifically, Section 10.101722(3) of the City Of Portsmouth, New Hampshire Zoning Ordinance.

The wetland delineation was conducted on December 21, 2023 (both tidal and freshwater wetlands). The delineation was conducted in accordance with the U.S. Army Corps of Engineers document *Corps of Engineers Wetlands Delineation Manual*, (1987) along with the required *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, (Version 2, January 2012). The wetland boundary was located by North Easterly Surveying. Mr. Marc Jacobs, Wetland Scientist #010, reviewed and confirmed the wetland delineation on February 20, 2024. The attached FEMA 100 year flood and extended flood hazard map from the town GIS database for the properties more closely represents the existing wetland system compared to other available resource maps.

The proposed project will not encroach into the 100 foot buffer of the tidal system (refer to photo of adjacent off-site tidal system). The freshwater wetland where buffer encroachment will occur is approximately an acre in size and would classify as a wet meadow with poorly drained soils. The portion of the delineated wetland on the subject properties is essentially a mowed lawn with some scattered sedges within the yard(s) and one large willow (*Salix sp.*). A few scattered willows were noted in the wetland off-site as well. An on-site was conducted on January 16, 2025 to collect data on the plants within the more natural portion of the wetland that was within the paper road. This area had been recently cut and there was not enough vegetation left to classify most of the herbaceous layer (refer to photo – the more snow covered areas are maintained paths within the wetland). Adjacent to the property line of 56 Ridges Court the few shrubs that were observed included: common buttonbush (*Cephalanthus occidentalis*), rambler rose (*Rosa multiflora*), glossy false buckthorn (*Frangula alnus*), European buckthorn (*Rhamnus cathartica*), and honeysuckle (*Lonicera sp.*). On the property, the only invasive plant was some

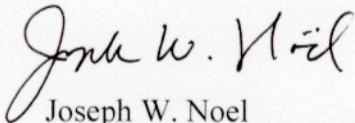
bittersweet (*Celastrus sp.*) that was growing in the garden with the planted blackberries (*Rubus sp.*). Per Altus Engineering "Site Preparation Plan" they plan to remove miscellaneous garden area features where the bittersweet is growing. The bittersweet should be carefully removed and properly disposed of. A request from the Natural Heritage Bureau (NHB) was conducted and no rare species or exemplary natural communities were documented on the property (refer to attachment). There was a NHB record nearby but the NHB determined the proposed project will not impact the NHB record (detailed information on the NHB record was not supplied). During the wetland flagging of the tidal wetland, Jesuits-bark (*Iva frutescens*) that is a state listed "Threatened" species was observed by the undersigned. These shrubs are off-site and will not be impacted by the proposed development.

A formal functions and values assessment is not required per Section 10.1017.22 of the City Of Portsmouth, New Hampshire Zoning Ordinance. Using professional judgement, the performance of the functions and values would be low due to: relatively small wetland size (1+/- acre), wetland is disturbed/routinely cut so vegetation is not diverse, subtle ditching within the wetland lowers the ability to store and slowly release water, and existing buffers around the wetland are developed with residential homes. This wet meadow is still of importance due to the nearby downstream tidal wetland system. Refer to Altus Engineering stormwater plan for details on protecting the wet meadow system from increased runoff, etc.

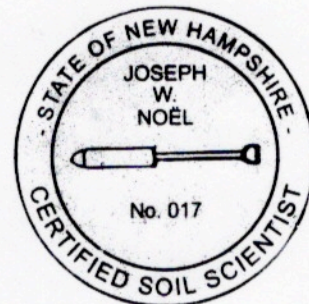
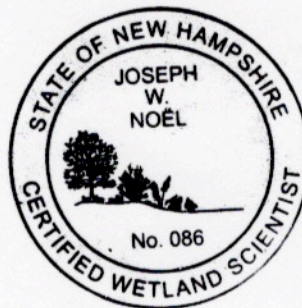
The proposed redevelopment of the property will reduce the driveway size, relocated the garage and the attached garden shed further from the wet meadow. There will be a proposed addition, new deck, etc. Refer to Altus Engineering plans for details on the existing versus proposed plans for the property. The impervious surface will increase with the proposed redevelopment of the property (refer to Altus Engineering plans for existing and proposed impervious surface area, and proposed effective impervious area figures). Per Altus Engineering, the compensation proposed is to consolidate Lot 68 & 69 with Lot 63. Plantings are discussed by Altus Engineering to offset the removal of trees and shrubs in the uplands. The actual plantings and locations will be determined by a landscape designer.

I hope this information is sufficient in the review of the proposed project. Please feel free to call with any questions.

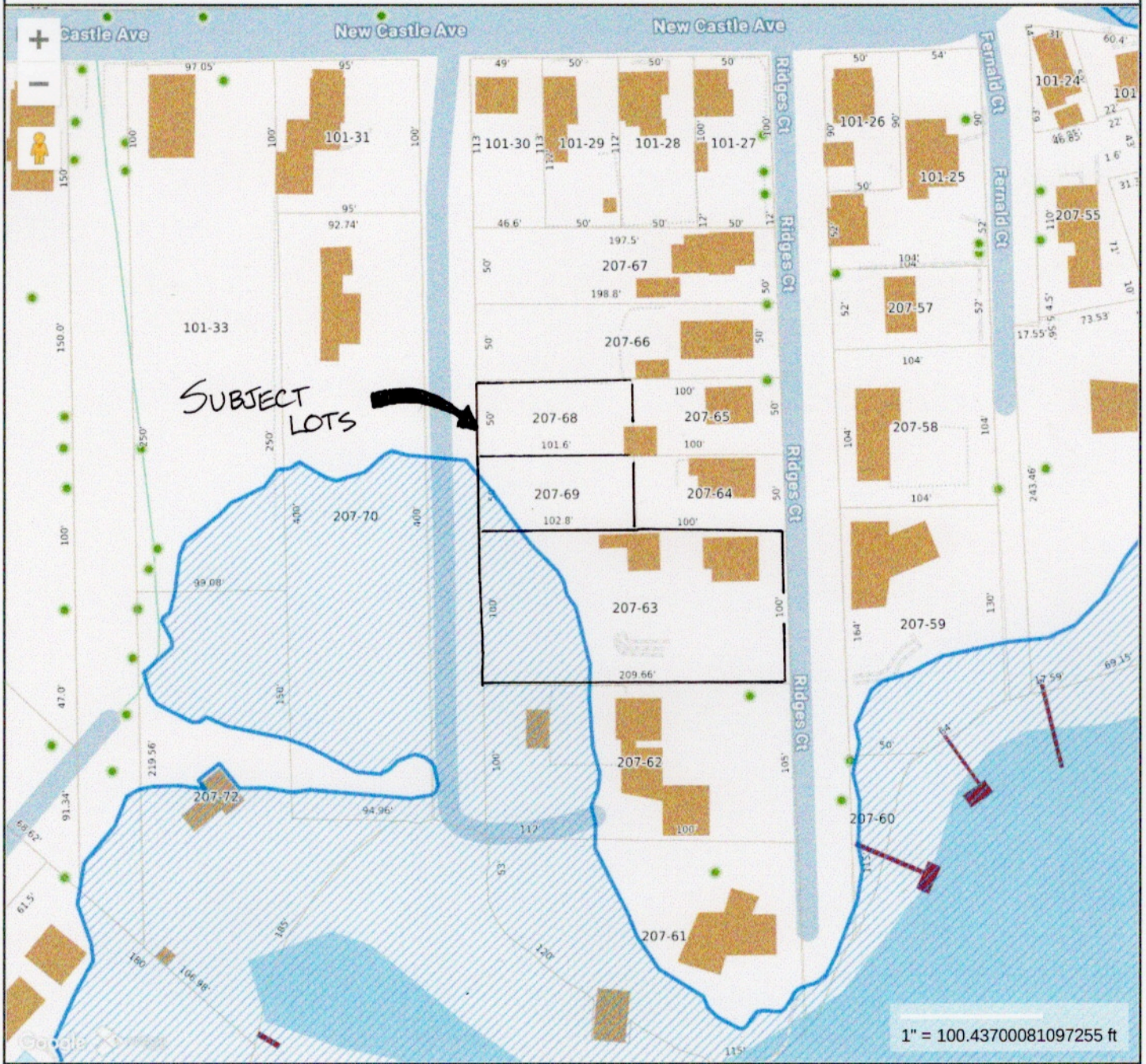
Sincerely,



Joseph W. Noel
NH Certified Wetland Scientist #086
NH Certified Soil Scientist #017



56 Ridges Court - FEMA 100 year flood & Extended flood hazard area GIS layer



**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

City of Portsmouth, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 09/26/2024

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

PHOTOS

56 Ridges Court – Portsmouth, New Hampshire
(Photos taken by Joseph W. Noel on January 17, 2025)



Freshwater wetland system that was recently cut with berm in background and snow-covered maintained paths.



A view of the tidal wetland system with Canada geese taken from berm.

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Eric Weinrieb, Altus Engineering, Inc.
133 Court Street

Portsmouth, NH 03801

From: NH Natural Heritage Bureau

Date: 1/22/2025 (valid until 1/22/2026)

Re: Review by NH Natural Heritage Bureau of request submitted 1/6/2025

Permits: MUNICIPAL POR - Local Review, NHDES - Shoreland Standard Permit

NHB ID: NHB25-0048

Applicant: Trustees of Rainboth
Revocable Trust of 2010

Location: Portsmouth
56 Ridges Court

Project

Description: Proposed addition to the house, deck, and shed.

The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 1/6/2025 5:30:44 PM, and cannot be used for any other project.

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: **NHB25-0048**

NHB25-0048





City of Portsmouth, New Hampshire

Wetland Conditional Use Permit Application Checklist

This wetland conditional use permit application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Conservation Commission and Planning Board review. The checklist is required to be uploaded as part of your wetland conditional use permit application to ensure a full and complete application is submitted to the Planning and Sustainability Department and to the online portal. A pre-application conference with a member of the Planning and Sustainability Department is encouraged as additional project information may be required depending on the size and scope of the project. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all wetland conditional use permit requirements. Please refer to Article 10 of the City of Portsmouth Zoning Ordinance for full details.

Applicant Responsibilities: Applicable fees are due upon application submittal to the Planning Board (no fees are required for Conservation Commission submission). The application will be reviewed by Planning and Sustainability Department staff to determine completeness. Incomplete applications which do not provide required information for the evaluation of the proposed site development shall not be provided review by the Conservation Commission or Planning Board.

Name of Applicant: Rainboth Revocable Trust of 2010 Date Submitted: 2/20/2025

Application # (in City's online permitting): LU 25-13

Site Address: 56 Ridges Court Map: 207 Lot: 63, 68, 69

<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
<input checked="" type="checkbox"/>	Complete application form submitted via the City's web-based permitting program	completed on line
<input checked="" type="checkbox"/>	All application documents, plans, supporting documentation, this checklist and other materials uploaded to the application form in OpenGov in digital Portable Document Format (PDF) . One hard copy of all plans and materials shall be submitted to the Planning and Sustainability Department by the published deadline.	completed, detailed on plan and in the narrative

<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
<input checked="" type="checkbox"/>	Basic property and wetland resource information. (10.1017.21)	completed on line
<input checked="" type="checkbox"/>	Additional information required for projects proposing greater than 250 square feet of permanent or temporary impacts. (10.1017.22)	setbacks, locations of wetlands, new and existing impervious areas are shown
<input checked="" type="checkbox"/>	Demonstrate impacts as they relate to the criteria for approval set forth in Section 10.1017.50 (or Section 10.1017.60 in the case of utility installation in a right-of-way). (10.1017.23)	completed, detailed on plan and in the narrative
<input checked="" type="checkbox"/>	Balance impervious surface impacts with removal and/or wetland buffer enhancement plan. (10.1017.24)	Reduction of impervious in buffer, see sheet C-2

<input checked="" type="checkbox"/>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
<input checked="" type="checkbox"/>	Wetland buffer enhancement plan. (10.1017.25)	Buffer plantings and naturalization area is shown on Sheet C-2
<input type="checkbox"/>	Living shoreline strategy provided for tidal wetland and/or tidal buffer impacts. (10.1017.26)	NA
<input checked="" type="checkbox"/>	Stormwater management must be in accordance with Best Management Practices including but not limited to: 1. <i>New Hampshire Stormwater Manual, NHDES, current version.</i> 2. <i>Best Management Practices to Control Non-point Source Pollution: A Guide for Citizens and City Officials, NHDES, January 2004.</i> (10.1018.10)	permeable driveway and infiltration area meets the intent of the NHDES BMP's.
<input checked="" type="checkbox"/>	Vegetated Buffer Strip slope of greater than or equal to 10%. (10.1018.22)	No portion of the 25-foot buffer is in excess of 10%
<input checked="" type="checkbox"/>	Removal or cutting of vegetation, use of fertilizers, pesticides and herbicides. (10.1018.23/10.1018.24/10.1018.25)	lawn will continue to be maintained. fertilizers, pesticides and herbicides will
<input checked="" type="checkbox"/>	All new pavement within a wetland buffer shall be porous pavement. (10.1018.31)	See Sheet C-2
<input checked="" type="checkbox"/>	An application that proposes porous pavement in a wetland buffer shall include a pavement maintenance plan. (10.1018.32)	See O & M plan with drainage computations
<input checked="" type="checkbox"/>	Permanent wetland boundary markers shall be shown on the plan submitted with an application for a conditional use permit and shall be installed during project construction. (10.1018.40)	Lawn will continue to be maintained. Wetland buffer plaque:
<input checked="" type="checkbox"/>	Requested Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
<input checked="" type="checkbox"/>	A narrative/letter addressed to the Conservation Commission Chair (if recommended to Planning Board then an additional narrative addressed to the Planning Board Chair at that time) describing the project and any proposed wetland and/or wetland buffer impacts. Please visit the WCUP instruction page for further application instructions.	in submission materials
<input checked="" type="checkbox"/>	If New Hampshire Department of Environmental Services (NHDES) Standard Dredge and Fill Permit is required for this work, please provide this permit application at the same time as your submission for a Wetland Conditional Use Permit.	Not required. No direct impacts are proposed

Applicant's Signature: Eric D. Weinrieb, PE Date: 2-20-25

DRAINAGE ANALYSIS

FOR

Trustees of Rainboth Revocable Trust of 2010

**56 Ridges Court
Portsmouth, NH**

Tax Map 207 Lots 63, 68, and 69

January 29, 2025

Stormwater Maintenance Manual revised 02/20/25

Prepared For:

Annamarie and Micheal Rainboth
Trustees of Rainboth Revocable Trust of 2010
122 New Castle Avenue
Portsmouth, NH 03801

Prepared By:

ALTUS ENGINEERING

133 Court Street
Portsmouth, NH 03801
Phone: (603) 433-2335



Eric D. Weinrieb
2/20/25



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Section 1

Narrative

PROJECT DESCRIPTION

The Trustees of the Rainboth Revocable Trust of 2010 are proposing to construct an addition to the existing home, a new driveway and a shed located at 56 Ridges Court Portsmouth, New Hampshire. The 0.71-acre property is identified as Tax Map 207, Lots 63, 68, and 69 and is located in the Single Residence-B District. The site is currently developed as a single-family residence. Access to the development site is via a driveway coming off Ridges Court.

The proposed project will construct a new addition, driveway, and shed. The house is serviced by municipal water and sewer. The proposed stormwater management system includes stone drip edges, a stone infiltration basin, and vegetative swales. These will mitigate and improve the storm water quality leaving the property.

Site Soils/Wetlands

Based off data from the USDA National Resources Conservation Service Web Soil Survey, the site sits on 799 Urban land-Canton complex soils. Altus recognizes these soils as HSG B and C except for the wetland which we categorized as HSG D based on poor infiltration capacity. Joseph W. Noel, Wetland Scientist, completed an on-site inspection on December 21, 2023, and identified a freshwater wetland greater than 10,000 square feet. This finding was confirmed by Wetlands Scientist, Marc Jacobs.

Pre-Development (Existing Conditions)

The site currently features a single-family home with a deck, detached shed, and paved driveway. Stormwater is collected in gutters around the home and is conveyed towards the wetland. The site generally slopes in a westerly direction towards the delineated wetland. Hydrology is characterized by two existing sub-catchments as delineated on the accompanying “Pre-Development Watershed Plan”. Site runoff was analyzed at two points of analysis (POA). POA #1 is on the northern border of the property and POA #2 is in the southwest corner of the property under the wetland.

Post-Development (Proposed Conditions)

The site plan features the addition to the existing house as well as the new driveway and proposed shed.

The post-development conditions were analyzed at the same discharge point as the pre-development conditions. The post-development watersheds are delineated on the accompanying “Post-Development Watershed Plan”. Modifications to the delineated areas and associated ground cover were made to sub-catchments to account for the improvements to the property. As shown on the attached Post-Development Watershed Plan, the site was divided into seven post-development sub-catchment areas. The same points of analysis in the Pre-Development model were used for comparison of the Pre- and Post-development conditions.

The Post-Development Watershed Plan illustrates the proposed stormwater management system. Site topography, existing features, proposed site improvements, proposed grading, drainage and erosion control measures are shown on the accompanying plans. Recommended erosion control measures are based upon the December 2008 edition of the “*New Hampshire Stormwater Manual Volumes 1 through 3*” prepared by NHDES and Comprehensive Environmental, Inc. as amended.

CALCULATION METHODS

The drainage study was completed using the USDA SCS TR-20 Method within the HydroCAD Stormwater Modeling System. Reservoir routing was performed with the Dynamic Storage Indication method with automated calculation of tailwater conditions. A Type III 24-hour rainfall distribution was utilized in analyzing the data for the 2, 10, 25 and 50 year - 24-hour storm events using rainfall data provided by the Northeast Regional Climate Center (NRCC). 15% was added to each storm event’s rainfall data as required in the city or Portsmouth site plan review regulations. A time span of 0 to 24 hours was analyzed at 0.01-hour increments. Infiltration rates are based on the K_{sat} Values for New Hampshire soils.

Drainage Analysis

A complete summary of the drainage model is included in the appendix of this report. The following table compares pre- and post-development peak rates at the Points of Analysis identified on the plans for the 2, 10, 25 and 50-year storm events:

Stormwater Modeling Summary
Peak Q (cfs) for Type III 24-Hour Storm Events

	2-Yr Storm (3.69 inch)	10-Yr Storm (5.59 inch)	25-Yr Storm (7.10 inch)	50-Yr Storm (8.50 inch)
POA #1				
Pre	0.04	0.10	0.16	0.22
Post	0.04	0.10	0.16	0.22
Change	0.00	0.00	0.00	0.00
POA #2				
Pre	1.39	2.75	3.88	4.94
Post	1.25	2.47	3.49	4.93
Change	-0.14	-0.28	-0.39	-0.01

As the above table demonstrates, the proposed peak rates of runoff at the point of analysis will be decreased or unchanged from the existing conditions for all analyzed storm events.

CONCLUSION

This proposed site redevelopment of property located at 56 Ridges Court Portsmouth, New Hampshire will have no adverse effect on abutting properties as a result of stormwater runoff or siltation. Post-construction peak rates of runoff from the site will be lower than or the same as the existing conditions for all analyzed storm events. The new stormwater management system will also provide appropriate treatment to runoff from the proposed on-site impervious surfaces. Appropriate steps will be taken to properly mitigate erosion and sedimentation using temporary and permanent Best Management Practices for sediment and erosion control.

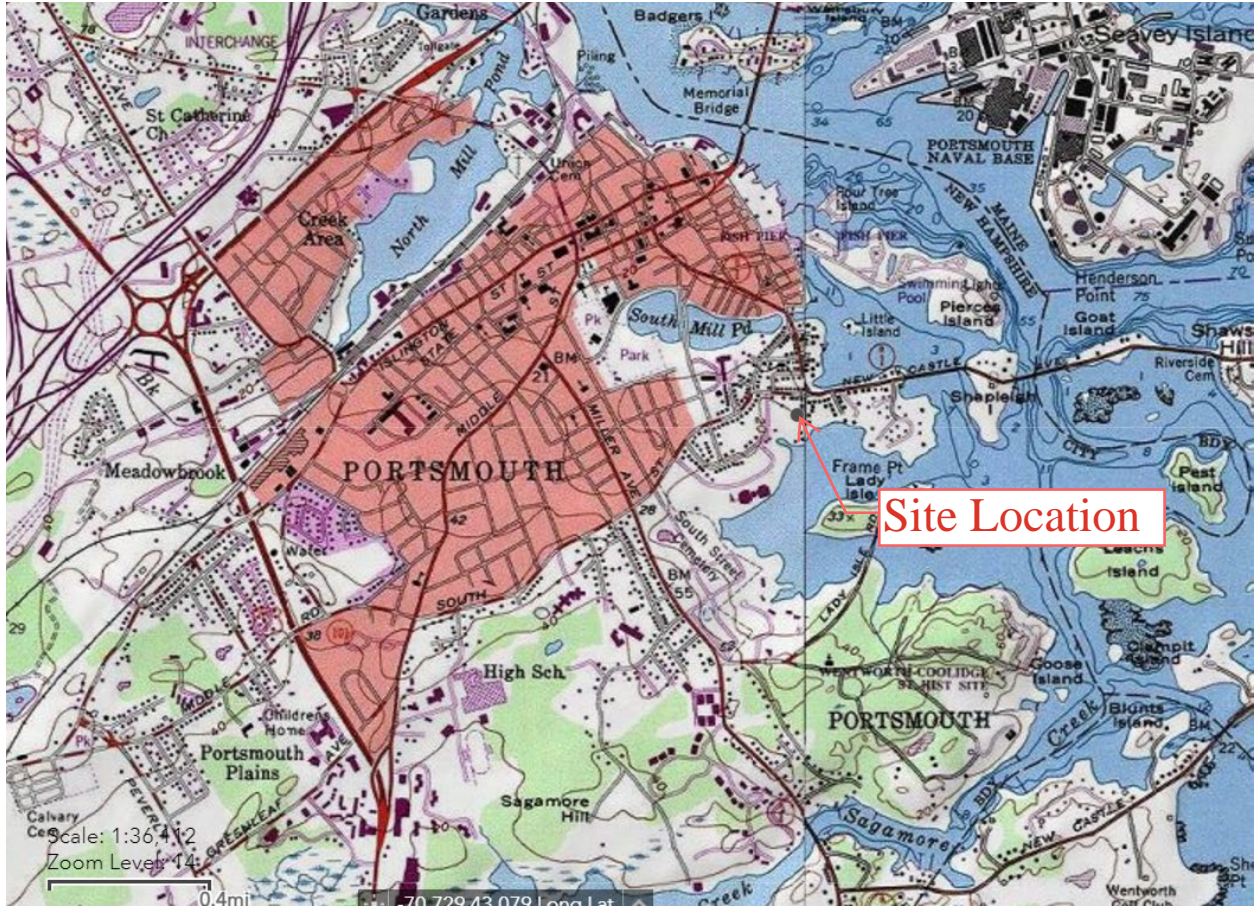
Disclaimer

Altus Engineering, notes that stormwater modeling is limited in its capacity to precisely predict peak rates of runoff and flood elevations. Results should not be considered to represent actual storm events due to the number of variables and assumptions involved in the modeling effort. Surface roughness coefficients (n), entrance loss coefficients (k_e), velocity factors (k_v) and times of concentration (T_c) are based on subjective field observations and engineering judgment using available data. For design purposes, curve numbers (C_n) describe the average conditions. However, curve numbers will vary from storm to storm depending on the antecedent runoff conditions (ARC) including saturation and frozen ground. Also, higher water elevations than predicted by modeling could occur if drainage channels, closed drain systems or culverts are not maintained and/or become blocked by debris before and/or during a storm event as this will impact flow capacity of the structures. Structures should be re-evaluated if future changes occur within relevant drainage areas in order to assess any required design modifications.

Section 2

Aerial Photo and USGS Map





Section 3

Drainage Calculations

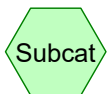
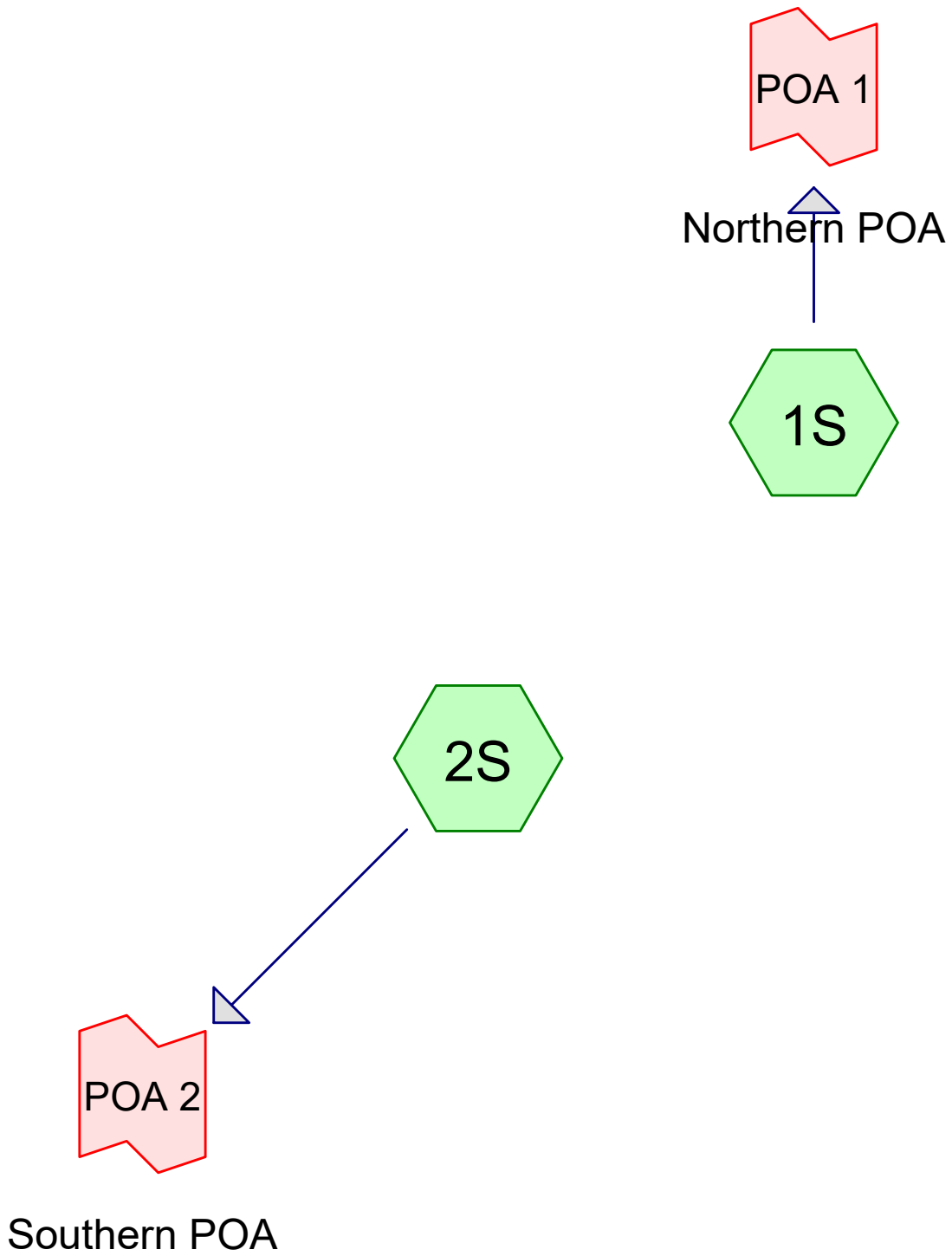
Pre-Development

2-Year, 24-Hour Summary

10-Year, 24-Hour Complete

25-Year, 24-Hour Summary

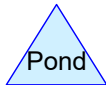
50-Year, 24-Hour Summary



Subcat



Reach



Pond



Link

5639-HC-PRE-123024

Prepared by Altus Engineering

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Type III 24-hr 2 Year Rainfall=3.69"

Printed 1/27/2025

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
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 1S: Runoff Area=1,900 sf 0.00% Impervious Runoff Depth>0.85"
Tc=6.0 min CN=65 Runoff=0.04 cfs 0.003 af

Subcatchment 2S: Runoff Area=34,047 sf 16.59% Impervious Runoff Depth>1.64"
Flow Length=248' Tc=8.0 min CN=78 Runoff=1.39 cfs 0.107 af

Link POA 1: Northern POA Inflow=0.04 cfs 0.003 af
Primary=0.04 cfs 0.003 af

Link POA 2: Southern POA Inflow=1.39 cfs 0.107 af
Primary=1.39 cfs 0.107 af

5639-HC-PRE-123024

Type III 24-hr 25 Year Rainfall=7.10"

Prepared by Altus Engineering

Printed 1/27/2025

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
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 1S: Runoff Area=1,900 sf 0.00% Impervious Runoff Depth>3.18"
Tc=6.0 min CN=65 Runoff=0.16 cfs 0.012 af

Subcatchment 2S: Runoff Area=34,047 sf 16.59% Impervious Runoff Depth>4.56"
Flow Length=248' Tc=8.0 min CN=78 Runoff=3.88 cfs 0.297 af

Link POA 1: Northern POA Inflow=0.16 cfs 0.012 af
Primary=0.16 cfs 0.012 af

Link POA 2: Southern POA Inflow=3.88 cfs 0.297 af
Primary=3.88 cfs 0.297 af

5639-HC-PRE-123024

Prepared by Altus Engineering

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Type III 24-hr 50 Year Rainfall=8.50"

Printed 1/27/2025

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
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 1S: Runoff Area=1,900 sf 0.00% Impervious Runoff Depth>4.30"
Tc=6.0 min CN=65 Runoff=0.22 cfs 0.016 af

Subcatchment 2S: Runoff Area=34,047 sf 16.59% Impervious Runoff Depth>5.85"
Flow Length=248' Tc=8.0 min CN=78 Runoff=4.94 cfs 0.381 af

Link POA 1: Northern POA Inflow=0.22 cfs 0.016 af
Primary=0.22 cfs 0.016 af

Link POA 2: Southern POA Inflow=4.94 cfs 0.381 af
Primary=4.94 cfs 0.381 af

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.033	61	>75% Grass cover, Good, HSG B (2S)
0.346	74	>75% Grass cover, Good, HSG C (2S)
0.181	80	>75% Grass cover, Good, HSG D (2S)
0.111	65	Brush, Good, HSG C (1S, 2S)
0.024	73	Brush, Good, HSG D (2S)
0.042	98	Paved parking, HSG B (2S)
0.043	98	Paved parking, HSG C (2S)
0.041	98	Roofs, HSG B (2S)
0.004	98	Roofs, HSG C (2S)
0.825	77	TOTAL AREA

5639-HC-PRE-123024

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.115	HSG B	2S
0.505	HSG C	1S, 2S
0.205	HSG D	2S
0.000	Other	
0.825		TOTAL AREA

5639-HC-PRE-123024

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.033	0.346	0.181	0.000	0.561	>75% Grass cover, Good	2S
0.000	0.000	0.111	0.024	0.000	0.135	Brush, Good	1S, 2S
0.000	0.042	0.043	0.000	0.000	0.085	Paved parking	2S
0.000	0.041	0.004	0.000	0.000	0.045	Roofs	2S
0.000	0.115	0.505	0.205	0.000	0.825	TOTAL AREA	

5639-HC-PRE-123024

Type III 24-hr 10 Year Rainfall=5.59"

Prepared by Altus Engineering

Printed 1/27/2025

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
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 1S: Runoff Area=1,900 sf 0.00% Impervious Runoff Depth>2.05"
Tc=6.0 min CN=65 Runoff=0.10 cfs 0.007 af

Subcatchment 2S: Runoff Area=34,047 sf 16.59% Impervious Runoff Depth>3.21"
Flow Length=248' Tc=8.0 min CN=78 Runoff=2.75 cfs 0.209 af

Link POA 1: Northern POA Inflow=0.10 cfs 0.007 af
Primary=0.10 cfs 0.007 af

Link POA 2: Southern POA Inflow=2.75 cfs 0.209 af
Primary=2.75 cfs 0.209 af

Total Runoff Area = 0.825 ac Runoff Volume = 0.217 af Average Runoff Depth = 3.15"
84.29% Pervious = 0.696 ac 15.71% Impervious = 0.130 ac

Summary for Subcatchment 1S:

Runoff = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af, Depth> 2.05"

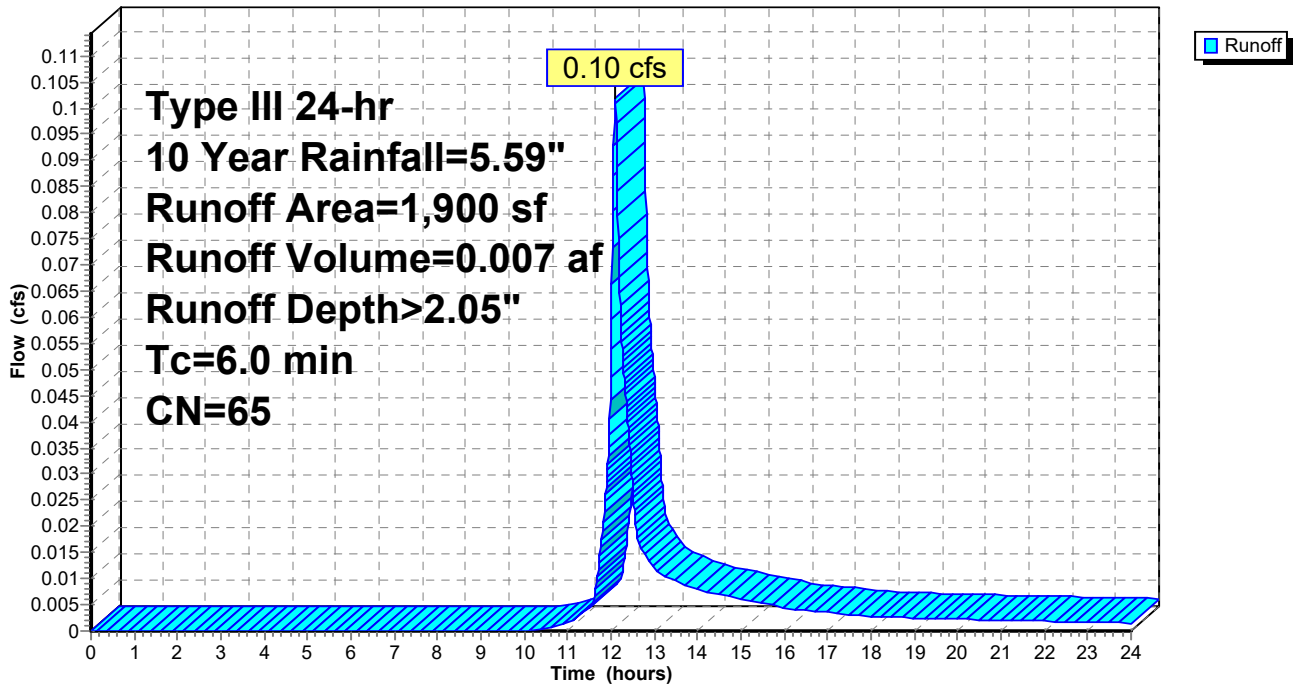
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
1,900	65	Brush, Good, HSG C
1,900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 1S:

Hydrograph



Summary for Subcatchment 2S:

Runoff = 2.75 cfs @ 12.11 hrs, Volume= 0.209 af, Depth> 3.21"

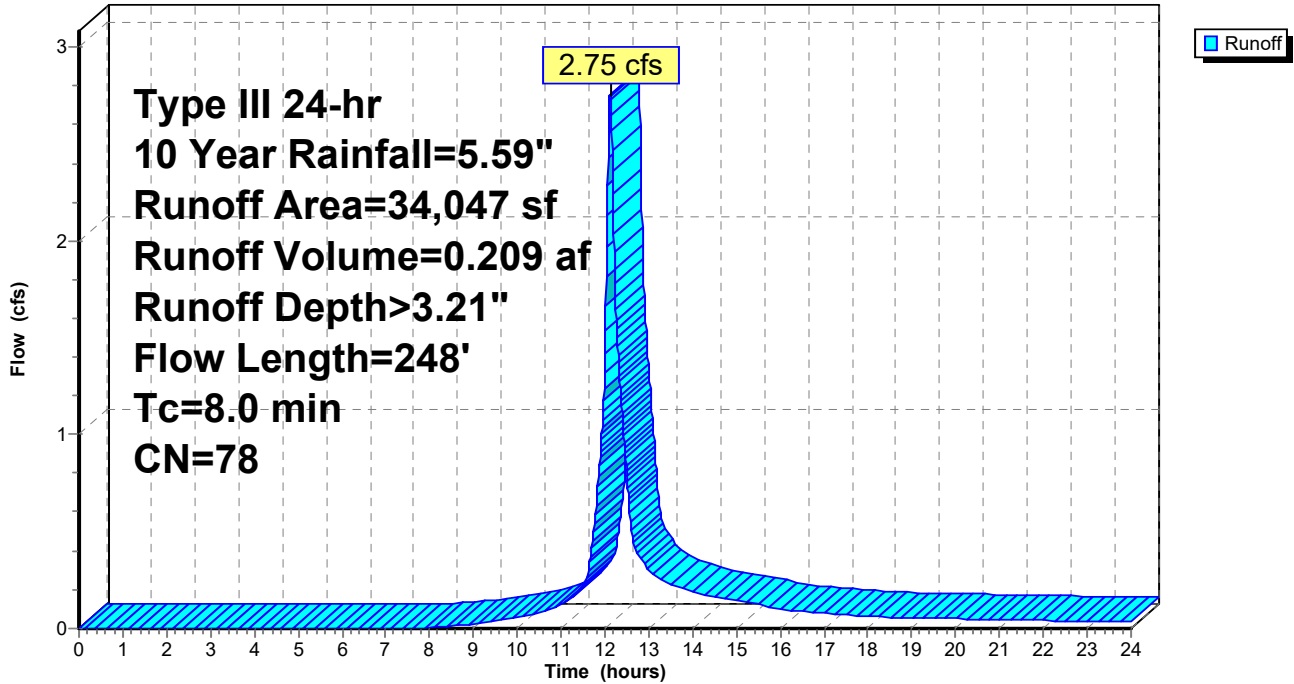
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
1,767	98	Roofs, HSG B
195	98	Roofs, HSG C
1,811	98	Paved parking, HSG B
1,876	98	Paved parking, HSG C
1,445	61	>75% Grass cover, Good, HSG B
15,077	74	>75% Grass cover, Good, HSG C
2,942	65	Brush, Good, HSG C
7,899	80	>75% Grass cover, Good, HSG D
1,035	73	Brush, Good, HSG D
34,047	78	Weighted Average
28,398		83.41% Pervious Area
5,649		16.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0800	0.16		Sheet Flow, Brush, HSG C n= 0.300 P2= 3.69"
0.6	106	0.0377	2.91		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
2.2	92	0.0100	0.70		Shallow Concentrated Flow, Brush, HSG D Short Grass Pasture Kv= 7.0 fps
8.0	248	Total			

Subcatchment 2S:

Hydrograph

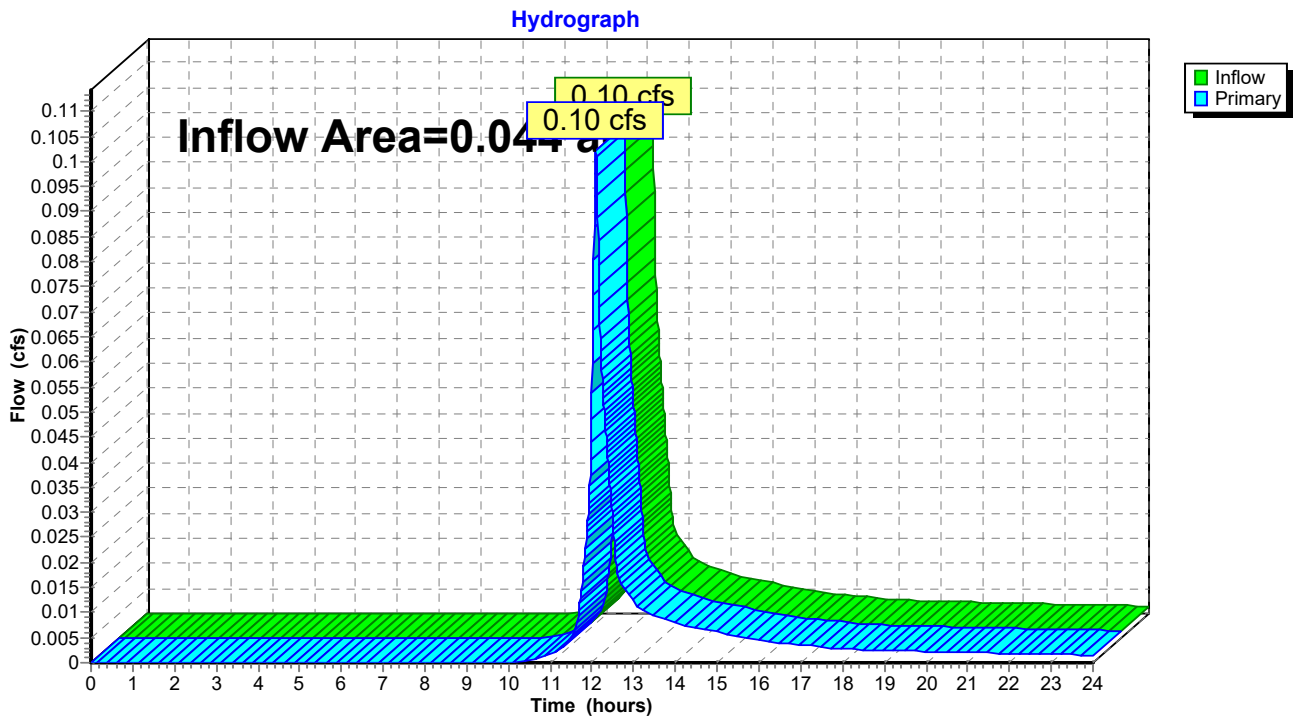


Summary for Link POA 1: Northern POA

Inflow Area = 0.044 ac, 0.00% Impervious, Inflow Depth > 2.05" for 10 Year event
Inflow = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af
Primary = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link POA 1: Northern POA

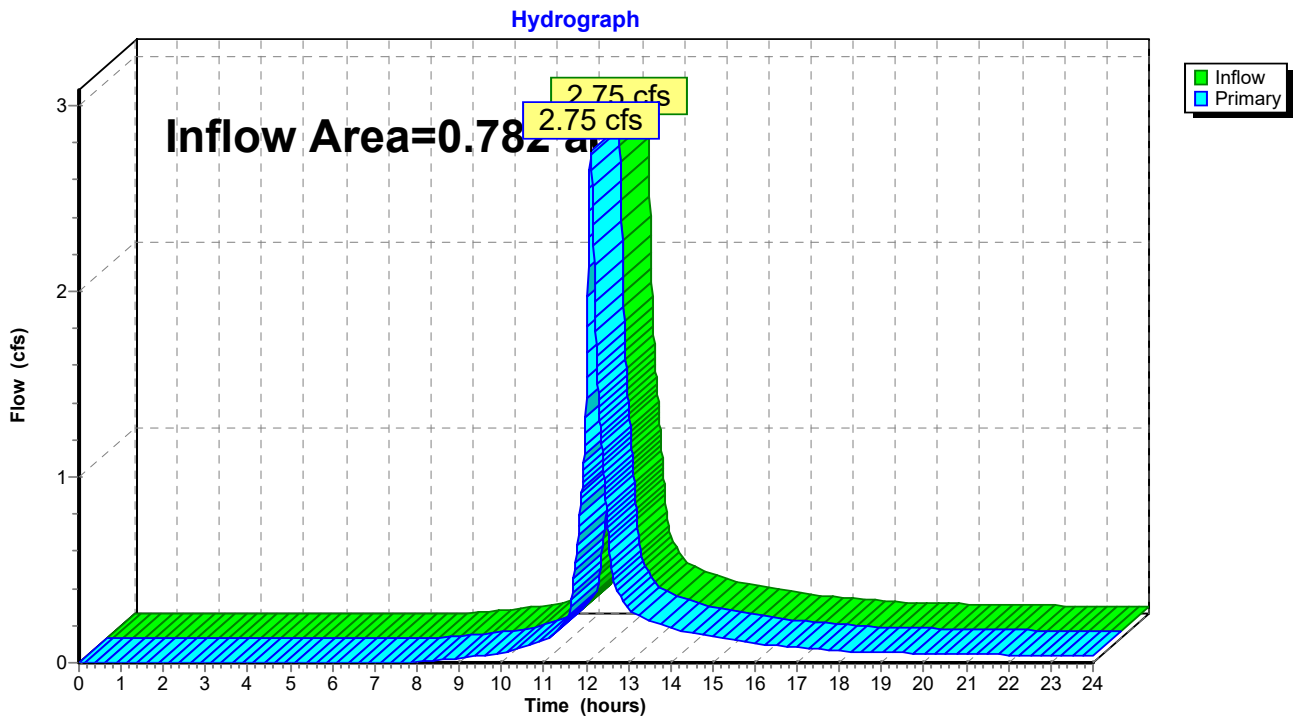


Summary for Link POA 2: Southern POA

Inflow Area = 0.782 ac, 16.59% Impervious, Inflow Depth > 3.21" for 10 Year event
Inflow = 2.75 cfs @ 12.11 hrs, Volume= 0.209 af
Primary = 2.75 cfs @ 12.11 hrs, Volume= 0.209 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link POA 2: Southern POA



Section 4

Drainage Calculations

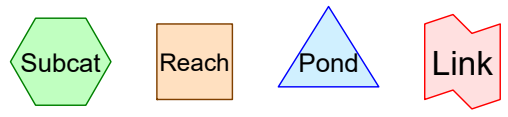
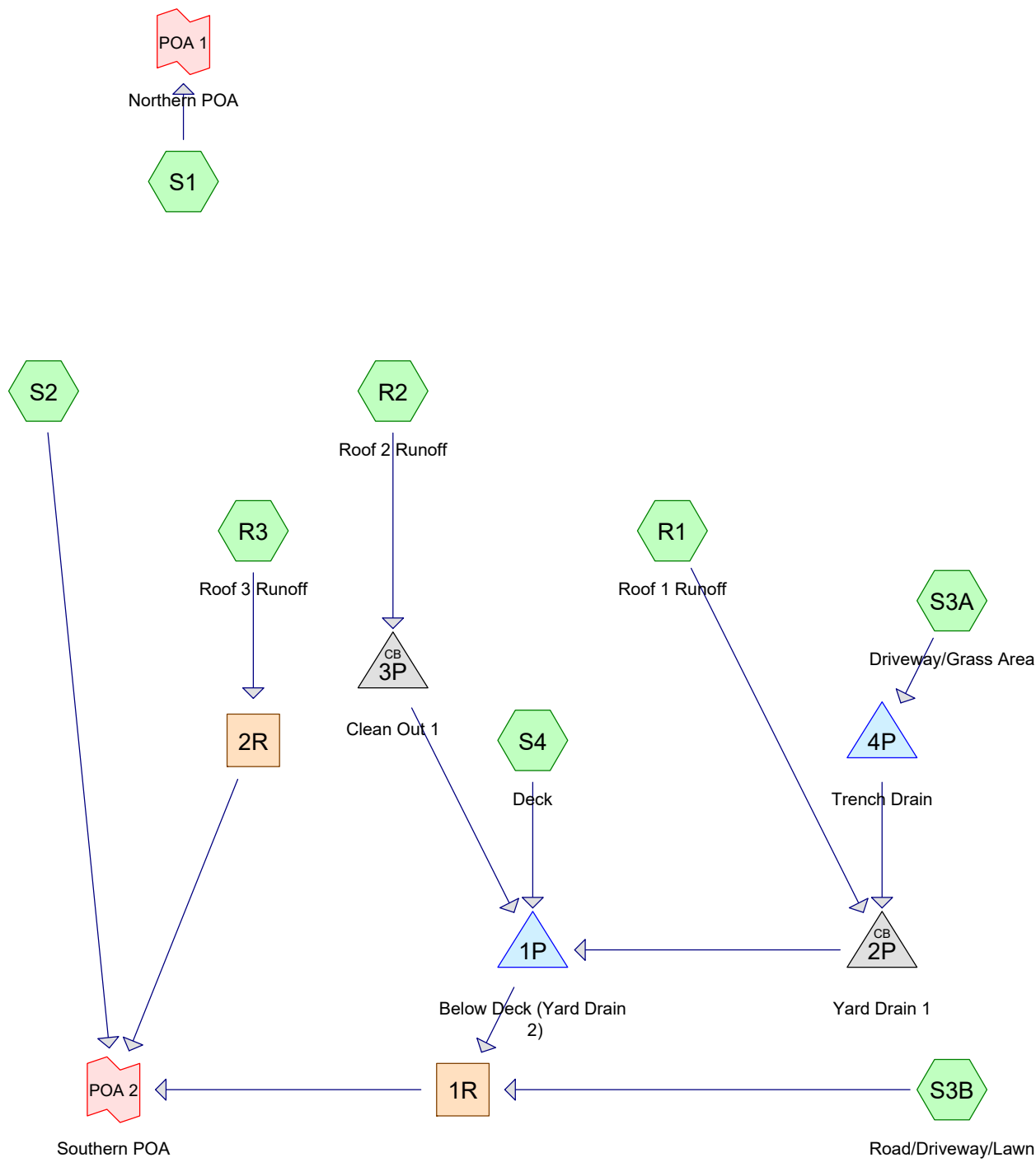
Post-Development

2-Year, 24-Hour Summary

10-Year, 24-Hour Complete

25-Year, 24-Hour Summary

50-Year, 24-Hour Summary



Routing Diagram for 5639-HC-POST-010325
 Prepared by Altus Engineering, Printed 1/27/2025
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5639-HC-POST-010325

Prepared by Altus Engineering

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Type III 24-hr 2 Year Rainfall=3.69"

Printed 1/27/2025

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
 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 R1: Roof 1 Runoff	Runoff Area=1,149 sf 100.00% Impervious Runoff Depth>3.45" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.008 af
Subcatchment R2: Roof 2 Runoff	Runoff Area=307 sf 100.00% Impervious Runoff Depth>3.45" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af
Subcatchment R3: Roof 3 Runoff	Runoff Area=476 sf 100.00% Impervious Runoff Depth>3.45" Tc=6.0 min CN=98 Runoff=0.04 cfs 0.003 af
Subcatchment S1:	Runoff Area=1,900 sf 0.00% Impervious Runoff Depth>0.85" Tc=6.0 min CN=65 Runoff=0.04 cfs 0.003 af
Subcatchment S2:	Runoff Area=26,434 sf 2.23% Impervious Runoff Depth>1.44" Flow Length=248' Tc=8.0 min CN=75 Runoff=0.93 cfs 0.073 af
Subcatchment S3A: Driveway/Grass Area	Runoff Area=1,111 sf 65.35% Impervious Runoff Depth>2.18" Tc=6.0 min CN=85 Runoff=0.07 cfs 0.005 af
Subcatchment S3B: Road/Driveway/Lawn	Runoff Area=3,576 sf 67.28% Impervious Runoff Depth>2.62" Tc=6.0 min CN=90 Runoff=0.25 cfs 0.018 af
Subcatchment S4: Deck	Runoff Area=985 sf 15.74% Impervious Runoff Depth>2.72" Tc=6.0 min CN=91 Runoff=0.07 cfs 0.005 af
Reach 1R:	Avg. Flow Depth=0.06' Max Vel=1.28 fps Inflow=0.25 cfs 0.018 af n=0.022 L=177.0' S=0.0169 '/' Capacity=10.11 cfs Outflow=0.24 cfs 0.018 af
Reach 2R:	Avg. Flow Depth=0.02' Max Vel=0.11 fps Inflow=0.04 cfs 0.003 af n=0.150 L=177.0' S=0.0282 '/' Capacity=6.48 cfs Outflow=0.02 cfs 0.003 af
Pond 1P: Below Deck (Yard Drain 2)	Peak Elev=10.23' Storage=176 cf Inflow=0.26 cfs 0.019 af Discarded=0.06 cfs 0.019 af Primary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.019 af
Pond 2P: Yard Drain 1	Peak Elev=10.23' Inflow=0.16 cfs 0.012 af 6.0" Round Culvert n=0.010 L=50.0' S=0.0020 '/' Outflow=0.16 cfs 0.012 af
Pond 3P: Clean Out 1	Peak Elev=12.09' Inflow=0.03 cfs 0.002 af 6.0" Round Culvert n=0.010 L=70.0' S=0.0214 '/' Outflow=0.03 cfs 0.002 af
Pond 4P: Trench Drain	Peak Elev=10.83' Storage=0.000 af Inflow=0.07 cfs 0.005 af 6.0" Round Culvert n=0.010 L=10.0' S=0.0580 '/' Outflow=0.07 cfs 0.005 af
Link POA 1: Northern POA	Inflow=0.04 cfs 0.003 af Primary=0.04 cfs 0.003 af
Link POA 2: Southern POA	Inflow=1.19 cfs 0.094 af Primary=1.19 cfs 0.094 af

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Type III 24-hr 25 Year Rainfall=7.10"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
 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 R1: Roof 1 Runoff	Runoff Area=1,149 sf 100.00% Impervious Runoff Depth>6.86" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af
Subcatchment R2: Roof 2 Runoff	Runoff Area=307 sf 100.00% Impervious Runoff Depth>6.86" Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af
Subcatchment R3: Roof 3 Runoff	Runoff Area=476 sf 100.00% Impervious Runoff Depth>6.86" Tc=6.0 min CN=98 Runoff=0.08 cfs 0.006 af
Subcatchment S1:	Runoff Area=1,900 sf 0.00% Impervious Runoff Depth>3.18" Tc=6.0 min CN=65 Runoff=0.16 cfs 0.012 af
Subcatchment S2:	Runoff Area=26,434 sf 2.23% Impervious Runoff Depth>4.23" Flow Length=248' Tc=8.0 min CN=75 Runoff=2.81 cfs 0.214 af
Subcatchment S3A: Driveway/Grass Area	Runoff Area=1,111 sf 65.35% Impervious Runoff Depth>5.34" Tc=6.0 min CN=85 Runoff=0.16 cfs 0.011 af
Subcatchment S3B: Road/Driveway/Lawn	Runoff Area=3,576 sf 67.28% Impervious Runoff Depth>5.92" Tc=6.0 min CN=90 Runoff=0.54 cfs 0.040 af
Subcatchment S4: Deck	Runoff Area=985 sf 15.74% Impervious Runoff Depth>6.03" Tc=6.0 min CN=91 Runoff=0.15 cfs 0.011 af
Reach 1R:	Avg. Flow Depth=0.11' Max Vel=1.89 fps Inflow=0.74 cfs 0.046 af n=0.022 L=177.0' S=0.0169 '/' Capacity=10.11 cfs Outflow=0.69 cfs 0.046 af
Reach 2R:	Avg. Flow Depth=0.03' Max Vel=0.15 fps Inflow=0.08 cfs 0.006 af n=0.150 L=177.0' S=0.0282 '/' Capacity=6.48 cfs Outflow=0.05 cfs 0.006 af
Pond 1P: Below Deck (Yard Drain 2)	Peak Elev=10.72' Storage=353 cf Inflow=0.54 cfs 0.042 af Discarded=0.06 cfs 0.036 af Primary=0.33 cfs 0.006 af Outflow=0.40 cfs 0.042 af
Pond 2P: Yard Drain 1	Peak Elev=10.83' Inflow=0.34 cfs 0.026 af 6.0" Round Culvert n=0.010 L=50.0' S=0.0020 '/' Outflow=0.34 cfs 0.026 af
Pond 3P: Clean Out 1	Peak Elev=12.13' Inflow=0.05 cfs 0.004 af 6.0" Round Culvert n=0.010 L=70.0' S=0.0214 '/' Outflow=0.05 cfs 0.004 af
Pond 4P: Trench Drain	Peak Elev=10.94' Storage=0.000 af Inflow=0.16 cfs 0.011 af 6.0" Round Culvert n=0.010 L=10.0' S=0.0580 '/' Outflow=0.16 cfs 0.011 af
Link POA 1: Northern POA	Inflow=0.16 cfs 0.012 af Primary=0.16 cfs 0.012 af
Link POA 2: Southern POA	Inflow=3.37 cfs 0.266 af Primary=3.37 cfs 0.266 af

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Type III 24-hr 50 Year Rainfall=8.50"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
 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 R1: Roof 1 Runoff	Runoff Area=1,149 sf 100.00% Impervious Runoff Depth>8.25" Tc=6.0 min CN=98 Runoff=0.22 cfs 0.018 af
Subcatchment R2: Roof 2 Runoff	Runoff Area=307 sf 100.00% Impervious Runoff Depth>8.25" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Subcatchment R3: Roof 3 Runoff	Runoff Area=476 sf 100.00% Impervious Runoff Depth>8.25" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.008 af
Subcatchment S1:	Runoff Area=1,900 sf 0.00% Impervious Runoff Depth>4.30" Tc=6.0 min CN=65 Runoff=0.22 cfs 0.016 af
Subcatchment S2:	Runoff Area=26,434 sf 2.23% Impervious Runoff Depth>5.49" Flow Length=248' Tc=8.0 min CN=75 Runoff=3.63 cfs 0.277 af
Subcatchment S3A: Driveway/Grass Area	Runoff Area=1,111 sf 65.35% Impervious Runoff Depth>6.69" Tc=6.0 min CN=85 Runoff=0.19 cfs 0.014 af
Subcatchment S3B: Road/Driveway/Lawn	Runoff Area=3,576 sf 67.28% Impervious Runoff Depth>7.29" Tc=6.0 min CN=90 Runoff=0.65 cfs 0.050 af
Subcatchment S4: Deck	Runoff Area=985 sf 15.74% Impervious Runoff Depth>7.41" Tc=6.0 min CN=91 Runoff=0.18 cfs 0.014 af
Reach 1R:	Avg. Flow Depth=0.15' Max Vel=2.23 fps Inflow=1.18 cfs 0.060 af n=0.022 L=177.0' S=0.0169 '/' Capacity=10.11 cfs Outflow=1.13 cfs 0.060 af
Reach 2R:	Avg. Flow Depth=0.03' Max Vel=0.17 fps Inflow=0.09 cfs 0.008 af n=0.150 L=177.0' S=0.0282 '/' Capacity=6.48 cfs Outflow=0.06 cfs 0.007 af
Pond 1P: Below Deck (Yard Drain 2)	Peak Elev=10.73' Storage=361 cf Inflow=0.64 cfs 0.051 af Discarded=0.06 cfs 0.041 af Primary=0.56 cfs 0.010 af Outflow=0.62 cfs 0.051 af
Pond 2P: Yard Drain 1	Peak Elev=10.99' Inflow=0.41 cfs 0.032 af 6.0" Round Culvert n=0.010 L=50.0' S=0.0020 '/' Outflow=0.41 cfs 0.032 af
Pond 3P: Clean Out 1	Peak Elev=12.14' Inflow=0.06 cfs 0.005 af 6.0" Round Culvert n=0.010 L=70.0' S=0.0214 '/' Outflow=0.06 cfs 0.005 af
Pond 4P: Trench Drain	Peak Elev=11.06' Storage=0.000 af Inflow=0.19 cfs 0.014 af 6.0" Round Culvert n=0.010 L=10.0' S=0.0580 '/' Outflow=0.19 cfs 0.014 af
Link POA 1: Northern POA	Inflow=0.22 cfs 0.016 af Primary=0.22 cfs 0.016 af
Link POA 2: Southern POA	Inflow=4.79 cfs 0.345 af Primary=4.79 cfs 0.345 af

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.023	61	>75% Grass cover, Good, HSG B (S2, S3A, S3B)
0.342	74	>75% Grass cover, Good, HSG C (S2, S3B)
0.181	80	>75% Grass cover, Good, HSG D (S2)
0.102	65	Brush, Good, HSG C (S1, S2)
0.024	73	Brush, Good, HSG D (S2)
0.019	90	Deck, HSG C (S4)
0.052	98	Paved parking, HSG B (R1, S3A, S3B)
0.021	98	Paved parking, HSG C (S2, S3B)
0.039	98	Roofs, HSG B (R1, R2, S3B)
0.022	98	Roofs, HSG C (R3, S2, S4)
0.825	78	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.114	HSG B	R1, R2, S2, S3A, S3B
0.506	HSG C	R3, S1, S2, S3B, S4
0.205	HSG D	S2
0.000	Other	
0.825		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.023	0.342	0.181	0.000	0.547	>75% Grass cover, Good	S2, S3A, S3B
0.000	0.000	0.102	0.024	0.000	0.126	Brush, Good	S1, S2
0.000	0.000	0.019	0.000	0.000	0.019	Deck	S4
0.000	0.052	0.021	0.000	0.000	0.073	Paved parking	R1, S2, S3A, S3B
0.000	0.039	0.022	0.000	0.000	0.060	Roofs	R1, R2, R3, S2, S3B, S4
0.000	0.114	0.506	0.205	0.000	0.825	TOTAL AREA	

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Type III 24-hr 10 Year Rainfall=5.59"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
 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 R1: Roof 1 Runoff	Runoff Area=1,149 sf 100.00% Impervious Runoff Depth>5.35" Tc=6.0 min CN=98 Runoff=0.14 cfs 0.012 af
Subcatchment R2: Roof 2 Runoff	Runoff Area=307 sf 100.00% Impervious Runoff Depth>5.35" Tc=6.0 min CN=98 Runoff=0.04 cfs 0.003 af
Subcatchment R3: Roof 3 Runoff	Runoff Area=476 sf 100.00% Impervious Runoff Depth>5.35" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Subcatchment S1:	Runoff Area=1,900 sf 0.00% Impervious Runoff Depth>2.05" Tc=6.0 min CN=65 Runoff=0.10 cfs 0.007 af
Subcatchment S2:	Runoff Area=26,434 sf 2.23% Impervious Runoff Depth>2.93" Flow Length=248' Tc=8.0 min CN=75 Runoff=1.95 cfs 0.148 af
Subcatchment S3A: Driveway/Grass Area	Runoff Area=1,111 sf 65.35% Impervious Runoff Depth>3.91" Tc=6.0 min CN=85 Runoff=0.12 cfs 0.008 af
Subcatchment S3B: Road/Driveway/Lawn	Runoff Area=3,576 sf 67.28% Impervious Runoff Depth>4.44" Tc=6.0 min CN=90 Runoff=0.41 cfs 0.030 af
Subcatchment S4: Deck	Runoff Area=985 sf 15.74% Impervious Runoff Depth>4.55" Tc=6.0 min CN=91 Runoff=0.11 cfs 0.009 af
Reach 1R:	Avg. Flow Depth=0.08' Max Vel=1.54 fps Inflow=0.41 cfs 0.032 af n=0.022 L=177.0' S=0.0169 '/' Capacity=10.11 cfs Outflow=0.40 cfs 0.032 af
Reach 2R:	Avg. Flow Depth=0.02' Max Vel=0.14 fps Inflow=0.06 cfs 0.005 af n=0.150 L=177.0' S=0.0282 '/' Capacity=6.48 cfs Outflow=0.03 cfs 0.005 af
Pond 1P: Below Deck (Yard Drain 2)	Peak Elev=10.71' Storage=341 cf Inflow=0.41 cfs 0.032 af Discarded=0.06 cfs 0.030 af Primary=0.09 cfs 0.001 af Outflow=0.15 cfs 0.032 af
Pond 2P: Yard Drain 1	Peak Elev=10.73' Inflow=0.26 cfs 0.020 af 6.0" Round Culvert n=0.010 L=50.0' S=0.0020 '/' Outflow=0.26 cfs 0.020 af
Pond 3P: Clean Out 1	Peak Elev=12.11' Inflow=0.04 cfs 0.003 af 6.0" Round Culvert n=0.010 L=70.0' S=0.0214 '/' Outflow=0.04 cfs 0.003 af
Pond 4P: Trench Drain	Peak Elev=10.88' Storage=0.000 af Inflow=0.12 cfs 0.008 af 6.0" Round Culvert n=0.010 L=10.0' S=0.0580 '/' Outflow=0.12 cfs 0.008 af
Link POA 1: Northern POA	Inflow=0.10 cfs 0.007 af Primary=0.10 cfs 0.007 af
Link POA 2: Southern POA	Inflow=2.37 cfs 0.185 af Primary=2.37 cfs 0.185 af

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Type III 24-hr 10 Year Rainfall=5.59"

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Total Runoff Area = 0.825 ac Runoff Volume = 0.223 af Average Runoff Depth = 3.24"
83.84% Pervious = 0.692 ac 16.16% Impervious = 0.133 ac

Summary for Subcatchment R1: Roof 1 Runoff

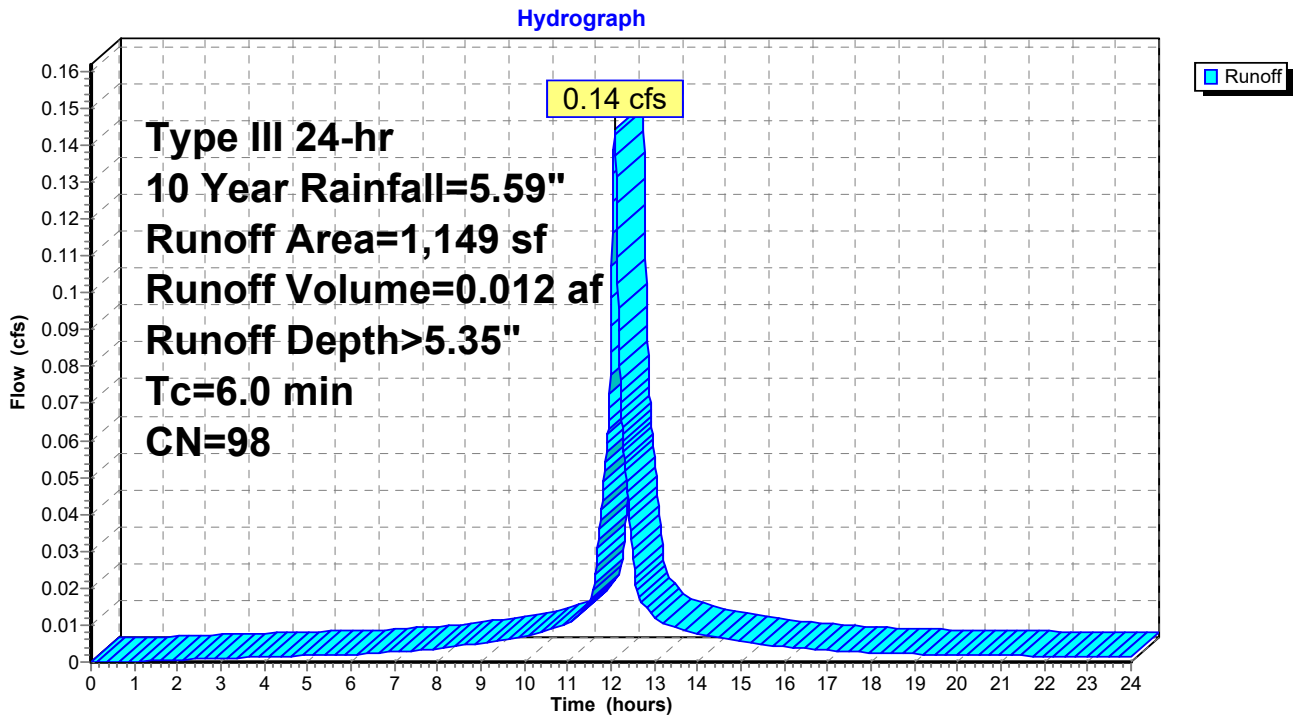
Runoff = 0.14 cfs @ 12.08 hrs, Volume= 0.012 af, Depth> 5.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
1,071	98	Roofs, HSG B
78	98	Paved parking, HSG B
1,149	98	Weighted Average
1,149		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment R1: Roof 1 Runoff



Summary for Subcatchment R2: Roof 2 Runoff

Runoff = 0.04 cfs @ 12.08 hrs, Volume= 0.003 af, Depth> 5.35"

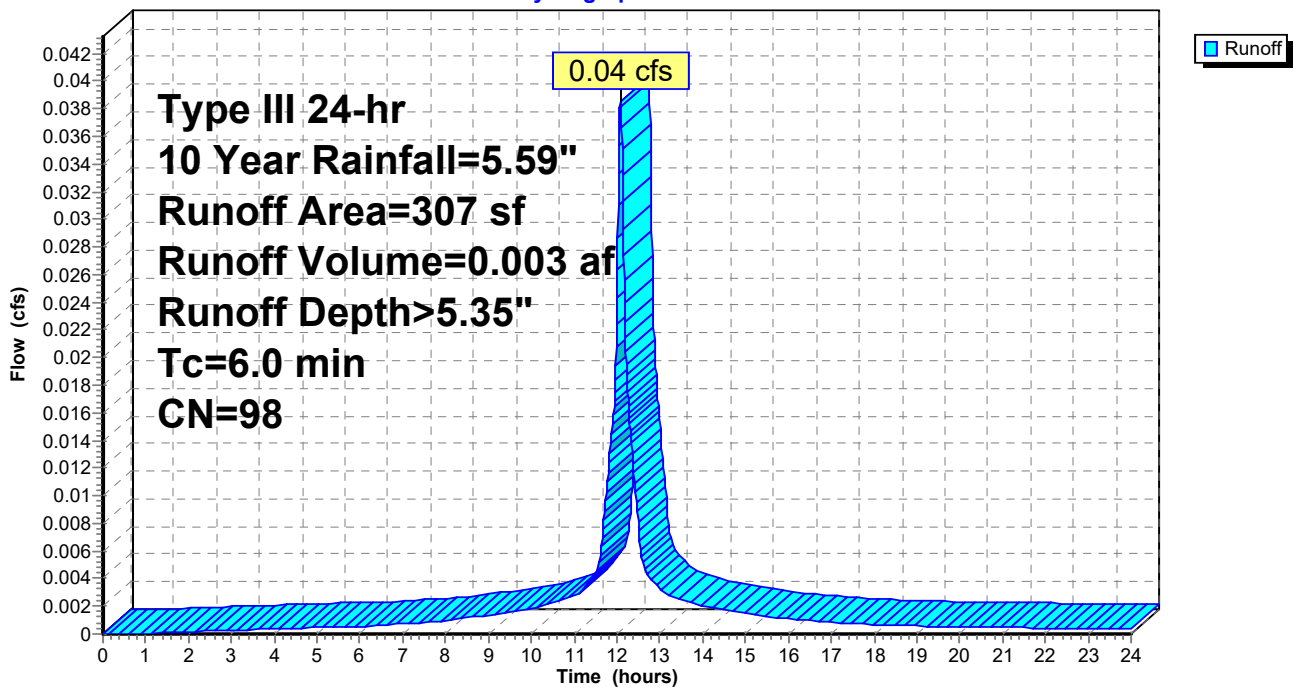
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
307	98	Roofs, HSG B
307		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment R2: Roof 2 Runoff

Hydrograph



Summary for Subcatchment R3: Roof 3 Runoff

Runoff = 0.06 cfs @ 12.08 hrs, Volume= 0.005 af, Depth> 5.35"

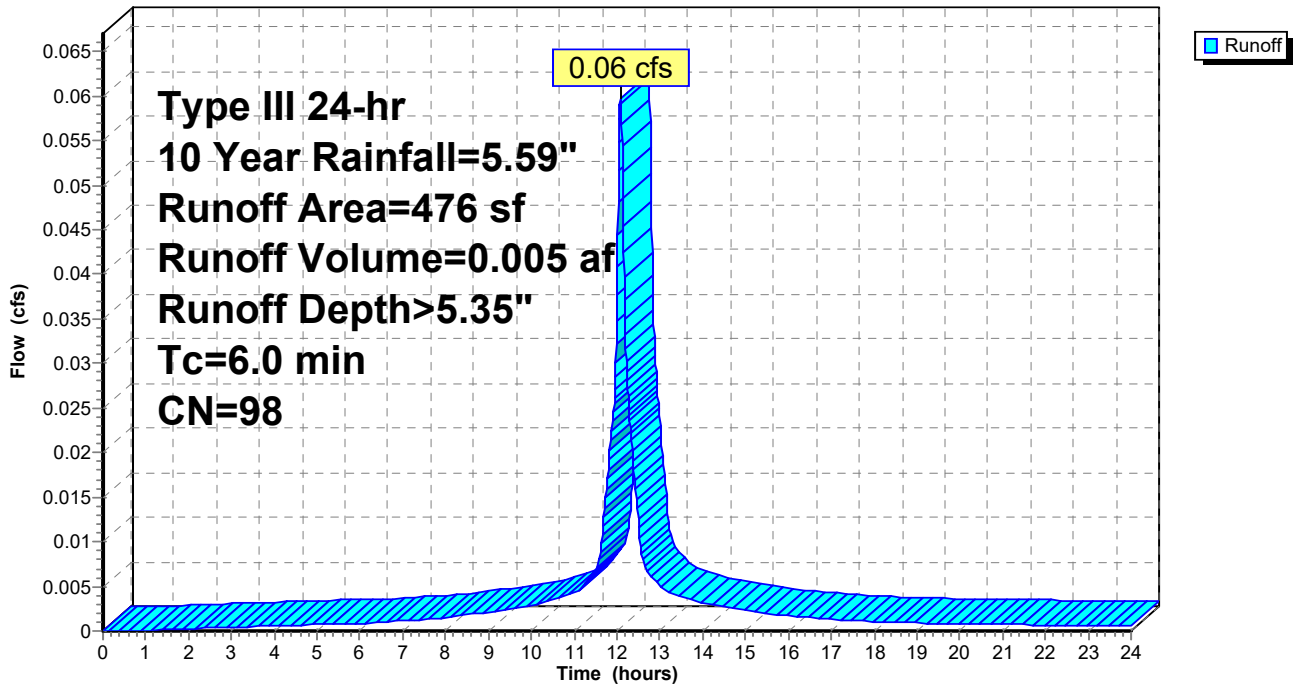
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
476	98	Roofs, HSG C
476		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment R3: Roof 3 Runoff

Hydrograph



Summary for Subcatchment S1:

Runoff = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af, Depth> 2.05"

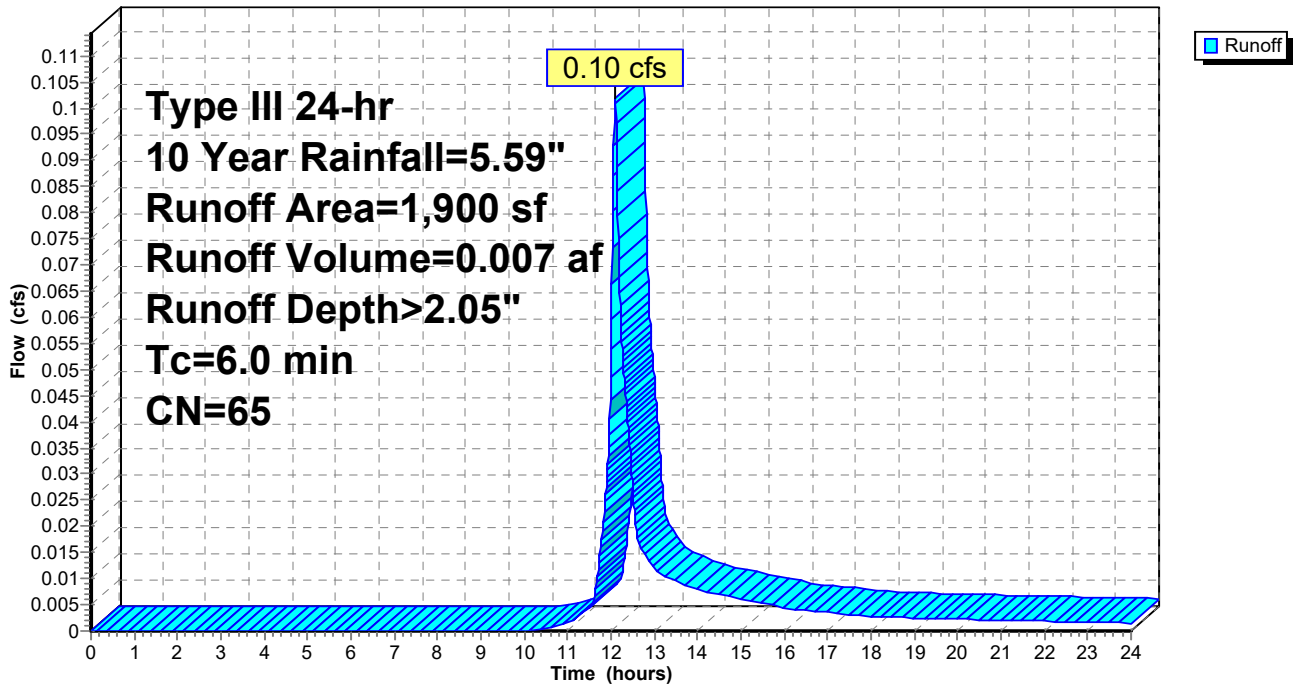
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
1,900	65	Brush, Good, HSG C
1,900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment S1:

Hydrograph



Summary for Subcatchment S2:

Runoff = 1.95 cfs @ 12.12 hrs, Volume= 0.148 af, Depth> 2.93"

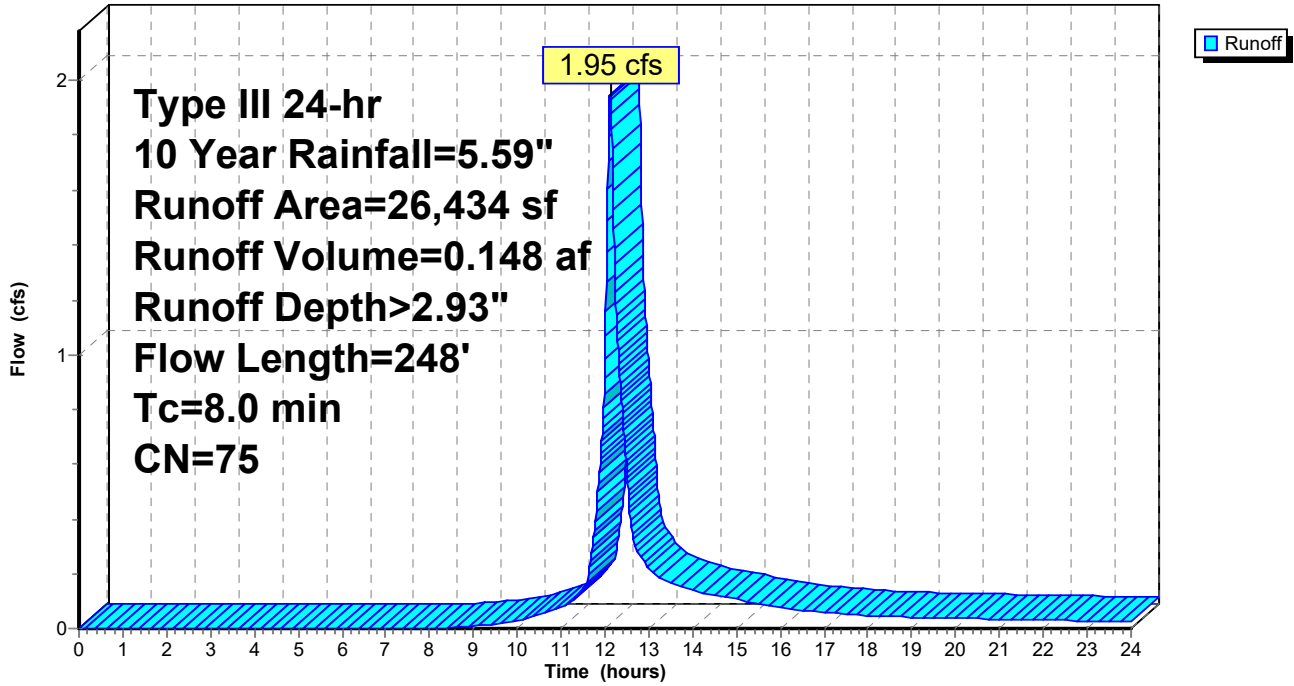
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
320	98	Roofs, HSG C
270	98	Paved parking, HSG C
464	61	>75% Grass cover, Good, HSG B
13,894	74	>75% Grass cover, Good, HSG C
2,552	65	Brush, Good, HSG C
7,899	80	>75% Grass cover, Good, HSG D
1,035	73	Brush, Good, HSG D
26,434	75	Weighted Average
25,844		97.77% Pervious Area
590		2.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0800	0.16		Sheet Flow, Brush, HSG C n= 0.300 P2= 3.69"
0.6	106	0.0377	2.91		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
2.2	92	0.0100	0.70		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.0	248	Total			

Subcatchment S2:

Hydrograph



Summary for Subcatchment S3A: Driveway/Grass Area

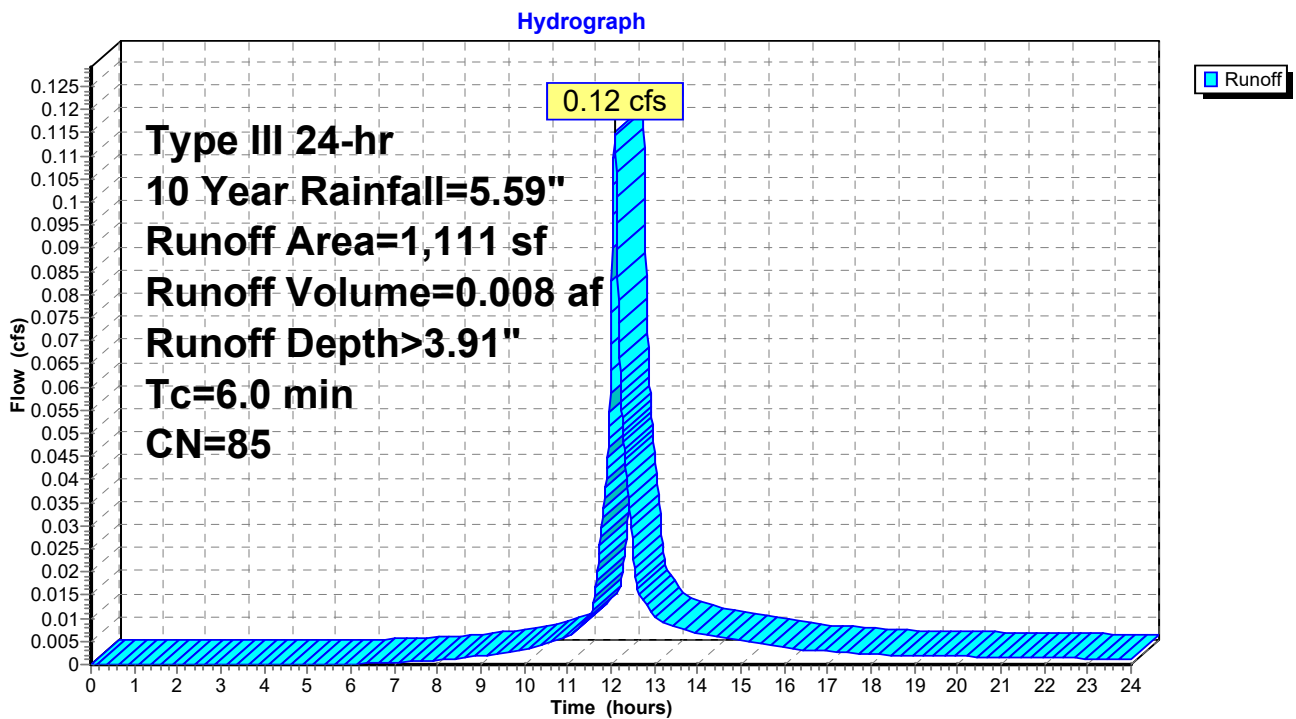
Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.008 af, Depth> 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
726	98	Paved parking, HSG B
385	61	>75% Grass cover, Good, HSG B
1,111	85	Weighted Average
385		34.65% Pervious Area
726		65.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment S3A: Driveway/Grass Area



Summary for Subcatchment S3B: Road/Driveway/Lawn

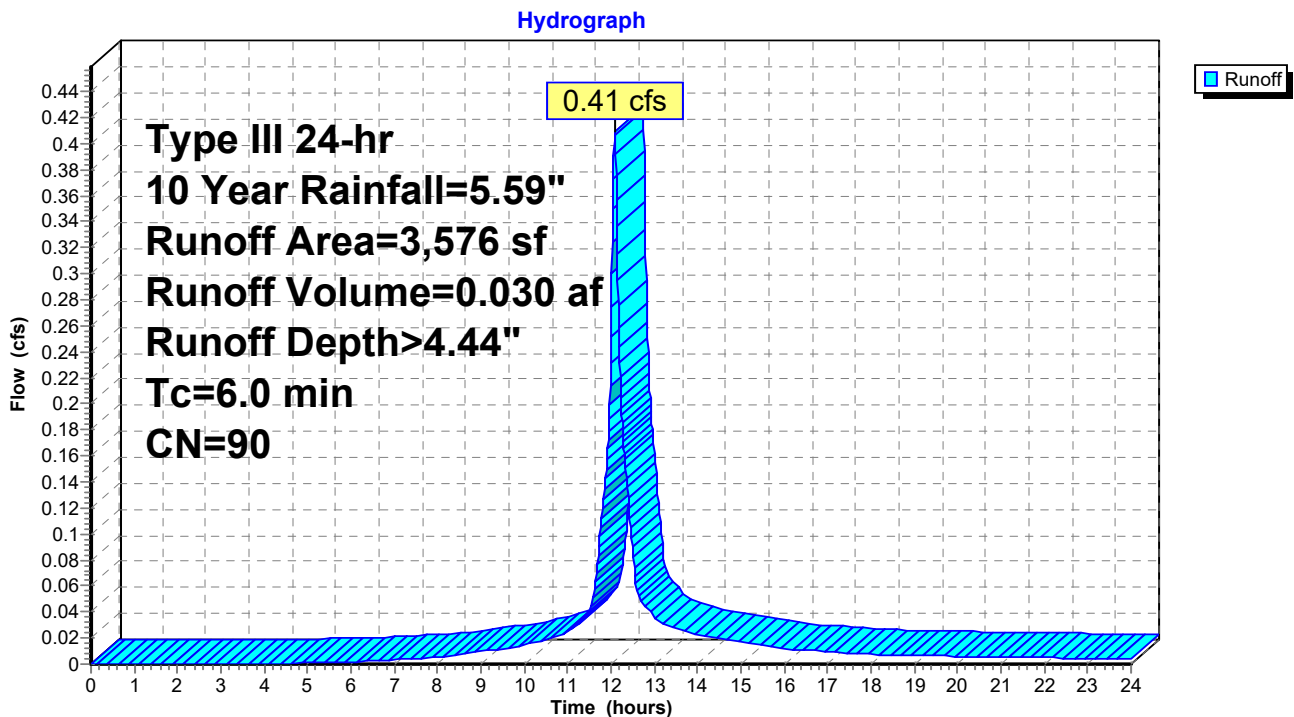
Runoff = 0.41 cfs @ 12.08 hrs, Volume= 0.030 af, Depth> 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
301	98	Roofs, HSG B
1,461	98	Paved parking, HSG B
644	98	Paved parking, HSG C
161	61	>75% Grass cover, Good, HSG B
1,009	74	>75% Grass cover, Good, HSG C
3,576	90	Weighted Average
1,170		32.72% Pervious Area
2,406		67.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment S3B: Road/Driveway/Lawn



Summary for Subcatchment S4: Deck

Runoff = 0.11 cfs @ 12.08 hrs, Volume= 0.009 af, Depth> 4.55"

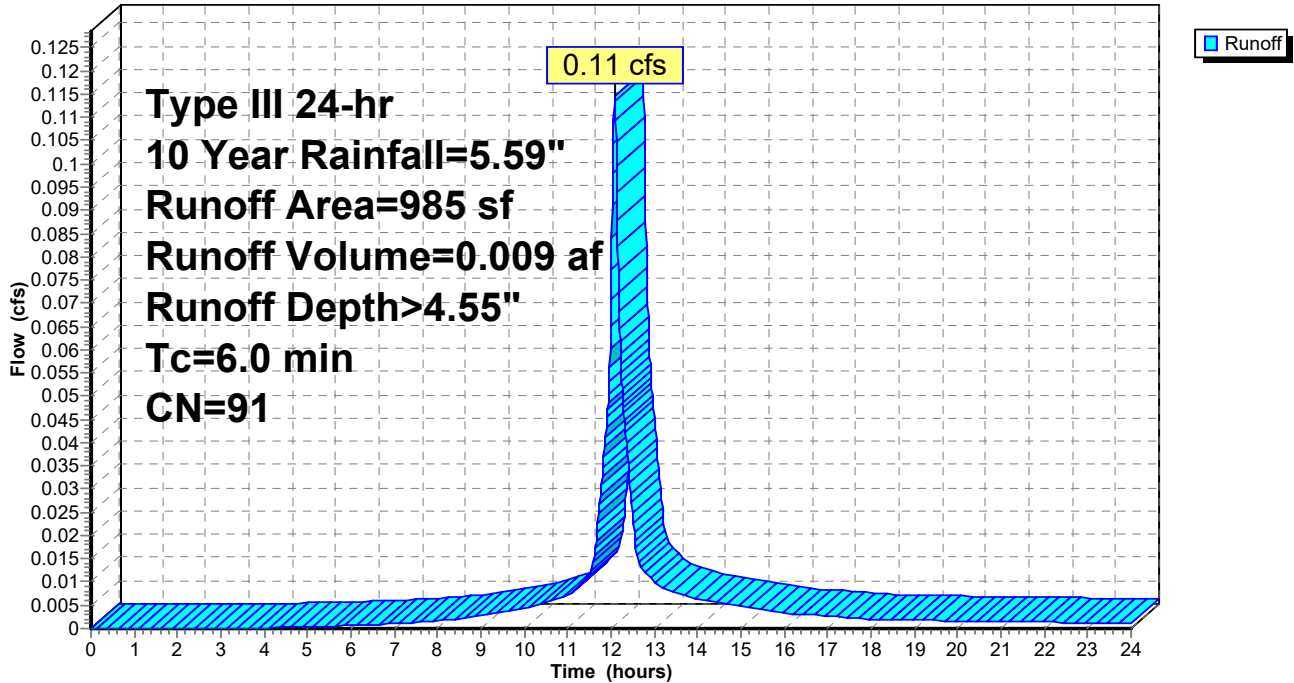
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10 Year Rainfall=5.59"

Area (sf)	CN	Description
155	98	Roofs, HSG C
* 830	90	Deck, HSG C
985	91	Weighted Average
830		84.26% Pervious Area
155		15.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment S4: Deck

Hydrograph



Summary for Reach 1R:

Inflow Area = 0.164 ac, 66.54% Impervious, Inflow Depth > 2.33" for 10 Year event
Inflow = 0.41 cfs @ 12.08 hrs, Volume= 0.032 af
Outflow = 0.40 cfs @ 12.10 hrs, Volume= 0.032 af, Atten= 3%, Lag= 1.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.54 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 0.40 fps, Avg. Travel Time= 7.3 min

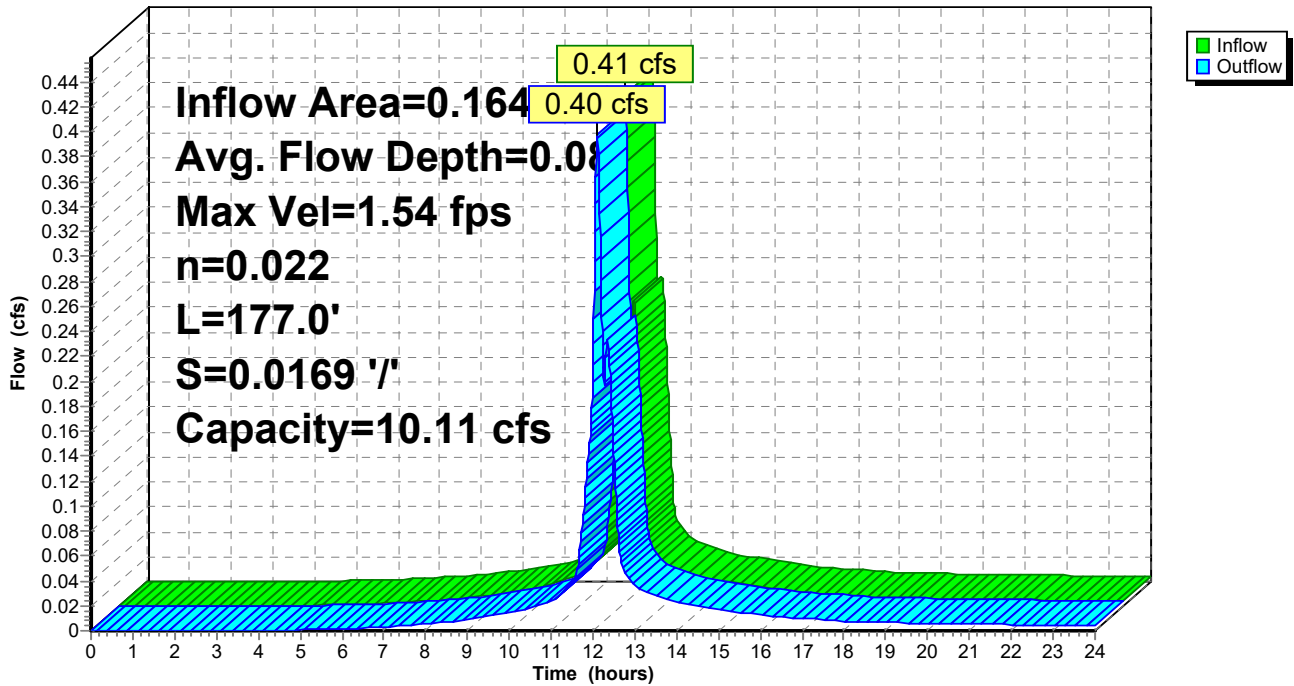
Peak Storage= 46 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.08'
Bank-Full Depth= 0.50' Flow Area= 2.3 sf, Capacity= 10.11 cfs

3.00' x 0.50' deep channel, n= 0.022 Grass
Side Slope Z-value= 3.0 '/' Top Width= 6.00'
Length= 177.0' Slope= 0.0169 '/'
Inlet Invert= 10.50', Outlet Invert= 7.50'



Reach 1R:

Hydrograph



Summary for Reach 2R:

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth > 5.35" for 10 Year event
 Inflow = 0.06 cfs @ 12.08 hrs, Volume= 0.005 af
 Outflow = 0.03 cfs @ 12.20 hrs, Volume= 0.005 af, Atten= 43%, Lag= 6.7 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Max. Velocity= 0.14 fps, Min. Travel Time= 21.5 min
 Avg. Velocity = 0.05 fps, Avg. Travel Time= 54.8 min

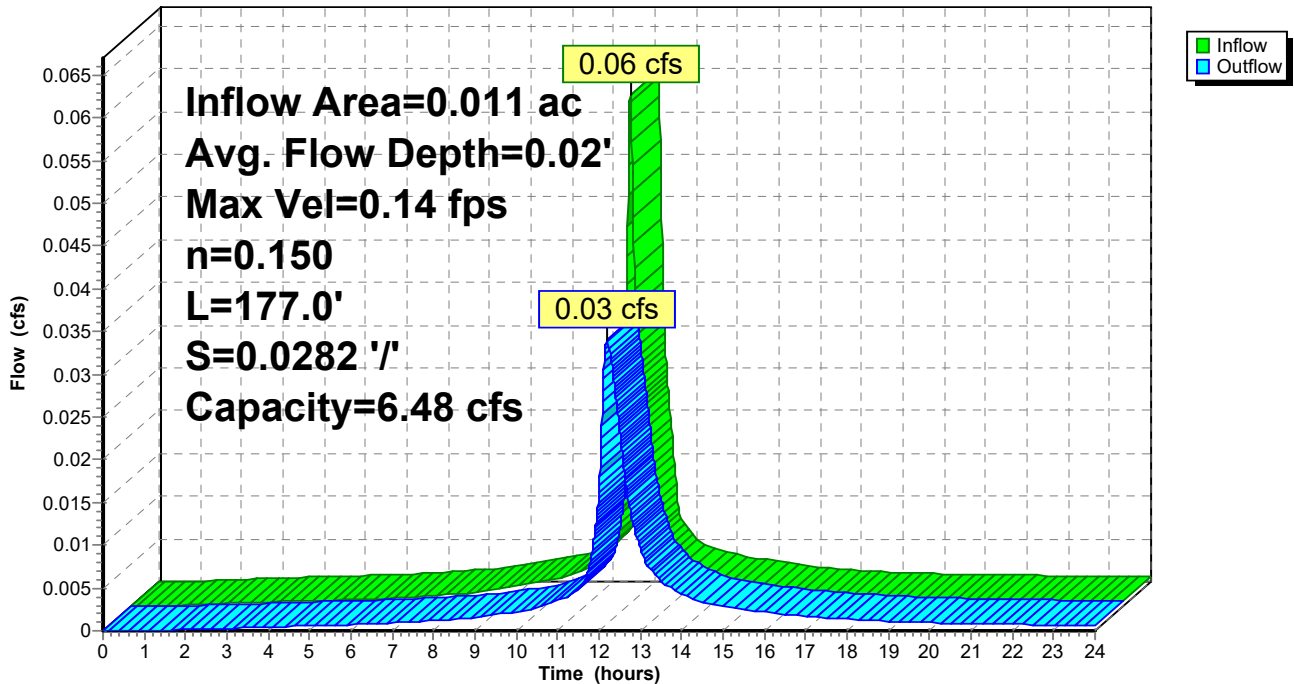
Peak Storage= 44 cf @ 12.20 hrs
 Average Depth at Peak Storage= 0.02'
 Bank-Full Depth= 0.50' Flow Area= 7.5 sf, Capacity= 6.48 cfs

10.00' x 0.50' deep channel, n= 0.150 Sheet flow over Short Grass
 Side Slope Z-value= 10.0 ' / ' Top Width= 20.00'
 Length= 177.0' Slope= 0.0282 ' / '
 Inlet Invert= 12.50', Outlet Invert= 7.50'



Reach 2R:

Hydrograph



Summary for Pond 1P: Below Deck (Yard Drain 2)

Inflow Area = 0.082 ac, 65.79% Impervious, Inflow Depth > 4.68" for 10 Year event
 Inflow = 0.41 cfs @ 12.09 hrs, Volume= 0.032 af
 Outflow = 0.15 cfs @ 12.33 hrs, Volume= 0.032 af, Atten= 63%, Lag= 14.7 min
 Discarded = 0.06 cfs @ 12.33 hrs, Volume= 0.030 af
 Primary = 0.09 cfs @ 12.33 hrs, Volume= 0.001 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 10.71' @ 12.33 hrs Surf.Area= 830 sf Storage= 341 cf
 Flood Elev= 10.70' Surf.Area= 830 sf Storage= 332 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 29.4 min (800.2 - 770.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	9.70'	1,162 cf	Custom Stage Data (Prismatic) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
9.70	830	0.0	0	0	
10.70	830	40.0	332	332	
11.70	830	100.0	830	1,162	

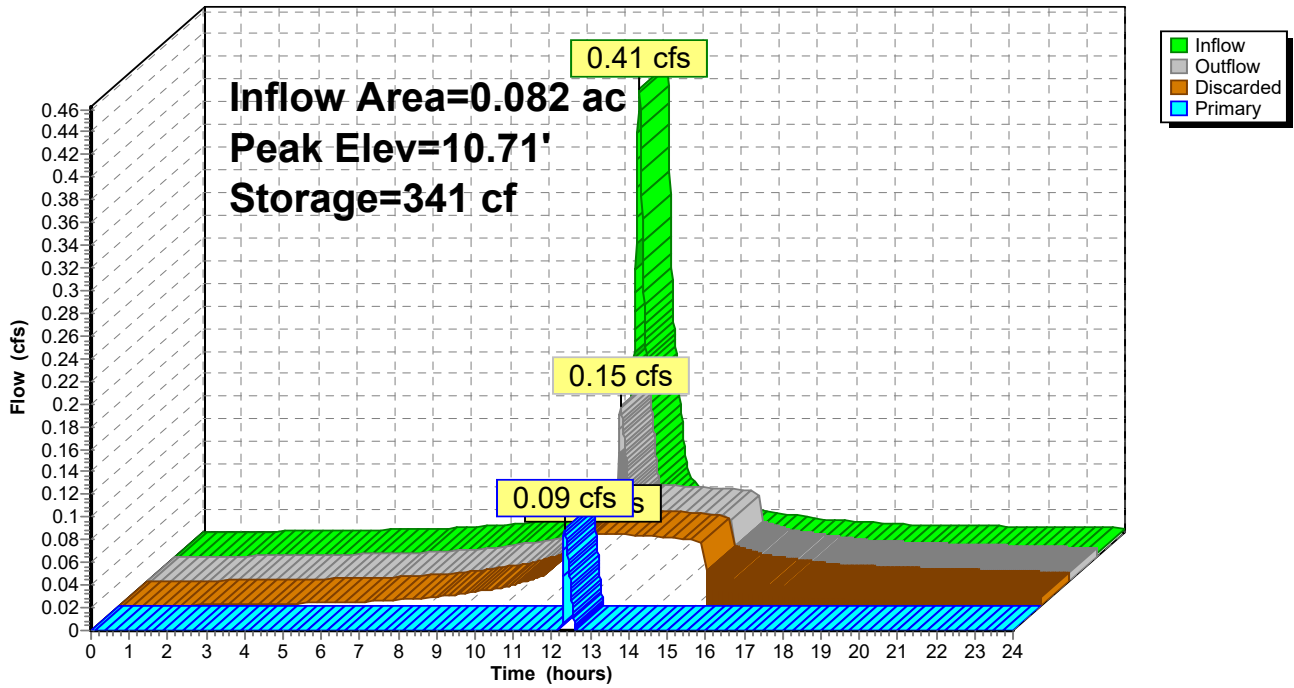
Device	Routing	Invert	Outlet Devices												
#1	Discarded	9.70'	3.000 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 0.01'												
#2	Primary	10.70'	36.6' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88												

Discarded OutFlow Max=0.06 cfs @ 12.33 hrs HW=10.71' (Free Discharge)
 ↑1=Exfiltration (Controls 0.06 cfs)

Primary OutFlow Max=0.09 cfs @ 12.33 hrs HW=10.71' TW=10.56' (Dynamic Tailwater)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 0.09 cfs @ 0.24 fps)

Pond 1P: Below Deck (Yard Drain 2)

Hydrograph



Summary for Pond 2P: Yard Drain 1

Inflow Area = 0.052 ac, 82.96% Impervious, Inflow Depth > 4.64" for 10 Year event
 Inflow = 0.26 cfs @ 12.09 hrs, Volume= 0.020 af
 Outflow = 0.26 cfs @ 12.09 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.26 cfs @ 12.09 hrs, Volume= 0.020 af

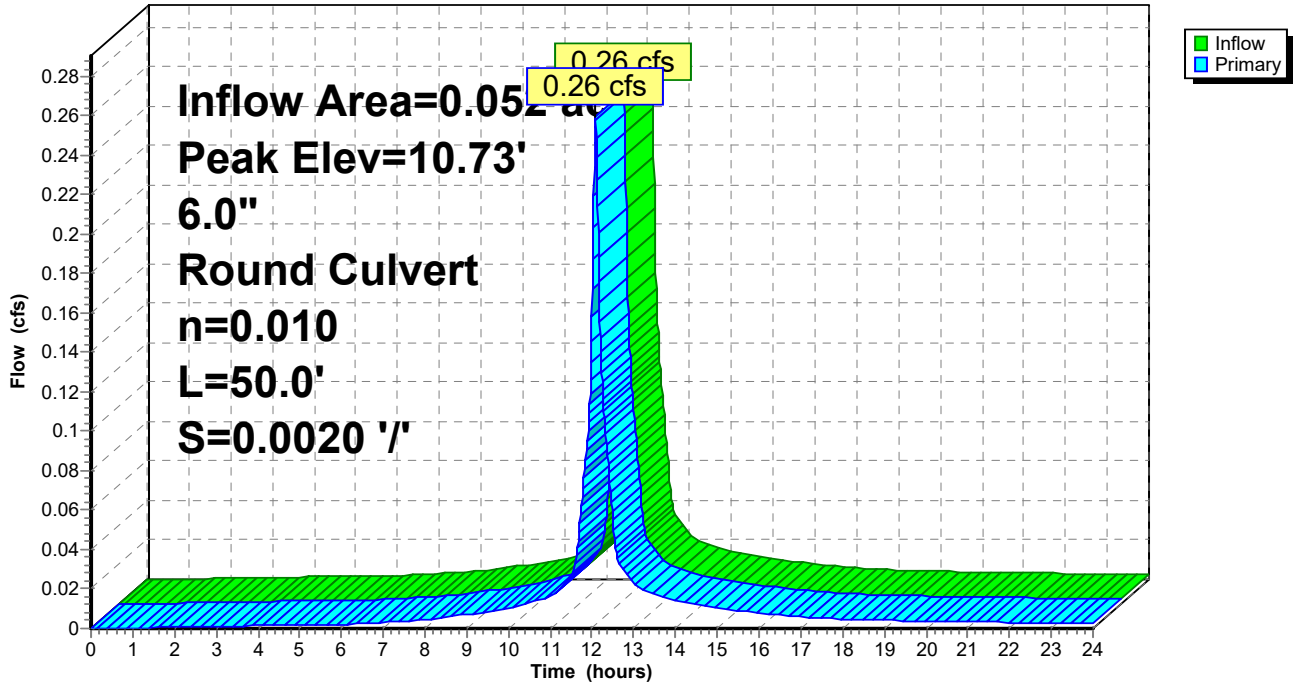
Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 10.73' @ 12.32 hrs
 Flood Elev= 11.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	9.70'	6.0" Round Culvert L= 50.0' Ke= 0.500 Inlet / Outlet Invert= 9.70' / 9.60' S= 0.0020 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.20 cfs @ 12.09 hrs HW=10.32' TW=10.26' (Dynamic Tailwater)
 ↳ **1=Culvert** (Outlet Controls 0.20 cfs @ 1.07 fps)

Pond 2P: Yard Drain 1

Hydrograph



Summary for Pond 3P: Clean Out 1

Inflow Area = 0.007 ac, 100.00% Impervious, Inflow Depth > 5.35" for 10 Year event
 Inflow = 0.04 cfs @ 12.08 hrs, Volume= 0.003 af
 Outflow = 0.04 cfs @ 12.08 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.04 cfs @ 12.08 hrs, Volume= 0.003 af

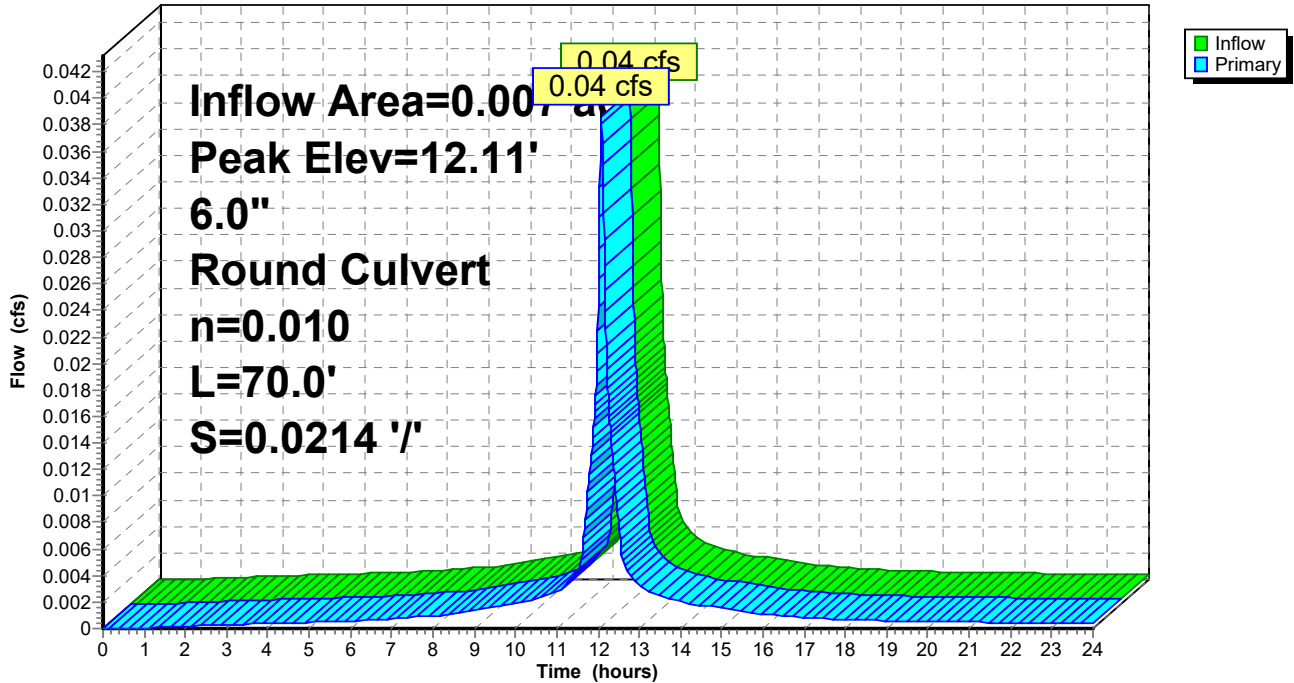
Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 12.11' @ 12.08 hrs
 Flood Elev= 15.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	12.00'	6.0" Round Culvert L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 12.00' / 10.50' S= 0.0214 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.04 cfs @ 12.08 hrs HW=12.11' TW=10.25' (Dynamic Tailwater)
 ←1=Culvert (Inlet Controls 0.04 cfs @ 1.15 fps)

Pond 3P: Clean Out 1

Hydrograph



Summary for Pond 4P: Trench Drain

Inflow Area = 0.026 ac, 65.35% Impervious, Inflow Depth > 3.91" for 10 Year event
 Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.008 af
 Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.2 min
 Primary = 0.12 cfs @ 12.09 hrs, Volume= 0.008 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 10.88' @ 12.09 hrs Surf.Area= 0.000 ac Storage= 0.000 af
 Flood Elev= 11.68' Surf.Area= 0.000 ac Storage= 0.000 af

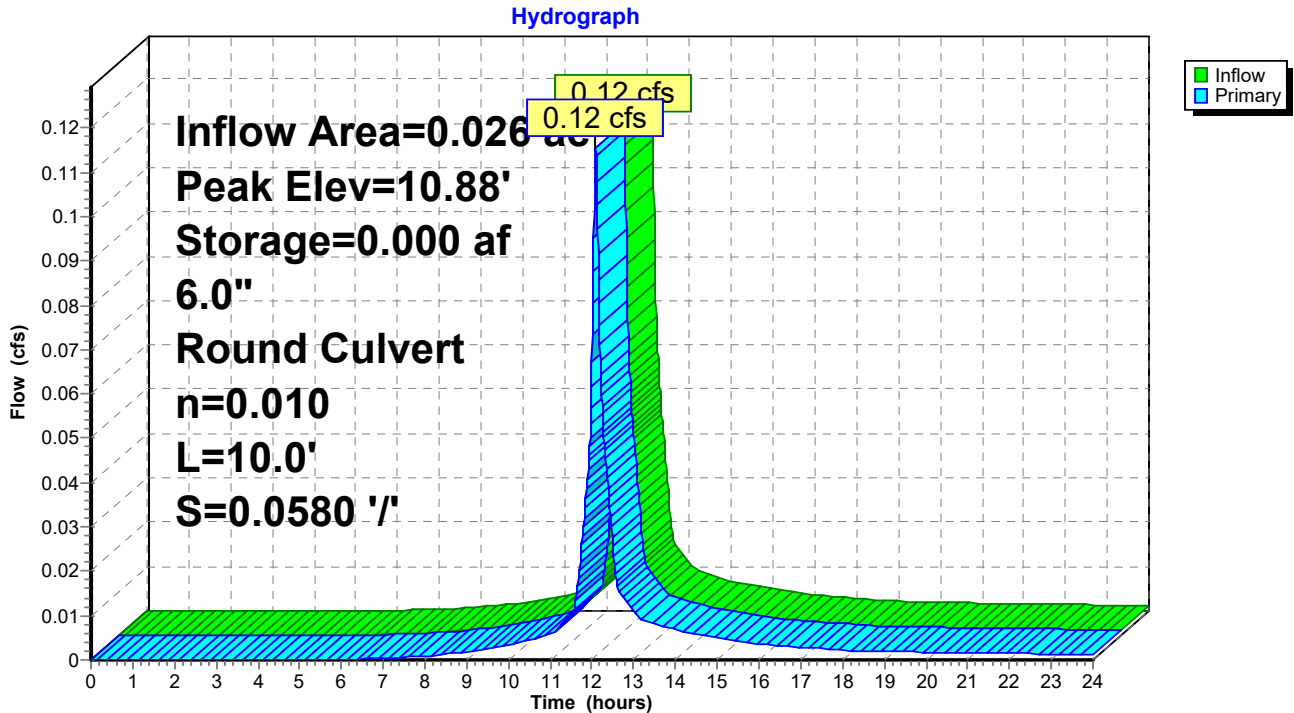
Plug-Flow detention time= 1.2 min calculated for 0.008 af (100% of inflow)
 Center-of-Mass det. time= 0.8 min (803.4 - 802.6)

Volume	Invert	Avail.Storage	Storage Description
#1	10.68'	0.000 af	0.50'W x 22.50'L x 1.00'H Prismaoid

Device	Routing	Invert	Outlet Devices
#1	Primary	10.68'	6.0" Round Culvert L= 10.0' Ke= 0.500 Inlet / Outlet Invert= 10.68' / 10.10' S= 0.0580 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.12 cfs @ 12.09 hrs HW=10.88' TW=10.33' (Dynamic Tailwater)
 ←1=Culvert (Inlet Controls 0.12 cfs @ 1.54 fps)

Pond 4P: Trench Drain

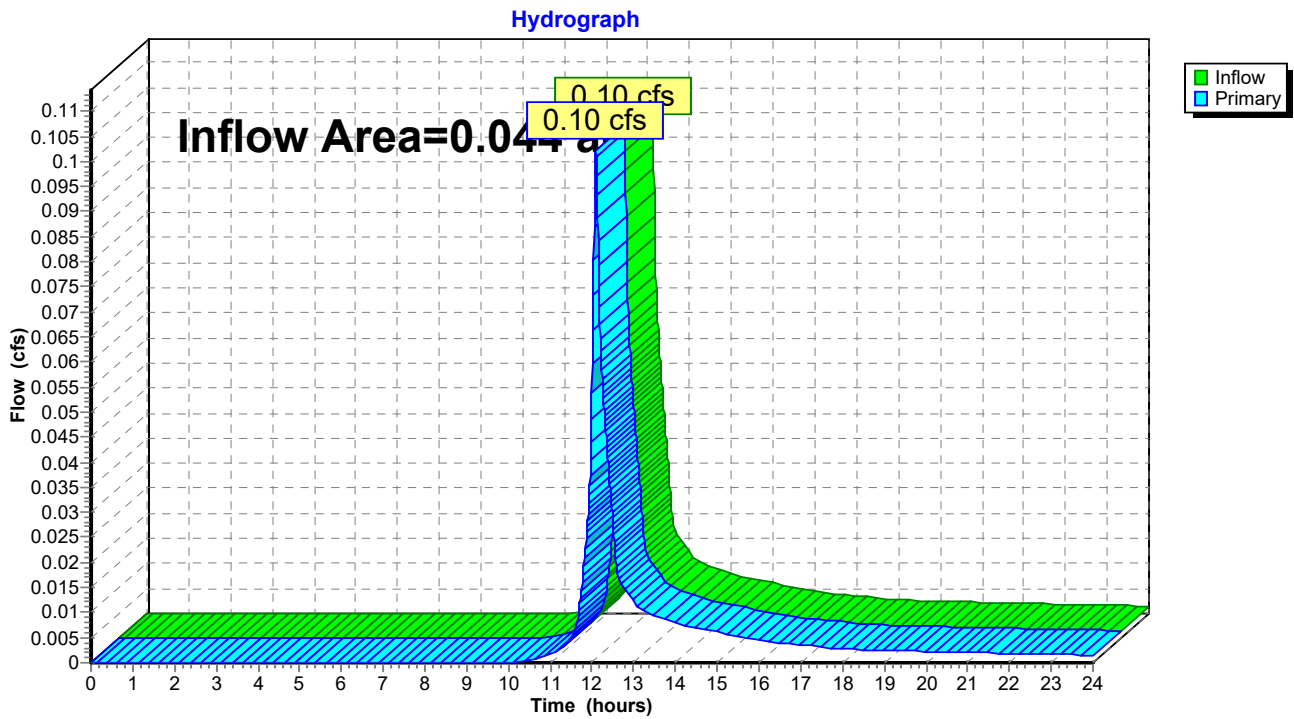


Summary for Link POA 1: Northern POA

Inflow Area = 0.044 ac, 0.00% Impervious, Inflow Depth > 2.05" for 10 Year event
Inflow = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af
Primary = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link POA 1: Northern POA

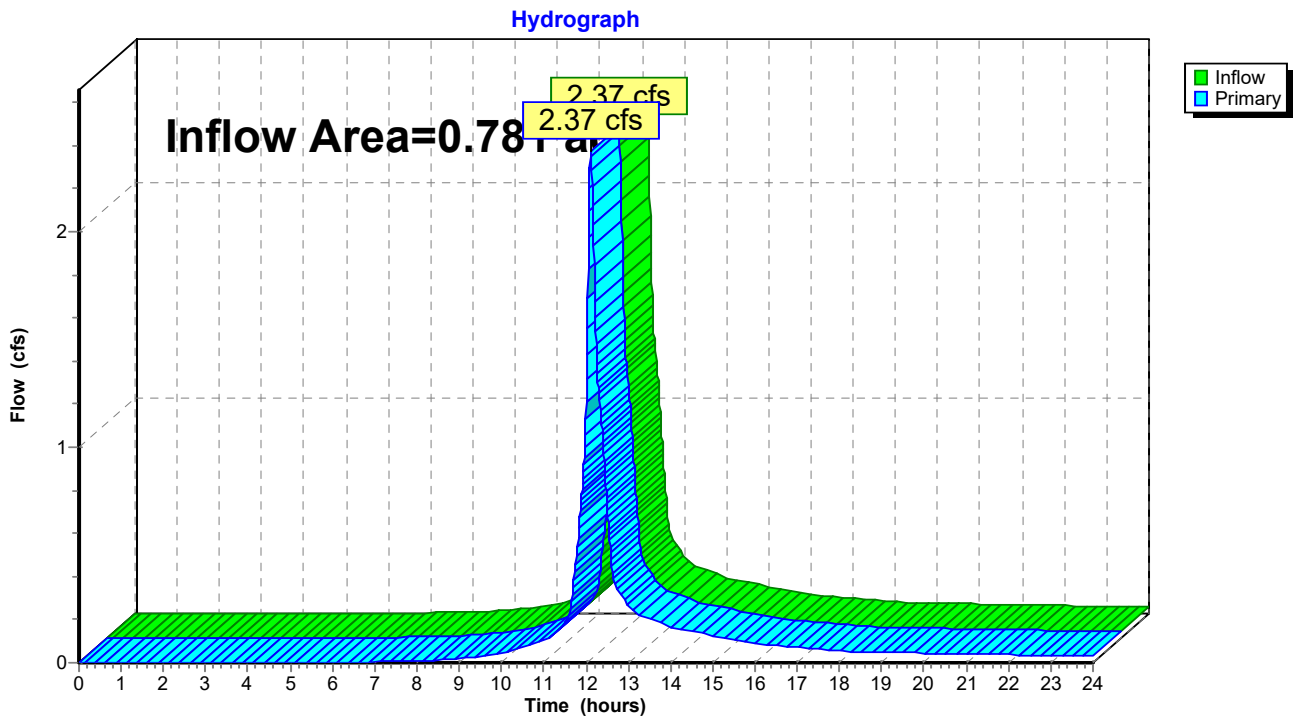


Summary for Link POA 2: Southern POA

Inflow Area = 0.781 ac, 17.07% Impervious, Inflow Depth > 2.84" for 10 Year event
Inflow = 2.37 cfs @ 12.11 hrs, Volume= 0.185 af
Primary = 2.37 cfs @ 12.11 hrs, Volume= 0.185 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link POA 2: Southern POA



Section 5

Precipitation Table

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Metadata for Point	
Smoothing State	Yes
Location	
Latitude	43.069 degrees North
Longitude	70.75 degrees West
Elevation	0 feet
Date/Time	Mon Dec 30 2024 12:29:14 GMT-0500 (Eastern Standard Time)

15% added to values for modeling

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min	1hr	2hr	3hr	6hr	12hr	24hr	48hr	1day	2d:
1yr	0.26	0.40	0.50	0.65	0.81	1.04	0.70	0.98	1.21	1.56	2.03	2.66	2.92	2.35	2.8
2yr	0.32	0.50	0.62	0.82	1.02	1.30	0.88	1.18	1.52	1.94	2.49	3.21	3.57	2.84	3.4
5yr	0.37	0.58	0.73	0.98	1.25	1.61	1.08	1.47	1.89	2.43	3.14	4.07	4.58	3.60	4.4
10yr	0.41	0.65	0.82	1.12	1.45	1.89	1.25	1.73	2.23	2.89	3.75	4.86	5.53	4.31	5.3
25yr	0.48	0.76	0.97	1.34	1.78	2.34	1.53	2.14	2.78	3.63	4.74	6.17	7.10	5.46	6.8
50yr	0.54	0.86	1.10	1.54	2.08	2.76	1.79	2.53	3.29	4.33	5.67	7.39	8.58	6.54	8.2
100yr	0.60	0.97	1.25	1.77	2.42	3.26	2.09	2.98	3.91	5.16	6.77	8.85	10.38	7.83	9.5
200yr	0.68	1.10	1.43	2.05	2.83	3.84	2.44	3.52	4.62	6.14	8.08	10.60	12.55	9.38	12.1
500yr	0.80	1.32	1.72	2.49	3.49	4.78	3.01	4.39	5.78	7.72	10.22	13.47	16.14	11.92	15.1

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min	1hr	2hr	3hr	6hr	12hr	24hr	48hr	1day	2d:
1yr	0.22	0.26	0.44	0.50	0.70	0.99	0.62	0.96	1.02	1.22	1.60	2.24	2.40	1.98	2.2

Section 6

NRCS Soils Report



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Rockingham County, New Hampshire



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

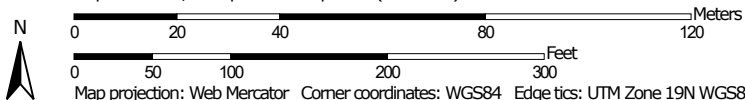
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:1,470 if printed on A portrait (8.5" x 11") sheet.



MAP LEGEND

- Area of Interest (AOI)**
 - Area of Interest (AOI)
- Soils**
 - Soil Map Unit Polygons
 - Soil Map Unit Lines
 - Soil Map Unit Points
- Special Point Features**
 - Blowout
 - Borrow Pit
 - Clay Spot
 - Closed Depression
 - Gravel Pit
 - Gravelly Spot
 - Landfill
 - Lava Flow
 - Marsh or swamp
 - Mine or Quarry
 - Miscellaneous Water
 - Perennial Water
 - Rock Outcrop
 - Saline Spot
 - Sandy Spot
 - Severely Eroded Spot
 - Sinkhole
 - Slide or Slip
 - Sodic Spot
- Water Features**
 - Streams and Canals
- Transportation**
 - Rails
 - Interstate Highways
 - US Routes
 - Major Roads
 - Local Roads
- Background**
 - Aerial Photography
- Other Features**
 - Spoil Area
 - Stony Spot
 - Very Stony Spot
 - Wet Spot
 - Other
 - Special Line Features

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockingham County, New Hampshire
 Survey Area Data: Version 27, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
799	Urban land-Canton complex, 3 to 15 percent slopes	9.3	93.0%
W	Water	0.7	7.0%
Totals for Area of Interest		10.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Rockingham County, New Hampshire

799—Urban land-Canton complex, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9cq0
Elevation: 0 to 1,000 feet
Mean annual precipitation: 42 to 46 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 120 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 55 percent
Canton and similar soils: 20 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canton

Setting

Parent material: Till

Typical profile

H1 - 0 to 5 inches: gravelly fine sandy loam
H2 - 5 to 21 inches: gravelly fine sandy loam
H3 - 21 to 60 inches: loamy sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Udorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Boxford and eldridge

Percent of map unit: 4 percent
Hydric soil rating: No

Custom Soil Resource Report

Squamscott and scitico

Percent of map unit: 4 percent

Landform: Marine terraces

Hydric soil rating: Yes

Scituate and newfields

Percent of map unit: 4 percent

Hydric soil rating: No

Chatfield

Percent of map unit: 4 percent

Hydric soil rating: No

Walpole

Percent of map unit: 4 percent

Landform: Depressions

Hydric soil rating: Yes

W—Water

Map Unit Setting

National map unit symbol: 9cq3

Elevation: 200 to 2,610 feet

Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
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- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Section 7

Stormwater Operations & Maintenance Plan

STORMWATER INSPECTION AND MAINTENANCE MANUAL

Trustees of Rainboth Revocable Trust of 2010

Tax Map 207, Lots 63, 68, and 69

56 Ridges Court

Portsmouth, NH

March 2025

OWNER:

Trustees of Rainboth Revocable Trust of 2010

122 New Castle Avenue

Portsmouth, NH 03801

Proper inspection, maintenance, and repair are key elements in maintaining a successful stormwater management program on a developed property. Routine inspections ensure permit compliance and reduce the potential for deterioration of infrastructure or reduced water quality. The following responsible parties shall be in charge of managing the stormwater facilities:

RESPONSIBLE PARTIES:

Owner: Michael and Annemarie Rainboth 603-431-1993
Name Company Phone

Inspection: Michael and Annemarie Rainboth 603-431-1993
Name Company Phone

Maintenance: Michael and Annemarie Rainboth 603-431-1993
Name Company Phone

NOTES:

Written inspection forms and maintenance logs shall be completed yearly by a qualified inspector retained by the owner or assigns.

Photographs of each stormwater BMP are to be taken at each inspection and submitted with the annual inspection reports.

Inspection and maintenance responsibilities shall transfer to any future property owner(s).



This manual shall be updated as needed to reflect any changes related to any transfer of ownership and/or any delegation of inspection and maintenance responsibilities to another entity

INFILTRATION BASINS

Function – Infiltration basins and tree box filters provide treatment to runoff prior to directing it to stormwater systems by filtering sediment and suspended solids, trapping them in the bottom of the facility and in the filter media itself. Additional treatment is provided by the native water-tolerant vegetation which removes nutrients and other pollutants through bio-uptake. Stormwater detention and infiltration can also be provided as the filtering process slows runoff, decreases the peak rate of discharge and promotes groundwater recharge.

Infiltration basin and tree box filters shall be managed (Per AGR 3800 and RSA 430:53) to: prevent and control the spread of invasive plant, insect, and fungal species; minimize the adverse environmental and economic effects invasive species cause to agriculture, forests, wetlands, wildlife, and other natural resources of the state; and protect the public from potential health problems attributed to certain invasive species.

Maintenance

- Inspect bi-annually and after significant rainfall events.
- If an infiltration basin or tree box filter does not completely drain within 72-hours following a rainfall event, then a qualified professional shall be retained to assess the condition of the facility to determine measures required to restore its filtration and/or infiltration function(s), including but not limited to removal of accumulated sediments and/or replacement or reconstruction of the filter media. Filter media shall be replaced with material matching the specification on the design drawings or the NHDES Stormwater Manual.
- Replace any riprap dislodged from spillways, inlets and outlets.
- Remove any obstructions, litter and accumulated sediment or debris as warranted but no less than once a year.
- Mowing of any grassed area in or adjacent to a raingarden or tree box filter, including any berms, shall be performed at least twice per year (when areas are not inundated) to keep the vegetation in vigorous condition. The cut grass shall be removed to prevent the decaying organic litter from clogging the filter media or choking other vegetation.
- Select vegetation should be maintained in healthy condition. This may include pruning, removal and replacement of dead or diseased vegetation.
- Remove any invasive species, Per AGR 3800 and RSA 430:53.
- Remove any hard wood growth aside from trees in tree box filters.
- Replace media in tree box filters when replacing tree.

CULVERTS AND DRAINAGE PIPES

Function – Culverts and drainage pipes convey stormwater away from buildings, walkways, and parking areas and to surface waters or closed drainage systems.

Maintenance

- Culverts and drainage pipes shall be inspected semi-annually, or more often as needed, for accumulation of debris and structural integrity. Leaves and other debris shall be removed from the inlet and outlet to insure the functionality of drainage structures. Debris shall be disposed of on site where it will not concentrate back at the drainage structures or at a solid waste disposal facility.

- Riprap Areas - Culvert outlets and inlets shall be inspected during annual maintenance and operations for erosion and scour. If scour or creek erosion is identified, the outlet owner shall take appropriate means to prevent further erosion. Increased lengths of riprap may require a NHDES Permit and/or local permit.

CATCH BASINS/YARD DRAINS

Function – Catch basins and field drains collect stormwater, primarily from paved surfaces and roofs. Stormwater from paved areas often contains sediment and contaminants. Sumps serve to trap sediment, trace metals, nutrients and debris. Hooded catch basins trap hydrocarbons and floating debris.

Maintenance

- Remove leaves and debris from structure grates on an as-needed basis.
- Sumps shall be inspected and cleaned annually and any removed sediment and debris shall be disposed of at a solid waste disposal facility.

RIP RAP OUTLETS, SWALES AND PLUNGE POOLS

Function – Rip rap outlets slow the velocity of runoff, minimizing erosion and maximizing the treatment capabilities of associated buffers. Vegetated buffers, either forested or meadow, slow runoff which promotes and reduces peak rates of runoff. The reduced velocities and the presence of vegetation encourage the filtration of sediment and the limited bio-uptake of nutrients.

Maintenance

- Inspect riprap, level spreaders and buffers at least annually for signs of erosion, sediment buildup, or vegetation loss.
- Inspect level for signs of condensed flows. Level spreader and rip rap shall be maintained to disperse flows evenly over level spreader.
- If a meadow buffer, provide periodic mowing as needed to maintain a healthy stand of herbaceous vegetation.
- If a forested buffer, then the buffer should be maintained in an undisturbed condition, unless erosion occurs.
- If erosion of the buffer (forested or meadow) occurs, eroded areas should be repaired and replanted with vegetation similar to the remaining buffer. Corrective action should include eliminating the source of the erosion problem and may require retrofit or reconstruction of the level spreader.
- Remove debris and accumulated sediment and dispose of properly.

LANDSCAPED AREAS – FERTILIZER PROHIBITED

LANDSCAPED AREAS - LITTER CONTROL

Function – Landscaped areas tend to filter debris and contaminants that may block drainage systems and pollute the surface and ground waters.

Maintenance

- Litter Control and lawn maintenance involves removing litter such as trash, leaves, lawn clippings, pet wastes, oil and chemicals from streets, parking lots, and lawns before materials are transported into surface waters.
- Litter control shall be implemented as part of the grounds maintenance program.

VEGETATIVE SWALES

Function – Vegetative swales filter sediment from stormwater, promote infiltration, and the uptake of contaminants. They are designed to treat runoff and dispose of it safely into the natural drainage system.

Maintenance

- Timely maintenance is important to keep a swale in good working condition. Mowing of grassed swales shall be monthly to keep the vegetation in vigorous condition. The cut vegetation shall be removed to prevent the decaying organic litter from adding pollutants to the discharge from the swale.
- Fertilizing shall be bi-annual or as recommended from soil testing.
- Inspect swales following significant rainfall events.
- Woody vegetation shall not be allowed to become established in the swales or rock riprap outlet protection and if present shall be removed.
- Accumulated debris disrupts flow and leads to clogging and erosion. Remove debris and litter as necessary.
- Inspect for eroded areas. Determine cause of erosion and correct deficiency as required. Monitor repaired areas.

CONTROL OF INVASIVE PLANTS IN THE WETLANDS AND WETLAND BUFFERS

Function – Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They also can arrive as "hitchhikers" among shipments of other plants, seeds, packing materials, or fresh produce. Some exotic plants become invasive and cause harm by:

- becoming weedy and overgrown;
- killing established shade trees;
- obstructing pipes and drainage systems;
- forming dense beds in water;
- lowering water levels in lakes, streams, and wetlands;
- destroying natural communities;
- promoting erosion on stream banks and hillsides; and
- resisting control except by hazardous chemical.

Maintenance

During maintenance activities, check for the presence of invasive plants and remove in a safe manner as described in the attached "Methods for Disposing Non-Native Invasive Plants" prepared by the UNH Cooperative Extension.

GENERAL CLEAN UP

- Upon completion of the project, the contractor shall remove all temporary stormwater structures (i.e., temporary stone check dams, silt fence, temporary diversion swales, catch basin inlet filter, etc.). Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform to the existing grade, prepared, and seeded. Remove any sediment in catch basins and clean drain pipes that may have accumulated during construction.
- Once in operation, all paved areas of the site should be swept at least once annually at the end of winter/early spring prior to significant spring rains.

SNOW MANAGEMENT

Snow should never be stored in any stormwater practice as it may affect functionality by blocking drains and reducing the storage volume available for runoff. The Owner/Applicant and any maintenance personnel should take great care to ensure that snow is stored only in areas depicted on the site plan and away from locations that could negatively impact drainage infrastructure or flow paths.

PERMEABLE PAVERS

Function – Porous pavement (Pavers) is designed to capture rainwater runoff containing suspended solids, nutrients and pollutants. Proper maintenance of porous pavement is crucial for ensuring its longevity and functionality to infiltrate runoff.

Maintenance

- New porous pavement shall be inspected several times in the first month after construction and at least annually thereafter. Inspections shall be conducted after major storms to check for surface ponding that might indicate possible clogging.
- Inspect annually for pavement deterioration or spalling.
- Vacuum sweeping shall be performed once a year or as needed to maintain permeability. Power washing may be required prior to vacuum sweeping to dislodge trapped particles.
- Sand and abrasives shall not be used for winter maintenance, as they will clog the pores; de-icing materials shall be used instead.
- Never reseal or repave with impermeable materials. If the porous pavement is damaged, it can be repaired using conventional, non-porous patching mixes as long as the cumulative area repaired does not exceed 10 percent of the paved area.

WETLANDS BUFFER

The 25-foot wetland buffer and the edge of the delineated wetlands shall be permanently marked with plaques, boulders, and/or other suitable natural features. Wetland area shall not be maintained with the exception of removing invasive plant species as noted above. Mowing shall be limited to twice a year and may not occur between April 1st and July 1st. Vegetation shall not be cut closer than 1-inch above the ground surface. Cut vegetation may be removed as needed to

encourage regrowth. There shall be no limitation to the removal of woody plant growth with hand pruners.

APPENDIX

- A. Stormwater System Operations and Maintenance Report
- B. Site Grading and Drainage Plan

STORM WATER SYSTEM OPERATION AND MAINTENANCE REPORT

General Information		
Project Name		
Owner		
Inspector's Name(s)		
Inspector's Contact Information		
Date of Inspection	Start Time:	End Time:
Type of Inspection: <input type="checkbox"/> Annual Report <input type="checkbox"/> Post-storm event <input type="checkbox"/> Due to a discharge of significant amounts of sediment		
Notes:		

General Site Questions and Discharges of Significant Amounts of Sediment			
Subject	Status	Notes	
<i>A discharge of significant amounts of sediment may be indicated by (but is not limited to) observations of the following. Note whether any are observed during this inspection:</i>			
			<i>Notes/ Action taken:</i>
1	Do the current site conditions reflect the attached site plan?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Is the site permanently stabilized, temporary erosion and sediment controls are removed, and stormwater discharges from construction activity are eliminated?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Is there evidence of the discharge of significant amounts of sediment to surface waters, or conveyance systems leading to surface waters?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Permit Coverage and Plans				
#	BMP/Facility	Inspected	Corrective Action Needed and Notes	Date Corrected
	Catch Basins	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Drainage Pipes	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Riprap Aprons/Plunge Pools	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Site Vegetation	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Infiltration Basins	<input type="checkbox"/> Yes <input type="checkbox"/> No		

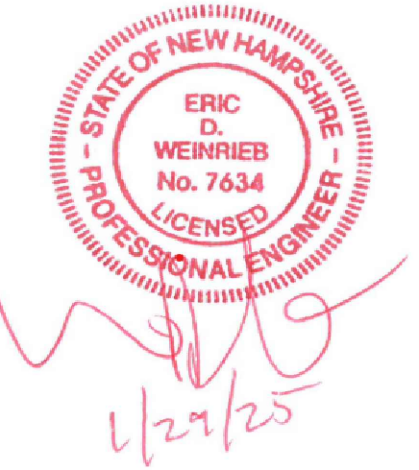
- INSPECTOR TO TAKE REPRESENTATIVE PHOTOGRAPHS OF EACH BMP INSPECTED AND INCLUDE THEM IN THE ANNUAL INSPECTION REPORT.

Section 8

Watershed Plans

Pre-Development Watershed Plan

Post-Development Watershed Plan



ISSUED FOR:
INITIAL SUBMISSION

ISSUE DATE:
JANUARY 29, 2025

REVISIONS NO. DESCRIPTION	BY	DATE
0 INITIAL SUBMISSION	EDW	01/29/25

DRAWN BY: _____ JMG
APPROVED BY: _____ EDW
DRAWING FILE: _____ 5639.dwg

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

OWNERS/APPLICANTS:
**ANNEMARIE RAINBOTH, TRUSTEE
& MICHAEL RAINBOTH, TRUSTEE**

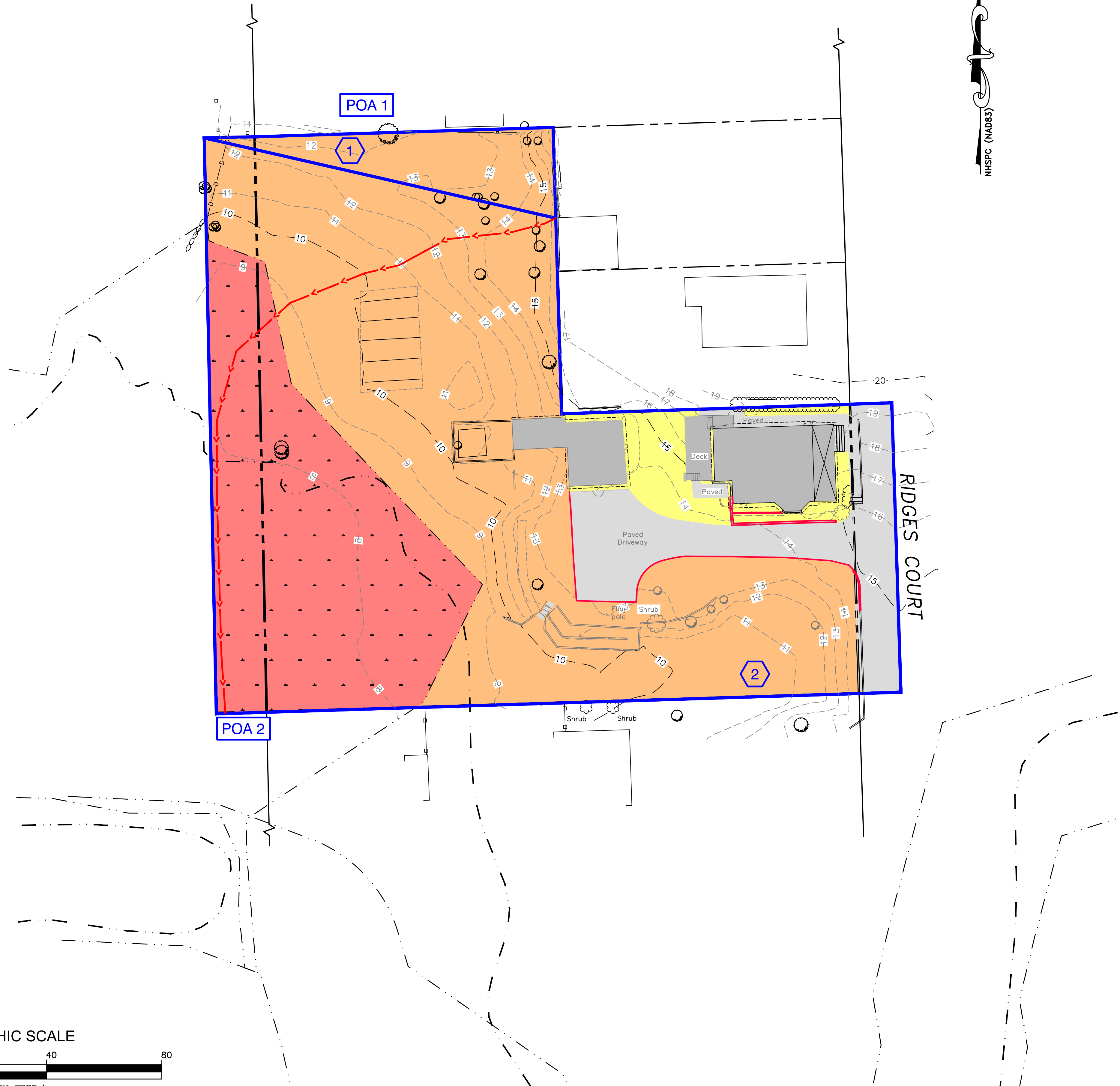
**TRUSTEES OF RAINBOTH
REVOCABLE TRUST OF 2010**

**122 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801**

PROJECT:
**RESIDENTIAL
ADDITION
TAX MAP 207
LOT 63, 68, AND 69
56 RIDGES COURT
PORTSMOUTH, NEW HAMPSHIRE**

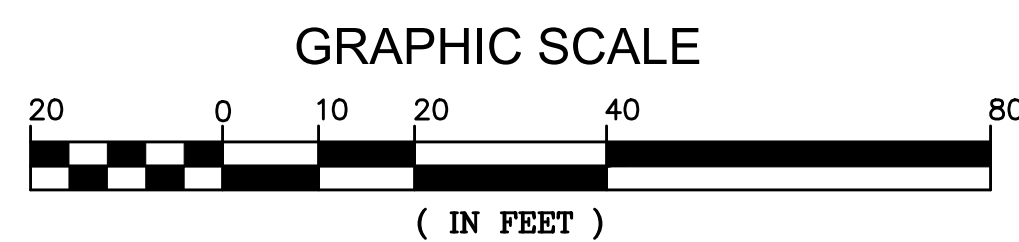
TITLE:
**PRE
WATERSHED
PLAN**

SHEET NUMBER:
WS-1



LEGEND

- WATERSHED BOUNDARY
- Tc PATH
- REACH PATH
- SOIL BOUNDARY
- 799 SOIL DESIGNATION
- SOILS - HSG A
- SOILS - HSG B
- SOILS - HSG C
- SOILS - HSG D
- SOILS - IMPERVIOUS PAVE/BLDG
- SOILS - OPEN WATER
- SUBCATCHMENT/POND/REACH
- POINT OF ANALYSIS





Eric D. Weirried
2/20/25

ISSUED FOR:
CONSERVATION COMMISSION

ISSUE DATE:
FEBRUARY 20, 2025

REVISIONS	NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION		EDW	01/29/25
1	CONSERVATION COMMISSION		EDW	02/20/25

DRAWN BY: _____ JMG
APPROVED BY: _____ EDW
DRAWING FILE: _____ 5639.dwg

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

OWNERS/APPLICANTS:
ANNEMARIE RAINBOTH, TRUSTEE
& MICHAEL RAINBOTH, TRUSTEE

TRUSTEES OF RAINBOTH
REVOCABLE TRUST OF 2010

122 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801

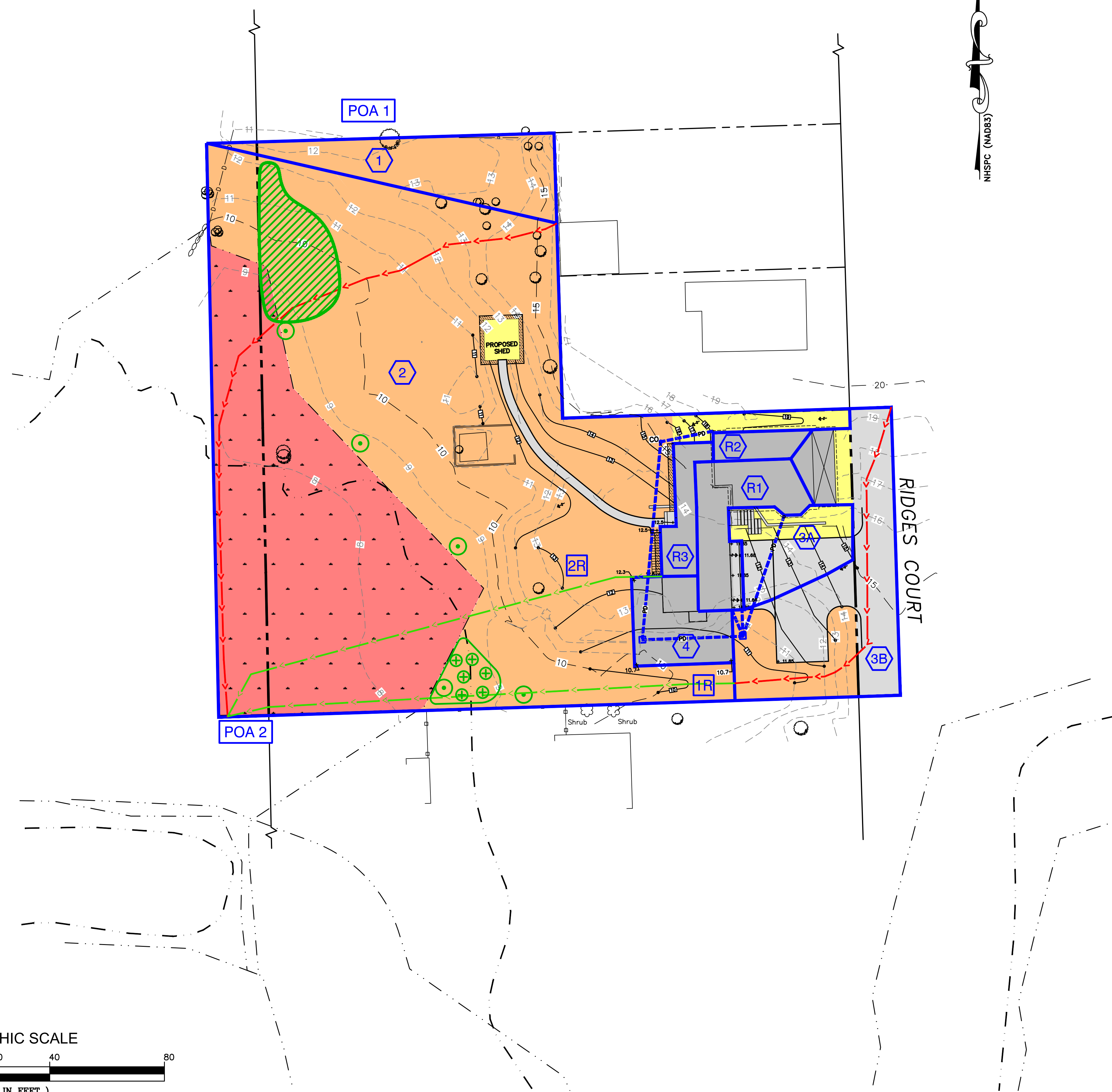
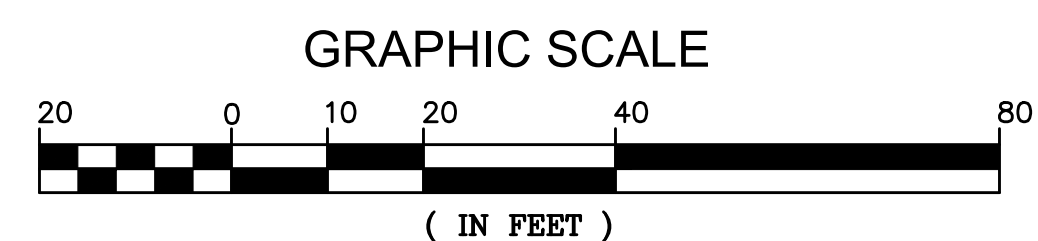
PROJECT:
RESIDENTIAL
ADDITION
TAX MAP 207
LOTS 63, 68, AND 69
56 RIDGES COURT
PORTSMOUTH, NEW HAMPSHIRE

TITLE:
POST
WATERSHED
PLAN

SHEET NUMBER:
WS-2

LEGEND

- WATERSHED BOUNDARY
- Tc PATH
- REACH PATH
- SOIL BOUNDARY
- 799 SOIL DESIGNATION
- SOILS - HSG A
- SOILS - HSG B
- SOILS - HSG C
- SOILS - HSG D
- SOILS - IMPERVIOUS PAVE/BLDG
- SOILS - OPEN WATER
- SUBCATCHMENT/POND/REACH
- POINT OF ANALYSIS



NHSPC (NAD83)

PROPOSED ADDITION RAINBOTH RESIDENCE

56 Ridges Court
Portsmouth, New Hampshire

Assessor's Parcel 207, Lots 63, 68, and 69

Owner/Applicant:

ANNEMARIE RAINBOTH, TRUSTEE
& MICHAEL RAINBOTH, TRUSTEE

TRUSTEES OF RAINBOTH
REVOCABLE TRUST OF 2010

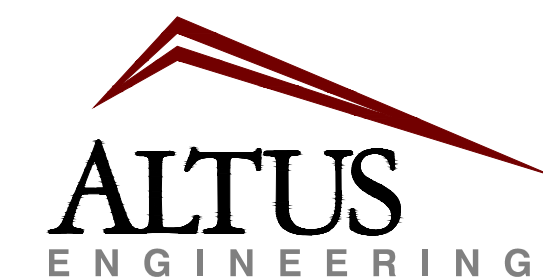
122 New Castle Avenue
Portsmouth, NH 03801
(603) 431-1993

Plan Issue Date:

January 29, 2025
February 20, 2025
March 26, 2025

Conservation Commission (Initial Submission)
Conservation Commission
Planning Board

Civil Engineer:



133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

Surveyor:

North Easterly Surveying

SURVEYORS IN N.H. & MAINE
1021 Goodwin Road, Unit #1
Eliot, Maine 03903

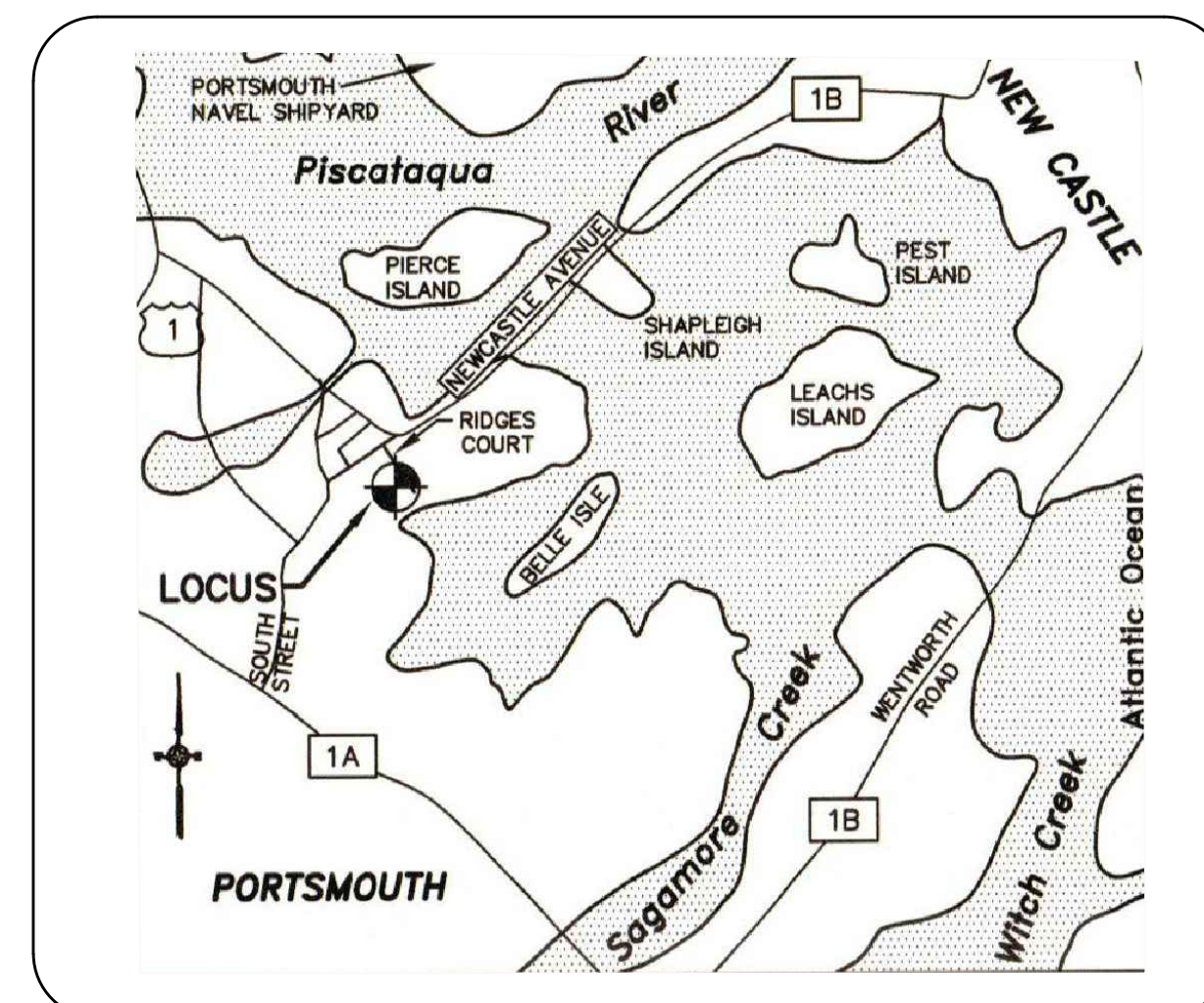
(207) 439-6333

Building Designer:

AMY DUTTON
9 Walker Street
Kittery, ME 03904
(207) 345-6050

Wetland Scientist:

JOSEPH W. NOEL, NH CWS #086
P.O. Box 174
South Berwick, ME 03908
(207) 384-5587



LOCUS

NOT TO SCALE

**Sheet Index
Title**

	Sheet No.:	Rev.	Date
Existing Conditions Plan (by Easterly)	1 OF 1	0	02/22/24
Site Preparation Plan	C-1	0	01/29/25
Site Plan	C-2	2	03/26/25
Grading & Drainage Plan	C-3	1	02/20/25
Detail Sheet	D-1	0	01/29/25
Detail Sheet	D-2	1	02/20/25
Detail Sheet	D-3	2	03/26/25
Proposed Foundation Plan	A-8	0	02/17/25
Elevations	A-16	0	02/17/25
Elevations	A-17	0	02/17/25

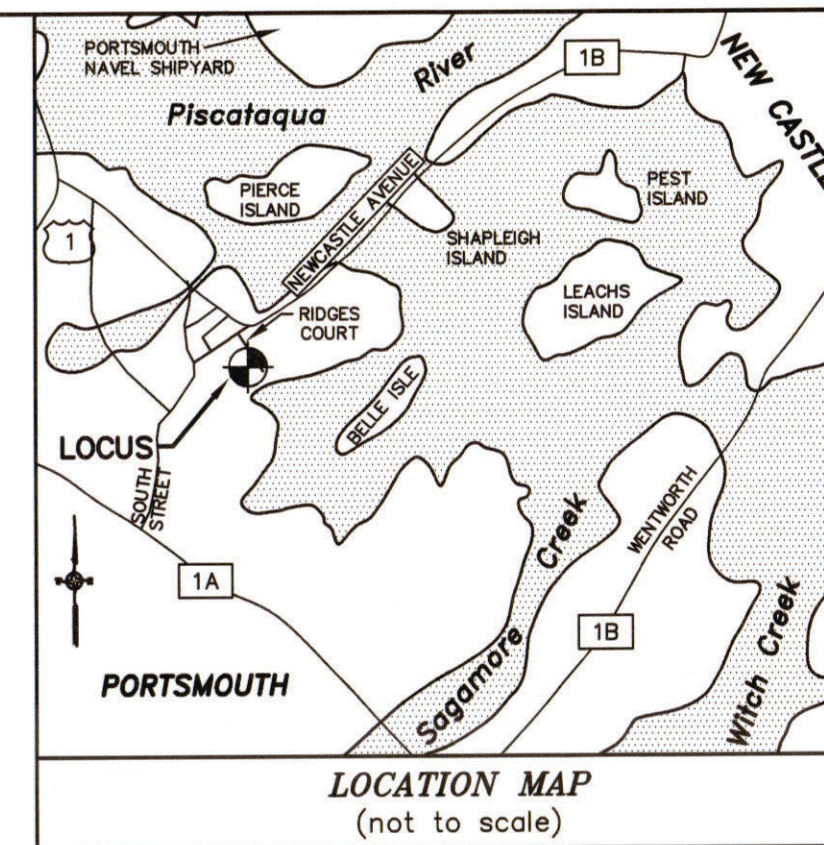
ZONING DATA PER PORTSMOUTH ZONING ORDINANCE
(LAST AMENDED 8/7/2023): - SEE NOTE #6

ZONE: Single Residence B (SRB)

REQUIREMENTS:
 MINIMUM LOT AREA PER DWELLING UNIT: 15,000 Sq Ft
 MINIMUM LOT AREA: 15,000 Sq Ft
 MINIMUM CONTINUOUS STREET FRONTAGE: 100 Ft
 MINIMUM LOT DEPTH: 100 Ft
 MINIMUM FRONT YARD: 30 Ft
 MINIMUM SIDE YARD: 10 Ft
 MINIMUM REAR YARD: 30 Ft
 MAXIMUM STRUCTURE HEIGHT: 35 Ft (Sloped Roof)
 30 Ft (Flat Roof)
 MAXIMUM ROOF APPURTENANCE HEIGHT: 8 Ft
 MAXIMUM BUILDING COVERAGE: 20%
 MINIMUM OPEN SPACE: 40%

PLAN REFERENCES:

- "PLAN OF LOTS BELONGING TO RIENZI RIDGE, PORTSMOUTH, N.H.", PREPARED BY JOHN W. DURGIN, DATED MARCH 1976, RECORDED AT THE R.C.R.D. AS PLAN D-0188.
- "PLAN OF LAND FOR WILLIAM THOMSON, RIDGE COURT, COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H.", PREPARED BY TOWN PLANNING AND ENGINEERING ASSOCIATES, INC., DATED MAY 1978, RECORDED AT THE R.C.R.D. AS PLAN D-7855.
- "PLAN OF LAND FOR WILLIAM M. & LOIS CYNIEWSKI, DOROTHEA E. MARCONI, ROLAND ROUTHIER & MARY ANN MARCONI AND EDWARD F. & LOUISE D. SMITH, BRACKETT ROAD / NEWCASTLE AVE., COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H.", PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES, DATED JANUARY 27, 1988, RECORDED AT THE R.C.R.D. AS PLAN D-17724.
- "PLAN OF LOT, No. 122 NEW CASTLE AVE., PORTSMOUTH, N.H.", PREPARED BY JOHN W. DURGIN, DATED MAY 1970, FILE No. 1959, PLAN No. 3154.
- "STANDARD BOUNDARY SURVEY FOR PROPERTY AT 122 NEW CASTLE AVENUE, ROCKINGHAM COUNTY, PORTSMOUTH, NEW HAMPSHIRE, OWNED BY ANNE MARIE & MICHAEL RAINBOTH", PREPARED BY NORTH EASTERLY SURVEYING, INC., DATED 4/24/2006, PROJECT NO. 06641.
- "STANDARD BOUNDARY SURVEY FOR PROPERTY AT 28 RIDGES COURT, ROCKINGHAM COUNTY, PORTSMOUTH, NEW HAMPSHIRE, OWNED BY ELLEN M. HEPP REVOCABLE TRUST", PREPARED BY NORTH EASTERLY SURVEYING, INC., DATED 4/24/2006, PROJECT NO. 06672.



EXISTING BUILDING COVERAGE:

TOTAL LOT AREA (TAX MAP 20 LOT 63) 20,585± SQ. FT.
 HOUSE & PORCH 1,090± SQ. FT.
 GARAGE 642± SQ. FT.
 DECKS/STEPS ≥ 18" ABOVE GROUND 274± SQ. FT.

TAX MAP 207 LOT 63 TOTAL BUILDING COVERAGE 2,006± SQ. FT. (9.7%)
 (NO BUILDING COVERAGE ON TAX MAP 207 LOTS 68 & 69)

EXISTING OPEN SPACE:

TOTAL LOT AREA (TAX MAP 207 LOT 63) 20,585± SQ. FT.

EXISTING COVERAGE BUILDINGS 1,732± SQ. FT.
 DECKS/STEPS 289± SQ. FT.
 PAVEMENT/BRICK 2,174± SQ. FT.
 CONC./RET. WALLS/EDGING/R.R. TIES 203± SQ. FT.

TOTAL COVERAGE (NON-OPEN SPACE) 4,398± SQ. FT.
 TOTAL OPEN SPACE 16,187± SQ. FT.

TAX MAP 207 LOT 63 OPEN SPACE PERCENTAGE 78.6%
 (NO COVERAGE ON TAX MAP 207 LOTS 68 & 69)

EXISTING BUILDING HEIGHT (HOUSE):

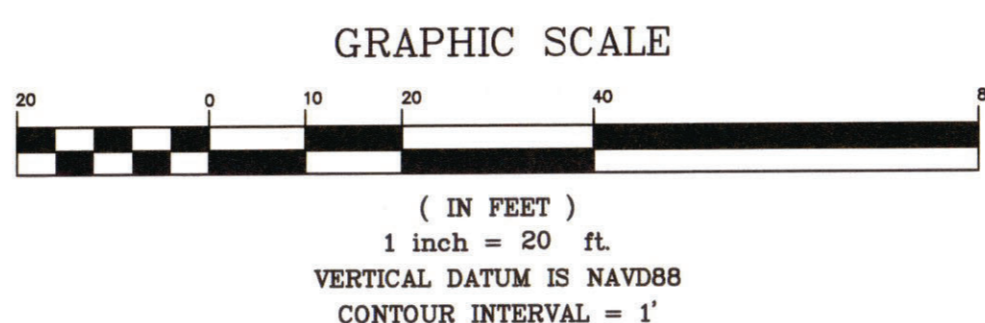
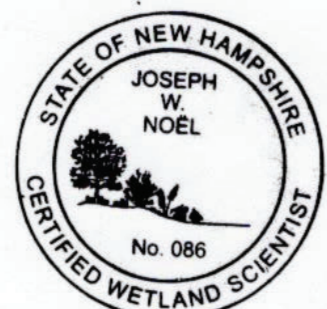
PEAK ELEVATION 49.3
 EAVE ELEVATION 39.2
 MIDWAY PEAK/EAVE ELEVATION 44.3
 AVG. EXISTING GRADE ELEVATION 17.6
 BUILDING HEIGHT (HOUSE) 26.7'
 (MIDWAY PEAK/EAVE - AVG. EXISTING GRADE)

EXISTING BUILDING HEIGHT (GARAGE/SHED):

PEAK ELEVATION 29.4
 EAVE ELEVATION 22.9
 MIDWAY PEAK/EAVE ELEVATION 26.2
 AVG. EXISTING GRADE ELEVATION 13.2
 BUILDING HEIGHT (GARAGE) 13.0'
 (MIDWAY PEAK/EAVE - AVG. EXISTING GRADE)

WETLAND NOTE:

THE WETLAND BOUNDARY AS DEPICTED ON THIS PLAN WAS DELINEATED/FLAGGED BY JOSEPH W. NOEL, NH CERTIFIED SOIL SCIENTIST #017 AND NH CERTIFIED WETLAND SCIENTIST #086, ON DECEMBER 21, 2023. THE FLAGS WERE SURVEY LOCATED BY NORTH EASTERLY SURVEYING. THE DELINEATION WAS CONDUCTED IN ACCORDANCE WITH THE U.S. ARMY CORPS OF ENGINEERS DOCUMENT CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, (1987) ALONG WITH THE REQUIRED REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2, JANUARY 2012).



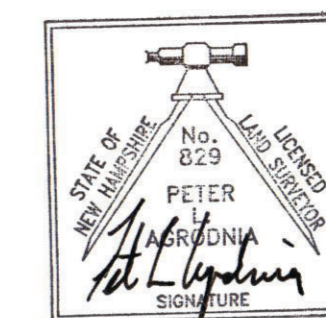
PURPOSE OF PLAN:

THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS FOR DESIGN PURPOSES. THIS PLAN IS NOT A STANDARD BOUNDARY SURVEY AND IS NOT INTENDED TO BE RECORDED, USED FOR CONVEYANCE, OR ANY OTHER TITLE PURPOSE.

REV.	DATE	STATUS	BY	CHKD	APPD.

NOTES:

- OWNERS OF RECORD: TAX MAP 207 LOTS 63, 68, 69 MICHAEL RAINBOTH, TRUSTEE ANNEMARIE RAINBOTH, TRUSTEE TRUSTEES OF THE RAINBOTH REVOCABLE TRUST OF 2010 R.C.R.D. BOOK 6513 PAGE 673 DATED OCTOBER 19, 2023
- TOTAL EXISTING PARCEL AREAS: TAX MAP 207 LOT 63 20,585± Sq. Ft. TAX MAP 207 LOT 68 5,201± Sq. Ft. TAX MAP 207 LOT 69 5,176± Sq. Ft.
- BASIS OF BEARING IS PER NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NAD83).
- APPROXIMATE ABUTTER'S LINES SHOWN HEREON ARE FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE RELIED UPON AS BOUNDARY INFORMATION.
- THE SUBJECT PARCELS ARE CONVEYED TOGETHER WITH THE RIGHT "TO USE THE STREET LEADING TO SAID GRANTED PREMISES FROM NEW CASTLE AVENUE FOR ALL USUAL AND CUSTOMARY PURPOSES". REFERENCE IS MADE TO R.C.R.D. DEED BOOK 6513 PAGE 673. EASEMENTS OR OTHER UNWRITTEN RIGHTS MAY EXIST THAT ENCUMBER OR BENEFIT THE PROPERTY NOT SHOWN HEREON.
- PORTIONS OF THE SUBJECT PARCELS APPEAR TO LIE WITHIN A 100' WETLAND BUFFER ZONE, AS SHOWN HEREON. REFERENCE IS MADE TO THE CITY OF PORTSMOUTH ZONING ORDINANCE ARTICLE 10 (ENVIRONMENTAL PROTECTION STANDARDS). ZONING INFORMATION AND SETBACKS SHOWN HEREON ARE FOR REFERENCE PURPOSES. CONFIRM CURRENT ZONING REQUIREMENTS WITH THE CITY OF PORTSMOUTH PRIOR TO DESIGN OR CONSTRUCTION. ADDITIONAL ZONING REQUIREMENTS MAY APPLY THAT ARE NOT SHOWN HEREON.
- THE BOUNDARY SHOWN HEREON IS DETERMINED FROM WRITTEN RECORDS, FIELD EVIDENCE AND PAROL TESTIMONY RECOVERED AT THE TIME OF SURVEY AND MAY BE SUBJECT TO CHANGE IF OTHER EVIDENCE BECOMES AVAILABLE.
- PORTIONS OF THE SUBJECT PARCELS APPEAR TO LIE WITHIN FEMA SPECIAL FLOOD HAZARD AREA ZONE AE (EL. 8). REFERENCE IS MADE TO FEMA FLOOD INSURANCE RATE MAP NUMBER 33015C0259F, MAP REVISED 1/29/2021. LIMITS OF SAID FLOOD ZONE SHOWN HEREON ARE PER THIS REFERENCED FLOOD MAP.
- THE WESTERLY BOUNDARY LINES OF THE SUBJECT PARCELS ABUT AN UNNAMED STREET, AS SHOWN ON PLAN REFERENCE #1. THIS STREET IS UNDEVELOPED AND THEREFORE MAY BE CONSIDERED A "PAPER STREET". PLAN REFERENCE #2 DEPICTS A POTENTIAL OWNERSHIP CLAIM TO ONE HALF OF THE UNDEVELOPED STREET THAT DIRECTLY ABUTS THE SUBJECT PARCELS. CONSULTATION WITH A REAL ESTATE ATTORNEY IS ADVISED REGARDING THIS MATTER.



2/22/2024

EXISTING CONDITIONS PLAN

FOR PROPERTY AT

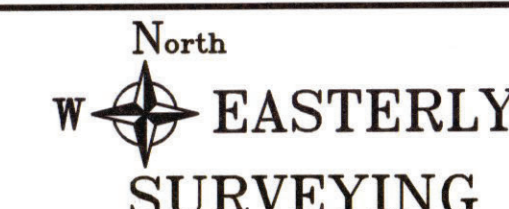
56 Ridges Court

Portsmouth, Rockingham County, New Hampshire

OWNED BY

Michael Rainboth, Trustee
Annemarie Rainboth, Trustee

Trustees of the Rainboth Revocable Trust of 2010
122 New Castle Avenue, Portsmouth, NH 03801



SURVEYORS IN N.H. & MAINE 1021 GOODWIN ROAD, UNIT #1
(207) 439-6333 ELIOT, MAINE 03903

SCALE:	PROJECT NO.	DATE:	SHEET:	DRAWN BY:	CHECKED BY:
1" = 20'	23712	2/22/24	1 OF 1	J.D.S.	P.L.A.

DRAWING No: 23712 EXISTING CONDITIONS
FIELD BOOK No: "Portsmouth #18" Tax Map 207 Lots 63, 68, 69



ISSUED FOR: INITIAL SUBMISSION
ISSUE DATE: JANUARY 29, 2025

REVISIONS NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	01/29/25

DRAWN BY: _____ RLH
APPROVED BY: _____ EDW
DRAWING FILE: _____ 5639.dwg

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNERS/APPLICANTS:
ANNEMARIE RAINBOTH, TRUSTEE
& MICHAEL RAINBOTH, TRUSTEE

TRUSTEES OF RAINBOTH
REVOCABLE TRUST OF 2010

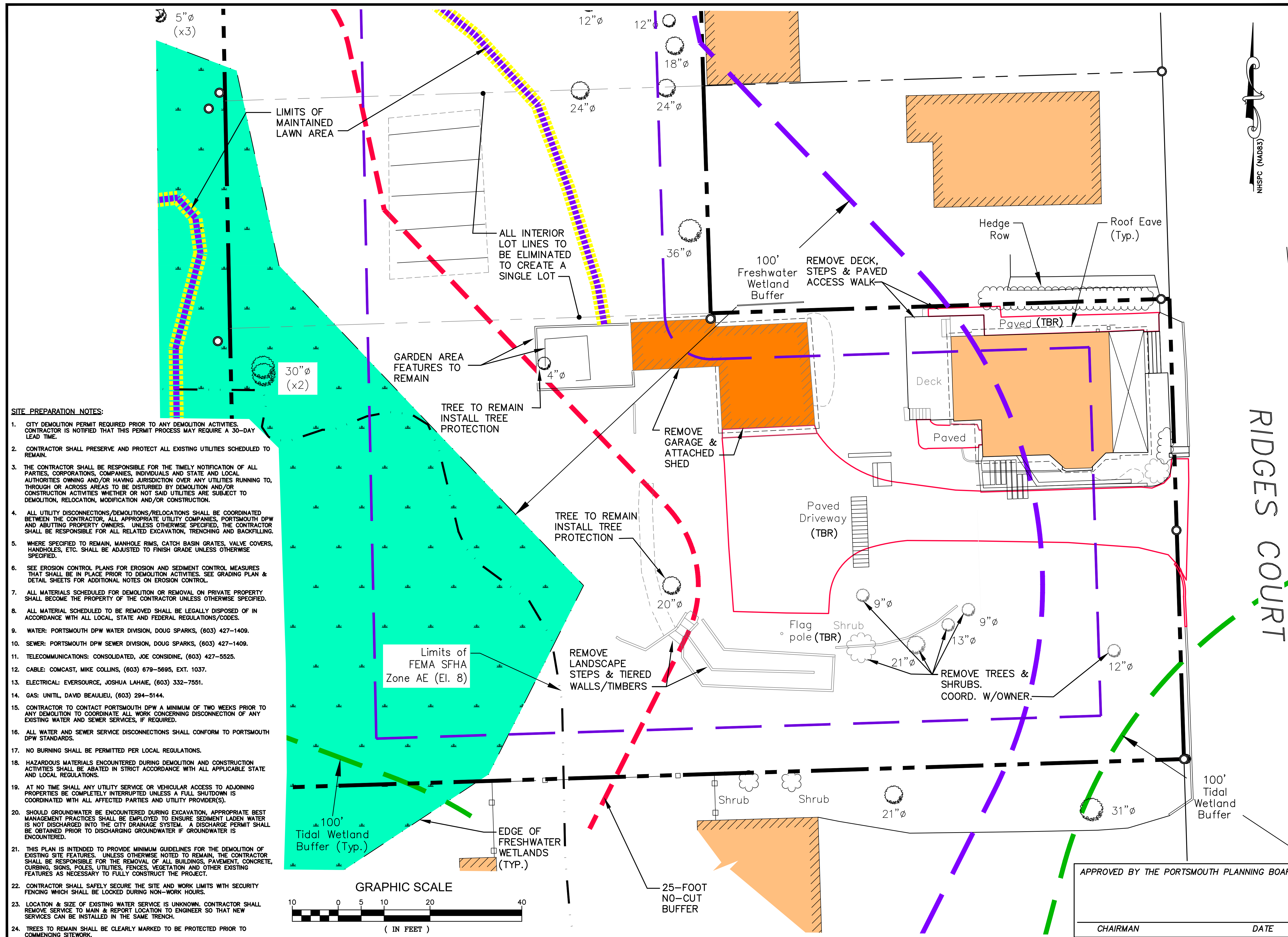
122 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801

PROJECT:
RESIDENTIAL
ADDITION
TAX MAP 207
LOTS 63, 68 & 69
56 RIDGES COURT
PORTSMOUTH, NEW HAMPSHIRE

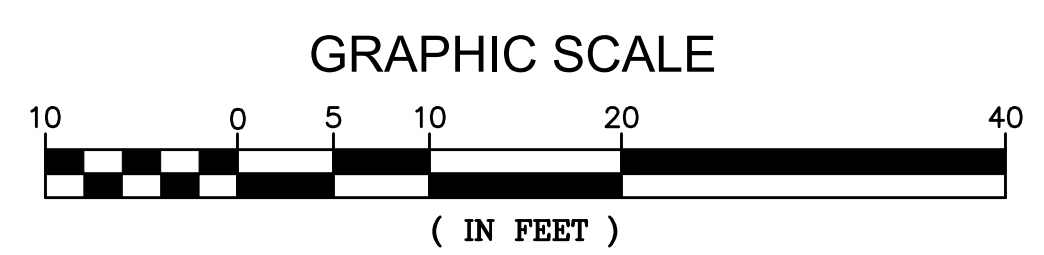
TITLE:
SITE
PREPARATION
PLAN

SHEET NUMBER:

C - 1



- SITE PREPARATION NOTES:**
- CITY DEMOLITION PERMIT REQUIRED PRIOR TO ANY DEMOLITION ACTIVITIES. CONTRACTOR IS NOTIFIED THAT THIS PERMIT PROCESS MAY REQUIRE A 30-DAY LEAD TIME.
 - CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES SCHEDULED TO REMAIN.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY NOTIFICATION OF ALL PARTIES, CORPORATIONS, COMPANIES, INDIVIDUALS AND STATE AND LOCAL AUTHORITIES OWNING AND/OR HAVING JURISDICTION OVER ANY UTILITIES RUNNING TO, THROUGH OR ACROSS AREAS TO BE DISTURBED BY DEMOLITION AND/OR CONSTRUCTION, RELOCATION, MODIFICATION AND/OR CONSTRUCTION.
 - ALL UTILITY DISCONNECTIONS/DEMOLITIONS/RELOCATIONS SHALL BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES, PORTSMOUTH DPW AND ADJUTING PROPERTY OWNERS. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED EXCAVATION, TRENCHING AND BACKFILLING.
 - WHERE SPECIFIED TO REMAIN, MANHOLE RIMS, CATCH BASIN GRATES, VALVE COVERS, HANDHOLES, ETC. SHALL BE ADJUSTED TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
 - SEE EROSION CONTROL PLANS FOR EROSION AND SEDIMENT CONTROL MEASURES THAT SHALL BE IN PLACE PRIOR TO DEMOLITION ACTIVITIES. SEE GRADING PLAN & DETAIL SHEETS FOR ADDITIONAL NOTES ON EROSION CONTROL.
 - ALL MATERIALS SCHEDULED FOR DEMOLITION OR REMOVAL ON PRIVATE PROPERTY SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
 - ALL MATERIAL SCHEDULED TO BE REMOVED SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS/CODES.
 - WATER: PORTSMOUTH DPW WATER DIVISION, DOUG SPARKS, (603) 427-1409.
 - SEWER: PORTSMOUTH DPW SEWER DIVISION, DOUG SPARKS, (603) 427-1409.
 - TELECOMMUNICATIONS: CONSOLIDATED, JOE CONSIDINE, (603) 427-5525.
 - CABLE: COMCAST, MIKE COLLINS, (603) 679-5895, EXT. 1037.
 - ELECTRICAL: EVERSOURCE, JOSHUA LAHAIE, (603) 332-7551.
 - GAS: UNITIL, DAVID BEAULIEU, (603) 294-5144.
 - CONTRACTOR TO CONTACT PORTSMOUTH DPW A MINIMUM OF TWO WEEKS PRIOR TO ANY DEMOLITION TO COORDINATE ALL WORK CONCERNING DISCONNECTION OF ANY EXISTING WATER AND SEWER SERVICES, IF REQUIRED.
 - ALL WATER AND SEWER SERVICE DISCONNECTIONS SHALL CONFORM TO PORTSMOUTH DPW STANDARDS.
 - NO BURNING SHALL BE PERMITTED PER LOCAL REGULATIONS.
 - HAZARDOUS MATERIALS ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ABATED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS.
 - AT NO TIME SHALL ANY UTILITY SERVICE OR VEHICULAR ACCESS TO ADJOINING PROPERTIES BE COMPLETELY INTERRUPTED UNLESS A FULL SHUTDOWN IS COORDINATED WITH ALL AFFECTED PARTIES AND UTILITY PROVIDER(S).
 - SHOULD GROUNDWATER BE ENCOUNTERED DURING EXCAVATION, APPROPRIATE BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO ENSURE SEDIMENT LADEN WATER IS NOT DISCHARGED INTO THE CITY DRAINAGE SYSTEM. A DISCHARGE PERMIT SHALL BE OBTAINED PRIOR TO DISCHARGING GROUNDWATER IF GROUNDWATER IS ENCOUNTERED.
 - THIS PLAN IS INTENDED TO PROVIDE MINIMUM GUIDELINES FOR THE DEMOLITION OF EXISTING SITE FEATURES. UNLESS OTHERWISE NOTED TO REMAIN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL BUILDINGS, PAVEMENT, CONCRETE, CURBING, SIGNS, POLES, UTILITIES, FENCES, VEGETATION AND OTHER EXISTING FEATURES AS NECESSARY TO FULLY CONSTRUCT THE PROJECT.
 - CONTRACTOR SHALL SAFELY SECURE THE SITE AND WORK LIMITS WITH SECURITY FENCING WHICH SHALL BE LOCKED DURING NON-WORK HOURS.
 - LOCATION & SIZE OF EXISTING WATER SERVICE IS UNKNOWN. CONTRACTOR SHALL REMOVE SERVICE TO MAIN & REPORT LOCATION TO ENGINEER SO THAT NEW SERVICES CAN BE INSTALLED IN THE SAME TRENCH.
 - TREES TO REMAIN SHALL BE CLEARLY MARKED TO BE PROTECTED PRIOR TO COMMENCING SITEMARK.



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

SITE NOTES:

- DESIGN INTENT - THIS PLAN SET IS INTENDED TO DEPICT THE EXPANSION OF A SINGLE FAMILY RESIDENCE PARTIALLY IN THE 100-FOOT WETLAND BUFFER
- APPROXIMATE LOT AREA: 30,962 S.F.± (0.71 AC.±) (ALL LOTS COMBINED)
- ZONE: (SRB) SINGLE RESIDENCE B

DIMENSIONAL REQUIREMENTS - (SRB) SINGLE RESIDENCE B

	REQUIRED	EXISTING	PROVIDED
MIN. LOT AREA:	15,000 S.F.	±30,962 SF	±30,962 SF
MIN. STREET FRONTAGE:	100'	100.28'	100.28'
MIN. LOT DEPTH:	100'	205.8'	205.8'
FRONT SETBACK:	30' (17.8')	±5.8'	±43.0' (ADD'N)
SIDE SETBACK (RIGHT):	10'	±8.6'	±10.0' (ADD'N)
SIDE SETBACK (LEFT):	10'	±8.4'	±13.0' (DECK)
REAR SETBACK:	30'	±8.7'	±77.5' (SHED)

MAX. BUILDING HEIGHT: 35' <35' <35'

MAX. BUILDING COVERAGE: 20% ±5.9% ±10.7%

MIN. OPEN SPACE: 40% ±86.3% ±84.2%

DISTANCE FROM BUILDING TO WETLANDS: ±40' ±51.5'

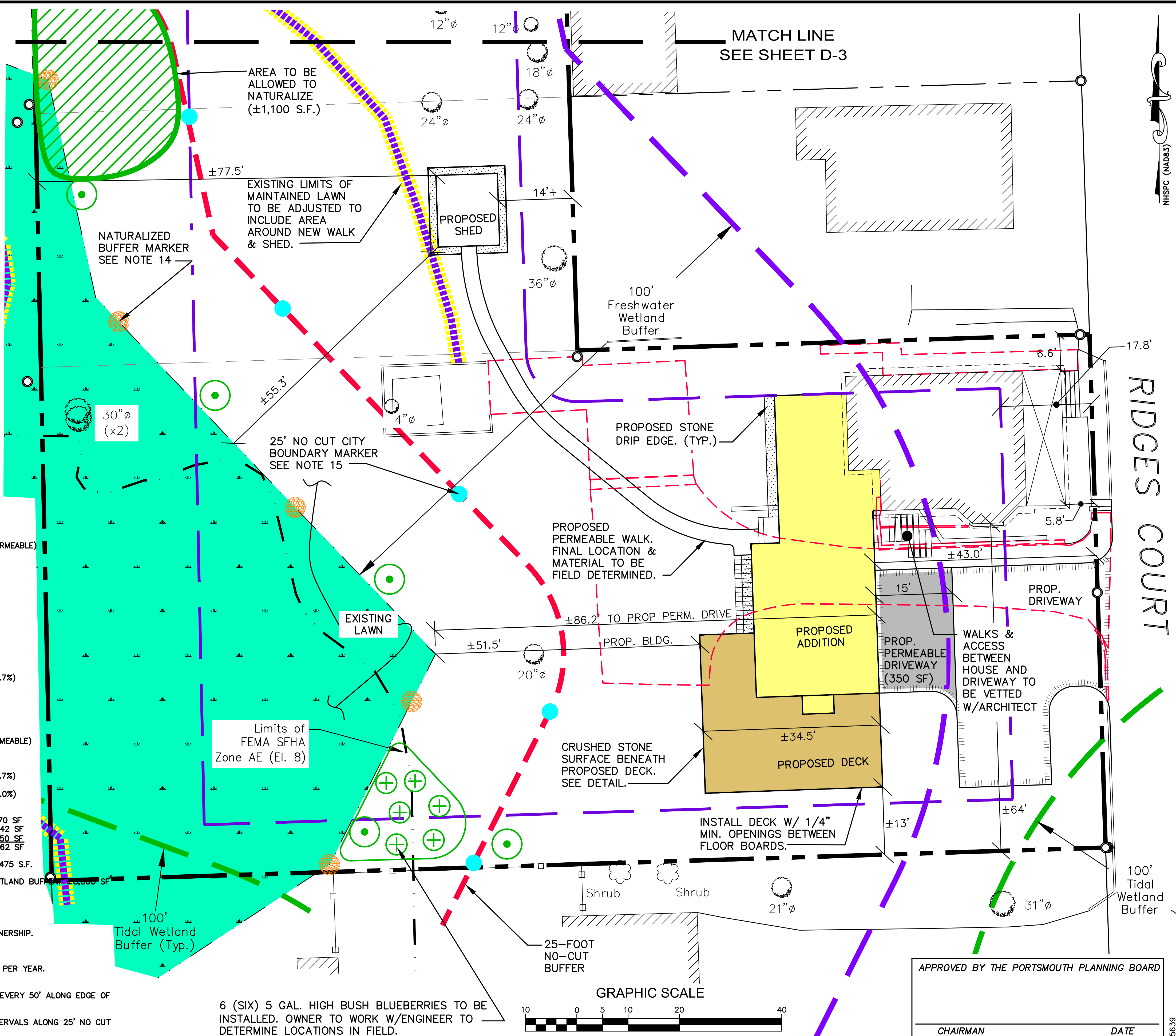
DISTANCE FROM IMPERVIOUS TO WETLANDS: ±32' ±86.2'

* FRONT SETBACK CAN BE AN AVERAGE OF ABUTTING PARCELS IN THE SAME ZONE WITHIN 200' OF THE LOT ON THE SAME SIDE OF THE STREET, USING 30-FOOT FOR LOTS THAT ARE MORE THAN 30 FEET. SEE SUPPORTING DOCUMENTATION IN SUBMITTED MATERIALS.

- PORTION OF THE LOT PARCEL LIES IN ZONE AE ELEVATION 8.0 PER FEMA FIRM MAP NUMBER 33015C0259F, MAP REVISED 1/29/21. LOT DEVELOPMENT OCCURS OUTSIDE FLOOD HAZARD ZONE.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM STANDARDS OF THE CITY OF PORTSMOUTH & NHDOT'S STANDARD SPECIFICATION FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITIONS. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
- PARKING SPACES REQUIREMENTS:
1.3 SPACES/UNIT X 1 UNIT = 1.3 SPACES REQUIRED
2 SPACES PROVIDED (IN GARAGE)
- BASE PLAN: "EXISTING CONDITIONS PLAN FOR PROPOERTY LOCATED AT 56 RIDGES COURT PORTSMOUTH, ROCKINGHAM COUNTY, NEW HAMPSHIRE" BY NORTH EASTERLY SURVEYING, DATED 2/22/24.
- WETLANDS MAPPING BY JOSEPH NOEL, WETLANDS SCIENTIST #086 ON DECEMBER 21, 2023 AND CONFIRMED BY MARC JACOBS, WETLANDS SCIENTIST #010.

SITE NOTES FOR MAP 207/LOTS 63, 68 & 69:

- EXISTING IMPERVIOUS AREAS IN THE 100' BUFFER:
GARAGE/SHED: 640 SF
PORTION OF EX. HOUSE: 220 SF
REAR DECK: 95 SF
PAVEMENT: 1,565 SF
CONCRETE STEPS: 20 SF
MISC.: 175 SF
TOTAL: 2,715 SF
- PROPOSED IMPERVIOUS AREAS IN THE 100' BUFFER:
PORTION OF EX. HOUSE: 220 SF
PROPOSED ADDITION: 1,200 SF
PROPOSED DECK: 815 SF (PERMEABLE)
PROPOSED SHED: 168 SF
MISC.: 250 SF
TOTAL: 2,653 SF
PROP. EFFECTIVE IMPERVIOUS AREA: 1,818 SF
- EXISTING IMPERVIOUS AREAS ON THE LOTS:
HOUSE: 900 SF
FRONT PORCH/DECK: 200 SF
REAR DECK: 95 SF
GARAGE/SHED: 640 SF
PAVEMENT: 2,150 SF
CONCRETE STEPS: 20 SF
MISC.: 235 SF
TOTAL: 4,240 SF (13.7%)
- PROPOSED IMPERVIOUS AREAS ON THE LOTS:
EX. HOUSE: 900 SF
EX. FRONT PORCH/DECK: 200 SF
EX. PAVED WALK/STEPS: 40 SF
PROPOSED ADDITION: 1,200 SF
PROPOSED DECK: 815 SF (PERMEABLE)
PROPOSED SHED: 168 SF
PROPOSED DRIVEWAY: 1,100 SF
MISC.: 115 SF
TOTAL: 4,538 SF (14.7%)
- PROP. EFFECTIVE IMPERVIOUS AREA ON LOT: 3,723 SF (12.0%)
- AREAS ON LOTS:
AREA OF WETLANDS: 6,070 SF
AREAS WITHIN 100-FOOT BUFFERS: 21,342 SF
AREA OUTSIDE TWO (2) BUFFERS: 3,550 SF
TOTAL LOT AREA: 30,962 SF
- TOTAL AREA OF LOT WITHIN THE 100-FOOT TIDAL BUFFER: ±475 S.F.
- TOTAL AREA OF DISTURBANCE WITHIN THE CITY 100-FOOT WETLAND BUFFER: ±10,000 SF
- TOTAL AREA OF DISTURBANCE IN THE WETLAND: 0 S.F.
- TOTAL AREA OF DISTURBANCE ON THE LOT: ±10,500 S.F.
- TAX MAP 207, LOTS 63, 68 & 69 ARE UNDER THE SAME OWNERSHIP.
- EXISTING ON-SITE WETLAND SHALL NO LONGER BE MOWED.
- 25' NO CUT BUFFER SHALL BE MOWED NO MORE THAN TWICE PER YEAR. MOWING PROHIBITED FROM APRIL TO JULY 1ST.
- BOULDERS OR OTHER NATURAL FEATURES SHALL BE PLACED EVERY 50' ALONG EDGE OF WETLAND TO DESIGNATE NATURALIZED AREA.
- WETLAND BUFFER PLACARDS SHALL BE INSTALLED AT 50' INTERVALS ALONG 25' NO CUT BUFFER.



ALTUS ENGINEERING

133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER

ISSUED FOR: **PLANNING BOARD**

ISSUE DATE: **MARCH 26, 2025**

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	01/29/25
1	PER CON. COMM. DISCUSSION	EDW	02/20/25
2	PB SUBMISSION	EDW	03/26/25

DRAWN BY: RLH

APPROVED BY: EDW

DRAWING FILE: 5639.dwg

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNERS/APPLICANTS:
ANNEMARIE RAINBOTH, TRUSTEE & MICHAEL RAINBOTH, TRUSTEE

TRUSTEES OF RAINBOTH REVOCABLE TRUST OF 2010

122 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801

PROJECT:
**RESIDENTIAL ADDITION
TAX MAP 207
LOTS 63, 68 & 69
56 RIDGES COURT
PORTSMOUTH, NEW HAMPSHIRE**

TITLE:
SITE PLAN

SHEET NUMBER:
C - 2

LEGEND

- - - EXISTING CONTOUR
- - - PROPOSED CONTOUR
- 12.5 + PROPOSED SPOT GRADE ELEVATION
- == PD == PROPOSED DRAIN

5 (FIVE) 2-3" CALIPER SUGAR MAPLES OR APPROVED EQUAL TO BE INSTALLED IN EITHER WETLAND OR EDGE OF WETLAND. OWNER TO WORK W/ENGINEER TO DETERMINE LOCATIONS IN FIELD.

EROSION AND SEDIMENT CONTROL NOTES:

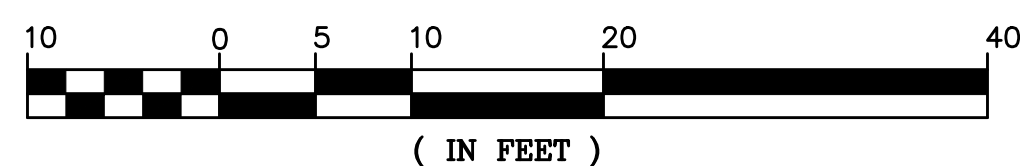
1. DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
2. CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
3. ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE CITY OF PORTSMOUTH AND NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
4. ALL BENCHMARKS AND TOPOGRAPHY SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING CONSTRUCTION.
5. UNLESS OTHERWISE AGREED IN WRITING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS (TBM) AND PERFORMING ALL CONSTRUCTION SURVEY LAYOUT.
6. PRIOR TO CONSTRUCTION, FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING STORMWATER AND UTILITY LINES. PRESERVE AND PROTECT LINES TO BE RETAINED.
7. TEMPORARY INLET PROTECTION MEASURES SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASINS WITHIN 100' OF THE PROJECT SITE WHEN SITE WORK WITHIN CONTRIBUTING AREAS IS ACTIVE OR SAID AREAS HAVE NOT BEEN STABILIZED.
8. PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL. IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATIONS. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.
9. IF SUITABLE, EXCAVATED MATERIALS SHALL BE PLACED AS FILL WITHIN UPLAND AREAS ONLY AND SHALL NOT BE PLACED WITHIN WETLANDS. PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION.
10. IN ORDER TO PROVIDE VISUAL CLARITY ON THE PLANS, DRAINAGE AND OTHER UTILITY STRUCTURES MAY NOT BE DRAWN TO SCALE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZING AND LOCATION OF ALL STRUCTURES AND IS DIRECTED TO RESOLVE ANY POTENTIAL DISCREPANCY WITH THE ENGINEER PRIOR TO CONSTRUCTION.
11. NO EARTHWORK, STUMPING OR GRUBBING SHALL COMMENCE UNTIL ALL APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED IN GOOD WORKING ORDER FOR THE DURATION OF CONSTRUCTION AND THE SITE IS STABILIZED.
12. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH IN THE NHDES NH STORMWATER MANUALS, VOL. 1-3, DATED DECEMBER 2008 AS AMENDED.
13. CONTRACTOR SHALL CONTROL DUST BY SPRAYING WATER, SWEEPING PAVED SURFACES, PROVIDING TEMPORARY VEGETATION, AND/OR MULCHING EXPOSED AREAS AND STOCKPILES.
14. THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT EROSION, PREVENT SEDIMENT FROM LEAVING THE SITE AND/OR ENTERING WETLANDS AND ENSURE PERMANENT SOIL STABILIZATION.
15. ALL EROSION CONTROL BLANKETS AND FASTENERS SHALL BE BIODEGRADABLE.
16. ALL SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
17. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE SIX (6") INCHES OF COMPACTED LOAM, LIMESTONE, SEED, AND MULCH USING APPROPRIATE SOIL STABILIZATION TECHNIQUES.
18. UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT AND ALL TEMPORARY EROSION AND SEDIMENT CONTROLS REMOVED AND ANY AREAS DISTURBED BY THE REMOVAL SMOOTHED AND REVEGETATED.

30" Ø (x2)

Limits of FEMA SFHA Zone AE (El. 8)

100' Tidal Wetland Buffer (Typ.)

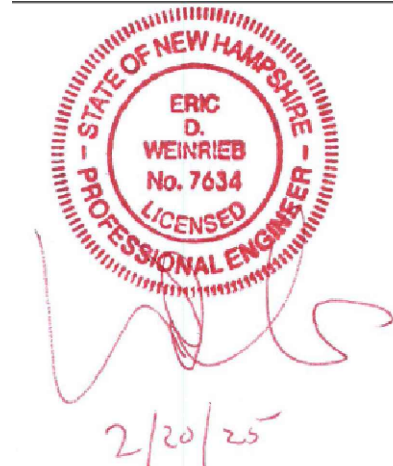
GRAPHIC SCALE



APPROVED BY THE PORTSMOUTH PLANNING BOARD
CHAIRMAN _____ DATE _____



ALTUS ENGINEERING
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com



ISSUED FOR: CONSERVATION COMMISSION
ISSUE DATE: FEBRUARY 20, 2025

REVISIONS NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	01/29/25
1	PER CON. COMM. DISCUSSION	EDW	02/20/25

DRAWN BY: _____ RLH
APPROVED BY: _____ EDW
DRAWING FILE: 5639.dwg

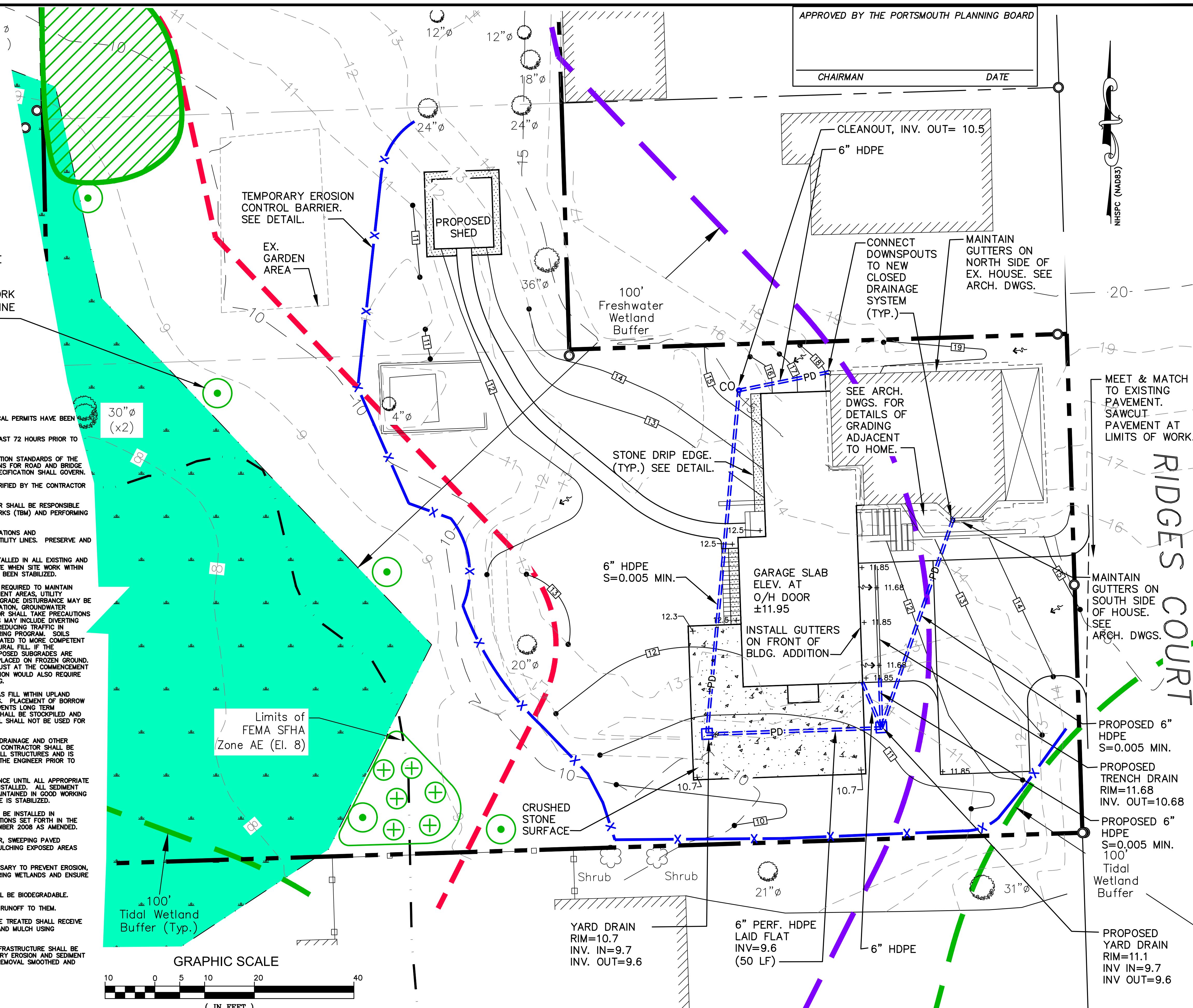
SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNERS/APPLICANTS:
ANNEMARIE RAINBOTH, TRUSTEE & MICHAEL RAINBOTH, TRUSTEE
TRUSTEES OF RAINBOTH REVOCABLE TRUST OF 2010
122 NEW CASTLE AVENUE PORTSMOUTH, NH 03801

PROJECT:
RESIDENTIAL ADDITION
TAX MAP 207
LOTS 63, 68 & 69
56 RIDGES COURT
PORTSMOUTH, NEW HAMPSHIRE

TITLE:
STORMWATER MANAGMENT PLAN

SHEET NUMBER:
C-3



P5639

SEDIMENT AND EROSION CONTROL NOTES

PROJECT NAME AND LOCATION

PROPOSED RESIDENTIAL ADDITION & SITE IMPROVEMENTS
56 RIDGES COURT
PORTSMOUTH, NEW HAMPSHIRE
TAX MAP 207 LOT 63, 68 & 69

LONGITUDE: -70°45'20" W
LATITUDE: 43°04'10" N

OWNER / APPLICANT:

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122 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801

DESCRIPTION

The project consists of the removal of a garage and the construction of an addition to a single-family residential home along with associated site improvements.

DISTURBED AREA

The total area to be disturbed for the redevelopment improvements is approximately 10,500 S.F. (±0.24 acres).

PROJECT PHASING

The proposed project will be completed in one phase.

NAME OF RECEIVING WATER

The site drains overlain to an unnamed wetland leading to Little Harbor.

SEQUENCE OF MAJOR ACTIVITIES

1. Install temporary erosion control measures including silt fences, stabilized construction entrance and inlet sediment filters as noted on the plan. All temporary erosion control measures shall be maintained in good working condition for the duration of the project.
2. Raze existing structures or portions thereof as shown.
3. Strip loam and stockpile.
4. Construct site features as shown on plan.
5. Rough grade site including placement of borrow materials.
6. Construct drainage structures, culverts, utilities & swales.
7. Loom (6" min) and seed all disturbed areas not paved or otherwise stabilized.
8. Install permeable & impervious driveway.
9. When all construction activity is complete and site is stabilized, remove all temporary erosion control measures and any sediment that has been trapped by these devices.

TEMPORARY EROSION & SEDIMENT CONTROL AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "New Hampshire Stormwater Manual, Volumes 1 - 3", issued December 2008, as amended. As indicated in the sequence of Major Activities, the silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area, silt fences and any earth/dikes will be removed once permanent measures are established.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site shall be filtered through hay bale barriers, stone check dams, and silt fences. All storm drain inlets shall be provided with hay bale filters or stone check dams. Stone rip rap shall be provided at the outlets of drain pipes and culverts where shown on the drawings.

Stabilize all ditches, swales, & level spreaders prior to directing flow to them.

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until vegetative cover is established. These control measures are essential to erosion prevention and also reduce costly rework of graded and shaped areas.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion and sediment control measures shall be maintained until permanent vegetation is established.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

A. GENERAL

These are general inspection and maintenance practices that shall be used to implement the plan:

1. The smallest practical portion of the site shall be denuded at one time.
2. All control measures shall be inspected at least once each week and following any storm event of 0.25 inches or greater.
3. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours.
4. Built-up sediment shall be removed from silt fence or other barriers when it has reached one-third the height of the fence or bale, or when "bulges" occur.
5. All diversion dikes shall be inspected and any breaches promptly repaired.
6. Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy growth.
7. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the Plans.
8. An area shall be considered stable if one of the following has occurred:
 - a. Base coarse gravels have been installed in areas to be paved;
 - b. A minimum of 85% vegetated growth as been established;
 - c. A minimum of 3 inches of non-erosive material such as stone or riprap has been installed; - or -
 - d. Erosion control blankets have been properly installed.
9. The length of time of exposure of area disturbed during construction shall not exceed 45 days.

B. MULCHING

Mulch shall be used on highly erodible soils, on critically eroding areas, on areas where conservation of moisture will facilitate plant establishment, and where shown on the plans.

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 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Concord, to have adequate warning of significant storms.
 - b. Required Mulching within a specified time period. The time period can range from 21 to 28 days of inactivity on a area, the length of time varying 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.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (CON'T)

2. Guidelines for Winter Mulch Application -

Type	Rate per 1,000 s.f.	Use and Comments
Hay or Straw	70 to 90 lbs.	Must be dry and free from mold. May be used with plantings.
Wood Chips or Bark Mulch	460 to 920 lbs.	Used mostly with trees and shrub plantings.
Jute and Fibrous Matting (Erosion Blanket)	As per manufacturer Specifications	Used in slope areas, water courses and other Control areas.
Crushed Stone 1/4" to 1-1/2" dia.	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Erosion Control Mix	2" thick (min)	<ul style="list-style-type: none"> * The organic matter content is between 80 and 100%, dry weight basis. * Particle size by weight is 100% passing a #6 screen and a minimum of 70 % maximum of 85% passing a #20 screen. * The organic portion needs to be fibrous and elongated. * Large portions of silt, clay or fine sands are not acceptable in the mix. * Soluble salts content is less than 4.0 mmhos/cm. * The pH should fall between 5.0 and 8.0.

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.

C. TEMPORARY GRASS COVER

1. Seedbed Preparation - Apply fertilizer at the rate of 600 pounds per acre of 10-10-10. Apply limestone (equivalent to 50 percent calcium plus magnesium oxide) at a rate of three (3) tons per acre.
2. Seeding -
 - a. Utilize annual rye grass at a rate of 40 lbs./acre.
 - b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.
 - c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer). Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.
3. Maintenance - Temporary seedings shall be periodically inspected. At a minimum, 95% of the soil surface should be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

D. FILTERS

1. Sequence of Installation - Sediment barriers shall be installed prior to any soil disturbance of the contributing upslope drainage area.
2. Maintenance -
 - a. Silt fence barriers shall be inspected 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, the sediment barriers shall be replaced with a temporary stone check dam.
 - b. Should the fabric on a silt fence or filter barrier 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 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 fence or other barrier is no longer required shall be removed. The area shall be prepared and seeded.
 - e. Additional stone may have to be added to the construction entrance, rock barrier and riprap lined swales, etc., periodically to maintain proper function of the erosion control structure.

E. PERMANENT SEEDING -

1. Bedding - stones larger than 1 1/2", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 5" to prepare a seedbed and mix fertilizer into the soil.
2. Fertilizer - lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied:

Agricultural Limestone @ 100 lbs. per 1,000 s.f.
10-20-20 fertilizer @ 12 lbs. per 1,000 s.f.

3. Seed Mixture (recommended):

Type	Lbs. / Acre	Lbs. / 1,000 sf
Tall Fescue	24	0.55
Creeping Red Fescue	24	0.55
Total	48	1.10

Seed Mixture (For slope embankments):

Grass Seed: Provide fresh, clean, new-crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America. Provide seed mixture composed of grass species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed, as specified:

Type	Min. Purity (%)	Min. Germination (%)	Kg./Hectare (Lbs./Acre)
Creeping Red Fescue (c)	96	85	45 (40)
Perennial Rye Grass (a)	98	90	35 (30)
Redtop	95	80	5 (5)
Alsike Clover	97	90(e)	5 (5)
			Total 90 (80)

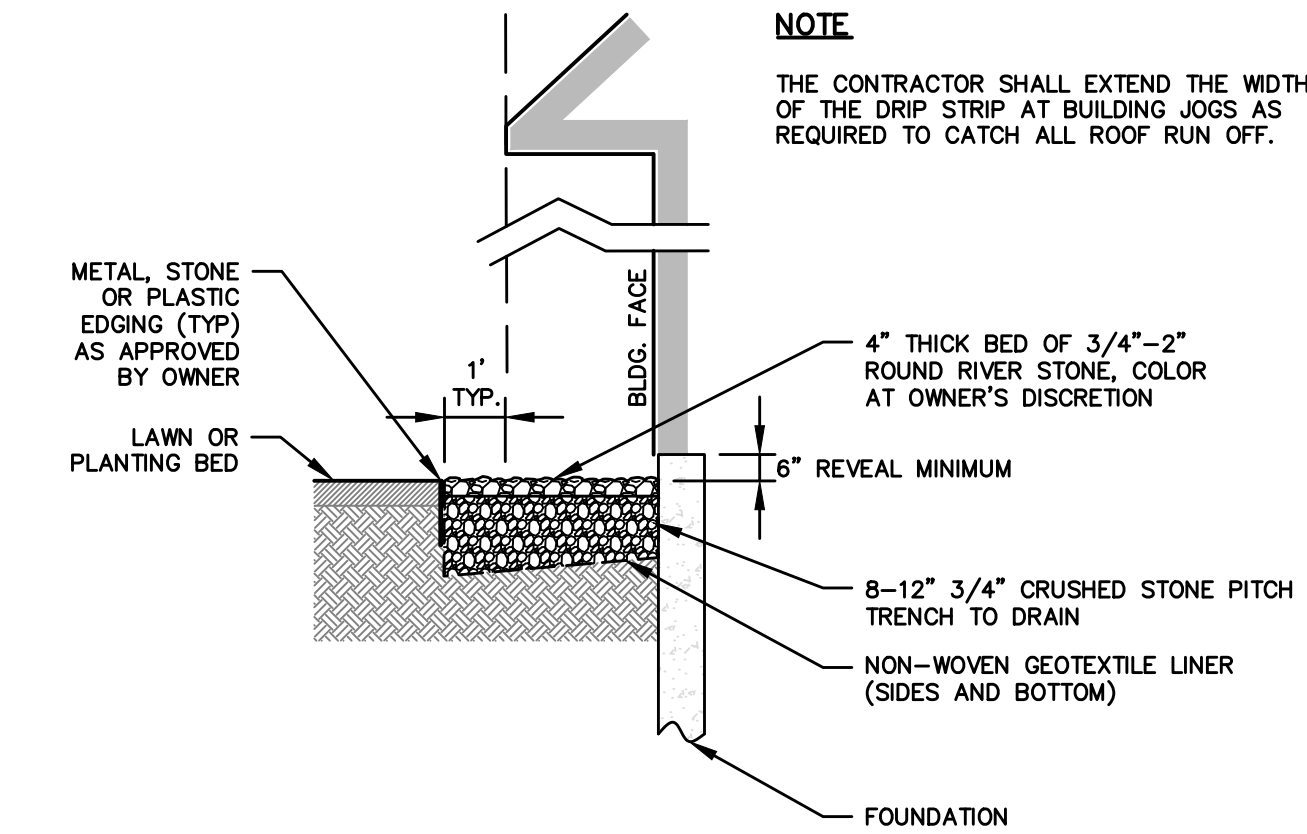
- a. Ryegrass shall be a certified fine-textured variety such as Pennfine, Fiesta, Yorktown, Diplomat, or equal.
- b. Fescue varieties shall include - Creeping Red and/or Hard Reliant, Scaldis, Koket, or Jamestown.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (CON'T)

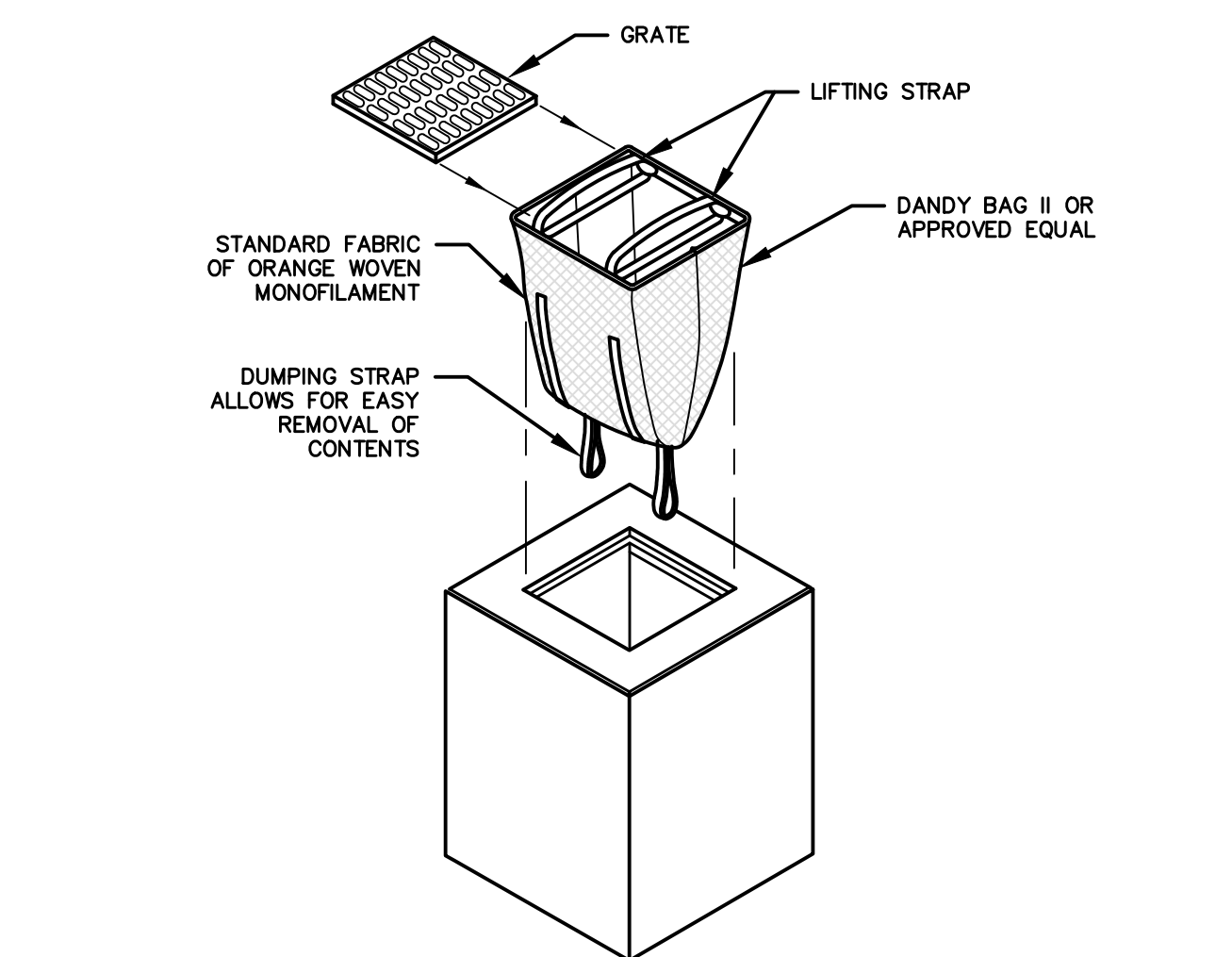
4. Sodding - sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding on area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.O.S. Handbook. Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily erodible soils (fine sand/silt), etc.

WINTER CONSTRUCTION NOTES

1. All proposed vegetated 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 elsewhere seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting. The installation 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 events;
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 temporarily with stone or erosion control blankets appropriate for the design flow conditions; and
3. After November 15th, incomplete road or parking surfaces where work has stopped for the winter season shall be protected with a minimum of 3 inches of crushed gravel per NHDOT item 304.3.



STONE DRIP EDGE DETAIL NOT TO SCALE



TUBULAR SEDIMENT BARRIER DETAIL NOT TO SCALE

INSTALLATION AND MAINTENANCE:

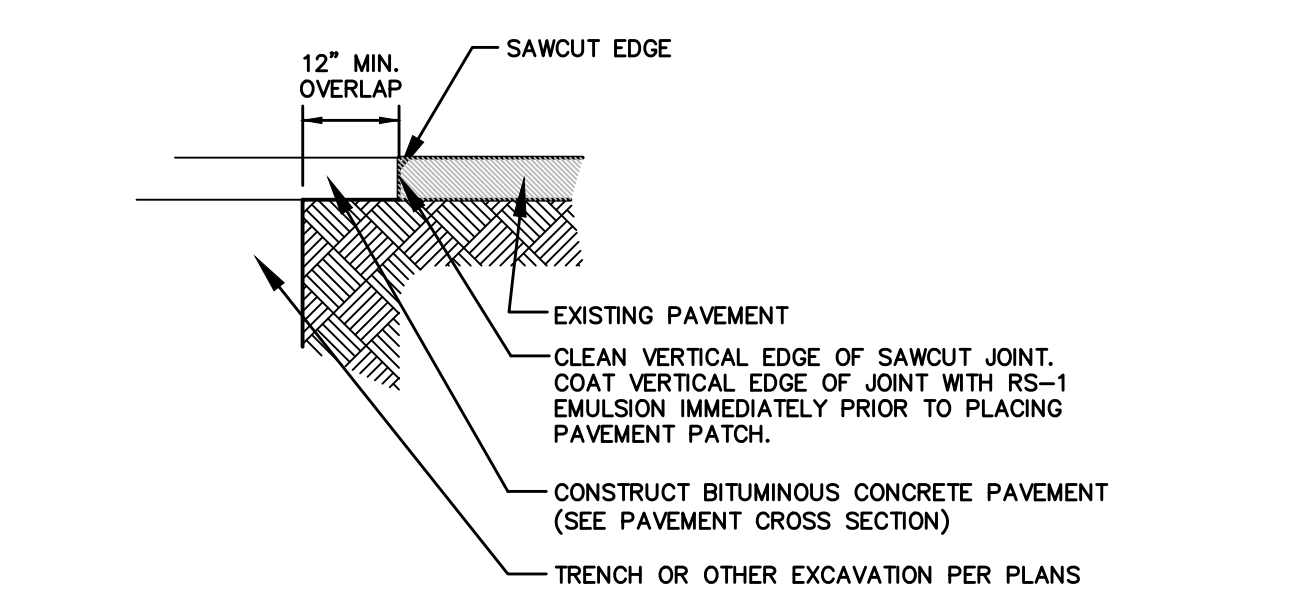
INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO CATCH BASIN INSERT SO THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE CATCH BASIN INSERT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY THE UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

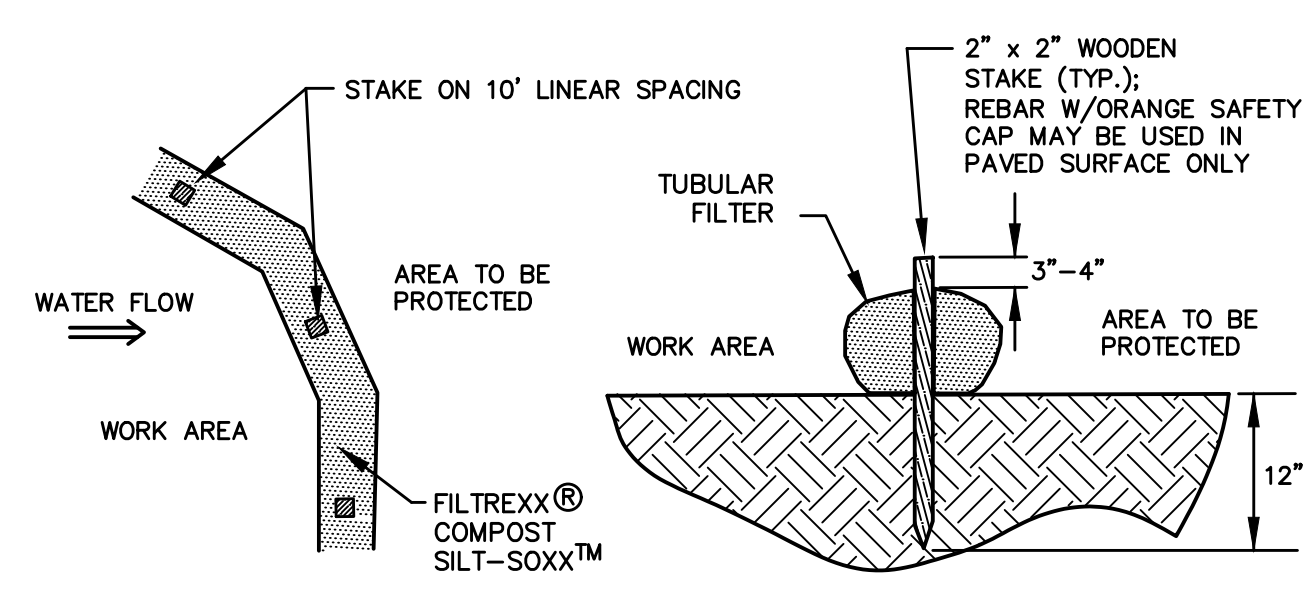
UNACCEPTABLE INLET PROTECTION METHOD:

A SIMPLE SHEET OF GEOTEXTILE UNDER THE GRATE IS NOT ACCEPTABLE.

STORM DRAIN INLET PROTECTION NOT TO SCALE

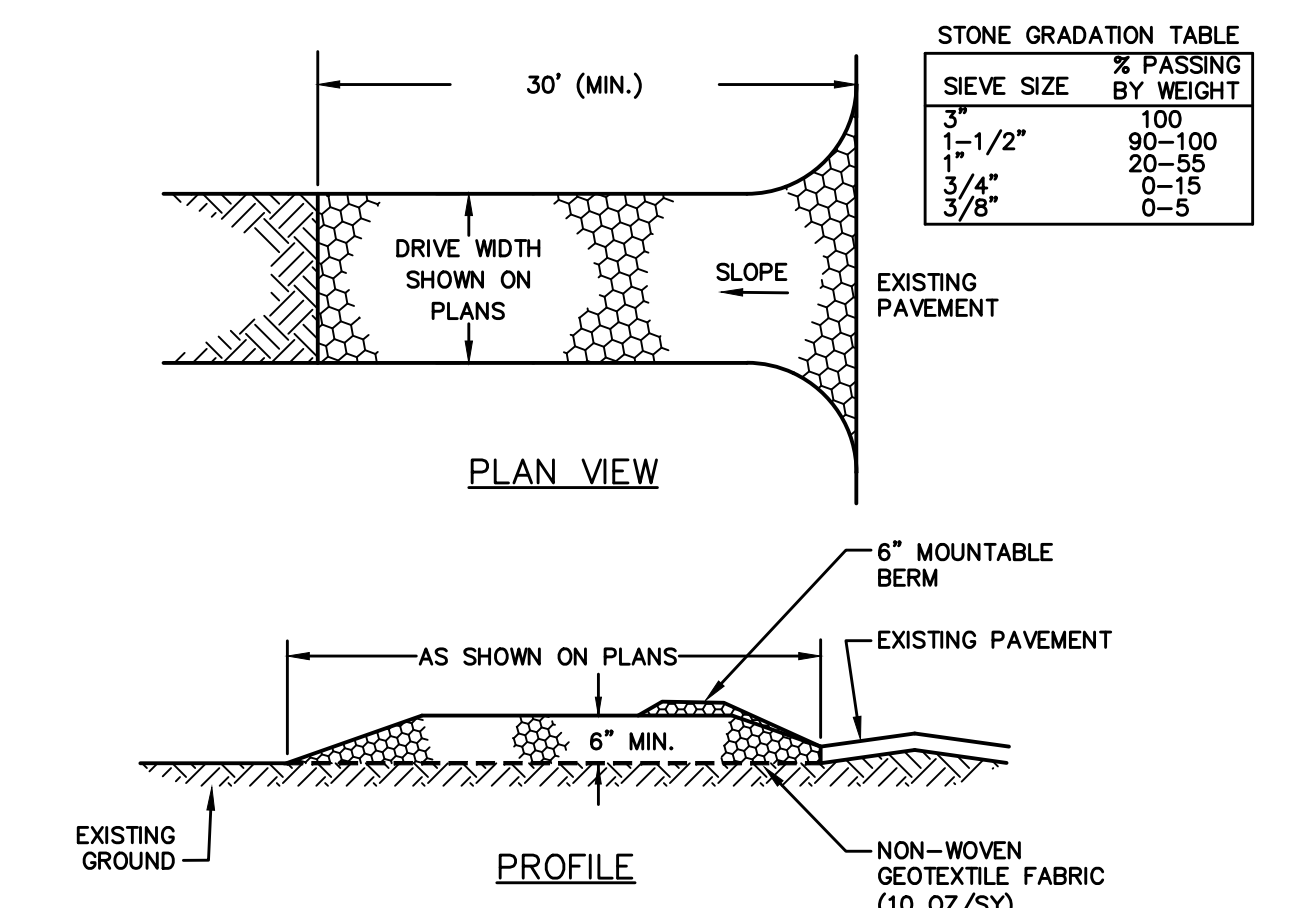


TYPICAL PAVEMENT SAWCUT NOT TO SCALE



- NOTES:
1. SILTSOXX OR APPROVED EQUAL SHALL BE USED FOR TUBULAR SEDIMENT BARRIERS.
 2. ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.
 3. COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.
 4. ALL SEDIMENT TRAPPED BY BARRIER SHALL BE DISPOSED OF PROPERLY.

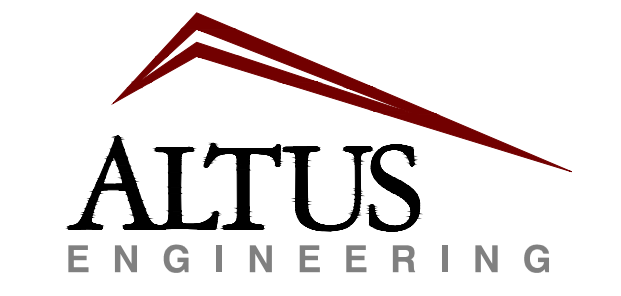
TUBULAR SEDIMENT BARRIER DETAIL NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. **STONE SIZE** - NHDOT STANDARD STONE SIZE #4 - SECTION 703 OF NHDOT STANDARD.
2. **LENGTH** - DETAILED ON PLANS (50 FOOT MINIMUM).
3. **THICKNESS** - SIX (6) INCHES (MINIMUM).
4. **WIDTH** - FULL DRIVE WIDTH UNLESS OTHERWISE SPECIFIED.
5. **FILTER FABRIC** - MIRAFI 600X OR EQUAL APPROVED BY ENGINEER.
6. **SURFACE WATER CONTROL** - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. **MAINTENANCE** - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH 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.
8. **WHEELS** SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. **STABILIZED CONSTRUCTION EXITS** SHALL BE INSTALLED AT ALL ENTRANCES TO PUBLIC RIGHTS-OF-WAY, AT LOCATIONS SHOWN ON THE PLANS, AND/OR WHERE AS DIRECTED BY THE ENGINEER.

STABILIZED CONSTRUCTION EXIT NOT TO SCALE



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ISSUED FOR: INITIAL SUBMISSION

ISSUE DATE: JANUARY 29, 2025

REVISIONS NO. DESCRIPTION BY DATE
0 INITIAL SUBMISSION EDW 01/29/25

DRAWN BY: RLH
APPROVED BY: EDW
DRAWING FILE: 5639-DETAILS.dwg

SCALE: (22"x34") NOT TO SCALE
(11"x17") NOT TO SCALE

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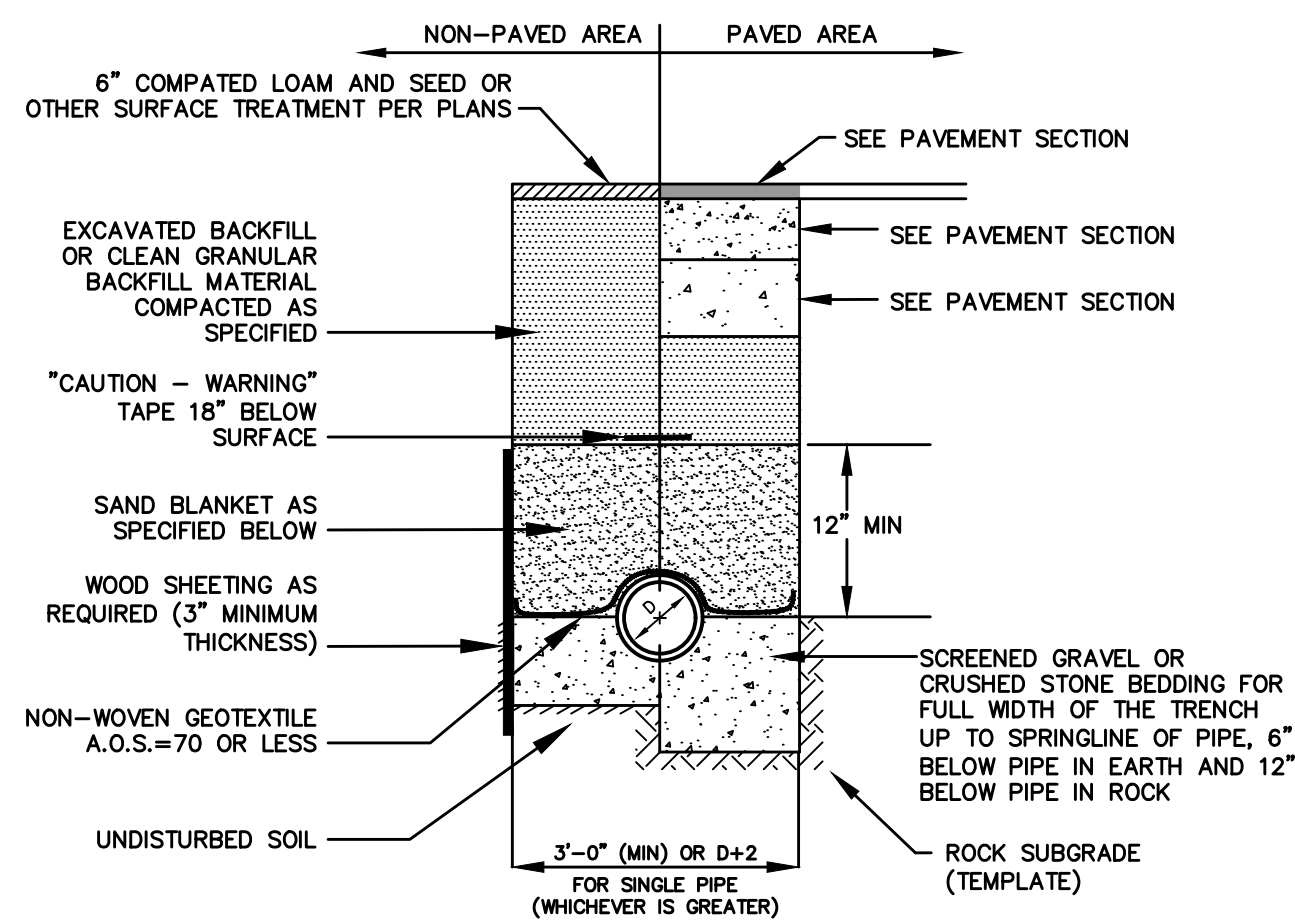
TRUSTEES OF RAINBOTH
REVOCABLE TRUST OF 2010

122 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801

PROJECT:
RESIDENTIAL ADDITION
TAX MAP 207
LOTS 63, 68 & 69
56 RIDGES COURT
PORTSMOUTH, NEW HAMPSHIRE

TITLE:
EROSION CONTROL NOTES & DETAILS

SHEET NUMBER: D-1

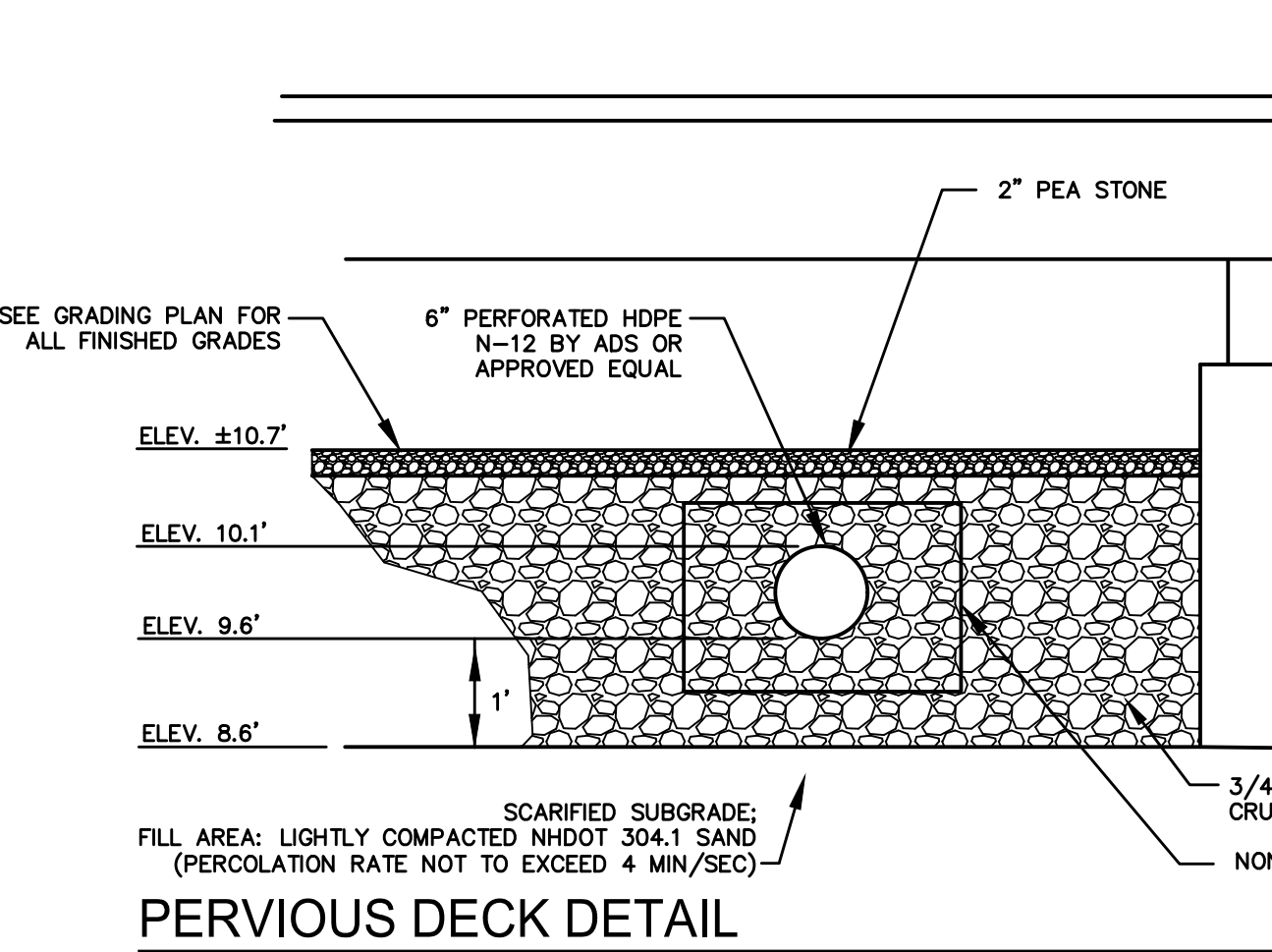
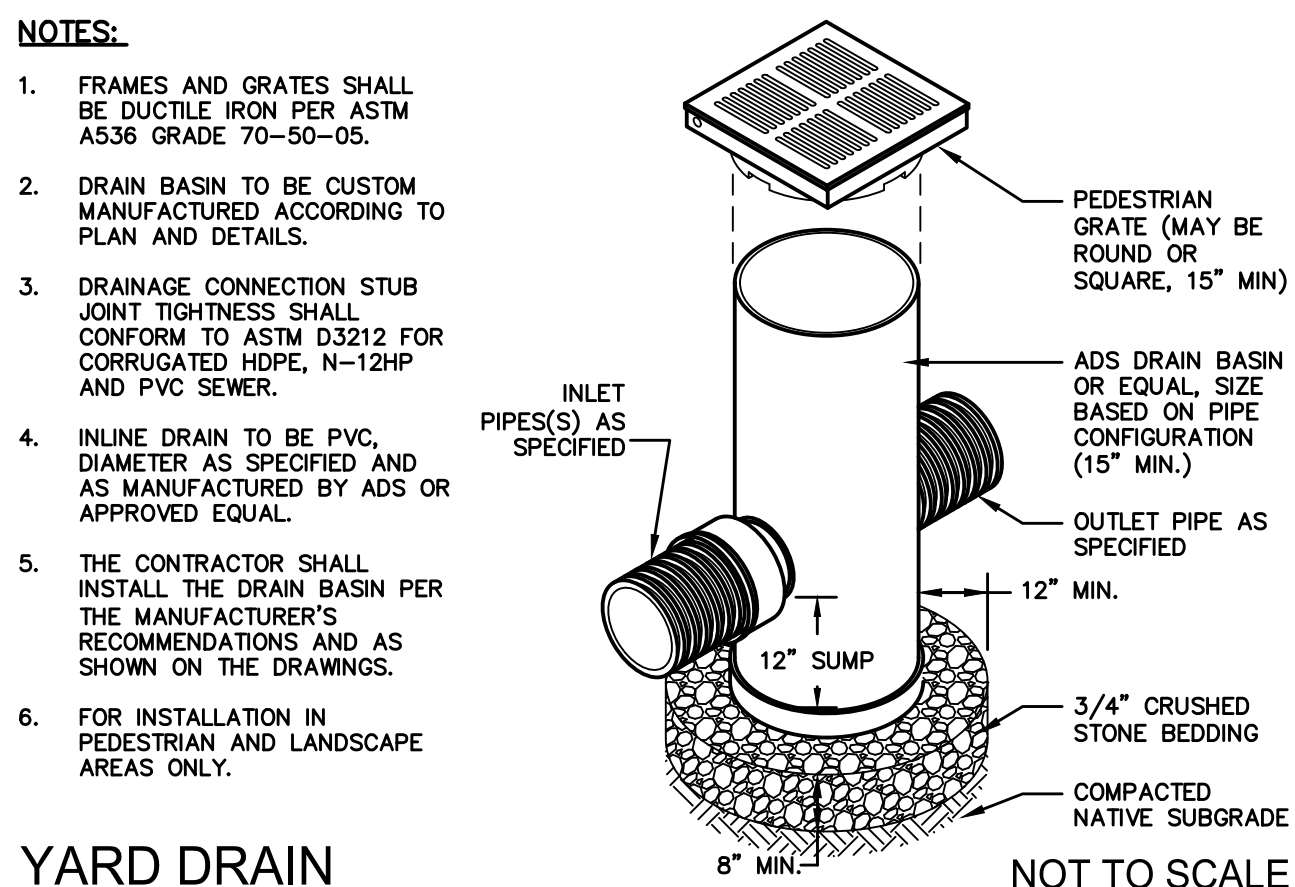


- NOTES**
- BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
 - INSULATE GRAVITY SEWER AND FORCEMAINS WHERE THERE IS LESS THAN 5'-0" OF COVER WITH 2" THICK CLOSED CELL RIGID BOARD INSULATION, 18" ON EACH SIDE OF PIPE.
 - MAINTAIN 12" MINIMUM HORIZONTAL SEPARATION AND WIDEN TRENCH ACCORDINGLY IF MULTIPLE PIPES ARE IN TRENCH.

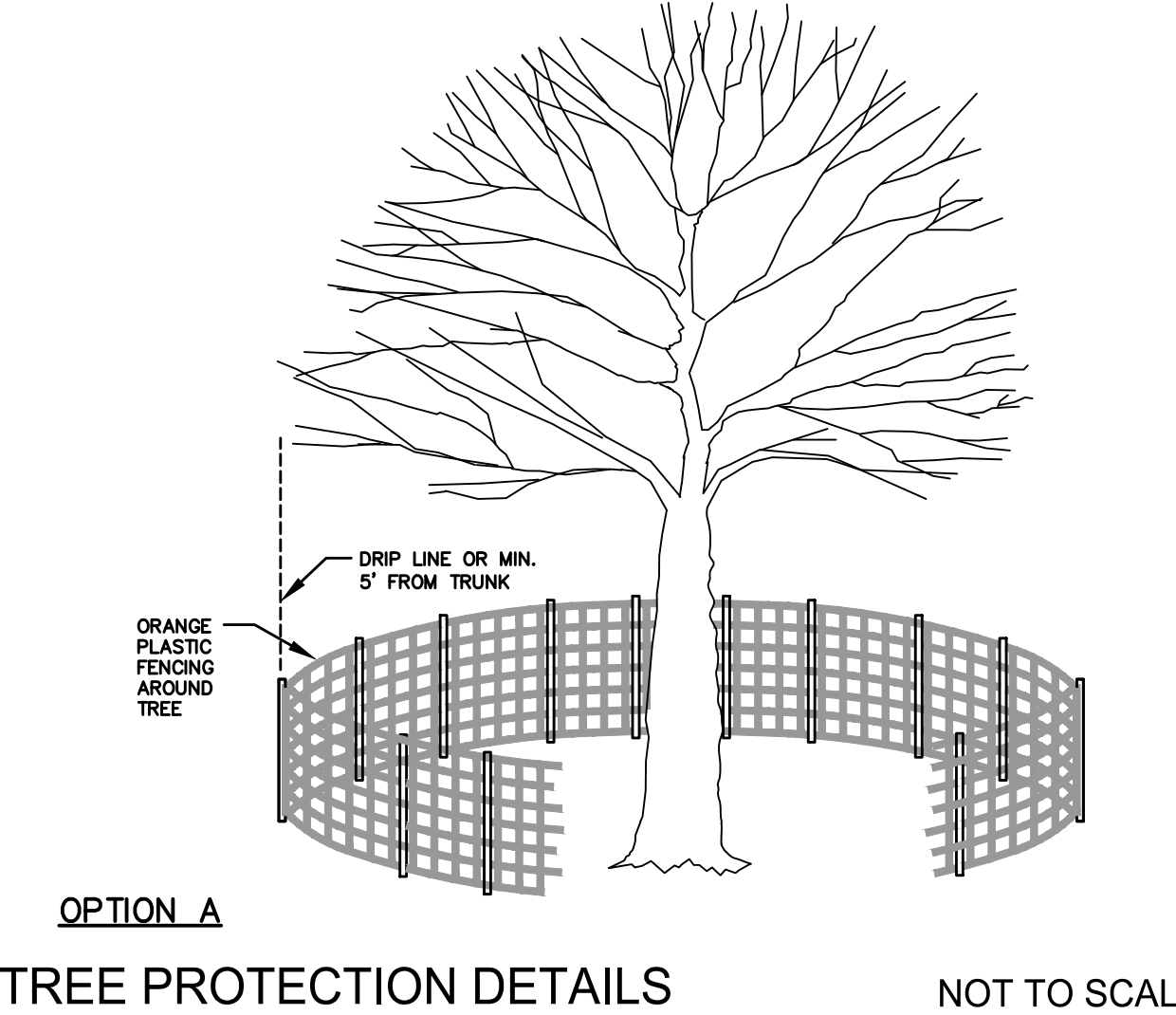
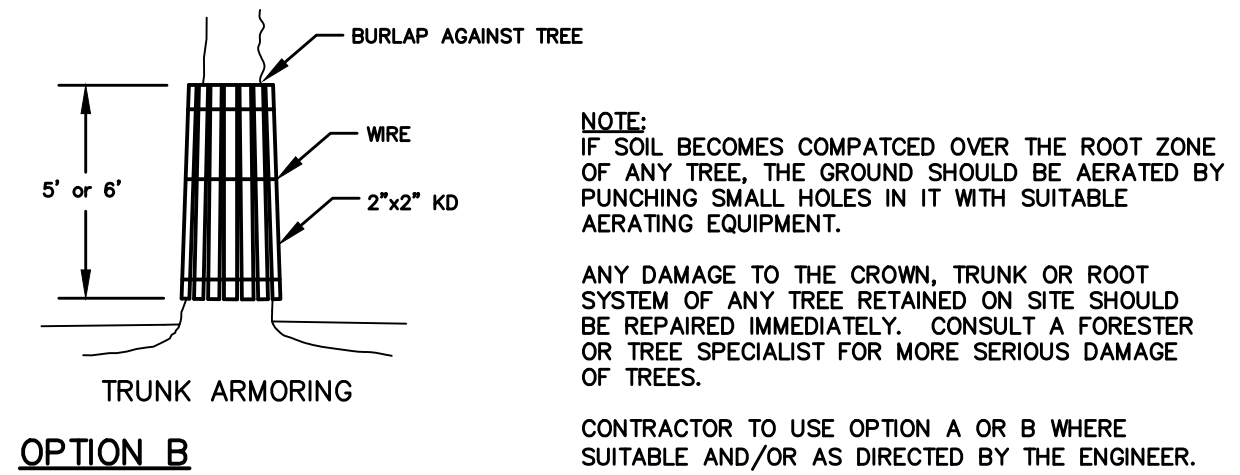
SAND BLANKET/BARRIER		SCREENED GRAVEL OR CRUSHED STONE BEDDING*	
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

* EQUIVALENT TO STANDARD STONE SIZE #67 - SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

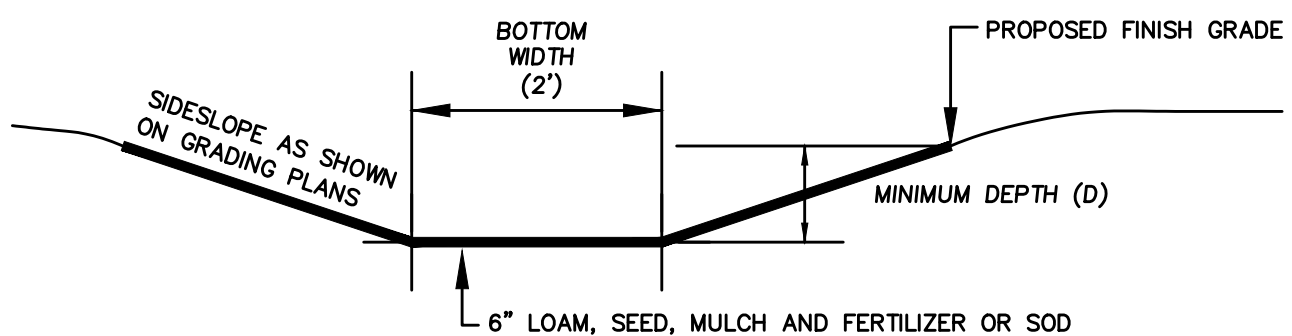
DRAINAGE TRENCH NOT TO SCALE



PERVIOUS DECK DETAIL NOT TO SCALE

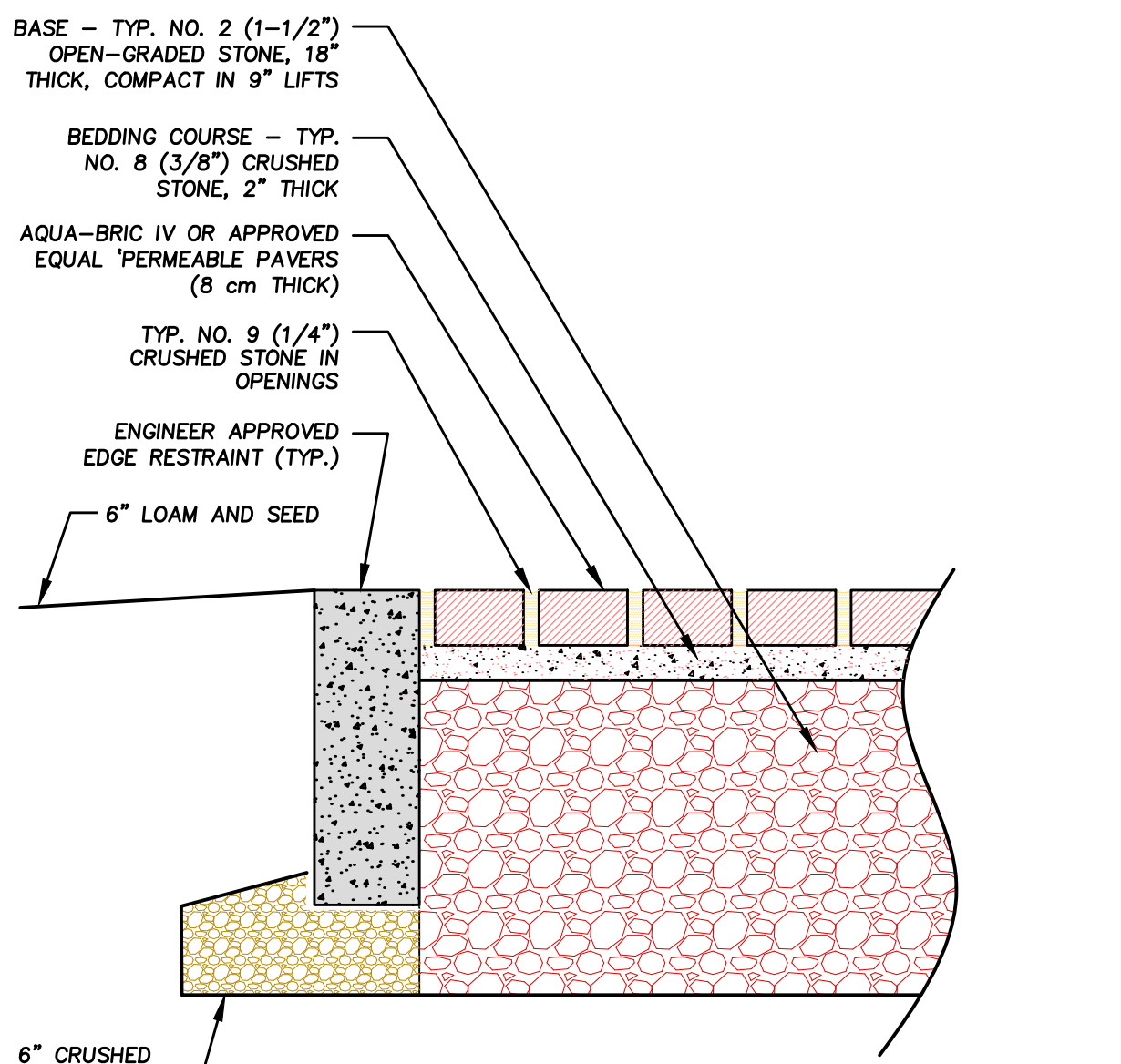


OPTION A TREE PROTECTION DETAILS NOT TO SCALE



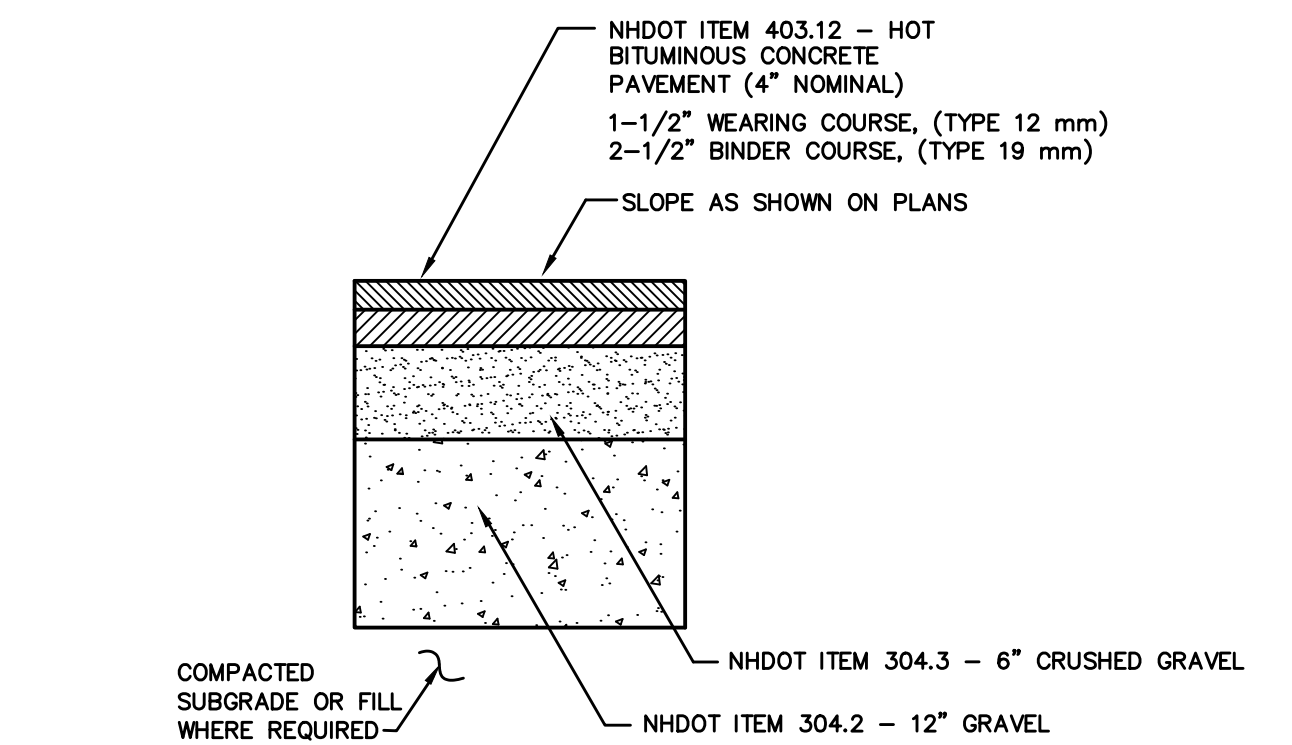
- NOTES**
- THE FOUNDATION AREA OF THE WATERWAY SHALL BE CLEARED AND GRUBBED OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL. MATERIALS REMOVED SHALL BE DISPOSED OF SO THEY WILL NOT INTERFERE WITH THE CONSTRUCTION OR PROPER FUNCTIONING OF THE WATERWAY.
 - THE WATERWAY SHALL BE EXCAVATED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

GRASSED SWALE NOT TO SCALE



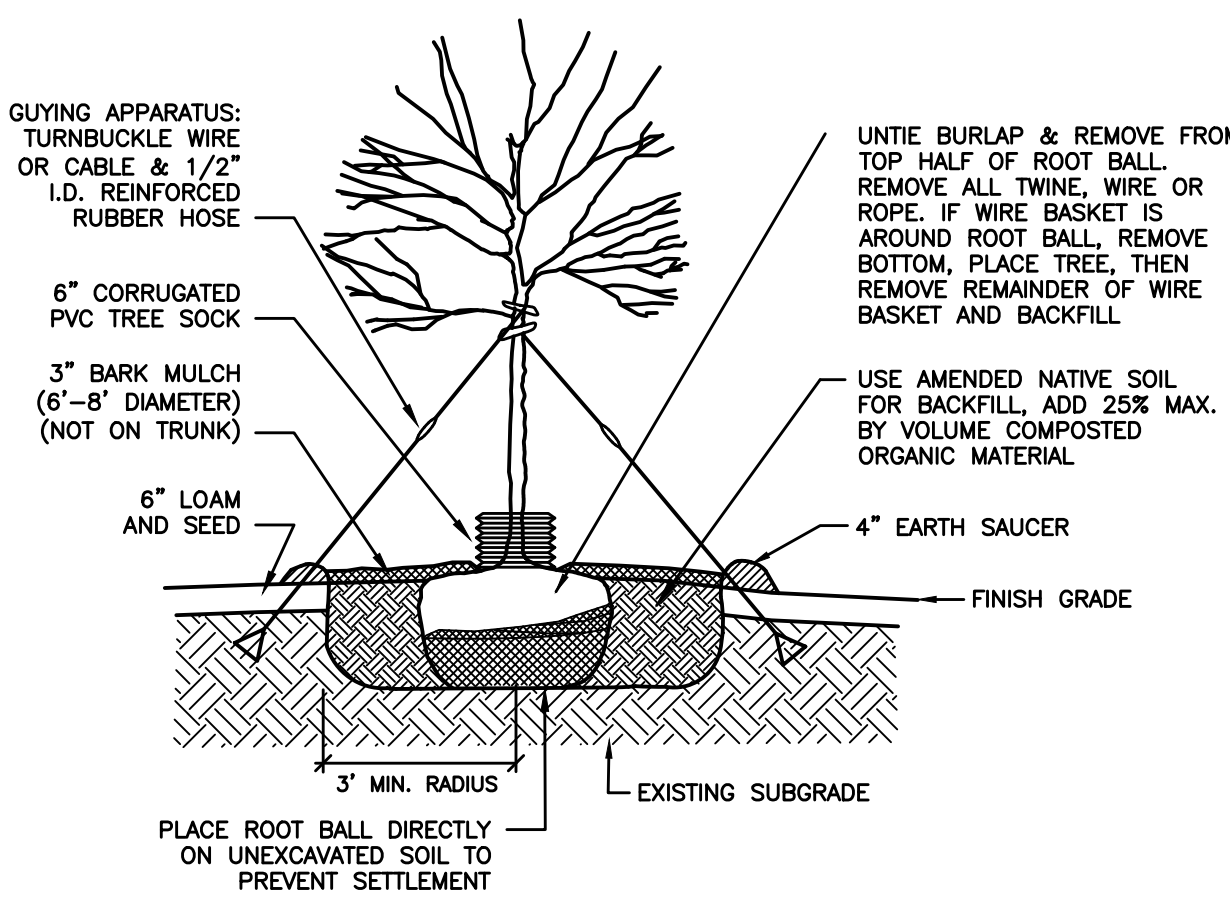
SIEVE SIZE	PERCENT PASSING		
	No. 9 (1/4")	No. 8 (3/8")	No. 2 (1 1/2")
3 in	-	-	100
2 1/2 in	-	-	90 - 100
2 in	-	-	35 - 70
1 1/2 in	-	-	0 - 15
3/4 in	-	-	0 - 5
1/2 in	100	100	-
3/8 in	90 - 100	85 - 100	-
No. 4	20 - 55	10 - 30	-
No. 8	5 - 30	0 - 10	-
No. 16	0 - 10	0 - 5	-
No. 50	0 - 5	-	-

PERMEABLE PAVERS DETAIL NOT TO SCALE



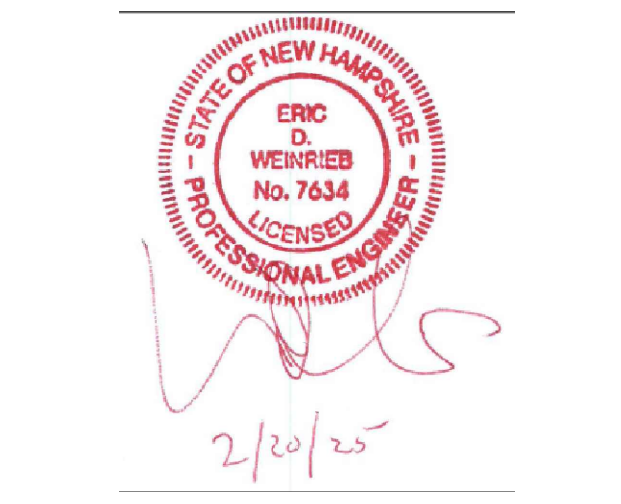
- NOTES**
- PROJECT GEOTECHNICAL REPORT MAY REQUIRE A DIFFERENT PAVEMENT CROSS SECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND FOLLOWING ALL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. IN THE EVENT THAT THE REPORT AND CIVIL PLANS DIFFER, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
 - ALL EXISTING FILL, BURIED ORGANIC MATTER, CLAY, LOAM, MUCK, AND/OR OTHER QUESTIONABLE MATERIAL SHALL BE REMOVED FROM BELOW ALL PAVEMENT, SHOULDERS AND UNDERGROUND PIPING/UTILITIES TO DEPTHS RECOMMENDED IN GEOTECHNICAL REPORT.
 - SUBGRADE SHALL BE PROOFROLLED A MINIMUM OF 6 PASSES WITH A 10-TON VIBRATORY COMPACTOR OPERATING AT PEAK RATED FREQUENCY OR BY MEANS APPROVED BY THE ENGINEER.
 - FILL BELOW PAVEMENT GRADES SHALL BE GRANULAR BORROW COMPACTED PER NHDOT REQUIREMENTS.
 - SITWORK CONTRACTOR SHALL COORDINATE GEOTECHNICAL ENGINEERING INSPECTIONS WITH THE CONSTRUCTION MANAGER PRIOR TO PLACING GRAVELS.
 - TACK COAT SHALL BE APPLIED BETWEEN SUCCESSIVE LIFTS OF ASPHALT.
 - THE BITUMINOUS PAVEMENT SHALL BE COMPACTED TO 92 TO 97 PERCENT OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D-2041. THE BASE AND SUBBASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THEIR MAXIMUM DRY DENSITIES AS DETERMINED BY ASTM D-1557.

PAVEMENT CROSS SECTION NOT TO SCALE



- NOTES:**
- PLANT TREE SUCH THAT TOP OF ROOT BALL IS FLUSH WITH GRADE (1" - 2" HIGHER IN SLOW DRAINING SOIL). TRUNK FLARE MUST BE VISIBLE AT THE TOP OF THE ROOT BALL.
 - THREE FLAGGED GUY WIRES TO BE EQUALLY SPACED ABOUT TREE. WOODEN STAKES (24" LENGTH) MAY BE SUBSTITUTED FOR METAL ANCHORS. EITHER OPTION SHALL BE DRIVEN OUTSIDE THE ROOT BALL, PREFERABLY IN UNEXCAVATED SOIL AND REMOVED AT THE END OF THE FIRST GROWING SEASON OR WHEN TREE IS STABILIZED.
 - COORDINATE PRUNING WITH LANDSCAPE ARCHITECT WHEN POSSIBLE. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN. PRUNING OF DEAD OR BROKEN BRANCHES OR CO-DOMINANT LEADERS IS PERMITTED.

DECIDUOUS TREE PLANTING NOT TO SCALE



ISSUED FOR: CONSERVATION COMMISSION

ISSUE DATE: FEBRUARY 20, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	01/29/25
1	PER CON. COMM. DISCUSSION	EDW	02/20/25

DRAWN BY: RLH
APPROVED BY: EDW
DRAWING FILE: 5639-DETAILS.dwg

SCALE: (22"x34") NOT TO SCALE
(11"x17") NOT TO SCALE

OWNERS/APPLICANTS:
ANNEMARIE RAINBOTH, TRUSTEE
& MICHAEL RAINBOTH, TRUSTEE

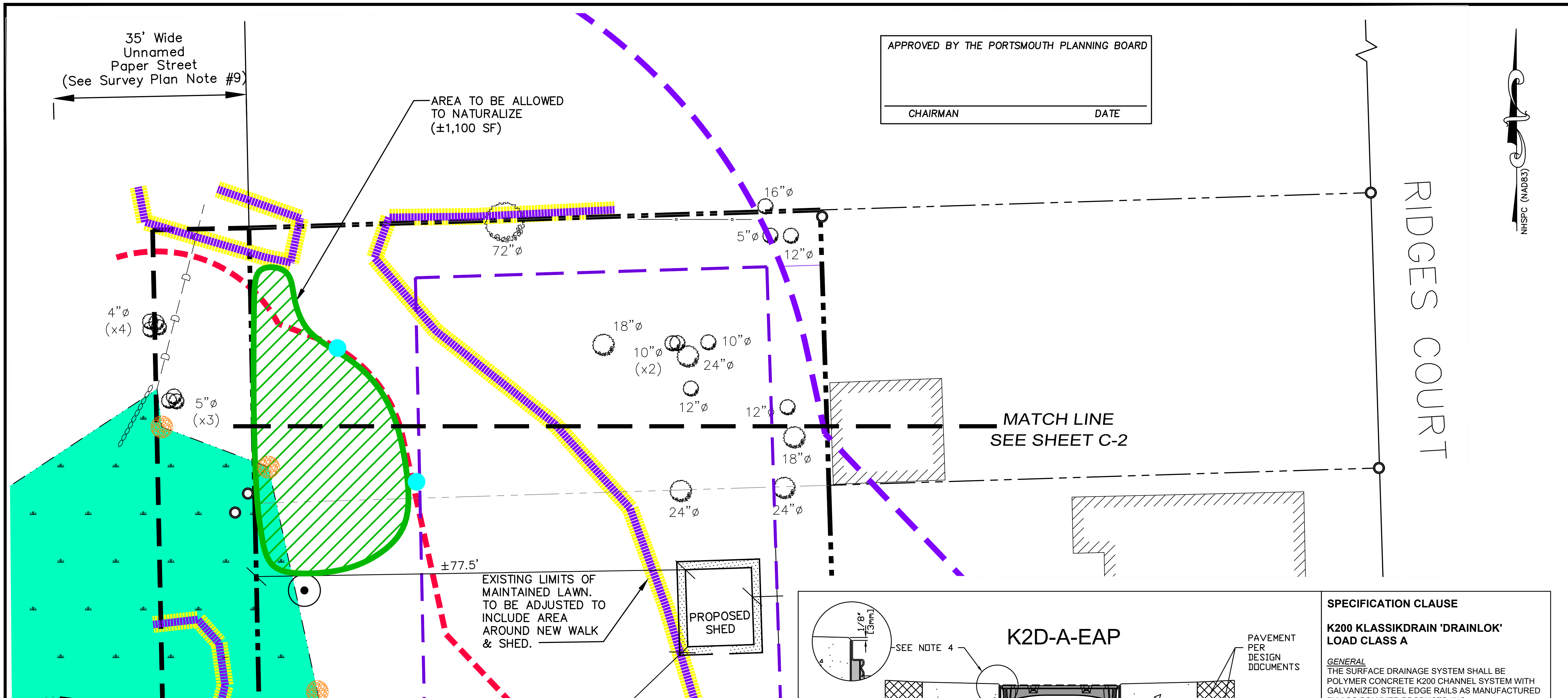
TRUSTEES OF RAINBOTH
REVOCABLE TRUST OF 2010

122 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801

PROJECT:
RESIDENTIAL ADDITION
TAX MAP 207
LOT 63
56 RIDGES COURT
PORTSMOUTH, NEW HAMPSHIRE

TITLE:
DETAIL SHEET

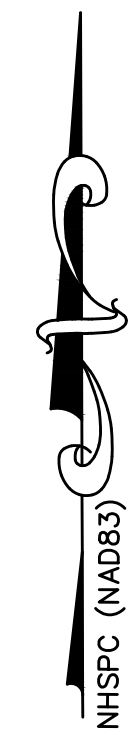
SHEET NUMBER:
D - 2



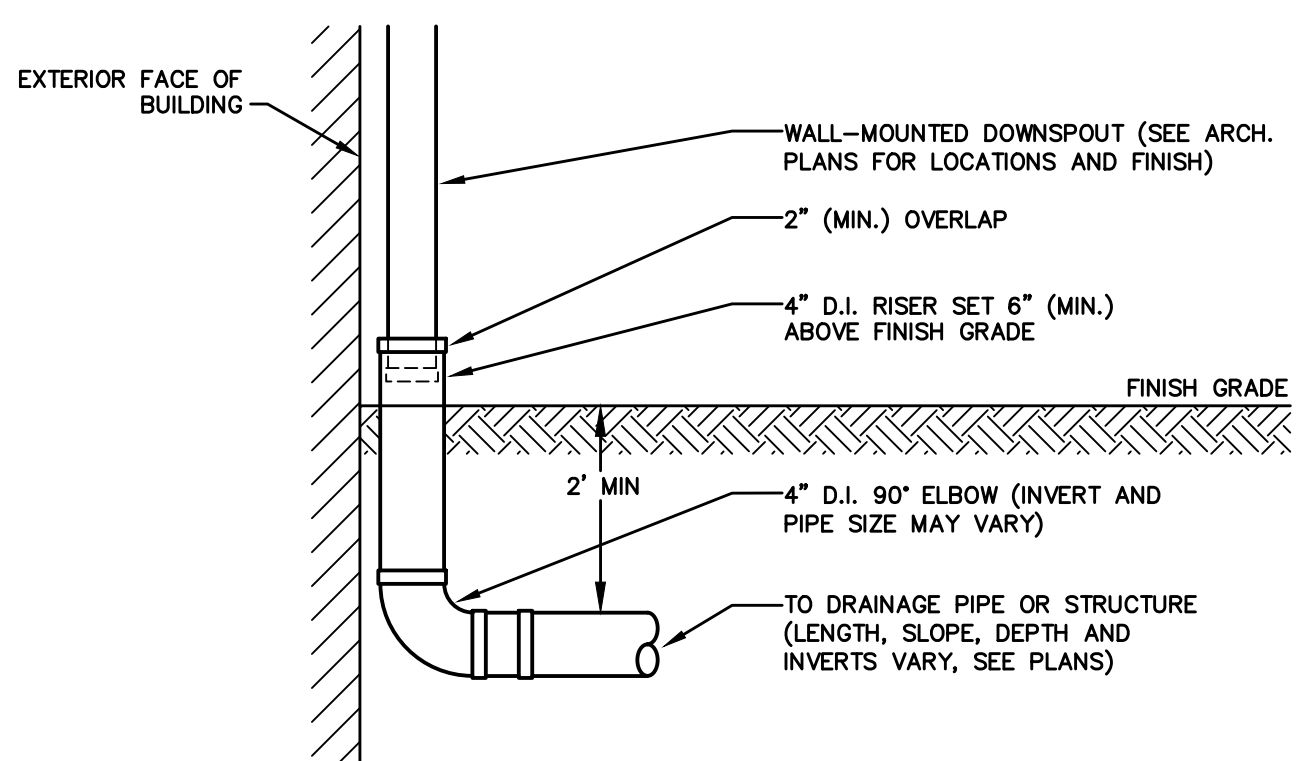
SITE PLAN SCALE: 1" = 10'

APPROVED BY THE PORTSMOUTH PLANNING BOARD

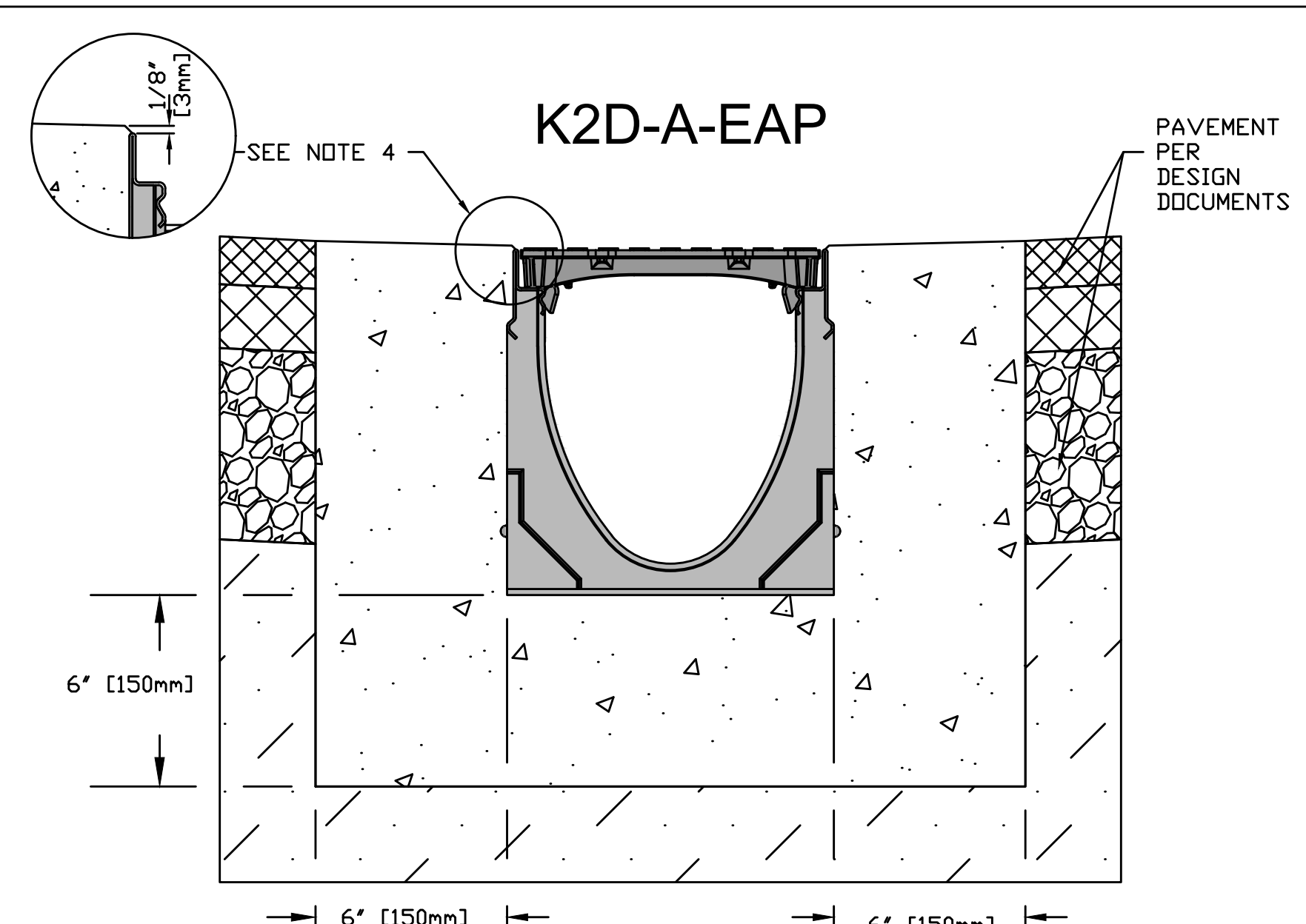
CHAIRMAN _____ DATE _____



RIDGES COURT



EXTERIOR ROOF DRAIN CONNECTION NOT TO SCALE



- NOTES:**
- IT IS NECESSARY TO ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. ENGINEERING ADVICE MAY BE REQUIRED.
 - MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
 - EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. ENGINEERING ADVICE MAY BE REQUIRED.
 - THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
 - CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
 - REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

TRENCH DRAIN DETAIL

SPECIFICATION CLAUSE

K200 KLASSIKDRAIN 'DRAINLOK' LOAD CLASS A

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE K200 CHANNEL SYSTEM WITH GALVANIZED STEEL EDGE RAILS AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN GALVANIZED STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

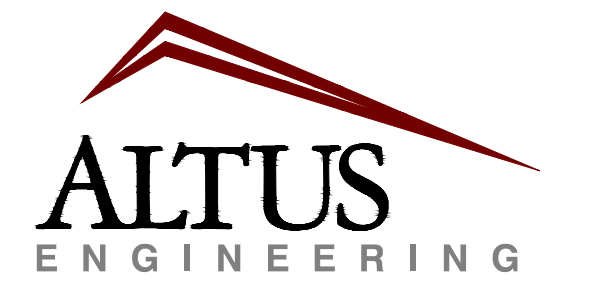
COMPRESSIVE STRENGTH:	14,000 PSI
FLEXURAL STRENGTH:	4,000 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF:	YES
DILUTE ACID AND ALKALI RESISTANT:	YES
B117 SALT SPRAY TEST COMPLIANT:	YES

THE SYSTEM SHALL BE 8" (200mm) NOMINAL INTERNAL WIDTH WITH A 10.2" (260mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

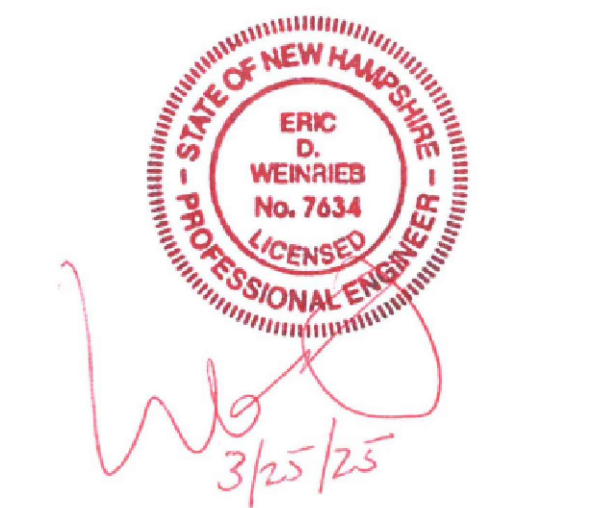
THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING 'DRAINLOK' BOLTLESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

NOT TO SCALE



133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com



ISSUED FOR: PLANNING BOARD
ISSUE DATE: MARCH 26, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	01/29/25
1	PER CON. COMM. DISCUSSION	EDW	02/20/25
2	INITIAL SUBMISSION	EDW	03/26/25

DRAWN BY: _____ RLH
APPROVED BY: _____ EDW
DRAWING FILE: 5639-DETAILS.dwg

SCALE:
(22"x34") NOT TO SCALE
(11"x17") NOT TO SCALE

OWNERS/APPLICANTS:
ANNEMARIE RAINBOTH, TRUSTEE
& MICHAEL RAINBOTH, TRUSTEE

TRUSTEES OF RAINBOTH
REVOCABLE TRUST OF 2010

122 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801

PROJECT:
RESIDENTIAL
ADDITION
TAX MAP 207
LOT 63
56 RIDGES COURT
PORTSMOUTH, NEW HAMPSHIRE

TITLE:

DETAIL SHEET

SHEET NUMBER:

D - 3

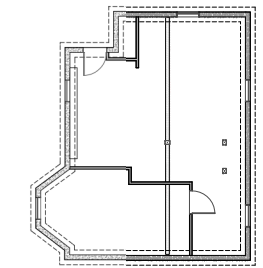
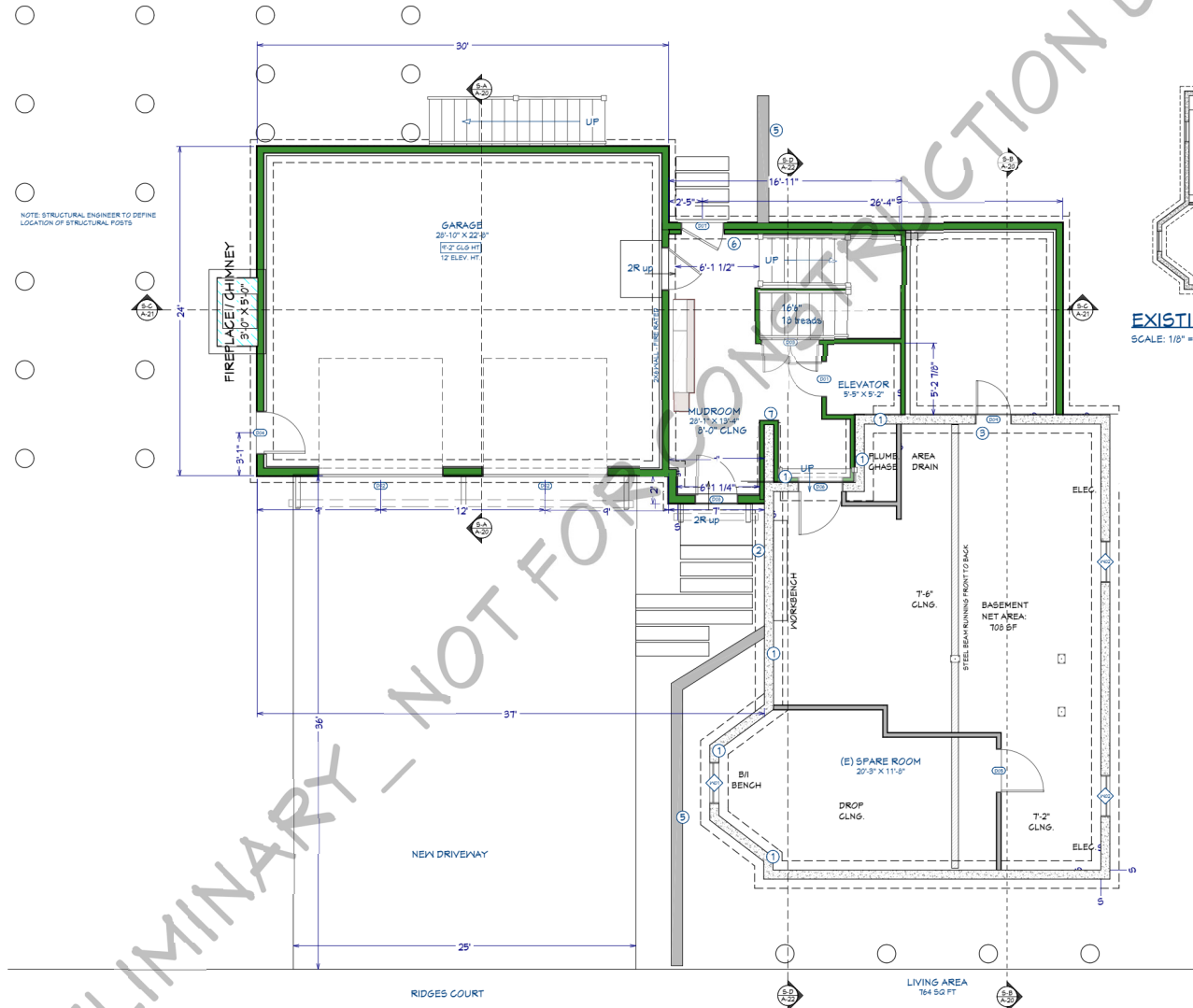
DIMENSIONS
 1. DIMENSIONS ARE TO FACE OF STUD, UNLESS NOTED OTHERWISE.
 2. CLOSETS ARE 24" CLEAR INSIDE, UNLESS DIMENSIONED OTHERWISE.

SQUARE FOOTAGES
 1. SQ FT NUMBERS ARE INTERIOR TO ROOM FOR USE IN CALCULATING FINISHES.
 2. CABINETS AND FIXTURES NOT SUBTRACTED.
 3. ADD FOR DOORWAYS WHEN FLOOR FINISHES RUN THROUGH.

NOTES
 1. EXTERIOR WALLS 2X6 WOOD STUD @ 16" OC. PROVIDE INSULATION & VAPOR BARRIER CONFORMING TO STATE OR LOCAL CODES. INTERIOR SHEATHING 1/2" GYPBUM BOARD. PROVIDE 1/2" EXTERIOR RATED SHEATHING, HOUSE WRAP WITH DRAINAGE PLANE AND SIDING. PROVIDE STEP FLASHING AT WALLS ADJACENT TO ROOF PLANES.
 2. INTERIOR WALLS 2X4 WOOD STUD @ 16" OC, UNLESS NOTED OTHERWISE.
 3. ROOF - SEE STRUCTURAL FOR RAFTER SIZES. PROVIDE 5/8" EXTERIOR RATED ROOF SHEATHING 15# ROOFING FELT, ICE & WATER SHIELD AT EAVES AND VALLEYS, ALUMINUM DRIP EDGE AND ASPHALT SHINGLES OR METAL ROOFING. STRUCTURE NOT CALCULATED TO SUPPORT SLATE OR TILE. FLASH ALL PENETRATIONS. PROVIDE CRICKET AT ANY ADDED CHIMNEYS.
 4. PROVIDE ROOF AND/OR CEILING INSULATION PER CODE. PROVIDE SOFFIT AND RIDGE VENTS WHERE REQUIRED FOR INSULATION STRATEGY. (VERIFY WITH CODE OFFICER - CLOSED CELL SPRAY FOAM OR DENSE-PACK CELLULOSE INSTALLED AT RAFTERS AND FILLING RIDGE AND EAVES GENERALLY CONTRA-INDICATES VENTING, BATT INSULATION ALWAYS REQUIRES VENTING).
 5. PROVIDE SMOKE, CARBON MONOXIDE, AND HEAT DETECTORS WHERE SHOWN AND WHERE REQUIRED BY CODE AND WHERE REQUIRED BY LOCAL AUTHORITIES.
 6. PROVIDE FIRE RESISTIVE MATERIALS WHERE REQUIRED BY CODE, INCLUDING BUT NOT LIMITED TO, FIRESTOPPING AT PENETRATIONS, 5/8" TYPE X DRYWALL ON WALLS AND CEILINGS TO SEPARATE GARAGE (WHERE GARAGE PRESENT IN DESIGN) FROM DWELLING, AND SEPARATION OF DWELLINGS (WHERE MORE THAN ONE DWELLING PRESENT IN DESIGN), AND PROTECTION OF FLAMMABLE INSULATION MATERIALS. SEE TABLE R302.6 IRC 2015.
 7. COMPLIANCE WITH CODE REQUIREMENTS FOR ROOMS SIZE AND CLEARANCES, (HALLWAY WIDTHS, ROOM SIZES, ETC) ASSUME 1/2" DRYWALL ON WALLS AND 1/2" DRYWALL ON 3/4" STRAPPING ON CEILINGS. ADJUST AS REQUIRED IF MATERIALS DIFFER.
 8. SHEAR IS ONLY CALLED OUT WHERE CONTINUOUS SHEATHING WOOD STRUCTURAL PANEL METHOD WILL NOT SUFFICE. SEE PLANS FOR LOCATIONS WHERE ALTERNATE SHEAR METHODS ARE REQUIRED.

GENERAL DESIGN NOTES
 1. BUILDER SHALL CONSULT AND FOLLOW THE BUILDING CODE AND OTHER REGULATIONS IN EFFECT FOR THE BUILDING SITE FOR ALL CONSTRUCTION DETAILS NOT SHOWN IN THESE DRAWINGS. REQUIREMENTS DESCRIBED HERE ARE SPECIFIC TO THIS DESIGN AND/OR ARE PROVIDED AS REFERENCE. ADDITIONAL BUILDING CODE OR LOCAL REQUIREMENTS MAY APPLY.
 2. BUILDER SHALL MAINTAIN A SAFE WORKSITE, INCLUDING BUT NOT LIMITED TO, PROVISION OF TEMPORARY SUPPORTS WHERE APPROPRIATE AND ADHERENCE TO APPLICABLE SAFETY STANDARDS.
 3. DESIGN IS BASED ON THE SNOW LOAD LISTED ON THE FRAMING PLANS, 100 MPH BASIC WIND SPEED, EXPOSURE TYPE B, SOIL BEARING CAPACITY OF 2000 PSF, AND SEISMIC CATEGORY C, UNLESS OTHERWISE NOTED ON THE FRAMING PLANS. BUILDER SHALL PROMPTLY INFORM ARTFORM HOME PLANS OF DIFFERING CONDITIONS.

FOUNDATION NOTES SCHEDULE	
1	EXTEND FOOTINGS DOWN TO CAPTURE HEIGHT OF ADDITION AND GRADE CHANGE
2	CREATE CONCRETE PLANTING BED WITH SLOPE VENEER TO COVER UP DELTA OF OLD & NEW FOUNDATION.
3	NEW DOOR LOCATION AT EXISTING WINDOW LOCATION.
4	FORMOUS DECKING INSTALLATION - NOT DIMENSIONED IN LOT COVERAGE
5	RETAINING WALL
6	BUILD DOUBLE WALL FOR FINISH FOUNDATION WALL @ STAIRCASE
7	FINISH INTERIOR WALLS OF FOUNDATION WALLS IN 2X4 ON THE FLAT.



EXISTING FOUNDATION PLAN
 SCALE: 1/8" = 1'-0"

PROPOSED FOUNDATION PLAN
 SCALE: 1/4" = 1'-0"

NOT TO SCALE



Number	Date	Revision	Description

FLOOR PLANS

CLIENT:
 RAINBOTH RESIDENCE
 56 RIDGES COURT
 FORTSMOUTH, NH

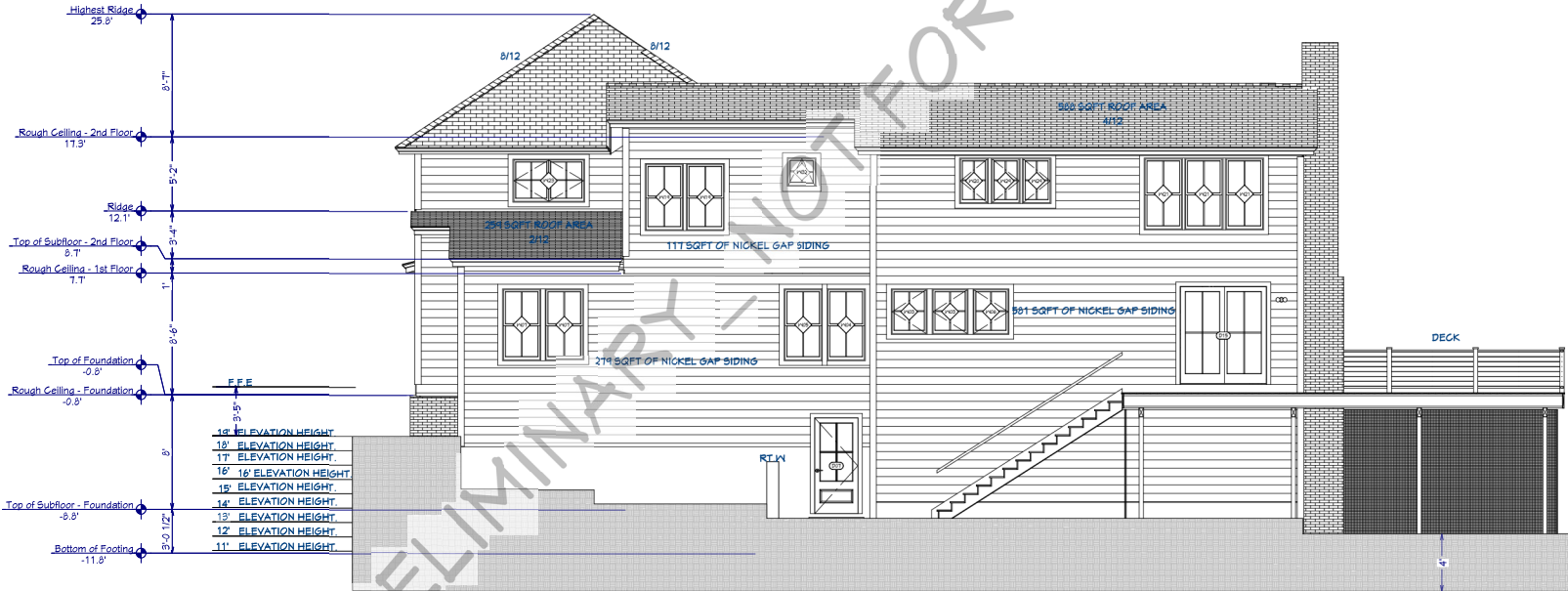
CONTACT:
 AMY DUTTON HOME
 5 WALKER STREET KITTERY, ME
 amy@amyduttonhome.com
 207.357.7220

DATE:	2/17/2025
COPYRIGHT © ASBRO HOME 2022	
SCALED FOR:	24" X 36"
SCALE:	
SEE SCALE ON DRAWINGS	
SHEET:	A-8



EXISTING REAR VIEW

SCALE: 1/4" = 1'-0"



REAR VIEW

SCALE: 1/4" = 1'-0"

Note - Actual grade level may vary. Where zoning height restrictions apply, builder shall verify conformance. Manual markup of drawings to demonstrate compliance is recommended.

Not shown - number of steps may vary - handrail may be required per code.

Adjust Window HT so the space between the window sill and roof is no less than 4"

Foundation steps and/or use of cripple walls may be added to suit grade.

For Optional fireplace, consult GC about applicability

Basement egress is required, bulkhead option shown. Builder may relocate bulkhead to suit building site and may substitute other code conforming egress, such as window with egress window well or walk-out door if grading allows.

6x6 PT Posts shown under Deck & Porch, can be 4x4 PT for posts less than 48" in height. Consult Amy Dutton Home for decks higher than 8 ft off grade.

Garage slab height may vary. If garage slab height is lower than shown, consult Amy Dutton Home for aesthetic direction. Taller garage doors, transoms, lintels and/or additional frieze boards may be required to achieve desired look.



Revision Table	
Number	Description

ELEVATIONS

CLIENT:
 RAINBOW RESIDENCE
 56 RIDGES COURT
 FORTSMOUTH, NH

CONTACT:
 AMY DUTTON HOME
 9 WALKER STREET | KITTERY, ME
 amy@amyduttonhome.com
 207.597.5020

DATE:
 2/17/2025

COPYRIGHT:
 © ASBRIGO HOME 2022

SCALED FOR:
 24" X 36"

SCALE:
 SEE SCALE ON DRAWINGS

SHEET:

A-17

NOT TO SCALE

ELEVATIONS
 SCALE: 1/4" = 1'-0"

P0595-015
April 11, 2025

Mr. Peter Britz, Director of Planning and Sustainability
City of Portsmouth
Department of Planning and Sustainability
1 Junkins Avenue
Portsmouth, New Hampshire 03801

Re: **Site Plan Amendment – Request to Postpone
100 New Hampshire Avenue, Pease Tradeport**


Dear Peter:

On behalf of Aviation Avenue Group, LLC, we respectfully request to postpone the Planning Board (PB) meeting scheduled for April 17, 2025, for the above referenced project to the May 15, 2025, meeting.

If you have any questions, please contact me by phone at (603) 294-9213 or by email at nahansen@tighebond.com.

Sincerely,

TIGHE & BOND, INC.



Neil A. Hansen, PE
Project Manager



Patrick M. Crimmins, PE
Vice President

Cc: Aviation Avenue Group, LLC (via e-mail)
Pease Development Authority





HALEY WARD

200 Griffin Road, Unit 14, Portsmouth, NH 03801
Phone (603) 430-9282 Fax 436-2315

11 April 2025

Rick Chellman, Planning Board Chair
City of Portsmouth
1 Junkins Avenue
Portsmouth, NH 03801

RE: Request for CUP Parking Approval at 909 Islington Street, Tax Map 172, Lot 7

Dear Mr. Chellman and Planning Board Members:

On behalf of Chinburg Builders and Louis Restaurant (the Applicants), we hereby request that the **CUP Parking Planning Board Review** for the above-mentioned project on the agenda for your **April 17, 2025, Planning Board Meeting** be continued to next month's meeting. The project development team needs more time to work on the site plan.

Sincerely,

John Chagnon, PE
Senior Project Manager

P:\NH\5010220-Chinburg_Builders\1379-909 Islington Street, Portsmouth-2024 Site Development\03-WIP_Files\909 Parking Plan and CUP\CUP\Planning Board Postponement Letter 4-11-25.doc

Findings of Fact | Detached Accessory Dwelling Unit

City of Portsmouth Planning Board

Date: April 17, 2025

Property Address: 332 Hanover Street

Application #: LU-25-52

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 all the conditions necessary to obtain final approval.

Zoning Ordinance -10.814.60: Before granting a conditional use permit for a detached ADU, the Planning Board shall make the following findings:

	Section 10.814.62	Finding (Meets Requirement/ Criteria)	Supporting Information
1	10.814.621 The ADU complies with all applicable standards of this Section 10.814 or as may be modified by the conditional use permit.	Meets Does Not Meet	The proposed AADU complies with Section 10.814 with no need for any modifications from the Ordinance.
2	10.814.622 The exterior design of the ADU is architecturally consistent with or similar in appearance to the existing principal dwelling on a lot.	Meets Does Not Meet	The accessory dwelling unit is entirely within the footprint of the proposed single-family home and is architecturally consistent.
3	10.814.623 The site plan provides adequate and appropriate open space and landscaping for both the ADU and the principal dwelling unit and complies with the off-street parking requirements of 10.814.26.	Meets Does Not Meet	The property provides greater than the minimum required open space per zone CD4-L1 as calculated per section 10.515.20 of the zoning ordinance.
4	10.814.624 The ADU will maintain a compatible relationship with the character of adjacent and neighborhood properties in terms of location, design, and off-street parking layout, and will not significantly reduce the privacy of adjacent properties.	Meets Does Not Meet	The proposed single-family home and accessory dwelling unit meet all zoning district requirements including all character-based zoning design guidelines. Refer to sheet A2 for neighborhood contextual images. The ADU is strategically located along two streets and not along abutting property lines limiting privacy concerns.

	Section 10.814.62	Finding (Meets Requirement/ Criteria)	Supporting Information
5	Other Board Findings:		

DRAFT

March 26, 2025

Mr. Rick Chellman
Chair of the Portsmouth Planning Board
City of Portsmouth, NH
1 Junkins Ave, 3rd Floor

Re: Planning Board Conditional Use Permit – Attached Accessory Dwelling Unit (AADU)

Dear Mr. Chellman and Board Members,

On behalf of the property owners of 332 Hanover Street Portsmouth, New Hampshire, Kent and Jennifer Bonniwell, we submit the following package for review and consideration at the scheduled April 2025 Planning Board meeting. The applicant is requesting a Conditional Use Permit to allow the construction of an Attached Accessory Dwelling Unit (AADU) as part of their proposed single-family home in the City of Portsmouth's CD4-L1 zoning district. As noted throughout the package, the home as designed meets all dimensional and character-based zoning requirements defined in the Portsmouth Zoning Ordinance and is architecturally consistent with the neighborhood and immediate area.

The following package includes all required and necessary existing and proposed drawings, images, and references for the application. Below are non-graphical assurances of zoning ordinance compliance of sections 10.814.10 through 10.814.73. The existing single-family home and outbuilding have been approved for complete demolition in compliance with the Portsmouth Demo Ordinance under permit number DEMO 24-27.

10.814.12 - *Only one accessory dwelling unit (ADU) shall be allowed on any lot containing a single-family dwelling. An accessory dwelling unit shall not be allowed under this Section 10.814 on a lot that contains more than one dwelling unit.*

Comments – There is only one single family dwelling unit proposed on the site which allows for an accessory dwelling unit.

10.814.13 - *Except as provided elsewhere in this Section 10.814, in order for a lot to be eligible for an accessory dwelling unit, the lot and all proposed structures and additions to existing structures shall conform to all zoning regulations as follows:*

Comments – Refer to Sheet C for dimensional and character-based zoning ordinance compliance.

10.814.21 – *The principal dwelling unit and the accessory dwelling unit shall not be separated in ownership (including by condominium ownership).*

Comments – The principal dwelling unit and accessory dwelling unit will not be of separate ownership.

10.814.22 – *Either the principal dwelling unit or the accessory dwelling unit shall be occupied by the owner’s principal place of residence. The owner shall provide documentation demonstrating compliance with this provision to the satisfaction of the City.*

Comments - The principal dwelling unit will be occupied by the listed property owner upon completion.

10.814.24 – *Neither the principal dwelling unit nor the accessory dwelling unit shall be used for any business, except that the property owner may have a home occupation use in the unit that he or she occupies as allowed or permitted elsewhere in this Ordinance.*

Comments - Neither the principal dwelling unit nor the accessory dwelling unit will be used for any business except home occupation as defined within the zoning ordinance.

10.814.25 – *Where municipal sewer service is not provided, the septic system shall meet NH Water Supply and Pollution Control Division requirements for the combined system demand for total occupancy of the premises.*

Comments - The property has access to municipal water and sewer and will be connected to such infrastructure.

10.814.26 – *1 off-street parking space shall be provided for an ADU in addition to the spaces that are required for the principal single-family dwelling.*

Comments - The accessory dwelling unit will be provided with its own parking space within a garage – refer to sheet A3.

10.814.31 – *An interior door shall be provided between the principal dwelling unit and the AADU.*

Comments - There will be an interior door connecting the principal dwelling unit and the accessory dwelling unit – refer to sheet A3.

10.814.32 – *The AADU shall not be larger than 750 sq. ft.in gross living area (GLA). For the purpose of this provision, the gross living area of the AADU shall not include storage space, shared entries, or other spaces not exclusive to the AADU.*

Comments - There accessory dwelling unit is 749 square feet (gross living area).

10.814.33 – *The AADU shall be subordinate to the principal dwelling unit in scale, height and appearance, as follows:*

10.814.331 – *If there are two or more doors in the front of the principal dwelling unit, one door shall be designed as the principal entrance and the other doors shall be designed to appear to be secondary.*

Comments - The accessory dwelling unit is entirely within the footprint of the proposed single-family home and is subordinate in nature – refer to architectural package.

10.814.50 – Where the creation of an accessory dwelling unit involves the construction of a new building or an addition to or expansion of an existing building, the exterior design shall be architecturally consistent with or similar in appearance to the principal building using the following design standards:

10.814.51 - The new building, addition or expansion shall be architecturally consistent with or similar in appearance to the existing principal building with respect to the following elements: • Massing, including the shape and form of the building footprint, roof or any projecting elements; • Architectural style, design, and overall character; • Roof forms, slopes, and projections; • Siding material, texture, and profile; • Window spacing, shapes, proportions, style and general detailing; • Door style, material and general detailing; • Trim details, including window and door casings, cornices, soffits, eaves, dormers, shutters, railings and other similar design elements; • Exposed foundation materials and profiles.

10.814.52 - If provided, the following elements shall be architecturally consistent with or similar in appearance to the corresponding elements on the principal building in terms of proportions, materials, style and details: • Projections such as dormers, porticos, bays, porches and door canopies; • Chimneys, balconies, railings, gutters, shutters and other similar design elements.

Comments - The accessory dwelling unit is entirely within the footprint of the proposed single-family home and is architecturally consistent – refer to architectural package.

10.814.53 – If provided, all street-facing garage doors shall be limited to 9 feet in width.

Comments - Garage doors are no wider than 9'.

10.814.623 – The site plan provides adequate and appropriate open space and landscaping for both the ADU and the principal dwelling unit and complies with the off-street parking requirements of Section 10.814.26.

Comments - Refer to sheet A3 for proposed landscaping area and off-street parking. The property provides greater than the minimum required open space per zone CD4-L1 as calculated per section 10.515.20 of the zoning ordinance.

10.814.624 – The ADU will maintain a compatible relationship with the character of adjacent and neighborhood properties in terms of location, design, and off-street parking layout, and will not significantly reduce the privacy of adjacent properties.

Comments - The proposed single-family home and accessory dwelling unit meet all zoning district requirements including all character-based zoning design guidelines. Refer to sheet A2 for neighborhood contextual images. The ADU is strategically located along two streets and not along abutting property lines limiting privacy concerns.

The accessory dwelling unit will not result in excessive noise, traffic, or parking congestion. As a modestly sized attached accessory dwelling unit in close the property owners have intentions to properly review prospective tenants and ensure no excessive noise will be made through the lease in which these tenants will sign to live within the

accessory unit. The Portsmouth Zoning Ordinance requires this property to have 3 off street parking spaces and 1 additional space dedicated to the accessory dwelling unit for a total of 4. This project provides 6 total off street parking spaces. The contractor, Stiletto Construction, has reviewed the conceptual design with the Department of Public Works (DPW), who had no complaints upon first review and was received well for making an existing non-conforming driveway an improved condition.

Thank you for your consideration of our application.

Best Regards,
Richard Desjardins, AIA

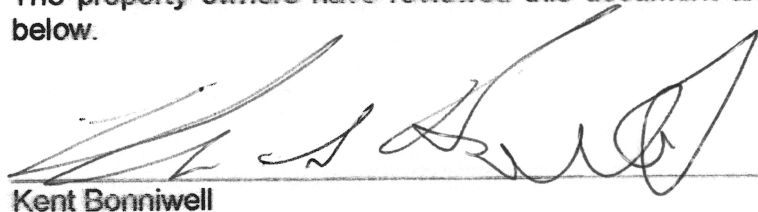
A handwritten signature in black ink, appearing to read 'Richard Desjardins', written in a cursive style.

Architect | Portsmouth Architects
(603) 430-0274

CC:
Kent & Jennifer Bonniwell
Mark Gianniny, AIA | Principal, Portsmouth Architects
Benjamin Chandonnet | Principal, Stiletto Construction

The property owners have reviewed this document and application package as acknowledged on the following page.

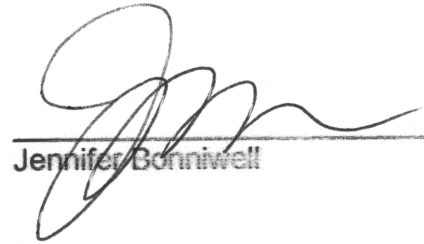
The property owners have reviewed this document and application package as acknowledged below.



Kent Bonniwell

3/25/25

Date



Jennifer Bonniwell

3/25/25

Date

PROPOSED SINGLE FAMILY RESIDENCE WITH ATTACHED ACCESSORY DWELLING UNIT

PLANNING BOARD - APRIL 2025
PORTSMOUTH, NEW HAMPSHIRE

PROPOSED WORK:

- THE COMPLETE DEMOLITION OF THE EXISTING SINGLE FAMILY HOME AND OUTBUILDINGS, DEMO PERMIT FILED SEPARATELY UNDER DEMO 24-27
- PROPOSED SINGLE FAMILY HOME IS REQUESTING A CONDITIONAL USE PERMIT FOR AN ATTACHED ACCESSORY DWELLING UNIT (AADU):
 - SINGLE FAMILY RESIDENCE (NET): 2,831 SF
 - AADU (NET): 749 SF
 - TOTAL BUILDING (GROSS): 6,215 SF

SHEET LIST	
Sheet Number	Sheet Name

GENERAL INFORMATION

C	COVER
S	EXISTING CONDITION SURVEY

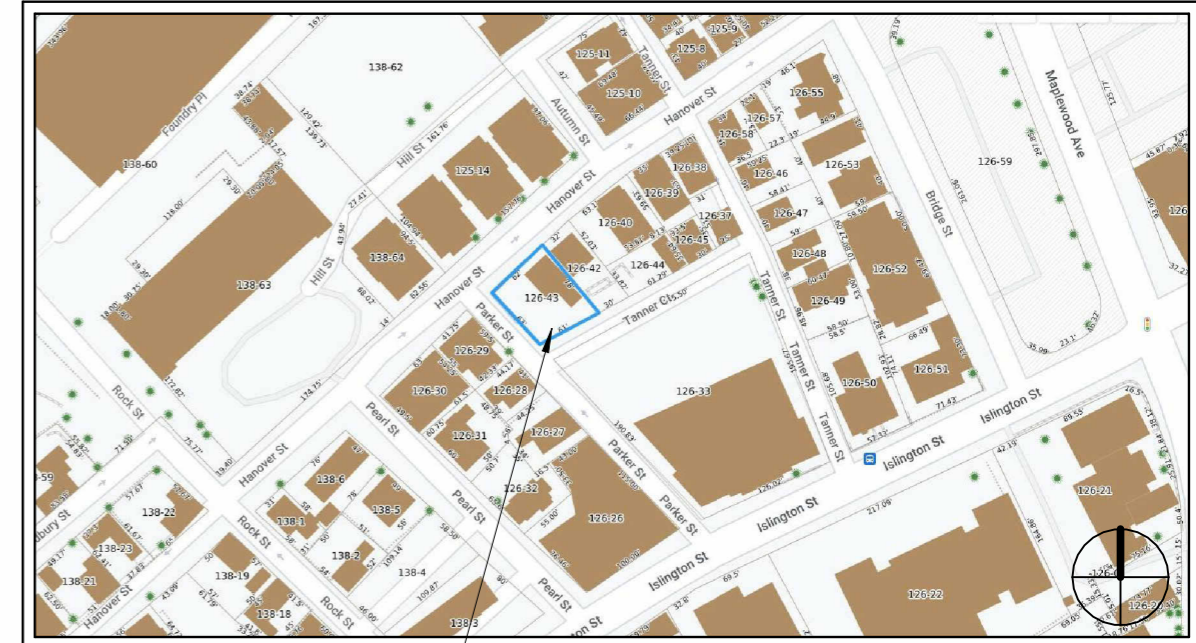
ARCHITECTURAL DRAWINGS

A1	EXISTING CONDITIONS
A2	NEIGHBORHOOD CONTEXT
A3	FIRST FLOOR
A4	SECOND & THIRD FLOOR
A5	ELEVATIONS
A6	ELEVATIONS
A7	PERSPECTIVE

NOTE: ADJACENT BUILDINGS PROVIDED VIA CITY OF PORTSMOUTH 3D CITY MODEL, THE ARCHITECT IS NOT RESPONSIBLE FOR DIFFERENCES IN SIZES DEPICTED IN THE CITY MODEL COMPARED TO WHAT EXISTS

332 HANOVER STREET PORTSMOUTH, NH 03801			
CHARACTER DISTRICT ZONING REQUIREMENTS: CD4-L1			
	REQUIRED	EXISTING	PROPOSED
MAX. PRINCIPAL FRONT YARD	15' - 0"	8.8'	10.8'
MAX. SECONDARY FRONT YARD (PARKER ST.)	12' - 0"	32.8'	3.0'
MAX. SECONDARY FRONT YARD (TANNER COURT)	12' - 0"	20.7'	5.5'
SIDE YARD SETBACK	5' - 0" MIN TO 20' - 0" MAX.	1.2'	6.0'
FRONT LOT LINE BUILDOUT	60% MIN. TO 80% MAX.	43.50%	78.29%
MAX BUILDING BLOCK LENGTH	80' - 0"	63.23'	63.23'
MAX. FAÇADE MODULATION	50' - 0"	27' - 0" +/-	25' - 6"
MAX. BUILDING COVERAGE	60%	26.70%	50.35%
MAX. BUILDING FOOTPRINT	2,500 SF	1,158 SF	2,182 SF
MIN. LOT AREA	3,000 SF	4,334 SF	4,334 SF
MIN. LOT AREA PER DWELLING UNIT	3,000 SF	4,334 SF	4,334 SF
ACCESSORY DWELLING UNIT (ADU) SIZE	750 SF	N/A	749 SF
MIN. OPEN SPACE	25%	32.60%	25.65%
MAX. BUILDING HEIGHT	2-3 STORIES	2 STORIES	3 STORIES
MAX. FINISH FLOOR ABOVE GRADE	40' - 0"	25' +/-	29' - 3" +/-
FAÇADE GLAZING	20% MIN. TO 40% MAX.	UNKNOWN	25.16%
ROOF TYPE	FLAT, GABLE 6:12 - 12:12, HIP 3:12 MIN., GAMBREL 6:12 - 30:12, MANSARD 6:12 - 30:12	GABLE / HIP	MANSARD - 30:12
OUTBUILDING FRONT YARD	20'-0" BEHIND PRICIPAL FRONT ELEVATION	59' - 0" +/-	N/A
OUTBUILDING SIDE AND REAR YARD	3' - 0"	0.5'	N/A
FAÇADE TYPES	PORCH	PORCH	PORCH
	STOOP		
	STEP		STEP
	FORECOURT		
	RECESSED-ENTRY		
	DOORYARD		
PARKING	1.3 SPACES PER UNIT	4 SPOTS	6 SPOTS

1. BLUE INDICATES EXISTING NONCONFORMITY



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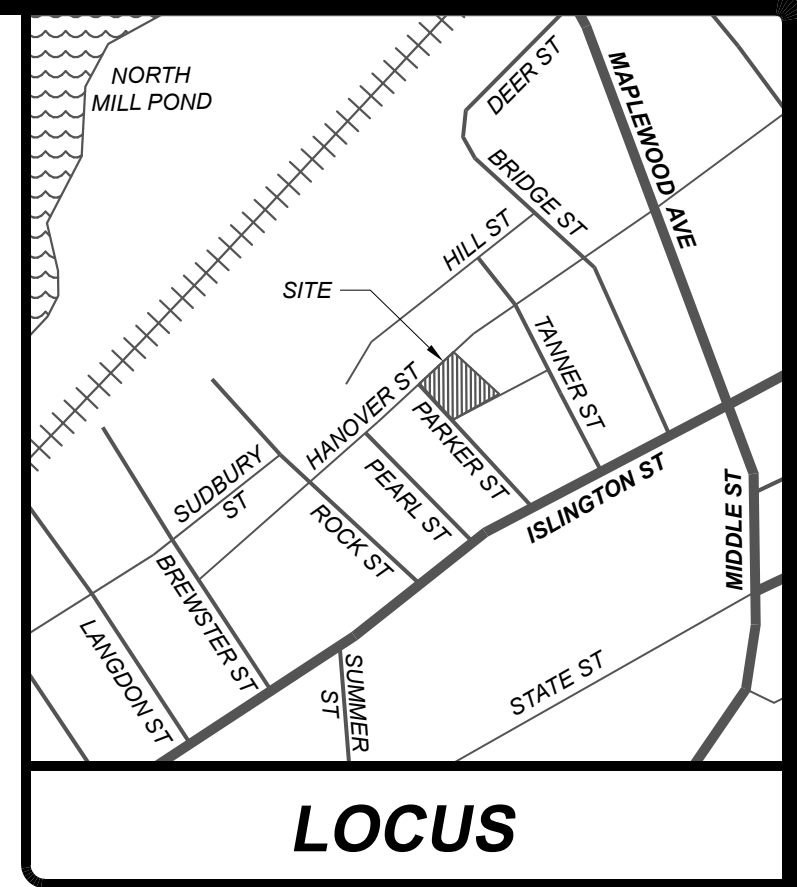
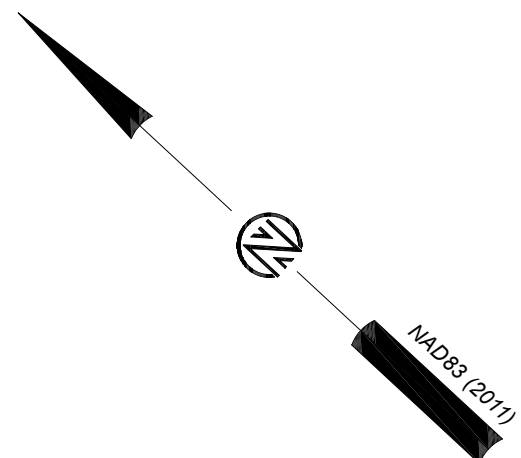
COVER
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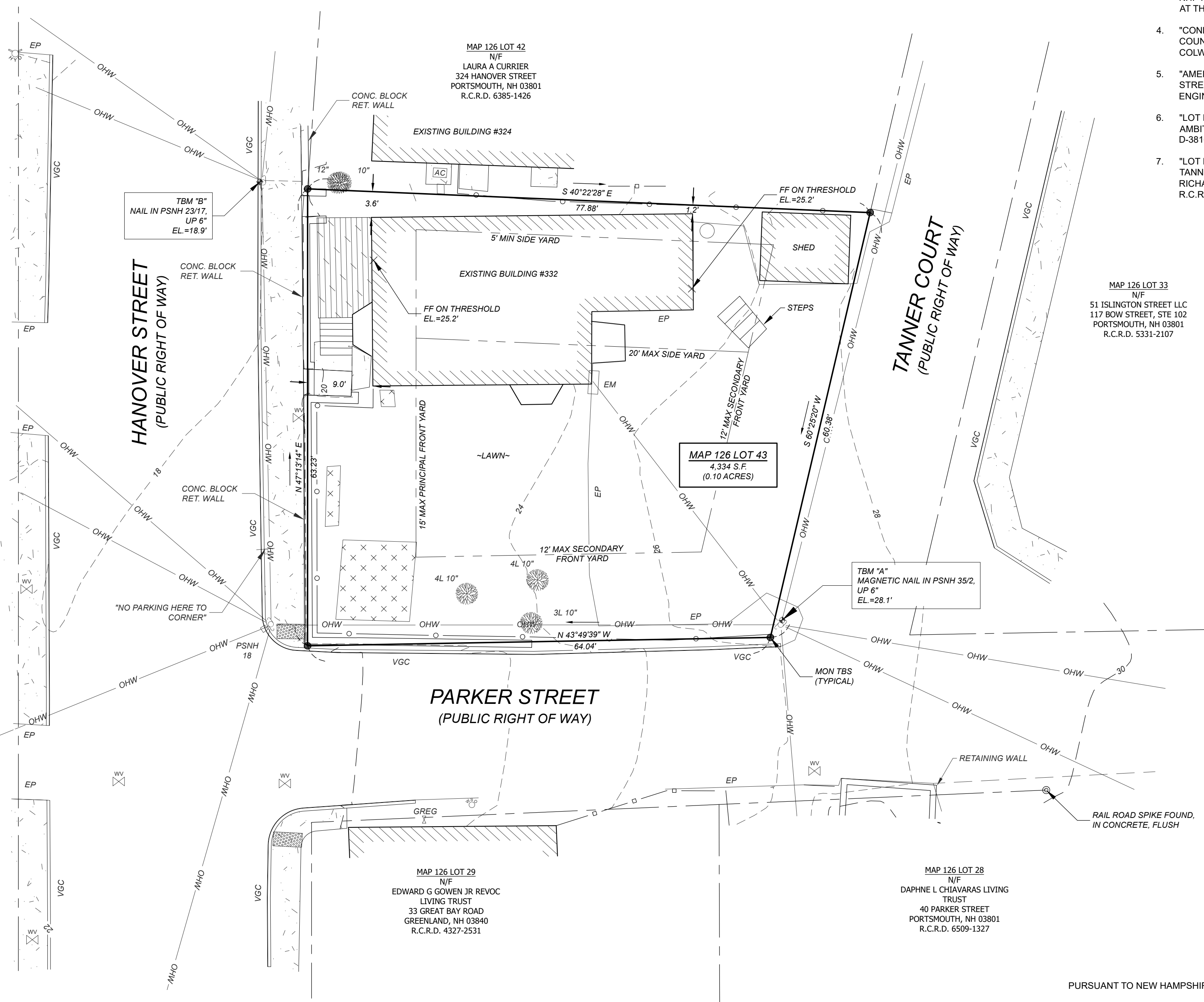


PLAN REFERENCES:

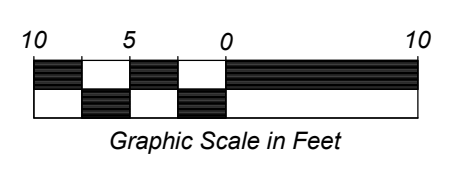
- "PLAN OF SEVEN HOUSE LOTS SITUATE IN PORTSMOUTH, BELONGING TO A. W. + G. W. HAVEN". DATED 1848. RECORDED AT THE R.C.R.D. AS PLAN 00558 REFERENCES BOOK 337 PAGE 59.
- "PLAN OF LOT NO.314 HANOVER STREET PORTSMOUTH, N.H." PREPARED BY JOHN W. DURGIN CIVIL ENGINEERS. DATED NOVEMBER 21, 1956. RECORDED AT THE R.C.R.D AS PLAN 02501.
- "LOT CONSOLIDATION PLAN FOR GERTRUDE K. BORDEN LIVING TRUST PARKER, ISLINGTON, TANNER STREETS & TANNER ALLEY COUNTY OF ROCKINGHAM PORTSMOUTH, NH." PREPARED BY MILLETTE, SPRAGUE & COLWELL, INC. DATED MAY 1, 1998. RECORDED AT THE R.C.R.D. AS PLAN D-28280.
- "CONDOMINIUM SITE PLAN FOR HANOVER PLACE CONDOMINIUM 349 HANOVER STREET COUNTY OF ROCKINGHAM PORTSMOUTH, NH." PREPARED BY MILLETTE, SPRAGUE & COLWELL, INC. DATED SEPTEMBER 28, 2004. RECORDED AT THE R.C.R.D. AS PLAN D-33379.
- "AMENDED CONDOMINIUM SITE PLAN TAX MAP 126 - LOT 33 PHASE I II 51 ISLINGTON STREET CONDOMINIUM FOR 51 ISLINGTON STREET, LLC." PREPARED BY AMBIT ENGINEERING, INC. DATED AUGUST 15, 2013. RECORDED AT THE R.C.R.D. AS PLAN D-37882.
- "LOT LINE RELOCATION PLAN TAX MAP 125, LOT 14 & TAX MAP 138, LOT 62". PREPARED BY AMBIT ENGINEERING, INC. DATED NOVEMBER 2013. RECORDED AT THE R.C.R.D. AS PLAN D-38162.
- "LOT LINE RELOCATION PLAN FOR HAROLD B. & SUZANNE M. WATT AND DIXIE L. PAPPAS TANNER CT / HANOVER ST. COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES. DATED FEBRUARY 5, 1962. RECORDED AT THE R.C.R.D. AS PLAN C-10673.

NOTES:

- SUBJECT PARCEL: TAX MAP 126 LOT 43
332 HANOVER STREET
PORTSMOUTH, NEW HAMPSHIRE
NS PROJECT #1289
- OWNER OF RECORD: KENT & JENNIFER BONNIWELL
108 FOREST STREET
WELLESLEY, MA 02481
R.C.R.D. BOOK 6557, PAGE 1561
- PARCEL AREA: 4,334 S.F. OR 0.1 AC
- THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS OF THE SUBJECT PARCEL.
- DIMENSIONAL REQUIREMENTS: ZONE: OD-L1
MIN LOT AREA (PER DWELLING UNIT): 3,000 S.F.
MAX PRINCIPAL FRONT YARD: 15'
MAX SECONDARY FRONT YARD: 12'
FRONT LOT BUILDOUT MIN/MAX: 60%/80%
MIN/MAX SIDE SETBACK: 5/20'
MIN REAR SETBACK: 5' OR 10' FROM ALLEY
MAX BUILDING HEIGHT: 40'
MIN OPEN SPACE: 25%
MAX BUILDING COVERAGE: 60%
- ZONING INFORMATION SHOWN HEREON IS PER THE CITY OF PORTSMOUTH ZONING ORDINANCE DATED JANUARY 1, 2010. LAST REVISED JUNE 17, 2024. ADDITIONAL REGULATIONS APPLY, THE LAND OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CITY STATE, AND FEDERAL REGULATIONS.
- FLOOD HAZARD ZONE: "X" AREA OF MINIMAL FLOOD RISK, PER FIRM MAP #33015C0259F, DATED 01/29/2021.
- 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.
- FIELD SURVEY COMPLETED BY NORTHAM SURVEY IN JULY, 2024 USING A TRIMBLE S5 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR, A TRIMBLE R121 GPS RECEIVER AND A SOKKIA B31 AUTO LEVEL.
- HORIZONTAL DATUM IS NAD83(2011) NEW HAMPSHIRE STATE PLANE COORDINATES PER STATIC GPS OBSERVATIONS.
- THE VERTICAL DATUM IS NAVD88 PER STATIC GPS OBSERVATIONS. THE CONTOUR INTERVAL IS 2 FEET.
- EASEMENTS, RIGHTS, AND RESTRICTIONS SHOWN OR IDENTIFIED ARE THOSE WHICH WERE FOUND DURING RESEARCH PERFORMED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. OTHER RIGHTS, EASEMENTS, OR RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF SUBJECT PARCEL(S) WOULD DETERMINE.
- THE LOCATION OF UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. NORTHAM SURVEY LLC MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UNDERGROUND UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE.



- LEGEND:
- MAP 137 LOT 11 ASSESSORS MAP AND LOT NUMBER
- BK. PG. BOOK / PAGE
- CONC. CONCRETE
- MON TBS MONUMENT TO BE SET
- BH BUILDING HEIGHT
- RET RETAINING
- EM ELECTRIC METER
- EP EDGE OF PAVEMENT
- FF FINISHED FLOOR
- GREG GAS REGULATOR
- NIF NOW OR FORMERLY ROCKINGHAM COUNTY REGISTRY OF DEEDS
- RCRD ROCKINGHAM COUNTY REGISTRY OF DEEDS
- S.F. SQUARE FEET
- TBM TEMPORARY BENCHMARK
- VGC VERTICAL GRANITE CURB
- DRILL HOLE FOUND/SET
- IRON PIPE/ROD FOUND
- SPIKE/NAIL FOUND
- AC AIR CONDITIONER
- GUY WIRE
- UTILITY POLE
- UTILITY POLE W/LIGHT
- DECIDUOUS TREE
- GAS VALVE
- HYDRANT
- WATER SHUT OFF
- WATER GATE VALVE
- IRRIGATION CONTROL VALVE
- SIGN
- OHW OVERHEAD WIRE
- CHAINLINK FENCE
- STOCKADE FENCE
- BOUNDARY LINE
- SETBACK LINE
- EXISTING CONTOUR
- CONCRETE
- WOODEN DECK
- LANDSCAPING
- NON SLIP MAT

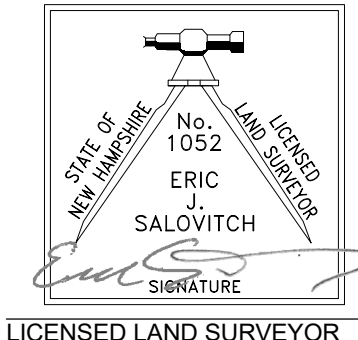


PURSUANT TO NEW HAMPSHIRE RSA 676:18 III

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. THIS SURVEY CONFORMS TO THE ACCURACY REQUIREMENTS OF AN URBAN SURVEY OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS.

I FURTHER CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE. RANDOM TRAVERSE SURVEY BY TOTAL STATION WITH A PRECISION GREATER THAN 1:15,000.



AUGUST 28, 2024
DATE

EXISTING CONDITIONS PLAN
FOR
KENT & JENNIFER BONNIWELL
OF
TAX MAP 126 LOT 43
332 HANOVER STREET
PORTSMOUTH, NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

SCALE: 1"=10' (22x34) 1"=20' (11x17)

JOB NO.	1289	DATE:	2024-07-26
DRAWN BY:	PJN ZMH	DRAWING:	1289 SURVEY.DWG
CHECKED BY:	EJS	SHEET:	1 OF 1

NO.	DATE	DESCRIPTION	BY





EXISTING PERSPECTIVE FROM HANOVER STREET LOOKING SOUTH



EXISTING PERSPECTIVE FROM HANOVER/PARKER STREET LOOKING EAST



EXISTING PERSPECTIVE FROM HANOVER STREET LOOKING SOUTHEAST



EXISTING PERSPECTIVE FROM TANNER COURT LOOKING NORTH



EXISTING PERSPECTIVE FROM PARKER STREET/TANNER COURT
LOOKING NORTH



EXISTING PERSPECTIVE FROM TANNER COURT LOOKING NORTHWEST

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HANOVER STREET RESIDENCE AND ADU

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EXISTING CONDITIONS

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30 PARKER STREET



349 HANOVER STREET



40 BRIDGE STREET



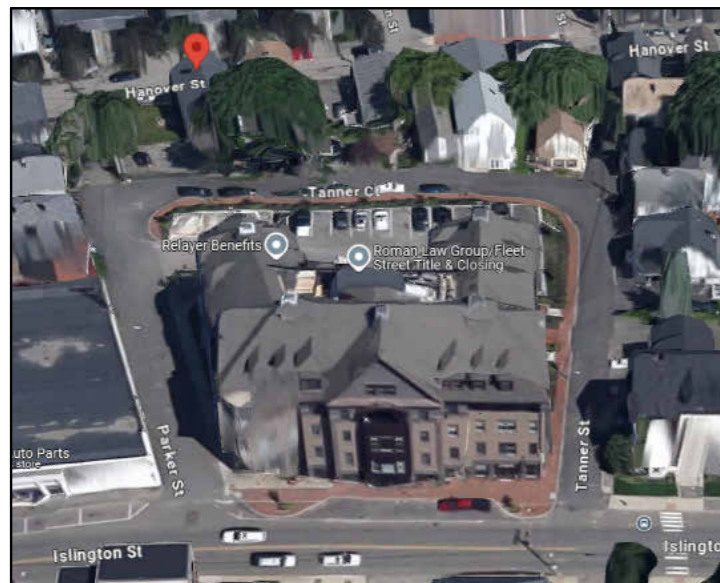
337-339 HANOVER STREET



337-339 HANOVER STREET



317 HANOVER STREET



51 ISLINGTON STREET



180 HANOVER STREET



261 ISLINGTON STREET

NOTE: ALL CONTEXTUAL IMAGES ARE OF STRUCTURES WITHIN A 5 MINUTE WALK OF THE PROPERTY

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HANOVER STREET RESIDENCE AND ADU

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PORTSMOUTH, NEW HAMPSHIRE 03801

NEIGHBORHOOD CONTEXT

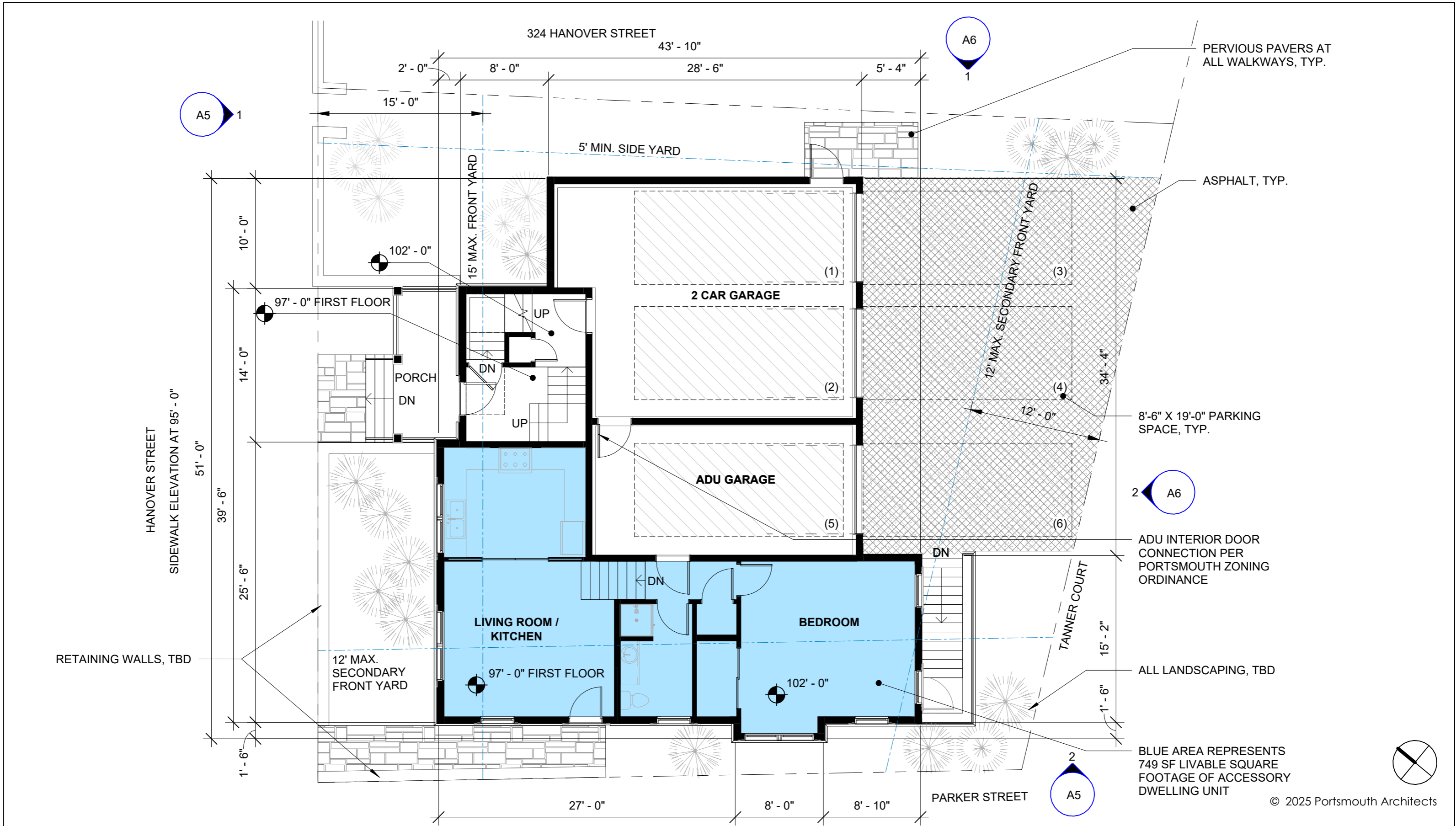
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 PORTSMOUTH, NEW HAMPSHIRE 03801

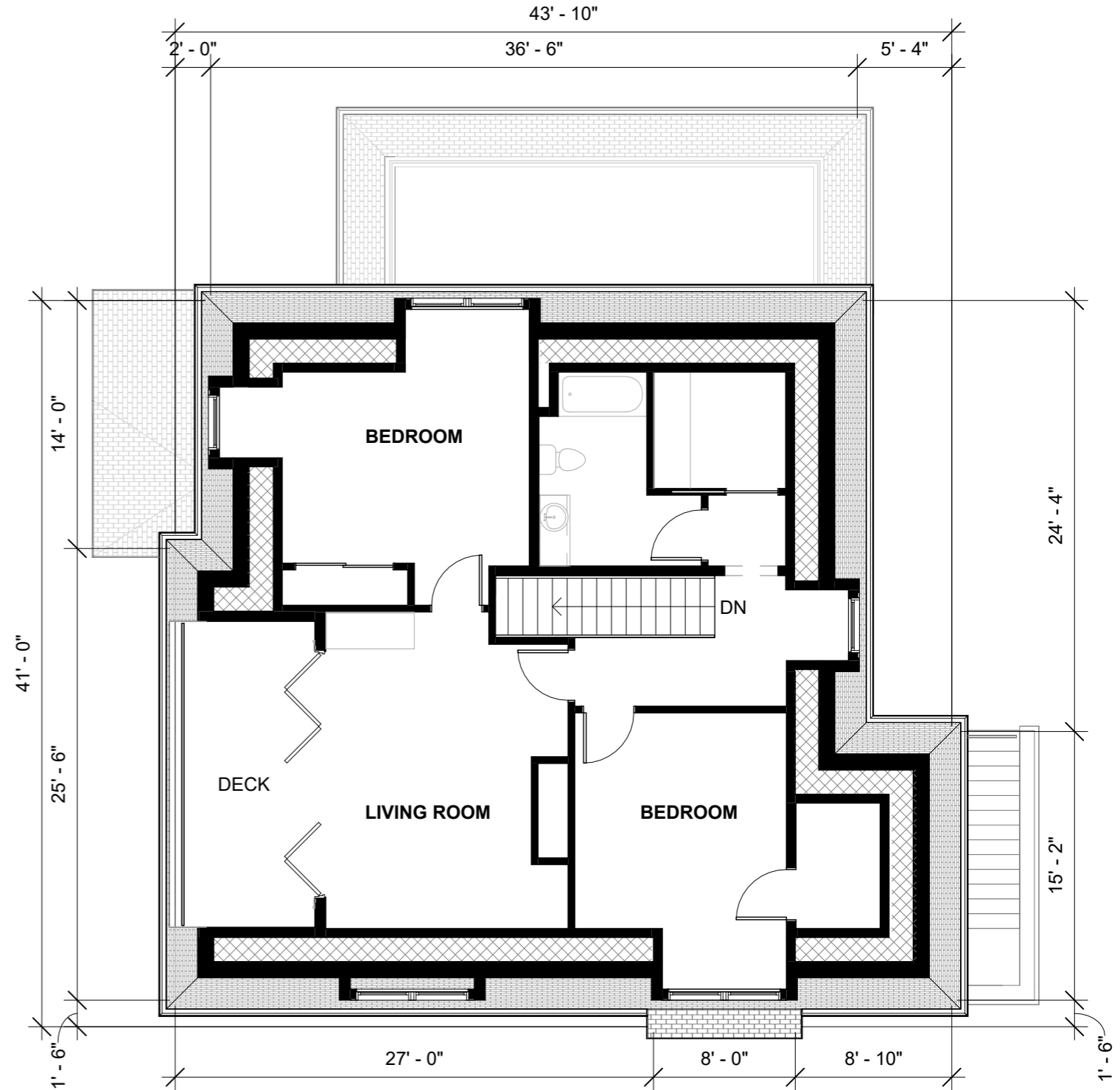
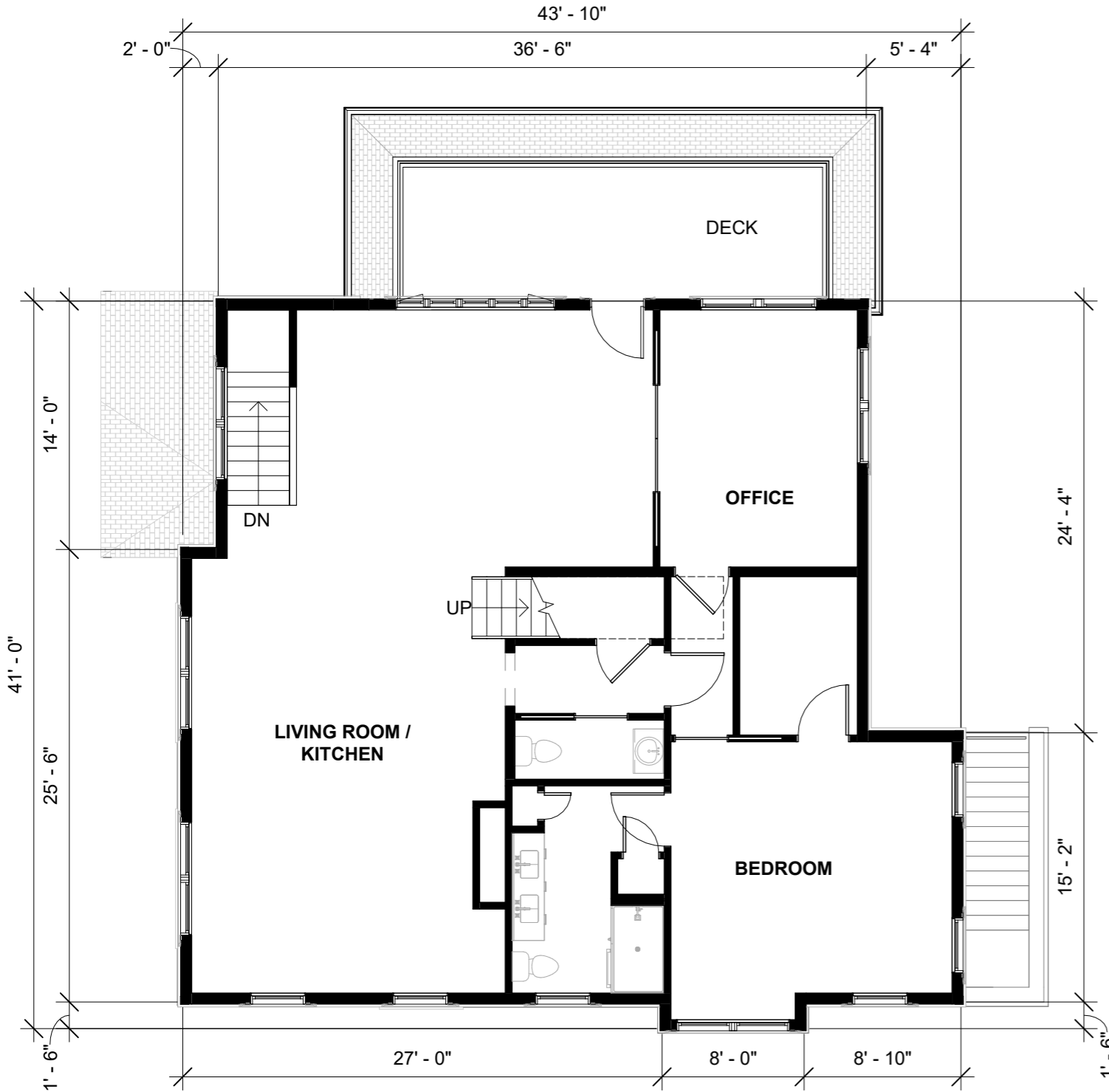
FIRST FLOOR
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A3

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SECOND & THIRD FLOOR
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A4

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 Scale: 1/8" = 1'-0"



MAX BLDG.
HEIGHT
138' - 7 3/4"
SURVEY: 63.6'

THIRD FLOOR
122' - 0"
SURVEY: 47.0'

SECOND FLOOR
111' - 0"
SURVEY: 36.0'

REAR ENTRY
102' - 0"
SURVEY: 27.0'

AVERAGE GRADE
98' - 7 3/4"
SURVEY: 23.6'

FIRST FLOOR
97' - 0"
SURVEY: 22.0'

SIDEWALK GRADE
94' - 0"
SURVEY: 19.0'

29' - 3" AVG. GRADE TO MID SLOPE

3' - 0" SIDEWALK
TO FIRST FLOOR

1 NORTH ELEVATION (HANOVER STREET)
1/8" = 1'-0"

2 WEST ELEVATION (PARKER STREET)
1/8" = 1'-0"

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HANOVER STREET RESIDENCE AND ADU
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ELEVATIONS
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A5

03/26/2025
PA: RD / MG
Project Number: 24071
Scale: 1/8" = 1'-0"

MAX BLDG.
HEIGHT
138' - 7 3/4"
SURVEY: 63.6'



THIRD FLOOR
122' - 0"
SURVEY: 47.0'

SECOND FLOOR
111' - 0"
SURVEY: 36.0'

REAR ENTRY
102' - 0"
SURVEY: 27.0'

FIRST FLOOR
97' - 0"
SURVEY: 22.0'

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

2 SOUTH ELEVATION (TANNER COURT)
1/8" = 1'-0"

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ELEVATIONS
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A6

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Scale: 1/8" = 1'-0"



PERSPECTIVE ROM HANOVER STREET LOOKING SOUTH

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PERSPECTIVE
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