PLANNING BOARD
PORTSMOUTH, NEW HAMPSHIRE

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

7:00 PM **October 20, 2022**

AGENDA

REGULAR MEETING 7:00pm

I. BOARD DISCUSSION OF REGULATORY AMENDMENTS AND OTHER MATTERS

II. APPROVAL OF MINUTES

A. Approval of the September 15, 2022 meeting minutes.

III. DETERMINATIONS OF COMPLETENESS

SUBDIVISION REVIEW

A. The request of **Randi and Jeff Collins (Owners and Applicants)**, for property located at **77 Meredith Way** requesting Preliminary and Final Subdivision Approval to subdivide one (1) existing lot into two (2) lots.
B. The request of **Richard Fusegni (Owner)**, for property located at **201 Kearsarge Way** requesting Preliminary and Final Subdivision approval to subdivide one (1) existing lot into three (3) lots.

IV. 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. REQUEST FOR POSTPONEMENT The request of **Blus O'Leary Family Living Trust (Owner)**, for property located at **225 Wibird Street** requesting Conditional Use Permit Approval as permitted under Section 10814.40 of the Zoning Ordinance to construct an attached Accessory Dwelling Unit. Said property is located on

Assessor Map 133 Lot 54 and located within the General Residence A (GRA) district. (LU-22-174) **REQUEST FOR POSTPONEMENT**

V. 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 request of **Coventry Realty, LLC (Owner)**, for property located at **111 State Street** requesting a conditional use permit approval in accordance with section 10.1112.14 of the Zoning Ordinance to allow zero (0) parking spaces where 35 are required. Said property is located on Assessor Map 107 Lot 50 and lies within the Character District 4 (CD4) and the Historic District. (LU-22-125)

B. The request of **Neal L. Ouellett Revocable Trust (Owner),** for property located at **124 Kensington Road** requesting Wetland Conditional Use Permit approval in accordance with section 10.1017 of the Zoning Ordinance for the demolition of a detached garage and the construction of a new attached garage with 59 square foot increase of impervious area totaling 4,320 square feet of wetland buffer impacts on the property. Said property is shown on Assessor Map 152 Lot 20 and is lies within the Single Residence B (SRB) District. (LU-22-138)

C. The request of **Peter Ward (Owner),** for property located at **15 Central Avenue** requesting Conditional Use Permit Approval as permitted under Section 10814.40 of the Zoning Ordinance to construct an attached Accessory Dwelling Unit. Said property is shown on assessor Map 209 Lot 4 and lies within the Single Residence B (SRB) and the Highway Noise Overlay Districts. (LU-22-123)

D. The request of **Randi and Jeff Collins (Owners and Applicants)**, for property located at **77 Meredith Way** requesting Preliminary and Final Subdivision Approval to subdivide one (1) existing lot with 22,463 square feet of lot area and 31.7 feet of street frontage into two (2) lots with associated 73.3 foot road extension as follows: Proposed Lot 1 with 11,198 square feet of lot area with 73.79 feet of street frontage, and Proposed Lot 2 with 11,265 square feet of lot area and 31.61 feet of street frontage. Said property is located on Assessor Map 162 Lots 16 and lies within the General Residence A (GRA) District. (LU-22-61)

E. The request of **Richard Fusegni (Owner)**, for property located at **201 Kearsarge Way** requesting Preliminary and Final Subdivision approval to subdivide a lot with an area of 52,253 s.f. and 205' of continuous street frontage into three (3) lots as follows: proposed Lot 1 with an area of 17,125 s.f. and 100' of continuous street frontage; proposed Lot 2 with an area of 17,406 s.f. and 100.2' of continuous street frontage; and Proposed Lot 3 with an area of 17,723 s.f. and 82.84' of continuous street frontage. Said property is shown on Assessor Map 218 Lot 5 and lies within the Single Residence B (SRB) District. (LU-22-150)

VI. CITY COUNCIL REFERRALS – PUBLIC HEARING

A. The request of **Dale Whitaker (Owner)** for the restoration of involuntary merged lots at **880 Woodbury Avenue** to their pre-merger status pursuant to NH RSA 674:39aa. Said property is shown on Assessor Map 236 Lot 52 and lies within the Single Residence B District. (RIML 22-1)

VII. OTHER BUSINESS

A. Chairman's Updates and Discussion Items

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_IoXZyPFFRuK6oY8HHJIGUA

REGULAR MEETING
PLANNING BOARD
PORTSMOUTH, NEW HAMPSHIRE

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

7:00 PM **September 15, 2022**

MINUTES

MEMBERS PRESENT:	Rick Chellman, Chairman; Karen Conard, City Manager; Joseph Almeida, Facilities Manager; Assistant City Engineer; Beth Moreau, City Councilor; Greg Mahanna; Peter Harris; James Hewitt; Andrew Samonas, Alternate
ALSO PRESENT:	Susan Morrell, City Attorney; Beverly M. Zendt, Planning Director; Stefanie Casella, Planner 1
MEMBERS ABSENT:	Jayne Begala, Corey Clark, Vice Chair; Franco DiRienzo, Alternate

REGULAR MEETING 7:00pm
Meeting started at 7:07pm

I. SUMMARY OF LEGISLATIVE CHANGES ENACTED THROUGH HB1661 AND THE IMPACT TO LAND USE BOARDS

Chairman Chellman commenced discussion on this topic at timestamp 7:27 in the recording. Retired City Attorney Robert Sullivan presented this topic, first with a correction in his introduction that he is no longer the City Attorney. He presented on a new state law that came into effect for the first time at this Planning Board meeting. This statute, HB 1661, regulates among other things, technical education in school districts, the design, engineering and sitework for a new legislative parking garage in Concord, a special fund for establishes a special fund for the administration of opioid treatment programs, establishes a pilot program for individuals with developmental disabilities, revises the Department's authority to recover unauthorized payments by the state, repeal certain reporting requirements establishes investigatory procedures and licensing criteria for recreational camps allows for alternative service and process in juvenile matters creates a separate category of foster care licenses for kinship Care Homes and a total number of 27 other unrelated items. The section of this new law relating to the Planning Board can be found in Section 272:73 'Planning and Zoning: Administrative and Enforcement Procedures Issuance of Decisions'. This section on re-adopts significant portions of the laws which already regulate the conduct of Planning Boards in making decisions but adds that zoning board decisions and/or land use regulatory board decisions 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 period set forth in RSA 6775 or RSA 677:15 unless the court determines that other factors warrant the disapproval. The findings of fact that boards will have to present must support or oppose the criteria listed in the ordinance that you are supposed to apply in connection with any particular application.

At timestamp 32:15 in the recording, Chairman Chellman announced that Planning Board Member Samonas, had arrived and would be stepping into member Jayne Begala's seat to vote on upcoming matters.

Chairman Chellman opened the floor to questions for Attorney Sullivan at timestamp 32:25.

Councilor Moreau (timestamp 32:28) asked a clarifying question on whether there would need to be changes to needing a majority vote/two thirds vote. It was confirmed that a majority is still necessary. Councilor Moreau asked if they need to have findings of fact on determinations of completeness to which Attorney Sullivan replied no, just findings of fact that support elements of the criteria for decision-making. Councilor Moreau asked if they are allowed under statute to limit the length of meetings to which Attorney Sullivan replied that they are allowed to, but it may increase the number of meetings needed.

Planning Board Member James Hewitt (timestamp 34:49) asked if a Planning Board member could offer their own criteria at the meeting if it is not listed on the handout ahead of time. Planning Director Zendt responded that there could not be amendments to the criteria because they are established by regulations in the code. A member could, however, amend the column that says, 'Supporting Information'. Introducing new criteria would not be consistent with the regulations. Another criteria could be offered but it would have to be directly from the ordinance. Chairman Chellman (36:05) stated that some of the criteria are very broad and can adhere to many, and sometimes all, the City regulations in which case they may not be listed by Planning staff. The discussion of this item ended at timestamp 37:25.

II. APPROVAL OF MINUTES

A. Approval of the August 18, 2022 meeting minutes.

Discussion of the minutes from the previous meeting commenced at timestamp 37:33 in the recording. At timestamp 37:39 Councilor Moreau made a motion to accept the minutes as presented. Joseph Almeida seconded the motion. Motion passed unanimously.

III. DETERMINATIONS OF COMPLETENESS

SUBDIVISION REVIEW

A. The request of **Hemlock Way Realty Investments, LLC (Owner),** for property located at **0 Patricia Drive** requesting Preliminary and Final Subdivision approval to subdivide one (1) existing lot into two (2) lots.

Discussion for this proposal commenced at timestamp 37:48 in the recording. The Board voted to determine that the application is complete according to the Subdivision Regulations, (contingent on the granting of any required waivers) and to accept the application for consideration. At 38:03, Councilor Moreau made a motion to approve the request for Preliminary and Final Subdivision approval. At 38:10, Planning Board Member Samonas seconded the motion. The motion passed unanimously.

SITE PLAN REVIEW

A. The request of **Bromley Portsmouth, LLC (Owner),** for property located at **1465 Woodbury Avenue** requesting Amended Site plan Review Approval for the demolition of the existing structure, parking, and utility infrastructure.

Discussion for this proposal commenced at timestamp 38:15 in the recording. The Board voted to determine the application is complete according to the Site Plan Review Regulations, (contingent on the granting of any required waivers under Section IV of the agenda) and to accept the application for consideration. At 38:31 Planning Board Member Mahanna made a motion to accept this proposal which was seconded by Councilor Moreau. The motion passed unanimously.

IV. 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. APPLICATION WITHDRAWN The request of **Coventry Realty, LLC (Owner)**, for property located at **111 State Street** requesting a Conditional Use Permit approval in accordance with section 10.1112.14 of the Zoning Ordinance to allow zero (0) parking spaces where 1.3 are required. Said property is located on Assessor Map 107 Lot 50 and lies within the Character District 4 (CD4) and the Historic District. (LU-22-125) **APPLICATION WITHDRAWN**

At timestamp 38:39 Chairman Chellman announced that this application was withdrawn. No action taken by the board.

DISCUSSION AND DECISION OF THE BOARD

B. The request of **Hemlock Way Realty Investments, LLC (Owner)**, for property located at **0 Patricia Drive** requesting preliminary and final subdivision approval to subdivide a lot with an area of 137,549 s.f. and 414 ft. of continuous street frontage on a private road into two (2) lots as follows: Proposed lot 1 with an area of 92,908 s.f. and 150 ft. of continuous street frontage on a private road; and Proposed Lot 2 with an area of 44,641

s.f. and 264 ft. of continuous street frontage on a private road. Said property is shown on Assessor Map 283 Lot 11 and lies within the Single Residence A (SRA) District. (LU-22-172)

Chairman Chellman introduced this proposal at 38:35 in the recording.

SPEAKING TO THE APPLICATION

Mike Garrepy of Hemlock Way Realty Investments and of Garrepy Planning Consultants spoke to the application. Planning Director Zendt added at 42:47 that the Technical Advisory Committee had not made any new comments, the applicant had submitted a letter addressing how they had met all of the previous Planning Board stipulations and the reason that this was held up was due to the need for adequate notice to abutters of this project for a release deed.

Planning Board Member Mahanna asked a clarifying question (44:06) to the Planning Director asking if the Planning Board held it up despite previously approving it to which the Planning Director clarified that the nature of a paper street held this up along with a prior stipulation requiring outreach to the abutters to inquire if they would waive their rights of ownership.

PUBLIC HEARING

At timestamp 46:13 Chairman Chellman opened the public hearing for this application. No members of the public spoke. Councilor Chellman closed the public hearing (46:32).

DISCUSSION AND DECISION OF THE BOARD

Chairman Chellman proceeded to read out (46:42) and start a discussion on the sample draft of the findings of fact for this application. These facts include:

1. Subject to rules and regulations, the application was reviewed and approved by TAC.
    a. Board members were in consensus with this finding.
2. Recording of final plat, reviewed by TAC and found to be in compliance.
    a. Board members were in consensus with this finding.
3. General requirements were met within the Subdivision Regulations under Section 6, this was reviewed by TAC and found to comply.
    a. Board members were in consensus with this finding.
4. Design standards were met within the Subdivision Regulations under Section 7, this was reviewed by TAC and found to comply.
    a. Board members were in consensus with this finding.

Chairman Chellman moved (49:10) to adopt the presented findings of fact as part of the application. The motion was seconded by Planning Board Member Mahanna.

Councilor Moreau moved (49:24) to find that the subdivision application meets the standards set forth and the subdivision regulations, and the supplemental information will be adopted as findings of fact as presented. This motion was seconded by Planning Board Member Mahanna. This motion passed unanimously.

Councilor Moreau made a motion (50:12) to grant the waiver to the residential street minimum standards to allow to the residential street minimum standards to allow 18 feet of pavement width where 32 feet is required. City Manager Conard seconded the motion (50:26). This motion passed unanimously.

Councilor Moreau made a motion (50:36) to approve the subdivision as presented with the preliminary and final subdivision with following five stipulations:

1) A release deed retaining public access and drainage rights to the City, be prepared for review and approval by the City Attorney.

2) The final plat and all easement plans and deeds, including the aforementioned private easement shall be recorded concurrently at the Registry of Deeds by the City or as deemed appropriate by the Planning Department.

3) GIS data shall be provided to the Department of Public Works in the form as required by the City.

4) Associated recording fees shall be paid to the City prior to recordation. Any changes to the plan subsequent to approval must be identified in a letter and submitted to the city with the recordable plans.

5) Any site development (new or redevelopment) resulting in 15,000 square feet or greater ground disturbance will require the submittal of a Land Use Development Tracking Form through the Pollutant Tracking and Accounting Program (PTAP) online portal.

Planning Board Member Mahanna seconded the motion (50:49). This motion passed unanimously.

C. The request of **Blus O'Leary Family Living Trust (Owner)**, for property located at **225 Wibird Street** requesting Conditional Use Permit Approval as permitted under Section 10814.40 of the Zoning Ordinance to construct an attached Accessory Dwelling Unit. Said property is located on Assessor Map 133 Lot 54 and located within the General Residence A (GRA) district. (LU-22-174)

Chairman Chellman introduced this item in the recording at 51:13.

SPEAKING TO THE APPLICATION

Starting at 51:40 in the recording, Ms. Arilda Dench came forward to speak to the application on behalf of the Blue O'Leary Family Trust. Mark O'Leary, the owner, was in attendance in the audience. Ms. Dench finished her presentation at the timestamp 1:08:38.

Councilor Moreau (1:08:50) asked the applicant to clarify which residence the lift would be going into, either the main residence or the ADU. The applicant responded that it will be used to get residents from the ADU into the main residence but could be used for handicapped accessibility in the future for the main residence.

Councilor Moreau also brought up (1:09:32) a potential issue of grading from Hawthorne Street down into the property and the potential stormwater issues that are directed towards the slab. Applicant responded that they will be hiring a stormwater engineer to create a stormwater plan for the property.

Planning Board Member Andrew Samonas (1:10:22) asked fellow board members to clarify that if the plan was to be approved, would it be approved as a handicap accessible ADU as part of the stipulation to which Planning Director Zendt responded that it will just be an approval of an ADU, with the handicap accessibility being supplemental information.

Planning Board Member Andrew Samonas (1:11:05) asked the applicant to go into further detail about other ADA compliant aspects of this design. The applicant responded with specific details from the floor plan for the ramp, door height and threshold, the turnaround within the bathroom, the bathroom sink compliance, etc. Planning Board Member Andrew Samonas then (1:13:44) followed up with a question on whether or not the kitchen, dining, and living space are designed to follow ADA guidelines. The applicant responded that they could be with placement of appliances and using correctly sized items.

Chairman Chellman asked (1:14:56) if the applicant felt that they could work with what they needed to do within the 750 square feet constraint, to which the applicant responded that they could despite it being tight. Chairman Chellman asked (1:15:05) to clarify that the space connecting the ADU and the house does not count as gross floor area to which the applicant confirmed.

PUBLIC HEARING

Chairman Chellman opened this proposal up to the public hearing at timestamp 1:15:27.

Mark & Robin Anderson of 25 Hawthorne Street spoke starting at timestamp 1:15:54. As abutters, Mark and Robin had previously raised issues with this proposal due to the previously proposed scale and non-compliance of the structure. Since being originally denied by the Board of Adjustments, Mark and Robin Anderson wanted to express their appreciation for the changes made to the proposal and the reduction of the direct impacts to their property. They are still concerned about the size of the project and how it might change the feel of the neighborhood. They feel that this project does not align with the intent of the ADU rule. They are concerned about the loss of open space in their neighborhood, the increase in density and the potential for a future short-term rentals in the ADU space.

Leslie Brenner of 34 Hawthorne Street spoke starting at timestamp 1:18:08. Ms. Brenner's home faces the property at 225 Wibird Street and she expressed concerns that the proposed ADU structure seemed out of line with traditional ADU structures and was much larger than necessary. She also expressed concern with future owners of the property that might use the ADU as a short-term rental which would be out of character for the neighborhood. There could be a stress on street parking and a loss of green space. There was mention of another abutter letter submitted to the board that mentioned possible impacts from light pollution which Ms. Brenner agreed with. Ms. Brenner requested that the Planning Board deny approval of this application.

Juliet Grant of 243 Wibird Street spoke starting at timestamp 1:23:29. Ms. Grant mentioned that her view may be interrupted in the future with the wall of the ADU and expressed confusion about if the future connection from the ADU to the house would be considered in the 750 square foot constraint for an ADU. Ms. Grant also wanted to know if a stormwater drainage report would need to be done before approval by the Planning Board of this project. Ms. Grant also expressed concerns about the size of the proposed ADU.

Michael McNeely of 205 Wibird Street spoke starting at timestamp 1:26:07. Mr. McNeely was concerned that the neighborhood and close abutters will be losing open space due to the construction of the ADU which may impact property values for the neighbors as well as flooding impacts due to his property being located downhill from 225 Wibird Street. Mr. McNeely also expressed concern for the potential of short-term rentals occurring in the ADU space for future owners.

Chairman Chellman closed the public hearing at timestamp 1:29:35.

DISCUSSION AND DECISION OF THE BOARD

Chairman Chellman brought up his concerns for the drainage (1:29:41).

Councilor Moreau mentioned (1:29:50) how she was confused between the ADU law that is in place and the one that is currently being changed.

Planning Director Zendt addressed (1:30:11) Councilor Moreau's comment by mentioning that there is no standard that addresses a drainage plan especially for single-family dwellings. They have occasionally requested that as a stipulation the drainage should be reviewed by Public Works. She would recommend that a professional engineer certify the stormwater management plan prior to the building permit and submit to Public Works.

Planning Board Member Mahanna asked (1:31:29) the Planning Director how many parking spots must be designated for an attached ADU to which she replied that one spot is required.

Planning Board Member Samonas asked (1:31:58) how the cars would be able to move freely in the proposed parking spaces as they seemed constrained. Chairman Chellman responded saying that both spots would be owned by the owner and that would be an owner management issue.

Planning Board Member Samonas brought up (1:32:39) how the abutters referenced the character of the neighborhood and the contextual reference of the ADU among the architecture of the neighborhood and he agreed with those statements.

Planning Board Member Harris mentioned (1:33:35) how he was struggling with the size of the ADU and how the square footage decides the parking allotment. Chairman Chellman responded (1:34:51) with a reference to Article 8 of the Zoning Ordinance in Section 10.814.70 which allows for a reconfiguration of or additional off-street parking for an ADU but he is wary of that allowance as it could increase the impervious surface. Chairman Chellman echoed what the abutters requested for a drainage plan, and he was not comfortable granting a conditional approval for this proposal.

Planning Board Member Hewitt echoed (1:35:53) what Planning Board Member Harris said about concerns for the number of parking spaces being based on square footage and apply the same number of bedrooms. He also mentioned his concerns for the architectural compatibility of the proposed structure compared to the neighborhood. He would like to see colorized renderings of the proposed structure.

Planning Director Zendt clarified (1:36:56) that Section 10.112.311 in Article 11 of the Zoning Ordinance requires a minimum number of off-street parking spaces which for areas between 500 and 750 square feet would be 1.0 spaces per unit and therefor this would meet the requirement.

Councilor Moreau reiterated (1:37:42) how the original idea set forth by the ADU rules was to have ADUs that looked like single-family homes but small connectors and breezeways can make some look like two homes or a duplex. The Councilor agreed that this proposal met all the requirements but she still is having a hard time approving this without the drainage issue being resolved.

Facilities Manager Joseph Almeida stated (1:39:15) that this proposal does meet all of the requirements, as Councilor Moreau stated. He confirmed that what is typically done with drainage concerns is that a licensed engineer will certify the drainage prior to a building permit. He sympathisizes with the concerns about open space but reiterated that the proposal concerns someone's private property, it is not public space and this proposal meets the requirements of the ordinance.

Chairman Chellman stated (1:41:08) that he would like to see the drainage discussed at a public meeting.

Planning Board Member Hewitt made a motion (1:43:41) to continue this application to the next meeting of the Planning Board on October 20, 2022 with the conditions that a drainage report, prepared by a licensed NH engineer, be submitted along with colored renderings of the proposed ADU. Planning Board Member Harris seconded the motion (1:44:12). The motion passed unanimously.

D. The request of **Bromley Portsmouth, LLC (Owner),** for property located at **1465 Woodbury Avenue** requesting a Wetland Conditional Use Permit under section 10.1017

of the Zoning Ordinance for the demolition of the existing structure, parking, and utility infrastructure to be replaced with lawn and erosion control measures to result in 4,760 square feet of disturbance in the wetland buffer area. Said property is shown on Assessor Map 216 Lot 3 and lies within the Gateway Corridor (G1) District. (LU-22-149)

Chairman Chellman introduced this proposal at timestamp 1:47:42.

City Manager Conard made a motion (1:48:26) to consider the two applications together from Bromley Portsmouth, LLC and then vote on them separately. Councilor Moreau seconded the motion (1:48:28). The motion passed unanimously.

SPEAKING TO THE APPLICATION

Nick Dewhurst from Bohler Engineering presented this application (1:48:39) on behalf of the owner.

Chairman Chellman inquired (1:51:01) about the preservation of the building to be demolished. Mr. Dewhurst responded (1:51:09) that the structural integrity of the structure is compromised and it is not compliant with code, making it beyond the point of restoration for his applicant.

Planning Board Member Mahanna asked a clarifying question (1:51:40) about whether the proposal was to remove an eyesore and replace it with grass. Mr. Dewhurst agreed (1:51:48). Planning Board Member Mahanna followed up with a question (1:51:50) on whether or not they have had :a tenant for the last twenty years. Mr. Dewhurst responded (1:51:54) that he could not speak for the owner and that he did not himself know much on the history of the tenants in the building.

Planning Board Member James Hewitt asked (1:52:31) if this application went before the City's demolition committee. Mr. Dewhurst responded (1:52:47) saying that he believed that the reason the owner could not just pull a demolition permit was due to this application having to go through the Wetland Conditional Use Permit and Site Plan Amendment process due to the proximity to a wetland buffer.

PUBLIC HEARING

Chairman Chellman opened the public hearing at 1:54:41 in the recording. No members of the public spoke. Chairman Chellman closed the public hearing at 1:54:54 in the recording.

DISCUSSION AND DECISION OF THE BOARD

Documentation and preservation of the building's history during the demolition process was inquired about but it was discussed that those steps are already a part of the demolition committee's process.

At timestamp 1:56:27 Chairman Chellman asked the Board if they approved the findings of fact to which it was confirmed there were no additions or objections.

Planning Board Member Mahanna made a motion (1:56:49) to approve the wetland conditional use permit application as it meets the criteria and to adopt the supplemental findings of fact as presented. The motion was seconded by City Manager Conard at 1:57:05. The motion passed unanimously.

City Manager Conard made a motion (1:58:03) to vote to find that the application meets the criteria set forth in 10.1017.50 and to grant the Wetland conditional use permit as presented. This motion was seconded by Planning Board Member Harris (1:58:15).

E. The request of **Bromley Portsmouth, LLC (Owner),** for property located at **1465 Woodbury Avenue** requesting Amended Site plan Review Approval for the demolition of the existing structure, parking, and utility infrastructure to be replaced with lawn and will incorporate erosion control measures. Said property is shown on Assessor Map 216 Lot 3 and lies within the Gateway Corridor (G1) District. (LU-22-149)

SPEAKING TO THE APPLICATION

Nick Dewhurst (see above in Section D).

PUBLIC HEARING

(Reference Section D).

DISCUSSION AND DECISION OF THE BOARD

(Reference Section D for discussion).

Planning Board Member Mahanna made a motion (2:01:53) to approve the site plan application as it meets the criteria set forth in section 2.9 of the Site Plan Review Regulations and to adopt the supplemental information as findings of facts as amended and read into the record. This was seconded by Planning Board Member Almeida (2:02:22). This motion passed unanimously.

City Manager Conard made a motion (2:02:38) to grant amended site plan approval as presented. Planning Board Member Almeida seconded the motion. This motion passed unanimously.

V. OTHER BUSINESS

A. Presentation on the Parking Supply and Demand Analysis Study

The City will be seeking proposals from qualified consulting firms to study the supply and demand for parking in downtown Portsmouth. The study will address, assess, and identify current and alternative approaches to ensure adequate parking supply, inform future public investments, and guide policy choices and zoning updates including strategies that optimize utilization of parking facilities in the parking structure, cultivate

mode shift, and mitigate induced parking demand where possible and make effective use available in future technology.

Presentation began at 2:04:20 by Benjamin Fletcher, Director of Parking.

Planning Board Member Hewitt inquired (2:07:07) when the last parking study was done. Mr. Fletcher responded that it was 2012.

Planning Board Member Hewitt inquired (2:07:44) if the boundaries would be the same as the previous study. Mr. Fletcher responded yes.

Councilor Moreau asked (2:08:01) if this study area could be expanded to the neighborhoods that also surround the downtown. Mr. Fletcer noted that most of the studies are based off of CBG but attention is paid towards the areas that generate revenue where pricing and policies can be deployed to mitigate demand. He sees no reason why the map of the study area couldn't change.

Planning Board Member Harris mentioned his concerns (2:09:16) for residents that have their on-street parking spaces taken by people working downtown that have to park five or six blocks outside the downtown. Mr. Fletcher responded (2:09:55) and mentioned that there is a downtown employee program for parking.

Chairman Chellman asked (2:14:00) if the municipal lot and the parking down by Prescott Park was excluded from the site map. Mr. Fletcher responded that the map was from 2012 and he did not see a reason to alter it but that could be up for discussion. Those two lots were excluded because they were not commercial lots. Chairman Chellman followed up his question to ask (2:15:31) if the Foundry Garage will be included which Mr. Fletcher responded yes.

Chair Chellman asked (2:15:53) what the timeline would be for the RFP being published. Mr. Fletcher responded that they are trying to get it out this month pending approval from various departments.

No action was taken by the board.

B. Chairman's Updates and Discussion Items

Planning Board Member Hewitt inquired (2:19:01) as to whether there were any updates on the West End Yards parking demand study. Planning Director Zendt responded saying that that the original stipulation was not asking for a study but for them to share their data. Planning Board Member Hewitt remembered (2:19:58) that he corrected the minutes at the following meeting in February to include the four stipulations he had previously brought up.

No action was taken by the board.

VI. ADJOURNMENT

The meeting was adjourned at 9:24 pm.

Respectfully submitted,

Kate Homet,
Acting Secretary for the Planning Board

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

Memorandum

To: Planning Board
From: Beverly Mesa-Zendt, Planning Director
Stefanie L. Casella, Planner
Date: October 14, 2022
Re: Recommendations for the October 20, 2022 Planning Board Meeting

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I. BOARD DISCUSSION OF REGULATORY AMENDMENTS AND OTHER MATTERS

II. APPROVAL OF MINUTES

A. Approval of the September 15, 2022 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 September 15, 2022 meeting and vote to approve meeting minutes with edits if needed.

III. DETERMINATION OF COMPLETENESS

SUBDIVISION REVIEW

A. The request of **Randi and Jeff Collins (Owners and Applicants)**, for property located at **77 Meredith Way** requesting Preliminary and Final Subdivision Approval to subdivide one (1) existing lot into two (2) lots.

B. The request of **Richard Fusegni (Owner)**, for property located at **201 Kearsarge Way** requesting Preliminary and Final Subdivision approval to subdivide one (1) existing lot into three (3) lots.

Planning Department Recommendations

1) Vote to determine that the applications are complete according to the Subdivision Regulations, (contingent on the granting of any required waivers) and to accept the applications for consideration.

IV. 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. REQUEST FOR POSTPONEMENT The request of **Blus O'Leary Family Living Trust (Owner)**, for property located at **225 Wibird Street** requesting Conditional Use Permit Approval as permitted under Section 10814.40 of the Zoning Ordinance to construct an attached Accessory Dwelling Unit. Said property is located on Assessor Map 133 Lot 54 and located within the General Residence A (GRA) district. (LU-22-174) **REQUEST FOR POSTPONEMENT**

Planning Department Recommendation

1) Vote to postpone consideration to the November Planning Board meeting.

V. 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 request of **Coventry Realty, LLC (Owner)**, for property located at **111 State Street** requesting a conditional use permit approval in accordance with section 10.1112.14 of the Zoning Ordinance to allow zero (0) parking spaces where 35 are required. Said property is located on Assessor Map 107 Lot 50 and lies within the Character District 4 (CD4) and the Historic District. (LU-22-125)

Project Background

The Lot was recently the subject of a merger, where former Lot 51 (formerly 107 State Street) was merged with Lot 50. The new lot size is 4,530 square feet. Prior to merger, the two lots contained congruent 3- story brick buildings. Staff reviewed the proposed plans and consulted with the City's Chief Building Official and the Deputy Fire Chief who concluded that proposed improvements, specifically, improvements needed to comply with the Americans with Disabilities Act (hereinafter the "ADA"), the International Fire Code, and the International Building Code, which require a new egress stair tower and a new elevator, meet the requirements set forth in Section 10.323 of the Zoning Ordinance and therefore do not require further relief from zoning.

Historically, the Agave Mexican Bistro, located in the first and second floors of the west side of existing building, was used as a restaurant. Mr. Kim's Restaurant was in the first and second floors of the east side of the building. The third floor of the building was utilized for an office and a residential unit. As a result of the merger of the lots, the intent of the Applicant is to renovate the two buildings in order that they act as one complete building. The renovation will result in the removal of a restaurant use within the east side of the upper floors of the building, where the second-floor dining room for Mr. Kim was previously located. That space will be converted to two residential units, with the third floor being renovated to three residential units with the third floor office use also be eliminated. The five proposed residential units are intended to support workers for the restaurant within the building post-renovation. Additionally, the restaurant use on the second floor will be reduced to a smaller space.

Staff has conferred with the City Attorney and finds that the change of use, which is allowed in this zoning district, would trigger a Parking Conditional Use Permit. Although the change will bring the parking into greater conformance, the Zoning Ordinance clearly states that any change must be brought into conformity.

Zoning Ordinance Section 10.331 *A lawful nonconforming use may continue, but may not be extended, enlarged or changed except in conformity with this Ordinance.*

Although the change of use results in an overall reduction to the parking needed for the

site, changes in the scope of the restaurant use on the second floor and the 4 new residential units require that the affected areas be brought into compliance in accordance with the table below.

Parking Calculation	Spaces Required	
Revised spaces needed for proposed floor plans	actual	round up
5 Dwelling Units	4.3	5
Visitor: 1 space per 5 units	1	1
Restaurant, 2nd floor (reduced from existing)	28.3	29
Total		**35**

Project Review Discussion and Recommendations

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

Historic District Commission Review

The HDC approved the building addition for constructing a code complying stair tower and an elevator for handicap accessibility and related circulation space and other changes on July 06, 2022. Staff has reviewed proposed plans and consulted with the City's Chief Building Official and the Deputy Fire Chief. Staff finds that the proposed improvements, specifically, improvements needed to comply with the Americans with Disabilities Act (hereinafter the "ADA"), the International Fire Code, and the International Building Code, which require a new egress stair tower and a new elevator, meet the requirements set forth in Section 10.323 and therefore do not require further relief from zoning. The HDC approved the building addition for constructing a code complying stair tower and an elevator for handicap accessibility and related circulation space and other changes on July 06, 2022.

Technical Advisory Committee Review

The Technical Advisory Committee reviewed the previous proposal at the September 6, 2022 meeting and recommended the Planning Board approve the request as presented.

Planning Department Recommendation

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

(Alt.) Vote to find that the Conditional Use Permit application meets the criteria set forth in Section 10.1112.14 and to adopt the findings of fact as amended and read into the record.

2) Vote to find that the number of off-street parking spaces provided will be adequate and appropriate for the proposed use of the property and to grant the conditional use permit as presented.

V. 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.

B. The request of **Neal L. Ouellett Revocable Trust (Owner),** for property located at **124 Kensington Road** requesting Wetland Conditional Use Permit approval in accordance with section 10.1017 of the Zoning Ordinance for the demolition of a detached garage and the construction of a new attached garage with 59 square foot increase of impervious area totaling 4,320 square feet of wetland buffer impacts on the property. Said property is shown on Assessor Map 152 Lot 20 and is lies within the Single Residence B (SRB) District. (LU-22-138)

Project Background

Applicant is proposing to demolish the existing detached garage and replace the structure with an attached garage. The majority of the property is located both within the wetland and wetland buffer area, with the proposed construction within the 100 foot buffer area.

Project Review Discussion and Recommendations

The application as proposed required review by the Conservation Commission. See below for more details.

Conservation Commission Review

The Conservation Commission reviewed the application at the September 14, 2022 meeting. See below for the Staff analysis of criteria as stated in Section 10.1017.50 of the Zoning Ordinance.

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

Applicant is proposing to construct new garage further from the wetland boundary than the existing structure. Applicant is also proposing to remove existing impervious driveway in and around the 100' buffer and will replace with a pervious material.

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

Applicant is unable to move garage location outside of buffer area as it would be within the front yard setback. They are proposing to move garage further away from wetland and still keep it outside of this setback. They intend to remove part of the existing impervious coverage of the buffer and replace with pervious coverage and native buffer plantings.

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

Applicant is proposing no impact to the wetland and intends to improve the wetland buffer within the property and the stormwater that drains into the wetland on-site. The buffer plantings include multiple shrubs and herbaceous plants to be planted within the buffer between the proposed new structure and the wetland and existing retaining wall. The stormwater improvements include a stone drip edge along the perimeter of the proposed building and the permeable driveway and walkway which will both treat and infiltrate stormwater into the ground. These proposed improvements should help treat runoff as it reaches the buffer and wetland.

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

Currently no natural vegetative state on the site plan is proposed to be altered or disturbed. Part of the buffer will receive additional plantings.

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

This proposal shows an addition of buffer plantings and the applicant is proposing to treat runoff entering into the wetland where there was no treatment previously which should result in reducing the impacts of pollutants into the wetland.

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

The applicant is proposing to restore over 760 s.f. of previously disturbed buffer area with an assortment of buffer plantings

On September 14, 2022 the Conservation Commission voted unanimously to recommend approval to the Planning Board with the following stipulations:

1. There will be signage placed within the buffer or the wetland itself stating that this is an environmentally-sensitive wetland area.
2. There is to be a note placed in the deed that a maintenance plan is required for the permeable hardscaping areas on site as well as the stormwater systems. This note will also be added to the Site Plans prior to Planning Board approval.

The revised plans, as submitted to the Planning Board, stipulation 2 has been satisfied and stipulation one has been carried forward as a recommended stipulation listed below.

Planning Department Recommendation

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

(Alt.) Vote to find that the Conditional Use Permit application meets the criteria set forth

in Section 10.1017.50 and to adopt the findings of fact as amended and read into the record.

2) Vote to grant the Wetland Conditional Use permit with the following condition.

> *Conditions to be satisfied subsequent to final approval of subdivision plan but prior to the issuance of a building permit or the commencement of any site work or construction activity:*
>
> *2.1) Signage will be placed within the buffer or wetland itself stating that it is an environmentally sensitive wetland area. Applicant is to contact Peter Britz in the Planning Department to obtain signage.*

V. 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 **Peter Ward (Owner),** for property located at **15 Central Avenue** requesting Conditional Use Permit Approval as permitted under Section 10814.40 of the Zoning Ordinance to construct an attached Accessory Dwelling Unit. Said property is shown on assessor Map 209 Lot 4 and lies within the Single Residence B (SRB) and the Highway Noise Overlay Districts. (LU-22-123)

Project Background

The applicant is proposing new living space above the existing home and garage. The applicant is proposing to build a one - bedroom 750 SF Attached Accessory Dwelling Unit (AADU) over the garage. The current structure includes a pitched roof attic. Dormers will be added to the attic level, raising the roof height to accommodate the new dwelling unit.

Project Review Discussion and Recommendations

This project has been before the Zoning Board of Adjustment and reviewed by staff. Please see below for more details.

Zoning Board of Adjustment Review

The existing single-family home with the attached garage is non-conforming with respect to the front and side yard setbacks. As a result of how the home and garage are situation on the property – improvements and changes to the structure will require variances. At its regularly scheduled meeting of Wednesday, June 22, 2022, the Zoning Board of Adjustment approved the following variances:

1) Variances from Section 10.521 to allow:
   a) a 6' front yard where 30' is required; and
   b) a 4' side yard where 10' is required.

2) A Variance from Section 10.321 to allow a nonconforming building or structure to be expanded, reconstructed or enlarged without conforming to the requirements of the Ordinance.

Staff Review

Attached accessory dwelling units must comply with standards set forth in the following sections of the Zoning Ordinance:

- 10.814.10
- 10.814.20
- 10.814.30
- 10.814.40

In granting a conditional use permit for an accessory dwelling unit, the Planning Board may modify a specific standard set forth in Sections 10.814.40 (below) including requiring additional or reconfigured off-street parking spaces, provided that the Board finds such modification will be consistent with the required findings in Section 10.814.60.

Required Standards (10.814.40)	**Meets Standard**	**Does Not Meet Standard**	**Comments**
10.814.41 An interior door shall be provided between the principal dwelling unit and the accessory dwelling unit.		√	There is an interior door to the garage from the principal structure. There is no interior door from the AADU to the garage.
10.814.42 The accessory dwelling unit shall not have more than two bedrooms and shall not be larger than 750 sq. ft. gross floor area. For the purpose of this provision, gross floor area shall not include existing storage space, shared entries, or other spaces not exclusive to the accessory dwelling unit	√		The AADU will be limited to 725 SF and will have one bedroom.
10.814.43 Any exterior changes to the single-family dwelling shall maintain the appearance of a single-family dwelling. If there are two or more doors in the front of the dwelling, one door shall be designed as the principal entrance and the other doors shall be designed to appear to be secondary.	√		The cladding and trim of the renovated garage structure (proposed AADU) will match closely the style of the existing single family residence.
10.814.44 No portion of the AADU shall be closer to the front lot line than the existing front wall of the principal dwelling unit.	√		The existing footprints of the single family dwelling and the garage will not change.
10.814.451 An exterior wall of the AADU that faces a street on which the lot has frontage shall comprise no more than 40 percent of the total visible façade area of the dwelling as seen from that street.	√		The overall SF of the visible façade is 1395 SF. The portion of the façade comprised by the AADU = 301SF. That means only 22% of the total visible façade is the AADU portion.
10.814.452 The addition to or expansion of the existing single-family dwelling may include an increase in building height only as an upward expansion of the existing principal building with no increase in building footprint.	√		The building footprint will remain the same.
10.814.453 The building height of any addition or expansion that includes an increase in building footprint shall be less than the building height of the existing principal building.	√		The existing principal building height will ± 4’-0 taller than the garage/AADU roof height
10.814.454 The AADU shall be architecturally consistent with the existing principal dwelling through the use of similar materials, detailing, roof pitch, and other building design elements.	√		The buildings, as indicated in the elevations, are consistent with the existing building elements and details.

Planning Department Recommendation

1) Vote to find that the Conditional Use Permit application meets the criteria set forth in Section 10.814.60 and to adopt the findings of fact as presented.

(Alt.) Vote to find that the Conditional Use Permit application meets the criteria set forth in Section 10.814.60 and to adopt the findings of fact as amended and read into the record.

2) Vote to grant the conditional use permit with a modification to the requirement set forth in section 10.814.41 to not require an interior door between the principal dwelling unit and the accessory dwelling , and to approve the Conditional Use Permit with the following stipulation:

2.1) In accordance with [Sec. 10.814.70] of the Zoning Ordinance, the owner is required to obtain a certificate of use from the Planning Department verifying compliance with all standards of [Sec. 10.814], including the owner-occupancy requirement, and shall renew the certificate of use annually.

V. 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.

D. The request of **Randi and Jeff Collins (Owners and Applicants)**, for property located at **77 Meredith Way** requesting Preliminary and Final Subdivision Approval to subdivide one (1) existing lot with 22,463 square feet of lot area and 31.7 feet of street frontage into two (2) lots with associated 73.3 foot road extension as follows: Proposed Lot 1 with 11,198 square feet of lot area with 73.79 feet of street frontage, and Proposed Lot 2 with 11,265 square feet of lot area and 31.61 feet of street frontage. Said property is located on Assessor Map 162 Lots 16 and lies within the General Residence A (GRA) District. (LU-22-61)

Project Background

The property, located at 77 Meredith Way is currently developed as a single family residence. The applicant is proposing a subdivision to create two lots where there is now one. The existing dwelling will be demolished in advance of construction on the two new lots. The applicant anticipates the construction or two single family dwellings.

Project Review Discussion and Recommendations

The application as proposed required a variance from the Zoning Board of Adjustment and review by the Technical Advisory Committee. See below for more details.

Zoning Board of Adjustment Review

The Board of Adjustment reviewed the request for the following variances at the June 22, 2022 meeting:

1) A Variance from Section 10.521 to allow 73 feet of frontage for Lot A and 31 feet of frontage for Lot B where 100 feet is required for both.

The request for variance was granted with the following condition of approval:

1) The proposed house plans are conceptual and may change from what was presented to the Board as long as they conform to the requirements of the Zoning Ordinance.

Technical Advisory Committee Review

The Technical Advisory Committee, at its regularly scheduled meeting of Tuesday, October 4, 2022, considered the application for Preliminary and Final Subdivision and voted to recommend approval to the Planning Board at the

October meeting with the following stipulations:

1. POI-3 of Sheet C-04 will be corrected and amended to DPW satisfaction.
2. A note will be added to sheet C-07 detailing easement turnaround area will be constructed with Heavy Duty Pavement.
3. Applicant will add an Easement Plan to the plan set (indicated as S3).
4. Prior to recordation the proposed easements in which the City is a party will be approved by the City Council.
5. A note to sheet C-03 will be added to the plans stating that the proposed principal structures will be located in substantial compliance with siting depicted in the plan set.
6. Raingarden detail shall reflect direction provided by Public Works at the 10-4-2022 Technical Advisory Committee meeting and be updated and resubmitted for approval by Public Works prior to consideration by the Planning Board.
7. All runoff from the structures is to be directed towards the appropriate rain gardens.
8. A letter detailing plan changes and updates will be submitted with the plan resubmission.

The updated submission, as provided to the Planning Board satisfies all stipulations above with the exception of #6. DPW have reviewed and have requested the following condition be included with a Planning Board approval:

A note will be added to the plan that says a stone drip edge will be provided around both homes that is at least 6" wider than any roof line constructed. The drip edge is to be constructed with an underdrain (french drain) that carries roof runoff to the rain gardens to be infiltrated. The Engineer of record is to inspect these conveyance systems and the construction of the raingardens themselves during their construction to confirm that the soils under the rain gardens are suitable for infiltration and that all construction above that point meets the intent of the design. Engineer to provide the City with pictures and stamped final report guaranteeing that all is built properly and will function in accordance with the design.

Planning Department Recommendation

1) Vote to find that the Subdivision application meets the standards and requirements set forth in the Subdivision Rules and Regulations to adopt the findings of fact as presented.

(Alt.) Vote to find that the Subdivision application meets the standards and requirements set forth in the Subdivision Rules and Regulations to adopt the findings of fact as amended and read into the record.

2) Vote to grant preliminary and final subdivision approval with the following stipulations:

Conditions to be satisfied subsequent to final approval of subdivision plan but prior to the issuance of a building permit or the commencement of any site work or construction activity:

2.1) A note will be added to the plan that says a stone drip edge will be provided around both homes that is at least 6" wider than any roof line constructed. The drip edge is to be constructed with an underdrain (french drain) that carries roof runoff to the rain gardens to be infiltrated. The Engineer of record is to inspect these conveyance systems and the construction of the raingardens themselves during their construction to confirm that the soils under the rain gardens are suitable for infiltration and that all construction above that point meets the intent of the design. Engineer to provide the City with pictures and stamped final report guaranteeing that all is built properly and will function in accordance with the design
2.2) Lot numbers as determined by the Assessor shall be added to the final plat prior to recordation. .
2.3) Property monuments shall be set as required by the Department of Public Works prior to the filing of the plat.
2.4) GIS data shall be provided to the Department of Public Works in the form as required by the City.
2.5) Any easement plans and deeds for which the City is a grantor or grantee shall been reviewed and approved by the Planning and Legal Departments and accepted by City Council prior to recordation.
2.6) The final plat and all easement plans and deeds shall be recorded concurrently at the Registry of Deeds by the City or as deemed appropriate by the Planning Department.
2.7) Final house plans shall conform the requirements of the zoning ordinance.
2.8) Any site development (new or redevelopment) resulting in 15,000 square feet or greater ground disturbance will require the submittal of a Land Use Development Tracking Form through the Pollutant Tracking and Accounting Program (PTAP) online portal. For more information visit
https://www.cityofportsmouth.com/publicworks/stormwater/ptap

V. 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.

E. The application of **Richard Fusegni (Owner)**, for property located at **201 Kearsarge Way** requesting Preliminary and Final Subdivision approval to subdivide a lot with an area of 52,253 s.f. and 205' of continuous street frontage into three (3) lots as follows: proposed Lot 1 with an area of 17,125 s.f. and 100' of continuous street frontage; proposed Lot 2 with an area of 17,406 s.f. and 100.2' of continuous street frontage; and Proposed Lot 3 with an area of 17,723 s.f. and 82.84' of continuous street frontage. Said property is shown on Assessor Map 218 Lot 5 and lies within the Single Residence B (SRB) District. (LU-22-150)

Project Background

This proposal was previously approved by the Planning Board on February 27, 2020. After one six-month extension, approved by the Planning Director, the approval expired on February 27, 2021.

Project Review Discussion and Recommendations

The application as proposed required a variance from the Zoning Board of Adjustment and review by the Technical Advisory Committee. See below for more details.

Zoning Board of Adjustment Review

On August 16, 2022 the Board of Adjustment granted the following request as presented:

1) A Variance from Section 10.521 to allow 82.5 feet of street frontage where 100 feet is required for proposed Lot 3.

Technical Advisory Committee Review

October 4, 2022

1. Applicant will confirm with Assessing Department that previously assigned addresses and Map and Lot numbers are still valid.
2. A declarative covenant or some other mechanism shall be developed and recorded to preserve areas noted for conservation on proposed lots.
3. Water service will use existing 2" water main.
4. Utility plan will be updated to depict the conduit feeding electric and communications will be no closer than 8 feet from the existing manhole and will be reviewed by DPW.
5. A letter detailing plan changes and updates will be submitted with the plan resubmission.

Conditions have been satisfied with the updated submission as provided to the

Planning Board.

Planning Department Recommendation

1) Vote to find that the Subdivision application meets the standards and requirements set forth in the Subdivision Rules and Regulations to adopt the findings of fact as presented.

(Alt.) Vote to find that the Subdivision application meets the standards and requirements set forth in the Subdivision Rules and Regulations to adopt the findings of fact as amended and read into the record.

2) Vote to grant preliminary and final subdivision approval with the following stipulations:

2.1) Property monuments shall be set as required by the Department of Public Works prior to the filing of the plat;
2.2) GIS data shall be provided to the Department of Public Works in the form as required by the City;
2.3) The final plat shall be recorded at the Registry of Deeds by the City or as deemed appropriate by the Planning Department.
2.4) Any site development (new or redevelopment) resulting in 15,000 square feet or greater ground disturbance will require the submittal of a Land Use Development Tracking Form through the Pollutant Tracking and Accounting Program (PTAP) online portal. For more information visit
https://www.cityofportsmouth.com/publicworks/stormwater/ptap
2.5) Conditions as listed in the February 27, 2020 letter of decision to be completed as applicable
2.5.1) The drainage for the houses shall be incorporated into the back yard areas where they can be maintained without impacting the portion of the property designated to be a conservation area along with the following conditions:
2.5.1-1) Drainage easements shall be provided across lot 3 for lot 2 and 1 drainage and across lot 2 for lot 1 drainage. Maintenance responsibilities for the storm-tech systems shall be included in the easement language or otherwise addressed through a maintenance agreement;
2.5.1-2) Plans shall be updated and approved by the Department of Public Works to show grading around Catch Basin 1;
2.5.1-3) Plans shall be updated to note stabilized construction entrances shall be installed for all 3 lots;
2.5.1-4) Department of Public Works final review and approval shall confirm that the drainage across Birch Street will not increase flow onto the abutting properties.
2.5.2) Birch Street shall be reclaimed and reconstructed to City standards after installation of utilities and plans shall be updated to include a cross-section for review and approval by Department of Public Works,

which shall also confirm if any additional modifications are required to improve drainage;
2.5.3) The plans shall note that during construction, access will be provided to all existing properties located on Birch Street;
2.5.4) Owner shall provide an easement to allow the City to turn around in the driveway of Lot 5-2 for the purpose of snow plowing and the easement shall be reviewed and approved by the Planning and Legal Departments prior to acceptance by the City Council;
2.5.5) The location of gas, electric, and communication lines shall be added to the subdivision plans;
5-1) For underground electric and communication lines, the sidewalk from Birch Street to the driveway of Lot 5-2 shall be widened to provide 5.5' clear.
2.5.6) Sheets C2 and C3 shall be reviewed and approved by Department of Public Works for confirmation of stormwater, grading and utility updates and standard details;

VI. CITY COUNCIL REFERRALS – PUBLIC HEARING

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 **Dale Whitaker (Owner)** for the restoration of involuntary merged lots at **880 Woodbury Avenue** to their pre-merger status pursuant to NH RSA 674:39aa. Said property is shown on Assessor Map 236 Lot 52 and lies within the Single Residence B District. (RIML 22-1)

Request for Restoration of Involuntarily Merged Lots and City Council Referral

Applicant Dale Whitaker has submitted an application/request to the City for Restoration of Involuntarily Merged Lots for the property located at 880 Woodbury Avenue, Portsmouth New Hampshire; Map/Block/Lot number 0236--0052—0000, located in the Single Residence B (SRB) zoning district. The applicant has provided preliminary documentary support for his request. Additional research will be required to verify the documentary record.
At the July 11, 2022 meeting of the City Council, the City Council voted to refer this request to the Planning Board and the Assessor for a report back.

Statutory Context and Procedural Requirements

RSA 674:39-aa requires the City Council to vote to restore "to their premerger status" any lots or parcels that were "involuntarily merged" by municipal action for zoning, assessing, or taxation purposes without the consent of the owner. Unlike all other lot divisions, there is no statutory role for the Planning Board in this process nor is there any requirement for the City to hold a public hearing. However, in Portsmouth the City Council has historically referred such requests to the Planning Board to conduct a public hearing.

The statute defines "voluntary merger" and "voluntarily merged" to include "any overt action or conduct that indicates an owner regarded said lots as merged such as, but not limited to, abandoning a lot line" (RSA 674:39-aa, I). It is therefore the City Council's responsibility to determine whether a merger was voluntary (i.e., requested by a lot owner) or involuntary (implemented by the City without the owner's consent). If the merger was involuntary, the Council must vote to restore the lots to their premerger status. Following such a vote, the City GIS and Assessing staff will update zoning and tax maps accordingly. It will then be up to the owner to take any further action to confirm the restoration to premerger status, such as recording a plan at the Registry of Deeds.
It is important to note that the granting of a request to restore lots to their premerger status does not mean that the resulting lots will be buildable or, if already developed, will conform to zoning. The statute states that "The restoration of the lots to their premerger status shall not be deemed to cure any

non-conformity with existing land use ordinances" (RSA 674:39-aa, V). For example, the restored lots may not comply with current zoning requirements for lot area, frontage and depth, and the re-establishment of a lot line between any two pre-merger lots may introduce a new nonconformity with respect to maximum allowed building coverage or a minimum required side yard where a building already exists on one of the premerger lots. In such cases, the owner(s) of the applicable lot(s) would have to apply to the Zoning Board of Adjustment for the necessary variances to restore zoning compliance or to allow future development.

Staff Analysis

It is the City Assessor's opinion that the request to unmerge the lots meets the requirements of NH RSA 674:39 and is supported by various New Hampshire court decisions. See Attachment B – City Assessor's Report and Exhibits.

Planning Department Recommendation

1) Vote to recommend the City Council restore the property located at 880 Woodbury Avenue to its pre-merger status and direct the City GIS and Assessing staff to update zoning and tax maps accordingly.

VII. OTHER BUSINESS

A. Chairman's Updates and Discussion Items

VIII. ADJOURNMENT

Draft Findings of Fact | Parking Conditional Use Permit
City of Portsmouth Planning Board

Date: October 20, 2022
Property Address: 111 State Street
Application #: **LU-22-125**
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:
Effective August 23, 2022, amended RSA 676:3, I now reads as follows: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of the all 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)	***Draft* 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.	**Yes** **No**	The Technical Advisory Committee did not require a parking demand analysis and recommended this item be approved for the following reasons. • The proposed change of use results in an overall reduction in parking needs for the site and introduces no increased parking impacts to the site or area. • The new proposed uses bring the required parking of the site into greater conformance with the parking requirements. • While the four dwelling units represent an expanded use of residential on the site (requiring 5 spaces) the restaurant space is being reduced. • Subsequent to TAC, the applicant provided a parking demand

	Parking Conditional Use Permit 10.1112.14 Requirements	Finding (Meets Criteria/Requirement)	*Draft* Supporting Information
			analysis that has been reviewed by the City Engineer – Parking, Transportation, and Planning.
2	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.	**Yes** **No**	• The property is one block from the Memorial Bridge public parking lot and there is on street parking in the vicinity. • There are additional private surface lots within walking distance that provide additional parking, if necessary. • The property is very close to the Downtown Overlay District; where 4 residential spaces would be automatically waived. • The property has easy pedestrian and bicycle access to a variety of services and attractions in the Downtown. • Long term storage of vehicles in off-site locations, for the residential use, is a possible alternative.
3	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.	**Yes** **No**	• The proposed change of use results in an overall reduction in parking needs for the site and introduces no increased parking impacts to the site or area. • While the four dwelling units represent an expanded use of residential on the site (requiring 5 new spaces) the restaurant space is being reduced lowering overall parking demand. • The parking demand analysis indicates a peak period demand reduction of 6 parking spaces.
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.	**Yes** **No**	• The site has always operated without benefit of full on-site parking and has no location on site to provide the required parking. In this case, a reasonable application of the non-conforming requirements might apply with the redevelopment of the site where an opportunity for below grade (or surface) parking could be

	Parking Conditional Use Permit 10.1112.14 Requirements	Finding (Meets Criteria/Requirement)	*Draft* Supporting Information
			integrated into the site. • Residential parking demand is highest at night when the most parking spaces are available versus restaurant parking demand that peaks during times of least parking availability.
5	**Other Board Findings**		
6	**Additional Conditions of Approval**		

AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS

200 Griffin Road, Unit 3, Portsmouth, NH 03801
Phone (603) 430-9282 Fax 436-2315

6 October 2022

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

RE: Application for Parking CUP Approval, Tax Map 107, Lot 50, 111 State Street

Dear Chair Chellman and Planning Board members:

On behalf of Coventry Realty, LLC, we submit herewith the attached package for a Parking Conditional Use Permit at the site. In support thereof, we are submitting plans and associated exhibits. The property is located at 111 State Street and is depicted on Portsmouth Tax Map 107 as Lot 50. The lot is in the CD 4 District and is also within the Historic District; but not in the Downtown Overlay District. Lot 50 is owned by Coventry Realty, LLC, and is developed with buildings and currently has no parking provided. The Lot was recently the subject of a merger, where former Lot 51 (formerly 107 State Street) was merged with Lot 50. The new lot size is 4,530 square feet. Prior to merger, the two lots contained congruent 3-story brick buildings. The plans for the addition have been approved by the Director of the Planning Department, the Chief Building Inspector and the Fire Department in accordance with the attached Memorandum from the Director of Planning. The addition has been ruled to be in conformance with Section 10.323 and to not require any additional site approvals, except a **Parking CUP**, the subject of this application.

We request that this application be placed on the agenda for the October 20th Planning Board Meeting.

For some time the Agave Mexican Bistro was located in the first and second floors of the west side of existing building and was used as a restaurant. Mr. Kim's Restaurant was in the first and second floors of the east side of the building. The third floor of the west side was utilized for an office and the third floor of the east side was a residential unit. Accordingly the lot itself is steeped in historical restaurant uses. As a result of the merger of the lots, the intent of the Applicant is to renovate the two buildings in order that they act as one complete building. The renovation will result in the removal of a restaurant use within the east side of the second floor of the building, where the second-floor dining room for Mr. Kim was previously located. That space will be converted to two residential units. The second floor west side restaurant will be *reduced* in size to accommodate the elevator and access code improvements. This results in a change to the second floor west side restaurant space. The third floor west side office space as well as some east side attic space are being converted to create three residential units on the third floor. The five proposed residential units are intended to support workers for the restaurant within the building post-renovation.

The renovations will involve updating portions of the building to comply with the Americans with Disabilities Act (the ADA) and the International Building Code requiring a new egress staircase tower and a new elevator to meet and address handicapped accessibility requirements. The existing staircase system within the building is considered non-conforming, and the full complement of ADA bathrooms is not present. In order to update the building to meet these life safety and code requirements, the structure proposed on the enclosed plans is necessary to provide these improvements.

The renovation will also reduce the intensity of the required parking for the property with the removal of the restaurant dining use on the second floor of the east side of the building. The change to residential units, pursuant to the City's own parking metric, reduces the need for parking spaces for this change in use. The total parking metric for the property, under this proposal, is decreased by 11 spaces. There is no parking on-site, and there is no room to create parking on site, and this situation has existed for many years. City of Portsmouth staff did however determine that a **Conditional Use Permit** from the **Planning Board** is required for this change, even with the reduction in parking proposed. The required parking needs to be provided, per the Ordinance, for the uses created by: changes in the square foot of use (2nd floor restaurant) as well as the changes in use from restaurant / office to residential (added residential units).

Planning Staff Comments were issued in a letter to the developer, a section reads:

> *Staff has reviewed your parking calculations related to the removal of the restaurant use on a portion of the second floor and the conversion of the space to a residential use. Staff has conferred with the City Attorney and finds that the change of use, which is allowed in this zoning district, would trigger a Parking Conditional Use Permit. Although the change will bring the parking into greater conformance, the Zoning Ordinance clearly states that any change must be brought into conformity. A lawful nonconforming use may continue, but may not be extended, enlarged or changed except in conformity with this Ordinance. The proposed change of use will require a Parking Conditional Use Permit.*

Therefore we hereby submit for your approval this application for a Parking Conditional Use Permit as allowed in Article 11 *Site Development Standards* Section 10.1112 *Number of Required Parking Spaces* from of the Portsmouth Zoning Ordinance. The request for this approval is pursuant to Section 10.1112.14 where 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 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. Our request is to allow the property to revise the uses as described above and to provide no parking where 35 off-street parking spaces would otherwise be required to accommodate the additional dwelling units and change in the size (*reduction*) in the second floor restaurant use.

The proposed renovation will result in a decreased demand for parking over the current building use and configuration. The attached Area Program Parking Analysis outlines the Ordinance Requirements and details that the parking demand for the site is currently 80 parking spaces where the revised parking demand will be 69 parking spaces. The property is one block from the Memorial Bridge public parking lot and there is on street parking in the vicinity. There are additional private surface lots within easy walking distance that provide additional parking, if necessary. The site use is also not changing significantly from the existing use; where the bulk of the parking is for the restaurant uses. The property is very close to the Downtown Overlay District; where 4 spaces would be automatically waived. The property also has easy pedestrian and bicycle access to a variety of services and attractions in the Downtown. Also long term storage of vehicles in off site locations, for the residential use, is a possible alternative.

Regarding Section 10.1112.142, where an application for a conditional use permit under this section shall identify permanent evidence-based measures to reduce parking demand, we submit that the use change and reduction in total parking demand meets the criteria that measures are being taken to reduce parking demand. Therefore we ask that the Planning Board grant the Conditional Use Permit finding that the reduction in the number of required off-street parking spaces conforms to the intent of the Ordinance provisions.

The following plans are included in our submission:

- Standard Boundary Survey – This shows the existing boundary of the parcel. The plan shows the extent of the development on the parcel.
- Existing and Proposed Floor Plans PB 0.0 to 1.3 – These plans show the existing and proposed floor plans (with areas) consistent with the proposed building renovations.
- Exterior Elevations and Rendered Views P 2.1 to P 3.2 – These plans show the proposed building exterior views and renderings of the proposed construction.

Please also find the attached in support of this application:

111 State Street Area Program Parking Analysis

The Technical Advisory Committee, at its regularly scheduled meeting of Tuesday September 6, considered this application for Conditional Use Permit approval. As a result of said consideration, the Committee voted to recommend **approval of this application** to the **Planning Board.** We look forward to your review of this submission and our in person presentation at the October Planning Board meeting. For the reasons stated, we respectfully request the Planning Board grant the Parking Conditional Use Permit. Thank you for your time and attention to this proposal.

Sincerely,

John Chagnon

John R. Chagnon, PE
CC: 111 State Street Team

AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS

200 Griffin Road, Unit 3, Portsmouth, NH 03801
Phone (603) 430-9282 Fax 436-2315

13 October 2022

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

RE: Application for Parking CUP Approval, Tax Map 107, Lot 50, 111 State Street

Dear Chair Chellman and Planning Board members:

On behalf of Coventry Realty, LLC, we add herewith to the submission of the **Parking Conditional Use Permit** at the site. Please find the following information in support thereof. The improvements involve updating portions of the building to comply with the Americans with Disabilities Act (the ADA) and the International Building Code (IBC) requiring a new egress staircase tower and a new elevator to meet and address handicapped accessibility requirements. We submit that the application conforms to the Portsmouth Ordinance Sections, repeated below with comments in **bold** text, as follows:

> Section 10.1112.141: An application for a conditional use permit under this section shall include a parking demand analysis demonstrating that the proposed number of off-street parking spaces is sufficient for the proposed use. **The attached Parking Demand Analysis shows that the proposed improvements will decrease the parking demand at the property.**
>
> 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/micro transit services or bike share 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 attached Parking Demand Analysis shows that the proposed improvements will decrease the parking demand at the property.**
>
> 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. **Since parking supply is currently sufficient for the existing use, and the proposed improvements will decrease the parking demand at the property, we submit that the available parking is adequate.**

Section 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. **Due to the nature of this particular request, where no parking is provided, this section is not applicable to this project.**

The renovation will reduce the intensity of the required parking for the property with the removal of the restaurant dining use on the second floor on the east side of the building. The change to residential units, pursuant to the parking metric, reduces the demand for parking spaces for the proposed site improvements.

The proposed renovation will result in a decreased demand for parking over the current building use and configuration. Denial of the Parking CUP would present a distinct hardship to the applicant, since the use revision reduces parking demand, a stated goal of the Ordinance requirements. Therefore we ask that the Planning Board grant the Parking Conditional Use Permit finding that the reduction in the parking demand conforms to the intent of the Ordinance provisions.

Thank you for your time and attention to this proposal.

Sincerely,

John Chagnon

John R. Chagnon, PE
CC: 111 State Street Team

AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS

200 Griffin Road, Unit 3, Portsmouth, NH 03801
Phone (603) 430-9282 Fax 436-2315

12 October, 2022

Proposed Parking Demand
Site Improvement
111 State Street
Portsmouth, NH

The purpose of this calculation is to identify the existing and proposed parking demand expected to be generated by the site improvements at 111 State Street. Currently the lot has a three story building which has restaurant use with one residential unit. The proposed plan is to convert some of the restaurant use to residential use, for less restaurant space and five proposed residential units. This comparison is for the converted / added space only.

In developing the expected Parking Demand Ambit Engineering considered the standard Parking Demand rates and equations published in the Institute of Transportation Engineers (ITE) Parking Generation Manual, 4th Edition (2010). The land use category that best correlates with the proposed uses are Low / Mid Rise Apartment (ITE Land Use Code 221) and Quality Restaurant (ITE Land Use Code 931). Please note that the ITE Rates are for non-overlapping peak periods of demand; the residential being 10:00 PM to 5:00 AM and the restaurant 7:00 to 8:00 PM. This makes the total numbers more conservative. The parking demand, based upon the number of dwelling units in the building and GFA of the restaurant is summarized below for the **Average Peak Period of Parking Demand**:

Parking Demand Summary - EXISTING

Peak Period of Demand	
Low / Mid Rise Apartment (1.2 vehicles per dwelling unit)	1.2 x 1 units = 1.2 vehicles
Quality Restaurant (16.41 vehicles per 1,000 SF GFA)	16.41 x 3.486 KSF = 57.2 vehicles
Total Parking Spaces required	58 vehicles

Parking Demand Summary - PROPOSED

Peak Period of Demand	
Low / Mid Rise Apartment (1.2 vehicles per dwelling unit)	1.2 x 5 units = 6.0 vehicles
Quality Restaurant (16.41 vehicles per 1,000 SF GFA)	16.41 x 2.827 KSF = 46.4 vehicles
Total Parking Spaces required	52 vehicles

Based on the calculation there is an anticipated reduction in parking demand of 6 vehicles with this project.

Please feel free to call if you have any questions or comments.

Sincerely,

John Chagnon

John R. Chagnon, Project Manager

CITY OF PORTSMOUTH
PLANNING DEPARTMENT MEMORANDUM

To:	Francis X Bruton 601 Central Avenue, Dover, NH 03820
Subject:	111 State Street
Dated:	June 24, 2022
RE:	Request for Exemptions
From:	Beverly Mesa-Zendt, Director of Planning
CC:	Peter Stith. Principal Planner Shanti Wolph, Chief Building Official Peter Stith, Principal Planner Jane Ferrini, Assistant City Attorney

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Variance Request for Lot Coverage
In your email, dated, June 1, 2022, you requested that the city waive requirements for a variance for proposed improvements at 111 State Street in Portsmouth, New Hampshire, depicted on the Portsmouth City Tax Maps as Map 107, Lot 50. Improvements are identified and detailed in your June 1, 2022 submittal to the Board of Adjustment (LU-22-125) along with a request for a variance for Section 10.5A41.10C maximum building coverage. Your request was that we review improvements, identified in your submittal, and determine if improvements are exempt from additional zoning conformance and meet the criteria set forth in Section 10.323 of the Zoning Ordinance which provides the following:

Notwithstanding the preceding paragraphs, the following modifications to a ***lawful nonconforming building*** *or* ***structure*** *may enlarge or expand the nonconformity, provided that the modification is the minimum necessary to comply with the applicable code:*

> *10.323.10 Installation or replacement of components required for egress purposes pursuant to the* ***Building Code****; or*
>
> *10.323.20 Installation or replacement of accessible egress components.*

The structure, while conforming to lot coverage requirements, does not conform to setback requirements and is subject to the aforementioned exemption as a non-conforming structure.

Staff has reviewed proposed plans and consulted with the City's Chief Building Official and the Deputy Fire Chief. Staff finds that the proposed improvements, specifically, improvements needed to comply with the Americans with Disabilities Act (hereinafter the "ADA"), the International Fire Code, and the International Building Code, which require a new egress stair tower and a new elevator, meet the requirements set forth in Section 10.323 and therefore do not require further relief from zoning.

Parking Requirements
Your second request was for a variance from the requirements set forth in Sections 10.1112.311 and 321 of the Zoning Ordinance related to parking requirements. Staff has reviewed your parking calculations related to the removal of the restaurant use on a portion of the second floor and the conversion of the space to a residential use. Staff has conferred with the City Attorney and finds that the change of use, which is allowed in this zoning district, would trigger a Parking Conditional Use Permit. Although the change will bring the parking into greater conformance, the Zoning Ordinance clearly states that any change must be brought into conformity.

A lawful nonconforming use may continue, but may not be extended, enlarged ***or changed*** *except in conformity with this Ordinance.*

The proposed change of use will require a Parking Conditional Use Permit.

Site Plan Review
Staff finds that the proposed changes related to improved conformance with the Americans with Disabilities Act (hereinafter the "ADA"), the International Fire Code, and the International Building Code meet the exemption requirements set forth in section 1.2.2 of the Site Plan Review Regulations.

Should you have any questions, please contact the Planning Department using the information provided below.

Thank you,

Beverly Mesa-Zendt
Planning Director
Email: bmzendt@cityofportsmouth.com

111 State Street

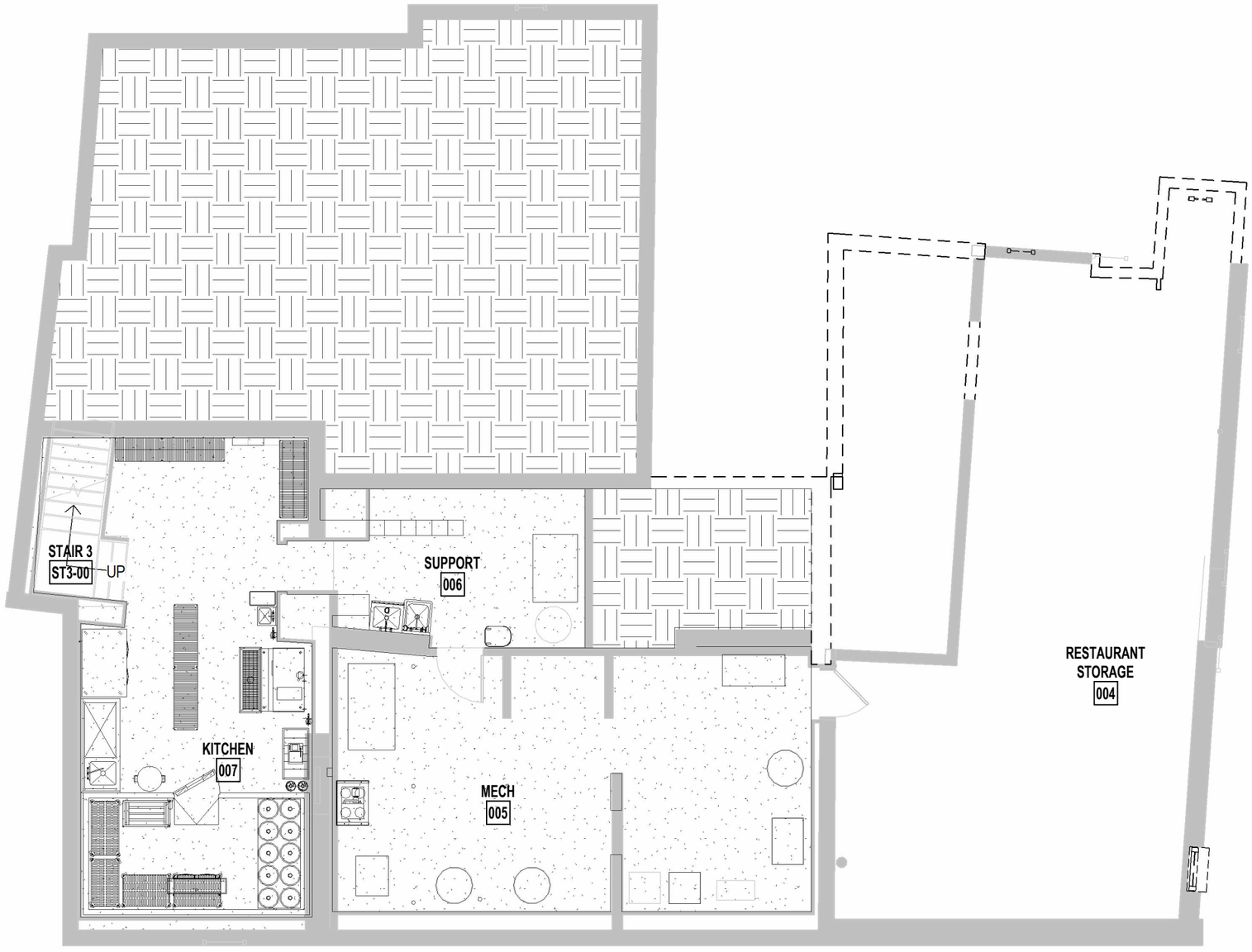
Area Program Parking Analysis 10/6/2022

Existing						
Level	**Occupancy**	**Occupied Floor Area (sf)**	**Qty Residential Units**	**Unit size**	**Parking spaces per area or unit**	**Parking spaces required**
3	Residential apartment	423	1	423	0.5	0.5
3	Restaurant office	785	0	0	100.0	7.7
2	Restaurant	3,486	0	0	100.0	34.9
1	Restaurant	3,626	0	0	100.0	36.3
TOTAL existing		8,303				**79.3**
						80.0

Phase 2 - Proposed						
Level	**Occupancy**	**Occupied Floor Area (sf)**	**Qty Residential Units**	**Unit size**	**Parking spaces per area or unit**	**Parking spaces required**
3	Apartment 303	757	1	757	1.3	1.3
3	Apartment 302	532	1	532	1.0	1.0
3	Apartment 301	444	1	444	0.5	0.5
2	Restaurant	2,827	0	0	100.0	28.3
2	R2 - Apartment 202	491	1	491	0.5	0.5
2	R2 - Apartment 201	535	1	535	1.0	1.0
1	Restaurant	3,626	0	0	100.0	36.3
TOTAL proposed		9,212				**68.8**
						69.0

11.0

Parking Calculation	**Spaces Required**	
Revised spaces needed for proposed floor plans	actual	round up
5 Dwelling Units	4.3	5
Visitor: 1 space per 5 units	1	1
Restaurant, 2nd floor (reduced from existing)	28.3	29
Total		**35**



DEMOLITION LEGEND

- EXISTING WALL TO BE REMOVED
- EXISTING WALL TO REMAIN
- EXISTING WINDOW & FRAME TO BE REMOVED
- EXISTING DOOR TO REMAIN
- EXISTING DOOR AND FRAME TO BE REMOVED
- AREA NOT IN SCOPE

PB0.0 EXISTING BASEMENT PLAN

111 STATE STREET

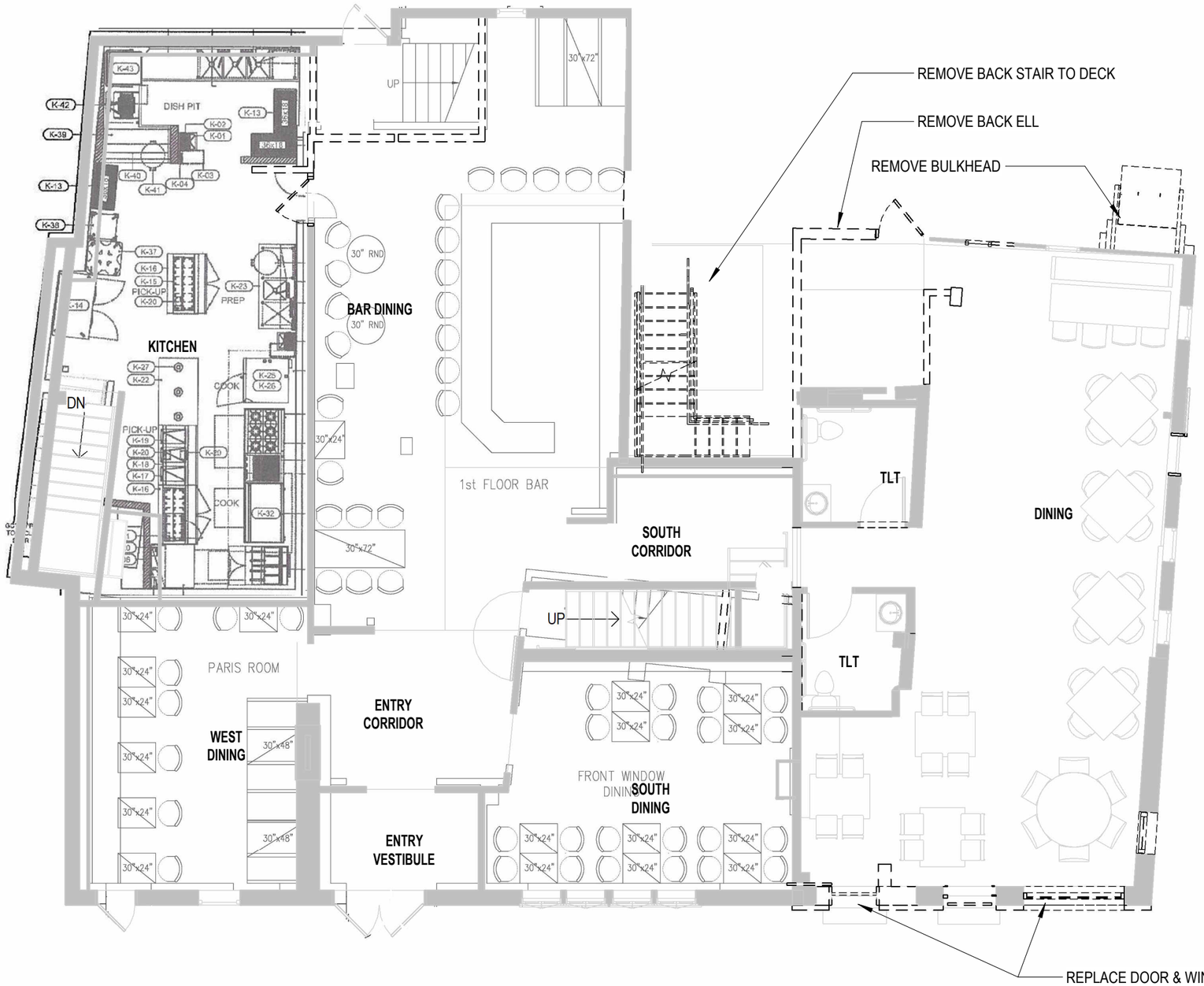
GRAPHIC SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

N

SCALE: As indicated
10/06/22

ARCOVE ARCHITECTS



DEMOLITION LEGEND

- EXISTING WALL TO BE REMOVED
- EXISTING WALL TO REMAIN
- EXISTING WINDOW & FRAME TO BE REMOVED
- EXISTING DOOR TO REMAIN
- EXISTING DOOR AND FRAME TO BE REMOVED
- AREA NOT IN SCOPE

PB0.1 EXISTING FIRST FLOOR PLAN

111 STATE STREET

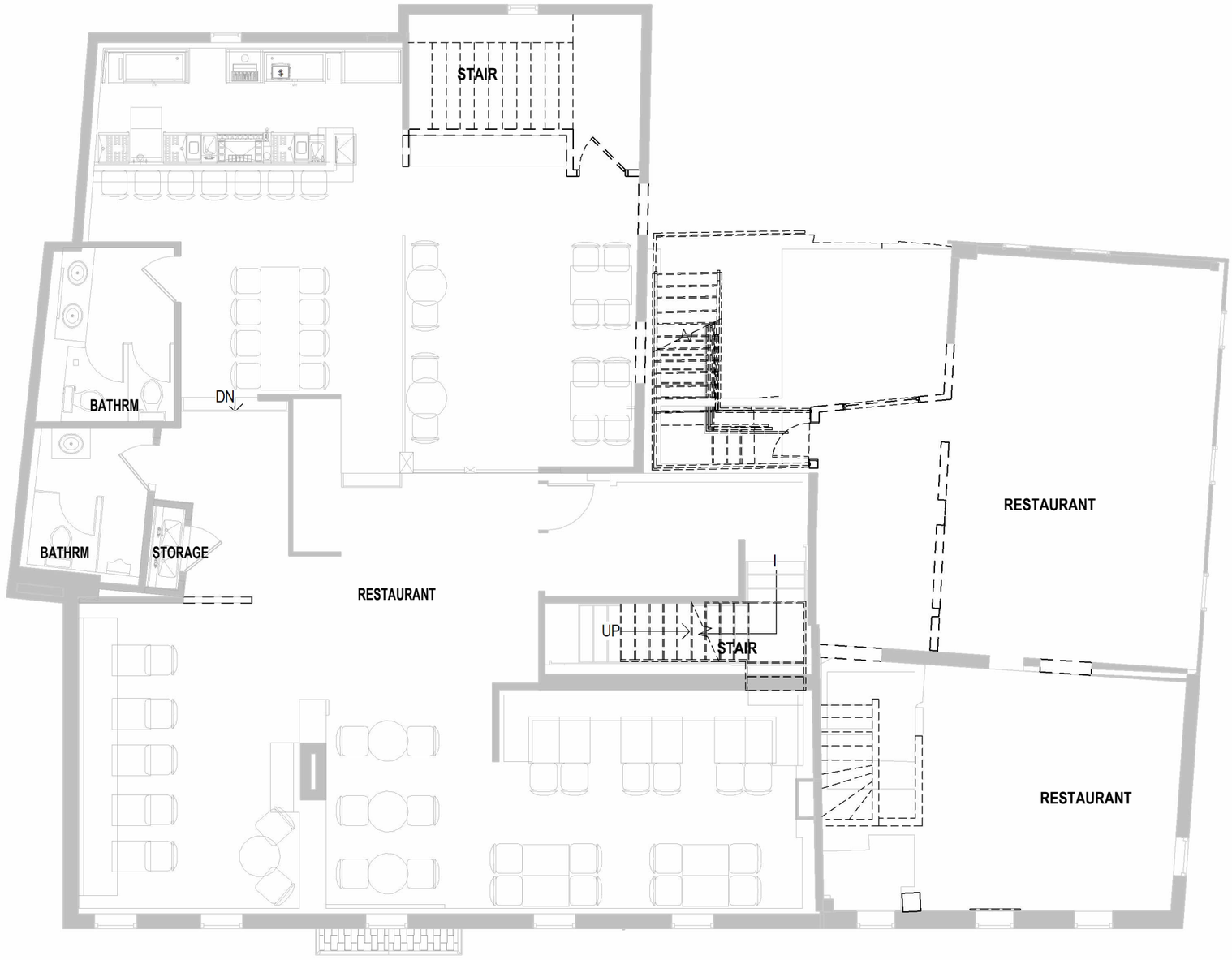
GRAPHIC SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

N

SCALE: As indicated
10/06/22

ARCOVE ARCHITECTS



DEMOLITION LEGEND

- EXISTING WALL TO BE REMOVED
- EXISTING WALL TO REMAIN
- EXISTING WINDOW & FRAME TO BE REMOVED
- EXISTING DOOR TO REMAIN
- EXISTING DOOR AND FRAME TO BE REMOVED
- AREA NOT IN SCOPE

PB0.2

EXISTING SECOND FLOOR PLAN

111 STATE STREET

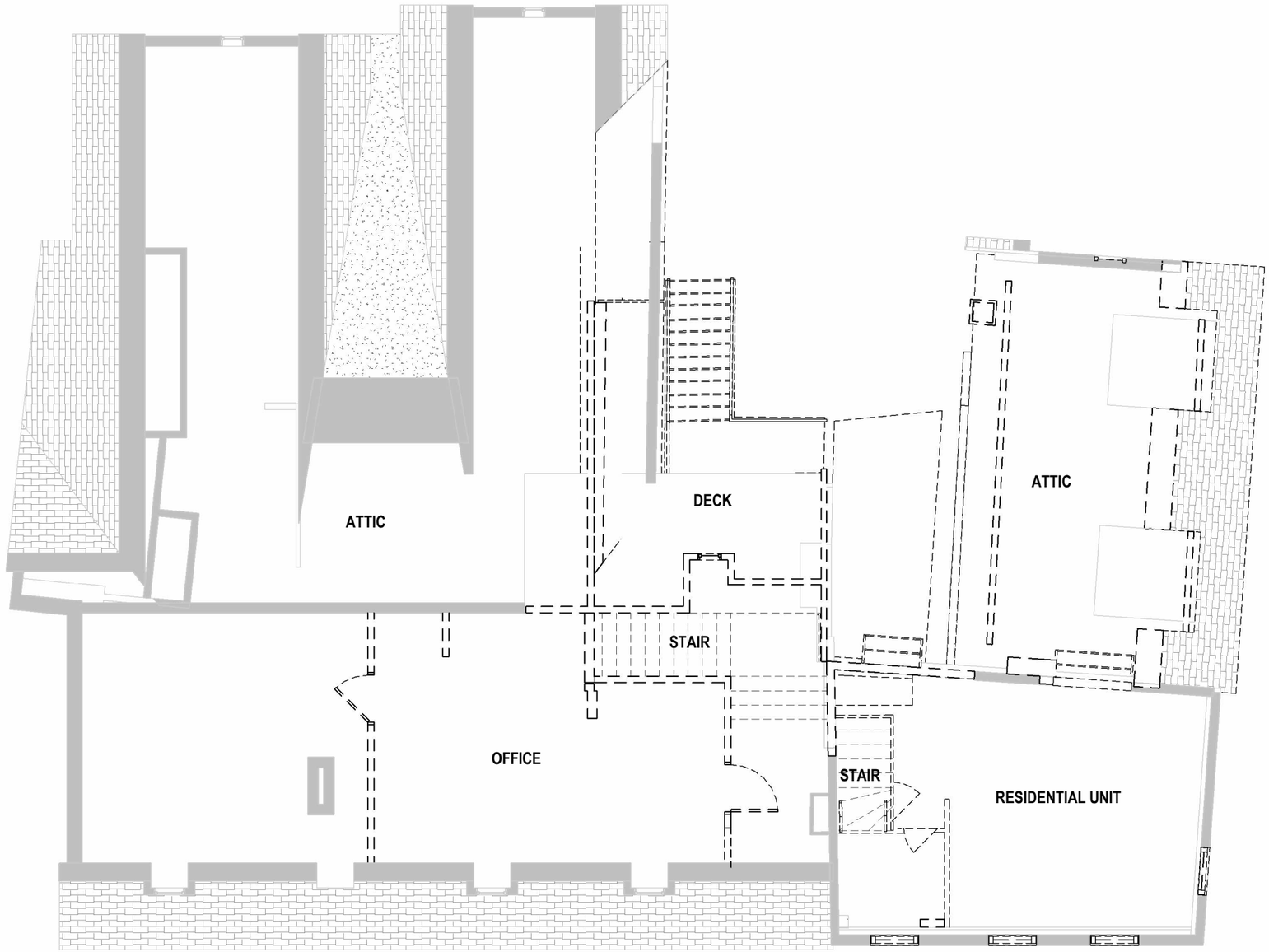
GRAPHIC SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

N

SCALE: As indicated
10/06/22

ARCOVE ARCHITECTS



DEMOLITION LEGEND

- EXISTING WALL TO BE REMOVED
- EXISTING WALL TO REMAIN
- EXISTING WINDOW & FRAME TO BE REMOVED
- EXISTING DOOR TO REMAIN
- EXISTING DOOR AND FRAME TO BE REMOVED
- AREA NOT IN SCOPE

PB0.3

EXISTING THIRD FLOOR PLAN

111 STATE STREET

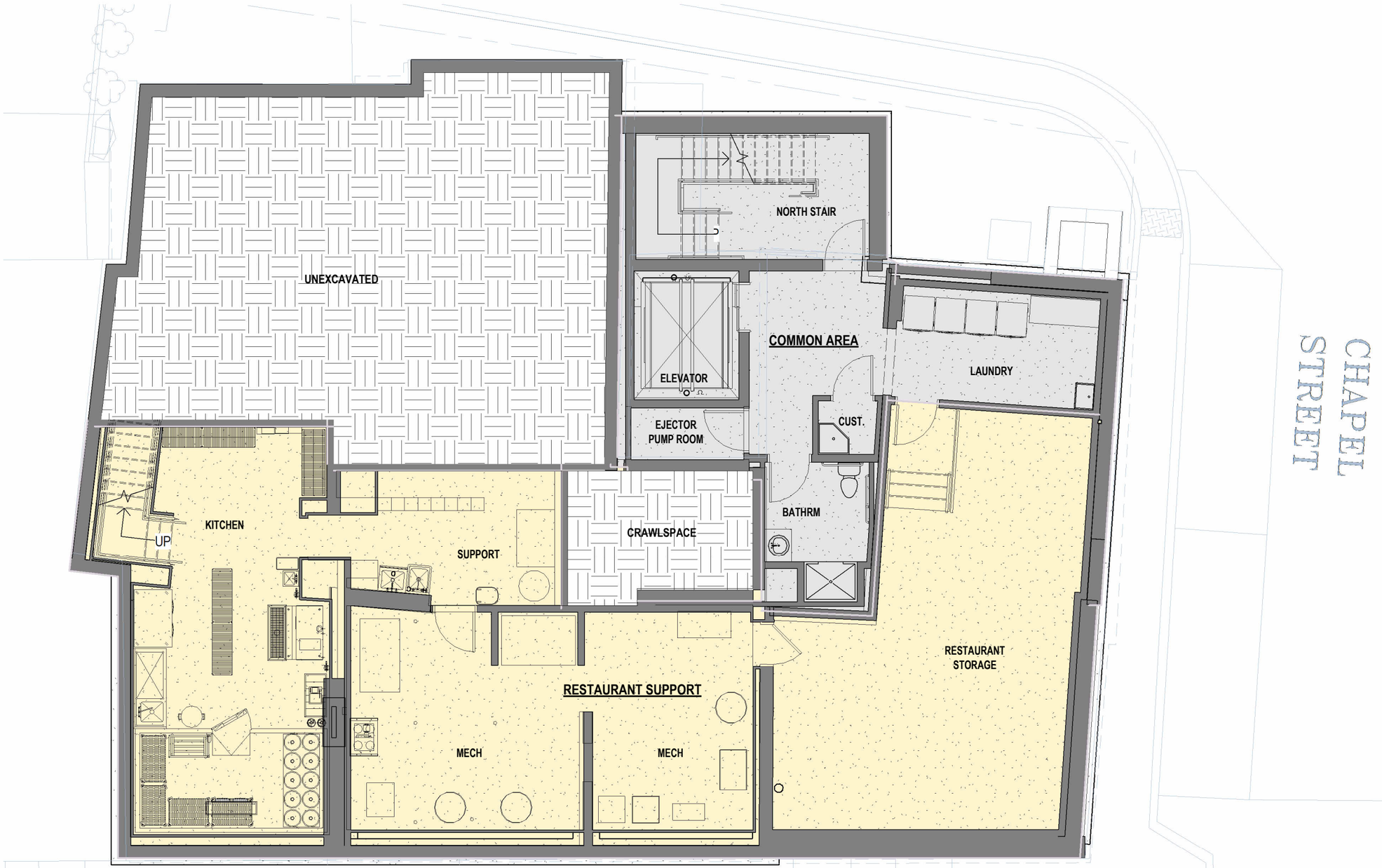
GRAPHIC SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

N

SCALE: As indicated
10/06/22

ARCOVE ARCHITECTS



PB1.0 **BASEMENT FLOOR PLAN - PROPOSED**

111 STATE STREET

SCALE: 1/8" = 1'-0"
10/06/22

GRAPHIC SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

N

ARCOVE ARCHITECTS

PB1.1 FIRST FLOOR PLAN - PROPOSED

111 STATE STREET

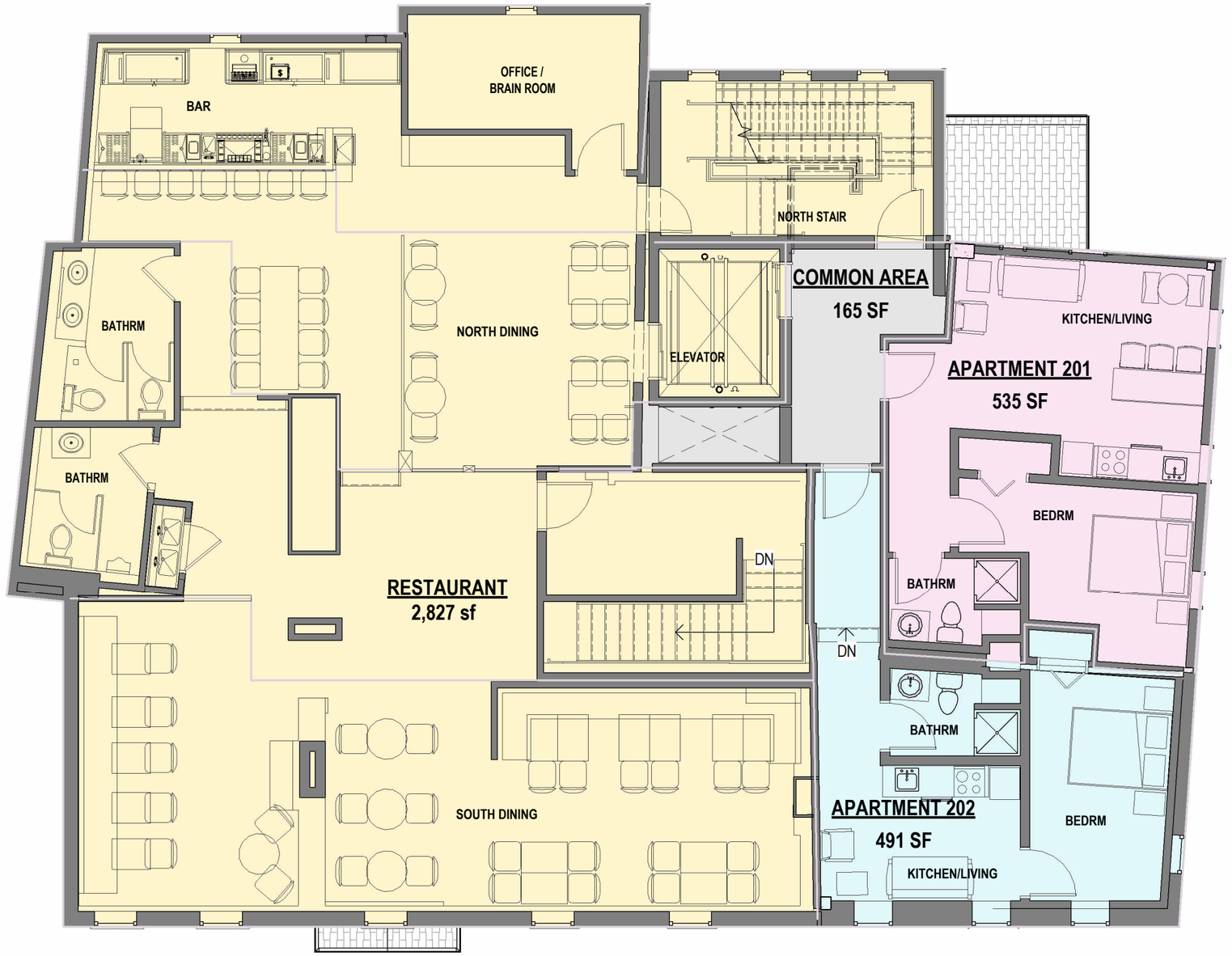
GRAPHIC SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

N

SCALE: 1/8" = 1'-0"
10/06/22

ARCOVE ARCHITECTS



PB1.2 **SECOND FLOOR PLAN - PROPOSED**

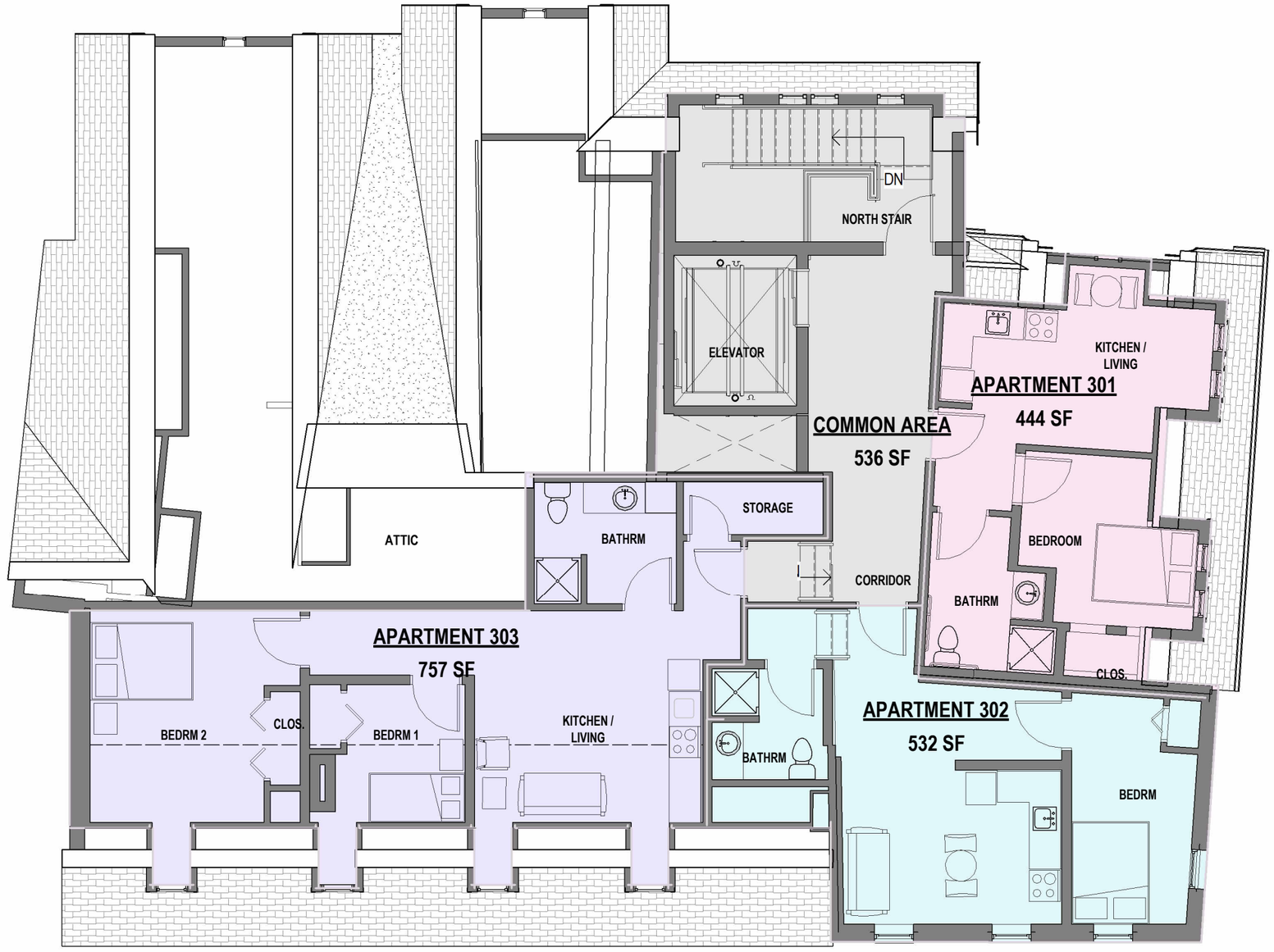
111 STATE STREET GRAPHIC SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"
10/06/22

0' 4' 8' 16'

N

ARCOVE ARCHITECTS



PB1.3 THIRD FLOOR PLAN - PROPOSED

111 STATE STREET

SCALE: 1/8" = 1'-0"
10/06/22

GRAPHIC SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

N

ARCOVE ARCHITECTS

P2.1 **SOUTH EXTERIOR ELEVATION**

111 STATE STREET

SCALE: 1/8" = 1'-0"
9/27/22

ARCOVE ARCHITECTS

P2.2

EAST EXTERIOR ELEVATION

111 STATE STREET

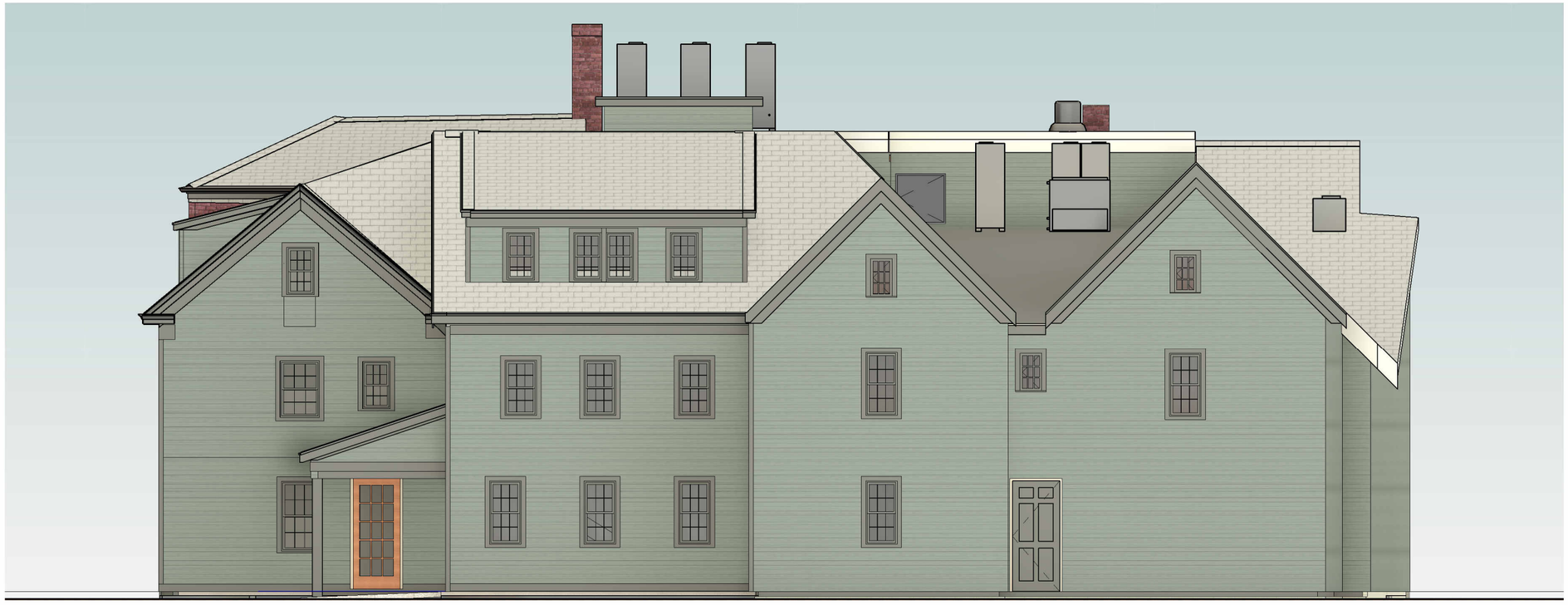
SCALE: 1/8" = 1'-0"
9/27/22

N

GRAPHIC SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

ARCOVE ARCHITECTS



P2.3

NORTH EXTERIOR ELEVATION
111 STATE STREET

SCALE: 1/8" = 1'-0"
9/27/22

N

GRAPHIC SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

ARCOVE ARCHITECTS

P3.1 **SOUTHEAST VIEW**
111 STATE STREET
SCALE:
9/27/22

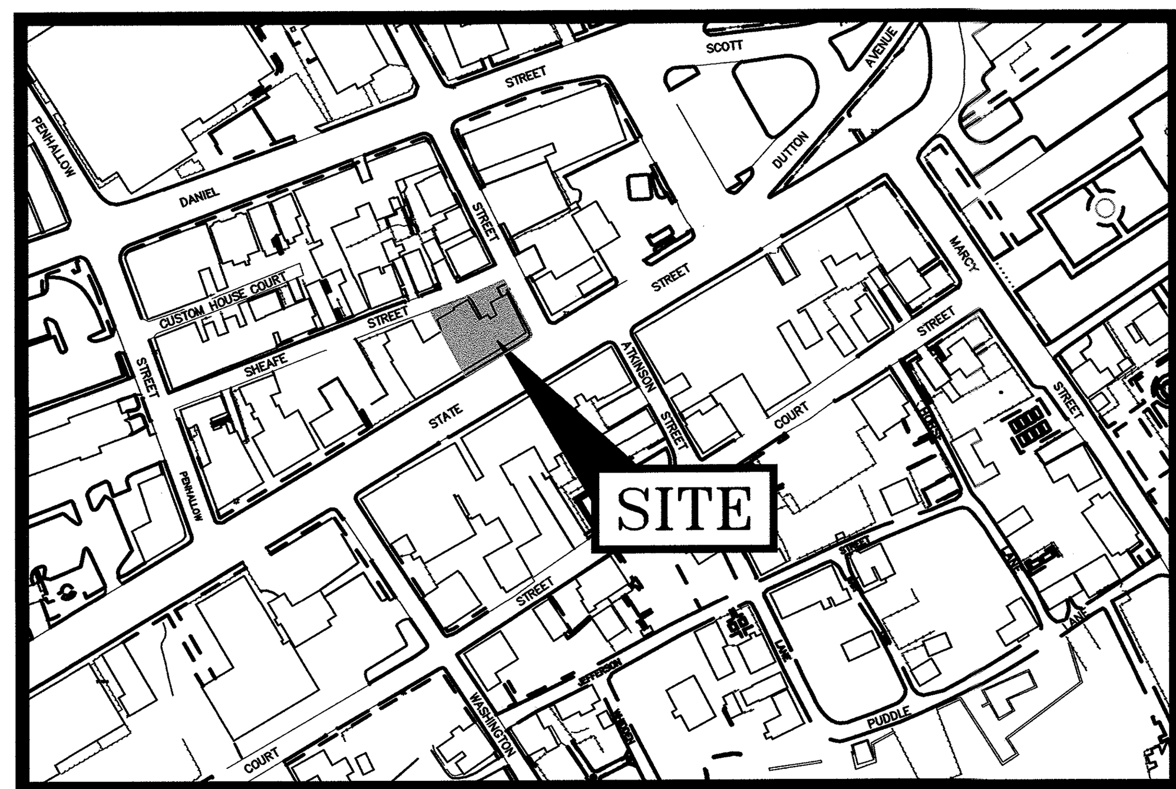
ARCOVE ARCHITECTS

P3.2 **NORTHEAST VIEW**

111 STATE STREET

SCALE:
9/27/22

ARCOVE ARCHITECTS



LOCATION MAP *SCALE: 1" = 200'*

PLAN REFERENCES:

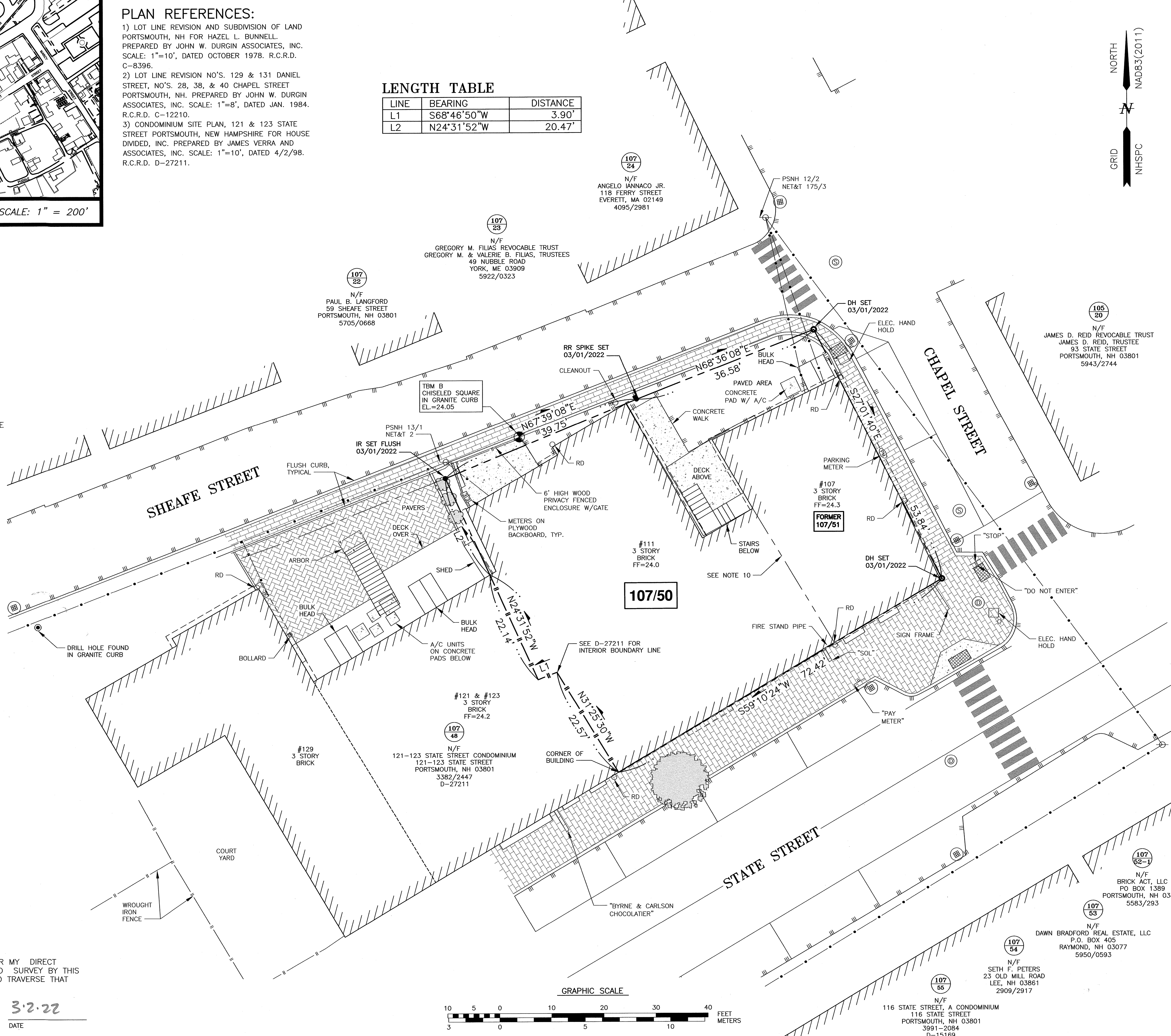
1) LOT LINE REVISION AND SUBDIVISION OF LAND PORTSMOUTH, NH FOR HAZEL L. BUNNELL. PREPARED BY JOHN W. DURGIN ASSOCIATES, INC. SCALE: 1"=10', DATED OCTOBER 1978. R.C.R.D. C-8396.
2) LOT LINE REVISION NO'S. 129 & 131 DANIEL STREET, NO'S. 28, 38, & 40 CHAPEL STREET PORTSMOUTH, NH. PREPARED BY JOHN W. DURGIN ASSOCIATES, INC. SCALE: 1"=8', DATED JAN. 1984. R.C.R.D. C-12210.
3) CONDOMINIUM SITE PLAN, 121 & 123 STATE STREET PORTSMOUTH, NEW HAMPSHIRE FOR HOUSE DIVIDED, INC. PREPARED BY JAMES VERRA AND ASSOCIATES, INC. SCALE: 1"=10', DATED 4/2/98. R.C.R.D. D-27211.

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
RR SPK	RAILROAD SPIKE
11/21	MAP 11/LOT 21
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
RR SPK SET	RAILROAD SPIKE SET
NHHB	NHDOT BOUND FOUND
TB	TOWN BOUND
BND w/DH	BOUND WITH DRILL HOLE
ST BND w/DH	STONE BOUND WITH DRILL HOLE

LENGTH TABLE

LINE	BEARING	DISTANCE
L1	S68°46'50"W	3.90'
L2	N24°31'52"W	20.47'



STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 738 JOHN R. CHAGNON SIGNATURE

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, LLS 738 — DATE: 3·2·22

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

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSORS MAP 107 AS LOT 50.

2) OWNER OF RECORD:
COVENTRY REALTY, LLC
3 PLEASANT STREET, SUITE 400
PORTSMOUTH, NH 03801
5229/2271
6362/2635

3) PARCEL IS LOCATED IN THE CHARACTER DISTRICT 4 (CD4).

4) DIMENSIONAL REQUIREMENTS: SEE PORTSMOUTH ORDINANCE FOR REQUIREMENTS.

5) FORMER LOT AREAS:

	MAP 107 LOT 50	MAP 107 LOT 51
	1,764 S.F.	2,766 S.F.
	0.0405 ACRES	0.0635 ACRES

NEW COMBINED LOT AREA (MAP 107 LOT 50):
4,530 S.F.
0.1040 ACRES

6) PARCELS ARE NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259F, EFFECTIVE JANUARY 29, 2021.

7) THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULTS OF A STANDARD BOUNDARY SURVEY ON TAX MAP 107 LOT 50 IN PORTSMOUTH, NH.

8) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBS.

9) FORMER PORTSMOUTH ASSESSOR'S MAP 107 LOT 50 IS SUBJECT TO LAND USE RESTRICTIONS. SEE DECLARATION OF LAND USE RESTRICTIONS AT RCRD 3626/600.

10) ASSESSOR'S MAP 107 LOTS 50 AND 51 HAVE BEEN VOLUNTARILY MERGED. SEE RCRD 6381/1530. MERGED PARCEL RETAINS MAP 107 LOT 50 DESIGNATION.

NO.	DESCRIPTION	DATE
1	ADD MONUMENTS SET	3/2/22
0	ISSUED FOR COMMENT	2/17/22

REVISIONS

STANDARD BOUNDARY SURVEY
TAX MAP 107
LOT 50

OWNER OF RECORD:
COVENTRY REALTY, LLC

PROPERTY LOCATED AT:
107-111 STATE STREET
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: 1" = 10' *FEBRUARY 2022*

FB 365 PG 40 *3415*

J:\JOBS3\JN 3400's\3410's\3415\2021 Survey and Site Plan\Plans & Specs\Site\3415 Survey 2022.dwg, BOUNDARY 10SC

Draft Findings of Fact | Wetland Conditional Use Permit
City of Portsmouth Planning Board

Date: October 20, 2022
Property Address: 124 Kensington Rd.
Application #: **LU-22-138**
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Effective August 23, 2022, amended RSA 676:3, I now reads as follows: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of the 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** (Circle One)	***Draft* Supporting Information**
1	*1. The land is reasonably suited to the use activity or alteration.*	**Yes** **No**	Applicant is proposing to construct new garage further from the wetland boundary than the existing structure. Applicant is also proposing to remove existing impervious driveway in and around the 100' buffer and will replace with a pervious material.
2	2. *There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.*	**Yes** **No**	Applicant is unable to move garage location outside of buffer area as it would be within the front yard setback. They are proposing to move garage further away from wetland and still keep it outside of this setback. They intend to remove part of the existing impervious coverage of the buffer and replace with pervious coverage and native buffer plantings.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	**Finding** (Circle One)	***Draft* Supporting Information**
3	*3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.*	**Yes** **No**	Applicant is proposing no impact to the wetland and intends to improve the wetland buffer within the property and the stormwater that drains into the wetland on-site. The buffer plantings include multiple shrubs and herbaceous plants to be planted within the buffer between the proposed new structure and the wetland and existing retaining wall. The stormwater improvements include a stone drip edge along the perimeter of the proposed building and the permeable driveway and walkway which will both treat and infiltrate stormwater into the ground. These proposed improvements should help treat runoff as it reaches the buffer and wetland.
4	*4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.*	**Yes** **No**	Currently no natural vegetative state on the site plan is proposed to be altered or disturbed. Part of the buffer will receive additional plantings.
5	*5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.*	**Yes** **No**	This proposal shows an addition of buffer plantings and the applicant is proposing to treat runoff entering into the wetland where there was no treatment previously which should result in reducing the impacts of pollutants into the wetland.
6	*6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.*	**Yes** **No**	The applicant is proposing to restore over 760 s.f. of previously disturbed buffer area with an assortment of buffer plantings.
7	**Other Board Findings**		
8	**Additional Conditions of Approval**		

THIS DRAWING SET HAS NOT BEEN RELEASED FOR CONSTRUCTION

OUELLETT RESIDENCE
SITE IMPROVEMENTS

124 Kensington Road
Portsmouth, New Hampshire

Assessor's Parcel 152, Lot 20

ISSUED FOR PLANNING BOARD

Plan Issue Date:

SEPTEMBER 26, 2022

Owner/Applicant:
NEAL L. OUELLETT &
DARLENE L. FURBUSH OUELLETT
2006 REVOCABLE TRUST

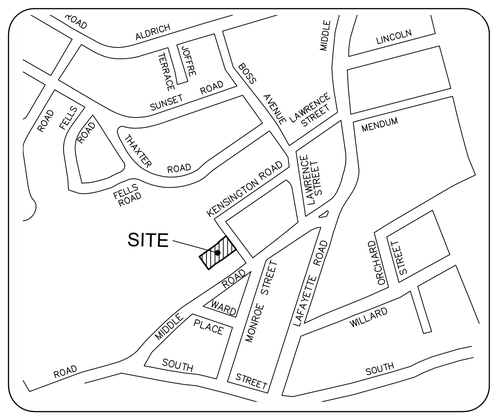
124 Kensington Road
Portsmouth, NH 03801
(603) 436-1565

Architect:
DMA DESTEFANO MAUGEL ARCHITECTS
Duncan Morton, Senior Architect
603 570 4023
22 Ladd Street, Portsmouth, NH 03801

Civil Engineer:
ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

Surveyor:
James Verra
& Associates Inc.
LAND SURVEYORS
101 SHATTUCK WAY, SUITE 8
Newington, New Hampshire
03801-7876
Tel 603-436-3557

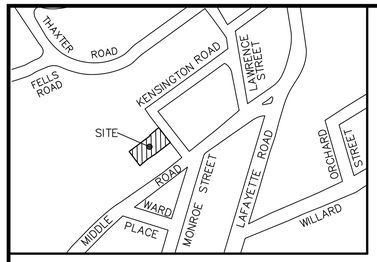
Wetland Scientist:
MICHAEL CUOMO, CWS
6 York Pond Road
York, ME 03909
(207) 363-4532



LOCUS NOT TO SCALE

Sheet Index Title	*Sheet No.:*	*Rev.*	*Date*
Existing Conditions Plan (by JVA)	0	0	04/25/22
Demolition Plan	C-1	2	09/26/22
Site Plan	C-2	2	09/26/22
Grading and Drainage Plan	C-3	2	09/26/22
Sitework Construction Details	D-1	2	09/26/22
Floor Plans (by Miguel DeStefano Architects)	–	0	06/29/22
Elevations (by Miguel DeStefano Architects)	–	0	06/29/22
Wetlands Buffer Conditional Use Permit Plan	1 of 1	2	09/26/22

P5225



LOCUS
(N.T.S.)

NH STATE PLANE COORDINATE SYSTEM
NAD 1983 (PER REFERENCE PLAN 1)

MISC. ELEVATION TABLE

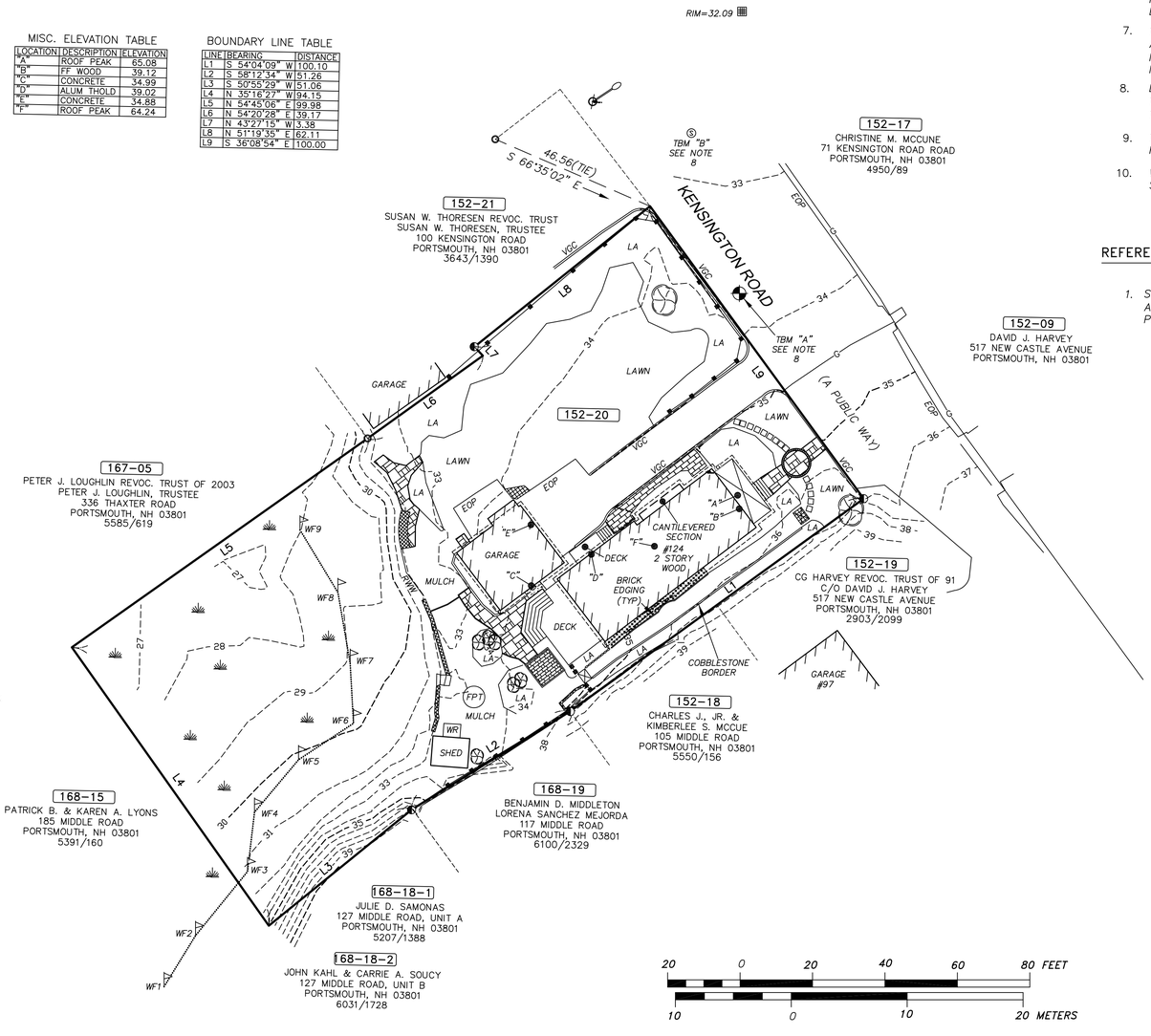
LOCATION	DESCRIPTION	ELEVATION
"A"	ROOF PEAK	65.08
"B"	FF WOOD	39.12
"C"	CONCRETE	34.99
"D"	ALUM THOLD	39.02
"E"	CONCRETE	34.88
"F"	ROOF PEAK	64.24

BOUNDARY LINE TABLE

LINE	BEARING	DISTANCE
L1	S 54°04'09" W	100.10
L2	S 58°12'34" W	51.26
L3	S 50°55'29" W	51.06
L4	N 35°16'27" W	94.15
L5	N 54°45'06" E	99.98
L6	N 54°20'28" E	39.17
L7	N 43°27'15" W	3.38
L8	N 51°19'35" E	62.11
L9	S 36°08'54" E	100.00

LEGEND:

- IRON PIPE FOUND
- IRON ROD FOUND(UNLESS NOTED)
- SURVEY NAIL (AS NOTED)
- CHAIN LINK FENCE
- *WOOD FENCE*
- CEMENT CONCRETE PAD
- BRICK PAVERS
- CRUSHED STONE
- STONE RETAINING WALL
- SLATE PAVERS
- UTILITY POLE
- UTILITY POLE W/TRANSFORMER
- GUY
- —*OHW*— OVERHEAD WIRES
- *RCRD* ROCKINGHAM COUNTY REGISTRY OF DEEDS
- 137–01 TAX SHEET / LOT NO.
- *EOP* EDGE OF PAVEMENT
- *LA* LANDSCAPED AREA
- CATCH BASIN
- SEWER MANHOLE
- — W — WATER LINE
- — S — SEWER LINE
- — G — GAS LINE
- WATER GATE VALVE
- VGC VERTICAL FACED GRANITE CURB
- RWW WOOD RETAINING WALL
- LA LANDSCAPED AREA
- PSNH PUBLIC SERVICE CO. OF NH
- EVS EVERSOURCE
- WETLAND FLAG
- FPT FIREPIT
- WR WOOD RAMP



NOTES:

1. OWNER OF RECORD.....NEAL L. OUELLETT 2006 REVOCABLE TRUST
   DARLENE L. FURBUSH OUELLETT 2006 REVOCABLE TRUST
   ADDRESS.....124 KENSINGTON ROAD, PORTSMOUTH NH 03801
   DEED REFERENCE.....5393/2581
   TAX SHEET / LOT.....152–20
   PARCEL AREA.....19,044 S.F, 0.44 ACRES
2. ZONED:.....*SINGLE RESIDENCE B*
   MINIMUM LOT AREA..*15,000 S.F.*
   FRONTAGE.....*100'*
   FRONT YARD SETBACK....*30'*
   SIDE YARD SETBACK.....*10'*
   REAR YARD SETBACK.....*30'*
3. THE RELATIVE ERROR OF CLOSURE WAS LESS THAN 1 FOOT IN 15,000 FEET.
4. *THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE CATCH BASINS, MANHOLES, WATER GATES ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY COMPANIES AND GOVERNMENTAL AGENCIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, SAID AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG–SAFE @ 1–888–DIG–SAFE.*
5. *HORIZONTAL DATUM: NAD 1983 ESTABLISHED BY SURVEY GRADE GPS OBSERVATION AND NGS "OPUS" SOLUTION. REFERENCE FRAME: NAD83 (2011)(EPOCH: 2010.0000), US SURVEY FOOT.*
   VERTICAL DATUM: NAVD 1988. PRIMARY BENCHMARK: NHDOT 379–0500
6. *CONTRACTOR TO VERIFY SITE BENCHMARKS BY LEVELING BETWEEN 2 BENCHMARKS PRIOR TO THE ESTABLISHMENT OF ANY GRADES OR ELEVATIONS. DISCREPANCIES ARE TO BE REPORTED TO JAMES VERRA AND ASSOCIATES, INC..*
7. *THE PARCEL SHOWN HEREON LIES WITHIN ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS IDENTIFIED ON FLOOD INSURANCE RATE MAP, ROCKINGHAM COUNTY, NEW HAMPSHIRE, MAP NUMBER 33015C0259F, EFFECTIVE DATE 1/29/2021 BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.*
8. *DESCRIPTIONS OF THE SITE BENCHMARKS:*
   TBM"A": SURVEY NAIL ELEVATION=33.75
   TBM"B": SEWER MANHOLE RIM ELEVATION=32.67
9. *THE LOCATION OF WATER, SEWER AND DRAIN LINES OUTSIDE THE BUILDINGS HAVE NOT BEEN DETERMINED.*
10. *WETLANDS AS SHOWN WERE DELINEATED BY MICHAEL CUOMO, NH WETLANDS SCIENTIST #004 ON JULY 16, 2021*

REFERENCE PLANS:

1. *SUBDIVISION AND LOT LINE ADJUSTMENT PLAN, SANDERSON FIELDS, ASSESSOR'S PARCELS 170–024 167–005, SPINNEY ROAD & MIDDLE ROAD, PORTSMOUTH, REVISED TO 9–20–2012. RECORDED AS RCRD PLAN #D–37457.*

ALTUS ENGINEERING, INC.
133 COURT STREET PORTSMOUTH, NH 03801
(603) 433–2335 www.ALTUS–ENG.com

JAMES VERRA & ASSOCIATES, INC.
LAND SURVEYORS
101 SHATTUCK WAY – SUITE 8
NEWINGTON, N.H. 03801– 7876
603–436–3557

JOB NO: 23953

ISSUED FOR:
ENGINEERING DESIGN

ISSUE DATE:
4–25–2022

REVISIONS

NO.	DESCRIPTION	BY	DATE

DRAWN BY: GTD
APPROVED BY: JV
DRAWING FILE: 23953.DWG

SCALE:
22" x 34" – 1" = 20'
11" x 17" – 1" = 40'

APPLICANT:
NEAL L. OUELLETT 2006 REVOC. TRUST
DARLENE L. FURBUSH OUELLETT
2006 REVOCABLE. TRUST
124 KENSINGTON ROAD
PORTSMOUTH, NH 03801

OWNER:
NEAL L. OUELLETT 2006 REVOC. TRUST
DARLENE L. FURBUSH OUELLETT
2006 REVOCABLE. TRUST
124 KENSINGTON ROAD
PORTSMOUTH, NH 03801

PROJECT:
OUELLETT RESIDENCE
TAX MAP 152, LOT 20
124 KENSINGTON ROAD
PORTSMOUTH, NH

TITLE:
EXISTING CONDITIONS PLAN
124 KENSINGTON ROAD
PORTSMOUTH, NH

SHEET NUMBER:
EX-1

P5225

DEMOLITION NOTES

1. THE CONTRACTOR SHALL BRING ANY AND ALL DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS TO THE ATTENTION OF THE OWNER AND ENGINEER IMMEDIATELY FOR RESOLUTION.
2. ALL BUILDINGS, CURBING, CONCRETE, PAVEMENT AND SUBBASE MATERIALS SHALL BE REMOVED FROM PROPOSED LANDSCAPE AREAS TO A MINIMUM DEPTH OF 12" BELOW FINISH GRADE AND REPLACED WITH LOAM MATERIALS SUITABLE FOR LANDSCAPE PURPOSES AND MEETING THE PROJECT SPECIFICATIONS.
3. IN AREAS WHERE CONSTRUCTION IS TO BE ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING AND/OR CHAIN LINK FENCING ALONG THE PROPERTY LINE IN ALL AREAS WHERE SILT FENCING OR OTHER PERIMETER SEDIMENT CONTROL MEASURE IS NOT OTHERWISE REQUIRED.
4. CITY DEMOLITION PERMIT REQUIRED PRIOR TO ANY DEMOLITION ACTIVITIES. CONTRACTOR IS NOTIFIED THAT THIS PERMIT PROCESS MAY REQUIRE A 30-DAY LEAD TIME.
5. CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES & VEGETATION SCHEDULED TO REMAIN.
6. 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 ACTIVITIES WHETHER OR NOT SAID UTILITIES ARE SUBJECT TO DEMOLITION, RELOCATION, MODIFICATION AND/OR CONSTRUCTION.
7. WHERE SPECIFIED TO REMAIN, MANHOLE RIMS, CATCH BASIN GRATES, VALVE COVERS, HANDHOLES, ETC. SHALL BE ADJUSTED TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
8. SEE EROSION CONTROL PLANS FOR EROSION AND SEDIMENT CONTROL MEASURES THAT SHALL BE IN PLACE PRIOR TO DEMOLITION ACTIVITIES.
9. ALL MATERIALS SCHEDULED FOR DEMOLITION OR REMOVAL ON PRIVATE PROPERTY SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
10. ALL MATERIAL SCHEDULED TO BE REMOVED SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS/CODES.
11. NO BURNING SHALL BE PERMITTED PER LOCAL REGULATIONS.
12. HAZARDOUS MATERIALS ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ABATED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS.
13. 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.
14. 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 BUILDING, PAVEMENT, CONCRETE, CURBING, SIGNS, POLES, UTILITIES, FENCES, VEGETATION AND OTHER EXISTING FEATURES AS NECESSARY TO FULLY CONSTRUCT THE PROJECT.

MISC. ELEVATION TABLE

LOCATION	DESCRIPTION	ELEVATION
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"B"	FF WOOD	39.12
"C"	CONCRETE	34.99
"D"	ALUM THOLD	39.02
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- SURVEY NAIL (AS NOTED)
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- GUY
- —OHW— OVERHEAD WIRES
- *RCRD* ROCKINGHAM COUNTY REGISTRY OF DEEDS
- 137-01 TAX SHEET / LOT NO.
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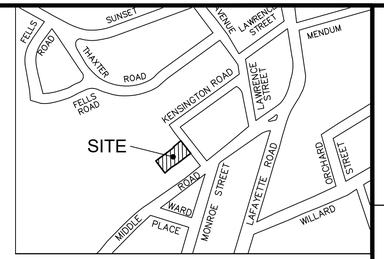
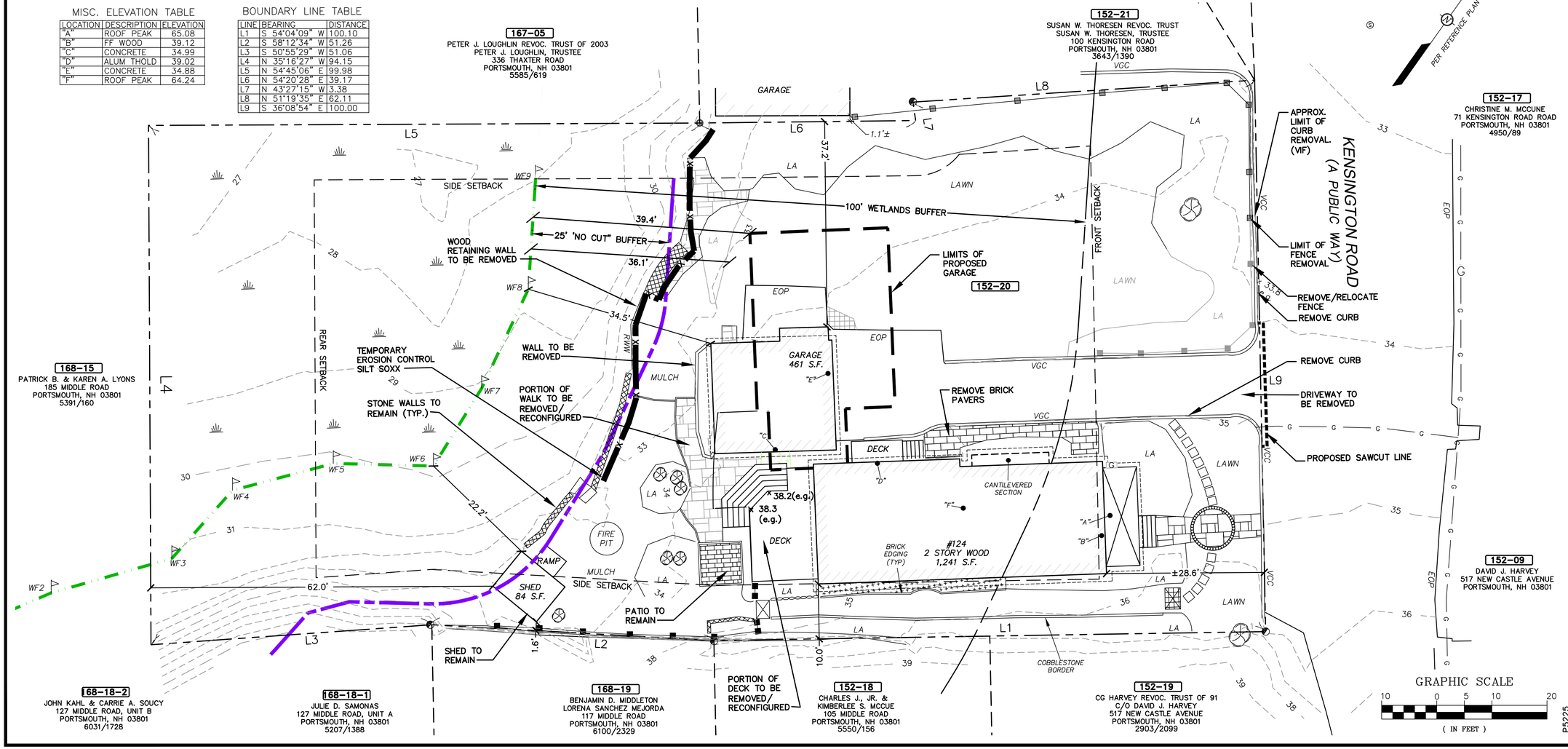
- WETLAND FLAG



LOCUS
(N.T.S.)



GRAPHIC SCALE
10 0 5 10 20
(IN FEET)

P5225

ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE
9/26/22

NOT FOR CONSTRUCTION

ISSUED FOR:
PLANNING BOARD APPROVAL

ISSUE DATE:
SEPTEMBER 26, 2022

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	DISCUSSION	EDW	06/29/22
1	FORMAL CON. COMM. SUBMISSION	EDW	08/30/22
2	PB SUBMISSION	EDW	09/26/22

DRAWN BY: RLH
APPROVED BY: EDW
DRAWING FILE: 5225.DWG

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNER/APPLICANT:
NEAL L. OUELLETT &
DARLENE L. FURBUSH OUELLETT
2006 REVOC. TRUST
124 KENSINGTON ROAD
PORTSMOUTH, NH 03801

PROJECT:
OUELLETT RESIDENCE
TAX MAP 152, LOT 20
124 KENSINGTON ROAD
PORTSMOUTH, NH

TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C - 1

NOTES

1. *DESIGN INTENT – THIS PLAN IS INTENDED TO DEPICT SITE PLANS TO OBTAIN CITY APPROVALS.*
2. *THE BASE PLAN USED HERE WAS DEVELOPED FROM "EXISTING CONDITIONS PLAN, 124 KENSINGTON ROAD, PORTSMOUTH, N.H., ASSESSOR'S PARCELS 152–20" BY JAMES VERRA AND ASSOCIATES, INC., DATED 04/25/2022.*
3. *ZONES: SRB (SINGLE RESIDENTIAL B)*
4. *PROJECT PARCEL: TAX MAP 152 LOT 20 19,044 S.F. (±0.44 AC.)*
5. *DIMENSIONAL REQUIREMENTS:*

	SRB	PROVIDED
MIN. LOT AREA:	15,000 S.F. (0.34 AC.)	19,044 S.F.
MIN. STREET FRONTAGE:	100'	±100'
MIN. LOT DEPTH:	100'	±202'
FRONT SETBACK:	30' (±28.6' EXISTING)	±28.6'
SIDE SETBACK:	10' (±1.6' EXISTING)	±1.6'
REAR SETBACK:	30' (±62.0' EXISTING)	±62.0'
MAX. BUILDING HEIGHT:	35' (SLOPED ROOF) (±29.5' – EXISTING TWO STORIES)	<35'
MAX. BUILDING COVERAGE:	20% (±11.3% EXISTING)	±15.2%
MIN. OPEN SPACE:	40% (±78.1% EXISTING)	±73.5%
WETLAND BUFFER:	100' (±22.2' EXISTING)	±22.2'
WETLAND NO–CUT:	25'	25'

LOT AREA IN WETLAND: ±4,244 S.F. (±22.3%)

LOT AREA IN WETLAND & WETLAND BUFFER: ±15,424 S.F. (±81.0% OF PARCEL)

EXISTING LOT IMPERVIOUS IN WETLAND BUFFER: ±3,123 S.F. (±16.4%)

PROPOSED LOT IMPERVIOUS IN WETLAND BUFFER: ±3,182 S.F. (±16.7%)

MISC. ELEVATION TABLE

LOCATION	DESCRIPTION	ELEVATION
"A"	ROOF PEAK	65.08
"B"	FF WOOD	39.12
"C"	CONCRETE	34.99
"D"	ALUM THOLD	39.02
"E"	CONCRETE	34.88
"F"	ROOF PEAK	64.24

BOUNDARY LINE TABLE

LINE	BEARING	DISTANCE
L1	S 54°04'09" W	100.10
L2	S 58°12'34" W	51.26
L3	S 50°55'29" W	51.06
L4	N 35°16'27" W	94.15
L5	N 54°45'06" E	99.98
L6	N 54°20'28" E	39.17
L7	N 43°27'15" W	3.38
L8	N 51°19'35" E	62.11
L9	S 36°08'54" E	100.00

6. OPEN SPACE CALCULATION

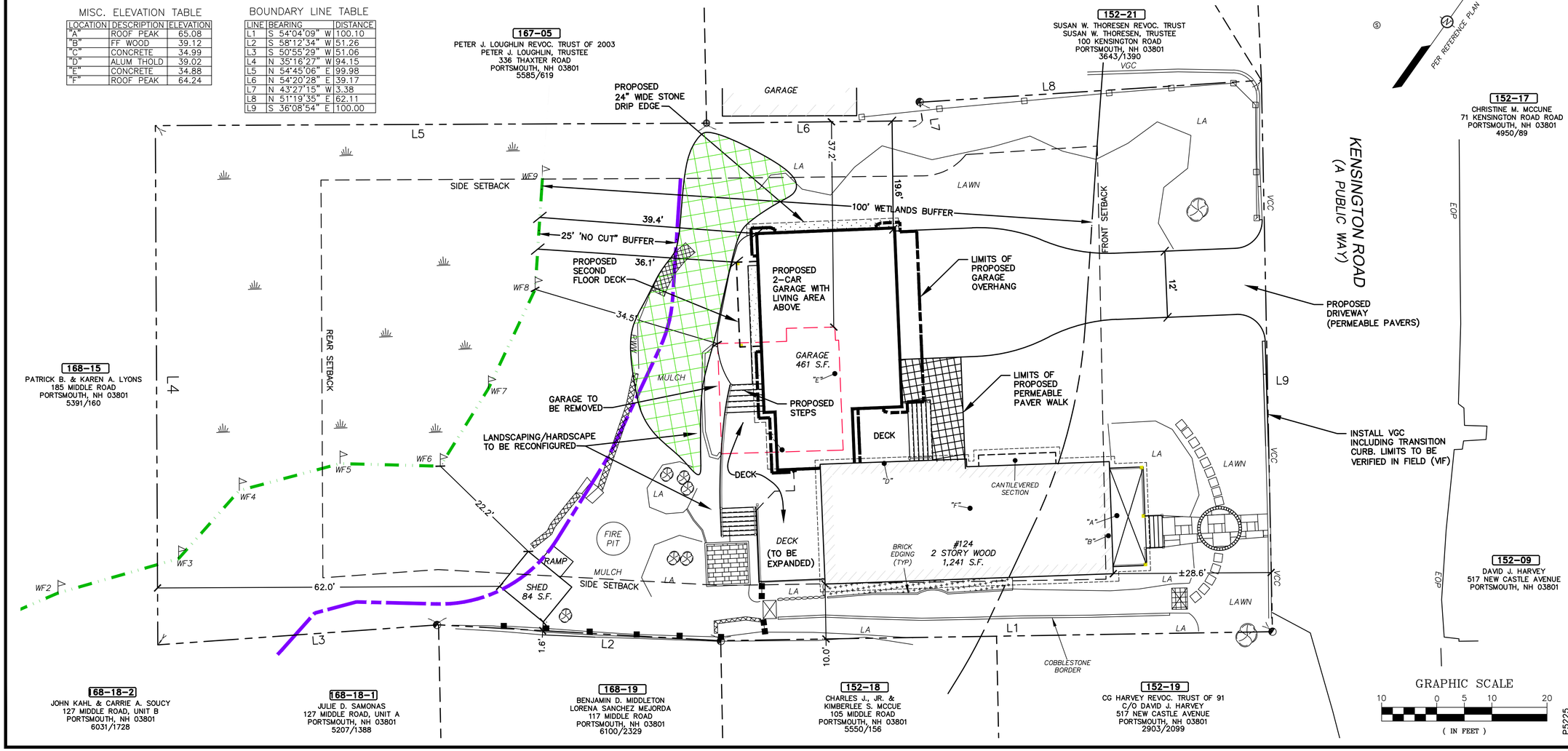
	EXISTING	PROPOSED
TOTAL LOT AREA:	19,044± S.F.	
HOUSE/GARAGE/SHED/DECKS	2,157± S.F.	2,901± S.F.
DRIVEWAY	1,140± S.F.	1,105± S.F.
HARDSCAPING/WALLS	866± S.F.	895± S.F.
TOTAL COVERAGE	4,163± S.F.	4,901± S.F.
OPEN SPACE	14,881± S.F. (78.1%)	13,993± S.F. (73.5%)

TOTAL LOT IMPERVIOUS (PAVEMENT, BLDGS., DECKS, WALLS) – (EXCLUDING PERMEABLE SURFACES) 4,163± S.F. 3,796± S.F.

8. PORTIONS OF THE SITE ARE IN FLOOD HAZARD ZONE X PER FLOOD INSURANCE RATE MAP (FIRM), ROCKINGHAM COUNTY, NEW HAMPSHIRE, MAP #33015C0278F JANUARY 29, 2021.
9. WETLANDS WERE DELINEATED BY MICHAEL CUOMO, NH CERTIFIED WETLANDS SCIENTIST #004 ON JULY 16, 2021.
10. AREA OF DISTURBANCE UNDER 43,560 S.F., EPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT NOT REQUIRED.
11. AREA OF DISTURBANCE UNDER 100,000 S.F., NHDES ALTERATION OF TERRAIN PERMIT NOT REQUIRED.
12. ZONING SECTION 10.1016 – CONDITIONAL USE PERMIT REQUIRED FOR WORK IN THE CITY WETLAND BUFFER.
13. ALL UTILITIES FOR THE PROPOSED ADDITION WILL BE SERVICED FROM THE EXISTING BUILDING.
14. THERE SHALL BE SIGNAGE PLACED WITHIN THE BUFFER OR THE WETLAND ITSELF STATING THAT THIS IS AN ENVIRONMENTALLY–SENSITIVE AREA.
15. THERE SHALL BE A NOTE PLACED IN THE DEED THAT A MAINTENANCE PLAN IS REQUIRED FOR THE PERMEABLE HARDSCAPING AREAS ON THE SITE AS WELL AS THE STORM–WATER SYSTEMS.

LEGEND:

- IRON PIPE FOUND
- IRON ROD FOUND(UNLESS NOTED)
- SURVEY NAIL (AS NOTED)
- CHAIN LINK FENCE
- *WOOD FENCE*
- CEMENT CONCRETE PAD
- BRICK PAVERS
- CRUSHED STONE
- STONE RETAINING WALL
- SLATE PAVERS
- UTILITY POLE
- UTILITY POLE W/TRANSFORMER
- GUY
- —*OHW*— OVERHEAD WIRES
- *RCRD* ROCKINGHAM COUNTY REGISTRY OF DEEDS
- 137–01 TAX SHEET / LOT NO.
- *EOP* EDGE OF PAVEMENT
- *LA* LANDSCAPED AREA
- CATCH BASIN
- SEWER MANHOLE
- — W — WATER LINE
- — S — SEWER LINE
- — G — GAS LINE
- WATER GATE VALVE
- VGC VERTICAL FACED GRANITE CURB
- RWW WOOD RETAINING WALL
- LA LANDSCAPED AREA
- WETLAND FLAG



GRAPHIC SCALE
10 0 5 10 20
(IN FEET)

P5225

ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

STATE OF NEW HAMPSHIRE
ERIC D. WEINRIEB
No. 7634
LICENSED
PROFESSIONAL ENGINEER
9/26/22

NOT FOR CONSTRUCTION

ISSUED FOR:
PLANNING BOARD APPROVAL

ISSUE DATE:
SEPTEMBER 26, 2022

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	DISCUSSION	EDW	06/29/22
1	FORMAL CON. COMM. SUBMISSION	EDW	08/30/22
2	PER CON. COMM. COA	EDW	09/26/22

DRAWN BY: RLH
APPROVED BY: EDW
DRAWING FILE: 5225.DWG

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNER/APPLICANT:
NEAL L. OUELLETT &
DARLENE L. FURBUSH OUELLETT
2006 REVOC. TRUST
124 KENSINGTON ROAD
PORTSMOUTH, NH 03801

PROJECT:
OUELLETT RESIDENCE
TAX MAP 152, LOT 20
124 KENSINGTON ROAD
PORTSMOUTH, NH

TITLE:
SITE PLAN

SHEET NUMBER:
C - 2

STORMWATER MANANGEMENT 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 BIODEGRADEABLE.
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, ORGANIC FERTILIZER, 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.
19. SLOW RELEASE FERTILIZER SHALL BE USED IN THE 100-FOOT BUFFER.

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- SURVEY NAIL (AS NOTED)
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- *WOOD FENCE*
- CEMENT CONCRETE PAD
- BRICK PAVERS
- CRUSHED STONE
- STONE RETAINING WALL
- SLATE PAVERS
- UTILITY POLE
- UTILITY POLE W/TRANSFORMER
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- — W — WATER LINE
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- WATER GATE VALVE
- VGC VERTICAL FACED GRANITE CURB
- RWW WOOD RETAINING WALL
- LA LANDSCAPED AREA
- WETLAND FLAG
- DRAINAGE FLOW ARROW

MISC. ELEVATION TABLE

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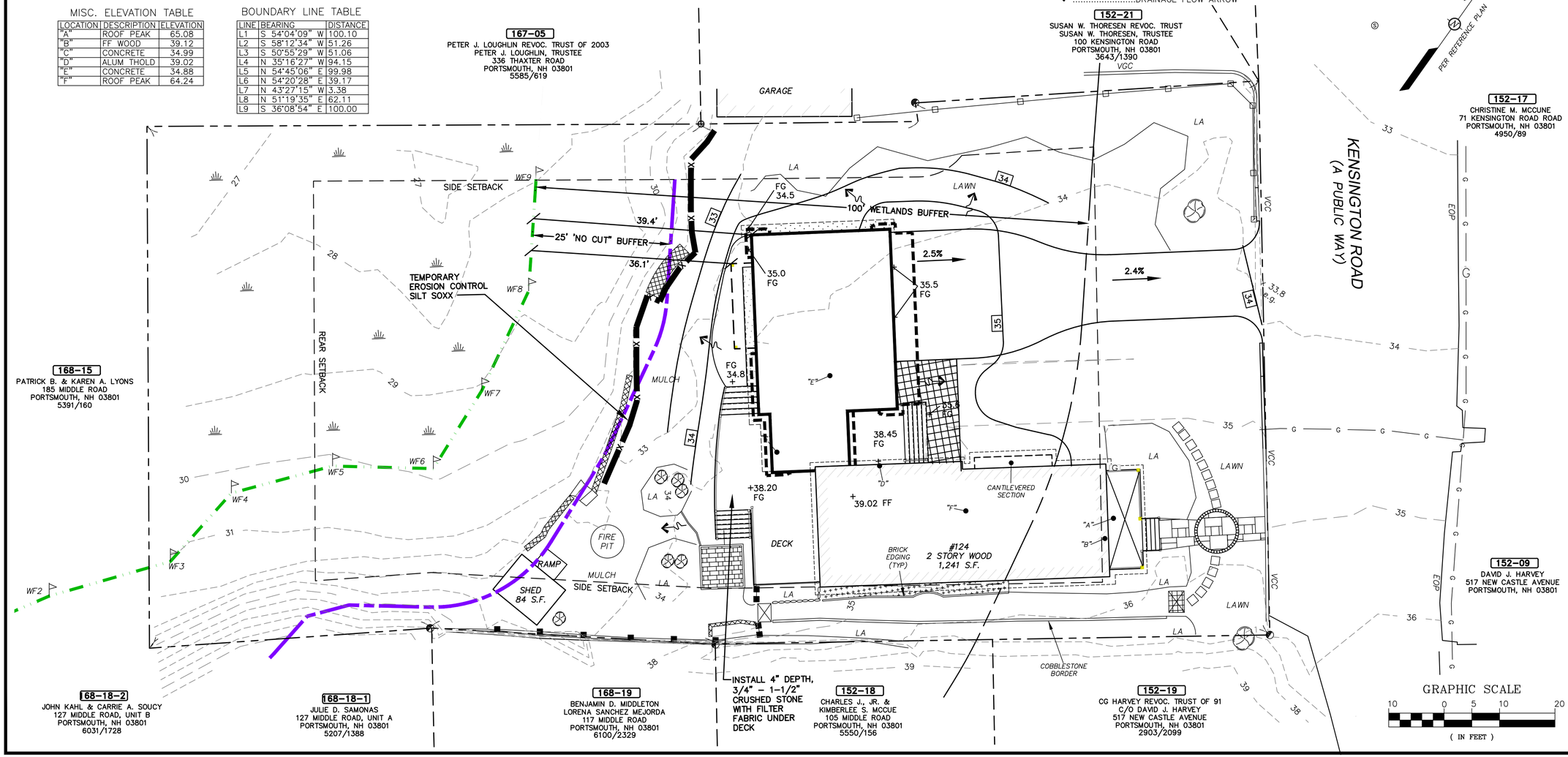

GRAPHIC SCALE
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P5225

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9/26/22

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APPROVED BY: EDW
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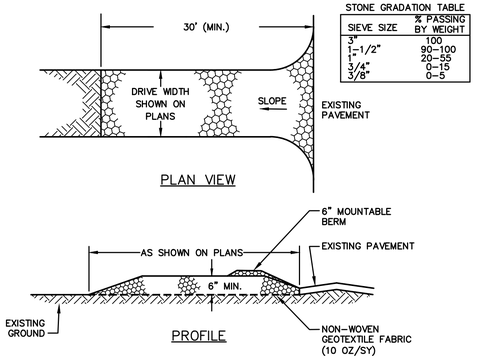
2006 REVOC. TRUST
124 KENSINGTON ROAD
PORTSMOUTH, NH 03801

PROJECT:
OUELLETT RESIDENCE
TAX MAP 152, LOT 20
124 KENSINGTON ROAD
PORTSMOUTH, NH

TITLE:
GRADING & DRAINAGE PLAN

SHEET NUMBER:
C - 3



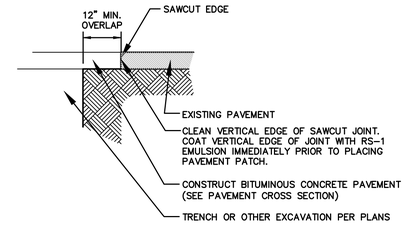
STONE GRADATION TABLE

SIEVE SIZE	% PASSING BY WEIGHT
3"	100
1-1/2"	90-100
1"	20-55
3/4"	0-15
3/8"	0-5

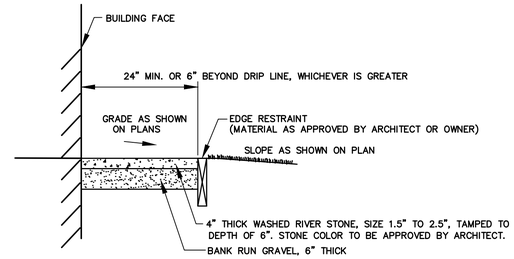
CONSTRUCTION SPECIFICATIONS

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.

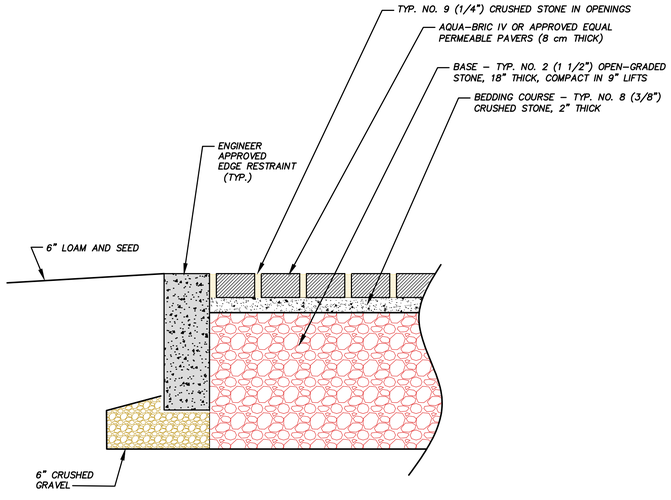
STABILIZED CONSTRUCTION EXIT NOT TO SCALE



TYPICAL PAVEMENT SAWCUT NOT TO SCALE

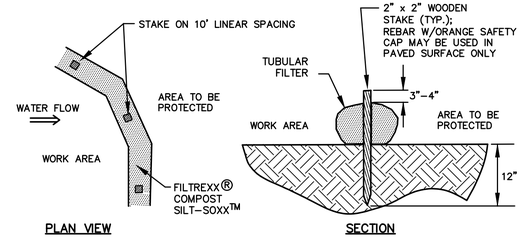


DRIP EDGE DETAIL NOT TO SCALE



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:
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

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ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE
9/26/22

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OWNER/APPLICANT:
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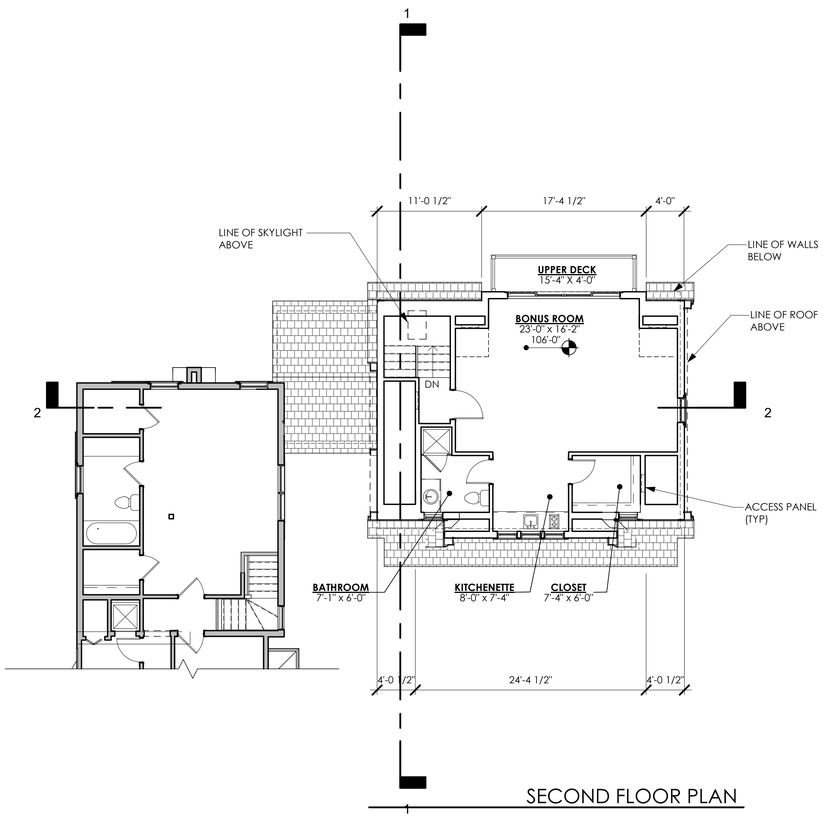
124 KENSINGTON ROAD
PORTSMOUTH, NH 03801

PROJECT:
OUELLETT RESIDENCE
TAX MAP 152, LOT 20
124 KENSINGTON ROAD
PORTSMOUTH, NH

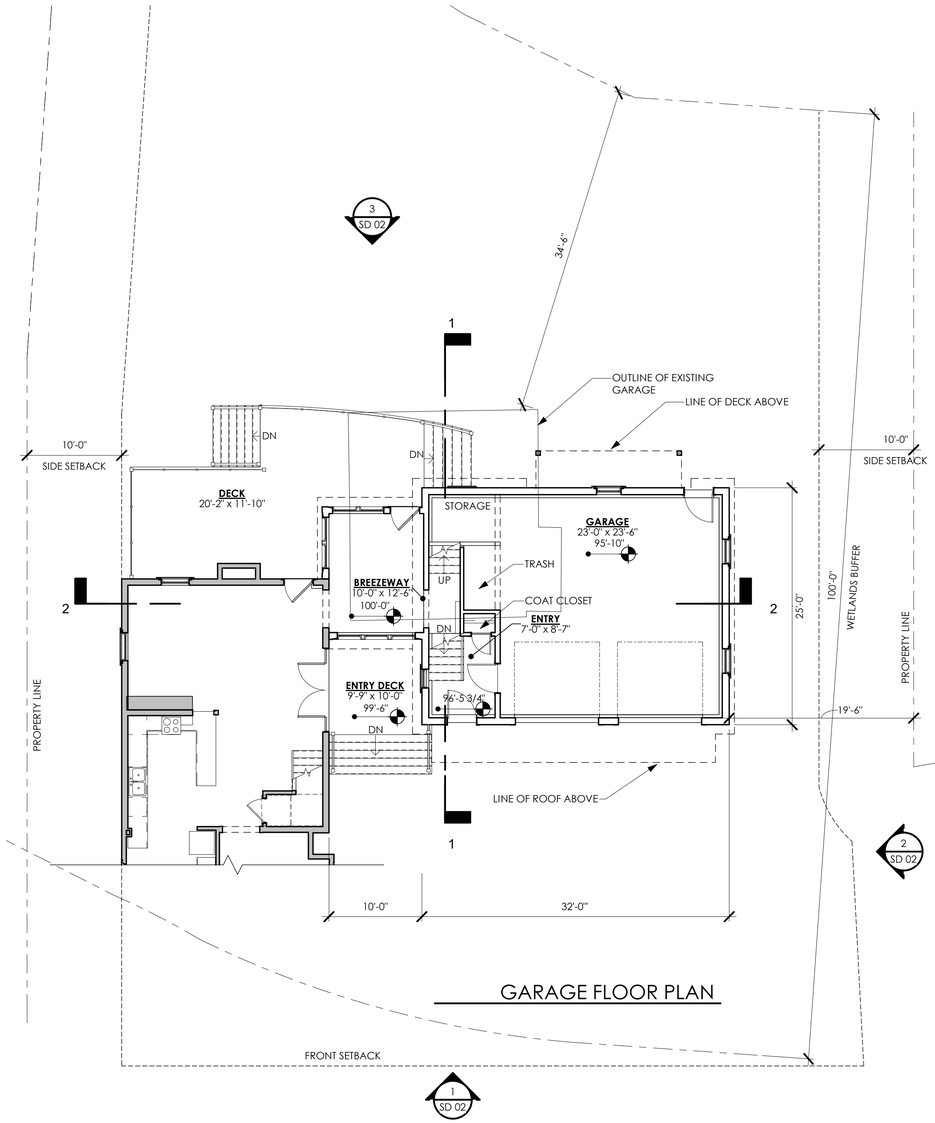
TITLE:
SITEWORK CONSTRUCTION DETAILS

SHEET NUMBER:
D-1

P5225



SECOND FLOOR PLAN



GARAGE FLOOR PLAN

OUELLETT RESIDENCE

124 KENSINGTON RD
PORTSMOUTH, NH

FLOOR PLANS

1/8" = 1'-0"

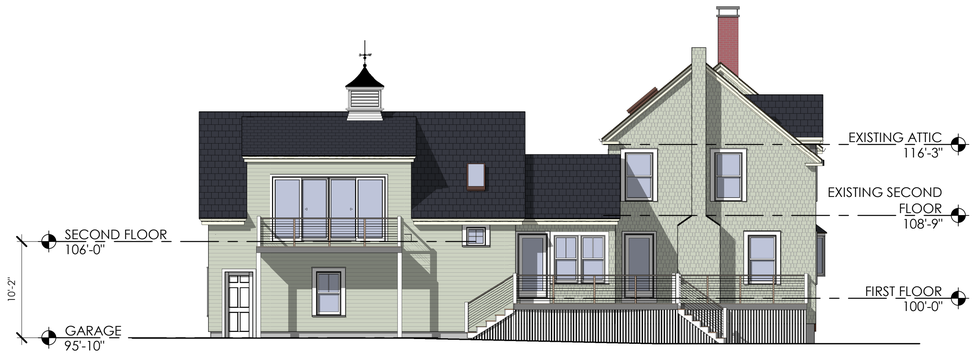
N

AREA BREAKDOWN	
FIRST FLOOR	221 SF
SECOND FLOOR	589 SF
TOTAL HEATED	810 SF
GARAGE	616SF

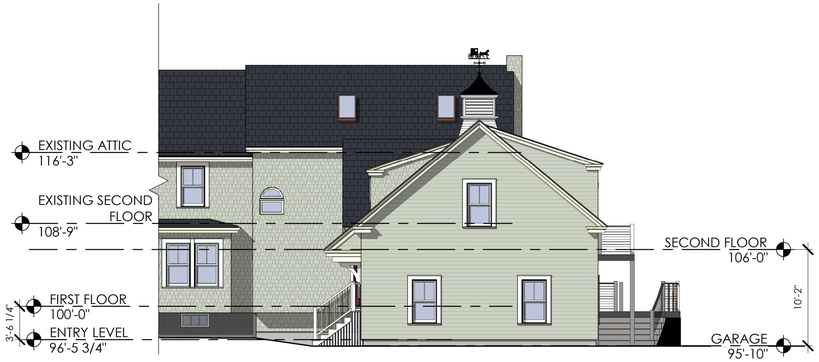
21129

29 JUNE 2022

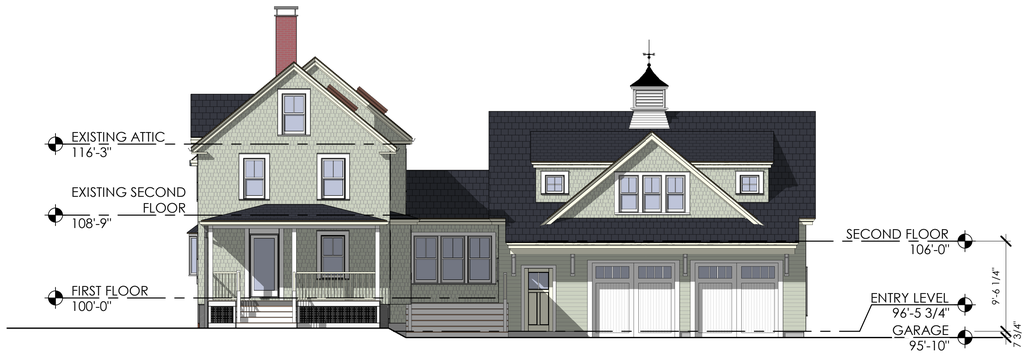
DMA
DESTEFANO MAUGEL
ARCHITECTS



PROPOSED NORTH ELEVATION 3
1/8" = 1'-0"



PROPOSED EAST ELEVATION 2
1/8" = 1'-0"



PROPOSED SOUTH ELEVATION 1
1/8" = 1'-0"

21129

OUELLETT RESIDENCE

124 KENSINGTON RD
PORTSMOUTH, NH

ELEVATIONS
1/8" = 1'-0"

29 JUNE 2022

DMA
DESTEFANO MAUGEL
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NOTES

1. *DESIGN INTENT – THIS PLAN IS INTENDED TO DEPICT SITE PLANS TO OBTAIN CITY APPROVALS.*
2. *THE BASE PLAN USED HERE WAS DEVELOPED FROM "EXISTING CONDITIONS PLAN, 124 KENSINGTON ROAD, PORTSMOUTH, N.H., ASSESSOR'S PARCELS 152–20" BY JAMES VERRA AND ASSOCIATES, INC., DATED 04/25/2022.*
3. *ZONES: SRB (SINGLE RESIDENTIAL B)*
4. *PROJECT PARCEL: TAX MAP 152 LOT 20 19,044 S.F. (±0.44 AC.)*
5. *DIMENSIONAL REQUIREMENTS:*

	SRB	PROVIDED
MIN. LOT AREA:	15,000 S.F. (0.34 AC.)	19,044 S.F.
MIN. STREET FRONTAGE:	100'	±100'
MIN. LOT DEPTH:	100'	±202'
FRONT SETBACK:	30' (±28.6' EXISTING)	±28.6'
SIDE SETBACK:	10' (±1.6' EXISTING)	±1.6'
REAR SETBACK:	30' (±62.0' EXISTING)	±62.0'
MAX. BUILDING HEIGHT:	35' (SLOPED ROOF) (±29.5' – EXISTING TWO STORIES)	<35'
MAX. BUILDING COVERAGE:	20% (±11.3% EXISTING)	±15.2%
MIN. OPEN SPACE:	40% (±78.1% EXISTING)	±73.5%
WETLAND BUFFER:	100' (±22.2' EXISTING)	±22.2'
WETLAND NO–CUT:	25'	25'

LOT AREA IN WETLAND: ±4,244 S.F. (±22.3%)

LOT AREA IN WETLAND & WETLAND BUFFER: ±15,424 S.F. (±81.0% OF PARCEL)

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LINE	BEARING	DISTANCE
L1	S 54°04'09" W	100.10
L2	S 58°12'34" W	51.26
L3	S 50°55'29" W	51.06
L4	N 35°16'27" W	94.15
L5	N 54°45'06" E	99.98
L6	N 54°20'28" E	39.17
L7	N 43°27'15" W	3.38
L8	N 51°19'35" E	62.11
L9	S 36°08'54" E	100.00

6. OPEN SPACE CALCULATION
   TOTAL LOT AREA: 19,044± S.F.

	EXISTING	PROPOSED
HOUSE/GARAGE/SHED/DECKS	2,157± S.F.	2,901± S.F.
DRIVEWAY	1,140± S.F.	1,105± S.F.
HARDSCAPING IMPERVIOUS/WALLS	866± S.F.	895± S.F.
TOTAL COVERAGE	4,163± S.F.	4,901± S.F.
OPEN SPACE	14,881± S.F. (78.1%)	13,993± S.F. (73.5%)

   TOTAL LOT IMPERVIOUS (PAVEMENT, BLDGS., DECKS, WALLS) – EXCLUDING PERMEABLE PAVERS
   4,163± S.F. 3,796± S.F.
8. PORTIONS OF THE SITE ARE IN FLOOD HAZARD ZONE X PER FLOOD INSURANCE RATE MAP (FIRM), ROCKINGHAM COUNTY, NEW HAMPSHIRE, MAP #33015C0278F JANUARY 29, 2021.
9. WETLANDS WERE DELINEATED BY MICHAEL CUOMO, NH CERTIFIED WETLANDS SCIENTIST #004 ON JULY 16, 2021.
10. THE TOTAL AREA OF THE INLAND WETLAND IS APPROXIMATELY 6.9 ACRES PER MAPGEO DATA.
11. ZONING SECTION 10.1016 – CONDITIONAL USE PERMIT REQUIRED FOR WORK IN THE CITY WETLAND BUFFER.
12. THERE SHALL BE SIGNAGE PLACED WITHIN THE BUFFER OR THE WETLAND ITSELF STATING THAT THIS IS AN ENVIRONMENTALLY–SENSITIVE AREA.
13. THERE SHALL BE A NOTE PLACED IN THE DEED THAT A MAINTENANCE PLAN IS REQUIRED FOR THE PERMEABLE HARDSCAPING AREAS ON THE SITE AS WELL AS THE STORM–WATER SYSTEMS.

WETLANDS BUFFER IMPACT TABLE

DIRECT WETLANDS IMPACTS	= 0 SF
WETLANDS BUFFER IMPACTS	= 4,320 SF
EXISTING IMPERVIOUS AREA IN WETLANDS BUFFER	= 3,123 SF
PROPOSED IMPERVIOUS AREA IN WETLANDS BUFFER	= 3,182 SF

SHRUBS FOR BUFFER PLANTING
CLETHRA ALNIFOLIA
VACCINIUM ANGUSTIFOLIUM
COMPTONIA PEREGRINA
TRANSPLANTED RUBUS IDAEUS

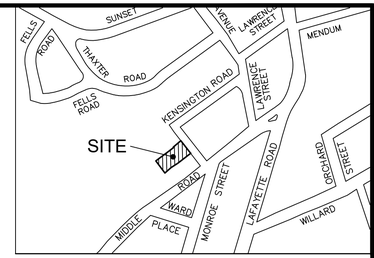
HERBACEOUS PLANTS
IRIS VERSICOLOR
POLYSTICHUM ACROSTICHOIDES
TIARELLA CORDIFOLIA
DENNSTAEDTIA PUNCTILOBULA
ASTER NOVAE ANGILAE

PLANT SPACING
PLANT SHRUBS 5' ON CENTER OR 4 PER 100 S.F.

PLANT NERBACEOUS PLANTS 3' ON CENTER OR 11 PER 100 S.F.

LEGEND:

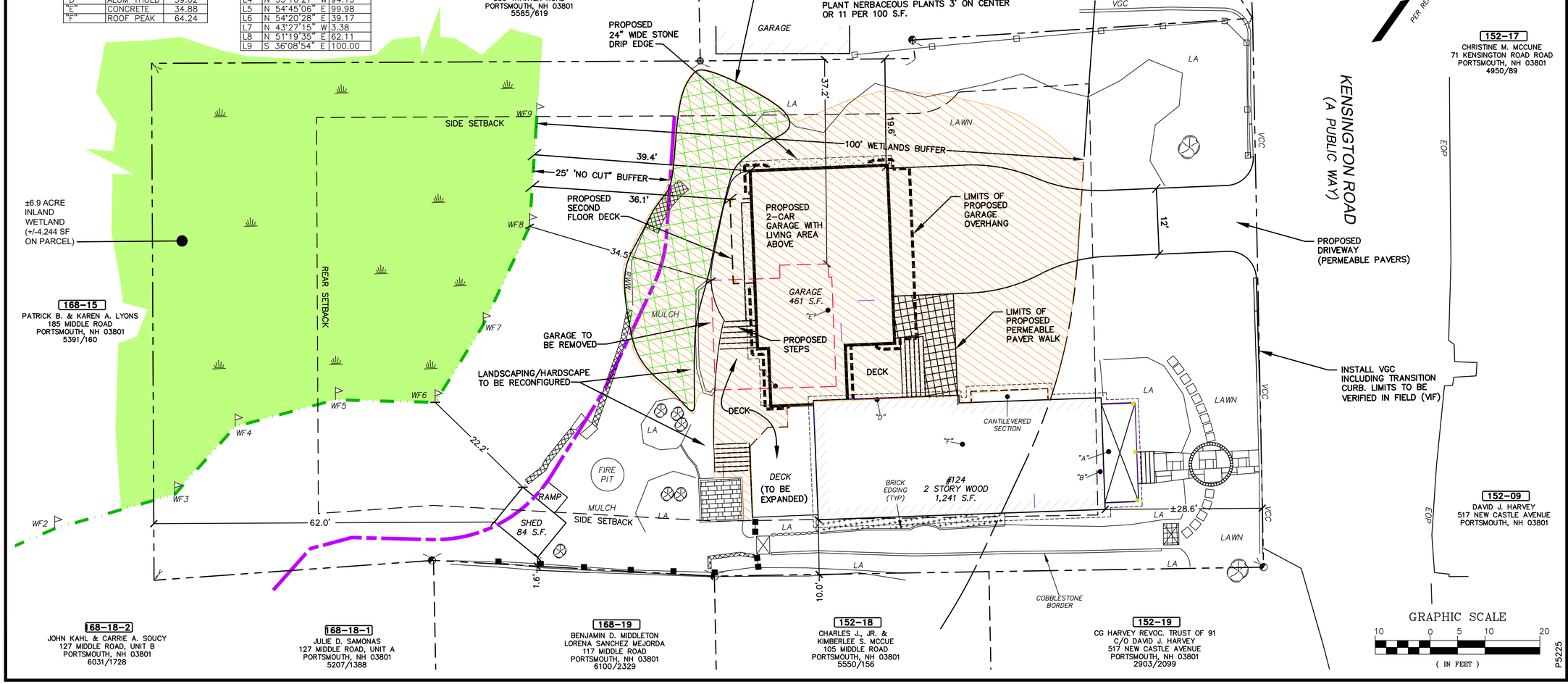
- IRON PIPE FOUND
- IRON ROD FOUND(UNLESS NOTED)
- SURVEY NAIL (AS NOTED)
- CHAIN LINK FENCE
- *WOOD FENCE*
- CEMENT CONCRETE PAD
- BRICK PAVERS
- CRUSHED STONE
- STONE RETAINING WALL
- SLATE PAVERS
- UTILITY POLE
- UTILITY POLE W/TRANSFORMER
- GUY
- —*OHW*— OVERHEAD WIRES
- *RCRD* ROCKINGHAM COUNTY REGISTRY OF DEEDS
- 137–01 TAX SHEET / LOT NO.
- *EOP* EDGE OF PAVEMENT
- *LA* LANDSCAPED AREA
- CATCH BASIN
- SEWER MANHOLE
- — W — WATER LINE
- — S — SEWER LINE
- — G — GAS LINE
- WATER GATE VALVE
- VGC VERTICAL FACED GRANITE CURB
- RWW WOOD RETAINING WALL
- LA LANDSCAPED AREA
- WETLAND FLAG



LOCUS
(N.T.S.)

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN *DATE*



ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

STATE OF NEW HAMPSHIRE – ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER – 9/26/22

NOT FOR CONSTRUCTION

ISSUED FOR:
PLANNING BOARD APPROVAL

ISSUE DATE:
SEPTEMBER 26, 2022

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	DISCUSSION	EDW	06/29/22
1	FORMAL CON. COMM. SUBMISSION	EDW	08/30/22
2	PER CON. COMM. COA	EDW	09/26/22

DRAWN BY: RLH
APPROVED BY: EDW
DRAWING FILE: 5225.DWG

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNER/APPLICANT:
NEAL L. OUELLETT &
DARLENE L. FURBUSH OUELLETT
2006 REVOC. TRUST
124 KENSINGTON ROAD
PORTSMOUTH, NH 03801

PROJECT:
OUELLETT RESIDENCE
TAX MAP 152, LOT 20
124 KENSINGTON ROAD
PORTSMOUTH, NH

TITLE:
WETLANDS BUFFER CONDITIONAL USE PLAN

SHEET NUMBER:
1 OF 1

P5225

Draft Findings of Fact | Accessory Dwelling Unit
City of Portsmouth Planning Board

Date: October 20, 2022
Property Address: 15 Central Avenue
Application #: **LU-22-123**
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:
Effective August 23, 2022, amended RSA 676:3, I now reads as follows: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of the all conditions necessary to obtain final approval.

Zoning Ordinance -10.814.60: Before granting a conditional use permit for an attached or detached ADU, the Planning Board shall make the following findings:

	Section 10.814.60	**Finding** (Meets Requirement/ Criteria)	***Draft* Supporting Information**
1	10.814.61 Exterior design of the ADU is consistent with the existing principal dwelling on the lot.	**Yes** **No**	The AADU will be constructed above the existing garage where there is currently an attic. Dormers will be added to the attic raising the roof height to accommodate the new dwelling unit. The cladding and trim of the renovated garage structure (proposed AADU) will match closely the style of the existing single family residence. (See elevations)
2	10.814.62 The site plan provides adequate and appropriate open space, landscaping and off-street parking for both the ADU and the primary dwelling.	**Yes** **No**	Much of the property consists of open space, landscaped lawns and garden beds. Nothing additional is proposed for the application. The total lot coverage proposed will be 10.66% where the maximum for the district is 20%.
3	10.814.63 The ADU will maintain a compatible relationship to adjacent properties in terms of location, design, and off-street parking layout, and will not significantly reduce the privacy of adjacent properties.	**Yes** **No**	There are four parking spaces on site. There are a variety of single family structures in the neighborhood with varying architectural designs not incompatible with the proposed changes. There is no direct abutter to the north or west of the site. The

	Section 10.814.60	Finding (Meets Requirement/ Criteria)	*Draft* Supporting Information
			abutter to the east is separated by a street. There is an abutter to the south however the AADU is proposed for the north side of the building.
4	10.814.64 The ADU will not result in excessive noise, traffic or parking congestion.	**Yes** **No**	The size and bedroom limitation suggest that the unit will be limited to one or two residences. The applicant will live on site per city regulations. No greater impact is proposed than that which would be anticipated with a single family dwelling. Adequate parking is available on site.
5	**Other Board Findings**		
6	**Additional Conditions of Approval**		

DURBIN LAW

Derek R. Durbin, Esq.
603.287.4764
derek@durbinlawoffices.com

BY: VIEWPOINT & HAND DELIVERY

September 21, 2022

City of Portsmouth
Attn: Stefanie Casella
Zoning Board of Adjustment
1 Junkins Avenue
Portsmouth, NH 03801

RE: AADU CUP Application of Peter Ward
15 Central Avenue, Tax Map 209, Lot 4

Dear Stefanie,

Our Office represents Peter Ward, owner of the property located at 15 Central Avenue in Portsmouth. Enclosed herewith, please find the following CUP-related materials for submission to the Planning Board for consideration at its next regularly scheduled meeting:

1) Landowner Letter of Authorization;
2) Narrative to CUP Addressing AADU Requirements;
3) Site Plan;
4) Floor Plans and Elevations;
5) GIS Map; and
6) Photographs of Property and Surrounding Properties.

One (1) copy of the application submission is being hand-delivered to the Planning Department contemporaneously with the electronic filing through Viewpoint. Should you have any questions or concerns regarding the enclosed application materials, do not hesitate to contact me at your convenience.

Sincerely,

Derek R. Durbin, Esq.

LANDOWNER LETTER OF AUTHORIZATION

Peter Ward, record owner of property located at **15 Central Avenue, Portsmouth, NH**, identified on Portsmouth **Tax Map 209, as Lot 4** (the "Property"), hereby authorizes **Durbin Law Offices PLLC** and **Matthew Beebe** and their agents and representatives, to file any building, zoning, planning or other municipal permit applications with the City of Portsmouth for said Property and to appear before its land use boards. This Letter of Authorization shall be valid until expressly revoked in writing.

Peter Ward

May 26, 2022

Peter Ward

CITY OF PORTSMOUTH
PLANNING BOARD

CONDITIONAL USE PERMIT APPLICATION
ATTACHED ACCESSORY DWELLING UNIT

LU 22-123

15 Central Avenue
Portsmouth, NH 03801
Tax Map 209, Lot 4
Peter Ward
(Owner / Applicant)

NARRATIVE / WRITTEN STATEMENT
Zoning Ordinance Section 10.814

Section 10.814.30 of the Zoning Ordinance provides that [a]ll accessory dwelling units shall comply with the following standards:

Section 10.814.31: *The principal dwelling unit and the accessory dwelling unit shall not be separate in ownership (including by condominium ownership.*

The Property serves as the Applicant's full-time residence. He has owned the Property since 1990 and has no intention of ever subdividing its ownership. Moreover, the Zoning Ordinance prohibits the conversion of the home into a two-family dwelling or two condominium units.

Section 10.814.32: *Either the principal dwelling unit or the accessory dwelling unit shall be occupied by the owner of the dwelling as his or her principal place of residence...[.]*

See Answer immediately above. The Applicant will continue to reside in the existing residence on the Property once the AADU is approved.

Section 10.814.33: *Neither the principal nor accessory dwelling shall be used for any business, except that the owner may have a home occupation use in the unit that he or she occupies as allowed or permitted elsewhere in the Ordinance.*

Outside of home occupation uses, the Zoning Ordinance prohibits business uses of property within the SRB Zoning District. Accordingly, the Applicant does not intend to use the Property for business related purposes.

Section 10.814.34: *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.*

The Property is served by municipal water.

Per Section 10.814.40 of the Zoning Ordinance, [a]n attached accessory dwelling unit (AADU) shall comply with the following additional standards:

Section 10.814.41: *An interior door shall be provided between the principal dwelling unit and the accessory dwelling unit.*

There is an interior door to the garage space below the AADU from a breezeway connected to the primary residence. The interior door is technically located outside of the AADU since it connects to the garage space below. Accordingly, out of an abundance of caution, the Applicant is requesting a modification / waiver of this standard to the extent that the Board finds that this section of the Ordinance is not satisfied.

Section 10.814.42: *The accessory dwelling unit shall not have more than two bedrooms and shall not be larger than 750 sq. ft. gross floor area.*

The AADU will have only 1 bedroom and will be limited to 750 square feet in gross floor area.

Section 10.814.43: *Any exterior changes to the single-family dwelling shall maintain the appearance of a single-family dwelling.*

The appearance of the home on the Property with the AADU will be significantly improved with what is proposed. What is proposed for improvements is in keeping with what exists.

Section 10.814.44-45: *No portion of the AADU shall be closer to the front lot line than the existing front wall of the principal dwelling unit.*

This requirement is satisfied. *See* Site Plan submitted herewith.

Section 10.814.451: *An exterior wall of the AADU that faces a street on which the lot has frontage shall comprise no more than 40 percent of the total visible facade area of the dwelling as seen from the street.*

This requirement is satisfied. *See* Elevations submitted herewith.

Section 10.814.452: *The addition to or expansion of the existing single-family dwelling may include an increase in building height only as an upward expansion of the existing principal building with no increase in building footprint.*

This requirement is satisfied. *See* Elevations and Floor Plans submitted herewith.

Section 10.814.453: *The building height of any addition or expansion that includes an increase in building footprint shall be less than the building height of the existing principal building.*

This requirement is satisfied. *See* Elevations and Floor Plans submitted herewith.

Section 10.814.454: *The AADU shall be architecturally consistent with the existing principal dwelling through the use of similar materials, detailing, roof pitch, and other building design elements.*

This requirement is satisfied. *See* Elevations submitted herewith.

Per Section 10.814.60 of the Zoning Ordinance, [b]efore granting a conditional use permit for an attached or detached ADU, the Planning Board shall make the following findings:

Section 10.814.61: *Exterior design of the ADU is compatible with the existing principal dwelling on the lot.*

The general design of the existing residence and area where the ADU will be located will not change dramatically. The proposed design is in keeping with the existing design and is compatible. The Portsmouth ZBA approved several dimensional variances in June 2022 in connection with the proposed AADU, finding that it would not alter the essential character of the neighborhood.

Section 10.814.62: *The site plan provides adequate and appropriate open space, landscaping and off-street parking for both the ADU and the primary dwelling.*

Most of the Property consists of well-maintained open space, landscape lawn and garden beds. Therefore, nothing additional is being proposed as part of this Application. The Applicant intends to maintain the appearance of the Property. The triangular parcel of land to the north consists of relatively dense vegetation.

Section 10.814.63: *The ADU will maintain a compatible relationship to adjacent properties in terms of location, design and off-street parking layout and will not significantly reduce the privacy of adjacent properties.*

The AADU will be constructed above existing garage space. There is an attic with a pitched roof above the garage that presently exists. Dormers will be added to the attic level, thus raising the roof height. Otherwise, the AADU will be constructed in space that already exists. There are already at least four (4) parking spaces on the Property, two (2) of which are "stacked". This will not change. There are no direct abutters to the north, which consists of other land owned by the Applicant. The nearest abutting homes are a considerable distance away from the proposed AADU. Therefore, privacy will not be affected. As shown in the photographs submitted herewith, the surrounding residences are not consistent in design or character, thus it would be difficult to argue that the design of the proposed AADU would be incompatible. Moreover, in granting several variances in June 2022, the ZBA found that the proposed AADU would not *alter the essential character of the neighborhood.*

Section 10.814.64: *The ADU will not result in excessive noise, traffic or parking congestion.*

The Property will be utilized for single-family residential purposes. The AADU may serve as a rental unit or for use by a family member in the future, which has yet to be determined. The primary residence is only occupied by the Owner of the Property. It can be reasonably expected based on the size of AADU (750 s.f.) that only 1 or possibly 2 people would live in it. The use of the Property will result in no more traffic and noise than can be expected with a single-family residential use. There is sufficient area for parking on the Property to accommodate the AADU use.

MODIFICATION REQUEST

Section 10.814.70: *In granting a conditional use permit for an accessory dwelling unit, the Planning Board may modify a specific standard set forth in Sections 10.814.40 or 10.814.52 through 10.814.56....if the Board finds such modification will be consistent with the required findings in Section 10.814.60.*

Out of an abundance of caution, The Applicant seeks a waiver/modification from the Planning Board pursuant to Section 10.814.41 of the Zoning Ordinance pertaining to the interior doorway requirement, and as more specifically explained above.

CONCLUSION

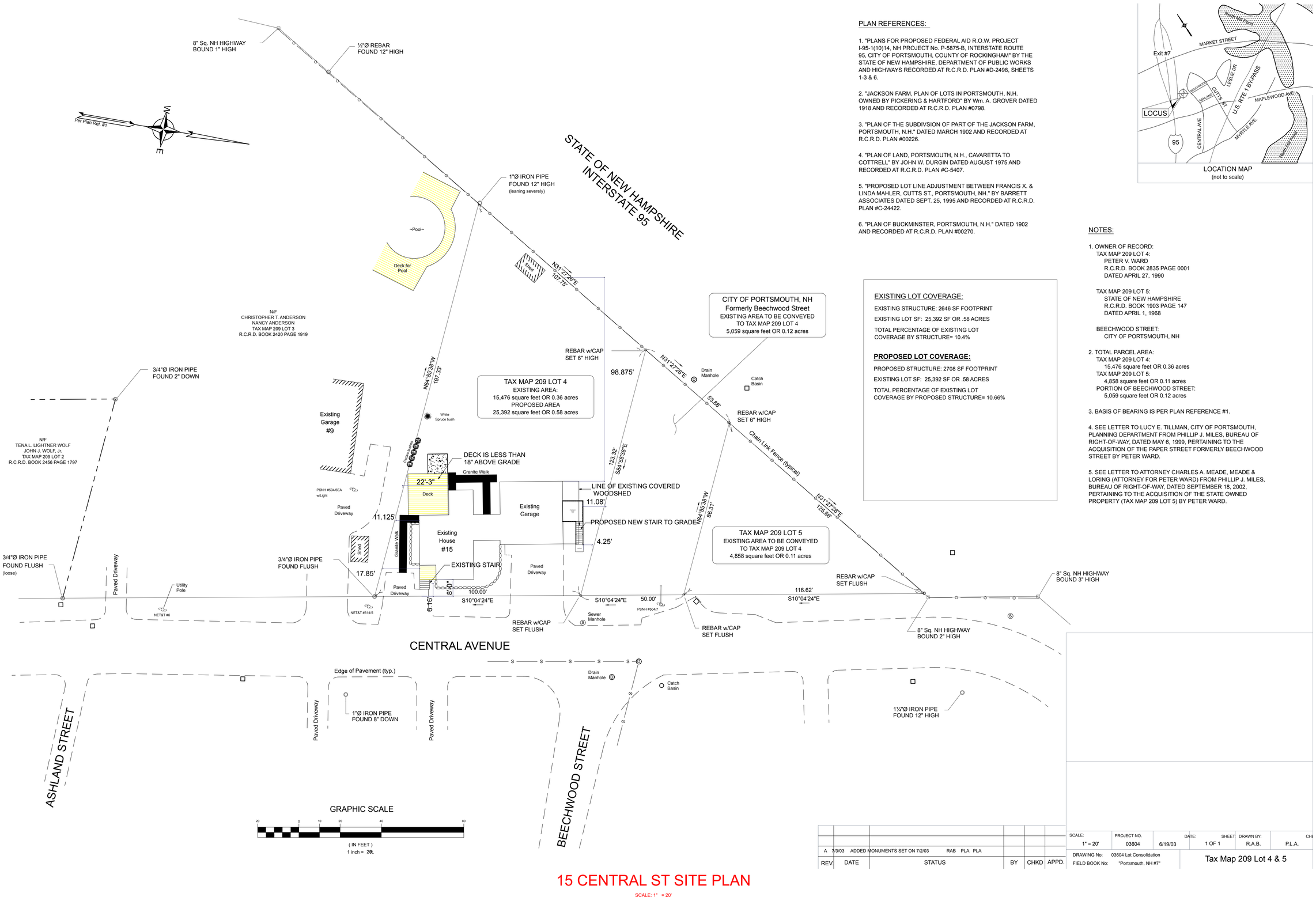
As demonstrated above, the proposed AADU meets the criteria for the Planning Board to grant a Conditional Use Permit to the Applicant. Accordingly, the Applicant hereby respectfully requests the Board's approval.

Respectfully Submitted,

Peter Ward

Dated: September 21, 2022

By: Durbin Law Offices PLLC
Derek R. Durbin, Esq.
144 Washington Street
Portsmouth, NH 03802
(603)-287-4764
derek@durbinlawoffices.com



PLAN REFERENCES:

1. "PLANS FOR PROPOSED FEDERAL AID R.O.W. PROJECT I-95-1(10)14, NH PROJECT No. P-5875-B, INTERSTATE ROUTE 95, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM" BY THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS RECORDED AT R.C.R.D. PLAN #D-2498, SHEETS 1-3 & 6.

2. "JACKSON FARM, PLAN OF LOTS IN PORTSMOUTH, N.H. OWNED BY PICKERING & HARTFORD" BY Wm. A. GROVER DATED 1918 AND RECORDED AT R.C.R.D. PLAN #0798.

3. "PLAN OF THE SUBDIVSION OF PART OF THE JACKSON FARM, PORTSMOUTH, N.H." DATED MARCH 1902 AND RECORDED AT R.C.R.D. PLAN #00226.

4. "PLAN OF LAND, PORTSMOUTH, N.H., CAVARETTA TO COTTRELL" BY JOHN W. DURGIN DATED AUGUST 1975 AND RECORDED AT R.C.R.D. PLAN #C-5407.

5. "PROPOSED LOT LINE ADJUSTMENT BETWEEN FRANCIS X. & LINDA MAHLER, CUTTS ST., PORTSMOUTH, NH." BY BARRETT ASSOCIATES DATED SEPT. 25, 1995 AND RECORDED AT R.C.R.D. PLAN #C-24422.

6. "PLAN OF BUCKMINSTER, PORTSMOUTH, N.H." DATED 1902 AND RECORDED AT R.C.R.D. PLAN #00270.

EXISTING LOT COVERAGE:

EXISTING STRUCTURE: 2646 SF FOOTPRINT

EXISTING LOT SF: 25,392 SF OR .58 ACRES

TOTAL PERCENTAGE OF EXISTING LOT COVERAGE BY STRUCTURE= 10.4%

PROPOSED LOT COVERAGE:

PROPOSED STRUCTURE: 2708 SF FOOTPRINT

EXISTING LOT SF: 25,392 SF OR .58 ACRES

TOTAL PERCENTAGE OF EXISTING LOT COVERAGE BY PROPOSED STRUCTURE= 10.66%

LOCATION MAP
(not to scale)

NOTES:

1. OWNER OF RECORD:
   TAX MAP 209 LOT 4:
   PETER V. WARD
   R.C.R.D. BOOK 2835 PAGE 0001
   DATED APRIL 27, 1990

   TAX MAP 209 LOT 5:
   STATE OF NEW HAMPSHIRE
   R.C.R.D. BOOK 1903 PAGE 147
   DATED APRIL 1, 1968

   BEECHWOOD STREET:
   CITY OF PORTSMOUTH, NH

2. TOTAL PARCEL AREA:
   TAX MAP 209 LOT 4:
   15,476 square feet OR 0.36 acres
   TAX MAP 209 LOT 5:
   4,858 square feet OR 0.11 acres
   PORTION OF BEECHWOOD STREET:
   5,059 square feet OR 0.12 acres

3. BASIS OF BEARING IS PER PLAN REFERENCE #1.

4. SEE LETTER TO LUCY E. TILLMAN, CITY OF PORTSMOUTH, PLANNING DEPARTMENT FROM PHILLIP J. MILES, BUREAU OF RIGHT-OF-WAY, DATED MAY 6, 1999, PERTAINING TO THE ACQUISITION OF THE PAPER STREET FORMERLY BEECHWOOD STREET BY PETER WARD.

5. SEE LETTER TO ATTORNEY CHARLES A. MEADE, MEADE & LORING (ATTORNEY FOR PETER WARD) FROM PHILLIP J. MILES, BUREAU OF RIGHT-OF-WAY, DATED SEPTEMBER 18, 2002, PERTAINING TO THE ACQUISITION OF THE STATE OWNED PROPERTY (TAX MAP 209 LOT 5) BY PETER WARD.

REV.	DATE	STATUS	BY	CHKD	APPD.
A	7/3/03	ADDED MONUMENTS SET ON 7/2/03	RAB	PLA	PLA

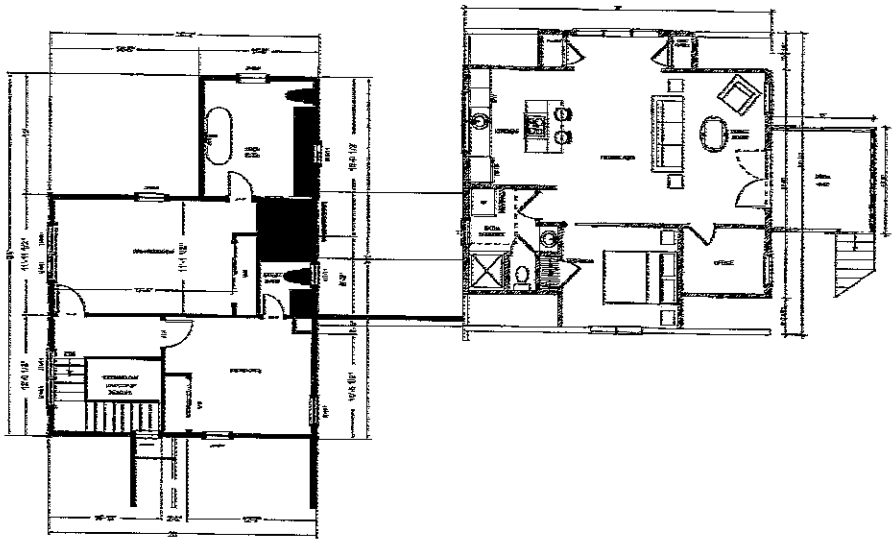
SCALE:	PROJECT NO.	DATE:	SHEET:	DRAWN BY:	CHE
1" = 20'	03604	6/19/03	1 OF 1	R.A.B.	P.L.A.

DRAWING No: 03604 Lot Consolidation
FIELD BOOK No: "Portsmouth, NH #7"

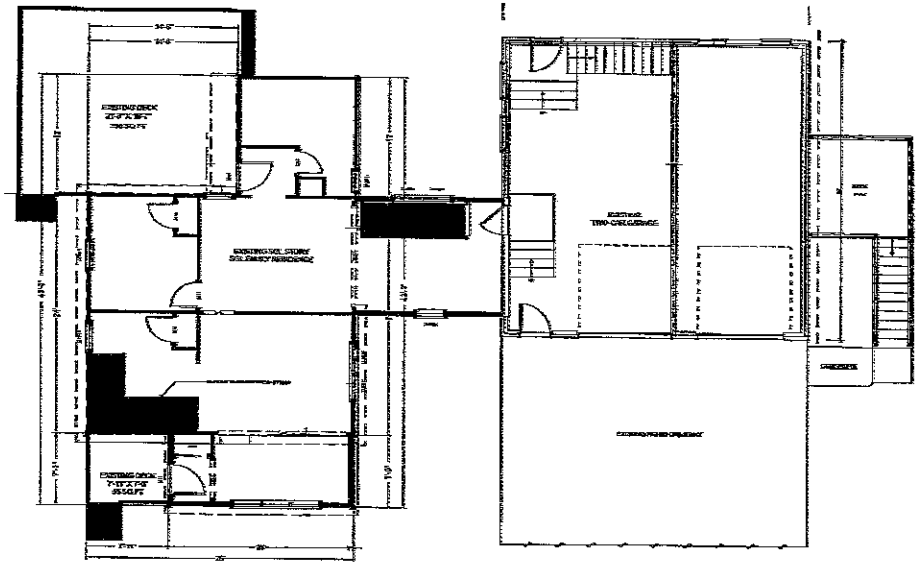
Tax Map 209 Lot 4 & 5

15 CENTRAL ST SITE PLAN

SCALE: 1" = 20'



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



1 FIRST FLOOR PLAN 3/16" = 1'-0"

MDB DESIGN/BUILD LLC
Construction Consulting
Residential Design

81 Lincoln Ave. Portsmouth, NH. 03801
603-234-7288
603-401-6654 FAX

CONSULTANTS

ADDITION AND RENOVATION TO

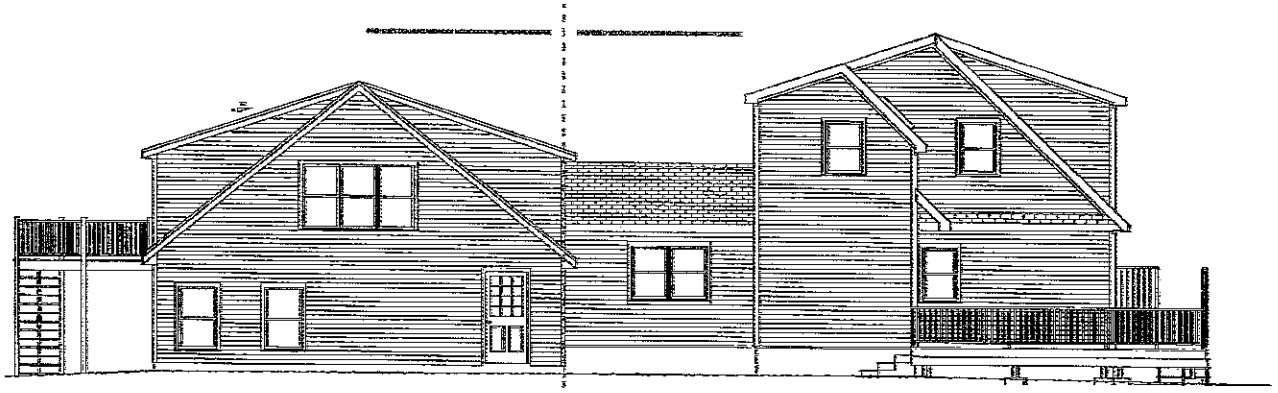
WARD RESIDENCE
15 Central Ave.
Portsmouth, NH 03801

MARK	DATE	DESCRIPTION
	3/2022	PRELIMINARY PLANS

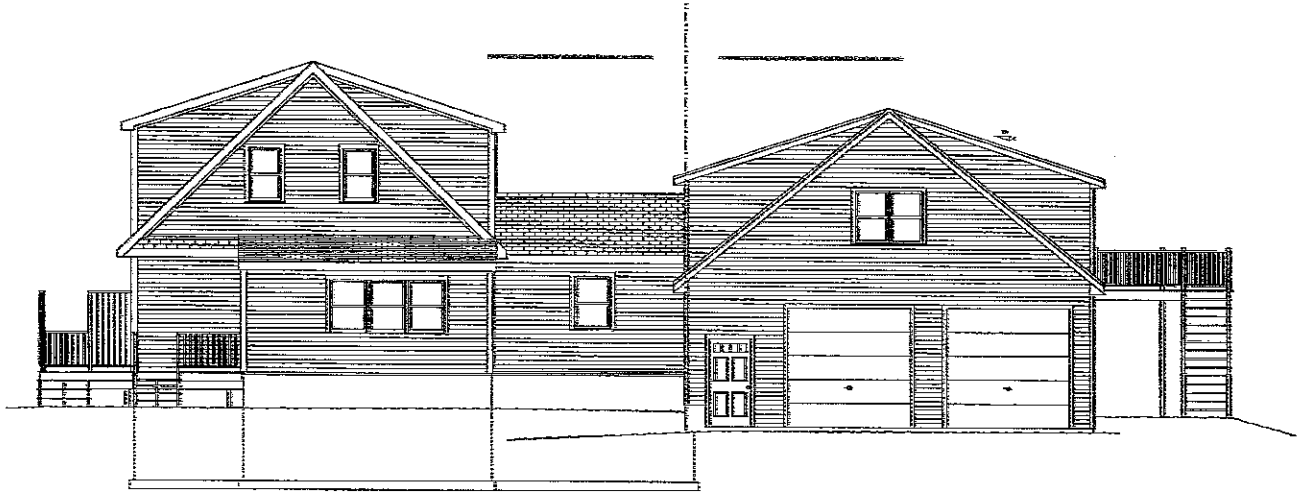
PROJECT NO:
MODEL FILE:
DRAWN BY:
CHKD BY:
COPYRIGHT

SHEET TITLE
Garage Floor Plans

A1



2 REAR ELEVATION 1/8" = 1'-0"



1 FRONT ELEVATION 1/8" = 1'-0"

MDB DESIGN/BUILD LLC
Construction Consulting
Residential Design

83 Lincoln Ave. Portsmouth, N.H. 03801
603-494-7388
603-442-8664 FAX

CONSULTANTS

ADDITION AND RENOVATION TO

WARD RESIDENCE
85 Central Ave
Portsmouth, NH 03801

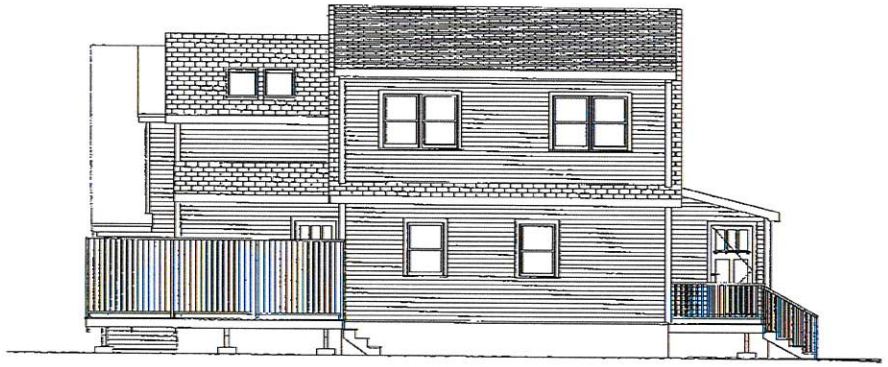
MARK	DATE	DESCRIPTION
	3/28/22	PERMIT/VARIANCE PLANS

PROJECT NO.
MODEL FILE:
DRAWN BY:
CHKD BY:
COPYRIGHT

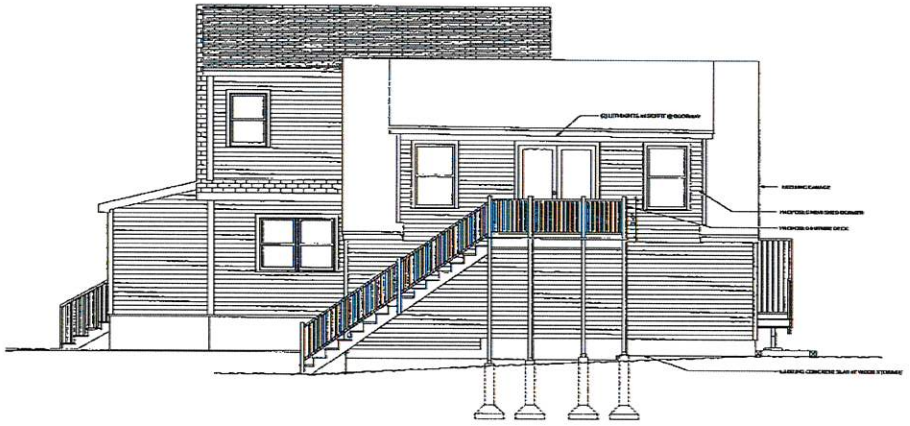
SHEET TITLE

Elevations

A2



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



3 SIDE ELEVATION 1/4" = 1'-0"

MDB DESIGN/BUILD LLC
Construction Consulting
Residential Design

81 Lincoln Ave. Portsmouth, N.H. 03801
603-234-7398
855-440-6664 FAX

CONSULTANTS

ADDITION AND RENOVATION TO

WARD RESIDENCE
15 Central Ave
Portsmouth, NH 03801

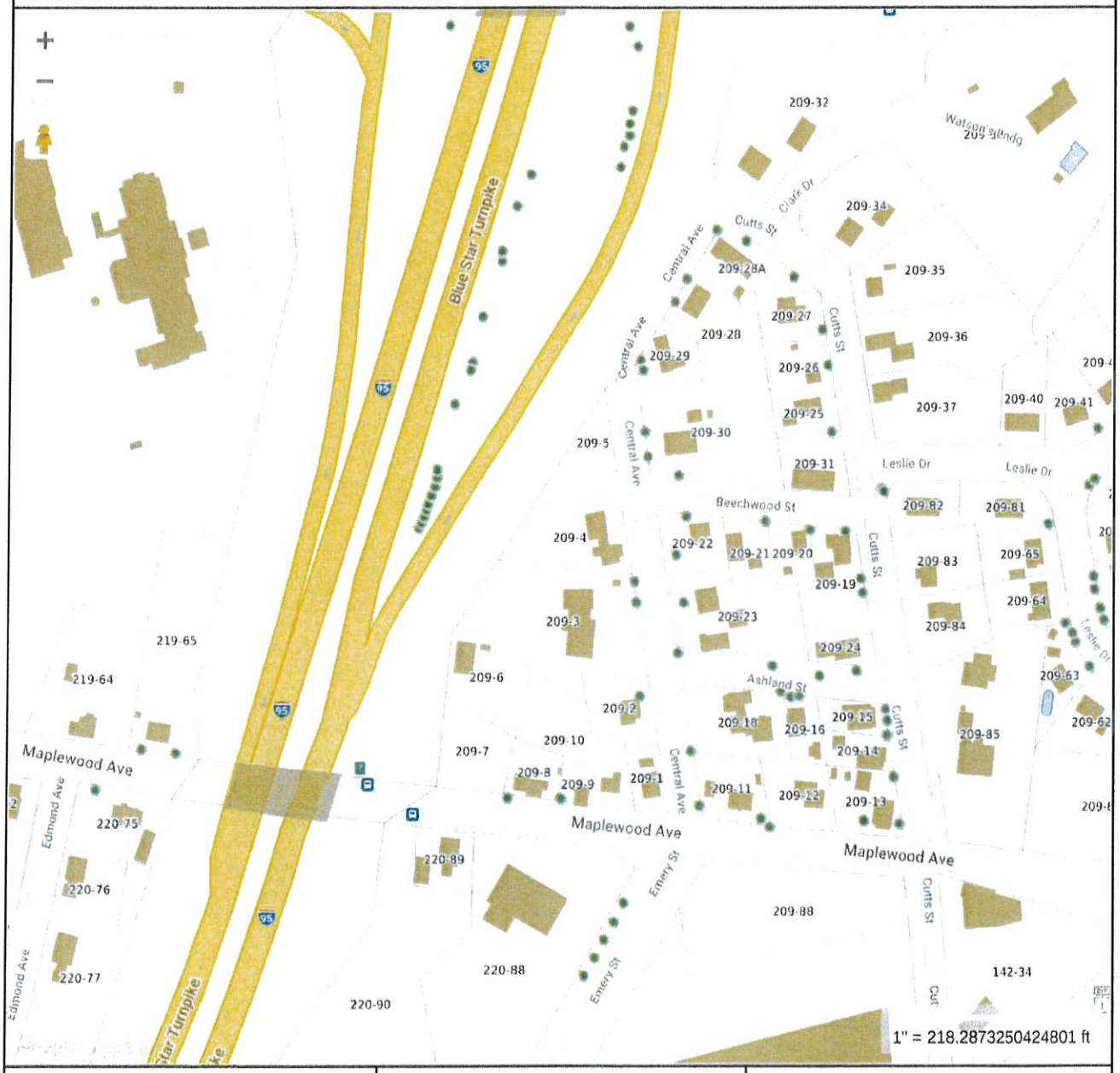
MARK	DATE	DESCRIPTION
	3/28/22	PRELIMINARY PLANS

PROJECT NO:
MODEL FILE:
DRAWN BY:
CHK'D BY:
COPYRIGHT

SHEET TITLE

Elevations

A3



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 3/9/2022
Data updated 3/9/2022

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Front (East) Elevation from Central Avenue

West (Rear) Elevation

Right Side (North) Elevation

South (Left) Side Elevation from Central Street

SURROUNDING PROPERTIES

12 Central Avenue
Tax Map 209, Lot 23
3-Unit Condominium
(Abutting Property across Central Avenue to right)

SURROUNDING PROPERTIES

14 Central Avenue
Tax Map 209, Lot 22)
Single Family Home
(Abutting Property directly across Central Avenue)

SURROUNDING PROPERTIES

9 Central Avenue
Tax Map 209, Lot 3
(Abutting Property to Left)

SURROUNDING PROPERTIES

20 Central Avenue
Tax Map 209, Lot 30
(Property Across Central Avenue to Left)

SURROUNDING PROPERTIES

Streetscape
Central Avenue
(View from North)

Draft Findings of Fact | Subdivision Rules and Regulations
City of Portsmouth Planning Board

Date: October 20, 2022
Property Address: 77 Meredith Way
Application #: **LU-22-61**
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:
Effective August 23, 2022, amended RSA 676:3, I now reads as follows: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of the all conditions necessary to obtain final approval.

	Subdivision Review Criteria	**Finding** (Meets Standards/ Requirements)	***Draft* Supporting Information**
1	Subdivision Rules and Regulations III. D. 1 The Board shall act to deny any application which is not in compliance with Section IV or V as appropriate. **SECTION IV - REQUIREMENTS FOR PRELIMINARY PLAT**	**Yes** **No**	The application has been reviewed by the Technical Advisory Committee for conformance with these minimum requirements. The application was deemed complete at the October 4, 2022 Technical Advisory Committee meeting.
2	**SECTION V - REQUIREMENTS FOR FINAL PLAT**	**Yes** **No**	The application has been reviewed by the Technical Advisory Committee for conformance with these minimum requirements. The application was deemed complete on October 4, 2022 at the Technical Advisory Committee Meeting.
3	**SECTION VI - GENERAL REQUIREMENTS**	**Yes** **No**	The application has been reviewed by the Technical Advisory Committee (TAC) for conformance with the General Requirements. • The TAC reviewed the street and utility layout for

	Subdivision Review Criteria	Finding (Meets Standards/ Requirements)	*Draft* Supporting Information
			conformance with city design requirements. • The site will be served by city water. The site will be served by city sewer by means of a city sewer easement. The application was recommended for approval on October 4, 2022 at the Technical Advisory Committee Meeting.
4	**SECTION VII - DESIGN STANDARDS**	**Yes** **No**	The application has been reviewed by the Technical Advisory Committee (TAC) for conformance with these minimum requirements. • The TAC reviewed the street and utility layout for conformance with city design requirements. • A full drainage analysis report was submitted that included analysis of the pre-development and post development drainage conditions. • The applicant will have to address the final stipulations provided as part of TAC review. The application was recommended for approval on October 4, 2022 at the Technical Advisory Committee Meeting.
5	**Other Board Findings**		
6	**Additional Conditions of Approval**		

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

NEW HAMPSHIRE 200

October 6, 2022

Beverly Mesa-Zendt, Planning Director
City of Portsmouth Planning Department
1 Junkins Avenue, 3rd Floor
Portsmouth, NH 03801

via email: View Point

RE: LU-22-61 – Response to TAC Comments
77 Meredith Way – Randi & Jeff Collins – Tax Map 162 Lot 16
TFM Project #47442-00

Dear Ms. Mesa-Zendt:

On behalf of our clients, Randi & Jeff Collins, TFMoran, Inc. (TFM) respectfully submits the following letter in response to the comments made by the City of Portsmouth Technical Advisory Committee (TAC), via a letter dated October 5, 2022. The following materials are included in this revised submission:

- **Updated Drainage Summary**
- **Site Development Plan set entitled "Proposed 2 Lot Subdivision Plan, 77 Meredith Way, Portsmouth, New Hampshire", prepared by TFMoran, Inc., dated July 1, 2022, last revised October 6, 2022 (1 copy at 22"x34).**

To facilitate your review, we have provided your comments along with our responses, which are shown in ***bold italics***.

TAC REVIEW COMMENTS:

October 5, 2022 Comments

1. POI-3 of Sheet C-04 will be corrected and amended to DPW satisfaction.

   After discussing this with DPW, it was determined that the pipe from POI-2 was the pipe that needed to be removed. The pipe from POI-2 has been removed. Updated calculations are included.

2. A note will be added to sheet C-07 detailing easement turnaround area will be constructed with Heavy Duty Pavement.

   Revised Note 10 on Sheet C-07, also added Note 8 to Sheet C-03, Note 15 to Sheet S-02 & Note 14 to Sheet S-03.

3. Applicant will add an Easement Plan to the plan set (indicated as S3).

   An Easement Plan has been added to the plan set, see Sheet S-03.

4. Prior to recordation the proposed easements in which the City is a party will be approved by the City Council.

   Draft deeds will be provided for legal review prior to recording.

5. A note to sheet C-03 will be added to the plans stating that the proposed principal structures will be located in substantial compliance with siting depicted in the plan set.

   Added Note 9 to Sheet C-03.

6. Raingarden detail shall reflect direction provided by Public Works at the 10-4-2022 Technical Advisory Committee meeting and be updated and resubmitted for approval by Public Works prior to consideration by the Planning Board.

   Rain garden detail on Sheet C-08 has been revised removing the outlet pipe, it was confirmed that the stone for both raingardens had enough storage volume to hold a 1" storm event. Outlet structure was changed to a riser.

7. All runoff from the structures is to be directed towards the appropriate rain gardens.

   Revised Note 10 on Sheet C-04.

8. A letter detailing plan changes and updates will be submitted with the plan resubmission.

   Provided.

<u>Additional Revisions since 9/20/2022 TAC submittal:</u>

1. Sheet S-02 Subdivision Plan:
   a. Added Turnaround Easement and Note 15.
   b. Added Sewer Easement and Note 14
   c. Added Plan Reference 4 (S-03 Easement Plan).

We trust that the above responses satisfy the concerns expressed in the City of Portsmouth's TAC comments. Should you wish to further discuss any of the above please contact us so that we may meet and resolve any outstanding concerns.

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

LU-22-61 – Response to TAC Comments **October 6, 2022**
77 Meredith Way – Randi & Jeff Collins – Tax Map 162 Lot 16
TFM Project #47442-00

Respectfully,
TFMoran, Inc.

Brenda Kolbow

Brenda Kolbow, LLS
Survey Department Manager

BMK/bmk

cc: Randi & Jeff Collins
Christopher Mulligan, Esquire

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY
PORTSMOUTH, NEW HAMPSHIRE

JULY 1, 2022
LAST REVISED OCTOBER 6, 2022

GENERAL INFORMATION

OWNER
MAP 162 LOT 16
RANDI & JEFF COLLINS
77 MEREDITH WAY
PORTSMOUTH, NH 03801
774-278-8676

APPLICANT
RANDI & JEFF COLLINS
77 MEREDITH WAY
PORTSMOUTH, NH 03801
774-278-8676

RESOURCE LIST

PLANNING/ZONING DEPARTMENT
1 JUNKINS AVENUE
PORTSMOUTH, NH 03801
603-610-7216
NICK CRACKNELL, PRINCIPAL PLANNER

PUBLIC WORKS
600 PEVERLY HILL ROAD
PORTSMOUTH, STATE 03801
603-472-1530
DAVE DEFOSSES, CONSTRUCTION TECHNICAL SUPERVISOR

POLICE DEPARTMENT
3 JUNKINS AVENUE
PORTSMOUTH, NH 03801
603-427-1510

FIRE DEPARTMENT
170 COURT STREET
PORTSMOUTH, NH 03801
603-427-1515

ASSOCIATED PROFESSIONALS

ATTORNEY
BOSEN & ASSOCIATES
266 MIDDLE STREET
PORTSMOUTH, NH 03801
603-427-5500
CHRISTOPHER P. MULLIGAN, ESQUIRE

VICINITY PLAN

INDEX OF SHEETS

PERMITS/APPROVALS

	NUMBER	APPROVED	EXPIRES
CITY PLANNING BOARD SUBDIVISION APPROVAL	-	-	-
CITY ZONING BOARD VARIANCE REQUEST (ARTICLE 5 - SECTION 10.521)	LU-22-61	2022/06/22	2024/06/22

VARIANCE GRANTED

ON JUNE 22, 2022 THE CITY OF PORTSMOUTH ZONING BOARD OF ADJUSTMENT GRANTED RELIEF FROM THE FOLLOWING SECTION OF THE CITY OF PORTSMOUTH ZONING ORDINANCE:

ARTICLE 5 SECTION 10.521 - MINIMUM CONTINUOUS LOT FRONTAGE:
TO ALLOW THE CONTINUOUS STREET FRONTAGE TO BE 73.99' FOR PROPOSED LOT A (MAP 162 LOT 16) & 31.61' FOR PROPOSED LOT B (MAP 162 LOT 16-1), WHERE 100' IS REQUIRED AND 31.7' EXISTS.

OWNER'S SIGNATURE

THE PROPERTY WILL BE DEVELOPED IN ACCORDANCE WITH THIS PLAN AND THE ORDINANCES OF THE CITY OF PORTSMOUTH, NEW HAMPSHIRE.

OWNER OR AUTHORIZED AGENT *DATE*

APPROVED BY THE CITY OF PORTSMOUTH PLANNING BOARD

ON _____

BOARD MEMBER _____ *AND*

BOARD MEMBER _____

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

COVER

PROPOSED 2 LOT SUBDIVISION
77 MEREDITH WAY
OWNED BY
RANDI & JEFF COLLINS
PREPARED FOR
RANDI & JEFF COLLINS

SCALE: AS SHOWN **JULY 1, 2022**

Seacoast Division
TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE	47442-00	DR	BMK	FB	-	C-00
		CK	CRR	CADFILE	47442-00_COVER	

DIG SAFE
811 OR 1-888-DIG-SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.

REV	DATE	DESCRIPTION	DR	CK
6	10/6/2022	REVISED PER TAC COMMENTS	BMK	JCC
5	9/27/2022	REVISED LOT #'S	BMK	JCC
4	9/20/2022	REVISED PER TAC COMMENTS	JKC	JCC
3	8/31/2022	REVISED PER TAC COMMENTS	JKC	JCC
2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

Oct 06, 2022 - 10:23am
F:\MISC Projects\47442 - 77 Meredith Way - Portsmouth\47442-00_Collins - 77 Meredith Way\Design\PRODUCTION DRAWINGS\47442-00_Cover.dwg

LEGEND

PROPOSED

- PROPERTY LINE
- ZONING LINE
- EASEMENT
- BASELINE
- FLOODPLAIN
- EDGE OF WATERBODY
- EDGE OF WETLAND
- SETBACK (WETLAND)
- SETBACK (STRUCTURE)
- SETBACK (PARKING)
- SETBACK (LANDSCAPE)
- GRAVEL ROAD
- EOP — EDGE OF PAVEMENT
- VGC — VERTICAL GRANITE CURB
- SGC — SLOPED GRANITE CURB
- CC — CONCRETE CURB
- ICC — INTEGRATED CONCRETE CURB
- BIT — BITUMINOUS ASPHALT CURB
- CCB — CAPE COD BERM
- SAWCUT
- BUILDING
- BUILDING ROOF OVERHANG
- BUILDING FOUNDATION
- BUILDING ENTRANCE
- OVERHEAD DOOR
- TREE LINE
- FENCE (CHAIN LINK)
- FENCE (WIRE)
- FENCE (STOCKADE)
- GUARDRAIL
- STONE WALL
- RETAINING WALL
- SILT FENCE
- SILT SOCK
- XXXX — SOIL BOUNDARY
- LIMIT OF GRADING
- 100 — CONTOUR
- TC100.50 / BC100.00 OR 100.00 — SPOT GRADE
- ## — PARKING COUNT
- DSLY — YELLOW DOUBLE SOLID LINE
- SSLY — YELLOW SINGLE SOLID LINE
- SSLW — WHITE SINGLE SOLID LINE
- SBLW — WHITE SINGLE BROKEN LINE
- STOP — STOP BAR
- CROSSWALK
- ACCESSIBLE PARKING SYMBOL
- PAVEMENT ARROW
- TRAFFIC FLOW ARROW (NOT PAINTED)
- SIGN (SINGLE POST)
- SIGN (DOUBLE POST)
- SIGN (PYLON)
- SIGN (MONUMENT)
- BOLLARD
- D — DUMPSTER PAD

PROPOSED

- CONCRETE
- GRAVEL
- HEAVY DUTY PAVEMENT
- CONSTRUCTION ENTRANCE
- SNOW STORAGE
- RIPRAP
- INLET PROTECTION
- FLOW ARROW
- RIDGE — GRADE BREAK RIDGE
- DRAIN LINE
- DRAINAGE SWALE
- STORMWATER BMP
- S — SEWER LINE
- FM — SEWER FORCE MAIN LINE
- W — WATER LINE
- G — GAS LINE
- OHE — OVERHEAD UTILITY LINE
- UGE — UNDERGROUND UTILITY LINE
- CATCH BASIN
- DRAIN INLET
- OUTLET CONTROL STRUCTURE
- ROOF DRAIN
- DRAIN CLEANOUT
- DRAIN MANHOLE
- FARED END SECTION
- SEWER CLEAN OUT
- SEWER MANHOLE
- SEWER VENT
- DRAIN/SEWER/WATER PLUG OR CAP
- HYDRANT
- FIRE DEPARTMENT CONNECTION
- WATER GATE VALVE
- WATER SHUTOFF
- THRUST BLOCK
- WATER METER
- WATER MANHOLE
- WELL
- GAS GATE VALVE
- GAS SHUT OFF
- GAS METER
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- TRAFFIC CONTROL CABINET
- ELECTRIC HANDHOLE
- ELECTRIC PULL BOX
- ELECTRIC METER
- FLOOD LIGHT
- LIGHT POLE
- UTILITY POLE
- GUY POLE
- T — TRANSFORMER PAD
- B-# — BORING LOCATION
- TP-# — TEST PIT LOCATION
- IT-# — INFILTRATION TEST LOCATION
- MW-# — MONITORING WELL

ABBREVIATIONS

GENERAL

ABAN	ABANDON
AC	ACRES
ADJ	ADJUST
APPROX	APPROXIMATE
BC	BOTTOM OF CURB
BIT	BITUMINOUS
BK/PG	BOOK & PAGE
BLDG	BUILDING
BMP	BEST MANAGEMENT PRACTICE
BS	BOTTOM OF SLOPE
BW	BOTTOM OF WALL
CONC	CONCRETE
COORD	COORDINATE
DIA	DIAMETER
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EXIST	EXISTING
FFE	FINISHED FLOOR ELEVATION
FND	FOUNDATION
HP	HIGH POINT
INV	INVERT ELEVATION
IT	INFILTRATION TEST
L	LENGTH
LF	LINEAR FEET
LSA	LANDSCAPE AREA
MAX	MAXIMUM
MIN	MINIMUM
N/F	NOW OR FORMERLY
NHFG	NEW HAMPSHIRE FISH & GAME
NTS	NOT TO SCALE
OC	ON CENTER
PAVE	PAVEMENT
PERF	PERFORATED
PROP	PROPOSED
R	RADIUS
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
REM	REMOVE
RET	RETAIN
RIM	RIM ELEVATION
ROW	RIGHT OF WAY
S	SLOPE
SF	SQUARE FEET
SW	SIDEWALK
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
TP	TEST PIT
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
WCR	ACCESSIBLE WHEELCHAIR RAMP
W/	WITH

UTILITIES

CB	CATCH BASIN
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
COND	CONDUIT
DCB	DOUBLE CATCH BASIN
DIP	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FES	FLARED END SECTION
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
LP	LIGHT POLE
OCS	OUTLET CONTROL STRUCTURE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
SMH	SEWER MANHOLE
SOS	SEDIMENT OIL SEPARATOR
TSV	TAPPING SLEEVE, VALVE, AND BOX
UP	UTILITY POLE

DIG SAFE — CALL BEFORE YOU DIG — 811 — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

GENERAL NOTES

1. THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.
2. THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TFMORAN, INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
3. THE SITE LAYOUT PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
4. ALL IMPROVEMENTS SHOWN ON THE SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE CITY PLANNING BOARD.
5. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF PORTSMOUTH, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK TO CONFORM TO CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS. ALL WORK WITHIN THE RIGHT-OF-WAY OF THE CITY AND/OR STATE SHALL COMPLY WITH APPLICABLE STANDARDS. COORDINATE ALL WORK WITHIN THE RIGHT-OF-WAY WITH APPROPRIATE CITY, COUNTY, AND/OR STATE AGENCY.
6. THE SITE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE SECTIONS OF ENV-WQ 1500. THE SITE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF CONSTRUCTION OF EACH STORMWATER FACILITY TO COORDINATE REQUIRED INSPECTIONS. THE CONTRACTOR SHALL TAKE PROGRESS PHOTOS DURING CONSTRUCTION OF ALL STORMWATER DRAINAGE COMPONENTS AND SEND TO THE ENGINEER.
7. SEE EXISTING CONDITIONS PLAN FOR THE HORIZONTAL AND VERTICAL DATUM.
8. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION. VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
9. CONTACT EASEMENT OWNERS PRIOR TO COMMENCING ANY WORK WITHIN THE EASEMENTS.
10. PRIOR TO COMMENCING ANY SITE WORK, ALL LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD.
11. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET.
12. TFMORAN, INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
13. TEMPORARY FENCING SHALL BE PROVIDED AND COVERED WITH A FABRIC MATERIAL TO CONTROL DUST MITIGATION.
14. ALL DEMOLITION SHALL INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKWAYS, AND ANY OTHER ADJACENT OPERATING FACILITIES. PRIOR WRITTEN PERMISSION FROM THE OWNER/DEVELOPER AND LOCAL PERMITTING AUTHORITY IS REQUIRED IF CLOSURE/OBSTRUCTIONS TO ROADS, STREET, WALKWAYS, AND OTHERS IS DEEMED NECESSARY. CONTRACTOR TO PROVIDE ALTERNATE ROUTES AROUND CLOSURES/OBSTRUCTIONS PER LOCAL/STATE/FEDERAL REGULATIONS.
15. REFER TO ARCHITECTURAL PLANS FOR LAYOUT OF BUILDING FOUNDATIONS AND CONCRETE ELEMENTS WHICH ABUT THE BUILDING SUCH AS STAIRS, SIDEWALKS, LOADING DOCK RAMPS, PADS, AND COMPACTOR PADS. DO NOT USE SITE PLANS FOR LAYOUT OF FOUNDATIONS.
16. IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
17. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
18. CONTRACTOR'S GENERAL RESPONSIBILITIES:
    - A. BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS, AND STANDARDS AND CONDITIONS OF ALL PROJECT-SPECIFIC PERMITS AND APPROVALS AS LISTED ON THE COVER SHEET TO THESE PLANS OR OTHERWISE REQUIRED.
    - B. NOTIFY ENGINEER IN WRITING OF ANY DISCREPANCIES OF PROPOSED LAYOUT AND/OR EXISTING FEATURES.
    - C. EMPLOY A LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES AND LAYOUT OF SITE ELEMENTS AND BUILDINGS.
    - D. THE CONTRACTOR SHALL BE RESPONSIBLE TO BECOME FAMILIAR WITH THE SITE AND ALL SURROUNDING CONDITIONS. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
    - E. TAKE APPROPRIATE MEASURES TO REDUCE, TO THE FULLEST EXTENT POSSIBLE, NOISE, DUST, AND UNSIGHTLY DEBRIS. CONSTRUCTION ACTIVITIES SHALL BE CARRIED OUT BETWEEN THE HOURS OF 7:00 AM AND 9:00 PM, MONDAY THROUGH FRIDAY IN ACCORDANCE WITH THE APPLICABLE MUNICIPAL ORDINANCES AND REGULATIONS OF THE CITY OF PORTSMOUTH, NEW HAMPSHIRE.
    - F. MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT ALL TIMES.
    - G. IN ACCORDANCE WITH RSA 430:53 AND AGR 3800, THE CONTRACTOR SHALL NOT TRANSPORT INVASIVE SPECIES OFF THE PROPERTY, AND SHALL DISPOSE OF INVASIVE SPECIES ON-SITE IN A LEGAL MANNER.
    - H. COORDINATE WITH ALL UTILITY COMPANIES AND CONTACT DIGSAFE (811 OR 888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
    - I. PROTECT NEW AND EXISTING BURIED UTILITIES DURING INSTALLATION OF ALL SITE ELEMENTS. DAMAGED UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
    - J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY TFMORAN, INC., DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
    - K. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
    - L. VERIFY LAYOUT OF PROPOSED BUILDING FOUNDATIONS WITH ARCHITECT AND THAT PROPOSED FOUNDATION MEETS PROPERTY LINE AND/OR WETLAND SETBACKS PRIOR TO COMMENCING ANY FOUNDATION CONSTRUCTION.
    - M. PROVIDE AN AS-BUILT PLAN AT THE COMPLETION OF THE PROJECT TO THE PLANNING DIRECTOR AND PER CITY REGULATIONS.
    - N. IF ANY DEVIATIONS FROM THE APPROVED PLANS AND SPECIFICATIONS HAVE BEEN MADE, THE SITE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS STAMPED BY A LICENSED SURVEYOR OR QUALIFIED ENGINEER ALONG WITH A LETTER STAMPED BY A QUALIFIED ENGINEER DESCRIBING ALL SUCH DEVIATIONS, AND BEAR ALL COSTS FOR PREPARING AND FILING ANY NEW PERMITS OR PERMIT AMENDMENTS THAT MAY BE REQUIRED.
    - O. AT COMPLETION OF CONSTRUCTION, THE SITE CONTRACTOR SHALL PROVIDE A LETTER CERTIFYING THAT THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND A LETTER STAMPED BY A QUALIFIED ENGINEER THAT THEY HAVE OBSERVED ALL UNDERGROUND DETENTION SYSTEMS, INFILTRATION SYSTEMS, OR FILTERING SYSTEMS PRIOR TO BACKFILL, AND THAT SUCH SYSTEMS CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS.

GRADING & DRAINAGE NOTES

1. THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF NHDES ENV-WQ 1500 AS APPLICABLE.
2. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN eNOI AT LEAST 14 DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK THE ACCURACY OF THE TOPOGRAPHY AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO ANY EARTHWORK BEING PERFORMED ON THE SITE. NO CLAIM FOR EXTRA WORK WILL BE CONSIDERED FOR PAYMENT AFTER EARTHWORK HAS COMMENCED.
4. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR INFORMATION ABOUT SOIL AND GROUNDWATER CONDITIONS. THE CONTRACTOR SHALL FOLLOW THE GEOTECHNICAL ENGINEER'S RECOMMENDED METHODS TO ADDRESS ANY SOIL AND GROUNDWATER ISSUES THAT ARE FOUND ON SITE, INCLUDING AND NOT LIMITED TO DEWATERING METHODS, PERIMETER DRAINS AND TIE INTO STORMWATER MANAGEMENT SYSTEM, ETC.
5. COORDINATE WITH GEOTECHNICAL/STRUCTURAL PLANS FOR SITE PREPARATION AND OTHER BUILDING INFORMATION.
6. COORDINATE WITH ARCHITECTURAL PLANS FOR DETAILED GRADING AT BUILDING, AND SIZE AND LOCATION OF ALL BUILDING SERVICES.
7. COORDINATE WITH MECHANICAL AND PLUMBING PLANS FOR ROOF DRAIN INFORMATION.
8. LIMITS OF WORK ARE SHOWN AS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE ALL WORK TO PROVIDE SMOOTH TRANSITIONS. THIS INCLUDES GRADING AND PAVEMENT.
9. THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS.
10. THE SITE SHALL BE GRADED SO ALL FINISHED PAVEMENT HAS POSITIVE DRAINAGE AND SHALL NOT POND WATER DEEPER THAN 1/4" FOR A PERIOD OF MORE THAN 15 MINUTES AFTER FLOODING.
11. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND SHALL MEET LOCAL STANDARDS AND THE REQUIREMENTS OF THE LATEST NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION AND THE NHDOT STANDARD STRUCTURE DRAWINGS UNLESS OTHERWISE NOTED.
12. STORMWATER DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO LINE AND GRADE AS SHOWN ON THE PLANS. CONSTRUCTION METHODS SHALL CONFORM TO NHDOT STANDARD SPECIFICATIONS, SECTION 603.
13. NO FILL SHALL BE PLACED IN ANY WETLAND AREA.
14. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
15. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER, AND MULCH.
16. DENSITY REQUIREMENTS:

MINIMUM DENSITY*	LOCATION
95%	BELOW PAVED OR CONCRETE AREAS
95%	TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL
90%	BELOW LOAM AND SEED AREAS

*ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM D-6938.

UTILITY NOTES

1. LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE FIELD.
2. ALL PROPOSED UTILITY WORK, INCLUDING MATERIAL, INSTALLATION, TERMINATION, EXCAVATION, BEDDING, BACKFILL, COMPACTION, TESTING, CONNECTIONS, AND CONSTRUCTION SHALL BE COORDINATED WITH AND COMPLETED IN ACCORDANCE WITH THE APPROPRIATE REQUIREMENTS, CODES, AND STANDARDS OF ALL CORRESPONDING UTILITY ENTITIES AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (811) AT LEAST 72 HOURS BEFORE DIGGING.
4. COORDINATE ALL WORK ADJACENT TO PROPOSED BUILDINGS WITH ARCHITECTURAL BUILDING DRAWINGS. CONFIRM UTILITY PENETRATIONS AND INVERT ELEVATIONS ARE COORDINATED PRIOR TO INSTALLATION.
5. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE AS NECESSARY WITH THE UTILITY COMPANIES OF SAID UTILITIES. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE EXACT LOCATION OF NEW UTILITY CONNECTIONS SHALL BE DETERMINED BY THE CONTRACTOR IN COORDINATION WITH UTILITY COMPANY, COUNTY AGENCY, AND/OR PRIVATE UTILITY COMPANY.
7. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE UTILITY INSTALLATION COMPLETE AND OPERATIONAL.
8. ALL UTILITY COMPANIES REQUIRE INDIVIDUAL CONDUITS. CONTRACTOR TO COORDINATE WITH TELEPHONE, CABLE, AND ELECTRIC COMPANIES REGARDING NUMBER, SIZE, AND TYPE OF CONDUITS REQUIRED PRIOR TO INSTALLATION OF ANY CONDUIT.
9. SANITARY SEWER SHALL BE CONSTRUCTED TO THE STANDARDS AND SPECIFICATIONS AS SHOWN ON THESE PLANS. ALL SEWER MAINS AND FITTINGS SHALL BE PVC AND SHALL CONFORM TO ASTM F 679 (SDR 35 MINIMUM). FORCE MAINS AND FITTINGS SHALL CONFORM TO NH CODE OF ADMINISTRATIVE RULES ENV-WQ 700. ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH NH CODE OF ADMINISTRATIVE RULES ENV-WQ 700. SANITARY MANHOLES SHALL CONFORM TO NHDES WATER DIVISION WASTEWATER ENGINEERING BUREAU STANDARDS AND SPECIFICATIONS SHOWN HEREON.
10. ON-SITE WATER DISTRIBUTION SHALL BE TO CITY OF PORTSMOUTH STANDARDS AND SPECIFICATIONS. WATER MAINS SHALL HAVE A MINIMUM OF 5.5' COVER. WHERE WATER PIPES CROSS SEWER LINES A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE OBSERVED. HORIZONTAL SEPARATION BETWEEN WATER AND SEWER SHALL BE 10' MINIMUM. WHERE A SANITARY LINE CROSSES A WATER LINE, SEWER LINE MUST BE CONSTRUCTED OF FORCE MAIN MATERIALS (PER ENV-WQ 704.08) FROM BUILDING OR MANHOLE TO MANHOLE, OR SUBSTITUTE RUBBER-GASKETED PRESSURE PIPE FOR THE SAME DISTANCE. WHEN SANITARY LINES PASS BELOW WATER LINES, LAY PIPE SO THAT NO JOINT IN THE SANITARY LINE WILL BE CLOSER THAN 6' HORIZONTALLY TO THE WATER LINE.
11. THRUST BLOCKS SHALL BE PROVIDED AT ALL LOCATIONS WHERE WATER LINE CHANGES DIRECTIONS OR CONNECTS TO ANOTHER WATER LINE.
12. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONDUIT AND WIRING TO ALL SIGNS AND LIGHTS. CONDUIT TO BE A MINIMUM OF 24" BELOW FINISH GRADE.
13. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES.
14. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL INSPECTIONS, TESTING, AND RELATED SERVICES AND SUBMIT COPIES OF ACCEPTANCE TO THE OWNER, UNLESS OTHERWISE INDICATED.
15. PROVIDE PERMANENT PAVEMENT REPAIR FOR ALL UTILITY TRENCHES IN EXISTING ROAD OR PAVEMENT TO REMAIN. SAW CUT TRENCH, PAVEMENT, AND GRANULAR BASE THICKNESS TO MATCH EXISTING PAVEMENT. OBTAIN ALL PERMITS REQUIRED FOR TRENCHING.
16. UNLESS OTHERWISE SPECIFIED, ALL UNDERGROUND STRUCTURES, PIPES, CHAMBERS, ETC. SHALL BE COVERED WITH A MINIMUM OF 18" OF COMPACTED SOIL BEFORE EXPOSURE TO VEHICLE LOADS.
17. THE PROPERTY WILL BE SERVICED BY THE FOLLOWING:

DRAINAGE	PRIVATE
SEWER	MUNICIPAL
WATER	MUNICIPAL
GAS	NOT AVAILABLE
ELECTRIC	EVERSOURCE
TELEPHONE	CONSOLIDATED COMMUNICATIONS FKA FAIRPOINT COMMUNICATIONS
CABLE	COMCAST

REV	DATE	DESCRIPTION	DR	CK
6	10/6/2022	REVISED PER TAC COMMENTS	BMK	JCC
5	9/27/2022	REVISED LOT #'S	BMK	JCC
4	9/20/2022	REVISED PER TAC COMMENTS	JKC	JCC
3	8/31/2022	REVISED PER TAC COMMENTS	JKC	JCC
2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

NOTES & LEGEND

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY

OWNED BY

RANDI & JEFF COLLINS

PREPARED FOR

RANDI & JEFF COLLINS

SCALE: NTS **JULY 1, 2022**

Seacoast Division

TFM

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

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Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE	DR	BMK	FB	–	C-01
47442-00	CK	CRR	CADFILE	47442-00_NOTES & LEGEND	

MAP 162 LOT 4
N/F
GIULLIANO & LISA RODRIGUEZ
295 THORNTON STREET
PORTSMOUTH, NH 03801
RCRD BK.#6286 PG.1195

MAP 162 LOT 3
N/F
SARAH B. CORNELL
& SUSAN A. CURRY
275 THORNTON STREET
PORTSMOUTH, NH 03801
RCRD BK.#5720 PG.204

MAP 162 LOT 2
N/F
JEFFREY P. BARTOLINI
& ABIGAIL R. ROEMER
55 PINE STREET
PORTSMOUTH, NH 03801
RCRD BK.#6274 PG.1684

N42°54'57"E 128.50'

FOUND 1" IRON PIPE (1' ABOVE GRADE, LEANING) 06/06/18

N44°26'12"E 19.51'

IRON ROD SET W/ CAP #844 01/18/19

IRON ROD SET W/ CAP #844 07/09/21

FOUND 1" IRON PIPE (3' ABOVE GRADE, NOT HELD) 06/06/18

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED IN JUNE 2021. 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 IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, AND THE FIELD TRAVERSE SURVEY EXCEEDS A PRECISION OF 1:15,000.

STATE OF NEW HAMPSHIRE · LICENSED LAND SURVEYOR · No. 01037 · BRENDA M. KOLBOW · Brenda M. Kolbow · SIGNATURE

LICENSED LAND SURVEYOR

2022-10-06
DATE

LEGEND:

MAP 137 LOT 11	ASSESSORS MAP AND LOT NUMBER
BK. PG.	BOOK / PAGE
CU	COPPER
EL.	ELEVATION
EM	ELECTRIC METER
EP	EDGE OF PAVEMENT
N/F	NOW OR FORMERLY
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
S.F.	SQUARE FEET
W/	WITH
	GUY WIRE
	UTILITY POLE
	DECIDUOUS TREE
	WATER SHUT OFF
OHU	OVERHEAD WIRE
	STOCKADE FENCE
	BOUNDARY LINE
	SETBACK LINE
S	SEWER LINE
W	WATER LINE
	CONCRETE
	PAVEMENT
	GRAVEL
	LANDSCAPING

MAP 162 LOT 15
N/F
DAVID J. & JENNIFER M. CHAPNICK
97 MEREDITH WAY
PORTSMOUTH, NH 03801
RCRD BK.#5267 PG.413

MAP 162 LOT 16
22,463 S.F.
(0.5157 ACRES)

MAP 162 LOT 17
N/F
JEFFREY P. BARTOLINI
& ABIGAIL R. ROEMER
55 PINE STREET
PORTSMOUTH, NH 03801
RCRD BK.#6274 PG.1684

MAP 162 LOT 19
N/F
CITY OF PORTSMOUTH
PO BOX 628
PORTSMOUTH, NH 03802

"PINE STREET PARK & PLAYGROUND"

SHED · 4.9' · 9.98' · 20' REAR SETBACK · 10' SIDE SETBACK · 15' FRONT SETBACK · 11.5' · 26.4' · RCRD PLAN #008 LOT 56 · RCRD PLAN #008 LOT 55 · WOOD STOCKADE FENCE · LANDSCAPING · DECK · BULKHEAD · #77 1 1/2-STORY DWELLING · PEAK EL=61.2' · THRESHOLD EL.=42.3' · PORCH · EM · TP #1 · TP #2 · TP #3 · TP #4 · APPROX. SEWER SERVICE · GRAVEL DRIVEWAY (226 S.F.) · DECK · #55 · HOT TUB · GARAGE · CB RIM=32.85 INV. 4" CI=31.32

N46°02'49"W 150.87'

S46°02'37"E 152.29'

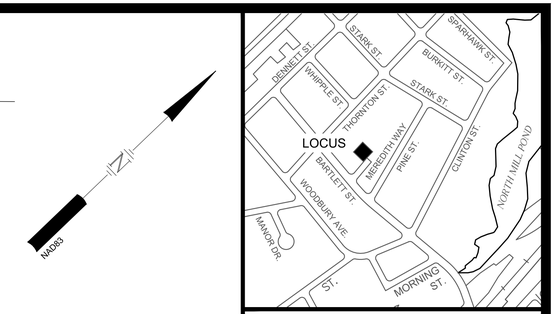
S43°40'16"W 147.77'

S39°33'06"W 0.20'

2.5" IRON PIPE FOUND .80 BELOW GRADE

MEREDITH WAY
REPORTED AS CLASS IV IN THE CITY OF PORTSMOUTH STREET INVENTORY
20.5'

176 168 NET 320 2



LOCATION PLAN

NOTES:

1. THE PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.
2. THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 162 AS LOT 16.
3. THE PARCEL IS LOCATED IN ZONE X AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP), FLOOD INSURANCE RATE MAP (FIRM) ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 259 OF 681, MAP NUMBER 33015C0259F, MAP REVISED JANUARY 29, 2021.
4.

MINIMUM LOT DIMENSIONS:	REQUIRED:	EXISTING:
LOT AREA:	7,500 S.F.	22,463 S.F.
LOT AREA PER DWELLING UNIT:	7,500 S.F.	22,463 S.F.
CONTINUOUS STREET FRONTAGE:	100'	31.7'
DEPTH	70'	151.6'
MINIMUM YARD DIMENSIONS:		
FRONT	15'	26.4'
SIDE	10'	11.5'/4.9' SHED
REAR	20'	86.8'
MAXIMUM STRUCTURE DIMENSIONS:		
STRUCTURE HEIGHT:		<35'
SLOPED ROOF:	35'	
FLAT ROOF:	30'	
ROOF APPURTENANCE HEIGHT:	8'	
BUILDING COVERAGE:	25%	3.5%
MINIMUM OPEN SPACE:	30%	85.3%

5. OWNER OF RECORD:
MAP 162 LOT 16:
RANDI & JEFF COLLINS
77 MEREDITH WAY
PORTSMOUTH, NH 03801
RCRD BK.#6274 PG.#1666
6. PARCEL AREA:
MAP 162 LOT 16:
22,463 S.F.
(0.5157 ACRES)
7. 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 THE EXTENT OF OWNERSHIP OR DEFINE THE LIMITS OF TITLE.
8. THE PURPOSE OF THIS PLAN IS TO SHOW THE BOUNDARY LINES, TOPOGRAPHY AND CURRENT SITE FEATURES OF MAP 162 LOT 16.
9. FIELD SURVEY COMPLETED BY TCE JUNE 2021 USING A TOPCON DS103 AND A TOPCON FC-5000 DATA COLLECTOR.
10. HORIZONTAL DATUM IS NAD83 (2011) PER STATIC GPS OBSERVATIONS. THE VERTICAL DATUM IS NAVD88 PER STATIC GPS OBSERVATIONS. THE CONTOUR INTERVAL IS 1 FOOT.
11. 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.
12. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. TFMORAN, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UNDERGROUND UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE.
13. THE EXISTING USE OF THIS PARCEL IS SINGLE-FAMILY RESIDENTIAL.

PLAN REFERENCES:

1. "PLAN OF ELM PLACE, SITUATED IN PORTSMOUTH, N.H." DATED 1856. RCRD PLAN #008.
2. "LOT LINE REVISION, PINE STREET, PORTSMOUTH, NEW HAMPSHIRE, FOR JOYCE M. MAYO & CITY OF PORTSMOUTH" PREPARED BY DURGIN, VERRA AND ASSOCIATES, INC., DATED 6/9/93 WITH REVISION 1 DATED 10/4/93. RCRD PLAN #D-22643.

DIG SAFE · NH ME NH RI VT · CALL 811 TWICE · UTILITIES UNDERGROUND · PLANT DAMAGE PREVENTION SYSTEM
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

10 5 0 10
Graphic Scale in Feet

TAX MAP 162 LOT 16
EXISTING CONDITIONS PLAN
2 LOT SUBDIVISION
77 MEREDITH WAY
PORTSMOUTH, NEW HAMPSHIRE
COUNTY OF ROCKINGHAM
OWNED BY
RANDI & JEFF COLLINS

SCALE: 1" = 10' (22x34)
1" = 20' (11x17)
JULY 1, 2022

REV.	DATE	DESCRIPTION	DR	CK
6	10/6/2022	NO REVISIONS THIS SHEET	BMK	JCC
5	9/27/2022	NO REVISIONS THIS SHEET	BMK	JCC
4	9/20/2022	ADDED TEST PIT #4	BMK	JCC
3	8/31/2022	NO REVISIONS THIS SHEET	BMK	JCC
2	8/23/2022	UPDATED SEWER LINE	BMK	JCC
1	7/21/2022	NO REVISIONS THIS SHEET	BMK	JCC

Seacoast Division
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Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
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Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
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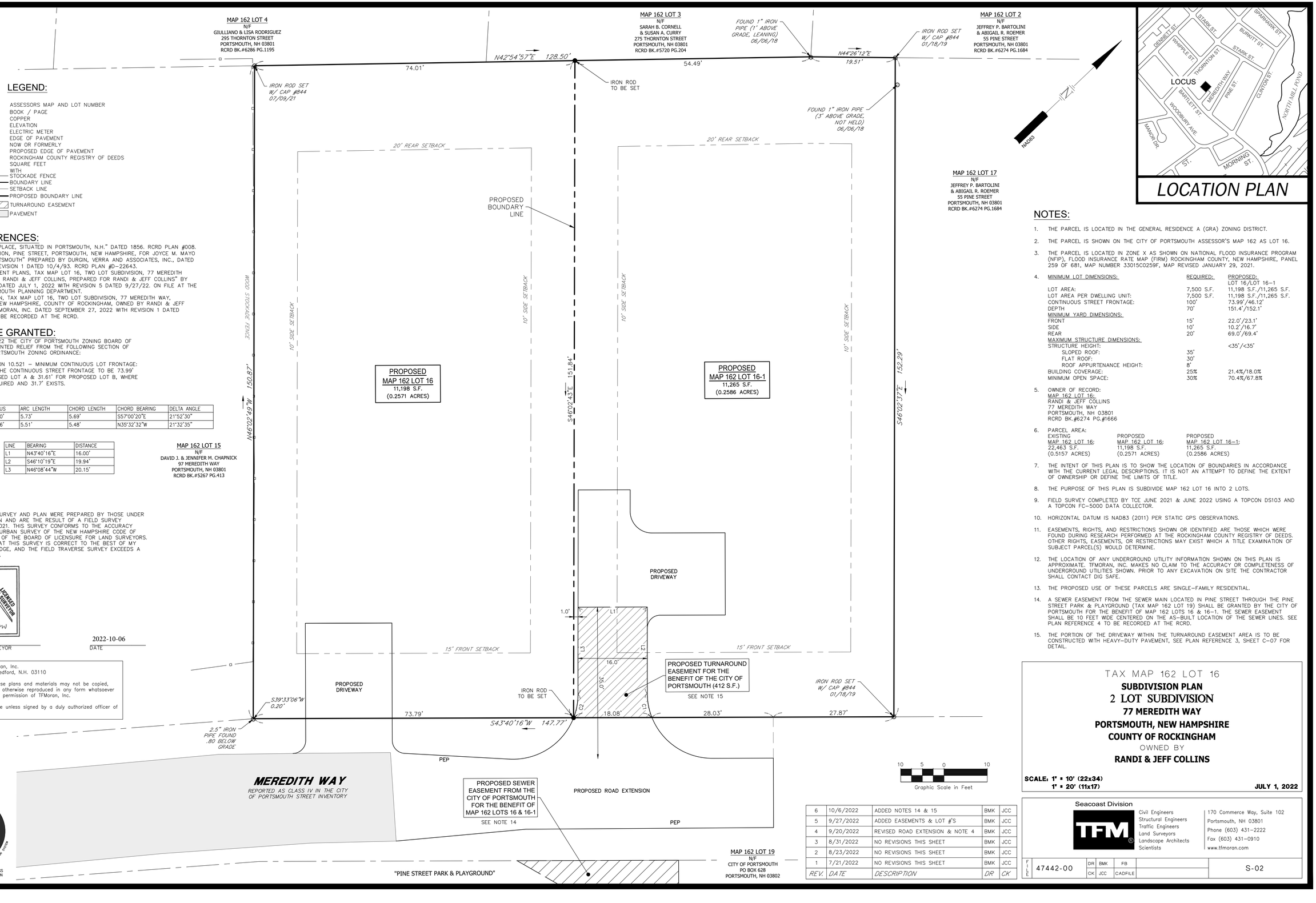
FILE	47442-00	DR		FB		S-01
		CK		CADFILE		

Oct 05, 2022 - 2:02pm
F:\MSC Projects\47442 - 77 Meredith Way - Portsmouth\47442-00 -Collins - 77 Meredith Way\Carlson Survey\Dwgs\47442-00 Survey.dwg



LEGEND:

MAP 137 LOT 11	ASSESSORS MAP AND LOT NUMBER
BK. PG.	BOOK / PAGE
CU	COPPER
EL.	ELEVATION
EM	ELECTRIC METER
EP	EDGE OF PAVEMENT
N/F	NOW OR FORMERLY
PEP	PROPOSED EDGE OF PAVEMENT
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
S.F.	SQUARE FEET
W/	WITH
	STOCKADE FENCE
	BOUNDARY LINE
	SETBACK LINE
	PROPOSED BOUNDARY LINE
	TURNAROUND EASEMENT
	PAVEMENT

PLAN REFERENCES:

1. "PLAN OF ELM PLACE, SITUATED IN PORTSMOUTH, N.H." DATED 1856. RCRD PLAN #008.
2. "LOT LINE REVISION, PINE STREET, PORTSMOUTH, NEW HAMPSHIRE, FOR JOYCE M. MAYO & CITY OF PORTSMOUTH" PREPARED BY DURGIN, VERRA AND ASSOCIATES, INC., DATED 6/9/93 WITH REVISION 1 DATED 10/4/93. RCRD PLAN #D-22643.
3. "SITE DEVELOPMENT PLANS, TAX MAP LOT 16, TWO LOT SUBDIVISION, 77 MEREDITH WAY, OWNED BY RANDI & JEFF COLLINS, PREPARED FOR RANDI & JEFF COLLINS" BY TFMORAN, INC. DATED JULY 1, 2022 WITH REVISION 5 DATED 9/27/22. ON FILE AT THE CITY OF PORTSMOUTH PLANNING DEPARTMENT.
4. "EASEMENT PLAN, TAX MAP LOT 16, TWO LOT SUBDIVISION, 77 MEREDITH WAY, PORTSMOUTH, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM, OWNED BY RANDI & JEFF COLLINS" BY TFMORAN, INC. DATED SEPTEMBER 27, 2022 WITH REVISION 1 DATED 10/6/2022. TO BE RECORDED AT THE RCRD.

VARIANCE GRANTED:

ON JUNE 22, 2022 THE CITY OF PORTSMOUTH ZONING BOARD OF ADJUSTMENT GRANTED RELIEF FROM THE FOLLOWING SECTION OF THE CITY OF PORTSMOUTH ZONING ORDINANCE:

ARTICLE 5 SECTION 10.521 – MINIMUM CONTINUOUS LOT FRONTAGE: TO ALLOW THE CONTINUOUS STREET FRONTAGE TO BE 73.99' FOR PROPOSED LOT A & 31.61' FOR PROPOSED LOT B, WHERE 100' IS REQUIRED AND 31.7' EXISTS.

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	15.00'	5.73'	5.69'	S57°00'20"E	21°52'30"
C2	14.66'	5.51'	5.48'	N35°32'32"W	21°32'35"

LINE	BEARING	DISTANCE
L1	N43°40'16"E	16.00'
L2	S46°10'19"E	19.94'
L3	N46°08'44"W	20.15'

MAP 162 LOT 15
N/F
DAVID J. & JENNIFER M. CHAPNICK
97 MEREDITH WAY
PORTSMOUTH, NH 03801
RCRD BK.#5267 PG.413

NOTES:

1. THE PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.
2. THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 162 AS LOT 16.
3. THE PARCEL IS LOCATED IN ZONE X AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP), FLOOD INSURANCE RATE MAP (FIRM) ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 259 OF 681, MAP NUMBER 33015C0259F, MAP REVISED JANUARY 29, 2021.
4.

	REQUIRED:	PROPOSED: LOT 16/LOT 16-1
LOT AREA:	7,500 S.F.	11,198 S.F./11,265 S.F.
LOT AREA PER DWELLING UNIT:	7,500 S.F.	11,198 S.F./11,265 S.F.
CONTINUOUS STREET FRONTAGE:	100'	73.99'/46.12'
DEPTH	70'	151.4'/152.1'
MINIMUM YARD DIMENSIONS:		
FRONT	15'	22.0'/23.1'
SIDE	10'	10.2'/16.7'
REAR	20'	69.0'/69.4'
MAXIMUM STRUCTURE DIMENSIONS:		
STRUCTURE HEIGHT:		<35'/<35'
SLOPED ROOF:	35'	
FLAT ROOF:	30'	
ROOF APPURTENANCE HEIGHT:	8'	
BUILDING COVERAGE:	25%	21.4%/18.0%
MINIMUM OPEN SPACE:	30%	70.4%/67.8%

5. OWNER OF RECORD:
   MAP 162 LOT 16:
   RANDI & JEFF COLLINS
   77 MEREDITH WAY
   PORTSMOUTH, NH 03801
   RCRD BK.#6274 PG.#1666
6. PARCEL AREA:

EXISTING	PROPOSED	PROPOSED
MAP 162 LOT 16;	MAP 162 LOT 16;	MAP 162 LOT 16-1;
22,463 S.F.	11,198 S.F.	11,265 S.F.
(0.5157 ACRES)	(0.2571 ACRES)	(0.2586 ACRES)

7. 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 THE EXTENT OF OWNERSHIP OR DEFINE THE LIMITS OF TITLE.
8. THE PURPOSE OF THIS PLAN IS SUBDIVIDE MAP 162 LOT 16 INTO 2 LOTS.
9. FIELD SURVEY COMPLETED BY TCE JUNE 2021 & JUNE 2022 USING A TOPCON DS103 AND A TOPCON FC-5000 DATA COLLECTOR.
10. HORIZONTAL DATUM IS NAD83 (2011) PER STATIC GPS OBSERVATIONS.
11. 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.
12. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. TFMORAN, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UNDERGROUND UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE.
13. THE PROPOSED USE OF THESE PARCELS ARE SINGLE-FAMILY RESIDENTIAL.
14. A SEWER EASEMENT FROM THE SEWER MAIN LOCATED IN PINE STREET THROUGH THE PINE STREET PARK & PLAYGROUND (TAX MAP 162 LOT 19) SHALL BE GRANTED BY THE CITY OF PORTSMOUTH FOR THE BENEFIT OF MAP 162 LOTS 16 & 16-1. THE SEWER EASEMENT SHALL BE 10 FEET WIDE CENTERED ON THE AS-BUILT LOCATION OF THE SEWER LINES. SEE PLAN REFERENCE 4 TO BE RECORDED AT THE RCRD.
15. THE PORTION OF THE DRIVEWAY WITHIN THE TURNAROUND EASEMENT AREA IS TO BE CONSTRUCTED WITH HEAVY-DUTY PAVEMENT, SEE PLAN REFERENCE 3, SHEET C-07 FOR DETAIL.

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED IN JUNE 2021. 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 IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, AND THE FIELD TRAVERSE SURVEY EXCEEDS A PRECISION OF 1:15,000.

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR NO. 01037 BRENDA M. KOLBOW SIGNATURE

LICENSED LAND SURVEYOR — 2022-10-06 DATE

DIG SAFE — MA ME NH RI VT — SAFELY MARK UNDERGROUND PLANT, DAMAGE PREVENTION SYSTEM — CALL 811 TOLL FREE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

TAX MAP 162 LOT 16
SUBDIVISION PLAN
2 LOT SUBDIVISION
77 MEREDITH WAY
PORTSMOUTH, NEW HAMPSHIRE
COUNTY OF ROCKINGHAM
OWNED BY
RANDI & JEFF COLLINS

SCALE: 1" = 10' (22x34)
1" = 20' (11x17)
JULY 1, 2022

REV.	DATE	DESCRIPTION	DR	CK
6	10/6/2022	ADDED NOTES 14 & 15	BMK	JCC
5	9/27/2022	ADDED EASEMENTS & LOT #'S	BMK	JCC
4	9/20/2022	REVISED ROAD EXTENSION & NOTE 4	BMK	JCC
3	8/31/2022	NO REVISIONS THIS SHEET	BMK	JCC
2	8/23/2022	NO REVISIONS THIS SHEET	BMK	JCC
1	7/21/2022	NO REVISIONS THIS SHEET	BMK	JCC

Seacoast Division
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FILE	DR	CK	FB	CADFILE	
47442-00	BMK	JCC			S-02

Oct 05, 2022 - 3:06pm
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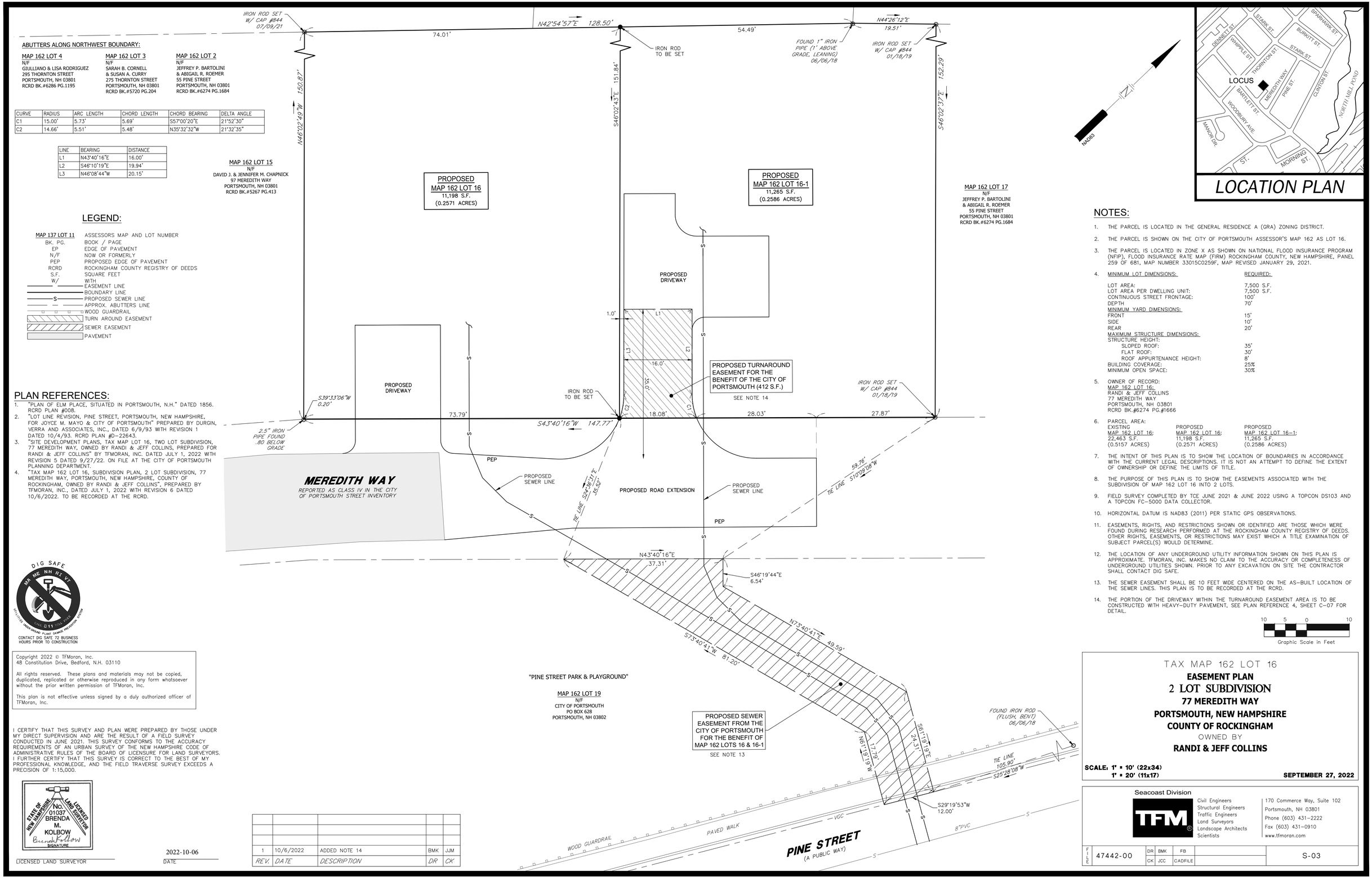

ABUTTERS ALONG NORTHWEST BOUNDARY:

MAP 162 LOT 4
N/F
GIULLIANO & LISA RODRIGUEZ
295 THORNTON STREET
PORTSMOUTH, NH 03801
RCRD BK.#6288 PG.1195

MAP 162 LOT 3
N/F
SARAH B. CORNELL
& SUSAN A. CURRY
275 THORNTON STREET
PORTSMOUTH, NH 03801
RCRD BK.#5720 PG.204

MAP 162 LOT 2
N/F
JEFFREY P. BARTOLINI
& ABIGAIL R. ROEMER
55 PINE STREET
PORTSMOUTH, NH 03801
RCRD BK.#6274 PG.1684

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	15.00'	5.73'	5.69'	S57°00'20"E	21°52'30"
C2	14.66'	5.51'	5.48'	N35°32'32"W	21°32'35"

LINE	BEARING	DISTANCE
L1	N43°40'16"E	16.00'
L2	S46°10'19"E	19.94'
L3	N46°08'44"W	20.15'

LEGEND:

MAP 137 LOT 11	ASSESSORS MAP AND LOT NUMBER
BK. PG.	BOOK / PAGE
EP	EDGE OF PAVEMENT
N/F	NOW OR FORMERLY
PEP	PROPOSED EDGE OF PAVEMENT
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
S.F.	SQUARE FEET
W/	WITH
	EASEMENT LINE
	BOUNDARY LINE
S	PROPOSED SEWER LINE
	APPROX. ABUTTERS LINE
	WOOD GUARDRAIL
	TURN AROUND EASEMENT
	SEWER EASEMENT
	PAVEMENT

PLAN REFERENCES:

1. "PLAN OF ELM PLACE, SITUATED IN PORTSMOUTH, N.H." DATED 1856. RCRD PLAN #008.
2. "LOT LINE REVISION, PINE STREET, PORTSMOUTH, NEW HAMPSHIRE, FOR JOYCE M. MAYO & CITY OF PORTSMOUTH" PREPARED BY DURGIN, VERRA AND ASSOCIATES, INC., DATED 6/9/93 WITH REVISION 1 DATED 10/4/93. RCRD PLAN #D-22643.
3. "SITE DEVELOPMENT PLANS, TAX MAP LOT 16, TWO LOT SUBDIVISION, 77 MEREDITH WAY, OWNED BY RANDI & JEFF COLLINS, PREPARED FOR RANDI & JEFF COLLINS" BY TFMORAN, INC. DATED JULY 1, 2022 WITH REVISION 5 DATED 9/27/22. ON FILE AT THE CITY OF PORTSMOUTH PLANNING DEPARTMENT.
4. "TAX MAP 162 LOT 16, SUBDIVISION PLAN, 2 LOT SUBDIVISION, 77 MEREDITH WAY, PORTSMOUTH, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM, OWNED BY RANDI & JEFF COLLINS", PREPARED BY TFMORAN, INC., DATED JULY 1, 2022.WITH REVISION 6 DATED 10/6/2022. TO BE RECORDED AT THE RCRD.

LOCATION PLAN

NOTES:

1. THE PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.
2. THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 162 AS LOT 16.
3. THE PARCEL IS LOCATED IN ZONE X AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP), FLOOD INSURANCE RATE MAP (FIRM) ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 259 OF 681, MAP NUMBER 33015C0259F, MAP REVISED JANUARY 29, 2021.
4. MINIMUM LOT DIMENSIONS:

	REQUIRED:
LOT AREA:	7,500 S.F.
LOT AREA PER DWELLING UNIT:	7,500 S.F.
CONTINUOUS STREET FRONTAGE:	100'
DEPTH	70'
MINIMUM YARD DIMENSIONS:	
FRONT	15'
SIDE	10'
REAR	20'
MAXIMUM STRUCTURE DIMENSIONS:	
STRUCTURE HEIGHT:	
SLOPED ROOF:	35'
FLAT ROOF:	30'
ROOF APPURTENANCE HEIGHT:	8'
BUILDING COVERAGE:	25%
MINIMUM OPEN SPACE:	30%

5. OWNER OF RECORD:
MAP 162 LOT 16:
RANDI & JEFF COLLINS
77 MEREDITH WAY
PORTSMOUTH, NH 03801
RCRD BK.#6274 PG.#1666
6. PARCEL AREA:

EXISTING MAP 162 LOT 16:	PROPOSED MAP 162 LOT 16:	PROPOSED MAP 162 LOT 16-1:
22,463 S.F. (0.5157 ACRES)	11,198 S.F. (0.2571 ACRES)	11,265 S.F. (0.2586 ACRES)

7. 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 THE EXTENT OF OWNERSHIP OR DEFINE THE LIMITS OF TITLE.
8. THE PURPOSE OF THIS PLAN IS TO SHOW THE EASEMENTS ASSOCIATED WITH THE SUBDIVISION OF MAP 162 LOT 16 INTO 2 LOTS.
9. FIELD SURVEY COMPLETED BY TCE JUNE 2021 & JUNE 2022 USING A TOPCON DS103 AND A TOPCON FC-5000 DATA COLLECTOR.
10. HORIZONTAL DATUM IS NAD83 (2011) PER STATIC GPS OBSERVATIONS.
11. 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.
12. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. TFMORAN, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UNDERGROUND UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE.
13. THE SEWER EASEMENT SHALL BE 10 FEET WIDE CENTERED ON THE AS-BUILT LOCATION OF THE SEWER LINES. THIS PLAN IS TO BE RECORDED AT THE RCRD.
14. THE PORTION OF THE DRIVEWAY WITHIN THE TURNAROUND EASEMENT AREA IS TO BE CONSTRUCTED WITH HEAVY-DUTY PAVEMENT, SEE PLAN REFERENCE 4, SHEET C-07 FOR DETAIL.

10 5 0 10
Graphic Scale in Feet

DIG SAFE
MA ME NH RI VT
CALL 811 BEFORE YOU DIG
UTILITIES UNDERGROUND PLANT DAMAGE PREVENTION SYSTEM
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED IN JUNE 2021. 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 IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, AND THE FIELD TRAVERSE SURVEY EXCEEDS A PRECISION OF 1:15,000.

STATE OF NEW HAMPSHIRE — LICENSED LAND SURVEYOR
No. 01037
BRENDA M. KOLBOW
SIGNATURE

LICENSED LAND SURVEYOR

2022-10-06
DATE

REV.	DATE	DESCRIPTION	DR	CK
1	10/6/2022	ADDED NOTE 14	BMK	JJM

TAX MAP 162 LOT 16
EASEMENT PLAN
2 LOT SUBDIVISION
77 MEREDITH WAY
PORTSMOUTH, NEW HAMPSHIRE
COUNTY OF ROCKINGHAM
OWNED BY
RANDI & JEFF COLLINS

SCALE: 1" = 10' (22x34)
1" = 20' (11x17)
SEPTEMBER 27, 2022

Seacoast Division
TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE	DR	BMK	FB		
47442-00	CK	JCC	CADFILE		S-03

Oct 05, 2022 - 3:05pm
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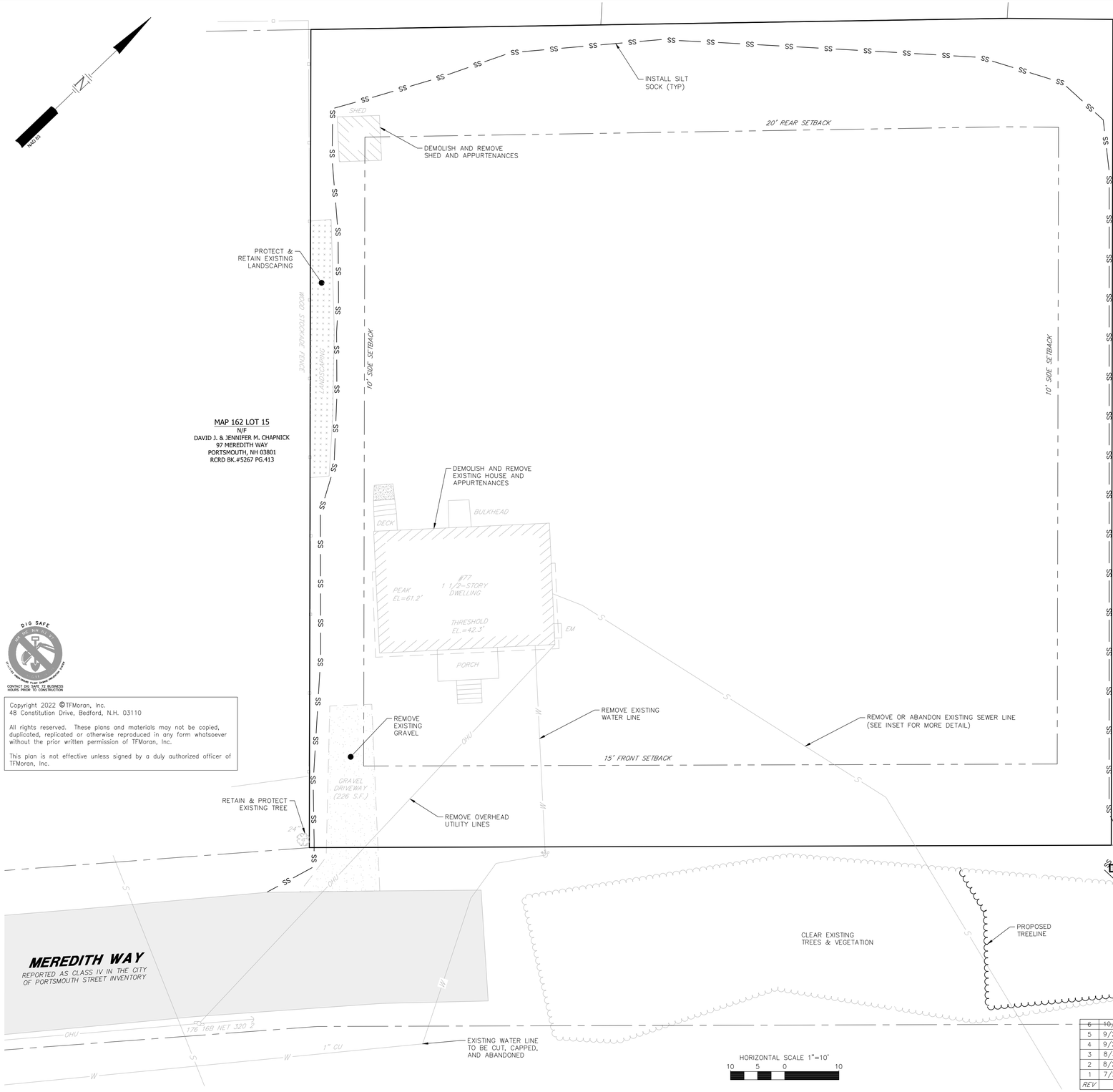

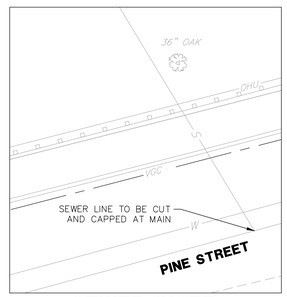

SEWER INSET

NOTES

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

CONSTRUCTION SEQUENCE NOTES

TO MINIMIZE EROSION AND SEDIMENTATION DUE TO CONSTRUCTION, CONSTRUCTION SHALL FOLLOW THIS GENERAL CONSTRUCTION SEQUENCE.

MODIFICATIONS TO THE SEQUENCE NECESSARY DUE TO THE CONTRACTOR'S SCHEDULE SHALL INCLUDE APPROPRIATE TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES.

THE CONTRACTOR SHALL SCHEDULE WORK SUCH THAT ANY CONSTRUCTION AREA IS STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE EXCEPT AS NOTED BELOW. NO MORE THAN 5 ACRES OF DISTURBED LAND SHALL BE UNSTABILIZED AT ANY ONE TIME.

THE PROJECT SHALL BE MANAGED SO THAT IT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER ARG 3800 RELATIVE TO INVASIVE SPECIES.

DO NOT TRAFFIC EXPOSED SOIL SURFACE OF INFILTRATION SYSTEMS WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.

DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO STORMWATER BMP'S. STORMWATER RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER BMP'S ARE STABILIZED.

DO NOT PLACE STORMWATER BMP'S INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

AFTER THE INFILTRATION SYSTEM IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE THE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.

1. NOTIFY EASEMENT OWNERS PRIOR TO COMMENCEMENT OF WORK.
2. INSTALL ALL PERIMETER EROSION PROTECTION MEASURES AS INDICATED ON THE PLANS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
3. STORMWATER TREATMENT PONDS AND SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
4. DURING CONSTRUCTION EVERY EFFORT SHALL BE MADE TO MANAGE SURFACE RUNOFF QUALITY.
5. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT BARRIERS, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED. (TEMPORARY SEED MIXTURE OF WINTER RYE APPLIED AT A RATE OF 2.5 LBS/1000 SF SHALL BE USED).
6. CONDUCT MAJOR EARTHWORK, INCLUDING CLEARING AND GRUBBING, WITHIN THE LIMITS OF WORK. ALL CUT AND FILL SLOPES SHALL BE SEEDED WITHIN 72 HOURS AFTER GRADING.
7. ALL STRIPPED TOPSOIL AND OTHER EARTH MATERIALS SHALL BE STOCKPILED OUTSIDE THE IMMEDIATE WORK AND WETLAND AREAS. A SILT BARRIER SHALL BE CONSTRUCTED AROUND THESE PILES IN A MANNER TO PROVIDE ACCESS AND AVOID SEDIMENT OUTSIDE OF THE WORK AREA.
8. CONSTRUCT BUILDING PAD AND COMMENCE NEW BUILDING CONSTRUCTION.
9. CONSTRUCT TEMPORARY CULVERTS AND DIVERSIONS AS REQUIRED.
10. BEGIN PERMANENT AND TEMPORARY INSTALLATION OF SEED AND MULCH.
11. PERFORM EARTHWORK NECESSARY TO ESTABLISH ROUGH GRADING AROUND PARKING FIELDS AND ACCESS DRIVES. MANAGE EXPOSED SOIL SURFACES TO AVOID TRANSPORTING SEDIMENTS INTO WETLANDS. PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
12. INSTALL SUBSURFACE UTILITIES (WATER, SEWER, GAS, ELECTRIC, COMMUNICATIONS, DRAINAGE, DRAINAGE FACILITIES, ETC.).
13. CONSTRUCT PROPOSED ROADWAY, RAIN GARDENS, GRAVEL WETLANDS AND DRAINAGE SWALES. ALL DITCHES, SWALES, AND GRAVEL WETLANDS SHALL BE FULLY STABILIZED PRIOR TO DIRECTING FLOW TO THEM.
14. COMPLETE BUILDING AND ALL OFF-SITE IMPROVEMENTS.
15. COMPLETE SEEDING AND MULCHING. SEED TO BE APPLIED WITH BROADCAST SPREADER OR BY HYDRO-SEEDING, THEN ROLLED, RAKED, OR DRAGGED TO ASSURE SEED/SOIL CONTACT.
16. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDED AREAS HAVE BECOME FIRMLY ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE.
17. DURING THE COURSE OF THE WORK AND UPON COMPLETION, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT DEPOSITS, EITHER ON OR OFF SITE, INCLUDING CATCH BASINS, AND SUMPS, DRAIN PIPES AND DITCHES, CURB LINES, ALONG SILT BARRIERS, ETC. RESULTING FROM SOIL AND/OR CONSTRUCTION OPERATIONS.
18. SEE WINTER CONSTRUCTION SEQUENCE FOR WORK CONDUCTED AFTER OCTOBER 15TH.

DIG SAFE
811 OR 1-888-DIG-SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

SITE PREPARATION & DEMOLITION PLAN

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY

OWNED BY

RANDI & JEFF COLLINS

PREPARED FOR

RANDI & JEFF COLLINS

1"=20' (11"X17")

SCALE: 1"=10' (22"X34") **JULY 1, 2022**

REV	DATE	DESCRIPTION	DR	CK
6	10/6/2022	~~REVISED PER TAC COMMENTS~~	BMK	JCC
5	9/27/2022	REVISED LOT #'S	BMK	JCC
4	9/20/2022	REVISED PER TAC COMMENTS	JKC	JCC
3	8/31/2022	REVISED PER TAC COMMENTS	JKC	JCC
2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

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FILE	DR	BMK	FB	–	C-02
47442-00	CK	CRR	CADFILE	47442-00_SITE PREP	

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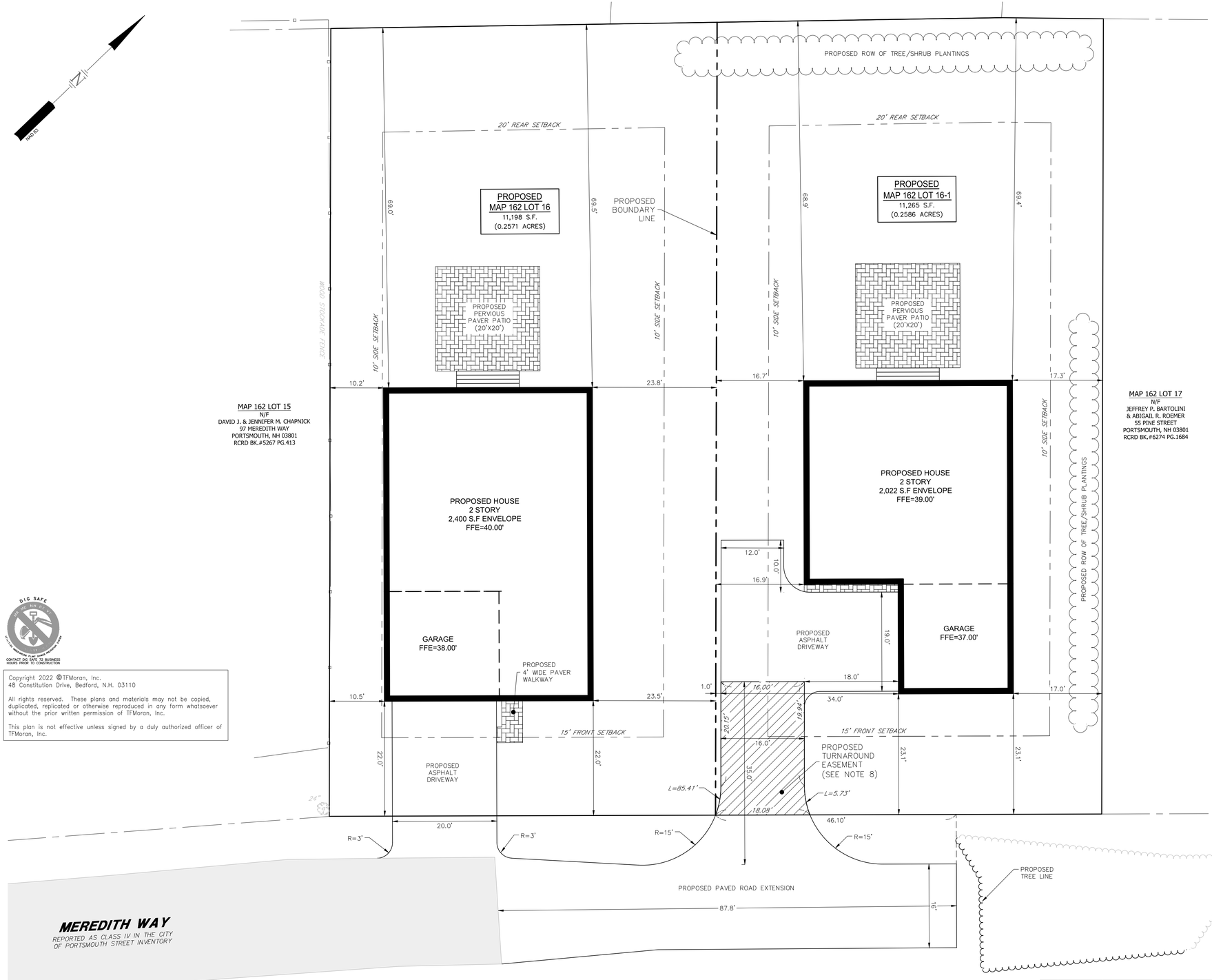

SITE DATA

OWNER OF RECORD OF MAP 162 LOT 16:
RANDI & JEFF COLLINS
77 MEREDITH WAY, PORTSMOUTH, NH 03801

DEED REFERENCE TO PARCEL IS BK 6274 PG 1666

AREA OF PARCEL = 22,463± SF OR 0.5157± ACRES

ZONED: GENERAL RESIDENCE A (GRA)
EXISTING USE: 1 LOT, SINGLE FAMILY DWELLING UNIT
PROPOSED USE: 2 LOTS, 2 SINGLE FAMILY DWELLING UNITS

THE PURPOSE OF THIS PLAN IS TO DEPICT TWO PROPOSED SING FAMILY DWELLING UNITS WITH ACCESS ALONG MEREDITH WAY. ASSOCIATED IMPROVEMENTS INCLUDE AND ARE NOT LIMITED TO ACCESS, GRADING, STORMWATER MANAGEMENT SYSTEMS, UTILITIES.

DIMENSIONAL REQUIREMENTS (CURRENT ZONING)

	REQUIRED:	PROVIDED: LOT 16:	LOT 16-1:
MINIMUM LOT DIMENSIONS:			
LOT AREA	7,500 SF	11,198 SF	11,265 SF
LOT FRONTAGE	100 FT	73.99 FT	31.61 FT
DEPTH	70 FT	151.4 FT	152.1 FT
MINIMUM YARD DIMENSIONS:			
FRONT	15 FT	22.0 FT	23.1 FT
SIDE	10 FT	10.2 FT	16.7 FT
REAR	20 FT	69.0 FT	68.9 FT
MAXIMUM STRUCTURE DIMENSIONS:			
SLOPED ROOF	35 FT	<35 FT	<35 FT
FLAT ROOF	30 FT	NA	NA
ROOF APPURTENANCE HEIGHT	8 FT	>8 FT	>8 FT
BUILDING LOT COVERAGE	25% (MAX)	21.4%	18.0%
MINIMUM SETBACKS/BUFFER:			
BUILDING FRONT	15 FT	15 FT	15 FT
BUILDING SIDE	10 FT	10 FT	10 FT
BUILDING REAR	20 FT	20 FT	20 FT
MINIMUM OPEN SPACE	30%	70.4%	67.8%
PARKING REQUIREMENTS			
PARKING SPACES 1.3 SPACES/UNIT	2 SPACES	2 SPACES	2 SPACES

NOTES

1. SEE NOTES ON SHEET C-01.
2. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.
3. LIGHTING, SIGNAGE, LANDSCAPING, AND SCREENING SHALL MEET THE REQUIREMENTS OF THE PORTSMOUTH ZONING ORDINANCE AND SITE PLAN REGULATIONS.
4. SNOW SHALL NOT BE STOCKPILED IN STORMWATER BMP'S, WETLAND BUFFERS, OR WETLANDS. SEE SNOW STORAGE LOCATIONS. IN THE EVENT THAT THE SNOW STORAGE AREAS PROVIDED ON THE SITE ARE COMPLETELY UTILIZED, EXCESS SNOW SHALL BE TRANSPORTED OFF SITE FOR DISPOSAL IN ACCORDANCE WITH NHDES REGULATION. IF SNOW IS STORED WITHIN PARKING AREA, KEEP CATCH BASINS CLEAR.
5. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
6. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
7. 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.
8. THE PORTION OF THE DRIVEWAY WITHIN THE TURNAROUND EASEMENT AREA IS TO BE CONSTRUCTED WITH HEAVY-DUTY PAVEMENT, SEE SHEET C-07 FOR DETAIL.
9. THE PROPOSED PRINCIPAL STRUCTURES SHALL BE LOCATED IN SUBSTANTIAL COMPLIANCE WITH THE SITING AS SHOWN HEREON AND REQUIRED BY THE CITY OF PORTSMOUTH TECHNICAL ADVISORY COMMITTEE.

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

REV	DATE	DESCRIPTION	DR	CK
6	10/6/2022	REVISED PER TAC COMMENTS	BMK	JCC
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1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

SITE LAYOUT PLAN

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY

OWNED BY

RANDI & JEFF COLLINS

PREPARED FOR

RANDI & JEFF COLLINS

1"=20' (11"X17")

SCALE: 1"=10' (22"X34") **JULY 1, 2022**

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FILE	DR	BMK	FB	–	
47442-00	CK	CRR	CADFILE	47442-00_SITE LAYOUT	C-03

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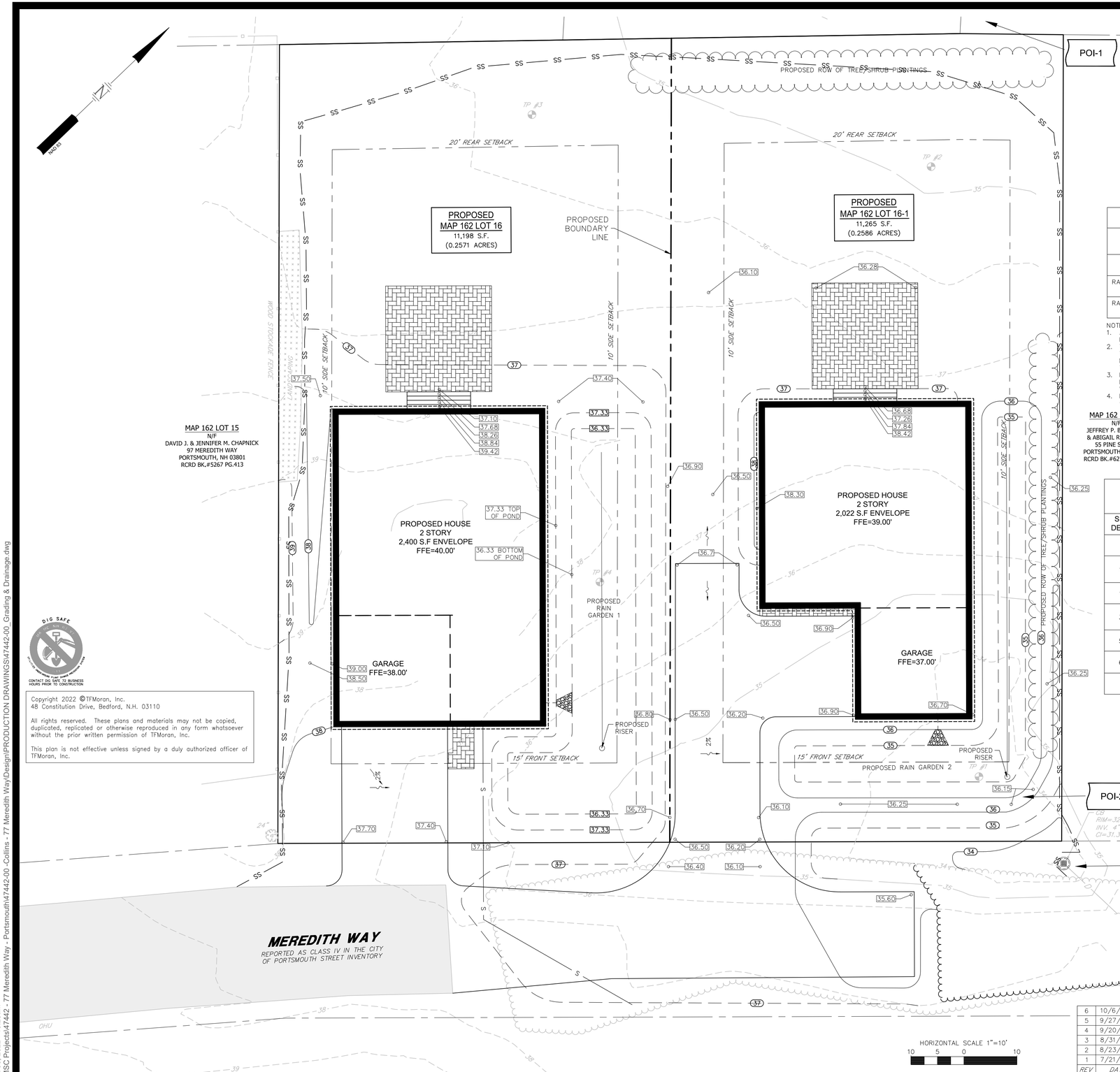

NOTES

1. SEE NOTES ON SHEET C-01.
2. ALL DOORS AND GARAGE ENTRANCES SHALL BE AT FINISHED FLOOR ELEVATION UNLESS OTHERWISE NOTED.
3. PROPOSED SPOT GRADES ARE PROVIDED TO THE NEAREST 0.05. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE FINISHED GRADES MEET ADA STANDARDS FOR WHEEL CHAIR RAMPS, HANDICAP SPACES AND ACCESS AISLES, CROSSWALKS, SIDEWALKS, ETC.
4. ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED. CURBS HAVE A 6" REVEAL UNLESS OTHERWISE NOTED.
5. LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE FIELD.
7. ALL PROPOSED DRAINAGE PIPES SHALL BE 12" AND HDPE, UNLESS OTHERWISE NOTED ON THE PLAN.
8. DRAINAGE PIPES WITH LESS THAN 3' COVER SHALL BE INSULATED (SEE UTILITY TRENCH DETAIL) AND DRAINAGE CATCH BASINS WITH LESS THAN 3.5' OF COVER OVER INVERTS SHALL USE SLAB TOP CATCH BASIN (SEE DETAILS).
9. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT AND ARCHITECTURAL PLANS FOR SUBDRAINAGE SYSTEMS FOR THE BUILDING FOUNDATION. SUBDRAINAGE MUST DAYLIGHT OR TIE INTO THE STORMWATER MANAGEMENT SYSTEM. COORDINATE SUBDRAINAGE SYSMTEM DESIGN WITH THE ENGINEER OF RECORD.
10. EACH PROPOSED HOUSE TO HAVE GUTTERS OR FRENCH DRAINS THAT DIVERT THE RAIN WATER INTO THE ASSOCIATED RAIN GARDENS. ALL RUNOFF FROM THE STRUCTURES IS TO BE DIRECTED TOWARDS THE APPROPRIATE RAIN GARDENS.

TEST PIT

BMP	TEST PIT #	APPROX GROUND	BOTTOM OF POND	TEST PIT	
		ELEV	ELEV	ELEV	DEPTH (MIN)
RAIN GARDEN #1	4	35.75	35.25	35	6.5'
RAIN GARDEN #2	1	35.00	34.25	33.50	4'

NOTE:
1. ALL TEST PITS ARE TO BE TESTED FOR INFILTRATION RATES AT THE GIVEN INFILTRATION ELEVATIONS.
2. TEST PITS ARE TO BE EXCAVATED UNTIL SEASONAL HIGH WATER TABLE OR THE LOCATION OF LEDGE IS ENCOUNTERED. TEST PIT DEPTHS LISTED ARE MINIMUM DEPTHS. IF SEASONAL HIGH WATER OR LEDGE ARE ENCOUNTERED, THE TEST PIT CAN BE STOPPED.
3. INFILTRATION TESTS ARE FOR INFILTRATION ONLY. THEY CAN BE DISCONTINUED IF SEASONAL HIGH WATER OR LEDGE IS ENCOUNTERED WITHIN THE TESTING RANGE FOR THE INFILTRATION.
4. INFILTRATION TESTS SHALL BE PERFORMED ACCORDING TO ENV-WQ 1504.14 (e) [AoT STANDARDS].

MAP 162 LOT 17
N/F
JEFFREY P. BARTOLINI
& ABIGAIL R. ROEMER
55 PINE STREET
PORTSMOUTH, NH 03801
RCRD BK.#6274 PG.1684

TEST PIT #1 LOGS

SECTION DEPTH (IN)	SOIL DESCRIPTION
0 to 6	A5YR 2.5/2 – DRY, LOOSE, F-M SAND, LITTLE TO SOME SILT, LITTLE F. GRAVEL, LITTLE TO TRACE ORGANICS (TOPSOIL/FILL)
6 to 18	A7.5YR7/1 TO A7.5YR8/1 – DRY TO DAMP, LOOSE, F-M SAND, LITTLE F-C GRAVEL, LITTLE TO SOME SILT -DESICCATED CLUMPS IN STRATA INDICATED LIKELY REUSED MATERIAL. (FILL)
15 to 48	A5YR6/1 DAMP, FIRM, CLAYEY SILT/SILTY CLAY, LITTLE TO TRACE F. SAND B.O.E. @ 5 FT (GLACIOLACUSTRINE DEPOSITS)
ESHWT: 4 FT 2 IN	

TEST PIT #2 LOGS

SECTION DEPTH (IN)	SOIL DESCRIPTION
0 to 8	A5YR 2.5/2 – DRY, LOOSE, F-M SAND, LITTLE TO SOME SILT, LITTLE F. GRAVEL, LITTLE TO TRACE ORGANICS (TOPSOIL/FILL)
8 to 24	A7.5YR4/6 TO A7.5YR3/2 – DRY TO DAMP, LOOSE, F-M SAND, LITTLE F-C GRAVEL, LITTLE TO SOME SILT, CLUMPS OF BURIED TOPSOIL AND ROOTS (FILL)
24 to 40	A5YR5/8 DAMP, FIRM, CLAYEY SILT/SILTY CLAY, LITTLE TO TRACE F. SAND B.O.E. @ 5 FT (GLACIOLACUSTRINE DEPOSITS)
40 to 60	A5YR5/8 DAMP, FIRM, CLAYEY SILT/SILTY CLAY, LITTLE TO TRACE F. SAND B.O.E. @ 5 FT (GLACIOLACUSTRINE DEPOSITS)
ESHWT: 4 FT	

TEST PIT #3 LOGS

SECTION DEPTH (IN)	SOIL DESCRIPTION
0 to 8	A5YR 2.5/2 – DRY, LOOSE, F-M SAND, LITTLE TO SOME SILT, LITTLE F. GRAVEL, LITTLE TO TRACE ORGANICS (TOPSOIL/FILL)
8 to 18	A7.5YR4/6 – DRY TO DAMP, LOOSE, F-M SAND, LITTLE F-C GRAVEL, LITTLE TO SOME SILT, CLUMPS OF BURIED TOPSOIL AND ROOTS (FILL)
18 TO 60	A5YR5/8 DAMP, FIRM, CLAYEY SILT/SILTY CLAY, LITTLE TO TRACE F. SAND B.O.E. @ 5 FT (GLACIOLACUSTRINE DEPOSITS)
ESHWT: 4.5 FT	

TEST PIT #4 LOGS

SECTION DEPTH (IN)	SOIL DESCRIPTION
0–12"	10YR 3/2 DARK YELLOWISH BROWN, LOAM, MASSIVE, FIRM, FEW STONES, HOMOGENOUS, FILL
12–25"	10YR 5/6 YELLOWISH BROWN, SANDY LOAM, MASSIVE, MANYU ANGULAR GRAVELS, SLIGHTLY FIRM, HOMOGENOUS, FILL
12–38"	10YR 6/3 PALE BROWN, LOAM, MANY FINE SAND INTRUSIONS, MASSIVE, VERY FIRM, HETEROGENEOUS, MANY ANGULAR STONES
38–58"	10YR 6/4 LIGHT YELLOWISH BROWN, MEDIUM SAND, SINGLE GRAINED, LOOSE, REDOXIMORPHIC FEATURES (2.5YR 5/8 RED), MANY ROUNDED STONES
58–68"	10YR 8/8 BROWNISH YELLOW, FINE SAND, SINGLE GRAINED, LOOSE, MANY COBBLES
68–78"	10YR 4/4 DARK YELLOWISH BROWN, LOAMY SAND, WEAK BLOCKY, FRIABLE, MANY REDOXIMORPHIC FEATURES (2.5YR 5/8 RED)
ESHWT: 3.85 FT	

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

GRADING & DRAINAGE PLAN

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY

OWNED BY

RANDI & JEFF COLLINS

PREPARED FOR

RANDI & JEFF COLLINS

1"=20' (11"X17")

SCALE: 1"=10' (22"X34") **JULY 1, 2022**

REV	DATE	DESCRIPTION	DR	CK
6	10/6/2022	REVISED PER TAC COMMENTS	BMK	JCC
5	9/27/2022	REVISED LOT #'S	BMK	JCC
4	9/20/2022	REVISED PER TAC COMMENTS	JKC	JCC
3	8/31/2022	REVISED PER TAC COMMENTS	JKC	JCC
2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

Seacoast Division
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Structural Engineers
Traffic Engineers
Land Surveyors
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170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE		DR	BMK	FB	–	
47442-00		CK	CRR	CADFILE	47442-00_GRADING & DRAINAGE	C-04

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DIG SAFE
811 or 1-888-DIG-SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

NOTES

1. SEE NOTES ON SHEET C-01.
2. SEE SHEETS C-07 THRU C-09 FOR DETAILS.
3. CONTRACTOR SHALL COORDINATE WITH CITY OF PORTSMOUTH DPW PRIOR TO CONSTRUCTING SEWER MANHOLE CONNECTION.
4. SEWER EASEMENT SHALL BE 10 FEET WIDE CENTERED ON THE AS-BUILT LOCATION OF THE SEWER LINE.

PROPOSED HOUSE
2 STORY
2,400 S.F ENVELOPE
FFE=40.00'

GARAGE
FFE=38.00'

PROPOSED HOUSE
2 STORY
2,022 S.F ENVELOPE
FFE=39.00'

GARAGE
FFE=37.00'

SEWER
INV.=32.55'

SEWER
INV.=32.4'

15' FRONT SETBACK

15' FRONT SETBACK

PROPOSED 1" POLY
WATER SERVICE

PROPOSED 6"
SDR-35 PVC
SEWER SERVICE
L=174.1' S=0.010

PROPOSED 1" POLY
WATER SERVICE

36.33

37.33

24"

PROPOSED
CURB STOP

PROPOSED
CURB STOP

22.5° ELBOW

11.25° ELBOW

2" INSULATION

RIGHT OF
WAY LINE

MEREDITH WAY
REPORTED AS CLASS IV IN THE CITY
OF PORTSMOUTH STREET INVENTORY

UGE

OHU

176 168 NET 320 2

1 1/2" CU

EXTEND 1 1/2"
COPPER WATER MAIN

CONNECT TO
EXISTING 1½"
WATER MAIN

END 1 1/2"
PIPE

PROPOSED
UNDERGROUND
ELECTRIC SERVICE

PROPOSED 1" POLY
WATER SERVICE

INSULATE WATER
SERVICE WHERE
COVER IS LESS
THAN 5 FEET

SEE WATER & SEWER
CROSSING DETAIL
(SHEET C-09)

22.5° ELBOW

11.25° ELBOW

13.0'

PROPOSED SEWER
EASEMENT FROM THE
CITY OF PORTSMOUTH
FOR THE BENEFIT OF
LOTS 16 & 16-1
(SEE NOTE 4)

"PINE STREET PARK & PLAYGROUND"

MAP 162 LOT 19
N/F
CITY OF PORTSMOUTH
PO BOX 628
PORTSMOUTH, NH 03802

2 PROPOSED 6"
SDR-35 PVC
SEWER SERVICES

22.5° ELBOW

22.5° ELBOW

5.0' 2.0' 5.0'
12.0'

CB
RIM=32.85
INV. 4"
CI=31.3±

PROPOSED ROW OF TREE/SHRUB PLANTINGS

10' S

5" ORN

36" OAK

EXISTING SEWER
SERVICE TO BE
CAPPED AND
ABANDONED

CB #1587
RIM EL.=36.28'
A. 12" RCP INV.=33.3'
B. 12" RCP INV.=33.1'

SMH #1485
RIM EL.=36.76'
A: 8" CLAY INV.=29.6'
B: 8" CLAY INV.=29.5'

HORIZONTAL SCALE 1"=10'
10 5 0 10

BASKETBALL
COURT

26" OAK

18" OAK

20" OAK

30" OAK

24" OAK

16" OAK

WOOD
GUARDRAIL

PAVED WALK

REMOVE & RESET
GUARDRAIL AND CURB

PROPOSED SAWCUT
(SEE DETAIL SHEET C-07)

RIGHT OF
WAY LINE

PAVEMENT
PATCH

4" CI

8"

6" INV
IN=30.7'

6" INV
IN=30.8'

CB #1442
RIM=36.38'
INV. 12" RCP=33.9'

PSNH 181 V2 317/5

VGC

PINE STREET
(A PUBLIC WAY)

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1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

UTILITY PLAN

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY

OWNED BY

RANDI & JEFF COLLINS

PREPARED FOR

RANDI & JEFF COLLINS

1"=20' (11"X17")
SCALE: 1"=10' (22"X34")

JULY 1, 2022

FILE	47442-00	DR	BMK	FB	–	C-05
		CK	CRR	CADFILE	47442-00_UTILITY	

Oct 06, 2022 - 10:24am
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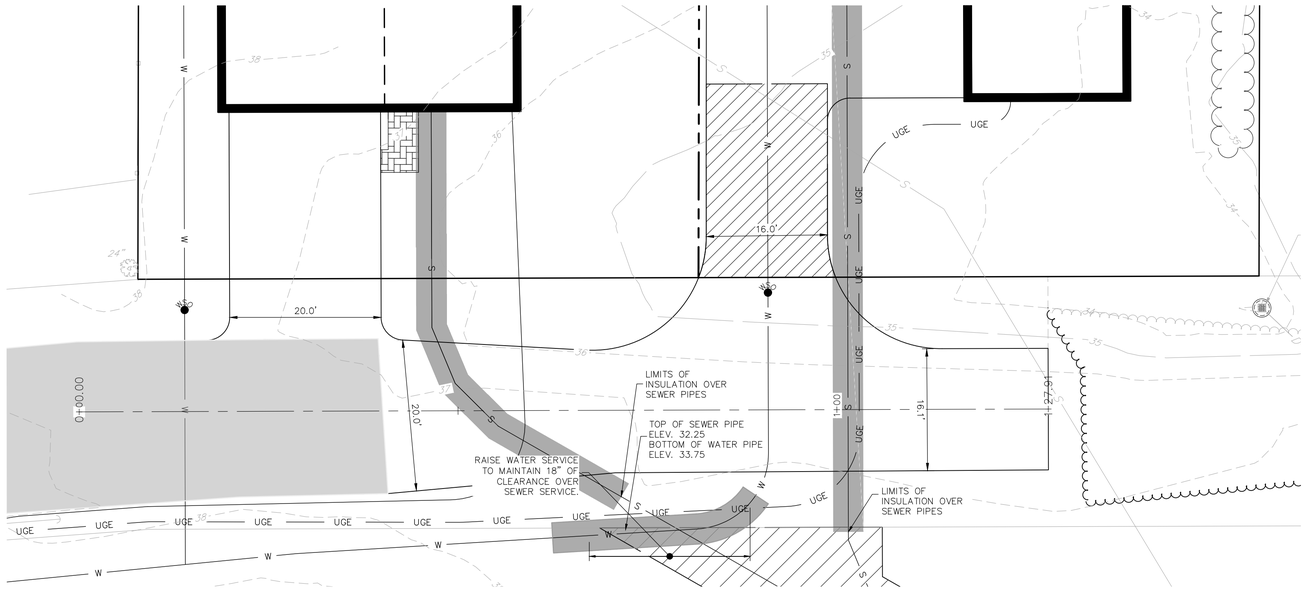

MEREDITH WAY

HORIZONTAL SCALE 1"=10'

10 5 0 10

NOTES

1. SEE NOTES ON SHEET C-01.
2. SEE UTILITY PLAN ON SHEET C-05 FOR MORE INFORMATION.

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SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

ROAD PLAN PROFILE

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY

OWNED BY

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PROJ. #	DR	BMK	FB	–	
47442-00	CK	CRR	CADFILE	47442-00_ROAD PROFILE	C-06

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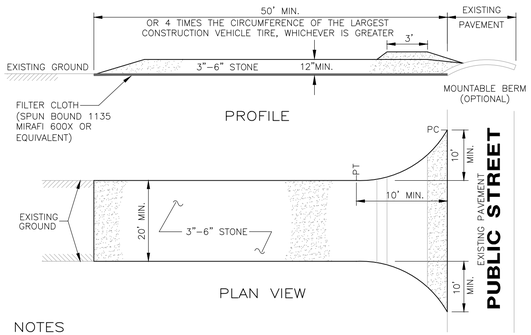
CONTACT DIG SAFE TO BUSINESS HOURS PRIOR TO CONSTRUCTION

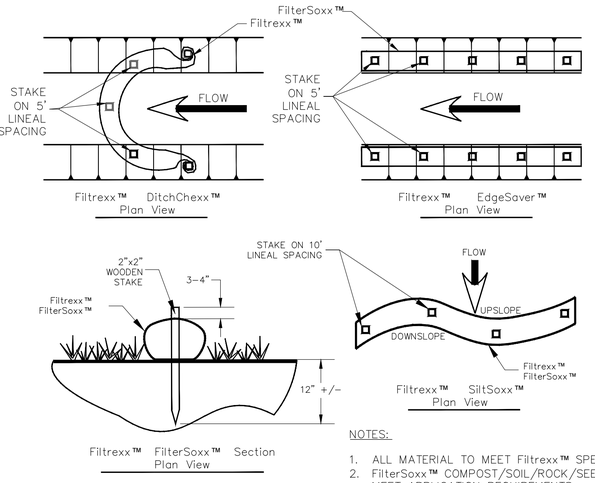


NOTES

1. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE SURFACE.
2. WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
3. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
4. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN STORM EVENT.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

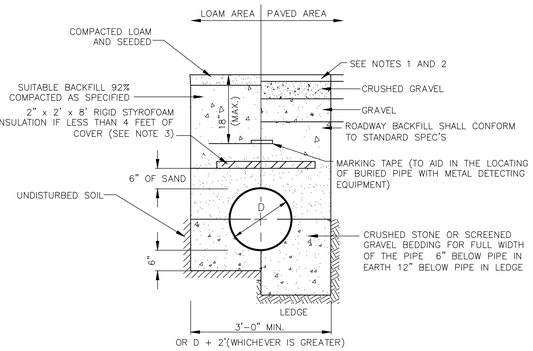


NOTES:

1. ALL MATERIAL TO MEET Filtrexx™ SPECIFICATIONS
2. FilterSoxx™ COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.
4. SIZE OF SOCK TO BE PER MANUFACTURER'S SPECIFICATIONS

FILTREXX™ FILTERSOXX™ STAKING

NOT TO SCALE

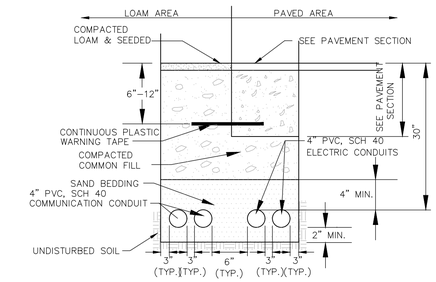


NOTES

1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPEC'S.
3. GAPS BETWEEN SECTIONS OF INSULATION TO BE COVERED WITH 2" x 2' x 2' PIECE OF INSULATION CENTERED OVER GAP.

SEWER TRENCH WITH INSULATION

NOT TO SCALE

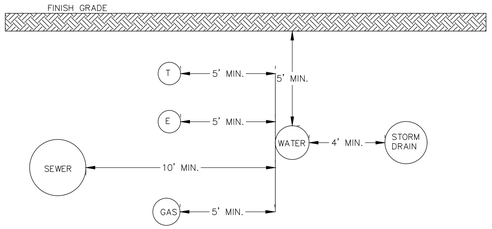


NOTES

1. ELECTRIC SERVICE INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL CODES.
2. COMMUNICATION SERVICE INSTALLATION SHALL MEET ALL CONSTRUCTION REQUIREMENTS.
3. ACTUAL NUMBER OF CONDUITS TO BE DETERMINED BY RESPECTIVE COMPANIES.
4. VERIFY INSTALLATION REQUIREMENTS WITH RESPECTIVE COMPANIES.

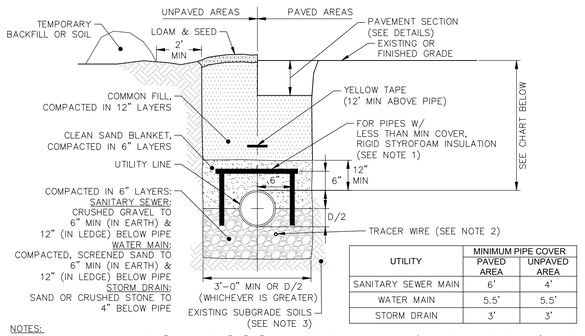
ELECTRIC/COMMUNICATIONS CONDUIT

NOT TO SCALE



TYPICAL UTILITY SEPARATION DETAIL

NOT TO SCALE



UTILITY	MINIMUM PIPE COVER	
	PAVED AREA	UNPAVED AREA
SANITARY SEWER MAIN	6'	4'
WATER MAIN	5.5'	5.5'
STORM DRAIN	3'	3'

NOTES:

1. FOR TOP INSULATION, USE 2" THICK OF 2"X2"X8" RIGID STYROFOAM INSULATION (1 LAYER IF LESS THAN 5' COVER, 2 LAYERS IF GREATER THAN 5' COVER BUT LESS THAN 6' COVER). FOR SIDE INSULATION, USE 2" THICK OF 2"X2"X8" RIGID STYROFOAM INSULATION EXTENDING TO A MINIMUM DEPTH OF 5'.
2. TRACER WIRE SPECIFIED FOR NON–METALLIC WATER LINES SHALL BE INSTALLED BELOW AND TO THE SIDE OF THE PIPE AND PER THE MANUFACTURER REQUIREMENTS. TRACER WIRE PRODUCT SHALL BE SELECTED FOR OPEN CUT INSTALLATION TECHNIQUE.
3. IN LOCATIONS WITH EXISTING FILL SOILS, THE EXISTING SUBGRADE SOILS AT THE BOTTOM OF THE TRENCH SHALL BE OVER–EXCAVATED 2' DEEP AND RECOMPACTED IN 12" LIFTS TO 95% MAXIMUM DENSITY.

UTILITY TRENCH

FOR SEWER, WATER, AND STORM DRAIN LINES — NOT TO SCALE

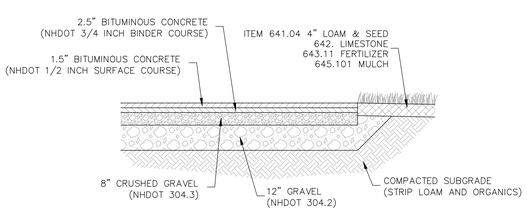
STANDARD DUTY PAVEMENT — HEAVY DUTY PAVEMENT

NOTES

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

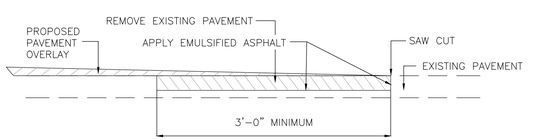
PAVEMENT SECTIONS

NOT TO SCALE



PAVEMENT SECTION/LOAM & SEED DETAIL

NOT TO SCALE



PAVEMENT SAWCUT

NOT TO SCALE

REV	DATE	DESCRIPTION	DR	CK
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SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

DETAILS

PROPOSED 2 LOT SUBDIVISION

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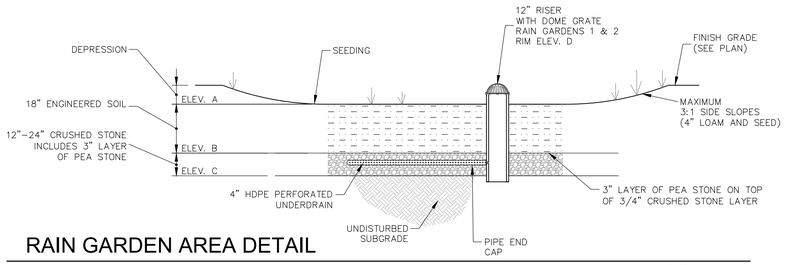
FILE	DR	BMK	FB	–	C–07
47442–00	CK	CRR	CADFILE	47442–00_DETAILS	

DIG SAFE — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION



RAIN GARDEN AREA DETAIL

NOT TO SCALE

SEEDING

1. USE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR MOIST SITES BY NEW ENGLAND WETLAND PLANTS, INC. OR EQUIVALENT.
2. SEED AT A RATE OF 1LB/1250SF. APPLY TO BARE SOIL. LIGHTLY MULCH WITH CLEAN WEED FREE STRAW.

	ELEV.	
	RG #1	RG #2
A	36.33	35.00
B	35.33	33.50
C	34.33	31.50
D	37.25	35.92
*TEST PIT USED FOR ESHWT	TP-4 ELEV. 33.33	TP-1 ELEV. 29.85

*NOTE: >1.0' SEPARATION FROM BOTTOM OF FILTER LAYER TO ESHWT. RAIN GARDEN #2 IS NOT BEING ANALYZED FOR INFILTRATION.

RAIN GARDEN CONSTRUCTION

1. CLEAR AND GRUB THE AREA WHERE THE RAIN GARDEN AREAS ARE TO BE LOCATED. STOCKPILE LOAM FOR REUSE ON SLOPES.
2. GRADE RAIN GARDEN AREAS ACCORDING TO PLAN AND DETAILS. SIDE SLOPES SHALL HAVE 4" LOAM AND SEED AND A SLOPE NOT TO EXCEED 3:1. BOTTOM OF RAIN GARDEN AREAS TO BE CONSTRUCTED WITH MANUFACTURED SOIL (SEE RAIN GARDEN CONSTRUCTION DETAIL). SPECIFIC PLANTINGS SHALL BE PLACED IN THE FACILITY ACCORDING TO THE LANDSCAPE PLAN PLANTING DETAIL.
3. RAIN GARDEN SOIL MIXTURE SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES EXCLUDING MULCH. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE RAIN GARDEN AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVIDE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATION.
4. THE USDA TEXTURAL CLASSIFICATION OF THE SANDY SOIL SHALL BE LOAMY SAND OR SANDY LOAM.
5. THE ENGINEERED SOIL – SEE ENGINEERED SOIL MIX NOTES.
   A. SOILS TO BE TESTED AND APPROVED BY THE ENGINEER OF RECORD. ENGINEER SHALL SUBMIT LETTER OF VERIFICATION TO THE CITY.
6. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT EQUIPMENT & VEHICLE TRAFFIC FROM DRIVING IN THE AREA OF THE PROPOSED RAIN GARDEN AREA DURING CONSTRUCTION.
7. AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES. THE BASIN BOTTOM SHOULD BE LEVELED PRIOR TO BACKFILLING WITH CRUSHED STONE AND RAIN GARDEN SOIL MIXTURE.
8. AASHTO #57 STONE CAN BE USED IN PLACE OF 3/4" CRUSHED STONE.

RAIN GARDEN MAINTENANCE

MAINTENANCE SCHEDULE TO BEGIN AFTER CONSTRUCTION IS FINISHED AND BASIN STABILIZATION IS COMPLETE.

1. CONTRACTOR AND LAND OWNERS TO PERFORM SCHEDULED MAINTENANCE ON THE RAIN GARDENS.
2. REGULAR WATERING DURING THE FIRST FEW WEEKS AFTER PLANTING AND DURING HOT, DRY SPELLS, ESPECIALLY IN THE FIRST TWO YEARS AFTER PLANTING. AFTER THE FIRST TWO YEARS AND ONCE PLANTS ARE ESTABLISHED, WATERING SHOULD ONLY BE NECESSARY DURING DROUGHT CONDITIONS.
3. FOR THE FIRST YEAR, FREQUENT AND AGGRESSIVE WEEDING MONTHLY DURING GROWING SEASON. REMOVE ONLY INVASIVE SPECIES.
4. TWICE PER YEAR, INSPECT SPILLWAYS AND REMOVE ANY ACCUMULATED DEBRIS OR SEDIMENT TO ENSURE PROPER FUNCTIONALITY.
5. ONCE A YEAR TRIM AND PRUNE EXCESS VEGETATION. DEAD, DYING, DISEASED, OR HAZARDOUS BRANCHES SHOULD BE TRIMMED AND REMOVED AS THEY OCCUR.
6. ONCE A YEAR INSPECT RAIN GARDEN FOR DEAD OR DYING VEGETATION. REPLACE VEGETATION AS NEEDED. NEW PLANTS SHOULD BE PLACED IN THE SAME LOCATION AS THE OLD PLANT, OR AS NEAR AS POSSIBLE TO THE OLD LOCATION. NEW PLANTS SHOULD BE THE NATIVE AND SAME OR EQUIVALENT VARIETY:
7. DO NOT MOW GARDEN.
8. ONCE A YEAR, INSPECT BOTTOM OF RAIN GARDEN. MAINTAIN A 2–3" LAYER OF MULCH. REPLACE AS REQUIRED.
9. DURING INSPECTIONS, REMOVE ANY TRASH, ACCUMULATED DEBRIS OR SEDIMENT.
10. ONCE A YEAR INSPECT BERM FOR SETTLING. ADD COMPACTED SOIL AND REPLANT AS NEEDED.
11. ONCE A YEAR IN THE FALL THE SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME AFTER A RAINFALL EVENT THAT EXCEEDS 1.0 INCHES IN A 24–HOUR PERIOD. THE SYSTEM SHOULD BE CHECKED TO CONFIRM THAT IT COMPLETELY DRAINS IN 72–HOUR AFTER THE RAINFALL EVENT. IF THE GARDEN DOES NOT DRAIN, A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION OR INFILTRATION FUNCTIONS, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS.
12. ONCE A YEAR TEST PLANTING BED FOR PH. IF THE PH IS BELOW 5.2, LIMESTONE SHOULD BE APPLIED. IF THE PH IS ABOVE 8.0, IRON SULFATE AND SULFUR SHOULD BE APPLIED.

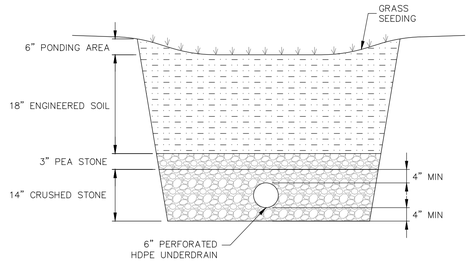
ENGINEERED SOIL MIX

1. THE ENGINEERED SOIL IS MADE OF IS 10% WOOD CHIPS, 35% LOAM, AND 55% SAND.
2. LOAM SHALL MEET THE USDA TEXTURAL CLASSIFICATION OF LOAMY FINE SAND.
3. SAND SHALL BE CONCRETE SAND MEETING ASTM C–33 SPECIFICATION.
4. WOOD CHIPS SHALL BE SHREDDED WOOD, WOOD CHIPS, GROUND BARK, OR WOOD WASTE; OF UNIFORM TEXTURE AND FREE OF STONES, STICKS, SOIL, OR TOXIC MATERIALS
5. SOIL REACTION: PH OF 6 TO 7.
6. CEC OF TOTAL SOIL: MINIMUM 10 MEQ/100 ML AT PH OF 7.0.
7. BASIS–OF–DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS INDICATED ON DRAWINGS
8. BASIC PROPERTIES: MANUFACTURED SOIL SHALL NOT CONTAIN THE FOLLOWING:
   A. UNACCEPTABLE MATERIALS: CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, BUILDING DEBRIS, ASPHALT, BRICKS, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, ACID, SOLID WASTE, AND OTHER EXTRANEOUS MATERIALS THAT ARE HARMFUL TO PLANT GROWTH.
   B. UNSUITABLE MATERIALS: STONES, ROOTS, PLANTS, SOD, CLAY LUMPS, AND POCKETS OF COARSE SAND THAT EXCEED A COMBINED MAXIMUM OF 5 PERCENT BY DRY WEIGHT OF THE MANUFACTURED SOIL
   C. LARGE MATERIALS: STONES, CLODS, ROOTS, CLAY LUMPS, AND POCKETS OF COARSE SAND EXCEEDING 0.187 INCHES (4.76 MM) IN ANY DIMENSION.

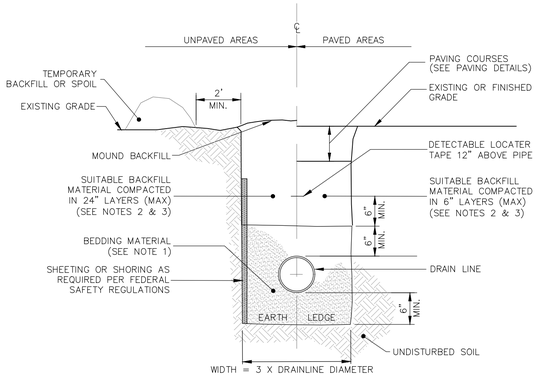
ENGINEERED SOIL MIX PARTICLE SIZE DISTRIBUTION (PSD)			
PSD UPPER LIMIT		PSD LOWER LIMIT	
SIEVE #	% Passing	SIEVE #	% PASSING
4	100	4	100
10	95	10	95
40	40	40	15
200	20	200	15
<200	5	<200	5

RAIN GARDEN INSPECTION SCHEDULE

1. RAIN GARDEN TO BE INSPECTED BY THE DESIGN ENGINEER FOR EACH STAGE OF CONSTRUCTION.
2. PHASES OF CONSTRUCTION BEING:
   A. EXCAVATION OF THE RAIN GARDEN BASIN, INCLUDING ROTOTILLING.
   B. INSTALLATION OF THE CRUSHED STONE
   C. INSTALLATION OF THE ENGINEERED SOIL
   D. INSTALLATION OF THE OUTLET STRUCTURE AND UNDERDRAIN IN THE OUTLET STONE TRENCHES
3. SAMPLE OF THE INDIVIDUAL COMPONENTS OF THE ENGINEERED SOIL TO BE PROVIDED AND APPROVED PRIOR BEING COMBINED AND INSTALLED. SAMPLE CRUSHED STONE TO BE PROVIDED AND APPROVED PRIOR TO INSTALLATION.
4. ENGINEER TO VERIFY MIX RATIO OF ENGINEERED SOIL MIX.



RAIN GARDEN TYPICAL SECTION

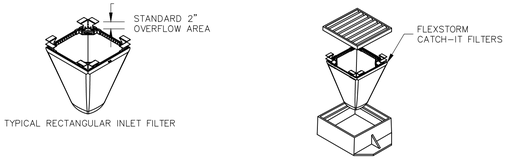


NOTES

1. BEDDING – BEDDING FOR PIPES SHALL CONSIST OF PREPARING THE BOTTOM OF THE TRENCH TO SUPPORT THE ENTIRE LENGTH OF THE PIPE AT A UNIFORM SLOPE AND ALIGNMENT. CRUSHED STONE SHALL BE USED TO BED THE PIPE TO THE ELEVATION SHOWN ON THE DRAWINGS. NORMAL PIPE BEDDING IS CRUSHED STONE TO THE HAUNCH OF THE PIPE AND SAND BEDDING 6" ABOVE THE CROWN. IF THE TOP OF THE PIPE IS LESS THAN 30" FROM FINISH GRADE, BED PIPE COMPLETELY IN STONE UP TO 6" ABOVE PIPE CROWN. UNDERDRAIN TO HAVE 4" MINIMUM OF STONE OVER PIPE OR AS NECESSARY TO BE IN CONTACT WITH GRAVEL LAYER OF SELECTS ABOVE.
2. COMPACTION – ALL BACKFILL SHALL BE COMPACTED AT OR NEAR OPTIMUM MOISTURE CONTENT BY PNEUMATIC TAMPERS, VIBRATORY COMPACTORS OR OTHER APPROVED MEANS. BACKFILL BENEATH PAVED SURFACES SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T99, METHOD C.
3. SUITABLE MATERIAL – IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ROCKS OVER 6" IN LARGEST DIMENSION; FROZEN EARTH AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
4. BASE COURSE AND PAVEMENT – SHALL MEET THE REQUIREMENT OF THE NHDOT LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DIVISION 300 AND 400 RESPECTIVELY.

TRENCH FOR DRAIN LINE

NOT TO SCALE



TYPICAL RECTANGULAR INLET FILTER

NOTES:

1. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT > ½".
3. EMPTY THE SEDIMENT BAG PER MANUFACTURER'S SPECIFICATIONS.
4. REMOVED CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM SPRAY WITH OPTIMAL FILTRATION.
5. REPLACE BAG IF TORN OR PUNCTURED TO > ½" DIAMETER ON LOWER HALF OF BAG.

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

INLET PROTECTION

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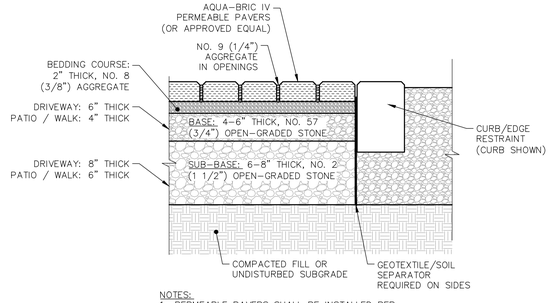


NOTES:
1. PERMEABLE PAVERS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
2. INSTALLATION OF PERMEABLE PAVER SECTION SHALL BEGIN AT LOWEST GRADE AND END AT HIGHEST GRADE.

PROFILE VIEW

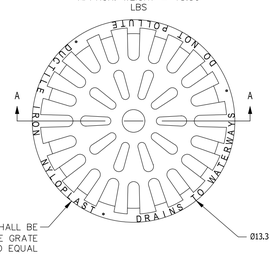
MAINTENANCE:
- PERMEABLE PAVERS FUNCTION AS AN EFFECTIVE STORMWATER TREATMENT SYSTEM AND REMAIN CLOG–FREE FOR YEARS WITH REASONABLE GOOD HOUSEKEEPING PRACTICES.
- KEEP THE PAVEMENT FREE OF LEAVES, WEEDS, AND SEDIMENT.
- AVOID THE USE OF SAND IN THE WINTER; IF USED, SPREAD SPARINGLY.
- PERIODICALLY SWEEP THE OPENINGS TO REMOVE CRUST THAT FORMS ON THE SURFACE. A STIFF BRISTLE BROOM WORKS WELL FOR RESIDENTIAL WALKS AND DRIVEWAYS.
- IF PUDDLES RESULT FROM CLOGGING, INFILTRATION RATES CAN BE RESTORED TO 100% CAPACITY BY REMOVING THE AGGREGATE FROM THE OPENINGS AND REPLACING IT WITH CLEAN MATERIAL.
- DO NOT PRESSURE WASH.
- MINIMIZE APPLICATION OF SALT FOR ICE CONTROL.
- INSPECT ANNUALLY FOR PAVER DETERIORATION.
- MONITOR PERIODICALLY TO ENSURE THAT THE PAVERS DRAIN EFFECTIVELY AFTER STORMS.
- PERIODICALLY ADD JOINT MATERIAL TO REPLACE LOST MATERIAL.
- MAJOR CLOGGING MAY NECESSITATE REPLACEMENT OF PAVERS AND POSSIBLY FILTER COURSE AND SUB–BASE COURSE.

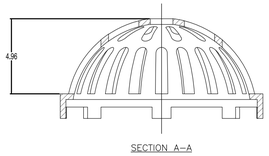
PERMEABLE PAVER

NOT TO SCALE

1299CGD

APPROX. DRAIN AREA = 82.87 SQ IN
APPROX. WEIGHT = 18.50 LBS





SECTION A–A

DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70–50–05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST

12" DOME GRATE

NOT TO SCALE

REV	DATE	DESCRIPTION	DR	CK
6	10/6/2022	REVISED PER TAC COMMENTS	BMK	JCC
5	9/27/2022	REVISED LOT #'S	BMK	JCC
4	9/20/2022	REVISED PER TAC COMMENTS	JKC	JCC
3	8/31/2022	REVISED PER TAC COMMENTS	JKC	JCC
2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

DETAILS

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY

OWNED BY

RANDI & JEFF COLLINS

PREPARED FOR

RANDI & JEFF COLLINS

1"=20' (11"X17")

SCALE: 1"=10' (22"X34") **JULY 1, 2022**

Seacoast Division

TFM

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

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

FILE	47442–00	DR	BMK	FB	–	C–08
		CK	CRR	CADFILE	47442–00_DETAILS	

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SEWER SERVICE NOTES

1. MINIMUM SIZE PIPE FOR SEWER SERVICE SHALL BE FOUR INCHES.

2. PIPE AND JOINT MATERIALS:
   A. PLASTIC SEWER PIPE
      1. PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

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)
F789	PVC (SOLID WALL)	4" THROUGH 18" (T-1 TO T-3)
F794	PVC (RIBBED WALL)	8" THROUGH 36"
D2680	*ABS (COMPOSITES WALL)	8" THROUGH 15"

      *PVC: POLY VINYL CHLORIDE
      *ABS: ACRYLONITRILE-BUTADIENE-STYRENE

      2. JOINTS 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.

      ABS TRUSS PIPE AND FITTINGS SHALL CONFORM TO ASTM D-2680, POLYMER COMPOUNDING SHALL BE TO ASTM D-1788 (CLASS 322).

      JOINTS FOR ABS TRUSS PIPE SHALL BE CHEMICAL WELDED COUPLINGS TYPE SC IN ACCORDANCE WITH ASTM D-2680, FORMING A CHEMICAL WELDED JOINT.

   B. DUCTILE-IRON PIPE, FITTINGS AND JOINTS.

      1. DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE:
         A21.50 THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A-536 DUCTILE IRON CASTINGS.
         A21.51 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS.
      2. JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO:
         A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS

3. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.

4. 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.

5. TEES AND WYES: WHERE A TEE OR WYE IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE, FOLLOWING MANUFACTURERS' INSTRUCTIONS USING A BOLTED, CLAMPED OR EPOXY-CEMENTED SADDLE TAPPED INTO A SMOOTHLY DRILLED OR SAWN OPENING IN THE SEWER. THE PRACTICE OF BREAKING AN OPENING WITH A SLEDGE HAMMER, STUFFING CLOTH OR OTHER SUCH MATERIAL AROUND THE JOINT, OR APPLYING MORTAR TO HOLD THE CONNECTION, AND ANY OTHER SIMILAR CRUDE PRACTICES OR INEPT OR HASTY IMPROVISATIONS WILL NOT BE PERMITTED. THE CONNECTION SHALL BE CONCRETE ENCASED AS SHOWN IN THE DETAIL UP TO AND INCLUDING 15" DIAMETER.

6. SEWER SERVICE 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 6 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 10. BEDDING AND RE-FILL 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.

7. TESTING: THE COMPLETED SEWER SERVICE SHALL BE SUBJECTED TO A THIRD PARTY LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)

   A. AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG.

   B. THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER, TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEANOUT WITH A FLASHLIGHT.

   C. DRY FLUORESCENE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWN-STREAM MANHOLE.

   LEAKAGE OBSERVED IN ANY ONE OF THE ABOVE ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP IF NECESSARY AND RE-LAID SO AS TO ASSURE WATER TIGHTNESS.

8. ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM 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.

9. WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE.

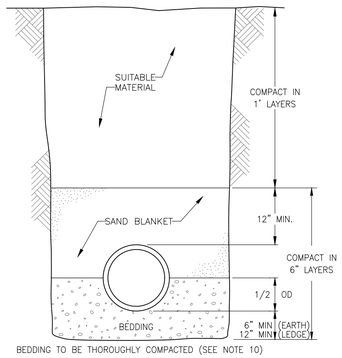
10. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C33-67.

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

   WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.

11. 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 PIPEFINDER.

12. CHIMNEYS: IF VERTICAL DROP INTO SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE CONSTRUCTED FOR THE SEWER CONNECTION. CHIMNEY INSTALLATION AS RECOMMENDED BY THE PIPE MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.



BEDDING TO BE THOROUGHLY COMPACTED (SEE NOTE 10)

TRENCH CROSS-SECTION

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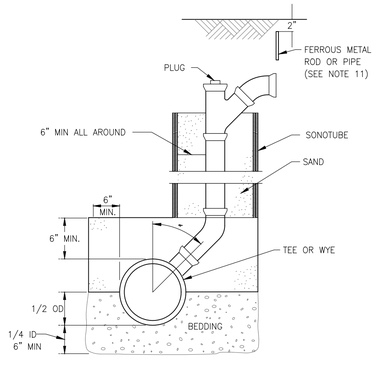
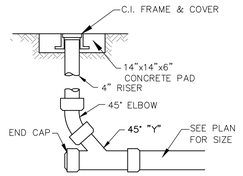


BACKFILLING TO BE BROUGHT UP EVENLY ON ALL SIDES.

CHIMNEY (SEE NOTE 12)

NOT TO SCALE



SEWER CLEAN OUT

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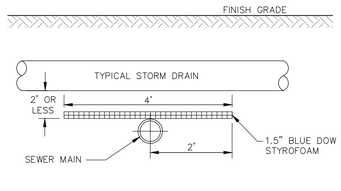
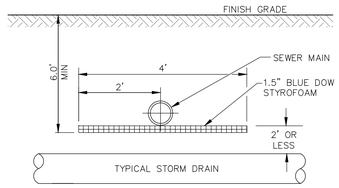


CONDITION I

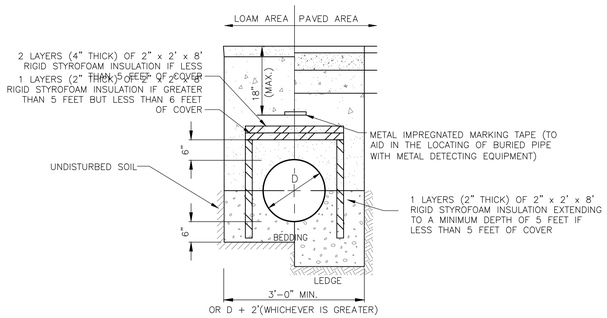


CONDITION II

NOTES:
1. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2' BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
2. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH A 1' PIECE OF INSULATION CENTERED OVER SEAM.
3. 18" VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN WATER MAIN/SERVICES AND SEWER MAIN/SERVICES, WATER OVER SEWER.

INSULATION AT STORM DRAIN & SEWER MAIN CROSSINGS

NOT TO SCALE

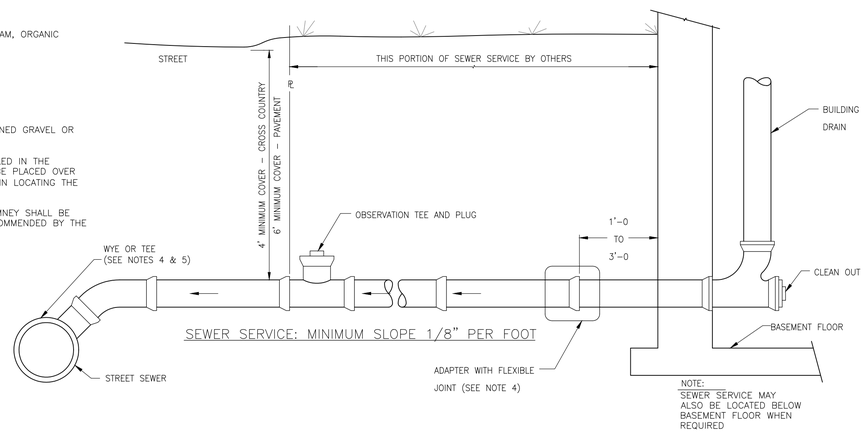


NOTES

1. GAPS BETWEEN SECTIONS OF INSULATION TO BE COVERED WITH 2" x 2' x 2' PIECE OF INSULATION CENTERED OVER GAP.

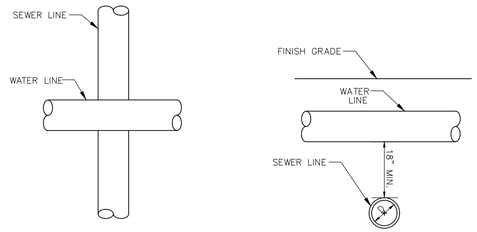
SEWER TRENCH WITH INSULATION

NOT TO SCALE



SEWER SERVICE DETAILS

NOT TO SCALE



PLAN VIEW

PROFILE VIEW

NOTES:

1. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18" MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.
2. PROTECTION OF WATER SUPPLIES:
   A. THERE SHALL BE NO PHYSICAL CONNECTION BETWEEN A PUBLIC OR PRIVATE POTABLE WATER SUPPLY SYSTEM AND A SEWER OR SEWER APPURTENANCE WHICH WOULD PERMIT THE PASSAGE OF SEWAGE OR POLLUTED WATER INTO THE POTABLE SUPPLY. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SEWER OR SEWER MANHOLE.
   B. NO SEWER SHALL BE LOCATED WITHIN THE WELL PROTECTED RADII ESTABLISHED IN ENV-WS 300 FOR ANY PUBLIC WATER SUPPLY WELLS OR WITHIN 100 FEET OF ANY PRIVATE WATER SUPPLY WELL.
   C. SEWERS SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN.
   D. A DEVIATION FROM THE SEPARATION REQUIREMENTS OF (B) OR (C) ABOVE SHALL BE ALLOWED WHERE NECESSARY TO AVOID CONFLICT WITH SUBSURFACE STRUCTURES, UTILITY CHAMBERS, AND BUILDING FOUNDATIONS, PROVIDED THAT THE SEWER IS CONSTRUCTED IN ACCORDANCE WITH THE FORCE MAIN CONSTRUCTION REQUIREMENTS SPECIFIED IN ENV-WQ 704.06.
   E. WHENEVER SEWERS MUST CROSS WATER MAINS, THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS:
      a. VERTICAL SEPARATION OF THE SEWER AND WATER MAIN SHALL BE NOT LESS THAN 18 INCHES, WITH WATER ABOVE SEWER AND
      b. SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.

WATER & SEWER CROSSING

NOT TO SCALE

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

DETAILS

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY

OWNED BY

RANDI & JEFF COLLINS

PREPARED FOR

RANDI & JEFF COLLINS

1"=20' (11"X17")

SCALE: 1"=20' (22"X34") **JULY 1, 2022**

REV	DATE	DESCRIPTION	DR	CK
6	10/6/2022	REVISED PER TAC COMMENTS	BMK	JCC
5	9/27/2022	REVISED LOT #'S	BMK	JCC
4	9/20/2022	REVISED PER TAC COMMENTS	JKC	JCC
3	8/31/2022	REVISED PER TAC COMMENTS	JKC	JCC
2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

Seacoast Division
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Land Surveyors
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Scientists
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Phone (603) 431-2222
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www.tfmoran.com

FILE	DR	BMK	FB	–	
47442-00	CK	CRR	CADFILE	47442-00_DETAILS	C-09

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CONTACT DIG SAFE - 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

Project #47442.00

DRAINAGE ANALYSIS SUMMARY

F O R

Proposed 2-Lot Subdivision

77 Meredith Way
Portsmouth, New Hampshire
Rockingham County

Tax Map 162, Lot 16

Owned by Randi & Jeff Collins
Prepared for Randi & Jeff Collins

September 20, 2022
Last Revised October 06, 2022

Prepared By:

TFM® Since 1968

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

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Contents

Table of Figures

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1.0 - SUMMARY & PROJECT DESCRIPTION

The project includes a subdivision and development of two single family residences on 77 Meredith Way in Portsmouth, NH. The existing Tax Map 162 Lot 16 is approximately .5157 acres and currently contains a single family residence. The site is within the General Residence A Zone and is adjacent to Pine Street Playground.

The proposed project is to construct two 2-story dwellings. Associated improvements include and are not limited to access, grading, utilities, stormwater management system, and landscaping. The project proposes a 2,400 SF and 2,022 SF building footprint and total 6,079 SF of impervious area within the property lines and approximately 26,535 SF of disturbance to facilitate the development.

This analysis has been completed to verify the project will not pose adverse stormwater effects on-site and off-site. Compared to the pre-development conditions, the post-development stormwater management system has been designed to reduce runoff volume, reduces the risk of erosion and sedimentation, and improves stormwater runoff quality. In addition, Best Management Practices are employed to formulate a plan that assures stormwater quality both during and after construction. The following summarizes the findings from the study.

2.0 - CALCULATION METHODS

The design storms analyzed in this study are the 2-year, 10-year, 25year and 50-year 24-hour storm events. The software program, HydroCAD version 10.00[1] was utilized to calculate the peak runoff rates from these storm events. The program estimates the peak rates using the TR-20 method. A Type III storm pattern was used in the model. Rainfall frequencies for the analyzed region were also incorporated into the model. Rainfall frequencies from the higher of the Extreme Precipitation Rates from Cornell University's Northeast Regional Climate Center and Portsmouth Site Plan Review Regulations were used to determine the storm-event intensities, see Table 1. Due to the project's location within the Coastal/Great Bay Region community, the design rainfall increases the Cornell rates by 15% to address projected storm surge, sea level rise, and precipitation events per Env-Wq 1503.08(l). Design standards were taken from the New Hampshire Stormwater Manual, December 2008[2].

	24-HOUR RAINFALL RATES	
Storm-Event (year)	Northeast Regional Climate Center Extreme Precipitation (in)	Design Rainfall (in)
2	3.21	3.70
10	4.87	5.60
25	6.17	7.10
50	7.39	8.50

Table 1 – 24-Hour Rainfall Rates

Time of Concentration is the time it takes for water to flow from the hydraulically most remote point in the watershed (with the longest travel time) to the watershed outlet. This time is

[1] HydroCAD version 10.00, HydroCAD Software Solutions LLC, Chocorua, NH, 2013.
[2] New Hampshire Stormwater Manual: Volume One - Stormwater and Antidegradation, December 2008; Volume Two - Post-Construction Best Management Practices Selection and Design, December 2008; Volume Three Erosion and Sediment Controls During Construction, December 2008.

determined by calculating the time it takes runoff to travel this route under one of three hydrologic conditions: sheet flow, shallow concentrated flow, or channel flow. Because the Intensity-Duration-Frequency (IDF) curve is steep with short TC's, estimating the actual intensity is subject to error and overestimates actual runoff. Due to this, the TC's are adjusted to a minimum of 6 minutes.

3.0 – EXISTING SITE CONDITIONS

Per NRCS, soils on-site are Group A soils. Based on City comments, as well as test pits & infiltration testing the soils more closely resemble a Group C soil, which is what the drainage analysis is based on.

Four test pits and infiltration tests were conducted. In nearly all test pit locations, fill material was discovered. Infiltration tests were determined per Ksat testing using a Compact Constant Head Permeameter (Amoozemeter) per Env-Wq 1504.14(d). The highest Estimated Seasonal High-Water Table (ESWT) observed were: elevation 32.15' at Proposed Rain Garden #1, and elevation 29.85 at Proposed Rain Garden #2.

4.0 - PRE-DEVELOPMENT CONDITIONS

The pre-development condition is characterized by two subcatchments composing one watershed, which flows towards an existing catch basin, which ultimately discharges to the Piscataqua River. Pre-development subcatchment areas are depicted on the attached plan entitled "Pre-Development Drainage Map," Sheet HSG-01 in Appendix A.

Stormwater runoff from the site primarily infiltrates into the well-drained soils on-site. The remaining stormwater runoff discharges towards a localized pond area to the north of the site (POI-1), and the existing municipal stormwater drainage system (POI-3).

In the pre-development condition, the total impervious area is 20,504 SF over a total drainage analysis area of 91,950 SF.

5.0 - POST-DEVELOPMENT CONDITIONS

The post-development condition is characterized by one watershed divided into three subcatchment areas. Post-development subcatchment areas are depicted on the attached plan entitled "Post-Development Drainage Map," sheet HSG-02 in Appendix B.

In the post-development condition, the total impervious area is 28,118 SF over a total drainage analysis area of 91,950 SF. Impervious area from the project consists of a 7,613 SF footprint across two residences and associated improvements. Two rain gardens are proposed to treat and mitigate the stormwater runoff from the impact of the new impervious area from the proposed development.

Four test pits and infiltration tests, at least one in each basin area, were conducted. In nearly all test pit locations, fill material was discovered. Infiltration tests were determined per default published Ksat values for the design infiltration rates per Env-Wq 1504.14(c) and/or Ksat testing using a Compact Constant Head Permeameter (Amoozemeter) per Env-Wq 1504.14(d).

Table **2** summarizes the pre- and post-development peak runoff rates for the 2-year, 10-year, 25-year and 50-year 24-hour Type III storm events for all discharge.
Table **3** summarizes the pre- and post-development peak runoff volumes for the 2-year, 10-year, 25-year, and 50-year 24-hour Type III storm events for all discharge.

TABLE 2 – SURFACE WATER PEAK RUNOFF RATE COMPARISON (CF)					
POINT OF INTEREST		DESIGN STORM			
		2-year	10-year	25-year	50-year
POI-1	Pre	1.7	3.5	4.9	6.3
	Post	1.2	2.5	3.5	4.5
POI-2	Pre	0.3	0.7	1.0	1.3
	Post	0.0	0.0	0.0	0.1
POI-3	Pre	0.8	0.8	0.9	0.9
	Post	0.9	0.9	0.9	0.9

Table 2 - Pre and Post- Development Peak Runoff Rate Comparison

TABLE 3 – SURFACE WATER PEAK RUNOFF VOLUME COMPARISON (CF)					
POINT OF INTEREST		DESIGN STORM			
		2-year	10-year	25-year	50-year
POI-1	Pre	4,680	9,319	13,257	17,062
	Post	4,479	8,918	12,686	16,328
POI-2	Pre	1,234	2,527	3,637	4,716
	Post	0	0	343	947
POI-3	Pre	8,849	16,309	20,353	23,359
	Post	7,730	11,698	14,998	18,168

Table 3 - Pre and Post- Development Peak Runoff Volume Comparison

The proposed project reduces peak rates of runoff compared to existing conditions for all storm events resulting from on-site runoff (POI-1 & POI-2) and Portsmouth stormwater regulations. Additionally, per NHDES, the 2-year 24-hour storm does not result in an increased peak flow rate and reduces or increases volume within the limits of Env-Wq 1507.05(b)(1) from the pre-development to post-development condition. There will be no adverse effects on the abutting properties from the proposed stormwater management system.

6.0 – CONCLUSION

There are three analysis points modeled in the drainage analysis for this project - POI (point on interest) 1 thru 3:

- POI 1 represents the northern portion of the property which discharges to the north. Comparing pre-development to post-development conditions shows that there is a decrease in the peak rate of runoff and volume for all storm events (2 through 50-year storms).

- POI 2 represents the southern portion of the property and the associated to discharge off-site (to Meredith Way). Comparing pre-development to post-development conditions shows that there is a decrease in the peak rate of runoff and volume for all storm events (2 through 50-year storms) from the site to Meredith Way.

- POI 3 represents the small impoundment/low lying depression area located at the north end of Meredith Way. The outlet from this area is an existing 4" diameter pipe, which DPW has noted may be disconnected. Comparing pre-development to post-development conditions shows that the peak rate of runoff matches for the 25 and 50-year storm event, with a minor increase (0.1 cfs) in the 2, and 10-year storm events. The peak elevation of the pond area increases by 0.83 feet in the 2-year storm event down to 0.10 feet in the 50-year storm event. The drain-down time for this impoundment is approximately 15 hours, and the runoff volume is reduced during all storm events (2 through 50-year storms). The increase in peak elevation is due to the extension of the roadway into a portion of the existing impoundment storage. To replace this storage would require removal of the existing mature wooded buffer east of Meredith Way. Since the water elevation increase is minor, of short duration, and there is less runoff volume in the post-development condition, preserving the wooded buffer appears to be the better solution.

Respectfully,
TFMoran, Inc. Seacoast Division

Jack McTigue, PE
Project Manager

JJM/crr

APPENDIX A – PRE-DEVELOPMENT DRAINAGE MAP

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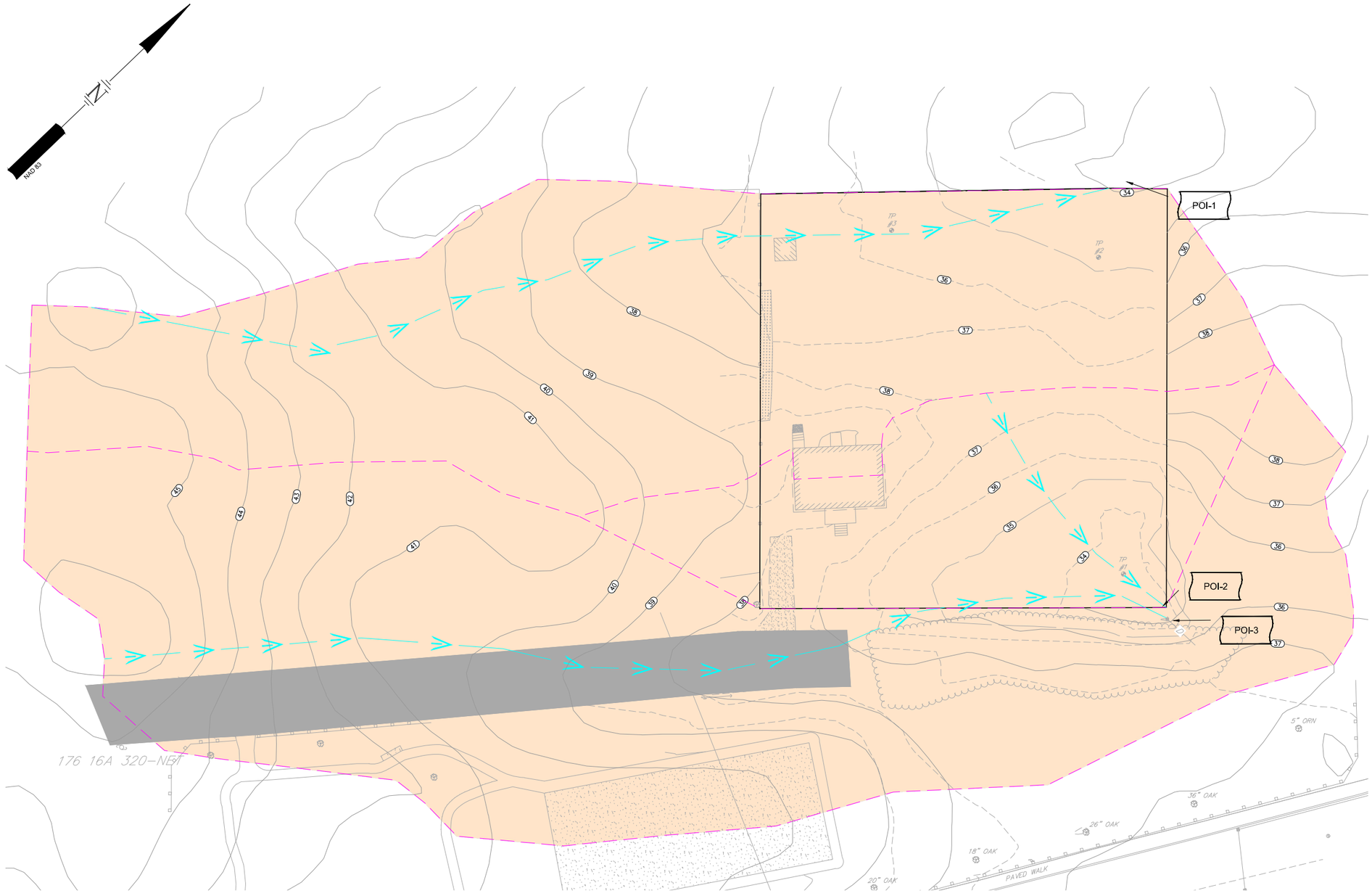

LEGEND

- PROPERTY LINE
- LIMITS OF DRAINAGE SUBCATCHMENT
- SOIL GROUP BREAKLINE
- FLOW PATH (Tc LINE)
- REACH
- POI-1 — POINT OF INTEREST
- ES-1 — SUBCATCHMENT AREA
- EP-1 — POND, CULVERT, OR CATCH BASIN
- ER-1 — REACH

LEGEND

- HYDROLOGIC SOIL GROUP A
- HYDROLOGIC SOIL GROUP B
- HYDROLOGIC SOIL GROUP C
- HYDROLOGIC SOIL GROUP D
- IMPERVIOUS COVER
- OPEN WATER FEATURE

SOIL PHASE LEGEND (PERCENT)

A	B	C	D	E	F
0–3	3–8	8–15	15–25	25–50	50+

SOIL LEGEND (PER USDA NRCS WEB SOIL SURVEY)

SYMBOL	DESCRIPTION	HYDROLOGIC SOIL GROUP	DRAINAGE CLASS
799	URBAN LAND–CANTON COMPLEX, 3 TO 15% SLOPES	A	WELL DRAINED

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

PRE-DEVELOPMENT HYDROLOGIC SOIL GROUP PLAN

PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY

OWNED BY

RANDI & JEFF COLLINS

PREPARED FOR

RANDI & JEFF COLLINS

1"=40' (11"X17")

SCALE: 1"=20' (22"X34") **JULY 1, 2022**

DIG SAFE — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

HORIZONTAL SCALE 1"=20'
20 10 0 20

REV	DATE	DESCRIPTION	DR	CK

Seacoast Division
TFM
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Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE		DR	BMK	FB	–	
	47442-00	CK	BRR	CADFILE	47442-00 PRE DRAINAGE MAP	HSG-01

Sep 19, 2022 - 4:54pm
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APPENDIX B – POST DEVELOPMENT DRAINAGE MAP

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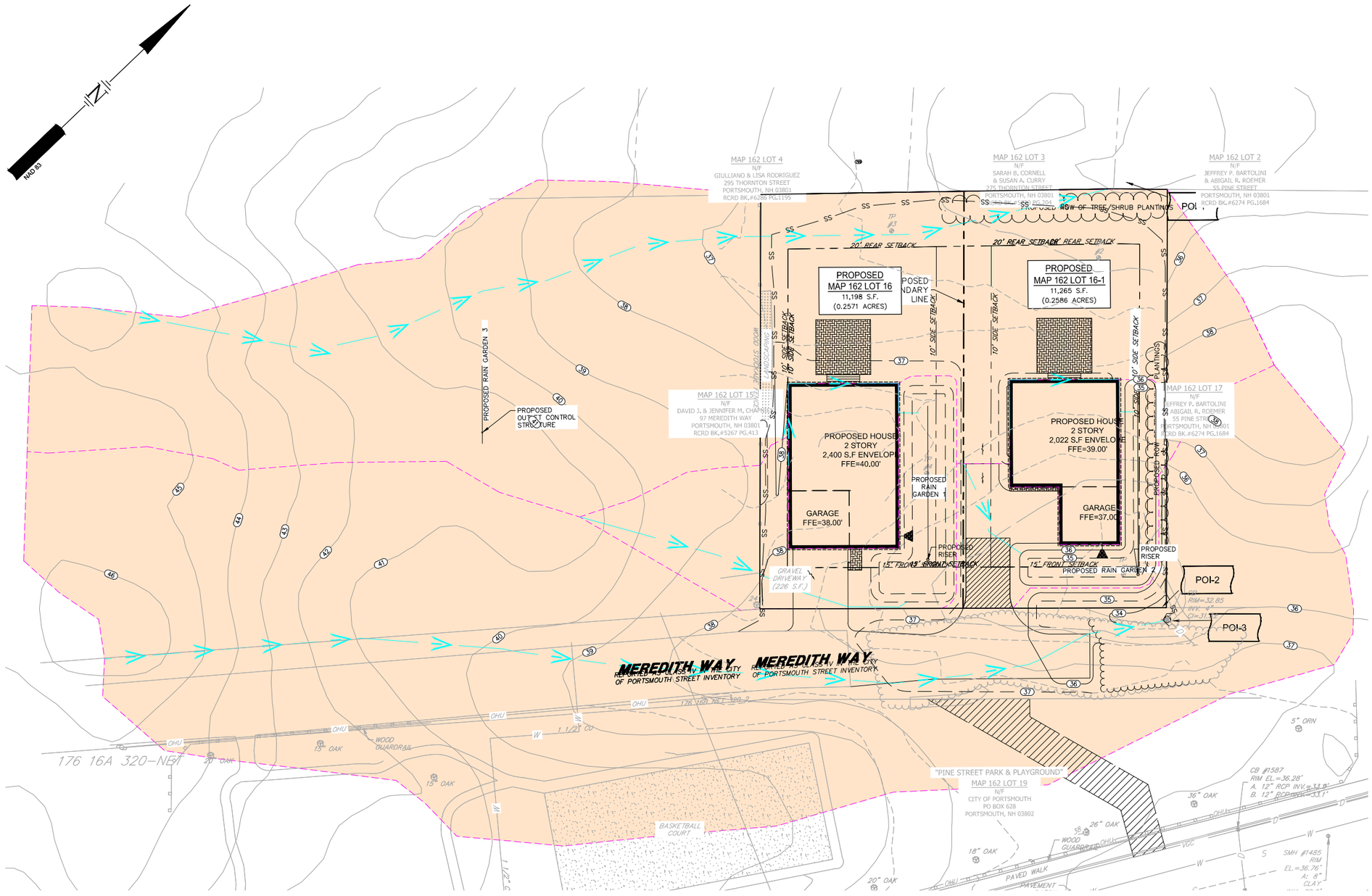

LEGEND

- PROPERTY LINE
- LIMITS OF DRAINAGE SUBCATCHMENT
- SOIL GROUP BREAKLINE
- FLOW PATH (Tc LINE)
- REACH
- POI-1 — POINT OF INTEREST
- PS-1 — SUBCATCHMENT AREA
- PP-1 — POND, CULVERT, OR CATCH BASIN
- PR-1 — REACH

LEGEND

- HYDROLOGIC SOIL GROUP A
- HYDROLOGIC SOIL GROUP B
- HYDROLOGIC SOIL GROUP C
- HYDROLOGIC SOIL GROUP D
- IMPERVIOUS COVER
- OPEN WATER FEATURE

SOIL PHASE LEGEND (PERCENT)					
A	B	C	D	E	F
0–3	3–8	8–15	15–25	25–50	50+

SOIL LEGEND
(PER USDA NRCS WEB SOIL SURVEY)

SYMBOL	DESCRIPTION	HYDROLOGIC SOIL GROUP	DRAINAGE CLASS
799	URBAN LAND–CANTON COMPLEX, 3 TO 15% SLOPES	A	WELL DRAINED

SITE DEVELOPMENT PLANS

TAX MAP 162 LOT 16

POST-DEVELOPMENT HYDROLOGIC SOIL GROUP PLAN

PROPOSED 2 LOT SUBDIVISION

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FILE		DR	BMK	FB	–	
47442-00		CK	BRR	CADFILE	47442-00 POST DRAINAGE MAP	HSG-02

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City of Portsmouth, New Hampshire

Subdivision Application Checklist

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

Applicant Responsibilities (Section III.C): Applicable fees are due upon application submittal along with required number of copies of the Preliminary or final plat and supporting documents and studies. Please consult with Planning staff for submittal requirements.

Owner: Randi and Jeffrey Collins Date Submitted: 8-16-2022

Applicant: Randi and Jeff Collins

Phone Number: 7742788676 E-mail: jeffreycollins@yahoo.com

Site Address 1: 77 Meredith Way Map: 162 Lot: 16

Site Address 2: _____ Map: 162 Lot: 16-1

Application Requirements			
☑	**Required Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**	**Waiver Requested**
✔	Completed Application form. **(III.C.2-3)**	Viewpoint Cloud	N/A
✔	All application documents, plans, supporting documentation and other materials provided in digital Portable Document Format (PDF) on compact disc, DVD or flash drive. **(III.C.4)**	Attached to submittal	N/A

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
✔	Name and address of record owner, any option holders, descriptive name of subdivision, engineer and/or surveyor or name of person who prepared the plat. **(Section IV.1/V.1)**	SUBDIVISION PLAN PAGE1	☑ Preliminary Plat ☑ Final Plat	N/A

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
✔	**Preliminary Plat** Names and addresses of all adjoining property owners. **(Section IV.2)** **Final Plat** Names and addresses of all abutting property owners, locations of buildings within one hundred (100) feet of the parcel, and any new house numbers within the subdivision. **(Section V.2)**	Subdivision plan page 2 existing conditions	☑ Preliminary Plat ☑ Final Plat	N/A
✔	North point, date, and bar scale. **(Section IV.3/V3)**	Required on all Plan Sheets	☑ Preliminary Plat ☑ Final Plat	N/A
✔	Zoning classification and minimum yard dimensions required. **(Section IV.4/V.4)**	Subdivision plan page 2 existing conditions	☑ Preliminary Plat ☑ Final Plat	N/A
✔	**Preliminary Plat** Scale (not to be smaller than one hundred (100) feet = 1 inch) and location map (at a scale of 1" = 1000'). **(Section IV.5)** **Final Plat** Scale (not to be smaller than 1"=100'), Location map (at a scale of 1"=1,000') showing the property being subdivided and its relation to the surrounding area within a radius of 2,000 feet. Said location map shall delineate all streets and other major physical features that my either affect or be affected by the proposed development. **(Section V.5)**	Subdivision plan page 2 existing conditions	☑ Preliminary Plat ☑ Final Plat	N/A
✔	Location and approximate dimensions of all existing and proposed property lines including the entire area proposed to be subdivided, the areas of proposed lots, and any adjacent parcels in the same ownership. **(Section IV.6)**	Subdivision plan page 3	☑ Preliminary Plat ☑ Final Plat	
✔	Dimensions and areas of all lots and any and all property to be dedicated or reserved for schools, parks, playgrounds, or other public purpose. Dimensions shall include radii and length of all arcs and calculated bearing for all straight lines. **(Section V.6/ IV.7)**	Subdivision plan page 3	☑ Preliminary Plat ☑ Final Plat	N/A
✔	Location, names, and present widths of all adjacent streets, with a designation as to whether public or private and approximate location of existing utilities to be used. Curbs and sidewalks shall be shown. **(Section IV.8/V.7)**	Subdivision plan page 2 existing conditions	☑ Preliminary Plat ☑ Final Plat	

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
✔	Location of significant physical features, including bodies of water, watercourses, wetlands, railroads, important vegetation, stone walls and soils types that my influence the design of the subdivision. **(Section IV.9/V.8)**	Subdivision plan page 2 existing conditions	☑ Preliminary Plat ☑ Final Plat	
✔	**Preliminary Plat** Proposed locations, widths and other dimensions of all new streets and utilities, including water mains, storm and sanitary sewer mains, catch basins and culverts, street lights, fire hydrants, sewerage pump stations, etc. **(Section IV.10)** **Final Plat** Proposed locations and profiles of all proposed streets and utilities, including water mains, storm and sanitary sewer mains, catchbasins and culverts, together with typical cross sections. Profiles shall be drawn to a horizontal scale of 1"=50' and a vertical scale of 1"=5', showing existing centerline grade, existing left and right sideline grades, and proposed centerline grade. **(Section V.9)**	Subdivision plan page 5 Site Layout plan and Page 8 Road plan profile	☑ Preliminary Plat ☑ Final Plat	
✔	When required by the Board, the plat shall be accompanied by profiles of proposed street grades, including extensions for a reasonable distance beyond the subject land; also grades and sizes of proposed utilities. **(Section IV.10)**	Subdivision plan page 7 Utility plan and Page 8 Road plan profile	☑ Preliminary Plat ☑ Final Plat	
✔	Base flood elevation (BFE) for subdivisions involving greater than five (5) acres or fifty (50) lots. **(Section IV.11)**	N/A	☑ Preliminary Plat ☑ Final Plat	
✔	For subdivisions of five (5) lots or more, or at the discretion of the Board otherwise, the preliminary plat shall show contours at intervals no greater than two (2) feet. Contours shall be shown in dotted lines for existing natural surface and in solid lines for proposed final grade, together with the final grade elevations shown in figures at all lot corners. If existing grades are not to be changed, then the contours in these areas shall be solid lines. **(Section IV.12/ V.12)**	N/A	☑ Preliminary Plat ☑ Final Plat	

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
x	Dates and permit numbers of all necessary permits from governmental agencies from which approval is required by Federal or State law. **(Section V.10)**	N/A	☐ Preliminary Plat ☑ Final Plat	
x	For subdivisions involving greater than five (5) acres or fifty (50) lots, the final plat shall show hazard zones and shall include elevation data for flood hazard zones. **(Section V.11)**	N/A	☐ Preliminary Plat ☑ Final Plat	
x	Location of all permanent monuments. **(Section V.12)**	Subdivision plan page 3, Subdivision	☐ Preliminary Plat ☑ Final Plat	

General Requirements[1]			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
✔	**1. Basic Requirements: (VI.1)** a. Conformity to Official Plan or Map b. Hazards c. Relation to Topography d. Planned Unit Development	Subdivision plan Page2	
✔	**2. Lots: (VI.2)** a. Lot Arrangement b. Lot sizes c. Commercial and Industrial Lots	Subdivision plan Page2	
✔	**3. Streets: (VI.3)** a. Relation to adjoining Street System b. Street Rights-of-Way c. Access d. Parallel Service Roads e. Street Intersection Angles f. Merging Streets g. Street Deflections and Vertical Alignment h. Marginal Access Streets i. Cul-de-Sacs j. Rounding Street Corners k. Street Name Signs l. Street Names m. Block Lengths n. Block Widths o. Grade of Streets p. Grass Strips	Subdivision plan Pages 7, 8, 9	
✔	**4. Curbing: (VI.4)**	N/A	
✔	**5. Driveways: (VI.5)**	Page 5 permit required	
✔	**6. Drainage Improvements: (VI.6)**	Page 6	
✔	**7. Municipal Water Service: (VI.7)**	Page 7	
✔	**8. Municipal Sewer Service: (VI.8)**	Page 7	
✔	**9. Installation of Utilities: (VI.9)** a. All Districts b. Indicator Tape	Page 7-9	
✔	**10. On-Site Water Supply: (VI.10)**	N/A	
✔	**11. On-Site Sewage Disposal Systems: (VI.11)**	N/A	
✔	**12. Open Space: (VI.12)** a. Natural Features b. Buffer Strips c. Parks d. Tree Planting	N/A	
✔	**13. Flood Hazard Areas: (VI.13)** a. Permits b. Minimization of Flood Damage c. Elevation and Flood-Proofing Records d. Alteration of Watercourses	N/A	
✔	**14. Erosion and Sedimentation Control (VI.14)**	pages 7, 9	

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
☑ ☑ ☑	**15. Easements (VI.15)** a. Utilities b. Drainage	Page 7	
☐	**16. Monuments: (VI.16)**		
☐	**17. Benchmarks: (VI.17)**		
☑	**18. House Numbers (VI.18)**	tbd	

Design Standards			
	Required Items for Submittal	**Indicate compliance and/or provide explanation as to alternative design**	**Waiver Requested**
☑	**1. Streets have been designed according to the design standards required under Section (VII.1).** a. Clearing b. Excavation c. Rough Grade and Preparation of Sub-Grade d. Base Course e. Street Paving f. Side Slopes g. Approval Specifications h. Curbing i. Sidewalks j. Inspection and Methods	Page 9	
☑	**2. Storm water Sewers and Other Drainage Appurtenances have been designed according to the design standards required under Section (VII.2).** a. Design b. Standards of Construction	Page 9	
☑	**3. Sanitary Sewers have been designed according to the design standards required under Section (VII.3).** a. Design b. Lift Stations c. Materials d. Construction Standards	Page 9	
☑	**4. Water Mains and Fire Hydrants have been designed according to the design standards required under Section (VII.4).** a. Connections to Lots b. Design and Construction c. Materials d. Notification Prior to Construction	Page 9	

Applicant's/Representative's Signature: Jeffrey Collins **Date:** 8-16-2022

[1] See City of Portsmouth, NH Subdivision Rules and Regulations for details.

AUTHORIZATION
77 Meredith Way, Portsmouth
Map 162, Lot 16

The undersigned hereby authorize representatives of Bosen & Associates, PLLC, and TFMoran, Inc. to represent our interests before the Portsmouth land use boards and to submit any and all applications and materials related thereto on its behalf.

Date: 3-23-2022

Jeffrey Collins

Randi Collins

Randi Collins

Draft Findings of Fact | Subdivision Rules and Regulations
City of Portsmouth Planning Board

Date: October 20, 2022
Property Address: 201 Kearsarge Way
Application #: **LU-22-150**
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Effective August 23, 2022, amended RSA 676:3, I now reads as follows: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of the all conditions necessary to obtain final approval.

	Subdivision Review Criteria	**Finding** (Meets Requirements/Standards)	***Draft* Supporting Information**
1	Subdivision Rules and Regulations III. D. 1 The Board shall act to deny any application which is not in compliance with Section IV or V as appropriate. **SECTION IV - REQUIREMENTS FOR PRELIMINARY PLAT**	**Yes** **No**	Applicant had submitted all materials as articulated in Section IV of the Subdivision Regulations both digitally and in hard copy. Application was deemed complete at the October 4, 2022 Technical Advisory Committee meeting
2	**SECTION V - REQUIREMENTS FOR FINAL PLAT**	**Yes** **No**	The application has been reviewed by the Technical Advisory Committee for conformance with these minimum requirements. The application was deemed complete on October 4, 2022 at the Technical Advisory Committee Meeting.
3	**SECTION VI - GENERAL REQUIREMENTS**	**Yes** **No**	Application obtained needed variances from the BOA to create conforming lots. The application has been reviewed by the Technical Advisory Committee (TAC) for conformance with the General Requirements. • Existing access utility easement to

	Subdivision Review Criteria	Finding (Meets Requirements/Standards)	*Draft* Supporting Information
			stay in effect • New access easement to the City will allow for turnaround at the end of Birch Street.
4	**SECTION VII - DESIGN STANDARDS**	**Yes** **No**	The application has been reviewed by the Technical Advisory Committee (TAC) for conformance with the Design Standards. • New utility connections and conduit layouts have been reviewed and will not affect existing infrastructure.
5	**Other Board Findings**		
6	**Additional Conditions of Approval**		

AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS

200 Griffin Road, Unit 3, Portsmouth, NH 03801
Phone (603) 430-9282 Fax 436-2315

6 October 2022

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

RE: Application for Subdivision Approval, Tax Map 218, Lot 5, 201 Kearsarge Way

Dear Chair Chellman and Planning Board members:

On behalf of Richard P. Fusegni we submit herewith the attached package for the ***subdivision of one lot into three lots*** at the above-mentioned site. In support thereof, we are submitting a subdivision plan set and associated documents for review and approval. The property is located at 201 Kearsarge Way and is depicted on Portsmouth Tax Map 218 as Lot 5. The lot is in the Single Residence B (SRB) District. The lot is currently developed with a single family dwelling. The existing dwelling will be demolished in advance of constructing on the new lots. A *nearly identical project* received Planning Board approval on February 27, 2020. This project (also) required variance relief for Lot 3 to have 83 feet of frontage where 100 feet is required. The relief was granted by the Portsmouth ZBA for this project on August 16, 2022.

The proposal is to divide the property into three lots to create two additional dwelling units to add to the available housing in the city. Proposed Lots 1, 2, and 3 will contain single family residences. To aid in the analysis of the proposed subdivision conceptual home designs (footprints) are depicted on the proposed lots; and site analysis is performed on using these locations and dimensions. Lots 1 and 2 will have parking in 2 car garages; Lot 3 will have a one car garage with one exterior parking space. Lots 1 and 2 will be accessed from Birch Street; while Lot 3 is accessed from Kearsarge Way.

There is one easement as well as a conservation area proposed with this subdivision. The city desires an easement for the snow plowing vehicles maintaining Birch Street to be able to turn around. Easement Area “A” is for this purpose and is shown on the plan. A proposed deed is included in the submission. The applicant on his own wishes to preserve the rear portion of the property as treed open space and is proposing a Conservation Area that will be protected by the dedication of a Restrictive Covenant in the location shown on the subdivision plan, and the proposed deed is attached. These features are accurately represented on the Subdivision Plan which will be recorded as a condition of approval.

Additionally the project shows proposed utility improvements in Birch Street. These utilities will be an improvement over the current sub-standard utilities. The size and location of Birch Street is remaining essentially as-is, however a more formal driveway approach to Tax Map 218, Lot 2 is provided.

The following plans are included in our submission:

- Cover Sheet – This shows the Development Team, Legend, Site Location, and Site Zoning.
- Subdivision Plan – This plans show the proposed lot division lines and areas, proposed easement and covenant locations, dimensional requirements, and shows the variance relief granted by the Portsmouth ZBA for this project.
- Existing Conditions Plan C1 – This plan shows the existing conditions on the parcel.
- Subdivision Site Plan C1A – This plan shows conceptual building locations and proposed driveway locations. Also, a proposed retaining wall on Lots 2 and 3 is shown. The retaining wall creates a useable rear yard area and also provides space (under the yard area) for a drainage detention system.
- Grading and Erosion Control Plan C2 – This plan shows the conceptual layout of the homes with proposed grading, erosion control, and run-off treatment / mitigation. The proposed retaining wall details are shown on this plan.
- Utility Plan C3 – This plan shows the proposed site utilities including sewer, electric, communication and water service connections.
- Utility Plan and Profile P1 – This plans shows the proposed utility improvements in Birch Street. Improvements include new water and sewer lines.
- Demolition Plan C4 – This plan shows site demolition. The existing single family residence will be removed from the property.
- Detail Sheets D1 to D6 – These plans show the associated construction details.

Also included herewith is the following Supplemental Information to assist in the review of the project: Subdivision Checklist, Easement and Restrictive Covenant example deeds, and a complete Drainage Analysis based on potential site development.

The project was vetted by the Technical Advisory Committee at the October 4 Technical Advisory Committee meeting. The Committee voted to recommend that the Planning Board approve the project subject to stipulations. The stipulations are repeated below with our response in **bold** text:

1. Applicant will confirm with Assessing Department that previously assigned addresses and Map and Lot numbers are still valid. **This request has been submitted to the Assessing Department.**
2. A declarative covenant or some other mechanism shall be developed and recorded to preserve areas noted for conservation on proposed lots. **The proposed Restrictive Covenant deed is attached for review.**
3. Water service will use existing 2” water main. **The Utility Plan C3 has been updated.**
4. Utility plan will be updated to depict the conduit feeding electric and communications will be no closer than 8 feet from the existing manhole and will be reviewed by DPW. **See Note 7 on Utility Plan C3.**
5. A letter detailing plan changes and updates will be submitted with the plan resubmission. **This letter serves to detail the changes. Also added was Note 8 on Utility Plan C3, and a revised saw cut line on the Birch Street Plan and Profile P1 to address other TAC comments.**

We request that this application be placed on the agenda for the October 20th Planning Board Meeting.

We look forward to your review of this submission and our in person presentation at the October Planning Board meeting. We respectfully request the Planning Board approve the proposed subdivision. Thank you for your time and attention to this proposal.

Sincerely,

John Chagnon

John R. Chagnon, PE
CC: Richard Fusegni, Chris Mulligan

AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS

200 Griffin Road, Unit 3, Portsmouth, NH 03801
Phone (603) 430-9282 Fax 436-2315

4 October 2022

Peter Stith, TAC Committee Chair
City of Portsmouth
1 Junkins Avenue
Portsmouth, NH 03801

RE: Application for Subdivision Approval, Tax Map 218, Lot 5, 201 Kearsarge Way

Dear Peter and TAC members:

We are in receipt of the TAC staff comments email from the city dated October 3. On behalf of Richard P. Fusegni we submit our response in advance of the TAC Meeting today. The comments are repeated below, with our response in bold text.

1) Please address the change in lot area from the original approval to the new request. **Please see Note 8 on the Subdivision Plan. This plan shows the lot area including the abandoned right of way. Please note the abutting properties fence to the middle of the abandoned street.**

2) Please contact the Assessing Department for preliminary Map Lot and Block numbers and Addresses. **We show the assigned Map and Lot numbers from the previous submission. We will verify these with the Assessor.**

3) Please provide an easement plan and table with unique identifiers. **The proposed access easement to the city (we will update the label) is shown on the subdivision plan. The easement identifiers are shown in a table as E1. E2, etc. The proposed Conservation Easement lines NOT coincident with exterior property lines will be revised to a label identifier, and a Table created. Showing the easements on the subdivision plan we feel is the best way to identify the property burdens for all future examiners and we request concurrence to leave this as one plan.**

4) No new water main. Use existing 2". **The end of, and extent of the 2" pipe on Birch Street needs to be identified as we understand it does transition to a 1" pipe. Once identified we can show an upgrade to 2" pipe for the remainder of the run to the flushing hydrant. Lot 3 will be re-served by the water line to the existing residence. We understand that is a ¾ inch service.**

5) No excavation in City Street. Kearsarge Way under moratorium. Utilities will need to be reconfigured. **Since there would only be a slight impact at the intersection to set the required manhole for the new sewer main, and the saw cut line could be bowed out and align with the repaving of birch Street, we ask that this be allowed to move forward.**

We look forward to your review of this submission and our in person presentation at the October TAC meeting. We respectfully request approval the proposed subdivision. Thank you for your time and attention to this proposal.

Sincerely,

John Chagnon

John R. Chagnon, PE
CC: Richard Fusegni, Chris Mulligan

EASEMENT DEED

Richard P. Fusegni, a single person, with a mailing address of 201 Kearsarge Way, Portsmouth, NH 03801, (herein called "Grantor") for consideration paid, grants to the **CITY OF PORTSMOUTH**, a municipal body with a mailing address of 1 Junkins Avenue, Portsmouth New Hampshire 03901 (hereinafter "Grantee"), with **QUITCLAIM COVENANTS,** upon the conditions hereafter set forth, a permanent access easement (hereinafter the "Easement") over and upon land of the Grantor located in the City of Portsmouth, County of Rockingham State of New Hampshire.

Said Easement being shown as "Proposed Access Easement to the City of Portsmouth." on a plan entitled, "Subdivision Plan Tax Map 218-Lot 5, Owner: Richard P. Fusegni, 201 Kearsarge Way, City of Portsmouth, County of Rockingham, State of New Hampshire", prepared by Ambit Engineering, Inc. dated June 2022 and recorded in the Rockingham County Registry of Deeds as Plan #_____ said Easement being more particularly bounded and described as follows:

Beginning at a point on the northerly side of Birch Street which is N 46°02'10" E a distance of 10.01 feet from an iron rod at an angle point in Birch Street; thence turning and running over and across the land of the Grantor N 48°13'46" E a distance of 19.25 feet; N 41°46'14" E a distance of 23.59 feet and S 46°58'50" E a distance of 26.65 feet to the northerly side of Birch Street; thence running along the northerly side of Birch Street on a curve to the left with an arc length of 24.29 feet, a radius of 70.00 feet, and a delta angle of 19°52'46" to the point of beginning

The above described easement containing 519 square feet, more or less (hereinafter "Easement Area").

Grantor grants to Grantee such access easement for all purposes for which roads are customarily used, including but not limited to vehicular, pedestrian and equipment access and travel and the installation and maintenance of utilities above the Easement Area. The Grantee shall have the obligation to construct, maintain in good order and promptly repair damage to all portions of the roadway built within the Easement Area, at Grantee's sole cost and expense. Any land or property of the Grantor disturbed or damaged by the Grantee's installation, maintenance or repair of the roadway within the Easement Area, shall be immediately restored or replaced to the condition of such land of property prior to the disturbance or damage. The Grantee shall be sole responsibility for any liability, damage, costs, or loss to persons, including death, and property, of any kind whatsoever, arising from or relating to the installation, maintenance, repair and use of the Easement Area, and hereby agrees to indemnify, defend and hold harmless the Grantor from any and all such claims, causes, demands and actions.

Reserving to Grantor, their successors and assigns, and Grantee, their successors and assigns, access and utility rights in the Easement Area, together with the use and enjoyment of said Easement Area for such purposes only as will in no way interfere with the perpetual use thereof by the Grantee, its successors and assigns for the purposes contained herein; and to that end, the Grantor, its successors and assigns shall not erect any building, structures sidewalks, parking areas, surface curbs, landscaping and other similar improvements on said Easement Area; provided however, that Grantor may install underground utility structures or systems within the Easement Area which do not interfere with Grantee's use of the Easement Areas and Grantor reserves all rights to cross the Easement Area and all rights and easements necessary or desirable for the use, occupation, repair, maintenance and replacement of any improvements now or hereafter located upon Grantor's remaining land.

This Easement Deed and the rights and privileges granted hereby are perpetual and shall run with the land.

The easements, covenants and conditions herein shall be binding and/or to the benefit of the parties hereto, their heir, successors and assigns.

Meaning and intending to convey an easement over a portion of the premises conveyed to Richard P. Fusegni by Elda Fusegni dated September 5, 2013 and recorded on September 6, 2013 in the Rockingham County Registry of Deeds at Book 5476 Page 2661.

Executed this ____ day of October, 2022.

_____ _____

Witness: Richard P. Fusegni

State of New Hampshire
County of Rockingham

This instrument was acknowledged before me on this ____ day of October, 2022 by Richard P. Fusegni.

_____
Notary Public/Justice of the Peace

DECLARATION OF RESTRICTIVE COVENANTS

KNOW ALL PERSONS BY THESE PRESENTS that **Richard P. Fusegni**, an individual with an address of 201 Kearsarge Way, Portsmouth, NH 03801, (hereinafter, the "Declarant") being the owner of property located on the westerly side of Kearsarge Way, in the City of Portsmouth, being depicted as City of Portsmouth Tax Map 218, Lots 5-2. 5-3 and 5-4 on the plan entitled "Subdivision Plan, Tax Map 218 – Lot 5, Owner Richard P. Fusegni, 201 Kearsarge Way, City of Portsmouth, County of Rockingham, State of New Hampshire" dated October ___, 2022, prepared by Ambit Engineering, Inc., and recorded at the Rockingham County Registry of Deeds as Plan No. _____, (hereinafter, the "Plan") does hereby declare that the parcels identified on said Plan as Tax Map 218, Lots 5-2, 5-3 and 5-4 are subject to restrictive covenants, as follows:

"Lot Owners" shall refer to the Owners, or their successors and assigns, of Tax Map 218, Lots 5-2. 5-3 and 5-4 as further described above shown on the Plan.

ARTICLE I
SUBJECT PROPERTY

The provisions, conditions, covenants, and restrictions as set forth herein shall run with and bind, Lots 5-2. 5-3 and 5-4.

ARTICLE II
RESTRICTIVE COVENANTS FOR CONSERVATION

The relevant portion of the Lots described herein for purposes of this Article II is shown on the Plan as a "Conservation Area" (hereinafter, the "Conservation Area") bounded and described as follows:

On Map 218, Lot 5-2, beginning at a point on the southwesterly side of Lot 3 at Lot 2; thence turning and running along Lot 2 N 52°11'14" W a distance of 93.06 feet to a point; thence

N 55°04'52" W a distance of 24.98 feet to the centerline of paper street formerly known as Oak Street; thence turning and running along said centerline N 34°55'08" E a distance of 80.06 feet to a point; thence turning and running S 55°04'52" E a distance of 24.98 feet to land now or formerly of Jennifer K. Armstrong; thence running along said Armstrong land S 46°41'00" E a distance of 93.86 feet to point; thence turning and running across Lot 3 S 34°51'05" W a distance of 71.05 feet to the point of beginning.

On Map 218, Lot 5-3, beginning at a point on the southwesterly side of Lot 2 at Lot 1; thence turning and running along Lot 1 N 55°04'52" W a distance of 92.80 feet to a point; thence N 55°04'52" W a distance of 24.98 feet to the centerline of a paper street formerly known as Oak Street; thence turning and running along said centerline N 34°55'08" E a distance of 62.05 feet to the northwest corner of Proposed Lot 3; thence turning and running along Lot 3 S 55°04'52" E a distance of 24.98 feet and S 52°11'14" E a distance of 93.06 feet to point; thence turning and running across Lot 2 S 35°03'15" W a distance of 57.36 feet to the point of beginning.

On Map 218, Lot 5-4, beginning at an iron rod on the southwesterly side of Proposed Lot 1 at land now or formerly of David T. Murray; thence turning and running along land of Murray N 45°48'00" W a distance of 94.00 feet to an iron rod; thence N 54°23'09" W a distance of 24.98 feet to the centerline of paper street formerly known as Oak Street; thence turning and running along said centerline N 34°55'08" E a distance of 65.59 feet to the northwest corner of Proposed Lot 2; thence turning and running along Lot 2 S 55°04'52" E a distance of 24.98 feet and S 55°04'52" E a distance of 92.80 feet to point; thence turning and running across Lot 2 S 34°56'31" W a distance of 81.06 feet to an iron rod and the point of beginning.

The following covenants are created for the purpose of preserving and protecting in perpetuity the natural vegetation, soils, hydrology, natural habitat and scenic and aesthetic character of the Conservation Area so that the Conservation Area retains its natural qualities and functions.

USE LIMITATIONS:

A. The Conservation Area shall be maintained in perpetuity in an undeveloped and natural condition without there being conducted thereon any industrial or commercial activities, except as described below, and provided that such uses shall not degrade the conservation purposes of this Declaration. No use shall be made of the Conservation Area, and no activity shall be permitted thereon, which is inconsistent with the intent of this Declaration, that being the perpetual protection and preservation of the Conservation Area.

B. The Conservation Area shall not be subdivided and none of the individual tracts that together comprise the Conservation Area shall be conveyed separately from the individual Lots in which they are situated.

C. No structure or improvement, including, but not limited to, a dwelling, any portion of a septic system, tennis court, swimming pool, dock, tower, commercial facility, conduit or utility line, billboard or other means of advertising display, driveway or road made of asphalt or other impervious surface, or other temporary or permanent structure or improvement, shall be constructed, placed, or introduced onto the Conservation Area. However, with the approval of the Planning Director for the City of Portsmouth, ancillary structures and improvements including, but not limited to, a road, dam, fence, bridge, culvert, barn, maple sugar house, or shed may be constructed, placed, or introduced onto the Conservation Area only as necessary in the accomplishment of the agricultural, forestry, conservation, or noncommercial outdoor recreational uses of the Conservation Area and provided that they are not detrimental to the scenic, agricultural, historic, recreational, wildlife habitat protection purposes of this Declaration. Any such ancillary structure or improvement shall be constructed in a manner least detrimental to the conservation purposes of this Declaration. This provision shall not apply to any preexisting utility easements.

D. There shall be no dumping, injection, burning, or burial of refuse, trash, rubbish, debris, junk, waste, man-made materials or materials then known to be environmentally hazardous, including vehicle bodies or parts, or other similar substances in or upon the Conservation Area.

ARTICLE III
AMENDMENTS

This Declaration may be amended from time to time with a written instrument duly executed by all of the Lot Owners only with the express written consent of the City of Portsmouth or its Planning Board.

ARTICLE IV
ENFORCEMENT

Each Lot Owner, the Declarant or the City of Portsmouth may, but are not obligated to, enforce the provisions of this Declaration. Failure by any of the aforesaid parties to enforce any of the provisions of this Declaration or any amendment thereto shall, in no event, be deemed a waiver of the right to do so thereafter as to the same breach or as to one occurring prior or subsequent thereto. In the event that any party subject to the terms of this Declaration is required to resort to judicial intervention in order to enforce its terms, the prevailing party in any such action shall be entitled to its costs and reasonable attorneys' fees incurred in connection therewith.

ARTICLE V
GOVERNING LAW

It is agreed that this instrument and the Lot Owners' rights and obligations hereunder shall be governed by, construed and enforced in accordance with the laws of the State of New Hampshire.

If any provision of this Declaration, or the application thereof to any person or circumstance, is found to be invalid by a court of competent jurisdiction or otherwise, the remainder of the provisions of this Declaration or the application of such provision to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby unless the purpose of this Declaration can no longer be achieved in the absence of the invalid provision.

Any deed conveying one of the above referenced parcels which is subject to this Declaration shall hereafter include reference to this Declaration incorporating the provisions, conditions, covenants, and restrictions contained herein.

This Declaration and provisions, conditions, covenants, and restrictions contained herein shall apply to all present and future owners, tenants, and occupants of any of the Lots and to all other persons who shall at the time use the Lots or any portion thereof. The mere acquisition or rental of any Lot or the mere act of occupancy of any Lot will signify that this Declaration is accepted, ratified and will be complied with. This Declaration and provisions, conditions, covenants, and restrictions contained herein shall run with the land and with each Lot and shall be binding thereon in perpetuity.

Meaning and intending to establish the above-described easements over and across a portion of the property conveyed to Richard P. Fusegni by deed recorded at Rockingham County Registry of Deeds at Book 5476, Page 2661.

By: _____

Richard P. Fusegni, Declarant

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

Personally appeared Richard P. Fusegni and acknowledged that he executed the above instrument as his free act and deed, before me, this _____ day of October, 2022.

_____
Notary Public
My Commission Expires:

DRAINAGE ANALYSIS

PROPOSED SUBDIVISION

201 KEARSARGE WAY
PORTSMOUTH, NH

PREPARED FOR
RICHARD FUSEGNI

20 SEPTEMBER 2022

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

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road, Unit 3
Portsmouth, NH 03801
Phone: 603.430.9282; Fax: 603.436.2315
E-mail: jrc@ambitengineering.com
(Ambit Job Number 2258)

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This drainage analysis examines the pre-development (existing) and post-development (proposed) stormwater drainage patterns for the proposed subdivision of a residential lot and associated future site improvements at 201 Kearsarge Way in Portsmouth, NH. The site is shown on the City of Portsmouth Assessor's Tax Map 218 as Lot 5. The project proposes to subdivide the existing single lot into three lots. The total size of all the lots together is 52,265 square-feet (1.200 acres). The size of the total drainage area is 63,570 square-feet (1.459 acres).

The subdivision will provide for the future construction of a single family residence on each lot, with associated landscaping, utilities, and driveways. The new buildings will be serviced by public water and sewer. The development has the potential to increase stormwater runoff to adjacent properties, and therefore must be designed in a manner to prevent that occurrence. This will be done primarily by capturing stormwater runoff and routing it through appropriate stormwater facilities, designed to ensure that there will be no increase in peak runoff from the site as a result of this project.

The hydrologic modeling utilized for this analysis uses the "Extreme Precipitation" values for rainfall from The Northeast Regional Climate Center (Cornell University), with a 15% increase to comply with local ordinance.

INTRODUCTION / PROJECT DESCRIPTION

This drainage report is designed to assist the owner, planning board, contractor, regulatory reviewer, and others in understanding the impact of the proposed development project on local surface water runoff and quality. The project site is shown on the City of Portsmouth, NH Assessor's Tax Map 218 as Lot 5. Bounding the site to north is a single family residence and Mangrove Street. Bounding the site to east is Kearsarge Way and single family residences. Bounding the site to south is Birch Street and a single family residence. Bounding the site to the west is forested land and beyond is the City of Portsmouth Spinnaker Point Recreation Center. The property is situated in the Single Residence B (SRB) District. A vicinity map is included in the Appendix to this report. The proposed subdivision will demolish an existing single family residence and associated driveway. This report includes information about the existing site and the proposed subdivision necessary to analyze stormwater runoff and to design any required mitigation. The report includes maps of pre-development and post-development watersheds, subcatchment areas and calculations of runoff. The report will provide a narrative of the stormwater runoff and describe numerically and graphically the surface water runoff patterns for this site. Proposed stormwater management and treatment structures and methods will also be described, as well as erosion and sediment control practices. To fully understand the proposed site development the reader should also review a complete site plan set in addition to this report.

METHODOLOGY

"Extreme Precipitation" values from The Northeast Regional Climate Center (Cornell University) have been used for modeling purposes. These values have been used in this analysis, with a 15% addition to comply with local ordinances.

This report uses the US Soil Conservation Service (SCS) Method for estimating stormwater runoff. The SCS method is published in The National Engineering Handbook (NEH), Section 4 “Hydrology” and includes the Technical Release No. 20, (TR-20) "Computer Program for Project Formulation Hydrology", and Technical Release No. 55 (TR-55) “Urban Hydrology for Small Watersheds” methods. This report uses the HydroCAD version 10.20 program, written by HydroCAD Software Solutions LLC, Chocorua, N.H., to apply these methods for the calculation of runoff and for pond modeling. Rainfall data and runoff curve numbers are taken from “The Stormwater Management and Erosion Control Handbook for Urban and Developing Areas in New Hampshire.”

Time of Concentration (Tc) is calculated by entering measured flow path data such as flow path type, length, slope and surface characteristics into the HydroCAD program. For the purposes of this report, a minimum time of concentration of 5 minutes is used.

The storm events used for the calculations in this report are the 2-year, 10-year, 25-year, and 50-year (24-hour) storms. Watershed basin boundaries have been delineated using topographic maps prepared by Ambit Engineering and field observations to confirm.

SITE SPECIFIC INFORMATION

Based on the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), Soil Survey of Rockingham County, New Hampshire the site is made up of one soil type:

Soil Symbol	Soil Name and Slopes
799	Urban land – Canton Complex (3-15% slopes)

Urban land - Canton complex is well drained with a stated depth to restrictive feature of more than 80 inches. Due to the observed presence of ledge, the site is assumed to have a Hydrological Soil Group of C.

The physical characteristics of the site consist of flat (1-3%) to moderate (10-20%) grades that generally slope downward from the high point at the center of the lot to the north (rear) and southeast (front). Elevations on the site range from 62 to 74 feet above sea level.

The existing site is partially developed and includes an existing building located at the front of the lot, with an asphalt driveway. Vegetation around the developed portion of the lot consists of established grasses, shrubs, and trees. The rear of the lot is mostly undeveloped, forested land.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) number 33015C0259F (effective date January 29, 2021), the project site is located in Zone X and is determined to be outside of the 0.2% annual chance floodplain. A copy of the FIRM map is included in the Appendix.

PRE-DEVELOPMENT DRAINAGE

In the pre-development condition, the site has been analyzed as three watershed basins (E1, E2 and E3) based on localized topography and discharge location. Subcatchment E1 contains the southern half of the lot and drains to the southeast. Subcatchment E2 contains the northern half of the lot and drains north. Subcatchment E3 contains a portion of the eastern edge of the lot and drains east. Subcatchments E1, E2, and E3 drain to discharge points DP1, DP2, and DP3 respectively.

Table 1: Pre-Development Watershed Basin Summary

Watershed Basin ID	Basin Area (SF)	Tc (MIN)	CN	10-Year Runoff (CFS)	50-Year Runoff (CFS)	To Design Point
E1	13,564	5.0	80	1.29	2.25	DP1
E2	45,007	6.1	72	3.19	6.15	DP2
E3	4,999	5.0	78	0.45	0.80	DP3

POST-DEVELOPMENT DRAINAGE

The proposed development has been designed to match the pre-development drainage patterns to the greatest extent feasible. In the post-development condition, the site has been analyzed as five subcatchment basins, (P1, P2, P2a, P2b, and P3). Subcatchments P2,

P2a and P2b combined match the area of subcatchment E2, and drain to Discharge Point DP2. Subcatchments P2a and P2b contain part of the new development and each drain to subsurface StormTech storage units before running over a buffer area. Subcatchments P1 and P3 contain the rest of the development, and match the discharge points of E1 and E3, respectively. Subcatchment P1 drains to DP1, and P3 drains to DP3.

Table 2: Post-Development Watershed Basin Summary

Watershed Basin ID	Basin Area (SF)	Tc (MIN)	CN	10-Year Runoff (CFS)	50-Year Runoff (CFS)	Design Point
P1	11,693	5.0	83	1.20	2.03	DP1
P2	39,185	6.1	72	2.78	5.35	DP2
P2a	4,381	5.0	80	0.42	0.73	DP2
P2b	4,392	5.0	82	0.44	0.75	DP2
P3	3,921	5.0	80	0.37	0.65	DP3

The overall impervious coverage of the subcatchment areas analyzed in this report **increases** from 7,288 s.f. (11.46%) in the pre-development condition to 9,939 s.f. (15.63%) in the post-development condition. The project proposes the construction of subsurface StormTech storage units on site, reducing the peak flow discharge from the site.
Table 3 shows a summary of the comparison between pre-developed flows and post-developed flows for each design point. The comparison shows the reduced flows as a result of the StormTech units.

Table 3: Pre-Development to Post-Development Comparison

	Q2 (CFS)		Q10 (CFS)		Q50 (CFS)		
Design Point	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Description**
DP1	0.67	0.66	1.29	1.20	2.25	2.03	Birch Street
DP2	1.43	1.41	3.19	3.02	6.15	6.04	North edge of lot
DP3	0.23	0.19	0.45	0.37	0.80	0.65	Kearsarge Way

Note that all post-development peak discharges are either equivalent or less than the existing peak discharges.

OFFSITE INFRASTRUCTURE CAPACITY

There is no Town infrastructure utilized in this project in regard to storm drainage. All retention and routing to the final destination of the stormwater is done on-site, therefore no impact to city infrastructure is anticipated.

EROSION AND SEDIMENT CONTROL PRACTICES

The erosion potential for this site as it exists is moderate due to the presence of gravel areas that are highly erodible. During construction, the major potential for erosion is wind and stormwater runoff. The contractor will be required to inspect and maintain all necessary erosion control measures, as well as installing any additional measures as required. All erosion control practices shall conform to "The Stormwater Management and Erosion Control Handbook for Urban and Developing Areas in New Hampshire." Some examples of erosion and sediment control measures to be utilized for this project during construction may include:

- Silt Soxx (or approved alternative) located at the toe of disturbed slopes
- Stabilized construction entrance at access point to the site
- Temporary mulching and seeding for disturbed areas
- Spraying water over disturbed areas to minimize wind erosion

After construction, permanent stabilization will be accomplished by permanent seeding, landscaping, and surfacing the access drives and parking areas with asphalt paving and other areas with impervious walkways.

CONCLUSION

The proposed development has been designed to match the pre-development drainage patterns to the greatest extent feasible. With the design of the StormTech storage system, the post-development runoff rates are reduced to below the pre-development runoff rates. 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.

REFERENCES

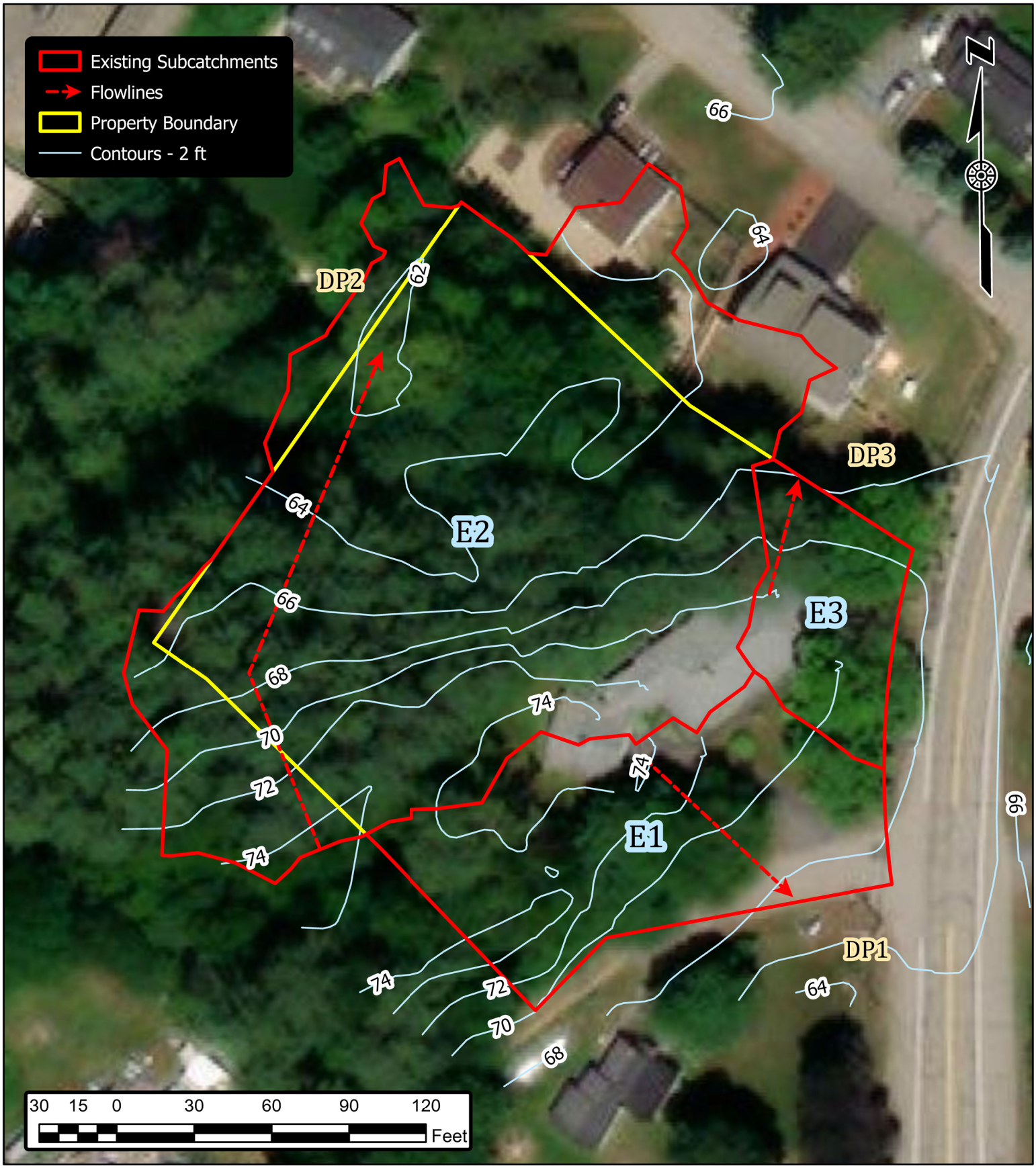
1. Comprehensive Environmental Inc. and New Hampshire Department of Environmental Services. *New Hampshire Stormwater Manual (Volumes 1, 2 and 3)*, December 2008 (Revision 1.0).
2. Minnick, E.L. and H.T. Marshall. *Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire*, prepared by Rockingham County Conservation District, prepared for New Hampshire Department of Environmental Services, in cooperation with USDA Soil Conservation Service, August 1992.
3. HydroCAD Software Solution, LLC. *HydroCAD Stormwater Modeling System Version 10.20* copyright 2013.

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

Map of Existing Subcatchments

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

JOB NUMBER: 2258
SCALE: 1" = 50'
SUBMITTED: 06-02-2022

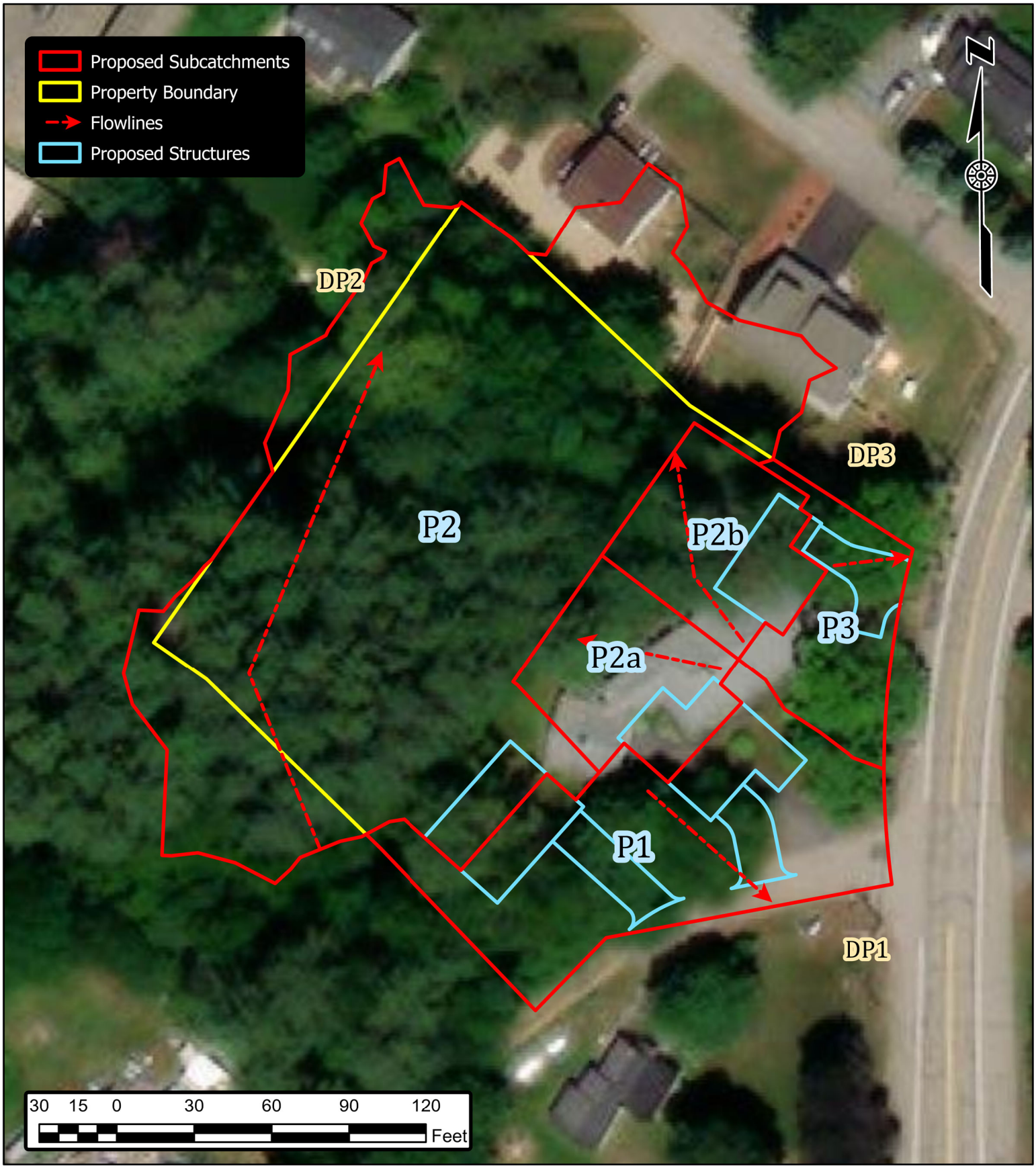


AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

Map of Proposed Subcatchments

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

JOB NUMBER: 2258
SCALE: 1" = 50'
SUBMITTED: 09-14-2022



APPENDIX A

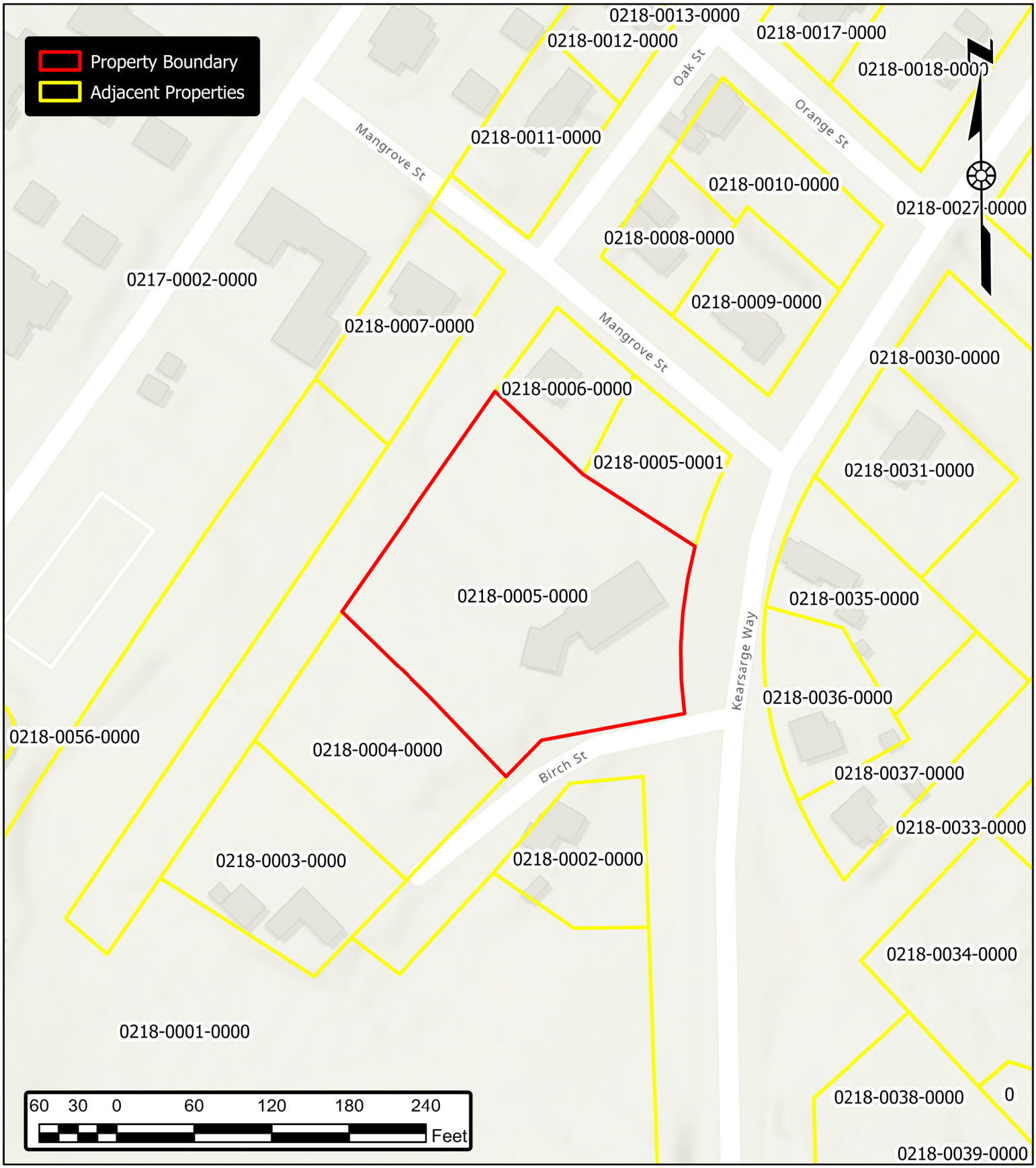
VICINITY (TAX) MAP

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

Vicinity Map

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

JOB NUMBER: 2258
SCALE: 1" = 100'
SUBMITTED: 09-14-2022



APPENDIX B

TABLES, CHARTS, ETC.

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New Hampshire
Location	
Longitude	70.776 degrees West
Latitude	43.086 degrees North
Elevation	0 feet
Date/Time	Tue, 14 Jan 2020 16:14:06 -0500

Q2 = 3.20 in. X 1.15 = 3.68 in.

Q10 = 4.85 in. X 1.15 = 5.58 in.

Q25 = 6.15 in. X 1.15 = 7.07 in.

Q50 = 7.36 in. X 1.15 = 8.46 in.

Q100 = 8.82 in. X 1.15 = 10.14 in.

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.65	0.81	1.04	**1yr**	0.70	0.98	1.21	1.56	2.02	2.65	2.91	**1yr**	2.35	2.80	3.21	3.93	4.53	**1yr**
2yr	0.32	0.50	0.62	0.81	1.02	1.30	**2yr**	0.88	1.18	1.51	1.93	2.48	3.20	3.56	**2yr**	2.83	3.42	3.92	4.66	5.31	**2yr**
5yr	0.37	0.58	0.73	0.97	1.24	1.60	**5yr**	1.07	1.46	1.88	2.42	3.13	4.05	4.56	**5yr**	3.59	4.39	5.02	5.91	6.68	**5yr**
10yr	0.41	0.65	0.82	1.11	1.44	1.88	**10yr**	1.25	1.72	2.22	2.88	3.73	4.85	5.51	**10yr**	4.29	5.30	6.06	7.08	7.95	**10yr**
25yr	0.48	0.76	0.96	1.33	1.76	2.32	**25yr**	1.52	2.13	2.76	3.61	4.72	6.15	7.07	**25yr**	5.44	6.80	7.76	8.98	10.01	**25yr**
50yr	0.53	0.85	1.09	1.53	2.06	2.74	**50yr**	1.77	2.51	3.27	4.30	5.64	7.36	8.55	**50yr**	6.51	8.22	9.37	10.76	11.93	**50yr**
100yr	0.60	0.97	1.25	1.76	2.40	3.22	**100yr**	2.07	2.96	3.86	5.11	6.72	8.82	10.34	**100yr**	7.80	9.94	11.31	12.89	14.22	**100yr**
200yr	0.67	1.09	1.41	2.03	2.80	3.80	**200yr**	2.41	3.49	4.58	6.09	8.03	10.56	12.50	**200yr**	9.35	12.02	13.66	15.46	16.95	**200yr**
500yr	0.79	1.30	1.69	2.46	3.44	4.72	**500yr**	2.97	4.34	5.71	7.64	10.16	13.42	16.08	**500yr**	11.88	15.46	17.53	19.66	21.41	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.36	0.44	0.59	0.73	0.88	**1yr**	0.63	0.87	0.92	1.32	1.67	2.21	2.48	**1yr**	1.96	2.39	2.85	3.16	3.86	**1yr**
2yr	0.31	0.49	0.60	0.81	1.00	1.19	**2yr**	0.86	1.16	1.37	1.82	2.34	3.05	3.44	**2yr**	2.70	3.31	3.81	4.53	5.06	**2yr**
5yr	0.35	0.54	0.67	0.92	1.17	1.40	**5yr**	1.01	1.37	1.61	2.12	2.74	3.78	4.17	**5yr**	3.34	4.01	4.70	5.51	6.22	**5yr**
10yr	0.38	0.59	0.73	1.02	1.32	1.60	**10yr**	1.14	1.56	1.81	2.40	3.07	4.36	4.84	**10yr**	3.86	4.66	5.41	6.38	7.16	**10yr**

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
25yr	0.44	0.67	0.83	1.18	1.56	1.90	**25yr**	1.34	1.86	2.10	2.77	3.55	4.67	5.87	**25yr**	4.13	5.64	6.61	7.75	8.64	**25yr**
50yr	0.48	0.73	0.91	1.31	1.76	2.16	**50yr**	1.52	2.12	2.35	3.09	3.95	5.27	6.77	**50yr**	4.66	6.51	7.67	8.99	9.97	**50yr**
100yr	0.53	0.81	1.01	1.46	2.00	2.47	**100yr**	1.73	2.41	2.62	3.44	4.38	5.91	7.82	**100yr**	5.23	7.52	8.91	10.43	11.50	**100yr**
200yr	0.59	0.89	1.12	1.63	2.27	2.81	**200yr**	1.96	2.75	2.93	3.81	4.83	6.61	9.02	**200yr**	5.85	8.67	10.34	12.13	13.28	**200yr**
500yr	0.68	1.02	1.31	1.90	2.70	3.36	**500yr**	2.33	3.29	3.40	4.36	5.51	7.66	10.89	**500yr**	6.78	10.47	12.58	14.82	16.06	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.44	0.54	0.72	0.89	1.08	**1yr**	0.77	1.06	1.25	1.74	2.21	2.98	3.15	**1yr**	2.64	3.03	3.57	4.37	5.03	**1yr**
2yr	0.33	0.52	0.64	0.86	1.06	1.26	**2yr**	0.92	1.24	1.48	1.96	2.51	3.42	3.69	**2yr**	3.03	3.55	4.07	4.82	5.62	**2yr**
5yr	0.40	0.61	0.76	1.05	1.33	1.61	**5yr**	1.15	1.58	1.88	2.53	3.24	4.32	4.94	**5yr**	3.83	4.75	5.36	6.35	7.13	**5yr**
10yr	0.47	0.72	0.89	1.24	1.60	1.97	**10yr**	1.38	1.92	2.27	3.10	3.94	5.32	6.18	**10yr**	4.71	5.94	6.79	7.81	8.72	**10yr**
25yr	0.57	0.87	1.08	1.55	2.03	2.55	**25yr**	1.75	2.50	2.94	4.06	5.13	7.79	8.31	**25yr**	6.89	7.99	9.10	10.29	11.37	**25yr**
50yr	0.67	1.01	1.26	1.81	2.44	3.10	**50yr**	2.11	3.04	3.58	4.98	6.28	9.76	10.41	**50yr**	8.64	10.01	11.37	12.67	13.91	**50yr**
100yr	0.78	1.18	1.48	2.14	2.93	3.78	**100yr**	2.53	3.69	4.35	6.13	7.70	12.22	13.05	**100yr**	10.81	12.55	14.22	15.62	17.03	**100yr**
200yr	0.91	1.37	1.74	2.52	3.52	4.61	**200yr**	3.03	4.50	5.31	7.54	9.45	15.34	16.37	**200yr**	13.57	15.74	17.80	19.26	20.85	**200yr**
500yr	1.13	1.68	2.16	3.15	4.47	5.97	**500yr**	3.86	5.84	6.89	9.95	12.41	20.74	22.11	**500yr**	18.36	21.26	23.96	25.39	27.26	**500yr**

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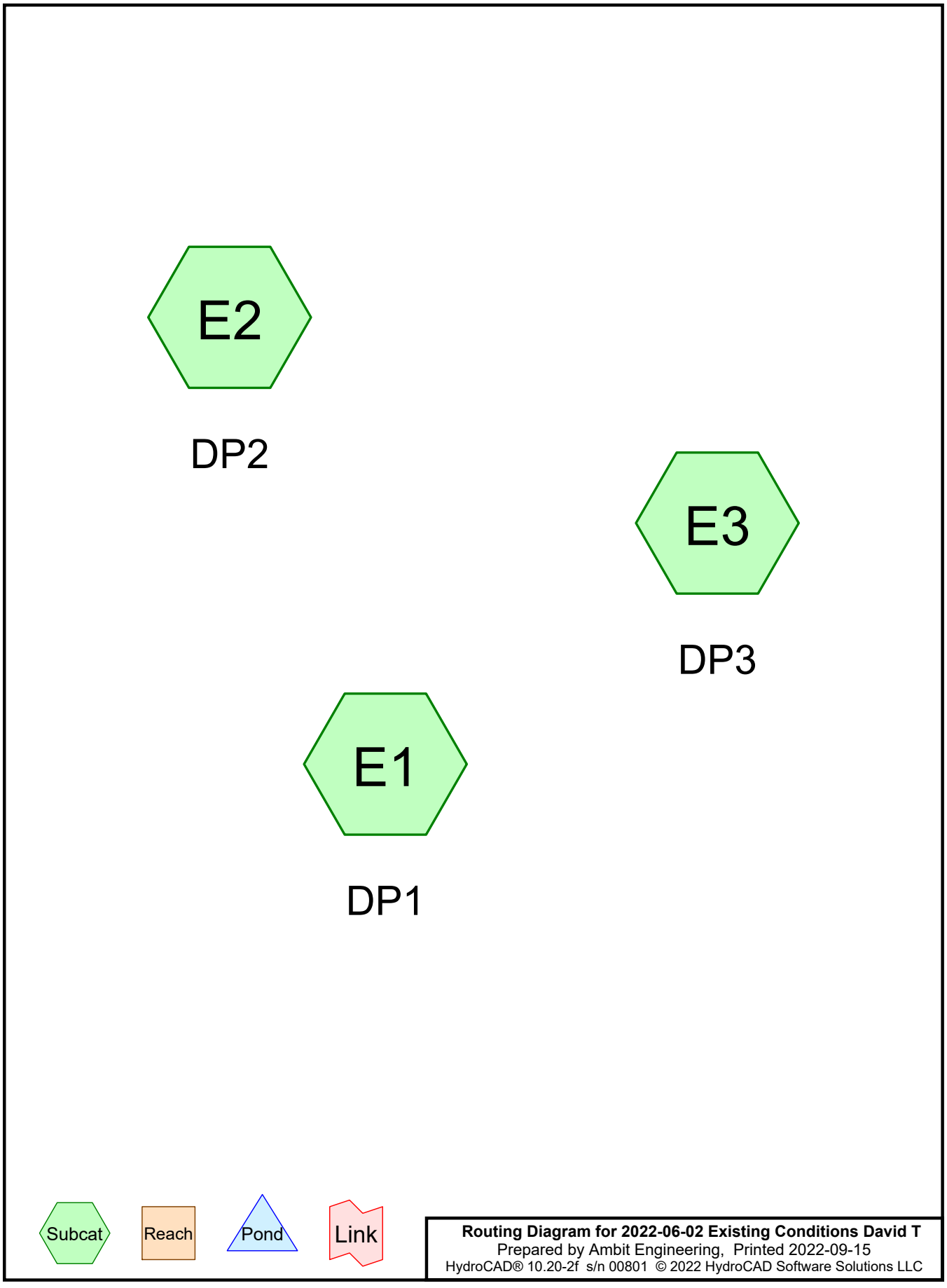
Northeast Regional Climate Center

APPENDIX C

HYDROCAD DRAINAGE

ANALYSIS CALCULATIONS



Routing Diagram for 2022-06-02 Existing Conditions David T
Prepared by Ambit Engineering, Printed 2022-09-15

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	Type III 24-hr		Default	24.00	1	3.68	2
2	10-Year	Type III 24-hr		Default	24.00	1	5.58	2
3	25-Year	Type III 24-hr		Default	24.00	1	7.07	2
4	50-Year	Type III 24-hr		Default	24.00	1	8.46	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
15,904	74	>75% Grass cover, Good, HSG C (E1, E2, E3)
2,996	98	Paved parking, HSG C (E1, E3)
4,292	98	Roofs, HSG C (E1, E2, E3)
40,378	70	Woods, Good, HSG C (E1, E2, E3)
63,570	**74**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
63,570	HSG C	E1, E2, E3
0	HSG D	
0	Other	
63,570		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Sub Num
0	0	15,904	0	0	15,904	>75% Grass cover, Good	
0	0	2,996	0	0	2,996	Paved parking	
0	0	4,292	0	0	4,292	Roofs	
0	0	40,378	0	0	40,378	Woods, Good	
0	**0**	**63,570**	**0**	**0**	**63,570**	**TOTAL AREA**	

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: DP1 Runoff Area=13,564 sf 28.45% Impervious Runoff Depth=1.78"
Tc=5.0 min CN=80 Runoff=0.67 cfs 2,012 cf

Subcatchment E2: DP2 Runoff Area=45,007 sf 5.33% Impervious Runoff Depth=1.24"
Flow Length=328' Slope=0.0730 '/' Tc=6.1 min CN=72 Runoff=1.43 cfs 4,652 cf

Subcatchment E3: DP3 Runoff Area=4,999 sf 20.58% Impervious Runoff Depth=1.64"
Tc=5.0 min CN=78 Runoff=0.23 cfs 681 cf

Total Runoff Area = 63,570 sf Runoff Volume = 7,345 cf Average Runoff Depth = 1.39"
88.54% Pervious = 56,282 sf 11.46% Impervious = 7,288 sf

Summary for Subcatchment E1: DP1

Runoff = 0.67 cfs @ 12.08 hrs, Volume= 2,012 cf, Depth= 1.78"
Routed to nonexistent node DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.68"

Area (sf)	CN	Description
6,342	74	>75% Grass cover, Good, HSG C
3,363	70	Woods, Good, HSG C
2,952	98	Paved parking, HSG C
907	98	Roofs, HSG C
13,564	80	Weighted Average
9,705		71.55% Pervious Area
3,859		28.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment E2: DP2

Runoff = 1.43 cfs @ 12.10 hrs, Volume= 4,652 cf, Depth= 1.24"
Routed to nonexistent node DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.68"

Area (sf)	CN	Description
36,240	70	Woods, Good, HSG C
2,400	98	Roofs, HSG C
6,367	74	>75% Grass cover, Good, HSG C
45,007	72	Weighted Average
42,607		94.67% Pervious Area
2,400		5.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	328	0.0730	0.90		**Lag/CN Method,**

Summary for Subcatchment E3: DP3

Runoff = 0.23 cfs @ 12.08 hrs, Volume= 681 cf, Depth= 1.64"
Routed to nonexistent node DP3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.68"

Area (sf)	CN	Description
3,195	74	>75% Grass cover, Good, HSG C
775	70	Woods, Good, HSG C
44	98	Paved parking, HSG C
985	98	Roofs, HSG C
4,999	78	Weighted Average
3,970		79.42% Pervious Area
1,029		20.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: DP1 Runoff Area=13,564 sf 28.45% Impervious Runoff Depth=3.40"
Tc=5.0 min CN=80 Runoff=1.29 cfs 3,848 cf

Subcatchment E2: DP2 Runoff Area=45,007 sf 5.33% Impervious Runoff Depth=2.65"
Flow Length=328' Slope=0.0730 '/' Tc=6.1 min CN=72 Runoff=3.19 cfs 9,952 cf

Subcatchment E3: DP3 Runoff Area=4,999 sf 20.58% Impervious Runoff Depth=3.21"
Tc=5.0 min CN=78 Runoff=0.45 cfs 1,337 cf

Total Runoff Area = 63,570 sf Runoff Volume = 15,138 cf Average Runoff Depth = 2.86"
88.54% Pervious = 56,282 sf 11.46% Impervious = 7,288 sf

Summary for Subcatchment E1: DP1

Runoff = 1.29 cfs @ 12.07 hrs, Volume= 3,848 cf, Depth= 3.40"
Routed to nonexistent node DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.58"

Area (sf)	CN	Description
6,342	74	>75% Grass cover, Good, HSG C
3,363	70	Woods, Good, HSG C
2,952	98	Paved parking, HSG C
907	98	Roofs, HSG C
13,564	80	Weighted Average
9,705		71.55% Pervious Area
3,859		28.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment E2: DP2

Runoff = 3.19 cfs @ 12.09 hrs, Volume= 9,952 cf, Depth= 2.65"
Routed to nonexistent node DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.58"

Area (sf)	CN	Description
36,240	70	Woods, Good, HSG C
2,400	98	Roofs, HSG C
6,367	74	>75% Grass cover, Good, HSG C
45,007	72	Weighted Average
42,607		94.67% Pervious Area
2,400		5.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	328	0.0730	0.90		**Lag/CN Method,**

Summary for Subcatchment E3: DP3

Runoff = 0.45 cfs @ 12.07 hrs, Volume= 1,337 cf, Depth= 3.21"
Routed to nonexistent node DP3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.58"

Area (sf)	CN	Description
3,195	74	>75% Grass cover, Good, HSG C
775	70	Woods, Good, HSG C
44	98	Paved parking, HSG C
985	98	Roofs, HSG C
4,999	78	Weighted Average
3,970		79.42% Pervious Area
1,029		20.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: DP1 Runoff Area=13,564 sf 28.45% Impervious Runoff Depth=4.76"
Tc=5.0 min CN=80 Runoff=1.78 cfs 5,379 cf

Subcatchment E2: DP2 Runoff Area=45,007 sf 5.33% Impervious Runoff Depth=3.89"
Flow Length=328' Slope=0.0730 '/' Tc=6.1 min CN=72 Runoff=4.70 cfs 14,585 cf

Subcatchment E3: DP3 Runoff Area=4,999 sf 20.58% Impervious Runoff Depth=4.54"
Tc=5.0 min CN=78 Runoff=0.63 cfs 1,891 cf

Total Runoff Area = 63,570 sf Runoff Volume = 21,855 cf Average Runoff Depth = 4.13"
88.54% Pervious = 56,282 sf 11.46% Impervious = 7,288 sf

Summary for Subcatchment E1: DP1

Runoff = 1.78 cfs @ 12.07 hrs, Volume= 5,379 cf, Depth= 4.76"
Routed to nonexistent node DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=7.07"

Area (sf)	CN	Description
6,342	74	>75% Grass cover, Good, HSG C
3,363	70	Woods, Good, HSG C
2,952	98	Paved parking, HSG C
907	98	Roofs, HSG C
13,564	80	Weighted Average
9,705		71.55% Pervious Area
3,859		28.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment E2: DP2

Runoff = 4.70 cfs @ 12.09 hrs, Volume= 14,585 cf, Depth= 3.89"
Routed to nonexistent node DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=7.07"

Area (sf)	CN	Description
36,240	70	Woods, Good, HSG C
2,400	98	Roofs, HSG C
6,367	74	>75% Grass cover, Good, HSG C
45,007	72	Weighted Average
42,607		94.67% Pervious Area
2,400		5.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	328	0.0730	0.90		**Lag/CN Method,**

Summary for Subcatchment E3: DP3

Runoff = 0.63 cfs @ 12.07 hrs, Volume= 1,891 cf, Depth= 4.54"
Routed to nonexistent node DP3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=7.07"

Area (sf)	CN	Description
3,195	74	>75% Grass cover, Good, HSG C
775	70	Woods, Good, HSG C
44	98	Paved parking, HSG C
985	98	Roofs, HSG C
4,999	78	Weighted Average
3,970		79.42% Pervious Area
1,029		20.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: DP1 Runoff Area=13,564 sf 28.45% Impervious Runoff Depth=6.06"
Tc=5.0 min CN=80 Runoff=2.25 cfs 6,847 cf

Subcatchment E2: DP2 Runoff Area=45,007 sf 5.33% Impervious Runoff Depth=5.10"
Flow Length=328' Slope=0.0730 '/' Tc=6.1 min CN=72 Runoff=6.15 cfs 19,129 cf

Subcatchment E3: DP3 Runoff Area=4,999 sf 20.58% Impervious Runoff Depth=5.82"
Tc=5.0 min CN=78 Runoff=0.80 cfs 2,424 cf

Total Runoff Area = 63,570 sf Runoff Volume = 28,400 cf Average Runoff Depth = 5.36"
88.54% Pervious = 56,282 sf 11.46% Impervious = 7,288 sf

Summary for Subcatchment E1: DP1

Runoff = 2.25 cfs @ 12.07 hrs, Volume= 6,847 cf, Depth= 6.06"
Routed to nonexistent node DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=8.46"

Area (sf)	CN	Description
6,342	74	>75% Grass cover, Good, HSG C
3,363	70	Woods, Good, HSG C
2,952	98	Paved parking, HSG C
907	98	Roofs, HSG C
13,564	80	Weighted Average
9,705		71.55% Pervious Area
3,859		28.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment E2: DP2

Runoff = 6.15 cfs @ 12.09 hrs, Volume= 19,129 cf, Depth= 5.10"
Routed to nonexistent node DP2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=8.46"

Area (sf)	CN	Description
36,240	70	Woods, Good, HSG C
2,400	98	Roofs, HSG C
6,367	74	>75% Grass cover, Good, HSG C
45,007	72	Weighted Average
42,607		94.67% Pervious Area
2,400		5.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	328	0.0730	0.90		**Lag/CN Method,**

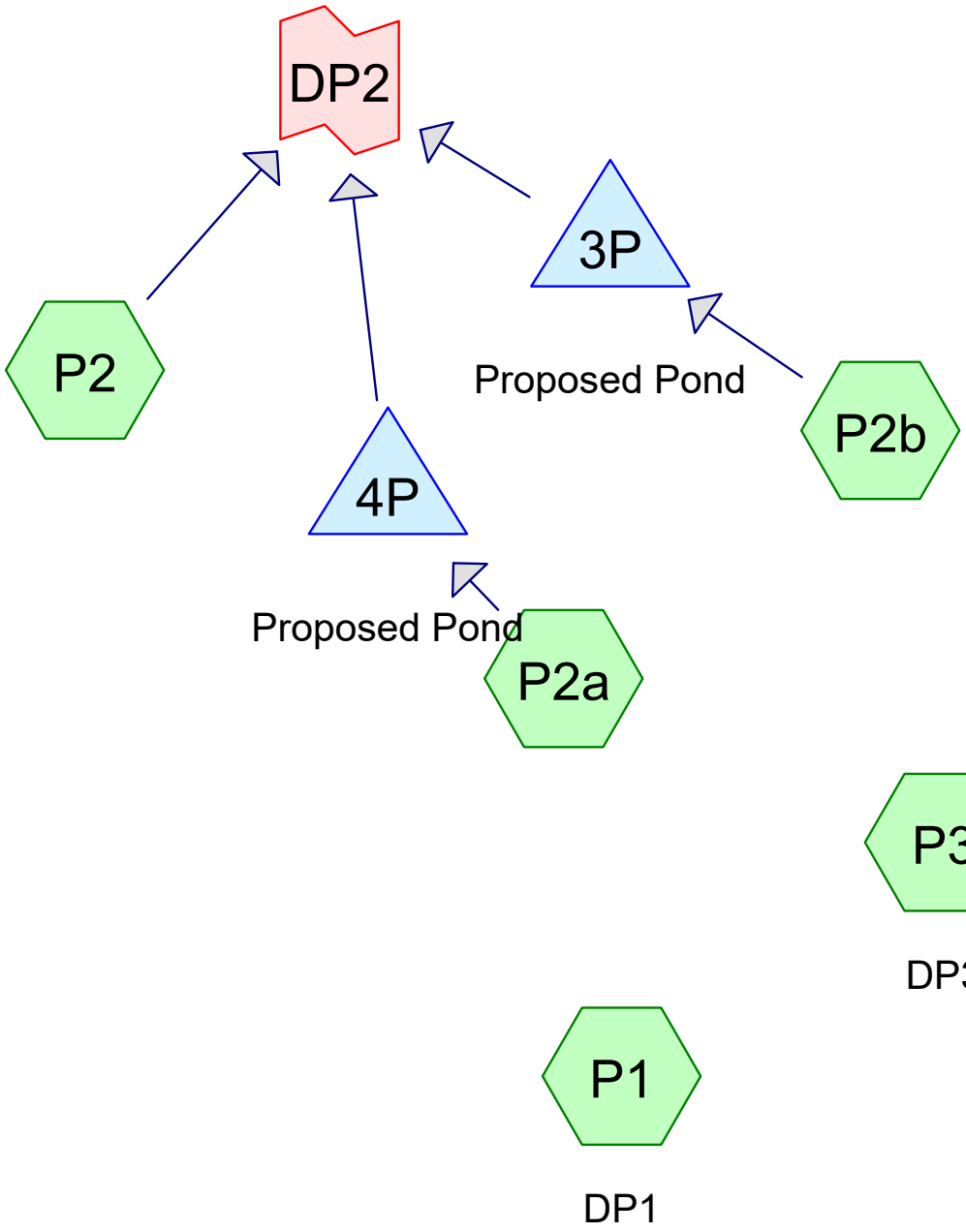
Summary for Subcatchment E3: DP3

Runoff = 0.80 cfs @ 12.07 hrs, Volume= 2,424 cf, Depth= 5.82"
Routed to nonexistent node DP3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=8.46"

Area (sf)	CN	Description
3,195	74	>75% Grass cover, Good, HSG C
775	70	Woods, Good, HSG C
44	98	Paved parking, HSG C
985	98	Roofs, HSG C
4,999	78	Weighted Average
3,970		79.42% Pervious Area
1,029		20.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**



Subcat Reach Pond Link

Routing Diagram for 2022-06-02 Proposed Conditions David T
Prepared by Ambit Engineering, Printed 2022-09-15

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	Type III 24-hr		Default	24.00	1	3.68	2
2	10-Year	Type III 24-hr		Default	24.00	1	5.58	2
3	25-Year	Type III 24-hr		Default	24.00	1	7.07	2
4	50-Year	Type III 24-hr		Default	24.00	1	8.46	2

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
18,238	74	>75% Grass cover, Good, HSG C (P1, P2, P2a, P2b, P3)
3,741	98	Paved parking, HSG C (P1, P2a, P2b, P3)
6,198	98	Roofs, HSG C (P1, P2, P2a, P2b, P3)
35,395	70	Woods, Good, HSG C (P1, P2, P3)
63,572	**76**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
63,572	HSG C	P1, P2, P2a, P2b, P3
0	HSG D	
0	Other	
63,572		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Sub Num
0	0	18,238	0	0	18,238	>75% Grass cover, Good	
0	0	3,741	0	0	3,741	Paved parking	
0	0	6,198	0	0	6,198	Roofs	
0	0	35,395	0	0	35,395	Woods, Good	
0	**0**	**63,572**	**0**	**0**	**63,572**	**TOTAL AREA**	

Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)
1	3P	0.00	-0.60	30.0	0.0200	0.013	0.0	6.0	0.0
2	4P	0.00	-0.60	30.0	0.0200	0.013	0.0	6.0	0.0

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P1: DP1 Runoff Area=11,693 sf 39.37% Impervious Runoff Depth=2.01"
Tc=5.0 min CN=83 Runoff=0.66 cfs 1,959 cf

Subcatchment P2: Runoff Area=39,185 sf 5.08% Impervious Runoff Depth=1.24"
Flow Length=328' Slope=0.0730 '/' Tc=6.1 min CN=72 Runoff=1.24 cfs 4,050 cf

Subcatchment P2a: Runoff Area=4,381 sf 23.49% Impervious Runoff Depth=1.78"
Tc=5.0 min CN=80 Runoff=0.22 cfs 650 cf

Subcatchment P2b: Runoff Area=4,392 sf 31.83% Impervious Runoff Depth=1.93"
Tc=5.0 min CN=82 Runoff=0.24 cfs 707 cf

Subcatchment P3: DP3 Runoff Area=3,921 sf 23.36% Impervious Runoff Depth=1.78"
Tc=5.0 min CN=80 Runoff=0.19 cfs 582 cf

Pond 3P: Proposed Pond Peak Elev=0.88' Storage=133 cf Inflow=0.24 cfs 707 cf
Outflow=0.09 cfs 707 cf

Pond 4P: Proposed Pond Peak Elev=0.95' Storage=102 cf Inflow=0.22 cfs 650 cf
Outflow=0.10 cfs 650 cf

Link DP2: above 1,000.00 cfs Inflow=1.41 cfs 5,407 cf
Primary=0.00 cfs 0 cf Secondary=1.41 cfs 5,407 cf

Total Runoff Area = 63,572 sf Runoff Volume = 7,948 cf Average Runoff Depth = 1.50"
84.37% Pervious = 53,633 sf 15.63% Impervious = 9,939 sf

Summary for Subcatchment P1: DP1

Runoff = 0.66 cfs @ 12.08 hrs, Volume= 1,959 cf, Depth= 2.01"
Routed to nonexistent node DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.68"

Area (sf)	CN	Description
2,043	70	Woods, Good, HSG C
2,547	98	Paved parking, HSG C
2,057	98	Roofs, HSG C
5,046	74	>75% Grass cover, Good, HSG C
11,693	83	Weighted Average
7,089		60.63% Pervious Area
4,604		39.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P2:

Runoff = 1.24 cfs @ 12.10 hrs, Volume= 4,050 cf, Depth= 1.24"
Routed to Link DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.68"

Area (sf)	CN	Description
33,306	70	Woods, Good, HSG C
1,992	98	Roofs, HSG C
3,887	74	>75% Grass cover, Good, HSG C
39,185	72	Weighted Average
37,193		94.92% Pervious Area
1,992		5.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	328	0.0730	0.90		**Lag/CN Method,**

Summary for Subcatchment P2a:

Runoff = 0.22 cfs @ 12.08 hrs, Volume= 650 cf, Depth= 1.78"
Routed to Pond 4P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.68"

Area (sf)	CN	Description
3,352	74	>75% Grass cover, Good, HSG C
909	98	Roofs, HSG C
120	98	Paved parking, HSG C
4,381	80	Weighted Average
3,352		76.51% Pervious Area
1,029		23.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P2b:

Runoff = 0.24 cfs @ 12.08 hrs, Volume= 707 cf, Depth= 1.93"
Routed to Pond 3P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.68"

Area (sf)	CN	Description
1,171	98	Roofs, HSG C
2,994	74	>75% Grass cover, Good, HSG C
227	98	Paved parking, HSG C
4,392	82	Weighted Average
2,994		68.17% Pervious Area
1,398		31.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P3: DP3

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 582 cf, Depth= 1.78"
Routed to nonexistent node DP3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.68"

Area (sf)	CN	Description
2,959	74	>75% Grass cover, Good, HSG C
46	70	Woods, Good, HSG C
787	98	Paved parking, HSG C
69	98	Roofs, HSG C
60	98	Paved parking, HSG C
3,921	80	Weighted Average
3,005		76.64% Pervious Area
916		23.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 3P: Proposed Pond

Inflow Area = 4,392 sf, 31.83% Impervious, Inflow Depth = 1.93" for 2-Year event
Inflow = 0.24 cfs @ 12.08 hrs, Volume= 707 cf
Outflow = 0.09 cfs @ 12.31 hrs, Volume= 707 cf, Atten= 60%, Lag= 14.3 min
Primary = 0.09 cfs @ 12.31 hrs, Volume= 707 cf
Routed to Link DP2 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 0.88' @ 12.31 hrs Surf.Area= 275 sf Storage= 133 cf

Plug-Flow detention time= 17.1 min calculated for 707 cf (100% of inflow)
Center-of-Mass det. time= 17.1 min (845.9 - 828.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	274 cf	**11.00'W x 24.98'L x 3.50'H Field A** 962 cf Overall - 276 cf Embedded = 686 cf x 40.0% Voids
#2A	0.50'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 6 Chambers in 2 Rows
		550 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	2.50'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Elev. (feet) 2.50 3.30 3.30 3.50 Width (feet) 0.10 0.10 2.00 2.00
#3	Device 1	0.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.09 cfs @ 12.31 hrs HW=0.88' (Free Discharge)
└**1=Culvert** (Passes 0.09 cfs of 0.75 cfs potential flow)
  ├**2=Custom Weir/Orifice** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Orifice Controls 0.09 cfs @ 4.30 fps)

Summary for Pond 4P: Proposed Pond

Inflow Area = 4,381 sf, 23.49% Impervious, Inflow Depth = 1.78" for 2-Year event
Inflow = 0.22 cfs @ 12.08 hrs, Volume= 650 cf
Outflow = 0.10 cfs @ 12.27 hrs, Volume= 650 cf, Atten= 55%, Lag= 11.5 min
Primary = 0.10 cfs @ 12.27 hrs, Volume= 650 cf
Routed to Link DP2 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 0.95' @ 12.27 hrs Surf.Area= 196 sf Storage= 102 cf

Plug-Flow detention time= 12.5 min calculated for 650 cf (100% of inflow)
Center-of-Mass det. time= 12.5 min (847.4 - 834.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	201 cf	**11.00'W x 17.86'L x 3.50'H Field A** 687 cf Overall - 184 cf Embedded = 504 cf x 40.0% Voids
#2A	0.50'	184 cf	**ADS_StormTech SC-740 +Cap** x 4 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 4 Chambers in 2 Rows
		385 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	1.50'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Elev. (feet) 1.50 3.00 3.00 3.50 Width (feet) 0.10 0.10 2.00 2.00
#3	Device 1	0.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 12.27 hrs HW=0.95' (Free Discharge)
└**1=Culvert** (Passes 0.10 cfs of 0.79 cfs potential flow)
  ├**2=Custom Weir/Orifice** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Orifice Controls 0.10 cfs @ 4.47 fps)

Summary for Link DP2:

[79] Warning: Submerged Pond 3P Primary device # 1 OUTLET by 0.60'
[79] Warning: Submerged Pond 4P Primary device # 1 OUTLET by 0.60'

Inflow Area = 47,958 sf, 9.21% Impervious, Inflow Depth = 1.35" for 2-Year event
Inflow = 1.41 cfs @ 12.10 hrs, Volume= 5,407 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
Secondary = 1.41 cfs @ 12.10 hrs, Volume= 5,407 cf

Primary outflow = Inflow above 1,000.00 cfs, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P1: DP1 Runoff Area=11,693 sf 39.37% Impervious Runoff Depth=3.70"
Tc=5.0 min CN=83 Runoff=1.20 cfs 3,609 cf

Subcatchment P2: Runoff Area=39,185 sf 5.08% Impervious Runoff Depth=2.65"
Flow Length=328' Slope=0.0730 '/' Tc=6.1 min CN=72 Runoff=2.78 cfs 8,665 cf

Subcatchment P2a: Runoff Area=4,381 sf 23.49% Impervious Runoff Depth=3.40"
Tc=5.0 min CN=80 Runoff=0.42 cfs 1,243 cf

Subcatchment P2b: Runoff Area=4,392 sf 31.83% Impervious Runoff Depth=3.60"
Tc=5.0 min CN=82 Runoff=0.44 cfs 1,319 cf

Subcatchment P3: DP3 Runoff Area=3,921 sf 23.36% Impervious Runoff Depth=3.40"
Tc=5.0 min CN=80 Runoff=0.37 cfs 1,112 cf

Pond 3P: Proposed Pond Peak Elev=1.80' Storage=310 cf Inflow=0.44 cfs 1,319 cf
Outflow=0.14 cfs 1,319 cf

Pond 4P: Proposed Pond Peak Elev=1.86' Storage=224 cf Inflow=0.42 cfs 1,243 cf
Outflow=0.21 cfs 1,243 cf

Link DP2: above 1,000.00 cfs Inflow=3.02 cfs 11,226 cf
Primary=0.00 cfs 0 cf Secondary=3.02 cfs 11,226 cf

Total Runoff Area = 63,572 sf Runoff Volume = 15,947 cf Average Runoff Depth = 3.01"
84.37% Pervious = 53,633 sf 15.63% Impervious = 9,939 sf

Summary for Subcatchment P1: DP1

Runoff = 1.20 cfs @ 12.07 hrs, Volume= 3,609 cf, Depth= 3.70"
Routed to nonexistent node DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.58"

Area (sf)	CN	Description
2,043	70	Woods, Good, HSG C
2,547	98	Paved parking, HSG C
2,057	98	Roofs, HSG C
5,046	74	>75% Grass cover, Good, HSG C
11,693	83	Weighted Average
7,089		60.63% Pervious Area
4,604		39.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P2:

Runoff = 2.78 cfs @ 12.09 hrs, Volume= 8,665 cf, Depth= 2.65"
Routed to Link DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.58"

Area (sf)	CN	Description
33,306	70	Woods, Good, HSG C
1,992	98	Roofs, HSG C
3,887	74	>75% Grass cover, Good, HSG C
39,185	72	Weighted Average
37,193		94.92% Pervious Area
1,992		5.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	328	0.0730	0.90		**Lag/CN Method,**

Summary for Subcatchment P2a:

Runoff = 0.42 cfs @ 12.07 hrs, Volume= 1,243 cf, Depth= 3.40"
Routed to Pond 4P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.58"

Area (sf)	CN	Description
3,352	74	>75% Grass cover, Good, HSG C
909	98	Roofs, HSG C
120	98	Paved parking, HSG C
4,381	80	Weighted Average
3,352		76.51% Pervious Area
1,029		23.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P2b:

Runoff = 0.44 cfs @ 12.07 hrs, Volume= 1,319 cf, Depth= 3.60"
Routed to Pond 3P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.58"

Area (sf)	CN	Description
1,171	98	Roofs, HSG C
2,994	74	>75% Grass cover, Good, HSG C
227	98	Paved parking, HSG C
4,392	82	Weighted Average
2,994		68.17% Pervious Area
1,398		31.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P3: DP3

Runoff = 0.37 cfs @ 12.07 hrs, Volume= 1,112 cf, Depth= 3.40"
Routed to nonexistent node DP3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.58"

Area (sf)	CN	Description
2,959	74	>75% Grass cover, Good, HSG C
46	70	Woods, Good, HSG C
787	98	Paved parking, HSG C
69	98	Roofs, HSG C
60	98	Paved parking, HSG C
3,921	80	Weighted Average
3,005		76.64% Pervious Area
916		23.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 3P: Proposed Pond

Inflow Area = 4,392 sf, 31.83% Impervious, Inflow Depth = 3.60" for 10-Year event
Inflow = 0.44 cfs @ 12.07 hrs, Volume= 1,319 cf
Outflow = 0.14 cfs @ 12.38 hrs, Volume= 1,319 cf, Atten= 69%, Lag= 18.6 min
Primary = 0.14 cfs @ 12.38 hrs, Volume= 1,319 cf
Routed to Link DP2 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 1.80' @ 12.38 hrs Surf.Area= 275 sf Storage= 310 cf

Plug-Flow detention time= 21.8 min calculated for 1,318 cf (100% of inflow)
Center-of-Mass det. time= 21.8 min (832.7 - 810.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	274 cf	**11.00'W x 24.98'L x 3.50'H Field A** 962 cf Overall - 276 cf Embedded = 686 cf x 40.0% Voids
#2A	0.50'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 6 Chambers in 2 Rows
		550 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	2.50'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Elev. (feet) 2.50 3.30 3.30 3.50 Width (feet) 0.10 0.10 2.00 2.00
#3	Device 1	0.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.14 cfs @ 12.38 hrs HW=1.80' (Free Discharge)
└**1=Culvert** (Passes 0.14 cfs of 1.10 cfs potential flow)
  ├**2=Custom Weir/Orifice** (Controls 0.00 cfs)
  └**3=Orifice/Grate** (Orifice Controls 0.14 cfs @ 6.31 fps)

Summary for Pond 4P: Proposed Pond

Inflow Area = 4,381 sf, 23.49% Impervious, Inflow Depth = 3.40" for 10-Year event
Inflow = 0.42 cfs @ 12.07 hrs, Volume= 1,243 cf
Outflow = 0.21 cfs @ 12.21 hrs, Volume= 1,243 cf, Atten= 49%, Lag= 8.0 min
Primary = 0.21 cfs @ 12.21 hrs, Volume= 1,243 cf
Routed to Link DP2 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 1.86' @ 12.21 hrs Surf.Area= 196 sf Storage= 224 cf

Plug-Flow detention time= 14.1 min calculated for 1,243 cf (100% of inflow)
Center-of-Mass det. time= 14.1 min (830.3 - 816.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	201 cf	**11.00'W x 17.86'L x 3.50'H Field A** 687 cf Overall - 184 cf Embedded = 504 cf x 40.0% Voids
#2A	0.50'	184 cf	**ADS_StormTech SC-740 +Cap** x 4 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 4 Chambers in 2 Rows
		385 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	1.50'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Elev. (feet) 1.50 3.00 3.00 3.50 Width (feet) 0.10 0.10 2.00 2.00
#3	Device 1	0.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.21 cfs @ 12.21 hrs HW=1.86' (Free Discharge)
↑└**1=Culvert** (Passes 0.21 cfs of 1.12 cfs potential flow)
↑└**2=Custom Weir/Orifice** (Weir Controls 0.07 cfs @ 1.97 fps)
└**3=Orifice/Grate** (Orifice Controls 0.14 cfs @ 6.42 fps)

Summary for Link DP2:

[79] Warning: Submerged Pond 3P Primary device # 1 OUTLET by 0.60'
[79] Warning: Submerged Pond 4P Primary device # 1 OUTLET by 0.60'

Inflow Area = 47,958 sf, 9.21% Impervious, Inflow Depth = 2.81" for 10-Year event
Inflow = 3.02 cfs @ 12.09 hrs, Volume= 11,226 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
Secondary = 3.02 cfs @ 12.09 hrs, Volume= 11,226 cf

Primary outflow = Inflow above 1,000.00 cfs, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P1: DP1 Runoff Area=11,693 sf 39.37% Impervious Runoff Depth=5.09"
Tc=5.0 min CN=83 Runoff=1.63 cfs 4,964 cf

Subcatchment P2: Runoff Area=39,185 sf 5.08% Impervious Runoff Depth=3.89"
Flow Length=328' Slope=0.0730 '/' Tc=6.1 min CN=72 Runoff=4.09 cfs 12,698 cf

Subcatchment P2a: Runoff Area=4,381 sf 23.49% Impervious Runoff Depth=4.76"
Tc=5.0 min CN=80 Runoff=0.58 cfs 1,737 cf

Subcatchment P2b: Runoff Area=4,392 sf 31.83% Impervious Runoff Depth=4.98"
Tc=5.0 min CN=82 Runoff=0.60 cfs 1,823 cf

Subcatchment P3: DP3 Runoff Area=3,921 sf 23.36% Impervious Runoff Depth=4.76"
Tc=5.0 min CN=80 Runoff=0.52 cfs 1,555 cf

Pond 3P: Proposed Pond Peak Elev=2.69' Storage=458 cf Inflow=0.60 cfs 1,823 cf
Outflow=0.20 cfs 1,823 cf

Pond 4P: Proposed Pond Peak Elev=2.32' Storage=280 cf Inflow=0.58 cfs 1,737 cf
Outflow=0.40 cfs 1,737 cf

Link DP2: above 1,000.00 cfs Inflow=4.54 cfs 16,259 cf
Primary=0.00 cfs 0 cf Secondary=4.54 cfs 16,259 cf

Total Runoff Area = 63,572 sf Runoff Volume = 22,778 cf Average Runoff Depth = 4.30"
84.37% Pervious = 53,633 sf 15.63% Impervious = 9,939 sf

Summary for Subcatchment P1: DP1

Runoff = 1.63 cfs @ 12.07 hrs, Volume= 4,964 cf, Depth= 5.09"
Routed to nonexistent node DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=7.07"

Area (sf)	CN	Description
2,043	70	Woods, Good, HSG C
2,547	98	Paved parking, HSG C
2,057	98	Roofs, HSG C
5,046	74	>75% Grass cover, Good, HSG C
11,693	83	Weighted Average
7,089		60.63% Pervious Area
4,604		39.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P2:

Runoff = 4.09 cfs @ 12.09 hrs, Volume= 12,698 cf, Depth= 3.89"
Routed to Link DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=7.07"

Area (sf)	CN	Description
33,306	70	Woods, Good, HSG C
1,992	98	Roofs, HSG C
3,887	74	>75% Grass cover, Good, HSG C
39,185	72	Weighted Average
37,193		94.92% Pervious Area
1,992		5.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	328	0.0730	0.90		**Lag/CN Method,**

Summary for Subcatchment P2a:

Runoff = 0.58 cfs @ 12.07 hrs, Volume= 1,737 cf, Depth= 4.76"
Routed to Pond 4P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=7.07"

Area (sf)	CN	Description
3,352	74	>75% Grass cover, Good, HSG C
909	98	Roofs, HSG C
120	98	Paved parking, HSG C
4,381	80	Weighted Average
3,352		76.51% Pervious Area
1,029		23.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P2b:

Runoff = 0.60 cfs @ 12.07 hrs, Volume= 1,823 cf, Depth= 4.98"
Routed to Pond 3P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=7.07"

Area (sf)	CN	Description
1,171	98	Roofs, HSG C
2,994	74	>75% Grass cover, Good, HSG C
227	98	Paved parking, HSG C
4,392	82	Weighted Average
2,994		68.17% Pervious Area
1,398		31.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P3: DP3

Runoff = 0.52 cfs @ 12.07 hrs, Volume= 1,555 cf, Depth= 4.76"
Routed to nonexistent node DP3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=7.07"

Area (sf)	CN	Description
2,959	74	>75% Grass cover, Good, HSG C
46	70	Woods, Good, HSG C
787	98	Paved parking, HSG C
69	98	Roofs, HSG C
60	98	Paved parking, HSG C
3,921	80	Weighted Average
3,005		76.64% Pervious Area
916		23.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 3P: Proposed Pond

Inflow Area = 4,392 sf, 31.83% Impervious, Inflow Depth = 4.98" for 25-Year event
Inflow = 0.60 cfs @ 12.07 hrs, Volume= 1,823 cf
Outflow = 0.20 cfs @ 12.36 hrs, Volume= 1,823 cf, Atten= 67%, Lag= 17.2 min
Primary = 0.20 cfs @ 12.36 hrs, Volume= 1,823 cf
Routed to Link DP2 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 2.69' @ 12.36 hrs Surf.Area= 275 sf Storage= 458 cf

Plug-Flow detention time= 24.9 min calculated for 1,823 cf (100% of inflow)
Center-of-Mass det. time= 24.9 min (826.6 - 801.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	274 cf	**11.00'W x 24.98'L x 3.50'H Field A** 962 cf Overall - 276 cf Embedded = 686 cf x 40.0% Voids
#2A	0.50'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 6 Chambers in 2 Rows
		550 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	2.50'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Elev. (feet) 2.50 3.30 3.30 3.50 Width (feet) 0.10 0.10 2.00 2.00
#3	Device 1	0.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.20 cfs @ 12.36 hrs HW=2.69' (Free Discharge)
└**1=Culvert** (Passes 0.20 cfs of 1.34 cfs potential flow)
  ├**2=Custom Weir/Orifice** (Weir Controls 0.03 cfs @ 1.43 fps)
  └**3=Orifice/Grate** (Orifice Controls 0.17 cfs @ 7.77 fps)

Summary for Pond 4P: Proposed Pond

Inflow Area = 4,381 sf, 23.49% Impervious, Inflow Depth = 4.76" for 25-Year event
Inflow = 0.58 cfs @ 12.07 hrs, Volume= 1,737 cf
Outflow = 0.40 cfs @ 12.15 hrs, Volume= 1,737 cf, Atten= 30%, Lag= 4.5 min
Primary = 0.40 cfs @ 12.15 hrs, Volume= 1,737 cf
Routed to Link DP2 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 2.32' @ 12.15 hrs Surf.Area= 196 sf Storage= 280 cf

Plug-Flow detention time= 13.1 min calculated for 1,737 cf (100% of inflow)
Center-of-Mass det. time= 13.1 min (819.7 - 806.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	201 cf	**11.00'W x 17.86'L x 3.50'H Field A** 687 cf Overall - 184 cf Embedded = 504 cf x 40.0% Voids
#2A	0.50'	184 cf	**ADS_StormTech SC-740 +Cap** x 4 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 4 Chambers in 2 Rows
		385 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	1.50'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Elev. (feet) 1.50 3.00 3.00 3.50 Width (feet) 0.10 0.10 2.00 2.00
#3	Device 1	0.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.40 cfs @ 12.15 hrs HW=2.32' (Free Discharge)
↑└**1=Culvert** (Passes 0.40 cfs of 1.25 cfs potential flow)
↑└**2=Custom Weir/Orifice** (Weir Controls 0.24 cfs @ 2.97 fps)
└**3=Orifice/Grate** (Orifice Controls 0.16 cfs @ 7.20 fps)

Summary for Link DP2:

[79] Warning: Submerged Pond 3P Primary device # 1 OUTLET by 0.60'
[79] Warning: Submerged Pond 4P Primary device # 1 OUTLET by 0.60'

Inflow Area = 47,958 sf, 9.21% Impervious, Inflow Depth = 4.07" for 25-Year event
Inflow = 4.54 cfs @ 12.10 hrs, Volume= 16,259 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
Secondary = 4.54 cfs @ 12.10 hrs, Volume= 16,259 cf

Primary outflow = Inflow above 1,000.00 cfs, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P1: DP1 Runoff Area=11,693 sf 39.37% Impervious Runoff Depth=6.42"
Tc=5.0 min CN=83 Runoff=2.03 cfs 6,253 cf

Subcatchment P2: Runoff Area=39,185 sf 5.08% Impervious Runoff Depth=5.10"
Flow Length=328' Slope=0.0730 '/' Tc=6.1 min CN=72 Runoff=5.35 cfs 16,655 cf

Subcatchment P2a: Runoff Area=4,381 sf 23.49% Impervious Runoff Depth=6.06"
Tc=5.0 min CN=80 Runoff=0.73 cfs 2,211 cf

Subcatchment P2b: Runoff Area=4,392 sf 31.83% Impervious Runoff Depth=6.30"
Tc=5.0 min CN=82 Runoff=0.75 cfs 2,305 cf

Subcatchment P3: DP3 Runoff Area=3,921 sf 23.36% Impervious Runoff Depth=6.06"
Tc=5.0 min CN=80 Runoff=0.65 cfs 1,979 cf

Pond 3P: Proposed Pond Peak Elev=3.19' Storage=516 cf Inflow=0.75 cfs 2,305 cf
Outflow=0.37 cfs 2,305 cf

Pond 4P: Proposed Pond Peak Elev=2.68' Storage=318 cf Inflow=0.73 cfs 2,211 cf
Outflow=0.59 cfs 2,211 cf

Link DP2: above 1,000.00 cfs Inflow=6.04 cfs 21,171 cf
Primary=0.00 cfs 0 cf Secondary=6.04 cfs 21,171 cf

Total Runoff Area = 63,572 sf Runoff Volume = 29,404 cf Average Runoff Depth = 5.55"
84.37% Pervious = 53,633 sf 15.63% Impervious = 9,939 sf

Summary for Subcatchment P1: DP1

Runoff = 2.03 cfs @ 12.07 hrs, Volume= 6,253 cf, Depth= 6.42"
Routed to nonexistent node DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=8.46"

Area (sf)	CN	Description
2,043	70	Woods, Good, HSG C
2,547	98	Paved parking, HSG C
2,057	98	Roofs, HSG C
5,046	74	>75% Grass cover, Good, HSG C
11,693	83	Weighted Average
7,089		60.63% Pervious Area
4,604		39.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P2:

Runoff = 5.35 cfs @ 12.09 hrs, Volume= 16,655 cf, Depth= 5.10"
Routed to Link DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=8.46"

Area (sf)	CN	Description
33,306	70	Woods, Good, HSG C
1,992	98	Roofs, HSG C
3,887	74	>75% Grass cover, Good, HSG C
39,185	72	Weighted Average
37,193		94.92% Pervious Area
1,992		5.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	328	0.0730	0.90		**Lag/CN Method,**

Summary for Subcatchment P2a:

Runoff = 0.73 cfs @ 12.07 hrs, Volume= 2,211 cf, Depth= 6.06"
Routed to Pond 4P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=8.46"

Area (sf)	CN	Description
3,352	74	>75% Grass cover, Good, HSG C
909	98	Roofs, HSG C
120	98	Paved parking, HSG C
4,381	80	Weighted Average
3,352		76.51% Pervious Area
1,029		23.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P2b:

Runoff = 0.75 cfs @ 12.07 hrs, Volume= 2,305 cf, Depth= 6.30"
Routed to Pond 3P : Proposed Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=8.46"

Area (sf)	CN	Description
1,171	98	Roofs, HSG C
2,994	74	>75% Grass cover, Good, HSG C
227	98	Paved parking, HSG C
4,392	82	Weighted Average
2,994		68.17% Pervious Area
1,398		31.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment P3: DP3

Runoff = 0.65 cfs @ 12.07 hrs, Volume= 1,979 cf, Depth= 6.06"
Routed to nonexistent node DP3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=8.46"

Area (sf)	CN	Description
2,959	74	>75% Grass cover, Good, HSG C
46	70	Woods, Good, HSG C
787	98	Paved parking, HSG C
69	98	Roofs, HSG C
60	98	Paved parking, HSG C
3,921	80	Weighted Average
3,005		76.64% Pervious Area
916		23.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 3P: Proposed Pond

Inflow Area = 4,392 sf, 31.83% Impervious, Inflow Depth = 6.30" for 50-Year event
Inflow = 0.75 cfs @ 12.07 hrs, Volume= 2,305 cf
Outflow = 0.37 cfs @ 12.20 hrs, Volume= 2,305 cf, Atten= 50%, Lag= 8.0 min
Primary = 0.37 cfs @ 12.20 hrs, Volume= 2,305 cf
Routed to Link DP2 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 3.19' @ 12.20 hrs Surf.Area= 275 sf Storage= 516 cf

Plug-Flow detention time= 23.5 min calculated for 2,305 cf (100% of inflow)
Center-of-Mass det. time= 23.4 min (818.6 - 795.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	274 cf	**11.00'W x 24.98'L x 3.50'H Field A** 962 cf Overall - 276 cf Embedded = 686 cf x 40.0% Voids
#2A	0.50'	276 cf	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 6 Chambers in 2 Rows
		550 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	2.50'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Elev. (feet) 2.50 3.30 3.30 3.50 Width (feet) 0.10 0.10 2.00 2.00
#3	Device 1	0.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.37 cfs @ 12.20 hrs HW=3.19' (Free Discharge)
└**1=Culvert** (Passes 0.37 cfs of 1.45 cfs potential flow)
  ├**2=Custom Weir/Orifice** (Weir Controls 0.19 cfs @ 2.72 fps)
  └**3=Orifice/Grate** (Orifice Controls 0.19 cfs @ 8.48 fps)

Summary for Pond 4P: Proposed Pond

Inflow Area = 4,381 sf, 23.49% Impervious, Inflow Depth = 6.06" for 50-Year event
Inflow = 0.73 cfs @ 12.07 hrs, Volume= 2,211 cf
Outflow = 0.59 cfs @ 12.13 hrs, Volume= 2,211 cf, Atten= 19%, Lag= 3.3 min
Primary = 0.59 cfs @ 12.13 hrs, Volume= 2,211 cf
Routed to Link DP2 :

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 2.68' @ 12.13 hrs Surf.Area= 196 sf Storage= 318 cf

Plug-Flow detention time= 12.3 min calculated for 2,211 cf (100% of inflow)
Center-of-Mass det. time= 12.4 min (812.2 - 799.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	201 cf	**11.00'W x 17.86'L x 3.50'H Field A** 687 cf Overall - 184 cf Embedded = 504 cf x 40.0% Voids
#2A	0.50'	184 cf	**ADS_StormTech SC-740 +Cap** x 4 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 4 Chambers in 2 Rows
		385 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 0.00' / -0.60' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	1.50'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Elev. (feet) 1.50 3.00 3.00 3.50 Width (feet) 0.10 0.10 2.00 2.00
#3	Device 1	0.00'	**2.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.59 cfs @ 12.13 hrs HW=2.68' (Free Discharge)
↑└**1=Culvert** (Passes 0.59 cfs of 1.33 cfs potential flow)
↑└**2=Custom Weir/Orifice** (Weir Controls 0.42 cfs @ 3.55 fps)
└**3=Orifice/Grate** (Orifice Controls 0.17 cfs @ 7.75 fps)

Summary for Link DP2:

[79] Warning: Submerged Pond 3P Primary device # 1 OUTLET by 0.60'
[79] Warning: Submerged Pond 4P Primary device # 1 OUTLET by 0.60'

Inflow Area = 47,958 sf, 9.21% Impervious, Inflow Depth = 5.30" for 50-Year event
Inflow = 6.04 cfs @ 12.09 hrs, Volume= 21,171 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
Secondary = 6.04 cfs @ 12.09 hrs, Volume= 21,171 cf

Primary outflow = Inflow above 1,000.00 cfs, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

APPENDIX D

SOIL SURVEY INFORMATION

United States Department of Agriculture

NRCS

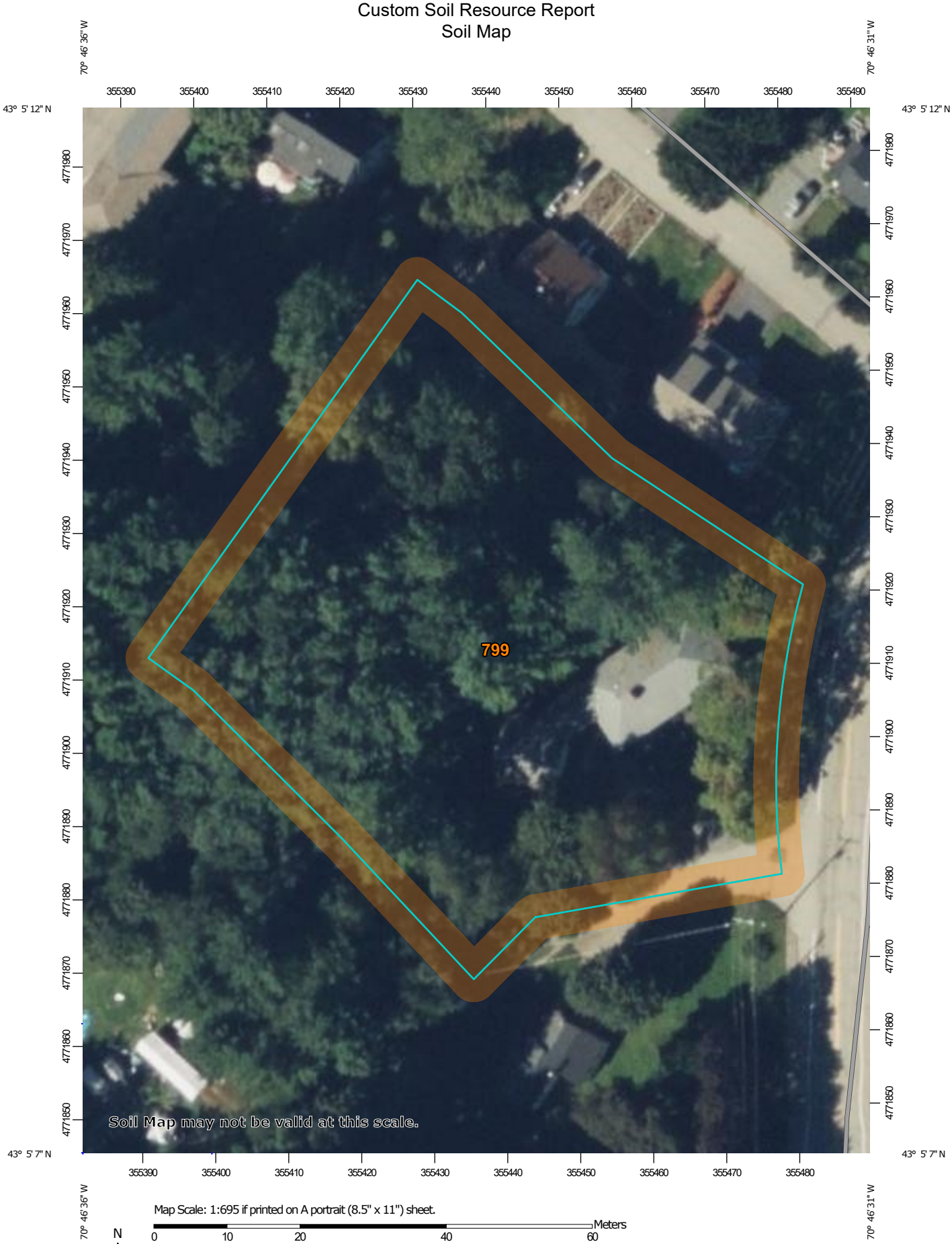
Natural Resources Conservation Service

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

May 31, 2022

Custom Soil Resource Report
Soil Map



Map Scale: 1:695 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 30 60 120 180

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

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
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

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 24, Aug 31, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 19, 2021—Nov 1, 2021

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	1.2	100.0%
Totals for Area of Interest		**1.2**	**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, 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

Squamscott and scitico

Percent of map unit: 4 percent
Landform: Marine terraces

Hydric soil rating: Yes

Walpole

Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Chatfield

Percent of map unit: 4 percent
Hydric soil rating: No

Scituate and newfields

Percent of map unit: 4 percent
Hydric soil rating: No

Boxford and eldridge

Percent of map unit: 4 percent
Hydric soil rating: No

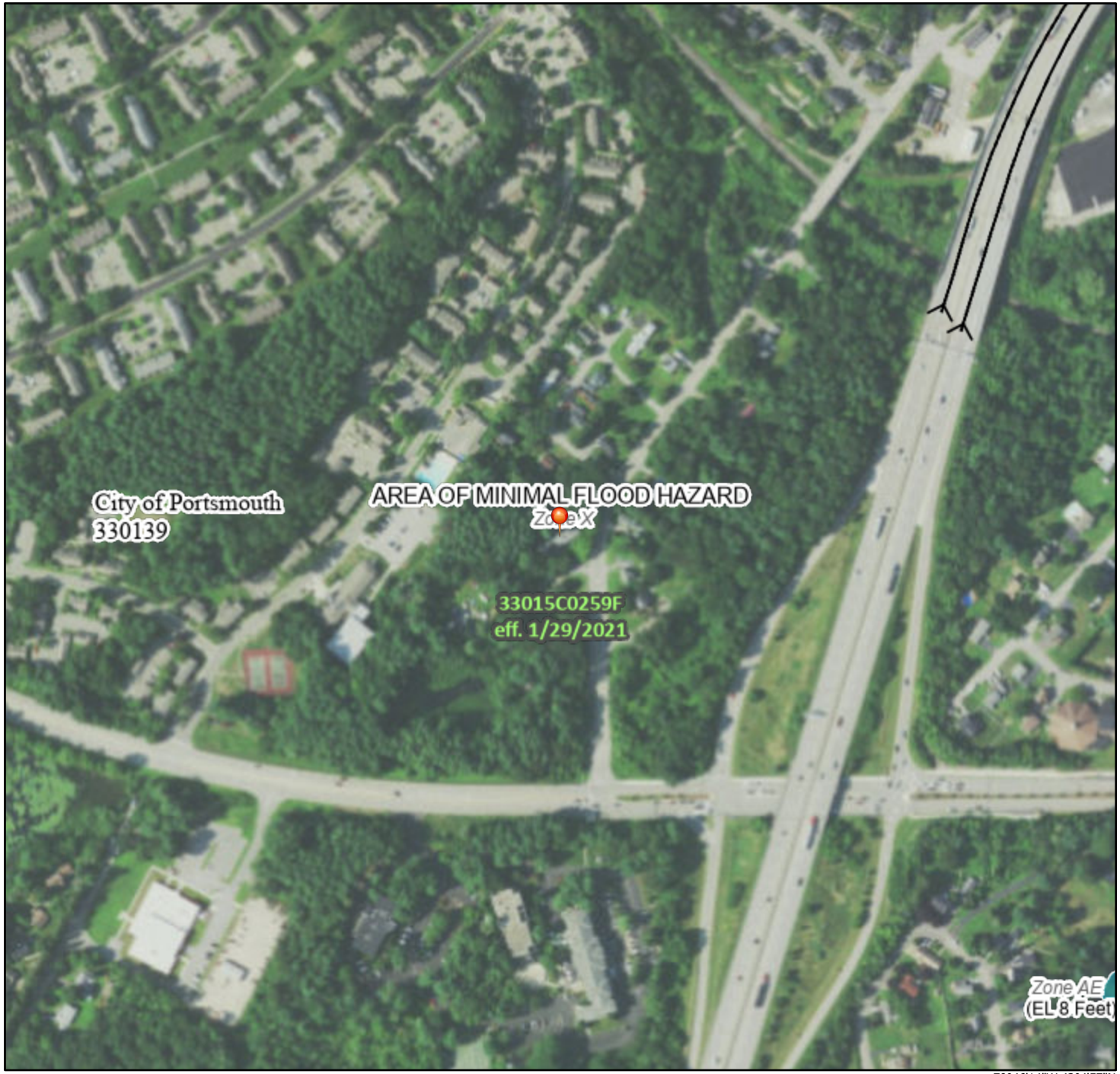
APPENDIX E

FEMA FIRM MAP

National Flood Hazard Layer FIRMette

FEMA

70°46'52"W 43°5'23"N



70°46'14"W 43°4'57"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/31/2022 at 3:00 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX F

INSPECTION & LONG TERM MAINTENANCE PLAN

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

INSPECTION & LONG-TERM MAINTENANCE PLAN
FOR
PROPOSED SUBDIVISION

201 KEARSAGE WAY
PORTSMOUTH, NH

Introduction

The intent of this plan is to provide Richard Fusegni (herein referred to as "owner") with a list of procedures that document the inspection and maintenance requirements of the stormwater management system for this development. Specifically, the Stormtech Subsurface Storage System and associated structures on the project site (collectively referred to as the "Stormwater Management System"). The contact information for the owner shall be kept current, and if there is a change of ownership of the property this plan must be transferred to the new owner.

The following inspection and maintenance program is necessary to keep the stormwater management system functioning properly and will help in maintaining a high quality of stormwater runoff to minimize potential environmental impacts. By following the enclosed procedures, the owner will be able to maintain the functional design of the stormwater management system and maximize its ability to remove sediment and other contaminants from site generated 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, if required.

Inspection & Maintenance Checklist/Log

The following pages contain the Stormwater Management System Inspection & Maintenance Requirements 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 of the Stormwater Management System. This is a guideline and should be periodically reviewed for conformance with current practice and standards.

Stormwater Management System Components

The Stormwater Management System is designed to mitigate both the quantity and quality of site-generated stormwater runoff. As a result, the design includes the following elements:

Non-Structural BMPs

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
- Stabilized construction entrance
- Vegetated buffer area

Structural BMPs

Structural BMPs 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:

- StormTech Subsurface Stormwater System
- Outlet Control Structures and Storm Drains

Inspection and Maintenance Requirements

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

1. **Grassed areas (until established):** After each rain event of 0.5" or more during a 24-hour period, inspect grassed 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 make adjustments to 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.

3. **Vegetated buffer area:** Check for scour or sediment buildup in buffer area, at least annually. Replace any vegetation removed by scour or sediment buildup with similar vegetation.
4. **StormTech Subsurface Stormwater System Maintenance:** Reference the attached operations and maintenance manual for proper maintenance of the system.
5. **Outlet Control Structures and Storm Drains:** Monitor accumulation of debris in outlet control structures monthly or after significant rain events. Remove sediments when they accumulate within the yard drains and outlet pipe. During construction, maintain inlet protection until the site has been stabilized. Prior to the end of construction, inspect the drains and basins for accumulations and remove and clean by jet-vacuuming.

Pollution Prevention

The following pollution prevention activities shall be undertaken to minimize potential impacts on stormwater runoff quality. The Contractor is responsible for all activities during construction. The Owner is responsible thereafter.

Spill Procedures

Any discharge of waste oil or other pollutant shall be reported immediately to the New Hampshire Department of Environmental Services (NHDES). The Contractor/Owner will be responsible for any incident of groundwater contamination resulting from the improper discharge of pollutants to the stormwater system, and may be required by NHDES to remediate incidents that may impact groundwater quality. If the property ownership is transferred, the new owner will be informed of the legal responsibilities associated with operation of the stormwater system, as indicated above.

Sanitary Facilities

Sanitary facilities shall be provided during all phases of construction.

Material Storage

No on site trash facility is provided until homes are constructed. The contractors are required to remove trash from the site. Hazardous material storage is prohibited.

Material Disposal

All waste material, trash, sediment, and debris shall be removed from the site and disposed of in accordance with applicable local, state, and federal guidelines and regulations. Removed sediments shall be if necessary dewatered prior to disposal.

Invasive Species

Monitor the Stormwater Management System for signs of invasive species growth. If caught early, their eradication is much easier. The most likely places where invasions start is in wetter, disturbed soils or detention ponds. Species such as phragmites and purple loose-strife are common invaders in these wetter areas. If they are found, the owner shall refer to the fact-sheet created by the University of New Hampshire Cooperative Extension (or other source) or contact a wetlands scientist with experience in invasive species control to implement a plan of action for eradication. Measures that do not require the application of chemical herbicides should be the first line of defense.

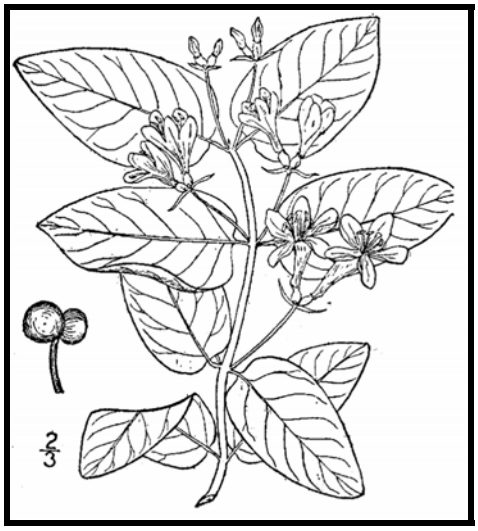
Figure 1: Lythrum salicaria, Purple Loosestrife. Photo by Liz West.

Figure 2: Phragmites australis. Photo by Le Loup Gris

University of New Hampshire Cooperative Extension

Methods for Disposing Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.



Tatarian honeysuckle
Lonicera tatarica
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 3: 282.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

Invasive plants grow well even in less than desirable conditions such as sandy soils along roadsides, shaded wooded areas, and in wetlands. In ideal conditions, they grow and spread even faster. There are many ways to remove these non-native invasives, but once removed, care is needed to dispose the removed plant material so the plants don't grow where disposed.

Knowing how a particular plant reproduces indicates its method of spread and helps determine the appropriate disposal method. Most are spread by seed and are dispersed by wind, water, animals, or people. Some reproduce by vegetative means from pieces of stems or roots forming new plants. Others spread through both seed and vegetative means.

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts non-viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit www.nhinvasives.org or contact your UNH Cooperative Extension office.

New Hampshire Regulations

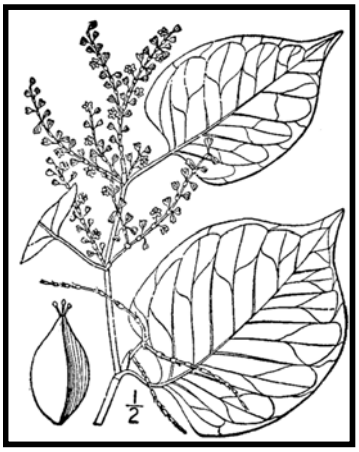
Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr 3802.01)

How and When to Dispose of Invasives?

To prevent seed from spreading remove invasive plants before seeds are set (produced). Some plants continue to grow, flower and set seed even after pulling or cutting. Seeds can remain viable in the ground for many years. If the plant has flowers or seeds, place the flowers and seeds in a heavy plastic bag "head first" at the weeding site and transport to the disposal site. The following are general descriptions of disposal methods. See the chart for recommendations by species.

Burning: Large woody branches and trunks can be used as firewood or burned in piles. For outside burning, a written fire permit from the local forest fire warden is required unless the ground is covered in snow. Brush larger than 5 inches in diameter can't be burned. Invasive plants with easily airborne seeds like black swallow-wort with mature seed pods (indicated by their brown color) shouldn't be burned as the seeds may disperse by the hot air created by the fire.



Japanese knotweed
Polygonum cuspidatum
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 1: 676.

Bagging (solarization): Use this technique with softer-tissue plants. Use heavy black or clear plastic bags (contractor grade), making sure that no parts of the plants poke through. Allow the bags to sit in the sun for several weeks and on dark pavement for the best effect.

Tarping and Drying: Pile material on a sheet of plastic and cover with a tarp, fastening the tarp to the ground and monitoring it for escapes. Let the material dry for several weeks, or until it is clearly nonviable.

Chipping: Use this method for woody plants that don't reproduce vegetatively.

Burying: This is risky, but can be done with watchful diligence. Lay thick plastic in a deep pit before placing the cut up plant material in the hole. Place the material away from the edge of the plastic before covering it with more heavy plastic. Eliminate as much air as possible and toss in soil to weight down the material in the pit. Note that the top of the buried material should be at least three feet underground. Japanese knotweed should be at least 5 feet underground!

Drowning: Fill a large barrel with water and place soft-tissue plants in the water. Check after a few weeks and look for rotted plant material (roots, stems, leaves, flowers). Well-rotted plant material may be composted. A word of caution- seeds may still be viable after using this method. Do this before seeds are set. This method isn't used often. Be prepared for an awful stink!

Composting: Invasive plants can take root in compost. Don't compost any invasives unless you know there is no viable (living) plant material left. Use one of the above techniques (bagging, tarping, drying, chipping, or drowning) to render the plants nonviable before composting. Closely examine the plant before composting and avoid composting seeds.

Be diligent looking for seedlings for *years* in areas where removal and disposal took place.

Suggested Disposal Methods for Non-Native Invasive Plants

This table provides information concerning the disposal of removed invasive plant material. If the infestation is treated with herbicide and left in place, these guidelines don't apply. Don't bring invasives to a local transfer station, unless there is a designated area for their disposal, or they have been rendered non-viable. This listing includes wetland and upland plants from the New Hampshire Prohibited Invasive Species List. The disposal of aquatic plants isn't addressed.

<table>
<tr><th>Woody Plants</th><th>Method of Reproducing</th><th>Methods of Disposal</th></tr>
<tr><td rowspan="2">Norway maple
(Acer platanoides)
European barberry
(Berberis vulgaris)
Japanese barberry
(Berberis thunbergii)
autumn olive
(Elaeagnus umbellata)
burning bush
(Euonymus alatus)
Morrow's honeysuckle
(Lonicera morrowii)
Tatarian honeysuckle
(Lonicera tatarica)
showy bush honeysuckle
(Lonicera x bella)
common buckthorn
(Rhamnus cathartica)
glossy buckthorn
(Frangula alnus)</td><td rowspan="2">Fruit and Seeds
  </td><td>Prior to fruit/seed ripening
Seedlings and small plants
▪ Pull or cut and leave on site with roots exposed. No special care needed.
Larger plants
▪ Use as firewood.
▪ Make a brush pile.
▪ Chip.
▪ Burn.</td></tr>
<tr><td>After fruit/seed is ripe
Don't remove from site.
▪ Burn.
▪ Make a covered brush pile.
▪ Chip once all fruit has dropped from branches.
▪ Leave resulting chips on site and monitor.</td></tr>
<tr><td rowspan="2">oriental bittersweet
(Celastrus orbiculatus)
multiflora rose
(Rosa multiflora)</td><td rowspan="2">Fruits, Seeds, Plant Fragments
  </td><td>Prior to fruit/seed ripening
Seedlings and small plants
▪ Pull or cut and leave on site with roots exposed. No special care needed.
Larger plants
▪ Make a brush pile.
▪ Burn.</td></tr>
<tr><td>After fruit/seed is ripe
Don't remove from site.
▪ Burn.
▪ Make a covered brush pile.
▪ Chip – only after material has fully dried (1 year) and all fruit has dropped from branches. Leave resulting chips on site and monitor.</td></tr>
</table>

<table>
<tr><th>Non-Woody Plants</th><th>Method of Reproducing</th><th>Methods of Disposal</th></tr>
<tr><td rowspan="2">garlic mustard
(Alliaria petiolata)
spotted knapweed
(Centaurea maculosa)
▪ Sap of related knapweed can cause skin irritation and tumors. Wear gloves when handling.
black swallow-wort
(Cynanchum nigrum)
▪ May cause skin rash. Wear gloves and long sleeves when handling.
pale swallow-wort
(Cynanchum rossicum)
giant hogweed
(Heracleum mantegazzianum)
▪ Can cause major skin rash. Wear gloves and long sleeves when handling.
dame’s rocket
(Hesperis matronalis)
perennial pepperweed
(Lepidium latifolium)
purple loosestrife
(Lythrum salicaria)
Japanese stilt grass
(Microstegium vimineum)
mile-a-minute weed
(Polygonum perfoliatum)</td><td rowspan="2">Fruits and Seeds
  </td><td>Prior to flowering
Depends on scale of infestation
Small infestation
▪ Pull or cut plant and leave on site with roots exposed.

Large infestation
▪ Pull or cut plant and pile. (You can pile onto or cover with plastic sheeting).
▪ Monitor. Remove any re-sprouting material.</td></tr>
<tr><td>During and following flowering
Do nothing until the following year or remove flowering heads and bag and let rot.

Small infestation
▪ Pull or cut plant and leave on site with roots exposed.

Large infestation
▪ Pull or cut plant and pile remaining material. (You can pile onto plastic or cover with plastic sheeting).
▪ Monitor. Remove any re-sprouting material.</td></tr>
<tr><td>common reed
(Phragmites australis)
Japanese knotweed
(Polygonum cuspidatum)
Bohemian knotweed
(Polygonum x bohemicum)</td><td>Fruits, Seeds, Plant Fragments
Primary means of spread in these species is by plant parts. Although all care should be given to preventing the dispersal of seed during control activities, the presence of seed doesn’t materially influence disposal activities.</td><td>Small infestation
▪ Bag all plant material and let rot.
▪ Never pile and use resulting material as compost.
▪ Burn.

Large infestation
▪ Remove material to unsuitable habitat (dry, hot and sunny or dry and shaded location) and scatter or pile.
▪ Monitor and remove any sprouting material.
▪ Pile, let dry, and burn.</td></tr>
</table>

January 2010

AREA BUFFER LONG-TERM MAINTENANCE SHEET

INSPECTION REQUIREMENTS		
ACTION TAKEN	**FREQUENCY**	**MAINTENANCE REQUIREMENTS**
-Check vegetation health. *-Inspect buffer for signs of erosion or sediment buildup.*	Annually	*-Remove sediment buildup.* *-Replace vegetation in damaged areas similar to prior vegetation.* *-Otherwise, buffer area should remain undisturbed.*

MAINTENANCE LOG	
PROJECT NAME	
INSPECTOR NAME	**INSPECTOR CONTACT INFO**
DATE OF INSPECTION	**REASON FOR INSPECTION** ☐LARGE STORM EVENT ☐PERIODIC CHECK-IN
IS CORRECTIVE ACTION NEEDED? ☐YES ☐NO	**DESCRIBE ANY PROBLEMS, NEEDED MAINTENANCE**
DATE OF MAINTENANCE	**PERFORMED BY**
NOTES	

CLOSED DRAINAGE STRUCTURE LONG-TERM MAINTENANCE SHEET

INSPECTION REQUIREMENTS		
ACTION TAKEN	**FREQUENCY**	**MAINTENANCE REQUIREMENTS**
-Outlet Control Structures *-Drain Manholes* *-Catch Basins*	Every other Month	*Check for erosion or short-circuiting* *Check for sediment accumulation* *Check for floatable contaminants*
-Drainage Pipes	1 time per 2 years	*Check for sediment accumulation/clogging, or soiled runoff.* *Check for erosion at outlets.*

MAINTENANCE LOG	
PROJECT NAME	
INSPECTOR NAME	**INSPECTOR CONTACT INFO**
DATE OF INSPECTION	**REASON FOR INSPECTION** ☐LARGE STORM EVENT ☐PERIODIC CHECK-IN
IS CORRECTIVE ACTION NEEDED? ☐YES ☐NO	**DESCRIBE ANY PROBLEMS, NEEDED MAINTENANCE**
DATE OF MAINTENANCE	**PERFORMED BY**
NOTES	

RIPRAP LONG-TERM MAINTENANCE SHEET

INSPECTION REQUIREMENTS		
ACTION TAKEN	**FREQUENCY**	**MAINTENANCE REQUIREMENTS**
ENTRANCE SURFACE *-Check for sediment accumulation/clogging of stone* *-Check for migration of stone*	After heavy rains, as necessary	*-Top dress area with new stone.* *-Replace stone completely if completely clogged.*

MAINTENANCE LOG	
PROJECT NAME	
INSPECTOR NAME	**INSPECTOR CONTACT INFO**
DATE OF INSPECTION	**REASON FOR INSPECTION** ☐LARGE STORM EVENT ☐PERIODIC CHECK-IN
IS CORRECTIVE ACTION NEEDED? ☐YES ☐NO	**DESCRIBE ANY PROBLEMS, NEEDED MAINTENANCE**
DATE OF MAINTENANCE	**PERFORMED BY**
NOTES	

STABILIZED CONSTRUCTION ENTRANCE CONSTRUCTION MAINTENANCE SHEET

INSPECTION REQUIREMENTS		
ACTION TAKEN	**FREQUENCY**	**MAINTENANCE REQUIREMENTS**
ENTRANCE SURFACE *-Check for sediment accumulation/clogging of stone* *-Check Vegetative filter strips*	After heavy rains, as necessary	*-Top dress pad with new stone.* *-Replace stone completely if completely clogged.* *-Maintain vigorous stand of vegetation.*
WASHING FACILITIES (if applicable) *-Monitor Sediment Accumulation*	As often as necessary	*-Remove Sediments from traps.*

MAINTENANCE LOG	
PROJECT NAME	
INSPECTOR NAME	**INSPECTOR CONTACT INFO**
DATE OF INSPECTION	**REASON FOR INSPECTION** ☐LARGE STORM EVENT ☐PERIODIC CHECK-IN
IS CORRECTIVE ACTION NEEDED? ☐YES ☐NO	**DESCRIBE ANY PROBLEMS, NEEDED MAINTENANCE**
DATE OF MAINTENANCE	**PERFORMED BY**
NOTES	

StormTech
Detention • Retention • Water Quality
An ADS company

Isolator® Row O&M Manual

THE MOST ADVANCED NAME IN WATER MANAGEMENT SOLUTIONS™

ADS®

THE ISOLATOR® ROW

INTRODUCTION

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row is a technique to inexpensively enhance Total Suspended Solids (TSS) removal and provide easy access for inspection and maintenance.

THE ISOLATOR ROW

The Isolator Row is a row of StormTech chambers, either SC-160LP, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-4500 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as storm water rises in the Isolator Row and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC- 310-3 and SC-740 models) allow storm water to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the storage areas of the adjacent stone and chambers from sediment accumulation.

Two different fabrics are used for the Isolator Row. A woven geotextile fabric is placed between the stone and the Isolator Row chambers. The tough geotextile provides a media for storm water filtration and provides a durable surface for maintenance operations. It is also designed to prevent scour of the underlying stone and remain intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the perforations in the sidewall of the chamber. The non-woven fabric is not required over the SC-160LP, DC-780, MC-3500 or MC-4500 models as these chambers do not have perforated side walls.

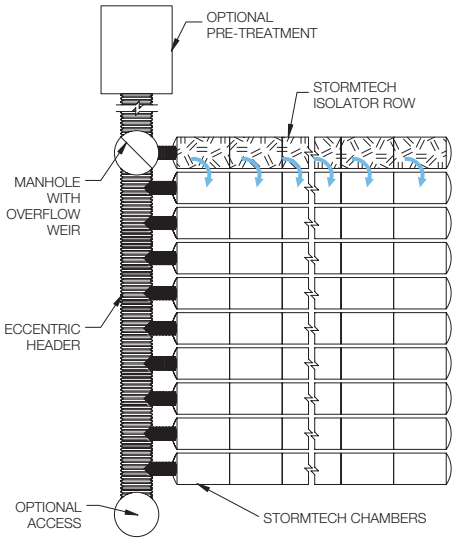
The Isolator Row is typically designed to capture the “first flush” and offers the versatility to be sized on a volume basis or flow rate basis. An upstream manhole not only provides access to the Isolator Row but typically includes a high flow weir such that storm water flowrates or volumes that exceed the capacity of the Isolator Row overtop the over flow weir and discharge through a manifold to the other chambers.

The Isolator Row may also be part of a treatment train. By treating storm water prior to entry into the chamber system, the service life can be extended and pollutants such as hydrocarbons can be captured. Pre-treatment best management practices can be as simple as deep sump catch basins, oil-water separators or can be innovative storm water treatment devices. The design of the treatment train and selection of pretreatment devices by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, the Isolator Row is recommended by StormTech as an effective means to minimize maintenance requirements and maintenance costs.

Note: See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row.

Looking down the Isolator Row from the manhole opening, woven geotextile is shown between the chamber and stone base.

StormTech Isolator Row with Overflow Spillway (not to scale)



ISOLATOR ROW INSPECTION/MAINTENANCE

INSPECTION

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row, clean-out should be performed.

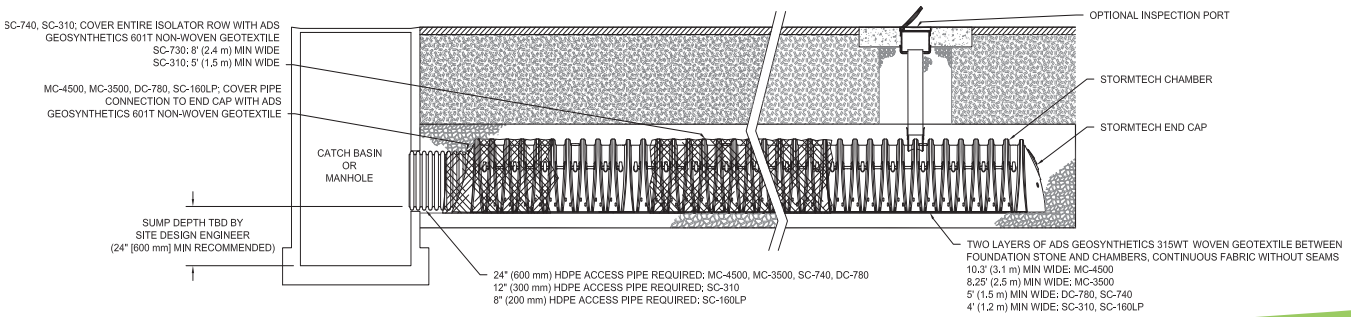
MAINTENANCE

The Isolator Row was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row up to 50 chambers long. **The JetVac process shall only be performed on StormTech Isolator Rows that have AASHTO class 1 woven geotextile (as specified by StormTech) over their angular base stone.**

StormTech Isolator Row (not to scale)

Note: Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-4500 chamber models and is not required over the entire Isolator Row.



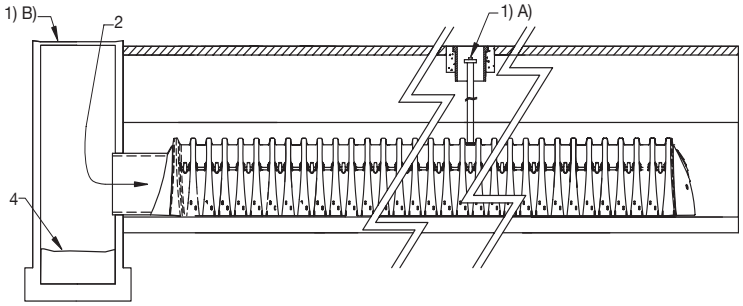
ISOLATOR ROW STEP BY STEP MAINTENANCE PROCEDURES

STEP 1
Inspect Isolator Row for sediment.
- A) Inspection ports (if present)
  - i. Remove lid from floor box frame
  - ii. Remove cap from inspection riser
  - iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
  - iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.
- B) All Isolator Rows
  - i. Remove cover from manhole at upstream end of Isolator Row
  - ii. Using a flashlight, inspect down Isolator Row through outlet pipe
    1. Mirrors on poles or cameras may be used to avoid a confined space entry
    2. Follow OSHA regulations for confined space entry if entering manhole
  - iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2. If not, proceed to Step 3.

STEP 2
Clean out Isolator Row using the JetVac process.
- A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required

STEP 3
Replace all caps, lids and covers, record observations and actions.

STEP 4
Inspect & clean catch basins and manholes upstream of the StormTech system.



SAMPLE MAINTENANCE LOG

Date	Stadia Rod Readings		Sediment Depth (1)–(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

StormTech® Detention • Retention • Water Quality
A division of ADS

Advanced Drainage Systems, Inc.
4640 Trueman Blvd., Hilliard, OH 43026
1-800-821-6710 www.ads-pipe.com

PROPOSED SUBDIVISION RESIDENTIAL DEVELOPMENT
201 KEARSARGE WAY
PORTSMOUTH, NEW HAMPSHIRE
PERMIT PLANS

OWNER:

RICHARD P. FUSEGNI
201 KEARSARGE WAY
PORTSMOUTH, N.H. 03801
TEL. (603)502–9009

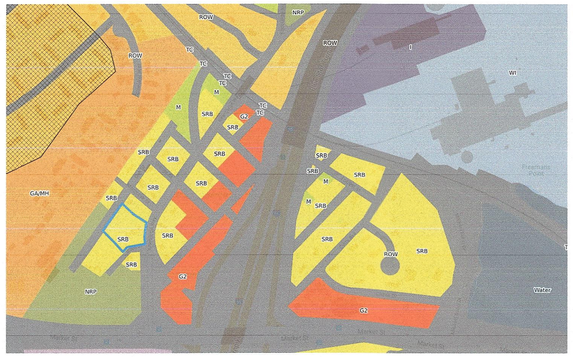
CIVIL ENGINEER & LAND SURVEYOR:

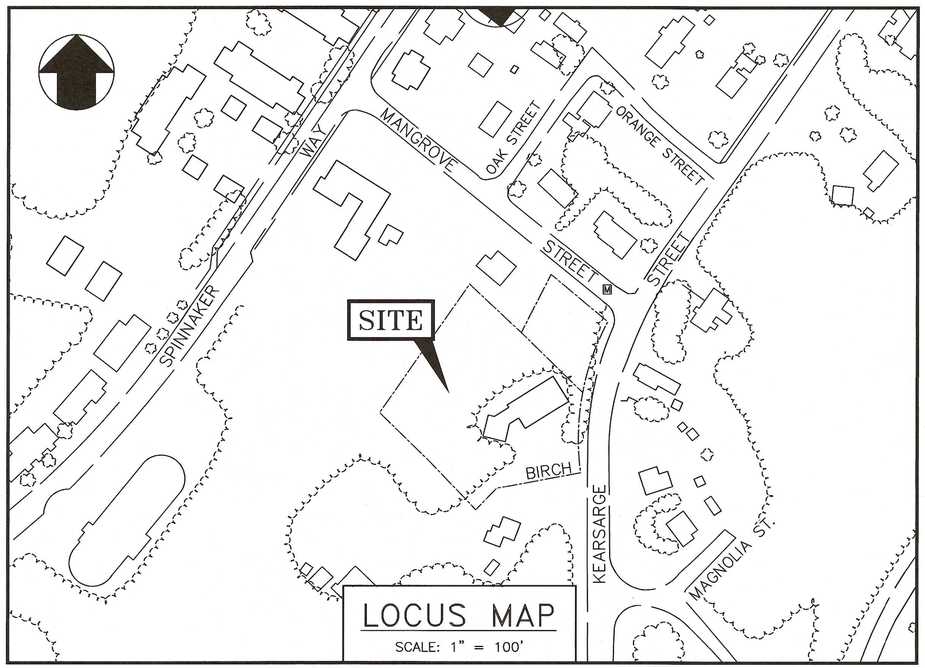
AMBIT ENGINEERING, INC.
200 GRIFFIN ROAD, UNIT 3
PORTSMOUTH, N.H. 03801
TEL. (603) 430–9282
FAX (603) 436–2315

AUTORNEY:

CHRISTOPHER MULLIGAN
266 MIDDLE STREET
PORTSMOUTH, N.H. 03801
TEL. (603) 427–5500

PORTSMOUTH ZONING MAP





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	GATE VALVE
	HYD	HYDRANT
CB	CB	CATCH BASIN
S	SMH	SEWER MANHOLE
D	DMH	DRAIN MANHOLE
T	TMH	TELEPHONE MANHOLE
14	14	PARKING SPACE COUNT
PM		PARKING METER
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	–	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

DIG SAFE
MA – ME – NH – RI – VT
1-888-344-7233
CALL TOLL FREE

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 _____

INDEX OF SHEETS

UTILITY CONTACTS

ELECTRIC:
EVERSOURCE
1700 LAFAYETTE ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 436–7708, Ext. 555.5678
ATTN: MICHAEL BUSBY, P.E. (MANAGER)

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

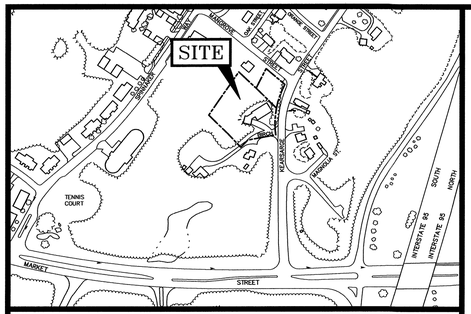
SEWER & WATER:
PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 427–1530
ATTN: JIM TOW

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

PROPOSED RESIDENTIAL DEVELOPMENT
201 KEARSARGE WAY
PORTSMOUTH, N.H.

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

PLAN SET SUBMITTAL DATE: 5 OCTOBER 2022



LOCATION MAP SCALE: 1" = 300'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
RR SPK	RAILROAD SPIKE
11/21	MAP 11/LOT 21
○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
▣NHHB	NHDOT BOUND FOUND
	EDGE OF PAVEMENT
	OVERHEAD WIRE

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	330.00'	131.02'	130.16'	S03°34'31"W	22°44'52"
C2	330.00'	82.84'	82.62'	S07°45'28"W	14°22'59"
C3	330.00'	48.18'	48.13'	S03°36'58"E	8°21'53"

LINE TABLE

LINE	BEARING	DISTANCE
L1	N54°23'09"W	24.98'
L2	N55°04'52"W	24.98'
L3	N55°04'52"W	24.98'
L4	S55°04'52"E	24.98'

ACCESS EASEMENT
LOT 1: 519 S.F.
EASEMENT LENGTH TABLE

LINE	BEARING	DISTANCE
E1	N48°13'46"W	19.25'
E2	N41°46'14"E	23.59'
E3	S46°58'50"E	26.65'
T1*	S46°02'10"W	10.01'
T2**	S75°46'03"E	32.67'

*TIE TO ANGLE POINT AT BIRCH STREET
**TIE TO SE'LY CORNER OF LOT 2
BOTH LINES NOT BOUNDARY LINES

EASEMENT CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
EC1	70.00'	24.29'	24.17'	S59°35'11"W	19°52'46"

CONSERVATION AREA
LOTS 1,2,3: AREA: 24,400 S.F

LINE	BEARING	DISTANCE
CN1	N34°56'31"E	81.06'
CN2	N35°03'15"E	57.36'
CN3	N34°51'05"E	71.05'

"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."

10.5.22
JOHN R. CHAGNON, LLS DATE

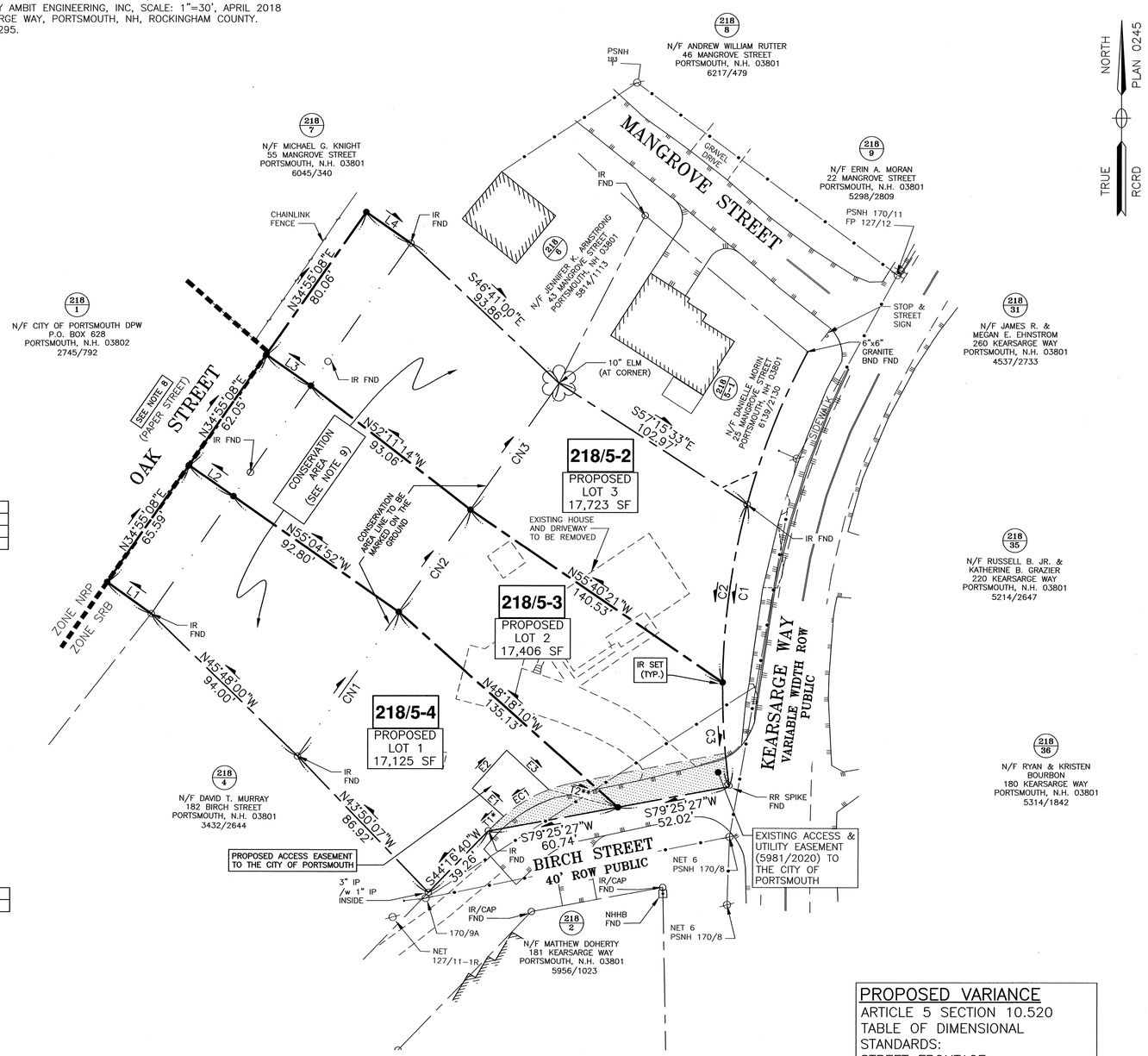
STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 738 JOHN R. CHAGNON

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

PLAN REFERENCES

1) "SUBDIVISION PLAN TAX MAP 218–LOT 5, OWNER RICHARD P. FUSEGNI", BY AMBIT ENGINEERING, INC, SCALE: 1"=30', APRIL 2018 201 KEARSARGE WAY, PORTSMOUTH, NH, ROCKINGHAM COUNTY. RCRD–D–41295.



PROPOSED VARIANCE
ARTICLE 5 SECTION 10.520
TABLE OF DIMENSIONAL STANDARDS:
STREET FRONTAGE:
* PROPOSED LOT 3: FRONTAGE OF 83 FEET WHERE 100 FEET IS REQUIRED

APPROVED: 16 AUGUST 2022

GRAPHIC SCALE
30 0 50 100 120 FEET
10 5 0 10 20 30 METERS

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

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 218 AS LOT 5.

2) OWNER OF RECORD:
RICHARD P. FUSEGNI
201 KEARSARGE WAY
PORTSMOUTH, N.H. 03801
5476/2661 (5979/2783)
RCRD PLAN 0245

3) PARCEL IS NOT IN A FLOOD HAZARD ZONE AS SHOWN ON FIRM PANEL 33015C0259F, EFFECTIVE JANUARY 29, 2021.

4) EXISTING LOT AREA:
52,253 S.F.
1.1996 AC.

5) PARCEL IS LOCATED IN THE SINGLE RESIDENCE B (SRB) DISTRICT & PARTIALLY IN THE NOISE OVERLAY DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA:		15,000 S.F.
FRONTAGE:		100 FT.
SETBACKS:	FRONT:	30 FT.
	SIDE:	10 FT.
	REAR:	30 FT.
MAXIMUM STRUCTURE HEIGHT: 35 FT.		
MAXIMUM STRUCTURE COVERAGE: 20%		
MINIMUM OPEN SPACE: 40%		

7) THE PURPOSE OF THIS PLAN IS TO SHOW THE SUBDIVISION OF TAX MAP 218 LOT 5 INTO 3 LOTS.

8) OAK STREET WAS CREATED BY A PLAN DATED 1919 AND WAS NEVER CONSTRUCTED. BY OPERATION OF LAW THE AREAS SHOWN BELONG TO THE RESPECTIVE LOTS BY WAY OF APPROPRIATION OF REVERSION RIGHTS.

9) PROPOSED DECLARATION OF RESTRICTIVE COVENANTS AREA.

10) MAP 218 LOT 5–2 (PROPOSED LOT 1) WILL GRANT AN EASEMENT TO THE CITY OF PORTSMOUTH TO TURN AROUND IN DRIVEWAY OF LOT 5–2 FOR PLOWING AND ACCESS

11) STREET ADDRESSES SHALL MATCH DRIVEWAY LOCATIONS.

12) DURING CONSTRUCTION ON LOTS 1 AND 2, ACCESS TO EXISTING PROPERTIES ON BIRCH STREET SHALL BE MAINTAINED.

NO.	DESCRIPTION	DATE
4	RESTRICTIVE COVENANTS	10/5/22
3	EASEMENT TABLE, LABELS	10/4/22
2	ISSUED FOR PB APPROVAL	9/20/22
1	ISSUED FOR ZBA APPROVAL	7/20/22
0	ISSUED FOR COMMENT	6/1/2022

REVISIONS

SUBDIVISION PLAN
TAX MAP 218 – LOT 5

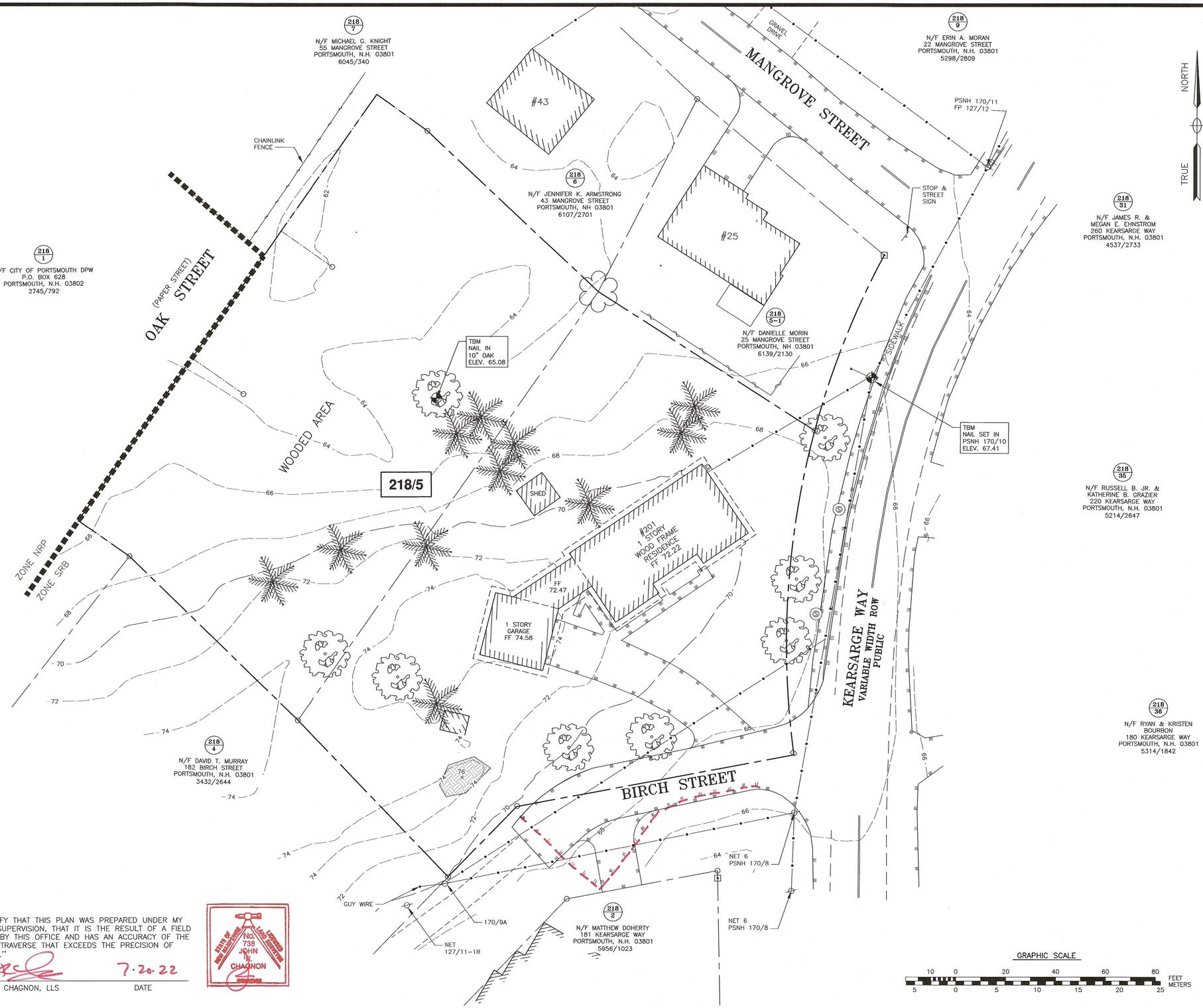
OWNER
RICHARD P. FUSEGNI

LAND LOCATED AT:
201 KEARSARGE WAY
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: 1" = 30' *JUNE 2022*

FB 311, PG 1 2258

J:\JOBS2\JN2200s\JN2250s\JN2258\2022 Subdivision\Plans & Specs\Site\2258 VARIANCE 2022.dwg, 10/6/2022 9:28:49 AM, Canon TX-3000.pc3



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7.20.22

JOHN R. CHAGNON, LLS — DATE

STATE OF NEW HAMPSHIRE — No. 738 JOHN R. CHAGNON — LICENSED LAND SURVEYOR

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

NOTES:

1) 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) THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON TAX MAP 218 LOT 5.

5) EXISTING HOUSE AND SHED TO BE REMOVED. SEE DEMOLITION PLAN.

6) DURING CONSTRUCTION, ACCESS TO EXISTING PROPERTIES ON BIRCH STREET SHALL BE MAINTAINED.

SITE DEVELOPMENT
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	7/20/22
0	ISSUED FOR COMMENT	5/19/21

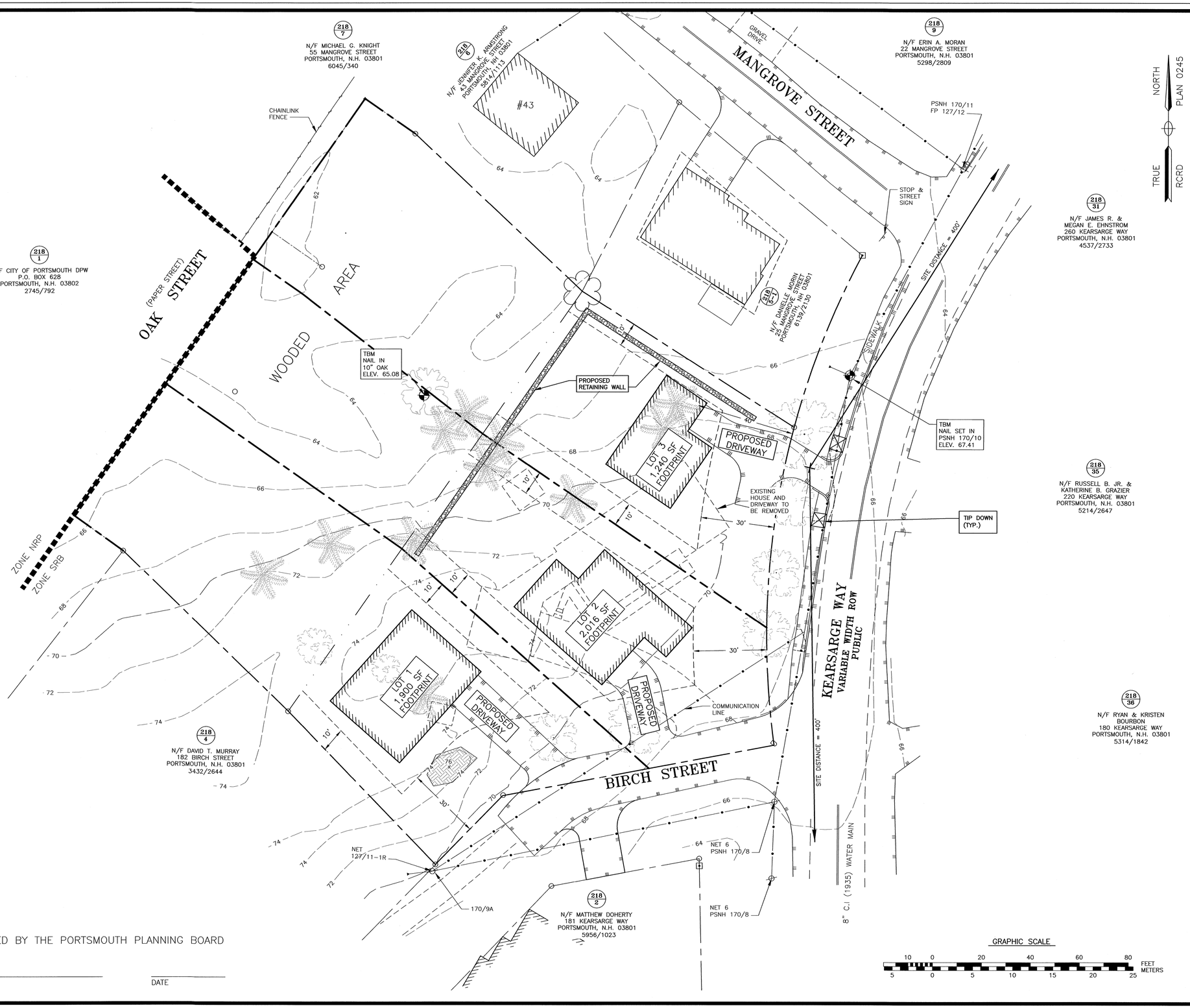
REVISIONS

SCALE: 1" = 20' — MAY 2021

EXISTING CONDITIONS PLAN — **C1**

FB. 311 PG 1 — 2258

J:\OBS2\JN2200s\JN2250s\JN2258\2021 Site Plan Lot 2\Plans & Specs\Site\2258 Site 2021.dwg, Thu Jul 21 09:13:43 2022, Canon TX-3000.pc3



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

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

NOTES:

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4) THE PURPOSE OF THIS PLAN IS TO SHOW A CONCEPTUAL DEVELOPMENT LAYOUT ON THE PROPERTY.

5) EXISTING HOUSE AND SHED TO BE REMOVED. SEE DEMOLITION PLAN.

6) DURING CONSTRUCTION ON LOTS 1 AND 2, ACCESS TO EXISTING PROPERTIES ON BIRCH STREET SHALL BE MAINTAINED.

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	9/20/22
0	ISSUED FOR COMMENT	7/20/22

REVISIONS

JOHN R. CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE

No. 738 JOHN R. CHAGNON LICENSED LAND SURVEYOR – STATE OF NEW HAMPSHIRE

SCALE: 1" = 20' JUNE 2022

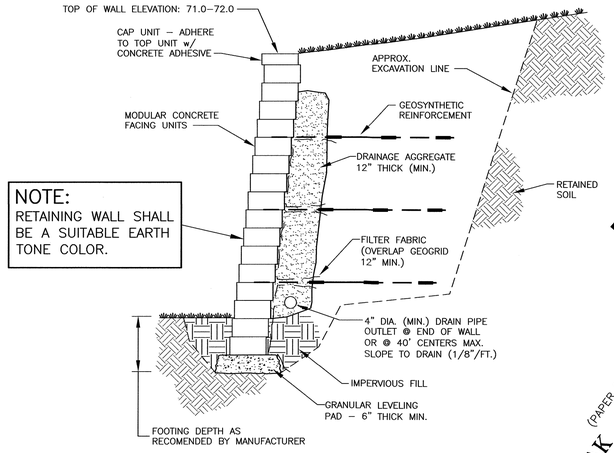
SUBDIVISION SITE PLAN

C1A

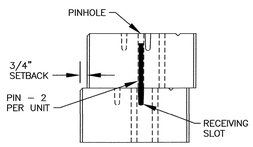
FB. 311, PG 1

2258

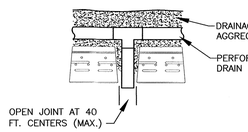
J:\O&E\2J\N2200s\JN2250\JN2258\2022 Subdivision\Plans & Specs\Site\2258 SUBDIVISION 2022.dwg, 9/20/2022 9:09:13 AM, Canon TX-3000.pc3



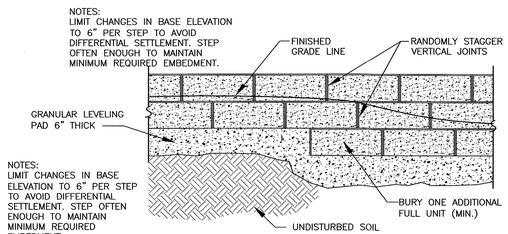
NOTE:
RETAINING WALL SHALL BE A SUITABLE EARTH TONE COLOR.



PINNING DETAIL
CROSS SECTION NTS



WALL DRAIN DETAIL
WALLS OVER 4' NTS



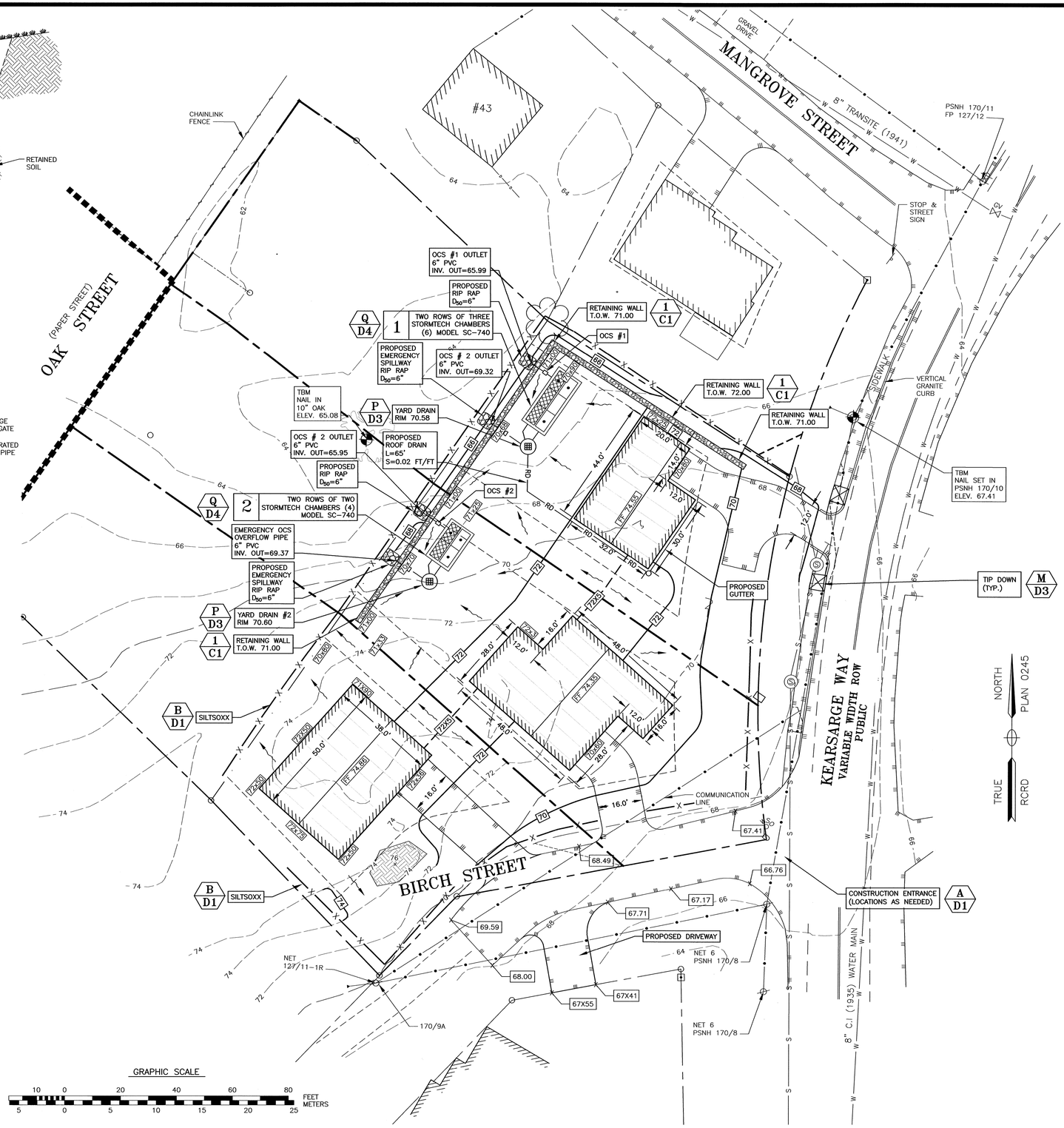
STEPPING BASE DETAIL
NTS

NOTE:
FINAL WALL CONSTRUCTION PLANS SHALL BE PREPARED BY A QUALIFIED LICENSED PROFESSIONAL ENGINEER AND BE SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. RETAINING WALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

1/C2 RETAINING WALL
VERSA–LOK OR APPROVED EQUAL (800–770–4525) NTS

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____



GRAPHIC SCALE
10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

AMBIT ENGINEERING, INC.
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200 Griffin Road – Unit 3
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Fax (603) 436–2315

NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1–888–DIG–SAFE (1–888–344–7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

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4) THERE ARE NO WETLANDS ON SUBJECT PROPERTY.

5) BUILDING WILL BE GUTTERED TO DIRECT ROOF RUNOFF TO THE DRAINAGE SYSTEM.

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

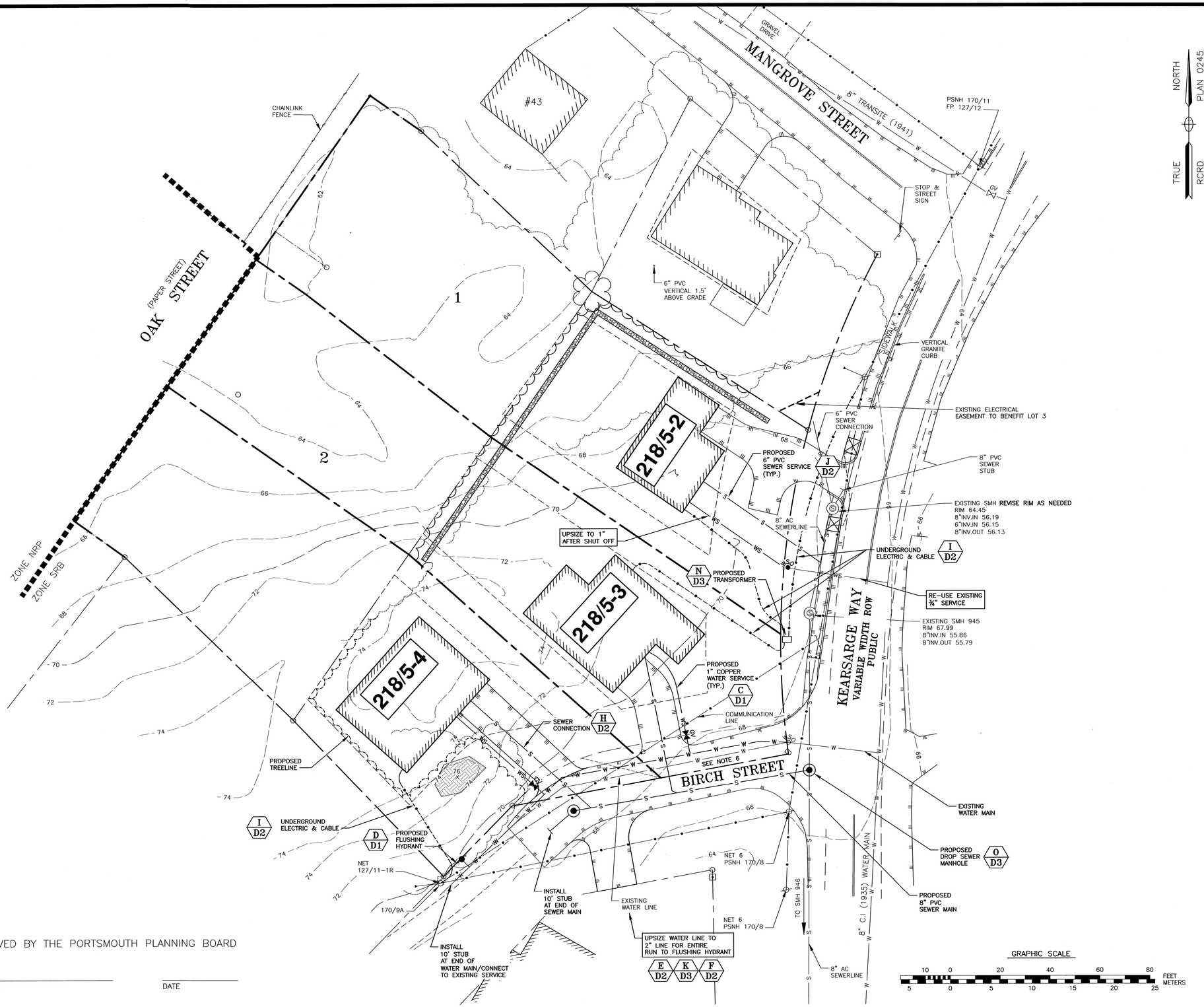
NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	9/20/22
0	ISSUED FOR COMMENT	7/20/22

REVISIONS

SCALE: 1" = 20' JUNE 2022

GRADING & EROSION CONTROL PLAN C2

FB. 311, PG 1 2258



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

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

NOTES:

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4) THERE ARE NO WETLANDS ON SUBJECT PROPERTY.

5) TEMPORARY WATER SERVICE SHALL BE PROVIDED TO MAP 218 LOTS 2 & 3 DURING CONSTRUCTION OF NEW WATER LINE.

6) BIRCH STREET SHALL BE RECLAIMED AND RECONSTRUCTED, SEE SHEET P1.

7) CONDUIT RUNS FOR ELECTRIC AND COMMUNICATIONS SERVICES SHALL BE INSTALLED AT A MINIMUM OF EIGHT (8) FEET FROM THE SEWER MANHOLES.

8) DISTURB KEARSARGE STREET AS LITTLE AS POSSIBLE FOR THE INSTALLATION OF THE SIDEWALK TIP DOWNS.

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
3	ELECTRIC LINES; NOTE 7&8	10/5/22
2	WATER LINES	10/4/22
1	ISSUED FOR APPROVAL	9/20/22
0	ISSUED FOR COMMENT	7/20/22

REVISIONS

STATE OF NEW HAMPSHIRE · JOHN R. CHAGNON NO. 7864 · LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 20' MAY 2021

UTILITY PLAN **C3**

FB. 311, PG 1 2258

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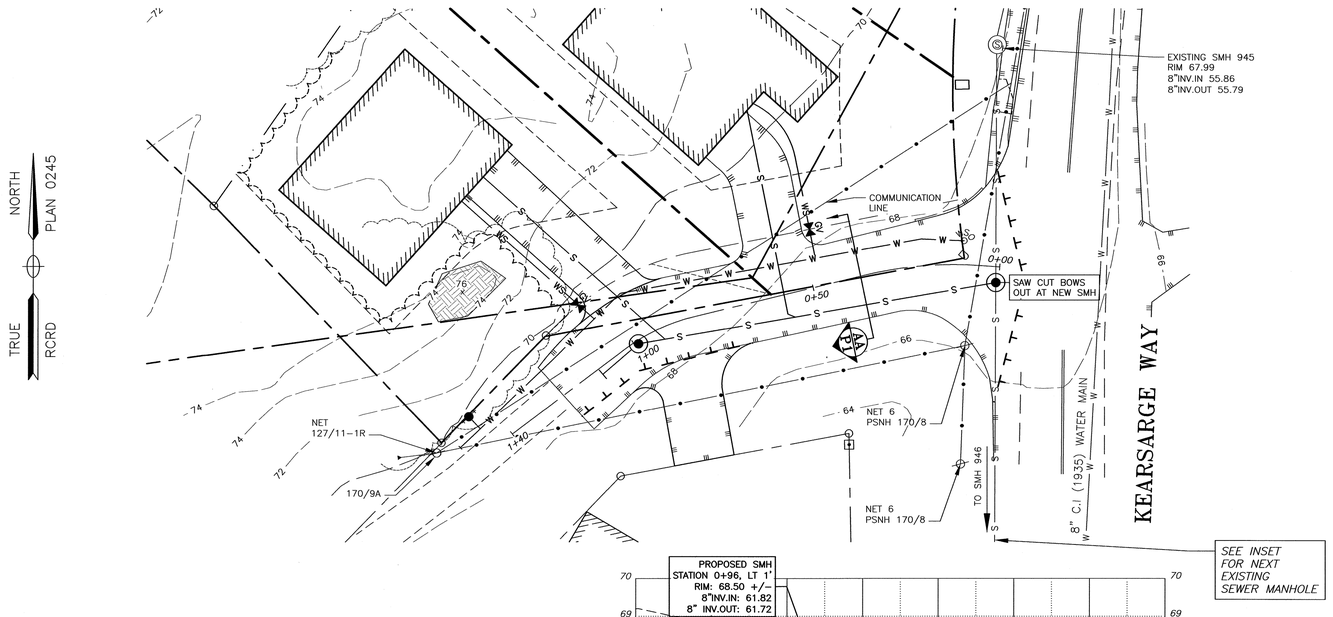
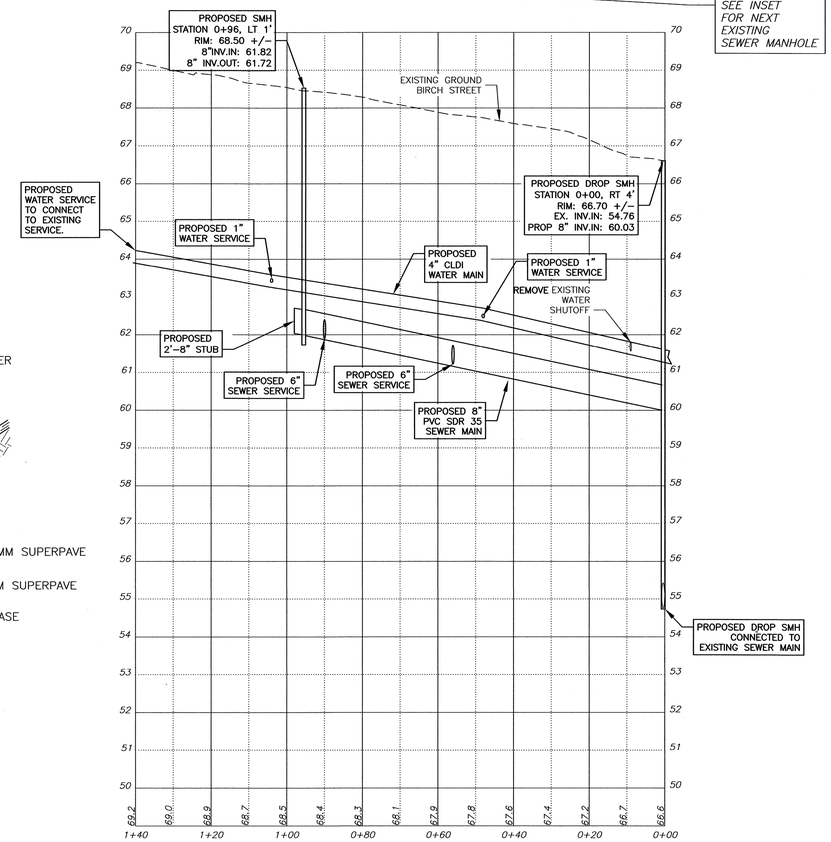
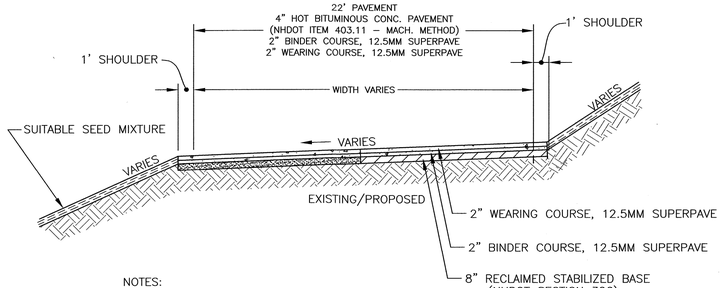




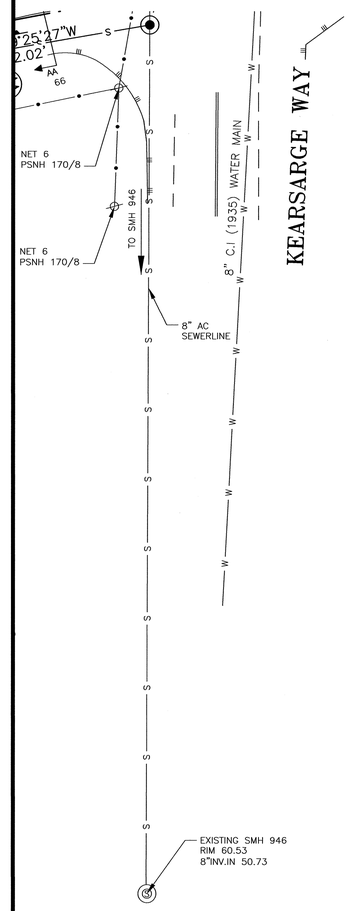


NOTES:
1) STREET TO BE GRADED TO MATCH THE EXISTING SLOPE & GRADES. NO CROWN

AA P1 BIRCH STREET CROSS SECTION
NTS

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____



INSET

SCALE:
HORIZONTAL: 1"= 20'
VERTICAL: 1"= 2'

GRAPHIC SCALE
1" = 2' VERT.
1" = 20' HOR.

20 10 0 20 40 60 80 HORIZONTAL
2 1 0 2 4 6 8 VERTICAL

AMBIT ENGINEERING, INC.
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Fax (603) 436-2315

NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY 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.

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4) ALL UTILITY MATERIALS TO BE APPROVED BY PORTSMOUTH WATER AND SEWER DEPARTMENTS.

5) UTILITY INSTALLATION SHALL BE WITNESSED BY THE CITY OF PORTSMOUTH.

6) DURING CONSTRUCTION ON LOTS 1 AND 2, ACCESS TO EXISTING PROPERTIES ON BIRCH STREET SHALL BE MAINTAINED.

7) PROVIDE EROSION CONTROL AS NEEDED FOR BIRCH STREET CONSTRUCTION.

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
2	SAW CUT LINE	10/5/22
1	ISSUED FOR APPROVAL	9/20/22
0	ISSUED FOR COMMENT	7/20/22

REVISIONS

JOHN R. CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE

SCALE: AS SHOWN — MAY 2021

BIRCH STREET PLAN AND PROFILE

P1

FB. 311, PG 1

2258

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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) ALL WORK WITHIN THE CITY OF PORTSMOUTH RIGHT OF WAY SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS (DPW).

J) REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL SLUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

K) CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED, THE CONTRACTOR SHALL EMPLOY A NH LICENSED LAND SURVEYOR TO REPLACE THEM.

L) 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.

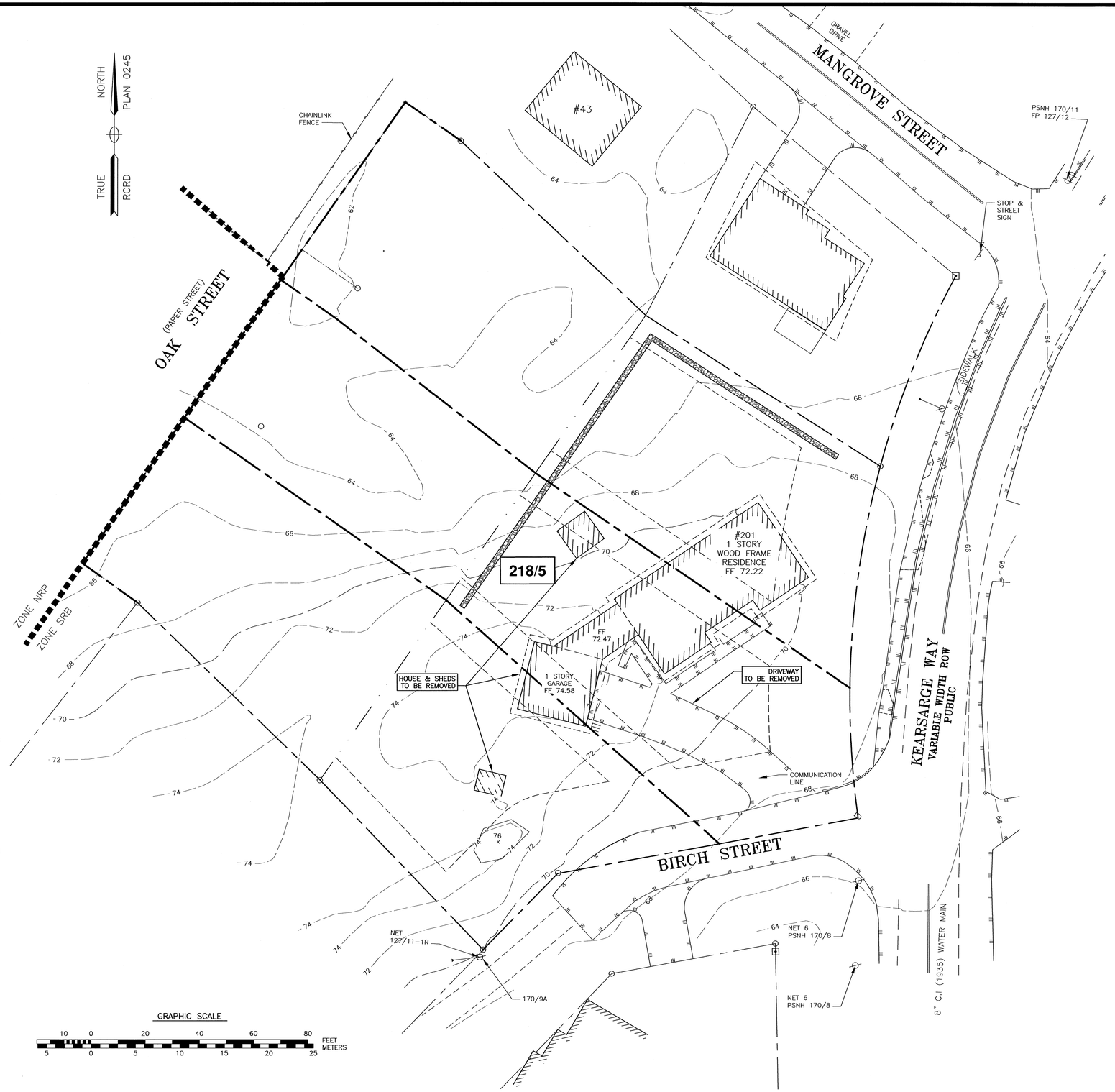
M) THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFELY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.

N) 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.

O) DURING CONSTRUCTION ACCESS WILL BE PROVIDED TO ALL EXISTING PROPERTIES LOCATED ON BIRCH ST.

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____



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PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	9/20/22
0	ISSUED FOR COMMENT	7/20/22
	REVISIONS	

JOHN R. CHAGNON NO. 7851 LICENSED PROFESSIONAL ENGINEER - STATE OF NEW HAMPSHIRE

SCALE: 1" = 20' MAY 2021

DEMOLITION PLAN C4

FB. 311, PG 1 2258

J:\OBS2\JN2200s\JN2259\JN2259.2022 Subdivision\Plans & Specs\Site\2258 SUBDIVISION 2022.dwg 9/20/2022 9:02:16 AM, Canon TX-3000.pc3

EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE

DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.

INSTALL INLET PROTECTION AND PERIMETER CONTROLS, i.e., SILT FENCING OR SILTSOXX AROUND THE LIMITS OF DISTURBANCE BEFORE ANY EARTH MOVING OPERATIONS.

CUT AND GRUB ALL TREES, SHRUBS, SAPLINGS, BRUSH, VINES AND REMOVE OTHER DEBRIS AND RUBBISH AS REQUIRED.

REMOVE EXISTING HOUSE AND SHED

PERFORM BIRCH STREET RECONSTRUCTION & UTILITY IMPROVEMENTS. CONSTRUCT SITE UTILITIES AND BUILD HOMES.

REMOVE TRAPPED SEDIMENTS FROM COLLECTION DEVICES AS APPROPRIATE, AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF FINAL STABILIZATION OF THE SITE.

DURING CONSTRUCTION ACCESS WILL BE PROVIDED TO ALL EXISTING PROPERTIES LOCATED ON BIRCH ST.

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.

DUST CONTROL: 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.

SILT FENCES AND SILTSOXX SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. ALL DAMAGED SILT FENCES AND SILTSOXX SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED IN A SECURED LOCATION.

AVOID THE USE OF FUTURE OPEN SPACES (LOAM AND SEED AREAS) WHEREVER POSSIBLE DURING CONSTRUCTION. CONSTRUCTION TRAFFIC SHALL USE THE ROADBEDS OF FUTURE ACCESS DRIVES AND PARKING AREAS.

ADDITIONAL TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS--CONSTRUCT SILT FENCE OR SILTSOXX AROUND TOPSOIL STOCKPILE.

AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL. STUMPS SHALL BE DISPOSED OF IN AN APPROVED FACILITY.

ALL FILLS SHALL BE PLACED AND COMPACTED TO REDUCE EROSION, SLIPPAGE, 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 SEEDED/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

VEGETATIVE PRACTICE

FOR PERMANENT MEASURES AND PLANTINGS:

LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF 2 TONS PER ACRE.

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

SEED SHALL BE SOWN AT THE RATES SHOWN IN THE TABLE BELOW. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AT A RATE OF 1.5 TO 2 TONS PER ACRE, AND SHALL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.

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

A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE:

GENERAL COVER	PROPORTION	SEEDING RATE
CREEPING RED FESCUE	50%	100 LBS/ACRE
KENTUCKY BLUEGRASS	50%	

SLOPE SEED (USED ON ALL SLOPES GREATER THAN OR EQUAL TO 3:1)

CREEPING RED FESCUE	42%	
TALL FESCUE	42%	48 LBS/ACRE
BIRDSFOOT TREFOIL	16%	

IN NO CASE SHALL THE WEED CONTENT EXCEED ONE PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH APPLICABLE STATE AND FEDERAL SEED LAWS.

FOR TEMPORARY PROTECTION OF DISTURBED AREAS:
MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:
PERENNIAL RYE: 0.7 LBS/1,000 S.F.
MULCH: 1.5 TONS/ACRE

MAINTENANCE AND PROTECTION

THE CONTRACTOR SHALL MAINTAIN ALL LOAM & SEED AREAS UNTIL FINAL ACCEPTANCE AT THE COMPLETION OF THE CONTRACT. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, REMOVAL OF STONES AND OTHER FOREIGN OBJECTS OVER 1/2 INCHES IN DIAMETER WHICH MAY APPEAR AND THE FIRST TWO (2) CUTTINGS OF GRASS NO CLOSER THEN TEN (10) DAYS APART. THE FIRST CUTTING SHALL BE ACCOMPLISHED WHEN THE GRASS IS FROM 2 1/2 TO 3 INCHES HIGH. ALL BARE AND DEAD SPOTS WHICH BECOME APPARENT SHALL BE PROPERLY PREPARED, LIMED AND FERTILIZED, AND RESEEDED BY THE CONTRACTOR AT HIS EXPENSE AS MANY TIMES AS NECESSARY TO SECURE GOOD GROWTH. THE ENTIRE AREA SHALL BE MAINTAINED, WATERED AND CUT UNTIL ACCEPTANCE OF THE LAWN BY THE OWNER'S REPRESENTATIVE.

THE CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PROTECT THE GRASS WHILE IT IS DEVELOPING.

TO BE ACCEPTABLE, SEEDED AREAS SHALL CONSIST OF A UNIFORM STAND OF AT LEAST 90 PERCENT ESTABLISHED PERMANENT GRASS SPECIES, WITH UNIFORM COUNT OF AT LEAST 100 PLANTS PER SQUARE FOOT.

SEEDED AREAS WILL BE FERTILIZED AND RESEEDED AS NECESSARY TO INSURE VEGETATIVE ESTABLISHMENT.

THE SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY UNTIL ADEQUATE VEGETATION IS ESTABLISHED.

THE SILT FENCE OR SILTSOXX BARRIER SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

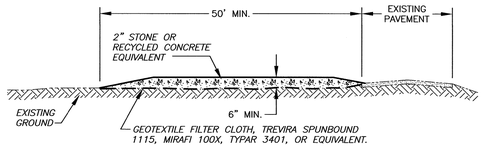
SILT FENCING AND SILTSOXX SHALL BE REMOVED ONCE VEGETATION IS ESTABLISHED, AND DISTURBED AREAS RESULTING FROM SILT FENCE AND SILTSOXX REMOVAL SHALL BE PERMANENTLY SEEDED.

WINTER NOTES

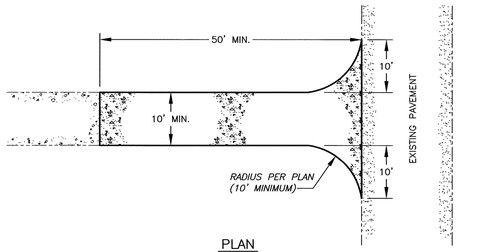
ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED 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% 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.

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.



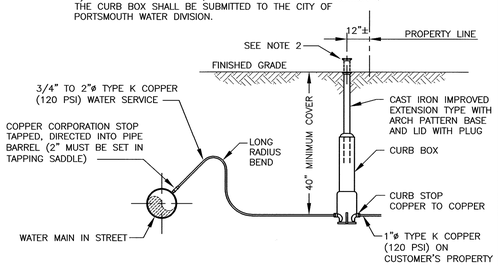
PROFILE



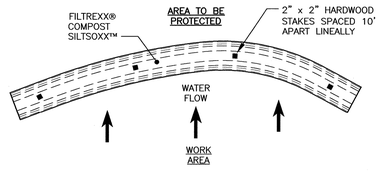
PLAN

A / C2 STABILIZED CONSTRUCTION ENTRANCE
SUBSTITUTE FODS IF DESIRED NTS

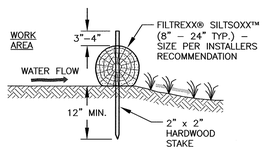
NOTE:
1) INSTALLATION OF WATER MAIN TAP & CURB STOP & BOX SHALL ONLY BE PERFORMED BY THOSE AUTHORIZED BY THE PUBLIC WORKS DEPARTMENT.
2) IN AREAS OF HEAVY GROWTH THE CURB BOX COVER SHALL BE SET 6" ABOVE FINISH GRADE AND A WITNESS STAKE SET.
3) CURB BOX SHALL BE SET APPROXIMATELY 12" OUTSIDE PROPERTY LINE AS SHOWN.
4) PRIOR TO ACCEPTANCE, A PLAN INDICATING THE LOCATION OF THE CURB BOX SHALL BE SUBMITTED TO THE CITY OF PORTSMOUTH WATER DIVISION.



C / C3 WATER SERVICE CONNECTION
(PORTSMOUTH) NTS



PLAN

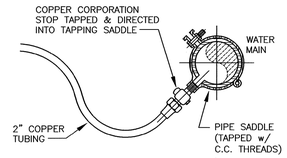


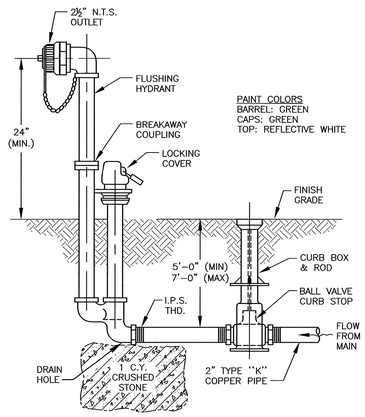
ELEVATION

NOTES:
1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILLTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
4. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
5. THE COMPOST FILTER MATERIAL WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

B / C2 FILTREXX® SILTSOXX™ FILTRATION SYSTEM NTS

NOTES:
1. FLUSHING HYDRANTS SHALL BE POST TYPE HYDRANTS, 5' BURY (MIN.), WITH 1 CU. YD. OF CRUSHED STONE BENEATH HYDRANT TO ALLOW FREE DRAINAGE.
2) ALL WORKING PARTS SHALL BE BRASS. HYDRANT MAIN VALVE OPENING TO BE 2¾" (MIN.).
3) INLET CONNECTION SHALL BE 2" I.P. WITH ONE OUTLET BEING 2½" NATIONAL STANDARD HOSE THREAD.
4) ALL OPERATING PARTS SHALL BE REMOVABLE FROM ABOVE GROUND WITH NO SPECIAL TOOLS.
5) THE HYDRANT SHALL BE SELF-DRAINING, NONFREEZING.
6) THE HYDRANT SHALL HAVE A PENTAGON SOCKET OPERATOR AND BE SUPPLIED WITH AN APPROPRIATE WRENCH.
7) THE HYDRANT SHALL BE A MAINGUARD MODEL #77 BLOW-OFF HYDRANT W/ TAMPER PROOF OPTION AS MANUFACTURED BY KUPFERLE FOUNDRY, 2511 n. 9TH ST., ST. LOUIS, MISSOURI 63102 TEL. (800) 231-3990.





D / C3 TYPE II FLUSHING HYDRANT DETAIL
NTS

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

NOTES:

1) 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) DURING CONSTRUCTION ON LOTS 1 AND 2, ACCESS TO EXISTING PROPERTIES ON BIRCH STREET SHALL BE MAINTAINED.

PROPOSED SUBDIVISION 201 KEARSARGE WAY PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	9/20/22

REVISIONS

JOHN R. CHAGNON NO. 7651 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE

SCALE AS SHOWN MAY 2021

EROSION CONTROL NOTES & DETAILS

D1

FB. 311, PG 1

2258

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"

* – FOR 3" AND SMALLER PIPES

HORIZONTAL ANCHOR DIMENSIONS FOR AVERAGE SOIL CONDITIONS

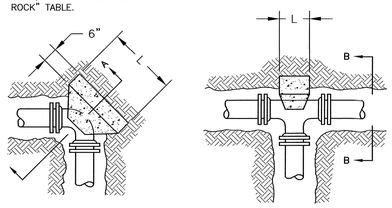
UP TO 150 P.S.I. WORKING PRESSURE

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"

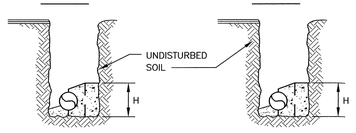
* – FOR 3" AND SMALLER PIPES

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.



PLAN



SECTION A–A

ALL HORIZONTAL BENDS

SECTION B–B

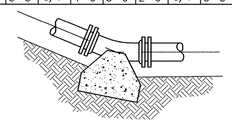
TEE OR TAPPING SLEEVE

HORIZONTAL ANCHORING

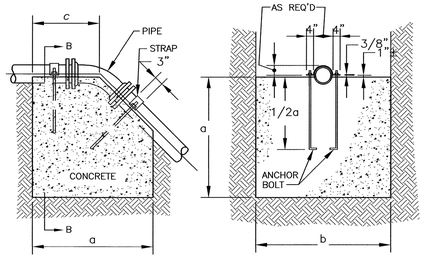
VERTICAL ANCHOR DIMENSIONS

UP TO 150 P.S.I. WORKING PRESSURE

PIPE SIZE	45° BEND DIMENSION a	45° BEND DIMENSION b	45° BEND DIMENSION c	45° BEND ROD DIA.	22 1/2° BEND DIMENSION a	22 1/2° BEND DIMENSION b	22 1/2° BEND DIMENSION c	22 1/2° BEND ROD DIA.	11 1/4° BEND DIMENSION a	11 1/4° BEND DIMENSION b	11 1/4° BEND DIMENSION c	11 1/4° BEND ROD DIA.
4"	3'-0"	3'-0"	2'-0"	3/4"	2'-6"	2'-3"	1'-6"	3/4"	2'-0"	2'-0"	1'-6"	3/4"
6"	3'-0"	3'-0"	2'-0"	3/4"	2'-6"	2'-3"	1'-6"	3/4"	2'-0"	2'-0"	1'-6"	3/4"
8"	3'-6"	3'-6"	2'-6"	3/4"	3'-0"	3'-0"	1'-9"	3/4"	2'-6"	2'-6"	1'-3"	3/4"
10"	4'-3"	4'-0"	3'-0"	3/4"	3'-6"	3'-3"	2'-0"	3/4"	2'-9"	2'-9"	1'-6"	3/4"
12"	4'-9"	4'-6"	3'-3"	3/4"	4'-0"	3'-9"	2'-6"	3/4"	3'-3"	3'-3"	1'-9"	3/4"

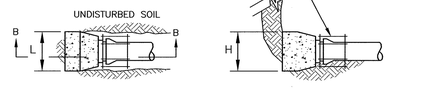


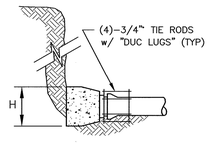
USE SAME DIMENSIONS AS FOR HORIZONTAL BEND ANCHORS



VERTICAL BEND

ALL EXPOSED PORTIONS OF ANCHOR STRAPS TO RECEIVE TWO FIELD COATS (MIN.) OF BITUMASTIC MATERIAL



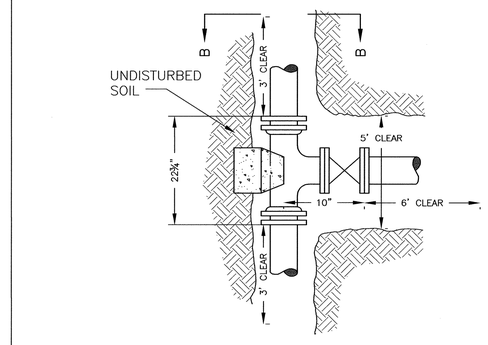


RESTRAINED PLUG OR CAP

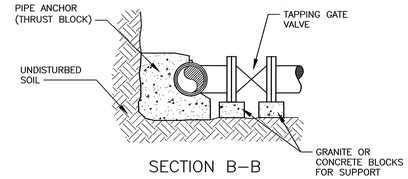
NOTE: SEE CHART "HORIZONTAL ANCHOR DIMENSIONS" TIE RODS TO BE PROVIDED IN LIEU OF THRUST BLOCK

VERTICAL ANCHORING

E / C3 PRESSURE PIPE ANCHORING DETAILS
INSTALL PER PORTSMOUTH REQUIREMENTS NTS



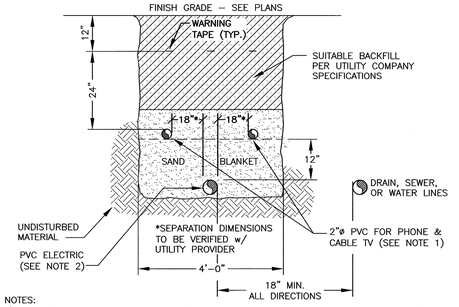
PLAN



SECTION B–B

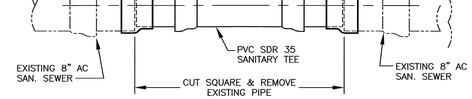
NOTES:
1) ALL MATERIALS SHALL BE APPROVED BY THE PORTSMOUTH WATER DEPARTMENT PRIOR TO INSTALLATION AND USE.
2) ALL JOINTS SHALL BE MECHANICAL.
3) "CLEAR" DIMENSIONS SHOWN ATE REQUIRED FOR WORKSPACE. NO JOINTS ON PIPE BEING TAPPED WITHIN "CLEAR" AREA.
4) FORD TYPE STAINLESS STEEL TAPPING SADDLES OR APPROVED EQUAL ARE ALSO ACCEPTABLE.

G / C3 TAPPING SLEEVE AND GATE
INSTALL PER PORTSMOUTH REQUIREMENTS NTS

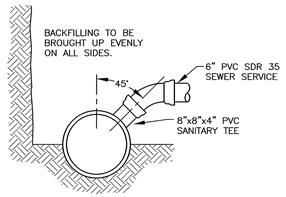


NOTES:
1) ALL CONDUIT TO BE U.L. LISTED, SCH. 80 UNDER ALL TRAVEL WAYS, & SCH. 40 FOR THE REMAINDER.
2) NORMAL CONDUIT SIZES FOR PSNH ARE 3 INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4 INCH FOR THREE PHASE SECONDARY, AND 5 INCH FOR THREE PHASE PRIMARY.
3) ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE (LATEST REVISION)
4) INSTALL A 200# PULL ROPE FOR EACH CONDUIT
5) VERIFY ALL CONDUIT SPECIFICATIONS WITH UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION.

I / C3 UTILITY TRENCH
ELECTRIC/PHONE/CABLE NTS

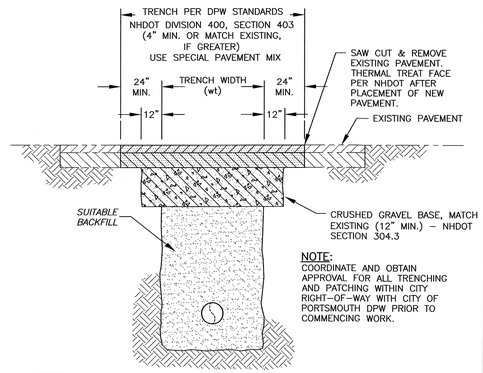


PLAN



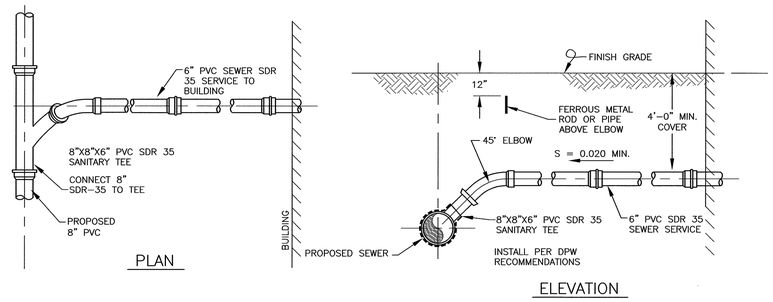
SECTION

J / C3 SEWER SERVICE TAP DETAIL
EXISTING AC LINE NTS



NOTE:
COORDINATE AND OBTAIN APPROVAL FOR ALL TRENCHING AND PATCHING WITHIN CITY RIGHT–OF–WAY WITH CITY OF PORTSMOUTH DPW PRIOR TO COMMENCING WORK.

F / C3 TRENCH – PAVEMENT REPLACEMENT
NTS



H / C3 TYPE "A" SEWER SERVICE CONNECTION
NEW SEWER LINE ON BIRCH STREET NTS

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

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2) 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.

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) ALL WATER LINE INSTALLATION WORK SHALL BE TO CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS. DETAILS MAY OR MAY NOT BE UP–TO–DATE.

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	9/20/22

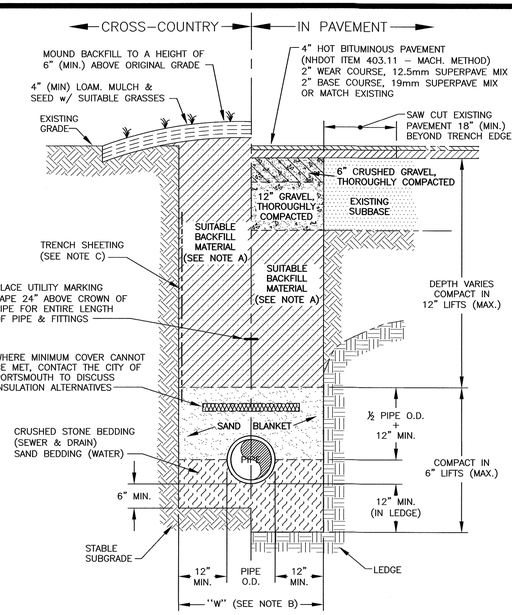
REVISIONS

JOHN G. CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE

SCALE AS NOTED MAY 2021

DETAILS D2

2258



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.

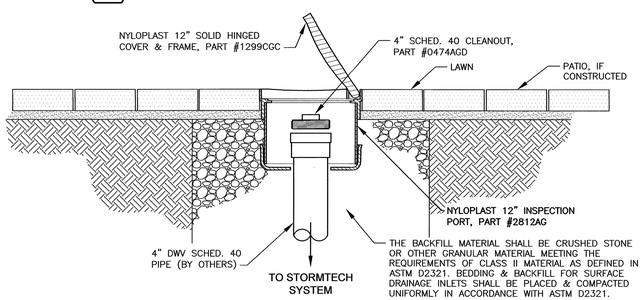
B) "W" = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D..

C) TRENCH SHEETING:
IF REQUIRED. WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.

D) MINIMUM PIPE COVER FOR UTILITY MAINS (UNLESS GOVERNED BY OTHER CODES):
- 6' 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.

K / C3 TYPICAL PIPE TRENCH NTS



NYLOPLAST 12" INSPECTION PORT
LAWN – NON TRAFFIC RATED

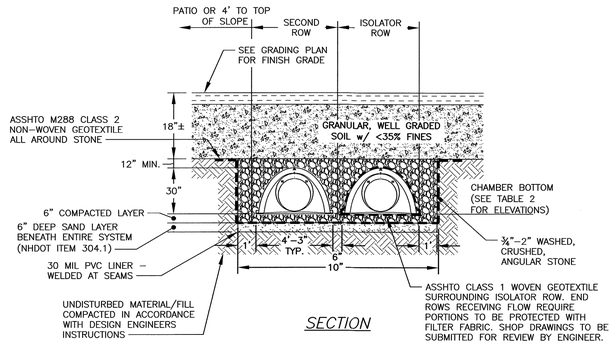
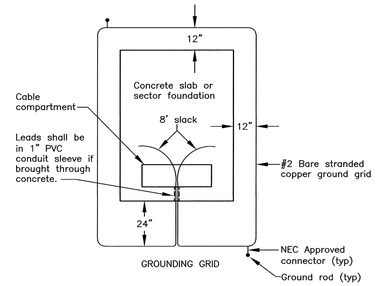
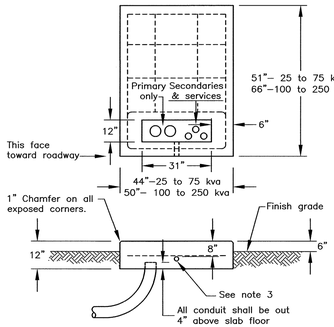


TABLE 1

SYSTEM #	CHAMBER BOTTOM	QUANTITY
1	66.57	2 ROWS OF 3 CHAMBERS
2	66.58	2 ROWS OF 3 CHAMBERS

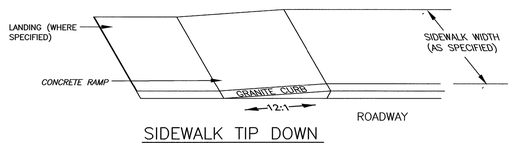
L / C2 TYPICAL PIPE TRENCH NTS



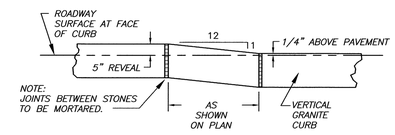


NOTES
1. See sheet "Requirements for Padmounted Transformer Slab Details".
2. All reinforcing to be #6 bars.
3. 1" PVC conduit sleeve for ground grid leads.
4. The ground grid shall be supplied and installed by the customer and is to be buried at least 12" below grade. Eight feet of extra wire for each ground grid leg shall be left exposed in the cable compartment to allow for the connection to the transfomer. 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 / C3 SINGLE PHASE TRANSFORMER PAD
PSNH NTS



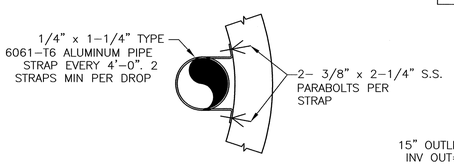
SIDEWALK TIP DOWN
(NON INTERSECTION) NTS



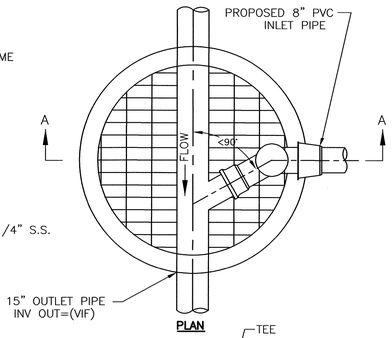
CURB TIP DOWN DETAIL
NTS

M / C2 TYPICAL SIDEWALK TIP DOWNS NTS

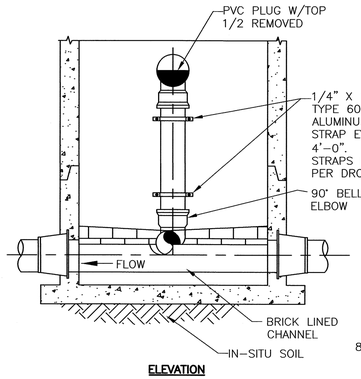
NOTES:
1. RISER PIPE AND FITTINGS SHALL BE THE SAME DIAMETER AS THE INLET PIPE AND SHALL BE CONSTRUCTED OF SDR35 PVC PIPE.
3. SANITARY SEWER SHALL BE INSTALLED PER THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARDS. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.



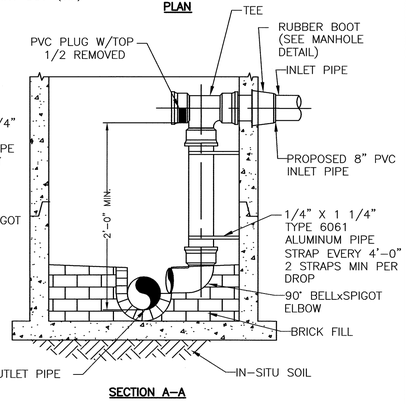
PIPE STRAP DETAIL



PLAN

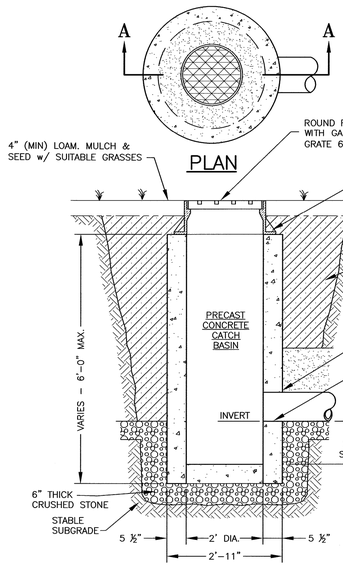


ELEVATION



SECTION A-A

0 / C3 DROP MANHOLE (INSTALLATION OVER EXISTING MAIN) NTS



NOTES:
1. CONCRETE 5,000 PSI AFTER 28 DAYS.
2. REINFORCING 1 LAYER OF 4 x 4/4 x 4 W.W.M.
3. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
4. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.
5. PRECAST CONCRETE YARD DRAINS SHALL BE PHOENIX PRECAST PRODUCTS OR EQUAL

P / C2 YARD DRAIN NTS

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

NOTES:

1) 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.

2) 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.

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PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	9/20/22

REVISIONS

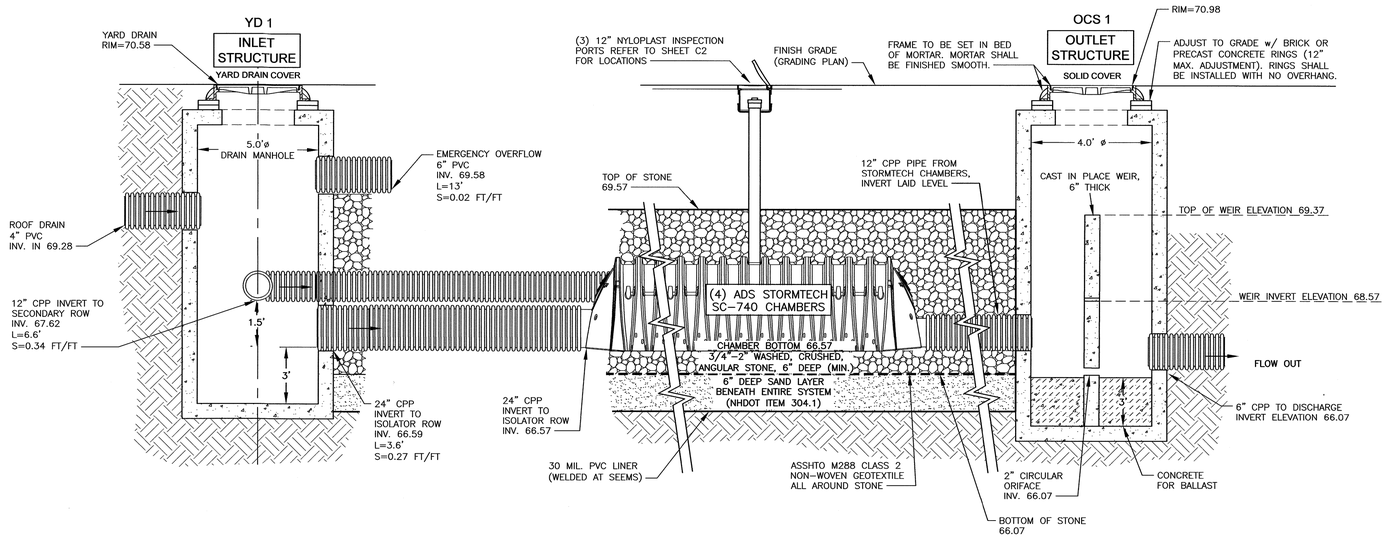
STATE OF NEW HAMPSHIRE - JOHN R. CHAGNON NO. 7855 - LICENSED PROFESSIONAL ENGINEER -

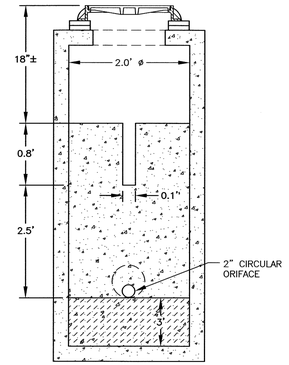
AS NOTED — MAY 2021

DETAILS — **D3**

2258

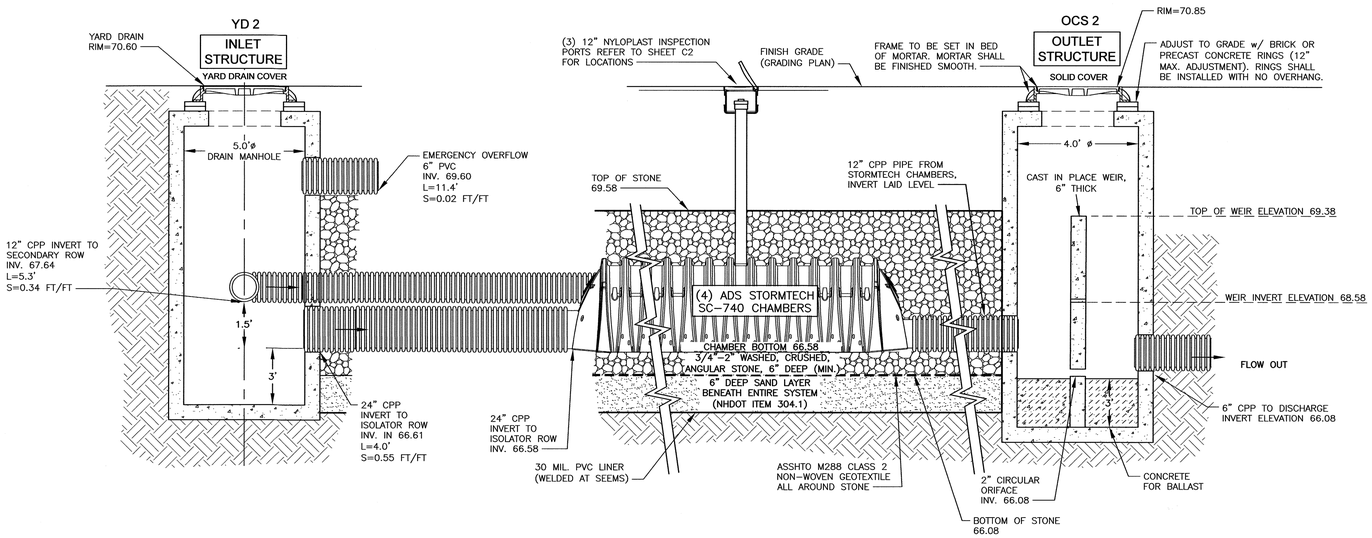
J:\JOBS2\JN2200s\JN2250s\JN2258\2022 Subdivision\Plans & Specs\Site\2258 DETAILS 2022.dwg, 9/20/2022 1:01:19 PM, Canon TX-3000.pc3

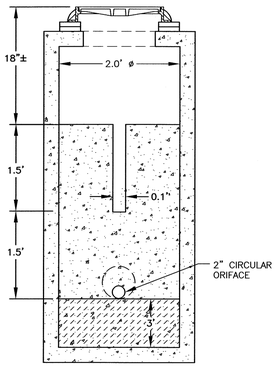




OCS #1

SECTION





OCS #2

SECTION

Q C2 STORMTECH SC-740 STORMWATER CHAMBER SYSTEMS

INSTALL PER MANUFACTURER'S INSTRUCTIONS (1-888-892-2694). A STORMTECH REPRESENTATIVE SHALL BE CONSULTED PRIOR TO CONSTRUCTION AND ON SITE DURING CONSTRUCTION OF THE STORMTECH SYSTEM

NTS

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

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PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	9/20/22

REVISIONS

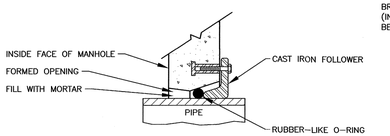
STATE OF NEW HAMPSHIRE
JOHN R. CHAGNON
No. 7851
LICENSED PROFESSIONAL ENGINEER

AS NOTED — MAY 2021

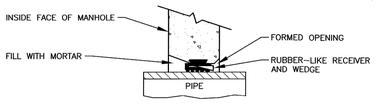
CHAMBER SYSTEM DETAILS

D4

2258



RES-SEAL
(OR ACCEPTABLE SUBSTITUTE)



PRESS-WEDGE II
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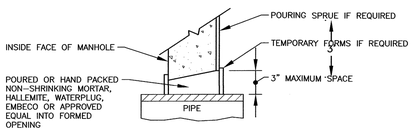

NON-SHRINKING MORTAR
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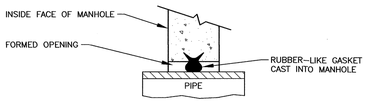
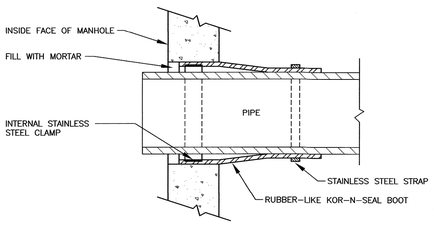
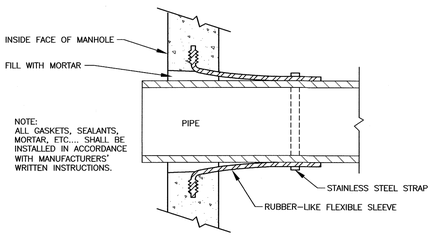


A-LOK
(OR ACCEPTABLE SUBSTITUTE)



KOR-N-SEAL JOINT SLEEVE
(OR ACCEPTABLE SUBSTITUTE)

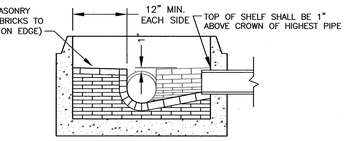


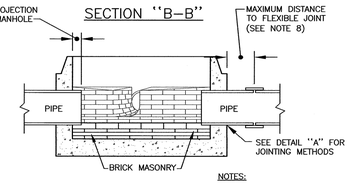
LOCK-JOINT FLEXIBLE MANHOLE SLEEVE
(OR ACCEPTABLE SUBSTITUTE)

DETAIL "A" – PIPE TO MANHOLE JOINTS

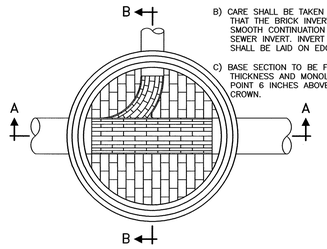
APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____





SECTION "B-B"



TYPICAL MANHOLE – PLAN VIEW

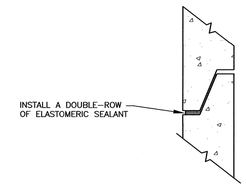
NOTES:

A) INVERT AND SHELF TO BE PLACED AFTER LEAKAGE TEST.

B) CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT. INVERT BRICKS SHALL BE LAID ON EDGE.

C) BASE SECTION TO BE FULL WALL THICKNESS AND MONOLITHIC TO A POINT 6 INCHES ABOVE THE PIPE CROWN.

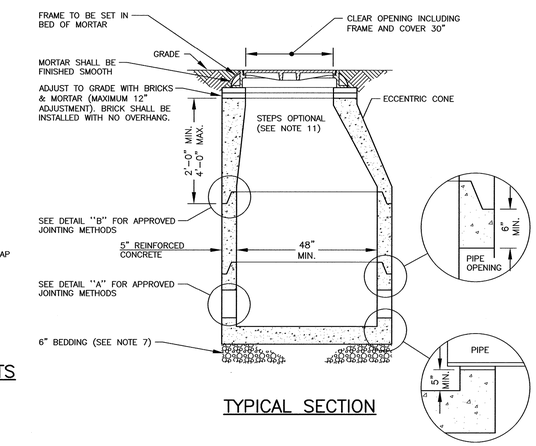
SECTION "A-A"



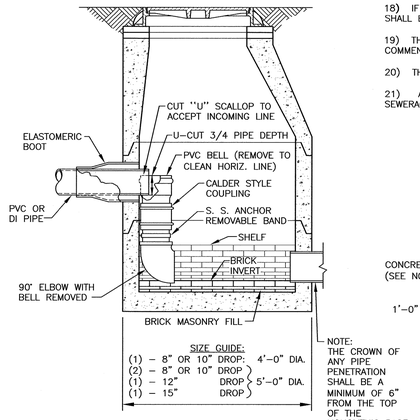
ELASTOMERIC SEALANT

NOTE:
ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

DETAIL "B" – HORIZONTAL JOINTS



TYPICAL SECTION



INSIDE DROP MANHOLE

SEWER MANHOLE DETAILS

INSTALL PER PORTSMOUTH REQUIREMENTS NTS

GENERAL NOTES

1) IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAK PROOF QUALITIES CONSIDERED 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.

2) BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE, OR POURED IN PLACE REINFORCED CONCRETE IF POURED AS A COMPLETE MANHOLE.

3) PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478.

4) LEAKAGE TEST MAY NOT BE FEASIBLE, BUT SHALL CONFORM TO ENV-WQ 704.17.

5) 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.

6) 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.

7) 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.

8) FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES:
RCP & CI PIPE – ALL SIZES – 48"

9) 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.

10) 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:

1. THE STEPS SHALL BE MANUFACTURED OF 5/8ths 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.
2. 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.
3. THE STEPS SHALL BE OF THE DROP TYPE WITH A DEPRESSED SECTION FOR HANDHOLD. APPROXIMATELY 14" x 10" IN DIMENSION.

11) HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF A TYPE APPROVED BY THE ENGINEER, WHICH TYPE SHALL, IN GENERAL, DEPEND FOR WATER TIGHTNESS UPON AN ELASTOMERIC OR MASTIC-LIKE GASKET, IN 2 ROWS.

12) PIPE TO MANHOLE JOINTS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND IN GENERAL, WILL DEPEND FOR WATERTIGHTNESS UPON EITHER AN APPROVED NON-SHRINKING MORTAR OR ELASTOMERIC SEALANT.

13) THE PURPOSE OF THIS PLAN IS TO SHOW STANDARDS FOR SEWER CONSTRUCTION.

14) ALL WORK SHALL BE IN COMPLIANCE WITH NHDES CODE OF ADMINISTRATIVE RULES PART ENV-WQ 704 DESIGN OF SEWERAGE.

15) BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE LARGEST INCOMING PIPE.

GENERAL NOTES

1) MINIMUM PIPE SIZE FOR HOUSE SERVICE SHALL BE FOUR INCHES.

2) PIPE AND JOINT MATERIALS:

A. PLASTIC SEWER PIPE

1. PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

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

2. 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.

3) DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.

4) 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.

5) 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.

6) 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.

7) TESTING: WHEN REQUIRED BY THE GOVERNING AUTHORITY, TESTING SHALL CONFORM TO ENV-WQ 704.09.

8) 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.

9) HOUSE WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE, UNLESS IT IS ON A SHELF 12" HIGHER, AND 18" APART.

10) 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

WHERE ORDERED BY THE ENGINEER, OVEREXCAVATE UNSTABLE TRENCH BOTTOM AND BACKFILL WITH CRUSHED STONE.

11) 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.

12) 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

13) 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.

14) THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB-SITE SAFETY AND COMPLIANCE WITH GOVERNING REGULATIONS.

15) ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE. REFILL WITH BEDDING MATERIAL. FOR TRENCH WIDTH SEE TRENCH DETAIL.

16) 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.

17) BASE COURSE GRAVEL, IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE:

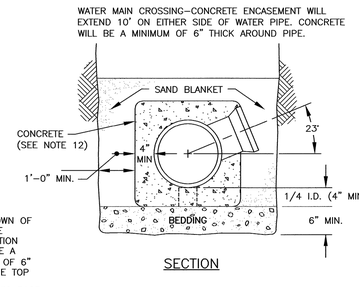
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION.

18) IF FULL ENCASEMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MIN.) BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.

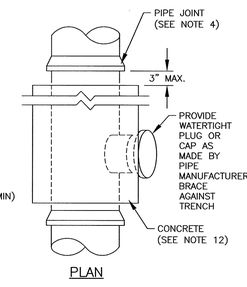
19) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION.

20) THE PURPOSE OF THIS PLAN IS TO SHOW STANDARDS FOR SEWER CONSTRUCTION.

21) ALL WORK SHALL BE IN COMPLIANCE WITH NHDES CODE OF ADMINISTRATIVE RULES PART ENV-WQ 704 DESIGN OF SEWERAGE.



SECTION



PLAN

CONCRETE FULL ENCASEMENT

NOT TO SCALE

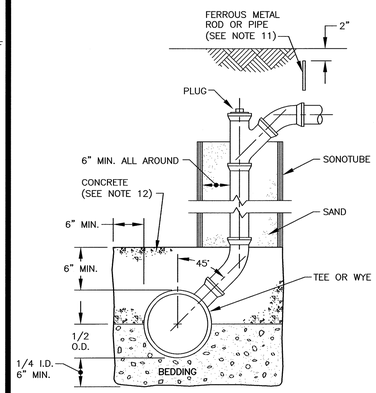
AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) 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).



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

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	9/20/22

REVISIONS

JOHN R. CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE

SCALE: AS SHOWN MAY 2021

SEWER DETAILS

D5

2258

J:\JOBS2\JN2200s\JN2250s\JN2258\2022 Subdivision\Plans & Specs\Site\2258 DETAILS 2022.dwg, 9/20/2022 10:44:44 AM, Canon TX-3000.pc3

Advanced Drainage Systems, Inc.

ADS SiteAssist™ FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR APP

SC-740 STORMTECH CHAMBER SPECIFICATIONS

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

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

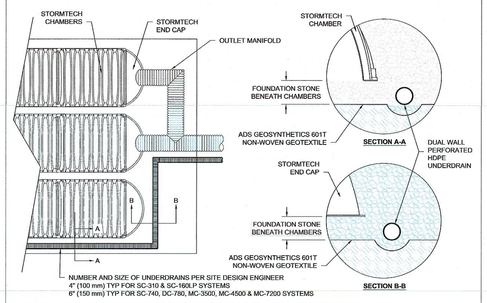
1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

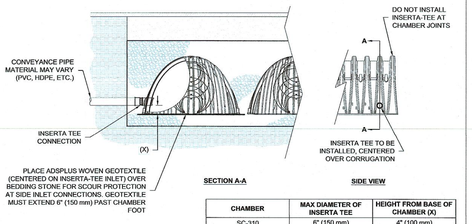
1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE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

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

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



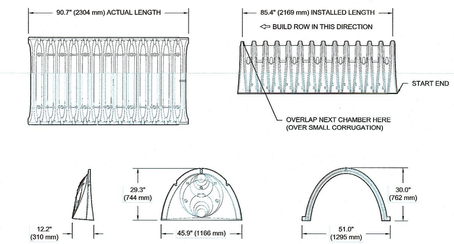
5 UNDERDRAIN DETAIL



NOTES:
- PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.
- CONTACT ADS ENGINEERING SERVICES IF INSERTA TEE INLET MUST BE RAISED AS NOT ALL INVERTS ARE POSSIBLE.

CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	6" (200 mm)
MC-7200	12" (300 mm)	8" (200 mm)
INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON		

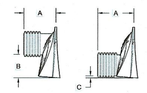
6 INSERTA-TEE SIDE INLET DETAIL



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

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



PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "SR"
PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "S"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"

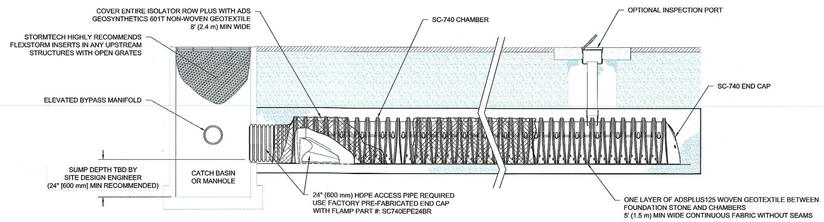
PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	—
SC740EPE06B / SC740EPE06BPC			—	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	—
SC740EPE08B / SC740EPE08BPC			—	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340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

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

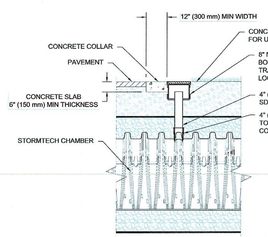
* FOR THE SC740EPE24B/SC740EPE24BR THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

2 SC-740 TECHNICAL SPECIFICATIONS



3 SC-740 ISOLATOR ROW PLUS DETAIL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

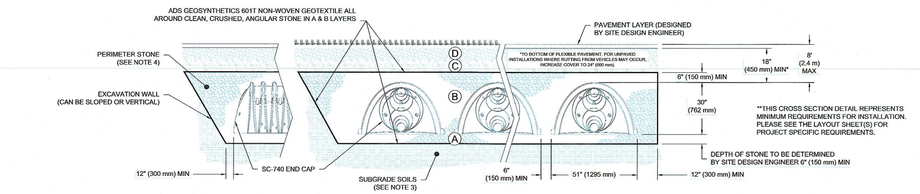
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

4 4" PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

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

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



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

1 SC-740 CROSS SECTION DETAIL

DRAWN: | DATE:
REVIEWED: | PROJECT NO:
REV: | NOT TO SCALE

SC-740 STANDARD DETAILS

StormTech® Chamber System
888-892-2694 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD
HILLIARD, OH 43026

ADS Advanced Drainage Systems, Inc.

SHEET

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

NOTES:

1) 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.

2) 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.

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).

PROPOSED SUBDIVISION
201 KEARSARGE WAY
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	9/20/22

REVISIONS

AS NOTED | MAY 2021

CHAMBER SYSTEM DETAILS

D6

2258

City of Portsmouth, New Hampshire

Subdivision Application Checklist

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

Applicant Responsibilities (Section III.C): Applicable fees are due upon application submittal along with required number of copies of the Preliminary or final plat and supporting documents and studies. Please consult with Planning staff for submittal requirements.

Owner: Richard Fusegni Date Submitted: 9-20-2022

Applicant: Richard Fusegni

Phone Number: _____ E-mail: rfusegni@gmail.com

Site Address 1: 201 Kearsarge Way Map: 218 Lot: ____

Site Address 2: _____ Map: _____ Lot: ____

Application Requirements			
☑	**Required Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**	**Waiver Requested**
☐	Completed Application form. **(III.C.2-3)**	Online	N/A
☐	All application documents, plans, supporting documentation and other materials provided in digital Portable Document Format (PDF) on compact disc, DVD or flash drive. **(III.C.4)**	Online	N/A

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
☐	Name and address of record owner, any option holders, descriptive name of subdivision, engineer and/or surveyor or name of person who prepared the plat. **(Section IV.1/V.1)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
☐	**Preliminary Plat** Names and addresses of all adjoining property owners. **(Section IV.2)** **Final Plat** Names and addresses of all abutting property owners, locations of buildings within one hundred (100) feet of the parcel, and any new house numbers within the subdivision. **(Section V.2)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A
☐	North point, date, and bar scale. **(Section IV.3/V3)**	Required on all Plan Sheets	☑ Preliminary Plat ☑ Final Plat	N/A
☐	Zoning classification and minimum yard dimensions required. **(Section IV.4/V.4)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A
☐	**Preliminary Plat** Scale (not to be smaller than one hundred (100) feet = 1 inch) and location map (at a scale of 1" = 1000'). **(Section IV.5)** **Final Plat** Scale (not to be smaller than 1"=100'), Location map (at a scale of 1"=1,000') showing the property being subdivided and its relation to the surrounding area within a radius of 2,000 feet. Said location map shall delineate all streets and other major physical features that my either affect or be affected by the proposed development. **(Section V.5)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A
☐	Location and approximate dimensions of all existing and proposed property lines including the entire area proposed to be subdivided, the areas of proposed lots, and any adjacent parcels in the same ownership. **(Section IV.6)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	
☐	Dimensions and areas of all lots and any and all property to be dedicated or reserved for schools, parks, playgrounds, or other public purpose. Dimensions shall include radii and length of all arcs and calculated bearing for all straight lines. **(Section V.6/ IV.7)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A
☐	Location, names, and present widths of all adjacent streets, with a designation as to whether public or private and approximate location of existing utilities to be used. Curbs and sidewalks shall be shown. **(Section IV.8/V.7)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
☐	Location of significant physical features, including bodies of water, watercourses, wetlands, railroads, important vegetation, stone walls and soils types that my influence the design of the subdivision. **(Section IV.9/V.8)**	Sheet C1	☑ Preliminary Plat ☑ Final Plat	
☐	**Preliminary Plat** Proposed locations, widths and other dimensions of all new streets and utilities, including water mains, storm and sanitary sewer mains, catch basins and culverts, street lights, fire hydrants, sewerage pump stations, etc. **(Section IV.10)** **Final Plat** Proposed locations and profiles of all proposed streets and utilities, including water mains, storm and sanitary sewer mains, catchbasins and culverts, together with typical cross sections. Profiles shall be drawn to a horizontal scale of 1"=50' and a vertical scale of 1"=5', showing existing centerline grade, existing left and right sideline grades, and proposed centerline grade. **(Section V.9)**	Sheet P1	☑ Preliminary Plat ☑ Final Plat	
☐	When required by the Board, the plat shall be accompanied by profiles of proposed street grades, including extensions for a reasonable distance beyond the subject land; also grades and sizes of proposed utilities. **(Section IV.10)**	Sheet P1	☑ Preliminary Plat ☑ Final Plat	
☐	Base flood elevation (BFE) for subdivisions involving greater than five (5) acres or fifty (50) lots. **(Section IV.11)**	N/A	☑ Preliminary Plat ☑ Final Plat	
☐	For subdivisions of five (5) lots or more, or at the discretion of the Board otherwise, the preliminary plat shall show contours at intervals no greater than two (2) feet. Contours shall be shown in dotted lines for existing natural surface and in solid lines for proposed final grade, together with the final grade elevations shown in figures at all lot corners. If existing grades are not to be changed, then the contours in these areas shall be solid lines. **(Section IV.12/ V.12)**	Sheet C2	☑ Preliminary Plat ☑ Final Plat	

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
☐	Dates and permit numbers of all necessary permits from governmental agencies from which approval is required by Federal or State law. **(Section V.10)**	N/A	☐ Preliminary Plat ☑ Final Plat	
☐	For subdivisions involving greater than five (5) acres or fifty (50) lots, the final plat shall show hazard zones and shall include elevation data for flood hazard zones. **(Section V.11)**	N/A	☐ Preliminary Plat ☑ Final Plat	
☐	Location of all permanent monuments. **(Section V.12)**	Subdivision Plan	☐ Preliminary Plat ☑ Final Plat	

General Requirements[1]			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	**1. Basic Requirements: (VI.1)** a. Conformity to Official Plan or Map b. Hazards c. Relation to Topography d. Planned Unit Development	Plan Set	
☐	**2. Lots: (VI.2)** a. Lot Arrangement b. Lot sizes c. Commercial and Industrial Lots	Subdivision Plan	
☐	**3. Streets: (VI.3)** a. Relation to adjoining Street System b. Street Rights-of-Way c. Access d. Parallel Service Roads e. Street Intersection Angles f. Merging Streets g. Street Deflections and Vertical Alignment h. Marginal Access Streets i. Cul-de-Sacs j. Rounding Street Corners k. Street Name Signs l. Street Names m. Block Lengths n. Block Widths o. Grade of Streets p. Grass Strips	N/A	
☐	**4. Curbing: (VI.4)**	N/A	
☐	**5. Driveways: (VI.5)**	Sheet C1A	
☐	**6. Drainage Improvements: (VI.6)**	Sheet C2	
☐	**7. Municipal Water Service: (VI.7)**	Sheet C3	
☐	**8. Municipal Sewer Service: (VI.8)**	Plan Set	
☐	**9. Installation of Utilities: (VI.9)** a. All Districts b. Indicator Tape	Sheet C3	
☐	**10. On-Site Water Supply: (VI.10)**	N/A	
☐	**11. On-Site Sewage Disposal Systems: (VI.11)**	N/A	
☐	**12. Open Space: (VI.12)** a. Natural Features b. Buffer Strips c. Parks d. Tree Planting	Subdivision Plan	
☐	**13. Flood Hazard Areas: (VI.13)** a. Permits b. Minimization of Flood Damage c. Elevation and Flood-Proofing Records d. Alteration of Watercourses	N/A	
☐	**14. Erosion and Sedimentation Control (VI.14)**	Sheet C2	

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
☐	**15. Easements (VI.15)** a. Utilities b. Drainage	Subdivision Plan	
☐	**16. Monuments: (VI.16)**	Subdivision Plan	
☐	**17. Benchmarks: (VI.17)**	Sheet C1	
☐	**18. House Numbers (VI.18)**	TBD	

Design Standards			
	Required Items for Submittal	**Indicate compliance and/or provide explanation as to alternative design**	**Waiver Requested**
☐	**1. Streets have been designed according to the design standards required under Section (VII.1).** a. Clearing b. Excavation c. Rough Grade and Preparation of Sub-Grade d. Base Course e. Street Paving f. Side Slopes g. Approval Specifications h. Curbing i. Sidewalks j. Inspection and Methods	N/A	
☐	**2. Storm water Sewers and Other Drainage Appurtenances have been designed according to the design standards required under Section (VII.2).** a. Design b. Standards of Construction	Sheet C2	
☐	**3. Sanitary Sewers have been designed according to the design standards required under Section (VII.3).** a. Design b. Lift Stations c. Materials d. Construction Standards	Sheet P1	
☐	**4. Water Mains and Fire Hydrants have been designed according to the design standards required under Section (VII.4).** a. Connections to Lots b. Design and Construction c. Materials d. Notification Prior to Construction	Sheet P1	

Applicant's/Representative's Signature:_____ **Date:** 9-20-2022

[1] See City of Portsmouth, NH Subdivision Rules and Regulations for details.

Dear members of the Portsmouth City Council,

I Dale Whitaker the property owner of 880 Woodbury Ave, Portsmouth NH 03801 would respectfully request my property (located at 880 Woodbury Ave) which was involuntarily merged to be unmerged. I have provided past deeds as evidence which clearly show multiple land owners proving that this parcel was involuntarily merged.

Thank you for your time and consideration with this matter.

Dale Whitaker

880 WOODBURY AVE

Location	880 WOODBURY AVE	**Mblu**	0236/ 0052/ 0000/ /
Acct#	30603	**Owner**	WHITAKER DALE T
PBN		**Assessment**	$438,800
Appraisal	$438,800	**PID**	30603
Building Count	1		

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$249,200	$189,600	$438,800
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$249,200	$189,600	$438,800

Owner of Record

Owner	WHITAKER DALE T	**Sale Price**	$485,000
Co-Owner	WHITAKER ERIN J	**Certificate**	
Address	880 WOODBURY AVE PORTSMOUTH, NH 03801	**Book & Page**	6006/0496
		Sale Date	06/07/2019
		Instrument	13

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
WHITAKER DALE T	$485,000		6006/0496	13	06/07/2019
HEALY DAVID C	$121,000		3434/1942	A	10/18/1999

Building Information

Building 1 : Section 1

Year Built:	1949
Living Area:	1,566
Replacement Cost:	$273,263

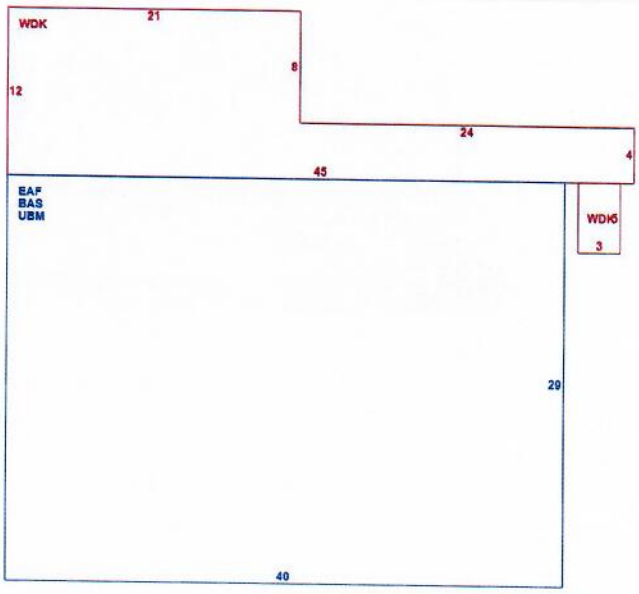
Building Percent Good: 90
Replacement Cost Less Depreciation: $245,900

Building Attributes	
Field	**Description**
Style:	Cape Cod
Occupancy	1
Exterior Wall 2	
Interior Wall 2	
Model	Residential
Interior Flr 2	Ceram Clay Til
Grade:	C+
Stories:	1
Exterior Wall 1	Vinyl Shingle
Roof Structure:	Gable/Hip
WB Fireplaces	0
Extra Openings	0
Roof Cover	Asph/F Gls/Cmp
Metal Fireplaces	1
Extra Openings 2	0
Bsmt Garage	
Interior Wall 1	Drywall/Sheet
Interior Flr 1	Hardwood
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	2 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	2
Total Rooms:	5
Bath Style:	Above Avg Qual
Kitchen Style:	Above Avg Qual
Kitchen Gr	

Building Photo

(https://images.vgsi.com/photos2/PortsmouthNHPhotos///0030/880%20WC

Building Layout



(ParcelSketch.ashx?pid=30603&bid=30603)

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,160	1,160
EAF	Attic Expansion	1,160	406
UBM	Basement, Unfinished	1,160	0
WDK	Deck, Wood	363	0
		3,843	1,566

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land

Land Use

Use Code	1010
Description	SINGLE FAM MDL-01
Zone	SRB
Neighborhood	129
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	0.43
Frontage	
Depth	
Assessed Value	$189,600
Appraised Value	$189,600

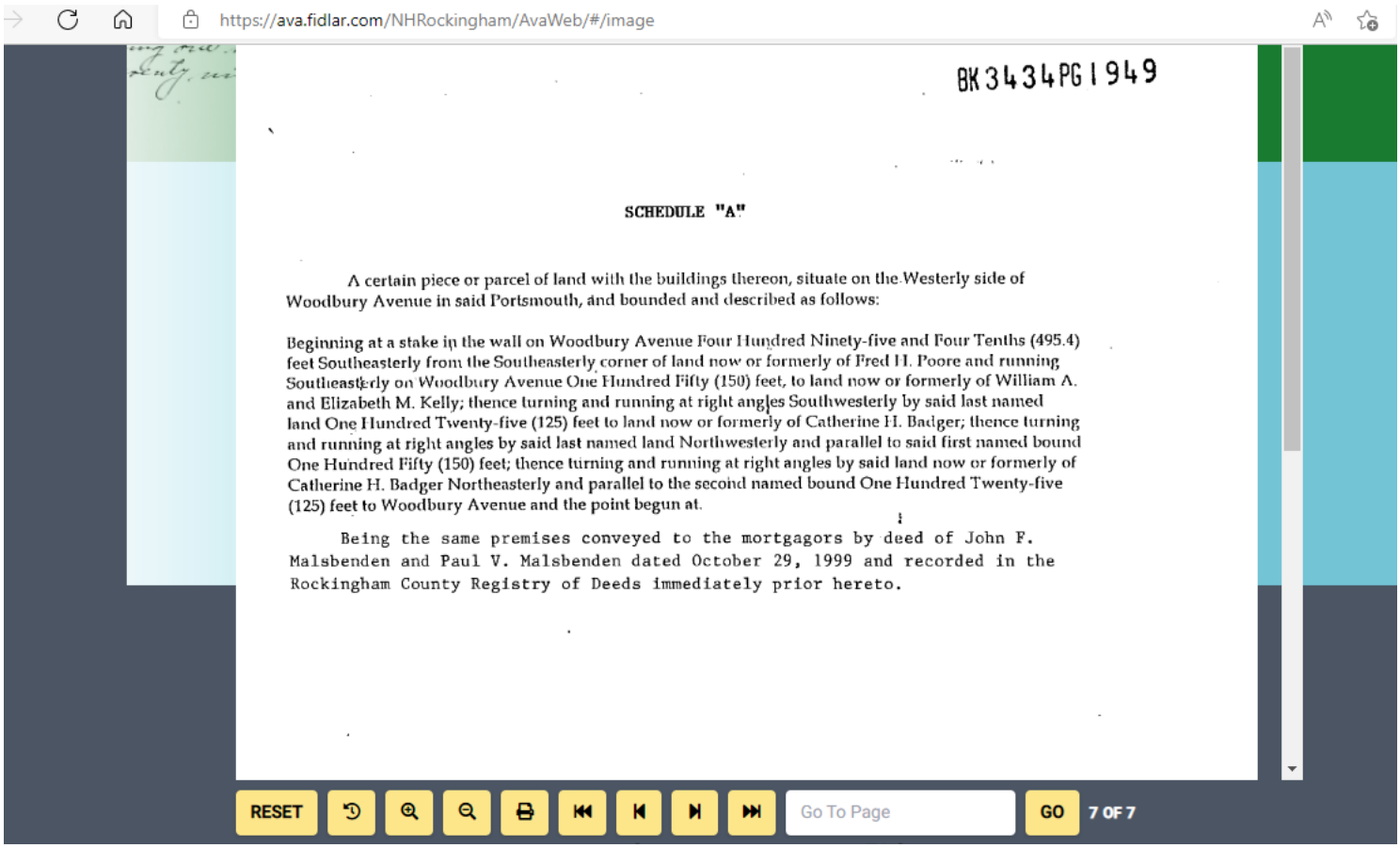
Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
FGR1	GARAGE-AVE	02	DETACHED	240.00 S.F.	$3,300	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$249,200	$189,600	$438,800
2019	$199,000	$189,600	$388,600
2018	$173,800	$179,200	$353,000

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$249,200	$189,600	$438,800
2019	$199,000	$189,600	$388,600
2018	$173,800	$179,200	$353,000


https://ava.fidlar.com/NHRockingham/AvaWeb/#/image
BK3434PG1949
SCHEDULE "A"
A certain piece or parcel of land with the buildings thereon, situate on the Westerly side of Woodbury Avenue in said Portsmouth, and bounded and described as follows:
Beginning at a stake in the wall on Woodbury Avenue Four Hundred Ninety-five and Four Tenths (495.4) feet Southeasterly from the Southeasterly corner of land now or formerly of Fred H. Poore and running Southeasterly on Woodbury Avenue One Hundred Fifty (150) feet, to land now or formerly of William A. and Elizabeth M. Kelly; thence turning and running at right angles Southwesterly by said last named land One Hundred Twenty-five (125) feet to land now or formerly of Catherine H. Badger; thence turning and running at right angles by said last named land Northwesterly and parallel to said first named bound One Hundred Fifty (150) feet; thence turning and running at right angles by said land now or formerly of Catherine H. Badger Northeasterly and parallel to the second named bound One Hundred Twenty-five (125) feet to Woodbury Avenue and the point begun at.
Being the same premises conveyed to the mortgagors by deed of John F. Malsbenden and Paul V. Malsbenden dated October 29, 1999 and recorded in the Rockingham County Registry of Deeds immediately prior hereto.
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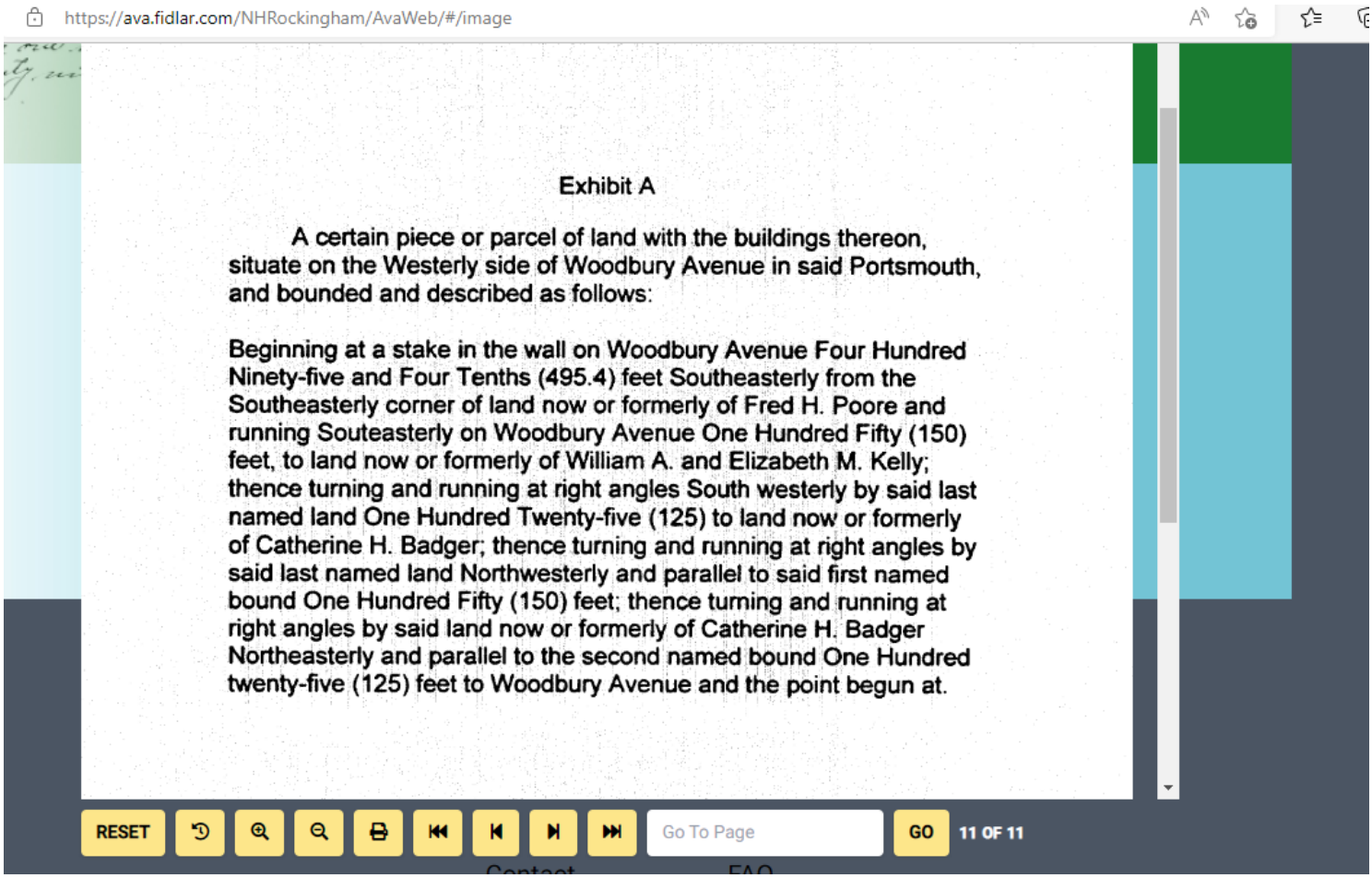
7 OF 7


https://ava.fidlar.com/NHRockingham/AvaWeb/#/image
Exhibit A
A certain piece or parcel of land with the buildings thereon, situate on the Westerly side of Woodbury Avenue in said Portsmouth, and bounded and described as follows:
Beginning at a stake in the wall on Woodbury Avenue Four Hundred Ninety-five and Four Tenths (495.4) feet Southeasterly from the Southeasterly corner of land now or formerly of Fred H. Poore and running Souteasterly on Woodbury Avenue One Hundred Fifty (150) feet, to land now or formerly of William A. and Elizabeth M. Kelly; thence turning and running at right angles South westerly by said last named land One Hundred Twenty-five (125) to land now or formerly of Catherine H. Badger; thence turning and running at right angles by said last named land Northwesterly and parallel to said first named bound One Hundred Fifty (150) feet; thence turning and running at right angles by said land now or formerly of Catherine H. Badger Northeasterly and parallel to the second named bound One Hundred twenty-five (125) feet to Woodbury Avenue and the point begun at.
RESET
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11 OF 11

Attachment B: Assessor's Report

CITY OF PORTSMOUTH
Assessors Office

Municipal Complex
1 Junkins Avenue
Portsmouth, New Hampshire 03801
Tel: (603) 610-7249 – Fax: (603) 427-1579

To:	Rick Chellman, Chair, City of Portsmouth Planning Board
Cc:	Beverly Zendt, Director of Planning
From:	Rosann Lentz, City Assessor *Rosann Lentz*
Date:	August 15, 2022
RE:	City Council Referral- Request of Restoration of Involuntarily Merged Lots to pre-merger status at 880 Woodbury Ave – RIML-22-1

At its meeting on , 2022, the City Council considered a request from Dale Whitaker regarding the restoration of involuntarily merged lots located at 880 Woodbury Avenue to their pre-merger status pursuant to NH RSA 674:39-aa. The Council voted to refer to the Planning Board and Assessor for a report back.

Description
Current assessment records identify the parcel as having .43 acres with a two-bedroom, one-bath single-family dwelling having a detached one-car garage built around 1950 located on the parcel.

History
Deeds: According to deeds researched within the Rockingham County Registry of Deeds back to 1939, this parcel was part of a subdivision dating back to 1938 and amended in 1949 (see attachment 1). The original transfer of the newly subdivided parcel was recorded in book 961 Page 402 on December 12, 1939 (see attachment 2). This deed described both parcels within one metes and bounds description along with depicting lots 13 and 14. Deeds going forward from 1939 do not reference lots 13 and 14 but refer back to the 1939 deed in the chain of title within the meaning and intending to convey paragraph within each deed.

Property Assessment Records:
Assessment records going back to 1950 indicate this parcel has always been assessed as a single lot and was never separately assessed (see attachment 3).

Map Geo 2020 Ariel
When viewing the Map Geo Ariel on the City's Website (see attachment 4), it is not clear but appears the garage met setbacks from lot 14 when built.

Building Inspection / Zoning Records
In March of 2000, David and Betty Healey the former owners prior to Mr. Whitaker, applied for a building permit to remove a front porch and build a new deck to expand from the dwelling to the garage. Plans presented to the inspection department for approval showed a single lot with setbacks drawn from the sideline of the combined lots 13 and 14 (see attachment 5).

Court Decisions

Upon review of various New Hampshire court decisions concerning the denial of restorations of lots, the courts have held that the conveyance of multiple parcels/lots in a single deed or a single metes and bounds description does not, standing alone, support a voluntary merger Roberts v. Town of Windham, 165 N.H. 186,192 (2013).

Additionally, court decisions also looked at the use of the property in its entirety by reviewing physical characteristics and the overt actions that occurred over time to the placement of buildings, driveways, outbuildings etc. These decisions, citing totality of changes, can reasonably support that lots by predecessors or current owners were voluntarily merged when facts show the primary and accessory buildings, access, etc. work as a unit. Robillard v. Town of Hudson, 120 N.H. 477,416 (1980); Town of Newbury v. Landrigan, 165 N.H.236,241 (201); and Roberts v. Town of Windham, 165 N.H. 186 (2013).

Summary

Other than researching deeds back to 1939, there would be no way of knowing this property was two parcels. This is due to the metes and bounds description within the most recent deed for the property (see attachment 6) and deeds after 1939 describing one parcel with no reference to lots 13 and 14.

Additionally, there was no conclusive findings that any overt action or conduct occurred by any former owner(s) deeming the lots merged. Although the prior owners to Mr. Whitaker applied for a building permit drawing a single site, if lots 13 and 14 had been depicted on the drawing, zoning setbacks to lot 14 appear to be compliant with the expansion of the deck in March of 2000.

In summary, the City bears the burden to prove voluntary merger (RSA 674:39-aa,II (b). My research cannot confirm if an overt action was taken to deem the parcels merged by any prior owners and, the original deed dating back to 1939 indicates the metes and bounds described are lots 13 and 14.

It is my opinion that the request to unmerge meets the requirements of NH RSA 674:39-aa and is supported by various New Hampshire court decisions.

Attachments:

ATTACHMENT 1

402.

$1.50 Rev.

Book 0961 Page 0402

Know all Men by these Presents

THAT I, Catherine H. Badger of Portsmouth, in the County of Rockingham and State-New Hampshire,

Badger to Batchelder

for and in consideration of the sum of One Dollar -------
to me in hand, before the delivery hereof well and truly paid by Harry G. Batchelder of the same Portsmouth,

del. to R. Marvin by mail

the receipt whereof I do hereby acknowledge, have ~~given~~, granted, bargained and sold, and by these presents do give, grant, bargain, sell, alien, enfeoff, convey and confirm unto the said Harry G. Batchelder and his heirs and assigns forever , a certain piece or parcel of land situate on the Westerly side of Woodbury Avenue in said Portsmouth and bounded and described as follows, viz:

Beginning at a stake in the wall on Woodbury Avenue four hundred ninety-five and four-tenths (495.4) feet Southeasterly from the Southeasterly corner of land of Fred H. Poore and running Southeasterly on Woodbury Avenue one hundred fifty (150) feet, to land of William A. and Elizabeth M. Kelly; thence turning and running at right angles Southwesterly by said last named land one hundred twenty-five (125) feet to other land of this grantor; thence turning and running at right angles by said last named land Northwesterly and parallel to said first named bound one hundred fifty (150) feet; thence turning and running at right angles by said other land of this grantor northeasterly and parallel to the second named bound, one hundred twenty-five (125) feet to Woodbury Avenue and the point begun at.

Being Lots #13 and #14 on a Plan of Lots owned by Mrs. Catherine H. Badger, Woodbury Avenue, Portsmouth, New Hampshire, drawn by John W. Durgin, C.E. in September, 1938.

To have and to hold the said granted premises, with all the privileges and appurtenances to the same belonging, to him the said Harry G. Batchelder and his heirs and assigns, to his and their only proper use and benefit forever. And I the said Catherine H. Badger, for myself and for my heirs, executors and administrators, do hereby covenant, grant and agree, to and with the said Batchelder and his heirs and assigns, that until the delivery hereof I am the lawful owner of the said premises, and am seized and possessed thereof in my own right ~~and~~ in fee simple; and have full power and lawful authority to grant and convey the same in manner aforesaid; that the said premises are free and clear from all and every incumbrance whatsoever; and that I and my heirs, executors and administrators, shall and will warrant and defend the same to the said Batchelder and his heirs and assigns, against the lawful claims and demands of any person or persons whomsoever.

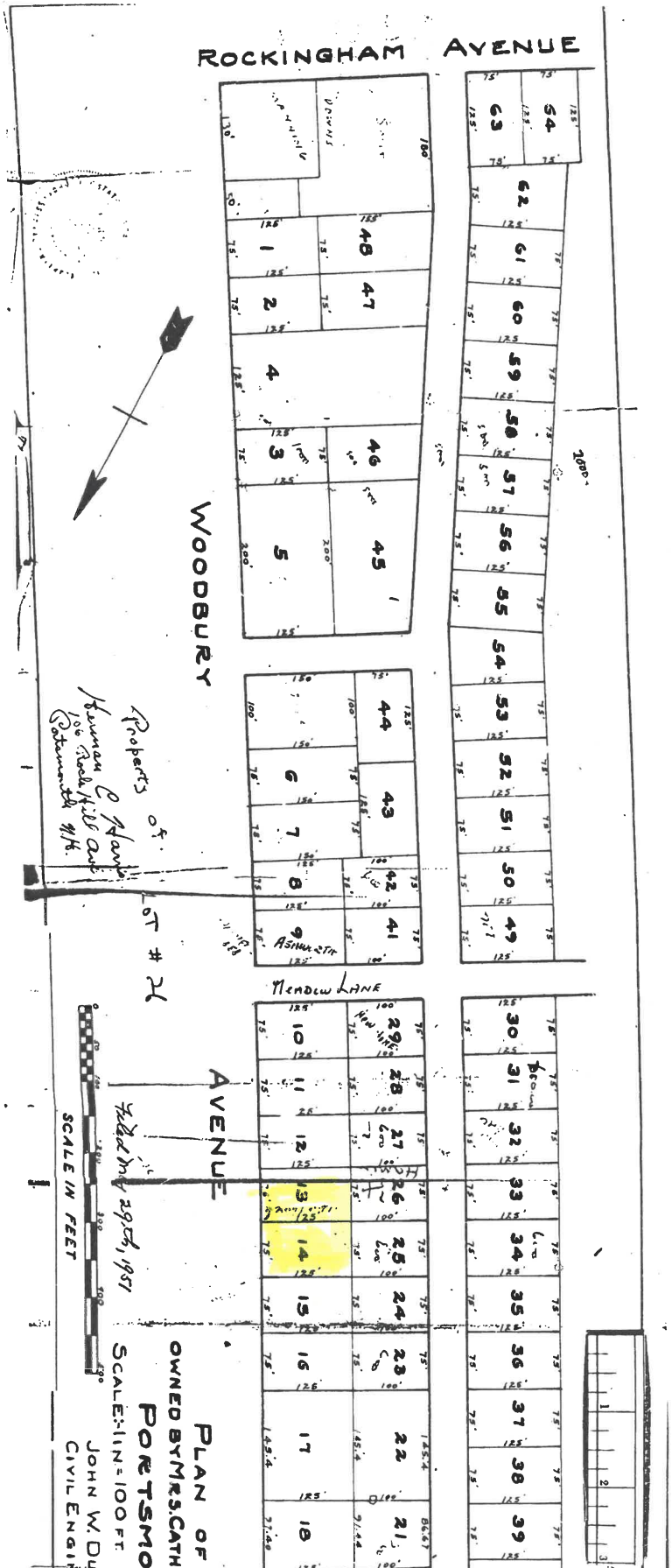
And I, Catherine H. Badger am a widow and, ~~my husband is dead~~ relinquish all in consideration aforesaid, do hereby ~~release~~ right s ~~and~~ in the aforementioned premises.

And ~~we and each of us~~ do hereby release, discharge and waive all ~~such~~ rights of ~~exemption from attachment and levy or sale on execution and such other rights whatsoever in said premises and in each and every part thereof, as our Family~~ Homestead, ~~as are reserved or~~ secured to ~~us, or either of us,~~ by the ~~Statute of the State of New Hampshire, passed July 4, 1851, entitled "An Act to exempt the Homestead of Families from attachment and levy or sale on execution," or by any other Statute or Statutes of said State.~~

In Witness whereof I *have hereunto set* my *hand and seal , this* twelfth *day of* December *in the year of our Lord ~~one thousand nine hundred and~~* 1939.

SIGNED, SEALED AND DELIVERED IN PRESENCE OF US:

ATTACHMENT 2



ATTACHMENT 3

Location 880 WOODBURY AVE | Map ID 0236/ 0052/ 0000/ / | Bldg Name | State Use 1010
30603 | Account # 30603 | Bldg # 1 | Sec # 1 of 1 | Card # 1 of 1 | Print Date 8/12/2022 10:35:38 A

CURRENT OWNER
ER DALE T
ER ERIN J
ODBURY AVE
OUTH NH 03801

TOPO		UTILITIES		STRT / ROAD		LOCATION	
1	Level	0	All Public	1	Paved	2	Suburban
				8	2+ Off-St PKG		
				1			

SUPPLEMENTAL DATA

Alt Prcl ID 0236-0052-0000-0000	CONDO C
OLDACTN 15710	INLAW Y/
PHOTO	LOT SPLIT
WARD	2015 Reva JM
PREC.	Ex/Cr Appli
1/2 HSE	
GIS ID 30603	Assoc Pid#

CURRENT ASSESSMENT

Description	Code	Appraised	Assessed
RESIDNTL	1010	245,900	245,900
RES LAND	1010	189,600	189,600
RESIDNTL	1010	3,300	3,300
	Total	438,800	438,800

2229

PORTSMOUTH, NH

VISION

RECORD OF OWNERSHIP

	BK-VOL/PAGE		SALE DATE	Q/U	V/I	SALE PRICE	VC
ER DALE T	6006	0496	06-07-2019	U	I	485,000	13
)AVID C	3434	1942	10-18-1999		I	121,000	A

PREVIOUS ASSESSMENTS (HISTORY)

Year	Code	Assessed	Year	Code	Assessed V	Year	Code	Assessed
2021	1010	245,900	2020	1010	245,900	2019	1010	195,700
	1010	189,600		1010	189,600		1010	189,600
	1010	3,300		1010	3,300		1010	3,300
	Total	438,800		Total	438,800		Total	388,600

EXEMPTIONS

Code	Description	Amount
1	VETERAN-1	500.00
	Total	500.00

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm Int

This signature acknowledges a visit by a Data Collector or Assessor

ASSESSING NEIGHBORHOOD

Nbhd	Nbhd Name	B	Tracing	Batch
129				

NOTES

:O AT - FINISHED 9/08 - INST
IDING & REROOF ASPH - GAS INSERT
WAY - HIGH TRAFFIC
EM FPL, LRG CRACKS TO CHIMNEY,
; COND; NEW PHOTO
:USAL, ALL INFO PER PLANS; EST
COMP 2ND FLR & KIT RENO'S; ADDED 5 FIXT
MASTR BATH IN MAST SUITE; MEASURED EXT

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	245,900
Appraised Xf (B) Value (Bldg)	0
Appraised Ob (B) Value (Bldg)	3,300
Appraised Land Value (Bldg)	189,600
Special Land Value	0
Total Appraised Parcel Value	438,800
Valuation Method	C
Total Appraised Parcel Value	438,800

BUILDING PERMIT RECORD

d	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments
-4	08-05-2019	PL		2,800	01-10-2020	100		INSTL DIRECT GAS FIREPLA
-4	07-16-2019	PL		12,000	01-10-2020	100		ADD NEW MASTER BATH WI
1	07-02-2019	EL		4,500	01-10-2020	100		WIRE NEW KITCHEN BDRM
-4	06-27-2019	RE		75,000	01-10-2020	100	06-03-2020	REMODEL KITCHEN & CONV
	07-09-2008			0		100		HOUSE & GARAGE
	07-09-2008			0		100		STRIP&REROOF
	07-09-2008			20,325	06-16-2009	100	09-30-2008	INS VINYL SIDIN

VISIT / CHANGE HISTORY

Date	Id	Type	Is	Cd	Purpost/Result
09-28-2020	LS			DE	Data Entry
01-10-2020	BH	05	1	50	Building Permit
06-17-2019	BH	03	5	SR	Sales Review
07-19-2017	SG			FR	Field Review Stat Update
02-10-2015	DG			FR	Field Review Stat Update
12-12-2012	JM			10	Measu/LtrSnt No Respons
09-08-2009	LS	02	1	50	Building Permit

LAND LINE VALUATION SECTION

ode	Description	Zone	Frontage	Depth	Land Units		Unit Price	Size Ad	Site	Cond.	ST Idx	S.I. Adj.	Notes- Adj	Special Pricing		Adj Unit P	Land Value
0	SINGLE FAM M	SRB			18,750	SF	8.99	1.0000	1	0.90	129	1.250	TRAFFIC		1.0000	10.11	189,600

Property Location 880 WOODBURY AVE | Map ID 0236/ 0052/ 0000/ / | Bldg Name | State Use 1010
Vision ID 30603 | Account # 30603 | Bldg # 1 | Sec # 1 of 1 | Card # 1 of 1 | Print Date

CONSTRUCTION DETAIL

Element	Cd	Description
Style:	04	Cape Cod
Model	01	Residential
Grade:	C+	C+
Stories:	1	
Occupancy	1	
Exterior Wall 1	29	Vinyl Shingle
Exterior Wall 2		
Roof Structure:	03	Gable/Hip
Roof Cover	03	Asph/F Gls/Cmp
Interior Wall 1	05	Drywall/Sheet
Interior Wall 2		
Interior Flr 1	12	Hardwood
Interior Flr 2	11	Ceram Clay Til
Heat Fuel	02	Oil
Heat Type:	04	Hot Water
AC Type:	01	None
Total Bedrooms	02	2 Bedrooms
Total Bthrms:	2	
Total Half Baths	0	
Total Xtra Fixtrs	2	
Total Rooms:	5	
Bath Style:	2	Above Avg Qual
Kitchen Style:	2	Above Avg Qual
Kitchen Gr		
WB Fireplaces	0	
Extra Openings	0	
Metal Fireplace	1	
Extra Openings	0	
Bsmt Garage		

CONSTRUCTION DETAIL (CONTINUED)

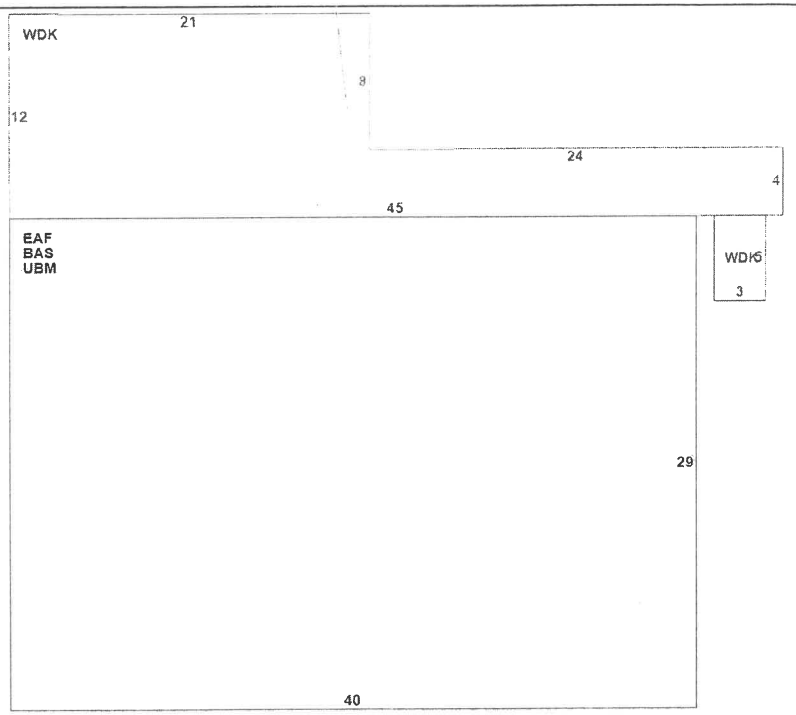
Element	Cd	Description

MIXED USE

Code	Description	Percentage
1010	SINGLE FAM MDL-01	100
		0
		0

COST / MARKET VALUATION

Adj. Base Rate	149.00
Building Value New	273,263
Year Built	1949
Effective Year Built	2009
Depreciation Code	EX
Remodel Rating	
Year Remodeled	2019
Depreciation %	10
Functional Obsol	
External Obsol	
Trend Factor	1
Condition	
Condition %	
Percent Good	90
RCNLD	245,900
Dep % Ovr	
Dep Ovr Comment	
Misc Imp Ovr	
Misc Imp Ovr Comment	
Cost to Cure Ovr	
Cost to Cure Ovr Comment	



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)

Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Gd	Grade	Grade Adj.	Appr. Value
FGR1	GARAGE-AVE	L	240	31.00	1970	A	50	D	0.90	3,300

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
BAS	First Floor	1,160	1,160	1,160	149.00	172,838
EAF	Attic Expansion	406	1,160	406	52.15	60,493
UBM	Basement, Unfinished	0	1,160	232	29.80	34,568
WDK	Deck, Wood	0	363	36	14.78	5,364

ATTACHMENT 3 - CONTINUED

ATTACHMENT 3 - CONTINUED

PROPERTY OWNER	PROPERTY LOCATION	SIDE	LOCATION CODE	PLAN LOT
MALSBENDEN/FRANCIS A MALSBENDEN/GERTRUDE H 880 WOODBURY AVE PORTSMOUTH NH 03801	WOODBURY AVE	W	/ / / /	121 013 R36 052 1
	CITY OF PORTSMOUTH N.H. JOHN B. PETTY CAE, ASSESSOR	TYPE: RESD	PROJECT: 31001	CONTROL NO: 1318121001300
				CARD: 1 OF 1

RECORD OF TRANSFER	DATE	BOOK	PAGE	AMOUNT	MORTGAGE
1 BATCHELDER/HARRY G	73150	N/A	N/A		
2					
3					
4					
5					
6					
7					

LAND FACTORS

TOPO-1	PART LEVEL	LOCATION	GOOD
-2	PART ROLLING	DRAINAGE	GOOD
IMPROVEMTS-1	C WATER	ZONING	02
-2	SEWER	NEIGHBORHOOD	STATIC
-3	ELEC	SOIL-1	SANDY
		-2	LOAM
STREET/RD-1	S IMP		

LAND IMPROVEMENTS

VALUE	EQ	ASSESSMENT

ACREAGE COMPUTATION

TYPE	ACRES	PRICE	TOTAL	DEPR	VALUE	EQ	ASSESSMENT
1 H-LOT 54 A	.290	11000	5940		5940	100	5900
2 REAR 2	.110	2000	220		220	100	200
3							
4							
5							
6							
	.400		ACREAGE TOTAL		6160	100	6100

LOT COMPUTATION

FRONT	REAR	FRONTAGE	DEPTH	STREET PRICE	DEPTH %	ADJ FR PR	TOTAL	DEPRECIATION	CORNER	VALUE	EQ	ASSESSMENT
1												
2												
3												
4												
								LOT TOTAL				
								LAND TOTAL		6160	100	6100

SUMMARY

19 72	
LAND	6100
BLDGS	17200
TOTAL	23300
19 LAND BLDGS TOTAL	
19 LAND BLDGS TOTAL	
19 LAND BLDGS TOTAL	
19 LAND BLDGS TOTAL	
19 LAND BLDGS TOTAL	
19 LAND BLDGS TOTAL	
19 LAND BLDGS TOTAL	
19 LAND BLDGS TOTAL	

CONTROL NO.

131
8121001300

ATTACHMENT 3 CONTINUED

OUT BUILDINGS

ITEM	1	2	3	4	5	6
PIER FOUND						
WALL FOUND	X					
SKIDS						
SNGLE DOG						
DBL DOG						
SHING WALLS	X					
CONC BLOCK						
BRICK						
STONE						
FLOOR	C					
INT FINISH						
PLUMB						
ELEC						

SIZE

1- 12X 20

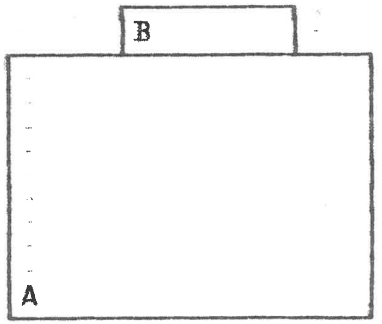
AREA

1- 240 SF

STRUCTURE VALUE

STRUCTURAL ELEMENTS	PRICE
BASE. A CAPE COD 1064SF	16580
FOUNDATION. CONC WALLS	
EXT WALLS.SHGLE WOOD	350
INSULATION.BLANKET	
ROOF.GABLE ASPH SHG	
BASEMENT.FULL CONCRETE FLOOR	
FLOORS. 1 HARDWD	
INT FIN.1 PLASTR	
LAYOUT G COND G	
ROOMS. 1-4	
ATTIC.FULL AT STAIR FULL FLR	450
HEAT.1 H-W CAST	1380
FIREPLACES. 1 STACKS 1	920
PLUMBING.BATH 1 SINK 1	
TILE.BATH -1 WN-1 WL- FL- PLS	
DORMERS. 2 14 LIN FT	385
SEG.B PATIO 108SF	130
SUB TOTAL FACTOR	20195

1



SCALE = 20 FT./IN.

A 28-38-28-38

SEG	TYPE	STOR	CONS	CLASS	DIMENSIONS
B	42		FRAM	2	6-18-6-18

OCCUPANCY	CONSTRUCTION	CLASS	AGE	REMOD	COND	REPLACEMENT VALUE	PHYS DEPR	PHYSICAL VALUE	FUNC DEPR	ACTUAL VALUE	EQ	ASSESSMENT
DWLG 1 FAM	1.0S FR B A	3	1951±	NO	G	20195	20	16156		16156	100	16200
1-DT GAR33	1.0S FR 3	3	1953±		G	1296	20	1037		1037	100	1000
										BUILDING TOTAL	17193	100	17200

SALE PRICE	DATE MO/YR
LISTED DATE	LISTER
11/04/71	3416
SIGNATURE	REVIEW
1 REFUSE	0028

ATTACHMENT 3 - CONTINUED

PROPERTY ASSESSMENT RECORD

ICATION 880 WOODBURY AVE | ZONING SR II CLASS R | ROUTING NO 5

AP F36 LOT 052 CARD 01 OF 01 (OLD M/L# 121 013) | PROPERTY USE CODE 01

NBHD ID 202

RECORD OF OWNERSHIP

NAME	MAILING ADDRESS	BOOK—PAGE	DATE	AMOUNT
MALSBENDEN ~~FRANCIS~~ A & GERTRUDE H — deceased 2/21/87 per city clerk's office	~~880 WOODBURY AVE~~ ~~PORTSMOUTH~~ NH 03801 4/92 52 Beech ST Franklin NH 03235	N/A N/A	07/50	N/A
MALSBENDEN PAUL V & JOHN F	52 BEECH ST FRANKLIN NH 03235	PROBATE	4/16/93	#62371

ASSESSMENT RECORD

Year	LAND	BLDGS.	TOTAL
1983	11900	43400	55300
19			
19			
19			
19			
19			
19			
19			
19			
19			
19			
19			
19			

LAND VALUE COMPUTATIONS AND SUMMARY

SQ. FT. DESC.	CODE	SIZE	RATE	INFLUENCE FACTOR	LAND VALUE
1 PRIMARY SITE		10000		—	11000
2 SECONDARY SITE		3750	.22	—	880
3 UNDEVELOPED					
4 RESIDUAL					
5 WATERFRONT					
	T	18750		—	11900

CATEGORY CODES	NUMBER OF ACRES	RATE		
1 PRIMARY SITE				
2 SECONDARY SITE				
3 UNDEVELOPED				
4 TILLABLE				
5 PASTURE				
6 WOODLAND				
7 WASTELAND				
8 HOMESITE				
9 FRONTAGE—ROAD				
10 FRONTAGE—WATER				
11 REAR				
12 ACREAGE—DEPR.				
TOTAL ACREAGE				

MEMORANDA

I=E

1st/5

2nd/unfin

11900
43400
55300

info at door

SALES DATA

DATE MO.	DATE YR.	TYPE 1 LAND 2 L&B	SALE PRICE	SOURCE 1 BUYER 2 SELLER 3 FEE 4 AGENT	VALIDITY 1 YES 2 NO
		1 2		1 2 3 4	1 2
		1 2		1 2 3 4	1 2
		1 2		1 2 3 4	1 2

INSPECTION
WITNESSED BY: Francis A. Malsbenden

CITY OF PORTSMOUTH, NEW HAMPSHIRE

PRC-078

ATTACHMENT 3 - CONTINUED

OCCUPANCY: 1 VAC. LOT | (2) DWELLING | 3 OTHER

STORY HEIGHT: (1.0) | 1.5 | 2.0 | 2.5 | 3.0

BASEMENT: 1 NONE | 2 CRAWL | 3 PART | (4) FULL

HEATING: 1 NONE | (2) BASE | 3 AIR CON

- WARM AIR—F OR G
- (HOT WATER) STEAM ✓
- ELECTRIC
- FLOOR/WALL FURNACE
- UNIT HEATERS

PLUMBING

PLUMBING POINTS [ ]__ __

- STANDARD
- BATHROOM
- HALF BATH
- SINK/LAVATORY
- WATER CLOSET/URINAL
- NO PLUMBING

ATTIC: 1 NONE | (2) UNFIN | 3 PT. FIN | 4 FULL FIN | 5 FULL FIN/WH

ROOF

- SHINGLE—(ASP.)/ASB./WOOD ✓
- SLATE/TILE/METAL
- COMP. ON WOOD FRAME
- COMP. ON STEEL FRAME

WALLS

- FRAME-SIDING/ALUM./VINYL/STUCCO
- SHINGLE—ASP./ASB./(WOOD) ✓
- CONCRETE BLOCK
- BRICK VENEER/STONE
- PLATE GLASS FRONT

FLOORS

	B	A 1	2	3
CONCRETE	✓			
WOOD		✓	✓	
TILE		✓		
CARPET				
WD./STL. FRAME				
REINF. CONC.				

INTERIOR FINISH

	B	A 1	2	3
DRYWALL/(PLASTER)		✓		
WOOD PANELING				
FIBERBOARD				
UNFINISHED	✓		✓	

LIVING ACCOMMODATIONS: NO. OF UNITS 001 | TOTAL ROOMS 03 | BED ROOMS 02 | FAMILY ROOMS 0

OTHER FEATURES

- PART MASONRY WALLS
- FIREPLACE 1/1 21 ✓
- BASEMENT REC. ROOM ✓
- FIN. BASEMENT LIVING AREA
- BASEMENT GARAGE
- MODERNIZED KITCHEN

REMODELING DATA

	YEAR		YEAR
KITCHEN		HEATING	
PLUMBING		GENERAL	

ERECTED 1949 AGE ____

CDU RATING FB/AV

DWELLING COMPUTATIONS

1.0 STORY (F) M C

1131 S.F.	43,705
BASEMENT	
HEATING	
PLUMBING	
ATTIC	+ 3,520
ADDNS. & PCHS. ____	+1800
TOTAL	49,025
O. F. POINTS [+]21	+2,100
TOTAL	51,125
GRADE C[+]__	X1.08
TOTAL	55215
C & D FACT. % [ ]__	—
REPL. COST	
DEPR. 25%	x.75
TRUE VALUE	41400

COMMERCIAL COMPUTATIONS

EXTERIOR WALL CODES: 1 BRICK | 2 FRAME | 3 GLASS | 4 BLOCK | 5 STUCCO | 6 TILE | 7 STONE | 8 METAL | 9 CONCRETE | 0 ENAM. STL.

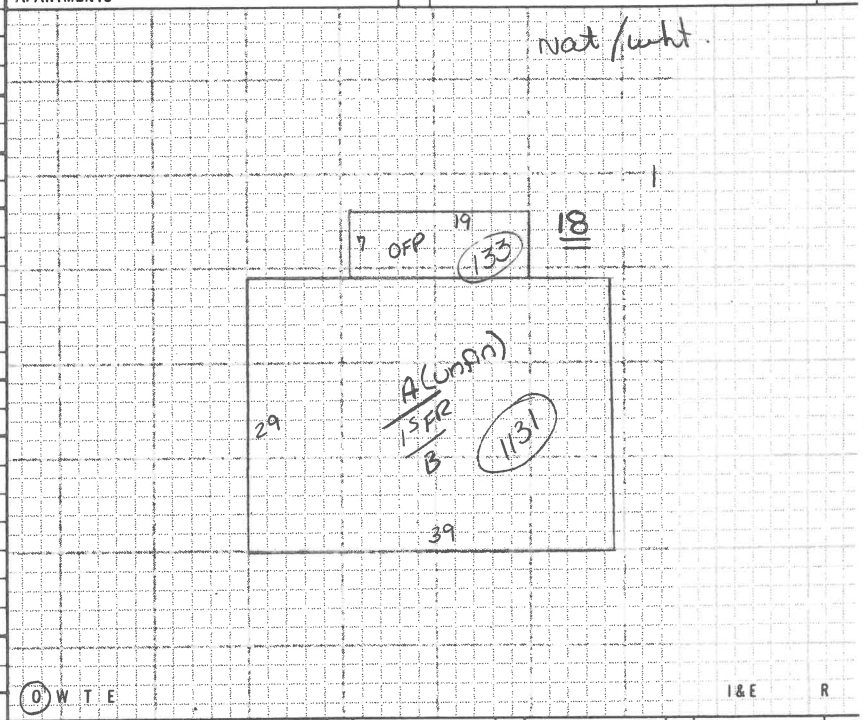
	A	B
EXTERIOR WALLS		
EFF. PERIMETER	L/F	L/F
PERIM.-AREA RATIO %		
NO. OF UNITS		
AVG. UNIT SIZE		
BASEMENT SIZE		
SCHEDULE		
HT. BASEMENT		
HT. FIRST		
HT. SECOND		
BASE PRICE		
B. P. A.		
SUBTOTAL		
LIGHTING		
HTG./AIR CON.		
SPRINKLER		
PARTITIONS		
INTERIOR FINISH		
SF/CF PRICE		
AREA CUBE		
SUBTOTAL		
SPECIAL FEATURES*		
ADDITIONS		
TOTAL BASE		
GRADE FACTOR	%	%
REPLACEMENT COST		

FUNCTIONAL DEPRECIATIONS FACTORS

SURPLUS CAP	ENCROACHMENTS	OBSOLESCENCE
BLIGHTED AREA	COMM. LOCATION	ECONOMIC

OCCUPANCY

SINGLE FAMILY	✓	STORES	
MULTI FAMILY		OFFICES	
APARTMENTS			



CONTEMPORARY | SPLIT LEVEL | RANCH | COLONIAL | CAPE ✓

SPECIAL FEATURES FOR COMMERCIAL BUILDINGS

QTY.	ITEM DESCRIPTION	A	PRICE	B
5	PLUMBING FIXTURES			
	STORE FRONT			
	TOTAL SPECIAL FEATURES*			

SUMMARY OF OTHER BUILDINGS

TYPE	NO.	CONSTRUCTION	SIZE	RATE	GRADE	ERECTED	CDU	REPLACEMENT COST	DEPR.	TRUE VALUE
GARAGE	1	1°FG 12X20	240 SF	17.00	C	1949	AV	4080	50%	2040
BARN										
SHED										
POOL										
COMM BLDG.										

LISTED LES DATE 11-3-81

DATE

TOTAL OF CARDS ___ THRU ___ 2000

TOTAL VALUE ALL BUILDINGS 43,400

GRADE DENOTES QUALITY OF CONSTRUCTION: A—EXCELLENT; B—GOOD; C—AVERAGE; D—CHEAP; E—VERY CHEAP
CDU FACTOR REFERS TO THE CONDITION, DESIRABILITY, AND USEFULNESS OF THE BUILDING

PRC-078B

TLA 1131

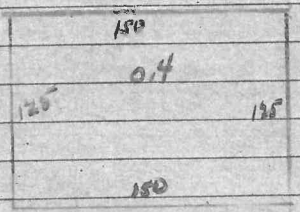
PROPERTY ASSESSMENT RECORD, — CITY OF PORTSMOUTH, N. H.

ATTACHMENT 3 CONTINUED

PLAN 121 LOT 13

ADDRESS 880 Woodbury Ave.

DESCRIPTION H-L.



RECORD OF OWNERSHIP	DATE OF TRANSFER	SALE PRICE IF KNOWN
Francis A.+ Gertrude H Malsbenden	7-31-50	1,500

1178/337

(Taken from 207/15)

RURAL PROPERTY

PROPERTY FACTORS

TOPOGRAPHY	LEVEL		ROLLING		LEDGE		
SOIL TYPE	LOAM		SAND		CLAY		
LAND CLASS	GOOD		FAIR		POOR		
DRAINAGE	GOOD		FAIR		POOR		
WATER SUPPLY	GOOD		FAIR		POOR		
FENCES	GOOD		FAIR		NONE		
ELECTRICITY	YES		NO				
TELEPHONE	YES		NO				
ROAD	PAVED		IMPR.		DIRT		

REMARKS

LAND VALUE COMPUTATIONS AND SUMMARY

CLASSIFICATION	NO. OF ACRES	RATE	TOTAL
TILLABLE	FRANCIS A. MALS 961/402 GERTRUDE H. MALSB		
PASTURE			
WOODED			
WASTE LAND			
TOTAL ACREAGE			
TOTAL VALUE LAND			
TOTAL VALUE BUILDINGS			
TOTAL VALUE LAND & BUILDINGS			

OWNERS PREVIOUS TO 1951

NAME	DATES	ASSESSMENTS
H. G. Batchelder	12/17/39	
C. Badger		

URBAN PROPERTY

PROPERTY FACTORS

TOPOGRAPHY		IMPROVEMENTS	
LEVEL	✓	WATER	✓
HIGH		SEWER	✓
LOW		GAS	
ROLLING		ELECTRICITY	✓
SWAMPY		ALL UTILITIES	
		GARBAGE DISPOSAL	✓

STREET		TREND OF DISTRICT	
PAVED	✓	IMPROVING	
SEMI-IMPROVED		STATIC	✓
DIRT		DECLINING	
SIDEWALK			

LAND VALUE COMPUTATIONS AND SUMMARY

FRONTAGE	DEPTH	UNIT PRICE	DEPTH FACTOR	FRONT FT. PRICE	TOTAL
150	125	7.00			1050
TOTAL VALUE LAND					1050
TOTAL VALUE BUILDINGS					4600
TOTAL VALUE LAND & BUILDINGS					5,600

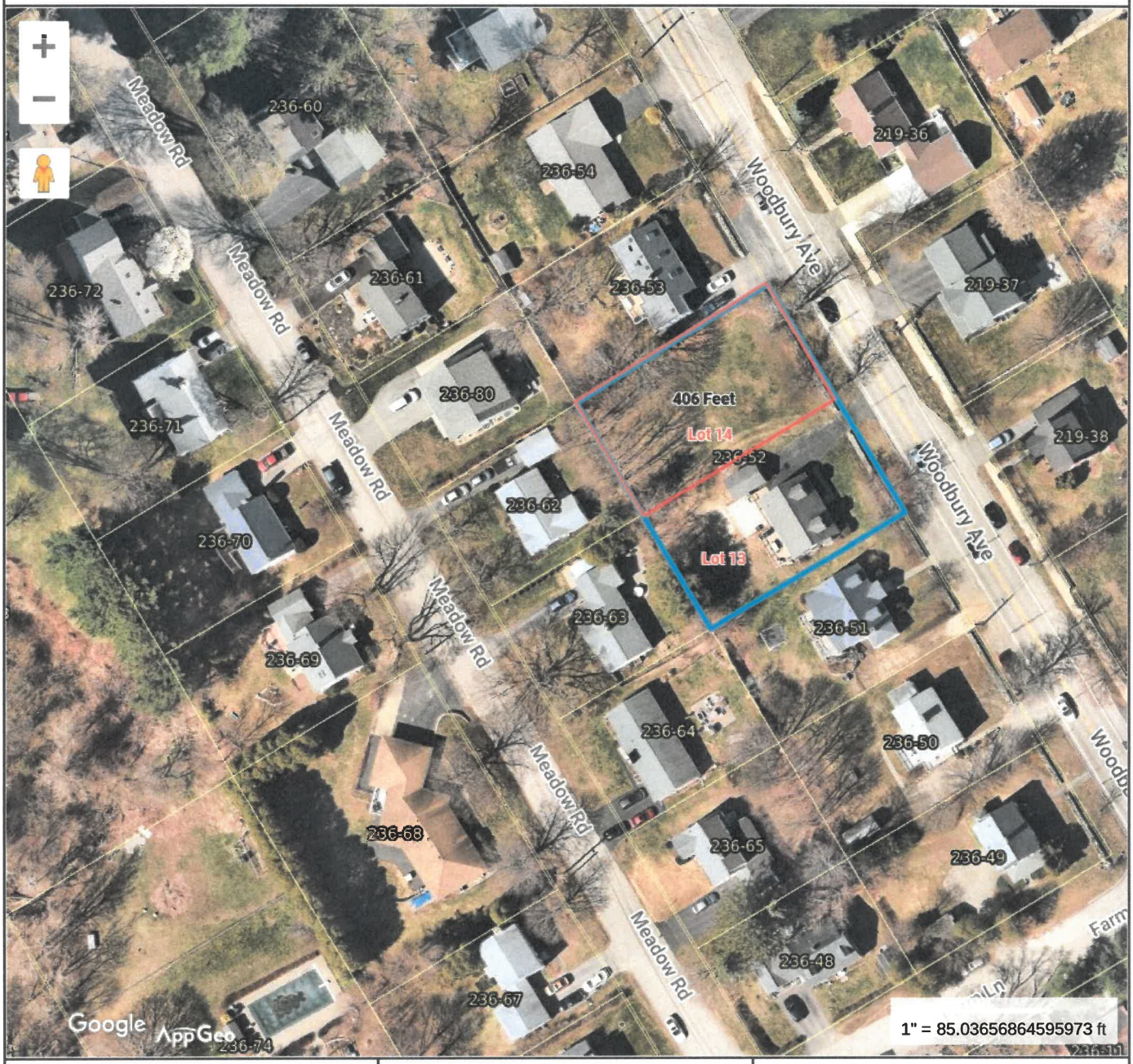
ASSESSMENT RECORD

1951	LAND	700
	BLDGS.	
	TOTAL	
53 19	LAND	
	BLDGS.	
	TOTAL	5000
54 19	LAND	
	BLDGS.	
	TOTAL	5,400
57 19	LAND	
	BLDGS.	
	TOTAL	5900
60 19	LAND	1700
	BLDGS.	5200
	TOTAL	6900
69 19	LAND	700
	BLDGS.	5700
	TOTAL	7400
70 19	LAND	3400
	BLDGS.	11400
	TOTAL	14800
71 19	LAND	4000
	BLDGS.	11400
	TOTAL	15,400
19	LAND	
	BLDGS.	
	TOTAL	
19	LAND	
	BLDGS.	
	TOTAL	
19	LAND	
	BLDGS.	
	TOTAL	
19	LAND	
	BLDGS.	
	TOTAL	
19	LAND	
	BLDGS.	
	TOTAL	

ATTACHMENT 4

City of Portsmouth, NH August 12, 2022

880 Woodbury Ave 2021 City of Portsmouth Ariel



Property Information

Property ID	0236-0052-0000
Location	880 WOODBURY AVE
Owner	WHITAKER DALE T

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 3/9/2022
Data updated 3/9/2022

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

ATTACHMENT 5

MAR 2000 Received

City of Portsmouth, NH - 1 Junkins Ave, (603) 431-2006 x243

Building Permit Application - RESIDENTIAL ADDITIONS

Office Use: Cost of All Construction: $ 3,000 Fee: $ 50 Chk #: _____ Cash: ___

Zoning District: SRB HD-A: — Map #: R36 Lot #: 52 Index #: 3374 Building Permit # : 9775

Print in Ink or Type. Complete all blanks or indicate "N/A" if not applicable.

PROPERTY OWNER

Name: David + Betty Healy
Address: 880 Woodbury Ave
St. Number / Street Name
City: Portsmouth State: NH Zip: 03801
Phone: ( ) 433-5929 Fax: ( )
Cell Phone / Pager: ( ) daytime # 659-2194 x247

PERMIT APPLICANT

Name: Brian ~~Peter~~ Park Construction
Address: 75 Spinnaker Way
St. Number / Street Name
City: Portsmouth State: NH Zip: 03801
Phone: ( ) 431-4236 Fax: ( )
Cell Phone / Pager: ( )

Address of Work: 880 Woodbury Ave. **Unit #:** _____
Street Number / Street Name

Brief Description of Proposed Work: Exterior Deck / remove existing porch

Contractor: Brian ~~Peter~~ Park Construction Phone: ( ) 431-4236 Cell/Pager: ( ) _____
Contractor Address: 75 Spinnaker Way, Portsmouth, NH 03801

Existing Conditions (Land Use Data)

Lot Area: 18750 S.F. ; Existing Use of Land and Building(s): single family home

# of Existing Dwellings: 1 ; # of Existing Off Street Parking Spaces Provided on the Lot n/a
(Not applicable to single family uses.)

Dimensions of Existing Building(s) & Structure(s) on this Lot

	Size *	S.F. of Footprint	#. of Stories	Ht. of Struct.	Basement (Y/N)
Main Building:	29 x 39	1131.0	1½	___	Y
Attached Garage:	___ x ___	___	___	___	___
Addition #1:	___ x ___	___	___	___	___
Addition #2:	___ x ___	___	___	___	___
Porch:	___ x ___	114.0	1	___	N
Deck:	___ x ___	___	___	___	___
Detached Garage:	12 x 20	240	1	___	N
Shed:	___ x ___	___	___	___	___
Other:	___ x ___	___	___	___	___
Other:	___ x ___	___	___	___	___
Other:	___ x ___	___	___	___	___
TOTAL SQUARE FOOTAGE:	SUM = 1485				

* If structures are irregular in size, write "irregular" and fill the foundation square foot area under "SF of footprint".

Existing Building Setback Dimensions (Indicate the least setback dimension for each.)

Front Setback: 26 Ft. ; Rear Setback: 59 Ft. ; Left Side Setback: 30 Ft. ; Right Side Setback: 199 Ft.
Closest to nearest Wetlands (If applicable): _____ Ft. ☐ Inland Wetland ☐ Coastal Wetland

All above information shall be shown on a site plan submitted with this application.

Proposed Conditions (Land Use Data)

of Newly Created Dwelling Units _____ ; S.F. of ea. New Unit(s) _____ ; _____ ; _____ ; _____ ; _____ ; _____
(Net Living Area, per New Unit)

Sum of all New Unit's S.F._____ ; Number of New Off Street Parking Spaces Provided on the Lot _____
(Sum of the Individual Units Listed Above) (Not applicable to singlr family uses.)

Dimensions of **New** Additions on this Lot

	Size *	S.F.. of Footprint	#. of Stories	Ht. of Struct.	Basement (Y/N)
Addition #1:	____ x ____	_____	___	___	___
Addition #2:	____ x ____	_____	___	___	___
Addition #3:	____ x ____	_____	___	___	___
Attached Garage:	____ x ____	_____	___	___	___
~~Porch:~~ catwalk	4 x 13	52	1	___	N
Deck:	12 x 20	240	1	___	N
~~Detached Garage~~:	____ x ____	_____	___	___	___
Shed: stairs	4 x 6	24	___	___	N
Other:	____ x ____	_____	___	___	___
Other:	____ x ____	_____	___	___	___
Other:	____ x ____	_____	___	___	___
Other:	____ x ____	_____	___	___	___
TOTAL SQUARE FOOTAGE:	SUM = 316				

* If structures are irregular in size, write "irregular" and fill the foundation square foot area under "SF of footprint".

Proposed Building Setback Dimensions (Indicate the least setback dimension for each.)

Front Setback: 26 Ft. ; Rear Setback: 45 Ft. ; Left Side Setback: 18 Ft. ; Right Side Setback: 99 Ft.

Closest Dimension to Nearest Wetlands (If applicable): _____ Ft. ☐ Inland Wetland ☐ Coastal Wetland

All above information shall be shown on a site plan submitted with this application.

Construction Information

Every addition is different in terms of layout and framing details. Therefore, it is imperative that a set of construction plans or sketches be submitted with this application. The plans/sketches must show a dimensioned layout of all new rooms and spaces, in enough detail to determine building code compliance with the proposed construction. In a few cases, it may be necessary to show the existing room layout. The following is a list of specific items to be included with the plans/sketches and specifications:

Some of this information may not be needed, depending on the type of addition/construction being proposed.

- ☐ Foundation plan including anchor bolt/strap information.
- ☐ Floor plan of each story. (Show attic access location.)
- ☐ Framing plan of each story including sizes & spacing of joists and beams.
- ☐ Roof framing plan including sizes & spacing of rafters and roofing materials.
- ☐ If cathedral ceiling design, provide supported ridge details.
- ☐ Framing cross sections where applicable.
- ☐ Wall sections, showing all wall materials, including header sizes.
- ☐ Bedroom window sizes and if "tilt-clean" style.
- ☐ Insulation amounts on all exterior walls and ceilings (Including basement).
- ☐ All interior and exterior stair details showing tread depth, riser height, and guard protection.
- ☐ Stair handrail and deck guardrail details.
- ☐ Location of hard wired smoke detectors.

Construction Information-Continued

Indicate information on the various additional trades or features listed below:

Sewerage System: City Sewer? (Y) / N Subsurface? Y / N State Septic Permit Number _____

City Water? (Y) / N State Well Permit Number: _____

Plumbing Contractor: (Separate Permit Required) NO

Mechanical Contractor: (Separate Permit Required) NO

Electrical Contractor: (Separate Permit Required) NO

Fire Sprinkler System?: Y / N (Separate Permit Required) Contractor _____

Other comments or features: _____

✓Plans Submitted: Site ✓ Floor ___ Framing ✓ Electrical ___ Plumbing ___ Mechanical ___ *Rolled* ___

Other _____

Cost of All Construction / Renovation: $ 3,000.00

I certify that the information given is true and correct to the best of my knowledge. ***No change from the above information will be made without approval of the Building Inspector.*** Construction activities shall not commence until the Building Permit is issued.

I realize that when all necessary approvals have been acquired, a Building Permit may be granted by the Building Inspector to allow construction in conformance with this application and the plans/specifications submitted in support of said construction only.

I further acknowledge that the proposed structure shall not be occupied or otherwise utilized without the issuance of a Building Certificate of Occupancy and only after all necessary inspections have been requested and completed.

Signature of Applicant | 3/24/00 Date | If Not Owner, State Relationship

Staff Review

Application requires approvals in the following areas:

Category	Article/Section	Category	Article/Section
Use of Property		Parking	
Use of Building		Loading	
# Dwelling Units		Historic District	
Yards		Wetlands Buffer	
Coverage		Wetlands District	
Open Space			
Lot Area			

Existing Coverage: 8 % New Coverage: 8.9 % Max. Allowed Coverage: 20 %
Existing Open Space: _____ New Open Space: _____ Min. Open Space Required: _____
Existing Parking: _____ New Parking: _____ Required Parking: _____

Board of Adjustment: Yes ___ No ___ Date Approved _____ Stipulations: _____

Historic District Commission: Yes ___ No ___ Date Approved _____ Stipulations: _____

Conditional Use Permit: Yes ___ No ___ Date Approved _____ Stipulations: _____

Site Review: Yes ___ No ___ Date Approved _____ Stipulations: _____
Site Review Agreement and Bond _____

Building Code Board of Appeals Yes _____ Date Approved _____ Stipulations: _____

Building Area Calcs. For Permit Fee:
Basement: _____ + Attic: _____ + Garage: _____ @ ____ = $ _____
1st. Flr: _____ + 2nd Flr: _____ + 3rd Flr: _____ @ ____ = $ _____
Porch 1: _____ + Porch 2: _____ + Deck 1 52 + Deck 2 240 @ ____ = $ _____
Other Areas: 24 STAIRS + _____ + _____ + _____ 316 @ 0.15 = $ 47
TOTAL PERMIT FEE = $ 50

	Initials	Date Denied	Date Approved
Planning Department	hET OMA		24 Mar 00

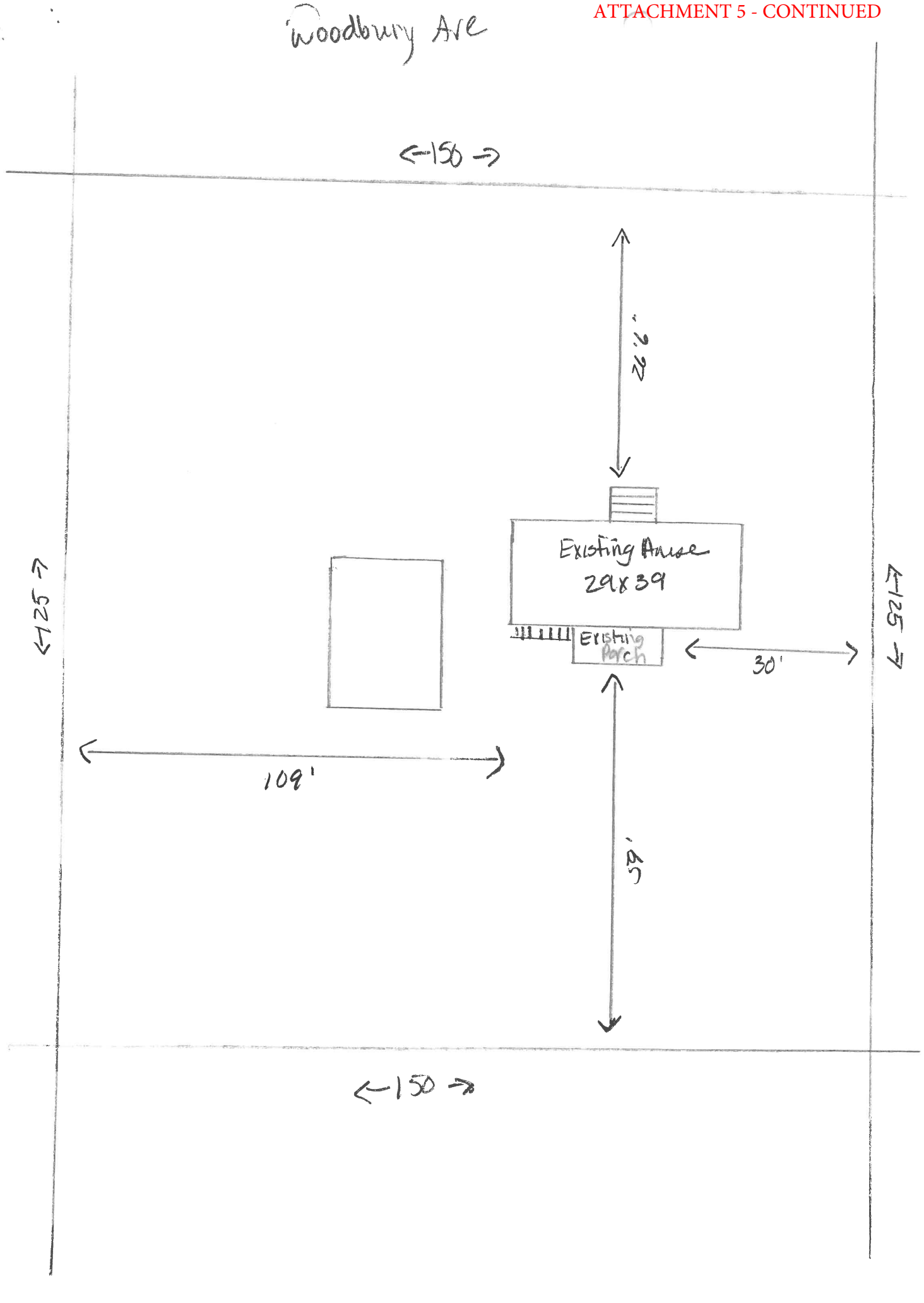
Comments All dimensional requirements shall be met.

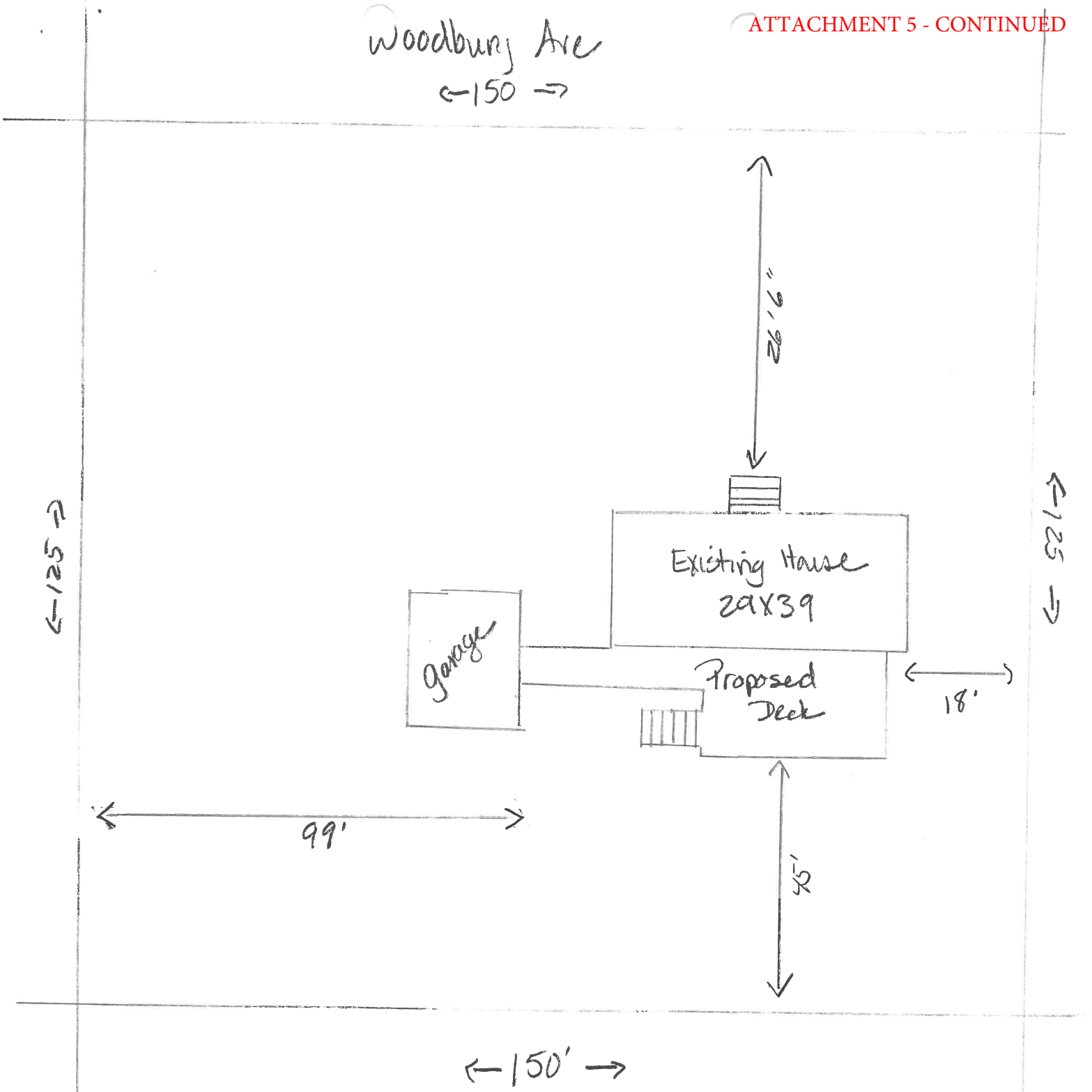
Building Inspector Comments: _____

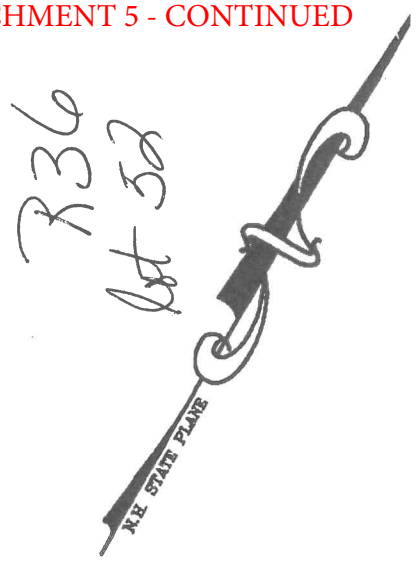
All conditions and requirements having been met, and there being no known outstanding violations to local codes or ordinances, I hereby approve the issuance of this Building Permit.

RA Hopley
Building Inspector

27 MAR 00
Date Approved for Permit


Woodbury Ave
150
125
125
Existing House
29x39
Existing Porch
30'
109'
29'
150


Woodbury Ave
←150→
26'6"
←125→
Existing House
29x39
garage
Proposed
Deck
18'
99'
45'
←150'→



R-19

76
4.35AC
78
9375
77
12500
72
12500
73
1.03AC
71
9375
70
9375
69
9375
68
30000
74
28160
67
9375
66
9375
59
8930
56
11678
60
14540
55
18175
61
7500
54
9375
53
16875
62
7500
52
18750
63
7500
64
7500
51
9375
65
7500
50
9375
48
7500
49
9375
MEADOW
WOODBURY
FARM
LANE
CLOVER
ROAD
AVEN
40
18210
47
12500
46
9375
45
16000
12
7500
11
9375
13
7500
10
9375
14
11250
9

1220500 E
212500 N

ATTACHMENT 6

Book: 6006 Page: 496

19020204 06/07/2019 09:14:16 AM
Book 6006 Page 496 Page 1 of 2
Register of Deeds, Rockingham County

LCHIP	ROA449489	25.00
TRANSFER TAX	RO088452	7,275.00
RECORDING		14.00
SURCHARGE		2.00

Return to:
Dale T. Whitaker and Erin J. Whitaker
880 Woodbury Avenue
Portsmouth, NH 03801

Tx:40213967

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS: That **Elizabeth J. Healy**, Single, of 880 Woodbury Avenue, Portsmouth, NH 03801, for consideration paid grant(s) to **Dale T. Whitaker, Jr. and Erin J. Whitaker**, A Married Couple, of 46 Dennett Street, Portsmouth, NH 03801, as joint tenants with rights of survivorship, with WARRANTY COVENANTS:

A certain piece or parcel of land with the buildings thereon, situate on the westerly side of Woodbury Avenue, in the City of Portsmouth, County of Rockingham, State of New Hampshire, and being bounded and described as follows:

Beginning at a stake in the wall on Woodbury Avenue 495.4 feet southeasterly from the southeasterly corner of land now or formerly of Fred H. Poore and running southeasterly on Woodbury Avenue 150 feet, to land now or formerly of William A. and Elizabeth M. Kelly; thence turning and running at right angle southwesterly by said last named land 125 feet to land now or formerly of Catherine H. Badger; thence turning and running at right angles by said last named land northwesterly and parallel to said first named bound 150 feet; thence turning and running at right angles by said land now or formerly of Catherine H. Badger northeasterly and parallel to the second named bound 125 feet to Woodbury Avenue and the point begun at.

Meaning and intending to describe and convey the same premises conveyed to Elizabeth J. Healy and David C. Healy by virtue of a Deed from John F. Malsbenden and Paul V. Malsbenden, dated October 18, 1999 and recorded in the Rockingham County Registry of Deeds in Book 3434, Page 1942. David C. Healy passed away on March 26, 2010, leaving Elizabeth J. Healy as surviving joint tenant. For further reference see death certificate recorded in the Rockingham County Registry of Deeds in Book 5302, Page 1583.

The grantor hereby releases all rights of homestead in the above described premises.

Executed this 6th day of June, 2019.

Elizabeth J. Healy, by Kathleen Malsbenden, Attorney in Fact

Elizabeth J. Healy, by Kathleen Malsbenden,
Attorney in Fact

*For Signatory Authority, see Power of Attorney recorded herewith.

State of New Hampshire
County of Rockingham June 6, 2019

Then personally appeared before me on this 6th day of June, 2019, the said Elizabeth J. Healy, by Kathleen Malsbenden, Attorney in Fact and acknowledged the foregoing to be her voluntary act and deed.

Kristen L. Peterson

Notary Public/Justice of the Peace
Commission expiration:

KRISTEN LYNNE PETERSON
NOTARY PUBLIC
STATE OF NEW HAMPSHIRE
- MY -
COMMISSION EXPIRES
JANUARY 18, 2023
COMMISSIONER OF DEEDS