

City of Portsmouth, New Hampshire

Wetland Conditional Use Permit Application Checklist

This wetland conditional use permit application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Conservation Commission and Planning Board review. The checklist is required to be uploaded as part of your wetland conditional use permit application to ensure a full and complete application is submitted to the Planning and Sustainability Department and to the online portal. A pre-application conference with a member of the Planning and Sustainability Department is encouraged as additional project information may be required depending on the size and scope of the project. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all wetland conditional use permit requirements. Please refer to Article 10 of the City of Portsmouth Zoning Ordinance for full details.

Applicant Responsibilities: Applicable fees are due upon application submittal to the Planning Board (no fees are required for Conservation Commission submission). The application will be reviewed by Planning and Sustainability Department staff to determine completeness. Incomplete applications which do not provide required information for the evaluation of the proposed site development shall not be provided review by the Conservation Commission or Planning Board.

Name of Applicant: Matt and Beth Reichl	Date Submitted: 07.30.2025
Application # (in City's online permitting): LU-25-115	
Site Address: 15 Marjorie St	232 41

Ø	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
√	Complete <u>application</u> form submitted via the City's web-based permitting program	ONLINE
✓	All application documents, plans, supporting documentation, this checklist and other materials uploaded to the application form in OpenGov in digital Portable Document Format (PDF). One hard copy of all plans and materials shall be submitted to the Planning and Sustainability Department by the published deadline.	Detailed in Plan and Narrative

Ø	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✓	Basic property and wetland resource information. (10.1017.21)	ONLINE
√	Additional information required for projects proposing greater than 250 square feet of permanent or temporary impacts. (10.1017.22)	setbacks, locations of wetlands, new and existing
✓	Demonstrate impacts as they relate to the criteria for approval set forth in Section 10.1017.50 (or Section 10.1017.60 in the case of utility installation in a right-of-way). (10.1017.23)	Detailed in Plan and Narrative
✓	Balance impervious surface impacts with removal and/or wetland buffer enhancement plan. (10.1017.24)	Narrative and Landscape Plan

Wetland Conditional Use Permit Application Checklist/February 2025

Ø	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✓	Wetland buffer enhancement plan. (10.1017.25)	Landscape Plan
✓	Living shoreline strategy provided for tidal wetland and/or tidal buffer impacts. (10.1017.26)	N/A
✓	Stormwater management must be in accordance with Best Management Practices including but not limited to: 1. New Hampshire Stormwater Manual, NHDES, current version. 2. Best Management Practices to Control Non-point Source Pollution: A Guide for Citizens and City Officials, NHDES, January 2004. (10.1018.10)	Storm Water Management Plan included
✓	Vegetated Buffer Strip slope of greater than or equal to 10%. (10.1018.22)	parallel to buffer strip
✓	Removal or cutting of vegetation, use of fertilizers, pesticides and herbicides. (10.1018.23/10.1018.24/10.1018.25)	Plant native species, No pest/herbacides
✓	All new pavement within a wetland buffer shall be porous pavement. (10.1018.31)	Permiable pavement to match right of way installed by DPW
✓	An application that proposes porous pavement in a wetland buffer shall include a pavement maintenance plan. (10.1018.32)	Pavement Maintenace plan included
√	Permanent wetland boundary markers shall be shown on the plan submitted with an application for a conditional use permit and shall be installed during project construction. (10.1018.40)	Site Plan and landscape plan
Ø	Requested Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
✓	A narrative/letter addressed to the Conservation Commission Chair (if recommended to Planning Board then an additional narrative addressed to the Planning Board Chair at that time) describing the project and any proposed wetland and/or wetland buffer impacts. Please visit the WCUP instruction page for further application instructions.	In submission Materials
√	If New Hampshire Department of Environmental Services (NHDES) Standard Dredge and Fill Permit is required for this work, please provide this permit application at the same time as your submission for a Wetland Conditional Use Permit.	N/A

Applicant's Signature: _	Timothy Hron	Date:	07.30.2025

Letter of Authorization

I Matt Reichl give authorization to Tim Hron to file applications and speak n my behalf regarding 15 Marjorie St application

Matt Reichl

Hron Brothers Construction

Timothy Hron 288 Currier Hill Road Gilmanton, NH 03237 hronbrosconstruction@gmail.com (603) 630-1525

May 5, 2025

Peter Britz, Chairman
Portsmouth Conservation Commission
Planning and Sustainability Director
City of Portsmouth Municipal Complex
1 Junkins Avenue
Portsmouth, NH 03801

Re: Proposed Residential Project at 15 Marjorie Street, Portsmouth, NH – Addition and Retaining Wall

Dear Mr. Britz,

I am writing on behalf of **Matt and Beth Reichl**, the property owners at **15 Marjorie Street**, **Portsmouth**, **NH**, to formally submit a residential improvement project for review by the **Portsmouth Conservation Commission**.

The proposed work includes the construction of a **18x34' sunroom/covered porch**, **20x32' addition** and installation of an approx. 120' **retaining wall** to support native landscaping and improve site grading. The property lies within or near the **inland wetland buffer zone**, and we are committed to ensuring that the project meets all local and state environmental regulations.

A **site plan and supporting documents** have been prepared and are enclosed for your review. We are mindful of the property's proximity to sensitive environmental areas and will incorporate appropriate **erosion control measures** and **low-impact stormwater practices** to minimize environmental impact during and after construction.

The project was designed and will be managed by **Hron Brothers Construction**, based in Gilmanton, NH. I will serve as the primary point of contact throughout the review and construction process.

We respectfully request to be placed on an upcoming **Conservation Commission agenda** to present the project and respond to any questions the Commission may have.

Thank you for your time and consideration. Please feel free to contact me at **(603) 630-1525** or **hronbrosconstruction@gmail.com** if you require any additional information prior to the meeting.

Sincerely,

Timothy Hron

Hron Brothers Construction 288 Currier Hill Road Gilmanton, NH 03237 hronbrosconstruction@gmail.com (603) 630-1525

Hron Brother's Construction

288 Currier Hill Rd Gilmanton, NH 03237 Hronbrosconstruction@gmail.com 603.630.1525

04.30.2025

Portsmouth Conservation Commission

1 Junkins Avenue Portsmouth, NH 03801

Re: Proposed Addition at 15 Sylvester Street - Wetland Buffer Criteria Compliance

Dear Members of the Conservation Commission,

I am writing to respectfully submit information regarding a proposed development at 15 Sylvester Street, Portsmouth, NH, (tax map 232, lot 41 and 232, lot 29) and to address the criteria required under the City's Wetland Protection Ordinance for projects within a wetland buffer. This letter outlines how the proposed work complies with each of the six criteria specified by the ordinance.

1. Suitability of Land for Proposed Use

The parcel at 15 Sylvester Street is reasonably suited to the proposed residential development, which will be located on an existing lot of record in a residential neighborhood. The site is predominantly upland with sufficient elevation, and the proposed use is consistent with surrounding properties and zoning regulations. Site design has been carefully planned to avoid disturbance to critical wetland areas.

2. Lack of Feasible Alternative Locations Outside the Wetland Buffer

Given the size and configuration of the lot, as well as existing constraints such as setbacks and lot coverage limitations, there is no feasible or reasonable alternative location for the proposed structure that would avoid the wetland buffer entirely. The design minimizes encroachment to the greatest extent possible while preserving the integrity and usability of the lot.

3. No Adverse Impact on Wetland Functional Values

The project has been designed to preserve wetland function by maintaining natural drainage patterns, incorporating erosion control measures, and avoiding direct alteration of the wetland itself. Buffer impacts are minor and temporary, and the development will not impair flood storage, water quality, wildlife habitat, or other wetland functions on the site or surrounding properties.

4. Limited Alteration of Natural Vegetative State

Disturbance to the natural vegetative state within the buffer will be limited strictly to what is necessary for construction access and structural footprint. Mature vegetation and existing tree canopy will be preserved wherever feasible, and selective clearing will be done with minimal ground disturbance to avoid long-term ecological disruption.

5. Least Impactful Alternative Selected

Several layout alternatives were evaluated, and the current proposal represents the least impactful configuration. The development has been compactly designed to limit encroachment, with utility placement and access routes chosen to avoid sensitive areas wherever possible.

6. Restoration of Buffer to Natural State

Following construction, disturbed areas within the buffer will be restored to a natural vegetative state to the greatest extent feasible. This will include replanting with native species and implementing measures to prevent invasive plant growth. A buffer restoration and landscaping plan will be submitted as part of the permit application. Additionally, permanent wetland boundary markers will be placed during and after construction.

We believe that the proposed development has been thoughtfully planned to protect wetland values and to meet the intent of the City's conservation regulations. We respectfully request the Conservation Commission's review and support for this project.

Thank you for your time and consideration. Please feel free to contact me if any additional information or clarification is needed.

Sincerely,

Timothy Hron

Hron Brother's Construction

Erosion Control Plan – 15 Marjorie Street, Portsmouth, NH

Project Description:

The project will involve residential construction that disturbs soil, with the addition of new impervious areas. Erosion and sediment control measures will be installed prior to land disturbance and maintained throughout construction.

1. Goals

- Prevent sediment from leaving the site and entering storm drains, wetlands, or neighboring properties.
- Stabilize exposed soils as quickly as possible.
- Maintain compliance with Portsmouth regulations and NHDES stormwater best practices.

2. Pre-Construction Measures

• Perimeter Protection:

- o Install *silt fence* or *erosion control wattles* along all downslope property boundaries and near any catch basins.
- o Stakes set on the downhill side, trench bottom of fence at least 6 inches deep.

• Construction Entrance:

- o Provide a *stabilized construction entrance* (6–8 inches of 1.5–3 inch angular stone, minimum 12 feet wide × 25 feet long) to reduce tracking of sediment onto public roads.
- Sweep streets daily if tracking occurs.

3. During Construction

• Stockpile Management:

- o Locate soil stockpiles away from wetland buffers and storm drains.
- o Cover with tarps or seed if inactive for more than 14 days.

• Stormwater Diversion:

- o Use temporary swales or sandbags to direct runoff away from disturbed areas.
- o Avoid pumping sediment-laden water into storm drains without filtration.

Soil Stabilization:

- Seed and mulch disturbed areas not under active construction within 14 days.
- o Use erosion control blankets on slopes steeper than 3:1.

4. Post-Construction / Final Stabilization

- All disturbed soils will be stabilized by:
 - o 4-6 inches of loam and permanent vegetation (seed or sod), or
 - o Landscape plantings with mulch cover.
- Remove all temporary erosion control measures after vegetation is established.
- Sweep and clean all paved areas before final sign-off.

5. Maintenance & Inspection

- Inspect all erosion control measures weekly and after rainfall events ≥ 0.5 inches.
- Repair or replace damaged controls immediately.
- Keep a log of inspections and maintenance for city review.

Prepared for:

15 Marjorie Street, Portsmouth, NH

Residential Stormwater Management Plan

Property Owners: Matt & Beth Reichl

Address: 15 Sylvester Street, Portsmouth, NH

Lot Size: Approximately 0.25 acres

New Impervious Area: 964 sq. ft. (addition)

Date: 05.05.2025

1. Project Overview

This plan addresses stormwater impacts from the addition of 964 square feet of impervious surface to an existing residential lot. Stormwater practices are proposed to promote infiltration and reduce runoff volume and velocity in accordance with the **New Hampshire Stormwater Manual**.

2. Site Conditions

• **Soil Type**: Sandy loam (Hydrologic Soil Group B)

• **Topography**: Gently sloping to the rear of the property

Vegetation: Mixed lawn and tree canopy

• Wetlands: Approx. 7,380 sq. ft. of inland wetland buffer present on-site

3. Stormwater Management Objectives

- Reduce runoff volume from new impervious surfaces
- Promote infiltration on-site to support groundwater recharge
- Prevent erosion and sediment transport to nearby wetlands
- Improve water quality through natural filtration

4. Proposed Best Management Practices (BMPs)

B. Dry Well for Roof Runoff

- Purpose: Capture and infiltrate rooftop runoff from new addition
- Location: Adjacent to building foundation, downslope side
- **Design Volume**: Sized for the 1-inch water quality storm (~60–80 gallons)
- Construction: Pre-cast concrete or plastic chamber set in gravel trench
- Inlet: Connected to downspouts
- Overflow: Routed to vegetated lawn or existing swale

C. Vegetated Buffer Strip

- Purpose: Treat and slow overland flow before it reaches wetland buffer
- **Location**: At edge of lawn near wetland buffer zone
- Design:

Width: 10 feet minimum

Slope: Less than 5%

• **Vegetation**: Dense mix of native grasses and shrubs

5. Maintenance Plan

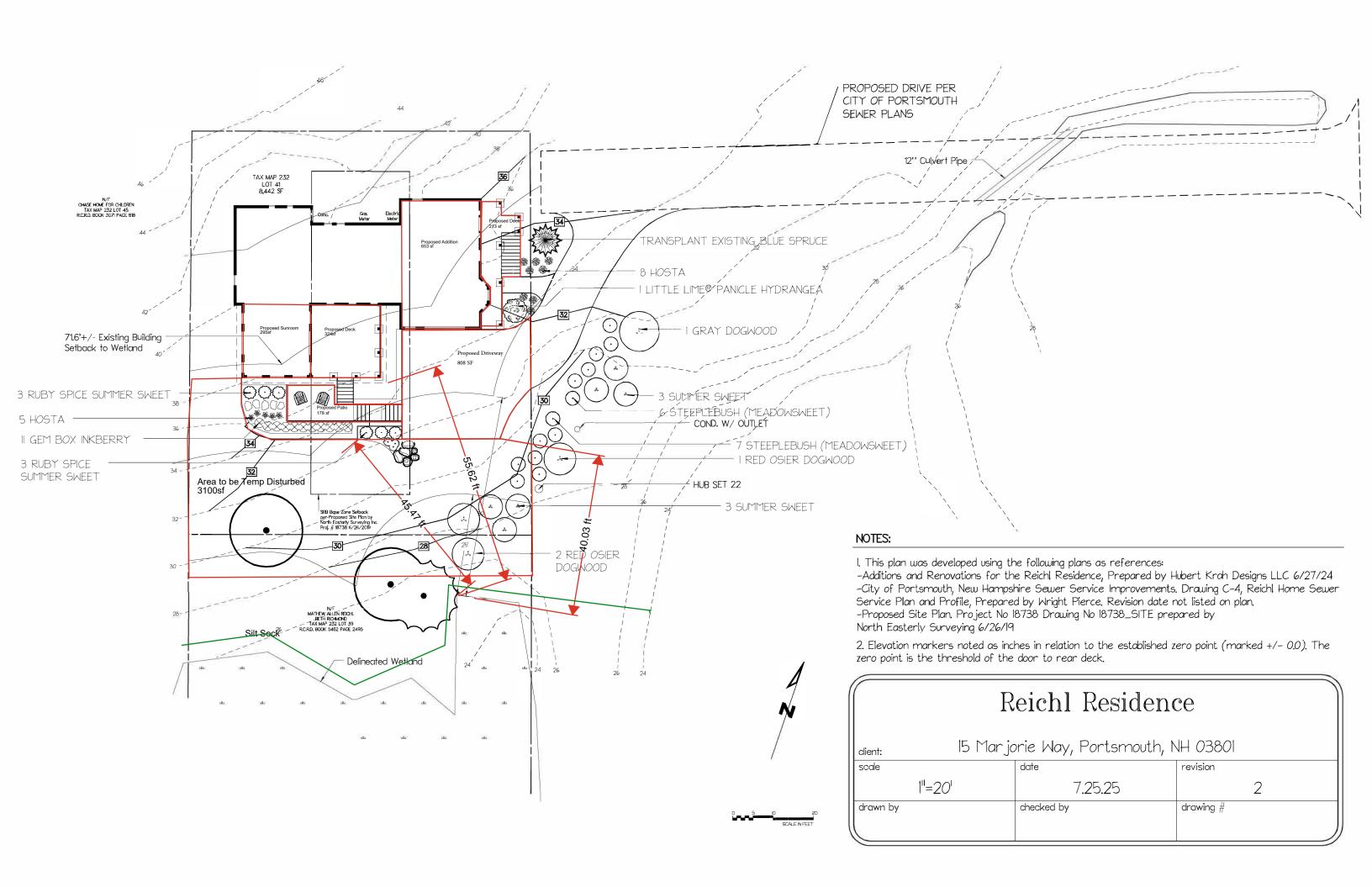
ВМР	Task	Frequency	
Permeable Pavers	Sweep/vacuum to remove sediment	: Quarterly	
Dry Well	Inspect inlet/outlet, clean debris	Biannually and after storms	
Vegetated Buffer Strip Mow high grasses, remove invasives Monthly during growing season			

6. Regulatory Compliance

This plan follows design guidance provided in the **New Hampshire Stormwater Manual**, especially:

- Volume 2: Post-Construction Best Management Practices
- Volume 3: Stormwater Site Design and Infiltration Guidelines

All BMPs are designed with adequate separation from seasonal high groundwater (>4 feet where infiltration is proposed), and no structures encroach within required buffers for jurisdictional wetlands.



The Matt and Beth Reichl Residence

15 Marjorie Lane, Portsmouth NH 03801

Additions and Renovations

Architectural Design Drawing List

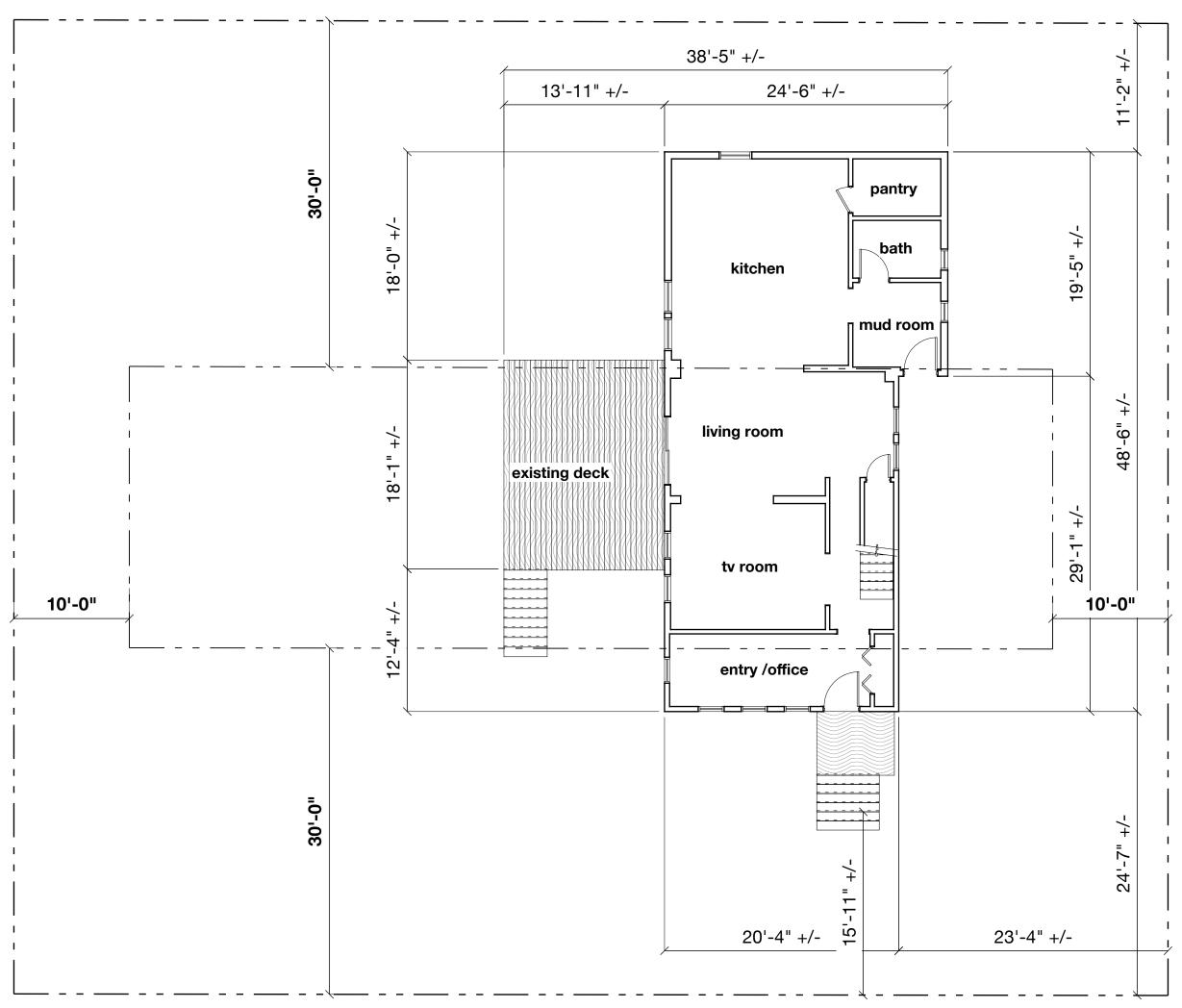
EXISTING AND NEW PLOT PLANS

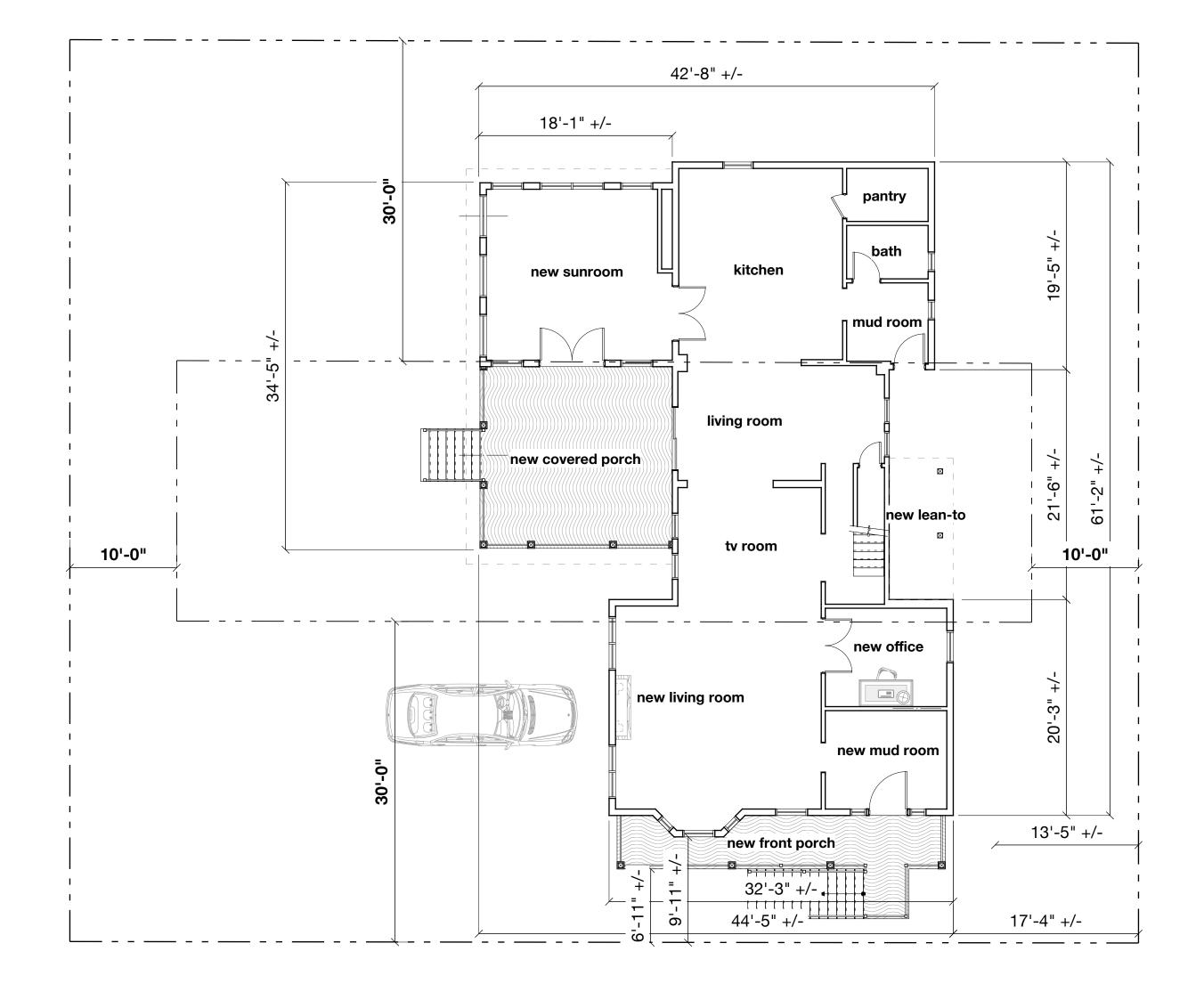
EXISTING & NEW BASEMENT PLAN **EXISTING & NEW FIRST FLOOR PLAN** EXISTING & NEW SECOND FLOOR PLAN

EXISTING & NEW ROOF PLAN

NEW EXTERIOR ELEVATIONS SOUTH & EAST

NEW EXTERIOR ELEVATIONS NORTH & WEST





LOT # 232-41 (existing)

GROSS BASEMENT AREA LOT SIZE 8,431 SQFT EX'G FOOT PRINT 1,396 SQFT **GROSS FIRST FLOOR AREA** EX'G LOT COVERAGE 16.6% GROSS SECOND FLOOR AREA TOTAL **EXISTING DECK EXISTING LANDING**

TOTAL WITH DECK & LANDING

Existing Plot Plan

1/8" = 1'-0"

LOT # 232-41 (proposed)

		GROSS BASEMENT AREA	1,110 SQFT
LOT SIZE	8,431 SQFT	GNOSS BASEIVILINI ANLA	1,110 301 1
EX'G FOOT PRINT	1,396 SQFT	GROSS FIRST FLOOR AREA	1,887 SQFT
EX'G LOT COVERAGE	16.6%2		.,
		GROSS SECOND FLOOR AREA	1,561 SQFT
NEW FOOT PRINT	2,416 SQFT		
NEW LOT COVERAGE	28.7%	TOTAL	4,558 SQFT
ALLOWED FOOT PRINT (20%)	1,686 SQFT	NEW FRONT PORCH	130 SQFT
ALLOWED FOOT PRINT IF 15,000 SQFT	3,000 SQFT	NEW COVERED PORCH	306 SQFT
NEW LOT COVERAGE IF 15,000 SQFT	16.1%	NEW COVERED FORCH	300 3QI I
		TOTAL WITH PORCHES	4,994 SQFT
			.,

Proposed New Plot Plan

470 SQFT

1,067 SQFT

917 SQFT

2,454 SQFT

2,744 SQFT

253 SQFT

37 SQFT



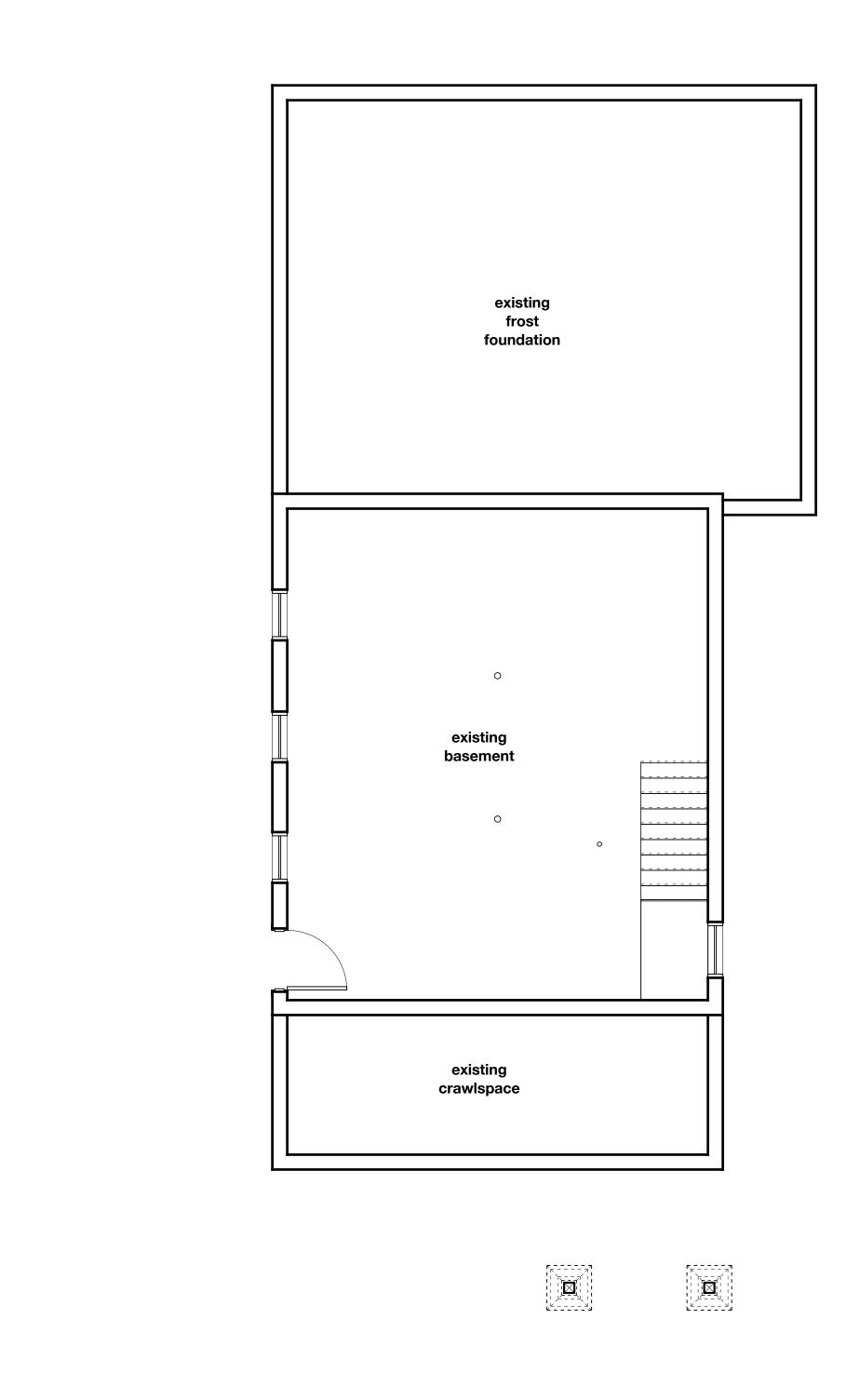
DRAWINGS COMPRISING THE CONTRACT DOCUMENTS. WITH ALL APPLICABLE CODES IN EFFECT AT THE TIME OF CONSTRUCTION AND/OR INSTALLATION. HOWEVER, CODE COMPLIANCE IS THE RESPONSIBILITY OF THE CONTRACTOR(S), AND ANY DISCREPANCIES CONTRACTOR(S) SHALL VERIFY ALL SITE CONDITIONS AND DIMENSIONS DO NOT SCALE DRAWINGS FROM PRINTS OR REPRODUCTIONS. SCALE Progress Issues: 06/27/24 BETH & MATT REICHL, HBC Permit Issues: Construction Issues: Additions and Renovations The Reichl Residence 15 Marjorie Street Portsmouth NH 03801

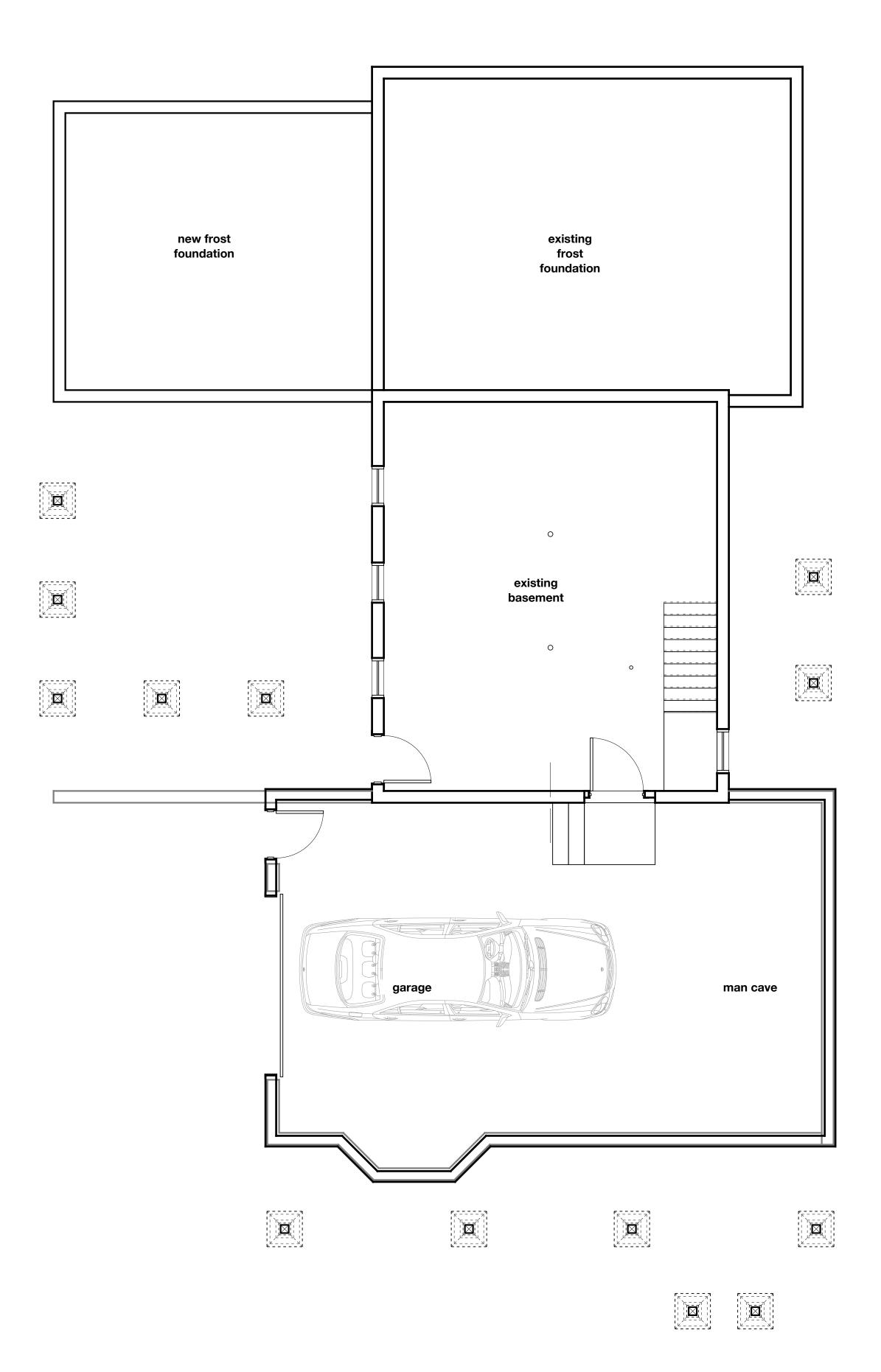
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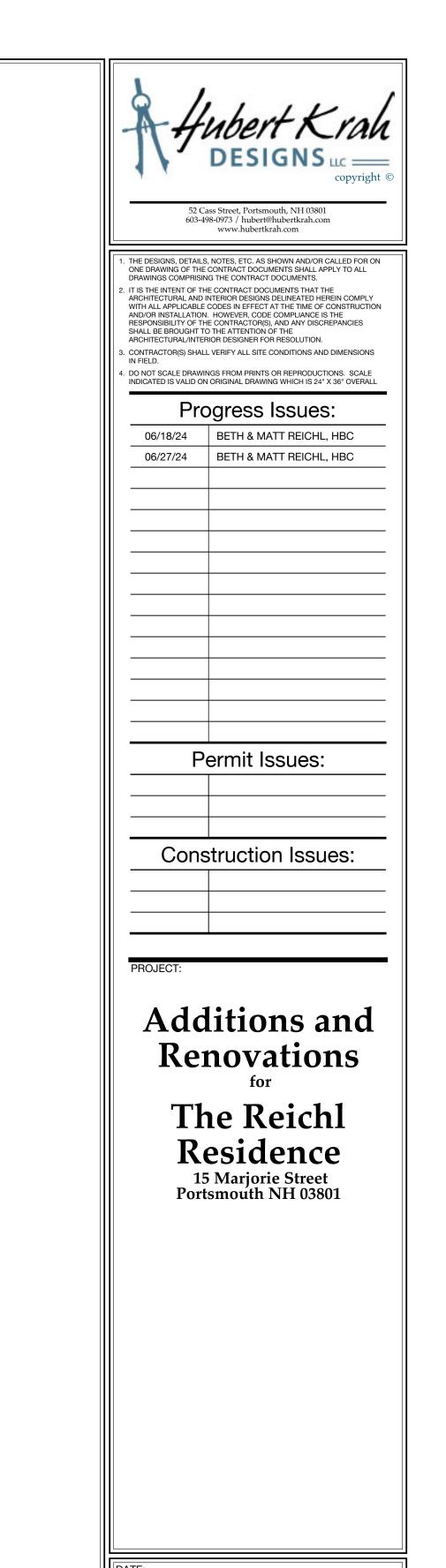
PROGRESS ISSUE

Architectural Plot Plans & Title

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06/27/24

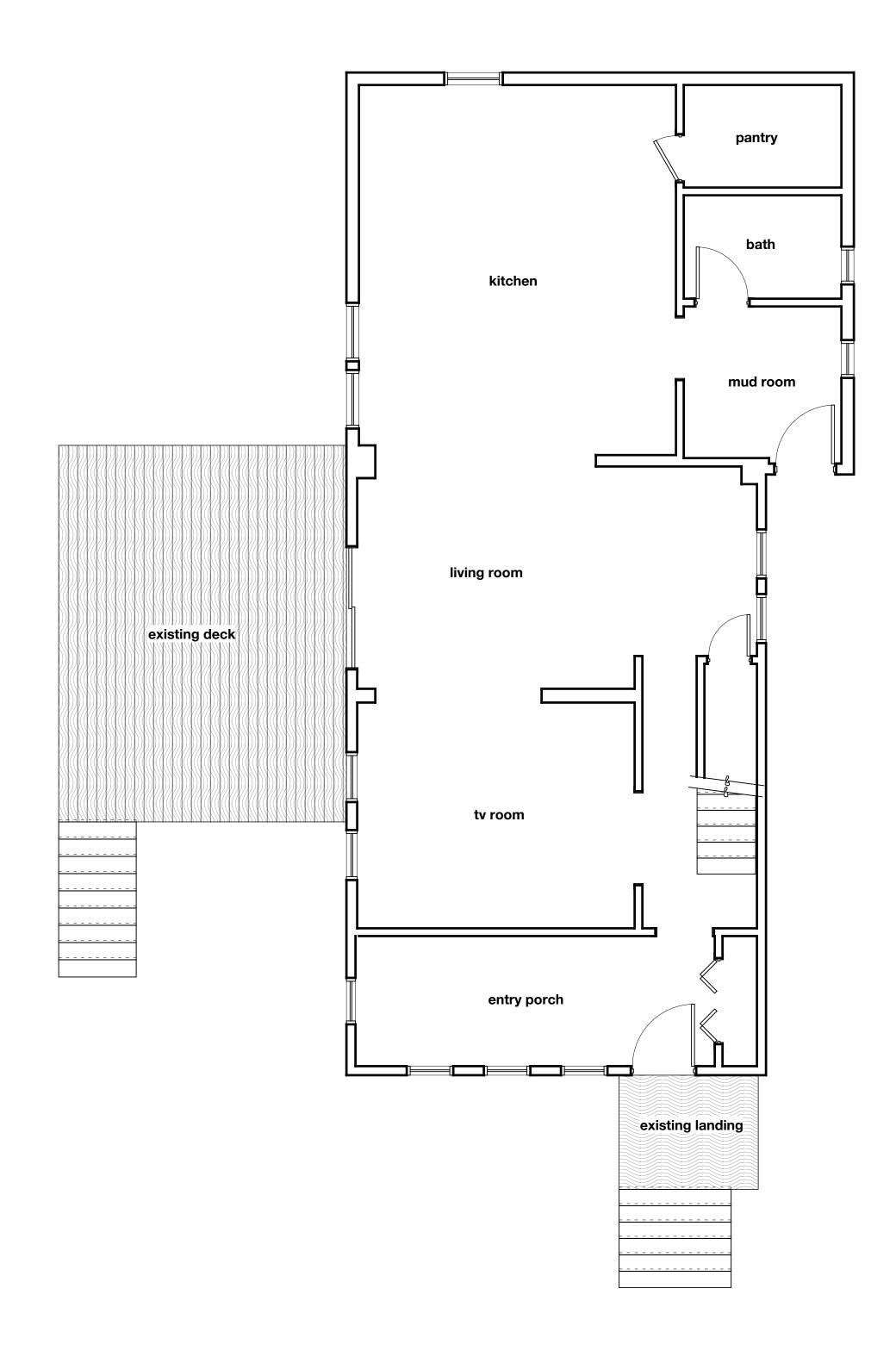
PROGRESS ISSUE

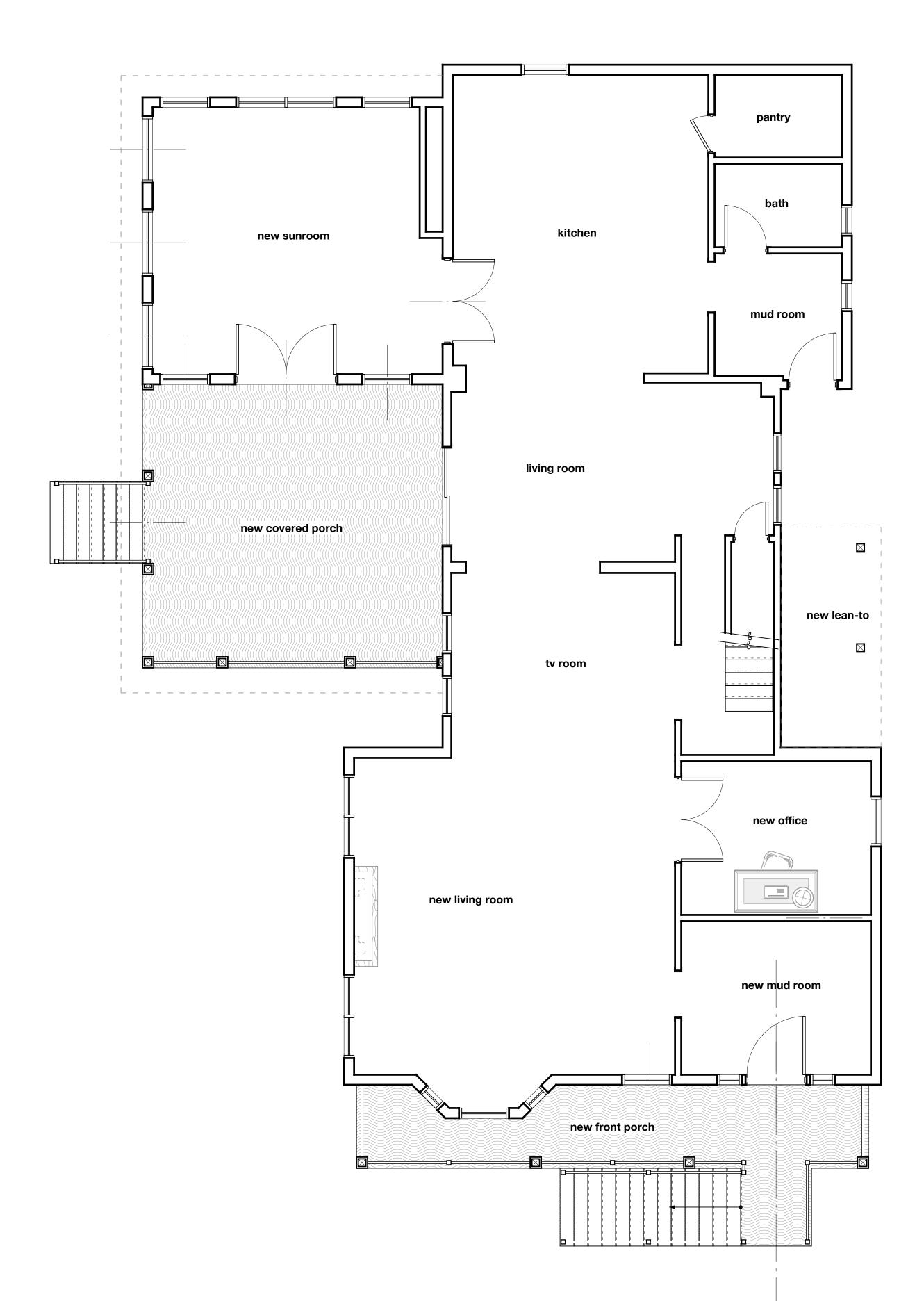
Architectural Floor Plans **Basement**

AD-1.00

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K - - - - 3







 THE DESIGNS, DETAILS, NOTES, ETC. AS SHOWN AND/OR CALLED FOR ON ONE DRAWING OF THE CONTRACT DOCUMENTS SHALL APPLY TO ALL DRAWINGS COMPRISING THE CONTRACT DOCUMENTS. 2. IT IS THE INTENT OF THE CONTRACT DOCUMENTS THAT THE ARCHITECTURAL AND INTERIOR DESIGNS DELINEATED HEREIN COMPLY WITH ALL APPLICABLE CODES IN EFFECT AT THE TIME OF CONSTRUCTION AND/OR INSTALLATION. HOWEVER, CODE COMPLIANCE IS THE RESPONSIBILITY OF THE CONTRACTOR(S), AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECTURAL/INTERIOR DESIGNER FOR RESOLUTION.

3. CONTRACTOR(S) SHALL VERIFY ALL SITE CONDITIONS AND DIMENSIONS IN FIELD. 4. DO NOT SCALE DRAWINGS FROM PRINTS OR REPRODUCTIONS. SCALE INDICATED IS VALID ON ORIGINAL DRAWING WHICH IS 24" X 36" OVERALL

Progress Issues:

06/18/24 BETH & MATT REICHL, HBC 06/27/24 BETH & MATT REICHL, HBC

Permit Issues:

Construction Issues:

Additions and Renovations

> The Reichl Residence
> 15 Marjorie Street
> Portsmouth NH 03801

06/27/24

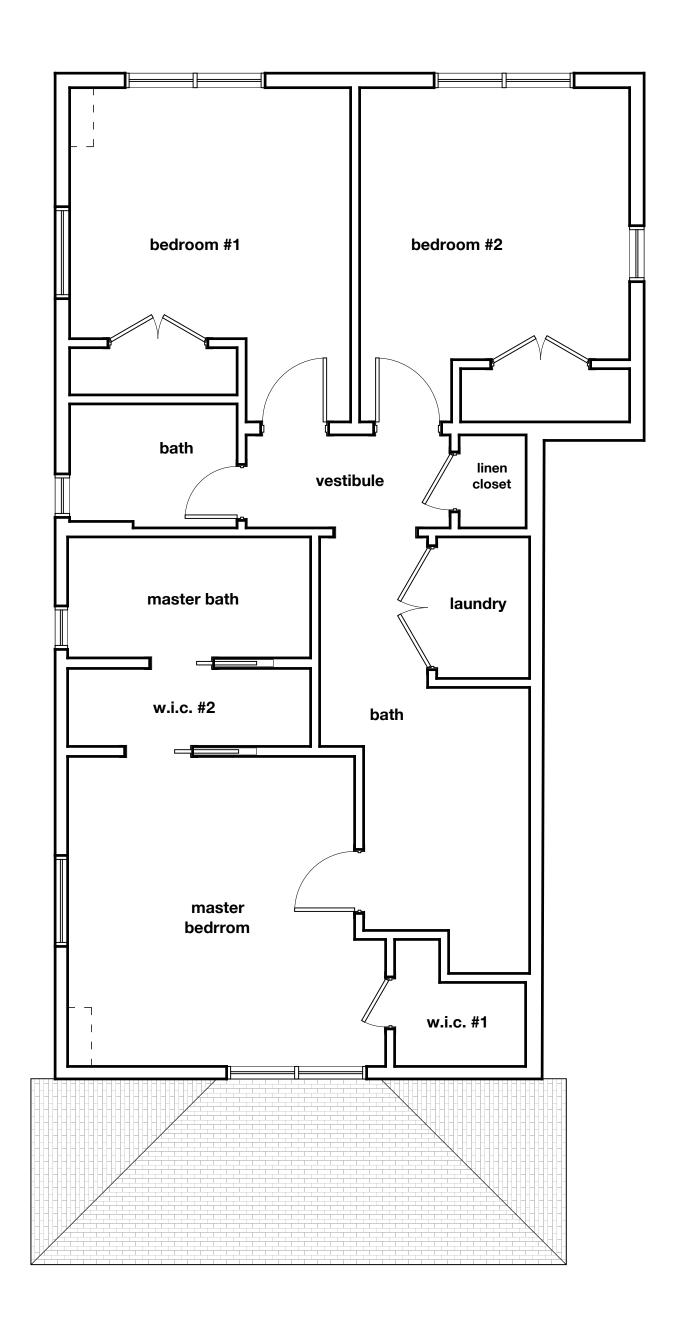
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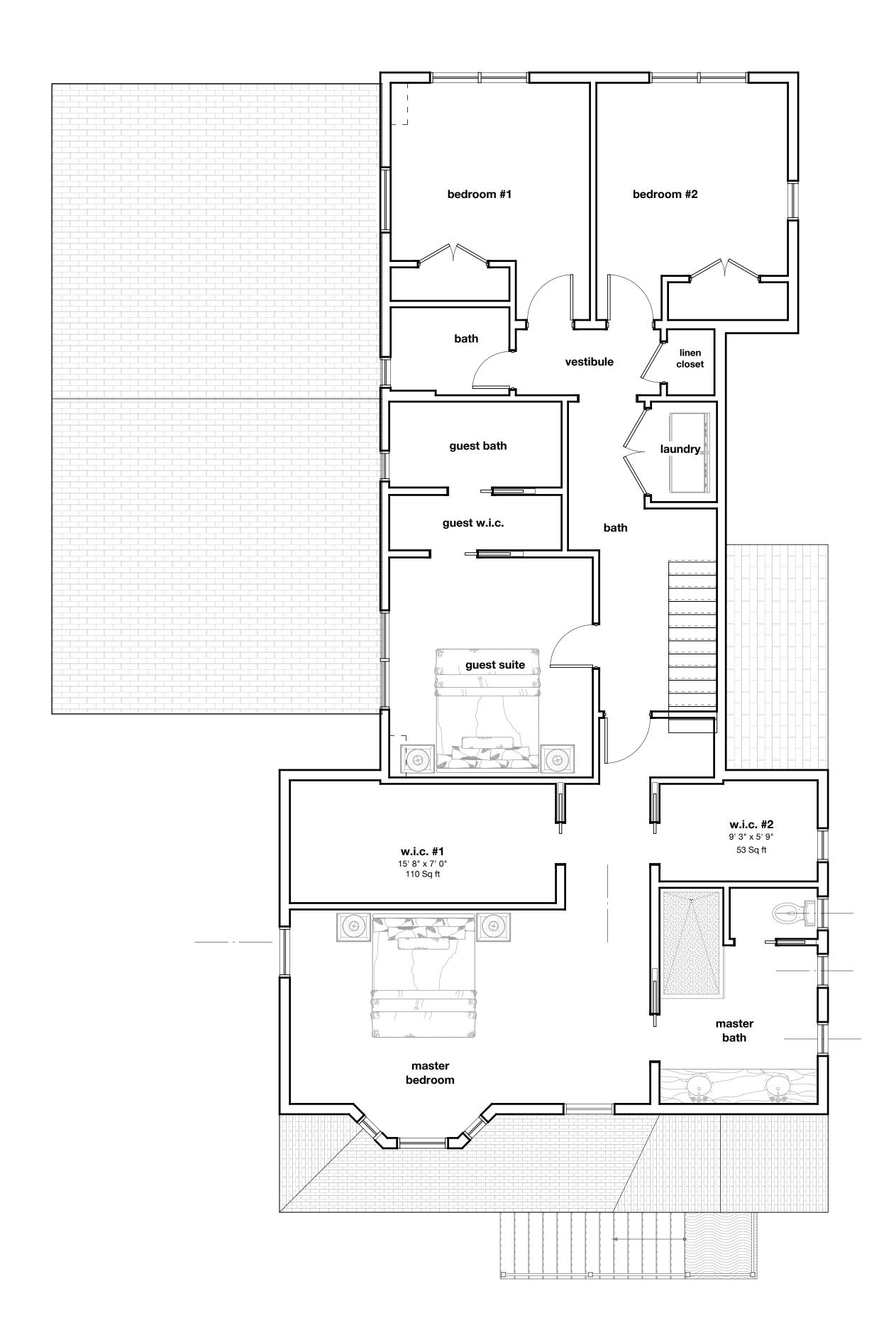
Architectural Floor Plans **First Floor**

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AD-1.01

Proposed New Floor Plan @ First Floor







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> The Reichl Residence
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06/27/24

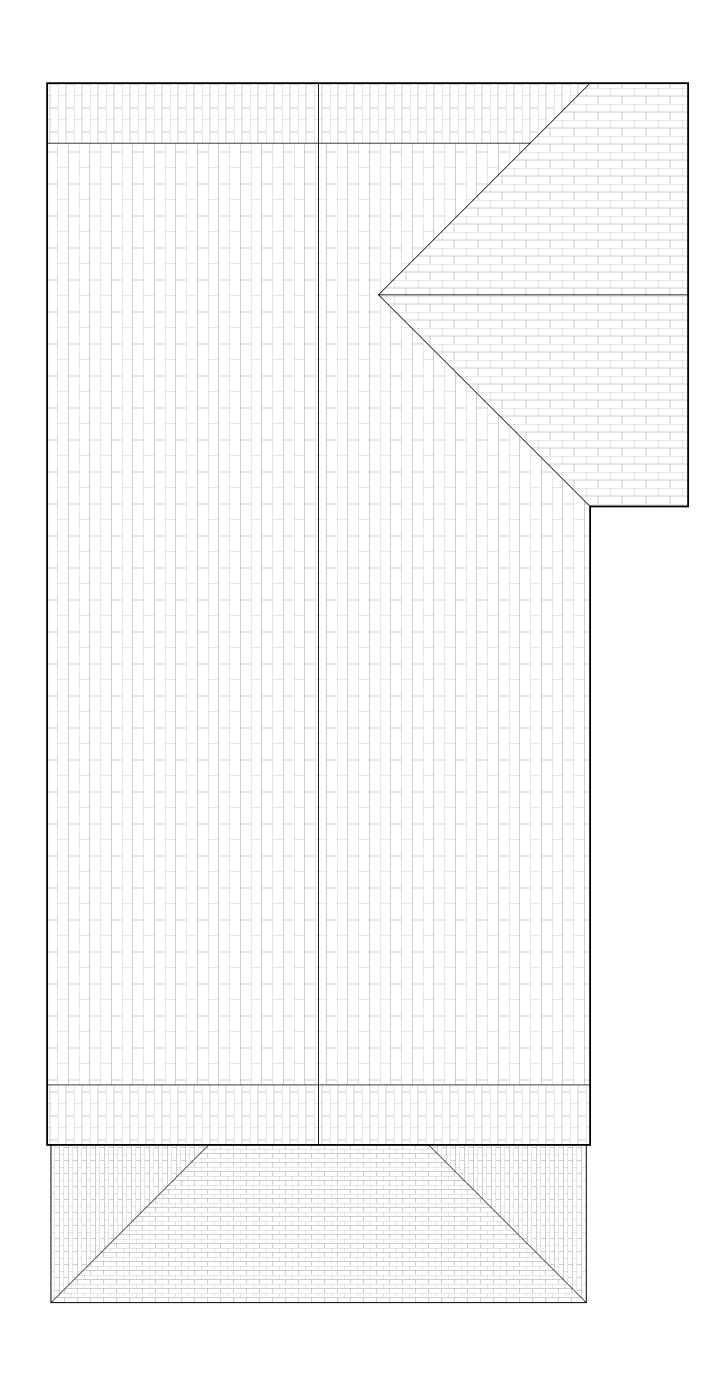
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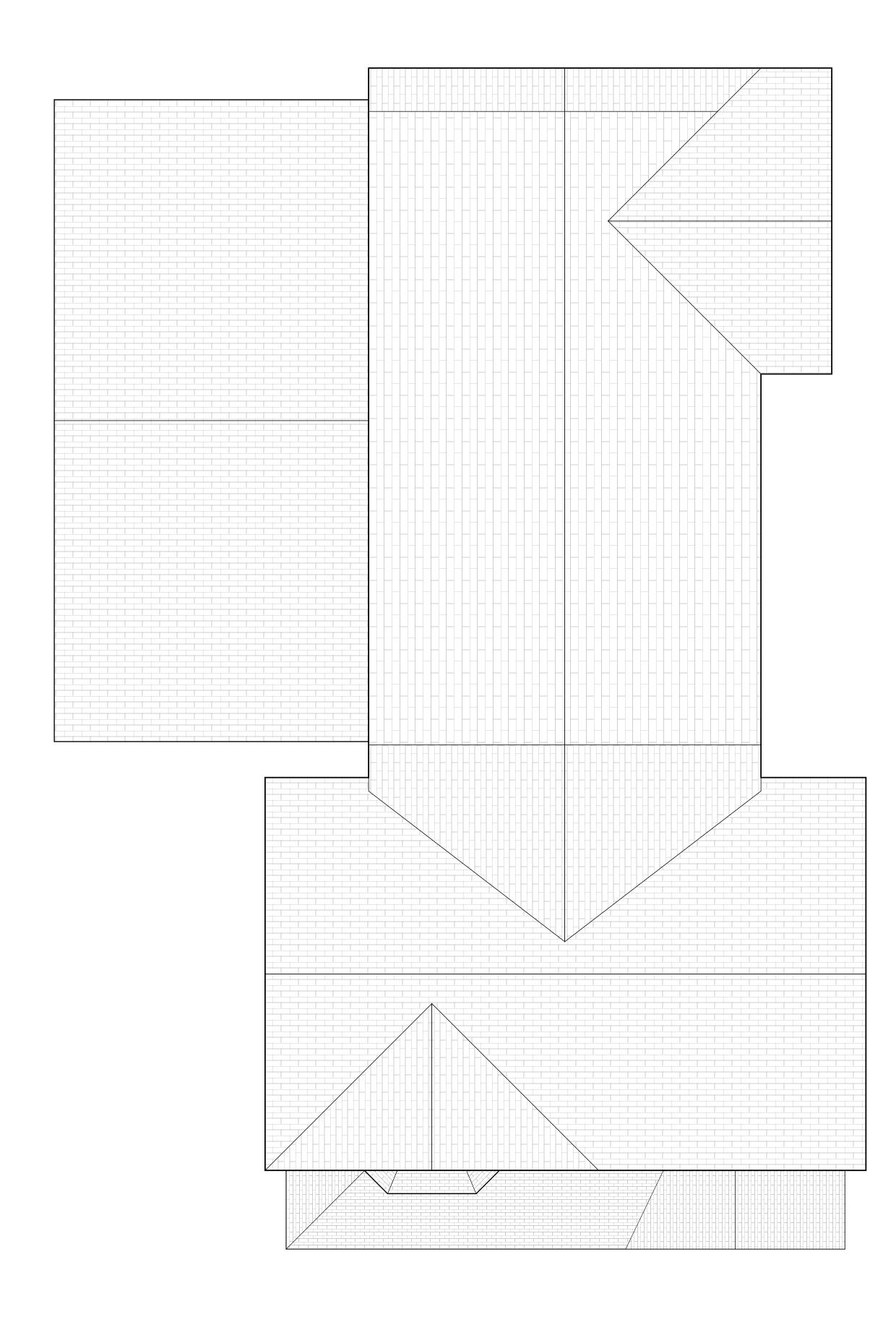
Architectural Floor Plans **Second Floor**

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Existing Floor Plan @ Second Floor

1/4" = 1'-0"







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Construction Issues:

Permit Issues:

Additions and Renovations

The Reichl Residence 15 Marjorie Street Portsmouth NH 03801

06/27/24

PROGRESS

Architectural Floor Plans Roof

ISSUE

AD-1.03





52 Cass Street, Portsmouth, NH 0380 603-498-0973 / hubert@hubertkrah.co

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06/27/24 BETH & MATT REICHL, HBC

Permit Issues:

Construction Issues:

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Additions and Renovations

The Reichl Residence 15 Marjorie Street Portsmouth NH 03801

06/27/24

00/21/2

PROGRESS
ISSUE

New Exterior **Elevation** South & East

AD-3.01











Pavement Maintenance plan

Inspect the Driveway

- Look for leaves, dirt, or water that isn't draining.
- · Check for weeds or loose areas.

Clean the Surface

- Use a **leaf blower**, **broom**, or **stiff brush** to remove leaves, dirt, and debris.
- Sweep gently to avoid pushing dirt into the surface.

2. Seasonal or As-Needed Tasks

Remove Weeds

- Pull weeds by hand, roots and all.
- Consider adding a layer of gravel or sand between pavers to block new growth (use only clean material).

Fix Uneven Areas

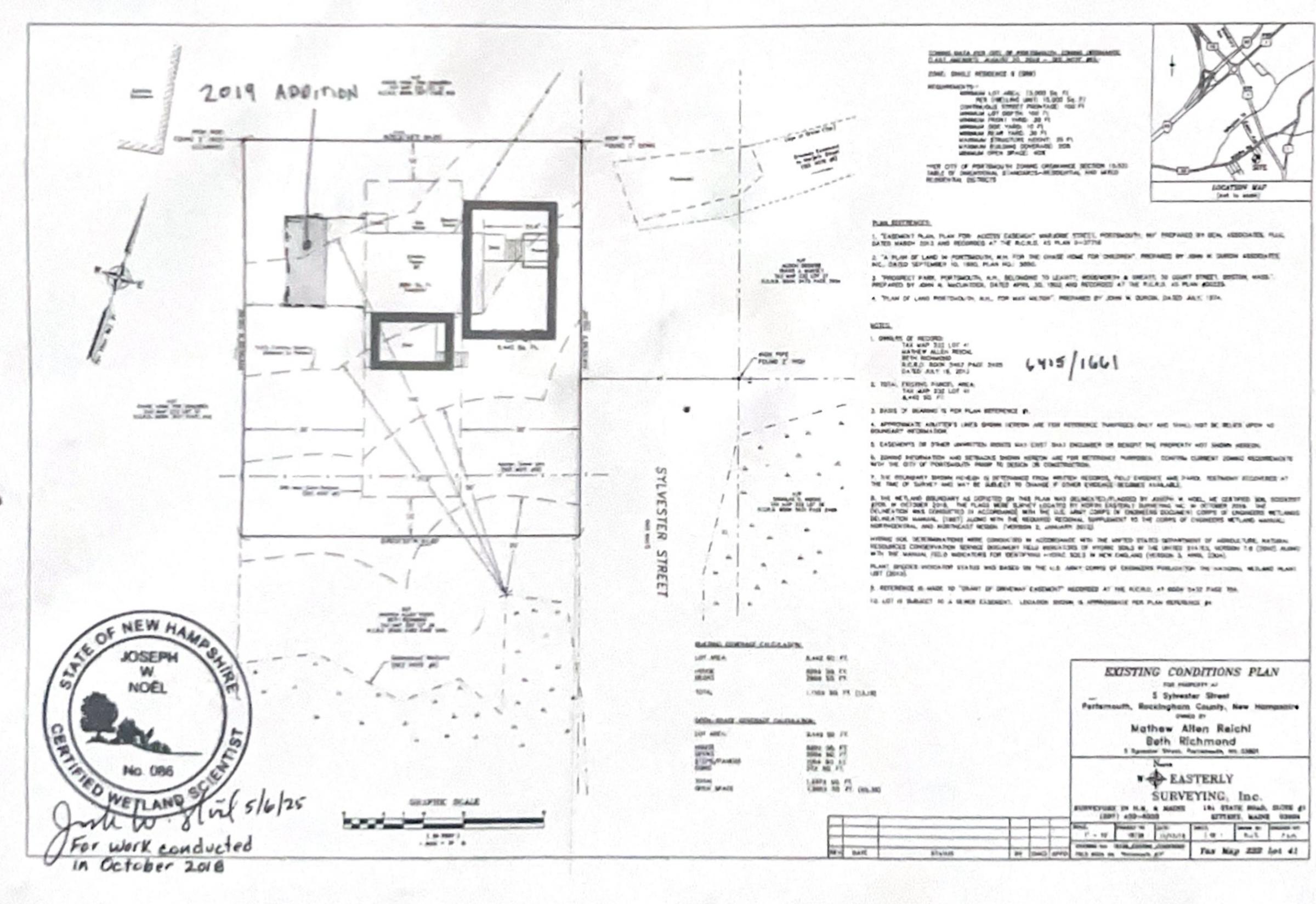
- If pavers or stones settle, lift and re-level them.
- Add more base material (gravel or sand) under the pavers if needed.

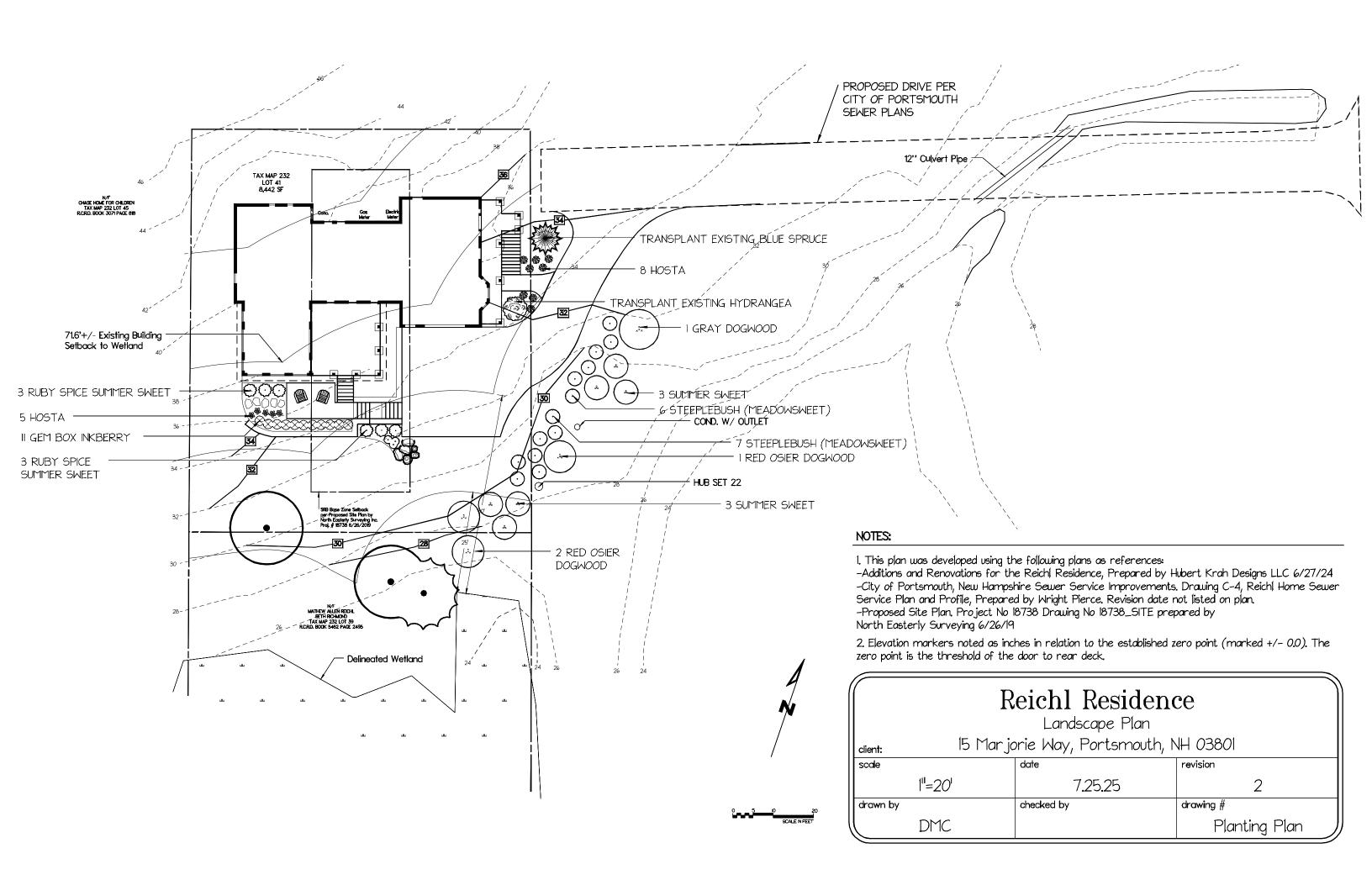
Check Drainage

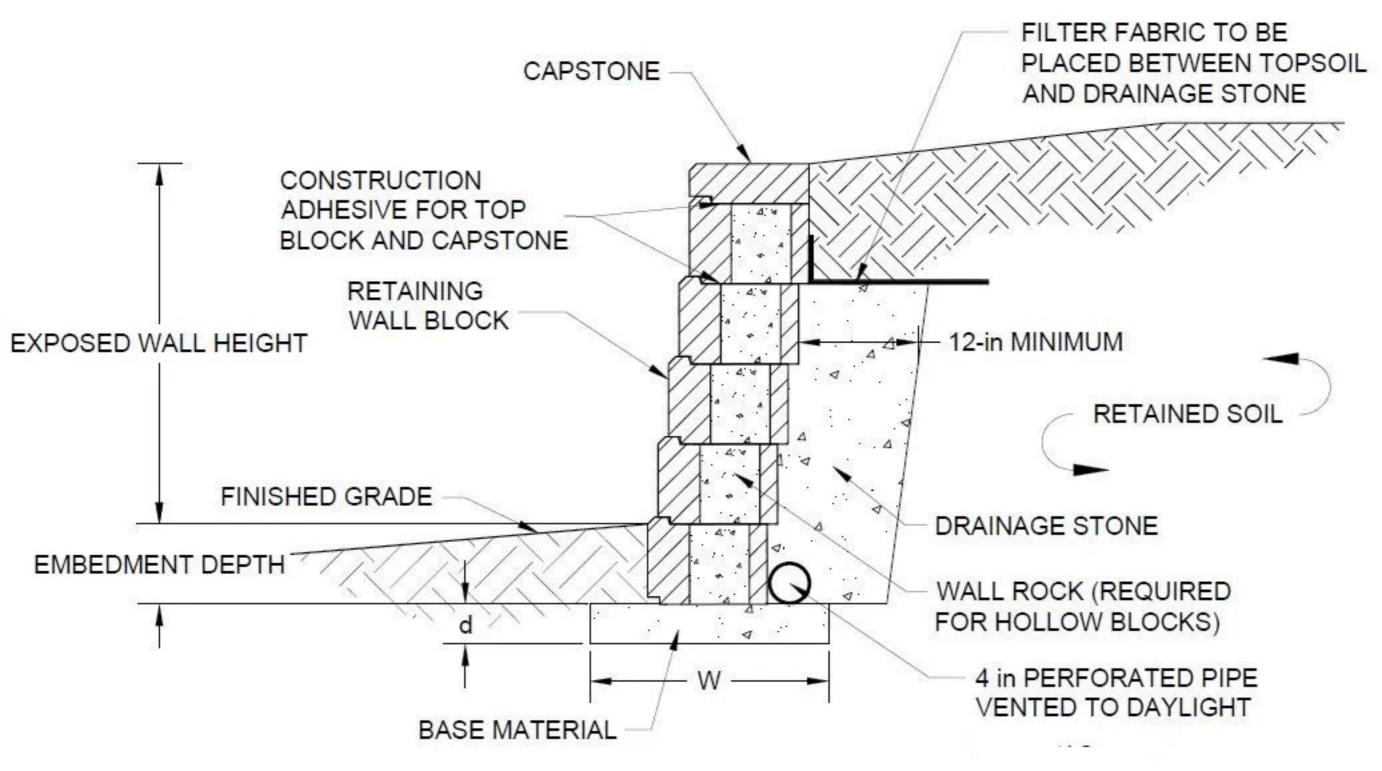
- After a rain, look for spots where water doesn't soak in.
- If water pools, sweep or lightly rake to loosen dirt, or consider professional vacuum cleaning once a year.

Winter Tips (No Salt or Sand)

- Use a plastic shovel or snow blower to remove snow without damaging the surface.
- Don't use **salt**, **sand**, **or ash**, as they can clog the pores.
- Let small amounts of snow melt naturally if it's safe to do so.







SECTION 02513A

POROUS BITUMINOUS CONCRETE PAVING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included:
 - 1. Furnish all plant, labor, equipment and materials required to install porous bituminous concrete pavement. Furnish all plant, labor, equipment and materials required to install all layers or aggregates, filter fabric and underdrain below the porous bituminous concrete pavement.
- B. Work Not Included: Removal and replacement of paving for the convenience of the Contractor will not be considered for payment.
- C. Related Work Specified Elsewhere (When Applicable): Earthwork, Bituminous Concrete Pavement and pavement markings.

1.2 <u>SUBMITTALS AND MEETINGS</u>

- A. Contractor shall submit to the Engineer a proposed design for the porous pavement material. Gradations, abrasion, degradation, angularity, hardness and all other applicable test results for all aggregates to be used in the mix shall be submitted. The porous pavement will be discussed at the prepave conference(s).
- B. Delivery slips shall be furnished with each load of mix delivered to the project. Information shall include:
 - 1. Vehicle identification.
 - 2. Date.
 - 3. Project.
 - 4. Identification of material.
 - 5. Gross, tare and net weights.
 - 6. Signed by the bituminous concrete producer.
 - 7. Stamped by a licensed public weighmaster.

PART 2 - PRODUCTS

2.1 POROUS AGGREGATE MEDIA COURSES- MATERIALS

- A. Porous Media Infiltration Beds. Porous media infiltration beds are located below the porous asphalt mix. Gradation and compaction requirements are listed in Table 1. Washed aggregate for the choker course and reservoir course shall meet the following:
 - Maximum Wash Loss of 0.5% (AASHTO T 11 *I* ASTM C 117)
 - Maximum Abrasion Loss of I0% for 100 revolutions, and maximum of 50% for 500 revolutions. (AASHTO T 96 *I* ASTM C 131)
- B. A choker course of crushed stone, meeting the requirements of AASHTO M 43 Standard Size No. 57 shall be located directly below the porous pavement mix at a minimum thickness of 4".
- C. A filter course of poorly graded sand (modified 304.1) is located below the choker course. Filter course material shall have a hydraulic conductivity (also

- referred to as coefficient of permeability) of 10 to 60 ft/day at 95% standard proctor compaction (AASHTO T 99) unless otherwise approved by the Engineer. The filter course shall be located directly below the choker course at a minimum thickness of 12".
- D. A filter blanket that is an intermediate setting bed (3/8-inch pea gravel), located below the filter course at a minimum thickness of 3".
- E. A reservoir course of crushed stone meeting the requirements of AASHTO M 43 Standard Size No. 3 is located over the subgrade materials at minimum thickness of 4".

Table 1. - Gradations and compaction of choker, filter and reservoir course materials.

US Standard Sieve Size	Percent Passing (%)			
Sieve Size inch (mm)	Choker Course (AASHTO Standard Size No. 57)	Filter Course (Modified NHDOT 304.1)	Reservoir Course (AASHTO Standard Size No.3)	Reservoir Course Alternative* (AASHTO Standard Size No.5)
6 (150)		100		
2.5 (63)		-	100	
2 (50)		-	90-100	
1.5 (37.5)	100	-	35-70	100
1 (25)	95-100	-	0-15	90-100
0.75 (19)	-	-	-	20-55
0.50 (12.5)	25-60	-	0-5	0-10
0.375 (9.5)	-	-	-	0-5
No.4 (4.75)	0-10	70-100	-	-
No.8 (2.36)	0-5		-	-
No.200 (0.075)	-	0-6**	-	-
% Compaction (AASHTO T 99)	95	95	95	95

^{*} Alternate gradations (e.g. AASHTO Standard Size No. 5) may be accepted upon Engineer's approval.

2.2. POROUS PAVEMENT MIX- MATERIALS

Bituminous materials used for asphalt cement binder shall meet the properties specified in AASHTO M 320. The grade of asphalt cement binder for this project shall be PG 64-28 SBR with 5 pounds of fibers per ton of asphalt mix. The dosage of fiber additives shall be either 0.25 percent cellulose fibers or 0.4 percent mineral fibers by total mixture mass. Table 2 provides the Porous Asphalt Mix Criteria. Porous pavement shall be applied at a minimum thickness of 4".

^{**} Preferably less than 4% fines

Table 2 - Porous Asphalt Mix Design Criteria

Sieve Size (inch/mm)	Percent Passing (%)
0.75 (19)	100
0.50 (12.5)	85-100
0.375 (9.5)	55-75
No. 4 (4.75)	10-25
No 8 (2.36)	5-10
No. 200 (0.075)	2-4
Binder Content (AASHTO T 164)	6-6.5%
Fiber Content by Total Mixture Mass	0.25 cellulose or 0.4% mineral
Air Void Content	
(ASTM D6752/AASHTO T 275)	16.0-22.0%
Draindown (ASTM D 6390)_*	<0.3%
Retained Tensile Strength (AASHTO T 283)**	>80%

- * Cellulose or mineral fibers may be used to reduce draindown.
- ** If the TSR (retained tensile strength) values fall below 80% when tested per NAPA IS 131 (with a single freeze thaw cycle rather than 5), then in Step 4, the contractor shall employ an antistrip additive, such as hydrated lime (ASTM C977) or a fatty amine, to raise the TSR value.

PART 3 – EXECUTION AND CONSTRUCTION REQUIREMENTS

3.1 GENERAL

- A. Porous media aggregate bases shall only be compacted to establish sound contact between particles. Overcompaction must be avoided to protect the infiltration capacity of the soil materials.
- B. Material delivered to the spreader not having a temperature between 275° and 325° F (135° and 163° F), within 10° F (6° C) of the compaction temperature for the approved mix design, will not be used.
- C. Rollers shall move at a slow but uniform speed with the drive roll or drive wheels nearest the paver, except on steep grades. Static rollers shall not operate at speeds in excess of 6 mph (10 km/h). All courses shall be rolled until all roller marks are eliminated. The compaction objective is 16% 19% in-place void content (Core-Lok test, AASHTO TP-69). When ordered by the Engineer, density tests shall be taken at the beginning of the porous pavement course construction to establish the correct rolling patterns that will achieve the required density.
- D. Breakdown rolling shall occur when the mix temperature is between 135-163°C (275 to 325°F). Intermediate rolling shall occur when the mix temperature is between 93-135°C (200 to 275°F). Finish rolling shall occur when the mix temperature is between 66-93°C (150 to 200°F). The cessation temperature occurs at approximately 79°C (175°F).

END OF SECTION