

December 16, 2020

## **Stormwater Management Report**

### **Property location:**

**239 Northwest Street  
Tax Map 122, Lot 3  
Portsmouth, NH**

### **Prepared for:**

**Michael Petrin, Katie Marie Laverriere,  
and Nathan Laverriere  
268 Dennett Street  
Portsmouth, NH 03801**

The Stormwater Management has been reviewed on the above-referenced property with regards to the NHDES Shoreland Permit Application requirements within the protected shoreland buffer. The rules require that “for any project proposing that the impervious area be greater than 20% within the protected shoreland, plans [are required] for a stormwater management system that will infiltrate increased stormwater from the development.” Since the proposed plan exceeds the 20% impervious area, appropriate measures are proposed.

### ***Existing conditions:***

The subject property is located at the end of Northwest Street adjacent to US Route 1 in Portsmouth. The property is within the shoreland buffer of North Mill Pond. North Mill Pond is tributary to the Piscataqua River, and both are subject to the tide. The total area of the property is 3,722 s.f. or 0.085 ac. There is an existing house and separate garage on the property and a short single drive to the garage. The total impervious area on the property is approximately 1,898 s.f. or 51% of the total lot area. The remaining area is mostly lawn. The NRCS Web Soil Survey indicates that the soils on the property are Urban Land – Canton complex. Canton soils are a hydrologic Group B soil consisting of moderately well drained to well drained soils with moderate infiltration rates

The property generally slopes very gently from Northwest Street in the front of the house toward the back northerly side of the property and to a lesser extent toward the westerly side of the property. Most stormwater runoff would flow toward the back of the property to a low point between the house and Route 1. A small portion of the lot area in the front of the property drains in a westerly direction toward an existing catch basin in Northwest Street. This basin flows directly into North Mill Pond. It appears that the stormwater draining to back yard area would naturally infiltrate into the underlying soils.

### ***Proposed Improvements:***

The proposed plan includes removing a small ell on the back of the house and constructing a two-story addition on the back with a new deck in the location of ell. The deck in the front of the house would be removed and steps to the front door would be built. The total impervious area as a result of the improvements would increase by 112 sf to a total impervious area of 2010 s.f. or

54% of the total lot area. There are no proposed changes to the grades or the drainage patterns on the site.

In order to improve the stormwater management and improve the infiltration on the site, a dripline trench is proposed under all roof eaves on the front and the back of the house. These trenches will collect and store roof runoff until it infiltrates into the underlying soils.

***Summary:***

There is very little stormwater runoff leaving the site. A small portion of the southwest corner of the site drains toward the catch basin in Northwest Street. Most of the stormwater runoff is directed to the back of the property to a low point between the house and Route 1 and infiltrates into the ground. Dripline trenches are proposed in the front and back of the house in order to collect and store roof runoff until it infiltrates into the underlying soils. This proposed best management practice will enhance the property and improve the stormwater management.

No stormwater calculations are necessary since all the stormwater stays on the subject property. There will be no increase in stormwater runoff leaving the site as a result of the proposed improvements.

A copy of the NRCS Web Soil Survey Map is attached.

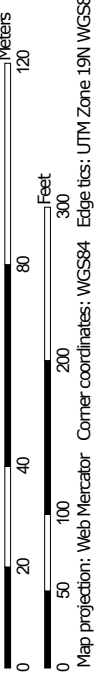


*R. Burd*

Soil Map—Rockingham County, New Hampshire  
(239 Northwest Street)



Map Scale: 1:1,500 if printed on A landscape (11" x 8.5") sheet.



## MAP LEGEND

- Area of Interest (AOI)
- Area of Interest (AOI)
- Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points
- Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- 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 22, May 29, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Sep 9, 2017

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.

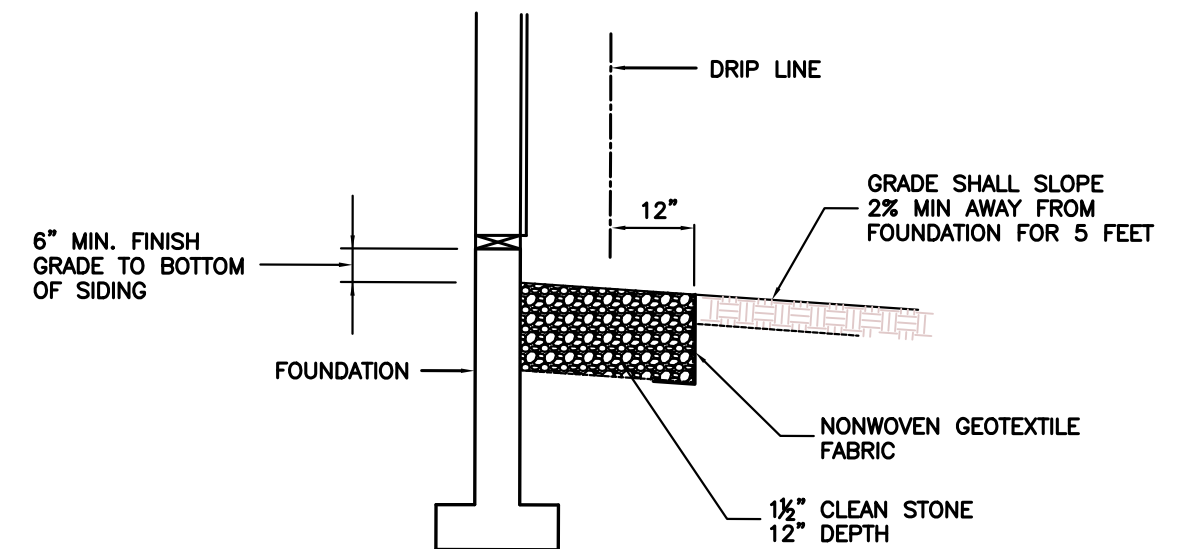
## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
799	Urban land-Canton complex, 3 to 15 percent slopes	0.1	100.0%
<b>Totals for Area of Interest</b>		<b>0.1</b>	<b>100.0%</b>

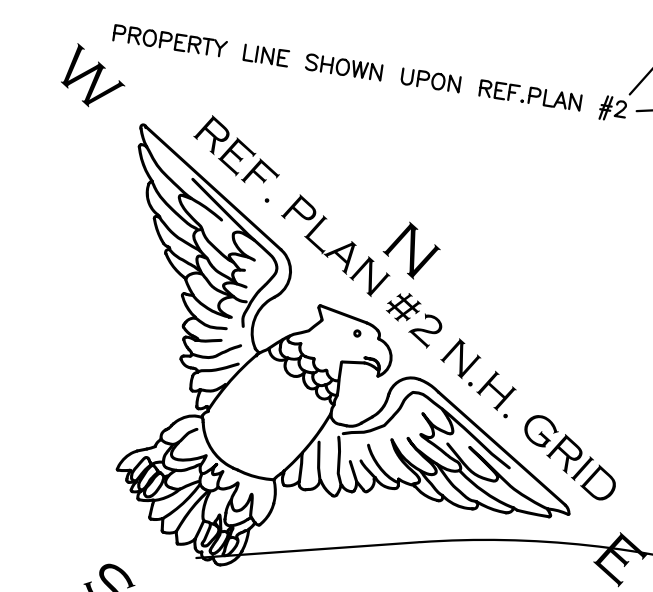
REFERENCE PLANS:  
 1. "STANDARD PROPERTY SURVEY - AND - CONDOMINIUM SITE PLAN OF LAND - OF - LOT 4 TAX MAP U-22 - 250 NORTHWEST STREET - PORTSMOUTH, NH", SCALE:1"=10' DATED 9/9/1996, BY CIVILWORKS, R.C.R.D. PLAN #24961.

2. "STATE OF NEW HAMPSHIRE - DEPARTMENT OF TRANSPORTATION - RIGHT OF WAY PLANS - X5379(025) - NH PROJECT NO. 13455 - US ROUTE 1 BYPASS OVER PISCATAQUA RIVER - BRIDGE NO. 251/108", SCALE:1"=100', BY GM2 ASSOCIATES, REVISED SEPTEMBER 11, 2020 ON FILE WITH GM2 ASSOCIATES TO BE RECORDED.

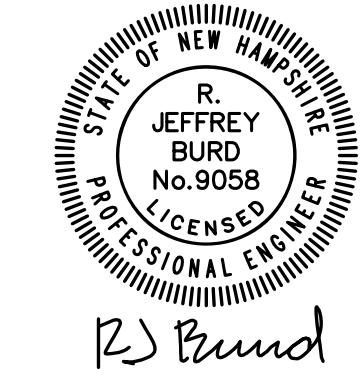
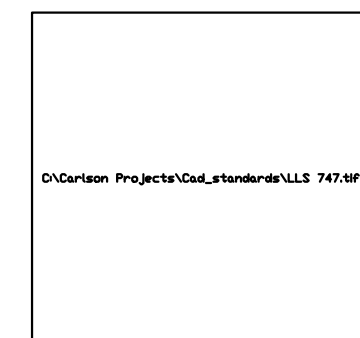
- NOTES:
1. THE CURRENT OWNERS OF RECORD OF TAX MAP 122 LOT 3 ARE MICHAEL GEORGE PETRIN AND KATIE MARIE LAVERRIERE OF 268 DENNETT STREET, PORTSMOUTH, NH 03801, AND NATHAN LAVERRIERE OF 2040 FRANKLIN STREET, APT. #801 SAN FRANCISCO, CA 94109. THE DEED REFERENCE TO THE PROPERTY IS BOOK 6138, PAGE 647, IN THE R.C.R.D..
  2. THE PURPOSE OF THIS PLAN IS SHOW THE PROPOSED ADDITION.
  3. THE TOTAL AREA OF TAX MAP 122, LOT 3 IS 0.085 ACRES, OR 3,722 SQUARE FEET.
  4. THE PROPERTY IS SERVICED BY MUNICIPAL SEWER AND WATER.
  5. ZONING FOR THE PROPERTY IS GRA (GENERAL RESIDENCE A). BUILDING SETBACKS ARE: FRONT=15', SIDE=10', AND REAR=20'. MAXIMUM BUILDING HEIGHT IS 35' FOR A SLOPED ROOF. MAXIMUM BUILDING COVERAGE IS 25%, PROPOSED BUILDING COVERAGE IS 44 PERCENT (NOT INCLUDING DECKS), MINIMUM OPEN SPACE=30%, PROPOSED OPEN SPACE=36 PERCENT. THE EXISTING IMPERMEABLE SURFACES IS 51 PERCENT. THE PROPOSED IMPERMEABLE SURFACES IS 54 PERCENT.
  6. THE PROPERTY IS LOCATED IN FLOOD ZONE AE WITH A BASE FLOOD ELEVATION OF 9 BASED UPON N.G.V.D. OF 1929. ACCORDING TO THE FLOOD INSURANCE RATE MAP FOR ROCKINGHAM COUNTY, NH, MAP NUMBER 33015C0259E WITH AN EFFECTIVE DATE OF MAY 17, 2005 PREPARED BY THE FEMA. THE F.E.M.A. FLOOD INSURANCE STUDY #33015C001A, DATED MAY 17, 2005, MORE ACCURATELY DEFINES THE STILLWATER ELEVATION OF THE 100 YEAR FLOOD ZONE ELEVATION OF THE ATLANTIC OCEAN SHORELINE, ALONG THE ENTIRE PORTSMOUTH SHORE, AS BEING AT ELEVATION 8.9.
  7. THE ELEVATION DATUM OF THIS PLAN IS BASED UPON THE FLOOR ELEVATIONS SHOWN UPON RECORDED PLAN NUMBER 24961 BASED UPON N.G.V.D. OF 1929 DATUM, AND VERIFIED BY TYING INTO USGS DISC #R61.



**DRIPLINE TRENCH DETAIL (INFILTRATION)**  
NOT TO SCALE



"I HEREBY CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND, AND MEETS OR EXCEEDS THE MINIMUM PRECISION AND ACCURACY MEASUREMENT REQUIREMENTS FOR AN URBAN CLASSIFICATION SURVEY AS SPECIFIED IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS AND HAS A MAXIMUM ERROR OF CLOSURE OF ONE PART IN TEN THOUSAND ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY."



ENGINEER:  
**RJB ENGINEERING, LLC**  
 2 GLENDALE ROAD  
 CONCORD, NH 03301  
 PH. 603-219-0194

REV.	DATE	DESCRIPTION	BY
2.	12/01/20	REVISED NOTES, MINOR REVISIONS	RJD
1.	10/29/20	ADDED PARKING SPACE SIZES, AND BUILDING HEIGHT	RJD

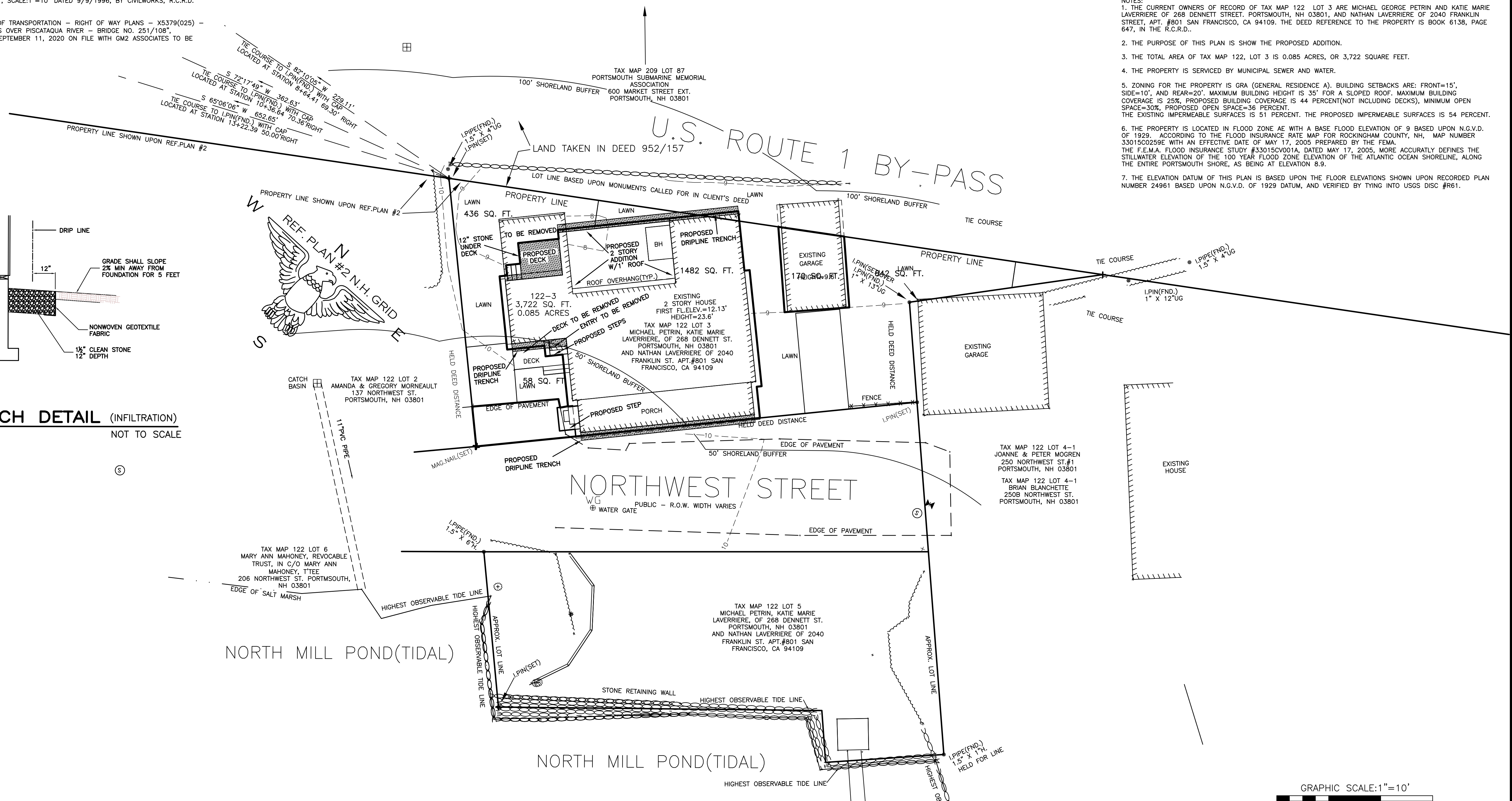
20058.DWG SHEET NO. 1 OF 1

**PROPOSED PLOT PLAN**  
 PREPARED FOR  
**MICHAEL PETRIN, KATIE MARIE LAVERRIERE**  
 AND **NATHAN LAVERRIERE**

239 NORTHWEST STREET  
 PORTSMOUTH, NEW HAMPSHIRE  
 TAX MAP 122 LOT 3

SCALE: 1" = 10' SEPTEMBER 30, 2020

AMERISITE LAND SURVEY, L.L.C.  
 RANDY J. DONCKERS, MANAGER  
 25 OAKTREE ROAD, AUBURN, NH 03032  
 603-483-5880 AMERISITELANDSURVEY.COM



NOTE: ALL DIMENSIONS AND CONDITIONS ARE TAKEN FROM DATA SUPPLIED BY THE CITY OF PORTSMOUTH, MAPGEO AND FIELD MEASUREMENTS.

NOTE: THESE DRAWINGS ARE NOT INTENDED FOR CONSTRUCTION PURPOSES.

MARTIN RYAN ARCHITECT  
 221 Westbury Ave  
 Portsmouth, NH 03801  
 603-832-8632

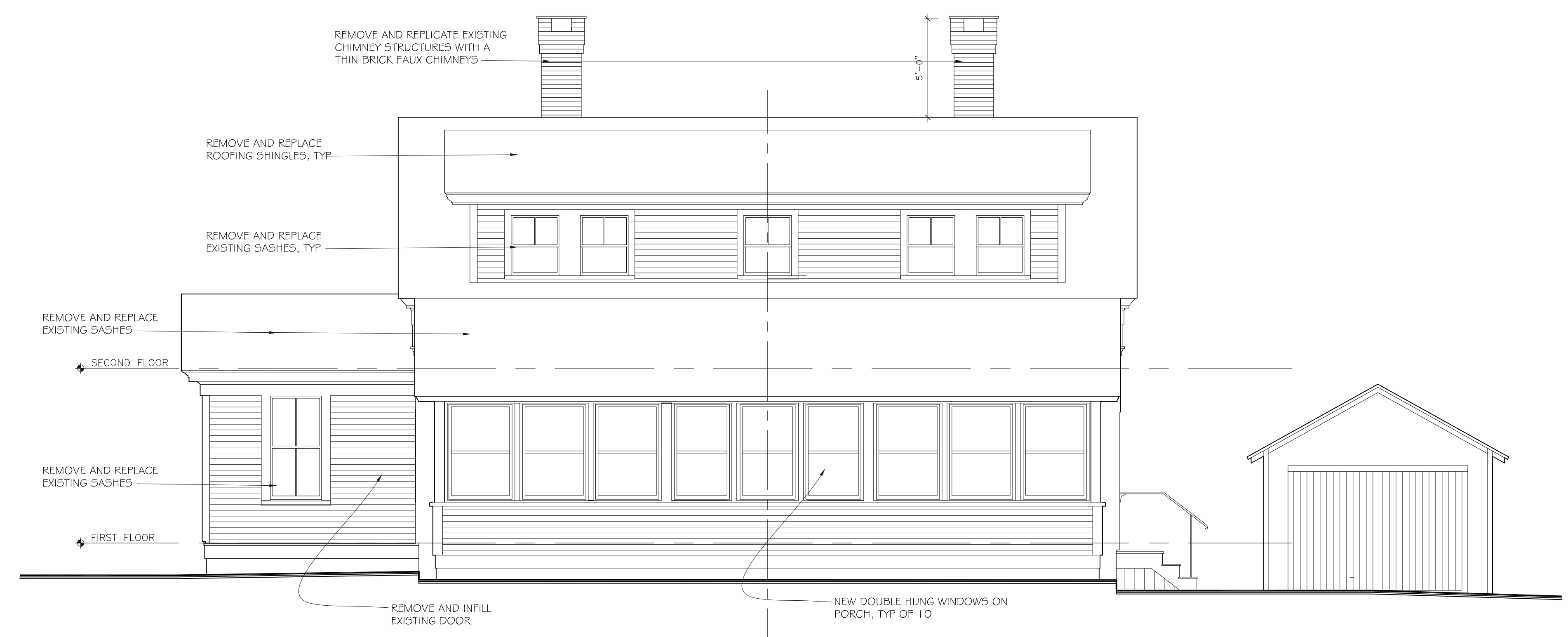
PERMIT SET  
 15 SEP 2020

239 NORTHWEST STREET  
 PORTSMOUTH  
 NEW HAMPSHIRE

DATE: --  
 DESIGN: --  
 DRAWN: MLR  
 CHECKED: XX  
 SCALE:  
 JOB:

EAST  
 ELEVATION

A1



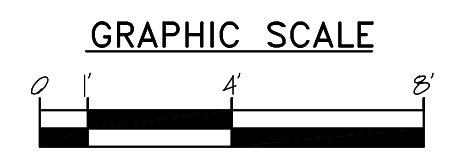
PROPOSED ELEVATION- EAST

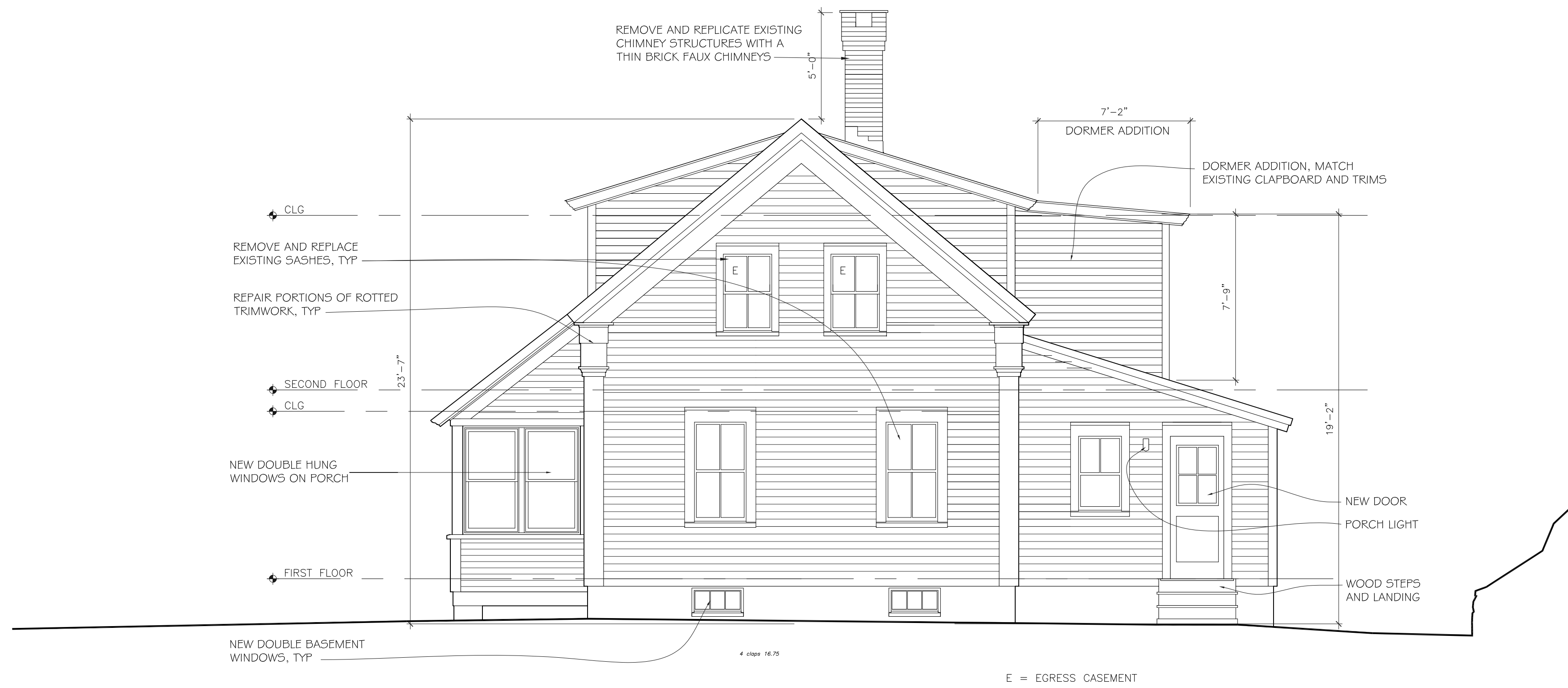


EXISTING ELEVATION- EAST



PHOTO- EAST ELEVATION





PROPOSED ELEVATION- NORTH



EXISTING ELEVATION- NORTH



PHOTO- LOOKING AT NORTHWEST CORNER

GRAPHIC SCALE



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221 Westbury Ave  
Portsmouth, NH 03801  
603-832-8633

PERMIT SET  
15 SEP 2020

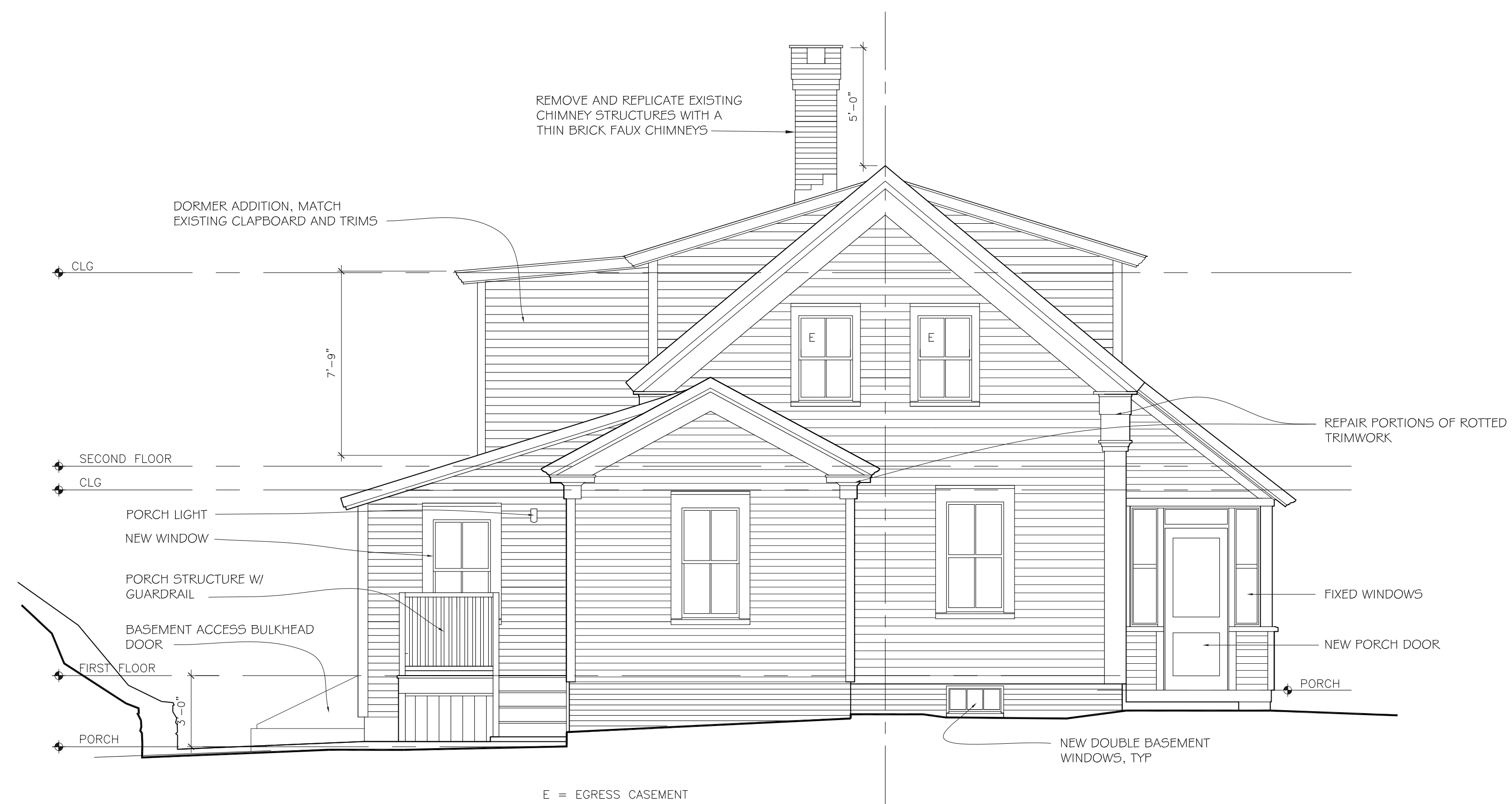
239 NORTHWEST STREET  
PORTSMOUTH  
NEW HAMPSHIRE

DATE:	—
DESIGN:	—
DRAWN:	MLR
CHECKED:	XX
SCALE:	—
JOB:	—

NORTH  
ELEVATION

A2





PROPOSED ELEVATION- SOUTH



EXISTING ELEVATION- SOUTH



PHOTO- LOOKING NORTH

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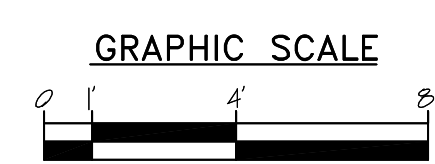
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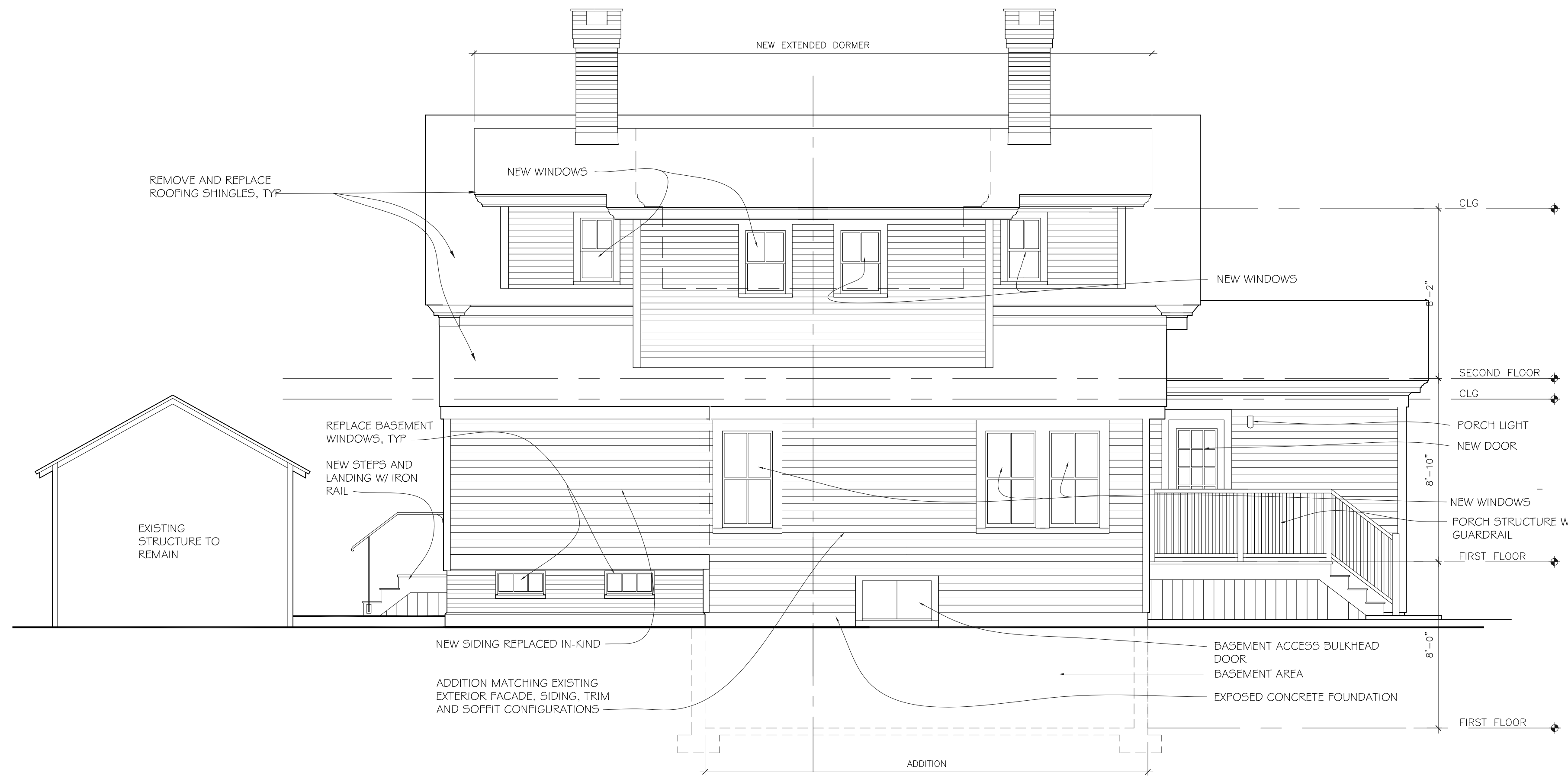
239 NORTHWEST STREET  
PORTSMOUTH  
NEW HAMPSHIRE

DATE:	—
DESIGN:	—
DRAWN:	MLR
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SCALE:	—
JOB:	—

SOUTH  
ELEVATION

A3

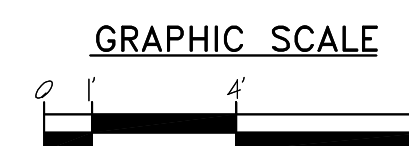




PROPOSED ELEVATION- WEST



EXISTING ELEVATION- WEST



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PHOTO- FROM ROUTE 1

MARTIN RYAN ARCHITECT  
227 Westbury Ave  
Portsmouth, NH 03801  
603-832-8633

PERMIT SET  
15 SEP 2020

239 NORTHWEST STREET  
PORTSMOUTH  
NEW HAMPSHIRE

DATE: --
DESIGN: --
DRAWN: MLR
CHECKED: XX
SCALE:
JOB:

WEST  
ELEVATION

A4