



Civil Engineers  
 Structural Engineers  
 Traffic Engineers  
 Land Surveyors  
 Landscape Architects  
 Scientists



August 23, 2022

Beverly Mesa-Zendt, Planning Director  
 City of Portsmouth Planning Department  
 1 Junkins Avenue, 3<sup>rd</sup> 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 emails dated July 1, 2022 & August 1, 2022. The following materials are included in this revised submission:

- **Test Pit Report;**
- **Site Development Plan set entitled “Proposed 2 Lot Subdivision Plan, 77 Meredith Way, Portsmouth, New Hampshire”, prepared by TFMoran, Inc., dated July 1, 2022, revised August 23, 2022 (copies 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:**

**July 1, 2022 Comments**

1. Extend roadway 5’ past last driveway.

***Revised, roadway now 15’ past driveway to accommodate 15’ radius and comply with ZBA approval. See Sheet C-06.***

2. Taper road extension to the 16’ width over 30’.

***Revised, see sheet C-06.***

3. 1.5” water line will need to be extended. 1” water services to both houses.

***Revised, see sheet C-06.***



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4. Install curb stops at property lines.

***Revised, see sheet C-05.***

5. Confirm size of sewer services is 6”.

***Existing sewer service to be abandoned/capped and two new 6” SDR-35 PVC connections are to be installed, see sheet C-05.***

6. Confirm that these lots can connect into the existing drainage system for stormwater management. Show this connection.

***The rain gardens are currently being revised and resubmitted.***

7. Please contact the assessor’s department regarding new Map and Lot numbers as well as street address. Preliminary Map/Lot numbers and street address must be listed on the plan set submitted to the Planning Board for final approval.

***Will do following TAC approval.***

**August 1, 2022 Comments**

1. Roadway extension and driveway area for turnaround easement must be built to City standard. Please provide detail for DPW review.

***Addressed, see sheet C-06 for Road Profile Plan and sheet C-07 for details.***

2. Sewer on plan on Meredith way is not as shown. Update to existing conditions. Sewer service installation to Pine Street will require easement from City. Please update to existing conditions and indicate easement area on plans.

***Updated, existing sewer connection has been updated, see sheet S-01. New sewer service with easement is shown on sheet C-05.***

3. Rain garden will require overflow pipe connection to the City drainage system, location to be determined by applicant and approved by DPW.

***The rain gardens are currently being revised and resubmitted.***

4. Design of rain garden is incomplete. Test pits in location of rain garden results and drainage calculations required.

***Updated, test pit info and drainage calculations are shown on sheet C-04 and test pit report provided.***



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5. Have test pits been completed? If so, what were the results?

***Yes, and test pit info is shown on sheet C-04 and test pit report provided.***

6. Please show drainage calculations.

***Updated, drainage calculations are shown on sheet C-04.***

7. The turnaround easement document will need to contain clear language sufficient to permit the City to tow vehicle which are parked within the turnaround easement. Please confirm the distance from the garage door to the easement for sufficient space for a vehicle to park without blocking the turnaround easement.

***Easement document will be provided for legal review. The distance from the garage door to the easement is 18.0 feet, where the average vehicle length is 15'±.***

*Prior to PB Approval:*

1. Proposed water shut off for proposed eastern house must be installed in the right of way and not installed in asphalt. Please update plans.

***Revised, see sheet C-05***

2. When attending Trees & Greenery Committee to get approval to remove vegetation in the buffer for the road extension applicant should encourage the Committee to support planting a line of oak trees that will match those along Pine Street.

***We are communicating with the City Arborist Foreman regarding proposed plantings.***

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.

Respectfully,  
**TFMoran, Inc.**

**Brenda Kolbow, LLS**  
*Survey Department Manager*



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**TFM Project #47442-00**

**August 23, 2022**

BMK/bmk

cc: Randi & Jeff Collins  
Christopher Mulligan, Esquire

## 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

# PROPOSED 2 LOT SUBDIVISION

77 MEREDITH WAY  
PORTSMOUTH, NEW HAMPSHIRE

JULY 1, 2022  
LAST REVISED AUGUST 23, 2022

## INDEX OF SHEETS

SHEET	SHEET TITLE
C-00	COVER
C-01	NOTES & LEGEND
S-01	EXISTING CONDITIONS PLAN
S-02	SUBDIVISION PLAN
C-02	SITE PREPARATION & DEMOLITION PLAN
C-03	SITE LAYOUT PLAN
C-04	GRADING & DRAINAGE PLAN
C-05	UTILITY PLAN
C-06	ROAD PLAN AND PROFILE
C-07 THRU C-09	DETAILS

## 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 & 31.61' FOR PROPOSED LOT B, 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 \_\_\_\_\_

**PROGRESS PRINT**

date: 08/23/2022

## VICINITY PLAN



HORIZONTAL SCALE 1"=500'  
500 250 0 500



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

REV	DATE	DESCRIPTION	DR	CK
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

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

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Portsmouth, NH 03801  
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This plan is not effective unless signed by a duly authorized officer of TFMoran, Inc.



**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
	EDGE OF PAVEMENT
	VERTICAL GRANITE CURB
	SLOPED GRANITE CURB
	CONCRETE CURB
	INTEGRATED CONCRETE CURB
	BITUMINOUS ASPHALT CURB
	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
	SOIL BOUNDARY
	LIMIT OF GRADING
	CONTOUR
	SPOT GRADE
	PARKING COUNT
	YELLOW DOUBLE SOLID LINE
	YELLOW SINGLE SOLID LINE
	WHITE SINGLE SOLID LINE
	WHITE SINGLE BROKEN LINE

	GRAVEL ROAD
	EDGE OF PAVEMENT
	VERTICAL GRANITE CURB
	SLOPED GRANITE CURB
	CONCRETE CURB
	INTEGRATED CONCRETE CURB
	BITUMINOUS ASPHALT CURB
	CAPE COD BERM
	SAWCUT
	BUILDING
	BUILDING ROOF OVERHANG
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	FENCE (CHAIN LINK)
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	STONE WALL
	RETAINING WALL
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	SILT SOCK
	SOIL BOUNDARY
	LIMIT OF GRADING
	CONTOUR
	SPOT GRADE
	PARKING COUNT
	YELLOW DOUBLE SOLID LINE
	YELLOW SINGLE SOLID LINE
	WHITE SINGLE SOLID LINE
	WHITE SINGLE BROKEN LINE

**PROPOSED**

	CONCRETE
	GRAVEL
	HEAVY DUTY PAVEMENT
	CONSTRUCTION ENTRANCE
	SNOW STORAGE
	RIPRAP
	INLET PROTECTION
	FLOW ARROW
	GRADE BREAK RIDGE
	DRAIN LINE
	DRAINAGE SWALE
	STORMWATER BMP
	SEWER LINE
	SEWER FORCE MAIN LINE
	WATER LINE
	GAS LINE
	OVERHEAD UTILITY LINE
	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
	TRANSFORMER PAD
	BORING LOCATION
	TEST PIT LOCATION
	INFILTRATION TEST LOCATION
	MONITORING WELL

	CONCRETE
	GRAVEL
	HEAVY DUTY PAVEMENT
	CONSTRUCTION ENTRANCE
	SNOW STORAGE
	RIPRAP
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**ABBREVIATIONS**

ABAN	ABANDON	EP	EDGE OF PAVEMENT	OC	ON CENTER	CB	CATCH BASIN
AC	ACRES	EXIST	EXISTING	PAVE	PAVEMENT	CIP	CAST IRON PIPE
ADJ	ADJUST	FFE	FINISHED FLOOR ELEVATION	PERF	PERFORATED	CMP	CORRUGATED METAL PIPE
APPROX	APPROXIMATE	FND	FOUNDATION	PROP	PROPOSED	CO	CLEANOUT
BC	BOTTOM OF CURB	HP	HIGH POINT	R	RADIUS	COND	CONDUIT
BIT	BITUMINOUS	INV	INVERT ELEVATION	R&D	REMOVE AND DISPOSE	DCB	DOUBLE CATCH BASIN
BK/PG	BOOK & PAGE	IT	INFILTRATION TEST	R&R	REMOVE AND RESET	DIP	DUCTILE IRON PIPE
BLDG	BUILDING	L	LENGTH	RET	RETAIN	DMH	DRAIN MANHOLE
BMP	BEST MANAGEMENT PRACTICE	LF	LINEAR FEET	RET	RETAIN	F&C	FRAME AND COVER
BS	BOTTOM OF SLOPE	LSA	LANDSCAPE AREA	RIM	RIM ELEVATION	F&G	FRAME AND GRATE
BW	BOTTOM OF WALL	MAX	MAXIMUM	ROW	RIGHT OF WAY	FES	FLARED END SECTION
CONC	CONCRETE	MIN	MINIMUM	S	SLOPE	GT	GREASE TRAP
COORD	COORDINATE	N/F	NOW OR FORMERLY	SF	SQUARE FEET	HDPE	HIGH DENSITY POLYETHYLENE PIPE
DIA	DIAMETER	NHF	NEW HAMPSHIRE FISH & GAME	SW	SIDEWALK	HH	HANDHOLE
ELEV	ELEVATION	NTS	NOT TO SCALE	TCB	TEMPORARY BENCHMARK	HW	HEADWALL
				TP	TEST PIT	HYD	HYDRANT
				TW	TOP OF WALL	LP	LIGHT POLE
				TYP	TYPICAL	OCS	OUTLET CONTROL STRUCTURE
				UGR	UNDERGROUND	PVC	POLYVINYL CHLORIDE PIPE
				WCR	ACCESSIBLE WHEELCHAIR RAMP	RCF	REINFORCED CONCRETE PIPE
				W/	WITH	RD	ROOF DRAIN
						SMH	SEWER MANHOLE
						SOS	SEWAGE OIL SEPARATOR
						TSV	TAPPING SLEEVE, VALVE, AND BOX
						UP	UTILITY POLE

**UTILITIES**

	CONCRETE
	GRAVEL
	HEAVY DUTY PAVEMENT
	CONSTRUCTION ENTRANCE
	SNOW STORAGE
	RIPRAP
	INLET PROTECTION
	FLOW ARROW
	GRADE BREAK RIDGE
	DRAIN LINE
	DRAINAGE SWALE
	STORMWATER BMP
	SEWER LINE
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	TRANSFORMER PAD
	BORING LOCATION
	TEST PIT LOCATION
	INFILTRATION TEST LOCATION
	MONITORING WELL

**GENERAL NOTES**

- THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.
- THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, TFMORAN, INC. ASSUMES NO LIABILITY FOR ANY CHANGES OR NON-COMFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
- THE SITE LAYOUT PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
- 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.
- 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 WITHIN THE 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.
- 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 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.
- SEE EXISTING CONDITIONS PLAN FOR THE HORIZONTAL AND VERTICAL DATUM.
- SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION. VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
- CONTACT EASEMENT OWNERS PRIOR TO COMMENCING ANY WORK WITHIN THE EASEMENTS.
- PRIOR TO COMMENCING ANY SITE WORK, ALL LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD.
- 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.
- TFMORAN, INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
- TEMPORARY FENCING SHALL BE PROVIDED AND COVERED WITH A FABRIC MATERIAL TO CONTROL DUST MITIGATION.
- 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.
- 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.
- IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
- IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
- CONTRACTOR'S GENERAL RESPONSIBILITIES:
  - 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.
  - NOTIFY ENGINEER IN WRITING OF ANY DISCREPANCIES OF PROPOSED LAYOUT AND/OR EXISTING FEATURES.
  - EMPLOY A LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES AND LAYOUT OF SITE ELEMENTS AND BUILDINGS.
  - 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.
  - 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.
  - MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT ALL TIMES.
  - 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.
  - COORDINATE WITH ALL UTILITY COMPANIES AND CONTACT DIGSAFE (811 OR 888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
    - 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.
    - 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.
    - WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
  - 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.
  - PROVIDE AN AS-BUILT PLAN AT THE COMPLETION OF THE PROJECT TO THE PLANNING DIRECTOR AND PER CITY REGULATIONS.
  - 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.
  - 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**

- THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF NHDES ENV-WQ 1500 AS APPLICABLE.
- THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN eNOI AT LEAST 14 DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE.
- 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.
- 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.
- COORDINATE WITH GEOTECHNICAL/STRUCTURAL PLANS FOR SITE PREPARATION AND OTHER BUILDING INFORMATION.
- COORDINATE WITH ARCHITECTURAL PLANS FOR DETAILED GRADING AT BUILDING, AND SIZE AND LOCATION OF ALL BUILDING SERVICES.
- COORDINATE WITH MECHANICAL AND PLUMBING PLANS FOR ROOF DRAIN INFORMATION.
- LIMITS OF WORK ARE SHOWN AS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE ALL WORK TO PROVIDE SMOOTH TRANSITIONS. THIS INCLUDES GRADING, PAVEMENT, CURBING, SIDEWALKS, AND ALIGNMENTS.
- THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE, RAMPS, AND LOADING AREAS.
- 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.
- ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED. CURBS HAVE A 6" REVEAL UNLESS OTHERWISE NOTED.
- ALL SIDEWALK AND OTHER CURB REVEALS SHALL BE 6" WITH A TOLERANCE OF PLUS OR MINUS 3/8", WHERE SIDEWALK IS TO BE FLUSH, THE PAVEMENT REVEAL SHALL BE 1/4" WITH A TOLERANCE OF 1/8".
- THE FINISHED GRADE AT BOTTOM OF ALL ACCESSIBLE RAMPS SHALL BE FLUSH WITH PAVEMENT WITH A TOLERANCE OF PLUS OR MINUS 1/4".
- ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE PRIOR TO INSTALLATION OF FINISHED PAVEMENT.
- 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.
- 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. CATCH BASINS AND DRAIN MANHOLES SHALL CONFORM TO SECTION 604. ALL CATCH BASIN GRATES SHALL BE TYPE B AND CONFORM TO NHDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
- NO FILL SHALL BE PLACED IN ANY WETLAND AREA.
- ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER, AND MULCH.
- DENSITY REQUIREMENTS:
 

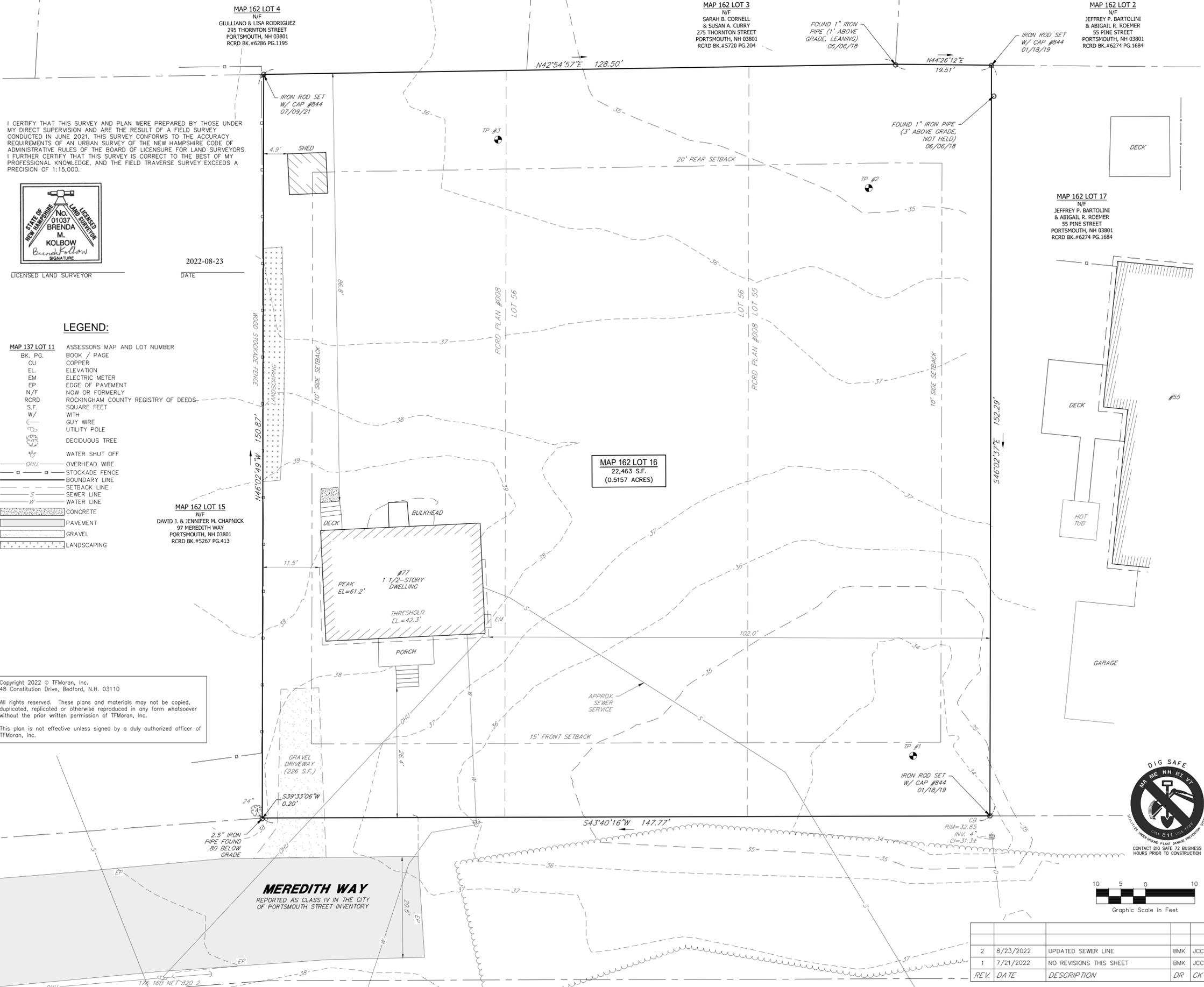
MINIMUM DENSITY*	LOCATION
95%	BELOW PAVED OR CONCRETE AREAS
95%	TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL
90%	BELOW LOAM AND SEED AREAS

\*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**

- LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE FIELD.
- 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.
- 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.
- COORDINATE ALL WORK ADJACENT TO PROPOSED BUILDINGS WITH ARCHITECTURAL BUILDING DRAWINGS. CONFIRM UTILITY PENETRATIONS AND INVERT ELEVATIONS ARE COORDINATED PRIOR TO INSTALLATION.
- 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.
- 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.
- 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.
- 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.
- 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.
- ON-SITE WATER DISTRIBUTION SHALL BE TO CITY OF PORTSMOUTH STANDARDS AND SPECIFICATIONS. WATER MAINS SHALL HAVE A MINIMUM OF 9.5" COVER. WHERE WATER PIPES CROSS SEWER LINES A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL

Aug 22, 2022 - 4:49pm  
F:\MSC Projects\47442 - 77 Meredith Way - Portsmouth\47442-00 - Collins - 77 Meredith Way\Collins\Survey\Drawings\47442-00 Survey.dwg



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.



2022-08-23  
DATE

**LEGEND:**

- |                |                                     |
|----------------|-------------------------------------|
| MAP 137 LOT 11 | ASSESSOR'S MAP AND LOT NUMBER       |
| BK. PG.        | BOOK / PAGE                         |
| CU             | COPPER                              |
| EL             | ELEVATION                           |
| EM             | ELECTRIC METER                      |
| EP             | EDGE OF PAVEMENT                    |
| N/F            | NOW OR FORMERLY                     |
| R/RD           | ROCKINGHAM COUNTY REGISTRY OF DEEDS |
| S.F.           | SQUARE FEET                         |
| W/             | WITH                                |
| W              | GUY WIRE                            |
| U              | UTILITY POLE                        |
| DT             | DECIDUOUS TREE                      |
| WS             | WATER SHUT OFF                      |
| OHU            | OVERHEAD WIRE                       |
| SF             | STOCKADE FENCE                      |
| BL             | BOUNDARY LINE                       |
| SL             | SETBACK LINE                        |
| SW             | SEWER LINE                          |
| WL             | WATER LINE                          |
| CON            | CONCRETE                            |
| PAV            | PAVEMENT                            |
| GRA            | GRAVEL                              |
| LAN            | LANDSCAPING                         |

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**NOTES:**

- THE PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.
- THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 162 AS LOT 16.
- 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.
- |                                      |                  |                  |
|--------------------------------------|------------------|------------------|
| <b>MINIMUM LOT DIMENSIONS:</b>       | <b>REQUIRED:</b> | <b>EXISTING:</b> |
| 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'           |
| <b>MINIMUM YARD DIMENSIONS:</b>      |                  |                  |
| FRONT:                               | 15'              | 26.4'            |
| SIDE:                                | 10'              | 11.5'/4.9' SHED  |
| REAR:                                | 20'              | 86.8'            |
| <b>MAXIMUM STRUCTURE DIMENSIONS:</b> |                  |                  |
| STRUCTURE HEIGHT:                    |                  | <35'             |
| SLOPED ROOF:                         | 35'              |                  |
| FLAT ROOF:                           | 30'              |                  |
| ROOF APPURTENANCE HEIGHT:            | 8'               |                  |
| BUILDING COVERAGE:                   | 25%              | 3.5%             |
| MINIMUM OPEN SPACE:                  | 30%              | 85.3%            |
- OWNER OF RECORD:  
MAP 162 LOT 16:  
RANDI & JEFF COLLINS  
77 MEREDITH WAY  
PORTSMOUTH, NH 03801  
RCRD BK.#6274 PG.#1666
- PARCEL AREA:  
MAP 162 LOT 16:  
22,463 S.F.  
(0.5157 ACRES)
- 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.
- THE PURPOSE OF THIS PLAN IS TO SHOW THE BOUNDARY LINES, TOPOGRAPHY AND CURRENT SITE FEATURES OF MAP 162 LOT 16.
- FIELD SURVEY COMPLETED BY TCE JUNE 2021 USING A TOPCON DS103 AND A TOPCON FC-5000 DATA COLLECTOR.
- HORIZONTAL DATUM IS NAD83 (2011) PER STATIC GPS OBSERVATIONS. THE VERTICAL DATUM IS NAVD88 PER STATIC GPS OBSERVATIONS. THE CONTOUR INTERVAL IS 1 FOOT.
- EASEMENTS, RIGHTS, AND RESTRICTIONS SHOWN OR IDENTIFIED ARE THOSE WHICH WERE FOUND DURING RESEARCH PERFORMED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. OTHER RIGHTS, EASEMENTS, OR RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF SUBJECT PARCEL(S) WOULD DETERMINE.
- THE LOCATION OF 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.
- THE EXISTING USE OF THIS PARCEL IS SINGLE-FAMILY RESIDENTIAL.

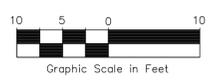
**PLAN REFERENCES:**

- "PLAN OF ELM PLACE, SITUATED IN PORTSMOUTH, N.H." DATED 1856. RCRD PLAN #008.
- "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 #0-22643.

**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
2	8/23/2022	UPDATED SEWER LINE	BMK	JCC
1	7/21/2022	NO REVISIONS THIS SHEET	BMK	JCC

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

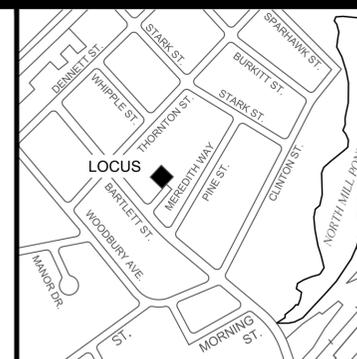
47442-00 DR FB  
CK CADFILE

S-1

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



**LOCATION PLAN**

**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
  - PAVEMENT

**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.

**NOTES:**

- THE PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.
- THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 162 AS LOT 16.
- 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.
- MINIMUM LOT DIMENSIONS:
 

	REQUIRED:	PROPOSED:
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'/31.61'
DEPTH:	70'	151.4'/152.1'
- MINIMUM YARD DIMENSIONS:
 

	REQUIRED:	PROPOSED:
FRONT:	15'	22.0'/17.1'
SIDE:	10'	10.2'/16.2'
REAR:	20'	69.0'/74.9'
- MAXIMUM STRUCTURE DIMENSIONS:
 

	REQUIRED:	PROPOSED:
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%/68.5%
- OWNER OF RECORD: MAP 162 LOT 16: RANDI & JEFF COLLINS, 77 MEREDITH WAY, PORTSMOUTH, NH 03801, RCRD BK.#6274 PG.#1666
- PARCEL AREA: MAP 162 LOT 16: 22,463 S.F. (0.5157 ACRES); PROPOSED LOT A: 11,198 S.F. (0.2571 ACRES); PROPOSED LOT B: 11,265 S.F. (0.2586 ACRES)
- 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.
- THE PURPOSE OF THIS PLAN IS SUBDIVIDE MAP 162 LOT 16 INTO 2 LOTS.
- FIELD SURVEY COMPLETED BY TCE JUNE 2021 & JUNE 2022 USING A TOPCON DS103 AND A TOPCON FC-5000 DATA COLLECTOR.
- HORIZONTAL DATUM IS NAD83 (2011) PER STATIC GPS OBSERVATIONS.
- EASEMENTS, RIGHTS, AND RESTRICTIONS SHOWN OR IDENTIFIED ARE THOSE WHICH WERE FOUND DURING RESEARCH PERFORMED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. OTHER RIGHTS, EASEMENTS, OR RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF SUBJECT PARCEL(S) WOULD DETERMINE.
- THE LOCATION OF 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.
- THE PROPOSED USE OF THESE PARCELS ARE SINGLE-FAMILY RESIDENTIAL.

**PLAN REFERENCES:**

- "PLAN OF ELM PLACE, SITUATED IN PORTSMOUTH, N.H." DATED 1856, RCRD PLAN #008.
- "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 #0-22643.
- "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 XX, 2022. ON FILE AT THE CITY OF PORTSMOUTH PLANNING DEPARTMENT.

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)

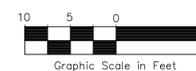
JULY 1, 2022

Seacoast Division



Civil Engineers  
Structural Engineers  
Traffic Engineers  
Land Surveyors  
Landscape Architects  
Scientists

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



REV.	DATE	DESCRIPTION	DR	CK
2	8/23/2022	NO REVISIONS THIS SHEET	BMK	JCC
1	7/21/2022	NO REVISIONS THIS SHEET	BMK	JCC
REV.	DATE	DESCRIPTION	DR	CK

47442-00

DR BMK FB  
CK JCC CADFILE

S-2

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.



2022-08-23  
DATE

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CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

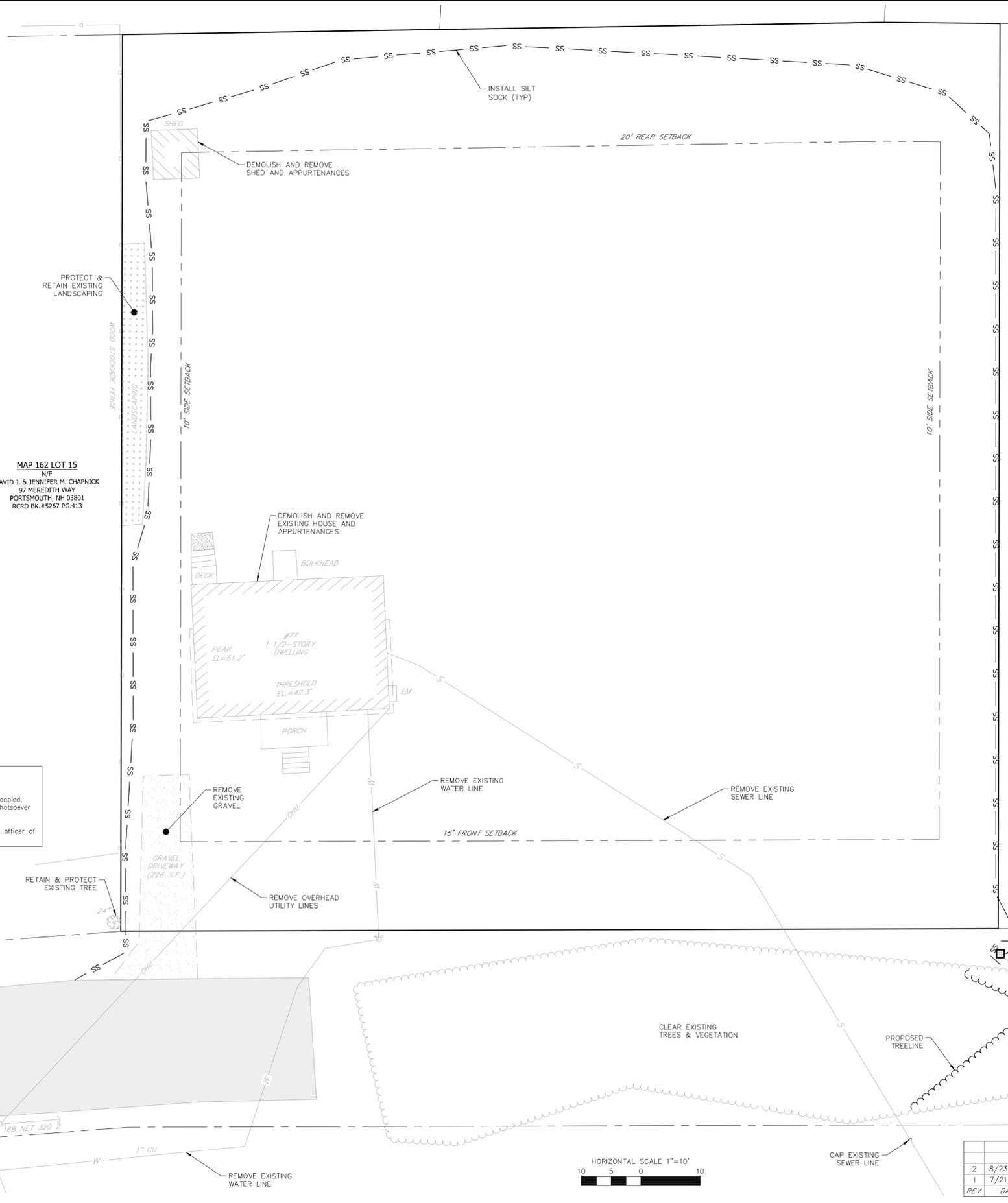
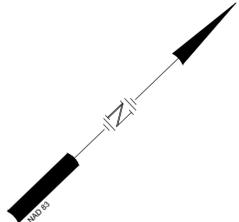
MAP 162 LOT 15  
N/F  
DAVID J. & JENNIFER M. CHAPNICK  
97 MEREDITH WAY  
PORTSMOUTH, NH 03801  
RCRD BK.#5267 PG.413

PROPOSED LOT A  
11,198 S.F.  
(0.2571 ACRES)

PROPOSED LOT B  
11,265 S.F.  
(0.2586 ACRES)

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

Aug 23, 2022 - 8:25am F:\MSC Projects\47442-77 Meredith Way - Portsmouth Survey\Collison Survey\Dwg\47442-00 Survey.dwg



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

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**NOTES**

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

**CONSTRUCTION SEQUENCE NOTES**

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

**PROGRESS PRINT**  
date: 08/23/2022

**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**

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REV	DATE	DESCRIPTION	DR	CK
2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

FILE 47442-00 DR BK FB -  
CK CKR CADFILE 47442-00\_SITE PREP C-02

Aug 23, 2022 - 3:52pm F:\MISC Projects\47442 - 77 Meredith Way - Portsmouth\47442-00 - Collins - 77 Meredith Way\Design\PRODUCTION DRAWINGS\47442-00\_Site Prep.dwg



**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 SINGLE 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)**

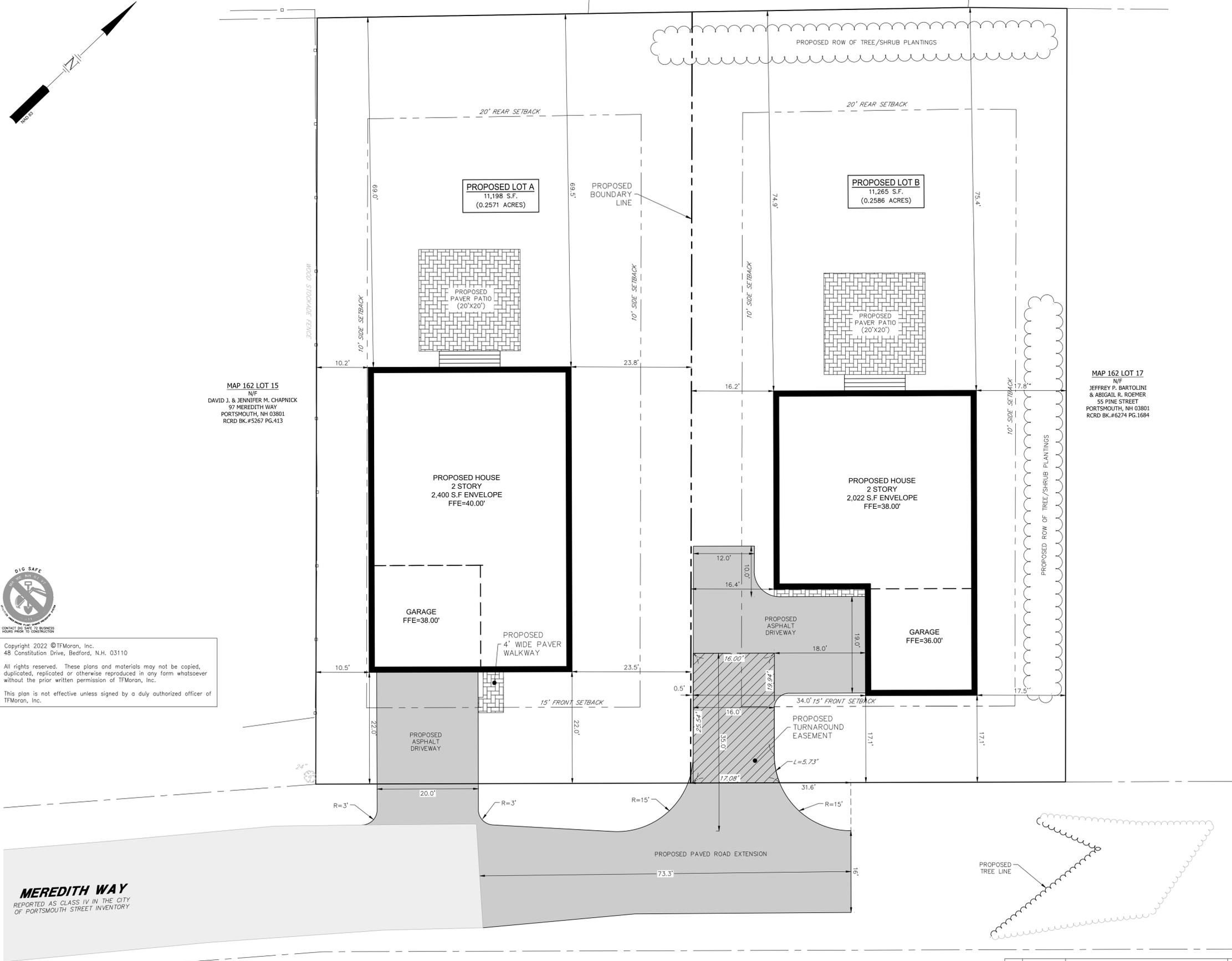
	REQUIRED:	PROVIDED: LOT A:	LOT B:
<b>MINIMUM LOT DIMENSIONS:</b>			
LOT AREA	7,500 SF	11,198 SF	11,265 SF
LOT FRONTAGE	100 FT	73.99 FT	31.61 FT
DEPTH	70 FT	151.4 FT	152.1 FT
<b>MINIMUM YARD DIMENSIONS:</b>			
FRONT	15 FT	22.0 FT	17.1 FT
SIDE	10 FT	10.2 FT	16.2 FT
REAR	20 FT	69.0 FT	74.9 FT
<b>MAXIMUM STRUCTURE DIMENSIONS:</b>			
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%
<b>MINIMUM SETBACKS/BUFFER:</b>			
BUILDING FRONT	15 FT	15 FT	15 FT
BUILDING SIDE	10 FT	10 FT	10 FT
BUILDING REAR	20 FT	20 FT	20 FT
<b>MINIMUM OPEN SPACE</b>	30%	70.4%	68.5%
<b>PARKING REQUIREMENTS</b>			
PARKING SPACES 1.3 SPACES/UNIT	2 SPACES	2 SPACES	2 SPACES

**NOTES**

- SEE NOTES ON SHEET C-01.
- ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.
- LIGHTING, SIGNAGE, LANDSCAPING, AND SCREENING SHALL MEET THE REQUIREMENTS OF THE PORTSMOUTH ZONING ORDINANCE AND SITE PLAN REGULATIONS.
- 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.
- ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
- THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
- ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.

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



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**PROGRESS PRINT**  
 date: 08/23/2022

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

47442-00 DR BK# FB -  
 CK CKR CADFILE 47442-00\_SITE LAYOUT C-03



Aug 23, 2022 - 3:55pm F:\MSC Projects\47442 - 77 Meredith Way - Portsmouth\47442-00 - Collins - 77 Meredith Way\Design\PRODUCTION DRAWINGS\47442-00\_Site Layout.dwg



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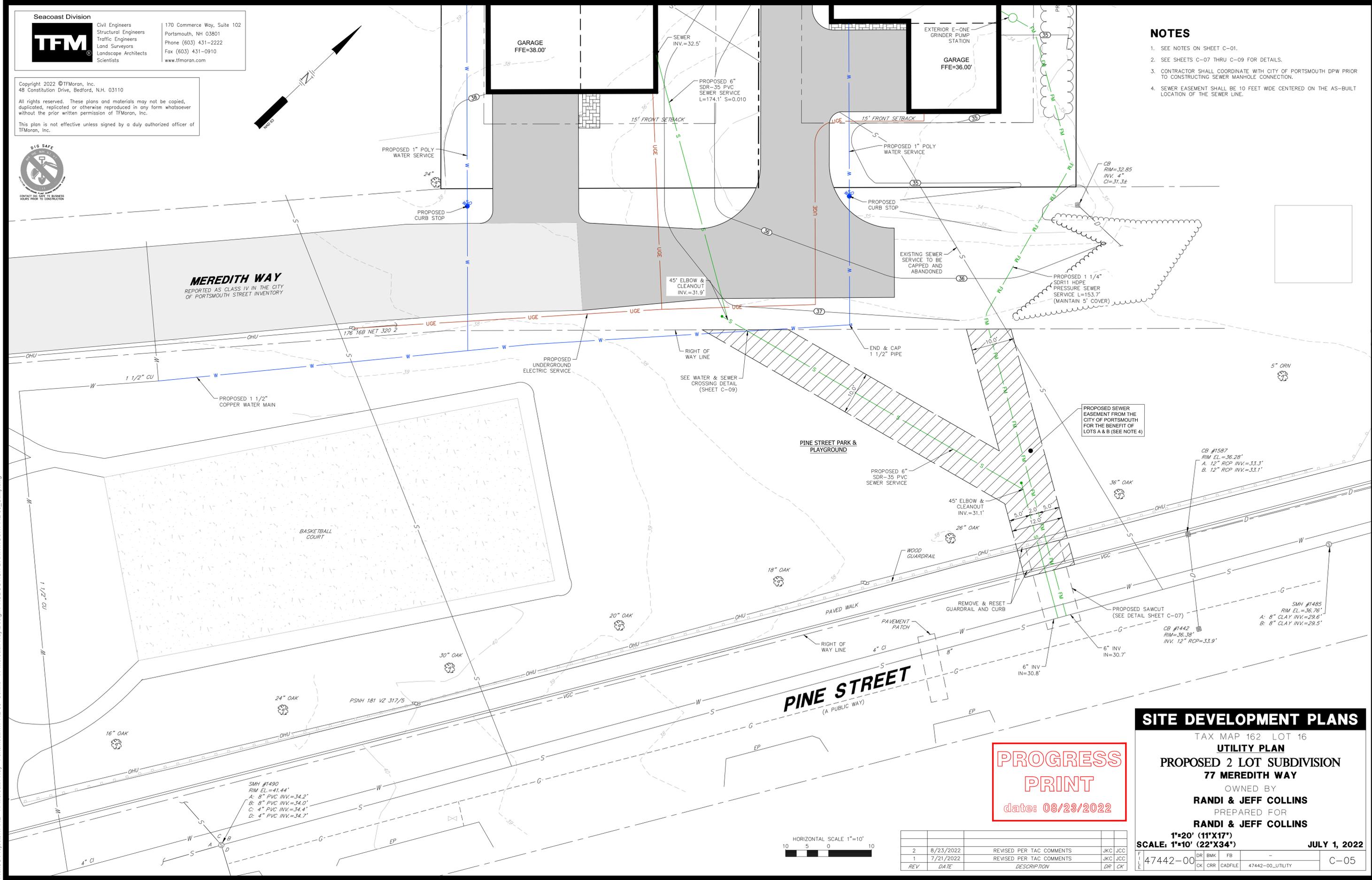
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### NOTES

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



**PROGRESS PRINT**  
date: 08/23/2022

### 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**



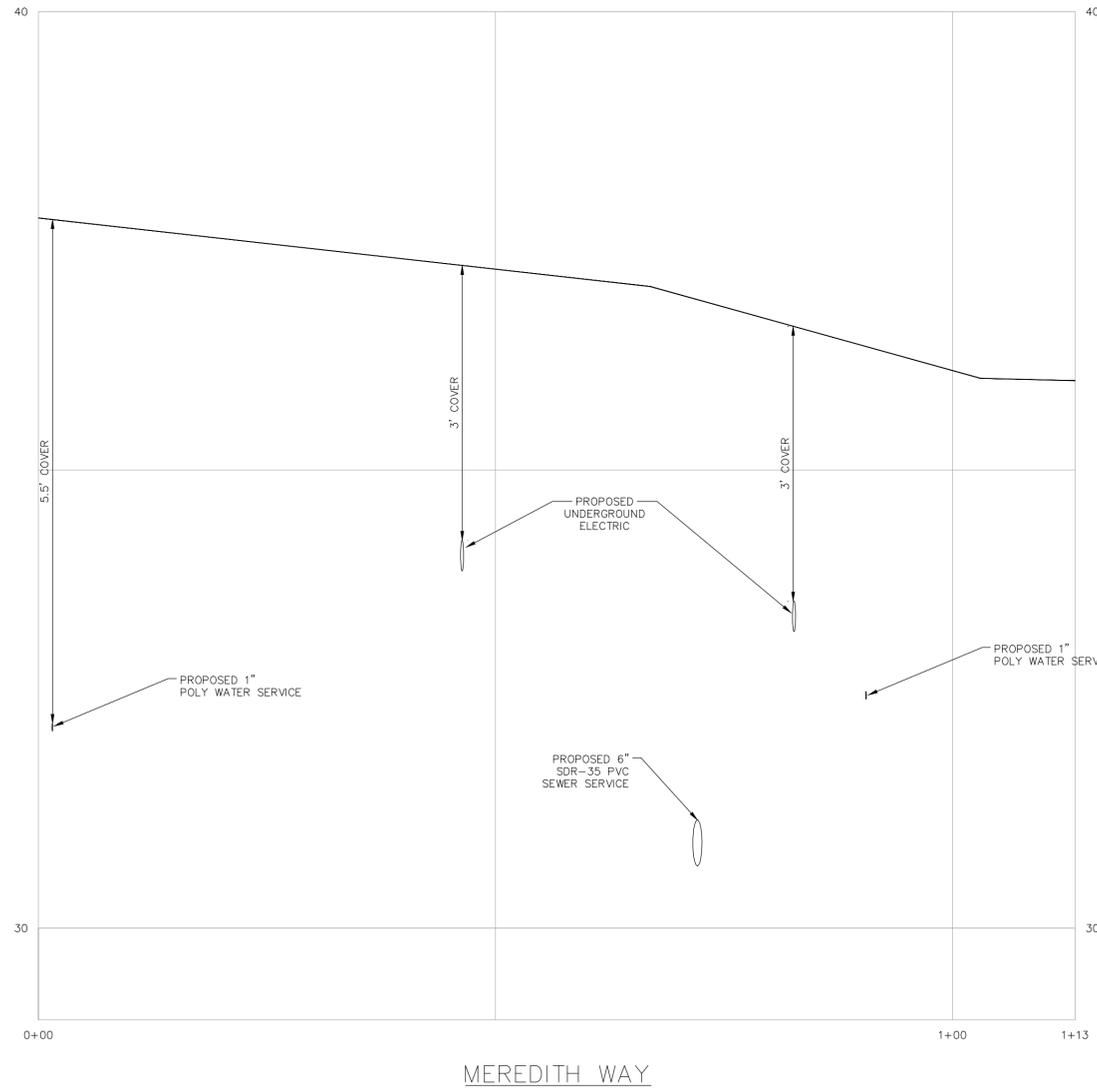
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2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

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	CK	CR	CADFILE	47442-00_UTILITY	C-05

Aug 23, 2022 - 4:13pm  
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**NOTES**

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



**PROGRESS  
PRINT**  
date: 08/23/2022

**SITE DEVELOPMENT PLANS**

TAX MAP 162 LOT 16  
**ROAD PLAN PROFILE**  
**PROPOSED 2 LOT SUBDIVISION**  
**77 MEREDITH WAY**  
OWNED BY  
**RANDI & JEFF COLLINS**  
PREPARED FOR  
**RANDI & JEFF COLLINS**  
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47442-00	DR	BNK	FB	-					
	CK	CR	CADFILE	47442-00_ROAD PROFILE					

C-06

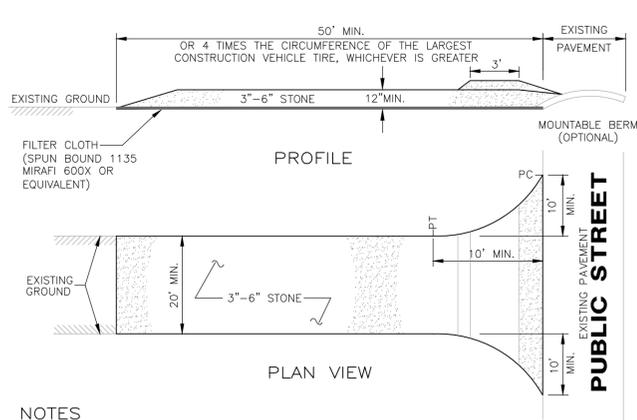


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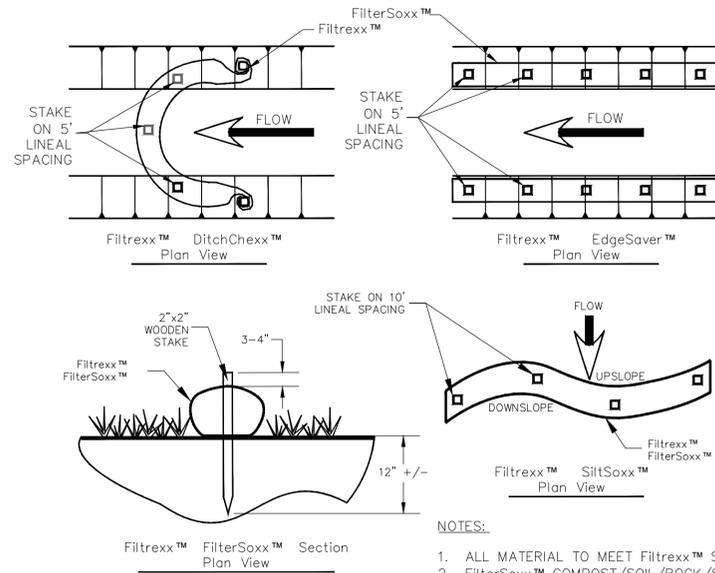




**NOTES**

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.

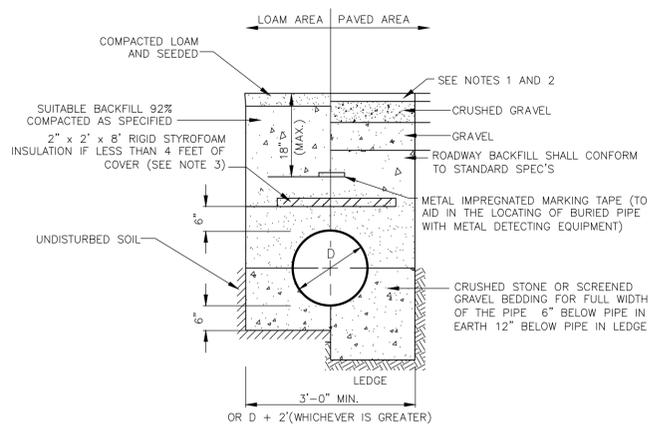
**STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE



**NOTES:**

1. ALL MATERIAL TO MEET FilterSoxx™ 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

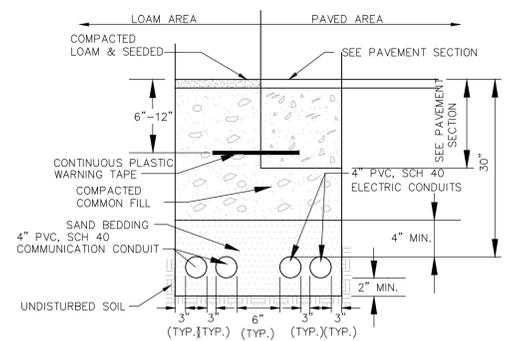
**FILTREXX™ FILTERSOXX™ STAKING**  
NOT TO SCALE



**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.

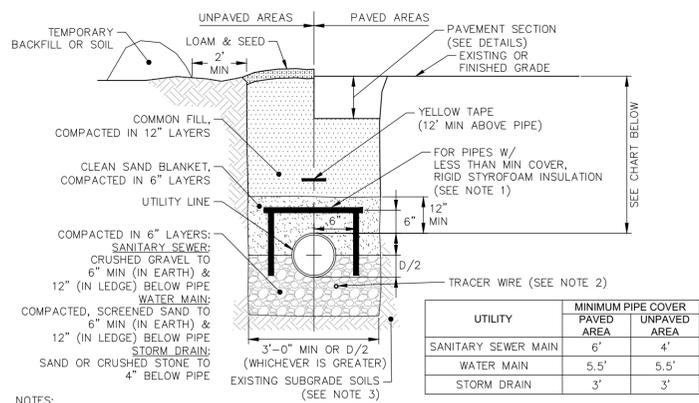
**SEWER TRENCH WITH OPTIONAL INSULATION**  
NOT TO SCALE



**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

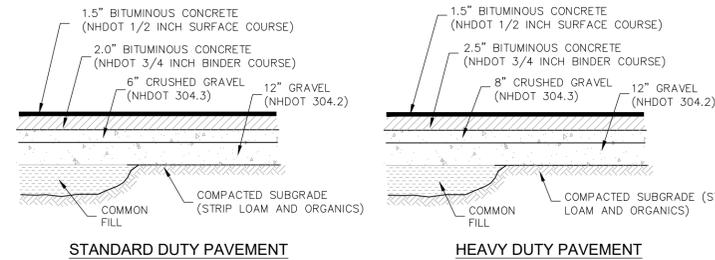


**NOTES:**

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**

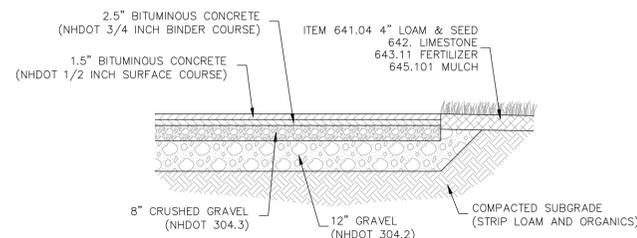
FOR SEWER, WATER, AND STORM DRAIN LINES NOT TO SCALE



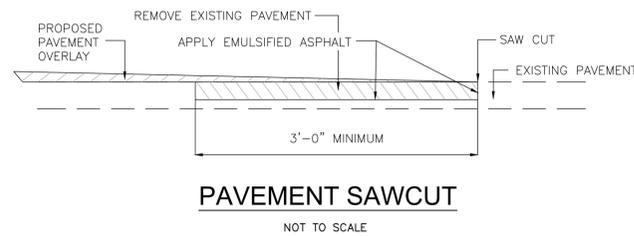
**NOTES**

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.

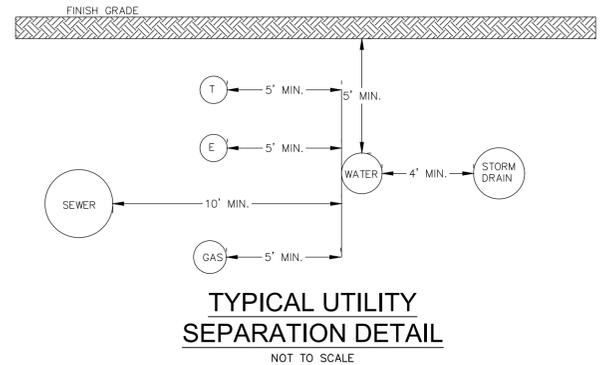
**PAVEMENT SECTIONS**  
NOT TO SCALE



**PAVEMENT SECTION/LOAM & SEED DETAIL**  
NOT TO SCALE



**PAVEMENT SAWCUT**  
NOT TO SCALE



**TYPICAL UTILITY SEPARATION DETAIL**  
NOT TO SCALE

**PROGRESS PRINT**  
date: 08/23/2022

**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: **MTB' (22'X34')**

**JULY 1, 2022**

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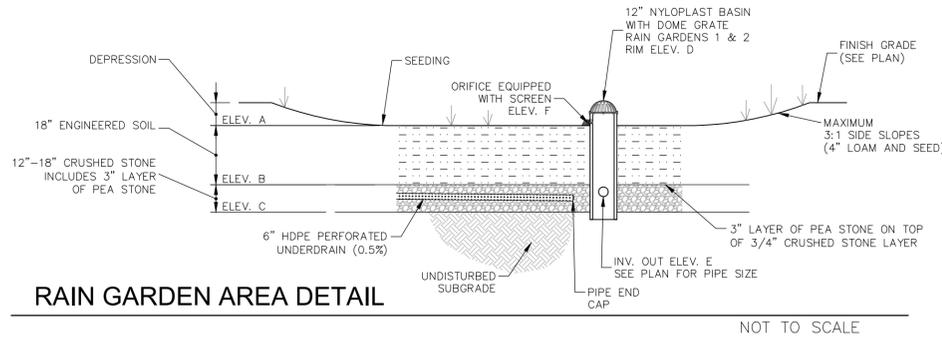
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		CK	CR	CADFILE	47442-00_DETAILS
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**RAIN GARDEN AREA DETAIL**

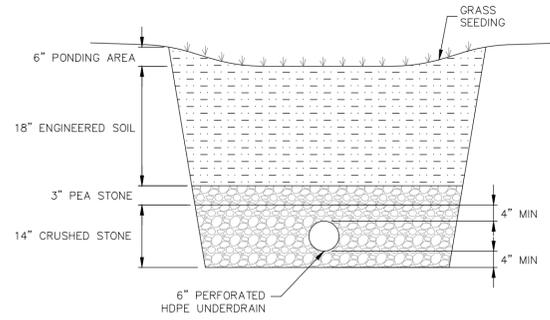
NOT TO SCALE

**SEEDING**

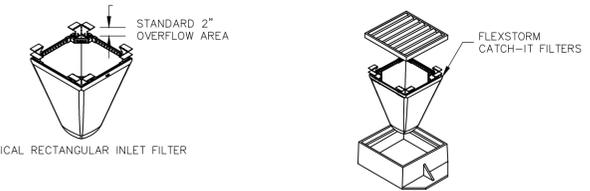
- USE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR MOIST SITES BY NEW ENGLAND WETLAND PLANTS, INC. OR EQUIVALENT.
- SEED AT A RATE OF 1LB/1250SF. APPLY TO BARE SOIL. LIGHTLY MULCH WITH CLEAN WEED FREE STRAW.

ELEV.	ELEV.	
	RG #1	RG #2
A	35.00	34.25
B	33.75	32.75
C	32.00	31.00
*TEST PIT USED FOR ESHWT	TP-3A ELEV. 15.00	TP-1 ELEV. 11.50

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



**RAIN GARDEN TYPICAL SECTION**



**NOTES:**

- INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT > 1".
- EMPTY THE SEDIMENT BAG PER MANUFACTURER'S SPECIFICATIONS.
- REMOVED CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM SPRAY WITH OPTIMAL FILTRATION.
- REPLACE BAG IF TORN OR PUNCTURED TO > 1/2" 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**

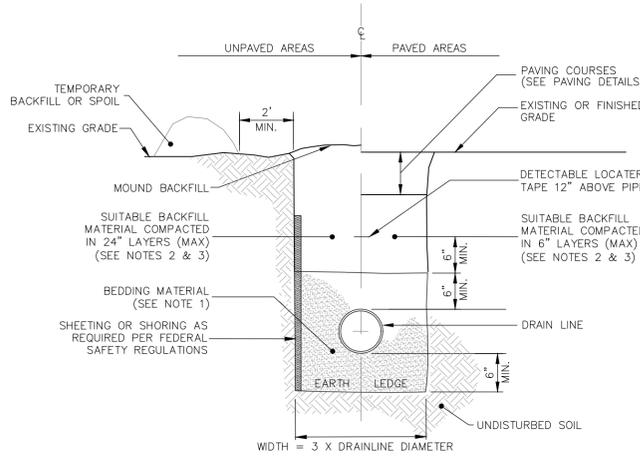
NOT TO SCALE

**RAIN GARDEN CONSTRUCTION**

- CLEAR AND GRUB THE AREA WHERE THE RAIN GARDEN AREAS ARE TO BE LOCATED. STOCKPILE LOAM FOR REUSE ON SLOPES.
- 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.
- 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 HINDERANCE TO THE PLANTING OR MAINTENANCE OPERATION.
- THE USDA TEXTURAL CLASSIFICATION OF THE SANDY SOIL SHALL BE LOAMY SAND OR SANDY LOAM.
- 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.
- THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT EQUIPMENT & VEHICLE TRAFFIC FROM DRIVING IN THE AREA OF THE PROPOSED RAIN GARDEN AREA DURING CONSTRUCTION.
- 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.
- AASHTO #57 STONE CAN BE USED IN PLACE OF 3/4" CRUSHED STONE.

**ENGINEERED SOIL MIX**

- THE ENGINEERED SOIL IS MADE OF IS 10% WOOD CHIPS, 35% LOAM, AND 55% SAND.
- LOAM SHALL MEET THE USDA TEXTURAL CLASSIFICATION OF LOAMY FINE SAND.
- SAND SHALL BE CONCRETE SAND MEETING ASTM C-33 SPECIFICATION.
- 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
- SOIL REACTION: PH OF 6 TO 7.
- CEC OF TOTAL SOIL: MINIMUM 10 MEQ/100 ML AT PH OF 7.0.
- BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS INDICATED ON DRAWINGS
- BASIC PROPERTIES: MANUFACTURED SOIL SHALL NOT CONTAIN THE FOLLOWING:
  - 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.
  - 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.
  - LARGE MATERIALS: STONES, CLODS, ROOTS, CLAY LUMPS, AND POCKETS OF COARSE SAND EXCEEDING 0.187 INCHES (4.76 MM) IN ANY DIMENSION.



**NOTES**

- 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.
- 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.
- 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.
- 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

**RAIN GARDEN MAINTENANCE**

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

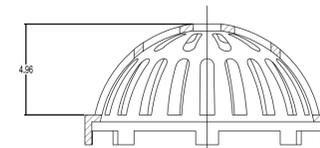
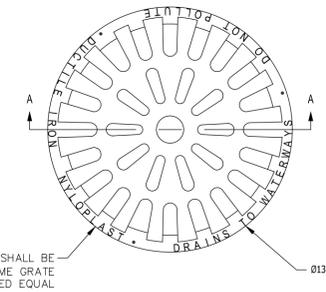
- CONTRACTOR AND LAND OWNERS TO PERFORM SCHEDULED MAINTENANCE ON THE RAIN GARDENS.
- REGULAR WATERING DURING THE FIRST FEW WEEKS AFTER PLANTING AND DURING HOT, DRY SPELLS, ESPECIALLY IN THE FIRST TWO YEARS AFTER PLANTING. AFTER THE FIRST TWO YEARS AND ONCE PLANTS ARE ESTABLISHED, WATERING SHOULD ONLY BE NECESSARY DURING DROUGHT CONDITIONS.
- FOR THE FIRST YEAR, FREQUENT AND AGGRESSIVE WEEDING MONTHLY DURING GROWING SEASON. REMOVE ONLY INVASIVE SPECIES.
- TWICE PER YEAR, INSPECT SPILLWAYS AND REMOVE ANY ACCUMULATED DEBRIS OR SEDIMENT TO ENSURE PROPER FUNCTIONALITY.
- ONCE A YEAR TRIM AND PRUNE EXCESS VEGETATION. DEAD, DYING, DISEASED, OR HAZARDOUS BRANCHES SHOULD BE TRIMMED AND REMOVED AS THEY OCCUR.
- 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.
- DO NOT MOW GARDEN.
- ONCE A YEAR, INSPECT BOTTOM OF RAIN GARDEN. MAINTAIN A 2-3" LAYER OF MULCH. REPLACE AS REQUIRED.
- DURING INSPECTIONS, REMOVE ANY TRASH, ACCUMULATED DEBRIS OR SEDIMENT.
- ONCE A YEAR INSPECT BERM FOR SETTLING. ADD COMPACTED SOIL AND REPLANT AS NEEDED.
- 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.
- 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.

**RAIN GARDEN INSPECTION SCHEDULE**

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

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

1299CGD  
APPROX. DRAIN AREA = 82.87 SQ IN  
APPROX. WEIGHT = 18.50 LBS



**12" DOME GRATE**

NOT TO SCALE

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

**PROGRESS PRINT**  
date: 08/23/2022

**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: MFB' (22'X34')**

**JULY 1, 2022**

Seacoast Division



Civil Engineers  
Structural Engineers  
Traffic Engineers  
Land Surveyors  
Landscape Architects  
Scientists

170 Commerce Way, Suite 102  
Portsmouth, NH 03801  
Phone (603) 431-2222  
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REV	DATE	DESCRIPTION	DR	CK
2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC

FILE	47442-00	DR	BKMK	FB	-
		CK	CR	CADFILE	47442-00-DETAILS

C-08

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# SEWER SERVICE NOTES

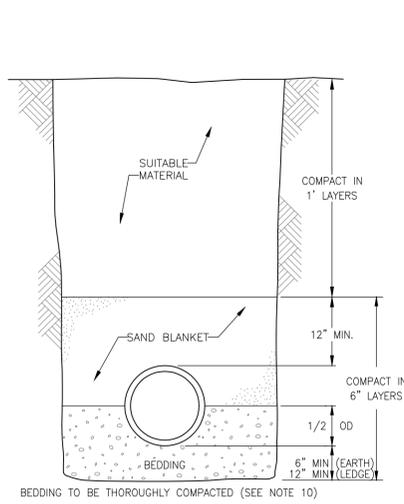
- MINIMUM SIZE PIPE FOR SEWER SERVICE SHALL BE FOUR INCHES.
- PIPE AND JOINT MATERIALS:
  - PLASTIC SEWER PIPE
    - PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:
 

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"

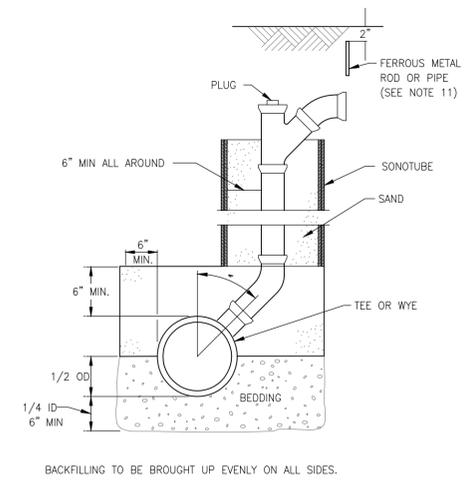
\*PVC: POLY VINYL CHLORIDE  
\*ABS: ACRYLONITRILE-BUTADIENE-STYRENE
    - JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON, BELL AND SPIGOT TYPE.
    - ABS TRUSS PIPE AND FITTINGS SHALL CONFORM TO ASTM D-2680, POLYMER 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.
  - DUCTILE-IRON PIPE, FITTINGS AND JOINTS.
    - 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.
    - 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
- DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
- JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
- 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.
- 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.
- TESTING: THE COMPLETED SEWER SERVICE SHALL BE SUBJECTED TO A THIRD PARTY LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)
  - 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.
  - 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.
  - DRY FLUORESCENCE 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.

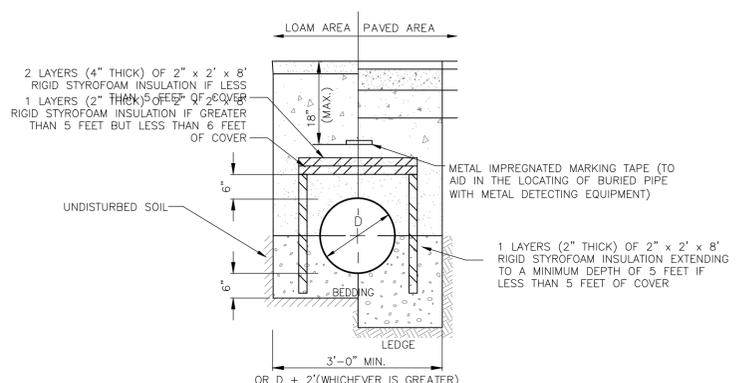
LEAKAGE OBSERVED IN ANY ONE OF THE ABOVE ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP IF NECESSARY AND RE-LAID SO AS TO ASSURE WATER TIGHTNESS.



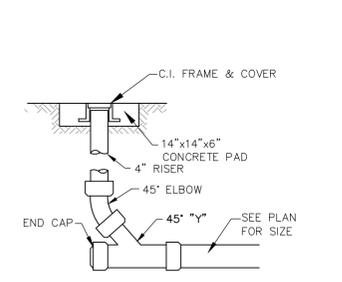
**TRENCH CROSS-SECTION**  
NOT TO SCALE



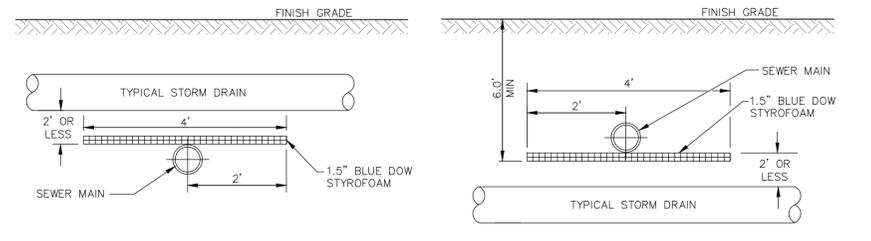
**CHIMNEY** (SEE NOTE 12)  
NOT TO SCALE



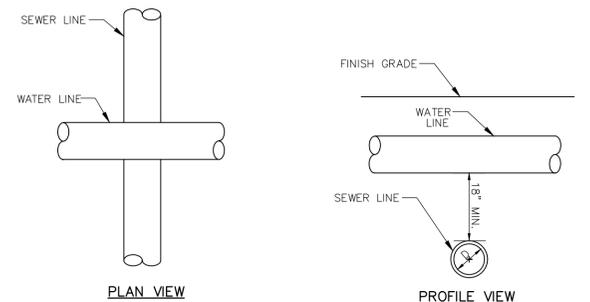
**SEWER TRENCH WITH INSULATION**  
NOT TO SCALE



**SEWER CLEAN OUT**  
NOT TO SCALE

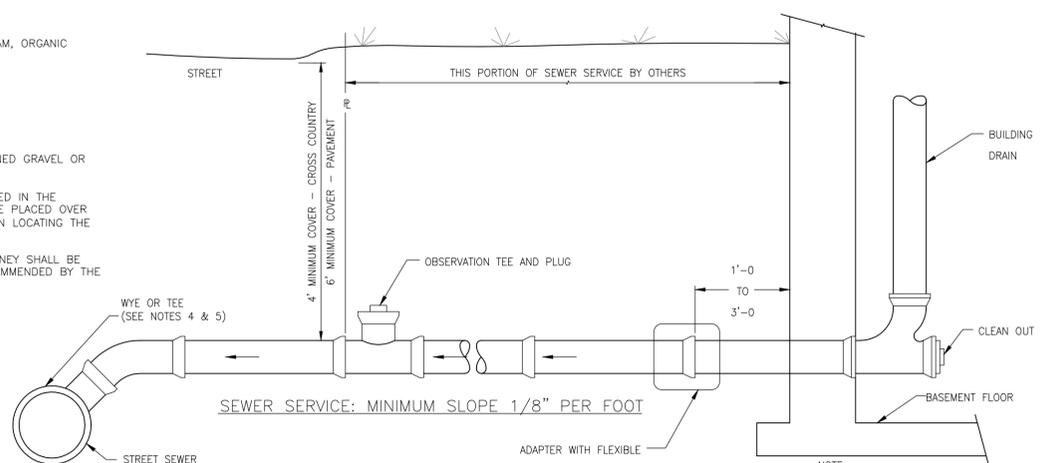


**INSULATION AT STORM DRAIN & SEWER MAIN CROSSINGS**  
NOT TO SCALE



**WATER & SEWER CROSSING**  
NOT TO SCALE

- 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.
- 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.
  - 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.



**SEWER SERVICE DETAILS**  
NOT TO SCALE

**PROGRESS PRINT**  
date: 08/23/2022

**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: MTD' (22"X34")** **JULY 1, 2022**

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

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2	8/23/2022	REVISED PER TAC COMMENTS	JKC	JCC
1	7/21/2022	REVISED PER TAC COMMENTS	JKC	JCC
REV	DATE	DESCRIPTION	DR	CK

47442-00 DR BNK FB  
CK CK CADFILE 47442-00-DETAILS C-09

Aug 22, 2022 - 4:09pm  
F:\MISC Projects\47442 - 77 Meredith Way - Portsmouth\47442-00\_Collins - 77 Meredith Way\Design\PRODUCTION DRAWINGS\47442-00\_Details.dwg

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## TEST PIT INSPECTION REPORT

Dates of Observation:	06-29-2022 <b>REVISED 08-19-2022</b>
Weather:	Sunny, 87°F
Town:	Portsmouth, NH
Location:	77 Meredith Way
Engineer:	B. Levesque, PE
TFM Project Number	

### OBSERVATIONS:

The undersigned traveled to the site to observe and document the excavation of 3 test pits at locations previously marked to ascertain soil conditions and permeability for proposed rain garden infiltration systems for the development at 77 Meredith Way in Portsmouth, NH.

The first test pit, approximately 4' x 8' x 5' (Width x Length x Depth), was excavated at the location shown on the test pit plan TP-1. Seasonal High-Water Table noted at 4 ft 2 inches as measured from existing ground surface. The following strata were noted:

SECTION DEPTH (in)	SOIL DESCRIPTION
0 to 6 inches	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 inches	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 inches to 48 inches	A5YR6/1 damp, firm, CLAYEY SILT/SILTY CLAY, little to trace f. SAND (GLACIOLACUSTRINE DEPOSITS) B.O.E. @ 5 ft

The following photograph illustrate soil conditions found in this test pit:



Photo 1: View of TP-1 on the east side of the trench.

The second test pit, approximately 4' x 8' x 5.5' (Width x Length x Depth), was excavated at the location shown on the test pit plan TP-2. Seasonal High-Water Table noted at 4 ft as measured from existing ground surface. The following strata were noted:

SECTION DEPTH (in)	SOIL DESCRIPTION
0 to 8 inches	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 inches	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 inches to 40 inches	A5YR6/1 damp, firm, CLAYEY SILT/SILTY CLAY, little to trace f. SAND B.O.E. @ 5 ft – desiccated lumps in strata (GLACIOLACUSTRINE DEPOSITS)
40 inches to 60 inches	A5YR5/8 damp, firm, CLAYEY SILT/SILTY CLAY, little to trace f. SAND B.O.E. @ 5 ft (GLACIOLACUSTRINE DEPOSITS)

The following photograph illustrate soil conditions found in this test pit:



Photo 2: View of TP-2 on the north side of the trench.

The third test pit, approximately 4' x 8' x 6' (Width x Length x Depth), was excavated at the location shown on the test pit plan TP-3. Seasonal High-Water Table noted at 4.5 ft as measured from existing ground surface. The following strata were noted:

SECTION DEPTH (in)	SOIL DESCRIPTION
0 to 8 inches	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 inches	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 inches to 60 inches	A5YR5/8 damp, firm, CLAYEY SILT/SILTY CLAY, little to trace f. SAND B.O.E. @ 5 ft (GLACIOLACUSTRINE DEPOSITS)

The following photograph illustrate soil conditions found in this test pit:



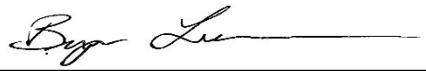
Photo 3: View of TP-3 on the east side of the trench.

Test Pit #4 (closest to the front of the site from the street) was not excavated as Owner was concerned about existing sewer easement that was reported to exist in the area. No ground water was encountered in the excavations.

**ANALYSIS:** The natural soils underlying the surficial fills are relatively impermeable Clayey Silts and Silty Clays with saturated permeabilities  $k_{sat}$  expected on the order of  $1 \times 10^{-6}$  cm/s or lower. The overlying Fill and Topsoil were further assessed, and permeability testing performed on them to determine their saturated permeability,  $k_{sat}$  value.

The  $k_{sat}$  value was determined to be  $5.8 \times 10^{-4}$  cm/s which correlates well with the earlier estimate (based on visual identification of the soil formation) of  $4 \times 10^{-4}$  to  $8 \times 10^{-4}$  cm/s or higher. It is expected that the natural soils would act as a confining layer so that any diffusion of stormwater is expected to primarily disperse laterally through the more permeable upper strata and secondarily downward into the lower strata.

**CONCLUSIONS:** Given the gradation of the materials found at the site and the relative impermeability of the Clayey Silts and Silty Clays underlying surficial fill soils, it is recommended any stormwater treatment and handling systems for the project utilize surface treatment and dispersal methods.



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