

PROJECT:

PROPOSED MULTI-FAMILY DEVELOPMENT  
25 IPSWICH STREET  
HULL, MA

APPLICANT:

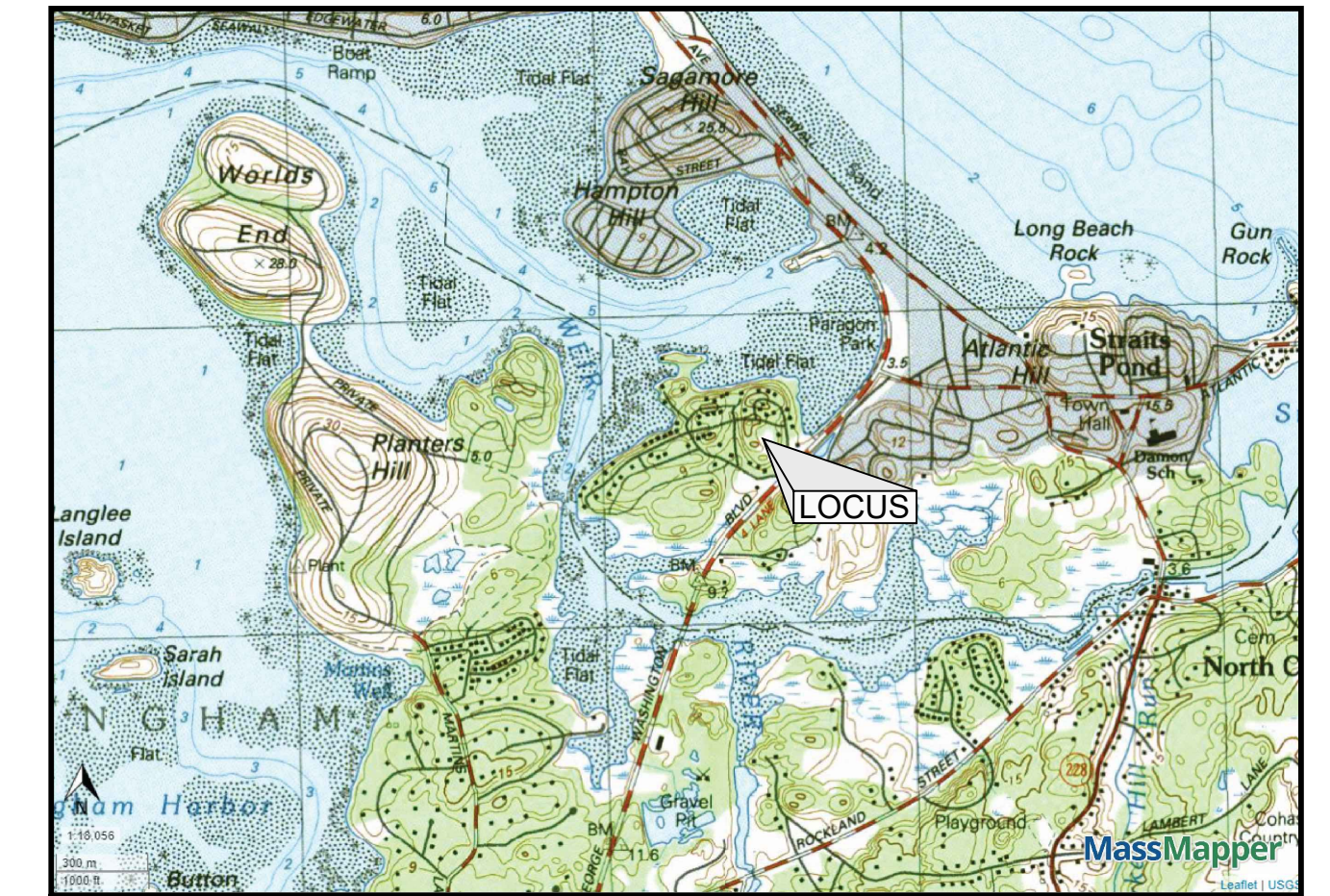
25 IPSWICH LLC  
7 R STREET  
HULL, MA 02045

DRAWING LIST:

SHEET #	TITLE
	EXISTING CONDITIONS PLAN
C001	SITE PREPARATION PLAN
C101	LAYOUT AND MATERIALS PLAN
C102	UTILITY PLAN
C103A	OFFSITE UTILITY CONNECTIONS PLAN - OPTION A
C103B	OFFSITE UTILITY CONNECTIONS PLAN - OPTION B
C104	GRADING AND TOPOGRAPHIC PLAN
C105	FIRE TRUCK TURNING RADIUS PLAN
C106	LANDSCAPE PLAN
C201	DETAILS
C202	DETAILS
C401	SITE SECTIONS ARCHITECTURAL ELEVATION PLANS

COMPREHENSIVE PERMIT REVIEW  
JUNE 21, 2024

REVISED JANUARY 30, 2025



LOCUS PLAN  
SCALE: 1"=2,000'

APPLICANT :  
25 IPSWICH LLC  
7 R STREET  
HULL, MA 02045

CIVIL ENGINEER  
PVI SITE DESIGN, LLC  
18 GLENDALE ROAD  
NORWOOD, MA 02062

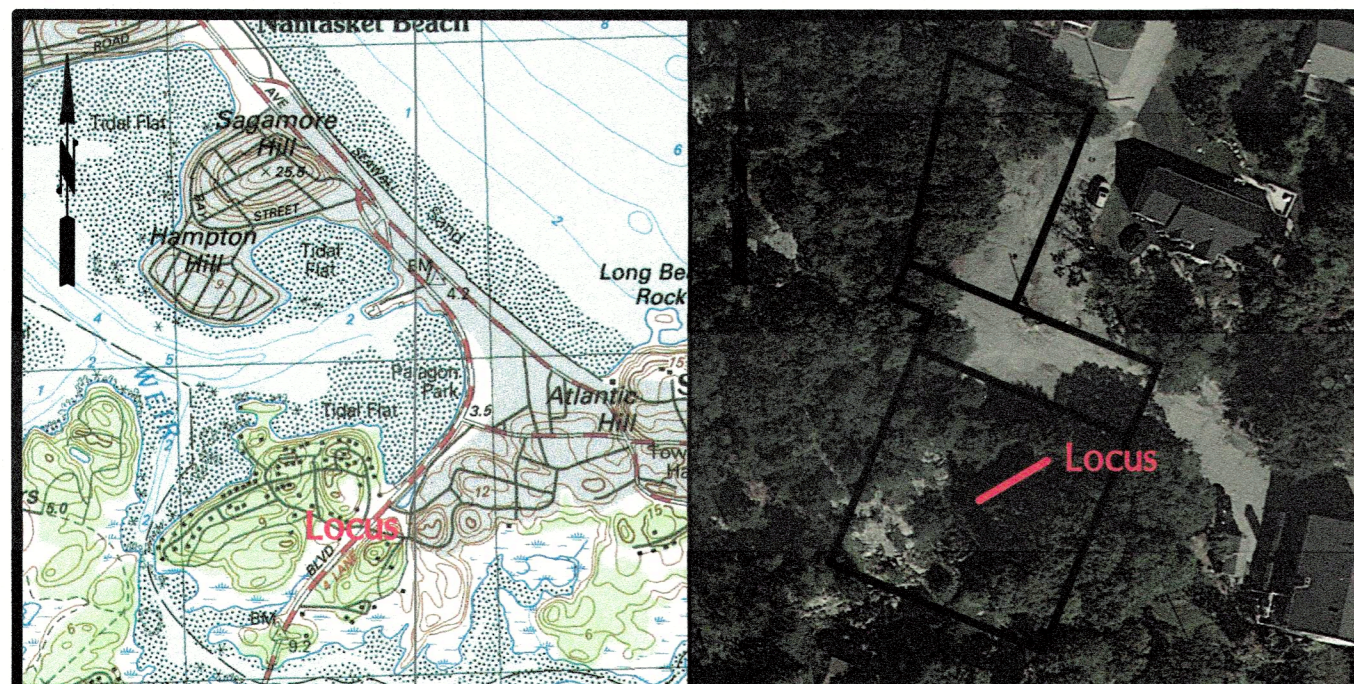
LAND SURVEYOR  
NANTASKET SURVEY ENGINEERING, LLC  
46 EDGEWATER ROAD  
HULL, MA 02045

ZONING TABLE

SINGLE FAMILY - C

	REQUIRED	PROPOSED	NOTES
LOT AREA:	20,000 SF	27,331 SF (0.627 AC)	ASSUMES 3 PARCELS ARE COMBINED
FRONTAGE:	90'	60'	
SETBACKS:			
FRONT:	25'	0'	
SIDE:	10'	5.83'	
REAR:	20'	4.0'	
HEIGHT:			
STORIES:	3	3	
FEET:	35'	37.64'	
LOT WIDTH:	90'	60'	
MAX LOT COVERAGE:	30%	28.6%	
DWELLING UNITS PER LOT:	1	12	
BUILDINGS PER LOT:	1	6	
DWELLING UNITS PER ACRE:	N/A	19.14	
PARKING REQUIREMENTS:	2/UNIT: 24	24	





**LEGEND**

- SB/DH STONE BOUND W/ DRILL HOLE
- CB/DH CONCRETE BOUND W/ DRILL HOLE
- RB/CAP REBAR W/ CAP
- SM SURVEY MARKER
- IP IRON PIPE
- DH DRILL HOLE
- N/F NOW OR FORMERLY
- S SEWER LINE
- OHW OVERHEAD WIRES
- 40' 40'± CONTOUR
- ▭ CBN CATCH BASIN
- UP UTILITY POLE
- EOP EDGE OF PAVEMENT

**GENERAL NOTES**

1. Record Property Owner: 25 Ipswich LLC
2. Property Location: 25 Ipswich Street, Hull MA
3. Hull Assessors Parcel ID 45-271-A, Zoned Single Family C.
4. Plymouth County Registry of Deeds Land Court: Book 680, Page 101.
5. Elevations are based upon NAVD 88.
6. FEMA Flood Zone X Panel 38 of 650: 25023C 0038 K July 3, 2024.
7. Location of all utilities is approximate. Call 1-800-dig-safe before commencing any work.
8. All buildings locations are to the outside edge of the exterior walls.

**ZONING AND LOT STATISTICS**

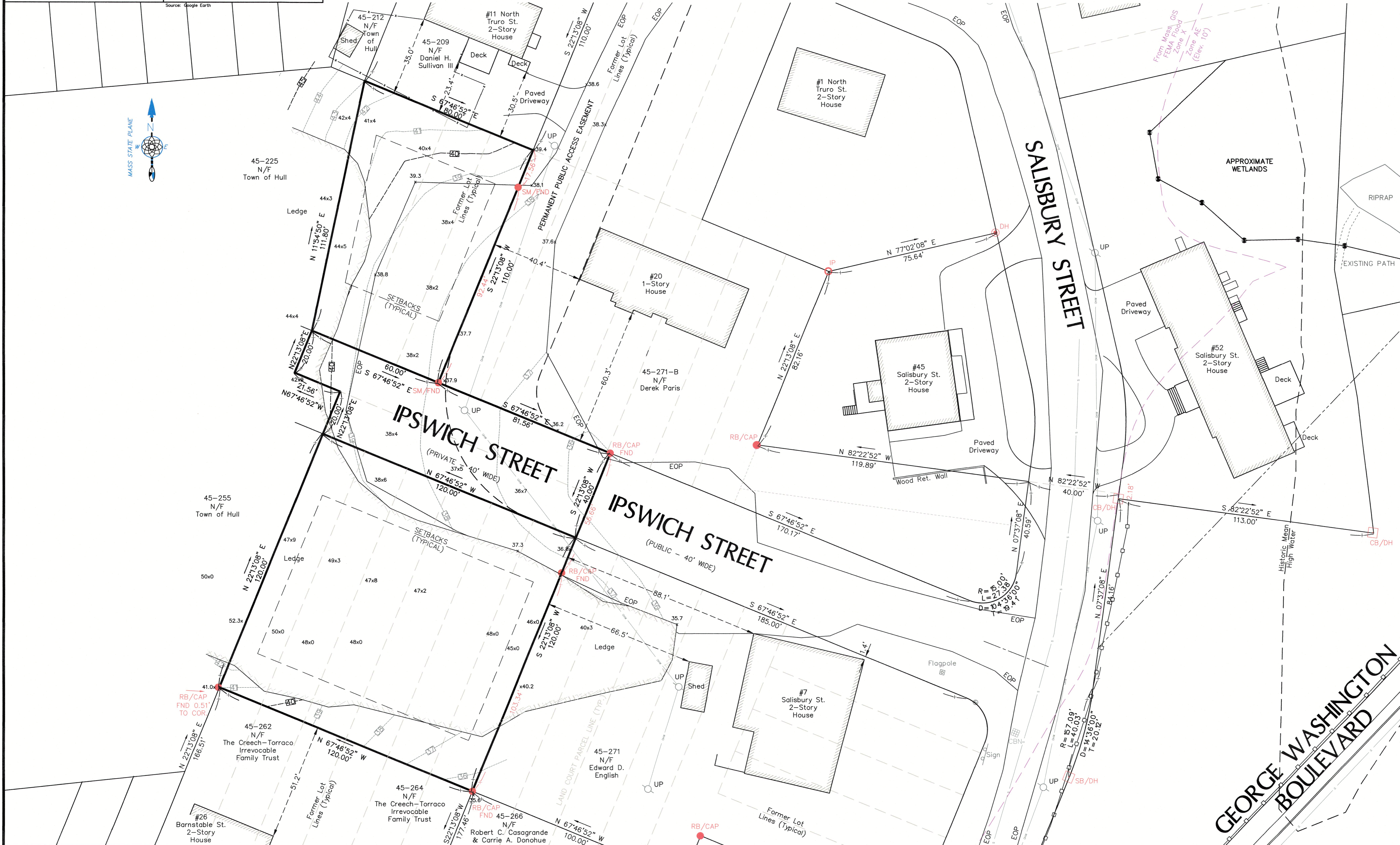
	ZONING BYLAW	EXISTING
SITE IS ZONED SINGLE FAMILY C	20,000 SQ.FT.	27,331 SQ. FT.
MIN LOT AREA:	90 FT.	40.00 FT.
MIN FRONTAGE:	25 FT.	0.00 FT.
FRONT SETBACK:	10 FT.	0.00 FT.
RIGHT SIDE SETBACK:	10 FT.	0.00 FT.
LEFT SIDE SETBACK:	20 FT.	0.00 FT.
REAR SETBACK:	N/A	0.00 FT.
FOOTPRINT:	30%	0.00 SQ.FT.
MAX. % LOT COVERAGE:	35 FT.	N/A
HEIGHT:		

**PURPOSE**

THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING SITE CONDITIONS BASED ON FIELD MEASUREMENTS TAKEN ON AUGUST 10, 2022.

**Project Locus**  
Scale: 1" = 2000 Feet ±

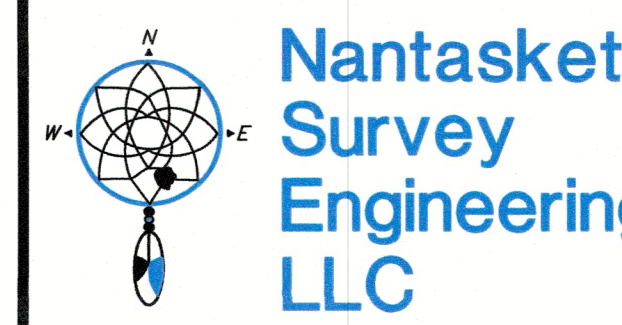
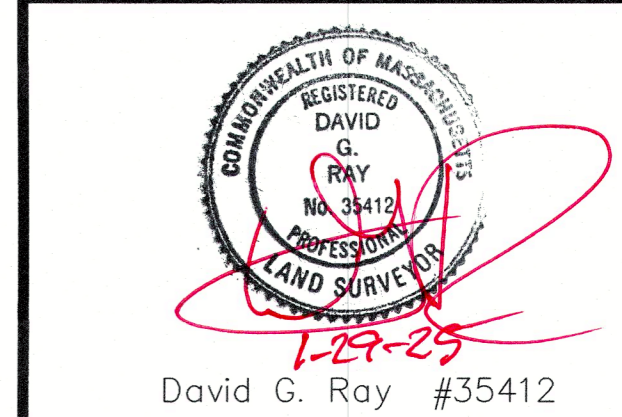
**Aerial Photograph**  
Scale: 1" = 100 Feet ±



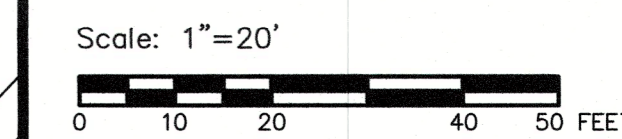
Project Address  
**25 Ipswich Street**  
**Hull Massachusetts**

Drawing Title  
**EXISTING CONDITIONS PLAN**

Prepared For  
Alan McKenzie  
7 R Street  
Hull, MA 02045



46 Edgewater Road, Hull, MA 02045  
(781) 773-1701 (781) 773-1702 (fax)  
www.nantasketsurvey.com



Revisions  
1-29-2025 Revise Owner's Name & FEMA Flood Map

Date	9-14-2022	Drawing	<b>1</b>
Proj. Mgr.	DGR		
Design	N/A		
Check	DGR		
Drawn	AMS/DGR		
Job #	1-2920	of 1	

**SITE PREPARATION NOTES:**

1. WITHIN THE LIMIT OF THE WORK LINE AS NOTED ON THE SITE PREPARATION PLANS, REMOVE AND DISCARD ALL CONCRETE PAVEMENT, BITUMINOUS CONCRETE PAVEMENT, BRICK PAVEMENT, TOP SOIL, MULCH, TRASH, DEAD TREES AND STUMPS, SHRUBBERY, CHAIN LINK FENCE POSTS, RAILS, FABRIC, GATES, FOOTINGS AND ALL APPURTENANCES, BOLLARDS, POSTS, CONCRETE FOOTINGS AND FOUNDATIONS, WALLS AND CURBS UNLESS OTHERWISE NOTED.
2. THE OWNER'S REPRESENTATIVE SHALL BE CONSULTED AND WILL REVIEW THE WORK ON SITE WITH THE CONTRACTOR BEFORE ANY WORK SHALL COMMENCE.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL CONDITIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING CONDITIONS TO REMAIN THAT ARE DUE TO CONTRACTOR OPERATIONS.
5. ALL ITEMS TO BE REMOVED THAT ARE NOT STOCKPILED FOR LATER REUSE ON THE PROJECT OR DELIVERED TO THE OWNER SHALL BE LEGALLY DISPOSED OF OFF SITE BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS EFFORTS OF THE DEMOLITION WITH ALL TRADES.
7. THE CONTRACTOR SHALL COORDINATE ALL ADJUSTMENT OR ABANDONMENT OF UTILITIES WITH THE RESPECTIVE UTILITY COMPANY.
8. THE CONTRACTOR SHALL MAINTAIN OR ADJUST TO NEW FINISH GRADE AS NECESSARY ALL UTILITY AND SITE STRUCTURES SUCH AS LIGHT POLES, SIGN POLES, MAIN HOLES, CATCH BASINS, HAND HOLES, WATER AND GAS GATES, HYDRANTS, ETC., FROM MAINTAINED UTILITY AND SITE SYSTEMS UNLESS OTHERWISE NOTED OR DIRECTED BY THE OWNER'S REPRESENTATIVE.

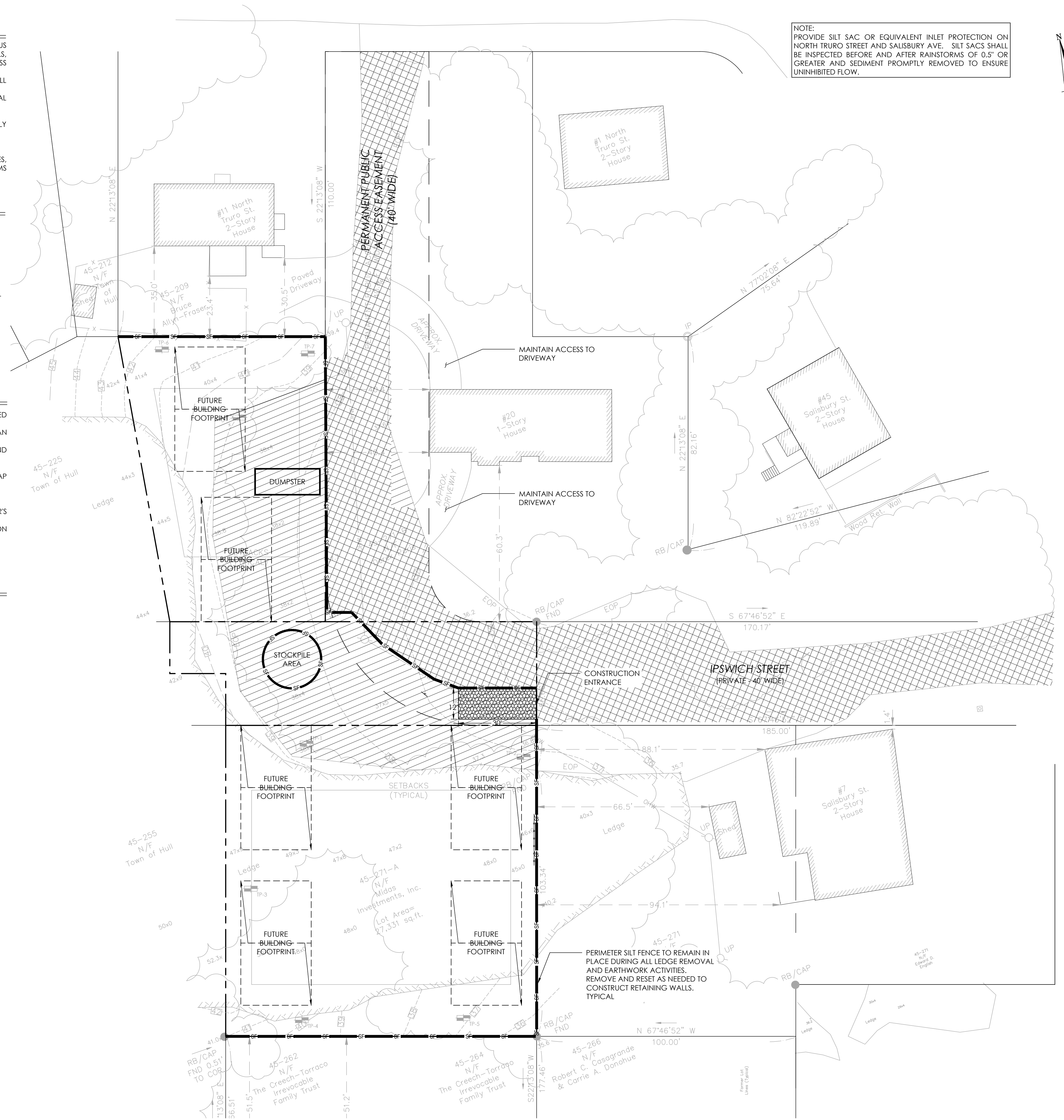
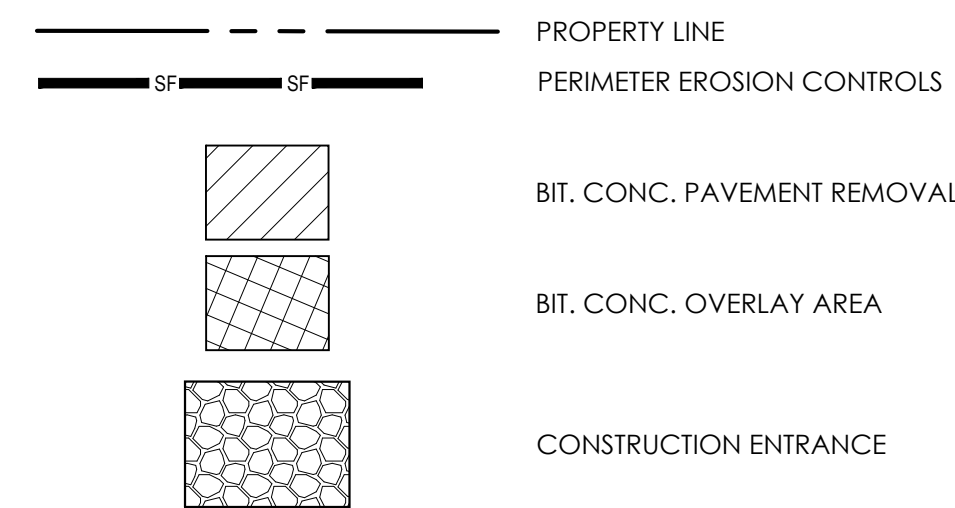
**CONSTRUCTION SEQUENCE:**

1. CONSTRUCT TEMPORARY AND PERMANENT EROSION CONTROL FACILITIES. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR DISTURBANCE AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. EXISTING ASPHALT SHALL REMAIN IN PLACE UNTIL JUST PRIOR TO MAJOR PAVING OPERATIONS.
2. CLEAR CUT, DEMOLISH, AND DISPOSE OF EXISTING SITE ELEMENTS NOT TO REMAIN.
3. PERFORM EARTHWORK TO BRING THE SITE TO DESIGN SUB-GRADE ELEVATIONS. STABILIZE ALL CUT AND FILL SLOPES IMMEDIATELY AFTER THEIR CONSTRUCTION.
4. CONSTRUCT BUILDING FOUNDATIONS.
5. INSTALL UTILITIES. GRAVITY DEPENDANT UTILITIES (I.E. SEWER, DRAIN) SHALL BE INSTALLED FIRST. WATER LINES, ELECTRICAL CONDUIT AND GAS SHALL BE INSTALLED AROUND THE GRAVITY DEPENDANT UTILITIES.
6. FINISH GRADE AND STABILIZE ALL SURFACE DRAINAGE BMP'S (RAIN GARDENS, SWALES, ETC).
7. BEGIN ALL PERMANENT AND TEMPORARY SEEDING AND MULCHING.
8. GRADE AND GRAVEL ALL PAVED AREAS. MILL ANY EXISTING PAVEMENT AREAS TO REMAIN. ALL PROPOSED PAVED AREAS SHALL BE STABILIZED IMMEDIATELY AFTER FINE GRADING.
9. FINISH PAVING ALL HARD SURFACE AREAS.
10. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
11. REMOVE TEMPORARY EROSION CONTROL MEASURES WHEN LANDSCAPED AREAS ARE MULCHED OR HAVE AT LEAST A 70% COVERAGE OF GRASS PER THE LANDSCAPE DRAWINGS.

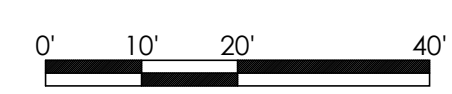
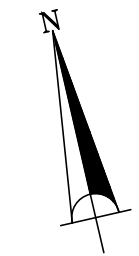
**EROSION CONTROL NOTES:**

1. SEDIMENT TRAPS SHALL BE INSTALLED AT ALL DRAINAGE STRUCTURES. PERIMETER EROSION CONTROLS/COMPOST SOCKS ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE BEEN STABILIZED.
2. SEDIMENT BARRIERS SHALL BE INSPECTED AND APPROVED BY THE CONSERVATION COMMISSION AND / OR STAFF BEFORE CONSTRUCTION CAN START.
3. COMPOST SOCK AND MULCH SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE OF NOXIOUS WEEDS OR WOODY STEMS, AND SHALL BE DRY WHEN INSTALLED.
4. THE UNDERSIDE OF COMPOST SOCK SHOULD BE KEPT IN CLOSE CONTACT WITH THE EARTH AND RESET AS NECESSARY.
5. STABILIZE SLOPES GREATER THAN 3:1 (HORIZONTAL:VERTICAL) WITH SEED, SECURED GEOTEXTILE FABRIC, SPRAYED COMPOST BLANKET, OR RIP-RAP AS REQUIRED TO PREVENT EROSION DURING CONSTRUCTION.
6. CLEAN OUT CATCH BASINS, DRAIN MANHOLES, STORM DRAIN PIPES, AND DETENTION BASINS AFTER COMPLETION OF CONSTRUCTION.
7. IF USED, THE BOTTOM OF SEDIMENTATION BASINS SHALL BE PERIODICALLY CLEANED PER THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
8. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, CONTRACTOR TO REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AT THE OWNER'S REPRESENTATIVES DIRECTION.
9. AFTER THE REMOVAL OF TEMPORARY EROSION CONTROL MEASURES, CONTRACTOR TO GRADE AND SEED AREA OF TEMPORARY EROSION CONTROL MEASURE.
10. DAMAGED OR DETERIORATED ITEMS WILL BE REPAIRED IMMEDIATELY AFTER IDENTIFICATION OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
11. THE CONTRACTOR'S SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR DAILY INSPECTIONS, MAINTENANCE, AND REPAIR ACTIVITIES.

**SITE PREPARATION LEGEND**



NOTE: PROVIDE SILT SAC OR EQUIVALENT INLET PROTECTION ON NORTH TRURO STREET AND SALISBURY AVE. SILT SACS SHALL BE INSPECTED BEFORE AND AFTER RAINSTORMS OF 0.5" OR GREATER AND SEDIMENT PROMPTLY REMOVED TO ENSURE UNINHIBITED FLOW.



**PVI SITE DESIGN**  
 PVI Site Design, LLC  
 Civil Engineering - Land Enhancements  
 Master Planning - Project Management  
 339-206-1030

**PROPOSED MULTI-FAMILY**  
 25 IPSWICH STREET, HULL, MA 02045  
 ALAN MCKENZIE  
 7R STREET, HULL, MA 02045

REVISIONS	TOWN COMMENTS
1: 2024-09-26	26 TOWN COMMENTS
2: 2024-11-14	VARIOUS COMMENTS
3: 2025-01-07	FIRE TRUCK TURNING PLAN
4: 2025-01-30	VARIOUS REVISIONS

SEAL: [Professional Engineer Seal for Timothy J. Power, No. 46905, State of Massachusetts]

ISSUED FOR PERMIT  
 JUNE 21, 2024  
**SITE PREPARATION PLAN**  
 NOT FOR CONSTRUCTION

SCALE:	1"=20'
JOB NO:	23-010
FILE:	23-010-EROS.dwg
DRAWN:	RLB
CHECKED:	TJP
SHEET NO:	<b>C001</b>

**GENERAL NOTES:**

- EXISTING CONDITIONS INFORMATION IS REPRODUCED FROM THE SURVEY PREPARED BY NANTASKET SURVEY ENGINEERING, LLC, DATED SEPTEMBER 14, 2022.
- TEST PIT LOCATIONS SHOWN ON THE DRAWINGS ARE RECORD LOCATIONS OF THE SOIL OBSERVATIONS PERFORMED BY BRIGGS ENGINEERING & TESTING AS OUTLINED IN THEIR GEOTECHNICAL RECOMMENDATIONS LETTER DATED SEPTEMBER 11, 2023.
- SCREENED IMAGES SHOW EXISTING CONDITIONS. WHERE EXISTING CONDITIONS LIE UNDER OR ARE IMPINGED UPON BY PROPOSED BUILDINGS AND/OR SITE ELEMENTS, THE EXISTING CONDITION WILL BE REMOVED, ABANDONED AND/OR CAPPED OR DEMOLISHED AS REQUIRED.
- THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ARE BASED ON THE SURVEY REFERENCED ABOVE. PRIOR TO THE START OF ANY EXCAVATION, THE CONTRACTOR SHALL NOTIFY DIG-SAFE AND THE PROPER LOCAL AUTHORITIES OR RESPECTIVE UTILITY COMPANIES TO CONFIRM THE LOCATION OF ALL EXISTING UTILITIES. ANY DAMAGE DUE TO FAILURE OF THE CONTRACTOR TO CONTACT THE PROPER AUTHORITIES SHALL BE BORNE BY THE CONTRACTOR.
- CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
- ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING CONDITIONS TO REMAIN THAT ARE DUE TO CONTRACTOR OPERATIONS.
- ALL ITEMS TO BE REMOVED THAT ARE NOT STOCKPILED FOR LATER REUSE ON THE PROJECT OR DELIVERED TO THE OWNER SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR.

**LAYOUT AND MATERIALS NOTES:**

- ALL WORK CONDUCTED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL MUNICIPALITY.
- ACCESSIBLE CURB RAMPS SHALL BE PER THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES, WHICHEVER IS MORE STRINGENT.
- ALL WALKWAYS AND HANDICAP PARKING SPACES SHALL COMPLY WITH THE MAAB AND ADA ACCESSIBILITY GUIDELINES. IF FIELD CONDITIONS MAKE IT IMPOSSIBLE TO COMPLY WITH THESE GUIDELINES AND REGULATIONS, A WAIVER FROM THE MAAB SHALL BE SOUGHT.
- THE FOLLOWING CRITERIA SHALL CONTROL UNLESS OTHERWISE NOTED ON THE PLAN:
  - ALL DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING.
  - ALL DIMENSIONS ARE TO THE FACE OF CURB AT GUTTER LINE.
  - ALL DIMENSIONS ARE TO CENTER OF PAVEMENT MARKINGS.
  - ALL TIES TO PROPERTY LINES ARE PERPENDICULAR TO THE PROPERTY LINE UNLESS OTHERWISE NOTED.

**LAYOUT AND MATERIALS LEGEND**

	PROPERTY LINE
	LIMIT OF WORK LINE
	PROPERTY SETBACK
	EXISTING BUILDING
	PROPOSED BUILDING
	PROPOSED RETAINING WALL
	WOOD GUARDRAIL
	CHAIN LINK FENCE
	WOOD FENCE
	SNOW STORAGE
	EDGE OF PAVEMENT
	CAPE COD BERM
	FIRE HYDRANT
	SINGLE WHITE LINE

**PVI SITE DESIGN**  
 PVI Site Design, LLC  
 Civil Engineering - Land Enhancements  
 Master Planning - Project Management  
 339-206-1030

**PROPOSED MULTI-FAMILY**  
 25 IPSWICH STREET, HULL, MA 02045  
 CLIENT / APPLICANT:  
**ALAN MCKENZIE**  
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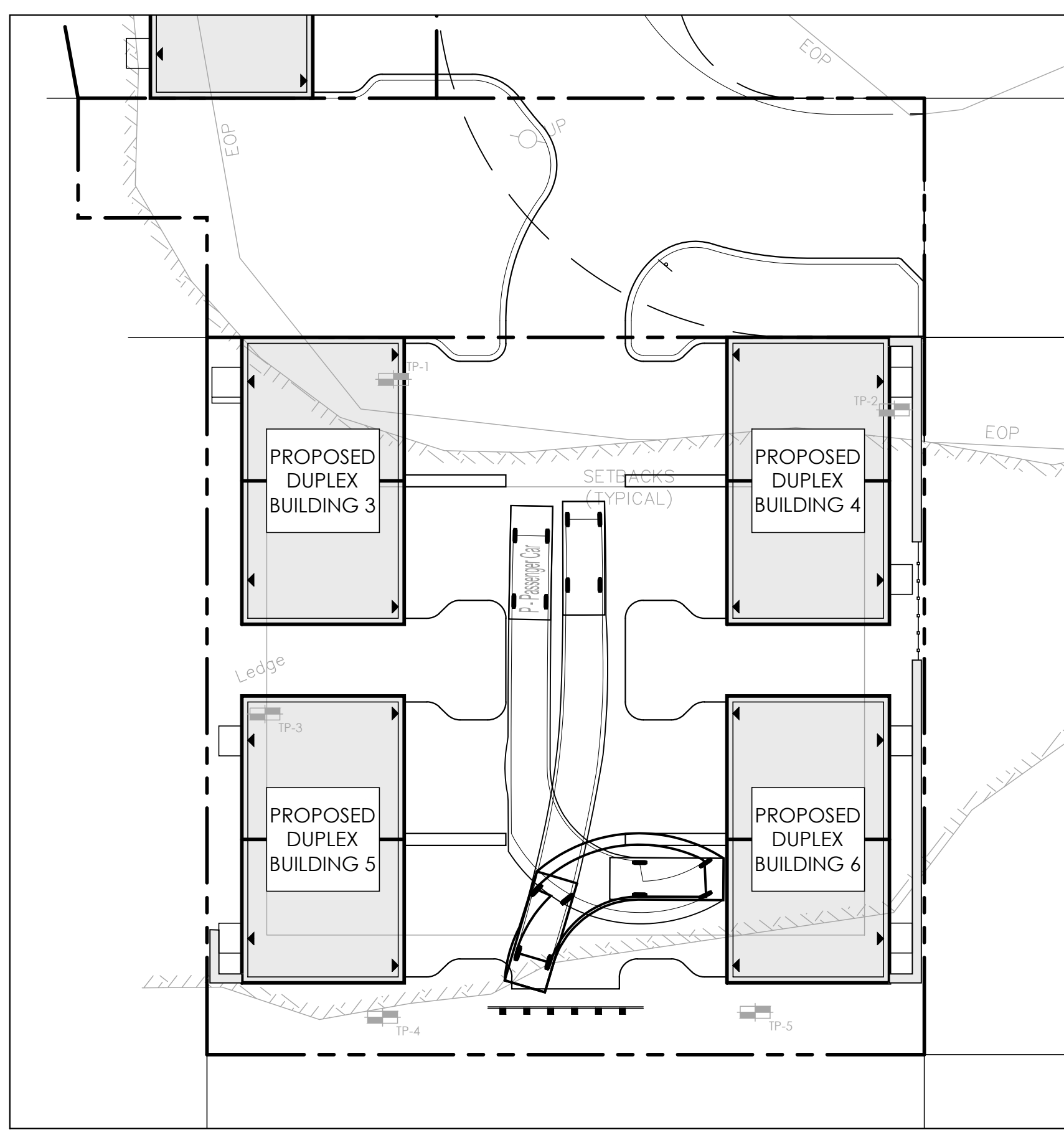
REVISIONS

1:	2024-05-26 TOWN COMMENTS
2:	2024-11-14 VARIOUS COMMENTS
3:	2025-01-07 - FIRE TRUCK TURNING PLAN
4:	2025-01-30 - VARIOUS REVISIONS

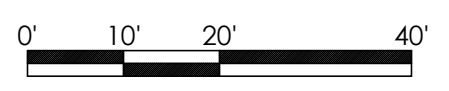
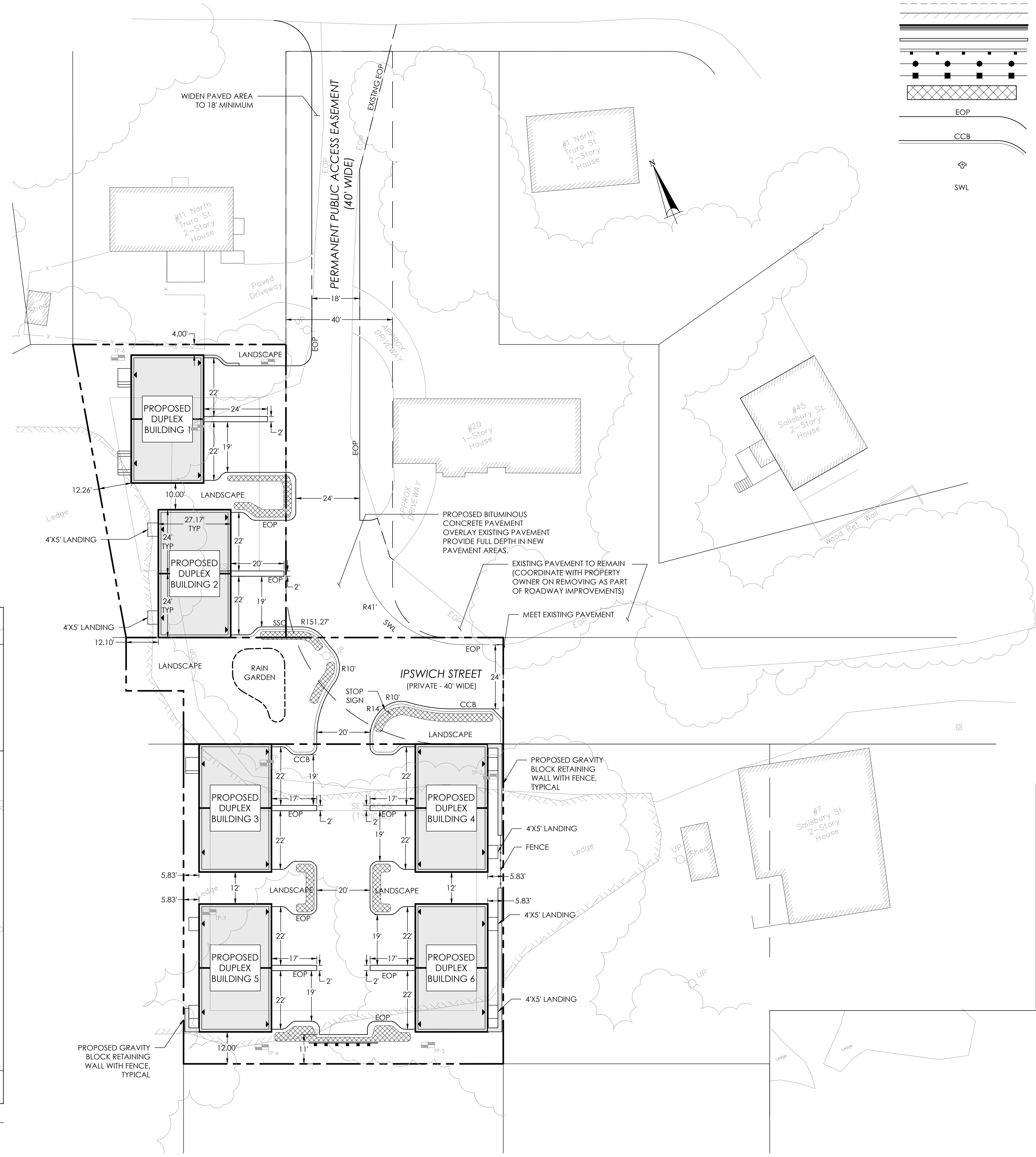
SEAL:

ISSUED FOR PERMIT  
 JUNE 21, 2024  
**LAYOUT AND MATERIALS PLAN**  
 NOT FOR CONSTRUCTION

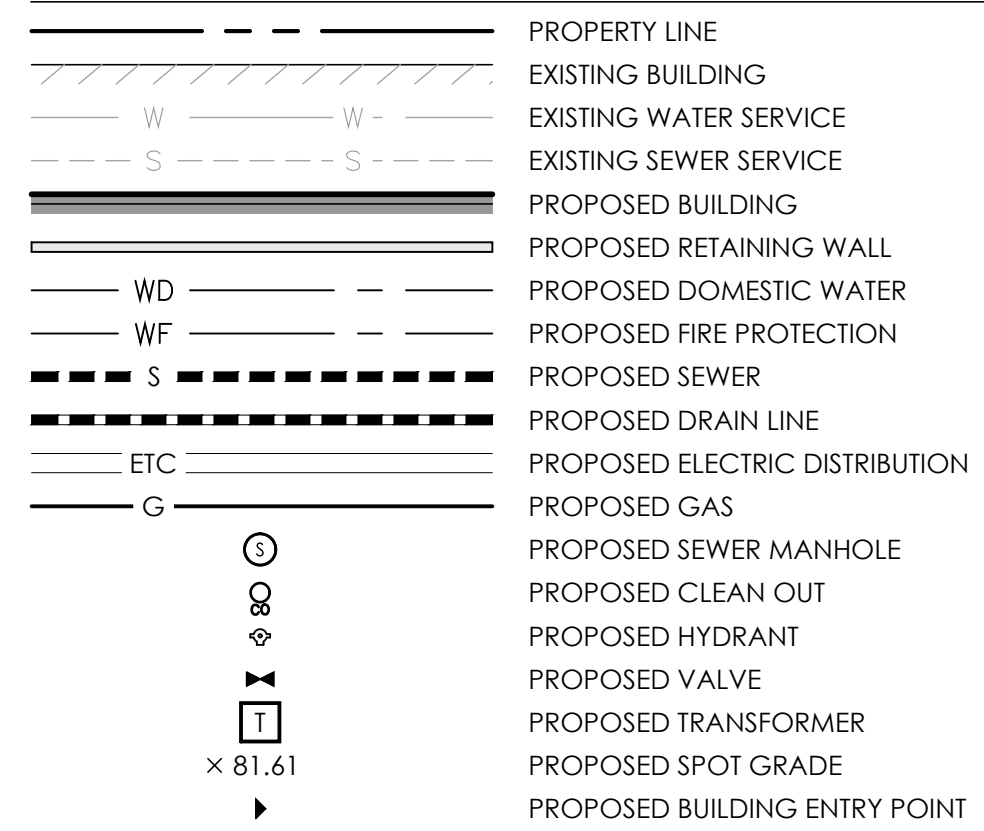
SCALE:	1"=20'
JOB NO.:	23-010
FILE:	23-010-LM.dwg
DRAWN:	RLB
CHECKED:	TJP
SHEET NO.:	<b>C101</b>



**1 PASSENGER CAR TURNING MOVEMENT**  
 SCALE: 1"=20'



# GRADING AND UTILITY LEGEND



## GRADING AND UTILITY NOTES:

- CONTRACTOR TO ADJUST UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN-OUTS, UTILITY MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES, AND BOXES TO THE PROPOSED FINISH SURFACE GRADE.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF ALL GAS, ELECTRIC, TELEPHONE, AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
- CONTRACTOR SHALL MAINTAIN, OR ADJUST TO NEW FINISH GRADE, AS NECESSARY ALL UTILITY AND SITE STRUCTURES SUCH AS: LIGHT POLES, SIGN POLES, MANHOLES, CATCH BASINS, HAND HOLES, WATER AND GAS GATES, HYDRANTS, ETC., FROM MAINTAINED UTILITY AND SITE SYSTEMS, UNLESS OTHERWISE NOTED OR DIRECTED BY OWNER'S REPRESENTATIVE.
- ALL SEWER PIPES SHALL BE PVC PER ASTM D3034, SDR-35 AND ASTM D1784 WITH RUBBER GASKET JOINTS.
- ALL SEWER MANHOLES SHALL BE WATER TIGHT COVERS.
- THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRICAL.) FINAL DESIGN AND LOCATIONS AT THE BUILDING WILL BE PROVIDED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY CONNECTIONS WITH THE RESPECTIVE COMPANIES PRIOR TO ANY UTILITY CONSTRUCTION.
- ALL CEMENT LINED DUCTILE IRON JOINTS AT FITTINGS (CLASS 52.) VALVES, AND HYDRANT LATERALS SHALL BE MECHANICAL JOINT WITH NEOPRENE GASKETS. JOINTS AT OTHER LOCATIONS SHALL BE PUSH-ON TYPE WITH NEOPRENE OR SYNTHETIC RUBBER GASKETS. ALL WATER GATES SHALL OPEN AS PER CITY REQUIREMENTS. ALL WATER LINES SHALL HAVE A MINIMUM OF 5.0 FEET OF GROUND COVER AND A MINIMUM OF 10 FOOT SEPARATION FROM THE SEWER SYSTEM. AT WATER AND SEWER CROSSINGS, THE WATER LINE SHALL BE ENCASED IN SIX INCHES OF CONCRETE FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CROSSING.
- CONTRACTOR SHALL PROVIDE ALL FITTINGS, BENDS, RESTRAINTS, THRUST BLOCKS, AND OTHER APPURTENANCES NECESSARY FOR INSTALLATION OF WATER SERVICE WHETHER SPECIFICALLY NOTED OR NOT.
- PROTECT AND MAINTAIN EXISTING ON-SITE DRAINAGE STRUCTURES AND PIPES UNLESS OTHERWISE NOTED.

## SANITARY SEWER FLOW CALCULATIONS:

DESIGN FLOWS FROM 310 CMR 15 (TITLE 5)

RESIDENTIAL (110 GPD/BR); 3 BR PER UNIT X 12 UNITS = 368R  
36 BR X 110 GPD/BR = 3,960 GPD

ESTIMATED ACTUAL FLOW:  
TITLE 5 FLOW X 60% = EST. ACTUAL FLOW  
3960 X 0.6 = 2,376 GPD

## ESTIMATED DOMESTIC WATER DEMAND

ESTIMATED ACTUAL SEWER FLOW: 2,376 GPD

ASSUME SEWER FLOW IS 70% OF WATER USAGE.

ESTIMATED WATER DEMAND = 2,376 / 0.70 = 3,394 GPD

## ILLICIT DISCHARGE STATEMENT

THE STORM WATER MANAGEMENT SYSTEM PROPOSED SHALL NOT BE CONNECTED TO THE WASTEWATER MANAGEMENT SYSTEM AND SHALL NOT BE CONTAMINATED BY CONTACT WITH PROCESS WASTES, RAW MATERIALS, TOXIC POLLUTANTS, HAZARDOUS SUBSTANCES, OIL, OR GREASE PER MASSACHUSETTS DEP STORM WATER STANDARD 10.



CONSULTANT:  
**PVI**  
 SITE DESIGN  
 PVI Site Design, LLC  
 Civil Engineering - Land Enhancements  
 Master Planning - Project Management  
 339-206-1030

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 CLIENT / APPLICANT:  
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 7R STREET, HULL, MA 02045

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3:	2025-01-07
4:	2025-01-30

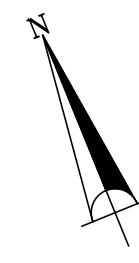
SEAL:  
  
 TIMOTHY J. POWER  
 CIVIL  
 No. 46908  
 REGISTERED PROFESSIONAL ENGINEER

ISSUED FOR PERMIT  
 JUNE 21, 2024  
**UTILITY PLAN**  
 NOT FOR CONSTRUCTION

SCALE:	1"=20'
JOB NO.:	23-010
FILE:	23-010-UT.dwg
DRAWN:	RLB
CHECKED:	TJP
SHEET NO.:	<b>C102</b>

**SEWER NOTE:**

1. SCHEMATIC DESIGN. FINAL DESIGN TO BE REVIEWED AND APPROVED BY HULL SEWER DEPARTMENT



CONSULTANT:

PVI Site Design, LLC  
Civil Engineering - Land Enhancements  
Master Planning - Project Management  
339-266-1030

PROJECT:

## PROPOSED MULTI-FAMILY

25 IPSWICH STREET, HULL, MA 02045

CLIENT / APPLICANT:

ALAN MCKENZIE  
7R STREET, HULL, MA 02045

REVISIONS

1:	2024-05-26	TOWN COMMENTS
2:	2024-11-14	VARIOUS COMMENTS
3:	2025-01-07	FIRE TRUCK TURNING PLAN
4:	2025-01-30	VARIOUS REVISIONS

SEAL:

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JUNE 21, 2024

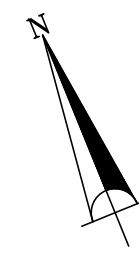
OFF-SITE UTILITY  
CONNECTIONS  
OPTION A  
NOT FOR CONSTRUCTION

SCALE:	1"=40'
JOB NO.:	23-010
FILE:	23-010-UT.dwg
DRAWN:	RLB
CHECKED:	TJP
SHEET NO.:	

**C103A**

SEWER NOTE:

1. SCHEMATIC DESIGN. FINAL DESIGN TO BE REVIEWED AND APPROVED BY HULL SEWER DEPARTMENT



CONSULTANT:

PVI Site Design, LLC  
Civil Engineering - Land Enhancements  
Master Planning - Project Management  
339-266-1030

PROJECT: **PROPOSED MULTI-FAMILY**  
25 IPSWICH STREET, HULL, MA 02045

CLIENT / APPLICANT: **ALAN MCKENZIE**  
7R STREET, HULL, MA 02045

REVISIONS
1: 2024-07-26 TOWN COMMENTS
2: 2024-11-14 VARIOUS COMMENTS
3: 2025-01-07 - FIRE TRUCK TURNING PLAN
4: 2025-01-30 - VARIOUS REVISIONS

SEAL:

ISSUED FOR PERMIT  
JUNE 21, 2024

OFF-SITE UTILITY  
CONNECTIONS  
OPTION B  
NOT FOR CONSTRUCTION

SCALE: 1"=40'

JOB NO: 23-010

FILE: 23-010-UT.dwg

DRAWN: RLB

CHECKED: TJP

SHEET NO:

C103B

**GRADING AND UTILITY LEGEND**

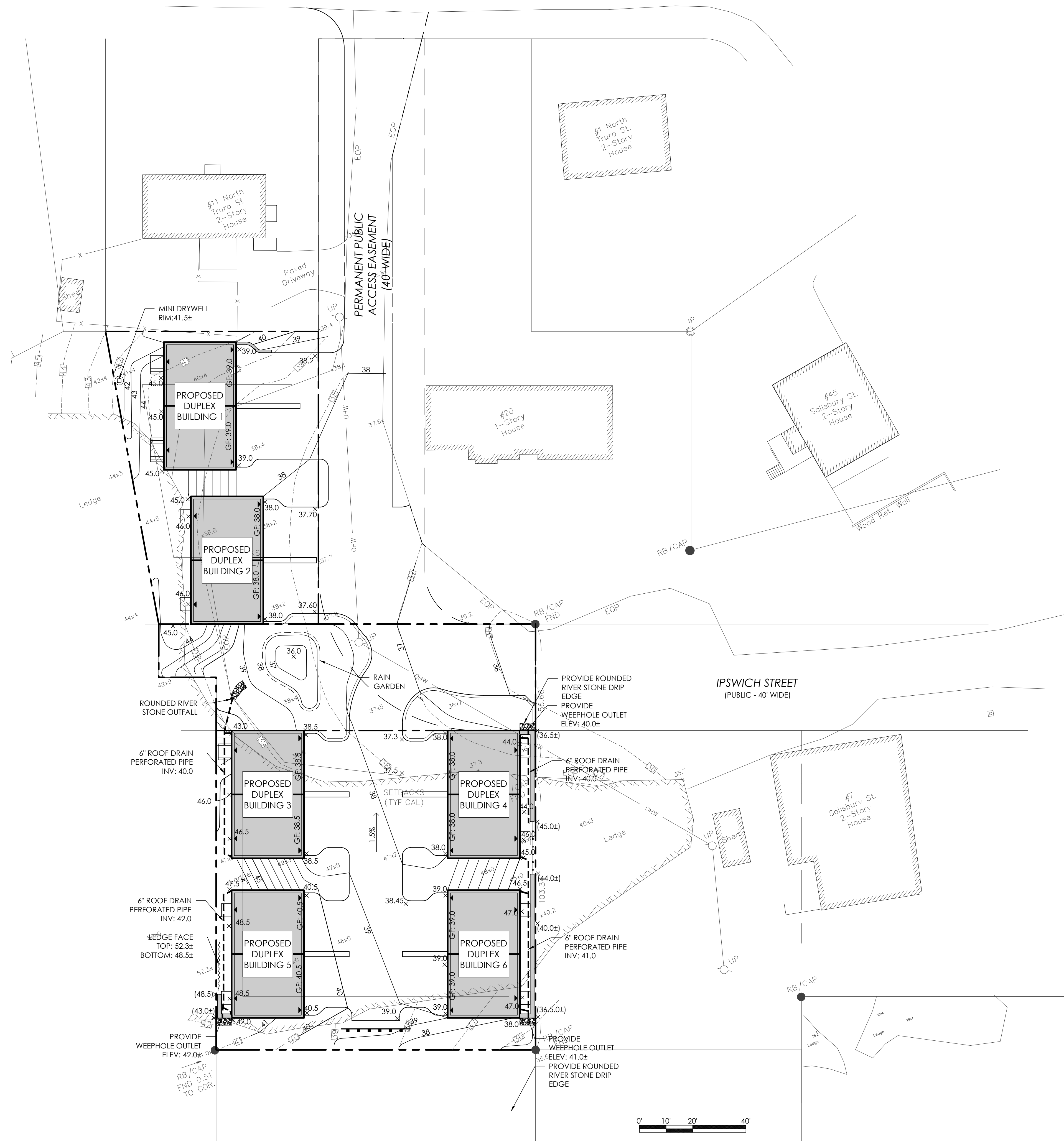
	PROPERTY LINE
	EXISTING BUILDING
	EXISTING CONTOUR LINE
	PROPOSED BUILDING
	PROPOSED RETAINING WALL
	PROPOSED CONTOUR MAJOR LINE
	PROPOSED CONTOUR MINOR LINE
	PROPOSED SPOT GRADE
	EXISTING INTERPOLATED SPOT GRADE
	PROPOSED BUILDING ENTRY POINT
	PROPOSED DETENTION SYSTEM LIMITS
	PROPOSED MINI DRYWELL

**GRADING NOTES:**

- CONTRACTOR SHALL MAINTAIN, OR ADJUST TO NEW FINISH GRADE, AS NECESSARY ALL UTILITY AND SITE STRUCTURES SUCH AS: LIGHT POLES, SIGN POLES, MANHOLES, CATCH BASINS, HAND HOLES, WATER AND GAS GATES, HYDRANTS, ETC., FROM MAINTAINED UTILITY AND SITE SYSTEMS, UNLESS OTHERWISE NOTED OR DIRECTED BY OWNER'S REPRESENTATIVE.
- WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS WILL NOT BE ALLOWED.
- CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS, STRUCTURES AND PLANTING BEDS.
- MAXIMUM SLOPE IN DISTURBED AREAS SHALL NOT EXCEED 3:1, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL VERIFY EXISTING GRADES AND NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
- ALL WALLS OVER 4-FEET IN HEIGHT SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.

**LEDGE EXCAVATION:**

- APPROXIMATE LEDGE EXCAVATION VOLUME: 2,750 CUBIC YARDS.



**PVI SITE DESIGN**  
 PVI Site Design, LLC  
 Civil Engineering - Land Enhancements  
 Master Planning - Project Management  
 339-206-1030

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**SEAL:**

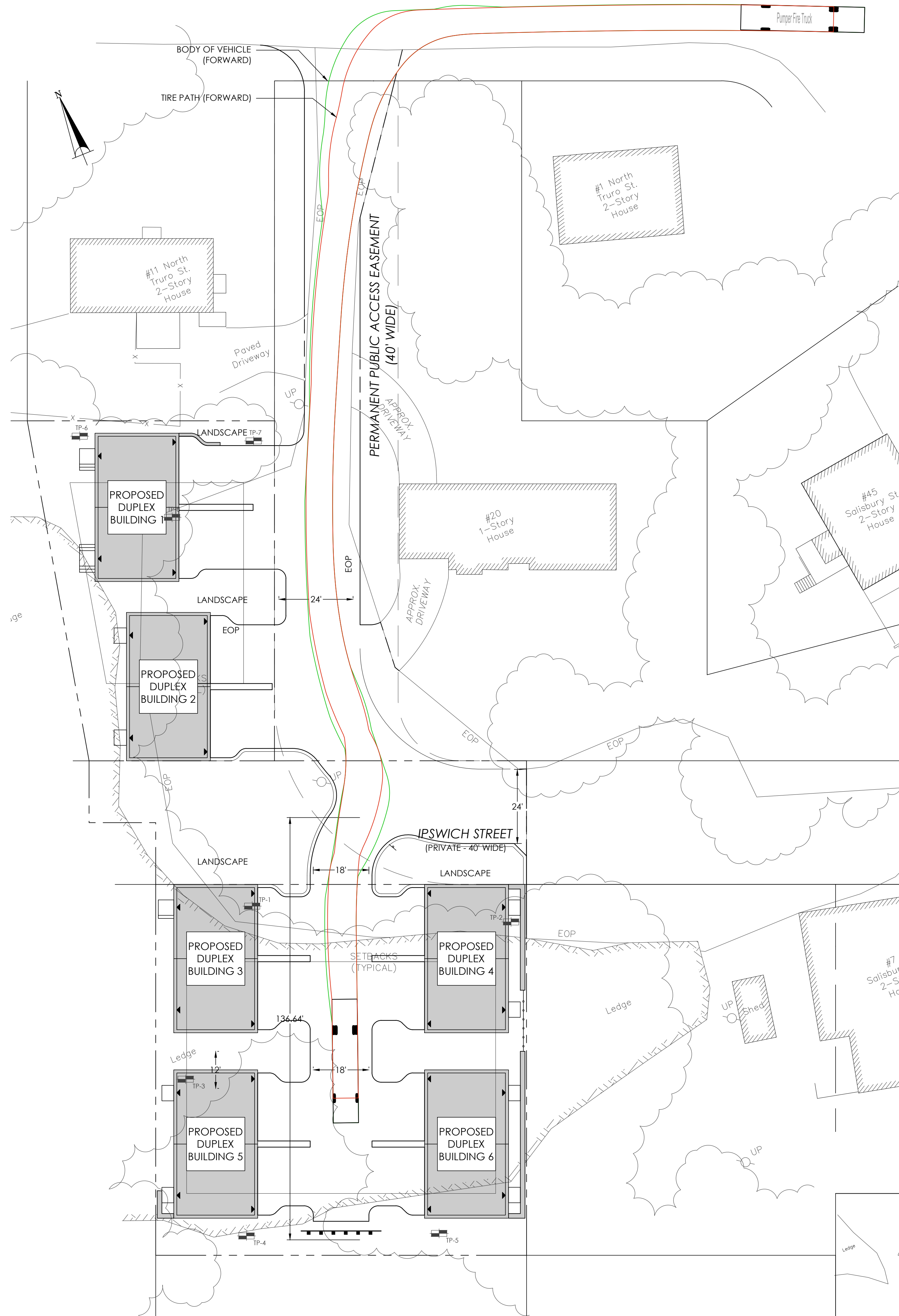
TIMOTHY J. POWER  
 CIVIL ENGINEER  
 No. 46908  
 REGISTERED PROFESSIONAL ENGINEER

**ISSUED FOR PERMIT**  
 JUNE 21, 2024

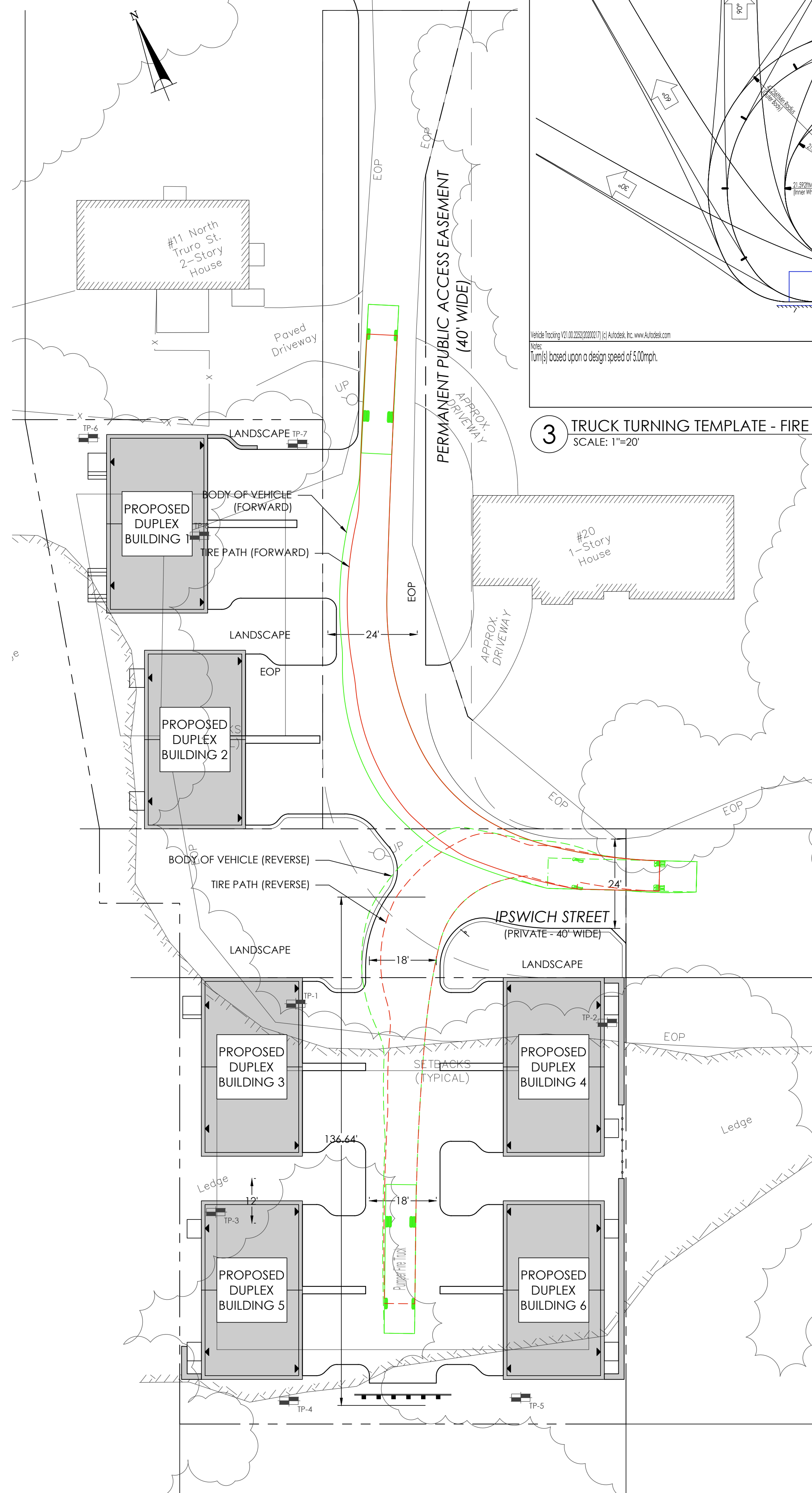
**GRADING AND TOPOGRAPHIC PLAN**  
 NOT FOR CONSTRUCTION

SCALE: 1"=20'  
 JOB NO: 23-010  
 FILE: 23-010-GD.dwg  
 DRAWN: RLB  
 CHECKED: TJP  
 SHEET NO:

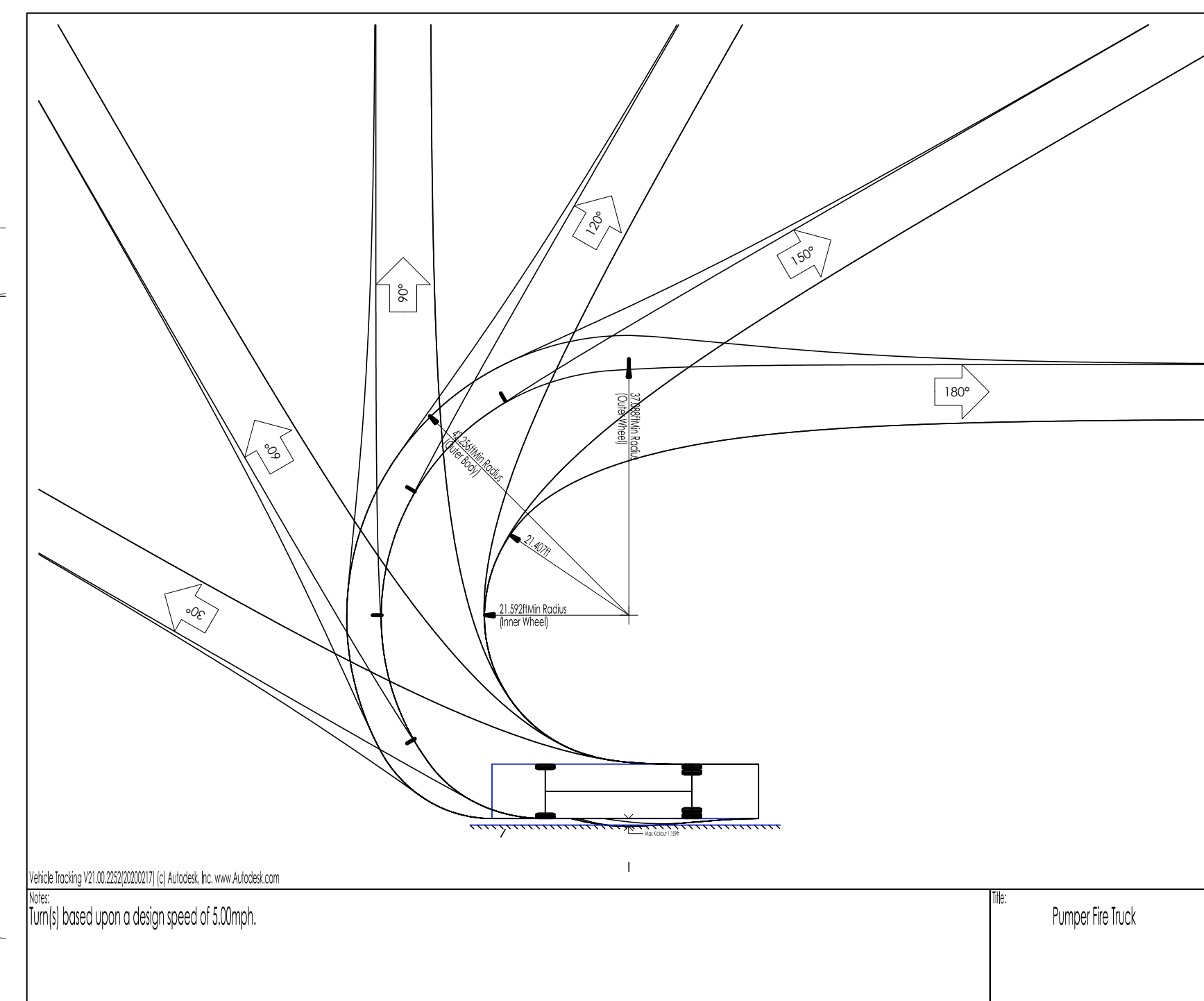
**C104**



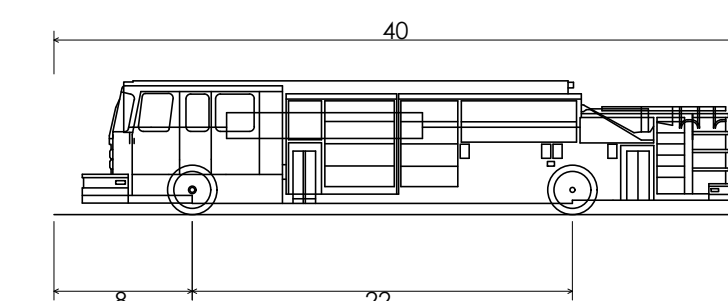
1 ENTRY FROM NORTH TRURO ST  
SCALE: 1"=20'



2 REVERSE OUT OF DRIVEWAY AND EXIT NORTH TRURO  
SCALE: 1"=20'



3 TRUCK TURNING TEMPLATE - FIRE PUMP TRUCK  
SCALE: 1"=20'

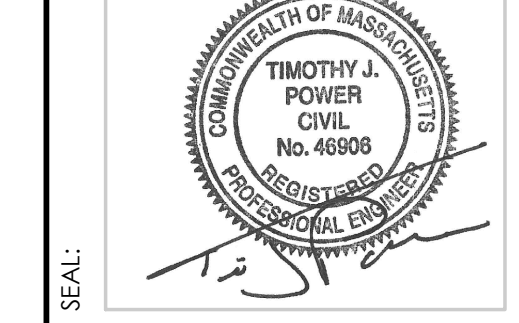


Pumper Fire Truck  
 Overall Length 40.000ft  
 Overall Width 8.167ft  
 Overall Body Height 7.745ft  
 Min Body Ground Clearance 0.656ft  
 Track Width 8.167ft  
 Lock-to-lock time 5.00s  
 Max Wheel Angle 45.00°

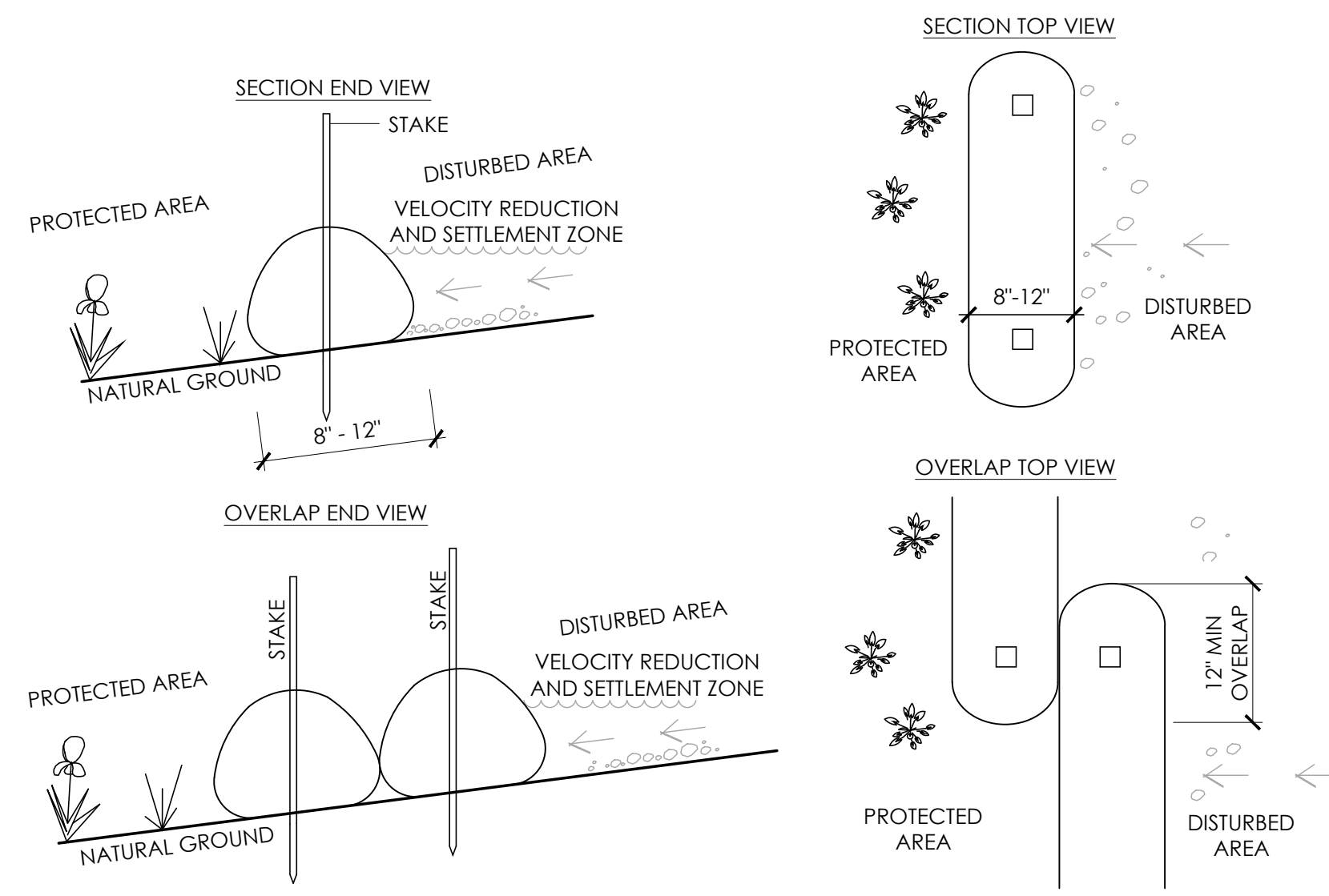
4 VEHICLE PROFILE  
NOT TO SCALE



REVISIONS	COMMENTS
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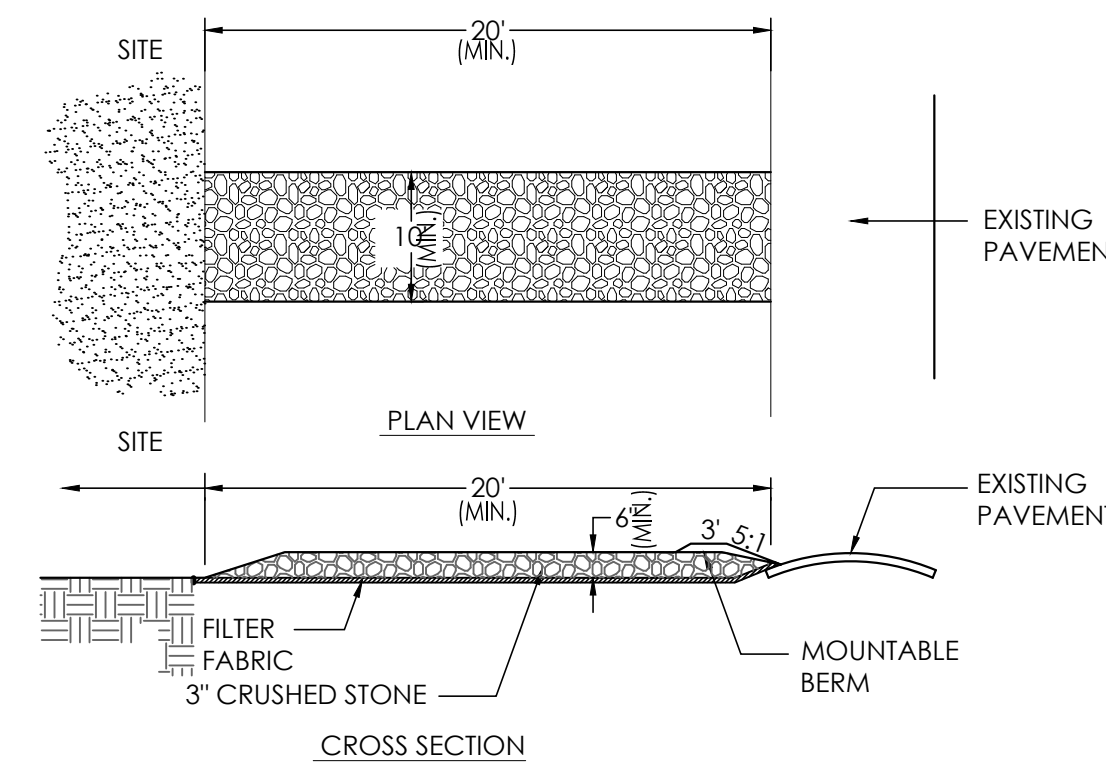


ISSUED FOR PERMIT  
JUNE 21, 2024  
**FIRE TRUCK TURNING  
RADIUS PLAN**  
NOT FOR CONSTRUCTION



**1 PERIMETER EROSION CONTROL**  
NOT TO SCALE

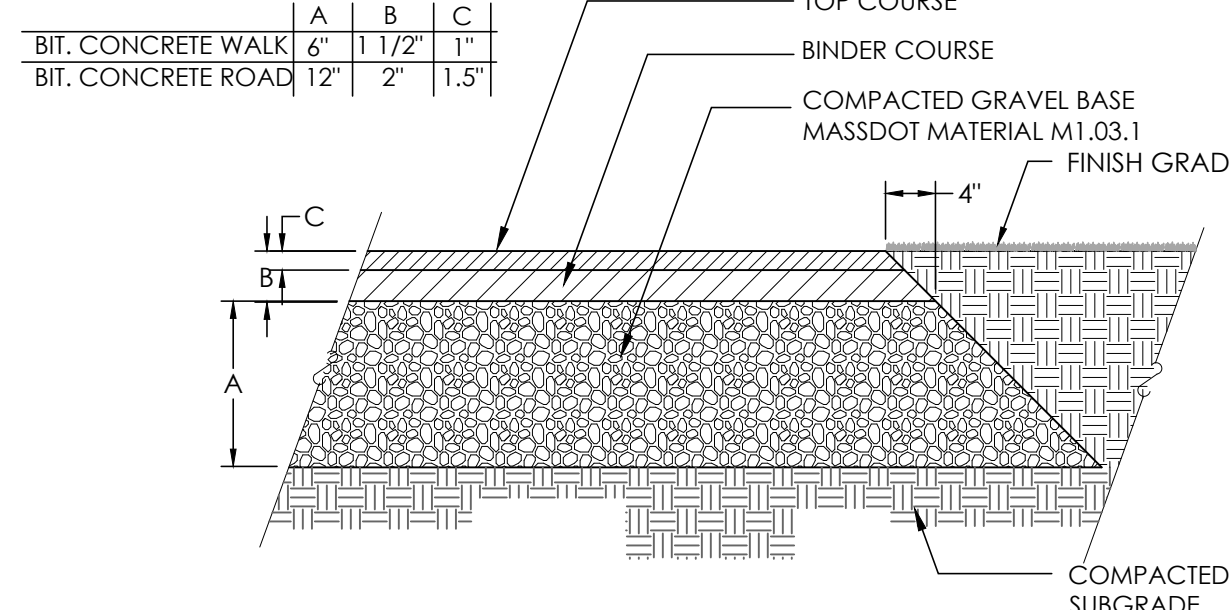
- NOTES:**
1. WATTLES SHALL BE COMPOST-FILLED TUBES MADE OF JUTE, NYLON, OR OTHER PHOTO-DEGRADABLE MATERIALS.
  2. THE TUBES SHALL BE 9 TO 12 INCHES IN DIAMETER FILLED WITH COMPOST MATERIAL MEETING MASSDOT SPECIFICATION M1.06.0.
  3. THE INDIVIDUAL TUBES WILL BE 20 TO 25 FEET IN LENGTH.
  4. THE WATTLES SHALL BE PLACED ON THE CONTOUR TO INTERCEPT WATER FLOWING DOWN THE SLOPE AND TRAP THE SEDIMENTS BEING MOVED WITH THE WATER.
  5. WHERE SECTION ENDS MEET, THERE SHALL BE AN OVERLAP OF 12" OR GREATER. BOTH SIDES SHALL BE ANCHORED WITH STAKES TO STABILIZE THE UNION.
  6. ANCHOR STAKES SHALL BE PLACED 4-FEET APART.



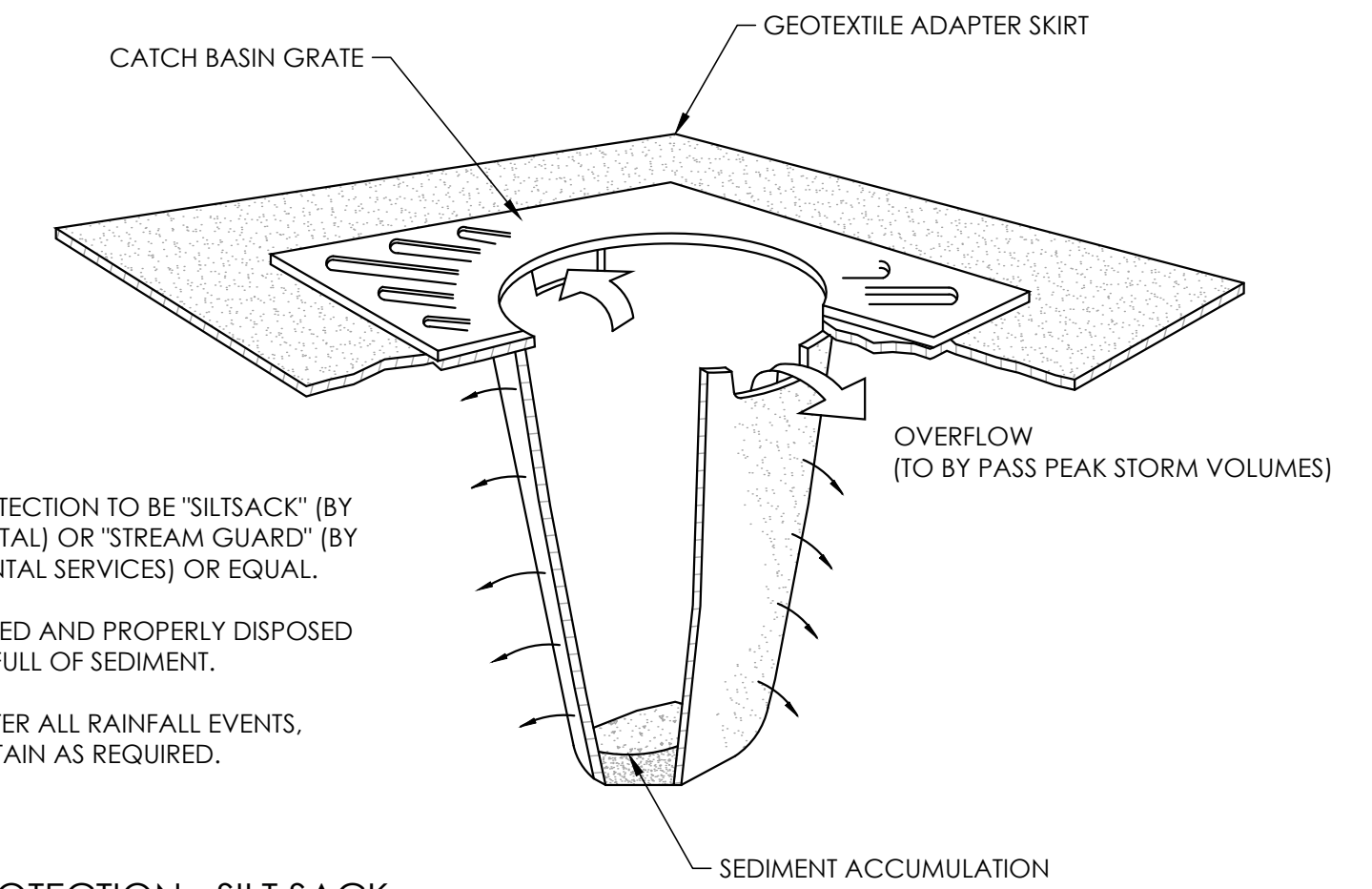
- NOTES:**
1. ENTRANCE WIDTH SHALL BE A TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
  2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR 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. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.

**2 CONSTRUCTION ENTRANCE**  
NOT TO SCALE

- PAVEMENT NOTES:**
1. WEATHER LIMITATIONS:
    - 1.1. APPLY PRIME AND TACK COATS WHEN AMBIENT OR BASE SURFACE TEMPERATURE IS ABOVE 40° F, AND WHEN TEMPERATURE HAS BEEN ABOVE 35° F FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET, CONTAINS EXCESS MOISTURE, DURING RAIN, OR WHEN FROZEN.
    - 1.2. AMBIENT TEMPERATURE MUST BE 40° F AND RISING TO APPLY ASPHALT PAVEMENT.
  2. TACK COAT: EMULSIFIED ASPHALT; AASHTO M 140 OR AASHTO M 208, SS 1H, CSS 1, OR CSS 1H, DILUTED WITH 1 PART WATER TO 1 PART EMULSIFIED ASPHALT.
  3. ASPHALT MATERIAL SHALL CONFORM TO MASSDOT STANDARD MATERIAL SPECIFICATION M3.11.03 FOR BINDER COURSE AND TOP COURSE AS NOTED IN THE DRAWINGS.
  4. PAVEMENT STRIPING: RE-STRIP ALL PAVEMENT MARKINGS TO MATCH EXISTING IN DISTURBED AREAS. PAVEMENT MARKINGS SHALL BE WHITE TRAFFIC PAINT CONFORMING TO MASSDOT SPECIFICATION M7.01.05

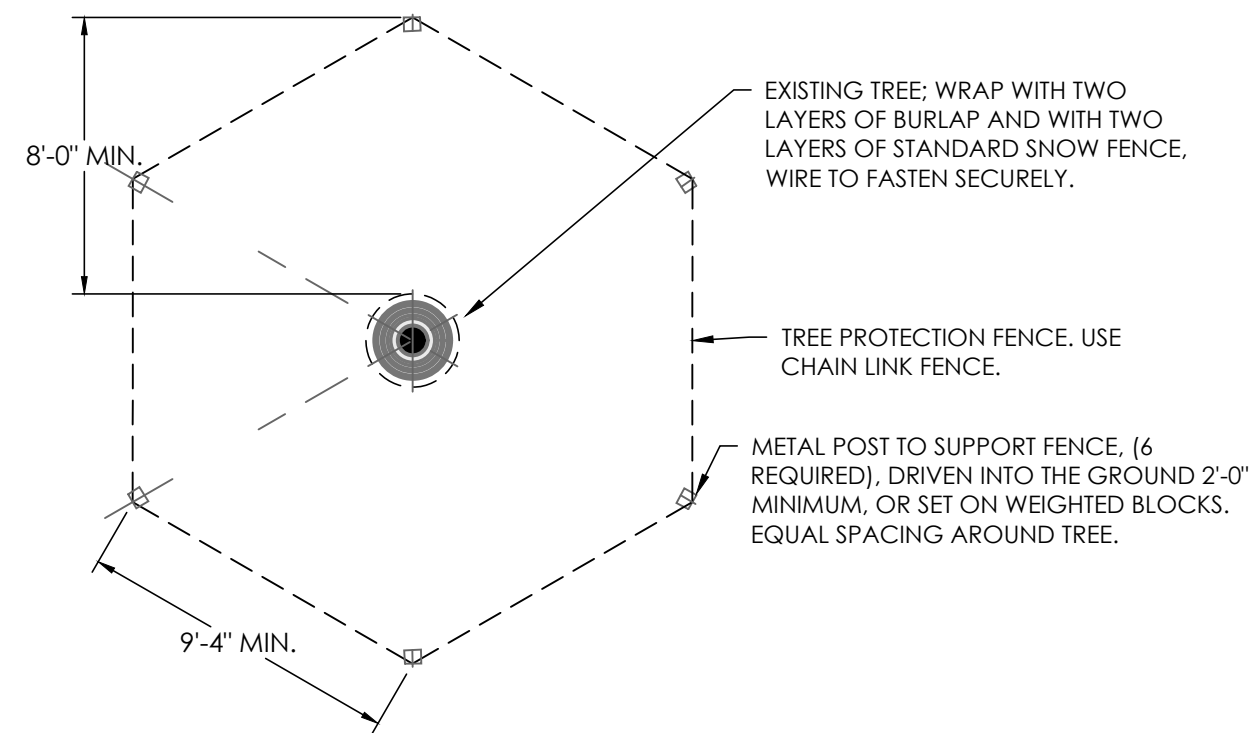


**5 BITUMINOUS CONCRETE PAVEMENT**  
NOT TO SCALE

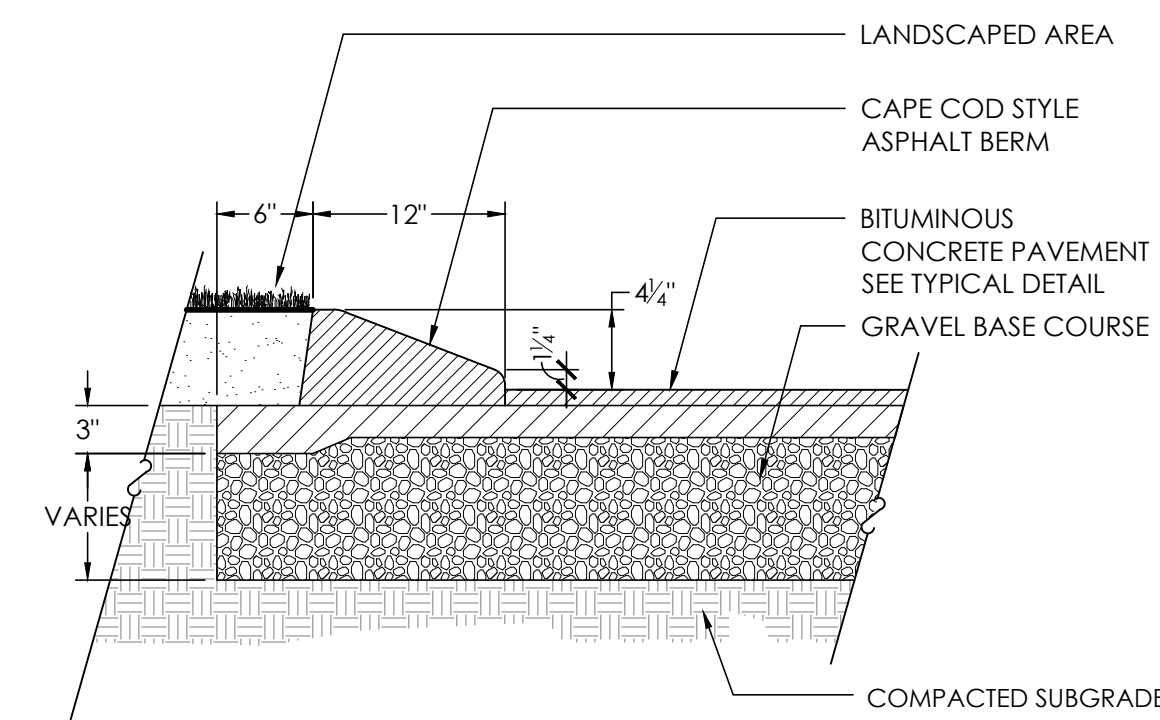


- NOTES:**
1. CATCH BASIN PROTECTION TO BE "SILTSACK" (BY ACF ENVIRONMENTAL) OR "STREAM GUARD" (BY FOSS ENVIRONMENTAL SERVICES) OR EQUAL.
  2. INSERT TO BE EMPTIED AND PROPERLY DISPOSED OF WHEN IT IS 1/2 FULL OF SEDIMENT.
  3. INSPECT INSERT AFTER ALL RAINFALL EVENTS. REPAIR AND MAINTAIN AS REQUIRED.

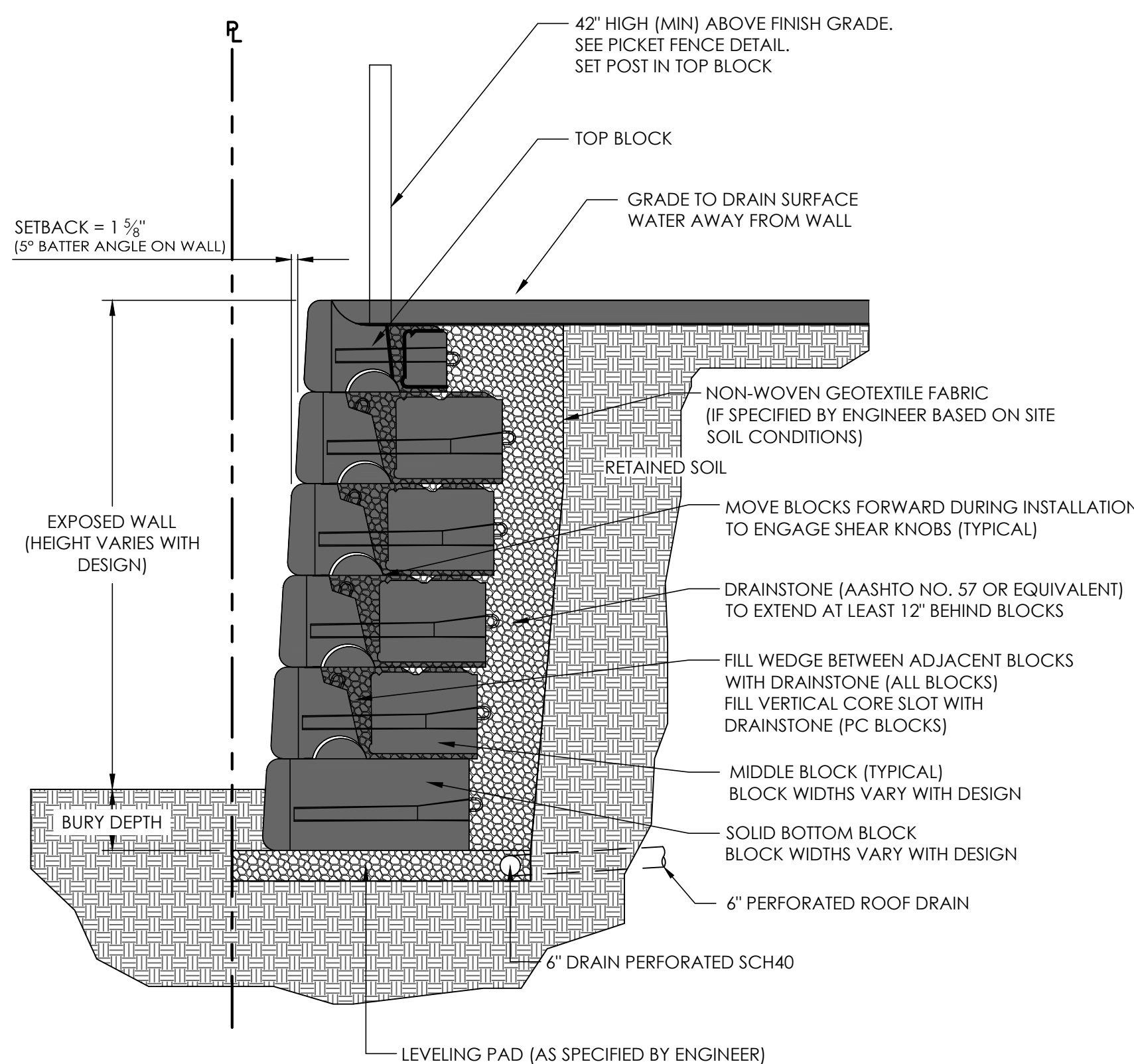
**3 INLET PROTECTION - SILT SACK**  
NOT TO SCALE



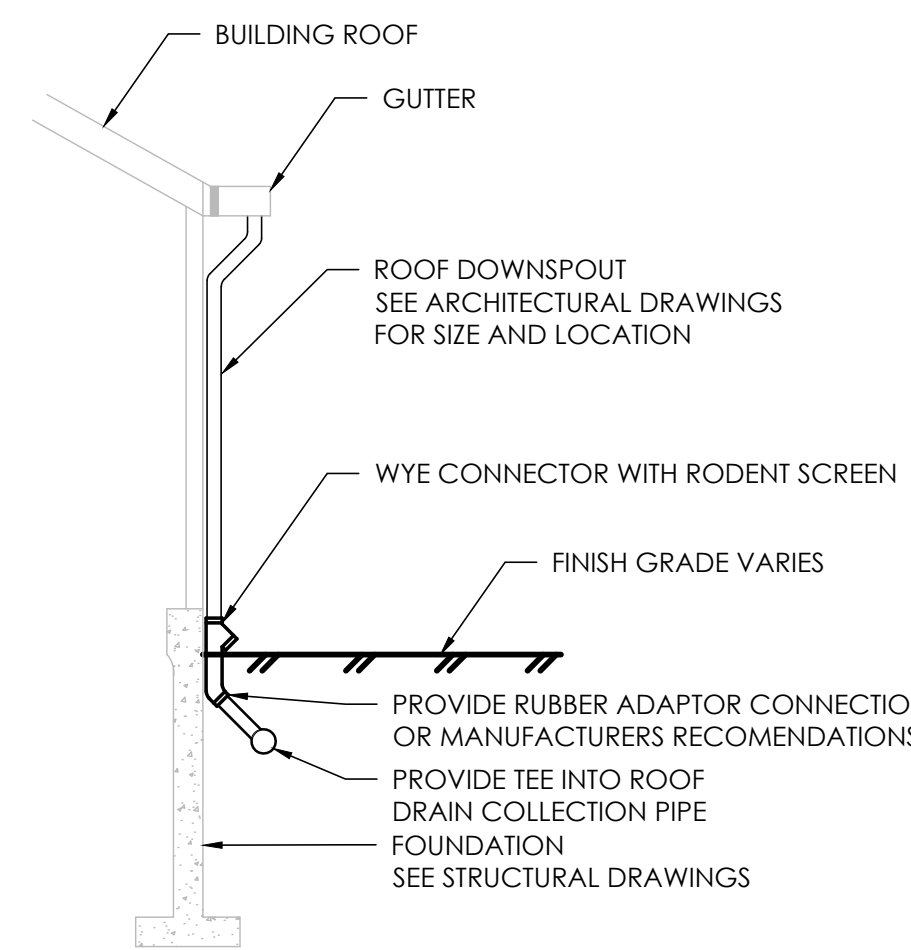
**4 TREE PROTECTION**  
NOT TO SCALE



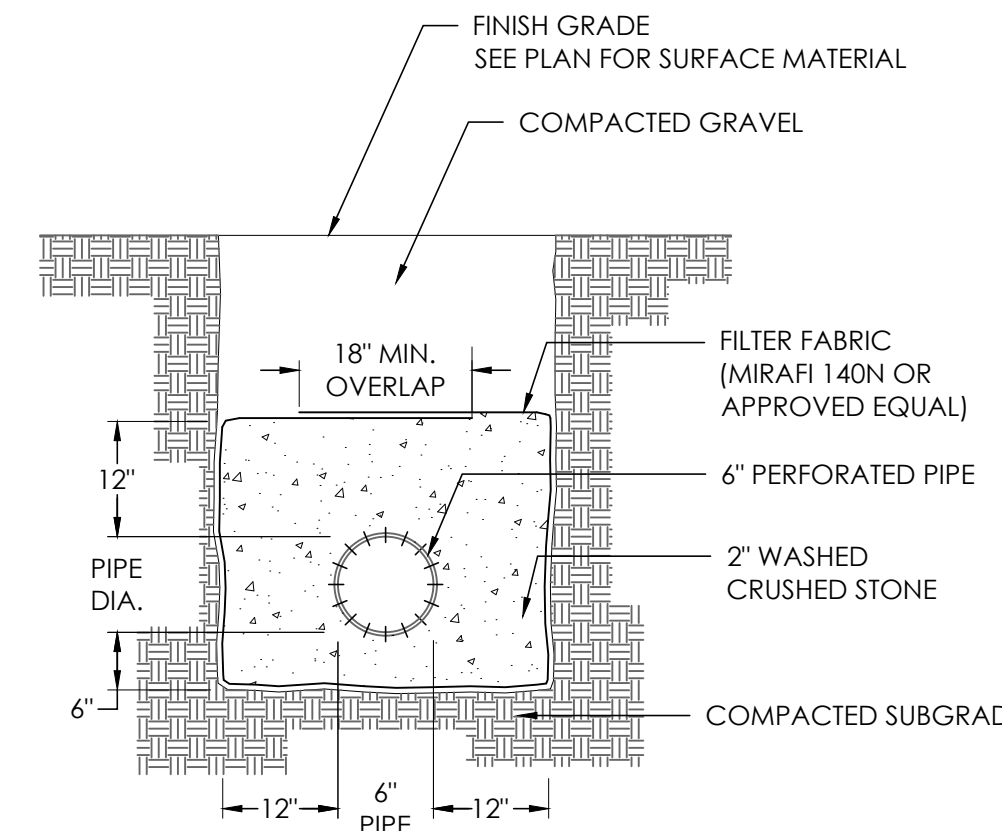
**6 CAPE COD BERM**  
NOT TO SCALE



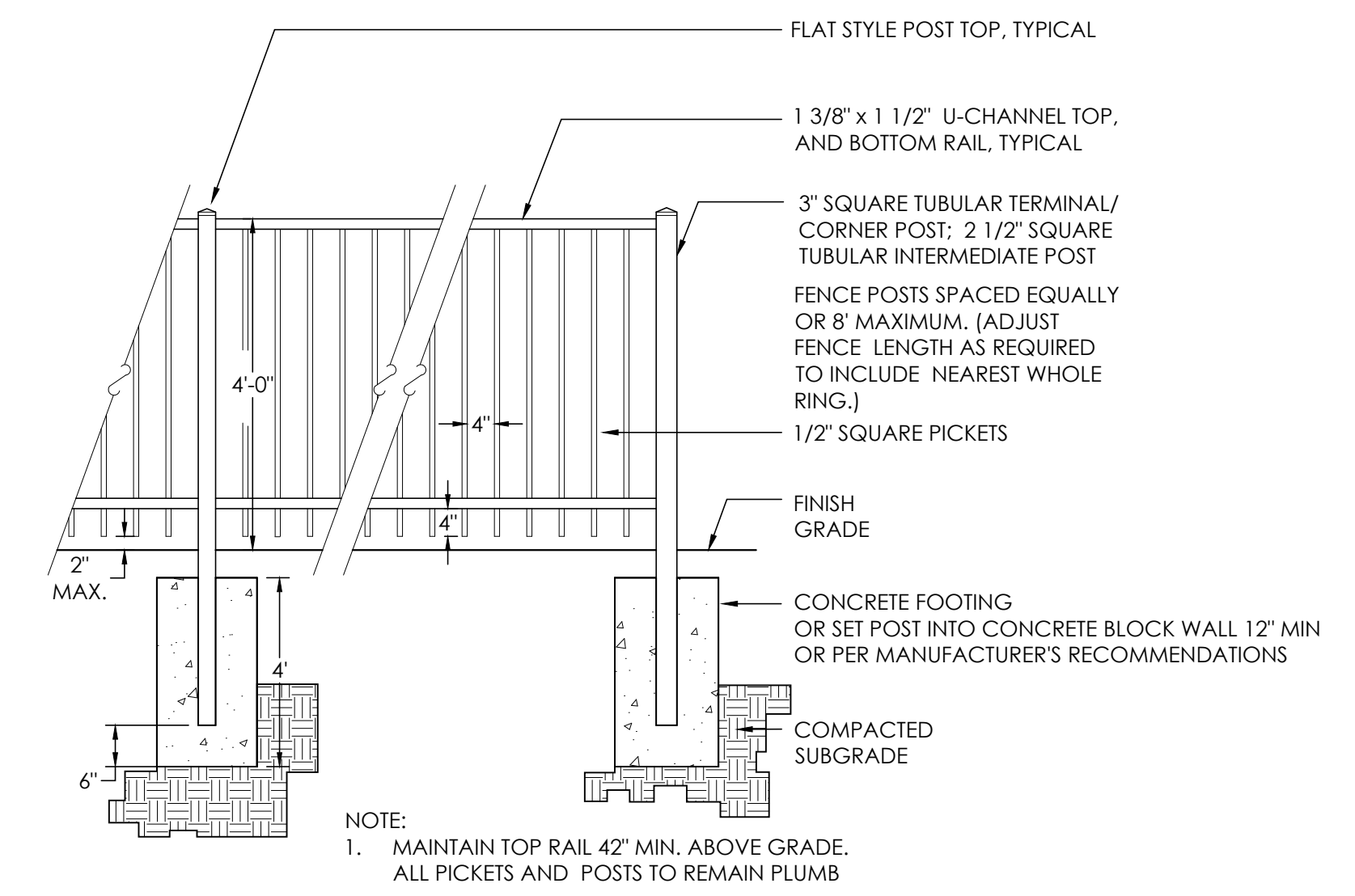
**7 TYPICAL GRAVITY WALL SECTION**  
NOT TO SCALE



**8 DOWNSPOUT CONNECTION DETAIL**



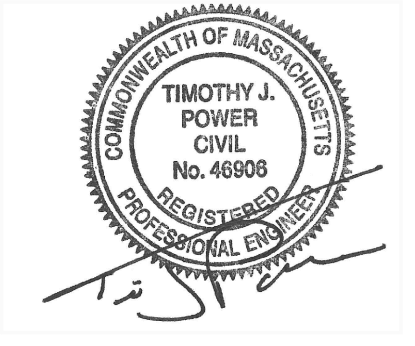
**9 PERFORATED PIPE IN STONE**



**10 4FT PICKET FENCE**  
NOT TO SCALE

**REVISIONS**

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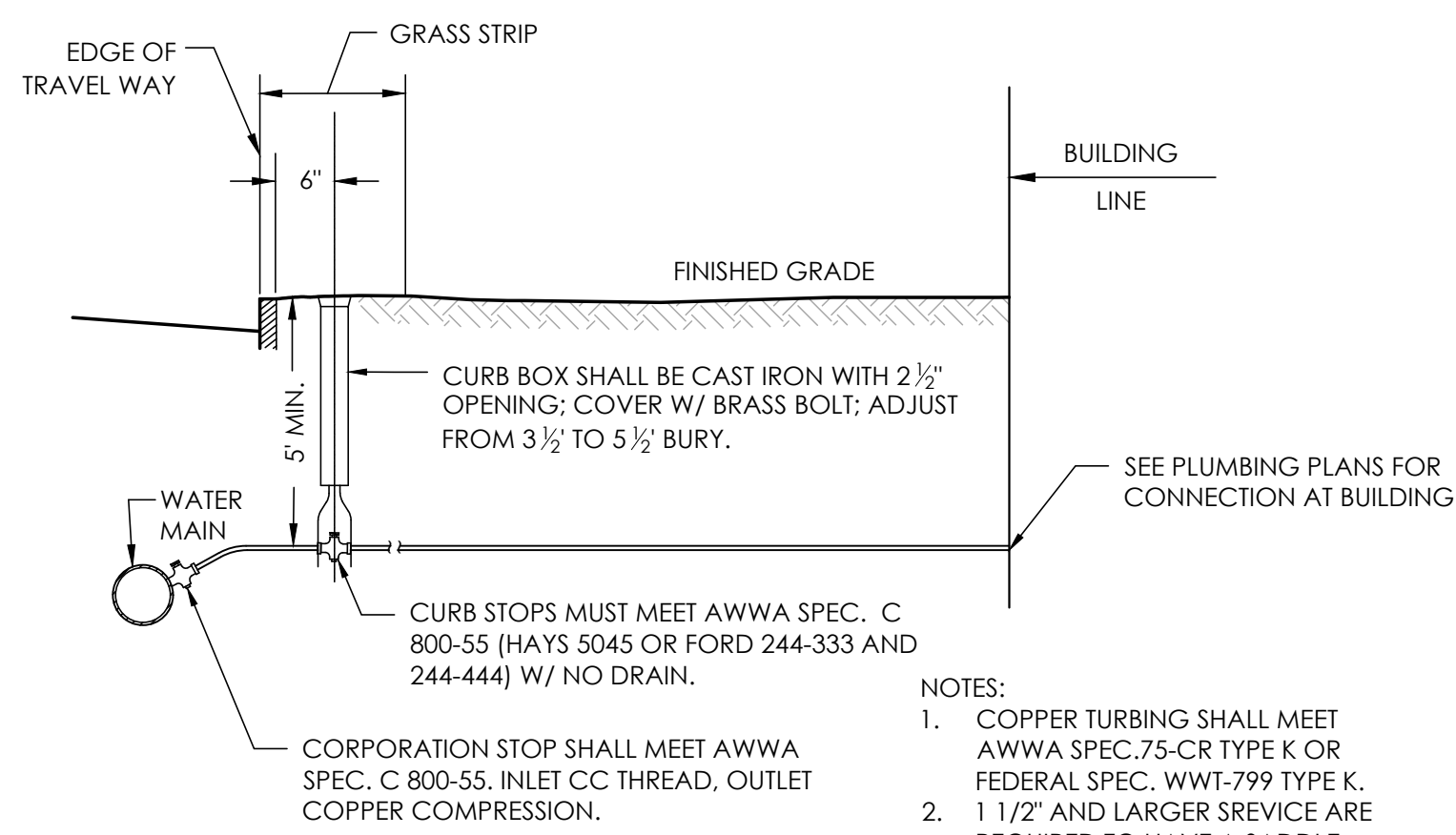


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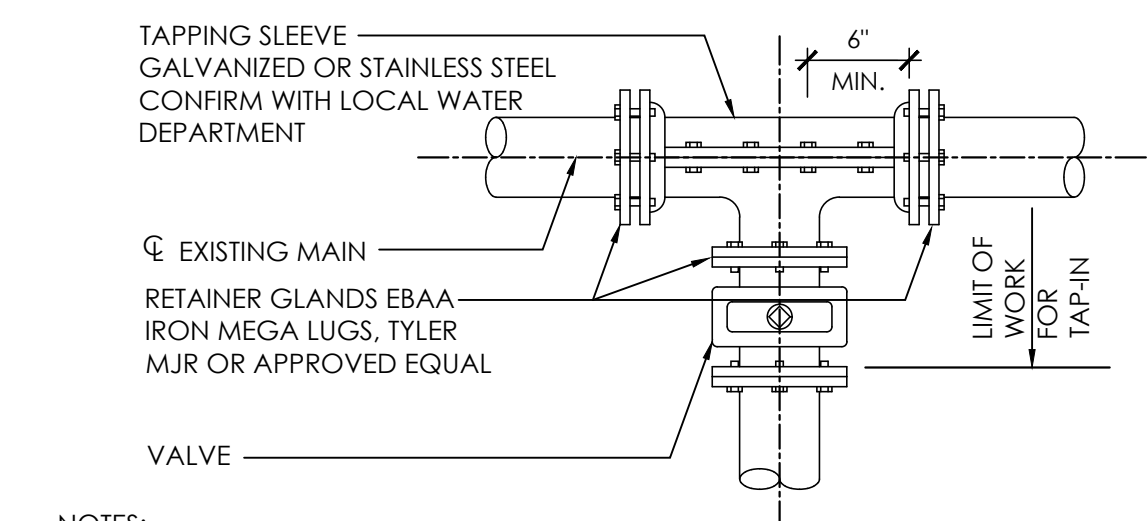
**CONSTRUCTION DETAILS**

NOT FOR CONSTRUCTION

SCALE:	AS NOTED
JOB NO.:	23-010
FILE:	23-010-DET.dwg
DRAWN:	RLB
CHECKED:	TJP
SHEET NO.:	



**1 COPPER WATER SERVICE**  
NOT TO SCALE

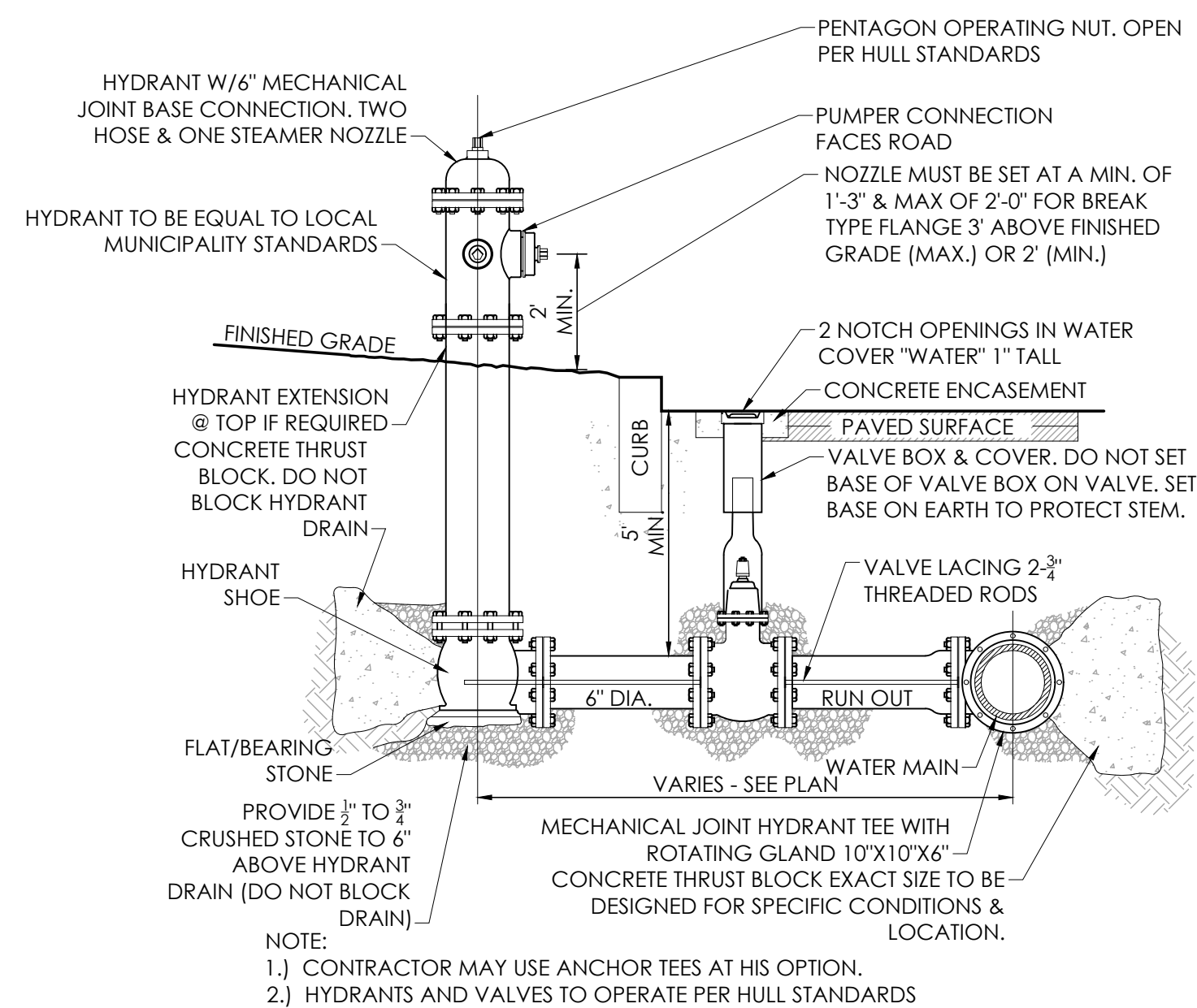


**4 TAPPING SLEEVE AND VALVE**  
NOT TO SCALE

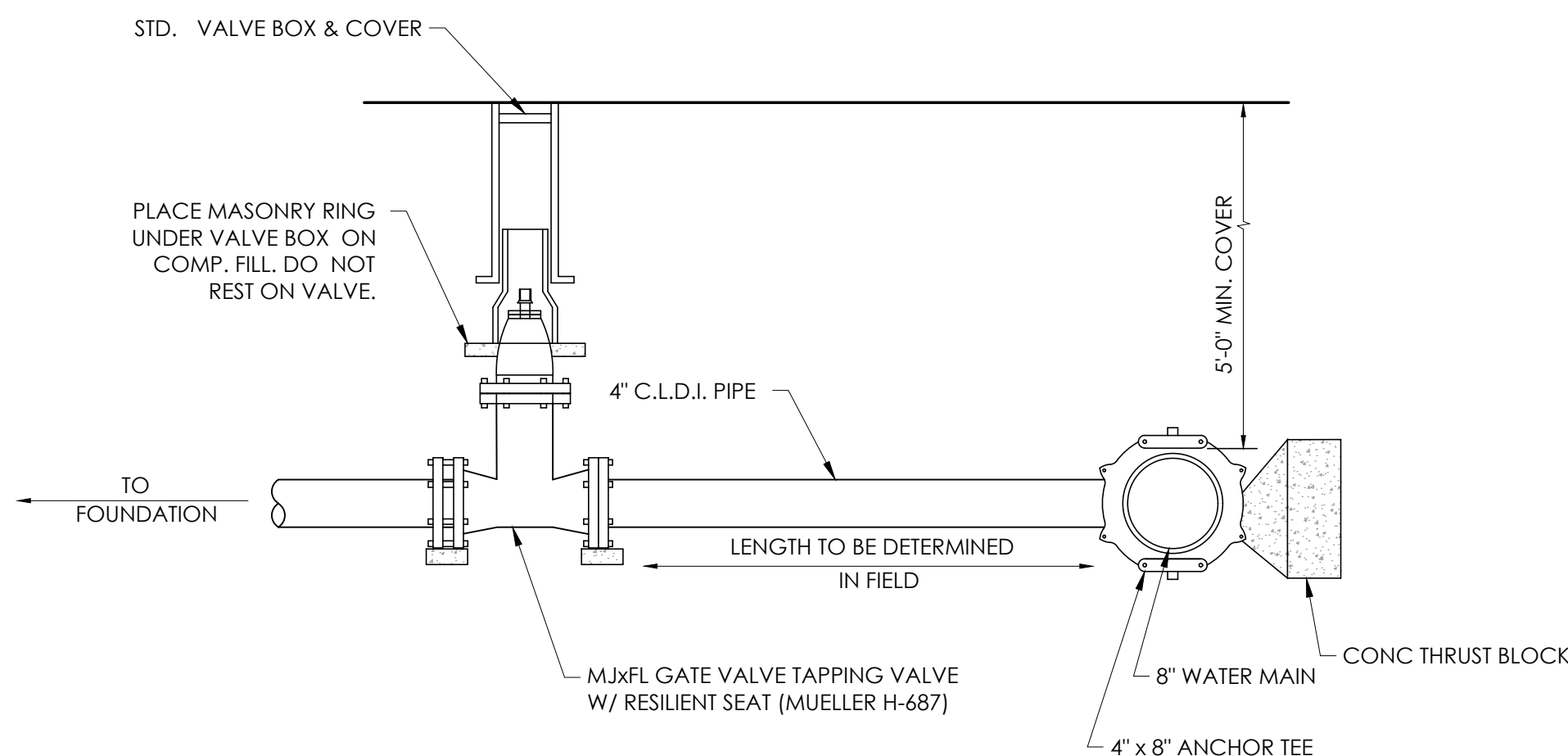
NOTES:

- RESTRAINED LENGTH FOR TEES, CROSSES, VALVES AND PLUGS SHALL EQUAL RESTRAINED LENGTH FOR 90° BENDS.
- THE SCHEDULE SHOWN IS FOR THE FOLLOWING SERVICE CONDITIONS 150 psig INTERNAL PRESSURE; SOIL TYPE: SAND-SILT; 36 INCHES OF COVER AND TYPE 2 LAYING CONDITIONS.
- RESTRAINED LENGTHS SHOWN IN TABLE ARE MINIMUM LENGTHS (IN FEET) AND ARE REQUIRED IN EACH DIRECTION FROM FITTINGS OR VALVES.

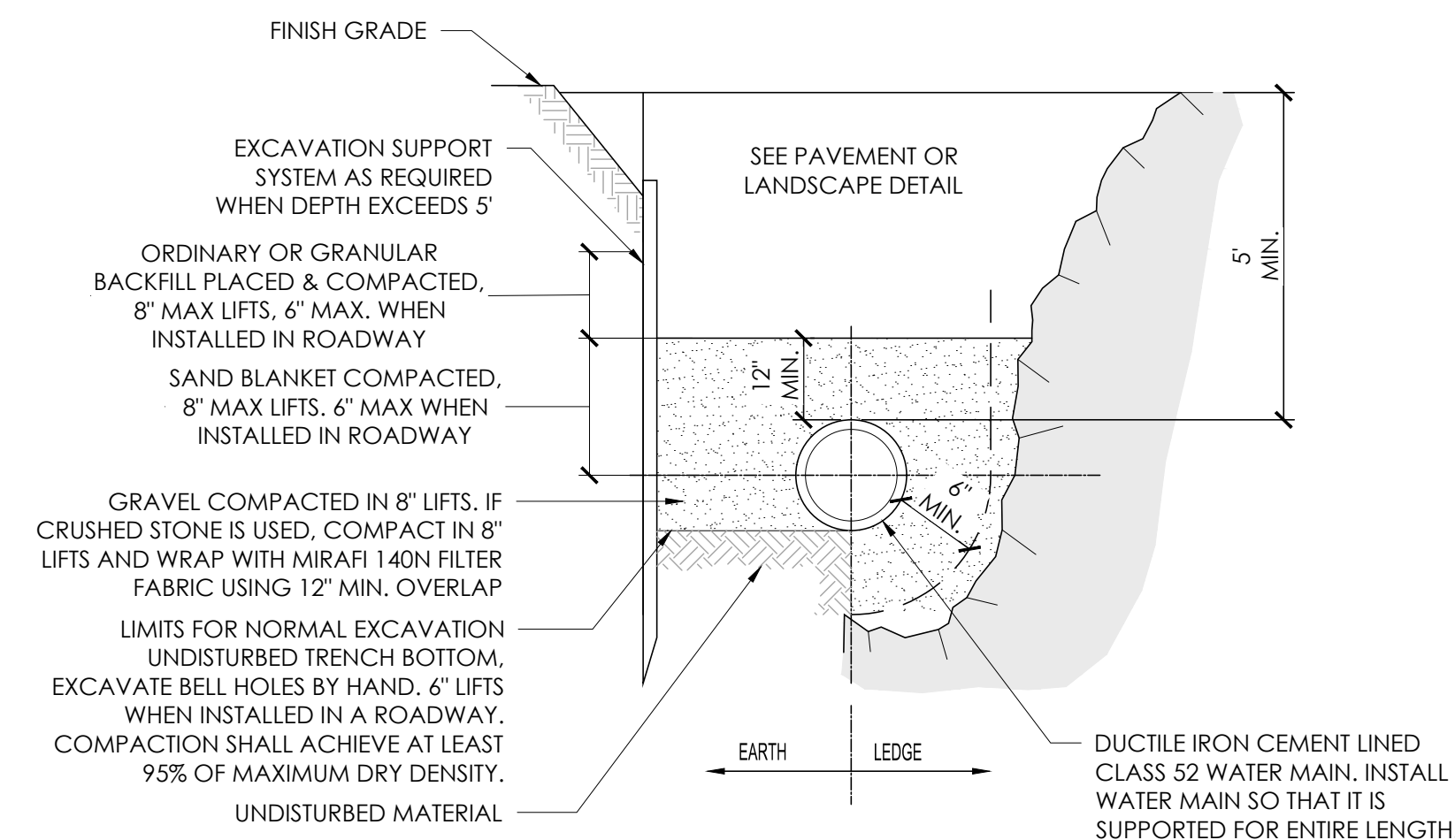
PIPE SIZE	RESTRAINED JOINT SCHEDULE			
	90°	45°	22 1/2°	11 1/4°
12"	92'	38'	18'	9'
10"	78'	32'	16'	8'
8"	66'	27'	13'	7'
6"	51'	21'	10'	5'
4"	38'	16'	8'	4'



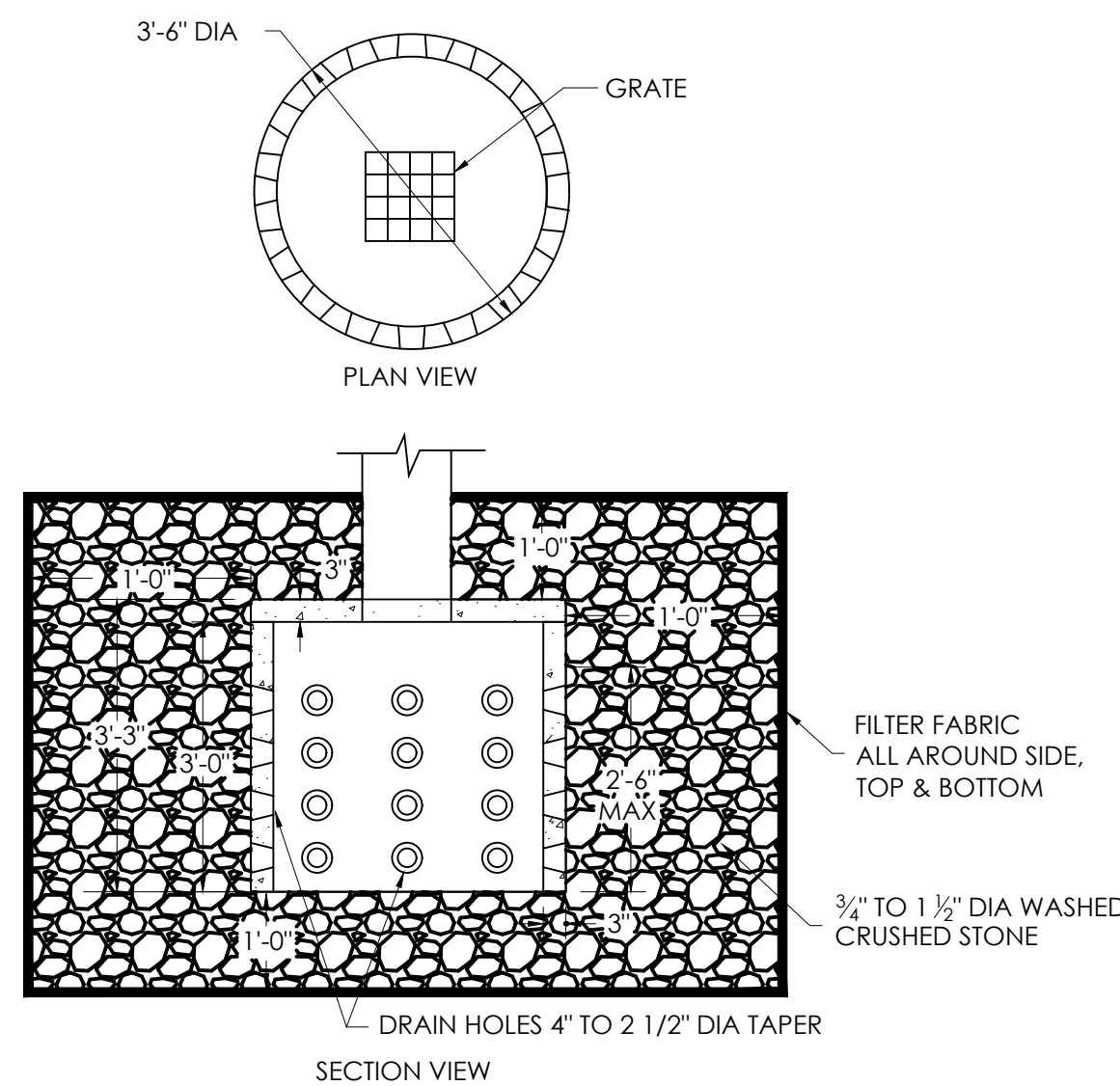
**2 TYPICAL HYDRANT**  
NOT TO SCALE



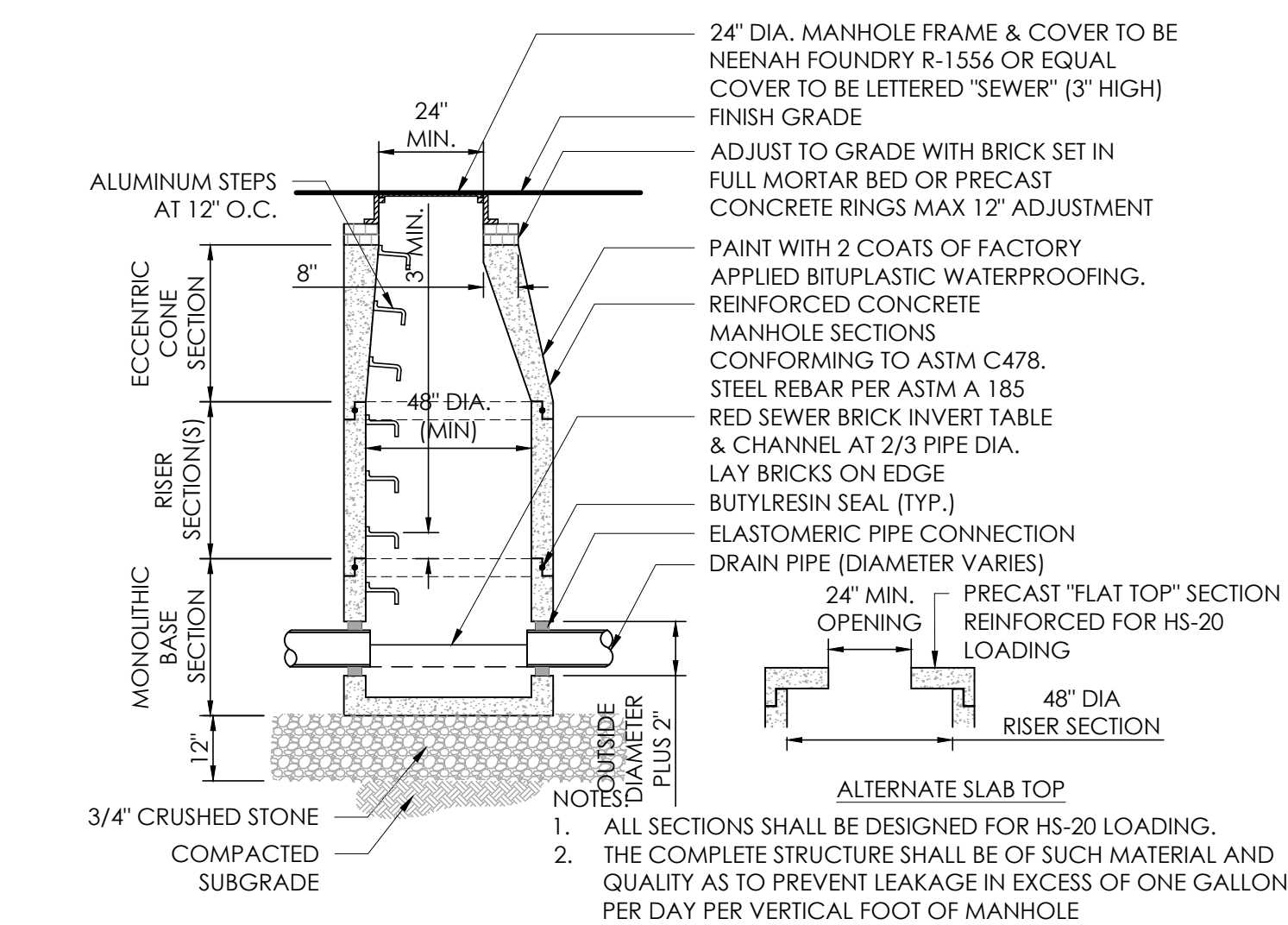
**5 DUCTILE IRON CONNECTION**  
NOT TO SCALE



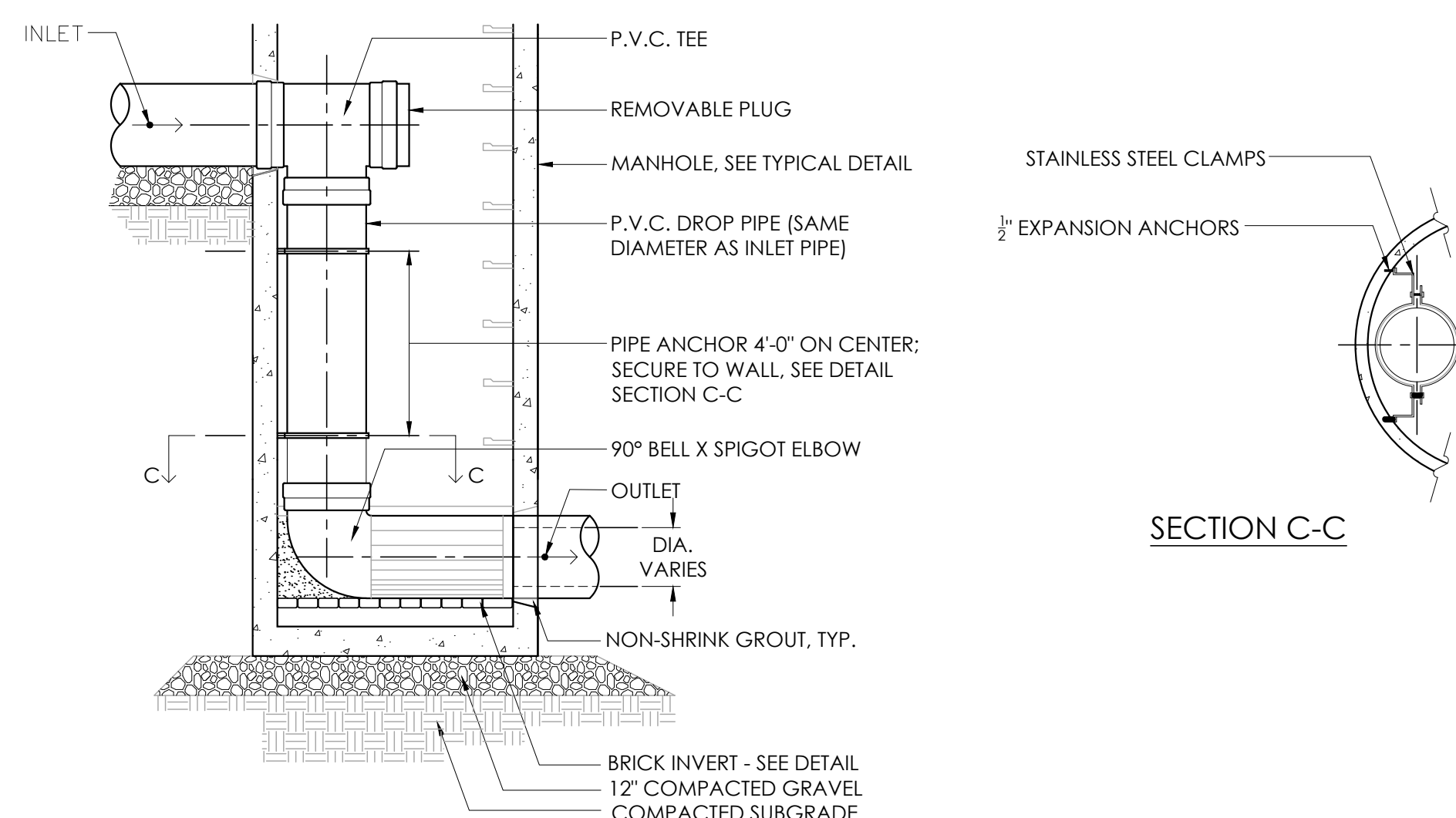
**3 WATER MAIN TRENCH**  
NOT TO SCALE



**6 MINI DRYWELL**  
NOT TO SCALE



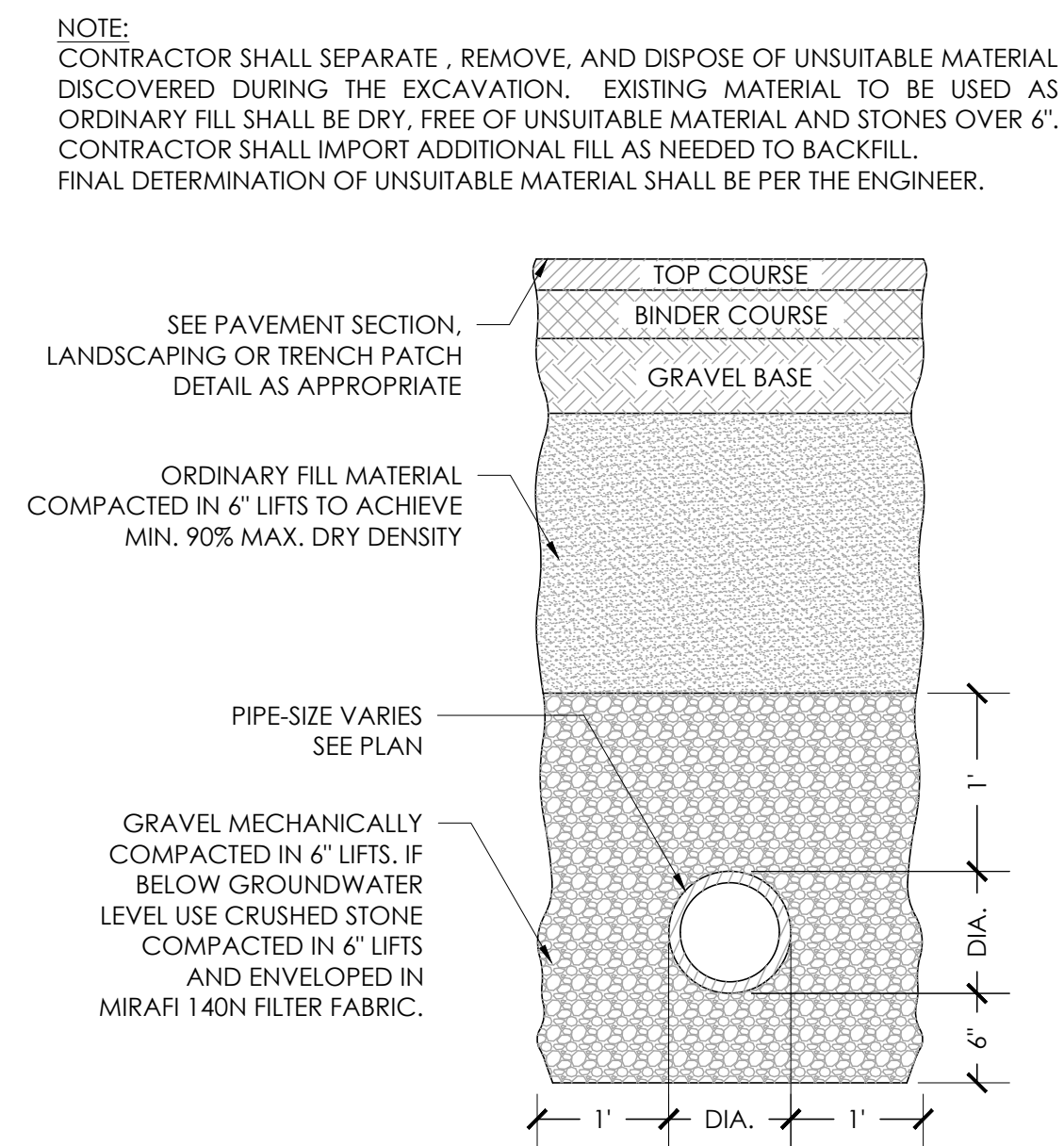
**7 STANDARD SEWER MANHOLE**  
NOT TO SCALE



**8 TYPICAL INSIDE DROP SEWER MANHOLE**  
NOT TO SCALE

ITEM NO. DW-MDW36WC 3" SECTION WITH COVER (ONE PIECE)  
DW-MDW36 3" SECTION ONLY  
DW-MDW24 OPTIONAL 2" SECTION  
C-WTC WELL TILE COVER ONLY

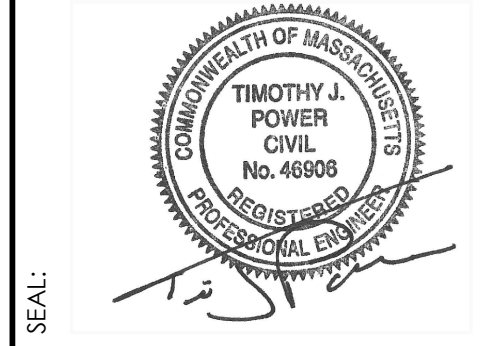
- NOTES:
- CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
  - CAPACITY INCREASES IN INCREMENTS OF 160 GALLONS FOR EVERY 3" SECTION ADDED.
  - BOTTOM PLATES AVAILABLE.
  - ALSO AVAILABLE IN ONE PIECE.
  - FILTER FABRIC IS CULTEC NO. 410 OR AN EQUAL.



**9 TYPICAL DRAIN/SEWER PIPE TRENCH**  
NOT TO SCALE

REVISIONS

NO.	DATE	DESCRIPTION
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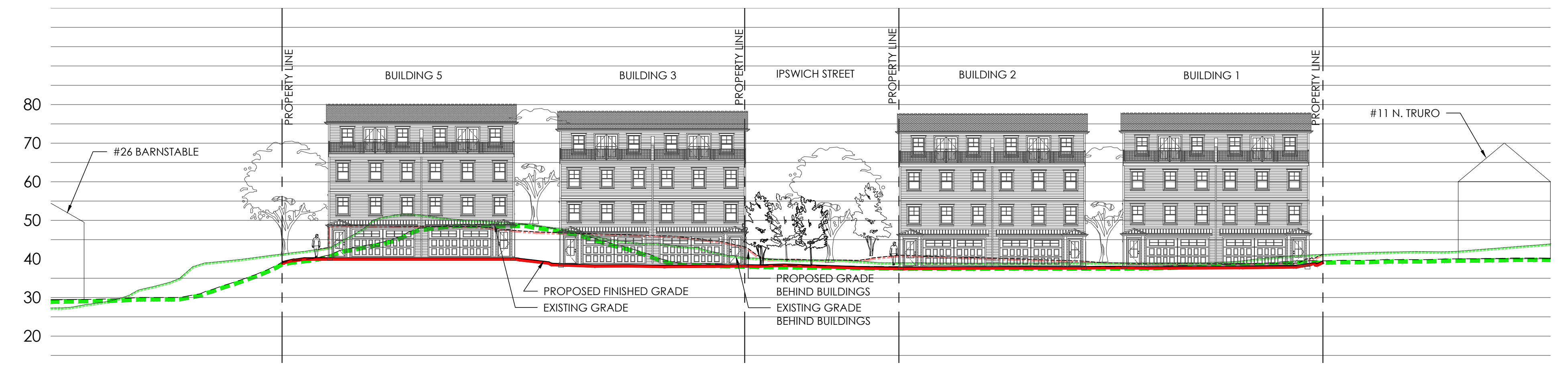


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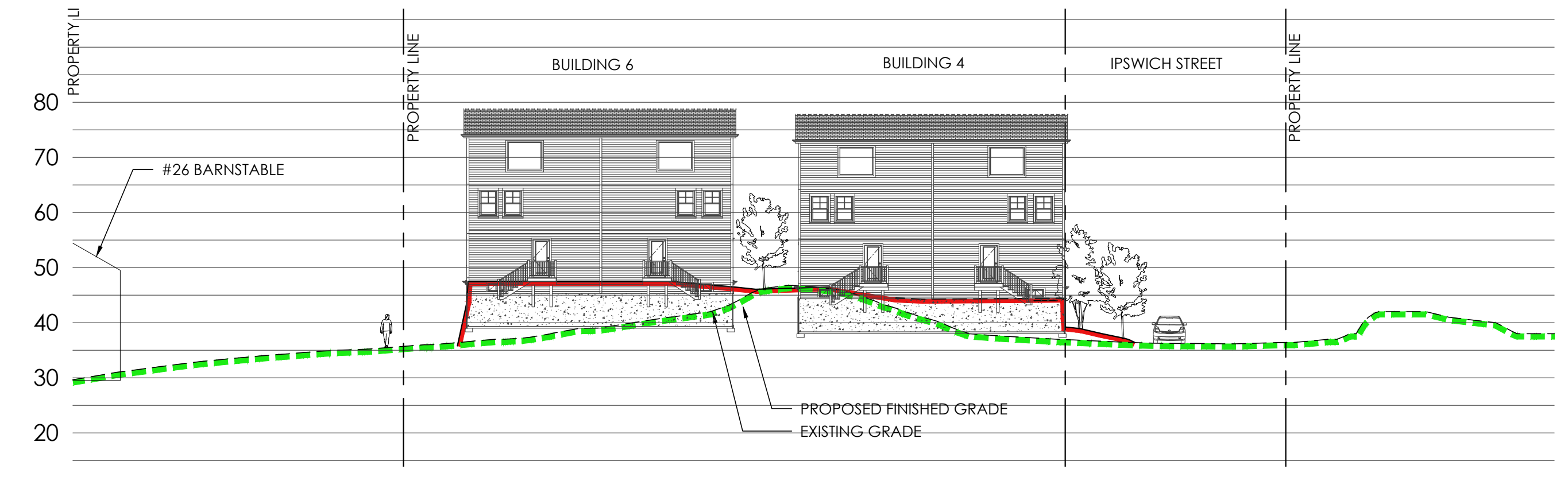
**CONSTRUCTION DETAILS**

NOT FOR CONSTRUCTION

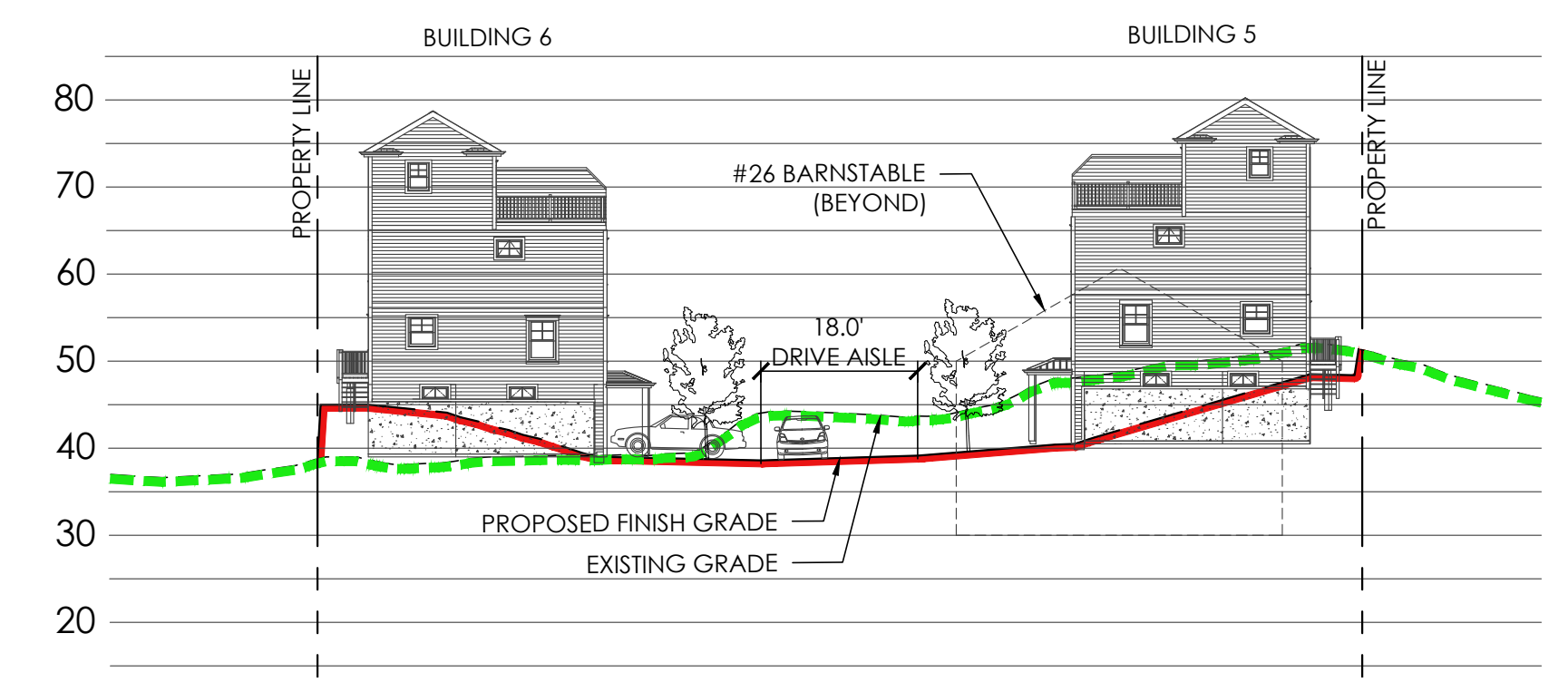
SCALE:	AS NOTED
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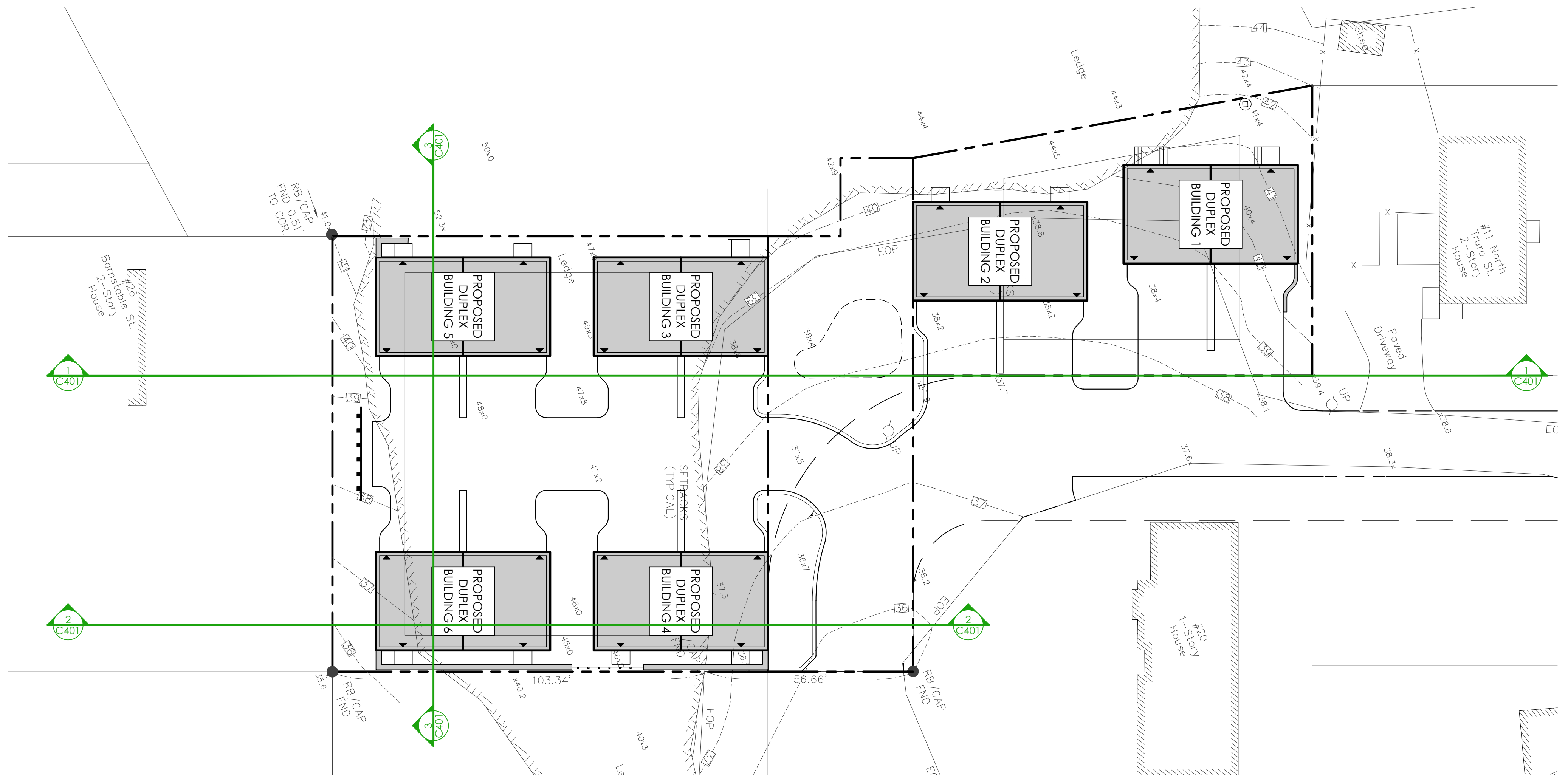
1 SECTION  
SCALE: 1"=20'



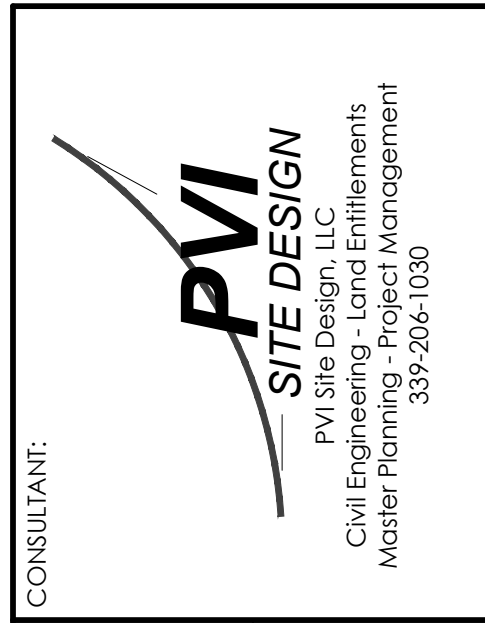
2 SECTION  
SCALE: 1"=20'



3 SECTION  
SCALE: 1"=20'



4 SITE PLAN  
SCALE: 1"=20'

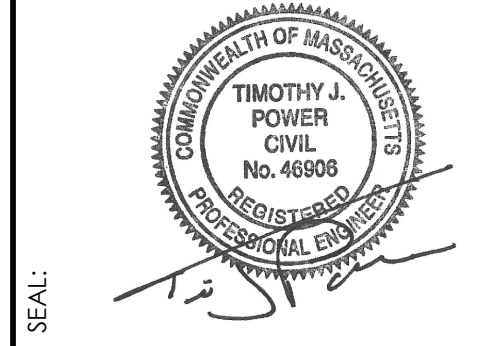


CONSULTANT:  
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**SECTIONS**

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DRAWN: RLB  
CHECKED: TJP  
SHEET NO:

**C401**