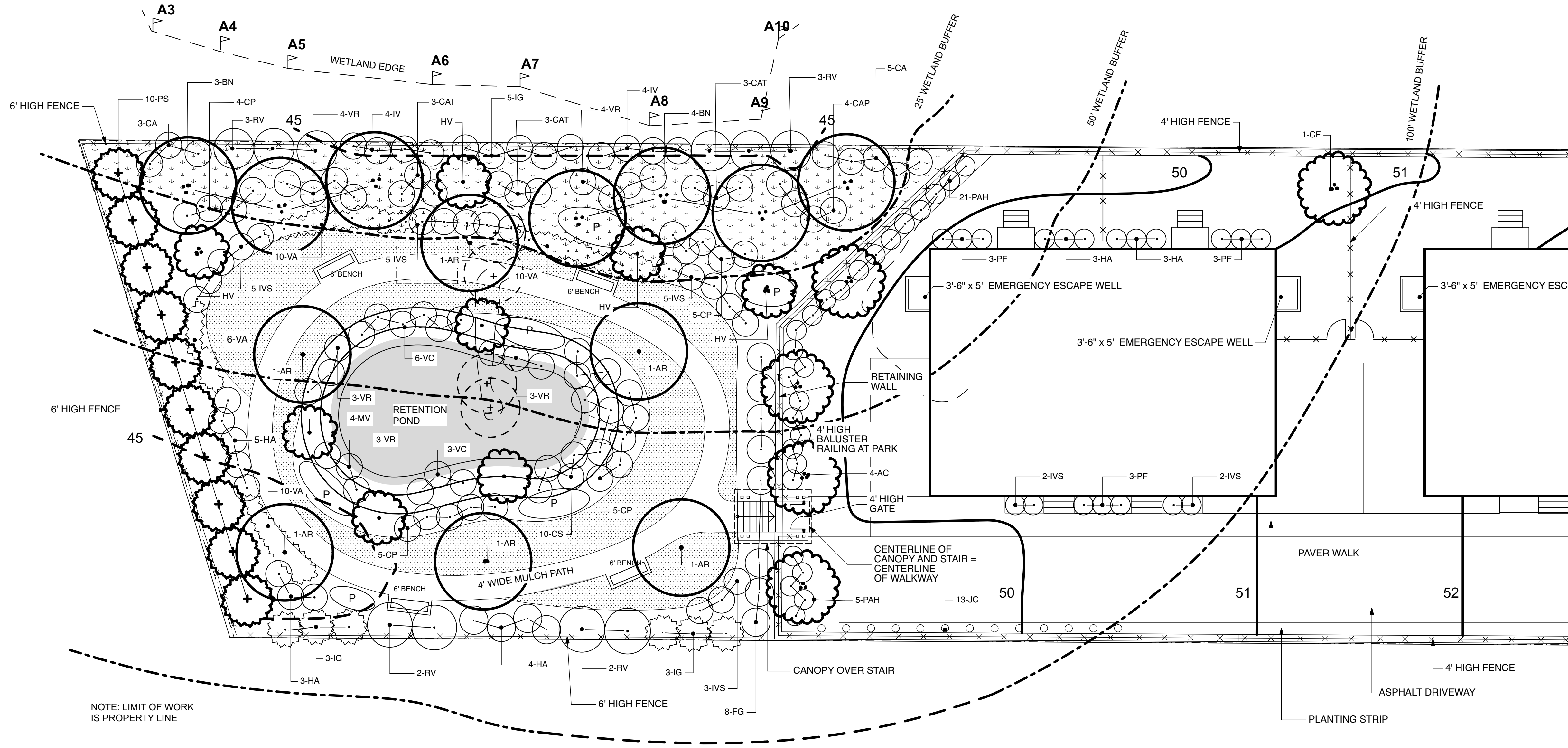


Plant List - 4/24/2023
280 Nevada Street Newton, MA

QTY	KEY	SPECIES	SIZE	REMARKS
10	PS	Pinus strobus White Pine	6'-7' ht.	15 gallon
CANOPY TREES				
6	AR	Acer rubrum Red Maple	3" caliper	B and B
7	BN	Betula nigra River Birch	15 gallon	Clump
UNDERSTORY TREES				
4	AC	Amelanchier canadensis Shadblow	2" caliper	treeform
1	CF	Cornus florida Flowering Dogwood	2" caliper	B and B
4	HV	Hammamelis virginiana Witch Hazel		Multi-stemmed 7 gallon
4	MV	Magnolia virginiana Sweet Bay Magnolia		7 gallon
SHRUBS				
9	CAT	Ceanothus americanus New Jersey Tea		1 gallon
8	CA	Clethra alnifolia Sweetspire		2 gallon
18	CP	Comptonia peregrina Sweet fern		1 gallon
10	CS	Cornus serica Red Osier Dogwood		1 gallon
8	FG	Fothergilla gardenii Dwarf Fothergilla		3 gallon
18	HA	Hydrangea arborescens Smooth Hydrangea		3 gallon
11	IG	Ilex glabra Inkberry Holly		3 gallon
8	IV	Ilex verticillata Winterberry Holly		3 gallon 1 male required
22	IVS	Itea virginica Virginia Sweetspire		3 gallon
13	JC	Juniperus communis 'Repanda' Common Juniper		1 gallon 4' O.C in 100' buffer
9	PF	Pieris floribunda Mountain Andromeda		3 gallon
10	RV	Rhododendron viscosum Smooth Azalea		3 gallon
17	VR	Rosa virginiana Virginia Rose		3 gallon
36	VA	Vaccinium angustifolium Low Bush Blueberry		1 gallon
9	VC	Vaccinium corymbosum Highbush Blueberry		2 gallon
GRASSES				
26	PAH	Pennisetum alopecuroides 'Hamel' Hamel Fountain Grass		1 gallon
Pollinator Gardens - See Notes for species				
Seed Mixes - See Notes for details				



PLAN NOTES:

Site plan and survey is provided by:
VTP Associates Inc. 132 Adams Street 2nd Floor Suite 3, Newton, MA 023458

NOTES

- The Limit of Work will be the property line. Erosion controls will be installed as shown on the Proposed Conditions Plan.
- The existing conditions in the 2,186 SF of 25' buffer, Inner AURA, includes turf lawn, one 14" caliper White Pine, 118 LF of 6' stockade fencing and a disturbed area that was previously used as a contractors storage yard.
- The existing 50' Buffer Zone includes turf lawn, 80 LF of 6' stockade fence, a bituminous driveway, two White Pines (14" and 9" caliper) and a disturbed area that was previously used as a contractors storage yard. The 100' buffer includes retaining walls, a patio area, bituminous driveway and loading area, 6' stockade fencing and turf areas. The existing soils in the NE corner of the site shall be amended as required for planting. The entire lower, rear yard area (8,472 sf) will be planted with native plants as part of the proposed project.
- There are four existing White Pines that will be removed as part of the project. One 14" caliper White Pine is located in the 25' Buffer. Two White Pines (14" and 9" caliper) are located in the 50' Buffer. One White Pine (18" caliper) is located in the 100' Buffer. A total of 55 caliper inches of evergreen trees will be removed. Landscape planting includes 10 Pinus strobus/White Pine that will be planted along the rear property line for a total replacement of 45 +/- caliper inches of evergreen trees. An additional 58 caliper inches of canopy and understory trees will be provided for a total of 103 caliper inches provided.
- Temporary irrigation will be required for the first two to three growing seasons while plants establish. Once the plants and seeded areas are established the temporary irrigation will be removed.
- All existing fencing on site will be removed. A 4' high open railing to allow for unobstructed sightlines into the landscaped area will be installed on the wall that divides the building lot from the landscaped area. The other walls in the building area will have solid body 4' high fence. The perimeter fence will be 6' solid fence set with a minimum of clearance of 6" beneath the fence to allow for wildlife to pass under.
- Exterior lighting shall be dark sky compliant that is switched off when not in use. Warm, LED low voltage or solar site lighting shall illuminate paths, steps and walkways and will not be focused to illuminate the wetland buffer.

- Newly planted trees and shrubs will be mulched to a depth of 2"-2 1/2" to the drip line. Mulching materials would be aged wood chips or bark mulch. Areas to be hydroseeded will have a minimum of 4" of top soil installed prior to seeding. If required in the retention pond slopes a biodegradable erosion control fabric will be used.
 - The pedestrian path in the mitigation area will be 4' wide with a shredded bark mulch surface.
 - The elevation within the two existing areas that are below elevation 45 will not be increased as a result of the project.
- SEED MIX A**
Seed mix A will be hydroseeded as a groundcover in the 25' buffer. Seed Mix A will be the New England Province OBL mix - ERNMX-252 by Ernst Conservation Seeds (www.ernstseed.com). This is a meadow seed mix that grows to a height of 2'-3'.
- SEED MIX B**
Lawn areas "Seed B" shall be seeded with Lavoie Horticulture Natural Perfection, or similar fescue seed blend. Lawn areas within the landscaped area shall be managed organically with low nitrogen products, if required. This lawn area near pedestrian path and retention pond will be mowed for tick control.
- SEED MIX C**
This seed mix will be used in the retention pond. Seed mix C shall be OBL Wetland Mix - ERNMX-131 by Ernst Conservation Seeds (www.ernstseed.com). This wetland mix can adapt to standing water during part or all of the year.

POLLINATOR GARDENS

Pollinator gardens will be made up of a variety of plants chosen for bloom season, height and color.

Smooth Beardtongue, *Penstemon digitalis*
Wild Columbine, *Aquilegia canadensis*
Coral Bells, *Heuchera americana*
Goat's Beard, *Aruncus dioicus*
Wild Geranium, *Geranium maculatum*
Canada Anemone, *Anemone canadensis*
Rue Anemone, *Thalictrum thalictroides*
Wild Lupine, *Lupinus perennis*
Golden Groundsel, *Packera aurea*
Swamp Milkweed, *Asclepias incarnata*
Butterfly Weed, *Asclepias tuberosa*
Brown Eyed Susan, *Rudbeckia hirta*
Northern Blazing Star, *Liatris scariosa*
Wild Bergamot, *Monarda fistulosa*
Spotted Beebalm, *Monarda punctata*
Red Beebalm, *Monarda didyma*

- Culver's Root, *Veronicastrum virginicum*
Golden Alexanders, *Zizia aurea*
Cardinal Flower, *Lobelia cardinalis*
Wild Indigo, *Baptisia tinctoria*
New England Aster, *Symphoricarum novae-angliae*
Aromatic Aster, *Symphoricarum oblongifolius* (formerly *Aster oblongifolius*)
Smooth Aster, *Symphoricarum laevis* (formerly *Aster laevis*)
Calico Aster, *Symphoricarum lateriflorum* (formerly *Aster lateriflorus*)
White Woodland Aster, *Eurybia divaricata* (formerly *Aster divaricatus*)
Woodland Sunflower, *Helianthus divaricatus*
Pale-leaved Sunflower, *Helianthus strumosus*
Great Blue Lobelia, *Lobelia siphilitica*
Little Bluestem, *Schizachyrium scoparium*
Downy Phlox, *Phlox pilosa*
Purple Coneflower, *Echinacea purpurea*
Rose Coreopsis, *Coreopsis rosea*
Common Yarrow, *Achillea millefolium*
Goldenrods, various, *Solidago* spp.
Lanceleaf Coreopsis, *Coreopsis lanceolata*
Little Bluestem, *Schizachyrium scoparium*
Prairie Dropseed, *Sporobolus heterolepis*

TREE REMOVALS

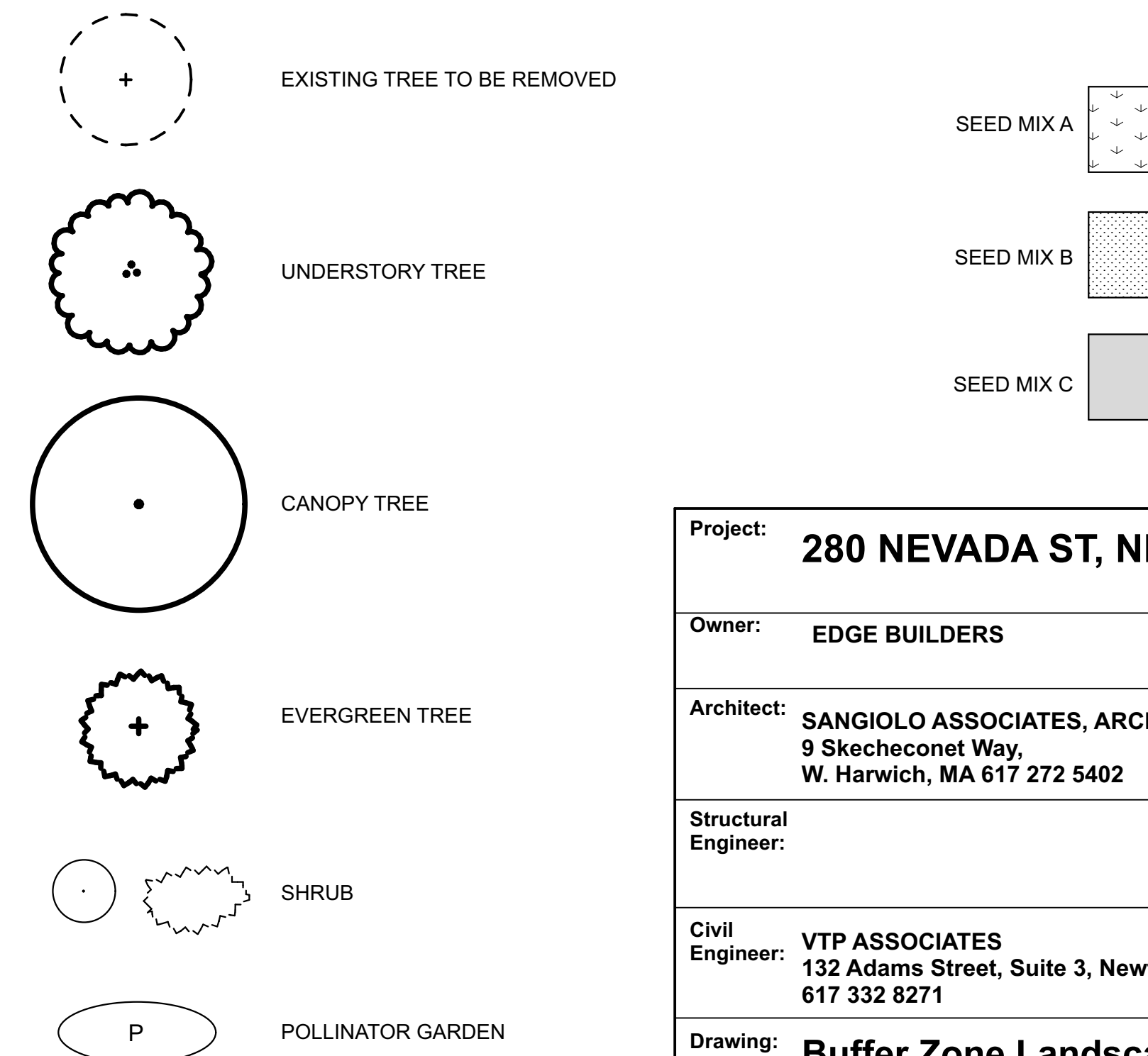
4 - EXISTING PINUS STROBUS/ WHITE PINES (18", 9", 14" CALIPER)
TOTAL 55 CALIPER INCHES

REPLACEMENT TREES

10 - PINUS STROBUS/ WHITE PINES	40 CALIPER INCHES
6 - ACER RUBRUM/RED MAPLES	18 CALIPER INCHES
7 - BETULA NIGRA / RIVER BIRCH	21 CALIPER INCHES
4 - AMELANCHIER CANADENSIS / SHADBLOW	8 CALIPER INCHES
4 - HAMMAMELIS VIRGINIANA/ WITCH HAZEL	8 CALIPER INCHES
4 - MAGNOLIA VIRGINIANA/SWEETBAY MAGNOLIA	8 CALIPER INCHES

103 CALIPER INCHES PROVIDED

LEGEND

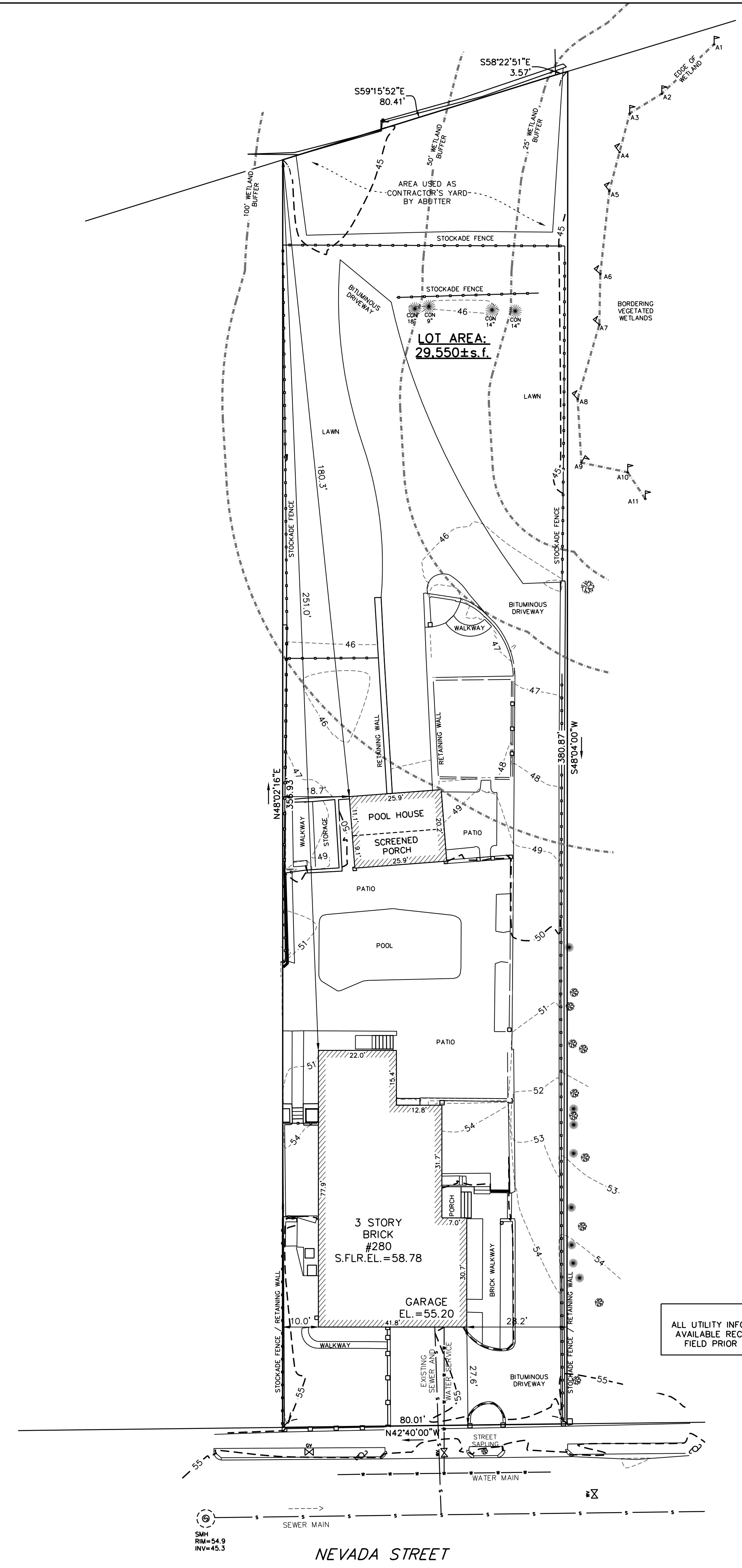
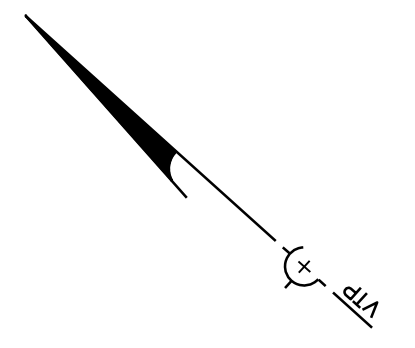


Project: 280 NEVADA ST, NEWTON MA			Date: 4-24-23
Owner: EDGE BUILDERS	Architect: SANGIOLO ASSOCIATES, ARCHITECTS 9 Skeheconet Way, W. Harwich, MA 617 272 5402		Revisions:
Structural Engineer:	Civil Engineer: VTP ASSOCIATES 132 Adams Street, Suite 3, Newton MA 617 332 8271	L1	
Drawing: Buffer Zone Landscape Plan			

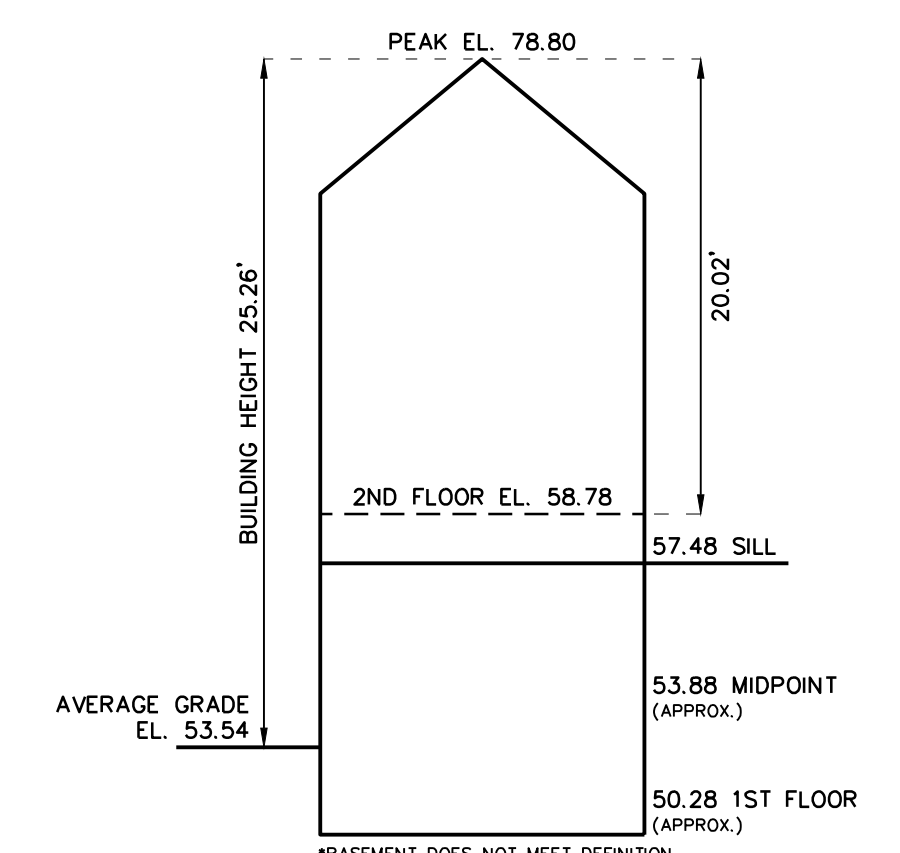
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LEGEND

- BUILDING
- PROPERTY LINE W/ BEARING DISTANCE
- CONTOUR
- STOCKADE FENCE
- CHAINLINK FENCE
- PICKET FENCE
- SEWER LINE
- DRAIN LINE
- WATER LINE
- GAS LINE
- GAS VALVE
- WATER VALVE
- DRAIN MANHOLE
- SEWER MANHOLE
- CATCH BASIN
- UTILITY POLE
- LIGHT POLE
- DECIDUOUS TREE DEC. 22'
- CONIFEROUS TREE CON. 12'
- FIRE HYDRANT



NOTE
ALL UTILITY INFORMATION SHOWN IS FROM AVAILABLE RECORDS. TO BE VERIFIED IN FIELD PRIOR TO ANY CONSTRUCTION



Length Weighted Mean Existing Conditions Average Grade Calculation

A Segment	B Length Of Segment in Feet	C Height of High Point of Segment	D Height of Low Point of Segment	E=(C+D)/2 Average Segment Height	F=BxE
1	41.8	55.7	54.9	55.28	2310.50 Sq. Ft.
2	30.7	55.6	55.4	55.49	1703.54 Sq. Ft.
3	7.3	55.7	55.6	55.66	406.28 Sq. Ft.
4	24.4	55.3	53.8	54.50	1329.80 Sq. Ft.
5	12.8	50.8	50.6	50.73	649.28 Sq. Ft.
6	15.4	51.3	50.6	50.92	784.09 Sq. Ft.
7	22.0	50.7	50.5	50.61	1113.42 Sq. Ft.
8	77.9	55.4	50.9	53.17	4141.55 Sq. Ft.
Total	232.30				12438.46 Sq. Ft.

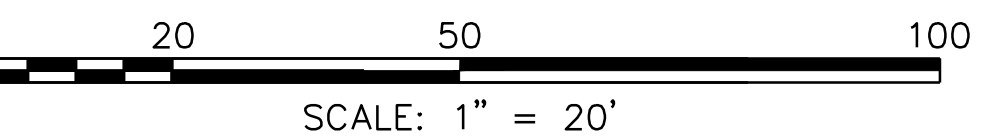
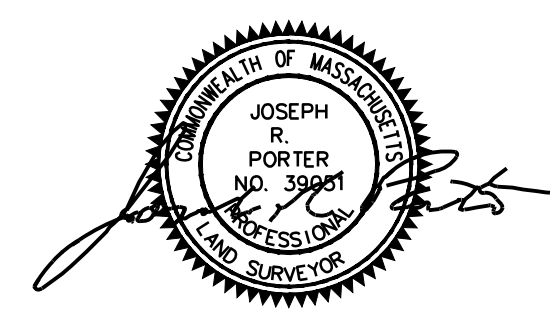
Total Column F / Total Column B = Average Grade
Average Grade: 53.54'

ZONING CHART
NEWTON, MASSACHUSETTS

REGULATION	REQUIRED	EXISTING
LOT AREA	7,000s.f.	29,550±s.f.
LOT FRONTAGE	70.0'	80.01'
FRONT SETBACK	25.0'	27.6'
SIDE SETBACK	7.5'	10.0'
REAR SETBACK	15.0'	251.0'
BUILDING HEIGHT	36.0'	25.26'
AVERAGE GRADE	-	99.39
LOT COVERAGE	30.0%	11.1%
OPEN SPACE	50.0%	66.4%

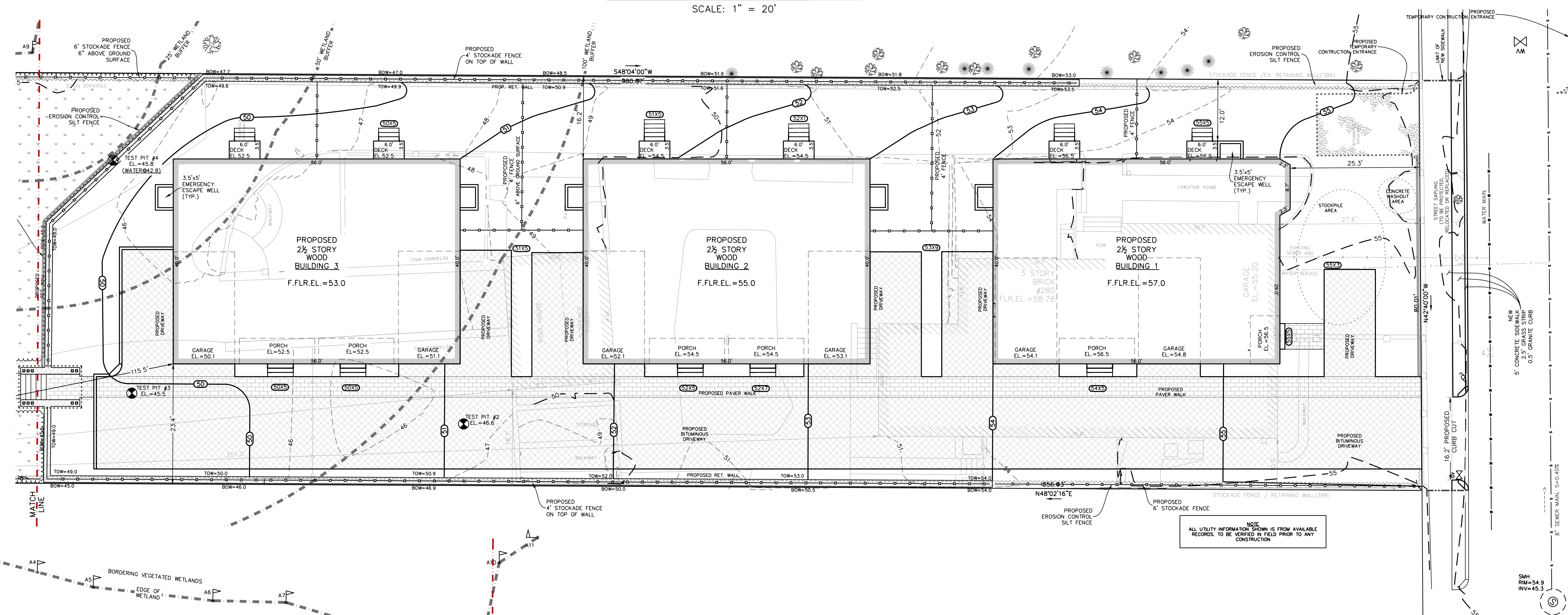
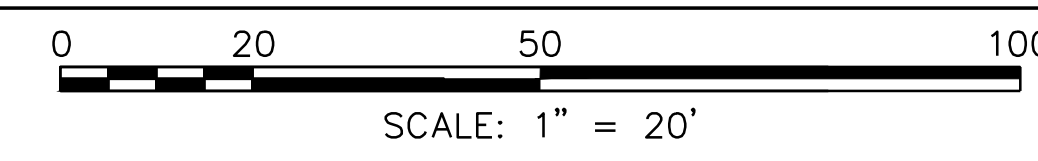
TOPOGRAPHIC SITE PLAN
NEWTON, MASSACHUSETTS
SHOWING EXISTING CONDITIONS AT
#280 NEVADA STREET
SCALE: 1in.=20ft. DATE: APRIL 25, 2023

PROJECT: 222183
VTP ASSOCIATES
INC.
LAND SURVEYORS - CIVIL ENGINEERS.
132 ADAMS STREET 2ND FLOOR SUITE 3
NEWTON, MA 02458
(617) 332-8271
SHEET 1 OF 1

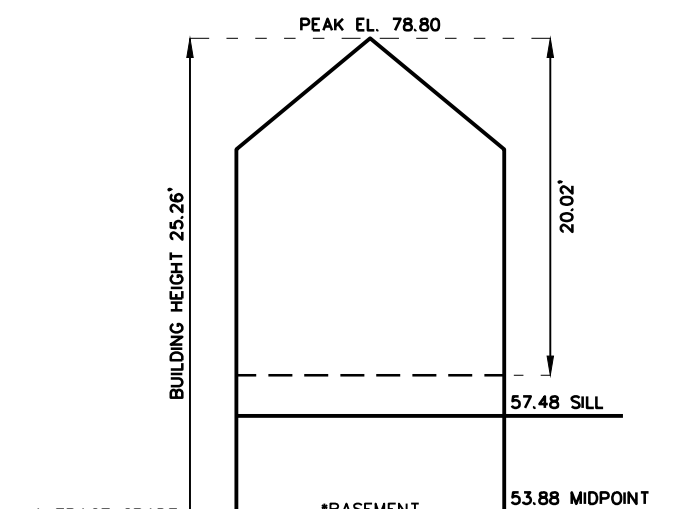
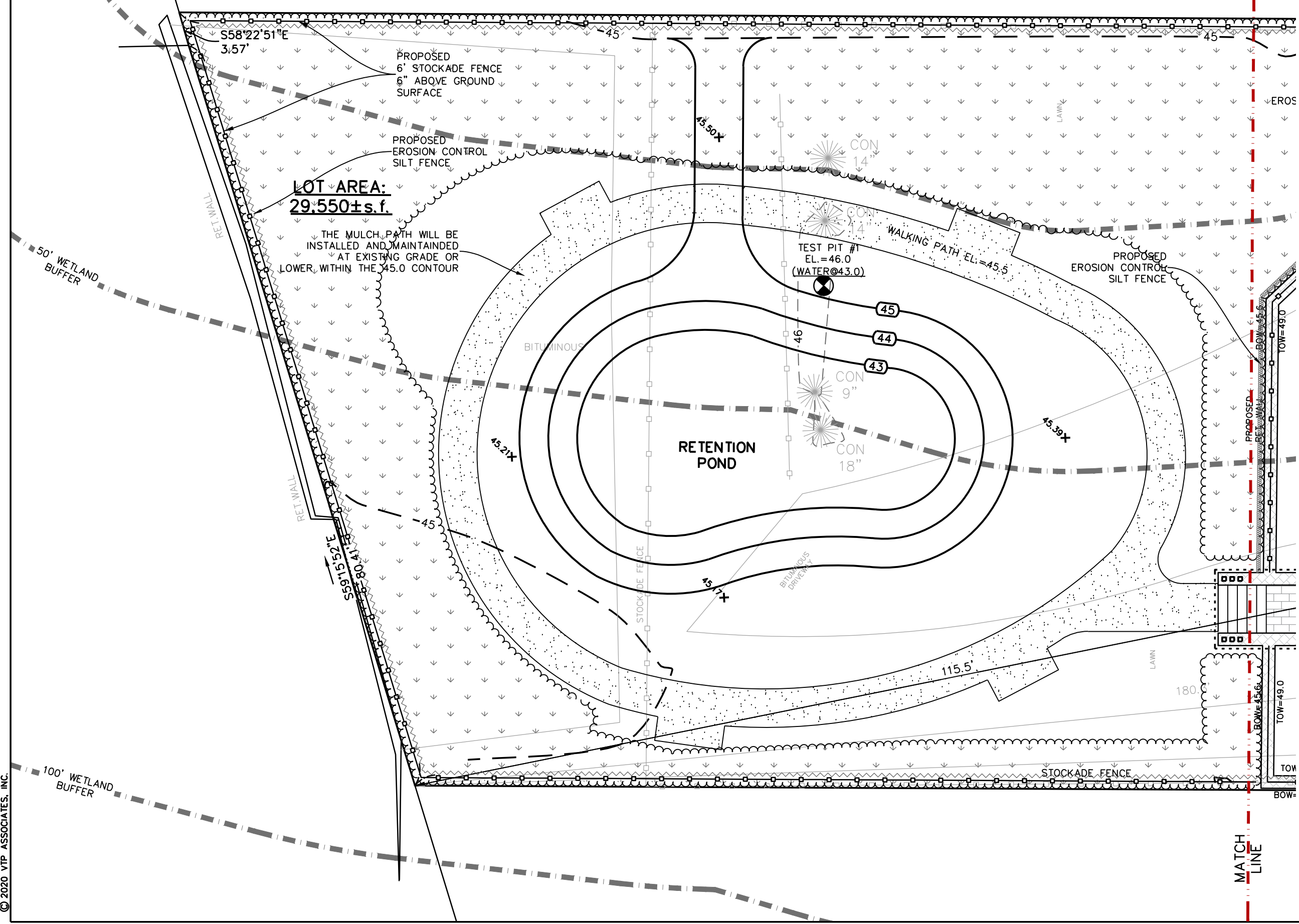


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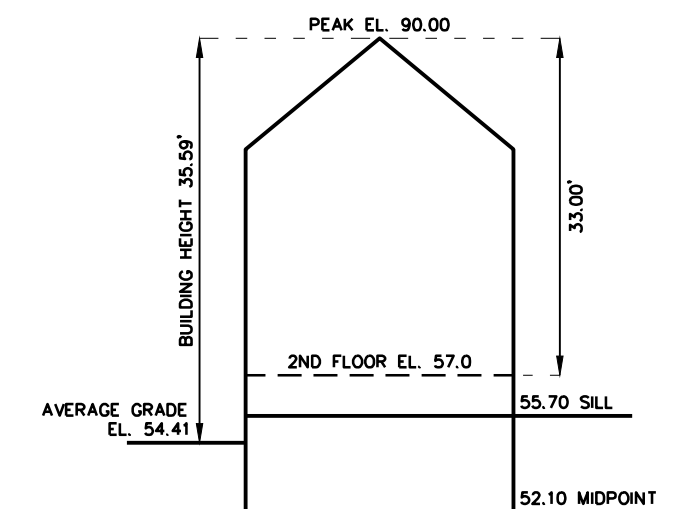
BUILDING	
PROPERTY LINE W/ BEARING DISTANCE	
CONTOUR	
STOCKADE FENCE	
CHAINLINK FENCE	
PICKET FENCE	
SEWER LINE	
DRAIN LINE	
WATER LINE	
GAS LINE	
GAS VALVE	
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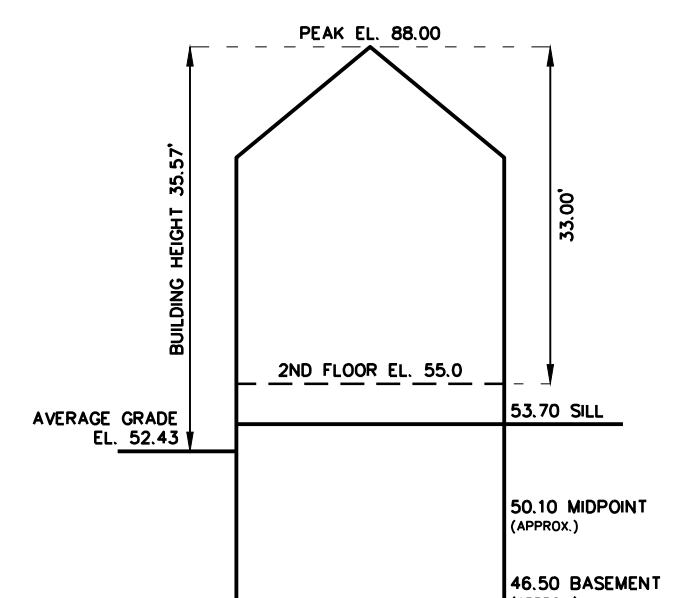
NOTE: ALL UTILITY INFORMATION SHOWN IS FROM AVAILABLE RECORDS. TO BE VERIFIED IN FIELD PRIOR TO ANY CONSTRUCTION.



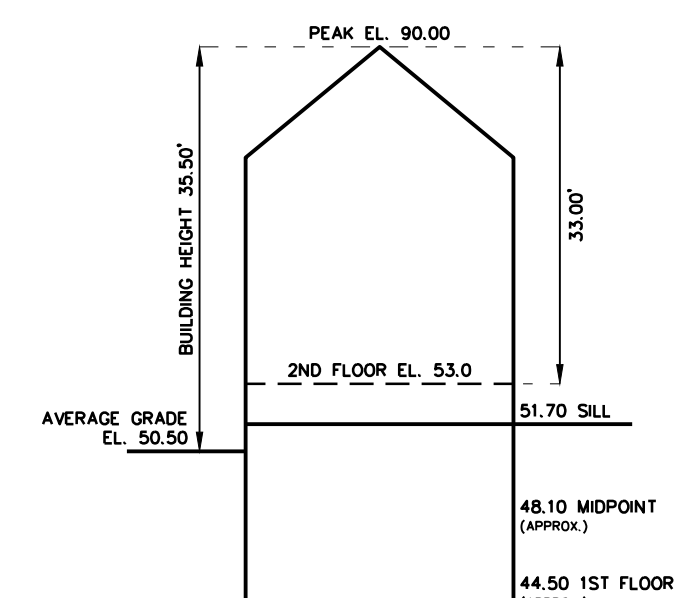
EXISTING BUILDING HEIGHT
NOT TO SCALE



PROPOSED BUILDING #1 HEIGHT
NOT TO SCALE



PROPOSED BUILDING #2 HEIGHT
NOT TO SCALE



PROPOSED BUILDING #3 HEIGHT
NOT TO SCALE

Length Weighted Mean Existing Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
1	41.9	52.7	54.0	55.29	2310.50 Sq. Ft.	
2	30.7	55.6	55.4	55.40	1703.54 Sq. Ft.	
3	7.3	55.7	55.6	55.60	408.26 Sq. Ft.	
4	24.4	55.3	53.8	54.90	1329.85 Sq. Ft.	
5	12.8	50.8	50.6	50.73	649.29 Sq. Ft.	
6	15.4	51.3	50.6	50.92	734.09 Sq. Ft.	
7	22.0	50.7	50.5	50.61	1113.42 Sq. Ft.	
8	77.9	55.4	50.9	53.17	4141.55 Sq. Ft.	
Total	232.30				12338.96 Sq. Ft.	

Total Column F / Total Column B = Average Grade: **53.54'**

Length Weighted Mean Proposed Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
1	56.0	55.1	54.0	54.6	3854.80 Sq. Ft.	
2	48.0	55.1	55.1	55.1	2504.00 Sq. Ft.	
3	56.0	54.9	53.5	54.2	3935.55 Sq. Ft.	
4	40.0	53.9	53.7	53.8	2152.00 Sq. Ft.	
Total	192.00				10446.35 Sq. Ft.	

Total Column F / Total Column B = Average Grade: **54.41'**

Length Weighted Mean Proposed Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
1	56.0	51.2	50.0	50.6	2833.60 Sq. Ft.	
2	40.0	51.1	50.0	50.6	2622.00 Sq. Ft.	
3	56.0	50.8	49.9	50.4	2919.60 Sq. Ft.	
4	40.0	51.1	49.9	50.5	2020.00 Sq. Ft.	
Total	192.00				9695.20 Sq. Ft.	

Total Column F / Total Column B = Average Grade: **50.50'**

ZONING CHART
NEWTON, MASSACHUSETTS

ZONE: MR-1 (OLD) SUBMISSION: BUILDING PERMIT

REGULATION	REQUIRED		EXISTING	PROPOSED
	AS OF RIGHT	ATTACHED SINGLE ***		
LOT AREA	7,000s.f.	15,000s.f./unit	29,550±s.f.	N/C
LOT FRONTAGE	70.0'	80.0'	80.01'	N/C
LOT COVERAGE	30.0%	25.0%	11.1%	22.8%
OPEN SPACE	50.0%	50.0%	66.4%	56.0%

*** SEE SECTION 3.2.4

ZONING PLAN
NEWTON, MASSACHUSETTS
SHOWING PROPOSED CONDITIONS AT
#280 NEVADA STREET

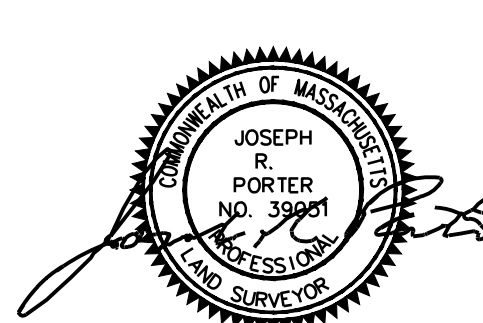
SCALE: 1in.=10ft. DATE: APRIL 25, 2023

PROJECT: 222183

VTP ASSOCIATES INC.

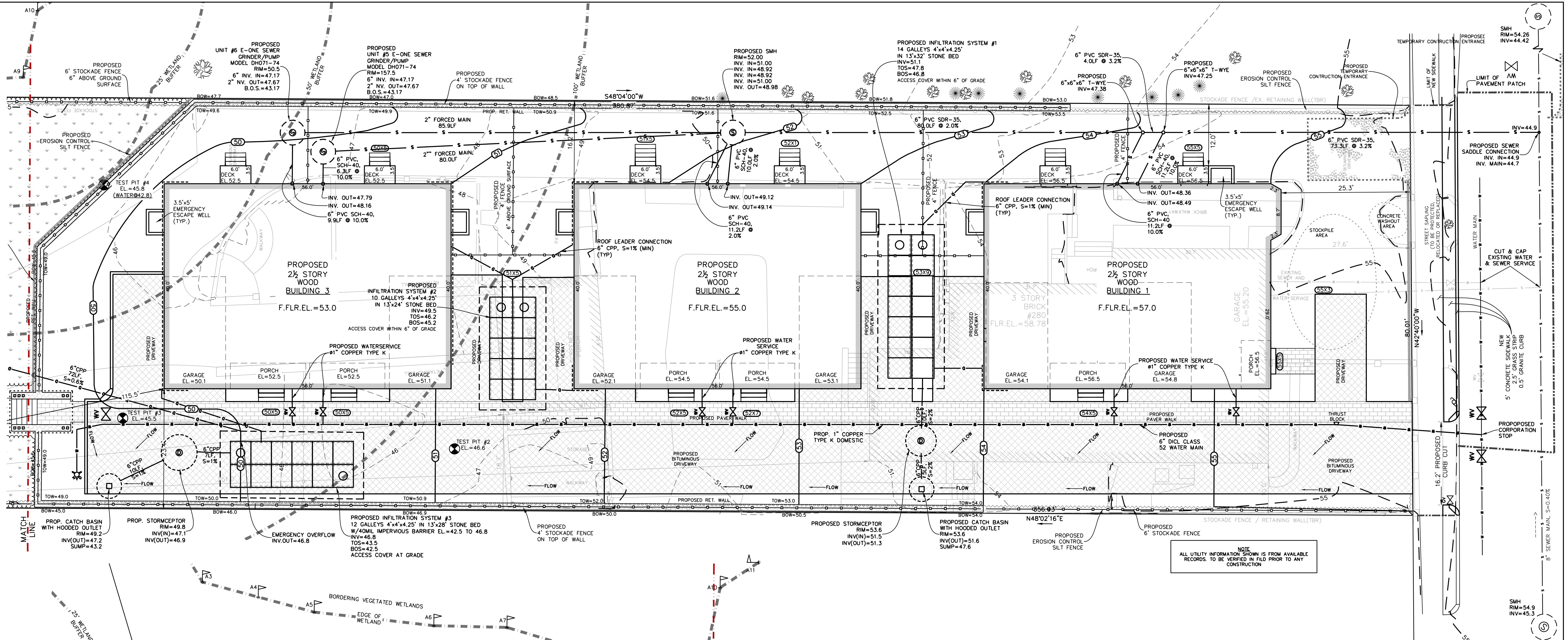
LAND SURVEYORS - CIVIL ENGINEERS.
132 ADAMS STREET 2ND FLOOR SUITE 3
NEWTON, MA 02458
(617) 332-8271

SHEET 1 OF 1



LEGEND

BUILDING	
PROPERTY LINE W/ BEARING DISTANCE	
CONTOUR	
STOCKADE FENCE	
CHAINLINK FENCE	
PICKET FENCE	
SEWER LINE	
DRAIN LINE	
WATER LINE	
GAS LINE	
GAS VALVE	
WATER VALVE	
DRAIN MANHOLE	
SEWER MANHOLE	
CATCH BASIN	
UTILITY POLE	
LIGHT POLE	
DECIDUOUS TREE	
CONIFEROUS TREE	
FIRE HYDRANT	



NOTE
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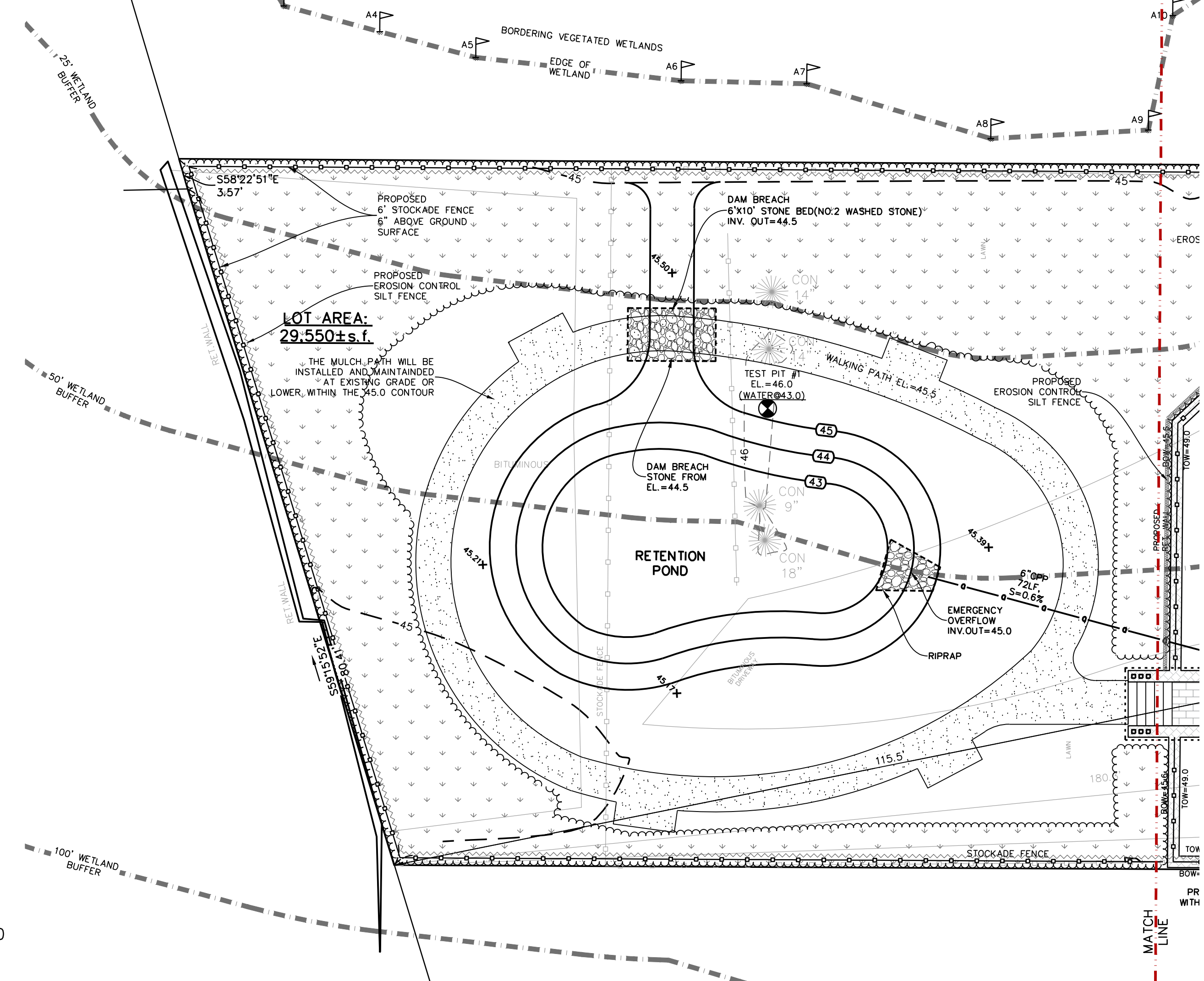
TESTPIT LOG

TEST PIT 1 (EL=46.0) 0-60" FILL WATER @ 36"
TEST PIT 2 (EL=46.6) 0-48" TOPSOIL & FILL 48-60" SUBSOIL 60-120" MEDIUM TO COARSE SAND W/GRAVEL NO WATER NO REFUSAL
TEST PIT 3 (EL=45.5) 0-52" TOPSOIL & FILL 52-70" SUBSOIL 70-132" MEDIUM TO COARSE SAND W/GRAVEL & COBBLES NO WATER NO REFUSAL
TEST PIT 4 (EL=45.8) 0-52" TOPSOIL & FILL WATER @ 36"

DIG SAFE
EXCAVATORS BEFORE YOU DIG CONTACT THE DIG SAFE CENTER TO PREVENT DAMAGE TO TELEPHONE, GAS OR ELECTRIC UNDERGROUND FACILITIES OF MEMBER UTILITIES. CALL TOLL FREE 1-888-344-7233. MASSACHUSETTS STATE LAW REQUIRES NOTIFICATION AT LEAST THREE BUSINESS DAYS BEFORE YOU START DIGGING OPERATIONS. IN AN EMERGENCY, CALL IMMEDIATELY



SCALE: 1" = 10'



PHOSPHORUS LOAD CALCULATION

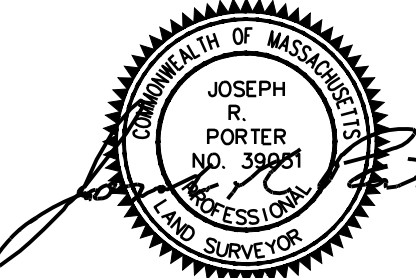
IMPERVIOUS AREAS	EXISTING	PROPOSED
BUILDING	3,289 sq. ft.	6,739 sq. ft.
DRIVEWAY	6,646 sq. ft.	6,276 sq. ft.
OTHER	5,736 sq. ft.	707 sq. ft.
TOTAL IMPERVIOUS AREAS	15,671 sq. ft.	13,723 sq. ft.
PHOSPHORUS LOAD FACTOR	1.96 lb./ac.-year	0.3598 ac
EXISTING IMPERVIOUS AREA	0.3151 ac	0.2997 ac
PROPOSED IMPERVIOUS AREA		0.2997 ac
INFILTRATED AREA *		
EXISTING PHOSPHORUS LOAD	0.7051 lb.-year	0.6175 lb.-year
PROPOSED PHOSPHORUS LOAD		0.5874 lb.-year
PHOSPHORUS LOAD REDUCTION		0.2988 / 0.3151 = 0.9513 --> 95.1%

* SEE HYDROCAD DRAINAGE REPORT

TOPOGRAPHIC SITE PLAN
NEWTON, MASSACHUSETTS
SHOWING PROPOSED CONDITIONS AT
#280 NEVADA STREET
SCALE: 1in.=10ft. DATE: DATE: APRIL 25, 2023

PROJECT: 222183
VTP ASSOCIATES INC.

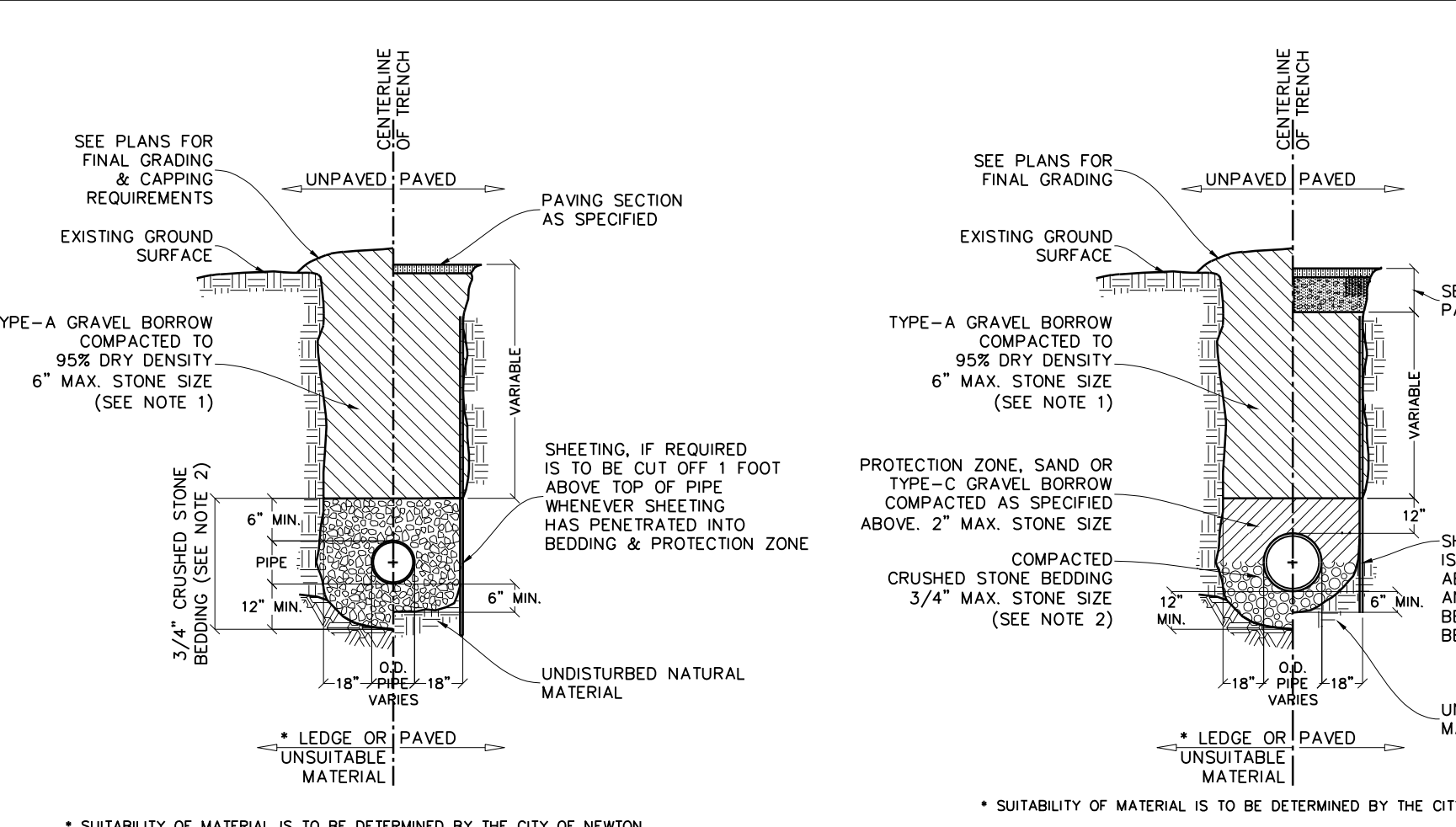
LAND SURVEYORS - CIVIL ENGINEERS.
132 ADAMS STREET 2ND FLOOR SUITE 3
NEWTON, MA 02458
(617) 332-8271



2212183-DR-2.dwg
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GENERAL & UTILITIES NOTES:

1. THE APPLICANT WILL HAVE TO APPLY FOR STREET OPENING, UTILITY CONNECTION, AND AN INSTALL CURB & SIDEWALK PERMITS WITH THE DPW PRIOR TO START OF WORK.
2. AFTER ALL ENGINEERING PERMITS ARE OBTAINED, THE CONTRACTOR NEEDS TO NOTIFY THE ENGINEERING DIVISION CONSTRUCTION INSPECTOR A MINIMUM OF 48-HOURS IN ADVANCE AND SCHEDULE AN APPOINTMENT TO HAVE SITE UTILITIES AND STORMWATER COMPONENTS INSPECTED. THE SYSTEM & UTILITIES MUST BE FULLY EXPOSED FOR THE INSPECTOR ONCE THE INSPECTOR IS SATISFIED, THE SYSTEM & UTILITIES MAY BE BACKFILLED.
3. THE CONTRACTOR MUST PROVIDE POLICE DETAILS, SCHEDULED 48 HOURS IN ADVANCE, FOR THE DIRECTION AND CONTROL OF TRAFFIC, AS REQUIRED BY THE CITY ENGINEER. ALL ROADS AFFECTED BY CONSTRUCTION SHALL ALWAYS REMAIN OPEN TO EMERGENCY VEHICLES. CONTRACTOR IS TO COORDINATE WITH POLICE AND FIRE DEPARTMENT TO ENSURE PUBLIC SAFETY.
4. ALL WORK MUST BE DONE IN ACCORDANCE WITH CITY OF NEWTON STANDARD SPECIFICATIONS AND CITY OF NEWTON CONSTRUCTION DETAILS, COPIES OF WHICH MAY BE OBTAINED AT THE ENGINEERING OFFICE. ALL WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF NEWTON ENGINEERING DEPARTMENT.
5. AS OF JANUARY 1, 2009, ALL TRENCH EXCAVATION CONTRACTORS SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER 82A, TRENCH EXCAVATION SAFETY REQUIREMENTS TO PROTECT THE PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES. TRENCH EXCAVATION PERMIT REQUIRED. THIS APPLIES TO ALL TRENCHES, BOTH ON PUBLIC AND/OR PRIVATE PROPERTY.
6. NO EXCAVATION IS ALLOWED WITHIN ANY CITY RIGHT-OF-WAY BETWEEN NOVEMBER 15TH AND APRIL 15TH, IF AN EMERGENCY EXISTS OR THERE ARE EXTENUATING CIRCUMSTANCES, APPLICANT MAY SEEK PERMISSION FOR SUCH WORK FROM THE CITY DPW COMMISSIONER VIA THE CITY ENGINEER. IF PERMISSION IS GRANTED, SPECIAL CONSTRUCTION STANDARDS WILL BE APPLIED. APPLICANT OR APPLICANT'S REPRESENTATIVE MUST CONTACT THE CITY OF NEWTON ENGINEERING DEPARTMENT PRIOR TO START OF WORK FOR CLARIFICATION.
7. THE EXISTING WATER SERVICE MUST BE COMPLETELY REMOVED FROM THE DWELLING TO THE CORPORATION AT THE MAIN. THE CORPORATION SHALL BE CARRIED, AND A NEW TAP SHALL BE MADE FOR THE NEW SERVICE. EACH PHASE OF THIS PROCESS MUST BE INSPECTED BY A REPRESENTATIVE OF THE ENGINEERING DIVISION. FAILURE TO HAVING THIS INSPECTION PERFORMED, MAY RESULT IN THE DELAY OR DENIAL OF A WATER SERVICE PERMIT.
8. THE EXISTING SEWER SERVICE MUST BE COMPLETELY REMOVED FROM THE DWELLING TO THE MAIN. THE REMOVAL, ALONG WITH THE NEW CONNECTION MUST BE INSPECTED BY A REPRESENTATIVE OF THE ENGINEERING DIVISION. FAILURE TO HAVING THESE INSPECTIONS PERFORMED, MAY RESULT IN THE DELAY OR DENIAL OF A SEWER SERVICE PERMIT.
9. THE NEW SEWER SERVICE(S) AND/OR STRUCTURE(S) SHALL BE PRESSURE TESTED OR WEEDTESTED AFTER FINAL INSTALLATION IS COMPLETE. METHOD OF FINAL INSPECTION SHALL BE DETERMINED SOLELY BY THE CONSTRUCTION INSPECTOR FROM THE CITY ENGINEERING DIVISION. THE SEWER SERVICE WILL NOT BE ACCEPTED UNTIL ONE OF THE TWO METHODS STATED ABOVE IS COMPLETED. A CERTIFICATE OF OCCUPANCY WILL NOT BE RECOMMENDED UNTIL ALL PIPING AND STRUCTURES ARE TESTED AND PASS.
10. THE NEW WATER SERVICE SHALL BE INSTALLED IN CONJUNCTION WITH THE CITY OF NEWTON UTILITIES DIVISION. THE OWNER/CONTRACTOR MAY OBTAIN A WATER SERVICE APPLICATION BY CONTACTING THE UTILITIES DIVISION (617) 798-1640 OR BY VISITING THE CITY OF NEWTON WEBSITE AND CLICK THE LINK FOR PUBLIC WORKS / UTILITIES DIVISION. AFTER THE APPLICATION IS PAID IN FULL, THE OWNER/CONTRACTOR SHALL FOLLOW THE INSTRUCTIONS PLAN NOTES MENTIONED AND FOLLOWING.
11. EXCEPT FOR GAS SERVICES, ALL UTILITY TRENCHES WITHIN THE CITY OF NEWTON RIGHT-OF-WAY WILL BE BACK FILLED WITH TYPE I (EXCAVATABLE) CONTROLLED DENSITY FILL AS SPECIFIED BY THE CITY OF NEWTON ENGINEERING SPECIFICATIONS. EXCAVATABLE FILL FLOW WILL EXTEND TO WITHIN 18" OF ROADWAY ASPHALT.
12. PER CITY OF NEWTON ORDINANCE NO.B-42, COUNCIL ITEM #251-19, BUILDING SEWER, WATER SERVICE PIPE AND SIDEWALK/CURB REPLACEMENT ORDINANCE: THE APPLICANT IS REQUIRED TO INSTALL/REPLACE SIDEWALK AND CURB ALONG THE ENTIRE FRONTAGE. THIS SHALL INCLUDE APPROPRIATE TRANSITION TO ADJOINING CURBS AND WALKWAYS, INCLUDING ACCESSIBLE CURB CUTS AND OTHER ACCESS AS REQUIRED. THE ENGINEERING CONSTRUCTION INSPECTOR DECIDES, BASED ON THE MATERIAL AND MANNER OF CONSTRUCTION OF THE EXISTING SIDEWALK AND CURB, THAT THE EXISTING SIDEWALK AND CURB CAN BE RE-SET OR REUSED WITHOUT REPLACEMENT.
13. 5 YEAR MORATORIUM APPLIES - IF AT TIME OF CONSTRUCTION THE ROADWAY IS UNDER A 5-YEAR MORATORIUM, THE ROADWAY MUST BE MAILED AND PAVED OUTER-TO-OUTER FOR 25 FEET IN EACH DIRECTION FROM THE OUTERMOST TRENCHES.
14. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE DESIGN ENGINEER FOR INSPECTIONS AND AS-BUILT LOCATIONS. THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE ON-SITE INSPECTIONS OF ALL SUBSURFACE STRUCTURES, THIS INCLUDES BUT NOT LIMITED TO DRAINAGE, UTILITIES (INCLUDING SEWER PIPE, SLOPE), ROOF LEADER COLLECTION SYSTEM, TRENCH DRAINS, MANHOLES ETC. ENGINEER OF RECORD MUST ALSO CONDUCT BOTTOM OF HOLE (DRAINAGE SYSTEMS) BEING INSTALLED. CONTRACTOR TO NOTIFY ENGINEER BEFORE BACKFILLING OR SIGN OFF CANNOT OCCUR WITHOUT RE-EXCAVATION.
15. PRIOR TO THE ENGINEERING DIVISION RECOMMENDING THAT A CERTIFICATE OF OCCUPANCY BE ISSUED, AN AS-BUILT PLAN MUST BE SUBMITTED IN BOTH DIGITAL AND IN HAND COPY TO THE ASSIGNED ENGINEERING CONSTRUCTION INSPECTOR. THE AS-BUILT PLAN MUST SHOW DIMENSIONAL TIES FROM FIXED POINTS (FOUNDATION CORNERS) TO ALL SUBSURFACE COMPONENTS AS WELL AS FINAL GRADING. THE AS-BUILT PLAN MUST BE STAMPED, SIGNED, AND DATED BY THE ENGINEER OF RECORD.
17. THE FOLLOWING STATEMENT MUST BE ON ALL AS-BUILT PLANS SUBMITTED TO THE ENGINEERING DIVISION (SIGNED, DATED, AND STAMPED):
I CERTIFY THAT THE CONSTRUCTION SO SHOWN WAS INSPECTED PRIOR TO BACKFILL AND THAT ALL WORK CONFORMS WITH THE APPROVED PLAN AND MEETS OR EXCEEDS THE CITY OF NEWTON CONSTRUCTION STANDARDS.
SIGNATURE: _____ DATE: _____

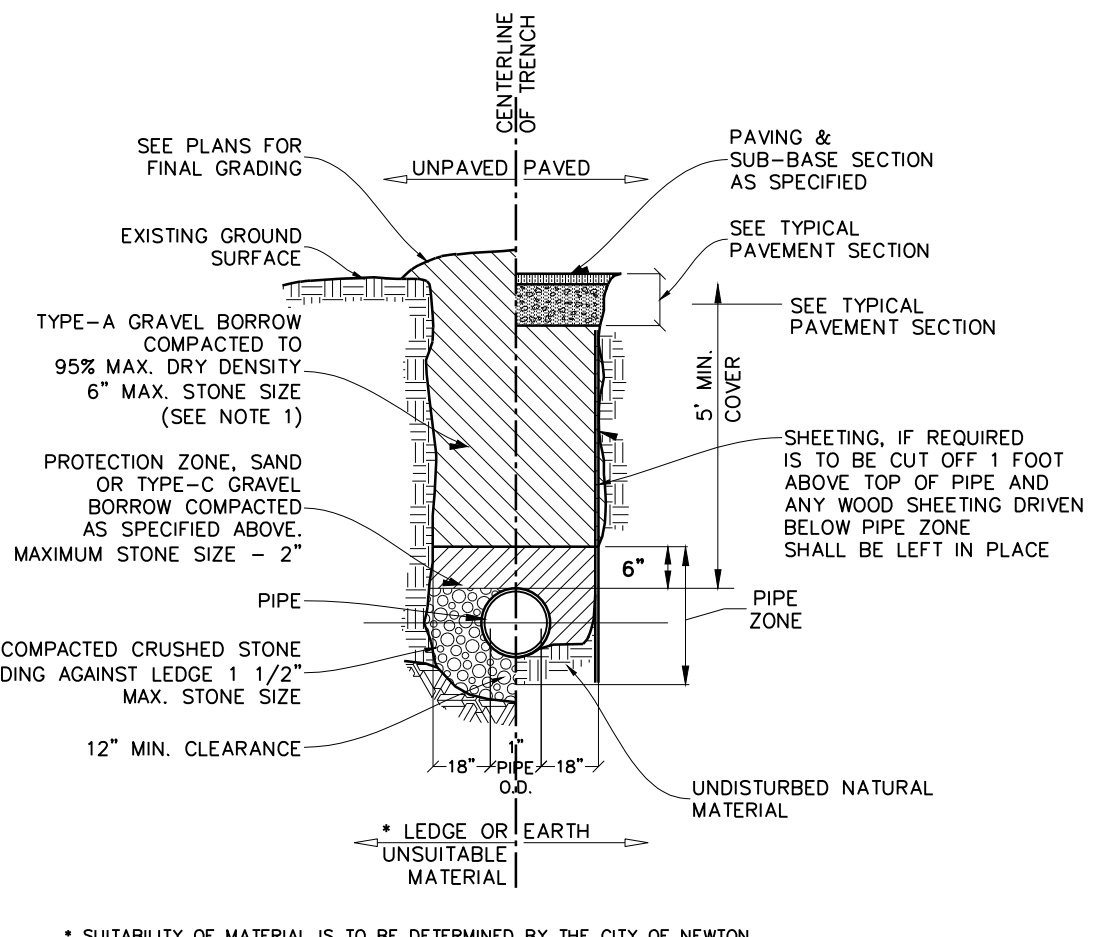
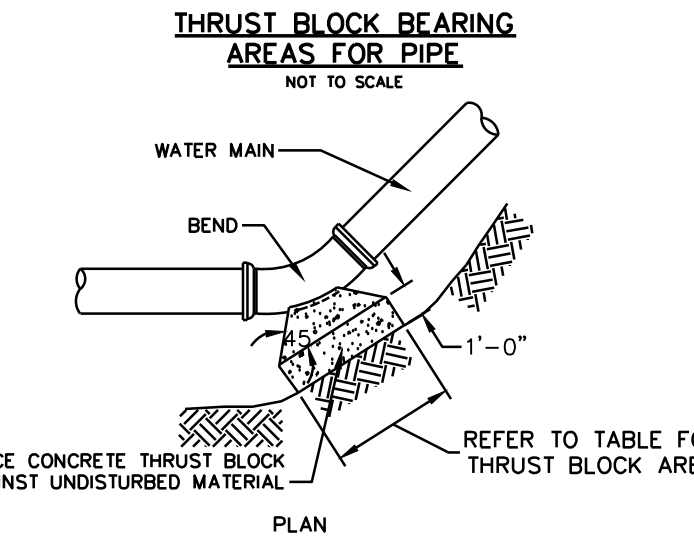


- * SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON.
- 1. GRAVEL BORROW SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M1.03.0
- 2. CRUSHED STONE BEDDING SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.1

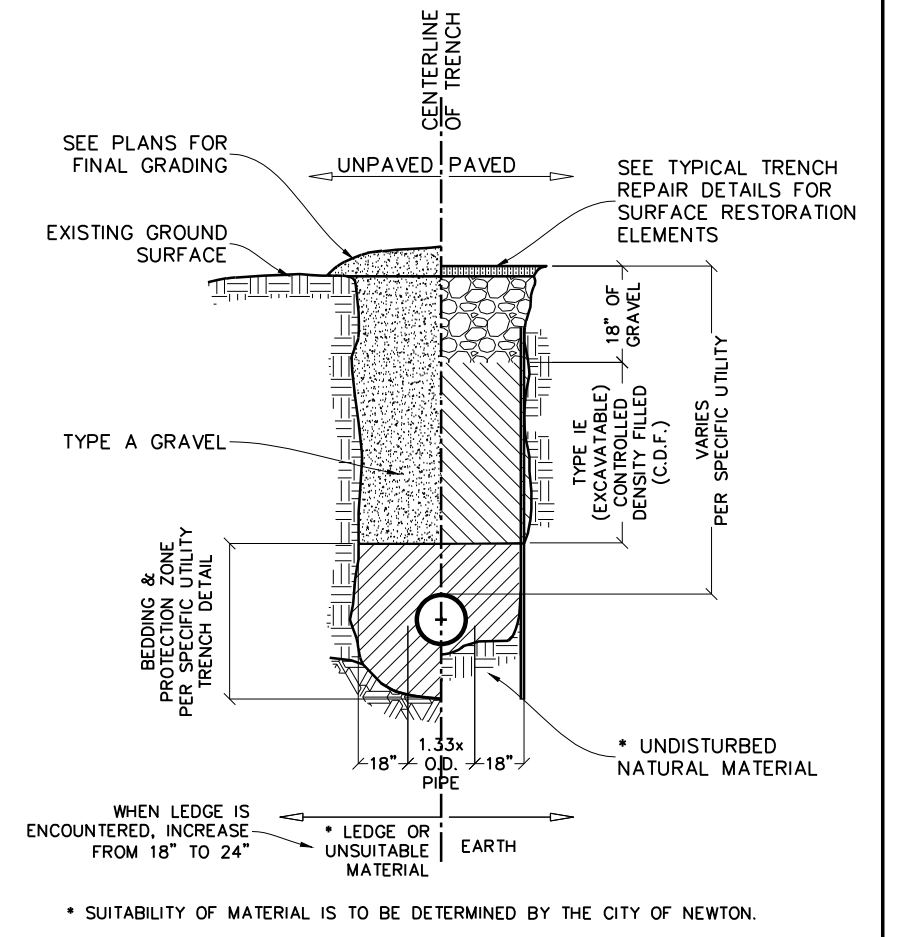
TABLE OF BEARING AREAS IN SQUARE FEET AGAINST UNDISTURBED MATERIAL FOR FITTING.

SIZE OF MAIN (INCHES)	90° BEND (S.F.)	45° BEND (S.F.)	DEAD END (S.F.)
4	2.3	1.3	1.6
6	4.7	2.5	3.3
8	8.0	4.5	6.0
12	17.0	9.5	12.0

- NOTES:**
1. FOR FITTINGS WITH LESS THAN 45° DEFLECTION USE BEARING AREAS FOR 45° BEND.
 2. BEARING AREAS BASED ON HORIZONTAL PASSIVE SOIL PRESSURE OF 2000 PSF AND A MINIMUM INTERNAL WATER PRESSURE OF 175 PSIG. JOINTS SHALL NOT BE ENCASED IN CONCRETE. BEARING AREAS MAY BE DISREGARDED FOR TRENCHES IN ROCK WHERE THE TOP OF THE ROCK FACE IS AT OR ABOVE THE CROWN OF THE PIPE. HOWEVER, CONCRETE BACKING SHALL BE PLACED BETWEEN THE PIPE AND ROCK FACE.

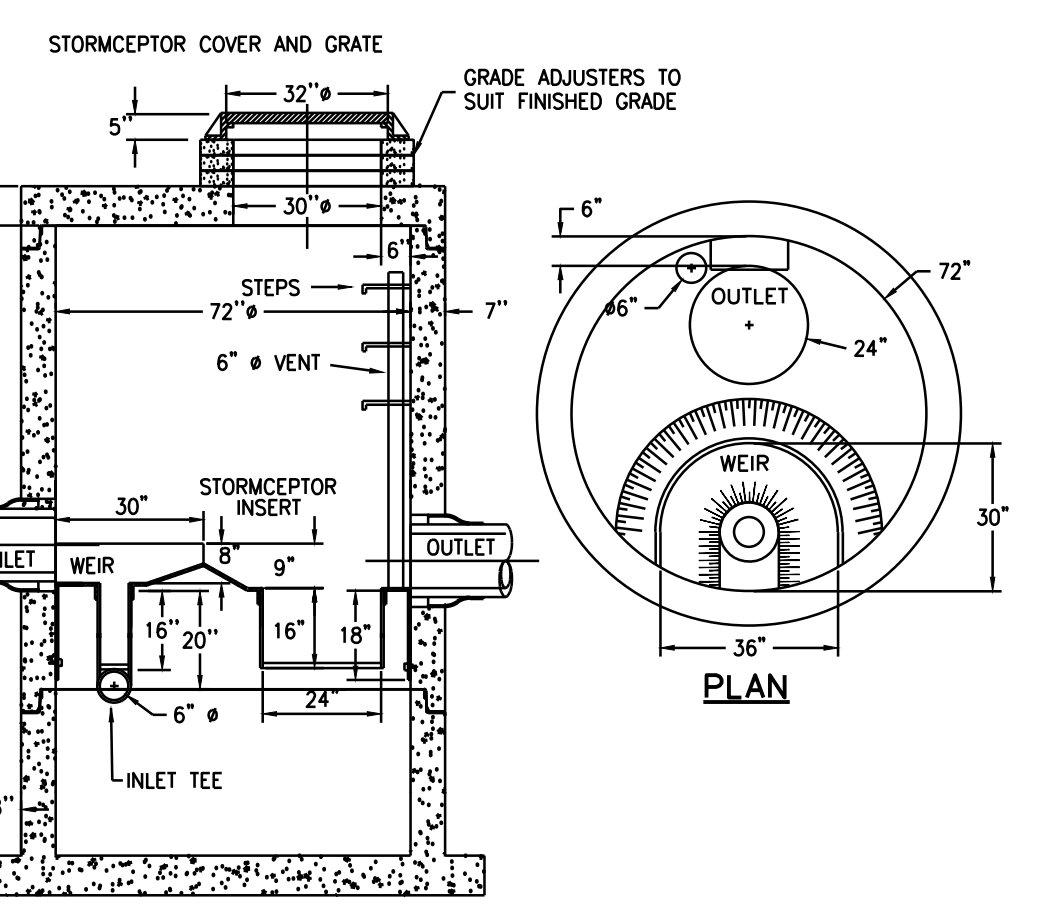
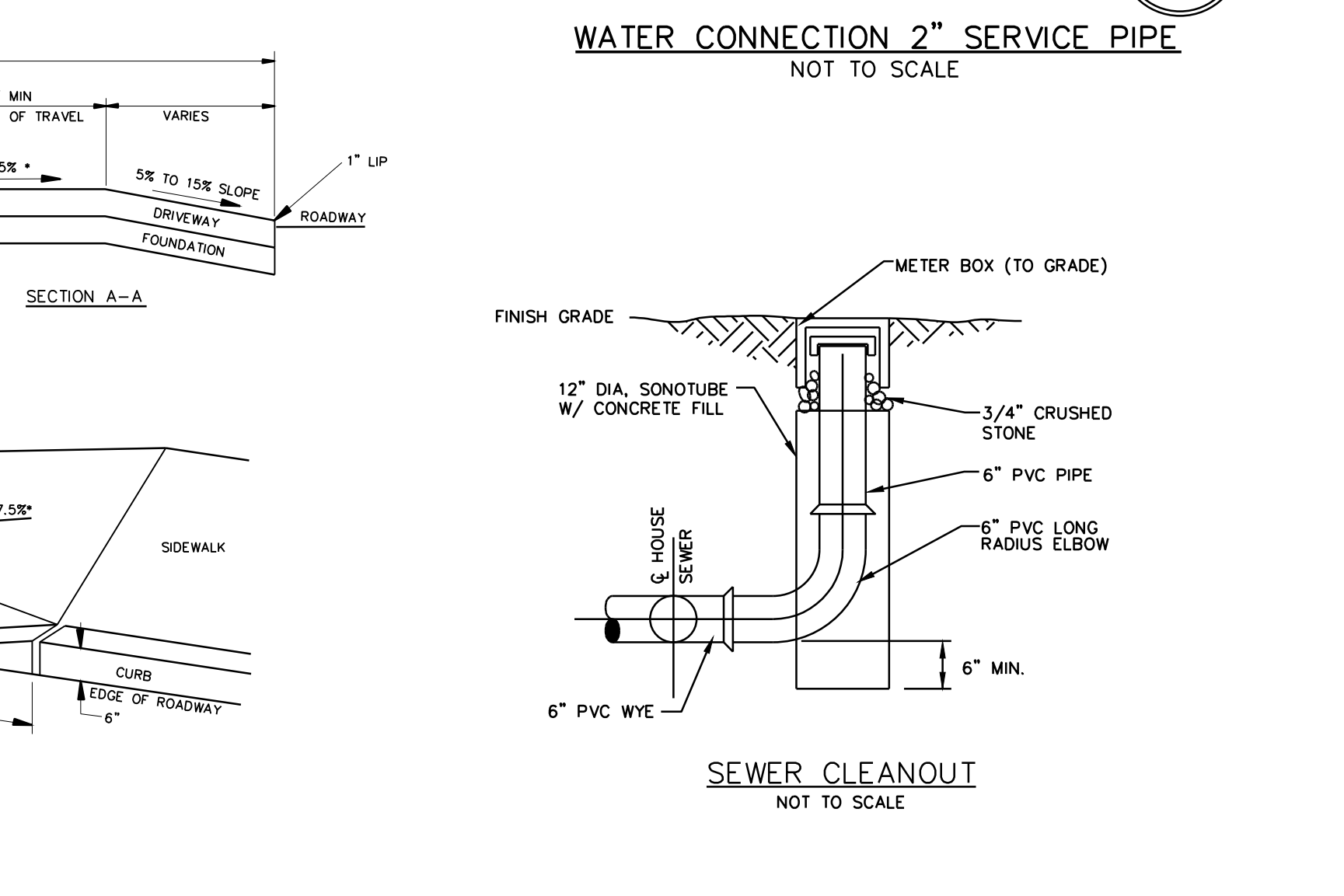
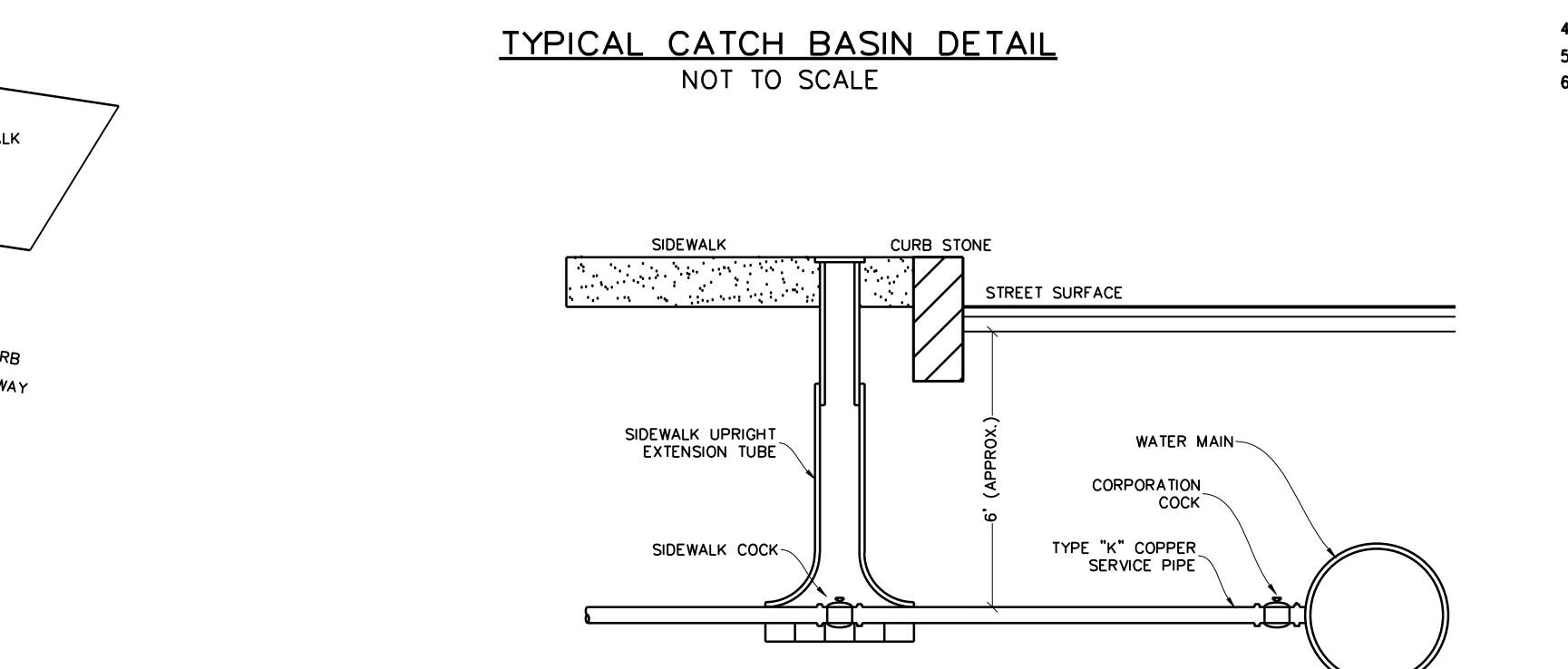
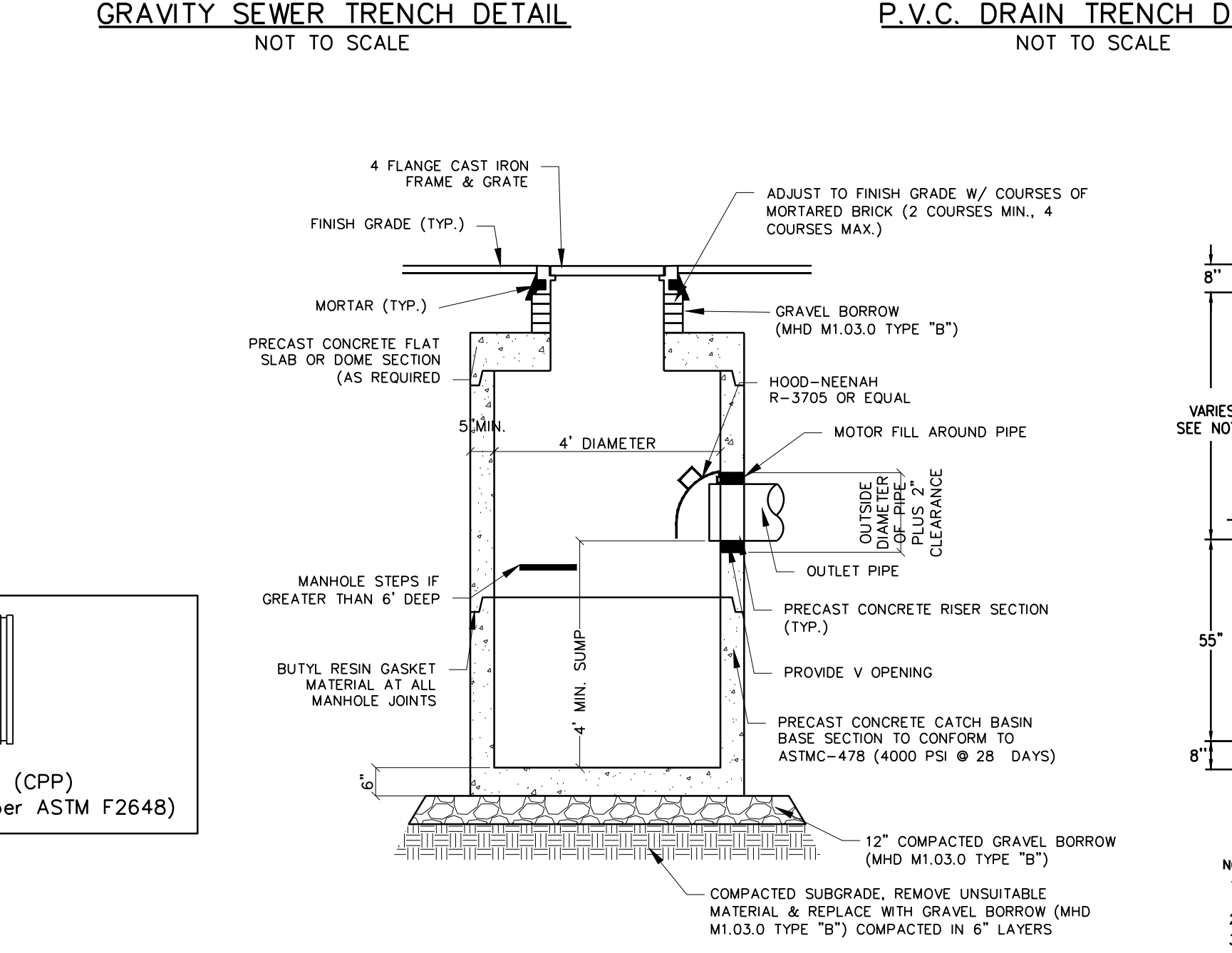
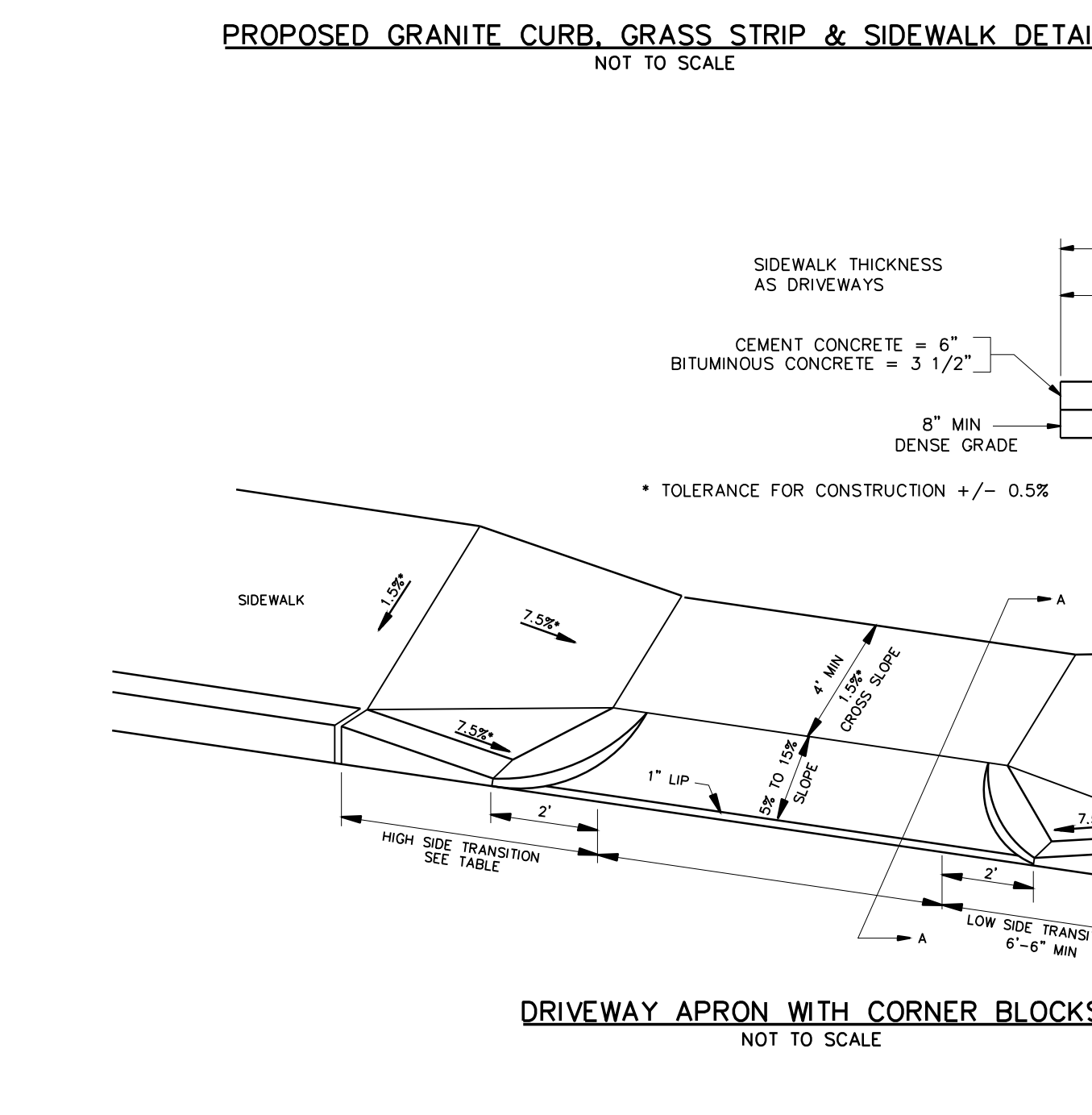
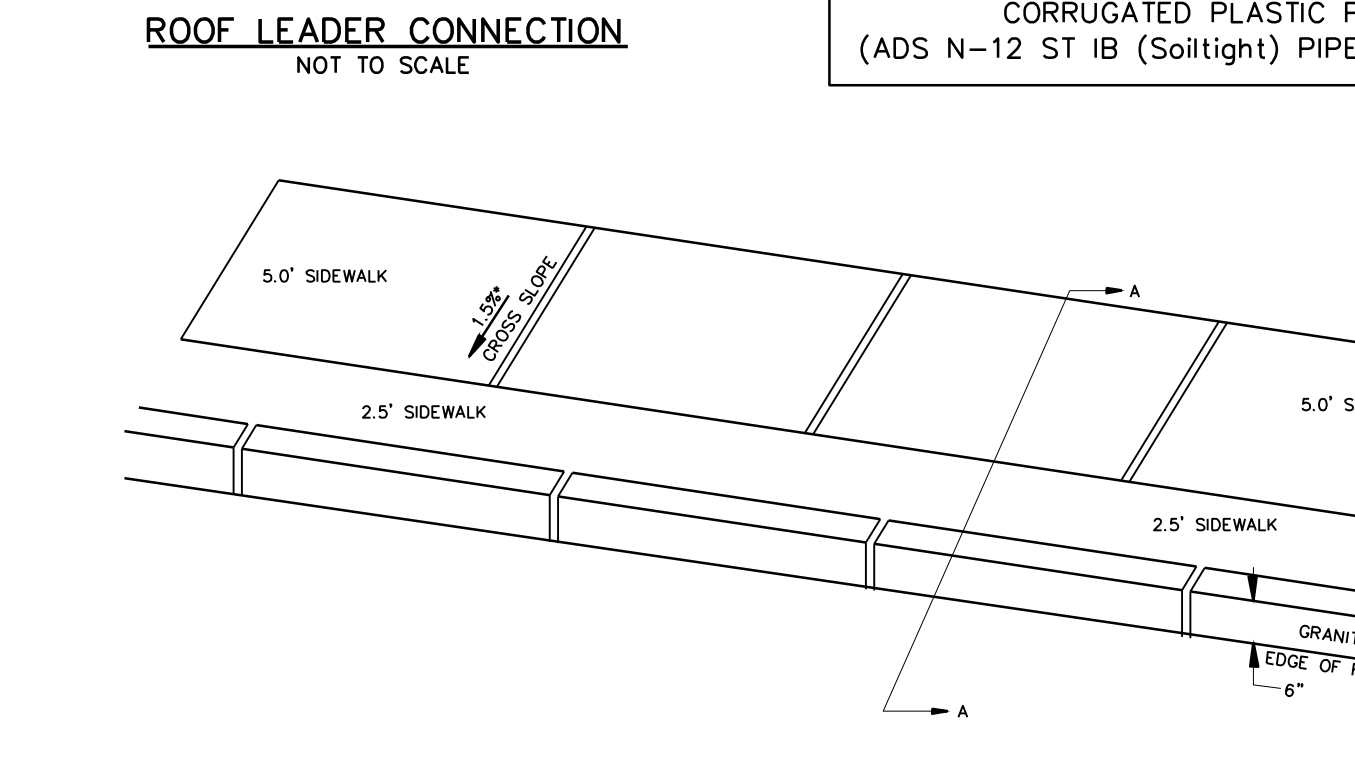
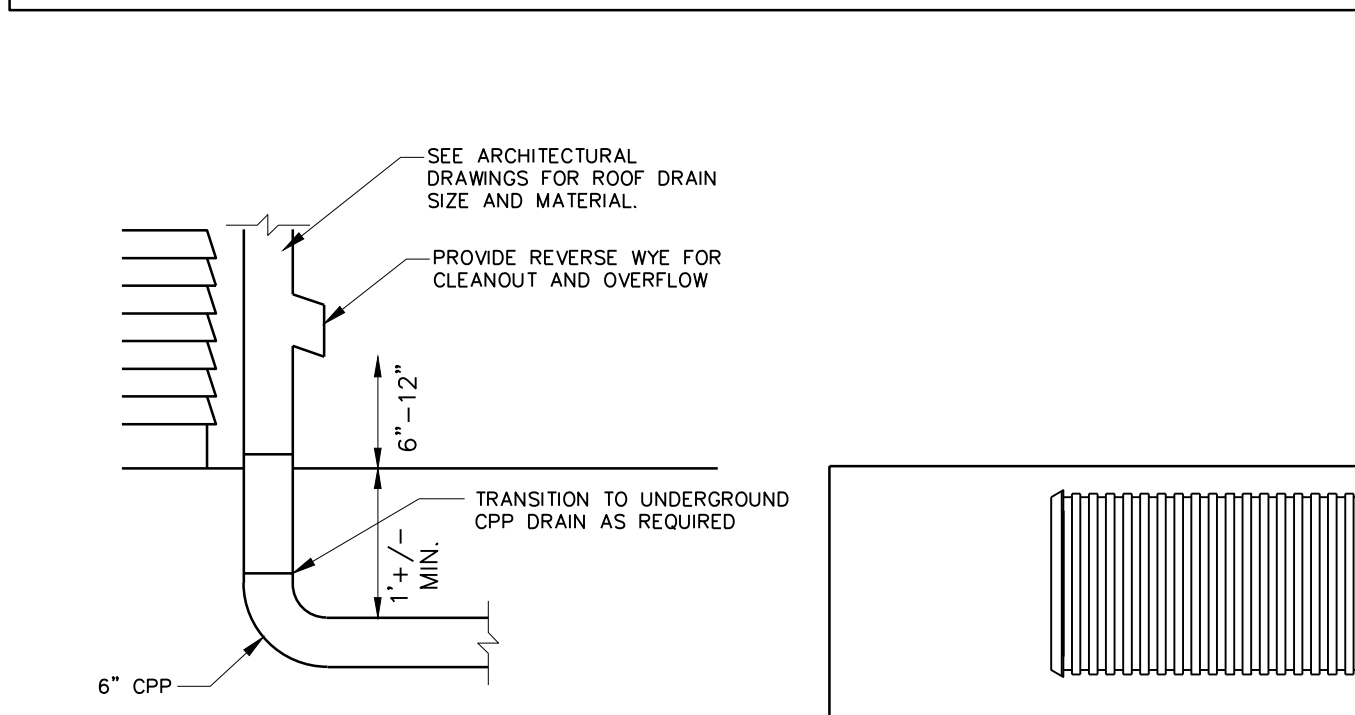


- * SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON.
- 1. GRAVEL BORROW SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M1.03.0
- 2. CRUSHED STONE BEDDING SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.1



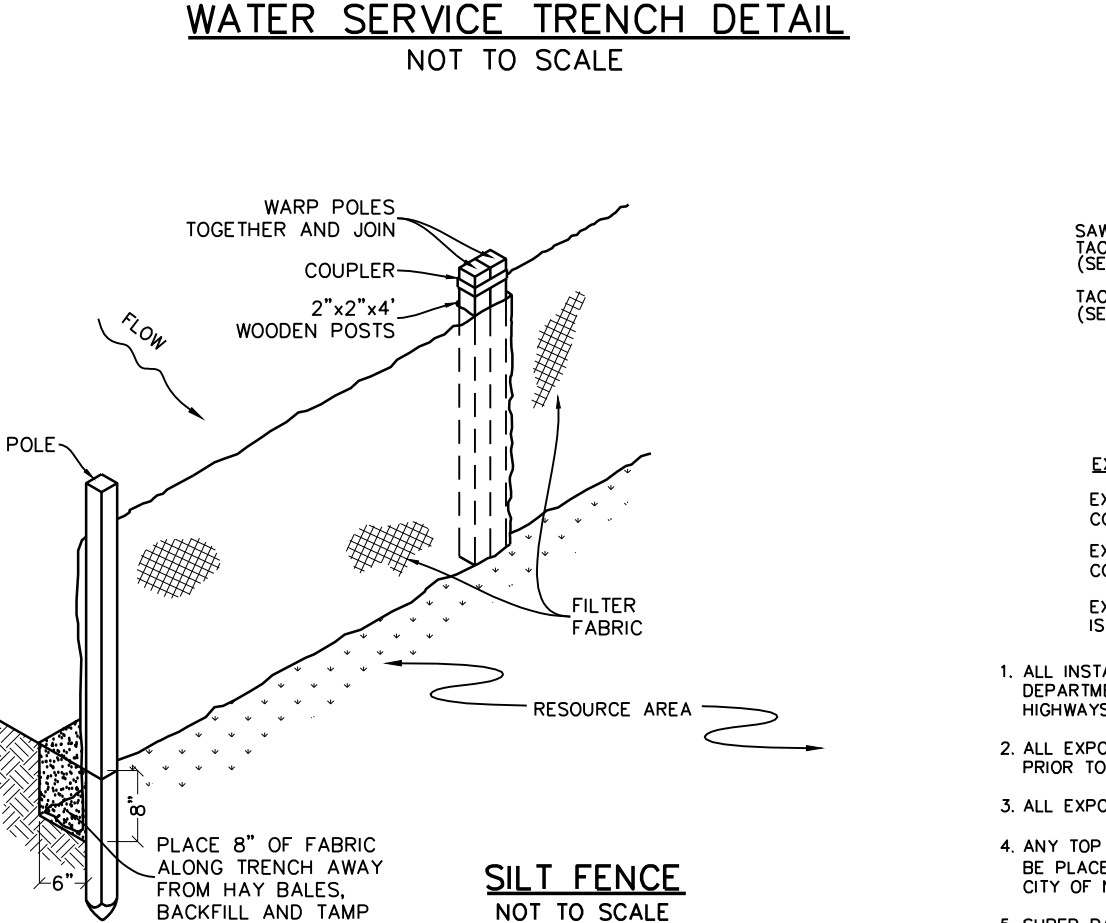
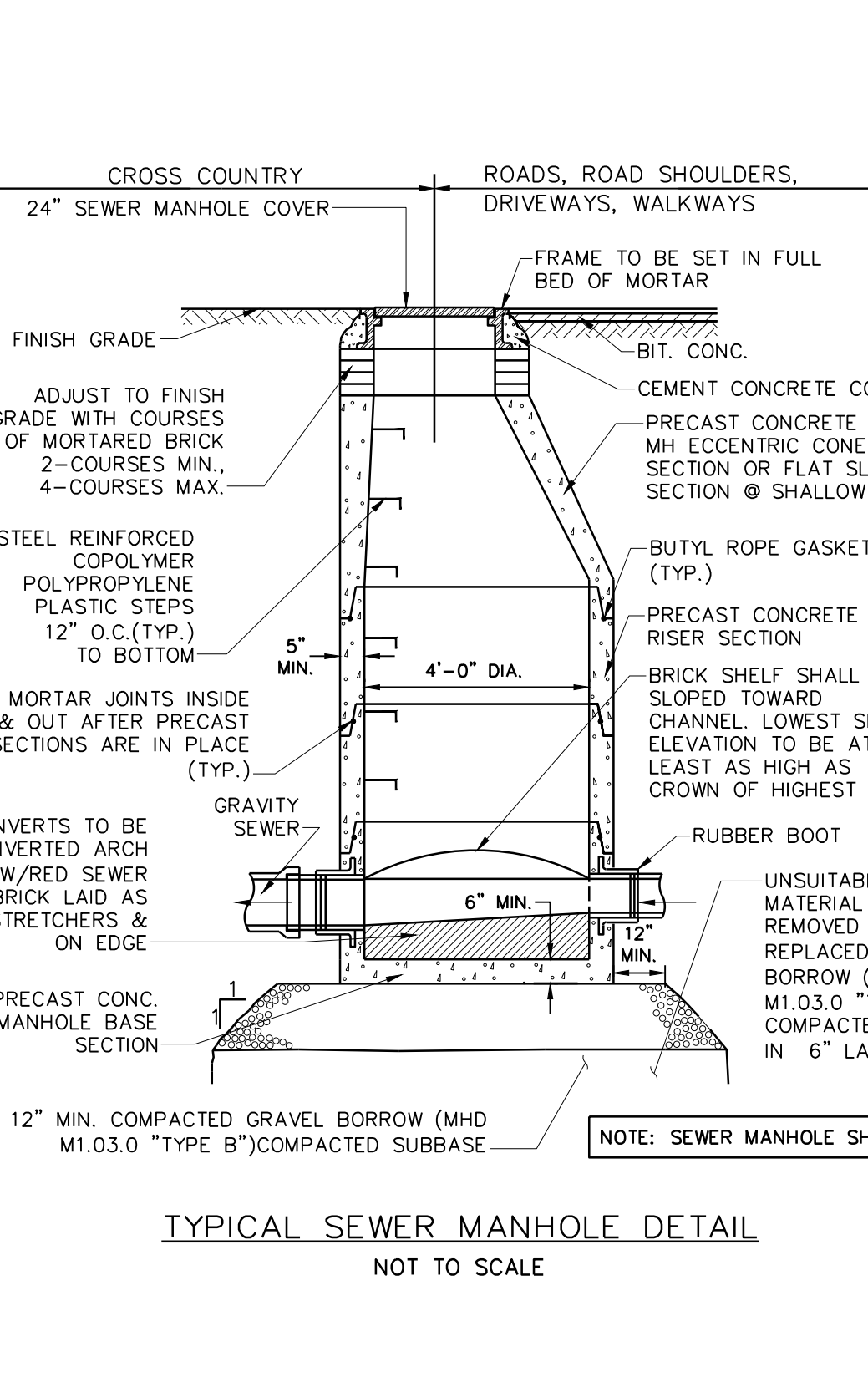
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1. PROVIDE REVERSE WYE FOR CLEANOUT AND OVERFLOW.
2. TRANSITION TO UNDERGROUND CPP DRAIN AS REQUIRED.
3. 6" CPP.

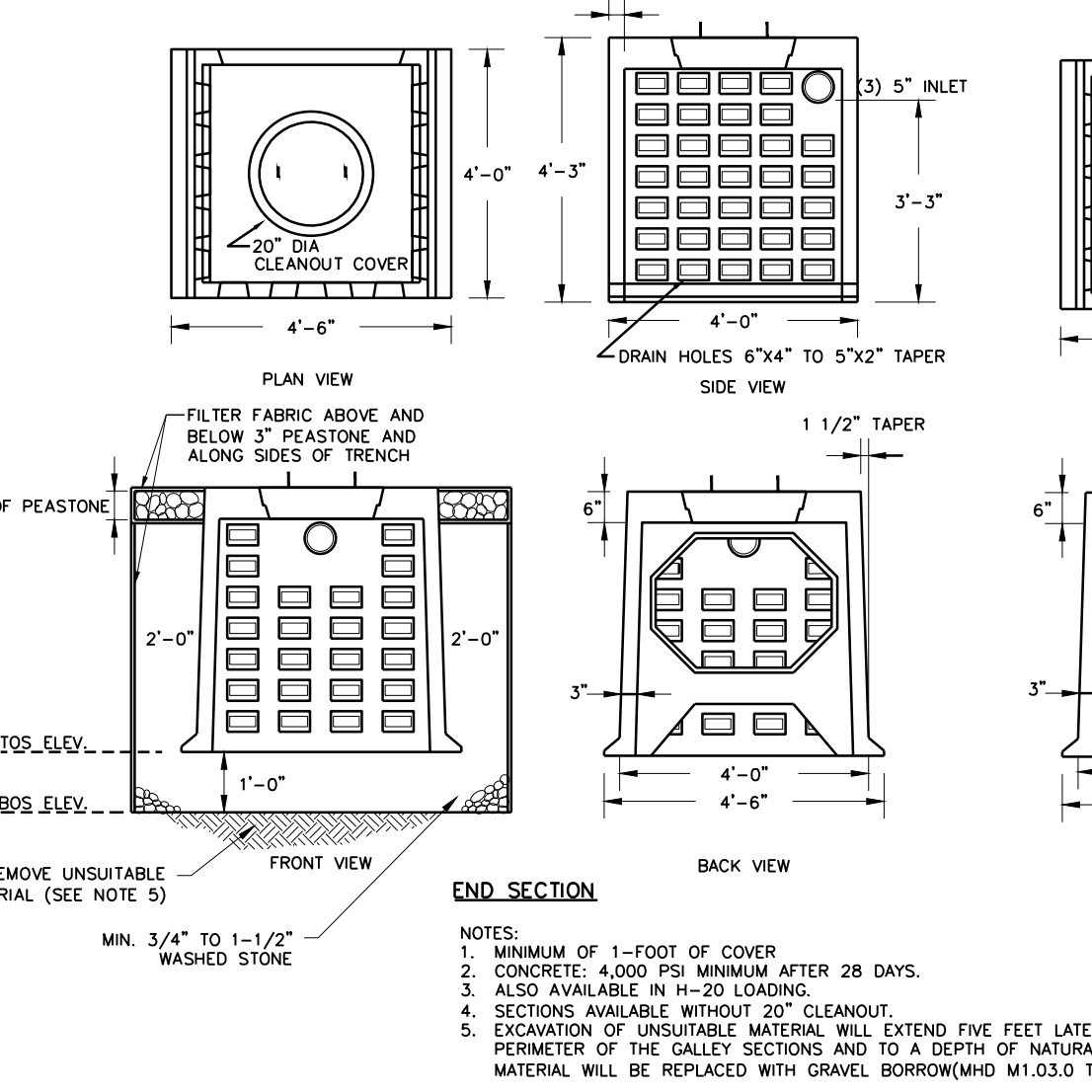


- NOTE:**
1. FLEXIBLE CONNECTIONS ARE RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
 2. COVER TO BE POSITIONED OVER OUTLET AND VENT PIPE.
 3. THIS IS A GENERAL ARRANGEMENT DRAWING. CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.
 4. INLET DROP PIPE WILL BE OTHER 6" OR 12" WITH A 6" ORIFICE PLATE.
 5. ALL CONCRETE JOINTS HAVE RUBBER GASKETS THAT CONFORM TO ASTM C 443
 6. U.S. PATENT NO. 4,985,148

STORMCEPTOR
NOT TO SCALE



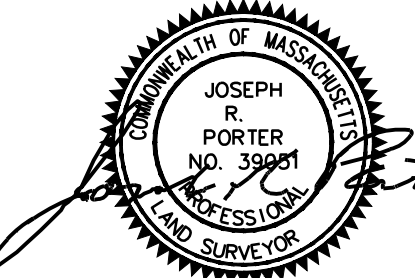
1. ALL INSTALLATION AND MATERIAL SPECIFICATIONS PER MASSDOT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 2020 AS AMENDED.
2. ALL EXPOSED BITUMINOUS CONCRETE IS TO BE TACKED PER MASSDOT PRIOR TO NEW BITUMINOUS CONCRETE INSTALLATION.
3. ALL EXPOSED JOINTS ARE TO BE SEALED WITH TACK AND STONE DUST.
4. ANY TOP COURSE APPLIED AT A WIDTH OF 6" WIDE OR GREATER IS TO BE PLACED BY MACHINE/BOX SPREADER WHEN AS DIRECTED BY THE CITY OF NEWTON.
5. SUPER PAVE FOR PAVEMENT.



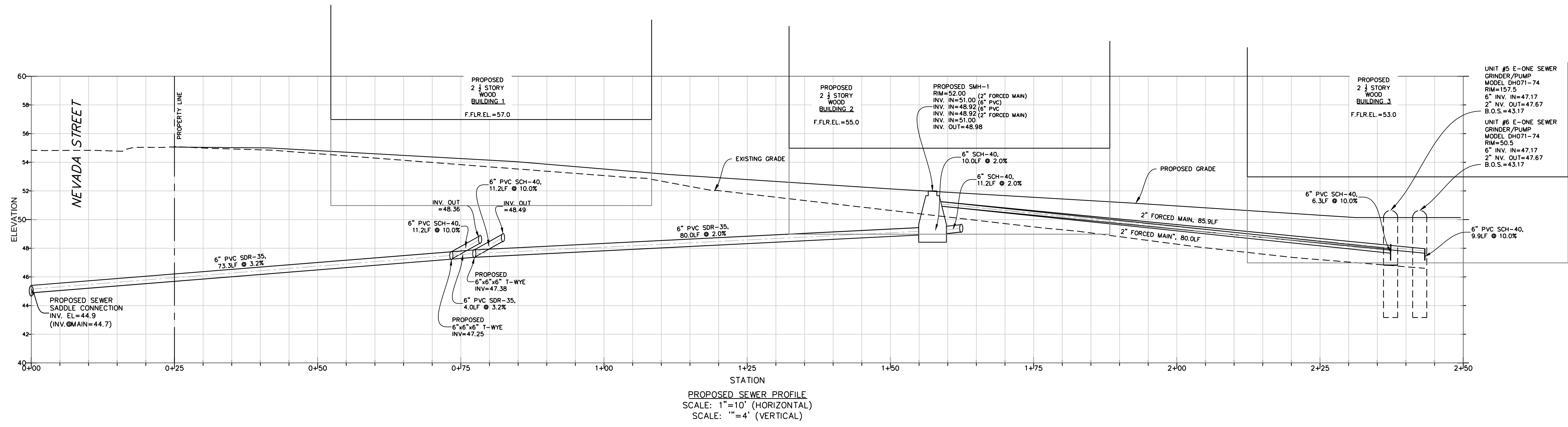
- NOTES:**
1. MINIMUM OF 1-FOOT OF COVER
 2. CONCRETE: 4000 PSI MINIMUM AFTER 28 DAYS.
 3. ALSO AVAILABLE IN 48" LOADING
 4. SECTIONS AVAILABLE WITHOUT 20" CLEANOUT
 5. EXCAVATION OF UNSUITABLE MATERIAL WILL EXTEND FIVE FEET LATERALLY IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE GALLEY SECTIONS AND TO A DEPTH OF NATURALLY OCCURRING PREVIOUS MATERIAL. UNSUITABLE MATERIAL WILL BE REPLACED WITH GRAVEL BORROW (MHD M1.03.0 TYPE "B") COMPACTED IN 6" LAYERS.

TYPICAL TRENCH REPAIR & PAVEMENT SECTION DETAIL
NOT TO SCALE

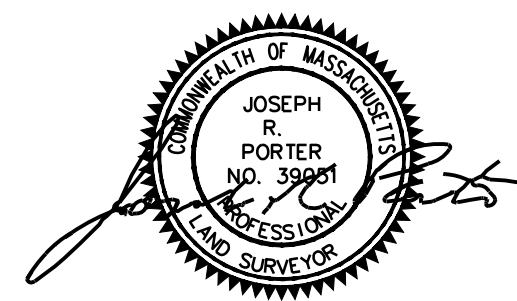
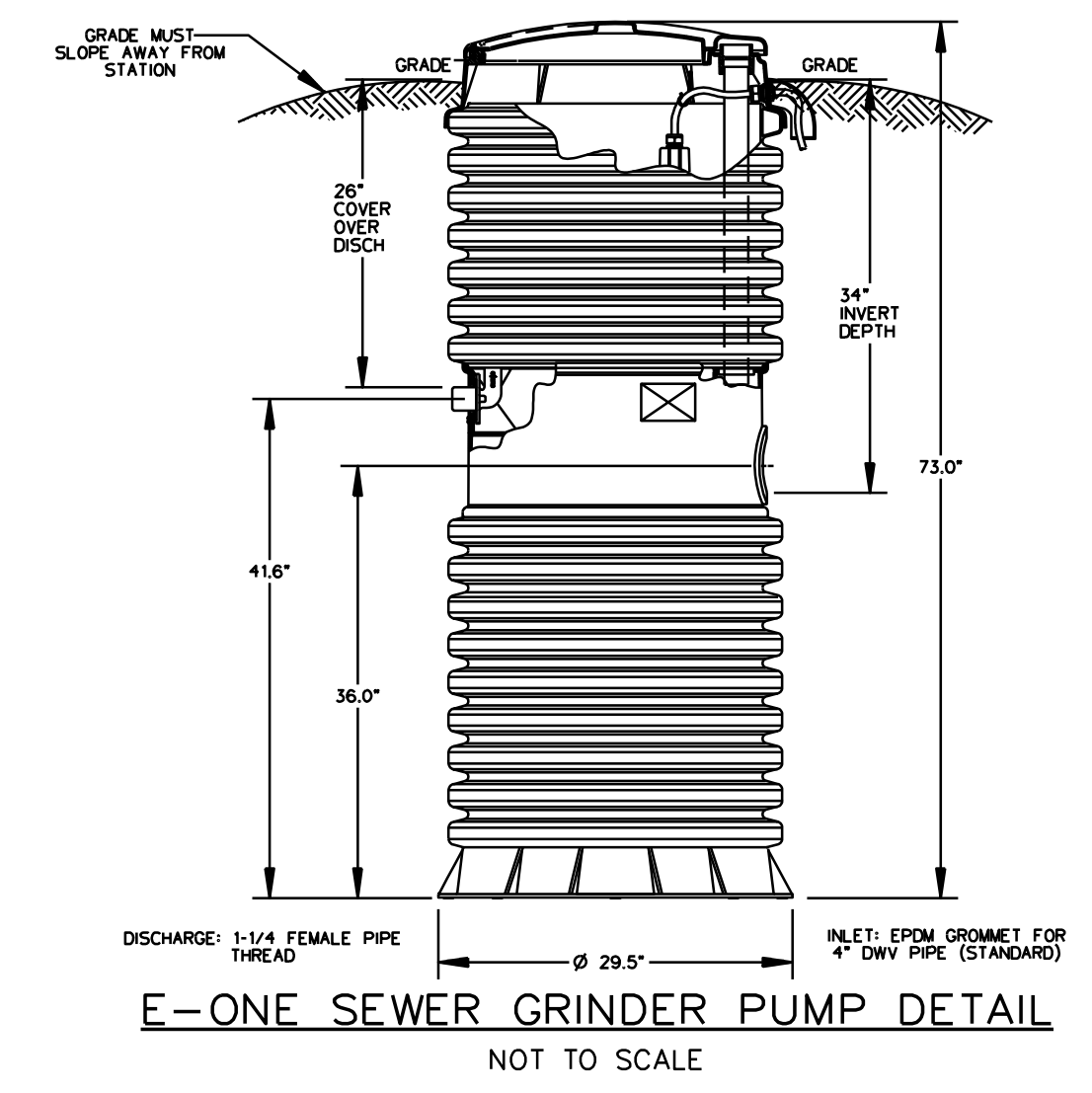
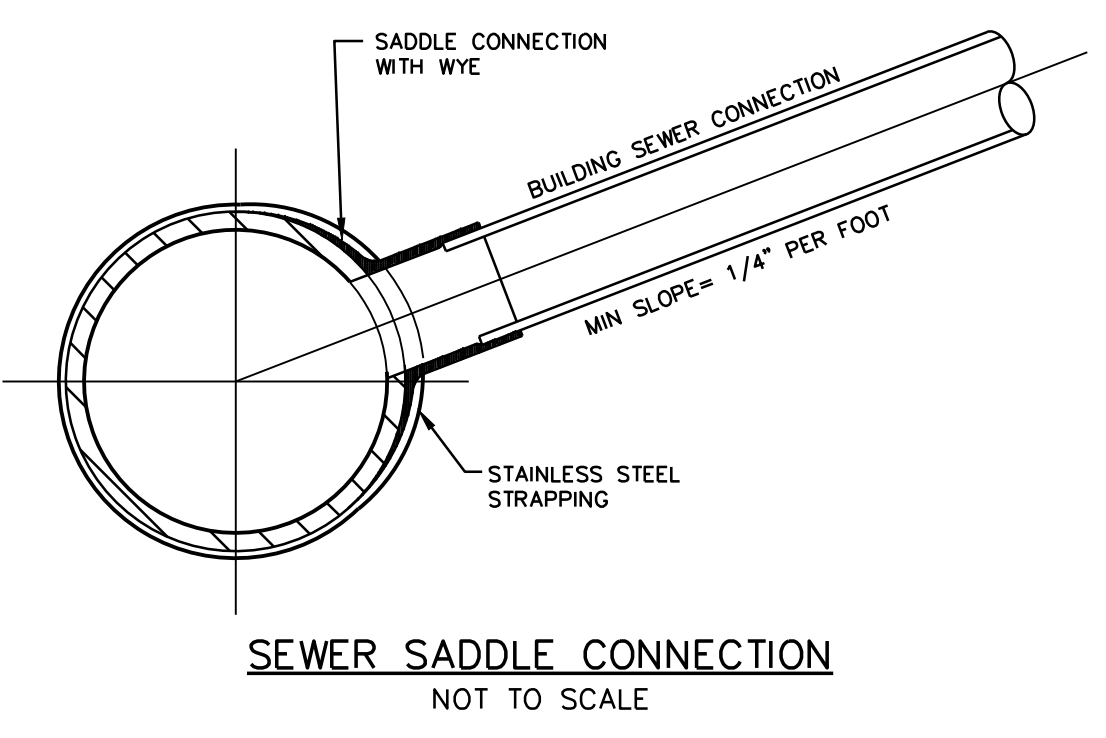
1. MILL AND PAVE 1.5" TYPE 1-1 BITUMINOUS CONCRETE TOP COURSE
2. BITUMINOUS CONCRETE BINDER COURSE, 3" MIN. OR MATCH BOTTOM OF EXISTING BITUMINOUS CONCRETE, WHICHEVER IS GREATER.
3. 6" MIN. OF PROCESSED GRAVEL PER MHD M2.01.1



DETAILS
NEWTON, MASSACHUSETTS
SHOWING PROPOSED CONDITIONS AT
#280 NEVADA STREET
SCALE: 1in.=20ft. DATE: APRIL 25, 2023
PROJECT: 2212183
VTP ASSOCIATES INC.
LAND SURVEYORS - CIVIL ENGINEERS.
132 ADAMS STREET 2ND FLOOR SUITE 3
NEWTON, MA 02458
(617) 332-8271
SHEET 2 OF 3



- NOTES:
1. FULL PVC OR IRON SADDLE MAY BE USED TO CONNECT TO EXISTING PVC, CLAY, CONCRETE OR IRON PIPE.
 2. SADDLES MUST HAVE RUBBER GASKETS AND SHALL BE TIGHTENED WITH STRAPS. SADDLES WILL NOT BE CEMENTED ON TO PIPE.
 3. FULL WYE CONNECTION FITTINGS MAY BE USED.
 4. PIPE SHALL BE CUT TO CONFORM TO THE OPENING IN THE SADDLE.
 5. CONNECTIONS DIRECTLY INTO THE EXISTING PIPE WITHOUT A SADDLE OR A FULL WYE FITTING ARE NOT ALLOWED.



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