

SITE PLAN - LOVELL ACADEMY

PLAN NORTH



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- SH 16 DETAILS DRAIN SYSTEM #1
- SH 17 PROPERTY LINE
- SH 18 PROPERTY LINE



SITE PLAN APPROVAL

DATE _____

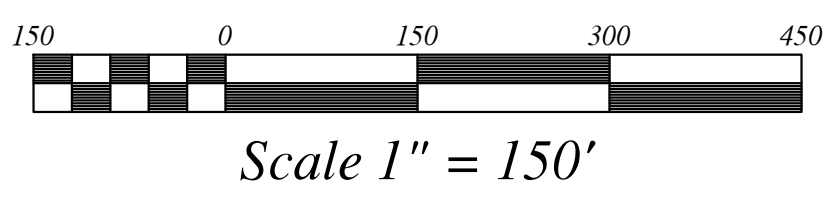
REVISIONS	
OCTOBER 10, 2021	REMOVE PWS & SEPTIC SYSTEM
OCTOBER 12, 2021	RESPONSE TO PAT BRENNAN (INV SH 5 & 6)

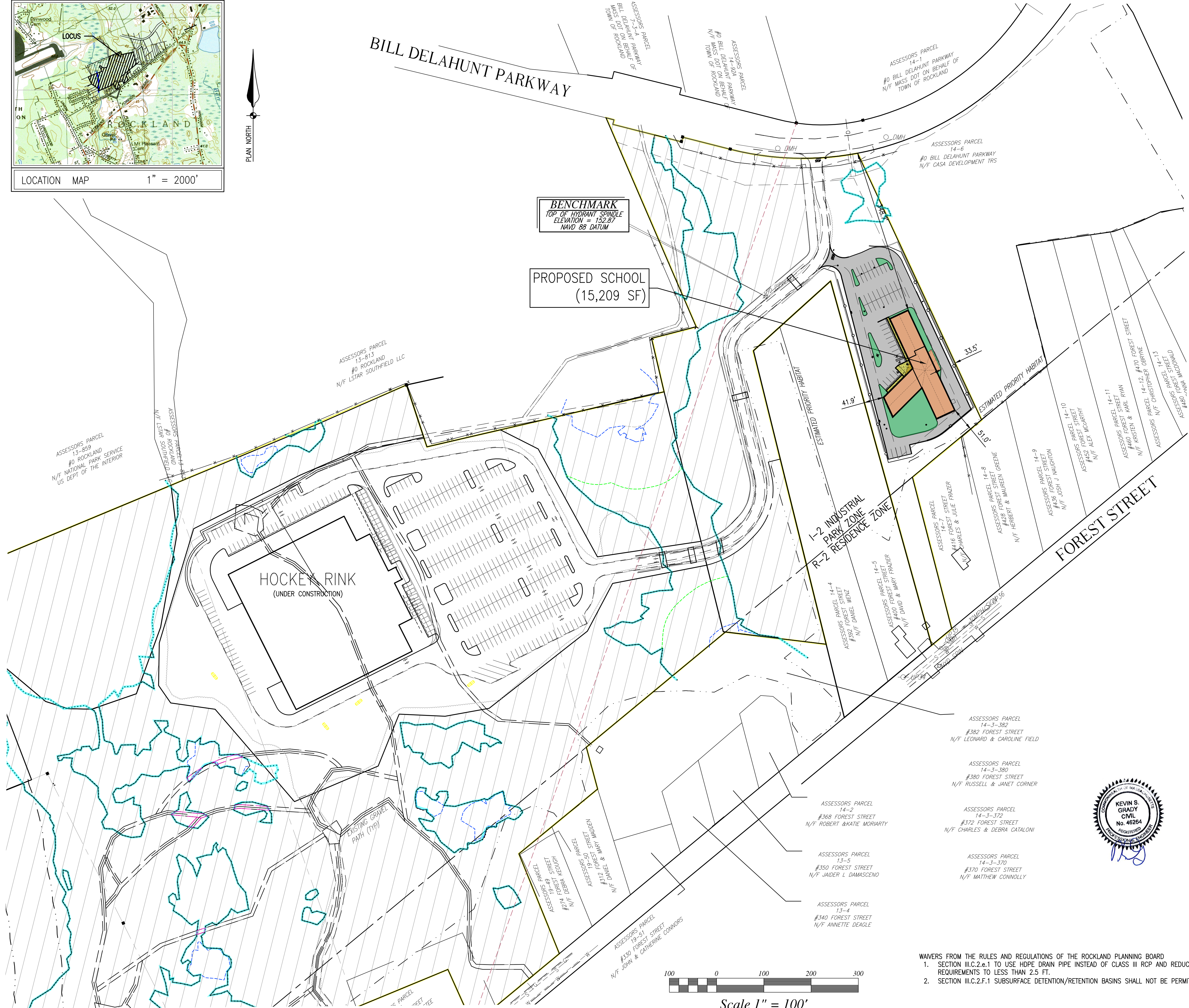
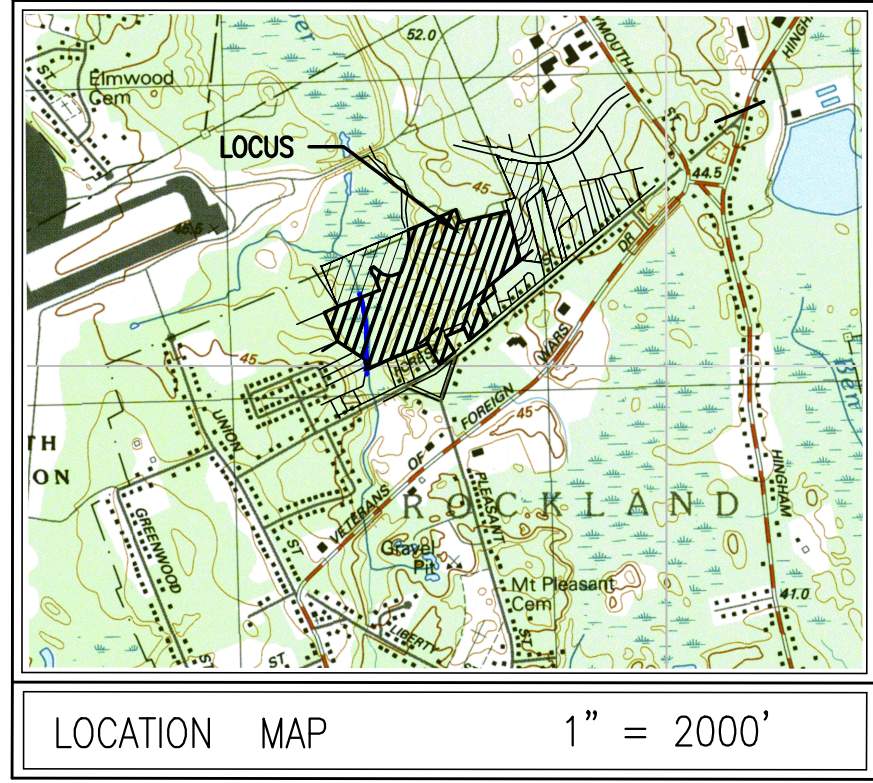
SITE PLAN
LOVELL ACADEMY
120 BILL DELAHUNT PARKWAY
ASSESSORS LOT 14-092
ROCKLAND, MASSACHUSETTS

PREPARED FOR:
FOREST DELAHUNT DEVELOPMENT LLC
LAUREN MONAHAN MANAGING PARTNER
129 JACOBS LANE
NORWELL MA 02061

AUGUST 16, 2021
SCALE: 1"=150'
JOB No. 17-276

GRADY CONSULTING, L.L.C.
Civil Engineers, Land Surveyors &
Landscape Architects
71 Evergreen Street, Suite 1, Kingston, MA 02364
Phone (781) 585-2300 Fax (781) 585-2378





ZONE: I-2 INDUSTRIAL PARK & R-2 RESIDENCE ZONE

EXISTING USE: VACANT, SKATING RINK (UNDER CONSTRUCTION)

PROPOSED USE: EDUCATIONAL FACILITY SCHOOL

MGL CH 40A SECTION 3— NO ZONING ORDINANCE OR BY-LAW SHALL REGULATE OR RESTRICT THE INTERIOR AREA OF A SINGLE FAMILY RESIDENTIAL BUILDING NOR SHALL ANY SUCH ORDINANCE OR BY-LAW PROHIBIT, REGULATE OR RESTRICT THE USE OF LAND OR STRUCTURES FOR RELIGIOUS PURPOSES OR FOR EDUCATIONAL PURPOSES ON LAND OWNED OR LEASED BY THE COMMONWEALTH OR ANY OF ITS AGENCIES, SUBDIVISIONS OR BODIES POLITIC OR BY A RELIGIOUS SECT OR DENOMINATION, OR BY A NONPROFIT EDUCATIONAL CORPORATION; PROVIDED, HOWEVER, THAT SUCH LAND OR STRUCTURES MAY BE SUBJECT TO REASONABLE REGULATIONS CONCERNING THE BULK AND HEIGHT OF STRUCTURES AND DETERMINING YARD SIZES, LOT AREA, SETBACKS, OPEN SPACE, PARKING AND BUILDING COVERAGE REQUIREMENTS.

PARCEL SIZE 2,569,937 S.F. (58.99 ACRES)
1,620,473 S.F. (37.2 ACRES) CONTIGUOUS UPLAND

DIMENSIONAL REQUIREMENTS: 415-5 INTERPRETATION OF BOUNDARIES:
WHERE A DISTRICT BOUNDARY LINE DIVIDES A LOT EXISTING AT THE TIME SUCH LINE IS ADOPTED, THE REGULATIONS APPLYING TO THE PORTION OF SUCH LOT IN THE LESS RESTRICTED DISTRICT MAY BE CONSIDERED AS EXTENDING NOT MORE THAN 30 FEET INTO THE MORE RESTRICTED PORTION, BUT ONLY IF THE LOT HAS FRONTAGE ON A STREET IN THE LESS RESTRICTED DISTRICT. THE PROVISION SHALL NOT BE USED TO DIMINISH THE BUFFER ZONE (REAR YARD DIMENSIONS) REQUIREMENTS BETWEEN RESIDENTIAL AND NON-RESIDENTIAL DISTRICTS AS CONTAINED IN§ 415-22.

REQUIRED	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	-----	2,569,937 S.F.	2,569,937 S.F.
LOT FRONTAGE	110 FT	203.22 FT	203.22 FT
LOT WIDTH @ 50' SETBACK	110'	203.22 FT	203.22 FT
FRONT YARD	50 FT	-----	348.7FT
SIDE YARD**	30 FT	-----	33.5 & 41.9 FT
REAR YARD**	30 FT	-----	51 FT
** 50 FT IF THE ABUTTING LAND IS IN ANY RESIDENTIAL DISTRICT			
MAX BUILDING COVERAGE	ALLOWED 50%	-----	4.2% (94750+15209/2,569,937)
BUILDING HEIGHT	3	-----	3
STORIES	36 FT	-----	36 FT
HEIGHT			

PARKING ANALYSIS

ZBL 415-35 — OFF STREET PARKING REQUIREMENTS: D.(4) SCHOOLS 1.5 SPACES PER CLASSROOM AND 1 SPACE FOR EVERY NON-PROFESSIONAL EMPLOYEE

REQUIRED PARKING: 8 CLASSROOMS , 19 NON-PROFESSIONAL EMPLOYEES
1 JANITOR, 6 CHAPERONES, 4 TEACHERS, 2 ADMINISTRATORS, 1 NURSE, 1 SECURITY, 4 KITCHEN.

REQUIRED:		
CLASSROOMS:	10 X 1.5	= 15 SPACES REQUIRED
EMPLOYEE (NON-PROFESSIONAL & PRO.)		= 19 SPACES REQUIRED
PROPOSED		= 34 SPACES REQUIRED
		= 51 SPACES PROPOSED

(30% ALLOWED TO BE COMPACT 9'X18': 15 ALLOWED, 14 PROPOSED)

RECORD OWNER:
ASSESSOR MAP 14 LOT 92
0 BILL DELAHUNT PARKWAY
FOREST DELAHUNT DEVELOPMENT LLC
DEED BOOK 54183 PAGE 246
PLAN BOOK 64 PAGE 822

ASSESSOR MAP 19 LOT 47
0 FOREST STREET
FOREST DELAHUNT DEVELOPMENT LLC
DEED BOOK 54183 PAGE 246
PLAN BOOK 64 PAGE 822
CERTIFICATE 131245
LC PLAN 35481A

ASSESSOR MAP 19 LOT 108
0 FOREST STREET
FOREST DELAHUNT DEVELOPMENT LLC
BOOK 53981 PAGE 301
CERTIFICATE 131244
LC PLAN 35481B

ASSESSOR MAP 13 LOT 3
338 FOREST STREET
FOREST DELAHUNT DEVELOPMENT LLC
DEED BOOK 53980 PAGE 301
PLAN BOOK 25 PAGE 423

ASSESSOR MAP 13 LOT 1
0 FOREST STREET
FOREST DELAHUNT DEVELOPMENT LLC
DEED BOOK 54183 PAGE 246
PLAN BOOK 64 PAGE 822

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SITE PLAN

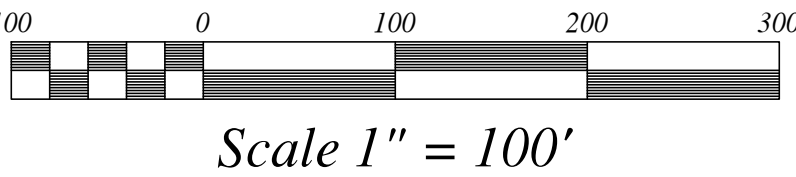
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120 BILL DELAHUNT PARKWAY
ASSESSORS LOT 14-092
ROCKLAND, MASSACHUSETTS

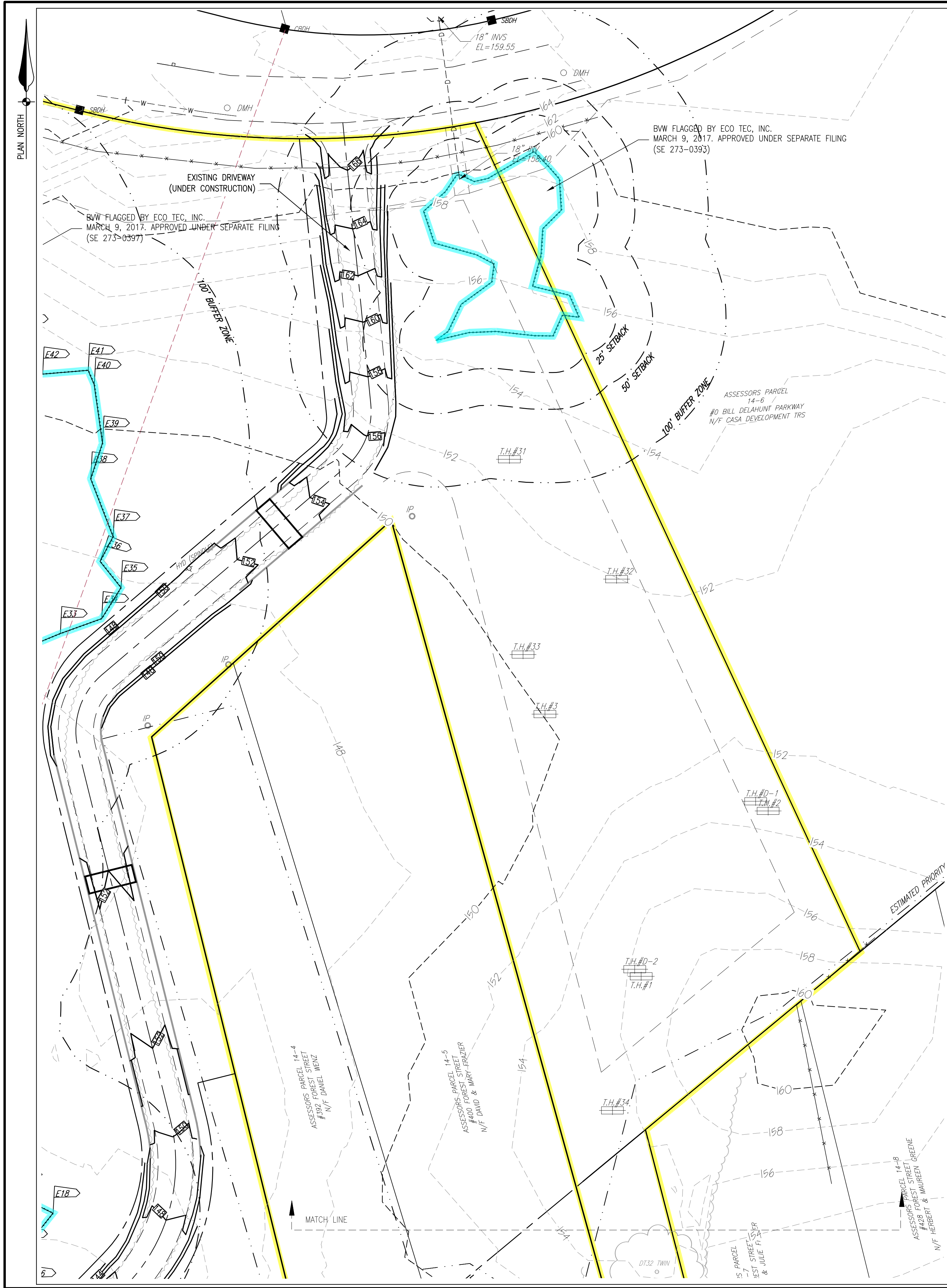
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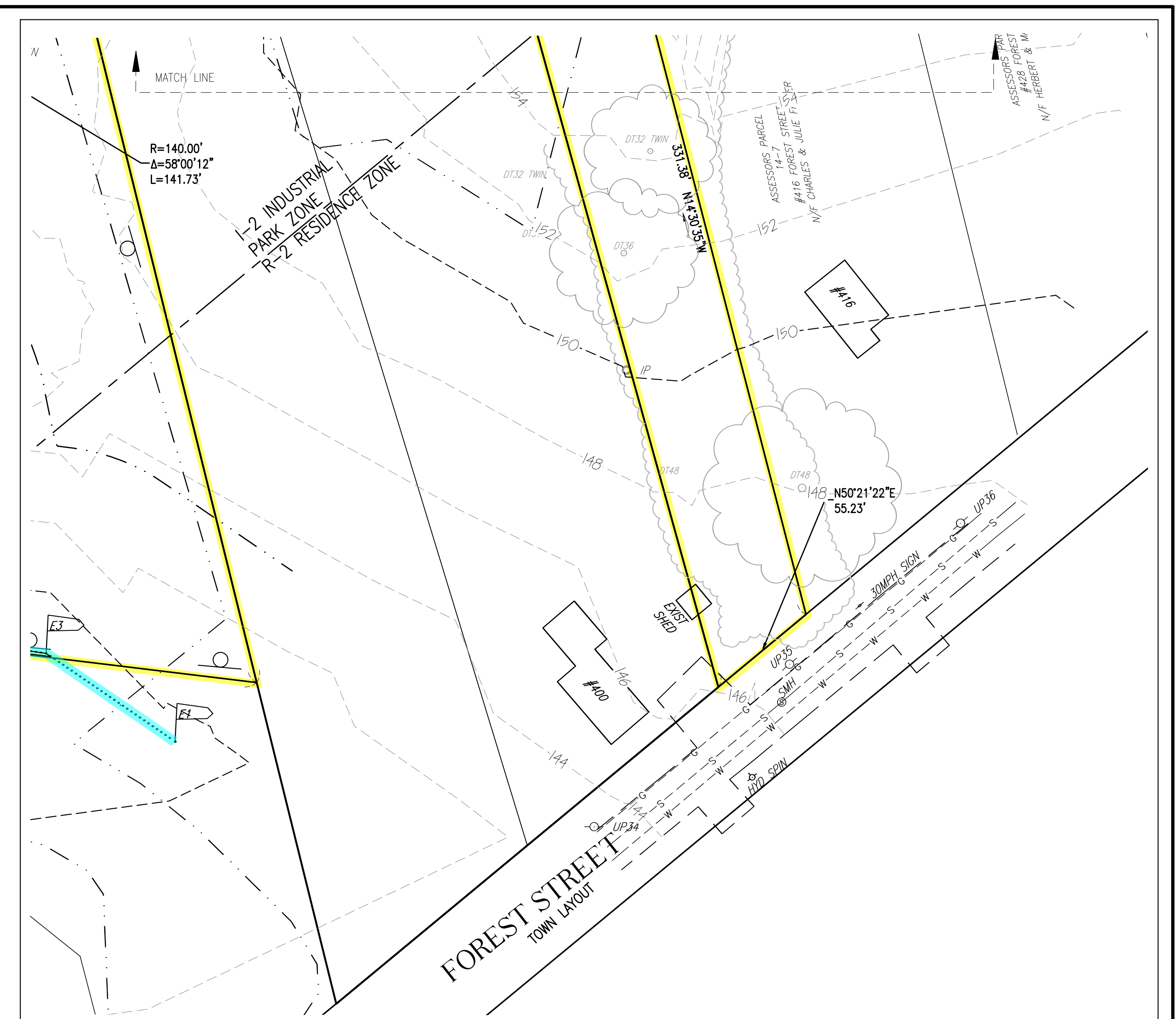
AUGUST 16, 2021
SCALE: 1"= 100'
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- WAIVERS FROM THE RULES AND REGULATIONS OF THE ROCKLAND PLANNING BOARD
- SECTION III.C.2.e.1 TO USE HDPE DRAIN PIPE INSTEAD OF CLASS III RCP AND REDUCTION IN PIPE COVER REQUIREMENTS TO LESS THAN 2.5 FT.
 - SECTION III.C.2.F.1 SUBSURFACE DETENTION/RETENTION BASINS SHALL NOT BE PERMITTED WITHOUT A WAIVER.







ARCHITECTURAL CAP
TOP OF FENCE TO REMAIN LEVEL
3 1/2" WIDE CEDAR FACIA FRAME
8'-0"

6" SQ. CEDAR POST
T&G V-MATCHED TONGUE AND GROOVE CEDAR BOARDS
6'-0"

FINISH GRADE

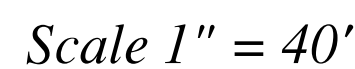
2" MIN.
6" MAX.

3'-0"

COMPACTED OR UNDISTURBED SUBGRADE
COMPACTED GRAVEL BORROW

This technical drawing illustrates the cross-section of a fence. The fence is 8 feet high, with a 3 1/2-inch wide cedar fascia frame at the top. The top of the fence is to remain level, and an architectural cap is shown. The fence is constructed from 6-inch square cedar posts and T&G V-matched tongue and groove cedar boards. The fence is set on a 3-foot wide base of compacted gravel borrow, which is on top of compacted or undisturbed subgrade. The gravel base is 2 inches minimum and 6 inches maximum thick. The finish grade is indicated on the right side of the drawing.

1



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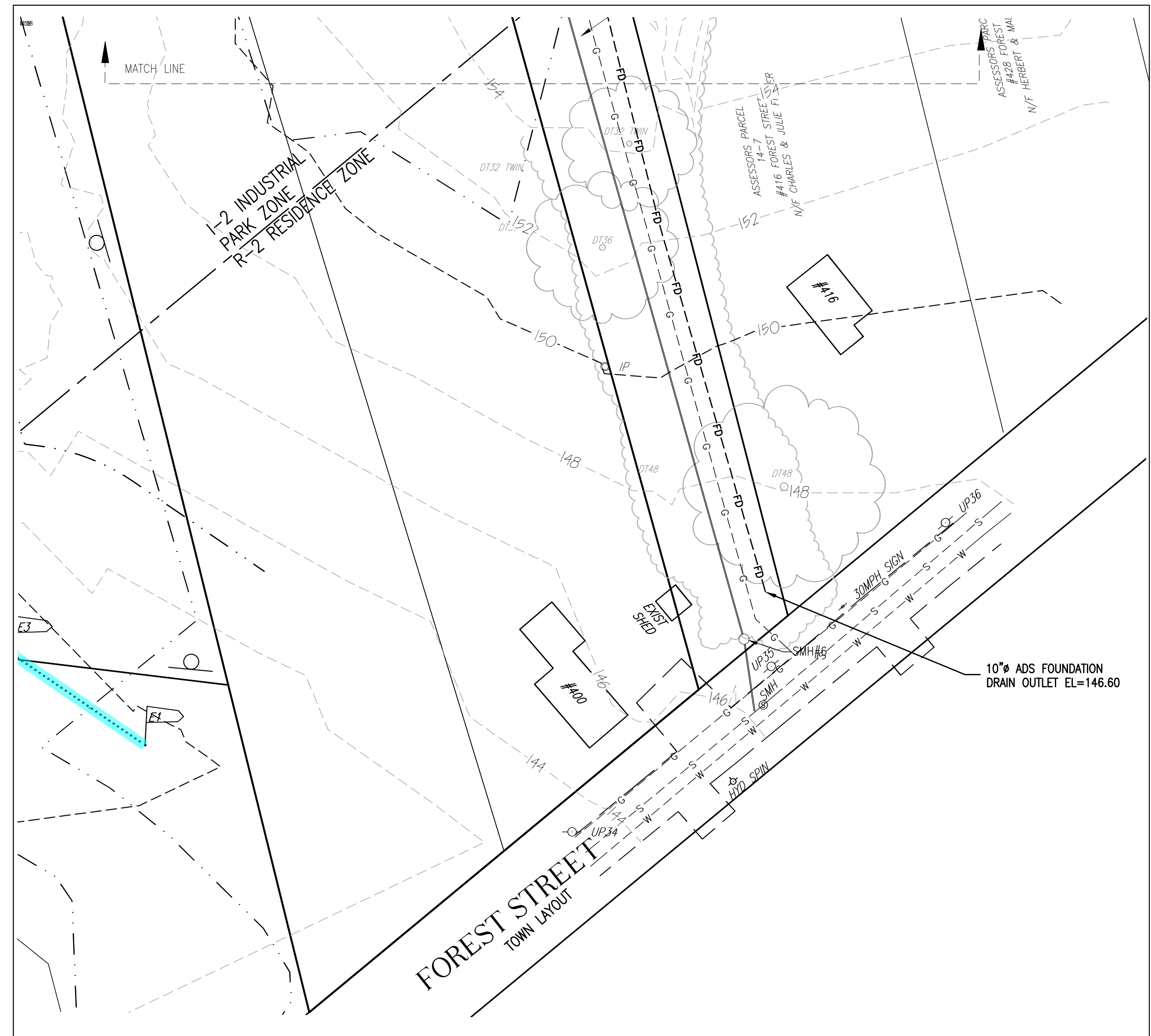
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SHEET 4 OF 18

LAYOUT AND GRADING



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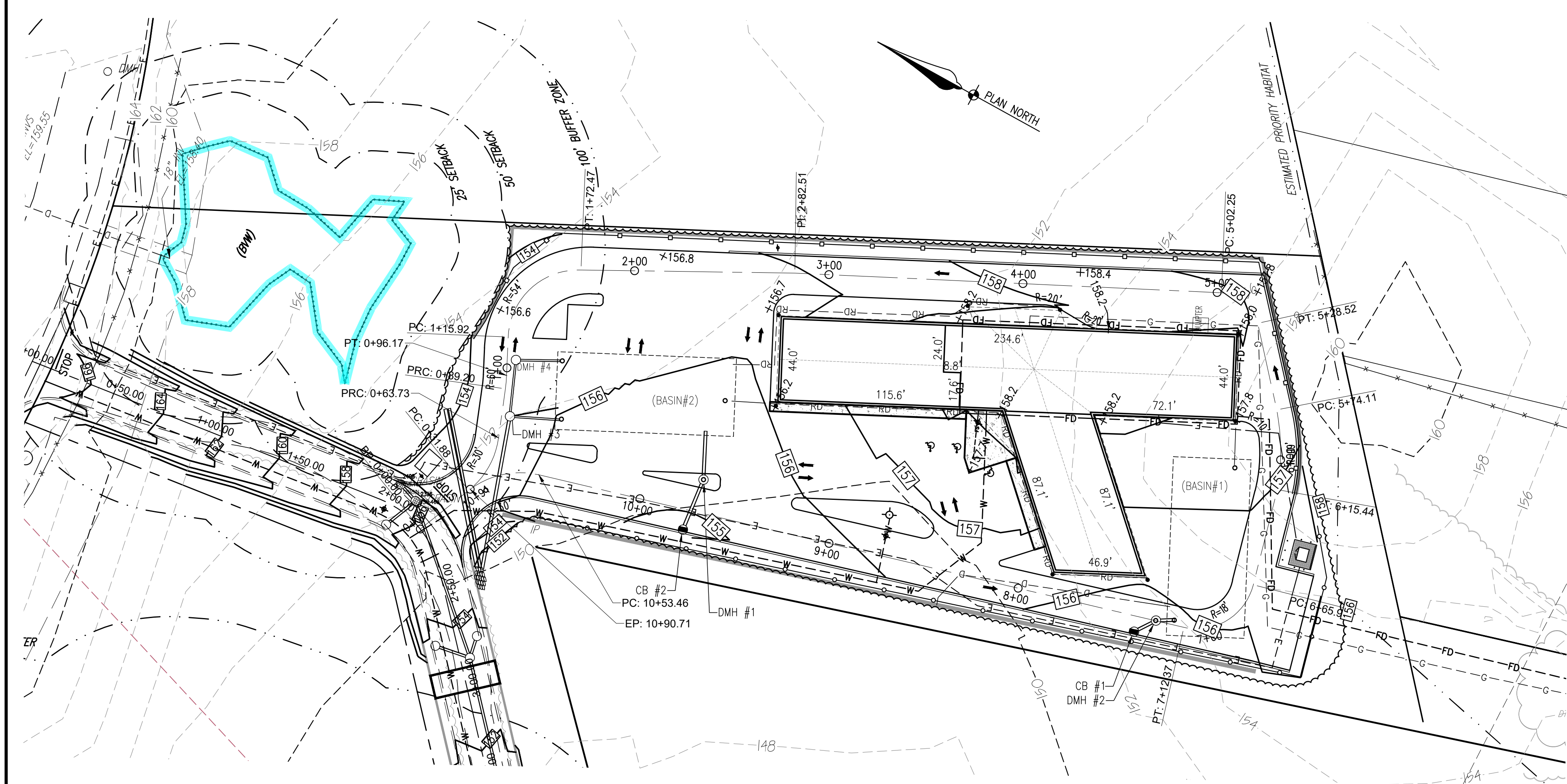
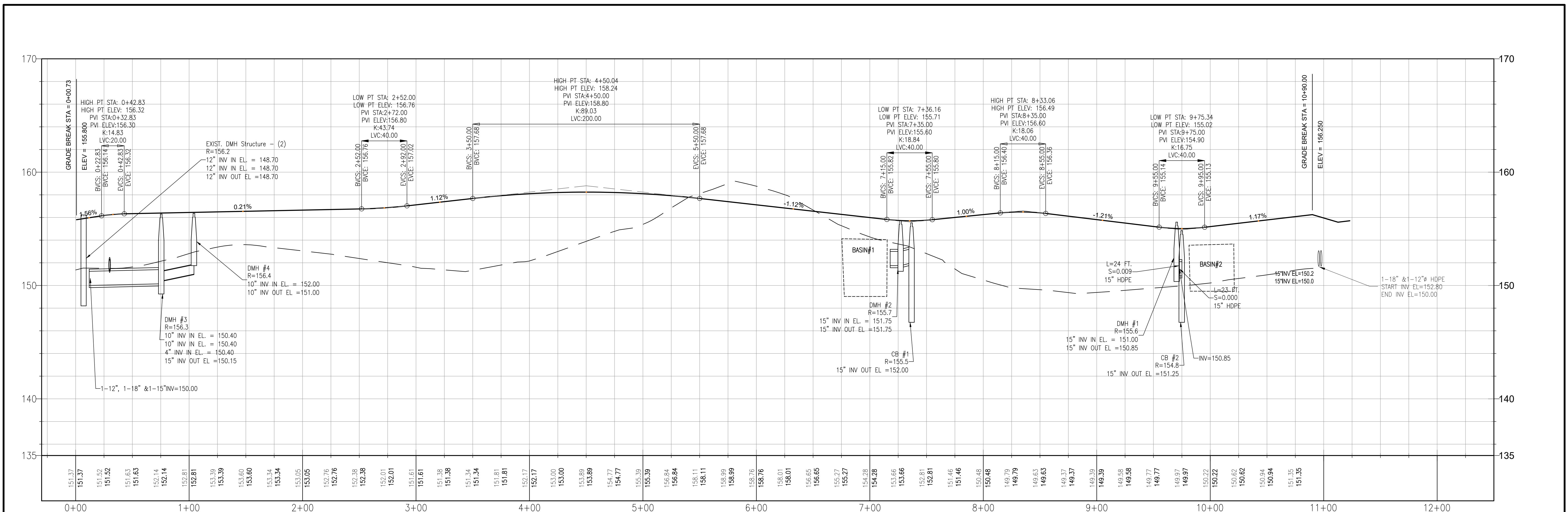
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SHEET 5 OF 10

Scale 1" = 40'



SCALE: 1"=40' HORIZONTAL
1"=4' VERTICAL

SITE PLAN APPROVAL

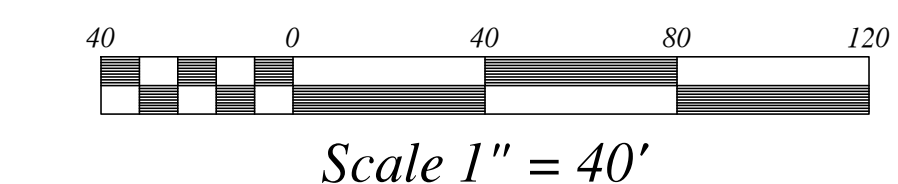
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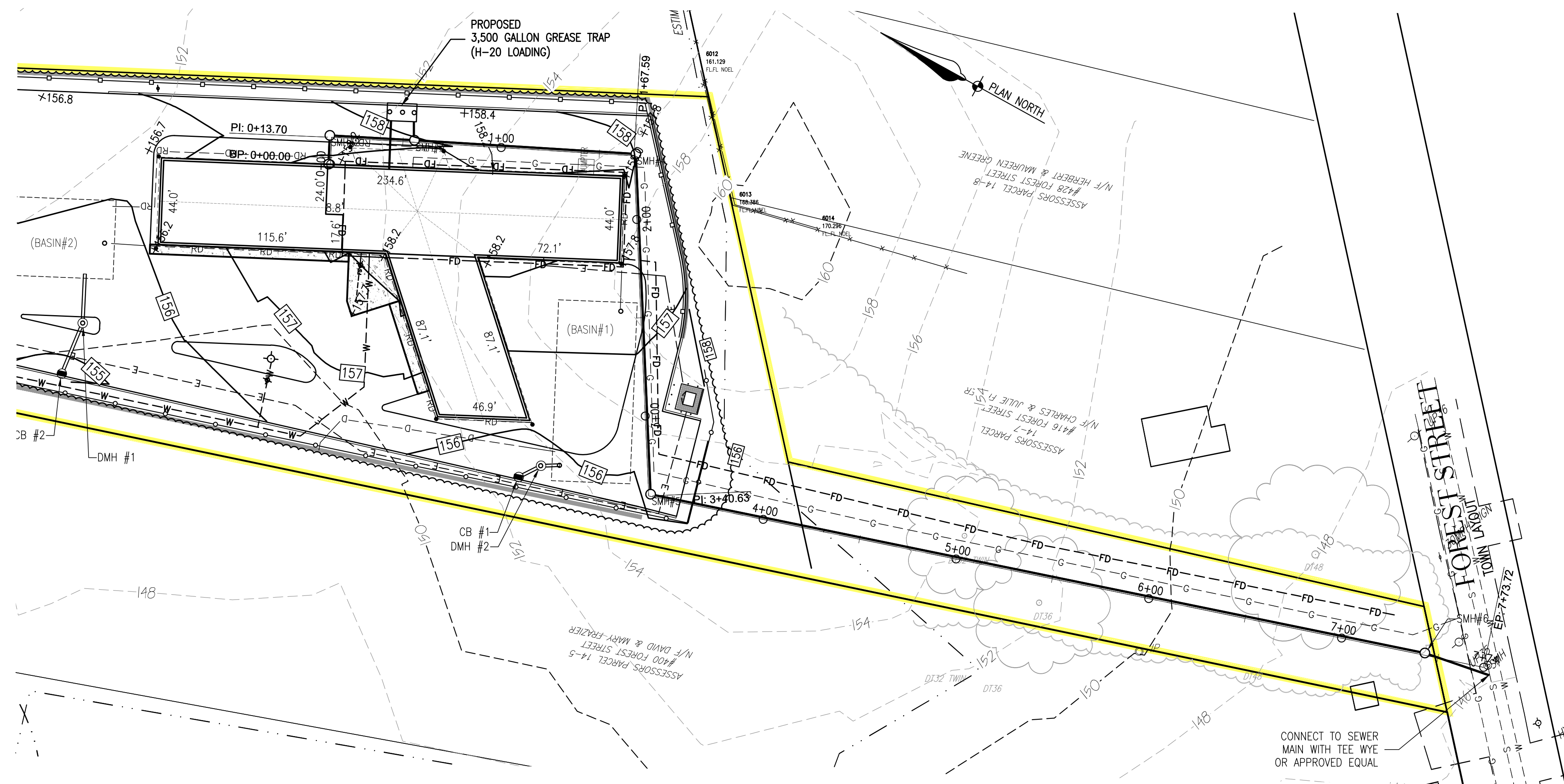
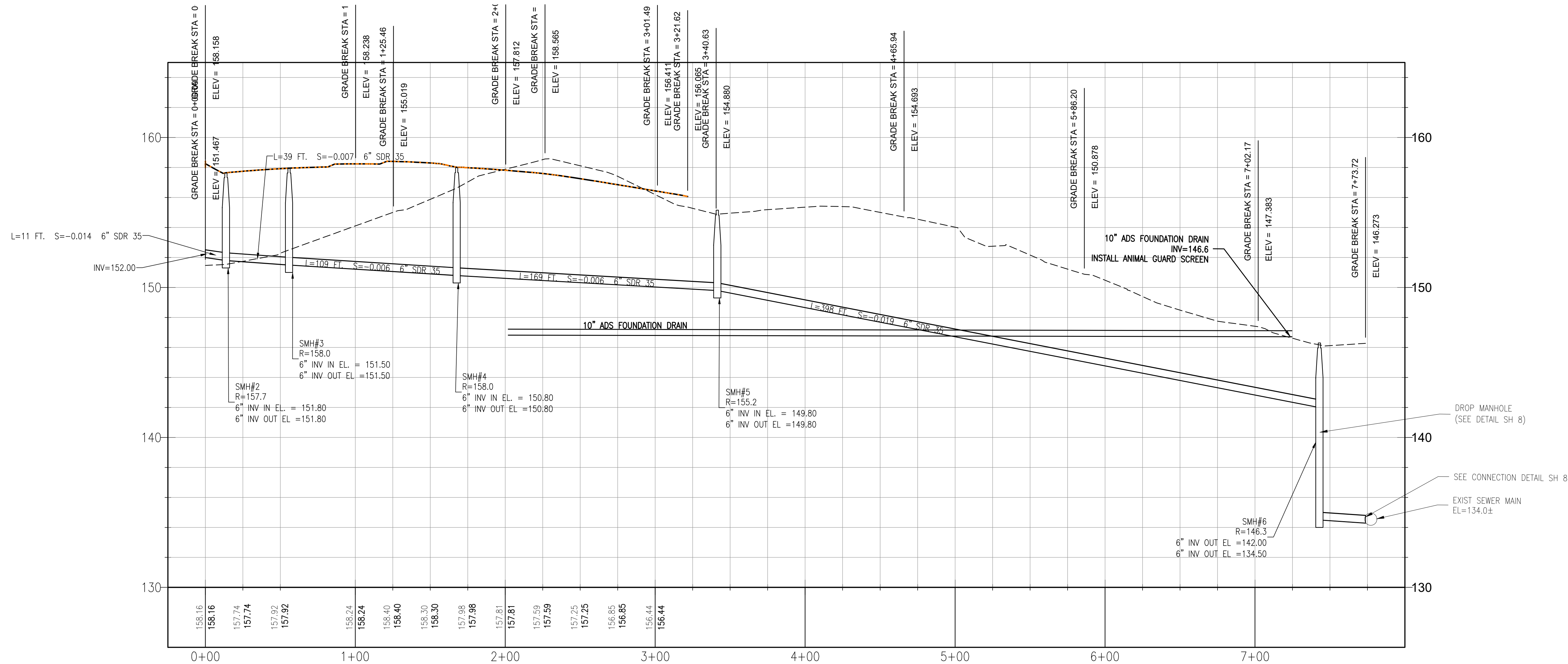
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PLAN & PROFILE



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1"=4' VERTICAL

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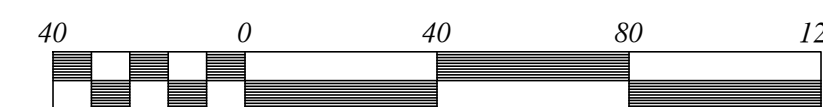
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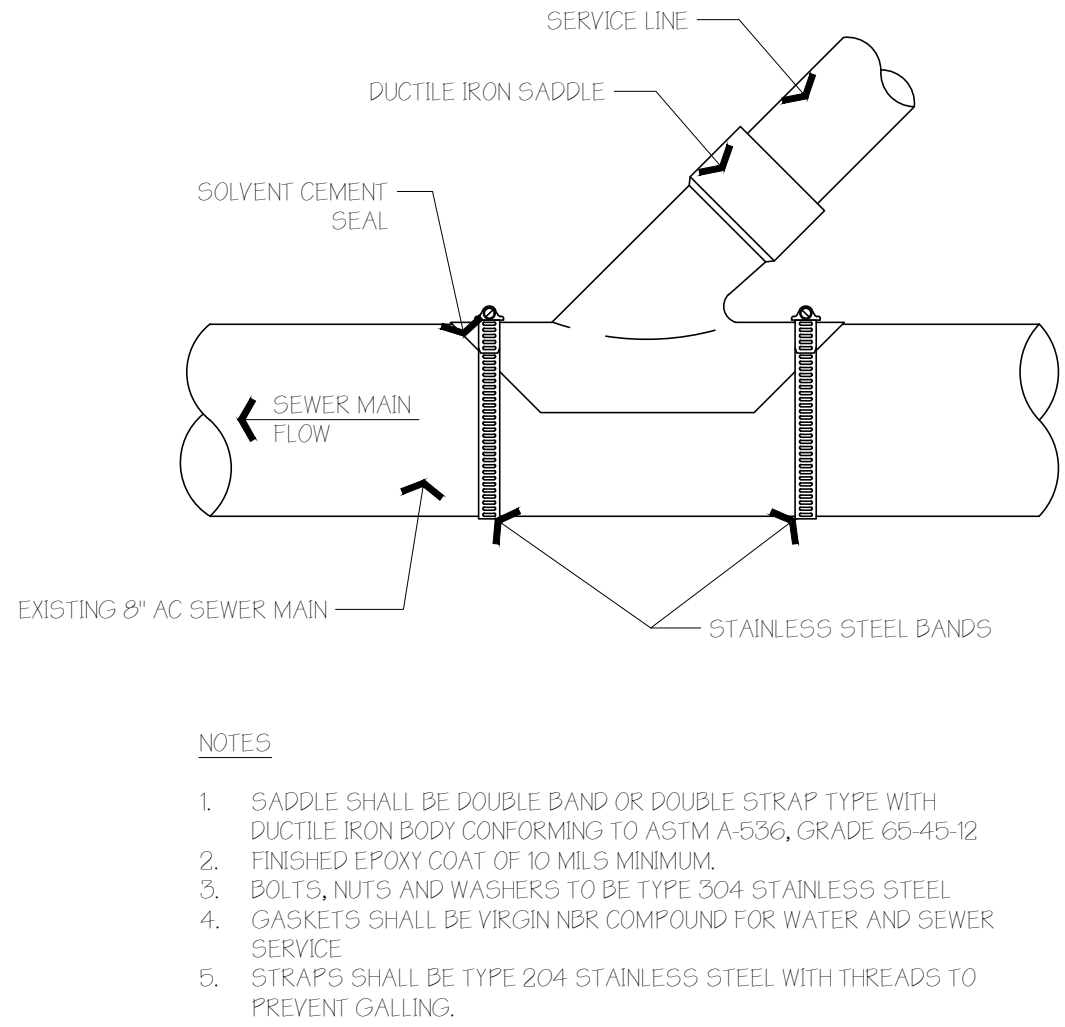
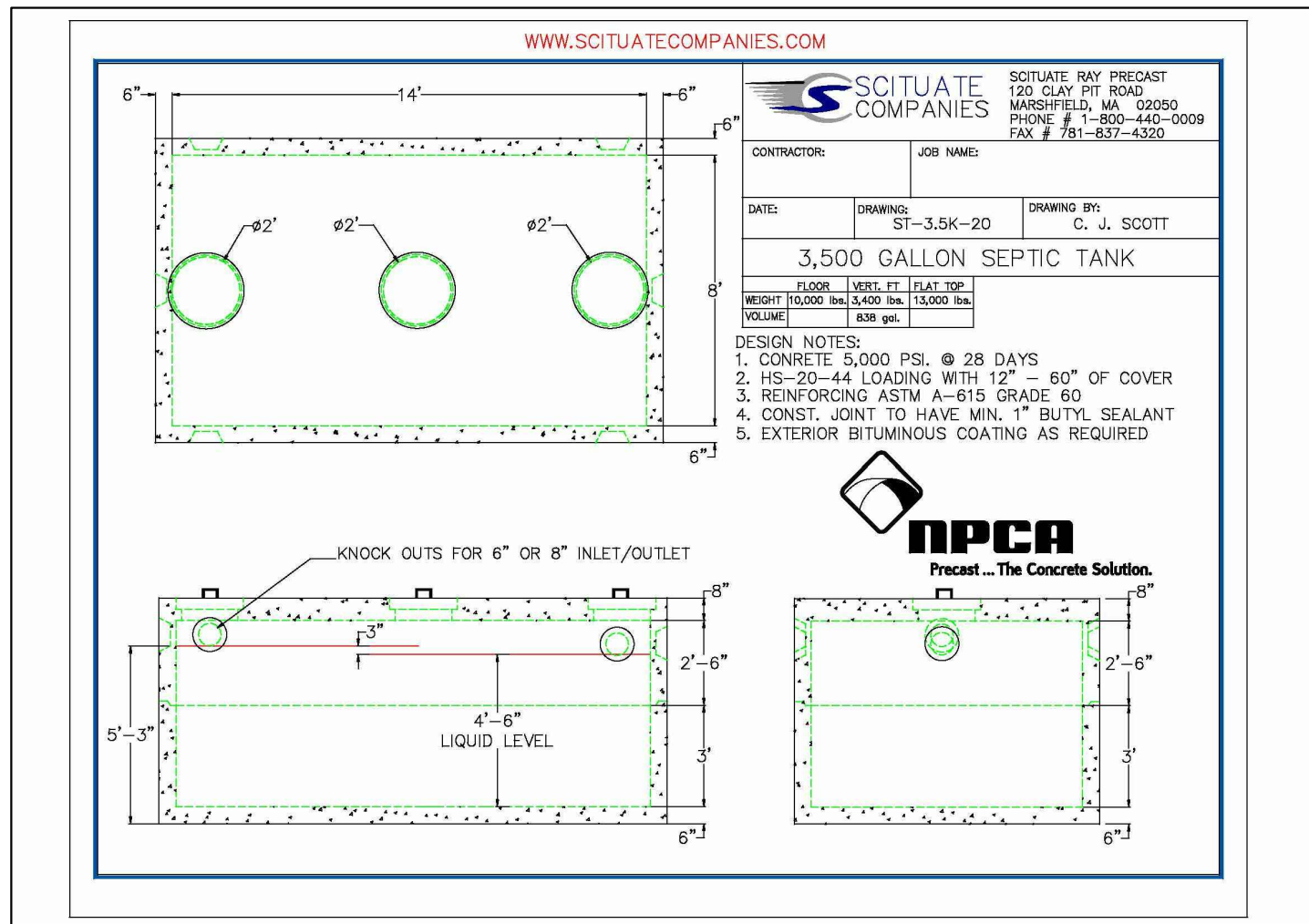
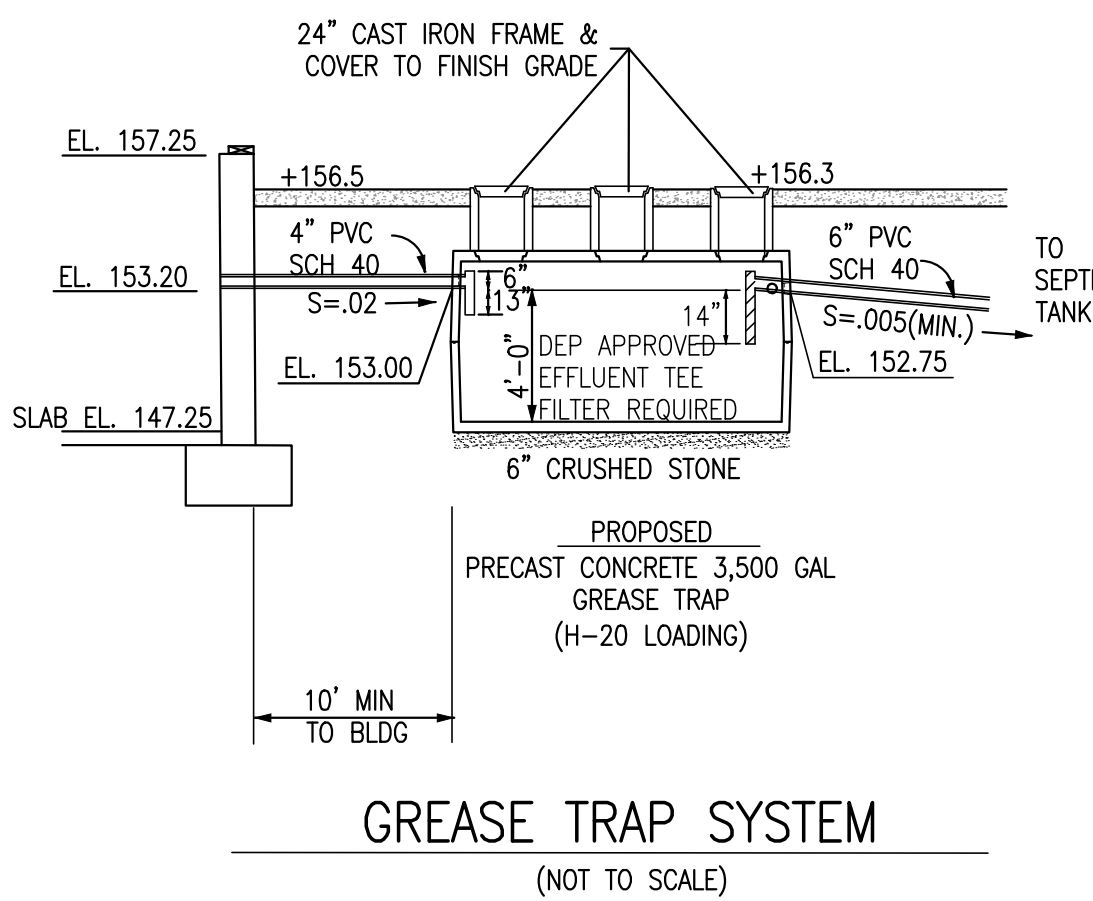
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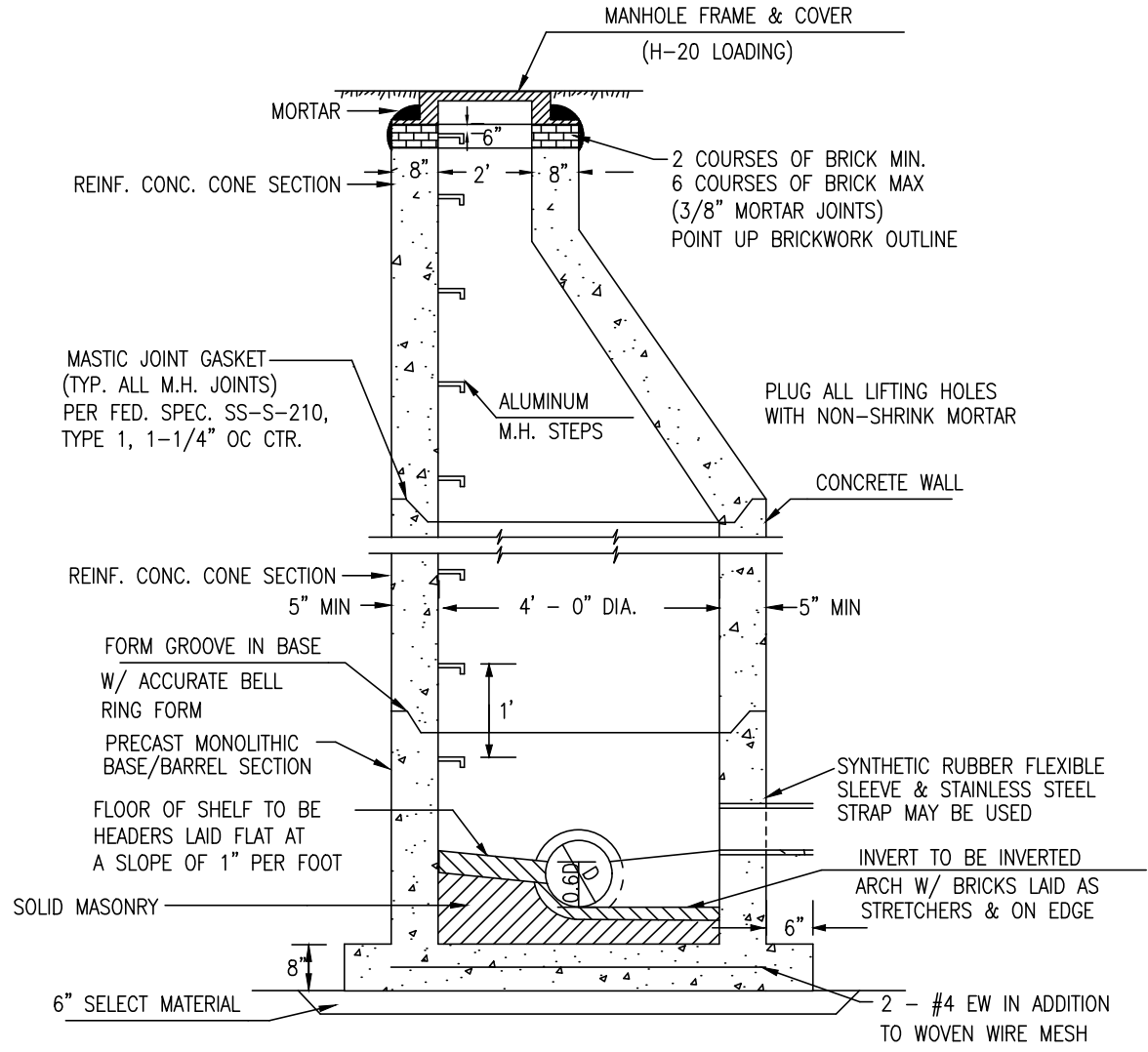
PLAN & PROFILE



T.H.#31 EL. 152.64		T.H.#32 EL. 152.00		T.H.#33 EL. 150.22		T.H.#34 EL. 155.41	
0'-6" A LOAM	152.14	0'-6" A LOAM	151.50	0'-6" A LOAM	149.72	0'-6" A LOAM	154.91
6'-36" B LOAMY SAND	149.64	6'-36" B LOAMY SAND	149.00	6'-28" B LOAMY SAND	147.89	6'-24" B LOAMY SAND	153.41
36'-108" C LOAMY SAND		36'-98" C LOAMY SAND		28'-92" C LOAMY SAND		24'-84" C LOAMY SAND	
					142.55		
	143.64		143.83		140.22		148.41
D=9'-0" NO MOTTILING WEPPING @ 8'-5" (EL=144.14)		D=8'-2" MOTTILING @ 6'-4" (EL=145.67)		D=10'-0" MOTTILING @ 7'-6" (EL=142.72)		D=7'-0" NO WATER	

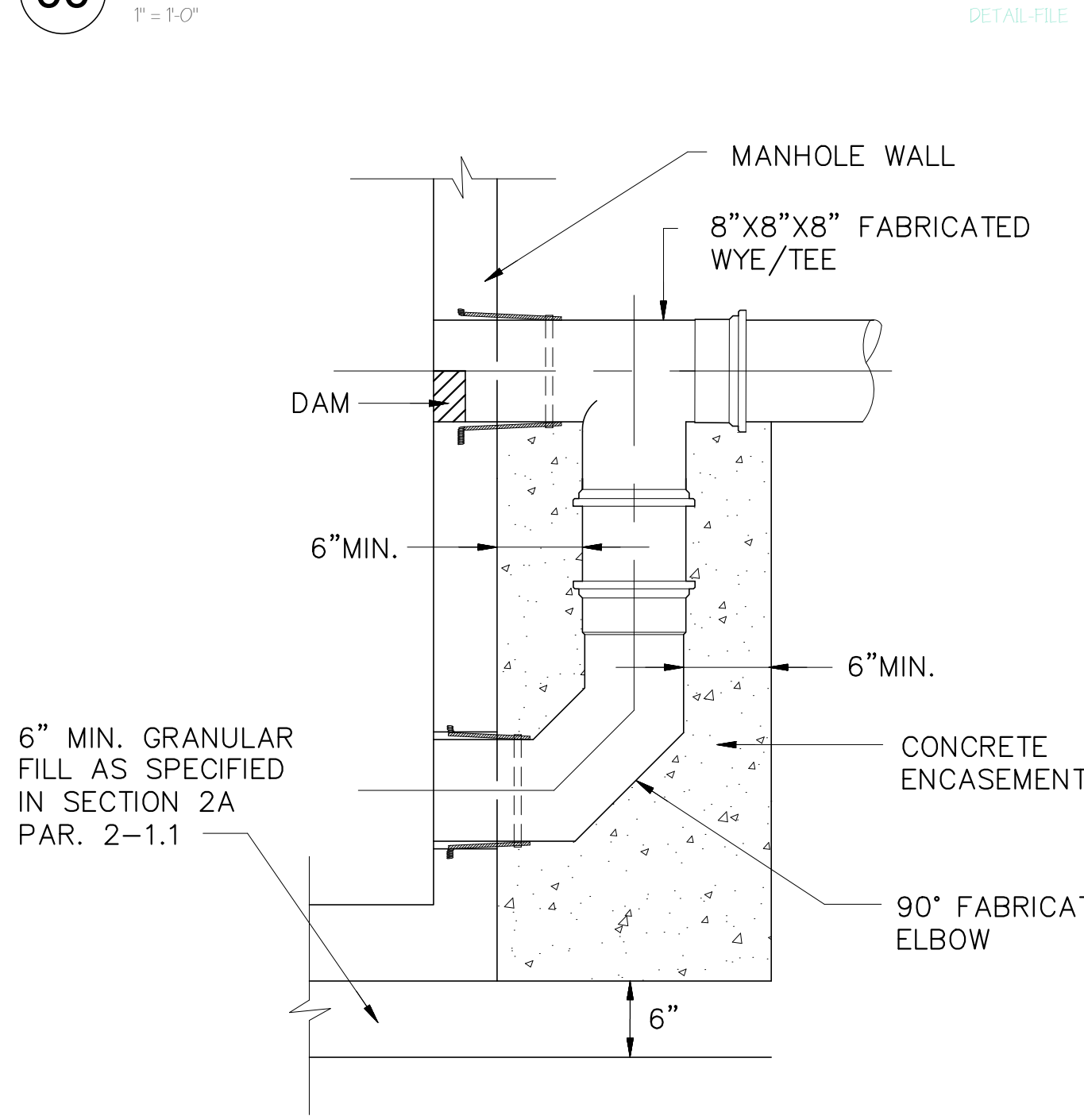
SOILS TESTING BY KEVIN GRADY, GRADY CONSULTING WITNESSED BY WILL BARRETT JULY 30, 2021.

3,500 GAL GREASE TRAP (H-20 LOADING)
(NOT TO SCALE)

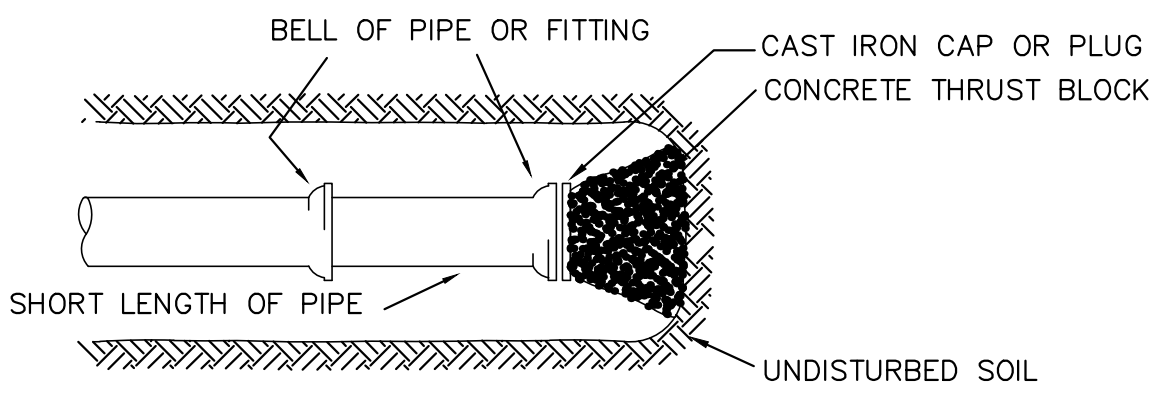


SANITARY SEWER MANHOLE
NOT TO SCALE

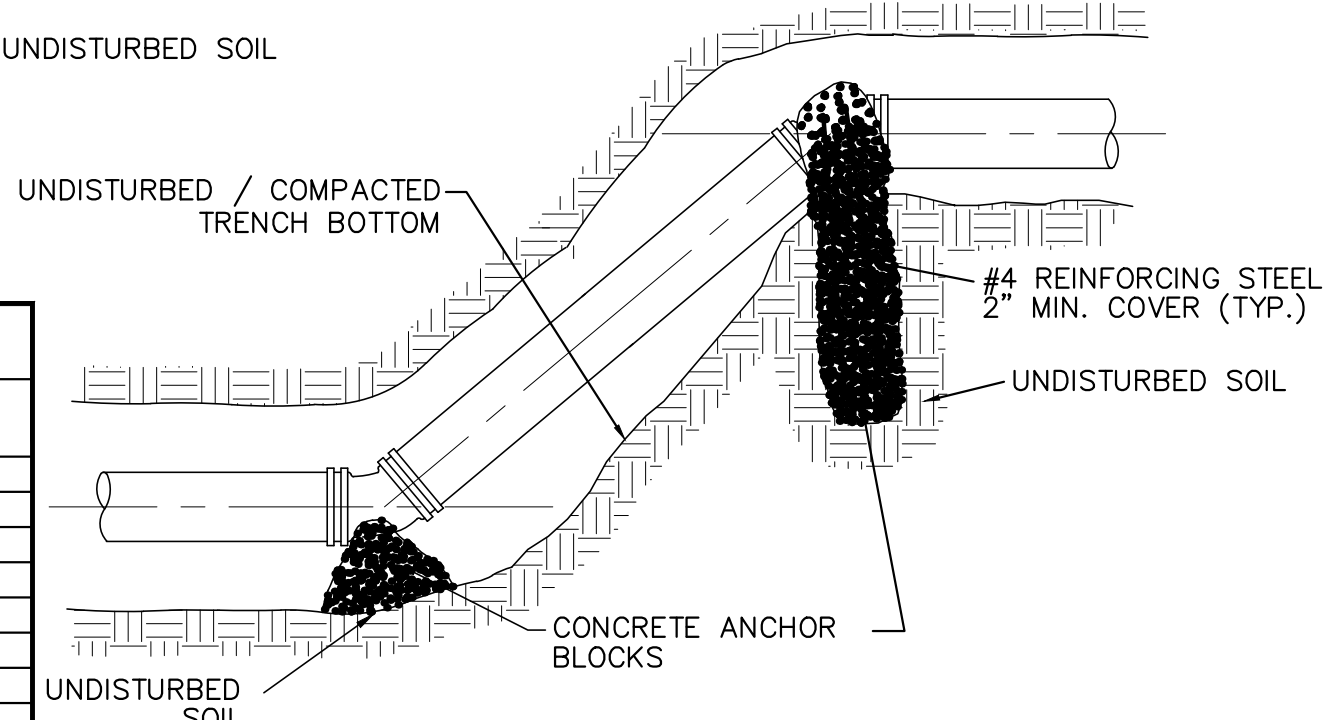
00 SADDLE SEWER CONNECTION
1" = 1'-0"



TYPICAL DROP. CONNECTION DETAIL
NOT TO SCALE

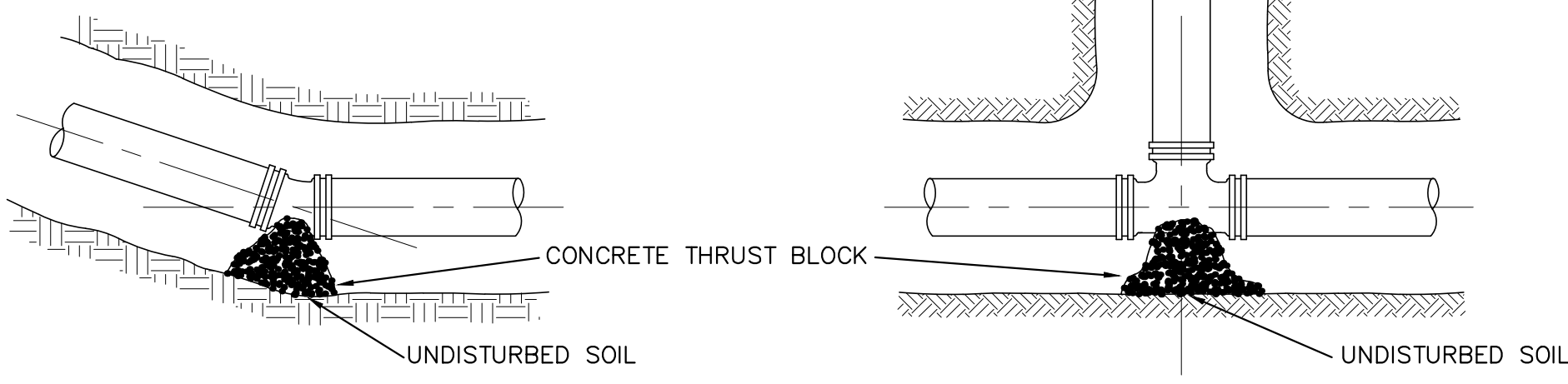


NOTE: COVER FITTINGS WITH 3 MIL POLYETHYLENE TO PROTECT BOLTS FROM CONCRETE



ANCHORAGE DETAILS
NOT TO SCALE

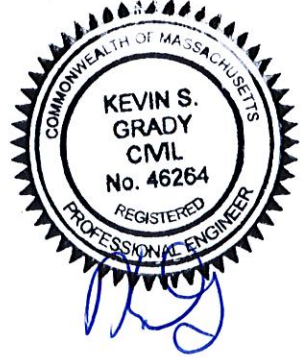
THRUST BLOCK REQUIREMENTS	
FITTING	MIN BEARING AREA (SF)
8" X 1/8 BEND	12
12" X 8" TEE	12
10" X 8" TEE	10
8" X 8" TEE	9
8" X 6" TEE	5
8" CAP / PLUG	12
12" X 8" REDUCER	8
10" X 8" REDUCER	6
8" X 6" REDUCER	4
8" 22 1/2" & 45° BENDS	8
ALL TEES AND VALVES	10
HYDRANTS	9



NOTE: COVER MECHANICAL JOINTS WITH 3 MIL POLYETHYLENE TO PROTECT BOLTS FROM CONCRETE THRUST BLOCK

ROCKLAND PLANNING BOARD
SITE PLAN APPROVAL

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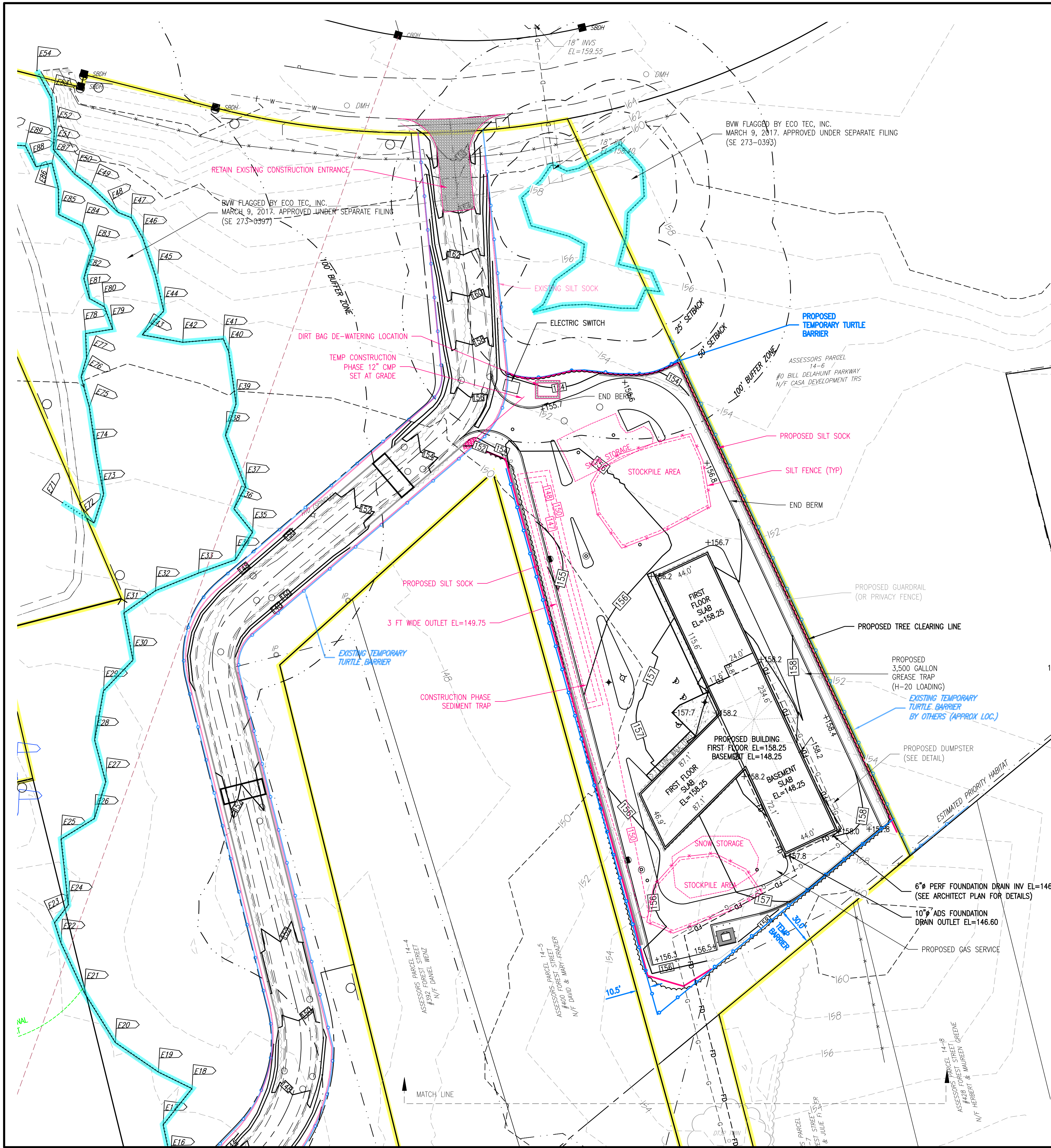


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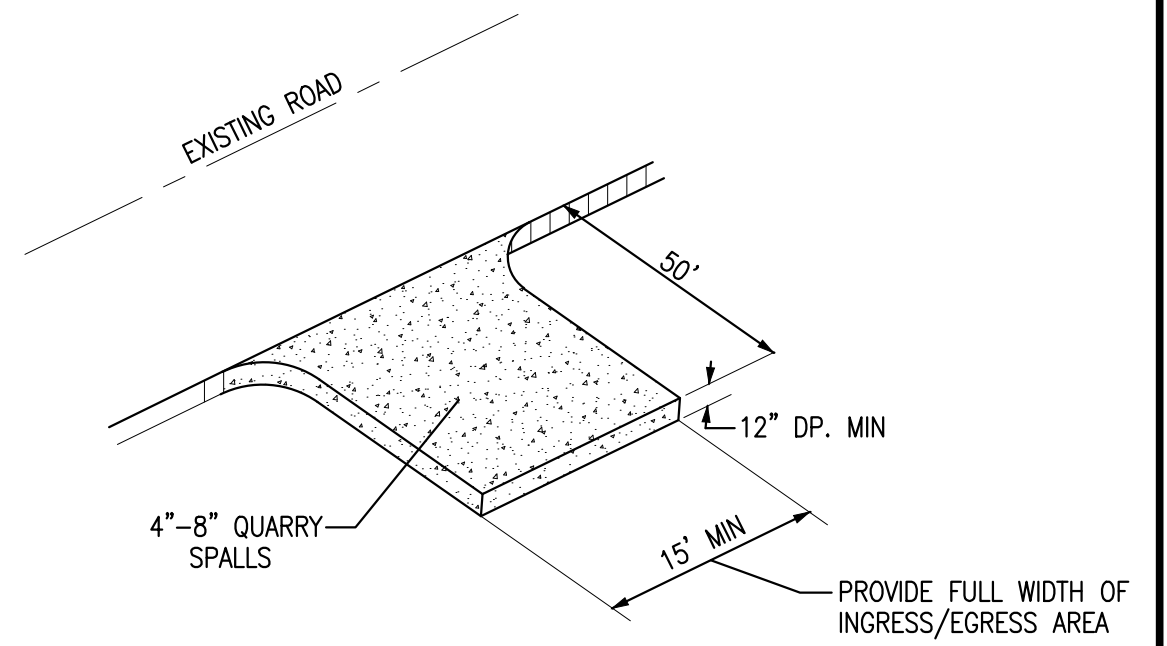
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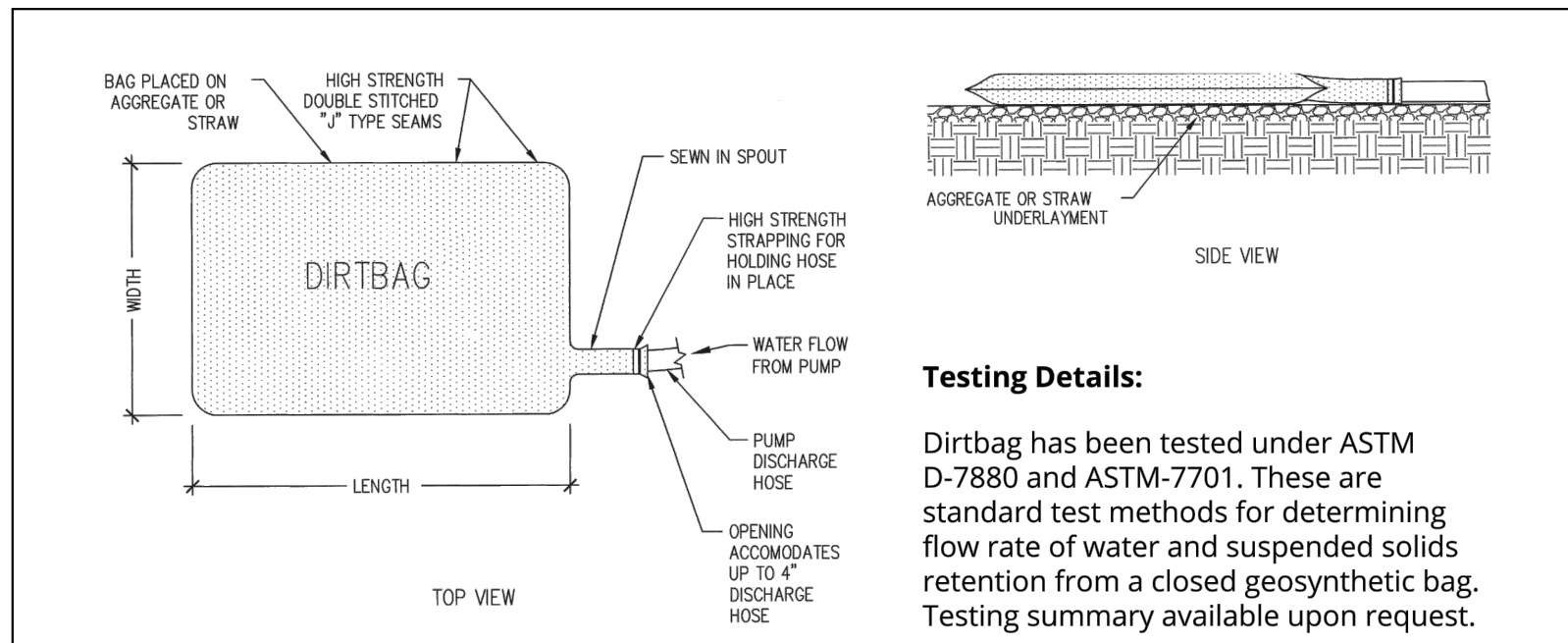
Project:
Basin Description: CONSTRUCTION PHASE SEDIMENT TRAP

Contour Elevation	Contour Area (sq. ft)	Depth (ft)	Incremental Volume Avg. End (cu. ft)	Cumulative Volume Avg. End (cu. ft)
147.000	1,190.28	N/A	N/A	0.00
148.000	2,703.43	1.000	1946.86	1946.86
150.000	6,639.87	2.000	9343.30	11290.16

10972 CF OF RUNOFF IN 2 YEAR STORM SET 3 FT TRAPEZOIDAL WEIR AT ELEV= 149.75

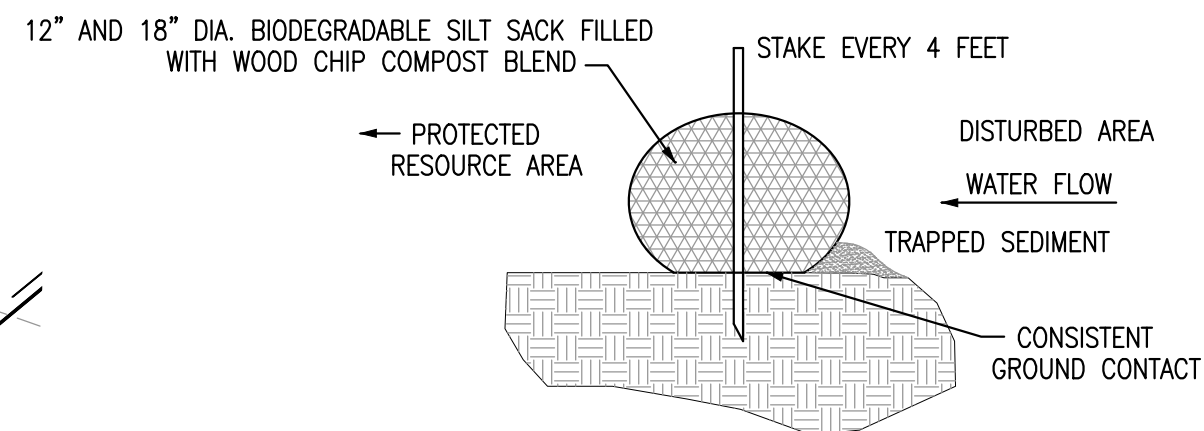


CRUSHED STONE CONSTRUCTION ENTRANCE
(NOT TO SCALE)

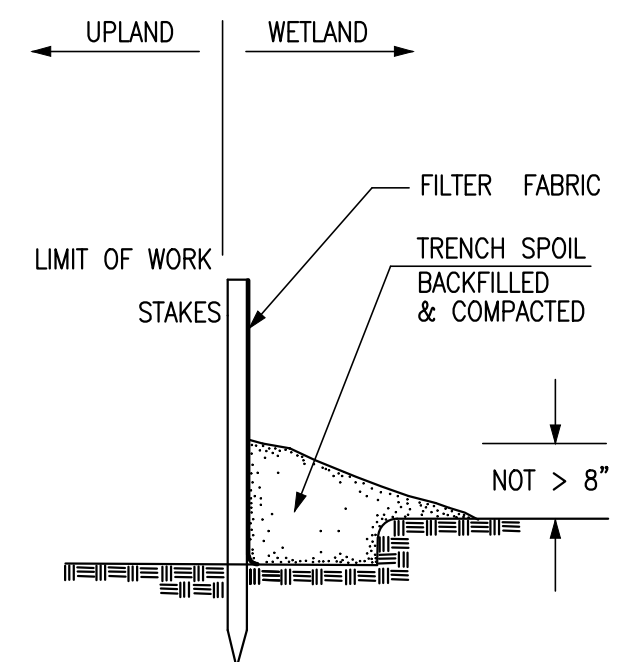


- DEWATERING BAG NOTES:
1. ANY PUMP DISCHARGES SHALL BE DIRECTED TO THE DEWATERING BAG.
 2. 10'x15' PART #9725-SED AS MANUFACTURED BY BOOM ENVIRONMENTAL PRODUCTS, 1 COFFIN AVENUE, NEW BEDFORD, MA 02746 617-965-0007 SALES@BOOMENVIRO.COM (OR APPROVED EQUAL)
 3. MONITOR BAG AND REPLACE IF DAMAGED OR OVERLOADED WITH SEDIMENT.
 4. MONITOR WATER DISCHARGE AND INSTALL ADDITIONAL EROSION CONTROL SURROUNDING BAG AS NEEDED.
- DEWATERING SHALL BE DIRECTED TO DIRTBAGS, CONSTRUCTION PERIOD SILT TRAPS OR APPROVED ALTERNATIVE PRIOR TO DISCHARGE.

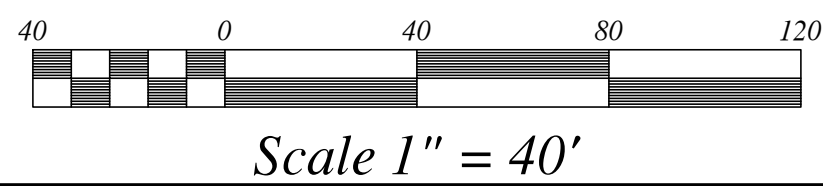
NOTE:
SNOW TO BE REMOVED FROM SITE IF SNOW STORAGE CAPACITY IS EXCEEDED.
SNOW SHALL NOT BE PLACED ON ABUTTING PROPERTIES OR WITHIN 50 FT OF A WETLAND RESOURCE AREA.



SILT SOCK DETAIL
NOT TO SCALE



SILT FENCE/TURTLE BARRIER (CONSTRUCTION PHASE)
(NOT TO SCALE)



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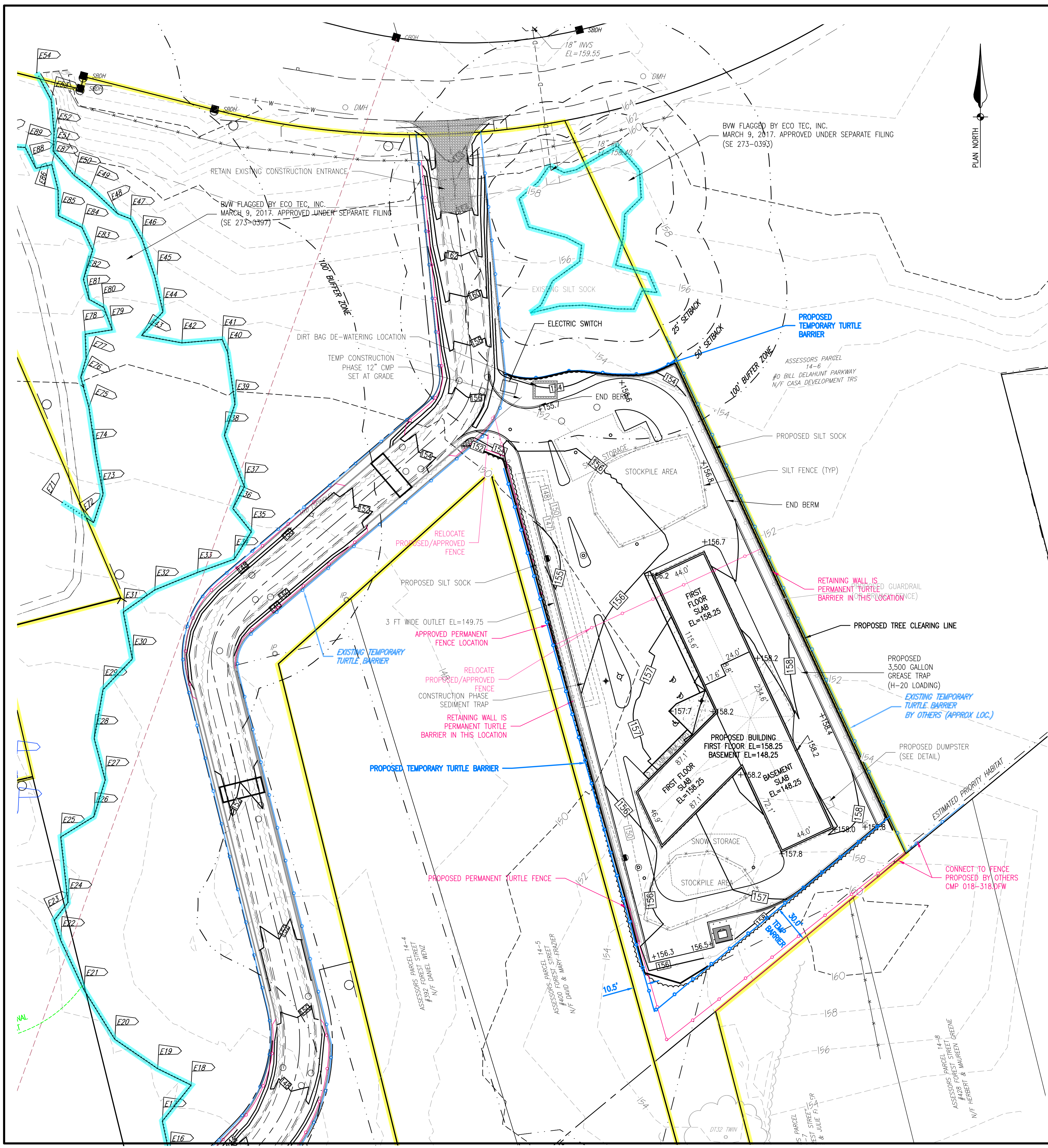
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EROSION CONTROL



LEGEND

PROPOSED TEMPORARY TURTLE BARRIER

PROPOSED PERMANENT TURTLE BARRIER

PLAN NORTH

THE RETAINING WALL SHALL SERVE AS THE PERMANENT TURTLE BARRIER. THE FENCE SHALL TIE INTO THE WALL AS SOON AS THE WALL IS 2 FT PLUS IN HEIGHT

1 1/2" O.D. GALV. TOP RAIL

1" BLACK VINYL COATED CHAIN LINK FABRIC 9 GA.

2 1/2" CORNER & END POST

3/4" TENSION BANDS W/ TENSION BAR AT ENDS AND CORNERS

3/4" TRUSS ROD WITH TURNBUCKLE (AT ENDS AND CORNERS)

TIES @ 24" O.C. ALONG TOP AND BOTTOM RAIL

1 1/2" GALV. BOTTOM RAIL

FINISH GRADE

BOTTOM 6" (MIN) OF FENCE TO BE BURIED BELOW FINISHED GRADE WITH SOIL COMPACTED AGAINST BURIED PORTION OF THE FENCE FABRIC

CONCRETE FOOTING, TYP. COMPACTED OR UNDISTURBED SUBGRADE

00 PERMANENT TURTLE BARRIER DETAIL

DETAIL FILE

PROPOSED PERMANENT TURTLE FENCE (INSTALLED UPON PROJECT COMPLETION PRIOR TO REMOVAL OF EROSION BARRIERS)

PROPOSED STAKED SILT SOCK LIMIT OF WORK

PROPOSED SILT FENCE/TEMPORARY TURTLE BARRIER DURING CONSTRUCTION

WOODLAND ZONE

MATCH EXISTING GRADE @ BASE OF SLOPE

PROPOSED GRADE

CONSTRUCTION ZONE

SITE PLAN APPROVAL

DATE	
REVISIONS	
OCTOBER 10, 2021	REMOVE PWS & SEPTIC SYSTEM
OCTOBER 12, 2021	RESPONSE TO PAT BRENNAN (INV SH 5 & 6)

SITE PLAN

LOVELL ACADEMY

120 BILL DELAHUNT PARKWAY

ASSESSORS LOT 14-092

ROCKLAND, MASSACHUSETTS

PREPARED FOR:
FOREST DELAHUNT DEVELOPMENT LLC
LAUREN MONAHAN MANAGING PARTNER
129 JACOBS LANE
NORWELL MA 02061

AUGUST 16, 2021
SCALE: 1"=

JOB No. 17-276

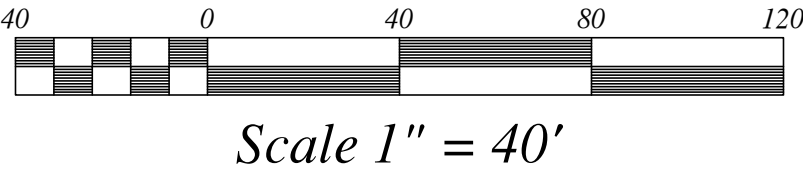
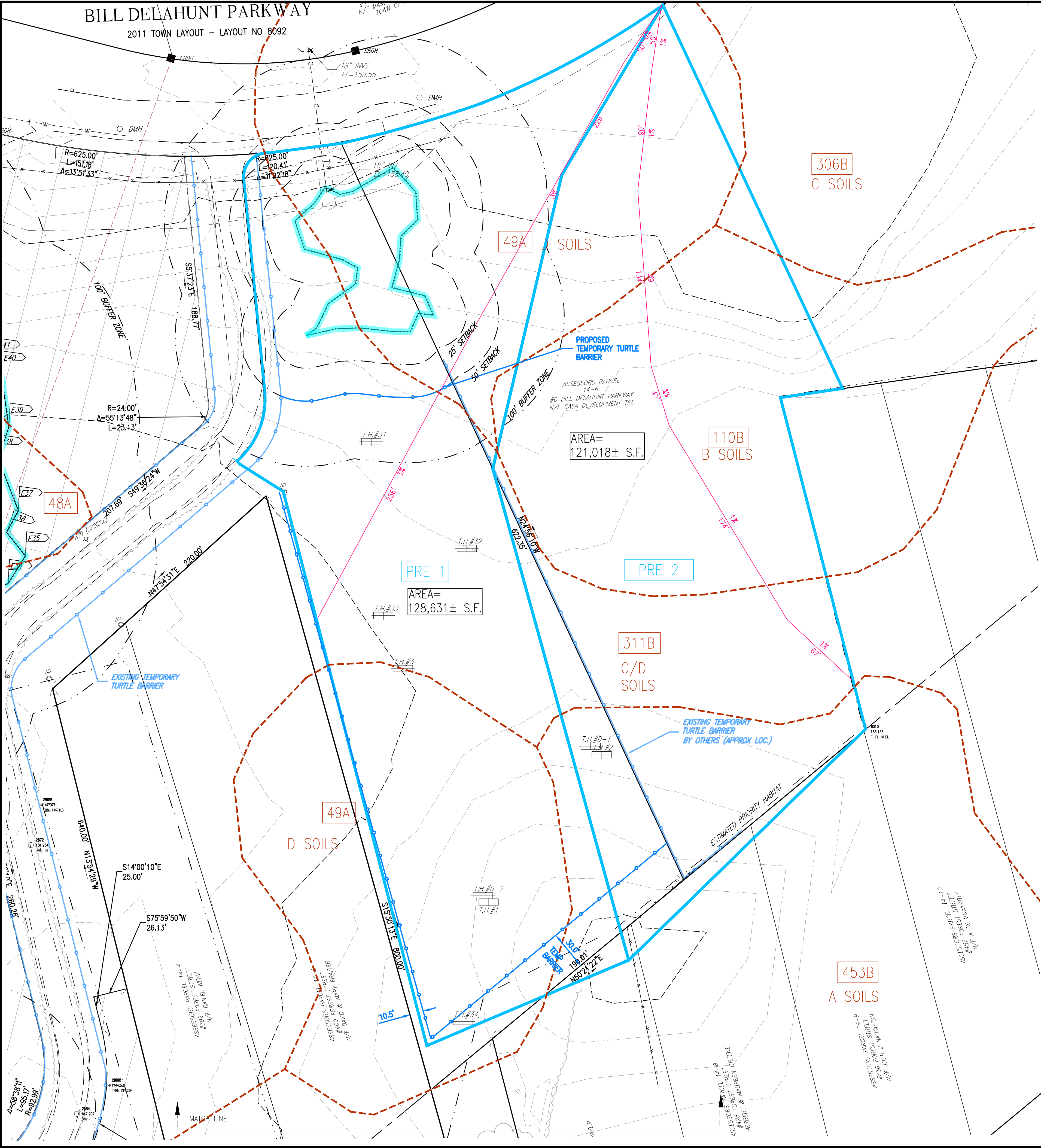
GRADY CONSULTING, L.L.C.

Civil Engineers, Land Surveyors & Landscape Architects
71 Evergreen Street, Suite 1, Kingston, MA 02364
Phone (781) 585-2300 Fax (781) 585-2378

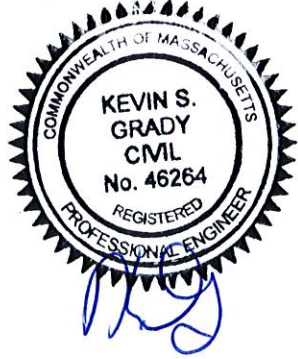
KEVIN S. GRADY CIVIL No. 46264 REGISTERED PROFESSIONAL ENGINEER

Scale 1" = 40'

NHESP FENCE LOCATION



SITE PLAN APPROVAL	
DATE	
REVISIONS	
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G

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PREPARED FOR:

FOREST DELAHUNT DEVELOPMENT LLC

LAUREN MONAHAN MANAGING PARTNER

129 JACOBS LANE

NORWELL MA 02061

DATE:

AUGUST 16, 2021

SCALE:

1"=

JOB No. 17-276

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Phone (781) 585-2300 Fax (781) 585-2378

PRE-DEVELOPMENT

SHEET 12 OF 18

23.4.6 *Access aisles:* All accessible spaces shall have access aisles that comply with the following:

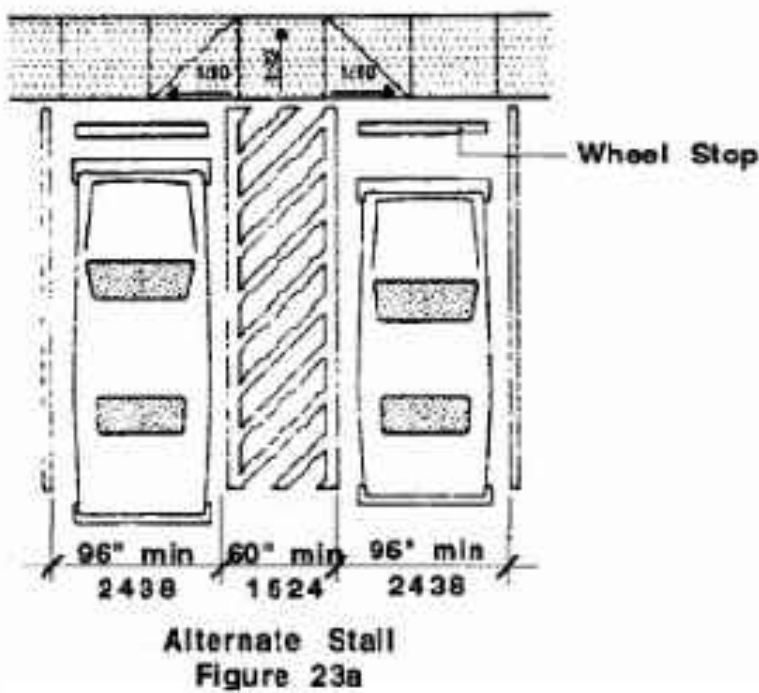
- a. Parking access aisles shall be part of an accessible route to the building or facility entrance and shall comply with 521 CMR 20.00: ACCESSIBLE ROUTE.

Exception: For temporary accessible parking, directional signage along the entire accessible route, using the international symbol of accessibility and an arrow, shall be used to direct people to the closest accessible entrance.

- b. Access aisles adjacent to accessible spaces shall be five feet (5' = 1524mm) wide minimum, except adjacent to van accessible spaces the access aisle shall be a minimum of eight feet (8' = 2438mm) wide.

Exception: When temporary accessible parking is located within a field or otherwise unpaved site, when such area has not been improved in accordance with 521 CMR, the spaces shall be located on the least sloping area of the parking lot in conjunction with the temporary accessible parking spaces.

- c. Two accessible parking spaces may share a common access aisle. See Fig. 23a and 23b.



- d. Access aisles shall be level with surface slopes not exceeding 1:50 (2%) in all directions.
e. Access aisles shall be clearly marked by means of diagonal stripes.

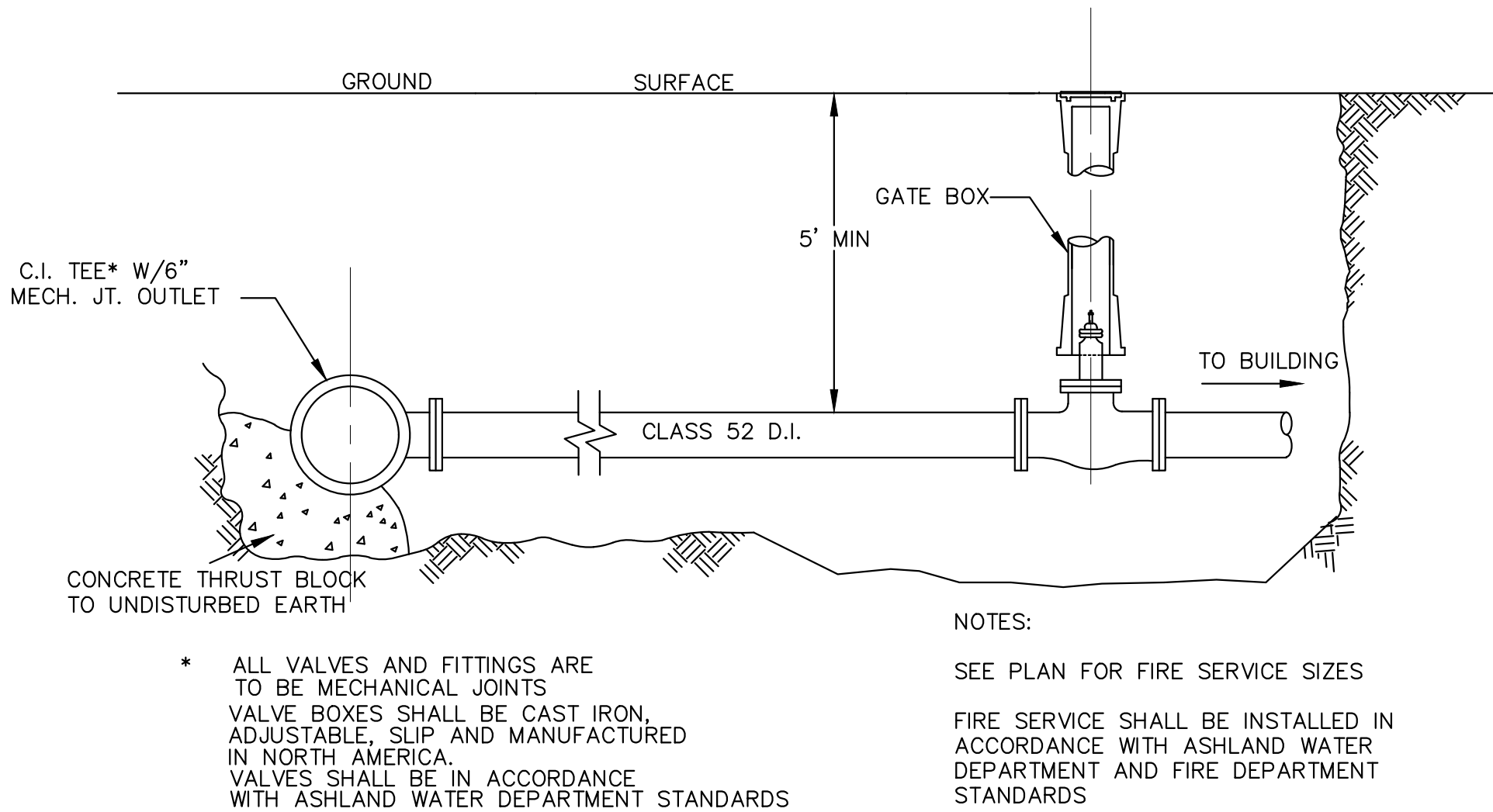
23.4.7 Van Accessible spaces shall comply with the following:

- a. Provide minimum vertical clearance of eight feet, two inches (8'2" = 2489mm) at the parking space and along at least one vehicle access route to such spaces from site entrance(s) and exit(s). See Fig. 23c.

HANDICAP SPACE DETAIL
(NOT TO SCALE)

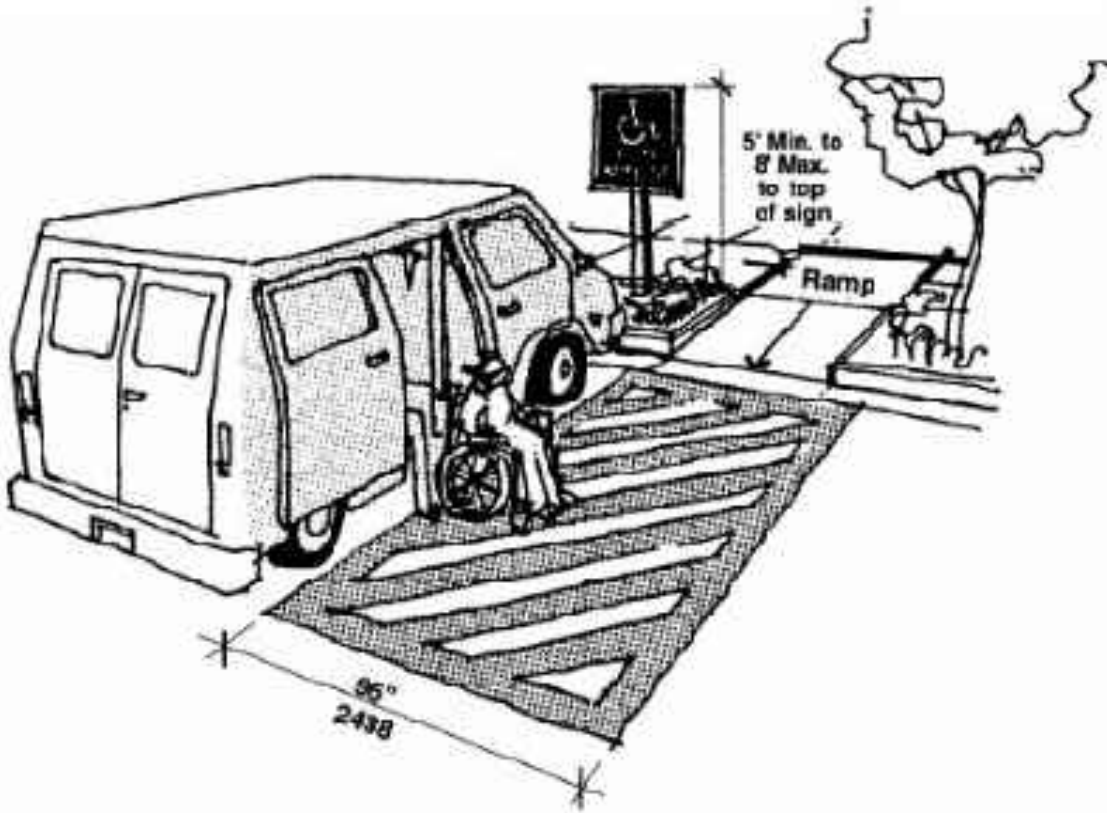
WATER SUPPLY NOTES

1. THERE SHALL BE NO PHYSICAL CONNECTION BETWEEN A PUBLIC OR PRIVATE POTABLE WATER SUPPLY SYSTEM AND A SEWER, OR APPURTENANCE THERETO WHICH WOULD PERMIT THE PASSAGE OF ANY WASTEWATER OR POLLUTED WATER INTO THE POTABLE SUPPLY.
2. THE SEWER MAY BE LAID CLOSER THAN 10 FEET TO A WATER MAIN PROVIDED THAT IT IS:
A. LAID IN A SEPARATE TRENCH, AND
B. THE ELEVATION OF THE TOP(CROWN) OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM(INVERT) OF THE WATER MAIN.
3. WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.
4. WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF MECHANICAL JOINT CAST IRON PIPE AND SHALL BE PRESSURE TESTED TO ASSURE WATER-TIGHTNESS.



FIRE SERVICE DETAIL
(CONNECTION TO PROPOSED WATER MAIN)
(NOT TO SCALE)

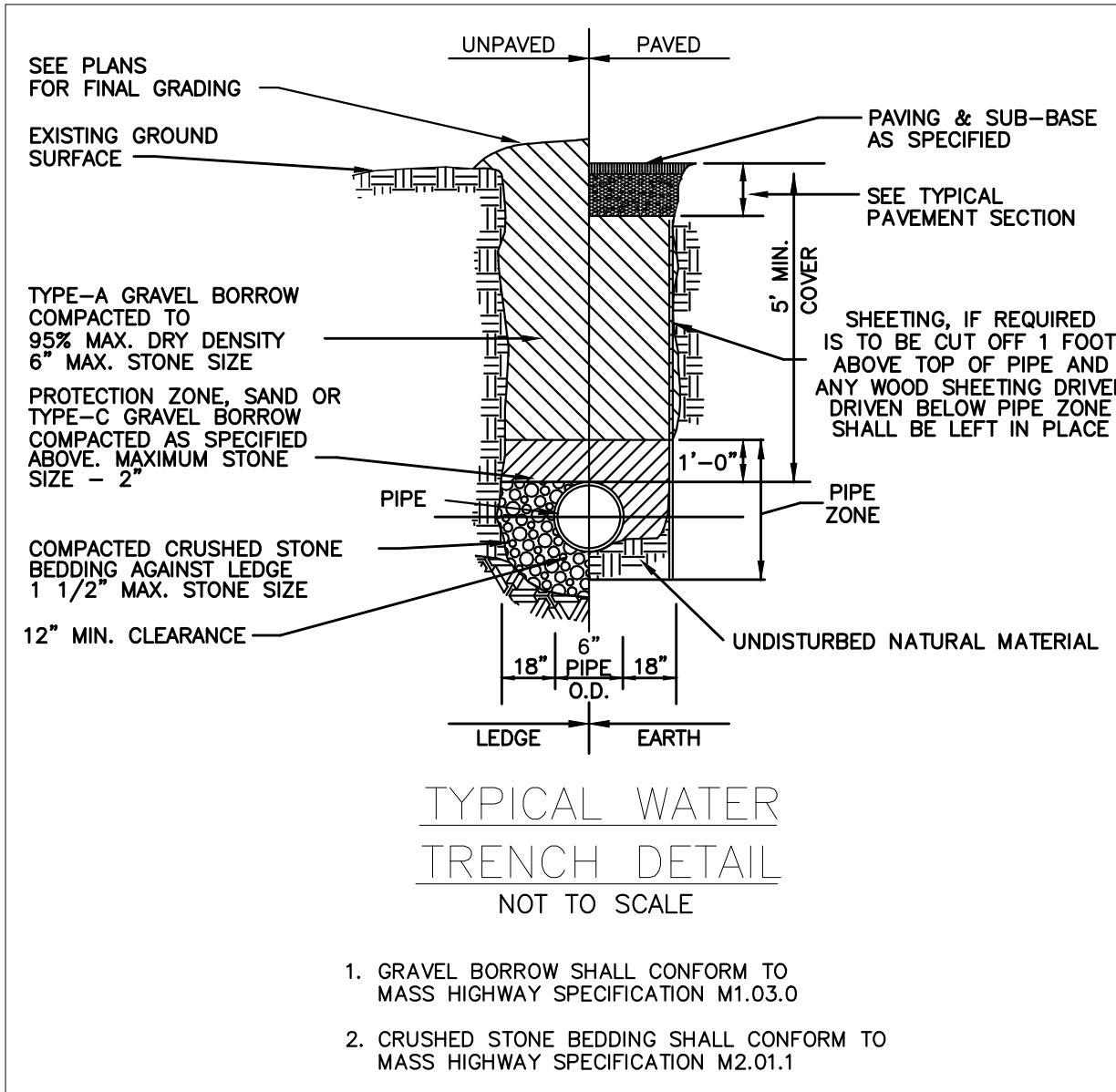
23.00: PARKING AND PASSENGER LOADING ZONES



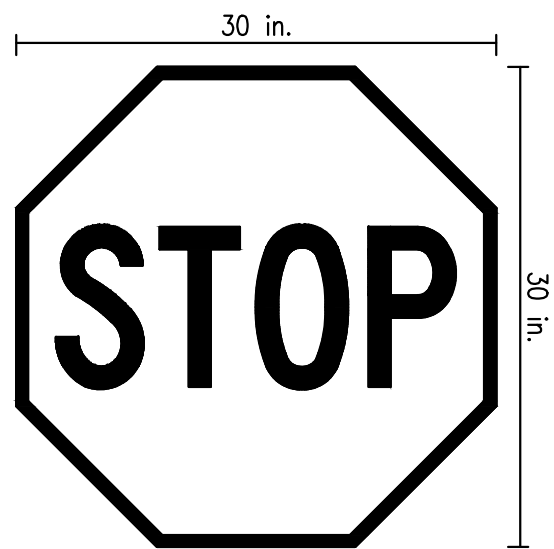
- b. Each space shall have a sign designating it "Van Accessible" as required by 521 CMR 23.6, Signage.
c. All such spaces may be grouped on one level of a parking structure.
d. Eight foot minimum (8' = 2438mm) wide space.
e. Provide an access aisle of eight feet (8' = 2438mm).

ACCESSIBILITY LOADING ZONE
(NOT TO SCALE)

UTILITY NOTE:
CLAY DAMS ARE TO BE INSTALLED AT 200 FT INTERVALS ALONG DRIVEWAY ENTRANCE FOR ALL UTILITIES. ADDITIONALLY, CLAY DAMS ARE TO BE INSTALLED AT EACH END OF WETLAND CROSSING FOR ALL UTILITIES.



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

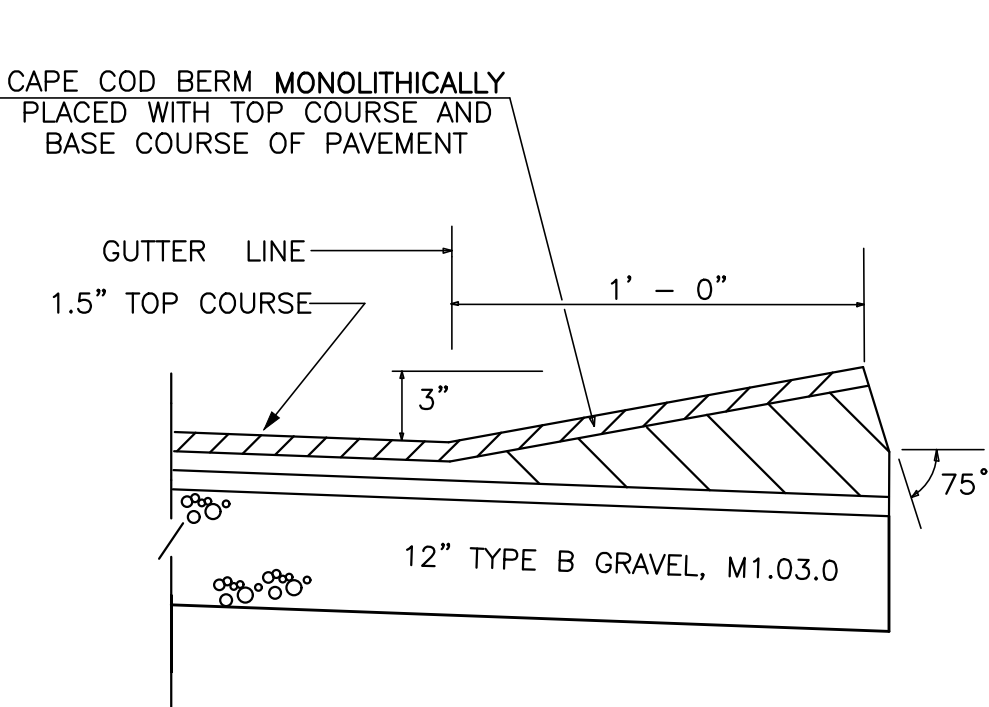


ALL SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES WITH THE EXCEPTION OF BEING DIAMOND GRADE

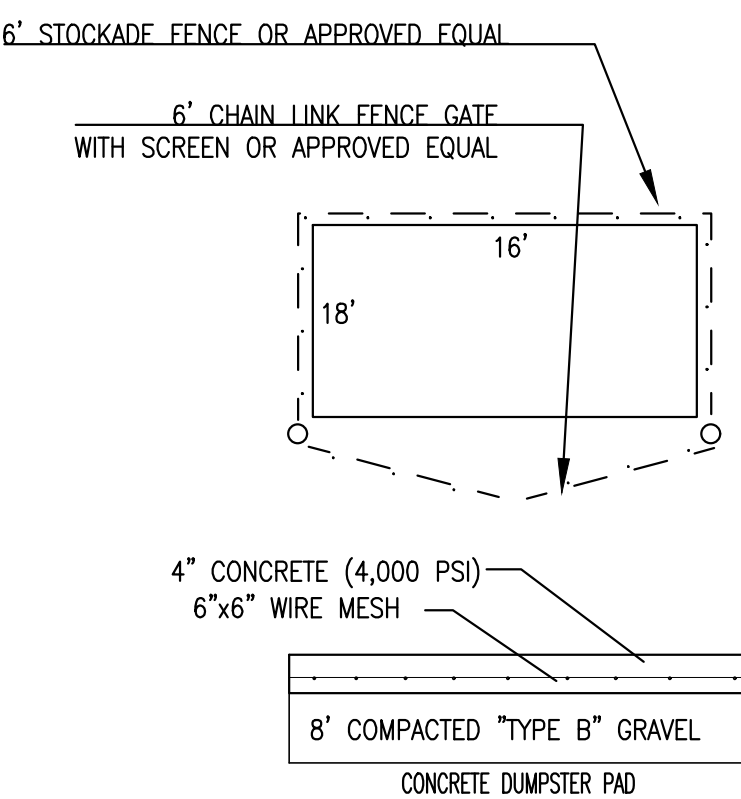
12" WIDE X 12 FT LONG STOP LINE TO BE PLACED 4 FT IN ADVANCE OF NEAREST CROSSWALK.

IN THE ABSENCE OF MARKED CROSSWALK THE STOP LINE SHALL BE PLACED NO MORE THAN 30 FT NOR LESS THAN 4 FT FROM THE NEAREST EDGE OF THE INTERSECTING TRAVELED WAY.

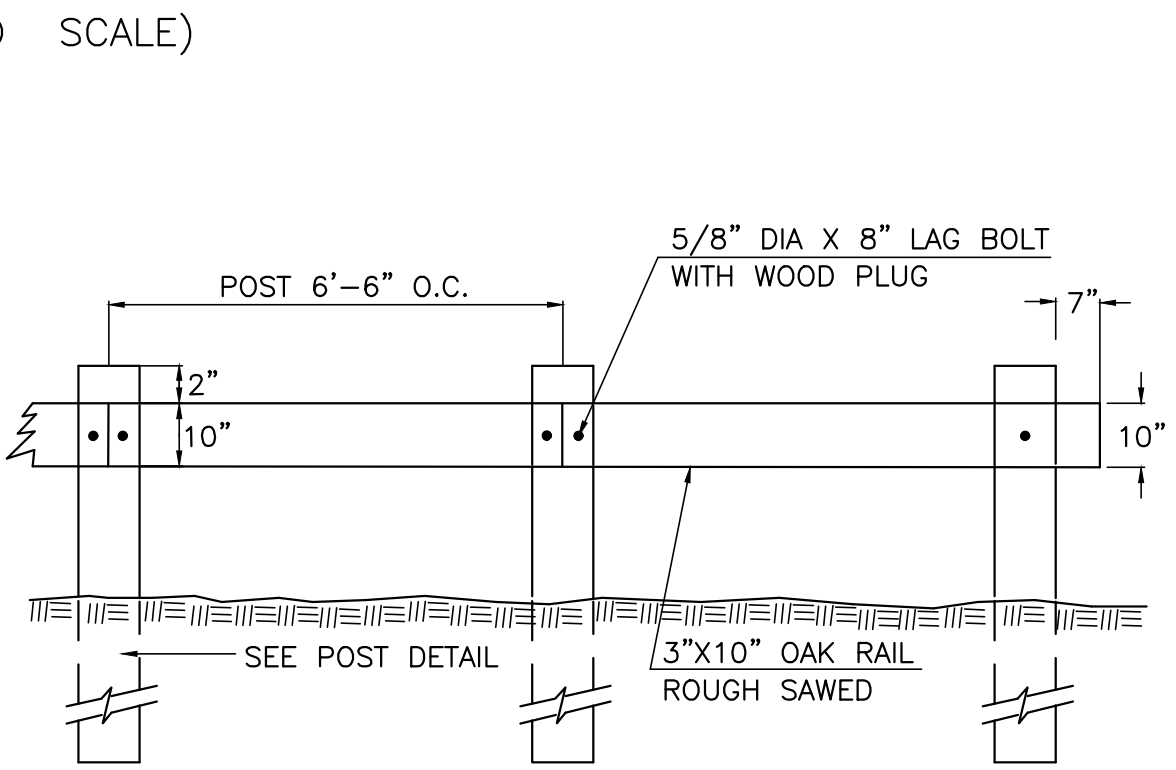
STOP SIGN DETAIL
(NOT TO SCALE)



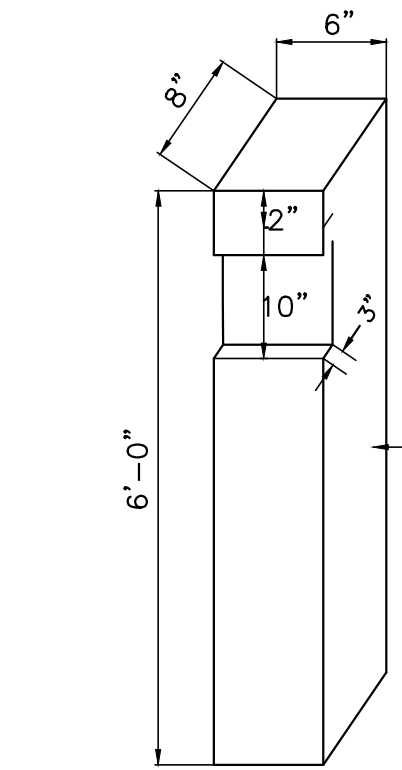
CAPE COD BERM DETAIL
(NOT TO SCALE)



DUMPSTER & ENCLOSURE DETAIL
(NOT TO SCALE)

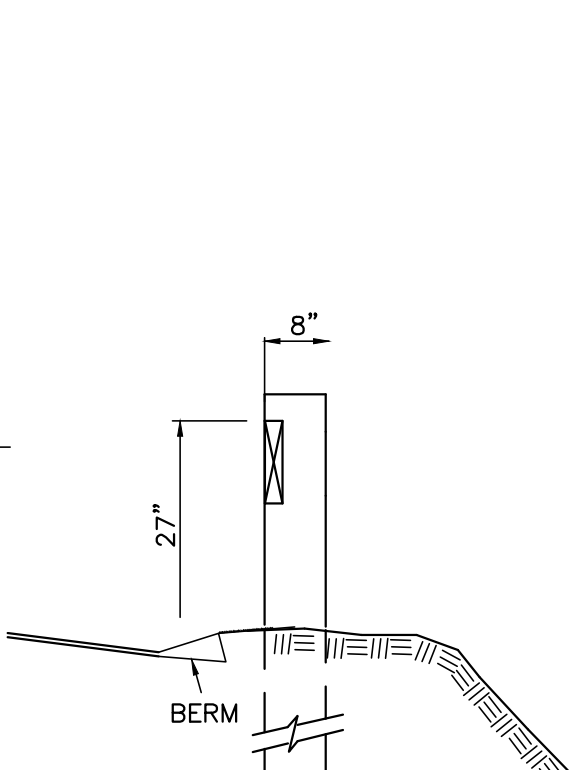


FRONT ELEVATION

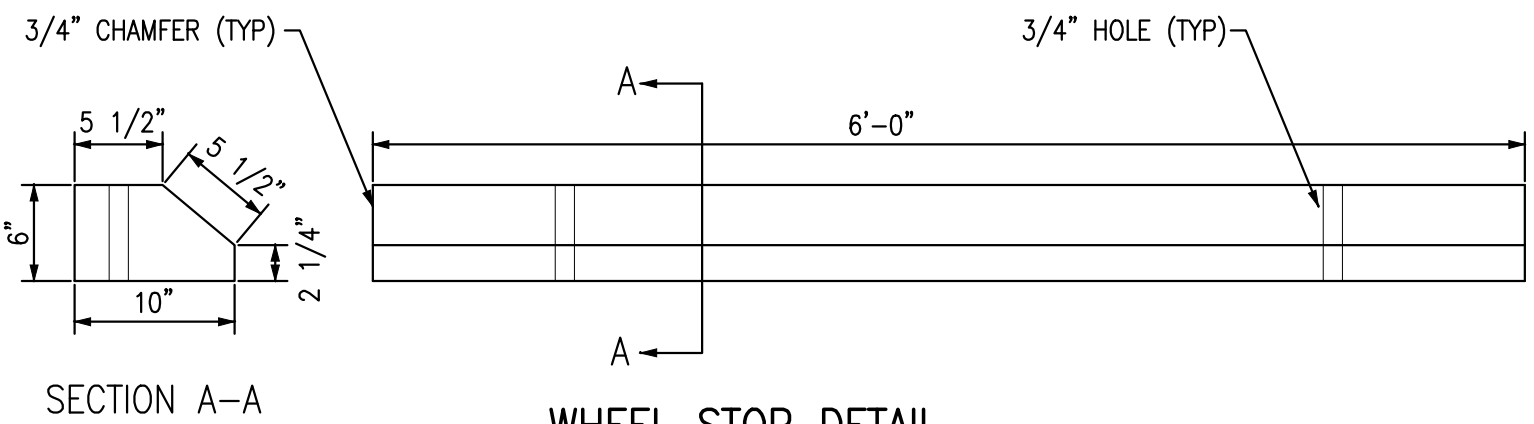


WOOD POST DETAIL

WOOD GUARD RAIL
(NOT TO SCALE)



SIDE ELEVATION



WHEEL STOP DETAIL
(NOT TO SCALE)



ROCKLAND PLANNING BOARD
SITE PLAN APPROVAL

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SITE PLAN
LOVELL ACADEMY
120 BILL DELAHUNT PARKWAY
ASSESSORS LOT 14-092
ROCKLAND, MASSACHUSETTS

PREPARED FOR:
FOREST DELAHUNT DEVELOPMENT LLC
LAUREN MONAHAN MANAGING PARTNER
129 JACOBS LANE
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AUGUST 16, 2021
SCALE: NTS
JOB No. 17-276

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Civil Engineers, Land Surveyors &
Landscape Architects
71 Evergreen Street, Suite 1, Kingston, MA 02364
Phone (781) 585-2300 Fax (781) 585-2378

CONSTRUCTION SEQUENCE:

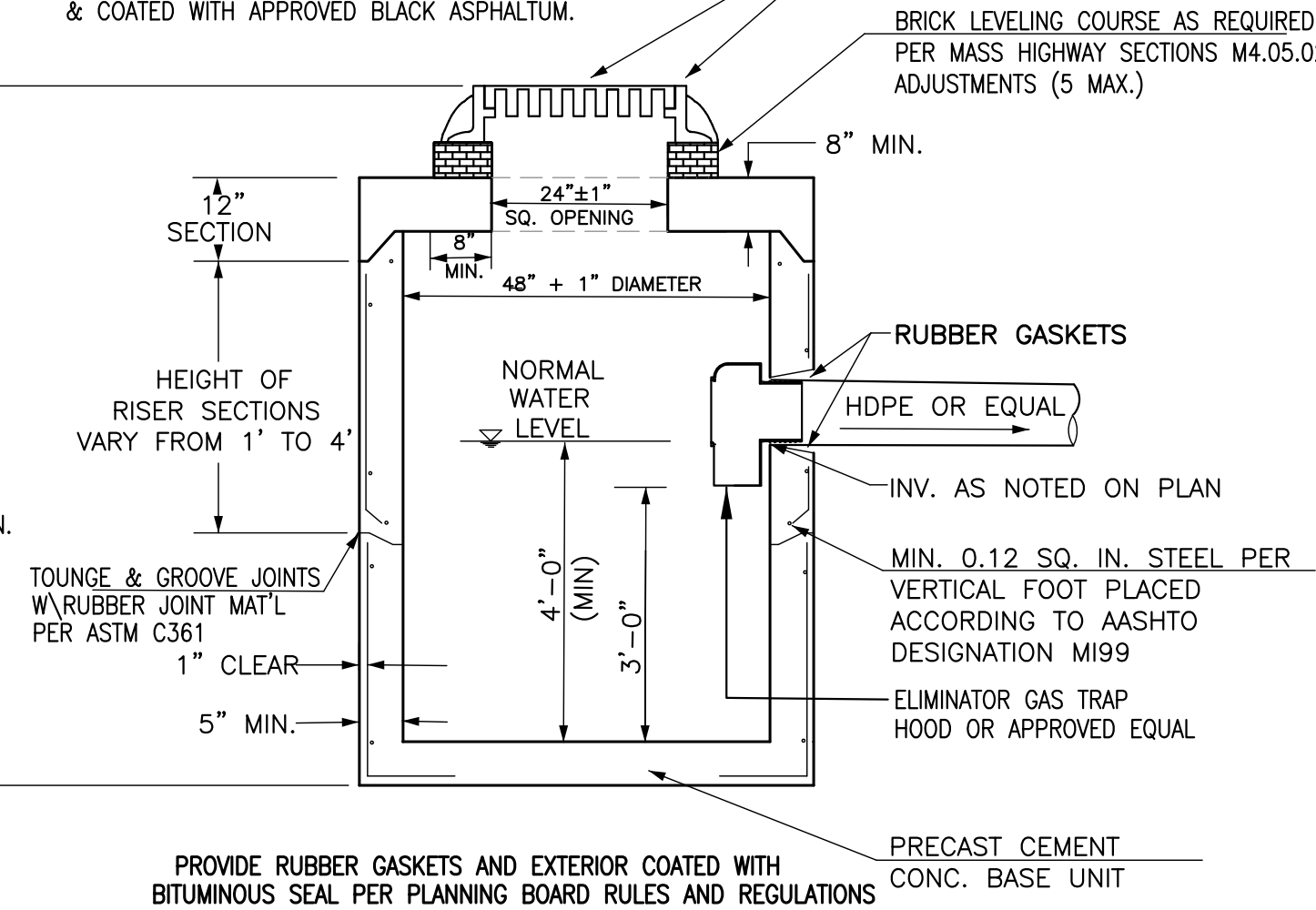
STAKE LIMIT OF WORK CLEARING
INSTALL CONSTRUCTION ENTRANCE
INSTALL SILT SOCK EROSION CONTROL BARRIER
INSTALL TEMPORARY DRAINAGE PIPE
CLEAR AND GRUB SITE AREAS
INSTALL CONSTRUCTION PERIOD SEDIMENT TRAPS
BRING CUT AREAS TO SUBGRADE
STAKE BUILDING PARKING LOT
INSTALL SILT FENCE FOR STOCKPILE AREA
INSTALL FOUNDATION
INSTALL TEMPORARY DRAINAGE AREAS WHERE NECESSARY
INSTALL ELECTRIC, GAS & WATER UTILITIES
INSTALL RETAINING WALLS
PLACE FILL MATERIAL TO BASE COURSE
INSTALL DRAINAGE STRUCTURES
COMPLETE FINISH GRADING
INSTALL ENERGY DISSIPATERS AND CONNECT ALL OUTLETS
COMPLETE BUILDING CONSTRUCTION
INSTALL/RAISE MANHOLE STRUCTURES (DRAIN, SEWER) TO FINISH GRADE
LOAM & SEED DISTURBED AREAS, MULCH AND PLANT LANDSCAPE AREAS
INSTALL FINISH PAVEMENT COAT
SCHEDULE FINAL SITE INSPECTION FOR CERTIFICATION
REMOVE SEDIMENT CONTROLS

- CATCH BASIN
GENERAL NOTES:
1. PROVIDE 24" x 24" OPENING AND LE BARON LF248-2 FRAME AND GRATE FOR SINGLE GRATE CATCH BASIN (CB) OR APPROVED EQUAL.
 2. CATCH BASIN HOOD WILL NOT BE INSTALLED.
 3. SET FRAME IN FULL BED OF MORTAR. BRICKS MAY BE USED FOR GRADE ADJUSTMENT.
 4. MORTAR ALL JOINTS.
 5. PROVIDE "V" KNOCKOUTS FOR PIPES W\ 2" CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 6. REINFORCED STEEL CONFORMS TO LATEST ASTM SPEC. 0.12 SQ. IN./LINEAR FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
 7. CONCRETE COMPRESSIVE STRENGTH-4000 PSI MIN.
 8. MANHOLE DESIGN SPECS CONFORM TO LATEST ASTM C-478 SPEC FOR "PRECAST CONCRETE MANHOLE SECTIONS"

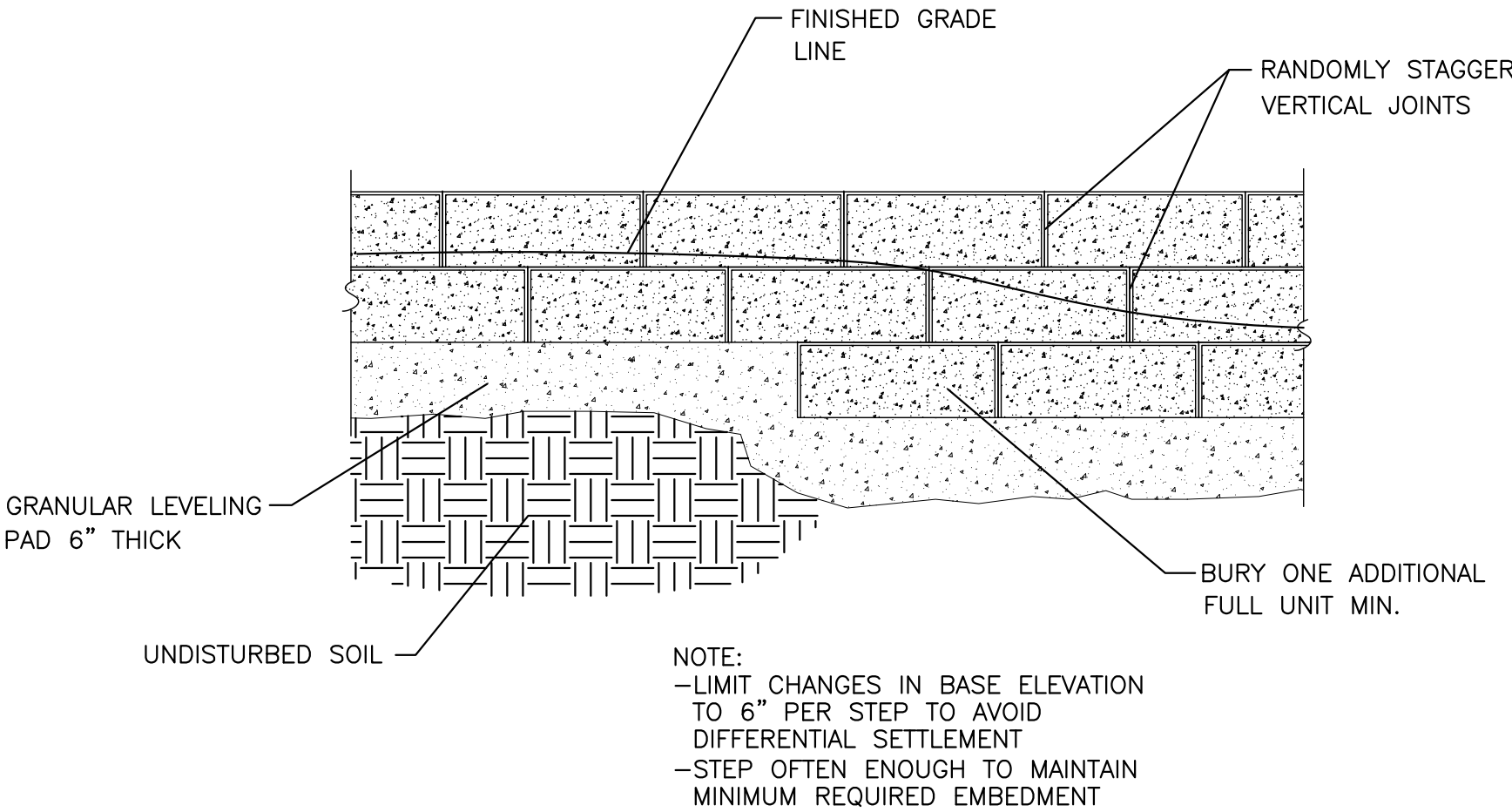
PLACE VANED GRATES (IF CALLED FOR) IN DIRECTION OF FLOW

NOTES:

1. PRECAST CONCRETE UNITS TO CONFORM TO THE MASS HIGHWAY SECTION M4.02.14
2. 4000 PSI MINIMUM COMPRESSIVE STRENGTH
3. PRECAST UNITS TO BE HS-20 LOADING
4. EXTERIOR SURFACES TO BE SEALED W\ COLD APPLIED BITUMINOUS SEALER
5. CASTINGS FOR FRAME, GRATES, COVERS & HOODS TO CONFORM TO ASTM A48, GRADE 30 MINIMUM & COATED WITH APPROVED BLACK ASPHALTUM.



FLAT-TOP PRECAST GASOLINE TRAP CATCH BASIN
(NOT TO SCALE)

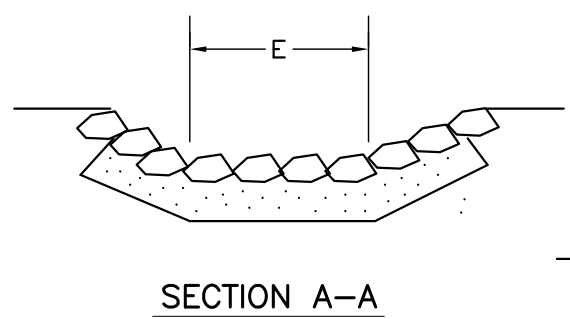


STEPPING BASE DETAIL

SCALE: NONE

PIPE DIA.	
A	5'-0"
B	7'-6"
C	2'-6"
D	3'-0"
E	3'-0"

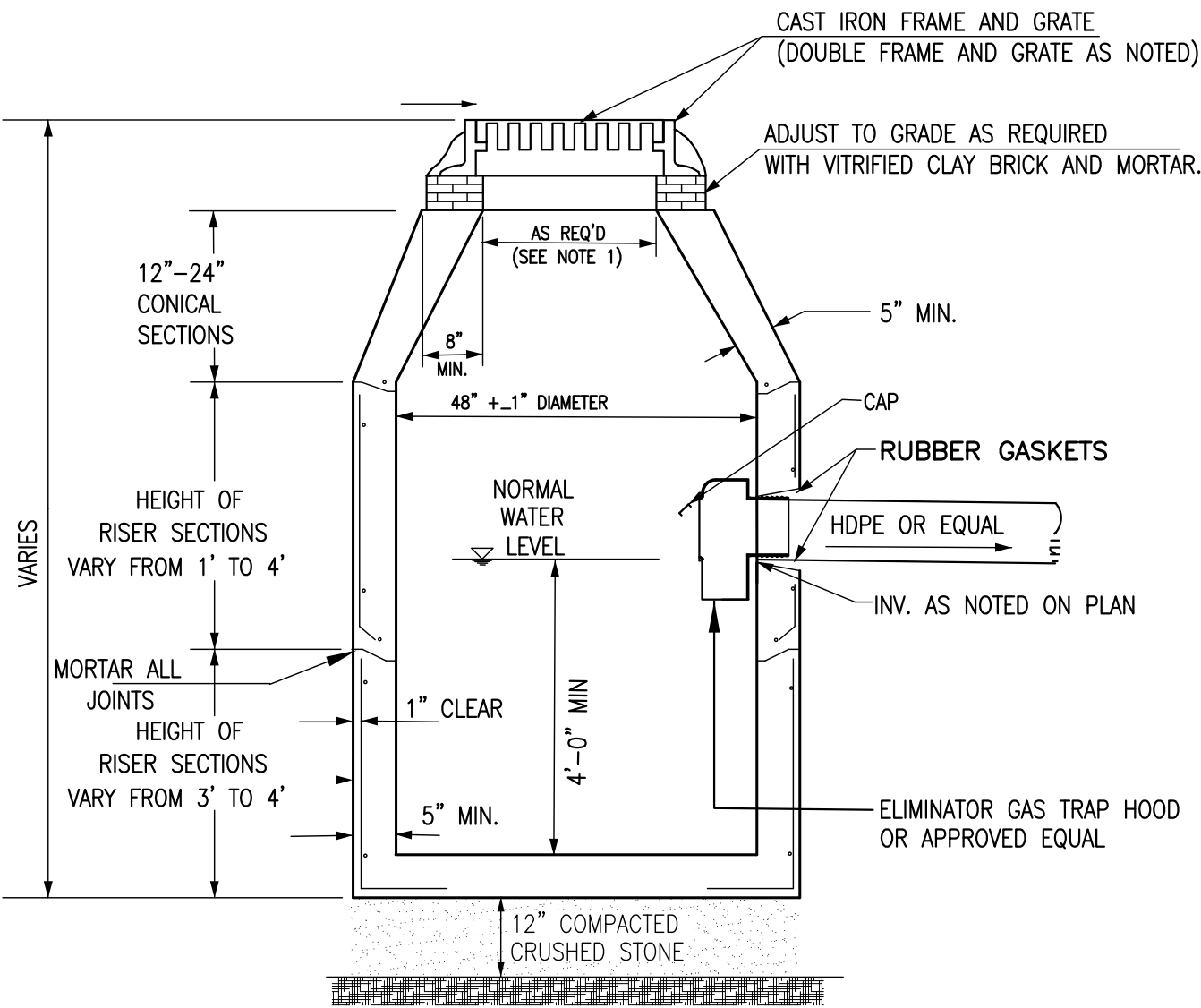
EACH STONE SHALL WEIGH NOT LESS THAN 25 LB NOR MORE THAN 50 LB AND AT LEAST 75% OF THE VOLUME SHALL CONSIST OF STONES WEIGHING NOT LESS THAN 35 LB EACH. THE REMAINDER OF THE STONES SHALL BE SO GRADED THAT WHEN PLACED WITH THE LARGER STONES, THE ENTIRE MASS WILL BE COMPACT WITH A MINIMUM PERCENTAGE OF VOIDS AND MINIMUM THICKNESS OF 6 IN.



DRIVEWAY CROSSING PIPEDETAIL - SILT TRAP, EROSION CONTROL PAD
(NOT TO SCALE)

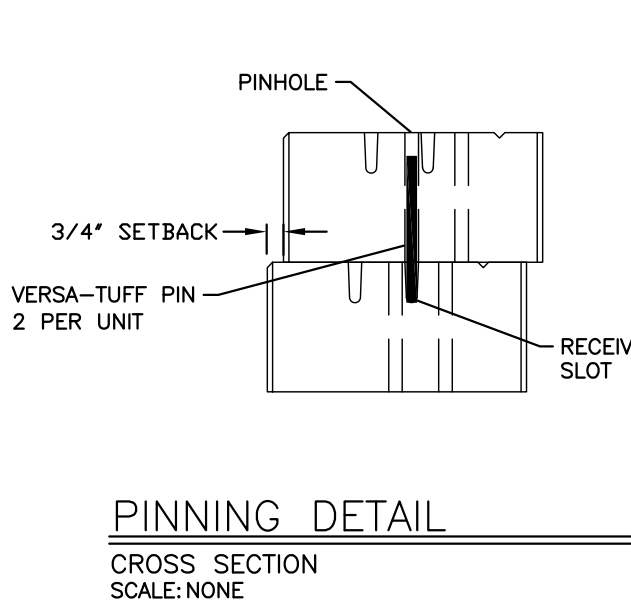
TYPICAL SECTION-UNREINFORCED RETAINING WALL

SCALE: NONE



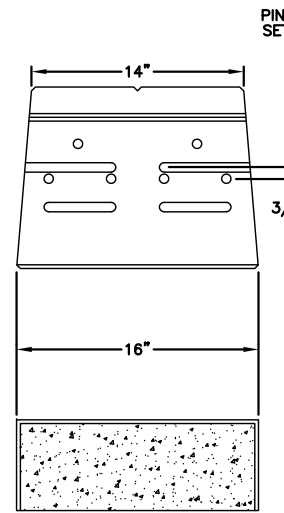
PRECAST CONCRETE CATCH BASIN

(NOT TO SCALE)

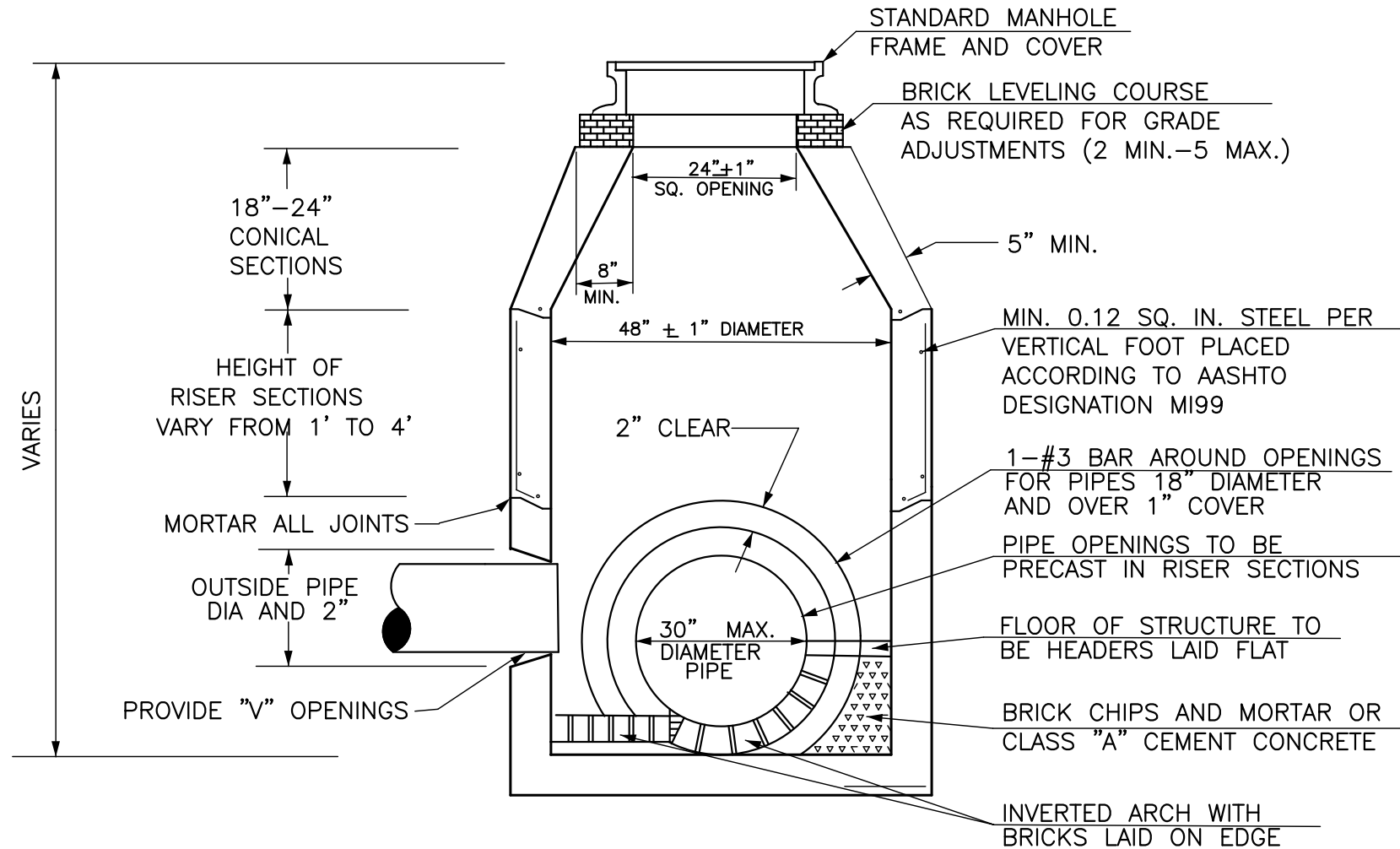


PINNING DETAIL

CROSS SECTION
SCALE: NONE

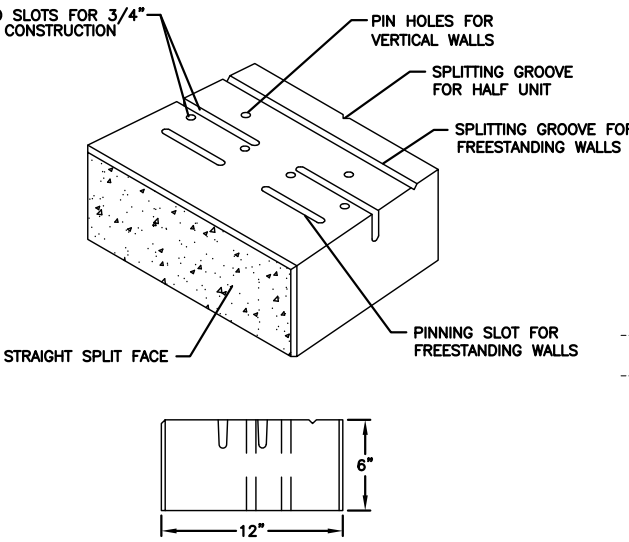


VERSALOK UNIT
UNIT DIMENSIONS
SCALE: NONE



PRECAST CONCRETE MANHOLE

(NOT TO SCALE)



ROOF DRAIN DETAIL
(NOT TO SCALE)

ROCKLAND PLANNING BOARD
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LOVELL ACADEMY
120 BILL DELAHUNT PARKWAY
ASSESSORS LOT 14-092
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PREPARED FOR:
FOREST DELAHUNT DEVELOPMENT LLC
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Dorms
Prepared by Microsoft
HydroCAD® 10.00-25 s/n 09955 © 2019 HydroCAD Software Solutions LLC
Type III 24-hr 100-Year Rainfall=7.00"
Printed 10/10/2021

Pond 27P: Basin#1 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x4x4 (Concrete Galley, UCPI 4x4x4 Galley or equivalent)
Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf
Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf

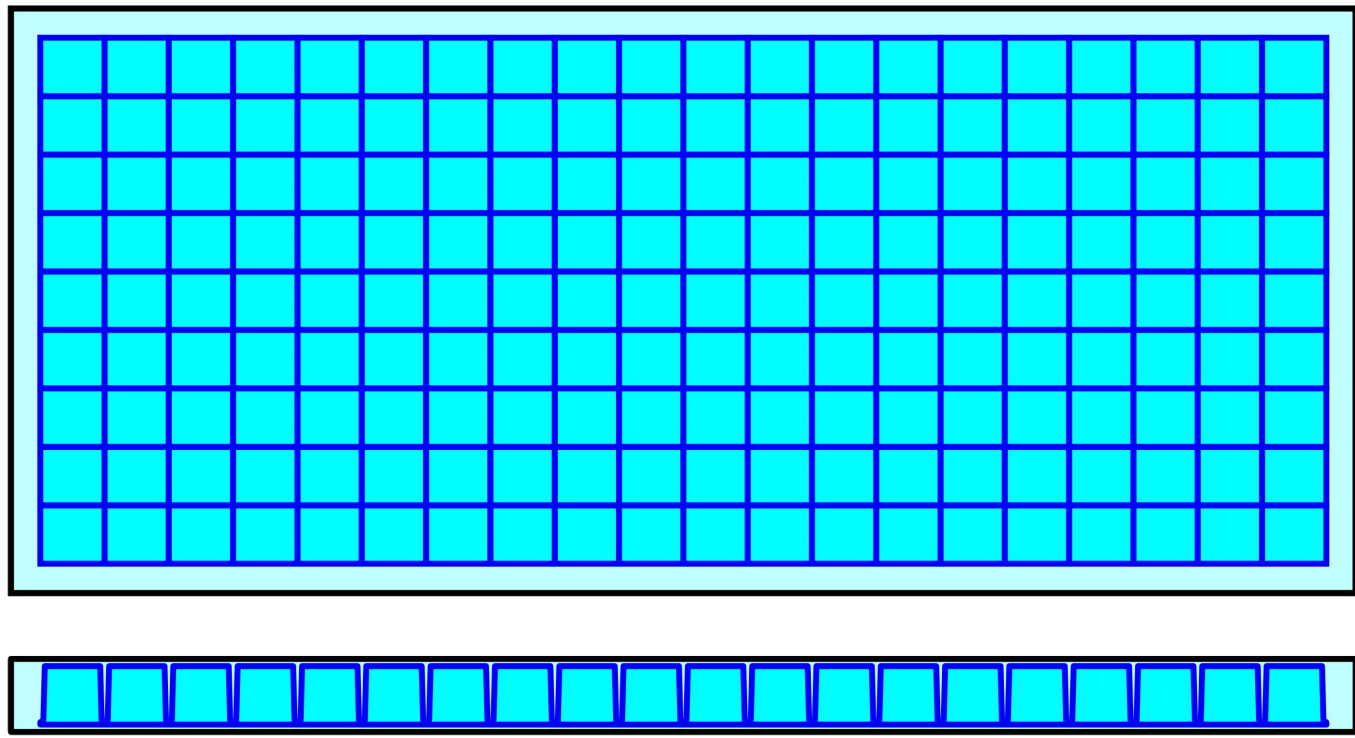
9 Chambers/Row x 4.00' Long = 36.00' Row Length +24.0" End Stone x 2 = 40.00' Base Length
20 Rows x 52.8" Wide + 24.0" Side Stone x 2 = 92.00' Base Width
6.0" Base + 48.0" Chamber Height + 6.0" Cover = 5.00' Field Height

180 Chambers x 44.3 cf = 7,982.0 cf Chamber Storage
180 Chambers x 58.9 cf = 10,597.7 cf Displacement

18,400.0 cf Field - 10,597.7 cf Chambers = 7,802.3 cf Stone x 40.0% Voids = 3,120.9 cf Stone Storage

Chamber Storage + Stone Storage = 11,102.9 cf = 0.255 af
Overall Storage Efficiency = 60.3%
Overall System Size = 40.00' x 92.00' x 5.00'

180 Chambers
681.5 cy Field
289.0 cy Stone



Dorms
Prepared by Microsoft
HydroCAD® 10.00-25 s/n 09955 © 2019 HydroCAD Software Solutions LLC
Type III 24-hr 100-Year Rainfall=7.00"
Printed 10/10/2021

Pond 17P: Basin#2 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x4x4 (Concrete Galley, UCPI 4x4x4 Galley or equivalent)
Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf
Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf

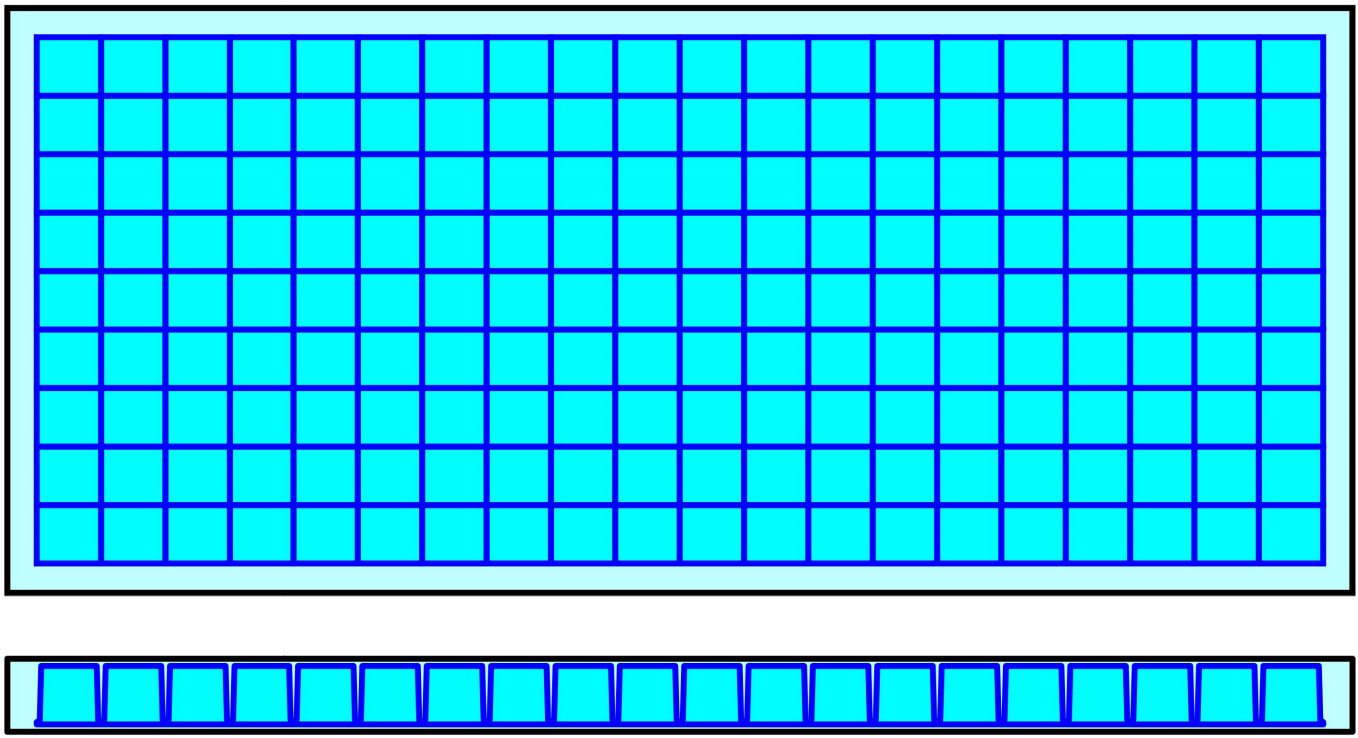
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180 Chambers x 44.3 cf = 7,982.0 cf Chamber Storage
180 Chambers x 58.9 cf = 10,597.7 cf Displacement

18,400.0 cf Field - 10,597.7 cf Chambers = 7,802.3 cf Stone x 40.0% Voids = 3,120.9 cf Stone Storage

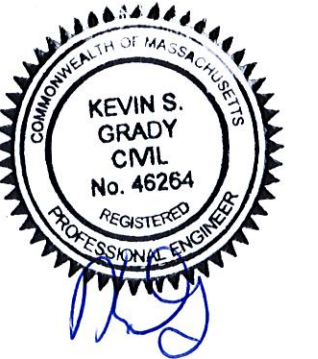
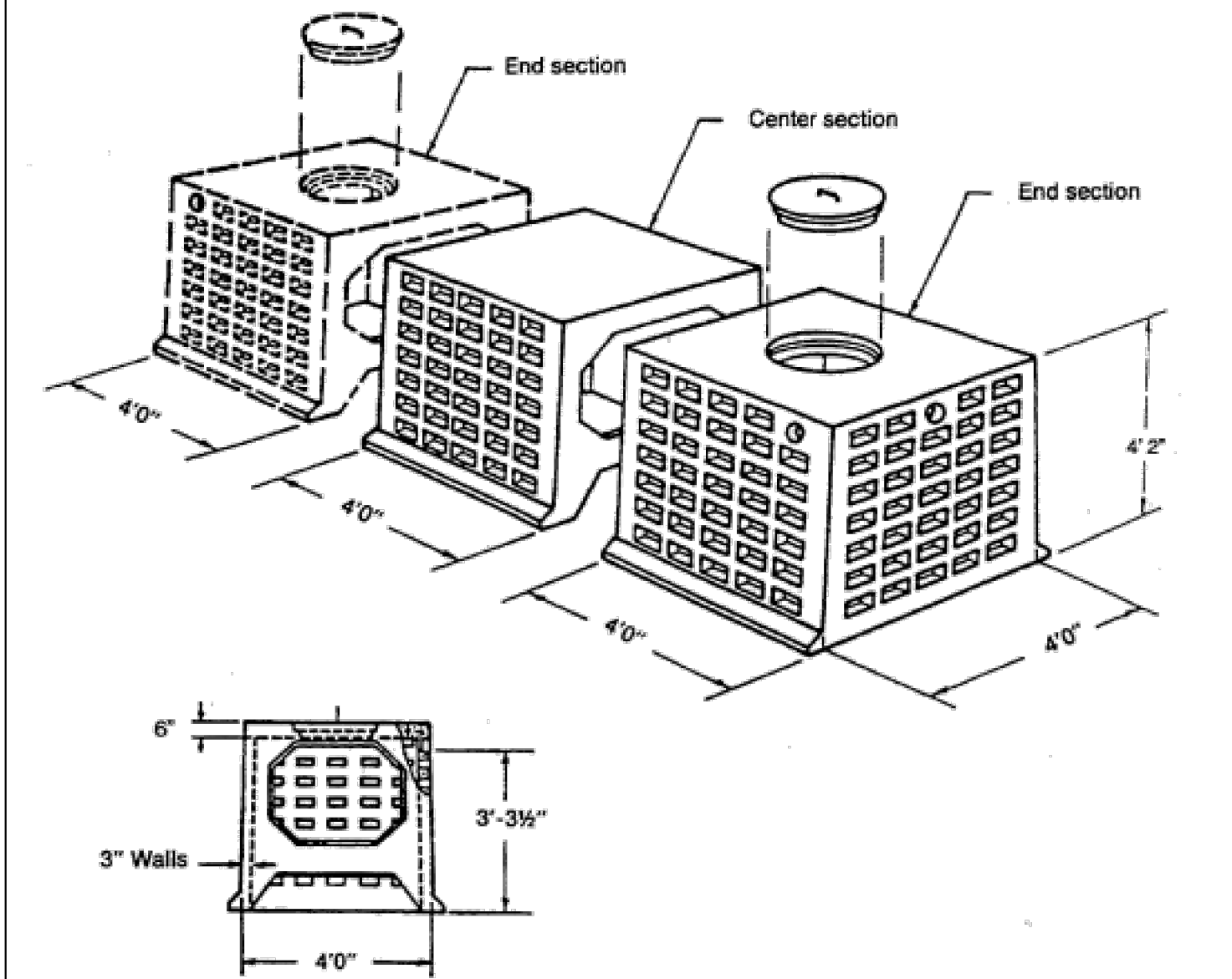
Chamber Storage + Stone Storage = 11,102.9 cf = 0.255 af
Overall Storage Efficiency = 60.3%
Overall System Size = 40.00' x 92.00' x 5.00'

180 Chambers
681.5 cy Field
289.0 cy Stone



Leaching Chambers
4FT x 4FT X 4FT Precast Galley

Design notes:
1. Available in 4' sections. A combination of sections may be used to reach desired length.
2. Concrete 4,000 P.S.I. @28 days
3. Available in with 20" or 24" straight opening or concrete cover
4. Available in H-10 or h-20 covers



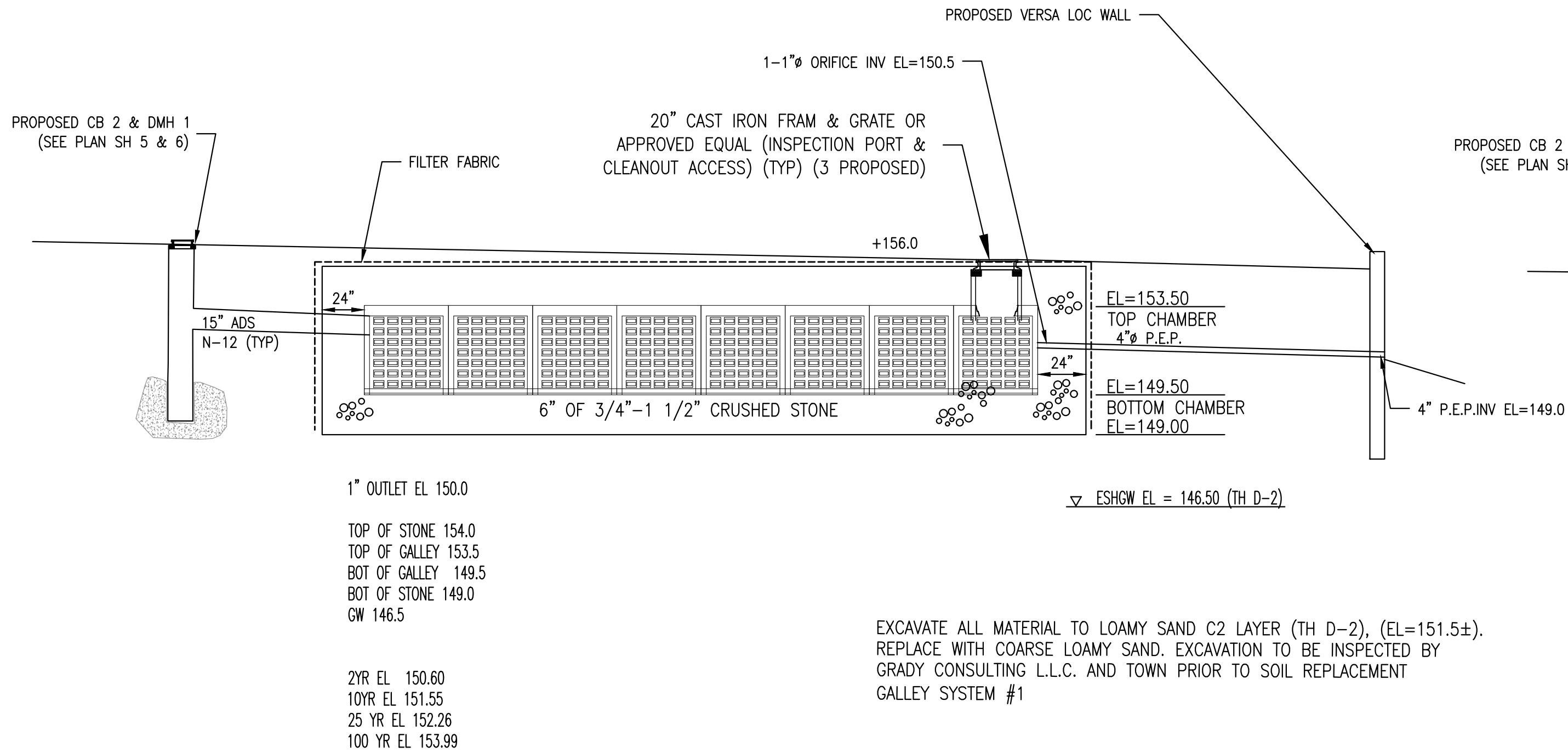
ROCKLAND PLANNING BOARD
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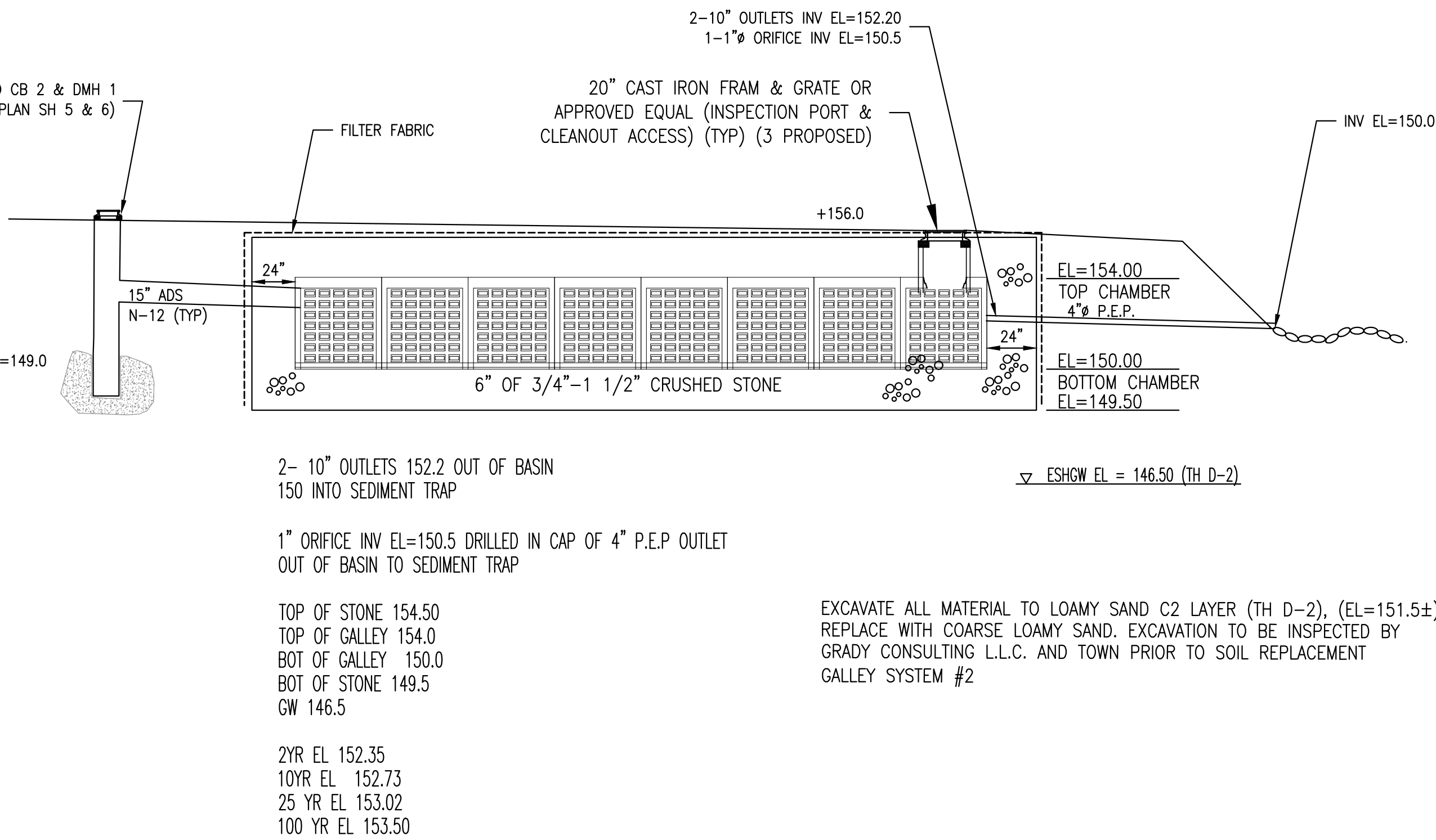
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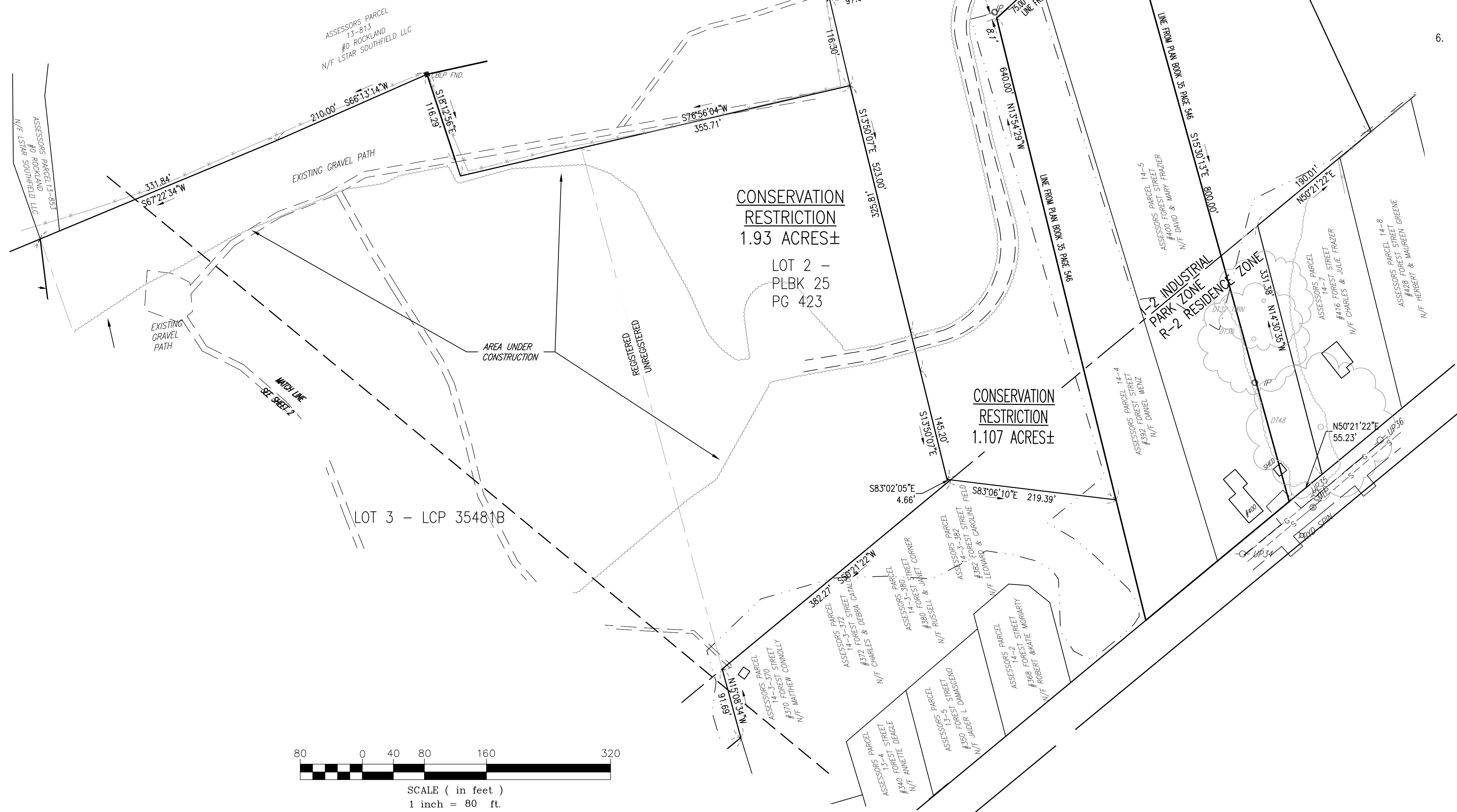
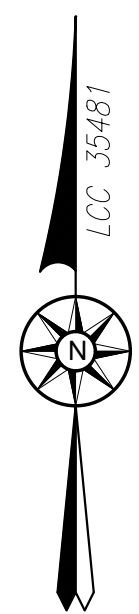
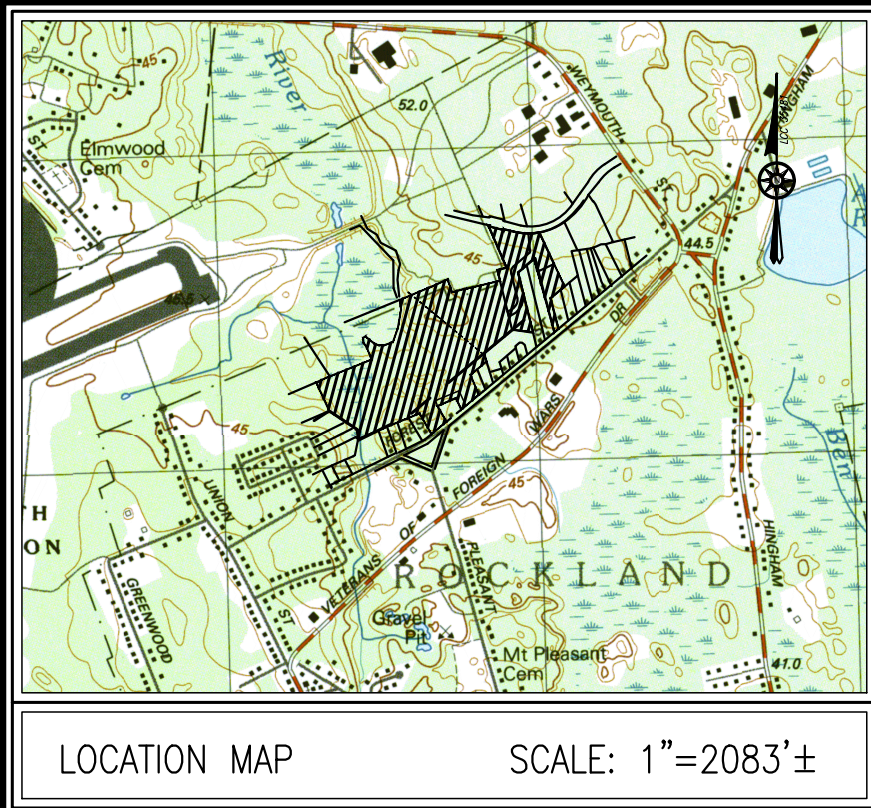
DETAILS



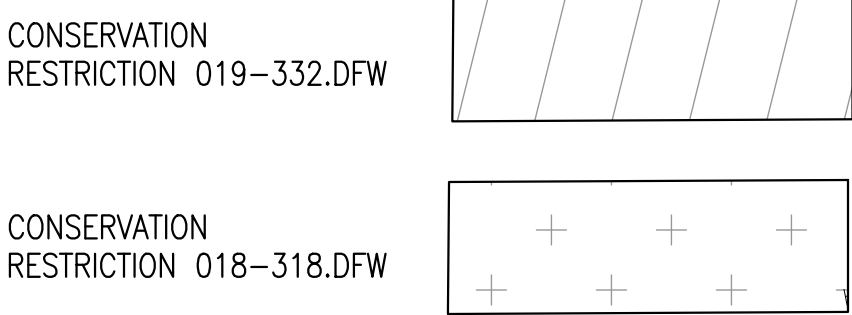
SUBSURFACE GALLEY SYSTEM #1
(NOT TO SCALE)



SUBSURFACE GALLEY SYSTEM #2
(NOT TO SCALE)



LEGEND



NOTES

- TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN IS BASED ON A FIELD SURVEY BY GRADY CONSULTING, L.L.C. IN JULY, 2021.
- EXISTING UTILITIES, WHERE SHOWN, HAVE BEEN COMPILED BASED ON OBSERVED ABOVE GROUND EVIDENCE, AND RECORD INFORMATION, AND ARE TO BE CONSIDERED APPROXIMATE. GRADY CONSULTING, L.L.C. DOES NOT GUARANTEE THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN OR THAT ALL EXISTING UTILITIES AND/OR SUBSURFACE STRUCTURES ARE SHOWN.
- THE SITE IS NOT LOCATED IN A MASS. DEP WELLHEAD PROTECTION AREA (ZONE II, ZONE I, IWPA) BASED ON MASSGIS MAPPING DATED APRIL 2021
- THE SITE IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE AS DEPICTED ON FEMA FLOOD INSURANCE RATE MAPS 25023C091K AND 25023C093K EFFECTIVE DATE JULY 5, 2021.
- THE SITE IS SUBJECT TO A MASS. ENDANGERED SPECIES ACT CONSERVATION AND MANAGEMENT PERMIT No. 019-332-DFW, DATED 2/7/2019, RECORDED IN PLYMOUTH COUNTY REGISTRY OF DEEDS BOOK 53623 PAGE 299 AND AN AMENDED PERMIT IN DEED BOOK 53842 PAGE 157 DATED 11/17/2020.
- THE SITE IS SUBJECT TO A MASS. ENDANGERED SPECIES ACT CONSERVATION AND MANAGEMENT PERMIT No. 018-318-DFW, DATED 2/9/2018, RECORDED IN PLYMOUTH COUNTY REGISTRY OF DEEDS BOOK 50147 PAGE 34 AND AN AMENDED PERMIT IN DEED BOOK 53655 PAGE 1, DATED 4/22/2019.

RECORD OWNER:

ASSESSOR PARCEL ID: 13-3, 14-92, 19-108, 19-47
FOREST DELAHUNT DEVELOPMENT LLC
BOB MONAHAN MANAGING PARTNER
276 WEYMOUTH STREET
ROCKLAND MA 02370

PLAN REFERENCES:

- LAND COURT PLAN 35481-A & B
- PLAN BOOK 25 PAGE 423
- PLAN BOOK 64 PAGE 820-822
- PLAN BOOK 64 PAGE 954
- PLAN BOOK 62 PAGE 780
- PLAN BOOK 35 PAGE 546
- PLAN IN BOOK 5154 PAGE 15
- PLAN BOOK 15 PAGE 74



SITE PLAN APPROVAL

DATE	
REVISIONS	
OCTOBER 10, 2021	REMOVE PWS & SEPTIC SYSTEM
OCTOBER 12, 2021	RESPONSE TO PAT BRENNAN (INV SH 5 & 6)

SITE PLAN
LOVELL ACADEMY
120 BILL DELAHUNT BOULEVARD
ASSESSORS LOT 14-092
ROCKLAND, MASSACHUSETTS

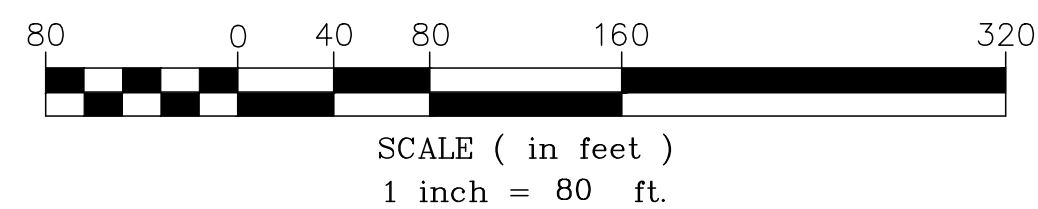
PREPARED FOR:
FOREST DELAHUNT DEVELOPMENT LLC
LAUREN MONAHAN MANAGING PARTNER
129 JACOBS LANE
NORWELL MA 02061

AUGUST 16, 2021
SCALE: 1"= 80'
JOB No. 17-276

GRADY CONSULTING, L.L.C.
Civil Engineers, Land Surveyors &
Landscape Architects
71 Evergreen Street, Suite 1, Kingston, MA 02364
Phone (781) 585-2300 Fax (781) 585-2378



- NOTES**
- TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN IS BASED ON A FIELD SURVEY BY GRADY CONSULTING, L.L.C. IN JULY, 2021.
- EXISTING UTILITIES, WHERE SHOWN, HAVE BEEN COMPILED BASED ON OBSERVED ABOVE GROUND EVIDENCE, AND RECORD INFORMATION, AND ARE TO BE CONSIDERED APPROXIMATE. GRADY CONSULTING, L.L.C. DOES NOT GUARANTEE THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN OR THAT ALL EXISTING UTILITIES AND/OR SUBSURFACE STRUCTURES ARE SHOWN.
- THE SITE IS NOT LOCATED IN A MASS. DEP WELLHEAD PROTECTION AREA (ZONE II, ZONE I, IWPA) BASED ON MASSGIS MAPPING DATED APRIL 2021
- THE SITE IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE AS DEPICTED ON FEMA FLOOD INSURANCE RATE MAPS 25023C091K AND 25023C093K EFFECTIVE DATE JULY 5, 2021.
- THE SITE IS SUBJECT TO A MASS. ENDANGERED SPECIES ACT CONSERVATION AND MANAGEMENT PERMIT No. 019-332-DFW, DATED 2/7/2019, RECORDED IN PLYMOUTH COUNTY REGISTRY OF DEEDS BOOK 53623 PAGE 299 AND AN AMENDED PERMIT IN DEED BOOK 53842 PAGE 157 DATED 11/17/2020.
- THE SITE IS SUBJECT TO A MASS. ENDANGERED SPECIES ACT CONSERVATION AND MANAGEMENT PERMIT No. 018-318-DFW, DATED 2/9/2018, RECORDED IN PLYMOUTH COUNTY REGISTRY OF DEEDS BOOK 50147 PAGE 34 AND AN AMENDED PERMIT IN DEED BOOK 53655 PAGE 1, DATED 4/22/2019.



SITE PLAN APPROVAL

DATE _____

REVISIONS

OCTOBER 10, 2021	REMOVE PWS & SEPTIC SYSTEM
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SITE PLAN

LOVELL ACADEMY
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