

# RED ROBIN PASTURES

## DOVER, MASSACHUSETTS

### CONSULTANTS LEGEND

OWNER/ DEVELOPER:

RED ROBIN PASTURES, LLC.  
1218 GREAT PLAIN AVE.  
NEEDHAM, MA 02492  
Phone: 617 602-8153  
Attention: PAUL McGOVERN  
paul@pgcminc.com

DEVELOPMENT CONSULTANTS:

SEB, LLC / Strategic Land Ventures, LLC  
257 HILLSIDE AVENUE  
NEEDHAM, MA 02494  
Phone: 617 782-2300 \*202  
Attention: GEOFF ENGLER  
gengler@s-e-b.com

CIVIL ENGINEER:

RONALD TIBIERI, PE  
9 MASSACHUSETTS AVENUE  
NATICK, MA 01760  
Phone: 617 592-6122

ARCHITECT:

SIGNATURE DESIGNS-ARCHITECTURE  
73 BISHOP ROAD  
SHARON, MA 02067  
Phone: 781 806-0063  
Attention: Henry Bobek, RA  
bobekh@aol.com

STRUCTURAL ENGINEERING:

THE DEMPSEY GROUP  
P.O. BOX 927  
HARWICH, MA 02661  
Phone: 508 326-5498  
Attention: Richard Dempsey, PE  
tdgstructural@comcast.net

M/E/P & FIRE PROTECTION ENGINEER:

WOZNY/ BABAR & ASSOC., INC.  
1076 WASHINGTON STREET  
HANOVER, MA 02860  
Phone: 781 826-4144  
Attention: ZBIGNIEW WOZNY, PE  
zwozny@wbaengineers.com

SURVEYOR:

CHENEY ENGINEERING CO., INC.  
153 MELLE STREET  
NEEDHAM, MA 02494  
Phone: 781 444-2188  
Attention: Ardi Rrapi  
ardi.rrapi@cheney-eng.com

GEOTECHNICAL CONSULTANTS:

GEOTECHNICAL CONSULTANTS, INC.  
201 BOSTON POST ROAD WEST  
MARLBOROUGH, MA 01752  
Phone: 508 229-0900  
info@geotechnical.us

TRANSPORTATION CONSULTANT:

VANASSE & ASSOCIATES INC.  
35 NEW ENGLAND BUSINESS CENTER DR  
SUITE 140  
ANDOVER, MA 01810  
Phone: 978 269-6830  
Attention: Jeffrey S. Dirk PE PTOE FITE

LANDSACPE & LIGHTING CONSULTANT:

GREEN BEAN DESIGN, INC.  
SALEM MA



### LIST OF DRAWINGS

CAT.	DWG	DRAWING TITLE ● NEW OR REVISED ISSUE ○ NON-REVISED ISSUE	04/27/20	12/18/20	06/14/21	09/21/21 (#3)	10/28/21 (#4)													
TITLE	T1.0	TITLE SHEET			●	●	●													
SITE	C1	EXISTING CONDITIONS		●	●	●	○													
	C2	EROSION CONTROL PLAN (FORMERLY - SITE LAYOUT & UTILITIES)		●	●	●	●													
	C3	SITE LAYOUT (FORMERLY - STANDARD TITLE V SYSTEM)		●	●	●	●													
	C4	DRAINAGE & GRADING PLAN (FORMERLY - PRESBY SANITARY SYSTEM & DETAILS)		●		●	●													
	C5	UTILITIES (FORMERLY - SEPTIC SYSTEM DETAIL SHEET)		●	●	●	●													
	C6	PRESBY SANITARY SYSTEM & DTL.S (FORMERLY - DRAINAGE & GRADING PLAN)		●	●	●	●													
	C6.1	DETAIL SHEET		●			●													
	C7	SEPTIC SYSTEM DETAIL SHEET		●		●	●													
	C8	STANDARD TITLE V SYSTEM (FORMERLY - DETAIL SHEET)		●		●	●													
	C9	FIRE ACCESS & SSD (FORMERLY - DETAIL SHEET)				●	●													
	C10	DETAIL SHEET (FORMERLY - FIRE ACCESS & SSD)				●	●													
	C11	DETAIL SHEET (FORMERLY - DRAINAGE & GRADING PLAN)				●	●													
	C12	DETAIL SHEET					●													
	C13	RETAINING WALL SECTIONS & ELEV.S (FORMERLY SHEET RW1)					●													
	C14	RETAINING WALL SECTIONS & ELEV.S (FORMERLY SHEET RW2)					●													
	C15	SOIL TEST PIT PLAN					●													
ARCHITECTURAL	A1	FIRST FLOOR PLAN		●		●	●													
	A1.0	BASEMENT FLOOR PLAN		●		●	●	○												
	A1.1	GROUND FLOOR PLAN W/ SURROUNDING SITE		●			●	●												
	A2	SECOND FLOOR PLAN		●			●	○												
	A3	THIRD FLOOR PLAN		●			●	○												
	A4	LOFT LEVEL & ROOF PLANS		●			●													
	A5	MAIN ENTRY/STREET & PARKING LOT ELEVATIONS				●	●	●												
	A5.1	MASSING ELEVATIONS		●																
	A6	EAST & WEST ELEVATIONS		●			●	●												
	A7	BUILDING SECTIONS & 1 BR UNIT PLANS		●																
	A8	2 & 3 BR UNIT PLANS		●																
	A9	BUILDING HEIGHT COMPARISON																		
LANDSCAPING	L1	LANDSCAPE PLAN		●		●	●													
	L2	LANDSCAPE LIGHTING PLAN		●		●		●												
	RW1	RETAINING WALL SECTIONS & ELEV.S (CHANGED TO SHEET C13)			●															
	RW2	RETAINING WALL SECTIONS & ELEV.S (CHANGED TO SHEET C14)			●															

FOR REGISTRY USE

I CERTIFY THAT THIS PLAN HAS BEEN PERPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

DATE \_\_\_\_\_ RONALD TIBERI P.E.

I, \_\_\_\_\_ Clerk of the Town of Medway, received and recorded approval from the Planning and Economic Development Board of this plan and its corresponding decision on \_\_\_\_\_ and no appeal was taken for twenty (20) days, thereafter.

(Signature) \_\_\_\_\_ (Date) \_\_\_\_\_

This project is subject to a performance security covenant to be recorded herewith.

Rev. #	Date
3	09/21/21
4	10/28/21

Designer/Drafter	HB	Scale	N/A	Date
				06/14/21

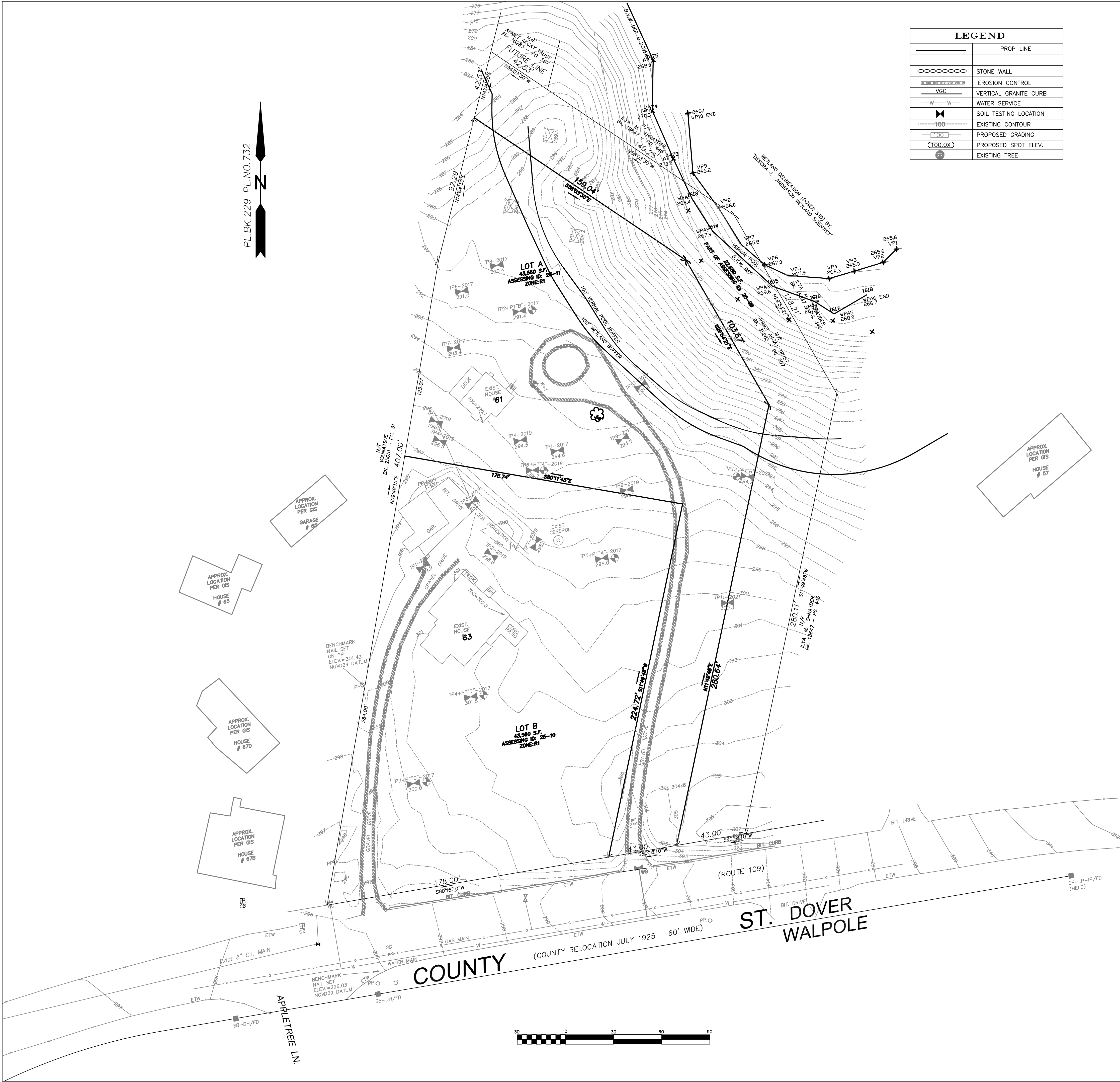
TITLE SHEET  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

TITLE SHEET  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

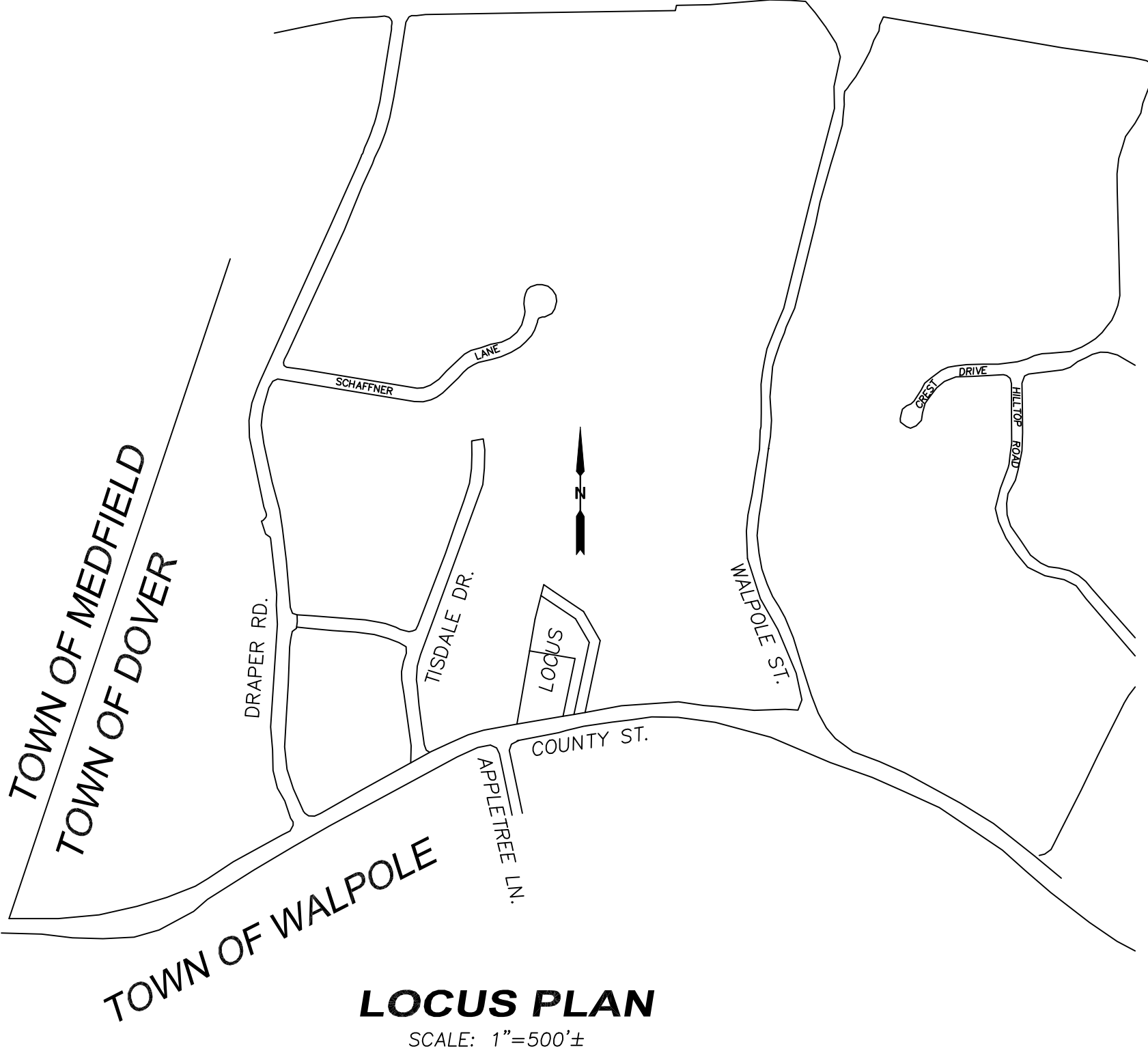
Signature Designs  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0063

Sheet No.  
T1





LEGEND	
	PROP. LINE
	STONE WALL
	EROSION CONTROL
	VGC
	WATER SERVICE
	SOIL TESTING LOCATION
	EXISTING CONTOUR
	PROPOSED GRADING
	PROPOSED SPOT ELEV.
	EXISTING TREE



- NOTES:
- SUBJECT TO ANY STATEMENT OF FACT AN UP-TO -DATE ABSTRACT OF TITLE WOULD DISCLOSE.
  - SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
  - UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES, IF ANY, HAVE BEEN SHOWN FROM SURFACE LOCATIONS AND MEASUREMENTS OBTAINED FROM A FIELD SURVEY AND RECORD LOCATIONS. THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER UTILITIES WHICH THE EXISTENCE OF ARE NOT KNOWN. SIZE, TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL TOLL FREE, DIG SAFE CALL CENTER AT 1-888-3444-7233 SEVENTY-TWO HOURS PRIOR TO ANY EXCAVATION.

CHENEY  
ENGINEERING CO., INC.

53 Mellen Street  
Needham, MA 02494  
Tel: 781-444-2188  
admin@cheney-eng.com

EXISTING CONDITIONS  
RED ROBIN PASTURES  
COUNTY STREET, DOVER MA

Signature Design  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0065

Sheet No.  
C1

Design & Drafting services performed by:  
Signature Design  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0065

Drawing Description  
EXISTING CONDITIONS  
RED ROBIN PASTURES  
COUNTY STREET, DOVER MA

Drawn by  
AR

Checked by  
AR

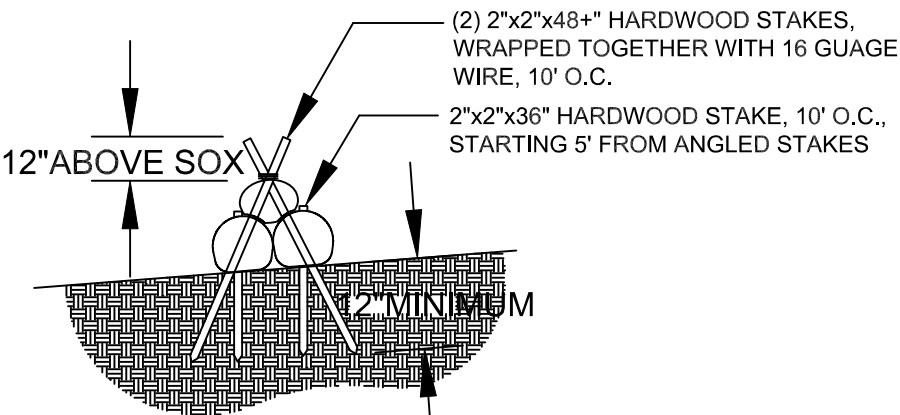
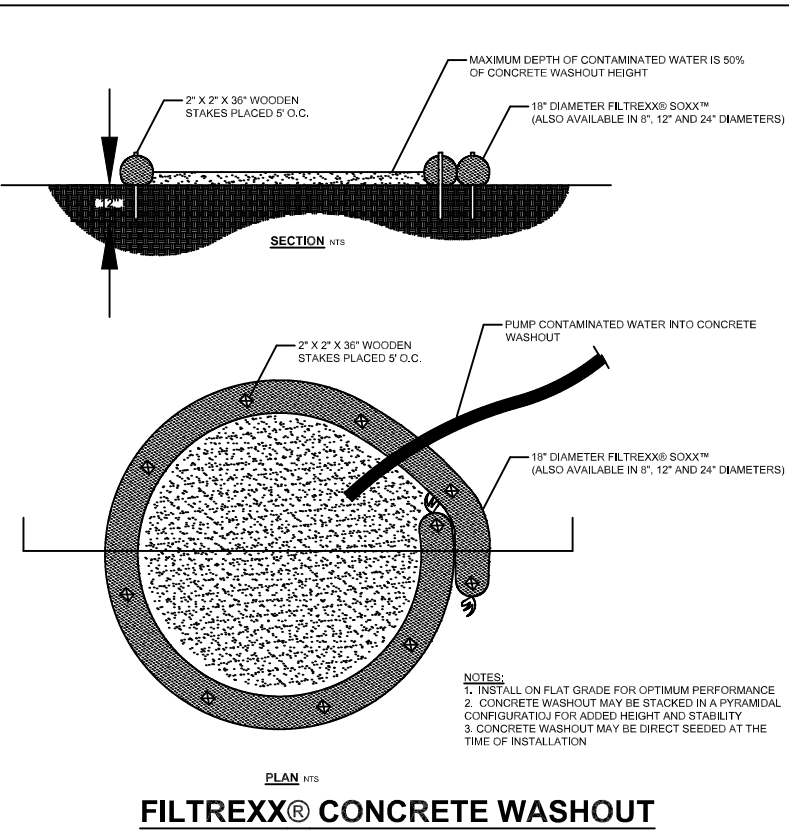
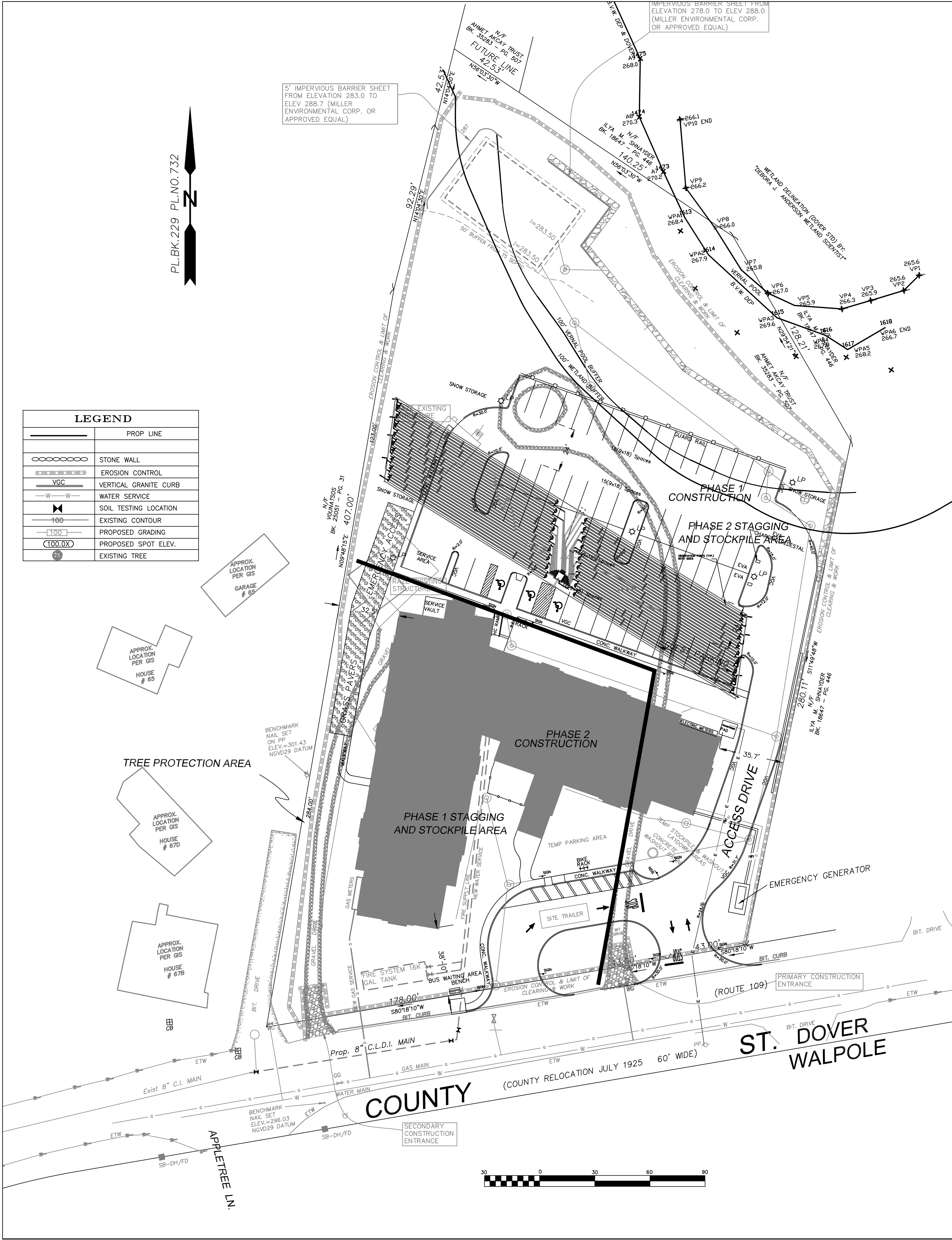
Rev. #  
3

Date  
08/21/21

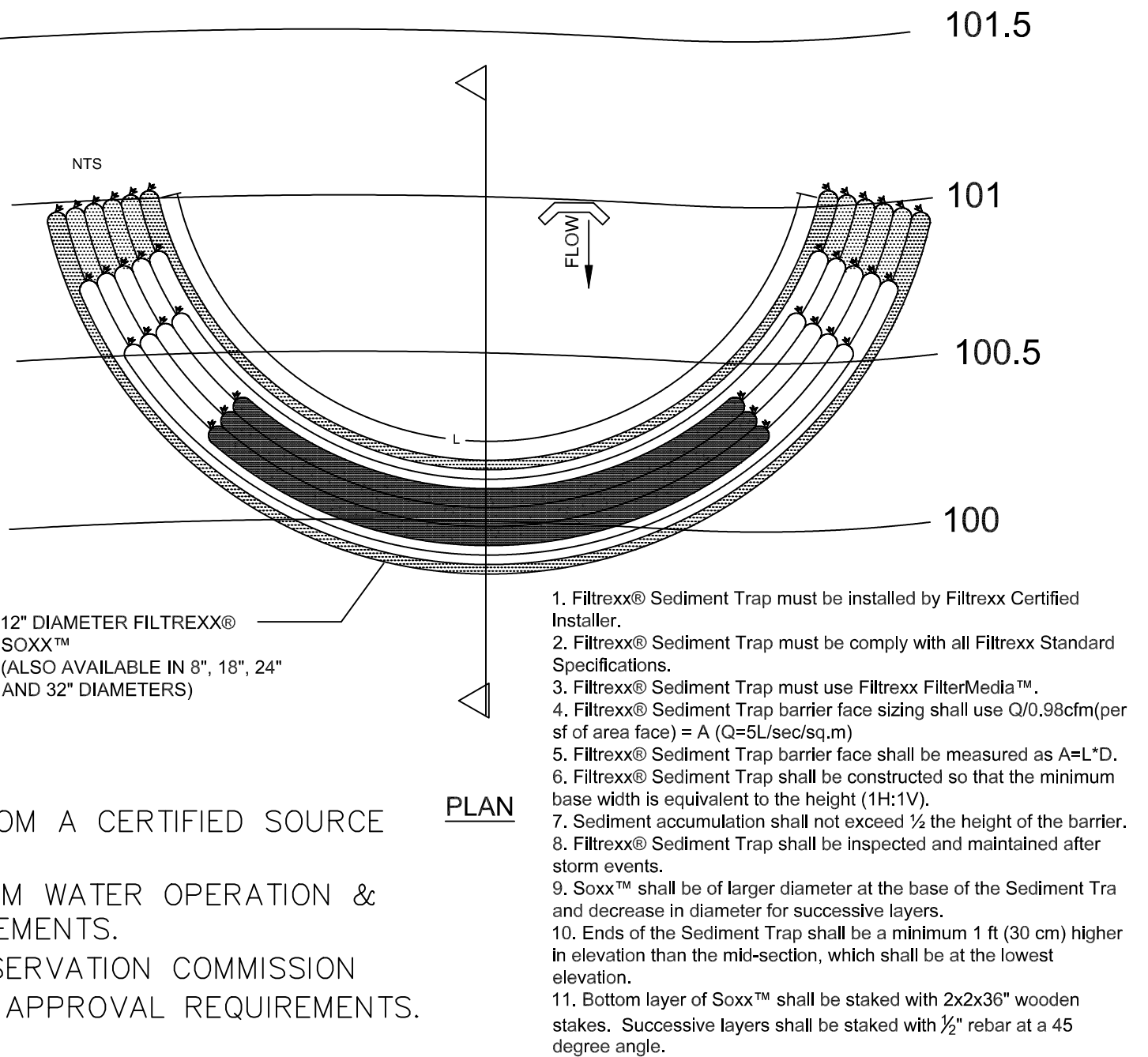
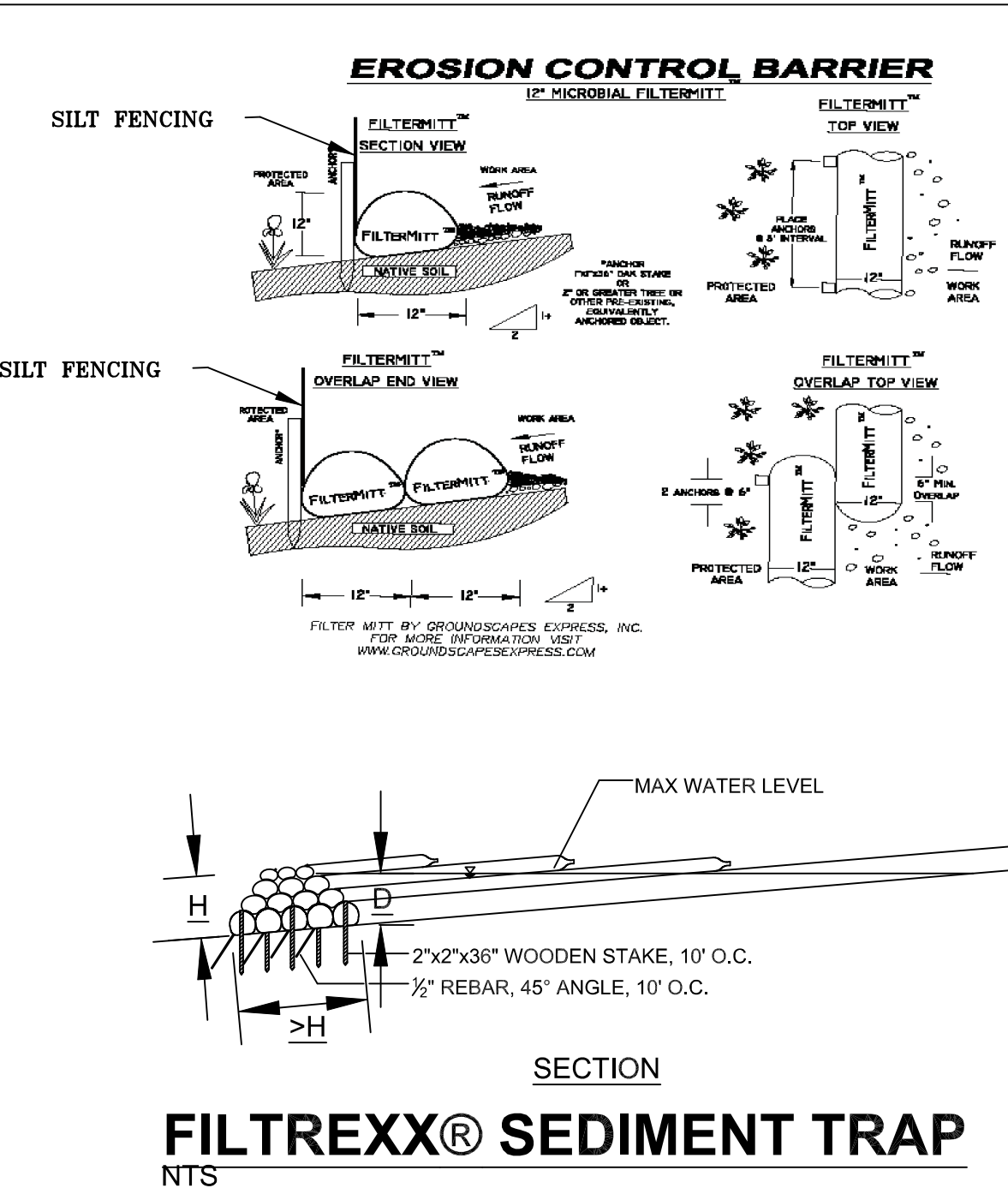
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Date  
12/18/20





FILTREXX® SEDIMENT TRAP STAKING DETAIL

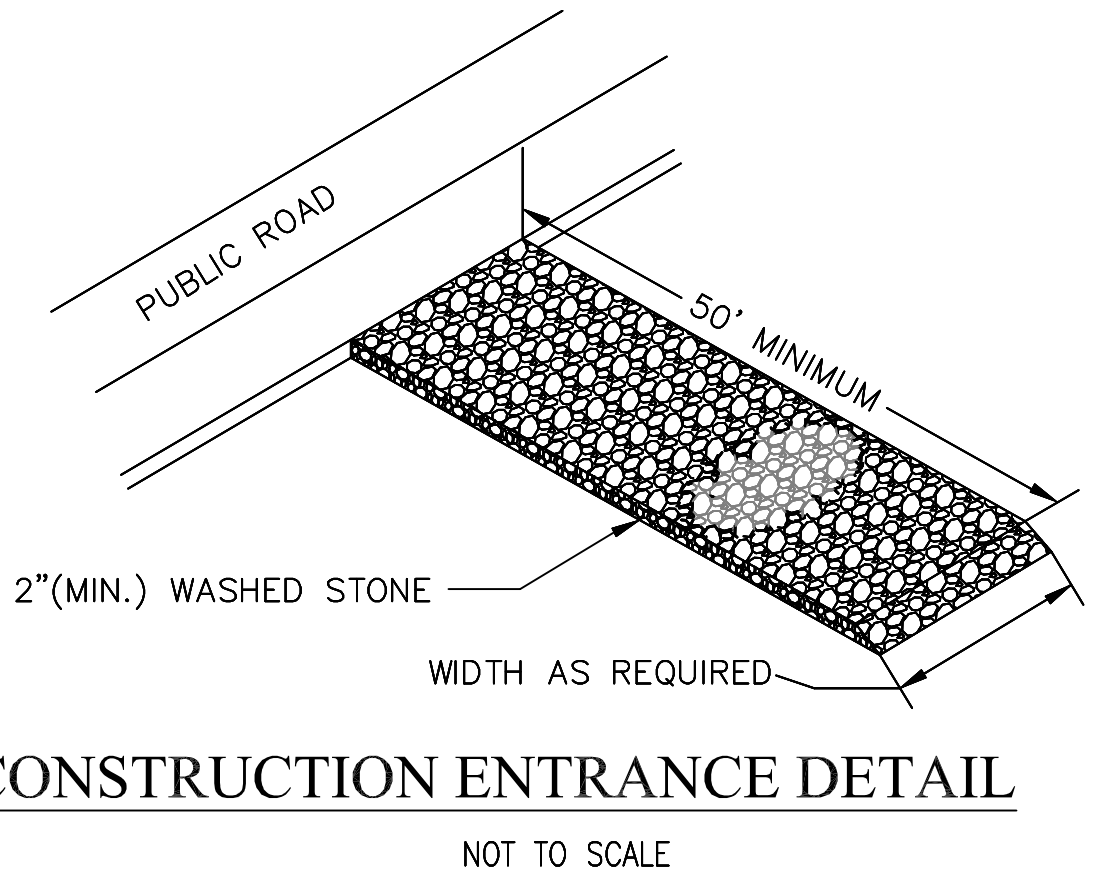


SITE NOTES

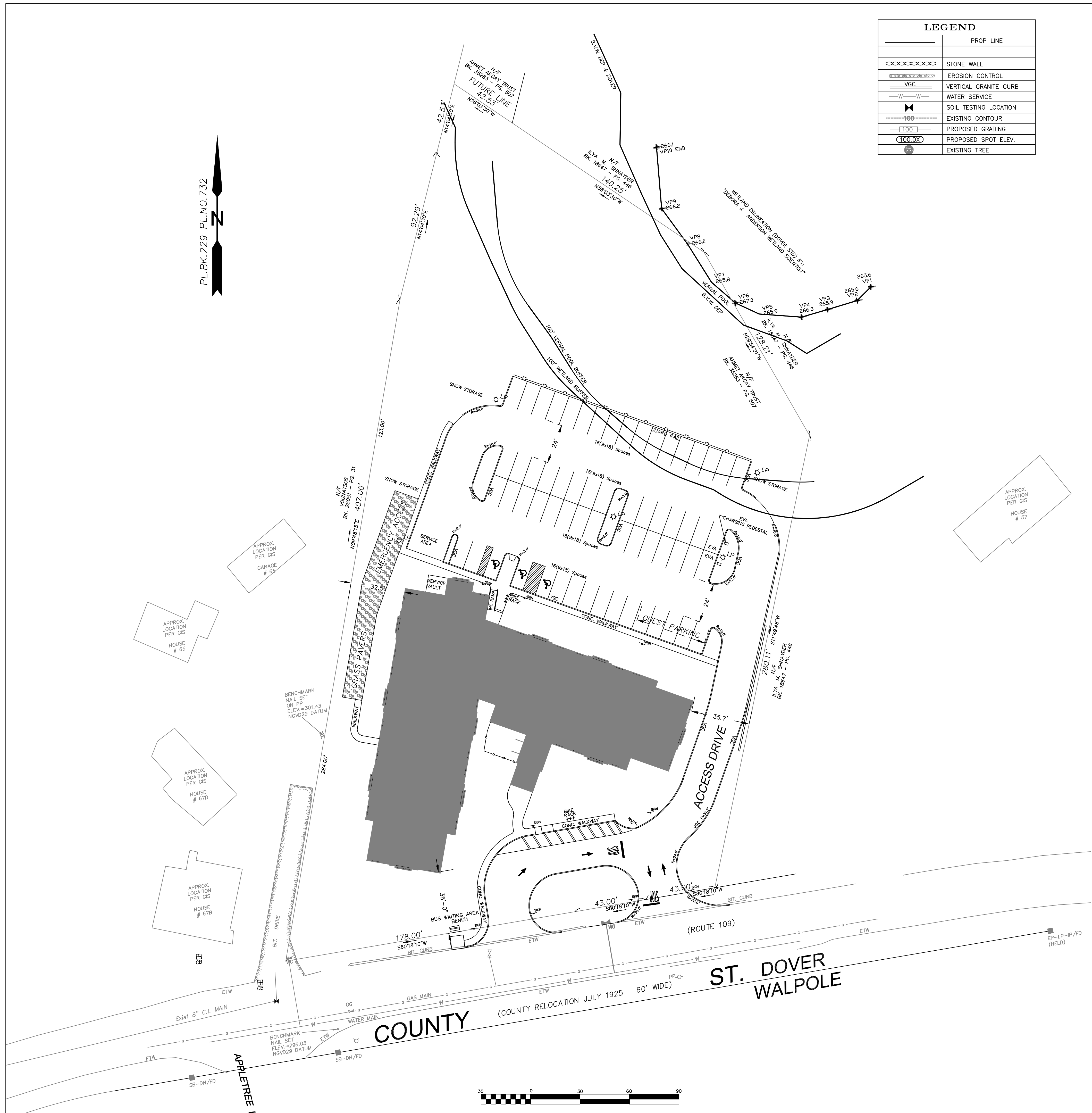
1. AREA OF DISTURBANCE IS 109000 SF
2. ALL FILL SHALL MEET APPROVED STANDARDS FROM A CERTIFIED SOURCE AS REQUIRED.
3. CONTRACTOR SHALL BE FAMILIAR WITH ALL STORM WATER OPERATION & MAINTENANCE PLAN AND SPILL PREVENTION REQUIREMENTS.
4. CONTRACTOR SHALL BE FAMILIAR WITH ALL CONSERVATION COMMISSION NOTICE OF INTENT CONDITIONS AND ZONING BOARD APPROVAL REQUIREMENTS.

Approximate Construction Sequence:

- Phase 1.
- Install perimeter fencing and erosion control around perimeter of site.  
Site clearance.  
Build temporary construction entrance on west side of site.  
Locate staging area at front of site.  
Setup temporary services.  
Build retaining wall at rear of site.  
Install drainage and septic structures.  
Construct driveway.  
Build parking lot to rough grade.
- Phase 2.
- Relocate construction staging area to rear of site.  
Construction entrance shift to driveway along East of site.  
Construction of structure.  
Completion of all siteworks/landscaping/hardscaping, etc.  
Installation of permanent perimeter fencing.







LEGEND	
	PROP. LINE
	STONE WALL
	EROSION CONTROL
	VERTICAL GRANITE CURB
	WATER SERVICE
	SOIL TESTING LOCATION
	EXISTING CONTOUR
	PROPOSED GRADING
	PROPOSED SPOT ELEV.
	EXISTING TREE

LAND USAGE TABLE – R-1 SINGLE FAMILY RESIDENCE (1 ACRE)

ITEM	REQUIRED DIMENSIONAL REGULATION	PROPOSED DIMENSIONS
MINIMUM LOT AREA	43,560 SQUARE FEET OR 1.00; ACRES	109,809 SQUARE FEET OR 2.52 ACRES
MINIMUM LOT WIDTH	150 FEET	264 FEET
MINIMUM FRONT SETBACK	40 FEET	38'-0" FEET
MINIMUM SIDE SETBACK	30 FEET	32'-6" FEET
MINIMUM REAR SETBACK	30 FEET	222 FEET
MAXIMUM BUILDING HEIGHT	35 FEET (2 1/2 STORIES)	44 FEET (3 STORIES)
MAXIMUM LOT COVERAGE REQUIREMENTS BY STRUCTURES	20%	14.8% (16,321 SF)

PARKING TABLE

PARKING/UNIT	REQUIRED	PROVIDED
	1.5	1.88

Rev. #	Date
3	08/21/21
4	10/28/21

Designer/Checker	RT	Scale	AS NOTED	Date
				12/18/20

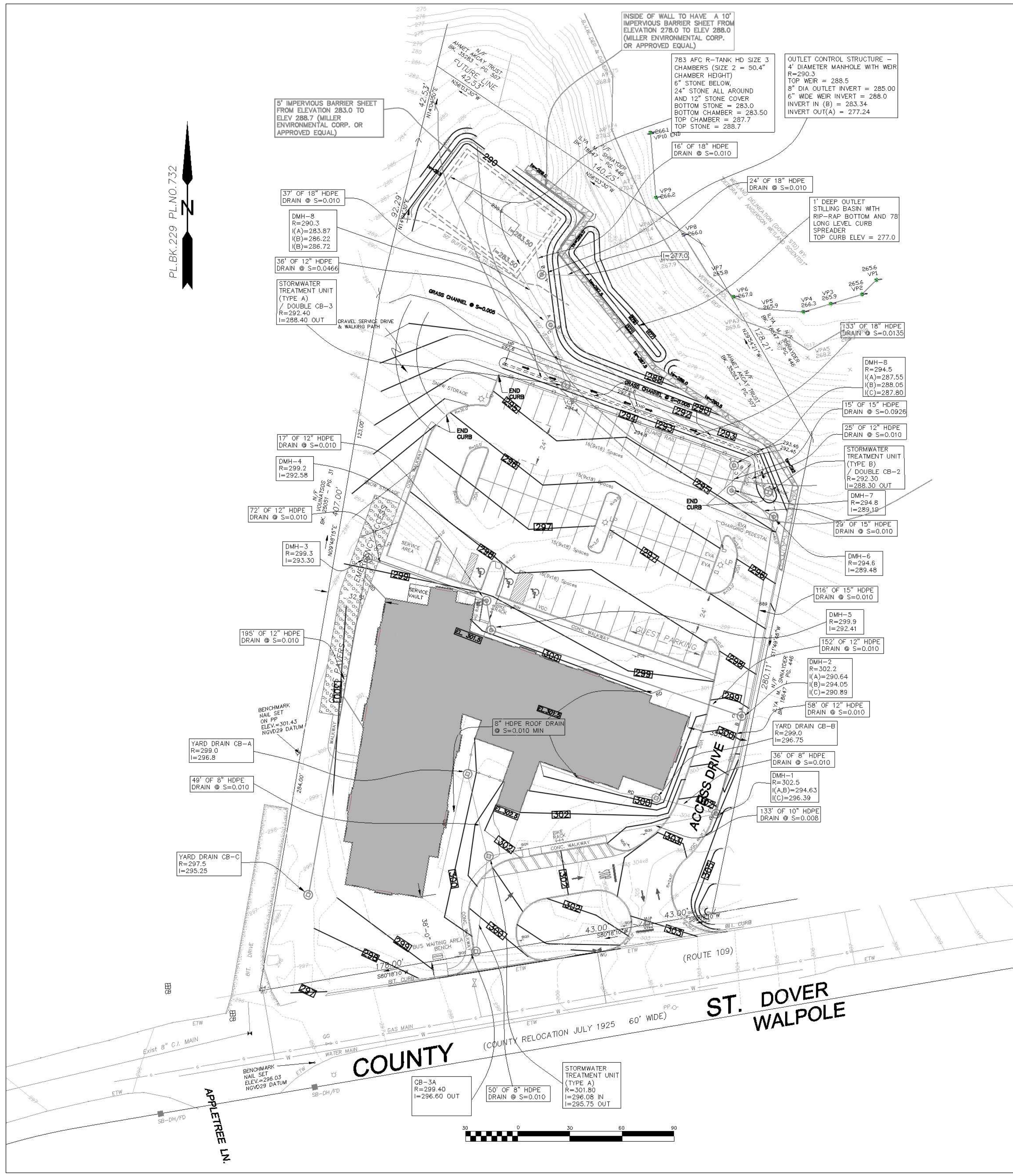
Site Layout  
Red Robin Pastures  
County Street, Dover, MA

Signature Design  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0065

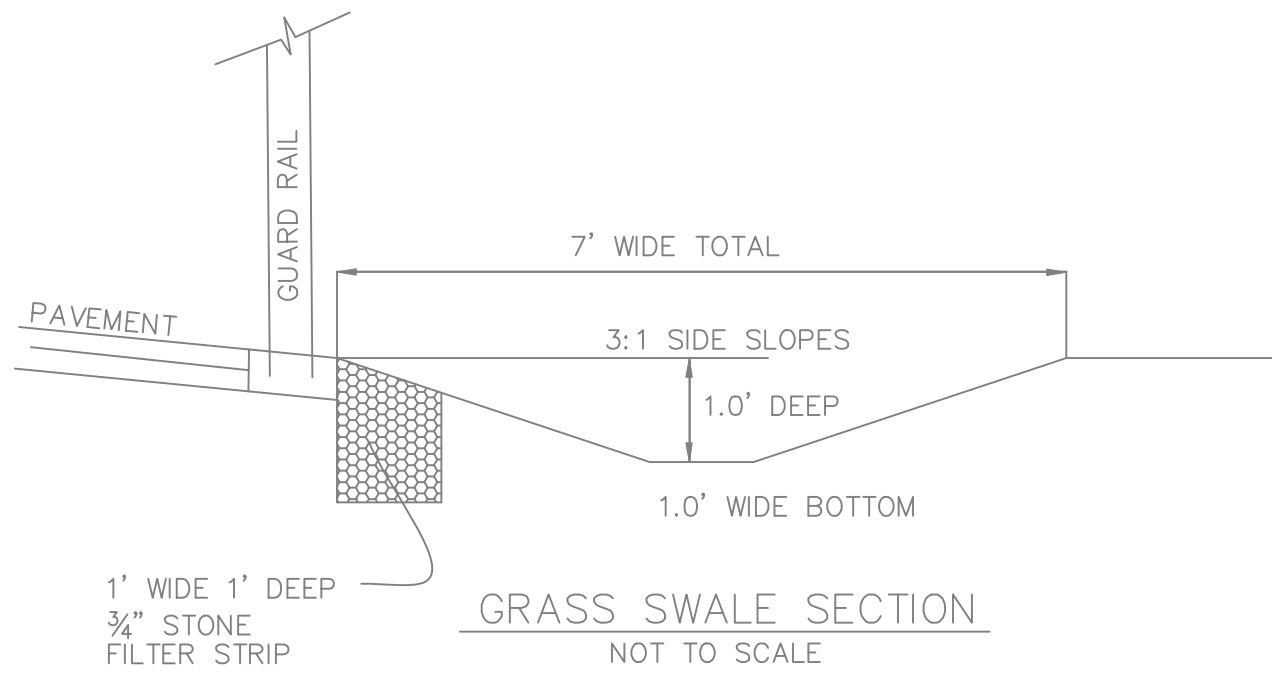
Signature Design  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0065

Sheet No.  
C3





LEGEND	
	PROP LINE
	STONE WALL
	EROSION CONTROL
	VERTICAL GRANITE CURB
	WATER SERVICE
	SOIL TESTING LOCATION
	EXISTING CONTOUR
	PROPOSED GRADING
	PROPOSED SPOT ELEV.
	EXISTING TREE



Date	09/21/21
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Rev	4

Designer/Checker	RT
Scale	1"=30'-0"
Date	09/21/21

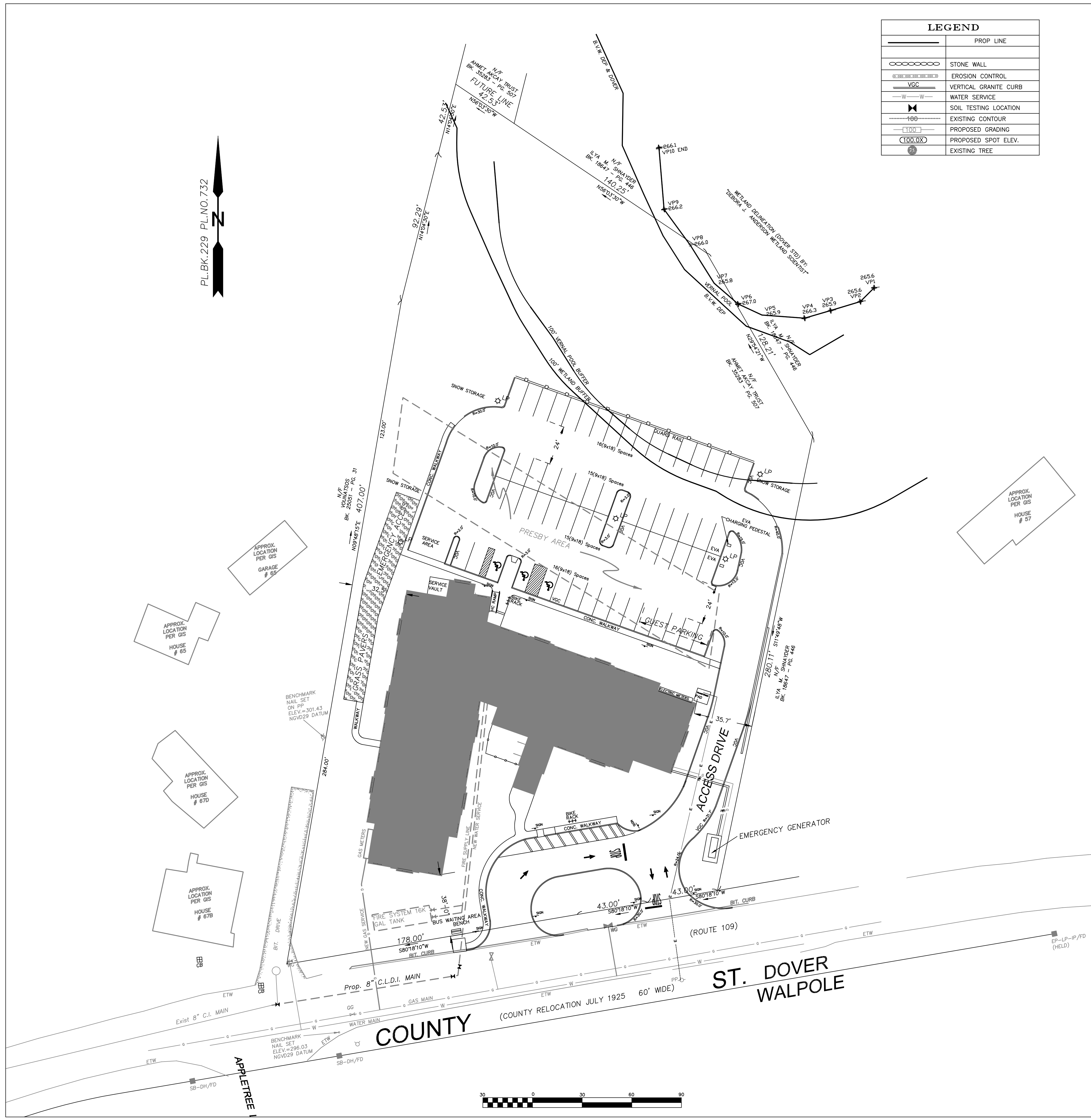
DRAINAGE & GRADING PLAN  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

Signature Design  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0063

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ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0063

Sheet No.  
C4





LEGEND	
	PROP. LINE
	STONE WALL
	EROSION CONTROL
	VERTICAL GRANITE CURB
	WATER SERVICE
	SOIL TESTING LOCATION
	EXISTING CONTOUR
	PROPOSED GRADING
	PROPOSED SPOT ELEV.
	EXISTING TREE



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**ARCHITECTURE**  
73 Bishop Road, Sharon, MA 02067 781 806-0065

Drawing Description  
**UTILITIES**  
**RED ROBIN PASTURES**  
**COUNTY STREET, DOVER, MA**

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**Signature Design**  
**ARCHITECTURE**  
73 Bishop Road, Sharon, MA 02067 781 806-0065

Sheet No.  
**C5**

Designer/Draftsman  
RT

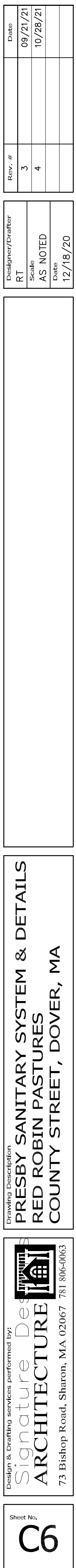
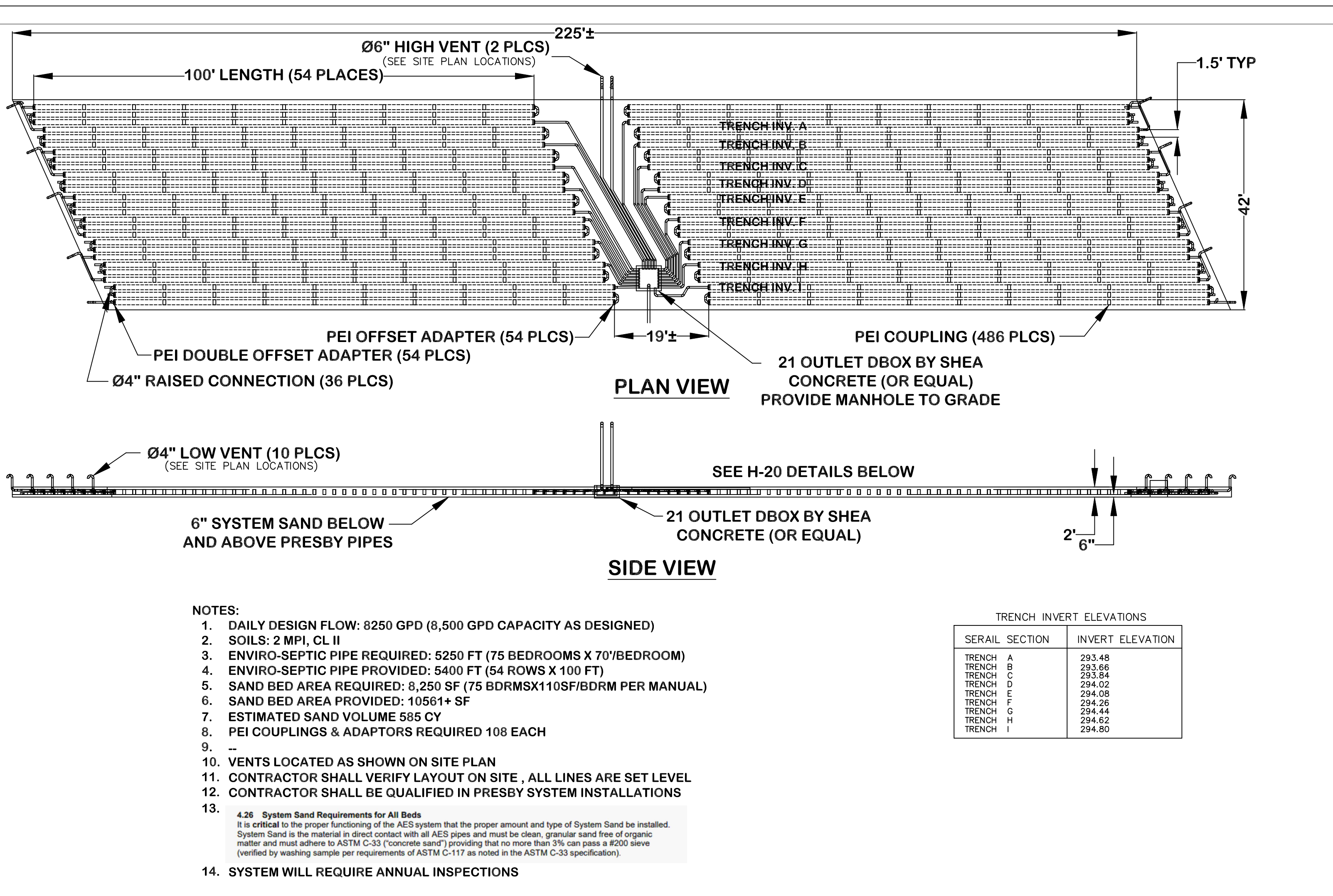
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AS NOTED

Date  
12/18/20

Rev. #  
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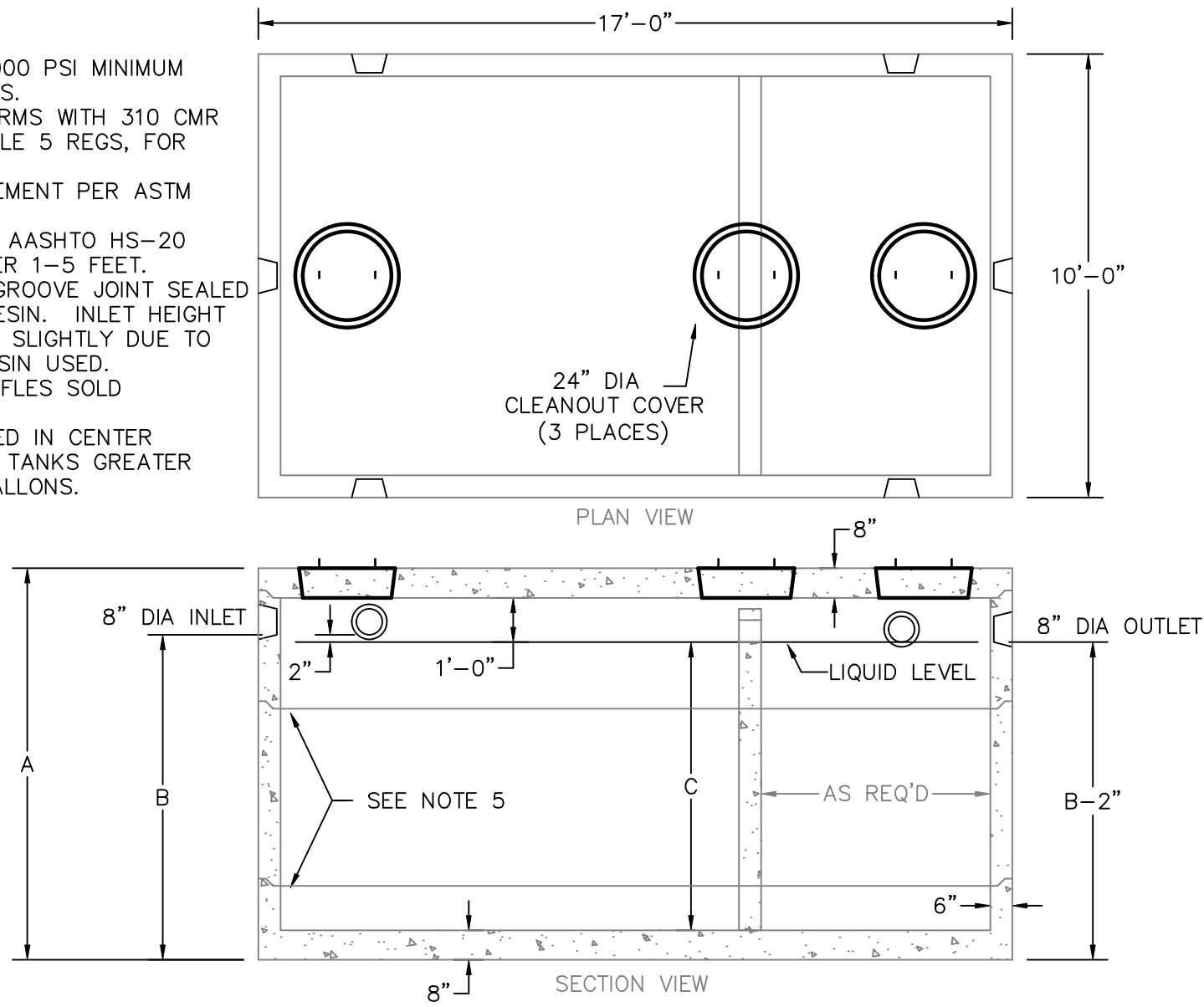
Date  
09/21/21  
10/28/21







- NOTES:
1. CONCRETE, 5,000 PSI MINIMUM AFTER 28 DAYS.
  2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP. TITLE 5 REGS, FOR SEPTIC TANKS.
  3. ALL REINFORCEMENT PER ASTM C1227.
  4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FEET.
  5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.
  6. TEES AND BAFFLES SOLD SEPARATELY.
  7. SPANNERS USED IN CENTER SECTIONS FOR TANKS GREATER THAN 7000 GALLONS.

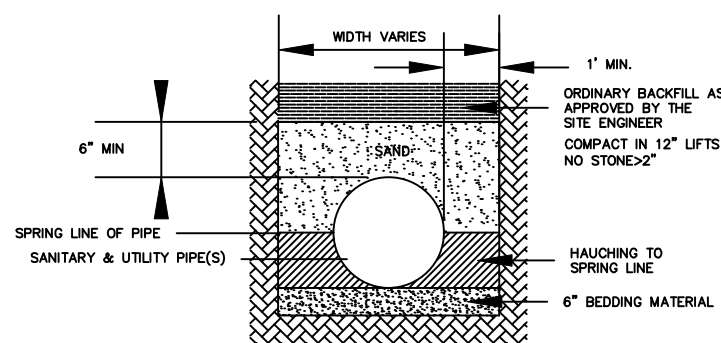


GALLONS	A (HEIGHT)	B (INLET)	C (LIQUID)	TOTAL WEIGHT	RISER 1 SIZE	RISER 2 SIZE	RISER 3 SIZE
4,000	76"	58"	48"	55,366	48"	0	0
5,000	88"	70"	60"	59,812	30"	30"	0
5,500	92"	74"	64"	61,296	30"	34"	0
6,000	96"	78"	68"	62,780	34"	34"	0
6,500	100"	82"	72"	64,258	30"	42"	0
7,000	106"	88"	78"	66,482	30"	48"	0
7,500	112"	94"	84"	68,704	42"	42"	0
8,000	118"	100"	90"	70,928	42"	48"	0
8,500	124"	106"	96"	73,152	48"	48"	0
9,000	130"	112"	102"	75,374	30"	30"	42"
9,500	136"	118"	108"	77,598	30"	30"	48"
10,000	140"	122"	112"	79,082	30"	34"	48"
10,500	146"	128"	118"	81,304	34"	42"	42"
11,000	152"	134"	124"	83,528	34"	42"	48"
11,500	158"	140"	130"	85,752	34"	48"	48"
12,000	162"	144"	134"	87,232	38"	48"	48"

ITEM	SIZE	WEIGHT
8" TOP		16,312#
21" BOTTOM		20,517#
30" RISER		11,116#
34" RISER		12,600#
38" RISER		14,080#
42" RISER		15,562#
48" RISER		17,786#

ALL RISERS HAVE SPANS

TANK DETAILS  
N.T.S.

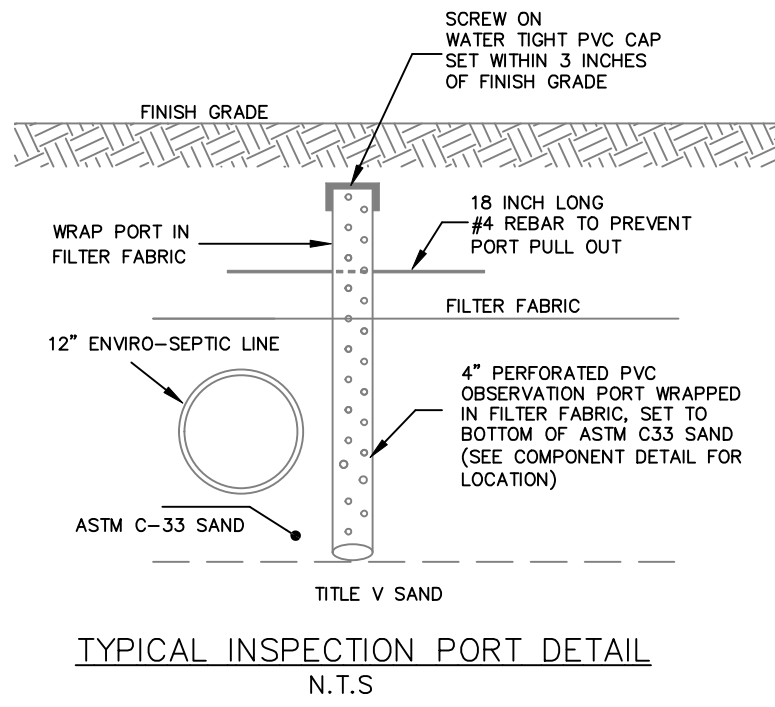


- NOTES:
- IN AREAS OF GROUNDWATER MOVEMENT AND FINE IN-SITU SOILS, THE BEDDING MATERIAL IS TO BE CHOKED WITH FINE AGGREGATE MEETING THE APPROVAL OF THE SITE ENGINEER TO INHIBIT MIGRATION OF FINES FROM THE IN-SITU SOILS.
  - PRIOR TO PIPE INSTALLATION, CAREFULLY BRING THE 4" OF BEDDING MATERIAL (AS PER PIPE MANUFACTURER'S AND UTILITY COMPANY'S RECOMMENDATIONS) TO GRADE ALONG THE ENTIRE LENGTH OF PIPE TO BE INSTALLED. PLACE AND COMPACT BEDDING MATERIAL AS PER PIPE MANUFACTURER'S AND UTILITY COMPANY'S RECOMMENDATION. IF TRENCH BOTTOM CONDITIONS SO WARRANT, MORE THAN 4" OF BEDDING MAY BE REQUIRED.
  - CAREFULLY WORK, BY HAND FROM EDGE OF THE TRENCH UP AND UNDER THE PIPE SUPPORT THE HAUNCHES. CONTINUE FILLING, BY HAND, TO THE SPRING LINE OF THE PIPE.
  - INITIAL BACKFILL CONTINUE WITH PLACEMENT AND COMPACTION OF BEDDING MATERIAL TO A DEPTH OF AT LEAST 6" ABOVE TOP OF PIPE.

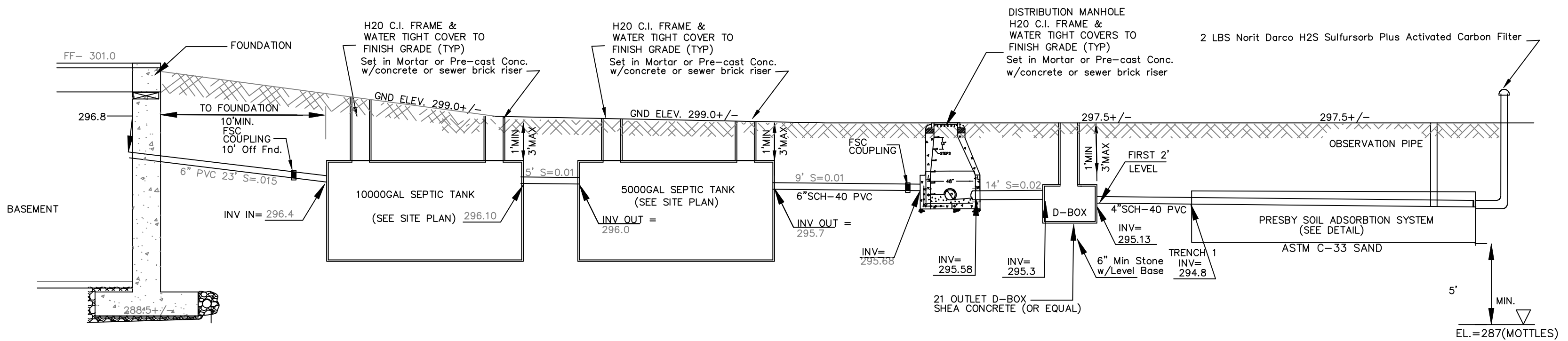
PIPE BEDDING DETAIL  
N.T.S.

ZABEL FILTER - A-100

Not To Scale

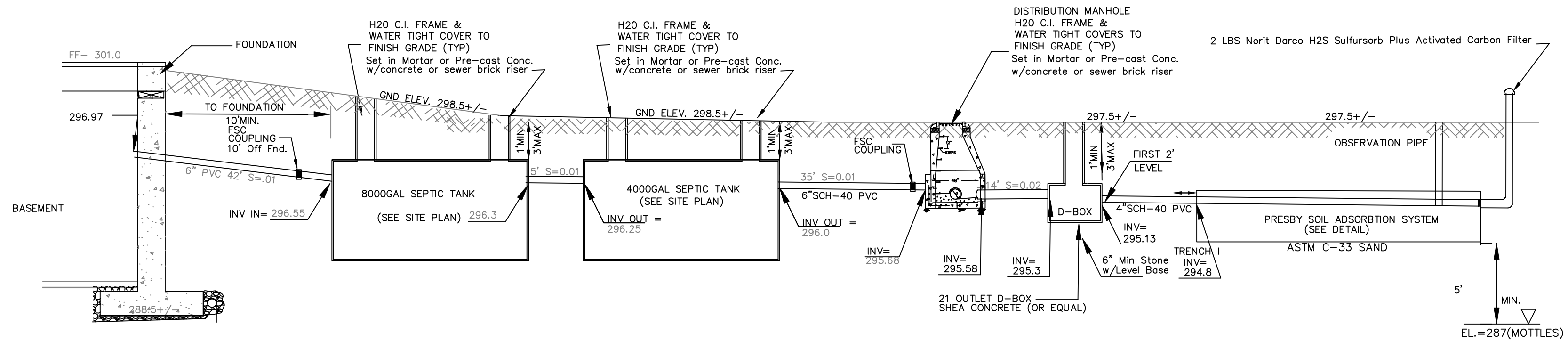


TYPICAL INSPECTION PORT DETAIL  
N.T.S.



SEPTIC SYSTEM COMPONENT PROFILE (EAST)  
N.T.S.  
38 BEDROOMS

**4.26 System Sand Requirements for All Beds**  
It is critical to the proper functioning of the AES system that the proper amount and type of System Sand be installed. System Sand is the material in direct contact with all AES pipes and must be clean, granular sand free of organic matter and must adhere to ASTM C-33 ("concrete sand") providing that no more than 3% can pass a #200 sieve (verified by washing sample per requirements of ASTM C-117 as noted in the ASTM C-33 specification).



SEPTIC SYSTEM COMPONENT PROFILE (WEST)  
N.T.S.  
37 BEDROOMS

SOIL EVALUATORS CERTIFICATIONS ON FILE W/BOH

- ① REMOVE TO UNTIL C2 LAYER IS EXPOSED OR ALL UNSUITABLE MATERIAL IS REMOVED AND REPLACE WITH TITLE V SAND (ASTM C-33 EQUIV.) 5'-FEET ALL AROUND TRENCHES

Date	09/21/21
Rev	3
Rev	4

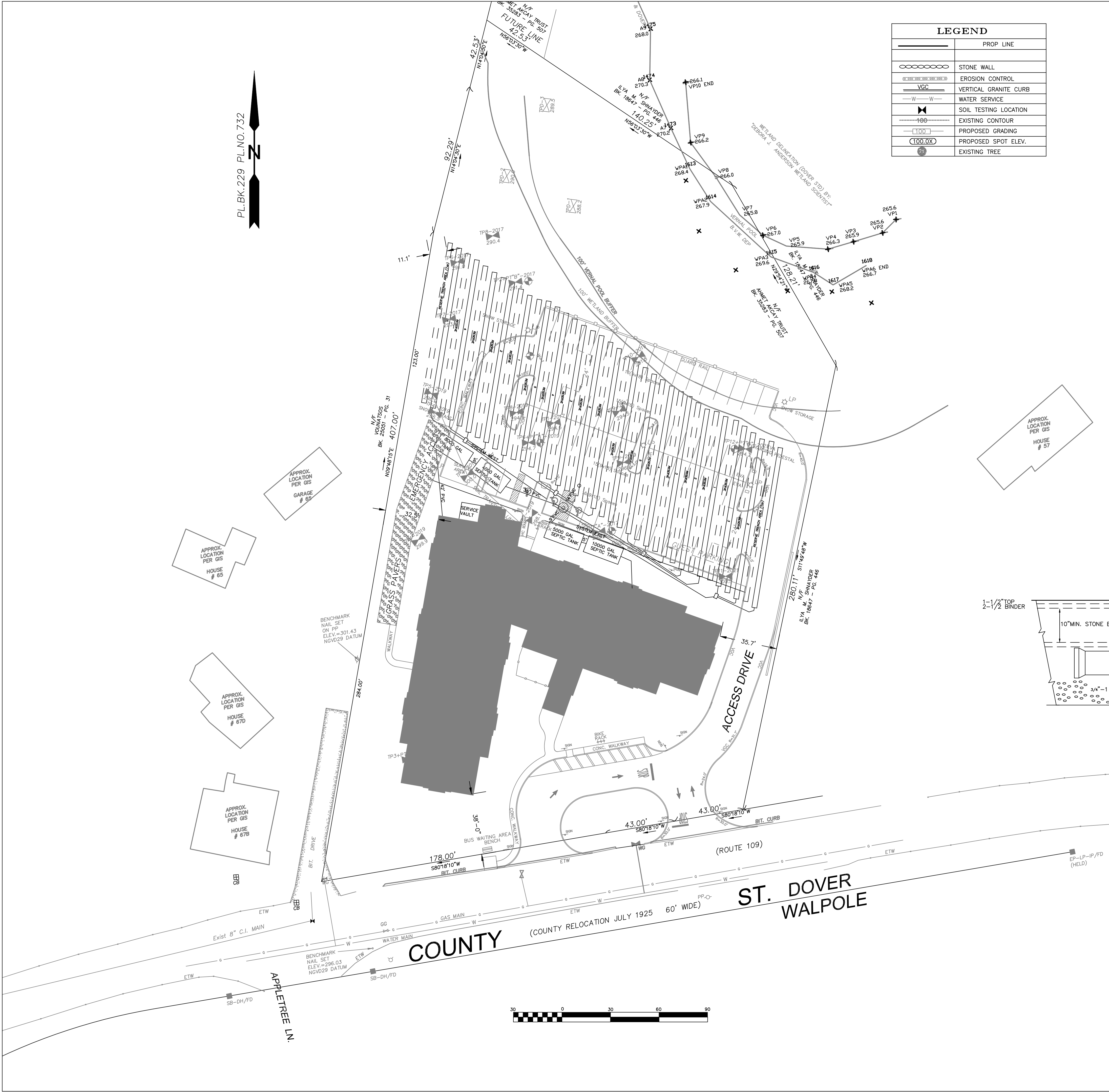
Designer/Checker	RT
Scale	AS NOTED
Date	12/18/20

SEPTIC SYSTEM DETAIL SHEET  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

Signature Design  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0065

Sheet No.  
C7





LEGEND	
—	PROP LINE
—	STONE WALL
—	EROSION CONTROL
—	VERTICAL GRANITE CURB
—	WATER SERVICE
—	SOIL TESTING LOCATION
—	EXISTING CONTOUR
—	PROPOSED GRADING
—	PROPOSED SPOT ELEV.
—	EXISTING TREE

GENERAL NOTES & SPECIFICATIONS

- All work shall be in accordance with NPDES permit and Spill Prevention Plans
- Pipe and fittings shall be Schedule 40 PVC (polyvinyl chloride) manufactured in accordance with the latest requirements of ASTM D3034. Joints shall be solvent welded type (tight joints). Pipe to be laid on firm compacted base.
- Perforated pipe, when required, shall be schedule 40 PVC (ASTM D1785) for entire length of system. All joints shall be tight joint. Orifice dia.=3/8" to 5/8".
- Washed stone and other soil materials shall be in accordance with ASTM Standard
- Fill Material shall be clean granular material with a percolation rate of 2 min./inch or less, be free of deleterious material, and properly compacted to minimize settlement, or allowed to settle for twelve months.
- No changes shall be made in this plan without the authorization of the engineer, the Board of Health & Town Engineer.
- Contractor must notify dig safe & the local water department prior to beginning excavation work.
- Construction access is limited to the existing driveway. Prior approval and permitting from the Town of Dover Highway Department will be required for any area of disturbance within the right of way to obtain access or install any proposed system.
- Notify Town of Dover Board of Health 3 days prior to start of construction.
- Vehicular traffic over, parking of vehicles on, stockpiling of materials over, or storage of equipment on system shall not be allowed at any time.
- Dewatering is required if fill is to be placed below ground water.
- There are no industrial category or prohibited wastewaters are used currently at this site.
- Fill shall not be placed during rain or snow storms.
- 48 Hour notice for field inspection, call Town Engineer for schedule
- Design Engineer to certify system installed & operating
- Weekly or as needed inspections required

**DIG SAFE NOTE:**  
UTILITIES ARE PLOTTED FROM FIELD LOCATION AND ANY RECORD INFORMATION AVAILABLE, AND SHOULD BE CONSIDERED APPROXIMATE. OTHER UTILITIES MAY EXIST WHICH ARE NOT EVIDENT OR FOR WHICH RECORD INFORMATION WAS NOT AVAILABLE. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 82 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING. ALSO, CALL "DIG-SAFE" AT 1(888)344-7233 1(888)DIG-SAFE.

THE OFFSETS AS SHOWN ON THIS PLAN ARE NOT TO BE USED FOR THE ESTABLISHMENT OF PROPERTY LINES OR FOR THE ESTABLISHMENT OF ANY PROPOSED CONSTRUCTION UNLESS SAID CONSTRUCTION IS SHOWN HEREON.

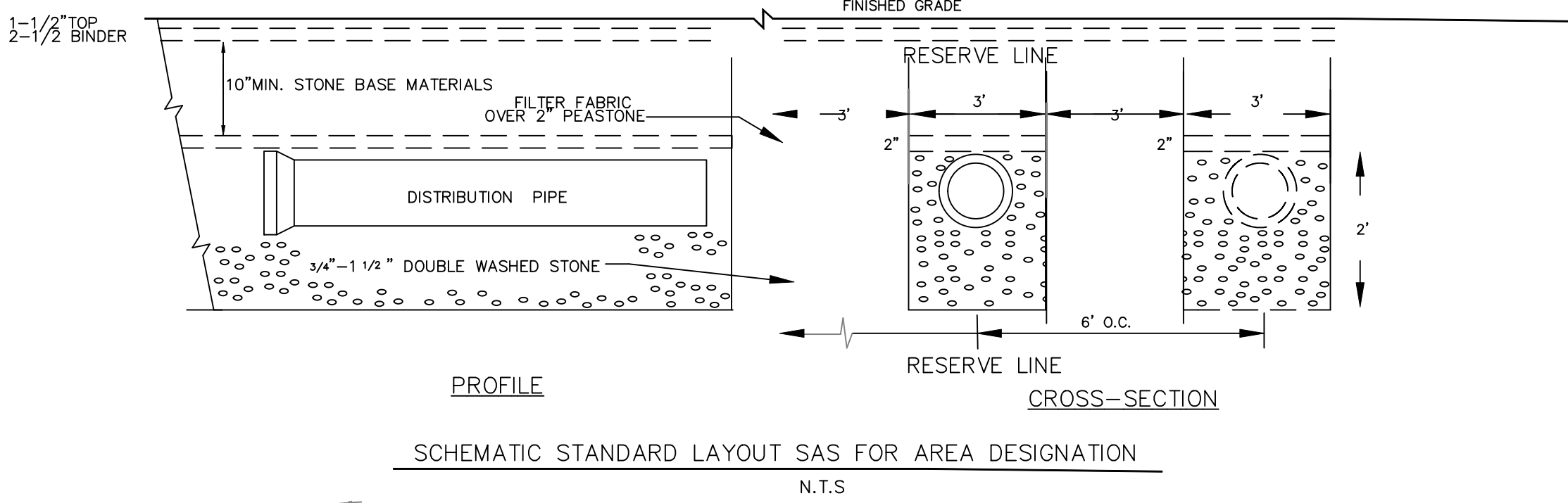
CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

STANDARD LEACHING FACILITY DESIGN CRITERIA

TYPE OF BUILDINGS	MULTI FAMILY DWELLING
# OF BEDROOMS	75
	8250 GPD

PERC. DESIGN RATE  $<2$  MIN./INCH  
MIN. DAILY FLOW  
PRESSURE SYSTEM  
EFFLUENT LOADING RATE (GPD/SF) = 0.63  
SOIL CLASS II

REQUIRED AREA = 8250 GPD / 0.63GPD/SF=13095sf  
CALCULATION:  
Stone Trench Req'd = 13095 SF / 7 SF/LF = 1870LF  
Stone Trenches = 19x100LF / 7 SF/LF = 113300SF Provided



Date	09/21/21	10/28/21
Rev. #	3	4

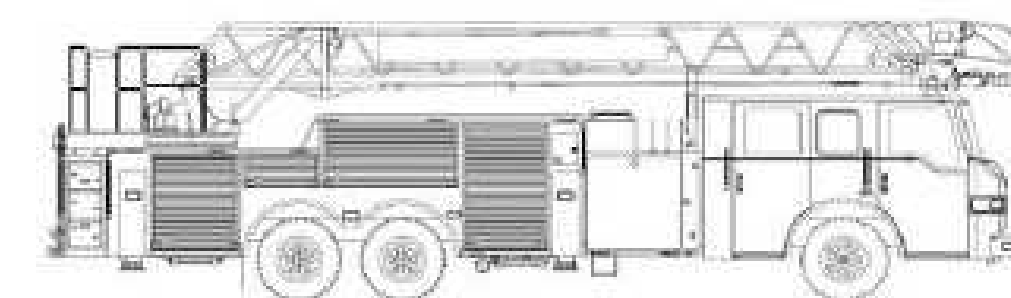
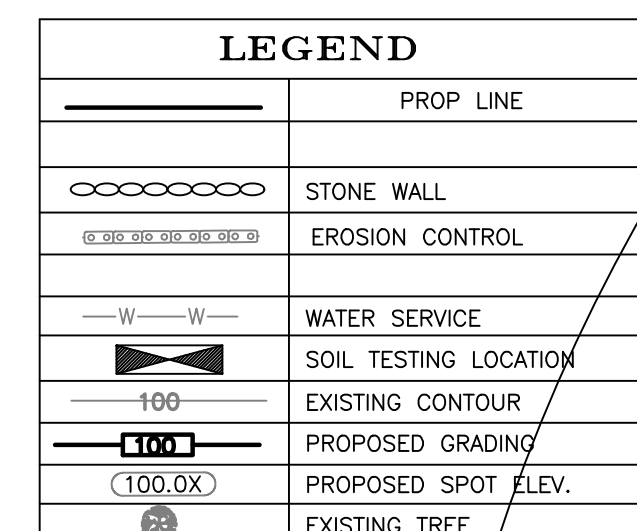
Designer/Drafter	RT	AS NOTED	Date	12/18/20
Scale	AS NOTED			

STANDARD TITLE V SYSTEM  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

Signature Design  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0065

Sheet No.  
C8





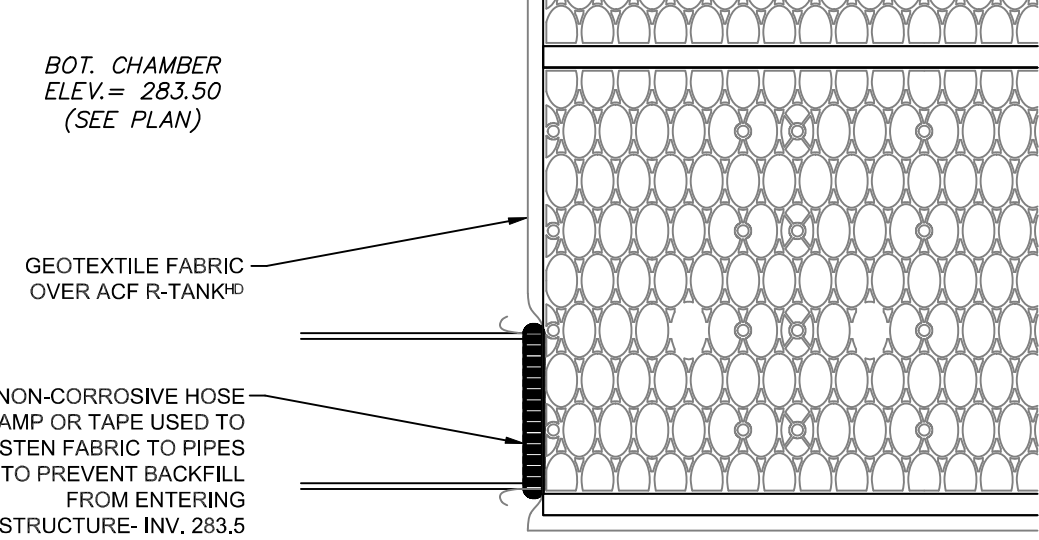
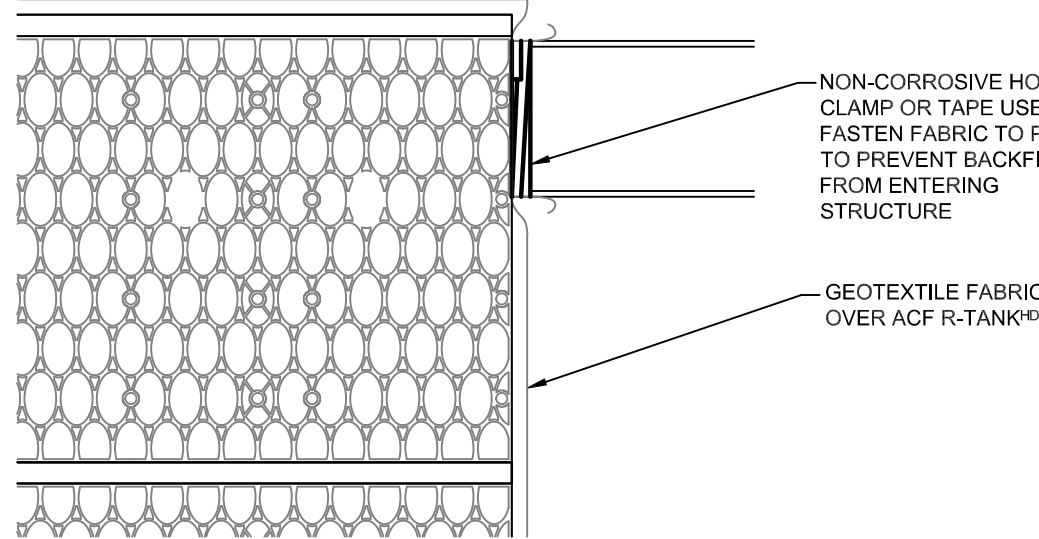
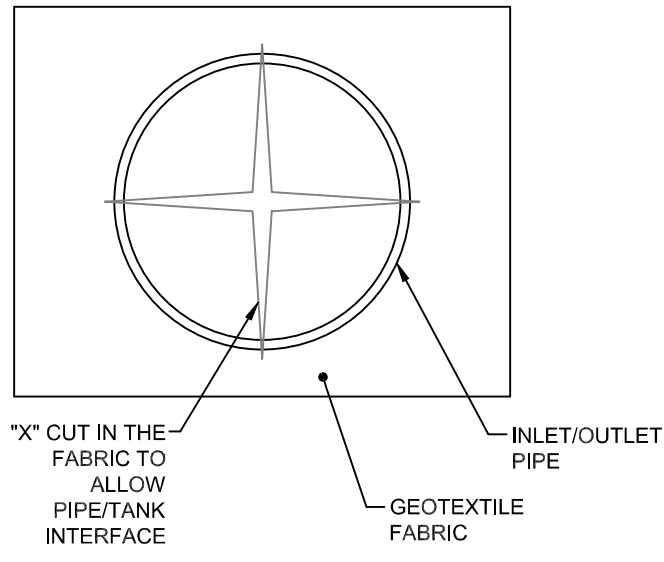
	Minimum	Maximum
Front GAWR (lbs)	20000	22800
Rear GAWR (lbs)	34000	54000
Width (in.)	98	100
Height (in.)	10.5	12.5
Length (ft.)	39	43

Rev. #	Date
3	09/21/21
4	10/28/21

Designer/Drafter	RT
Scale	AS NOTED
Date	



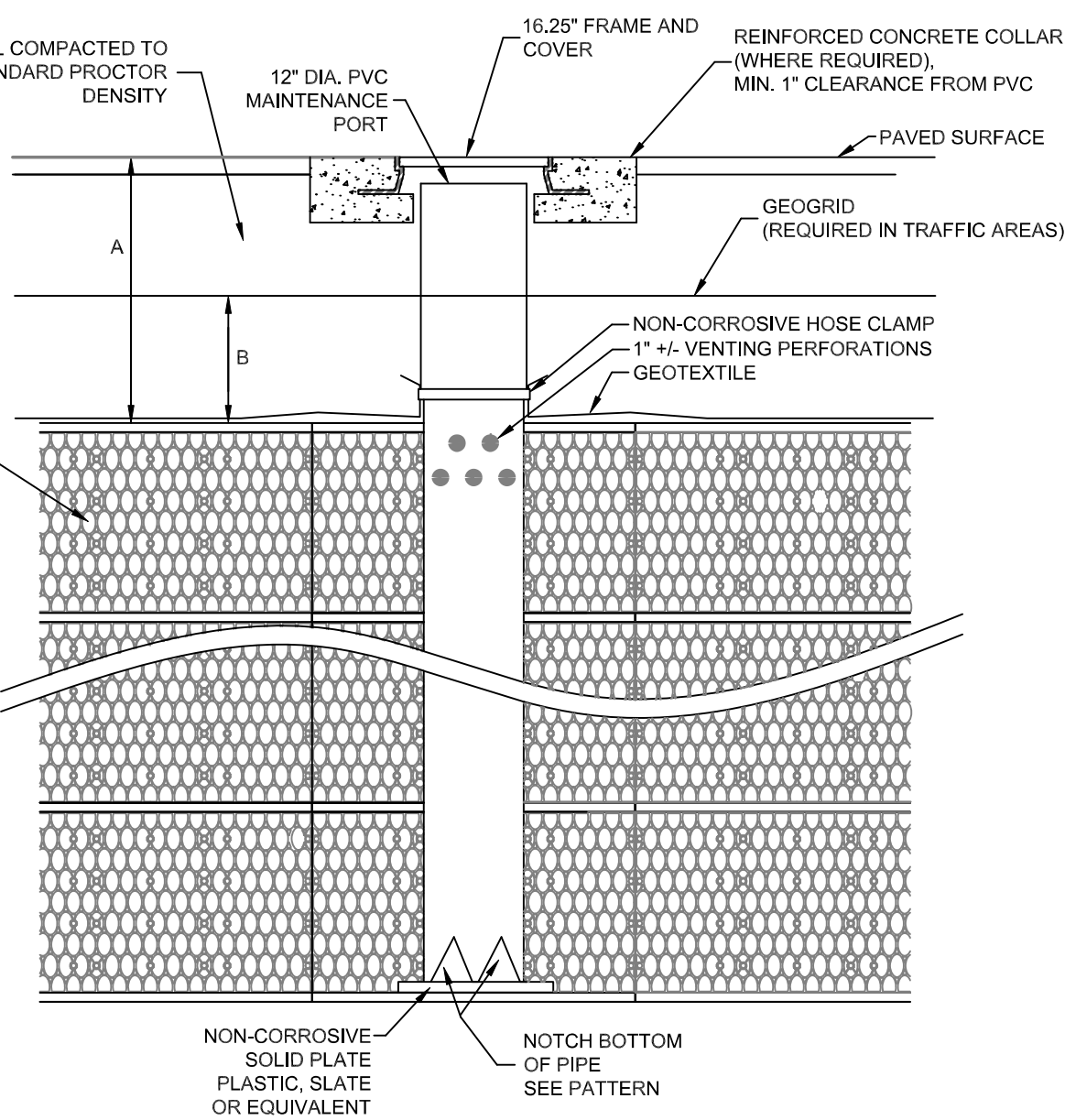
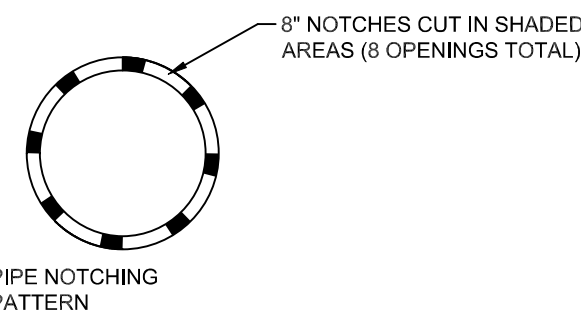
END VIEW OF PIPE/FABRIC CONNECTION.  
CUT AN "X" IN THE FABRIC SLIGHTLY  
LARGER THAN PIPE, PULL THE FABRIC  
AROUND THE PIPE TO CREATE THE "BOOT"  
AND THEN SECURE WITH A HOSE-CLAMP.



R-TANK<sup>HD</sup> TYPICAL TANK INLET/OUTLET DETAIL

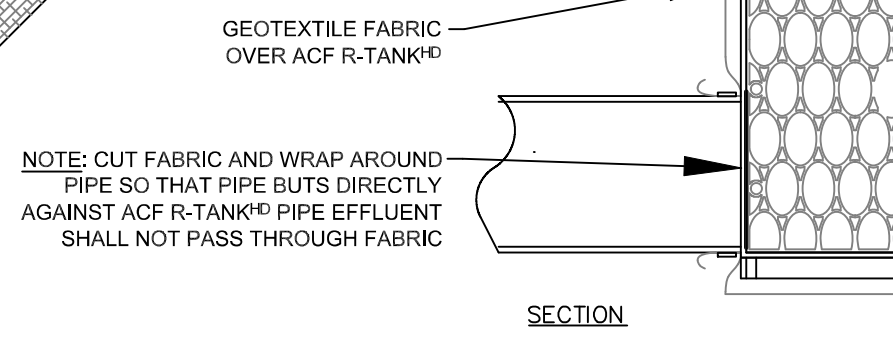
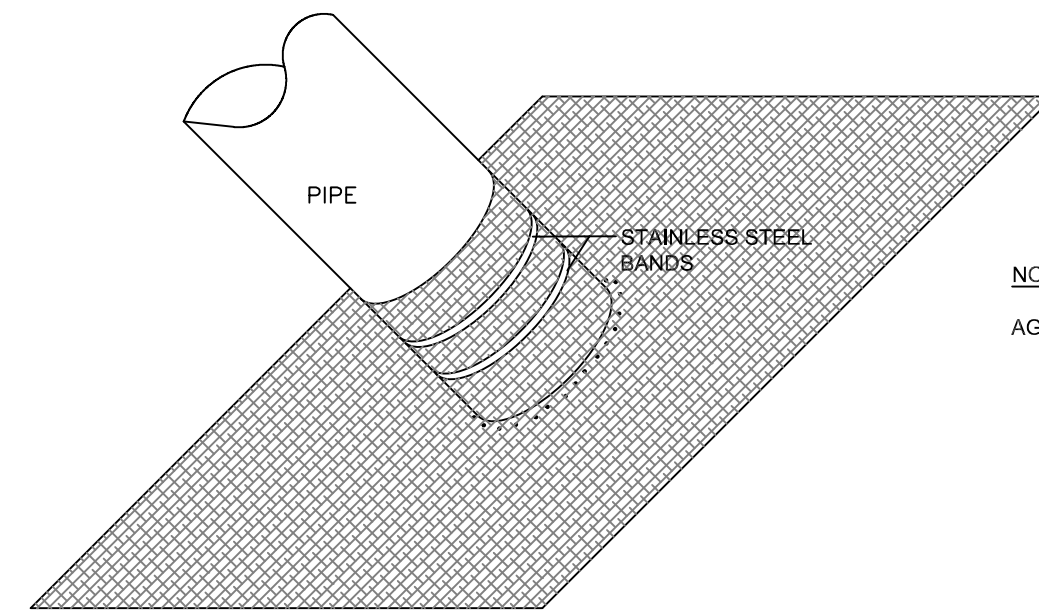
#### NOTES

- THIS PORT IS USED TO PUMP WATER INTO THE SYSTEM AND RE-SUSPEND ACCUMULATED SEDIMENT SO THAT IT MAY BE PUMPED OUT.
- MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.
- ONLY R-TANK<sup>HD</sup> AND R-TANK<sup>HD</sup> MAY BE USED IN TRAFFIC APPLICATIONS.

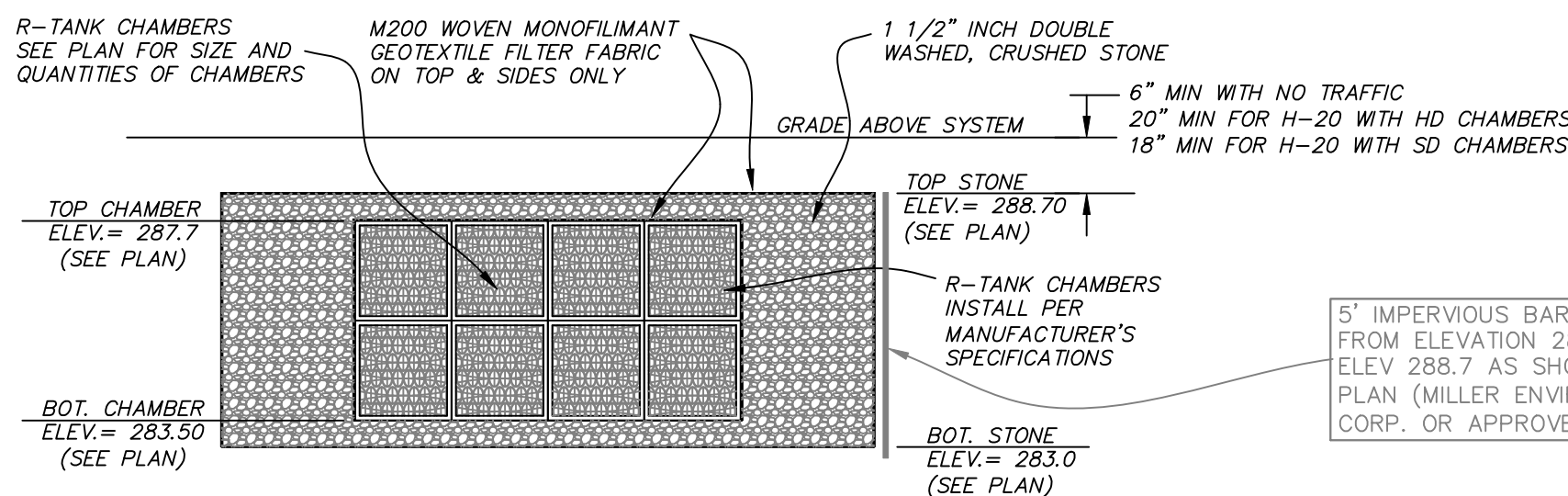


MAINTENANCE PORT  
FOR R-TANK<sup>LD</sup>, R-TANK<sup>HD</sup>, AND R-TANK<sup>SD</sup>

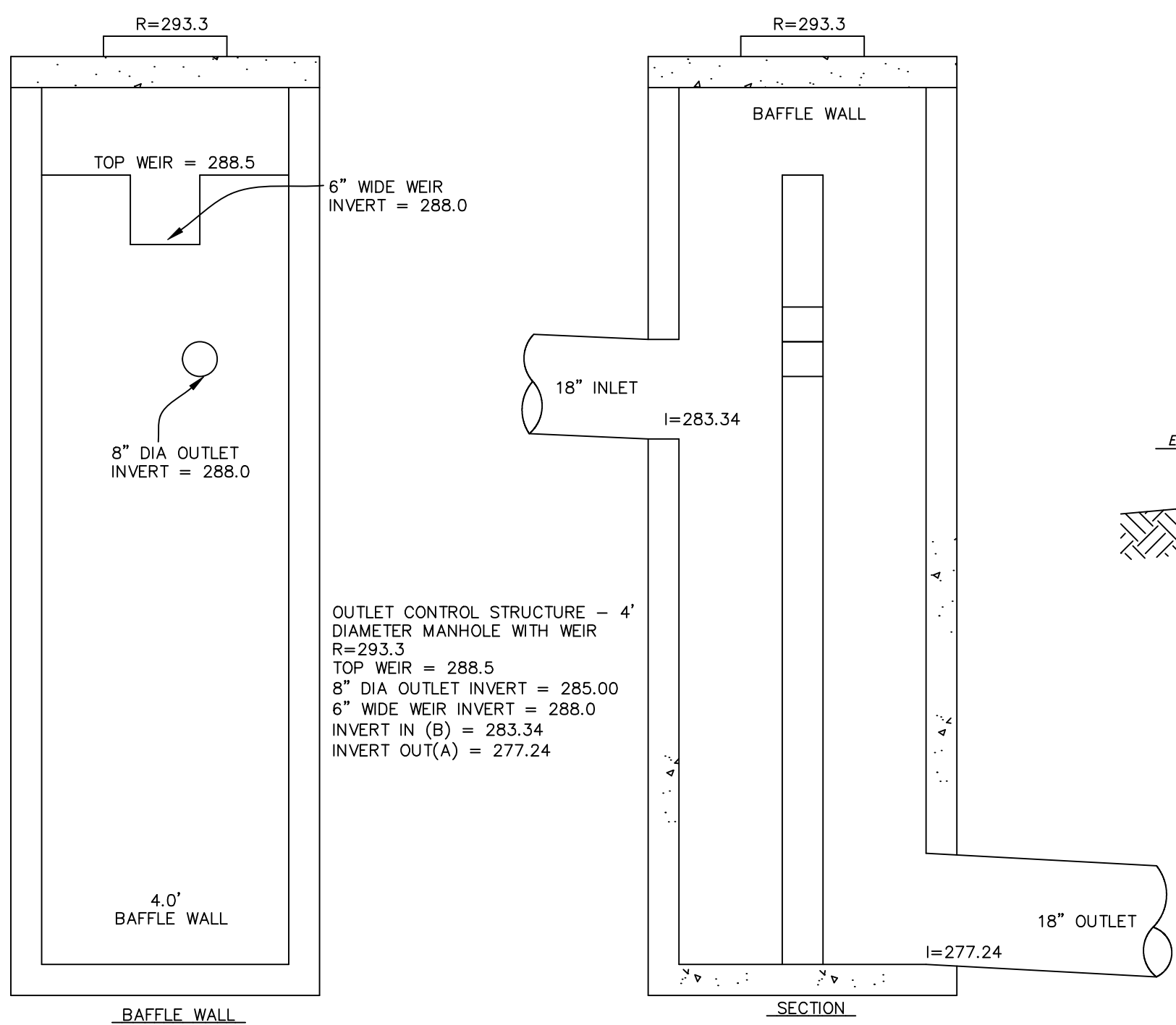
FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-445-3636, [www.acfenvironmental.com](http://www.acfenvironmental.com)



FABRIC PIPE BOOT FOR R-TANK<sup>HD</sup>

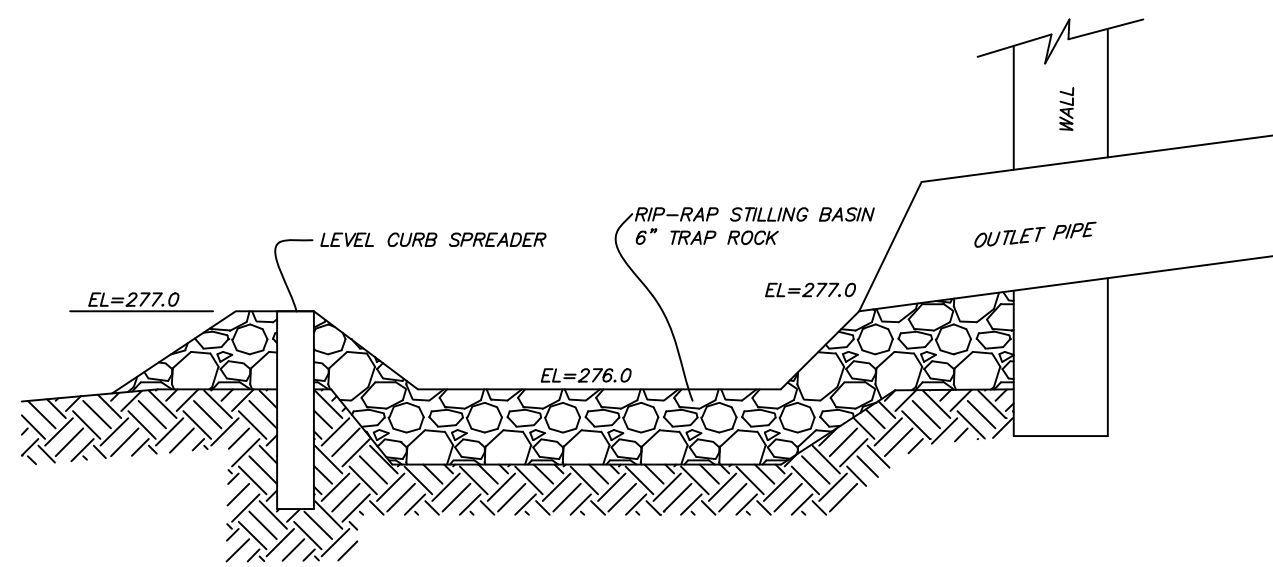


R-TANK CHAMBER TYPICAL DETAIL  
NOT TO SCALE

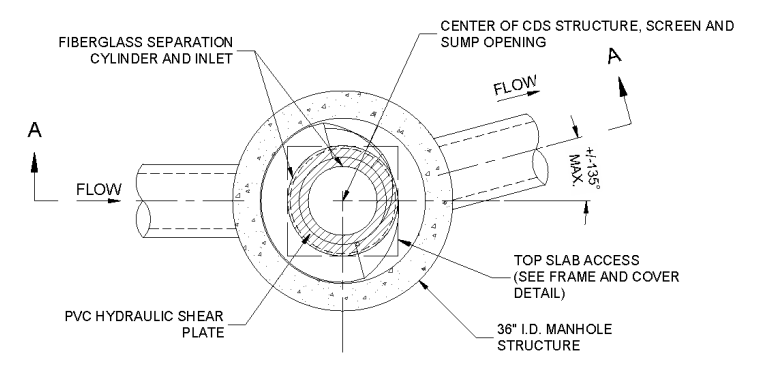


CONTROL STRUCTURE

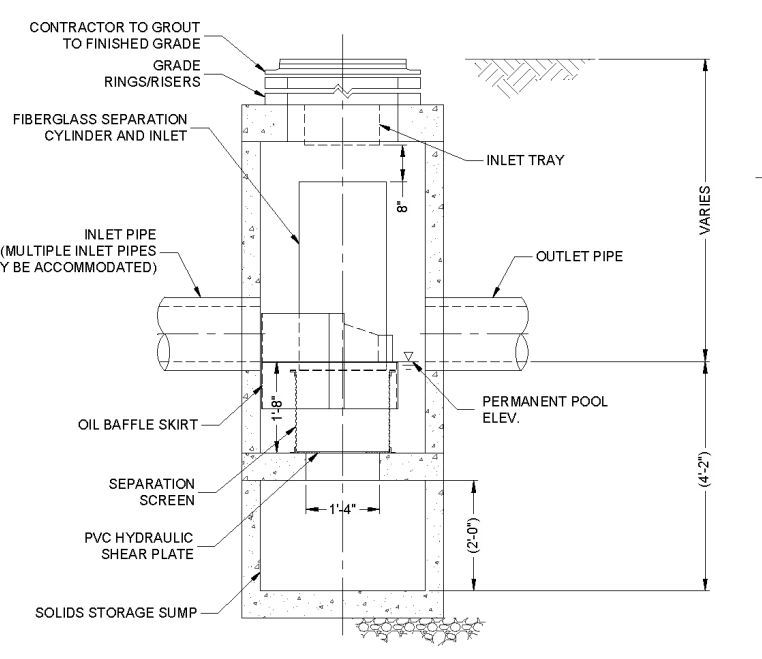
NOT TO SCALE



SCHEMATIC STILLING BASIN  
NOT TO SCALE



PLAN VIEW B-B  
N.T.S.



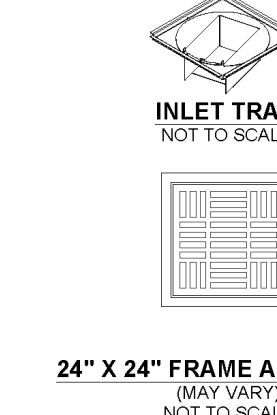
ELEVATION A-A  
N.T.S.

CDS1515-3-C DESIGN NOTES

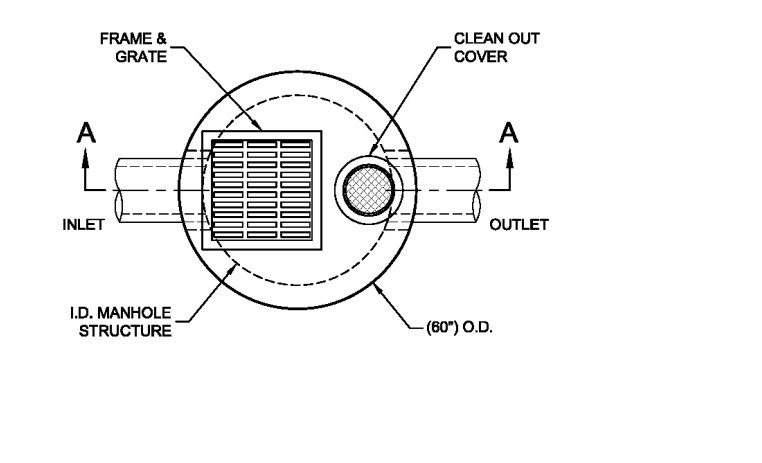
CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS. OR PER LOCAL REGULATIONS.

THE STANDARD CDS1515-3-C WITH GRATED INLET CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

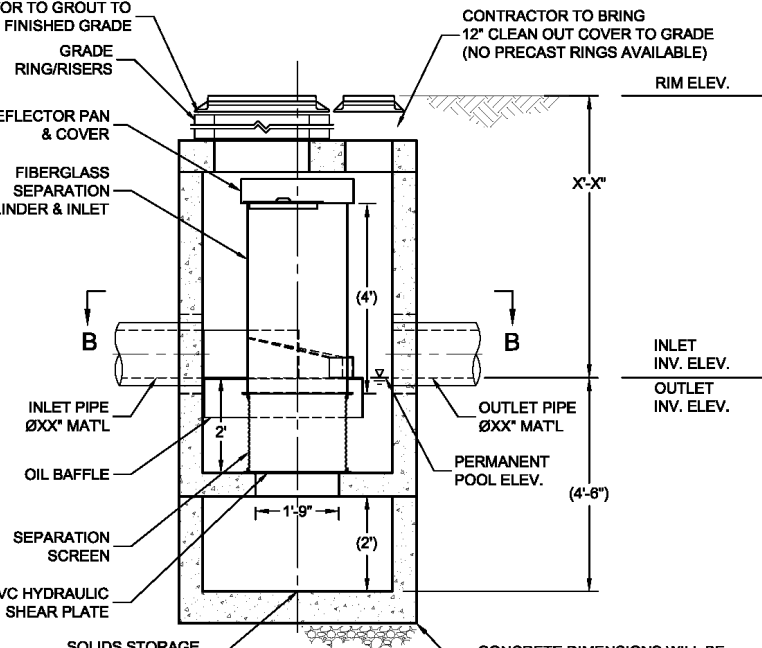
CONFIGURATION DESCRIPTION
GRATED INLET WITH INLET PIPE OR PIPES



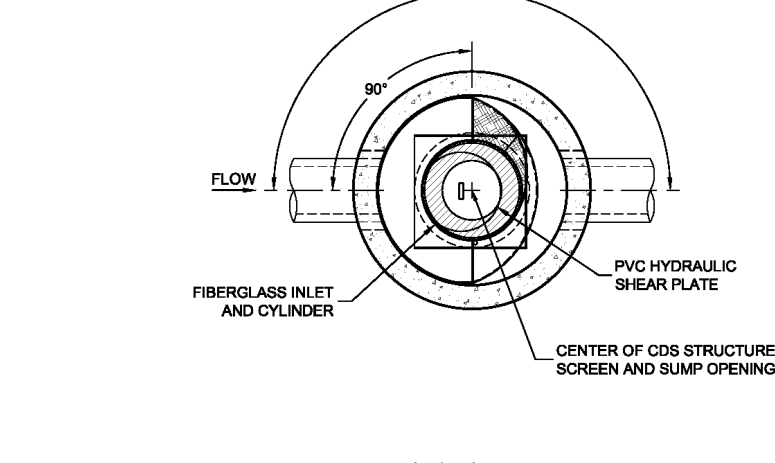
- GENERAL NOTES
- CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.contech.com](http://www.contech.com)
  - CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
  - CONTRACTOR TO PROVIDE, INSTALL AND GROUT INLET AND OUTLET PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE ASBUT TO BE CAST WITH THE CONCRETE. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
  - CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-408 AND ASBUT TO BE CAST WITH THE CONCRETE. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- INSTALLATION NOTES
- ANY SUB-BASE, BACKFILL, DEPTH, AND/OR ANTI-FLOTTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
  - CONTRACTOR TO PROVIDE, INSTALL AND GROUT INLET AND OUTLET PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE ASBUT TO BE CAST WITH THE CONCRETE. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
  - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



PLAN VIEW



SECTION A-A



SECTION B-B

MATERIALS LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	FIBERGLASS INLET & CYLINDER	CONTECH
1	PVC HYDRAULIC SHEAR PLATE	CONTECH
1	4700 MICRON S&P SCREEN	CONTECH
1	28"x28" DEFLECTOR PAN & COVER	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
-	GRADE RINGS/ RISERS	CONTRACTOR
1	24"x24" FRAME AND GRATE	CONTRACTOR
1	12"x24" CLEAN OUT COVER	CONTRACTOR

- GENERAL NOTES
- DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
  - FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH STORMWATER SOLUTIONS REPRESENTATIVE. [www.contechstormwater.com](http://www.contechstormwater.com)
  - CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
  - STRUCTURE AND CASTINGS SHALL MEET ASBUT TO HS20 LOAD RATINGS.
  - PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- INSTALLATION NOTES
- ANY SUB-BASE, BACKFILL, DEPTH, AND/OR ANTI-FLOTTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
  - CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
  - CONTRACTOR TO PROVIDE, INSTALL AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
  - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STORMCEPTOR TYPE A

NOT TO SCALE

Rev.	#	Date
1	08/21/20	
2	10/28/20	
3		
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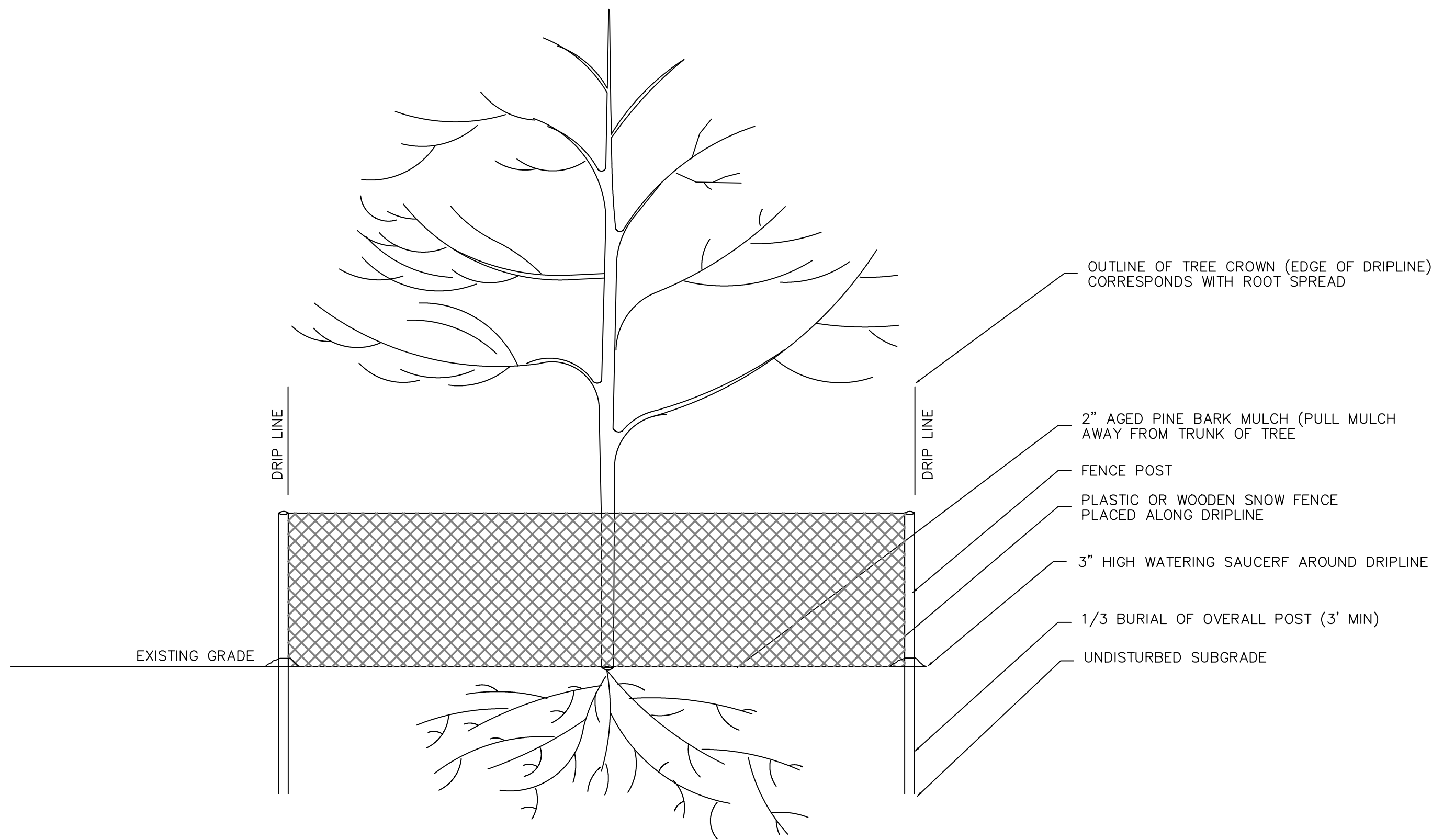
Designer/Checker	RT	Scale	AS NOTED	Date
				12/18/20

DETAIL SHEET  
STORMCEPTOR TYPE B  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

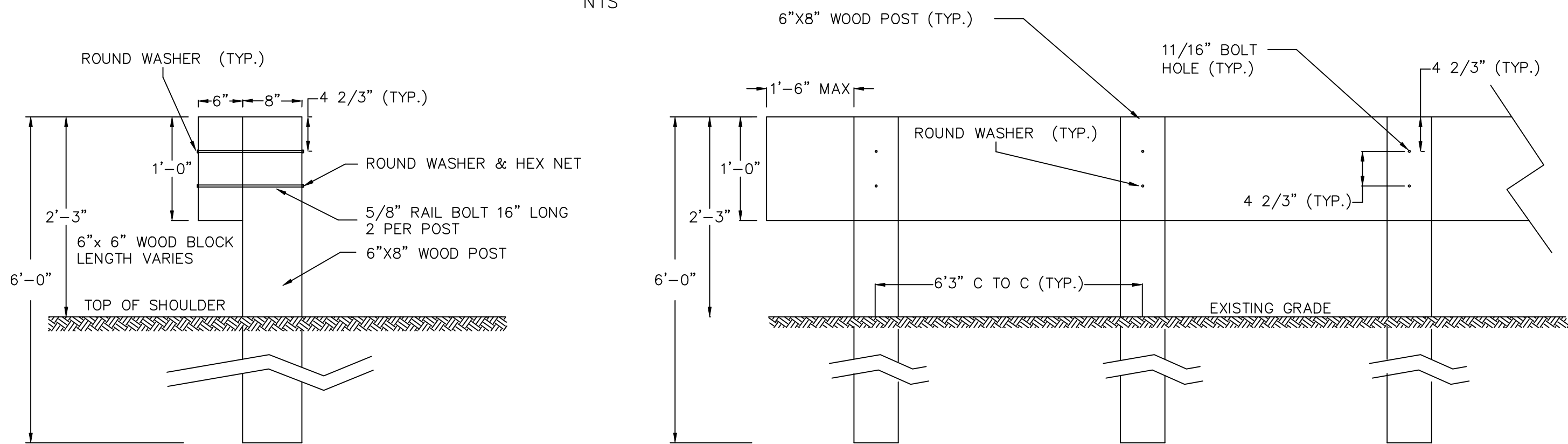
Signature Design  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781-806-0065

Sheet No.  
C10



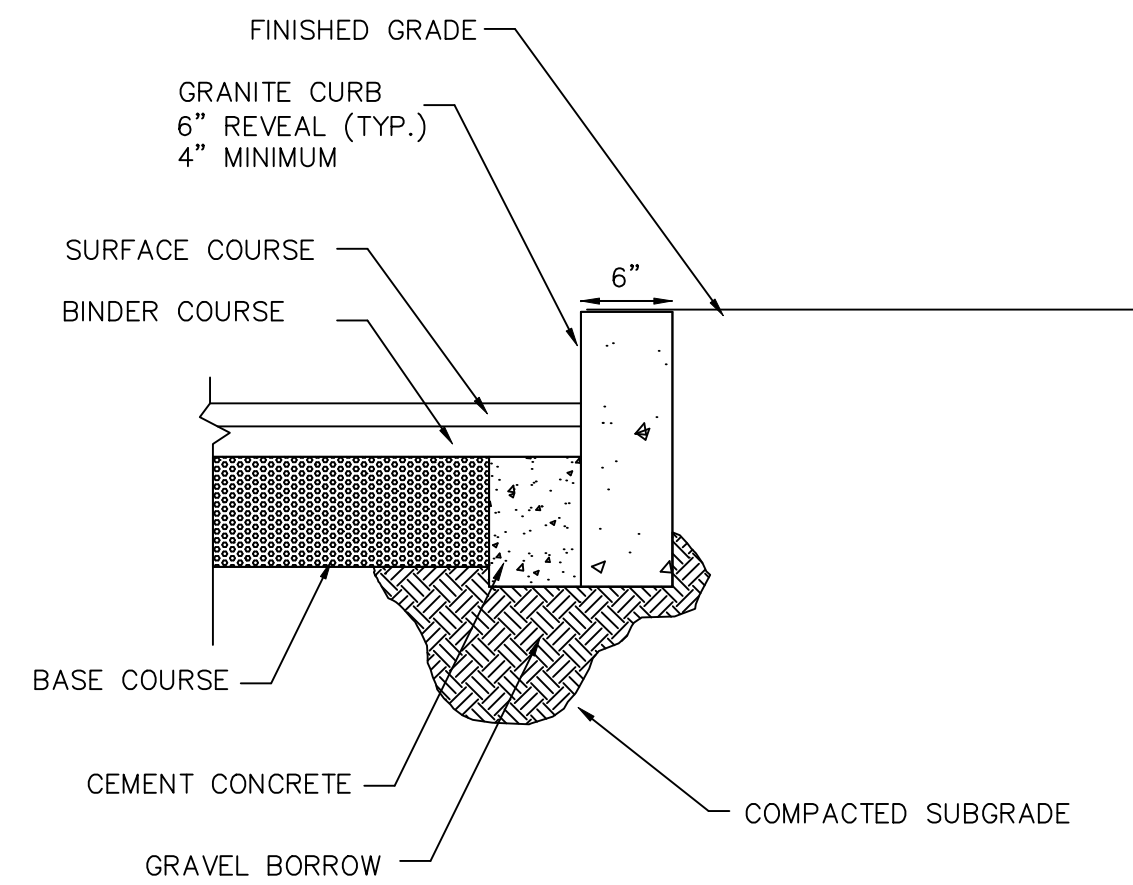


TREE PROTECTION  
NTS

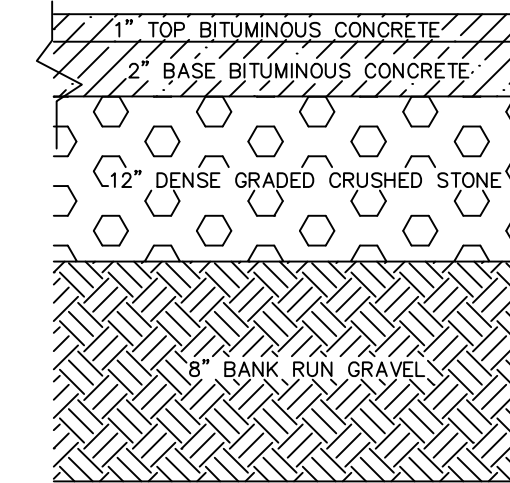


- NOTES:
- 1) ALL NUTS, BOLTS AND WASHERS ARE TO BE GALVANIZED.
  - 2) FOR THE TYPE OF WOOD AND WOOD TREATMENT, THE CONTRACTOR TO FOLLOW ALL FEDERAL, STATE, AND LOCAL SPECIFICATIONS.

WOODEN GUARDRAIL  
NTS

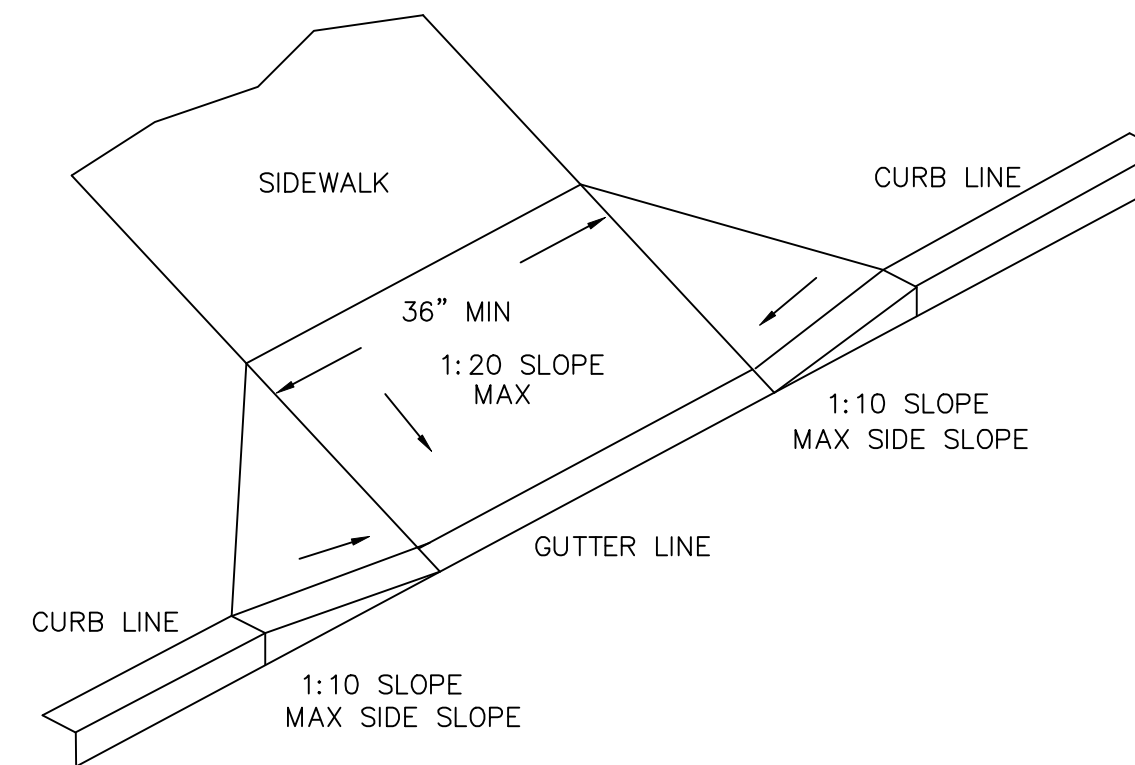


GRANITE CURBING  
NTS

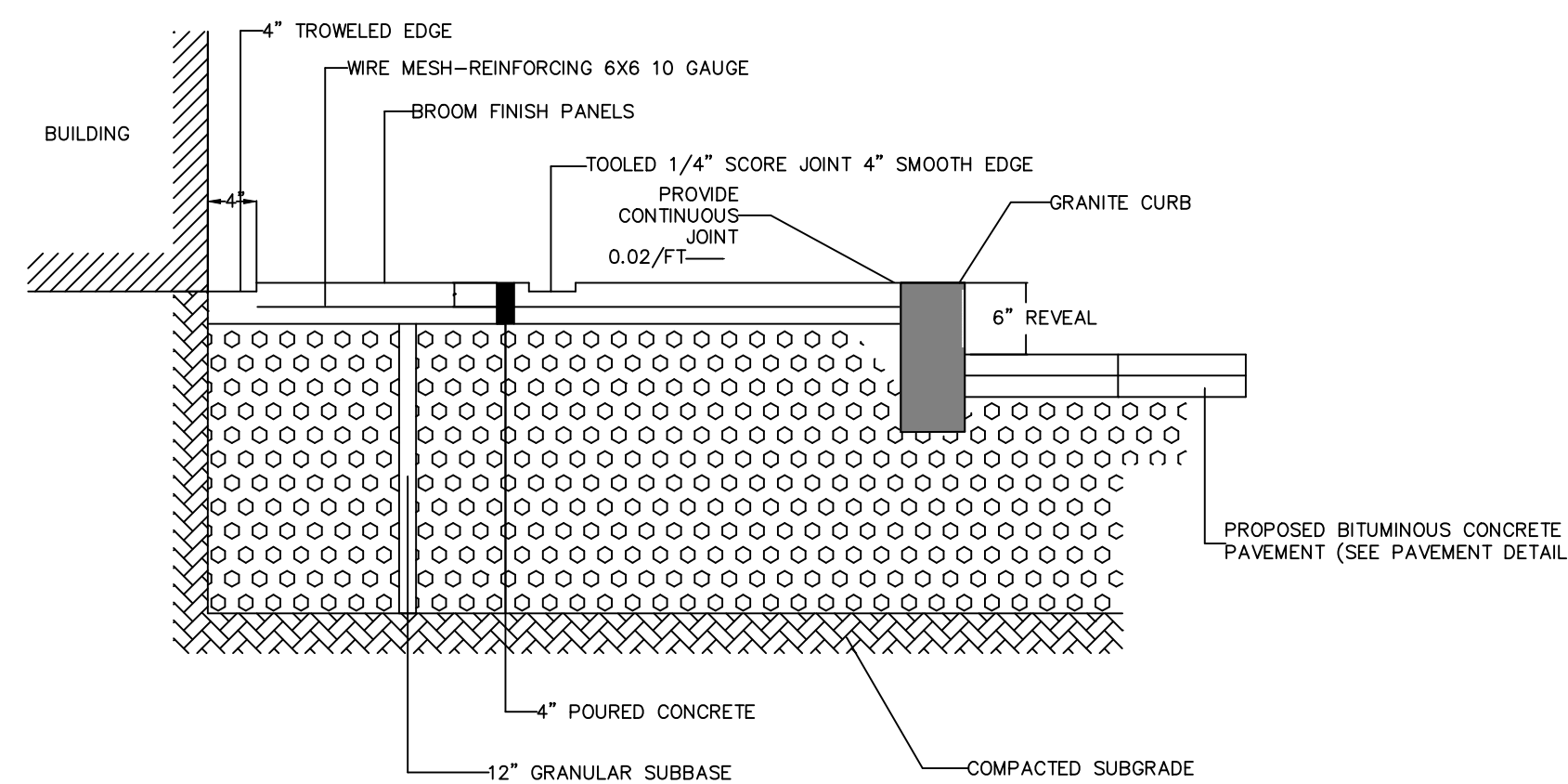


- 1) ALL MATERIALS SHALL MEET MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS
- 2) INSTALL GEOTEXTILE (MIRAFI 180N OR EQUIVALENT) ABOVE SUBBASE AS DIRECTED BY THE ENGINEER

PAVEMENT CROSS-SECTION DETAIL  
N.T.S.



HANDICAP RAMP DETAIL  
NTS



CONCRETE SIDEWALK AND GRANITE CURB  
N.T.S.

Rev. #	Date
3	08/21/21
4	10/28/21

Designer/Checker	Scale	Date
RT	AS NOTED	12/28/20

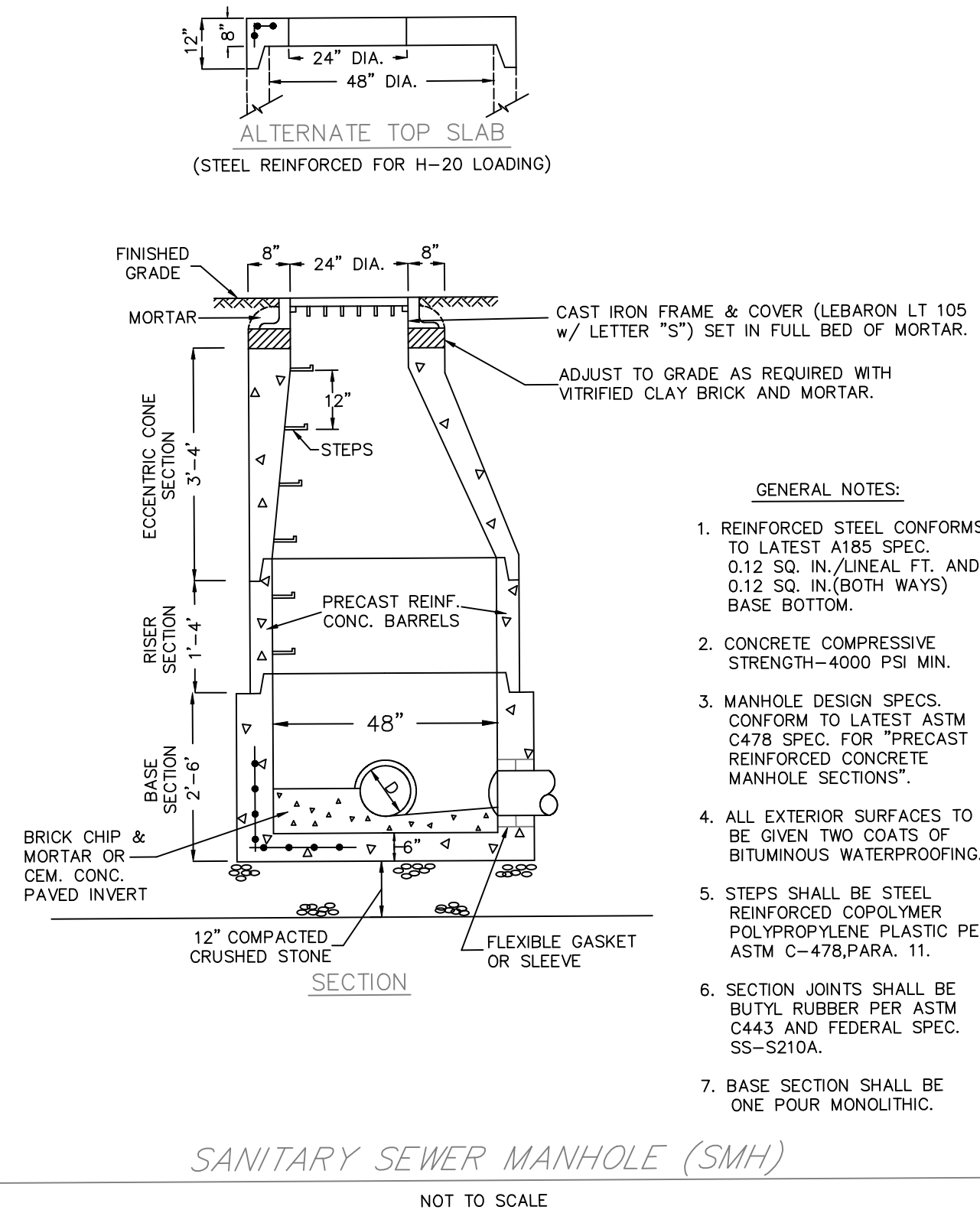
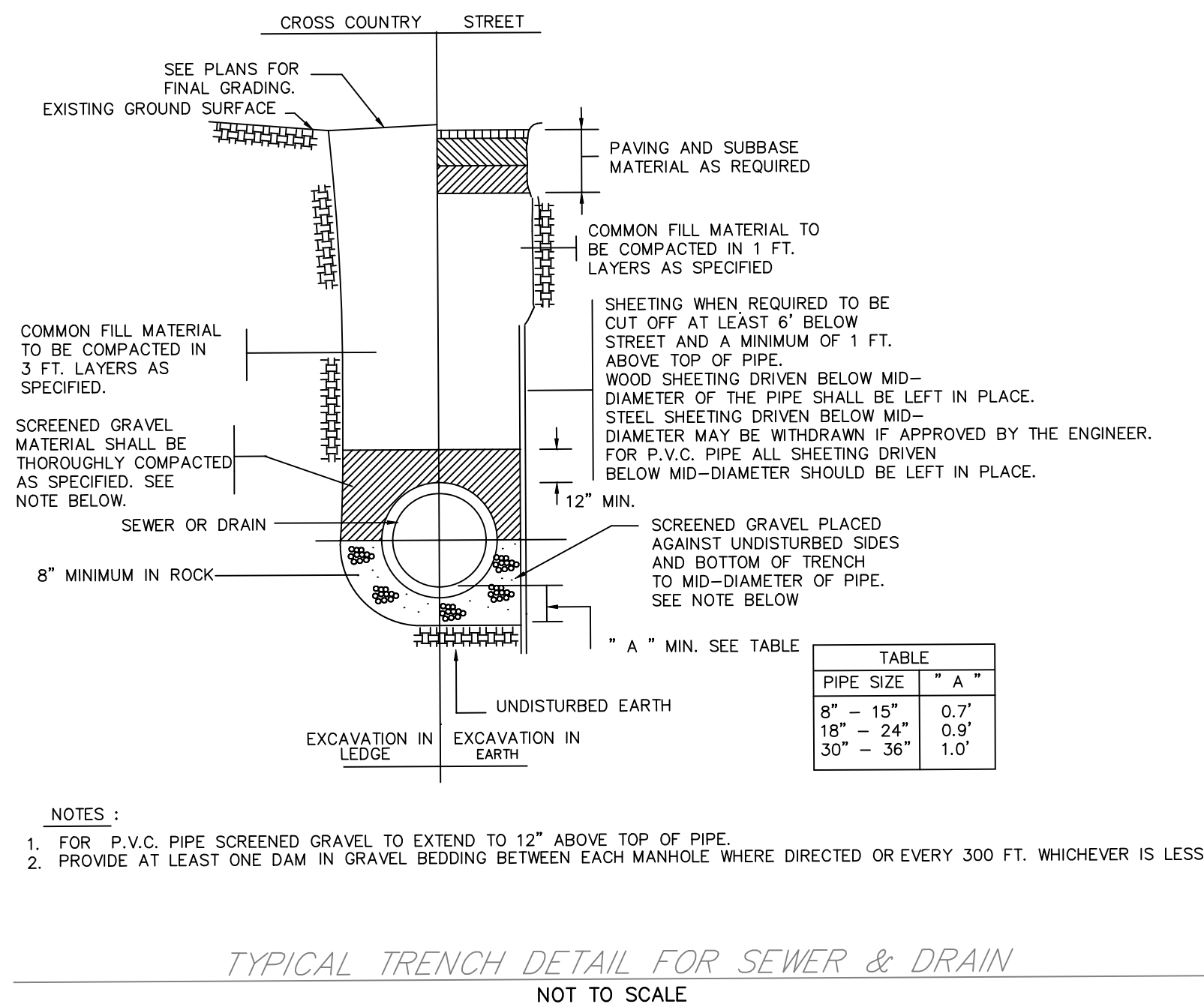
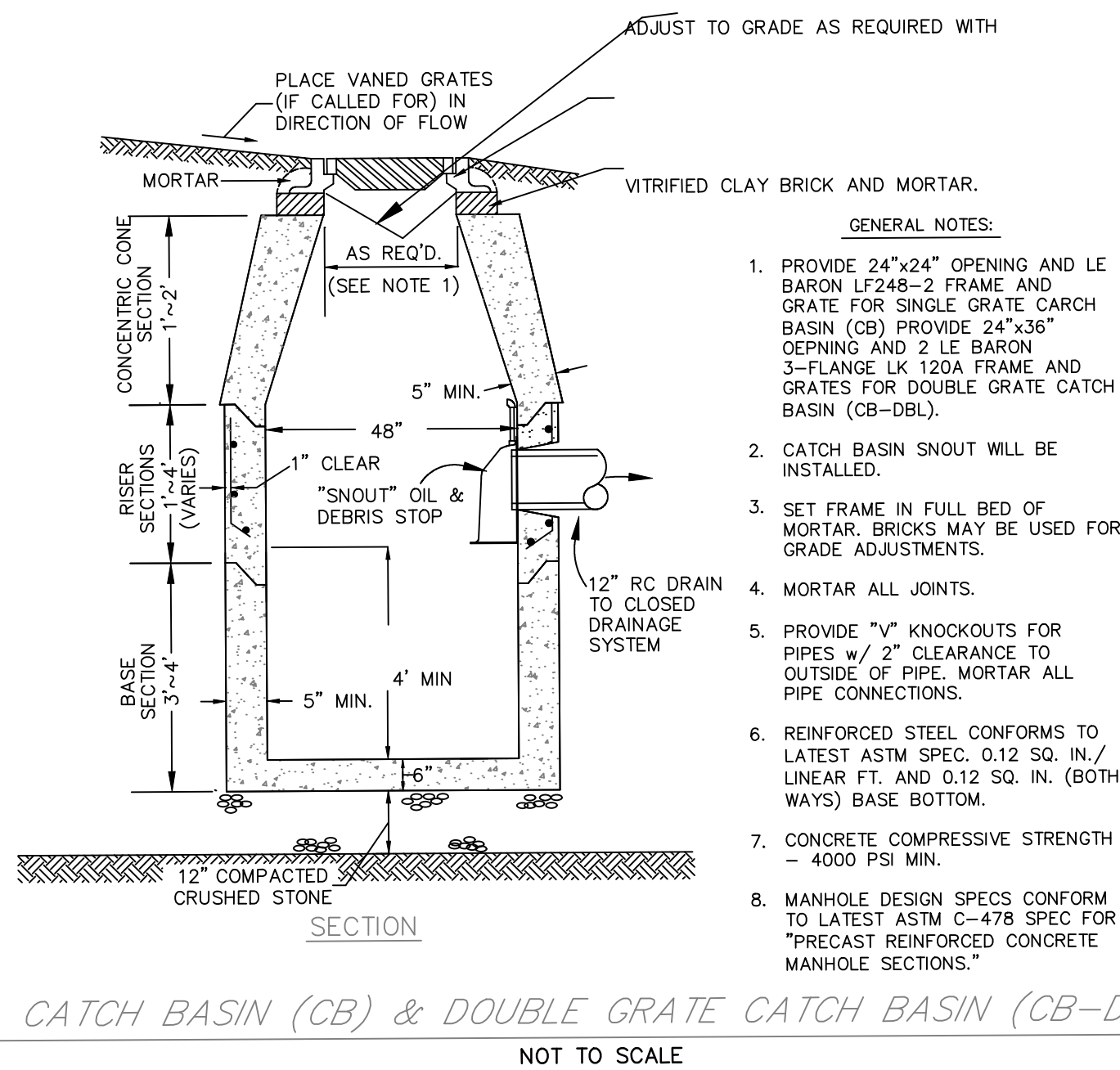
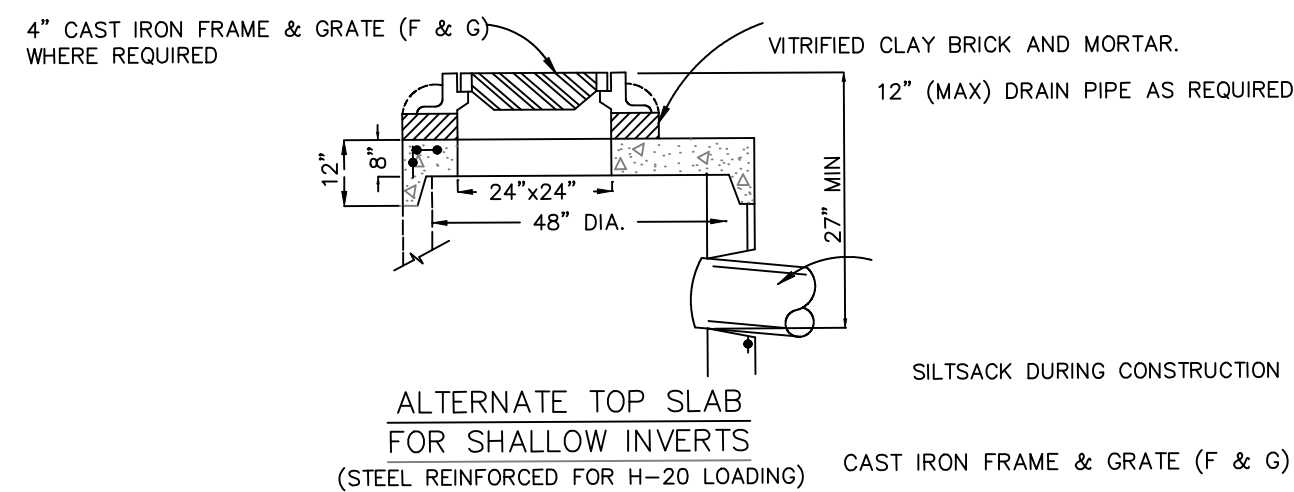
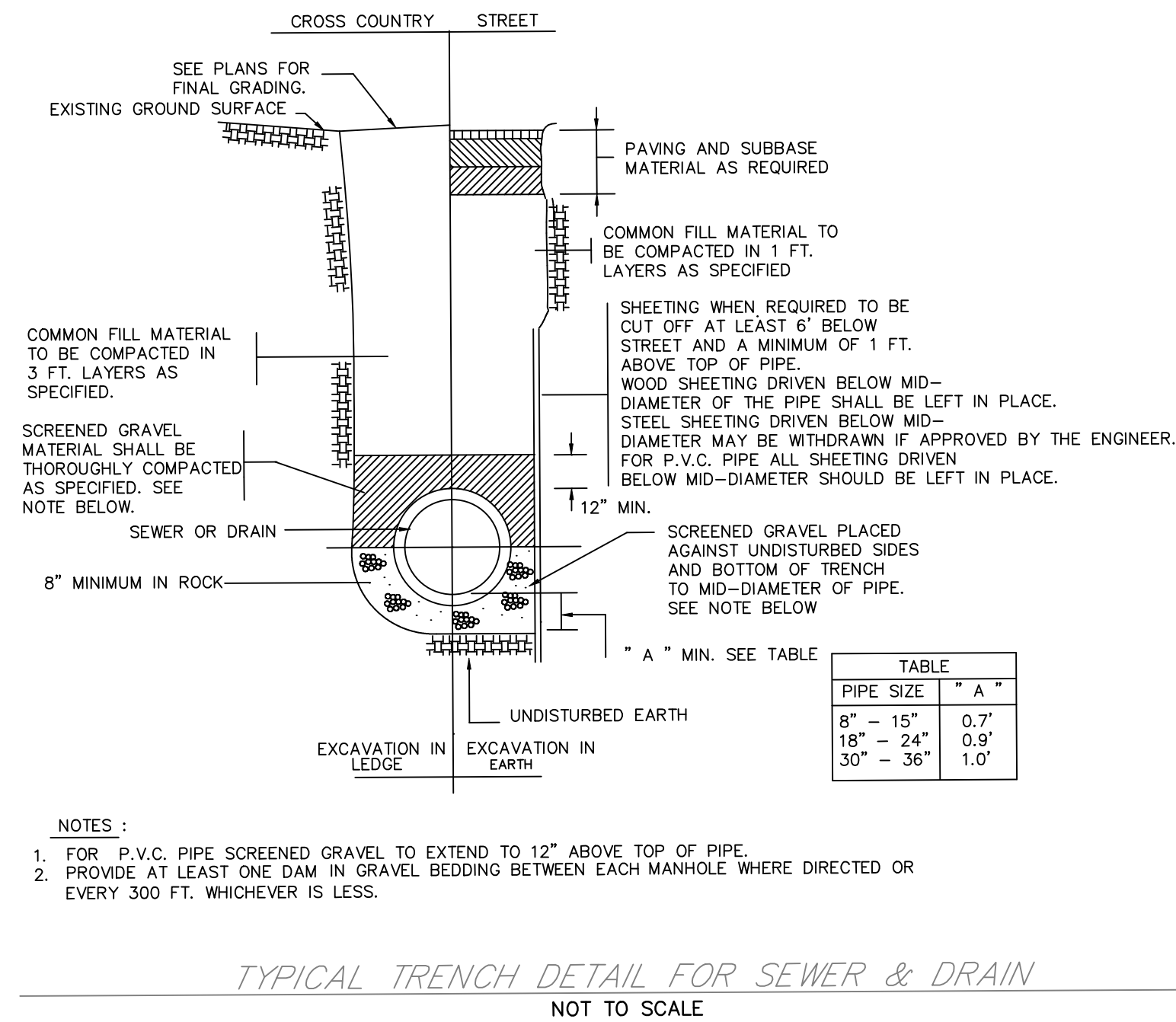
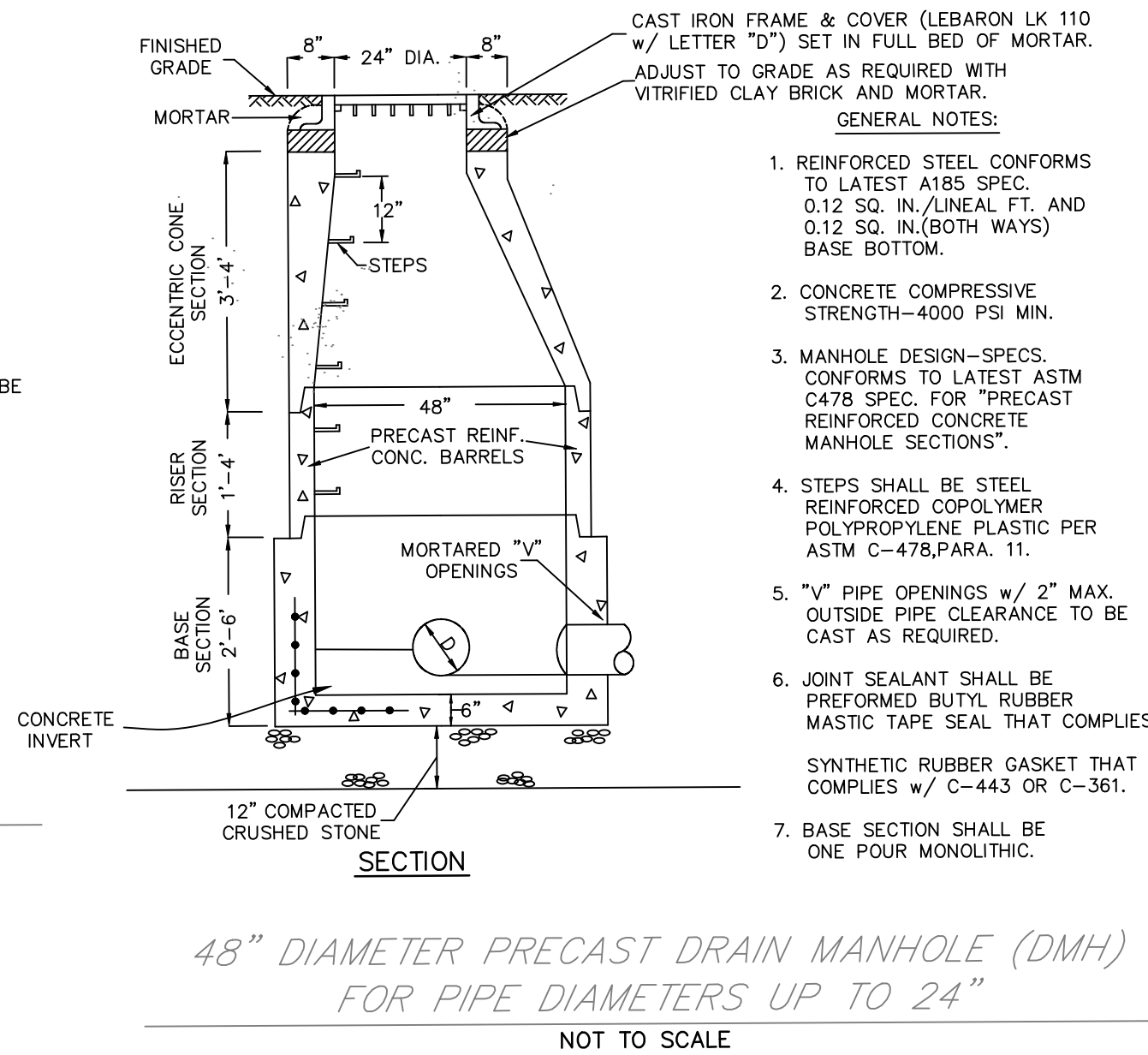
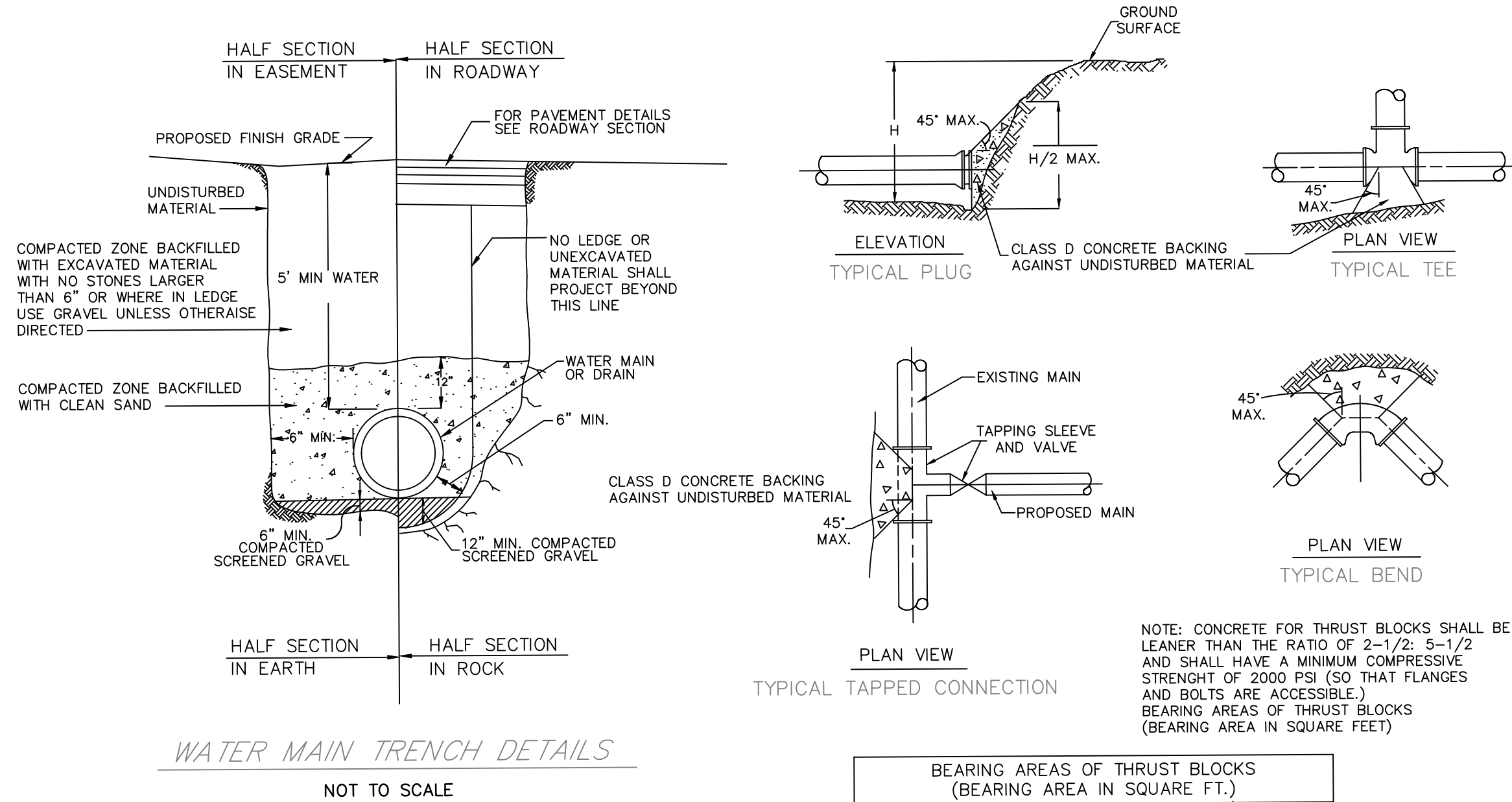
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DETAIL SHEET RED ROBIN PASTURES COUNTY STREET, DOVER, MA
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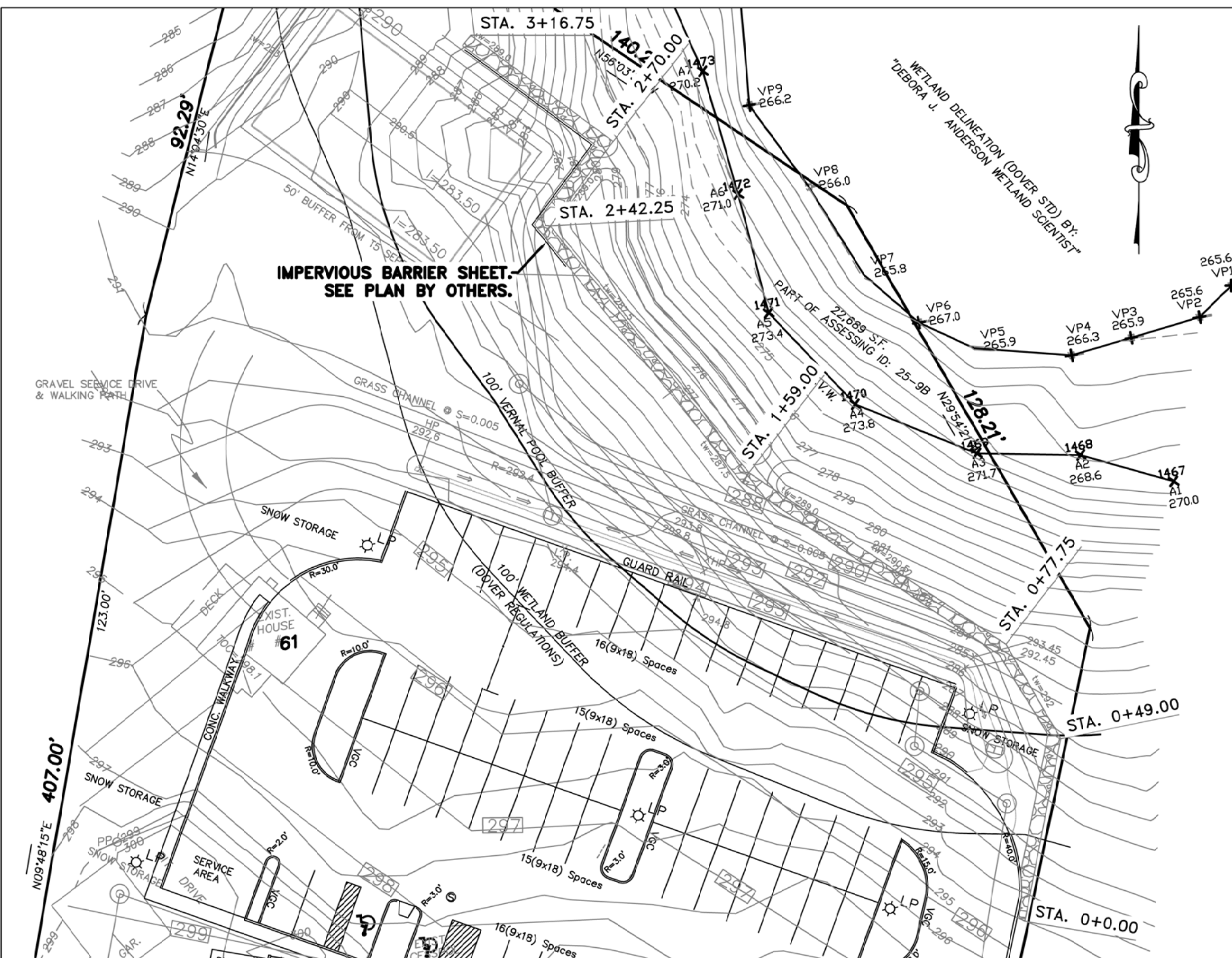
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Sheet No. C11
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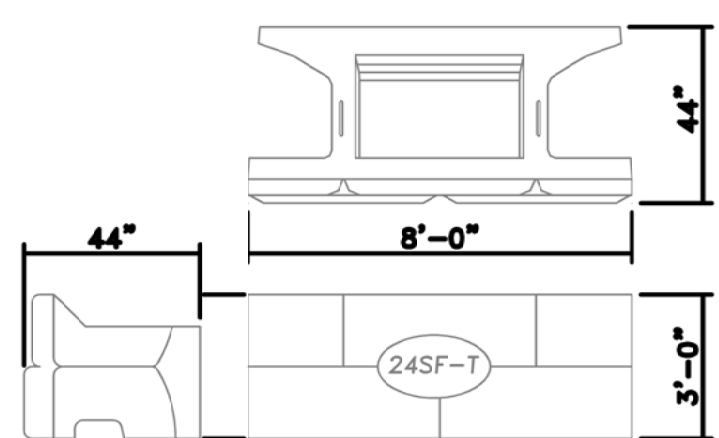




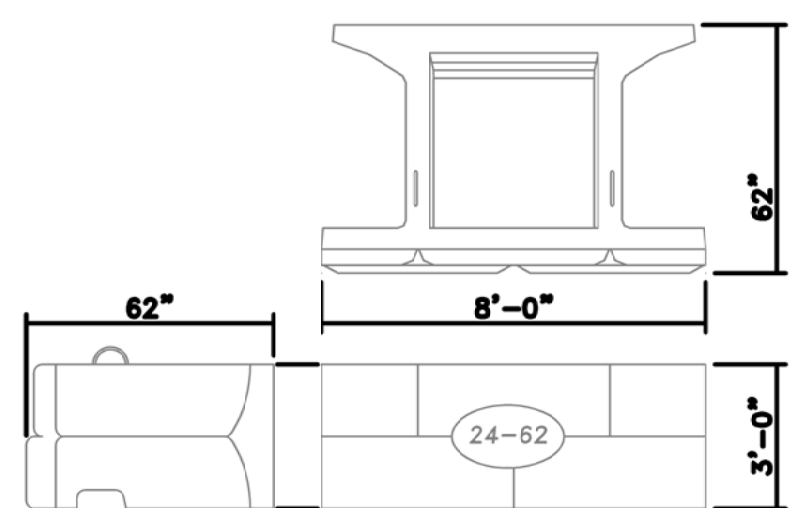




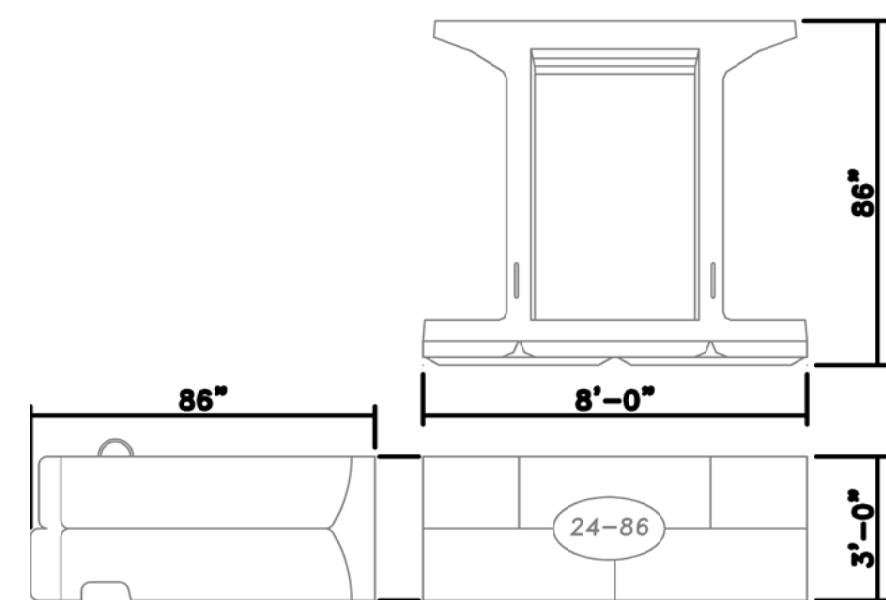
PLAN VIEW  
1" = 30'-0"



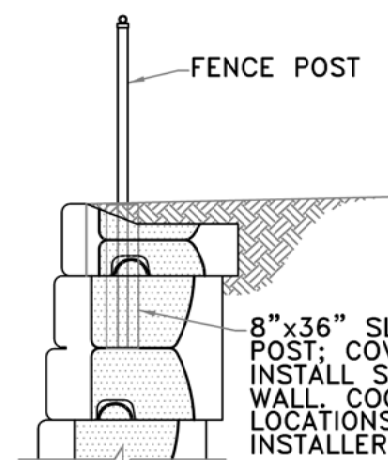
24SF TOP BLOCK  
1/4" = 1'-0"



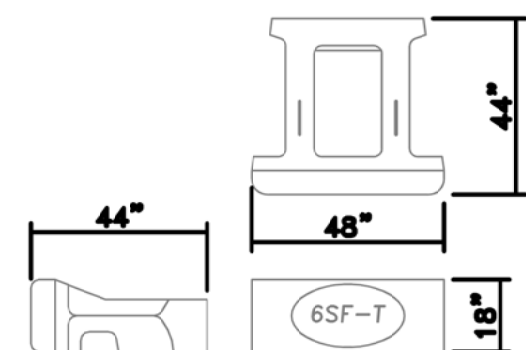
24-62 BLOCK  
1/4" = 1'-0"



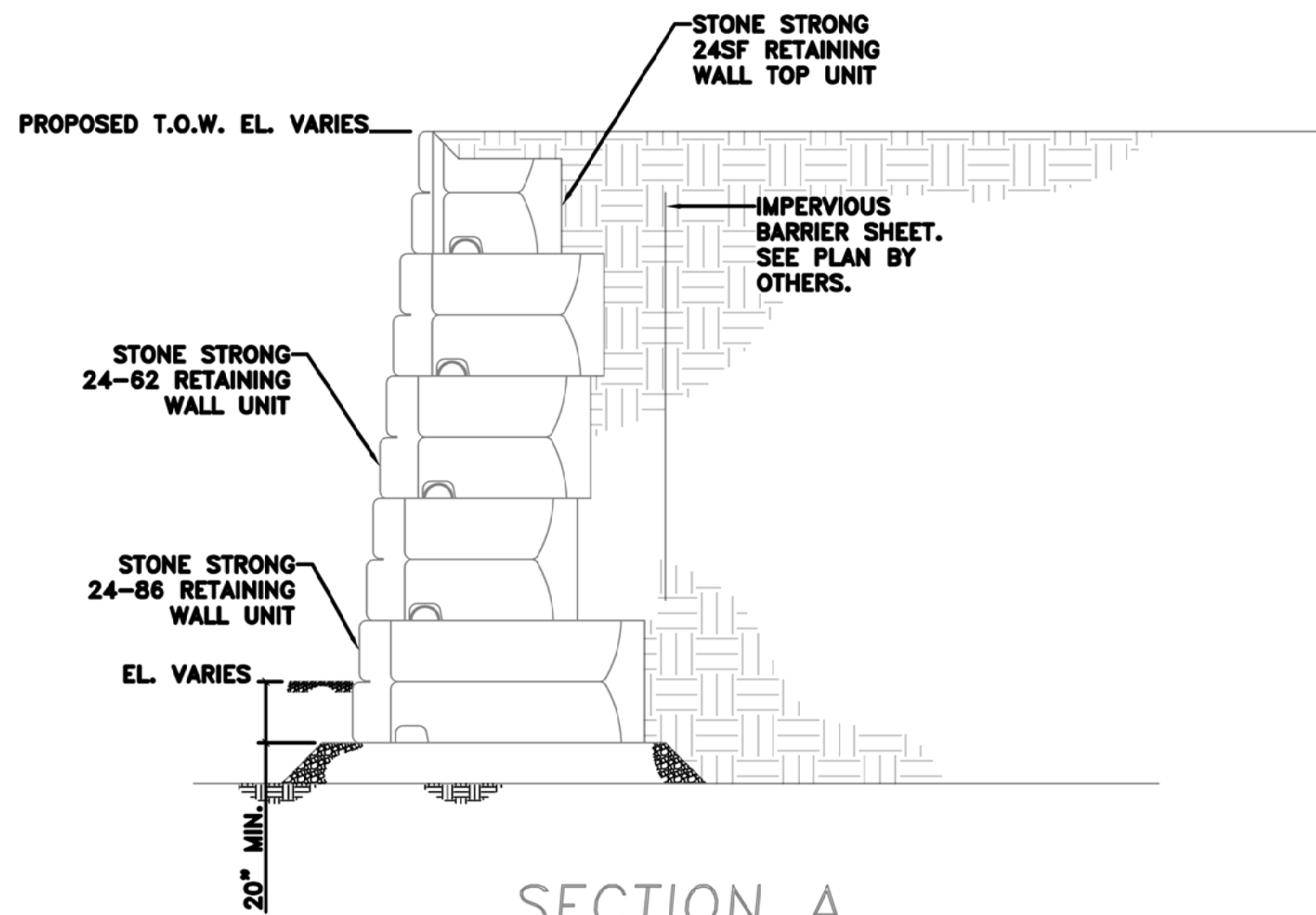
24-86 BLOCK  
1/4" = 1'-0"



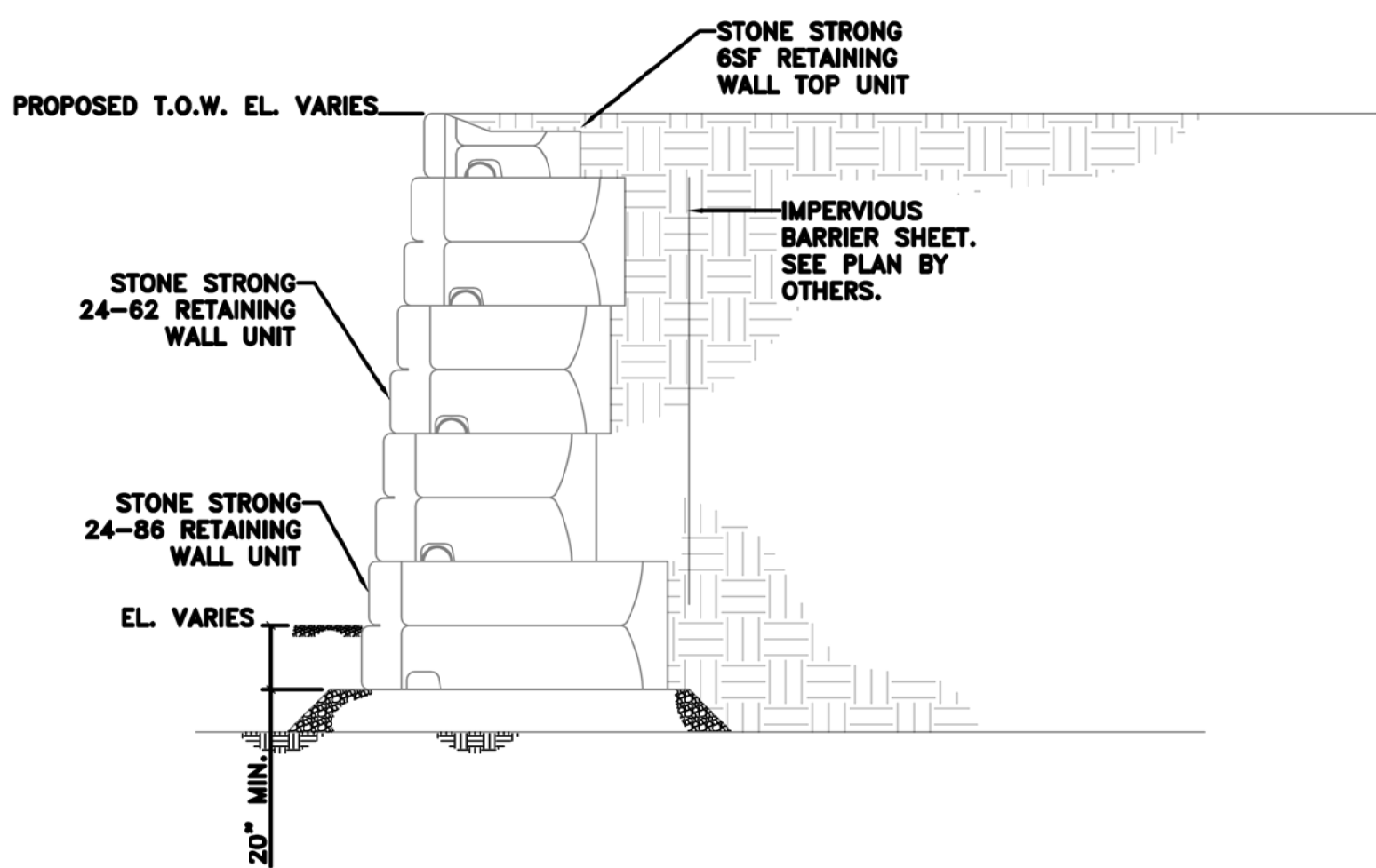
FENCE SLEEVE TYPICAL  
1/4" = 1'-0"



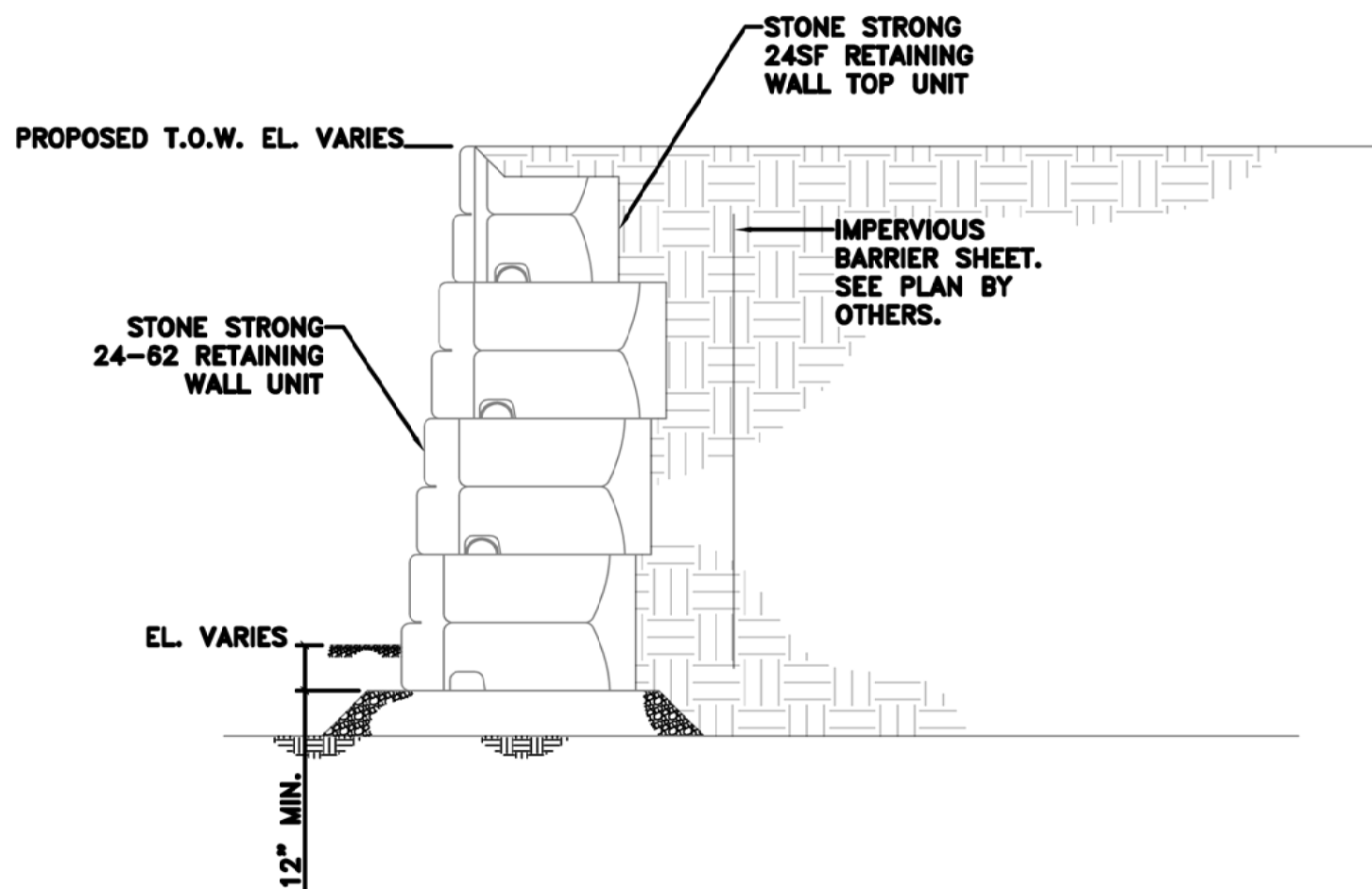
6SF TOP BLOCK  
1/4" = 1'-0"



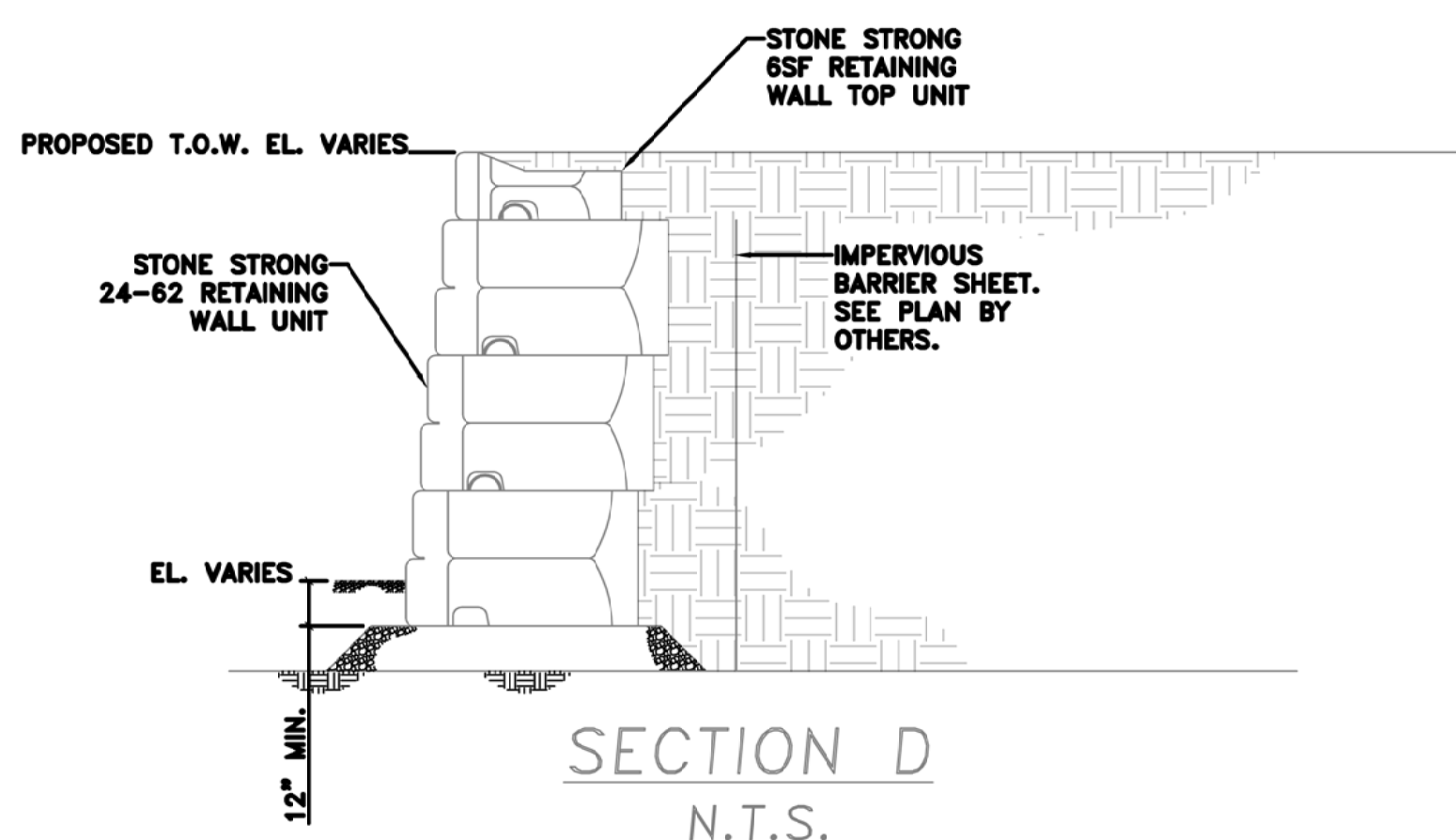
SECTION A  
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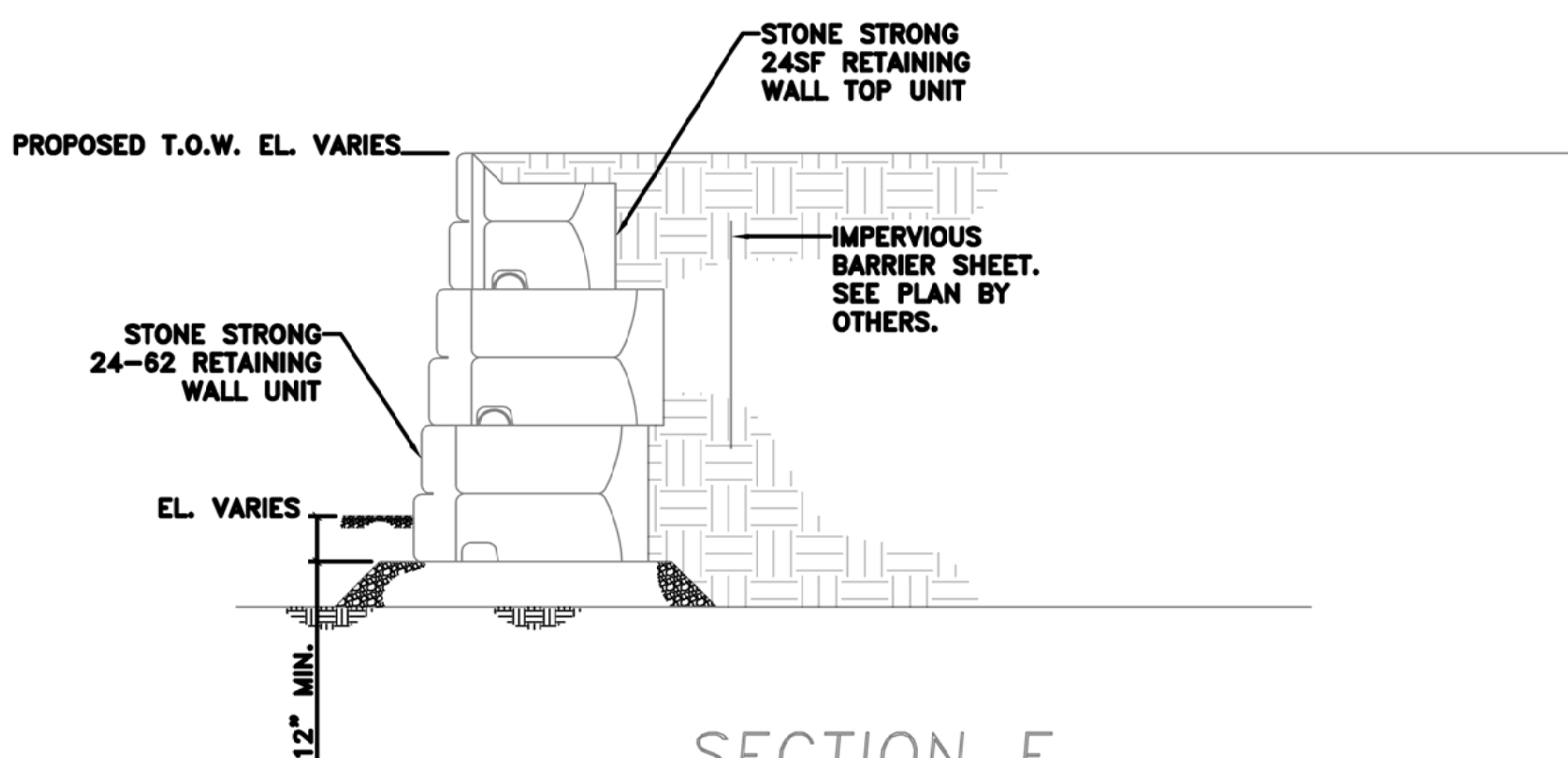
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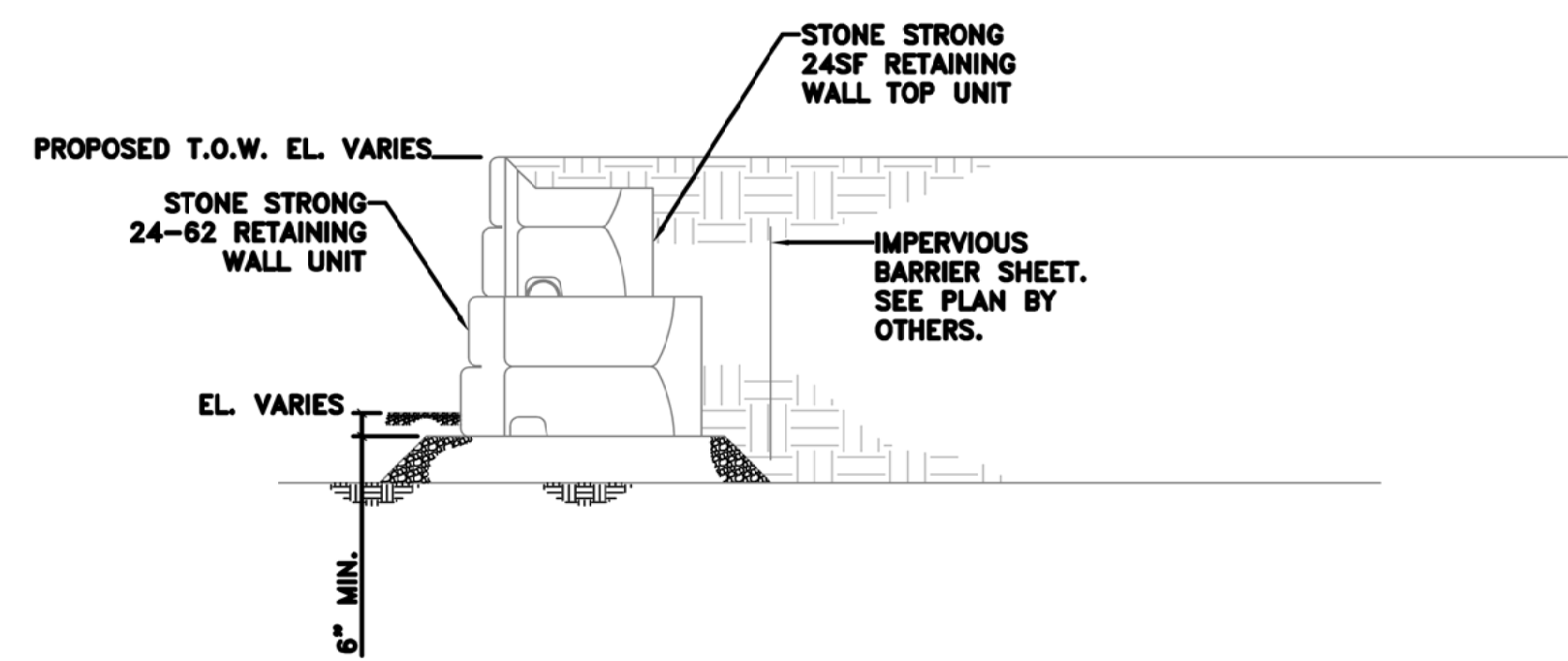
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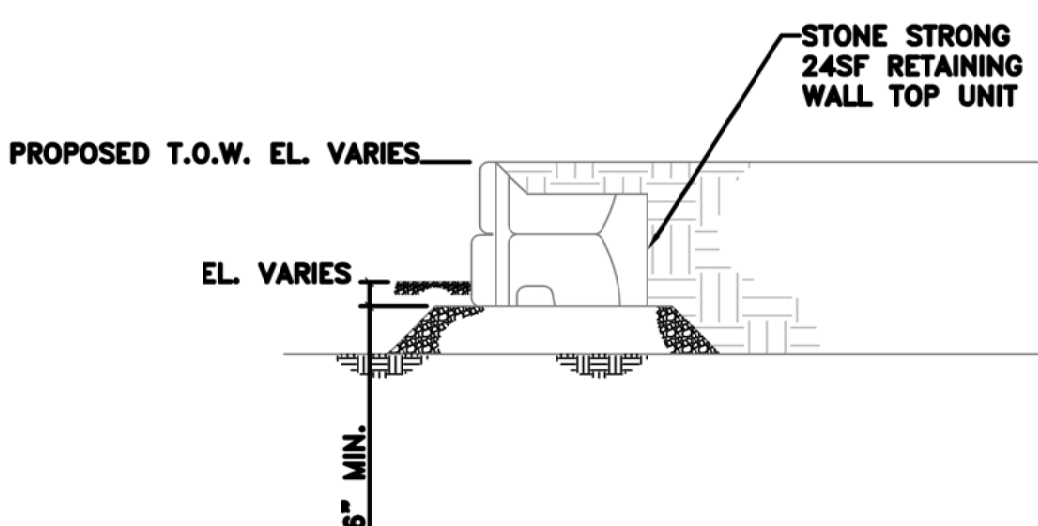
SECTION D  
N.T.S.



SECTION E  
N.T.S.



SECTION F  
N.T.S.



SECTION G  
N.T.S.

GENERAL NOTES

THIS DESIGN HAS BEEN PREPARED IN ACCORDANCE WITH THE NATIONAL CONCRETE MASONRY ASSOCIATION DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS (SRW), SECOND EDITION.

VERIFY EXISTING AND PROPOSED SITE GRADING PRIOR TO COMMENCING CONSTRUCTION.

BASE PLAIN TAKEN FROM "PROPOSED CONDITIONS PLAN" DATED 09/12/20 PREPARED BY OTHERS.

THE LOCATION OF EXISTING OR PROPOSED UTILITIES MUST BE VERIFIED PRIOR TO CONSTRUCTION. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF EXISTING OR PROPOSED UTILITIES INTERFERE WITH THE INSTALLATION OF ANY PORTION OF RETAINING WALL.

PROVIDE FIELD CONTROL OF ALL REINFORCED BACKFILL IN ACCORDANCE WITH SECTION 1804.3.3 OF THE MASSACHUSETTS STATE BUILDING CODE.

INSTALLATION NOTES:

EVALUATE ALL SLOPES IN THE FIELD BY A COMPETENT PERSON PER OSHA REQUIREMENTS. PREVENT DISTURBANCE OF ALL EXPOSED SLOPES AND BENCHES. COVER EXPOSED SLOPES WITH TAUPAULINS OR OTHER SIMILAR COVERINGS TO PREVENT EROSION OR WEATHERINGS.

EXCAVATE AND LEVEL THE SUBGRADE OF WALL AND REINFORCED OR INFILL SOIL ZONE. VERIFY THE CAPACITY OF THE SUBGRADE TO SUPPORT THE WALL. PREPARE SUBGRADE AT WALL AS NEEDED TO CONFORM WITH THE MINIMUM SUBGRADE DESIGN REQUIREMENTS.

INSTALL COMPACTED BASE. BASE MUST EXTEND 6-INCHES (MIN.) IN FRONT, 6-INCHES (MIN) BEHIND, AND 12-INCHES (MIN) BELOW THE FIRST COURSE OF UNITS.

SEE WALL SECTIONS FOR MINIMUM EMBEDMENT REQUIREMENTS. JOINTS BETWEEN ADJACENT UNITS SHOULD ALIGN WITH THE MIDDLE OF THE UNIT ABOVE TO CREATE A RUNNING BOND.

PLACE SEGMENTAL CONCRETE BLOCK UNITS TO THE LIMITS SHOWN ON THIS DRAWING AND IN ACCORDANCE WITH NOTES. INFILL SOIL WITHIN THE REINFORCED ZONE MUST MEET THE GRADATION REQUIREMENTS CONTAINED ON THIS DRAWING. COMPACT ALL INFILL SOIL WITHIN THE REINFORCED ZONE TO AT LEAST 95% DENSITY AS DETERMINED BY ASTM D1557

CONSTRUCT WALL WITH 2 INCH SET BACK PER 3'-0" COURSE IN SECTIONS SHOWN ON THESE DRAWINGS. .

CONCRETE:

ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318) AND THE COMMONWEALTH OF MASSACHUSETTS STATE BUILDING CODE. IN CASE OF CONFLICT, THE STATE BUILDING CODE SHALL GOVERN.

ALL CONCRETE SHALL BE CONTROLLED CONCRETE, MIXED AND PLACED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY.

CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH SAND AND GRAVEL AGGREGATE, TYPE I OR TYPE II PORTLAND CEMENT HAVING A MINIMUM COMPRESSIVE STRENGTH ( $f'_c$ ) IN 28 DAYS OF 4000 PSI.

ALL CONCRETE SHALL BE AIR ENTRAINED 6% ( $\pm 1\%$ ).

CONCRETE CAST ON SLOPED SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATIONS UNTIL THE INTENDED POUR IS COMPLETED.

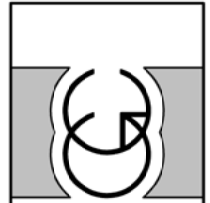
REINFORCING:

ALL CONCRETE REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60 EXCEPT WHERE NOTED. ALL REINFORCING BARS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING BARS MAY NOT BE WELDED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

DETAILING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 315 - "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," LATEST EDITION.

DATE	09/21/21
DESIGNED BY	10/28/21
NO. #	3
3	

DESIGNED BY	AS NOTED
SCALE	AS NOTED
DATE	12/18/20



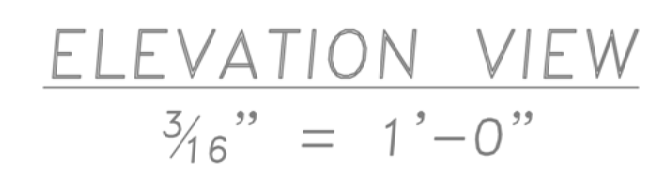
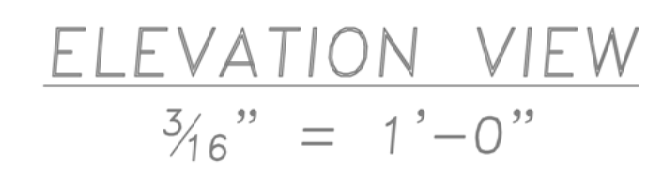
**Geotechnical Consultants, Inc.**  
201 Boston Post Road West, Marlborough, MA 01752  
(508)229-0900 FAX (508)229-2279

RETAINING WALL SECT.S & ELEV.S  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

**Signature Designs**  
ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781 806-0065

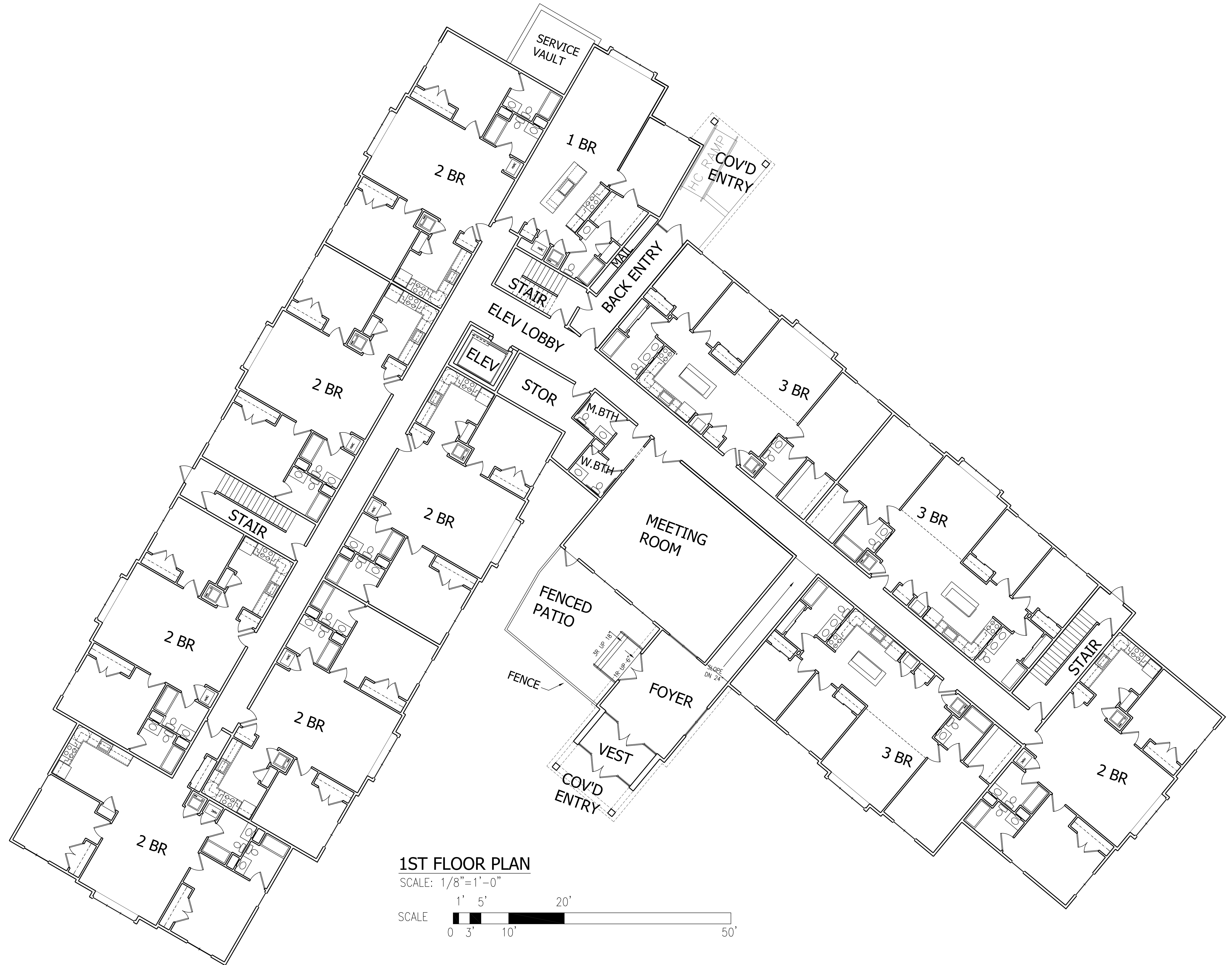
Sheet No.  
**C13**





Sheet No.  
**C14**





Rev.	#	Date
1		08/21/21
2		08/21/21
3		08/21/21
4		08/21/21

Designer/Draftsman	Scale	Date
HB	AS NOTED	08/31/21

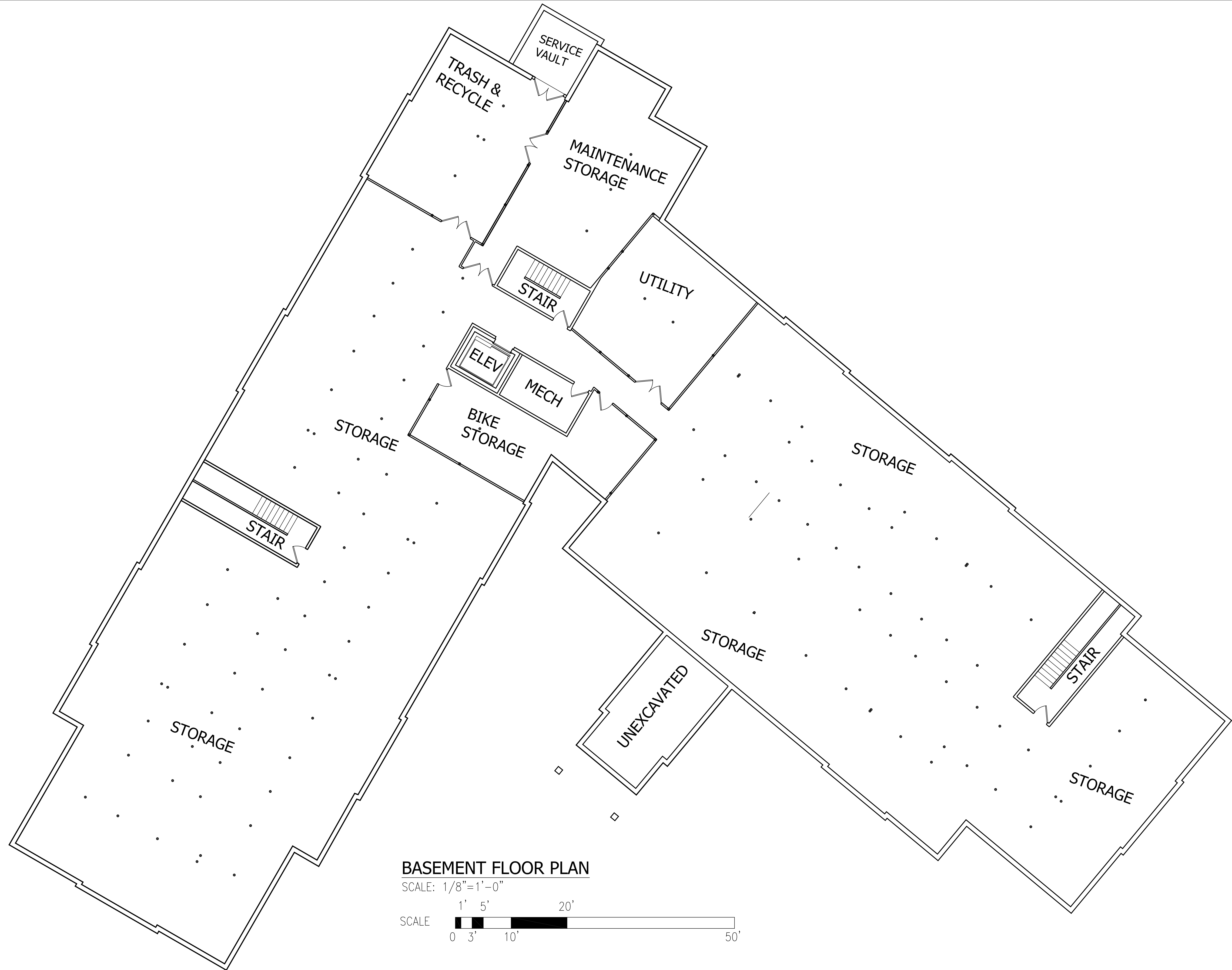
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1ST FLOOR PLAN  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

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ARCHITECTURE  
73 Bishop Road, Sharon, MA 02067 781.806.6065

Sheet No.  
**A1**





Rev.	#	Date
3		09/21/21
4		10/29/21

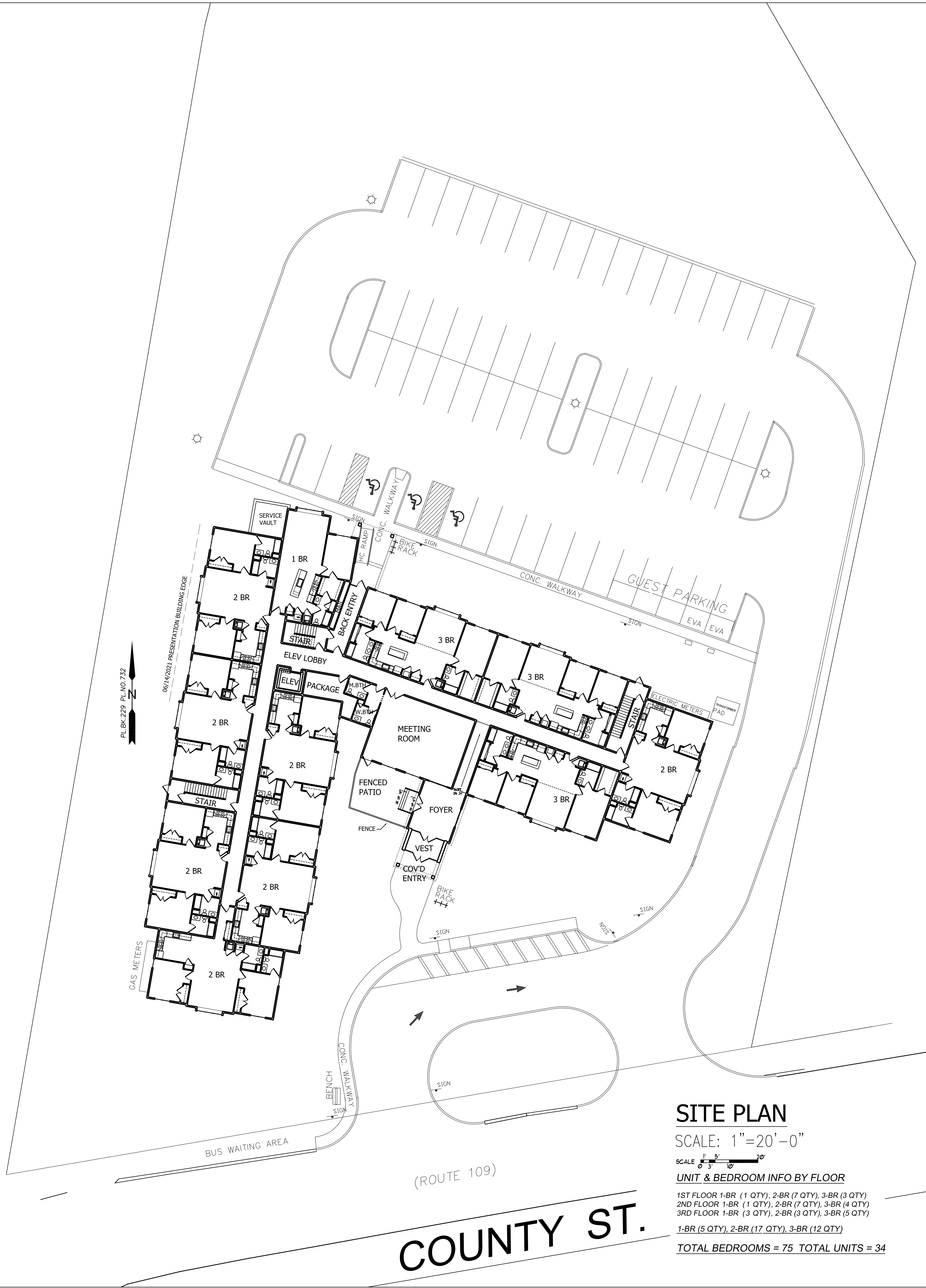
Designer/Drafter	Scale	Date
HB	AS NOTED	08/31/21

Drawing Description  
BASEMENT FLOOR PLAN  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

Design & Drafting services performed by:  
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ARCHITECTURE  
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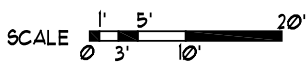
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**A1.0**





SITE PLAN

SCALE: 1"=20'-0"



UNIT & BEDROOM INFO BY FLOOR

1ST FLOOR 1-BR (1 QTY), 2-BR (7 QTY), 3-BR (3 QTY)  
2ND FLOOR 1-BR (1 QTY), 2-BR (7 QTY), 3-BR (4 QTY)  
3RD FLOOR 1-BR (3 QTY), 2-BR (3 QTY), 3-BR (5 QTY)

1-BR (5 QTY), 2-BR (17 QTY), 3-BR (12 QTY)

TOTAL BEDROOMS = 75 TOTAL UNITS = 34

LAND USAGE TABLE - R-1 SINGLE FAMILY RESIDENCE (1 ACRE)

ITEM	REQUIRED DIMENSIONAL REGULATION	PROPOSED DIMENSIONS
MINIMUM LOT AREA	43,560 SQUARE FEET OR 1.00± ACRES	109,809 SQUARE FEET OR 2.52 ACRES
MINIMUM LOT WIDTH	150 FEET	264 FEET
MINIMUM FRONT SETBACK	40 FEET	38'-0" FEET
MINIMUM SIDE SETBACK	30 FEET	32'-6" FEET
MINIMUM REAR SETBACK	30 FEET	222 FEET
MAXIMUM BUILDING HEIGHT	35 FEET (2 1/2 STORIES)	44 FEET (3 STORIES)
MAXIMUM LOT COVERAGE REQUIREMENTS BY STRUCTURES	20%	14.8% (16,321 SF)

Rev. #	Date
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GROUND LEVEL & SURROUNDING SITE  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

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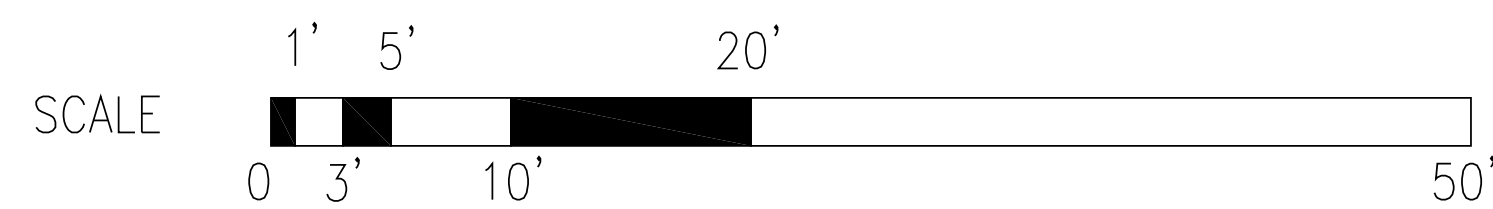
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**2ND FLOOR PLAN**

SCALE: 1/8"=1'-0"



Rev. #	Date
3	09/21/21
4	07/29/21

Designer/Draftsman	Scale	Date
HB	AS NOTED	08/31/21

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2ND FLOOR PLAN  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

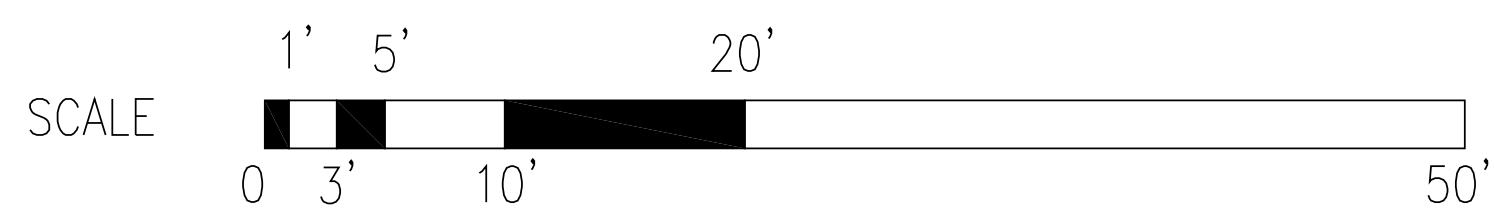
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**3RD FLOOR PLAN**

SCALE: 1/8"=1'-0"











Date	09/21/21
Rev. #	3
Rev. #	4

Designer/Draftsman	HB
Scale	AS NOTED
Date	08/31/21

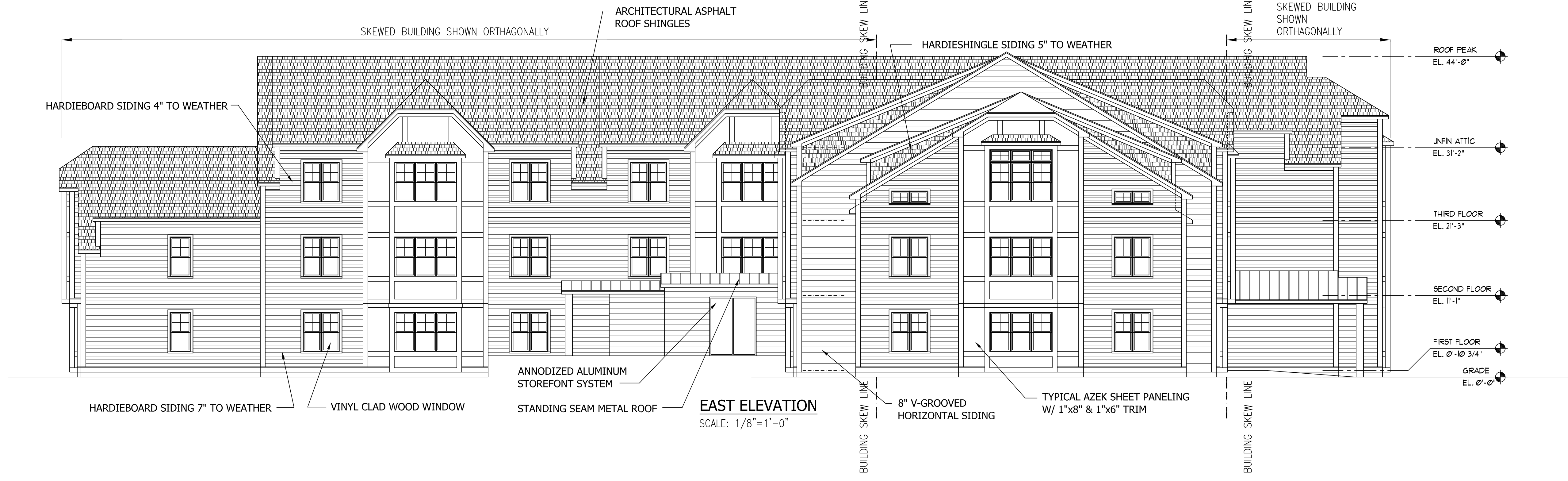
STREET & PARKING LOT ELEVATIONS  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

STREET & PARKING LOT ELEVATIONS  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA

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**A5**





**EAST ELEVATION**  
SCALE: 1/8"=1'-0"



**WEST ELEVATION**  
SCALE: 1/8"=1'-0"

Date	
09/21/21	02/25/21

Rev. #	
3	4

Designer/Draftsman	
HB	AS NOTED

Date	
08/31/21	

Drawing Description  
**EAST & WEST ELEVATIONS**  
**RED ROBIN PASTURES**  
**COUNTY STREET, DOVER, MA**

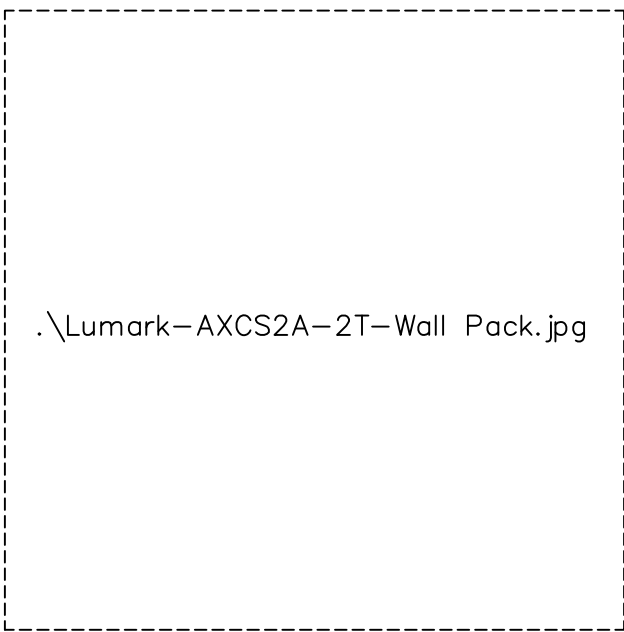
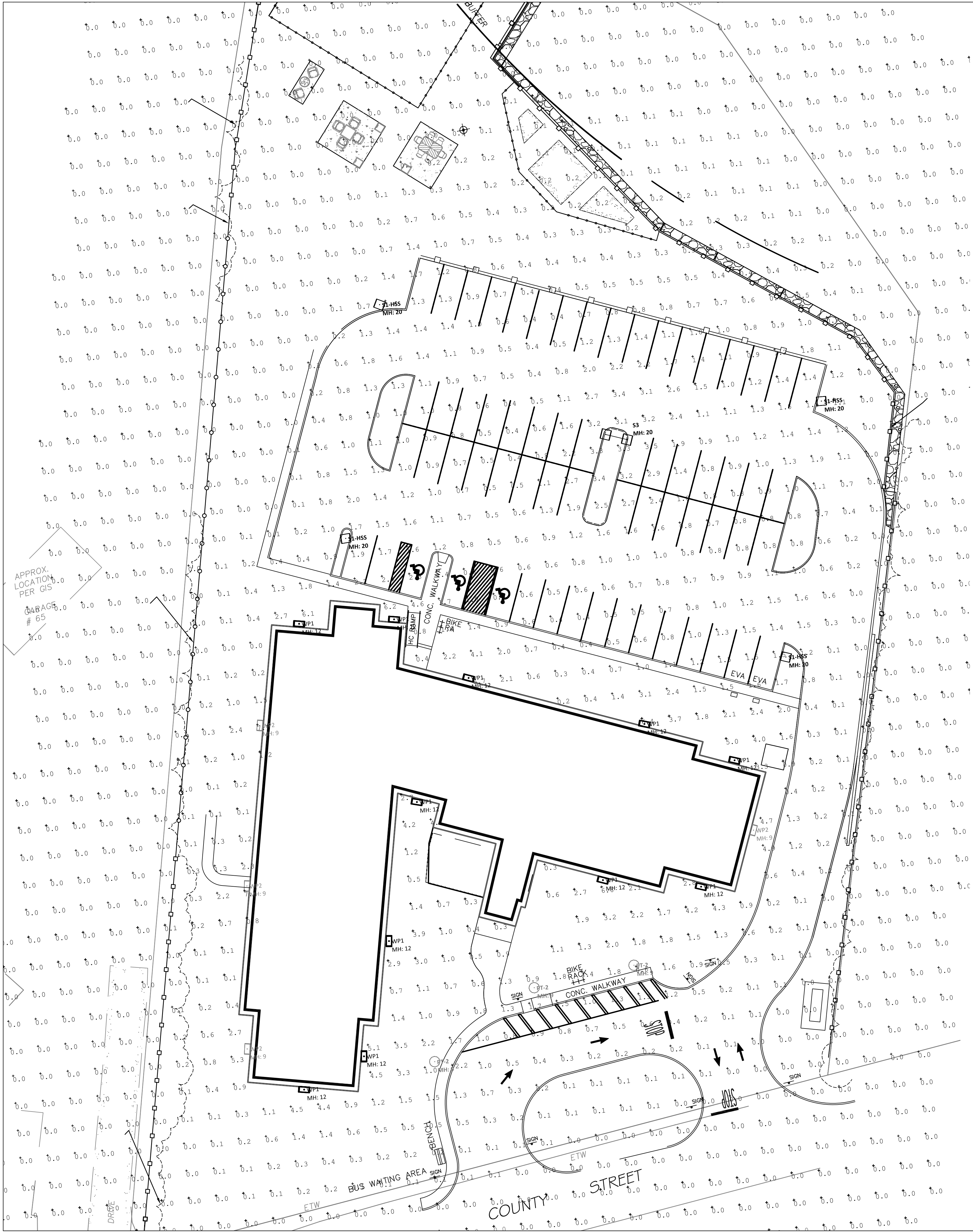
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**A6**

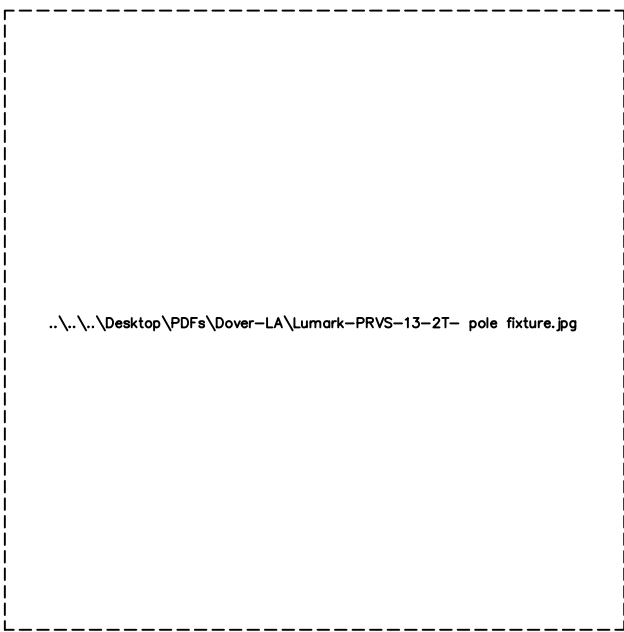








WALL MOUNTED FIXTURE



PARKING LOT FIXTURE



FRONT ENTRANCE FIXTURE

Calculation Summary						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
LOT_Planar	Fc	0.34	7.7	0.0	N.A.	N.A.

Luminaire Schedule						
Symbol	Label	Lumens/Lamp	Lum. Lumens	Lum. Watts	LLF	Description
	PT-2	N.A.	2800	28	0.900	NLS: BV-M-T5-16L-53-40K
	WP1	N.A.	2561	20.7	0.900	LUMARK: AXCS2A
	S3	N.A.	6551	52	0.900	LUMARK: PRV-C15-D-UNV-T2-BZ-HSS
	WP2	N.A.	1806	13.5	0.900	LUMARK: AXCS1A
	S1-HSS	N.A.	6437	52	0.900	LUMARK: PRV-C15-D-UNV-T4-BZ-HSS

LIGHTING PLAN WAS PERFORMED IN COORDINATION WITH REFLEX LIGHTING AND GREYBAR ELECTRIC.  
CONTACT:William Donahue | Inside Sales Representative Worcester, MA | Office (508) 453-4021

Rev.	Date
4	02/21

Design/Drawn/Checked	Scale	Date
LOG	1"=20'-0"	06/14/21

LANDSCAPE LIGHTING PLAN  
RED ROBIN PASTURES  
COUNTY STREET, DOVER, MA



Signature  
William Donahue  
73 Bishop Road, Sharon, MA 02467 781 866-0063