



**LOT 1 ZONING**

ZONING CLASSIFICATION:	SINGLE RESIDENCE A REQUIREMENTS	LOT 1 PROVIDED
LOT AREA	40,000 S.F. (32,000 S.F. CONTIGUOUS UPLAND)	44,266 S.F. (41,466 S.F. CONTIGUOUS UPLAND)
LOT FRONTAGE	150 FT. MIN.	160.51 FT. MIN.
LOT WIDTH	150 FT. MIN., (25' FRONT SETBACK) THEN 105'	164.7 FT. THEN 105'
FRONT YARD SETBACK	25 FT. MIN.	170.3 FT.
SIDEYARD SETBACK	25 FT. MIN.	45.6 FT.
REAR YARD SETBACK	25 FT. MIN.	25.5 FT.
BUILDING COVERAGE	30% MAX.	6.4%
BUILDING HEIGHT	38 FT. MAX.	REFER TO ARCHITECTURALS
MAX. F.A.R.	15% MAX.	REFER TO ARCHITECTURALS

**IMPERVIOUS COVERAGE CHART INSIDE 100' BUFFER ZONE**

EXISTING IMPERVIOUS IN 100' BUFFER ZONE = 4,866 S.F.  
 PROPOSED IMPERVIOUS IN 100' BUFFER ZONE = 3,262 S.F.  
 DECREASE IN IMPERVIOUS IN 100' BUFFER ZONE = 1,604 S.F.

100' BVW BUFFER ZONE

n/f  
 MASS INSTITUTE OF TECHNOLOGY  
 80 HAVEN STREET  
 71/17

LOT 1  
 44,266 sf ±  
 41,466 sf ±  
 CONTIGUOUS UPLAND

LOT 2  
 56,209 sf ±  
 51,156 sf ±  
 CONTIGUOUS UPLAND

**LOT 2 ZONING**

ZONING CLASSIFICATION:	SINGLE RESIDENCE A REQUIREMENTS	LOT 2 PROVIDED
LOT AREA	40,000 S.F. (32,000 S.F. CONTIGUOUS UPLAND)	56,209 S.F. (51,156 S.F. CONTIGUOUS UPLAND)
LOT FRONTAGE	150 FT. MIN.	299.62 FT.
LOT WIDTH	150 FT. MIN., (25' FRONT SETBACK) THEN 105'	270.1 FT. THEN 105'
FRONT YARD SETBACK	25 FT. MIN.	110.5 FT.
SIDEYARD SETBACK	25 FT. MIN.	124.4 FT.
REAR YARD SETBACK	25 FT. MIN.	26.0 FT.
BUILDING COVERAGE	30% MAX.	5.8%
BUILDING HEIGHT	38 FT. MAX.	REFER TO ARCHITECTURALS
MAX. F.A.R.	15% MAX.	REFER TO ARCHITECTURALS

**KEY**

- CALCULATED UBA & STRUCTURE / PAVEMENT EDGE OF UBA
- LIMIT OF PREVIOUSLY DEVELOPED AREA
- TREES TO BE REMOVED
- TREES TO BE REMAIN
- EROSION CONTROL BARRIER / PROPOSED LIMIT OF WORK

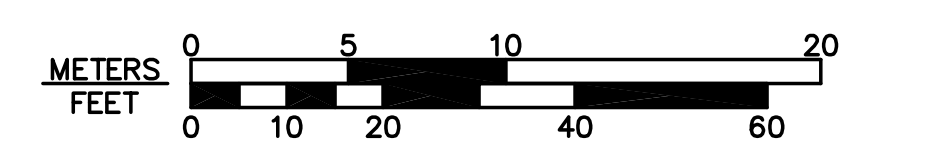
I CERTIFY THE ABOVE SHOWN LOT IS IN ZONE "X", AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON THE HUD FLOOD INSURANCE RATE MAP 25021C0039E FOR THE TOWN OF DEDHAM DATED JULY 17, 2012

**PROPOSED SITE LAYOUT  
 LOTS 1 & 2  
 123 WESTFIELD STREET  
 DEDHAM, MASSACHUSETTS**

SCALE: 1" = 20' FEBRUARY 5, 2020

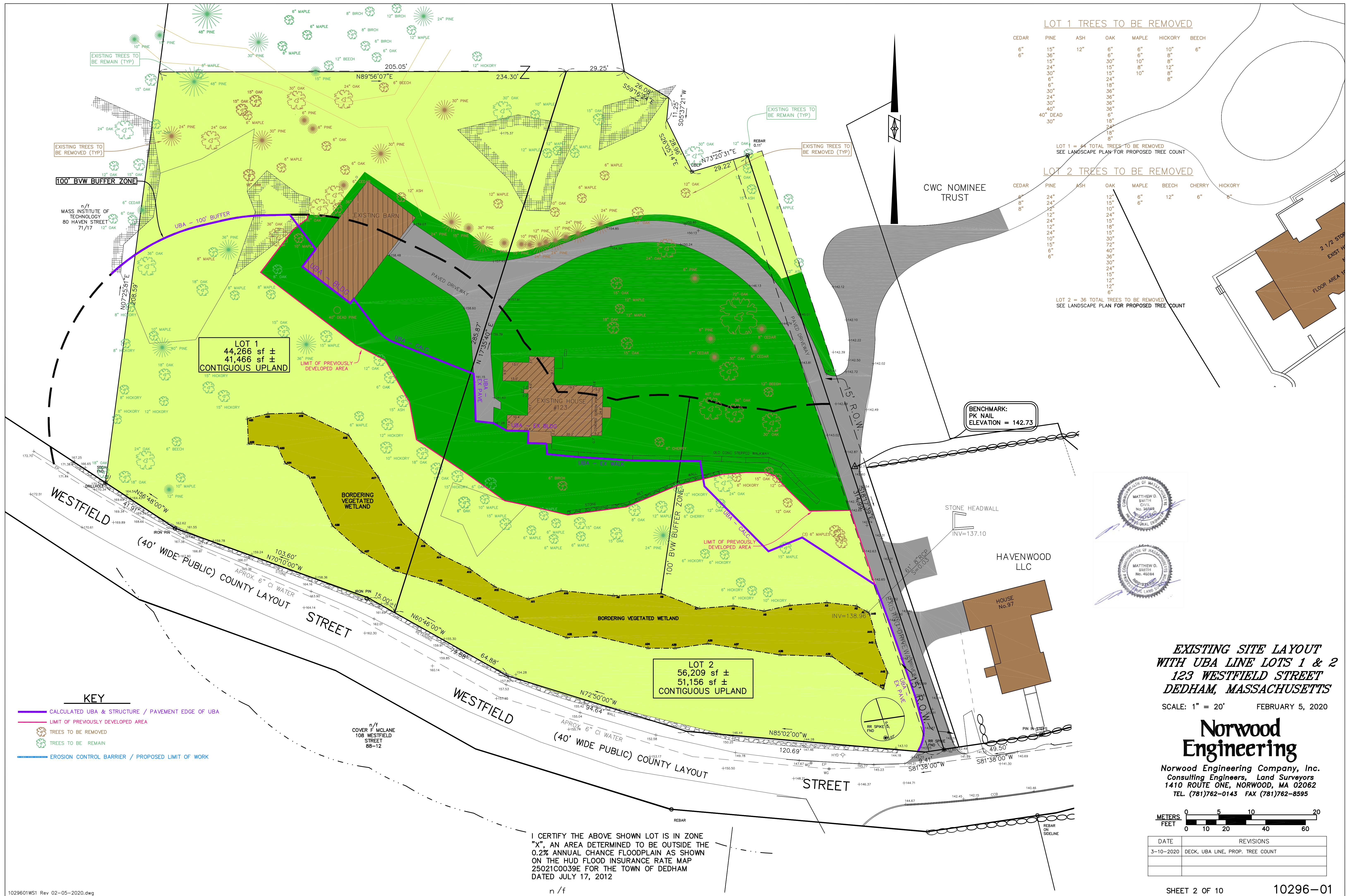
**Norwood Engineering**

Norwood Engineering Company, Inc.  
 Consulting Engineers, Land Surveyors  
 1410 ROUTE ONE, NORWOOD, MA 02062  
 TEL. (781)762-0143 FAX (781)762-8595



DATE	REVISIONS
3-10-2020	DECK, UBA LINE, PROP. TREE COUNT





**LOT 1 TREES TO BE REMOVED**

CEDAR	PINE	ASH	OAK	MAPLE	HICKORY	BEECH
6"	15"	12"	6"	6"	10"	6"
6"	36"		6"	6"	8"	
	15"		30"	10"	8"	
	24"		15"	8"	12"	
	30"		15"	10"	8"	
	6"		24"		8"	
	30"		36"		8"	
	24"		36"			
	30"		30"			
	40"		36"			
40" DEAD			6"			
30"			18"			
			18"			
			24"			
			18"			

LOT 1 = 34 TOTAL TREES TO BE REMOVED  
SEE LANDSCAPE PLAN FOR PROPOSED TREE COUNT

**LOT 2 TREES TO BE REMOVED**

CEDAR	PINE	ASH	OAK	MAPLE	BEECH	CHERRY	HICKORY
6"	24"		12"	6"	12"	6"	6"
8"	24"		15"	6"			
8"	12"		10"				
	12"		24"				
	24"		15"				
	10"		30"				
	15"		72"				
	6"		40"				
	6"		36"				
			30"				
			24"				
			15"				
			12"				
			12"				
			6"				

LOT 2 = 36 TOTAL TREES TO BE REMOVED  
SEE LANDSCAPE PLAN FOR PROPOSED TREE COUNT

BENCHMARK:  
PK NAIL  
ELEVATION = 142.73

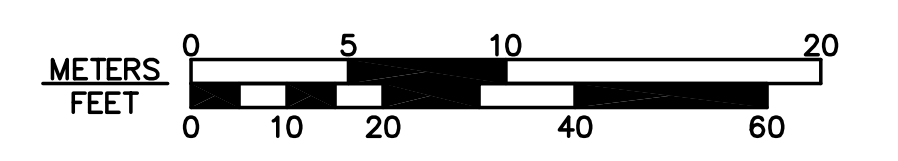


**EXISTING SITE LAYOUT WITH UBA LINE LOTS 1 & 2  
123 WESTFIELD STREET  
DEDHAM, MASSACHUSETTS**

SCALE: 1" = 20' FEBRUARY 5, 2020

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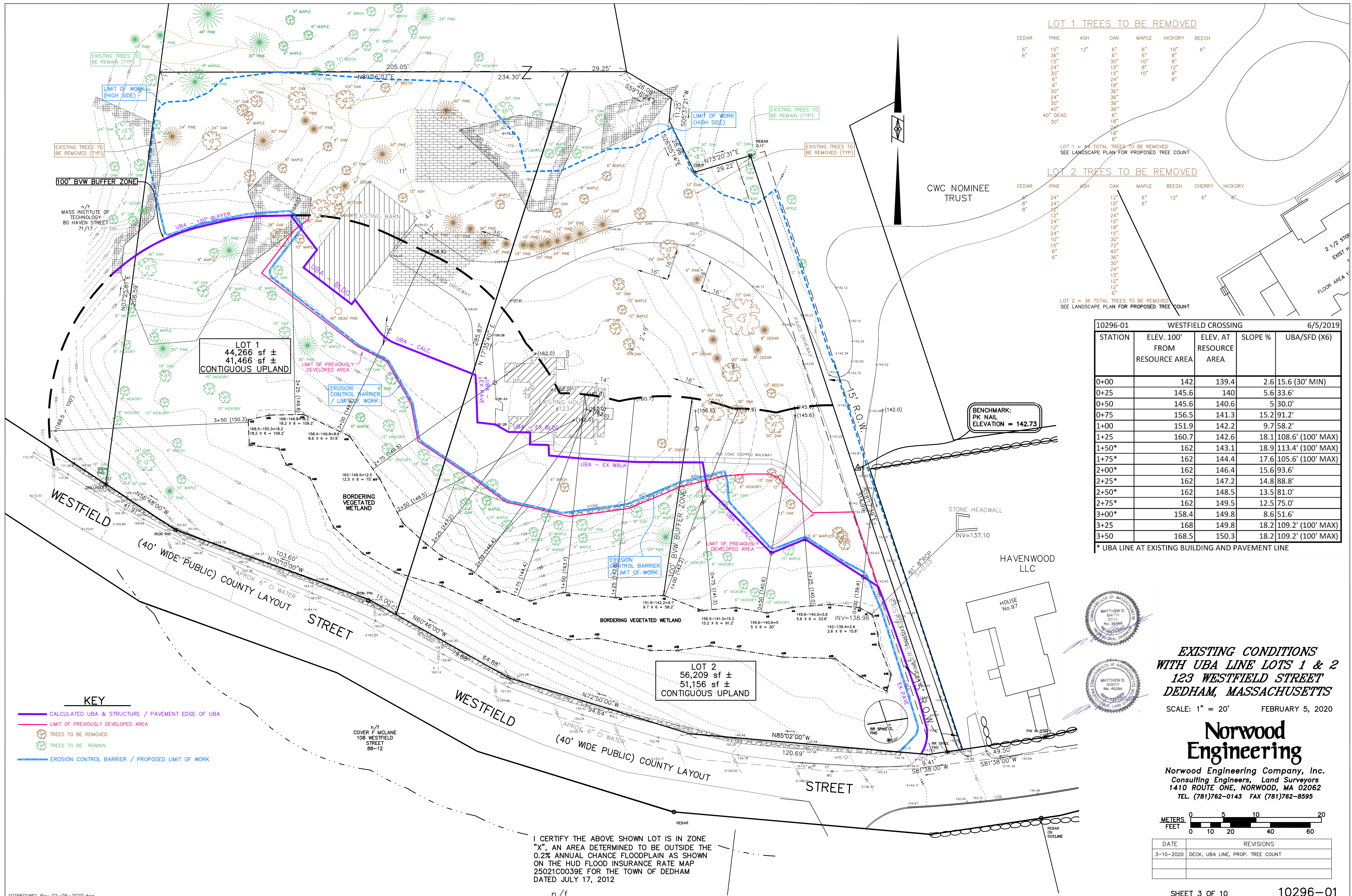


DATE	REVISIONS
3-10-2020	DECK, UBA LINE, PROP. TREE COUNT

I CERTIFY THE ABOVE SHOWN LOT IS IN ZONE "X", AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON THE HUD FLOOD INSURANCE RATE MAP 25021C0039E FOR THE TOWN OF DEDHAM DATED JULY 17, 2012

n/f





**LOT 1 TREES TO BE REMOVED**

CEDAR	PINE	ASH	OAK	MAPLE	HICKORY	BEECH
15"	12"	6"	6"	10"	6"	
36"	6"	30"	30"	10"	8"	
24"	15"	15"	15"	8"	12"	
30"	30"	10"	10"	8"	8"	
6"	24"	6"	6"	10"	8"	
18"	36"	36"	36"	36"	36"	
30"	30"	36"	36"	36"	36"	
24"	30"	36"	36"	36"	36"	
30"	40"	36"	36"	36"	36"	
40"	40"	36"	36"	36"	36"	
40" DEAD	18"	18"	18"	18"	18"	
30"	24"	18"	18"	18"	18"	
	18"	18"	18"	18"	18"	
	18"	18"	18"	18"	18"	

LOT 1 = 34 TOTAL TREES TO BE REMOVED  
SEE LANDSCAPE PLAN FOR PROPOSED TREE COUNT

**LOT 2 TREES TO BE REMOVED**

CEDAR	PINE	ASH	OAK	MAPLE	BEECH	CHERRY	HICKORY
24"	12"	6"	6"	12"	6"	6"	6"
24"	15"	6"	6"	6"			
12"	10"						
24"	24"						
24"	18"						
12"	15"						
24"	30"						
10"	72"						
15"	40"						
36"	36"						
30"	24"						
15"	15"						
12"	12"						
6"	6"						

LOT 2 = 36 TOTAL TREES TO BE REMOVED  
SEE LANDSCAPE PLAN FOR PROPOSED TREE COUNT

10296-01 WESTFIELD CROSSING 6/5/2019				
STATION	ELEV. 100' FROM RESOURCE AREA	ELEV. AT RESOURCE AREA	SLOPE %	UBA/SFD (X6)
0+00	142	139.4	2.6	15.6 (30' MIN)
0+25	145.6	140	5.6	33.6'
0+50	145.6	140.6	5	30.0'
0+75	156.5	141.3	15.2	91.2'
1+00	151.9	142.2	9.7	58.2'
1+25	160.7	142.6	18.1	108.6' (100' MAX)
1+50*	162	143.1	18.9	113.4' (100' MAX)
1+75*	162	144.4	17.6	105.6' (100' MAX)
2+00*	162	146.4	15.6	93.6'
2+25*	162	147.2	14.8	88.8'
2+50*	162	148.5	13.5	81.0'
2+75*	162	149.5	12.5	75.0'
3+00*	158.4	149.8	8.6	51.6'
3+25	168	149.8	18.2	109.2' (100' MAX)
3+50	168.5	150.3	18.2	109.2' (100' MAX)

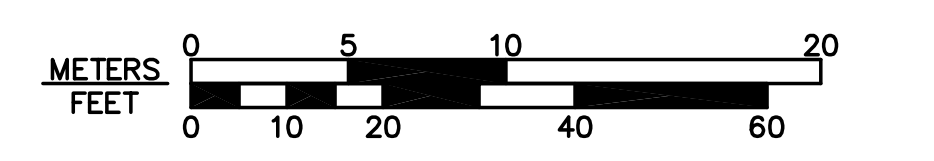
\* UBA LINE AT EXISTING BUILDING AND PAVEMENT LINE

**EXISTING CONDITIONS WITH UBA LINE LOTS 1 & 2  
123 WESTFIELD STREET  
DEDHAM, MASSACHUSETTS**

SCALE: 1" = 20' FEBRUARY 5, 2020

**Norwood Engineering**

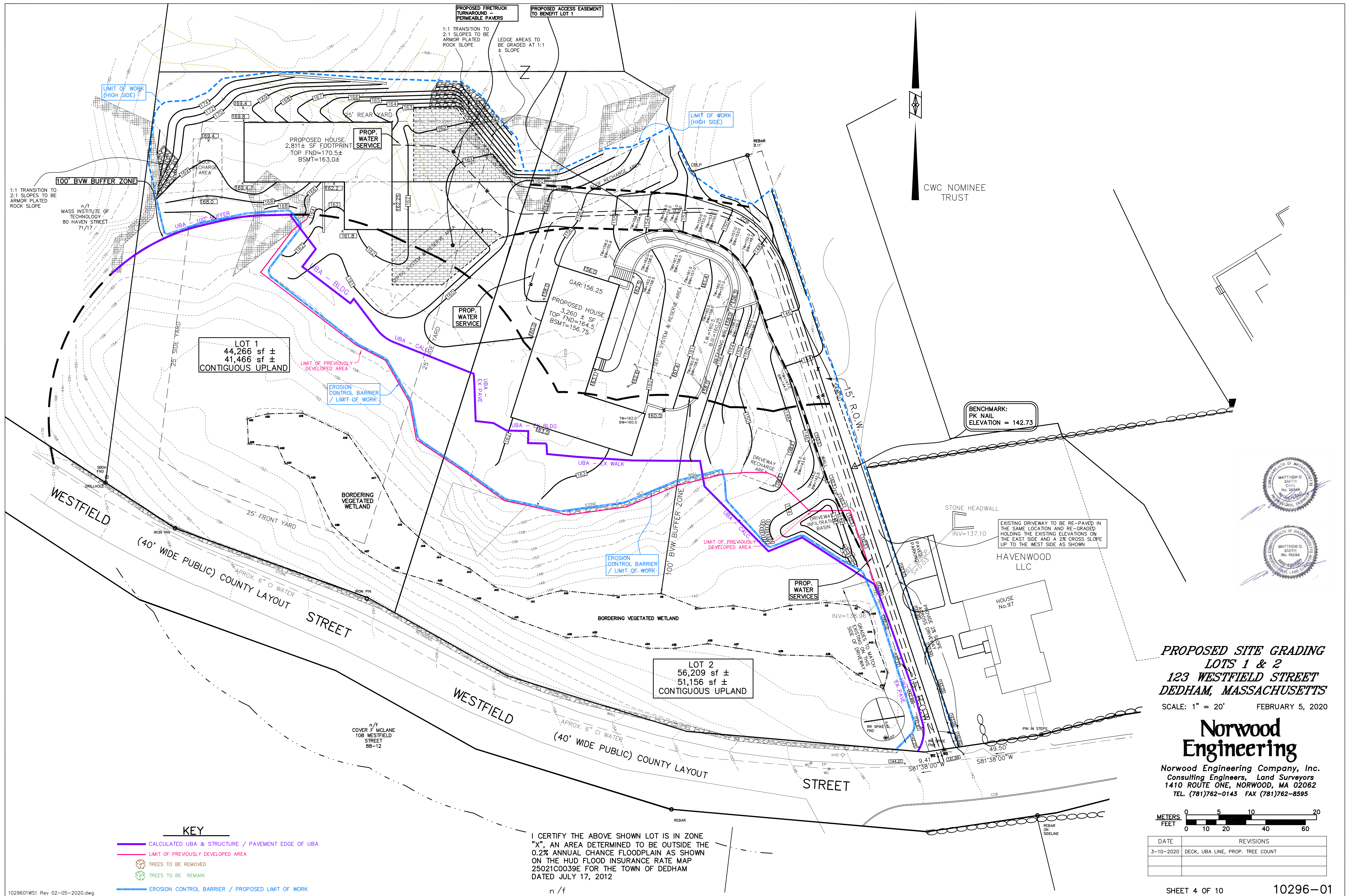
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DATE	REVISIONS
3-10-2020	DECK, UBA LINE, PROP. TREE COUNT

I CERTIFY THE ABOVE SHOWN LOT IS IN ZONE "X", AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON THE HUD FLOOD INSURANCE RATE MAP 25021C0039E FOR THE TOWN OF DEDHAM DATED JULY 17, 2012





- KEY**
- CALCULATED UBA & STRUCTURE / PAVEMENT EDGE OF UBA
  - LIMIT OF PREVIOUSLY DEVELOPED AREA
  - TREES TO BE REMOVED
  - TREES TO BE REMAIN
  - EROSION CONTROL BARRIER / PROPOSED LIMIT OF WORK

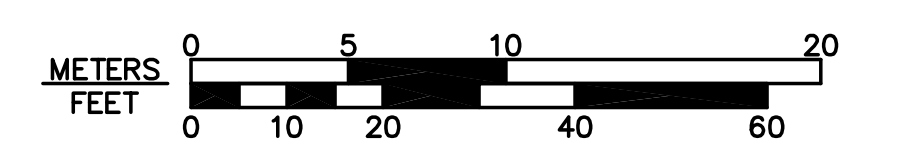
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**PROPOSED SITE GRADING  
LOTS 1 & 2  
123 WESTFIELD STREET  
DEDHAM, MASSACHUSETTS**

SCALE: 1" = 20'      FEBRUARY 5, 2020

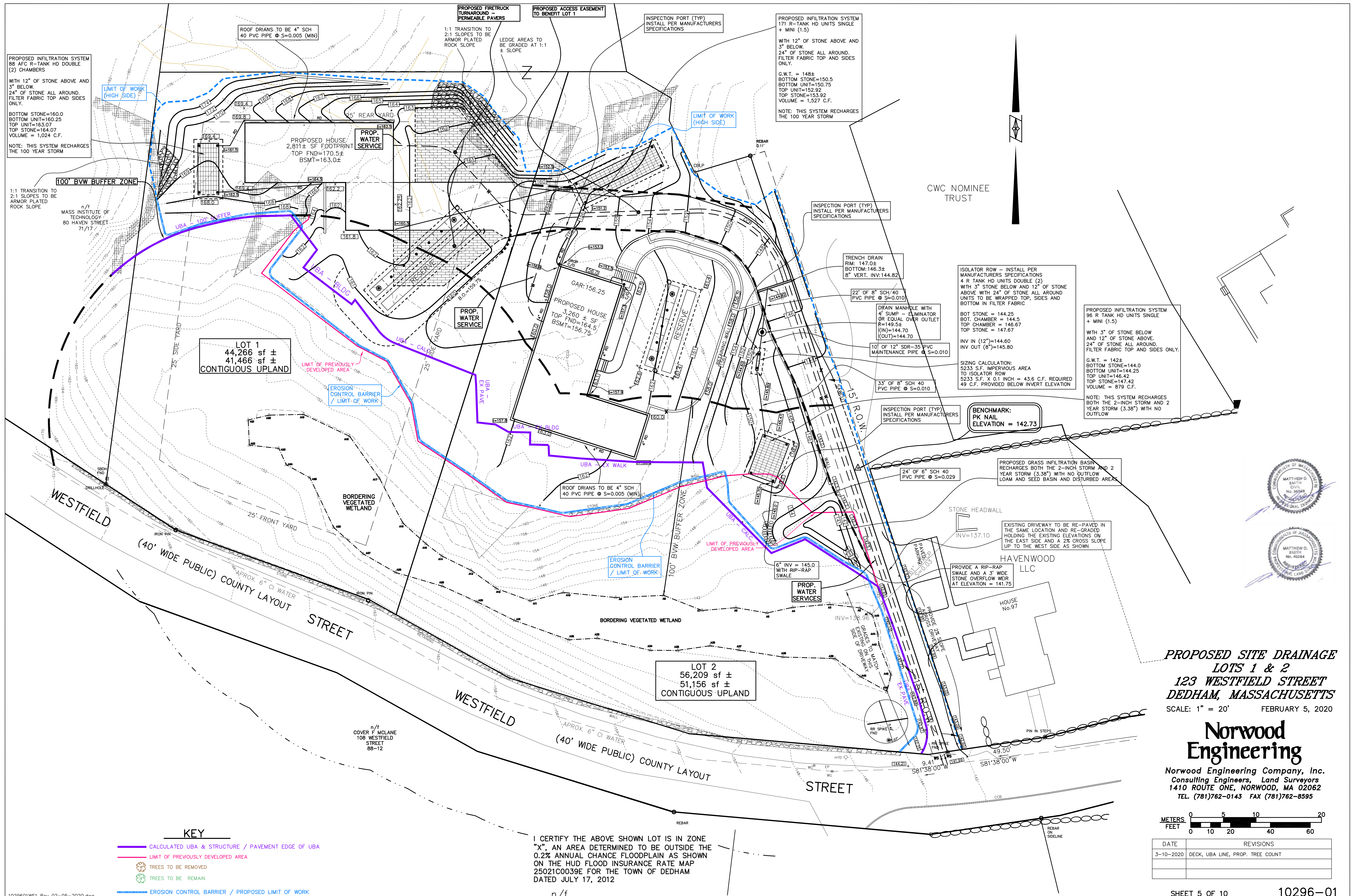
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PROPOSED INFILTRATION SYSTEM  
88 AFC R-TANK HD DOUBLE  
(2) CHAMBERS  
WITH 12" OF STONE ABOVE AND  
3" BELOW.  
24" OF STONE ALL AROUND.  
FILTER FABRIC TOP AND SIDES  
ONLY.  
BOTTOM STONE=160.0  
BOTTOM UNIT=160.25  
TOP UNIT=163.07  
TOP STONE=164.07  
VOLUME = 1,024 C.F.  
NOTE: THIS SYSTEM RECHARGES  
THE 100 YEAR STORM

PROPOSED INFILTRATION SYSTEM  
171 R-TANK HD UNITS SINGLE  
+ MINI (1.5)  
WITH 12" OF STONE ABOVE AND  
3" BELOW.  
24" OF STONE ALL AROUND.  
FILTER FABRIC TOP AND SIDES  
ONLY.  
C.W.T. = 148±  
BOTTOM STONE=150.5  
BOTTOM UNIT=150.75  
TOP UNIT=152.92  
TOP STONE=153.92  
VOLUME = 1,527 C.F.  
NOTE: THIS SYSTEM RECHARGES  
THE 100 YEAR STORM

ISOLATOR ROW - INSTALL PER  
MANUFACTURERS SPECIFICATIONS  
4 R TANK HD UNITS DOUBLE (2)  
WITH 3" STONE BELOW AND 12" OF STONE  
ABOVE WITH 24" OF STONE ALL AROUND  
UNITS TO BE WRAPPED TOP, SIDES AND  
BOTTOM IN FILTER FABRIC  
BOT STONE = 144.25  
BOT. CHAMBER = 144.5  
TOP CHAMBER = 146.87  
TOP STONE = 147.87  
INV IN (12")=144.60  
INV OUT (8")=145.80  
SIZING CALCULATION:  
5233 S.F. IMPERVIOUS AREA  
TO ISOLATOR ROW  
5233 S.F. X 0.1 INCH = 43.6 C.F. REQUIRED  
49 C.F. PROVIDED BELOW INVERT ELEVATION

PROPOSED INFILTRATION SYSTEM  
96 R TANK HD UNITS SINGLE  
+ MINI (1.5)  
WITH 3" OF STONE BELOW  
AND 12" OF STONE ABOVE.  
24" OF STONE ALL AROUND.  
FILTER FABRIC TOP AND SIDES ONLY.  
C.W.T. = 142±  
BOTTOM STONE=144.0  
BOTTOM UNIT=144.25  
TOP UNIT=146.42  
TOP STONE=147.42  
VOLUME = 879 C.F.  
NOTE: THIS SYSTEM RECHARGES  
BOTH THE 2-INCH STORM AND 2  
YEAR STORM (3.38") WITH NO  
OUTFLOW

LOT 1  
44,266 sf ±  
41,466 sf ±  
CONTIGUOUS UPLAND

LOT 2  
56,209 sf ±  
51,156 sf ±  
CONTIGUOUS UPLAND

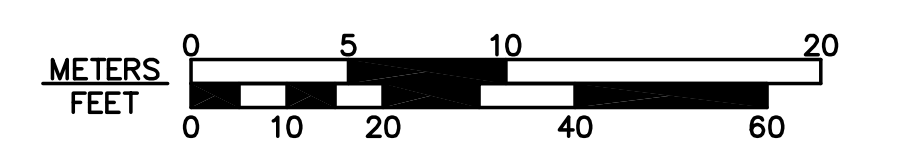
- KEY**
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  - LIMIT OF PREVIOUSLY DEVELOPED AREA
  - TREES TO BE REMOVED
  - TREES TO BE REMAIN
  - EROSION CONTROL BARRIER / PROPOSED LIMIT OF WORK

I CERTIFY THE ABOVE SHOWN LOT IS IN ZONE  
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0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN  
ON THE HUD FLOOD INSURANCE RATE MAP  
25021C0039E FOR THE TOWN OF DEDHAM  
DATED JULY 17, 2012

**PROPOSED SITE DRAINAGE**  
**LOTS 1 & 2**  
**123 WESTFIELD STREET**  
**DEDHAM, MASSACHUSETTS**  
SCALE: 1" = 20' FEBRUARY 5, 2020

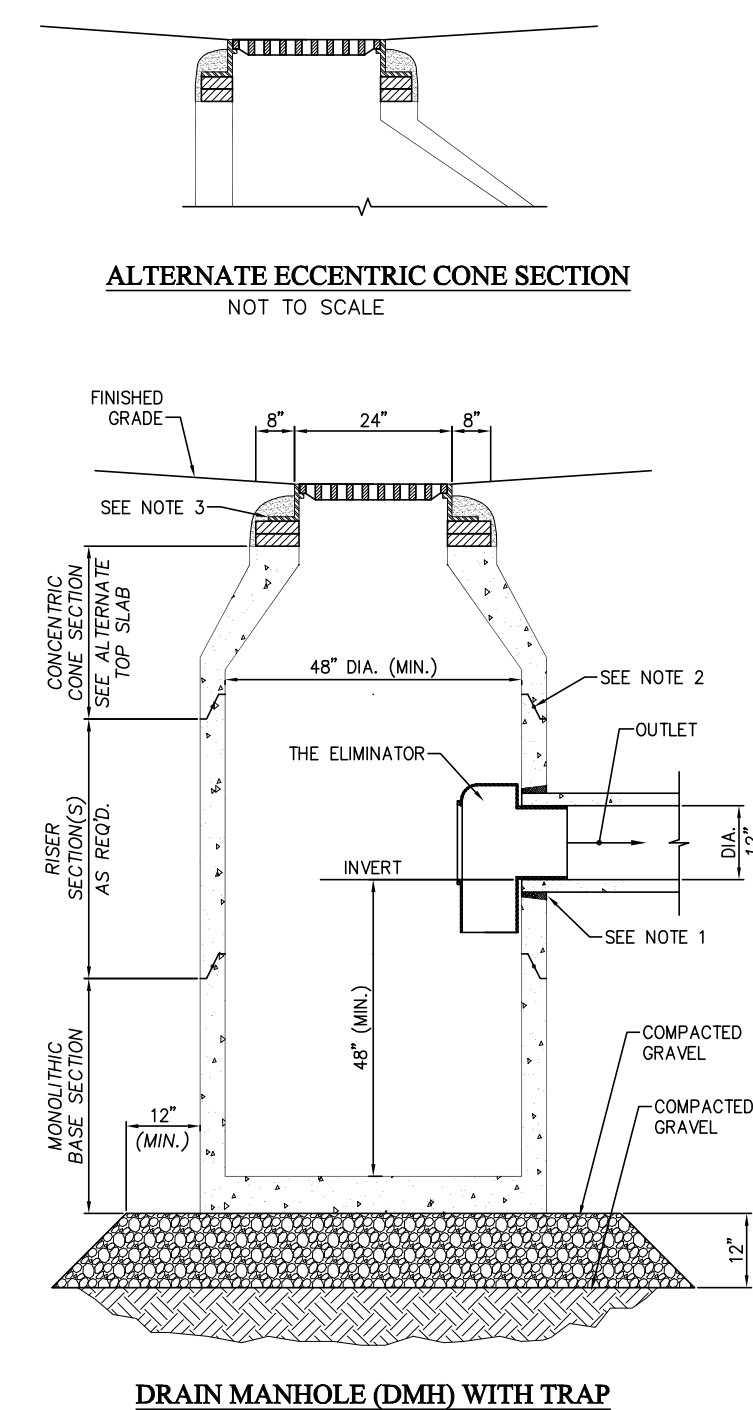
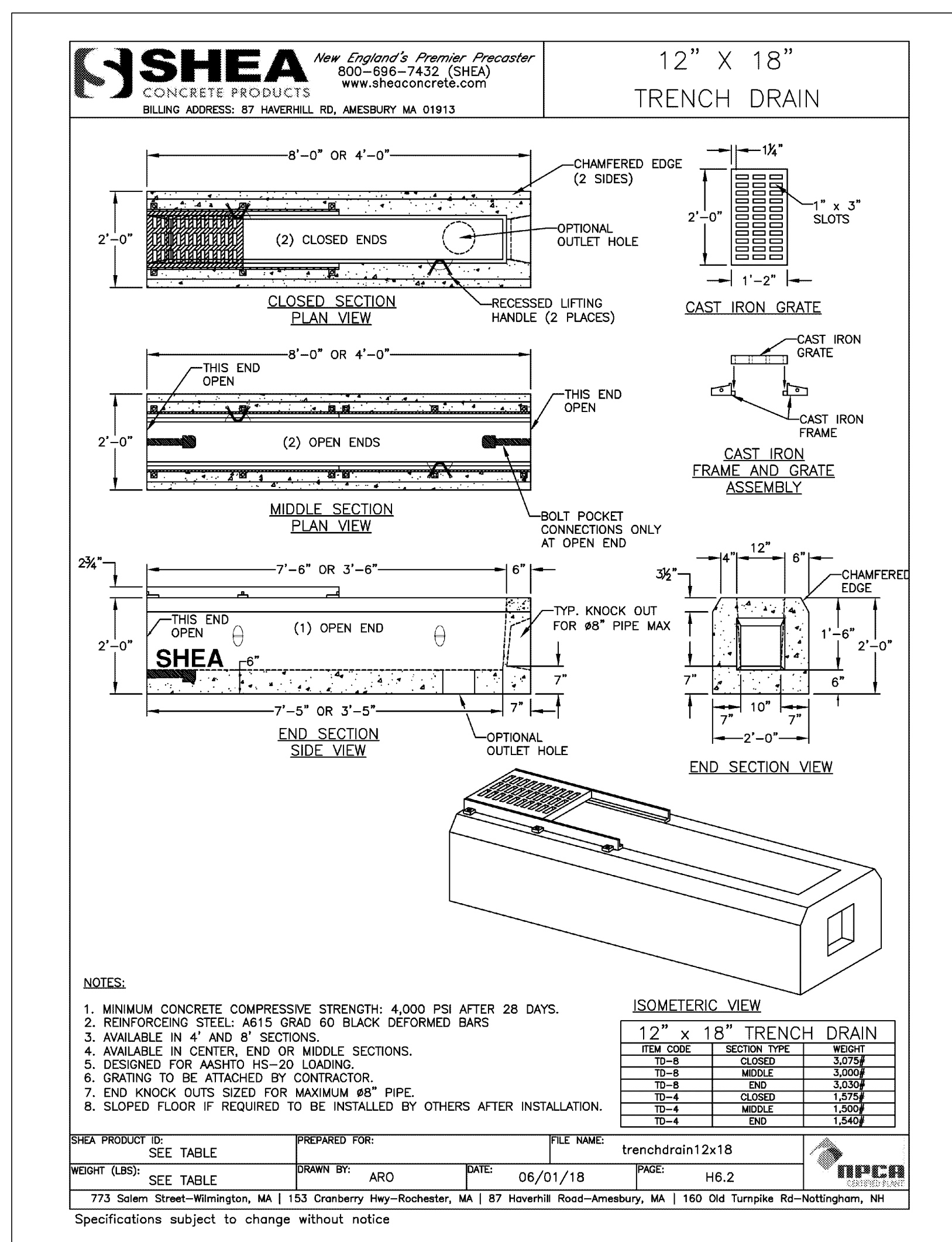
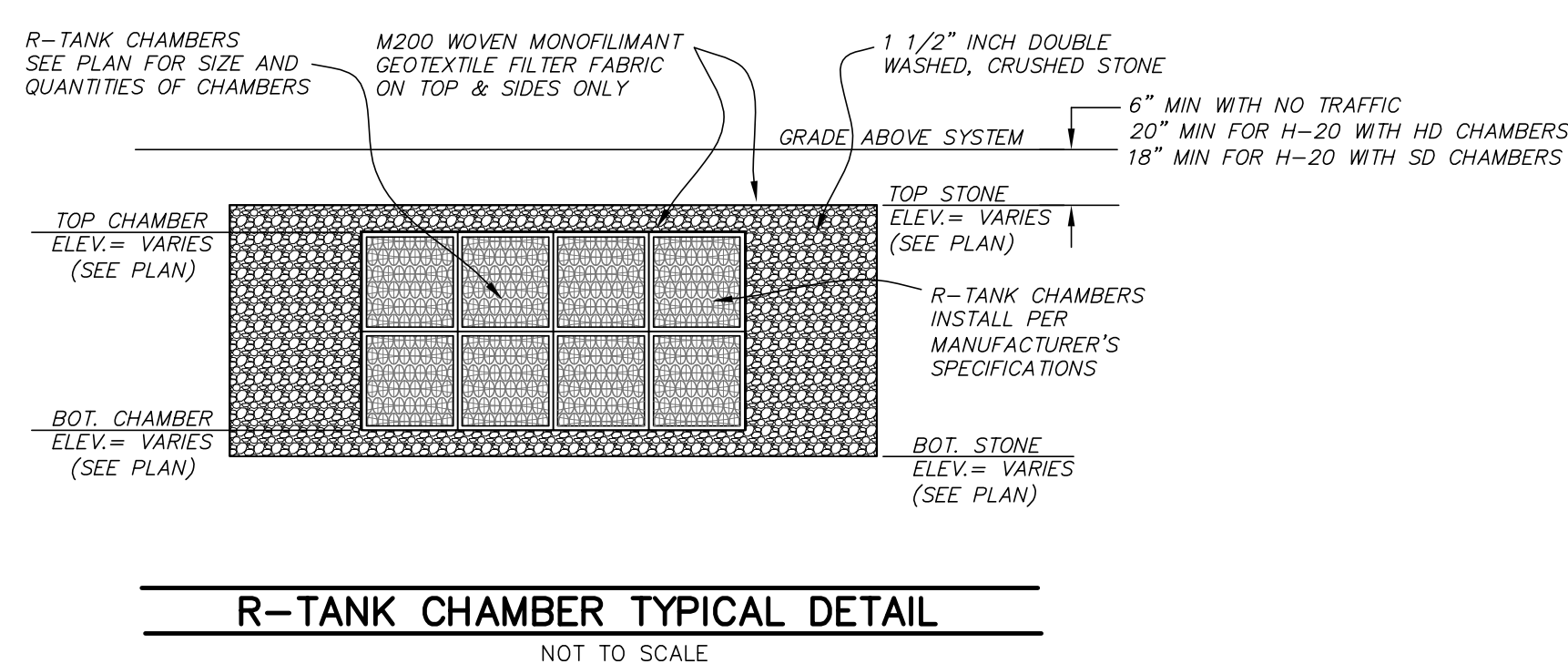
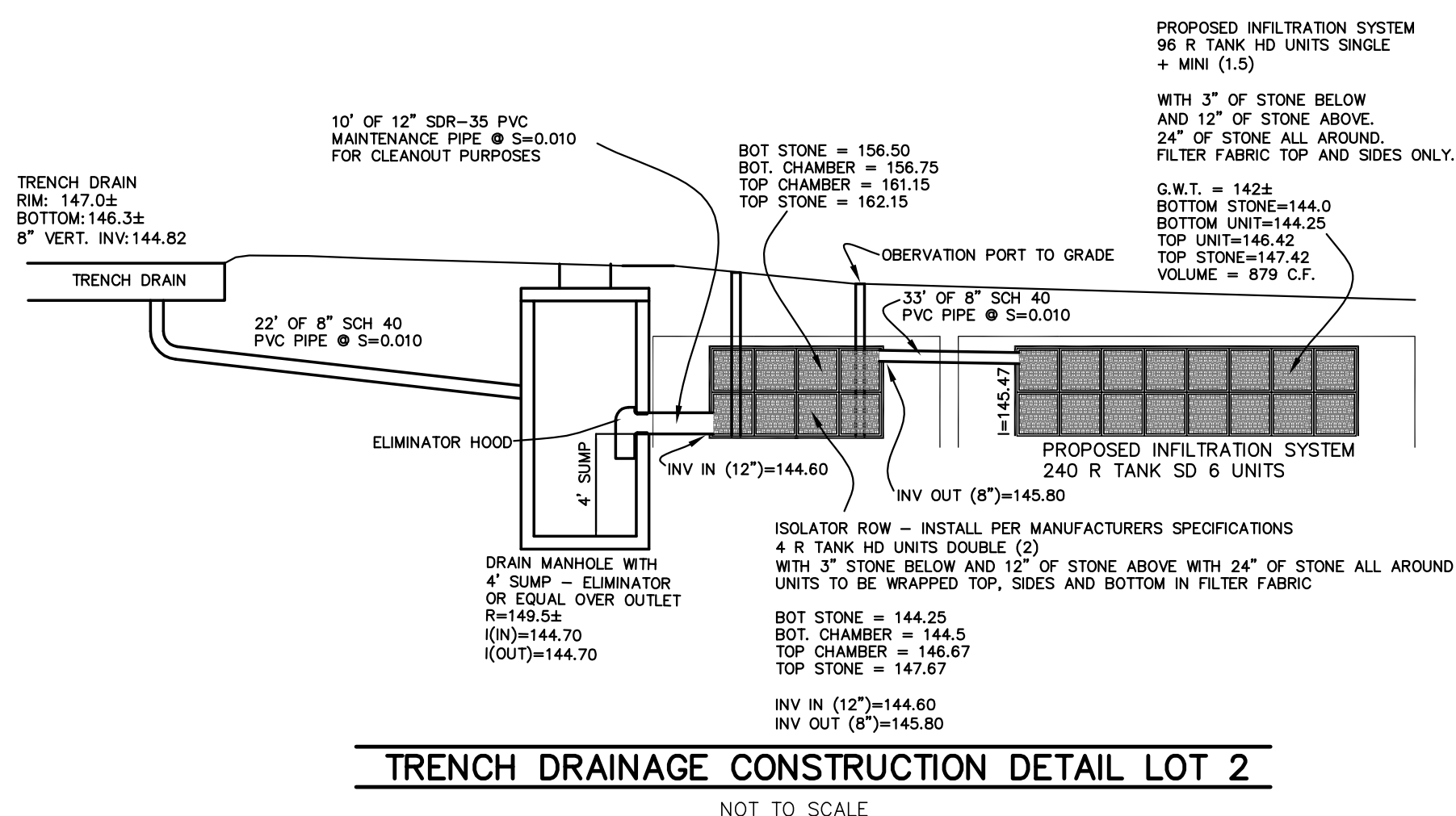
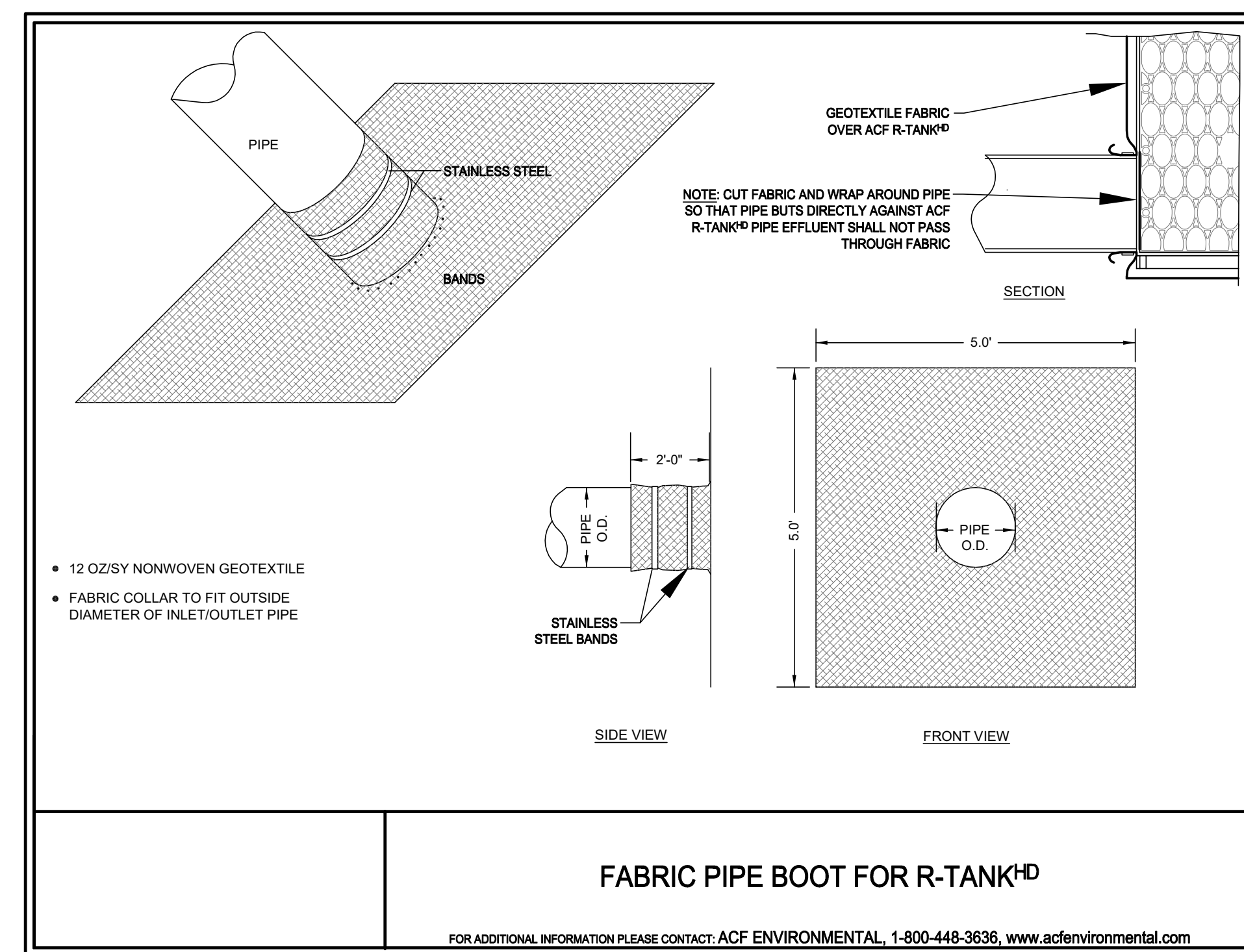
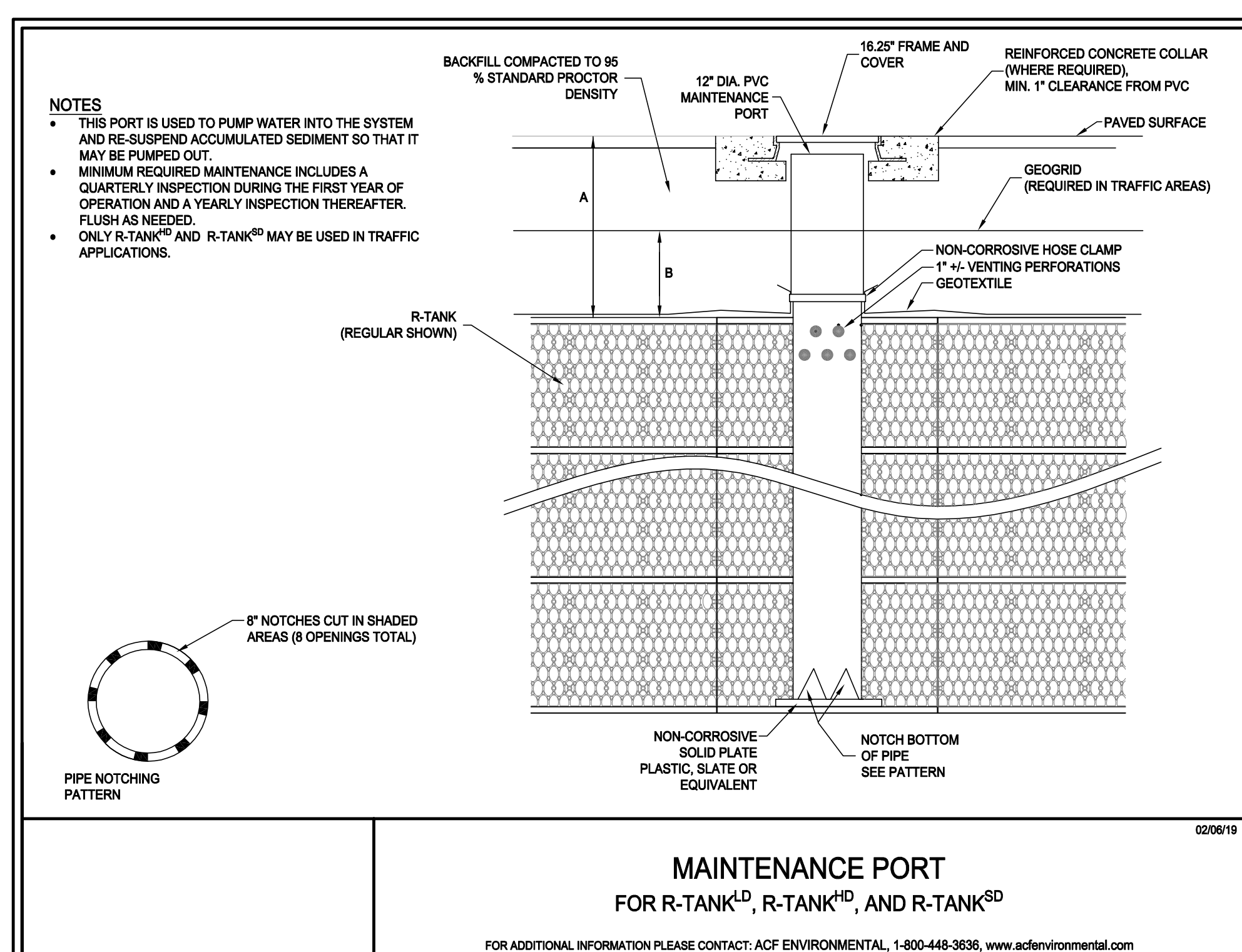
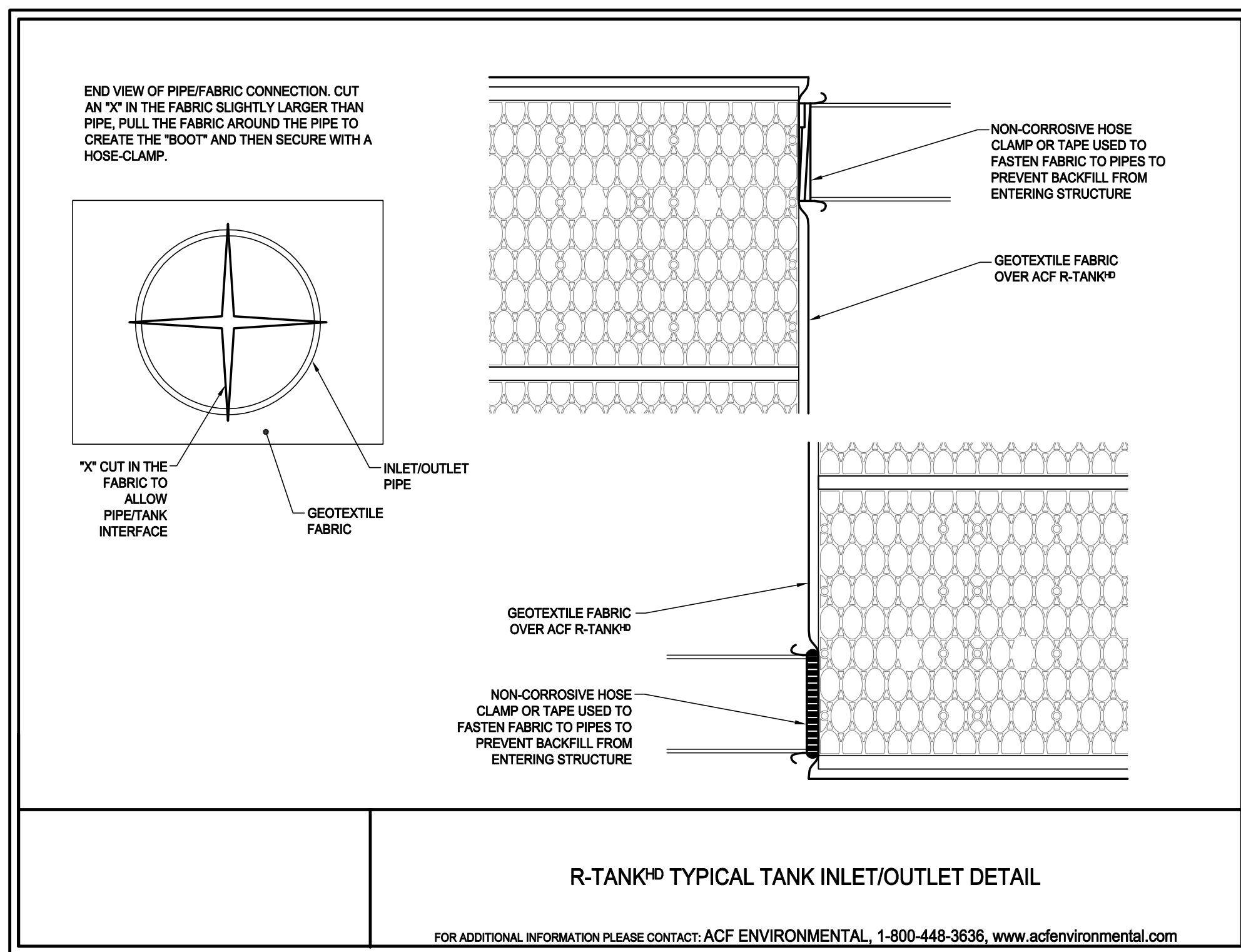
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- Notes:**
- PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
  - JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
  - DRAIN MANHOLE FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).
  - HOOD SHALL BE "THE ELIMINATOR" OIL & FLOATING DEBRIS TRAP AS MANUFACTURED BY GROUND WATER RESCUE, INC., QUINCY, MA, TEL. 617-773-1128 ON THE WEB @ WWW.KLEANSTREAM.COM

**SITE DETAILS LOTS 1 & 2**  
123 WESTFIELD ST.  
DEDHAM, MASSACHUSETTS  
SCALE: NTS FEBRUARY 5, 2020

**Norwood Engineering**

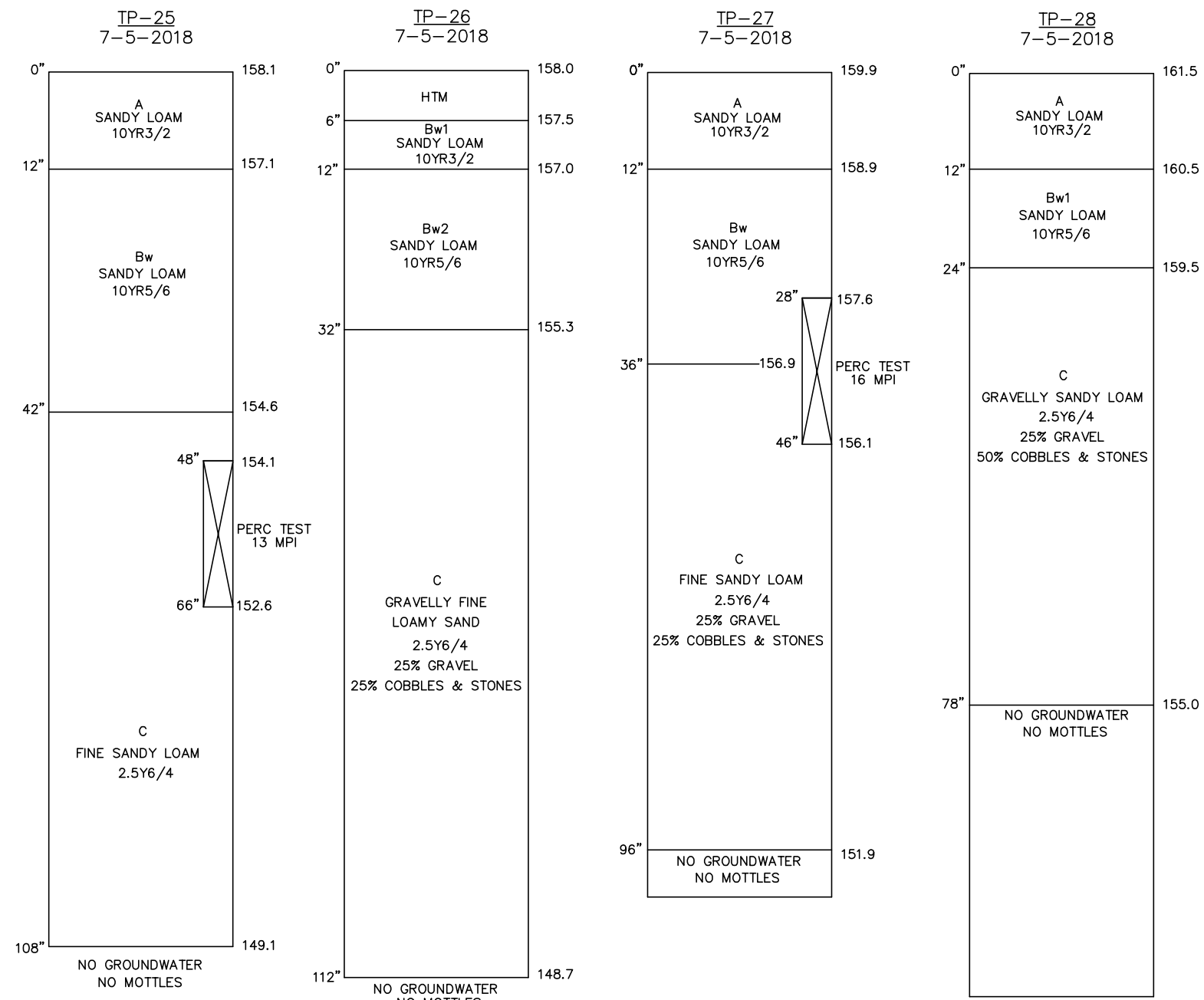
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**SOIL LOGS**



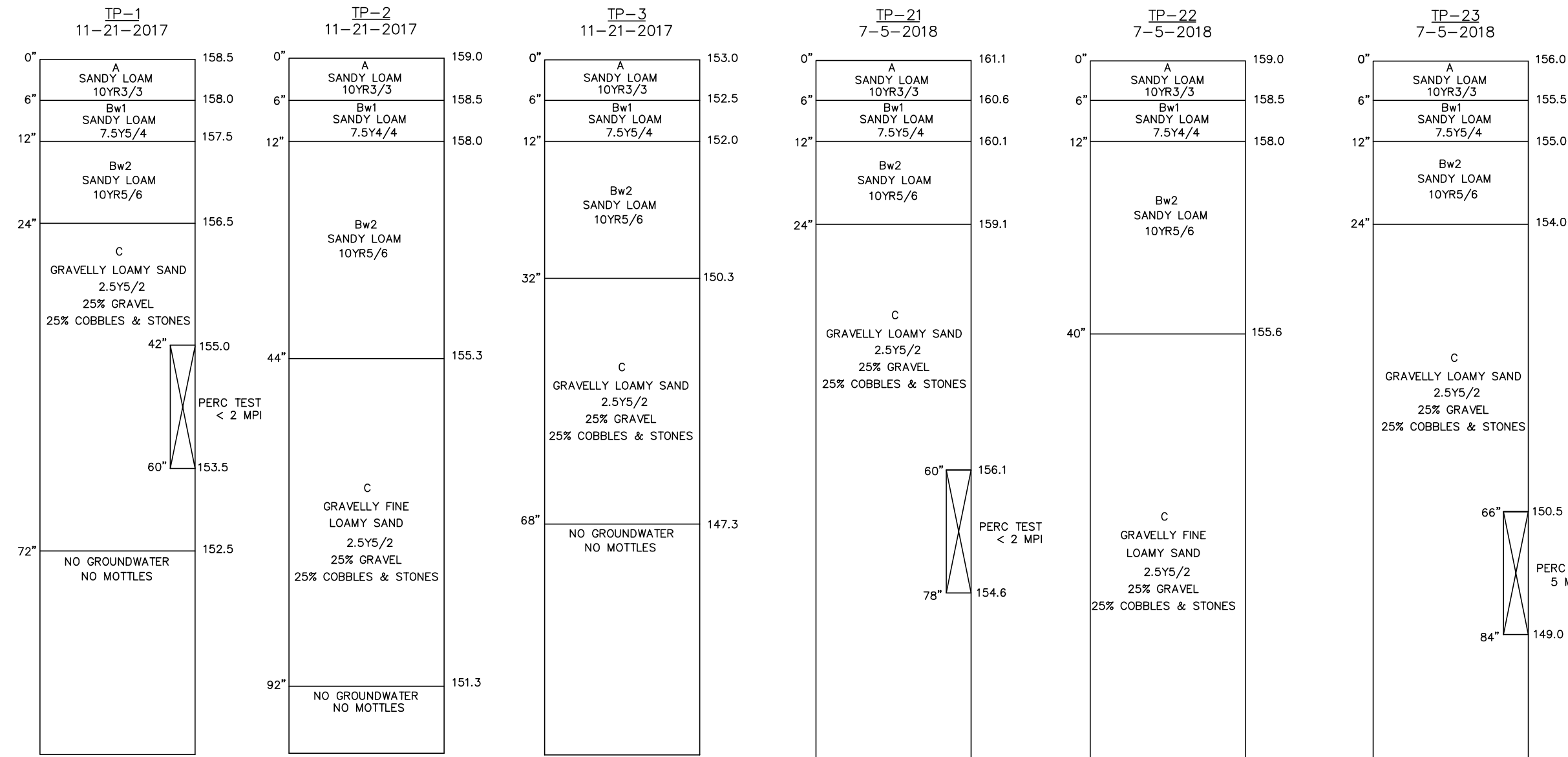
SCS SOIL TYPE IS CLASSIFIED AS HOLLIS-ROCK OUTCROP-CHARLTON COMPLEX.

NOTE: TEST HOLES TP-25, TP-26, TP-27 & TP-28 WERE WITNESSED BY LUCAS KLIM, SOIL EVALUATOR, AND CATHERINE CARDINALE FOR THE TOWN OF DEDHAM BOARD OF HEALTH, ON JULY 5, 2018.

**PERCOLATION TEST RESULTS**

TP-25	TP-27
DATE: 7-5-18	DATE: 7-5-18
PRESOAK: 12:57	PRESOAK: 1:15
END PRESOAK: 1:12	END PRESOAK: 1:30
TIME @ 12": 1:13	TIME @ 12": 1:30
TIME @ 9": 1:42	TIME @ 9": 2:03
TIME @ 6": 2:21	TIME @ 6": 2:51
TIME(9"-6"): 39 MIN	TIME(9"-6"): 48 MIN
RATE: 13 MPI	RATE: 16 MPI

**SOIL LOGS**

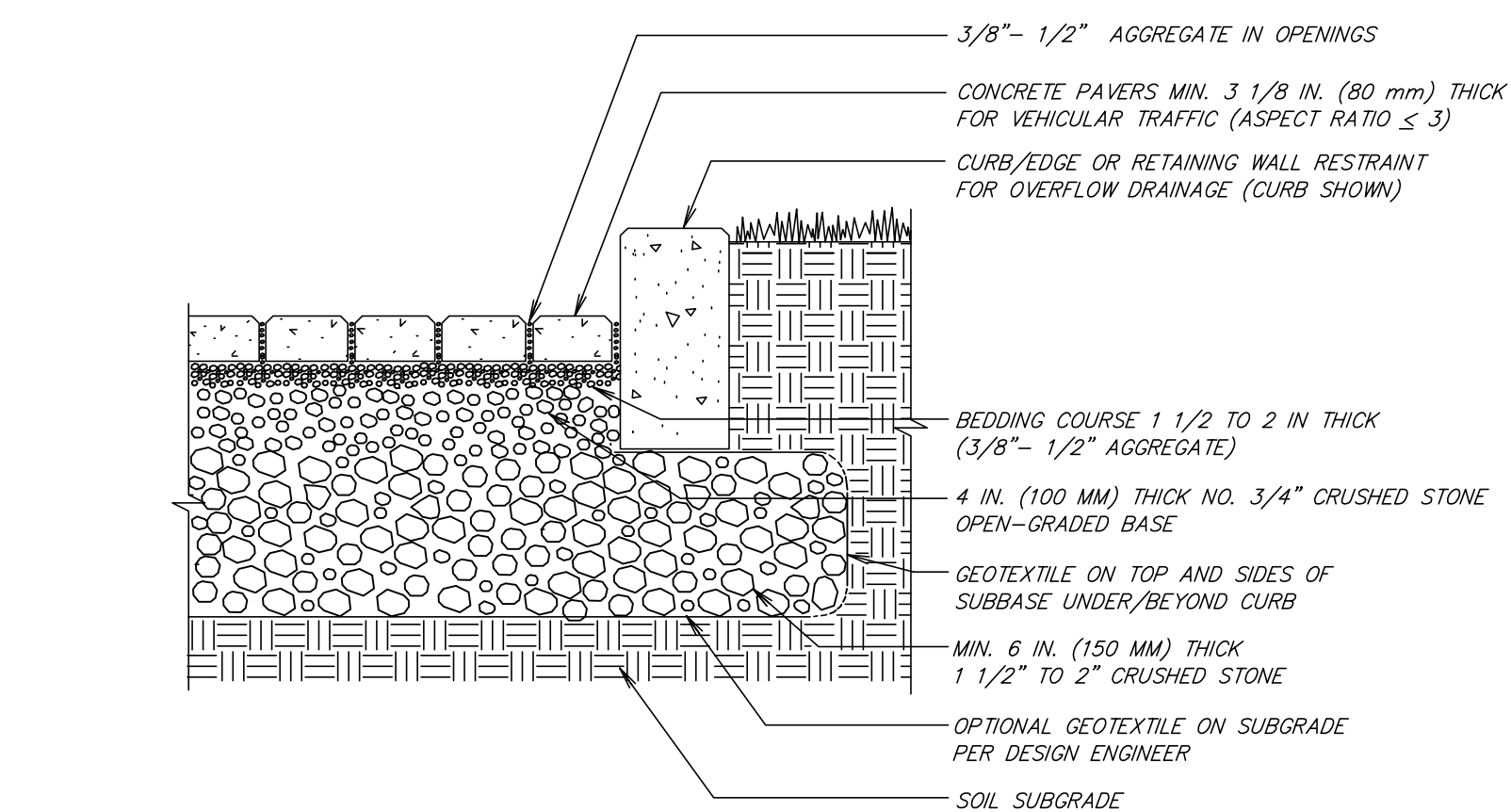


SCS SOIL TYPE IS CLASSIFIED AS HOLLIS-ROCK OUTCROP-CHARLTON COMPLEX.

NOTE: TEST HOLES TP-1, TP-2, TP-3, TP-21, TP-22 & TP-23 WERE WITNESSED BY LUCAS KLIM, SOIL EVALUATOR, AND CATHERINE CARDINALE FOR THE TOWN OF DEDHAM BOARD OF HEALTH, ON NOVEMBER 21, 2017 & JULY 5, 2018.

**PERCOLATION TEST RESULTS**

TP-1	TP-21	TP-23
DATE: 11-21-17	DATE: 7-5-18	DATE: 7-5-18
PRESOAK: 1:31 PM	PRESOAK: 12:27 PM	PRESOAK: 12:27 PM
25 GALLONS	25 GALLONS	END PRESOAK: 12:42
DURING	DURING	TIME @ 12": 12:42
PRE-SOAK	PRE-SOAK	TIME @ 9": 12:55
		TIME @ 6": 1:08
		TIME(9"-6"): 13 MIN
RATE: < 2 MPI	RATE: < 2 MPI	RATE: 5 MPI



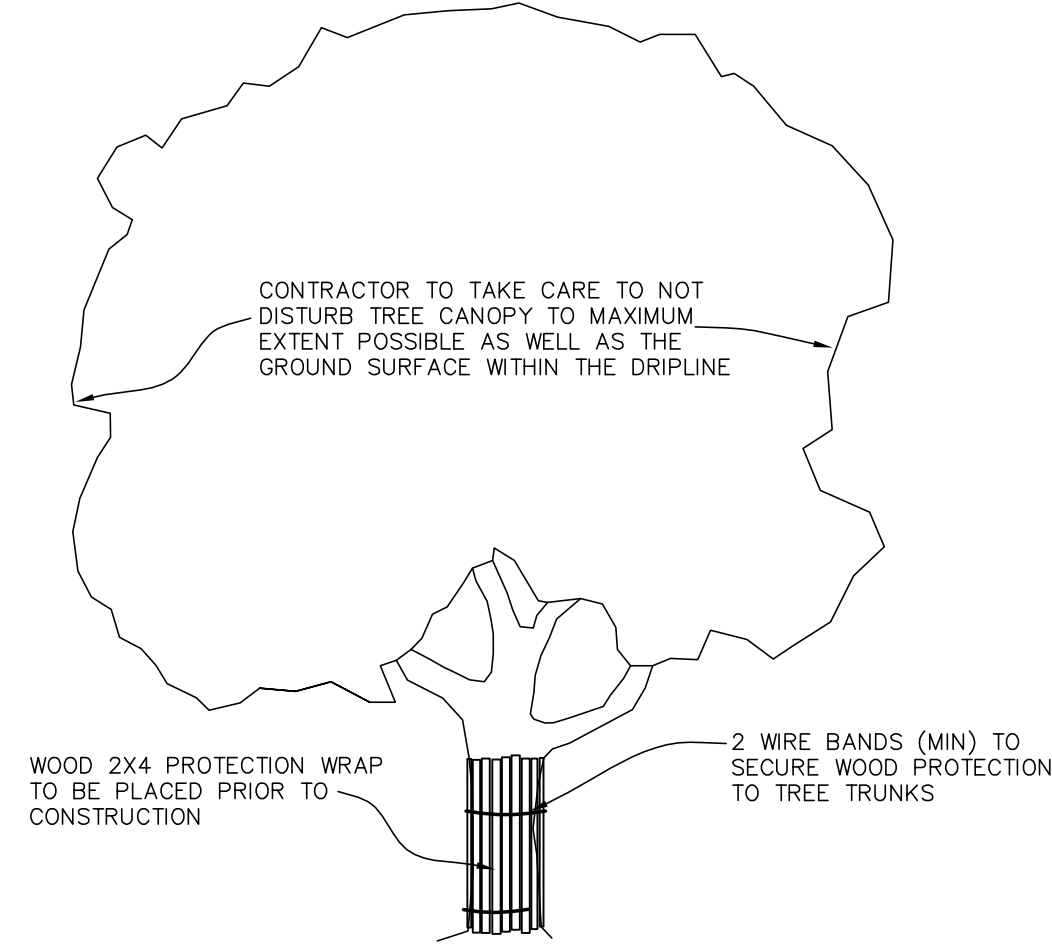
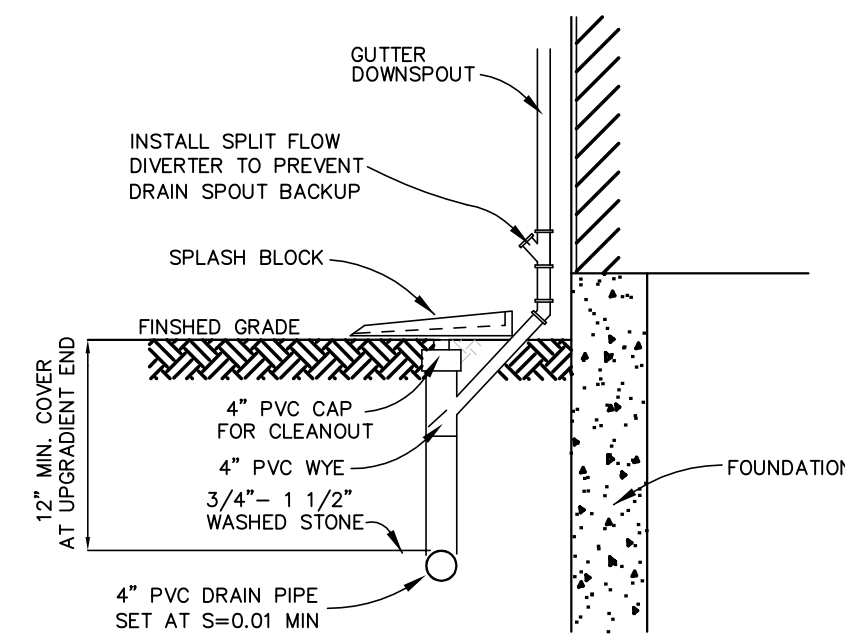
NOTES:  
 1. 2 3/8 IN. (60 MM) THICK PAVERS MAY BE USED IN PEDESTRIAN AND RESIDENTIAL APPLICATIONS.  
 2. 1 1/2" TO 2" CRUSHED STONE SUBBASE THICKNESS VARIES WITH DESIGN. CONSULT ICPI PERMEABLE INTERLOCKING CONCRETE PAVEMENT MANUAL.

**PERMEABLE PAVEMENT WITH FULL EXFILTRATION TO SOIL SUBGRADE**

NOT TO SCALE

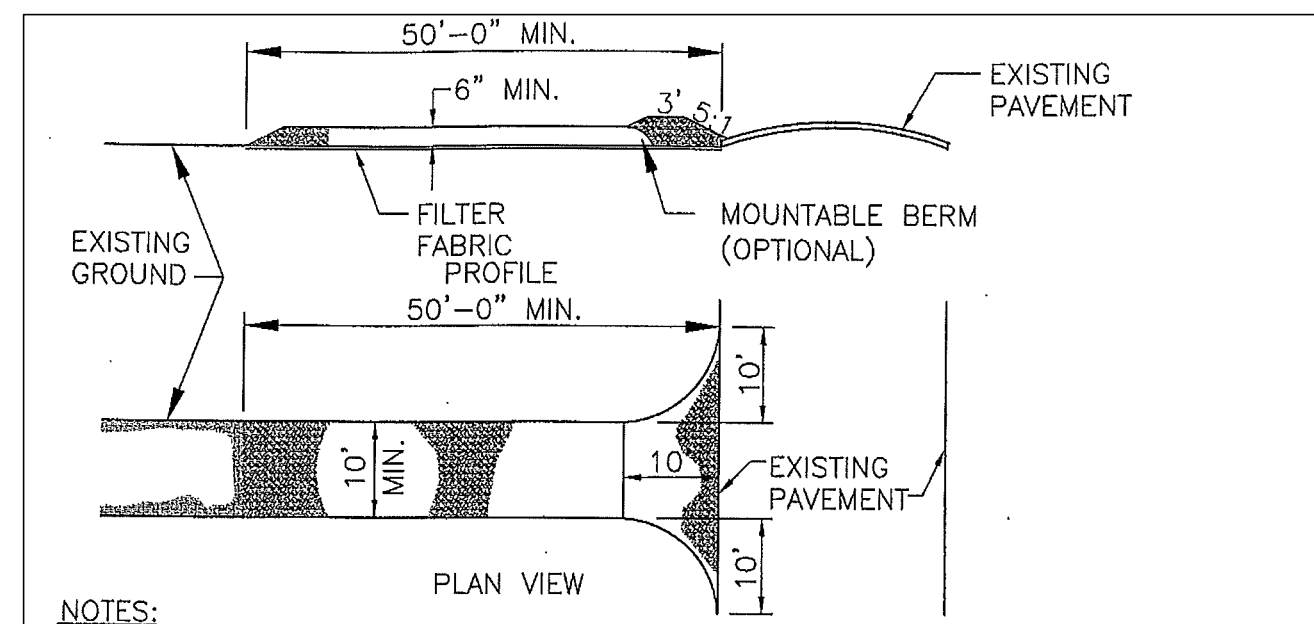
**DOWNSPOUT DETAIL w/ DIVERTER**

NOT TO SCALE



**TREE PROTECTION DETAIL**

SCALE: NTS

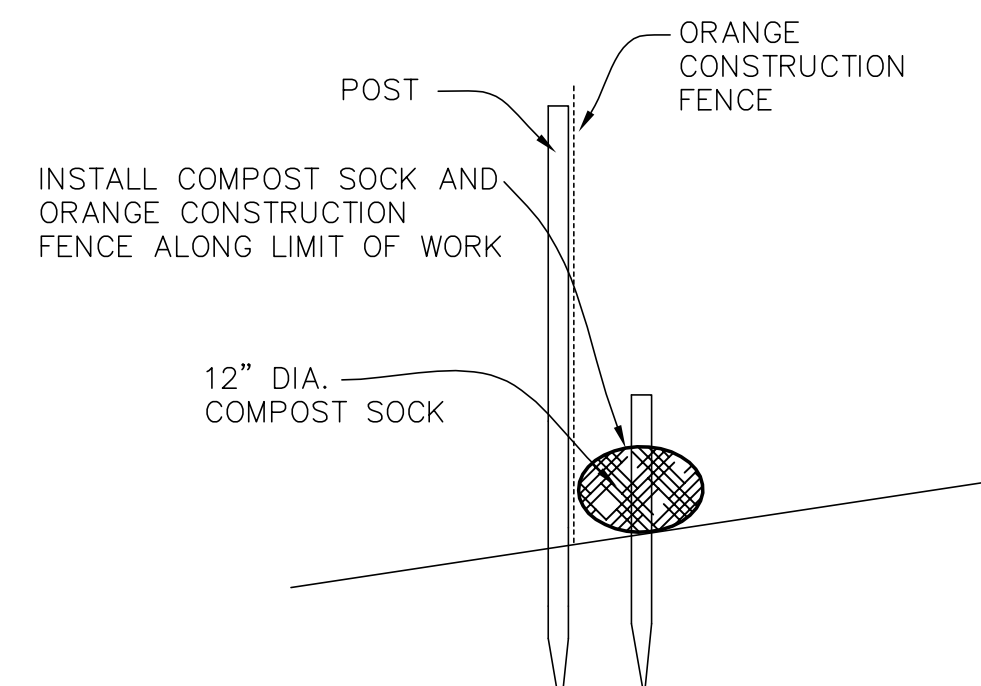


NOTES:

- STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- FILTER FABRIC - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPE IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

**STABILIZED CONSTRUCTION ENTRANCE**

NOT TO SCALE



**COMPOST SOCK AND CONSTRUCTION FENCE**

NOT TO SCALE

**CONSTRUCTION NOTES**

- PRIOR TO ANY CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT DIG SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
- PRIOR TO ANY WORK IN PUBLIC WAYS THE CONTRACTOR SHALL OBTAIN A STREET OPENING PERMIT FROM THE TOWN OF DEDHAM.
- THE TOWN OF DEDHAM SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY CONSTRUCTION WITHIN A PUBLIC WAY.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST VERSION OF THE TOWN OF DEDHAM DESIGN AND CONSTRUCTION STANDARDS AS APPLICABLE.
- ALL WATER SERVICE LINE TESTING OR CONSTRUCTION SHALL BE COORDINATED WITH DEDHAM-WESTWOOD WATER COMPANY. CONSTRUCTION MATERIALS, METHODS AND TESTING SHALL MEET THEIR SPECIFICATIONS.
- THE DEDHAM-WESTWOOD WATER COMPANY SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY CONSTRUCTION RELATED TO THEIR WATER SYSTEM.
- THE DEDHAM DEPARTMENT OF PUBLIC WORKS SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY CONSTRUCTION ASSOCIATED WITH THE TOWN'S SEWER OR DRAIN SYSTEMS.
- THE LOT SHOWN HEREON IS IN ZONE X, AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN, AS SHOWN ON THE HUD FLOOD INSURANCE RATE MAP DATED JULY 17, 2012, MAP 25021C0039E.
- ALL LAWN AREAS TO BE LOAMED (4") AND SEEDED.
- THE CONSERVATION COMMISSION SHALL BE NOTIFIED PRIOR TO THE START OF ANY WORK IN ACCORDANCE WITH THE PROJECT PERMITS.

**CONSTRUCTION SEQUENCE FOR STORMWATER MANAGEMENT AND SEDIMENTATION CONTROL**

**PRE-CONSTRUCTION MEETING:**

- THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING HELD BY THE APPLICANT. IT SHALL BE A MEETING WITH THE CONSTRUCTION SUPERINTENDENT, HIS ENGINEER, AND THE TOWN'S CONSERVATION AGENT. THE PURPOSE OF THE MEETING WILL BE TO REVIEW THE PROJECT STORMWATER PERMIT AND OUTLINE THE PERFORMANCE STANDARDS THAT WILL BE REQUIRED TO FULFILL THE REQUIREMENTS IN THE PERMIT.

**SEDIMENT AND EROSION CONTROL:**

- INSTALL COMPOST SOCK AND CONSTRUCTION FENCE.
  - PERFORM SITE CONSTRUCTION.
  - SWEEP WESTFIELD STREET DAILY TO REMOVE SEDIMENT
  - WATER DISTURBED AREAS AS NEEDED TO PREVENT DUST AND WIND BLOWN EROSION
  - LOAM AND SEED ALL DISTURBED AREAS. WATER AS NECESSARY.
  - CLEAN OUT DRAINAGE STRUCTURES AND REMOVE SILTSACKS. COMPOST SOCK/CONSTRUCTION FENCE AFTER INSPECTION BY THE CONSERVATION COMMISSION AND DISTURBED AREAS ARE FULLY STABILIZED.

**DEWATERING MEASURES:**

- DEWATERING MAY BE NEEDED DURING CONSTRUCTION. IF DEWATERING IS NECESSARY THE DISCHARGE SHALL BE TO A COMPOST SOCK/CRUSHED STONE FILTER.

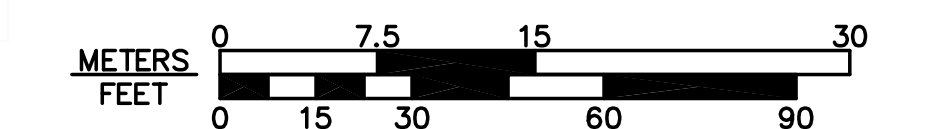
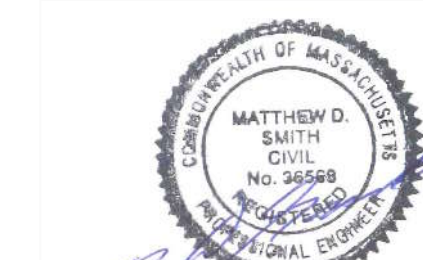
**SITE DETAILS LOTS 1 & 2  
123 WESTFIELD ST.  
DEDHAM, MASSACHUSETTS**

SCALE: NTS

FEBRUARY 5, 2020

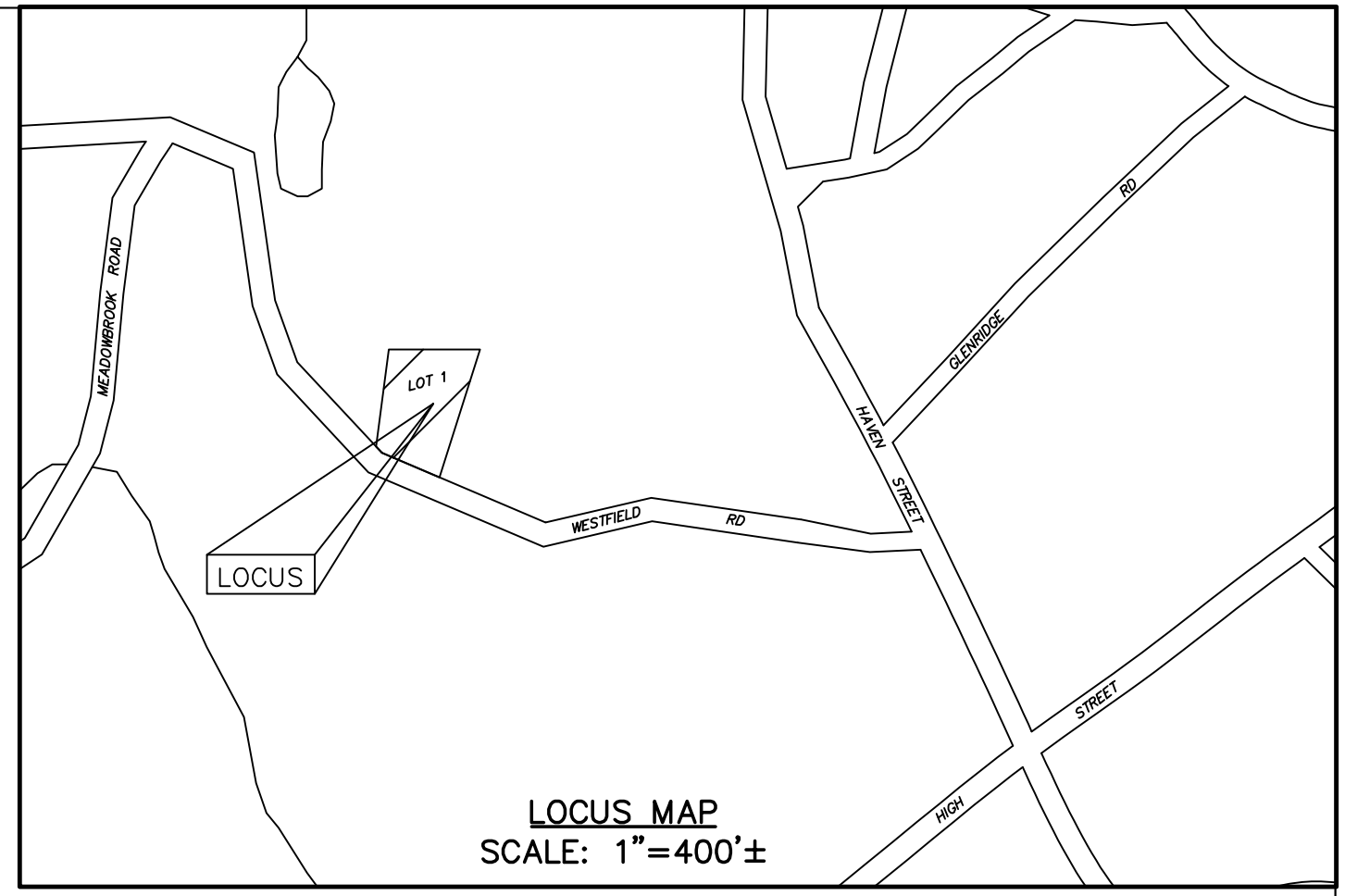
**Norwood Engineering**

Norwood Engineering Company, Inc.  
 Consulting Engineers, Land Surveyors  
 1410 ROUTE ONE, NORWOOD, MA 02062  
 TEL. (781)762-0143 FAX (781)762-8595



DATE	REVISIONS
3-10-2020	DECK, UBA LINE, PROP. TREE COUNT





**BENCHMARK:**  
PK NAIL FOUND 7.0' OFF END OF STONE WALL IN 15' R.O.W. BY THE NORTHWEST PROPERTY CORNER OF #97 WESTFIELD STREET. ELEVATION = 142.73 (NAVD 88)

**MAP AND PARCEL:**  
88 - 13 (LOT B-1 PORTION)

**ZONING CLASSIFICATION:**  
SINGLE RESIDENCE A

**OWNER:**  
WESTFIELD CROSSING, LLC  
140 SOUTH STREET (SUITE 1)  
WALPOLE, MA 02081  
BK. 35041 PG. 351 4/14/2017

**PLAN REFERENCE:**  
PLAN FILED AS NO. 373 OF 1994, PLAN BOOK 422 AT THE NORFOLK COUNTY REGISTRY OF DEEDS

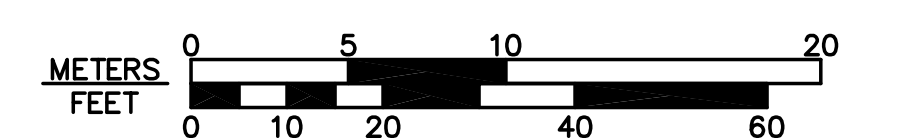
**NOTES:**  
1. BOUNDARY OF BORDERING VEGETATED WETLANDS FLAGGED BY ECOTEC, INC. ON SEPTEMBER 7, 2017. FLAGS LOCATED BY NORWOOD ENGINEERING CO., INC. ON SEPTEMBER 19, 2017.  
2. EXISTING CONTOURS ESTABLISHED BY NORWOOD ENGINEERING CO., INC. IN SEPTEMBER, 2018 FROM ON THE GROUND SURVEY IN AREA OF DEVELOPMENT ALONG WITH SUPPLEMENTAL TOWN OF DEDHAM GIS MAPPING RECORDS.

**SEPTIC SYSTEM PLAN  
LOTS 1 & 2  
123 WESTFIELD STREET  
DEDHAM, MASSACHUSETTS**

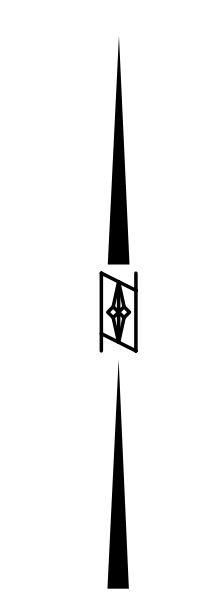
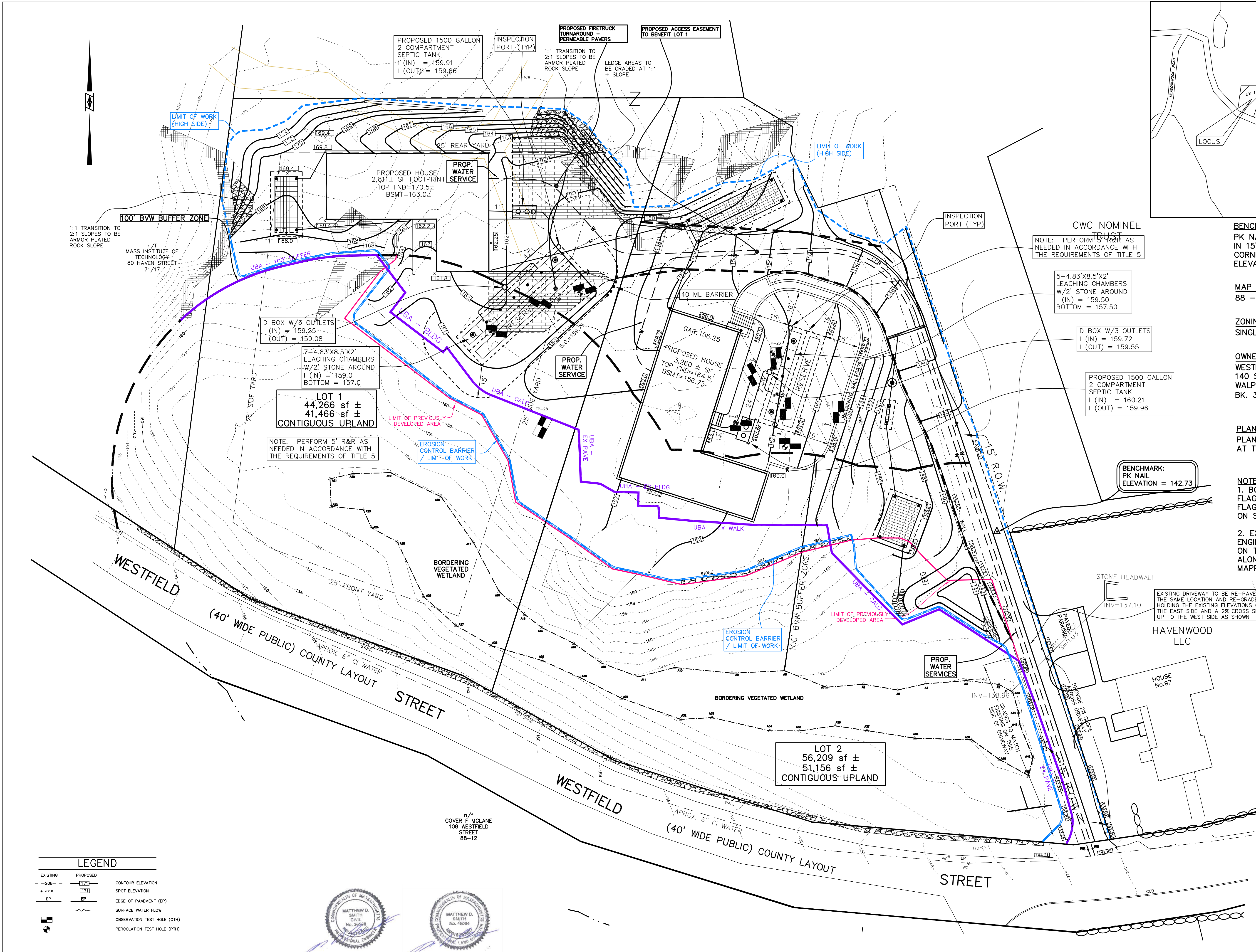
SCALE: 1" = 20' FEBRUARY 5, 2020

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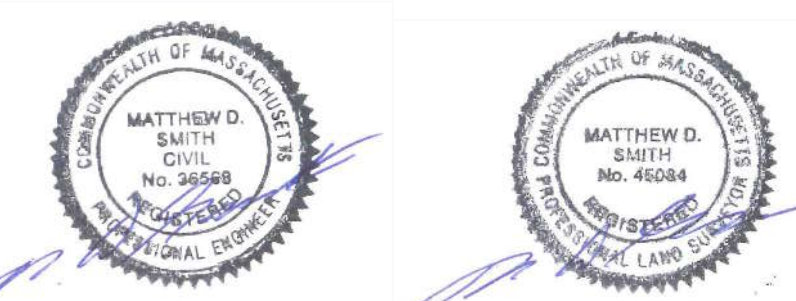


DATE	REVISIONS
3-10-2020	DECK, UBA LINE, PROP. TREE COUNT



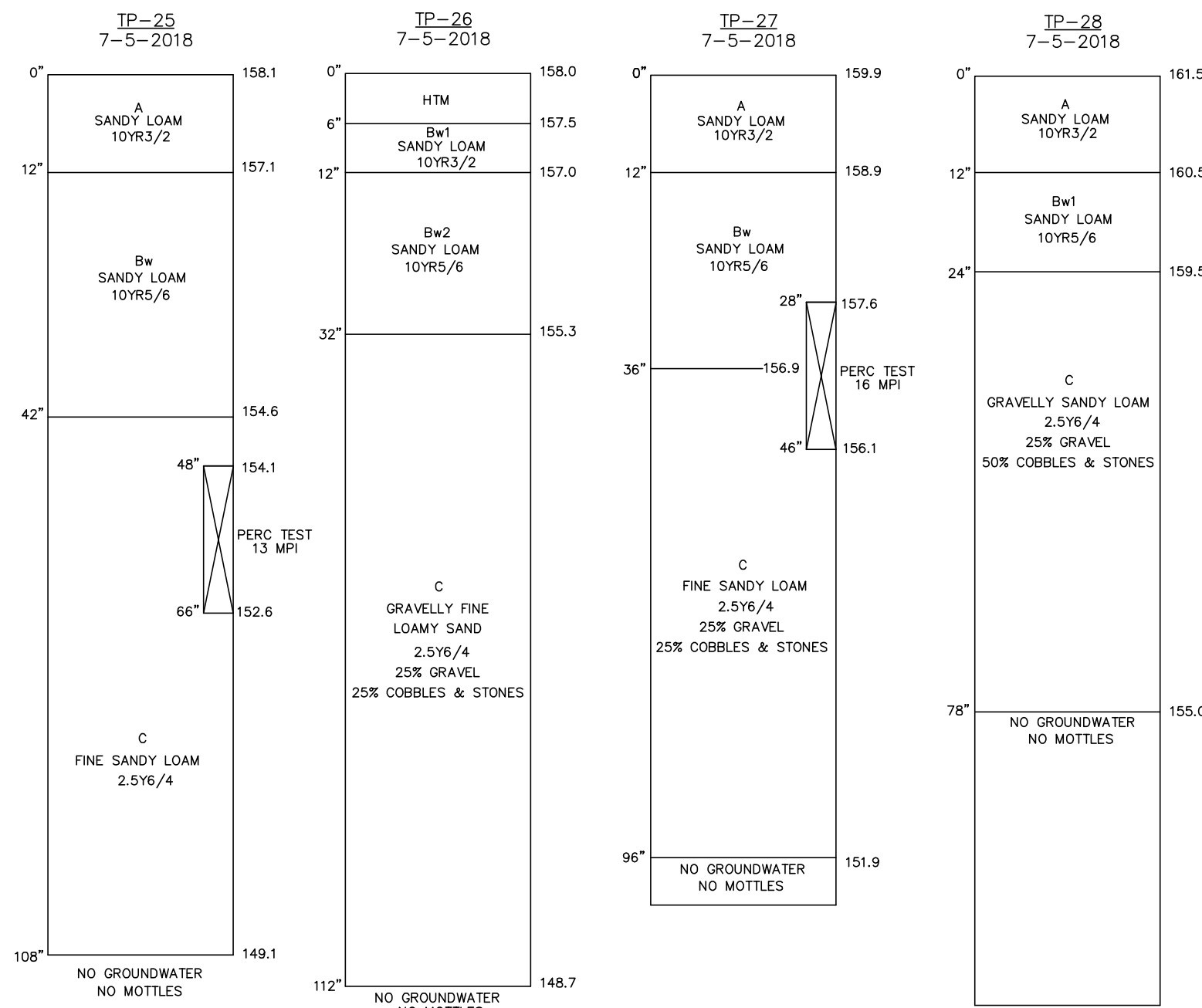
**LEGEND**

EXISTING	PROPOSED	CONTOUR ELEVATION
-208-	---	SPOT ELEVATION
+208.0	---	EDGE OF PAVEMENT (EP)
EP	---	SURFACE WATER FLOW
---	---	OBSERVATION TEST HOLE (OTH)
---	---	PERCOLATION TEST HOLE (PTH)





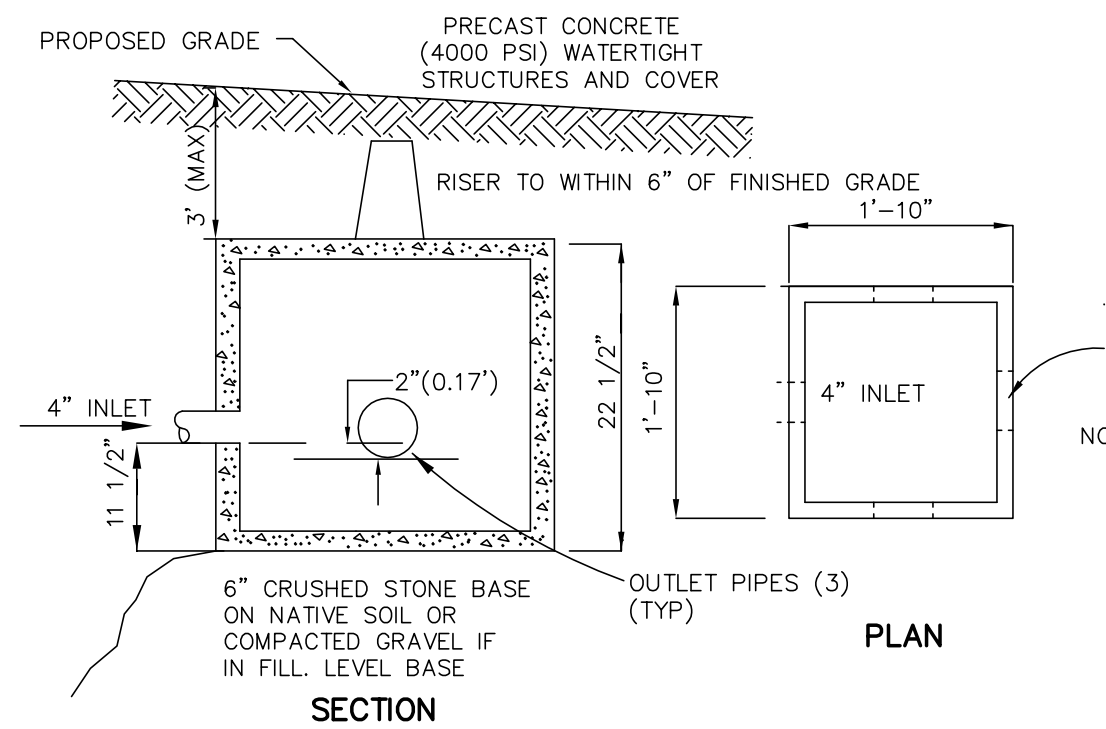
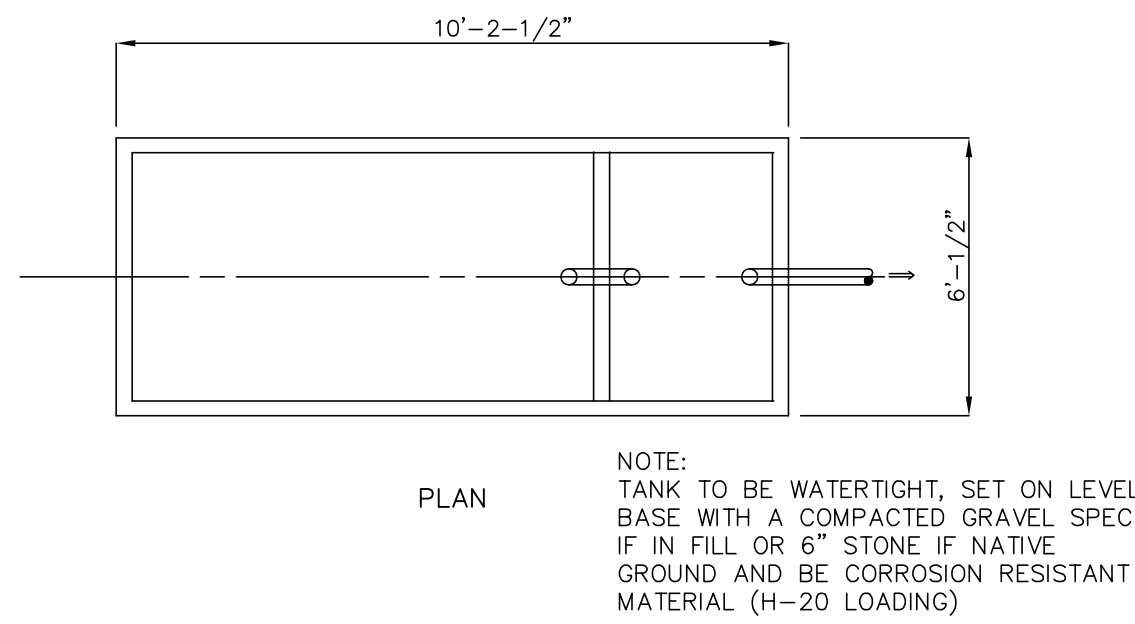
**SOIL LOGS**



SCS SOIL TYPE IS CLASSIFIED AS HOLLIS-ROCK OUTCROP-CHARLTON COMPLEX.  
 NOTE: TEST HOLES TP-25, TP-26, TP-27 & TP-28 WERE WITNESSED BY LUCAS KLIM, SOIL EVALUATOR, AND CATHERINE CARDINALE FOR THE TOWN OF DEDHAM BOARD OF HEALTH, ON JULY 5, 2018.

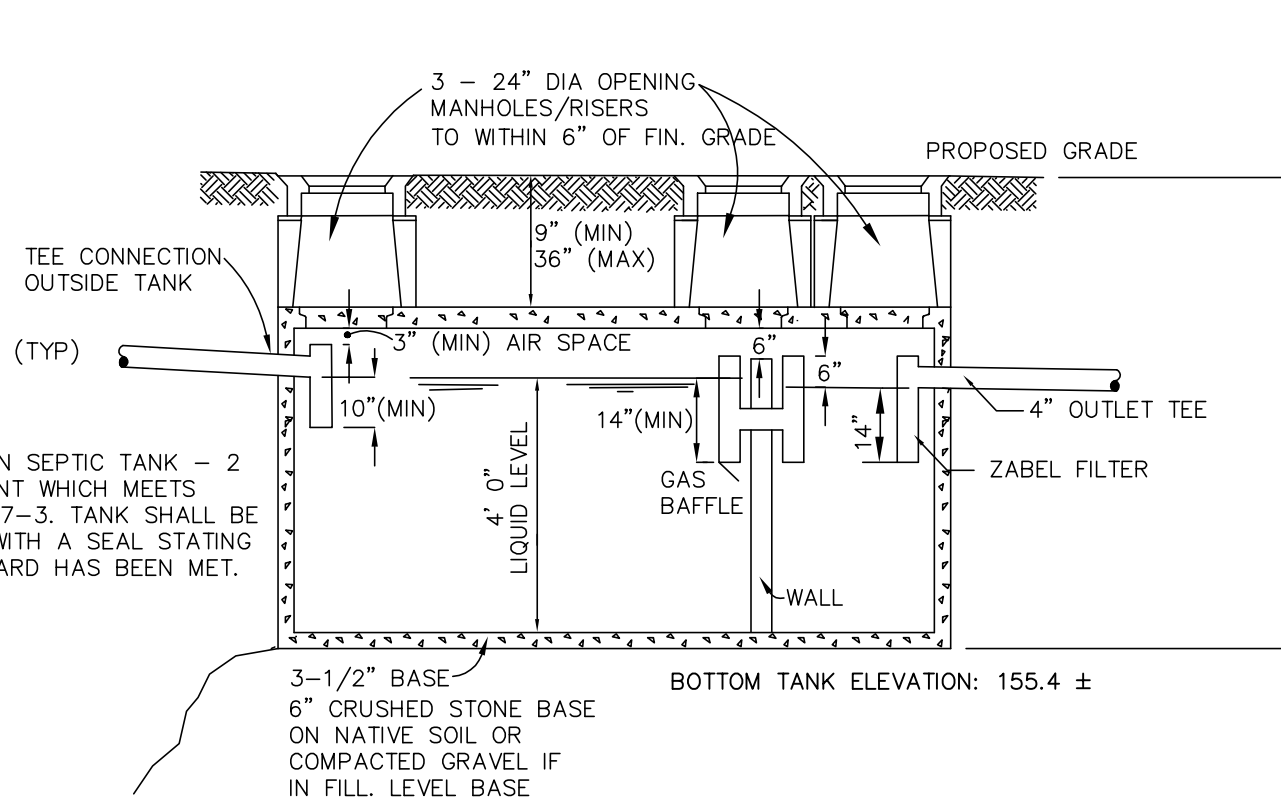
**PERCOLATION TEST RESULTS**

TP-25	TP-27
DATE: 7-5-18	DATE: 7-5-18
PRESOAK: 12:57	PRESOAK: 1:15
END PRESOAK: 1:12	END PRESOAK: 1:30
TIME @ 12": 1:13	TIME @ 12": 1:30
TIME @ 9": 1:42	TIME @ 9": 2:03
TIME @ 6": 2:21	TIME @ 6": 2:51
TIME(9"-6"): 39 MIN	TIME(9"-6"): 48 MIN
RATE: 13 MPI	RATE: 16 MPI



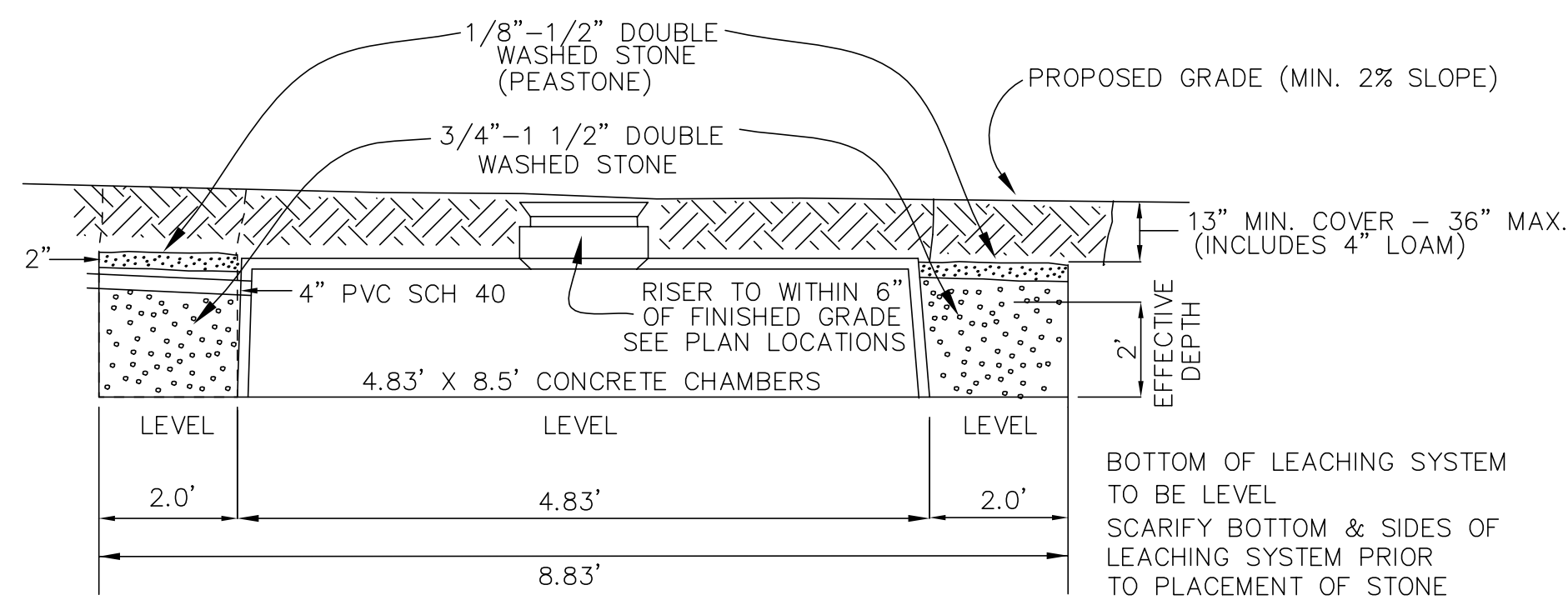
**DISTRIBUTION BOX**

WIGGIN MEANS PRECAST DB-3 H-20 (DB3H) OR EQUAL  
 NOT TO SCALE



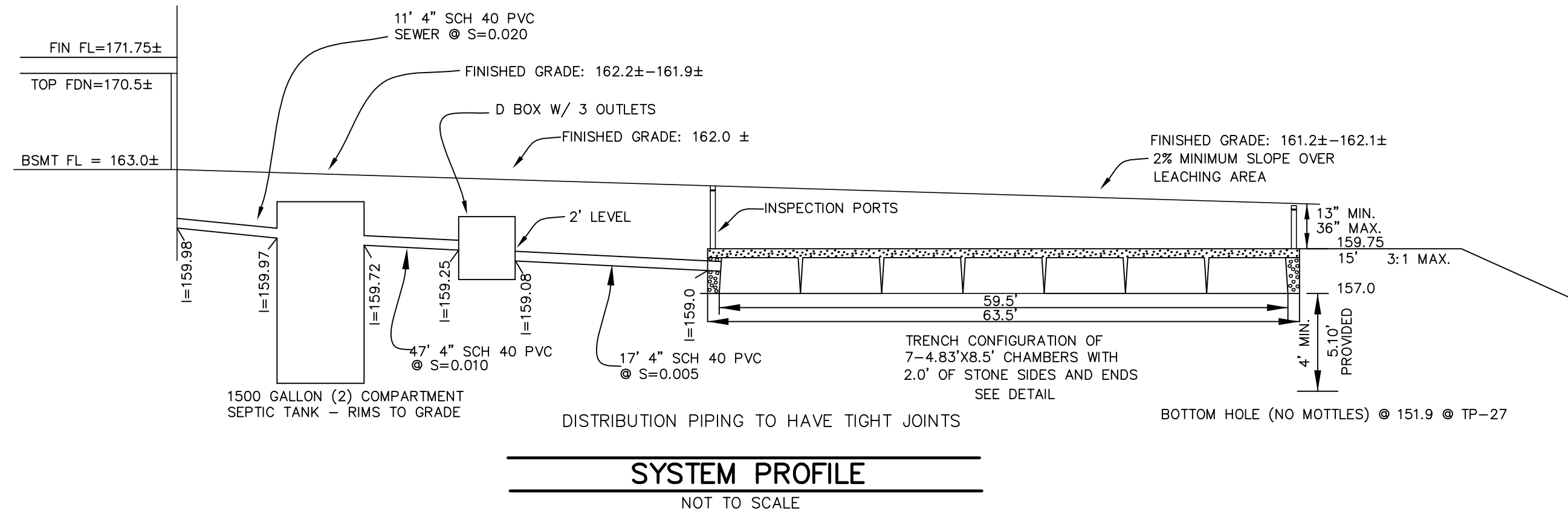
**2 COMPARTMENT SEPTIC TANK**

WIGGIN MEANS 1500 GALLON H2O MONOLITHIC SEPTIC TANK (TM1500H) OR EQUAL  
 NOT TO SCALE

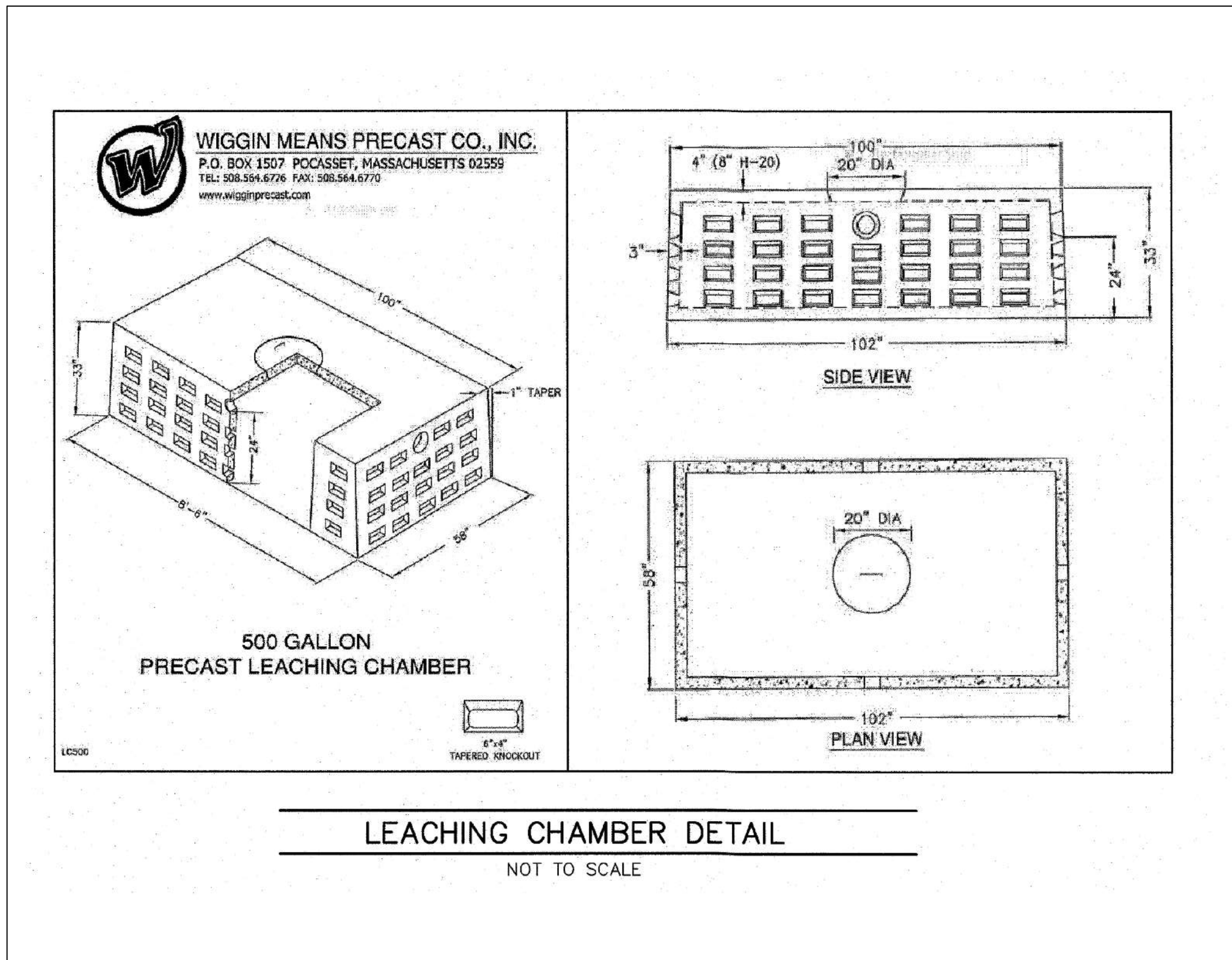


**LEACHING CHAMBER**

WIGGIN MEANS 500 GALLON H-10 LEACHING CHAMBER (LC500) OR EQUAL  
 NOT TO SCALE



**SYSTEM PROFILE**  
 NOT TO SCALE



**LEACHING CHAMBER DETAIL**  
 NOT TO SCALE

**DESIGN CALCULATIONS :**

FLOW: SINGLE FAMILY DWELLING WITH 4 BDRMS @ 110 GPD/BDRM = 440 GPD  
 NO GARBAGE GRINDER

**SEPTIC TANK**  
 TOTAL DESIGN FLOW: 440 GPD  
 SEPTIC TANK SIZE: 1500 GALLONS (2 COMPARTMENT TANK)(MINIMUM)  
 440 GPD X 2 (1ST COMPARTMENT) + 440 GPD (SECOND) = 1320 GPD  
 (1500 GALLON MINIMUM)

**SOIL ABSORPTION SYSTEM**  
 PERC RATE: 16 MPI-CL II SOILS (USE 20 MPI)  
 DESIGN FLOW REQUIRED: = 440 GPD  
 LEACHING REQUIRED: 440 GPD/0.53 GPD/SF = 831.0 SF  
 LEACHING PROVIDED: CHAMBER TRENCH WITH STONE  
 BOTTOM AREA: 8.83'X6.3.5' = 560.0 SF  
 SIDE AREA: 63.5'X2'X2 = 254.0 SF  
 END AREA: 8.83'X2'X2 = 35.0 SF  
 TOTAL AREA: = 849.0 SF > 831.0 SF

**GENERAL NOTES**

**INSPECTION NOTES - SEPTIC SYSTEM**

- COMPONENTS ARE NOT TO BE BACKFILLED WITHOUT INSPECTION AND PERMISSION BY THE BOARD OF HEALTH.
- A DESIGNER'S AS BUILT DRAWING AND CERTIFICATION OF CONSTRUCTION IS REQUIRED IN ADDITION TO A LOCATION INSPECTION BY THE DESIGNER. THE INSTALLER TO COORDINATE PROJECT ACCORDINGLY.
- THE SYSTEM INSTALLER SHALL CERTIFY CONSTRUCTION OF THE SYSTEM.
- THE SYSTEM AREA SHALL BE STAKED AND FLAGGED OR OTHERWISE BARRICADED FROM DATE OF INSTALLATION TO DATE CERTIFICATE OF COMPLIANCE IS ISSUED.

**SEPTIC SYSTEM FILL SPECIFICATION**  
 (FROM 310 CMR 15.255(3))

FILL MATERIAL FOR SYSTEMS CONSTRUCTED IN FILL SHALL CONSIST OF SELECT ON-SITE OR IMPORTED SOIL MATERIAL. THE FILL SHALL BE COMPOSED OF CLEAN, GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. THE FILL MATERIAL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN TWO INCHES.

A SIEVE ANALYSIS USING A #4 SIEVE SHALL BE PERFORMED ON A REPRESENTATIVE SAMPLE OF THE FILL. UP TO 45% BY WEIGHT OF THE FILL SAMPLE MAY BE RETAINED ON THE #4 SIEVE. SIEVE ANALYSIS SHALL ALSO BE PERFORMED ON THE FRACTION OF THE FILL SAMPLE PASSING THE #4 SIEVE. SUCH ANALYSIS MUST DEMONSTRATE THAT THE MATERIAL MEETS EACH OF THE FOLLOWING SPECIFICATIONS:

SIEVE SIZE	EFFECTIVE PARTICLE SIZE	% THAT MUST PASS SIEVE
#4	4.75 mm	100%
#50	0.30 mm	10%-100%
#100	0.15 mm	0%-20%
#200	0.075 mm	0%-5%

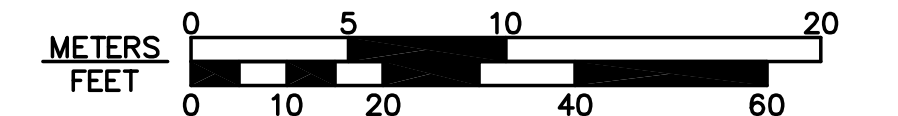
**CONSTRUCTION NOTES - SEPTIC SYSTEM**

- VEHICULAR TRAFFIC, PARKING OF VEHICLES, STOCKPILING OF MATERIALS AND STORAGE OF EQUIPMENT OVER LEACHING AREA PROHIBITED AT ALL TIMES.
- REMOVE ANY TOPSOIL, SUBSOIL OR ANY OTHER UNSUITABLE MATERIAL BELOW THE INVERT FOR A DISTANCE OF 5 FEET AROUND THE PROPOSED FACILITY. FILL MATERIAL MUST MEET THE SPECIFICATIONS OF 310 CMR 15.255(3) OF TITLE V. (SEE THIS SHEET)
- ALL CONSTRUCTION IS TO CONFORM TO THE REQUIREMENTS OF THE MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE V, AND THE DEDHAM BOARD OF HEALTH REGULATIONS.
- SANITARY TEES ARE TO BE INSTALLED AT BOTH THE INLET AND OUTLET OF THE SEPTIC TANK. BUILT-IN TEES ARE NOT ALLOWED.
- EXCAVATION IS TO BE DRY AND SCARIFIED.
- FILL SHALL BE STOCKPILED AT EDGE OF FOUNDATION AND PUSHED OR CAST INWARD OVER EXCAVATED AREA.
- FILL SHALL NOT BE PLACED DURING RAIN OR SNOW STORMS.
- DEWATERING IS REQUIRED IF FILL IS TO BE PLACED BELOW GROUNDWATER.
- BUILDING SEWER IS TO HAVE TIGHT JOINTS & LAID ON A FIRM COMPACTED BASE.
- ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE.
- AN INSPECTION PORT, WHICH CONSISTS OF A PERFORATED PIPE PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND BELOW THE STONE, IS REQUIRED. SCREW TYPE CAP ACCESSIBLE TO WITHIN 3' OF PROPOSED GRADE.
- BENCHMARK TO BE SET WITHIN 50' OF SEPTIC SYSTEM AT THE TIME OF CONSTRUCTION IN AN AREA NOT SUBJECT TO DISLOCATION.

**SEPTIC SYSTEM PLAN**  
**LOT 1 DETAILS**  
**123 WESTFIELD ST.**  
**DEDHAM, MASSACHUSETTS**  
 SCALE: NTS      FEBRUARY 5, 2020

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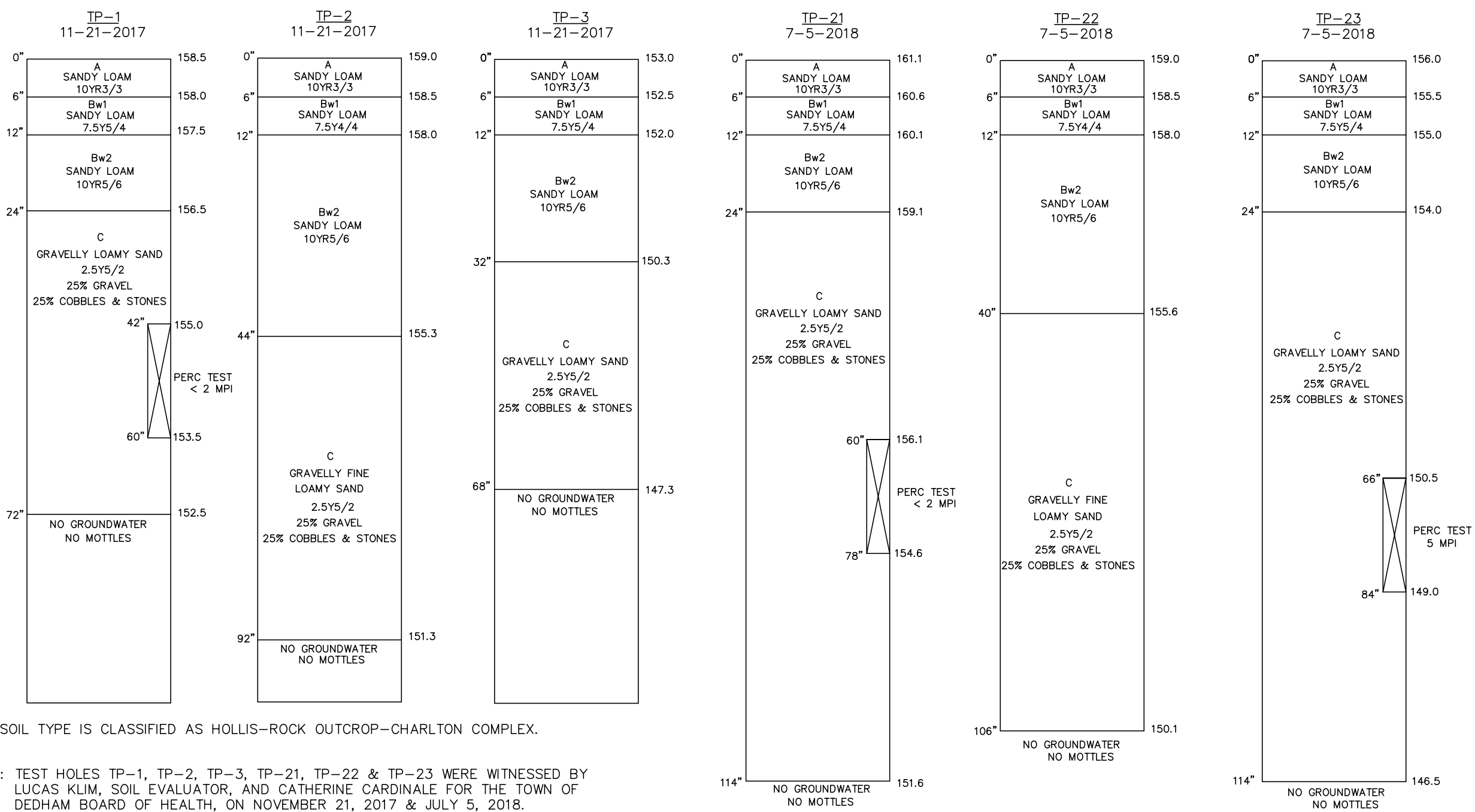


DATE	REVISIONS
3-10-2020	DECK, UBA LINE, PROP. TREE COUNT



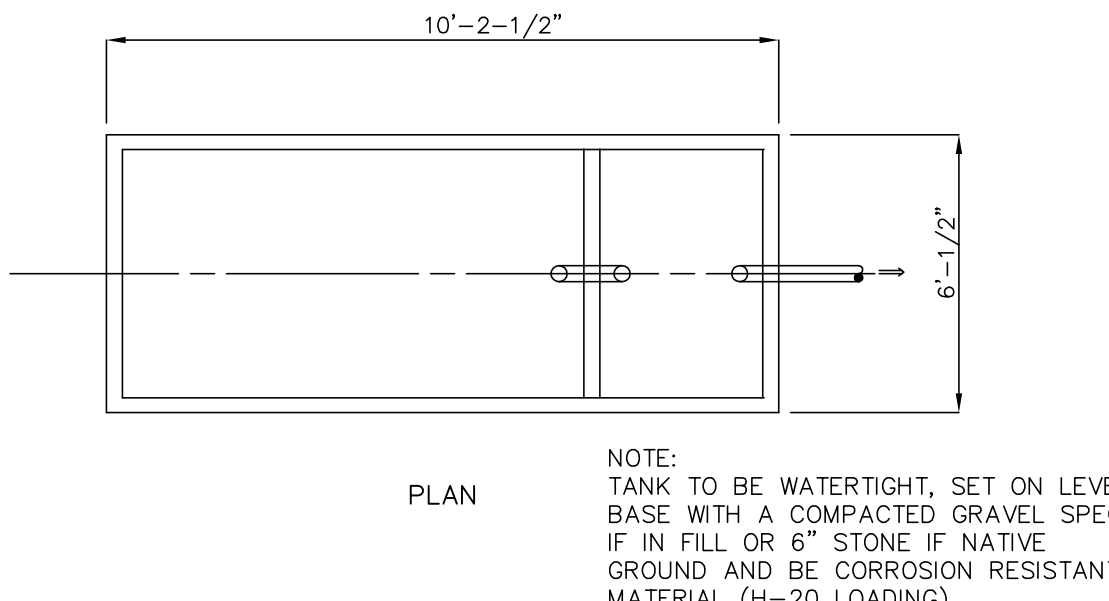


**SOIL LOGS**



**PERCOLATION TEST RESULTS**

TP-1	TP-21	TP-23
DATE: 11-21-17	DATE: 7-5-18	DATE: 7-5-18
PRESOAK: 1:31 PM	PRESOAK: 12:27 PM	PRESOAK: 12:27 PM
25 GALLONS	25 GALLONS	25 GALLONS
DURING	DURING	DURING
PRE-SOAK	PRE-SOAK	PRE-SOAK
RATE: < 2 MPI	RATE: < 2 MPI	RATE: 5 MPI

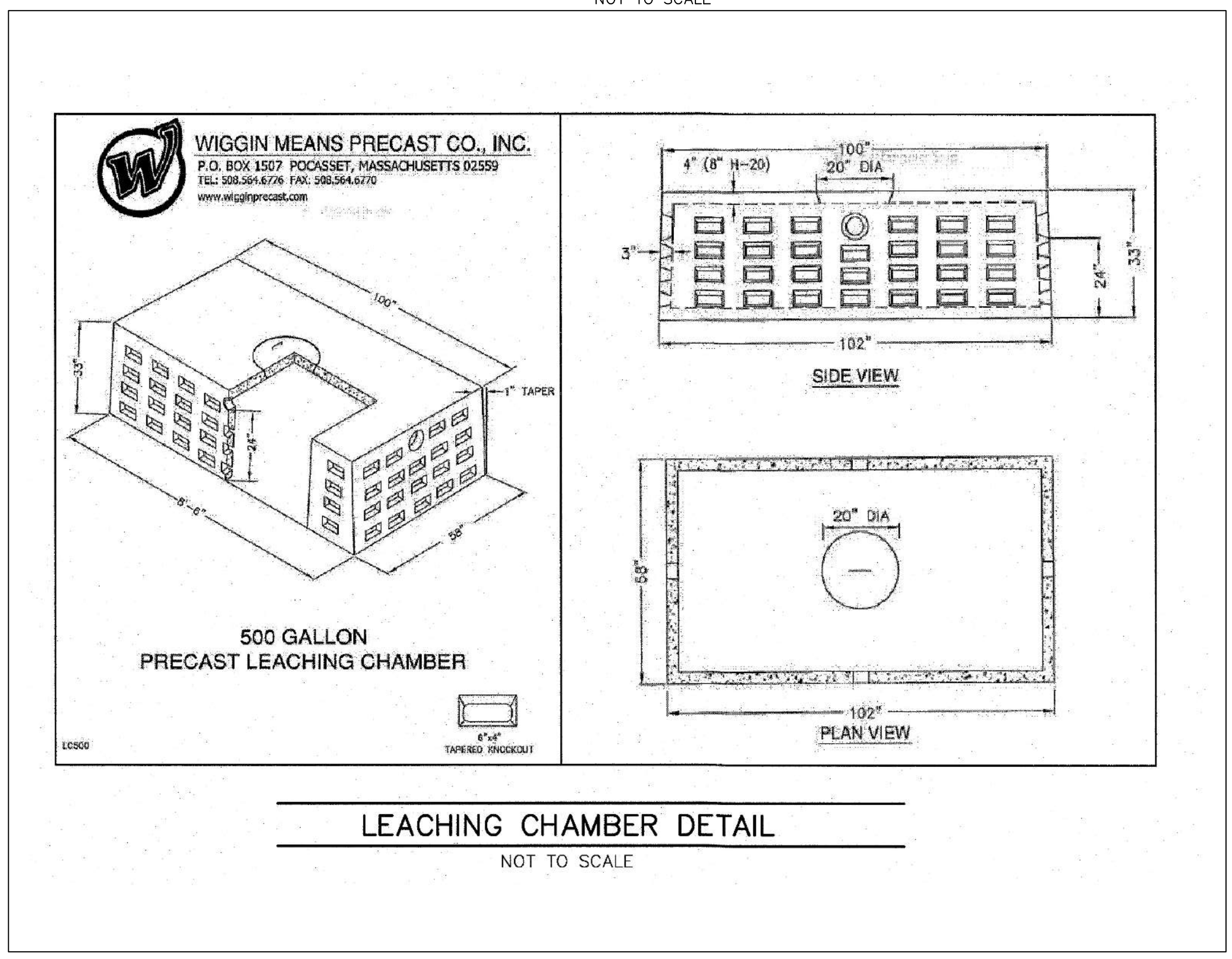
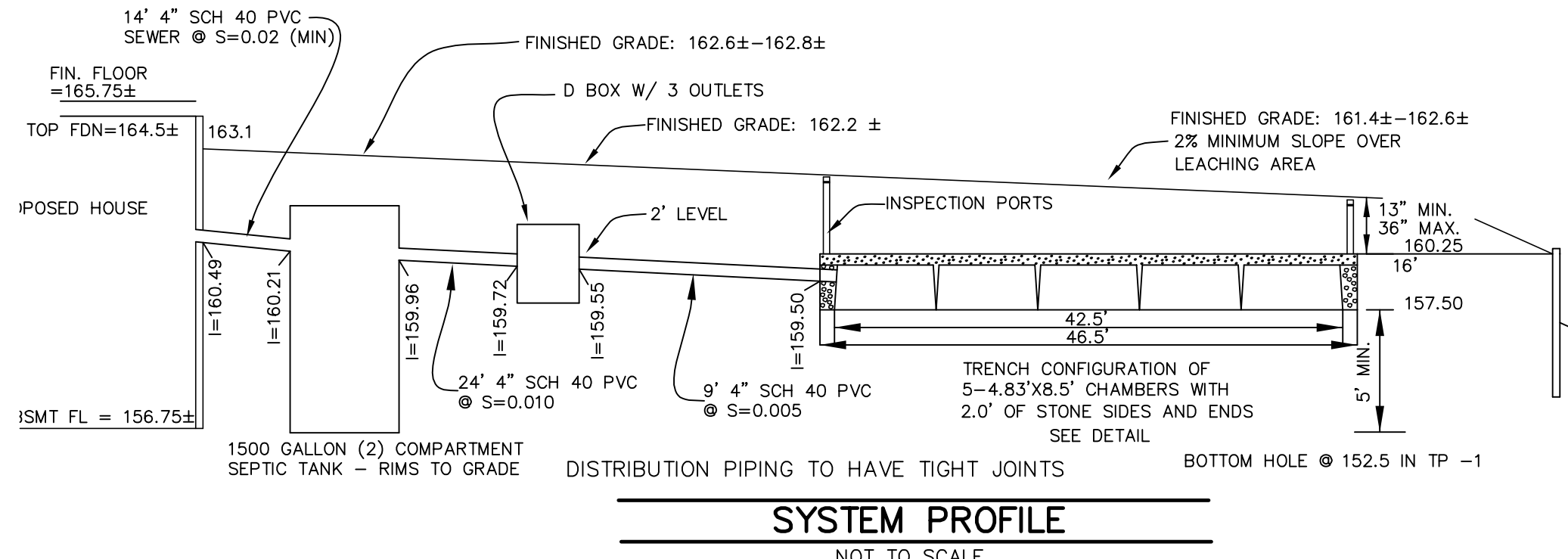


**DESIGN CALCULATIONS :**

FLOW: SINGLE FAMILY DWELLING WITH 4 BDRMS @ 110 GPD/BDRM = 440 GPD  
NO GARBAGE GRINDER

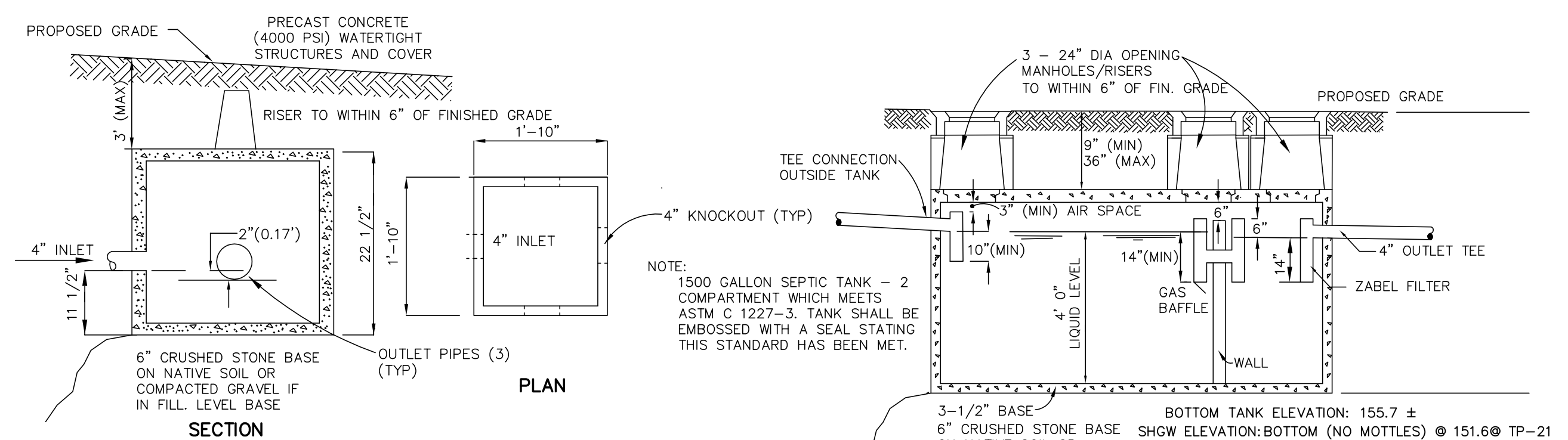
**SEPTIC TANK**  
TOTAL DESIGN FLOW: 440 GPD  
SEPTIC TANK SIZE: 1500 GALLONS (2 COMPARTMENT TANK)(MINIMUM)  
440 GPD X 2 (1ST COMPARTMENT) + 440 GPD (SECOND) = 1320 GPD (1500 GALLON MINIMUM)

**SOIL ABSORPTION SYSTEM**  
PERC RATE: <=5 MPI-CL I SOILS  
DESIGN FLOW REQUIRED: = 440 GPD  
LEACHING REQUIRED: 440 GPD/0.74 GPD/SF = 595 SF  
LEACHING PROVIDED: CHAMBER TRENCH WITH STONE  
BOTTOM AREA: 8.83'X48.5' = 410.0 SF  
SIDE AREA: 46.5'X2' = 186.0 SF  
END AREA: 8.83'X2' = 35.0 SF  
TOTAL AREA: = 631.0 SF > 595 SF



**GENERAL NOTES**

- INSPECTION NOTES - SEPTIC SYSTEM**
- COMPONENTS ARE NOT TO BE BACKFILLED WITHOUT INSPECTION AND PERMISSION BY THE BOARD OF HEALTH.
  - A DESIGNER'S AS BUILT DRAWING AND CERTIFICATION OF CONSTRUCTION IS REQUIRED IN ADDITION TO A LOCATION INSPECTION BY THE DESIGNER. THE INSTALLER TO COORDINATE PROJECT ACCORDINGLY.
  - THE SYSTEM INSTALLER SHALL CERTIFY CONSTRUCTION OF THE SYSTEM.
  - THE SYSTEM AREA SHALL BE STAKED AND FLAGGED OR OTHERWISE BARRICADED FROM DATE OF INSTALLATION TO DATE CERTIFICATE OF COMPLIANCE IS ISSUED.
- SEPTIC SYSTEM FILL SPECIFICATION**  
(FROM 310 CMR 15.255(3))
- FILL MATERIAL FOR SYSTEMS CONSTRUCTED IN FILL SHALL CONSIST OF SELECT ON-SITE OR IMPORTED SOIL MATERIAL. THE FILL SHALL BE COMPOSED OF CLEAN, GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. THE FILL MATERIAL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN TWO INCHES.
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- | SIEVE SIZE | EFFECTIVE PARTICLE SIZE | % THAT MUST PASS SIEVE |
|------------|-------------------------|------------------------|
| #4         | 4.75 mm                 | 100%                   |
| #50        | 0.30 mm                 | 10%-100%               |
| #100       | 0.15 mm                 | 0%-20%                 |
| #200       | 0.075 mm                | 0%-5%                  |
- CONSTRUCTION NOTES - SEPTIC SYSTEM**
- VEHICULAR TRAFFIC, PARKING OF VEHICLES, STOCKPILING OF MATERIALS AND STORAGE OF EQUIPMENT OVER LEACHING AREA PROHIBITED AT ALL TIMES.
  - REMOVE ANY TOPSOIL, SUBSOIL OR ANY OTHER UNSUITABLE MATERIAL BELOW THE INVERT FOR A DISTANCE OF 5 FEET AROUND THE PROPOSED FACILITY. FILL MATERIAL MUST MEET THE SPECIFICATIONS OF 310 CMR 15.255(3) OF TITLE V. (SEE THIS SHEET)
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  - DEWATERING IS REQUIRED IF FILL IS TO BE PLACED BELOW GROUNDWATER.
  - BUILDING SEWER IS TO HAVE TIGHT JOINTS & LAID ON A FIRM COMPACTED BASE.
  - ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAP.
  - AN INSPECTION PORT, WHICH CONSISTS OF A PERFORATED PIPE PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND BELOW THE STONE, IS REQUIRED. SCREW TYPE CAP ACCESSIBLE TO WITHIN 3' OF PROPOSED GRADE.
  - BENCHMARK TO BE SET WITHIN 50' OF SEPTIC SYSTEM AT THE TIME OF CONSTRUCTION IN AN AREA NOT SUBJECT TO DISLOCATION.

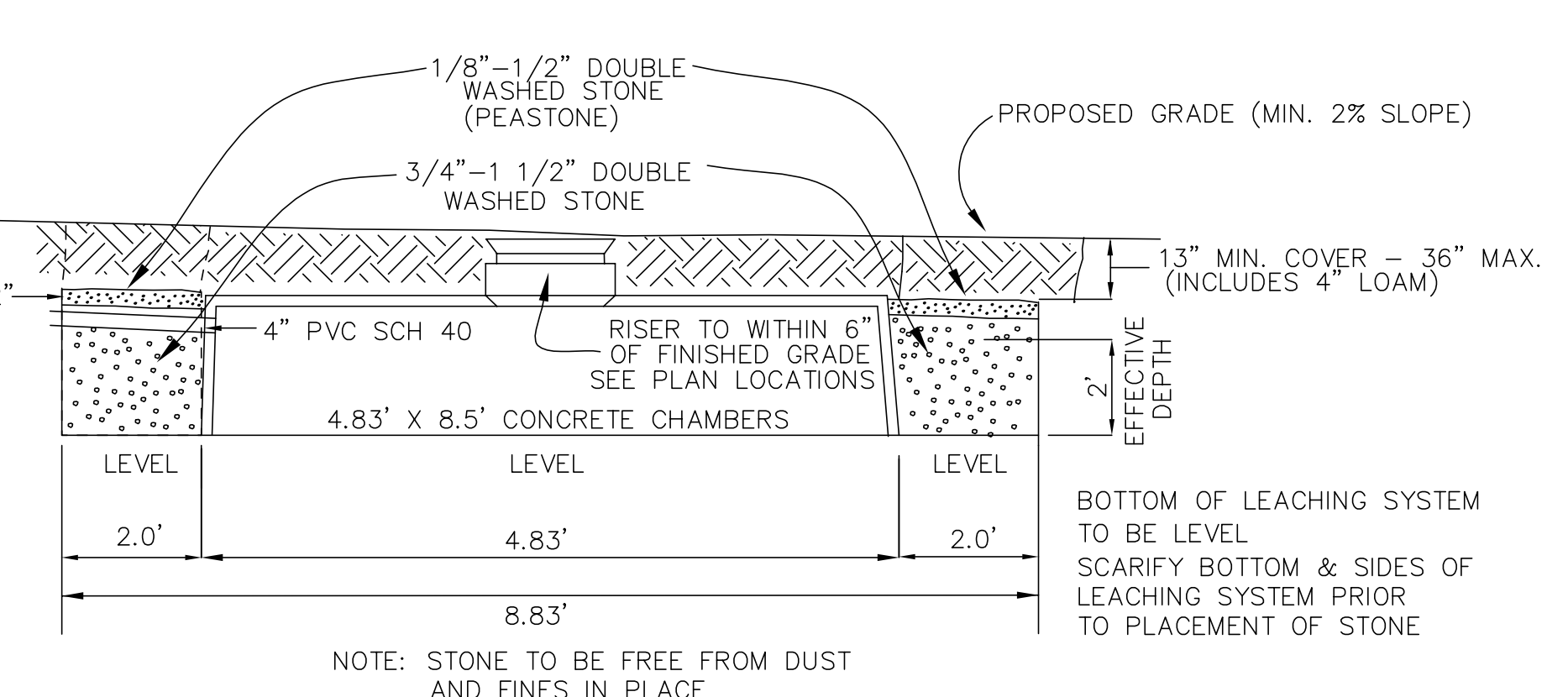


**DISTRIBUTION BOX**

WIGGIN MEANS PRECAST DB-3 H-20 (DB3H) OR EQUAL  
NOT TO SCALE

**2 COMPARTMENT SEPTIC TANK**

WIGGIN MEANS 1500 GALLON H20 MONOLITHIC SEPTIC TANK (TM1500H) OR EQUAL  
NOT TO SCALE



**LEACHING CHAMBER**

WIGGIN MEANS 500 GALLON H-10 LEACHING CHAMBER (LC500) OR EQUAL  
NOT TO SCALE

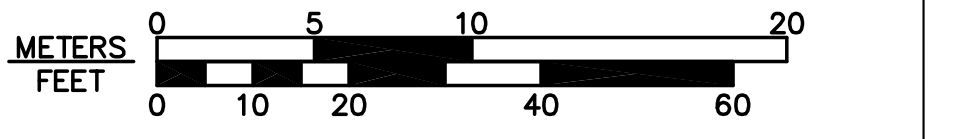
**ABANDON EXISTING CESSPOOL**

NOT TO SCALE (LOCATION UNKNOWN)

**SEPTIC SYSTEM PLAN  
LOT 2 DETAILS  
123 WESTFIELD ST.  
DEDHAM, MASSACHUSETTS**  
SCALE: NTS FEBRUARY 5, 2020

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