



1. THIS PLAN WAS COMPILED USING THE FOLLOWING REFERENCE INFORMATION

- CONSTRUCTION NOTES:

- | ZONING DATA TABLE | | | |
|---|--------------------|---|---|
| WATERFORD RESIDENCE 'RU-120' DISTRICT | | | |
| ITEM | REQUIRED | EXISTING | PROPOSED |
| MIN. LOT AREA | 2.75 ACRES | 6± ACRES | 6± ACRES |
| MIN. FRONTAGE | 150 FT. | 789± FT. | 789± FT. (NO CHANGE) |
| STREET LINE SETBACK
(DOUGLAS LANE) | 50 FT. | 14.4± FT. (EX. HOUSE) (1)
9.0± FT. (EX. BILCO) (1)
43.5± FT. (EX. GARAGE) (1)
72.7± FT. (EX. SHED) | 57.0± FT. (PR. HOUSE)
54.0± FT. (PR. STAIRS) |
| SIDE YARD SETBACK
(NORTHWEST BOUNDARY) | 30 FT. | 35.3.0± FT. (EX. HOUSE)
412.8± FT. (EX. SHED)
419.1± FT. (EX. GARAGE)
218.9± FT. (EX. GOAT PEN) | 286.7± FT. (PR. DECK)
300.2± FT. (PR. HOUSE) |
| SIDE YARD SETBACK
(EAST BOUNDARY) | 30 FT. | 318.3± FT. (EX. HOUSE)
253.7± FT. (EX. SHED)
245.5± FT. (EX. GARAGE) | 369.2± FT. (PR. HOUSE) |
| REAR YARD SETBACK
(NORTH BOUNDARY) | 75 FT. | 474.3± FT. (EX. HOUSE)
252.7± FT. (EX. SHED)
214.8± FT. (EX. GARAGE)
382.93± FT. (EX. GOAT PEN) | 393.6± FT. (PR. HOUSE) |
| MAX. BUILDING
HEIGHT | 35 FT. | UNKNOWN | ±32.7 FT. (PR. HOUSE) (2) |
| MAX. BUILDING/
STRUCTURE COVERAGE | 15% (±39,204 S.F.) | ±0.7% (1,926.6± S.F.) | ±1.8% (4,746± S.F.) (+1.1%) (+2,820 S.F.) (3) |

SEPTIC SYSTEM KEY

- (A) 41.0± L.F. 4" SCH. 40 PVC ASTM D1785 BUILDING SEWER PIPE @ 1/4" PER FT. MIN. SLOPE AND 12" MIN. COVER.
- (B) 1,500-GALLON CONCRETE SEPTIC TANK (UNITED CONCRETE).*
- (C) 4" SDR 35 PVC ASTM D3034 TO CONNECT TO DISTRIBUTION BOX.
- (D) SEALED GEOMATRIX DISTRIBUTION BOX.*
- (E) 4" SDR 35 PVC ASTM D3034 SOLID PIPE TO CONNECT TO LEACHING SYSTEM PER MANUFACTURER'S SPECIFICATIONS.
- (F) 4" SDR 35 PVC ASTM D3034 DISTRIBUTION TEE.
- (G) 74.0 L.F. OF GEOMATRIX GST6218 LEACHING SYSTEM.
- (H) 4" SDR 35 PVC ASTM D3034 INSPECTION PORT - GEOMATRIX PART NO.: IPGST15

*SEPTIC TANK AND DISTRIBUTION BOX SHALL HAVE RISERS TO WITHIN 12" OF FINISHED GRADE. INSPECTION PORTS SHALL HAVE A GEOMATRIX RISER AND THREADED CAP TO WITHIN 12" OF FINISHED GRADE. CONTRACTOR SHALL VERIFY SEPTIC TANK IS WATERTIGHT PRIOR TO INSTALLATION.

REFER TO SEPTIC SYSTEM INVERT TABLE ON SHEET ST-1 (2 OF 3) FOR PROPOSED INVERT ELEVATIONS.

I HEREBY CERTIFY THAT I HAVE FLAGGED THE WETLANDS FOR THIS PROJECT AND HAVE REVIEWED THIS PLAN AND CONFIRM THAT THE WETLANDS LIMITS AS SHOWN HEREON ARE TRUE AND ACCURATE.

Donald J. Fortunato, CPSS
3-4-2022
Date

RADIUS = 219.96'
ARC LENGTH = 230.34'
CHORD LENGTH = 219.96'
CHORD BEARING = N 63°27'37" W
DELTA ANGLE = 60°00'00"

- (A) 41.04 L.F. 4" SCH. 40 PVC ASTM D1785 BUILDING SEWER PIPE @ ½" PER FT. MIN. SLOPE AND 12" MIN. COVER.
- (B) 1,500-GALLON CONCRETE SEPTIC TANK (UNITED CONCRETE).*
- (C) 4" SDR 35 PVC ASTM D3034 TO CONNECT TO DISTRIBUTION BOX.
- (D) SEALED GEOMATRIX DISTRIBUTION BOX.*
- (E) 4" SDR 35 PVC ASTM D3034 SOLID PIPE TO CONNECT TO LEACHING SYSTEM PER MANUFACTURER'S SPECIFICATIONS.
- (F) 4" SDR 35 PVC ASTM D3034 DISTRIBUTION TEE
- (G) 74.0 L.F. OF GEOMATRIX D36218 LEACHING SYSTEM.
- (H) 4" SDR 35 PVC ASTM D3034 INSPECTION PORT - GEOMATRIX PART NO.: IPGST15

*SEPTIC TANK AND DISTRIBUTION BOX SHALL HAVE RISERS TO WITHIN 12" OF FINISHED GRADE. INSPECTION PORTS SHALL HAVE A GEOMATRIX RISER AND THREADED CAP TO WITHIN 12" OF FINISHED GRADE. CONTRACTOR SHALL VERIFY SEPTIC TANK IS WATERTIGHT PRIOR TO INSTALLATION.

REFER TO SEPTIC SYSTEM INVERT TABLE ON SHEET
ST-1 (2 OF 3) FOR PROPOSED INVERT ELEVATIONS.

I HEREBY CERTIFY THAT I HAVE FLAGGED THE WETLANDS FOR THIS PROJECT AND HAVE REVIEWED THIS PLAN AND CONFIRM THAT THE WETLANDS LIMITS AS SHOWN HEREON ARE TRUE AND ACCURATE.

Donald J. Fortunato 3-4-2022
Donald J. Fortunato, CPSS Date

RADIUS = 219.96'
 ARC LENGTH = 230.34'
 CHORD LENGTH = 219.96'
 CHORD BEARING = N 63°27'37" W
 DELTA ANGLE = 60°00'00"

#	DATE	DESCRIPTION	BY
2	3-30-22	REVISIONS PER WETLANDS COMMENTS	JG
1	3-14-22	REVISIONS PER WETLANDS COMMENTS	JG

PREPARED FOR ALBERT BOVE
30 DOUGLAS LANE, MAP 61 LOT 2092
WATERFORD, CONNECTICUT

DATE: JANUARY 12, 2021
SCALE: 1"=20'
DRAWN BY: JG
CHECKED BY: JW
DWG. NO.: SP-1
SHEET NO.: 1 of 3
JOB. NO.: 2021-752

DEEP TEST PIT DATA

DATE: 12/23/21
RECORDED BY: DANIELLE HOLMES, R.S.

TP #1
0-10" TOPSOIL
10"-24" ORANGE BROWN, MEDIUM SANDY LOAM
24"-72" MOTTLED, GRAY BROWN VERY FINE SAND, TRACE SILT
MOTTLING @ 40" NO GROUNDWATER
REFUSAL @ 72" ROOTS TO 50"

PERCOLATION TEST DATA
CONDUCTED BY: VINCENT DELLARIPA

PERC A				
DATE: 1/6/21				
DEPTH: 17 1/2"±				
PRESOAK TIME: 2.5 HOURS				
TIME (MIN.)	DEPTH (INCHES)	DROP (INCHES)	PERC RATE (MIN./INCH)	
0	@ 6	---	---	
5	@ 6 1/2	1/2	10.0	
10	@ 7	1/2	10.0	
15	@ 7 1/2	1/2	10.0	
20	@ 7 3/4	3/8	13.3	
25	@ 8 1/4	1/4	20.0	
30	@ 8 1/2	3/8	13.3	
35	@ 8 3/4	1/4	20.0	
40	@ 9 1/4	3/8	13.3	
45	@ 9 1/2	1/4	20.0	
50	@ 9 3/4	3/8	13.3	
55	@ 10	1/4	20.0	
60	@ 10 1/4	3/8	13.3	
PERCOLATION RATE = 10.1-20.0 MIN./INCH				

TP #2
0-8" TOPSOIL
8"-28" ORANGE BROWN FINE SANDY LOAM
28"-56" MOTTLED YELLOW TO GRAY BROWN FINE SILTY SAND
56"-93" COMPACT BROWN GLACIAL TILL
MOTTLING @ 36" NO GROUNDWATER
REFUSAL @ 93"

TP #3
0-26" DISTURBED MATERIAL - TOPSOIL AND SUBSOIL MIXED
26"-68" ORANGE BROWN MEDIUM SAND AND GRAVEL
NO APPARENT REDOX
NO GROUNDWATER
REFUSAL @ 68"

TP #4
0-10" TOPSOIL
10"-35" YELLOW BROWN VERY FINE SILTY SAND, DAMP
35"-56" YELLOW BROWN, MEDIUM SAND AND GRAVEL
NO APPARENT REDOX
NO GROUNDWATER
NO REFUSAL
ROOTS TO 35"

GENERAL NOTES (SEPTIC SYSTEM):

1. THE APPLICANT IS PROPOSING TO DEMOLISH THE EXISTING 4-BEDROOM HOUSE AND CONSTRUCT A NEW 6-BEDROOM HOUSE ON THE LOT, REPLACE THE EXISTING SEPTIC SYSTEM WITH A 100% PUBLIC HEALTH CODE-COMPLIANT SYSTEM AND OTHER ASSOCIATED IMPROVEMENTS.
2. THIS PROPERTY IS SERVED BY A PRIVATE WELL AND A SUBSURFACE SEWAGE DISPOSAL SYSTEM. THERE ARE NO KNOWN WELLS OR ANY OTHER KNOWN DESIGN CONFLICTS WITHIN 75 FEET OF THE PROPOSED SEPTIC SYSTEM, NO KNOWN DOWNGRADE SEPTIC SYSTEM COMPONENTS WITHIN 25 FEET OF ANY UPGRADIENT GROUNDWATER DRAIN AND NO KNOWN UPGRADIENT SEPTIC SYSTEM COMPONENTS WITHIN 50 FEET OF ANY DOWNGRADE GROUNDWATER DRAIN.
3. THE USE OF A GARBAGE DISPOSAL IS NOT RECOMMENDED. IF A GARBAGE DISPOSAL OR A TUB OVER 100 GALLONS IS INSTALLED, THE PROPOSED SEPTIC TANK SIZE SHALL BE INCREASED IN CONFORMANCE WITH THE PUBLIC HEALTH CODE. ANY WATER SOFTENER SHALL NOT DISCHARGE TO THE SEPTIC SYSTEM.
4. THE PROPOSED BUILDING WILL HAVE A FULL BASEMENT WITH A SPREAD FOOTING FOUNDATION AND WILL HAVE FOOTING DRAINS. NO PART OF THE SEPTIC SYSTEM SHALL BE INSTALLED WITHIN 25' OF ANY UPSLOPE FOOTING DRAIN OR WITHIN 50' OF ANY DOWNSLOPE DRAIN.
5. ALL UTILITIES SHALL BE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE TOWN OF WATERFORD AND THE CUSTODIAL UTILITY COMPANIES. ALL UTILITY TRENCHES SHALL BE NO LESS THAN 5 FEET FROM THE SEPTIC SYSTEM AND NOT BACKFILLED WITH FREE DRAINING MATERIAL.

GENERAL CONSTRUCTION NOTES (SEPTIC SYSTEM):

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT CONNECTICUT PUBLIC HEALTH CODE, AS AMENDED.
2. A LICENSED SURVEYOR SHALL FIELD STAKE THE SEPTIC SYSTEM PRIOR TO CONSTRUCTION.
3. NO WORK SHALL COMMENCE IN THE SYSTEM AREA UNTIL A SEPTIC PERMIT HAS BEEN TAKEN OUT BY THE LICENSED INSTALLER.
4. THE LICENSED INSTALLER SHALL PERFORM SITE PREPARATION AND SHOULD CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO VERIFY ALL UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION.
5. THE LICENSED INSTALLER SHALL BE ON SITE DURING SYSTEM CONSTRUCTION. THE SYSTEM SHALL BE INSTALLED IN CONFORMANCE TO THESE PLANS. ANY REQUESTED MODIFICATIONS SHALL BE DISCUSSED WITH THE ENGINEER PRIOR TO CONSTRUCTION. ALL MODIFICATIONS MUST BE APPROVED BY THE ENGINEER AND TOWN SANITARIAN PRIOR TO CONSTRUCTION.
6. A MINIMUM OF 24 HOURS NOTICE SHALL BE GIVEN BY THE LICENSED INSTALLER TO THE ENGINEER AND TOWN SANITARIAN BEFORE ANY STRIPPING IS DONE FOR THE SYSTEM. STRIP INSPECTIONS WILL BE PERFORMED BY THE ENGINEER AND SANITARIAN.
7. THE LICENSED INSTALLER SHALL BE RESPONSIBLE FOR PREPARING THE LEACHING AREA IN A WORKMANLIKE MANNER. ALL NECESSARY STEPS SHALL BE TAKEN TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOILS FROM OVER COMPACTION AND SILTATION ONCE EXPOSED.
8. THE INSTALLER SHALL NOTIFY THE ENGINEER AND SANITARIAN AT LEAST 24 HOURS IN ADVANCE OF BEING READY FOR A FINAL INSPECTION. THE ENGINEER AND SANITARIAN SHALL CONDUCT THE FINAL INSPECTION TOGETHER WITH THE LICENSED INSTALLER. NO DEVIATION FROM THE PLAN APPROVED BY THE SANITARIAN SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE SANITARIAN. THE SYSTEM SHALL NOT BE BACKFILLED WITHOUT THE APPROVAL OF THE SANITARIAN.
9. A LICENSED ENGINEER OR SURVEYOR SHALL PREPARE A SEPTIC SYSTEM AS-BUILT DRAWING CERTIFYING THE SYSTEM IS CODE-COMPLIANT. THIS PLAN SHALL INCLUDE ALL ESSENTIAL ACCESS POINTS INCLUDING TANK MANHOLES AND LEACHING SYSTEM ENDS. THE AS-BUILT PLAN SHALL BE COMPLETED IN A TIMELY MANNER.
10. THE LEACHING SYSTEM SHALL BE PROPERLY COVERED BY THE LICENSED SYSTEM INSTALLER WITHIN TWO (2) WORKING DAYS FOLLOWING THE LOCAL HEALTH DEPARTMENT'S FINAL INSPECTION AND APPROVAL.
11. NO HEAVY EQUIPMENT SHALL BE DRIVEN OVER THE INSTALLED LEACHING SYSTEM AREA.
12. THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IF HE WISHES TO CHANGE THE LOCATION OR ELEVATION OF ANY PROPOSED SEPTIC SYSTEM COMPONENT PRIOR TO CONSTRUCTION.
13. THE LICENSED INSTALLER IS RESPONSIBLE TO INSTALL THE SUBSURFACE SEWAGE DISPOSAL SYSTEM IN ACCORDANCE WITH THE APPROVED PLAN.
14. SEPTIC TANK AND INSPECTION PORTS SHALL HAVE RISERS TO FINISHED GRADE. CONTRACTOR SHALL VERIFY SEPTIC TANK IS WATERTIGHT PRIOR TO INSTALLATION.
15. THE PROPOSED LEACHING SYSTEM, GEOMATRIX GST6224, SHALL BE INSTALLED IN CONFORMANCE WITH ALL MANUFACTURER'S SPECIFICATIONS. A GEOMATRIX SYSTEMS REPRESENTATIVE WILL DELIVER THE GEOMATRIX GST FORMS TO THE SITE AND WILL BE ON SITE DURING INSTALLATION OF THE SYSTEM TO ENSURE PROPER INSTALLATION. THE INSTALLER SHALL OBTAIN, REVIEW AND STRICTLY ADHERE TO THE INSTALLATION INSTRUCTIONS AND MATERIAL SPECIFICATIONS. MORE INFORMATION CAN BE OBTAINED FROM THE MANUFACTURER, GEOMATRIX SYSTEMS, LLC - 114 MILL ROCK ROAD EAST, OLD SAYBROOK, CT - 860-510-0730 OR AT WWW.GEOMATRIXSYSTEMS.COM.
16. A TWO-PART CONCRETE SEPTIC TANK SHALL BE USED BUT MUST BE MADE 100% WATERTIGHT BY GASKETING AND MORTARING ALL JOINTS. IF A TWO-PART TANK IS USED, IT SHALL BE FILLED WITH WATER ABOVE THE JOINT AND INSPECTED BY THE ENGINEER AND/OR THE TOWN SANITARIAN WITHIN 24 HOURS. THE CONTRACTOR SHALL MONITOR THE WATER LEVEL IN THE TANK DURING THIS PERIOD AND SHALL PERMANENTLY REPAIR ANY LEAKS TO THE SATISFACTION OF THE ENGINEER AND THE TOWN SANITARIAN.
17. THE LICENSED INSTALLER SHALL CONFIRM THAT NO LEDGE IS PRESENT WITHIN 48 INCHES BELOW THE BOTTOM OF THE PROPOSED LEACHING SYSTEM.
18. THE CONTRACTOR SHALL GRADE THE AREA IN THE VICINITY OF THE LEACHING FIELD IN SUCH A MANNER THAT ALL SURFACE RUNOFF IS SUFFICIENTLY DIRECTED AWAY FROM THE LEACHING FIELD AREA AND NOT RESULT IN PONDING ON THE SUBJECT PROPERTY OR ANY ADJACENT PROPERTY OR ROADWAY.
19. THE LICENSED INSTALLER SHALL INCLUDE ALL ADEQUATE PROVISIONS FOR FREEZE PROTECTION FOR ALL PIPING AND JUNCTIONS.
20. LICENSED INSTALLER SHALL PROVIDE SIEVE ANALYSES FOR SELECT FILL AND C-33 SAND PRIOR TO CONSTRUCTION.

SANITARY SYSTEM DESIGN CRITERIA

DESIGN PERCOLATION RATE	# OF BEDROOMS	REQUIRED LEACHING AREA	LEACHING SYSTEM TYPE	EFF. LEACHING AREA	LEACHING AREA PROVIDED	REQ'D TANK CAPACITY	TANK CAPACITY PROVIDED
10.1 - 20.0 MINS./INCH	6	1,012.5 S.F.	74.0 L.F. OF GEOMATRIX GST6218 LEACHING SYSTEM	14.0 S.F./L.F.	1,036 S.F. (14.0 S.F./L.F. x 56.0 L.F.)	1,375 (1) GALLONS	1,500 GALLONS

(1) FOR MORE INFORMATION SEE GENERAL NOTE #3 ON THIS SHEET.

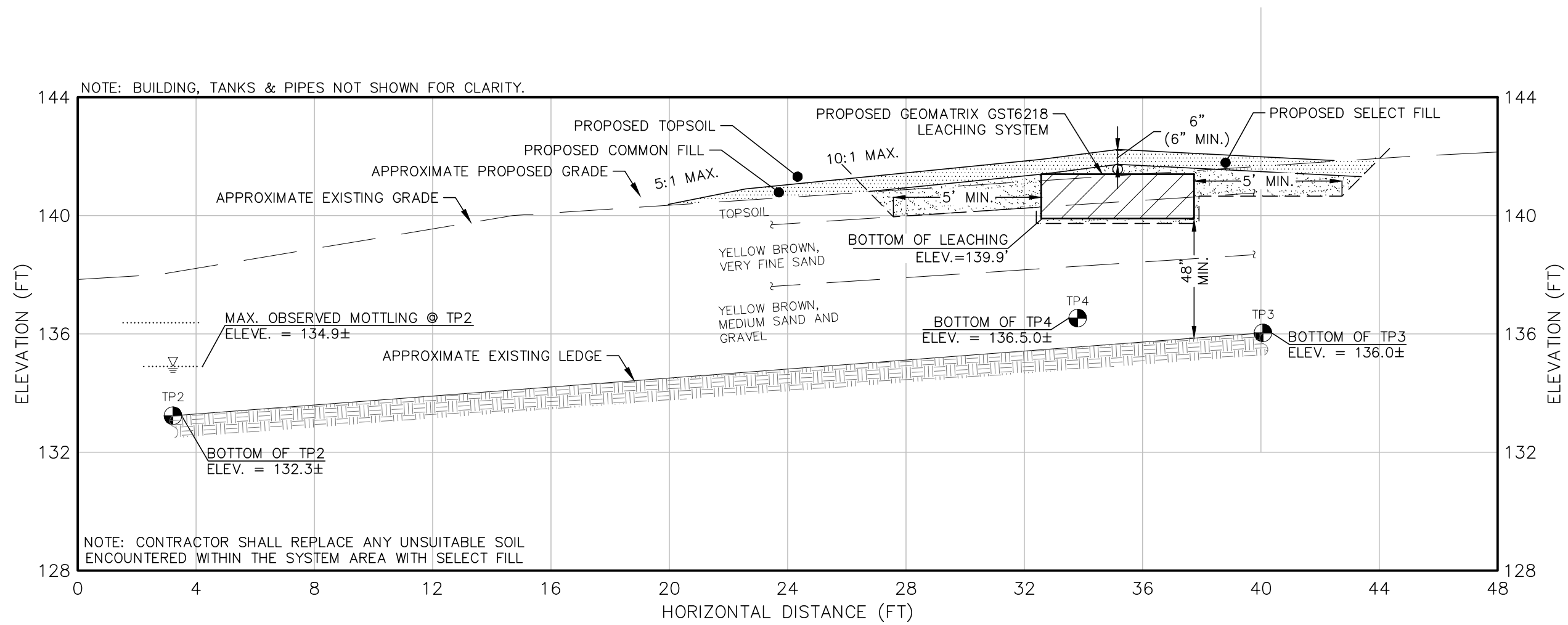
MLSS COMPUTATIONS

RECEIVING SOIL	# OF BEDROOMS	PERCOLATION RATE	HYDRAULIC GRADIENT	HYDRAULIC FACTOR (HF)	FLOW FACTOR (FF)	PERCOLATION FACTOR (PF)	MLSS REQUIRED (HFxFFxPF)	MLSS PROVIDED
MIN. 48" OF SOIL REQUIRED ABOVE LEDGE + 24" LEACHING SYSTEM = 60" MIN.	6	10.1 - 20.0 MINS./INCH	6.1-8.0	18	2.25	1.25	50.625 FT.	74.0 FT.

SANITARY SYSTEM PIPE INVERT TABLE

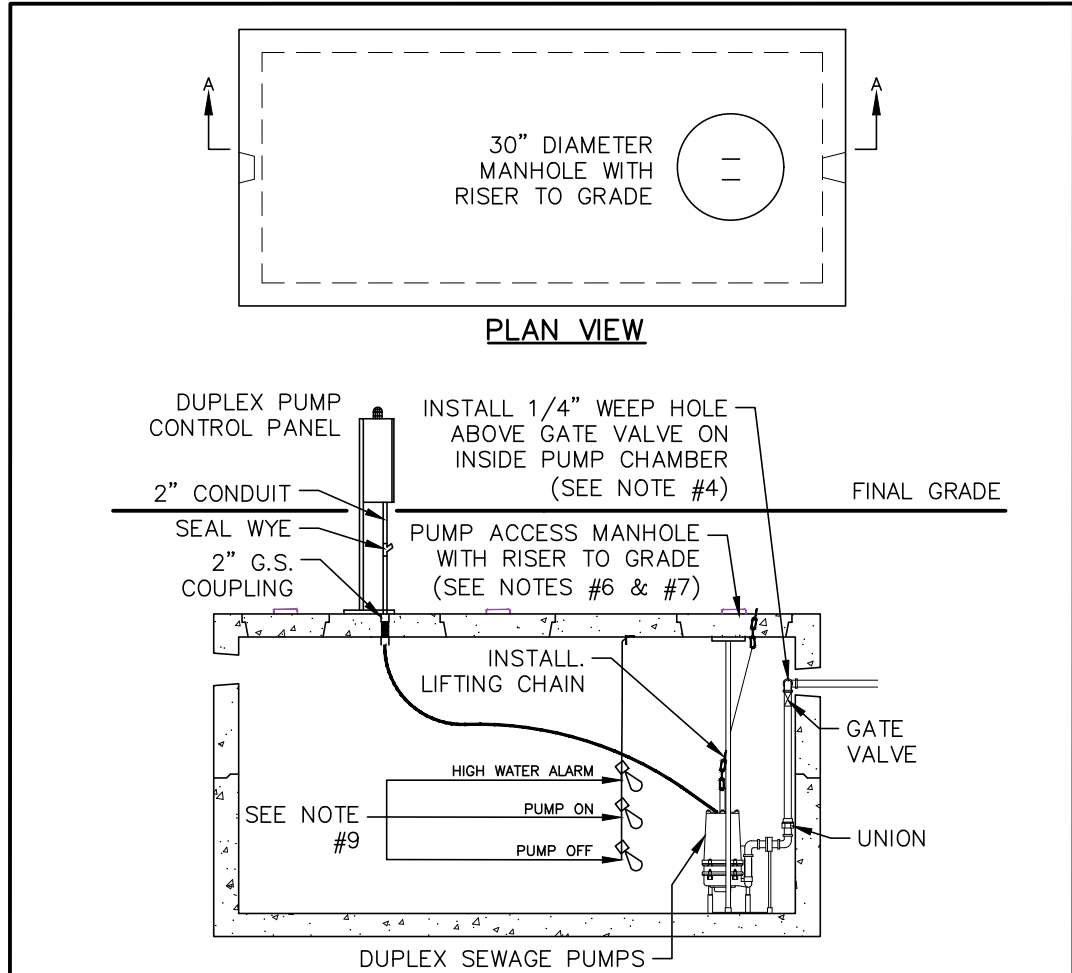
STRUCTURE	BUILDING TO SEPTIC TANK	SEPTIC TANK	DISTRIBUTION BOX	LEACHING ROW
INV. IN (FT.)	---	142.20	141.70	141.40
INV. OUT (FT.)	143.40	141.95	141.60	---

- (1) FOR ALL PIPE, A MIN. OF 6" OF COVER IS RECOMMENDED.
- (2) BOTTOM OF LEACHING SYSTEM SHALL BE SET LEVEL AND AT ELEVATION 139.9'
- (3) PIPE SLOPE = (143.40 - 142.20) / 41.0 FT. = 2.93% > 2.08%



PROPOSED LEACHING SYSTEM PROFILE - X-SECTION A-A

HORIZ. SCALE = VERT. SCALE = 1"=4"

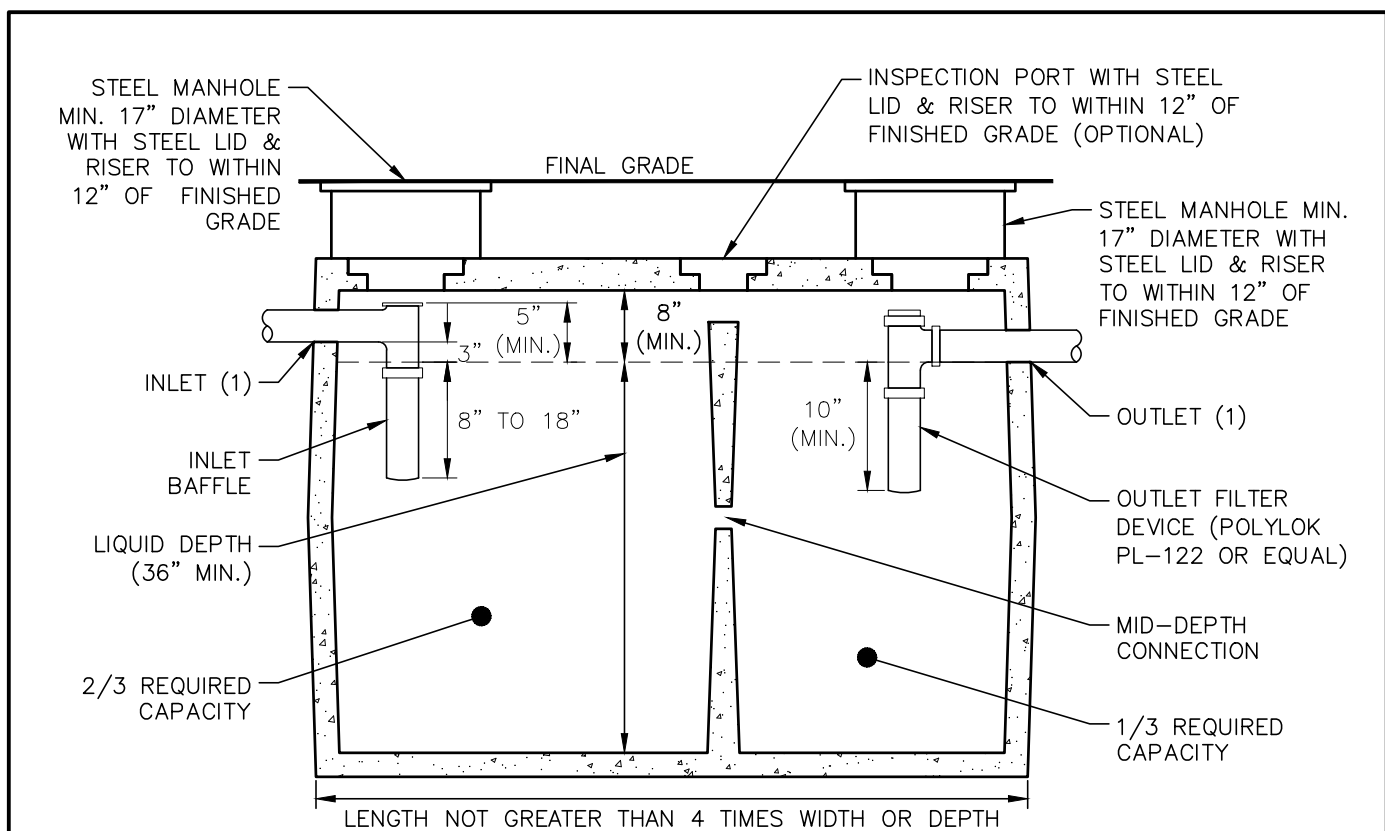
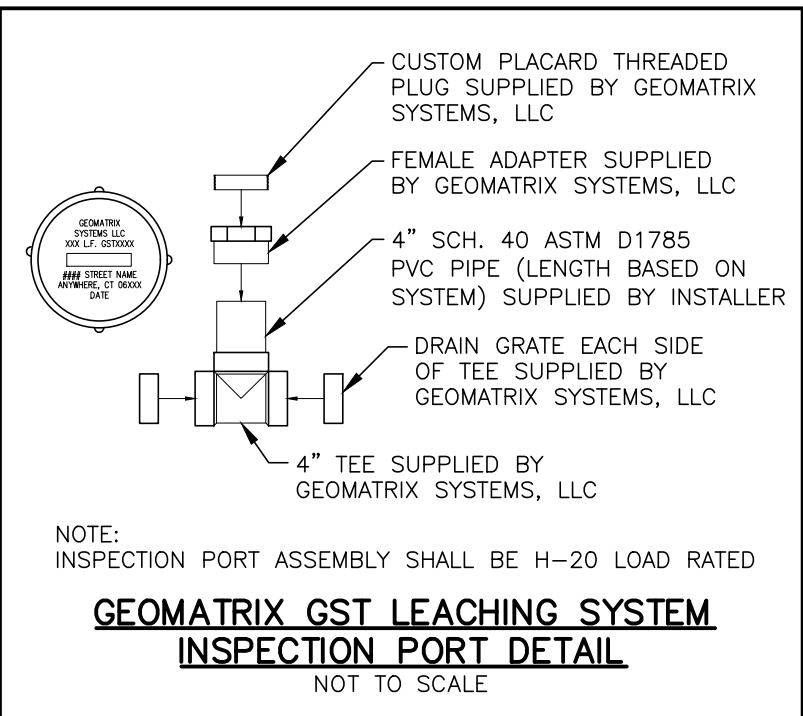
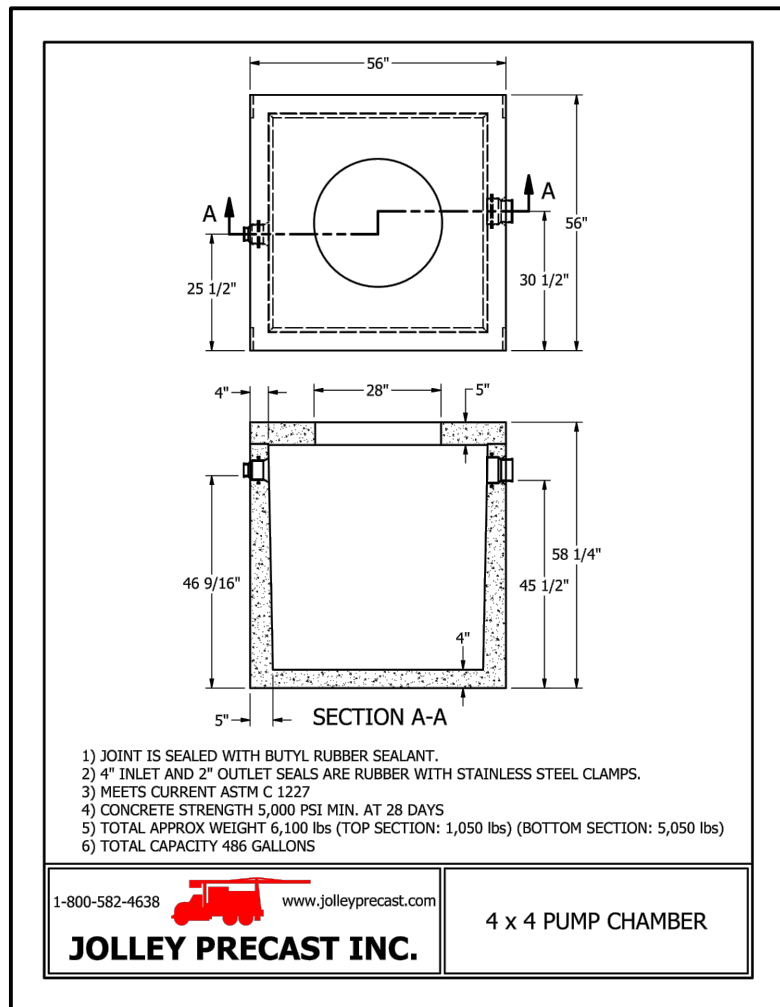


CONSTRUCTION NOTES (PUMP SYSTEM):

1. CONCRETE: 4,000 P.S.I. (MIN.) WITH 4 TO 7% AIR ENTRAINMENT. MINIMUM COMPRESSIVE STRENGTH PRIOR TO SHIPPING.
2. PUMP CHAMBER SHALL BE INSTALLED IN STRICT CONFORMANCE WITH ALL MANUFACTURER'S SPECIFICATIONS. EARTH COVER SHALL NOT EXCEED 4 FEET. CONSTRUCTION JOINT-SEALED WITH 1" DIA. BUTYL RUBBER OR EQUIVALENT. PUMP CHAMBER SHALL BE WATERTIGHT. TANK SHALL BE PROPERLY VENTED PER MANUFACTURER'S SPECIFICATIONS.
3. PUMP CHAMBER SHALL HAVE DUAL ALTERNATING PUMPS. PUMPS SHALL BE 1/3 HP MYERS EFFLUENT PUMP #ME3F11 OR EQUAL SUPPLIED BY BLAKE EQUIPMENT CO. INC. OR EQUAL (SEE JOLLEY PRECAST 4x4 PUMP CHAMBER DETAIL ON THIS SHEET).
4. ADEQUATE FREEZE PROTECTION SHALL BE PROVIDED FOR ALL FORCE MAINS AND JUNCTIONS. A WEEP HOLE SHALL BE PROVIDED IN THE PUMP DISCHARGE LINE INSIDE THE PUMP CHAMBER AS SHOWN. BACK SIPHONAGE FROM THE LEACHING SYSTEM AND/OR EXCESSIVE PUMP CYCLING MUST BE AVOIDED WHEN A WEEP HOLE IS PROVIDED.
5. INSTALL A DUPLEX PUMP CONTROL PANEL AND PROVIDE ALL CONTROLS, WIRING AND EQUIPMENT FOR A COMPLETE SYSTEM
6. APPROVED MANHOLE LIDS AND RISERS SHALL BE INSTALLED ON THE SEPTIC TANK WITHIN 12" OF FINISHED GRADE AS REQUIRED. PUMP CHAMBER ACCESS SHALL BE EXTENDED TO FINISHED GRADE.
7. PROVISIONS SHALL BE INCLUDED TO PREVENT UNAUTHORIZED ACCESS INTO THE PUMP CHAMBER.
8. PRESSURE DISTRIBUTION AND FORCE MAIN PIPING SHALL BE SMOOTH, RIGID HEAVY-WALLED PLASTIC PIPE SCHEDULE 40 PVC ASTM D-1785. VALVES AND FITTINGS SHALL CONFORM TO ASTM D-2466 WITH SOLVENT WELD JOINTS, OR AWWA C900 PVC PRESSURE PIPE AND AWWA C907 PVC PRESSURE FITTINGS OR APPROVED EQUALS.
9. MECHANICAL FLOAT SWITCHES SHALL BE INSTALLED SO THAT THE DOSE VOLUME IS LESS THAN OR EQUAL TO 20% OF THE TOTAL INTERNAL STORAGE VOLUME OF THE LEACHING SYSTEM, PER MANUFACTURER'S REQUIREMENTS. USE FLOAT SWITCHES AND HIGH WATER ALARM #155GMNO OR APPROVED EQUAL AND LOW WATER ALARM #155GMNC OR APPROVED EQUAL AS SPECIFIED BY THE SUPPLIER.
10. A DIFFERENT BRAND OF PUMP CHAMBER MAY BE USED WITH PRIOR APPROVAL FROM THE DESIGN ENGINEER. THE CONTRACTOR SHALL SUBMIT SPECIFICATIONS, SHOP DRAWINGS AND MECHANICAL FLOAT SWITCH LEVEL COMPUTATIONS TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING.

PUMP CHAMBER

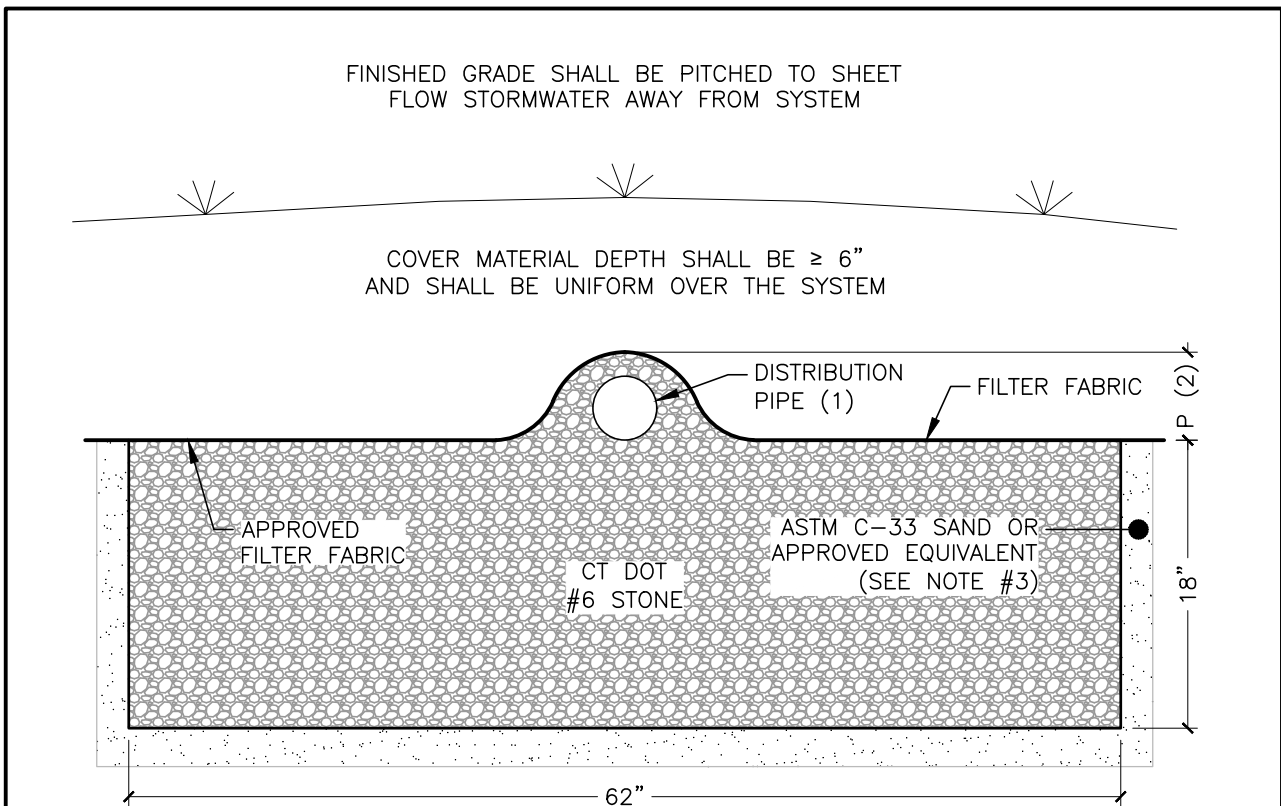
NOT TO SCALE



- NOTES:
1. INLET AND OUTLET PIPING SHALL BE AS LEVEL AS POSSIBLE AND SHALL NOT EXCEED 1/4" PER FOOT.
 2. ALL TANKS REQUIRING RISERS SHALL MAINTAIN THE ORIGINAL COVERS ON THE TANKS, HAVE RISER COVERS THAT WEIGH AT LEAST 50 LBS. AND/OR INSTALL A SAFETY DEVICE BELOW THE RISER TO PREVENT INDIVIDUALS FROM FALLING INTO A TANK. ALL BELOW GRADE TANK OR RISER COVER HANDLES SHALL CONTAIN OR BE FITTED WITH A MATERIAL THAT CAN BE LOCATED WITH A METAL DETECTOR.

1,500-GALLON CONCRETE SEPTIC TANK DETAIL

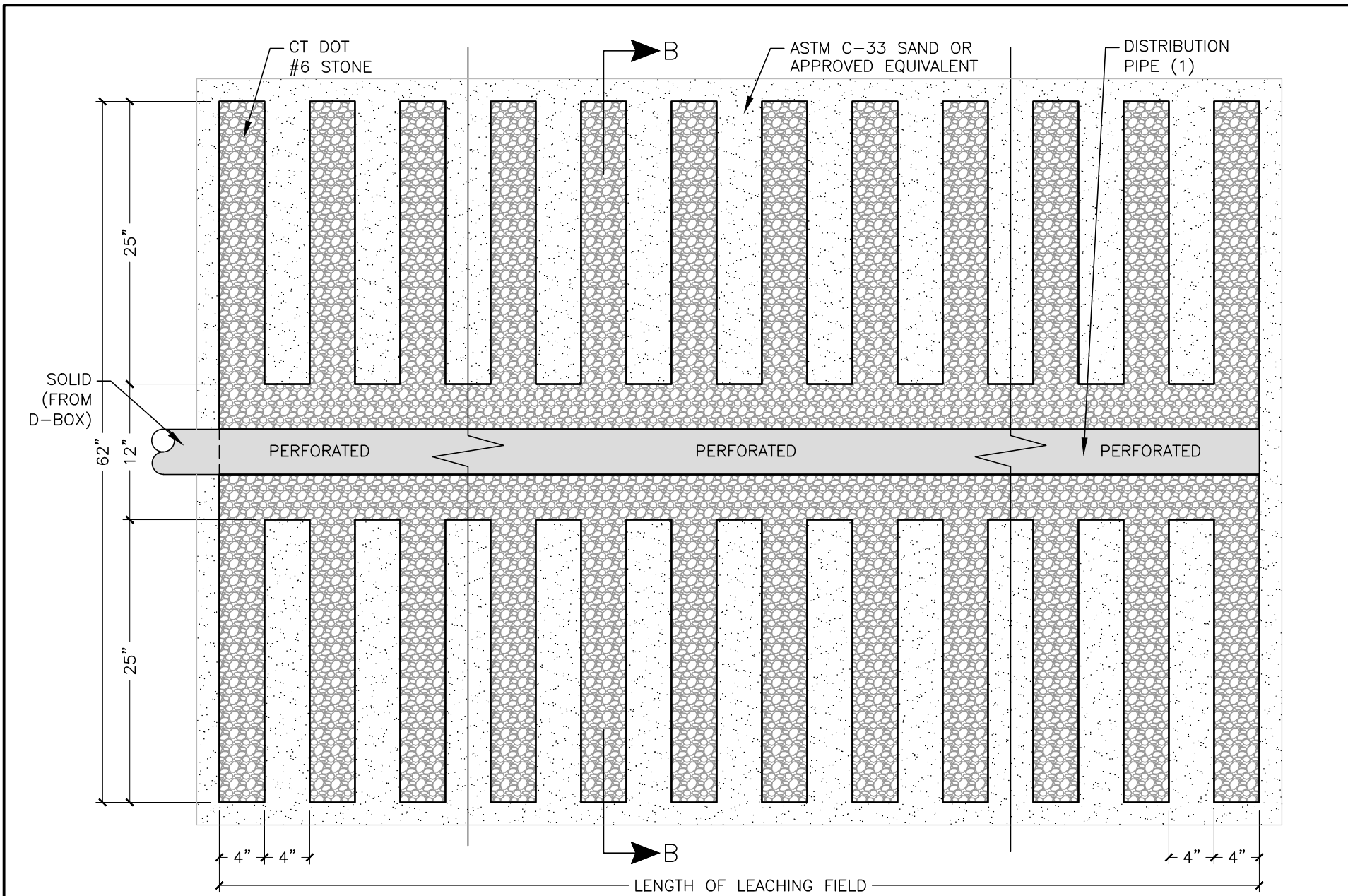
NOT TO SCALE



- NOTES:
1. 3" (MIN.) SCH. 40 ASTM D-1785 PVC PIPE FOR GRAVITY APPLICATIONS. 0.75" (MIN. I.D.) SCH. 40 ASTM D-1785 PVC PIPE FOR PRESSURE APPLICATIONS.
 2. P = 2" - 5.5"
 3. 2" MINIMUM ASTM C-33 SAND OR APPROVED EQUIVALENT ON PERIMETER, BOTTOM AND SIDES OF SYSTEM.

GEOMATRIX GST6218 LEACHING SYSTEM - X-SECTION B-B

NOT TO SCALE

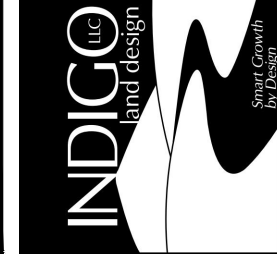


- NOTES:
1. 3" (MIN.) SCH. 40 ASTM D-1785 PVC PIPE FOR GRAVITY APPLICATIONS. 0.75" (MIN. I.D.) SCH. 40 ASTM D-1785 PVC PIPE FOR PRESSURE APPLICATIONS.
 2. 2" MINIMUM ASTM C-33 SAND OR APPROVED EQUIVALENT ON PERIMETER, BOTTOM AND SIDES OF SYSTEM.
 3. DISTRIBUTION PIPES SHALL EXTEND TO THE ENDS OF ROWS AND SHALL BE PROPERLY CAPPED.

GEOMATRIX GST6218 LEACHING SYSTEM - PLAN VIEW

NOT TO SCALE

PLANT PREPARED BY:
INDIGO LAND DESIGN, LLC
JOSEPH WREN, P.E.
45 REG. NO. 21090
40 YEARS EXP. IN THE FIELD
OLD SAYBROOK, CT 06475
PHONE: (860) 388-9343
FAX: (860) 391-8854



THE EMBOSSED SEAL OF
THE REGISTERED PROFESSIONAL ENGINEER
ATTACHED HERE FOR THIS
MAP TO BE VALID

#	DATE	DESCRIPTION
1	3-14-22	REVISIONS PER WETLANDS COMMENTS
2	3-30-22	REVISIONS PER WETLANDS COMMENTS

SOIL TEST DATA & SEPTIC DESIGN CRITERIA

PREPARED FOR ALBERT BOVE
30 DOUGLAS LANE, MAP 61 LOT 2092
WATERFORD, CONNECTICUT

DATE:	JANUARY 12, 2021
SCALE:	AS NOTED
DRAWN BY:	JG
CHECKED BY:	JW
DWG. NO.:	ST-1
SHEET NO.:	2 of 3
JOB. NO.:	2021-752

SOIL EROSION & SEDIMENTATION CONTROL PLAN NARRATIVE

THE SITE CONTRACTOR MUST FOLLOW ALL GUIDELINES SET FORTH IN THE MANUAL ENTITLED "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL," PUBLISHED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION. THIS MANUAL IS ALSO KNOWN AS DEP BULLETIN 34.

PROJECT DESCRIPTION

THIS APPLICANT IS PROPOSING TO DEMOLISH THE EXISTING 4-BEDROOM HOUSE, GARAGE, AND SHED AND CONSTRUCT A NEW 6-BEDROOM HOUSE ON THE LOT, REPLACE THE EXISTING SEPTIC SYSTEM WITH A 100% CODE-COMPLIANT SYSTEM AND OTHER ASSOCIATED IMPROVEMENTS. THE PROPERTY IS SERVED BY A PRIVATE WELL AND A SUBSURFACE SEWAGE DISPOSAL SYSTEM. THERE ARE NO KNOWN WELLS OR ANY OTHER KNOWN DESIGN CONFLICTS WITHIN 75 FEET OF THE PROPOSED SEPTIC SYSTEM AND NO KNOWN SEPTIC SYSTEMS WITHIN 75' OF THE EXISTING WELL.

CONSTRUCTION IS ANTICIPATED TO COMMENCE AS SOON AS POSSIBLE. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES. E & S CONTROLS SHALL BE MAINTAINED AND REPAIRED OR REPLACED AS NEEDED THROUGHOUT THE CONSTRUCTION DURATION. ALL E & S CONTROLS SHALL BE REMOVED AND PROPERLY DISPOSED OF AS SOON AS THE SITE IS COMPLETELY STABILIZED.

CONSTRUCTION SEQUENCE

1. CONTACT "CALL BEFORE YOU DIG" TO MARK OUT ALL UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. ENSURE ALL LAND USE PERMITS HAVE BEEN SECURED. OBTAIN ALL NECESSARY PERMITS.
3. A LICENSED LAND SURVEYOR SHALL SET A SITE BENCHMARK ON THE CORRECT ELEVATION DATUM AND SHALL STAKE OUT ALL PROPOSED IMPROVEMENTS PRIOR TO ANY CONSTRUCTION.
4. INSTALL ALL EROSION AND SEDIMENT CONTROLS AND CONSTRUCTION ENTRANCE.
5. CLEAR TREES, BRUSH AND REMOVE STUMPS NECESSARY FOR CONSTRUCTION AND GRADING.
6. DEMOLISH EXISTING BUILDING, GARAGE, AND SHED.
7. STRIP AND STOCKPILE TOPSOIL AND OTHER EXCAVATED SOILS IN AREA(S) SHOWN ON PLAN. APPLY TEMPORARY SEED MIXTURE TO PILES IF THEY WILL NOT BE DISTURBED FOR MORE THAN 30 DAYS.
8. ROUGH GRADE DRIVEWAY AND LOT.
9. BEGIN CONSTRUCTION OF PROPOSED DWELLING.
10. INSTALL SEPTIC SYSTEM AND UNDERGROUND UTILITIES.
11. CONNECT ALL UTILITIES TO THE DWELLING.
12. FINISH GRADE AND STONE DRIVEWAY.
13. FINISH GRADE, SEED AND MULCH ALL DISTURBED AREAS AS REQUIRED.
14. REMOVE ALL EROSION AND SEDIMENT CONTROLS ONCE SITE IS COMPLETELY STABILIZED. DISPOSE OF PROPERLY.

LAND DISTURBANCE

1. ALL EXISTING VEGETATION OUTSIDE OF THE CLEARING LIMITS SHALL BE PROTECTED. EXISTING VEGETATION SHALL BE REMOVED ONLY IN AREAS NECESSARY FOR SITE CONSTRUCTION ACTIVITIES. ANY ADDITIONAL CLEARING OUTSIDE OF THE PROPOSED CLEARING LIMITS SHALL BE APPROVED BY TOWN STAFF PRIOR TO CLEARING.
2. ALL AREAS SHALL REMAIN UNDISTURBED UNTIL IMMEDIATELY PRIOR TO SITE DEVELOPMENT.
3. ALL CONSTRUCTION EQUIPMENT, MATERIALS AND STOCKPILES SHALL NOT BE PLACED OUTSIDE OF THE DISTURBED AREAS.
4. ALL TREES, BRUSH, STUMPS, WOOD CHIPS OR OTHER ORGANIC MATTER SHALL BE DISPOSED OF PROPERLY OFF-SITE. WOOD CHIPS MAY BE USED AS A SILTATION BARRIER DURING CONSTRUCTION AND SPREAD AFTER SITE IS STABILIZED. NO ORGANIC MATTER INCLUDING TREES, BRUSH AND STUMPS SHALL BE BURIED ON-SITE.

STRIPPING AND STOCKPILING

ALL STOCKPILES THAT CONSIST OF ERODIBLE MATERIALS SHALL BE LOCATED WITHIN AREAS AS SHOWN ON THE SITE PLAN AND SURROUNDED BY A SILTATION BARRIER. ANY STOCKPILE THAT WILL REMAIN UNDISTURBED FOR A PERIOD LONGER THAN 30 DAYS SHALL BE SEEDED WITH A TEMPORARY GRASS SEED MIXTURE TO PREVENT EXCESSIVE EROSION AND SEDIMENTATION.

TRENCH EXCAVATION AND BACKFILL

THE CONTRACTOR SHALL PROPERLY MAINTAIN ALL BACKFILLED EXCAVATIONS. ANY DEPRESSIONS DUE TO SETTLING IN THESE AREAS SHALL BE FILLED AND RESEEDED AS NECESSARY.

THE WIDTH OF ALL EXCAVATED TRENCHES SHALL BE KEPT AS NARROW AS PRACTICABLE TO ACCOMMODATE THE WORK. ALL MATERIALS EXCAVATED FROM TRENCHES SHALL BE STOCKPILED AND USED AS TRENCH BACKFILL MATERIAL UNLESS IT IS DETERMINED TO BE UNSUITABLE BY THE ENGINEER. EXCESS MATERIALS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.

SOIL EROSION AND SEDIMENT CONTROLS

ALL ADJACENT PROPERTIES AND RECEIVING WATERCOURSES AND/OR WETLAND AREAS SHALL BE ADEQUATELY PROTECTED FROM SOIL EROSION AND SEDIMENTATION BOTH DURING AND AFTER CONSTRUCTION.

ADDITIONAL EROSION AND SEDIMENT CONTROLS MAY BE REQUIRED BY THE TOWN AND SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROLS BEFORE, DURING AND AFTER CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ALL EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER ALL RAINFALL EVENTS. E & S CONTROLS SHALL BE REPAIRED OR REPLACED AS NECESSARY WITHIN 24 HOURS THROUGHOUT THE CONSTRUCTION DURATION.

ALL ACCUMULATED SEDIMENTS AT ALL EROSION AND SEDIMENT CONTROLS SHALL BE PERIODICALLY REMOVED AND SPREAD IN AREAS THAT ARE NOT SUBJECT TO EROSION.

THE CONTRACTOR SHALL EMPLOY BEST MANAGEMENT PRACTICES TO CONTROL STORMWATER DISCHARGES AND TO PREVENT EROSION AND SEDIMENTATION AND TO OTHERWISE PREVENT POLLUTION OF PRIVATE PROPERTY. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE TOWN OF ANY PROBLEMS INVOLVING EROSION AND/OR SEDIMENTATION THAT HAVE DEVELOPED IN THE COURSE OF, OR THAT ARE CAUSED BY, THE AUTHORIZED WORK.

THE RESPONSIBLE CONTACT PERSON FOR THE INSTALLATION AND MAINTENANCE OR EROSION AND SEDIMENTATION CONTROLS ON THIS PROJECT IS UNKNOWN AT THIS TIME BUT CONTACT INFORMATION WILL BE PROVIDED ONCE AVAILABLE.

VEGETATIVE TURF ESTABLISHMENT PROCEDURE

SCARIFY ALL AREAS TO BE TOPSOILED AND SEEDED. APPLY A MINIMUM OF 4 INCHES OF TOPSOIL ON ALL AREAS TO BE SEEDED. APPLY GRASS SEED, LIME, FERTILIZER AND MULCH ACCORDING TO THE FOLLOWING SCHEDULE:

PERMANENT SEED MIXTURE:	
CREeping RED FESCUE	0.45 LBS. PER 1,000 SQ. FT.
REDTOP	0.05
TALL FESCUE	0.45
TOTAL	0.95

FERTILIZER:
10-10-10 APPLY AT 7.5 LBS. PER 1,000 SQ. FT.

LIMESTONE:
APPLY AT 150 LBS. PER 1,000 SQ. FT.

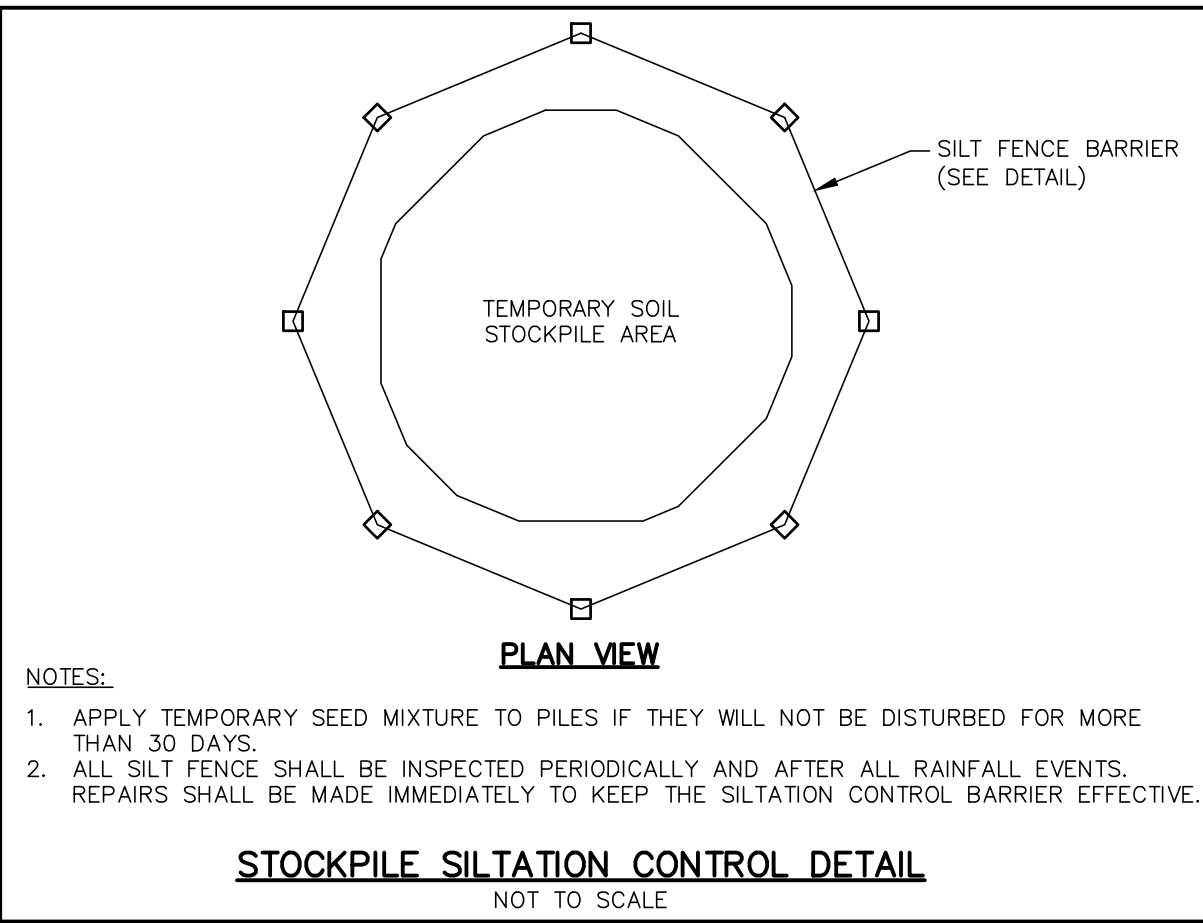
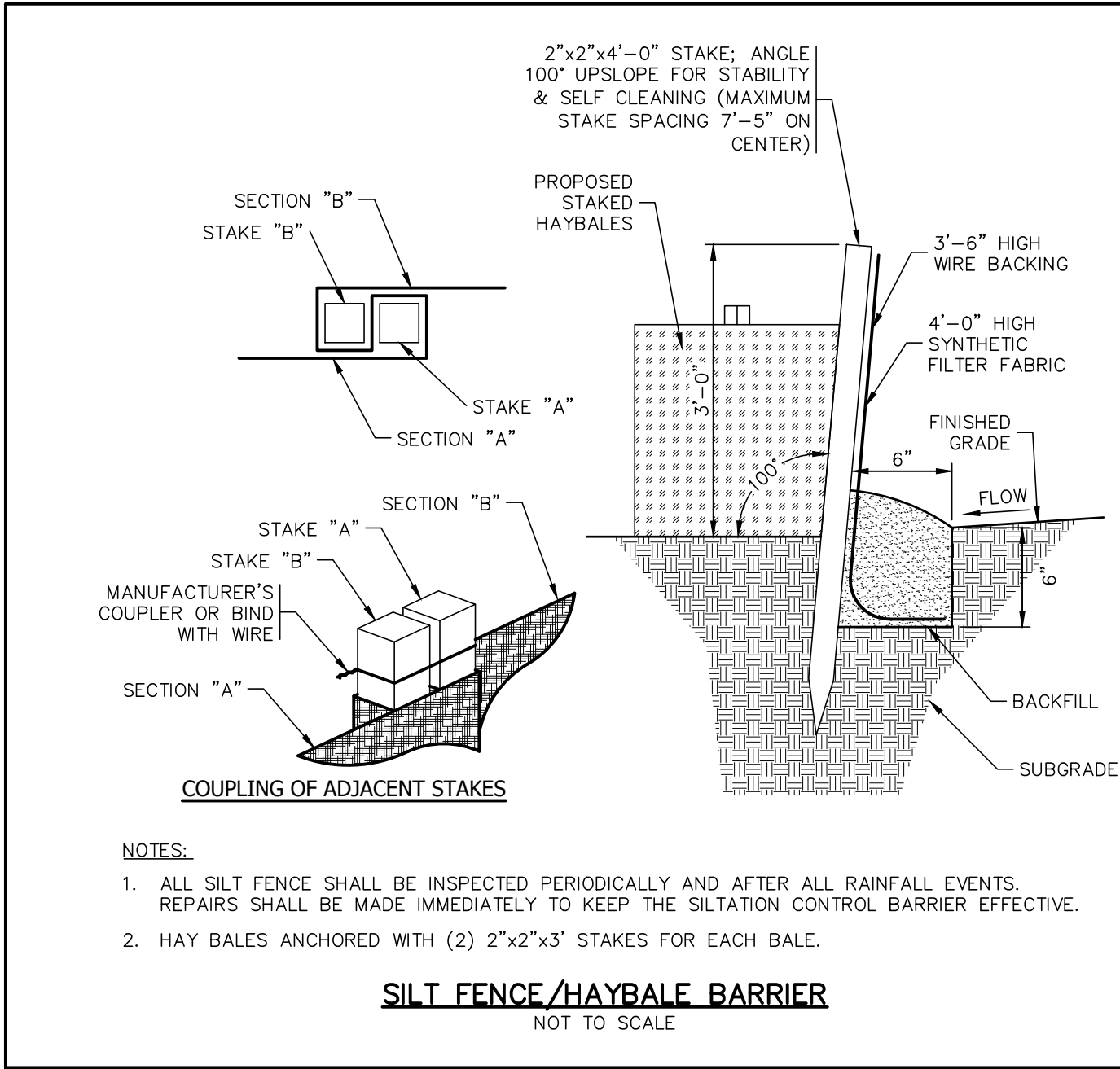
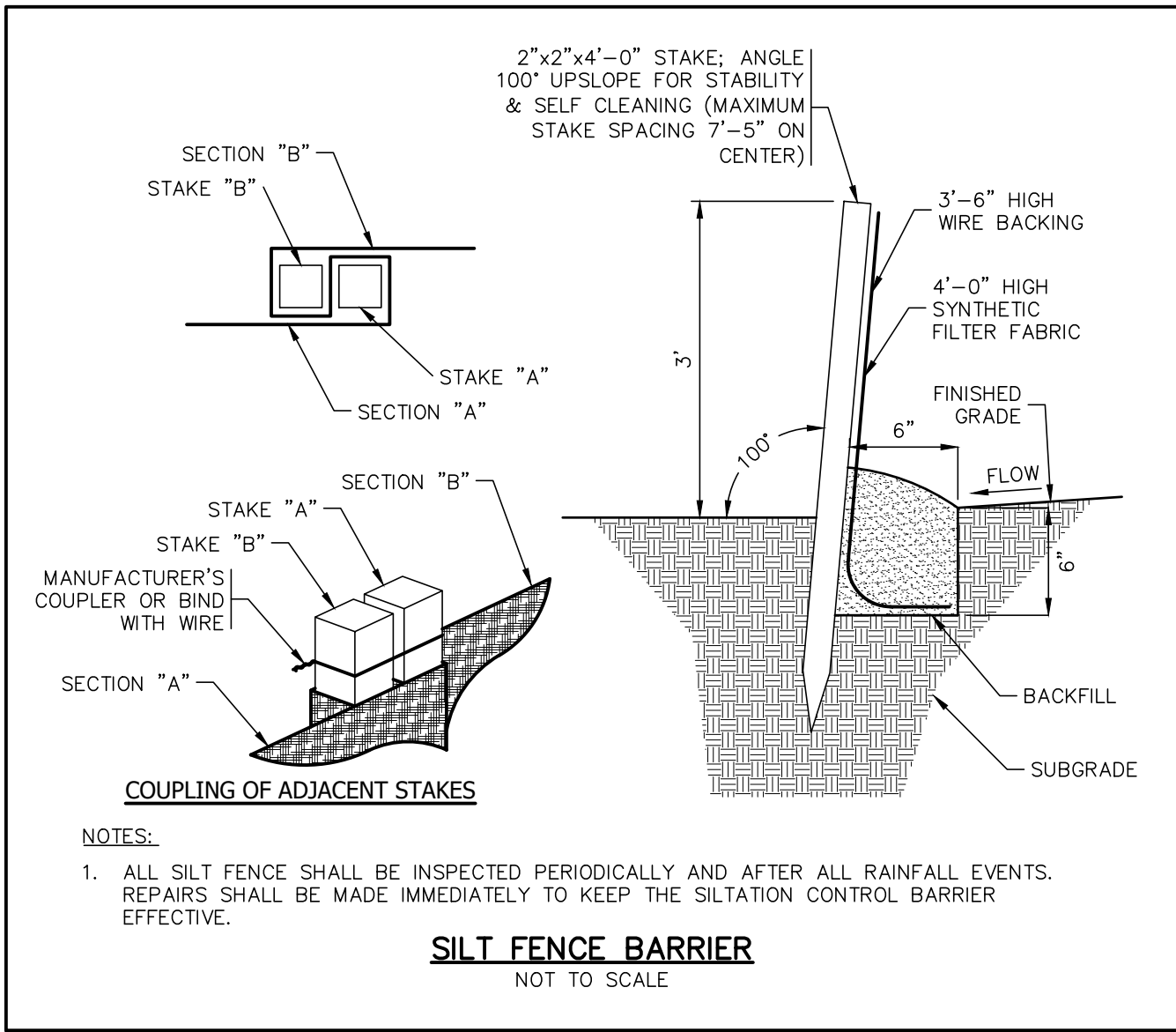
MULCHING:
SPREAD HAY OR STRAW OVER ALL AREAS AFTER SEEDING. USE 1 1/2 TO 2 BALES PER 1,000 SQ. FT. TARGET FOR 100% COVERAGE. ANCHOR BY USING NETTING OR TRACKING AS NECESSARY.

TEMPORARY EROSION CONTROL BLANKETS:

USE TEMPORARY EROSION CONTROL BLANKETS ON ALL SEEDED SLOPES EQUAL TO OR STEEPER THAN 3(H):1(V) IN STRICT CONFORMANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS.

SEEDING DATES:

SEEDING DATES IN CONNECTICUT ARE NORMALLY APRIL 1 THROUGH JUNE 15 AND AUGUST 15 THROUGH OCTOBER 1. SEED GERMINATION NORMALLY CANNOT BE EXPECTED FROM NOVEMBER THROUGH FEBRUARY. IF ADEQUATE SEED GERMINATION IS NOT POSSIBLE DUE TO TIME OF YEAR CONSTRAINTS, MULCHING SHALL BE ADEQUATELY PROVIDED TO PROTECT THE SEED FROM WIND AND SURFACE EROSION UNTIL THE WEATHER IMPROVES AND THE SEEDING BECOMES WELL ESTABLISHED.



E&S NARRATIVE & CONSTRUCTION DETAILS
PREPARED FOR ALBERT BOVE
30 DOUGLAS LANE, MAP 61 LOT 2092
WATERFORD, CONNECTICUT

DATE:
JANUARY 12, 2021
SCALE:
NOT TO SCALE
DRAWN BY:
JG
CHECKED BY:
JW
DWG. NO.:
ES-1
SHEET NO.:
3 of 3
JOB. NO.:
2021-752

PLAN PREPARED BY:
INDIGO LAND DESIGN, LLC
JOSEPH WREN, P.E.
47 REG. NO. 21090
100 W. MAIN ST., SUITE 200
OLD SAYBROOK, CT 06475
PHONE: (860) 388-9343
FAX: (860) 391-8854

THE EMBOSSED SEAL OF
THE ENGINEERING COUNCIL OF
CONNECTICUT MUST BE
AFFIXED HERE FOR THIS
MAP TO BE VALID

#	DATE	DESCRIPTION
1	3-14-22	REVISIONS PER WETLANDS COMMENTS
2	3-30-22	REVISIONS PER WETLANDS COMMENTS