EXISTING AVERAGE GRADE

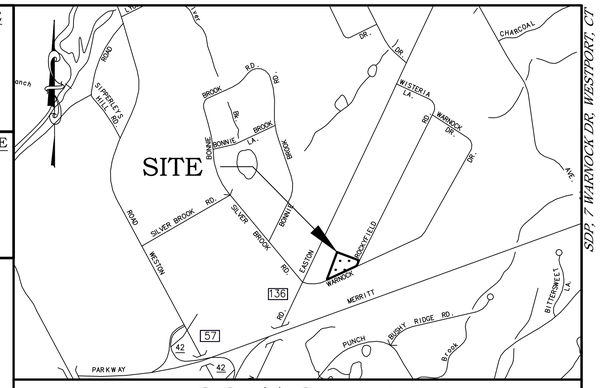
POINT	GRADE	
A	97.4	
B	98.6	AVE. GRADE = $\frac{\Sigma(A...G)}{(7)}$
C	98.6	
D	99.0	
E	98.9	= 98.2'
F	97.5	
G	97.5	

NOTES:
1. ALL POINTS TAKEN 10' FROM PROPOSED HOUSE LOCATION.*

PROPOSED AVERAGE GRADE

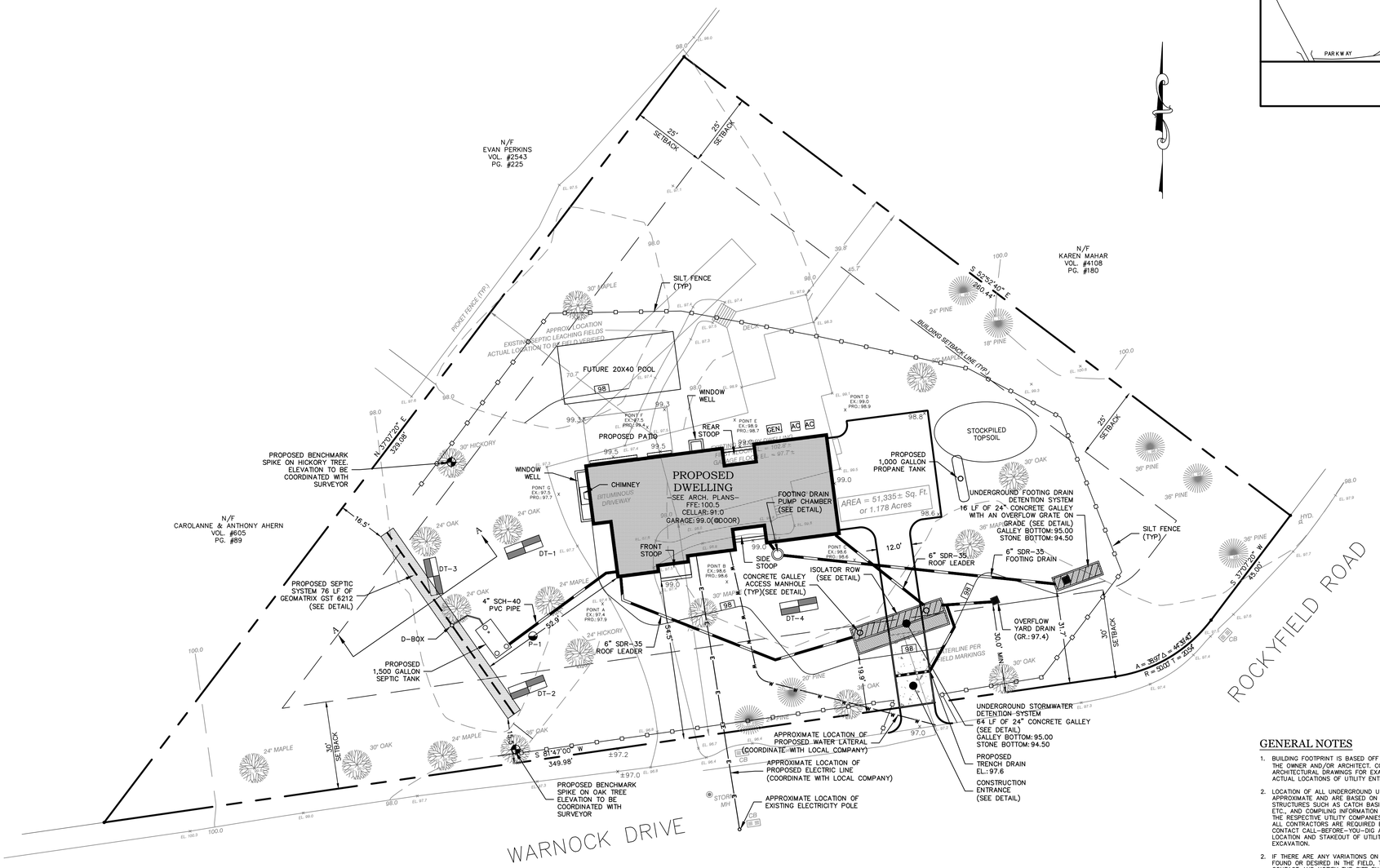
POINT	GRADE	
A	97.9	
B	98.6	AVE. GRADE = $\frac{\Sigma(A...G)}{(7)}$
C	98.6	
D	98.9	
E	98.7	= 98.6'
F	99.4	
G	97.7	

NOTES:
1. ALL POINTS TAKEN 10' FROM PROPOSED HOUSE LOCATION.*



LOCATION MAP
SCALE: 1"=800'

SDP ; WARNOCK DR. WESTPORT, CT



LOT AREA COVERAGE CALCULATION

BASE LOT CALCULATION (ALL ENTRIES IN SQUARE FEET)				
1	GROSS LOT AREA		=	51,335 SF
2	ABOVE-GROUND UTILITY EASEMENTS	= 0 SF		
3	STREET AND ROAD	= 0 SF		
4	OTHER EXCLUSIVE SURFACE EASEMENT	= 0 SF		
5	TOTAL EASEMENTS AND ROADS (Sum of Lines 2, 3, and 4)		=	0 SF
6	WETLAND AREA	= 0 SF		
7	STEEP SLOPES OF 25% OR GREATER	= 0 SF		
8	TOTAL WETLANDS/SLOPES (Sum of Line 6 & 7)	= 0 SF		
9	WETLANDS/SLOPES REDUCTION	0.8 x LINE 8	=	0 SF
10	BASE LOT AREA (Lines 1, Minus Line 5 and Line 9)		=	51,335 SF
MAXIMUM LOT AREA COVERAGE CALCULATION				
11	BASE LOT AREA (Copied from line 10, above)	= 51,335 SF		
12	SQUARE FEET OF TOTAL COVERAGE		=	4,994 SF
13	LINE 12 DIVIDED BY LINE 11 FOR A PERCENTAGE		=	9.7 %
14	SQUARE FEET OF BUILDING COVERAGE		=	2,860 SF
15	LINE 14 DIVIDED BY LINE 11 FOR A PERCENTAGE		=	N/A

SINCE LINE 13 IS EQUAL OR LESS THAN THE PERCENTAGE FOR MAXIMUM PERMITTED TOTAL COVERAGE WITHIN THE ZONING DISTRICT, THE COVERAGE COMPLIES.

SITE STATISTICS
SINGLE FAMILY DWELLING

ZONING DISTRICT "AAA"	REQUIRED	PROVIDED
BULK STATISTICS		
MIN. LOT AREA	2.00 ACRES (87,120 S.F.)	1.18 ACRES (51,335 S.F.)*
MIN. BUILDING SETBACK (FRONT)	30'	54.5'
MIN. BUILDING SETBACK (SIDE)	25'	>25'
MIN. BUILDING SETBACK (REAR)	25'	>25'
MAX. HEIGHT	3 STORIES/40'	SEE ARCH. PLANS
MAX. TOTAL COVERAGE	25% = 12,833 S.F.	DWELLING: 2,860 SF STOOPS: 113 SF DRIVEWAY: 2,021 SF TOTAL: 4,994 SF (9.7%)

* NON-CONFORMING LOT

GENERAL NOTES

1. BUILDING FOOTPRINT IS BASED OFF OF DRAWINGS OBTAINED FROM THE OWNER AND/OR ARCHITECT. CONTRACTOR SHOULD REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS & ACTUAL LOCATIONS OF UTILITY ENTRANCES.
2. LOCATION OF ALL UNDERGROUND UTILITIES DEPICTED HEREON ARE APPROXIMATE AND ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC., AND COMPILING INFORMATION FROM PLANS SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES AND GOVERNMENT AGENCIES. ALL CONTRACTORS ARE REQUIRED BY STATE REGULATIONS TO CONTACT CALL-BEFORE-YOU-DIG AT 1-800-922-4455 FOR LOCATION AND STAKEOUT OF UTILITIES PRIOR TO ANY EXCAVATION.
3. IF THERE ARE ANY VARIATIONS ON THIS MAP WITH WHAT IS FOUND OR DESIRED IN THE FIELD, THE CONTRACTOR SHALL CONTACT AND NOTIFY THE SITE ENGINEER IMMEDIATELY PRIOR TO COMMENCING THE RELATED WORK TO DETERMINE THE CORRECT COURSE OF ACTION.
4. B&B ENGINEERING, LLC MAKES NO GUARANTEE WITH THIS PLAN UNLESS B&B INSPECTS ALL ASPECTS OF CONSTRUCTION.
5. MAP REFERENCES
   a. BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM A MAP ENTITLED "IMPROVEMENT LOCATION SURVEY, PREPARED FOR SIR DEVELOPMENT, 7 WARNOCK DRIVE, WESTPORT, CT; DATED OCT., 19, 2021", PREPARED BY LAND SURVEYING LLC, FAIRFIELD, CT.

LEGEND

- C.H.D. Conn. Hwy. Dept. Monument
- Mon. Monument
- Iron Pin to be Set
- Conc. Monument to be Set
- I. Pipe Iron Pipe
- I.P. Iron Pin
- D.H. Drill Hole
- Pile of Stones
- F.P. Fence Post
- Fnd. Found
- n/f Now or Formerly
- Property Line
- Property Line (adjoining)
- Building Setback Line
- Easement Line
- Centerline
- Ledge or Boulders
- Earth or gravel fill
- x123.4 Existing Spot Elevation
- INV: Proposed Spot Elevation
- Invert Elevation of Pipe
- W.G. Water gate valve
- G.G. Gas gate valve
- W Water main (existing)
- W Water main (proposed)
- Hydrant
- WS Water service lateral
- G Gas Main (existing)
- G Gas main (proposed)
- SS Sanitary sewer lateral
- S Sanitary Sewer Main (existing)
- S Sanitary Sewer Main (proposed)
- Stone Wall
- Barbed Wire Fence
- Fence
- Utility Pole
- Existing Manhole
- Proposed Manhole
- Existing Catch Basin/Pipe
- Proposed Storm Pipe
- Proposed Catch Basin
- Building (existing)
- Evergreen Tree
- Deciduous Tree
- Swamp or Wetlands
- Watercourse
- 123 Existing Contours
- 123 Proposed Contours
- R.C.P. Reinforced Concrete Pipe
- C.M.P. Corrugated Metal Pipe
- PT A Percolation Test Location
- TP 100 Deep Test Pit Location
- Stone Retaining Wall
- Retaining Wall
- WL Wetland Limit
- WL100 Wetland Flag Number
- Wetland Setback
- Benchmark
- Silt Fence
- Well (existing)
- Well (proposed)
- Anti-Mud Tracking Pad

No.	Date	REVISION DESCRIPTION
1.	3/22/2022	DRIVEWAY AND DETENTION SYSTEM

SCALE: 1"=20'
0 10 20 40 60

B&B ENGINEERING
15 Research Drive
Woodbridge, CT 06525
P: (203) 881-3145
www.bbengrs.com
Land Surveying, Professional Engineering & Land Use Consultants

PROPOSED SITE DEVELOPMENT PLAN

OF

7 WARNOCK DR
WESTPORT, CONNECTICUT

PREPARED FOR

SIR DEVELOPMENT

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

BRYAN P. NESTERIAK, CT. P.E.,L.S. 23556

Date	11/2/2021
Scale	1"=20'
Job No.	1105
Drawing No.	1 of 2

SEDIMENTATION & SOIL EROSION SPECIFICATIONS

1. THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

2. ALL CONSTRUCTION ACTIVITIES SHALL PROCEED SO THAT POLLUTION OF ANY WETLANDS, WATERCOURSES, WATERBODY, AND OR CONDUIT CARRYING WATER, ETC. DOES NOT OCCUR. THE CONTRACTOR SHALL LIMIT, INSOFAR AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES AND WATERBODIES, AND TO PREVENT, INSOFAR AS POSSIBLE EROSION ON THE SITE.

3. CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (2002) BY THE STATE OF CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.

IMPLEMENTATION NOTES

1. THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO CONSTRUCTION WHENEVER POSSIBLE. ALL CONTROL MEASURES ARE TO BE MAINTAINED IN AN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. ADDITIONAL MEASURES ARE TO BE INSTALLED IF NECESSARY OR REQUIRED DURING CONSTRUCTION PERIOD.

2. LAND DISTURBANCE SHALL BE KEPT TO A MINIMUM. RESTABLIZATION TO BE SCHEDULED AS SOON AS PRACTICAL.

3. POST AND FABRIC SILTATION BARRIERS SHALL BE INSTALLED AT THE TOE OF ALL CRITICAL CUT AND FILL SLOPES. SILT FENCES AND BARRIERS MUST BE CLEANED OR REPLACED WHEN SOIL HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

4. ALL STORM DRAINAGE OUTLETS MUST BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.

5. SEDIMENT TRAPS, IF APPLICABLE, MUST BE CLEANED WHEN CAPACITY HAS BEEN REDUCED BY AN AVERAGE OF 2' OVER ITS TOTAL AREA OR TO 80% OF ITS DESIGN VOLUMES, WHICHEVER OCCURS FIRST.

6. SEDIMENT REMOVED FROM THE CONTROL STRUCTURES SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH THE INTENT OF THE PLAN AND IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS.

7. FILL MATERIAL SHALL BE FREE FROM DEBRIS PERISHABLE OR COMBUSTIBLE MATERIAL AND FROZEN OR WET EARTH OR STONES LARGER THAN 6 INCHES IN MAXIMUM DIMENSION. FILL SHALL BE PLACED IN MAXIMUM 12 INCH LOOSE LIFTS AND COMPACTED TO WITHIN 90% OF THE MODIFIED PROCTOR TEST RESULT.

8. PAVEMENT BASE COURSE MUST BE PLACED IN ALL PROPOSED PAVEMENT AREAS UPON COMPLETION OF FINE GRADING.

9. PERMANENT LANDSCAPED AREAS SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS IMMEDIATELY AFTER FINAL GRADING. MULCH AS NECESSARY FOR SEED PROTECTION AND ESTABLISHMENT. LIME AND FERTILIZE PRIOR TO PERMANENT SEEDING.
   - 9.1. TOPSOIL PREPARATION:
     - 9.1.1. TOPSOIL SHOULD BE A MINIMUM OF FOUR INCHES DEEP (COMPACTED) BEFORE SEEDING.
     - 9.1.2. HAVE TOPSOIL TESTED FOR PH, ADD LIME AS NECESSARY TO ACHIEVE PH OF 6.5. APPLY FERTILIZER AT A RATE OF 300 POUNDS PER ACRE OR SEVEN POUNDS PER 4,000 SQUARE FEET USING 10-20-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS 38-0-0 PER ACRE OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOP DRESSING.
     - 9.1.3. WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE ALL CLAY OR SILTY SOIL AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEED BED WHEREVER FEASIBLE.
     - 9.1.4. REMOVE FROM THE SURFACE ALL STONES ONE INCH OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMP, OR OTHER UNSUITABLE MATERIAL.
     - 9.1.5. INSPECT SEED BED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT SOIL COMPACT, THE AREA MUST BE RE-TILLED AND COMPACTED AS ABOVE.
   - 9.2. SEED MIXTURE (APPLY AT A RATE OF 200 POUNDS/ACRE):
     - 9.2.1. 10% KENTUCKY BLUEGRASS – BARON MIX
     - 9.2.2. 20% PERENNIAL RYEGRASS
     - 9.2.3. 70% TURF TYPE TALL FESCUE

10. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR ALL PAVED ROADWAYS ON AND OFF SITE AND MUST ENSURE THE SITE IS FREE OF SITE GENERATED SEDIMENT AT ALL TIMES. DUST SHALL BE CONTROLLED BY SPRINKLING OR ANOTHER APPROVED METHOD.

11. ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSPECTED ON A DAILY BASIS AND CLEANED IMMEDIATELY AFTER EACH STORM.

12. WHERE DEWATERING IS NECESSARY, THERE SHALL NOT BE A DISCHARGE DIRECTLY INTO WETLANDS OR WATERCOURSES. PROPER METHODS AND DEVICES SHALL BE UTILIZED TO THE EXTENT PERMITTED BY LAW, SUCH AS PUMPING WATER INTO A TEMPORARY SEDIMENTATION STRUCTURE OR BOWL, PROVIDING SURGE PROTECTION AT THE INLET AND THE OUTLET OF PUMPS, OR FLOATING THE INTAKE OF THE PUMP, OR OTHER METHODS TO MINIMIZE AND RETAIN THE SUSPENDED SOLIDS. IF PUMPING OPERATION CAUSES TURBIDITY PROBLEMS, THE OPERATION SHALL CEASE UNTIL FEASIBLE MEANS OF CONTROLLING TURBIDITY ARE DETERMINED AND IMPLEMENTED.

13. THE RESPONSIBILITY FOR: IMPLEMENTING THE EROSION AND SEDIMENT CONTROL PLAN, INFORMING ALL CONCERNED OF THE REQUIREMENT OF THE PLAN; NOTIFYING THE PLANNING AND ZONING COMMISSION, ITS DESIGNATED REPRESENTATIVE OF ANY TRANSFER OF RESPONSIBILITY AND SEEING THAT A COPY OF THE PLAN IS RECEIVED BY ANY SUCCESSOR IN INTEREST TO THE TITLE OF THE LAND OR ANY PORTION THEREOF IS ASSIGNED TO THE OWNER OF RECORD.

14. ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION, WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS.

GRADING & DRAINAGE NOTES

1. ABBREVIATIONS
   - PVC = POLYVINYL CHLORIDE PIPE (SDR-35)
   - HDPE = HIGH DENSITY POLYETHYLENE PIPE
   - RCP = REINFORCED CONCRETE PIPE
   - MH = MANHOLE
   - CB = CATCH BASIN
   - INV = INVERT
   - LF = LINEAR FEET
   - ACOMP = ASPHALT COATED CORRUGATED METAL PIPE
   - HERCP = HORIZONTAL ELIPTICAL REINFORCED CONCRETE PIPE
2. THE CONTRACTOR SHALL FLUSH AND CLEAN ALL EXISTING ON-SITE STORM PIPING AND STRUCTURES THAT ARE TO BE MAINTAINED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING THE DRAINAGE STRUCTURES FOR THE INDICATED PIPE CONNECTIONS.
4. THE PIPE LENGTHS SHOWN ARE APPROXIMATE.
5. ALL PROPOSED CATCH BASINS SHALL HAVE A 2' SUMP, UNLESS OTHERWISE SPECIFIED.
6. ALL SLOPES TO BE NO GREATER THAN 5' HORIZONTAL TO 1' VERTICAL.

DEEP TESTS

TESTED ON 10/12/2021

DT-1
0"-17" TOPSOIL
17"-29" ORANGE BROWN COARSE SAND AND GRAVEL WITH COBBLES
29"-82" LIGHT BROWN SAND AND GRAVEL
WATER @82"
NO MOTTLING
NO LEDGE,
ROOTS @36"

DT-2
0"-12" TOPSOIL
12"-31" ORANGE BROWN COARSE SAND AND GRAVEL WITH COBBLES
31"-83" LIGHT BROWN SAND AND GRAVEL
WATER @83"
NO MOTTLING
NO LEDGE,
ROOTS @72"

DT-3
0"-16" TOPSOIL
16"-31" ORANGE BROWN COARSE SAND AND GRAVEL WITH COBBLES
31"-87" LIGHT BROWN SAND AND GRAVEL
WATER @80"
NO MOTTLING
NO LEDGE
ROOTS @87"

DT-4
0"-17" TOPSOIL
17"-31" ORANGE BROWN FINE SAND AND GRAVEL WITH COBBLES
31"-80" LIGHT BROWN SAND AND GRAVEL
WATER @80"
NO MOTTLING
NO LEDGE
ROOTS @38"

PERCOLATION TESTS

PRESOAK AT 10:15
24" DEEP

P-1	MEASUREMENT	CHANGE
10:25	10.00"	–
10:35	17.00"	7.00"
10:45	DRY (REFILL)	7.00"
10:55	5.00"	–
11:05	11.00"	6.00"
11:15	16.00"	5.00"
11:25	20.00"	4.00"

THE MINIMUM OBSERVED PERCOLATION RATE IS 1" DROP IN 2.5 MINUTES

GENERAL SEPTIC NOTES

1. THIS SYSTEM IS NOT DESIGNED FOR BACKWASH FROM A WATER SOFTENING SYSTEM OR THE OUTFLOW FROM A GARBAGE DISPOSAL OR TUB IN EXCESS OF 100 GALLONS.
2. THIS SYSTEM IS TO BE CONSTRUCTED IN ACCORDANCE WITH ALL STATE AND LOCAL HEALTH REGULATIONS.
3. THE INSTALLATION OF THE SEPTIC SYSTEM SHALL BE UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER.
4. IT IS THE RESPONSIBILITY OF THE INSTALLER TO KEEP LOCAL HEALTH DEPARTMENT AND THE ENGINEER OF RECORD INFORMED OF CONSTRUCTION PROGRESS.
5. ALL PIPING BETWEEN HOUSE AND SEPTIC TANK SHALL BE FOUR INCHES IN DIAMETER WITH A MINIMUM SLOPE OF 1/4" PER FOOT OR SIX INCHES IN DIAMETER WITH A MINIMUM SLOPE OF 1/8" PER FOOT. MATERIALS MAY BE CAST IRON (HUBLESS OR BELL AND SPIGOT) ASTM A74, DUCTILE IRON ANSI/A21.51, PVC SCHEDULE 40, ASTM D 2665, EXTRA STRENGTH PVC AWWA C-900 100 PSI MIN, DUCTILE IRON ANDI A 21.51, OR PVC ASTM 7 1760.
6. ALL PIPE USED BETWEEN THE SEPTIC TANK AND LEACHING AREA SHALL BE 4" SDR-35 PVC PIPE WITH WATERTIGHT JOINTS OR EQUIVALENT EQUAL. PIPE SHALL BE SET ON A MINIMUM SLOPE OF 1/4" PER FOOT.
7. STRIP AND STOCKPILE TOPSOIL AND REMOVE BOULDERS PRIOR TO PLACING FILL. ALL TOPSOIL MUST BE REMOVED IN FILL SYSTEMS.
8. THE MAXIMUM DEPTH OF THE BOTTOM OF A LEACHING SYSTEM BELOW FINISHED GRADE SHALL BE EIGHT (8) FEET. ANY FIELD CHANGES TO THE PROPOSED FINISH GRADE MUST BE APPROVED BY THE DESIGN ENGINEER AND THE LOCAL HEALTH DEPARTMENT.
9. SEPTIC TANK ACCESS SHALL BE OUTFITTED WITH 24" DIAMETER RISERS IF THE TOP OF THE TANK IS DEEPER THAN 12" FROM FINISHED GRADE.
10. RISER COVERS SHALL BE A MINIMUM WEIGHT OF 59 POUNDS OR A SECONDARY SAFETY LID AND LOCK SYSTEM SHALL BE PROVIDED TO PREVENT UNAUTHORIZED AND UNSUPERVISED ENTRANCE.
11. B&B ENGINEERING ASSUMES NO RESPONSIBILITY FOR COMPLIANCE WITH PLAN SPECIFICATIONS UNLESS B&B ENGINEERING SUPERVISES ALL PHASES OF THE INSTALLATION.
12. AS-BUILT DRAWING TO BE PREPARED BY PROFESSIONAL ENGINEER PRIOR TO BACKFILLING.
13. FINAL GRADING TO BE COMPLETED IMMEDIATELY AFTER COMPLETION OF AS-BUILT DRAWING.
14. THERE ARE NO WELLS WITHIN 75' OF PROPOSED SEPTIC SYSTEM.
15. THERE ARE NO STORM WATER DRAINAGE INFILTRATION SYSTEMS WITHIN 50' OF THE PROPOSED SEPTIC SYSTEM.

PROPOSED SEPTIC SYSTEM

DESIGN DATA

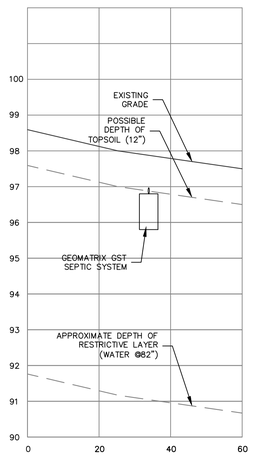
- 6 BEDROOM DWELLING
- SEPTIC TANK
  - MINIMUM VOLUME = 1,000+(3x125) = 1,375 GALLONS
  - USE MIN. 1,500 GALLON SEPTIC TANK
- PRIMARY SYSTEM
  - DESIGN PERCOLATION RATE: BETWEEN <10.0 MIN/INCH
  - ELA REQUIRED= 742.5 SF
  - USE 1 ROW- 76 LF OF GEOMATRIX GST 6212
  - ELA PROVIDED= 76 LF X 10 SF/LF = 760 SF PROVIDED

ELEVATIONS

INVERT AT HOUSE	98.10
SEPTIC TANK INLET INVERT	97.43
SEPTIC TANK OUTLET INVERT	97.10
BOTTOM ELEV. ROW	95.80

M.L.S.S.

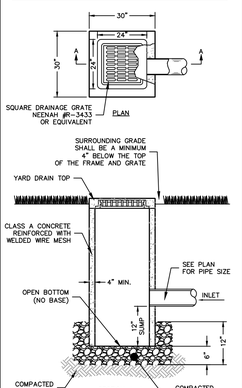
RESTRICTIVE LAYER			
DEEP TEST #	2	3	1
ELEVATION	98.1'	97.5'	97.4'
OBSERVED RL DEPTH	–	–	–
DESIGN RL DEPTH	60"	60"	60"
AVERAGE DESIGN RL	[(60+60)/2+60]/2= 60.0"		
HYDRAULIC FACTOR (HF)			
AVERAGE DESIGN RESTRICTIVE LAYER	60"		
SLOPE	1.0%		
DESIGN HYDRAULIC FACTOR	28		
PERCOLATION FACTOR (PF)			
PERCOLATION RATE	UPTO 10.0 MIN/INCH		
DESIGN PERCOLATION FACTOR	1.00		
FLOW FACTOR (FF)			
# OF BEDROOMS	6 BEDROOMS		
DESIGN FLOW FACTOR	450/200 = 2.25		
MINIMUM LEACHING SYSTEM SPREAD (M.L.S.S.)			
M.L.S.S.	(HF) x (PF) x (FF)		
M.L.S.S. REQUIRED	28 x 1.00 x 2.25= 63 LF		
M.L.S.S. PROVIDED	76 LF		



CROSS - SECTION 'A - A'

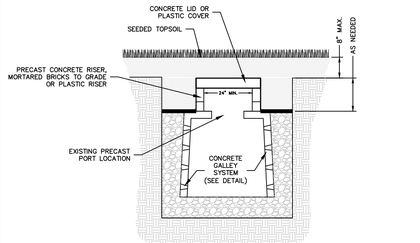
SCALE: HORIZ.1"=20'; VERT.1"=2'

30" YARD DRAIN OVERFLOW



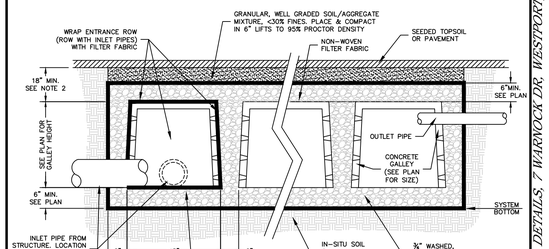
NOTES:
1. YARD DRAIN OVERFLOW IS NOT DESIGNED TO BE IN VEHICULAR TRAFFIC AREAS.
2. YARD DRAIN IS DESIGNED TO EXPEL WATER RATHER THAN ACCEPT WATER, THEREFORE, IT IS IMPERATIVE THAT THE SURROUNDING AREAS ARE GRADED TO NOT ALLOW SURFACE WATER FLOW TO ENTER.

CONCRETE GALLEY ACCESS MANHOLE



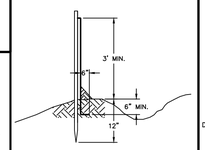
NOTES:
1. SEE PLAN FOR LOCATION OF MANHOLES, IN GENERAL THE ACCESS SHOULD BE LOCATED AT INLET AND OUTLET LOCATIONS, AND IN AREAS THAT PROVIDES ACCESS TO MAINTAIN THE ISOLATOR ROW, OR OTHER PERTINENT LOCATIONS.
2. MANHOLE SHALL BE LOCATED WHERE AN EXISTING PORT HAS BEEN PRECAST INTO THE CONCRETE UNIT.
3. IF A PLASTIC COVER IS SELECTED, THEN THE RISER MUST ALSO BE PLASTIC. THE COVER SHALL BE PROPERLY SCREWED AND ATTACHED TO THE RISER. A CONCRETE LID IS ACCEPTABLE TO BE USED ON A PLASTIC RISER, AS LONG AS THE RISER IS RATED TO HANDLE THE WEIGHT OF THE LID.
4. IF THE PRECAST PORT IS LOCATED WITHIN 8" OF FINISHED GRADE, A RISER IS NOT NEEDED.
5. CONTRACTOR SHALL TAKEN ACCURATE HORIZONTAL MEASUREMENTS TO THE MANHOLES ACCESSES FROM AT LEAST 3 PERMANENT CORNERS OF A STRUCTURE OR OTHER PERTINENT HARDSCAPE THAT WILL BE ABLE TO BE LOCATED ON A LAND SURVEY. MEASUREMENTS SHALL BE PROVIDED TO THE PROJECT ENGINEER AND SURVEYOR.

STORMWATER DETENTION SYSTEM



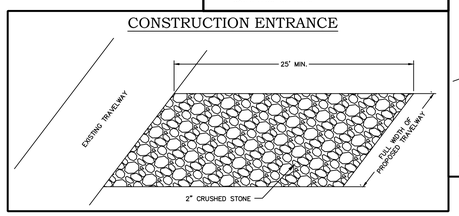
NOTES
1. SEE PLAN FOR QUANTITY, LOCATION, & ARRANGEMENT OF GALLEYS.
2. COVER MAY BE REDUCED IF GALLEYS ARE H-20 LOADING COMPLIANT. COORDINATE WITH SITE ENGINEER.
3. ALL TOPSOIL AND MISCELLANEOUS FILL SHALL BE REMOVED BELOW THE DETENTION AREA.
4. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
5. IF LEDGE OR GROUNDWATER IS ENCOUNTERED WHILE EXCAVATING FOR THE PROPOSED SYSTEM, THE DESIGN ENGINEER SHALL BE NOTIFIED IN ORDER TO DETERMINE IF FIELD CHANGES ARE NECESSARY.

SILT FENCE

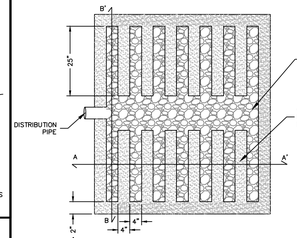


INSTALLATION NOTES:
1. EXCAVATE AND SECURE BOTTOM 8" OF SILT FENCE BELOW GRADE AS SHOWN.
2. EXCEPT FOR THE END POST, DRIVE ALL POSTS INTO THE GROUND AT BACK SIDE OF TRENCH SPACED A MAXIMUM OF 10 FT O. C.

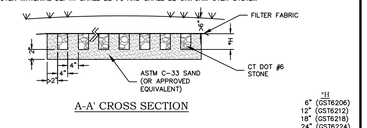
CONSTRUCTION ENTRANCE



GEOMATRIX GST LEACHING SYSTEM

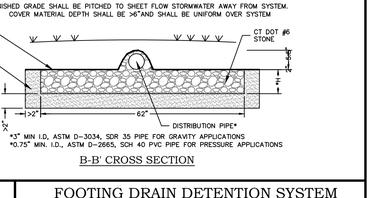


PLAN VIEW



A-A' CROSS SECTION

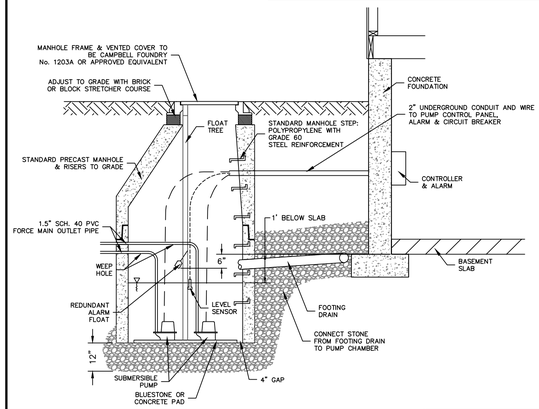
"H"
6" (GST6206)
12" (GST6212)
18" (GST6218)
24" (GST6224)
30" (GST6230)
36" (GST6236)



*3" MIN I.D, ASTM D-3034, SDR 35 PIPE FOR GRAVITY APPLICATIONS
*0.75" MIN. I.D., ASTM D-2665, SCH 40 PVC PIPE FOR PRESSURE APPLICATIONS

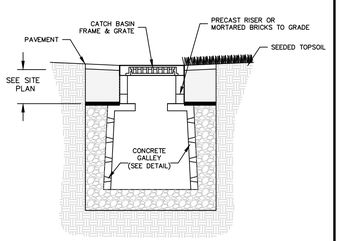
B-B' CROSS SECTION

DUPLEX FOOTING DRAIN PUMP SYSTEM



NOTES:
1. CHAMBER SHALL BE A STANDARD PRECAST CONCRETE MANHOLE WITH APPROPRIATE RISERS TO GRADE. ACCESS OPENING SHALL BE PROVIDED WITH A STANDARD MANHOLE FRAME AND LID. MANHOLE SHALL BE SUITABLE TO SUPPORT H-20 LOADING.
2. PUMPS SHALL BE LIBERTY MODEL 250 PUMP, 1/3 HP, 1.5" DISCHARGE PIPE, OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT PUMP SPECIFICATIONS TO DESIGN ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
3. CONTROLLER SHALL BE LIBERTY MODEL IPD-24L PROGRAMMED FOR ALTERNATING DUPLEX PUMP OPERATION.
4. FORCE MAINS SHALL BE 1.5" SOLID SCHEDULE 40 PVC WITH SOLVENT GLUED JOINTS. MAIN SHALL BE FREEZE PROTECTED BY LOCATING THE THE PIPE BELOW FROST LINE, ALLOWING BACK DRAINAGE INTO THE PUMP CHAMBER THROUGH A WEEP HOLE, OR OTHER APPROVED MEANS, SUCH AS INSULATION. NO DEPRESSIONS SHALL OCCUR WITHIN THE FORCE MAIN WHERE WATER COULD COLLECT BETWEEN PUMP CYCLES. BOTH PUMPS SHALL HAVE SEPARATE OUTLET FORCE MAINS.
5. A CHECK VALVE SHALL BE PROVIDED ON THE PUMP DISCHARGE LINE UNLESS THE PUMP MANUFACTURER DOES NOT REQUIRE ONE.
6. PIPE UNIONS, LIFT MECHANISM, AND MANHOLE LOCATION SHALL BE INSTALLED AND SITUATED TO ALLOW FOR CONVENIENT PUMP REMOVAL FOR ROUTINE MAINTENANCE. ELECTRICAL AND PUMP CONNECTIONS SHALL BE READILY ACCESSIBLE. A QUICK DISCONNECT DEVICE SHALL BE UTILIZED TO ALLOW FOR EASY REMOVAL OF THE PUMP FOR MAINTENANCE.
7. INTERNAL PUMP CHAMBER APPURTENANCES SHALL BE NON-CORROSIVE AND SUITABLE FOR A CORROSIVE EFFLUENT ENVIRONMENT.
8. ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN, PERMITTED FROM THE LOCAL BUILDING OFFICIAL.
9. A HIGH LEVEL ALARM, VISIBLE AND AUDIBLE, SHALL BE INSTALLED WITHIN THE HOME. THE HIGH LEVEL ACTUATOR SHALL BE A PRESSURE TRANSDUCER OR MECHANICAL FLOAT SWITCH, SET TO ACTIVATE THE ALARM WHEN WATER IS 6" BELOW THE LOWEST PORTION OF THE BASEMENT SLAB. THERE SHALL BE NO MERCURY SWITCHES USED.
10. CONTRACTOR SHALL INSTALL A THIRD WATER DRIVEN SUMP PUMP AS A BACKUP.

FOOTING DRAIN DETENTION SYSTEM



FOOTING DRAIN STORAGE CALCULATION

CALCULATION

- DESIGN SHALL BE BASED ON 0.05 CFS PUMP OUTFLOW PER DAY (TOWN OF WESTPORT STANDARDS)
- DETERMINE VOLUME OF WATER PUMPED FROM FOUNDATION PER DAY
  0.05 CFS (60 SEC/1 MIN) (60 MIN/1 HR) (24 HR/1 DAY) = 4,320 CF/DAY
- DETERMINE EXFILTRATION OF EXISTING SOILS PER DAY PER SF
  1"/2.5 MIN (1 FT/12 IN) (60 MIN/1 HR) (24 HR/1 DAY) = 48 FEET/SF/DAY
- SYSTEM DESIGN
  USE 2 UNITS OF 8x4x2 CONCRETE GALLERIES
  WETTED AREA OF SYSTEM = (2x4+2)x8x2 = 128 SF (ASSUME FULL SYSTEM)
  DAILY EXFILTRATION OF SYSTEM = 128 SF (48 FEET/SF/DAY) = 6,144 CF
  VOLUME OF SYSTEM = 8x4x2x2 = 128 CF
  VOLUME OF STONE= 127 CF
  TOTAL SYSTEM VOLUME OF STONE = 0.4x127 = 50.8 CF

  TOTAL SYSTEM DAILY VOLUME = 6,144 CF + 128 CF + 50.8 CF = 6,322.8 CF

  6,322.8 CF/DAY > 4,320 CF/DAY, SYSTEM IS SUFFICIENT

No.	Date	REVISION DESCRIPTION
1.	3/22/2022	DRIVEWAY AND DETENTION SYSTEM

B&B ENGINEERING
15 Research Drive
Woodbridge, CT 06525
P: (203) 881-8145
www.bbengrs.com
Land Surveying, Professional Engineering & Land Use Consultants

CONSTRUCTION NOTES AND DETAILS

OF

7 WARNOCK DR
WESTPORT, CONNECTICUT

PREPARED FOR

SIR DEVELOPMENT

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

BRYAN P. NESTERIAK, CT. P.E.,L.S. 23556

Date	11/2/2021
Scale	AS-NOTED
Job No.	1105
Drawing No.	2 of 2

DETAILS, 7 WARNOCK DR, WESTPORT, CT