

**SEDIMENTATION AND EROSION CONTROL MEASURES**

1. CLEAR TREES, BRUSH FROM AREA TO BE GRADED.
2. INSTALL SILT FENCE EROSION BARRIER (SEE PLAN).
3. FILL AND GRADE ONLY THOSE AREAS SHOWN ON PLAN.
4. REMOVE ALL STONES, STUMPS, ETC. FROM GRADED AREA, THEN PLACE LOAM TO A DEPTH OF 2 OR MORE INCHES.
5. DURING SEED BED PREPARATION, APPLY FERTILIZER AT THE RATE OF 7.5 LBS. PER 1000 SQUARE FEET USING 10-10-10 OR EQUIVALENT.
6. SEED ALL EXPOSED AREAS WITH THE FOLLOWING SEED MIXTURE:  
 KENTUCKY BLUEGRASS 2.25 LBS/1000 SQ. FT.  
 CREEPING RED FESCUE 2.25 LBS/1000 SQ. FT.  
 PERENNIAL RYEGRASS .50 LBS/1000 SQ. FT.
7. AFTER SEEDING, MULCH SHOULD BE APPLIED TO EXPOSED AREAS. STRAW AND HAY MULCHES REQUIRE ANCHORING. THIS MAY BE ACCOMPLISHED BY THE USE OF A MULCHING ANCHORING TOOL, LIQUID MULCH BINDER, OR BY DRIVING TRACKED EQUIPMENT UP AND DOWN THE SLOPE KEEPING THE TRACK CLEATS PERPENDICULAR TO THE SLOPE.
8. WHERE VEGETATIVE COVER HAS NOT BEEN ESTABLISHED PRIOR TO OCTOBER 30, APPLY JUTE MESH AS PER CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
9. ALL INSTALLATION AND SEDIMENTATION AND EROSION CONTROL MEASURES MUST BE MAINTAINED UNTIL THE AREA IS ESTABLISHED. INSPECTIONS SHOULD BE MADE AT LEAST ONCE A WEEK AND AFTER EACH RAIN.

**CONSTRUCTION NOTES FOR SEPTIC SYSTEM**

1. REMOVE TOPSOIL FROM SYSTEM AREA AND STORE ON-SITE FOR FUTURE USE.
2. ENGINEER TO SET A BENCHMARK AND STAKE SEPTIC SYSTEM PRIOR TO CONSTRUCTION. ENGINEER TO AS-BUILT SEPTIC SYSTEM COMPONENTS PRIOR TO BACKFILL AND PRODUCE AN AS-BUILT MAP. CONTRACTOR TO NOTIFY ENGINEER (3) BUSINESS DAYS IN ADVANCE FOR REQUEST TO PERFORM STAKEOUT OR AS-BUILT SURVEYS.
3. PRIOR TO FILL PLACEMENT, KEEP HEAVY EQUIPMENT TRAFFIC TO A MINIMUM IN SYSTEM AREA TO AVOID COMPACTION OF SUBSOIL. SCARIFY SUBSOIL WHERE COMPACTIONED OR IF HEAVY RAIN FALLS DURING CONSTRUCTION WHEN SUBSOIL IS EXPOSED.
4. ANY UNSUITABLE MATERIAL ENCOUNTERED BELOW TOPSOIL TO BE REMOVED. AREA TO BE INSPECTED AND APPROVED BY DESIGN ENGINEER AND TOWN SANITARIAN PRIOR TO PLACEMENT OF FILL.
5. PLACE APPROVED FILL TO CONTOURS SHOWN IN 6" LIFTS. FILL IN SYSTEM AREA TO BE APPROVED BY TOWN SANITARIAN AND DESIGN ENGINEER, AND CONFORM TO THE FOLLOWING GRADATION DETERMINED BY WASHED SIEVE ANALYSIS:  
 A. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE #3 SIEVE.  
 B. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE.  
 C. THE MATERIAL THAT PASSES THE #4 SIEVE IS THE REFINISHED AND THE SIEVE ANALYSIS STARTED.  
 D. THE REMAINING MATERIAL SHALL MEET THE FOLLOWING GRADATION CRITERIA:

SIEVE SIZE	PERCENT PASSING	
	WET SIEVE	DRY SIEVE
#4	100	100
#10	70-100	70-100
#40	10-50*	10-75
#100	0-20	0-15
#200	0-5	0-2.5

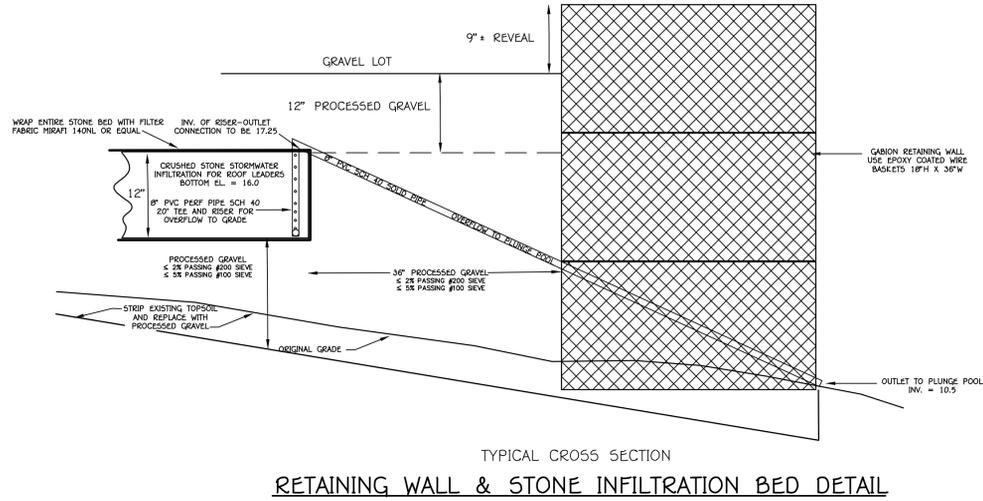
- \* PERCENT PASSING THE #40 CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
- 6. EXCAVATE AND INSTALL LEACHFIELD OR GALLERY. LEACHFIELD OR GALLERY MUST BE INSPECTED BY TOWN SANITARIAN BEFORE BACKFILLING.
- 7. AFTER BACKFILLING SYSTEM, GRADE, LOAM AND SEED ALL EXPOSED AREAS IMMEDIATELY. ALL SEEDING MUST BE COMPLETE PRIOR TO SEPTEMBER 15.
- 8. IMPLEMENT STEPS 5-9 OF SEDIMENTATION & EROSION CONTROL MEASURES.

**GRADATION TABLE FOR ASTM C-33 SAND TO BE USED IN GEOMATRIX PRODUCTS**

SIEVE SIZE	PERCENT PASSING
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#50	10-30
#100	2-10
#200	0-3

**GRADATION TABLE FOR CRUSHED AGGREGATE FILL TO BE USED AS COVER OVER GEOMATRIX PRODUCTS**

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
1 1/2"	100	#4	50-100
3/4"	100	#10	25-50
#4	50-100	#40	10-20
#10	25-50	#100	5-15
#40	10-20	#200	<10
#100	5-15		
#200	<10		



**SUBSURFACE SEWAGE DISPOSAL SYSTEM REPAIR CRITERIA**

EXISTING SANITARY SYSTEM SERVED COMMERCIAL STRUCTURE PRIOR TO CONSTRUCTION WAS 6,310 SF PER TOWN RECORDS

ALL EXISTING AND PROPOSED EFFECTIVE LEACHING AREA CALCULATED BASED ON FILL PERCOLATION RATE = 11.0 MIN./INCH

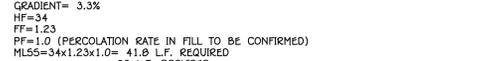
DESIGN FLOW FROM EXISTING USE = 6,310 SF X .01 = 631 GPD  
 EFFECTIVE LEACHING AREA REQUIRED FOR EXISTING USE = 631 GPD / 1.5 GAL/SF/D = 421 SF

PROPOSED: 2-ONE BEDROOM APARTMENTS = 300 GPD = 375 SF EFFECTIVE LEACHING AREA  
 690 SF GARAGE/OFFICE W/BATHROOM = 69 GPD (690 SF X 1 GAL/SF) = 46 SF EFFECTIVE LEACHING AREA (69 GAL/1.5 GAL/SF)

PROPOSED DAILY DESIGN FLOW = 300 GPD RESIDENTIAL + 69 GPD COMMERCIAL = 369 GPD  
 PROPOSED REQUIRED EFFECTIVE LEACHING AREA = 369 GPD / 1.5 GAL/SF/D = 246 SF

DESIGN PERCOLATION RATE = <10.0 MIN./IN. (IN FILL)  
 PROVIDE 2 RUNS 60 L.F. GEOMATRIX GST 6206 (120 L.F. TOTAL)  
 120 L.F. X 5.9 S.F./L.F. = 708 S.F. LEACHING AREA PROVIDED  
 1,500 GAL SEPTIC TANK REQUIRED AND PROVIDED

NCR MISS CALCULATION  
 RESTRICTIVE LAYER = EXISTING GROUND SURFACE IN WETLAND  
 PLACE 24" SELECT FILL UNDER SYSTEM  
 RECEIVING SOIL DEPTH = 24" + 6" = 30"  
 GRADIENT = 3.3%  
 HF = 34  
 FF = 1.23  
 PF = 1.0 (PERCOLATION RATE IN FILL TO BE CONFIRMED)  
 MISS = 34 x 1.23 x 1.0 = 41.8 L.F. REQUIRED  
 60 L.F. PROVIDED



**ANTI-TRACKING APRON**  
 (NOT TO SCALE)

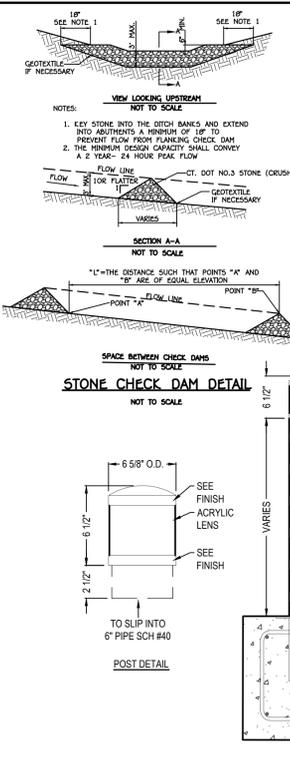
**1,000 GALLON PUMP CHAMBER**

TANK DESIGN SPECIFICATION CONFORMS TO LATEST ASTM DESIGNATION C913

- NOTES:
1. JOINT SEALANT IS BUTYL RUBBER MASTIC TYPE SEAL THAT CONFORMS TO THE LATEST AASHTO SPECIFICATION M-198. MEETS FEDERAL SPECIFICATION 55-5-0021(210-A).
  2. PIPE INLET AND OUTLET LOCATIONS HAVE POLYLOK II PIPE SEALS, TYP. CUSTOM KNOCKOUTS CAN BE CAST ON REQUEST.
  3. WHEN SPECIFIED THE TANK EXTERIOR IS COATED WITH BAY OIL, "EBONY" OR EQUAL.
  4. WHEN SPECIFIED THE TANK INTERIOR IS COATED WITH FLOXOR EPOXY OR EQUAL.
  5. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPECIFICATION A615.
  6. CONCRETE COMPRESSIVE STRENGTH-4000 PSI AT 28 DAYS.
  7. METHOD OF MANUFACTURE: WET CAST.
  8. SECTIONS ARE MONOLITHIC.
  9. THE CHAMBER IS DESIGNED FOR HS-20 LOADING W/18" OF SOIL COVER.

**WEIGHT CHART**

PRODUCT	APPROX WEIGHT
TANK	14,300 LBS.



**1,000 GAL. H-20 PUMP CHAMBER DETAIL**

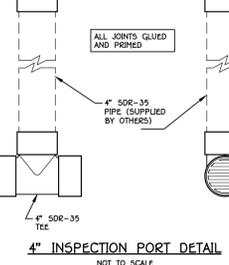
UNITED CONCRETE 1,000 GAL. PUMP CHAMBER (8'0" X 6'0" X 3'4") INSIDE DEPTH = 4' 1 3/4" + 4" WALLS 7.75' X 5.5' X 0.17" = 7.25 CF. 7.25 CF. X 7.48 GAL/CF = 54.2 GAL./DOSE STORAGE VOLUME OF GST 6206 = 4.52 GAL./L.F. 4.52 GAL./L.F. X 120 L.F. = 542 GAL. STORAGE CAPACITY 54.2 GAL./542 GAL. = 0.1 (10%) OF INTERNAL STORAGE PER DOSE

**STORAGE VOLUME ABOVE ALARM AND BELOW INVERT OF INLET = 29.5' X 3.55' C/F INCH = 104.7 CF 104.7 CF X 7.48 GAL/CF = 783.2 GAL. 783.2 GAL. / 369 GPD (DESIGN FLOW) = 2.12 212% OF DAILY DESIGN FLOW IS PROVIDED IN EMERGENCY STORAGE PUMP CHAMBER AND SEPTIC TANK TO BE TESTED TO SATISFACTION OF ENGINEER AND SANITARIAN TO INSURE BOTH ARE WATER TIGHT**

- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  2. DO NOT SCALE DRAWING.

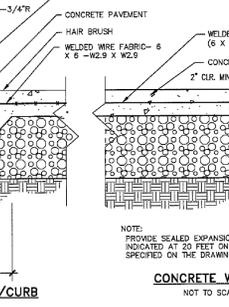
**LIGHTED BOLLARDS DETAIL**

(NOT TO SCALE)



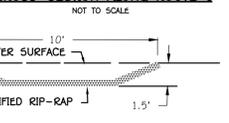
**4" INSPECTION PORT DETAIL**

(NOT TO SCALE)



**TYPICAL MONOLITHIC SIDEWALK CROSS-SECTION ALONG ROUTE 1**

(NOT TO SCALE)



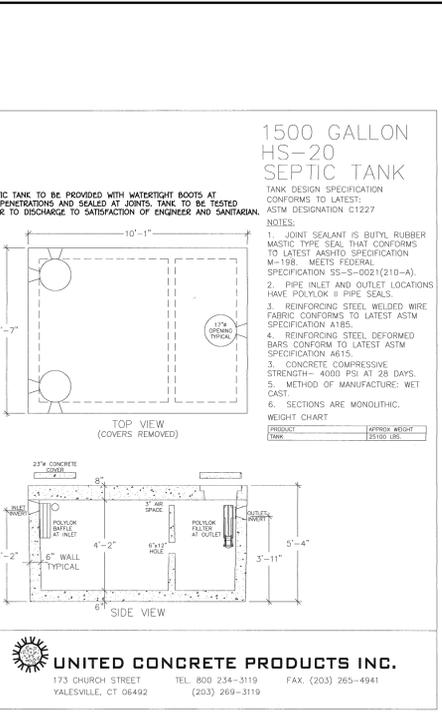
**PLUNGE POOL DETAIL**

(NOT TO SCALE)



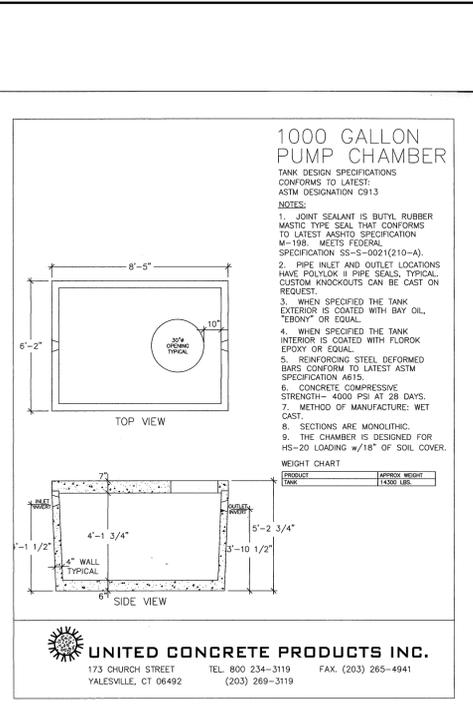
**FULL CUT OFF WALL PACK LIGHTING DETAIL**

(NOT TO SCALE)



**UNITED CONCRETE PRODUCTS INC.**

173 CHURCH STREET TEL. 803 234-3119 FAX. (203) 265-4941  
 YALESVILLE, CT 06492 (203) 269-3119

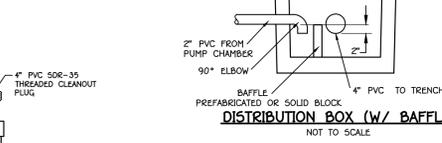


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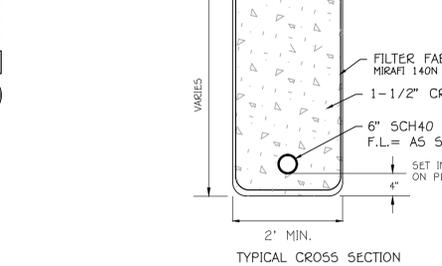
**DISTRIBUTION BOX (W/ BAFFLE)**

(NOT TO SCALE)



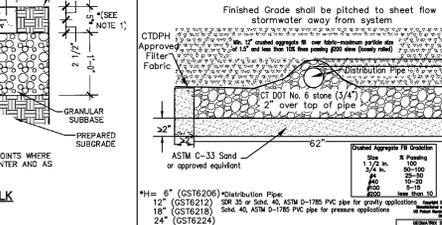
**TYPICAL CROSS SECTION**

(NOT TO SCALE)



**CURTAIN DRAIN DETAIL**

(NOT TO SCALE)



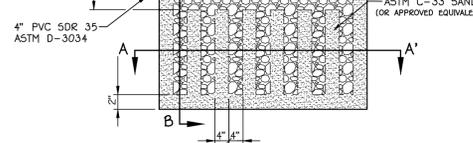
**GEOMATRIX GST 6206 LEACHING SYSTEM**

(NOT TO SCALE)



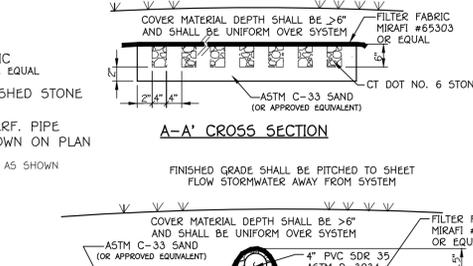
**PLAN VIEW**

(NOT TO SCALE)



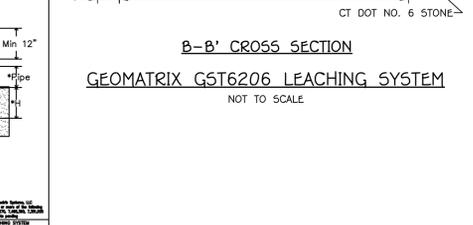
**A-A' CROSS SECTION**

(NOT TO SCALE)



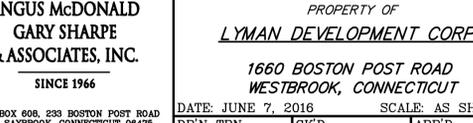
**B-B' CROSS SECTION**

(NOT TO SCALE)



**COASTAL SITE PLAN**

(NOT TO SCALE)



STUART J. FAIRBANK  
 CONN. P.E. #20206

LAND & MARINE  
 SURVEYING  
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ANGUS McDONALD  
 GARY SHARPE  
 & ASSOCIATES, INC.  
 SINCE 1966

1660 BOSTON POST ROAD  
 WESTBROOKE, CONNECTICUT 06492  
 TEL. (860) 388-4671 FAX (860) 388-3962

DATE: JUNE 7, 2016 SCALE: AS SHOWN  
 DRN TRN CK'D APP'D  
 SHEET 2 of 2 JOB NO. 166185

REVISIONS: 7-18-16: TOWN SANITARIAN COMMENTS 8-9-16: STATE HEALTH DEPT.  
 8-18-16: CURTAIN DRAIN, 10'-1-2016 PLUNGE POOL, DET. ADDED, 10-18-16: REVISED PER COMMENTS  
 12-3-16, 1-30-20: COASTAL RESOURCES, 3-5-20: DRAINAGE FEAT., 4-17-20: LIGHTING DETAILS