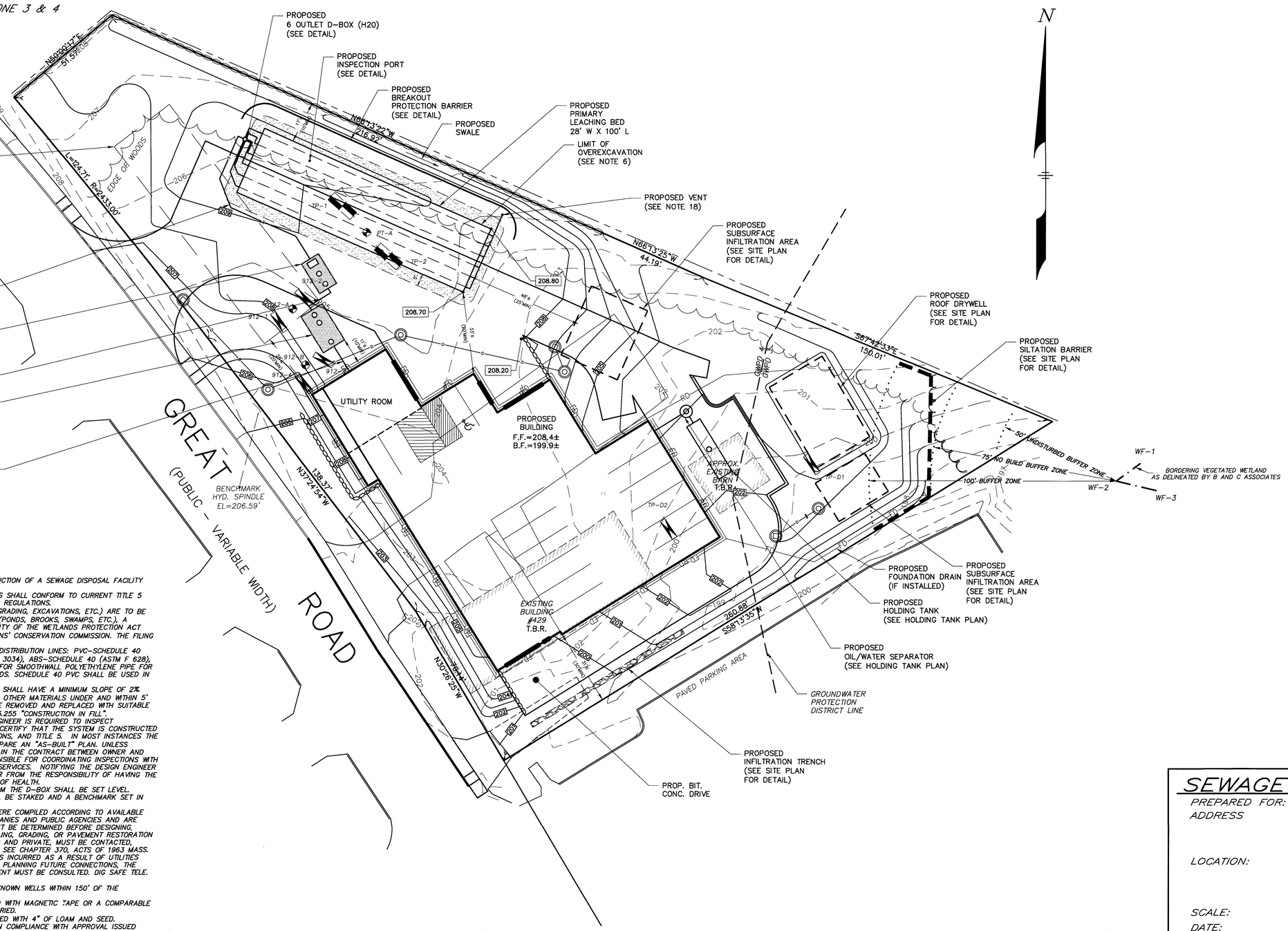
PLAN VIEW:

SCALE: 1"=20'
ZONING DISTRICT: LIMITED BUSINESS
GROUNDWATER PROTECTION ZONE 3 & 4

LEGEND

F.F.=FIRST FLOOR
B.F.=BASEMENT FLOOR

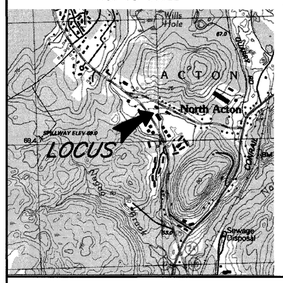


NOTES:

1. THIS PLAN IS FOR THE DESIGN AND CONSTRUCTION OF A SEWAGE DISPOSAL FACILITY ONLY.
2. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO CURRENT TITLE 5 REGULATIONS AND ACTON BOARD OF HEALTH REGULATIONS.
3. IF ALTERATIONS (REMOVAL OF VEGETATION, GRADING, EXCAVATIONS, ETC.) ARE TO BE MADE WITHIN 100 FEET OF WETLAND AREAS (PONDS, BROOKS, SWAMPS, ETC.), A REQUEST FOR DETERMINATION OF APPLICABILITY OF THE WETLANDS PROTECTION ACT (c131, s40) SHOULD BE FILED WITH THE TOWNS' CONSERVATION COMMISSION. THE FILING OF A NOTICE OF INTENT MAY BE REQUIRED.
4. ACCEPTABLE MATERIAL SPECIFICATIONS FOR DISTRIBUTION LINES: PVC-SCHEDULE 40 (ASTM D 1785 & D 2665), SDR 35 (ASTM D 3034), ABS-SCHEDULE 40 (ASTM F 628), HDPE-SHALL MEET OR EXCEED ASTM F 810 FOR SMOOTHWALL POLYETHYLENE PIPE FOR USE IN DRAINAGE AND WASTE DISPOSAL FIELDS. SCHEDULE 40 PVC SHALL BE USED IN AREAS SUBJECT TO VEHICULAR TRAFFIC.
5. FINISHED GRADES OVER THE LEACHING AREA SHALL HAVE A MINIMUM SLOPE OF 2%
6. ALL TOPSOIL, SUBSOIL, FILL, BOULDERS, AND OTHER MATERIALS UNDER AND WITHIN 5' OF THE PROPOSED LEACHING AREA SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL ACCORDING TO TITLE V SECTION 15.255 "CONSTRUCTION IN FILL".
7. PER TITLE 5 REQUIREMENTS, THE DESIGN ENGINEER IS REQUIRED TO INSPECT CONSTRUCTION OF THE SEPTIC SYSTEM AND CERTIFY THAT THE SYSTEM IS CONSTRUCTED ACCORDING TO THE PLANS, LOCAL REGULATIONS, AND TITLE 5. IN MOST INSTANCES THE DESIGN ENGINEER IS ALSO REQUIRED TO PREPARE AN "AS-BUILT" PLAN. UNLESS OTHERWISE SPECIFICALLY STATED IN WRITING IN THE CONTRACT BETWEEN OWNER AND INSTALLER, THE INSTALLER SHALL BE RESPONSIBLE FOR COORDINATING INSPECTIONS WITH THE DESIGN ENGINEER AND PAY FOR THESE SERVICES. NOTIFYING THE DESIGN ENGINEER DOES NOT RELIEVE THE OWNER OR INSTALLER FROM THE RESPONSIBILITY OF HAVING THE REQUIRED INSPECTIONS ETC. BY THE BOARD OF HEALTH.
8. THE FIRST TWO FOOT SECTIONS OF PIPE FROM THE D-BOX SHALL BE SET LEVEL.
9. THE SYSTEM, INCLUDING SEPTIC TANK, SHALL BE STAKED AND A BENCHMARK SET IN THE FIELD BY THE DESIGN ENGINEER.
10. ALL UNDERGROUND UTILITIES SHOWN HERE WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED BEFORE DESIGNING, EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, OR PAVEMENT RESTORATION OR REPAIR. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED, INCLUDING THOSE IN CONTROL OF UTILITIES. SEE CHAPTER 370, ACTS OF 1963 MASS. WE ASSUME NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS, THE APPROPRIATE UTILITY ENGINEERING DEPARTMENT MUST BE CONSULTED. DIG SAFE TELE. NO.: 1-888-344-7233.
11. UNLESS OTHERWISE SHOWN, THERE ARE NO KNOWN WELLS WITHIN 150' OF THE PROPOSED SEWAGE DISPOSAL SYSTEM.
12. ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
13. ALL DISTURBED SURFACES SHALL BE RESTORED WITH 4" OF LOAM AND SEED.
14. EFFLUENT TEE FILTER SHALL BE INSTALLED IN COMPLIANCE WITH APPROVAL ISSUED AUGUST 11, 1997. COVER SHALL BE PERMANENTLY MARKED "EFFLUENT TEE FILTER".
15. ALL SEWER MANHOLES AT FINISHED GRADE SHALL BE SECURED TO PREVENT UNAUTHORIZED ACCESS.
16. THE EXISTING SEPTIC TANK SHALL BE PUMPED, RUPTURED AND FILLED WITH CLEAN SAND. IF THE EXISTING LEACH FIELD IS ENCOUNTERED, SOIL SPOILS MAY BE PLACED AS GENERAL FILL WITH ONE FOOT OF COVER. THE REMAINDER OF THE LEACH FIELD MAY BE ABANDONED IN PLACE.
17. 1/4 C.Y. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS IN THE FORCE MAIN.
18. PROPOSED VENT MAY BE RELOCATED UPON OWNERS REQUEST AND MAY ALSO BE REPLACED WITH AN ALTERNATIVE DESIGN, AVAILABLE FROM VARIOUS MANUFACTURES.

LOCUS PLAN:

NOT TO SCALE



INVERT ELEVATIONS

4" INV. @ BUILDING	= 205.00
4" INV. @ SEPTIC TANK (IN)	= 204.76
4" INV. @ SEPTIC TANK (OUT)	= 204.51
4" INV. @ PUMP CHAM. (IN)	= 204.36
2" INV. @ PUMP CHAM. (OUT)	= 204.11
2" INV. @ D.BOX (IN)	= 207.67
4" INV. @ D.BOX (OUT)	= 207.50
PRIMARY LEACHING FACILITY:	
4" INV. @ BEGIN LINE	= 207.40
4" INV. @ END LINE	= 206.90
BOTTOM STONE	= 205.90
RESERVE LEACHING FACILITY:	
4" INV. @ BEGIN LINE	= 207.40
4" INV. @ END LINE	= 206.90
BOTTOM STONE	= 205.90

DESIGN DATA:

DESIGN FLOW:

600S.F. RETAILX50GPD/1000S.F.=30 GPD
4 SERVICE BAYSX150 GPD/BAY=600 GPD
TOTAL REQUIRED = 630 GPD
TOTAL PROVIDED = 1,999 GPD

REQUIRED SEPTIC TANK:

REQUIRED: 3,998 & 1,999 GAL=5,997 GAL
PROVIDED: 4,000 & 2,000 GAL=6,000 GAL

REQUIRED SIZE SOIL ABSORPTION SYSTEM: (PRIMARY & RESERVE)

PT-A = <2 MPI CLASS I SOIL
1,999 GPD/0.74 GPD/S.F. = 2,702 S.F.
1,000 S.F. MIN PER ACTON BOH

TYPE AND SIZE OF SOIL ABSORPTION SYSTEM PROVIDED:

PRIMARY & RESERVE:
STONE BED CONFIGURATION
100'L x 28'W = 2,800 S.F.
2,800 S.F. > 2,702 S.F. O.K.

SEWAGE DISPOSAL PLAN

PREPARED FOR: COUNTRY PROPERTIES, LLC
ADDRESS: 6 PROCTOR STREET
ACTON, MA 01720
(978) 430-4000
LOCATION: 429 GREAT ROAD
ACTON, MA 01720
MAP C5 PARCEL 67

SCALE: AS SHOWN
DATE: MAY 16, 2016

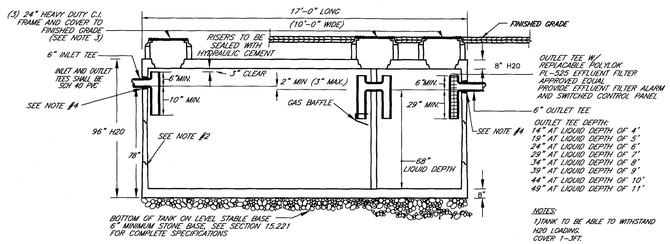
COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH 36364 PROFESSIONAL LAND SURVEYOR

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER

PREPARED BY:

STAMSKI AND McNARY, INC.
CIVIL ENGINEERS LAND SURVEYORS
1000 MAIN STREET - ACTON, MA 01720
(978) 263-8585

DESIGNED BY: JTM DRAWN BY: JTM JOB No. SM-5369 FILE: 5369 SITE-5.DWG
SHEET 1 OF 2



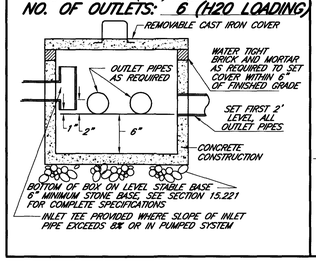
NOTES:
1) TANK TO BE ABLE TO WITHSTAND H20 LOADING. COVER 1'-3FT.
2) TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY BE INCREASED SLIGHTLY DUE TO THE BUTYL USED.
3) ALL MANHOLE COVERS SHALL HAVE A RUBBER GASKET.
4) ALL PIPE CONNECTIONS SHALL BE MADE WATERTIGHT BY USE OF A BOOT, HYDRAULIC CEMENT OR COMPARABLE MEANS. EXPANDABLE FORM SPRAY IS NOT ACCEPTABLE.

6,000 GALLON SEPTIC TANK DETAIL (H20 LOADING)

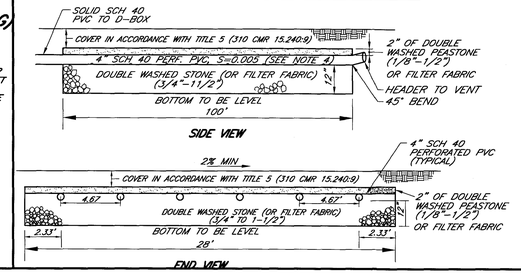
TANK SHALL CONFORM TO TITLE 5 (2014) REQUIREMENTS.
N.T.S.
AS MANUFACTURED BY SHEA CONCRETE OR APPROVED EQUAL

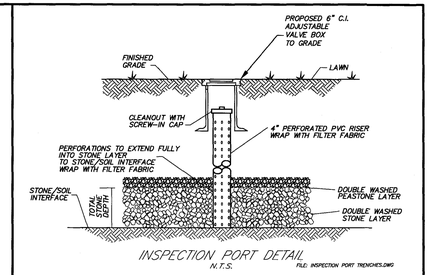
D.BOX DETAIL: N.T.S.

TO CONFORM TO TITLE 5 (2014) REQUIREMENTS
NO. OF OUTLETS: 6 (H20 LOADING)



SOIL ABSORPTION SYSTEM:



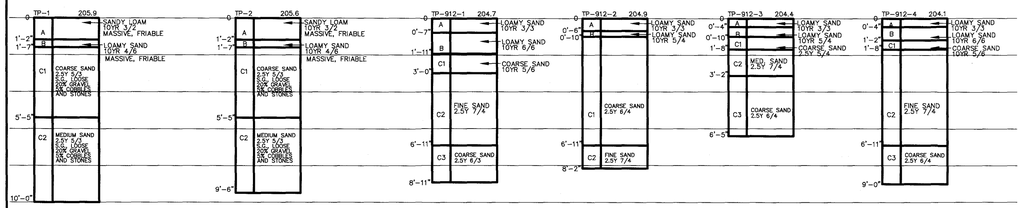


INSPECTION PORT DETAIL
N.T.S.
FILE: INSPECTION PORT TRENCHES.DWG

TEST PIT DATA:

DATE OF TESTING: 2/23/16
TEST BY: STAMSKI AND McNARY, INC.
CERT. SOIL EVAL.: JAMES MELVIN, SE 13716
WITNESSED BY: EVAN CARLONI

DATE OF TESTING: 9/25/12
TEST BY: ACTON SURVEY AND ENGINEERING, INC.
CERT. SOIL EVAL.: MARK DONOHOE
WITNESSED BY: SHERYL BALL



PERC. TEST DATA:

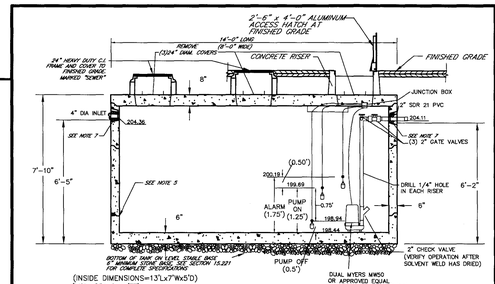
DATE OF TESTING: 2/23/16
TEST BY: STAMSKI AND McNARY, INC.
CERT. SOIL EVAL.: JAMES MELVIN, SE 13716
WITNESSED BY: EVAN CARLONI

PT-14-A
DEPTH OF TEST: 48"
RATE: <2 MPI

DATE OF TESTING: 9/25/12
TEST BY: ACTON SURVEY AND ENGINEERING, INC.
CERT. SOIL EVAL.: MARK DONOHOE
WITNESSED BY: SHERYL BALL

PT-912-A
DEPTH OF TEST: 43"
RATE: <2 MPI

PT-912-B
DEPTH OF TEST: 50"
RATE: <2 MPI

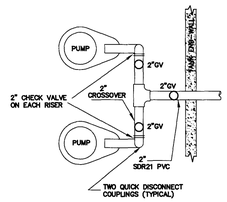


(INSIDE DIMENSIONS=13'Lx7'Wx5'D)
(VOL.=681 GAL/FT)

NOTES:
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227-93.
4. DESIGNED FOR H-20 LOADING.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.
6. TEES AND BAFFLES SOLD SEPARATELY.
7. ALL PIPE CONNECTIONS SHALL BE MADE WATERTIGHT BY USE OF A BOOT, HYDRAULIC CEMENT OR COMPARABLE MEANS. EXPANDABLE FORM SPRAY IS NOT ACCEPTABLE.

COMMERCIAL LINE 3500 GALLON PUMP CHAMBER (H20)

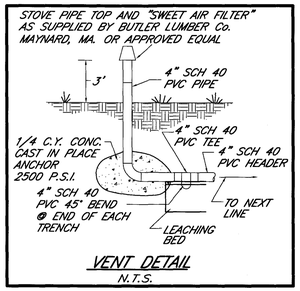
TANK SHALL CONFORM TO TITLE 5 REQUIREMENTS.
N.T.S.
AS MANUFACTURED BY SHEA CONCRETE OR APPROVED EQUAL



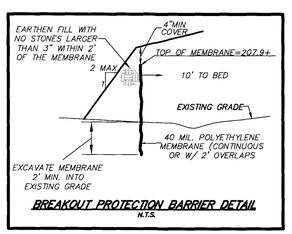
PUMP DETAIL

NOT TO SCALE

PUMP NOTES:
1. DESIGN REQUIREMENTS
   PUMP CHAMBER CAPACITY:
   REQ'D : 3181 GAL
   PROVIDED : 3915 GAL
   DOSING:
   PROVIDED : 506 GAL (INCLUDES DRAIN BACK)
   PUMPING CURVE DATA:
   RATE : 80 GPM
   TDH : 17.0'
2. PUMPS SHALL ALTERNATE EACH CYCLE.
3. PUMPS AND PUMP ALARMS SHALL BE WIRED ON SEPARATE CIRCUITS.
4. THE PUMP ALARM AND PUMP CONTROL PANEL SHALL BE MOUNTED WITHIN A SHED IN A READILY AUDIBLE AND OBSERVABLE LOCATION SELECTED BY THE OWNER.
5. THERE WILL BE 2839 GAL OF STORAGE ABOVE THE NORMAL OPERATING LEVEL. (ALARM ON TO INV IN)
6. PUMP SIZES SUBJECT TO VERIFICATION BY SUPPLIER
7. ALL PUMPS AND CONTROLS SHALL BE SUPPLIED BY THE SAME SUPPLIER.
8. THE SYSTEM SHALL BE PRESSURE TESTED PRIOR TO BACKFILLING.
9. PUMPS SHALL OPERATE IN THE FOLLOWING SEQUENCE
   A.) PUMPS OFF
   B.) PRIMARY (LEAD) PUMP ON
   C.) BACKUP (LAG) PUMP ON AND ALARM ON
   D.) PUMPS MUST ALTERNATE

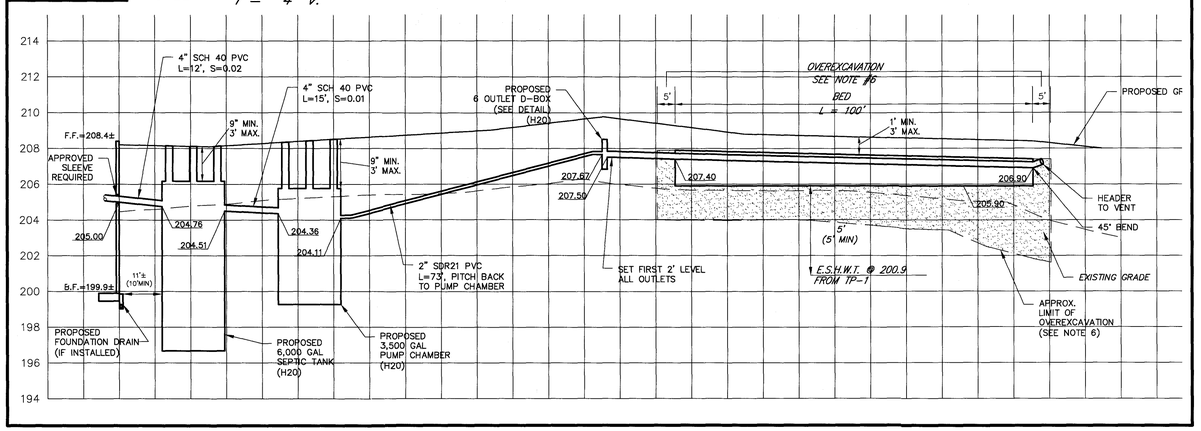


VENT DETAIL
N.T.S.



BREAKOUT PROTECTION BARRIER DETAIL
N.T.S.

PROFILE: SCALE: 1"= 20' H. 1"= 4' V.



SEWAGE DISPOSAL PLAN

PREPARED FOR:	COUNTRY PROPERTIES, LLC
ADDRESS	6 PROCTOR STREET
	ACTON, MA 01720
	(978) 430-4000
LOCATION:	429 GREAT ROAD
	ACTON, MA 01720
	MAP C5 PARCEL 67
SCALE:	AS SHOWN
DATE:	MAY 16, 2016

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 PROFESSIONAL LAND SURVEYOR

PREPARED BY:

STAMSKI AND McNARY, INC.
CIVIL ENGINEERS LAND SURVEYORS
1000 MAIN STREET - ACTON, MA 01720
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COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: JTM DRAWN BY: JTM JOB No. SM-5369 FILE: 5369 SITE-5.DWG