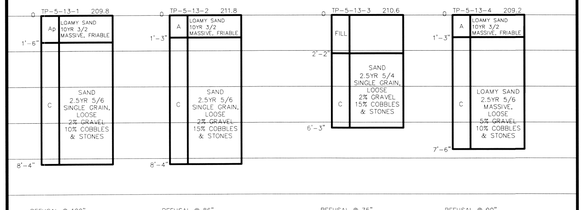
TEST PIT DATA:

DATE OF TESTING: 5/21/13
TEST BY: STAMSKI AND MCNARY,INC.
CERT. SOIL EVAL.: BENJAMIN EWING (2005)
WITNESSED BY: EVAN CARLONI



PERC. TEST DATA:

DATE OF TESTING: 5/21/13
CERT. SOIL EVAL.: BENJAMIN EWING
TEST BY: STAMSKI AND MCNARY, INC.
WITNESSED BY: EVAN CARLONI

PT-5-13-A
DEPTH OF TEST: 39"
RATE: <2 MIN/IN

PT-5-13-B
DEPTH OF TEST: 40"
RATE: <2 MIN/IN

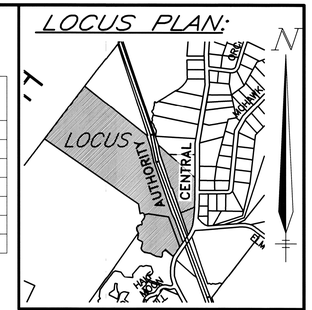
PT-5-13-C
DEPTH OF TEST: 40"
RATE: <2 MIN/IN

LEACHING AREA:

ZONE A:

LINE #	CHAM. LENGTH (FT)	2"INV.@ LATERALS	BOTTOM CHAM.	PERF. SPACING (FT)	# PERF.	PERF. DIA. (IN)	LAT. DIA. (IN)
A1	88	211.47	211.22	4.40	20	5/16	2
A2	88	211.47	211.22	4.40	20	5/16	2
A3	88	211.47	211.22	4.40	20	5/16	2
A4	88	211.47	211.22	4.40	20	5/16	2
A5	88	211.47	211.22	4.40	20	5/16	2
A6	88	211.47	211.22	4.40	20	5/16	2
A7	88	211.47	211.22	4.40	20	5/16	2

LOCUS PLAN:



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 TITLE 5 AND THE ACTON BOARD OF HEALTH REGULATIONS. ALL WORK WITHIN THE MBTA LAND SHALL CONFORM TO MBTA STANDARDS AND IS SUBJECT TO THEIR APPROVAL.

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 s40A) SHOULD BE FILED WITH THE TOWN'S CONSERVATION COMMISSION. THE FILING OF A NOTICE OF INTENT MAY BE REQUIRED AND LOCAL BYLAWS MAY APPLY.

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 SMOOTH WALL POLYETHYLENE PIPE FOR USE IN DRAINAGE AND WASTE DISPOSAL FIELDS. SCHEDULE 40 PVC SHALL BE USED IN AREAS SUBJECT TO VEHICULAR TRAFFIC, SCHEDULE 80 PVC WITHIN MBTA LAND.

5. UNLESS OTHERWISE SHOWN, THERE ARE NO KNOWN WELLS WITHIN 150' OF THE PROPOSED SEWAGE DISPOSAL SYSTEM.

6. PER TITLE 5 REQUIREMENTS, THE DESIGN ENGINEER IS REQUIRED TO INSPECT THE 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.

7. FINISHED GRADE OVER THE LEACHING AREA SHALL HAVE A MINIMUM SLOPE OF 2%.

8. INSTALLER SHALL FIELD VERIFY ELEVATIONS PRIOR TO THE INSTALLATION OF THE SOIL ABSORPTION SYSTEM OR TANKS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE PROCEEDING.

9. 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. D.I.G. SAFE TELE. NO.: 1-888-344-7233

10. EXISTING LEACHING FIELD MAY BE ABANDONED IN PLACE, UNLESS IT IS ENCOUNTERED IN EXCAVATION AT WHICH POINT STONE AND SOIL SHALL BE EXCAVATED AND REPLACED WITH SAND IN ACCORDANCE WITH TITLE V (2006) SECTION 15.255 "CONSTRUCTION IN FILL". SOIL SPOILS MAY BE PLACED AS GENERAL FILL WITH ONE FOOT OF COVER.

11. ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED. (SEE 310 CMR 15.222)

12. THE CULTEC SYSTEM HAS BEEN CERTIFIED FOR GENERAL USE: THIS SYSTEM SHALL BE INSTALLED AND OPERATED IN COMPLIANCE WITH THE MODIFIED CERTIFICATION FOR GENERAL USE REVISED FEBRUARY 2, 2010.

13. ALL DISTURBED SURFACES SHALL BE RESTORED WITH 4" OF LOAM AND SEED. PAVEMENT WHICH IS DISTURBED SHALL BE REPLACED IN KIND.

14. SEWER MANHOLES BROUGHT TO FINISH GRADE SHALL BE SECURED TO PREVENT UNAUTHORIZED ACCESS.

15. ALL TOP, 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 (2006) SECTION 15.255 "CONSTRUCTION IN FILL".

16. THE FORCE MAIN IS PROPOSED TO BE DIRECTIONALLY DRILLED UNDER THE MASSACHUSETTS BAY TRANSIT AUTHORITY (MBTA) LAND. ALL WORK WITHIN THE MBTA LAND IS SUBJECT TO APPROVAL BY THE MBTA.

17. CONTRACTOR SHALL VERIFY THAT INTERNAL GREASE FLOW IS ON A SEPERATE SEWER CONNECTION TO EXISTING GREASE TRAP, INLET TEE EXTENDS TO MID DEPTH OF TANK, AND OUTLET TEE EXTENDS TO WITHIN 12" OF THE BOTTOM OF THE TANK.

18. THE BIO-MICROBICS HIGHSTRENGTH FAST UNITS HAVE BEEN CERTIFIED FOR GENERAL USE AND SHALL BE INSTALLED AND OPERATED IN COMPLIANCE WITH THE CERTIFICATION FOR GENERAL USE DATED FEBRUARY 12, 2013.

19. EXISTING DISTRIBUTION BOX MANHOLES SHALL REMAIN IN PLACE. EXISTING SOIL ABSORPTION SYSTEM SHALL REMAIN IN PLACE.

20. ALL EXISTING TANKS TO REMAIN SHALL PASS A WATERTIGHTNESS TEST.

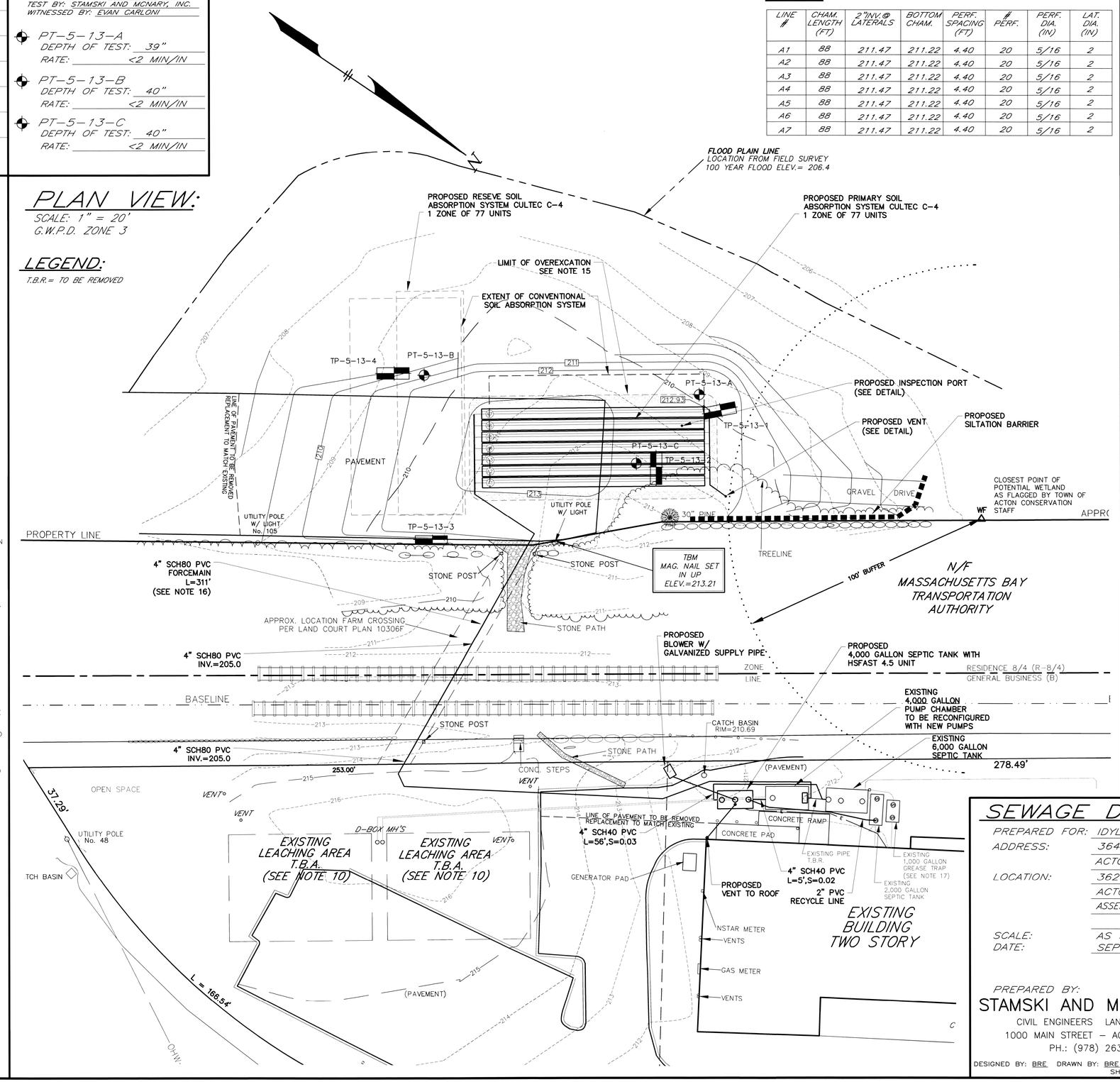
VARIANCE REQUEST:
BOARD OF HEALTH REGULATIONS 16-6.2.7 **SEWAGE DISPOSAL SYSTEM SHALL BE A MINIMUM 100 FEET FROM FLOOD PLAIN AND/OR WETLANDS.**
THE CLOSEST PROPOSED SOIL ABSORPTION SYSTEM IS APPROXIMATELY 48' FROM THE FLOOD PLAIN.

PLAN VIEW:

SCALE: 1" = 20'
G.W.P.D. ZONE 3

LEGEND:

T.B.R.= TO BE REMOVED



INVERT ELEVATIONS:

EXISTING INVERTS
4" INV. @ 6,000 GAL. S.T. (OUT)= 209.89*
* CONTRACTOR TO VERIFY INVERT SEE NOTE #8

PROPOSED INVERTS
4" INV. @ SEPTIC TANK #2 (IN) = 208.17
4" INV. @ SEPTIC TANK #2 (OUT) = 207.92
4" INV. @ PUMP CHAMBER (IN) = 207.82
4" INV. @ PUMP CHAMBER (OUT) = 207.57

DESIGN DATA:

DESIGN FLOW:
EXISTING
SUPERMARKETS 97 PER 1,000 S.F.
20,457 S.F. X 97/1000 = 1,984 GPD
RETAIL STORE 50 GPD PER 1,000 S.F.
2,432 S.F. X 50/1000 = 122 GPD
OFFICE SPACE 75 GPD PER 1,000 S.F.
3,154 S.F. X 50/1000 = 237 GPD
1,984 GPD + 122 GPD + 237 GPD = 2,343 GPD
PROPOSED
3,000 GPD

REQUIRED SEPTIC TANK: (TITLE 5)
REQUIRED: = 6,000 GAL.& 3,000 GAL=9,000 GAL
PROVIDED: = 6,000 & 4,000 GAL. =10,000 GAL.

REQUIRED SIZE SOIL ABSORPTION SYSTEM:
PT-5-13-A < 2 MIN./INCH
TITLE 5: CLASS I SOIL
3,000 GPD/0.74 GPD/S.F.=4,054 S.F.
ACTON BOH REQ. = 1,000 S.F. MIN.
TYPE AND SIZE OF SOIL ABSORPTION SYSTEM PROVIDED:
TITLE 5:
PRIMARY:
CULTEC FIELD DRAIN CONTRACTOR C4
EFFECTIVE LEACHING AREA PER L.F.=
1.67 x BOTTOM WIDTH (SEE NOTE 17)
1.67 x 4 FT = 6.67 SF/LF
7 ROWS OF 11 UNITS = 616 LF
616 LF x 6.67 SF/LF = 4,109 SF
4,109 SF > 4,054 SF MIN O.K.
ACTON BOH REQ.:
4,109 SF > 1,000 SF MIN O.K.

SEWAGE DISPOSAL PLAN

PREPARED FOR: IDYLWILDE FARM
ADDRESS: 364 CENTRAL STREET
ACTON, MA 01720
LOCATION: 362-366 CENTRAL STREET
ACTON, MA 01720
ASSESSORS MAP E2,
PARCELS 187, 187-1, 143, & 143-1
SCALE: AS SHOWN
DATE: SEPTEMBER 23, 2013
REVISED: OCTOBER 28, 2013
REVISED: DECEMBER 3, 2013

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

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

DESIGNED BY: BRE DRAWN BY: BRE JOB No. SM-92 FILE: 92 SDSC.DWG
SHEET 1 OF 3