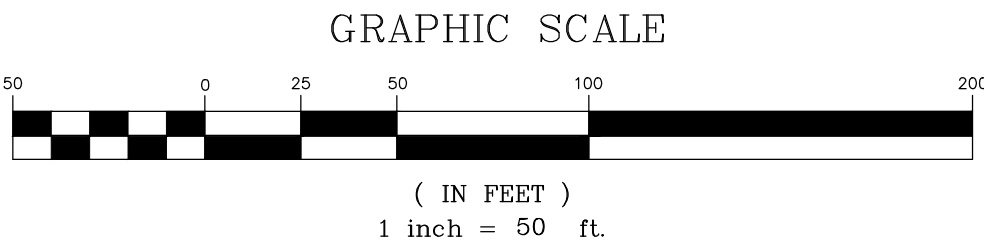


LEGEND

- TP-1-1 = TEST PIT LOCATION AND ID
- PT-1 = PERC. TEST LOCATION AND ID
- WELL LOCATION
- = APPROX. PROPERTY LINE
- PRIMARY = POSSIBLE LOCATION OF PRIMARY SEPTIC FIELD
- RESERVE = POSSIBLE LOCATION OF RESERVE SEPTIC FIELD



CONCEPT SEPTIC DESIGN PLAN FOR
FIVE PROPOSED LOTS ON NOD ROAD
PREPARED FOR
BLUE FOX GOLF COURSE
NOD ROAD & EAST MAIN STREET
AVON, CONNECTICUT

Date: 10-01-18 Drawn by: CAD Job no: 16132
Checked by: GAH Sheet no: 1 OF 1

1" = 50'

Revisions:

No.	Date	Description

F. A. Hesketh & Associates, Inc.
3 Creamery Brook, East Granby, CT 06026
Phone (860) 653-8000 Fax (860) 844-8600
www.fahesketh.com
Civil & Traffic Engineers • Surveyors • Planners • Landscape Architects

FAH

SP-1

TEST PITS CONDUCTED ON SEPTEMBER 27, 2018. SUNNY, BREEZY, 55° MORN, 78° AFTERNOON

PRESENT: GUY HESKETH, KIAN DOWNES, DANNY THE EXCAVATOR
FVHD REVIEWER: DIANE HARDING

PERC. TEST DATA

PRELIM. SEPTIC DESIGN COMPUTATIONS

TEST PIT ID	HORIZON/ INTERVAL	DESCRIPTION
TP-1-1	AP 0'-12"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B1	12'-24"	RED/BROWN, COMPACT LOAMY SAND, FRIABLE, MOIST
B2	24'-34"	RED/BROWN, COMPACT LOAMY SAND W/ 50% STONES TO 2" Ø, ROUNDED AND ANGULAR, COMPACT, FRIABLE, MOIST.
C1	34'-52"	LENSES/LAYERS OF RED/BROWN SAND AND GRAVEL, COMPACT, TRACE LOAM, STONES TO 10-12" Ø INTER-DISPersed, MOIST.
C2	52'-96"	TAN COARSE SAND (BEACH SAND), LOOSE, MOIST, NO FINES
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 34".		

TP-1-2	AP 0'-12"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B1	12'-22"	RED/TAN/BROWN, COMPACT LOAMY SAND, FRIABLE, MOIST
B2	22'-38"	RED/TAN, COMPACT LOAMY SAND AND GRAVEL, COMPACT, FRIABLE, MOIST.
C1	38'-64"	LENSES/LAYERS OF RED/BROWN SAND AND GRAVEL, COMPACT, TRACE LOAM, STONES TO 4-8" Ø INTER-DISPersed, MOIST, HIGHLY STRATIFIED.
C2	64'-74"	LENSES/LAYERS OF RED/BROWN SAND AND GRAVEL, COMPACT, TRACE LOAM, STONES TO 10-12" Ø INTER-DISPersed, MOIST.
C3	74'-96"	TAN COARSE SAND (BEACH SAND), LOOSE, MOIST, NO FINES, WELL GRADED.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 38"		

TP-1-3	AP 0'-10"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	10'-35"	RED/BROWN, COMPACT LOAMY COURSE SAND/GRAVEL W/ 15% STONES TO 1/2" Ø (ROUNDED AND ANGULAR), COMPACT, FRIABLE, MOIST
C1	35'-48"	RED/BROWN, COMPACT SAND/GRAVEL, TRACE LOAM, MOIST, LOOSE (BEACH SAND).
C2	48'-60"	RED COMPACT SAND AND GRAVEL, W/ STONES TO 2" Ø INTER-DISPersed, MOIST, FRIABLE.
C3	60'-96"	RED COMPACT LOAMY SAND AND GRAVEL, W/ STONES TO 10" Ø INTER-DISPersed (30%), MOIST, FRIABLE.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 35".		

TP-2-1	AP 0'-10"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	10'-26"	RED/BROWN, COMPACT LOAMY COURSE SAND, COMPACT, FRIABLE, MOIST
C1	26'-60"	RED/BROWN, COURSE SAND W/ LENSES/LAYERS OF GRAVEL MIXED IN, COMPACT, FRIABLE, MOIST.
C2	60'-72"	TAN COURSE SAND/GRAVEL, INTERMIXED STONES TO 2" Ø COMPACT, MOIST, FRIABLE.
C3	72'-96"	RED COMPACT LOAMY SAND AND GRAVEL, W/ STONES TO 10" Ø INTER-DISPersed (30%), MOIST, FRIABLE.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 35".		

TP-2-2	AP 0'-12"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	12'-22"	BROWN, COMPACT LOAMY COURSE SAND, COMPACT, FRIABLE, MOIST
C1	22'-52"	RED/BROWN, COURSE SAND/GRAVEL, INTERMIXED STONES TO 2" Ø (ROUNDED AND ANGULAR), MULTIPLE LAYERS W/ INTERBEDDED SAND LAYERS COMPACT, MOIST, FRIABLE.
C2	52'-96"	TAN/BROWN COURSE SAND (BEACH SAND) W/ LENSES/LAYERS OF GRAVEL, MOIST, LOOSE.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 22'-24"		

TP-2-3	AP 0'-12"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	12'-26"	BROWN, COMPACT LOAMY COURSE SAND/GRAVEL, COMPACT, FRIABLE, DENSE, MOIST
C1	26'-44"	TAN/BROWN, LENSES/LAYERS OF COURSE SAND/GRAVEL, INTERMIXED STONES TO 2" Ø (15-20%), COMPACT, MOIST, FRIABLE.
C2	44'-96"	TAN/BROWN COURSE SAND (BEACH SAND) W/ LENSES OF RED MOIST, LOOSE.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 26"		

TP-3-1	AP 0'-14"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	14'-32"	RED/BROWN, COMPACT LOAMY MEDIUM SAND, MOIST, FRIABLE, DENSE.
C1	32'-44"	RED/BROWN COURSE SAND/GRAVEL W/ LITTLE LOAM, INTERMIXED STONES TO 2" Ø, COMPACT, MOIST, FRIABLE.
C2	44'-96"	BROWN/RED COURSE SAND (BEACH SAND) W/ LITTLE LOAM, INTERBEDDED LAYERS WITH ROUNDED LENSES OF SAND/GRAVEL WITH ROUNDED STONES 1.5-2" Ø, LOOSE, MOIST.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 32"		

TEST PIT ID	HORIZON/ INTERVAL	DESCRIPTION
TP-3-2	AP 0'-14"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	14'-30"	RED/TAN/BROWN, COMPACT LOAMY SAND/GRAVEL, TRACE LOAM, INTERMIXED STONES TO 2" Ø (20%), COMPACT, FRIABLE, DENSE, MOIST.
C1	30'-48"	RED/BROWN MED. TO COURSE SAND W/ LITTLE LOAM, INTERMIXED STONES TO 6" Ø, COMPACT, MOIST, FRIABLE.
C2	48'-96"	RED/BROWN COURSE SAND (BEACH SAND) W/ LITTLE LOAM, INTERBEDDED LAYERS WITH NO STONES, LOOSE, MOIST.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 30"		

TP-3-3	AP 0'-15"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST.
B	15'-32"	RED/TAN/BROWN, COMPACT LOAMY SAND/GRAVEL, TRACE LOAM, INTERMIXED STONES TO 2" Ø (20%), COMPACT, FRIABLE, DENSE, MOIST.
C1	32'-48"	RED/BROWN MED. TO COURSE SAND W/ LITTLE LOAM, INTERMIXED STONES TO 6" Ø, COMPACT, MOIST, FRIABLE.
C2	48'-96"	RED/BROWN COURSE SAND (BEACH SAND) W/ LITTLE LOAM, INTER-BEDDED LAYERS WITH NO STONES, LOOSE, MOIST.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 32"		

TP-4-1	AP 0'-15"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	15'-32"	RED/TAN/BROWN, COMPACT LOAMY SAND/GRAVEL, TRACE LOAM, INTERMIXED STONES TO 2" Ø (20%), COMPACT, FRIABLE, DENSE, MOIST.
C1	32'-48"	RED/BROWN MED. TO COURSE SAND W/ LITTLE LOAM, INTERMIXED STONES TO 6" Ø, COMPACT, MOIST, FRIABLE.
C2	48'-96"	RED/BROWN COURSE SAND (BEACH SAND) W/ LITTLE LOAM, INTER-BEDDED LAYERS WITH NO STONES, LOOSE, MOIST.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 32"		

TP-4-2	AP 0'-12"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	12'-18"	RED/TAN/BROWN, COMPACT LOAMY SAND/GRAVEL, TRACE LOAM, INTERMIXED STONES TO 2" Ø (20%), COMPACT, FRIABLE, DENSE, MOIST.
C1	18'-24"	RED/BROWN MED. TO COURSE SAND/GRAVEL W/ LITTLE LOAM, MOIST, DENSE.
C2	24'-52"	RED/BROWN COURSE SAND/GRAVEL, INTERMIXED STONES TO 2-3" Ø (25%), COMPACT, MOIST.
C3	52'-114"	RED/BROWN COURSE SAND (BEACH SAND) W/ LITTLE LOAM, INTERBEDDED LAYERS SAND/GRAVEL WITH NO STONES, LOOSE, MOIST.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 24"		

TP-4-3	AP 0'-11"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	11'-22"	RED/TAN/BROWN, COMPACT LOAMY SAND/GRAVEL, TRACE LOAM, INTERMIXED STONES TO 2" Ø (20%), COMPACT, FRIABLE, DENSE, MOIST.
C1	22'-40"	RED/BROWN MED. TO COURSE SAND/GRAVEL W/ LITTLE LOAM, MOIST, DENSE.
C2	40'-50"	RED/BROWN COURSE SAND/GRAVEL, INTERMIXED STONES TO 2-3" Ø (25%), COMPACT, MOIST.
C3	52'-108"	RED/BROWN COURSE SAND (BEACH SAND) W/ LITTLE LOAM, INTERBEDDED LAYERS SAND/GRAVEL WITH NO STONES, LOOSE, MOIST.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 22"		

TP-5-1	AP 0'-12"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	12'-26"	RED/BROWN, COMPACT LOAMY SAND/GRAVEL, TRACE LOAM, INTERMIXED STONES, COMPACT, FRIABLE, DENSE, MOIST.
C1	26'-36"	RED/BROWN MED. TO COURSE SAND/GRAVEL W/ LITTLE LOAM, MOIST, DENSE.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 26"		

TP-5-2	AP 0'-12"	DARK BROWN, LOAMY SANDY TOPSOIL, LOOSE/VERY FRIABLE, MOIST
B	12'-26"	RED/TAN/BROWN, COMPACT LOAMY SAND/GRAVEL, TRACE LOAM, INTERMIXED STONES, COMPACT, FRIABLE, DENSE, MOIST.
C1	26'-58"	RED/BROWN MED. TO COURSE SAND/GRAVEL W/ LITTLE LOAM, MOIST, DENSE.
C2	58'-100"	RED/BROWN COURSE SAND (BEACH SAND) W/ LITTLE LOAM, INTERBEDDED LAYERS SAND/GRAVEL WITH NO STONES, LOOSE, MOIST.
NO GROUNDWATER, NO SEEPS, NO NOTED REDOX FEATURES, ROOTS TO 36"		

PT-1 – LOT 1

INTERVAL PERC'D: 12"-31" BELOW GRADE

PRE-SOAK BEGAN AT 10:00 AM, HOLE DRY BY 10:11
PERC TEST CONDUCTED AT 10:12 AM

READING	TIME (M:S)	
3.5"	0:00	
7.0"	1:00	
9.5"	2:00	
11.25"	3:00	
12.25"	4:00	PERCOLATION RATE = 0.6 MIN./IN.
14.0"	5:00	
15.25"	6:00	
16.50"	7:00	
17.50"	8:00	
18.50"	9:00	

PT-2 – LOT 2

INTERVAL PERC'D: 12"-30" BELOW GRADE

PRE-SOAK BEGAN AT 11:22 AM, HOLE DRY BY 11:40 AM
PERC TEST CONDUCTED AT 11:43 AM

READING	TIME (M:S)	
3.5"	0:00	
6.5"	1:00	
8.0"	2:00	
9.0"	3:00	
10.0"	4:00	PERCOLATION RATE = 0.93 MIN./IN.
11.0"	5:00	
11.5"	6:00	
12"	7:00	
12.75"	8:00	
13.0"	9:00	
14.0"	10:00	
14.25"	11:00	
16"	16:00	
17"	21:00	
18"	24:00	

PT-3 – LOT 3

INTERVAL PERC'D: 18"-36" BELOW GRADE

PRE-SOAK BEGAN AT 12:57 PM, HOLE DRY BY 1:15 PM
PERC TEST CONDUCTED AT 1:15 AM

READING	TIME (M:S)	
4.25"	0:00	
6.5"	2:00	
7.5"	4:00	
8.5"	6:00	
9.5"	8:00	PERCOLATION RATE = 2.1 MIN./IN.
10.5"	10:00	
11.5"	12:00	
12.5"	14:00	
13.5"	16:00	
14.0"	18:00	
15.0"	20:00	
16.0"	22:00	

PT-4 – LOT 4

INTERVAL PERC'D: 15"-33" BELOW GRADE

PRE-SOAK BEGAN AT 2:40 PM, HOLE DRY BY 3:00
PERC TEST CONDUCTED AT 3:07 AM

READING	TIME (M:S)	
5.0"	0:00	
7.75"	2:00	
9.5"	4:00	
10.5"	6:00	
12.0"	8:00	PERCOLATION RATE = 1.6 MIN./IN.
13.0"	10:00	
14.0"	12:00	
15.0"	14:00	
15.5"	16:00	
16.0"	18:00	

PT-5 – LOT 5

INTERVAL PERC'D: 18"-36" BELOW GRADE

PRE-SOAK BEGAN AT 2:55 PM, HOLE DRY BY 3:25
PERC TEST CONDUCTED AT 3:30 PM

READING	TIME (M:S)	
4.25"	0:00	
6.5"	2:00	
7.5"	4:00	
8.5"	6:00	
9.5"	8:00	PERCOLATION RATE = 2.1 MIN./IN.
10.5"	10:00	
11.5"	12:00	
12.5"	14:00	
13.5"	16:00	
14.0"	18:00	
15.0"	20:00	
16.0"	22:00	

LOT 1

Type of System: Residential, Reserve Area 100% Required.

Proposed 4-Bedroom House (no garbage grinder or large tub).

Required Septic Tank Capacity = 1,250 gal. minimum.

Design Perc. Rate = Less than 10.1 min./in.

Required Leaching Area = 577.5 s.f.

MLSS Calculation: MLSS = HF x FF x PF

Depth to Restrictive Layer: >60" MLSS Need not be considered

For Leaching Field: Use 12"x48" leaching trenches.

Effective Leaching Area = 3.0 s.f./l.f.

Find length of trench required:

577.5 s.f./3.0 s.f./l.f. = 192.5 l.f.

Use 2 rows of double 47' + end connection (2x4') = 196 l.f. > 192.5 l.f.

LOT 2

TYPE OF SYSTEM: RESIDENTIAL, RESERVE AREA 100% REQUIRED.

PROPOSED 4-BEDROOM HOUSE (NO GARBAGE GRINDER OR LARGE TUB).

REQUIRED SEPTIC TANK CAPACITY = 1,250 GAL. MINIMUM.

DESIGN PERC. RATE = LESS THAN 10.1 MIN./IN.

REQUIRED LEACHING AREA = 577.5 S.F.

MLSS CALCULATION: MLSS = HF X FF X PF

DEPTH TO RESTRICTIVE LAYER: >60" MLSS NEED NOT BE CONSIDERED

FOR LEACHING FIELD: USE 12"x48" LEACHING TRENCHES.

EFFECTIVE LEACHING AREA = 3.0 S.F./L.F.

FIND LENGTH OF TRENCH REQUIRED:

577.5 S.F./3.0 S.F./L.F. = 192.5 L.F.

USE 2 ROWS OF DOUBLE 47' + END CONNECTION (2X4') = 196 L.F. > 192.5 L.F.

LOT 3

TYPE OF SYSTEM: RESIDENTIAL, RESERVE AREA 100% REQUIRED.

PROPOSED 4-BEDROOM HOUSE (NO GARBAGE GRINDER OR LARGE TUB).

REQUIRED SEPTIC TANK CAPACITY = 1,250 GAL. MINIMUM.

DESIGN PERC. RATE = LESS THAN 10.1 MIN./IN.

REQUIRED LEACHING AREA = 577.5 S.F.

MLSS CALCULATION: MLSS = HF X FF X PF

DEPTH TO RESTRICTIVE LAYER: >60" MLSS NEED NOT BE CONSIDERED

FOR LEACHING FIELD: USE 12"x48" LEACHING TRENCHES.

EFFECTIVE LEACHING AREA = 3.0 S.F./L.F.

FIND LENGTH OF TRENCH REQUIRED:

577.5 S.F./3.0 S.F./L.F. = 192.5 L.F.

USE 2 ROWS OF DOUBLE 47' + END CONNECTION (2X4') = 196 L.F. > 192.5 L.F.

LOT 4

TYPE OF SYSTEM: RESIDENTIAL, RESERVE AREA 100% REQUIRED.

PROPOSED 4-BEDROOM HOUSE (NO GARBAGE GRINDER OR LARGE TUB).

REQUIRED SEPTIC TANK CAPACITY = 1,250 GAL. MINIMUM.

DESIGN PERC. RATE = LESS THAN 10.1 MIN./IN.

REQUIRED LEACHING AREA = 577.5 S.F.

MLSS CALCULATION: MLSS = HF X FF X PF

DEPTH TO RESTRICTIVE LAYER: >60" MLSS NEED NOT BE CONSIDERED

FOR LEACHING FIELD: USE 12"x48" LEACHING TRENCHES.

EFFECTIVE LEACHING AREA = 3.0 S.F./L.F.

FIND LENGTH OF TRENCH REQUIRED:

577.5 S.F./3.0 S.F./L.F. = 192.5 L.F.

USE 2 ROWS OF DOUBLE 47' + END CONNECTION (2X4') = 196 L.F. > 192.5 L.F.

LOT 5

TYPE OF SYSTEM: RESIDENTIAL, RESERVE AREA 100% REQUIRED.

PROPOSED 4-BEDROOM HOUSE (NO GARBAGE GRINDER OR LARGE TUB).

REQUIRED SEPTIC TANK CAPACITY = 1,250 GAL. MINIMUM.

DESIGN PERC. RATE = LESS THAN 10.1 MIN./IN.

REQUIRED LEACHING AREA = 577.5 S.F.

MLSS CALCULATION: MLSS = HF X FF X PF

DEPTH TO RESTRICTIVE LAYER: >60" MLSS NEED NOT BE CONSIDERED

FOR LEACHING FIELD: USE 12"x48" LEACHING TRENCHES.

EFFECTIVE LEACHING AREA = 3.0 S.F./L.F.

FIND LENGTH OF TRENCH REQUIRED:

577.5 S.F./3.0 S.F./L.F. = 192.5 L.F.

USE 2 ROWS OF DOUBLE 47' + END CONNECTION (2X4') = 196 L.F. > 192.5 L.F.

SP-2

CONCEPT SEPTIC DESIGN PLAN FOR FIVE PROPOSED LOTS ON NOD ROAD PREPARED FOR BLUE FOX GOLF COURSE NOD ROAD & EAST MAIN STREET AVON, CONNECTICUT

Revisions:
No. Date Description

Date: 10-01-18
Scale:
Q:\2016\16132-Blue Fox Run\FVHD-Septic\Septic2.dwg, Layout1, Oct. 01, 2018 - 4:06:52 PM

Drawn by: CAD
Checked by: GAH

Job no: 16132
Sheet no: 1 OF 1

F. A. Hesketh & Associates, Inc.
3 Creamery Brook, East Granby, CT 06026
Phone (860) 853-8000 Fax (860) 844-8600
www.faheskefh.com mail@faheskefh.com

FAH
Civil & Traffic Engineers • Surveyors • Planners • Landscape Architects