

**DESIGN FLOW CALCULATION  
(BASED ON 310 CMR 15.203)**

Development Description	BDRM 1	BDRM 2	BDRM 3	Total Bedrooms	Flow Per Bedroom (GPD)	Total Flow (GPD)
1 Bedroom Units	17			17	110	1,870
2 Bedroom Units		29		58	110	6,380
3 Bedroom Units			5	15	110	1,650
						9,900

**TREATMENT SYSTEM DESIGN CRITERIA**

Flow For 9900 Gallon Per Day Development	DESIGN FLOW	9,900 GPD
200% OF TOTAL DAILY FLOW: 2 X 9900 GPD:		19,800 GPD
TOTAL TANK CAPACITY:		29,700 GPD

USE 1-30,000 GALLON SEPTIC TANK

**LEACHING FIELD 1- SYSTEM DESIGN CRITERIA**

**SOIL ABSORPTION SYSTEM**

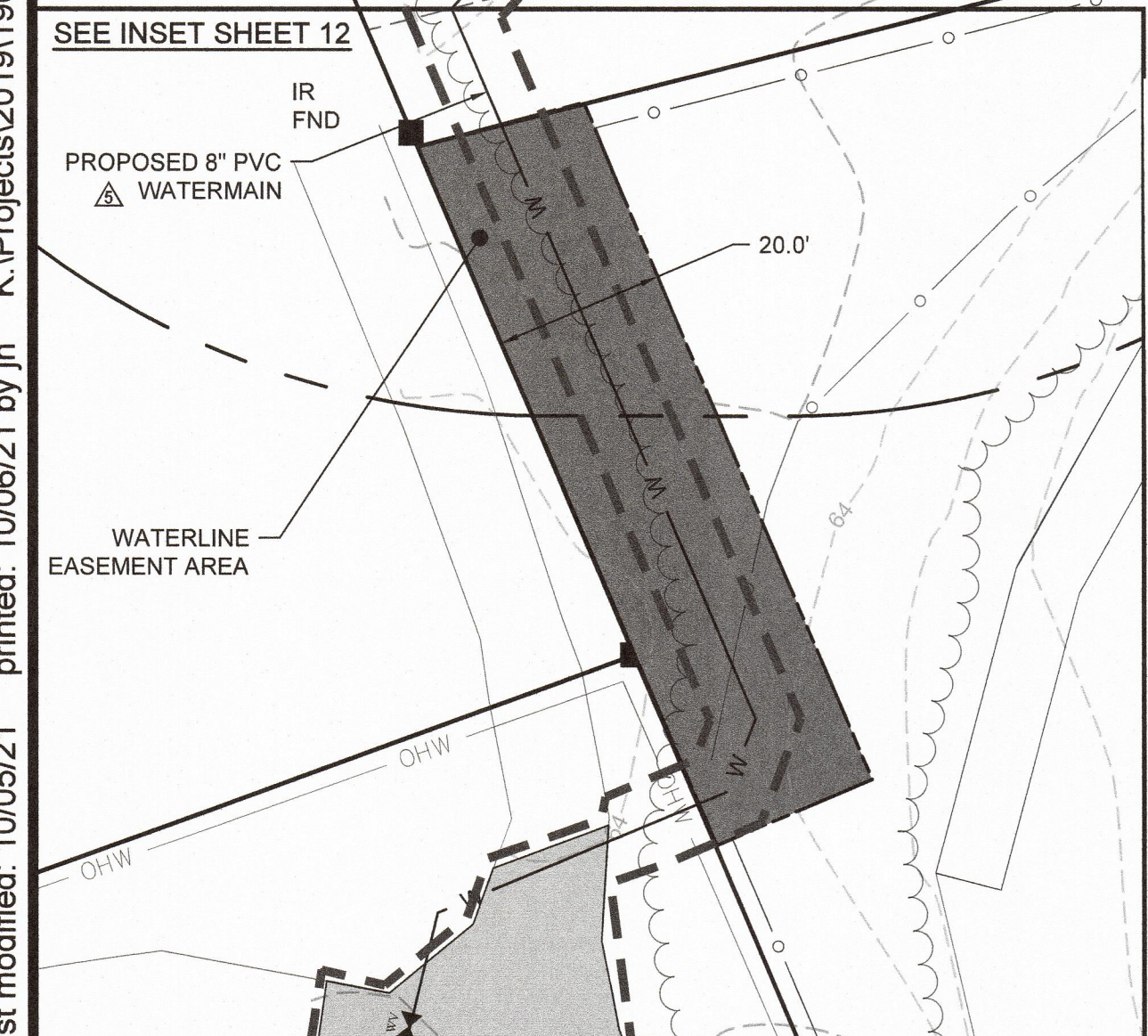
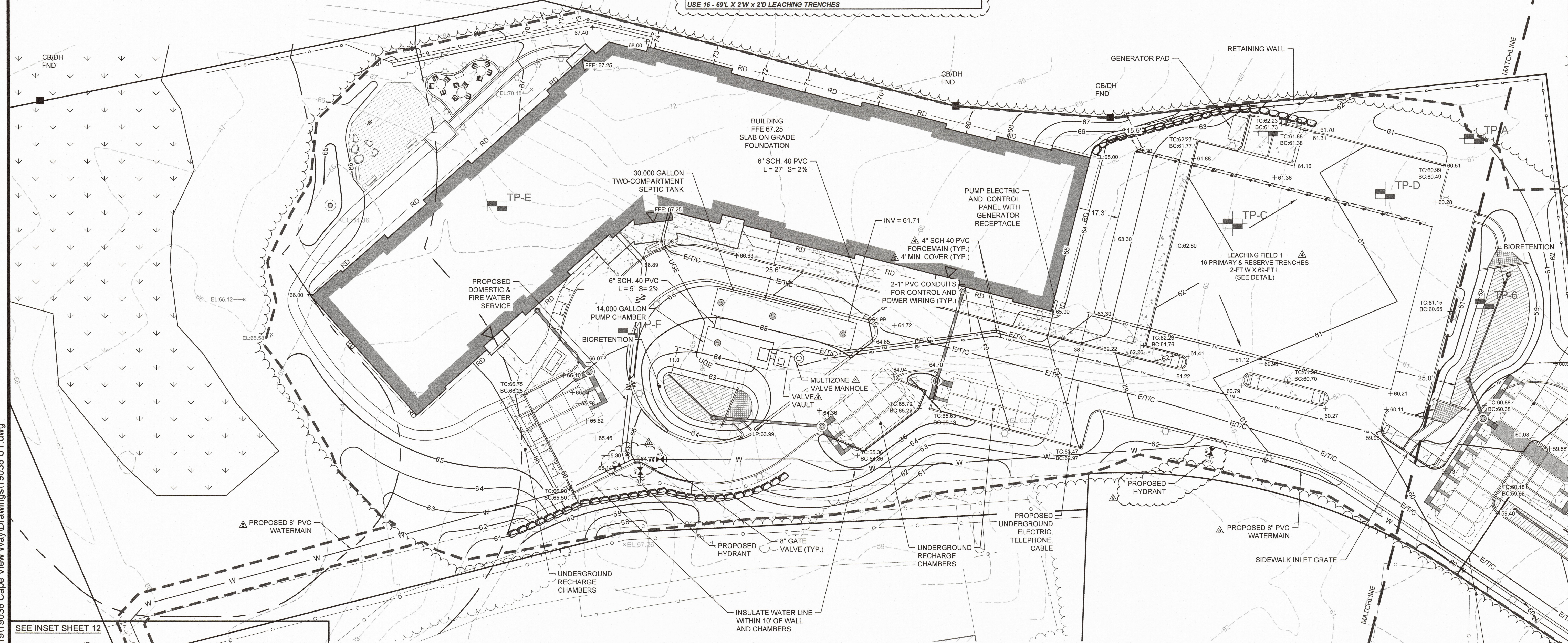
LEACHING SYSTEM USED: STONE TRENCHES  
 DESIGN PERCOLATION RATE: 2 MIN./IN.  
 SOIL CLASS: 1  
 LONG TERM ACCEPTANCE RATE (LTAR): 0.74 GPD/S.F.  
 TOTAL AREA REQUIRED - TITLE 5: 13,379 S.F.

**TOTAL AREA PROPOSED:**

A (sidewall): (69' + 2' + 69' + 69') x 2' x 16': 4,544 S.F.  
 A (bottom): 69' x 2' x 16': 2,208 S.F.  
 TOTAL AREA: 6,752 S.F.  
 TOTAL ALLOWABLE FLOW: 4,996 GPD  
 TOTAL DESIGN FLOW: 4,950 GPD

USE 16 - 69'L X 2'W x 2'D LEACHING TRENCHES

NO VARIANCES REQUESTED FOR THIS APPLICATION



**SOIL TEST PIT DATA**

PERFORMED BY: M. LEHMAN  
 WITNESSED BY: TERRI GUARINO,  
 HEALTH AGENT  
 HORSLEY WITTEN GROUP, INC  
 DATE: OCTOBER 24, 2019

TP-A	Elevation
A	60.8
10 YR 4/2 SANDY LOAM	60.0
Bw	60.0
10 YR 4/6 SANDY LOAM	57.6
C1	57.6
10 YR 6/3 FINE SAND	56.6
C2	56.6
10 YR 6/3 GRAVELLY FINE SAND	55.1
C3	55.1
10 YR 6/3 FINE SAND	50.8

**SOIL TEST PIT DATA**

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 WITNESSED BY: TERRI GUARINO,  
 HEALTH AGENT  
 HORSLEY WITTEN GROUP, INC  
 DATE: OCTOBER 24, 2019

TP-B	Elevation
A	63.1
10 YR 4/2 SANDY LOAM	62.6
Bw	62.6
10 YR 5/8 SANDY LOAM	60.1
C1	60.1
10 YR 6/4 MEDIUM SAND PERC @ 59"	57.6
C2	57.6
10 YR 6/4 GRAVELLY FINE SAND	56.1
C3	56.1
10 YR 6/4 FINE SAND	53.1

**SOIL TEST PIT DATA**

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 WITNESSED BY: TERRI GUARINO,  
 HEALTH AGENT  
 HORSLEY WITTEN GROUP, INC  
 DATE: OCTOBER 24, 2019

TP-C	Elevation
A	62.9
10 YR 4/2 SANDY LOAM	62.5
Bw	62.5
10 YR 5/8 SANDY LOAM	59.2
C1	59.2
10 YR 6/4 MEDIUM SAND	57.2
C2	57.2
10 YR 6/4 GRAVELLY FINE SAND	56.2
C3	56.2
10 YR 6/4 FINE SAND	52.9

**SOIL TEST PIT DATA**

PERFORMED BY: M. LEHMAN  
 WITNESSED BY: TERRI GUARINO,  
 HEALTH AGENT  
 HORSLEY WITTEN GROUP, INC  
 DATE: OCTOBER 24, 2019

TP-D	Elevation
A	61.0
10 YR 4/2 SANDY LOAM	60.3
Bw	60.3
10 YR 5/8 SANDY LOAM	57.7
C1	57.7
10 YR 6/4 MEDIUM SAND	55.8
C2	55.8
10 YR 6/4 GRAVELLY FINE SAND	54.8
C3	54.8
10 YR 6/4 FINE SAND	51.0

**SOIL TEST PIT DATA**

PERFORMED BY: M. LEHMAN  
 WITNESSED BY: TERRI GUARINO,  
 HEALTH AGENT  
 HORSLEY WITTEN GROUP, INC  
 DATE: OCTOBER 24, 2019

TP-6	Elevation
A	61.4
10 YR 4/2 FINE SANDY LOAM	60.4
Bw	60.4
10 YR 4/6 SANDY LOAM	58.4
C1	58.4
10 YR 6/3 GRAVELLY FINE SAND	57.4
C2	57.4
10 YR 6/3 MEDIUM SAND PERC @ 75" <2MPI	51.4

**SOIL TEST PIT DATA**

PERFORMED BY: M. LEHMAN  
 WITNESSED BY: TERRI GUARINO,  
 HEALTH AGENT  
 HORSLEY WITTEN GROUP, INC  
 DATE: OCTOBER 23, 2019

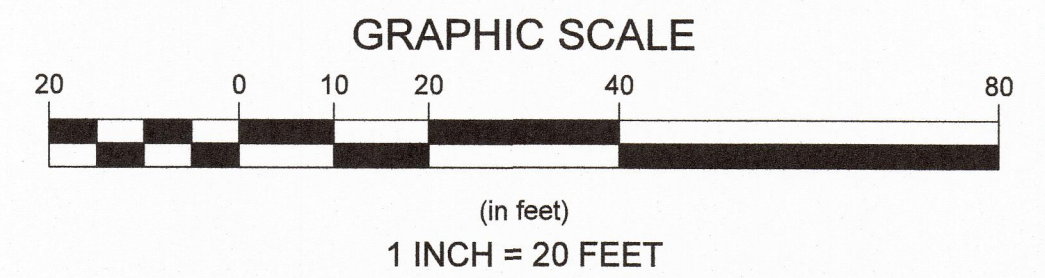
TP-7	Elevation
HTM	59.6
10 YR 3/4 FINE SANDY LOAM	57.8
Ab	57.8
10 YR 4/6 FINE SANDY LOAM	57.6
Bw	57.6
10 YR 6/6 FINE SANDY LOAM	56.9
C1	56.9
10 YR 6/3 GRAVELLY FINE SAND	56.4
C2	56.4
10 YR 6/3 MEDIUM SAND	54.6

**SOIL TEST PIT DATA**

PERFORMED BY: M. LEHMAN  
 WITNESSED BY: TERRI GUARINO,  
 HEALTH AGENT  
 HORSLEY WITTEN GROUP, INC  
 DATE: OCTOBER 23, 2019

TP-8	Elevation
A	58.7
10 YR 3/4 FINE SANDY LOAM	58.2
B	58.2
10 YR 4/6 FINE SANDY LOAM	57.0
C1	57.0
10 YR 6/6 GRAVELLY FINE SAND	55.0
C2	55.0
10 YR 6/3 MEDIUM SAND	51.7

RECEIVED  
 OCT 18 2021  
 Bourne Health Department  
 24 Perry Avenue  
 Buzzards Bay, MA 02532



**Horsley Witten Group, Inc.**  
 Sustainable Environmental Solutions  
 www.horsleywitten.com  
 90 Route 6A  
 Sandwich, MA 02563  
 Phone: (508) 853-9100  
 Fax: (508) 853-9150

**CAPE VIEW WAY  
 PRESERVATION OF AFFORDABLE HOUSING  
 PERMITTING PLANS  
 BOURNE, MASSACHUSETTS**

**UTILITY PLAN (1)**

Prepared For: PRESERVATION OF AFFORDABLE HOUSING  
 2 OLIVER STREET, SUITE 500  
 BOSTON, MA 02109  
 Phone: (617) 261-9888  
 Fax: ---

Survey Provided By: Horsley Witten Group, Inc.  
 90 Route 6A  
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 Date: JUNE 2019

Registration: JOSEPH E. HENDERSON  
 CIVIL ENGINEER  
 No. 46688  
 State of Massachusetts  
 10-19-21

Project Number: 19038  
 Sheet: 11 of 23  
 Sheet Number: C-11

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