TOWN OF NORTH CASTLE

WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

RESIDENTIAL PROJECT
REVIEW COMMITTEE
Adam R. Kaufman AICP, Chair

Telephone: (914) 273-8625
Fax: (914) 273-3554
www.northcastleny.com

RPRC RETURN LETTER

Application Number: 2022-0602

Street Location: 5 SHIPPEN RD

Zoning District: R-1.5A Property Acreage: 1.5 Tax ID: 107.04-2-51

RPRC DECISION: OPEN

Date: 08/02/2022

The above referenced application was reviewed by the Residential Project Review Committee (RPRC) on August 2, 2022.

The Committee determined that given the submitted plans, additional information is required to be reviewed prior to a decision of the RPRC.

The following issues should be addressed at this time:

- The site plan shall be revised to contain the seal and signature of the professional preparing the plan.
- The submitted plan does not appear to be correct. The plan depicts a wooden deck at the rear of the house; however, the site contains a patio in this location. The plan shall be revised to clarify whether a deck is proposed. If a deck is not proposed, the site plan should be revised to correctly label the patio.
- The site plan contains a red rectangle. Based upon the submitted application, this appears to be the location of a proposed patio; however, the site plan should be revised to clearly indicate that a patio is proposed in this location.
- In addition, the patio appears to be larger than that depicted on the plan; the Applicant shall clearly depict the extent of the patio on the plans. Furthermore, it appears that slate walkways were added to both sides of the house; these walkways should be depicted on the site plan and the gross land coverage added to the worksheet and backup data.
- The existing driveway appears to be currently undergoing work. The site plan should be revised to depict what work is being done in this area. The site plan should indicate whether the driveway is being expanded. If so, the gross land coverage associated with the changes should be depicted on the GLC worksheet and backup data.
- In general, the site plan should be updated by a licensed professional to clearly depict existing/proposed conditions and clearly identify work to be legalized.
- If required by the Building Department, the site plan shall be revised to dimension the patio to adjacent property lines. Pursuant to Section 355-15.A of the Town Code, the patio can’t be located closer than 5 feet to any property line.

- It appears that fill has been brought onto the site. The site plan should depict changes to topography and the amount of fill brought to the site. In addition, a fill permit may be required from the Building Department.

- The Applicant shall provide the required gross land coverage backup data for review.

- The applicant shall perform deep and percolation soil testing in the vicinity of the proposed mitigation system to be witnessed by the Town Engineer. The test locations and results shall be shown on the plan. Contact the Town Engineer to schedule the testing.

- Provide stormwater mitigation and design calculations for the runoff generated by the net increase in impervious surface for the 25-year, 24-hour design storm event. Provide details of the stormwater mitigation system.

- The plan shall illustrate the drainage pipe connections on the site plan. Include the size, slope and material.

- Include erosion control measures on the plan, including, but not limited to, temporary silt fence, etc.

Please submit revised plans addressing the above issues to the RPRC. If revised plans will not be submitted, please contact my office so that the RPRC can reconvene and conclude the review process.

If you would like to further discuss this matter, please do not hesitate to contact my office at 914-273-3542.

Adam R. Kaufman, AICP
Director of Planning

BFBA

September 13, 2022

Residential Project Review Committee
Adam R. Kaufman AICP, Chair
17 Bedford Road
Armonk, NY 10504

Re: RPRC Return Letter, dated August 2, 2022
5 Shippen Rd
Application No. 2022-0602

We are in receipt of the above-captioned RPRC Return Letter. Following is our response. Responses below are in the same order as the items in the RPRC Return Letter.

- Stamped and signed site plan(s) have been provided.
- Site plan has been amended to reflect actual site conditions and dimensions.
- Area of “red rectangle” has been clarified on site plans.
- Patio dimensions have been field-verified and adjusted accordingly on site plans. Walkways to the East and North of the house were in place previously and are shown on the “Existing” and “Proposed” site plans on drawing S.01. Walkway on the west side of the house is new and is shown on the “Proposed” plan only.
- Scope of work on driveway has been shown and increased area is included in the gross land coverage calculations.
- Site plan has been updated by my office, under my license, to depict existing and proposed conditions, with new work called out on drawing 3/S.01.
- Dimensions locating the patio to adjacent property lines have been added to drawing 3/S.01.
- No fill has been brought to the site. A note to this effect has been added to drawing 3/S.01.
- A copy of the Gross Land Coverage Calculations Worksheet has been submitted.
- Per conversations with the Town Engineer, the design capacity for the stormwater infiltrators was calculated to store the 25-year, 24-hour design storm event without reductions for infiltration/percolation into the in-situ soils A three-foot over-excavation in the location of the infiltrators will be performed in the presence of the Town Engineer to ensure groundwater is not encountered.
- Stormwater volume calculations are provided on drawing SW-101.
- Drainage pipe information is indicated on drawings SW-101 and SW-102.
- Erosion control measures are shown on drawings S.01, SW-101 and SW-102.

BFB Architect, PC 212.924.9087
250 Tenth Avenue, 2nd Fl. info@bfbarch.com
New York, NY 10001 www.bfbarchitect.com

TOWN OF NORTH CASTLE
WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

PLANNING DEPARTMENT
Adam R. Kaufman, AICP
Director of Planning

Telephone: (914) 273-3542
Fax: (914) 273-3554
www.northcastleny.com

GROSS LAND COVERAGE CALCULATIONS WORKSHEET

Application Name or Identifying Title: Rebecca Lerner Date: 08-20-22

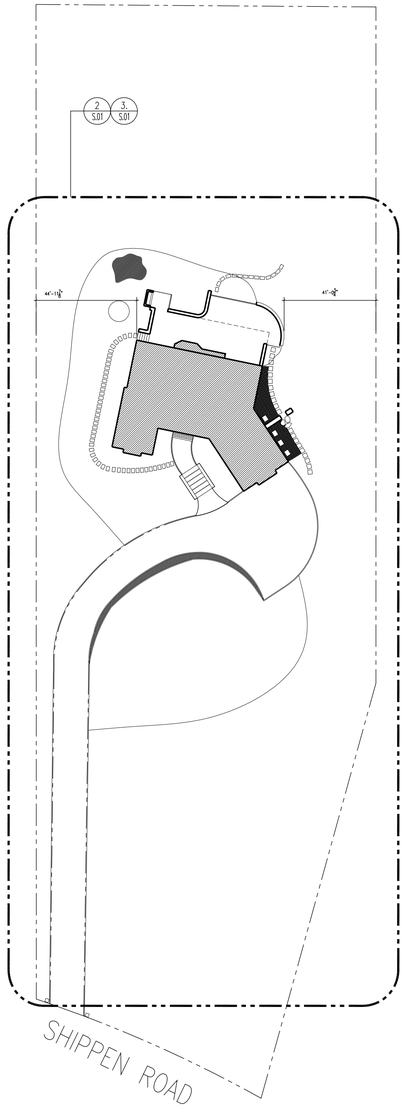
Tax Map Designation or Proposed Lot No.: Section 107.04 Block 2 Lot 51

Gross Lot Coverage

1.	Total lot Area (Net Lot Area for Lots Created After 12/13/06):	65,473 SF
2.	**Maximum** permitted gross land coverage (per Section 355-26.C(1)(a)):	11,322.44 SF
3.	**BONUS** maximum gross land cover (per Section 355-26.C(1)(b)):	
	Distance principal home is beyond minimum front yard setback 228 x 10 =	2,280 SF
4.	**TOTAL Maximum Permitted gross land coverage** = Sum of lines 2 and 3	13,602.44 SF.
5.	Amount of lot area covered by **principal building:** 2,970 existing + 0 proposed =	2,970 SF
6.	Amount of lot area covered by **accessory buildings:** 0 existing + 0 proposed =	0 SF
7.	Amount of lot area covered by **decks:** 812.94 existing + -(812.94) proposed =	0 SF
8.	Amount of lot area covered by **porches:** 0 existing + 0 proposed =	0 SF
9.	Amount of lot area covered by **driveway, parking areas and walkways:** 5,100 existing + 285 proposed =	5,385 SF
10.	Amount of lot area covered by **terraces:** 375 existing + 940 proposed =	1,315 SF
11.	Amount of lot area covered by **tennis court, pool and mechanical equip:** 25 existing + 0 proposed =	25 SF
12.	Amount of lot area covered by **all other structures:** 0 existing + 0 proposed =	0 SF
13.	Proposed **gross land coverage:** Total of Lines 5 – 12 =	9,695 SF

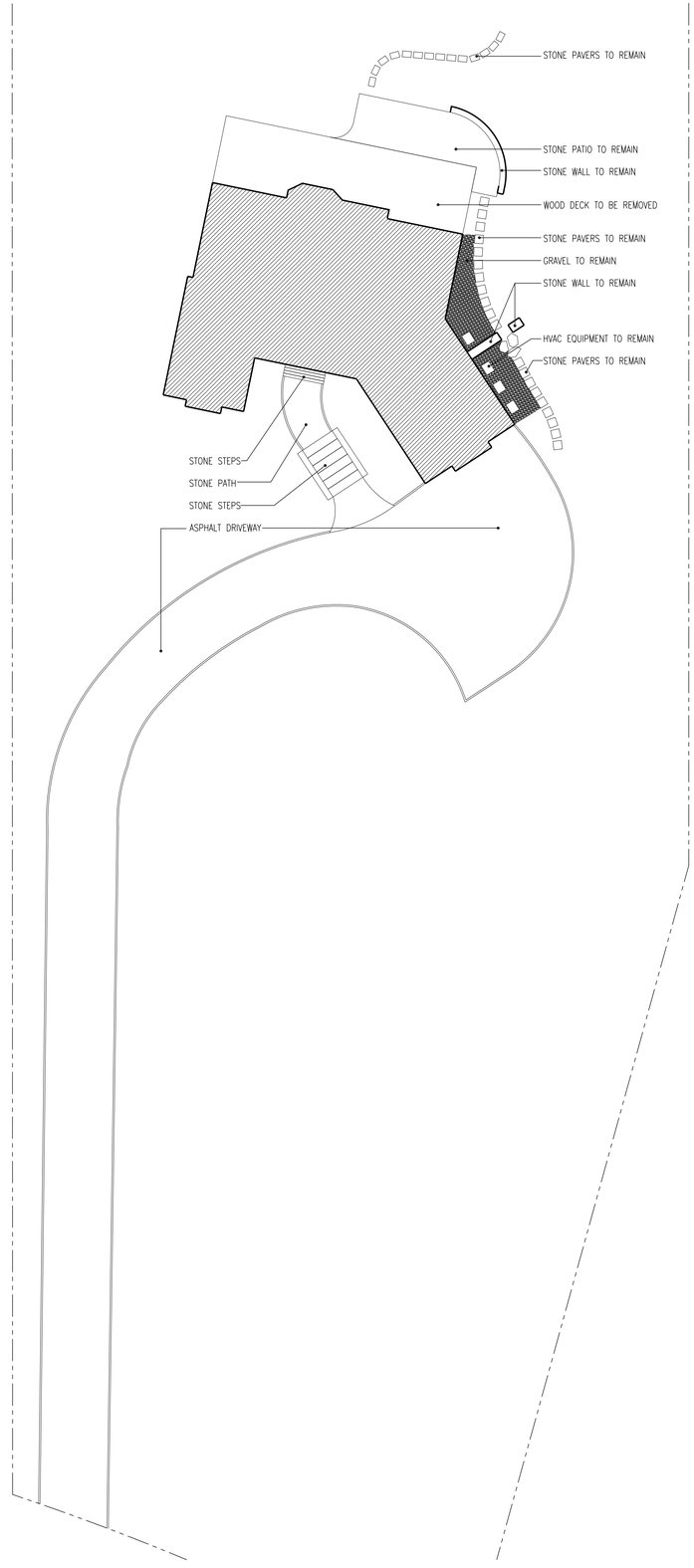
If Line 13 is less than or equal to Line 4, your proposal **complies** with the Town's maximum gross land coverage regulations and the project may proceed to the Residential Project Review Committee for review. If Line 13 is greater than Line 4 your proposal does not comply with the Town's regulations.

Signature an ɔaring Worksheet 08-20-22 Date



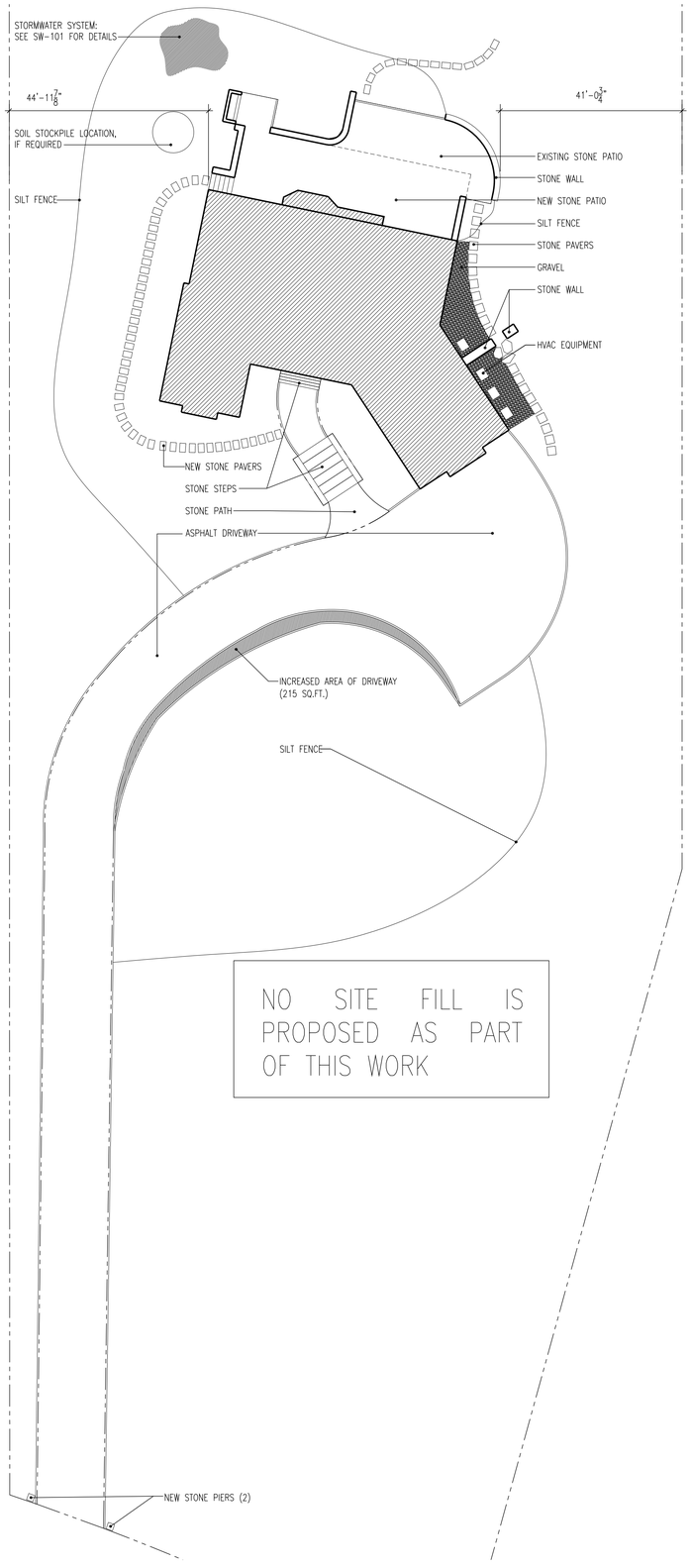
1. S.01 5 SHIPPEN RD. SITE KEY PLAN

SCALE: 1/32" = 1'-0"



2. S.01 EXISTING SITE PLAN

SCALE: 1/16" = 1'-0"



NO SITE FILL IS PROPOSED AS PART OF THIS WORK

3. S.01 PROPOSED SITE PLAN

SCALE: 1/16" = 1'-0"

BFBA
250 10th Avenue, 2nd Floor New York, NY 10001
Tel: 212-924-9087 info@BFBARCH.com

PRIVATE RESIDENCE
5 SHIPPEN ROAD
ARMONK, NY 10504

Notes & Revisions	
09-28-21	D.O.B. REVIEW
09-15-22	REVISED

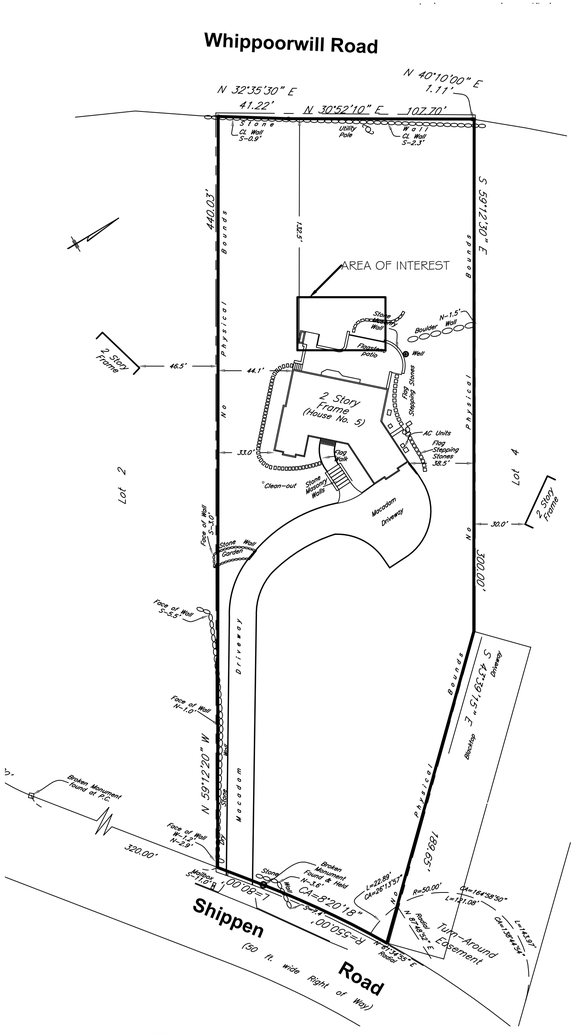
Seal and Signature

REGISTERED ARCHITECT
MICHAEL BENDER
No. 026116
STATE OF NEW YORK

Drawing Title
SITE PLAN

Scale
AS NOTED

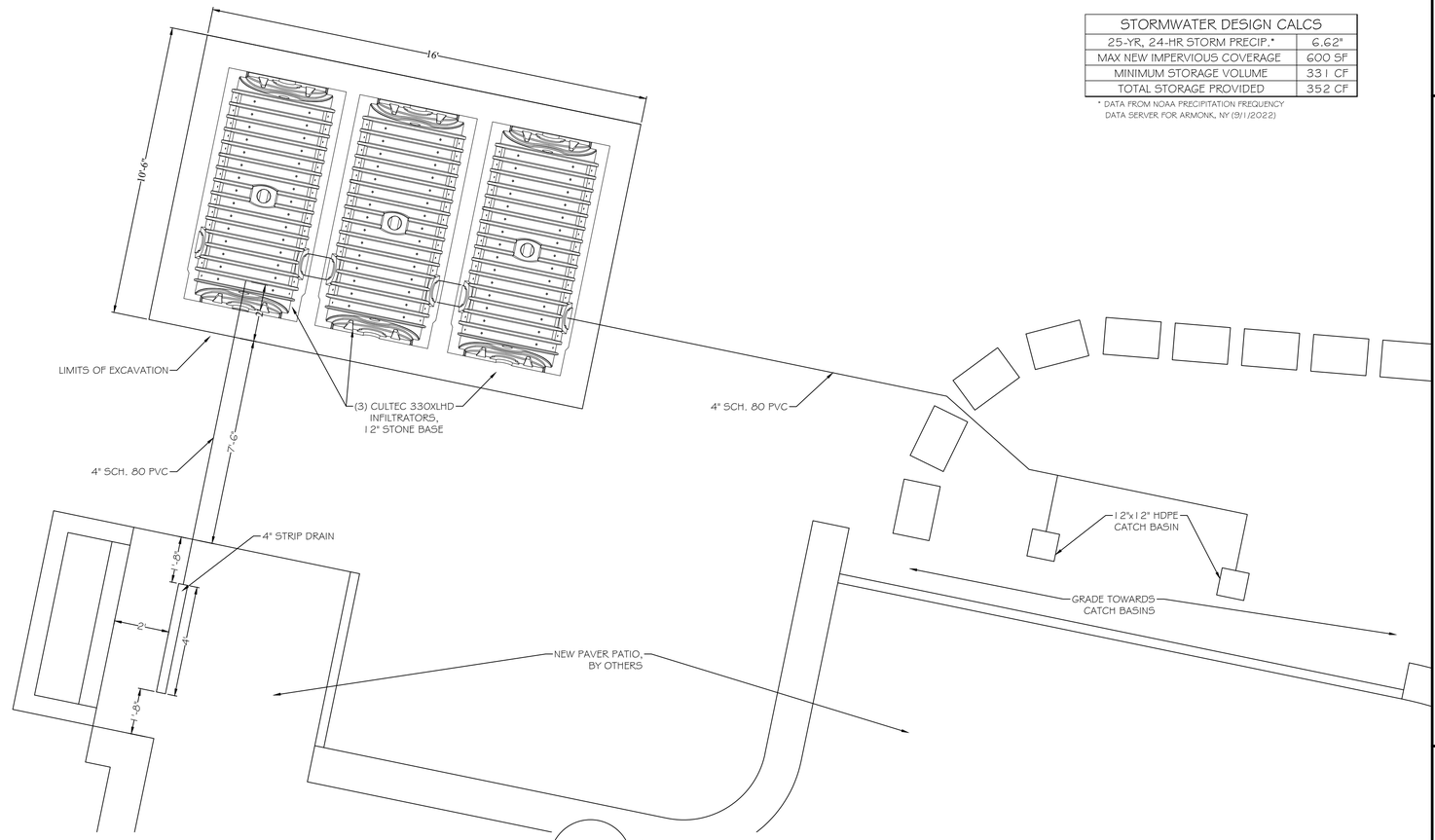
Drawing Number
S.01



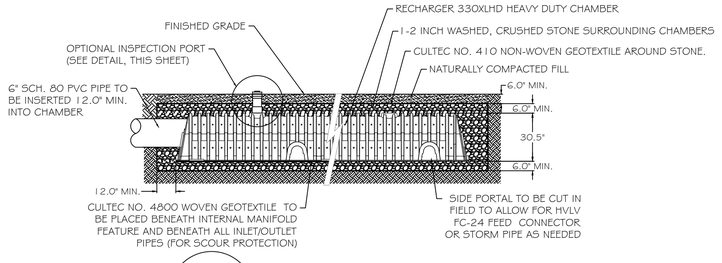
1 SW-101 EXISTING SITE PLAN
SCALE: 3/32" = 1'-0"

STORMWATER DESIGN CALCS	
25-YR, 24-HR STORM PRECIP.*	6.62"
MAX NEW IMPERVIOUS COVERAGE	600 SF
MINIMUM STORAGE VOLUME	331 CF
TOTAL STORAGE PROVIDED	352 CF

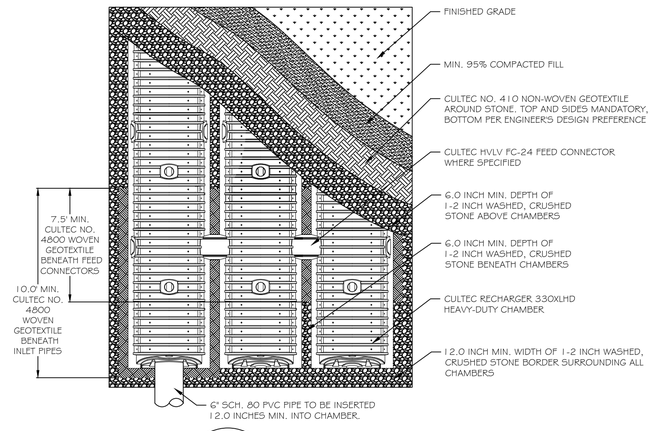
* DATA FROM NOAA PRECIPITATION FREQUENCY DATA SERVER FOR ARMONK, NY (9/1/2022)



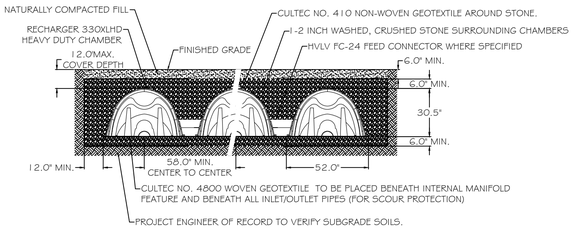
2 SW-101 STORMWATER PLAN
SCALE: 3/8" = 1'-0"



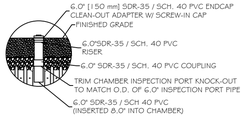
3 SW-101 CULTEC 330XLHD SIDE
SCALE: 1/4" = 1'-0"



4 SW-101 CULTEC 330XLHD PLAN
SCALE: 1/4" = 1'-0"



5 SW-101 CULTEC 330XLHD FRONT
SCALE: 1/4" = 1'-0"



6 SW-101 INSPECTION PORT (OPTL.)
SCALE: 1/4" = 1'-0"

0 1" 2"

Veritas
ENGINEERING + INSPECTION
2 OVERHILL ROAD, SUITE 400, SCARSDALE, NY 10583
P: (914) 458-1110 WWW.VERITASHOMESERVICES.COM

PLANS PREPARED FOR 5 SHIPPEN ROAD
ARMONK, NY 10504

ALTERATION STATEMENT:
"IT IS A VIOLATION OF ARTICLE 145 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER ANY ITEM ON THIS DRAWING IN ANY WAY. IF AN ITEM ON THIS DRAWING IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX HIS OR HER SEAL AND NOTE THE ITEM IN ACCORDANCE WITH ARTICLE 145."

CLIENT:
REBECCA LERNER
5 SHIPPEN ROAD
ARMONK, NY 10504

LOCAL MUNICIPALITY:
TOWN OF NORTH CASTLE
15 BEDFORD ROAD,
ARMONK, NY 10504

REVISIONS

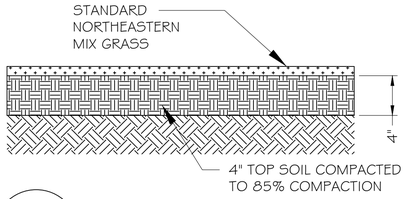
NO.	DATE	DESCRIPTION

5 SHIPPEN ROAD, ARMONK, NY 10504

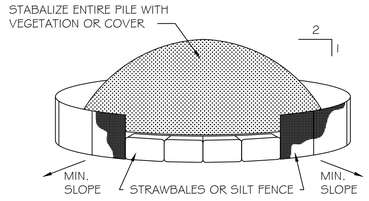
STATE OF NEW YORK
JEFFREY M. OLIVIERI
LICENSED PROFESSIONAL ENGINEER
091905
JEFFREY M. OLIVIERI, P.E.
NYS LICENSE NO: 091905

STORMWATER PLAN

DATE	9/1/2022
SCALE	AS NOTED
SHEET #	SW-101



1 SW-102 GRASS SECTION (TYP.)
SCALE: NTS

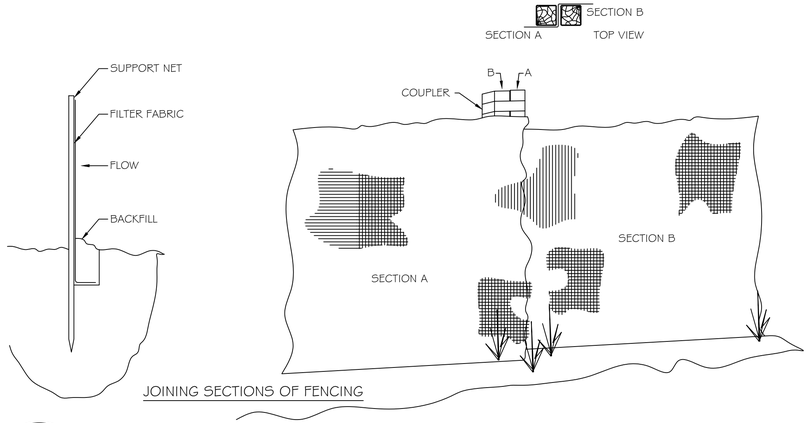


2 SW-102 SOIL STOCKPILING DETAIL
SCALE: NTS

SOIL STOCKPILING NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE DETAIL FOR INSTALLATION OF SILT FENCE.
5. ANY IMPORTED SOIL SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS FOR QUALITY AND RESIDENTIAL PURPOSES.

NOTE:
SILT FENCE & STOCKPILE ONLY NEED TO BE INSTALLED IF SOIL IS STOCKPILED.



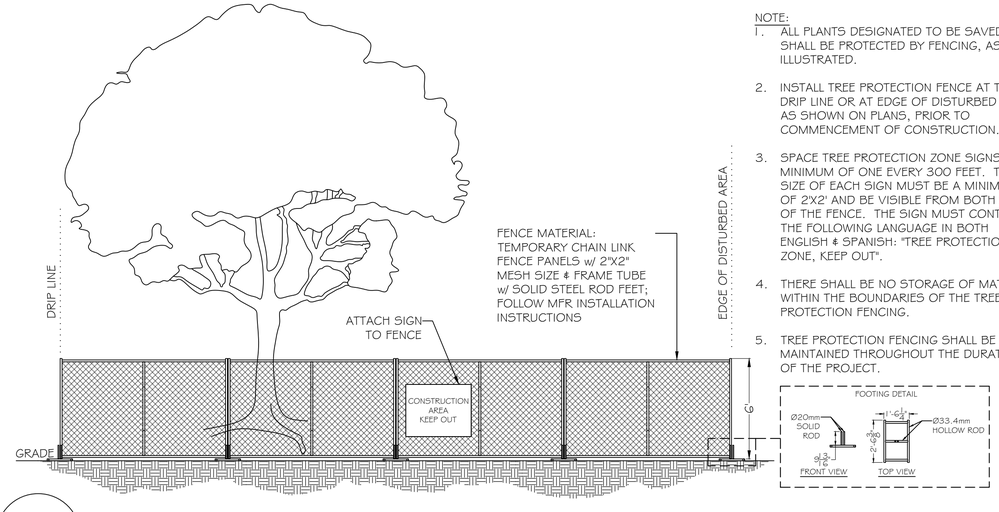
INSTALLATION NOTES:

1. EXCAVATE A 4"X4" TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES AWAY FROM DIRECTION OF FLOW.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT TRENCH.
5. JOIN SECTIONS AS SHOWN ABOVE.

NOTE:
ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS DATED NOVEMBER 2016.

SILT FENCE ONLY NEEDS TO BE INSTALLED IF SOIL IS STOCKPILED.

3 SW-102 SILT FENCE DETAIL
SCALE: NTS



NOTE:

1. ALL PLANTS DESIGNATED TO BE SAVED SHALL BE PROTECTED BY FENCING, AS ILLUSTRATED.
2. INSTALL TREE PROTECTION FENCE AT TREE DRIP LINE OR AT EDGE OF DISTURBED AREA, AS SHOWN ON PLANS, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. SPACE TREE PROTECTION ZONE SIGNS A MINIMUM OF ONE EVERY 300 FEET. THE SIZE OF EACH SIGN MUST BE A MINIMUM OF 2'X2' AND BE VISIBLE FROM BOTH SIDES OF THE FENCE. THE SIGN MUST CONTAIN THE FOLLOWING LANGUAGE IN BOTH ENGLISH & SPANISH: "TREE PROTECTION ZONE, KEEP OUT".
4. THERE SHALL BE NO STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION FENCING.
5. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

4 SW-102 CONSTRUCTION SAFETY FENCING DETAIL
SCALE: NTS

2 OVERHILL ROAD, SUITE 400, SCARSDALE, NY 10583
P: (914) 458-1110 WWW.VERITASHOMESERVICES.COM

PLANS PREPARED FOR
5 SHIPPEN RD
ARMONK, NY 10504

KEY PLAN
N
TRUE NORTH

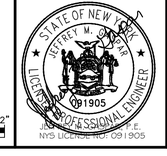
CLIENT:
REBECCA LERNER
5 SHIPPEN RD
ARMONK, NY 10504

LOCAL MUNICIPALITY:
TOWN OF NORTH CASTLE
15 BEDFORD ROAD
ARMONK, NY 10504

REVISIONS

NO.	DATE	DESCRIPTION

5 SHIPPEN ROAD



JEFFREY M. LEVINE, P.E.
NYS LICENSE NO. 091905

STORM WATER DETAILS

DATE	09/12/2022
SCALE	AS NOTED
SHEET #	SW-102

0 1" 2"

Project Information:

Stormwater Design

5 Shippen Road, Armonk, NY 10504

By: J. Gaspar, P.E.

Date:
9/1/2022

Number of Rows-	1	units
Total number of chambers -	3	units
HVLV FC-24 Feed Connectors -	2	units
Stone Void -	40	%
Stone Base -	12	inches
Stone Above Units -	6	inches
Area -	155.09	ft²
Base of Stone Elevation-	100.00	ft

Click for Metric

155.09 Min. Area Required

Note: Min. Area required is based on 12" around the system and typ. spacing

CULTEC Recharger 330XLHD Incremental Storage Volumes

Height of System	Chamber Volume	HVLV FC-24 Feed Connector Volume	Stone Volume	Cumulative Storage Volume	Total Cumulative Storage Volume	Elevation
in	ft³	ft³	ft³	ft³	ft³	ft
48.5	0.00	0.00	5.17	5.17	352.24	104.04
47.5	0.00	0.00	5.17	5.17	347.07	103.96
46.5	0.00	0.00	5.17	5.17	341.90	103.88
45.5	0.00	0.00	5.17	5.17	336.73	103.79
44.5	0.00	0.00	5.17	5.17	331.56	103.71
43.5	0.00	0.00	5.17	5.17	326.39	103.63
42.5	0.00	0.00	2.58	2.59	321.22	103.54
42	0.43	0.00	5.00	5.43	318.63	103.50
41	1.15	0.00	4.71	5.86	313.21	103.42
40	1.89	0.00	4.41	6.30	307.35	103.33
39	2.79	0.00	4.05	6.84	301.05	103.25
38	3.38	0.00	3.82	7.19	294.20	103.17
37	3.89	0.00	3.61	7.51	287.01	103.08
36	4.30	0.00	3.45	7.75	279.50	103.00
35	4.66	0.00	3.31	7.96	271.76	102.92
34	4.97	0.00	3.18	8.15	263.79	102.83
33	5.24	0.00	3.07	8.32	255.64	102.75
32	5.49	0.00	2.97	8.46	247.32	102.67
31	5.72	0.00	2.88	8.60	238.86	102.58

Height of System	Chamber Volume	HVLV FC-24 Feed Connector Volume	Stone Volume	Cumulative Storage Volume	Total Cumulative Storage Volume	Elevation
in	ft^3	ft^3	ft^3	ft^3	ft^3	ft
30	5.94	0.00	2.79	8.73	230.26	102.50
29	6.10	0.00	2.73	8.83	221.53	102.42
28	6.37	0.00	2.62	8.99	212.70	102.33
27	6.62	0.00	2.52	9.14	203.71	102.25
26	6.66	0.00	2.51	9.17	194.57	102.17
25	6.73	0.00	2.48	9.21	185.41	102.08
24	6.77	0.11	2.46	9.34	176.20	102.00
23	6.82	0.09	2.44	9.35	166.86	101.92
22	6.84	0.09	2.43	9.36	157.51	101.83
21	6.89	0.09	2.42	9.39	148.15	101.75
20	7.04	0.08	2.35	9.48	138.76	101.67
19	7.22	0.08	2.28	9.58	129.28	101.58
18	7.25	0.07	2.27	9.59	119.70	101.50
17	7.27	0.07	2.26	9.60	110.11	101.42
16	7.29	0.06	2.25	9.61	100.51	101.33
15	7.31	0.05	2.24	9.60	90.91	101.25
14	7.36	0.02	2.23	9.60	81.30	101.17
13	7.47	0.01	2.18	9.66	71.70	101.08
12	0.00	0.00	5.17	5.17	62.03	101.00
11	0.00	0.00	5.17	5.17	56.86	100.92
10	0.00	0.00	5.17	5.17	51.70	100.83
9	0.00	0.00	5.17	5.17	46.53	100.75
8	0.00	0.00	5.17	5.17	41.36	100.67
7	0.00	0.00	5.17	5.17	36.19	100.58
6	0.00	0.00	5.17	5.17	31.02	100.50
5	0.00	0.00	5.17	5.17	25.85	100.42
4	0.00	0.00	5.17	5.17	20.68	100.33
3	0.00	0.00	5.17	5.17	15.51	100.25
2	0.00	0.00	5.17	5.17	10.34	100.17
1	0.00	0.00	5.17	5.17	5.17	100.08

NOAA Atlas 14, Volume 10, Version 3
Location name: Armonk, New York, USA*
Latitude: 41.1303°, Longitude: -73.7074°
Elevation: 386.34 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan White

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.364 (0.283-0.461)	0.423 (0.328-0.536)	0.520 (0.402-0.660)	0.600 (0.460-0.764)	0.711 (0.529-0.936)	0.795 (0.579-1.06)	0.881 (0.622-1.21)	0.975 (0.656-1.37)	1.11 (0.717-1.59)	1.21 (0.765-1.77)
10-min	0.516 (0.400-0.653)	0.600 (0.465-0.759)	0.737 (0.569-0.935)	0.851 (0.653-1.08)	1.01 (0.749-1.33)	1.13 (0.820-1.51)	1.25 (0.882-1.72)	1.38 (0.931-1.94)	1.57 (1.02-2.26)	1.71 (1.08-2.51)
15-min	0.607 (0.471-0.768)	0.706 (0.547-0.893)	0.867 (0.669-1.10)	1.00 (0.768-1.28)	1.19 (0.881-1.56)	1.33 (0.964-1.77)	1.47 (1.04-2.02)	1.63 (1.10-2.28)	1.84 (1.20-2.66)	2.02 (1.27-2.95)
30-min	0.853 (0.662-1.08)	0.991 (0.768-1.25)	1.22 (0.939-1.54)	1.40 (1.08-1.79)	1.66 (1.23-2.18)	1.86 (1.35-2.48)	2.06 (1.45-2.81)	2.26 (1.53-3.17)	2.54 (1.65-3.67)	2.76 (1.75-4.05)
60-min	1.10 (0.852-1.39)	1.28 (0.988-1.62)	1.57 (1.21-1.99)	1.80 (1.39-2.30)	2.13 (1.58-2.80)	2.39 (1.73-3.18)	2.64 (1.86-3.61)	2.90 (1.96-4.07)	3.25 (2.11-4.68)	3.51 (2.22-5.14)
2-hr	1.45 (1.13-1.82)	1.68 (1.31-2.11)	2.05 (1.59-2.58)	2.35 (1.82-2.98)	2.77 (2.07-3.62)	3.10 (2.26-4.10)	3.42 (2.42-4.66)	3.77 (2.55-5.25)	4.23 (2.76-6.06)	4.60 (2.92-6.69)
3-hr	1.68 (1.31-2.10)	1.94 (1.52-2.43)	2.38 (1.85-2.98)	2.74 (2.12-3.45)	3.23 (2.42-4.21)	3.61 (2.65-4.77)	4.00 (2.84-5.43)	4.41 (2.99-6.12)	4.98 (3.25-7.10)	5.43 (3.45-7.88)
6-hr	2.10 (1.66-2.61)	2.46 (1.94-3.06)	3.04 (2.39-3.80)	3.53 (2.75-4.42)	4.20 (3.17-5.44)	4.70 (3.47-6.19)	5.23 (3.75-7.09)	5.81 (3.95-8.02)	6.64 (4.34-9.41)	7.31 (4.67-10.5)
12-hr	2.54 (2.02-3.14)	3.03 (2.40-3.75)	3.83 (3.02-4.74)	4.49 (3.52-5.58)	5.39 (4.10-6.96)	6.07 (4.52-7.97)	6.79 (4.91-9.19)	7.62 (5.20-10.4)	8.81 (5.78-12.4)	9.81 (6.28-14.0)
24-hr	2.96 (2.36-3.63)	3.58 (2.86-4.40)	4.60 (3.66-5.67)	5.45 (4.31-6.74)	6.62 (5.06-8.50)	7.49 (5.61-9.79)	8.42 (6.14-11.4)	9.51 (6.51-13.0)	11.1 (7.33-15.6)	12.5 (8.03-17.8)
2-day	3.33 (2.68-4.06)	4.08 (3.27-4.97)	5.30 (4.24-6.48)	6.32 (5.02-7.76)	7.72 (5.94-9.86)	8.75 (6.60-11.4)	9.87 (7.25-13.3)	11.2 (7.71-15.2)	13.3 (8.75-18.4)	15.0 (9.67-21.2)
3-day	3.61 (2.91-4.38)	4.42 (3.56-5.37)	5.75 (4.62-7.00)	6.85 (5.47-8.38)	8.37 (6.47-10.7)	9.49 (7.19-12.3)	10.7 (7.89-14.4)	12.2 (8.38-16.4)	14.4 (9.53-20.0)	16.3 (10.5-23.0)
4-day	3.87 (3.13-4.68)	4.73 (3.82-5.72)	6.12 (4.93-7.44)	7.28 (5.83-8.88)	8.88 (6.88-11.3)	10.1 (7.64-13.0)	11.3 (8.37-15.2)	12.9 (8.88-17.3)	15.2 (10.1-21.0)	17.2 (11.1-24.2)
7-day	4.60 (3.74-5.54)	5.54 (4.50-6.67)	7.07 (5.72-8.53)	8.33 (6.70-10.1)	10.1 (7.83-12.7)	11.4 (8.66-14.6)	12.8 (9.44-16.9)	14.4 (9.98-19.3)	16.9 (11.2-23.2)	19.0 (12.3-26.5)
10-day	5.32 (4.34-6.38)	6.31 (5.14-7.57)	7.92 (6.43-9.53)	9.26 (7.47-11.2)	11.1 (8.65-13.9)	12.5 (9.51-15.9)	13.9 (10.3-18.3)	15.6 (10.9-20.8)	18.1 (12.1-24.8)	20.2 (13.1-28.1)
20-day	7.50 (6.16-8.94)	8.61 (7.06-10.3)	10.4 (8.52-12.5)	11.9 (9.68-14.3)	14.0 (10.9-17.3)	15.6 (11.8-19.6)	17.2 (12.6-22.2)	18.9 (13.2-25.0)	21.3 (14.2-28.9)	23.2 (15.1-32.0)
30-day	9.33 (7.69-11.1)	10.5 (8.67-12.5)	12.5 (10.2-14.9)	14.1 (11.5-16.9)	16.3 (12.8-20.1)	18.1 (13.8-22.5)	19.8 (14.5-25.3)	21.5 (15.1-28.3)	23.9 (16.0-32.2)	25.6 (16.7-35.2)
45-day	11.6 (9.60-13.7)	12.9 (10.7-15.3)	15.1 (12.4-17.8)	16.8 (13.8-20.0)	19.3 (15.2-23.6)	21.2 (16.2-26.3)	23.1 (16.9-29.2)	24.9 (17.5-32.5)	27.1 (18.3-36.5)	28.8 (18.8-39.4)
60-day	13.5 (11.2-15.9)	14.9 (12.4-17.6)	17.2 (14.2-20.3)	19.1 (15.7-22.7)	21.7 (17.1-26.5)	23.8 (18.3-29.4)	25.8 (19.0-32.5)	27.7 (19.5-36.1)	30.0 (20.2-40.2)	31.6 (20.7-43.1)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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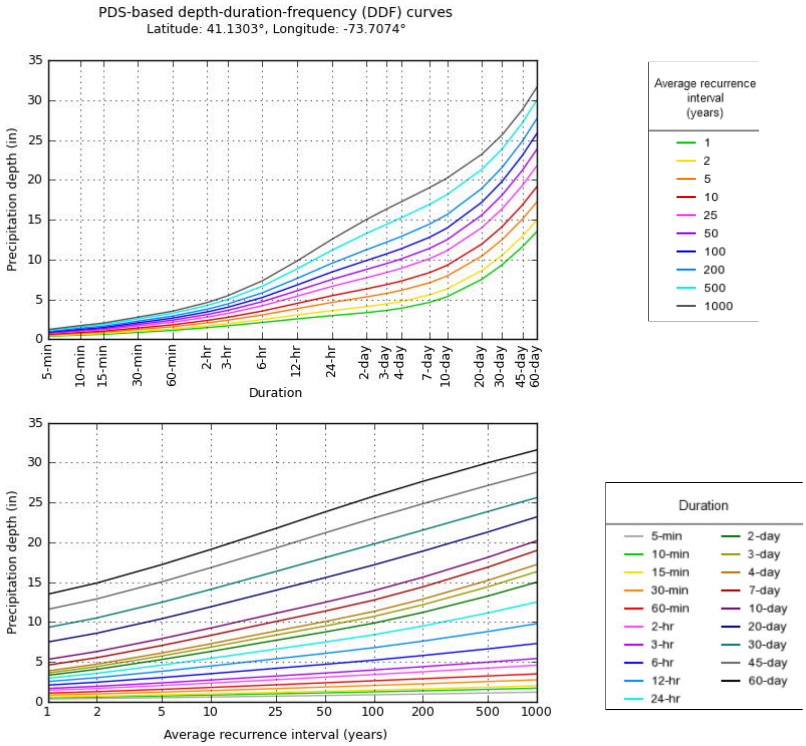
PF graphical



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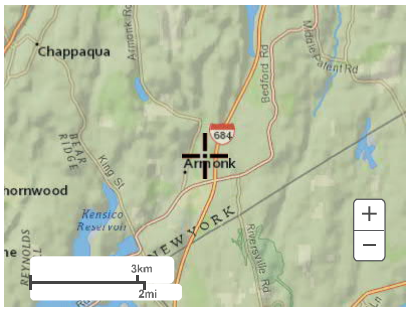
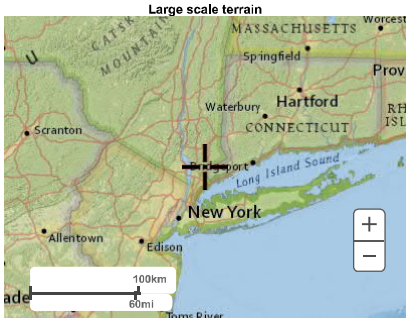
Maps & aerials

Small scale terrain

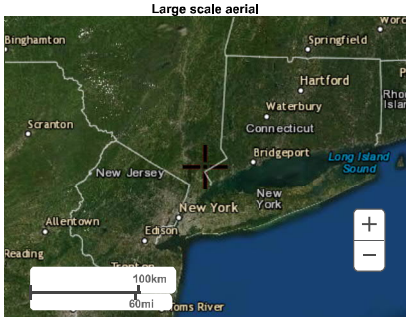


Large scale terrain



Large scale map

Large scale aerial



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