

TOWN OF MAMARONECK - VILLAGE OF LARCHMONT COASTAL ZONE MANAGEMENT COMMISSION Monday, February 25, 2019 7:30PM, Mamaroneck Town Center, 1st Floor - Conference Room D, 740 W. Boston Post Road, Mamaroneck, NY 10543

Approval of Minutes

1. Approval of Minutes - January 28, 2019

Agenda Items

1. 1 Briarcliff Road

Old Business

New Business

New Member Introduction

Meeting Adjournment

Any physically handicapped person needing special assistance in order to attend the meeting should call the Town Administrator's office at 381-7810.



Town of Mamaroneck — Village of Larchmont

COASTAL ZONE MANAGEMENT COMMISSION

TOWN CENTER: 740 West Boston Post Road, Mamaroneck, NY 10543-3353TEL: 914-381-7845FAX: 914-381-8473conservationdept@townofmamaroneck.org

CZMC Minutes-Draft January 28, 2019

A meeting of the Coastal Zone Management Commission (CZMC) was held on Monday, January 28, 2019 in the Mamaroneck Town Center, Conference Room D, 1st Floor, 740 W. Boston Post Road, Mamaroneck, New York. The meeting was called to order at 7:40 p.m.

MEMBERS PRESENT:

Kanan Sheth, Meeting Chair Tara Anderson Howard McMichael Matthew Teitsch Sara Hanna

OTHERS PRESENT:

Councilwoman Jaine Elkind Eney, Liaison to Town of Mamaroneck Town Board Elizabeth Paul, Environmental Planner, Town of Mamaroneck Frank Marsella, Architect, 84 Weaver Street Benedict Salanitro, Engineer, 84 Weaver Street and 145 East Garden Road

1. **Approval of Minutes**

The minutes of the November 26, 2018 meeting were approved as submitted.

2. **Referral – 84 Weaver Street**

Engineer, Benedict Salanitro and Architect, Frank Marsella presented the proposal to demolish the existing single family house and construct a new single-family house. The applicant is seeking residential site plan approval from the Town Planning Board.

The proposal includes the removal of the existing residence and the construction of a new single-family house. The existing 3-car garage will remain along with the long driveway leading to it. The asphalt on the existing driveway will be removed and replaced with gravel to reduce the amount of impervious surface on the site. A new garage will be constructed in the house, requiring a second driveway with an additional curb cut. In addition a stormwater management system will be installed in the rear yard.

Before being converted to a private residence in 1925, the structure was the home of the first public school in Mamaroneck. In the publication, *Mamaroneck Town: A History of the "Gathering Place"*, written by Paula B. Lippsett, M.D. in 1997, the former school is referred to as the Weaver Street School or the Town School House. It was constructed in 1808 and served as the Town's school until Murray Avenue School was opened. The

Historical Society maintains a blue sign in front of the house identifying the school as a local historic site.

In addition to being recognized by the Historic Society, the structure is also listed in the Local Waterfront Revitalization Program. Policy 23 of the LWRP states:

Protect and restore structures, districts, areas or sites that are of significance in the history, architecture, archeology or culture of the State, its communities or the Nation."

Policy 23 specifically identifies this structure as one of 13 "structures, districts and sites, among others in the Larchmont –Mamaroneck coastal area of historic, architectural, archaeological or cultural significance meriting protection..."

The explanation of the policy states:

"Structures, districts and sites designated pursuant to this policy shall be protected against significant adverse change and, where appropriate, restored or rehabilitated for adaptive reuse. In this context "adverse change" means, among other things, demolition or removal in whole or in part, or inappropriate alteration of or addition to the architectural, structural, ornamental or functional features..."

CZMC finds the demolition of the structure to be inconsistent with Policy 23 of the LWRP.

3. **Referral – 145 East Garden Road**

Engineer, Benedict Salanitro presented the proposal to demolish the existing single family house and construct a new single-family house. The applicant is seeking residential site plan approval from the Town Planning Board.

The proposal includes the removal of the existing residence and the construction of a new single-family house. The rear corner of the property will be filled and leveled after installing a retaining wall. The existing driveway will be replaced with a new asphalt driveway with a trench drain that carries runoff to a series of infiltrators in the rear yard. Additional infiltrators will be installed in the front yard to capture additional stormwater from the site. The large spruce tree near East Garden Road will have a layer of wood chips and plywood placed over the root structure to protect the roots from compaction and damage during construction. CZMC finds the proposal to be consistent with the policies in the LWRP.

4. **Old Business**

No old business to discuss.

5. New Business

No new business to discuss.

The meeting was adjourned at 8:40 p.m.

Town of Mamaroneck - Village of Larchmont Coastal Assessment Form (CAF)

Applicants, or the appropriate municipal agency, shall complete this Coastal Assessment Form (CAF) for proposed actions which are subject to Local Consistency Review (see Waterfront Revitalization Law §§234-1 through 234-5 in the Code of the Town of Mamaroneck and §§292-1 through 292-4 in the Code of the Village of Larchmont). This assessment is intended to supplement other information used by the Bi-Municipal Coastal Zone Management Commission in making a determination of consistency with the Town of Mamaroneck and Village of Larchmont Local Waterfront Revitalization Program.

Upon completion of this form, it should be submitted as part of a complete application package for review. If assistance or further information is required for Town of Mamaroneck matters, please contact the Town of Mamaroneck Environmental Planner at (914) 381-7845. For Village of Larchmont matters, please contact the Village of Larchmont Building Inspector at (914) 834-6210.

PLEASE PRINT OR TYPE ALL ANSWERS.

A. GENERAL INFORMATION

Will the proposed action be undertaken by a municipal agency?	Yes []	No [X]	
If yes, please list agency or agencies and contact person(s):				

If no, please complete	e the applicant information:
Name of Applicant:	MICHAEL PICCIRILLO ARCHITECTURE
Street Address:	
City, State, Zip:	345 KEAR ST. SUITE 203 VORKTOLDH HEIGHTS, HY 10598
Phone: 914-368-	9838 Fax: 914-302-2933 Email: MICHAEL @ MPICCIRILLO ARCHITET. CO

Location and ownership of property for which action is proposed:

Section: 2	Block: 20	Lot:	19
Owner of Property: <u>Jos</u>	HOA LANLOR +	- ELIZATA	TH YIEIRA
Street Address: 1	BRIARCHFFF	17.	
City, State, Zip:	ARCHMOLT N	1	
Phone: 917-686-9801	_Fax:	Email:	HLANDOR COMALL. COM
Size of property (square feet)	16,965	Is the property nov	v developed? Yes 🚺 No []
Will project require a zoning	variance? Yes [] No]	T	
If yes briefly describe:			

H:\CZMC\ADMIN\CAF9-29-10.doc Page 1 of 6 Describe any unique/unusual landforms on the project site (rock outcroppings, swales, etc.):

HOHE

Percentage of site which contains slopes of 25% or greater:

Are there streams, lakes, ponds or wetlands existing within or contiguous to the project area? If so, describe (name, size, characteristics): <u>SHEHZRAKE RIVER HORAT OF</u> <u>PROPERTY</u>, 6,260 SF OF PROPERTY IS WITHIN WETLAND TSUFFER

Will the action require approval by a state or federal agency? Yes [] No [] If yes, specify which state or federal agency and attach a copy of pending application and any relevant information and/or documentation to this form:

B. DESCRIPTION OF SITE AND PROPOSED ACTION

Provide a written description of the nature and the extent of the proposed action. Attach plans or additional information as necessary and/or required by application procedures.

EXISTING GINGLE FAMILY REGIDENCE IS TO POE TRAMOUGHER AND REPLICED WITH A HER SINGLE FAMILY REGIDENCE. EXISTING HOUSE IS NOT 2001116 CONFUMILIT; NEW HOUSE WILL BE 2001146 CONTRUMPT; NEW

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C. COASTAL ASSESSMENT

Check either "Yes" or "No" for each of the following questions:

1. Will the proposed action be located in, or contiguous to, or have a potentially adverse effect upon any of the following designated resource areas?

		Yes	No	Maybe	
a.	Significant fish or wildlife habitat or designated critical environmental area	.[]	M	[]	
b.	Scenic resources of local significance	.[]	X	[]	
C.	Natural protective features in an erosion hazard area	[].	M	[]	

NOTE: If the answer to any of the above questions is "Yes", please explain in Section D any measures which will be undertaken to mitigate the adverse effects.

2. Will the proposed action have a significant effect upon:

		res	INO	waybe
a.	Commercial or recreational use of fish and wildlife resources	[]	X	[]
b.	Scenic quality of the coastal environment	[]	\bowtie	[]
c.	Development of future, or existing water dependent uses	[]	M	[]
d.	Land or water uses within a small harbor area	[]	M	[]
e.	Stability of the shoreline	[]	N	[]
f.	Surface or groundwater quality	Î Î	N	Î Ì
g.	Existing or potential public recreation opportunities		M	[]
h.	Structures, sites or districts of historic, archeological or cultural significance		-	
	to the local area, state or nation	[]	X	[]
3.	Will the proposed action involve or result in any of the following:			
		Yes	No	Maybe
a.	Physical alteration of land along the shoreline,			
	land underwater or coastal waters	[]	\bowtie	[]
b.	Expansion of existing public services or infrastructure in or near			
	undeveloped or low density areas of the coastal area?	[]	M	[]
с.	Filling, dredging, excavation or mining in coastal waters	[]	X	[]
d.	Reduction of existing or potential public access to or along the shore	[]	XXXXXX	[]
e.	Development within a designated flood or erosion hazard area	[]	\bowtie	[]
f.	Development of a natural feature that protects against flooding or erosion	[]	1	[]
g.	Replacement of eroded sand or soil	[]	M	[]
h.	Construction or reconstruction of erosion protective structures	[]	X	[]
i.	Any change in surface or groundwater quality	[]	M	Î Î
j.	Removal of trees from the site		[]	[]
4.	Project details:			
		Yes	No	Maybe
a.	If the project is to be located adjacent to the shore:			
	1. Does the project require a waterfront site in order to function	[]	\mathbf{X}	[]
	2. Will water-related recreation be provided		N	[]
	3. Will public access to shore or state owned underwater lands be provided	[]	\bowtie	[]
	4. Will it replace a recreational or maritime use		K	[]
	5. Do essential public services and facilities presently exist at or near the site	[]	X	[]
			-	

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	 6. Is the site located near a flood prone area]]
b.	Is the site presently used by the community as an open space or			
	recreation area[]	X	[]
c.	Does the project site offer or include scenic views/vistas known to be			
	important to the community or the state	\bowtie	[]
d.	Will the surface area of any waterways or wetland areas be increased or			
	decreased by the project	\bowtie]]
e.	Will the project involve any waste discharges into coastal waters	X	[1
f.	Does the project involve discharge of toxins, hazardous substances or other			
	pollutants into coastal waters[]		[]
g.	Will the project affect any area designated as a tidal or freshwater wetland[]	\bowtie	[]
h.	Will the project result in an alteration of drainage flow patterns or surface			
	water runoff on or from the site	1 5	[]
i.	Will best management practices (BMPs) be utilized to control			
	stormwater runoff	[]	[1
j.	Will any aspect of the proposed project result in emissions which exceed			
	federal or state air quality standards or generate significant amounts of	. /		
	nitrates or sulfates[]	\sim	[]

Please explain any of the above answers that may need further clarification in Section D.

D. COMMENTS AND ADDITIONAL INFORMATION: (continue on back if necessary)

I certify that I am the above described applicant and that the information contained on this form and on the attached survey/site plan(s) is(are) accurate to the best of my knowledge.

Date: 2-19 2019

Signature of Applicant

Prepared by: (if different than the applicant)

Name and Title:			1992
Agency/Company:			
Street Address:			
City, State, Zip:			San Katan
Phone:	Fax:	Email:	The Arristics

I certify that I prepared this Coastal Assessment Form for the above described applicant and that the information contained on this form and on the attached survey/site plan(s) is(are) accurate to the best of my knowledge.

Date: ______ 20 ____

Signature of Preparer

ALFONZETTI ENGINEERING, P.C. 1100 Route 52, Carmel, N.Y. 10512

(845) 228-9800

Info@AlfonzettiEng.com

Stormwater Pollution Prevention Plan

for

Lawlor Residence 1 Briarcliff Road Town of Mamaroneck

January 22, 2019 Revised February 14, 2019

ALFONZETTI ENGINEERING, P.C. 1100 Route 52, Carmel, N.Y. 10512

(845) 228-9800

Info@AlfonzettiEng.com

PROJECT:	Lawlor Residence/1 Briarcliff Road Town of Mamaroneck, NY
SCOPE:	Stormwater Pollution Prevention Plan
DATE:	January 22, 2019 Revised February 14, 2019

Introduction:

The subject site is located at 1 Briarcliff Road Road, in the Town of Mamaroneck, New York. The site consists of an existing two and a half story single family residence with an asphalt driveway and associated improvements. The applicant is proposing demolition of the existing residence and construction of a new single-family residential dwelling with driveway, landscaping, and similar improvements. The change in surface cover and addition of impervious surface warrants this drainage assessment.

The subject property has the tax map identification: Section 2, Block 20, Lot 191 and the total lot area is 0.39 acres. The site is located in an area tributary to the Sheldrake River Basin, within the Coastal Long Island Sound Watershed. The disturbed area is 16,304 square feet. The subject property is within the floodplain with baseline elevation of 70.0 feet.

Discussion:

To ensure no off-site flooding occurs as a result of the proposed construction, the existing runoff volume and the proposed runoff volume were calculated and compared for the drainage study areas. The runoff volumes were computed using SCS curve numbers and TR-55. The runoff difference from the existing condition and the proposed condition is proposed to be captured in two subsurface infiltration systems and one rain garden system.

The soils in the area of disturbance are classified into three different soil types according to the USDA (United States Department of Agriculture), NRCS (Natural Resources Conservation Service).

Map Unit Symbol	Soil Type Name	Hydrologic Soil Group
UIC	Urban land-CharltonChatfield, complex, rolling, very rock	B*
UID	Urban land-CharltonChatfield complex, hilly, very rocky	В*
UwB	Urban land-Woodbridge complex, 3 to 8 percent slopes	D

* As urban land, soil type is unrated. Hydrologic Soil Group Type B was used for modeling purposes.

The subject property was divided into three Drainage Areas. Drainage Area 1 consists of the southern and eastern portion of the proposed house and porch and results in an impervious area of 1,390 s.f. Drainage Area 2 consists of the asphalt driveway and results in 1,034 s.f. of impervious area. Drainage Area 3 consists of the northern and western portion of the proposed house and walk results in 1,610 s.f. of impervious area

Curve number calculations for the drainage study areas are shown in the appendix of this report. The results are shown below:

Drainage Study Area	Tributary Area	Area (sf)	Existing Curve Number	Proposed Curve Number
1	Southern and Eastern Portion of Proposed House and Porch	1,390	61*	98
2	Proposed Asphalt Driveway	1,034	61*	98
3	Northern and Eastern Portion of Proposed House and Walk	1,610	61*	98

* Existing condition was modelled as open space (lawn with no impervious)

Using the curve numbers and a 25-year design storm event of 6.46", the runoff depth was calculated using TR-55, for the existing and the proposed conditions respectively. The existing condition was modeled as open space (lawn). The difference in runoff depth was determined, and the total increase in runoff volume for the drainage study areas was then calculated for Drainage Areas 1, 2 and 3.

The increase in runoff volume for Drainage Area 1 is 452.0 cubic feet. A subsurface infiltration system is proposed to mitigate the increase in stormwater runoff. Infiltration System 1 is located in the proposed lawn area south of Drainage Area 1. Infiltration System 1 consists of five (5) 'Cultec' stormwater chambers, model '330XL HD', or approved equal, surrounded by crushed stone and filter fabric. Using the dimensions of the chambers, a stone void ratio of 33%, and a percolation rate of 30 min./inch the volume of storage provided for the Drainage Area 1 is in excess of 452.0 cubic feet cubic feet. Calculations are shown in the Appendix of this report.

The increase in runoff volume for Drainage Area 2 is 336.2 cubic feet. A subsurface infiltration system is proposed to mitigate the increase in stormwater runoff. Infiltration System 2 is located in the proposed lawn area northwest of Drainage Area 2. Infiltration System 2 consists of four (4) 'Cultec' stormwater chambers, model '330XL HD', or approved equal, surrounded by crushed stone and filter fabric. Using the dimensions of the chambers, a stone void ratio of 33%, and a percolation rate of 30 min./inch the volume of storage provided for the Drainage Area 2 is in excess of 336.2 cubic feet cubic feet. Calculations are shown in the Appendix of this report.

The increase in runoff volume for Drainage Study Area 3 is 523.5 cubic feet. The rain garden is proposed to mitigate the increase in stormwater runoff. The rain garden is located in the northwestern corner of the property. The soil media depth is 18 inches; the drainage layer (washed gravel) depth is 12"; and the ponding depth is 6". The rain garden has a minimum required footprint of 445 sq. ft for stormwater mitigation. Using the dimensions of the rain garden, the ponding depth, a soil media void ratio of 20%, and a drainage media void ratio of 40%, the volume of storage provided for Drainage Study Area 3 is in excess of 523.5 cubic feet. Calculations are shown in the Appendix of this report.

The proposed rain garden will also contribute to water quality for the site as pollutants carried in typical runoff will be filtered and treated through the rain garden media and through the uptake of the plantings within the rain garden.

Temporary Erosion Control Measures:

The following is an inventory and description of the temporary erosion control devices proposed on this site.

Silt Fence – Silt Fencing consists of a fabric barrier between supporting stakes or posts usually made of wood. The fabric is proposed to capture suspended sediments from construction runoff and also decreases the velocity of the runoff to protect off-site areas. The proposed location of the silt fence is shown on the plans along with details for installing the silt fence.

Anti-Tracking Pad – An Anti-Tracking Pad shall be installed at the construction entrance. The purpose of the Anti-Tracking Pad shall be to dislodge mud, dirt, and debris from construction vehicles prior to these vehicles leaving the construction site. This will ensure the existing roadways are kept clear of sediment. Locations and details of the Anti-Tracking Pad are shown on the plans.

Maintenance:

A maintenance chart is below showing typical maintenance schedule of temporary erosion control devices during construction. The maintenance of the erosion control devices is the responsibility of the contractor.

Device	Weekly	Monthly	Bi-annually	Annually	Prior to Significant Rainfall	After Significant Rainfall
Silt fence		Inspect		Inspect	Inspect	Inspect/clean
Anti-tracking pad	Inspect		Restore			Inspect

Temporary Erosion Control device maintenance schedule is as follows:

The contractor will be responsible for installing, constructing, inspecting, repairing, replacing, and maintaining the erosion and sediment control and post construction stormwater practices included in the SWPPP.

Permanent Stormwater Management devices:

- The subsurface infiltration systems consisting of the 'Cultec' rechargers shall be inspected and cleaned as per the manufacturer's recommendations that are included in the appendix of this report.
- Rain garden maintenance may include the occasional replacement of plants, mulching, weeding and thinning to maintain desired appearance. Weeding and watering are essential the first year and can be minimized with the use of a weed free mulch layer. Once the rain garden has matured, the garden area should be free of bare area except where stepping stones are located. Inspect for sediment accumulations or heavy organic matter where runoff enters the garden and remove as necessary. The top few inches of planting soil should be removed and replaced when water ponds for more than 48 hours. Clear any blockages, as they may cause diversion of flow around the rain garden. Make sure all appropriate elevations have been maintained, no settlement has occurred and low spots have been created.
- The maintenance of the permanent stormwater management devices is the responsibility of the homeowner.

Construction Sequence:

The proposed improvements are to be constructed in one phase. The construction will be in a sequence that will minimize the potential for erosion. Construction is scheduled to begin in the spring of 2019. The general sequence of construction is as follows:

- 1. Survey and stake limits of disturbance and erosion control installation.
- 2. Install erosion controls (anti-tracking pad, silt fence, soil stockpile) as shown on the erosion control plan and per the respective erosion control details.
- 3. Trees to be removed shall be cut at this time. Stumps shall be removed.
- 4. Demolish existing house and improvements per architecture plan.
- 5. Strip topsoil and rough grading. Note that disturbed soil that will not be worked for a period greater than 14 days must be stabilized. Stabilization must be initiated by the end of the next business day and completed within seven (7) days.
- 6. Excavate for proposed house. House framing and superstructure is constructed.

- 7. Excavate for subsurface utilities: water service, electric/telephone/cable line, subsurface infiltration system, drainage system, rain garden and septic system.
- 8. Install subsurface utilities.
- 9. Protect drainage systems from sediment until final stabilization.
- 10. Final grading, seeding, sodding, and other soil stabilizing landscaping for final site stabilization.
- 11. Remove erosion control: silt fence, hay bales and anti-tracking pad. Discard erosion control devices in an appropriate manner.

Potential pollutants during construction are sediment laden stormwater runoff. A post construction pollutant can be an increase in stormwater runoff. During construction, the sediment laden runoff will be filtered through the silt fence and other erosion control devices prior to being discharged. After construction is complete, the increase in stormwater runoff will be mitigated through two infiltration systems and one rain garden. In addition, the rain garden will contribute to the water quality of the stormwater runoff.

Conclusion:

The proposed infiltration systems and rain garden will mitigate the increase in stormwater runoff, therefore there should be no adverse impacts due to stormwater as a result of the proposed home construction.

ALFONZETTI ENGINEERING, P.C. Ralph Alfonzetti, P.E.



Deep Test Hole Information: (designations are shown on the plan)

Deep Test Hole 1 (DT1)

0"" - 6"	Tancail
	Topsoil
6" – 84"	Sandy, Silty Loam
56"	Water

Deep Test Hole 2 (DT2)

0""-12"	Topsoil
12" – 84"	Sandy, Silty Loam with Boulders
76"	Water

Deep Test Hole 3 (DT3)

0"" – 12"	Topsoil
12" – 84"	Brown Sandy Loam with Trace Silt
82"	Water

Percolation Test Results: (designations are shown on the plan)

Percolation Test 1 (P1): 15 minutes/inch observed

Percolation Test 2 (PT2): 20 minutes/inch observed

Percolation Test 3 (PT3): 30 minutes/inch observed

Deep Test Hole Pictures:

Deep Test Hole 1:



Deep Test Hole 2:



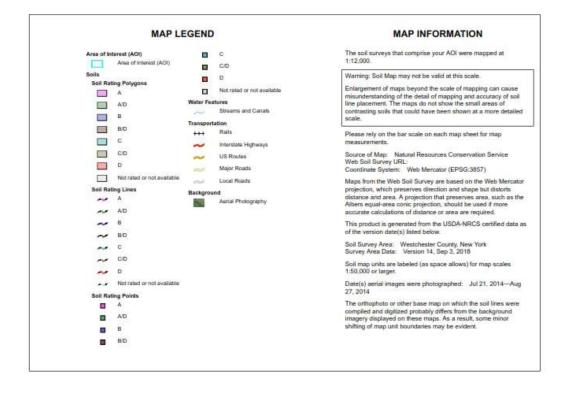
Deep Test Hole 3:



Soil Information:



Hydrologic Soil Group-Westchester County, New York





Web Soil Survey National Cooperative Soil Survey 1/4/2019 Page 2 of 4 Hydrologic Soil Group-Westchester County, New York

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
UIC	Urban land-Charlton- Chatfield complex, rolling, very rocky		0.3	41.0%
UID	Urban land-Chariton- Chatfield complex, hilly, very rocky		0.1	21.5%
UwB	Urban land-Woodbridge complex, 3 to 8 percent slopes	D	0.2	37.5%
Totals for Area of Inter	rest		0.6	100.0%

Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey 1/4/2019 Page 3 of 4 Existing Curve Number Calculation:

	Description	Area	CN	Percent Impervious
Drainage Study Area 1	Open Space, Good HSG B	2,002 s.f.	61	0%
Drainage Study Area 2	Open Space, Good HSG B	1,826 s.f.	61	0%

Proposed Curve Number Calculation:

	Description	Area	CN	Percent Impervious
Drainage Study Area 1	Roofs, HSG B	2,002 s.f.	98	100%
Drainage Study Area 2	Roofs, Paved Parking Lots, Driveways, HSG B	1,826 s.f.	98	100%

Drainage Calculations Drainage Area 1:

Drainage Study Area 1:	s.f.	1390
Design Storm (25 yr.):	in.	6.46
Hydrologic Soil Type:		В
Existing CN:		61
Proposed CN:		98
Required Storage Volume Calculation		
Ex. Runoff Depth:	in.	2.32
Pr. Runoff Depth:	in.	6.22
Delta Runoff Depth:	in.	3.90
Required Storage Volume:	c.f.	452.0
Drywell Information		
Length Of 1 Chamber:	ft.	8.5
Width Of 1 Chamber:	ft.	4.33
Height Of Chamber:	ft.	2.54
Width Of Stone Surrounding Chamber:	ft.	1
Depth Of Stone Under Chamber:	ft.	0.5
Stone Void Ratio:		0.33
Volume Per Drywell (As Per Manufacturer):	c.f./l.f.	7.46
Trench Size		
Trench Width:	ft.	6.33
Trench Length (Unit Length):	ft.	1
Trench Height:	ft.	3.04
Trench Volume:	c.f./l.f.	19.24
Stone Void Volume:	c.f.	3.89
Percolation Area:	s.f./l.f.	6.33

Percolation Rate:	min./in.	30
Percolation Hole Diameter:	in.	10
Water Level Drop	in.	1
Average Depth Of Water	in.	8.5
Percolation Hole Bottom Area:	s.f.	0.55
Percolation Hole Side Area:	s.f.	1.85
Percolation Hole Total Area:	s.f.	2.40
Percolation Volume Change	c.f.	0.045
Adjusted Percolation Rate:	c.f./s.f./day	0.91
Percolation Vol. Per Day:	c.f./day/l.f.	5.8
Soil Clogging Factor:		25%
Percolation With Clogging:	c.f./day/l.f.	4.3
Total Volume Of Chambers:	c.f./day/l.f.	15.7
Required Length Chambers:	l.f.	28.85
Required Number Of Chambers @ 7 L.F./Chamber:		4.12
Proposed Number Of Chambers		5

Drainage Calculations Drainage Area 1 Continued:

Drainage Calculations Drainage Area 2:

Drainage Study Area 2:	s.f.	1034
Design Storm (25 Yr.):	in.	6.46
Hydrologic Soil Type:		В
Existing CN:		61
Proposed CN:		98
Required Storage Volume Calculation		
Ex. Runoff Depth:	in.	2.32
Pr. Runoff Depth:	in.	6.22
Delta Runoff Depth:	in.	3.90
Required Storage Volume:	c.f.	336.2
Drywell Information		
Length Of 1 Chamber:	ft.	8.5
Width Of 1 Chamber:	ft.	4.33
Height Of Chamber:	ft.	2.54
Width Of Stone Surrounding Chamber:	ft.	1
Depth Of Stone Under Chamber:	ft.	0.5
Stone Void Ratio:		0.33
Volume Per Drywell (As Per Manufacturer):	c.f./l.f.	7.46
Trench Size		
Trench Width:	ft.	6.33
Trench Length (Unit Length): ft.		1
Trench Height:	ft.	3.04
Trench Volume:	c.f./l.f.	19.24
Stone Void Volume:	c.f.	3.89
Percolation Area:	s.f./l.f.	6.33

Drainage Calculations Drainage Area 2 Continued:

Percolation Rate:	min./in.	30
Percolation Hole Diameter:	in.	10
Water Level Drop	in.	1
Average Depth Of Water	in.	8.5
Percolation Hole Bottom Area:	s.f.	0.55
Percolation Hole Side Area:	s.f.	1.85
Percolation Hole Total Area:	s.f.	2.40
Percolation Volume Change	c.f.	0.045
Adjusted Percolation Rate:	c.f./s.f./day	0.91
Percolation Vol. Per Day:	c.f./day/l.f.	5.8
Soil Clogging Factor:		25%
Percolation With Clogging:	c.f./day/l.f.	4.3
Total Volume Of Chambers:	c.f./day/l.f.	15.7
Required Length Chambers:	L.F.	21.46
Required Number Of Chambers @ 7 L.F./Chamber:		3.07
Proposed Number Of Chambers		4

Drainage Calculations Drainage Area 3:

Drainage Study Area 3:	s.f.	1610
Design Storm (25 Yr.):	in.	6.46
Hydrologic Soil Type:		В
Existing CN:		61
Proposed CN:		98
Required Storage Volume Calculation		
Ex. Runoff Depth:	in.	2.32
Pr. Runoff Depth:	in.	6.22
Delta Runoff Depth:	in.	3.90
Increase In Runoff Volume:	c.f.	523.5
Required Storage Volume:	c.f.	523.5
Rain Garden Footprint Area:	s.f.	445
Thickness Of Soil Media:	ft.	1.5
Thickness Of Drainage Media:	ft.	1
Soil Media Void Ratio:		0.2
Duaina za Madia Viaid Datia.		0.4
Drainage Media Void Ratio:		0.4
Void Volume Of Soil Media:	c.f.	133.5
	C.I.	155.5
Void Volume Of Drainage Media:	c.f.	178
		170
Ponding Depth:	ft.	0.5
- oneing Deptin		0.5
Volume Of Ponding:	c.f.	222.5
Total Volume Of Rain Garden:	c.f.	534.00

Cultec Infiltrator Information:

Operation & Maintenance

This manual contains guidelines recommended by CULTEC, Inc. and may be used in conjunction with, but not to supersede, local regulations or regulatory authorities. OSHA Guidelines must be followed when inspecting or cleaning any structure.

Introduction

The CULTEC Subsurface Stormwater Management System is a high-density polyethylene (HDPE) chamber system arranged in parallel rows surrounded by washed stone. The CULTEC chambers create arch-shaped voids within the washed stone to provide stormwater detention, retention, infiltration, and reclamation. Filter fabric is placed between the native soil and stone interface to prevent the intrusion of fines into the system. In order to minimize the amount of sediment which may enter the CULTEC system, a sediment collection device (stormwater pretreatment device) is recommended upstream from the CULTEC chamber system. Examples of pretreatment devices include, but are not limited to, an appropriately sized catch basin with sump, pretreatment catchment device, oil grit separator, or baffled distribution box. Manufactured pretreatment devices may also be used in accordance with manufacturer's recommendations. Almost all of the sediment entering the stormwater management system will be collected within the pretreatment device.

Best Management Practices allow for the maintenance of the preliminary collection systems prior to feeding the CULTEC chambers. The pretreatment structures shall be inspected for any debris that will restrict inlet flow rates. Outfall structures, if any, such as outlet control must also be inspected for any obstructions that would restrict outlet flow rates. OSHA Guidelines must be followed when inspecting or cleaning any structure.

Operation and Maintenance Requirements

I. Operation

CULTEC stormwater management systems shall be operated to receive only stormwater run-off in accordance with applicable local regulations. CULTEC subsurface stormwater management chambers operate at peak performance when installed in series with pretreatment. Pretreatment of suspended solids is superior to treatment of solids once they have been introduced into the system. The use of pretreatment is adequate as long as the structure is maintained and the site remains stable with finished impervious surfaces such as parking lots, walkways, and pervious areas are properly maintained. If there is to be an unstable condition, such as improvements to buildings or parking areas, all proper silt control measures shall be implemented according to local regulations.

II. Inspection and Maintenance Options

- A. The CULTEC system may be equipped with an inspection port located on the inlet row. The inspection port is a circular cast box placed in a rectangular concrete collar. When the lid is removed, a 6-inch (150 mm) pipe with a screw-in plug will be exposed. Remove the plug. This will provide access to the CULTEC Chamber row below. From the surface, through this access, the sediment may be measured at this location. A stadia rod may be used to measure the depth of sediment if any in this row. If the depth of sediment is in excess of 3 inches (76 mm), then this row should be cleaned with high pressure water through a culvert cleaning nozzle. This would be carried out through an upstream manhole or through the CULTEC StormFilter Unit (or other pre-treatment device). CCTV inspection of this row can be deployed through this access port to determine if any sediment has accumulated in the inlet row.
- **B.** If the CULTEC bed is not equipped with an inspection port, then access to the inlet row will be through an upstream manhole or the CULTEC StormFilter.
 - 1. Manhole Access

This inspection should only be carried out by persons trained in confined space entry and sewer inspection services. After the manhole cover has been removed a gas detector must be lowered into the manhole to ensure that there are not high concentrations of toxic gases present. The inspector should be lowered into the manhole with the proper safety equipment as per OSHA requirements. The inspector may be able to observe sediment from this location. If this is not possible, the inspector will need to deploy a CCTV robot to permit viewing of the sediment.

Operation & Maintenance CULTEC 2. StormFilter Access Remove the manhole cover to allow access to the unit. Typically a 30-inch (750 mm) pipe is used as a riser from the StormFilter to the surface. As in the case with manhole access, this access point requires a technician trained in confined space entry with proper gas detection equipment. This individual must be equipped with the proper safety equipment for entry into the StormFilter. The technician will be lowered onto the StormFilter unit. The hatch on the unit must be removed. Inside the unit are two filters which may be removed according to StormFilter maintenance guidelines. Once these filters are removed the inspector can enter the StormFilter unit to launch the CCTV camera robot. The inlet row of the CULTEC system is placed on a polyethylene liner to prevent scouring of the washed stone beneath this row. This also facilitates the flushing of this row with high C. pressure water through a culvert cleaning nozzle. The nozzle is deployed through a manhole or the Storm Filter and extended to the end of the row. The water is turned on and the inlet row is back-flushed into the manhole or StormFilter. This water is to be removed from the manhole or StormFilter using a vacuum truck. **III. Maintenance Guidelines** The following guidelines shall be adhered to for the operation and maintenance of the CULTEC stormwater management system: The owner shall keep a maintenance log which shall include details of any events Α. which would have an effect on the system's operational capacity. в. The operation and maintenance procedure shall be reviewed periodically and changed to meet site conditions. Maintenance of the stormwater management system shall be performed by qualified С. workers and shall follow applicable occupational health and safety requirements. D. Debris removed from the stormwater management system shall be disposed of in accordance with applicable laws and regulations. IV. Suggested Maintenance Schedules Α. Minor Maintenance The following suggested schedule shall be followed for routine maintenance during the regular operation of the stormwater system:

Frequency	Action
Monthly in first year	Check inlets and outlets for clogging and remove any debris as required.
Spring and Fall	Check inlets and outlets for clogging and remove any debris as required.
One year after commissioning and every third year following	Check inlets and outlets for clogging and remove any debris as required.

B. Major Maintenance

The following suggested maintenance schedule shall be followed to maintain the performance of the CULTEC stormwater management chambers. Additional work may be necessary due to insufficient performance and other issues that might be found during the inspection of the stormwater management chambers. (See table on next page)

For more information, contact CULTEC at (203) 775-4416 or visit www.cultec.com.

Major Maintenanc	e (continued)	0 11 0 0
	- + · ·	· · · · · · · · · · · · · · · · · · ·
	Frequency	Action
Inlets and Outlets	Every 3 years	Obtain documentation that the inlets, outlets and vents have been cleaned and will function as intended.
	Spring and Fall	Check inlet and outlets for clogging and remove any debris as re- quired.
CULTEC Stormwater Chambers	2 years after commis- sioning	• Inspect the interior of the stormwater management chambers through inspection port for deficiencies using CCTV or comparable technique.
		Obtain documentation that the stormwater management chambers and feed connectors will function as anticipated.
	9 years after commis- sioning every 9 years following	Clean stormwater management chambers and feed connectors of any debris.
	lolioning	Inspect the interior of the stormwater management structures for deficiencies using CCTV or comparable technique.
		 Obtain documentation that the stormwater management chambers and feed connectors have been cleaned and will function as intend- ed.
	45 years after com- missioning	Clean stormwater management chambers and feed connectors of any debris.
		 Determine the remaining life expectancy of the stormwater man- agement chambers and recommended schedule and actions to reha bilitate the stormwater management chambers as required.
		Inspect the interior of the stormwater management chambers for deficiencies using CCTV or comparable technique.
	45 to 50 years after commissioning	Replace or restore the stormwater management chambers in accor dance with the schedule determined at the 45-year inspection.
		Attain the appropriate approvals as required.
		Establish a new operation and maintenance schedule.
Surrounding Site	Monthly in 1 st year	 Check for depressions in areas over and surrounding the stormwate management system.
	Spring and Fall	Check for depressions in areas over and surrounding the stormwate management system.
	Yearly	Confirm that no unauthorized modifications have been performed t the site.
For additional informat contact CULTEC, Inc. a		nance of CULTEC Subsurface Stormwater Management Chambers, please
		Chamber of Choice™
		CULTEC, Inc.

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CULG008 06-10

ZONING DATA: TOWN OF MAMARONECK

TAX MAP # 2-20-191 ZONE:R-10

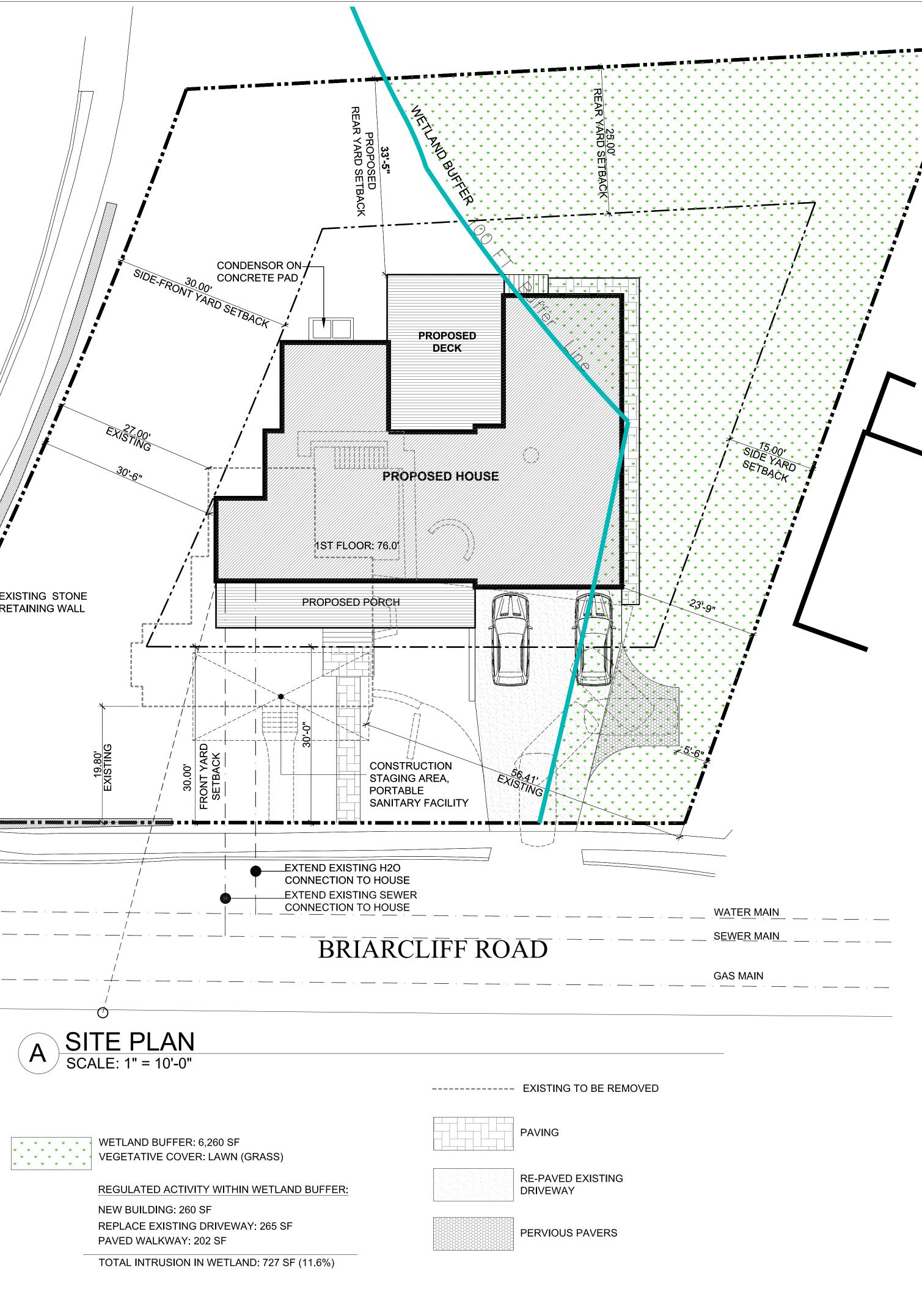
20NE.IX-10								
TABLE BUILDING REQUIREN	MENTS							
	REQUIRED	EXISTING	PROPOSED	VARIANCE				
MINIMUM LOT AREA	10,000 SF	16,965 SF	NO CHANGE	NO				
MINIMUM LOT WIDTH	85 FT	135 FT	NO CHANGE	NO				
MINIMUM LOT DEPTH	100 FT	137 FT	NO CHANGE	NO				
MAXIMUM HEIGHT	2	2	2	NO				
MAX. BUILDING COVERAGE	25% (4,241.25 SF)	8.42% (1,430 SF)	19.88% (3,373 SF)	NO				
MAX. LOT COVERAGE	35% (5,937.75 SF)	18.47% (3,134 SF)	28.1% (4,766 SF)	NO				
MAXIMUM FLOOR AREA RATIO	0.32 (5,120 SF)	0.11 (1,932 SF)	0.288 (4,882 SF)	NO				
	1ST FLOOR 1,168 SF 2ND FLOOR 764 SF		1ST FLOOR 2,441 SF 2ND FLOOR 2,441SF ATTIC: COLLAR TIES @ 5'-0"					
	TOTAL 1,932 SF		TOTAL 4,882 SF					
SETBACK REQUIREMENTS								
MIN. FRONT (EAST) 30.00'		19.80'	30.0'	NO				
MIN. REAR (WEST)	25.00'	61.98'	33.41'	NO				
MIN. SIDE-FRONT (SOUTH)	30.00'	27.00'	30.5'	NO				
MIN. SIDE (NORTH)	15.00'	56.41'	23.75'	NO				

WEA VER STREET EXISTING 30'-6" __EXISTING STONE RETAINING WALL <u>19.80'</u> (ISTING A SITE PLAN SCALE: 1" = 10'-0"

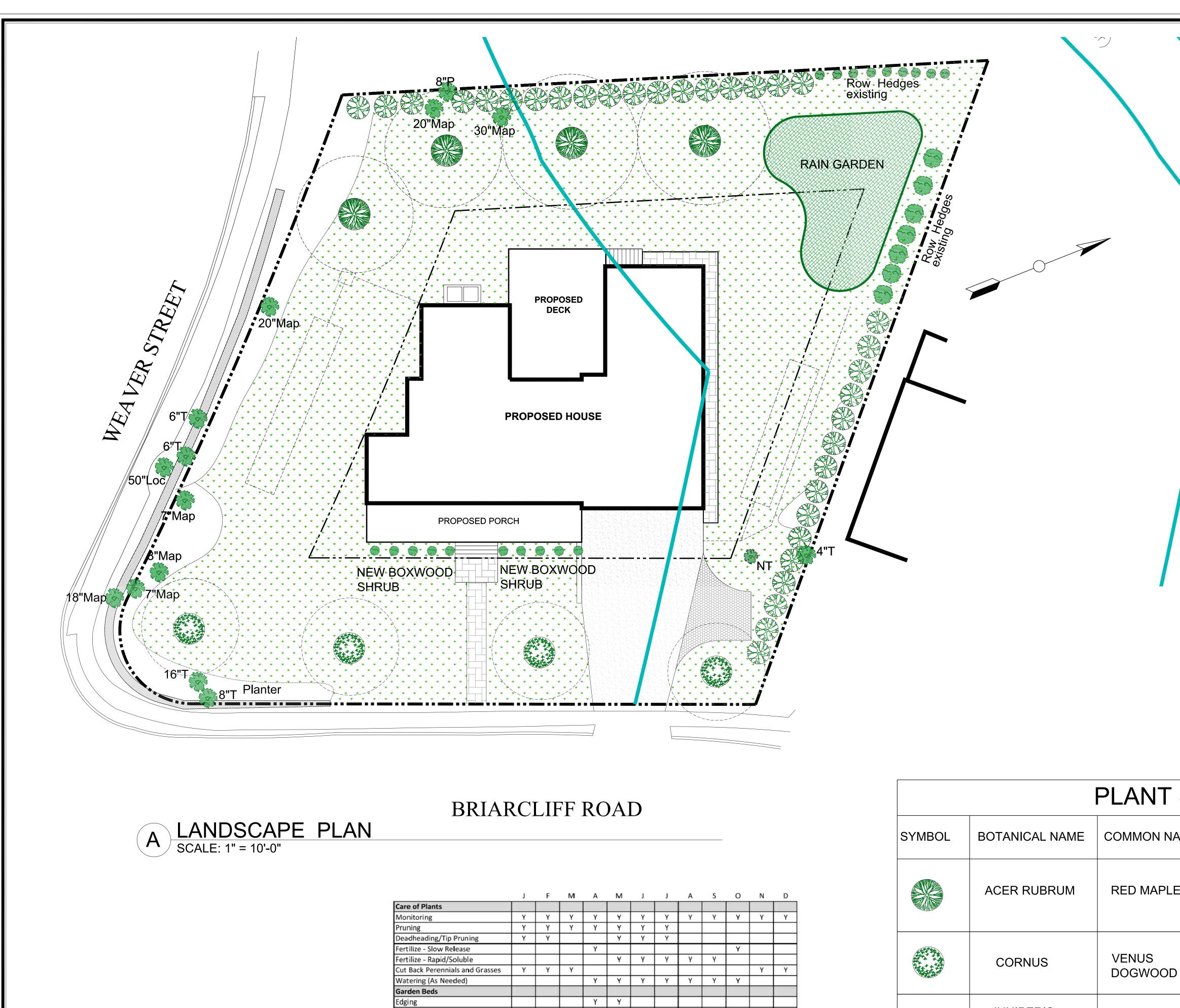


NEW BUILDING: 260 SF

PAVED WALKWAY: 202 SF



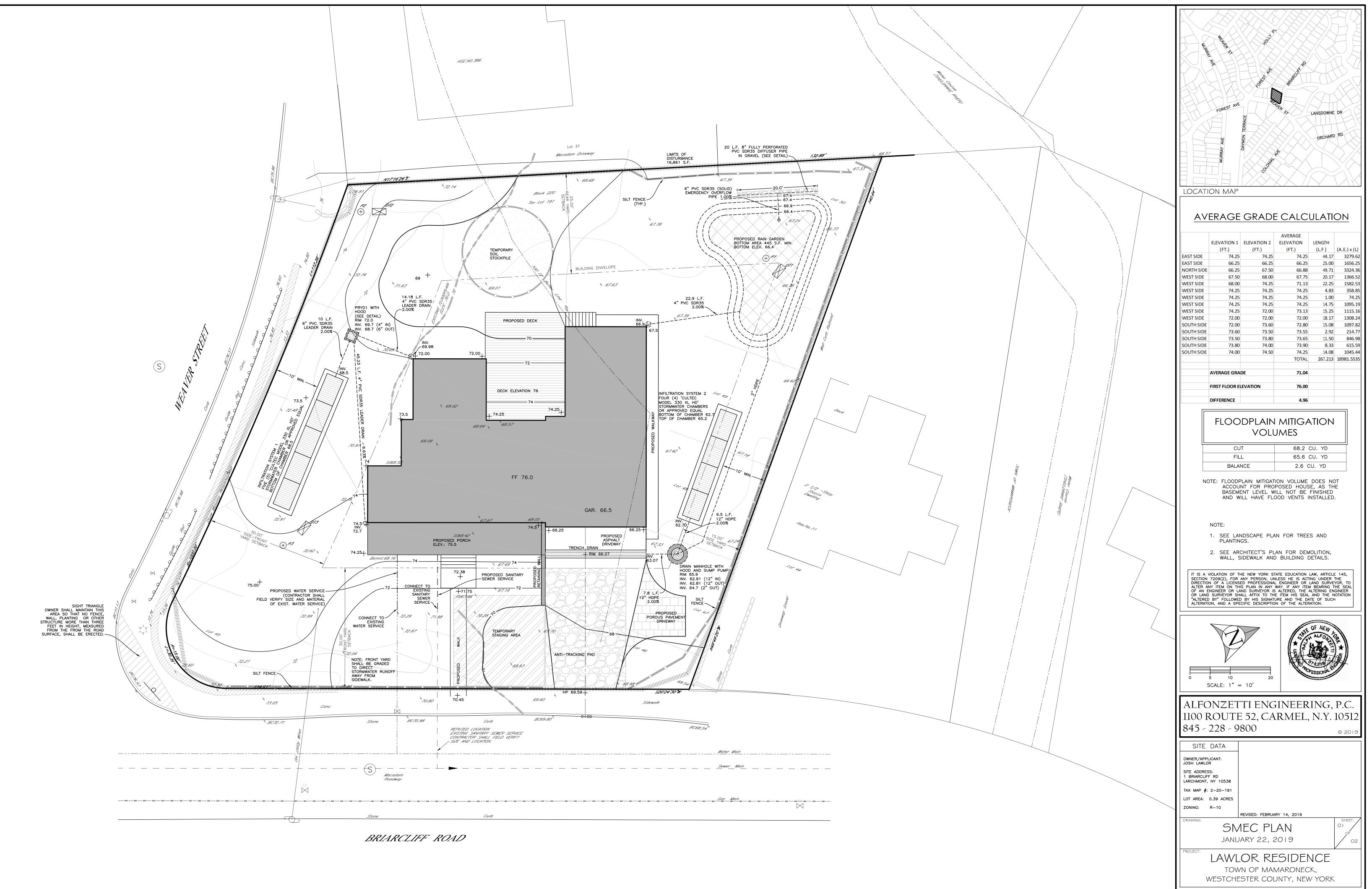
Shell Shell	NOTE: DO NOT SCALE DRAWINGS. REFER TO WRITTEN MEASUREMENTS FOR ACCURANCY, OR CONTACT ARCHITECT. IF THERE ARE ANY DISCECPENCIES UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF NEW YORK STATE EDUCATION LAW. © Copyright 2012 MICHAEL PICCIRILLO ARCHITECTURE
(Sheidrake River)	No. DATE: ISSUE: 1 1/3/19 ISSUED FOR BD CERTIFICATION 2 1/1/19 PLANNING BOARD REVIEW 3 1/23/19 ISSUED FOR PLANNING BOARD PROJECT NAME: LAWLOR RESIDENCE RENOVATION/ADDITION PROJECT ADDRESS: I BRIARCLIFF ROAD LARCHMONT, NEW YORK 10538 Image: Descent and the second secon
	TELEPHONE: 914-368-9838 FACSIMILE: 914-302-2933 michael@mpiccirilloarchitect.com www.mpiccirilloarchitect.com SITE PLAN ZONING ANALYSIS SCALE: AS NOTED DATE: 09 - 10 - 2018 DRAWN BY: MAP CHK'D BY: MAP CHK'D BY: MAP 1 OF 1 SP-101

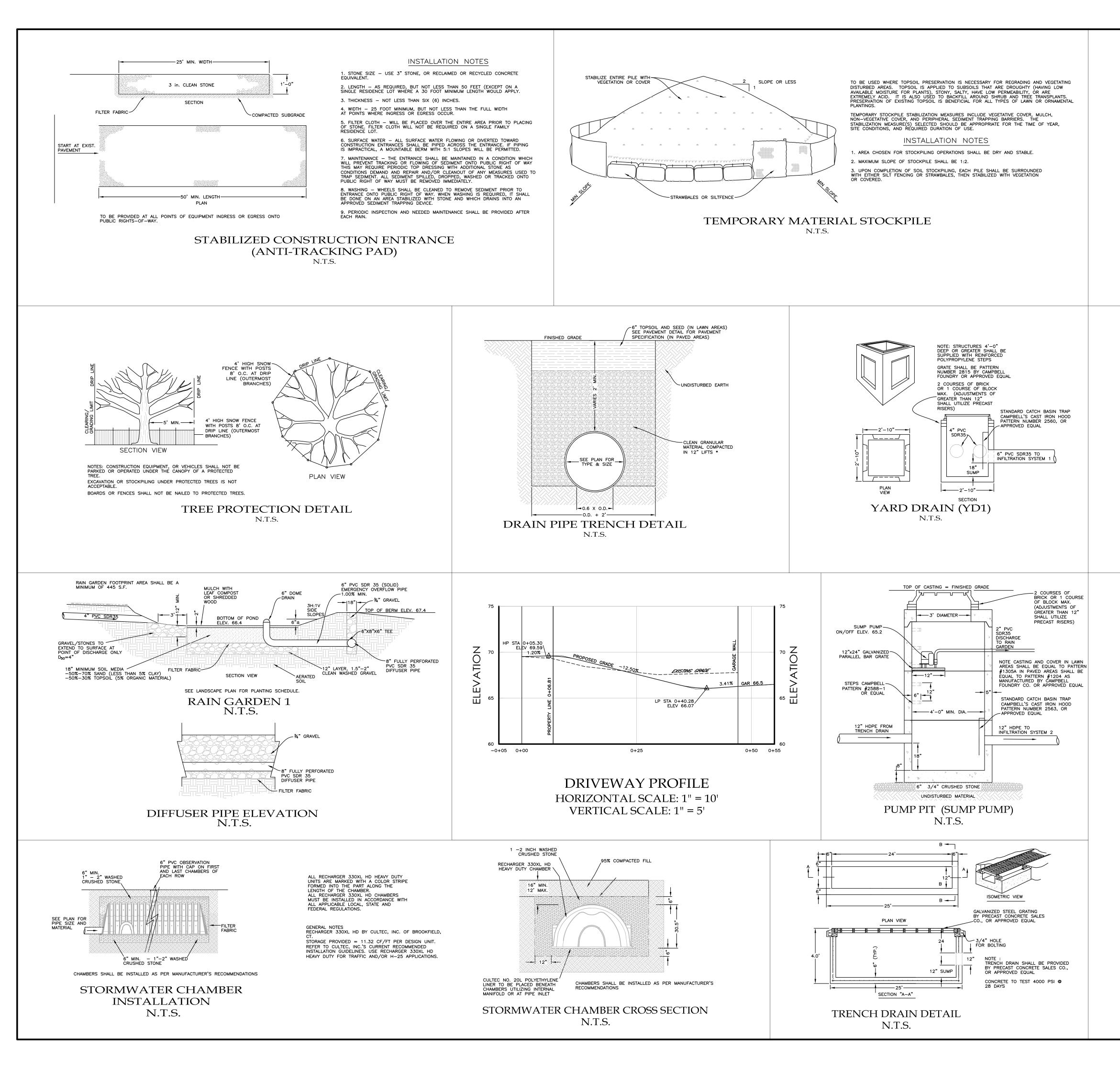


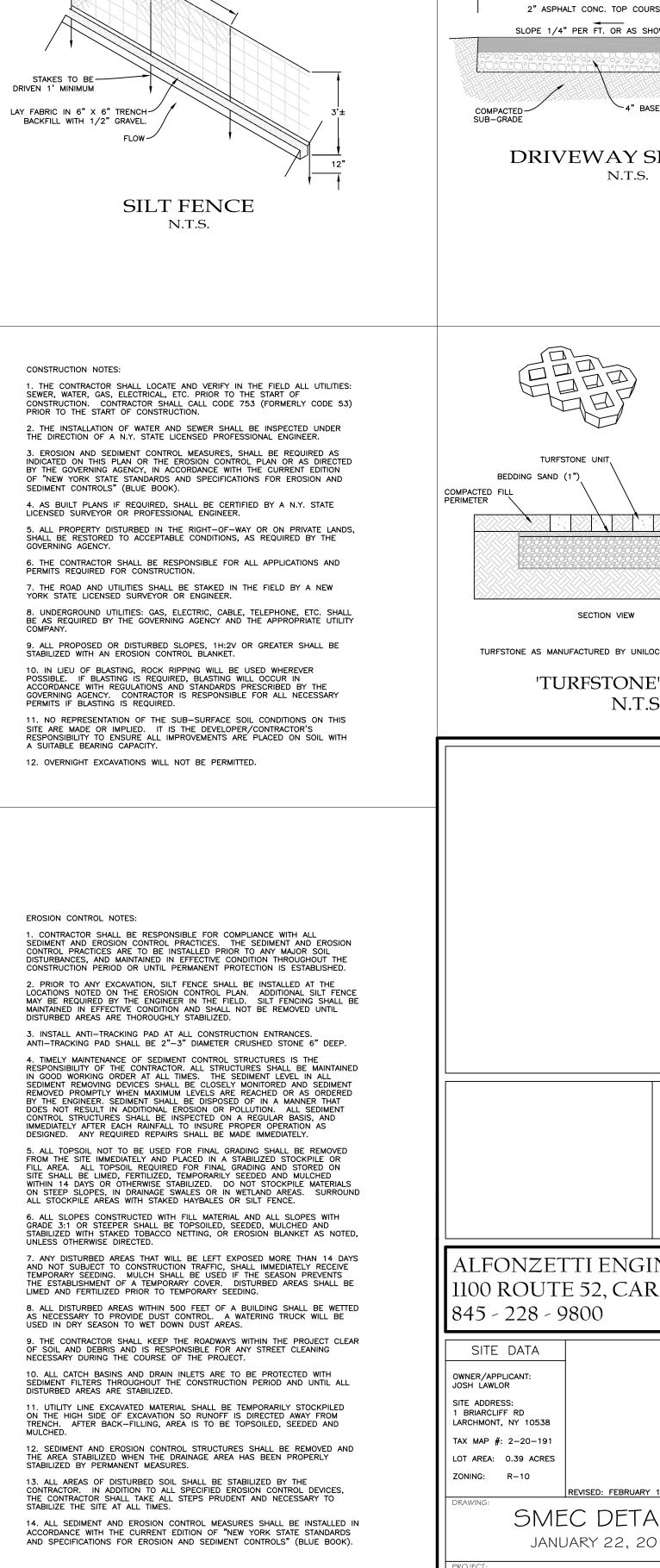
	J	F	М	A	M	J	J	А	S	0	N	D
Care of Plants												
Monitoring	Y	Y	Y.	Y	Y	Y	Y	Y	Y	Y	Y	Y
Pruning	Y	Y	Y	Y	Y	Y	Y					
Deadheading/Tip Pruning	Y	Y			Y	Y	Y					
Fertilize - Slow Release				Y						Y		
Fertilize - Rapid/Soluble					Y	Y	Y	Ŷ	Y			
Cut Back Perennials and Grasses	Y	Y	Y								Ŷ	Y
Watering (As Needed)				Y	Y	Y	Y	Y	Y	Y		
Garden Beds												
Edging				Y	Y							
Weeding					Y	Y	Y	Y	Y			
Mulching				Y								
Leaf Removal										Y	γ	Y
Pest Management												
Monitoring	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ŷ	Y
Lawns						Y	Y	Y				
Fertilize/Weed Control				Y			Y				Y	
Overseeding									Y	Y		
Winter Clean Up	Y	Y	Y									Y

		PLANT S
SYMBOL	BOTANICAL NAME	COMMON NAM
	ACER RUBRUM	RED MAPLE
	CORNUS	VENUS DOGWOOD
B.C.	JUNIPERIS VIRGINIANA "GLAUCA"	EASTERN RE CEDAR
	BUXUS	BOXWOOD

S	Water Course (Sheldrake River)				Michael Piccirillo Architecture Michael Piccirillo Architecture Pro accurancy, or contact architect, contact architect if index and biscorponets UNAUTHORZED AITERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF NEW YORK STATE EDUCATION LAW. © Copyright 2012 MICHAEL PICCIRILLO ARCHITECTURE 1 1/11/19 PLANNING BOARD REVIEW 3 1/22/19 PROJECT NAME: LAWULOR RESIDENCE I BRIARCLIFF ROAD PROJECT ADDRESS: I BRIARCLIFF ROAD LAWLOR RESIDENCE I BRIARCLIFF ROAD PROJECT ADDRESS: I BRIARCLIFF ROAD LAWLOR RESIDENCE I BRIARCLIFF ROAD LARCHMONT, NEW YORK 10538
AME	SIZE AT MATURITY	QTY	SIZE	APPROX. SPACING	* 028090 VOIT
E	40'-50' TALL	4	5-FT TALL	REFER TO PLAN	MICHAEL A PICCIRILLO, AIA 345 KEAR STREET SUITE #203 YORKTOWN, NEW YORK 10598
)	15' TALL	4	3 GALLON	REFER TO PLAN	TELEPHONE: 914-368-9838 FACSIMILE: 914-302-2933 michael@mpiccirilloarchitect.com www.mpiccirilloarchitect.com
RED	20' TALL	33	3 GALLON	3.5FT	LANDSCAPE PLAN
	3' TALL	10	2 GALLON	2FT	SCALE: AS NOTED DATE: 09 - 10 - 2018 DRAWN BY: MAP CHK'D BY: MAP 1 OF







-ATTACH FILTER FABRIC TO POSTS OR USE

PRE-STAKED ROLLED EROSION CONTROL (TYP.)

