# TOWN OF WOODSTOCK INLAND WETLANDS AND WATERCOURSES AGENCY

DEC 1 \$ 5053

APPLICATION FOR PERMISSION TO CONDUCT A REGULATED ACTIVITY WITHIN AN INLAND WETLAND OR WATER COURSE AREA IN THE TOWN OF WOODSTOCK, CONNECTICUT.

(In accordance with the Woodstock Inland Wetlands and Watercourses Regulations, and the regulations of the Connecticut Department of Environmental Protection)

INSTRUCTIONS: All applicants must complete Section 1 of this application form for preliminary review. The Agency will then notify the applicant of any additional information that may be required and will schedule a public hearing, if necessary. In addition to the information supplied in Section 1, the applicant should submit other supporting facts or documents which may assist the Agency NO REPLACE SELVENCE AND ADDITIONAL ASSISTANCE ASSISTANCE AND ADDITIONAL ASSISTANCE AND ADDITIONAL ASSISTANCE AND ADDITIONAL ASSISTANCE ASSISTANCE

SECTION 1	Woodstock Academy	(if not applicant)	Woodstock Academy			
1. Name of Applicant	c/o Christopher Sandford	Name of Property Owner c/o Christopher Sandford				
Address 150 Route 1	69, Woodstock, CT	Address57 Academy R				
Telephone #860-928	-6575		75			
2. Attach a written cons	ent to the proposed activity by the ov					
<ol> <li>Street Location of the</li> </ol>	Property: 150 Route 169					
Specific directions:	Property located on the west side	e of Route 169 just south of	the intersection of Liljegren Road			
Utility Pole Number						
(Use an additional sh	eet, if necessary, to draw a sketch sh	owing the property in relation (	to surrounding roads.)			
Proposed activity	ion of Activity for which Authorization	on is Requested				
Alteration	will involve the following: (Check app	propriate activity):				
h Attach a general d	Construction X Deposition or	Removal of material	Waste Disposal			
Include nature, are courses or wetland	escription of the proposal and indenti a and a volume of material to be plac s must also be given. Construction	ed, removed or transferred. Lin	ity for which permit is sought.  eal measurements of affected water- approx. 12,500 SF of disturbance			
c. A detailed site plan	of the proposal must be included. the	he 100-foot regulated area	approx. 12,500 SF of disturbance			
d. Purpose of the pro	posed activity (i.e., a new dwelling	addition to existing day 11:	EW business driveway etc.)			
Construction of	new Tennis Courts in the area of	of the existing soccer field.	arvoway, cac.).			
<ol> <li>Attach a copy of soils watercourses are alter</li> </ol>	map section and copy of U.S. Geolo	gical survey map section which	contains the proposed activity if any			
	of Adjacent Property Owners (attack					
	plicant hereby consents to necessary as and Watercourses Agency, at reason					
granted by the Agenc	y. In evaluating this application, the assequently proves to be false, deceptive, i	Agency has relied on information of the complete and/or inaccurate, this	on provided by the applicant and,			
The undersigned sw	ears that the information supplied in th	e complete application is	and the same of th			
and belief	1/	complete application is accurat	te to the best of his/her knowledge			
( <i>\lambda</i> )	W (	12.573				
Signature of Applicant		Date				
ECTION II	TO BE FILLE	D IN BY AGENCY				
Date Filed 12/12	. /	3-23-01 F	DE: # 160			
pproved with the follow	ing conditions: All erosion controls re	muland and the total of the state of the sta				
rior to the start of the a	pproved activity. Failure to arrange f	or the inspection and secure ap	pproved by the Enforcement Officer proval may VOID the permit.			
	y specific activities described in this a					
y:	Chairperson D	ate Approved	Expires:			
rosion controls inspecte	-					
	Date	<i>ν</i> <sub>j</sub>				
onding (if required) pos	ted on b	,	ase date			



GIS CODE #:	 	 	 	 
For DEEP Use Only				

79 Elm Street • Hartford, CT 06106-5127

www.ct.gov/deep

Affirmative Action/Equal Opportunity Employer

# Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete and mail this form in accordance with the instructions.

If completing by hand - please print and use the <u>pdf version</u>.

Incomplete or incomprehensible forms will be mailed back to the municipal inland wetlands agency.

	PART I: Must Be Completed By The Inland Wetlands Agency
<b>1.</b> D	DATE ACTION WAS TAKEN: year: Click Here for Year month: Click Here for Month
<b>2.</b> C	CHOOSE ACTION TAKEN (see instructions for code): Click Here to Choose a Code
3. V	VAS A PUBLIC HEARING HELD (check one)? yes  no
4. N	IAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
(t	type name) (signature)
	PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant
5. T	OWN IN WHICH THE ACTIVITY IS OCCURRING (type name): Woodstock
	loes this project cross municipal boundaries (check one)? yes 🗌 no 🛛
if	yes, list the other town(s) in which the activity is occurring (type name(s)):,
6. L	OCATION (click on hyperlinks for information): <u>USGS quad map name</u> : <u>Putnam</u> or <u>quad number</u> : <u>28</u>
<u>s</u>	subregional drainage basin number: 3708
7. N	NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): Woodstock Academy
8. N	NAME & ADDRESS OF ACTIVITY / PROJECT SITE (type information): South Campus, 150 Route 169
	oriefly describe the action/project/activity (check and type information): temporary  permanent  description:
9. A	ACTIVITY PURPOSE CODE (see instructions for code): $\underline{\mathbf{D}}$
10. A	ACTIVITY TYPE CODE(S) (see instructions for codes): 9, 12, 14, Click for Code
11. V	NETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, type acres or linear feet as indicated):
W	vetlands: $\underline{0.00}$ acres open water body: $\underline{0.00}$ acres stream: $\underline{0.00}$ linear feet
<b>12</b> . U	JPLAND AREA ALTERED (type acres as indicated): 0.29 acres
13. A	AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type acres as indicated): 0.00 acres
DATE	PART III: To Be Completed By The DEEP DATE RETURNED TO DEEP:
FORM	M COMPLETED: YES NO FORM CORRECTED / COMPLETED: YES NO

BAKER EDWARD J + JOANNE 107 RT 169 WOODSTOCK, CT 06281 HOUDE ELIZABETH 6 LILJEGREN RD WOODSTOCK, CT 06281 SALVAS MARGARET S 77 RT 169 WOODSTOCK, CT 06281

BELLANCEAU GREGORY + DONN 65 CASTLE ROCK RD WOODSTOCK, CT 06281 JOY ROAD RENTALS LLC 122 JOY RD WOODSTOCK, CT 06281-2204 SHERMAN BRUCE A + CYNTHIA 218 RT 169 WOODSTOCK, CT 06281

BRISSON CHRISTOPHER 116 SCHOOL ST DANIELSON, CT 06239 KAMATH SANTOSH P + ANNE H LE E SIDDHARTHA P + ANJAL 2103 NW 40TH TERRACE GAINESVILLE, FL 32605

WOODSTOCK ACADEMY 57 ACADEMY RD WOODSTOCK, CT 06281

CASTLE ROCK FARM LLC 210 CHILDS HILL RD WOODSTOCK, CT 06281 KOWAL MELISSA L TRUSTEE KOWAL FAMILY IRREVOCABLE 19 MACK RD MIDDLEFIELD, CT 06455 WOODSTOCK TOWN OF MIDDLE SCHOOL 415 RT 169 WOODSTOCK, CT 06281

CHAPMAN JOHN D 149 BUTTS RD WOODSTOCK, CT 06281 MAGNAN GEORGE J PO BOX 304 WOODSTOCK, CT 06281

DEAN JAMES C 72 CASTLE ROCK RD WOODSTOCK, CT 06281 MAYHEW CHRISTOPHER D SR PO BOX 297 S WOODSTOCK, CT 06267

DEAN JAMES C 72 CASTLE ROCK RD WOODSTOCK, CT 06281-0000 MILLER FAMILY LLC 199 RT 171 WOODSTOCK, CT 06281

FLYBOY ACRES LLC 89 RT 169 WOODSTOCK, CT 06281 PRATTE GARY A + MYRA J 116 RT 169 WOODSTOCK, CT 06281

FLYBOY ACRES LLC PEGHINY THOMAS - FLIGHTST PO BOX 325 S WOODSTOCK, CT 06267

ROY RICHARD R + RUTH A 215 RT 169 WOODSTOCK, CT 06281

HANLON KEVIN + LORI 200 BUTTS RD WOODSTOCK, CT 06281 RUST JEFF WILLIAM & REBEC 106 RT 169 WOODSTOCK, CT 06281

#### Woodstock School, Woodstock, CT

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# Soil Scientist Report

Site Locus: 150 Rt. 169, Woodstock School, Woodstock, CT 06281

Prepared for: CHA Companies

Prepared by: Goddard Consulting LLC, 291 Main St, Suite 8, Northborough MA 01532

Date: 8/22/2023

### **INTRODUCTION**

On August 16, 2023, the wetland resources were delineated on land located at 150 Rt. 169, Woodstock School, Woodstock, CT 06281 (refer to enclosed locus maps). The wetland boundaries were flagged using the criteria in the most recent edition of the Inland Wetlands and Watercourses Act (IWWA) and US Army Corps of Engineers standards using flag series GCA1-GCA10, GCA20-GCA27, and GCA30-GCA57. Hydric soil indicators, vegetation changes, hydrological indicators, and topography were all considered for delineation purposes.

The titles of attached documents are as follows:

- ACOE Delineation Data Sheets
- Figure 1: USGS of Locus Site, Goddard Consulting, LLC, 8/18/2023
- Figure 2: Orthophoto & Soils Map, Goddard Consulting, LLC, 8/18/2023
- Figure 3: Closeup Soils Map, Goddard Consulting, LLC, 8/18/2023
- Figure 4: FEMA Map, Goddard Consulting, LLC, 8/18/2023
- Figure 5: NDDB Rare Species Map, Goddard Consulting, LLC, 8/18/2023

### **INLAND WETLANDS AND WATERCOURSES ACT & BYLAW:**

Inland resource areas were delineated in accordance with relevant federal, state, and local regulations. As stated in the IWWA Sec. 22a-38, "Wetlands" means land, including submerged land, not regulated pursuant to sections 22a-28 to 22a-35, inclusive, which consists of any soil types designed as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey..."

Additionally, "Watercourses" means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within flow through or border upon the City or any portion thereof... Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (a) evidence of scour or deposits of recent alluvium or detritus, (b) the presence of standing or flowing water for duration longer than a particular storm incident, and (c) the presence of hydrophytic vegetation."

### **MAPPED NRCS SOILS**

The table below provides the regulatory jurisdiction, flag numbers/colors, and wetland types and locations for the resource areas delineated. Based on the State of Connecticut GIS Soil Survey information (see the Orthophoto & Soils Map), the soils in association with the site location primarily include Woodbridge fine sandy loam and Sutton find sandy loam. Brief descriptions of these types of soils are explained below.

Woodbridge Fine Sandy Loam: These soils are fine sandy loams that become gravelly around a depth of 30 inches or greater. The typical profile of this soil is 0 to 65 inches of depth, with slopes between 0 to 8 percent. These are moderately well drained soils with a depth to water table between 18 to 30 inches, and have no hydric rating. They can typically be found in ground moraines, hills, and drumlins.

<u>Sutton Fine Sandy Loam:</u> These soils are fine sandy loams which become more gravelly at greater depths. The typical profile for this soil is from 0 to 62 inches, with slopes between 0 to 15 percent. These are very deep, moderately well drained soils with a water table at around 12 to 27 inches, and have no hydric rating. They can typically be found in ground moraines and hills.

### Woodstock School, Woodstock, CT

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Ridgebury Fine Sandy Loam: These soils are fine sandy loams which become gravelly at greater depths and have a layer of moderately decomposed plant material at the surface. The typical profile for these soils is from 0 to 66 inches, with slopes from 0 to 15 percent. These are poorly drained soils with a depth to water table of about 0 to 6 inches, and have a hydric rating. They can typically be found in ground moraines, hills, drumlins, depressions, and drainageways.

Based on the inspection of soils associated with the delineated wetland, the soil types researched appear to be consistent with what was discovered in the field.

#### **OBSERVED ON-SITE SOILS**

Consistent with the NRCS based soil survey, soils identified on the property were found to be similar, with sandy loams being the primary soil texture. Upland soils generally contained an A-Horizon with a depth of 0 to 8 inches, sandy loam texture, and a matrix of 10YR 4/2. Underlying this was a Bw-Horizon with a depth of 8 to 18+ inches, a sandy loam texture, and a matrix of 10YR 6/3. There was refusal at between 14 and 20 inches. Wetland soils generally contained an A-Horizon with a depth of 0 to 12 inches of depth, sandy loam texture, and matrix of 10YR 2/1. This was followed by a Bg-Horizon with a depth of 12 to 18+ inches, a sandy loam texture, and a matrix of 10YR 7/1.

### **VEGETATION**

Vegetation in the upland consisted primarily of white pine, red oak, pignut hickory, red maple, maple leaf viburnum, jewelweed, multiflora rose, oriental bittersweet, morrow's honeysuckle, glossy buckthorn, Japanese barberry, poison ivy, goldenrod, primrose, and sensitive fern. Vegetation in the wetland primarily consists of red maple, red oak, green ash, morrow's honeysuckle, glossy buckthorn, oriental bittersweet, poison ivy, sensitive fern, and wild geranium. Vegetation differences between the upland and wetland were generally distinct, with obvious hydrophytes present here but absent from the adjacent upland areas. Vegetation in general was disturbed and invasive dominated in the upland areas.

#### HYDROLOGY AND WATERCOURSES

Multiple features of evident hydrologic conditions were identified on the property. A pool of standing water was found within the wetland east of the flag series GCA20-27, in addition to hydric soils. Two linear watercourses were identified along flag series GCA30-57. A narrow southern watercourse (flags GCA33-43) extends southeast from the main wetland, and terminates just before reaching a road. The northern watercourse (flags GCA55-57) extends north of the main wetland, and continues outside the delineated area.

#### FEMA FLOOD ZONES

The National Flood Hazard Layer provided by the Federal Emergency Management Agency (FEMA) does not depict the area of proposed development on site to be within a designated flood zone.

### **NDDB**

The Natural Diversity Data Base (NDDB) does not depict the site to be within a Natural Diversity Area. The nearest NDDB area is over 500 feet southeast from the site boundary.

#### **FINDINGS**

Based on these hydric soil indicators, vegetation, hydrological indicators, and topography, the flagged locations on site were found to be the boundary of wetland and watercourse areas reviewed.

Sincerely,

Goddard Consulting, LLC

Steven Riberdy, MS, PWS, CWB, CERP, CE, PSS

Lead Biologist / Senior Manager / Palmer Office Manager



### **SITE PHOTOS**



Photo 1. View of wetland (facing west) from flag GCA2 in the southeastern corner of the site.



Photo 2. View of upland (facing east) from flag GCA2 in the southeastern corner of the site.





Photo 3. View of upland path between wetland flags GCA10 & 20 (facing west).



Photo 4. View of standing water within wetland (facing west) between flags GCA20 & 27.





Photo 5. View of southern watercourse (facing northeast).



Photo 6. View of northern watercourse (facing north) at northern edge of delineation.

### **BORDERING VEGETATED WETLAND DETERMINATION FORM**

Project/Site:	Woodstock School, 150	Rt. 169 City/Town: Woodstock, CT	City/Town: Woodstock, CT Sampling Date: 8			
Applicant/Owner:	Woodstock School	Sampling Point o	Sampling Point or Zone: GCA-2			
Investigator(s):	Steven Riberdy	Latitude/Lon	Latitude/Longitude: 41.926627			
Soil Map Unit Name:	51B	NWI or DEP Classifi	ication: Pl	FO1E		
		UPGRADIENT				
Are climatic/hvdrolog	ic conditions on the site t	ypical for this time of year? Yes X	No		(If no, explain in Remarks)	
Are Vegetation	, Soil , o	r Hydrology significantly disturbed? (If yes, ex				
Are Vegetation	, Soil , o	r Hydrology naturally problematic? (If yes, ex	plain in Re	emarks)	<i>.</i> 	
SUMMARY OF FINE	DINGS – Attach site ma	p and photograph log showing sampling location	ons, trans	sects, o	etc	
Wetland vegetation c	riterion met? Yes	No X Is the Sampled Area within a We	tland?	Yes	No X	
Hydric Soils criterion	met? Yes	No X			<del></del>	
Wetlands hydrology p	oresent? Yes	No X				
Remarks, Photo Detail	ils, Flagging, etc.:					
l l l l l l l l l l l l l l l l l l l						
HYDROLOGY						
Field Observations:					(0.)	
Surface Water Presen		Yes	No	Х	Depth (in)	
Water Table Present?		Yes	No	Х	Depth (in)	
Saturation Present (ir	cluding capillary fringe)?	Yes	No	Х	Depth (in)	
Wetland Hydrology	Indicators					
Reliable Indicators of	Wetlands	Indicators that can be Reliable with	Indicato	rs of th	e Influence of Water	
Hydrology		Proper Interpretation				
Water-stained lea	aves	Hydrological records	Direct observation of inundation		servation of inundation	
Evidence of aqua	tic fauna	Free water in a soil test hole	Drainage patterns		patterns	
Iron deposits		Saturated soil	Drift lines		•	
Algal mats or cru	sts	Water marks	Scoured areas		areas	
<u> </u>	neres/pore linings	Moss trim lines	Sediment deposits			
<del>_</del>		Presence of reduced iron	Surface soil cracks		•	
<del></del>		Woody plants with adventitious				
		roots	surface		-0	
		Trees with shallow root systems	Microtopographic relief		nographic relief	
<del></del>		Woody plants with enlarged lenticels			hic position (depression,	
Hydrogen sulfide	•	woody plants with charged lefficers	_		ope, fringing lowland)	
nemarks (uescribe rec	Lorueu uata mom stream	gauge, monitoring well, aerial photos, previous insp	ections, If	avaiidL	nej.	

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

Sampling Point	GCA-2

### $\label{eq:VEGETATION-Use} \textbf{VEGETATION}-\textbf{Use} \ both \ common \ and \ scientific \ names \ of \ plants.$

Tre	ee Stratum	Plot size30'					
	1			1		Γ	T
			Indicator	Absolute %	Dominant?	Wetland Indictor?	
	Common Name	Scientific name	Status	Cover	(yes/no)	(yes/no)	% Dominant
_	Northern Red Oak	Quercus rubra	FACU	63.0%	Х		85.7%
2	,	Carya glabra	FACU	10.5%			14.3%
3							
4							
5							
6							
7							
8							
9							
				73.5%	_=Total Cover		
Shi	rub/Sapling Stratum	Plot size15'					
					_		
			Indicator	Absolute %	Dominant?	Wetland Indictor?	
	Common Name	Scientific name	Status	Cover	(yes/no)	(yes/no)	% Dominant
_	Northern Spicebush	Lindera benzoin	FACW	10.5%	Х	Х	25.9%
_	Morrow's Honeysuckle	Lonicera morrowii	FACU	10.5%	Х		25.9%
_	Multiflora Rose	Rosa multiflora	FACU	10.5%	Х		25.9%
	Japanese Barberry	Berberis thunbergii	FACU	3.0%			7.4%
-	American Beech	Fagus grandifolia	FACU	3.0%			7.4%
	Burning Bush	Euonymus atropurpureus	FACU	3.0%			7.4%
7							
8							
9							
				40.5%	=Total Cover		
He	rb Stratum	Plot size5'					
			Indicator	Absolute %	Dominant?	Wetland Indictor?	
	Common Name	Scientific name	Status	Cover	(yes/no)	(yes/no)	% Dominant
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
	•	•	•	0.0%	=Total Cover	•	•

#### **VEGETATION** – continued.

Woody Vine Stratum	Plot size30'					
Common Name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)	% Dominant
1 Eastern Poison Ivy	Toxicodendron radicans	FAC	10.5%	Х	Х	33.3%
2 Virginia Creeper	Parthenocissus quinquefolia	FACU	10.5%	Х		33.3%
3 Oriental Bittersweet	Celastrus orbiculatus	FACU	10.5%	Х		33.3%
4						
31.5% =Total Cover						

Rapid Test:	Do all dominant species have an inc	Yes	No X			
Dominance Test:	Number of dominant species	Number of dominant species Number of dominant species that are				
		wetland indicator pla	nts	up ≥ 50% of do	ominant plant	
				species?		
	7	2		Yes	No X	
Prevalence Index:		Total % Cover	Multiply by:		Result	
		(all strata)				
	OBL species	0%	x1	=	0%	
	FACW species	11%	x2	=	21%	
	FAC species	11%	х3	=	32%	
	FACU species	125%	x4	=	498%	
	UPL species	0%	x5	=	0%	
	Column Totals (A)	146%		(B)	551%	
	Prevalence Index	B/A=	3.78	Is the Prevaler	nce Index ≤ 3.0?	
				Yes	No X	
Wetland vegetation cri	terion met? Yes No X	•		•		

### **Definitions of Vegetation Strata**

Tree Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height

Shrub/Sapling Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall

Herb All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall

Woody vines All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges								
Range	Midpoint							
1-5 %	3.00%							
6-15 %	10.50%							
15-25 %	20.50%							
26-50 %	38.00%							
51-75 %	63.00%							
76-95 %	85.50%							
96-100 %	98.00%							

Profile Description: (	Describe to t	he de	pth needed to	docu	ment the indicator	or confirm t	he absence of	indicators)		
Depth	Matrix			Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Lo	cation <sup>2</sup>	Texture	Remarks	
0-8"	10YR4/2	100						Sandy Loam	Α	
8-18"+	10YR6/3	100						Sandy Loam	Bw	
						-				
<sup>1</sup> Type: C=Concentration	n. D=Depletion	n. RM=	Reduced Matrix	. MS=	L	Location: PL	=Pore Lining, M:	I =Matrix		
Hydric Soil Indicator				,		Indicators for Problematic Hydric Soils				
Histosol (A1)	, , , , , , ,		Sandy Re	dox (S	S5)	2 cm Muck (A10)				
Histic Epipedon (A	2)		Stripped	Matri	x (S6)	5 cm Mucky Peat or Peat (S3)				
Black Histic (A3)			Polyvalu	e Belo	w Surface (S8)	Dark Surface (S7)				
Hydrogen Sulfide (	A4)		Thin Dar	k Surfa	ace (S9)	Polyvalue Below Surface (S8)				
Stratified Layers (A	A5)		Loamy N	lucky	Mineral (F1)	Thin Dark Surface (S9)				
Depleted Below Da	ark Surface (A1	11)	Loamy G	leyed	Matrix (F2)	Iron-Manganese Masses (F12)				
Thick Dark Surface	(A12)		Depleted	Matr	ix (F3)	Mesic Spodic (A17)				
Sandy Mucky Mine	eral (S1)		Redox Da	ark Su	rface (F7)	Red Parent Material (F21)				
Sandy Gleyed Mat	rix (S4)		Depleted	Depleted Dark Surface (F8)			Very Shallow Dark Surface (TF12)			
Dark Surface (S7)						Other (Include	Explanation in Ren	narks)		
Restrictive Layer (if observed) Type: Depth (inches):										
Remarks										
Hydric Soils criterion n	net?	Yes	No	Х						

#### DOWNGRADIENT

	significantly disturbed? (If yes, ex naturally problematic? (If yes, ex raph log showing sampling location is the Sampled Area within a We	ons, transects, etc
es X No		
es X No	Is the Sampled Area within a We	rtland? Yes X No
	<del>_</del>	
es X No		
	Yes	No X Depth (in)
	Yes	No X Depth (in)
ige)?	Yes	No X Depth (in)
Indicators tl	nat can be Reliable with	Indicators of the Influence of Water
Hy	drological records	Direct observation of inundation
Fre	e water in a soil test hole	Drainage patterns
Sat	urated soil	Drift lines
Wa	iter marks	Scoured areas
Mo	ss trim lines	Sediment deposits
Pre	esence of reduced iron	Surface soil cracks
Wo	oody plants with adventitious	Sparsely vegetated concave
roc	ots	surface
Tre	ees with shallow root systems	Microtopographic relief
	,	
Wo	oody plants with enlarged lenticels	X Geographic position (depression,
	Indicators the Hyu Free Sate Wa Moo Pree Wo	Indicators that can be Reliable with  Hydrological records Free water in a soil test hole Saturated soil Water marks Moss trim lines Presence of reduced iron Woody plants with adventitious roots

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

Sampling Point	GCA-2

### **VEGETATION** – Use both common and scientific names of plants.

ree Stratum	Plot size30'					
Common Name	Scientific name	Indicator	Absolute %	Dominant?	Wetland Indictor?	% Dominan
1 Red Maple	Acer rubrum	FAC	63.0%	Х	Х	67.0%
2 Green Ash	Fraxinus pennsylvanica	FACW	20.5%	Х	Х	21.8%
3 Northern Red Oak	Quercus rubra	FACU	10.5%			11.2%
4						
5						
6						
7						
8						
9						
<u>.3</u>			94.0%	=Total Cover		
huuh /Conline Stuatuur	Distains 451		94.0%	- Total Cover		
hrub/Sapling Stratum	Plot size15'					
Common Name	Scientific name	Indicator	Absolute %	Dominant?	Wetland Indictor?	% Dominan
1 Morrow's Honeysuckle	Lonicera morrowii	FACU	20.5%	Х		46.
2 Glossy Buckthorn	Frangula alnus	FAC	10.5%	Х	Х	23.
3 Multiflora Rose	Rosa multiflora	FACU	10.5%	Х		23
4 Japanese Barberry	Berberis thunbergii	FACU	3.0%			6
5						
6						
7						
8						
9						
			44.5%	=Total Cover		
			44.570	- Total cover		
lerb Stratum	Plot size 5'					
icio Stratam	1100 3120					
Common Name	Scientific name	Indicator	Absolute %	Dominant?	Wetland Indictor?	% Dominan
1 Sensitive Fern	Onoclea sensibilis	EACIA/	10.50/	Х	Х	63.
		FACW	10.5%			
2 Wild Geranium	Geranium maculatum	FACU	3.0%			
	Geranium maculatum			~		18. 18.
2 Wild Geranium		FACU	3.0%			18.
2 Wild Geranium 3 White Snakeroot 4	Geranium maculatum	FACU	3.0%			18
2 Wild Geranium 3 White Snakeroot 4 5	Geranium maculatum	FACU	3.0%			18.
2 Wild Geranium 3 White Snakeroot 4 5	Geranium maculatum	FACU	3.0%			18.
2 Wild Geranium 3 White Snakeroot 4 5 6 7	Geranium maculatum	FACU	3.0%			18.
2 Wild Geranium 3 White Snakeroot 4 5 6 7 8	Geranium maculatum	FACU	3.0%			18
2 Wild Geranium 3 White Snakeroot 4 5 6 7 8 9	Geranium maculatum	FACU	3.0%			18
2 Wild Geranium 3 White Snakeroot 4 5 6 7 8 9 0	Geranium maculatum	FACU	3.0%			18
2 Wild Geranium 3 White Snakeroot 4 5 6 7	Geranium maculatum	FACU	3.0%			18

#### **VEGETATION** – continued.

Woody Vine Stratum	Plot size30'					
Common Name	Scientific name	Indicator	Absolute %	Dominant?	Wetland Indictor?	% Dominant
1 Oriental Bittersweet	Celastrus orbiculatus	FACU	20.5%	Х		50.0%
2 Eastern Poison Ivy	Toxicodendron radicans	FAC	20.5%	Х	Х	50.0%
3						
4						
			41.0%	=Total Cover		

Rapid Test:	Do all dominant species have an inc	dicator status of OBL or	FACW?	Yes	No X	
Dominance Test:	Number of dominant species	Number of dominant s	species that are	Do wetland ind	Do wetland indicator plants make	
	8	5		Yes X	No	
Prevalence Index:		Total % Cover	Multiply by:		Result	
	OBL species	0%	x1	=	0%	
	FACW species	31%	x2	=	62%	
	FAC species	94%	х3	=	282%	
	FACU species	71%	x4	=	284%	
	UPL species	0%	x5	=	0%	
	Column Totals (A)	196%		(B)	628%	
	Prevalence Index	B/A=	3.20	Is the Prevalence	ce Index ≤ 3.0?	
				Yes	No X	
Wetland vegetation criterion	n met? Yes No X					

### **Definitions of Vegetation Strata**

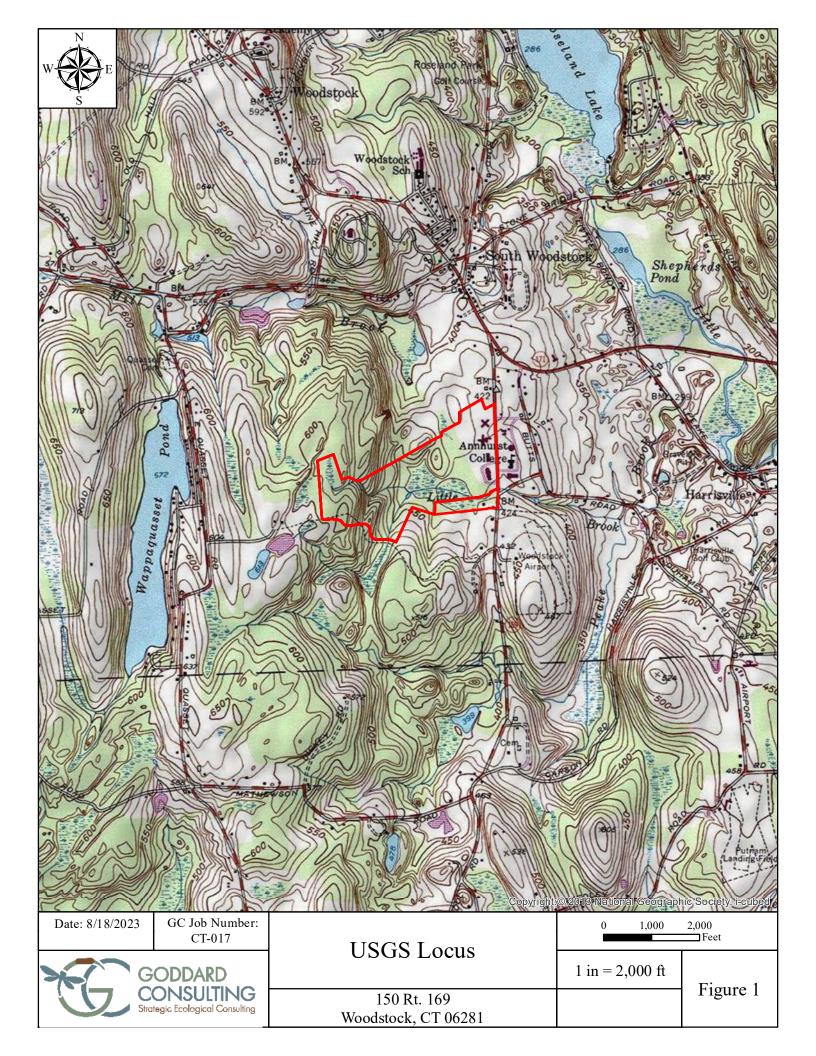
Tree Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height Shrub/Sapling Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall

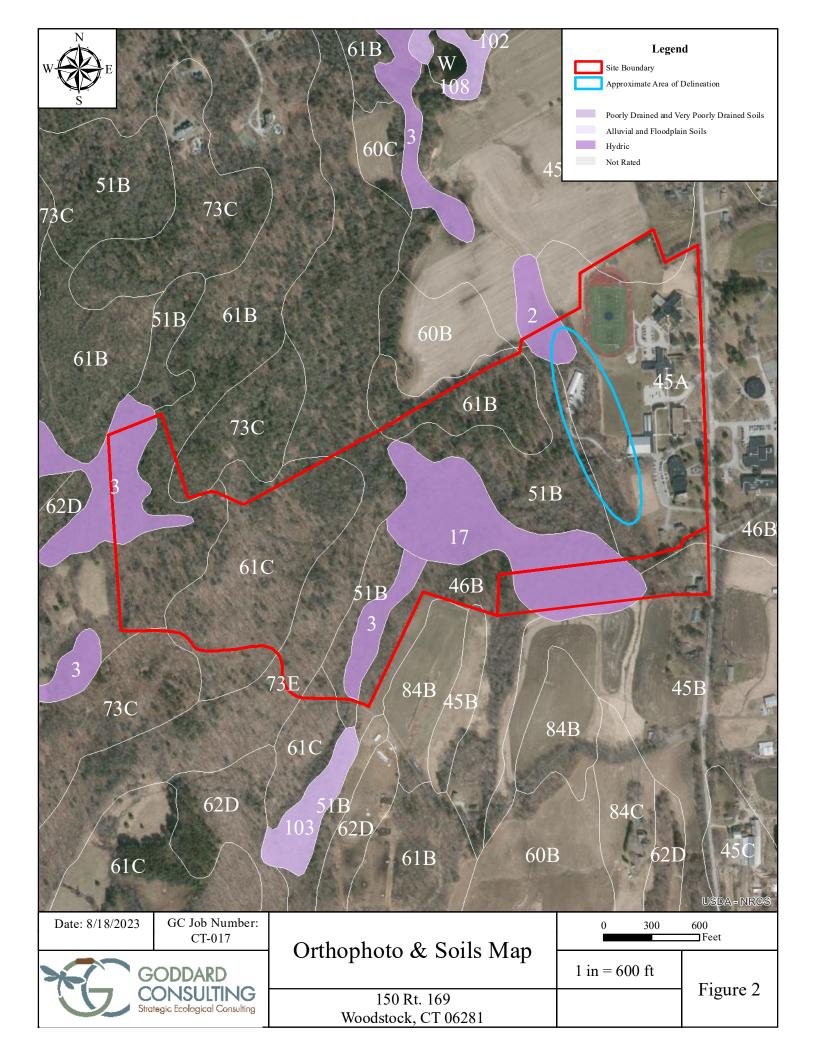
Herb All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall

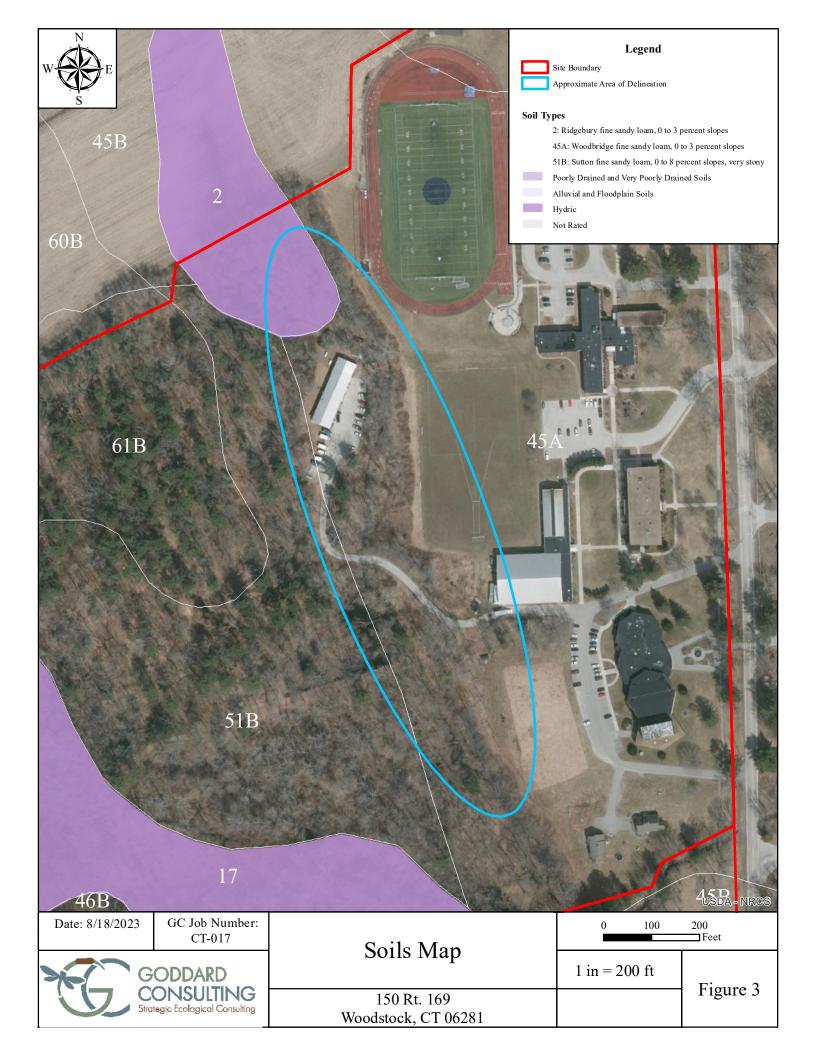
Woody vines All woody vines greater than 3.3 ft. (1 m) in height

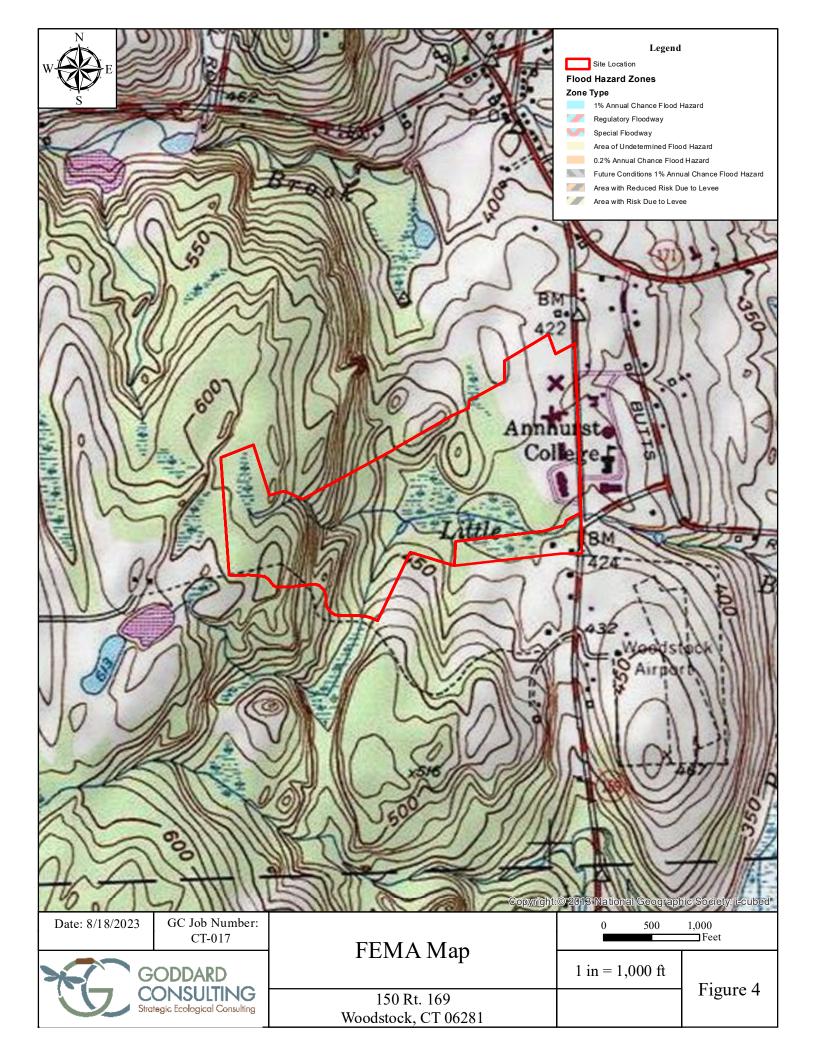
Cover Ranges					
Range	Midpoint				
1-5 %	3.00%				
6-15 %	10.50%				
15-25 %	20.50%				
26-50 %	38.00%				
51-75 %	63.00%				
76-95 %	85.50%				
96-100 %	98.00%				

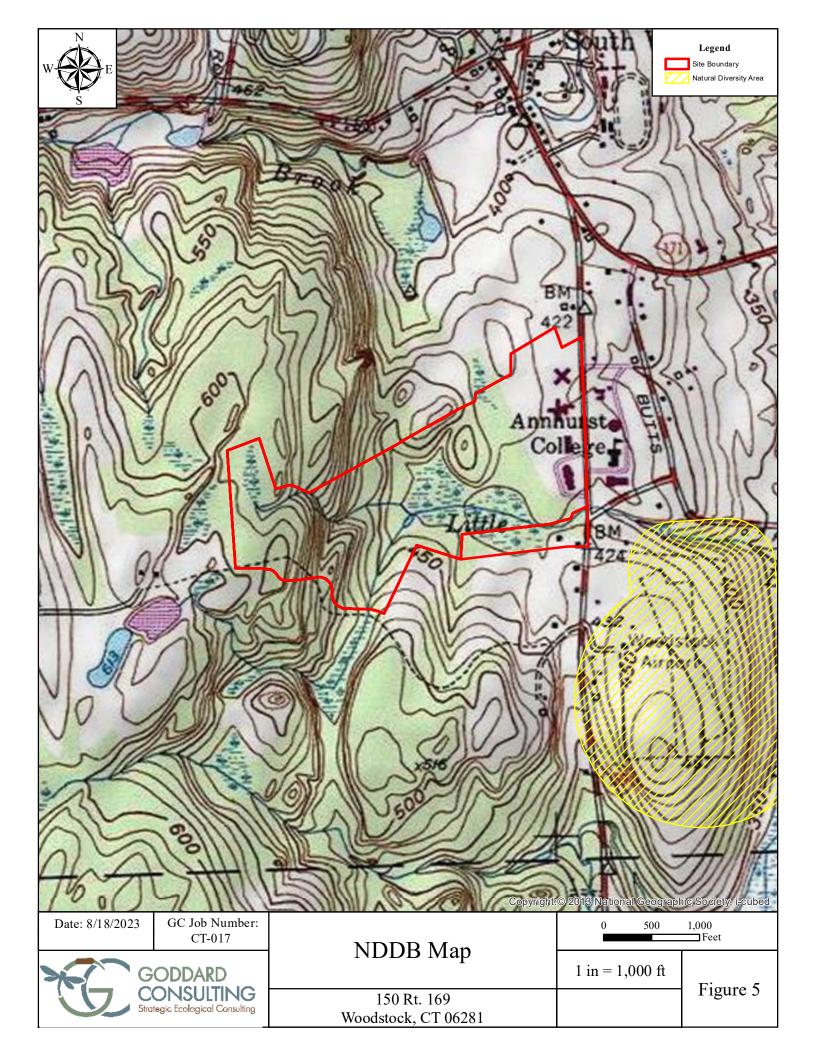
Depth	tion: (Describe to t Matrix	i			Redox Featur		1	1	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Location <sup>2</sup>	Texture	Remarks	
0-12"	10YR2/1	100	Color (moist)	/0	турс	Location	Sandy Loam	A	
12-18"+	10YR7/1	100					Sandy Loam	Bw	
12-10 +	1011//1	100					Januy Loani	DW	
						•	•	•	
Type: C=Concer	ntration, D=Depletion	, RM=	Reduced Matrix	, MS=N	lasked Sand Grains	<sup>2</sup> Location: PL=Pore Li	ning, M=Matrix		
Hydric Soil Ind	icators (Check all th	nat ap	ply)			Indicators for Pro	blematic Hydric Soils		
Histosol (A1	.)		Sandy Re	edox (S	5)	2 cm M	uck (A10)		
Histic Epipe	don (A2)		Stripped	Matrix	(S6)	5 cm M	ucky Peat or Peat (S3)		
Black Histic	(A3)		Polyvalu	e Belov	v Surface (S8)	Dark Su	rface (S7)		
Hydrogen S	ulfide (A4)		Thin Dar	k Surfa	ce (S9)	Polyvalue Below Surface (S8)			
Stratified La	yers (A5)		Loamy N	∕lucky N	lineral (F1)	Thin Da	rk Surface (S9)		
Depleted Be	elow Dark Surface (A1	L1)	Loamy G	ileyed N	Лatrix (F2)	Iron-Ma	anganese Masses (F12)		
Thick Dark S	Surface (A12)		X Depleted	d Matri	k (F3)	Mesic S	podic (A17)		
Sandy Muck	ky Mineral (S1)		Redox D	ark Sur	face (F7)	Red Par	ent Material (F21)		
Sandy Gleye	ed Matrix (S4)		Depleted	d Dark S	Surface (F8)	Very Sh	allow Dark Surface (TF12	)	
Dark Surfac	e (S7)					Other (	nclude Explanation in Re	marks)	
Restrictive Lav	er (if observed)	Type:			De	pth (inches):			
itestrictive Lay									
Remarks									

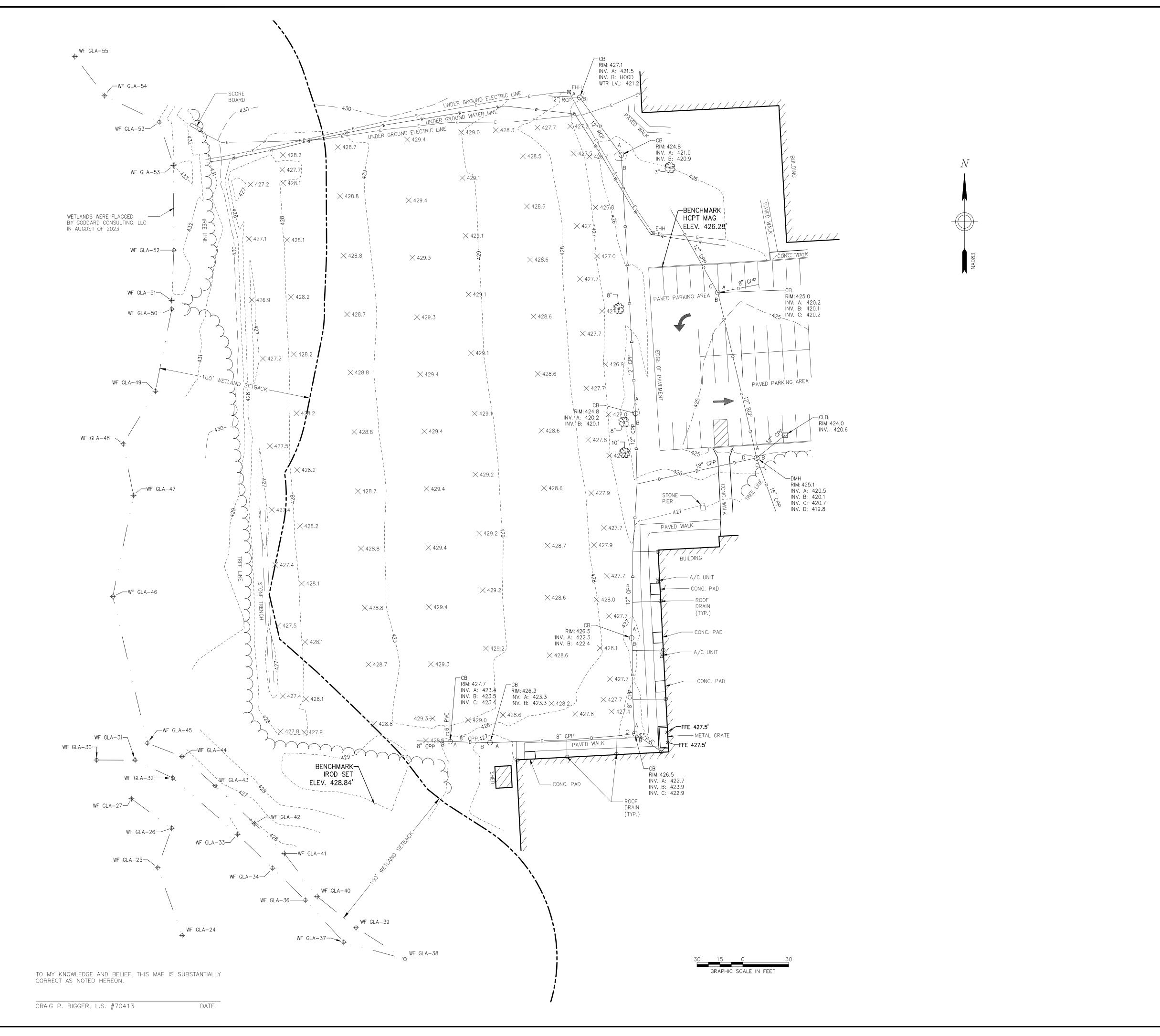


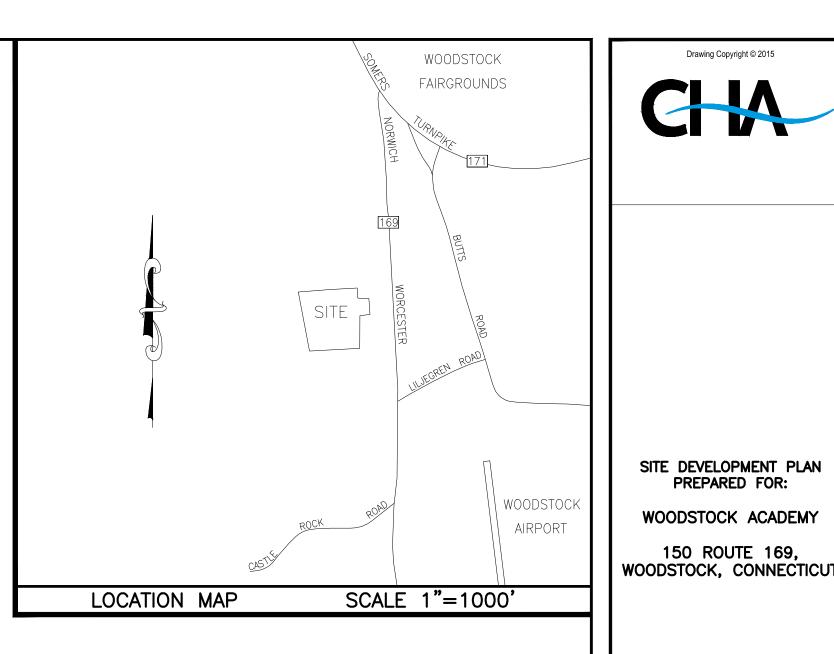












# MAP REFERENCES

1. "TOPOGRAPHIC MAP PREPARED FOR HYDE SCHOOL AT SOUTH WOODSTOCK, INC. #124 ROUTE 169 WOODSTOCK, CT, EXISTING CONDITIONS", SCALE: 1"=40', DATE: FEB. 16, 2006, LAST REVISED 4/10/06, SHEET 1 OF 1, PREPARED BY CME ASSOCIATES, INC.

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996 AND AS AMENDED ON OCTOBER 26,

THE TYPE OF SURVEY PERFORMED IS A TOPOGRAPHIC SURVEY CONFORMING TO THE STANDARDS OF ACCURACY FOR A HORIZONTAL CLASS A-2 AND VERTICAL CLASS T-2 AND IS A RESURVEY OF THE SUBJECT PROPERTY.

THIS SURVEY WAS PREPARED TO DEPICT THE EXISTING CONDITIONS OF THE SUBJECT PROPERTY.

2. THE SUBJECT PARCEL WAS CONVEYED TO WOODSTOCK ACADEMY, THROUGH A CONVEYANCE DATED ON 6/15/2015, AND IS RECORDED IN VOLUME 623, PAGE 382 OF THE WOODSTOCK LAND RECORDS.

3. THE SUBJECT PROPERTY IS SHOWN ON THE WOODSTOCK TAX ASSESSOR MAP
No. 6395 AS LOT 11 OF BLOCK 64 AND HAS BEEN ASSIGNED ADDRESS OF 150 ROUTE 169, WOODSTOCK, CONNECTICUT.

4. NORTH IS BASED ON CONNECTICUT STATE PLANE COORDINATE, NAD83 OBTAINED BY GPS OBSERVATIONS AT THE TIME OF THE SURVEY.

- 5. ELEVATIONS ARE BASED ON VERTICAL DATUM NAVD88.
- 6. TOTAL AREA OF PROPERTY =  $119.01 \pm ACRES$
- 7. SITE IS LOCATED IN ZONE COMMUNITY DISTRICT.

8. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO CHA. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

# <u>LEGEND</u>

	TREE	DECIDUOUS TREE
	СВ	ROUND CATCH BASIN
	CB	SQUARE CATCH BASI
	MHST	STORM MANHOLE
	EHH ⊠	ELECTRIC HAND HOL
<u> </u>		BUILDING LINE
		EDGE OF ASPHALT
-		EDGE OF CONCRETE
		TREE LINE
EEE		ELECTRIC LINE
www		WATER LINE

APPROVED BY THE WOODSTOCK PLANNING & ZONING COMMISSION
APPLICATION: #
APPROVED ON:

DATE

CHAIRMAN OR SECRETARY SIGNATURE

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SITE DEVELOPMENT PLAN PREPARED FOR:

WOODSTOCK ACADEMY 150 ROUTE 169,

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IBANY WAY, IF AN ITEM BEARING TI STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

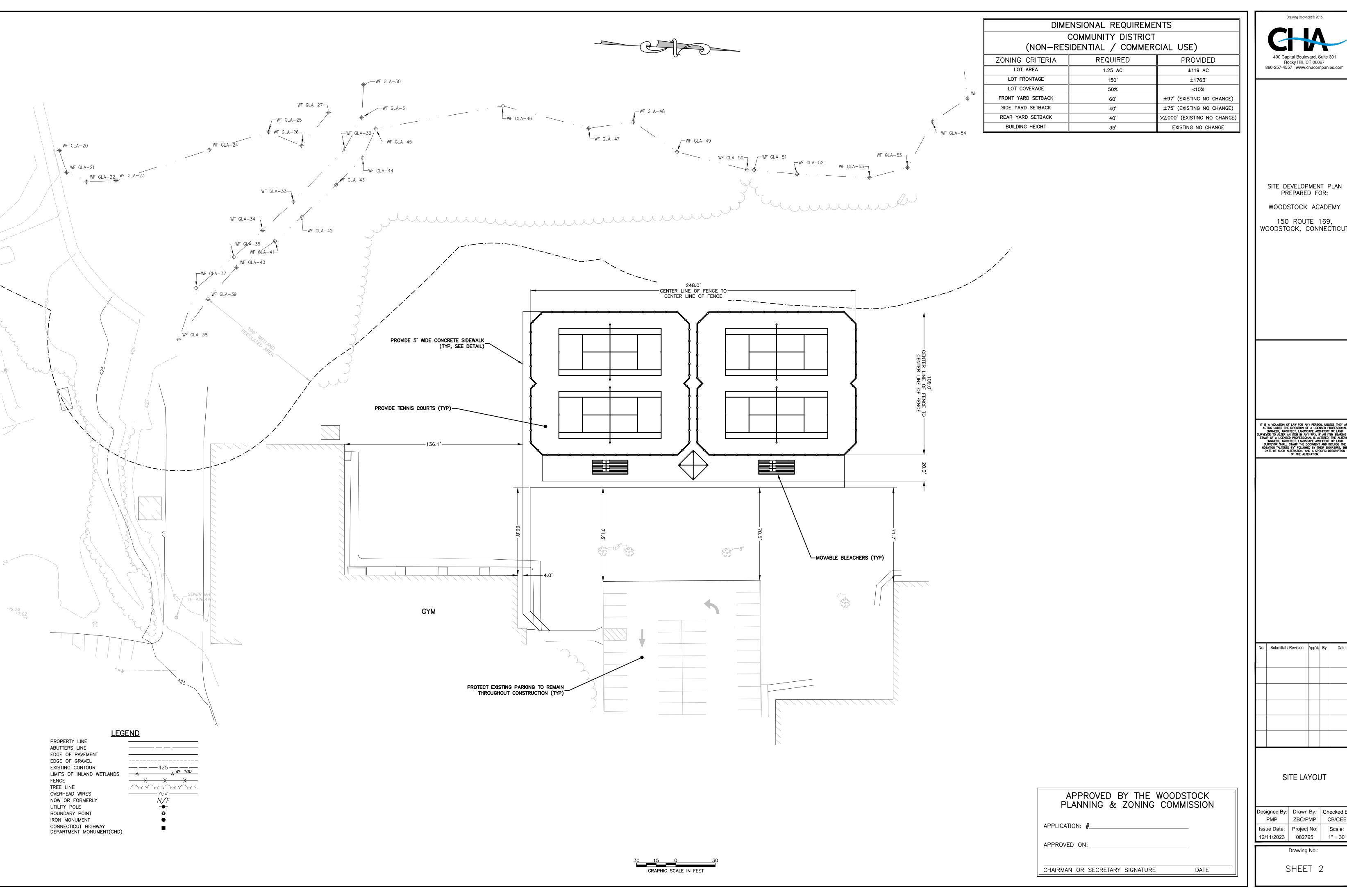
No. Submittal / Revision App'd. By Date

**EXISTING CONDITIONS** 

Designed By: Drawn By: Checked B ZBC/PMP CB/CEE Issue Date: Project No: Scale: 082795 12/11/2023

Drawing No.:

SHEET 1





SITE DEVELOPMENT PLAN PREPARED FOR:

WOODSTOCK ACADEMY

150 ROUTE 169, WOODSTOCK, CONNECTICUT

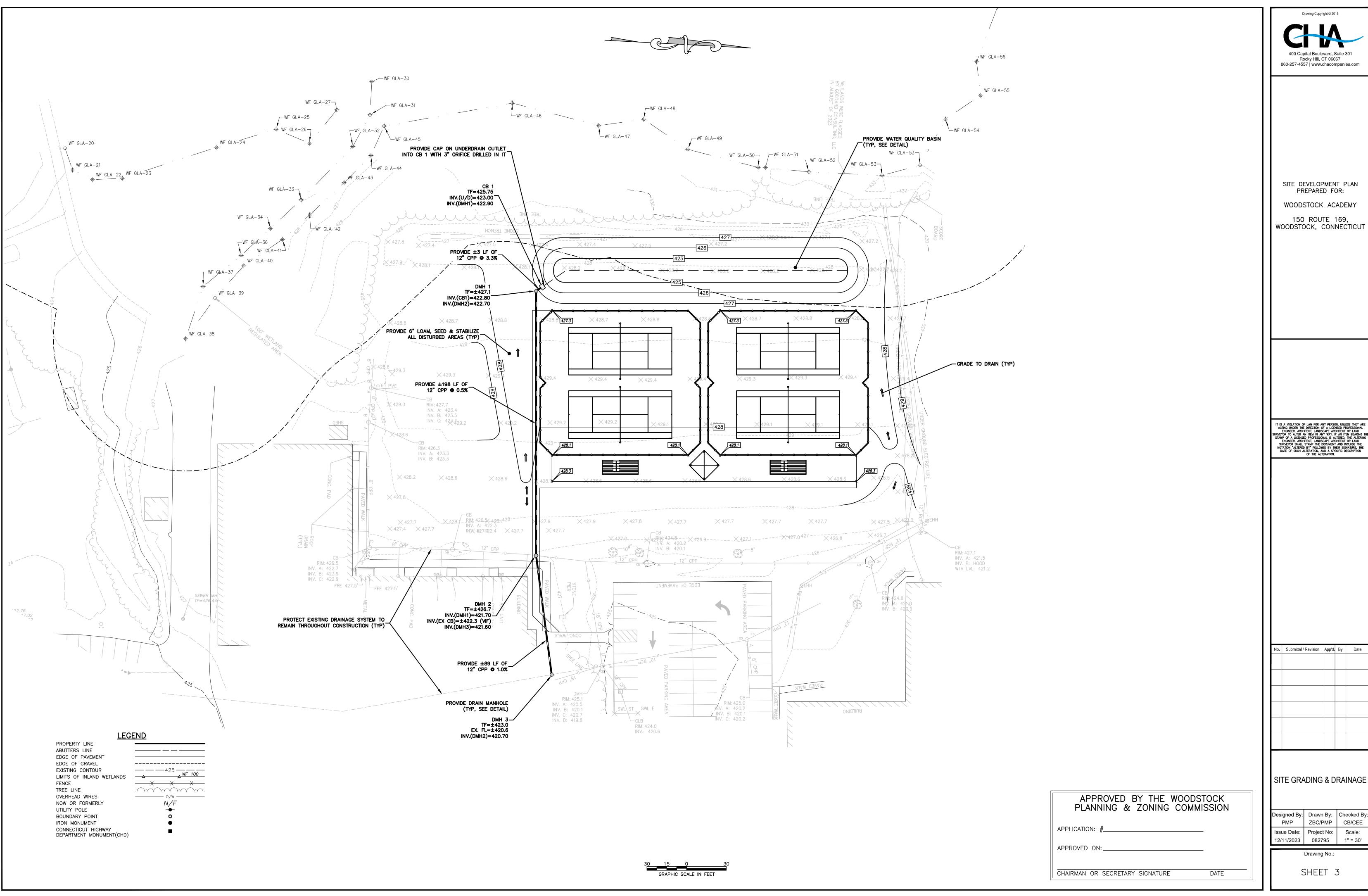
IT IS A VOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING TI STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING THE ALTERING THE ALTERING THE ALTERING THE ALTERING THE ALTERING SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

SITE LAYOUT

Designed By: Drawn By: Checked By PMP ZBC/PMP CB/CEE Issue Date: | Project No: | Scale: 12/11/2023 082795

Drawing No.:

SHEET 2



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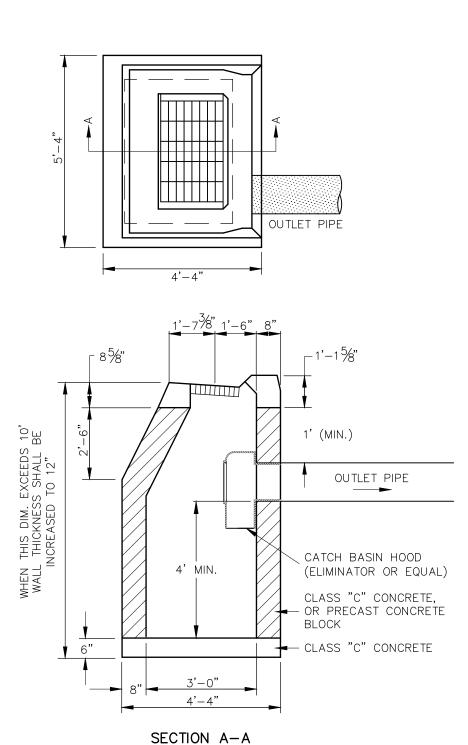
> SITE DEVELOPMENT PLAN PREPARED FOR:

> WOODSTOCK ACADEMY 150 ROUTE 169,

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

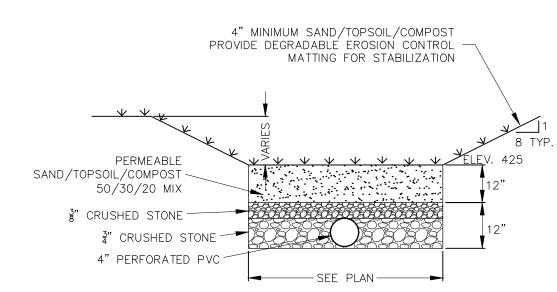
No. Submittal / Revision App'd. By Date

Designed By: Drawn By: Checked By PMP ZBC/PMP CB/CEE



# TYPE "C" CATCH BASIN NOT TO SCALE

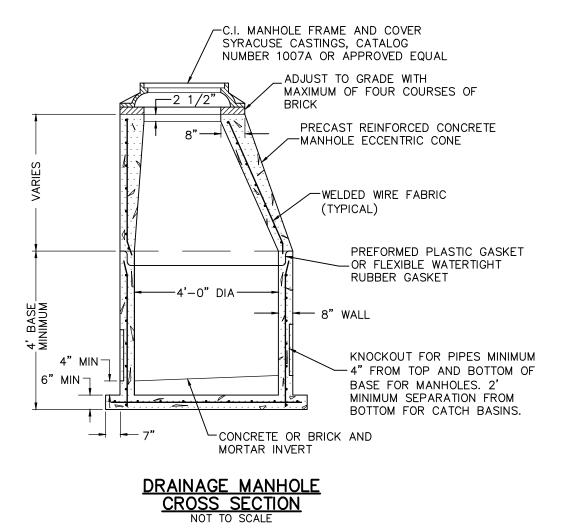
NOTE: ALL CATCH BASINS SHALL BE PROVIDED WITH A HOODED OUTLET.

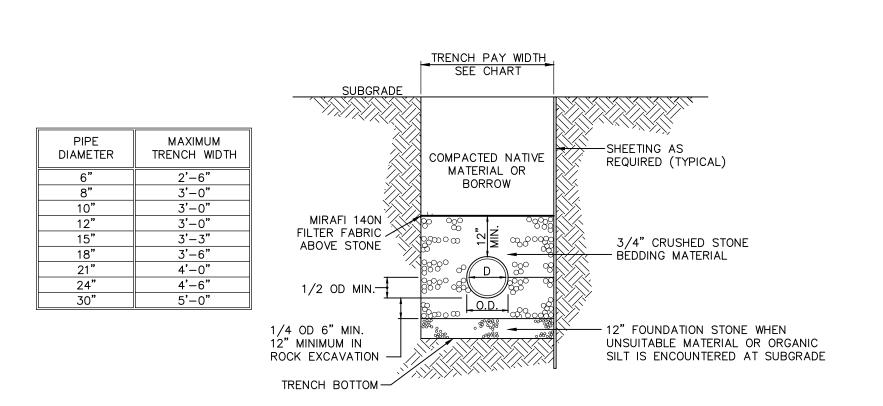


# NOTES:

- 1.) SAND/TOPSOIL/COMPOST MIXTURE SHALL BE PLACED OVER THE ENTIRE WATER QUALITY BASIN FLOOR.
- 2.) SAND/TOPSOIL/COMPOST MIXTURE SHALL NOT BE COMPACTED AND THE ENTIRE WATER QUALITY BASIN SHALL BE PROTECTED FROM HEAVY EQUIPMENT TRAFFIC THROUGHOUT CONSTRUCTION.
- 2.) THE CONTRACTOR SHALL BE LIABLE FOR THE REPLACEMENT OF THE SAND/TOPSOIL/COMPOST MIXTURE IF E&S CONTROLS ARE NOT INSTALLED & MAINTAINED AS INDICATED.

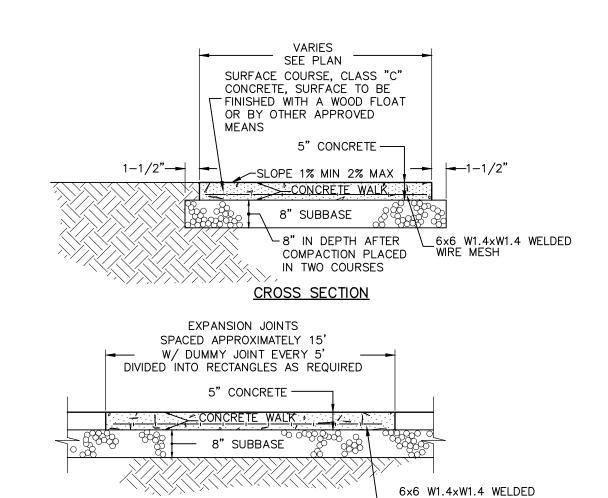
WATER QUALITY BASIN
NOT TO SCALE



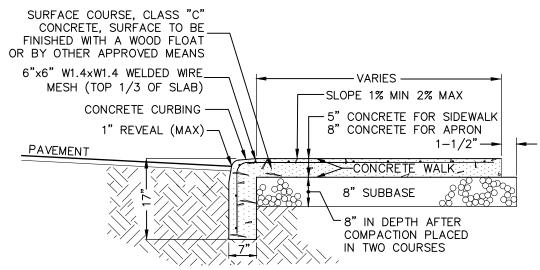


TRENCH SECTION FOR STORM DRAINS

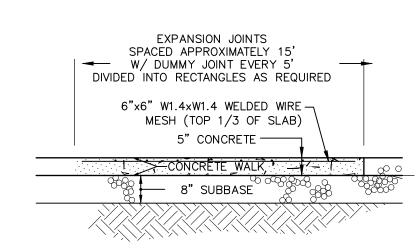
NOT TO SCALE



CONCRETE SIDEWALK
NOT TO SCALE



# DEPRESSED CURB CROSS SECTION



LONGITUDINAL SECTION

CONCRETE SIDEWALK WITH

MONOLITHIC CONCRETE CURBING

NOT TO SCALE

APPROVED BY THE WOODSTOCK PLANNING & ZONING COMMISSION

APPROVED ON:\_\_\_\_\_

CHAIRMAN OR SECRETARY SIGNATURE DATE

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SITE DEVELOPMENT PLAN PREPARED FOR:

WOODSTOCK ACADEMY
150 ROUTE 169,

WOODSTOCK, CONNECTICUT

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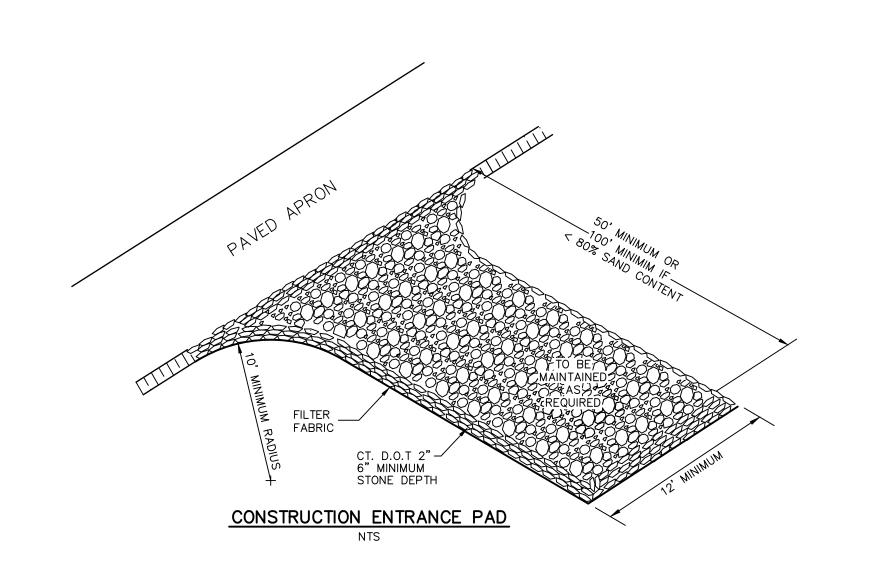
CONSTRUCTION DETAILS

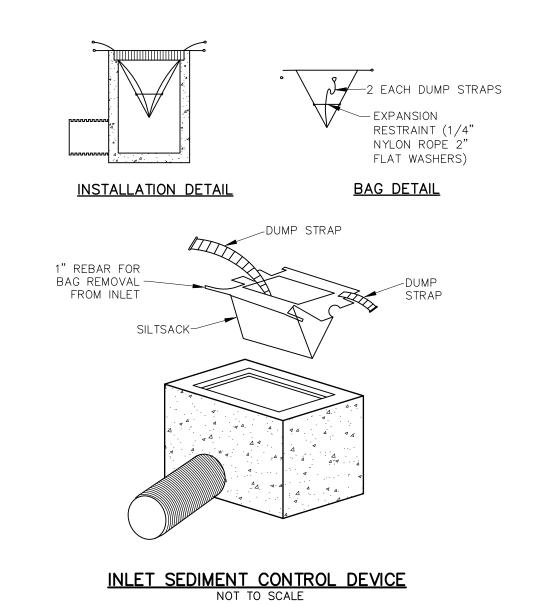
Designed By: Drawn By: Checked By ZBC/PMP CB/CEE

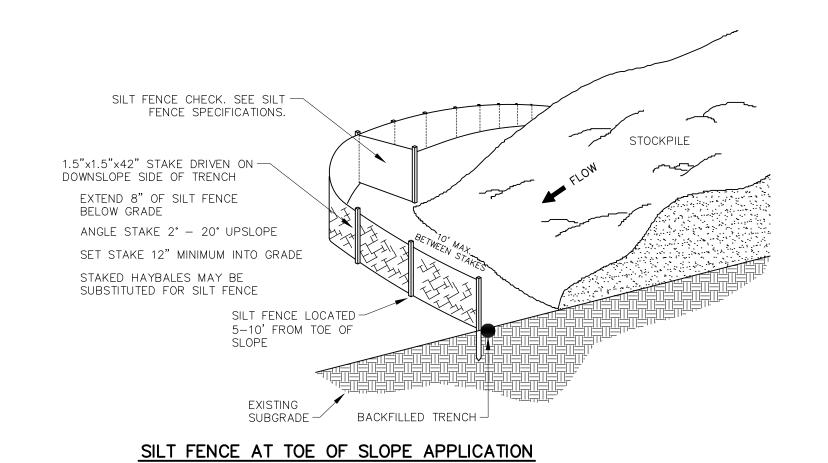
Issue Date: Project No: Scale: 12/11/2023 082795 AS NOTED

SHEET 5

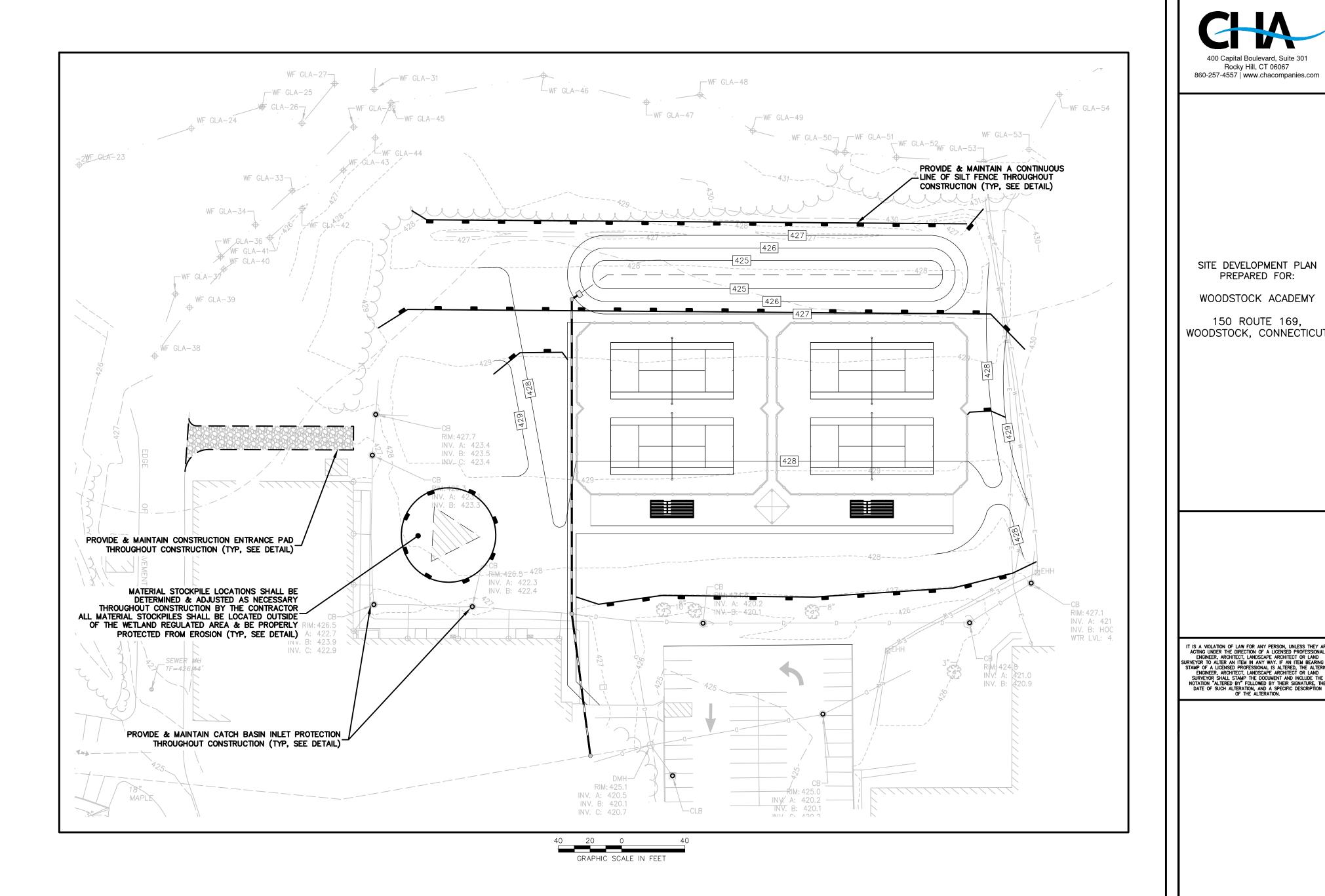
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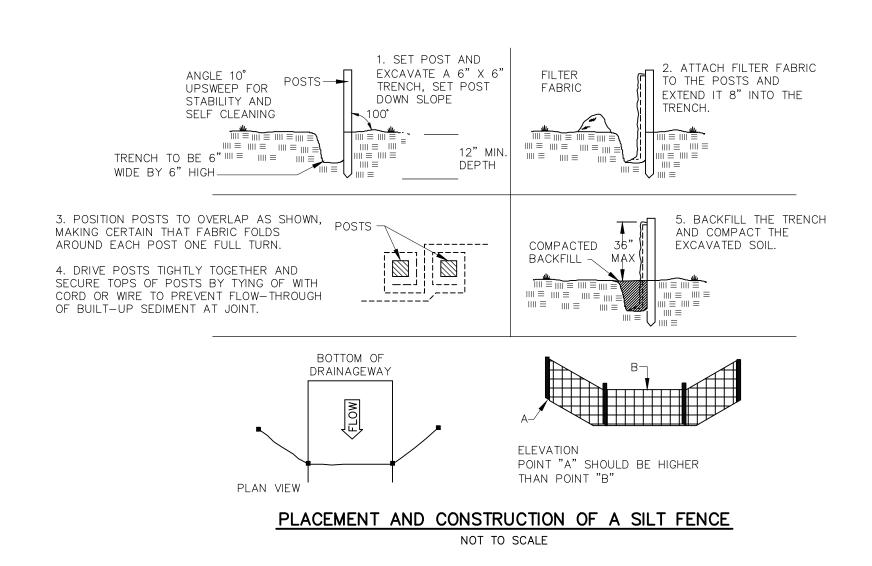






NOT TO SCALE





APPROVED BY THE WOOL PLANNING & ZONING COM	
APPLICATION: #	
APPROVED ON:	
	DATE

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SITE DEVELOPMENT PLAN PREPARED FOR:

WOODSTOCK ACADEMY 150 ROUTE 169,

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

No. Submittal / Revision App'd. By Date

**EROSION & SEDIMENT** CONTROL

Designed By: Drawn By: Checked B PMP ZBC/PMP CB/CEE Issue Date: | Project No: | 12/11/2023 082795 AS NOTED

Drawing No.:

SHEET 6

# EROSION AND SEDIMENTATION CONTROL NARRATIVE & NOTES

## PROJECT NARRATIVE

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF NEW TENNIS COURTS ON THE ±119 ACRE WOODSTOCK ACADEMY SOUTH CAMPUS. THE LOCATION OF THE SITE IS ON THE WEST SIDE OF ROUTE 169 JUST NORTH OF THE INTERSECTION OF LILJEGREN ROAD. THIS PROJECT WILL CONSIST OF TENNIS COURTS, DRAINAGE PIPING AND STRUCTURES.

IT IS ANTICIPATED THAT APPROXIMATELY 2.9 ACRES OF THE 119 ACRE SITE WILL BE DISTURBED DURING THE CONSTRUCTION OF THE FACILITY.

THE PROJECT SHALL BE DEVELOPED IN A SINGLE PHASE, HOWEVER, DISTURBED AREAS SHALL BE STABILIZED AT MILESTONE POINTS DURING CONSTRUCTION. ALL WORK SHALL BE SCHEDULED SUCH THAT STABILIZATION COINCIDES WITH THE ABILITY TO VEGETATE DISTURBED AREAS, APRIL 1 THROUGH JUNE 15 AND AUGUST 15 THROUGH OCTOBER 1

THIS PROJECT REQUIRES THE FOLLOWING PERMITS: INLAND WETLANDS & WATERCOURSES (WORK IN REGULATED AREA) PLANNING & ZONING SPECIAL PERMIT (SITE PLAN MODIFICATION)

# ESTIMATED CONSTRUCTION SCHEDULE

- A. INSTALL EROSION AND SEDIMENT CONTROL SYSTEMS MAY 2024
- B. ROUGH GRADE SITE JUNE 2024
- C. INSTALL STORMWATER AND UTILITY SYSTEMS JULY 2024
- D. CONSTRUCT TENNIS COURTS, ACCESS ROADWAYS & PARKING AUGUST 2024
- E. FINISH GRADE SITE AND INSTALL LANDSCAPING SEPTEMBER 2024

## GENERAL NOTES

- A. ELEVATIONS ARE BASED ON NAVD88.
- B. ALL UTILITIES SHALL BE APPROVED BY LOCAL UTILITY COMPANIES PRIOR TO CONSTRUCTION; ALL UTILITIES SHALL BE CONSTRUCTED TO UTILITY COMPANY
- C. ALL CONSTRUCTION SHALL BE TO TOWN SPECIFICATIONS & REGULATIONS.
- D. NO CHANGES CAN BE MADE TO THESE PLANS WITHOUT THE TOWN'S APPROVAL.
- E. CONTRACTOR SHALL OBTAIN ALL REQUIRED LOCAL & STATE PERMITS PRIOR TO BEGINNING ANY CONSTRUCTION.
- F. FIELD CHANGES SHALL HAVE PRIOR APPROVAL OF THE TOWN.
- G. CATCH BASIN TOPS SHALL NOT BE CEMENTED DOWN UNTIL FINAL GRADES ARE SET.
- H. UNLESS OTHERWISE NOTED OR SPECIFIED, ALL ROADWAYS & STORM DRAINAGE SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE STATE OF CONNECTICUT, D.O.T. "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 818" AND ALL SUPPLEMENTS THERETO. SIMILARLY PERTINENT CONSTRUCTION DETAILS THAT ARE NOT INCLUDED WITH THESE DRAWINGS SHALL CONFORM TO THE STATE OF CONNECTICUT, D.O.T. STANDARD ROADWAY DRAWINGS.
- I. CONTRACTOR SHALL NOTIFY THE TOWN OF CONSTRUCTION SCHEDULE SO THAT INSPECTION MAY BE PROVIDED.
- J. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED ON PLANS HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES. FROM PAROL TESTIMONY, FIELD MEASUREMENTS AND FROM OTHER SOURCES. THESE LOCATIONS MIIST RE CONSIDERED APPROXIMATE IN NATURE ADDITIONALLY OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO CHA THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO
- K. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TWO (2) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

# SEEDING SPECIFICATIONS

- A. IF GROUND HAS BEEN PREVIOUSLY MULCHED, MULCH MUST BE REMOVED OR ADDITIONAL NITROGEN MUST BE ADDED.
- B. REMOVE ALL SURFACE STONES 2" OR LARGER AS WELL AS ALL DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, CLUMPS, OR OTHER
- C. APPLY FERTILIZER AT 7.5 POUNDS PER 1,000 SQUARE FEET AND LIME AT 200 POUNDS PER 1,000 SQUARE FEET UNLESS SOIL TESTING FOR REQUIREMENTS IS
- D. NO MOWING IS TO BE UNDERTAKEN UNTIL THE MAJORITY OF THE VEGETATION IS AT LEAST 6" HIGH. MOWING SHOULD CUT THE TOP 1/3 OF VEGETATION. DO NOT UNDER ANY CIRCUMSTANCES CUT VEGETATION BELOW 3".
- E. DO NOT APPLY ANY FORM OF WEED CONTROL UNTIL GRASS HAS BEEN MOWED AT LEAST 4 TIMES.
- F. THESE SEEDING MEASURES ARE NOT TO BE USED ON SLOPES IN EXCESS OF 2:1
- G. PERMANENT SEEDING MEASURES ARE TO BE USED INSTEAD OF TEMPORARY SEEDING MEASURES WHERE WORK IS TO BE SUSPENDED FOR A PERIOD OF TIME LONGER THAN 1 YEAR.
- H. IF THERE IS NO EROSION, BUT SEED SURVIVAL IS LESS THAN 100 PLANTS PER SQUARE FOOT AFTER 4 WEEKS OF GROWTH, RE-SEED AS PLANTING SEASON

# CONSTRUCTION SEQUENCE

- A. STAKEOUT LIMIT OF DISTURBANCE.
- B. HOLD A PRECONSTRUCTION MEETING.
- C. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TWO (2) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
- D. INSTALL THE CONSTRUCTION ENTRANCE.
- E. INSTALL PERIMETER FILTER (SILT FENCE)
- F. PERFORM ALL NECESSARY CLEARING AND GRUBBING OPERATIONS.
- G. EXCAVATE & DISPOSE OF ALL STUMPS OFF SITE.
- STRIP ALL TOPSOIL WITHIN THE FOOTPRINT OF THE CONSTRUCTION SITE. STOCKPILE ALL TOPSOIL IN AN APPROVED AREA AND SECURE WITH EROSION AND SEDIMENT CONTROLS.
- I. ROUGH GRADE SITE.
- PRIOR TO INSTALLATION OF SURFACE WATER CONTROLS SUCH AS TEMPORARY DIVERSIONS AND STONE DIKES, INSPECT EXISTING CONDITIONS TO ENSURE DISCHARGE LOCATIONS ARE STABLE. IF NOT STABLE, REVIEW DISCHARGE CONDITIONS WITH THE DESIGN ENGINEER AND IMPLEMENT ADDITIONAL STABILIZATION MEASURES PRIOR TO INSTALLING WATER SURFACE CONTROLS.
- L. INSTALL DRAINAGE SYSTEM.

K. STABILIZE CUT AND FILL SLOPES.

- M. CONSTRUCT TENNIS COURTS.

SILT FENCE SPECIFICATIONS

REQUIREMENTS:

1. FILTERING EFFICIENCY

2. GRAB TENSILE STRENGTH

3. ELONGATION AT FAILURE

4. MULLEN BURST STRENGTH

6. APPARENT OPENING SIZE

WEIGHT OF 0.5 POUNDS PER LINEAR FOOT.

C. TORN OR PUNCTURED GEOTEXTILES SHALL NOT BE USED.

D. ON SLOPES WHERE SURFACE FLOW FOLLOWS THE SILT FENCE LINE,

5. PUNCTURE STRENGTH

7. FLOW RATE

8. PERMITTIVITY

INTERVALS.

- N. FINISH GRADE REMAINDER OF SITE. O. PLACE TOPSOIL WHERE REQUIRED.
- P. FINISH GRADE SIDE SLOPES, SEED AND MULCH.
- Q. COMPLETE THE BALANCE OF SITE WORK AND STABILIZATION OF ALL OTHER DISTURBED AREAS.
- R. ALL REMAINING EXPOSED AREAS SHALL BE LOAMED, SEEDED AND MULCHED OR SODDED WITHIN 14 DAYS OF FINAL GRADING.
- S. AFTER SITE IS FULLY STABILIZED REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS.
- CONTRACTOR TO REMOVE ANY ACCUMULATED SEDIMENT FROM DRAINAGE STRUCTURES OR BASINS.
- NOTE: SEVERAL OF THE ABOVE ACTIVITIES MAY BE DONE SIMULTANEOUSLY.

A. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON,

POLYESTER, ETHYLENE, OR SIMILAR FILAMENTS AND SHALL BE CERTIFIED BY THE

75 PERCENT (MIN)

250 POUNDS PER SQUARE INCH

0.2 GALLONS PER SQUARE FOOT PER

100 POUNDS

15 PERCENT

50 POUNDS

0.60mm< X <0.90mm

0.05 PER SECOND (MIN)

EXPOSURE (MIN)

MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING MINIMUM

9. ULTRAVIOLET RADIATION STABILITY 70 PERCENT AFTER 500 HOURS OF

SECTIONAL AREA OF 1.5 SQUARE INCHES OR STEEL POSTS WITH A MINIMUM

STAKES ARE TO BE MADE OUT OF HARDWOOD WITH A MINIMUM CROSS

PERPENDICULAR SILT FENCE CHECKS SHALL BE INSTALLED AT 50 FOOT

GRADIENT FROM THE SLOPE. WHERE CONTOUR LINES CAN NOT BE FOLLOWED

E. LINES OF SILT FENCE SHOULD FOLLOW CONTOUR LINES 5-10 FEET DOWN

PERPENDICULAR WINGS SHOULD BE PLACED AT 50 FOOT INTERVALS.

# EROSION & SEDIMENT CONTROL OPERATIONS AND MAINTENANCE

- A. EROSION AND SEDIMENTATION CONTROL AND RESTORATION MEASURES SHALL CONFORM TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL". PUBLISHED BY THE CONNECTICUT COUNCIL OF SOIL AND WATER CONSERVATION AND THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION; AND TO TOWN REGULATIONS.
- INSTALLATION OF SEDIMENT AND EROSION CONTROLS SUCH AS WATTLES AND SILT FENCES SHALL BE ESTABLISHED PRIOR TO COMMENCING ANY LAND DISTURBANCE ACTIVITIES.
- ALL STOCKPILED MATERIAL SHALL BE RINGED WITH WATTLES OR SILT FENCES. ANY MATERIAL TO BE STOCKPILED LONGER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING OR JUTE NETTING.
- D. PAVEMENT AND CURBING SHOULD BE INSTALLED AS SOON AS POSSIBLE AFTER STORM DRAINAGE IS INSTALLED.
- E. CATCH BASINS SHALL BE PROTECTED FROM SEDIMENTATION UNTIL ALL AREAS ARE PERMANENTLY VEGETATED OR STABILIZED.
- F. CATCH BASIN SUMPS SHALL BE CLEANED OF SILT PERIODICALLY DURING

ENSURE CLEAN RUN-OFF FROM THE SITE.

INSTALLED IMMEDIATELY UPON REQUEST.

24 HOURS OF AN OBSERVED FAILURE.

G. WATTLES OR SILT FENCE SHALL BE PLACED 5-10 FEET FROM THE TOE OF ALL CRITICAL SLOPES AS SHOWN ON THE PLAN. THESE SHALL BE CHECKED

BY THE CONTRACTOR REGULARLY AND REPAIRED WHENEVER THEY FAIL TO

- H. ADDITIONAL CONTROL MEASURES IF REQUESTED BY THE TOWN SHALL BE
- ALL DISTURBED AREAS SHALL BE PROTECTED WITH A MINIMUM VEGETATION COVER AS SHOWN IN ACCOMPANYING CHART.
- THE CONTRACTOR SHALL PLAN ALL LAND DISTURBING ACTIVITIES IN A MANNER
- AS TO MINIMIZE THE EXTENT OF THE DISTURBED AREAS. THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE SITE TO INSURE

EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES AND WILL

- IMMEDIATELY MAKE NECESSARY REPAIRS IF REQUIRED BY THE TOWN. L. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED AT A MINIMUM OF ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.1 INCHES OR GREATER TO DETERMINE
- MAINTENANCE NEEDS. M. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REPLACED WITHIN
- ALL CONSTRUCTION TRAFFIC SHALL ENTER AND LEAVE BY THE DESIGNATED ENTRANCE. THIS ENTRANCE SHALL BE CONSTRUCTED OF CRUSHED STONE TO HELP FREE TIRES OF SOIL WHEN LEAVING THE SITE. THE CONTRACTOR SHALL INSTRUCT ALL VEHICLE DRIVERS TO CLEAN SOIL MATERIAL FROM TIRES IN FRONT OF THE SITE. ALL SOIL, MISCELLANEOUS DEBRIS, OR OTHER MATERIAL SPILLED, DUMPED OR OTHERWISE DEPOSITED ON PUBLIC STREETS, HIGHWAYS, SIDEWALKS OR OTHER PUBLIC THOROUGHFARES DURING TRANSIT TO OR FROM THE SITE SHALL BE REMOVED PROMPTLY.
- 0. THE CONTRACTOR HEREBY ACKNOWLEDGES HIS RESPONSIBILITY TO INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ON THIS SITE AND THAT HIS FAILURE TO INSTALL AND MAINTAIN THESE DEVICES COULD RESULT IN FINES OR SUSPENSION OF WORK BY THE CITY/TOWN.
- P. MINIMIZE OR ELIMINATE ANY UNNECESSARY LAND DISTURBANCE OR CLEARING.

# PERSON RESPONSIBLE FOR MAINTAINING CONTROL MEASURES DURING CONSTRUCTION. NAME

# MAINTENANCE LOG

TELEPHONE #

ADDRESS

LOCATION	DESCRIPTION	DATE	INITIAL
PROJECT DATES		DATE	INITIAL

PROJECT GROUNDBREAKING

FINAL STABILIZATION

# STORMWATER OPERATION AND MAINTENANCE

STORMWATER FACILITY OPERATION AND MAINTENANCE PLAN:

# **CONSTRUCTION PHASE**

## **GENERAL PROVISIONS:**

- 1. CONTRACTOR TO INSTALL AND MAINTAIN DRAINAGE FACILITIES AS SHOWN ON THE PLAN SET.
- PRIOR TO CONSTRUCTION. ALL EROSION/SILTATION CONTROL DEVICES SHOWN ON THE PLAN SHALL BE INSTALLED. TO PREVENT SILT INTRUSION INTO THE DRAINAGE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR IS TO INSTALL INLET PROTECTION AT ALL CATCH BASINS AND SET SILT FENCE AT ALL SLOPES WHICH MAY ERODE IN THE DIRECTION OF ANY OPEN DRAINAGE FACILITIES. SUCH PREVENTIVE MEASURES ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
- 3. EROSION CONTROLS ARE TO BE INSPECTED ON A DAILY BASIS. UPON DISCOVERY, THE CONTRACTOR SHALL REMOVE ANY SEDIMENT FROM AN EROSION CONTROL STRUCTURE.
- 4. ALL EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED TO PREVENT EROSION.
- 5. UPON INSTALLATION OF CATCH BASINS, INLET PROTECTION SHALL BE INSTALLED AND MAINTAINED UNTIL READY FOR PAVING.
- 6. PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS, ALL DRAINAGE STRUCTURES AND PIPES SHALL BE INSTALLED AND INSPECTED FOR PROPER FUNCTION. DURING CONSTRUCTION OF OTHER SITE FEATURES, DRAINAGE FACILITIES SHALL BE INSPECTED ON A DAILY BASIS AND CLEANED/REPAIRED IMMEDIATELY UPON DISCOVERY OF SEDIMENT BUILD-UP OR DAMAGE.
- 7. AFTER PAVING IS INSTALLED, IT SHALL BE SWEPT CLEAN ON A MONTHLY BASIS.

## CATCH BASIN SUMPS:

- CONTRACTOR TO INSPECT WEEKLY OR AFTER EACH 0.5 INCH RAIN EVENT AND CLEAN AS NEEDED.
- 2. CONTRACTOR SHALL CLEAN SUMPS AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER TO OWNER.

## WATER QUALITY BASIN:

- 1. WATER QUALITY BASIN UNDERDRAIN SHALL NOT BE INSTALLED UNTIL CONTRIBUTING DRAINAGE AREAS ARE VEGETATED OR OTHERWISE STABLE & ANY ACCUMULATED SEDIMENT HAS BEEN REMOVED AND DISPOSED OF.
- 2. CONTRACTOR TO INSPECT WEEKLY OR AFTER EACH 0.5 INCH RAIN EVENT.
- 3. INSPECTIONS SHOULD FOCUS ON THE DURATION OF STANDING WATER IN THE BASIN. (PONDING AFTER 48 HOURS INDICATES POSSIBLE CLOGGING OF THE BOTTOM OF THE BASIN)
- CONTRACTOR SHALL CLEAN INSPECT DETENTION SYSTEM AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER TO

# POST-DEVELOPMENT PHASE

FOLLOWING ACCEPTANCE OF THE PROJECT FROM THE CONTRACTOR, THE OWNER SHALL BE RESPONSIBLE FOR ALL POST-DEVELOPMENT INSPECTIONS, OPERATION & MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM AS DETAILED BELOW:

# SNOW STOCKPILING:

**GENERAL PROVISIONS:** 

SNOW ACCUMULATIONS REMOVED FROM STREETS AND PARKING LOTS SHALL BE PLACED IN UPLAND AREAS, WHERE SAND AND DEBRIS WILL REMAIN AFTER SNOW MELT FOR LATER REMOVAL. CARE SHOULD BE TAKEN NOT TO DEPOSIT SNOW IN THE IMMEDIATE VICINITY OF CATCH BASINS, DRAINAGE SWALES, OR SLOPES LEADING TO BODIES OF WATER, AND DRINKING WATER WELL SUPPLIES

IMMEDIATELY AFTER WINTER SNOW MELT AND BEFORE SPRING RAINS. SWEEPING DURING THIS PERIOD CAPTURES PEAK SEDIMENT LOADS AND EXTENDS THE SERVICE LIFE OF THE STORM WATER MANAGEMENT SYSTEM. CATCH BASIN SUMPS:

STREETS AND PARKING LOTS SHOULD BE SWEPT CLEAN AT LEAST TWICE ANNUALLY, WITH ONE SWEEPING PREFERABLY OCCURRING

CATCH BASINS SHALL BE INSPECTED BI-ANNUALLY AND CLEANED AT LEAST ANNUALLY, AFTER THE SNOW AND ICE SEASON, AND AS SOON AS POSSIBLE BEFORE SPRING RAINS. IN GENERAL, A CATCH BASIN SHOULD BE CLEANED IF THE DEPTH OF DEPOSITS IS GREATER THAN ONE HALF THE SUMP DEPTH. IF A CATCH BASIN SIGNIFICANTLY EXCEEDS THIS STANDARD THEN MORE FREQUENT CLEANINGS SHALL BE SCHEDULED. IN AREAS WITH HIGHER POLLUTANT LOADINGS OR DISCHARGES INTO SENSITIVE BODIES OF WATER, MORE FREQUENT CLEANINGS WILL BE NECESSARY.

# WATER QUALITY BASIN

EROSION

CLOGGING OF INLET AND OUTLET PIPES

REMOVED FROM THE BASIN AND PRETREATMENT AREA AS NECESSARY, AND AT LEAST ONCE EVERY FIVE YEARS.

WATER QUALITY BASIN SHALL BE INSPECTED AT LEAST TWICE ANNUALLY AND AFTER ALL MAJOR STORMS TO ENSURE THAT IT IS OPERATING AS INTENDED. PRETREATMENT BMP'S SHALL BE INSPECTED AND CLEANED DURING THE REGULAR BI-ANNUAL INSPECTIONS. POTENTIAL PROBLEMS THAT SHOULD BE CHECKED INCLUDE: PONDING

ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY. TRASH SHALL BE REMOVED AND THE BANKS, OF BASINS, MOWED AT LEAST

TWICE PER YEAR. (MOWING SHOULD BE PERFORMED WHEN GROUND IS DRY TO AVOID RUTS AND COMPACTION) SEDIMENT SHALL BE

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APPLICATION: #	
APPROVED ON:	

CHAIRMAN OR SECRETARY SIGNATURE DATE

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> SITE DEVELOPMENT PLAN PREPARED FOR:

WOODSTOCK, CONNECTICU

WOODSTOCK ACADEMY 150 ROUTE 169,

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARI
ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND
SURVEYOR TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING
STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERIN
ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND
SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE
NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE
DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION
OF THE ALTERATION.

. | Submittal / Revision | App'd. | By | Date

CONSTRUCTION DETAILS

Designed By: | Drawn By: | Checked E ZBC/PMP CB/CEE Issue Date: | Project No: | 12/11/2023 082795 AS NOTE

Drawing No.:

SHEET 7

### **EROSION & SEDIMENT CONTROL BOND ESTIMATE**

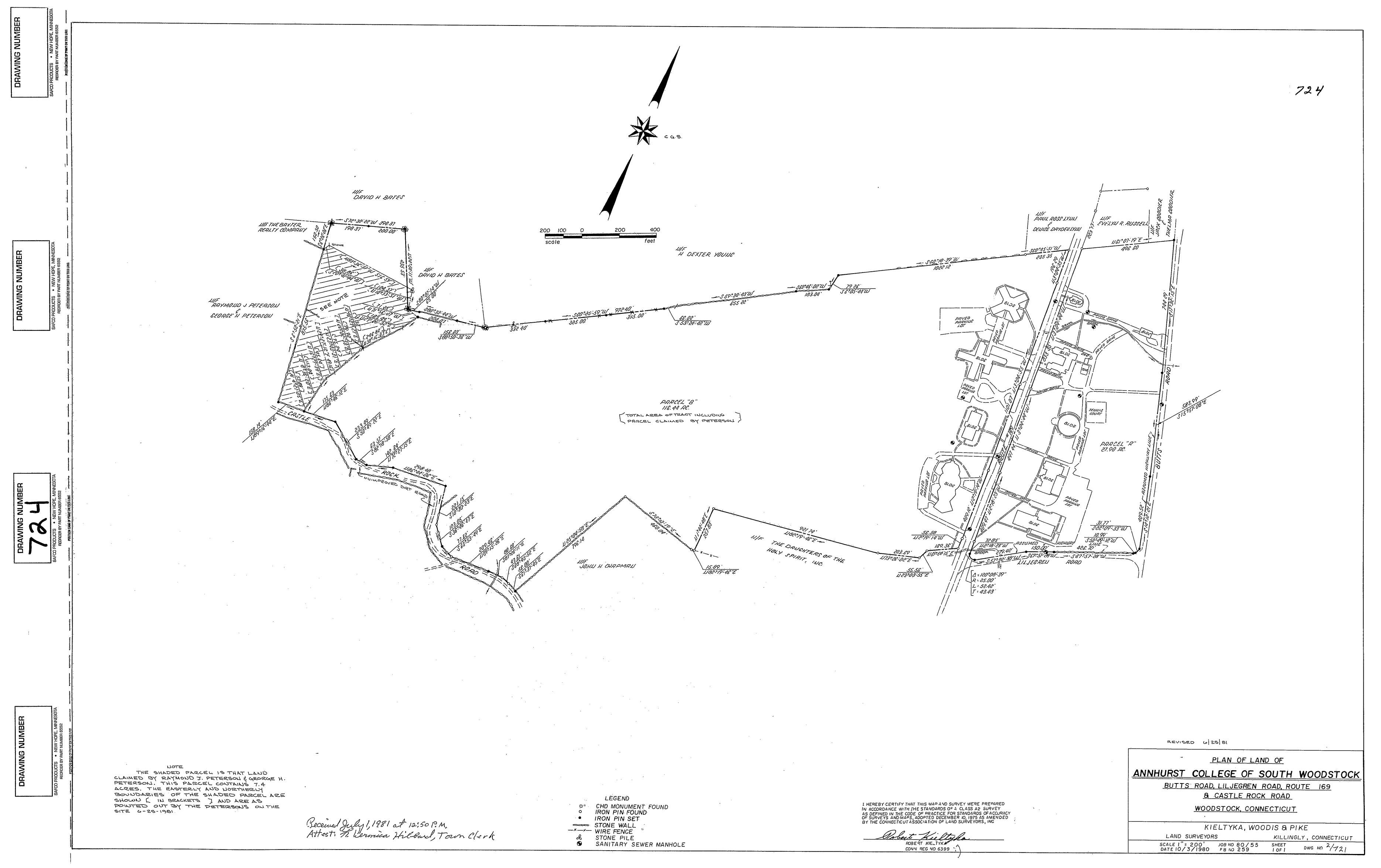
Woodstock Academy South Campus Tennis Courts Woodstock, CT December 11, 2023

Item No.	Description	Units	Quantity	Unit Cost	Total
	Erosion & Sediment Controls				
1	Tracking Pad	L.S.	1	\$ 1,500.00	\$ 1,500.00
2	Silt Fence	L.F.	1,200	\$ 5.00	\$ 6,000.00
3	Catch Basin Inlet Protection	EA	9	\$ 500.00	\$ 4,500.00

 Sub-Total
 \$
 12,000.00

 10% Contingency
 \$
 1,200.00

 Total Bond Amount
 \$
 13,200.00



### **Watershed or Aquifer Area Project Notification Form**

#### **REQUIREMENT:**

Within seven days of filing, all applicants before a municipal Zoning Commission, Planning and Zoning Commission, Zoning Board of Appeals or Inland Wetlands Commission for any project located within a public water supply aquifer or watershed area are reguired by Public Act No. 06-53 of the CT General Statutes to notify The Commissioner of Public Health and the project area Water Company of the proposed project by providing the following information.

To determine if your project falls within a public water supply aquifer or watershed area visit the appropriate town hall and look at their *Public Drinking Water Source Protection Areas* map. If your project falls completely within or contain any part of a public water supply aquifer or watershed you are required to complete the following information.

Note: You will need information obtained from the *Public Drinking Water Source Protection Areas* map located in the appropriate town hall to complete this form.

Step 1: Have you already notified the CT Department of Public Health (CTDPH) of this project?
No, Go to Step 2
Yes, I have notified DPH under a different project name - Complete steps 4-6
Yes, same name different year - Notification Year Complete steps 4-6
Step 2:
Name of public water supply aquifer your project lies within:
2. Name of the public water supply watershed your project lies within: Putnam Little River Diversion
3. Public Water Supply Identification number (PWSID) for the water utility:
Step 3: For 1-5 Check all that apply
1. My project is proposing:
Industrial use; Commercial use; Agricultural use; Residential use;
Recreational use; Transportation improvements; Institutional (school, hospital, nursing home, etc.);
Quarry/Mining; Zone Change, Please Describe:
Other, Please describe: New Tennis Courts
2. The total acreage of my project is:
Less than or equal to 5 acres Greater than 5 acres
3. My project site contains, abuts or is within 50 feet of a:
Wetland; Stream; River; Pond or Lake

4. Existing use of my project site is:
Grassland/meadow; Forested; Agricultural; Transportation; Institutional (school, hospital,
nursing home, etc.); Residential; Commercial; Industrial; Recreational; Quarry/Mining
Other Please Describe: Existing Soccer Fields
5. My project will utilize:
septic system; existing public sewer; new public sewer; agricultural waste facility;
existing private well; new private well; existing public water supply;
new public water supply, if new have you applied for a certificate of public convenience and necessity from
DPH? Yes No
6. My project will contain this percentage of built up area (buildings, parking, road/driveway, pool): Less than
or equal to 20% Greater than 20% to 50% Greater than 50%
Ota a A A sull'a sula Constant la formation
Step: 4 Applicants Contact Information:
Name: Woodstock Academy
E-mail address: csandford@woodstockacadem
Telephone: 860-928-6575
Fax number:
Step 5: Please provide the following if available:
Project name: South Campus Tennis Courts
Project site address: 150 Route 169
Town: Woodstock
Project site nearest intersection: Liljegren Road
Project site latitude and longitude: 41.926722,-71.958285

# E-mail completed form to dph.swpmail@ct.gov

