TOWN of WESTON, CONNECTICUT

Incorporated 1787

Conservation Commission

RECEIVED

MAR 17 2022

TOWN OF WESTON
CONSERVATION PLANNER

INLAND WETLANDS AND WATERCOURSES APPLICATION

This Application is for a five-year permit to conduct a regulated activity or activities pursuant to the Inland Wetlands and Watercourses Regulations of the Town of Weston ("The Regulations")

PROPERTY ADDRESS: LORDS HIGHWAY EAST of DAVIS HILL RD - TOWN OF WESTON (AKA MOORE PROPERTY)

Assessor's Map # 17 **Block #** 1 **Lot #** 17

PROJECT DESCRIPTION *(general purpose)* Modification of Dog Park permit 18-01 to reduce size of parking area, access road, drainage system and add a planting plan.

Total Acres 36.17 Total Acres of Wetlands and Watercourses 0.129 (scaled from townGIS mapping by a prof. eng.)

Acreage of Wetlands and Watercourses Altered 0 Upland Area Altered 0.987 acres (all outside upland review area)

Acres Linear Feet of Stream Alteration NA Total Acres Proposed Open Space NA

OWNER(S) OF RECORD: *(Please list all owners, attach extra sheet if necessary)*

Name: TOWN OF WESTON Phone: 203-222-2677

Address: 56 NORFIELD ROAD WESTON, CT 06883

Email: c/o jluiz@westonct.gov

APPLICANT/AUTHORIZED AGENT:

Name: _____ Phone: _____

Address: _____

Email: _____

CONSULTANTS: *(Please provide, if applicable)*

Engineer: MCCHORD ENGINEERING ASSOC., INC. Phone: 203-834-0569

Address: 1 GRUMMAN HILL ROAD WILTON, CT 06897 Email: mrocheville@mcchordengineering.com

Soil Scientist: OTTO THEALL Phone: 203-845-0128

Address: 2 LLOYD ROAD Email: soilwetlandsci@aol.com

Legal Counsel: BERCHEM MOSES Phone: 203-571-1715

Address: 1221 POST ROAD EAST WESTPORT, CT 06880 Email: ibloom@berchemmoses.com

Surveyor: PAH, INC. LAND SURVEYORS Phone: 860-354-6599

Address: 30 DANBURY RD NEW MILFORD, CT 06776 Email: _____

PROPERTY INFORMATION

Property Address: _____

Existing Conditions *(Describe existing property and structures)*: Woodlands

_____

Provide a detailed description and purpose of proposed activity *(attach sheet with additional information if needed)*: Dog Park see attached materials

_____

Is this property within a subdivision *(circle)*: Yes or (No)
Square feet of proposed impervious surfaces *(roads, buildings, parking, etc.)*: NA

Subject property to be affected by proposed activity contains:

- ☑ wetlands soils (outside upland review area)
- ☐ swamp
- ☐ floodplain
- ☐ marsh
- ☐ bog
- ☐ lake or pond
- ☐ stream or river
- ☐ other _____

The proposed activity will involve the following within wetlands, watercourse, and/or review area: NA

- ☐ Alteration
- ☐ Discharge to
- ☐ Removal of Materials
- ☐ Construction
- ☐ Discharge from
- ☐ Deposition of Materials
- ☐ Pollution
- ☐ Bridge or Culvert
- ☐ Other _____

Amount, type, and location of materials to be removed, deposited, or stockpiled:
see attached plans

Description, work sequence, and duration of activities:
see attached plans

_____

Describe alternatives considered and why the proposal described herein was chosen:
NA

Does the proposed activity involve the installation and/or repair of an existing septic system(s) *(circle)*: Yes or (No)

The Westport/Weston Health District Approval: NA

ADJOINING MUNICIPALITIES AND NOTICE:

If any of the situations below apply, the applicant is required to give written notice of his/her application to the Inland Wetlands Agency of the adjoining municipality, on the same day that he/she submits this application. Notification must be sent by Certified Mail with Return Receipt Requested.

The property is located within 500 feet of any town boundary line;
A significant portion of the traffic to the completed project will use streets within the adjoining municipality to enter or exit the site;

A portion of the water drainage from the project site will flow through and significantly impact the sewage system or drainage systems within the adjoining municipality; or
Water runoff from the improved site will impact streets or other municipal or private property within the adjoining municipality

AQUARION WATER COMPANY

Pursuant to Section 8.4 of the Weston regulations, the Aquarion Water Company must be notified of any regulated activity proposed within its watersheds. Maps showing approximate watershed boundaries are available at the office of the Commission. If the project site lies within these boundaries, send notice, site plan, and grading and erosion control plan via certified mail, return receipt requested, within seven (7) days of submitting application to the Commission, to:

George S. Logan, Director – Environmental Management
Aquarion Water Company
714 Black Rock Turnpike
Easton, CT 06612

The Commissioner of the Connecticut Department of Public Health must also be notified in the same manner in a format prescribed by that commissioner.

The undersigned, as owner(s) of the property, hereby consents to necessary and proper inspections of the above mentioned property by Commissioners and agents of the Conservation Commission, Town of Weston, at reasonable times, both before and after a final decision has been issued by the Commission.

The undersigned hereby acknowledges to have read the "Application Requirements and Procedures" in completing this application.

The undersigned hereby certifies that the information provided in this application, including its supporting documentation is true and he/she is aware of the penalties provided in Section 22a-376 of the Connecticut General Statues for knowingly providing false or misleading information.

Samantha Nord — 3/17/22

Signature of Owner(s) of Record — Date

Signature of Authorized Agent — Date

FOR OFFICE USE ONLY

Administrative Approval

Initials — Date

17 1 17
TOWN OF WESTON
56 NORFIELD ROAD
WESTON CT 06883

9 2 10
GUIDO MICHAEL D & BRINK LINDSEY C
163 DAVIS HILL ROAD
WESTON CT 06883

17 1 13
NEALE RICHARD & JULIE
12 RICHMOND HILL ROAD
WESTON CT 06883

17 1 12
WELSH CAROLYN LEIGH & FREDA
22 RICHMOND HILL ROAD
WESTON CT 06883

17 1 10
EQUITY TRUST CO
6 BRENTWOOD COURT
MY KISCO NY 10549

17 1 18
WISOTZKEY ROBERT GRIER &
128 DAVIS HILL RD
WESTON CT 06883

17 2 15
FUSCO DAVID & JAMIE
135 DAVIS HILL ROAD
WESTON CT 06883

17 1 26
MOORE MICHAEL
P O BOX 1213
SARATOGA SPRINGS NY 12866

17 1 16
ATKINSON ROBERT D+JANE W
12 LORDS HIGHWAY EAST
WESTON CT 06883

17 1 14
BELTZ-JACOBSON DIANE P & JACOBSON
8 RICHMOND HILL RD
WESTON CT 06883

9 1 11
KOLBERT WILLIAM C
15 LORDS HIGHWAY EAST
WESTON CT 06883

17 1 15
DUDASH SIDNEY
26 LORDS HIGHWAY E
WESTON CT 06883

9 1 12
MATLUCK JOHN S & MARIA J
11 LORDS HIGHWAY EAST
WESTON CT 06883

9 1 10
RANDAZZO FRANK L & VALERIE M
9 LORDS HIGHWAY EAST
WESTON CT 06883

9 2 11
TOWN OF WESTON
P O BOX 1007
WESTON CT 06883

17 2 24
MILLS ANTOINE & JOYCE
143 DAVIS HILL ROAD
WESTON CT 06883

17 1 11
PARKER MARILYN
26 RICHMOND HILL ROAD
WESTON CT 06883

17 2 25
RAUPP AIMEE & TEMPLE KENNETH W
149 DAVIS HILL ROAD
WESTON CT 06883

10 2 19
SCHERB RYAN & KRISTEN
19 LORDS HIGHWAY EAST
WESTON CT 06883

17 2 23
ROSTROPOVICH OLGA
161 W 61 ST PAT 19FG
NEW YORK NY 10023

Town of Weston

Geographic Information System (GIS)

Date Printed: 3/17/2022

MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Weston and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 400 ft

0 400 Feet

N W E S

003154

EXECUTOR'S DEED

To all People to Whom these Presents shall Come. Greeting:

Know Ye, That Michael Moore, Executor of the will of Elisabeth Luce Moore late of New York, New York, deceased, by virtue of the last will and testament of Elizabeth Luce Moore and in consideration of the sum of Two Million Two Hundred Fifty Six Thousand Dollars and zero cents ($2,256,000.00), received to the full satisfaction of the Town of Weston, does grant, bargain, sell and confirm unto the said grantee all the right, title, interest, claim and demand which the said ~~Estate of~~ Elisabeth Luce Moore had at the time of her decease or which as such executor has or ought to have, in and to a certain piece or parcel of land situated in the Town of Weston, County of Fairfield and State of Connecticut, and bounded and described as set forth on Schedule A attached hereto and made a part hereof.

To Have and to Hold the above granted and bargained premises with the appurtenances thereof, unto the Town of Weston, the said grantee and its assigns to them and their own proper use and benefit forever. And the said executor does hereby covenant with the Town of Weston, the said grantee and its assigns, that Michael Moore has full power and authority, as executor of Estate of Elisabeth Luce Moore as aforesaid, to grant and convey the above described premises in manner and form aforesaid and for himself and his heirs, executors and administrators does further covenant to warrant and defend the same to the Town of Weston, the said grantee and its assigns, against the claims of any person or persons whomsoever, claiming by, from or under Michael Moore, as executor, as aforesaid. And the said executor does hereby declare that the above granted and bargained premises with the appurtenances thereof shall not be sold to a third party for residential and/or commercial development. The aforesaid declaration shall be binding upon the Town of Weston, the said grantee and its assigns and shall run with the land.

In Witness Whereof, Michael Moore as such executor of Estate of Elisabeth Luce Moore have hereunto set his hand this 13th day of February A.D. 2003.

Signed, Sealed and Delivered in presence of

Mary C. West

Jeffrey Sacca

NO

Estate of Elisabeth Luce Moore

By: Michael Moore
Michael Moore, as Executor

NYCORP-2229846.1

STATE OF NEW YORK,)
) ss.:
COUNTY OF Saratoga)

On the 13th day of February in the year 2003 before me, the undersigned, personally appeared Michael Moore, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Signature and Office of individual taking acknowledgment

MARY E. WEST
NOTARY PUBLIC, STATE OF NEW YORK
No. 01WE6041512
QUALIFIED IN SARATOGA COUNTY
MY COMMISSION EXPIRES MAY 8, 20 0 6

Schedule A

ALL that certain tract or parcel of land, situated in the Town of Weston, County of Fairfield and State of Connecticut, in quantity 36.12 acres, more or less, and bounded and described as follows:

NORTHERLY by highway, Lord's Highway, so-called;
EASTERLY by land of Robert Keith, said line being the first stone wall west of the intersection of Lord's Highway and Davis Hill Road;
NORTHERLY again, and NORTHWESTERLY by land of Robert Keith, said line being the first stone wall southerly of the intersection of Lord's Highway and Davis Hill Road;
EASTERLY again, by highway, Davis Hill Road, so-called;
SOUTHERLY and again EASTERLY by land of the heirs of Adolphus Russell;
SOUTHERLY again by land formerly of Eliza Davis, more lately of Maurice T. Moore;
WESTERLY by land of Maurice T. Moore in part and in part by land formerly of Hattie Barrett, more lately of Edward H. Delafield.

For a more particular description of said premises, reference is hereby made to "Map of Property Prepared for Maurice T. Moore at Weston, Connecticut, Scale: 1 in. = 100 ft., 1941, Samuel W. Hoyt, Jr. Co., Inc., Frederick P. Stabell, Pres., Civil Engineers & Surveyors, So. Norwalk, Conn.," which map is to be filed in the Office of the Town Clerk of said Town of Weston.

Said premises are conveyed subject to building lines if established and to such building and zoning regulations and restrictions as may have been established by the Town of Weston.

RECEIVED FOR RECORD FEB 26 2003
AT 11:37A M ATTEST
WESTON TOWN CLERK

McChord Engineering Associates, Inc.
Civil Engineers and Land Planners

1 Grumman Hill Road
Wilton, CT 06897
(203) 834-0569

January 18, 2022

Jonathan Luiz
Weston Town Administrator
Weston Town Hall – 56 Norfield Road
Weston, CT 06883

Re: Engineering Summary of Changes
Weston Dog Park
Davis Hill Road and Lord's Highway East, Weston, CT
Map 17, Block 1, Lot 17

Dear Mr. Luiz:

The purpose of this letter is to summarize changes made to the Town of Weston Dog Park site plan during the design development process. The summary will compare the original site plans provided to this office and the final site plans prepared by this office. Reference is made to the following documents:

- Original Design:
  - "Site Plan Alternate Road Access to Weston Dog Park" prepared by Town of Weston, dated October 30, 2017 and last revised January 20, 2021.
  - "Weston Dog Park – Lord's Highway East, Amended Drainage Evaluation" prepared by WMC Consulting Engineers, dated April 25, 2018.

- Current Design:
  - "Overall Site Plan, 'Weston Dog Park'" prepared for The Town of Weston, prepared by McChord Engineering Associates Inc., dated May 26, 2021 and last revised January 18, 2022.
  - "Stormwater Management Report" prepared for The Town of Weston Dog Park, prepared by McChord Engineering Associates Inc., dated January 18, 2022.

The following is a summary of the changes made:

- Driveway/Parking
  - The length of the driveway decreased from ±1,285-ft to ±453-ft. An existing wood road will remain as a walking path for pedestrians to access the dog park from the parking area.

- The amount of parking spaces decreased from 39 to 20.
- The alignment of the driveway shifted to follow the existing wood road. This change significantly decreased the amount of earthwork and tree removal that was required to construct the new driveway.
- The driveway now ends before an existing stone wall, which will no longer need to be removed for the driveway construction.
- The driveway is still 20-ft wide, gravel and has an 80-ft diameter cul-de-sac at the end for emergency vehicles to turnaround.

- Dog Park Area
  - The size decreased from 3.6 acres to 2.8 acres.
  - The entrance to the dog park was relocated to where there is an existing break in the stone wall as opposed to creating a new break in the stone wall to access the dog park.
  - Approximate locations for benches, signs, waste bag dispensers, etc. were added to the plan.

- Drainage Design
  - A new drainage design was performed due to the significant decrease in proposed impervious area as a result of shortening the driveway.
  - The footprint of the proposed detention system was essentially cut in half as a result of the new drainage study, see below:
    - Original Design – Three (3) rows of 105 linear feet of Cultec Recharger 330XLHD chambers.
    - Current Design – Three (3) rows of 56 linear feet of 24"x48" precast concrete galleries.
  - A high level overflow pipe from the detention system will still be connected to the existing catch basin on Lord's Highway East.
  - The cross-section of the proposed rip-rap swale decreased as the amount of runoff that it is required to be conveyed decreased.

- Mitigation Measures
  - A Conceptual Planting Plan was prepared by Dr. Tom Failla (Weston Tree Warden) to mitigate any disturbance to the property from the proposed site development. Locations for proposed plantings are reflected on the site plan.
  - Location of proposed silt fence was added to ensure that downgradient properties are protected during construction.

This concludes the summary of changes to the proposed site development.

Sincerely,

Harry M Rocheville Jr, P.E.
Senior Engineer

McChord Engineering Associates, Inc.
Civil Engineers and Land Planners

1 Grumman Hill Road
Wilton, CT 06897
(203) 834-0569

STORMWATER MANAGEMENT REPORT

Prepared For

PROPOSED SITE DEVELOPMENT

TOWN OF WESTON DOG PARK

DAVIS HILL ROAD AND LORD'S HIGHWAY EAST, WESTON, CT

January 18, 2022

CT#26595
1-18-22

Table of Contents

1. Introduction

McChord Engineering Associates, Inc. has been commissioned by the Town of Weston to perform stormwater management computations for the proposed development of a dog park on a vacant piece of property in Weston, Connecticut. The property consists of 36.173-acres and is located on the west side of Davis Hill Road and the south side of Lord's Highway East. It is in the Saugatuck River watershed basin and outside of any public water supply watersheds. Figure 1 shows the location of the property on the United States Geological Survey (USGS) map.

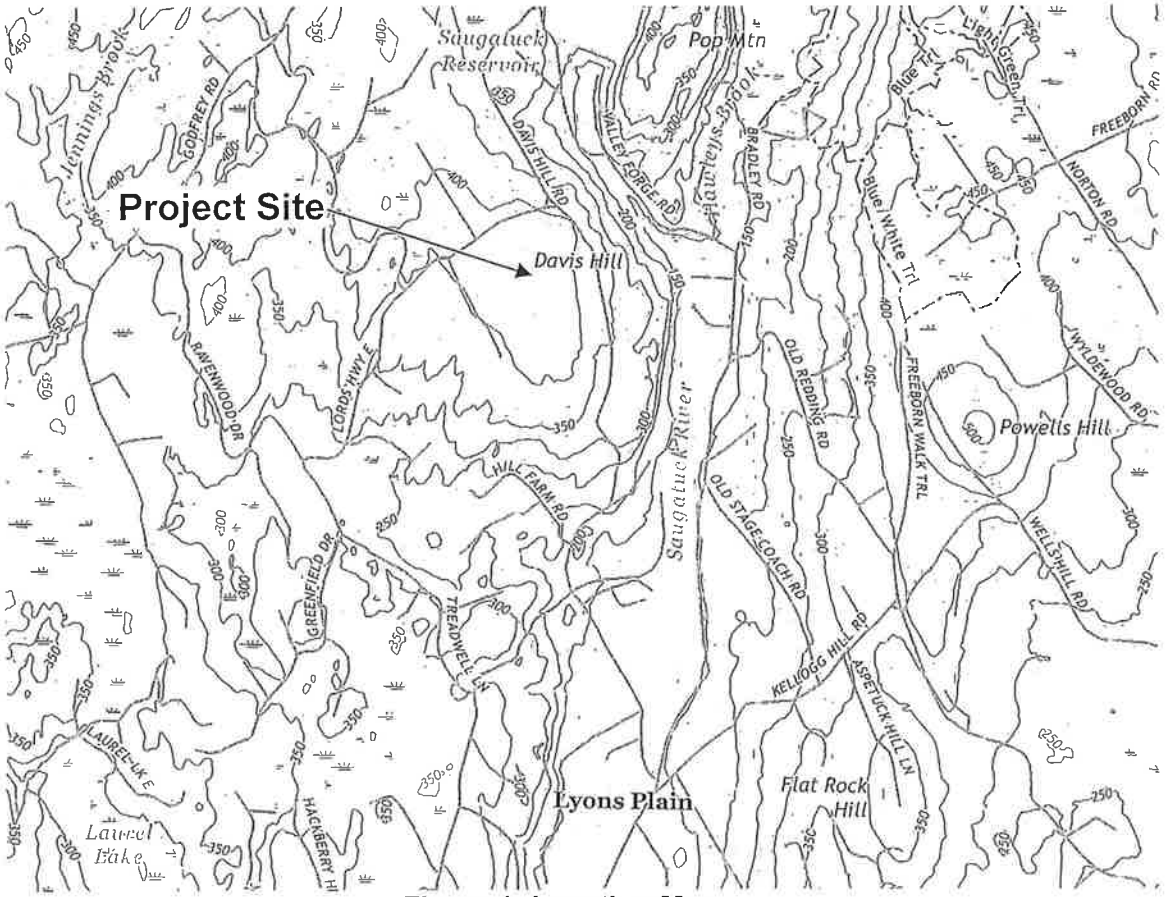


Figure 1: Location Map

The property is currently undeveloped woodland and contains an old dirt road providing access to the property from Lord's Highway East. The edges of the property are adjacent residences, Davis Hill Road and Lord's Highway East. Topography on the site consists of gradual slopes that drain away from the center of the property.

The proposed site development includes the construction of a ±2.8-acre dog park in the center of the property. There will be no clear cutting for the dog park area and the ground cover will remain in its natural state. There will only be removal of dead trees and limbs less that 7-ft above ground surface within the dog park area. A new gravel road with parking areas will be installed to provide access to the dog park. A stormwater management system will be installed to control runoff from the proposed road. Soil and erosion controls will be employed to protect downgradient properties during construction.

2. Scope of Study

This stormwater management report contains studies comparing peak rate of runoff between the existing conditions and the proposed development to ensure that the proposed development will have no adverse impact on adjoining property owners or downstream drainage systems. The site will be developed with its own on-site stormwater management system capable of controlling the increase in peak runoff.

3. Analysis Methodology

Runoff was modeled with HydroCAD 8.50 software produced by HydroCAD Software Solutions LLC. This software uses the NRCS TR-20 method for analyzing stormwater runoff. Soil characteristics, cover conditions, slope, time of concentration, and historical rainfall data are all parameters that are utilized by this method. The analysis considered the 2, 10, 25 and 50-year storm events. Precipitation depth for each storm event was taken from the National Oceanic and Atmospheric Administration's (NOAA) Atlas 14 Point Precipitation Frequency Estimates specific to the subject property.

4. Stormwater Management Strategy

Currently, the property is undeveloped and all of the stormwater runoff on-site drains away from the center of it following the topography. This analysis only considered runoff that drains towards an existing catch basin on Lord's Highway East as all of the proposed development is within this drainage area and the rest of the property will maintain existing cover conditions.

The proposed stormwater management plan maintains existing drainage patterns within the subject drainage area. Runoff from the new gravel driveway will be captured by a rip-rap swale and catch basin and conveyed to an underground detention system. The detention system will consist of twenty-one (21) units of 24" high x 48" wide x 96" long precast concrete galleries surrounded by crushed stone with a storage capacity of approximately 1,394 cubic feet below a high level overflow pipe invert. During typical storm events, stormwater will infiltrate into the underlying soils and there will be no surface discharge from the detention system. A high level overflow pipe will provide relief during extreme storm events. The high level overflow pipe will discharge to the existing catch basin on Lord's Highway East via a direct connection. A high level overflow grate will also be installed to provide secondary relief and a maintenance/inspection access point to the underground detention system. Runoff from the remainder of the drainage area will continue to sheet flow towards Lord's Highway East conforming to existing conditions.

Detailed information on the size and configuration of the proposed stormwater management measures is available on the most recent revision of the "Overall Site Plan" prepared by this office. A Stormwater Facilities Maintenance Plan is also included in Appendix B.

5. Analysis & Results

Runoff from the subject drainage area was analyzed under existing and proposed conditions. The existing conditions analysis modeled the entire drainage area as a whole. The proposed conditions analysis divided the drainage area into area that is detained through the proposed detention system and undetained areas. The proposed runoff that is not detained will sheet flow to the catch basin on Lord's Highway East, conforming to existing conditions.

Using the NRCS TR-20 method, the peak rate of runoff for the 2, 10, 25 and 50-year storm events was computed for the site. Soils on the property were determined using the NRCS Web Soil Survey. Cover conditions were derived from site observations and the "Overall Site Plan" prepared by this office. Soil testing was conducted on the property in the area of the proposed stormwater management devices by WMC Consulting Engineers and confirmed that there would be suitable infiltration rates. The resulting peak flow rates under both the existing and proposed conditions are summarized in Table 1. For detailed computations see Appendix A.

Table 1: Peak Flows

Storm Event	Existing		Proposed	
	Rate (cfs)	Volume (ft^3)	Rate (cfs)	Volume (ft^3)
2-year	2.51	16,595	2.41	15,347
10-year	6.11	37,926	5.87	36,622
25-year	8.62	52,969	8.25	51,616
50-year	10.58	64,738	10.10	63,344

The analysis shows that there is no increase in the peak rate of runoff from the property during any of the analyzed storm events.

6. Conclusions

Based on our analysis, McChord Engineering Associates, Inc. has demonstrated that the proposed stormwater management system will adequately control the increase in runoff from the proposed dog park development on Town of Weston property located on the west side of Davis Hill Road and the south side of Lord's Highway East in Weston, Connecticut. It is the opinion of this office and the conclusion of this report that the proposed site development will have no adverse impacts to the adjoining property owners or any downstream drainage systems.

APPENDIX A:

PEAK FLOW COMPUTATIONS

Entire Area of Study

Subcat Reach Pond Link

Drainage Diagram for Existing Conditions - Weston Dog Park
Prepared by McChord Engineering Associates, Inc., Printed 1/18/2022

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
187,990	70	Woods, Good, HSG C (E1)
4,810	87	Dirt roads, HSG C (E1)
192,800		**TOTAL AREA**

Summary for Subcatchment E1: Entire Area of Study

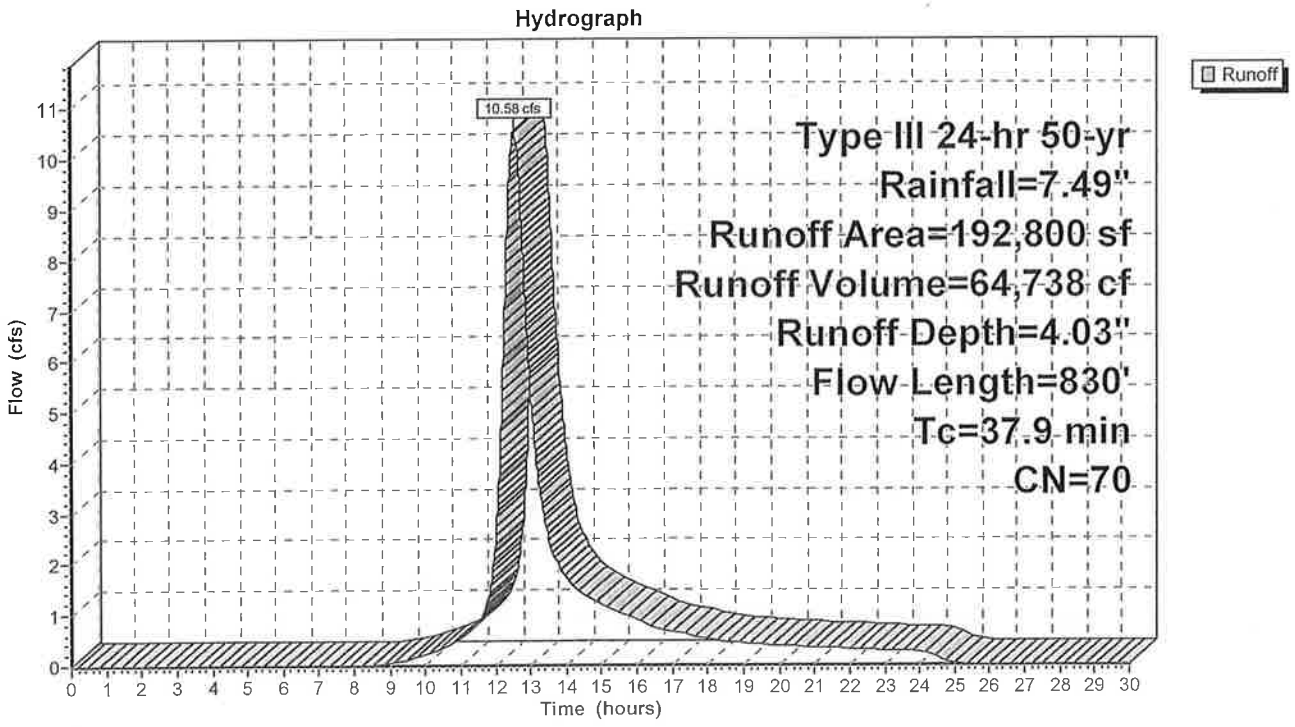
Runoff = 10.58 cfs @ 12.51 hrs, Volume= 64,738 cf, Depth= 4.03"

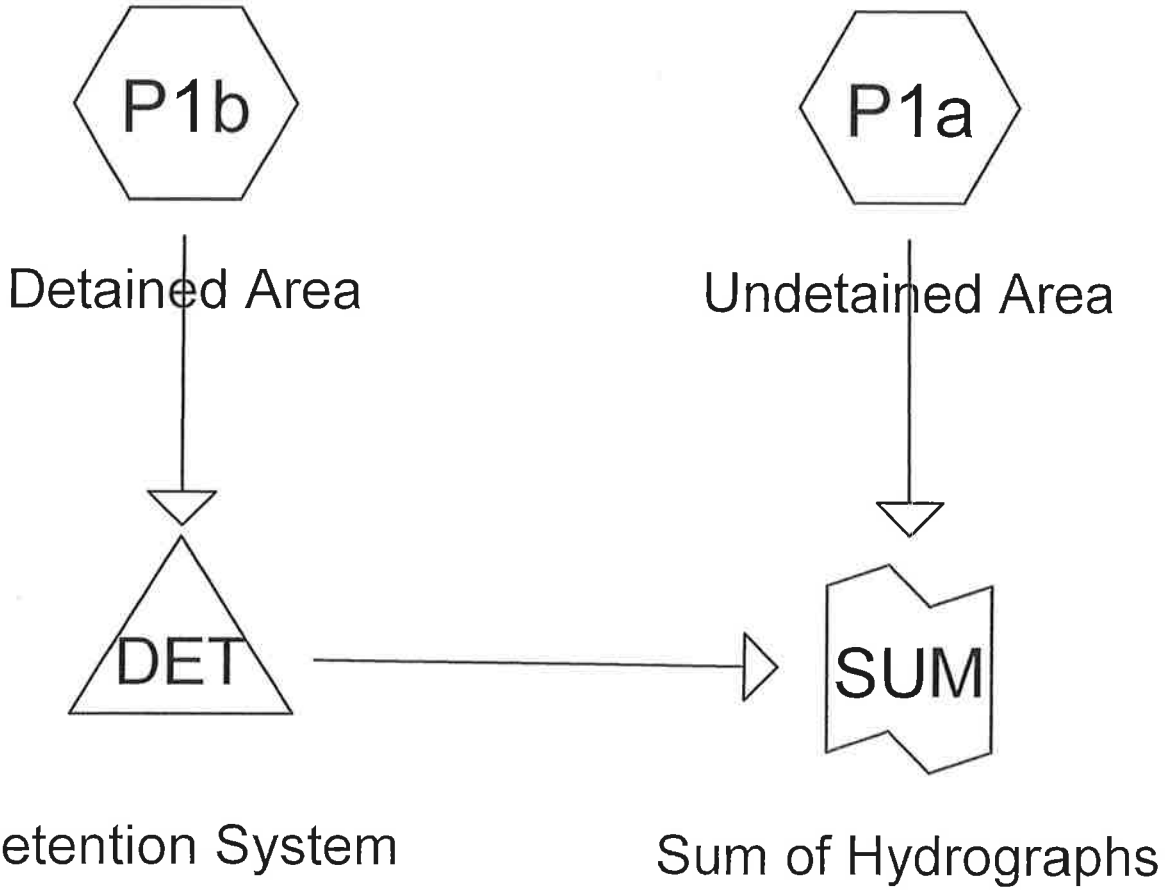
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-yr Rainfall=7.49"

Area (sf)	CN	Description
4,810	87	Dirt roads, HSG C
187,990	70	Woods, Good, HSG C
192,800	70	Weighted Average
192,800		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.4	150	0.0270	0.10		**Sheet Flow, AB** Woods: Light underbrush n= 0.400 P2= 3.45"
12.5	680	0.0330	0.91		**Shallow Concentrated Flow, BC** Woodland Kv= 5.0 fps
37.9	830	Total			

Subcatchment E1: Entire Area of Study





Subcat Reach Pond Link

Drainage Diagram for Proposed Conditions - Weston Dog Park
Prepared by McChord Engineering Associates, Inc., Printed 1/18/2022

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
173,250	70	Woods, Good, HSG C (P1a)
530	87	Dirt roads, HSG C (P1a)
15,500	89	Gravel roads, HSG C (P1b)
2,520	89	Rip Rap Swale (P1b)
1,000	98	Paved Apron (P1a)
192,800		**TOTAL AREA**

Summary for Subcatchment P1a: Undetained Area

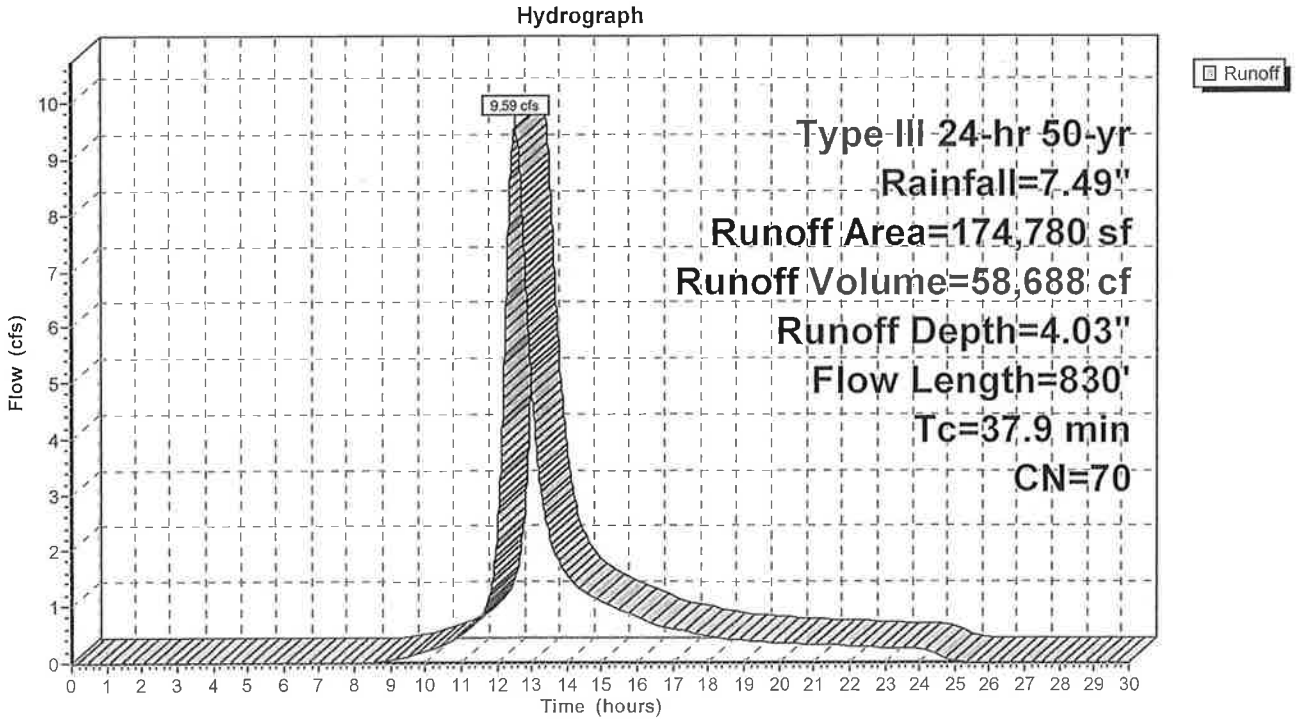
Runoff = 9.59 cfs @ 12.51 hrs, Volume= 58,688 cf, Depth= 4.03"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-yr Rainfall=7.49"

	Area (sf)	CN	Description
*	1,000	98	Paved Apron
	173,250	70	Woods, Good, HSG C
	530	87	Dirt roads, HSG C
	174,780	70	Weighted Average
	173,780		Pervious Area
	1,000		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.4	150	0.0270	0.10		**Sheet Flow, AB** Woods: Light underbrush n= 0.400 P2= 3.45"
12.5	680	0.0330	0.91		**Shallow Concentrated Flow, BC** Woodland Kv= 5.0 fps
37.9	830	Total			

Subcatchment P1a: Undetained Area



Summary for Subcatchment P1b: Detained Area

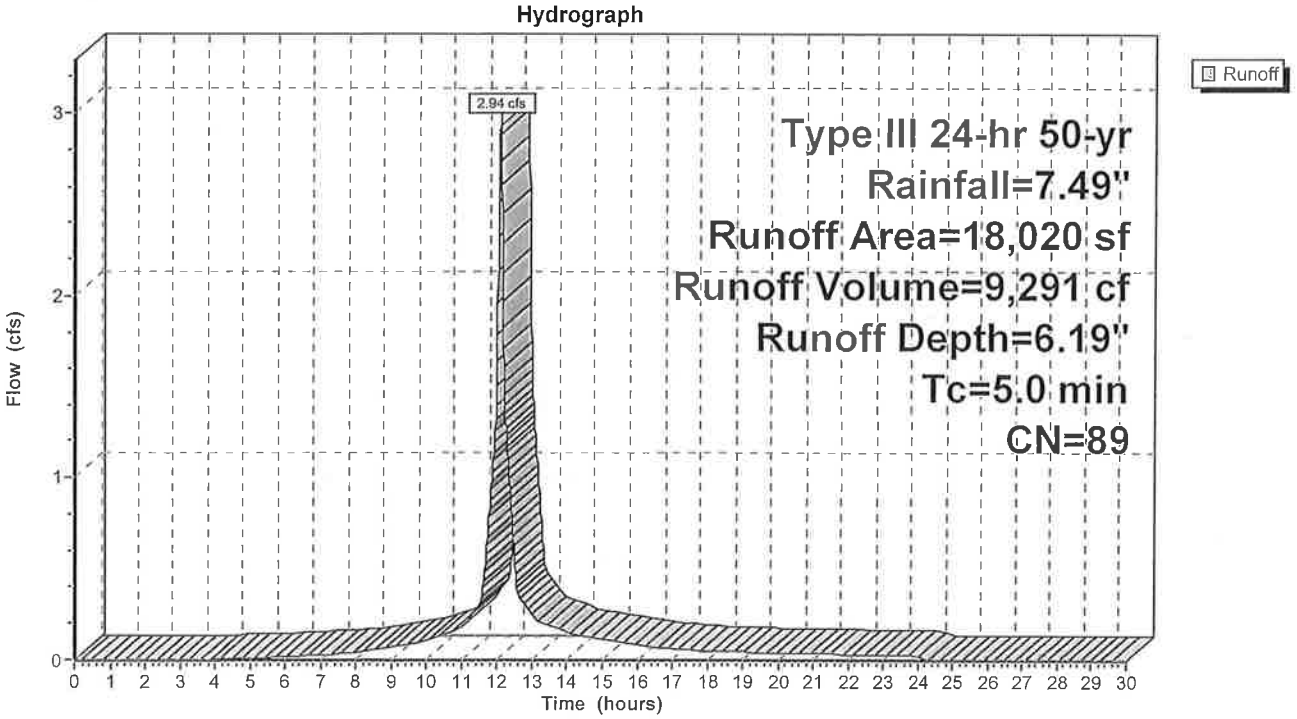
Runoff = 2.94 cfs @ 12.07 hrs, Volume= 9,291 cf, Depth= 6.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-yr Rainfall=7.49"

	Area (sf)	CN	Description
	15,500	89	Gravel roads, HSG C
*	2,520	89	Rip Rap Swale
	18,020	89	Weighted Average
	18,020		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**

Subcatchment P1b: Detained Area



Summary for Pond DET: Detention System

Inflow Area = 18,020 sf, 0.00% Impervious, Inflow Depth = 6.19" for 50-yr event
Inflow = 2.94 cfs @ 12.07 hrs, Volume= 9,291 cf
Outflow = 2.93 cfs @ 12.08 hrs, Volume= 9,291 cf, Atten= 0%, Lag= 0.4 min
Discarded = 0.06 cfs @ 8.67 hrs, Volume= 4,634 cf
Primary = 2.87 cfs @ 12.08 hrs, Volume= 4,657 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 99.19' @ 12.08 hrs Surf.Area= 1,044 sf Storage= 1,543 cf

Plug-Flow detention time= 121.4 min calculated for 9,288 cf (100% of inflow)
Center-of-Mass det. time= 121.5 min (901.6 - 780.1)

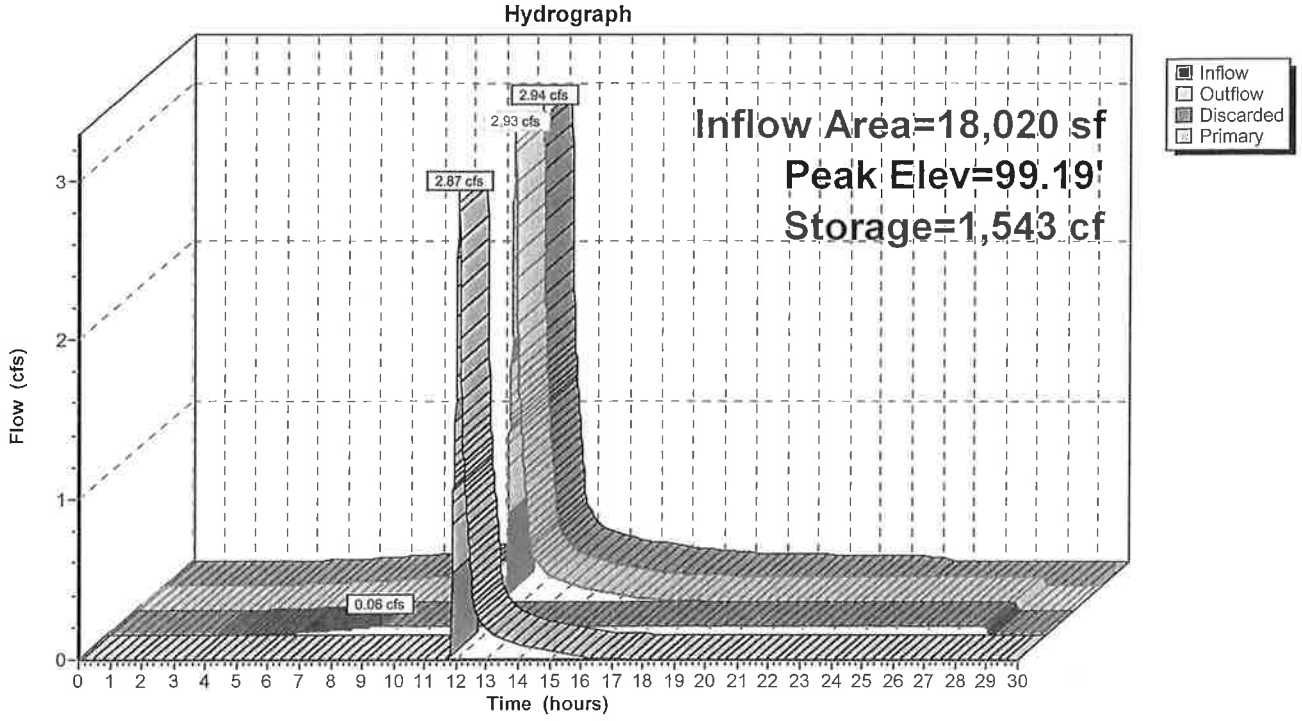
Volume	Invert	Avail.Storage	Storage Description
#1	96.50'	637 cf	**6.00'W x 58.00'L x 2.80'H Gravel Bed** x 3 2,923 cf Overall - 1,331 cf Embedded = 1,593 cf x 40.0% Voids
#2	97.00'	951 cf	**48.0"W x 24.0"H x 56.00'L Galley 4x8x2** x 3 Inside #1
		1,588 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	96.50'	**2.500 in/hr Exfiltration over Surface area**
#2	Primary	98.70'	**8.0" Vert. Highlevel Overflow Pipe** C= 0.600
#3	Primary	99.00'	**2.00' x 2.00' Horiz. Highlevel Overflow Grate** Limited to weir flow C= 0.600

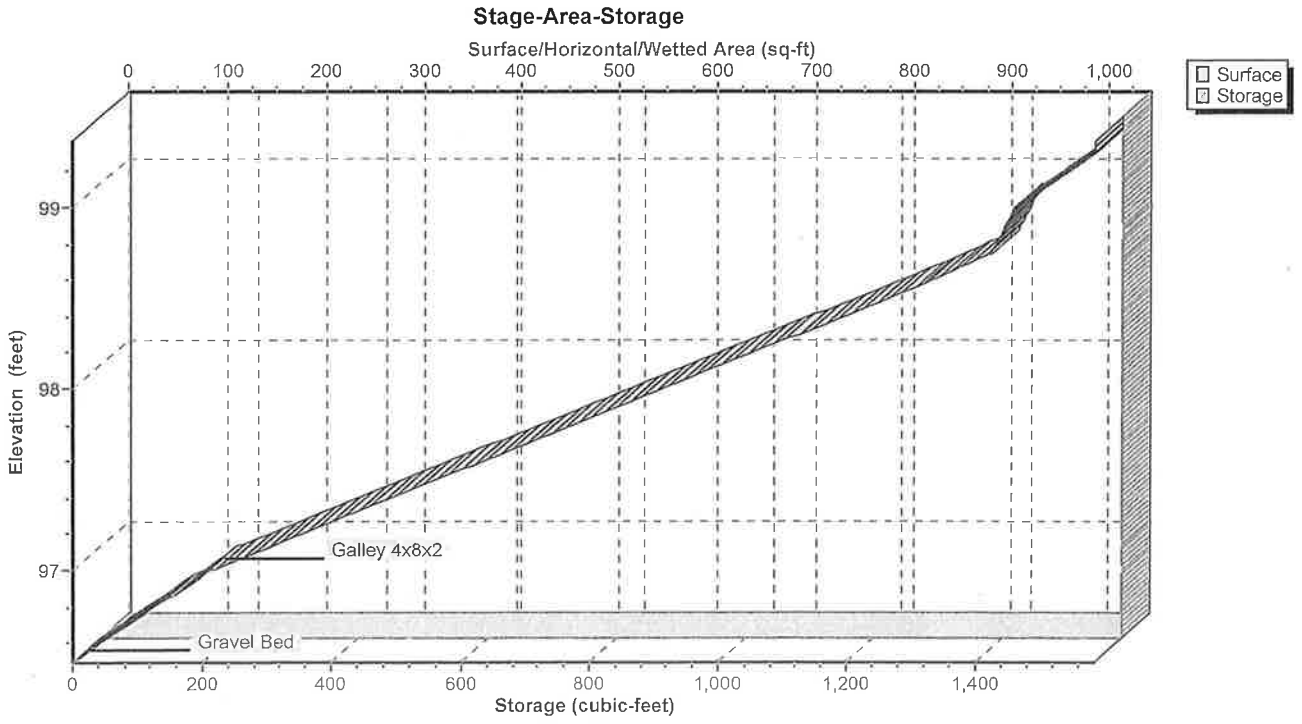
Discarded OutFlow Max=0.06 cfs @ 8.67 hrs HW=96.53' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=2.86 cfs @ 12.08 hrs HW=99.19' (Free Discharge)
├**2=Highlevel Overflow Pipe** (Orifice Controls 0.66 cfs @ 2.39 fps)
└**3=Highlevel Overflow Grate** (Weir Controls 2.20 cfs @ 1.43 fps)

Pond DET: Detention System



Pond DET: Detention System

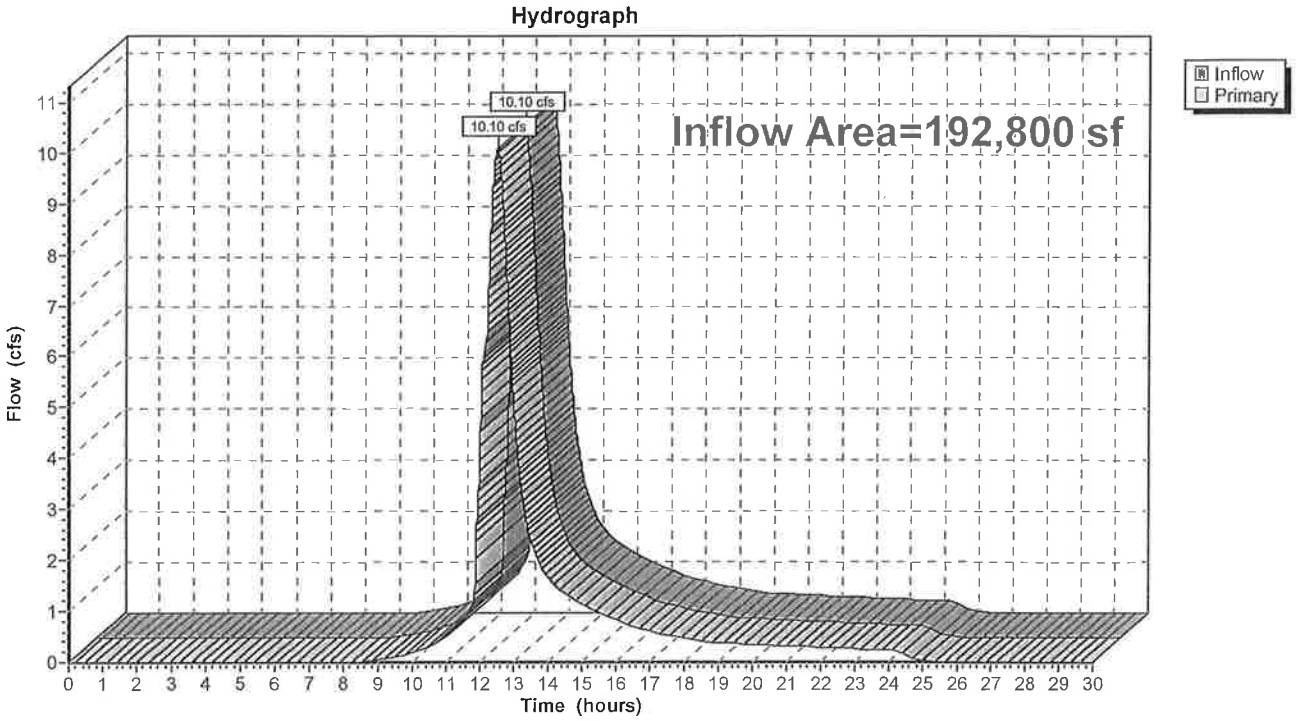


Summary for Link SUM: Sum of Hydrographs

Inflow Area = 192,800 sf, 0.52% Impervious, Inflow Depth = 3.94" for 50-yr event
Inflow = 10.10 cfs @ 12.51 hrs, Volume= 63,344 cf
Primary = 10.10 cfs @ 12.51 hrs, Volume= 63,344 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link SUM: Sum of Hydrographs



APPENDIX B:

STORMWATER FACILITIES MAINTENANCE PLAN

Stormwater Facilities Maintenance Plan

Town of Weston Dog Park, Weston, CT
Map 17, Lot 17

Scope:

The purpose of the Stormwater Facilities Maintenance Plan is to insure that the proposed stormwater components installed for the Town of Weston Dog Park are maintained in operational condition throughout the life of the home. The service procedures associated with this plan shall be performed as required by the parties legally responsible for their maintenance.

Description of Stormwater Facilities:

The proposed stormwater facilities are designed to collect, convey, detain and treat the runoff form the site in order to minimize adverse impacts to the adjoining lagoon. A description of the stormwater facilities are as follows:

1. Catch Basin: Catch basins will collect runoff from the driveway and rip rap swale and convey it to the underground detention chambers. They are equipped with a sump designed to capture sediment and debris from the runoff.

2. Underground Detention System: The underground detention system consists of a series of precast concrete galleries which provide storage volume for the stormwater runoff. Stormwater in the underground detention system is designed to infiltrate into the underlying soils. The detention galleries are designed to overflow from a pipe to an existing catch basin on Lord's Highway East during extreme storm events.

Recommended Frequency of Service:

All of the stormwater components installed for this property should be checked periodically and kept in full working order. Ultimately the frequency of inspection and service cleaning depends on the amount of runoff, pollutant loading and interference from debris (leaves, vegetation, trash, etc.); however it is recommended that each facility be inspected and cleaned a minimum of two times a year. The guidelines for the timing of service include early spring after the winter season and late fall after the leaves have fallen from the trees.

Service Procedures:

Service can be performed by the homeowner, landscape contractor or handyman since no specialzed equipment is required. Specific service procedures for the stormwater facilities are as follows:

1. Catch Basins: Catch basins shall be inspected and cleaned twice a year during the spring and fall service inspections. The cleaning shall include both removal of sediment from the sumps and removal of any trash and/or debris from the grate.

2. Underground Detention System: Functionality of the underground detention system ultimately depends on keeping sediment and debris out of the galleries. This is accomplished through proper maintenance of the catch basins. These components should be maintained as described above, but more frequent maintenance may be required if excessive accumulation of debris is observed. Debris should be removed from the overflow grate during the spring and fall service inspections.

SOIL & WETLAND SCIENCE, LLC
OTTO R. THEALL
PROFESSIONAL SOIL SCIENTIST
PROFESSIONAL WETLAND SCIENTIST
2 LLOYD ROAD
NORWALK, CONNECTICUT 06850
OFFICE (203) 845-0278
CELL (203) 247-0650
FAX (203) 354-4881
EMAIL: soilwetlandsci@aol.com

SOIL INVESTIGATION REPORT
PARCEL 17-1-17
DAVIS HILL ROAD
WESTON, CONNECTICUT
OCTOBER 17, 2017

I conducted an on-site investigation of the soils on portions of the vacant property known as Parcel 17-1-17, located on Davis Hill Road and Lord's Highway East in Weston, Connecticut on June 29, 2016 and again on August 21, 2017 and again October 17, 2017. The examination for wetland soils was conducted in the field by inspection of soil samples taken with spade and auger.

The wetland lines near Davis Hill Road were marked in the field on the first two visits with flags numbered 1 through 8 and 201 through 207. The wetland soils consist of Leicester fine sandy loam (4). The non-wetland soils consist of Sutton fine sandy loam, extremely stony (52), Hollis-Chatfield-Rock outcrop complex (75) and Paxton and Montauk fine sandy loams (84).

On the last visit to the site, on October 17, 2017, there no wetland soils found within 100 feet of the proposed road. Fifty soil samples were taken during that visit. The soils in and around the proposed the road location consist of Woodbridge fine sandy loam, very stony (46) and Paxton and Montauk fine sandy loams (84). I am told that someone tried to claim that Woodbridge soils are frequently flooded. That is not the case. The water table in these soils is typically only within 18 to 30 inches of the ground's surface at the wettest time of the year. The Soil Survey of the State of Connecticut puts it this way – "Flooding: none." (page 119) The soil map units contain inclusions of other soil types.

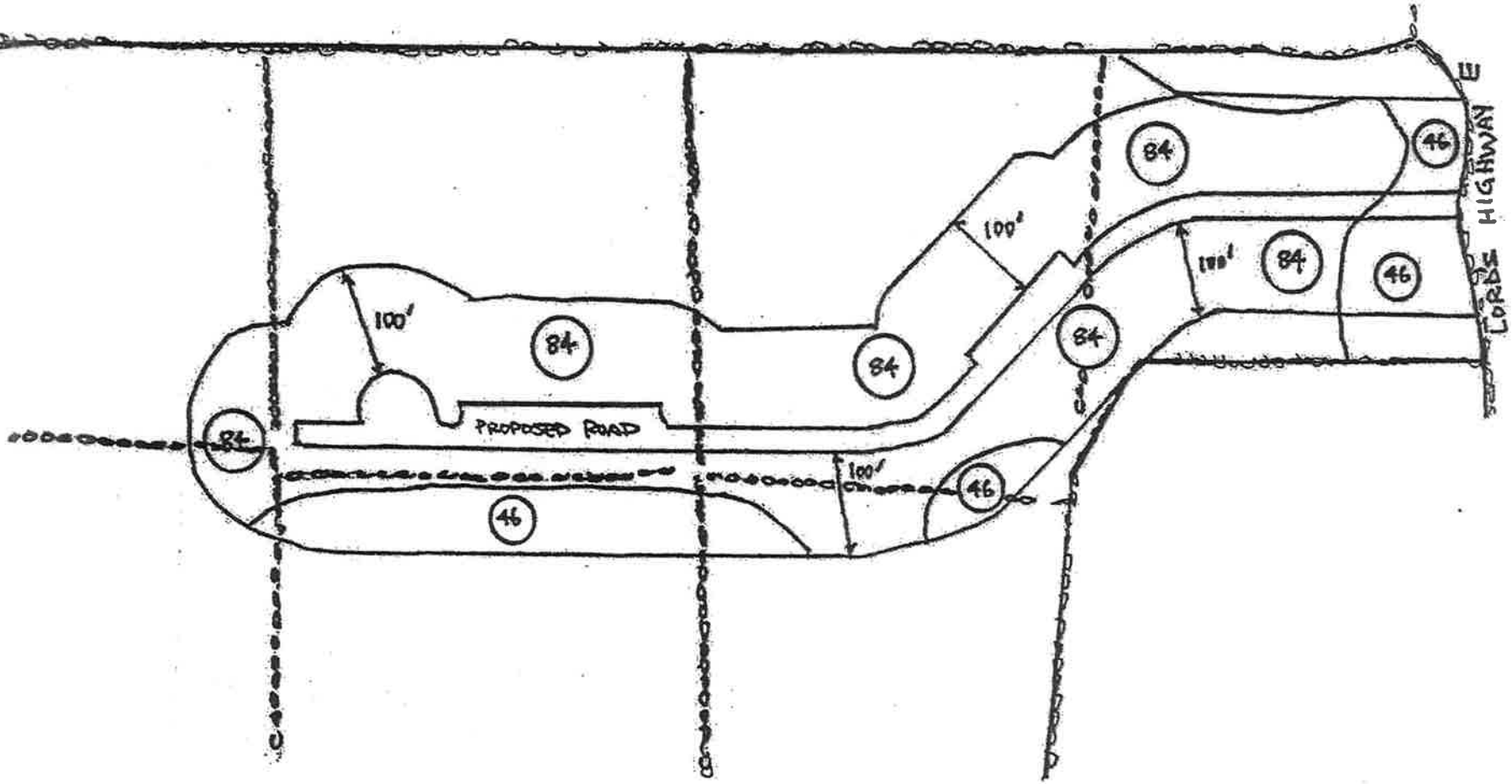
Respectfully submitted:

Otto R. Theall
Professional Soil Scientist

SOIL SURVEY SKETCH MAP
LORD'S HIGHWAY EAST DOG PARK
WESTON, CONNECTICUT
SOIL & WETLAND SCIENCE, LLC
OTTO R. THEALL
PROFESSIONAL SOIL SCIENTIST
OCTOBER 17, 2017

SOIL LEGEND:

Non-wetland Soils:
46 = Woodbridge f. sandy loam, v. s.
84 = Paxton & Montauk f. s. loams



TOWN of WESTON, CONNECTICUT

Incorporated 1787

Town Engineer's Office

November 2, 2017

Nina Daniel, First Selectman
Jonathan Luiz, Town Administrator
Tracy Kulikowski, Land Use Director
Weston Town Hall
Norfield Road
Weston, CT 06883

Re: Soils Report
Weston Dog Park

Jonathan:

In conjunction with the soils report I have received from Otto Theall Professional Soil Scientist it was found with an extensive study from Mr. Theall that there were no wetlands soils found in the area of the proposed access drive to enter the dog park from Lords Highway East.

Soils found on site of the proposed access drive were Woodbridge, Paxton and Montauk. Most of the proposed access falls within the Paxton and Montauk soils. As stated in Mr. Theall's report this area is not prone to flooding. I inspected the site on the date of October 30, 2017 directly after a large rain storm that occurred on the dates of October 29 & 30 2017 dropping approximately 4 inches of rain. My site inspection found no flooding or standing water in the area of the proposed access or Dog Park.

I have enclosed additional information and definitions of the three soils identified by Mr. Theall published by the State of Connecticut. The information clearly shows the three soils to be well or moderately drained soils.

In conclusion this area is acceptable for the placement of the proposed access drive to provide municipal activities of the entire Moore Property.

John Conte P.E.
Town Engineer

LOCATION WOODBRIDGE CT+MA NH NY RI

Established Series
Rev. MFF-JTI-DHZ
05/2016

WOODBRIDGE SERIES

The Woodbridge series consists of moderately well drained loamy soils formed in lodgment till. They are very deep to bedrock and moderately deep to a densic contact. They are nearly level to moderately steep soils on hills, drumlins, till plains, and ground moraines. Slope ranges from 0 to 25 percent. Saturated hydraulic conductivity ranges from moderately high to high in the surface layer and subsoil and low or moderately low in the dense substratum. Mean annual temperature is about 9 degrees C., and mean annual precipitation is about 1168 mm.

TAXONOMIC CLASS: Coarse-loamy, mixed, active, mesic Aquic Dystrudepts

TYPICAL PEDON: Woodbridge fine sandy loam - grass field, at an elevation of about 177 meters. (Colors are for moist soil unless otherwise noted.)

Ap--0 to 18 cm; very dark grayish brown (10YR 3/2) fine sandy loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; many fine and medium roots; few very dark brown (10YR 2/2) earthworm casts; 5 percent gravel; moderately acid; abrupt wavy boundary. (10 to 30 cm thick.)

Bw1--18 to 46 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; few very dark brown (10YR 2/2) earthworm casts; 10 percent gravel; moderately acid; gradual wavy boundary.

Bw2--46 to 66 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; few very dark brown (10YR 2/2) earthworm casts; 10 percent gravel; few medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and light brownish gray (10YR 6/2) areas of iron depletion; moderately acid; gradual wavy boundary.

Bw3--66 to 76 cm; light olive brown (2.5Y 5/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 10 percent gravel; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and light brownish gray (10YR 6/2) areas of iron depletion; moderately acid; clear wavy boundary. (Combined thickness of the Bw horizons is 31 to 94 cm.)

Cd1--76 to 109 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; weak thick plates of geogenic origin; very firm, brittle; 20 percent gravel; many medium prominent strong brown (7.5YR 5/8) masses of iron accumulation and light brownish gray (10YR 6/2) areas of iron depletion; moderately acid; gradual wavy boundary.

Cd2--109 to 165 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; weak thick plates of geogenic origin; very firm, brittle; few fine prominent very dark brown (10YR 2/2) coatings on plates; 25 percent gravel; common fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; moderately acid.

TYPE LOCATION: Tolland County, Connecticut; town of Mansfield, 0.75 mile south of the intersection of Connecticut Routes 275 and 195, and 0.25 mile east on the University of Connecticut Agronomy Farm, 800 feet north of the greenhouses near the corner of a brushy field. USGS Spring Hill, CT topographic quadrangle, Latitude 41 degrees, 47 minutes, 53.43 seconds N., Longitude 72 degrees, 13 minutes, 48.69 seconds W., WGS

1984.

RANGE IN CHARACTERISTICS: The thickness of the solum and depth to densic materials is 50 to 100 cm. Depth to bedrock is commonly more than 2 meters. Rock fragments commonly range from 0 to 35 percent. Except where the surface is stony, the fragments are mostly subrounded gravel and typically make up 60 percent or more of the total rock fragments. Unless limed, reaction ranges from very strongly acid to slightly acid.

Some pedons have an O horizon.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 to 4. Dry value is 6 or more. Undisturbed pedons have a thin A horizon commonly with hue of 7.5YR or 10YR but the range includes 2.5Y, value of 2 or 3 and chroma of 1 or 2. The Ap or A horizon is loam, fine sandy loam, or sandy loam in the fine-earth fraction.

Some pedons have a thin E horizon below the A horizon. It has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 3.

The upper part of the Bw horizon has hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 3 to 8. The lower part of the Bw horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6. Iron depletions are within 60 cm. The Bw horizon is loam, fine sandy loam, or sandy loam with less than 65 percent silt plus very fine sand.

Some pedons have a thin BC horizon.

Some pedons have an E or E' horizon up to 8 cm thick below the B horizon. It has hue of 10YR to 5Y, value of 5 or 6, chroma of 2 or 3, and has redoximorphic features. Typically, it is coarser-textured than the overlying horizon.

Some pedons have a C horizon above the Cd horizon.

The Cd horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 4. It commonly has redoximorphic features. Texture is loam, fine sandy loam, sandy loam, or coarse sandy loam in the fine-earth fraction. The structure is not pedogenetically derived, and appears in the form of medium to very thick plates, or it is massive. Consistence is firm or very firm.

COMPETING SERIES: These are the Chautauqua, North Meadow, Pittstown, Pompton, Rainbow, Sutton, Wapping, and Wilbraham series. Chautauqua, Pompton, Sutton, and Wapping soils do not have a dense substratum. North Meadow soils have a cap of human transported material 25 to 100 cm thick. Pittstown and Rainbow soils have more than 65 percent silt plus very fine sand in the solum. Wilbraham soils are poorly drained and developed from red parent materials (originating from reddish sandstone, shale, and conglomerate with some basalt).

GEOGRAPHIC SETTING: Woodbridge soils are nearly level to moderately steep and are on hills, drumlins, till plains, and ground moraines. Slope commonly is less than 8 percent, but the range includes 0 to 25 percent. The soils formed in acid till derived mostly from schist, gneiss, and granite. Mean annual temperature ranges from 7 to 13 degrees C and mean annual precipitation ranges from 940 to 1250 mm, and the growing season ranges from 115 to 180 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the competing Rainbow, Sutton, and Wapping soils and the Bernardston, Broadbrook, Canton, Charlton, Chatfield, Georgia, Hollis, Leicester, Montauk, Paxton, Ridgebury, Scituate, and Whitman soils on nearby landscapes. The well drained Paxton, somewhat poorly and poorly drained Ridgebury, and the very poorly drained Whitman soils are associated in a drainage sequence. Bernardston and Broadbrook soils are well drained and are finer textured. Canton and Charlton soils are well drained and do not have a dense substratum. Chatfield and Hollis soils have bedrock within depths of 50 to 100 and 25 to 50 cm, respectively. Georgia soils are calcareous within 200 cm. Leicester soils are poorly drained and do not have a dense substratum. Montauk soils are well drained and are coarser textured. Scituate soils have a

loamy sand substratum.

DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY: Moderately well drained. The potential for surface runoff is moderate to very high. Saturated hydraulic conductivity is moderately high or high in the solum and low or moderately low in the dense substratum.

USE AND VEGETATION: Many areas are cleared and used for cultivated crops, hay, or pasture. Scattered areas are used for community development. Some areas are wooded. Common trees are red, white, and black oak, hickory, white ash, sugar maple, red maple, eastern hemlock, and eastern white pine.

DISTRIBUTION AND EXTENT: Glaciated uplands of Connecticut, Massachusetts, New Hampshire, eastern New York, and Rhode Island. MLRAs 144A, 145, and 149B. The series is of large extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Amherst, Massachusetts

SERIES ESTABLISHED: Essex County, Massachusetts, 1925.

REMARKS: Woodbridge soils were previously used in Maine. Soil temperature studies in Maine have resulted in the use of the frigid soil temperature regime for soils in areas formerly identified as mesic.

Diagnostic horizons and features recognized in this pedon include:
1. Ochric epipedon - the zone from 0 to 18 cm (Ap horizon).
2. Cambic horizon - the zone from 18 to 76 cm (Bw horizons).
3. Aquic feature - low chroma areas of iron depletion within 60 cm (Bw2 horizon).
4. Densic materials - the zone from 76 to 165 cm (Cd1 and Cd2 horizons).
5) Particle-size control section - the zone from 18 to 76 cm (Bw horizons).

ADDITIONAL DATA: Full characterization data for pedons with User Pedon IDs of S2000CT013003, S1956NH017002, S1956NH017003, S1958CT013004, S1958MA015002, S1978NH011002, and S1991MA023007. Pedons analyzed by the NSSL, Lincoln, NE. The laboratory characterization data for these pedons and similar soils is available through the National Cooperative Soil Survey Soil Characterization Database: http://ncsslabdatamart.sc.egov.usda.gov/

National Cooperative Soil Survey
U.S.A.

LOCATION MONTAUK NY+CT MA NH

Established Series
Rev. RLM-JWW-MCT
05/2015

MONTAUK SERIES

The Montauk series consists of well drained soils formed in lodgment or flow till derived primarily from granitic materials with lesser amounts of gneiss and schist. The soils are very deep to bedrock and moderately deep to a densic contact. These soils are on upland hills and moraines. Slope ranges from 0 to 35 percent. Saturated hydraulic conductivity is moderately high or high in the mineral solum and low to moderately high in the substratum. Mean annual temperature is about 9 degrees C., and mean annual precipitation is about 1143 mm.

TAXONOMIC CLASS: Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts

TYPICAL PEDON: Montauk loam on a 14 percent slope in a wooded area with a discontinuous layer of undecomposed and slightly decomposed plant material less than 1 cm thick on the surface. (Colors are for moist soil unless otherwise noted.)

Ap-- 0 to 10 cm; very dark gray (10YR 3/1) loam; moderate fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 2 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.1); clear smooth boundary. (5 to 25 cm thick)

BA-- 10 to 34 cm; brown (10YR 4/3) loam; moderate medium and coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 4 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary. (0 to 25 cm thick)

Bw1-- 34 to 65 cm; dark yellowish brown (10YR 4/6) loam; moderate coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 6 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary.

Bw2-- 65 to 87 cm; yellowish brown (10YR 5/6) sandy loam; moderate medium and coarse subangular blocky structure; friable; many very fine, fine, and coarse roots; many fine and medium pores; 5 percent gravel and 1 percent cobbles; extremely acid (pH 4.3); clear smooth boundary. (Combined thickness of the Bw horizons is 31 to 86 cm.)

2Cd1-- 87 to 101 cm; strong brown (7.5YR 5/6) gravelly loamy sand; moderate medium plates; firm; few fine roots; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; very strongly acid (pH 4.7); clear wavy boundary. (18 to 76 cm thick.)

2Cd2-- 101 to 184 cm; dark yellowish brown (10YR 4/6) gravelly loamy sand; moderate medium plates; firm; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; strongly acid (pH 5.1).

TYPE LOCATION: Queens County, New York; in Alley Pond Park near the Cross Island Parkway. USGS Flushing, NY topographic quadrangle; latitude 40 degrees, 45 minutes, 35 seconds N. and Longitude 73 degrees, 45 minutes, 20 seconds W. WGS 84.

RANGE IN CHARACTERISTICS: The thickness of the mineral solum and depth to the dense substratum from the mineral soil surface ranges from 50 to 100 cm. Rock fragments range from 3 to 35 percent in the solum

and 5 to 50 percent in the substratum. Reaction ranges from extremely acid to moderately acid.

Some pedons have Oi, Oe, and/or Oa horizons overlying the A horizon. Combined thickness of the O horizons is 0 to 10 cm thick.

The Ap horizon has hue of 7.5YR or 10YR, value of 2 to 5, and chroma of 1 to 4. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is granular. Consistence is friable or very friable. Undisturbed pedons have an A horizon that has properties similar to the Ap horizon.

The BA horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 2 to 4. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is subangular blocky or granular. Consistence is friable or very friable.

Some pedons have an E horizon up to 8 cm thick.

The upper part of the Bw horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 to 8. The lower part has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 6. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is subangular blocky and may part to granular. Consistence is friable or very friable. Some pedons have an E, C, or BC horizon immediately above the Cd.

The Cd layer has hue of 5YR to 5Y, value of 4 to 6, and chroma of 1 to 6. Texture of the fine-earth fraction ranges from coarse sand to fine sandy loam, and at least one sublayer of the Cd is loamy fine sand or coarser. The horizon has plates of geogenic origin or is massive. Consistence is firm or very firm and is brittle. Some pedons have firm dark reddish brown bands up to 1 cm thick that are spaced 12 to 20 cm apart. Silt coatings on the upper side of stones and gravel are common.

COMPETING SERIES: These are the Amostown, Bernardston, Broadbrook, Horseneck, Nantucket, Paxton, Scituate, and Wethersfield series. Amostown and Scituate soils are moderately well drained and have redoximorphic features in the B horizon. The Bearnardston, Nantucket, Paxton, and Wethersfield soils do not have sandy substratums. Broadbrook soils have a silty mantle with more than 65 percent silt plus very fine sand. Horseneck soils formed in friable glacialfluvial deposits and do not have a dense substratum.

GEOGRAPHIC SETTING: Montauk soils are on undulating to hilly slopes of terminal and recessional moraines in MLRA 149B and on glaciated uplands, hills, and ground moraines in MLRAs 144A and 145. Slope ranges from 0 to 35 percent. The soils formed in loamy friable till underlain by firm sandy lodgment or flow till derived from granite with lesser amounts of gneiss and schist. The climate is humid and cool temperate. The mean annual precipitation is 889 to 1422 mm, and the mean annual temperature is 8 to 11 degrees C. The frost-free period ranges from 120 to 200 days. Elevation ranges from 3 to 122 m above sea level.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the well drained Charlton, Chatfield, Riverhead, Canton, and Haven soils that do not have dense substratums, the excessively drained and sandy Carver and Plymouth soils, the moderately well drained Scituate, Sutton, and Woodbridge soils, the somewhat poorly and poorly drained Ridgebury soils, the poorly drained Leicester soils, the very poorly drained Whitman soils, and the shallow Hollis soils.

DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY: Well drained. Runoff is low to high. Saturated hydraulic conductivity is moderately high or high in the solum and low to moderately high in the substratum.

USE AND VEGETATION: Many of the nearly level and gently sloping areas are cleared and used for production of potatoes and vegetable crops, hay, silage corn, and pasture. Steeper and uneven areas are largely forested and contain northern red oak, white oak, and occasionally yellow poplar, eastern white pine, red pine, sugar maple, beech, and birch.

DISTRIBUTION AND EXTENT: New York, Connecticut, Massachusetts, New Hampshire and possibly New Jersey and Rhode Island, MLRAs 149B, 144A, and 145. The series is of large extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Amherst, Massachusetts

SERIES ESTABLISHED: Suffolk County, New York, 1970.

REMARKS: The typical pedon was updated from 1975NY103005 to the lab-sampled pedon S1998NY081002 that better represents the typical textures, horizonation, and location.

Diagnostic horizons and features recognized in this pedon include:
1. Ochric epipedon - the zone from 0 to 10 cm (Ap horizon).
2. Cambic horizon - the zone from 34 to 87 cm (Bw1 & Bw2 horizons).
3. Densic material - the zone from 87 to 184 cm (2Cd1 and 2Cd2 layers).
4. Oxyaquic subgroup - based on saturation in one or more layers within 100 cm of the mineral soil surface, for either or both 20 or more consecutive days or 30 or more cumulative days.
5. Lithologic discontinuity - at a depth of 87 cm.

ADDITIONAL DATA: Full characterization data for pedons with User Pedon IDs of S1973MA009003, S1987NY103002, S1993MA011001, S1998NY081002, and S02MA-011-002. Pedons analyzed by the KSSL, Lincoln, NE. Laboratory characterization data for these pedons and similar soils is available through the National Cooperative Soil Survey Soil Characterization Database: http://ncsslabdatamart.sc.egov.usda.gov/

National Cooperative Soil Survey
U.S.A.

LOCATION PAXTON CT+MA NH NY RI VT

Established Series
Rev. MFF-SMF-JTI
04/2015

PAXTON SERIES

The Paxton series consists of well drained loamy soils formed in lodgment till. The soils are very deep to bedrock and moderately deep to a densic contact. They are nearly level to steep soils on hills, drumlins, till plains, and ground moraines. Slope ranges from 0 to 45 percent. Saturated hydraulic conductivity is moderately high or high in the surface layer and subsoil and low or moderately low in the substratum. Mean annual temperature is about 10 degrees C., and mean annual precipitation is about 1194 mm.

TAXONOMIC CLASS: Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts

TYPICAL PEDON: Paxton fine sandy loam - in a brushy field at an elevation of about 850 feet. (Colors are for moist soil unless otherwise noted.)

Ap -- 0 to 20 cm; dark brown (10YR 3/3) fine sandy loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many fine roots; 5 percent gravel; strongly acid; abrupt smooth boundary. (13 to 28 cm thick)

Bw1 -- 20 to 38 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; 5 percent gravel; few earthworm casts; strongly acid; gradual wavy boundary.

Bw2 -- 38 to 66 cm; olive brown (2.5Y 4/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 10 percent gravel; strongly acid; clear wavy boundary. (Combined thickness of the Bw horizon is 38 to 94 cm thick.)

Cd -- 66 to 165 cm; olive (5Y 5/3) gravelly fine sandy loam; medium plate-like divisions; massive; very firm, brittle; 25 percent gravel; many dark coatings on plates; strongly acid.

TYPE LOCATION: New Haven County, Connecticut; town of Prospect, 0.4 mile east of Straitsville Road and 0.5 mile north of the Bethany - Prospect town line; USGS Mount Carmel, CT topographic quadrangle; Latitude 41 degrees, 28 minutes, 34 33.79 seconds N., Longitude 72 degrees, 59 minutes, 16 119.19 seconds W., WGS 84

RANGE IN CHARACTERISTICS: Thickness of the mineral solum and depth to the densic contact ranges from 50 to 100 cm. Depth to bedrock is commonly more than 1.5 meters. Rock fragments range from 5 through 35 percent by volume in the mineral soil. Except where the surface is stony, the fragments are mostly subrounded gravel and typically make up 60 percent or more of the total rock fragments. Unless limed, reaction ranges from very strongly acid to slightly acid in the mineral soil.

The O horizon, where present, has hue of 5YR to 10YR or it is neutral, value of 2 or 3 and chroma of 0 to 2. It is mainly composed of slightly, moderately, or highly decomposed plant material.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 to 4. Dry value is 6 or more. The structure is commonly granular but the range includes subangular blocky in some pedons. Undisturbed pedons have a thin A horizon with value of 2 or 3 and chroma of 1 or 2. The Ap or A horizon is loam, fine sandy loam,

or sandy loam in the fine-earth fraction.

Some pedons have a thin E horizon below the A horizon. It has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 3.

The upper part of the Bw horizon has hue of 7.5YR or 2.5Y, value of 4 to 6, and chroma of 4 to 8. The lower part of the Bw horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6. Some pedons have few faint redoximorphic features just above the Cd horizon. The Bw horizon is loam, fine sandy loam, or sandy loam with less than 65 percent silt plus very fine sand. It has granular or subangular blocky structure Consistence is friable or very friable.

Some pedons have a BC horizon up to 20 cm thick.

Some pedons have an E or E' horizon up to 8 cm thick below the B horizon. It has hue of 10YR to 5Y, value of 5 or 6, and chroma of 2 or 3. Typically, it is coarser textured than the overlying horizon.

The Cd has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 4. In some pedons there are a few faint or distinct areas of iron depletion or masses of iron accumulation in the upper part. Texture is loam, fine sandy loam, sandy loam, or coarse sandy loam in the fine-earth fraction. A few thin lenses of loamy sand are in some pedons. The structure is geogenetically derived, appearing in the form of medium to very thick plates, or it is massive. Consistence is firm or very firm. Some pedons have a friable C horizon above the Cd horizon.

COMPETING SERIES: These are Amostown, Bernardston, Broadbrook, Horseneck, Nantucket, Scituate, and Wethersfield series. Amostown soils are underlain by stratified very fine sand or silt within a depth of 100 cm. Bernardston and Broadbrook soils have a solum with more than 65 percent silt plus very fine sand. Horseneck soils lack a densic contact. Nantucket soils have a lithologic discontinuity. Scituate soils have sandy substrata. Wethersfield soils have 5YR or redder hue in the B and C horizons.

GEOGRAPHIC SETTING: Paxton soils are nearly level to steep and are on till plains, ground moraines, hills, and drumlins. Slope commonly is 0 to 35 percent, but range from 0 to 45 percent in some pedons. The soils formed in acid lodgment till derived mostly from schist, gneiss, and granite. Mean annual temperature ranges from 7 to 11 degrees C., mean annual precipitation ranges from 940 to 1245 mm, and the growing season ranges from 115 to 180 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the competing Bernardston, Broadbrook, and Scituate soils and the Canton, Charlton, Chatfield, Georgia, Hollis, Leicester, Montauk, Narragansett, Pittstown, Ridgebury, Stockbridge, Sutton, Wapping, Whitman, and Woodbridge soils on nearby landscapes. The moderately well drained Woodbridge, poorly drained Ridgebury, and the very poorly drained Whitman soils are associated in a drainage sequence. Canton soils have a friable loamy sand substratum. Well drained Stockbridge and moderately well drained Georgia soils have higher base status. Hollis soils have bedrock within a depth of 25 to 50 cm. Leicester soils are poorly drained and do not have a dense substratum. Montauk soils have sandy substrata. Narragansett soils have a lithologic discontinuity within a depth of 100 cm and a solum high in silt and very fine sand. Sutton and Wapping soils are moderately well drained and do not have a dense substratum.

DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY: Well drained. Water may perch on the densic contact for brief periods in late fall through early spring. Surface runoff is negligible to high. Saturated hydraulic conductivity is moderately high or high in the mineral solum and low or moderately low in the substratum.

USE AND VEGETATION: Many areas are cleared and used for cultivated crops, hay, or pasture. Scattered areas are used for community development. Some areas are wooded. Common trees are red, white, and black oak, hickory, sugar maple, red maple, gray and black birch, eastern white pine, and eastern hemlock.

DISTRIBUTION AND EXTENT: Glaciated uplands in Connecticut, Massachusetts, New Hampshire, eastern

New York, Rhode Island, and Vermont. MLRAs 144A and 145. The series is of large extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Amherst, Massachusetts

SERIES ESTABLISHED: Worcester County, Massachusetts, 1922.

REMARKS: Paxton is the state soil of Massachusetts.

Prior revisions included changes to the range in characteristics as well as general updating to metric units. Cation exchange activity class placement was determined from a review of limited lab data and similar or associated soils. Paxton soils were previously classified as Typic Dystrochrepts, and before that as Typic Fragiochrepts.

The Paxton series was previously used in some surveys in Maine. Maine determined from soil temperature studies that the mesic soil temperature regime would no longer be used. Maine is re-evaluating the soil temperature regimes in southern Maine as of the date of this revision.

Diagnostic horizons and features recognized in this pedon include:
1. Ochric epipedon - the zone from 0 to 20 cm (Ap horizon).
2. Cambic horizon - the zone from 20 to 66 cm (Bw horizons).
3. Densic material - the zone from 66 to 165 cm (Cd horizon).
4. Oxyaquic subgroup - based on saturation in one or more layers within 100 cm of the mineral surface, for one month or more per year, in 6 out of 10 years.
5) Particle-size control section - the zone from 20 to 66 cm (Bw horizons).

ADDITIONAL DATA: Full characterization data for pedons with User Pedon IDs of S1955MA027002, S1955NH015001, S1973MA005001, S1973MA005006, S1975CT013001, S1996NH013001, S1999NY061001. Pedons analyzed by the NSSL, Lincoln, NE. Laboratory characterization data for these pedons and similar soils is available through the National Cooperative Soil Survey Soil Characterization Database: http://ncsslabdatamart.sc.egov.usda.gov/

National Cooperative Soil Survey
U.S.A.

SOIL CATENAS OF CONNECTICUT

DEPOSIT	LITHOLOGY	TEXTURE GROUP	SOIL DRAINAGE CLASS					
GLACIAL TILL Unstratified Sand, Silt & Rock	GRANITE & SCHIST	SANDY *		GLOUCESTER				
	SCHIST, GRANITE & GNEISS	LOAMY		* WESTMINSTER #				
				* HOLLIS [28]	** MILLSITE #			
					** CHATFIELD			
					CHARLTON CANTON	SUTTON [1]	LEICESTER	
					BICE #	SCHROON #		LOOMMEADOW #
					PAXTON * MONTAUK * SHELBURE #	* WOODBRIDGE * ASHFIELD #	* RIDGEBURY	* WHITMAN
					* FARMINGTON			
	MIXED CARBONATE ROCKS & CRYSTALLINE ROCKS				PYRITIES # STOCKBRIDGE NELLIS [11]	* HOGANSBURG # GEORGIA AMENIA	MUDGEPOND [19, 20]	ALDEN [19]
	RED SANDSTONE, SHALE, CONGLOMERATE & BASALT				* HOLYOKE [29]			
					** YALESVILLE			
					CHESHIRE [30, 29]	WATCHAUG [3]		
	BROWN MICACEOUS SCHIST			* BRIMFIELD	* WETHERSFIELD	* LUDLOW	* WILBRAHAM	* MENLO
					BROOKFIELD **NIPMUCK			
	PHYLLITE, SCHIST & SLATE			* TACONIC #	** MACOMBER #			
					* BERNARDSTON			
					* LANESBORO #	* FULLAM #	* BRAYTON #	
	SHALE, SANDSTONE, BASALT & CRYSTALLINE ROCKS				DUMMERSTON #			
		SILTY / SANDY			* BROADBROOK	* RAINBOW		
					NARRAGANSETT	WAPPING		
GLACIOFLUVIAL Stratified Sand & Gravel	ACIDIC CRYSTALLINE ROCKS (granite, gneiss and schist)	SANDY & GRAVELLY	HINCKLEY [22] BOSCAWEN #	MERRIMAC		SUDBURY	WALPOLE MOOSILAUKE #	
		SANDY	WINDSOR			DEERFIELD		SCARBORO [15, 24]
		LOAMY / SAND & GRAVEL			AGAWAM	NINIGRET		
		SILTY / SAND & GRAVEL			ENFIELD [26] HAVEN	TISBURY	RAYPOL	
	ACIDIC, RED SANDSTONE, SHALE, CONGLOMERATE	SANDY & GRAVELLY	MANCHESTER	HARTFORD	BRANFORD	ELLINGTON		
		SANDY	PENWOOD					
	MIXED CARBONATE ROCKS & CRYSTALLINE ROCKS	SANDY & GRAVELLY	GROTON					
		LOAMY / SAND & GRAVEL			COPAKE	HERO	FREDON	HALSEY [7]
GLACIOLACUSTRINE Stratified Sand, Silt & Clay	MIXED CRYSTALLINE & SEDIMENTARY ROCKS	SILTY				BELGRADE [27]	RAYNHAM [31]	
		LOAMY / CLAYEY				ELMRIDGE [13, 21]	SHAKER [30]	
		SILTY & CLAYEY				BRANCROFT [5]	SCITICO [28]	MAYBID [8, 23]
						BERLIN		
ALLUVIAL Stratified Sand & Silt	GNEISS, SCHIST, GRANITE & QUARTZITE	SANDY	SUNCOOK					
		LOAMY			ONDAWA * OCCUM [4]	POOTATUCK [23]	RUMNEY # RIPPOWAM	
	MIXED CRYSTALLINE & SEDIMENTARY ROCKS	SILTY			HADLEY [14]	WINOOSKI [12]	BASH [8, 25] LIMERICK LIM	MEDOMAK # SACO

ORGANIC Peat & Muck	WETLAND TYPE	% OF MAP UNIT	PEAT THICKNESS	SUBSTRATE	SOIL SERIES
	FRESHWATER (INLAND)	FEW	>51" (>130 cm)	VARIABLE	CATDEN [10] FREETOWN BUCKSPORT #
			16-51" (40-130 cm)	LOAMY	NATCHAUG [22]
				LOAMY	WONSQUEAK #
			16-51" (40-130 cm)	SANDY	TIMAKWA [2]
	SALT AND BRACKISH (TIDAL)	COMMON			PAWCATUCK
				VARIABLE	WESTBROOK
			>51" (>130 cm)		IPSWICH

SUBAQUEOUS Salt & Brackish Waters ++	PARENT MATERIAL	HIGHLY FLUID SURFACE	NOT SULFIDIC	SULFIDIC
	MARINE/ESTUARINE SANDS	0-4 * (0-10 cm)	RHODESFOLLY	
	MARINE/ESTUARINE SILTS	4-20" (10-50 cm)		MARSHNECK
				FORT NECK
		>39" (>100 cm)		PISHAGQUA
				WEQUETEQUOCK
	SUBMERGED TERRESTRIAL	0-4" (0-10 cm)	NAPATREE	ANGUILLA
		>4" (>10 cm)		BILLINGTON

\+ Indicates soils underlain by compact till.

* Indicates shallow soils less than 20 inches (< 50 cm) to bedrock.

** Indicates moderately deep soils 20 to 40 inches (50-100 cm) to bedrock.

\# Indicates soils with mean annual soil temperature less than 8°C or 46.4°F (elevations of >1,300 feet/396 meters in Litchfield County) in frigid soils.

++ Coastal subaqueous soils are covered with saline water for more than 21 hours per day.

1-33 Annotations to referenced soil series no longer used in CT.

SOIL SERIES NO LONGER USED IN CONNECTICUT

1. Acton	9. Buxton	17. Jaffrey	25. Scantic
2. Adrian	10. Carlisle	18. Kendaia	27. Scio
3. Au Gres	11. Dover	19. Lyons	28. Shapleigh
4. Bermudian	12. Eel	20. Massena	29. Sunderland
5. Biddeford	13. Elmwood	21. Melrose	30. Swanton
6. Birchwood	14. Genesse	22. Palms	31. Wallington
7. Birdsall	15. Granby	23. Poquonock	32. Wareham
8. Bowmansville	16. Hartland	25. Rowland	33. Whately

Historical Soil Series

Since the publication of the soil surveys for all eight Connecticut counties, the classification of soils has continued to evolve. When using the historical published soil surveys, one will encounter a variety of soil series names not currently in use. These series, noted above, are referenced by number to the most current name available at the time of this publication. For example, the soil mapped as *Acton*, if classified by today's standards, may be named *Sutton*.

Charts on this page supplement all Connecticut soil surveys by referring to both current and previously used soil series names. However, since there are some major differences in map units and soil series interpretations from survey to survey, it is necessary to refer to the narrative descriptions within the appropriate archived survey to obtain complete information concerning a particular soil.

Official Soil Series Descriptions

More detailed information about each soil series is located on the USDA-NRCS soils webpage under Official Soil Series Descriptions (OSDs). This site is updated and maintained online as the official source of tentative and established soil series.

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SOIL INVESTIGATION REPORT
DAVIS HILL ROAD
WESTON, CONNECTICUT
AUGUST 21, 2017

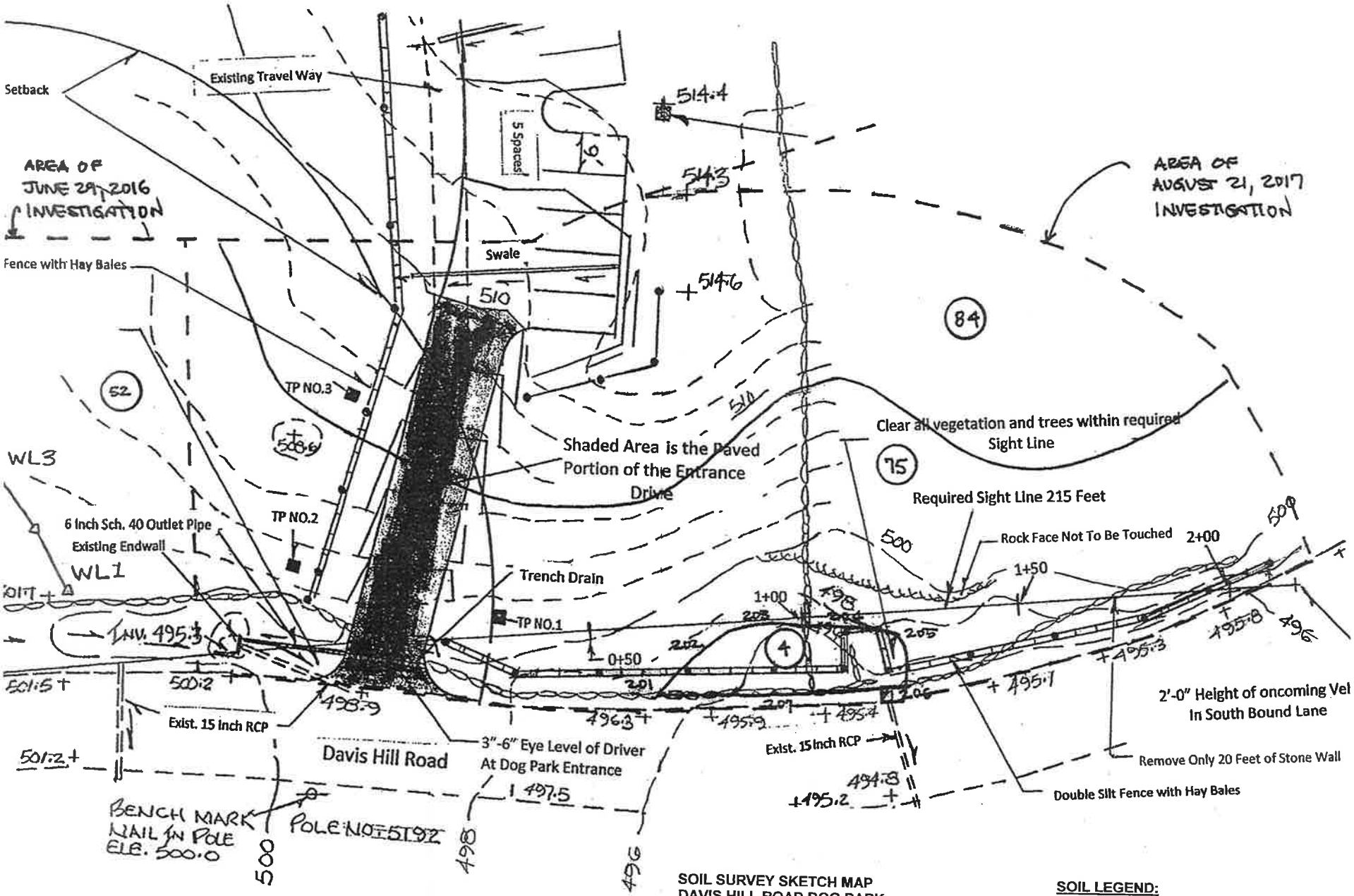
I conducted an on-site investigation of the soils on a portion of a vacant property located on Davis Hill Road in Weston, Connecticut on June 29, 2016 and again on August 21, 2017. The examination for wetland soils was conducted in the field by inspection of soil samples taken with spade and auger.

Inland wetlands in Connecticut are lands, including submerged lands, which consist of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey. Watercourses include rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. Intermittent watercourses are to 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 a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

The wetland lines were marked in the field with flags numbered 1 through 8 and 201 through 207. The wetland soils consist of Leicester fine sandy loam (4). The non-wetland soils consist of Sutton fine sandy loam, extremely stony (52), Hollis-Chatfield-Rock outcrop complex (75) and Paxton and Montauk fine sandy loams (84). The soil map units contain inclusions of other soil types. The results of this investigation are subject to change until they are accepted by Weston Conservation Commission.

Respectfully submitted:

Otto R. Theall
Professional Soil Scientist



SOIL SURVEY SKETCH MAP
DAVIS HILL ROAD DOG PARK
WESTON, CONNECTICUT
SOIL & WETLAND SCIENCE, LLC
OTTO R. THEALL
PROFESSIONAL SOIL SCIENTIST
AUGUST 21, 2017

SOIL LEGEND:
Wetland Soils:
4 = Leicester fine sandy loam
Non-wetland Soils:
52 = Sutton fine sandy loam, e. stony
75 = Hollis-Chatfield-Rock outcrop
84 = Paxton & Montauk f. s. loams

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SOIL INVESTIGATION REPORT
DAVIS HILL ROAD
WESTON, CONNECTICUT
JUNE 29, 2016

I conducted an on-site investigation of the soils on a portion of a vacant property located on Davis Hill Road in Weston, Connecticut on June 29, 2016. The examination for wetland soils was conducted in the field by inspection of approximately 50 soil samples taken with spade and auger.

Inland wetlands in Connecticut are lands, including submerged lands, which consist of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey. Watercourses include rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. Intermittent watercourses are to 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 a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

The wetland line was marked in the field with flags numbered 1 through 8. The wetland soils consist of Leicester fine sandy loam (4). The non-wetland soils consist of Sutton fine sandy loam, extremely stony (52). The soil map units contain inclusions of other soil types. The results of this investigation are subject to change until they are accepted by Weston Conservation Commission.

Respectfully submitted:

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SOIL SURVEY SKETCH MAP
DAVIS HILL ROAD
WESTON, CONNECTICUT
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JUNE 29, 2016

SOIL LEGEND:

Wetland Soils:
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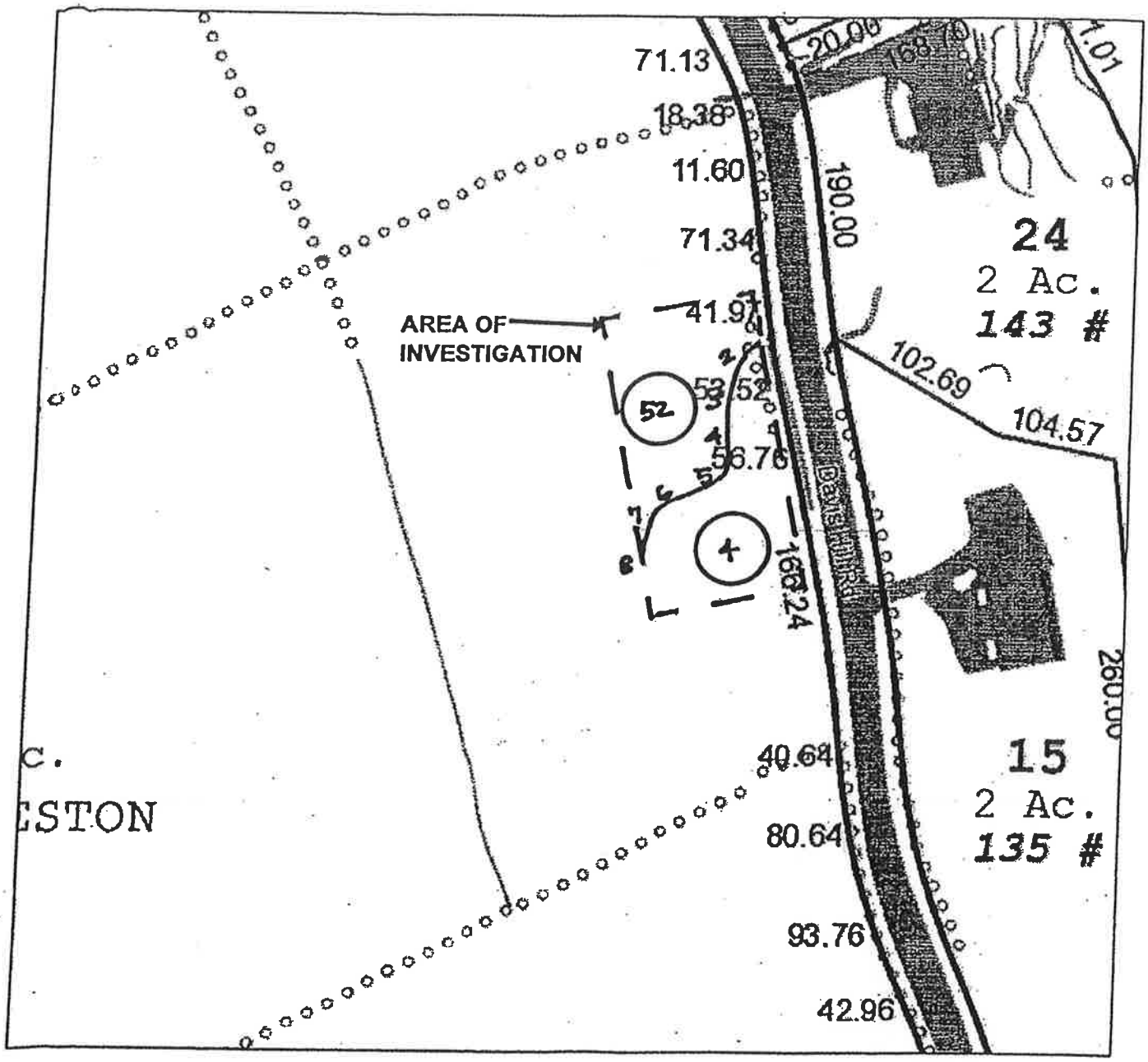


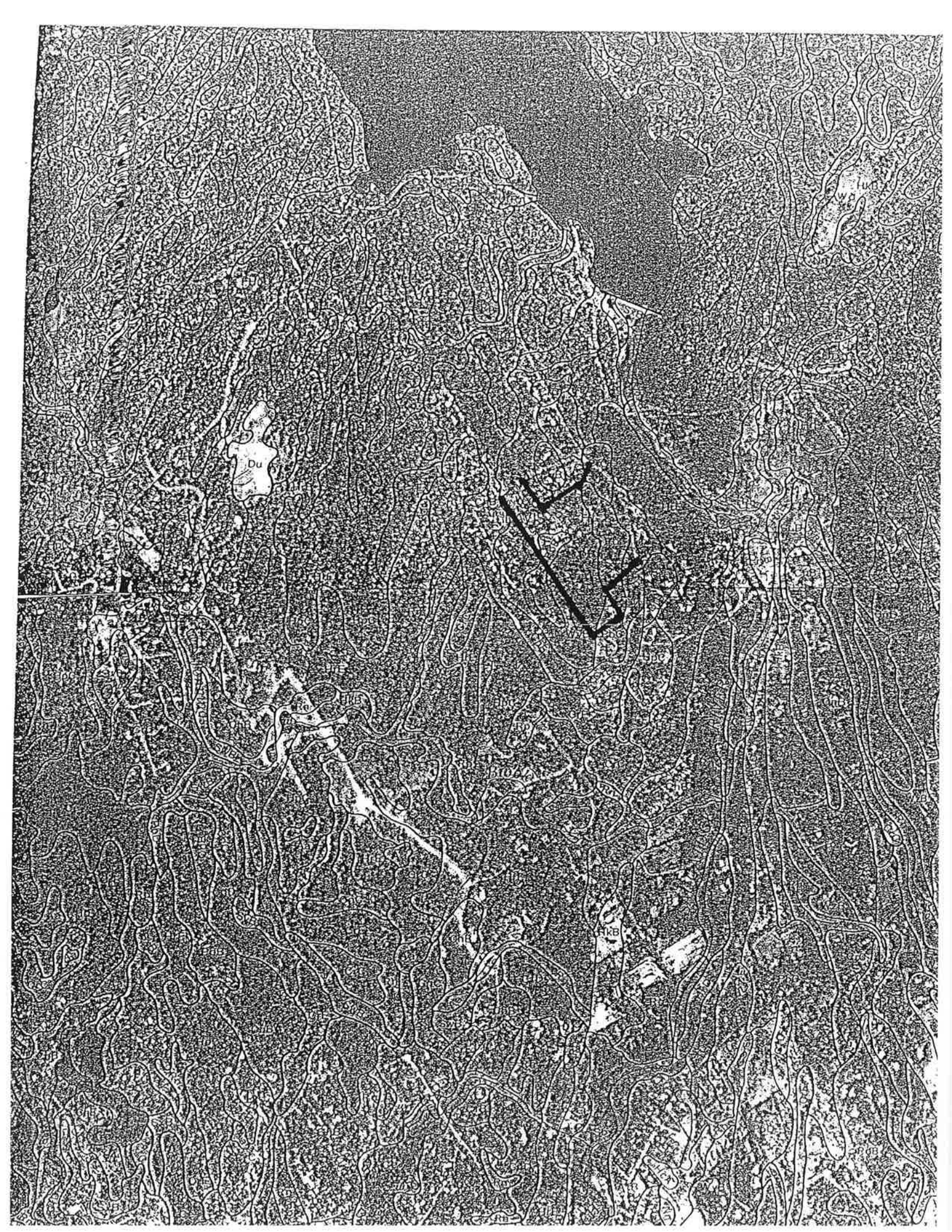
MAP DISCLAIMER - NOTICE OF LIABILITY
This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Weston and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 100 feet

0 100 Feet

N W E S

Soils Properties for Moore Property


Du

CrC—Charlton-Hollis fine sandy loams, very rocky, 3 to 15 percent slopes. This complex consists of gently sloping and sloping, well drained and somewhat excessively drained soils on hills and ridges. The areas of the complex are mostly irregular in shape and range from 4 to 250 acres. They have an undulating topography marked with exposed bedrock, a few drainageways, and a few small, wet depressions. Stones and boulders cover 1 to 5 percent of the surface and exposed bedrock up to 10 percent of the surface.

The complex is about 50 percent Charlton soils, 25 percent Hollis soils, and 25 percent other soils and exposed bedrock. The Charlton and Hollis soils are so intermingled on the landscape that it was not practical to map them separately.

Typically, the Charlton soils have a surface layer of very dark brown fine sandy loam 3 inches thick. The subsoil is strong brown and yellowish brown fine sandy loam 26 inches thick. The substratum is light olive brown gravelly sandy loam to a depth of 60 inches or more.

Typically, the Hollis soils have a surface layer of very dark grayish brown fine sandy loam 3 inches thick. The subsoil is dark yellowish brown fine sandy loam that extends to bedrock at a depth of 17 inches.

Included with this complex in mapping are small areas of well drained Paxton soils, moderately well drained Sutton soils, poorly drained Leicester soils, and very poorly drained Adrian soils. Also included are small areas of soils with bedrock at a depth of 20 to 40 inches and a few larger areas, mostly in the southern part of the county, that have been cleared of stones and boulders.

These Charlton and Hollis soils have moderate or moderately rapid permeability. Runoff is medium to rapid. Available water capacity is moderate in the Charlton soils and low in the Hollis soils. The soils dry out and warm up early in spring. They are very strongly acid to medium acid.

Most areas of this complex are wooded. Many areas are used for community development (fig. 8), and a few small areas are used for pasture.

The major limitations of this complex for community development are the shallow depth to bedrock in the Hollis soils, the areas of exposed bedrock, and the stones and boulders on the surface. The depth to bedrock limits the soils as a site for onsite septic systems and hinders excavations. Removal of the stones and boulders is necessary for landscaping. Quickly establishing plant cover, mulching, and using siltation basins and diversions help to control erosion and sedimentation during construction.

The exposed bedrock and stones on the surface make the use of farming equipment impractical and make the soils generally unsuitable for cultivated crops. The complex is suitable for trees, but the exposed bedrock and stones also limit machine planting and droughtiness in the Hollis soils limits growth. The shallow rooting depth in the Hollis soils causes the uprooting of many trees during windy periods.

The capability subclass is VIs.

HpC—Hollis-Charlton-Rock outcrop complex, 3 to 15 percent slopes. This complex consists of gently sloping and sloping soils on hills and ridges. The areas are irregularly shaped and mostly range from 5 to 200 acres. They have an undulating topography marked with exposed bedrock, a few narrow drainageways, and a few small, wet depressions. Stones and boulders cover 1 to 5 percent of the surface.

The complex is about 35 percent somewhat excessively drained Hollis soils, 20 percent well drained Charlton soils, 20 percent exposed bedrock, and 25 percent other soils. The Hollis and Charlton soils and exposed bedrock are so intermingled on the landscape that it was not practical to map them separately.

Typically, the Hollis soils have a surface layer of very dark grayish brown fine sandy loam 3 inches thick. The subsoil is dark brown and dark yellowish brown gravelly fine sandy loam and fine sandy loam that extends to bedock at a depth of 17 inches.

Typically, the Charlton soils have a surface layer of very dark brown fine sandy loam 6 inches thick. The subsoil is brown fine sandy loam 23 inches thick. The substratum is light olive brown gravelly sandy loam to a depth of 60 inches or more.

Included with this complex in mapping are small areas of moderately well drained Sutton soils, poorly drained Leicester soils, and very poorly drained Adrian soils. Also included are areas of soils with bedrock at a depth of 20 to 40 inches, a few areas where stones cover more than 5 percent of the surface, and a few areas with no stones or boulders on the surface.

These Hollis and Charlton soils have moderate or moderately rapid permeability. Runoff is medium to rapid. The available water capacity is low in the Hollis soils and moderate in the Charlton soils. Both soils dry out and warm up early in spring. Both are very strongly acid to medium acid.

Most areas of this complex are in woodland. Some small scattered areas are used for community development, and a few small areas have been cleared and are used for pasture.

The major limitations of this complex for community development are the shallow depth to bedrock in the Hollis soils and the areas of exposed bedrock. Quickly establishing plant cover, mulching, and using siltation basins and diversions help to control erosion and sedimentation during construction.

The complex is unsuitable for cultivated crops and poorly suited to trees. The major limitations for both uses are the areas of exposed bedrock, the shallow depth to bedrock in the Hollis soils, and the stones on the surface. The use of farming equipment is impractical in areas of this complex. The shallow depth to bedrock causes the uprooting of many trees during windy periods.

The capability subclass is VIs.

PbB—Paxton fine sandy loam, 3 to 8 percent slopes. This gently sloping, well drained soil is on drumlins and hills. The areas are commonly oblong and mostly range from 4 to 50 acres.

Typically, this soil has a surface layer of dark brown fine sandy loam 9 inches thick. The subsoil is brown gravelly fine sandy loam 22 inches thick. The substratum is very firm, grayish brown gravelly sandy loam to a depth of 60 inches or more.

Included with this soil in mapping are small areas of well drained Charlton and Stockbridge soils, moderately well drained Georgia and Woodbridge soils, and poorly drained Ridgebury soils. Also included are a few areas of nearly level soils. Included areas make up about 15 percent of this map unit.

The permeability of this Paxton soil is moderate in the surface layer and subsoil and slow or very slow in the substratum. Runoff is medium, and available water capacity is moderate. The soil dries out and warms up slowly in spring. It is very strongly acid to slightly acid.

Many areas of this soil are used for hay, corn, pasture, and vegetables. Some scatterd areas are used for community development, and a few small areas are wooded.

The slow or very slow permeability of the substratum limits this soil for community development, especially for onsite septic systems. Slopes of excavations are unstable when wet, and lawns are wet and soft in autumn and spring. Artificial drains help prevent wet basements. Quickly establishing plant cover, mulching, and using siltation basins help to prevent erosion and sedimentation during construction.

This soil is well suited to cultivated crops and trees. Minimum tillage, stripcropping, and the use of crover crops help to control a moderate erosion hazard in cultivated areas. Machine planting is practical in areas used for woodland.

The capability subclass is IIe.

PbC—Paxton fine sandy loam, 8 to 15 percent slopes. This sloping, well drained soil is on drumlins and hills. The areas are commonly oblong and mostly range from 4 to 50 acres.

Typically, this soil has a surface layer of dark brown fine sandy loam 9 inches thick. The subsoil is brown fine sandy loam 22 inches thick. The substratum is very firm, grayish brown gravelly sandy loam to a depth of 60 inches or more.

Included with this soil in mapping are small areas of well drained Charlton and Stockbridge soils, moderately well drained Georgia and Woodbridge soils, and poorly drained Ridgebury soils. Included areas make up about 15 percent of this map unit.

The permeability of this Paxton soil is moderate in the surface layer and subsoil and slow or very slow in the substratum. Runoff is medium, and available water capacity is moderate. The soil dries out and warms up slowly in spring. It is very strongly acid to slightly acid.

Most areas of this soil are used for hay, corn, vegetables, and pasture. Many scattered areas are used for community development, and many small areas are wooded.

The major limitations of this soil for community development are slope and the slow or very slow permeability of the substratum. Onsite septic systems require special design and installation to prevent effluent from seeping to the surface. Slopes of excavations are unstable when wet, and lawns are wet and soft in autumn and spring. Artificial drains help prevent wet basements. Quickly establishing plant cover, mulching, and the use of diversions and siltation basins help to prevent erosion and sedimentation during construction.

This soil is suitable for cultivated crops and well suited to trees. Slope limits the use of farming equipment. Minimum tillage, stripcropping, and the use of cover crops help to control a severe erosion hazard in cultivated areas. Machine planting is practical in areas used for trees.

The capability subclass is IIIe.

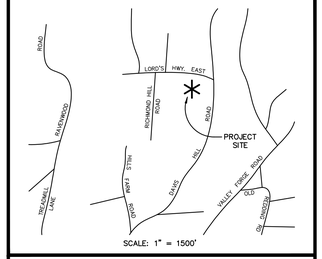
NOTES:

1. EXISTING UTILITIES, STRUCTURES, TOPOGRAPHY AND PROPERTY LINE INFORMATION SHOWN HEREON ARE TAKEN FROM THE "PROPERTY SURVEY" PREPARED FOR THE TOWN OF WESTON BY PAH, INC. – LAND SURVEYORS OF NEW MILFORD, CT, DATED AUGUST 19, 2016, LAST REVISED OCTOBER 17, 2017.
2. LOCATIONS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES INDICATED HEREON ARE TAKEN FROM DESIGN DRAWINGS, FIELD OBSERVATIONS, AND OTHER SOURCES OF INFORMATION AND ARE NOT TO BE CONSTRUED AS AN ACCURATE "AS–BUILT" SURVEY. THE CONTRACTOR SHALL EXCAVATE TEST HOLES, CONTACT "CALL BEFORE YOU DIG", AND PERFORM WHATEVER ADDITIONAL VERIFICATION NECESSARY TO VERIFY THE EXISTING INFORMATION. THE PROJECT ENGINEER SHALL BE PROMPTLY NOTIFIED OF ANY APPARENT CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED WORK.
3. THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED GRAVEL DRIVEWAY, PARKING AREAS, SITE GRADING, STORMWATER MANAGEMENT AND SOIL EROSION CONTROLS ASSOCIATED WITH THE CONSTRUCTION OF THE NEW DOG PARK.
4. COORDINATE SIGN, BENCH AND DOG WASTE DISPENSER LOCATIONS WITH TOWN OF WESTON DOG PARK COMMITTEE.
5. ALL CONSTRUCTION SHALL CONFORM TO THE TOWN OF WESTON STANDARD DETAILS AND SPECIFICATIONS. IN THE ABSENCE OF LOCAL STANDARDS, THE WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CONNECTICUT DEPARTMENT OF TRANSPORTATION SPECIFICATION FORM 816, LATEST REVISION.
6. SOIL AND EROSION CONTROL MEASURES SHOWN HEREON SHALL BE PROPERLY INSTALLED PRIOR TO THE START OF CONSTRUCTION, INSPECTED AND REPAIRED WEEKLY AND BEFORE AND AFTER STORM EVENTS, AND MAINTAINED IN FUNCTIONAL CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
7. THE STORMWATER MANAGEMENT FACILITIES SHOWN ON THIS PLAN, IF PROPERLY INSTALLED AND MAINTAINED, SHALL CONTROL THE STORMWATER RUNOFF FROM THE SITE.
8. SITE GRADING INDICATED ON THIS PLAN IS IN CONFORMANCE WITH THE WESTON ZONING REGULATIONS.
9. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO THE COMMENCEMENT OF THE WORK.
10. SEE THE "NOFA – ORGANIC LAND CARE ACCREDITATION PRACTICUM" PREPARED BY DR. TOM FAILLA, WESTON, CT TREE WARDEN, DATED AUGUST 30, 2021, LAST REVISED SEPTEMBER 26, 2021, FOR ADDITIONAL INFORMATION ON THE PROPOSED MITIGATION PLANTING PLAN.

GENERAL SEDIMENT AND EROSION CONTROL NOTES:

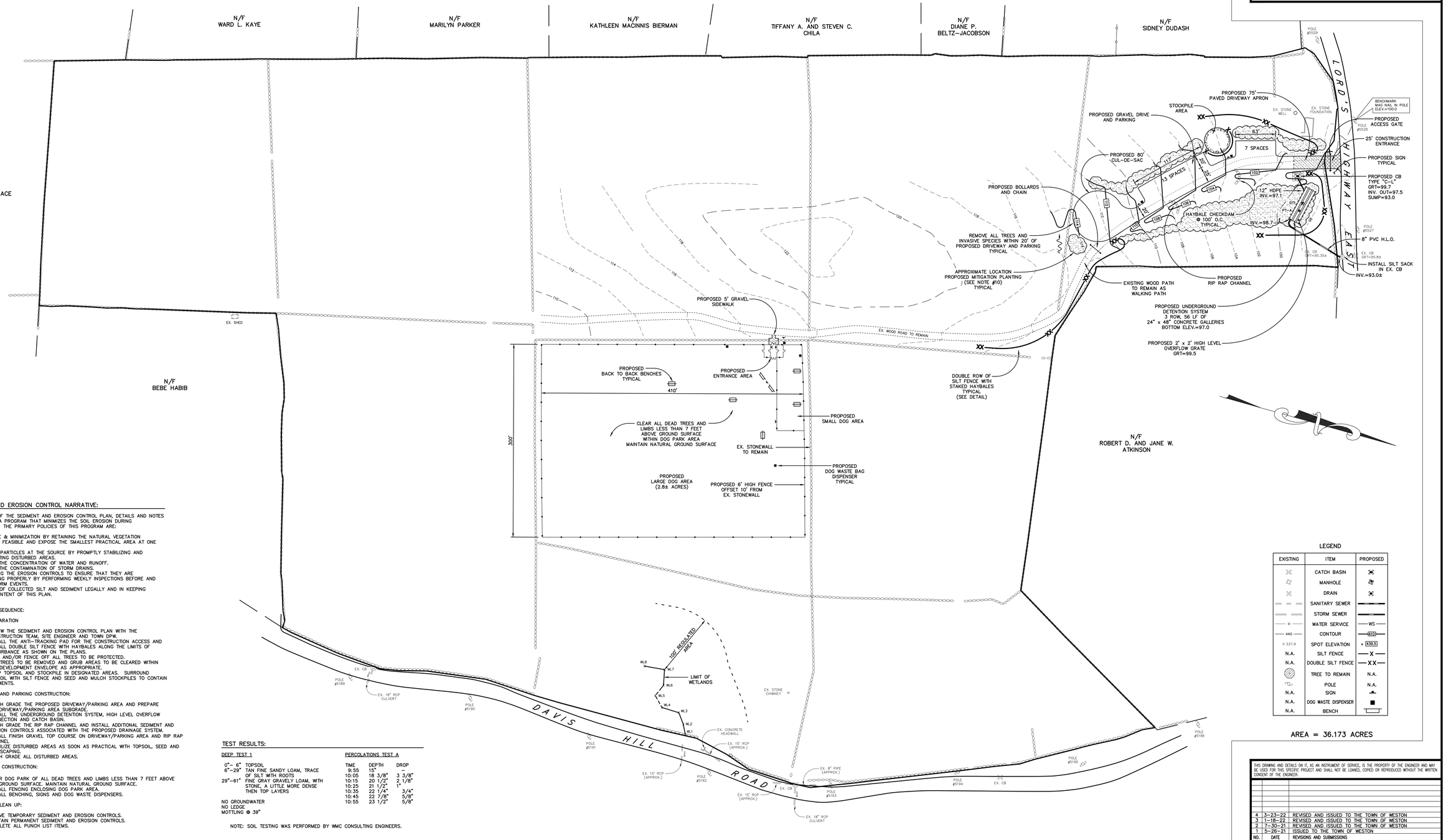
1. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.
2. COORDINATE THE CONSTRUCTION WITH THE TOWN OF WESTON DPW PRIOR TO BEGINNING WORK.
3. EXISTING TREES TO BE SAVED SHALL BE PROTECTED BY FLAGGING AND/OR SNOW FENCING AT THE DRIP LINE WHICH SHALL BE MAINTAINED DURING CONSTRUCTION.
4. DUE TO THE VARIABLE LOCATION OF CONSTRUCTION, THE USE OF ANTI–TRACKING APRONS WILL BE ON AN "AS–NEEDED" BASIS DETERMINED IN THE FIELD. WHEN ANTI–TRACKING APRONS ARE USED, THEY SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. APRONS SHALL CONSIST OF 2"– 4" CRUSHED STONE WITH A MINIMUM THICKNESS OF 8 INCHES. EACH APRON SHALL BE APPROXIMATELY 25 FEET LONG AND EXTEND THE WIDTH OF THE CONSTRUCTION ACCESS.
5. SILT FENCE AND OTHER SEDIMENT CONTROL MEASURES MUST BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFIC MANUFACTURER'S RECOMMENDATIONS.
6. SILT FENCE SHALL BE MIRAFI ENVIROFENCE OR EQUIVALENT APPROVED BY THE DESIGN ENGINEER.
7. ADDITIONAL SEDIMENT AND EROSION CONTROLS MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE INSPECTING ENGINEER OR ANY GOVERNING AGENCY.
8. AFTER EACH STORM EVENT OR AT LEAST ONCE WEEKLY, ALL SEDIMENT AND EROSION CONTROLS WILL BE INSPECTED. CORRECTIVE MEASURES TO MITIGATE ENVIRONMENTAL CONCERNS WILL BE ORDERED BY THE DESIGN ENGINEER AND/OR GOVERNING AGENCY, IF REQUIRED.
9. ALL PERMANENT AND TEMPORARY SEDIMENT CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. UPON COMPLETION OF WORK, ALL TEMPORARY SEDIMENT CONTROL DEVICES SHALL BE REMOVED FROM THE SITE AND ANY COLLECTED SEDIMENTS FROM THE DEVICES SHALL BE DISPOSED OF LEGALLY AND IN KEEPING WITH THE INTENT OF THIS PLAN.
10. LAND DISTURBANCE SHALL BE KEPT TO A MINIMUM. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED. APPLY GRASS SEED AT A RATE OF APPROXIMATELY 120 LBS/ACRE. SEED MIX WILL VARY FROM UPLAND TO WETLAND BUFFER AREAS. MULCH AFTER SEEDING UPLAND AT A RATIO OF 1000 LBS/ACRE.
11. EFFECTED PORTIONS OF OFFSITE ROADS MUST BE SWEPT CLEAN WHEN REQUIRED.
12. ALL EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL," DATED MAY 2002.

TOTAL AREA OF ACTIVITY= 4.1± ACRES
DOG PARK = 2.8± ACRES
ROADWAY AND PARKING = 1.3± ACRES



SCALE: 1" = 1500'

ORIENTATION



SEDIMENT AND EROSION CONTROL NARRATIVE:

THE PURPOSE OF THE SEDIMENT AND EROSION CONTROL PLAN, DETAILS AND NOTES IS TO OUTLINE A PROGRAM THAT MINIMIZES THE SOIL EROSION DURING CONSTRUCTION. THE PRIMARY POLICIES OF THIS PROGRAM ARE:

A) AVOIDANCE & MINIMIZATION BY RETAINING THE NATURAL VEGETATION WHENEVER FEASIBLE AND EXPOSE THE SMALLEST PRACTICAL AREA AT ONE TIME.
B) TRAPPING PARTICLES AT THE SOURCE BY PROMPTLY STABILIZING AND REVEGETATING DISTURBED AREAS.
C) AVOIDING THE CONCENTRATION OF WATER AND RUNOFF.
D) AVOIDING THE CONTAMINATION OF STORM DRAINS.
E) MAINTAINING THE EROSION CONTROLS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY BY PERFORMING WEEKLY INSPECTIONS BEFORE AND AFTER STORM EVENTS.
F) DISPOSAL OF COLLECTED SILT AND SEDIMENT LEGALLY AND IN KEEPING WITH THE INTENT OF THIS PLAN.

CONSTRUCTION SEQUENCE:

A. SITE PREPARATION

1. REVIEW THE SEDIMENT AND EROSION CONTROL PLAN WITH THE CONSTRUCTION TEAM, SITE ENGINEER AND TOWN DPW.
2. INSTALL THE ANTI–TRACKING PAD FOR THE CONSTRUCTION ACCESS AND INSTALL DOUBLE SILT FENCE WITH HAYBALES ALONG THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS.
3. FLAG AND/OR FENCE OFF ALL TREES TO BE PROTECTED.
4. CUT TREES TO BE REMOVED AND GRUB AREAS TO BE CLEARED WITHIN THE DEVELOPMENT ENVELOPE AS APPROPRIATE.
5. STRIP TOPSOIL AND STOCKPILE IN DESIGNATED AREAS. SURROUND TOPSOIL WITH SILT FENCE AND SEED AND MULCH STOCKPILES TO CONTAIN SEDIMENTS.

B. DRIVEWAY AND PARKING CONSTRUCTION:

1. ROUGH GRADE THE PROPOSED DRIVEWAY/PARKING AREA AND PREPARE THE DRIVEWAY/PARKING AREA SUBGRADE.
2. INSTALL THE UNDERGROUND DETENTION SYSTEM, HIGH LEVEL OVERFLOW CONNECTION AND CATCH BASIN.
3. ROUGH GRADE THE RIP RAP CHANNEL AND INSTALL ADDITIONAL SEDIMENT AND EROSION CONTROLS ASSOCIATED WITH THE PROPOSED DRAINAGE SYSTEM.
4. INSTALL FINISH GRAVEL TOP COURSE ON DRIVEWAY/PARKING AREA AND RIP RAP CHANNEL.
5. STABILIZE DISTURBED AREAS AS SOON AS PRACTICAL WITH TOPSOIL, SEED AND LANDSCAPING.
6. FINISH GRADE ALL DISTURBED AREAS.

C. DOG PARK CONSTRUCTION:

1. CLEAR DOG PARK OF ALL DEAD TREES AND LIMBS LESS THAN 7 FEET ABOVE THE GROUND SURFACE. MAINTAIN NATURAL GROUND SURFACE.
2. INSTALL FENCING ENCLOSING DOG PARK AREA.
3. INSTALL BENCHING, SIGNS AND DOG WASTE DISPENSERS.

D. GENERAL CLEAN UP:

1. REMOVE TEMPORARY SEDIMENT AND EROSION CONTROLS.
2. MAINTAIN PERMANENT SEDIMENT AND EROSION CONTROLS.
3. COMPLETE ALL PUNCH LIST ITEMS.

TEST RESULTS:

DEEP TEST 1

0"– 6"	TOPSOIL
6"–29"	TAN FINE SANDY LOAM, TRACE OF SILT WITH ROOTS
29"–61"	FINE GRAY GRAVELY LOAM, WITH STONE, A LITTLE MORE DENSE THEN TOP LAYERS

NO GROUNDWATER
NO LEDGE
MOTTLING @ 39"

PERCOLATIONS TEST A

TIME	DEPTH	DROP
9:55	15"	–
10:05	18 3/8"	3 3/8"
10:15	20 1/2"	2 1/8"
10:25	21 1/2"	1"
10:35	22 1/4"	3/4"
10:45	22 7/8"	5/8"
10:55	23 1/2"	5/8"

NOTE: SOIL TESTING WAS PERFORMED BY WMC CONSULTING ENGINEERS.

LEGEND

EXISTING	ITEM	PROPOSED
	CATCH BASIN	
	MANHOLE	
	DRAIN	
	SANITARY SEWER	
	STORM SEWER	
W	WATER SERVICE	WS
440	CONTOUR	410
× 337.9	SPOT ELEVATION	× 439.5
N.A.	SILT FENCE	X
N.A.	DOUBLE SILT FENCE	XX
	TREE TO REMAIN	N.A.
	POLE	N.A.
N.A.	SIGN	
N.A.	DOG WASTE DISPENSER	
N.A.	BENCH	

AREA = 36.173 ACRES

NO.	DATE	REVISIONS AND SUBMISSIONS
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2	7–30–21	REVISED AND ISSUED TO THE TOWN OF WESTON
1	5–26–21	ISSUED TO THE TOWN OF WESTON

SIGNATURE:

STATE OF CONNECTICUT · THOMAS S. NELSON · No. 20585 · REGISTERED PROFESSIONAL ENGINEER

DRAWING NO: SE1

SHEET 1 OF 3

McChord Engineering Associates, Inc.
Civil Engineers and Land Planners
1 Grumman Hill Road
Wilton, CT 06897 (203) 834–0569

PLAN PREPARED FOR
THE TOWN OF WESTON
WESTON, CONNECTICUT

OVERALL SITE PLAN
"WESTON DOG PARK"
DAVIS HILL ROAD AND LORD'S HIGHWAY EAST
WESTON, CONNECTICUT

JOB NO: 2181A–1 | DATE: MAY 26, 2021
DRAWN BY: DRS | CHECKED BY: TSN, HMR
SCALE: 1" = 60'

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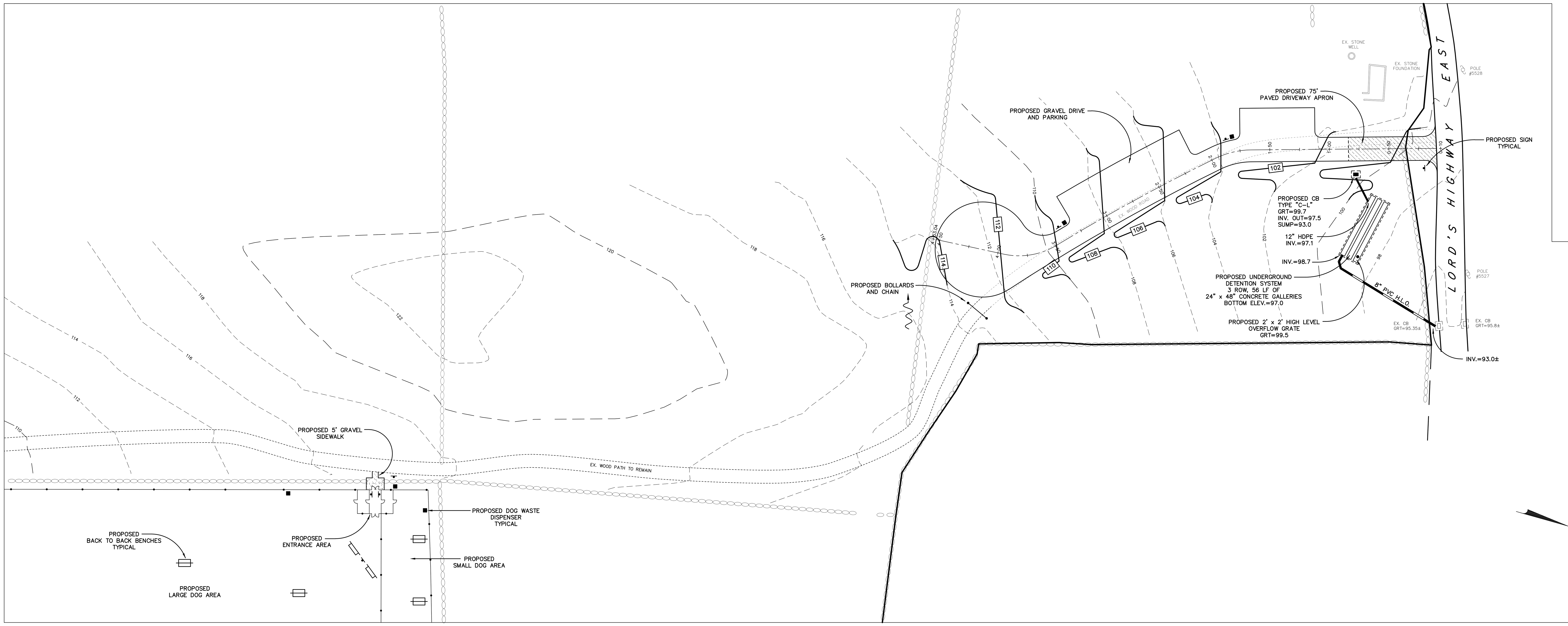
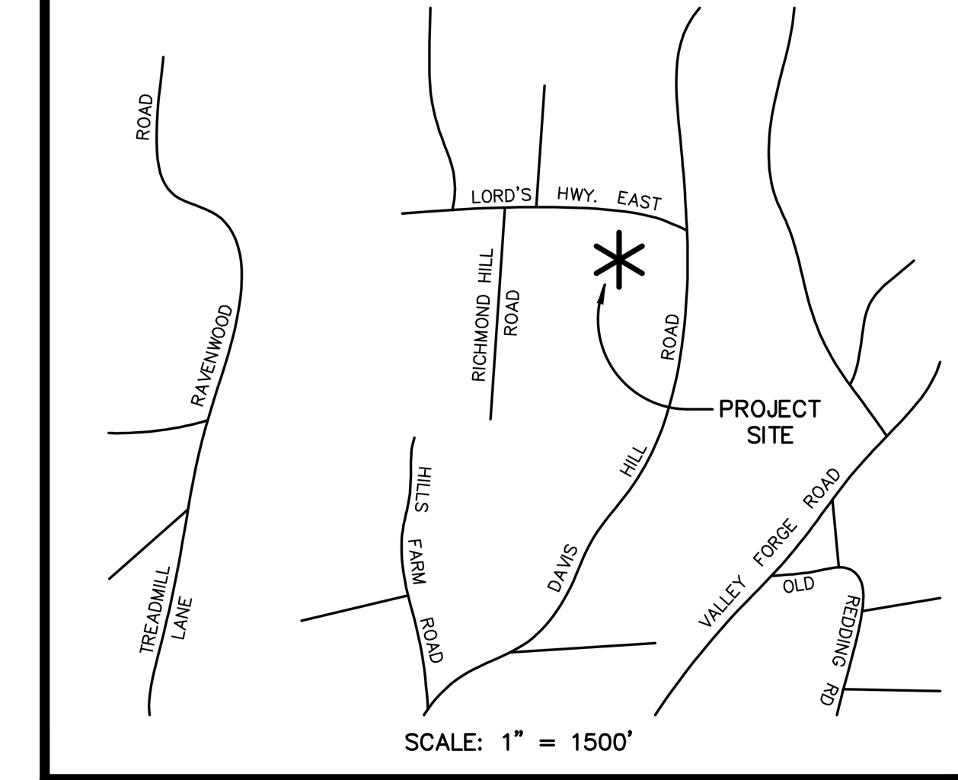
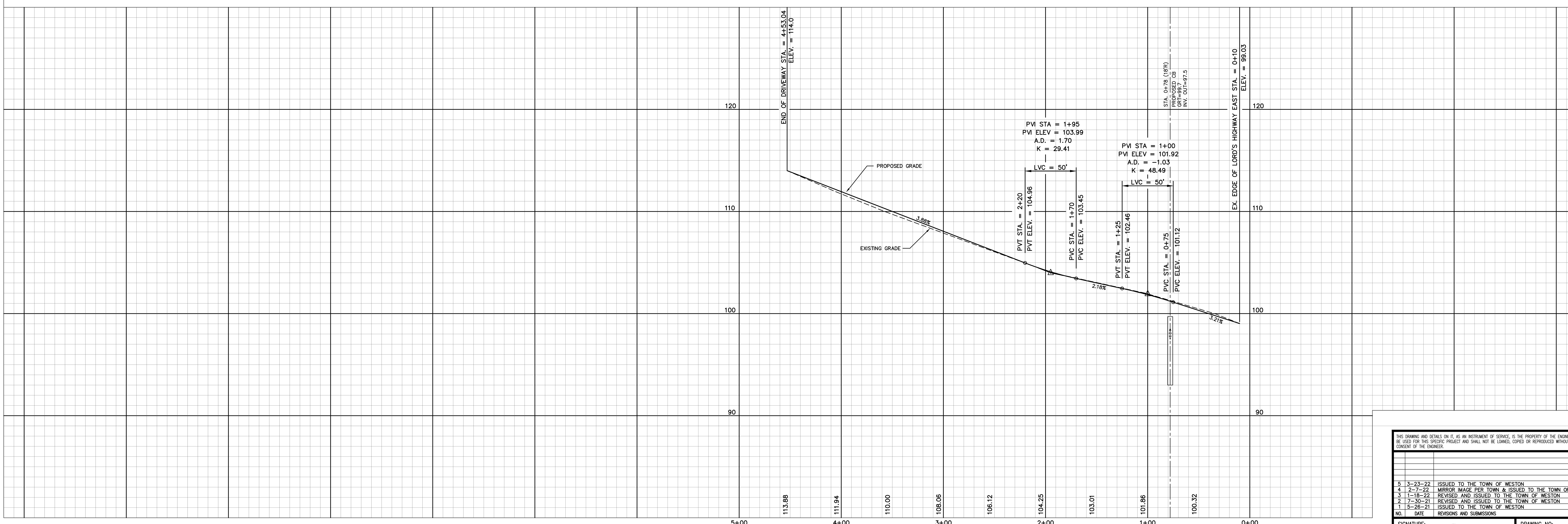
file: 2181se1c





ORIENTATION



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NO.	DATE	REVISIONS AND SUBMISSIONS
5	3-23-22	ISSUED TO THE TOWN OF WESTON
4	2-7-22	MIRROR IMAGE PER TOWN & ISSUED TO THE TOWN OF WESTON
3	1-18-22	REVISED AND ISSUED TO THE TOWN OF WESTON
2	7-30-21	REVISED AND ISSUED TO THE TOWN OF WESTON
1	5-26-21	ISSUED TO THE TOWN OF WESTON

McChord Engineering Associates, Inc.
Civil Engineers and Land Planners
1 Grumman Hill Road
Wilton, CT 06897 (203) 834-0569

PLAN PREPARED FOR
THE TOWN OF WESTON
WESTON, CONNECTICUT

PLAN AND PROFILE
"WESTON DOG PARK"
DAVIS HILL ROAD AND LORD'S HIGHWAY EAST
WESTON, CONNECTICUT

JOB NO: 2181A-1	DATE: MAY 26, 2021
DRAWN BY: DRS	CHECKED BY: TSN, HMR
SCALE: HORIZ: 1"=40', VERT: 1"=4'	

SIGNATURE:

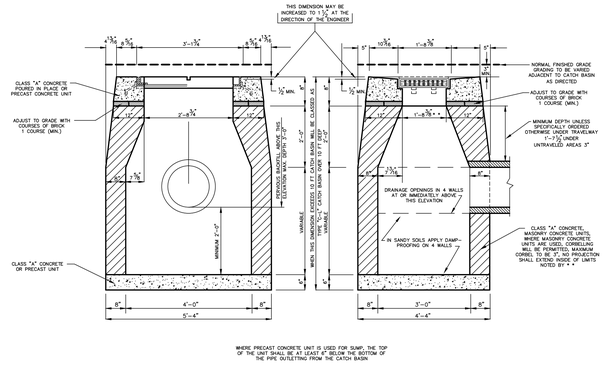
STATE OF CONNECTICUT
THOMAS S. NELSON
No. 26595
LICENSED
PROFESSIONAL ENGINEER

DRAWING NO:

PP1

SHEET 2 OF 3

file: 2181pp1c



TYPE "C-L" CATCH BASIN

CATCH BASIN DETAIL
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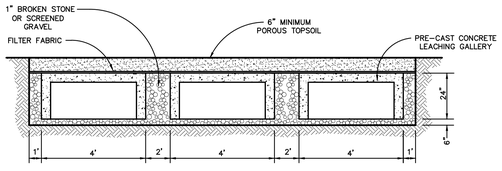

24" x 48" UNDERGROUND DETENTION SYSTEM GALLERY DETAIL
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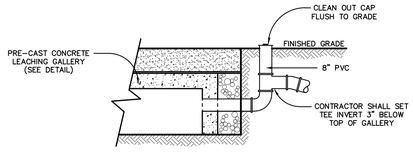

UNDERGROUND DETENTION SYSTEM HIGH LEVEL OVERFLOW OUTLET DETAIL
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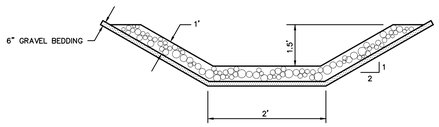
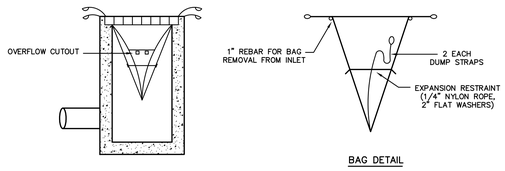


MODIFIED RIP RAP – THIS MATERIAL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

STONE SIZE	PERCENT OF THE MASS
10" OR OVER	0
6" TO 10"	20–50
4" TO 6"	30–60
2" TO 4"	30–40
1" TO 2"	10–20
LESS THAN 1"	0–10

SOURCE – U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, STORRS, CONNECTICUT

RIP RAP CHANNEL DETAIL
N.T.S.



BAG DETAIL

SILT SACK DETAIL
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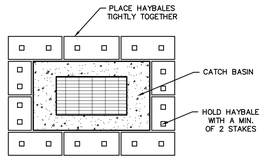

HAYBALE RING DETAIL
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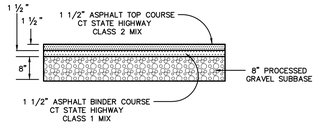

PAVED APRON DETAIL
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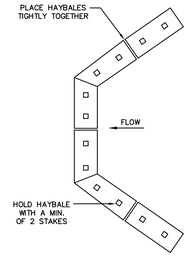

HAYBALE CHECK DAM DETAIL
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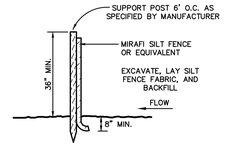

SILT FENCE DETAIL
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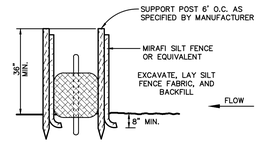

DOUBLE ROW SILT FENCE BACKED WITH STAKED HAYBALE DETAIL
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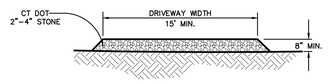

CONSTRUCTION ENTRANCE DETAIL
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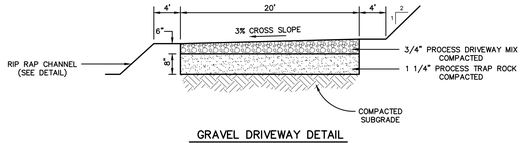

GRAVEL DRIVEWAY DETAIL
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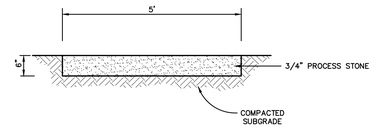
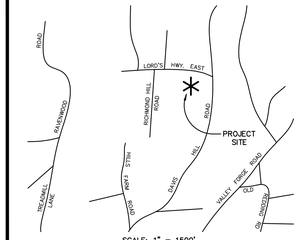


GRAVEL WALK DETAIL
N.T.S.



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STATE OF CONNECTICUT · THOMAS S. NELSON · No. 20266 · LICENSED PROFESSIONAL ENGINEER

DRAWING NO: DT1

SHEET 3 OF 3

McChord Engineering Associates, Inc.
Civil Engineers and Land Planners
1 Grumman Hill Road
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PLAN PREPARED FOR
THE TOWN OF WESTON
WESTON, CONNECTICUT

CONSTUCTION NOTES AND DETAILS
"WESTON DOG PARK"
DAVIS HILL ROAD AND LORD'S HIGHWAY EAST
WESTON, CONNECTICUT

JOB NO: 2181A-1	DATE: MAY 26, 2021
DRAWN BY: DRS	CHECKED BY: TSN, HMR
SCALE: AS SHOWN	

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