# TOWN OF ELLINCTON (CONNECTICUT PROPERTY PROPERTY

### STATE OF CONNECTICUT – COUNTY OF TOLLAND INCORPORATED 1786

### TOWN OF ELLINGTON

55 MAIN STREET – PO BOX 187 ELLINGTON, CONNECTICUT 06029-0187 www.ellington-ct.gov

TEL. (860) 870-3120 TOWN PLANNER'S OFFICE FAX (860) 870-3122

### INLAND WETLANDS AGENCY REGULAR MEETING AGENDA MONDAY, MARCH 11, 2024, 7:00 P.M.

IN-PERSON ATTENDANCE: TOWN HALL ANNEX, 57 MAIN STREET, ELLINGTON, CT REMOTE ATTENDANCE: VIA ZOOM MEETING, INSTRUCTIONS PROVIDED BELOW

- I. CALL TO ORDER
- **II. PUBLIC COMMENTS** (on non-agenda items):
- **III. PUBLIC HEARING(S):** (Notice requirements met, hearings may commence.)
  - IW202404 Fifty (50) West Road LLC, owner/applicant request for permit to conduct regulated activity to construct water quality basins and associated improvements to serve adjacent industrial and commercial development at 50 West Road, APN 019-005-0000.
  - 2. IW202405 MCC Lake Properties Trust, owner/applicant, request for permit to conduct regulated activity to demolish and rebuild the existing home, garage, patio, parking, and associated improvements at 28 East Shore Road, APN 169-035-0000.
- IV. OLD BUSINESS: None
- V. NEW BUSINESS:

#### VI. ADMINISTRATIVE BUSINESS:

- 1. Approval of the February 12, 2024, Regular Meeting Minutes.
- 2. Correspondence/Discussion:
  - a. Ad Hoc Ellington Trails Committee request to use pressure treated wood to anchor the 36-foot bridge on hiking trail off Windermere Avenue accepted as file IW202402.
  - b. CT DEEP Municipal Inland Wetlands Agency Comprehensive Training Program.

### VII. ADJOURNMENT:

Next Regular Meeting is scheduled for April 8, 2024

Instructions to attend remotely via Zoom Meeting listed below. The agenda is posted on the Town of Ellington webpage (<a href="www.ellington-ct.gov">www.ellington-ct.gov</a>) under Agenda & Minutes, Inland Wetlands Agency.

Join Zoom Meeting via link:

Link: https://us06web.zoom.us/j/89101701455

Meeting ID: 891 0170 1455

Passcode: 864016

Join Zoom Meeting by phone:

+1 646 558 8656 US (New York) Meeting ID: 891 0170 1455

Passcode: 864016

# Town of Ellington Inland Wetlands and Watercourses Agency Application

Application # <u>TW101404</u>
Date Submitted <u>1/5/2014</u>

		131001
	sociated with this application will be sent to the applicant erwise requested.	Notices associated with this application will be sent to the applicant unless otherwise requested.
Owner's	s Information	Applicant's Information (if different than owner)
Name:	Fifty (50) West Road, LLC	Name:
Mailing Address:	2 Center Square	Mailing Address:
	East Longmeadow, MA 01028	1 NW
Email:	everett@barnyard.com	Email:
MAY NOTI	T REQUIRED BY LAW TO MAIL NOTICE BY USPS, ICES BE EMAILED TO YOU? Yes No No National	WHEN NOT REQUIRED BY LAW TO MAIL NOTICE BY USPS, MAY NOTICES BE EMAILED TO YOU? ☐ Yes ☐ No Primary Contact Phone #:
Secondary	Contact Phone #:	Secondary Contact Phone #:
Owner's Signature:	Evec Date: 2/5/23	Applicant's Signature: Date:
and accurate the application application is documents re above I/we ex	blow I certify that all information submitted with this application is true to the best of my knowledge, that I am aware of and understand on requirements and regulations, and acknowledge that the sto be considered complete only when all information and equired by the Agency have been submitted. Moreover, by signing expressly provide written consent to the filing of the application and site by the Agency or its staff.	By signing below I certify that all information submitted with this application is true and accurate to the best of my knowledge, that I am aware of and understand the application requirements and regulations, and acknowledge that the application is to be considered complete only when all information and documents required by the Agency have been submitted.
Street Ad	dress: 50 West Road	FEB 0.5 2024
	's Parcel Number (APN): 019 005	0000 PLANNING DEPARTMENT
Proposed	l upland review area affected in square feet: $93$ ,	700
Proposed	wetlands/watercourses affected in square feet	and linear feet (as applicable): $\frac{3,214 \text{ SF, } 20}{}$ LF
Total area	of wetlands/watercourses on parcel in square	feet or acres: 137,795 SF
Public Wa application	ater: Yes No <b>Public Sewer:</b> Yes No to North Central District Health Department (Enfield Offic	o <u>If not served by public water and sewer, applicant shall make</u>
If YES, app within 7 day notice. App	<u>ys of this application (Conn. Gen Stat. Sec 22a-42f). Cop</u>	Yes No yand Commissioner of Public Health by certified mail, return receipt y of application, plans, and supporting documents must accompany their approved form. Proof of notice (return receipt and sent email)
nonregula	the nature of proposed regulated activity, reque ated use, map or regulation amendment, or othe and Application Checklist and Appendix D for guidance wh	st for acceptance of a permitted use as of right or a r activity requiring review by the Agency or its Agent: en preparing application
Construc	ction of water quality basins to serve adjace	ent industrial and commercial develoment.
	ched narrative.	
	-	

Appi Requ	icant shall provide certification in accordance with Wetlands Regulation, Section 7.4e, Application uirements:							
V a	Whether or not any portion of the property on which the regulated activity is proposed is located within 500 feet of an djoining town. ☐ <b>Yes</b> ☑ <b>No</b>							
V e	Whether or not a significant portion of the traffic to the completed project will use streets within an adjoining town to exit or enter the site.   Yes  No							
V ir	Whether or not a significant portion of the sewer or water drainage from the project will flow through and significantly upact the sewer or water drainage system of an adjoining town.   Yes X No							
V to	Whether water run-off from the improved site will impact streets or other municipal/private property within an adjoining own. $\square$ Yes $\boxtimes$ No							
If YE: munic Notice within	OFFICE USE ONLY S to any of the above, the Agency shall, in accordance with CGS 8-7d(f) notify the clerk of any adjoining cipality of the pendency of any application, petition, appeal, request or plan concerning any project on any site. e of the pendency of such application shall be made by certified mail, return receipt requested, and shall be mailed a seven (7) days of the date of receipt of the application, petition, appeal, request or plan. (See Agency rements Section 8.4)							
Туре	e of Project: (check one)							
<u>X</u> (	Commercial/Industrial Residential Mixed UseTimberAgricultural							
	Other, explain:							
Туре	e of Application: (check one)							
,,	Notification for Non-Regulated Use (Section 4.2)							
	Notification of Permitted Use as of Right (Section 4.1)							
	Administrative Permit (Section 6.4)							
X	Agency Permit (TWELVE COPIES REQUIRED)							
	Permit Modification							
	Permit Extension							
	Regulation Amendment							
	Map Amendment							
	Appeal of Administrative Permit							
Appl	ication Submittals:							
X	Completed Application Form (Section 7.4a)							
	Application Fee (Section 7.4b)							
X	Abutters List (Section 7.4c)							
X	Certification as to Adjacent Towns (See above)							
X	Certification as to Connecticut Water Company & Commissioner of Public Health (See above)							
X X X X X X X X	Notification Narrative and Supporting Documentation (If applicable, Appendix D)							
X	Project Narrative and Supporting Documentation (Section 7.4g, 1-11 inclusive, as deemed applicable)							
X	Project Site Plan - circle one: Administrative (Section 7.4h1) (Agency) (Section 7.4h2)							
X	Supplemental Information (Section 7.5a-j, inclusive, as deemed applicable)							



### TOWN OF ELLINGTON INLAND WETLANDS & WATERCOURSES APPLICATION CHECKLIST

(For use as a guide in preparation and review of plans. Not intended to replace regulations.)

#### GENERAL REQUIREMENTS FOR ALL APPLICANTS COUNTER STAFF TO CONFIRM AT TIME OF SUBMITTAL

- Complete application, signed by the owner & applicant;
- Required fee (See: Town Ordinance or Appendix A);
- Site Plan 12 copies (Two should be 24" x 36", signed & sealed, INCLUDING SOIL SCIENTIST'S **SIGNATURE**; others may be 11" x 17" if legible);
- If the proposed project located within a public water supply watershed area the applicant is required to notify the Connecticut Water Company and Commissioner of Public Health by certified mail, return receipt within 7 days of this application (Conn. Gen Stat. Sec 22a-42f). Copy of application, plans, and supporting documents must accompany notice. Applicant can email the Commissioner of Public Health using their approved form. Proof of notice (return receipt and sent email) must be provided to the Planning Department.

### NARRATIVE REQUIREMENTS BELOW (See Section 7.4.g) PLEASE REVIEW WITH STAFF AS SOME ITEMS MAY NOT BE REQUIRED DEPENDING ON THE COMPLEXITY OF THE APPLICATION

Check each item supplied or list recommended abbreviation: N/A = No	ot Applicable; N/P = Not Provided; W/R = Waiver Requested)
---	--

**√**1. The amount of regulated upland review area affected, in square feet;

2. 3. 4. 5. 6. The amount of inland wetlands & watercourses affected, in square or linear feet, as applicable;

The overall (aggregate) area affected:

The amount of permanent versus temporary impact:

The general characteristics of the regulated areas being affected by the proposal in terms of land cover, vegetation, soil types, slope, and relationship to other regulated areas on and off the project site;

The purpose and a description of the proposed activity:

The proposed erosion and sedimentation controls and other best management practices and mitigation measures which may be considered as a condition of issuing a permit for the proposed regulated activity including, but not limited to, measures to:

- prevent or minimize pollution or other environmental damage,
- maintain or enhance existing environmental quality, or
- in the following order of priority, restore, enhance and create productive wetland or watercourse resources.

For commercial and industrial uses, a general description of the business operations, including but not limited to:

- the type of business.
- production and manufacturing procedures,
- handling and disposition of any process wastewaters, cooling waters, and/or stormwater.
- types of materials used and stored on site.
- spill contingency plans,
- septic disposal (unless tied to sewers),
- waste/refuse storage, handling and disposal, and similar operations.

### NARRATIVE continued:

**V**9.

For commercial and industrial uses, a list of current State of Connecticut and Federal environmental and land use permits issued for the facility. Such list shall also include a disclosure of any enforcement action taken by the State DEEP regarding the facility, either current or within the previous five years from the date of the subject application, including any consent orders, fines, penalties and/or resolution of such enforcement actions.

**√**10.

A construction or project narrative describing:

- method of construction,
- duration of construction activity,
- methods to control stormwater and limit erosion before, during & following construction,
- type of equipment to be used,
- type and location of access to the regulated area.
- storage and disposal of excess materials or stockpiles.
- type and composition of any fill material,
- removal and disposition of trees and stumps,
- measures to dewater, divert flows, and similar activities.

**√**11.

A description of any changes to water velocity, volume or course, the anticipated impacts of these changes, and measures to mitigate those impacts.

**√** 12.

A list of any other local, State of Connecticut or U.S. environmental or land use approvals required for the proposed regulated activity such as but not limited to, DEEP Construction or Commercial Stormwater Permit Registration, Army Corp permits, ConnDOT, STC, and waste water or process water discharge permits.

**√**13.

Where stormwater systems are proposed, detailed storm drainage calculations, construction details and other support documentation, certified by a Professional Engineer licensed to practice in the State of Connecticut.

**√**14.

If the area to be disturbed is ½ acre or more in area, a detailed erosion control plan and narrative, in compliance with the latest State DEEP Guidelines for Soil Erosion and Sediment Control.

 $\sqrt{15}$ .

A disclosure listing any previous Ellington inland wetland permit applications and Ellington wetland enforcement actions regarding the subject parcel(s).

**/** 16.

A graphic and textual description of all alternatives to the proposed regulated activity considered, and a general discussion of each, including the reason or reasons for choosing the proposed alternative. This requirement relates to the evaluation of the initial application only, and shall not be construed as a conclusion by the Agency or its agent that the proposed activity is "significant." The determination of significance shall be made by the Agency or its agent after review of the initial application, and if the proposed regulated activity or any component of that activity is deemed "significant," the applicant may be required by the Agency or its agent to submit a more detailed analysis of alternatives, in order to allow the Agency to make the necessary findings with respect to prudent and feasible alternatives.

If the Agency determines, based upon its review of the initial submittal that either the proposed activity involves a significant activity as determined by the Agency, or additional technical or other information is necessary in order to properly and fully evaluate the proposed activity, any or all of the additional information listed in Section 7.5 of the IWWA Regulations may be required. Submittal of additional information is guided by Section 8.6.

Parcels for Protected Open Sp REMA, March 2024 Light Gray Canvas Base delineated by Town Boundary State Boundary Coastline Wetlands Legend Notes This map is intended for general planning, management, education, and research purposes only. Data shown on this map may not be complete or current. The data shown may have been compiled at different times and at different map scales, which may not match the scale at which the data is shown on this map. 1: 2,257 RES-8-1/8-7 THIS MAP IS NOT TO BE USED FOR NAVIGATION Ellination RES-A-17 © Connecticut Environmental Conditions Online CT Environmental Conditions Online RES-A-1 0.1

#### Narrative:

1. The amount of regulated upland review area affected, in square feet & acreage;

Total Upland Review Area (URA) disturbance = 93,700 S.F., or 2.15 Acres.

The amount of inland wetlands & watercourses affected, in square or linear feet, as applicable;

Total wetlands disturbance = 3,214 SF, permanent. Total watercourse disturbance = 20 LF (permanent).

The overall (aggregate) area affected;

Overall (aggregate wetlands, watercourses and URAs = = 96,910 S.F., or 2.22 Acres.

The amount of permanent versus temporary impact;

Permanent impacts to wetlands or watercourses = 1,788 SF and 20 LF, respectively. Impacts to URAs = 96,910 S.F., or 2.22 Acres, of that approximately 2.15 acres is permanent. However, the impacts will create approximately 3 surface acres of water quality ponds. Approximately 2,22 acres of earthen materials will be impacted in the URA and impacted wetlands during construction of the improvements. Associated potential for erosion would be temporary, with impacts terminating upon stabilization with permanent vegetation and completion of the construction of the water quality basins.

2. The general characteristics of the regulated areas being affected by the proposal in terms of land cover, vegetation, soil types, slope, and relationship to other regulated areas on and off the project site;

The majority of the site where impacts are proposed are currently (or until recently has been) in agricultural use (corn crop) and has been routinely plowed for years, including the small pocket of wetlands soils in the middle of the agricultural field that is currently farmed. The Hockanum River is located to the south of the parcel. Areas adjacent to Hockanum River are characterized as wooded with scrub growth on the periphery of the adjacent field. The soil survey indicate site soils are sandy and silty loams. A copy of the printout of soils depicted on the Web Soil Survey (NRCS) is attached.

3. The purpose and a description of the proposed activity;

The proposed activity includes development of the eastern portion of the parcel into light industrial and commercial uses. Ultimate development of the parcels will

include four retail/commercial buildings and three light industrial buildings (tradesmen/contractor storage and operations centers. Access will be from both Lower Butcher Road and West Road. The eastern potion of the site, adjacent to the wetlands and Hockanum River will not be developed with buildings or associated paved parking or access drives, but will include stormwater management facilities to capture and treat stormwater runoff from the eastern developed portion of the parcel.

The proposed erosion and sedimentation controls and other best management practices and mitigation measures which may be considered as a condition of issuing a permit for the proposed regulated activity including, but not limited to, measures to:

- a. prevent or minimize pollution or other environmental damage,
- b. maintain or enhance existing environmental quality, or
- c. in the following order of priority, restore, enhance and create productive wetland or watercourse resources.

Proposed sediment and erosion control measures will follow the guidelines established in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (Guidelines). The measures include but are not limited to the use of silt fence erosion control and sediment logs in areas downgradient of earthen activities, rip rap protection on all stormwater system outlets, a construction exit, erosion control blankets on steep slopes, stabilizing vegetation, conveyance of stormwater runoff into water quality basins and control of stormwater discharge. The proposed measures are depicted on the Grading, Drainage & Soil Erosion and Sediment Control Plan and related details are shown on the Detail Sheets.

The stormwater quality basins proposed are sized to both mitigate peak rates of runoff and treat the minimum CT DEEP-recommended water quality volume. Plantings in the basin will include wetlands and transition species native to the area. These plantings will help promote uptake and filtration of stormwater and assist in the settling of pollutants in the basins main pool and sediment forebay. These measures will protect the receiving watercourse into which stormwater from the site's developed areas will be discharged. The water quality basins are designed to minimize pollution to the receiving watercourse.

The wetlands in the center of the corn field (0.04 acres) has been highly impacted for years by agricultural activities and is a low function wetland. The wetlands adjacent to the Hockanum River are of higher value and function. Care was taken in the design of the site development to minimize impact to these wetlands adjacent to the Hockanum River. The shortest route that would have the least impact on these wetlands was selected. The design of the site maintains an approximate 50-foot no-disturb buffer adjacent to

these wetlands. Currently, most of this 50-foot buffer is plowed annually for crop planting. Once the site work for construction of the water quality basins is completed, this 50-foot buffer area will be planted in conservation seed mix and allowed to go fallow. This will create a natural transition between the water quality basins and the adjacent wetlands and offer a level of protection to both the wetlands and the Hockanum River Replacing approximately 1.2 acres of active agricultural use within 50-ft of a wetland with a natural vegetative buffer will provide for mitigation of the 0.4 acres of wetlands directly disturbed in the farm field.

Additionally, although designed for treatment of stormwater runoff, the water quality basins will develop many of the same characteristics of a wetland and shallow waterbody, thus creating productive wetlands/waterbody resources in an area that is currently routinely farmed.

- 4. For commercial and industrial uses, a general description of the business operations, including but not limited to:
  - a. the type of business,
  - b. production and manufacturing procedures,
  - c. handling and disposition of any process wastewaters, cooling waters, and/or stormwater,
  - d. types of materials used and stored on site,
  - e. spill contingency plans,
  - f. septic disposal (unless tied to sewers),
  - g. waste/refuse storage, handling and disposal, and similar operations.

The type of business proposed is both light industrial and commercial. The light industrial will consist of contractor/tradesmen office and inside storage/operations areas. Two of the buildings will have at-grade access for loading. The third will have both access at grade and depressed loading docks. There are no production or manufacturing activities proposed. An outside storage area is proposed and is anticipated may be used by a contractor that requires outside storage of equipment or inert materials. The commercial component will consist of retail, office and possible restaurant uses.

There will be no processed wastewater associated with the proposed uses. There are no cooling waters generated with the proposed uses. Stormwater will be collected by conventional storm drain collections systems and discharged to stormwater quality basins designed to mitigate peak rates of runoff and treat the minimum water quality volume.

Sanitary sewer service is available at the site (in West Road and along the northern boundary of the parcel). Adequate sewer allocation is available for the proposed uses. There are no septic systems proposed.

All generated waste will be disposed in on-site dumpsters for off-site disposal.

5. For commercial and industrial uses, a list of current State of Connecticut and Federal environmental and land use permits issued for the facility. Such list shall also include a disclosure of any enforcement action taken by the State DEEP regarding the facility, either current or within the previous five years from the date of the subject application, including any consent orders, fines, penalties and/or resolution of such enforcement actions.

There are no known State or Federal permits issued for the parcel. The proposal will, however, include an Encroachment Permit from The State of Connecticut DOT for the driveway curb cut to West Road. This permit is applied for and issued subsequent to receipt of local land use permits. There are no known enforcement actions taken by the CT DEEP on this parcel.

The proposal will require registration with the CT DEEP for the construction General Permit for stormwater discharges.

- 6. A construction or project narrative describing:
  - a. method of construction,
  - b. duration of construction activity,
  - c. methods to control stormwater and limit erosion before, during & following construction,
  - d. type of equipment to be used,
  - e. type and location of access to the regulated area,
  - f. storage and disposal of excess materials or stockpiles,
  - g. type and composition of any fill material,
  - h. removal and disposition of trees and stumps,
  - i. measures to dewater, divert flows, and similar activities.

Methods of construction will include those typical of site development using heavy and light equipment by skilled operators and hand tools and manual labor for: installation of erosion control devises, construction of temporary sediment control traps and diversion swales, stripping and stockpiling of topsoil, rough grading of site and construction of water quality basin and outlet controls, construction of storm drainage systems, construction of pavement subgrades and processed base courses and gravel drives and cart paths, construction of building foundations and structures, placement of bituminous pavement section, installation of plantings and establishment of stabilizing vegetation, pavement markings and signage.

It is anticipated that construction of the industrial buildings would begin in the summer of 2024 and be completed in the fall of 2026. The commercial buildings will be constructed as market conditions dictate.

During construction stormwater would be controlled by diverting runoff into

Page 5

Fifty (50) West Road, LLC – West Road Property

temporary sediment traps. It is anticipated that one temporary basin would be constructed along the north boundary of the site, adjacent to the Natural Country Foods parcel and another in the area of Water Quality Basin #2 and diverting surface runoff into the temporary basins. As the site becomes stabilized, accumulated sediments would be removed from the temporary basins and the final water quality basins would be completed with specified vegetation. Once all disturbed areas are adequately vegetated, the temporary erosion control devices would be removed.

Equipment used would include excavators, dozers, dump trucks, water trucks, skid steers, compactors, graders, etc.

Access to the regulated areas in the areas of the proposed water quality basins would be via a constructed gravel access road constructed around the perimeters of the water quality basins.

Soil stockpiles are proposed outside of the upland review areas of the site. It is anticipated that construction laydown areas and raw material storage areas would also be outside of the upland review, near Building #7.

Overall, the site will require import of fill. It is anticipated that materials removed for the excavation of the water quality basins will be used as fill for construction in the areas of the industrial buildings. Construction in the commercial building areas will require import of fill. Removal of topsoil and replacement with an equal amount of gravel fill and processed stone is anticipated. Imported materials will include soil and processed clean fill, bituminous materials, and building construction materials.

There are few trees and shrubs on the parcel that will require removal for the construction of the water quality basin outfalls. Those removed would be disposed offsite.

Surface water runoff would be diverted into temporary sedimentation basins during construction. Dewatering will likely be required during construction of the water quality basins. Dewatering waste waters will be collected and discharged to a dewatering filter pit in upland areas. The procedures for dewatering will follow the requirements of the <u>Guidelines</u>. The proposed location of the dewatering settling basin is shown on Sheet EC-2.

7. A description of any changes to water velocity, volume or course, the anticipated impacts of these changes, and measures to mitigate those impacts.

The proposed water quality basins are designed to mitigate any increase in peak rate of runoff from the site. The outflow from the basins will be discharged into the Hockanum River at the west end of the parcel. Under existing conditions, runoff from the parcel flows both westward to the river and north through the Natural

IWWA Narrative

Country Farms Site. Runoff from the CT DOT drainage system that drains West Road and areas east of West Road also flows through the parcel and north into the Natural Country Farms Site. The proposed development maintains flow to both the north and west. The water quality basins and outlet controls reduce peak rated of runoff to the west to below existing conditions peak rates of runoff. Flow is also proportioned so that no increase of flow to the north is realized.

8. A list of any other local, State of Connecticut or U.S. environmental or land use approvals required for the proposed regulated activity such as but not limited to, DEEP Construction or Commercial Stormwater Permit Registration, Army Corp permits, Conn DOT, OSTA, and wastewater or process water discharge permits.

The project will require registration for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities by the CT DEEP. A determination from OSTA will be required and an encroachment permit will be required from the CT DOT District Office. The permit procurement process related to these permits will begin subsequent of issuance of the local land use permits.

9. Where stormwater systems are proposed, detailed storm drainage calculations, construction details and other support documentation, certified by a Professional Engineer licensed to practice in the State of Connecticut.

A comprehensive stormwater management report accompanies the applications.

10. If the area to be disturbed is ½ acre or more in area, a detailed erosion control plan and narrative, in compliance with the latest State DEEP Guidelines for Soil Erosion and Sediment Control.

The submittal package includes Sheets EC-1, EC-2 and EC-3 (Soil Erosion and Sediment Control Plans), that includes a narrative. The detail sheets also include erosion control details.

11. A disclosure listing any previous Ellington inland wetland permit applications and Ellington wetland enforcement actions regarding the subject parcel(s).

None are known

12. A graphic and textual description of all alternatives to the proposed regulated activity considered, and a general discussion of each, including the reason or reasons for choosing the proposed alternative. This requirement relates to the evaluation of the initial application only and shall not be construed as a conclusion by the Agency or its agent that the proposed activity is "significant."

The determination of significance shall be made by the Agency or its agent after review of the initial application, and if the proposed regulated activity or any component of that activity is deemed "significant," the applicant may be required by the Agency or its agent to submit a more detailed analysis of alternatives, in order to allow the Agency to make the necessary findings with respect to prudent and feasible alternatives.

The proposal includes two direct wetlands impacts: 1) the impact associated with the 1,788 S.F. wetlands in the corn field, and 2) the impact associated with the storm drain discharge form the water quality basin.

The 1,788 S.F. wetlands in the field have been highly impacted over the years and have very low functionality. The stormwater management basins require a large surface area to attain the minimum required storage volumes in an area of the site with little elevation difference between the discharge and inflow elevations. The only feasible option for locating the required stormwater quality basins is in the farmed field, as the field is hydraulically down-gradient of the developed portions of the site. The required size of the basins results in impacts to the small, isolated pocket of wetlands soils. There are no other feasible or prudent alternatives for the location of the basins. As such, impacts to this small-isolated wetland is proposed to be mitigated by providing an extensive, natural vegetative buffer between the water quality basins and the wetlands adjacent to the Hockanum River.

The location of the stormwater outfall and associated piping provides for the lease direct wetlands impact, as the location is th4e narrowest stretch of wetlands between the parcel and the Hockanum River. Any other location on the site would result in a greater wetlands impact.

IWWA Narrative

Web Soil Survey National Cooperative Soil Survey

5/9/2023 Page 1 of 3

OSDA

Natural Resources Conservation Service

# MAP LEGEND

# 8 Soil Map Unit Polygons Area of Interest (AOI) Soil Map Unit Lines Area of Interest (AOI)

Soils

Very Stony Spot

Wet Spot Other

Stony Spot

Spoil Area

# Soil Map Unit Points Special Point Features

Special Line Features

Streams and Canals

Water Features







Interstate Highways

Rails

‡

**Transportation** 





Major Roads Local Roads

US Routes



Lava Flow



Aerial Photography

Background





Miscellaneous Water



Saline Spot

Sandy Spot

Severely Eroded Spot

Slide or Slip Sinkhole

Sodic Spot

# MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000

Warning: Soil Map may not be valid at this scale.

contrasting soils that could have been shown at a more detailed misunderstanding of the detail of mapping and accuracy of soil Enlargement of maps beyond the scale of mapping can cause line placement. The maps do not show the small areas of

Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

distance and area. A projection that preserves area, such as the Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Version 22, Sep 12, 2022 State of Connecticut Survey Area Data: Soil Survey Area:

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Jun 14, 2022—Oct 6,

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

### **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33A	Hartford sandy loam, 0 to 3 percent slopes	3.4	13.1%
37C	Manchester gravelly sandy loam, 3 to 15 percent slopes	7.1	27.3%
102	Pootatuck fine sandy loam	3.2	12.2%
107	Limerick and Lim soils	0.1	0.2%
306	Udorthents-Urban land complex	0.5	1.8%
702A	Tisbury silt loam, 0 to 3 percent slopes	5.1	19.7%
704A	Enfield silt loam, 0 to 3 percent slopes	6.7	25.7%
Totals for Area of Interest		26.0	100.0%



REPORT DATE: February 28, 2024
PAGE 1 OF 3

REMA ECOLOGICAL SERVICES, LLC

43 Blue Ridge Drive, Vernon, CT 06066

860.649.REMA (7362) / 860.883.8690

### ON-SITE SOIL INVESTIGATION & WETLAND DELINEATION REPORT

PROJECT NAME & SITE LOCATION:	REMA Job No.: 23-2594-ELL26
+/- 25.91 acres (Study Area)	Field Investigation Date(s): 2/27, 3/23/2023
50 West Road	Field Investigation Method(s):
<u> Ellington, CT</u>	Spade and Auger
	Backhoe Test Pits
	Other:
REPORT PREPARED FOR:	Field Conditions:
Fifty (50) West Road, LLC	Weather: Mostly Sunny, 40s to 60s
2 Center Square East	Soil Moisture: <u>low-moderate</u>
Longmeadow, MA 01028	Snow Depth: <u>none</u>
	Frost Depth: None RECEIVED
Purpose of Investigation:	RECLIVED
Wetland Delineation/Flagging in	FEB 29 2024
Wetland Mapping on Sketch Plan	
High Intensity Soil Mapping by	
Medium Intensity Soil Mapping Other:	from The Soil Survey of Connecticut Maps (USDA-NRCS)
	USDA-NRCS) (attached), Figure A (attached)
· ·	
Wetland Boundary Marker Series: RES-	A-1 to RES-A-39 (open line); RES-B-1 to RES-B-7 (closed loop)
General Site Description/Comments: The "s	study area" or "síte" consísts of a +/- 25.91-acre, commercíally
	ngton, CT. The Hockanum River flows just off the southwestern
boundary of the site. In its present state the s	síte ís characterízed mostly by a large agrícultural field, useo
	n of the site also contains a floodplain forested wetland, a wet
	s. A small portion of the delineated wetland has also been put
	rom both glaciofluvial (i.e., stratified sand and gravel), and
alluvial (i.e., stratified sand and silt) deposits	s, including within the delineated wetlands. With the exception
	eries), which is mapped as the poorly drained Aquents (306w),
	<u>ís characterízed by undísturbed (except for the plow layer) soíl</u>
	<u>ck (102) soils series and the Limerick &amp; Lim (107) soil series</u>
	1anchester (37), Enfield (704), Tisbury (702), and Hartford
(33) soil series. The woody vegetation associ	lated with the delineated wetlands (outside of the agricultural
<u>field) includes silver maple, butternut, apple, b</u>	<u>olack cherry, boxelder, sycamore, cottonwood, pín oak, and tree-</u>
of-heaven, in the overstory. The woody unde	<u>rstory includes Japanese knotweed, multiflora rose, gray and</u>
sílky dogwoods, willows, Morrow's honeysuc	kle, and elderberry. Observed herbs include sedges, sensitive
	<u>and tall goldenrods, Evening primrose, red top, garlic mustard,</u>
and reed canary grass. Lianas include Asiat	zíc bíttersweet, fox grape, and poison ivy,

PAGE 2 OF 3 DATE: 2/28/2024

### ON-SITE SOIL INVESTIGATION & WETLAND DELINEATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: +/- 25.91 acres (Study Area)

50 West Road, Ellington, CT

### SOIL MAP UNITS

#### **Upland Soils**

Enfield silt loam (704). This series consists of deep, well drained soils formed in a coarse-silty mantle underlain by sandy water deposited glacial outwash materials. They are level to very steep soils on outwash plains and high stream terraces. The soils formed in loamy over stratified sandy and gravelly glacial outwash derived mainly from a variety of acid rocks. Typically, these soils have a dark grayish brown silt loam surface layer 8 inches thick. The subsoil from 8 to 26 inches is strong brown and light olive brown silt loam. The substratum from 26 to 60 inches is brown to reddish brown is stratified sand and gravel.

Tisbury silt loam (702). This series consists of deep, moderately well drained soils formed in a coarse-silty mantle underlain by sandy water deposited glacial outwash materials. They are level to gently sloping soils in broad drainage swales and low lying positions on outwash plains and terraces. The soils formed in loamy over stratified sandy and gravelly glacial outwash derived mainly from a acid crystalline rocks (granite, gneiss and schist). Typically, these soils have a very dark grayish brown silt loam surface layer 8 inches thick. The subsoil from 8 to 26 inches is yellowish brown and brownish yellow silt loam, with mottles common below 16 inches. The substratum from 26 to 60 inches is grayish brown, mottled stratified sand and gravel.

Hartford sandy loam (33). The Hartford series consists of deep, somewhat excessively drained soils formed in a coarse-loamy mantle underlain by sandy water deposited glacial outwash materials. They are level to very steep soils on outwash plains and high stream terraces. The soils formed in loamy over stratified sandy and gravelly glacial outwash derived mainly from Triassic sandstone, shale, conglomerate and basalt. Typically, these soils have a dark brown sandy loam surface layer 9 inches thick. The upper part of the subsoil from 9 to 16 inches is yellowish red sandy loam. The lower part of the subsoil from 16 to 24 inches is reddish brown loamy sand. The substratum from 24 to 60 inches is reddish brown gravelly stratified sand and gravel.

Manchester gravely sandy loam (37). This series consists of very deep, excessively drained soils formed in a shallow, loamy sand mantle underlain by gravelly sand, water deposited glacial outwash materials. They are level to very steep soils on outwash plains, terraces, deltas, kames and eskers. The soils formed in loamy over stratified sandy and gravelly glacial outwash derived mainly from Triassic sandstone, shale, conglomerate and basalt. Typically, these soils have a reddish brown gravelly sandy loam surface layer 6 inches thick. The subsoil layer from 6 to 16 inches is yellowish red gravelly sandy loam. The substratum from 16 to 60 inches is yellowish brown stratified sand and gravel.

#### Wetland Soils

Pootatuck fine sandy loam (102). This series consists of deep, moderately well drained soils formed in coarse-loamy, alluvial sediments. They are nearly level soils on floodplains of rivers and major streams. The soils formed in recent alluvium derived mainly from schist, gneiss or granite. Typically, these soils have a very dark grayish brown fine sandy loam surface layer 5 inches thick. The subsoil from 5 to 30 inches is dark yellowish brown fine sandy loam in the upper subsoil and dark brown, mottled sandy loam in the lower subsoil. From 30 to 60 inches the substratum is dark brown and grayish brown, mottled gravelly sand.

PAGE <u>3</u> OF <u>3</u>

### ON-SITE SOIL INVESTIGATION & WETLAND DELINEATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: +/- 25.91 acres (Study Area)

50 West Road, Ellington, CT

### SOIL MAP UNITS

Limerick and Lim silt loams (107). The Limerick series consists of deep, poorly drained soils formed in coarse-silty, alluvial sediments. They are nearly level soils on floodplains along low gradient rivers and streams, subject to frequent flooding. They are in relatively low areas. The soils formed in recent alluvium derived from a variety of crystalline and acid rocks. Typically, the Limerick soil has a very dark grayish brown silt loam surface layer 8 inches thick. The substratum from 8 to 60 inches consists of olive gray and dark gray, mottled layers of silt loam and very fine sandy loam.

The Lim series consists of very deep, poorly drained loamy soils formed in alluvial sediments. They are nearly level soils on flood plains and are subject to frequent flooding. The slope ranges from 0 to 3 percent. Saturated hydraulic conductivity ranges from moderately low to moderately high in the solum and high or very high in the sandy substratum, which typically begins below 29 inches. Lim soils formed in recent alluvium derived from mixed crystalline and sedimentary rocks.

Aquents (306w). This soil map unit consists of poorly drained and very poorly drained, disturbed land areas. They are most often found on landscapes which have been subject to prior filling and/or excavation activities. In general, this soil map unit occurs where two or more feet of the original soil surface has been filled over, graded or excavated. The Aquents are characterized by a seasonal to prolonged high ground water table and either support or are capable of supporting wetland vegetation. Aquents are recently formed soils which have an aquic moisture regime. An aquic moisture regime is associated with a reducing soil environment that is virtually free of dissolved oxygen because the soil is saturated by groundwater or by water of the capillary fringe. The key feature is the presence of a ground water table at or very near to the soil surface for a period of fourteen days or longer during the growing season.

Any accompanying soil logs and soil maps, and the on-site soil investigation narrative are in accordance with the taxonomic classification of the National Cooperative Soil Survey of the USDA Natural Resource Conservation Service, and with the Connecticut Soil Legend (DEP Bulletin No.5, 1983), as amended by USDA-NRCS. Jurisdictional wetland boundaries were delineated pursuant to the Connecticut General Statutes (CGS Sections 22a-36 to 22a-45), as amended. The site investigation was conducted and/or reviewed by the undersigned Registered Soil Scientist(s) [registered with the Society of Soil Scientists of Southern New England (SSSSNE) in accordance with the standards of the Federal Office of Personnel Management].

Respectfully submitted,

REMA ECOLOGICAL SERVICES, LLC

George T. Logan, MS, PWS, CSE Registered Professional Soil Scientist Field Investigator/Senior Reviewer

### Parcels for Protected Open Sp State Park Scenic Reserve **DEP Owned Waterbody** Federal Open Space Natural Area Preserve Geographic Names7 Geographic Place 3 Interstate Highway Historic Preserve Wildlife Sanctuary State Park Trail Fish Hatchery State Highway DEEP Property Water Access Flood Control Wildlife Area **US Highway** State Forest State Park Airport Railroad Streets Airport Legend Notes This map is intended for general planning, management, education, and research purposes only. Data shown on this map may not be complete or current. The data shown may have been compiled at different times and at different map scales, which may not match the scale at which the data is shown on this map. 1: 4,514 RES-A-39 FIGURE A: WETLAND DELINEATIONS SKETCH MAP THIS MAP IS NOT TO BE USED FOR NAVIGATION 0.1 Miles RES-8-1/8-7 50 West Road, Ellington, CT BASE MAP: Summer 2021 aerial with 2016 topography 0.07 ANNOTATED BY: Rema Ecological Services, LLC © Connecticut Environmental Conditions Online Conditions Online CT Environmental RES-A-1 DATE: 2/28/2024



Natural Resources Conservation Service

2/28/2024 Page 1 of 3

Rails #

Closed Depression

Interstate Highways Major Roads **US Routes** 

**Gravelly Spot** 

**Gravel Pit** 

Local Roads

Aerial Photography

Background

Marsh or swamp

Lava Flow

Landfill

Mine or Quarry

Perennial Water

Miscellaneous Water

Rock Outcrop

Sandy Spot Saline Spot

Severely Eroded Spot

Sinkhole 0 Slide or Slip

A.

Sodic Spot

# MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

contrasting soils that could have been shown at a more detailed misunderstanding of the detail of mapping and accuracy of soil Enlargement of maps beyond the scale of mapping can cause line placement. The maps do not show the small areas of

Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Coordinate System: Web Mercator (EPSG:3857) Web Soil Survey URL:

Maps from the Web Soil Survey are based on the Web Mercator distance and area. A projection that preserves area, such as the projection, which preserves direction and shape but distorts Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut, Eastern Part Version 1, Sep 15, 2023 Survey Area Data: Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Jun 14, 2022—Oct 6,

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

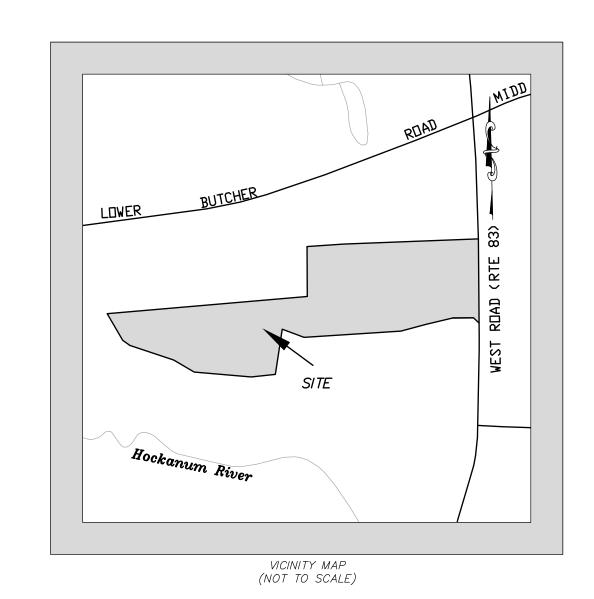
### **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
12	Raypol silt loam, 0 to 3 percent slopes	0.8	0.5%	
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	1.7	1.2%	
20A	Ellington silt loam, 0 to 5 percent slopes	2.3	1.6%	
33A	Hartford sandy loam, 0 to 3 percent slopes	28.2	19.4%	
33B	Hartford sandy loam, 3 to 8 percent slopes	6.1	4.2%	
37C	Manchester gravelly sandy loam, 3 to 15 percent slopes	20.4	14.0%	
87B	Wethersfield loam, 3 to 8 percent slopes	6.0	4.1%	
102	Pootatuck fine sandy loam	17.4	11.9%	
103	Rippowam fine sandy loam	0.4	0.3%	
107	Limerick and Lim soils, 0 to 3 percent slopes, frequently flooded	25.1	17.2%	
306	Udorthents-Urban land complex	18.4	12.6%	
702A	Tisbury silt loam, 0 to 3 percent slopes	8.2	5.6%	
704A	A Enfield silt loam, 0 to 3 percent slopes		6.3%	
704B	Enfield silt loam, 3 to 8 percent slopes	0.0	0.0%	
W	Water	1.5	1.1%	
Totals for Area of Interest		145.6	100.0%	

# INDUSTRIAL/COMMERCIAL DEVELOPMENT

50 West Road APN: 019-005-000

Ellington, Connecticut
Inland Wetlands & Watercourses Agency Application
February 2, 2024



# DEVELOPMENT TEAM

Property Owner

Fifty (50) West Road, LLC.

Applicant/Developer

Fifty (50) West Road, LLC.

Civil Engineer

F. A. Hesketh & Associates, Inc.

Landscape Architect

F. A. Hesketh & Associates, Inc.

Land Surveyor

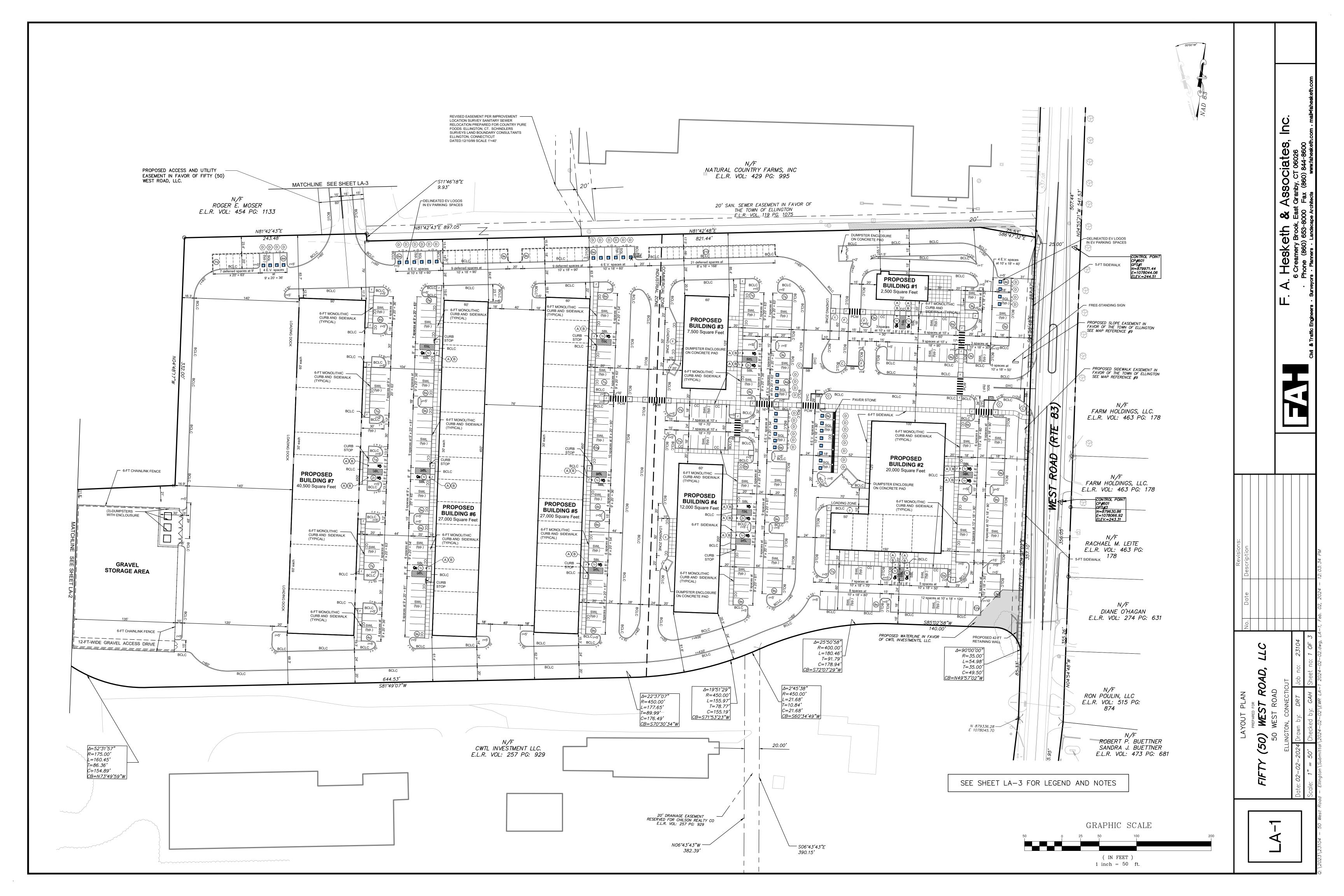
F. A. Hesketh & Associates, Inc.

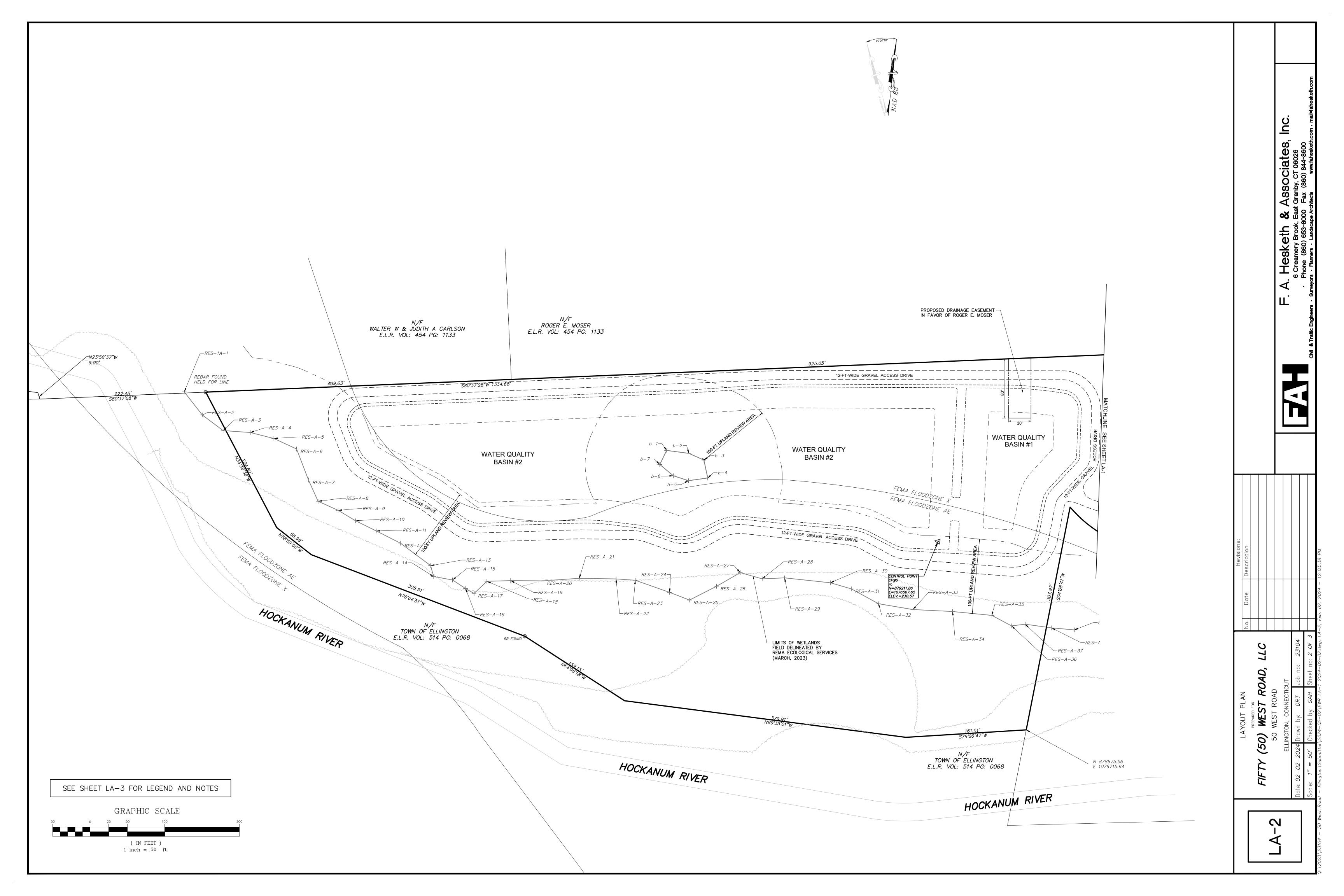
Wetland Consultant

REMA Ecological Services, LLC.

# LIST OF DRAWINGS

	Title Sheet
LA-1 thru LA-3	Layout Plan
LS-1 thru LS-3	Landscape Plan
GR-1 thru GR-3	Grading and Drainage Plan
EC-1 thru EC-3	Soil Erosion and Sedimentation Control Plan
UT-1 & UT-2	Utility Plan
SD-1 thru SD-6	Site Details
PS-1	Property/Topographic Survey





Zone: Comm	ercial. Indus	strial					
Zoning Data A	•	otriai					
· ·	ulalysis	Section		Doguirod	Dropood		
Regulation  Minimum Lot Are	<b>A</b> 2	Section 4.2	) 1	Required 40,000 SF	<u>Proposed</u> 1,128,455 SF		
Minimum Width		Section 4.2		200 Feet	559.141 Feet		
Minimum Front `		Section 4.2		100 Feet	111± Feet		
Minimum Side Y		Section 4.2		10 Feet	55.1 ± Feet (Bldg. 1)		
Minimum Rear \		Section 4.2		50 Feet (I)	59.3 ± Feet (Bldg. 5)  156 ± Feet (Bldg. 7)		
				10 Feet (C)	672 ± Feet (Bldg. 3)		
Maximum Buildi Maximum Floor		Section 4.2 Section 4.2		38 Feet 2,500 SF (C)	35 ± Feet 2,500 (Bldg 1)		
Waximum 1 1001	71100	- COUION 4.2	0	N/A (I)	2,000 (Blag 1)		
Maximum Lot Co	overage	Section 4.2	2.3	60 Percent	47 ± Percent		
Minimum Parkin	ıg	Section 6.2	2.3.A	254 Spaces	364 Spaces		
(C) - Commercia (I) - Industrial	al						
DEVELO	PMENT	DATA					
Building	Square Fe	eet l	Jse		Phase		
Building 1	2,500 Sq.Ft.		Restaurai	nt	Future		
Building 2	20,000 Sq. F		Retail		Future		
Building 3	7,500 Sq. Ft	:. <b>N</b>	Mixed Us	e	Future		
Building 4	12,000 Sq. F	Ft. N	Mixed Us	e	Proposed		
Building 5	27,000 Sq. F	Ft. I	ndustrial/	/Warehouse	Proposed		
Building 6	27,000 Sq. F	Ft. I	ndustrial/	/Warehouse	Proposed		
Building 7	40,500 Sq. F	=t. I	ndustrial/	/Warehouse	Proposed		
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ	t Uses: Varehouse Uses: shall mean thers, patrons, I for the displaycipally for non-	: 1 Park 1 Park es: 1 Park storage he floor area clients, patie y and/or sale	king Space king Space ge or 1 so used, do ents or mero e of mero oses such	ce for each 100 ce for each 2,00 space/ employ esigned or internembers, including thandise. "Net	o square feet of net floor o square feet of net floor o square feet of bldg floor ee (whichever is greate anded to be used for serv ing those areas occupie Floor Area" shall not incidental repair, for re	r area  oor are er.  ice to t d by fix	he tures and
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re	de/Office Uses:  t Uses:  Varehouse Use:  shall mean the display cipally for non-equired stairwa	1 Park 1 Park es: 1 Park storage he floor area clients, patic y and/or sale public purpo	king Space king Space ge or 1 seconds used, do ents or mero e of mero oses such ors.	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage an	o square feet of net floor of square feet of bldg floor ee (whichever is greated anded to be used for serving those areas occupie Floor Area" shall not income and incidental repair, for re-	r area  oor are er.  ice to t d by fix	he tures and
b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80	de/Office Uses:  t Uses:  Varehouse Use:  shall mean the ners, patrons, lefor the display for non-equired stairwang Calculation.  When the	1 Park 1 Park es: 1 Park storage he floor area clients, patie y and/or sale public purpo ys or elevate n Area of all Re	king Space king Space ge or 1 seconds or me e of merco poses such pors.	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage an	o square feet of net floor one of square feet of bldg floor one of the square feet of bldg floor one of the square feet of bldg floor one of the square feet of net floor one of the square floor one	r area  oor are er.  ice to t d by fix	he tures and
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re	t Uses:  Varehouse Uses:  Shall mean the ners, patrons, I for the display cipally for nonequired stairwang Calculation  Net Floor Att. 2,500 Sq. Fi	1 Parkes: 1 Parkes: 1 Parkes: 1 Parkestora; he floor area clients, paties y and/or sale public purpos or elevates.  Area of all Reat (Building #	king Space king Space ge or 1 s used, do ents or me e of merco oses such ors. etail Trace 1)	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage an	o square feet of net floor of square feet of bldg floor ee (whichever is greated anded to be used for serving those areas occupie Floor Area" shall not included incidental repair, for restaurant buildings	r area  oor are er.  ice to t d by fix	he tures and
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80	t Uses: Varehouse Uses: Shall mean the ners, patrons, or the displaying for non-equired stairwang Calculation We Net Floor Act: 2,500 Sq. Finally Sq.	1 Parkes: 1 Parkes: 1 Parkes: 1 Parkestora; he floor area clients, paticy and/or sale-public purpolys or elevators.  Area of all Rest (Building #1 t. x 80% = 2	king Spanking Spanking Spanking Spanking Spanking Indian I	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res	o square feet of net floor on square feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not include incidental repair, for re- staurant buildings	r area  oor are er. ice to t d by fix lude est roo	he ctures and ms, for
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant	de/Office Uses:  t Uses:  Varehouse Use:  shall mean the ners, patrons, la for the display cipally for non-equired stairwate.  Marehouse Use:  2,500 Sq. Fire 2,000 Sq. Fir	1 Park 1 Park es: 1 Park storage he floor area clients, patic y and/or sale public purpo ys or elevato t (Building # t. x 80% = 2 t. / 1 Parking : 39,500 Sq	king Space for the control of the co	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res  Ft. Net Floor Ar for each 100 Sc dings #2, #3 and	o square feet of net floor of square feet of bldg floor ee (whichever is greated anded to be used for serving those areas occupie Floor Area" shall not included incidental repair, for restaurant buildings	r area  oor are er.  ice to t d by fix lude est rool  20 q.Ft. N	he ttures and ms, for Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad	de/Office Uses:  It Uses:  Varehouse Use:  Shall mean the shall mers, patrons, or the display for non-equired stairwang Calculation  When the shall mean the shall mers, patrons, or the display for non-equired stairwang Calculation  When the shall mean the shall	1 Parkes: 1 Parking: 39,500 Sq	king Space for the control of the co	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res  Ft. Net Floor Ar for each 100 Sc dings #2, #3 and	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings ea q. Ft. Net Floor Area = ad #4) x 80% = 31,600 S og.Ft. Net Floor Area =	r area  oor are er.  ice to t d by fix lude est rool  20 q.Ft. N	he ttures and ms, for Spaces et Floor Area
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad	le/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, if for the display cipally for nonequired stairwand required stairwand stairw	1 Parkes: 1 Parkes: 1 Parkes: 1 Parkestora; he floor area clients, paticy and/or sale public purports or elevators.  Area of all Reat (Building #1. x 80% = 2, t. / 1 Parking: 39,500 Sq Ft. / 1 Parkinges: 94,500 Sq Ft. /	king Space of Space o	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res  Ft. Net Floor Ar for each 100 Sc dings #2, #3 and e for each 200 S Buildings #5, #6	o square feet of net floor on square feet of bldg floor on square feet of net floor on square floor on square feet of net floor on square floor on square feet of net floor on square feet of bldg floor on square floor on square feet of bldg floor on square floor on square feet of bldg floor on square	r area oor are er. ice to t d by fix lude est roo  20 q.Ft. N 158	he ttures and ms, for Spaces et Floor Area
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad	de/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, if for the display cipally for non-equired stairwate. The Calculation of the	1 Parkes: 1 Parkes: 1 Parkes: 1 Parkestora; he floor area clients, paticy and/or sale public purports or elevators.  Area of all Reat (Building #1. x 80% = 2, t. / 1 Parking: 39,500 Sq Ft. / 1 Parkinges: 94,500 Sq Ft. /	king Space of the	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res ft. Net Floor Ar for each 100 Sc dings #2, #3 and e for each 200 S Buildings #5, #6 e for each 2,000 a 1/space per er	o square feet of net floor on square feet of bldg floor on square feet of net floor on square floor on square feet of net floor on square floor on square feet of net floor on square feet of bldg floor on square floor on square feet of bldg floor on square floor on square feet of bldg floor on square	r area oor areer. ice to to to do by fixelude est root 20 q.Ft. N 158	he ttures and ms, for  Spaces et Floor Area Spaces  Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant b) Retail Trad c) Industrial/V	de/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, I for the display cipally for non-equired stairwate.  Total Required: t 2,500 Sq. Fit 2,500 Sq. Fit 2,000 Sq. Fit 2,000 Sq. Fit 2,000 Sq. In the latest of th	1 Park 1 Park es: 1 Park storage he floor area clients, patie y and/or sale public purpo ys or elevato t (Building # t. x 80% = 2 t. / 1 Parking : 39,500 Sq Ft. / 1 Parkin es: 94,500 S Ft. / 1 Parkin x 2 employe	king Space of the	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res ft. Net Floor Ar for each 100 Sc dings #2, #3 and e for each 200 S Buildings #5, #6 e for each 2,000 a 1/space per er	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	r area oor areer. ice to to to do by fixelude est root 20 q.Ft. N 158	he ttures and ms, for  Spaces et Floor Area Spaces Spaces Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used prino utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V	de/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, I for the display cipally for non-equired stairwate.  Total Required: t 2,500 Sq. Fit 2,500 Sq. Fit 2,000 Sq. Fit 2,000 Sq. Fit 2,000 Sq. In the latest of th	1 Parkes: 1 Parkes: 1 Parkes: 1 Parkes storage he floor area clients, patiety and/or saled public purpolys or elevator of the floor area of all Reference of the floor area of the fl	king Space of the	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res ft. Net Floor Ar for each 100 Sc dings #2, #3 and e for each 200 S Buildings #5, #6 e for each 2,000 a 1/space per er	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	r area oor areer. ice to to to do by fixelude est root 20 q.Ft. N 158	he ttures and ms, for  Spaces et Floor Area Spaces Spaces Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki Assume 80 a) Restaurant b) Retail Trad c) Industrial/V  Proposed Park s Stand	le/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, if for the display cipally for non-equired stairwang Calculation Water 1,500 Sq. Fit 2,500 Sq. Fit 2,500 Sq. Fit 2,000 Sq. Fit 2,	1 Park 1 Park 1 Park es: 1 Park stora; he floor area clients, patie y and/or sale public purpo ys or elevato n Area of all Re t (Building # t. x 80% = 2; t. / 1 Parking : 39,500 Sq Ft. / 1 Parkin es: 94,500 S Ft. / 1 Parkin x 2 employe red Spaces :	king Space of the	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res ft. Net Floor Ar for each 100 Sc dings #2, #3 and e for each 200 S Buildings #5, #6 e for each 2,000 a 1/space per er	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	r area oor are er. ice to t d by fix lude est roo  q.Ft. N 158 47 76 254	he ttures and ms, for  Spaces et Floor Area Spaces Spaces Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand	le/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, if for the display cipally for non-equired stairward and Calculation of the C	1 Park 1 Park 1 Park es: 1 Park stora; he floor area clients, patie y and/or sale public purpo ys or elevato t (Building # t. x 80% = 2; t. / 1 Parking : 39,500 Sq Ft. / 1 Parkin es: 94,500 S Ft. / 1 Parkin x 2 employe red Spaces t spaces	king Space of the	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res ft. Net Floor Ar for each 100 Sc dings #2, #3 and e for each 200 S Buildings #5, #6 e for each 2,000 a 1/space per er	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	r area oor areer. ice to to to do by fixelude est roote est roote 47 76 254	he tures and ms, for  Spaces et Floor Area Spaces Spaces Spaces Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand	de/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, or the display for non-equired stairwate and Calculation of the patron of	1 Park 1 Park es: 1 Park storage he floor area clients, patie y and/or sale public purpo ys or elevato t (Building # t. x 80% = 2, t. / 1 Parking 39,500 Sq Ft. / 1 Parking x 2 employe red Spaces t spaces t spaces ot spaces	king Space of the	ce for each 100 ce for each 2,00 space/ employ esigned or inter nembers, includ chandise. "Net h as storage and de Use and Res ft. Net Floor Ar for each 100 Sc dings #2, #3 and e for each 200 S Buildings #5, #6 e for each 2,000 a 1/space per er	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	r area oor are er. ice to t d by fix lude est rool  20 q.Ft. N 158 47 76 254	he ttures and ms, for  Spaces et Floor Area Spaces Spaces Spaces Spaces Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand	de/Office Uses:  It Uses:  Varehouse Use:  Shall mean the ners, patrons, I for the display cipally for non-equired stairwang Calculation  When the stairwang Calculation  Shall the stairwang Calculation  When the stairwang Calculation  When the stairwang Calculation  When the stairwang Calculation  Total Requirements  Ingulation  Ingulation  Ingulation  Ingulation  Ingulation  Ingulation  Indulation	1 Park 1 Park 1 Park es: 1 Park storage he floor area clients, patie y and/or sale public purpo ys or elevato n Area of all Re t (Building # t. x 80% = 2, t. / 1 Parking 39,500 Sq Ft. / 1 Parking 2 94,500 S Ft. / 1 Parking x 2 employe red Spaces t spaces t spaces t spaces t spaces (de	king Space of the second secon	ce for each 2,00 space/ employ esigned or interpretables, includ chandise. "Net h as storage and de Use and Reserved for each 100 School dings #2, #3 and er for each 200 School dings #5, #6 er for each 2,000 for each	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	r area oor are er. ice to t d by fix lude est rool  20 q.Ft. N 158 47 76 254  161 108 7	he tures and ms, for  Spaces et Floor Area Spaces Spaces Spaces Spaces Spaces Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand	de/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, I for the display cipally for non-equired stairwate and Calculation of the patron of th	1 Park 1 Park 1 Park es: 1 Park stora; he floor area clients, patie y and/or sale public purpo area of all Re t (Building # t. x 80% = 2; t. / 1 Parking 39,500 Sq Ft. / 1 Parking x 2 employe red Spaces t spaces t spaces t spaces t spaces (de ot spaces (de	king Space of the second secon	ce for each 2,00 space/ employ esigned or interpretables, includ chandise. "Net h as storage and de Use and Reserved for each 100 School dings #2, #3 and er for each 200 School dings #5, #6 er for each 2,000 for each	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	r area oor are er. ice to t d by fix lude est rool  20 q.Ft. N 158 47 76 254  161 108 7	he ttures and ms, for  Spaces et Floor Area Spaces Spaces Spaces Spaces Spaces Spaces Spaces Spaces Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand c Comp	le/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, and the display cipally for non-equired stairward and Calculation of the company of the	1 Park 1 Park 1 Park es: 1 Park stora; he floor area clients, patie y and/or sale public purpo ys or elevato for t (Building #* t. x 80% = 2; t. / 1 Parking 39,500 Sq Ft. / 1 Parking Ft. / 1 Parking x 2 employe red Spaces :  paces t spaces ot spaces t spaces (de ot spaces (de ot spaces (de	king Space of the second secon	ce for each 2,00 space/ employ esigned or interpretables, includ chandise. "Net h as storage and de Use and Reserved for each 100 School dings #2, #3 and er for each 200 School dings #5, #6 er for each 2,000 for each	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	r area oor areer. ice to to to do by fixelude est root  20 q.Ft. N 158 47 76 254 161 108 7 18	he ttures and ms, for  Spaces et Floor Area Spaces Spaces Spaces Spaces Spaces Spaces Spaces Spaces Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand c Comp	de/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, I for the display cipally for non-equired stairward and Calculation of the Ca	1 Park 1 Park 1 Park es: 1 Park stora; he floor area clients, patie y and/or sale public purpo ys or elevato t (Building # t. x 80% = 2; t. / 1 Parking 39,500 Sq Ft. / 1 Parking 2 employe red Spaces t spaces t spaces t spaces t spaces (de ot spaces (de ot spaces (de	king Space of the second of th	ce for each 2,00 space/ employ esigned or interpretables, includ chandise. "Net h as storage and de Use and Reserved for each 100 School dings #2, #3 and er for each 200 School dings #5, #6 er for each 2,000 for each	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	r area oor areer. ice to to to do by fixelude est root  20 q.Ft. N 158 47 76 254 161 108 7 18	he tures and ms, for  Spaces et Floor Area Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand c Comp	de/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, I for the display cipally for non-equired stairward of the company of th	1 Park 1 Park 1 Park es: 1 Park storage he floor area clients, patie y and/or sale public purpo hys or elevato n Area of all Re t (Building # t. x 80% = 2 t. / 1 Parking 39,500 Sq Ft. / 1 Parking 2 94,500 S Ft. / 1 Parking x 2 employe red Spaces t spaces t spaces t spaces ot spaces t spaces (de ot spaces (de Spaces = t spaces (de	king Space of the second of th	ce for each 2,00 space/ employ esigned or interpretables, includ chandise. "Net h as storage and de Use and Reserved for each 100 School dings #2, #3 and er for each 200 School dings #5, #6 er for each 2,000 for each	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	cor area oor area ice to to do by fix lude est room 158 47 76 254 161 108 7 18 21	he tures and ms, for  Spaces et Floor Area Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand c Comp	de/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, I for the display cipally for non-equired stairwang Calculation Water Floor And the stairwang Calculation Water Floor Sq. Floor S	1 Park 1 Park 1 Park es: 1 Park storage he floor area clients, patie y and/or sale public purpo hys or elevato n Area of all Re t (Building # t. x 80% = 2, t. / 1 Parking 39,500 Sq Ft. / 1 Parking 2 94,500 S Ft. / 1 Parking x 2 employe red Spaces : t spaces t spaces ot spaces t spaces (de ot spaces (de	king Space of the second of th	ce for each 2,00 space/ employ esigned or interpretables, includ chandise. "Net h as storage and de Use and Reserved for each 100 School dings #2, #3 and er for each 200 School dings #5, #6 er for each 2,000 for each	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	20 q.Ft. N 158 47 76 254 161 108 7 18	he tures and ms, for  Spaces et Floor Area Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand c Comp	de/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, I for the display cipally for non-equired stairwang Calculation Water Poor And St. 2,500 Sq. Fr. 2,500 Sq. Fr. 2,000 Sq. Fr. 2,00	1 Park 1	king Space of the second of th	ce for each 2,00 space/ employ esigned or interpretables, includ chandise. "Net h as storage and de Use and Reserved for each 100 School dings #2, #3 and er for each 200 School dings #5, #6 er for each 2,000 for each	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	20 q.Ft. N 158 47 76 254 161 108 7 18	he tures and ms, for  Spaces et Floor Area Spaces
a) Retail Trad b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trad c) Industrial/V  Proposed Park s Stand c Comp r Reser e EV Cr	le/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, I for the display cipally for non-equired stairward and Calculation of Net Floor Act: 2,500 Sq. Fit 2,500 Sq. Fit 2,500 Sq. Fit 2,000 Sq. Fit 2	1 Park 1 Park 1 Park es: 1 Park stora; he floor area clients, patie y and/or sale public purpo area of all Re t (Building # t. x 80% = 2; t. / 1 Parking 39,500 Sq Ft. / 1 Parking x 2 employe red Spaces t spaces t spaces ot spaces t spaces (de ot spaces (de	king Space of the second of th	ce for each 2,00 space/ employ esigned or interpretables, includ chandise. "Net h as storage and de Use and Reserved for each 100 School dings #2, #3 and er for each 200 School dings #5, #6 er for each 2,000 for each	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	20 q.Ft. N 158 47 76 254 161 108 7 18	he tures and ms, for  Spaces et Floor Area Spaces
a) Retail Trade b) Restaurant c) Industrial/V  Net Floor Area: public as custon equipment used areas used princ utilities, or for re  Required Parki  Assume 80 a) Restaurant  b) Retail Trade c) Industrial/V  Proposed Park s Stand c Comp r Reser a e EV Cl	le/Office Uses: t Uses: Varehouse Use: shall mean the ners, patrons, I for the display cipally for non-equired stairward (and Calculation) Water Floor And the company of t	1 Park 1 Park 1 Park es: 1 Park stora; he floor area clients, patie y and/or sale public purpo ys or elevato n Area of all Re t (Building # t. x 80% = 2; t. / 1 Parking 39,500 Sq Ft. / 1 Parking x 2 employe red Spaces t spaces t spaces t spaces (de ot spaces (de	king Space of the second of th	ce for each 2,00 space/ employ esigned or interpretables, includ chandise. "Net h as storage and de Use and Reserved for each 100 School dings #2, #3 and er for each 200 School dings #5, #6 er for each 2,000 for each	osquare feet of net floor osquare feet of bldg floor ee (whichever is greate anded to be used for serving those areas occupie Floor Area" shall not includental repair, for re staurant buildings  rea q. Ft. Net Floor Area = and #4) x 80% = 31,600 S oq.Ft. Net Floor Area = b, and #7) of Sq. Ft. floor area = and ployee =	20 q.Ft. N 158 47 76 254 161 13 6 14	he tures and ms, for  Spaces et Floor Area Spaces

PAVEMENT MARKING LEGEND		SIGNAGE LEGEND			
Symbol Typ	<u>De</u>	Symbol	Graphic	Catalog Number	Quantity
SWL	Painted Single White Line				
SBL	Painted Single Blue Line	<a>A</a>	RESERVED	New Reserved Sign	19
DYC	Painted Double Yellow Line		PARKING PERMIT REQUIRED	(CT Building Code)	
SB	Painted White Stop Bar		VIOLATORS WILL BE FINED MIN \$150		
PCW	Painted Crosswalk	B	VAN ACCESSIBLE	31-0648	19
SGL	Painted Green Line (4 inches wide)				
		⟨C⟩	STOP	31-0552	6
PARKIN	IG LEGEND				
Symbol	Туре	⟨D⟩	FLECTRIC	Custom (12" x 18")	38
-s	Standard Space 9' x 20' or 10 x 18'	(2)	ELECTRIC VEHICLE CHARGING STATION	Guotom (12 X 10 )	00
-d	Standard Space (Deferred) 9' x 20' or 10 x 18'		NO Parking		
<u>-r</u>	Reserved Space 8' x 20' or 8 x 18'	E	LOADING ZONE	Custom (12" x 18")	4
<b>-c</b>	Compact Space (Deferred) 8' x 16'	F	DO NOT	31-0607	3
-e	Electric Vehicle Charging Space 9' x 20' or 10 x 18'		ENTER		

## **CURB TYPE LEGEND**

Concrete Curb

Bituminous Concrete Lip Curb

### SIGNAGE AND PAVEMENT MARKING NOTES

- 1. Stop bars shall be painted with white traffic paint (12 inches wide)
- 2. All standard parking stalls and centerlines shall be painted with white traffic paint (4 inches wide).
- 3. Traffic control arrows shall be painted with white traffic paint.
- 4. All accessible parking stalls, aisles and symbols of accessibility shall be painted with blue traffic paint (4 inches
- 5. Centerlines shall be painted with yellow traffic paint and shall consist of double lines (4 inches wide) 6. Fire lanes and other areas of parking prohibition shall be painted with yellow traffic paint (4 inches wide)
- 7. All on-site traffic paint shall conform to CT DOT Form 818-M.07.21
- 8. All pavement markings and signs shall conform to "Manual On Uniform Traffic Control Devices", "Standard Alphabets For Highway Signs And Pavement Markings", CT DOT 818, State Building Code and ADA Requirements and as shown on the details
- 9. Sign catalog numbers obtained from "Connecticut Department of Transportation, Bureau. of Engineering and Highway Operations, Catalog of Signs", October 12, 2021. Contractor to confirm sign types prior to installation.

## LOADING SPACE TABULATION

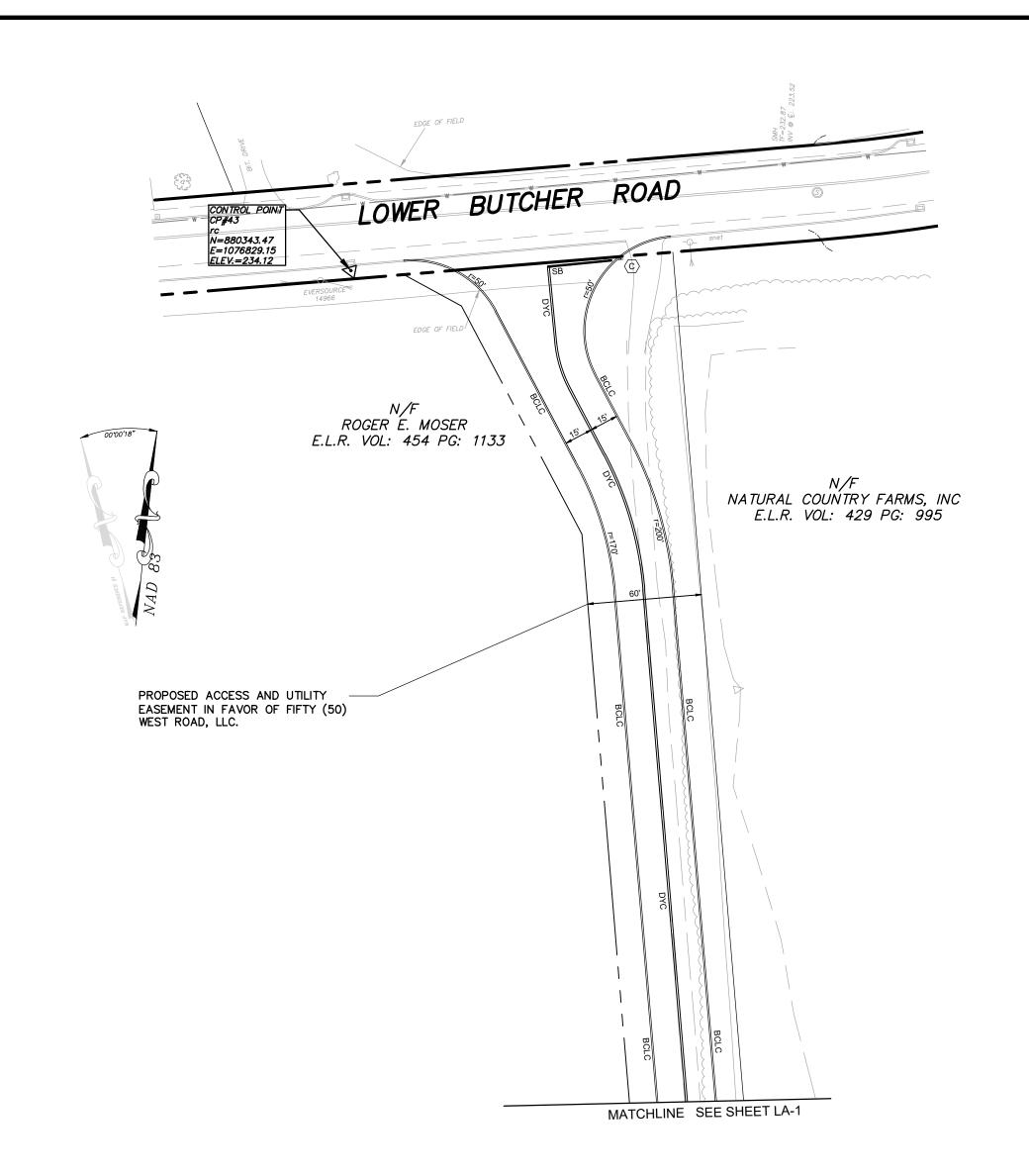
Required Loading per Section 6.2.11

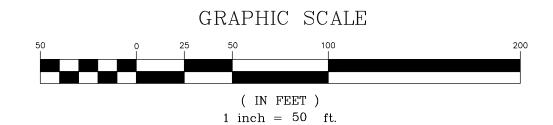
one (1) 10'x50' Loading Space per 10,000 Sq. Ft. of floor area

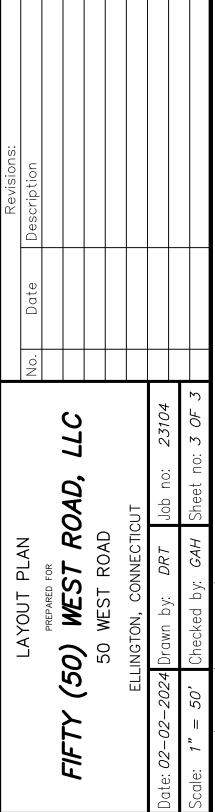
### Required Loading Calculation

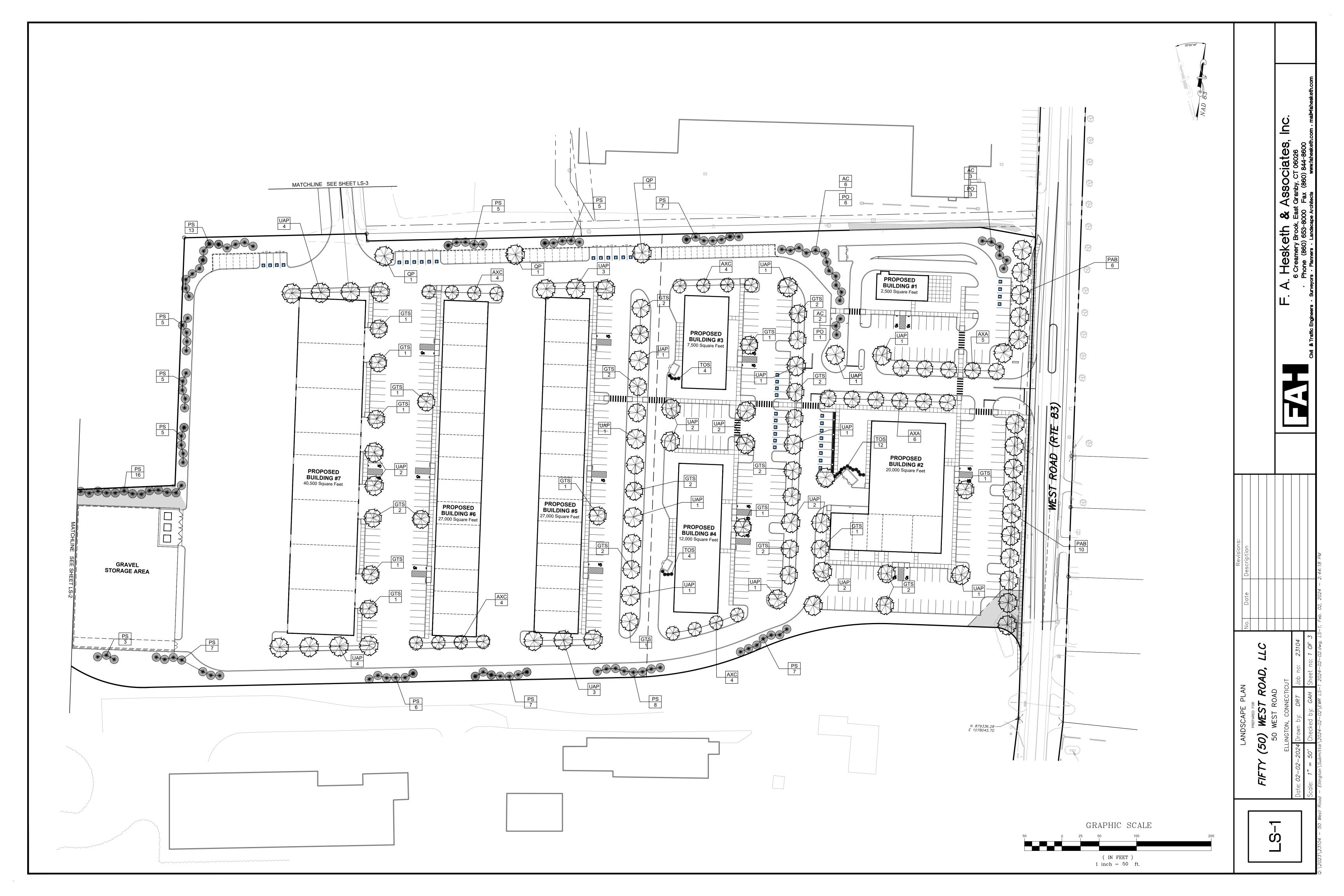
Building #1 = 2,500 Sq. Ft. 1 Loading Space Required 1 Loading Space Provided Building #2 = 20,000 Sq. Ft. 2 Loading Spaces Required 2 Loading Spaces Provided Building #3 = 7,500 Sq. Ft. 1 Loading Space Required 1 Loading Space Provided Building #4 = 12,000 Sq. Ft. 2 Loading Spaces Required 1 Loading Space Provided \* Building #5 = 27,000 Sq. Ft. 3 Loading Spaces Required 3 Loading Spaces Provided \*\* Building #6 = 27,000 Sq. Ft. 3 Loading Spaces Required 3 Loading Spaces Provided \*\* Building #7 = 40,500 Sq. Ft. 5 Loading Spaces Required 7 Loading Space2 Provided

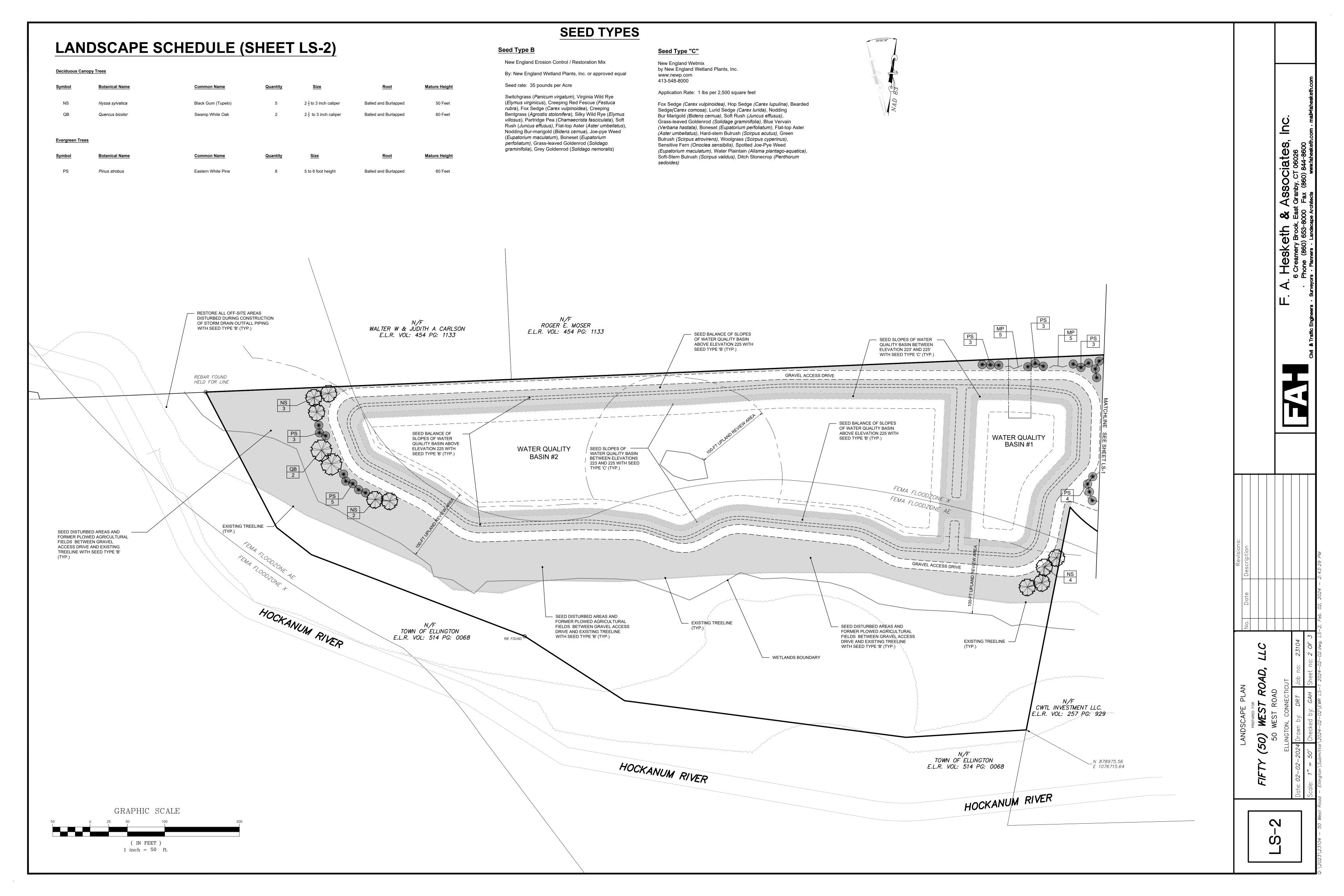
- \* Per section 6.2.11 The Commission may reduce the size of a loading space(s) and/or the number of spaces where it can be demonstrated that such a reduction is warranted based on the use of the building. Building #4 is anticipated to be a mixed use of office and retail and the one loading space will be sufficient for the proposed use.
- \*\* These buildings are accessed via overhead doors in the rear of the buildings, which have a 76-foot distance between the structures. Sufficient area is provided in the rear of the buildings to facilitate loading via 10'x50' loading spaces.

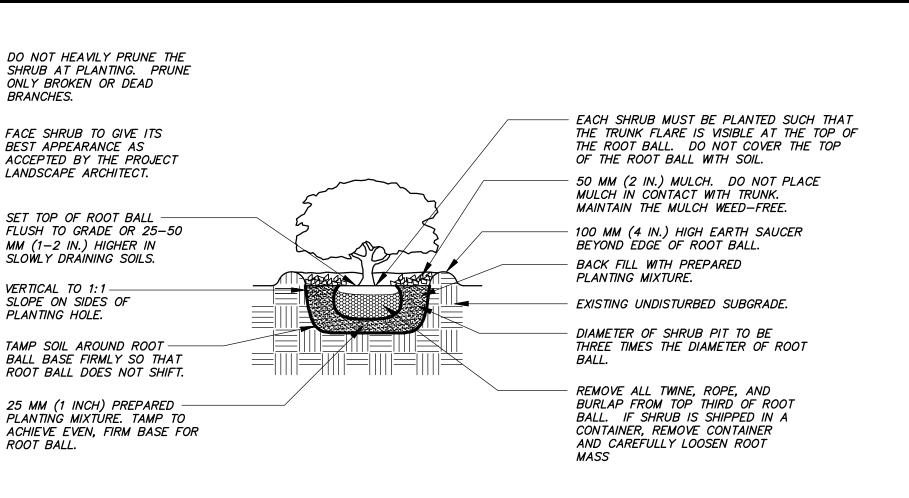




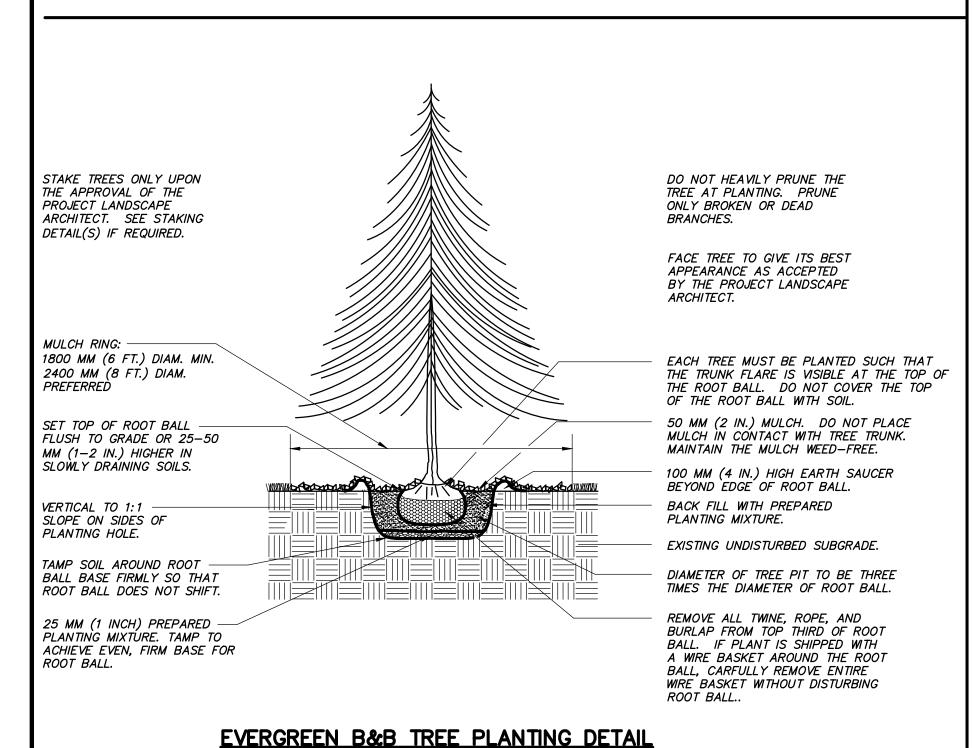


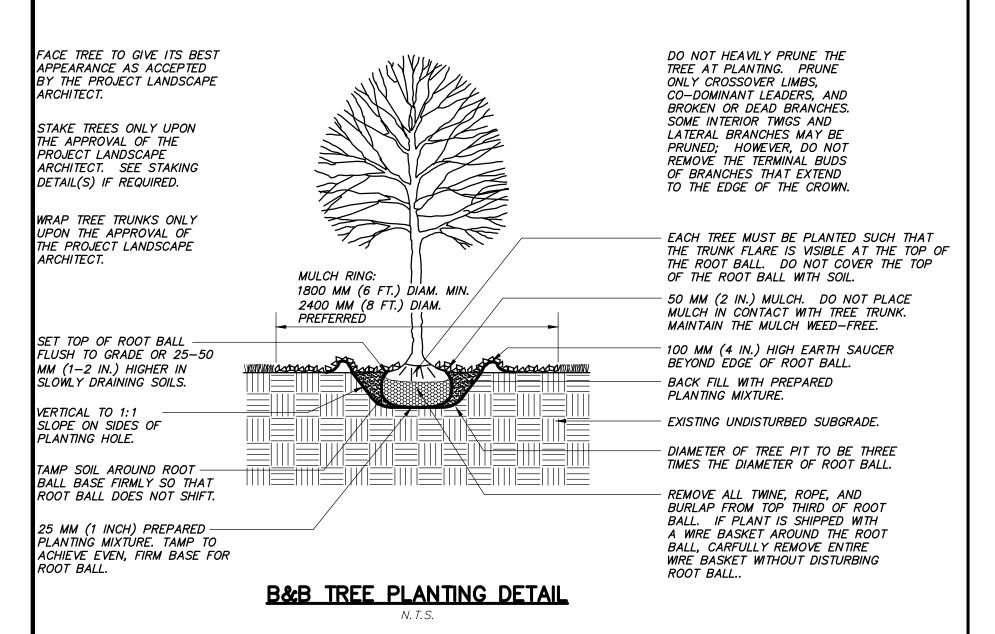






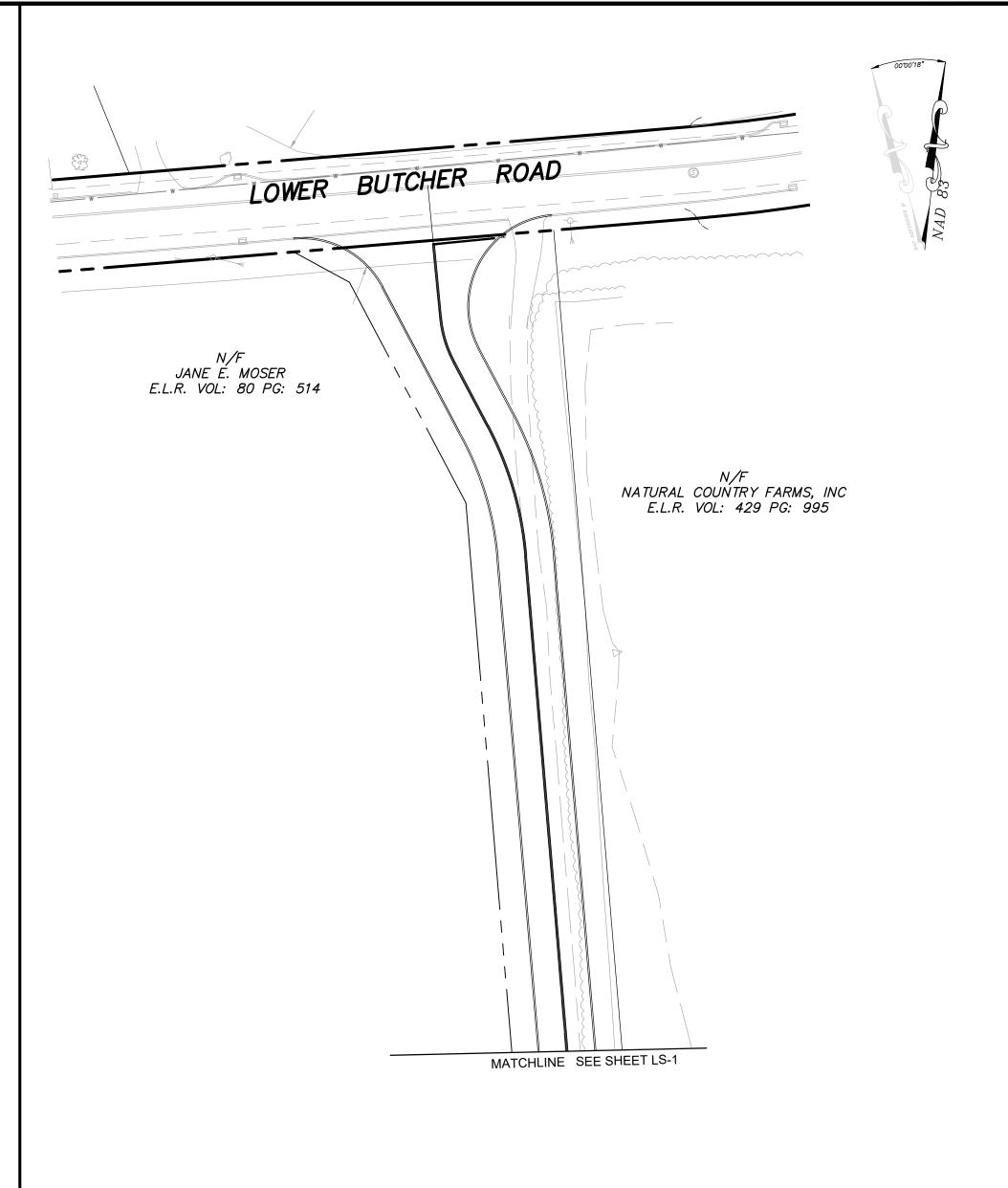
## SHRUB PLANTING DETAIL

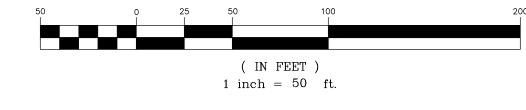




# **GENERAL LANDSCAPE NOTES**

- 1. All plants shall meet or exceed the specifications of Federal, State and County laws requiring inspection for plant disease and insect control.
- 2. Plant material shall conform with the "American Standard for Nursery Stock" by the American Association of Nurserymen, Inc. (ANSI Z60.1-2014).
- 3. All plants shall be certified true to name by the nursery source. Plant names shall be in accordance with "Hortis Third" (1976) by the staff of the Liberty Hyde Bailey Hortorium, Cornell University. One plant from each species shall be tagged with name and size of the plant in accordance with the standards of practice of the American Association of Nurserymen. Botanical names shall take precedence over common names.
- 4. Plant material shall be typical of their species and/or variety, with a normal habit of growth, sound, healthy and vigorous. They shall be well branched and densely foliated when in leaf, free of disease, insect pest, eggs or larvae. They shall have healthy well-developed root systems. All trees shall have straight single trunks with their main leader intact unless otherwise noted or approved.
- 5. All landscaped areas to have 2" shredded bark mulch (color: black) over weed control fabric. No weed control fabric in areas of groundcover or perennial plantings.
- 6. Provide protective covering of plant material during delivery and storage. Root balls shall not be cracked or broken. Do not prune plants prior to delivery. Remove unacceptable plant material immediately from the job site.
- 7. Plant locations on the Drawings are approximate and are to be used only as a guide. Contractor shall provide all field engineering services to accurately stake out locations for all plants prior to installation. Do not begin excavation until Project Landscape Architect has approved specific layout.
- 8. If requested by Project Landscape Architect, stake and guy each tree as shown on the applicable Drawings immediately after planting. Keep trees plumb and taut.
- 9. If requested by Project Landscape Architect, wrap the trunks of all trees spirally from the ground line to above the lowest main branch.
- 10. Perform all cultural care necessary to properly maintain plant viability and keep planted areas in a neat and orderly condition, including but not limited to:
  - a. Watering
  - b. Weed removal
  - c. Apply lime or sulphur to adjust soil pH to specific plant requirements
  - d. Restore or reshape earth saucers
  - e. Pruning
  - f. Adjust and tighten tree supports to maintain plants at their proper grades and vertical position
  - g. Replace mulch to maintain proper depth
- 11. If there is a difference between the quantity of plant material specified on the Plan and the amount depicted on the Landscape Schedule, the amount on the Plan shall take precedence.
- 12. Spade edge all planting beds within lawn areas. Provide clean spaded edge at perimeter of all planting beds and tree pits adjacent to lawn areas. Spade edge of newly planted lawn areas following second mowing.
- 13. All planting beds and tree pits to receive approved mulch to depths indicated in the planting details.
- 14. Landscape Contractor shall guarantee all plant material for one (1) full year from date of acceptance. Proper landscape maintenance shall be the responsibility of the owner.
- 15. Plants shall be handled at all times in accordance with the best horticultural practices. Plants in-leaf shall be sprayed with anti-desiccant before digging. Plants shall be dug with firm natural balls and shall conform to the ratios and sizes as specified in ANSI Z60.1-2014. Balled and Burlapped plants shall be wrapped in burlap and tied firmly. Plant materials shall be delivered immediately prior to placement, shall be kept moist, and shall be protected from sun and wind. Plants having broken or cracked root balls prior to or during planting shall not be accepted.
- 16. All single trunk, deciduous trees shall be wrapped immediately after planting with tree wrap. Wrap shall be wound spirally, from the bottom of the trunk to the second branches. All trees in windy areas shall be staked or guyed immediately after planting.
- 17. The period of planting shall be from March 15th to May 15th and from September 15th to November 15th, weather permitting.
- 18. All locations of existing and proposed utilities may not be shown on this plan. See other plan sheets for existing and proposed utility locations. Contractor shall be solely responsible for determining actual locations of utilities. Utility conflicts may require adjustments to proposed landscape installation. Contractor shall be responsible for repair on any utilities damaged during construction. Contractor shall contact "Call Before You Dig" 1-800-922-4455 (www.cbyd.com) two (2) working days prior to starting landscape installation to locate utilities.





GRAPHIC SCALE

# **SEED TYPES**

### Seed Type A

Sun & Shade Mixture

By: Jonathan Green or approved equal

Seed rate: 25 pounds per 9,375 square feet

20% Darkstar II Perennial Ryegrass 20% Carmen Chewings Fescue 15% Deepblue Kentucky Bluegrass 15% Eugene Creeping Red Fescue

15% Yorkshire Dales Perennial Ryegrass

15% Salisbury Chewings Fescue

# Seed Type B

New England Erosion Control / Restoration Mix

By: New England Wetland Plants, Inc. or approved equal

Seed rate: 35 pounds per Acre

Switchgrass (*Panicum virgatum*), Virginia Wild Rye (Elymus virginicus), Creeping Red Fescue (Festuca rubra), Fox Sedge (Carex vulpinoidea), Creeping Bentgrass (Agrostis stolonifera), Silky Wild Rye (Elymus villosus), Partridge Pea (Chamaecrista fasciculata), Soft Rush (Juncus effusus), Flat-top Aster (Aster umbellatus), Nodding Bur-marigold (*Bidens cernua*), Joe-pye Weed (Eupatorium maculatum), Boneset (Eupatorium perfoliatum), Grass-leaved Goldenrod (Solidago graminifolia), Grey Goldenrod (Solidago nemoralis)

## Seed Type "C"

**New England Wetmix** by New England Wetland Plants, Inc. www.newp.com 413-548-8000

Application Rate: 1 lbs per 2,500 square feet

Fox Sedge (Carex vulpinoidea), Hop Sedge (Carex lupulina), Bearded Sedge(Carex comosa), Lurid Sedge (Carex lurida), Nodding Bur Marigold (Bidens cernua), Soft Rush (Juncus effusus), Grass-leaved Goldenrod (Solidage graminifolia), Blue Vervain (Verbana hastata), Boneset (Eupatorium perfoliatum), Flat-top Aster (Aster umbellatus), Hard-stem Bulrush (Scirpus acutus), Green Bulrush (Scirpus atrovirens), Woolgrass (Scirpus cyperinus), Sensitive Fern (Onoclea sensibilis), Spotted Joe-Pye Weed (Eupatorium maculatum), Water Plaintain (Alisma plantago-aquatica), Soft-Stem Bulrush (Scirpus validus), Ditch Stonecrop (Penthorum sedoides)

S 50)

**80**.

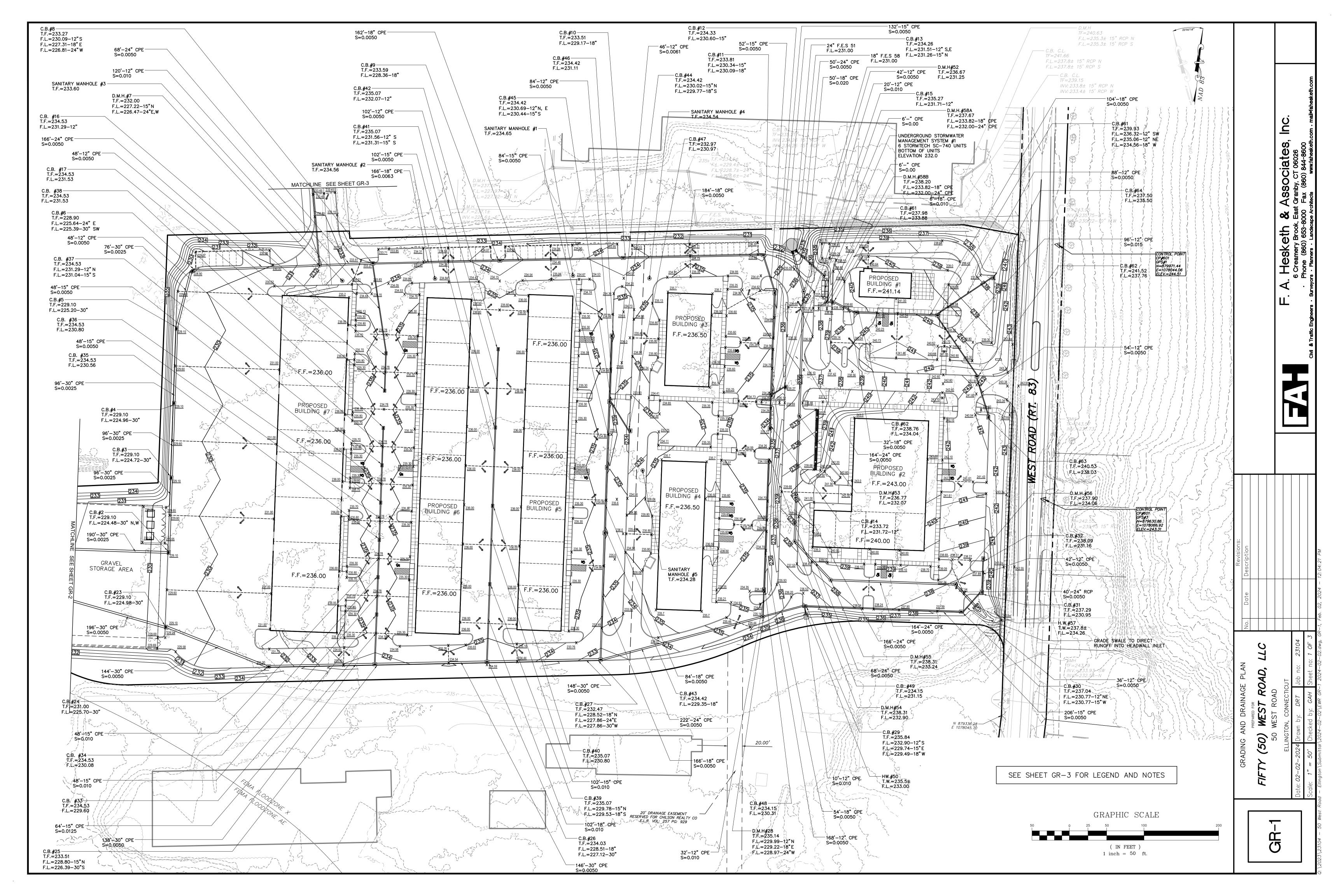
တ

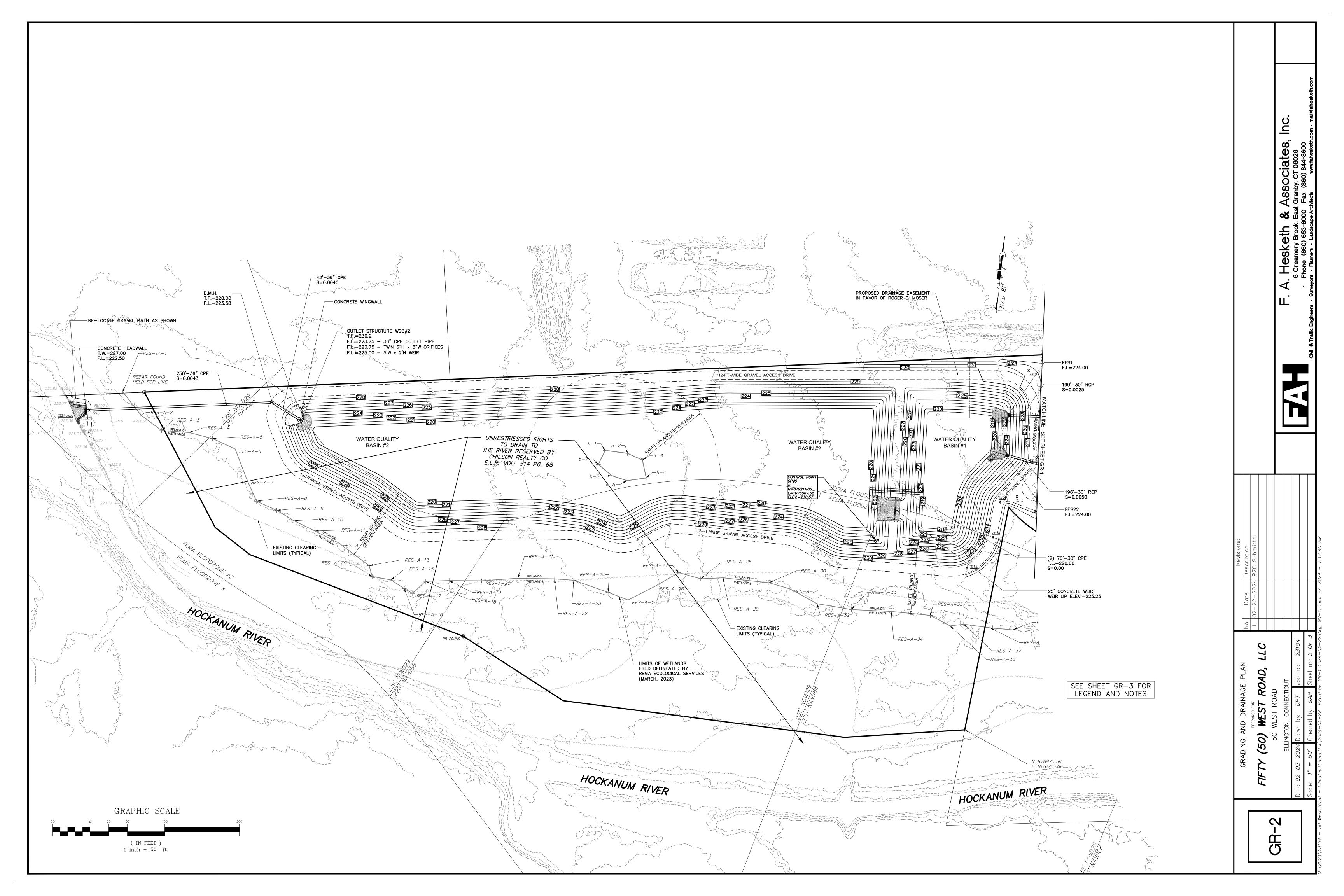
Associates

່≪ ⊾

sketh

**(1)** 





<u>LEGEND</u>

PROPOSED DRAINAGE MANHOLE

PROPOSED SANITARY MANHOLE

■ ■ = PROPOSED CATCH BASIN

= PROPOSED STORM DRAIN CULVERT

■ = PROPOSED OUTLET STRUCTURE

= PROPOSED UNDERGROUND STORMWATER CHAMBER

= PROPOSED UNDERGROUND STORMWATER ISOLATOR CHAMBER

 $x^{\frac{100.00}{}}$  = PROPOSED SPOT GRADE

= PROPOSED CONTOUR

- - - = PROPOSED DRAINAGE DIVIDE

---158---- = EXISTING CONTOUR

### GENERAL GRADING NOTES:

 SET/RAISE FRAMES OF ALL MANHOLES, CATCH BASINS, GAS AND WATER GATES, HAND HOLES, METER BOXES, AND ALL OTHER UTILITY APPURTENANCES TO MATCH PROPOSED FINISH GRADE.

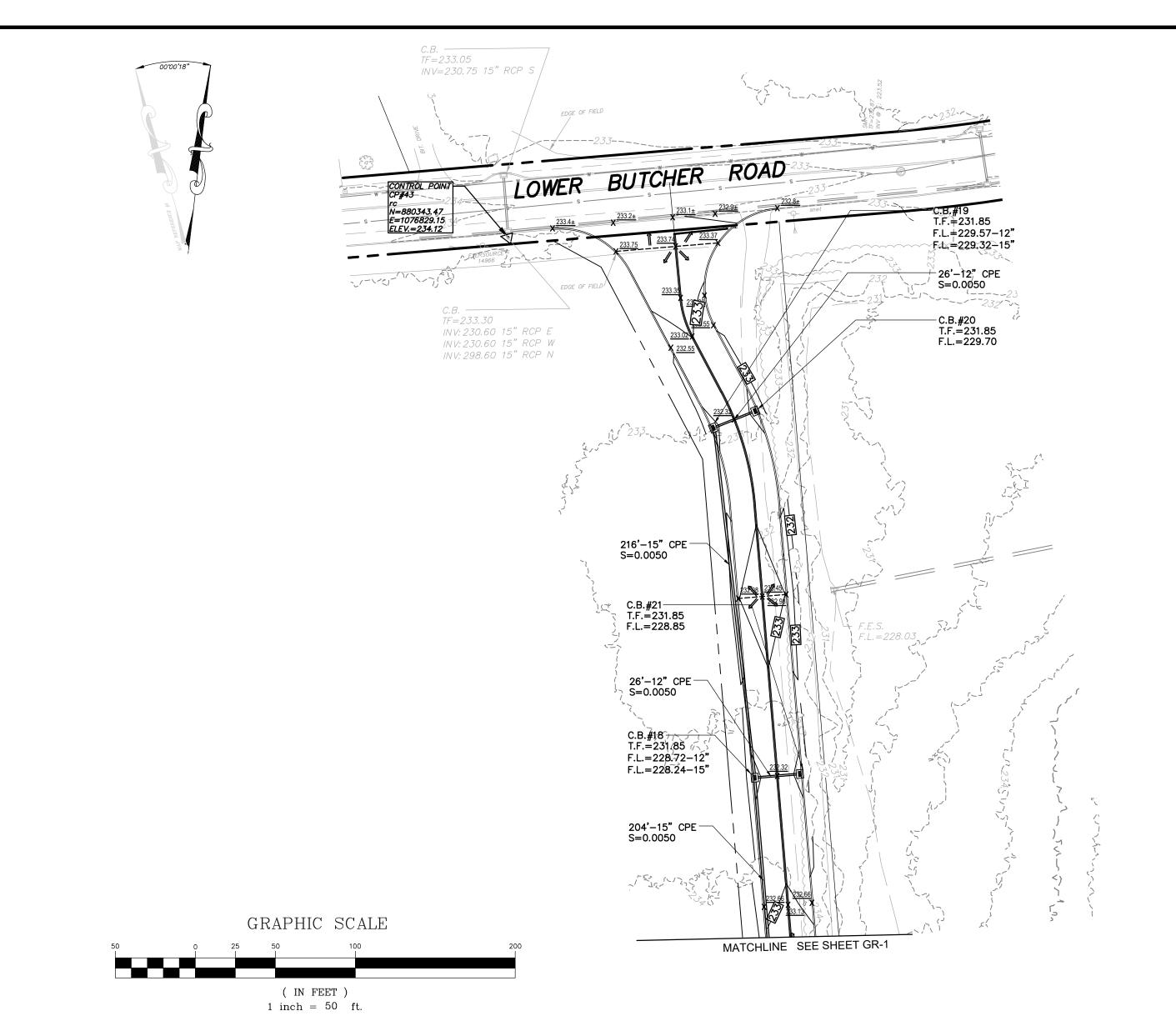
- 2. MILL AND SAW CUT EXISTING PAVEMENT ALONG LIMITS OF WORK. CONSTRUCT APPROPRIATE PAVEMENT MATCH TREATMENT. BLEND ALL NEW WORK TO MATCH EXISTING.
- 3. GRADE ALL AREAS TO PRECLUDE PONDING.
- 4. GRADE TRANSITIONS TO ROADWAYS TO MAINTAIN GUTTER FLOW AND PRECLUDE PONDING.

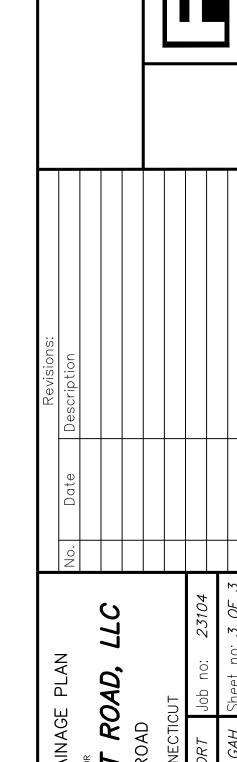
### DRAINAGE NOTES:

- 1. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE BASED ON AVAILABLE AS—BUILT INFORMATION FROM UTILITY COMPANY RECORDS, THE PROPERTY OWNER, AND LIMITED SURVEY DATA. ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THOSE SHOWN MAY NOT BE ACCURATE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES ON THE SITE PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY AND NOTIFYING THE DESIGN SITE ENGINEER OF POTENTIAL CONFLICTS WITH PROPOSED ALIGNMENT AND GRADE AND/OR ANY ADJUSTMENTS TO THE PLANS WHICH ARE NECESSARY. TEST PITS WILL BE REQUIRED AT ALL PROPOSED UTILITY CROSSINGS IN ORDER TO DETERMINE UNDERGROUND UTILITY LOCATIONS AND TO IDENTIFY POTENTIAL CONFLICTS WITH VERTICAL AND HORIZONTAL ALIGNMENTS SHOWN ON THE PLANS. TEST PITS SHALL BE COMPLETED BY THE CONTRACTOR AT HIS EXPENSE.
- 2. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO MARK THE LOCATION OF ALL UNDERGROUND UTILITIES AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- 3. A PRE-CONSTRUCTION MEETING WITH TOWN STAFF SHALL BE HELD PRIOR TO START OF CONSTRUCTION.
- 4. ALL MATERIALS AND INSTALLATION ARE TO BE IN ACCORDANCE WITH THE TOWN OF ELLINGTON, CONN. D.O.T. FORM 818, OR CUSTODIAL UTILITY COMPANY SPECIFICATION, AS APPROPRIATE.
- 5. FLOW LINE AND INVERT ELEVATIONS OF ALL STORM AND SANITARY SEWERS MUST BE COORDINATED WITH FINAL ARCHITECTURAL DRAWINGS. NOTIFY DESIGN ENGINEER OF CONFLICTS PRIOR TO START OF CONSTRUCTION.
- 6. CONNECT ALL ROOF LEADERS TO STORM DRAIN SYSTEMS.
  COORDINATE DOWNSPOUT LOCATIONS WITH PROJECT
  ARCHITECT/M.E.P. AND PROJECT ENGINEER. THE LOCATIONS OF
  ROOF LEADERS AND DOWNSPOUT LOCATIONS ARE NOT PROVIDED
  ON THE PLANS. DETAILS OF LOCATIONS OF DOWNSPOUTS AND
  ROOF LEADERS WILL BE PROVIDED FOLLOWING COMPLETION OF
  ARCHITECTURAL DRAWINGS.
- 7. WHEN TRENCHING IS REQUIRED IN THE STATE R.O.W., BACKFILL AND COMPACT FILL AND CONSTRUCT PAVEMENT REPAIR IN ACCORDANCE WITH CT DOT STANDARDS AND SPECIFICATIONS. ANY WORK WITHIN THE RIGHT OF WAY OF WEST ROAD WILL REQUIRE AN ENCROACHMENT PERMIT FROM THE CT DOT DISTRICT OFFICE. THE CONTRACTOR IS RESPONSIBLE FOR PROCUREMENT OF SAID PERMIT.
- 8. WHEN TRENCHING IS REQUIRED IN THE TOWN R.O.W., BACKFILL AND COMPACT FILL AND CONSTRUCT PAVEMENT REPAIR IN ACCORDANCE WITH TOWN OF ELLINGTON STANDARDS. ANY WORK WITHIN THE TOWN RIGHT OF WAY OF LOWER BUTCHER ROAD WILL REQUIRE AN ENCROACHMENT PERMIT FROM THE TOWN OF ELLINGTON DEPARTMENT OF PUBLIC WORKS. THE CONTRACTOR IS RESPONSIBLE FOR PROCUREMENT OF SAID PERMIT.
- 9. RCP = REINFORCED CONCRETE PIPE (CLASS IV OR V AS SHOWN ON THE PLANS) CONFORMING TO CT DOT FORM 818, M.08.01-6.
- 10. PVC: DRAIN PIPE = SCH. 40 PVC PIPE CONFORMING TO CT DOT FORM 818, M.08.01-27,
- 11. CPE = CORRUGATED POLYETHYLENE PIPE CONFORMING TO CT DOT 818, M.08.01-18, SMOOTH INTERIOR
- 12. CATCH BASINS, MANHOLES, AND OTHER DRAINAGE STRUCTURES SHALL CONFORM TO CONN. D.O.T. FORM 818 SECTION M.08.02.
- 13. WORK ASSOCIATED WITH THE CONSTRUCTION OF THE OUTFALL ALONG THE HOCKANUM RIVER WILL REQUIRE COORDINATION WITH THE TOWN OF ELLINGTON INLAND WETLANDS OFFICER, THE PROJECT ENGINEER, AND THE PROJECT SOIL/WETLAND SCIENTIST.

# SCHEDULE AND DESCRIPTION OF RESPONSIBILITY FOR MAINTENANCE OF THE ON—SITE STORM WATER SYSTEM:

- 1. Maintenance of the on-site storm water system is the responsibility of the property owner. This includes all catch basins, system piping, manholes, roof leaders, water quality basins and basin outlet structures.
- 2. The following schedule of maintenance shall be followed:
- a. In general, good housekeeping practices shall be incorporated into the routine site and facility maintenance plan to minimize deposition of sediment, litter and contaminants into the storm drainage system.
- b. Paved parking and loading areas and walks shall be swept of debris, sand, and litter at least twice annually, in particular, late spring after winter sanding operations, and in late fall after leaf litter cleanup.
- c. Catch basins and manholes shall be inspected annually, following spring site cleanup. Accumulated sediment and debris shall be removed and disposed at approved off—site locations.
- d. Rip rap and crushed stone erosion control shall be inspected annually. Excess sediments shall be removed and repairs made when erosion is noted.
- 4. Water quality basin shall be inspected and maintained:
- Remove excess sediment from sediment forebay as required. Follow DEEP-recommendations of removal of sediment (by dredging) every 5-10 years, as needed.
- Inspect submerged interconnected pipes between forebay and main pool to ensure they are not impeded by sediment accumulations or debris. Clean as necessary
- Inspect and overflow weir and crushed stone armoring separating sediment forebay from main pool. Repair, as necessary.
- Remove woody vegetation that may impair operation of basin or jeopardize integrity of basin sideslopes. Cut woody vegetation to the ground and use a stop-growth to prevent further growth. Leave stumps in place.
- Inspect and repair rip-rap structures and plunge
- Inspect/clean outlet structure, trash rack, and outlet piping.
- 5. Maintenance records documenting system inspection and cleaning operations shall be maintained by the property owner and shall be made available for inspection by the Town as requested.





WEST F

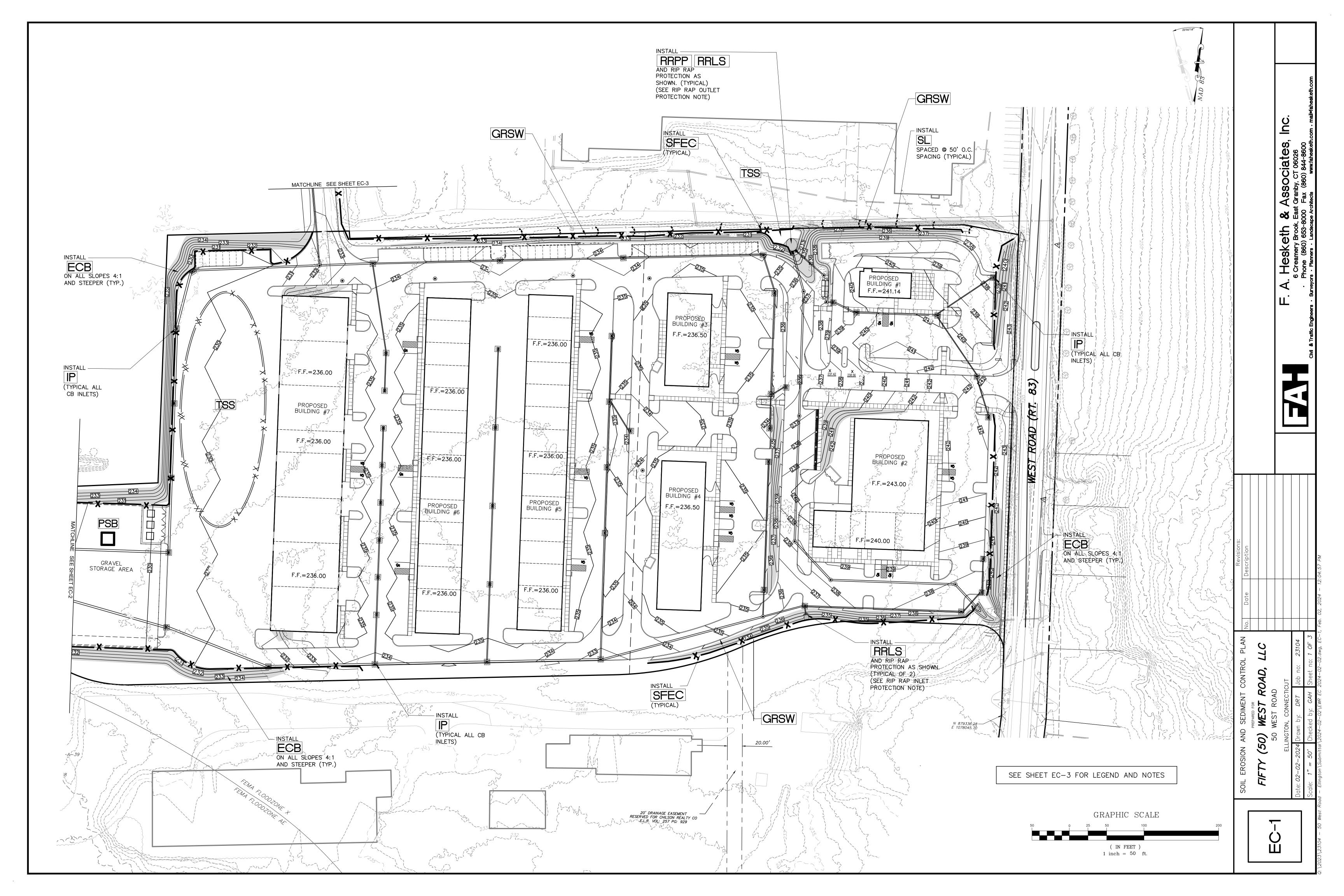
**50)** 50

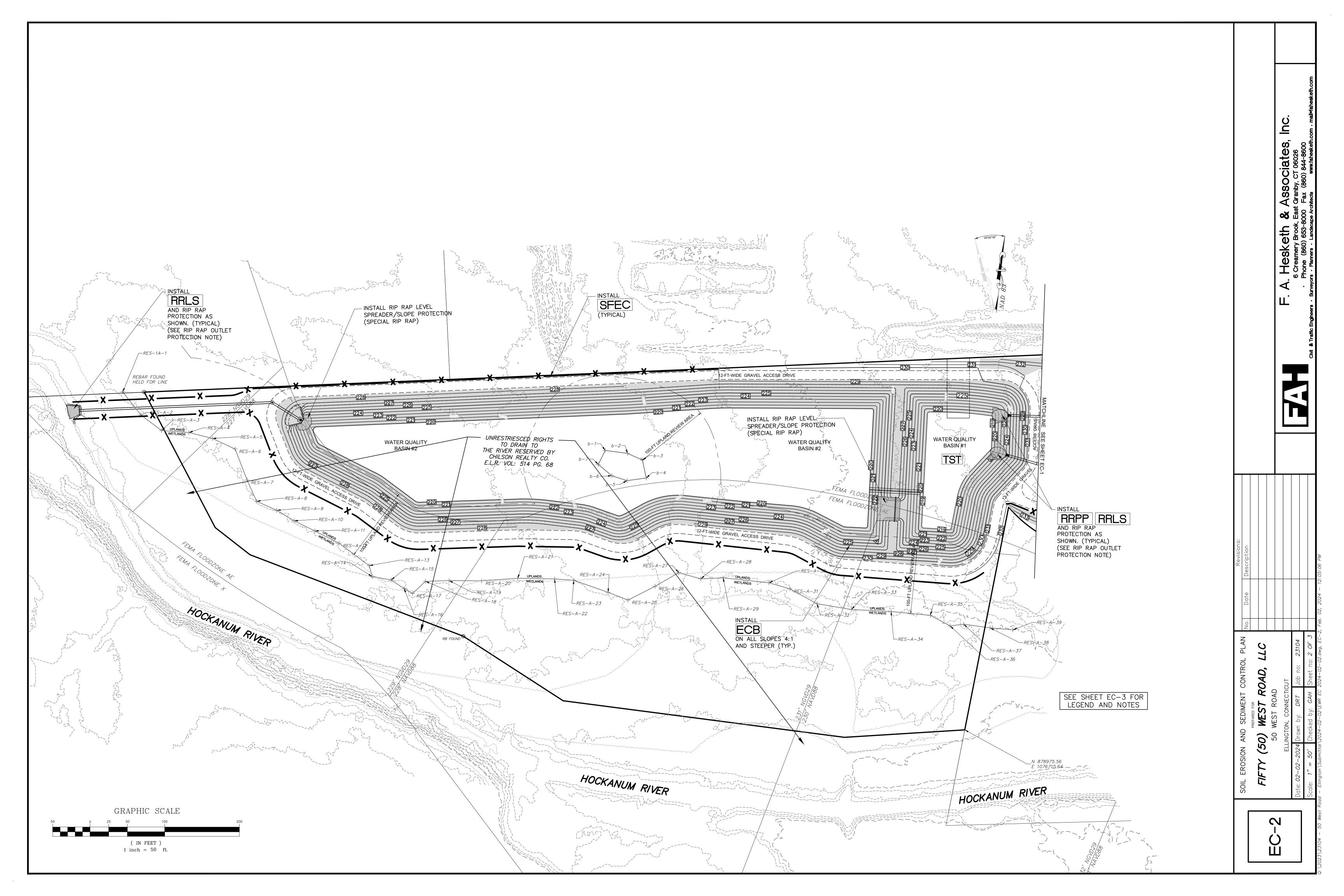
Associates, st Granby, CT 06026

ح 🖺 🌠 ا

Hesketh Creamery Brook,

GR-3





### LEGEND

● PROPOSED OUTLET STRUCTURE

= PROPOSED HEADWALL

■ = PROPOSED CATCH BASIN

= PROPOSED DRAINAGE MANHOLE

= PROPOSED SANITARY MANHOLE

= PROPOSED UNDERGROUND

= PROPOSED UNDERGROUND STORMWATER ISOLATOR CHAMBER

STORMWATER CHAMBER

► = PROPOSED FLARED END SECTION

= PROPOSED STORM DRAIN CULVERT

 $x^{\frac{100.00}{}}$  = PROPOSED SPOT GRADE

= PROPOSED CONTOUR

- - - - = PROPOSED DRAINAGE DIVIDE

= PROPOSED CATCH BASIN INLET PROTECTION (IP)

= PROPOSED RIPRAP PLUNGE POOL (RRPP)

= PROPOSED SEDIMENT FENCE EROSION CONTROL (SFEC)

---- = PROPOSED SEDIMENT LOG (SL)

= PROPOSED RIPRAP LEVEL

SPREADER (RRLS)

= PROPOSED SEEDING

AND MULCHING (TS)

= PROPOSED EROSION CONTROL BLANKET (ECB)

= CONSTRUCTENTRANCE

ECB = TEMPORARY EROSION CONTROL BLANKET

GRSW = VEGETATIVE SWALE

= INLET PROTECTION

PSB = PUMP SETTLING BASIN

RRPP = RIP RAP

PLUNGE POOL

SFEC = SEDIMENT FENCE EROSION CONTROL

SL = SEDIMENT LOG

TSS = TEMPORARY SOIL

= TEMPORARY S STOCKPILES

TST = TEMPORARY SOIL TRAP

### PROJECT DESCRIPTION:

The proposed activity includes development of the eastern portion of the parcel into light industrial and commercial uses. Ultimate development of the parcels will include four retail/commercial buildings and three light industrial buildings (tradesmen/contractor storage and operations centers.) Access will be from both Lower Butcher Road and West Road. The western potion of the site, adjacent to the wetlands and Hockanum River will not be developed with buildings or associated paved parking or access drives, but will include stormwater management facilities to capture and treat stormwater runoff from the eastern developed portion of the parcel.

Proposed sediment and erosion control measures will follow the guidelines established in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (Guidelines). The measures include, but are not limited to the use of silt fence erosion control and sediment logs in areas downgradient of earthen activities, rip rap protection on all stormwater outfalls, a construction exit, erosion control blankets on steep slopes, stabilizing vegetation, conveyance of stormwater runoff into water quality basins and control of stormwater discharge.

The project will be serviced by the Connecticut Water Company (CWC) water systems for potable water and fire protection. Fire hydrants will be provided at the locations specified by the Ellington Fire Department. Sanitary sewage will be collected by on—site, private gravity sewers that will discharge into the existing gravity sewers on the Pure Country Farms Property to the north operated by the Ellington Water Pollution Control Authority (WPCA). Electric, telephone and communications services will be from existing infrastructure located on Lower Butcher Road and West Road.

Stormwater management includes conveyance of runoff from up-gradient CT DOT drainage systems through the site, the capture and treatment of on-site runoff with large-volume water quality basins. The basins are designed to handle the 100-year storm event (SCS methodologies). Additional capacity is provided in the basins to facilitate future development of the adjacent Moser parcel to the north.

The on-site storm drainage collection systems incorporate Best Management Practices (BMP's) including; pre-cast catch basins with 2-foot sumps and flared-end section discharges to rip rap plunge pools, and level spreaders. The design of the on-site storm drainage collection system is based on a 10-year design storm.

### **CONSTRUCTION SEQUENCE:**

In general, the overall project will follow the sequence below:

- 1. Contact "call before you dig" at 1-800-922-4455 at least 48 hours prior to the start of construction to have existing utilities marked.
- 2. Attend a pre-construction meeting with the Owner, Project Engineer, and Town of Ellington staff.
- 3. Install construction entrance/exit to Lower Butcher Road.
- 4. Prior to the start of any excavation or topsoil stripping activities place sediment fence as shown to establish perimeter controls.
- 5. Construct temporary sediment trap (TST) in the northern area of site, adjacent to the 24-inch flared-end inlet adjacent to Natural Country Farms site.
- 6. Strip topsoil for construction of water quality basins. Stockpile and stabilize topsoil piles with perimeter silt fencing and temporary seeding.
- 7. Establish Pump Settling Basin (PSB) for dewatering activities.
- 8. Excavate/rough grade water quality basins. Construct gravel perimeter access road around basins.
- 9. Install basin outlet structure and outfall piping. Install piping and weir between WQB #1 and WQB #2. Construct stormwater outfall piping into WQB #1. Install rip rap erosion protection.
- 10. Stabilize sideslopes of basin by topsoiling, seeding, and install erosion control fabric.
- 11. Rough grade balance of site.

storm sewer system.

- 12. Construct sanitary sewer mains and manholes.
- 13. Construct balance of storm drain improvements.
- 14. Construct water service mains.
- 15. Construct underground gas, electric and tel./com. services.
- 16. Construct building foundations and building sructures.
- 17. Construct concrete curbing, sidewalks and slabs.
- 18. Construct subbase, processed base course, and finish grade fill slopes.
- 19. Stabilize fill slopes by topsoil and seeding and installing erosion control blankets.
- 20. Install pavement binder course and wearing course for both driveway and parking areas. Install pavement markings and signs.
- plantings.

  22. Remove erosion controls after disturbed areas are landscaped and mulched or new lawn areas are stabilized. Complete final cleaning of

21. Place topsoil and establish lawns along all disturbed areas. Install

- 23. Remove sediment from storm drainage system and riprap aprons as required. Remove sediments from WQ Basin#1.
- 24. The approximate date for start of construction is summer 2023. The estimated completion date is late summer 2025.

### EROSION AND SEDIMENT CONTROL NOTES

- 1. Disturbance of soil surfaces is regulated by State Law. All work shall comply with an approved "Erosion and Sediment Control Plan" to prevent or minimize soil erosion.
- 2. The installation and maintenance of erosion control devices is the responsibility of the land owner, developer, and the excavation contractor. Town officials shall be notified in writing of the name, address and telephone number of the individual responsible for this work (including any changes) at the required pre-construction conference.
- 3. The contractor shall use the "Connecticut Guidelines for Soil Erosion and Sediment Control" (2002), as amended as a guide in constructing the erosion and sediment controls indicated on these plans. The guidelines may be obtained from the Connecticut Department of Environmental Protection store, 79 Elm Street, Hartford, Cl 06106-5127.
- 4. The contractor shall schedule operations to limit disturbance to the smallest practical area for the shortest possible time. Overall site disturbance shall be confined to those limits delineated on the plans.
- 5. The contractor is responsible for the timely installation, inspection, repair or replacement of erosion control devices to insure proper operation.
- 6. The contractor shall notify the design engineer of unsatisfactory erosion conditions not controlled by the erosion and sediment control plan and shall install additional measures as required.
- All disturbed areas not covered by buildings, pavement, mulch or ground cover plantings shall be planted with grass per the landscape plan.
- 8. Accumulated sediment removed from erosion control devices is to be spread and stabilized in level, erosion resistant locations as general fill.
- 9. The contractor shall be responsible for cleaning any construction debris or sediment from existing roads as ordered by the Town and/or State, if any debris or sediment from construction activities enter onto these roadways.
- 10. Limit work within wetland regulated areas to the least disturbance necessary for construction. Restore disturbed areas as closely as possible to their original natural state.
- 11. Additional dust control measures as specified in D.O.T. 818 Section 9.39, Section 9.42 and Section 9.43 shall be furnished by the contractor as site conditions warrant or as directed by Town or State officials.
- 12. The contractor is responsible for cleaning and removal of sediment and/or debris from the storm drainage system throughout the duration of the project (i.e. sumps, plunge pools, level spreaders, etc.)
- 13. The erosion and sedimentation control measures shown on the plans are the minimum requirements for the work. Specific erosion control plans shall be developed by the Contractor for each phase of the work and shall be modified as construction conditions warrant. These phased plans shall be submitted to the Engineer and to Town staff for review and approval.

### **EROSION CONTROL DEVICES:**

Refer to the "Connecticut Guidelines For Soil Erosion And Sediment Control – 2002" (see Erosion and Sediment Control Note 3) when constructing erosion control devices shown on this plan.

CE — CONSTRUCTION EXIT: a broken stone pad providing a hard surface points where vehicles will leave the site. The construction exits reduce tracking of sediment into adjacent pavement. Excess sediment should be periodically removed from the stone surface.

ECB — EROSION CONTROL BLANKET: A manufactured blanket composed of biodegradable/photo-degradable natural or polymer fibers and/or filaments that have been mechanically, structurally or chemically bound together to form a continuous matrix.

FES — FLARED END SECTION: a precast concrete culvert or formed polyethylene end structure designed to spread runoff to greater width of flow.

GRSW — VEGETATIVE SWALE: a shaped shallow earth drainage way used to convey excess surface runoff. Grass vegetation should be well established before use. Stabilization with netting or mulch may be required.

IP — INLET PROTECTION: a sediment control device used during construction that mounts under the grate of a catch basin, residing inside the structure. It is made of permeable geotextile that allows water to pass, but traps silt and sediment. (Silt Sack or approved equal.) The silt sack must be removed when silt/sediment reaches one half the height of the device. Remove sediments and deposit on stable area of site and rinse devise for reuse. Replace when damaged.

PSB - PUMPING SETTLING BASIN: An enclosed sediment barrier or excavated pit constructed with a stable inlet and outlet such that sediment laden water from pumping operations is de-energized and temporarily stored, allowing sediments to be settled and/or filtered out before being released from the construction site.

RRLS - RIP RAP LEVEL SPREADER:A temporary discharge outlet to disperse or spread runoff as sheet flow over a vegetated area to promote infiltration and to prevent channelization and erosion. Level spreaders consist of a long linear shallow trench or low berm and a broad stable discharge structure constructed at zero grade (i.e., level lip) over which water flows as sheet flow across a stabilized, well-vegetated flat or gently sloped area without causing erosion.

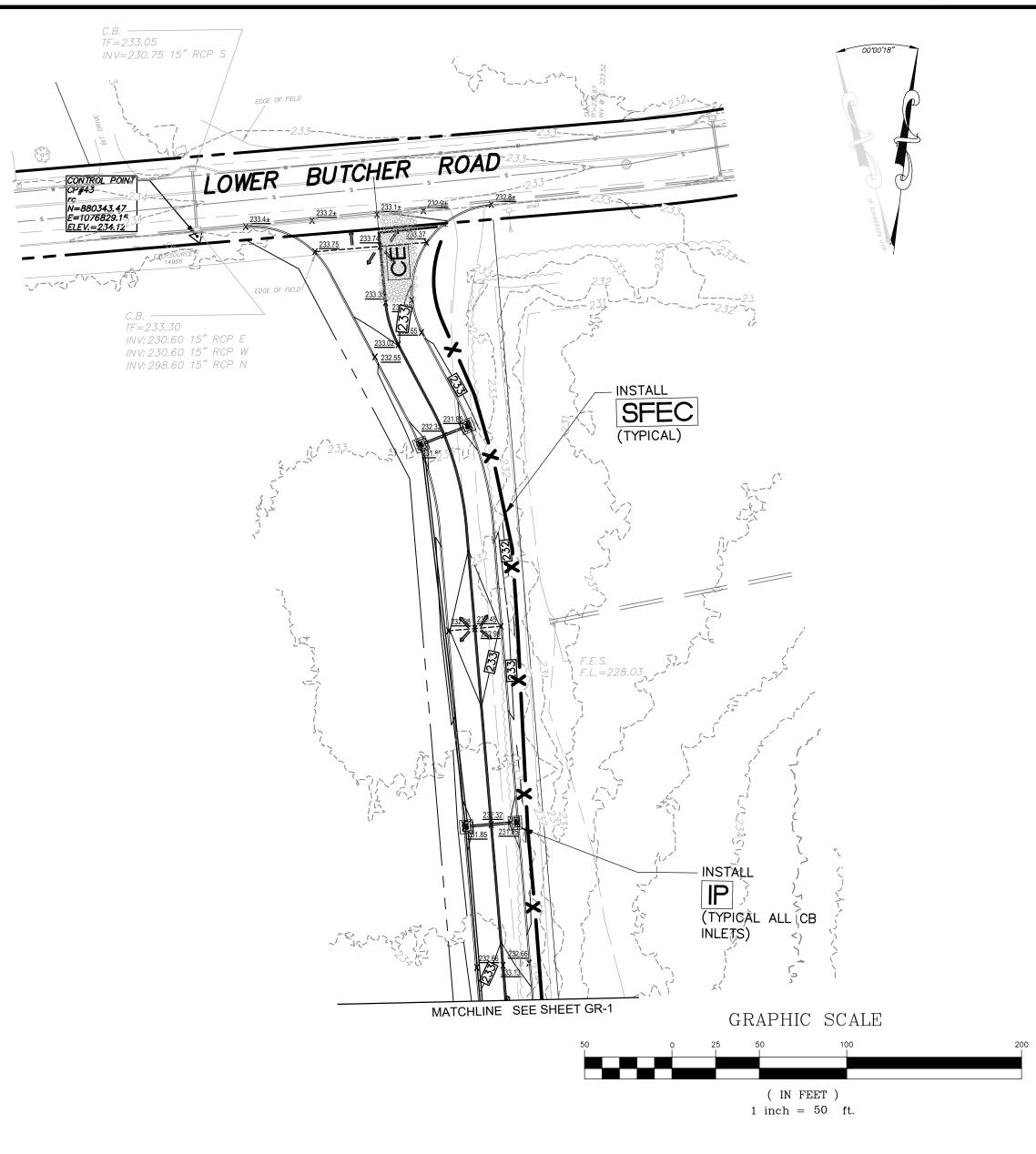
RRPP - RIP RAP PLUNGE POOL: a rip rap lined apron installed at a zero percent grade to absorb the initial impact of stormwater discharge from the storm drainage system and further reduce flow velocities to prevent erosion downstream. RRPP is designed per the "Connecticut Department of Transportation, Drainage Manual - 2000"

SFEC - SEDIMENT FENCE EROSION CHECK: a synthetic textile barrier designed to filter sediment from surface water runoff. Placement shall be similar to HBEC and installation requires anchoring the fence bottom to prevent bypass. All sediment shall be removed if deposits reach one (1) foot in depth. Additional support (such as snow fence or wire fence) on the downhill face may be required to strengthen sediment fence in high flow locations.

SL - SEDIMENT LOGS: A sediment control device consisting of an outside, open weave containment fabric filled with fibers. It is designed to provide a flexible, lightweight, porous, sediment control device with the ability to conform to the terrain upon which it is installed. It is designed to dissipate velocity of flow and filter and trap sediments up-gradient and within the device.

TSS - TEMPORARY SOIL STOCKPILE: Temproray location of stockpiled topsoil. Locations shall generally be on level ground away from drainageways and shall be ringed with silt fence and/or haybales. Staockpile shall be seeded if it remains in place for more than 30 days.

TST - TEMPORARY SEDIMENT TRAP: A temporary ponding area with a stone outlet formed by excavation and/or constructing an earthen embankment traps sediment from eroding areas before it can reach downstream waterways, drainage systems, developed areas or any other land to be protected. Sediment basins can be created with dams and barriers or excavation along waterways or any runoff path. They must be designed to detain sediment—laden runoff from small disturbed areas long enough to allow a majority of the sediment to settle out. Accumulated sediment must be removed periodically.



## CLEARING NOTE.

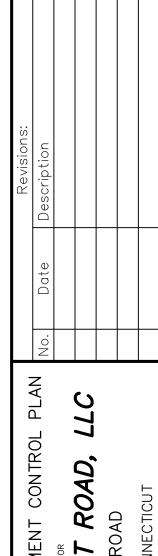
FOR INSTALLATION OF NEW STANDARD ENDWALL(HEADWALL) AT OUTFALLS FOR WQB#2, CONDUCT THE MINIMUM NECESSARY TREE CLEARING REQUIRED TO INSTALL ENDWALL SECTIONS. TREES/BRUSH SHALL BE CUT TO THE GROUND AND STUMPS LEFT IN PLACE.

### RIP RAP OUTLET PROTECTION NOTES.

- 1. AT ALL STORMWATER OUTFALLS WHERE RIP RAP PLUNGE POOLS ARE SHOWN, SUPPLEMENT WITH ADDITIONAL RIP RAP LINING (MODIFIED RIP RAP) TO PROVIDE EROSION CONTROL PROTECTION IN THE FORM OF AN APRON FROM THE LIMITS OF THE OUTER SIDE EDGES OF THE PLUNGE POOL TO THE BOTTOM OF THE BASIN FOR THE APPROXIMATE LIMITS SHOWN. SHAPE TO SPREAD FLOW EVENLY.
- 2. CONTRACTOR TO COORDINATE THE LIMITS WITH THE DESIGN ENGINEER DURING CONSTRUCTION.

# CONTINGENCY PROVISIONS FOR EROSION & SEDIMENT CONTROL FAILURES AND EMERGENCIES:

- . THE CONTRACTOR SHALL SCHEDULE WORK SO THAT NO EARTHWORK THAT IS POTENTIALLY EXPOSED TO EROSION IS CONDUCTED DURING SEVERE WEATHER EVENTS, OR WHEN SEVERE WEATHER IS FORECAST, WITHOUT IMPLEMENTATION OF PROPER EROSION CONTROL MEASURES.
- . THE CONTRACTOR SHALL STABILIZE OR OTHERWISE SECURE DISTURBED AREAS AT THE END OF EACH WORK DAY AND WORK WEEK TO MINIMIZE IMPACTS OF EROSION. SUCH MEASURES SHALL INCLUDE TEMPORARY DIVERSIONS, INSTALLATION OF STABILIZATION STRUCTURES, ETC.
- 3. THE CONTRACTOR SHALL KEEP, ON—SITE, EXTRAS HAY BALES, SILT FENCE, SEDIMENT LOGS (STRAW WATTLES), RIP RAP, AND EROSION CONTROL FABRIC FOR USE IN CASE OF AN EROSION CONTROL EMERGENCY.
- 4. IN THE EVENT THAT AN EROSION CONTROL EMERGENCY, THE CONTRACTOR SHALL TAKE REASONABLE MEASURES TO STABILIZE THE IMPACT AREAS, PREVENT FURTHER EROSION AND TRANSPORT OF SEDIMENTS, ETC. IN THE EVENT THAT SEDIMENTS ARE TRANSPORTED OFF THE SITE, THE CONTRACTOR SHALL NOTIFY THE OWNER, AND THE PROJECT ENGINEER. IN THE EVENT THAT SEDIMENTS ENTER ANY STORM DRAIN SYSTEMS, THE CONTRACTOR SHALL NOTIFY THE TOWN PUBLIC WORKS DEPARTMENT, OR THE CT DOT, AS APPROPRIATE AND TAKE IMMEDIATELY IMPLEMENT REMEDIAL MEASURES



ທົ່

Associates t Granby, CT 06026

l **≪** ÿ ≻

sketh

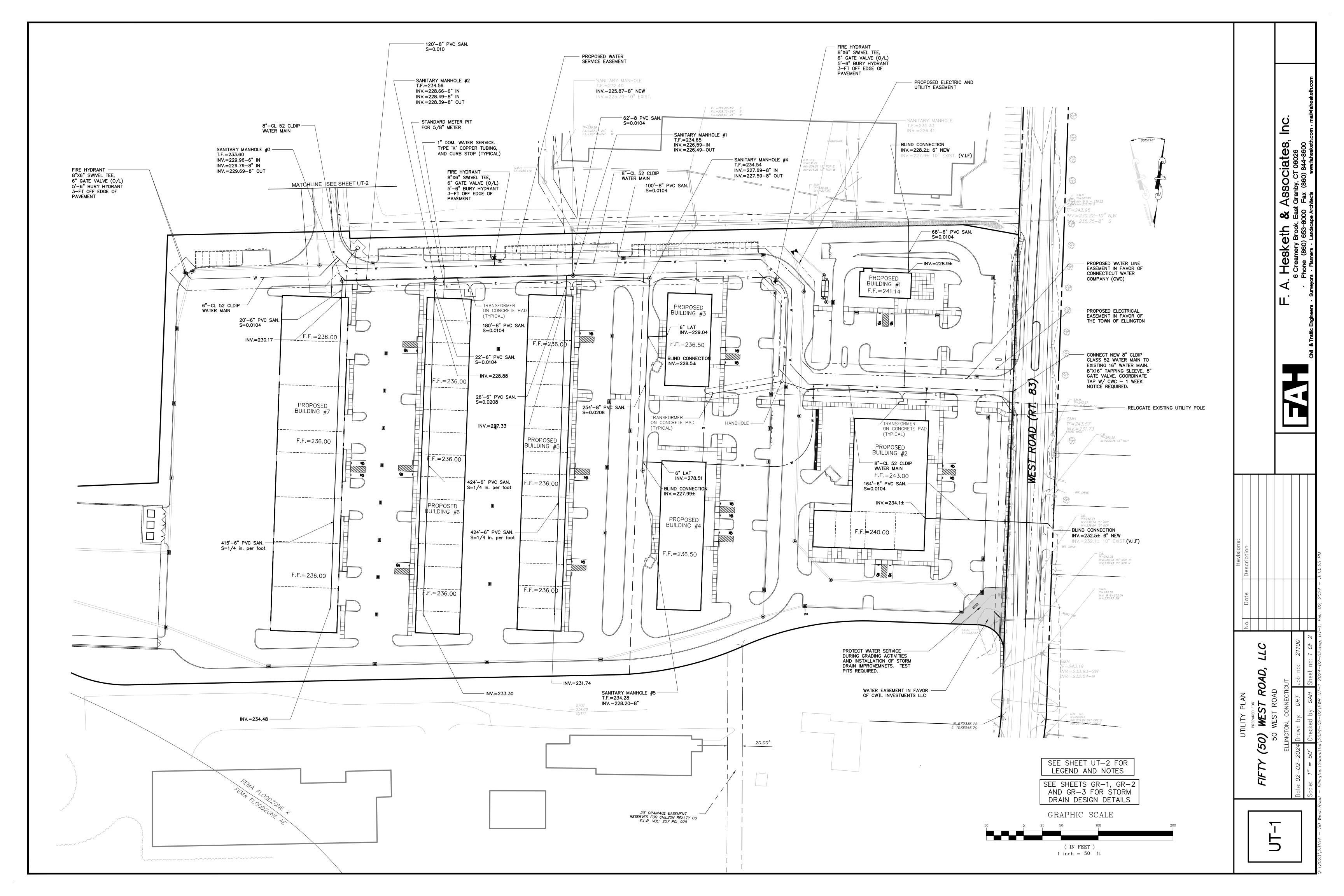
**(1)** 

 $\triangleleft$ 

FIFTY (50) WEST ROAD, LL
50 WEST ROAD

FIF 17 (50) 50 ' ELLINGTO

C-3



#### <u>LEGEND</u>

- = PROPOSED CATCH BASIN
- = PROPOSED DRAINAGE MANHOLE
- = PROPOSED STORM DRAIN CULVERT
- SANITARY MANHOLE STRUCTURE
- = PROPOSED UNDERGROUND STORMWATER CHAMBER
- = PROPOSED UNDERGROUND STORMWATER ISOLATOR CHAMBER
- --- W --- = WATER SERVICE OR MAIN
- E = UNDERGROUND ELECTRIC SERVICE
- --- T --- = UNDERGROUND TELE/COMM/CATV SERVICES

= ELECTRIC SERVICE PULL BOX

- --- C --- LINDERGROUND GAS SERVICE
- --- G --- = UNDERGROUND GAS SERVICE
- Ft = TRANSFORMER PAD
- = PROPOSED LIGHTING FIXTURES

#### CWC WATER MAIN INSTALLATION NOTES:

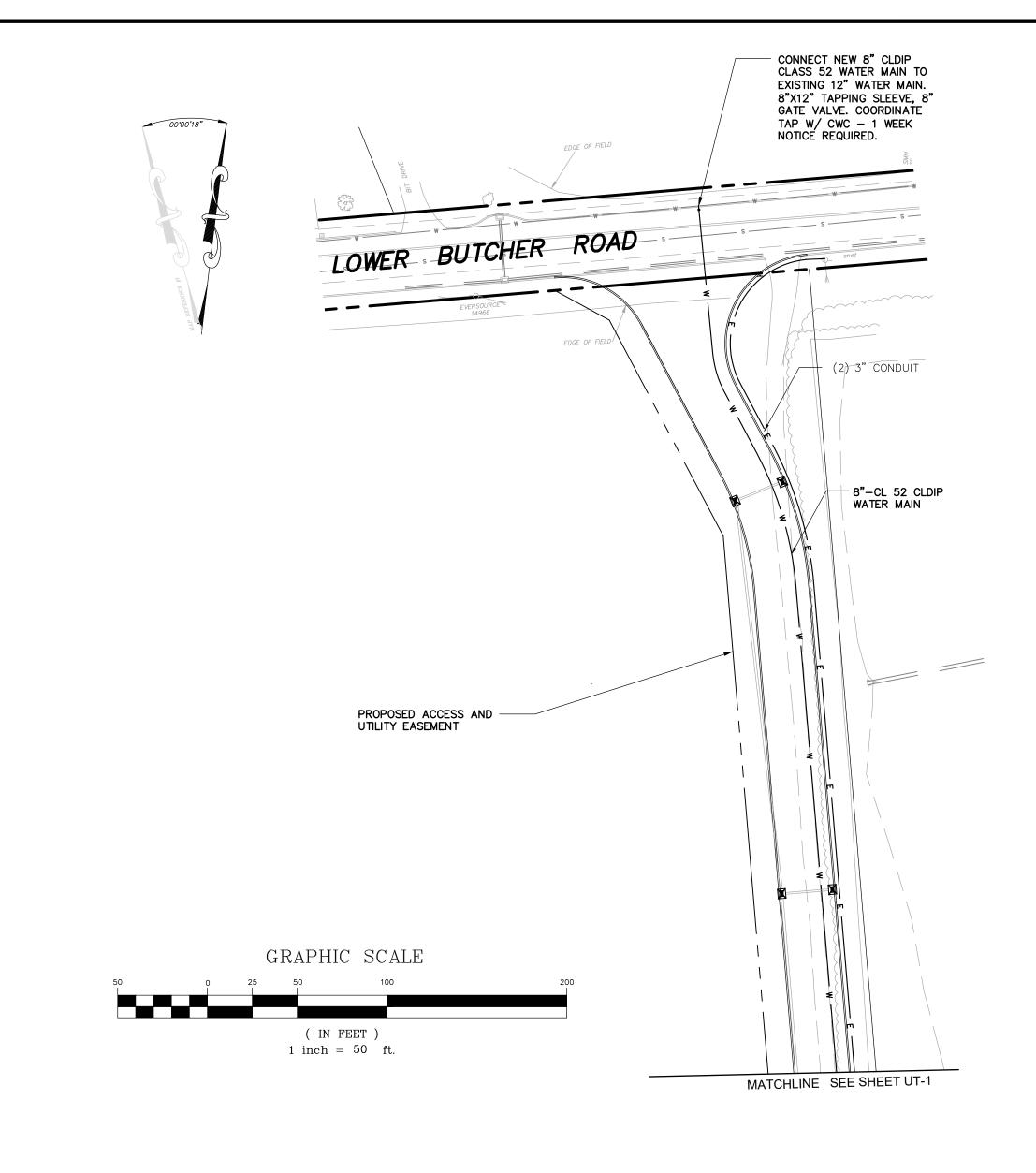
- 1. PROJECT MUST BE BUILT TO CT WATER COMPANY SPECIFICATIONS.
- 2. CLASS 52 DUCTILE IRON PIPE REQUIRED.
- 3. COPPER AND/OR DUCTILE IRON SERVICE LATERAL MATERIAL REQUIRED.
- 4. GATE <u>VALVES OPEN LEFT</u>.
- 5. FIRE HYDRANTS OPEN LEFT, 5.5' BURY DEPTH. CWC WILL FURNISH MATERIALS INCLUDING TEE, VALVE, PIPE, HYDRANT AND ACCESSORIES. FIRE HYDRANTS TO BE INSTALLED WITH FACE OF HYDRANT 3—FEET OFF FACE OF CURB. HYDRANTS ARE NOT TO BE INSTALLED IN SIDEWALKS. WHERE 3—FEET CANNOT BE OBTAINED, INSTALL HYDRANT BEHIND SIDEWALK UNLESS OTHERWISE NOTED OR AS DIRECTED BY A CT WATER COMPANY PROJECT MANAGER. 10—FEET HORIZONTAL SEPARATION REQUIRED BETWEEN HYDRANTS, SEWER MANHOLES AND STORM DRAINS. \*\*\*FIRE HYDRANTS ARE TO BE INSTALLED WITH FINISH GRADE AT THE BURY LINE CAST INTO THE LOWER BARREL. CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENTS OF WATER MAIN AND LATERAL ELEVATION TO ACHIEVE PROPER BURY DEPTH. ANY COSTS RELATED TO ADJUSTMENTS REQUIRED BY CT WATER COMPANY WILL BE THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR AND/OR APPLICANT OF RECORD.
- 6. ALL WATER MAIN PIPING AND APPURTENANCES MUST BE POLYETHYLENE ENCASED IN ACCORDANCE WITH AWWA ANSI-AWWA C105/A21.5-99(10). POLYETHYLENE ENCASEMENT SHALL BE V-BIO ENHANCED POLYETHYLENE ENCASEMENT STYLE ONLY AND CONSIST OF THREE CO-EXTRUDED LAYERS OF LINEAR LOW-DENSITY POLYETHYLENE (LLDPE) FILM THAT ARE FUSED INTO ONE.
- 7. MEGALUG RESTRAINTS REQUIRED ON ALL FITTINGS, BENDS, OFFSETS, TEES, GATE VALVES AND HYDRANTS.
- 8. FIELD LOK (U.S. PIPE) OR SURE STOP 350 (MCWANE) RESTRAINING GASKETS ARE REQUIRED 2 PIPE JOINTS BEFORE AND AFTER EACH FITTING AND ON THE LAST 3 PIPE LENGTHS ON DEAD ENDS.
- 9. THRUST BLOCKING IS REQUIRED ON ALL BENDS, TEES, OFFSETS, HYDRANTS AND
- 10. ALL WATER MAINS SHALL BE INSTALLED TO A DEPTH OF 4—FEET OF COVER BASED ON THE ROADWAY GRADE, EXCEPT AS NOTED.
- 11. 3-FT MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER AND ANY OTHER UTILITY/UNDERGROUND STRUCTURE. 10-FT MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER AND SEWER/SEPTIC ("SEWER"). SEWER MUST BE SLEEVED WHERE WATER CROSSES SEWER IF WATER IS BELOW AND/OR WHEN 18" VERTICAL SEPARATION CANNOT BE ACHIEVED WHEN WATER IS ABOVE. 4-FEET MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER MAIN AND DRAINAGE WHEN AT LIKE ELEVATIONS.
- 12. WATER MAINS TO BE DEFLECTED UNDER ALL STORM DRAINS UNLESS OTHERWISE NOTED OR AS DIRECTED BY A CT WATER COMPANY PROJECT MANAGER. A VERTICAL CLEARANCE OF 18" TO BE MAINTAINED BETWEEN STORM DRAIN AND WATER MAINS. THE CONTRACTOR IS RESPONSIBLE FOR PROPER COMPACTION AROUND AND UNDER EXISTING DRAINAGE FACILITIES WHICH MAY INCLUDE REMOVAL AND RESETTING TO PROPER GRADE.
- 13. ANGLE OF BENDS TO BE FIELD DETERMINED.
- 14. MAXIMUM ALLOWABLE DEFLECTION PER FULL LENGTH PUSH—ON JOINT FOR 4" TO 12" IS FIVE (5) DEGREES AND THREE (3) DEGREES FOR 14" AND GREATER DUCTILE IRON PIPE
- 15. EXISTING SERVICES TO SITE THAT WILL NO LONGER BE USED MUST BE TERMINATED AT THE WATER MAIN BY EXPOSING AND SHUTTING OFF THE CORPORATION VALVE. THE LINE MUST BE SEVERED IMMEDIATELY AFTER THE CORPORATION VALVE. SAID SERVICES MUST BE SHOWN ON PLANS.
- 16. WHERE A WATER SUPPLY WELL FOR ANY PURPOSE EXISTS OR IS APPROVED WITHIN THE LIMITS OF THIS PROJECT, ALL SERVICE LINES CONNECTED TO THE PUBLIC WATER SUPPLY REQUIRE A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (RPD), AND MUST MEET THE REQUIREMENTS OF SEC. 19A-209A OF THE CONNECTICTUT GENERAL STATUTES ("CGS"), AND SEC. 19-13-B38A OF THE PUBLIC HEALTH CODE.
- 17. WHERE AN AIR RELIEF IS REQUIRED, CWC WILL PERFORM TAP AND INSTALL WHILE THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR THE EXCAVATION AND RESTORATION UNLESS OTHERWISE NOTED. LABOR AND MATERIALS FOR THE INSTALLATION(S) WILL BE CHARGED TO THE PROJECT.
- 18. WHEN THE INSTALLATION OF UNDERGROUND INFRASTRUCTURE DEVIATES FROM THE CT WATER COMPANY APPROVED PLAN(S), THE APPLICANT, AT ITS COST, WILL BE HELD LIABLE FOR THE RELOCATION OF INFRASTRUCTURE AS REQUIRED TO THE SATISFACTION OF THE CT WATER COMPANY. FAILURE TO CORRECT ANY DEVIATION DEEMED UNACCEPTABLE TO THE CT WATER COMPANY MAY RESULT IN LITIGATION.

#### **UTILITY NOTES:**

- 1. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE BASED ON AVAILABLE AS—BUILT INFORMATION FROM UTILITY COMPANY RECORDS, THE PROPERTY OWNER, AND LIMITED SURVEY DATA. ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THOSE SHOWN MAY NOT BE ACCURATE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES ON THE SITE PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY AND NOTIFYING THE DESIGN SITE ENGINEER OF POTENTIAL CONFLICTS WITH PROPOSED ALIGNMENT AND GRADE AND/OR ANY ADJUSTMENTS TO THE PLANS WHICH ARE NECESSARY. TEST PITS WILL BE REQUIRED AT ALL PROPOSED UTILITY CROSSINGS IN ORDER TO DETERMINE UNDERGROUND UTILITY LOCATIONS AND TO IDENTIFY POTENTIAL CONFLICTS WITH VERTICAL AND HORIZONTAL ALIGNMENTS SHOWN ON THE PLANS. TEST PITS SHALL BE COMPLETED BY THE CONTRACTOR AT HIS EXPENSE.
- 2. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO MARK THE LOCATION OF ALL UNDERGROUND UTILITIES AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- 3. A PRE—CONSTRUCTION MEETING WITH TOWN STAFF SHALL BE HELD PRIOR TO START OF CONSTRUCTION.
- 4. REMOVE/ABANDON ALL EXISTING UTILITIES REQUIRED FOR CONSTRUCTION OF SITE IMPROVEMENTS WHETHER OR NOT SHOWN ON THESE PLANS. ALL WORK SHALL BE IN ACCORDANCE WITH CUSTODIAL UTILITY COMPANY REQUIREMENTS. CONSULT WITH CUSTODIAL UTILITY COMPANY AND ENGINEER PRIOR TO ABANDONING UTILITIES.
- 5. ALL MATERIALS AND INSTALLATION ARE TO BE IN ACCORDANCE WITH THE TOWN OF ELLINGTON, CONN. D.O.T. FORM 817, OR CUSTODIAL UTILITY COMPANY SPECIFICATION, AS APPROPRIATE.
- 6. ALL NEW SITE UTILITIES ARE TO BE INSTALLED UNDERGROUND, UNLESS INDICATED OTHERWISE.
- 7. ALL UTILITIES TO BE INSTALLED IN ACCORDANCE WITH UTILITY COMPANY APPLICABLE REQUIREMENTS. FINAL LOCATION OF UTILITY CONNECTIONS IS SUBJECT TO REVISION BY INDIVIDUAL UTILITY COMPANIES PRIOR TO THE INSTALLATION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE WORK WITH THE APPLICABLE UTILITY COMPANIES.
- 8. FLOW LINE AND INVERT ELEVATIONS OF ALL STORM AND SANITARY SEWERS MUST BE COORDINATED WITH FINAL ARCHITECTURAL DRAWINGS. NOTIFY DESIGN ENGINEER OF CONFLICTS PRIOR TO START OF CONSTRUCTION.
- 9. WATER SERVICE AND FIRE SERVICE INSTALLATION IS TO BE COORDINATED WITH THE CONNECTICUT WATER COMPANY (CWC) OFFICIALS PRIOR TO THE START OF WORK BY THE CONTRACTOR.
- 10. BEFORE THE WATER MAIN OR WATER SERVICE LINES ARE IS PLACED INTO SERVICE, THEY SHALL BE INSPECTED, FLUSHED, SANITIZED, AND TESTED AND FOUND TO BE IN COMPLIANCE WITH CWC STANDARDS AND SPECIFICATIONS.
- 11. ALL WORK ON THE SANITARY SEWER SHALL BE IN ACCORDANCE WITH THE TOWN OF ELLINGTON WATER POLLUTION CONTROL AUTHORITY (WPCA).
- 12. BEFORE THE SANITARY SEWER SYSTEM IS PLACED INTO SERVICE, IT IS TO BE INSPECTED, TESTED AND FOUND TO BE IN COMPLIANCE WITH THE TOWN OF ELLINGTON WPCA STANDARDS AND SPECIFICATIONS.
- 13. ALL WORK RELATED TO GAS, ELECTRIC, TELEPHONE AND COMMUNICATION SERVICE SHALL BE IN ACCORDANCE WITH THE CUSTODIAL UTILITY COMPANY STANDARDS AND SPECIFICATIONS.
- CONSTRUCT PAVEMENT REPAIR IN ACCORDANCE WITH CT DOT STANDARDS AND SPECIFICATIONS.

14. WHEN TRENCHING IS REQUIRED IN THE STATE R.O.W., BACKFILL AND COMPACT FILL AND

- 15. WHEN TRENCHING IS REQUIRED IN THE TOWN R.O.W., BACKFILL AND COMPACT FILL AND CONSTRUCT PAVEMENT REPAIR IN ACCORDANCE WITH TOWN STANDARDS AND SPECIFICATIONS.
- 16. COORDINATE PLACEMENT OF TRANSFORMER AND ROUTING OF UTILITY SERVICE WITH EVERSOURCE OFFICIALS.
- 17. RELOCATE OR RESET, AS APPROPRIATE, ALL ELECTRIC, TELEPHONE, COMMUNICATION SERVICE HANDHOLES, MANHOLES, PULL BOXES, ETC., AS REQUIRED, FOR COMPLETION OF WORK. COORDINATE RELOCATIONS OR RESETTING WITH CUSTODIAL UTILITY COMPANY REPRESENTATIVES.
- 18. SEE SHEETS GR-1, GR-2, AND GR-2 FOR DESIGN OF STORM DRAINAGE SYSTEMS.
- 19. WATER MAIN, WATER SERVICE PIPING, FITTINGS, VALVES, HYDRANTS, CORPORATIONS, ETC. SHALL CONFORM TO THE CWC STANDARDS AND SPECIFICATIONS.
- 20. ALL WATER AND FIRE MAIN AND SERVICE PIPING SHALL BE ANSI/AWWA C151/A21.51 C.L.D.I.P. CLASS 52, UNLESS OTHERWISE SPECIFIED. ALL WATER SERVICE SHALL HAVE A MINIMUM COVER OF 4 1/2 FEET.
- 21. ALL WATER AND FIRE SERVICE FITTINGS AND VALVES SHALL BE MECHANICAL JOINT AND SHALL BE RESTRAINED USING JOINT RETAINER GLANDS AND RODS, UNLESS OTHERWISE SPECIFIED. ALL VALVES SHALL OPEN LEFT.
- 22. PVC SAN. SEWER PIPE = SDR 35 PVC PIPE W/ PUSH-ON GASKETED JOINTS.
- 23. C.L.D.I.P = CLASS 52 CEMENT-LINED DUCTILE IRON PIPE.
- 24. ALL SANITARY SEWER PIPES, FITTINGS, MANHOLES AND ACCESSORIES SHALL CONFORM TO THE TOWN OF ELLINGTON WPCA STANDARDS AND SPECIFICATIONS.
- 25. SEE SHEET PH-1 FOR SITE LIGHTING DESIGN.
- 26. WORK WITHIN THE STATE HIGHWAY RIGHT OF WAY WILL REQUIRE AN ENCROACHMENT PERMIT FROM THE CT DOT DISTRICT 1 OFFICE. THE CONTRACTOR SHALL OBTAIN SAID PERMIT PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES. ALL WORK WITHIN THE STATE HIGHWAY RIGHT OF WAY SHALL CONFORM TO THE CONDITIONS OF THE CT DOT ENCROACHMENT PERMIT.
- 27. WORK WITHIN THE TOWN ROADWAY RIGHT OF WAY WILL REQUIRE A CURB CUT PERMIT FROM THE TOWN OF ELLINGTON DEPARTMENT OF PUBLIC WORKS. THE CONTRACTOR SHALL OBTAIN SAID PERMIT PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES. ALL WORK WITHIN TOWN RIGHT OF WAY SHALL CONFORM TO THE CONDITIONS OF THE CURB



SEE SHEETS GR-1, GR-2 AND GR-3 FOR STORM DRAIN DESIGN DETAILS FIFTY (50) WEST ROAD, LLC

50 WEST ROAD

ELLINGTON, CONNECTICUT

Date: 02-02-2024 Drawn by: DRT | Job no: 23704 | Sheet no: 2 OF 2 |

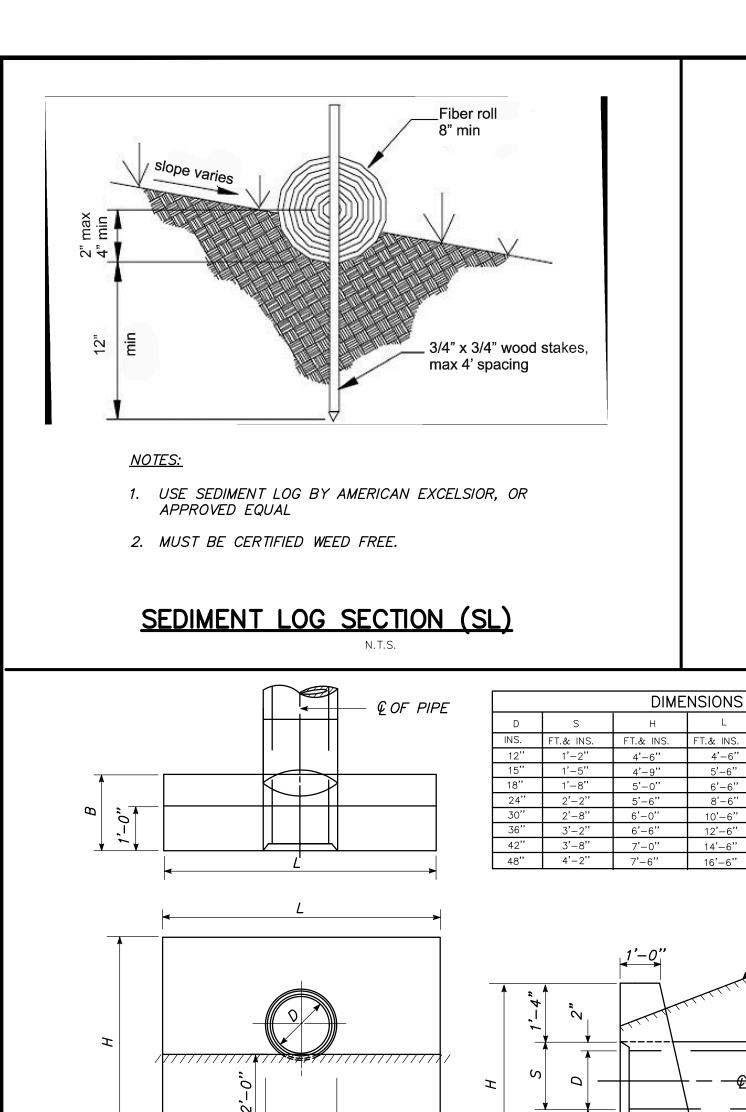
Associatest Granby, CT 06026

1 🕉 🗓 .

eth

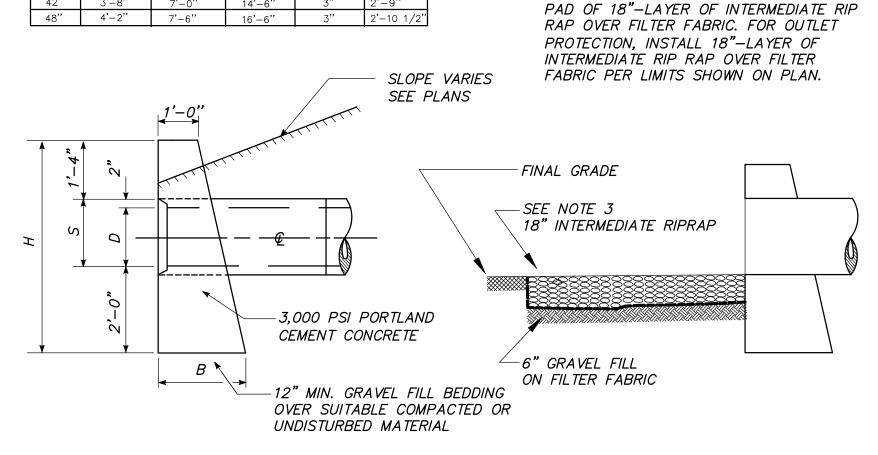
8

Ф



1-1/2 S

1-1/2 S



6" MINIMUM-

BATTER

NO.3 BROKEN OR

CRUSHED STONE-

SECTION M.02.01

FILTER FABRIC

CONSTRUCTION EXIT (CE)

CONCRETE STRUCTURES SHALL CONFORM

TO CT D.O.T. FORM 818. SECTION 5.06

GRAVEL FILL PER CT D.O.T. FORM 818,

3. FOR INLET PROTECTION INSTALL A 6'X6'

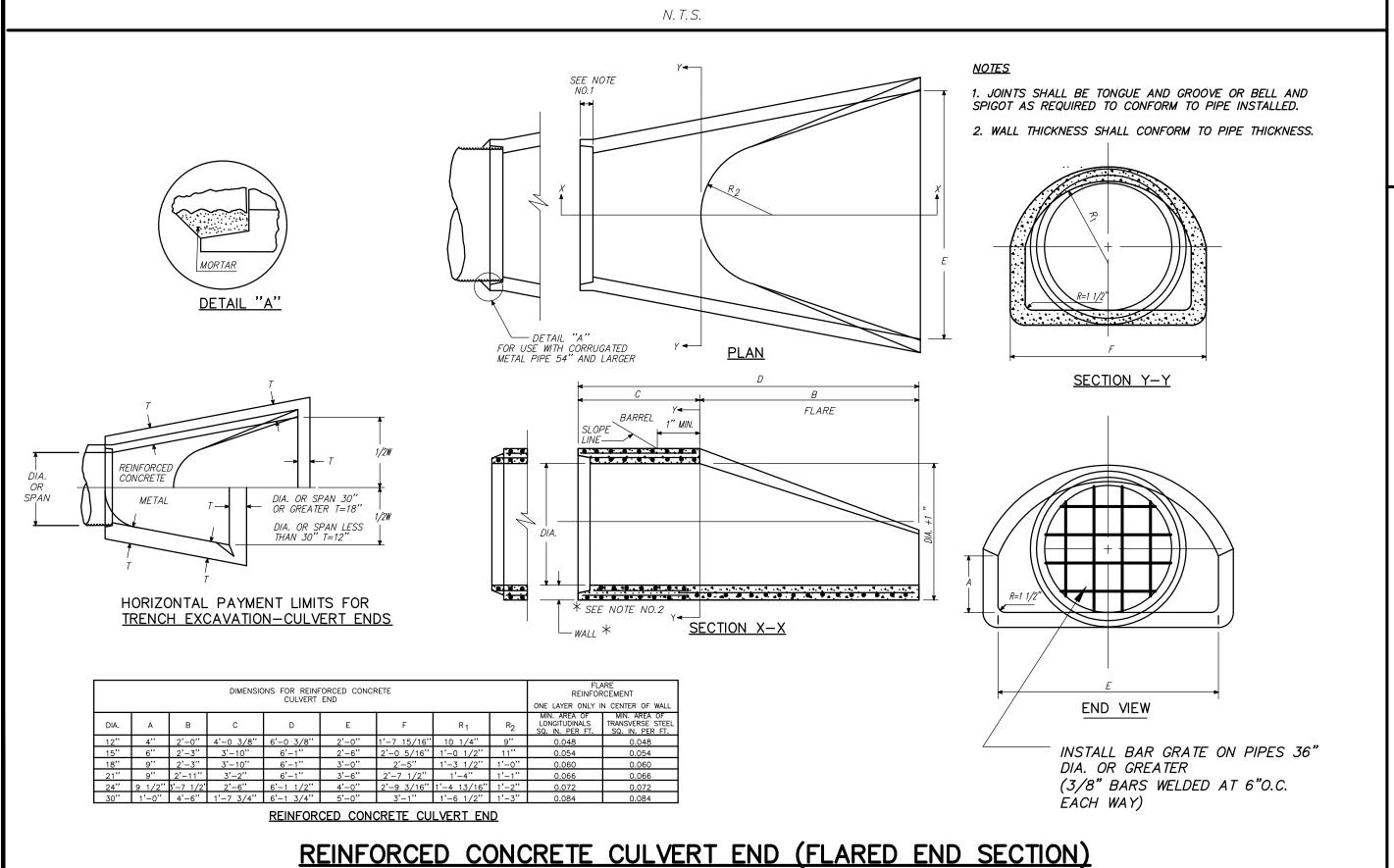
N.T.S.

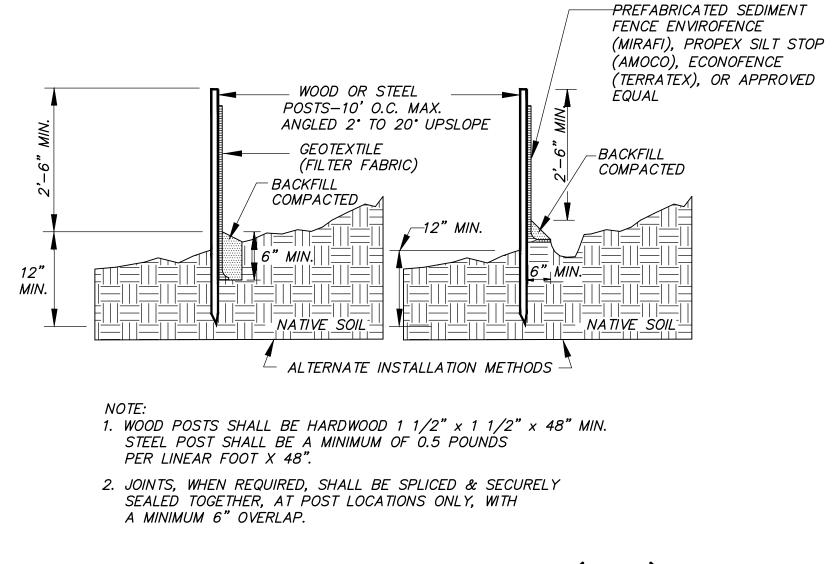
SECTION M.02.01

PER CT D.O.T.

FORM 818

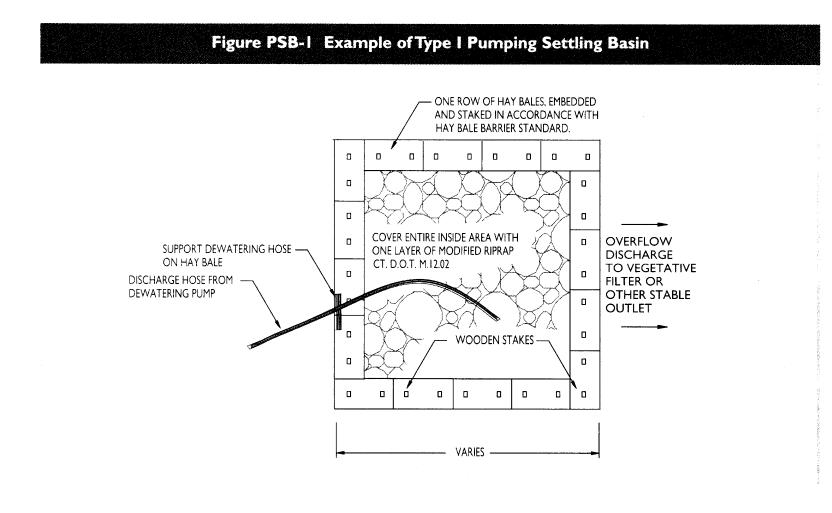
#### STANDARD ENDWALL (HEADWALL)





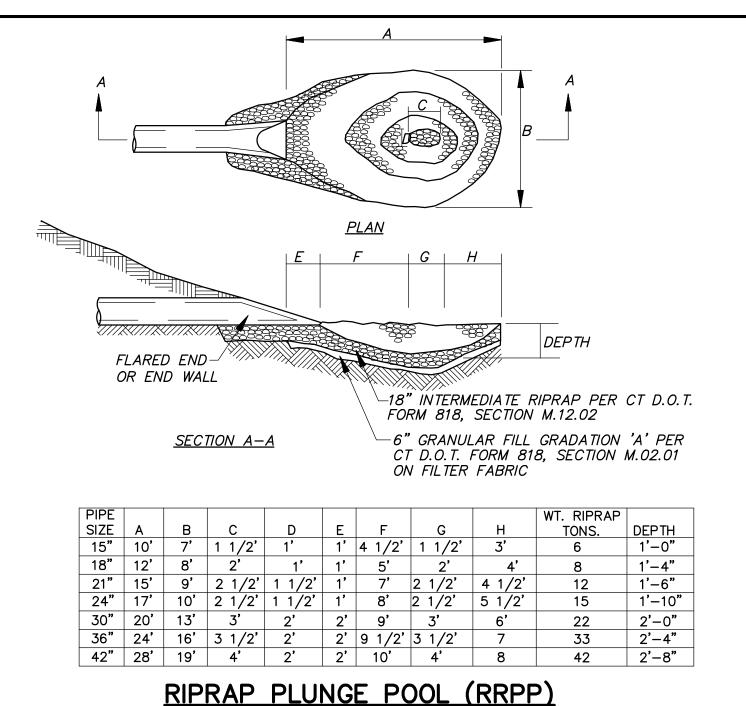
#### SEDIMENT FENCE EROSION CONTROL (SFEC)

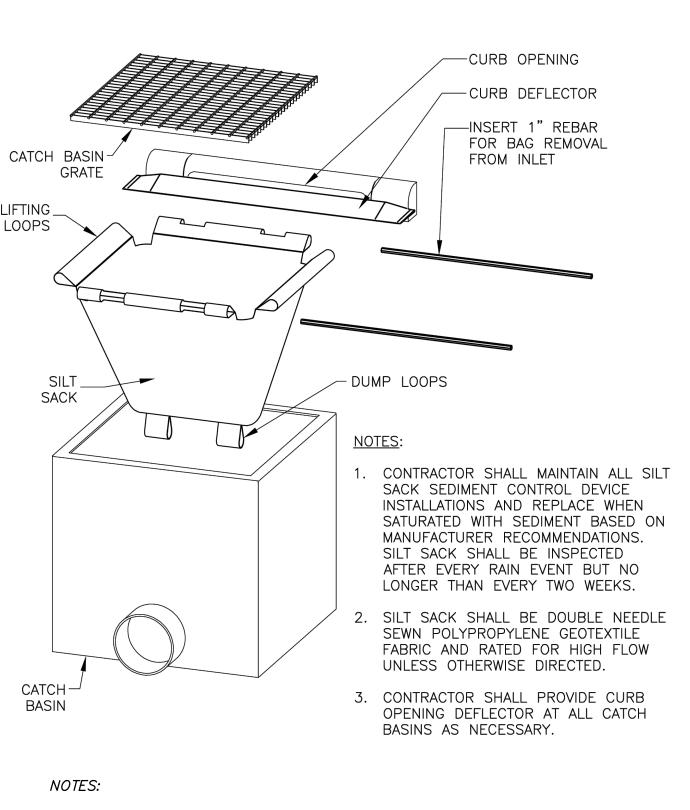
N.T.S.



#### DEWATERING DISCHARGE BASIN (PSB)

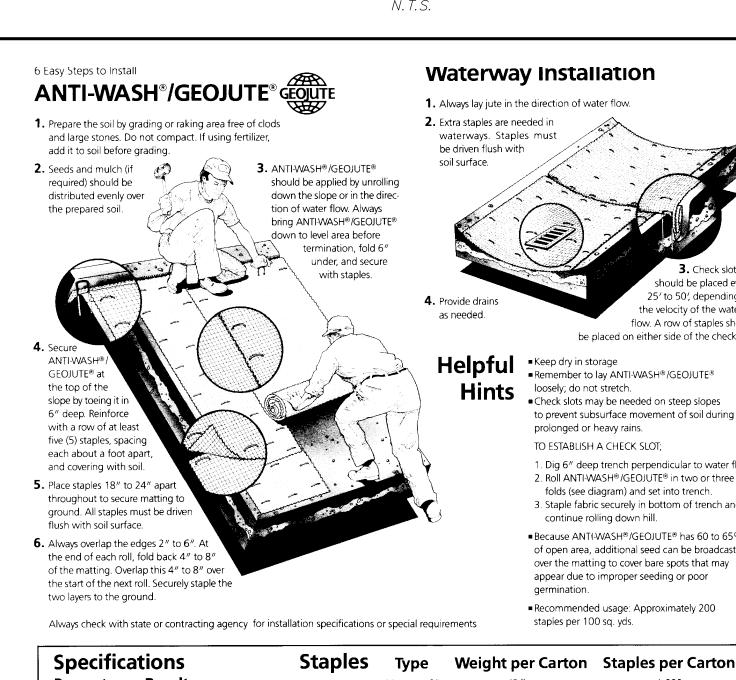
1. USE ANTI-WASH/GEOJUTE PRODUCT OR APPROVED EQUAL





- 1. INSTALL AND MAINTAIN IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 2. USE APPROPRIATE SIZE FOR STRUCTURE.
- 3. FOR CURB INLETS, INSTALL CURB DEFLECTOR

#### INLET PROTECTION (IP) [SILT SACK INSERT]



should be placed every the velocity of the water flow. A row of staples should be placed on either side of the check slot.

■ Remember to lay ANTI-WASH® /GEOJUTE® ■Check slots may be needed on steep slopes

to prevent subsurface movement of soil during 1. Dig 6" deep trench perpendicular to water flow. 2. Roll ANTI-WASH®/GEOJUTE® in two or three

folds (see diagram) and set into trench. 3. Staple fabric securely in bottom of trench and ■ Because ANTI-WASH®/GEOJUTE® has 60 to 65% of open area, additional seed can be broadcast

■ Recommended usage: Approximately 200

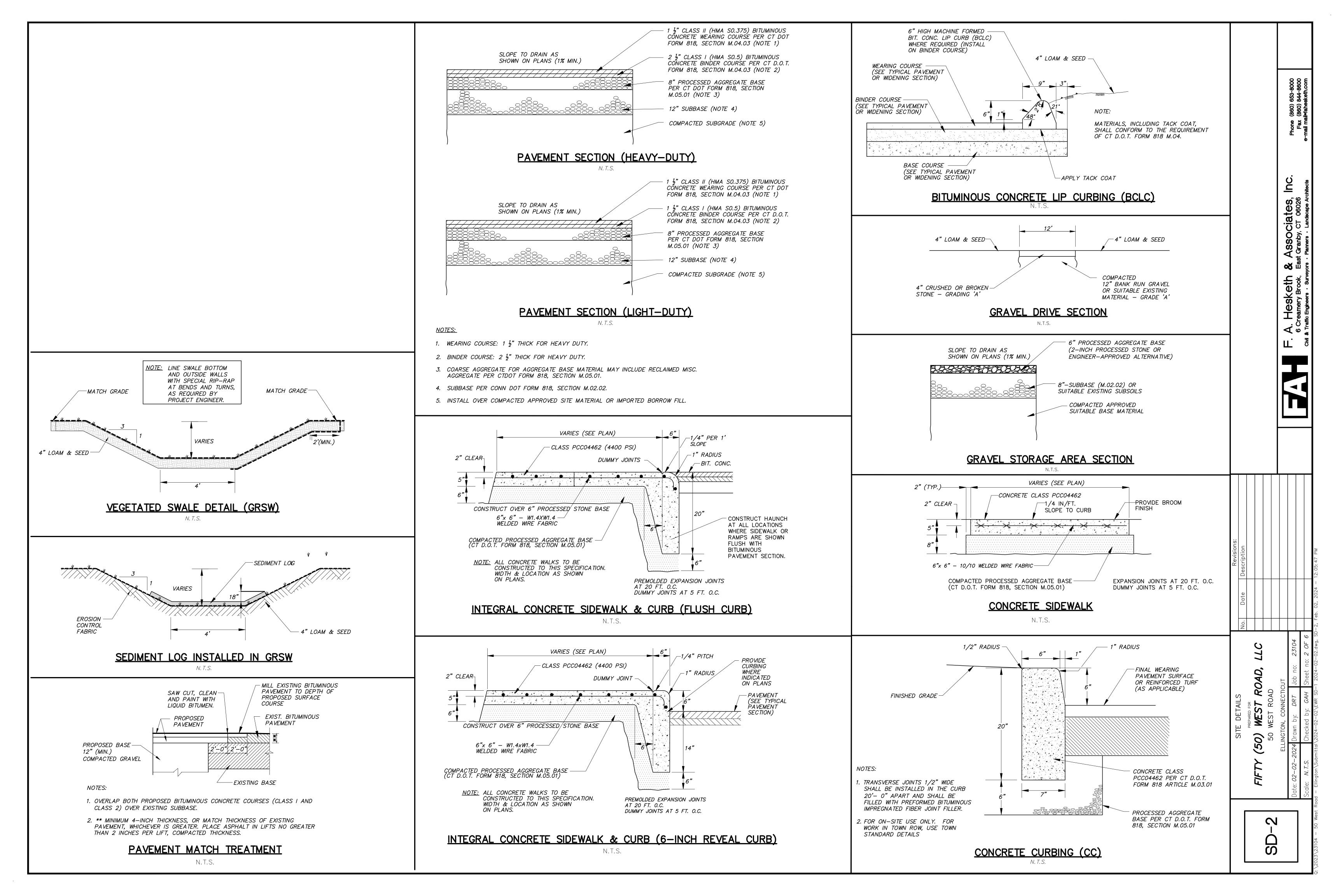
Specifica	tions	Staples Typ	e Weight per C	arton Staples	per Carton	
Property	Results	- 11 gaug	e 6" 43 lbs.	•	,000	
Fabric structure	Woven	8 gaug	e 6" 39 lbs.		500	
Yarn	Jute, undyed and unbleached	8 gaug	e 8" 50 lbs.		500	
Fabric width	48"	Typical usage: Approximately 200 staples per roll.				
Weight	.92 lbs./yd2*	Other lengths of staples available on request.				
Yarn count-Warp	78 per width, minimum		,	"		
Weft Water Absorption	42 per linear yard, minimum > 450% of fabric weight	Roll Packagir		d smolder resistant treated	rolls.	
Open Area	60-65%	•	(Cull of Write for currer	(Call or write for current product data sheet on smolder resistant fabric)		
Durability	1-2 years	Width x length	Type	Sq. Yards	Weight	
Coverage	approximately 50 rolls per acre. (using 100 yd? rolls)	48" x 225'	Regular	100	92 lbs.	
		48" x 225'	Smolder-resistant	100	97 lbs.	
*Smolder treatmen	t adds approximately .05 lb./yd?	48" x 147'	UPS size roll	65	60 lbs.	

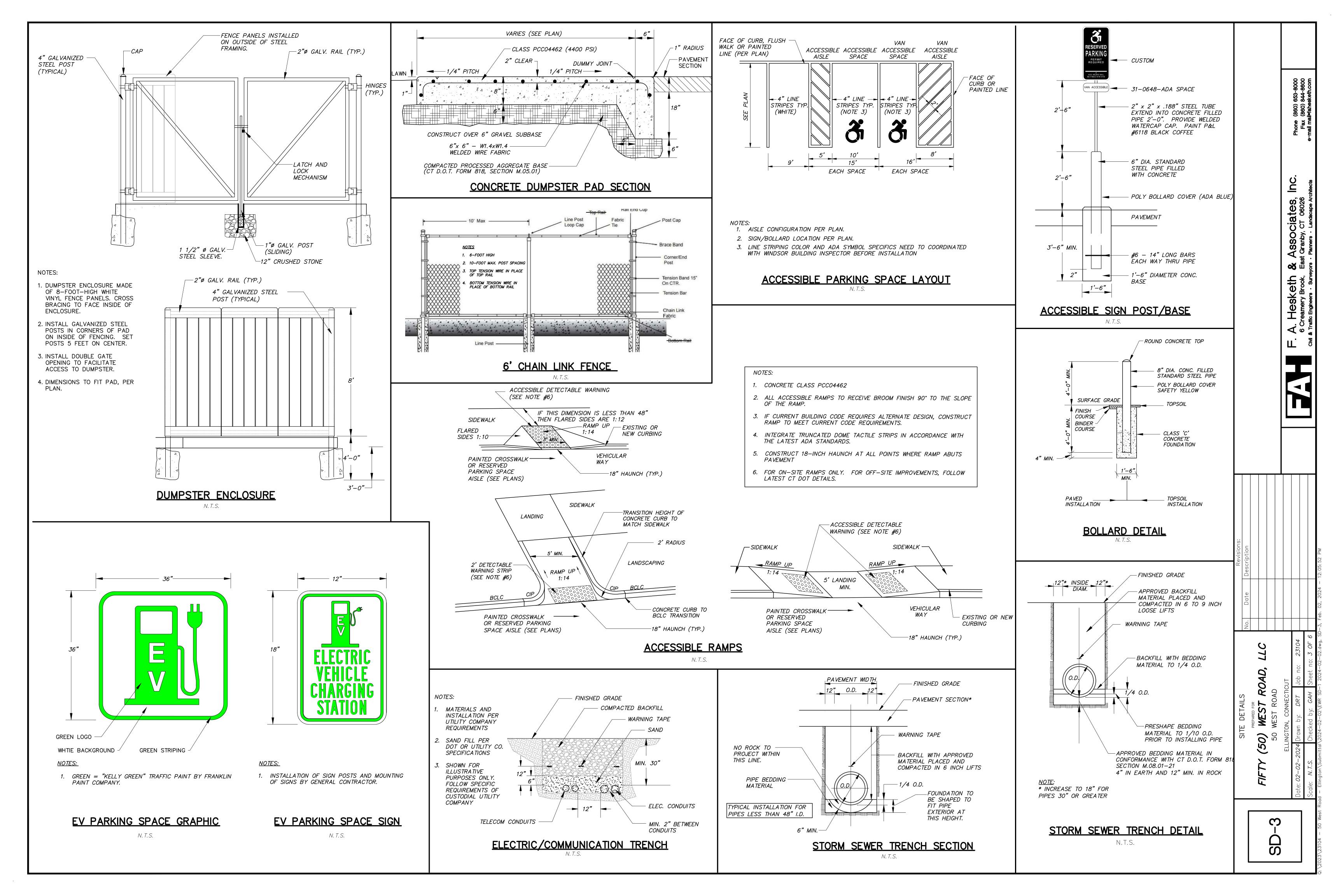
**Distributed By:** 

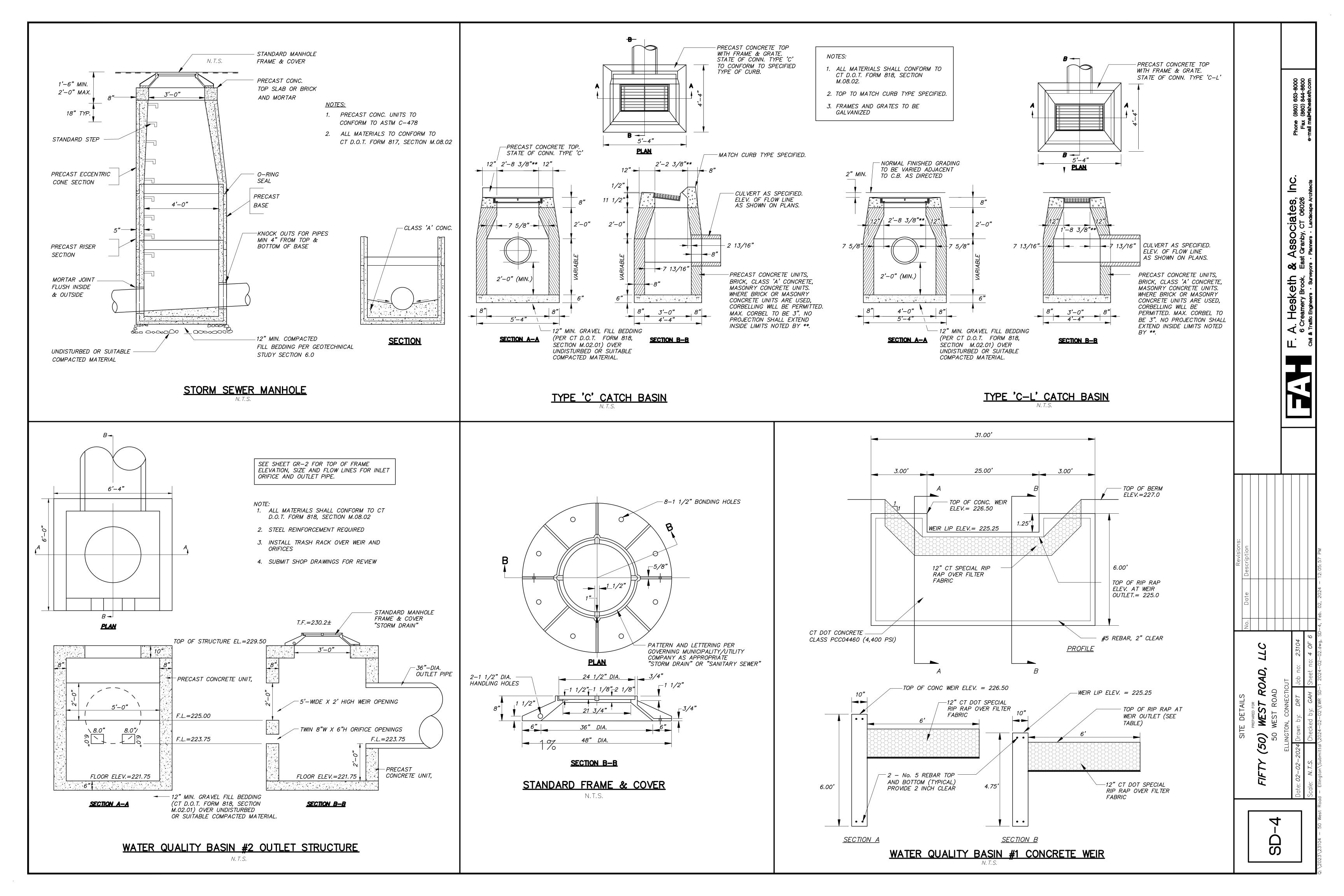
Belton Industries, Inc 8613 Roswell Rd. • Atlanta, GA 30350 • USA Toll Free: 1(800)225-4099 • Local: 1(404)587-0257 FAX: 1(404)992-6361 • Telex: 493-1930 (BITD UI)

EROSION CONTROL BLANKET (ECB)

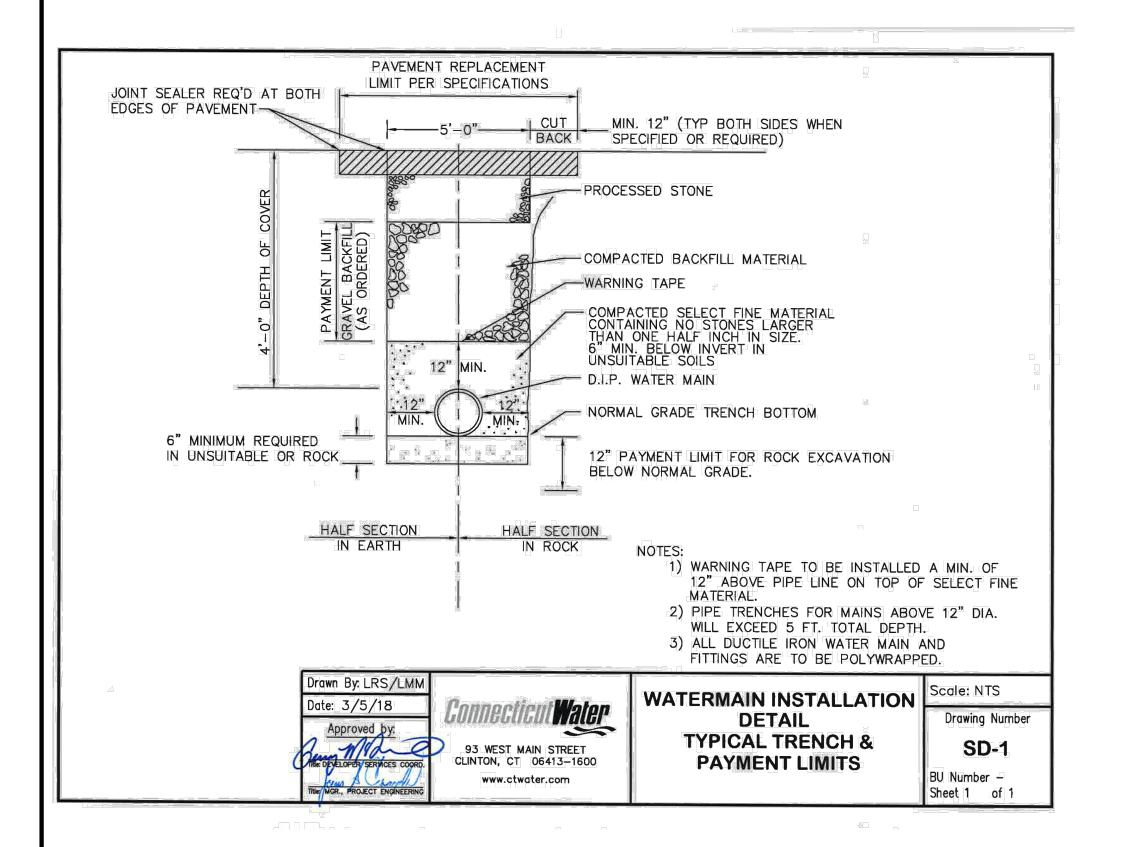
WEST **50)** 

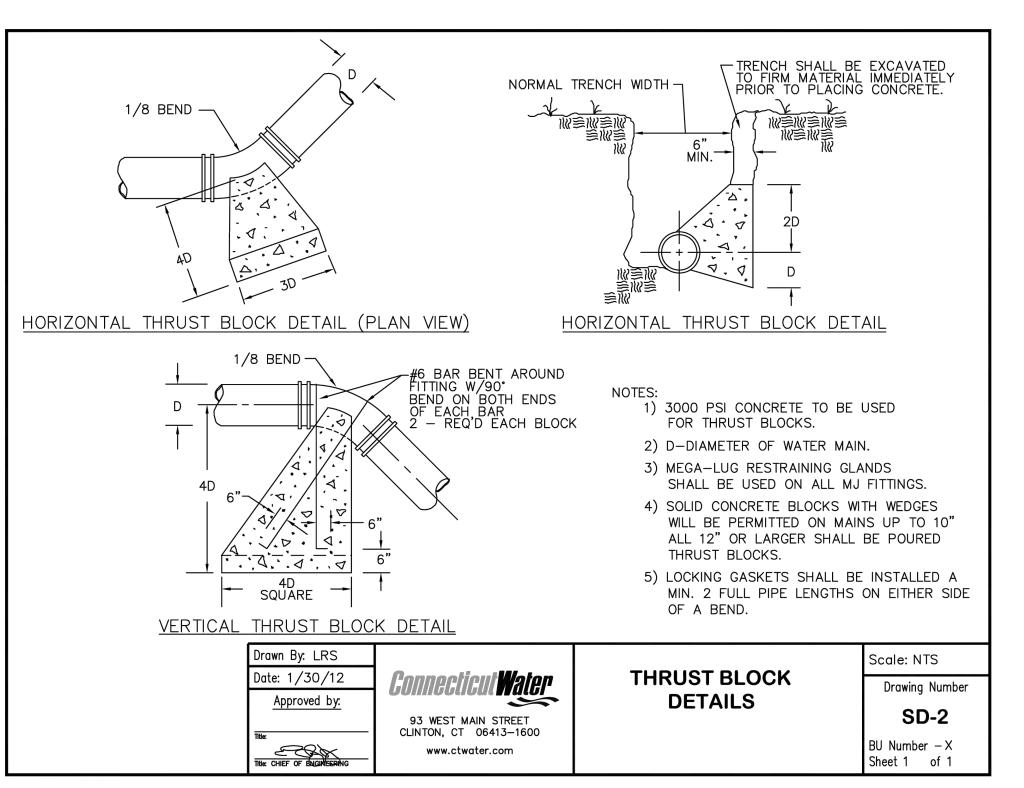


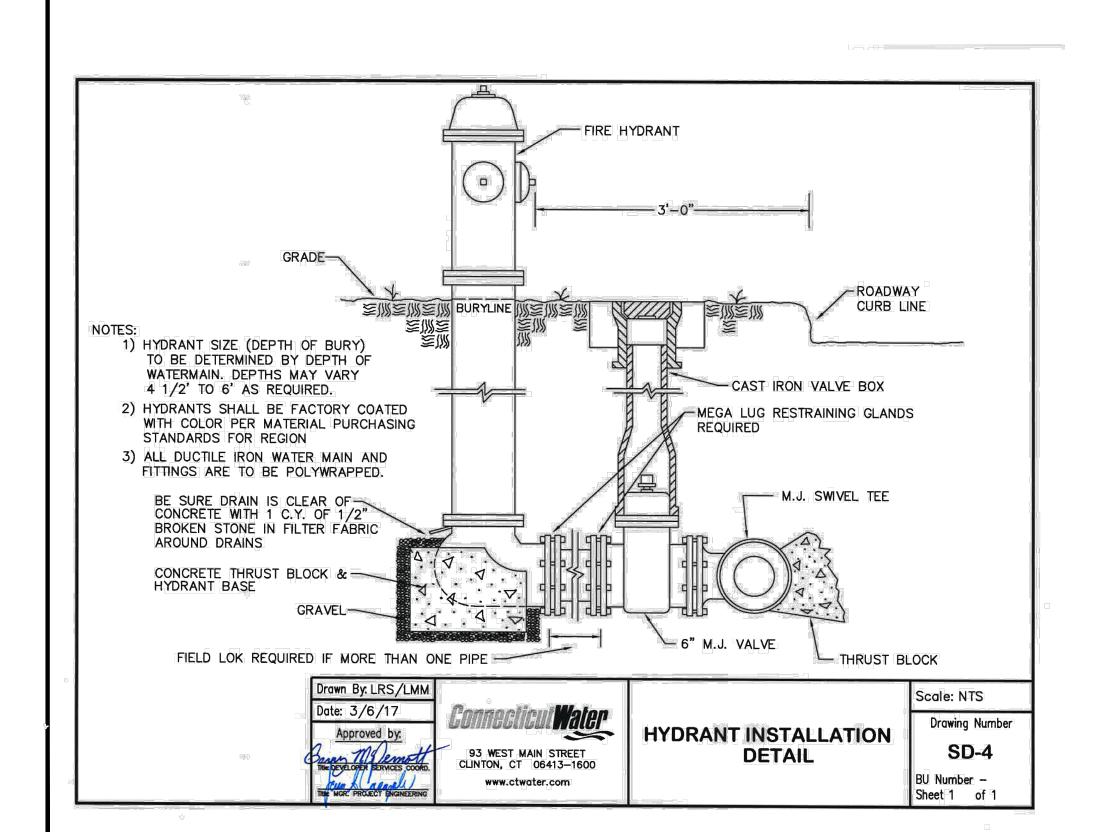


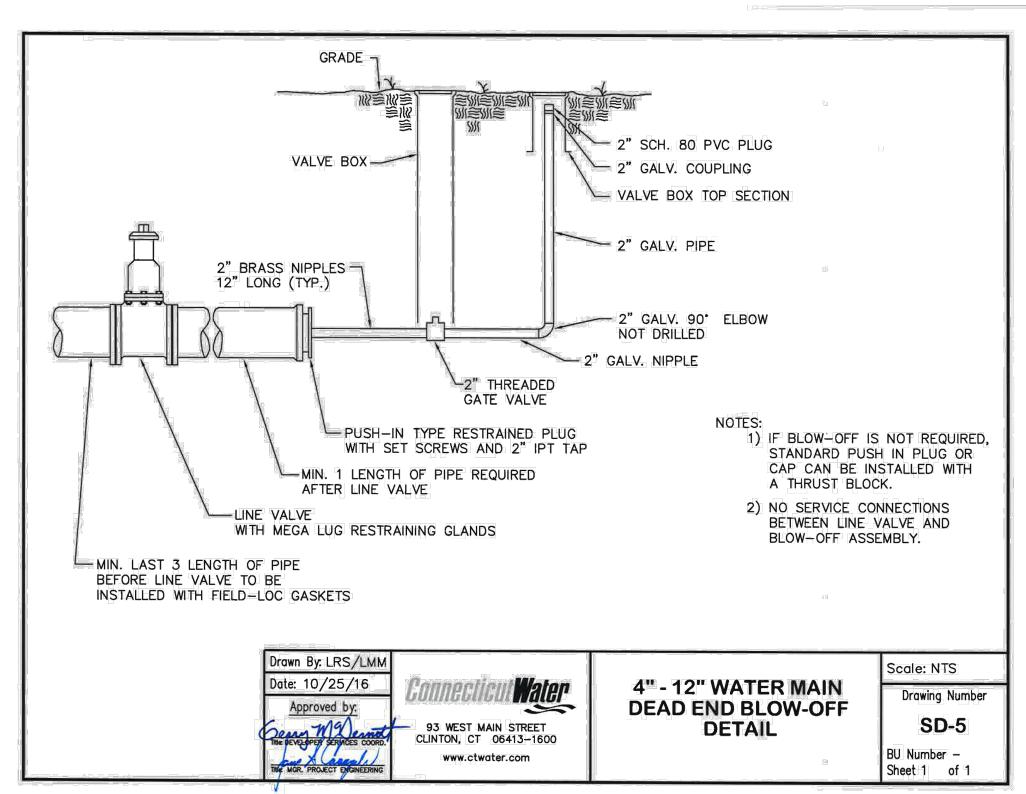


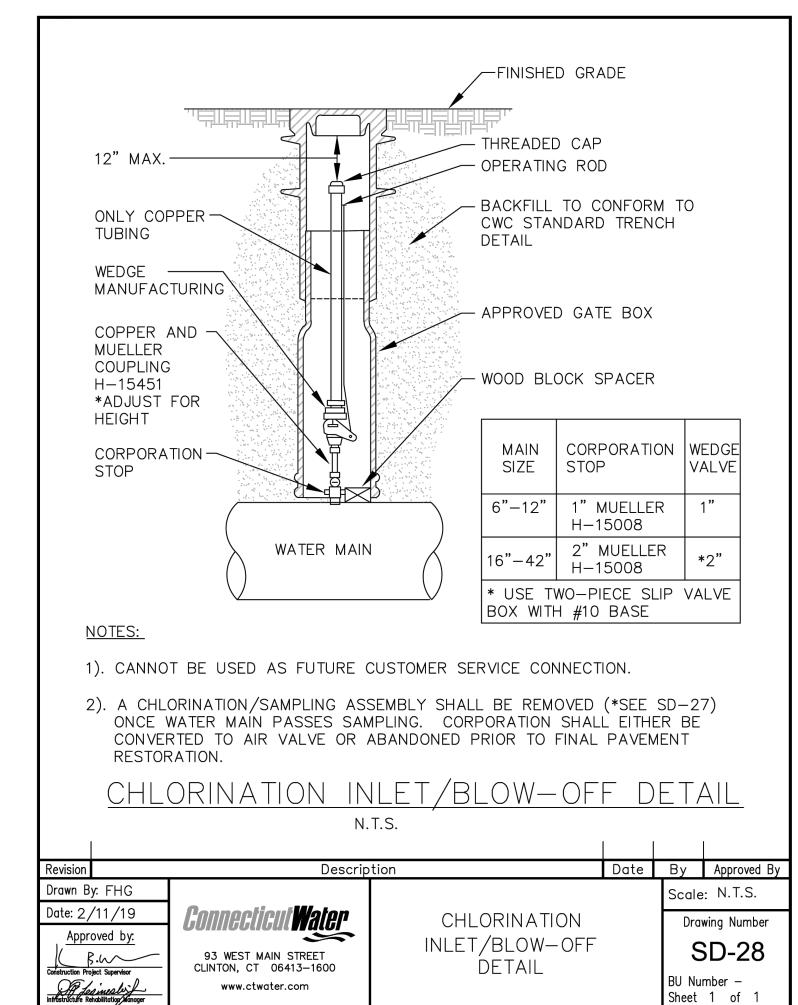
# Connecticut Water STANDARD DETAILS

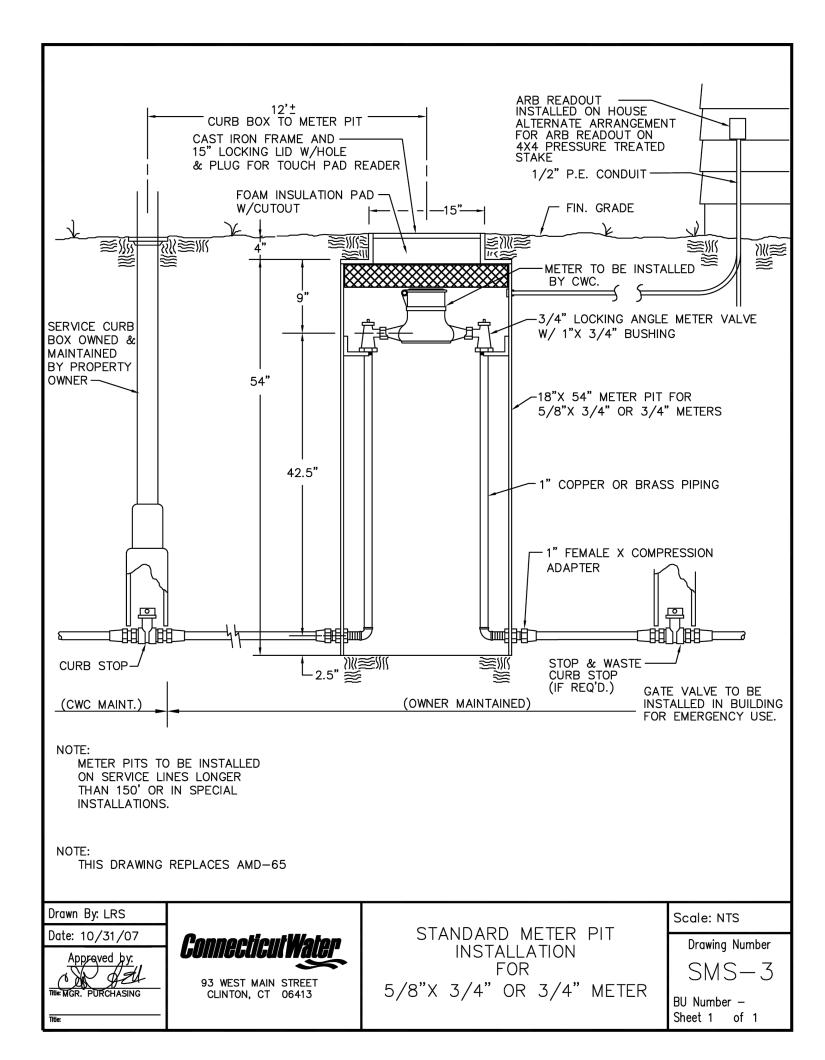


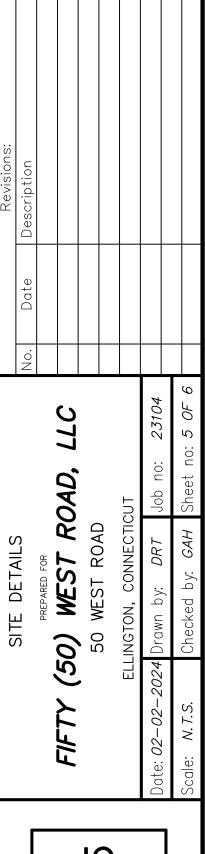




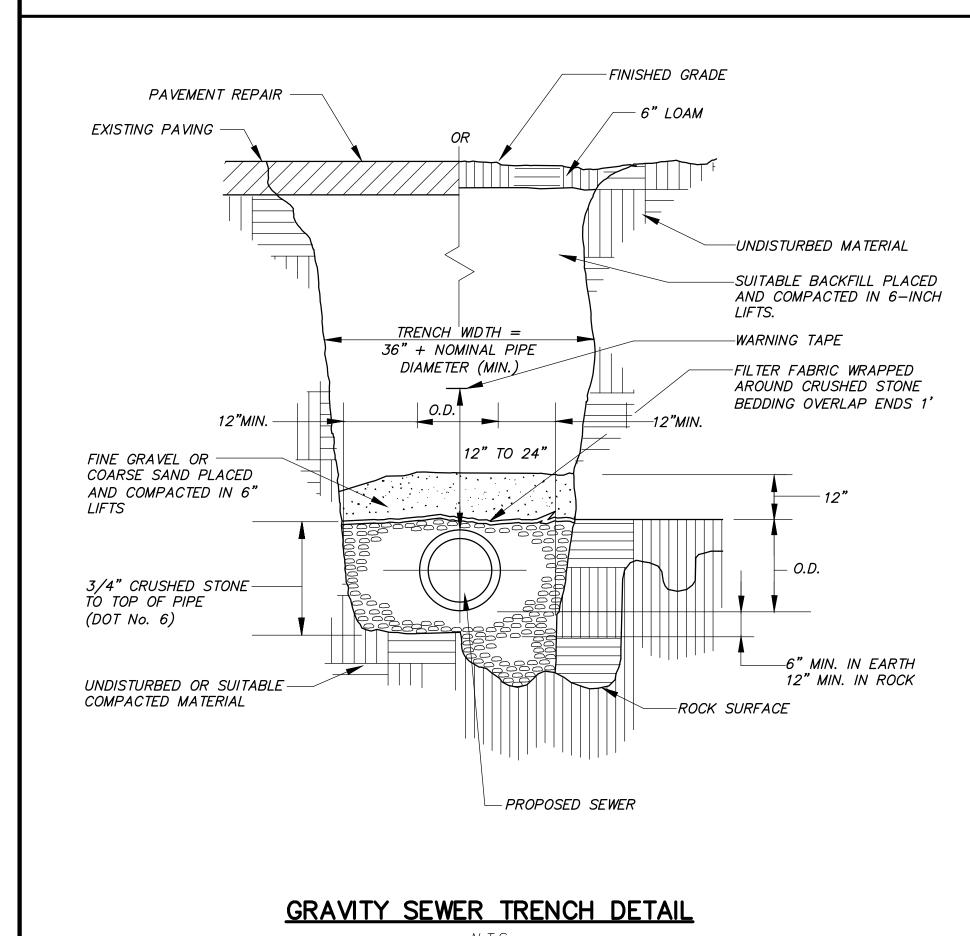








SD-5





Continue evenly backfilling between rows Small dozers and skid loaders may be and around perimeter until embedment used to finish grading stone backfill in stone reaches tops of chambers. sloped sidewalls. **Only after chambers** to rows. StormTech recommends that have been backfilled to top of chamber and with a minimum 6" (150 mm) of cover stone on top of damaged by construction shall be chambers can small dozers be used removed and replaced. over the chambers for backfilling remaining cover stone.

**Inserta Tee Detai** 

accordance with ground pressure limits in Perimeter stone must extend horizontally Table 2. They must push material parallel to the excavation wall for both straight or to rows only. Never push perpendicular the contractor inspect chambers before placing final backfill. Any chambers

SIDE VIEW

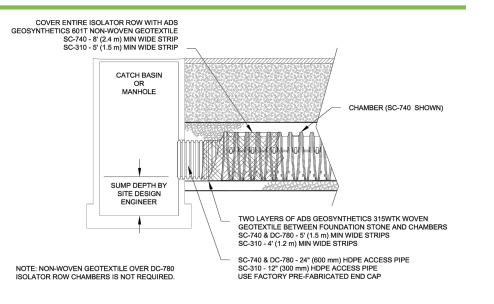
#### **Backfill - Embedment Stone & Cover Stone** Final Backfill of Chambers - Fill Material





Install non-woven geotextile over stone. Geotextile must overlap 24" (600 mm) min. where edges meet. Compact each lift of backfill as specified in the site design engineer's drawings. Roller travel parallel with rows.

#### **StormTech Isolator Row Detail**



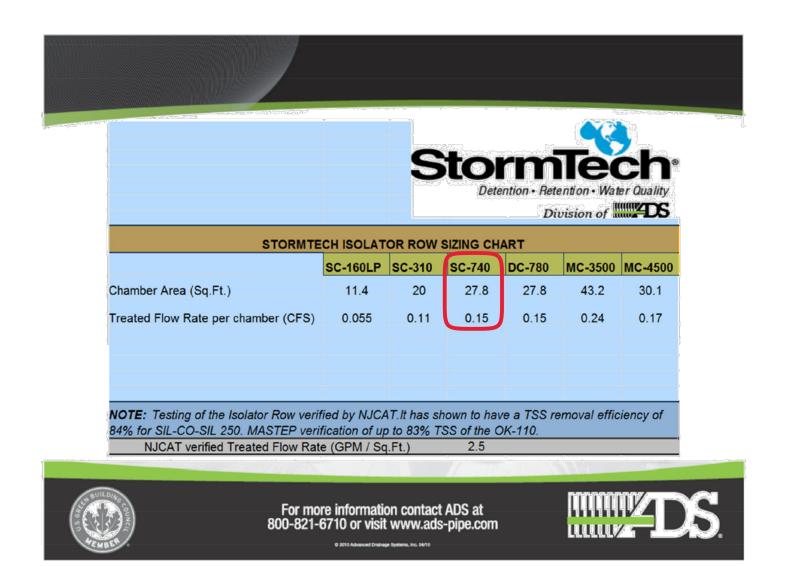
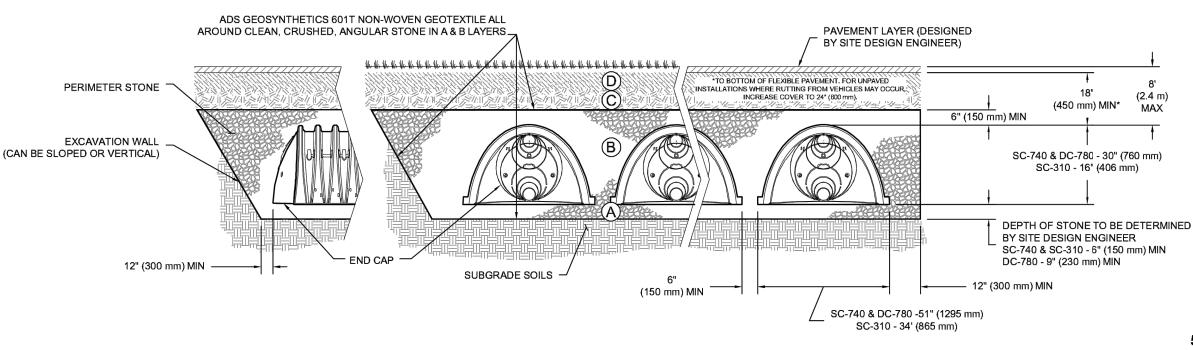
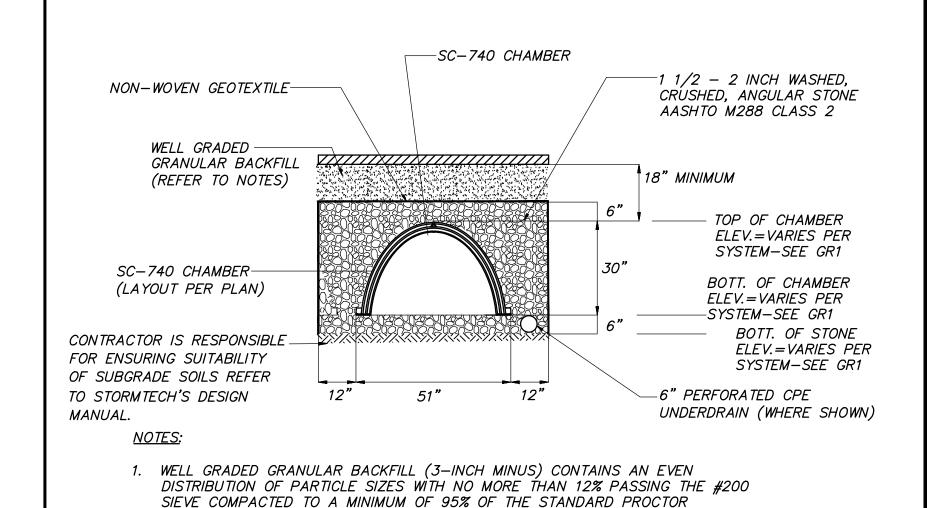


Figure 2 - Fill Material Locations

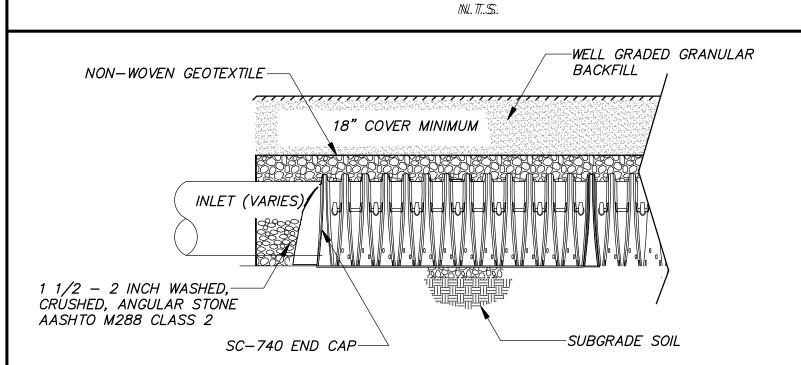


1. CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF STORMTECH SYSTEMS AND MANIFOLDS FOR APPROVAL BY DESIGN ENGINEERS

STORMTECH SC-740 CHAMBER SYSTEM INSTALLATION



#### TYPICAL CROSS SECTION

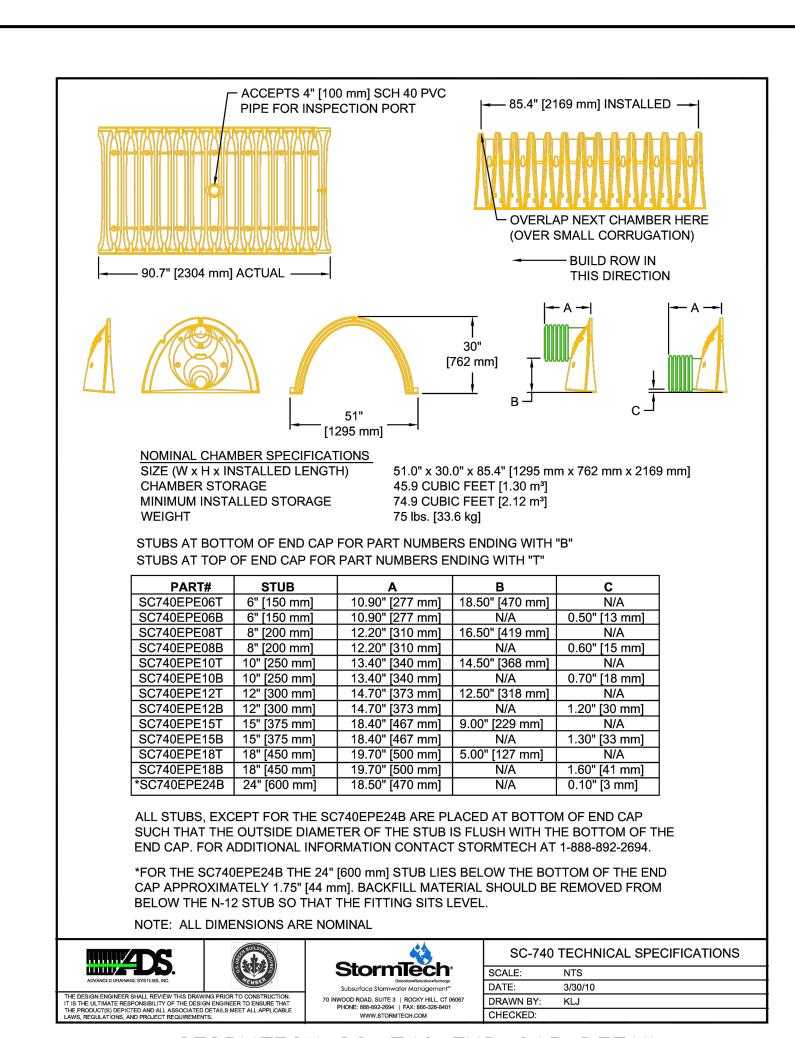


DENSITY. REFER TO THE TABLE OF ACCEPTABLE FILL MATERIALS IN

STORMTECH'S DESIGN MANUAL, INSTALLATION MANUAL, OR

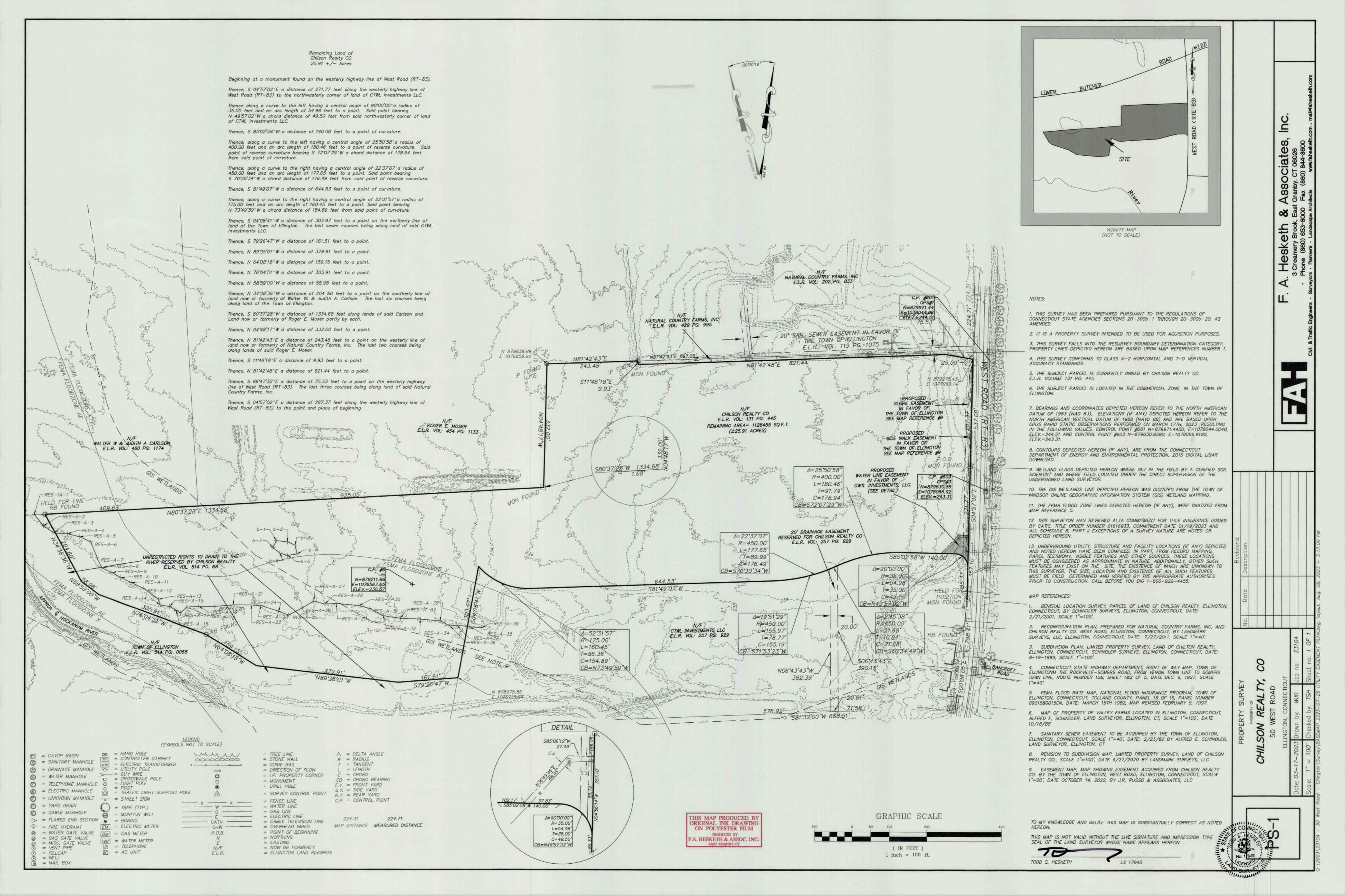
WWW.STORMTECH.COM.

#### TYPICAL PROFILE - INLET ROW



STORMTECH SC-740 END CAP DETAIL

**(50)** 50



### Town of Ellington Inland Wetlands and Watercourses Agency Application

Application # <u>Tw202405</u> Date Submitted <u>2/7/2024</u>

Notices as: unless other	sociated with this application will be sent to the applicant erwise requested.	Notices associated with this application will be sent to the application unless otherwise requested.
Owner'	s Information	Applicant's Information (if different than owner)
Name:	MCC Lake Properties Trust	Name: Same
Mailing Address:	1 Pinnacle Road	Mailing Address:
	Ellington, CT 06029	
Email:	mccouzens@gmail.com	Email:
WHEN NOT REQUIRED BY LAW TO MAIL NOTICE BY USPS, MAY NOTICES BE EMAILED TO YOU? ☐ Yes ☐ No		WHEN NOT REQUIRED BY LAW TO MAIL NOTICE BY USP MAY NOTICES BE EMAILED TO YOU? ☐ Yes ☐ No
Primary Contact Phone #: 860-214-4738		Primary Contact Phone #:
Secondary	Contact Phone #:	Secondary Contact Phone #:
Owner's Signature:	Manyur Canyum Mate: 2/7/24	Applicant's Signature: Date:
and accurate the applicati application i documents re above I/we e	elow I certify that all information submitted with this application is true to the best of my knowledge, that I am aware of and understand ion requirements and regulations, and acknowledge that the is to be considered complete only when all information and equired by the Agency have been submitted. Moreover, by signing expressly provide written consent to the filing of the application and e site by the Agency or its staff.	By signing below I certify that all information submitted with this application is and accurate to the best of my knowledge, that I am aware of and unders the application requirements and regulations, and acknowledge that application is to be considered complete only when all information documents required by the Agency have been submitted.
Street Ad	dress: 28 East Shore Road	TOWN OF ELLINGTON PLANNING DEPARTMENT
		and the state of t
Assessor	r's Parcel Number (APN): <u>169</u> <u>-</u> 035 <u>-</u>	0000
	r's Parcel Number (APN): $169$ - $035$ - d upland review area affected in square feet: $6$ ,	0000
Proposed		0000 400sf
Proposed Proposed	d upland review area affected in square feet: <u>6 ,</u>	0000 400sf and linear feet (as applicable): None
Proposed Proposed Total area Public Wa	d upland review area affected in square feet: <u>6,</u> d wetlands/watercourses affected in square feet a of wetlands/watercourses on parcel in square	and linear feet (as applicable): None  feet or acres: None  No If not served by public water and sewer, applicant shall me
Proposed Proposed Total area Public Wapplication Is the pro If YES, app within 7 da notice. App	d upland review area affected in square feet: 6, d wetlands/watercourses affected in square feet a of wetlands/watercourses on parcel in square feat ater: Yes No Public Sewer: Y	and linear feet (as applicable): _None  feet or acres: _None  No
Proposed Proposed Proposed Total area Public Waapplication Is the pro If YES, app within 7 da notice. App must be pro Describe nonregula	d upland review area affected in square feet: 6, d wetlands/watercourses affected in square feet a of wetlands/watercourses on parcel in square feater: Yes No Public Sewer: Yes No Public Sewer: Yes No North Central District Health Department (Enfield Office piect in a public water supply watershed area? District is required to notify the Connecticut Water Companys of this application (Conn. Gen Stat. Sec 22a-42f). Copplicant can email the Commissioner of Public Health using ovided to the Planning Department.	and linear feet (as applicable):None  feet or acres: _None  NoIf not served by public water and sewer, applicant shall make the properties of the public water and sewer, applicant shall make the public water and sewer
Proposed Proposed Proposed Proposed Total area Public Waapplication Is the pro If YES, app within 7 da notice. App must be pro Describe nonregula See attache	d upland review area affected in square feet: 6, d wetlands/watercourses affected in square feet a of wetlands/watercourses on parcel in square feater: Yes No Public Sewer: Yes	and linear feet (as applicable):None  feet or acres: _None  NoIf not served by public water and sewer, applicant shall make the properties of the public water and sewer, applicant shall make the public water and sewer
Proposed Proposed Proposed Proposed Proposed Froposed Proposed Pro	d upland review area affected in square feet: 6, d wetlands/watercourses affected in square feet a of wetlands/watercourses on parcel in square feet ater: Yes No Public Sewer: Y	and linear feet (as applicable):None  feet or acres: _None  NoIf not served by public water and sewer, applicant shall make if required.  Yes X No
Proposed Proposed Proposed Total area Public Waapplication Is the pro If YES, app within 7 da notice. App must be pro Describe nonregula See attache The ex	d upland review area affected in square feet: 6, d wetlands/watercourses affected in square feet a of wetlands/watercourses on parcel in square feet ater: Yes No Public Sewer: Y	and linear feet (as applicable): None  feet or acres: None  No If not served by public water and sewer, applicant shall make the properties of the public Health by certified mail, return received of application, plans, and supporting documents must accompage their approved form. Proof of notice (return receipt and sent emperating application)  set for acceptance of a permitted use as of right or a per activity requiring review by the Agency or its Agent:  then preparing application  get will be demolished and replaced
Proposed Proposed Proposed Total area Public Waapplication Is the pro If YES, app within 7 da notice. App must be pro Describe nonregula See attache The ex	d upland review area affected in square feet: 6, d wetlands/watercourses affected in square feet a of wetlands/watercourses on parcel in square feet ater: Yes No Public Sewer: Y	and linear feet (as applicable): None  feet or acres: None  No If not served by public water and sewer, applicant shall make the properties of the public Health by certified mail, return received of application, plans, and supporting documents must accompage their approved form. Proof of notice (return receipt and sent emperating application)  set for acceptance of a permitted use as of right or a per activity requiring review by the Agency or its Agent:  then preparing application  get will be demolished and replaced

Applicant shall provide certification in accordance with Wetlands Regulation, Section 7.4e, Application Requirements:								
	Whether or not any portion of the property on which the regulated activity is proposed is located within 500 feet of an adjoining town.   Yes   No							
	Whether or not a significant portion of the traffic to the completed project will use streets within an adjoining town to exit or enter the site.   Yes  No							
Wh imp	Whether or not a significant portion of the sewer or water drainage from the project will flow through and significantly impact the sewer or water drainage system of an adjoining town.   Yes No							
	nether water run-off from the improved site will impact streets or other municipal/private property within an adjoining vn. Tes 🗵 No							
If YES municip Notice within s	to any of the above, the Agency shall, in accordance with CGS 8-7d(f) notify the clerk of any adjoining pality of the pendency of any application, petition, appeal, request or plan concerning any project on any site. of the pendency of such application shall be made by certified mail, return receipt requested, and shall be mailed seven (7) days of the date of receipt of the application, petition, appeal, request or plan. (See Agency ements Section 8.4)							
Туре	of Project: (check one)							
C	ommercial/Industrial X Residential Mixed Use Timber Agricultural							
0	ther, explain:							
Туре	of Application: (check one)							
	Notification for Non-Regulated Use (Section 4.2)							
	Notification of Permitted Use as of Right (Section 4.1)							
	Administrative Permit (Section 6.4)							
X	Agency Permit (TWELVE COPIES REQUIRED)							
	Permit Modification							
	Permit Extension							
	Regulation Amendment							
	Map Amendment							
	Appeal of Administrative Permit							
Appli	cation Submittals:							
_X_	Completed Application Form (Section 7.4a)							
_X_	Application Fee (Section 7.4b)							
_X_	Abutters List (Section 7.4c)							
N/A	Certification as to Adjacent Towns (See above)							
<u>N/</u> A	Certification as to Connecticut Water Company & Commissioner of Public Health (See above)							
	Notification Narrative and Supporting Documentation (If applicable, Appendix D)							
_X_	Project Narrative and Supporting Documentation (Section 7.4g, 1-11 inclusive, as deemed applicable)							
<u>X</u>	Project Site Plan - circle one: Administrative (Section 7.4h1) / Agency (Section 7.4h2)							
	Supplemental Information (Section 7.5a-j, inclusive, as deemed applicable)							

#### GARDNER & PETERSON ASSOCIATES, LLC

PROFESSIONAL ENGINEERS • LAND SURVEYORS

178 HARTFORD TURNPIKE

TOLLAND, CONNECTICUT 06084

KENNETH R. PETERSON, L.S. ERIC R. PETERSON, P.E., L.S. MARK A. PETERSON, P.E.

TELEPHONE: (860) 871-0808 info@GardnerPeterson.com www.GardnerPeterson.com

#### **Inland Wetland Agency Permit Application Narrative**

MCC Lake Properties Trust 28 East Shore Road Ellington, Connecticut

The owner/applicant, MCC Lake Properties Trust, would like to tear down the existing detached garage and house at 28 East Shore Road in order to construct a new home. The parcel is bound by other residential properties to the north, east and south and abuts Crystal Lake to the west.

The parcel currently contains a house, detached garage and a boathouse with a deck near the lake. The land slopes from east to west and the area within the upland review area is generally a lawn with a few trees. This application proposes to construct a portion of the new house, a walkway, lakeside sitting area and a water treatment collection area, if necessary, and sewer pump chamber within the upland review area. The site work within the 100' upland review area will disturb 6,400sf of land. The new house will be served by a private well and sanitary sewer. The site disturbance outside the upland review area includes the removal of the existing garage, house and walkway and the construction of a retaining wall, parking area, house, driveway and utility connections. The total proposed site disturbance is 0.3 acres.

The permit plan depicts erosion and sediment control measures in plan view an in detail. These measures include siltfence, haybales, stockpile area, anti-tracking pad and a seeding schedule.

Site construction is expected to commence in the spring of 2024 which is commence with the lakeside improvements and removal of the existing garage. The second phase of construction consists of the removal and construction of the new house and associated utilities which will commence after the first phase is complete. All trees, stumps and excess soil will be removed from the site.

An inland wetland application (IW202316) was approved at this site on October 16, 2023 for the construction of a lakeside wall.

IWC Narrative.doc

#### **ELLINGTON PLANNING DEPARTMENT**

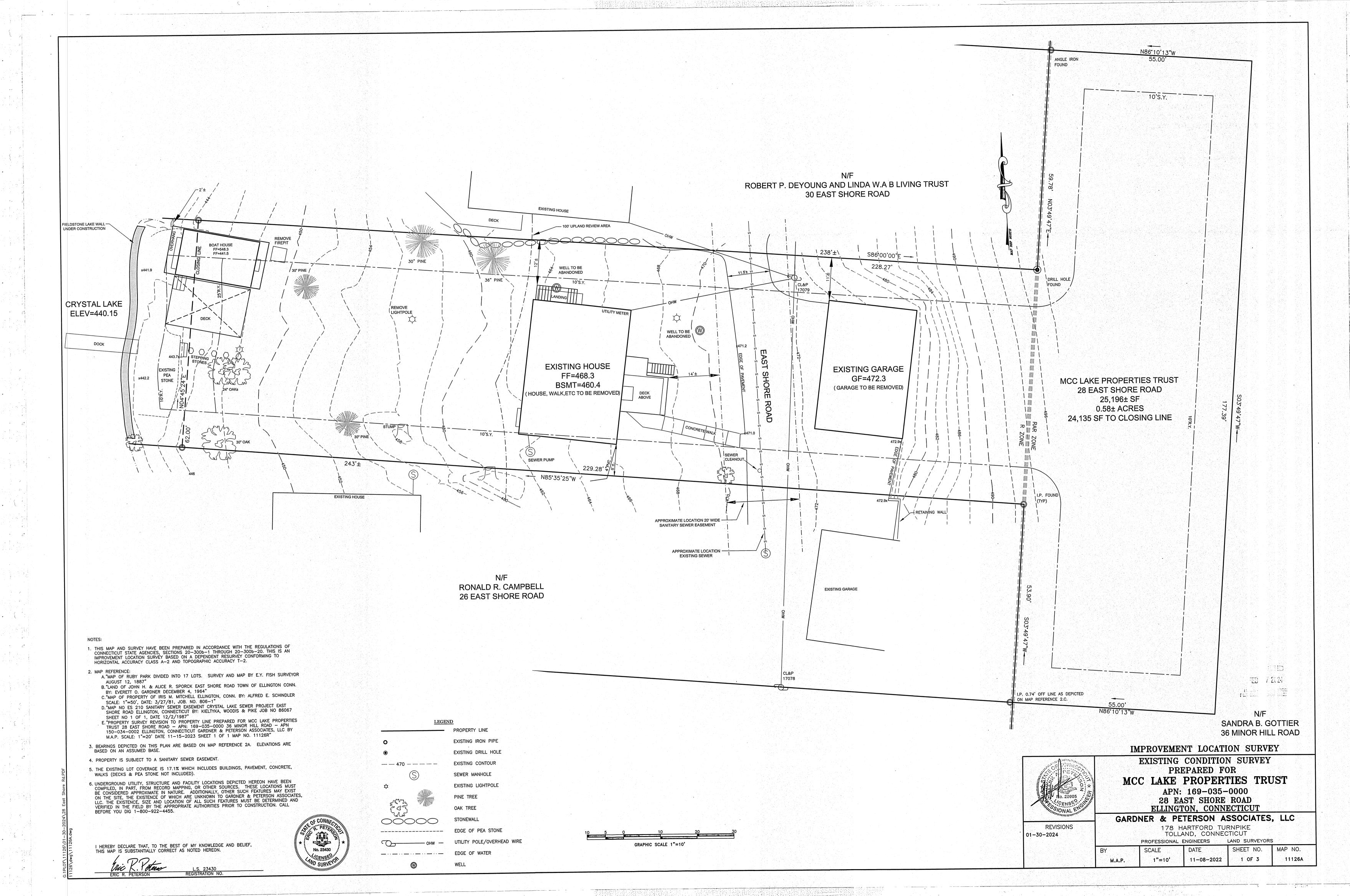
STAFF REVIEW SHEET

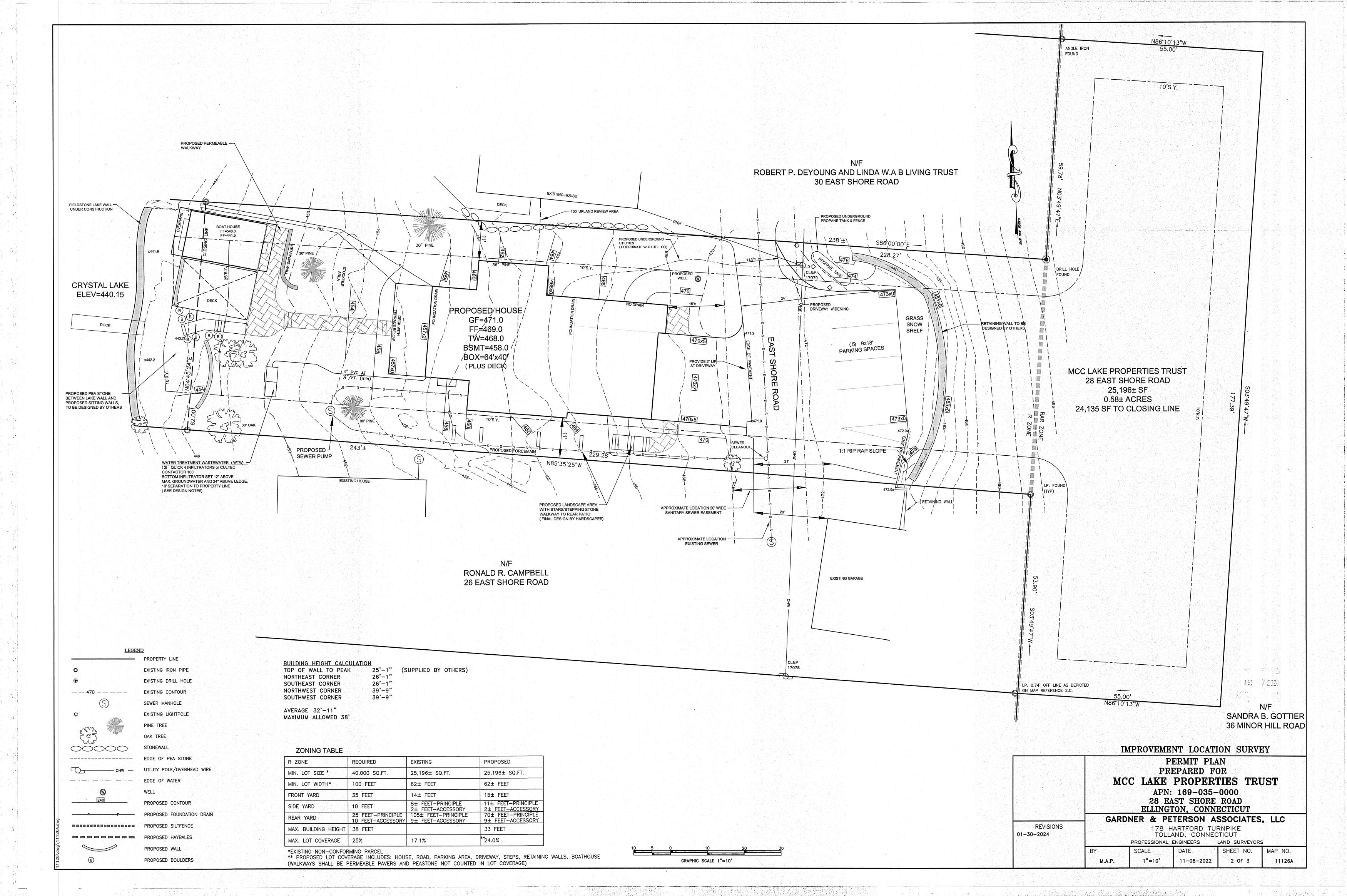
#### Inland Wetland Agency

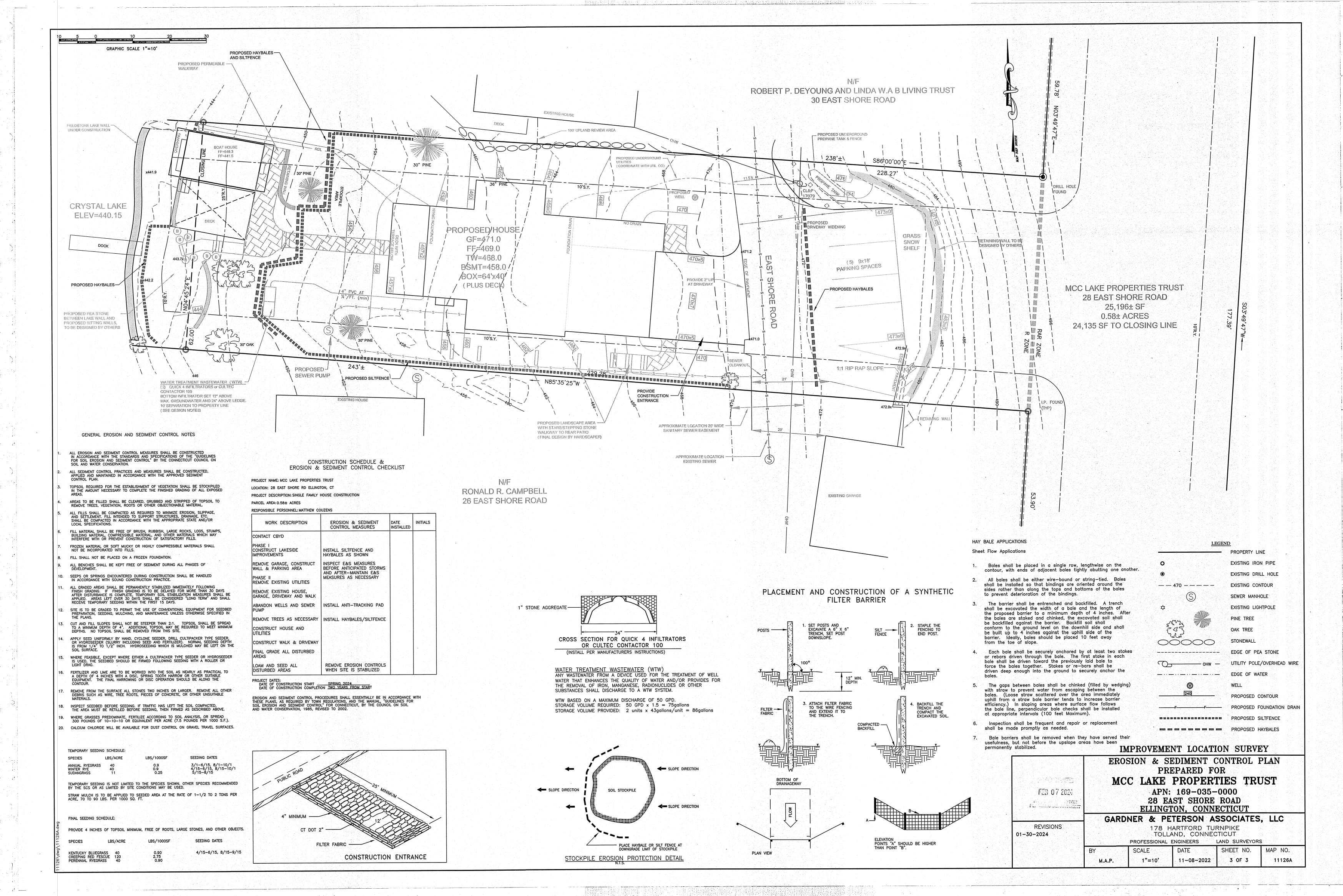
**IW202405** – MCC Lake Properties Trust owner/applicant request for permit to conduct regulated activity to demolish and rebuild the existing home, garage, patio, parking and associated improvements to 28 East Shore Road, APN 169-035-0000.

PUBLIC HEARING DATE: March 11, 2024 STAFF REVIEW RETURN DATE: March 6, 2024

DEPARTMENT	COMMENTS AND/OR REQUIREMENTS
Town Engineer	
Building Official	
North Central District Health Dept	
Fire Marshal	
Public Works Director/WPCA	DPW- No Comment.  WPCA- The plan shows a relocation of the grinder pump.  The homeowner will assume all responsibilities for the grinder pump after relocation. WPCA must be contacted & scheduled for inspections, permits & disconnection of existing grinder pump.
Assessor	
Traffic Authority	
Ambulance	









#### STATE OF CONNECTICUT – COUNTY OF TOLLAND INCORPORATED 1786

#### TOWN OF ELLINGTON

55 MAIN STREET – PO BOX 187 ELLINGTON, CONNECTICUT 06029-0187 www.ellington-ct.gov

TEL. (860) 870-3120 **TOWN PLANNER'S OFFICE** 

FAX (860) 870-3122

#### INLAND WETLANDS AGENCY REGULAR MEETING MINUTES MONDAY, FEBRUARY 12, 2024, 7:00 P.M.

IN PERSON ATTENDANCE: TOWN HALL ANNEX, 57 MAIN STREET REMOTE ATTENDANCE: ZOOM MEETING (ATTENDEES BELOW WERE IN PERSON UNLESS OTHERWISE NOTED)

PRESENT: Vice Chairman Katherine Heminway, Regular members Ken Braga, Ron Brown, Steve

Hoffman, and Alternate Jon Kaczmarek

**ABSENT:** Chairman Jean Burns, Regular member Hocine Baouche and Alternate Ryan Orszulak

**STAFF** 

PRESENT: John Colonese, Assistant Town Planner/Wetland Enforcement Officer and Barbra

Galovich, Land Use Assistant/Recording Clerk

I. CALL TO ORDER: Vice Chairman Katherine Heminway called the Ellington Inland Wetlands Agency meeting to order at 7:00 pm.

II. PUBLIC COMMENTS (on non-agenda items): None

#### **III. PUBLIC HEARINGS:**

 IW202401 – Kaz & Bogumila Podbielski, owner/applicant, request for permit to construct a singlefamily home, driveway, pipe culvert and associated improvements at 266 Crystal Lake Road, APN 083-018-0000.

Time: 7:01 pm

Seated: Heminway, Braga, Brown, Hoffman, and Kaczmarek

Vice Chairman Heminway noted a Wetlands Permit was approved for similar activity on July 18, 2005 (Permit No. IW200525) as part of the subdivision approval of 264 and 266 Crystal Lake Road. The parcel, now owned by Podbielski (266 Crystal Lake Road), was never developed and the wetlands permit subsequently expired. The site plan and pipe culvert sizing were reviewed by the Town Engineer and there are no comments. North Central District Health Department approval is required for the septic system and well prior to the issuance of a construction permit for the home.

Authur Podbielski, 27 Green Street, was present to represent the application. Authur stated the original wetlands permit was granted to Joseph MacVarish who was the owner at the time of the subdivision approval. The pipe size is proposed to be 40 feet long with a 30-inch diameter. Authur noted silt fence and haybales will be installed to protect the wetland area as shown. Commissioner Hoffman asked what the timeframe is for the project. Aurthur responded they would like to start construction upon all approvals in the spring, there will be a turnaround added to the driveway.

Commissioner Brown requested the applicant ensure the wetlands will be protected during the construction on the site. No one from the public commented on the application.

MOVED (BRAGA) SECONDED (BROWN) AND PASSED UNANIMOUSLY TO MAKE A DETERMINATION OF A SIGNIFICANT ACTIVITY FOR IW202401.

MOVED (BRAGA) SECONDED (BROWN) AND PASSED UNANIMOUSLY TO CLOSE THE PUBLIC HEARING FOR IW202401 – Kaz & Bogumila Podbielski, owner/applicant, request for permit to construct a single-family home, driveway, pipe culvert and associated improvements at 266 Crystal Lake Road, APN 083-018-0000.

MOVED (BRAGA) SECONDED (HOFFMAN) AND PASSED UNANIMOUSLY TO APPROVE WITH CONDITION(S) FOR IW202401 – Kaz & Bogumila Podbielski, owner/applicant, request for permit to construct a single-family home, driveway, pipe culvert and associated improvements at 266 Crystal Lake Road, APN 083-018-0000. FINDING THAT THERE IS NO FEASIBLE AND PRUDENT ALTERNATIVE TO THE PROPOSED WATERCOURSE CROSSING.

#### Condition(s):

1. Erosion control measures shall be installed then inspected by the wetlands agent prior to activity and remain operational until the site is stabilized.

#### IV. OLD BUSINESS: None

#### V. NEW BUSINESS:

1. IW202402 - Town of Ellington, owner/ Ad Hoc Ellington Trails Committee, applicant, request for acceptance to install a 36-foot bridge and extend 500 feet of trail as nonregulated uses on an open space parcel off of Windermere Avenue, APN 017-023-0000.

Linda Anderson, 9 Tolland Turnpike, Valerie Amsel, 102 Reeves Road and Tom Palshaw, 120 Pinney Street were present to represent the application. Linda explained the Trails Committee would like to extend the east spur trail and install a foot bridge for the public to have access to the river for bird watching and fishing. Valerie noted they will be using hand tools and possibly a small machine to transport materials to and from the area. Tom explained they would like to create a foot bridge to get across a wet area. Commissioner Hoffman asked what materials will be used to construct the walk bridge. Valerie noted they plan to use pressure treated 4X4 posts and frame with Trex decking. They don't want to disturb the area beyond the construction of the bridge. Commissioner Hoffman requested the use of steal posts instead of pressure treated wood to anchor the bridge. Commissioner Hoffman asked when the Trail Committee intends to do the work. Linda replied as soon as possible, weather permitting, as the area needs to dry up a little more before construction can begin.

**MOVED (HOFFMAN) SECONDED (BRAGA) AND PASSED UNANIMOUSLY TO ACCEPT IW202402** - Town of Ellington, owner/ Ad Hoc Ellington Trails Committee, applicant, request for acceptance to install a 36-foot bridge and extend 500 feet of trail as nonregulated uses on an open space parcel off of Windermere Avenue, APN 017-023-0000.

2. IW202403 – CT Water Company, owner/ Lori Lichtenauer, applicant, request to accept notification of a timber harvest permitted as of right on 5 Snipsic Lake Road, APN 067-001-0000 and Snipsic Lake Road, APN 057-016-0000.

Lori Lichtenauer, 1 Kennedy Avenue, Unit 5403, Danbury, CT was present via Zoom to represent the application. Lori explained roughly 110 board feet will be harvested and the bid winning logger will need to install one temporary bridge crossing a stream to haul the materials from one small location. Lori pointed out the wetlands on one of the parcels and how the timber harvest would be

conducted. Commissioner Hoffman asked how large the harvest area will be. Lori stated it will be around 25 acres out of the 28 acres of land. Commissioner Hoffman asked about the time frame of the proposed harvesting. Lori noted the project will have to go out to sale first, so she anticipates it occurring in the summer. Commissioner Hoffman requested that the logger notify the town prior to commencement of the timber harvest.

**MOVED (BRAGA) SECONDED (KACZMAREK) AND PASSED UNANIMOUSLY TO ACCEPT IW202403** – CT Water Company, owner/ Lori Lichtenauer, applicant, request to accept notification of a timber harvest permitted as of right on 5 Snipsic Lake Road, APN 067-001-0000 and Snipsic Lake Road, APN 057-016-0000.

- 3. IW202404 Fifty (50) West Road LLC, owner/applicant request for permit to conduct regulated activity to construct water quality basins and associated improvements to serve adjacent industrial and commercial development at 50 West Road, APN 019-005-0000.
  - BY CONSENUS, THE AGENCY RECEIVED AND SCHEDULED A PUBLIC HEARING ON MARCH 11, 2024, 7PM, TOWN HALL ANNEX, 57 MAIN STREET, ELLINGTON, AND ZOOM VIDEO CONFERENCING FOR IW202404 Fifty (50) West Road LLC, owner/applicant request for permit to conduct regulated activity to construct water quality basins and associated improvements to serve adjacent industrial and commercial development at 50 West Road, APN 019-005-0000.
- 4. IW202405 MCC Lake Properties Trust owner/applicant request for permit to conduct regulated activity to demolish and rebuild the existing home, garage, patio, parking and associated improvements to 28 East Shore Road, APN 169-035-0000.

BY CONSENUS, THE AGENCY RECEIVED AND SCHEDULED A PUBLIC HEARING ON MARCH 11, 2024, 7PM, TOWN HALL ANNEX, 57 MAIN STREET, ELLINGTON, AND ZOOM VIDEO CONFERENCING FOR IW202405 – MCC Lake Properties Trust owner/applicant request for permit to conduct regulated activity to demolish and rebuild the existing home, garage, patio, parking, and associated improvements at 28 East Shore Road, APN 169-035-0000.

#### **VI. ADMINISTRATIVE BUSINESS:**

1. Approval of the January 22, 2024, Regular Meeting Minutes.

MOVED (BRAGA) SECONDED (BROWN) AND PASSED UNANIMOUSLY TO APPROVE JANUARY 22, 2024, REGULAR MEETING MINUTES AS WRITTEN.

- 2. Election of Officers.
  - a. Chairman

MOVED (BRAGA) SECONDED (HEMINWAY) TO NOMINATE COMMISSIONER BURNS FOR CHAIRMAN OF THE INLAND WETLANDS AGENCY FOR THE YEAR OF 2024.

COMMISSIONER BURNS ACCEPTED THE NOMINATION.
HEARING NO FURTHER NOMINATIONS, NOMINATIONS CLOSED.
MOVED (HEMINWAY) SECONDED (BRAGA) PASSED UNANIMOUSLY TO ELECT
COMMISSIONER BURNS FOR CHAIRMAN OF THE INLAND WETLANDS AGENCY FOR
THE YEAR OF 2024.

b. Vice-Chairman

MOVED (BRAGA) SECONDED (BROWN) TO NOMINATE COMMISSIONER HEMINWAY FOR VICE-CHAIRMAN OF THE INLAND WETLANDS AGENCY FOR THE YEAR OF 2024.

COMMISSIONER HEMINWAY ACCEPTED THE NOMINATION.
HEARING NO FURTHER NOMINATIONS. NOMINATIONS CLOSED.

MOVED (KACZMAREK) SECONDED (HOFFMAN) PASSED UNANIMOUSLY TO ELECT COMMISSIONER HEMINWAY FOR VICE-CHAIRMAN OF THE INLAND WETLANDS AGENCY FOR THE YEAR OF 2024.

- 3. Correspondence/Discussion:
  - a. CT DOT Route 140 Roadway Realignment Project Crystal Lake Road and Burbank Road.

John Colonese noted the contractor for the CT DOT Route 140 project at Cystal Lake & Burbank Road contacted the Planning Department as they will be using parcel no. 128-041-0001 for their temporary work trailers and material staging area. They will use erosion control measures for any materials that are erodible, and the project is expected to last through the end of 2025.

- b. February 5, 2024, letter from the CT Siting Council for Petition 1589 for a 3MW solar facility at 360 Somers Road, vote to issue declaratory ruling failed.
- c. 117 West Shore Road Replace existing shed.

John Colonese explained the owner of 117 West Shore Road would like to replace their existing shed and add some gravel for the base, as the current shed is on cement blocks. The Agency agreed Mr. Colonese could handle this proposed activity administratively.

#### VII. ADJOURNMENT:

MOVED (BRAGA) SECONDED (BROWN) AND PASSED UNANIMOUSLY TO ADJOURN FEBRUARY 12, 2024, REGULAR MEETING OF THE INLAND WETLANDS AGENCY AT 7:46PM.

Respectfully submitted,		
Barbra Galovich, Recording Clerk		

#### **COMMON QUESTIONS:**

## CONSTRUCTING WETLAND BOARDWALKS AND TRAILS



#### Prepared by:

Jon Kusler Association of State Wetland Managers, Inc.

#### In Cooperation With:

The International Institute for Wetland Science and Public Policy

#### **PREFACE**

This guide was prepared for land trusts, watershed councils, federal, state, and local land management agencies, landowners and others interested in wetland education, ecotourism or related subjects. The summary is based upon a series of studies and workshops conducted by the Association of State Wetland Managers (ASWM) including a survey of approximately 100 wetland interpretive sites in preparing a publication J. Kusler et. 1993 Wetland Interpretation and Ecotourism, Association of State Wetland Managers. Most of these sites involved the construction of a boardwalk and trail. This guide is also based upon three ecotourism workshops conducted by the ASWM and inputs from many individuals who have constructed wetland boardwalks and trails over the last decade.

Preparation of this guide was funded by the U.S. Environmental Protection Agency, Region 2, Division of Wetlands. The opinions expressed in the document are the author's and do not necessarily reflect the view of the sponsoring organizations and groups.

Photos by Jon Kusler, Association of State Wetland Managers, Inc., Berne, New York

It is very difficult to construct a railing system which will totally protect children. Some railings are designed with three or more horizontal rails (near the deck, half way up, and at the top of the railing supports) to obtain this result. But even than, a determined child may be able to squeeze between the railings. Some boardwalks utilize wire mesh to prevent this, but wire mesh is also not attractive.

#### What sort of materials should be used for boardwalk construction?

A. Most boardwalks are constructed of pressure treated four by four's or six by sixes (pilings) with two by six or two by eight cross members and two by six or two by eight deck material. However, some boardwalks also use two by tens for decking and cross members for longer spans or heavy use.

There has been some concern that chemicals from pressure treated wood may pollute nearby waters although there is apparently little empirical evidence to support this. Increasingly, plastic composites are used for boardwalk construction as an alternative to wood. However, they are quite expensive. In addition, some of the composites are brittle in freezing conditions and easily split when under even modest tension.

Most boardwalks use galvanized nails or screws to secure the decking. Bolts (stainless steel preferred but expensive) are usually used to secure cross members to the pilings. Screws and bolts are preferable to nails because nails can work themselves out with the flexing of the boardwalk. But nails are, of course, cheaper.

#### How can boardwalks be constructed to reduce potential flood damages?

A. Flooding is a particular concern in boardwalk construction for wetlands adjacent to major lakes, rivers, or estuaries since many boardwalks in these locations suffer flood damage. Water levels in many wetlands typically fluctuate two to five feet during spring runoff or rainy periods for many inland wetlands. Water level fluctuations of 10-feet or more are common for 100-year flood events for many riverine, coastal, and estuarine wetlands. Boardwalks constructed of wood typically float if not firmly attached. If firmly attached to pilings they may survive submergence for a period of hours or a few days. But, few can survive prolonged wave action and flowing water. Flowing water combined with upward buoyancy forces will often tear sections of a boardwalk from their pilings.

Fluctuating water levels pose a dilemma in boardwalk construction. In an ideal world, the deck of a boardwalk would be raised above anticipated flood elevations. But, this may be unsightly and impractical. On the other hand, few not for profits or local governments have sufficient funds to repeatedly rebuild a boardwalk each year.

Several strategies are available to address potential flood and erosion problems. They can often be combined.

• The first is to elevate the boardwalk enough to deal with yearly flooding (e.g., a foot or two of flooding) and then to rebuild or repair any damage after a major flood. This may be a cost effective strategy, particularly where a continued source of funds and maintenance staff are available and major floods are infrequent. Rebuilding and repair costs may be reduced through the use of additional strategies (see below).

#### Fwd: boardwalk

From:

valerie Amsel <kayakval@att.net>

To:

Linda Anderson <andylin49@earthlink.net>

Subject:

Fwd: boardwalk

Date:

Feb 20, 2024 9:54 AM

Sent from my iPhone

Begin forwarded message:

From: Alex Bradley <abradley@ctwoodlands.org>

Date: February 20, 2024 at 9:48:25 AM EST

To: Valerie Amsel <kayakval@att.net>

Subject: Re: boardwalk

Hi Valerie,

We have switched to almost exclusively use ground contact pressure treated. We have some many projects each season so the logistics of procuring and cost of using the alternatives would be unfeasible. The chemicals in PT these days are not as toxic. It no longer has arsenic.

We would like to use a local lumber yard but have a tax-exempt account with Lyon and Billiards, a CT based Company, and they have delivery services statewide in-house, which is very helpful.

So, while there is white oak as a lesser alternative and black locus as superior alternative options, we do not use it very often or at all these days.

Thanks, Alex

Alexander G. Bradley (he/him)
Trails Stewardship Coordinator
Connecticut Forest & Park Association
Connecticut Woodlands Conservation Corps
16 Meriden Rd Rockfall, CT 06481
860-346-TREE (8733) x 106
abradley@ctwoodlands.org

#### www.ctwoodlands.org

From: Valerie Amsel <kayakval@att.net>
Sent: Sunday, February 18, 2024 11:20 AM
To: Alex Bradley <abradley@ctwoodlands.org>

Subject: boardwalk

Phil Wilsey recommended I contact you about building a boardwalk. We are looking to build a boardwalk in an area that gets wet in a rainstorm but dry at times. Usually we use ground contact contact 4x4 posts but our wetlands commission feels there may be leaching of the chemicals. Everything I see uses this. I looked at an article in the National Association of Wetland Managers which says there is no evidence that this is a problem. Do you use this or do you know of an alternative. Thanks, Valerie Amsel

#### **UCONN**

COLLEGE OF AGRICULTURE, HEALTH, AND NATURAL RESOURCES

#### Center for Land Use Education and Research



## CT DEEP Municipal Inland Wetlands Agency Comprehensive Training Program

Land Use Commissioner Training

CT DEEP Training / Certificate Courses

**UConn CLEAR Training Courses** 

**CLEAR Webinar Library** 

**Description**: This online training program allows municipal inland wetlands agencies and their staff to meet the regulatory and training requirements of the Connecticut Inland Wetlands and Watercourses Act (IWWA). This program instructs and guides agency members and staff on (1) the law they are implementing and enforcing and (2) the resources they are charged with protecting. Municipal inland wetlands agencies have the daunting task of balancing support for their



community's economy with the need to protect and restore inland wetland and watercourse resources. This course assists agencies with their responsibilities by examining key sections of the

IWWA, important procedures and critical legal concepts for conducting agency business, stream crossing guidelines, habitat enhancement and restoration techniques, maps and site plans, and more! It is strongly recommended that all new municipal inland wetlands agency members and staff complete this training program. Veteran members and staff can benefit from taking the course as it provides a good review of fundamental subject matter.

Who should take this course: Municipal inland wetlands agency members & staff; anyone interested in learning about Connecticut's Inland Wetlands and Watercourses Act (IWWA), the municipal inland wetlands agency permitting process, and the functions and values of inland wetland and watercourse resources.

**Format**: Online, at your own pace, 8 modules with text and video content, interactive activities, and module assessments.

Estimated time to complete: 8 hours (Course must be completed within 60 days)

Completion reward: Certificate of Achievement issued by CT DEEP

Cost: Free

For questions regarding course content, please email darcy.winther@ct.gov. In the email subject line, please indicate: *IW Online Course Content Question*.

Technical support: <u>jean.madden-hennessey@uconn.edu</u>

REGISTER HERE

https://uconn.geniussis.com/Registration.aspx

Look for Municipal Inland Wetlands Agency Training in the list of courses

#### CONTACT

**\** 860-345-4511

clear@uconn.edu

UConn Center for Land Use Education & Research Middlesex County Extension PO Box 70, 1066 Saybrook Road Haddam, CT 06438