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## Development & Contents of Plan

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The Plan shall consist of site plan drawings and a narrative. The Plan shall be prepared in accordance with sound engineering practices, and shall be consistent with the [2024 Connecticut Guidelines for Soil Erosion and Sediment Control](#) (2024 E&S Guidelines), the [2024 Connecticut Stormwater Quality Manual \(2024 SWQ Manual\)](#), and any applicable requirements of this general permit.

## Site Description

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### Site Description

The proposed project site, referred herein as the “Site”, is located at 2268-2248 Norwich-New London Turnpike (Route 32) in Montville, CT. The Site totals approximately 3.4 acres in area, located in the Commercial 1 (C-1) district and the Route 32 Overlay District (OZ) and is bound by residential properties to the north and west, Route 32 to the east, and Shantok Motors commercial property to the south. The existing Site is currently an undeveloped open space area.

The purpose of this project is to construct a new four-story, 60,000 sf, 57-unit residential building with an approximate 15,000 sf footprint. Substantial new landscaping along the perimeter and within the development is proposed, along with a stormwater management system providing water quality treatment and peak flow mitigation.

- Stormwater from the Site flows off the property in one location and onto Meadow Lane. Runoff from the Site flows into Shantok Brook. Shantok Brook is not identified as an impaired water body per the 2022 State of Connecticut Integrated Water Quality Report.
  - [2022 Integrated Water Quality Report – List of Impaired Waters for CT](#)
- The project is not within an Aquifer Protection Area (APA) per the online Connecticut Aquifer Protection Areas map. The project is not located within a public water supply watershed per the online DPH Connecticut Public Water Supply Map.
  - [Aquifer Protection Area Interactive Map](#)
  - [Public Water Supply Map \(ct.gov\)](#)
- The outfall from the project does not discharge to a river within the National Wild and Scenic Rivers System Connecticut per the online National Wild and Scenic Rivers System mapping tool.
  - [National Wild & Scenic River System](#)
- There are no endangered or threatened species and critical habitats on or near the project area per the Natural Diversity Data Base Areas – Montville, CT Map.

### **Estimated Disturbed Area**

The total area for this project site is 3.4 acres. Of this area, 3.4 acres will be disturbed by construction activities.

Total project area: 3.4 acres

Construction site area to be disturbed: 3.4 acres

Percentage impervious (pre-development): 0%

Percentage impervious (post-development): 61%

Effective impervious cover (pre-development) = 0%

Effective impervious cover (post-development) = 62%

### **Pre- and Post-Development Peak Rates of Runoff in Cubic Feet per Second (cfs)**

Point of Analysis 1				
Storm Frequency	Existing Flow Rate (cfs)	Proposed Flow Rate (cfs)	Change (cfs)	% Reduction
2-Year	1.47	1.17	-0.30	20%
10-Year	7.53	7.27	-0.26	3%
25-Year	13.08	12.02	-1.06	8%
100-Year	23.15	16.51	-6.64	29%

### **Pre- and Post-Development Volume of Runoff in Acre-Feet (af)**

Point of Analysis 1				
Storm Frequency	Existing Volume (ac-ft)	Proposed Volume (ac-ft)	Change (ac-ft)	% Reduction
2-Year	0.527	0.379	-0.148	28%
10-Year	1.659	1.488	-0.171	10%
25-Year	2.576	2.456	-0.120	5%
100-Year	4.206	4.132	-0.074	2%

## **Estimated Runoff Coefficient**

As depicted in the calculations below, the runoff coefficient for pre- and post-construction is 0.77 and 0.75 (respectively).

The runoff coefficient assumed for pavement is 0.9 and for gravel roads is 0.7. For the pervious areas, a coefficient of 0.3 was assumed.

$$\begin{array}{l} \text{Pre-Construction} \\ \frac{(0 \text{ ac.} \times 0.9) + (3.4 \text{ ac.} \times 0.3)}{0 \text{ ac.} + 3.4 \text{ ac.}} = 0.30 \end{array}$$

$$\begin{array}{l} \text{Pre-Construction} \\ \frac{(2.1 \text{ ac.} \times 0.9) + (1.3 \text{ ac.} \times 0.3)}{2.1 \text{ ac.} + 1.3 \text{ ac.}} = 0.67 \end{array}$$

## **Receiving Waters**

Stormwater from the Site flows off the property at one location. Runoff from the Site flows onto Meadow Lane and eventually discharges to Shantok Brook and the Thames River. The Shantok Brook is not identified as an impaired water body per the 2022 State of Connecticut Integrated Water Quality Report.

## **Extent of Wetlands on Site**

There is one small wetland located at the north property line of the Site.

The Site is located outside the 100-year flood zone according to the Federal Emergency management Agency (FEMA) FIRM panel 357 of 554 on map number 09011C0351G last revised July 18, 2011.

## **Construction Sequencing**

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The proposed project will be constructed in one phase. Construction is anticipated to take one year from the completion of permitting.

The contractor will be responsible for implementing the following erosion and sediment controls and storm water management control measures. The contractor shall comply with the Connecticut Department of Energy & Environmental Protection (DEEP) 2024 Stormwater Quality Manual and the most recent edition of the Connecticut Erosion and Sediment Guidelines. The contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the contractor. The order of activities will be as follows:

1. Install perimeter straw wattles in the locations shown on DWG. C-1 titled "Demolition and Erosion Control Plan". Straw wattles to be installed per detail shown on detail sheets.
2. Install inlet/outlet protection at the locations of all existing grate inlets, curb inlets and at the ends of all exposed storm water drainage pipes.
3. Begin termination of existing utility services in accordance with the requirements of the utility company having authority.
4. Commence clearing and grubbing activities.
5. Excavate temporary sediment basin and temporary drainage swale per the C-1 plan and as needed to collect any silt laden runoff.
6. The temporary sediment basin and temporary drainage swale shown on the plan depict one point in time during earthwork construction. The temporary basins as shown are sized to hold a volume of 134 cy/ac based on contributing area. Catchment areas to sediment traps shall be kept as small as possible. Installation of the infiltration system will be kept as small as possible.
7. Installation of the infiltration system will commence once temporary drainage swales and sediment basins are in place.
8. Commence site grading activities (rough grade site). During grading activities perform erosion and sediment control inspections as required this Stormwater Pollution Control Plan.
9. Fill slopes shall be compacted and stabilized with vegetation and erosion control blankets as quickly as possible during the initial site earthwork.
10. At all times during grading activities, verify stability of perimeter controls and repair where necessary. Clean and re-install all inlet and outlet protection. Cover stockpiles to minimize erosion by wind or rainfall. Complete final sweeping of all existing paved surfaces to remove any remaining sediment.
11. Inspect the entire site to verify that no areas remain that are susceptible to allowing sediment and/or hazardous materials to be discharged from the project Site.
12. Disturbed areas of the Site where construction activity has, or will, cease for more than 7 days shall be temporarily stabilized.
13. Install site utilities. Inlet protection must be installed at all existing and new drain inlets. Place rip-rap and outlet protection at all drain outlets at locations shown on the plans.
14. Finalize pavement and building subgrade preparation.
15. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
16. Install and compact pavement gravel.
17. Install binder and finish course pavement.
18. Install silt bags in catch basins until the site is vegetated and stabilized.
19. Fine grade landscape areas and install landscape plantings.
20. Install traffic control signage and parking lot striping.
21. Complete outstanding punch list items and perform final clean-up activities.
22. Remove and dispose of all accumulated sands and sediment to design grades, stabilize and revegetate disturbed areas.
23. Remove perimeter controls after paving operations are complete and all disturbed areas are stabilized, only upon approval of the Town of Waterford.
24. Clean all stormwater structures and devices that collected and conveyed stormwater from the construction area.

## Control Measures

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This section describes the minimum measures required to control soil erosion during and after construction of the proposed sitework. The soil erosion and sediment control measures depicted herein are designed in accordance with a document entitled “Connecticut Guidelines for Soil Erosion and Sediment Control” published by the Connecticut Council on Soil and Water Conservation in 2024. The contractor may be required to implement additional measures to prevent site erosion and sedimentation of downstream waterways.

For those areas for which construction activity will be temporarily suspended for a period of greater than 14 days, temporary stabilization measures shall be implemented within 3 days of such suspension of activity. For all areas, permanent stabilization shall be implemented within 30 days of disturbance:

### **Erosion and Sedimentation Controls**

The Department of Transportation (STET) will have a Qualified Inspector assigned to the project to oversee the Contractor’s operations and to ensure compliance with the provisions of the Contract. Further Department oversight is provided by the Eastern District Environmental Coordinator and the Office of Environmental Planning.

The following timelines will be followed for the proposed construction activities:

- The Contractor shall stabilize disturbed areas with temporary or permanent measures as quickly as possible after the land is disturbed. *Requirements for soil stabilization are detailed in Form 818 Section 1.10, Environmental Compliance.*
- Areas that remain disturbed but inactive for at least 30 days shall receive temporary seeding or soil protection within seven (7) days.
- Areas that will be disturbed past the planting season will be covered with a long-term, non-vegetative stabilization method that will provide protection through the winter.
- If construction activities are completed to final grade, permanent seeding shall take place within seven (7) days. *(Review Chapter 5 of the 2022 E&S Guidelines)*

The following note (below) appears on the project Construction Plans; Department projects are required to have Preconstruction Meetings with the Contractor. The Contractor is required to review and understand the Contract Plans and Specifications and to develop an E&S Plan for review and approval by the Engineer. In the review of the Contractor’s E&S plan at all disturbed locations for compliance with the Stormwater Permit requirements for a double row of sediment control barriers.

### **Double Row of Erosion and Sediment Control Barriers (SCS)**

- Additional erosion control barriers (double row of SCS) may be required within the project area. Factors to be reviewed by the Engineer include but are not limited to: the contributing disturbed area, drainage area, slope, length of slope, and flow conditions to maintain sheet

flow. If determined necessary, the Engineer will direct the Contractor to install and maintain additional rows of erosion control barrier (or equivalent).

### **Soil Stabilization and Protection**

The project erosion and sediment control monitor shall supervise the layout of sediment and erosion control measures to ensure maximum protection of existing native trees and shrubs. Erosion and sediment control measures shall be installed prior to any fill being placed and shall be modified as required during earthwork operations to control and divert surface runoff from fill slopes and exposed soil surfaces. The erosion and sediment control measures shall include silt fences and staked straw wattles at bottom of fill slopes. erosion control blankets shall be placed on completed slopes steeper than 3:1 as soon as possible. When necessary, seeding with temporary grasses may be required. use berms and temporary drainage swales to divert runoff from slopes prior to final stabilization.

Bring all excavated, filled, or disturbed areas to final grade as soon as possible and stabilize areas with loam, seed and mulch immediately. Keep erosion control measures in place until the site is stabilized with pavement and/or vegetation.

### **Reverse Slope Benches**

A reverse slope bench is required for any slope steeper than 3:1 (horizontal: vertical) that exceeds 15 feet vertically, except when engineered slope stabilization structures or measures are included or a detailed soil mechanics analysis has been conducted to verify stability. Engineered analyses and measures must be designed by a Connecticut licensed Professional Engineer with experience in geotechnical engineering or soil mechanics.

Reverse Slope Benches have not been incorporated into the project since there are no slopes steeper than 3H:1V that exceed 15' tall. Therefore, there is no need to lessen the erosive potential of surface water and subsequent rilling and rutting.

### **Temporary Stabilization Practices**

#### **Temporary grass cover:**

Provide temporary grass cover where indicated on the plans or where temporary land grading will be unaltered for more than one month but less than 12 months. The contractor shall loosen the soil to a depth of two inches before seeding. If existing soil is not capable of growing grass, the contractor shall spread at least two inches of topsoil over the loosened surface. If seeding commences during the summer or early autumn, annual or perennial rye grass seed shall be used. If seeding commences in spring or late autumn, winter rye grass seed shall be used. Seeding rates shall be 5 lbs./1000 s.f. Hay mulch shall be spread at the rate of 100 lbs/1000 s.f. The contractor shall irrigate the grass until an acceptable stand of grass is established.

#### **Stockpiling or storage of excavated materials:**

Completely surround all temporary (2-4 weeks) material stockpiles with silt fence to prevent transportation of sediment. Seed stockpiles what will remain for a longer duration with a quick growing rye grass.

Fabric slope protection:

Install fabric slope protection on slopes steeper than 3:1. The contractor shall select a fabric from the Connecticut department of transportation's approved product list. Curlex erosion control matting by American Excelsior company or approved equal. The contractor will submit a filter fabric shop drawing for engineer and municipality review and approval. The fabric shall meet the requirements of class 1 type c slope protection. The fabric shall be installed in accordance with the manufacturer's instructions and guidelines. The contractor shall maintain the fabric until a stand of grass, acceptable to the engineer, is established.

Temporary mulch:

Mulch all disturbed areas with hay or straw at the rate of 2 tons per acre. Spread mulch by hand or mulch blower to provide a uniform distribution. Anchor the mulch by tracking with tracked construction equipment so cleat marks are parallel to the contour. Mulch nettings, applied in accordance with the manufacturer's recommendations, may be used as an alternate to tracking. Restore any areas where mulch is washed away or blown away by the wind.

This activity shall be used to stabilize areas where construction is suspended during the winter months. Once the appropriate dates for seeding are reached, the contractor shall complete the seeding operations.

Dust control:

Take precautions to prevent dust from becoming a nuisance to abutting property owners and streets. Broom off pavements adjoining the excavation on a daily basis. Cover and/or keep all earth stockpiles moist at all times. Use calcium chloride to control dust over certain areas of the site, as directed by the engineer or shown on the plans, calcium chloride shall conform to ASTM d-98, type I. The contractor shall maintain and inspect, on a daily basis, the adequacy of dust control measures and correct any deficiencies immediately.

Tree protection:

The contractor shall provide snow fencing, board fencing, or rope fencing around trees or groups of trees that are to remain, to protect them against damage. The contractor shall be responsible for selecting and installing the protection measures most appropriate for the conditions present. The contractor shall repair and/or replace tree protection measures immediately if damaged during construction.

Stabilization practices shall be implemented after completion, as final grades are reached, within seven (7) days.

Temporary seeding shall be spread over any disturbed areas which will remain inactive for at least 30 days. Areas to remain disturbed through winter shall be protected with non-vegetative stabilization measures. The Contractor must provide an Erosion and Sedimentation Control plan for each winter season during construction operations.

The Contractor may elect to utilize other controls in conformance with the 2024 E&S Guidelines, as approved by the Qualified Inspector. The Contractor will be required to provide the necessary details for any erosion controls not specifically called for on the project plans.

During construction, all areas disturbed by the construction activity that have not been stabilized,

structural control measures, and locations where vehicles enter or exit the site shall be inspected at least once a week and within 24 hours of the end of a storm that generates a discharge. For storms that end on a weekend, holiday, or other time in which normal working hours will not commence within 24 hours, an inspection is required within 24 hours following any storm in which 0.1 inches or greater of rain occurs. For lesser storms, inspection shall occur immediately upon the start of subsequent normal working hours.

### **Permanent Stabilization Practices**

During construction, the following methods of permanent stabilization shall be installed:

- **Topsoiling:** In conjunction with permanent seeding, once final grades have been established, topsoil shall be applied to provide a suitable growth medium for vegetation.
- **Permanent Seeding:** Once soils have been brought to final grade; permanent seeding shall be used to stabilize the soil with a vegetative cover. Disturbed areas below the wetland limit shall be seeded with the appropriate seed mix. Once the site has achieved **final stabilization for at least one full growing season (April – October) in the year following** the end of construction, the Contractor shall have the **site inspected by a Qualified Inspector** to confirm such stabilization is maintained. The Qualified Inspector shall indicate compliance with this requirement on the Notice of Termination form.
- **Landscaping:** Wood chip mulch shall be placed around the plants. Plantings (trees, shrubs, etc.) and permanent seeding may be established together. Wood chip mulch shall NOT be utilized in wetland areas.

All new embankments and unpaved areas that are graded or disturbed by construction will receive erosion control matting, topsoil and/or turf establishment. The Contractor may use other permanent stabilization practices approved by the Qualified Inspector and in conformance with the 2024 E&S Guidelines.

### **Structural Measures**

#### **Temporary structural measures:**

##### **Catch basin protection, filter fabric and stone filter:**

Use filter fabric and stone filter for protection of catch basins in a low point as shown and detailed on DWG. C-1 and C-5. Firmly stake filter fabric into the pavement base material. Wrap the entire grate with Mirafi 140n filter fabric or approved equal. Remove sediment from around the inlet protection once levels reach 1/4 the effective height. Replace the inlet protection immediately if they are damaged or deteriorated. The fabric shall be replaced immediately if its permeability is impeded by sediment.

##### **Catch basin protection, straw wattle check dams, type 5:**

Use straw wattle check dams for protection of catch basins in a swale. Place staked barriers in the swale in at least two locations upstream of the basin as shown on the plans and details. Monitor the barriers to ensure that runoff either filters through the barrier or goes over the top.

Do not allow runoff to bypass the side of the barrier. Remove the sediment when it reaches 1/4 of the height of the barrier.

Temporary sediment trap:

Install temporary sediment trap in the locations shown on the plans. Construct the trap to the length, width, and depth shown on the plans. Inspect the sediment trap at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater. Remove sediment once levels reach 50 percent of the trap's wet storage volume. Backfill the temporary sediment trap only after the site has been stabilized in a fashion that provides adequate sediment control through permanent devices prior to stormwater reaching the infiltration basin.

Temporary swales:

If runoff becomes channelized, install temporary swales and direct runoff to a temporary sediment trap. Modify and install additional swales as required during construction to direct runoff from fill slopes and exposed soil surfaces toward temporary sediment traps.

**Permanent structural measures:**

Land grading:

Proposed grades are shown in detail on civil drawing C-2.

Bring all excavated, filled, or disturbed areas to final grade as soon as possible and stabilize areas with loam, seed and mulch immediately. Keep erosion control measures in place until the site is stabilized with pavement and/or vegetation.

Infiltration system:

An infiltration system is required, as shown on the plans and details, to reduce the peak rate of runoff leaving the site. Construct the infiltration system according to the plans and details. Minimize the amount of sediment flowing into the underground system by temporarily capping the inlet pipe to the system until final catch basins and pavement courses have been installed. Additionally, install silt sacks or approved equivalent until construction is completed, in order to minimize sediment entering the infiltration chamber system. Following construction and site stabilization, the contractor shall remove sediment as required.

## **Maintenance**

The narrative shall include the procedures to maintain, in good and effective operating conditions, all erosion and sediment control measures, including vegetation, and all other protective measures identified in the Plan.

All construction activities and related activities shall conform to the requirements of Section 1.10 "Environmental Compliance" of Form 818, the Department's Standard Specifications for Roads, Bridges, Facilities, and Incidental Construction. In general, all construction activities shall proceed in such a manner so as not to pollute any wetlands, watercourses, water body, and conduit carrying stormwater. The Contractor shall limit, in so far as possible, the surface area of earthen materials exposed by construction activity and immediately provide temporary and permanent pollution control to prevent soil erosion and contamination on the site. Water pollution control provisions and Required Best Management Practices per Section 1.10, Environmental Compliance of the Standard Specifications shall be administered during construction. Control measures shall be

inspected and maintained in accordance with the 2024 E&S Guidelines and as directed by the Qualified Inspector .

## **Dewatering Wastewaters**

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### **Dewatering Guidelines**

When dewatering is necessary, pumps used shall not be allowed to discharge directly into a wetland, watercourse, or stormwater drainage system. Prior to any dewatering, the Contractor must prepare a written proposal for specific methods and devices to be used, including, but not limited to, the pumping of water into a temporary sedimentation basin, providing surge protection at the inlet or outlet of pumps, floating the intake of a pump, or any other method for minimizing and retaining the suspended solids. If the Qualified Inspector determines that a pumping operation is causing turbidity problems, the Contractor shall halt said operation until a means of controlling the turbidity is submitted by the Contractor in writing to the Engineer, approved in writing by the Engineer and implemented by the Contractor.

No discharge of dewatering wastewater shall contain or cause a visible oil sheen, floating solids or foaming in the receiving water. If required, all activities are to be performed in compliance with the Department's Standard Specifications.

# Post-Construction Stormwater Management

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*(All controls in this section must be in conformance with the 2024 SWQ Manual and the Department's qualified product list. Be sure to use the same call outs for structures as in the manual)*

*The Qualified Inspector may consider BMP's to be installed during the construction process to minimize the discharge of pollutants, and stormwater discharges that will occur after construction operations have been completed.*

- **Minimal Curbing:** Curbing shall be avoided wherever possible to maximize overland sheet flow and encourage infiltration. See if this can be moved elsewhere
- **Outlet Protection:** Riprap outlet protection shall be used at the proposed outlet to decrease velocity and the potential for erosion. (i.e. apron, splash pad...)
- **Catch Basins w/ 4 ft. Sumps and Hoods:** Catch basins shall be used, especially adjacent to outlets, to intercept pollutants and debris.
- **Street Sweeping:** Street sweeping shall be performed as required to clean debris/sediment prior to leaving the site.
- **Hydrodynamic Particle Separator:** Hydrodynamic Particle Separators shall be installed and cleaned as required to reduce the levels of TSS and provide treatment to stormwater prior to continuing to downstream drainage systems.

## **Post-Construction Guidelines**

After the project is complete, the Department will perform the following maintenance and restorative measures:

- Litter/debris and sweepings will be removed from the site regularly.
- Mowing and maintenance of the turf areas and vegetated areas will occur, as needed.
- Riprap outlet protection will be inspected and repaired, as needed.
- Stormwater drainage system will be cleaned of sediment/debris, as directed by the Qualified Inspector .
- Identify, inspect, and maintain all stormwater quality BMP's included within the project, as per the MS4 or manufacturer recommendations.

## **Post Construction Performance Standards and Control Measure**

### **Redevelopment:**

*For sites that are already developed where there is more than 40% effective impervious cover, the site must be designed to retain on-site half the water quality volume for the site and provide*

*additional stormwater treatment without retention for discharges up to the full water quality volume for sediment, floatables and nutrients to the maximum extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.*

*If this retention and treatment cannot be achieved, describe:*

- *The measures taken to maximize runoff reduction on site.*
- *The reasons those are the maximum extent achievable.*
- *The alternative retention volume you are providing; and*
- *A description of the measures used to provide additional treatment above the alternative volume.*

*For Roadway and other linear redevelopment projects:*

- *For the developed portion of the ROW:*
  - *If the full retention standard cannot be met; describe the alternative retention provided and the treatment measures provided.*

*If the effective impervious cover will not be increased within a given watershed, stormwater treatment measures must be provided, but retention of half the water quality volume is NOT required. Permit says implement additional stormwater treatment.*

In order to comply with the Department's MS4 Permit requirements, projects shall seek to reduce the effective impervious cover (as defined in 12/31/20 Construction SW Permit) to the maximum extent practicable.

*"Effective Impervious Cover" is the area of impervious cover that is hydraulically connected to a water or wetland by means of continuous paved surfaces, gutters, swales, ditches, drain pipes or other conventional conveyance and detention structures that do not reduce runoff volume. Impervious cover is a surface composed of any material that impedes or prevents infiltration of water into the soil. Impervious surfaces shall include, but are not limited to, roofs, solid decks, driveways, patios, sidewalks, parking areas, tennis courts, concrete or asphalt streets, or compacted soils or compacted gravel surfaces.*

Pre-Development:

Effective impervious cover = 
$$\frac{\text{Impervious cover hydraulically connected to water/wetlands}}{\text{All area hydraulically connected to water/wetlands}}$$

Effective impervious cover = 
$$\frac{0 \text{ acres (pavement)}}{0 \text{ acres}}$$

Effective impervious cover (pre-development) = **0%**

Post-Development:

Effective impervious cover = 
$$\frac{\text{Impervious cover hydraulically connected to water/wetlands}}{\text{All area hydraulically connected to water/wetlands}}$$

$$\text{Effective impervious cover} = \frac{2.1 \text{ acres}}{3.4 \text{ acres}}.$$

Effective impervious cover (post-development) = **62%**

#### Required Water Quality Volume (WQV)

##### ***Subsurface Infiltration Field #1 (PSIS-1)***

This subsurface infiltration field is located in the proposed landscape area and pavement, west of the proposed residential building. It collects and provides treatment for all the stormwater runoff from the roof, as well as the parking area. The system utilizes 84" perforated CMP pipes configured in five rows. The proposed bottoms of the field and pipe inverts are 142'. The dimensions of the field is 155-feet x 49-feet for a total bottom area of 7,595 Square Feet. The volume provided is 29,441 Cubic Feet in the chambers and 12,518 Cubic Feet in the stone voids for a total volume of 41,968 Cubic Feet. The system is designed to store and infiltrate up to the required treatment amount.

The on-site stormwater management system has been designed to capture, detain, and treat stormwater runoff from the on-stormwater runoff while capturing and detaining stormwater runoff from the offsite tributary area, which will improve runoff conditions. A hydrodynamic particle separator (CDS Unit) has been provided to minimize the number of contaminants that may flow into the system. The subsurface infiltration system has three inlets from CDS Units, which directs flow into the system..

$$WQV = (P) * (R) * (A)(1ft/12in)$$

Where:

*WQV = Water Quality Volume*

*R = Volumetric Runoff Coefficient (dimensionless) = 0.05 + 0.009(I)*

*I = Percent Impervious Cover = 90,735 SF / 148,322 SF = 62 %*

*A = Drainage Area in Acres = 148,322 SF = 3.4 AC*

$$R = 0.05 + 0.009(I)$$

$$R = 0.05 + 0.009(62)$$

$$R = 0.608$$

$$WQV = 1.30 * 0.608 * 148,322 (1ft/12in)$$

$$WQV = 9,770 CF = 0.224 \text{ acre feet}$$

*Proposed Volume provided 41,968 CF*

### **Other Development:**

A stormwater management system has been designed consistent with the Connecticut Stormwater Quality Manual that will improve upon the current stormwater runoff conditions in terms of peak flow control, recharge, and water quality from pre-development conditions. Runoff control, water quality improvement, and groundwater recharge will be accomplished by implementing the following drainage improvements:

- Collect storm runoff in catch basins with deep sumps and hooded outlets,
- Route runoff through hydrodynamic particle separators for additional removal of Total Suspended Solids (TSS),
- Construction of a subsurface infiltration systems designed to retain and recharge runoff, thereby reducing the hydraulic burden on the existing drainage system.

### **Runoff Reduction and LID Practices**

The proposed stormwater management measures described above will not have any adverse impacts to the adjacent properties. Runoff generated from storms up to the 100-year storm will be mitigated through the various on-site closed drainage systems prior to discharging offsite. Water quality will be enhanced over existing conditions, resulting in an overall improvement in storm runoff from the Site compared to pre-development conditions.

### **Suspended Solids and Floatable Removal**

The onsite stormwater management system has been designed to collect, treat and infiltrate the first inch of rain on-site via deep sump catch basins, hydrodynamic particle separators, and subsurface infiltration system, achieving greater than 80% Total Suspended Solids (TSS) pollutant removal rates. Therefore, the stormwater management system will minimize the discharge of suspended solids and floatable (e.g., oil and grease, other floatable liquids, floatable solids, trash, etc.)

### **Velocity Dissipation:**

Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow offsite so that the existing, downstream characteristics and functions are maintained and protected.

## Other Controls (Non-Structural)

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### **Waste Disposal**

Construction site waste shall be properly managed and disposed of during the entire construction period.

The following is applicable:

- A waste collection area will be designated. The selected area will minimize truck travel through the site and will not drain directly to the adjacent wetlands.
- Waste collection shall be scheduled regularly to prevent the containers from overflowing.
- Spills shall be cleaned up immediately.
- Defective containers that may cause leaks or spills will be identified through regular inspection. Any found to be defective will be repaired or replaced immediately.
- Any stockpiling of materials should be confined to the designated area as approved by the Qualified Inspector .

### **Washout Areas**

Washout of applicators, containers, vehicles, and equipment for concrete shall be conducted in a designated washout area. No surface discharge of washout wastewaters from the area will be allowed. All concrete wash water will be directed into a container or pit such that no overflows can occur. Washout shall be conducted in an entirely self-contained system and will be clearly designed and flagged or signed where necessary. The washout area shall be located outside of any buffers and at least 50 feet from any stream, wetland or other sensitive water or natural resources as determined or designated by the Department's Office of Environmental Planning or the project Qualified Inspector .

Washout Area(s) will be site located by the Contractor, approved by the Qualified Inspector and the SWPCP revised, as appropriate. The "Concrete Washout Area" detail [\*Concrete Washout Detail\*](#) shows the recommended method of construction for the washout area. The designated area shall be designed and maintained such that no overflows can occur during rainfall or after snowmelt.

### **Anti-tracking Pads and Dust Control**

(Form 818- Sections 2.11, 9.39, 9.42, and 9.43)

Off –site vehicle tracking of sediments and the generation of dust shall be minimized. Temporary anti-tracking pads from the active work site to the existing pavement will be installed and maintained at the locations shown on the plans.

The Contractor shall:

- Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces.

- Provide periodic top dressing with additional stone or additional length as conditions demand.
- Repair any measures used to trap sediment as needed.
- Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces.
- Ensure roads adjacent to a construction site are left clean at the end of each day.

If the construction entrance is being properly maintained and the action of a vehicle traveling over the stone pad is not sufficient to remove the majority of the sediment, then the contractor shall either:

- Increase the length of the construction entrance,
- Modify the construction access road surface, or
- Install washing racks and associated settling area or similar devices before the vehicle enters a paved surface.

For construction activities which cause airborne particulates, wet dust suppression shall be utilized. Construction site dust will be controlled by sprinkling the ground surface with water until it is moist on an as-needed basis. The volume of water sprayed shall be such that it suppresses dust yet also prevents the runoff of water.

### **Maintaining and Storing Vehicles and Equipment- Storage of Chemicals & Petroleum Products**

The Contractor shall take measures to prevent any contamination to wetlands and watercourses while maintaining and storing construction equipment on the site. All chemical and petroleum containers stored on site shall be provided with impermeable containment which will hold at least 110% of the volume of the largest container, or 10% of the total volume of all containers in the area, whichever is larger, without overflow from the containment area. All chemicals and their containers shall be stored under a roofed area except for those stored in containers of 100-gallon capacity or more, in which case double-walled tanks will suffice. Accumulation of rainwater within secondary containment must be visually inspected for sheen prior to being discharged. If any sheen is identified; the accumulated water must be removed by the Contractor to an appropriate off-site location.

### **Cold Water Stream Habitat**

For construction activities within a Cold-Water Stream Habitat watershed, the one hundred (100) foot undisturbed buffer specified is that section must be verified post-construction and, where such buffer is located within the boundaries of the construction site, supplemented with additional plantings as necessary to maintain canopy/stream cover.

- The construction activities associated with the project are not within a Cold-Water Stream Habitat watershed per the online CT Dept. of Energy and Environmental Protection Cold Water Habitat mapping tool.
  - [Cold Water Stream Habitat Map Application](#)

# Inspections

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The Qualified Inspector will conduct site inspections once a week or after any rain event of 0.1” or greater. The Qualified Inspector conducting inspections shall fill out a [Construction Site Environmental Inspection Report \(CSEIR\)](#) for each inspection described below. Each report shall be retained as a part of the SWPCP. The report shall include a statement that, in the judgment of the Qualified Inspector(s) conducting the site inspection, the site is either in compliance or out of compliance with the terms and conditions of the Plan and permit. If the site inspection indicates that the site is out of compliance, the inspection report shall include a summary of the remedial actions required to bring the site back into compliance, review Keeping Plans Current.

## **Plan Implementation Inspections**

For each phase of construction, the site shall be inspected at least once within the first 30 days of construction activity and at least three times, with 7 or more days between inspections, within the first 90 days of construction activity to confirm compliance and proper initial implementation of all control measures.

## **Routine Inspections**

The Permittee will maintain a rain gauge on-site to document rainfall amounts. During construction, all areas disturbed by the construction activity that have not been stabilized, all erosion and sediment control measures, structural control measures, soil stockpile areas, washout areas, and locations where vehicles enter or exit the site shall be inspected for evidence of or the potential for pollutant entering the drainage systems and impacts to the receiving waters at least every seven (7) calendar days and within 24 hours of the end of a storm that generates a discharge.

For storms that end on a weekend, holiday, or other time in which normal working hours will not commence within 24 hours, an inspection is required within 24 hours following any storm in which 0.1 inches or greater of rain occurs. For lesser storms, inspection shall occur immediately upon the start of subsequent normal working hours.

Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least weekly until final stabilization has been achieved.

Qualified Inspectors provided by the Department’s Eastern District Office shall conduct inspections.

The following items shall be inspected as described below:

<u>Item</u>	<u>Procedure</u>
Parking Lot & Roadways	The parking lot and roadways in and around the project site should be inspected weekly to find if any trash or debris is present.

Landscaped areas	Landscaped areas within the project site should be inspected weekly for any trash or debris.
Compactor/Dumpster	The compactor/dumpster area should be inspected weekly for any trash or debris in and around the area.
Property Perimeter	The property perimeter should be inspected weekly for any trash or debris.
Catch Basins	Catch basins should be inspected semi-annually for any trash, oil sheen, hood (securely fastened), and excessive sediment. Catch basins should be cleaned annually.
Curbing	Curbing should be inspected semi-annually for structural conditions.
Hydrodynamic Particle Separators (CDS Units)	Hydrodynamic Particle Separators (CDS Units) should be inspected semi-annually for trash, excessive sediment, structural condition.

### **Post-Construction Inspection**

Upon completion of construction activities and stabilization of the site, all post-construction stormwater structures, including catch basins, hydrodynamic particle separators, StormTech Isolator Rows, shall be cleaned of construction sediment or debris and the site inspected to confirm compliance with all post-construction stormwater management requirements. Sediment shall be properly disposed of in accordance with all applicable laws, regulations and guidelines. Any remaining sediment control system(s) SCS shall be removed prior to acceptance of the project by the Department.

### **Final Stabilization Inspection**

Once the site has achieved final stabilization, the site shall be inspected to confirm stabilization is maintained, and a Notice of Termination Form shall be submitted.

## Keeping Plans Current

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### **Revisions to Stormwater Pollution Control Plans**

The Department shall amend the Plan if the actions required by the Plan fail to prevent pollution or otherwise comply with provisions of the General Permit. The Plan shall also be amended whenever there is a change in contractors or sub-contractors at the site, or a change in design, construction, operation, or maintenance at the site which has not otherwise been addressed in the plan.

*Resubmission is for extenuating circumstance in which new calculations are required such as the addition a new outfall or a modification to a stormwater quality structure within the project limits and not for modifications such as staging/access road relocations. Additionally, resubmission is applicable if there is a change in run off or discharge of pollutants.*

If the results of the inspections require modifications to the Stormwater Pollution Control Plan, the plans shall be revised as soon as practicable after the inspection. Such modifications shall provide for a timely implementation of any changes to non-engineered controls on the site within 24 hours and implementation of any changes to the plan within 3 (three) calendar days following the inspection. For Engineered measures, corrective actions shall be implemented on site within 7 (seven) days and incorporated into a revised Plan within 10 (ten) days of the date of inspection.

In no event shall the requirements to keep the Plan current or update a Plan, relieve the permittee and their contactor(s) of the responsibility to properly implement any actions required to protect the waters of the State and to comply with all conditions of the permit.

## Contractors

---

### General

This section identifies all Contractors and Subcontractors who will perform on site actions which may reasonably be expected to cause or have the potential to cause pollution of the waters of the State.

### Certification Statement

All contractors and subcontractors must sign the attached statement. All certifications will be included in the Stormwater Pollution Control Plan.

### **State Project No. TBD**

Residential Development  
Montville, CT

“I certify under penalty of law that I have read and understand the terms and conditions of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. I understand that as Contractor on the project, I am covered by this General Permit, and must comply with the terms and conditions of this permit, including, but not limited to, the requirements of the Stormwater Pollution Control Plan prepared for this project.”

### **GENERAL CONTRACTOR**

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Title: TBD

Firm: TBD

Telephone: \_\_\_\_\_

Address: TBD

\_\_\_\_\_ TBD

### **SUBCONTRACTOR**

Signed: TBD

Date: \_\_\_\_\_

Title: TBD

Firm: TBD

Telephone: \_\_\_\_\_

Address: TBD

\_\_\_\_\_

**General:**

This Stormwater Pollution Control Plan (SWPCP) is prepared to comply with the requirements for the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. Also, to be considered part of the SWPCP are the proposed construction plans, special provisions, and the Connecticut Department of Transportation's "Standard Specifications for Roads, Bridges and Incidental Construction" (Form 818) including supplements thereto and the 2024 Connecticut Guidelines for Erosion and Sediment Control (2002 E&S Guidelines) and 2024 Stormwater Quality Manual (2024 SWQ Manual).

## **List of applicable Figures / Plans:**

### **Appendix A – Figures**

- USGS Map
- Soils Map
- FEMA Flood Insurance Map
- Existing Watershed Plan
- Proposed Watershed Plan
- Natural Diversity Data Base Areas Map – Montville, CT

### **Appendix B – Plan Sheets**

- Demolition and Erosion Control Plan
- Demolition and Erosion Control Notes
- Grading and Drainage Plan
- Erosion Control Details
- Applicable Stormwater details
- Overall Landscape Plan

### **Appendix C- Connecticut DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities**

### **Appendix D- CTDOT MS4 Project Design Maximum Extent Practicable Worksheet**

- [CTDOT MS4 Maximum Extent Possible \(MEP\) sheet](#)

### **Appendix E- Construction Site Environmental Inspection Report (CSEIR)**

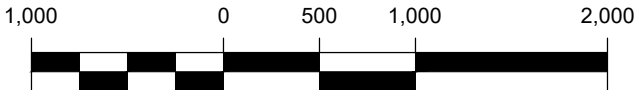
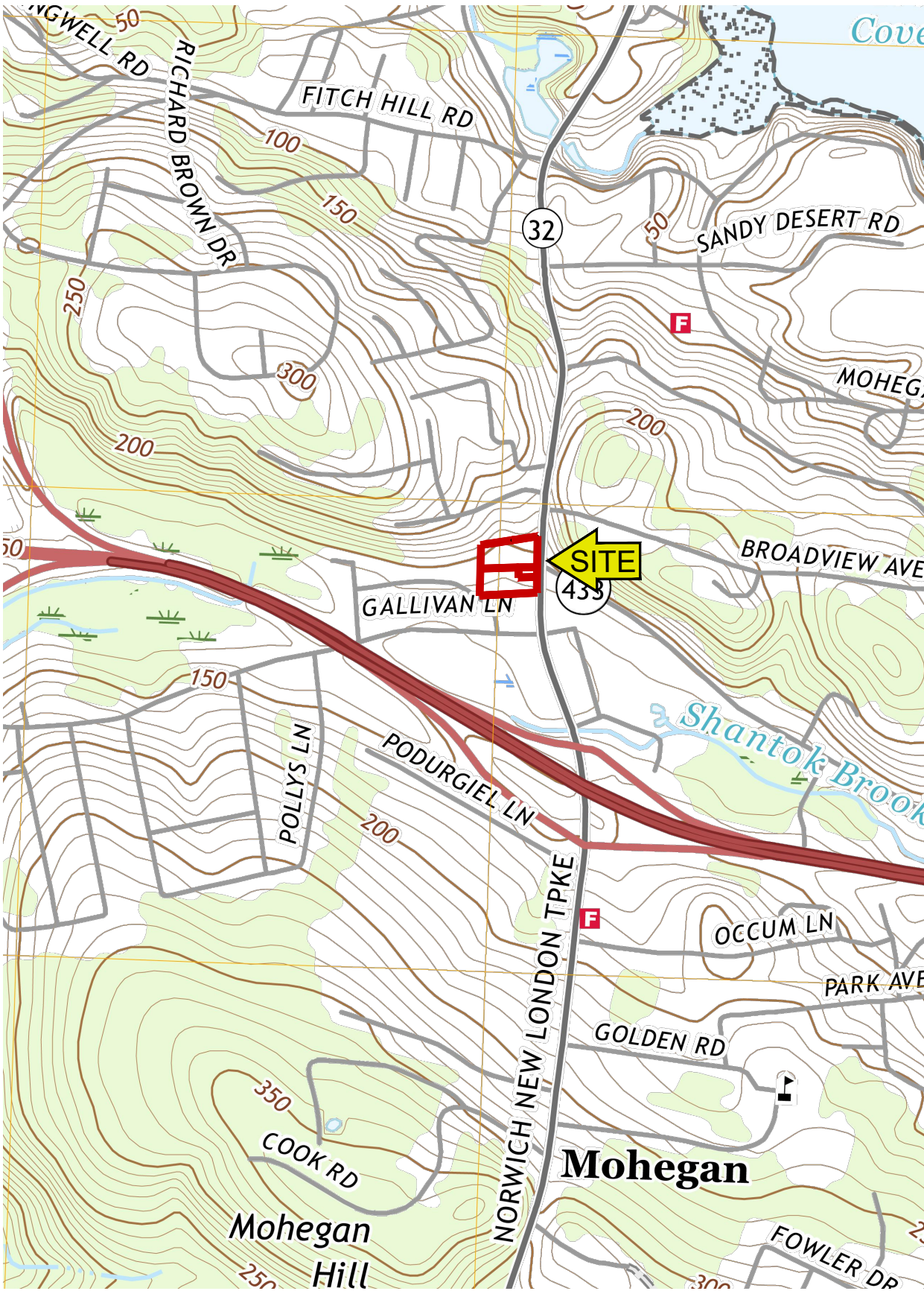
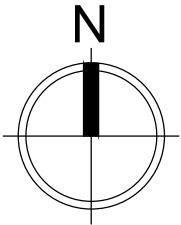
- [CSEIR Form](#)

### **Appendix F – Notice of Termination Form**

- [General Permit for the Discharge of Stormwater & Dewatering Wastewaters from Construction Activities – Notice of Termination Form](#)

## **APPENDIX A - FIGURES**

- **USGS Map**
- **Soils Map**
- **FEMA Flood Insurance Map**
- **Existing Watershed Plan**
- **Proposed Watershed Plan**
- **Natural Diversity Data Base Areas Map – Montville, CT**

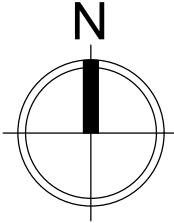
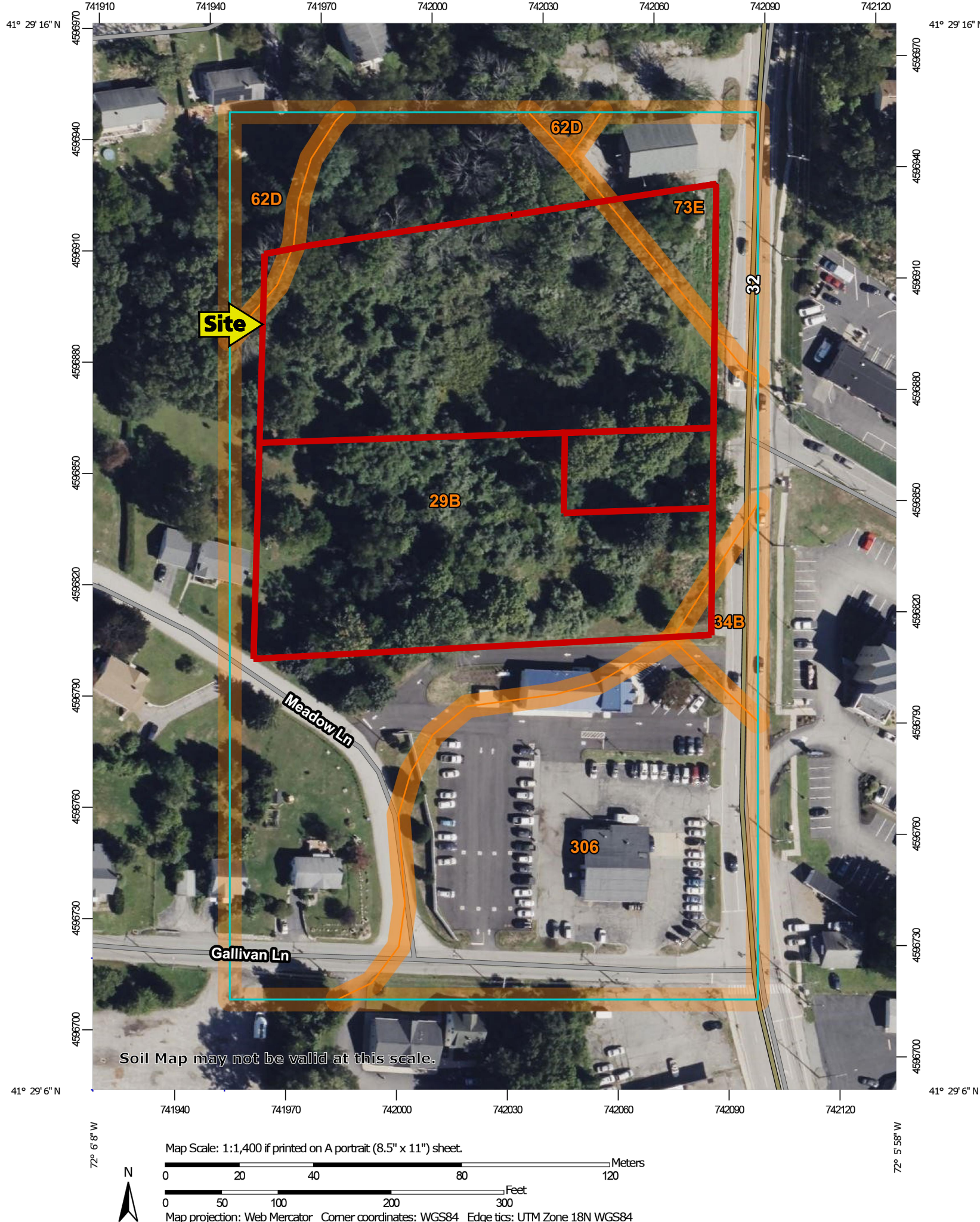


GRAPHIC SCALE IN FEET

**RJO'CONNELL  
& ASSOCIATES, INC.**  
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
DATE: 08/27/2024 SCALE: 1"=1000'

**FIGURE 1**  
**USGS MAP**  
2268-2284 CONN. ROUTE 32  
MONTVILLE, CT 06382

Drawing name: G:\CT\Montville\Honeycomb Real Estate Partners\2268-2284 Route 32\Reports\Stormwater Pollution Control Plan\Figures\24029\_FIG 2 NRCS Soil Survey.dwg  
Aug 27, 2024 15:53pm



HYDROLOGIC SOIL GROUP		
MAP UNIT SYMBOL	MAP UNIT NAME	RATING
29B	AGAWAM FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES	B
34B	MERRIMAC FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES	A
62D	CANTON AND CHARLTON FINE SANDY LOAMS, 15 TO 35 PERCENT SLOPES, EXTREMELY STONY	B
73E	CHARLTON-CHATFIELD COMPLEX, 15 TO 45 PERCENT SLOPES, VERY ROCKY	B
306	UDORTHENTS-URBAN LAND COMPLEX	B (UDORTHENTS) D (URBAN)

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CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS

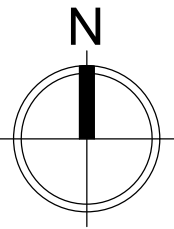
DATE: 08/27/2024      SCALE: AS SHOWN

**FIGURE 2**  
**NRCS WEB SOIL SURVEY MAP**

2268-2284 CONN. ROUTE 32 MONTVILLE, CT

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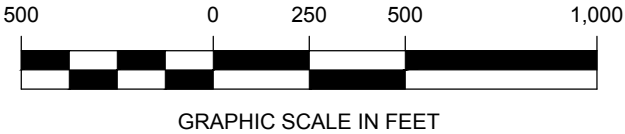
Drawing name: G:\CT\Montville\Honeycomb Real Estate Partners\2268-2284 Route 32\Reports\Pollution Control Plan\Figures\24029\_FIG-2 FEMA Firm Map.dwg  
Aug 27, 2024 - 15:09pm



RJOC

### LEGEND

- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**  
The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.  
**ZONE AE** Base Flood Elevations determined.  
**ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.  
**ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.  
**ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.  
**ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.  
**ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.  
**ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**  
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**  
**ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS**  
**ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.  
**ZONE D** Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**  
**OTHERWISE PROTECTED AREAS (OPAs)**  
CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% Annual Chance Floodplain Boundary  
0.2% Annual Chance Floodplain Boundary  
Floodway boundary  
Zone D boundary  
CBRS and OPA boundary  
Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.  
Base Flood Elevation line and value; elevation in feet\*  
Base Flood Elevation value where uniform within zone; elevation in feet\*



REFERENCE: FEMA FLOOD INSURANCE RATE MAP, NEW LONDON  
COUNTY, CONNECTICUT PANEL 351 OF 554, MAP NUMBER 09011C0351G  
EFFECTIVE DATE JULY 18, 2011

**RJO'CONNELL  
& ASSOCIATES, INC.**  
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
DATE: 08/27/2024 SCALE: 1"=500'  
**FIGURE 3**  
**FEMA FLOOD INSURANCE RATE MAP**  
2268-2284 CONN. ROUTE  
MONTVILLE, CT 06382

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WATERSHED BOUNDARY

OPEN SPACE-GRASS/WOODS

OPEN SPACE-WOODS/BRUSH

BUILDING

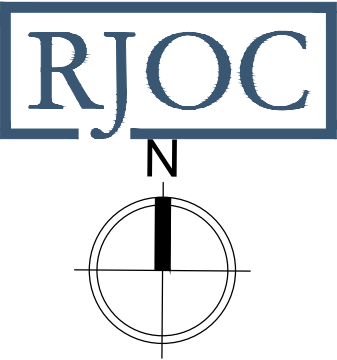
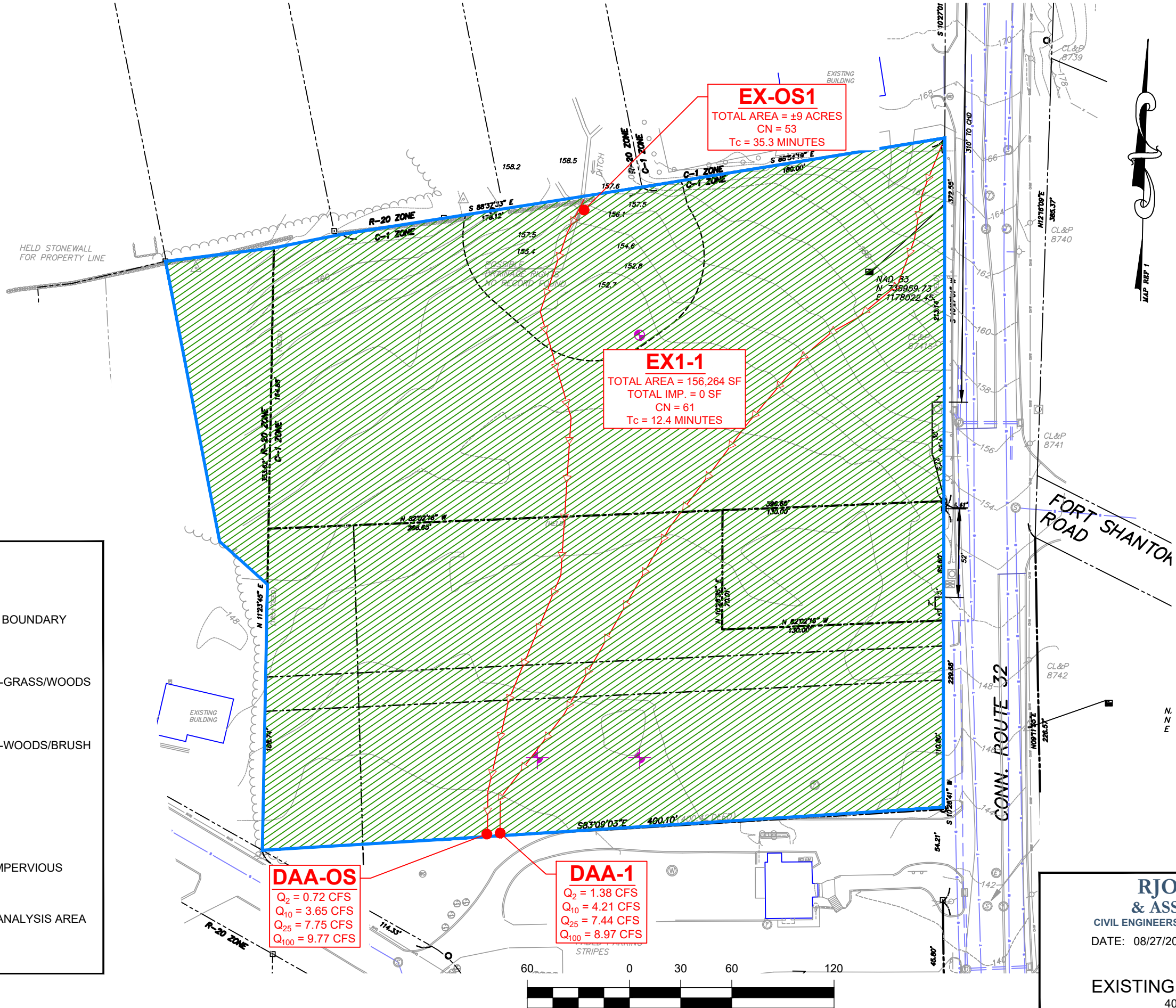
PAVEMENT/IMPERVIOUS

DAA-1

DISCHARGE ANALYSIS AREA

Tc PATH

LEGEND



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CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS

DATE: 08/27/2024

SCALE: 1"=50'

FIGURE 4


EXISTING WATERSHED PLAN

40 TUNXIS AVENUE  
BLOOMFIELD, CT 06002

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Drawing name: G:\CT\Montville\Honeycomb Real Estate Partners\2268-2284 Route 32\Reports\Stormwater Pollution Control Plan (SWPCP)\Figures\24029\_CT Deep Natural Diversity Data Base Areas.dwg  
Aug 28, 2024 10:04am

### Natural Diversity Database

 **ctdeepgis maps**  
Department of Energy & Environmental Protection

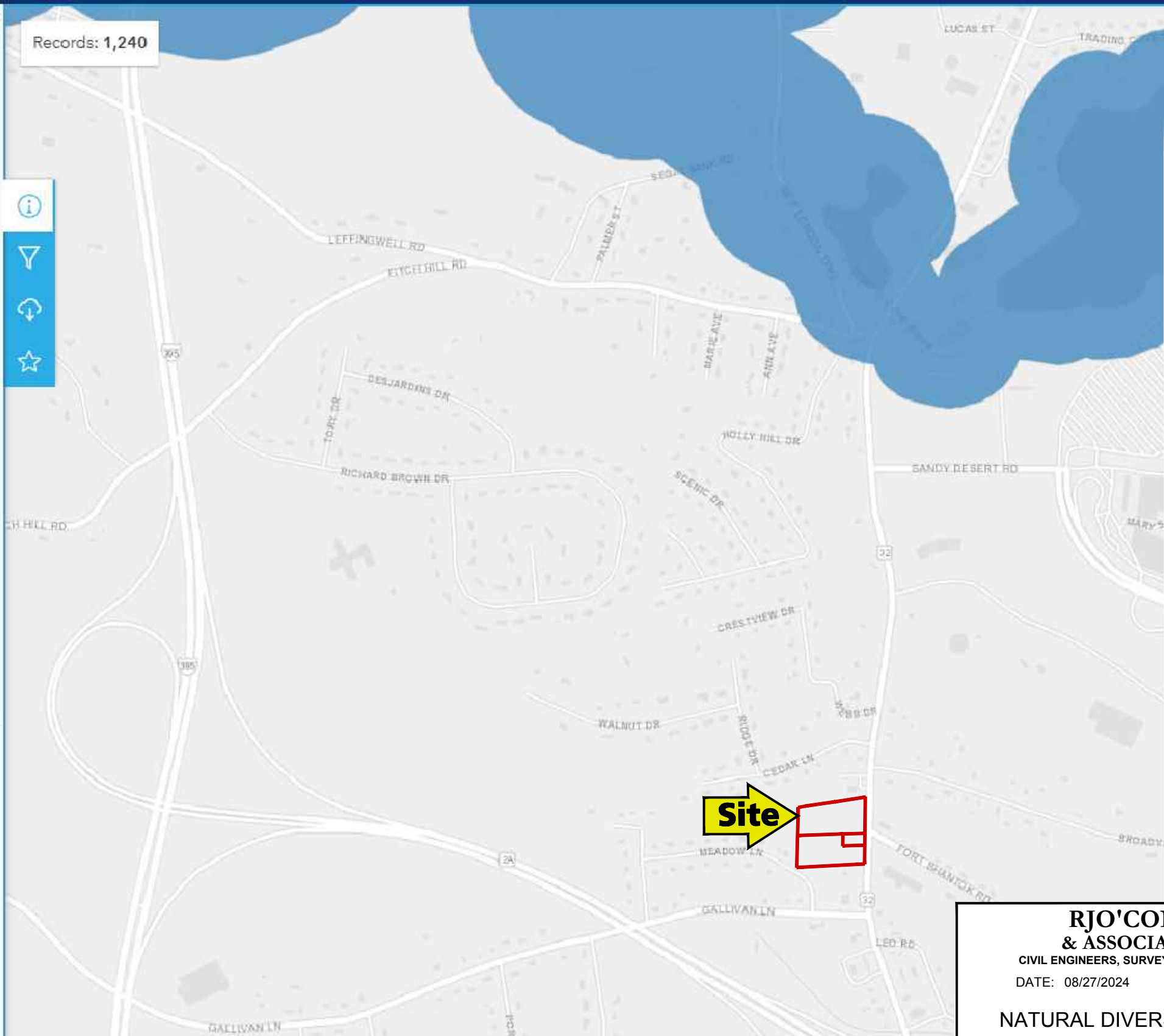
#### Summary

Natural Diversity Database Areas represent known locations, both historic and extant, of state and federal listed species. State listed species are those listed as Endangered, Threatened or Special Concern under the Connecticut Endangered Species Act (Connecticut General Statutes, Section 26-303 and Regulations of Connecticut State Agencies 26-303). This dataset represents over 100 years worth of field observations, scientific collections, and publications. The data have been compiled from a variety of sources and in most cases do not represent a comprehensive or state-wide survey. Sources include state biologists, university students and professors, conservation organizations and private landowners. Low accuracy reports of species at the town or county level have been excluded. Much of the state is in private ownership and has not been surveyed. Unmapped areas may represent potential habitat that has not been adequately surveyed for all taxa.

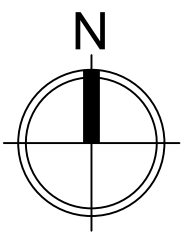
[Read Less ^](#)

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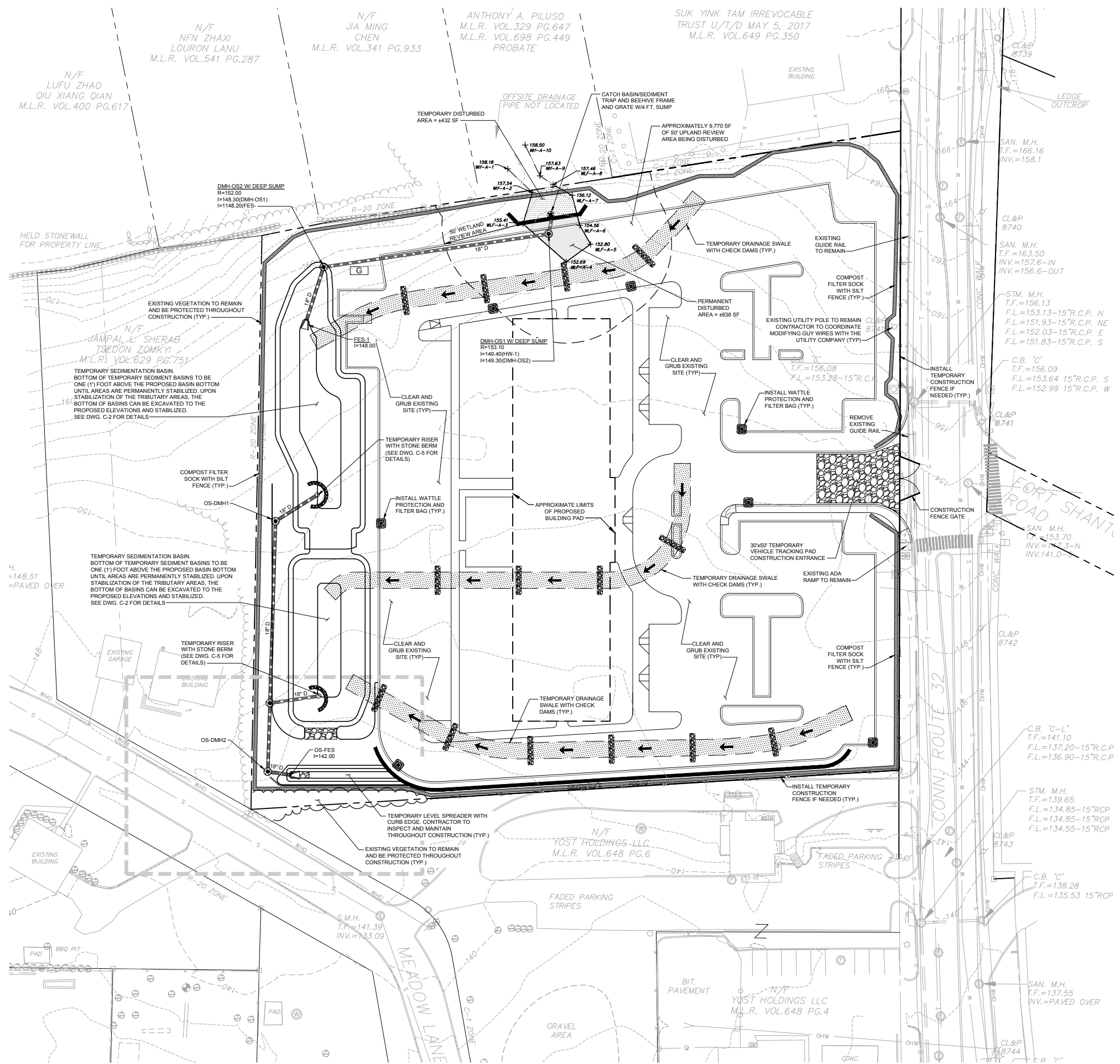


**RJO'CONNELL & ASSOCIATES, INC.**  
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
DATE: 08/27/2024      SCALE: 1"=6000'  
**NATURAL DIVERSITY DATABASE**  
2268-2284 CONN. ROUTE 32  
MONTVILLE, CT

## **APPENDIX B - PLAN SHEETS**

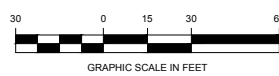
- **Demolition and Erosion Control Plan**
- **Demolition and Erosion Control Notes**
- **Grading and Drainage Plan**
- **Erosion Control Details**
- **Applicable Stormwater details**
- **Overall Landscape Plan**

Drawing name: G:\CT\Montville\Honeycomb Real Estate Partners\2268-2284 Route 32\Main\24029\_C-1 Demolition and Erosion Control Plan.dwg  
Sep 25, 2024 - 16:08pm



- NOTES:
- SEE DRAWING N-1 FOR GENERAL NOTES, EROSION CONTROL NOTES, DEMOLITION NOTES, GRADING & DRAINAGE NOTES, UTILITY NOTES, AND PARKING AND TRAFFIC CONTROL SIGN SCHEDULE.
  - SEE DRAWING C-5 THROUGH C-10 FOR DETAILS.

LEGEND	
WATTLE INLET (SINGLE CB)	
WATTLE INLET (DOUBLE CB)	
EXISTING VEGETATION TO REMAIN	
EXISTING LANDSCAPE AREA TO BE REMOVED	
PROPOSED BUILDING PAD	
STRAW WATTLE	
CONSTRUCTION FENCE	
SILT FENCE	
LIMIT OF WORK	



# RJOC

	DATE
	REVISION
	NO
	DATE
	REVISION
	NO
	DATE
	REVISION
	NO

PREPARED BY:

**RJO'CONNELL & ASSOCIATES, INC.**

CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS

80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180

PHONE: 781.279.0180 RJOC@RJOC.COM

PREPARED FOR:

**HONEYCOMB REAL ESTATE PARTNERS**

20 AVON MEADOW LANE

AVON, CT 06001

PROJECT NAME:

**HORIZON VIEW**

MONTVILLE, CT

SEAL:

DESIGNED BY: RWS

DRAWN BY: WJH

REVIEWED BY: BPD/RWS

SCALE: 1" = 30'

DATE: 09/25/2024

DRAWING NAME:

**DEMOLITION AND EROSION CONTROL PLAN**

DRAWING NUMBER: **C-1**

PROJECT NUMBER: **24029**

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1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AND/OR CONSTRUCTED IN ACCORDANCE WITH THE 2024 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, THE CONNECTICUT DEEP GENERAL PERMIT FOR THE DISCHARGE OF STORM WATER AND DE-WATERING WATER FROM CONSTRUCTION ACTIVITIES, AND ALL LOCAL MUNICIPAL REGULATIONS.
2. EROSION AND SEDIMENTATION CONTROL, BEST MANAGEMENT PRACTICES (BMPs) SHALL BE IN PLACE AND FUNCTIONING PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION, CLEARING AND GRUBBING ACTIVITIES OR EARTHWORK OPERATIONS. LOCATION OF THE EROSION CONTROL BARRIER MUST BE STAKED BY THE SITE SURVEYOR AND/OR SITE ENGINEER, AND MUST BE INSPECTED AND VERIFIED TO THE APPROPRIATE TOWN OFFICIALS. IN WRITING, BY THE SITE SURVEYOR AND/OR SITE ENGINEER PRIOR TO CONSTRUCTION. THE EROSION CONTROL BMPs SHALL BE MAINTAINED DURING CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND FINISHED GRASS COVER IS ESTABLISHED. ALL EROSION CONTROL, BMPs SHALL BE INSTALLED ON-SITE AND NOT ENCRoACH ONTO ADJUTING PROPERTIES.
3. PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES AT THE SITE, THE CONTRACTOR SHALL ENGAGE AN INDIVIDUAL WITH SPECIFIC PROFESSIONAL TRAINING AND EXPERTISE IN EROSION AND SEDIMENT CONTROL, THE EROSION CONTROL MONITOR SHALL PREPARE A WEEKLY REPORT WHICH SHALL BE KEPT ON-SITE AT ALL TIMES AND SHALL BE SHOWN TO LOCAL AND STATE AGENTS UPON REQUEST. THIS REPORT SHALL INDICATE THE STATUS OF THE EROSION CONTROL AND ANY ADJUSTMENTS REQUIRED AND PERFORMED. THIS REPORT SHALL CONFORM TO THE REQUIREMENTS OF THE CONNECTICUT DEEP GENERAL PERMIT FOR THE DISCHARGE OF STORM WATER AND DE-WATERING WATERS FROM CONSTRUCTION ACTIVITIES AND STORM WATER POLLUTION CONTROL PLAN (SWPPC).
4. THE PROJECT REQUIRES AN PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PERFORM ALL WORK INCLUDING BUT NOT LIMITED TO INSTALLATION, INSPECTIONS, CLEANING, REPAIRING, ETC. OF EROSION CONTROL MEASURES INSTALLED IN ACCORDANCE WITH THE STORMWATER POLLUTION CONTROL PLAN (SWPPC).
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED DAILY AND CLEANED, REPAIRED OR REPLACED AS NECESSARY THROUGHOUT CONSTRUCTION. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AFTER EACH STORM EVENT AS OUTLINED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). REFERTO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR DETAILS REGARDING THE TYPE, INSTALLATION, INSPECTION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL BE AWARE THAT SOIL AT THIS SITE IS PARTICULARLY SUSCEPTIBLE TO SOIL EROSION AND SENSITIVE TO ITS CONSEQUENCES; IT SHOULD BE NOTED THAT THE EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS DEPICT THE MINIMUM REQUIRED AND ARE REPRESENTATIVE OF A SINGLE PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION CONTROL BMPs AS THE PROJECT PROGRESSES AND SITE CONDITIONS CHANGE.
7. THE LIMIT OF WORK LINE FOR THE SITE TO BE CLEARED AND GRUBBED SHALL BE WITH SAME AS THE LIMIT OF WORK LINE NECESSARY FOR GRADING PURPOSES (I.E. THE GRADING LIMITS AROUND THE PERIMETER OF THE PROJECT AREA).
8. THE CONTRACTOR SHALL KEEP ON-SITE, AT ALL TIMES, ADDITIONAL WATTLES, FILTER BAGS, SILT FENCE, ETC. FOR INSTALLATION TO MITIGATE ANY EMERGENCY CONDITION.
9. THE PROPOSED ON-SITE DRAINAGE SYSTEM SHALL BE INSTALLED AS SOON AS PRACTICABLE AND ALL INLETS PROTECTED WITH FILTER BAGS (SEE DETAIL). NO SEDIMENT SHALL BE ALLOWED TO ENTER THE ON-SITE OR OFF-SITE DRAINAGE SYSTEM AT ANY TIME.
10. EARTHWORK ACTIVITIES ON SITE SHALL BE PERFORMED IN SUCH A MANNER THAT DIRECTS RAINFALL RUNOFF TO THE APPROPRIATE EROSION CONTROL, BEST MANAGEMENT PRACTICE (BMPs) AS DEPICTED ON DRAWING G-1 TITLED DEMOLITION AND EROSION CONTROL PLAN.
11. STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETER WITH STAKED WATTLES AND/OR SILTATION FENCING TO PREVENT AND/OR TO CONTROL SILTATION AND EROSION. THE LOCATION OF THE STOCKPILE MAY BE MOVED AS APPRIED BY THE EROSION CONTROL MONITOR. STOCKPILES SHALL BE COVERED SO THAT THE STORMWATER CANNOT INFILTRATE MATERIALS AND THEREBY RENDER THE MATERIAL UNSUITABLE FOR USE AS FILL.
12. THE CONSTRUCTION ENTRANCE/EXIT AREA TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING AND DISCHARGE OF SEDIMENT OFF-SITE. ALL SEDIMENT SPILLED, DROPPED, TRACKED OR OTHERWISE DEPOSITED ON THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY.
13. ALL DISTURBED OR EXPOSED AREAS SUBJECT TO EROSION SHALL BE STABILIZED WITH MULCH OR SEEDED FOR

**SEEDING:** BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS NOT FAVORABLE FOR SEEDING, THE AREAS SHALL BE MULCHED. MULCHING SHALL BE PERFORMED AT A RATE OF 2 INCHES OF MULCH PER AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDED MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKET. IF DORMANT SEEDED IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1000 SQ. YD. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING BY THE DISTRICT ENGINEER. MULCHING SHALL BE PERFORMED IN THE SPRING. IF DORMANT SEEDED IS NOT USED FOR WHITE, ALL DISTURBED AREAS SHALL BE RE-VEGETATED IN THE SPRING.

1. ALL WATER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL COMPLY WITH OR EXCEED THE TOWN OF MONTVILLE'S WATER DEPARTMENT'S STANDARDS.
2. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 5'-0" AND MAXIMUM OF 6'-0" OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE. GREATER DEPTHS ARE PERMITTED WHERE REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES. DETECTABLE WARNING TAPE TO BE INSTALLED ABOVE THE WATER MAIN IN ACCORDANCE WITH THE WATER DEPARTMENT'S REQUIREMENTS.
3. GENERALLY, WATER MAIN FITTINGS IDENTIFIED ON THIS DRAWING ARE SHOWN FOR INSTALLATION LOCATION PURPOSES. THE CONTRACTOR SHALL NOTE THAT NOT ALL FITTINGS ARE NOTED, SHOWN OR INDICATED.
4. ALL POTABLE WATER MAINS 3" OR LARGER SHALL BE CEMENT LINED DUCTILE IRON PIPE CLASS 52 AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED FITTINGS AND GATE VALVES. FITTINGS SHALL BE MECHANICAL JOINT, DUCTILE IRON CLASS 350 WITH RESTRAINT DEVICES (MEGALUG) AS MANUFACTURED BY EBAI IRON, INC. OR APPROVED EQUAL.
5. DOMESTIC WATER SERVICES 2-1/2" AND SMALLER SHALL BE TYPE K COPPER TUBING AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED CORPORATION STOP, APPROVED SADDLE, CURB STOP AND BOX.
6. A MINIMUM DISTANCE OF TEN (10) FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN SANITARY SEWER MAINS AND WATER MAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF TEN (10) FEET TO A WATER MAIN, THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST EIGHTEEN (18) INCHES BELOW THE INVERT OF THE WATER MAIN. A MINIMUM OF EIGHTEEN (18) INCHES VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER MAINS CROSS STORM DRAIN LINES.
7. MAINTAIN A MINIMUM SEPARATION OF THREE FEET (3') BETWEEN GAS AND WATER MAINS (MEASURED FROM THE CENTER OF THE PIPE).
8. ALL HYDRANTS SHALL MEET THE TOWN OF MONTVILLE'S WATER, UTILITY, AND FIRE DEPARTMENT REQUIREMENTS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE WATER AND FIRE DEPARTMENT REQUIREMENTS
9. ALL NEW GATE VALVES INSTALLED FOR THIS PROJECT SHALL OPEN AS REQUIRED BY THE TOWN OF MONTVILLE.
10. ALL WATER MAIN FITTINGS, TEES, HYDRANTS, ETC. SHALL BE RESTRAINED WITH APPROPRIATELY SIZED THRUST BLOCKS OR MECHANICAL JOINT RESTRAINTS.
11. WATER METERS AND BACK FLOW PREVENTERS SHALL BE LOCATED WITHIN THE BUILDING. ALL BACKFLOW PREVENTERS SHALL BE REGISTERED WITH THE DEPARTMENT OF PUBLIC WORKS.
12. PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH THE TOWN'S WATER UTILITY REQUIREMENTS. IN THE ABSENCE OF STANDARDS, THEY SHALL CONFORM TO THE REQUIREMENTS IN THE SITework SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTION WITH UTILITY TESTS, FLUSHING AND INSPECTIONS AS REQUIRED BY THE TOWN'S WATER UTILITY. COPIES OF TEST RESULTS SHALL BE SUBMITTED TO THE WATER DEPARTMENT.

**C. SEWER NOTES**

13. ALL GRAVITY SEWER PIPE SHALL BE POLYVINYL CHLORIDE PIPE (P.V.C.), S.D.R. 35 AND SHALL CONFORM WITH ASTM-D3034 UNLESS NOTED OTHERWISE.
14. WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST EIGHTEEN INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE

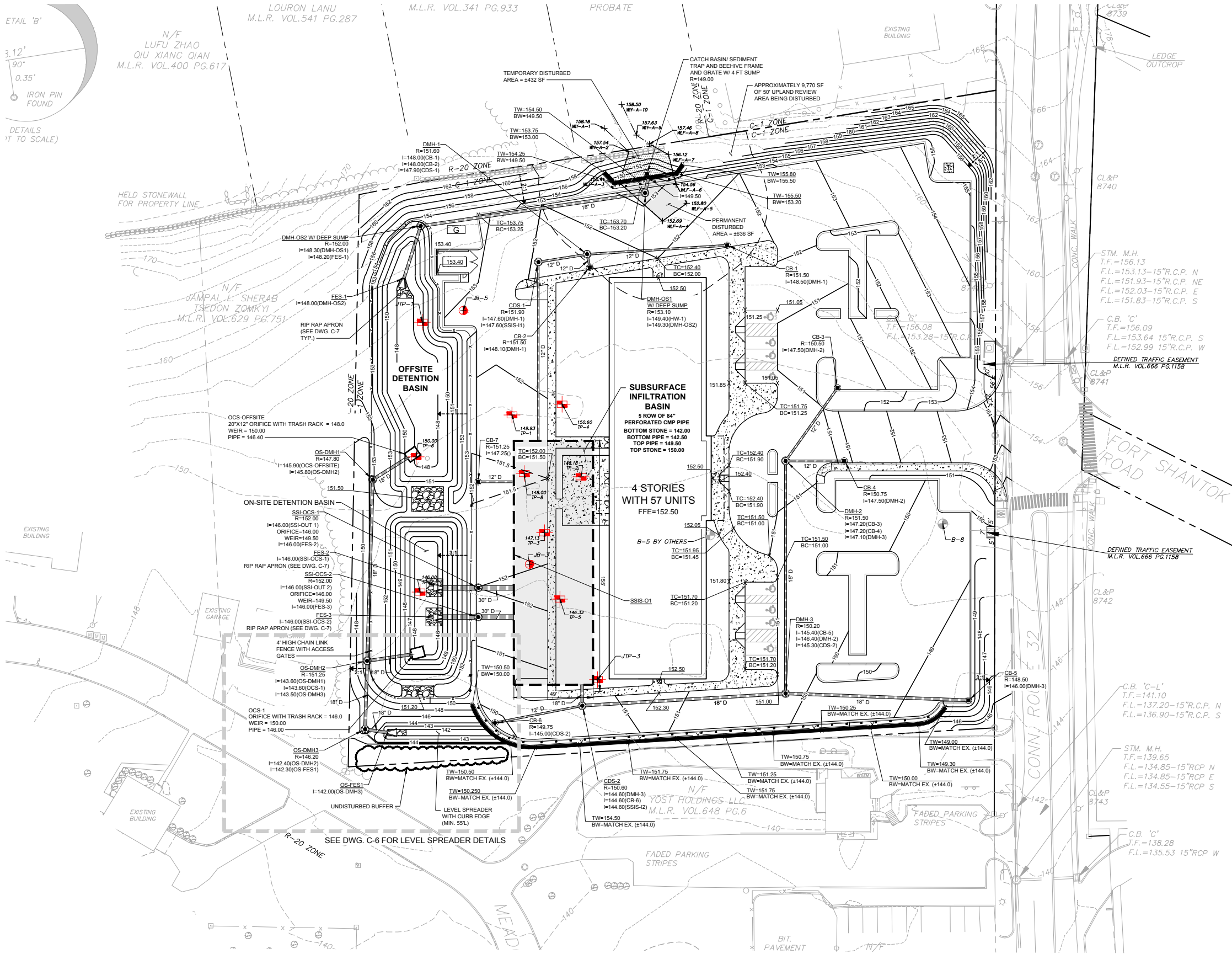
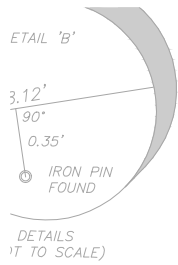
1. ACCESSIBLE PARKING SPACES SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (A.D.A.) ACCESSIBILITY GUIDELINES AND THE LATEST EDITIONS UNLESS OTHERWISE NOTED.
3. VAN ACCESSIBLE HANDICAP PARKING SPACES SHALL BE SIGNED AS "VAN ACCESSIBLE" PER A.D.A. (SEE 4.1.2.5B).
4. ALL PROPOSED CURBING SHALL BE BITUMINOUS BERM CURBING, UNLESS OTHERWISE NOTED. ALL SIDEWALKS SHALL BE MONOLITHIC CURB AND SIDEWALK.
5. ALL PAVEMENT STRIPING SHALL BE PAINTED WITH 2 COATS OF PAINT. PARKING STALLS SHALL BE MARKED WITH FOUR (4") INCH WIDE PAINTED LINES.
6. PARKING AND TRAFFIC CONTROL PLAN IS SCHEMATIC AND FOR LOCATION OF MARKINGS ONLY. SPECIFIC DETAILS OF PAVEMENT MARKINGS ARE PROVIDED AS PART OF THIS PLAN SET.
7. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL/BUILDING PLANS FOR EXACT BUILDING LOCATIONS, BUILDING DIMENSIONS, EXACT UTILITY ENTRANCE LOCATIONS, TRUCK DOCKS, BUILDING SIDEWALKS AND DOOR LOCATIONS.
8. FOR PAVEMENT SECTION SEE DWG. C-8.
9. ALL LIMITS OF PAVEMENT SHALL BE CURBED UNLESS NOTED OR INDICATED OTHERWISE.
10. THE CONTRACTOR SHALL ADJUST ALL UTILITY CASINGS TO THE PROPER LINE AND ELEVATION PRIOR TO THE PLACEMENT OF THE TOP COURSE OF PAVEMENT. NECESSARY ADJUSTMENTS SHALL BE MADE TO CASINGS IF REQUIRED, TO MAKE THEM FLUSH WITH FINISHED GRADE. NO DEPRESSIONS OR MOUNDS TO ACCOMMODATE CASINGS WILL BE PERMITTED.
11. ALL ACCESSIBLE CURB RAMPS SHALL BE CONSTRUCTED OF CEMENT CONCRETE AND COMPLY WITH A.D.A. REQUIREMENTS.

**N-1**

Drawing name: G:\CT\Montville\Honeycomb Real Estate Partners\2284 Route 32\Main\24029\_C-2 Grading and Drainage Plans.dwg  
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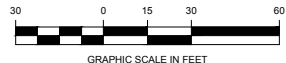


LEGEND	
PROPOSED CONTOUR ELEVATION	33
SPOT ELEVATION	X
DRAIN LINE	—
DRAIN MANHOLE	⊙
CATCH BASIN	⊠
DOUBLE CATCH BASIN	⊞
AREA DRAIN	⊙
DRAIN CLEAN OUT	•
FLARED END SECTION	▵
HEADWALL	⌋
RIP RAP SPLASH PAD	▨
ROOF DRAIN	RD
TRENCH DRAIN	—
BORING	⊕
TEST PIT	⊞



NOTES:

- SLOPES STEEPER THAN 3:1 REQUIRE EROSION CONTROL MATTING FOR STABILIZATION.
- SEE DRAWING N-1 FOR GENERAL NOTES, EROSION CONTROL NOTES, DEMOLITION NOTES, GRADING & DRAINAGE NOTES, UTILITY NOTES, AND PARKING AND TRAFFIC CONTROL SIGN SCHEDULE.
- SEE DRAWING C-5 THROUGH C-10 FOR DETAILS.



NO.	REVISION	DATE
1.	SUBMITTED TO LAND WETLANDS COMMISSION	09/25/2024

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PREPARED FOR:  
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20 AVON MEADOW LANE  
AVON, CT 06001

PROJECT NAME:  
**HORIZON VIEW**  
MONTVILLE, CT

SEAL:

DESIGNED BY: MAP/RWS  
DRAWN BY: WJH  
REVIEWED BY: BPD/RWS  
SCALE: 1" = 30'  
DATE: 09/25/2024  
DRAWING NAME:

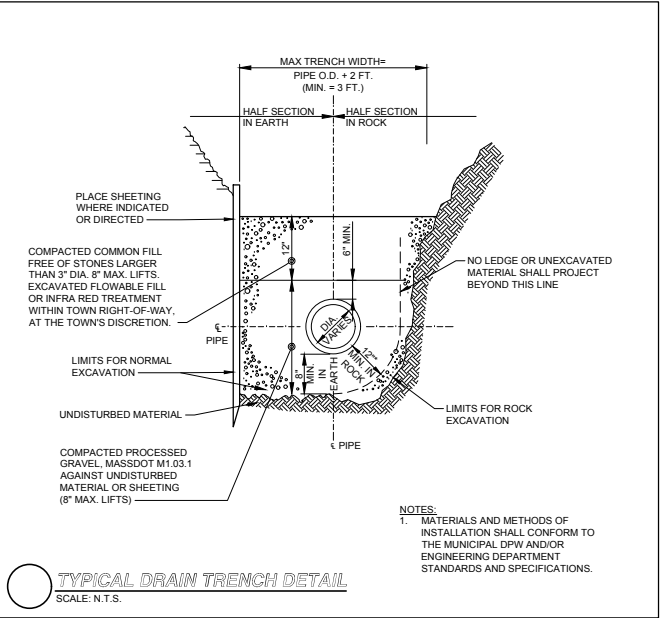
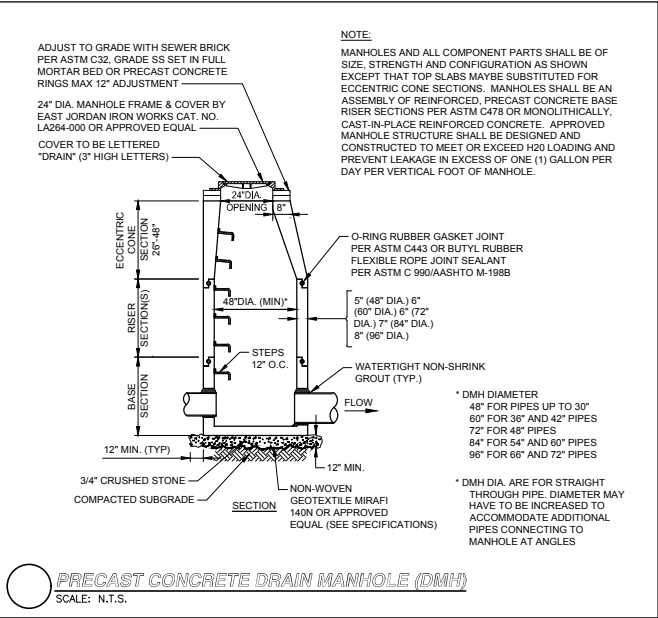
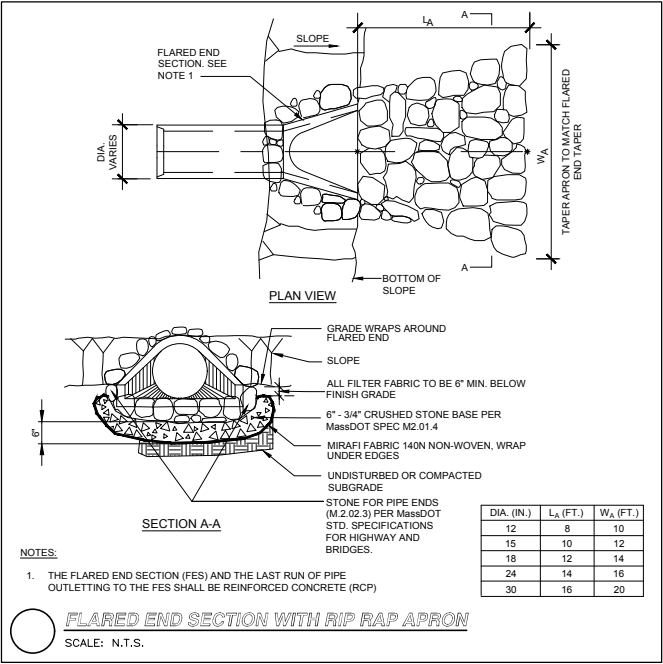
**GRADING AND DRAINAGE PLAN**

DRAWING NUMBER:  
**C-2**  
PROJECT NUMBER:  
**24029**

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RJOC		DATE
	REVISION	
	NO	
	DATE	09/25/2024
	REVISION	
	NO	
	DATE	09/25/2024
SUBMITTED TO INLAND WETLANDS COMMISSION		
	NO	
	DATE	09/25/2024

PREPARED BY:

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PREPARED FOR:

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20 AVON MEADOW LANE  
AVON, CT 06001

PROJECT NAME:

**HORIZON VIEW**  
MONTVILLE, CT

SEAL:

DESIGNED BY: MAP/RWS  
DRAWN BY: WJH  
REVIEWED BY: BPD/RWS  
SCALE: NOT TO SCALE  
DATE: 09/25/2024  
DRAWING NAME:

**DRAINAGE DETAILS II**

DRAWING NUMBER:

**C-7**

PROJECT NUMBER:

**24029**