

300' x 600' ±  
 AREA AVAILABLE FOR ATHLETIC PLAY.  
 MAINTENANCE OF SURFACE COULD INCLUDE TURF & TOP  
 SOIL MANAGEMENT AND FINE GRADING AS NEEDED,  
 PROVIDED THE FINISHED GRADE IS NOT ALTERED IN  
 ELEVATION BY MORE THAN 6" FROM THE EXISTING GRADE.  
 EXISTING RIDGE LINE TO BE MAINTAINED.

AREA TO BE RESTORED TO LAWN.  
 APPROXIMATELY 1,500 CY OF  
 TOPSOIL AND/EARTH MATERIAL  
 WILL BE EXCAVATED FROM THE  
 PARKING AREAS AND PLACED IN  
 THE SAND RINGS.

240' x 165' (L x W)  
 REPRESENTATIVE SIZE OF YOUTH 12 & UNDER SOCCER FIELD  
 (AS A COMPARISON THE FIELD AT CHERRY LAWN IS STRIPED AT 215' x 155' (L x W))

ZONING DATA TABLE (ZONE R-2)		
Requirement	Allowed/Required	Proposed
Lot Area (min)	87,120 sq. ft. (min.)	709,877 sq. ft.
Frontage (min)	75 ft.	1,680 ft.
Front Yard (min)	50 ft.	131.7 ft.
Side Yard (min)	35 ft.	58.8 ft.
Rear Yard (min)	50 ft.	342.1 ft.
Building Height (max)	Stories = 2½ Feet = 30 ft.	Stories = 1 Feet = 10 ft.
Building Coverage (max)	20% (141,975 sq. ft.)	0.05% (406 sq. ft.)
Landscaped Buffer (min)	50 ft.**	50 ft.

\*Refer to Section 406 (note c): "In instances where street lines are less than 50 ft apart, the front yard setback shall be measured from the center line of the street right-of-way, and 25 feet shall be added to the required front yard setback."  
 \*\*Refer to Section 943 (note a): "In all Residential Zones every use shall have a front landscape area of not less than the required front yard for that zone."

No.	Date	Revision
3	09/13/2019	ISSUE FOR BID
2	05/23/2018	REVISED PER ENGINEERING COMMENTS
1	04/10/2018	ORIGINAL ISSUE DATE

**SITE DEVELOPMENT PLAN**  
 DEPICTING  
**560 MIDDLESEX ROAD**  
 DARIEN, CT  
 PREPARED FOR  
**TOWN OF DARIEN**

SCALE: 0 40 80  
 1"=40'

DRAWN BY: FRD CHECKED BY: CJF

**REDNISS & MEAD**  
 LAND SURVEYING  
 CIVIL ENGINEERING  
 PLANNING & ZONING CONSULTING  
 PERMITTING

22 First Street | Stamford, CT 06903  
 Tel: 203.327.0500 | Fax: 203.357.1118  
 www.rednissmead.com

GRAIG J. FLAHERTY CT. P.E. 21149  
 September 13, 2019  
 DATE

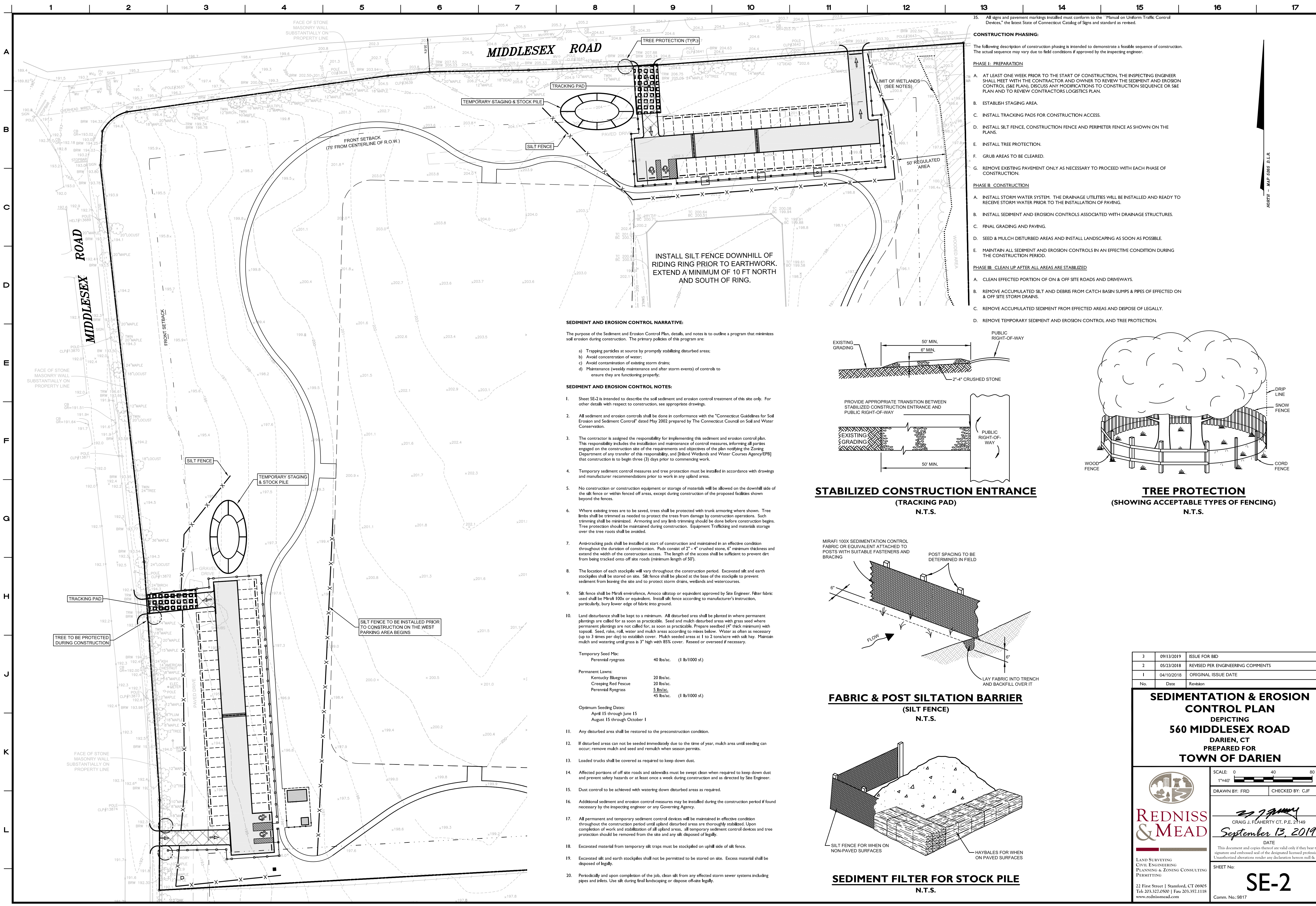
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SHEET No: **SE-I**

Comm. No.: 9817

NOTE: SEE SHEET SE-6 FOR ADDITIONAL POROUS PARKING INFORMATION  
 NOTE: ALTHOUGH NO SPECIFICS ARE INDICATED, THERE WILL BE MISCELLANEOUS SITE FURNISHINGS THAT INCLUDE BUT ARE NOT LIMITED TO TRASH AND RECYCLING RECEPTACLES, DOGGIE BAGS AND DISPOSAL RECEPTACLES, AND PARK BENCHES AND TABLES.

NORTH - MAP 6285 D.L.R.



35. All signs and pavement markings installed must conform to the "Manual on Uniform Traffic Control Devices," the latest State of Connecticut Catalog of Signs and standard as revised.

**CONSTRUCTION PHASING:**  
The following description of construction phasing is intended to demonstrate a feasible sequence of construction. The actual sequence may vary due to field conditions if approved by the inspecting engineer.

- PHASE I - PREPARATION**
- AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION, THE INSPECTING ENGINEER SHALL MEET WITH THE CONTRACTOR AND OWNER TO REVIEW THE SEDIMENT AND EROSION CONTROL (SEE PLAN), DISCUSS ANY MODIFICATIONS TO CONSTRUCTION SEQUENCE OR S&E PLAN AND TO REVIEW CONTRACTOR'S LOGISTICS PLAN.
  - ESTABLISH STAGING AREA.
  - INSTALL TRACKING PADS FOR CONSTRUCTION ACCESS.
  - INSTALL SILT FENCE, CONSTRUCTION FENCE AND PERIMETER FENCE AS SHOWN ON THE PLANS.
  - INSTALL TREE PROTECTION.
  - GRUB AREAS TO BE CLEARED.
  - REMOVE EXISTING PAVEMENT ONLY AS NECESSARY TO PROCEED WITH EACH PHASE OF CONSTRUCTION.
- PHASE II - CONSTRUCTION**
- INSTALL STORM WATER SYSTEM. THE DRAINAGE UTILITIES WILL BE INSTALLED AND READY TO RECEIVE STORM WATER PRIOR TO THE INSTALLATION OF PAVING.
  - INSTALL SEDIMENT AND EROSION CONTROLS ASSOCIATED WITH DRAINAGE STRUCTURES.
  - FINAL GRADING AND PAVING.
  - SEED & MULCH DISTURBED AREAS AND INSTALL LANDSCAPING AS SOON AS POSSIBLE.
  - MAINTAIN ALL SEDIMENT AND EROSION CONTROLS IN AN EFFECTIVE CONDITION DURING THE CONSTRUCTION PERIOD.
- PHASE III - CLEAN UP AFTER ALL AREAS ARE STABILIZED**
- CLEAN EFFECTED PORTION OF ON & OFF SITE ROADS AND DRIVEWAYS.
  - REMOVE ACCUMULATED SILT AND DEBRIS FROM CATCH BASIN SUMPS & PIPES OF EFFECTED ON & OFF SITE STORM DRAINS.
  - REMOVE ACCUMULATED SEDIMENT FROM EFFECTED AREAS AND DISPOSE OF LEGALLY.
  - REMOVE TEMPORARY SEDIMENT AND EROSION CONTROL AND TREE PROTECTION.

**SEDIMENT AND EROSION CONTROL NARRATIVE:**

The purpose of the Sediment and Erosion Control Plan, details, and notes is to outline a program that minimizes soil erosion during construction. The primary policies of this program are:

- Trapping particles at source by promptly stabilizing disturbed areas;
- Avoid concentration of water;
- Avoid contamination of existing storm drains;
- Maintenance (weekly maintenance and after storm events) of controls to ensure they are functioning properly;

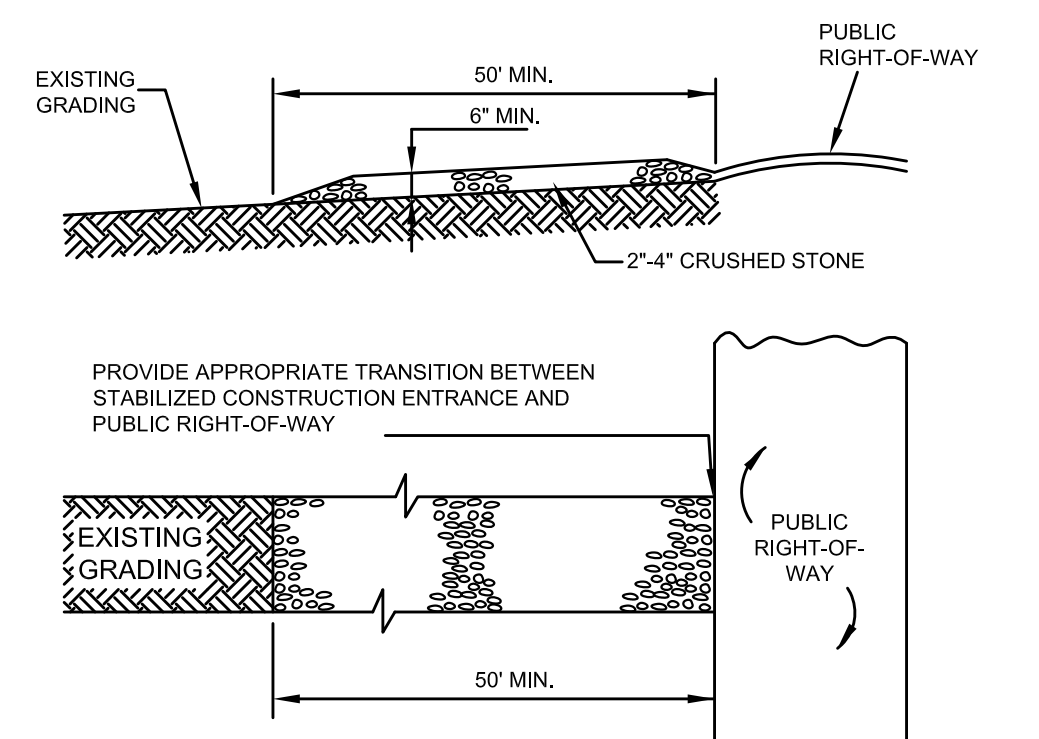
**SEDIMENT AND EROSION CONTROL NOTES:**

- Sheet SE-2 is intended to describe the soil sediment and erosion control treatment of this site only. For other details with respect to construction, see appropriate drawings.
- All sediment and erosion controls shall be done in conformance with the "Connecticut Guidelines for Soil Erosion and Sediment Control" dated May 2002 prepared by The Connecticut Council on Soil and Water Conservation.
- The contractor is assigned the responsibility for implementing this sediment and erosion control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan, notifying the Zoning Department of any transfer of this responsibility, and [Inland Wetlands and Water Courses Agency/EPB] that construction is to begin three (3) days prior to commencing work.
- Temporary sediment control measures and tree protection must be installed in accordance with drawings and manufacturer recommendations prior to work in any upland areas.
- No construction or construction equipment or storage of materials will be allowed on the downhill side of the silt fence or within fenced off areas, except during construction of the proposed facilities shown beyond the fences.
- Where existing trees are to be saved, trees shall be protected with trunk armoring where shown. Tree limbs shall be trimmed as needed to protect the trees from damage by construction operations. Such trimming shall be minimized. Armoring and any limb trimming should be done before construction begins. Tree protection should be maintained during construction. Equipment Tracking and materials storage over the tree roots shall be avoided.
- Anti-tracking pads shall be installed at start of construction and maintained in an effective condition throughout the duration of construction. Pads consist of 2" - 4" crushed stone, 6" minimum thickness and extend the width of the construction access. The length of the access shall be sufficient to prevent dirt from being tracked onto off site roads (minimum length of 50').
- The location of each stockpile will vary throughout the construction period. Excavated silt and earth stockpiles shall be stored on site. Silt fence shall be placed at the base of the stockpile to prevent sediment from leaving the site and to protect storm drains, wetlands and watercourses.
- Silt fence shall be Mirafl Envirofence, Amoco siltstop or equivalent approved by Site Engineer. Filter fabric used shall be Mirafl 100x or equivalent. Install silt fence according to manufacturer's instruction, particularly, bury lower edge of fabric into ground.
- Land disturbance shall be kept to a minimum. All disturbed area shall be planted in where permanent plantings are called for as soon as practicable. Seed and mulch disturbed areas with grass seed where permanent plantings are not called for, as soon as practicable. Prepare seedbed (4" thick minimum) with topsoil. Seed, rake, roll, water and mulch areas according to notes below. Water as often as necessary (up to 3 times per day) to establish cover. Mulch seeded areas at 1 to 2 tons/acre with salt hay. Maintain mulch and watering until grass is 3" high with 85% cover. Reseed or overseed if necessary.

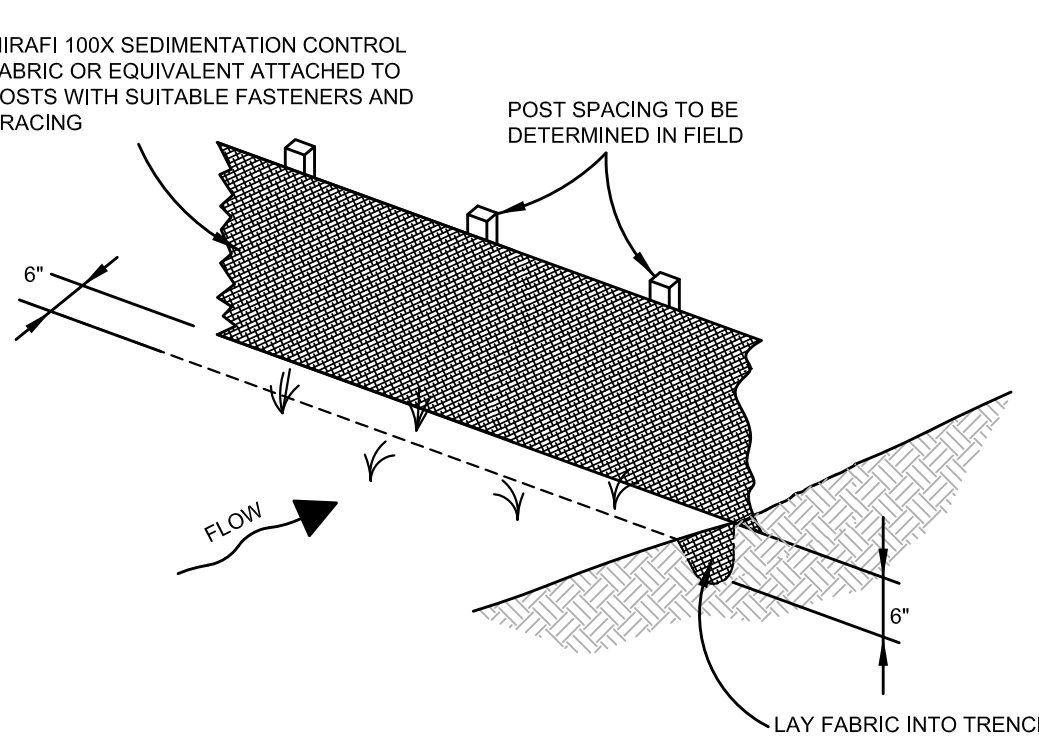
Temporary Seed Mix:	
Perennial ryegrass	40 lbs/ac. (1 lb/1000 sq ft)
Permanent Lawns:	
Kentucky Bluegrass	20 lbs/ac.
Creeping Red Fescue	20 lbs/ac.
Perennial Ryegrass	5 lbs/ac.
	45 lbs/ac. (1 lb/1000 sq ft)

Optimum Seeding Dates:  
April 15 through June 15  
August 15 through October 1

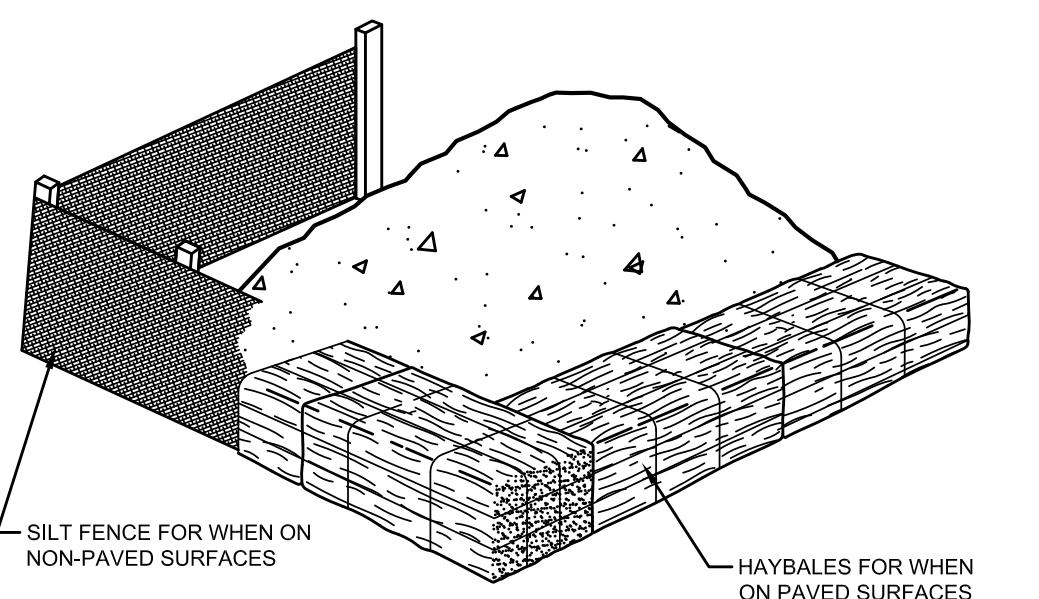
- Any disturbed area shall be restored to the preconstruction condition.
- If disturbed areas can not be seeded immediately due to the time of year, mulch area until seeding can occur; remove mulch and seed and reseed when season permits.
- Loaded trucks shall be covered as required to keep down dust.
- Affected portions of off site roads and sidewalks must be swept clean when required to keep down dust and prevent safety hazards or at least once a week during construction and as directed by Site Engineer.
- Dust control to be achieved with watering down disturbed areas as required.
- Additional sediment and erosion control measures may be installed during the construction period if found necessary by the inspecting engineer or any Governing Agency.
- All permanent and temporary sediment control devices will be maintained in effective condition throughout the construction period until upland disturbed areas are thoroughly stabilized. Upon completion of work and stabilization of all upland areas, all temporary sediment control devices and tree protection should be removed from the site and any silt disposed of legally.
- Excavated material from temporary silt traps must be stockpiled on uphill side of silt fence.
- Excavated silt and earth stockpiles shall not be permitted to be stored on site. Excess material shall be disposed of legally.
- Periodically and upon completion of the job, clean silt from any affected storm sewer systems including pipes and inlets. Use silt during final landscaping or dispose off-site legally.



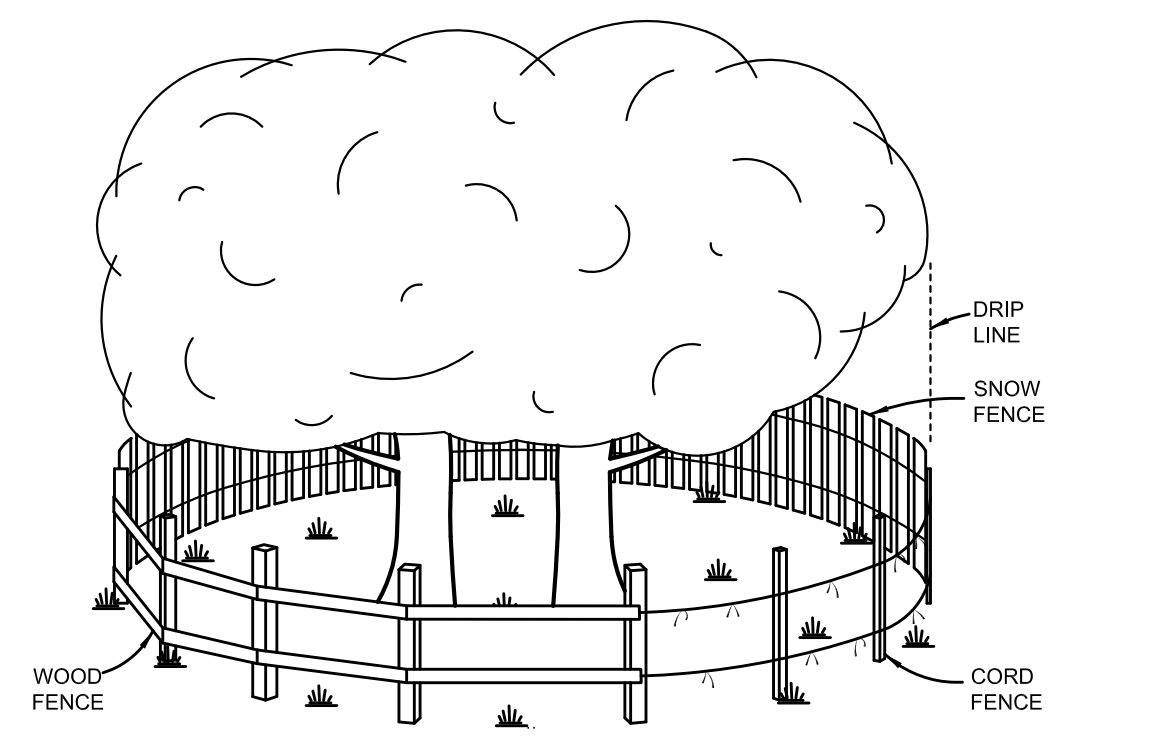
**STABILIZED CONSTRUCTION ENTRANCE (TRACKING PAD)**  
N.T.S.



**FABRIC & POST SILTATION BARRIER (SILT FENCE)**  
N.T.S.



**SEDIMENT FILTER FOR STOCK PILE**  
N.T.S.



**TREE PROTECTION (SHOWING ACCEPTABLE TYPES OF FENCING)**  
N.T.S.

3	09/13/2019	ISSUE FOR BID
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**SEDIMENTATION & EROSION CONTROL PLAN**  
DEPICTING  
**560 MIDDLESEX ROAD**  
DARIEN, CT  
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SCALE: 0 40 80  
1"=40'

DRAWN BY: FRD CHECKED BY: CJF

DATE: September 13, 2019  
CRAIG J. FLAHERTY, P.E. 2148

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SHEET No: **SE-2**  
Comm. No.: 9817

- GENERAL NOTES:**
- This drawing is intended only to depict the design of site Grading, Drainage, and Sediment & Erosion Controls. This drawing is for approval purposes only. No construction may begin prior to obtaining all necessary permits and approvals.
  - All survey data, boundary lines, topography, building locations and area calculations are from a survey prepared by Redniss & Mead entitled Property and Topographic Survey dated 10/24/2017. Elevations depicted or labeled are based on NAVD-88.
  - Limit of Wetlands depicted hereon taken from Map titled "Topographic & Zoning Location Survey prepared for Cx Ridge Hunt Club 516 Middlesex Road, Darien, Connecticut", dated May 17, 2007 by William W. Seymour & Associates, P.C.
  - Property lies in a R-2 zone.
  - Parcel lies within FIRM Zone X as depicted on Community: Town of Darien; Number 090005; Panel: 0526; Suffix: F. Map effective Date June 18, 2010.
  - All construction shall comply with the Town of Darien's requirements, the State of Connecticut Basic Building Code Americans with Disabilities Act (ADA), the Connecticut Guidelines for Soil and Erosion and Sediment Control, OSHA, CT DOT Form 817 (latest edition).
  - Contractor shall supply complete shop drawings including manufacturer's product data sheets to the Site Engineer, for all construction material used in conjunction with these drawings. Contractor shall allow a 5 day review period, prior to fabrication and installation.
  - Prior to any excavation the Contractor and/or Applicant, in accordance with Public Act 77-350, shall be required to contact "Call Before You Dig" at 1-800-922-4455 for mark-out of underground utilities. Dig test pit(s) at utility crossing(s) to check actual clearances with new utilities prior to construction. If conflicts are found the contractor shall notify the engineer, at which time the sewer in question shall be redesigned. If such redesign is not possible, the existing pipes or utilities shall be relocated to avoid the conflict. Such relocation shall be done with knowledge of and in accordance with the owner of the utility.
  - It shall be the responsibility of the contractor to provide any excavation safeguards, necessary barricades, flagmen, etc., for traffic control and site safety. All work shall be done in accordance with OSHA requirements. The contractor shall be responsible for compliance with OSHA requirements.
  - When preparing the existing site for the proposed development, all materials removed shall be disposed of in conformance with all governing agencies.
  - Prior to issuance of a Certificate of Occupancy, the Engineering Bureau may require a certification letter stating that the development was constructed in accordance to the approved plans, and an "as-built" drawing shall be submitted.
  - The work shall be done in conformance with the contract documents/plans unless changes have been approved in writing by the design engineer prior to the work being done.
  - A preconstruction meeting shall be held with the Owner, Contractor and Engineer to review the scope of construction. The Contractor shall be responsible to coordinate the preconstruction meeting.
- EARTHWORK & GRADING:**
- No work shall commence until erosion controls have been inspected.
  - Disturbed areas shall be top soiled, seeded with grass and mulched in a manner conforming to the recommendations of the "Guidelines for Soil Erosion and Sediment Control", published by The Connecticut Council on Soil and Water Conservation, May 2002.
  - After the areas to be topsoiled have been brought to grade, the subgrade shall be loosened by scarifying to a depth of at least 2" to ensure bonding of the topsoil and subsoil.
  - Topsoil shall be friable and loamy with high organic content. It shall be free of debris, rocks larger than 2" and roots. Topsoil shall have at least 1.5 percent by weight of fine textured stable organic material and no greater than 6 percent. Topsoil shall not have less than 20% fine textured material (passing the No. 200 sieve) and not more than 15% clay. pH range shall be 6.0-7.5 and soluble salts shall not exceed 500ppm.
  - Fill or topsoil shall not be placed nor compacted while in a frozen or muddy condition or while subgrade is frozen.
- STORM AND SANITARY SEWER SYSTEMS:**
- All pipe shall be installed straight and at the vertical and horizontal alignment shown. Pipes shall have a uniform slope as specified.
  - All storm pipe specified as Poly Vinyl Chloride Pipe (PVC) shall be SDR 35 with rubber gasketed joints and meet the requirements of ASTM D3034 and D3212.
  - All Ductile Iron Pipe (D.I.P.) shall be AWWA C150, C151, with cement mortar lining complying with AWWA C104; class 51 with push on gasketed joints and furnished in minimum normal 18 foot length.
  - All crushed stone shall be Gradation No. 4 as per CT DOT Form 816, Article M.01.01. Stone shall consist of sound, tough, durable particles free from soft, thin, elongated, laminated, friable, micaceous, or disintegrated pieces of mud, dirt or other deleterious material.
- PAVEMENT AND PAVEMENT MARKINGS:**
- Porous asphalt shall be installed in accordance with the details on Sheet SE-3.
  - Areas of asphalt pavement that are disturbed by the construction of this project shall be replaced in accordance with the asphalt pavement repair detail. The finished grade of asphalt paving shall blend to existing grade and the edge of the concrete pavement smoothly with no slopes exceeding 4%.
  - Contractor shall engage a testing lab who shall verify the base course material by means of a sieve analysis and perform compaction testing of the base and each course of pavement. Site Engineer shall review with the contractor the required testing at the preconstruction meeting. Site Engineer shall approve base course prior to placement of each layer of pavement.
  - The Contractor shall engage a qualified independent testing agency to perform field inspections and tests and to prepare test reports. Testing agency will conduct and interpret tests and state in each report whether tested work complies with or deviates from specified requirements.
  - Additional testing, at Contractor's expense, will be performed to determine compliance of corrected work with specified requirements. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements as directed by the Site Engineer.
  - Compaction shall be constructed as specified in the CT DOT FORM 817 (latest edition), Section 4.06 specification, the drawings and the details. Testing lab shall verify compaction of each course of pavement as directed by the Site Engineer.
  - After the asphalt pavement has cured sufficiently to support the weight of a water truck without marking the newly installed pavement, it shall be water tested. A water truck shall spray a sufficient amount of water on all pavement sections to observe the drainage of water.
  - Finished grade shall be within 1/2 inch of that noted on the drawings.
  - The pavement shall be protected from vehicular traffic of any kind with the use of barricades, etc. for a minimum period of 24 hours after final rolling. Maintain and protect asphalt surface from scrapes, sears, spills, hydraulic leaks, and any other construction damage for the remainder of construction until Owner's Representative acceptance. Contractor is responsible for clearing, repairing, seal coating, patching, and re-striping as necessary to obtain Owner's Representative's final approval/acceptance.
  - Thicknesses of all layers shown are after compaction. Compact all layers to 95% per ASTM D 1557 (Modified Proctor Method).
  - New pavement markings shall be painted with epoxy resin paint in compliance with the CT DOT Form 817 Section 12.09 as revised.
  - New sign material and sheeting shall be made of reflective material in compliance with CT DOT Form 817 Section 12.08 as revised. Type I Reflective Sheeting shall be used for signs with white background, Type III Reflective Sheeting shall be used for signs with colored background except for signs with red background that shall be Type 8 or 9 Reflective Sheeting.
  - All signs and pavement markings installed must conform to the "Manual on Uniform Traffic Control Devices," the latest State of Connecticut Catalog of Signs and standard as revised.

Subsurface Soil Investigation	
Soil Profile	
Test Pit #: 1	Date: 04/27/2018
Inspector: CJF/PBS	Sanitarian: N/A
Ledge at: N/A	Mottling at: 32"
Water at: 42"	Roots at: N/A
Depth: 84"	Soil Description
0"-11"	Topsoil
11"-26"	Tan Silty Loam
26"-84"	Moderately compact grey silty fine sand with mottles
Subsurface Soil Investigation	
Soil Profile	
Test Pit #: 2	Date: 04/27/2018
Inspector: CJF/PBS	Sanitarian: N/A
Ledge at: N/A	Mottling at: 30"
Water at: 46"	Roots at: N/A
Depth: 70"	Soil Description
0"-8"	Topsoil
8"-30"	Tan Silty Loam
30"-70"	Moderately compact grey silty fine sand with mottles
Subsurface Soil Investigation	
Soil Profile	
Test Pit #: 3	Date: 04/27/2018
Inspector: CJF/PBS	Sanitarian: N/A
Ledge at: N/A	Mottling at: 24"
Water at: 30"	Roots at: N/A
Depth: 72"	Soil Description
0"-8"	Topsoil
8"-24"	Tan-Orange silty loam
24"-72"	Moderately compact grey silty fine sand with mottles
Subsurface Soil Investigation	
Soil Profile	
Test Pit #: 4	Date: 04/27/2018
Inspector: CJF/PBS	Sanitarian: N/A
Ledge at: N/A	Mottling at: 12"
Water at: 30"	Roots at: N/A
Depth: 77"	Soil Description
0"-8"	Topsoil
8"-24"	Tan-Orange silty loam
24"-77"	Moderately compact grey silty fine sand with mottles

Time	Reading In Inches Total	Increment Drop In Inches
10:08 AM	11 13/16	-
10:13 AM	12 6/16	9/16
10:18 AM	12 11/16	5/16
10:23 AM	12 12/16	1/16
10:28 AM	12 13/16	1/16
10:33 AM	12 15/16	2/16
10:38 AM	13 1/16	2/16
10:43 AM	13 3/16	2/16
10:48 AM	13 4/16	1/16
10:53 AM	13 5/16	1/16
10:58 AM	13 7/16	2/16
11:03 AM	13 9/16	2/16
11:08 AM	13 10/16	1/16
11:13 AM	13 11/16	1/16
11:18 AM	13 12/16	1/16

Recorded By: FRD Date: 05/01/18  
Hole: 1 Project: 9817  
Depth: 24" Diameter: 8"  
9:05 AM 1:03 hrs

Minimum Uniform Drop: 1/16 inches in 5 minutes

Percolation Rate = 1" drop in 80.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
11:35 AM	12 9/16	-
11:40 AM	12 14/16	5/16
11:45 AM	13	2/16
11:50 AM	13 3/16	3/16
11:55 AM	13 5/16	2/16
12:00 PM	13 7/16	2/16
12:05 PM	13 9/16	2/16
12:10 PM	13 12/16	3/16
12:15 PM	13 14/16	2/16
12:20 PM	14	2/16
12:25 PM	14 2/16	2/16
12:30 PM	14 4/16	2/16
12:35 PM	14 6/16	2/16

Recorded By: FRD Date: 05/01/18  
Hole: 3 Project: 9817  
Depth: 25" Diameter: 8"  
9:30 AM 2:05 hrs

Minimum Uniform Drop: 2/16 inches in 5 minutes

Percolation Rate = 1" drop in 40.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
10:05 AM	12 14/16	-
10:10 AM	13 1/16	3/16
10:15 AM	13 4/16	3/16
10:20 AM	13 7/16	3/16
10:25 AM	13 10/16	3/16
10:30 AM	13 13/16	3/16
10:35 AM	14	3/16
10:40 AM	14 2/16	2/16
10:45 AM	14 4/16	2/16
10:50 AM	14 6/16	2/16
10:55 AM	14 8/16	2/16
11:00 AM	14 10/16	2/16
11:05 AM	14 12/16	2/16

Recorded By: FRD Date: 05/01/18  
Hole: 2 Project: 9817  
Depth: 24" Diameter: 8"  
9:00 AM 1:05 hrs

Minimum Uniform Drop: 2/16 inches in 5 minutes

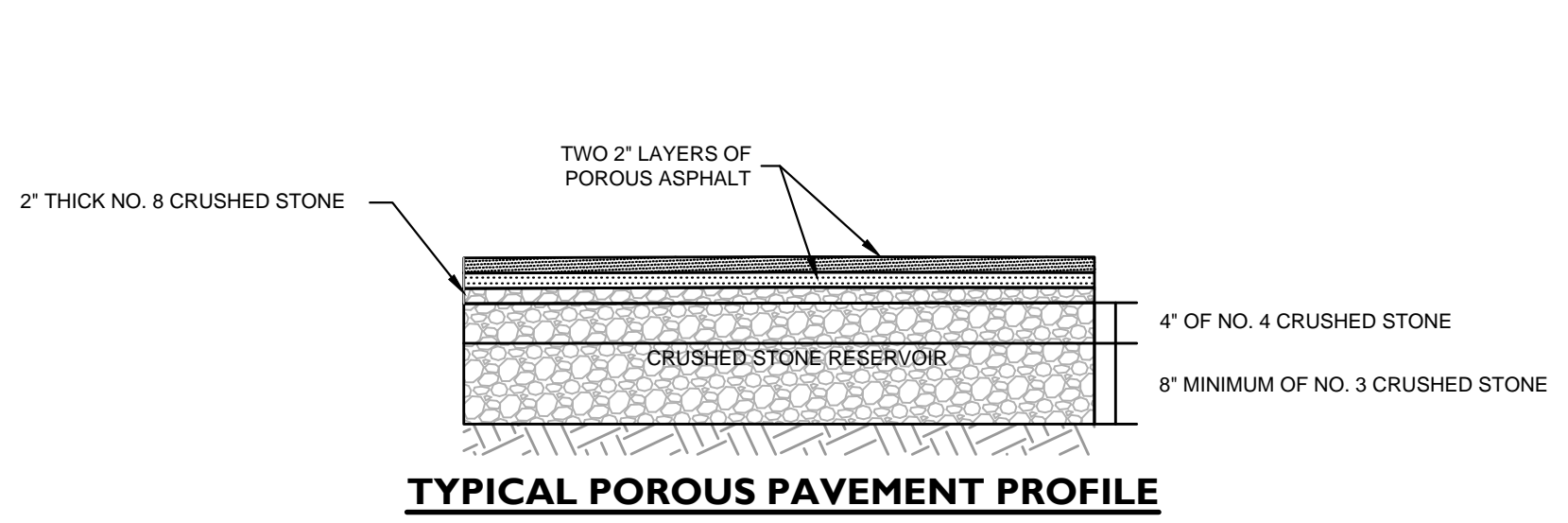
Percolation Rate = 1" drop in 40.00 minutes

Time	Reading In Inches Total	Increment Drop In Inches
11:38 AM	11 3/16	-
11:43 AM	11 10/16	7/16
11:48 AM	11 14/16	4/16
11:53 AM	12 2/16	4/16
11:58 AM	12 6/16	4/16
12:03 PM	12 10/16	4/16
12:08 PM	12 13/16	3/16
12:13 PM	13 1/16	4/16
12:18 PM	13 5/16	4/16
12:23 PM	13 9/16	4/16
12:28 PM	13 12/16	3/16
12:33 PM	13 15/16	3/16
12:38 PM	14 2/16	3/16

Recorded By: FRD Date: 05/01/18  
Hole: 4 Project: 9817  
Depth: 23" Diameter: 8"  
9:45 AM 1:53 hrs

Minimum Uniform Drop: 3/16 inches in 5 minutes

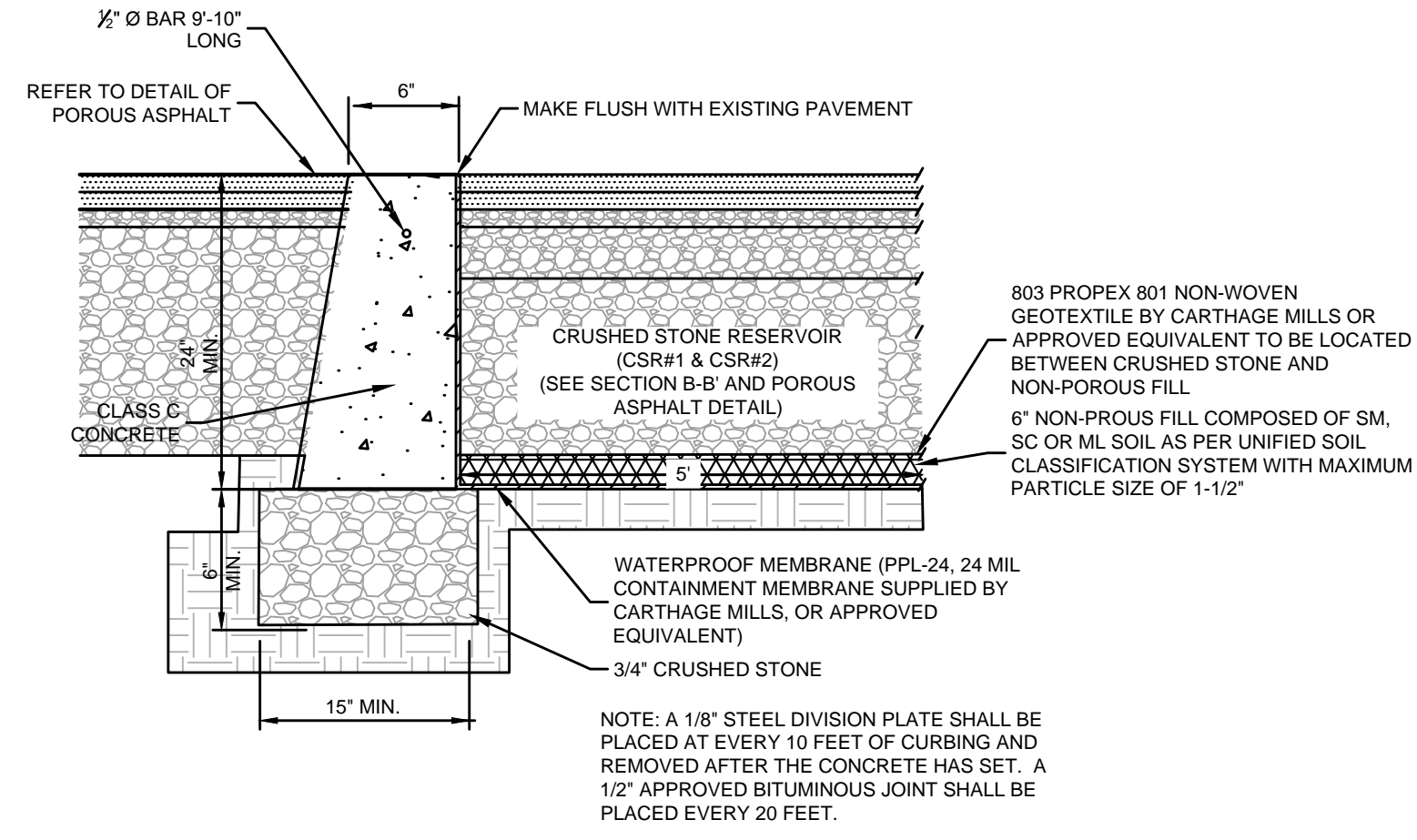
Percolation Rate = 1" drop in 26.67 minutes



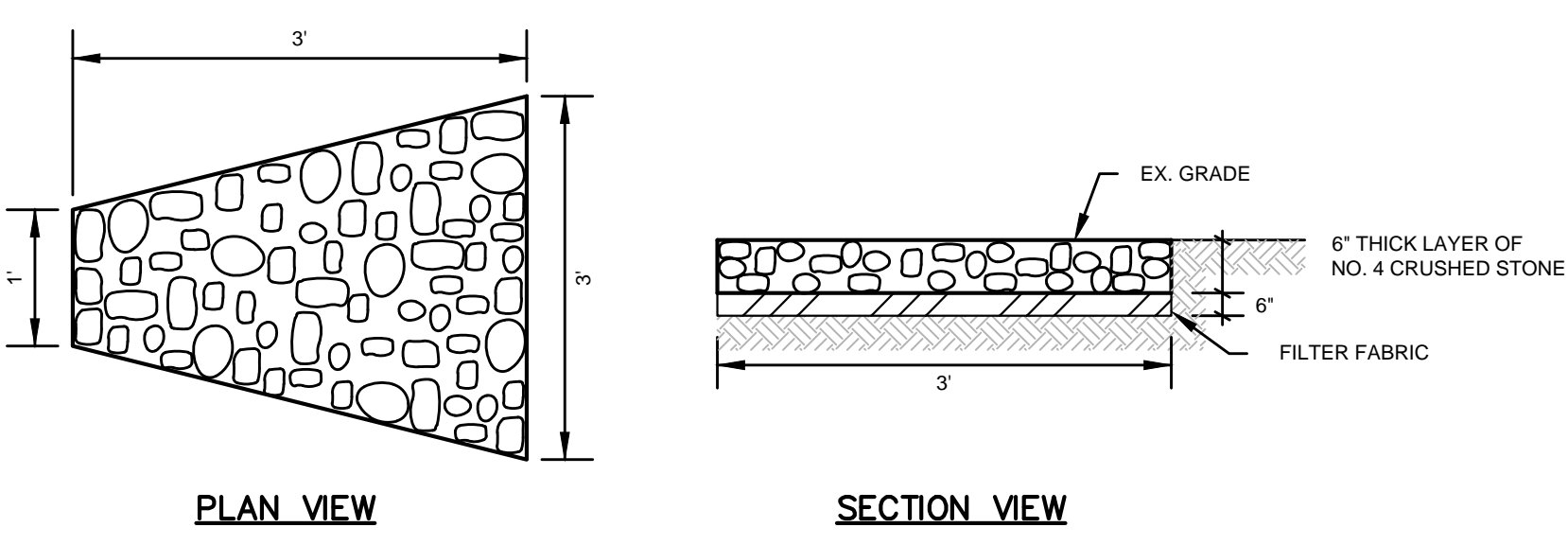
- NOTES:**
- ALL AGGREGATE SHALL CONFORM TO THE REQUIREMENTS OF SECTION M.02 OF CT DOT FORM 817 AND SHALL CONSIST OF SOUND, TOUGH, DURABLE BROKEN STONE THAT IS REASONABLY FREE FROM SOFT, THIN, ELONGATED, LAMINATED, FRIABLE, MICACEOUS OR DISINTEGRATED PIECES, MUD, DIRT OR OTHER DELETERIOUS MATERIAL.
  - CONTRACTOR SHALL PROVIDE SITE ENGINEER WITH A SIEVE ANALYSIS OF MATERIAL USED FOR THE BEDDING COURSE AND RESERVOIR COURSE PRIOR TO INSTALLATION.
  - IN THE AREA OF THE RESERVOIR SEPARATION BACKFILL MATERIAL, REMOVE ALL TOPSOIL, ORGANIC MATTER AND OTHER UNSUITABLE MATERIAL. EXPOSED SUB-GRADE TO BE APPROVED BY THE INSPECTING ENGINEER, WHO MAY REQUIRE THAT IT BE PROOF-ROLLED OR LOWERED.
  - PRIOR TO PLACEMENT OF RESERVOIR SEPARATION BACKFILL MATERIAL SHALL BE SIEVE TESTED AND APPROVED BY THE DESIGN ENGINEER.
  - THE POROUS PAVEMENT MIX DESIGN IS TO FOLLOW THE SPECIFICATIONS FOUND IN THE TABLE BELOW:

Sieve size	Range % passing	Target % passing
200	2-4	3
40	6-8	6
#8	5-10	10
#4	10-25	25
3/8"	55-75	72
1/2"	85-100	95
3/4"	100	100
PG 76-22 Liquid	4.0-4.5	4.25
Forta Fi HMA Fibers	(1 LBS per ton)	
Plant	0.375 Anti Strip	18%
	Air Voids 16-22%	

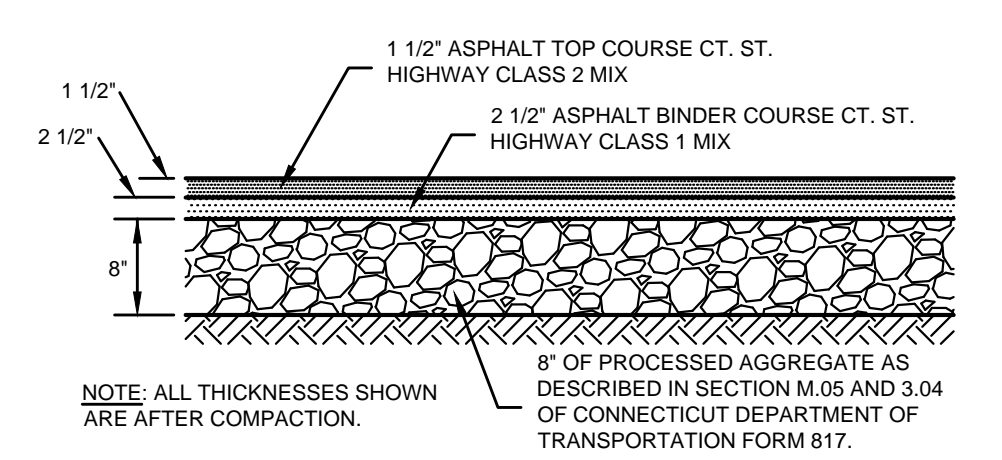
**POROUS PAVEMENT**  
N.T.S.



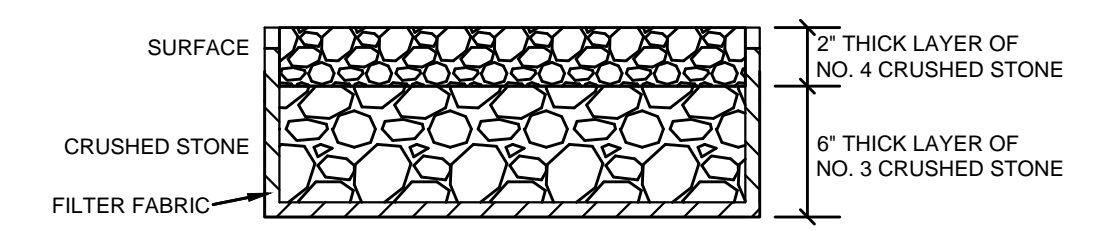
**FLUSH CONCRETE CURB**  
N.T.S.



**SPLASH PAD**  
N.T.S.



**ASPHALT APRON DETAIL**  
N.T.S.



**GRAVEL PARKING DETAIL**  
N.T.S.

- NOTES:**
- Crushed Stone shall conform to gradation No. 4 of Section M.01 of CTDOT Form 817. Alternately, the Crushed Stone can meet gradation No. 6.
  - All aggregate shall conform to the requirements of Section M.02 of CTDOT Form 817 and shall consist of sound, tough, durable broken stone that is reasonably free from soft, thin, elongated, laminated, friable, micaceous or disintegrated pieces, mud, dirt or other deleterious material.
  - Surface to be a permeable material, such as well gravel with less than 5% fines or crushed stone conforming to gradation No. 8 or No. 4, to allow for stormwater to drain through.
  - Filter fabric to be Amoco Nonwoven Geotextile Product #4557 or equivalent.

**GRAVEL PARKING DETAIL**  
N.T.S.

No.	Date	Revision
3	09/13/2019	ISSUE FOR BID
2	05/23/2018	REVISED PER ENGINEERING COMMENTS
1	04/10/2018	ORIGINAL ISSUE DATE

**NOTES & DETAILS**  
DEPICTING  
**560 MIDDLESEX ROAD**  
DARIEN, CT  
PREPARED FOR  
**TOWN OF DARIEN**

SCALE: AS NOTED  
DRAWN BY: FRD CHECKED BY: CJF

**REDNISS & MEAD**  
CRAIG J. FLAHERTY CT. P.E. 21149  
September 13, 2019  
DATE

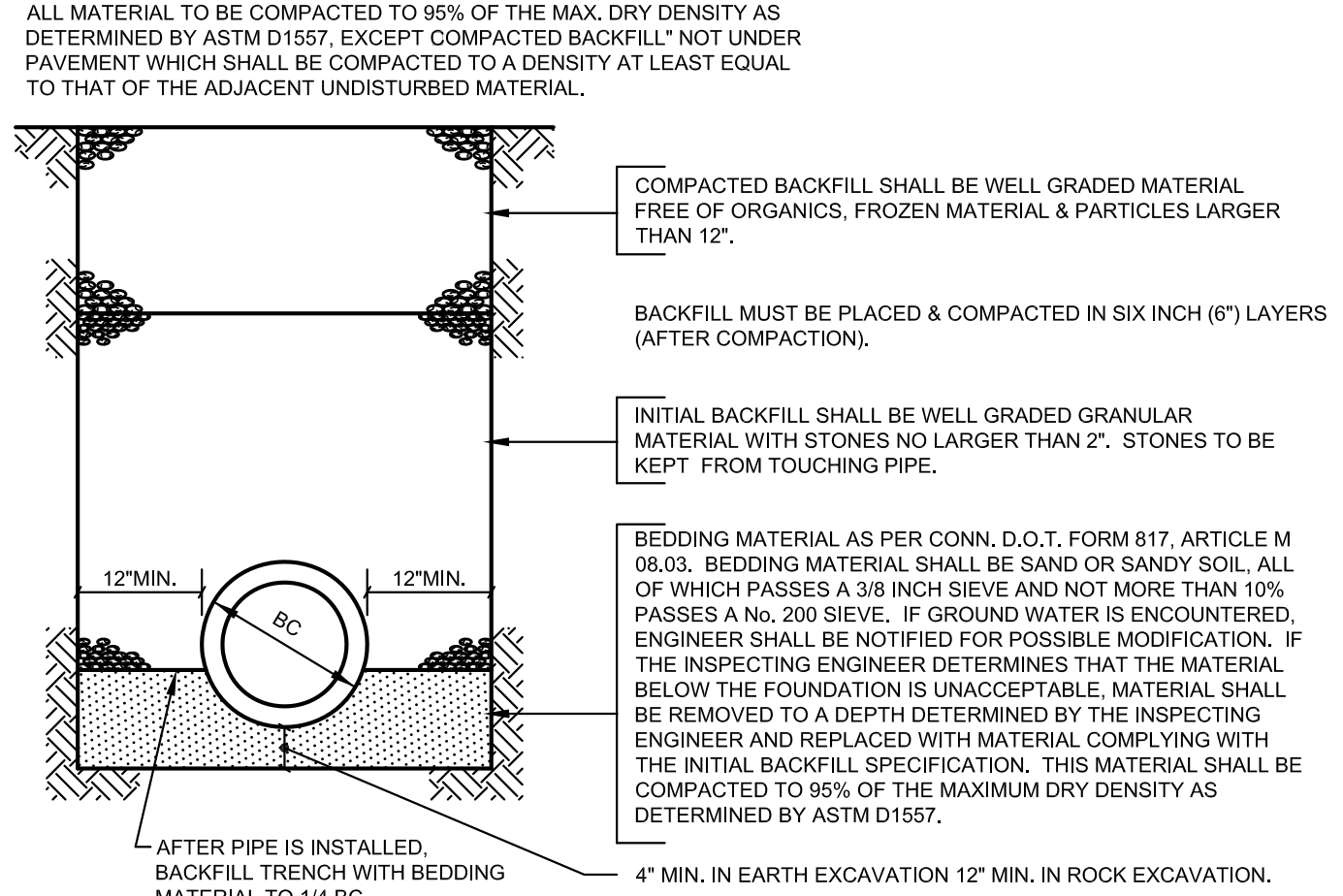
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SHEET No: **SE-3**  
Comm. No.: 9817

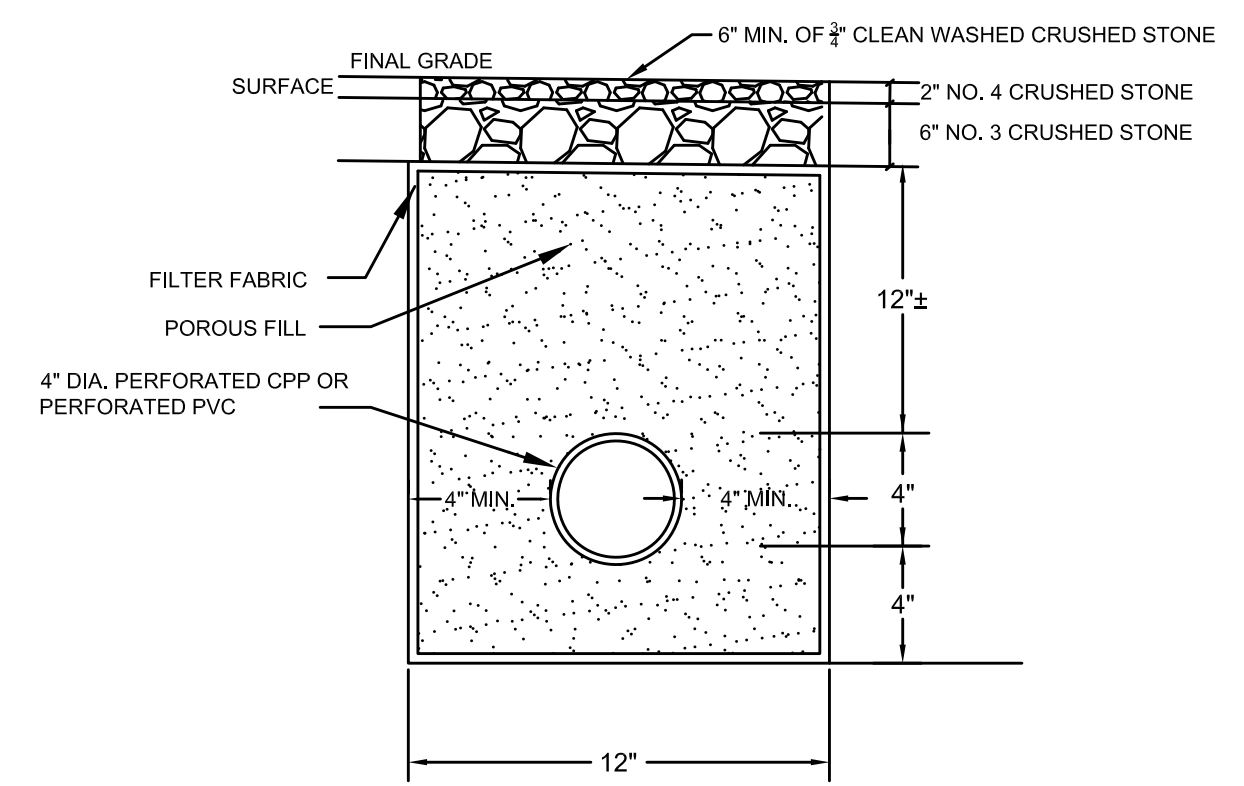
22 First Street | Stamford, CT 06905  
Tel: 203.327.0500 | Fax: 203.327.1118  
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9/12/2019 5:23 PM H:\LDR\Redniss\98000980\9817\DWG\9817 Master 3 CD's (2019-09-13).dwg

ALL FOUNDATION, INITIAL BACKFILL & BACKFILL MATERIAL TO BE APPROVED BY THE INSPECTING ENGINEER.  
 ANY DEVIATION FROM THESE METHODS & MATERIALS MUST BE APPROVED IN WRITING BY THE INSPECTING ENGINEER.  
 ALL MATERIAL TO BE COMPACTED TO 95% OF THE MAX. DRY DENSITY AS DETERMINED BY ASTM D1557, EXCEPT COMPACTED BACKFILL NOT UNDER PAVEMENT WHICH SHALL BE COMPACTED TO A DENSITY AT LEAST EQUAL TO THAT OF THE ADJACENT UNDISTURBED MATERIAL.

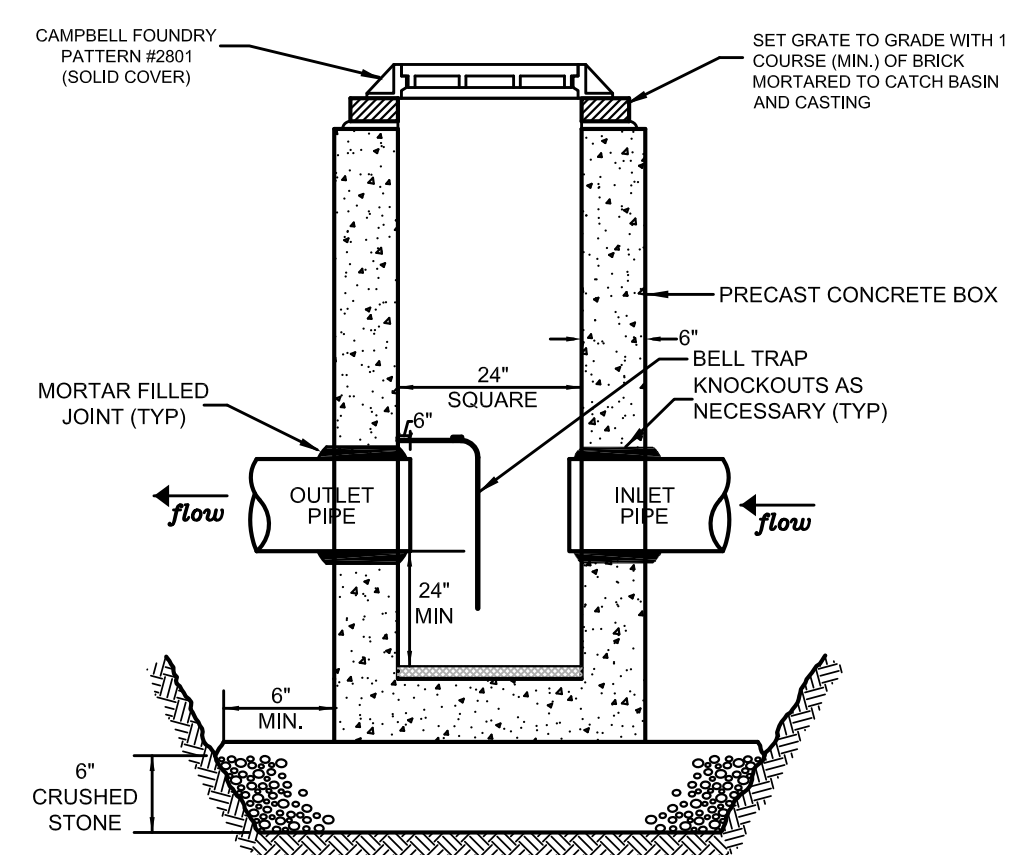


**PVC/RCP PIPE TRENCH BEDDING DETAIL**  
 (48" DIA. & UNDER)  
 N.T.S.



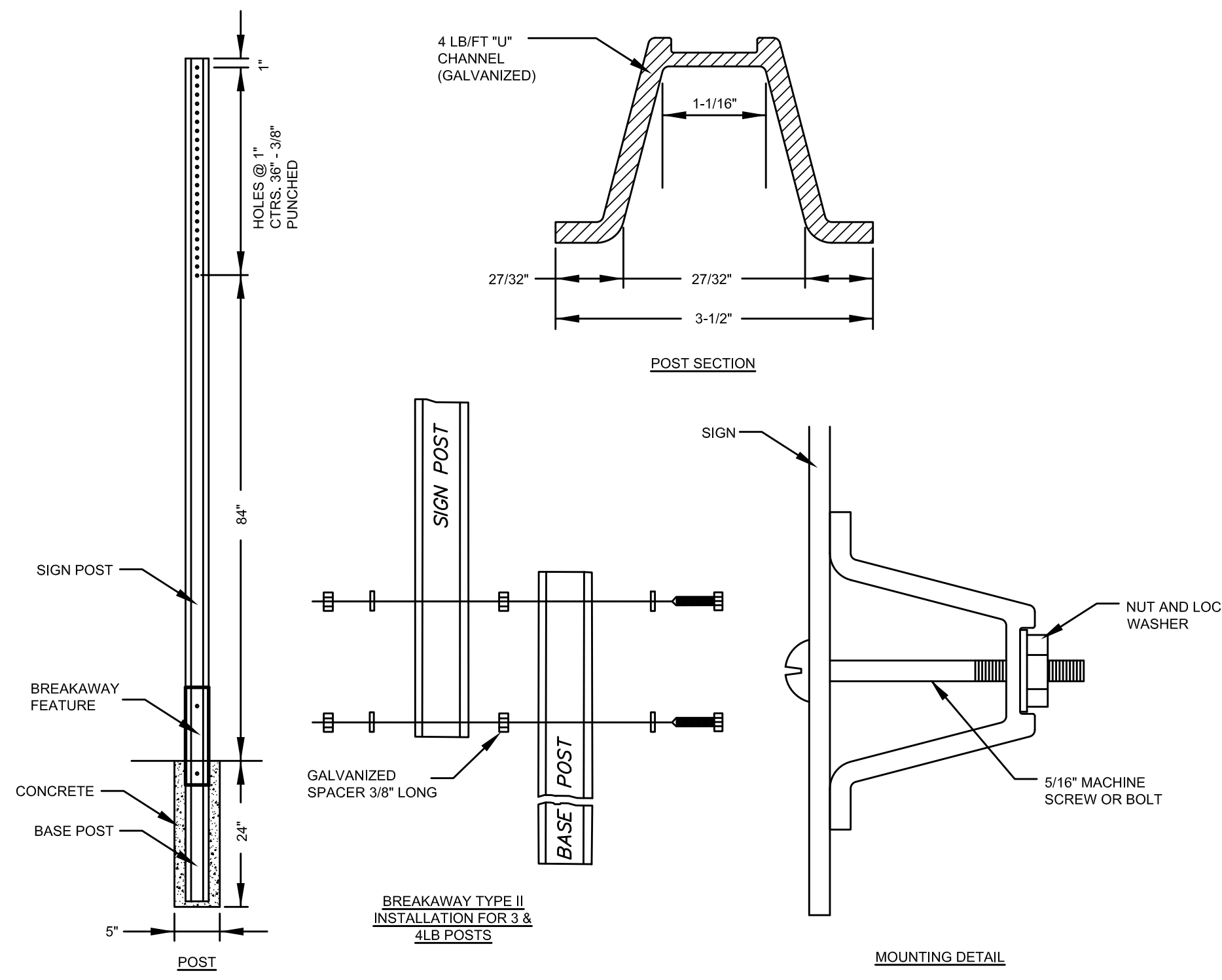
- NOTES:**
- ON SITE PLAN, OR AS REQUIRED MODIFICATION DURING CONSTRUCTION.
  - PIPE SHALL BE CORRUGATED POLYETHYLENE MANUFACT. IN ACCORDANCE WITH ASTM F 405 & INSTALLED PER ASTM F 449. PIPE IN CURTAIN DRAIN TO OUTLET IS SOLID.
  - POROUS FILL SHALL BE CRUSHED STONE. CRUSHED STONE SHALL BE GRADATION NO. 67 PER CT DOT FORM 817, ARTICLE M.01.01.
  - FILTER FABRIC SHALL BE MIRAF1 140N OR EQUIVALENT.

**CURTAIN DRAIN**  
 N.T.S.



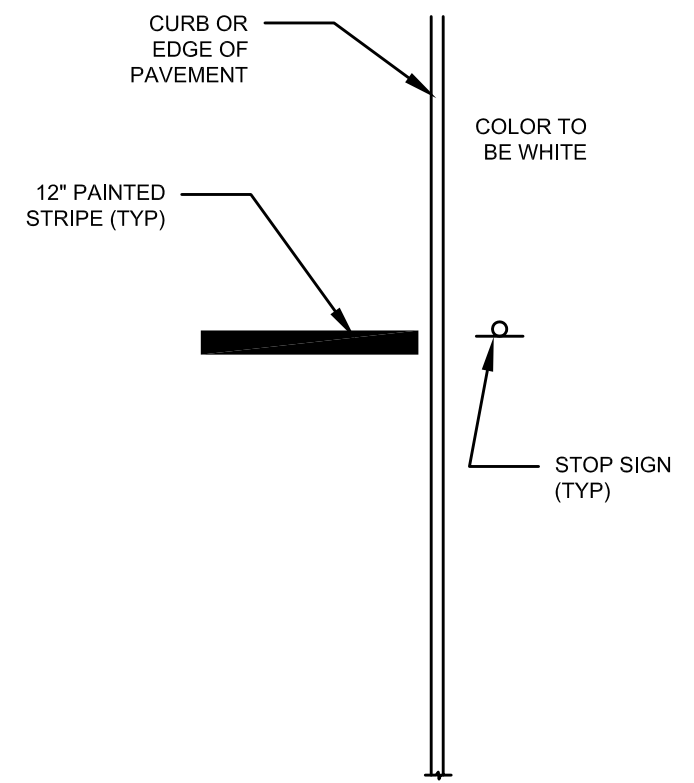
- NOTES:**
- ALL COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS OF AN H-20 TRUCK LOAD.
  - ALL JOINTS TO BE MORTARED.
  - JUNCTION BOXES SHALL CONFORM TO ASTM C478.
  - ALL CRUSHED STONE SHALL BE GRADATION NO. 4 AS PER CT D.O.T. FORM 816, ARTICLE M.01.01. STONE SHALL CONSIST OF SOUND, TOUGH, DURABLE PARTICLES FREE FROM SOFT, THIN, ELONGATED, LAMINATED, FRAGILE, MICACEOUS OR DISINTEGRATED PIECES, MUD, DIRT OR OTHER DELETERIOUS MATERIAL.

**JUNCTION BOX**  
 N.T.S.



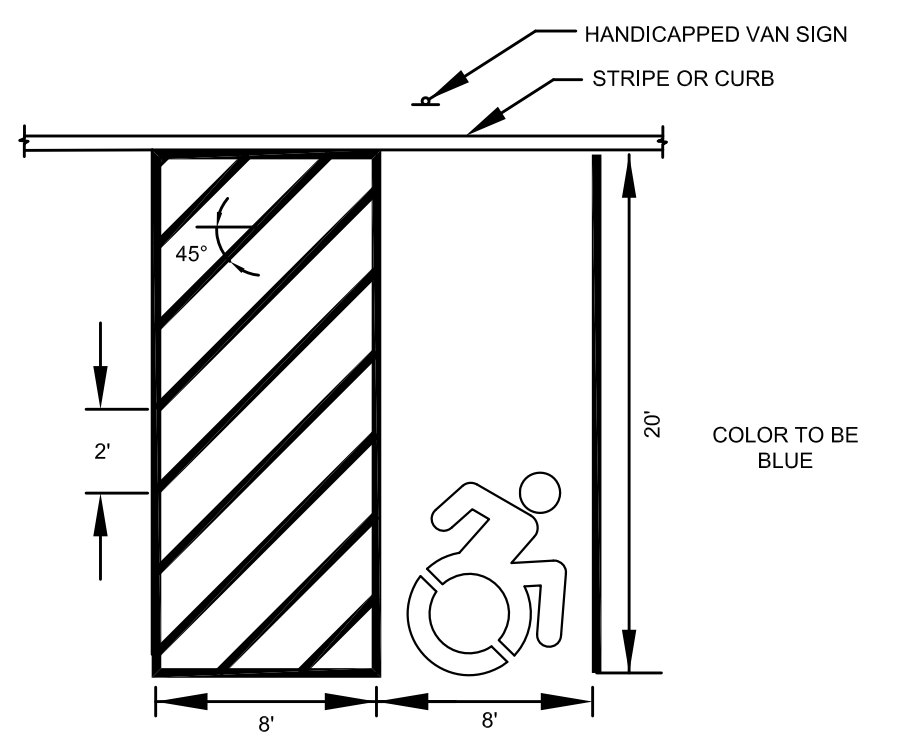
- NOTES:**
- STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499-81 GRADE 50 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1-76 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT OF 91 LBS. OR GREATER PER LINEAR YARD. STEEL FOR DELINEATOR POSTS SHALL BE ASTM A36 STEEL.
  - AFTER FABRICATION, ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A 123.
  - ALL SIGN POSTS SHALL HAVE "BREAKAWAY" FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS - 1995". THE "BREAKAWAY" FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGNS SHOWN IN THE PLANS AT 60 MPH WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
  - TYPE A POSTS - 3 LB/FT TYPE B POSTS - 4 LB/FT
  - PLEASE REFER TO THE STATE OF CONNECTICUT DOT "TYPICAL METAL SIGN POSTS AND SIGN MOUNTING DETAILS" SHEET NO. 39 (1999) FOR MORE INFORMATION.

**METAL SIGN POST**  
 N.T.S.



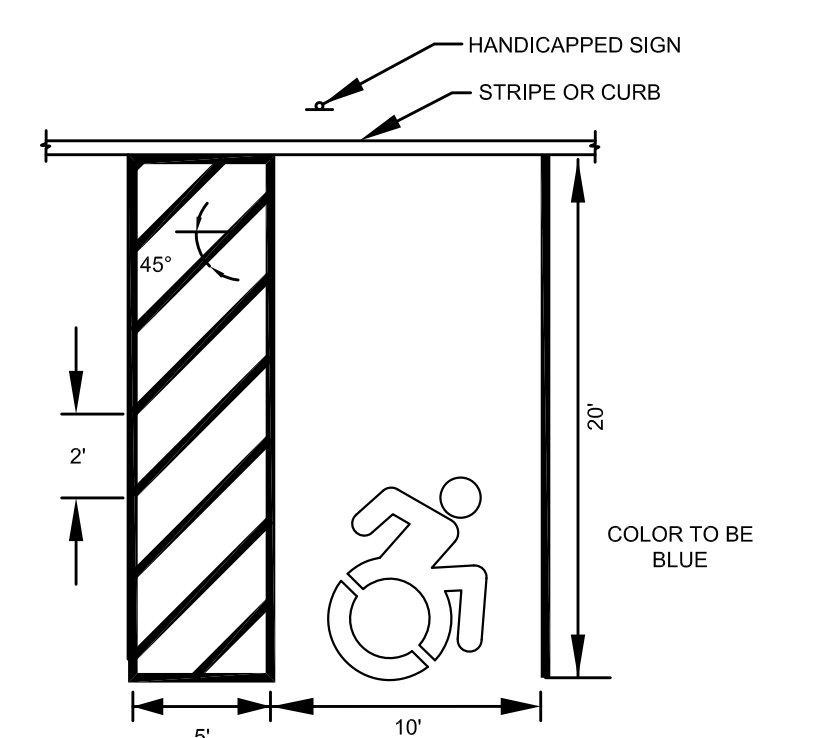
**NOTE:**  
 ALL PAINT SHALL CONFORM TO CT DOT FORM 817, ARTICLE M.07.17.

**STOP BAR STRIPING**  
 N.T.S.



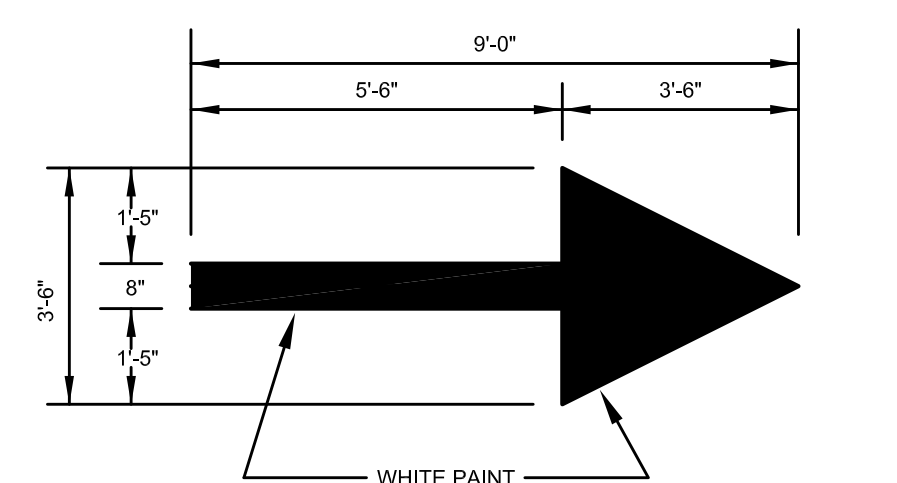
**NOTE:**  
 HANDICAPPED PARKING SHALL BE GRADED NO GREATER THAN 2% IN ANY DIRECTION.

**HANDICAPPED VAN PARKING**  
 N.T.S.



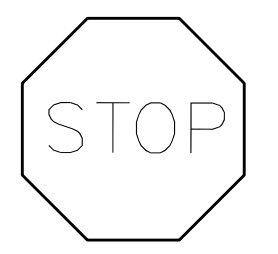
**NOTE:**  
 HANDICAPPED PARKING SHALL BE GRADED NO GREATER THAN 2% IN ANY DIRECTION.

**HANDICAPPED PARKING**  
 N.T.S.



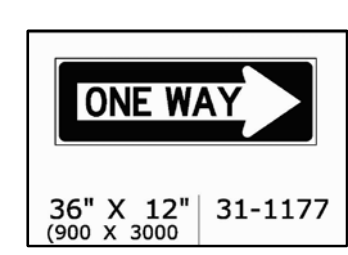
**PAINTED DIRECTIONAL ARROW**  
 N.T.S.

**NOTE:** ALL SIGNS TO BE PLACED ON WOODEN POSTS

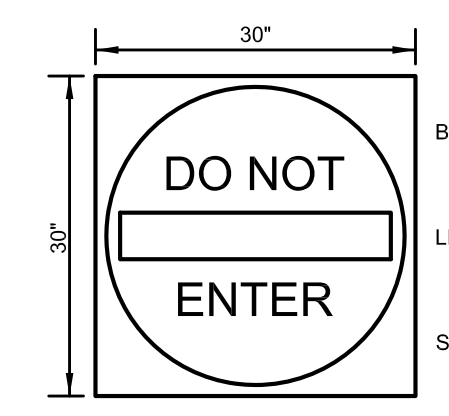


CONN. D.O.T. SERIES R1-1  
**NOTE:** SIGNAGE TO BE COORDINATED WITH THE TOWN OF DARIEN DEPARTMENT OF PUBLIC WORKS

**STOP SIGN DETAIL**  
 N.T.S.



(ONE WAY SIGN)  
**ONE WAY SIGN DETAIL**  
 N.T.S.



CONN. D.O.T. SERIES RS-1 #31-0509  
**D.N.E SIGN DETAIL**  
 N.T.S.



**HANDICAPPED PARKING SIGN DETAIL**  
 N.T.S.



CONN. D.O.T. SERIES 30 #31-0629  
**VAN HANDICAPPED PARKING SIGN DETAIL**  
 N.T.S.

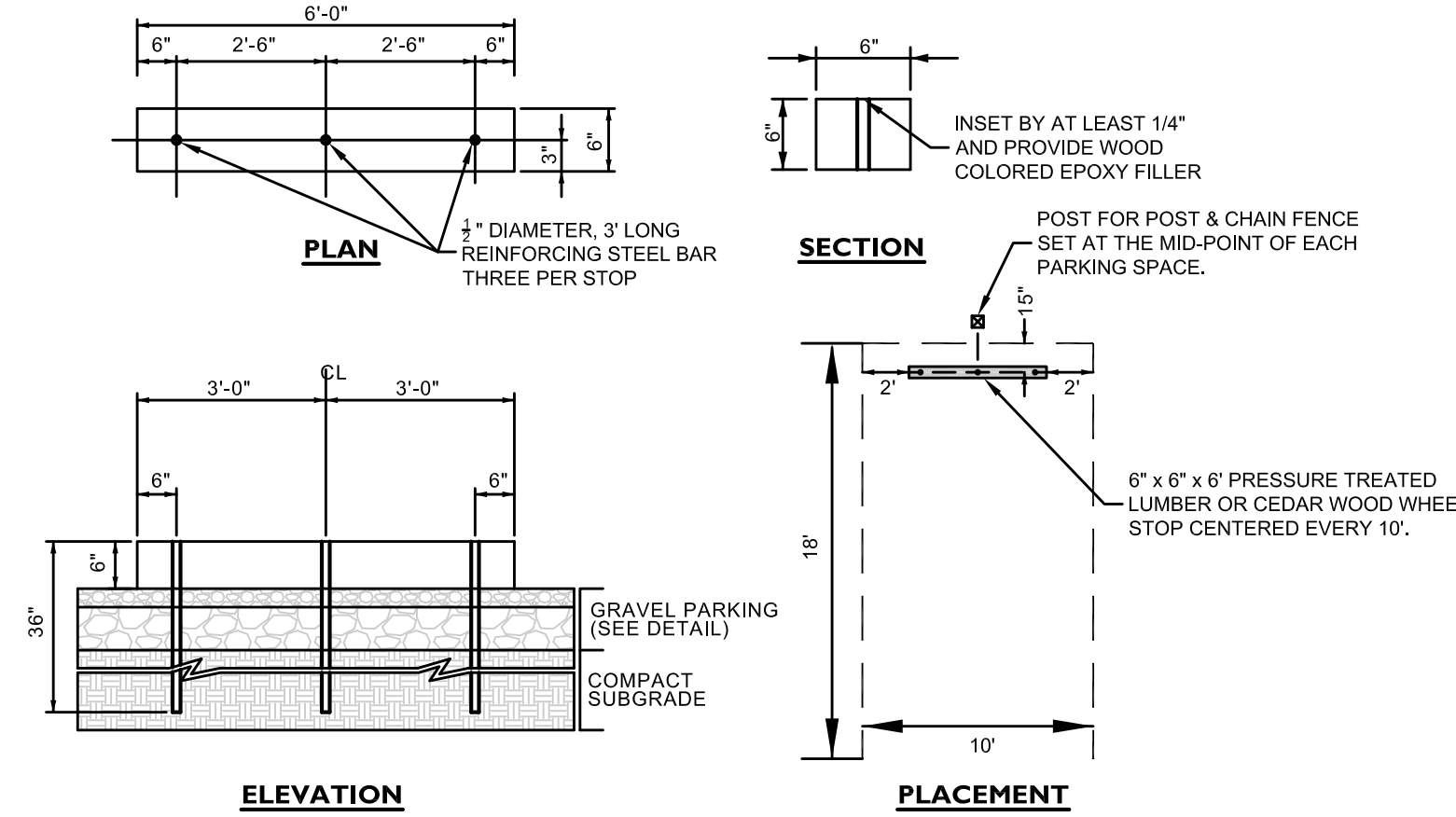
3	09/13/2019	ISSUE FOR BID
2	05/23/2018	REVISED PER ENGINEERING COMMENTS
1	04/10/2018	ORIGINAL ISSUE DATE
No.	Date	Revision

**DETAILS**  
 DEPICTING  
**560 MIDDLESEX ROAD**  
 DARIEN, CT  
 PREPARED FOR  
**TOWN OF DARIEN**

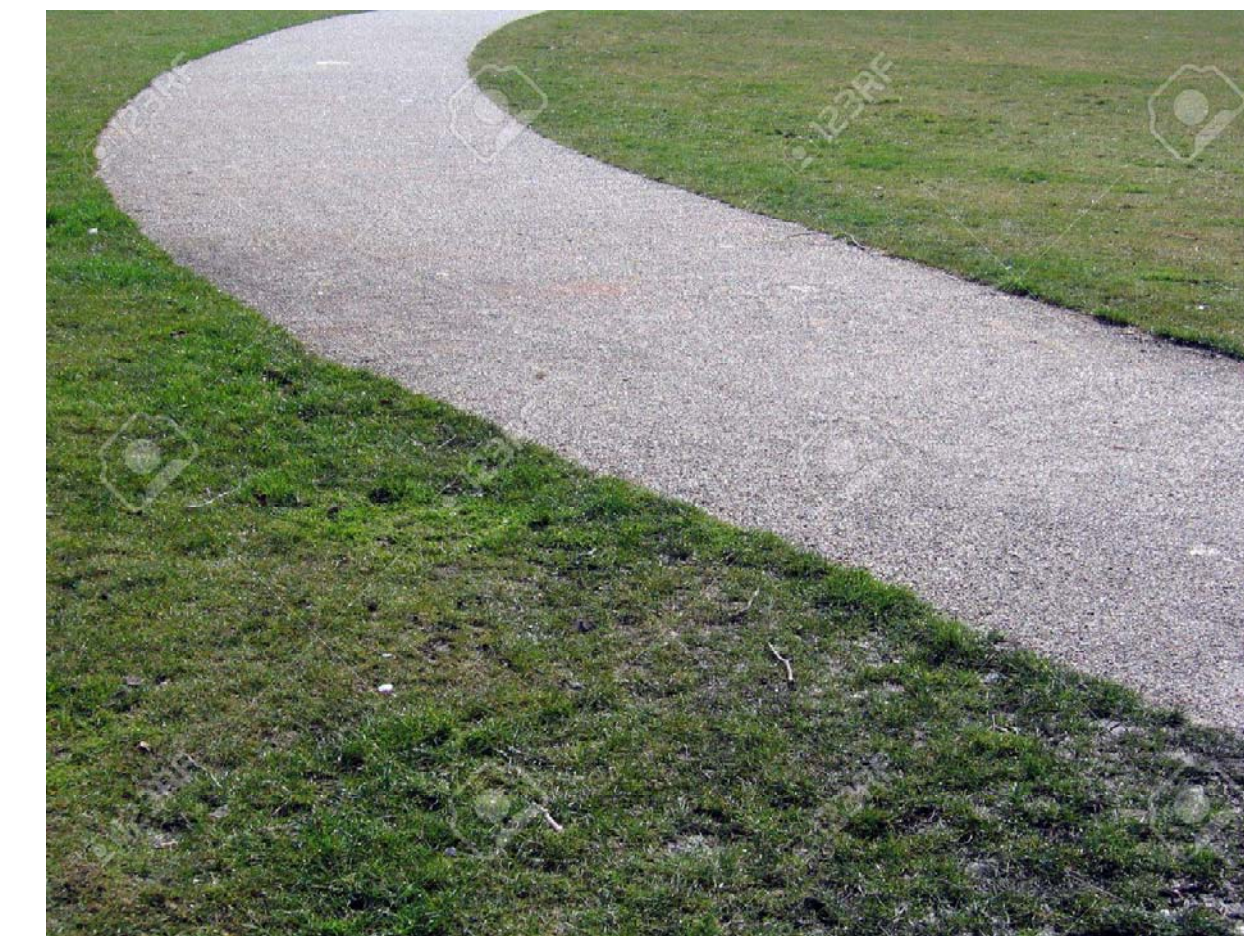
SCALE: AS NOTED  
 DRAWN BY: FRD CHECKED BY: CJF  
  
 CRAIG J. FLAHERTY CT. P.E. 21149  
 September 13, 2019  
 DATE  
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**SAMPLE WOODEN WHEEL STOP**  
N.T.S.



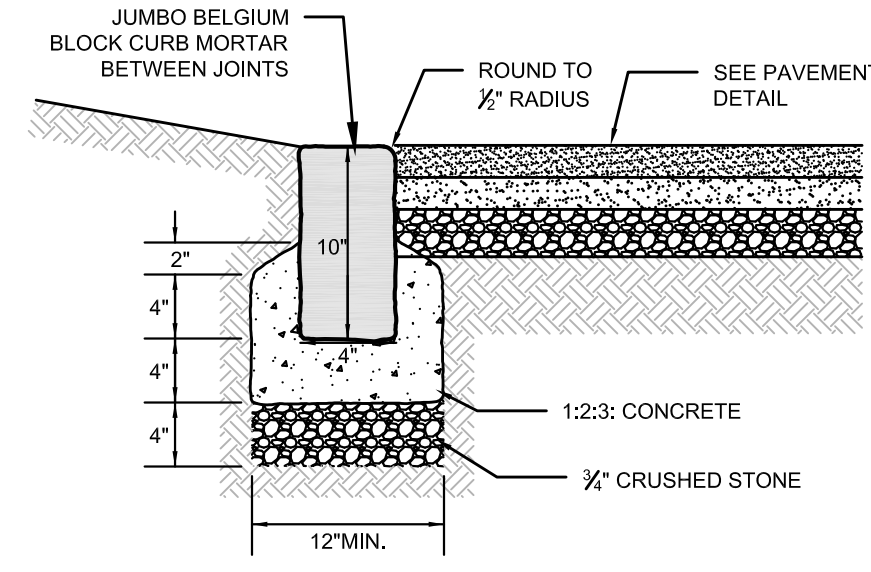
**WOODEN WHEEL STOP**  
N.T.S.



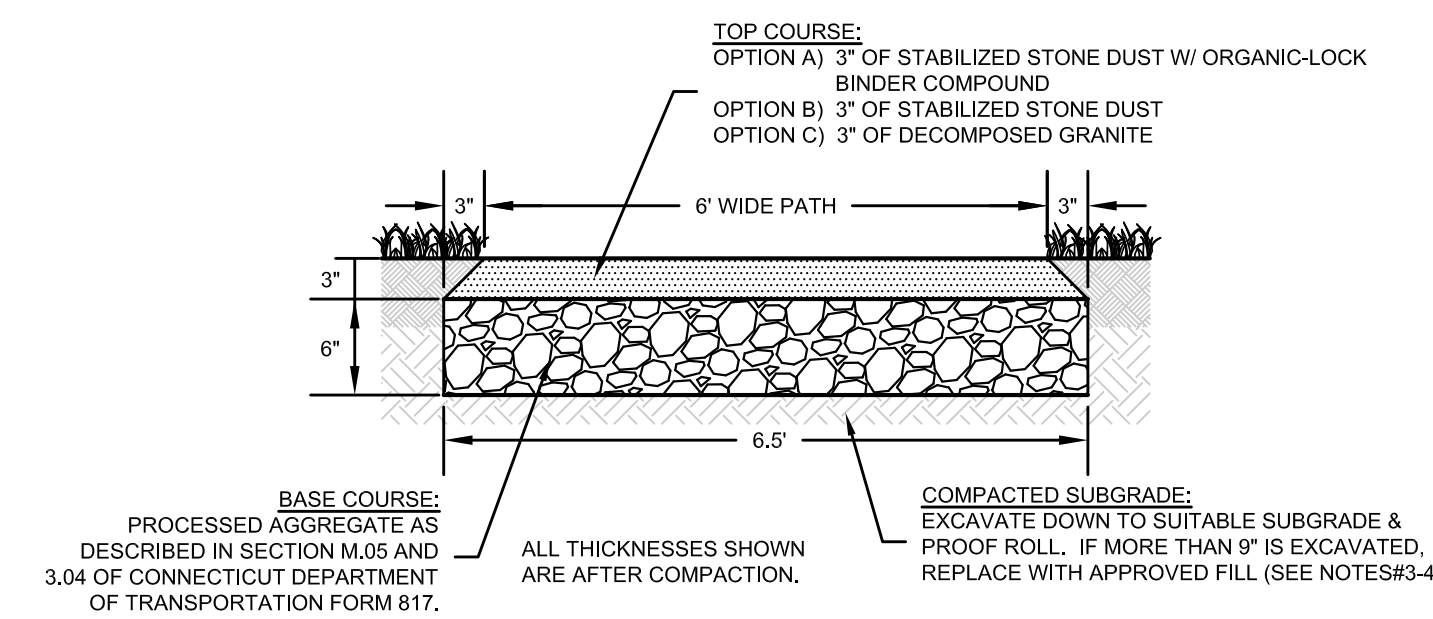
**BOUNDLESS PATH**  
N.T.S.



**FLUSH BELGIAN BOCK CURB**  
(BETWEEN POROUS ASPHALT AND CRUSHED STONE PARKING)  
N.T.S.



**FLUSH JUMBO BELGIUM BLOCK CURB**  
N.T.S.

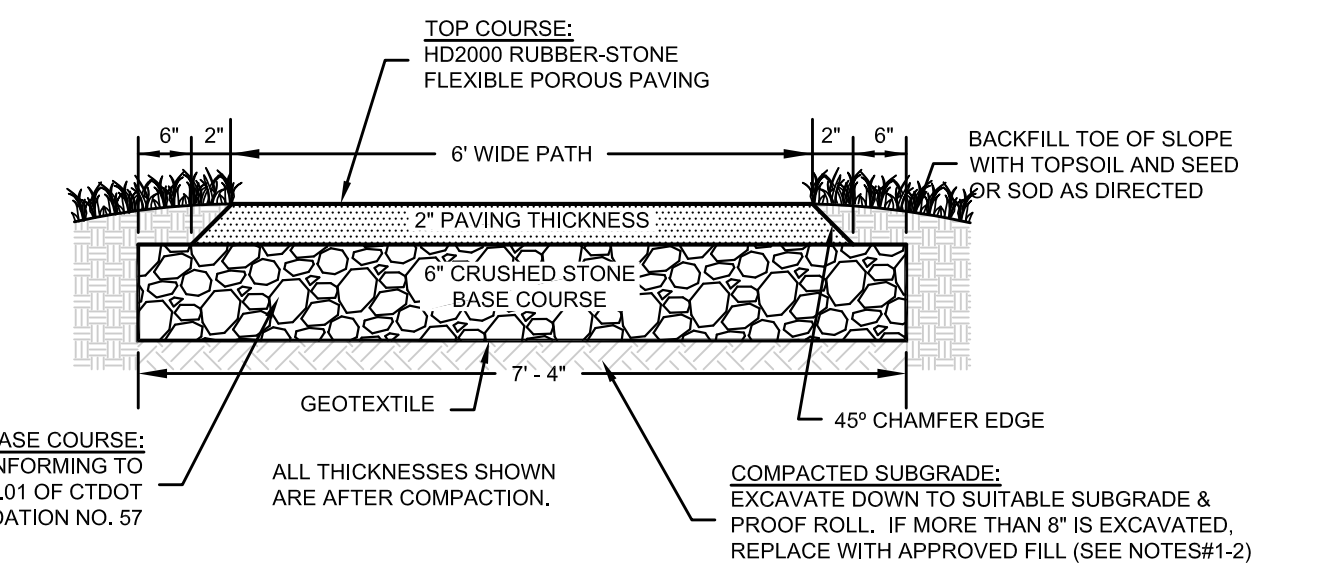


- Excavate down and proof-roll the subgrade with heavy pneumatic-tired equipment to locate unstable areas and to identify soft pockets and areas of excess yielding.
- Excavate soft spots, unsatisfactory soils and areas of excessive pumping or rutting, as determined by the design engineer, and replace with compacted backfill or fill as directed.
- General fill beyond paved areas shall be free of brush rubbish, stumps and stones larger than 8". Fill shall be placed in compacted layers not to exceed 8" in thickness. The dry density after compaction shall not be less than 95% of the Standard Proctor Test and done in accordance with the requirements of ASTM D698. After compaction, the fill shall be 9" below the required finished grade as shown on the plan.
- General fill may be till, loam, sand or gravel mixture classified as SP, SW, SM, GP, GM, ML per the United Soil Classification System. It shall have not more than 40% fines passing the #100 sieve, not more than 8% passing the #200 sieve, and no stones larger than 6".
- Base course shall consist of processed aggregate as described in section M.05 and 3.04 of the Connecticut Department of Transportation Form 817.
- Install base course in two 3-inch lifts, to a compacted depth of 6 inches, and compact to a minimum 95% density. Place the base coarse aggregate free from ridges, depressions or hollows.
- OPTION A: Top course shall consist of 3" of approved stabilized stone dust mixed with organic-lock pathway aggregate binder compound conforming with Organic-Lock's "Organic-Lock For Stabilized Pathway Aggregate: Foot Traffic" Specification. Purchasing pre-mixed and pre-wet Organic-Lock aggregate blend is recommended. If mixed & wetted on-site, adherence to the aforementioned specification will be strictly enforced. Organic-Lock binder and stabilized stone dust aggregate shall be purchased from a vendor pre-approved by the certifying engineer.
- OPTION B: Top course shall consist of 3" of approved stabilized stone dust aggregate.
- OPTION C: Top course shall consist of 3" of decomposed granite from Kalka Granite or approved equivalent.
- Stabilized stone dust & decomposed granite shall conform to the following gradation:

Sieve	Sieve Size (mm)	Percent Passing
3/8"	9.51	100%
4	4.76	80 - 100%
8	2.36	65 - 90%
16	1.18	40 - 60%
30	0.6	25 - 50%
50	0.3	15 - 35%
100	0.149	10 - 20%
200	0.074	5 - 15%

- Compact each lift of the subgrade, base and top course with a one to three-ton roller or compactor. In small areas that are difficult to access with compaction equipment, hand tamping may be performed with multiple passes to achieve the required density.
- Finished path surface shall follow grades per plan sheet SE-1. Longitudinal slope not to exceed 5%. Cross-slope not to exceed 2%.
- Completed surface shall be of consistent quality and shall not have depressions or humps greater than 1/4-inch in 10-feet.

**BOUNDLESS PATH DETAIL**  
(OPTION A ORGANIC-LOCK STONE DUST)  
(OPTION B STABILIZED STONE DUST)  
(OPTION C DECOMPOSED GRANITE OR LIMESTONE)  
N.T.S.

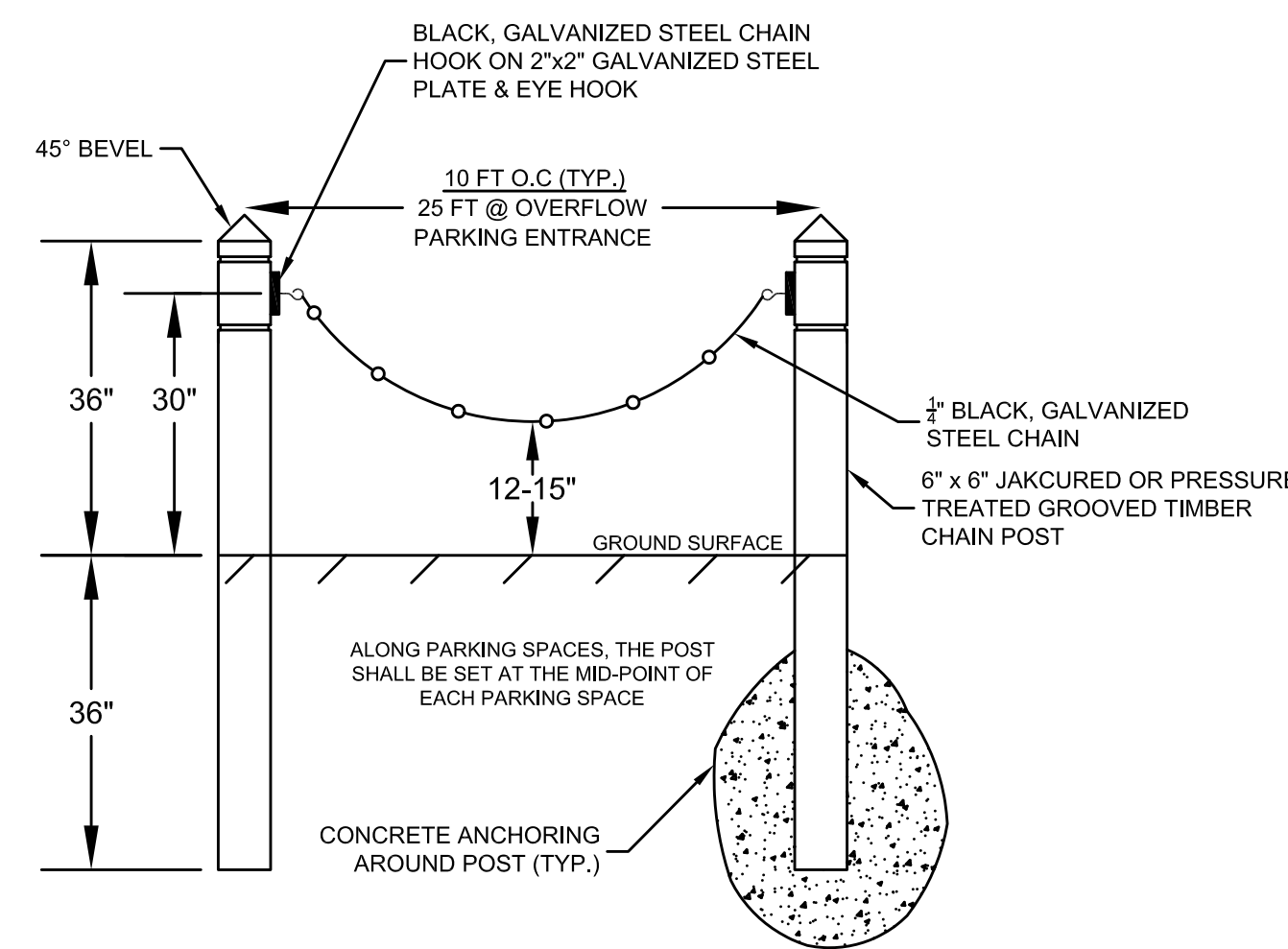


- Excavate down and proof-roll the subgrade with heavy pneumatic-tired equipment to locate unstable areas and to identify soft pockets and areas of excess yielding.
- Excavate soft spots, unsatisfactory soils and areas of excessive pumping or rutting, as determined by the design engineer, and replace with compacted backfill or fill as directed.
- General fill beyond paved areas shall be free of brush rubbish, stumps and stones larger than 8". Fill shall be placed in compacted layers not to exceed 8" in thickness. The dry density after compaction shall not be less than 95% of the Standard Proctor Test and done in accordance with the requirements of ASTM D698. After compaction, the fill shall be 9" below the required finished grade as shown on the plan.
- General fill may be till, loam, sand or gravel mixture classified as SP, SW, SM, GP, GM, ML per the United Soil Classification System. It shall have not more than 40% fines passing the #100 sieve, not more than 8% passing the #200 sieve, and no stones larger than 6".
- Base course shall consist of crushed stone conforming to gradation No. 4 of section M.01 of the Connecticut Department of Transportation Form 817 OR crushed stone conforming to ASTM gradation No. 57.
- Install base course in two 3-inch lifts, to a compacted depth of 6 inches, and compact to a minimum 95% density. Place the base coarse stone free from ridges, depressions or hollows.
- Top course shall consist of 2" of KBI Flexi-Pave HDX2000 conforming with Flexi-Pave's "Flexible Porous Paving" Specification. Compact each lift of the subgrade, base and top course with a one to three-ton roller or compactor. In small areas that are difficult to access with compaction equipment, hand tamping may be performed with multiple passes to achieve the required density.
- Finished path surface shall follow grades per plan sheet SE-1. Cross-slope not to exceed 2%. Longitudinal slope not to exceed 5%.
- Completed surface shall be of consistent quality and shall not have depressions or humps greater than 1/4-inch in 10-feet.
- Geotextile to be Amoco Non-woven Geotextile Product # 4557 or an approved equivalent.

**BOUNDLESS PATH DETAIL**  
(OPTION C - FLEXI PAVE)  
N.T.S.



**SAMPLE POST AND CHAIN FENCE SURROUNDING PARKING AREAS**  
N.T.S.



**POST AND CHAIN FENCE DETAIL**  
N.T.S.

No.	Date	Revision
3	09/13/2019	ISSUE FOR BID
2	05/23/2018	REVISED PER ENGINEERING COMMENTS
1	04/10/2018	ORIGINAL ISSUE DATE

**DETAILS**  
DEPICTING  
**560 MIDDLESEX ROAD**  
DARIEN, CT  
PREPARED FOR  
**TOWN OF DARIEN**

SCALE

DRAWN BY: FRD | CHECKED BY: CJF

**REDNISS & MEAD**  
LAND SURVEYING  
CIVIL ENGINEERING  
PLANNING & ZONING CONSULTING  
PERMITTING

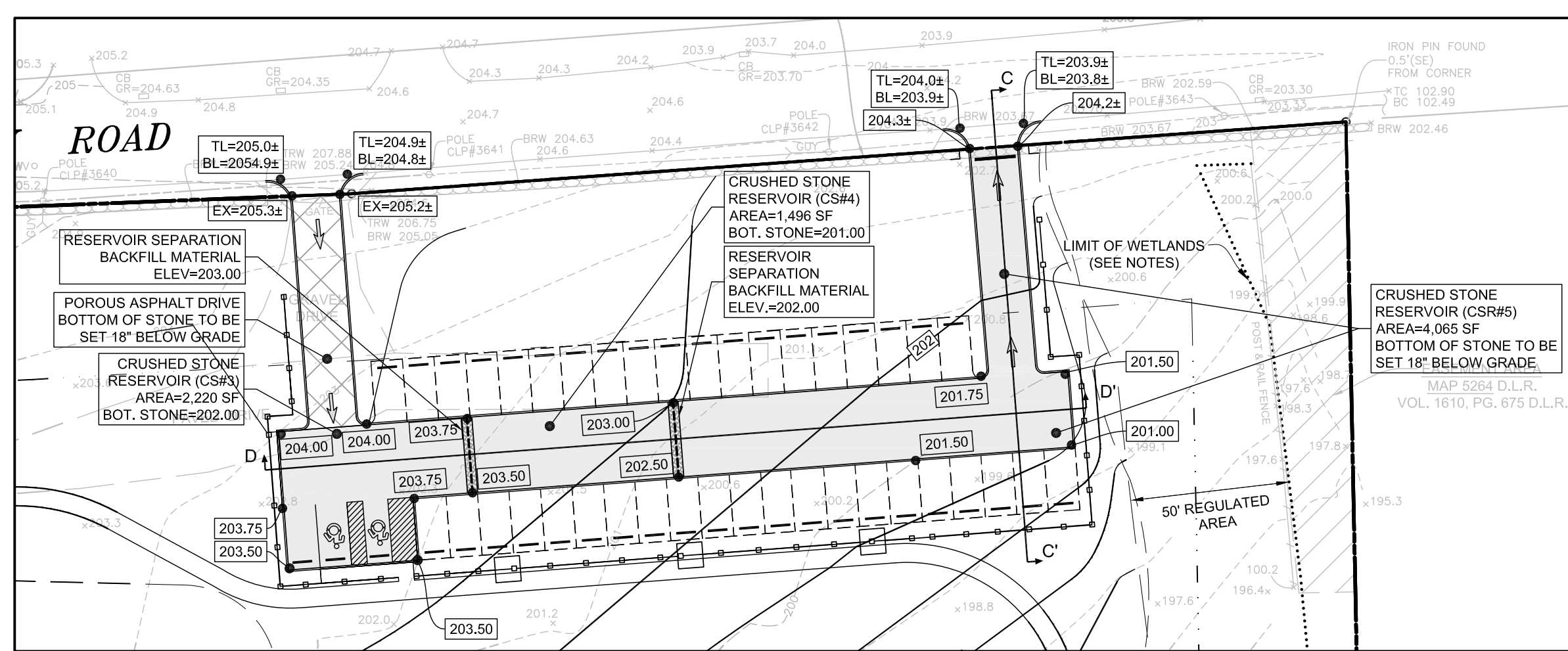
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www.rednissmead.com

DATE: **September 13, 2019**

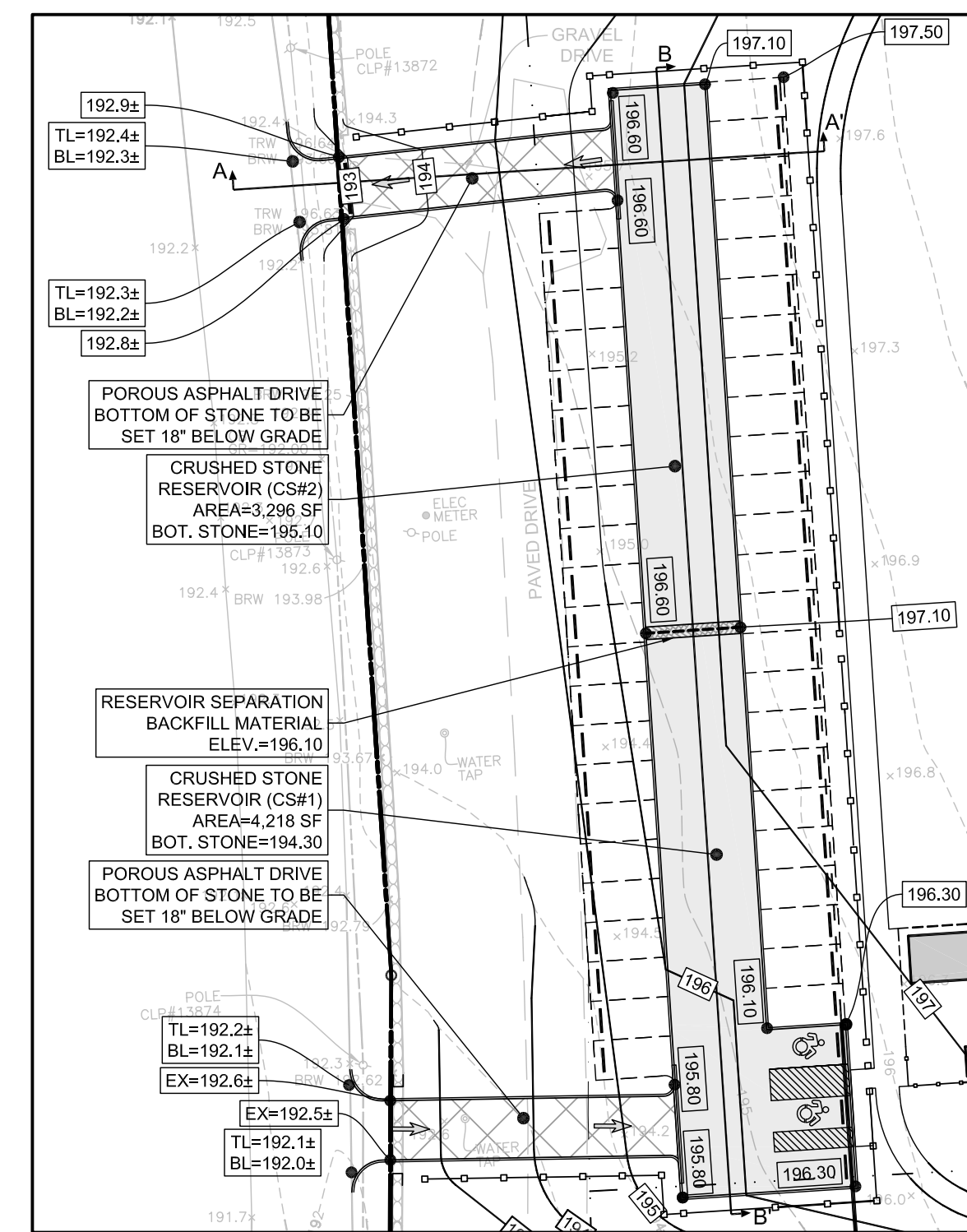
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SHEET No: **SE-5**

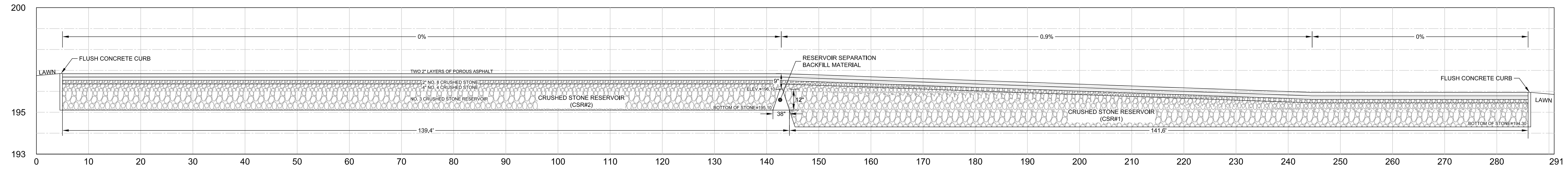
Comm. No: 9617



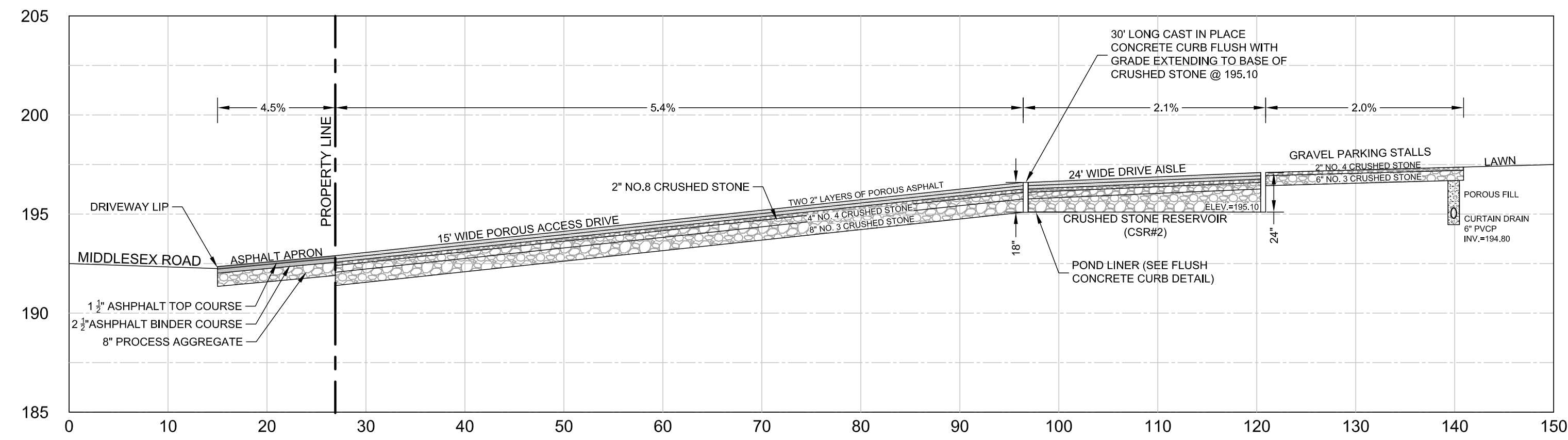
**EAST POROUS PARKING INSET**  
SCALE: 1"=40'



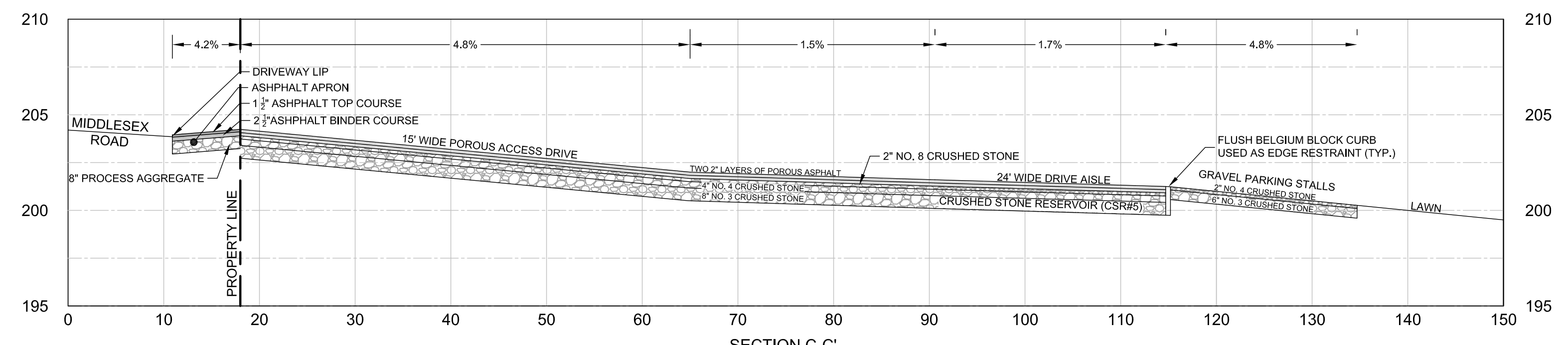
**WEST POROUS PARKING INSET**  
SCALE: 1"=40'



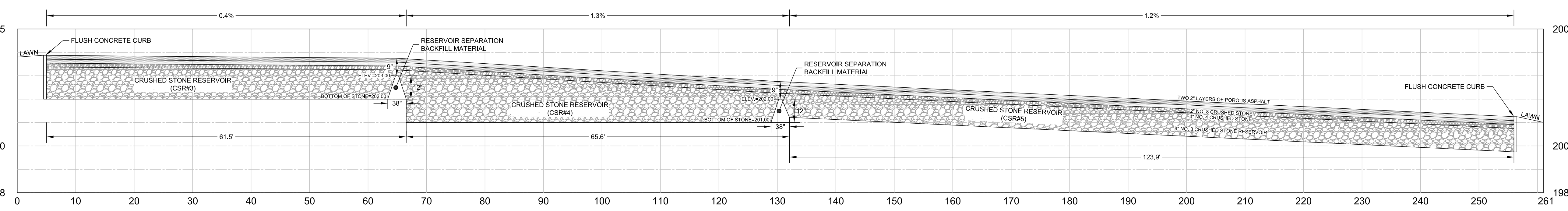
**SECTION B-B'**  
HORIZ. SCALE: 1"=10'  
VERT. SCALE: 1"=2.5'



**SECTION A-A'**  
HORIZ. SCALE: 1"=10'  
VERT. SCALE: 1"=5'



**SECTION C-C'**  
HORIZ. SCALE: 1"=10'  
VERT. SCALE: 1"=5'



**SECTION D-D'**  
HORIZ. SCALE: 1"=10'  
VERT. SCALE: 1"=2.5'

3	09/13/2019	ISSUE FOR BID
2	05/23/2018	REVISED PER ENGINEERING COMMENTS
1	04/10/2018	ORIGINAL ISSUE DATE
No.	Date	Revision

**POROUS PARKING SECTIONS**  
DEPICTING  
**560 MIDDLESEX ROAD**  
DARIEN, CT  
PREPARED FOR  
**TOWN OF DARIEN**

SCALE: AS NOTED  
DRAWN BY: FRD | CHECKED BY: CJF  
**REDNISS & MEAD**  
CRAIG J. FLAHERTY CT. P.E. 21149  
September 13, 2019  
DATE  
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Comm. No.: 9817

NORTH - MAP 5286 D.L.R.

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