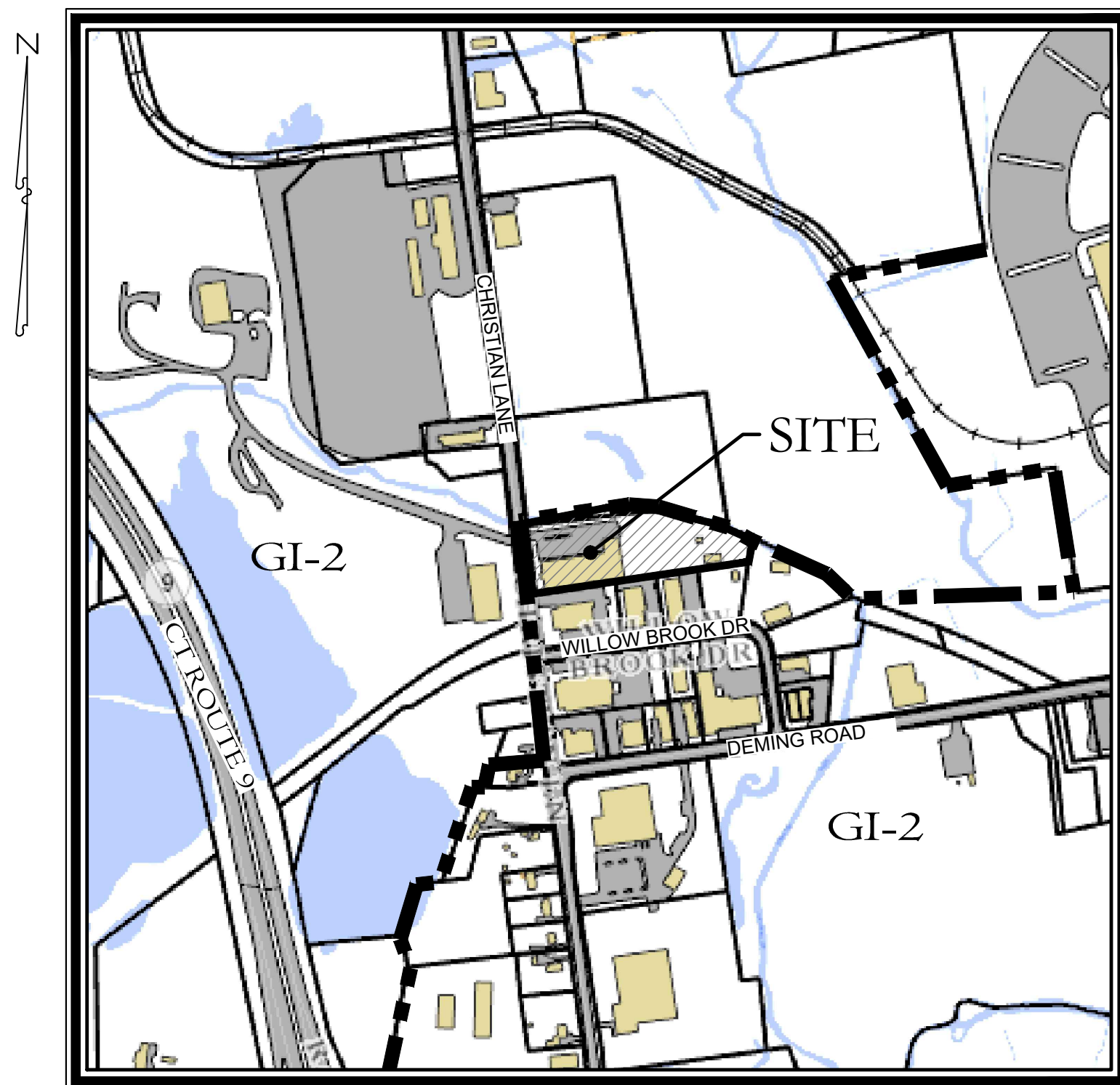


**cole**

engineering. surveying. planning.

# Proposed Building Addition

400 Christian Lane  
Berlin, Connecticut



**KEY MAP**

SCALE: 1"=500'

### Sheet Index:

- S1 Property & Topographic Survey Map
- C1 Site Layout & Landscaping Plan
- C2 Site Development Plan
- ES1 Soil Erosion & Sedimentation Control Plan
- ES2 Soil Erosion & Sediment Control Details
- D1 Details

### Applicant:

PDS Engineering & Construction, INC.  
107 Old Windsor Road  
Bloomfield, CT 06002

### Property Owner:

JJD Realty Associates, LLC  
400 Christian Lane  
Kensington, CT 06037

### Consultants:

#### ***Engineering & Surveying***

Harry E. Cole & Son  
P.O. Box 44 - 876 South Main Street  
Plantsville, Connecticut 06489  
Tel. (860) 628-4484 Fax (860) 620-0196

PREPARED FOR

**PDS Engineering & Construction, INC.**




















March 20, 2023

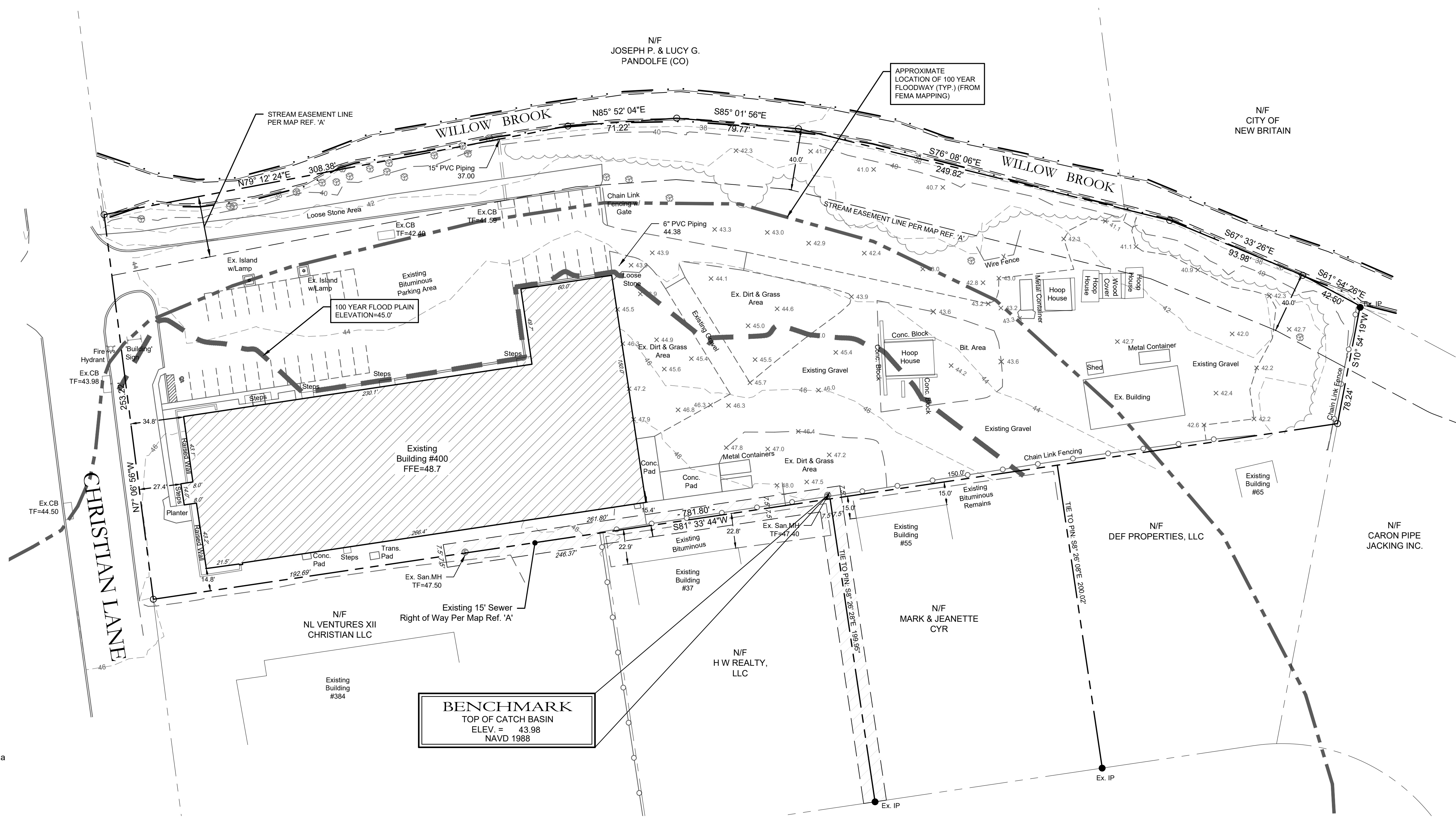
#### Revision Table

Revision	Date	Description
01	April 17, 2023	Revised per Town Comments
	March 20, 2023	First Submittal Set

DRAWING NAME: PDS/HEC/COLE/Topo/Def/1169A - Property & Topographic Survey Map/Def LAYOUT: Survey/Map/Def DATE: 11/15/2023 10:25am OPERATOR: hmc

**LEGEND**

-  = Existing utility pole
-  = Existing light pole
-  = Existing fire hydrant
-  = Existing water valve
-  = Existing gas valve
-  = Existing underground pipe
-  = Existing edge of pavement
-  = Existing bituminous concrete lip curb
-  = Existing well
-  = Existing catch basin
-  = Existing drainage manhole
-  = Existing sanitary manhole
-  = Existing utility box
-  = Existing contour
-  = Existing spot elevation
-  = Existing iron pin
-  = Existing drill hole
-  = Existing monument
-  = Existing Trees



**SURVEY NOTES:**

1. This map has been prepared pursuant to the Regulation of Connecticut State Agencies Sections 20-300b-1 through 20-300b-20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996.
2. Type of survey performed: Property & Topographic Survey
3. Boundary determination category: Dependant Resurvey
4. Class of accuracy:  
Horizontal: A-2  
Vertical: T-2
5. The intent of this map is to depict or note the position of boundaries with respect to: (A) locations of all boundary monumentation found or set; (B) Apparent improvements and features, including as a minimum: dwellings, barns, garages, sheds, driveways, roadways, surface utilities, visible bodies of water and swimming pools; (C) record easements and visible means of ingress and egress; (D) record and apparent means of ingress and egress; (E) lines of occupation, including as a minimum: fences, walls, hedges and yards; (F) deed restrictions pertaining to the location of buildings or other apparent improvements; (G) unresolved conflicts with record deed descriptions and maps; (H) all apparent boundary encroachments; and (I) monumentation required to be set at all corners created by a deflection angle of not less than 70 degrees between two consecutive courses at an intervals not to exceed 600 feet (180 meters) along the boundaries between said corners, except where natural or man-made monumentation defines or occupies the line.
6. Map References:  
a) "Subdivision Plan of D & D Industrial Park, Section 4, Property of Valier J. Daigle and Victor J. Dufault on Willow Brook Drive and Christian Lane, Berlin, Connecticut; Scale: 1"=40'; Dated: March 18, 1968, Approved by Barry V. Squillacote P.E. & L.S., Filed as Volume 18, Page 906 at the B.L.R."
7. Per agreement with property owner no boundary corners were set by this survey unless noted hereon. All monumentation found is depicted or noted hereon.
8. Zone: G1-2
9. Total area: 175,776 sq. ft. - 4.04 acres
10. Owner: JJD Realty Associates, LLC
11. City of Berlin Assessors Map #4-3 Lot #3A
12. Filed in Volume 213, Page 519 of the City Clerk's office.
13. Contour interval is (2) foot.
14. Existing contours generated from field topography.
15. This survey does not include the location of any underground improvements or encroachments, subsurface utility lines or buried debris. Nor does it necessarily reflect the existence of any waste dumps or hazardous materials. The underground items depicted or noted are approximate and are not guaranteed. Notify "CALL BEFORE YOU DIG" 1-800-922-4455 prior to any excavation operations.

DATE	REVISION
To the best of my knowledge and belief, this map is substantially correct as noted hereon.	
#70145	
Stephen M. Giudice, L.S. Reg. No.	
NOT VALID UNLESS EMBOSSED SEAL OR STAMP IS AFFIXED HERETO	

PROPERTY & TOPOGRAPHIC SURVEY MAP  
Prepared For  
**PDS Engineering & Construction, Inc.**  
400 Christian Lane  
Berlin, Connecticut  
March 2, 2023  
Scale: 1" = 40'

40' 20' 0 20' 40'

F.B. #: PROJECT #: 1169a

**cole**  
HARRY E. COLE & SON  
engineering. surveying. planning.

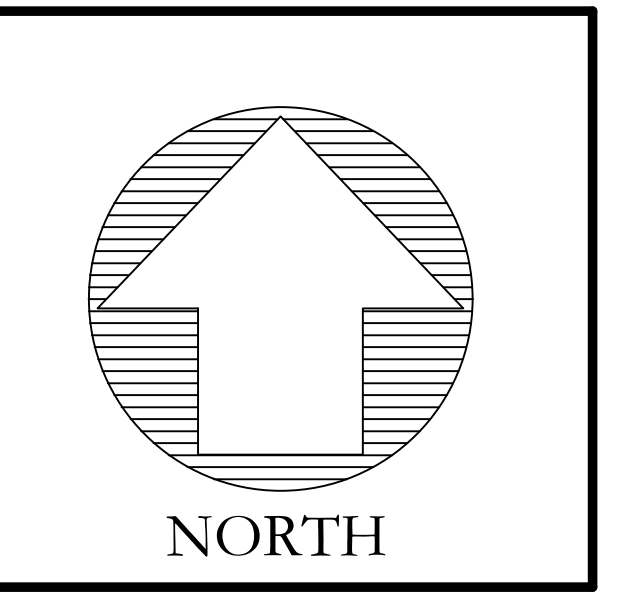
876 South Main Street  
P.O. Box 44  
Plainville, CT 06479-0044  
Tel: (860) 628-4484  
Fax: (860) 620-9196  
www.hecole.com





DRAWING NAME: D:\Projects\400 Christian Lane\400 Christian Lane.dwg DATE: 04/17/2023 10:00:00 AM USER: btp

LEGEND	
	= Existing utility pole
	= Existing light pole
	= Proposed Light
	= Existing fire hydrant
	= Proposed fire hydrant
	= Existing water valve
	= Existing gas valve
	= Existing underground pipe
	= Existing treeline
	= Existing edge of pavement
	= Proposed curbing
	= Existing/Proposed well
	= Existing catch basin
	= Existing drainage manhole
	= Existing sanitary manhole
	= Proposed catch basin
	= Proposed manhole
	= Existing utility box
	= Proposed sidewalk ramp
	= Existing contour
	= Existing spot elevation
	= Proposed contour
	= Proposed spot elevation
	= Deep test location
	= Percolation test location
	= Grade to drain
	= Proposed Riprap
	= Proposed Drainage Pipe



- SITE PLAN NOTES:**
- See Sheet C1 for additional information.
  - Site to be serviced by town water and sewer.
  - Contractor to coordinate with all local utility companies prior to the start of construction.
  - Proposed roof drains of the additional are to be collected and routed to the retention basin.
  - All Catch Basins/Inlets shall be cleaned prior to occupancy.
  - Maximum earth slopes shall be two feet horizontal to one foot vertical.
  - Sanitary service connection for domestic/office waste only. No industrial waste shall be discharged.
  - All existing utilities are from best available information, contractor to verify all locations, dimensions, and elevations prior to construction. Notify Engineer of any discrepancies.
  - All existing utilities are to remain and protected during construction. Existing meters and other apparatus may need to be relocated to locations along the proposed addition.

**cole**  
 HARRY E. COLE & SON  
 engineering. surveying. planning.

876 South Main Street Tel: (860) 628-4484  
 P.O. Box 44 Fax: (860) 620-0196  
 Plainville, CT 06479 - 0044 www.hecole.com

PROJECT NAME:  
**PROPOSED BUILDING ADDITION**

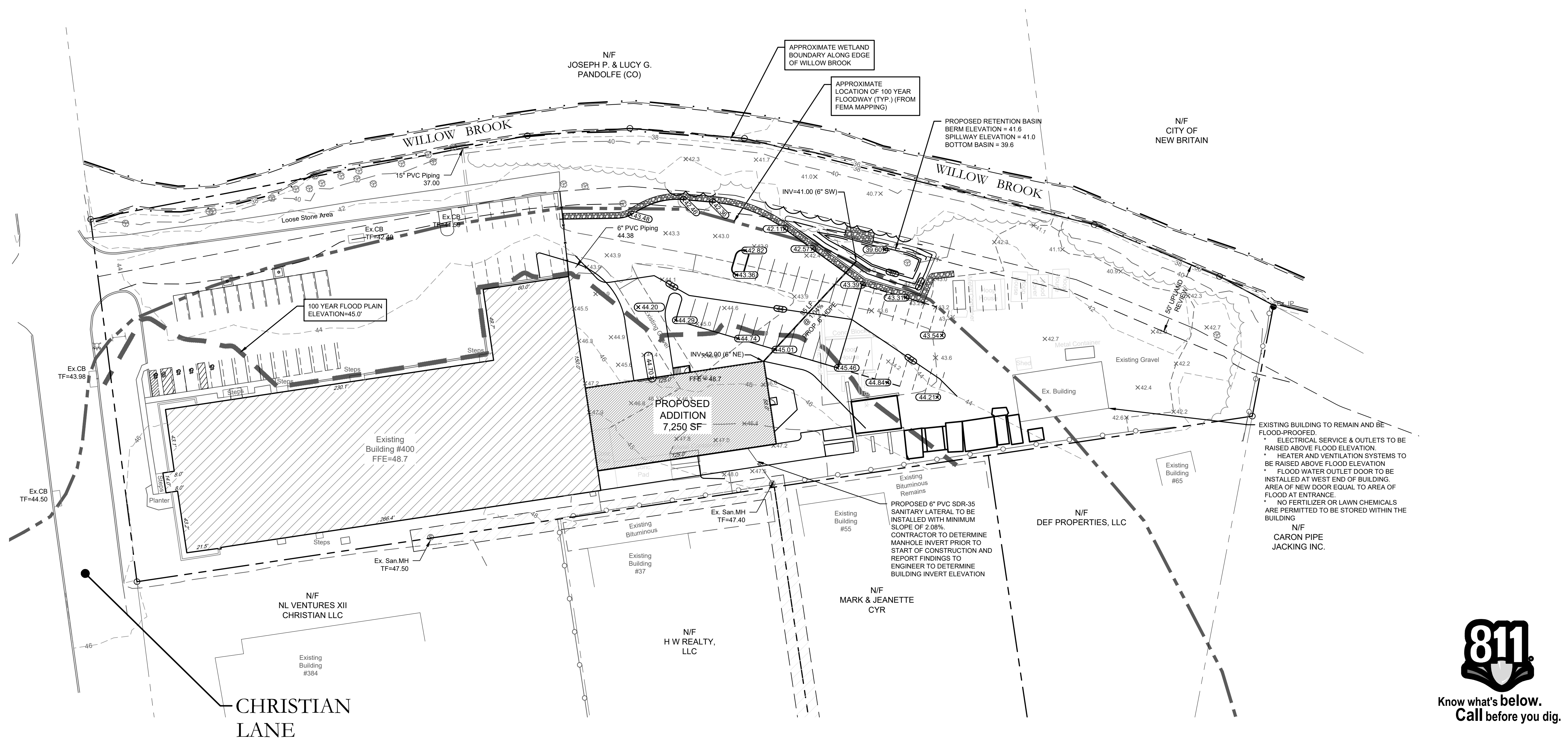
400 Christian Lane  
 Berlin, Connecticut

PREPARED FOR:  
**PDS ENGINEERING & CONSTRUCTION, INC.**

Sheet Description:  
**SITE DEVELOPMENT PLAN**

Scale: 1"=40'

Date: March 20, 2023	F.B. #:
Drawn By: BTP	Approved By: BNB
Revisions:	
Date:	Descriptions:
4/17/2023	Revised per Town Comments



Sheet #:  
**C2**



**SOIL EROSION AND SEDIMENT CONTROL NARRATIVE:**

**A. PROJECT INFORMATION**

1. Project Description - The project site consist of one 4.04 acre parcel on 400 Christian Lane in Berlin, CT.
2. Area Proposed Disturbance Due to Construction Activities - 1.39s Acres Total.
3. Estimated Start of Construction - Summer 2023.
4. Estimated Construction Completion Date - Summer 2024.

**B. SEQUENCE OF CONSTRUCTION**

- The tentative sequence of construction events are as follows and activities noted by a "Capital Letter" may occur concurrently.
1. Conduct a pre-construction meeting with the OWNER, Contractor, Consultant Team, and Local, County and State agencies having jurisdiction over the project.
  2. Field stakeout the limits of all activities and at a minimum identify the construction limit lines along environmentally sensitive and tree protection areas. Silt fencing may be used where it coincides with this line, but only as approved by the OWNER. (A)
  3. Install silt fence along sides of contiguous to wetlands, watercourses and property owned by others affected by the work. Refer to the Soil Erosion and Sedimentation Control Plan for locations. (A)
  4. Construct detention basins and stabilize immediately following construction. All slopes greater than 3:1 to be matted or hydro seeded with tackifier. Prior to and after each rain storm monitor the sedimentation and erosion control structures, which may include riprap channels, sediment basins, plunge pools, etc. Routinely remove sediment during construction when controls exceed one half (1/2) their capacity, sediment shall be disposed of in an environmentally acceptable manner at an approved location. (A)
  5. Clear vegetation within project limits, except trees designated to remain or in question, as shown on the plans. The decision of how questionable trees are to be treated shall rest with the OWNER and coordinated through the local agency having jurisdiction as construction progresses. All trees and shrubs less than 6" in diameter, and not to remain, shall be chipped and stored on site for mulch. (A)
  7. Remove stumps and dispose of in a bulky waste site approved by the ENGINEER and local official having jurisdiction. Disposal of stumps within burial pits on-site shall be prohibited. (B)
  8. Construct all temporary sedimentation and erosion control structures, including but not limited to: silt fence, stone check dams and water breaks. All structures and their locations shall be approved by the ENGINEER or the Inland Wetlands Enforcement Officer. Prior to the next phase of construction. (B)
  9. Install drainage outfall pipe and temporary sediment basin along with temporary drainage diversions to sediment basin.
  10. Strip topsoil and subsoil materials as required and stockpile them at locations that will not adversely impact any down gradient wetlands. Stockpiles may be relocated to meet job conditions but are subject to the ENGINEER'S approval. Provide temporary erosion controls on the downslope slopes of all stockpiles. (B)
  11. Bring proposed site entrance surface areas to rough subgrade.
  12. Conduct all rough cuts and fills for proposed houses, roads and utility installations. Making sure that all fill material is free of brush, rubbish, large boulders, logs, stumps and other objectionable materials. (C)
  13. If blasting is required for any cuts, all proposed work is to be coordinated with all local officials having jurisdiction. The contractor is required to secure all permits for blasting operations in accordance with local and state regulations and conduct a pre-blast survey of surrounding properties. Rock spoil to be disposed of in an appropriate manner as the site development plan may show or is locally permitted. (C)
  14. Provide temporary seeding measures on all exposed soil which were damaged due to construction activities, are outside of construction traffic zones, and are not to be permanently restored or for a period in excess of thirty (30) days. Seeding and seedbed preparation are as specified herein or as indicated on the landscape plan. (C)
  15. Excavate for and install storm drainage systems. Install haybale ring sediment barriers at all catch basins locations. (C)
  16. Excavate for and install utilities. (C)
  17. Bring proposed roadway areas to pavement subgrade with processed stone and install binder course and curbing. Refer to details. (D)
  18. Construct all driveway entrance improvements as indicated on plans. (E)
  19. Exercise final long-term stabilization. (E)
  20. Complete final paving with top course. (E)
  21. Clean and remove all silt from within drainage structures and dispose of materials in an environmentally acceptable manner. (F)
  22. Remove temporary measures once permanent measures have matured as approved by the Municipality's enforcement officer. (F)
  23. Conduct final inspection with Municipality to identify deficiencies and establish punch list based on approved plans; complete to the satisfaction of the Municipality.
  24. Construction Staging:
    - a. Stage # 1 - Rough grade site, stabilize steep slopes. Construct temporary sedimentation control measures, detention and retention basins.
    - b. Stage #2 - Install subsurface storm water systems, install underground utilities and first coat pavement.
    - c. Stage #3 - Finish grade site and loam and seed all disturbed areas.
  25. All dewatering to be directed into filter bags.

**C. RESPONSIBILITY**

1. The responsibility for implementing and maintaining the Soil Erosion and Sedimentation Control Plan rests with the OWNER OF RECORD where any development of the parcel gives cause to erosion and sedimentation. It is also to be said that the OWNER OF RECORD shall be held responsible for informing all concerned regarding responsibility of the SEASC plan and seeing that the plan becomes a part of the deed in the event the title of the property is transferred. The costs of all drainage erosion and sedimentation control measures will therefore rest with the OWNER OF RECORD.
2. Contact Person: PDS Engineering & Construction, Inc. Contact Phone: (860) 242-8586

**GENERAL NOTES:**

1. Additional notes and details are located on Sheet ES2.
2. At all times during construction, the Developer/Contractor shall be responsible for preventing and controlling on-site erosion including keeping the property sufficiently watered so as to minimize wind blown sediment. The Developer/Contractor shall also be responsible for installing and maintaining all erosion control facilities shown herein.
3. All soils exposed during land disturbing activity (stripping, grading, utility installations, stockpiling, filling, etc.) shall be kept in a roughened condition by ripping or disking along land contours until mulch, vegetation, or other permanent erosion control BMPs are installed. No soils in areas outside project street rights-of-way and future pavement shall remain exposed by land disturbing activity for more than thirty (30) days before required temporary or permanent erosion control (e.g. watering, seed/mulch, landscaping, etc.) is installed, unless otherwise approved by the Town Engineer.
4. All inlets shall be cleaned prior to occupancy.
5. All slopes greater than 3:1 shall be protected with Erosion Control Blankets (S150 by North American Green or approved equal) or Hydroseeded with Tackifier
6. All erosion control measures shall remain intact and operational until the site has been stabilized and vegetation is thoroughly established. This may occur after completion of construction, therefore it is critical for the Developer, Contractor and/or Owner to understand the erosion control responsibilities and maintain the erosion control measures.
7. To minimize erosion of the sandy soils, vegetation shall be established immediately following completion of grading within each area. Vegetation may consist of temporary seeding or final loam and seed.
8. If areas of work are not addressed by this plan or sediment and erosion issues arise in areas not covered by this plan, then the plan shall be augmented in the field. Contractor shall be responsible to insure no sediment or erosion problems encroach upon abutting property. This may require additional barriers, swales and bales.
9. All erosion and sediment control measures shall conform to the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control manual.

**STORMWATER MANAGEMENT MAINTENANCE SCHEDULE BERLIN, CONNECTICUT**

The following are the required maintenance and monitoring procedures.

**Riprap and Discharge Aprons** - Shall be cleared of all sediment deposits and invasive plant species and are to be inspected for rip-rape damage and deterioration. These procedures to be conducted yearly between May 1 and before September 15.

**Outlet Control Structure** - Shall be cleaned of all sediment, trash and debris and is to be inspected for structural integrity. These procedures to be conducted yearly between May 1 and September 15. Structure shall be inspected two times a year and after significant rainfall events. Additional maintenance, beyond scheduled maintenance, may be required based upon inspections. Repairs shall be executed immediately.

**Emergency Spillway** - Shall be cleared of all sediment deposits and invasive plant species and are to be inspected for riprap damage and deterioration. These procedures to be conducted yearly between May 1 and September 15. Repairs shall be executed immediately.

**Catch Basins** - All basin rim areas and sumps shall be cleaned of all sediment, trash and debris. These procedures to be conducted yearly anytime after May 1 and before September 15.

**Swales** - all swales be cleared of all sediment deposits, invasive plant species and debris. Any erosion shall be repaired. These procedures to be conducted annually. Swales shall be inspected two times a year and after significant rainfall events. Additional maintenance, beyond schedule maintenance, may be required based upon inspections.

**Water Quality Basin** - Basin shall be cleared of all sediment deposits, invasive plant species and debris. These procedures to be conducted yearly between May 1 and September 15. Basin shall be inspected two times a year and after significant rainfall events. Additional maintenance, beyond scheduled maintenance, may be required based upon inspections.

**Slopes** - Slope erosion control blankets and vegetation shall be inspected twice a year and after significant rainfall events. Additional maintenance, beyond schedule maintenance, may be required based upon inspections. Any hills or channeling shall be repaired immediately.

**Parking Lot Sweeping** - Use mechanical sweeping on paved areas where dust and fine materials accumulate. These procedures to be conducted yearly anytime after May 1 and September 15. All sediment deposits, trash and debris shall be removed to a location off-site and disposed of in an environmentally acceptable manner.

**TEMPORARY STORMWATER MANAGEMENT MAINTENANCE SCHEDULE (DURING CONSTRUCTION)**

The following are the required maintenance and monitoring procedures

**Swales** - All swales shall be mowed and be cleared of all sediment deposits, invasive plant species and debris. These procedures shall be conducted monthly. Swales shall be inspected weekly and after significant rainfall events. Additional maintenance, beyond scheduled maintenance, may be required based upon inspections.

**Catch Basins** - All basin rim areas and sumps shall be cleaned of all sediment, trash and debris. These procedures shall be conducted monthly. Basins shall be inspected weekly and after significant rainfall events. Additional maintenance, beyond scheduled maintenance, may be required based upon inspections.

**Slopes** - Stabilized slopes are essential to preventing sediment movement. Any channels of concentrated flow, such as hills, shall be fixed immediately. Additional control measures, such as bales, riprap, sediment fence and erosion fabric or hydroseed with tackifier may be required. Slopes shall be inspected weekly and after significant rainfall events.

**Sediment Barriers & Hay Bales** - Shall be inspected weekly and after significant rainfall events. Repairs shall be made immediately. Additional barriers and bales may be required depending upon the area of work. If conditions exist which can not be addressed with this plan, then additional barriers shall be implemented to prevent sediment from leaving the site.

**Street Sweeping** - Sediment from the construction site, which has accumulated on the existing streets shall be cleaned up immediately. Contractor to inspect daily.

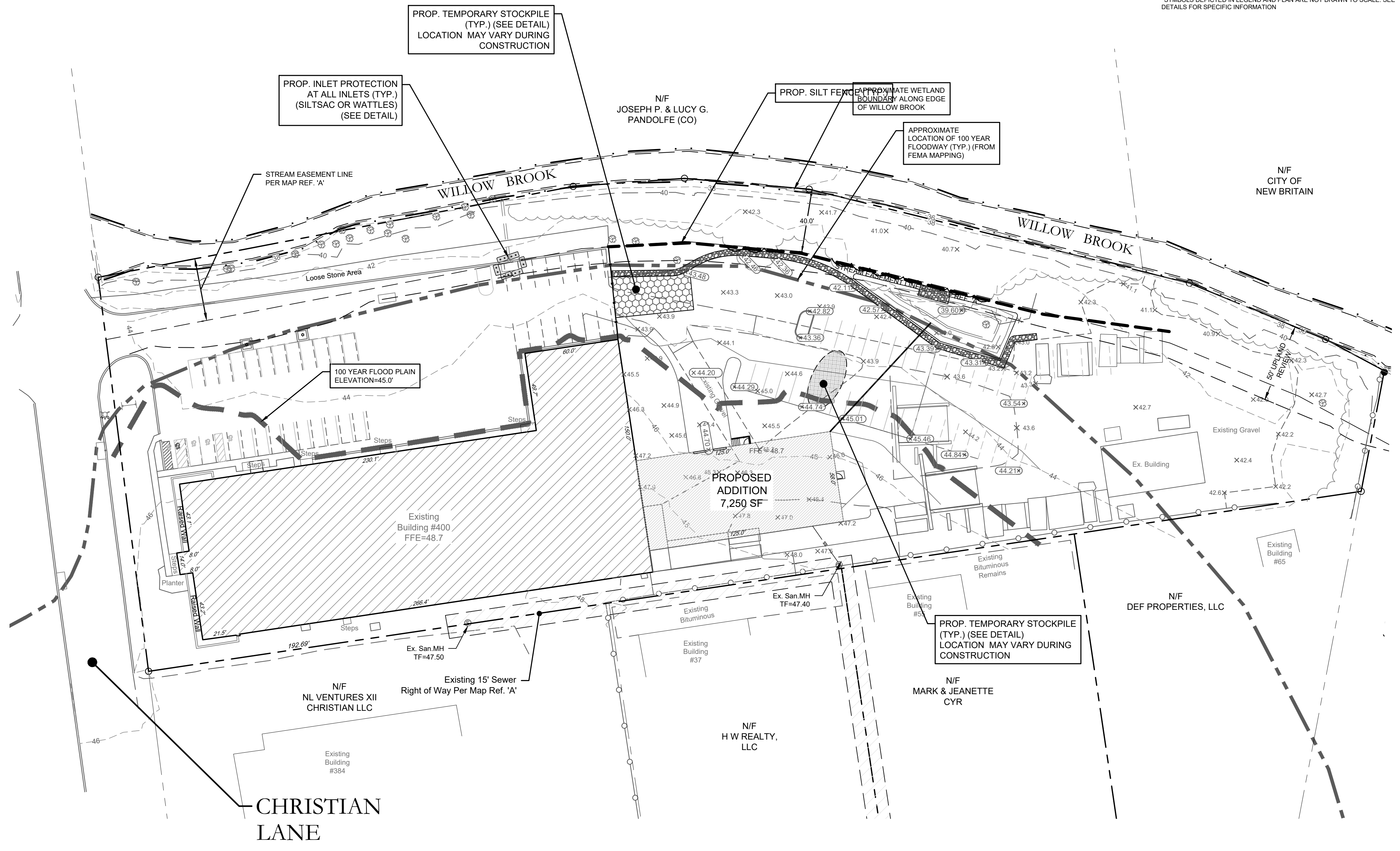
**Wind Blown Sediment** - Shall be minimized. Unpaved travel ways shall be sufficiently watered to minimize wind blown sediment. Other unpaved surfaces shall be watered, temporary vegetated, roughing with disc or other measures in the Connecticut Guidelines for Soil Erosion and Sediment Control manual.

LEGEND	
	= Existing utility pole
	= Existing light pole
	= Proposed Light
	= Existing fire hydrant
	= Proposed fire hydrant
	= Existing water valve
	= Existing gas valve
	= Existing underground pipe
	= Existing treeline
	= Existing edge of pavement
	= Proposed curbing
	= Existing/Proposed well
	= Existing catch basin
	= Existing drainage manhole
	= Existing sanitary manhole
	= Proposed catch basin
	= Proposed manhole
	= Existing utility box
	= Proposed sidewalk ramp
	= Existing contour
	= Existing spot elevation
	= Proposed contour
	= Proposed spot elevation
	= Deep test location
	= Percolation test location
	= Grade to drain
	= Proposed Riprap
	= Proposed Drainage Pipe

**EROSION CONTROL SYMBOL LEGEND**

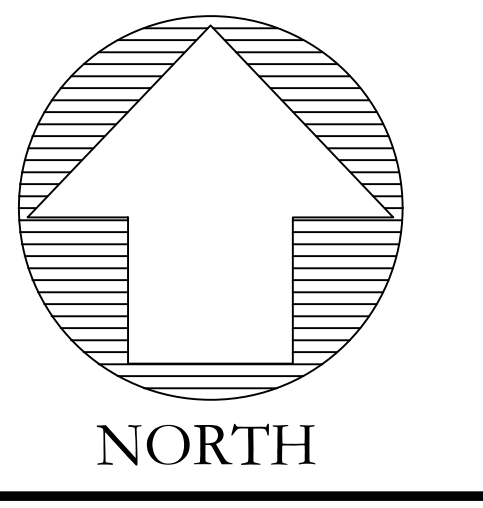
	SILT FENCE
	INLET PROTECTION
	STAKED BALES
	CHECK DAM WATTLE/sock or STONE
	EROSION CONTROL BLANKET
	TEMPORARY WATER BAR (WB) or DIVERSION CHANNEL (TD)

\*SYMBOLS DEPICTED IN LEGEND AND PLAN ARE NOT DRAWN TO SCALE. SEE DETAILS FOR SPECIFIC INFORMATION



Know what's below.  
Call before you dig.

#13653  
Barton N. Bovee P.E. Reg. No.  
NOT VALID UNLESS EMBOSSED SEAL OR STAMP IS AFFIXED HERETO



**cole**  
HARRY E. COLE & SON  
engineering, surveying, planning.

876 South Main Street P.O. Box 44 Plainville, CT 06479-0044  
Tel: (860) 628-4484 Fax: (860) 620-0196 www.heccole.com

PROJECT NAME:  
**PROPOSED BUILDING ADDITION**  
400 Christian Lane  
Berlin, Connecticut

PREPARED FOR:  
**PDS ENGINEERING & CONSTRUCTION, INC.**

Sheet Description:  
**SOIL EROSION & SEDIMENTATION CONTROL PLAN**

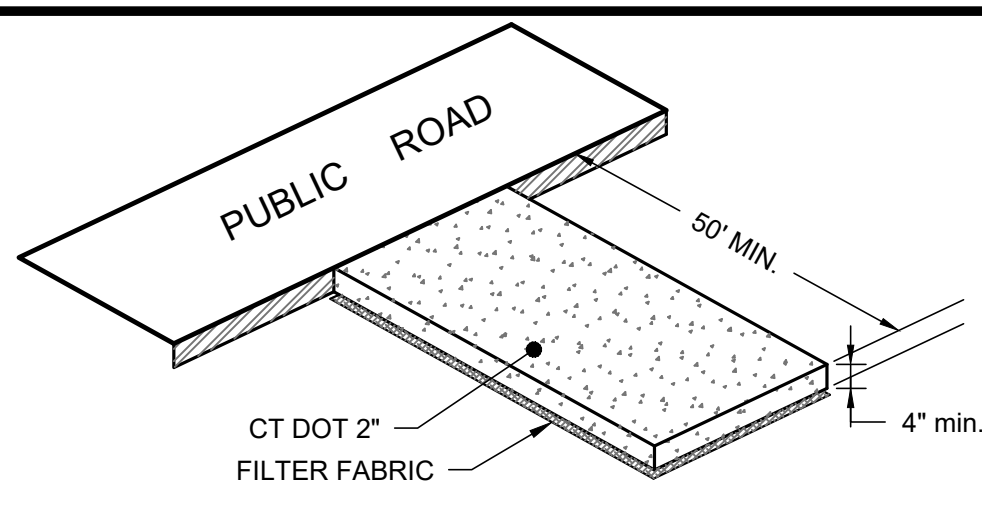
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Date: March 20, 2023	F.B. #:
Project #: 1169	Approved By: BNB
Drawn By: BTP	Revisions:
Date: 4/17/2023	Descriptions: Revised per Town Comments

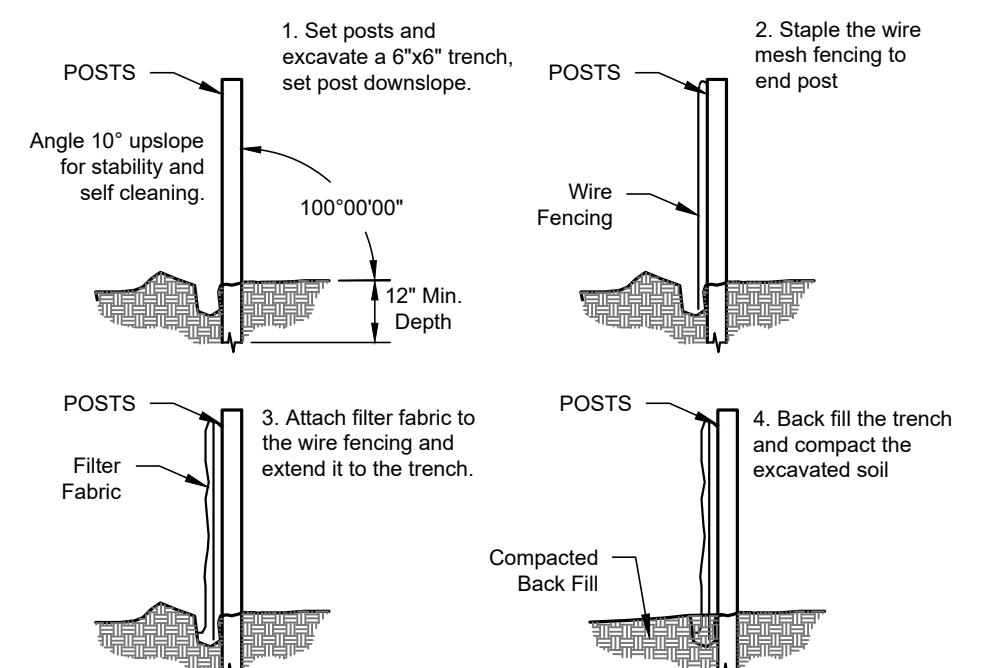
Sheet #:  
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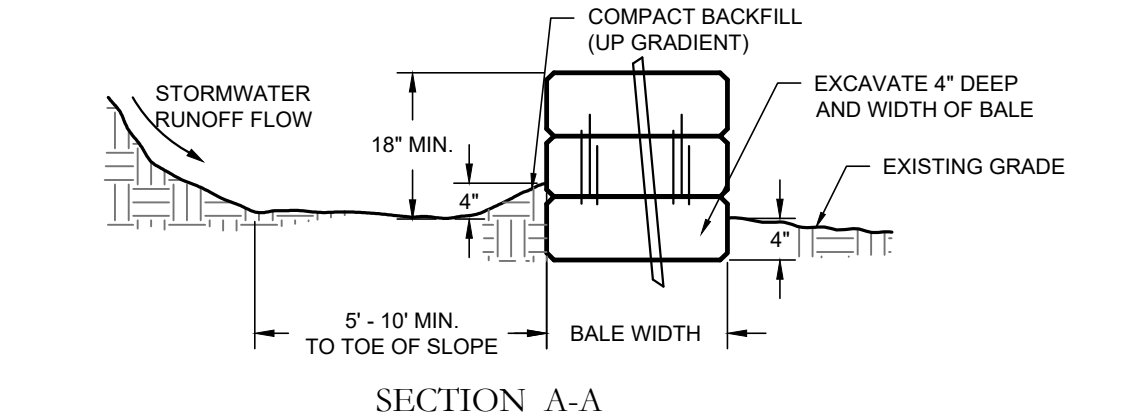


**CONSTRUCTION ENTRANCE DETAIL**  
N.T.S.

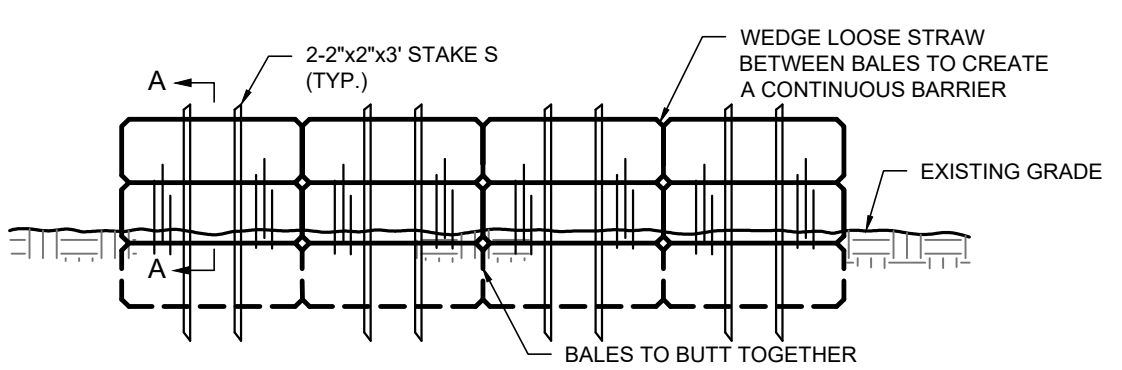


**SEDIMENTATION BARRIER DETAIL**  
N.T.S.

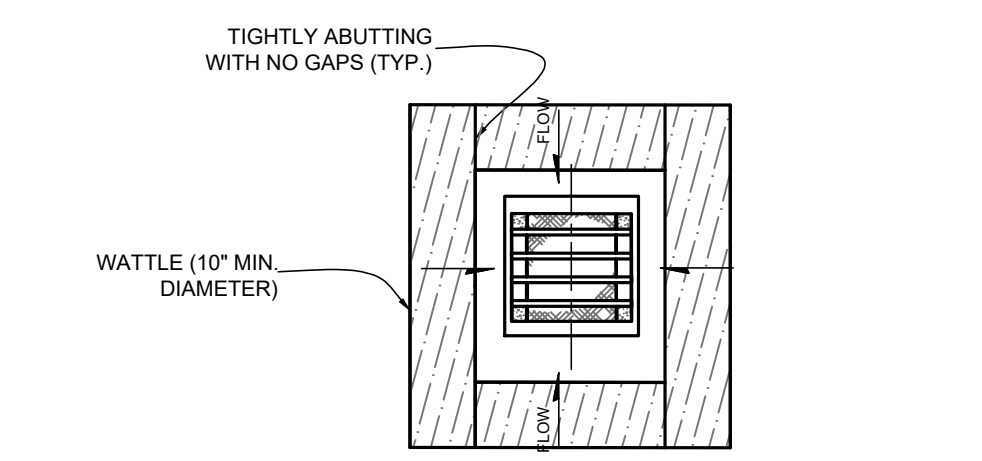
**NOTES:**  
1. BALE BARRIER INSTALLATION SHALL FOLLOW THE CONTOUR OF THE LAND. THE LAST BALES SHALL WING UPSLOPE TO ENSURE PROTECTION.  
2. BALE BARRIERS SHALL BE UTILIZED TO INTERCEPT SMALL AMOUNTS OF SEDIMENT FROM DRAINAGE AREAS ONE ACRE IN SIZE OR LESS. MAX. SLOPE BEHIND A BARRIER MUST BE LIMITED TO 2H:1V.  
3. BALE BARRIERS SHALL BE INSPECTED PERIODICALLY AFTER STORM EVENTS GREATER THAN 1" OF RAINFALL AND SHALL BE REMOVED AND REPLACED AFTER 3 MONTHS EXCEPT AS OTHERWISE DIRECTED BY THE ENGINEER OR ENFORCEMENT OFFICIAL. BALES SHALL NOT BE REMOVED UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.



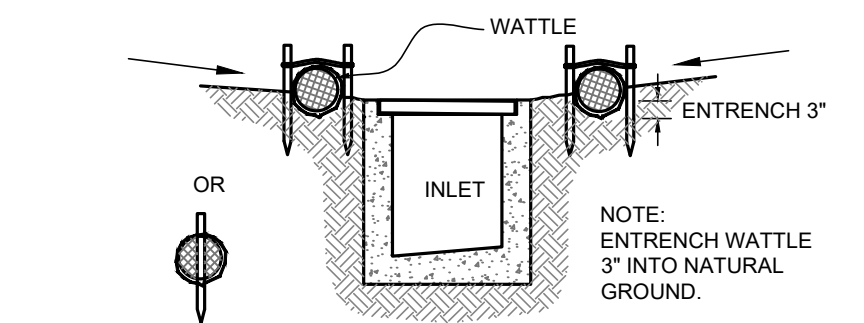
SECTION A-A



**STRAW BALE BARRIER DETAIL**  
N.T.S.

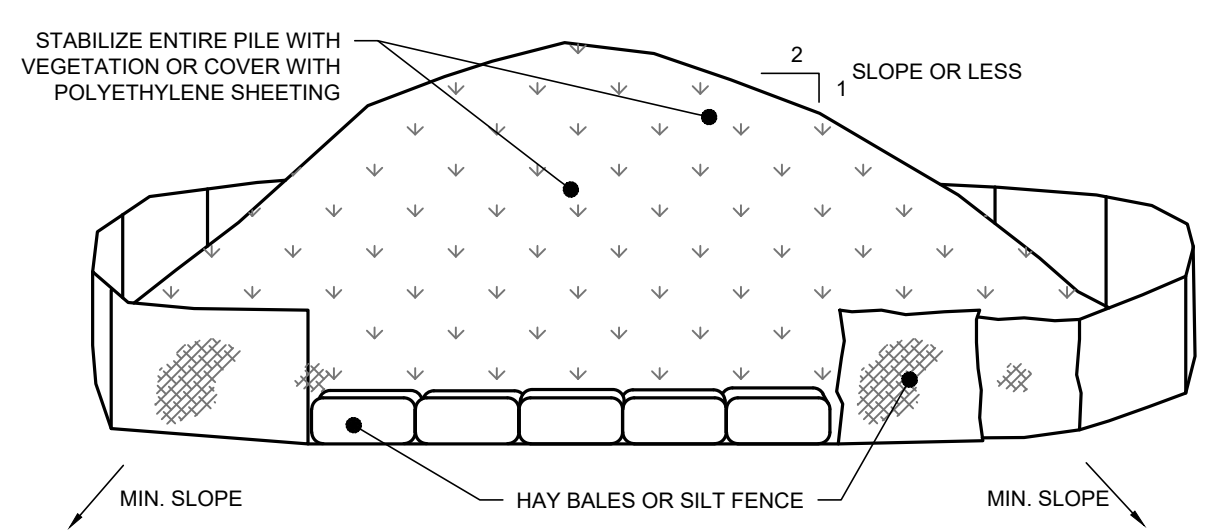


PLAN VIEW

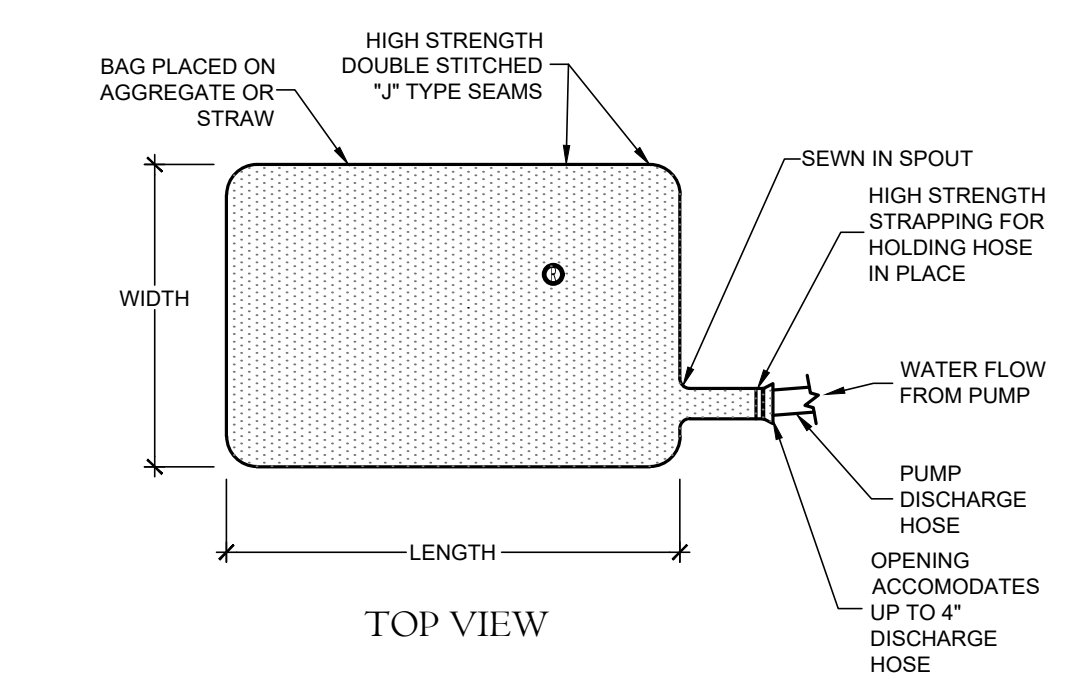


**CATCH BASIN WATTLE PROTECTION**  
N.T.S.

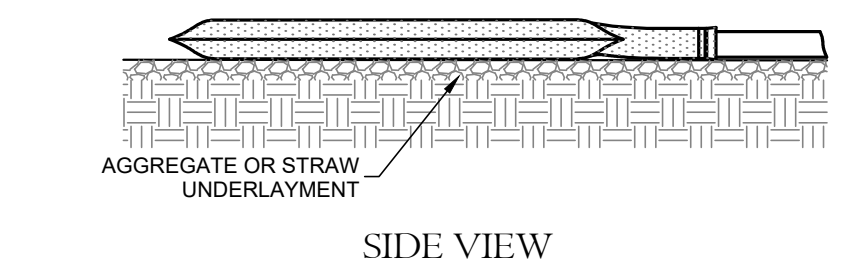
**NOTES:**  
1. AREA CHOSE FOR STOCKPILING SHALL BE DRY AND STABLE.  
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.  
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STARBALES, THEN STABILIZED WITH VEGETATION OR COVERED WITH POLYETHYLENE SHEETING.  
4. TO BE USED WHERE TOPSOIL IS NECESSARY FOR REGRADING AND VEGETATING DISTURBED AREAS. TOPSOIL IS APPLIED TO SUBSOILS THAT ARE DRAUGHTY (HAVING LOW AVAILABLE MOISTURE FOR PLANTS), STONEY/SALTY, HAVE LOW PERMEABILITY, OR ARE EXTREMELY ACID. IT IS ALSO USED TO BACKFILL AROUND SHRUB AND TREE TRANSPLANTS. PRESERVATION OF EXISTING TOPSOIL IS BENEFICIAL FOR ALL TYPES OF LAWN OR ORNAMENTAL PLANTINGS.  
5. TEMPORARY STOCKPILING STABILIZATION MEASURES INCLUDE VEGETATIVE COVER, MULCH NONVEGETATIVE COVER AND PERIPHERAL SEDIMENT TRAPPING BARRIERS. THE STABILIZATION MEASURE(S) SELECTED SHOULD BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS AND REQUIRED PERIOD OF USE.  
6. SEE EROSION AND SEDIMENT CONTROL PLAN FOR LOCATIONS.



**SOIL STOCKPILE DETAIL**  
N.T.S.



TOP VIEW

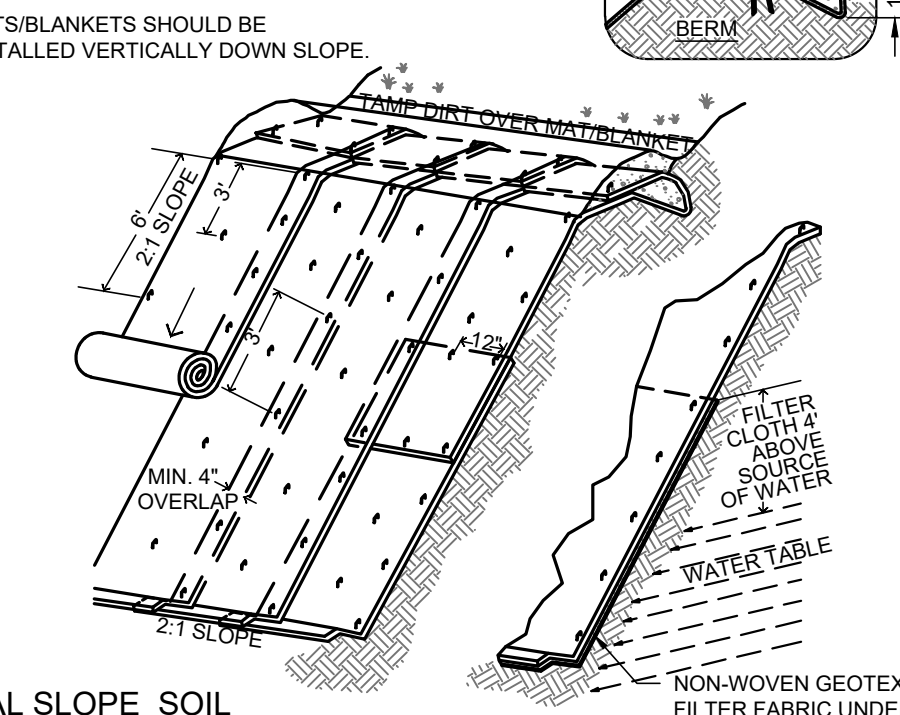


SIDE VIEW

**NOTES:**  
1. AVAILABLE FROM ACF ENVIRONMENTAL 48 OLD GRAYS BRIDGE ROAD, BROOKFIELD, CT 06804. (203)313-9002

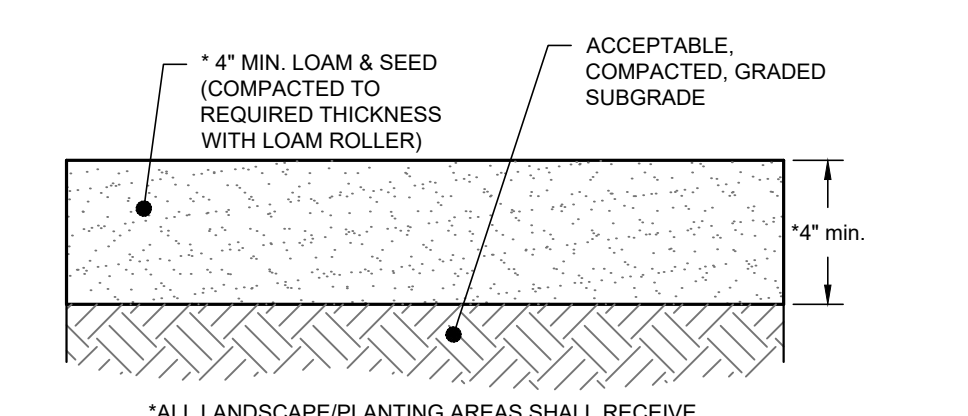
**DIRTBAG SILT CONTROL SYSTEM**  
N.T.S.

**NOTES:**  
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.  
2. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

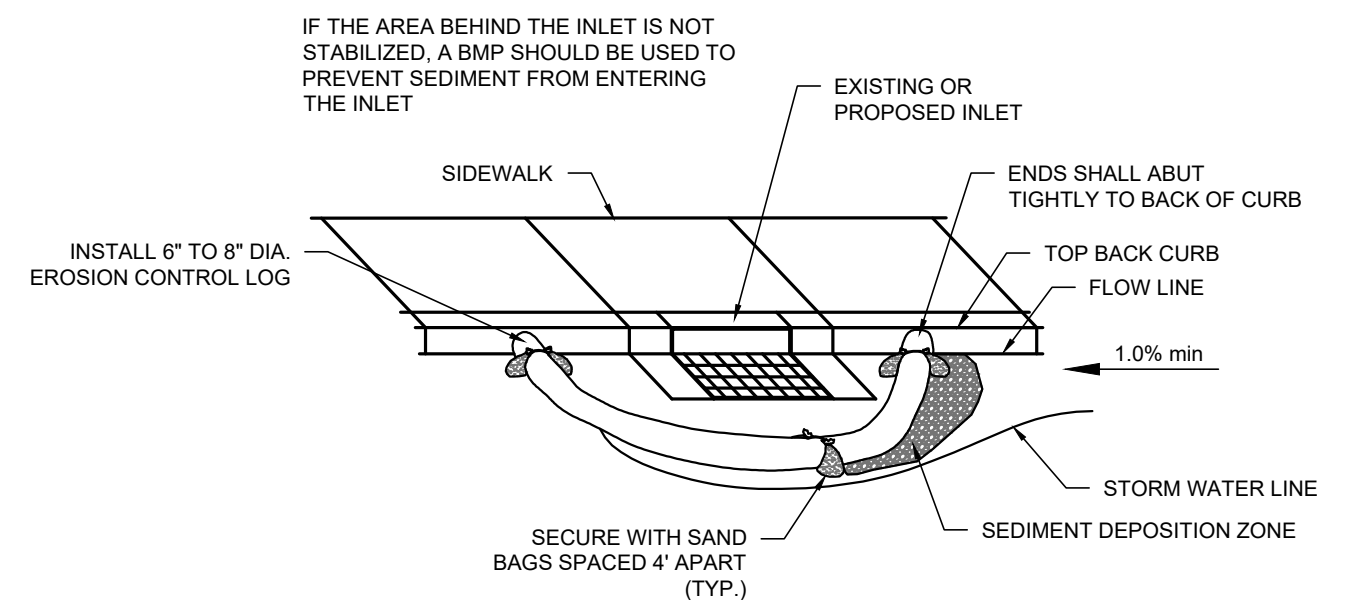


**TYPICAL SLOPE SOIL STABILIZATION**  
**EROSION BLANKET & REINFORCEMENT MAT SLOPE INSTALLATION**  
N.T.S.

**GENERIC SEED MIXTURE** or **SESC MANUAL SEED MIXTURE**  
- 25-30% KENTUCKY BLUE GRASS  
- 80% GERMINATION  
- 30-35% RED FESCUE 90% GERMINATION  
- 30-40% PERENNIAL RYE GRASS MIXTURES  
- 85% GERMINATION  
or  
**PERMANENT GRASS SEEDING**  
PER FIGURE PS-2 & PS-3 OF THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL

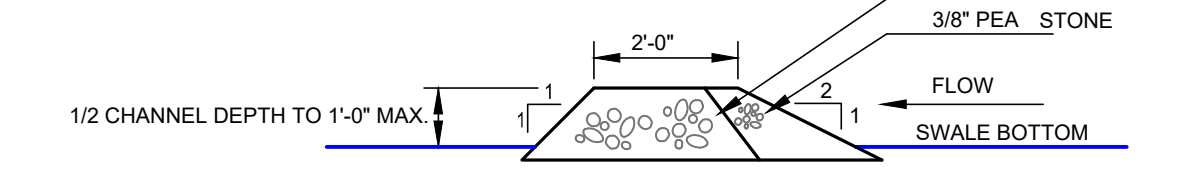


**LOAM & SEED DETAIL**  
N.T.S.

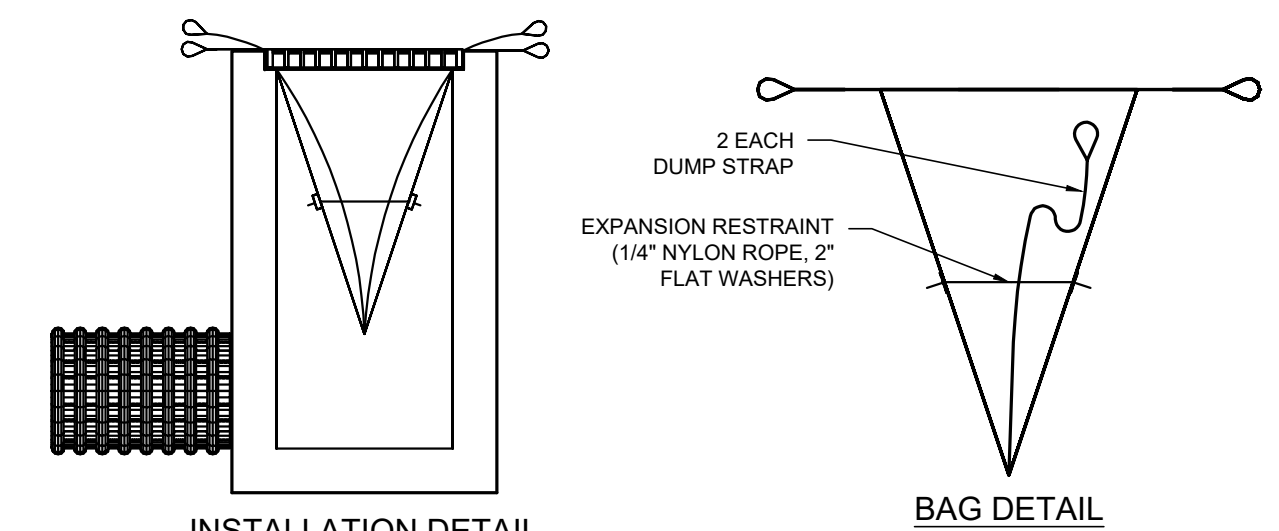


**EROSION CONTROL LOG - CURB INLET PROTECTION**  
N.T.S.

**NOTES:**  
1. INSTALL CRUSHED STONE CHECK DAMS ON SWALES WITH SLOPES GREATER THAN 5% AT 100' INTERVALS.  
2. SWALE SLOPES AS NOTED ON PLANS ARE MINIMUM SLOPES.  
3. SWALE DEPTH AS NOTED ON PLANS (1'-6" MIN.)

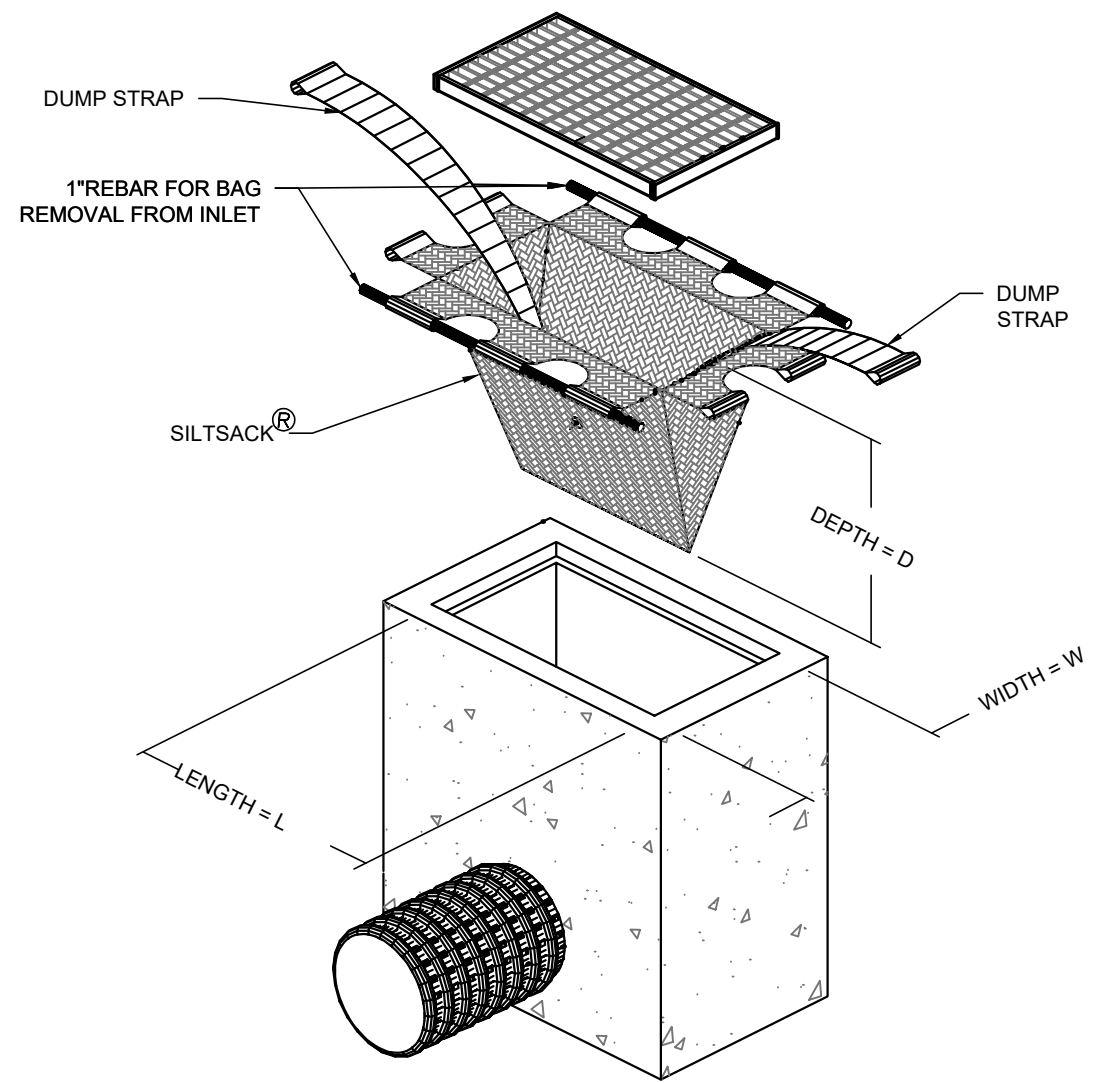


**TYPICAL CRUSHED STONE CHECK DAM**  
N.T.S.



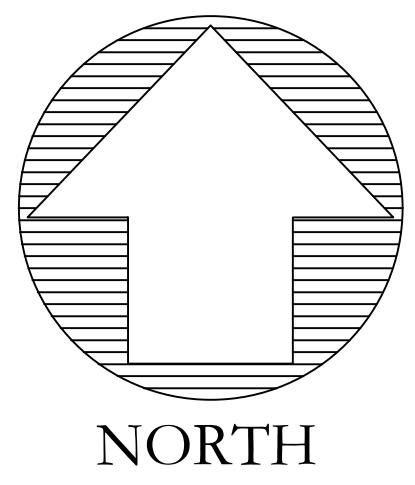
INSTALLATION DETAIL

BAG DETAIL



**NOTES:**  
1. AVAILABLE FROM ACF ENVIRONMENTAL 48 OLD GRAYS BRIDGE ROAD BROOKFIELD, CT 06804. (203)313-9002

**SILTSACK INLET CONTROL DEVICE**  
N.T.S.



**cole**  
HARRY E. COLE & SON  
engineering. surveying. planning.

876 South Main Street Tel: (860) 628-4484  
P.O. Box 44 Fax: (860) 620-0196  
Plainville, CT 06479-0044 www.hecole.com

PROJECT NAME:

**PROPOSED BUILDING ADDITION**

400 Christian Lane  
Berlin, Connecticut

PREPARED FOR:

**PDS ENGINEERING & CONSTRUCTION, INC.**

Sheet Description:

**SOIL EROSION & SEDIMENT CONTROL DETAILS**

Scale:

N.T.S.

Date: March 20, 2023

Project #: 1169

F.B. #:

Drawn By: BTP

Approved By: BNB

Revisions:

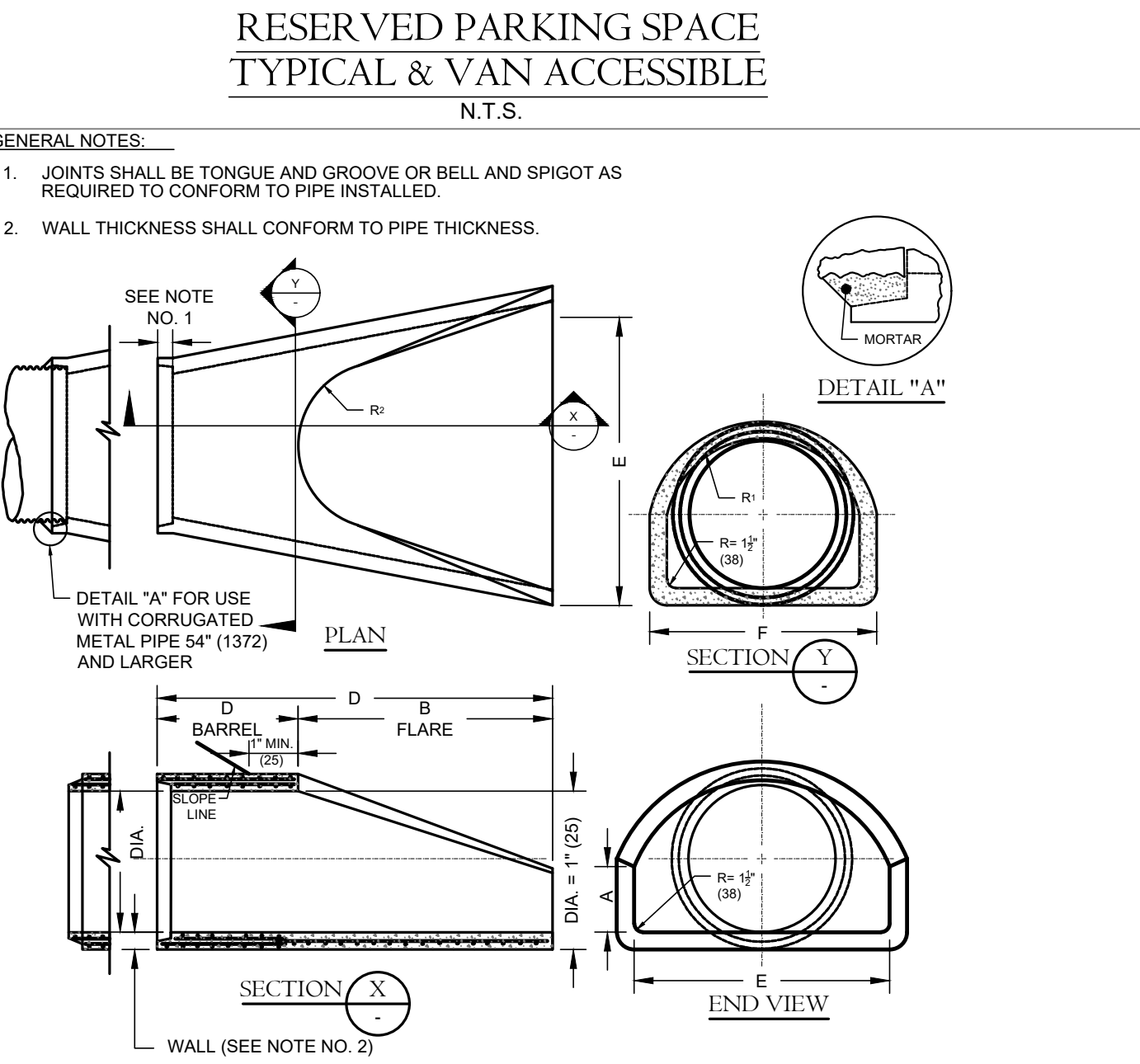
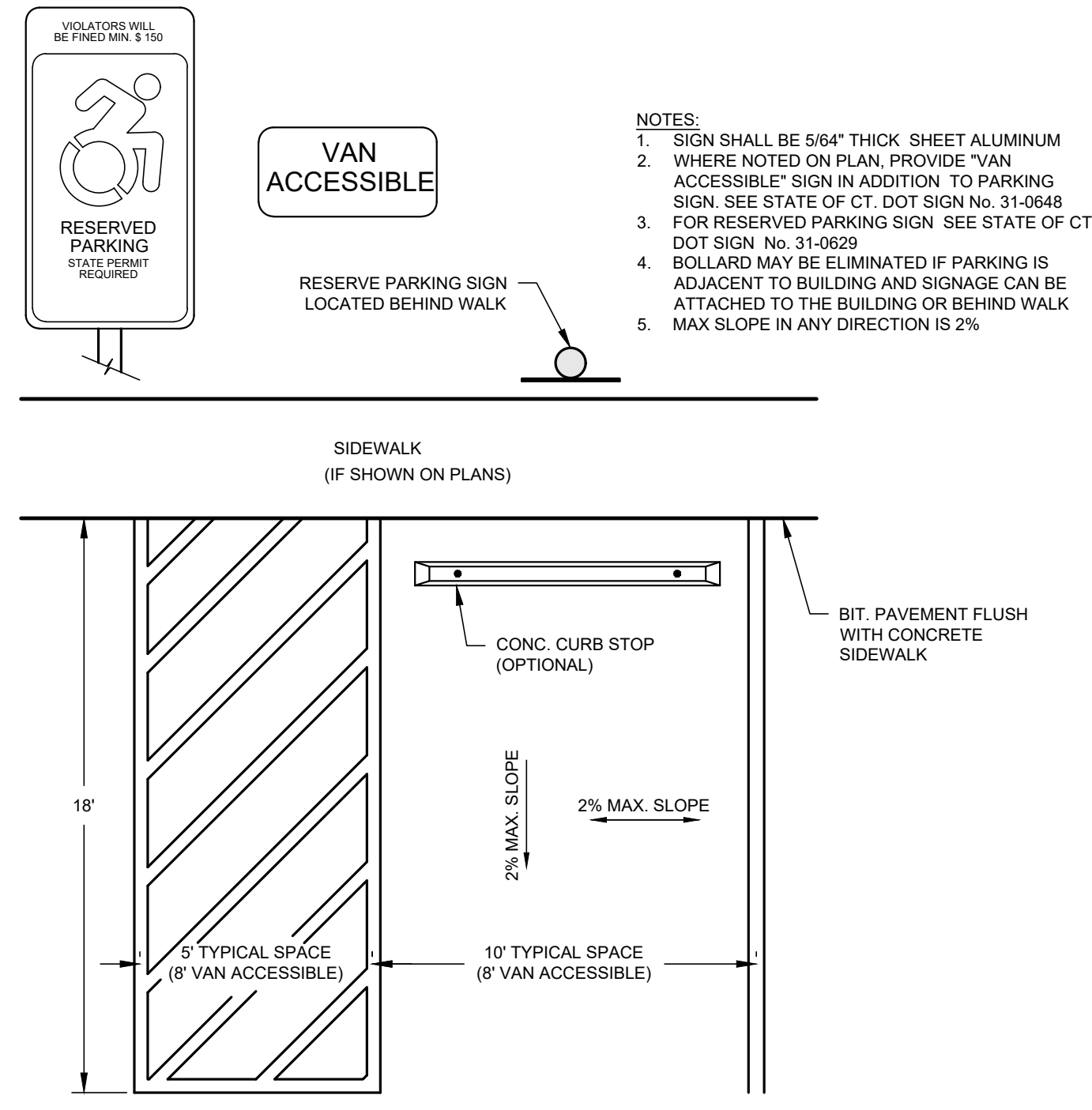
Date:	Descriptions:
4/17/2023	Revised per Town Comments

Sheet #:

**ES2**



DRAWING NAME: D:\Projects\1104\1104-01\1104-01.dwg; DATE: 04/15/2023; 11:04 AM; USER: BTP; PLOT DATE: Apr 15, 2023, 11:04 AM; PLOT SCALE: 1.00; PLOT DEVICE: HP DesignJet 500; PLOTTER: HP DesignJet 500; PLOTTER MODEL: HP DesignJet 500; PLOTTER SERIAL: HP DesignJet 500; PLOTTER MANUFACTURER: HP; PLOTTER MODEL: HP DesignJet 500; PLOTTER SERIAL: HP DesignJet 500; PLOTTER MANUFACTURER: HP



**REINFORCED CONCRETE CULVERT END**  
N.T.S.

DIA.	DIMENSIONS FOR REINFORCED CONCRETE CULVERT END								FLARE REINFORCEMENT	
	A	B	C	D	E	F	R <sub>1</sub>	R <sub>2</sub>	MIN. AREA OF LONGITUDINAL STEEL SQ. IN. PER FT.	MIN. AREA OF TRANSVERSE STEEL SQ. IN. PER FT.
12(305)	4(102)	2(51)	4(102)	4(102)	2(51)	1(25)	10(254)	9(229)	0.98	0.98
15(381)	6(152)	2(51)	3(76)	3(76)	2(51)	1(25)	11(279)	11(279)	0.54	0.54
18(457)	9(229)	2(51)	3(76)	3(76)	2(51)	1(25)	13(330)	13(330)	0.60	0.60
21(533)	9(229)	2(51)	3(76)	3(76)	2(51)	1(25)	13(330)	13(330)	0.66	0.66
24(610)	9(229)	2(51)	3(76)	3(76)	2(51)	1(25)	13(330)	13(330)	0.72	0.72

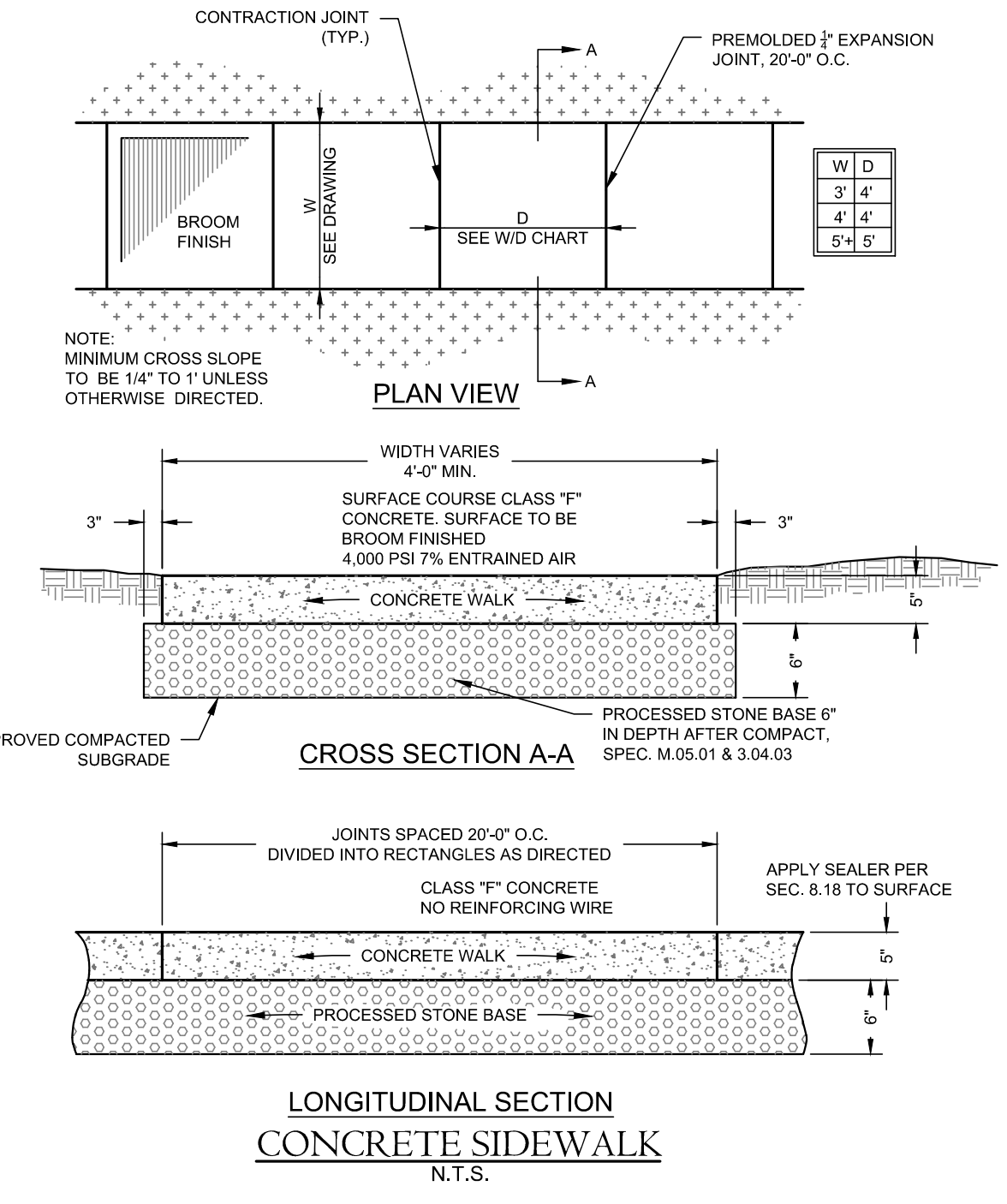
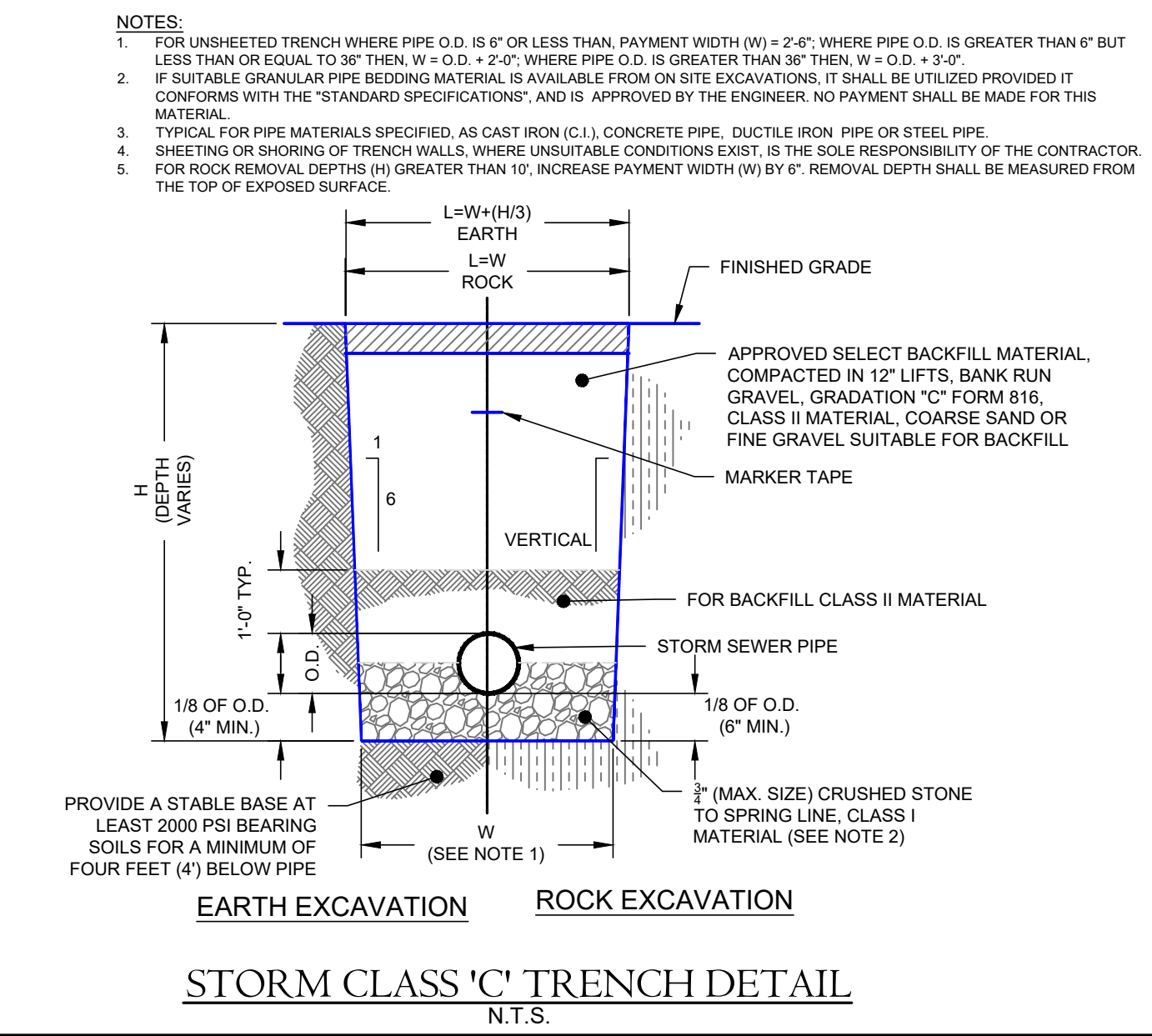


TABLE R1 THICKNESS REQUIREMENTS FOR GRANULAR BEDDING

RIPRAP DESIGNATION	MINIMUM BEDDING THICKNESS (INCHES)
MODIFIED	6"
INTERMEDIATE	6"
STANDARD	12"
SPECIAL DESIGN	12"

GRANULAR BEDDING SHALL CONFORM TO CONN. DOT SPECIFICATION M.02.01

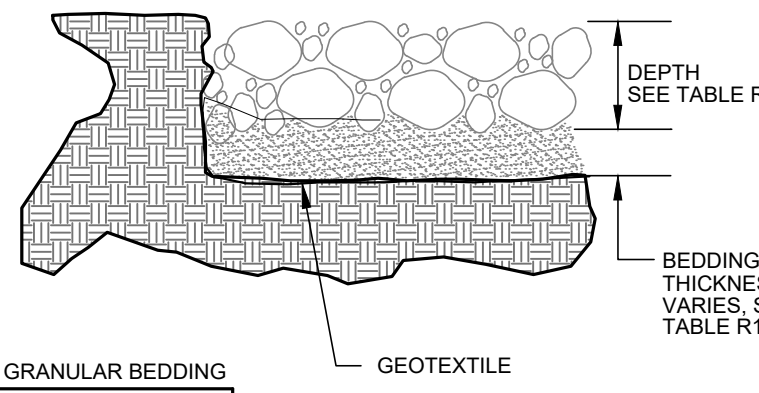


TABLE R2 CLASSIFICATION OF RIPRAP

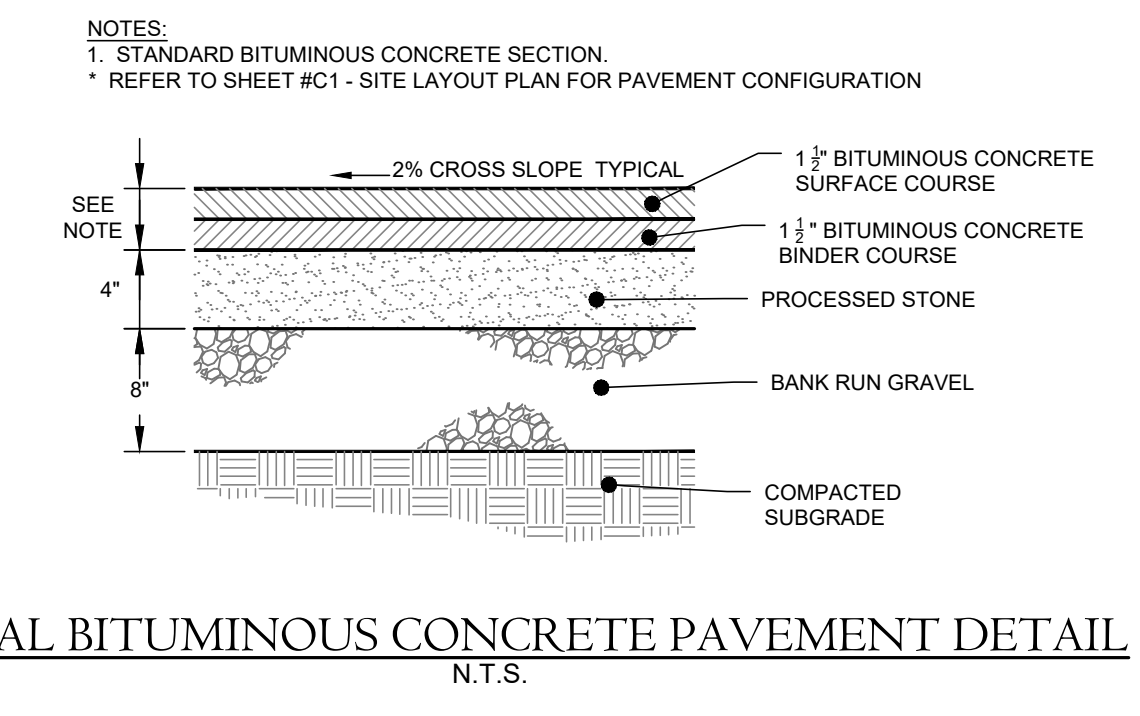
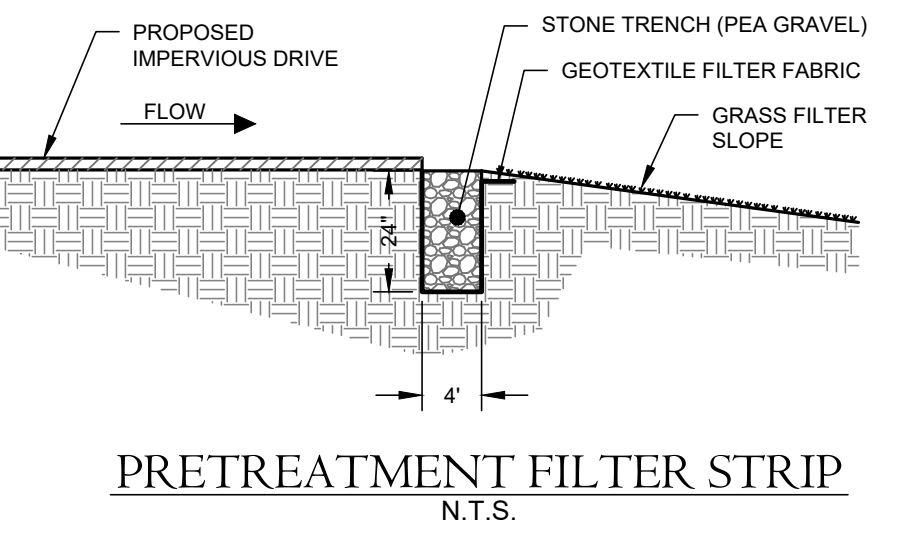
RIPRAP DESIGNATION	d <sub>50</sub> (INCHES)	DEPTH (INCHES)
MODIFIED	5	12
INTERMEDIATE	8	18
STANDARD	15	36

TABLE R3 GRADATION FOR GRANULAR BEDDING

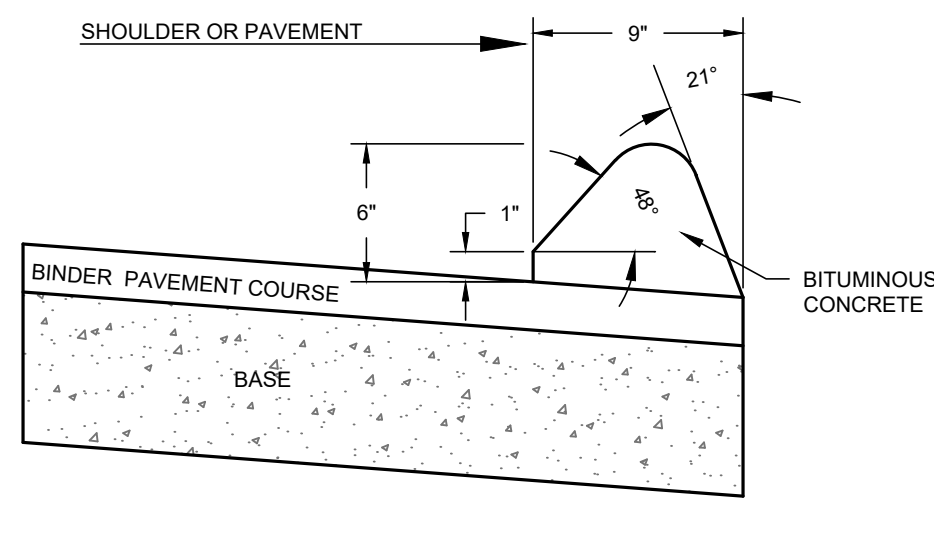
U.S. STANDARD SIEVE SIZE	PERCENT WEIGHT BY PASSING CONN. DOT. GRADING A
5"	100
3 1/2"	100
1 1/2"	55-100
3/4"	
1/4"	25-60
#10	15-45
#40	5-25
#100	0-10
#200	0-5

d<sub>50</sub> = MEAN PARTICLE SIZE  
RIPRAP SPECIFICATIONS & GRADATIONS SHALL CONFORM TO CONN. DOT. M.12.02

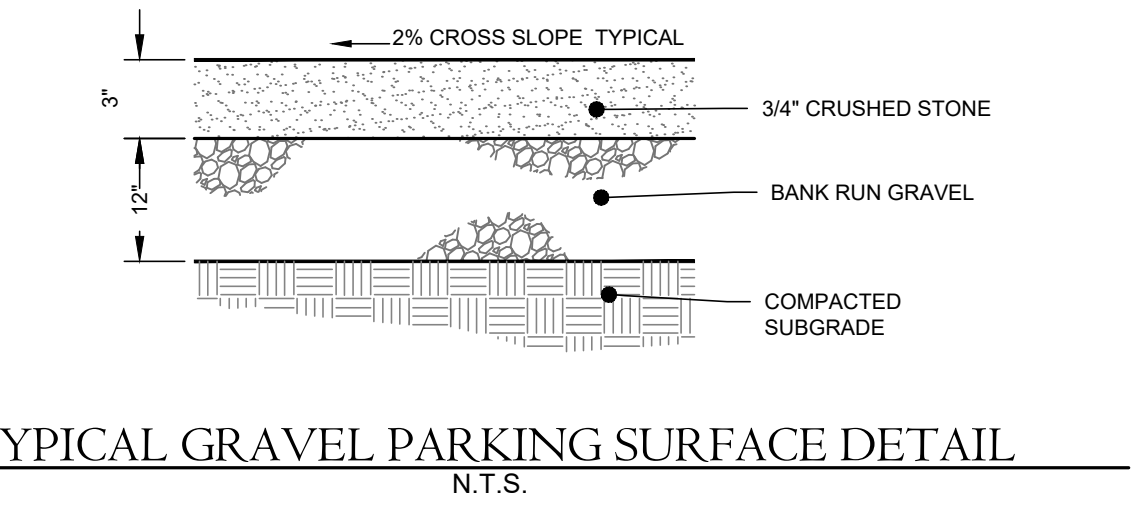
**RIPRAP INSTALLATION DETAIL**  
N.T.S.



**BITUMINOUS CONCRETE LIP CURBING**  
N.T.S.



**TYPICAL BITUMINOUS CONCRETE PAVEMENT DETAIL**  
N.T.S.



**PROJECT NAME:**

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Plainville, CT 06479 - 0044    www.hecole.com

**PREPARED FOR:**

**PDS ENGINEERING & CONSTRUCTION, INC.**

Sheet Description:

**DETAILS**

Scale:

N.T.S.

Date: March 20, 2023

Project #: 1169    F.B. #:

Drawn By: BTP    Approved By: BNB

Revisions:

Date:	Descriptions:
3/23/2023	Added Filter Detail and Gravel Detail
4/17/2023	Revised per Town Comments

Sheet #:

**D1**