

New Plans INLAND WETLANDS & WATERCOURSES COMMISSION

RECEIVED

MAR 01 2021

TOWN OF BROOKLYN
CONNECTICUT

Date _____

020921A
Application # W _____
Check # None

APPLICATION FOR INLAND WETLANDS PERMIT

Name of Applicant SHANE J. POLLOCK & ERIN F. MANCUSO Phone 860-888-3129
Mailing Address 101 MACKIN DRIVE, GROSWEED, CT 06351
Applicants Interest in the Property OWNER

Property Owner Same Phone _____
Mailing Address _____

Name of Engineer/Surveyor KILLINGLY ENGINEERING ASSOCIATES, LLC
Address P.O. Box 421, KILLINGLY, CT 06241
Contact Person NORMAND TIMORANT JIL Phone 860-778-7299 Fax _____

Name of Attorney NICHOLAS MANCUSO
Address 116 PARUL ROAD, COLCHESTER, CT 06415
Phone 860-603-2258 Fax _____

Property location/Address LOUISE BRADY DRIVE
Map # 33 Lot # 19 Zone R30 Total Acres 3.497 Acres of Wetlands 2.33

Purpose and Description of the Activity CONSTRUCTION OF 51 SINGLE FAMILY CONDOMINIUM UNITS

Wetlands Excavation and Fill:

Fill Proposed 0 Cubic Yds 0 Sq ft 0

Excavation Proposed 0 Cubic Yds 0 Sq ft 0

Location where material will be placed: On Site N/A Off Site N/A

Total Regulated Area altered: Sq ft 90200 Acres 2.07

Explain any alternatives that were considered PREVIOUS DESIGN PROPOSED A SIGNIFICANT LARGER NUMBER OF RESIDENTIAL UNITS. APPLICANT REDUCED SCOPE OF THE PROJECT TO LESSEN DENSITY & LAND DISTURBANCE.

Mitigation Measures if Required:

Wetlands or watercourses created: Cubic Yds 0 Sq ft 0 Acres 0

Is parcel located within 500ft of an adjoining Town? No

Is the activity located within the watershed of a water company as defined in CT General Statutes 25-32a?

N/A

REQUIREMENTS

Previously PAID

- Application Fee \$ 0 State Fee (\$60.00) _____
- Completion of DEP Reporting Form
- Compliance with the Inland Wetlands & Watercourses Regulations
- Three (30) copies of all materials required shall be submitted
- Pre application meeting with the Wetlands Agent is recommended to examine the scope of the activity
- Site Plan showing location of the wetlands (Commission may require a soil scientist to identify the wetlands), existing and proposed conditions
- Compliance with the 2002 Erosion & Sedimentation Control Manual
- If the proposed activity is deemed to be a "significant impact activity" a Public Hearing is required along with the following information:
 - Names and addresses of abutting property owners
 - Additional Information as contained in Article 6.17

Other applications if required:

Application to State of Connecticut DEP
Inland Water Resources Division
79 Elm St.
Hartford, Ct. 06106 1-860-424-3019

Department of the Army
Corps of Engineers
696 Virginia Road
Concord, Ma. 01742 1-860-343-4789

The owner and applicant hereby grant the Brooklyn Inland Wetlands and Watercourses Commission, the Board of Selectman, Authorized Agents of the Inland Wetlands and Watercourses Commission or Board of Selectman, permission to enter the property to which the application is requested for the purpose of inspection and enforcement of the Inland Wetlands and Watercourses Regulations of the Town of Brooklyn.

Applicant: [Signature] Date 2/25/2021
Owner: [Signature] Date 2/25/2021

*Note: All consulting fees shall be paid by the applicant

PROPOSED MULTI-FAMILY CONDOMINIUM DEVELOPMENT

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

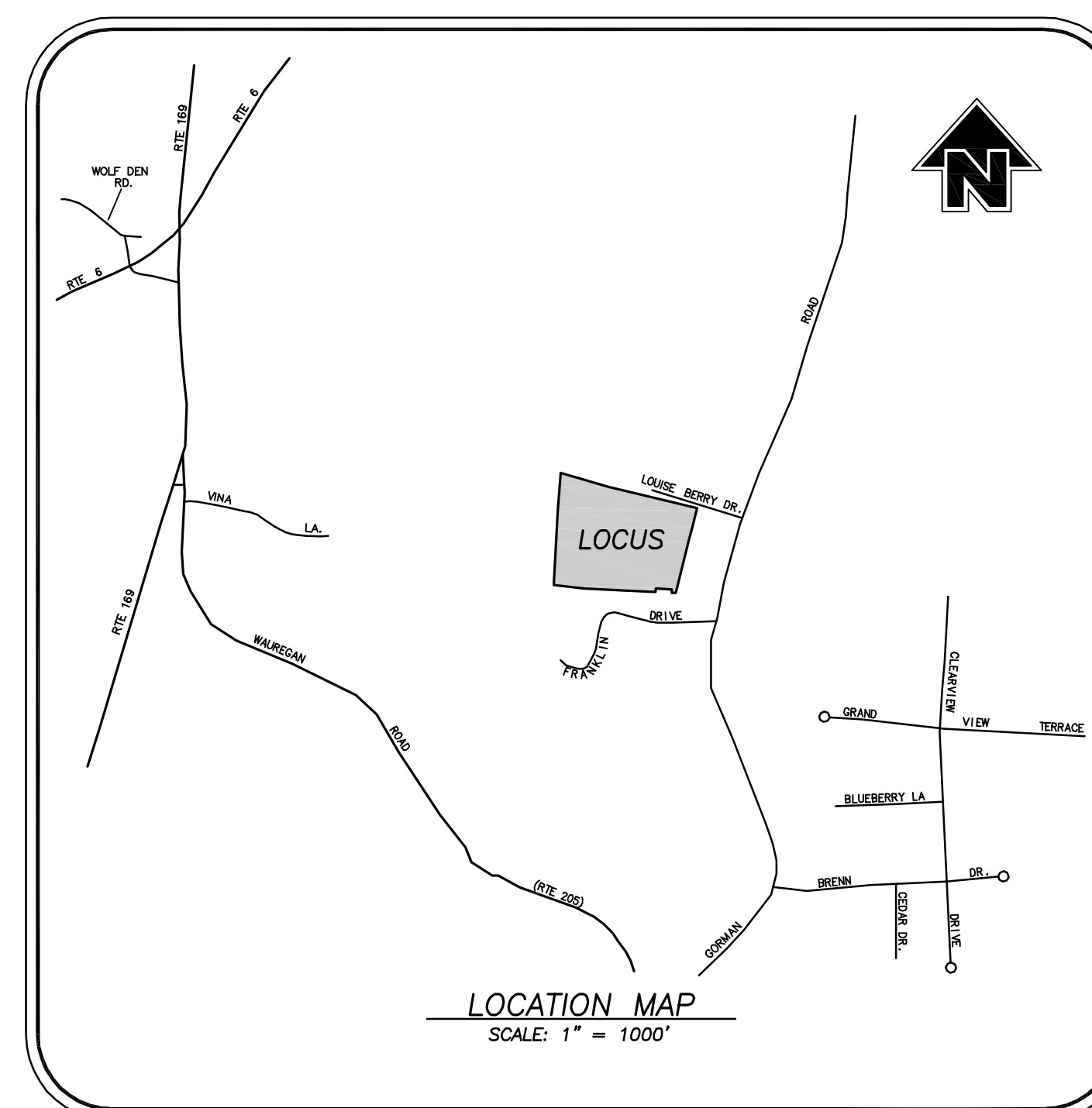
PREPARED FOR:
SHANE POLLOCK

TABLE OF ZONING REQUIREMENTS		
ZONE = R-30*		
	REQUIRED	PROVIDED
Lot Area	30,000 s.f.	13.497 Acres
Front Yard Setback	50'	53.4'
Side Yard Setback	30'	48'
Rear Yard Setback	50'	257'
Building Height	35' Max.	<35'
Lot Frontage	110'	948'
Building Separation	40' min	40'-115'
<u>DENSITY:</u> 1 unit per every 5,000 s.f. 13,497 ac = 587,929 s/f - 117 units max 51 units proposed		
<u>PARKING:</u> 2 spaces per unit required - 102 required 2 garage spaces + 1 drive per unit proposed + 2 additional spaces - 155 spaces provided		

*Multi-family development in accordance with Section 6.E.
ZONE = RA*

LEGEND


●	IRON PIN TO BE SET
○	IRON PIN FOUND
○ DH	DRILL HOLE FOUND
□ CB	CATCH BASIN
□	UTILITY POLE
○ SMH	SANITARY SEWER MANHOLE
--- 100 ---	EXISTING CONTOURS
--- 100 ---	PROPOSED CONTOURS
--- # ---	INLAND WETLANDS FLAG
--- B ---	BUILDING SETBACK LINE
--- S ---	EXISTING SANITARY SEWER LINE
--- W ---	EXISTING WATER LINE
○ ○ ○ ○ ○ ○	STONE WALL
○ ○ ○ ○ ○ ○	STONE WALL REMAINS
--- ■ ---	SILT FENCE
--- ■ ■ ■ ---	175' WATERCOURSE SETBACK
--- ■ ■ ■ ---	125' UPLAND REVIEW



INDEX TO DRAWINGS

<u>TITLE</u>	<u>SHEET No.</u>
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EROSION CONTROL AND UTILITIES PLAN	6 OF 11
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DETAIL SHEET 1	8 OF 11
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DETAIL SHEET 4	11 OF 11

PREPARED BY:

REVISIONS		 <p style="text-align: center;"> Killingly Engineering Associates <i>Civil Engineering & Surveying</i> </p> <p style="text-align: right;"> 114 Westcott Road P.O. Box 421 Killingly, Connecticut 06241 (860) 779-7299 www.killinglyengineering.com </p>
DATE	DESCRIPTION	
8/24/2020	PER TOWN REVIEW	
11/13/2020	TOWN & ENGINEERING REVIEW	
12/07/2020	ADDED TEST HOLE DATA	
01/04/2021	TOWN & ENGINEERING REVIEW	
01/27/2021	PER BWPQA REVIEW	
02/19/2021	EASE, ADDED /ZONE/CT WATER COMMENTS	

April 23, 2020

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

APPROVED BY THE BROOKLYN PLANNING AND ZONING COMMISSION	
FINAL APPROVAL DATE _____	
CHAIRMAN _____	DATE: _____
EXPIRATION DATE: _____	

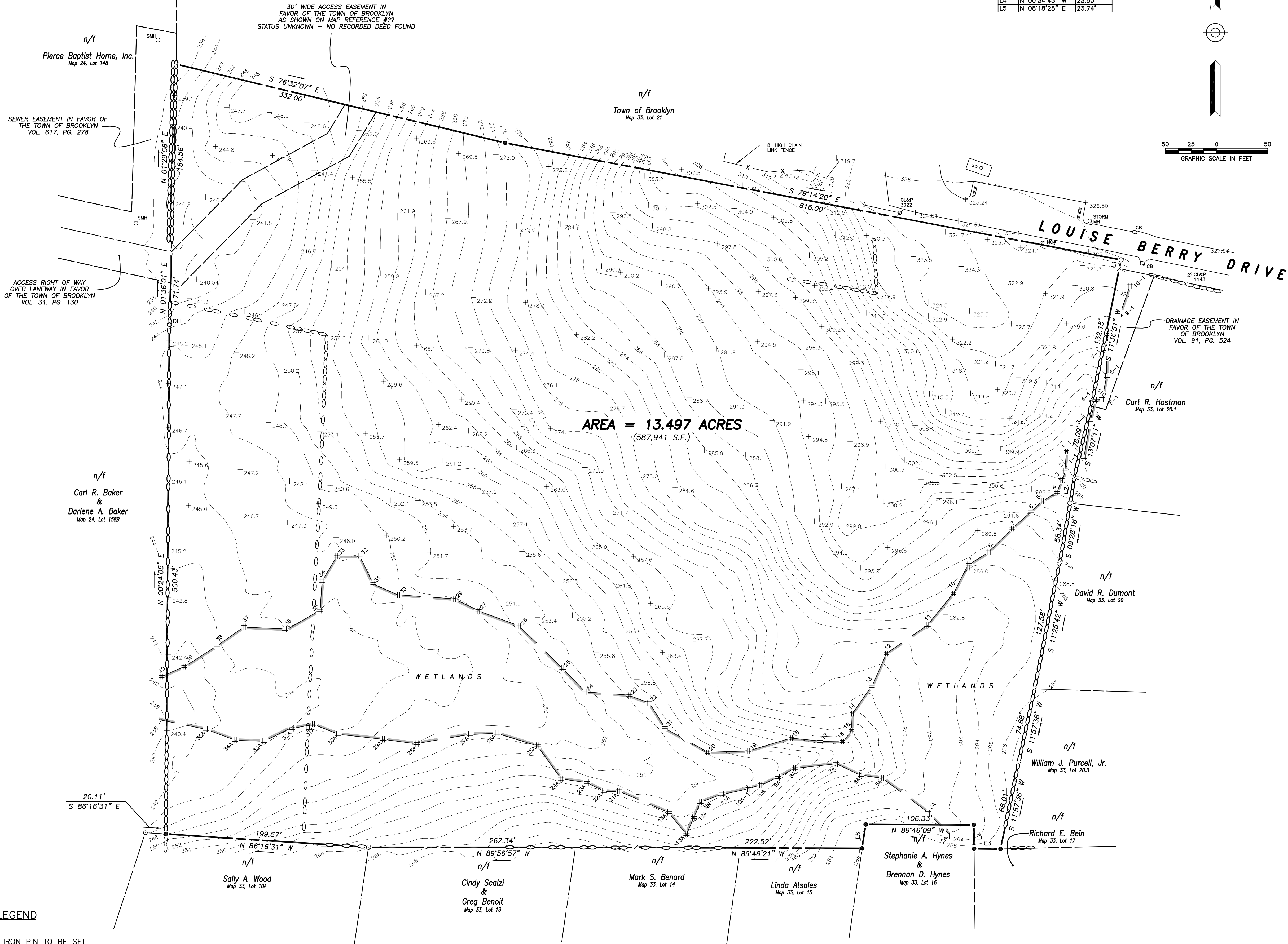
ENDORSED BY THE BROOKLYN INLAND
WETLANDS COMMISSION

CHAIRMAN DATE

NORMAND THIBEAULT, JR., P.E.	No. 22834	DATE

● IRON PIN TO BE SET
○ IRON PIN FOUND
○ DH DRILL HOLE FOUND
○ CB UTILITY POLE
○ SMH CATCH BASIN
○ SANITARY MANHOLE
---260--- EXISTING CONTOURS
INLAND WETLANDS FLAG
○○○○○○ STONE WALL
○○○○ STONE WALL REMAINS

LEGEND



LINE	BEARING	DISTANCE
L1	N 11°34'49" E	8.88'
L2	N 09°28'18" E	25.48'
L3	S 89°46'21" E	25.92'
L4	N 00°34'43" W	23.50'
L5	N 08°18'28" E	23.74'

NOTES:

- This survey has been prepared pursuant to the Regulations 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;
 - This survey conforms to a Class "A-2" horizontal accuracy.
 - Topographic features conform to a Class "T-2", "V-2" vertical accuracy.
 - Survey Type: Property Survey
 - Boundary Determination Category: Resurvey.
- Zone = R-30.
- Owner of record: Shane J. Pollock & Erin F. Mancuso
101 Mackin Drive
Griswold, CT 06351
See Volume 659, Page 151
- Parcel is shown as Lot 19 on Assessors Map 33.
- North orientation is based on North American Datum of 1982 (NAD 82) and is taken from GPS observations.
- Elevations shown are based on an North American Vertical Datum of 1988 (NAVD 88). Contours taken from actual field survey. Contour interval = 2'.
- Parcel lies within Flood Hazard Zone "C" (areas of minimal flooding) as shown on FIRM Map # 090164 Panel 0005A Effective Date: Jan. 3, 1985.
- Wetlands shown were delineated in the field by Joseph Theroux, Certified Soil Scientist, in 2019.

MAP REFERENCES:

- "Plan of site for new school in the Town of Brooklyn, Conn. - Scale: 1" = 100' - Date: June 9, 1952 - Prepared by: William W. Pike, Surveyor." On file in the Brooklyn land records.
- "Layout of Franklin Drive in the Town of Brooklyn, Conn. - Scale: 1" = 100' - Date: Oct. 15, 1959 - Prepared by: William W. Pike, Surveyor." On file in the Brooklyn land records.
- "Subdivision Plan - property of Kurt R. & Lempi E. Hostman - Gorman Road - Brooklyn, CT - Date: Aug. 1987 - Revised to: Jan. 21, 1988 - Scale: 1" = 40' - Prepared by: Louis J. Soja, Jr." On file in the Brooklyn land records.
- "Property Survey and inland wetland field location - Pierce Memorial Baptist Home Inc. - Route 169 - Brooklyn, Connecticut - Date: Mar. 6, 1989 - Revised to: 7/25/1989 - Scale: 1" = 50' - Sheet 6 of 6 - Prepared by: Hallisey & Herbert, Civil Engineers & Surveyors." On file in the Brooklyn Land Records.
- "Easement Plan prepared for Town of Brooklyn - Brooklyn Elementary School & Brooklyn Junior High School - Route 205 (Wauregan Road) - Brooklyn, Connecticut - Date: 4/5/1999 - Scale: 1" = 40' - Sheet 2 of 2. Prepared by: KWP Associates." On file in the Brooklyn land records.
- "Easement Plan showing proposed easement on land of Eggs, Inc. prepared for Town of Brooklyn - Wauregan Road (Route #205) - Brooklyn, Connecticut - Date: 4/20/2001 - Scale: 1" = 50' - Sheet 1 of 1 - Prepared by KWP Associates. On file in the Brooklyn land records.
- "Property survey showing portion of land of pierce Memorial Baptist Home, Inc. 44 Canterbury Road and Vina Lane - Brooklyn, Connecticut - Date: November, 26, 2007 - Scale: 1" = 100' - Sheet 1 of 2 - Prepared by Dicesare Bentley." On file in the Brooklyn land records.
- "Perimeter Survey prepared for Eggs Inc. - Gorman Road / Franklin Drive / Wauregan Road - Brooklyn, Connecticut - Date: Oct. 2014 - Scale: 1" = 125' - Sheet 1 of 1 - Prepared by Archer Surveying, LLC." On file in the Brooklyn land records.
- "Boundary Line Agreement prepared for Brooklyn Center Complex, BLB, LLC and Vina Land, LLC - Wauregan Road & Vina Lane - Brooklyn, Connecticut - Date: December 11, 2019 - Scale: 1" = 125' - Sheet 1 of 1 - Prepared by Archer Surveying, LLC." Not on file.

02/10/2021	EASEMENT ADDED / ZONE CORRECTION / CT WATER COMMENTS
01/27/2021	PER BWPCA REVIEW
01/04/2021	PER TOWN & ENGINEERING REVIEW
12/07/2020	ADDED TEST PIT DATA
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DATE	DESCRIPTION
REVISIONS	

PROPERTY SURVEY

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying



114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 4/23/2020	DRAWN: DNE
SCALE: 1" = 50'	DESIGN: NET
SHEET: 2 OF 11	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

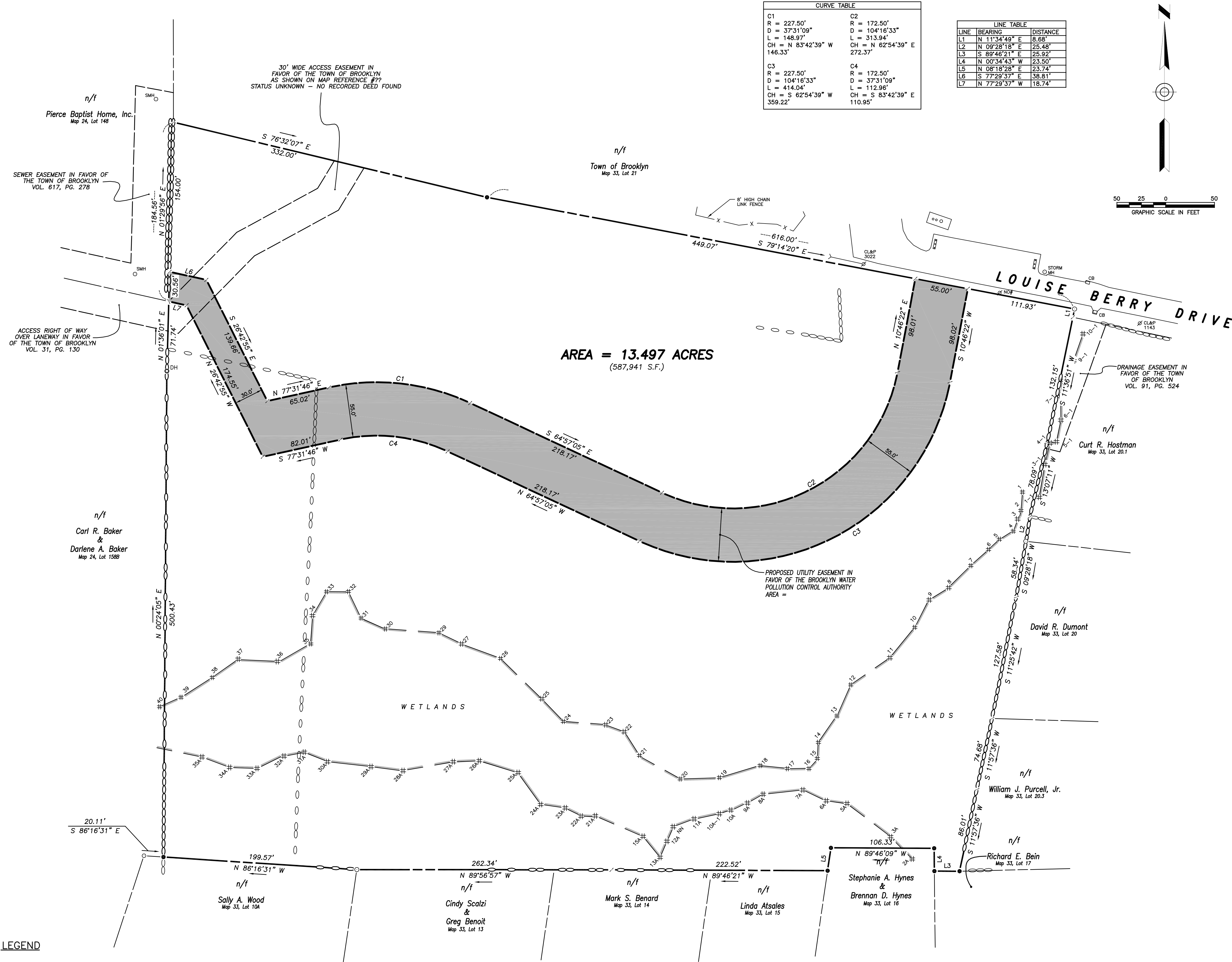
I HAVE REVIEWED THE FLAGGED INLAND WETLANDS LOCATION SHOWN ON THIS PLAN AND THEY APPEAR TO BE SUBSTANTIALLY CORRECT.

Certified Soil Scientist Date

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

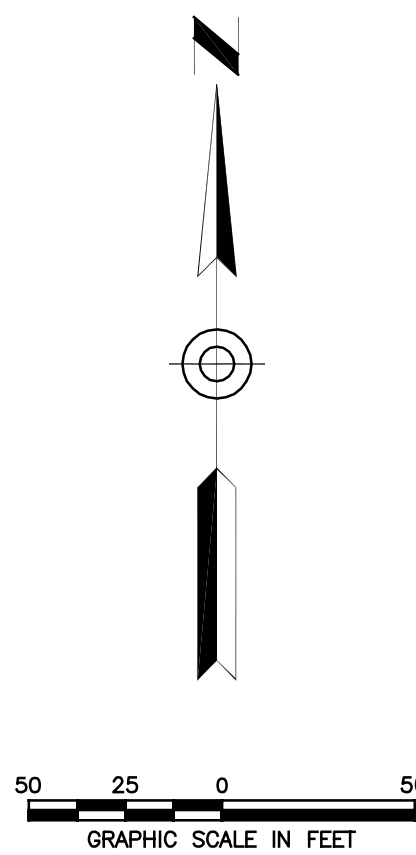
GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.



CURVE TABLE	
C1 R = 227.50' D = 373'10.9" L = 148.97' CH = N 83°42'39" W 146.33'	C2 R = 172.50' D = 104°16'33" L = 313.94' CH = N 62°54'39" E 272.37'
C3 R = 227.50' D = 104°16'33" L = 414.04' CH = S 62°54'39" W 359.22'	C4 R = 172.50' D = 37°31'09" L = 112.96' CH = S 83°42'39" E 110.95'

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 11°34'49" E	8.88'
L2	N 09°28'18" E	25.48'
L3	S 89°46'21" E	25.92'
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L6	S 77°29'37" E	38.81'
L7	N 77°29'37" W	16.74'



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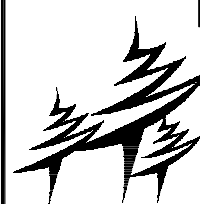
EASEMENT AMP

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying



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SCALE: 1" = 50'	DESIGN: NET
SHEET: 3 OF 11	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

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40 40 0 40

GRAPHIC SCALE IN FEET

●	IRON PIN TO BE SET
○	IRON PIN FOUND
○ DH	DRILL HOLE FOUND
○ CB	CATCH BASIN
∅	UTILITY POLE
○ SMH	SATURARY SEWER MANHOLE
— 100 —	EXISTING CONTOURS
— 100 —	PROPOSED CONTOURS
— # —	INLAND WETLANDS FLAG
— B —	BUILDING SETBACK LINE
— S —	EXISTING SANITARY SEWER LINE
— W —	EXISTING WATER LINE
○ ○ ○ ○ ○ ○ ○ ○	STONE WALL
○ ○ ○ ○ ○ ○ ○ ○	STONE WALL REMAINS
— — — — —	SILT FENCE
— 175' —	175' WATERCOURSE SETBACK
— 125' —	125' UPLAND REVIEW

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SHANE POLLOCK



Killingly Engineering Associates
Civil Engineering & Surveying

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(860) 779-7299

DATE: 4/23/2020	DRAWN: DNE
SCALE: 1" = 40'	DESIGN: NET
SHEET: 4 OF 11	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

NORMAND E. THIBEALT, JR., P.E.	DATE
LIC #PEN 0022834	

n/f
Pierce Baptist Home, Inc.
Map 24, Lot 148

EXISTING SANITARY
SEWER LINE

SEWER EASEMENT IN FAVOR OF
THE TOWN OF BROOKLYN
VOL. 617, PG. 278

30' WIDE ACCESS EASEMENT IN
FAVOR OF THE TOWN OF BROOKLYN
AS SHOWN ON MAP REFERENCE #??
STATUS UNKNOWN - NO RECORDED DEED FOUND

n/f
Town of Brooklyn
Map 33, Lot 21

EXISTING SMH
T/F = 238.9
F/L = 227.8

ACCESS RIGHT OF WAY
OVER LANEWAY IN FAVOR
OF THE TOWN OF BROOKLYN
VOL. 31, PG. 130

n/f
Carl R. Baker
&
Darlene A. Baker
Map 24, Lot 158B

n/f
David R. Dumont
Map 33, Lot 20

LOUISE BERRY DRIVE

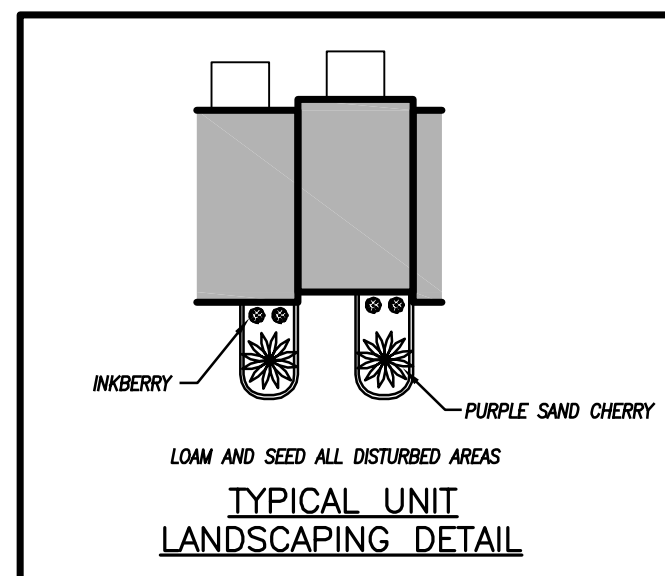
DRAINAGE EASEMENT IN
FAVOR OF THE TOWN
OF BROOKLYN
VOL. 91, PG. 524

n/f
Curt R. Hostman
Map 33, Lot 20.1

AREA = 13.497 ACRES
(587,941 S.F.)

LANDSCAPE SCHEDULE		
BOTANICAL NAME	COMMON NAME	SIZE
Cornus kousa	Korean Flowering Dogwood Pink	2.5" cal.
Cornus kousa chinensis	Korean Flowering Dogwood White	2.5" cal.
Ilex glabra	Inkberry 'Shamrock'	1 gal.
Prunus x cistena	Purple Sand Cherry	1 gal.
Viburnum rhytidophyllum	Leatherleaf Viburnum	4'

NOTE: Alternate pink & white dogwood trees along street



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LAYOUT & LANDSCAPING PLAN

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying



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NORMAND E. THIBEAULT, JR., P.E.
LIC #PEN 0022834

GRAPHIC SCALE IN FEET



TREE ON SLOPE DETAIL

NOT TO SCALE

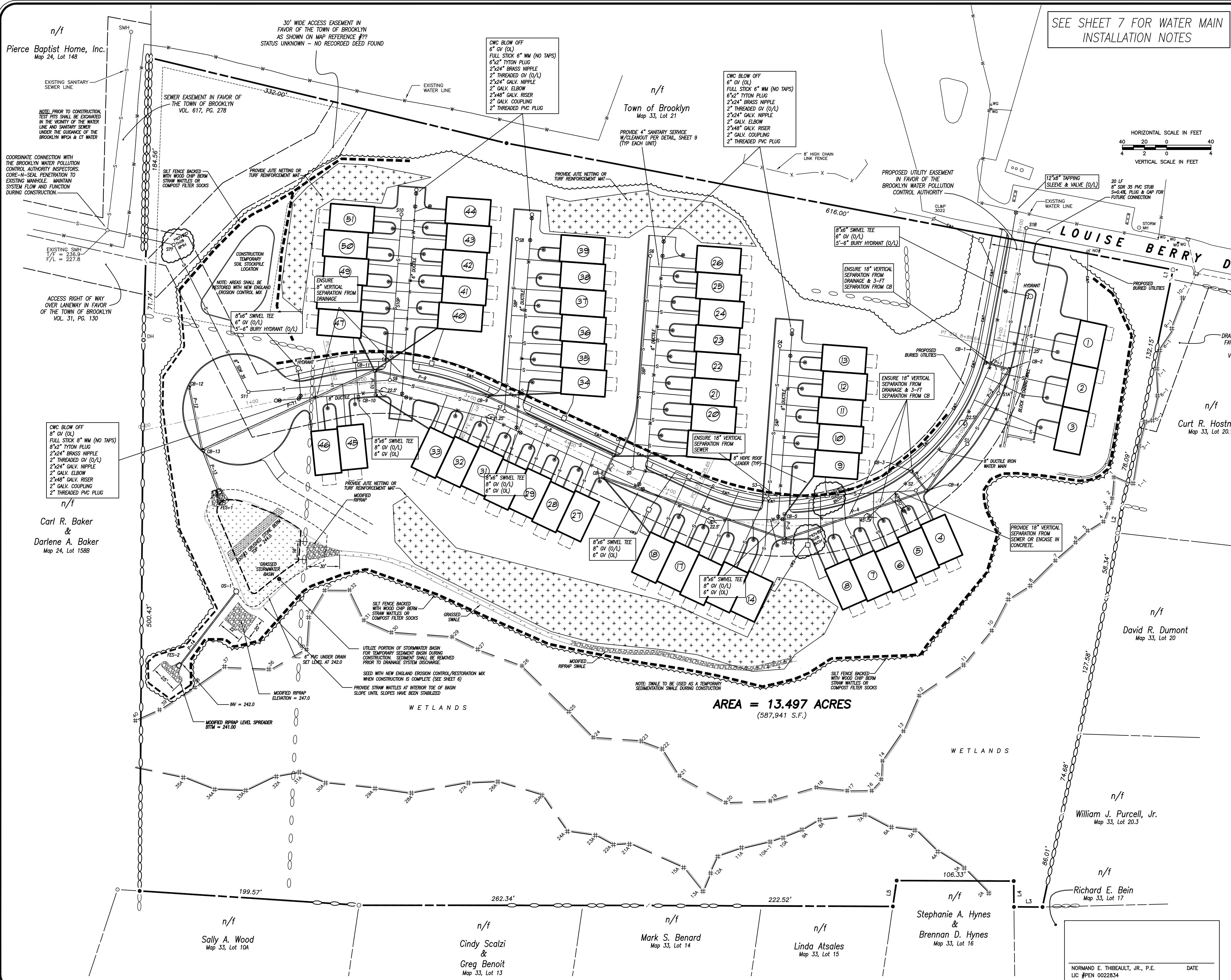
PLANTING CROSS SECTION
FOR TREES UNDER 20'

NOT TO SCALE

LIGHT POLE DETAIL

NOT TO SCALE

K:\2014\Drawings\05_20014_LLP.dwg Feb 23, 2021 11:54 AM



SEE SHEET 7 FOR WATER MAIN
INSTALLATION NOTES

- DRAINAGE GENERAL NOTES:**
1. ALL DRAINAGE PIPE SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE), SMOOTH INTERIOR AS MANUFACTURED BY ADVANCED DRAINAGE SOLUTIONS OR APPROVED EQUAL.
 2. CATCH BASIN TOPS SHALL BE TYPE "C" UNLESS OTHERWISE NOTED.
 3. ALL BASINS SHALL BE INSTALLED WITH 4" SUMPS.
 4. PROVIDE 4" SUMP AND HOODED OUTLET AT TERMINATION CATCH BASIN PRIOR TO DISCHARGE INTO STORMWATER BASIN.

- SANITARY SEWER GENERAL NOTES:**
1. ALL SANITARY SEWER MAINS SHALL BE 8" SDR 35 PVC.
 2. SANITARY SEWER LATERALS TO RESIDENCES SHALL BE 4" SDR 35 PVC AND SHALL BE INSTALLED WITH A MINIMUM 42" OF COVER AND A SLOPE OF 2%.
 3. LATERALS SHALL NOT BE INSTALLED DIRECTLY TO OR WITHIN 5' OF A SANITARY MANHOLE.
 4. SANITARY SEWER SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE BROOKLYN WPCA. THE CONTRACTOR SHALL SCHEDULE A PRE CONSTRUCTION MEETING WITH THE BROOKLYN WPCA AND NOTIFY THE BROOKLYN WPCA A MINIMUM OF 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
 5. AS-BUILT DRAWINGS SHALL BE SUBMITTED AND APPROVED PRIOR TO PROJECT ACCEPTANCE.

- WATER MAIN & SERVICES:**
1. ALL WATER PIPE SHALL BE CLASS 52 DUCTILE IRON PIPE IN ACCORDANCE WITH CT WATER REQUIREMENTS.
 2. TAPS INTO EXISTING MAINS SHALL BE UNDER THE SUPERVISION OF CT WATER REPRESENTATIVES.
 3. WATER SERVICE CONNECTIONS TO THE WATER MAIN SHALL BE PER CT WATER REQUIREMENTS. SERVICES FROM SHUT OFF VALVES TO RESIDENCES SHALL BE 1" HDPE.
 4. HYDRANT REQUIREMENTS AND LOCATIONS SHALL BE DETERMINED BY THE TOWN OF BROOKLYN FIRE MARSHAL.

- TOWN OF BROOKLYN WATER POLLUTION CONTROL AUTHORITY (BWPCA) NOTES:**
1. PRIOR TO ANY WORK BEING CONDUCTED SANITARY SEWER, CONTRACTOR SHALL CONTACT ALAN CARPENTER, P.E., REPRESENTATIVE FOR THE BROOKLYN WPCA. PHONE: 860-208-3394 OR 508-659-7020. EMAIL: ALAN.CARPENTER@CTH2O.COM
 2. THE MAIN TRUNK LINE THROUGH THE SITE BE DEDICATED TO THE BWPCA UNDER A 30 FOOT WIDE EASEMENT (15 FEET EACH SIDE OF THE LINE) FOR OWNERSHIP, CONTROL AND MAINTENANCE RESPONSIBILITY. THE PERMANENT EASEMENT OVER THE MAIN TRUNK LINE WILL NEED TO BE CREATED, APPROVED BY BWPCA AND RECORDED IN THE TOWN OF BROOKLYN LAND RECORDS PRIOR TO ANY CONNECTIONS TO THE SYSTEM.
 3. THE EASTERN TERMINUS MANHOLE IN LOUISE BERRY DRIVE BE A MINIMUM OF 8 FEET DEEP FROM TOP OF FRAME TO INVERT AND AN 8 INCH SDR 35 STUB BE INSTALLED A MINIMUM OF 1 PIPE LENGTH (20 FEET) AT 0.4 FT/FT SLOPE AND CAPPED IN THE EAST FACING INVERT.
 4. THE ENTIRE SYSTEM BE CONSTRUCTED/INSTALLED IN ACCORDANCE WITH THE TOWN OF BROOKLYN WPCA CONSTRUCTION STANDARDS BY THE DEVELOPER. THE SYSTEM TO BE INSPECTED BY BWPCA REPRESENTATIVES DURING CONSTRUCTION, TESTED BY THE DEVELOPER AND CERTIFIED BY HIS ENGINEER AND "CLEARED FOR USE" BY BWPCA REPRESENTATIVES BEFORE THE SYSTEM CAN BE USED.
 5. UNLESS PROVIDED WITH DOCUMENTED PROOF OF ANTICIPATED USAGE, THE BWPCA IS CALCULATING THE ANTICIPATED USAGE AT 22,950 GALLONS PER DAY (51 UNITS X 450 GPD/PER UNIT). PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF THE SEWER SYSTEM, THE BWPCA REQUIRES A PRE-CONSTRUCTION MEETING BE SCHEDULED BY THE DEVELOPER, TO INCLUDE AT A MINIMUM, AN INVITE TO THE BWPCA 72 HOURS MINIMUM IN ADVANCE OF THE MEETING AND ATTENDANCE BY THE DEVELOPER, HIS ENGINEER, THE GENERAL CONTRACTOR AND UTILITY CONTRACTOR (IF DIFFERENT ENTITIES).
 7. IT IS UNDERSTOOD THAT ALL COSTS RELATING TO THE CREATION OF THIS UTILITY EXTENSION, AND THE LEGAL CONTROL AND DOCUMENTATION OF IT SHALL BE BORNE ENTIRELY BY THE DEVELOPER.
 8. IT IS EXPECTED THAT CONNECTION FEES PER UNIT, BE PAID PRIOR TO THE ISSUANCE OF A BUILDING PERMIT AND THE ONLY GUARANTEE OF SYSTEM CAPACITY AVAILABILITY IS RECEIPT OF THE CONNECTION FEES BY THE BWPCA.

- GENERAL NOTES:**
1. Ownership of the stormwater basin and drainage system shall be the Homeowner's Association. The Town of Brooklyn will not assume responsibility as such.
 2. There shall be no parking along the main access roadway or side drives. Appropriate signage shall be installed accordingly.

DATE	EASEMENT ADDED / ZONE CORRECTION / CT WATER COMMENTS
02/10/2021	PER BWPCA REVIEW
01/27/2021	PER TOWN & ENGINEERING REVIEW
01/04/2021	ADDED TEST PPT DATA
12/07/2020	PER TOWN & ENGINEERING REVIEW
11/13/2020	DESCRIPTION
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EROSION CONTROL AND UTILITIES PLAN

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying

114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 4/23/2020 DRAWN: DNE
SCALE: 1" = 40' DESIGN: NET
SHEET: 6 OF 11 CHK BY: ---
DWG. No: CLIENT FILE JOB No: 20014

DRAINAGE PIPE SCHEDULE				
LABEL	LENGTH	SLOPE	DIAMETER	MATERIAL
P1	20'	2.0%	12"	HDPE
P2	128.7'	9.75%	15"	HDPE
P3	20'	2.0%	12"	HDPE
P4	131.1'	9.35%	15"	HDPE
P5	20'	2.0%	12"	HDPE
P6	168.9'	8.23%	15"	HDPE
P7	20'	2.0%	15"	HDPE
P8	128.2'	2.96%	15"	HDPE
P9	20'	2.0%	15"	HDPE
P10	20'	1.0%	12"	HDPE
P11	172'	4.6%	18"	HDPE
P12	58'	1.1%	15"	HDPE
P13	36'	2.77%	18"	RCP
P14	80'	0.63%	15"	RCP

SANITARY STRUCTURE SCHEDULE		
LABEL	T.F	F/Lout
S4	296.50	292.50
S6	289.20	285.20
S8	277.50	273.50
S10	267.80	263.80

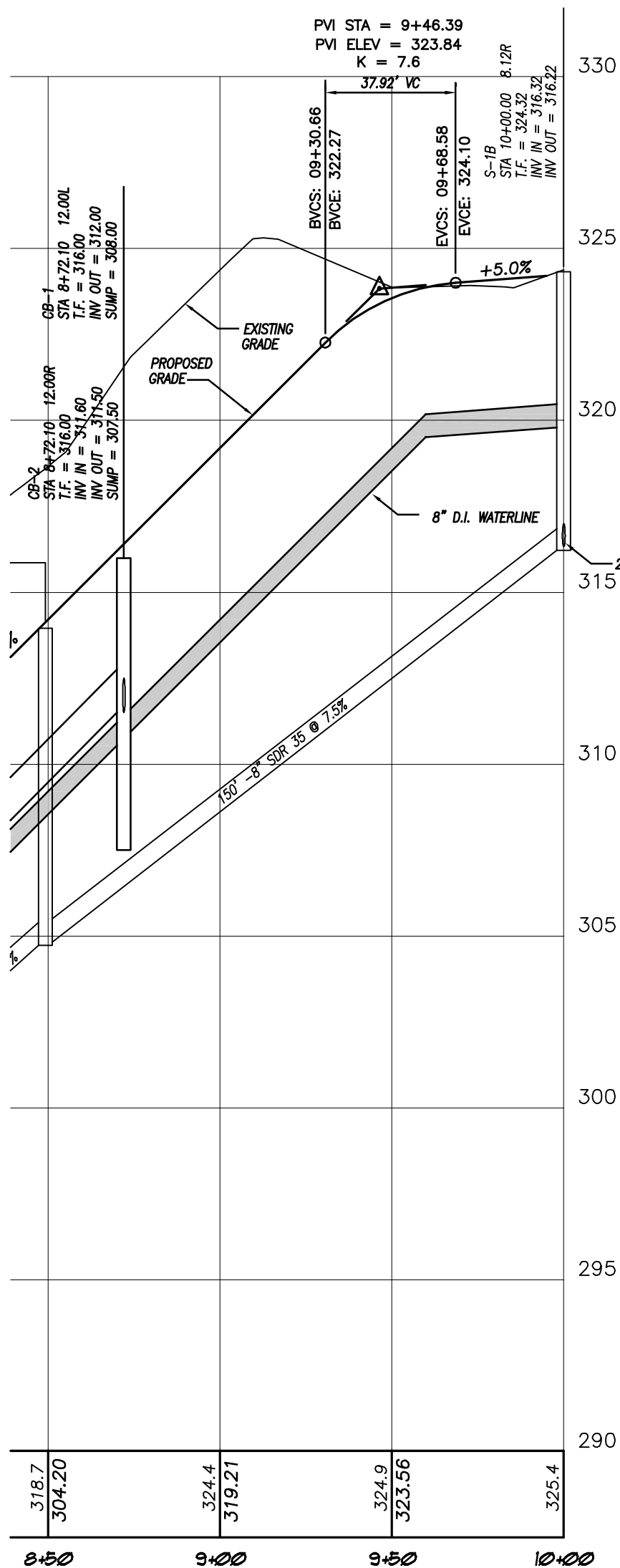
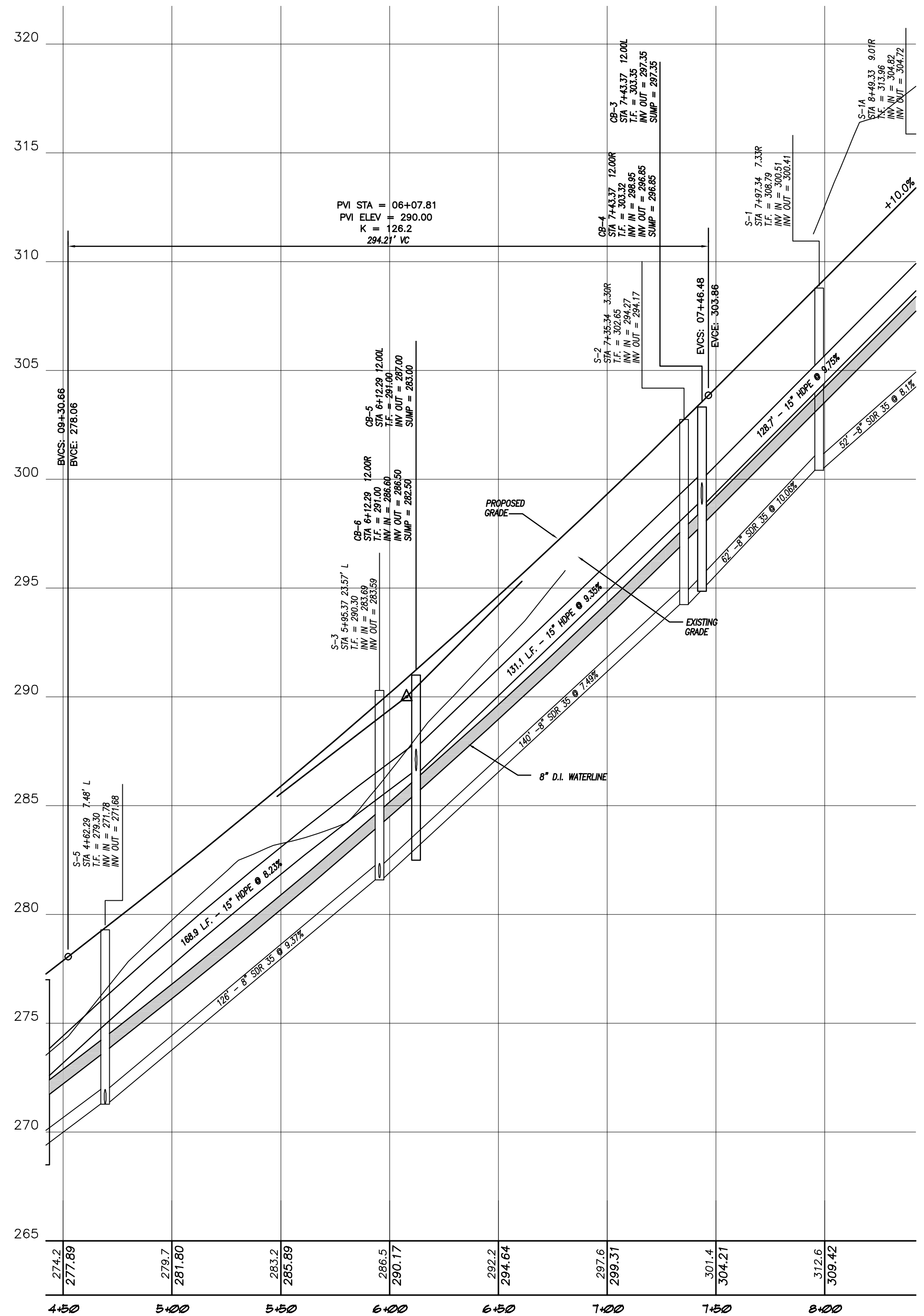
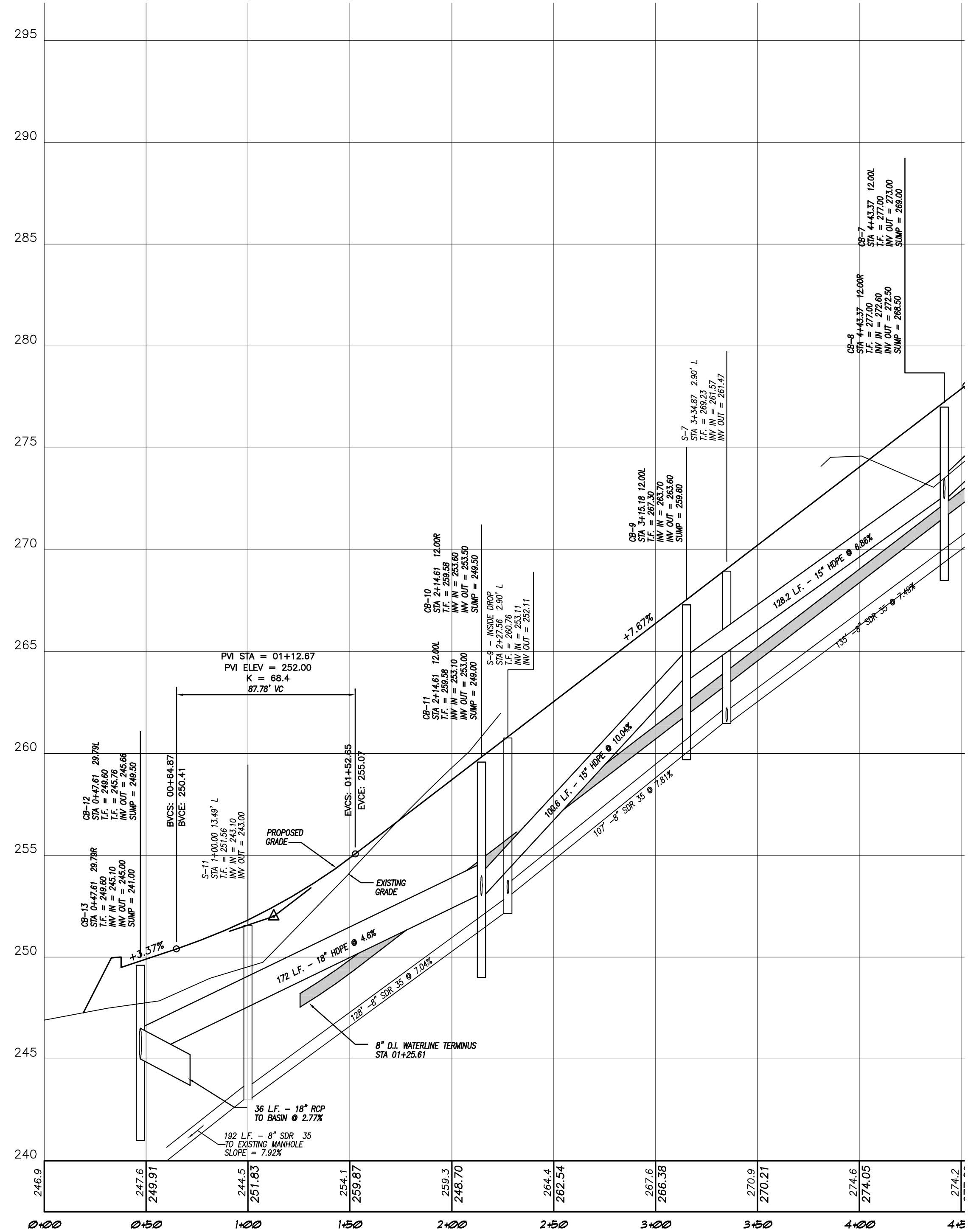
SANITARY PIPE SCHEDULE		
LABEL	LENGTH	SLOPE
S4P	137'	5.68%
S6P	190'	6.42%
S8P	154'	7.06%
S10P	148'	5.07%

FLARED END SECTIONS

FES-1	INV = 244.00	18" RCP
FES-2	INV = 242.00	15" RCP

OUTLET STRUCTURE (OS-1)

SEE DETAIL SHEET



- LEGEND
- IRON PIN TO BE SET
 - IRON PIN FOUND
 - DH DRILL HOLE FOUND
 - UTILITY POLE
 - CB CATCH BASIN
 - SMH SANITARY MANHOLE
 - 260 — EXISTING CONTOURS
 - # — INLAND WETLANDS FLAG
 - ○ ○ ○ ○ STONE WALL
 - ○ ○ ○ ○ STONE WALL REMAINS

NORMAND E. THIBEAULT, JR., P.E.
LIC #PEN 0022834

DATE

- WATER MAIN INSTALLATION NOTES:
- PROJECT MUST BE BUILT TO CONNECTICUT WATER COMPANY SPECIFICATIONS.
 - CLASS 52 DUCTILE IRON PIPE REQUIRED.
 - COPPER AND/OR DUCTILE IRON SERVICE LATERAL MATERIAL REQUIRED.
 - GATE VALVES OPEN LEFT.
 - FIRE HYDRANTS OPEN LEFT. HYDRANTS ARE 5.5' BURY DEPTH. CT WATER COMPANY WILL FURNISH MATERIALS INCLUDING TEE, VALVE, PIPE, HYDRANT AND ACCESSORIES. FIRE HYDRANTS TO BE INSTALLED WITH FACE OF HYDRANT 3- FEET OFF FACE OF CURB. HYDRANTS ARE NOT TO BE INSTALLED IN SIDEWALKS. WHERE 3- FEET CANNOT BE OBTAINED, INSTALL HYDRANT BEHIND SIDEWALK UNLESS OTHERWISE NOTED OR AS DIRECTED BY A CT WATER COMPANY PROJECT MANAGER. 10- FEET HORIZONTAL SEPARATION REQUIRED BETWEEN HYDRANTS, SEWER MANHOLES AND STORM DRAINS. **WHERE HYDRANTS TO BE INSTALLED WITH FINISH GRADE AT THE BURY LINE CAST INTO THE LOWER BARREL, CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENTS OF WATER MAIN AND LATERAL ELEVATION TO ACHIEVE PROPER BURY DEPTH. ANY COSTS RELATED TO ADJUSTMENTS REQUIRED BY CT WATER COMPANY WILL BE THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR AND/OR APPLICANT OF RECORD.
 - ALL WATER MAIN PIPING AND APPURTENANCES MUST BE POLYETHYLENE ENCASED IN ACCORDANCE WITH AWWA ANSI-AWWA C105/A21.5-99(10). POLYETHYLENE ENCASEMENT SHALL BE V-BIO ENHANCED POLYETHYLENE ENCASEMENT ONLY AND CONSIST OF THREE CO- EXTRUDED LAYERS OF LINEAR LOW-DENSITY POLYETHYLENE (LLDPE) FILM THAT ARE FUSED INTO ONE.
 - MEGALUG RESTRAINTS REQUIRED ON ALL FITTINGS, BENDS, OFFSETS, TEES, GATE VALVES AND HYDRANTS.
 - FIELD LOK (U.S. PIPE) OR SURE STOP 350 (MCWANE) RESTRAINING GASKETS ARE REQUIRED 2 PIPE JOINTS BEFORE AND AFTER EACH FITTING AND ON THE LAST 3 PIPE LENGTHS ON DEAD ENDS.
 - THRUST BLOCKING IS REQUIRED ON ALL BENDS, TEES, OFFSETS, HYDRANTS AND DEAD ENDS.
 - ALL WATER MAINS SHALL BE INSTALLED TO A DEPTH OF 4- FEET OF COVER BASED ON THE ROADWAY GRADE, EXCEPT AS NOTED.
 - 3- FT MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER AND ANY OTHER UTILITY/UNDERGROUND STRUCTURE. 10- FT MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER AND SEWER/SEPTIC ("SEWER")** SLEEVE REQUIRED WHERE WATER CROSSES SEWER IF WATER IS BELOW SEPTIC AND/OR WHEN 18" VERTICAL SEPARATION CANNOT BE ACHIEVED WHEN WATER IS ABOVE SEWER. 4- FEET MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER MAIN AND DRAINAGE WHEN AT LIKE ELEVATIONS.
 - WATER MAINS TO BE DEFLECTED UNDER ALL STORM DRAINS UNLESS OTHERWISE NOTED OR AS DIRECTED BY A CT WATER COMPANY PROJECT MANAGER. A VERTICAL CLEARANCE OF 18" TO BE MAINTAINED BETWEEN STORM DRAIN AND WATER MAINS. THE CONTRACTOR IS RESPONSIBLE FOR PROPER COMPACTION AROUND AND UNDER EXISTING DRAINAGE FACILITIES WHICH MAY INCLUDE REMOVAL AND RESETTING TO PROPER GRADE.
 - ANGLE OF BENDS TO BE FIELD DETERMINED.
 - MAXIMUM ALLOWABLE DEFLECTION PER FULL LENGTH PUSH-ON JOINT FOR 4" TO 12" IS FIVE (5) DEGREES AND THREE (3) DEGREES FOR 14" AND GREATER DUCTILE IRON PIPE.
 - EXISTING SERVICES TO SITE THAT WILL NO LONGER BE USED MUST BE TERMINATED AT THE WATER MAIN BY EXPOSING AND SHUTTING OFF THE CORPORATION VALVE. THE LINE MUST BE SEVERED IMMEDIATELY AFTER THE CORPORATION VALVE. SAID SERVICES MUST BE SHOWN ON PLANS.
 - WHERE A WATER SUPPLY WELL FOR ANY PURPOSE EXISTS OR IS APPROVED WITHIN THE LIMITS OF THIS PROJECT, ALL SERVICE LINES CONNECTED TO THE PUBLIC WATER SUPPLY REQUIRE A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (RPD), AND MUST MEET THE REQUIREMENTS OF SEC.19A-208A OF THE CONNECTICUT GENERAL STATUTES ("CGS"), AND SEC. 19-13-B38A OF THE PUBLIC HEALTH CODE.
 - WHERE AN AIR RELIEF IS REQUIRED, CT WATER COMPANY WILL PERFORM TAP AND INSTALL WHILE THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR THE EXCAVATION AND RESTORATION UNLESS OTHERWISE NOTED. LABOR AND MATERIALS FOR THE INSTALLATION(S) WILL BE CHARGED TO THE PROJECT.
 - WHEN THE INSTALLATION OF UNDERGROUND INFRASTRUCTURE DEVIATES FROM THE CT WATER COMPANY APPROVED PLANS(S), THE APPLICANT, AT HIS/HER COST, WILL BE HELD LIABLE FOR THE RELOCATION OF INFRASTRUCTURE AS REQUIRED TO THE SATISFACTION OF THE CT WATER COMPANY. FAILURE TO CORRECT ANY DEVIATION DEEMED UNACCEPTABLE TO THE CT WATER COMPANY WILL RESULT IN LITIGATION.

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ROAD PROFILE

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

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EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

- Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).
- U.S.D.A. N.R.C.S. Web Soil Survey.

DEVELOPMENT CONTROL PLAN:

- Development of the site will be performed by the Contractor, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
- The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The representative for the Town of Brooklyn will be notified when sediment and erosion control structures are initially in place. Any additional soil & erosion control measures requested by the Town or its agent, shall be installed immediately. Once the proposed development, seeding and planting have been completed, the representative shall again be notified to inspect the site. The control measures will not be removed until this inspection is complete.
- All stripping is to be confined to the immediate construction area. Topsoil shall be stockpiled so that slopes do not exceed 2 to 1. A hay bale sediment barrier is to surround each stockpile and a temporary vegetative cover shall be provided.
- Dust control will be accomplished by spraying with water. The application of calcium chloride is not permitted adjacent to wetland resource areas or within 100' of these areas.
- The proposed planting schedule is to be adhered to during the planting of disturbed areas throughout the proposed construction site.
- Final stabilization of the site is to follow the procedures outlined in "Permanent Vegetative Cover". If necessary a temporary vegetative cover is to be provided until a permanent cover can be applied.

SILT FENCE INSTALLATION AND MAINTENANCE:

- Dig a 6" deep trench on the uphill side of the barrier location.
- Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground.
- Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
- Inspect and repair barrier after heavy rainfall.
- Inspections will be made at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs.
- Sediment deposits are to be removed when they reach a height of 1 foot behind the barrier or half the height of the barrier and are to be deposited in an area which is not regulated by the Inland Wetlands Commission.
- Replace or repair the fence within 24 hours of observed failure. Failure of the fence has occurred when sediment fails to be retained by the fence because:
 - the fence has been overtopped, undercut or bypassed by runoff water,
 - the fence has been moved out of position (knocked over), or
 - the geotextile has decomposed or been damaged.

HAY BALE INSTALLATION AND MAINTENANCE:

- Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other.
- Each bale shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from passing between the bales.
- Inspect bales 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 to determine maintenance needs.
- Remove sediment behind the bales when it reaches half the height of the bale and deposit in an area which is not regulated by the Inland Wetlands Commission.
- Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because:
 - the barrier has been overtopped, undercut or bypassed by runoff water,
 - the barrier has been moved out of position, or
 - the hay bales have deteriorated or been damaged.

TEMPORARY VEGETATIVE COVER:

SEED SELECTION

Grass species shall be appropriate for the season and site conditions. Appropriate species are outlined in Figure TS-2 in the 2002 Guidelines.

TIMING CONSIDERATIONS

Seed with a temporary seed mixture within 7 days after the suspension of grading work in disturbed areas where the suspension of work is expected to be more than 30 days but less than 1 year.

SITE PREPARATION

Install needed erosion control measures such as diversions, grade stabilization structures, sediment basins and grassed waterways.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application, and mulch anchoring.

SEEDBED PREPARATION

Loosen the soil to a depth of 3-4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, disking, harrowing, raking or dragging with a section of chain link fence. Avoid excessive compaction of the surface by equipment traveling back and forth over the surface. If the slope is tracked, the cleat marks shall be perpendicular to the anticipated direction of the flow of surface water.

If soil testing is not practical or feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10-10-10 or equivalent. Additionally, lime may be applied using rates given in Figure TS-1 in the 2002 Guidelines.

SEEDING

Apply seed uniformly by hand cyclone seeder, drill, outpacker type seeder or hydroseeder at a minimum rate for the selected species. Increase seeding rates by 10% when hydroseeding.

MULCHING

Temporary seedings made during optimum seeding dates shall be mulched according to the recommendations in the 2002 Guidelines. When seeding outside of the recommended dates, increase the application of mulch to provide 95%-100% coverage.

MAINTENANCE

Inspect seeded area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has moved or where soil erosion has occurred, determine the cause of the failure. Repair eroded areas and install additional controls if required to prevent recurrence of erosion.

Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover).

PERMANENT VEGETATIVE COVER:

Refer to Permanent Seeding Measure in the 2002 Guidelines for specific applications and details related to the installation and maintenance of a permanent vegetative cover. In general, the following sequence of operations shall apply:

- Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
- Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
- Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 15-10-10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
- Inspect seedbed before seeding. If traffic has compacted the soil, retilt compacted areas.
- Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 - October 1.
- Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch.

DEVELOPMENT SCHEDULE/SEQUENCE OF OPERATIONS:

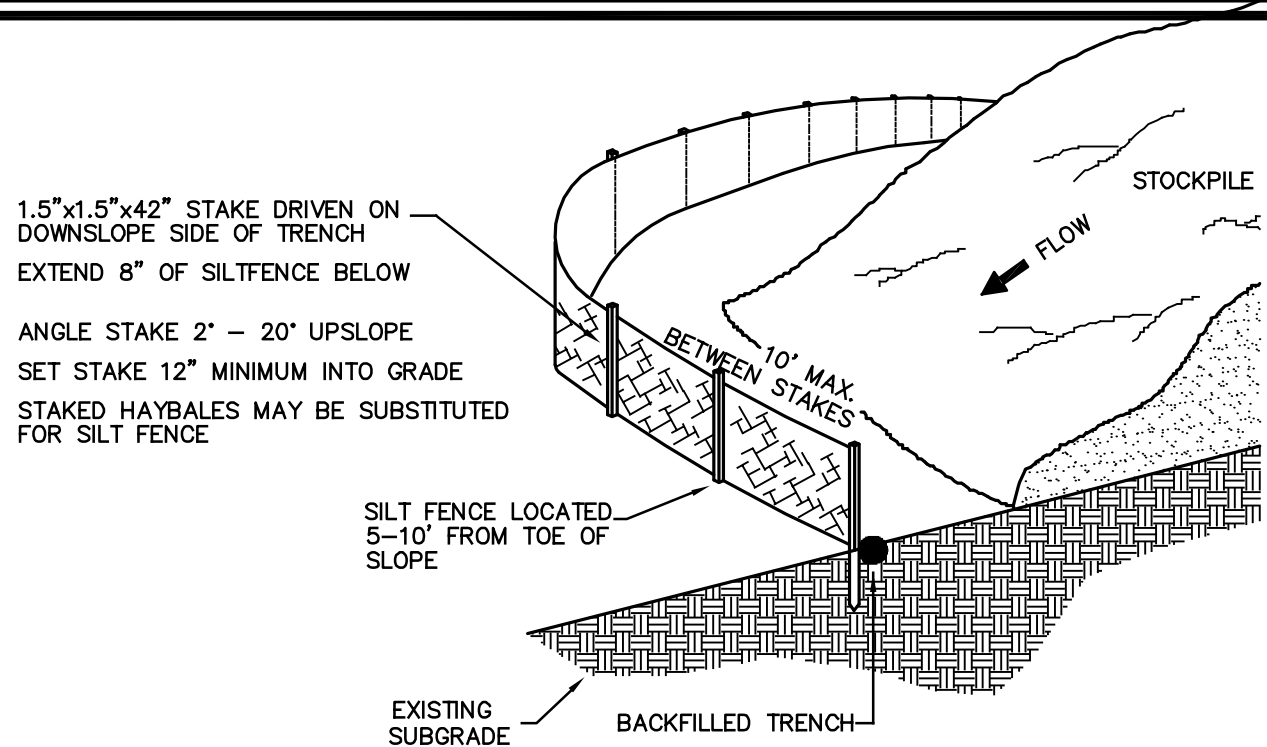
- Flag the limits of disturbance and schedule preconstruction meeting with Town of Brooklyn wetlands Agent.
- Contact utility companies for scheduling installation of utilities and connections
- Install the anti-tracking construction entrance.
- Cut trees within the defined clearing limits and remove the cut wood.
- Install perimeter erosion and sedimentation controls in accordance with the site development plan.
- Chip brush and slash, stockpile chips for use on site or remove off site.
- Box out driveway and stockpile topsoil in locations shown on the plans. Install erosion controls around stockpile and apply temporary seeding.
- Contact utility companies (CT Water and the Brooklyn WPCA) to coordinate water main and sanitary sewer connections. Install water and sanitary sewer lines beginning from the lowest elevation.
- Excavate stormwater basin to be utilized as a temporary sedimentation basin during construction. Install drainage structures and pipe and provide inlet protection at catch basins.
- Install and compact processed gravel for roadway base.
- Remove tree stumps and dispose of at an approved disposal site. Alternatively, stumps may be chipped in place. No stumps shall be buried on site.
- Strip and stockpile topsoil that is within the footprint of the site. Surround stockpile with silt fence or staked haybales, and apply temporary seeding in accordance with recommended mixtures. Divert runoff around the perimeter of the stockpile.
- Make all required cuts and fills. Establish the subgrade for the driveway as required and install additional erosion controls as necessary and as shown on the plans.
- Inspect perimeter erosion and sedimentation controls weekly and after rain events in excess of 0.5". Repair any damaged controls and provide additional erosion control devices as necessary to address areas of concentrated runoff that may develop as a result of the construction activities. The contractor shall review discharge conditions with the design engineer or the Town of Brooklyn prior to installing additional erosion controls. Apply water as necessary for dust control.
- Install utilities to in the locations shown on the plans.
- Prepare sub-base for roadway for final grading.
- Excavate for building footings, stockpile soil and pour footings & slab. Begin phased building construction.
- Place topsoil where required and install any proposed landscaping upon completion of each building.
- Install first course of pavement to each building as they are completed and required landscaping.
- When the remainder of the site work is near completion, sweep all paved areas for the final course of paving. Inspect erosion controls and remove any accumulated sediment.
- Install final course of pavement upon the completion of the final structure.
- Fine grade, rake, seed and mulch to within 2' of the pavement.
- Remove and dispose of all silt fence and hay bales after the site has been stabilized to the satisfaction of the Town of Brooklyn.

RESPONSIBLE PARTY FOR E&S MAINTENANCE:

Shane Pollock
101 Mackin Drive
Griswold, CT 06351
(860) 888-3129

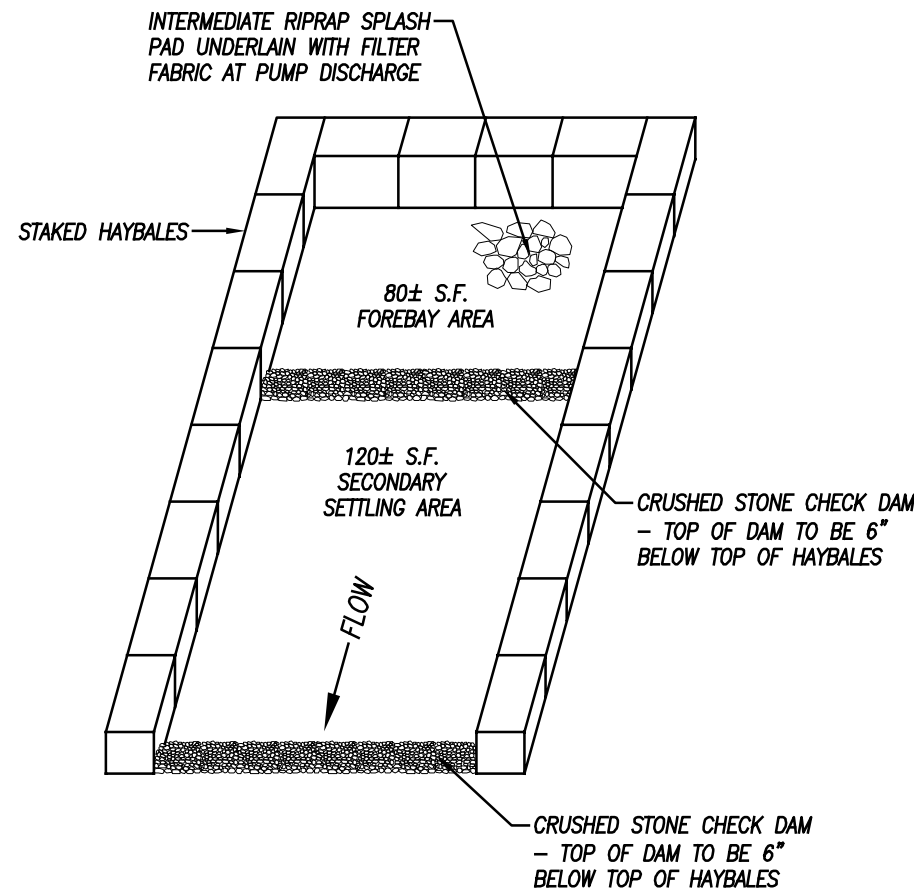
CONSTRUCTION NOTES/GENERAL PROVISIONS

- The locations of existing utilities are based upon visible field observations, record mapping and interviews with the property owner and abutting property owners. They are shown for informational purposes only. Contractor shall coordinate exploratory test hole excavation with the Engineer if necessary to verify and/or determine actual locations of some utilities & structures. It is the responsibility of the contractor to verify the location and elevation of all utilities. Contact "CALL BEFORE YOU DIG" at 1-800-922-4455, and obtain all applicable permits, prior to any excavation around utilities.
- All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
- All Materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 818", and supplements thereto.
- The Contractor shall obtain copies of all regulatory agency permits from the Owner prior to any site disturbance.
- Unless otherwise noted on the plans, the contractor shall use the geometry provided on the construction plans. Benchmark information shall be provided to the contractor by the Owner or the Owner's surveyor. Any discrepancies between field measurements and construction plan information shall be brought to the attention of the Engineer or Surveyor immediately.
- The Contractor shall not revise elevations or locations of items shown on the plans without written consent of the project Engineer or Surveyor.
- The Contractor shall protect benchmarks, property corners, and other survey monuments from damage or displacement. If a marker needs to be removed, it shall be referenced by a licensed land surveyor and replaced as necessary by the same.
- The Contractor shall be responsible for preparing and compacting base for proposed pavement. Owner shall provide general fill to establish subgrade - contractor shall spread and compact. Contractor shall provide, spread and compact required processed aggregate.
- The entire project site shall be thoroughly cleaned at the completion of the work. Clean all installed paved areas, accumulated silt and sediment shall be removed from the stormwater system, silt fence removed and disposed of, excess construction materials removed, plus all adjacent areas affected by the construction activities as directed by the Owner or the jurisdictional Agency. Any material removed from the site shall be relocated to an approved off-site disposal area.
- Upon completion of construction, accumulated sediment and other deleterious materials shall be thoroughly removed catch basins, manholes, pipes and swales and disposed of off site. Additionally, the stormwater detention basin bottom and structures shall be cleaned and restored to "like new" condition.



SILT FENCE @ TOE OF SLOPE APPLICATION

NOT TO SCALE



PUMPING OUTLET BASIN

NOT TO SCALE

NOTES:

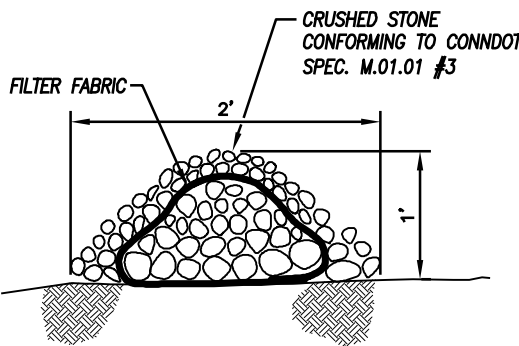
- 1.) TO BE USED IN THE EVENT THAT DEWATERING IS REQUIRED
- 2.) LOCATE BASINS OUTSIDE OF WETLANDS UPLAND REVIEW AREAS

PERCOLATION TEST RESULT - November 27, 2020

Killingly Engineering Associates - Normand Thibault, P.E.

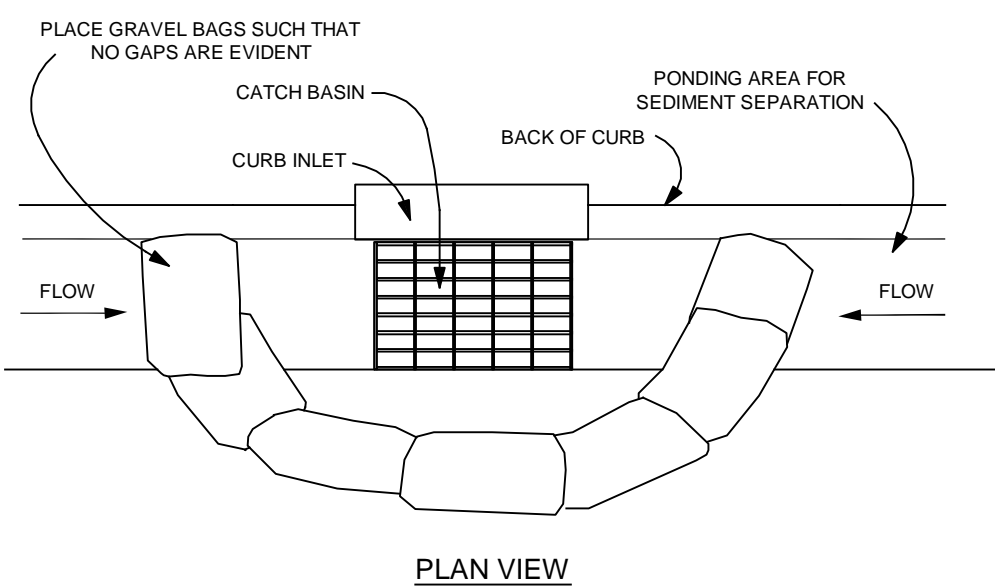
Depth = 24" Rate = 6.7 min./in.

Time	Reading
1:30	4.5"
1:35	7.5"
1:40	11"
1:45	12.5"
1:50	14"
2:00	15.5"
2:05	16.75"
2:10	17.5"
2:15	18.25"
2:20	19"



STONE CHECK DAM

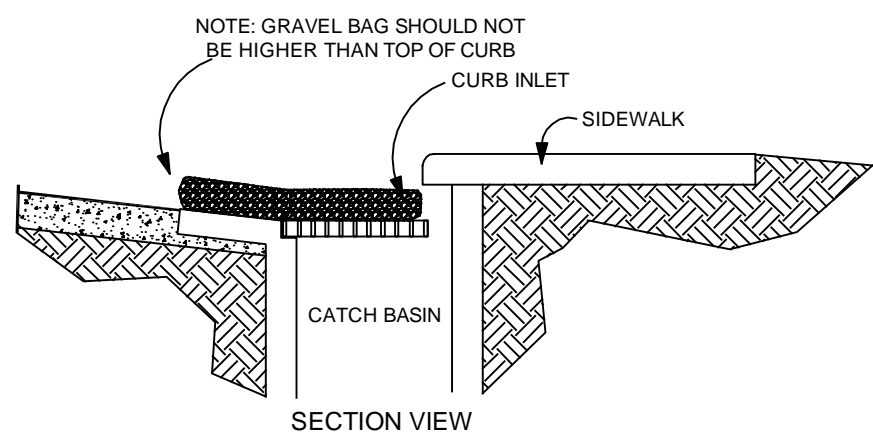
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PLAN VIEW

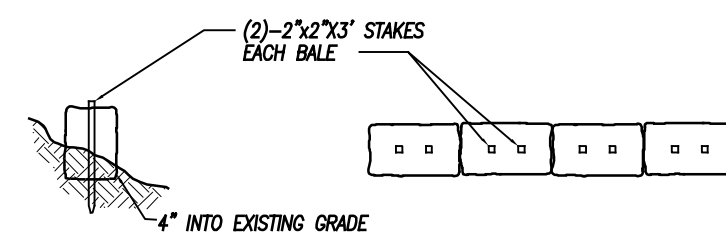
NOTES:

1. PLACE GRAVEL BAG BARRIER ON GENTLY SLOPING STREET, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. USE SAND BAGS OF WOVEN GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH 1/2 INCH (OR SMALLER) GRAVEL BAGS MUST BE LAYERED SUCH THAT NO GAPS ARE EVIDENT.
3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.
4. WHEN INSTALLING CURB INLET PROTECTION DEVICES, NEVER BLOCK THE CURB INLET.



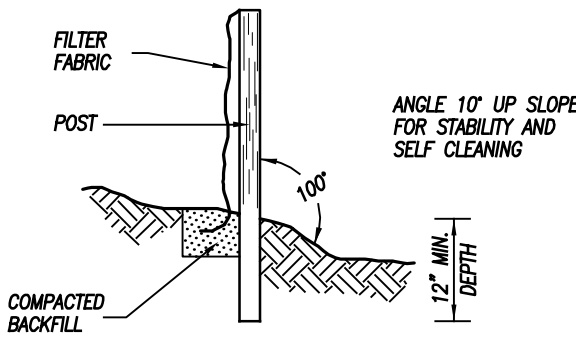
SECTION VIEW

STANDARD GRAVEL BAG CURB INLET PROTECTION



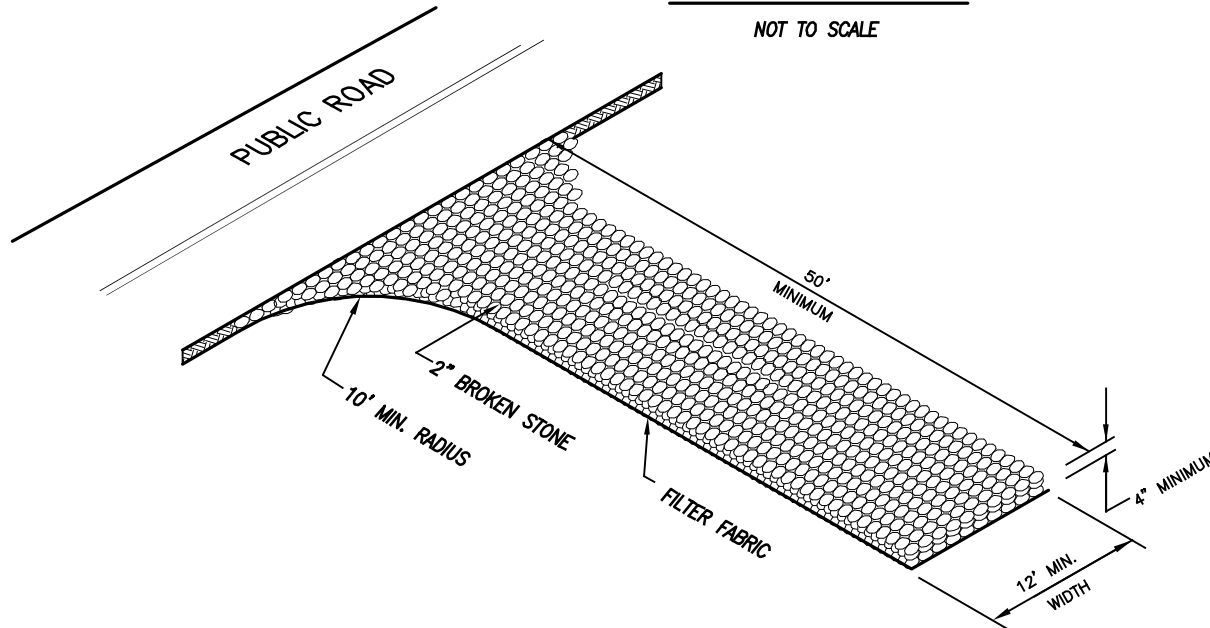
HAYBALE BARRIER

NOT TO SCALE



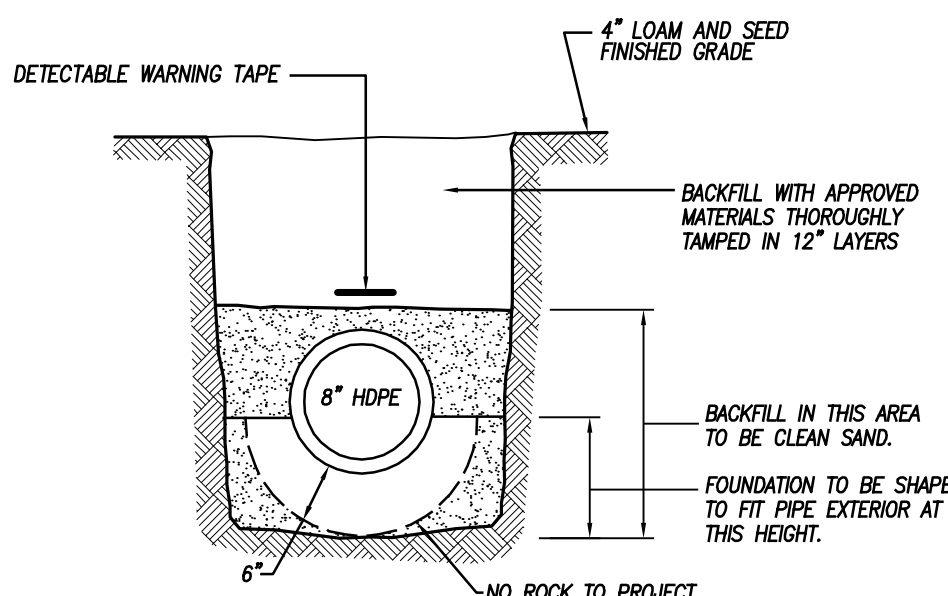
SILT FENCE

NOT TO SCALE



CONSTRUCTION ENTRANCE

NOT TO SCALE



ROOF LEADER PIPE IN TRENCH DETAIL

NOT TO SCALE

NOTE: MINIMUM SLOPE OF ROOF LEADERS SHALL BE 2%

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PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

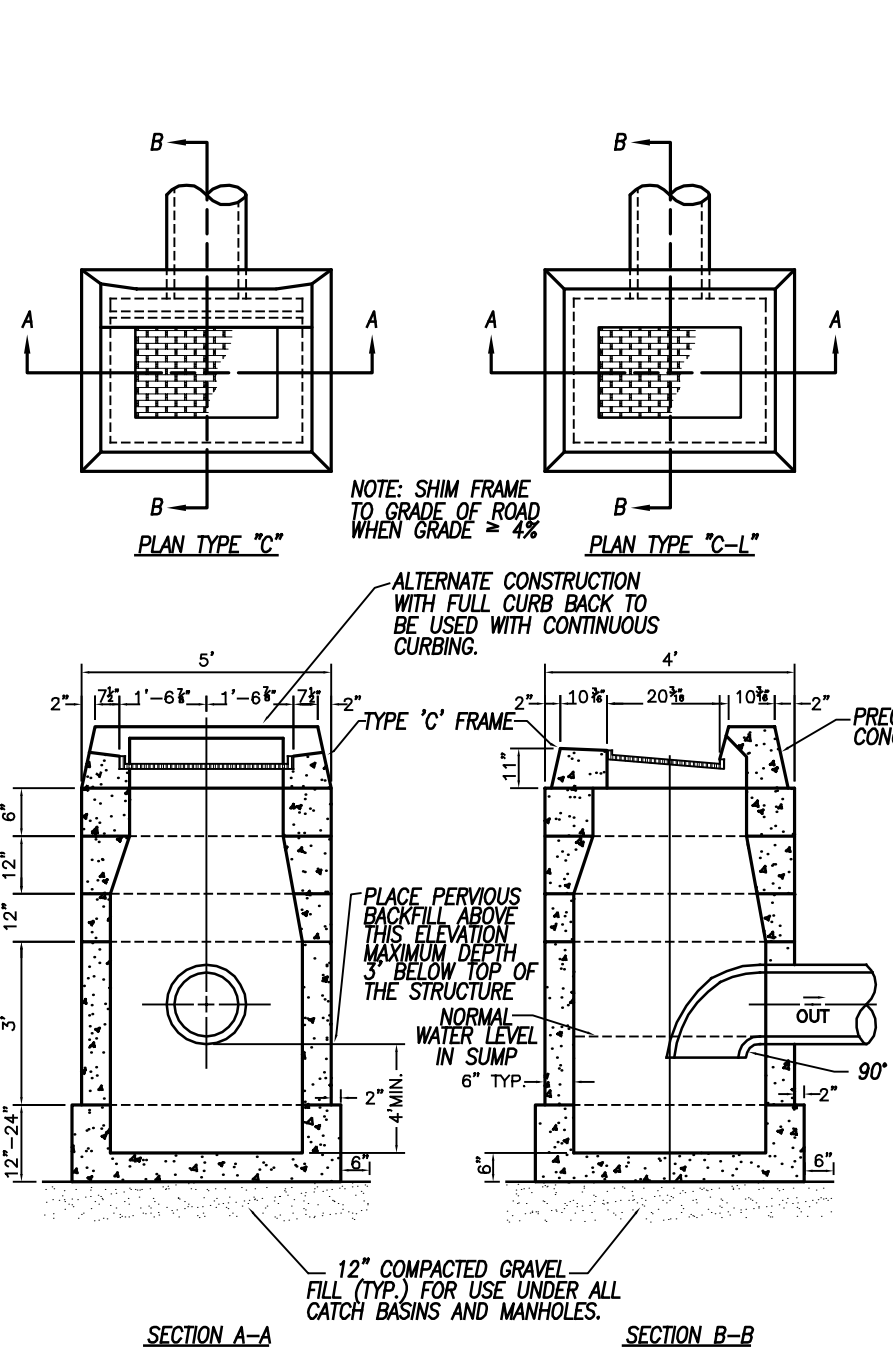
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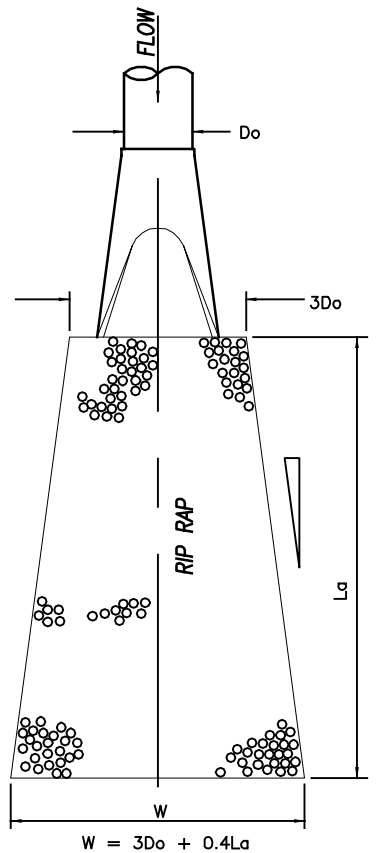
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SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 8 OF 11	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

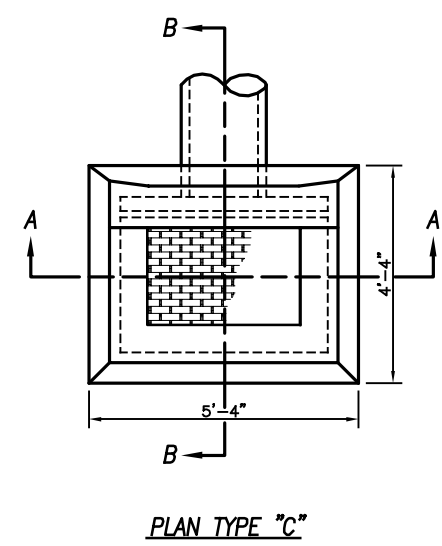
NORMAND E. THIBAUT, JR., P.E. LIC #PEN 0022834	DATE
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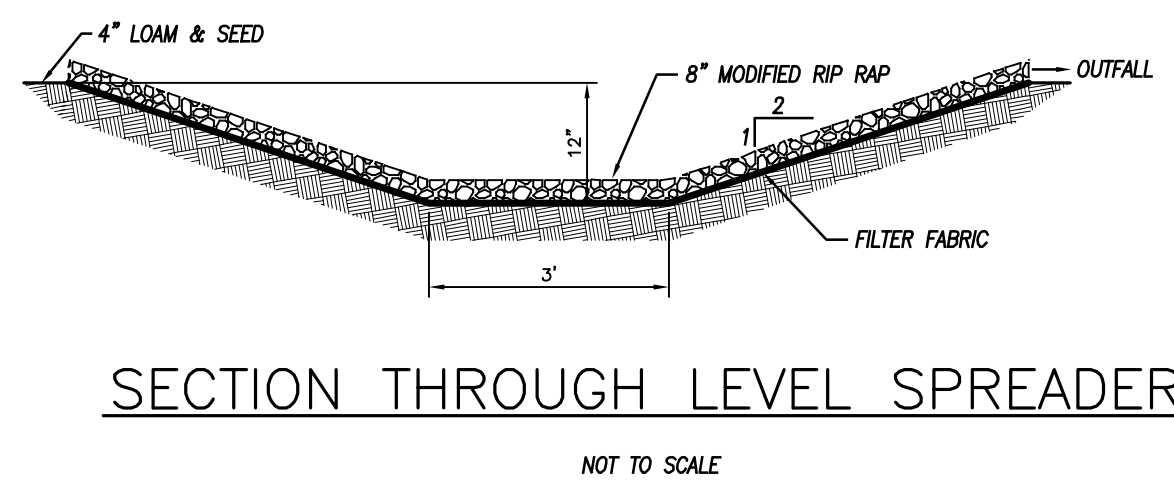
HOODED CATCH BASIN DETAIL
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



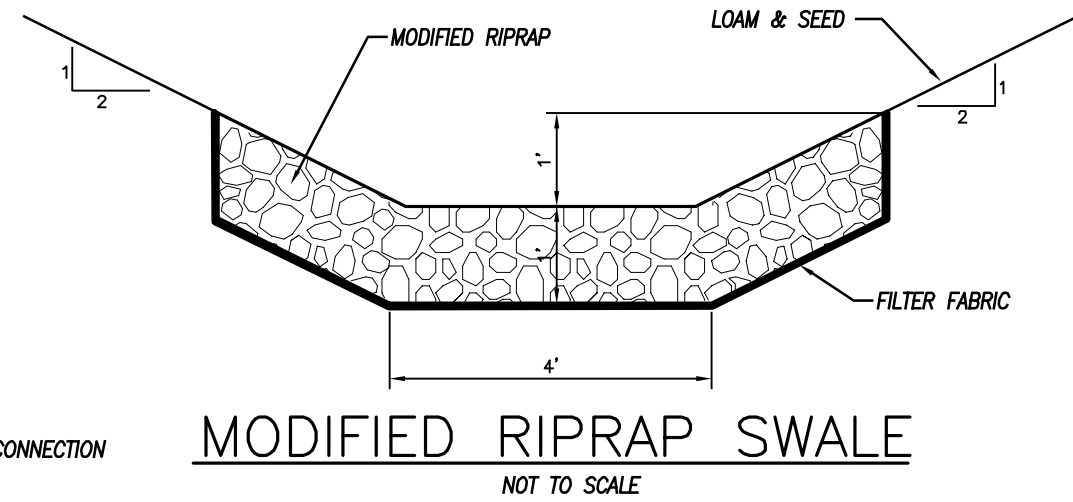
RIP RAP OUTFALL
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



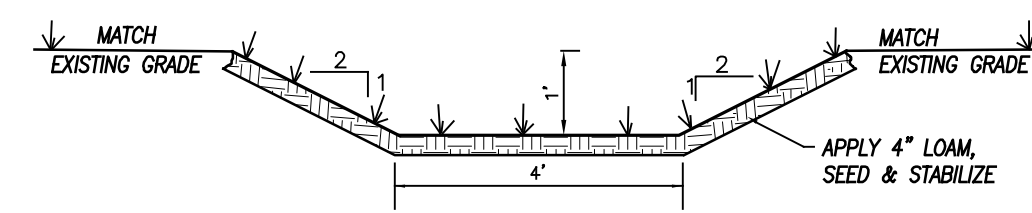
TYPE 'C' CATCH BASIN DETAIL
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



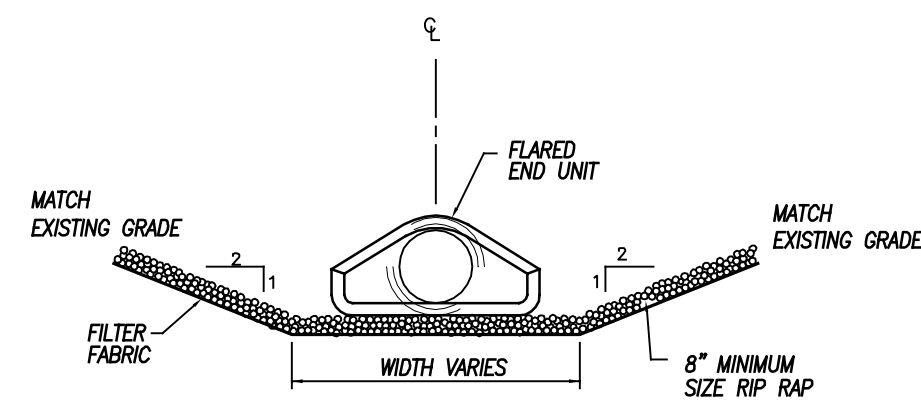
SECTION THROUGH LEVEL SPREADER
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



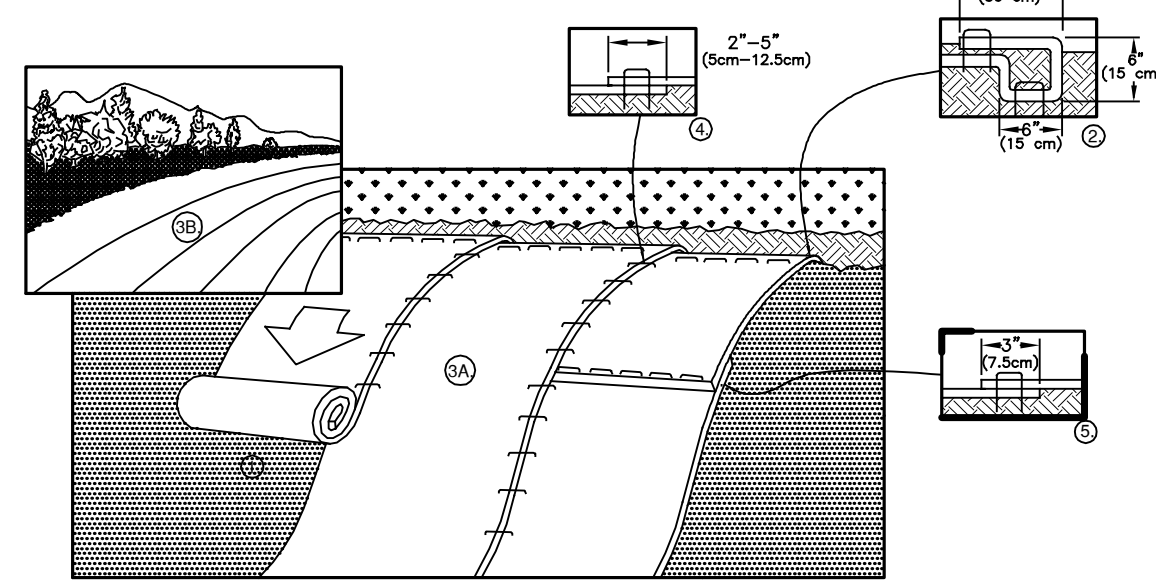
MODIFIED RIPRAP SWALE
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



GRASS LINED SWALE
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN

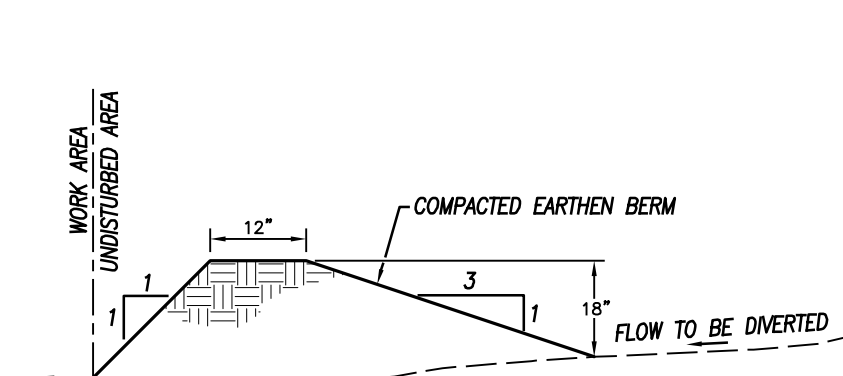


SECTION
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN

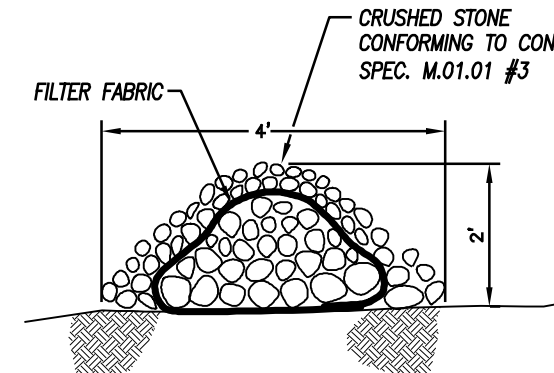


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (150mm) DEEP X 6" (150mm) WIDE TRENCH WITH APPROXIMATELY 12" (300mm) OF BLANKET EXTENDING BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (300mm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOR REMAINING 12" (300mm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (300mm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (50mm-125mm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 6" (150mm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (300mm) APART ACROSS ENTIRE BLANKET WIDTH.
- NOTES:
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (150mm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
2. TURF REINFORCEMENT MAT SHALL BE NORTH AMERICAN GREEN BIOMAT 50-150BN OR APPROVED BIOERODABLE EQUIVALENT.

TURF REINFORCEMENT MAT INSTALLATION
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN

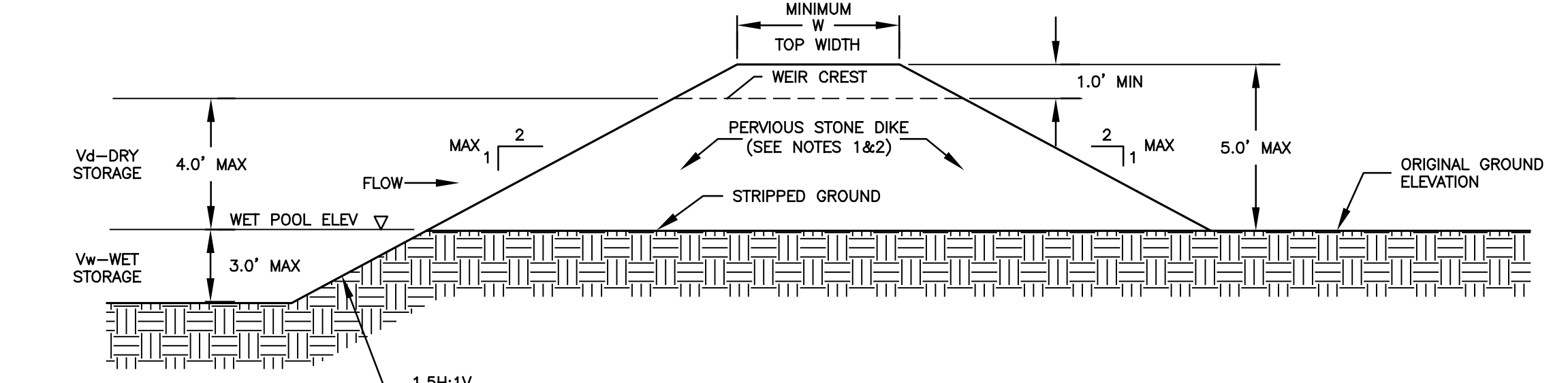


TEMPORARY DIVERSION
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



STONE BERM
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN

STORM DRAIN PIPE IN TRENCH DETAIL
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



TEMPORARY SEDIMENT TRAP EMBANKMENT CROSS SECTION
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN

TOP WIDTH VS. HEIGHT
H = HEIGHT OF EMBANKMENT
W = TOP WIDTH OF EMBANKMENT

H (ft)	W (ft)
1.5	2.0
2.0	2.0
2.5	2.5
3.0	2.5
3.5	3.0
4.0	3.0
4.5	4.0
5.0	4.5

NOTES:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL AND EROSION CONTROL SECTIONS 5-11-25 THRU 5-11-29.
2. PERVIOUS STONE DIKE SHALL BE CONSTRUCTED OF MODIFIED RIPRAP (CTDOT M.12.02) WITH #3 STONE ON FACE (CTDOT M.01.01).
3. NON-OVERFLOW PORTIONS AND ABUTMENTS OF TEMPORARY SEDIMENT TRAPS MAY BE CONSTRUCTED OF ENGINEER APPROVED BACKFILL COMPACTED IN 9" LAYERS. USE ONLY MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, ROCKS OVER 6" IN DIAMETER OR OTHER UNSUITABLE MATERIALS.
4. IF, IN THE JUDGEMENT OF THE ENGINEER, MATERIALS FROM ON-SITE EXCAVATION ACTIVITIES ARE NOT SUITABLE FOR CONSTRUCTION OF SEDIMENT TRAP EMBANKMENTS, MATERIALS SHALL BE IMPORTED TO THE SITE.
5. EARTHEN EMBANKMENTS SHALL BE STABILIZED WITH TEMPORARY SEEDING, PERMANENT SEEDING OR STONE SLOPE PROTECTION IMMEDIATELY AFTER INSTALLATION.
6. TEMPORARY SEDIMENT TRAP(S) SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND WITHIN 24 HOURS OF THE END OF A STORM OF 0.5 INCHES OF RAINFALL OR GREATER. REMOVE ACCUMULATED SEDIMENT WHEN ONE HALF OF THE MINIMUM WET STORAGE VOLUME HAS BEEN FILLED. DISPOSE OF REMOVED SEDIMENT IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

SEED MIX REQUIREMENTS:

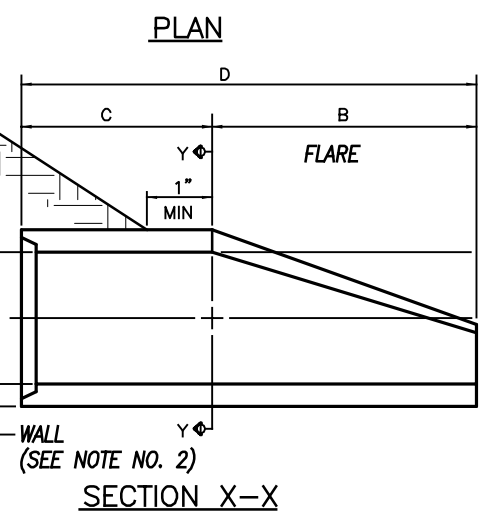
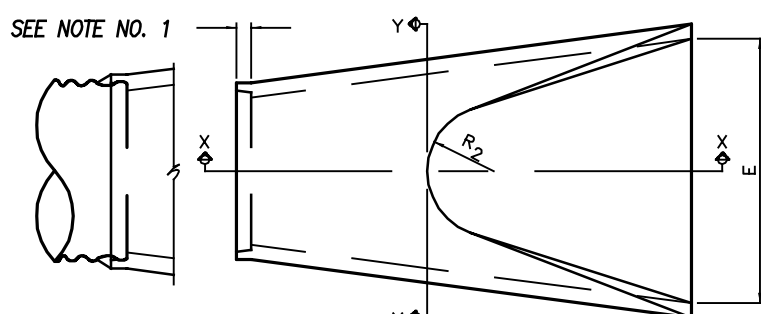
AREA	SPECIES	SEEDING RATE (lbs/acre)
Mowed & maintained banks	Creeping Red Fescue (Pennlawn, Wintergreen)	20
	Bird's-foot Trefoil (Empire, Viking) with inoculant	8
	Tall Fescue (Kentucky 31)	20
	TOTAL	48
Unmowed banks & slopes	Tall Fescue (Kentucky 31)	20
	Flatpea (Lathco) with inoculant	30
	TOTAL	50
Diversions & channels	Creeping Red Fescue (Pennlawn, Wintergreen)	20
	Redtop (Sreker, Common)	2
	Tall Fescue (Kentucky 31)	20
	TOTAL	42
Lawns & high maintenance areas	Turf type Tall Fescue	TOTAL 150

***Alternative seed mixes may be used. Alternative seed mix selections shall be in accordance with Figures PS-2 and PS-3 in the 2002 Guidelines for Soil Erosion and Sediment Control or as specified by and coordinated with the landscape designer.

New England Erosion Control/Restoration Mix For Detention Basins and Moist Sites

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation. This mix is particularly appropriate for detention basins that do not hold standing water for extended periods. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro-seeder. After sowing, lightly rake, roll or cultipack to insure good seed to soil contact. Best results are obtained with a Spring or late Summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended.

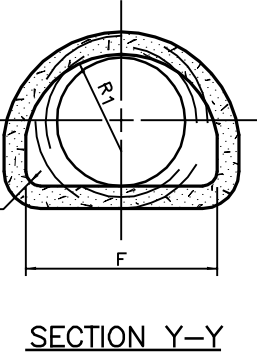
SPECIES: Riverbank Wild Rye (*Elymus riparius*), Creeping Red Fescue (*Festuca rubra*), Little Bluestem (*Schizachyrium scoparium*), Big Bluestem (*Andropogon gerardii*), Switch Grass (*Panicum virgatum*), Upland Bentgrass (*Agrostis perennans*), Nodding Bur Marigold (*Bidens cernua*), Hollow-Stem Joe Pye Weed (*Eupatorium fistulosum*/Eutrochium fistulosum), New England Aster (*Aster novae-angliae*), Boneset (*Eupatorium perfoliatum*), Blue Vervain (*Verbena hastata*), Soft Rush (*Juncus effusus*), Wool Grass (*Scirpus cyperinus*).</P>



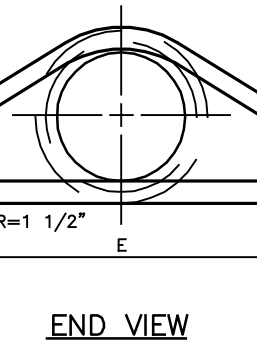
- NOTE:
1. JOINTS SHALL CONFORM TO PIPE INSTALLED
2. WALL THICKNESS SHALL CONFORM TO PIPE THICKNESS

DIMENSIONS FOR HDPE CULVERT END									
DIA.	A	B	C	D	E	F	R ₁	R ₂	
12"	4"	2'-0"	4'-0 3/8"	6'-0 3/8"	2'-0"	1'-7 1/8"	10 1/4"	9"	
15"	6"	2'-3"	3'-10"	6'-1"	2'-0"	2'-0 5/8"	1'-0 1/2"	11"	
18"	8"	2'-3"	3'-10"	6'-1"	3'-0"	2'-5"	1'-3 1/2"	1'-0"	
21"	8"	2'-11"	3'-2"	6'-1"	3'-0"	2'-7 1/2"	1'-4"	1'-1"	
24"	9 1/2"	3'-7 1/2"	2'-4"	6'-1 1/2"	4'-0"	2'-8 3/8"	1'-4 5/8"	1'-2"	
30"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3'-1"	1'-6 1/2"	1'-3"	
36"	1'-3"	5'-3"	2'-10 3/4"	6'-1 3/4"	6'-0"	3'-11 3/8"	2'-0 5/8"	1'-8"	
42"	1'-8"	5'-3"	2'-11"	6'-2"	6'-6"	4'-5 7/8"	2'-3 1/2"	1'-10"	
48"	2'-0"	6'-0"	2'-2"	6'-2"	7'-0"	4'-8 1/2"	2'-4 1/2"	1'-10"	
54"	2'-3"	5'-5"	2'-11"	6'-4"	7'-6"	5'-5 1/2"	2'-9 1/8"	2'-0"	
60"	2'-6"	5'-0"	3'-3"	6'-3"	8'-0"	6'-0 1/2"	3'-0 1/8"	2'-0"	

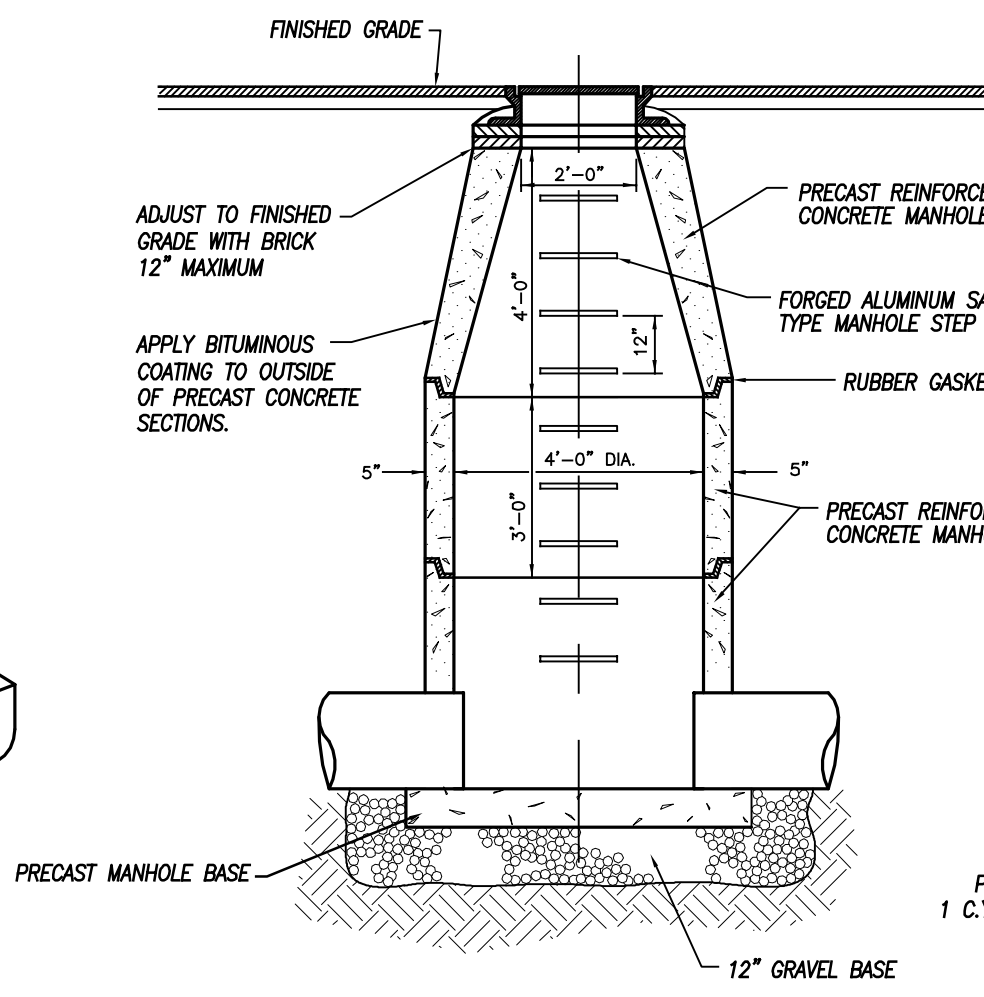
FLARED END SECTION
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



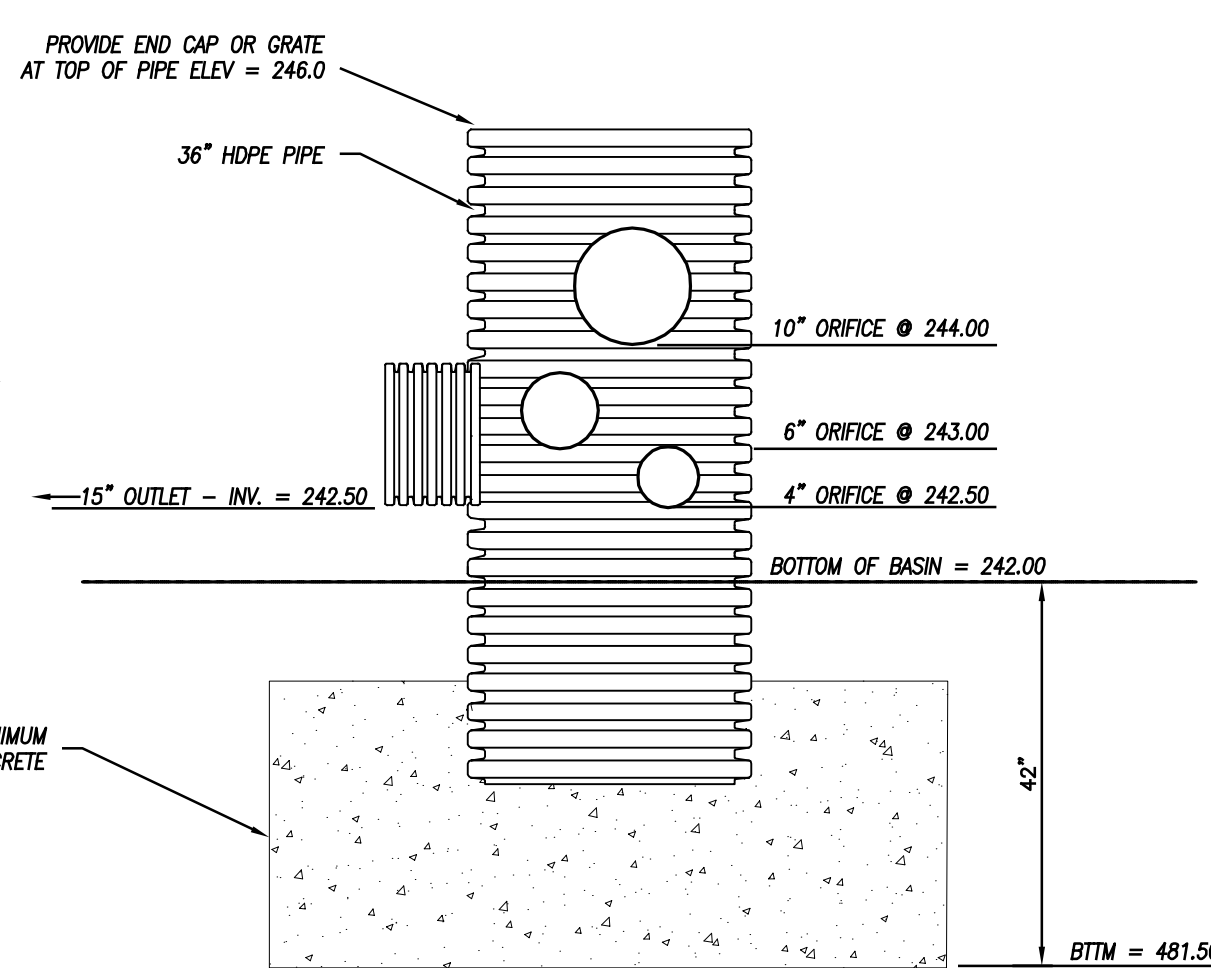
SECTION Y-Y



END VIEW



TYPICAL MANHOLE CROSS SECTION
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN



STORMWATER BASIN OUTLET STRUCTURE DETAIL
NOTE: TO BE INSTALLED AT FINAL CATCH BASIN WITH OUTLET TO STORMWATER BASIN

NORMAN E. THIBEAULT, JR., P.E.
LIC #PEN 0022834

DATE	REVISIONS
02/10/2021	EASEMENT ADDED / ZONE CORRECTION / CT WATER COMMENTS
01/27/2021	PER BWPCA REVIEW
01/04/2021	PER TOWN & ENGINEERING REVIEW
12/07/2020	ADDED TEST PIT DATA
11/13/2020	PER TOWN & ENGINEERING REVIEW
DATE	DESCRIPTION

DETAIL SHEET 2

PREPARED FOR

SHANE POLLOCK

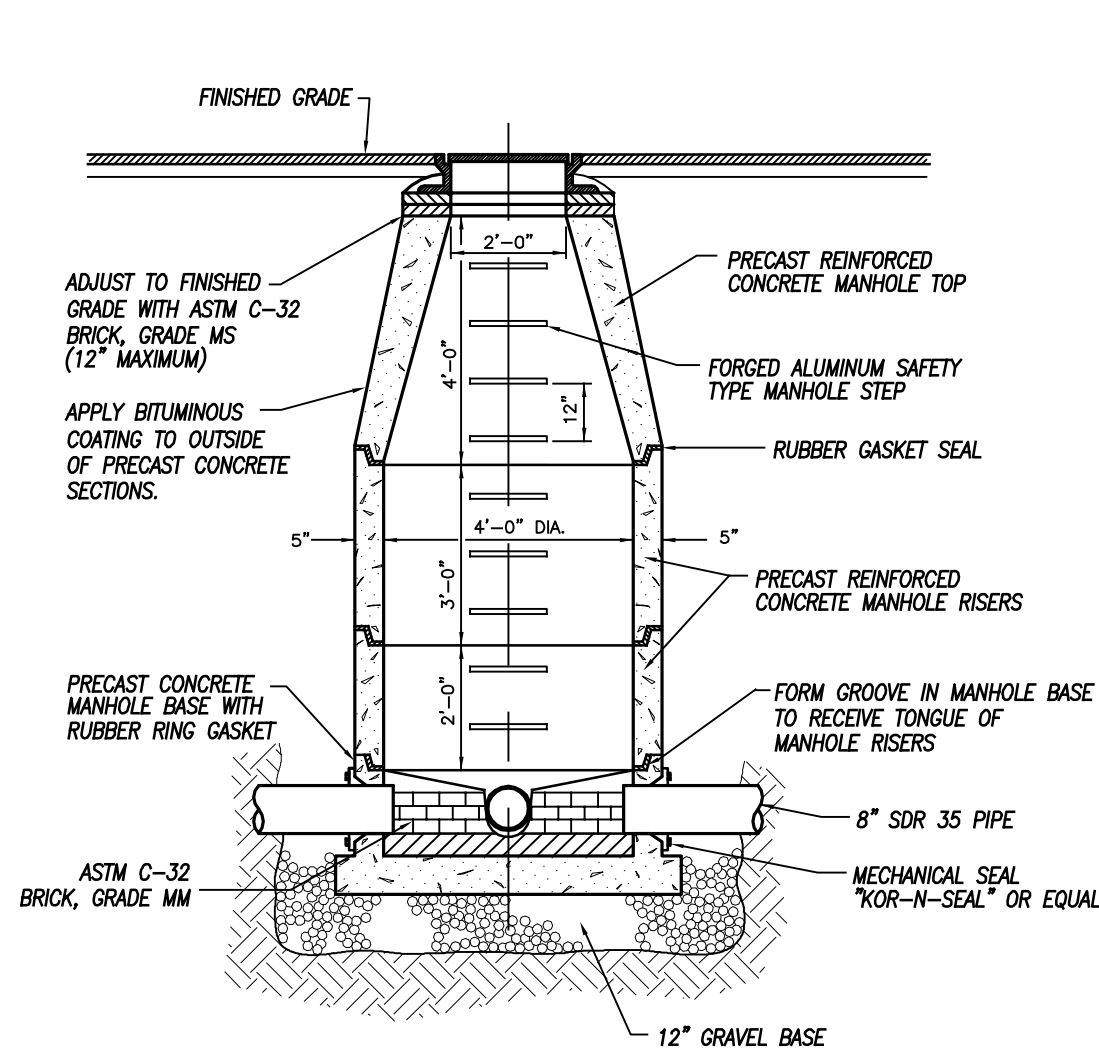
LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying

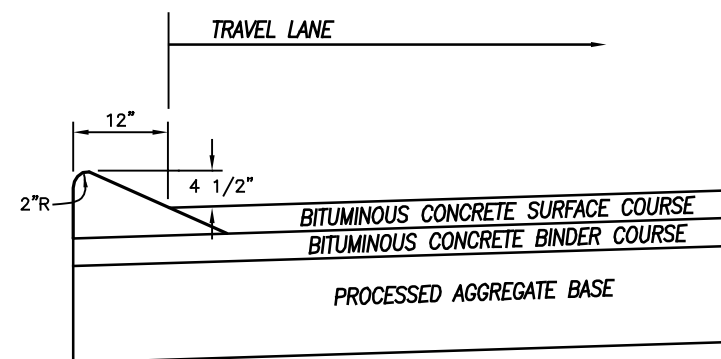


114 Westcott Road
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(860) 779-7299
www.killinglyengineering.com

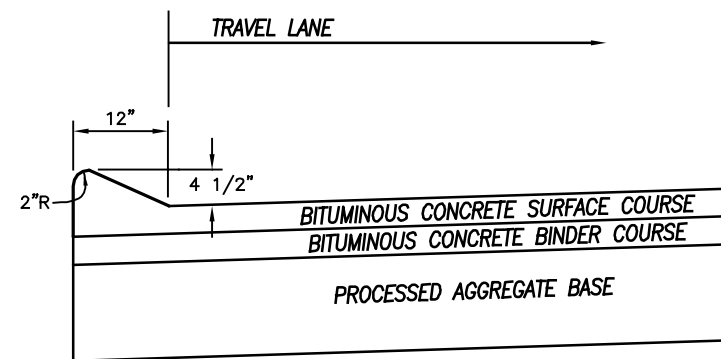
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SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 9 OF 11	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014



TYPICAL SANITARY MANHOLE
CROSS SECTION
NOT TO SCALE

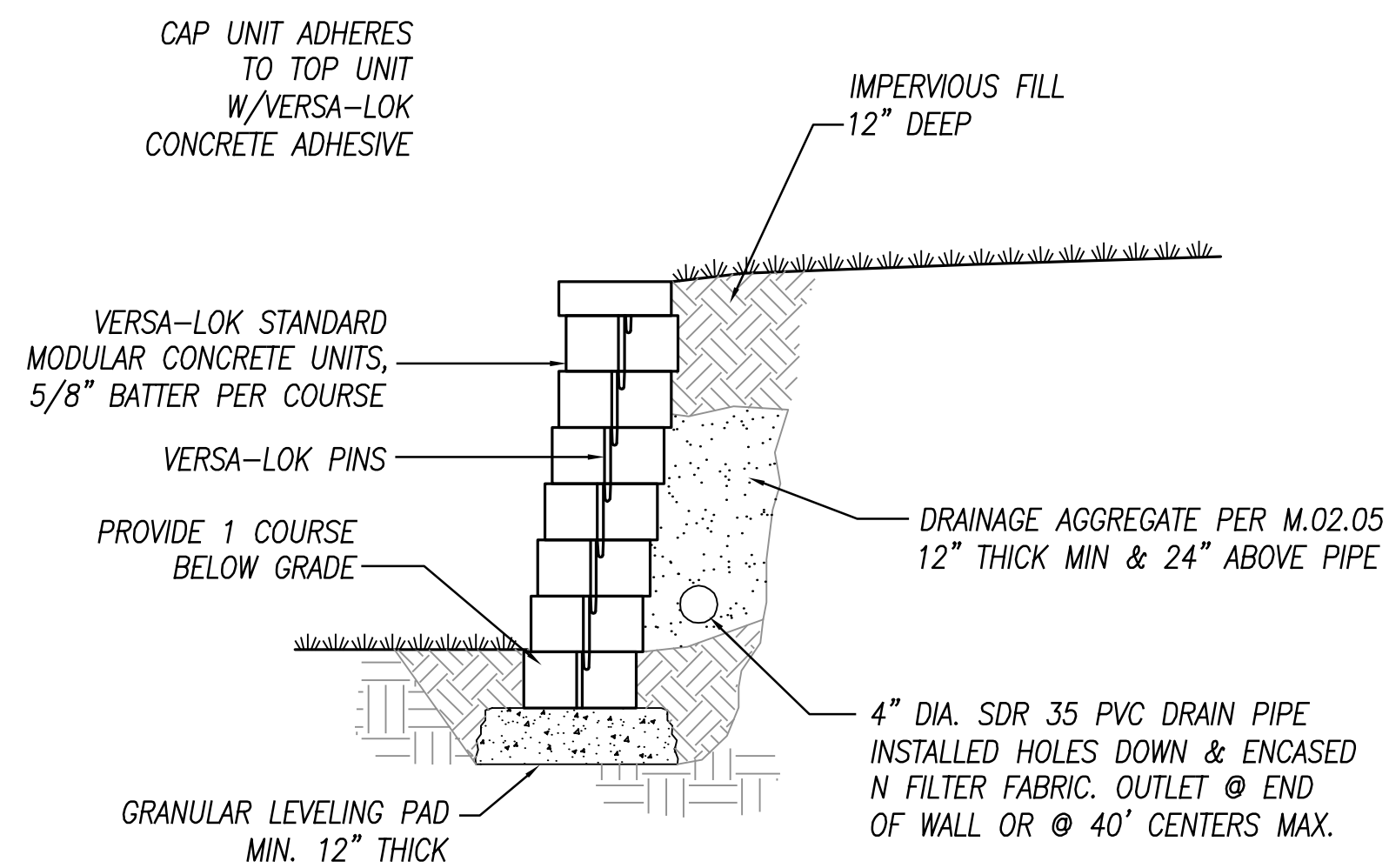


ALTERNATE 1 - CURB ON BINDER

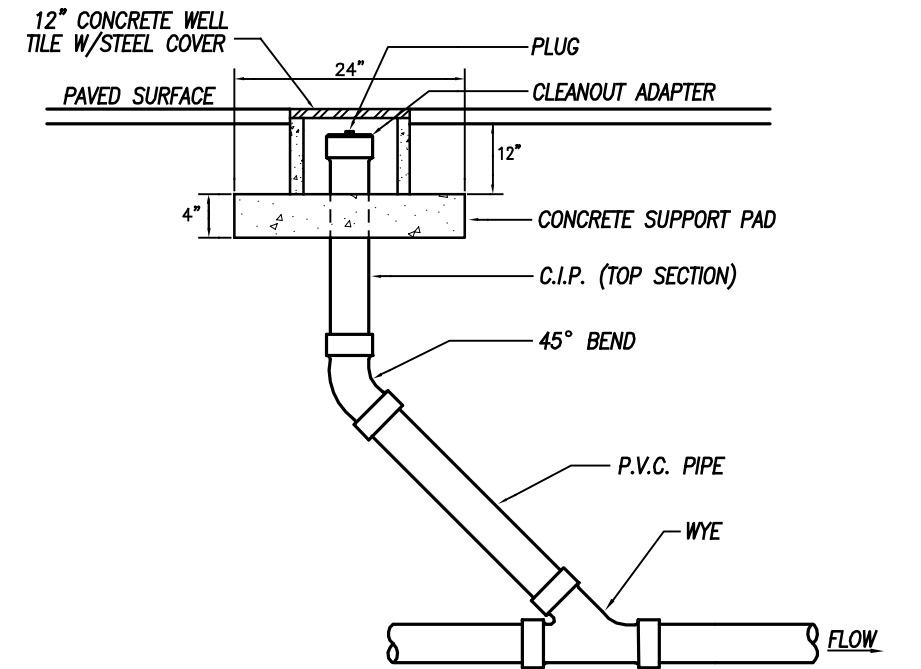


ALTERNATE 2 - MONOLITHIC CONSTRUCTION

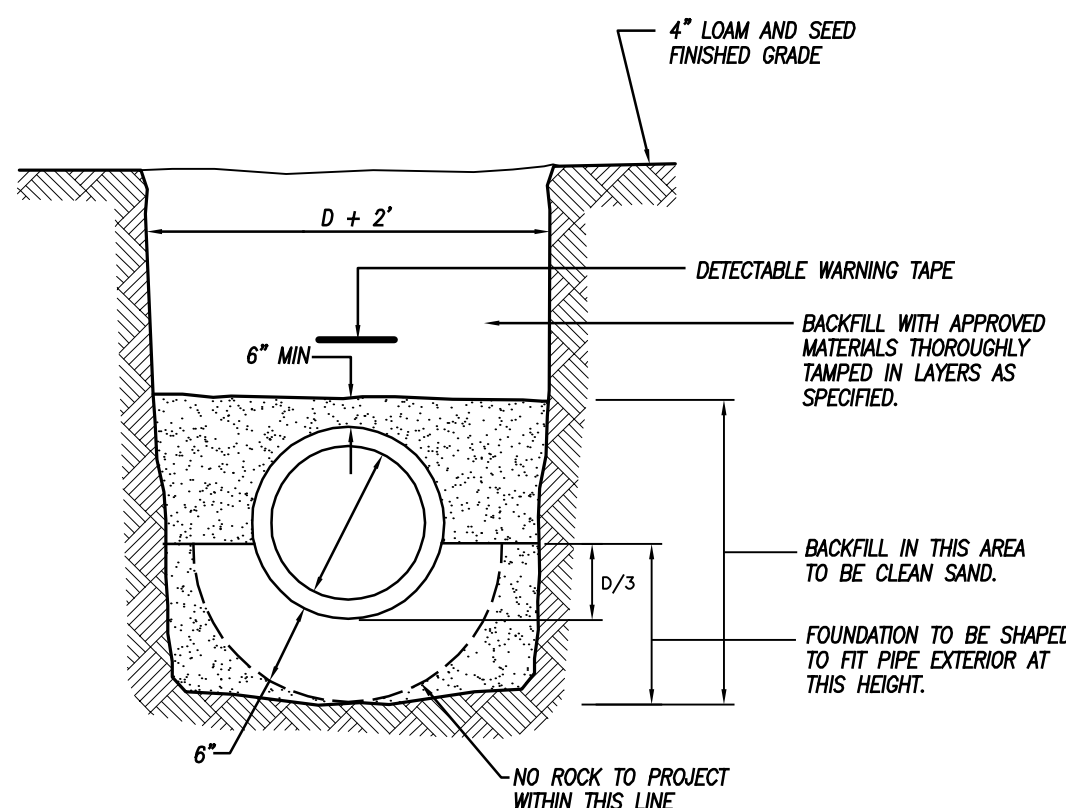
CAPE COD CURBING
NOT TO SCALE



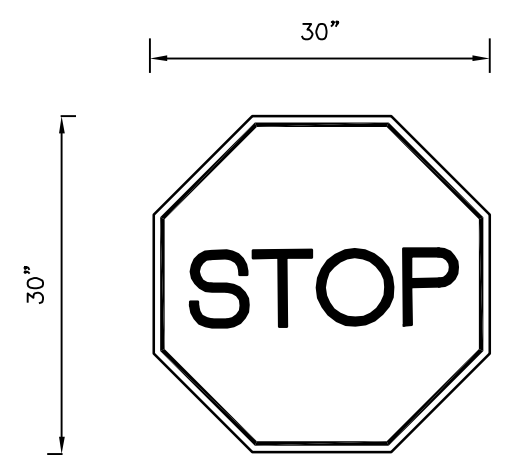
TYPICAL SECTION-UNREINFORCED RETAINING WALL
VERSA-LOK OR APPROVED EQUAL



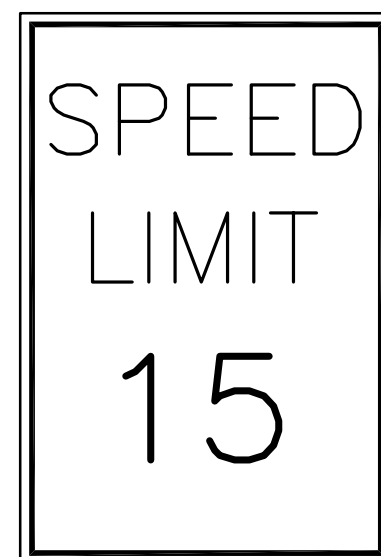
SANITARY CLEANOUT DETAIL
NOT TO SCALE



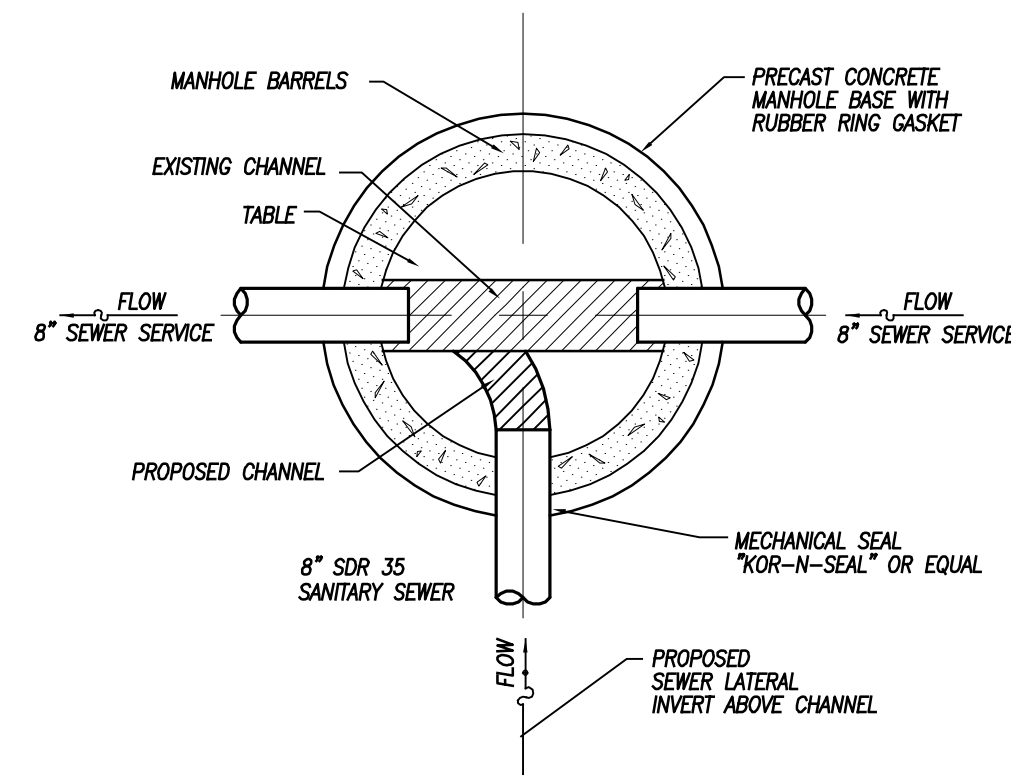
SANITARY SEWER
PIPE IN TRENCH DETAIL
NOT TO SCALE



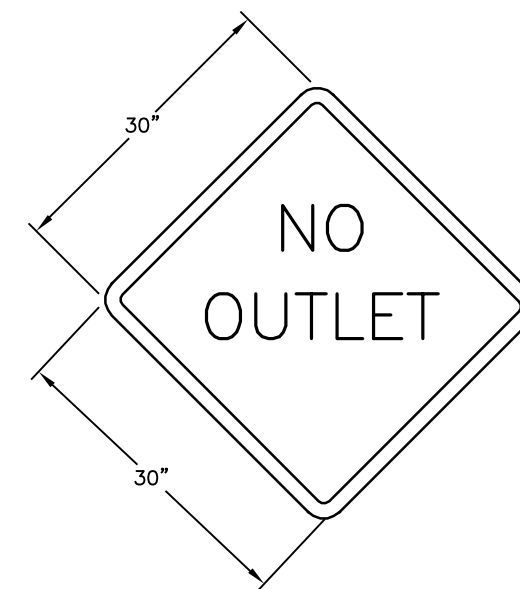
CTDOT R1-1 (31-0552)
STOP SIGN
NOT TO SCALE



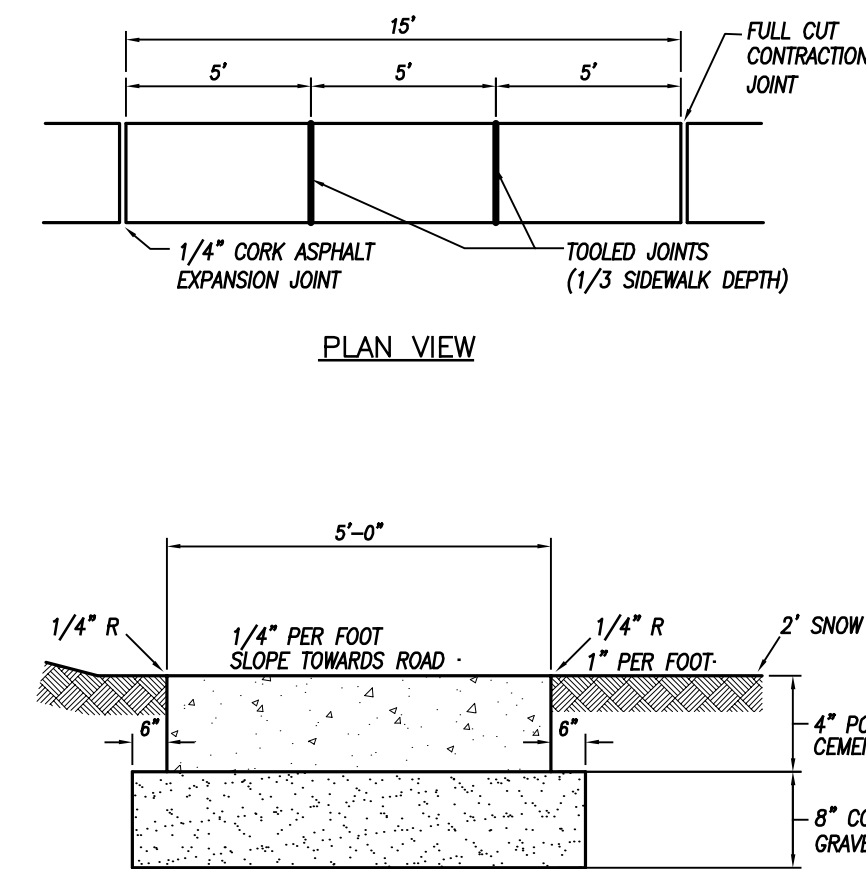
31-5505
SPEED LIMIT SIGN DETAIL
NOT TO SCALE



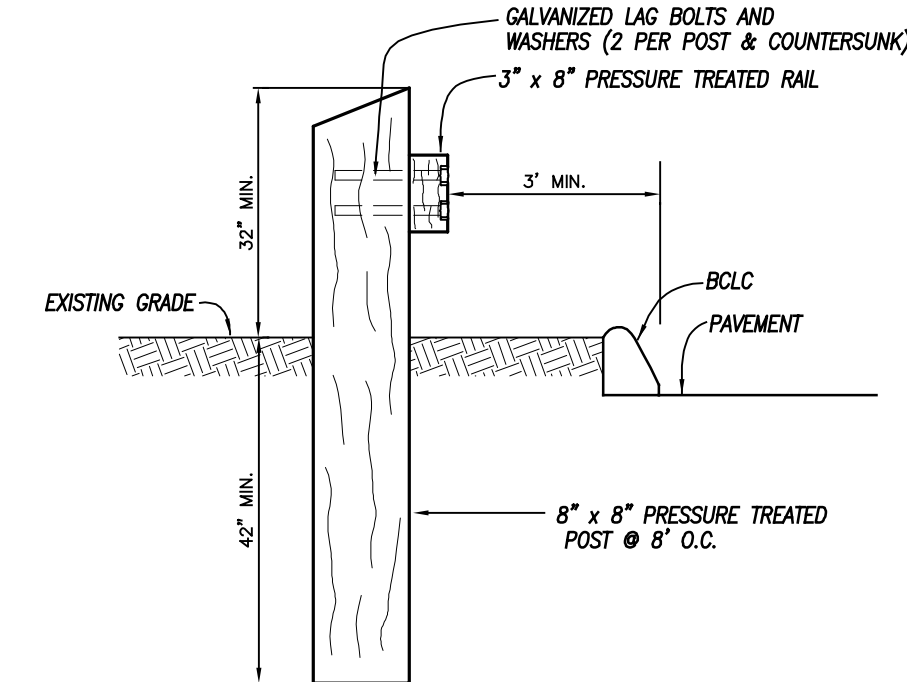
SEWER CONNECTION
AT MANHOLE
NOT TO SCALE



NO OUTLET SIGN DETAIL
NOT TO SCALE
CTDOT W14-2 (41-4605)
SETON #44851

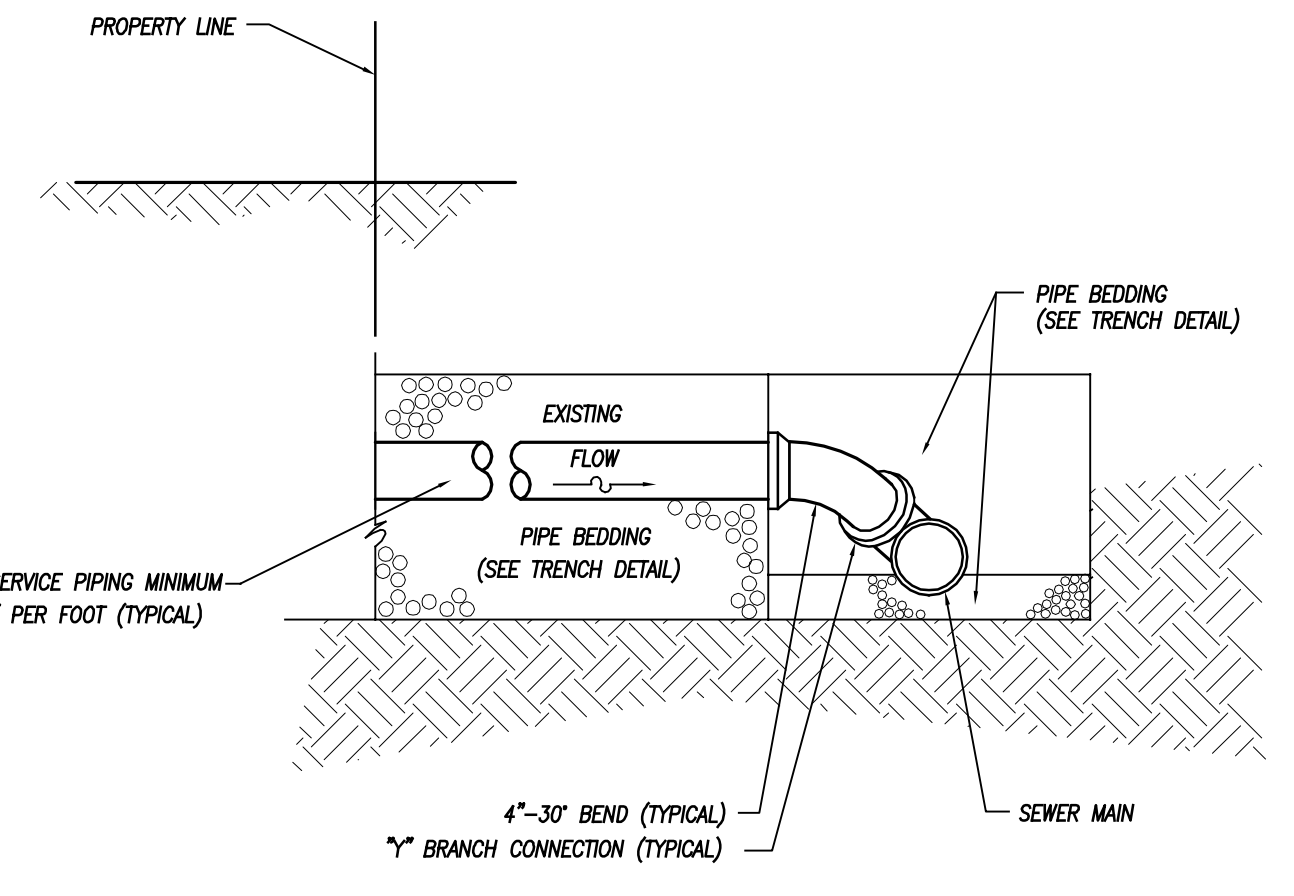


CONCRETE SIDEWALK DETAIL
NOT TO SCALE

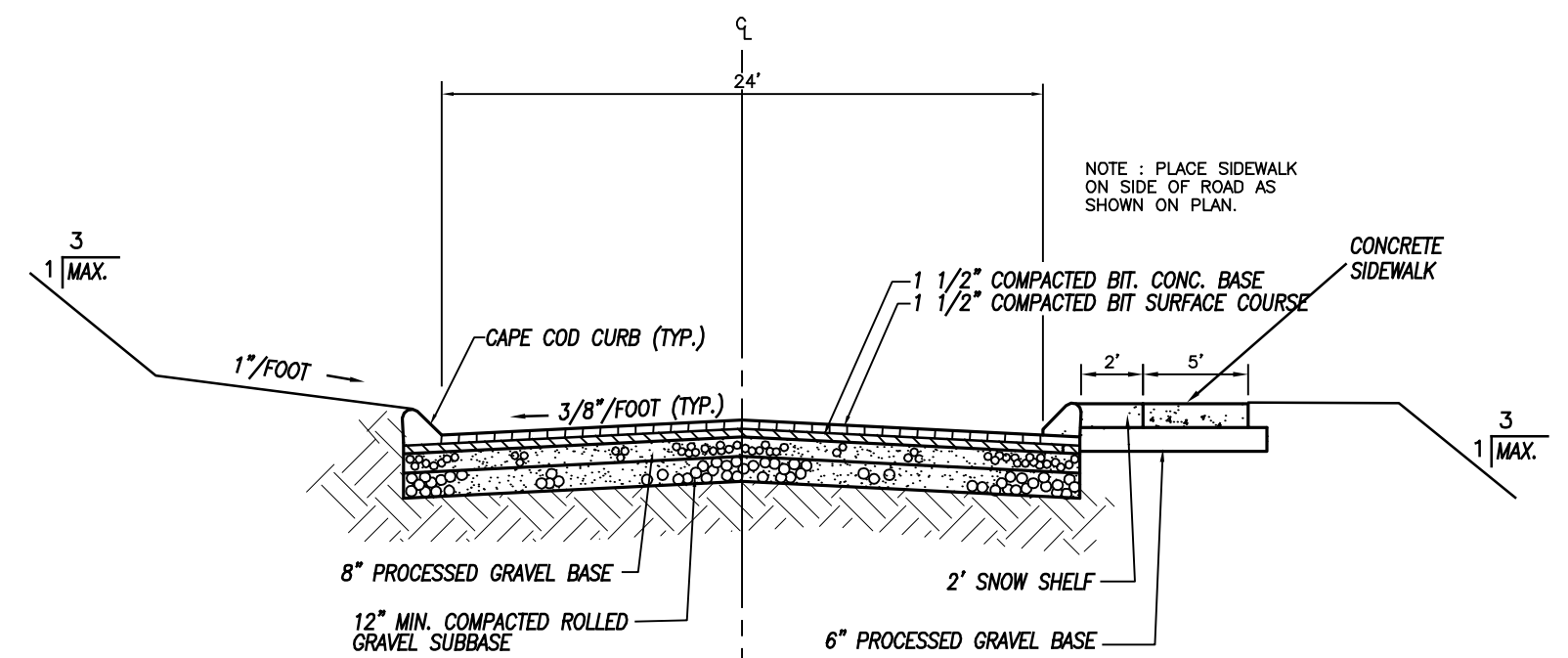


WOOD GUIDE RAIL
NOT TO SCALE

1. WOOD POST COMPONENTS SHALL BE SPRUCE OR HEMLOCK, GRADE #2 PRIME OR BETTER.
2. POST SHALL BE CERTIFIED 0.6 CCF PRESERVATIVE RETENTION RATE, ANPPA CATEGORY UC4C.
3. PRESERVATIVE SHALL BE WATER BASED AND CONSIST OF COPPER AZOLE TYPE B OR C.



SEWER CONNECTION DETAIL
NOT TO SCALE

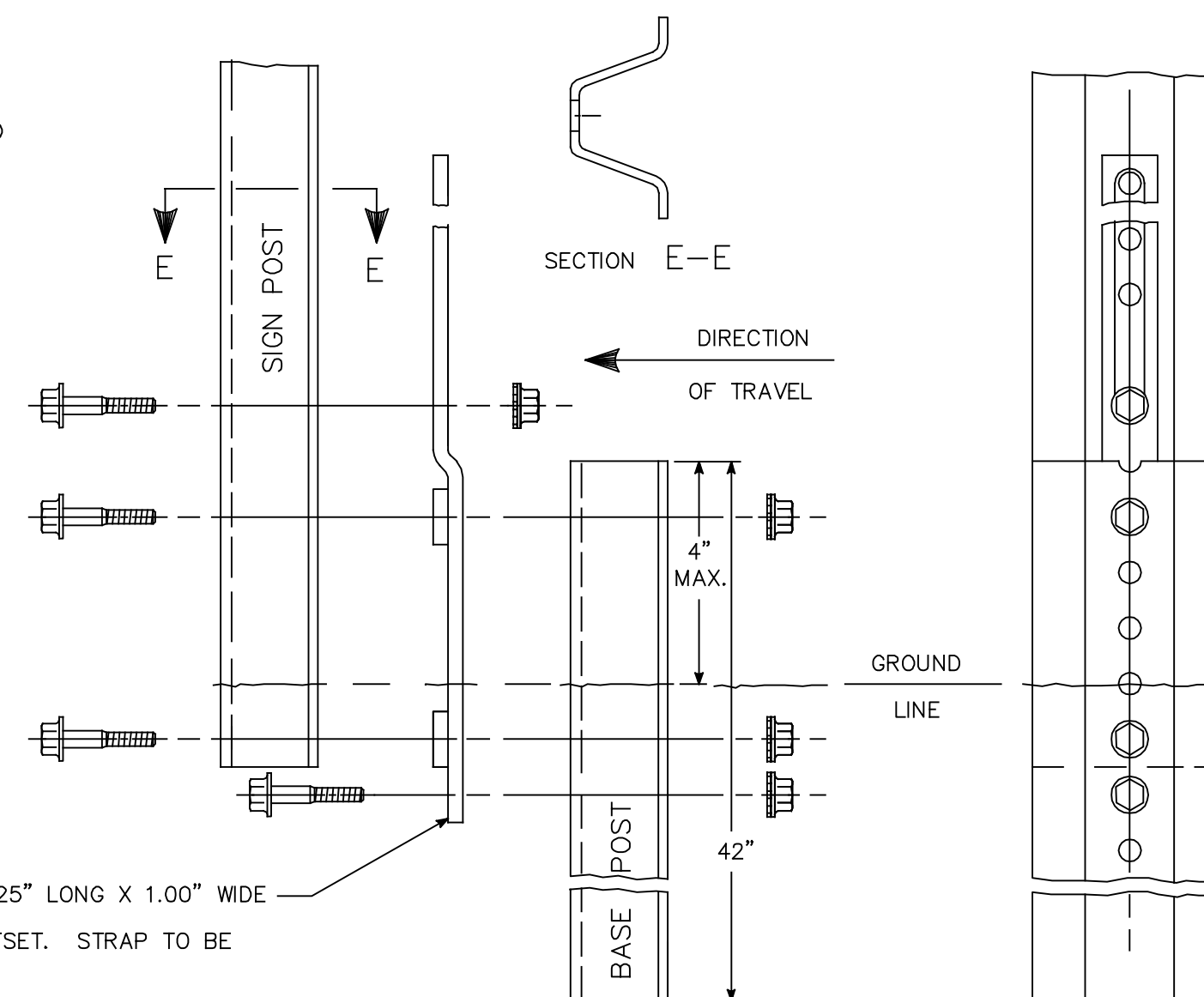


ROADWAY CROSS SECTION
NOT TO SCALE

BOLTS - HEX HEAD, INTEGRAL FLANGE CONFORMING TO ASTM A354. -18 UNC X 1.75", GRADE BC FOR 3.00 LBS./FT. POSTS -18 UNC X 2.0", GRADE BD FOR 4.00 LB./FT. POSTS.

NUTS -18 UNC HEX HEAD, INTEGRAL FLANGE CONFORMING TO ASTM A563, GRADE DH.

LOCKWASHERS - HEAVY DUTY EXTERNAL TYPE.



BREAKAWAY TYPE I INSTALLATION - FOR 3 & 4 LB. POSTS

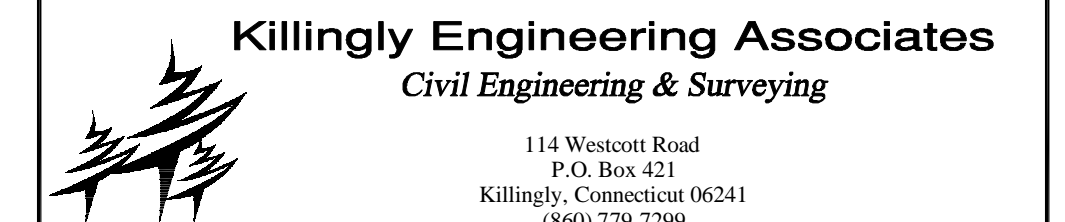
DATE	REVISIONS
02/10/2021	EASEMENT ADDED / ZONE CORRECTION / CT WATER COMMENTS
01/27/2021	PER BWP/CA REVIEW
01/04/2021	PER TOWN & ENGINEERING REVIEW
12/07/2020	ADDED TEST PIT DATA
11/13/2020	PER TOWN & ENGINEERING REVIEW
DATE	DESCRIPTION

DETAIL SHEET 3

PREPARED FOR

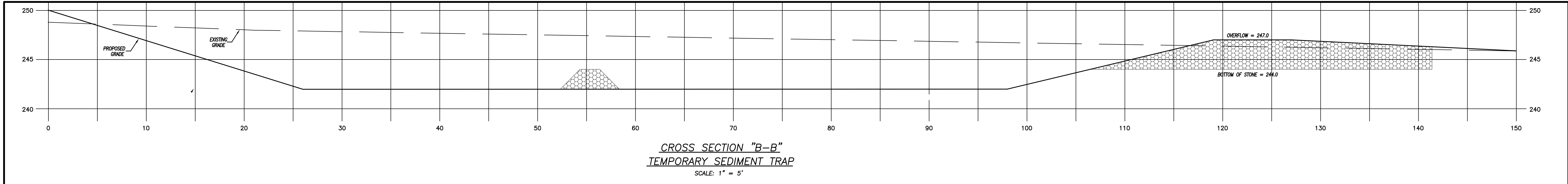
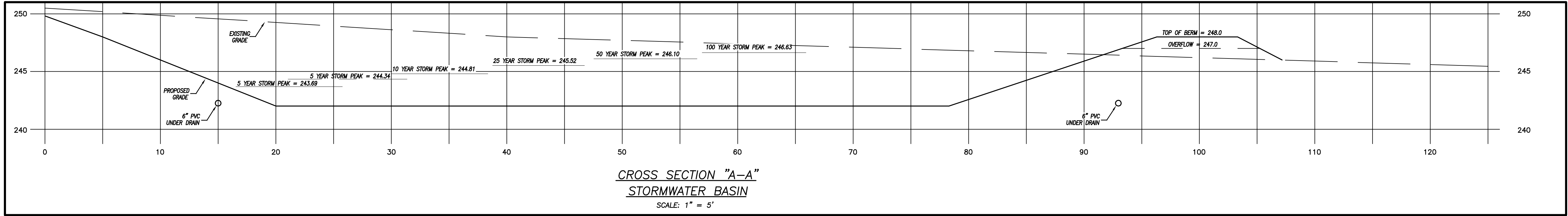
SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

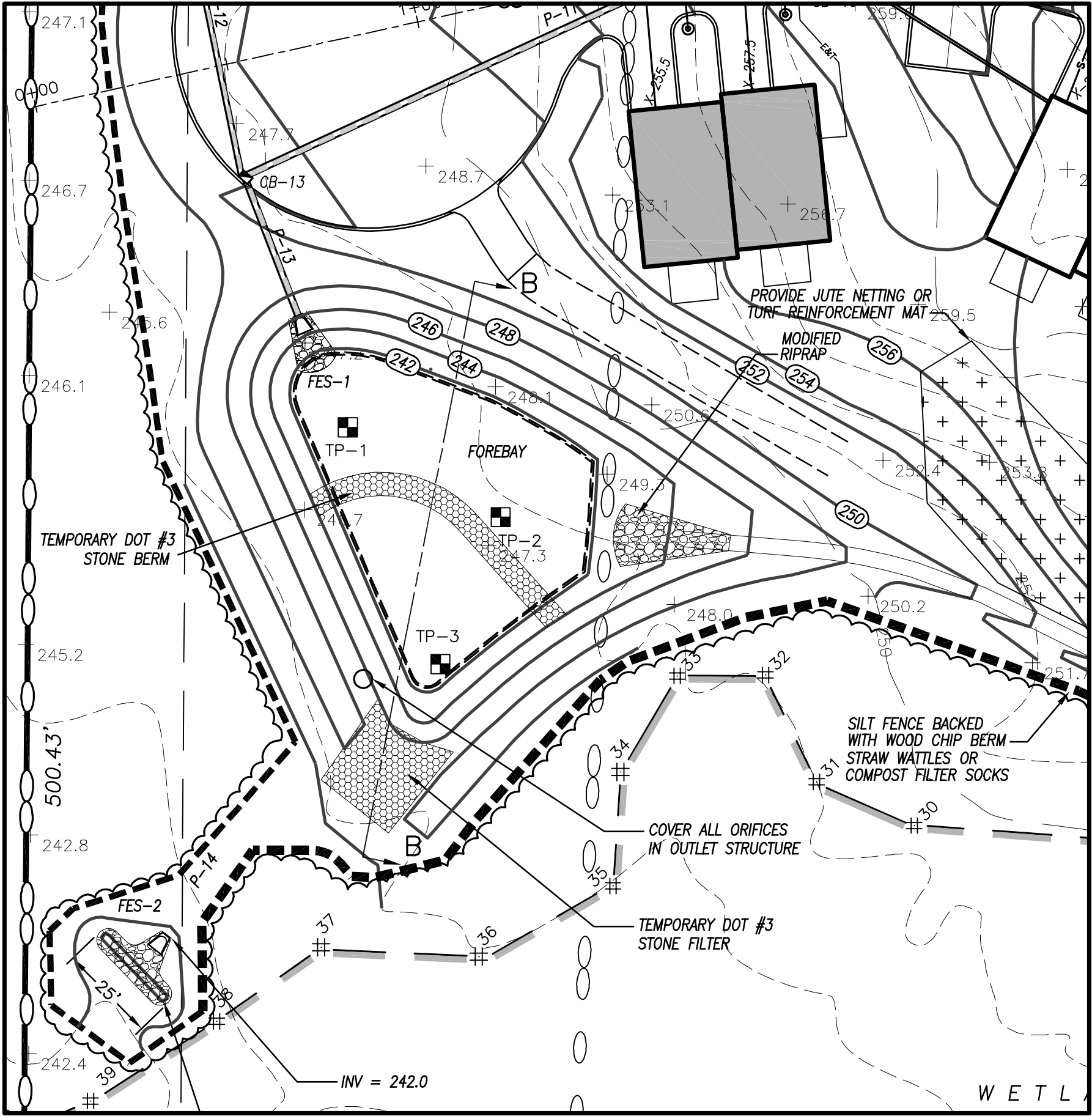
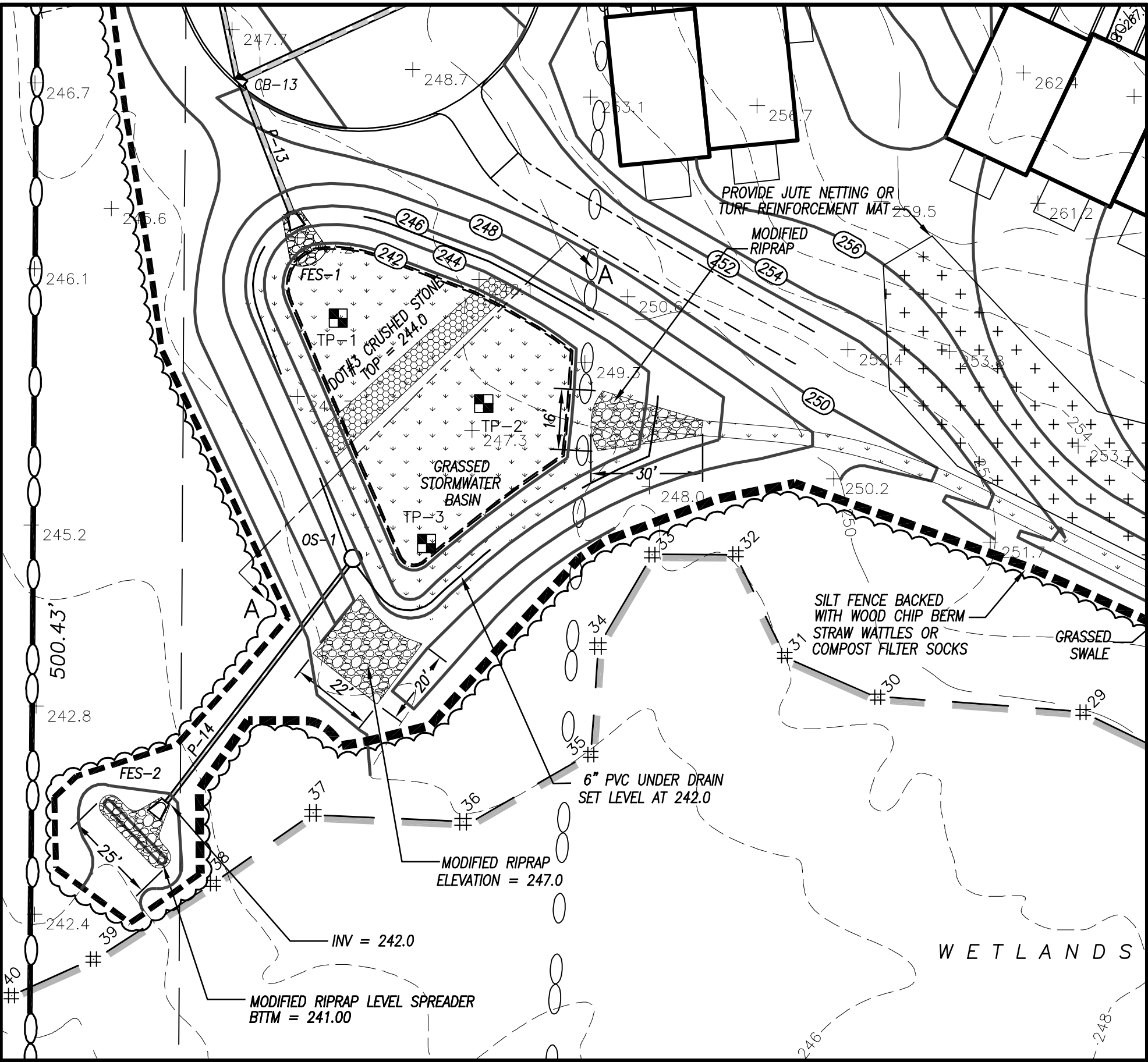


DATE: 4/23/2020	DRAWN: DNE
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 10 OF 11	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

NORMAND E. THIBEAULT, JR., P.E.
LIC #PEN 0022834



NOTE: THE CONDOMINIUM ASSOCIATION SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE ENTIRE STORMWATER SYSTEM



STORMWATER BASIN CONSTRUCTION NOTES:

- Detention basin embankments shall be constructed of silty sand and/or clayey sand materials. On-site borrow material may be used if suitable deposits are found. Embankment fill shall contain at least 15% by weight of material passing the #200 sieve and not more than 50% passing the #200 sieve.
- Embankment fill shall have no stones larger than 6" in their greatest dimension. No stones larger than 3" in their greatest dimension shall be allowed within 2 feet of structures or pipes.
- All fill material shall be free of topsoil, roots, stumps, organics, frozen material and other deleterious matter.
- All embankment material shall be compacted to 95% minimum relative compaction as determined by ASTM D1557 - Modified Proctor. The maximum loose lift thickness of embankment fill shall be 12".
- Sufficient dewatering equipment shall be provided to dewater excavations for proposed embankments, cutoff trenches and other construction.
- All topsoil, organics, roots and other deleterious matter shall be removed from the existing ground surface prior to construction of the proposed embankments.
- All embankments and disturbed areas of the detention basin shall be permanently stabilized with 4" of loam, seed and mulch. Suitable hydroseeding equipment may be used for application of seed, mulch and/or fertilizer. The following seed mix shall be used in these areas:

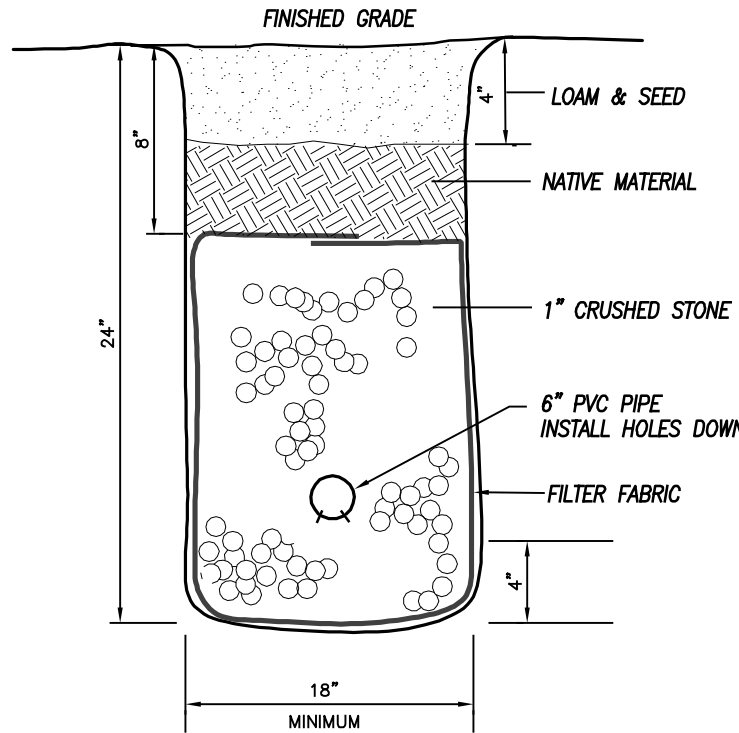
Variety	Lbs/Acre
Creeping Red Fescue	20
Redtop	2
Crown Vetch	15
TOTAL	37

DETENTION BASIN OPERATION AND MAINTENANCE NOTES:

- The contractor shall be responsible for all maintenance and inspections prior to acceptance of the roadway.
- During the first year of operation, the basin shall be inspected on a monthly basis or within 24 hours after a rainfall event of 0.5" or greater. Any erosion of embankments or outlet areas shall be repaired promptly. Any debris shall be removed from trash racks and disposed of. Sedimentation that would interfere with proper operation of the basin shall be removed and disposed of and the area restored and stabilized as required.
- After the basin has been in operation for one year, inspections shall be performed quarterly or within 24 hours after a storm event of 2.0" or greater. Quarterly inspections shall include the following items:
 - Noxious weeds shall be removed. Perform any mowing operations required.
 - Inspect embankments for any woody growth. All trees, vines and other woody plants shall be removed and voids left from their removal shall be repaired.
 - Inspect embankments for animal burrows. All burrows and voids shall be repaired immediately.
 - Accumulated sediment shall be removed from the basin forebay and other areas to restore original design grades. Disturbed areas shall be restabilized as required after removal of sediment.
 - Inlets and outlets shall be inspected for scour damage and erosion and repaired as required.
 - Outlet structures shall be cleaned of accumulated sediment.
 - Any evidence of piping or seepage at the toe of embankments or around inlet/outlet structures shall be investigated by a qualified professional engineer and reported to the Town. Required repairs to maintain the proper function or repair potential structural deficiencies in the basin shall be implemented within one month of the discovery of the problem or at the discretion of the responsible professional engineer performing the investigation or designing such repairs. The engineer shall certify that all repairs are performed to his/her satisfaction and shall provide such certification to the Town.

STORMWATER SYSTEM OPERATION AND MAINTENANCE NOTES:

- Provide annual street sweeping, preferably after final snow melt to alleviate sediment buildup in catch basin sumps and to insure efficient TSS removal from stormwater.
- Remove sediment from catch basin sumps when sediment reaches half the depth of the sump (2').
- Inspect catch basins for trash and debris bi-annually. Remove accumulated sediment and debris from pipe inlets and outlets to prevent clogging.
- Remove accumulated trash and leaves from catch basin grates to insure adequate grate inflow capacities.



CURTAIN DRAIN DETAIL

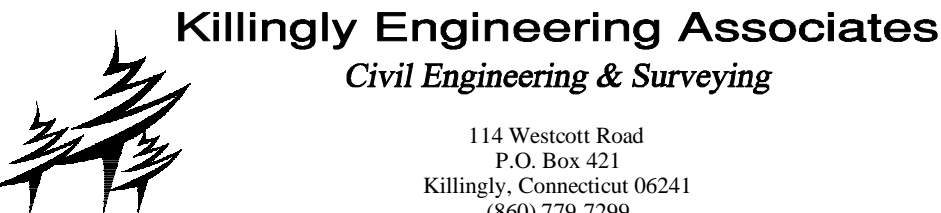
NOT TO SCALE

DATE	REVISIONS
02/10/2021	EASEMENT ADDED / ZONE CORRECTION / CT WATER COMMENTS
01/27/2021	PER BWP/CA REVIEW
01/04/2021	PER TOWN & ENGINEERING REVIEW
12/07/2020	ADDED TEST PIT DATA
11/13/2020	PER TOWN & ENGINEERING REVIEW

DETAIL SHEET 4
PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT



DATE: 4/23/2020	DRAWN: DNE
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 11 OF 11	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

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