PROPOSED MULTI-FAMILY DEVELOPMENT

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

PREPARED FOR:

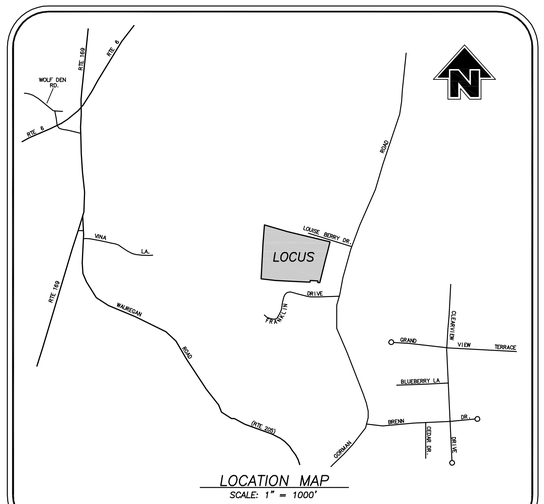
SHANE POLLOCK

LEGEND

- IRON PIN TO BE SET
- IRON PIN FOUND
- DH — DRILL HOLE FOUND
- CB — CATCH BASIN
- UTILITY POLE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- INLAND WETLANDS FLAG
- BUILDING SETBACK LINE
- EXISTING SANITARY SEWER LINE
- EXISTING WATER LINE
- STONE WALL
- STONE WALL REMAINS
- SILT FENCE

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.



LOCATION MAP
SCALE: 1" = 1000'

INDEX TO DRAWINGS

TABLE OF ZONING REQUIREMENTS

ZONE = RA*

	REQUIRED	PROVIDED
Lot Area	2 Acres	13.497 Acres
Front Yard Setback	50'	53.4'
Side Yard Setback	40'	48'
Rear Yard Setback	50'	257'
Building Height	35' Max.	<35'
Lot Frontage	150'	948'
Building Separation	40' min	40'–115'

DENSITY: 1 unit per every 5,000 s.f.
13.497 ac = 587,929 s/f – 117 units max
51 units proposed

PARKING: 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

PREPARED BY:

REVISIONS	
DATE	DESCRIPTION
8/24/2020	PER TOWN REVIEW
11/13/2020	TOWN & ENGINEERING REVIEW

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

April 23, 2020

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

APPROVED BY THE BROOKLYN
PLANNING AND ZONING COMMISSION

FINAL APPROVAL DATE _____

CHAIRMAN _____ DATE: _____

EXPIRATION DATE: _____

Per Sec. 8.26c of the Connecticut General Statutes, as amended, approval automatically expires _____ if all public improvements required by this plan are not completed by that date.

ENDORSED BY THE BROOKLYN INLAND
WETLANDS COMMISSION

_____
CHAIRMAN DATE

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

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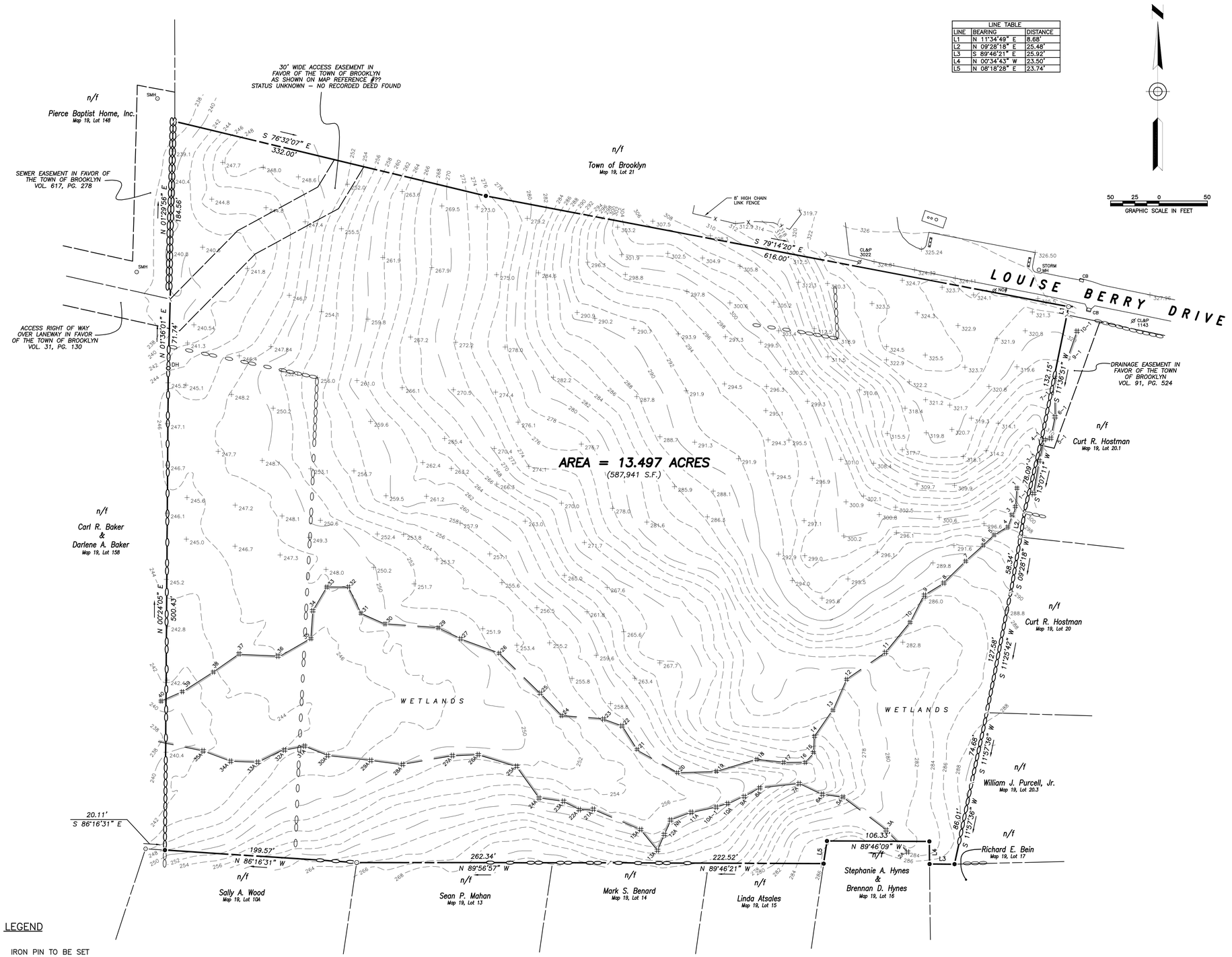

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 11°34'49" E	8.68'
L2	N 09°28'18" E	25.48'
L3	S 89°46'21" E	25.92'
L4	N 00°34'43" W	23.50'
L5	N 08°18'28" E	23.74'

NOTES:

1. 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.
2. Zone = RA.
3. Owner of record: BLB, LLC
   P.O. Box 327
   Brooklyn, CT 06234
   See Volume 553, Page 193
4. Parcel is shown as Lot 19, Block 33 on Assessors Map 19.
5. North orientation is based on North American Datum of 1982 (NAD 82) and is taken from GPS observations.
6. Elevations shown are based on an North American Vertical Datum of 1988 (NAVD 88). Contours taken from actual field survey. Contour interval = 2'.
7. Parcel lies within Flood Hazard Zone 'C' (areas of minimal flooding) as shown on FIRM Map # 090164 Panel 0005A Effective Date: Jan. 3, 1985.
8. Wetlands shown were delineated in the field by Joseph Theroux, Certified Soil Scientist, in 2019.

MAP REFERENCES:

1. "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.
2. "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.
3. "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.
4. "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.
5. "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.
6. "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.
7. "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.
8. "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.
9. "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.

11/13/2020	PER TOWN & ENGINEERING REVIEW
08/24/2020	PER TOWN REVIEW
DATE	DESCRIPTION
REVISIONS	

LEGEND

- IRON PIN TO BE SET
- IRON PIN FOUND
- DRILL HOLE FOUND
- UTILITY POLE
- CATCH BASIN
- SANITARY MANHOLE
- EXISTING CONTOURS
- INLAND WETLANDS FLAG
- STONE WALL
- STONE WALL REMAINS

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.

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 9	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

K:\20014\Drawings\02–20014 SURVEY.dwg Nov 23, 2020 – 3:24 PM

n/f
Pierce Baptist Home, Inc.
Map 19, Lot 148

n/f
Carl R. Baker
&
Darlene A. Baker
Map 19, Lot 158

n/f
Town of Brooklyn
Map 19, Lot 21

n/f
Curt R. Hostman
Map 19, Lot 20.1

n/f
Curt R. Hostman
Map 19, Lot 20

n/f
William J. Purcell, Jr.
Map 19, Lot 20.3

n/f
Richard E. Bein
Map 19, Lot 17

n/f
Stephanie A. Hynes
&
Brennan D. Hynes
Map 19, Lot 16

n/f
Linda Atsales
Map 19, Lot 15

n/f
Mark S. Benard
Map 19, Lot 14

n/f
Sean P. Mahan
Map 19, Lot 13

n/f
Sally A. Wood
Map 19, Lot 10A

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

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

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

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

EXISTING SANITARY SEWER LINE

EXISTING WATER LINE

8' HIGH CHAIN LINK FENCE

332.00'

184.56'

616.00'

139.15'

78.09'

58.34'

127.58'

74.68'

86.01'

500.43'

199.57'

262.34'

222.52'

106.33'

717 S.F. RECREATION AREA

128,000 S.F. RECREATION AREA

LOUISE BERRY DRIVE

PROPOSED ROAD

BITUMINOUS CONCRETE CURBING

PAVED APRON

TBR

R25'

R10'

R5' (TYP)

24'

40'

67'

65'

82'

BCLC

5' CONCRETE SIDEWALK

CONCRETE SIDEWALK

BITUMINOUS CONCRETE CURBING

WOOD GUIDE RAIL

BLOCK RETAINING WALL (FENCE FOR OR DRAIN)

ACCESSIBLE UNITS

BLOCK RETAINING WALL

GRAVEL MAINTENANCE ACCESS

SEDIMENT FOREBAY

STORMWATER BASIN

TP-1

TP-2

TP-3

75' UPLAND REVIEW AREA

GRASSED SWALE

MODIFIED RIPRAP SWALE

175' FROM WATERCOURSE

DRAIN RIVER

WETLANDS

WETLANDS

PROPOSED CLEARING LIMITS

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

CL&P 3022

CL&P 1143

STORM MH

EXISTING WATER LINE

SMH

DH

NOTE: SEE SHEET 5 FOR EROSION AND SEDIMENTATION CONTROLS

GRAPHIC SCALE IN FEET
40 40 0 40

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

11/13/2020	PER TOWN & ENGINEERING REVIEW
08/24/2020	PER TOWN REVIEW
DATE	DESCRIPTION
REVISIONS	

SITE PLAN

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
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Killingly, Connecticut 06241
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NORMAND E. THIBEAULT, JR., P.E. DATE
LIC #PEN 0022834

DATE: 4/23/2020	DRAWN: DNE
SCALE: 1" = 40'	DESIGN: NET
SHEET: 3 OF 9	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

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n/f
Pierce Baptist Home, Inc.
Map 19, Lot 148

n/f
Town of Brooklyn
Map 19, Lot 21

n/f
Curt R. Hostman
Map 19, Lot 20.1

n/f
Curt R. Hostman
Map 19, Lot 20

n/f
Carl R. Baker
&
Darlene A. Baker
Map 19, Lot 158

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

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

EXISTING SANITARY SEWER LINE

EXISTING WATER LINE

8' HIGH CHAIN LINK FENCE

332.00'

184.56'

616.00'

139.15'

78.04'

58.34'

127.58'

500.43'

77.74'

LOUISE BERRY DRIVE

PROPOSED LIGHT

CL&P 3022

CL&P 1143

STORM MH

SMH

DH

ACCESS RIGHT OF WAY OVER LANEWAY IN FAVOR

PROVIDE NEW ENGLAND EROSION CONTROL RESTORATION MIX IN THIS AREA WHERE TEMPORARY SEDIMENTATION BASIN WILL BE UTILIZED DURING CONSTRUCTION

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

LEATHERLEAF VIBURNUM

FOREST

TP-1

TP-2

TP-3

GRASSED STORMWATER BASIN

25' UPLAND REVIEW AREA

PROVIDE NEW ENGLAND EROSION CONTROL RESTORATION MIX FOR BASIN BOTTOM (SEE SHEET 6)

WETLANDS

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

GRAPHIC SCALE IN FEET
40 40 0 40

LEGEND

- IRON PIN TO BE SET
- IRON PIN FOUND
- DRILL HOLE FOUND
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- CATCH BASIN
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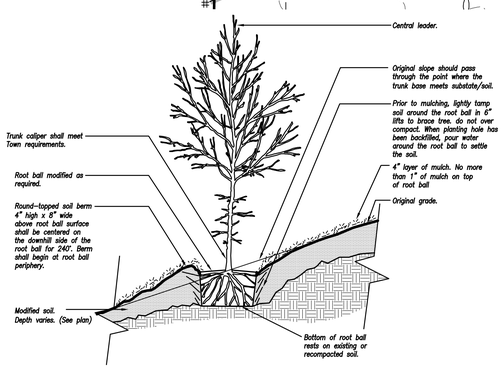
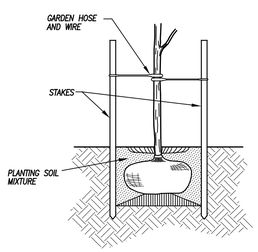
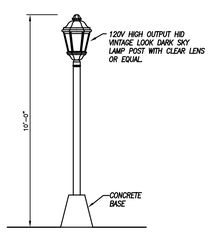


TREE ON SLOPE DETAIL
NOT TO SCALE



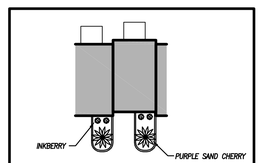
REFERENCE: GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL

PLANTING CROSS SECTION FOR TREES UNDER 20'
NOT TO SCALE



LIGHT POLE DETAIL
NOT TO SCALE

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		



LOAM AND SEED ALL DISTURBED AREAS

TYPICAL UNIT LANDSCAPING DETAIL

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

11/13/2020	PER TOWN & ENGINEERING REVIEW
08/24/2020	PER TOWN REVIEW
DATE	DESCRIPTION
REVISIONS	

LAYOUT & LANDSCAPING PLAN

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
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DATE: 4/23/2020	DRAWN: DNE
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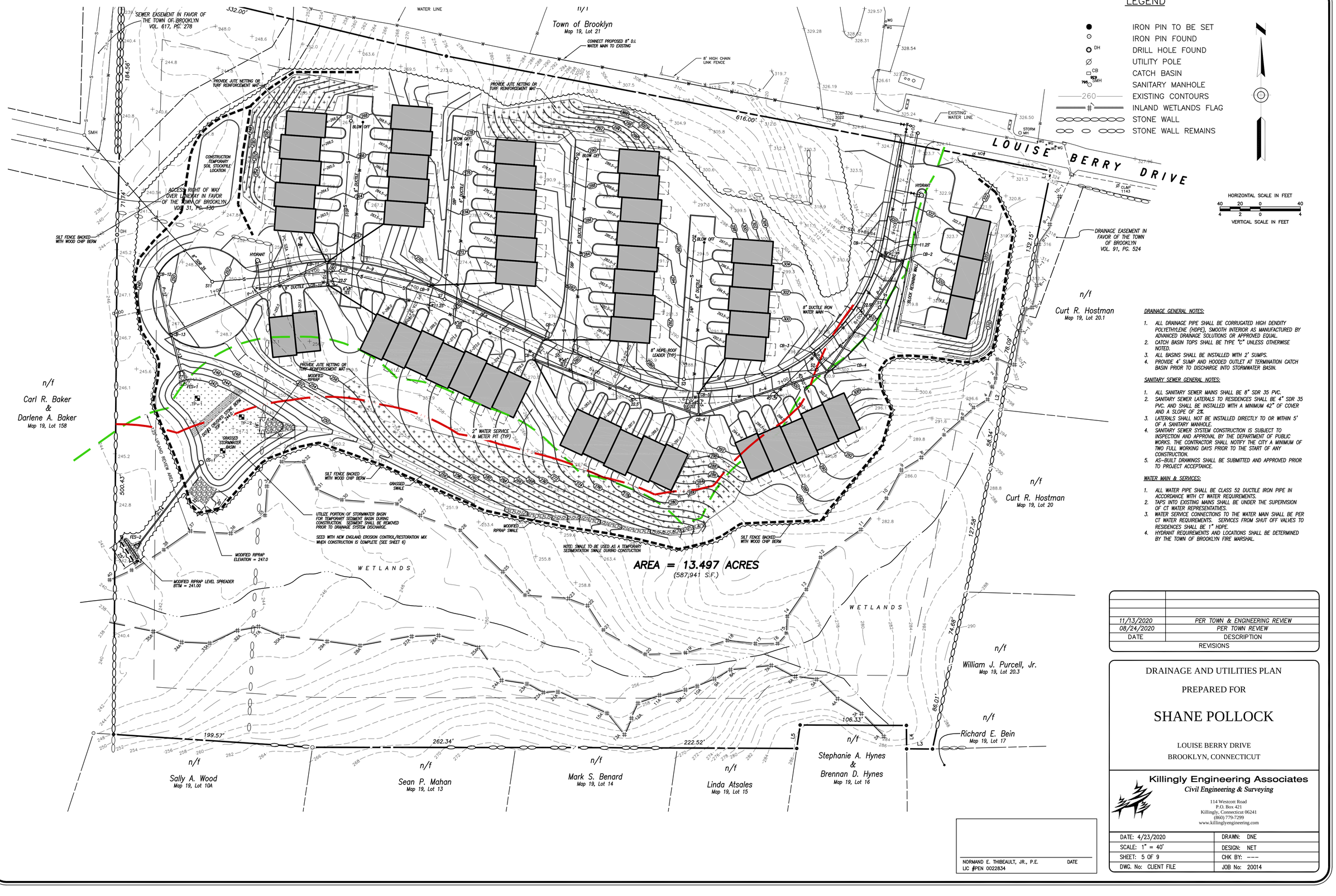

DRAINAGE GENERAL NOTES:

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 2' 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 DEPARTMENT OF PUBLIC WORKS. THE CONTRACTOR SHALL NOTIFY THE CITY A MINIMUM OF TWO FULL WORKING DAYS 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.

11/13/2020	PER TOWN & ENGINEERING REVIEW
08/24/2020	PER TOWN REVIEW
DATE	DESCRIPTION
REVISIONS	

DRAINAGE AND UTILITIES PLAN

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

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DATE: 4/23/2020	DRAWN: DNE
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SHEET: 5 OF 9	CHK BY: ---
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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"	HDPE
P14	100'	0.50%	15"	HDPE

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

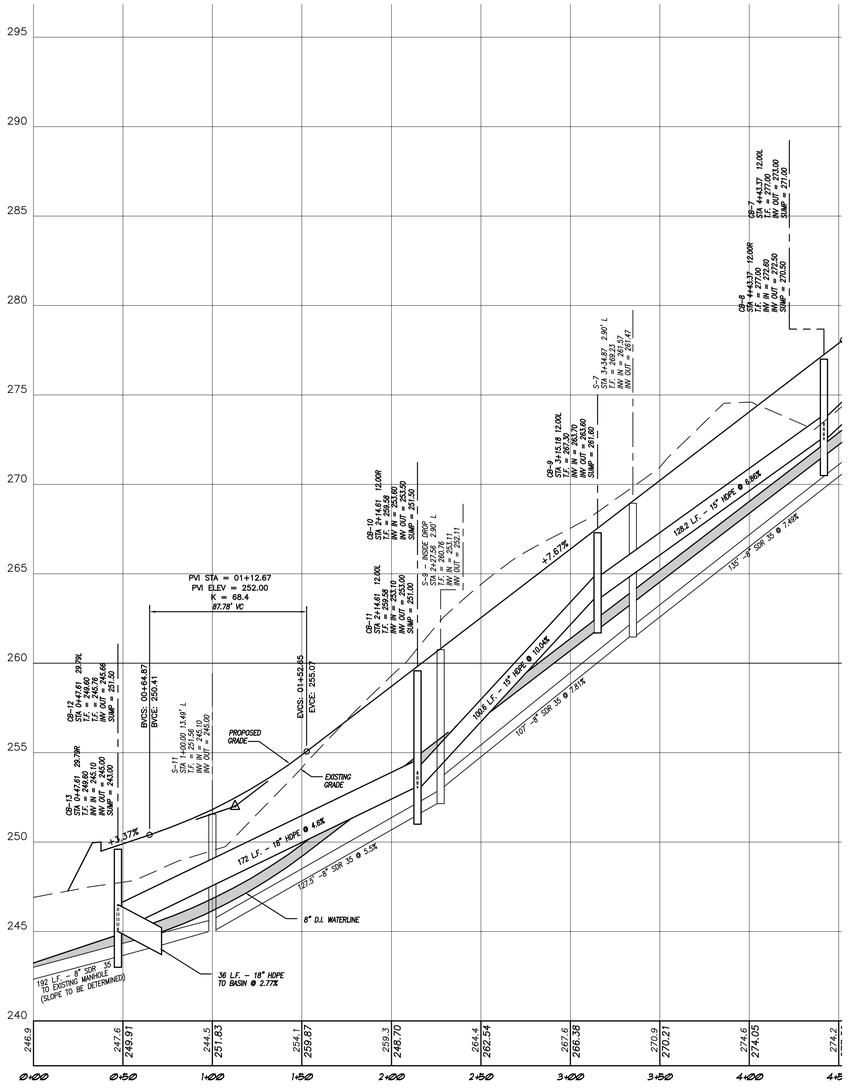
LABEL	LENGTH	SLOPE
S4P	137'	5.68%
S6P	190'	6.42%
S8P	154'	7.06%
S10P	148'	5.07%

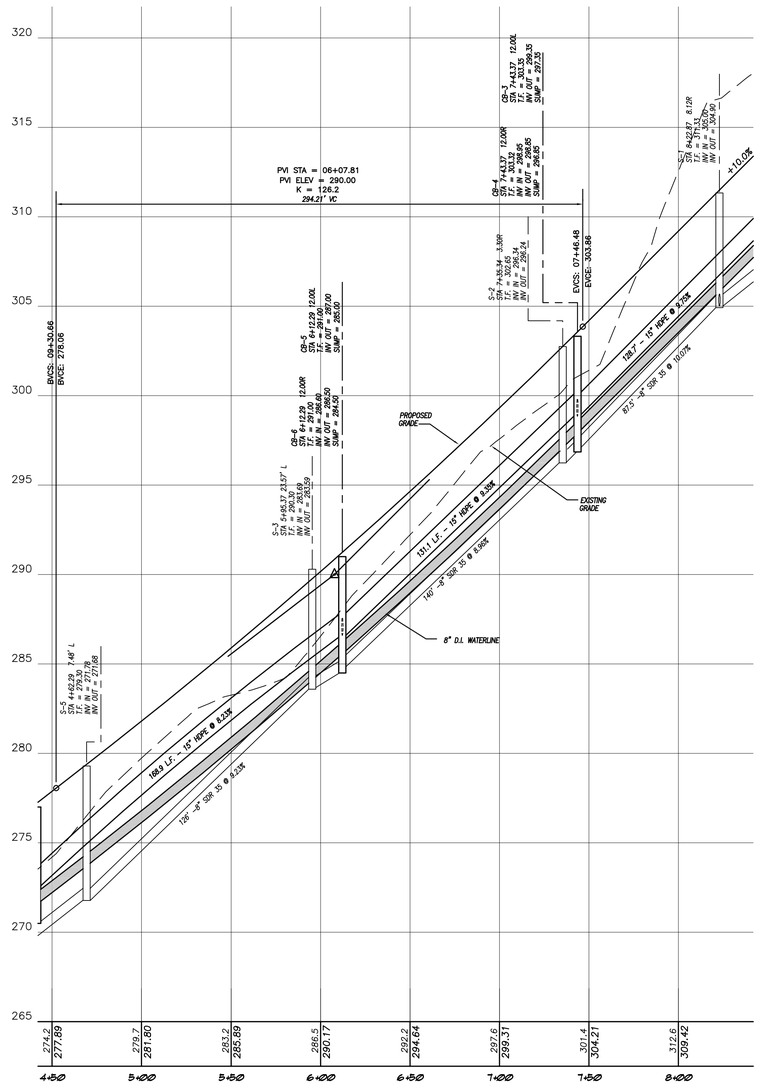
FLARED END SECTIONS

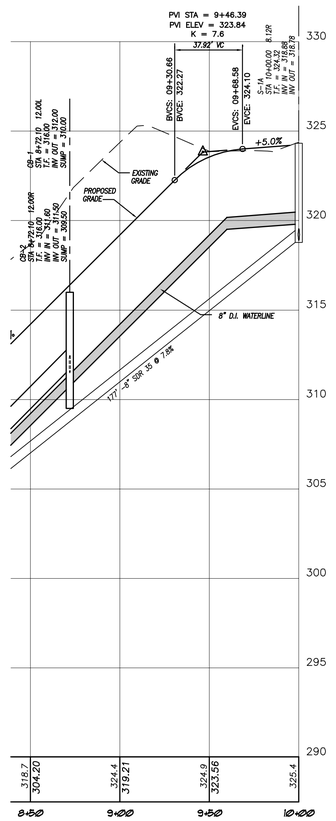
FES-1	INV = 244.00	18" HDPE
FES-2	INV = 242.00	15" HDPE

OUTLET STRUCTURE (OS-1)

SEE DETAIL SHEET







WATER MAIN INSTALLATION NOTES:

1. PROJECT MUST BE BUILT TO CONNECTICUT WATER COMPANY SPECIFICATIONS.
2. CLASS 52 DUCTILE IRON PIPE REQUIRED.
3. COPPER AND/OR DUCTILE IRON SERVICE LATERAL MATERIAL REQUIRED.
4. GATE VALVES OPEN LEFT.
5. 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. ***FIRE 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.
6. ALL WATER MAIN PIPING AND APPURTENANCES MUST BE POLYETHYLENE ENCASED IN ACCORDANCE WITH AWWA ANSI-AWWA C105/A21.5-99(10).
7. MEGALUG RESTRAINTS REQUIRED ON ALL FITTINGS, BENDS, OFFSETS, TEES, GATE VALVES AND HYDRANTS.
8. FIELD LOK (U.S. PIPE) OR SURE STOP 350 (MCWANE) RESTRAINING GASKETS ARE REQUIRED 2 PIPE JOINTS BEFORE AND AFTER EACH FITTING AND ON THE LAST 3 PIPE LENGTHS ON DEAD ENDS.
9. THRUST BLOCKING IS REQUIRED ON ALL BENDS, TEES, OFFSETS, HYDRANTS AND DEAD ENDS.
10. ALL WATER MAINS SHALL BE INSTALLED TO A DEPTH OF 4-FEET OF COVER BASED ON THE ROADWAY GRADE, EXCEPT AS NOTED.
11. 3-FT MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER AND ANY OTHER UTILITY/UNDERGROUND STRUCTURE. 10-FT MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER AND SEWER/SEPTIC. ("SEWER")*** 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.
12. WATER MAINS TO BE DEFLECTED UNDER ALL STORM DRAINS UNLESS OTHERWISE NOTED OR AS DIRECTED BY A CT WATER COMPANY PROJECT MANAGER. A VERTICAL CLEARANCE OF 18" TO BE MAINTAINED BETWEEN STORM DRAIN AND WATER MAINS. THE CONTRACTOR IS RESPONSIBLE FOR PROPER COMPACTION AROUND AND UNDER EXISTING DRAINAGE FACILITIES WHICH MAY INCLUDE REMOVAL AND RESETTING TO PROPER GRADE.
13. ANGLE OF BENDS TO BE FIELD DETERMINED.
14. MAXIMUM ALLOWABLE DEFLECTION PER FULL LENGTH PUSH-ON JOINT FOR 4" TO 12" IS FIVE (5) DEGREES AND THREE (3) DEGREES FOR 14" AND GREATER DUCTILE IRON PIPE.
15. EXISTING SERVICES TO SITE THAT WILL NO LONGER BE USED MUST BE TERMINATED AT THE WATER MAIN BY EXPOSING AND SHUTTING OFF THE CORPORATION VALVE. THE LINE MUST BE SEVERED IMMEDIATELY AFTER THE CORPORATION VALVE. SAID SERVICES MUST BE SHOWN ON PLANS.
16. WHERE A WATER SUPPLY WELL FOR ANY PURPOSE EXISTS OR IS APPROVED WITHIN THE LIMITS OF THIS PROJECT, ALL SERVICE LINES CONNECTED TO THE PUBLIC WATER SUPPLY REQUIRE A REDUCED PRESSSURE PRINCIPLE BACKFLOW PREVENTER (RPD), AND MUST MEET THE REQUIREMENTS OF SEC.19A-209A OF THE CONNECTICUT GENERAL STATUTES ("CGS"), AND SEC. 19-13-B38A OF THE PUBLIC HEALTH CODE.
17. 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.
18. ***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.

HORIZONTAL SCALE IN FEET
40 20 0 40
4 2 0 4
VERTICAL SCALE IN FEET

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

11/13/2020	PER TOWN & ENGINEERING REVIEW
08/24/2020	PER TOWN REVIEW
DATE	DESCRIPTION
REVISIONS	

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

DRAINAGE 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
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www.killinglyengineering.com

DATE: 4/23/2020	DRAWN: DNE
SCALE: 1" = 40'	DESIGN: NET
SHEET: 6 OF 9	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

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

DEVELOPMENT CONTROL PLAN:

1. 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.
2. 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.
3. 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.
4. 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.
5. The proposed planting schedule is to be adhered to during the planting of disturbed areas throughout the proposed construction site.
6. 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:

1. Dig a 6" deep trench on the uphill side of the barrier location.
2. Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground.
3. Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
4. Inspect and repair barrier after heavy rainfall.
5. 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.
6. 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.
7. 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:

1. Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other.
2. 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.
3. 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.
4. 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.
5. 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, discing, 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, cultipacker 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 reoccurrence 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:

1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
2. Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10-10-10 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".
4. Inspect seedbed before seeding. If traffic has compacted the soil, retill compacted areas.
5. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 - October 1.
6. 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:

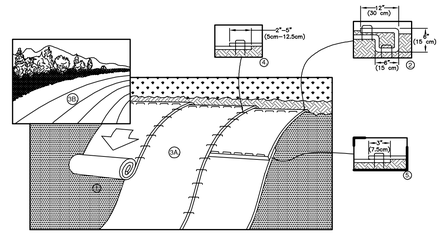
1. Flag the limits of disturbance and schedule preconstruction meeting with Town of Brooklyn wetlands Agent.
2. Contact utility companies for scheduling installation of utilities and connections
3. Install the anti-tracking construction entrance.
4. Cut trees within the defined clearing limits and remove the cut wood.
5. Install perimeter erosion and sedimentation controls in accordance with the site development plan.
6. Chip brush and slash, stockpile chips for use on site or remove off site.
7. Box out driveway and stockpile topsoil in locations shown on the plans. Install erosion controls around stockpiles and apply temporary seeding.
8. Contact utility companies to coordinate water main and sanitary sewer connections. Install water and sanitary sewer lines beginning from the lowest elevation.
9. 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.
10. Install and compact processed gravel for roadway base.
11. 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.
12. 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.
13. 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.
14. 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.
15. Install utilities to edge of roadway.
16. Prepare sub-base for roadway for final grading.
17. Excavate for building footings, stockpile soil and pour footings & slab. Begin phased building construction.
18. Place topsoil where required and install any proposed landscaping upon completion of each building.
19. Install first course of pavement to each building as they are completed and required landscaping.
20. 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.
21. Install final course of pavement upon the completion of the final structure.
22. Fine grade, rake, seed and mulch to within 2' of the pavement.
23. 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

1. 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 is 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.
2. All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
3. All Materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 817", and supplements thereto.
4. The Contractor shall obtain copies of all regulatory agency permits from the Owner prior to any site disturbance.
5. 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.
6. The Contractor shall not revise elevations or locations of items shown on the plans without written consent of the project Engineer or Surveyor.
7. 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.
8. 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
9. 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.



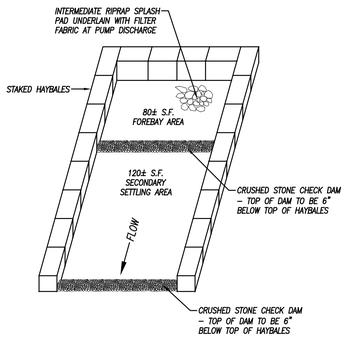
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) 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 IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM™ STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) 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 SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

NOTES:

1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
2. TURF REINFORCEMENT MAT SHALL BE NORTH AMERICAN GREEN P-300® OR APPROVED EQUIVALENT.

TURF REINFORCEMENT MAT INSTALLATION

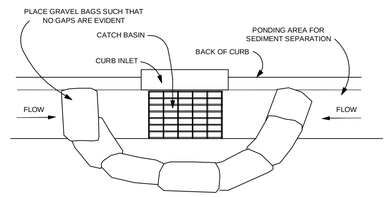
NOT TO SCALE



PUMPING OUTLET BASIN

NOT TO SCALE

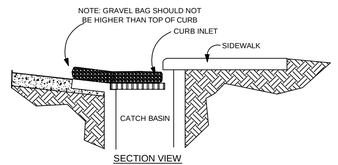
NOTES:
1.) TO BE USED IN THE EVENT THAT DEWATERING IS REQUIRED
2.) LOCATE BASINS OUTSIDE OF WETLANDS UPLAND REVIEW AREAS



PLAN VIEW

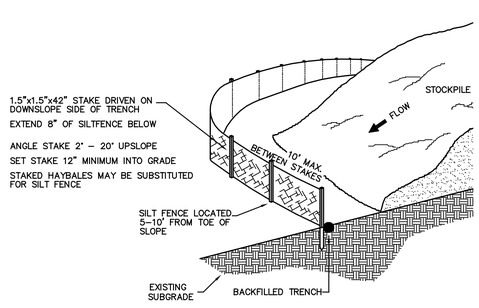
NOTES:

1. PLACE GRAVEL BAG BARRIER ON GENTLY SLOPING STREET, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNNOFF.
2. USE SAND BAGS OF WOVEN GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH ¾ 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.



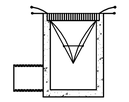
SECTION VIEW

STANDARD GRAVEL BAG CURB INLET PROTECTION

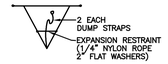


SILT FENCE @ TOE OF SLOPE APPLICATION

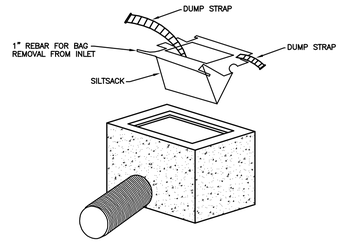
NOT TO SCALE



INSTALLATION DETAIL



BAG DETAIL

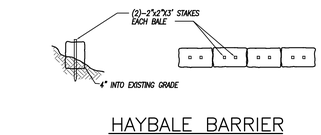


INLET SEDIMENT CONTROL DEVICE

NOT TO SCALE

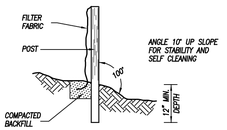
INSTALLATION & MAINTENANCE

1. Install as directed by manufacturer.
2. Inspect the catch basin sediment device at least once a week (preferably twice) and after rainfall events of 0.5" or greater.
3. Remove sediment when the siltsack is 1/2 full. Sediment shall be deposited in an area which is not regulated by the Inland Wetlands Commission.
4. Replace or repair within 24-hours of observed failure. Failure may include:
   - -Overtopping, or bypassed by runoff water.
   - -The geotextile has decomposed or has been damaged.



HAYBALE BARRIER

NOT TO SCALE



SILT FENCE

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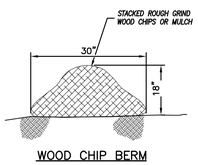
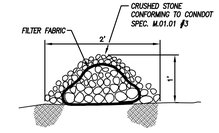


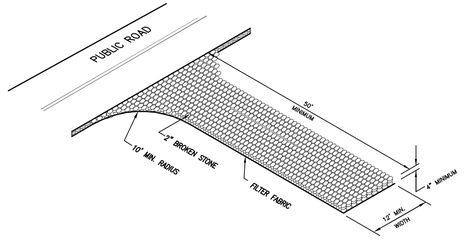
WOOD CHIP BERM

NOT TO SCALE



STONE CHECK DAM

NOT TO SCALE



CONSTRUCTION ENTRANCE

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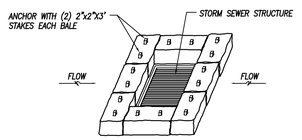

HAYBALE INSTALLATION AT CATCH BASIN

NOT TO SCALE

11/13/2020	PER TOWN & ENGINEERING REVIEW
08/24/2020	PER TOWN REVIEW
DATE	DESCRIPTION
REVISIONS	

DETAIL SHEET

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE

BROOKLYN, CONNECTICUT

Killingly Engineering Associates
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P.O. Box 421
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www.killinglyengineering.com

DATE: 4/23/2020	DRAWN: DNE
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 7 OF 9	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

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

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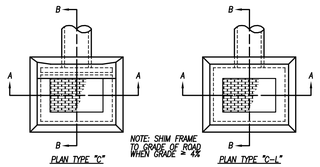
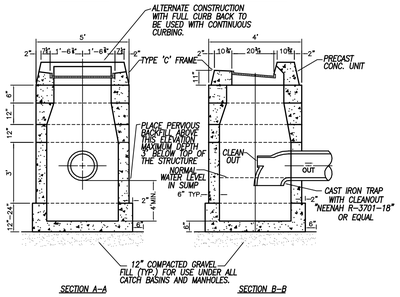
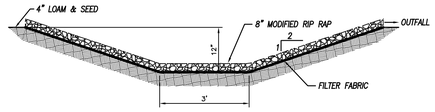




HOODED CATCH BASIN DETAIL

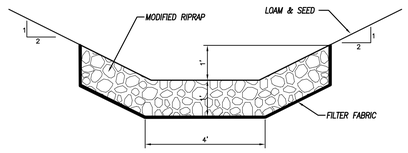
NOT TO SCALE

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



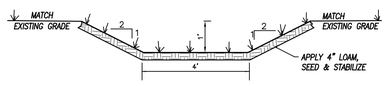
SECTION THROUGH LEVEL SPREADER

NOT TO SCALE



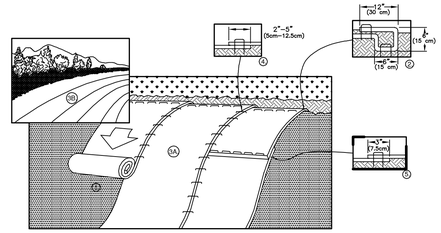
MODIFIED RIPRAP SWALE

NOT TO SCALE



GRASS LINED SWALE

NOT TO SCALE



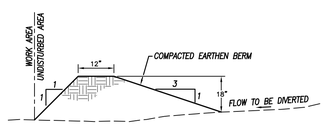
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 8" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) 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 IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM™ STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) 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 SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

NOTES:

1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
2. TURF REINFORCEMENT MAT SHALL BE NORTH AMERICAN GREEN BIOMAT SC-150BN OR APPROVED BIODEGRADABLE EQUIVALENT.

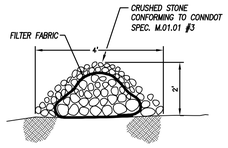
TURF REINFORCEMENT MAT INSTALLATION

NOT TO SCALE



TEMPORARY DIVERSION

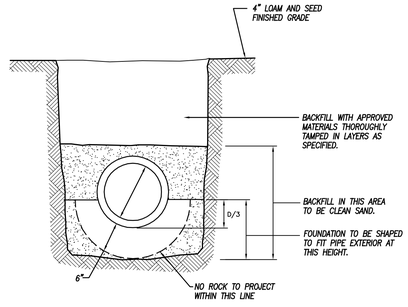
NOT TO SCALE



STONE BERM

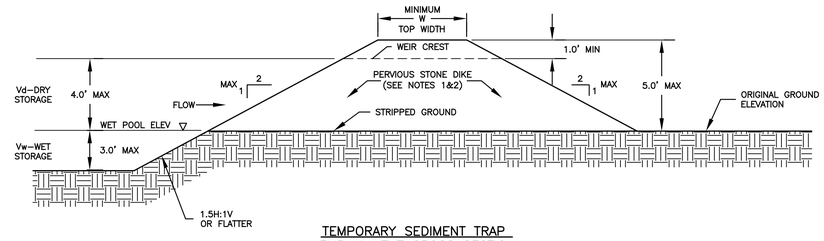
NOT TO SCALE

NOTE: TO BE UTILIZED IN STORMWATER BASIN



STORM DRAIN PIPE IN TRENCH DETAIL

NOT TO SCALE



TEMPORARY SEDIMENT TRAP EMBANKMENT CROSS SECTION

NOT TO SCALE

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, PERMENANT 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:

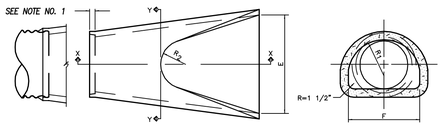
AREA	SPECIES	SEEDING RATE (lbs/acre)
Mowed & maintained banks	Creeping Red Fescue (Pennlawn, Wintergreen)	20
	Bird's-foot Trefoil (Empire, Viking) with innoculant	8
	Tall Fescue (Kentucky 31)	20
	TOTAL	48
Unmowed banks & slopes	Tall Fescue (Kentucky 31)	20
	Flatpea (Lathco) with inoculant	30
	TOTAL	50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

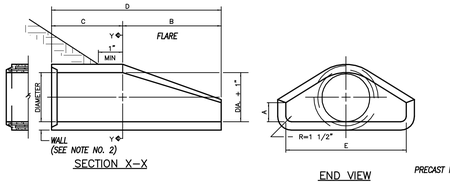
***Alternative seed mixes may be used. Alternative seed mix selections shall be in accordance with Figures PS-2 and PS-3 in the 2002 Guidelines for Soil Erosion and Sediment Control or as specified by and coordinated with the landscape designer.

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>



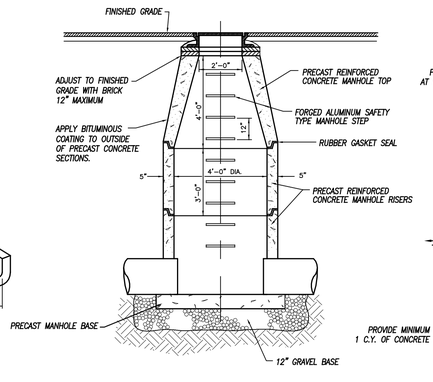


NOTE:
1. JOINTS SHALL CONFORM TO PIPE INSTALLED
2. WALL THICKNESS SHALL CONFORM TO PIPE THICKNESS

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 15/16"	10 1/4"	9"
15"	6"	2'-3"	3'-10"	6'-1"	2'-6"	2'-0 5/8"	1'-0 1/2"	11"
18"	9"	2'-3"	3'-10"	6'-1"	3'-0"	2'-5"	1'-3 1/2"	1'-0"
21"	9"	2'-11"	3'-2"	6'-1"	3'-6"	2'-7 1/2"	1'-4"	1'-1"
24"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	2'-9 3/16"	1'-4 13/16"	1'-2"
30"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3'-1"	1'-8 1/2"	1'-3"
36"	1'-3"	5'-3"	7'-10 3/4"	8'-1 3/4"	6'-0"	3'-11 13/16"	2'-0 5/16"	1'-6"
42"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	4'-5 7/8"	2'-3 1/2"	1'-10"
48"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	4'-8 1/2"	2'-4 1/2"	1'-10"
54"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	5'-3 1/2"	2'-8 1/8"	2'-0"
60"	2'-6"	5'-0"	3'-3"	8'-3"	8'-0"	6'-0 1/2"	3'-0 11/16"	2'-0"

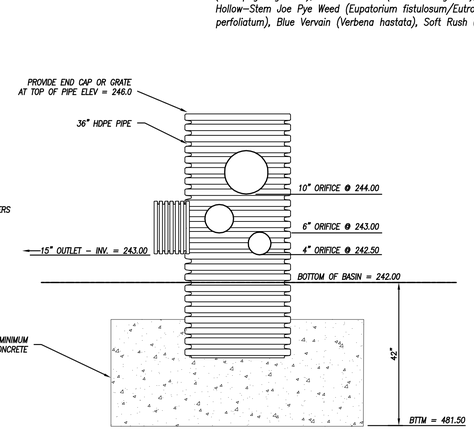
FLARED END SECTION

NOT TO SCALE



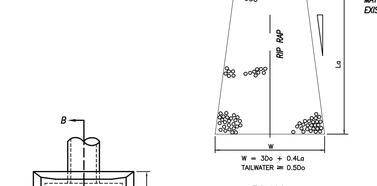
TYPICAL MANHOLE CROSS SECTION

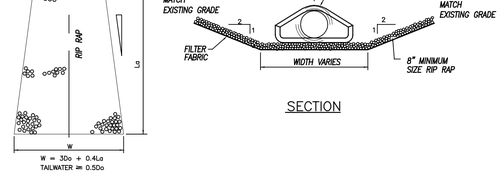
NOT TO SCALE



STORMWATER BASIN OUTLET STRUCTURE DETAIL

NOT TO SCALE





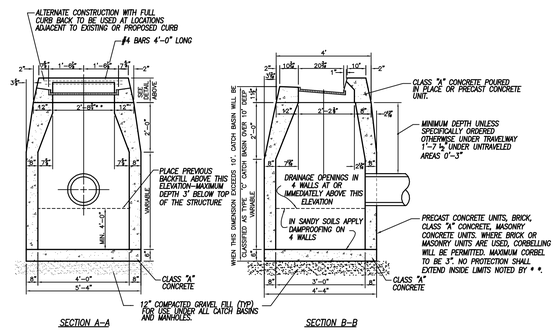
PLAN

SECTION

RIP RAP OUTFALL

NOT TO SCALE

NOTE: WHEN CATCH BASIN IS SET IN CONCRETE PAVEMENT THE 1/2" SLOPE ON THE TOP SURFACE SHALL BE CHANGED TO MATCH ADJOINING PAVEMENT.



TYPE 'C' CATCH BASIN DETAIL

NOT TO SCALE

11/13/2020	PER TOWN & ENGINEERING REVIEW
08/24/2020	PER TOWN REVIEW
DATE	DESCRIPTION
	REVISIONS

DETAIL SHEET 2

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

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

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

DATE: 4/23/2020	DRAWN: DNE
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 7 OF 9	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

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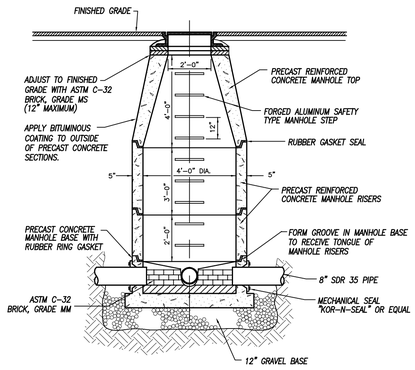

TYPICAL SANITARY MANHOLE CROSS SECTION

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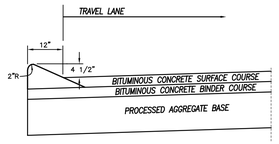
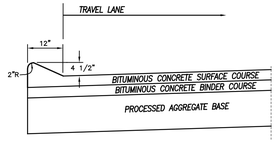


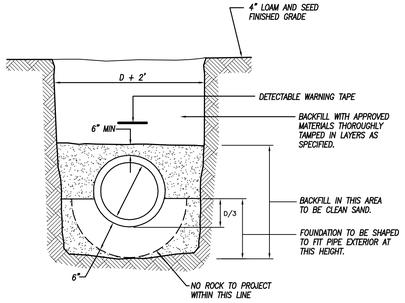
ALTERNATE 1 – CURB ON BINDER



ALTERNATE 2 – MONOLITHIC CONSTRUCTION

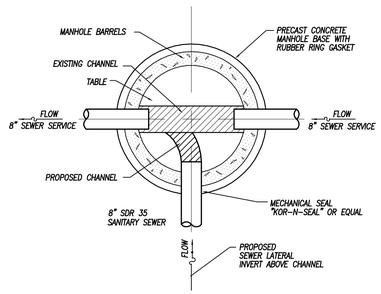
CAPE COD CURBING

NOT TO SCALE



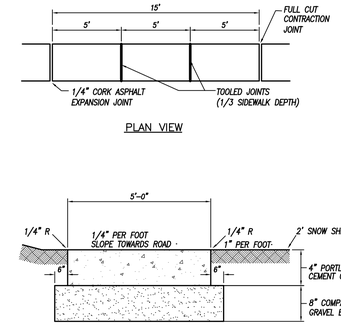
SANITARY SEWER PIPE IN TRENCH DETAIL

NOT TO SCALE



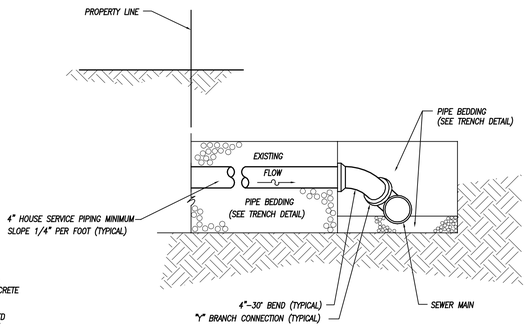
SEWER CONNECTION AT MANHOLE

NOT TO SCALE



CONCRETE SIDEWALK DETAIL

NOT TO SCALE



SEWER CONNECTION DETAIL

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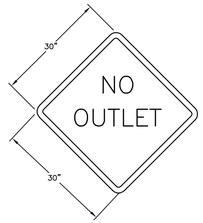
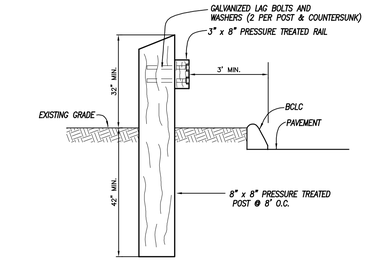


NO OUTLET SIGN DETAIL

NOT TO SCALE

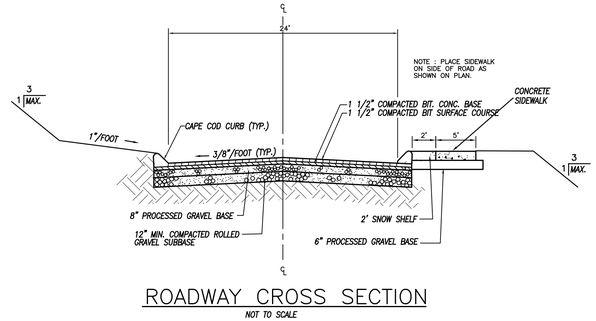
CTDOT W14-2 (41-4605)
SETON #44851



WOOD GUIDE RAIL

NOT TO SCALE

POST SHALL BE CERTIFIED 0.6 CCF PRESERVATIVE RETENTION RATE, AWPA CATEGORY UC4C



ROADWAY CROSS SECTION

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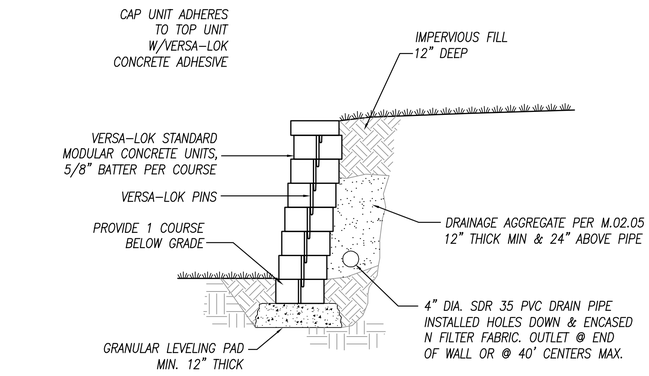
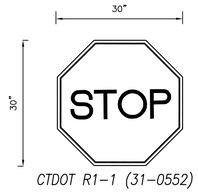


TYPICAL SECTION–UNREINFORCED RETAINING WALL

VERSA-LOK OR APPROVED EQUAL



CTDOT R1-1 (31-0552)

STOP SIGN

NOT TO SCALE

31-5505

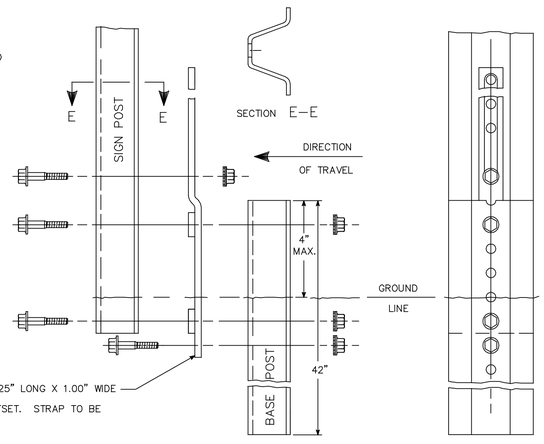
SPEED LIMIT SIGN DETAIL

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

11/13/2020	PER TOWN & ENGINEERING REVIEW
08/24/2020	PER TOWN REVIEW
DATE	DESCRIPTION
REVISIONS	

DETAIL SHEET 3

PREPARED FOR

SHANE POLLOCK

LOUISE BERRY DRIVE
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
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P.O. Box 421
Killingly, Connecticut 06241
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DATE: 4/23/2020	DRAWN: DNE
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 9 OF 9	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 20014

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

K:\20014\Drawings\09_20014 DET 3.dwg Nov 23, 2020 - 3:57 PM

From: nthibeault@killinglyea.com <nthibeault@killinglyea.com>
Sent: Monday, November 23, 2020 4:17 PM
To: Margaret Washburn <M.Washburn@Brooklynct.org>
Subject: RE: my comments for the Oct. 13 IWWC report for Louise Berry Drive

Good afternoon, Margaret,

In response to your comments below, we offer the following:

- The 175' upland review area for the watercourse has been added to the plans as requested. It is shown as a heavy red dashed line on the plans.
- Legends have been shown on the plans as requested.
- Revisions applicable to PCZ have been added to the plans. However, we have not yet received final comments from the Brooklyn WPCA or CT Water. Additional revisions may be forthcoming based upon their input.
- Deep test pits and a percolation test are scheduled to be conducted on November 25th. We do not concur with your statement that the application is "incomplete" without that information but we accept the fact that the hearing on this application may be continued until that information is received.
- The stormwater basin will be owned and maintained by the homeowners association when the project is complete. The developer will be responsible for upkeep as the project is being constructed.
- Although we feel that a bond for upkeep and maintenance of the stormwater basin is appropriate, we do not concur that the Town should maintain a perpetual bond for upkeep and maintenance of the basin after the association is established.
- Underground utilities (cable & electric) are shown on the plans. The residences will likely be heated and cooled by electric "mini split" systems and therefore gas is not shown.
- The project will not result in stormwater rates from the site. A drainage report has been submitted for engineering review but will be modified upon excavation of the test pits in the proposed stormwater basin.
- Each unit will have 2 garage spaces and one driveway space and 2 additional spaces have been shown along the main roadway. This far exceeds the parking requirements per Section 7.B.2.1 of the Zoning regulations.
- Slope gradients have been labeled as requested.
- Final details of the Temporary Sediment Trap and a final cross section of the basin will be provided pending the results of the deep test holes and percolation test.
- Additional erosion controls consisting of wood chip berms have been added at the toe of the fill slopes. This practice is a preferred method by the CTDOT.

It should be noted that a project of this size will require a registration under the **General Permit for the Discharge of Stormwater Associated with Construction Activities** with the CTDEEP. This registration is typically submitted after local approvals and 60 days prior to the start of construction.

Lastly – the abutters map & lot designations have been modified accordingly per your 11/18 email.

I'll deliver hard copies of the plans to your office as well – please let me now how many copies you require.

Norm