New Plans inland wetlands & watercourses commission

RECEIVED

MAR 0 1 2021
Date

TOWN OF BROOKLYN CONECTICUT

02092	IIA
Application # W	
Check# No	ne

APPLICATION FOR INLAND WETLANDS PERMIT

Name of Applicant SHANE J POLLOCA & ERLA	(FMANICUSO Phone 860-888-3129
Mailing Address 101 MACKIN DRIVE, C	1015 CT 06351
Applicants Interest in the Property Outline	and the state of t
Property Owner Same	Phone
Mailing Address	* ***
	The state of the s
Name of Engineer/Surveyor KILLUNGLY ENCO.	writing Associaties, LLC
Address P.O. Box 421 Killing	CF 06741
Contact Person Normano Tingener Vil	Phone 260-778-7279 Fax
Name of Attorney Nicholas Apprenson	
Address 116 FARIAL READ COLOMESTER	CT 06415
Phone 860-603-2258 Fax	
Property location/Address Laws Barry	
Map # 33 Lot # 19 Zone 230 Total A	MCAVEC 122 AT
Map # 30 Lot # 17 Zone 230 Total A	cres <u>13.497</u> Acres of Wetlands 2.33
Purpose and Description of the Activity Construct	Transfer State Comment
Contomicion With	The of Main Exercise
1000	
·	annual place and a second seco
	1
Wetlands Excavation and Fill:	
Fill Proposed O Cubic Yds O Sq ft O	
Excavation Proposed O Cubic Yds O Sq ft	O
Location where material will be placed: On Site A	
Total Regulated Area altered: Sq ft 90,200 Acres	
Explain any alternatives that were considered Proc	VINS DESIGN PROPOSED A SIGNACIONA
LARGIER NUMBER OF RESTORWALL	MITS APPLICANT PROVIND SCORE
OF THE PROSECT to LESSEN DEN	15 My & CAND DISTOREANCE
	1
Mitigation Measures if Required:	
Wetlands or watercourses created: Cubic Yds Q	Sqft O Acres 0
	No
Is parcel located within 500ft of an adjoining Town?	

Is the activity located with	in the watershed of a u	ater company as defined in C	T General Statutas 25 320
No	[41]	A way and a section in the	r oeneral ordinies 20-020?
- Andrews and the second secon			
•			*
REQUIREMENTS P	reviously	PAID	
 Application Fee \$	State	Fee (\$60.00)	к
· Completion of DEP R	sporting Form	ree (\$00.00)	THE CONTRACTOR OF THE CONTRACT
 Compliance with the 	Inland Wetlands & Wat	Carrotingae Danulations	
· Three (30) copies of	all materials required s	shall be submitted	
 Pre application meeti 	na with the Wetlands A	ngent is recommended to exam	ada di
activity	A second trems in a mile limit i green X .	Actual steronimended to exqu	nine the scope of the
· Site Plan showing loca	ation of the wetlands (Commission may require a soil	makanakan k. b.b. sim si
wetlands), existing ar	id proposed conditions	sommasion may require a son	scientist to identity the
 Compliance with the a 	2002 Erosion & Sedimer	station Control Manual	
 If the proposed activ 	ity is deemed to be a "	significant impact activity" a f	Subdia Hamilia da Santa de Cart
THE PROPERTY OF THE PROPERTY O	rig un ormation;		Tublic riearing is required
- Names and a	ddresses of abutting p	roberty owners	5
- Additional I	nformation as contained	in Article 6.17	4
Other applications if required	:		Zi.
Application to State o	f Connecticut DEP		
Inland Water	Resources Division		6
79 Elm St.			*
Hartford, Ct. (06106 1-860-424-30	19	
Department of the Ar	rh\/		•
Corps of Engin			
696 Virginia Ro	and		
Concord, Ma. O		ao.	
	-7 Fm; 12 000 0 10 m47 E	12	*
			*
The owner and applicant hereb	y arant the Brooklyn Tr	land Wetlande and Wetnes	and a second second second
round of Delectricity, Authorize	'a Agents of the Inland	Wat lands and Watanageman	· Characteristics of the control of
ciecimair becaussion to sulet	The property to which	the application is nominated.	from the second
nspection and enforcement of	the Inland Wetlands of	nd Watercourses Repulations	of the Town of Decale
name.		All la.	or the rown of Brookish.
pplicant:	YUN	JULI WHAR	2128 1200
		11	and the state of t

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

March 31, 2021

Ms. Margaret Washburn, ZEO, WEO Town of Brooklyn Clifford B. Green Memorial Center 69 South Main Street Brooklyn, CT 06234

RE: Proposed Multi-Family Development Louise Berry Drive

Dear Ms. Washburn:

In response to your review comments on the referenced project dated March 9, 2021, we offer the following:

- All straw wattles have been removed from the plans and replaced with compost filter socks as requested. The detail on sheet 8 of the plans has been updated as well.
- Perimeter sediment controls in the upland review area have been modified to depict staked haybales backed with wire backed silt fence as requested (sheet 6). A detail for wire backed silt fence has been added to sheet 8 of the plans.
- Additional jute netted has been added to the E&S controls on sheet 6 between the wetlands and units 1-3 and 4-8 as requested.
- A note regarding only clearing of vegetation and no grubbing prior to the installation of erosion controls
 and approval by the Agent has been added to sheet 8 of the plans (see õdevelopment schedule/sequence of
 operationsö).
- Notation has been added to sheet 6 of the plans stating that the swale and temporary sediment rap shall be stabilized prior to discharge into them.
- Notation regarding the mowing of the basins has been added to the operations and maintenance plan, Detail Sheet 4.
- The Detention Basin O&M Plan, Detail sheet 4 has been revised to state that the Condominium Association will be responsible for maintenance for perpetuity.
- A note regarding construction dates for the temporary sediment trap and swale has been added below the Temporary Sediment Trap detail.

In response to review NECCOG comments on the referenced project dated March 5, 2021 we offer the following; please note that previous items addressed are shown in red, new responses are provided only to the remaining items of question.

Revised Sheet 5 of 9 (now 6 of 11)

Comment #13 ó We have spoken with the Brooklyn Fire Marshal and sent plans for his review and comment.

Revised Sheet 8 of 9 (now sheet 9 of 11)

<u>Comment #5</u> - The cut sheet for an HDPE flared end section as manufactured by ADS Pipe has been added to the plan.

Comment #9 ó We respect Mr. Pauley opinion that hooded outlets should be installed on every stormwater basin. Since this will be a stormwater system that will be maintained by a condominium owners association, the Commission felt it would be simpler to maintain the system with a single hood at the termination basin and a single hood, 90-degree fitting or tee connection would be sufficient. Since this will be a private community, the propensity for disposal of trash or floatables or contaminants from the property will be minimal as the grounds will be part of the common ownership. With this discussion, the Commission felt that a single hood on the final structure would be sufficient.

Revised Sheet 9 of 9 (now sheet 10 of 11)

Comment #12 ó The concrete sidewalk depth has been modified to 5ö to the BPIS.

General Comments

Comment #4 6 Per the Zoning regulations, 2 spaces per unit are required. Each unit will be constructed with two interior parking spaces and one driveway space so even without additional parking along roadways the parking exceeds the zoning requirement by 50%. We have added a total of 15 additional opull ino parking spaces along the main drive and side drives. No parallel parking will be permitted.

<u>Comment #5</u> 6 With regard to wetlands impacts, as previously stated we stand by the wetlands impact report prepared by Joseph Theroux who has over 20 years of experience in assessing wetlands impacts from land development projects.

Comment #11 ó The applicant is currently developing floor plan layout for the condominium units that will be provided for the submission to P&Z as required. The units will not have basements and garage elevations at grade will be the lowest level.

Additional Comments January 6th & March 5th

<u>Comment #3</u> 6 We acknowledge that Mr. Pauley considers the plans incomplete until all staff comments have been addressed. We do not concur with this comment but have every intention of resolving all items.

Comment #4 ó 3 test pits were excavated on November 25th and a percolation test was conducted on November 27th. These were not witnessed by the Brooklyn Wetlands Enforcement Officer but we have conducted soil testing in the past for projects in Brooklyn without the observance of the BWEO (Vachon Chevrolet most recently). As a result of the soil testing, we have incorporated an underdrain around the perimeter of the stormwater basin to ensure that it empties completely at the termination of each storm event. Access to this area of the site is very difficult as the slopes are steep and there is significant woody debris on site from the property being previously logged; we would have concerns for the safety of the WEO.

Note #7 ó Notation regarding registration of the project under the CTDEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities has been added to sheet 8 of the plans.

Note #8 ó As built plans of utilities locations will be provided as required by CT Water, Eversource and the Brooklyn WPCA.

Please feel free to call if there are any questions or clarifications required.

Sincerely:

Normand Thibeault, Jr.

Normand Thibeault, Jr., P.E.

PROPOSED MULTI-FAMILY CONDOMINIUM DEVELOPMENT

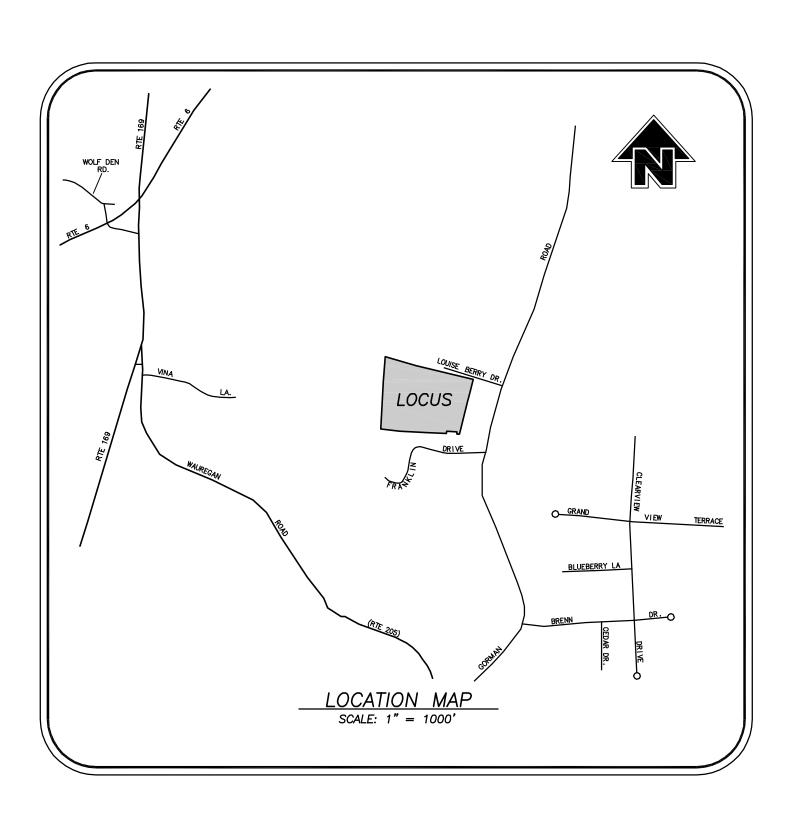
LOUISE BERRY DRIVE BROOKLYN, CONNECTICUT

PREPARED FOR: SHANE POLLOCK

TABLE OF ZONING REQUIREMENTS			
ZON	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			
	ces + 1 drive po	102 required er unit proposed spaces provided	

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

<u>L</u>	<u>-EGEND</u>
•	IRON PIN TO BE SET
0	IRON PIN FOUND
	DRILL HOLE FOUND
□ _{CB}	CATCH BASIN
Ø	UTILITY POLE
○ SMH	SAITARY SEWER MANHOLE
	EXISTING CONTOURS
	PROPOSED CONTOURS
——# [—] ——	INLAND WETLANDS FLAG
——₽—	BUILDING SETBACK LINE
s	EXISTING SANITARY SEWER LINE
	EXISTING WATER LINE
	STONE WALL
∞	STONE WALL REMAINS
	SILT FENCE
	175' WATERCOURSE SETBACK
	125' UPLAND REVIEW



INDEX TO DRAWINGS

<u>TITLE</u>	SHEET No
COVER SHEET	1 OF 11
PROPERTY SURVEY	2 OF 11
EASEMENT MAP	3 OF 11
SITE PLAN	4 OF 11
LAYOUT & LANDSCAPING PLAN	5 OF 11
EROSION CONTROL AND UTILITIES PLAN	6 OF 11
ROAD PROFILE	7 OF 11
DETAIL SHEET 1	8 OF 11
DETAIL SHEET 2	9 OF 11
DETAIL SHEET 3	10 OF 1
DETAIL SHEET 4	11 OF 1

PREPARED BY:

	REVISIONS	
DATE	DESCRIPTION	
8/24/2020	PER TOWN REVIEW	Killingly Engineering Associates
11/13/2020	TOWN & ENGINEERING REVIEW	Civil Engineering & Surveying
12/07/2020	ADDED TEST HOLE DATA	Civil Eligineering & Surveying
01/04/2021	TOWN & ENGINEERING REVIEW	114 Westcott Road
01/27/2021	PER BWPCA REVIEW	P.O. Box 421
02/10/2021	EASE. ADDED/ZONE/CT WATER COMMENTS	Killingly, Connecticut 06241 (860) 779-7299
03/30/2021	TOWN & ENGINEERING REVIEW	www.killinglyengineering.com

April 23, 2020

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

FOR REVIEW ONLY

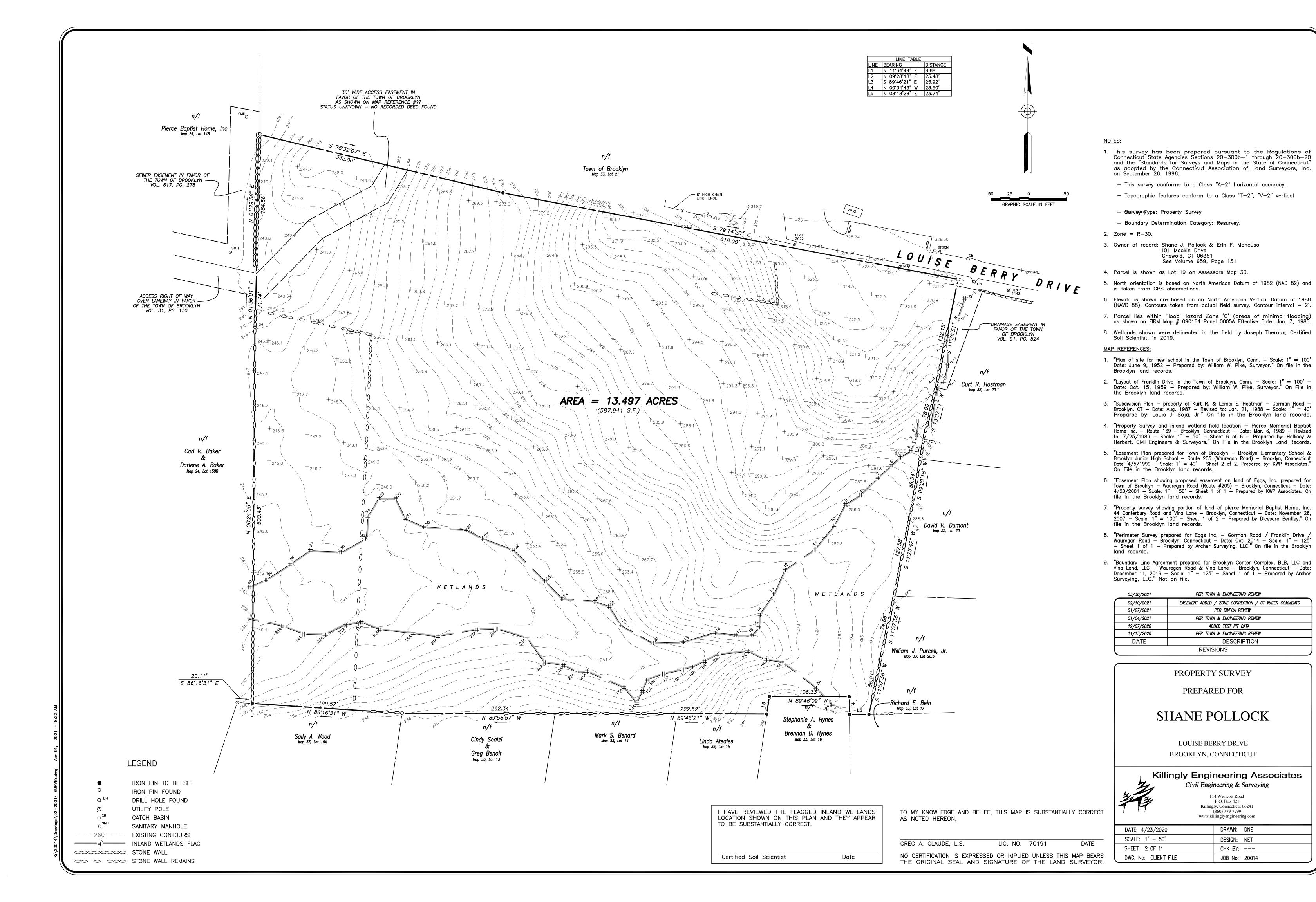
NOT FOR CONSTRUCTION

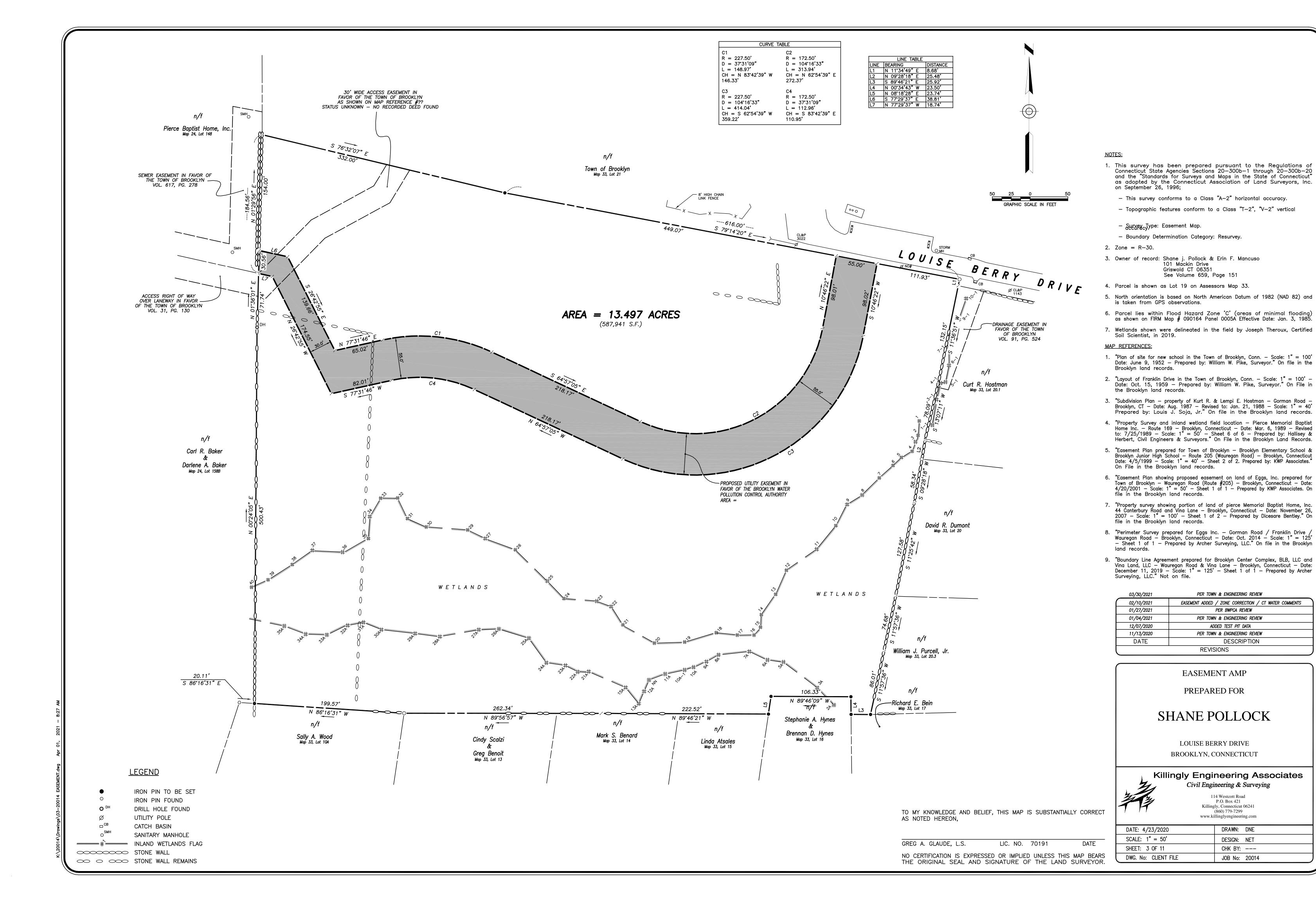
APPROVED BY THE BROOKLYN PLANNING AND ZONING COMMISSION

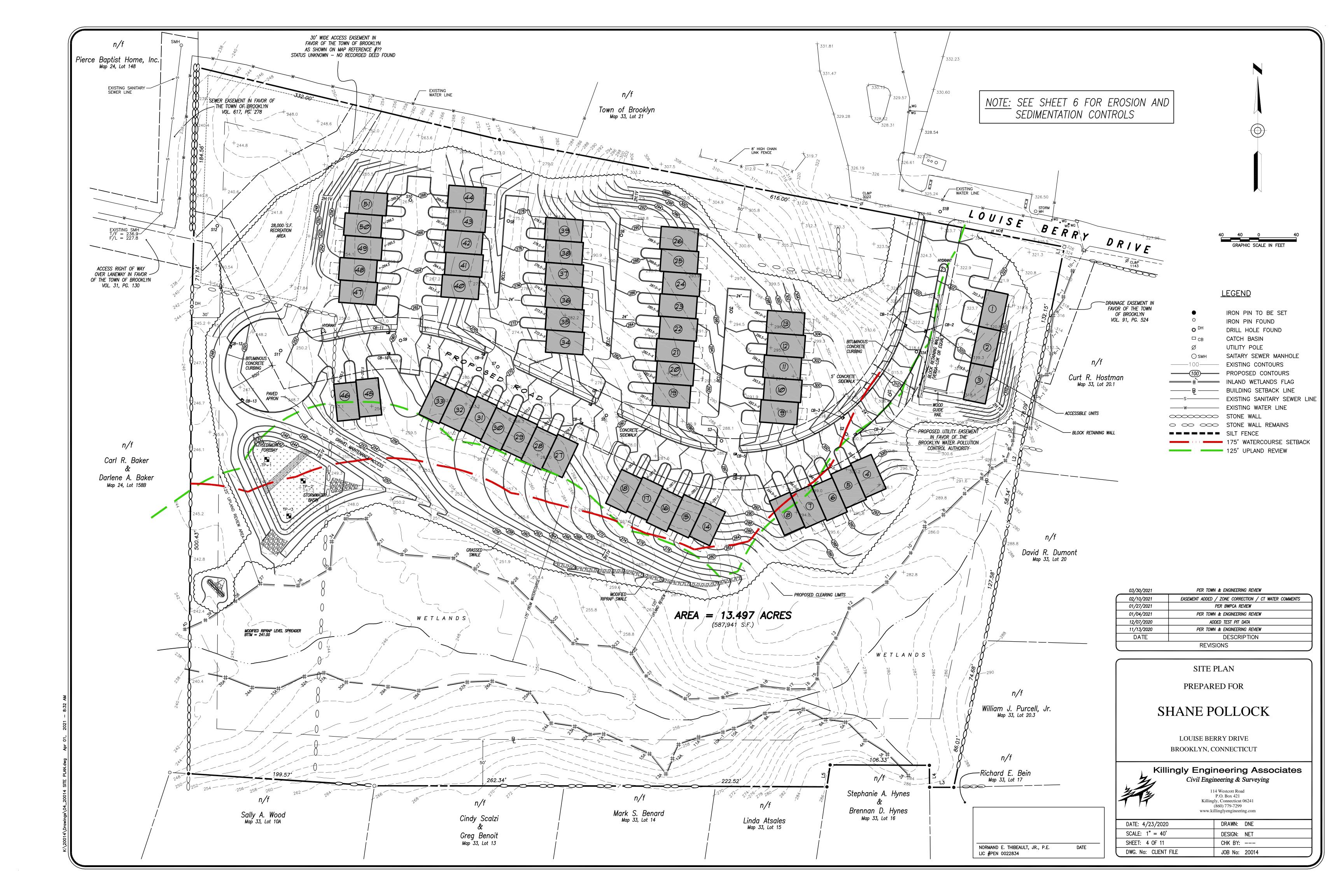
FINAL APPROVAL DATE_

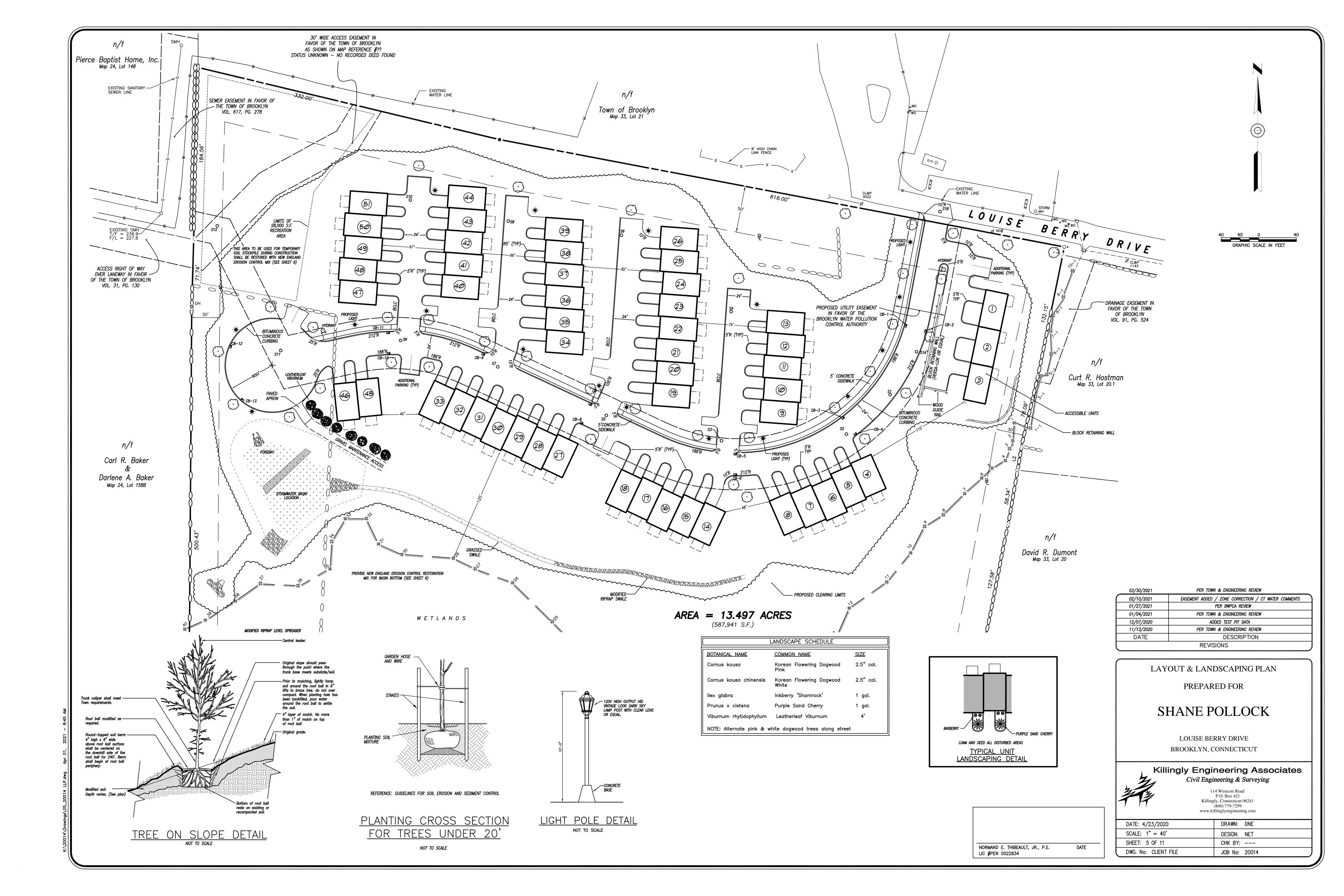
EXPIRATION DATE:

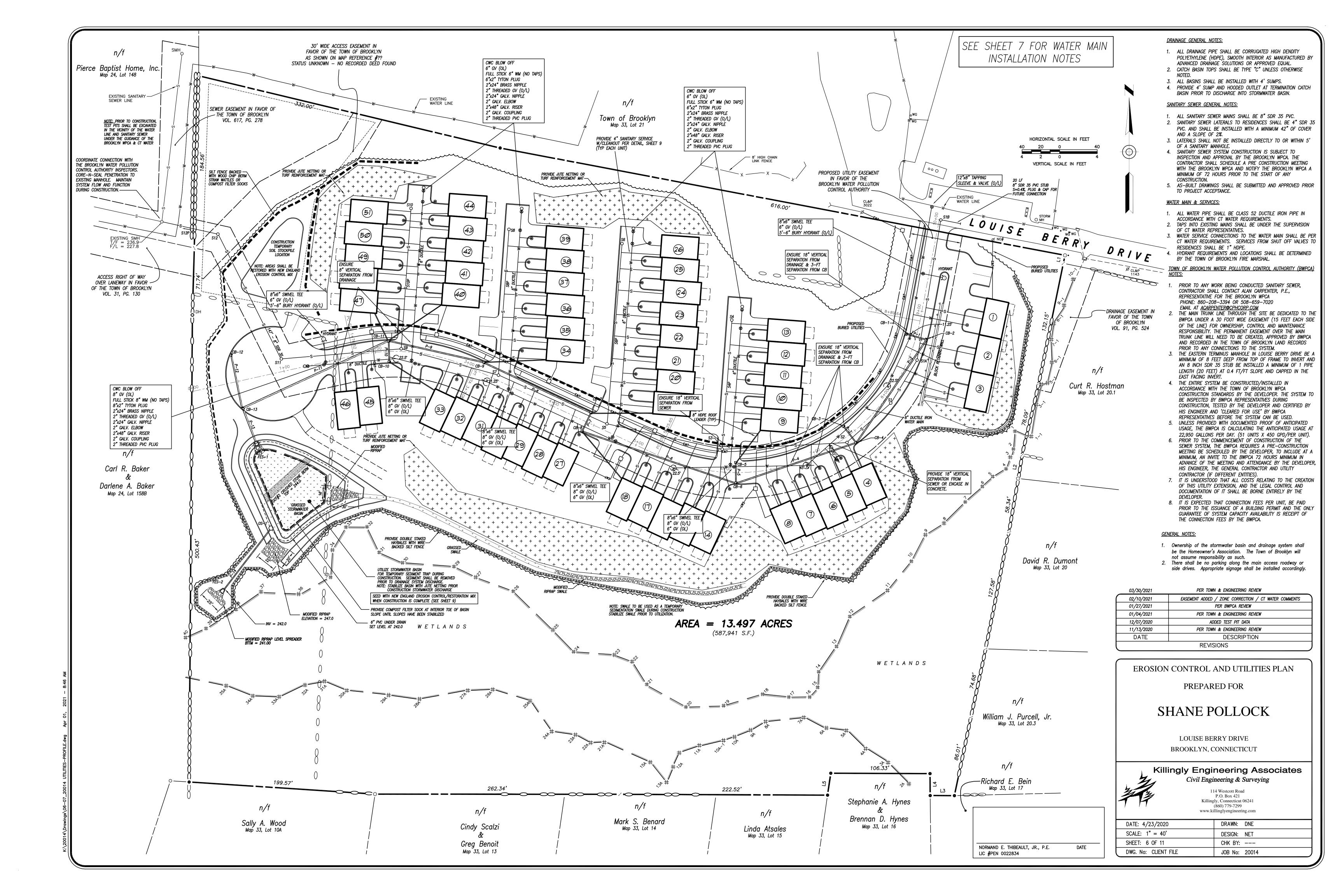
CHAIRMAN DATE

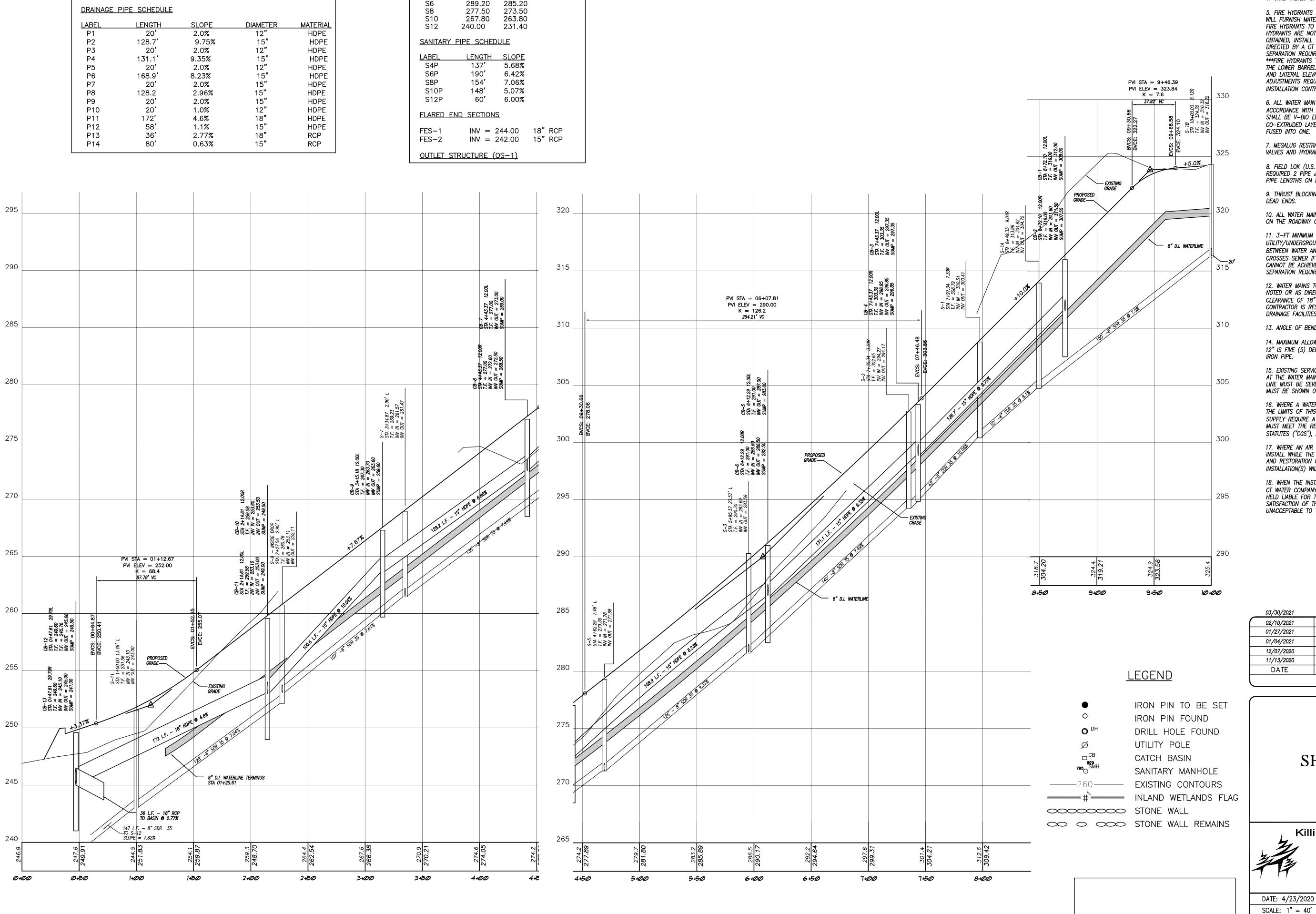












SANITARY STRUCTURE SCHEDULE

296.50 292.50

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). 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.

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.

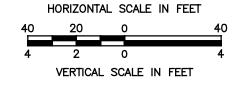
14. MAXIMUM ALLOWABLE DEFLECTION PER FULL LENGTH PUSH—ON JOINT FOR 4" TO 12" IS FIVE (5) DEGREES AND THREE (3) DEGREES FOR 14" AND GREATER DUCTILE

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 PRESSURE 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.



03/30/2021 PER TOWN & ENGINEERING REVIEW

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
	REVISIONS

ROAD PROFILE

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

SHEET: 7 OF 11

DWG. No: CLIENT FILE

DATE

NORMAND E. THIBEAULT, JR., P.E.

LIC #PEN 0022834

www.killinglyengineering.com

DRAWN: DNE

DESIGN: NET

CHK BY: ---

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.

The project will require registration under the "GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WASTEWATERS ASSOCIATED WITH CONSTRUCTION ACTIVITIES" with the CTDEEP. 60 days prior to any activity on site, the developer or his representative shall submit the registration to the CTDEEP. The Town of Brooklyn shall be given a copy of the registration approval.

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
- 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
- 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
- 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

SILT FENCE INSTALLATION AND MAINTENANCE:

throughout the proposed construction site.

- 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
- 3. Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
- 4. Inspect and repair barrier after heavy rainfall.
- 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

5. Inspections will be made at least once per week and within 24 hours of the end of a storm with

- 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
- 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

<u>TEMPORARY VEGETATIVE COVER:</u>

SEED SELECTION

direction of the flow of surface water.

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

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.

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.

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

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

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.

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.

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:

- 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
- 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 &
- 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 pre-construction meeting with Town of Brooklyn wetlands Agent.
- 2. The only work that shall be permitted prior to installation of perimeter erosion controls shall be clearing of vegetation. No grubbing shall be conducted until the perimeter erosion and sediment controls have been installed per the plan and inspected by the Town of Brooklyn Agent. Written approval for installation of the erosion and sedimentation controls shall be obtained from the Town of Brooklyn IWWC Agent prior to commencing with any other work.
- 3. Contact utility companies for scheduling installation of utilities and connections
- 4. Install the anti-tracking construction entrance
- 5. Cut trees within the defined clearing limits and remove the cut wood.
- 6. Install perimeter erosion and sedimentation controls in accordance with the site
- 7. Chip brush and slash, stockpile chips for use on site or remove off site.
- 8. Box out driveway and stockpile topsoil in locations shown on the plans. Install erosion controls around stockpile and apply temporary seeding.
- 9. 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.
- 10. 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.
- 11.Install and compact processed gravel for roadway base.
- 12. 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.
- 13. 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 ground the perimeter of
- 14. 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.
- 15. 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.

16.Install utilities to in the locations shown on the plans.

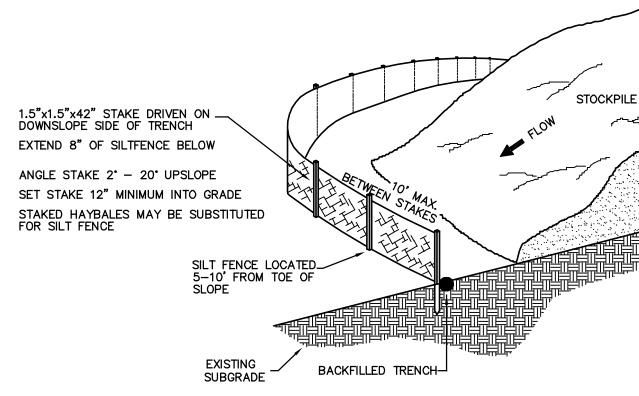
- 17. Prepare sub-base for roadway for final grading.
- 18. Excavate for building footings, stockpile soil and pour footings & slab. Begin phased building construction.
- 19. Place topsoil where required and install any proposed landscaping upon completion of each building.
- 20.Install first course of pavement to each building as they are completed and required landscaping.
- 21. 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.
- 22. Install final course of payement upon the completion of the final structure.
- 23. Fine grade, rake, seed and mulch to within 2' of the pavement.
- 24. 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
- 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 818", 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. Any material removed from the site shall be relocated to an approved off-site disposal area.
- 10. 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

PROFILE

Hardpan

Orange-brown fine sandy loam

Gray fine silty sand w/rocks

Gray rocky gravel - compact

Orange-brown fine sandy loam

Orange-brown fine sandy loam

Gray fine silty sand/rocks

Gray rocky sandy gravel - compact

Gray fine silty sand/rocks

DEEP TEST HOLE EVALUATION - November 25, 2020

<u>DEPTH</u>

0"- 10"

10"- 18"

18"- 44**"**

Ledge GWT

Mottling

21"- 41'

Ledge GWT

Mottling

10"- 24"

24"- 41"

41"- 71"

Ledge GWT

Mottling

<u>Time</u> 1:30

1:35

1:40

1:45

1:50

2:00 2:05

2:10

2:15

2:20

PLACE GRAVEL BAGS SUCH THAT

NO GAPS ARE EVIDENT

SUCH THAT NO GAPS ARE EVIDENT.

FLOW

CURB INLET -

PERCOLATION TEST RESULT - November 27, 2020

Reading 4.5"

12.5"

15.5"

17.5"

NOTE: GRAVEL BAG SHOULD NOT

BE HIGHER THAN TOP OF CURB

CATCH BASIN

SECTION VIEW

PLAN VIEW

4. WHEN INSTALLING CURB INLET PROTECTION DEVICES, NEVER BLOCK THE CURB INLET.

BACK OF CURB >

16.75"

18.25**"**

CURB INLET

~SIDEWALK

PONDING AREA FOR

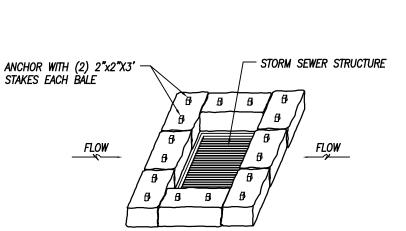
SEDIMENT SEPARATION

Killingly Engineering Associates - Normand Thibeault, P.E.

Rate = 6.7 min./in.

41"- 74"

Normand Thibeault, Jr., P.E., Killingly Engineering Associates



– Mesh Support 6" Square (Max.)

ELEVATION

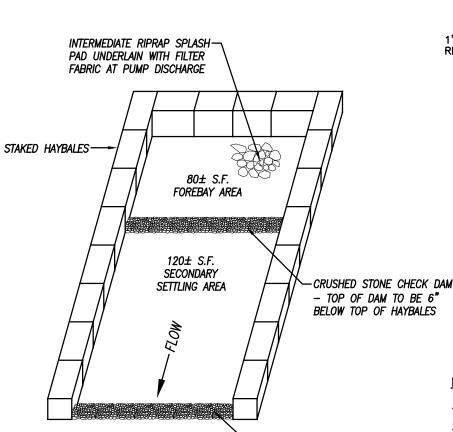
Min

FABRIC ANCHOR DETAIL

INSTALLATION DETAIL

HAYBALE INSTALLATION AT CATCH BASIN

NOT TO SCALE





-CRUSHED STONE CHECK DAM

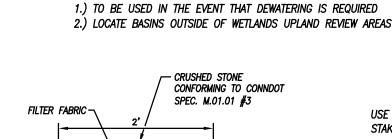
USE 12" DIAMETER COMPOST FILTER SOCKS

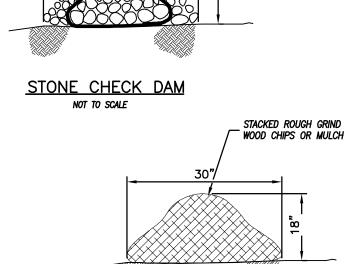
SOCKS LOCATED

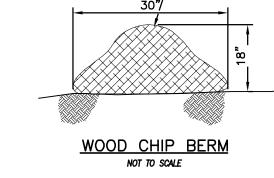
AS SHOWN ON SITE DEVELOPMENT PLAN

EXISTING

STAKE IN PLACE AT 10' INTERVALS





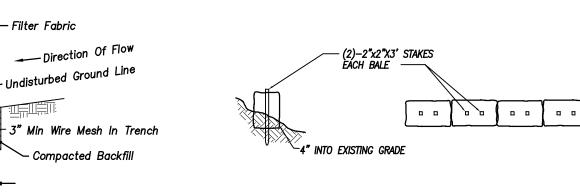


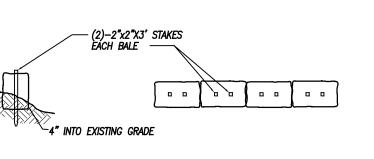
r Fastener - Min. No. 10 Gage. Wire

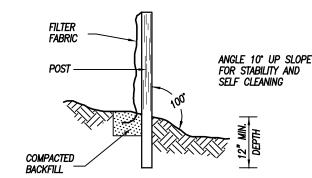
4 Per Post Required. (Typ.)

- 1. Wires of mesh support shall be min. gage no. 12. 2. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the
- construction period and removed in conjunction with the final grading and site stabilization.
- 3. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 50 for woven.
- 4. Fence posts shall be either wood post with a minimum cross-sectional area of 3.0 sq. in. or a standard steel post.

WIRE BACKED SILT FENCE







SILT FENCE

NOT TO SCALE

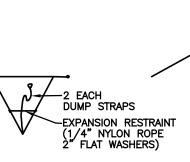
TO BE CLEAN SAND.

THIS HEIGHT.

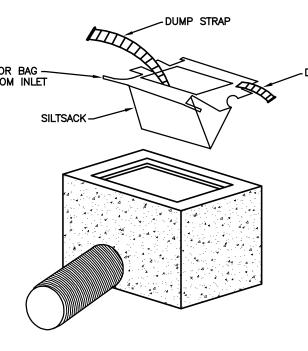
FOUNDATION TO BE SHAPED

TO FIT PIPE EXTERIOR AT





BAG DETAIL

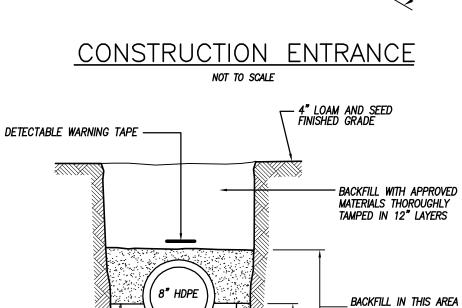


INSTALLATION & MAINTENANCE

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.

INLET SEDIMENT CONTROL DEVICE

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.



ROOF LEADER PIPE IN TRENCH DETAIL NOT TO SCALE

NOTE: MINIMUM SLOPE OF ROOF LEADERS SHALL BE 2%

PER TOWN & ENGINEERING REVIEW 03/30/2021 02/10/2021 EASEMENT ADDED / ZONE CORRECTION / CT WATER COMMENTS 01/27/2021 PER BWPCA REVIEW 01/04/2021 PER TOWN & ENGINEERING REVIEW ADDED TEST PIT DATA 12/07/2020 PER TOWN & ENGINEERING REVIEW

DETAIL SHEET

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

DRAWN: DNE DATE: 4/23/2020 SCALE: NOT TO SCALE DESIGN: NET SHEET: 8 OF 11 CHK BY: ---DWG. No: CLIENT FILE JOB No: 20014

STANDARD GRAVEL BAG CURB INLET PROTECTION

PLACE GRAVEL BAG BARRIER ON GENTLY SLOPING STREET, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM

2. USE SAND BAGS OF WOVEN GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH 1/2 INCH (OR SMALLER) GRAVEL. BAGS MUST BE LAYERED

3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT, SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED

CURL ENDS UP GRADIENT 11/13/2020 DATE DESCRIPTION **REVISIONS** FLOW DIRECTION

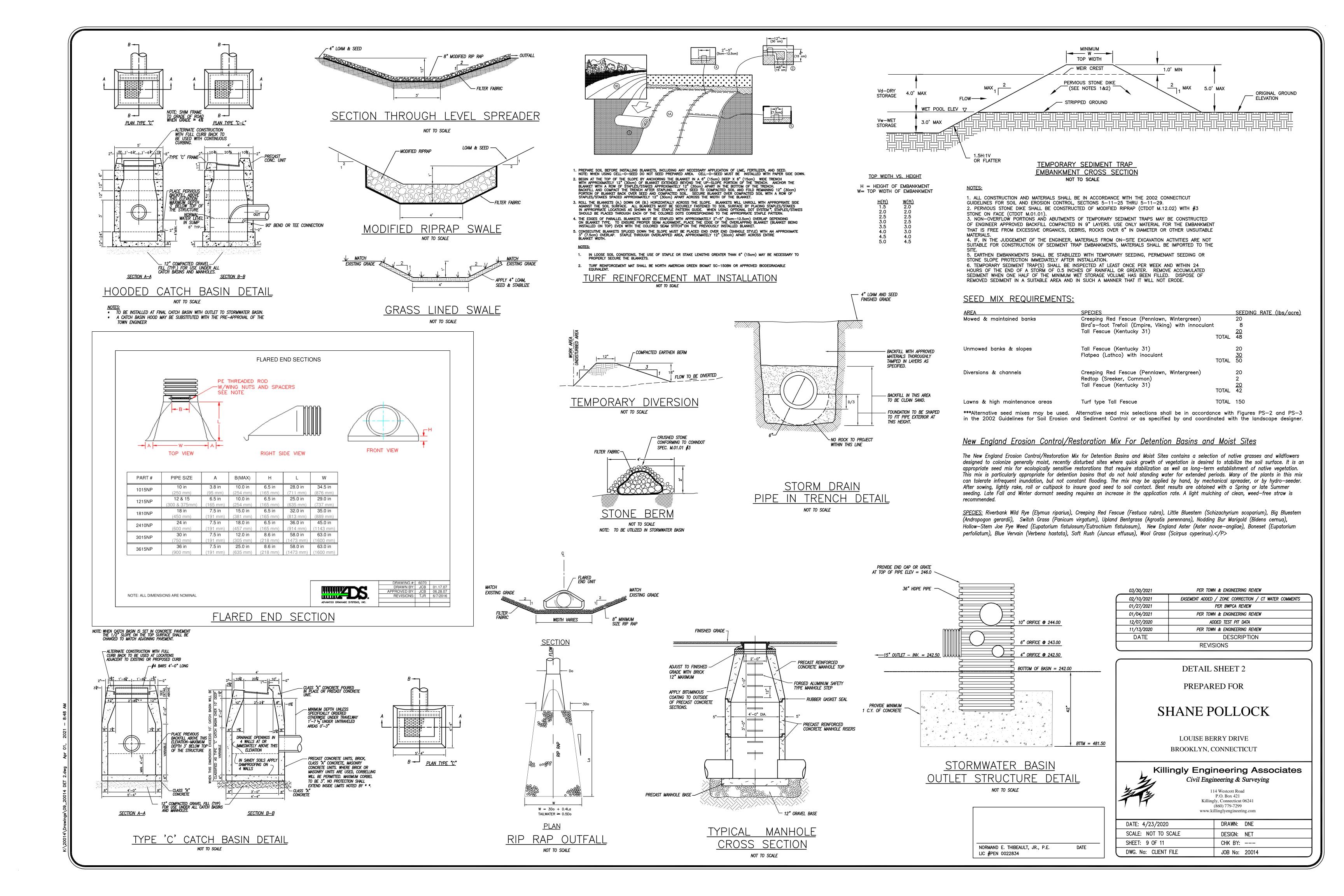
PREPARED FOR

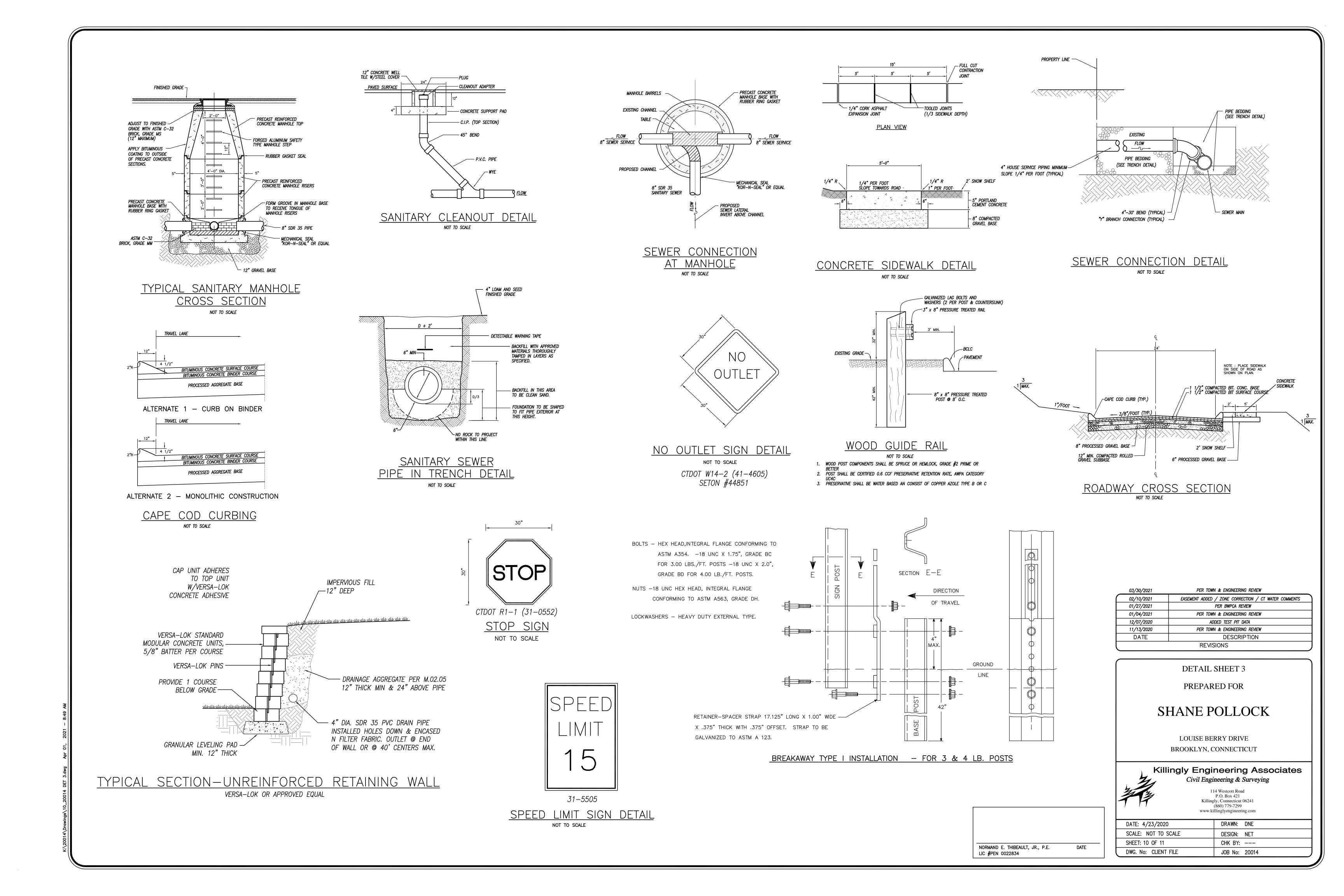
SUBGRADE COMPOST FILTER SOCK APPLICATION

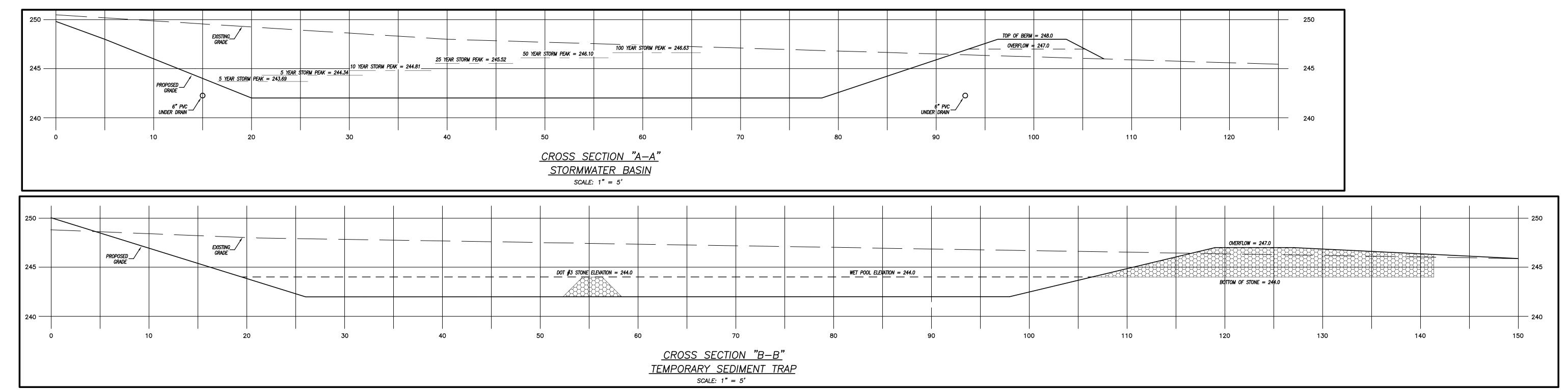
<u>NOTES:</u>

- MAY BE USED AS A STRUCTURAL BACKING FOR SILT FENCE
 WHEN USED SINGLY, REMOVE SEDIMENT WHEN HALF THE HEIGHT OF THE SOCK HAS BEEN REACHED
- PROVIDE SOCK AS MANUFACTURED BY "FILTREXX" OR ENGINEER APPROVED EQUAL.

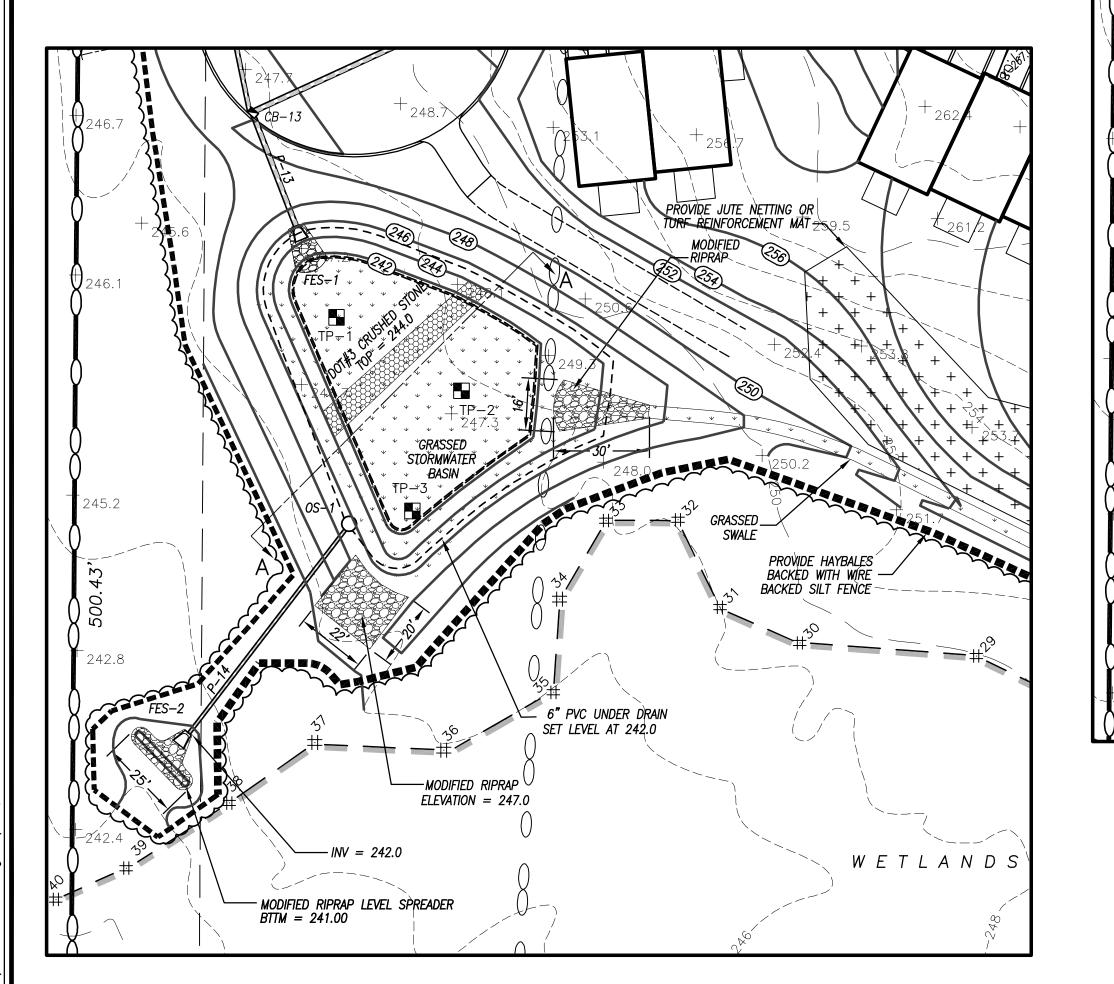
NORMAND E. THIBEAULT, JR., P.E. DATE LIC #PEN 0022834



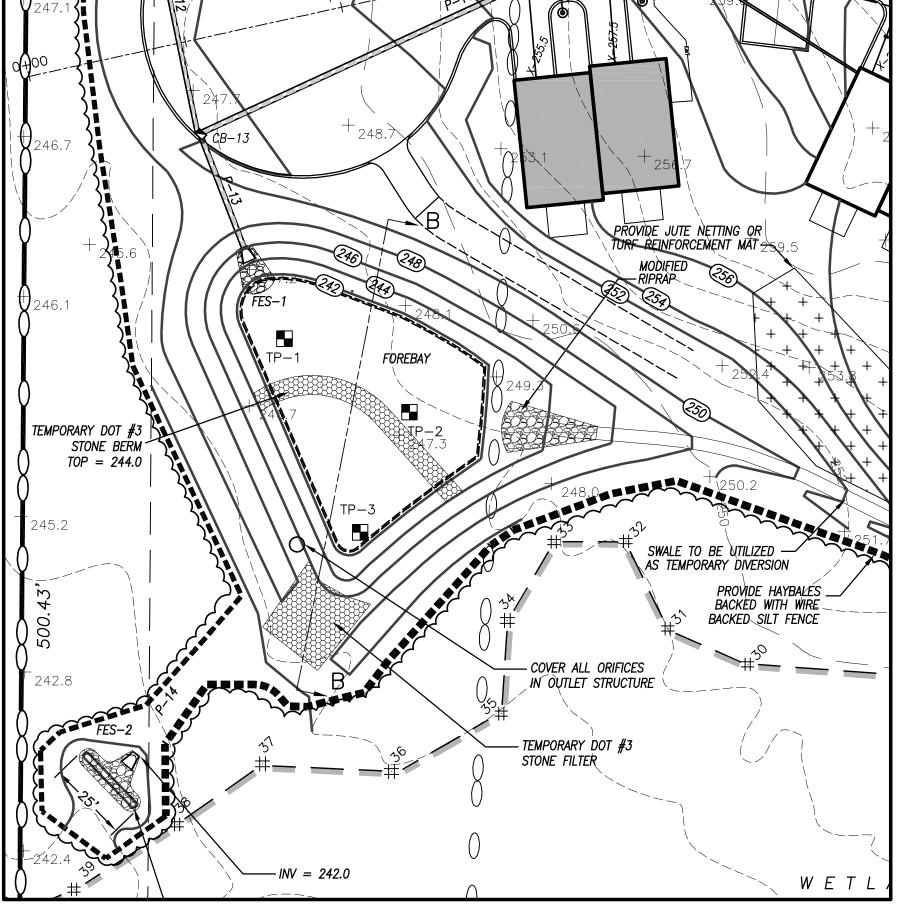




NOTE: THE CONDOMINIUM ASSOCIATION SHALL BE RESPOSIBLE FOR THE MAINTENANCE OF THE ENTIRE STORMWATER SYSTEM



STORMWATER BASIN DETAIL SCALE: 1"=30'



TEMPORARY SEDIMENT TRAP DETAIL SCALE: 1"=30'

TEMPORARY SEDIMENT TRAP CONSTRUCTION NOTES:

Construction of the temporary sediment trap and diversion swale shall begin between April 14 and September 1 to allow for vegetation to become at least temporarily established in the basin prior to discharge of stormwater to the swale and trap. Construction of the temporary sediment trap and diversion swale shall not commence between September 2 and April 13 in accordance with the provisions of Section 11.1 of the Brooklyn Inland Wetlands and watercourses regulations.

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

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:

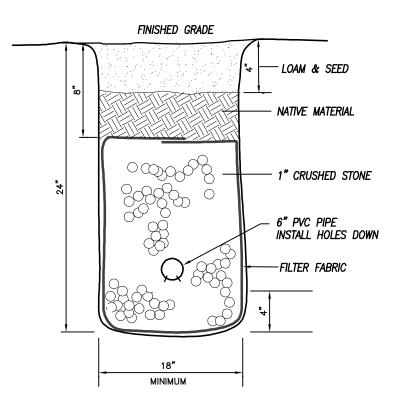
Variety		Lbs/Acre
Creeping Red Fescue		20
Redtop		2
Crown Vetch		<u>15</u>
	TOTAL	37

DETENTION BASIN OPERATION AND MAINTENANCE NOTES:

- The contractor shall be responsible for all basin maintenance and inspections prior to acceptance of the roadway by the Condominium Association.
- During the first year of operation, the basin shall be inspected on a monthley 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
- The Condominium Association shall be responsible for maintenance of the stormwater basin and it's outlets in perpetuity. 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. Detention basin side slopes and bottom shall be mowed annually by 6/30 and 10/1 for the life of the basin, in perpetuity. 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
- 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 invesitigation 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

03/30/2021	PER TOWN & ENGINEERING REVIEW		
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		
	REVISIONS		

DETAIL SHEET 4

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



March 11, 2021

Mr. Norm Thibeault, PE Killingly Engineering Associates 114 Westcott Rd, Danielson, CT 06239 550 North Main Street Suite 6 Attleboro, MA 02703 Phone: 508.659.7020 Fax: 508.659.7021

RE:

Brooklyn Water Pollution Control Authority 2-24-21 Approval of Pollock 51-Unit Condominium Project, Louise Berry Drive, Assessors Lot 19 Map 33, Brooklyn, CT CPH Project No. B17303

Dear Mr. Thibeault:

At their regular meeting on February 24, 2021, the Brooklyn, Connecticut Water Pollution Control Authority (BWPCA) approved the above project with conditions. This letter summarizes the approval and conditions and shall be a binding commitment of the Authority and the Developer relating to the project as presented by the Developer and approved by the Authority.

The plans approved are those dated April 4, 2021 (as revised 4-23-21) in their entirety and shall be subject to the following conditions:

From BWPCA 2-24-21 meeting minutes:

Robert Kelleher made a motion to approve the application for Shane Pollock-51 Condo Units on Louise Berry Drive, plans dated 2/4/2021 from Killingly Engineering Associates as presented with the added conditions that inspection fees are to be paid by the developer and if any changes are made to the plans, the project needs to come back before the WPCA board. Derek Lindia seconded the motion. All members in favor so voted.

General Conditions of the Approval

As provided in the approved plans, we require that the entire system be constructed/installed in accordance with the Town of Brooklyn WPCA construction standards by the Developer. We require the system be inspected by our representatives during construction, tested by the Developer and certified by his engineer and 'cleared for use' by our representatives before the system can be used. Per the Approval conditions, all inspection fees shall be paid by the Developer.

Unless you provide us with documented proof of anticipated usage, we have calculated the anticipated sewer usage for this development at 22,950 Gallons per day. (51 units X 450 GPD/per unit).

As provided in the plans, prior to the commencement of construction of the sewer system, we require 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). No connections to the system will be permitted until the main trunk line is built, tested and cleared for use and the permanent easement is created, approved by the BWPCA and recorded in the Town of Brooklyn Land Records.



As previously stated, 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.

Connection fees, per unit, shall be paid prior to the issuance of a building permit and connection of the individual units to the system and the only guarantee of system capacity availability is receipt of the connection fees by the BWPCA.

As stated in our 'Commitment to Serve Letter' previously, we are not currently aware of any other development proposed along this section of the BWPCA system.

Sherri Soucy will be responsible for establishing the connection fees for the proposed connections to the system and invoicing for them.

This approval/permit shall be good for a period of 3-years from the date of approval. Extension of the approval beyond 3-years may be granted by the BWPCA providing system conditions have not changed and the Developer returns to the Authority to request extension prior to February 24, 2024.

Please let us know if you have any questions or if you need any additional information.

Sincerely,

CPH Design, Inc.

Alan R. Carpenter, P.E.,

Vice President/Regional Manager (Consulting Engineer to the BWPCA)

Cc:

Mr. Robert Kiley, Chairman, BWPCA Jana Roberson, Town Planner Margret Washburn, ZOE/WEO/BEO