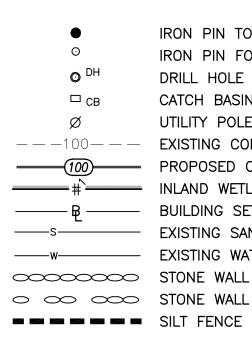
# PROPOSED MULTI-FAMILY DEVELOPMENT

# <u>LEGEND</u>

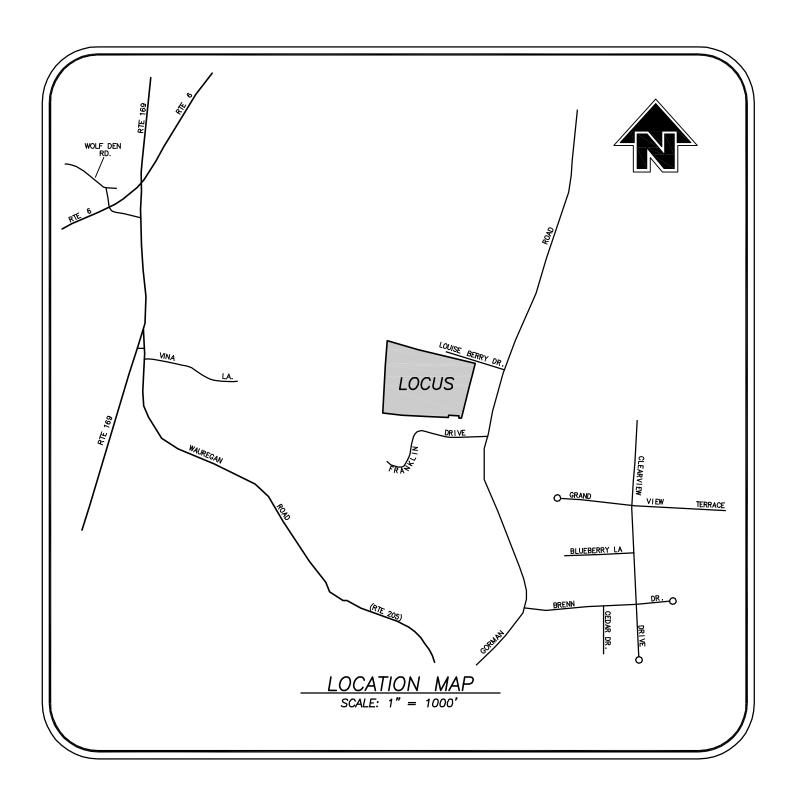


IRON PIN TO BE SET IRON PIN FOUND DRILL HOLE FOUND CATCH BASIN UTILITY POLE (100) PROPOSED CONTOURS -----s------ EXISTING SANITARY SEWER LINE  $\circ \infty \infty$  stone wall remains

		_		
APPROVED BY THE PLANNING AND ZONIN				
FINAL APPROVAL DATE				
CHAIRMAN	DATE:		ENDORSED BY	THE BROOKLYN INLAND
EXPIRATION DATE:			WETLAN	IDS COMMISSION
Per Sec. 8.26c of the Connecti amended, approval automatically if all public improvements requi	expires			
not completed by that date.			CHAIRMAN	DATE

LOUISE BERRY DRIVE BROOKLYN, CONNECTICUT

# PREPARED FOR: SHANE POLLOCK



PREPARED BY:



April 23, 2020

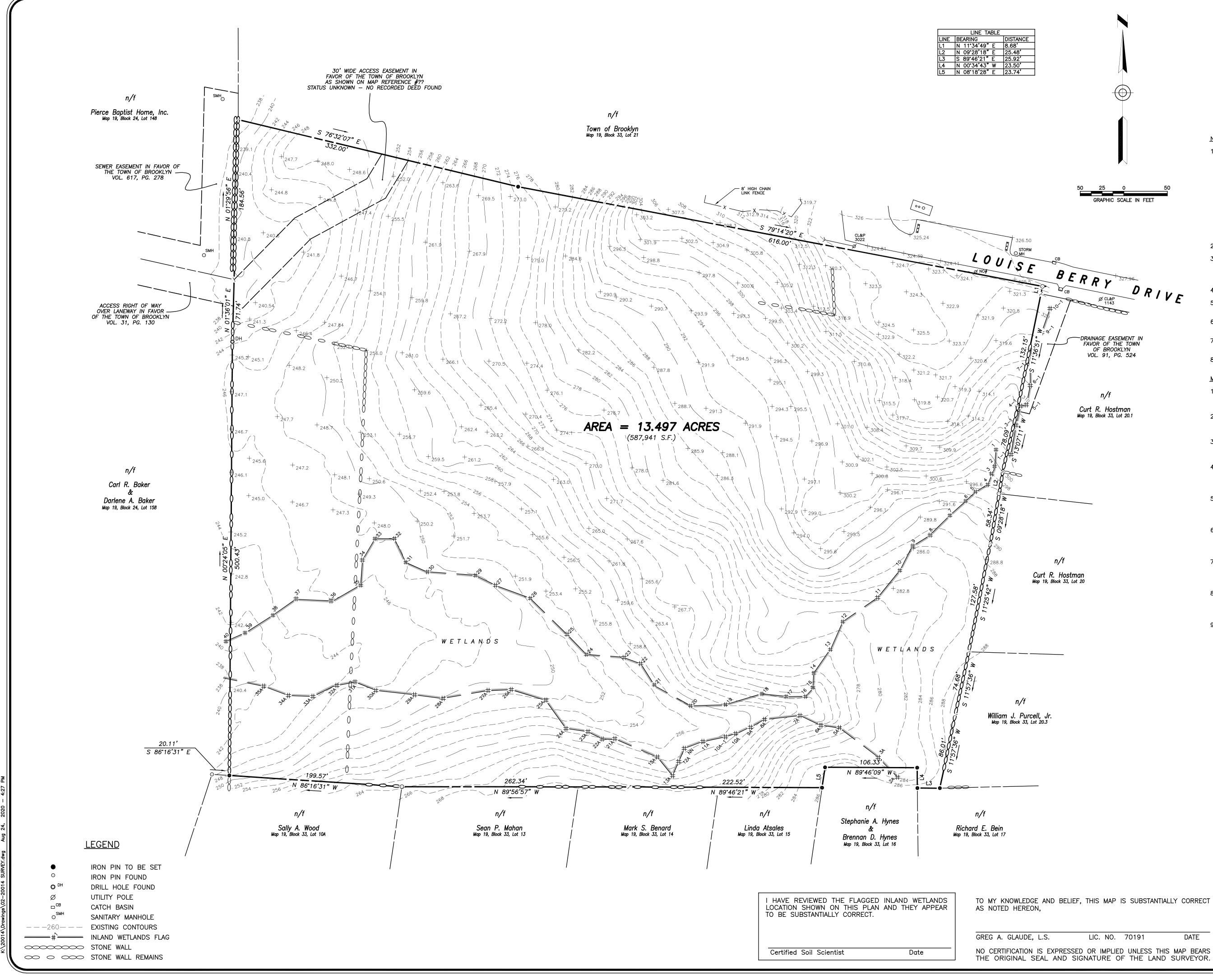
# INDEX TO DRAWINGS

TITLE	<u>SHEET No.</u>
COVER SHEET	1 OF 9
PROPERTY SURVEY	2 OF 9
SITE PLAN	3 OF 9
LAYOUT & LANDSCAPING PLAN	4 OF 9
DRAINAGE AND UTILITIES PLAN	5 OF 9
ROAD PROFILE	6 OF 9
DETAIL SHEET 1	7 OF 9
DETAIL SHEET 2	8 OF 9
DETAIL SHEET 3	9 OF 9

TABLE OF ZONING REQUIREMENTS			
ZONE = RA*			
Lot Area	<u>REQUIRED</u> 2 Acres	<u>PROVIDED</u> 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'	

\*Multi-family development in accordance with Section 6.E.

# FOR REVIEW ONLY **NOT FOR CONSTRUCTION**



	LINE TABLE	_
LINE	BEARING	DI
L1	N 11°34'49" E	8.
L2	N 09°28'18" E	25
L3	S 89'46'21" E	25
L4	N 00°34'43" W	23
L5	N 08°18'28" E	23

GLAUDE, L.S.	LIC. NO.	70191	DATE
FICATION IS EXPRESSED GINAL SEAL AND SIG			

# 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.
- "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 Filé in the Brooklyn land records.
- "Easement Plan showing proposed easement on land of Eggs, Inc. prepared for Town of Brooklyn Wauregan Road (Route #205) Brooklyn, Connecticut Date: 4/20/2001 Scale: 1" = 50' Sheet 1 of 1 Prepared by KWP Associates. On file in the Brooklyn land records.
- "Property survey showing portion of land of pierce Memorial Baptist Home, Inc. 44 Canterbury Road and Vina Lane Brooklyn, Connecticut Date: November 26, 2007 Scale: 1" = 100' Sheet 1 of 2 Prepared by Dicesare Bentley." On file in the Brooklyn land records.
- "Perimeter Survey prepared for Eggs Inc. Gorman Road / Franklin Drive / Wauregan Road Brooklyn, Connecticut Date: Oct. 2014 Scale: 1" = 125' Sheet 1 of 1 Prepared by Archer Surveying, LLC." On file in the Brooklyn land records.
- "Boundary Line Agreement prepared for Brooklyn Center Complex, BLB, LLC and Vina Land, LLC Wauregan Road & Vina Lane Brooklyn, Connecticut Date: December 11, 2019 Scale: 1" = 125' Sheet 1 of 1 Prepared by Archer Surveying, LLC." Not on file.

08/24/2020	PER TOWN REVIEW	
DATE	DESCRIPTION	
REVISIONS		

# PROPERTY SURVEY

# PREPARED FOR

# SHANE POLLOCK

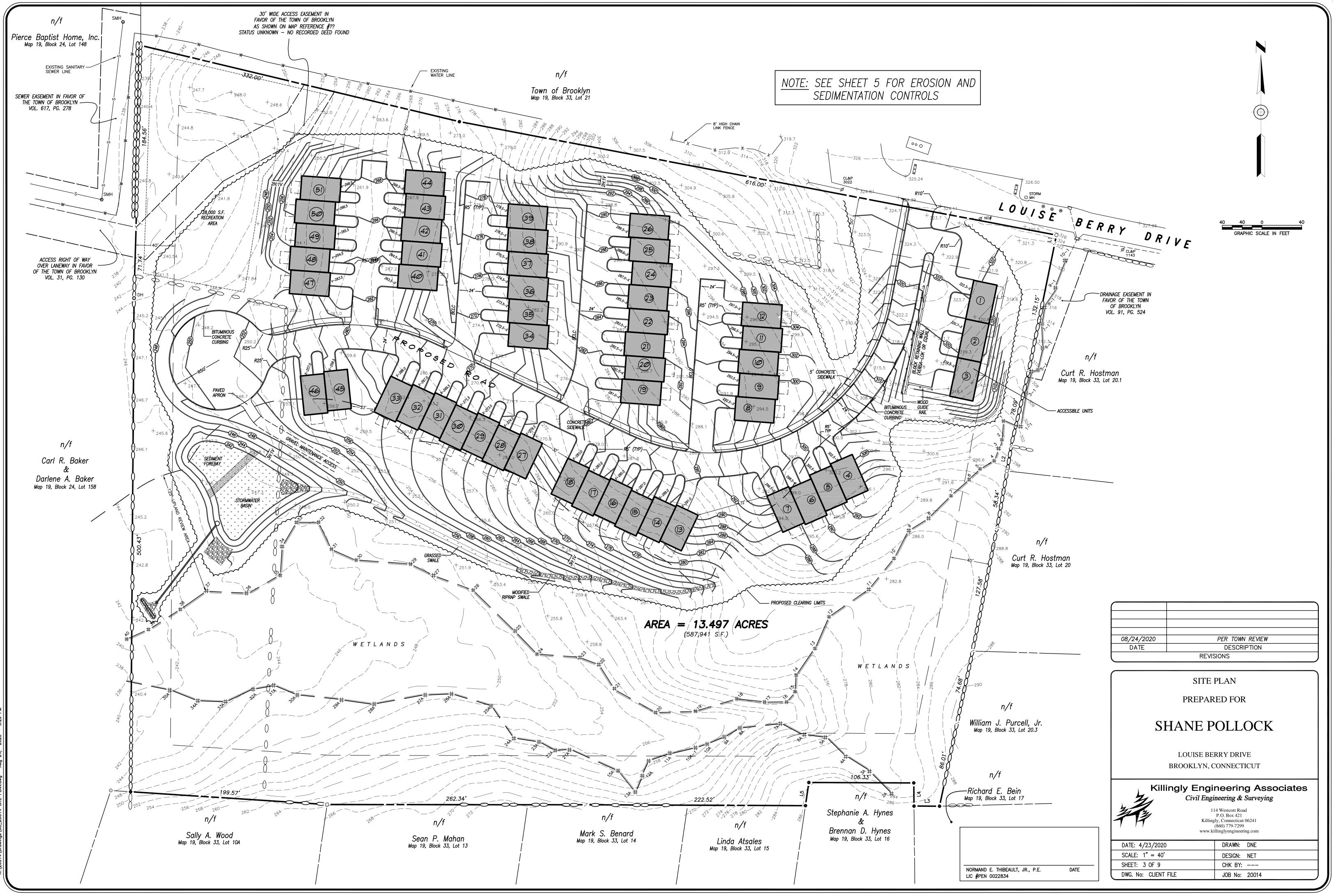
## LOUISE BERRY DRIVE BROOKLYN, CONNECTICUT



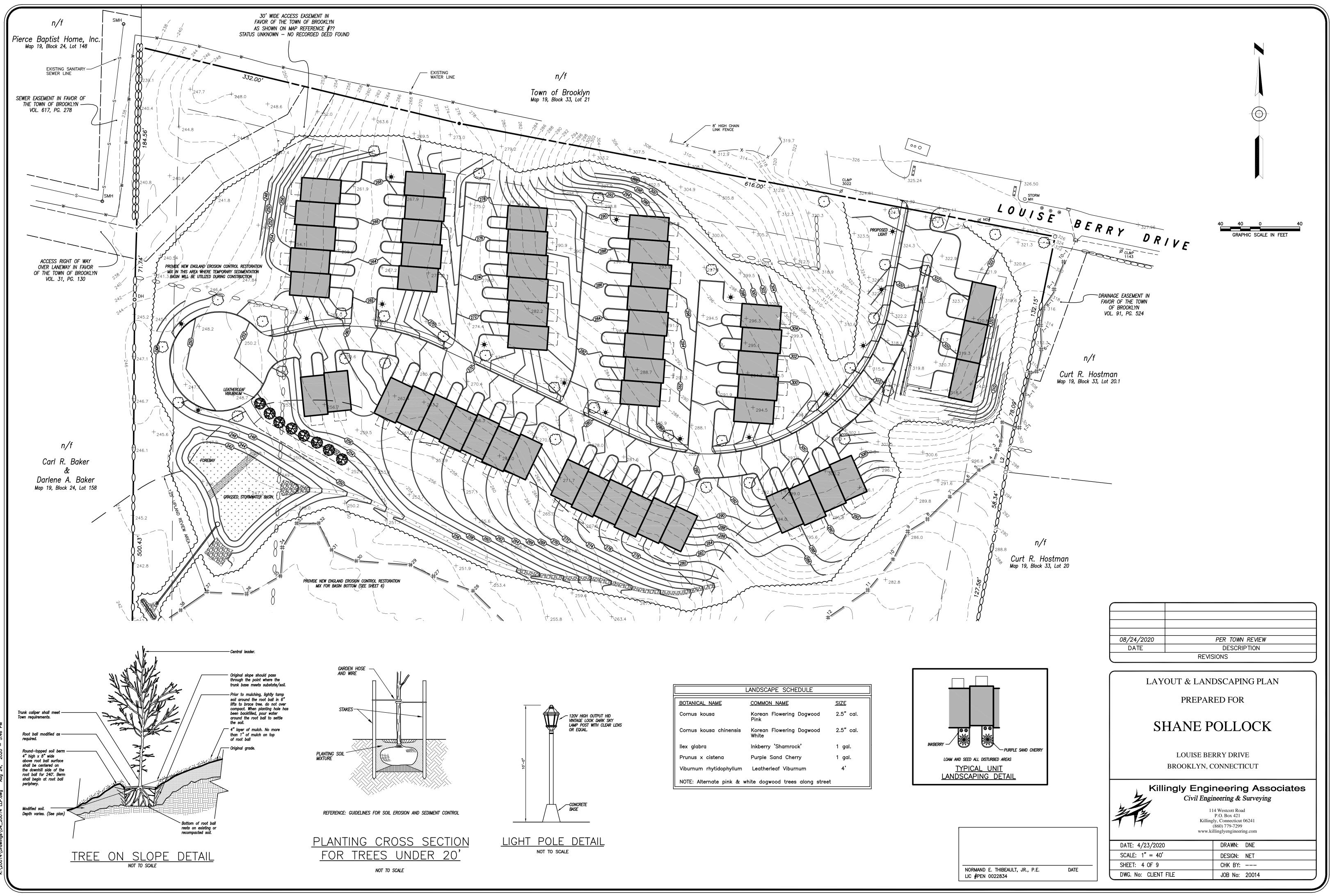
Killingly Engineering Associates Civil Engineering & Surveying 114 Westcott Road

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

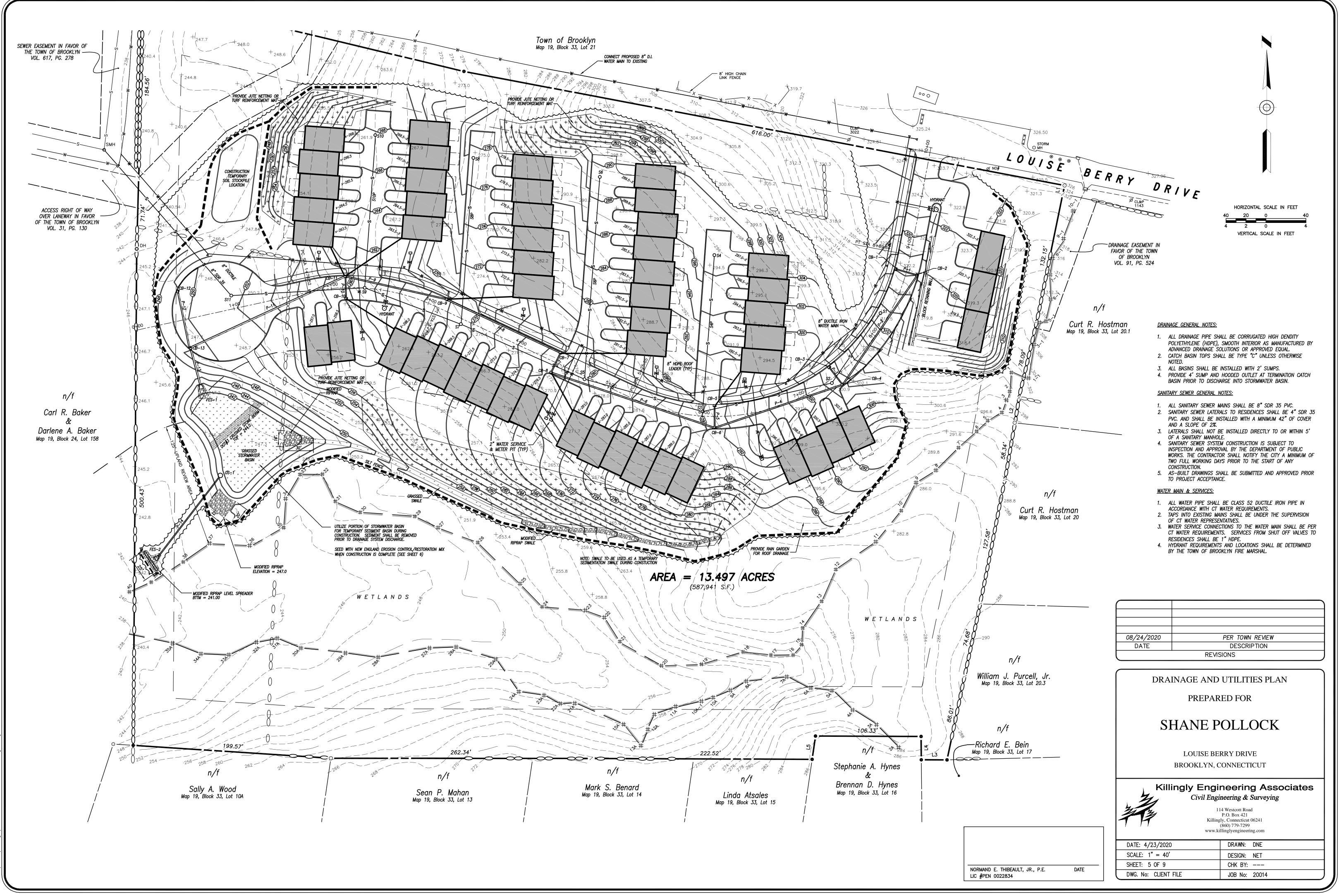
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SHEET: 2 OF 9	СНК ВҮ:
DWG. No: CLIENT FILE	JOB No: 20014



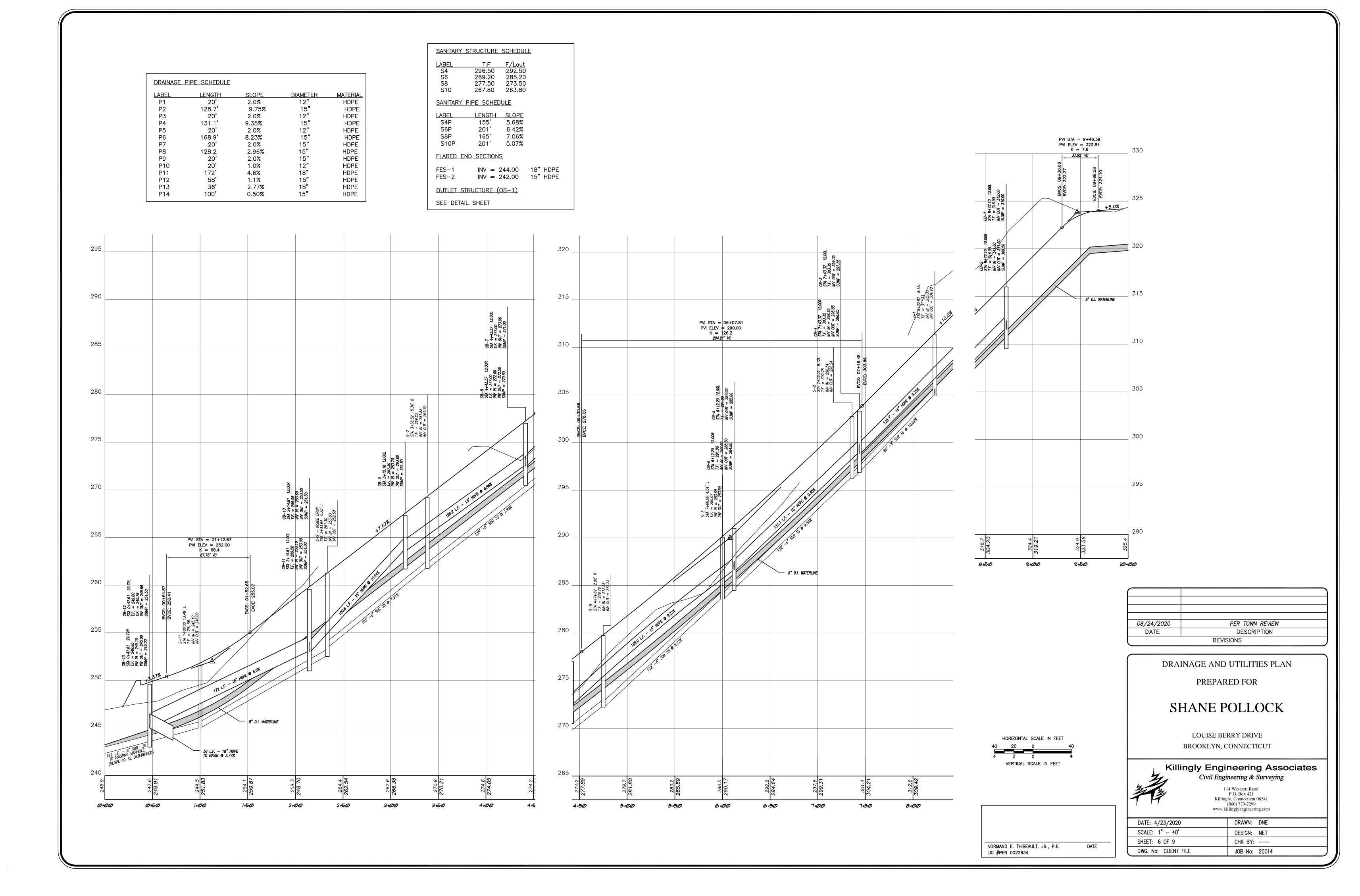
20014\Drawings\03\_20014 SITE PLAN.dwg Aug 24, 2020 — 5:2:



LANDSCAPE SCHEDULE			
BOTANICAL NAME	COMMON NAME	<u>SIZE</u>	
Cornus kousa	Korean Flowering Dogwood Pink	2.5" cal.	
Cornus kousa chinensis	Korean Flowering Dogwood White	2.5" cal.	
llex 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			







### 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
- 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

rass 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. MUI CHING

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.
- . 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 arade, rake, seed and mulch to within 2' of the pavement.

23. Remove and dispose of all silt fence and hav 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.
- 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 Ówner or the jurisdictional Agency.

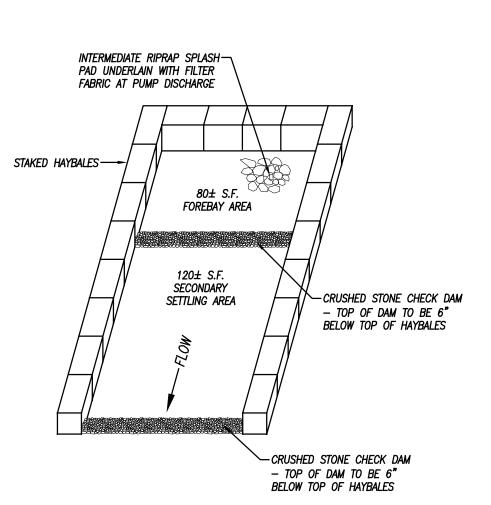
NATATA ANA

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" (150m) DEEP X 6" (150m) 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. 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

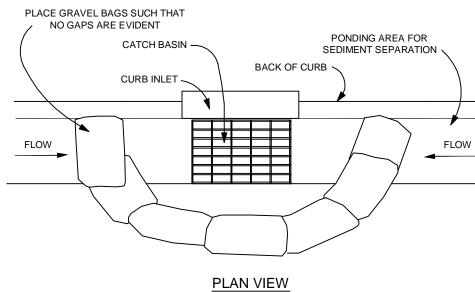
NOTES:

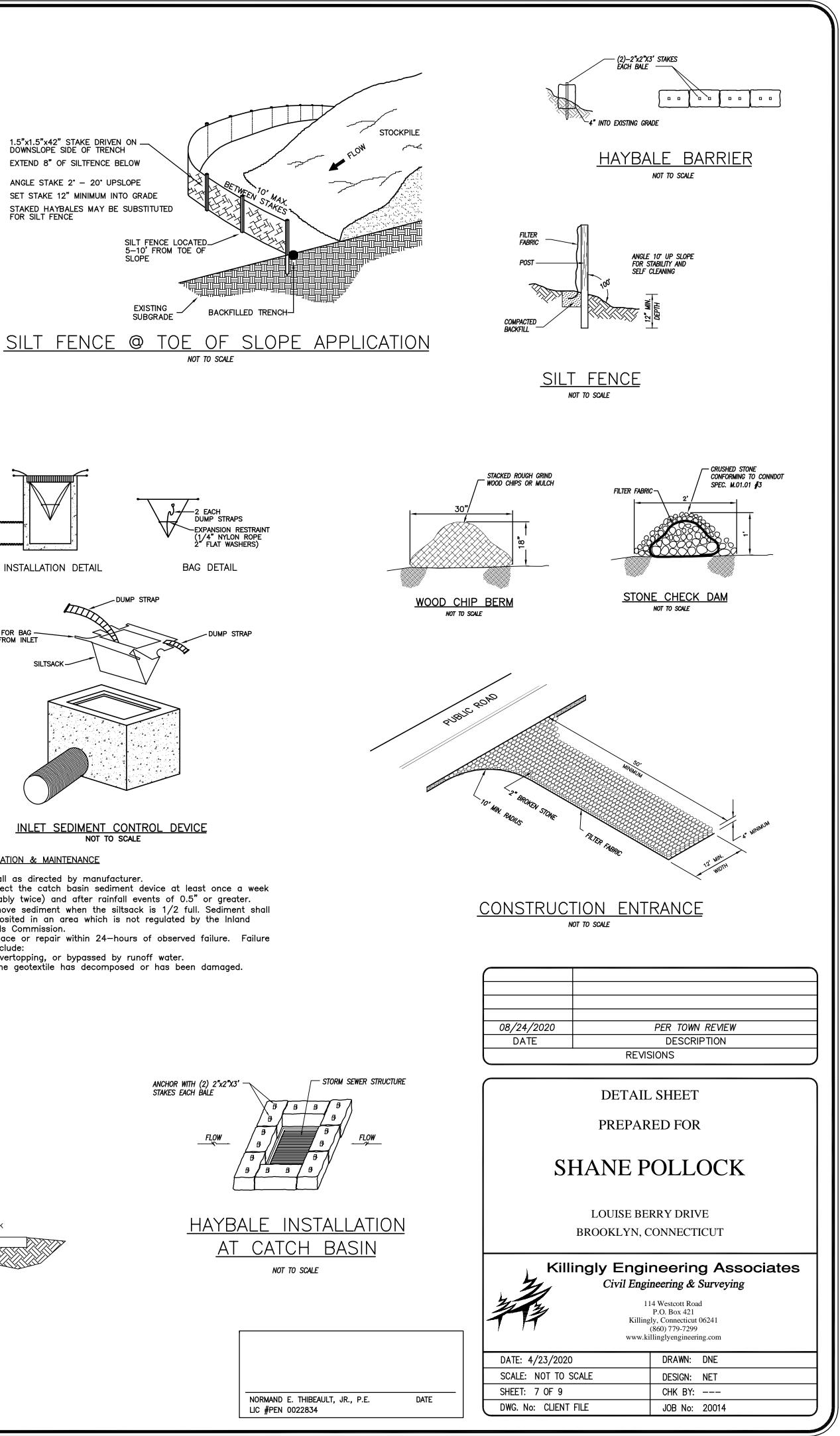
- 1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS. 2. TURF REINFORCEMENT MAT SHALL BE NORTH AMERICAN GREEN P-300® OR APPROVED EQUIVALENT.
- TURF REINFORCEMENT MAT INSTALLATION NOT TO SCALE

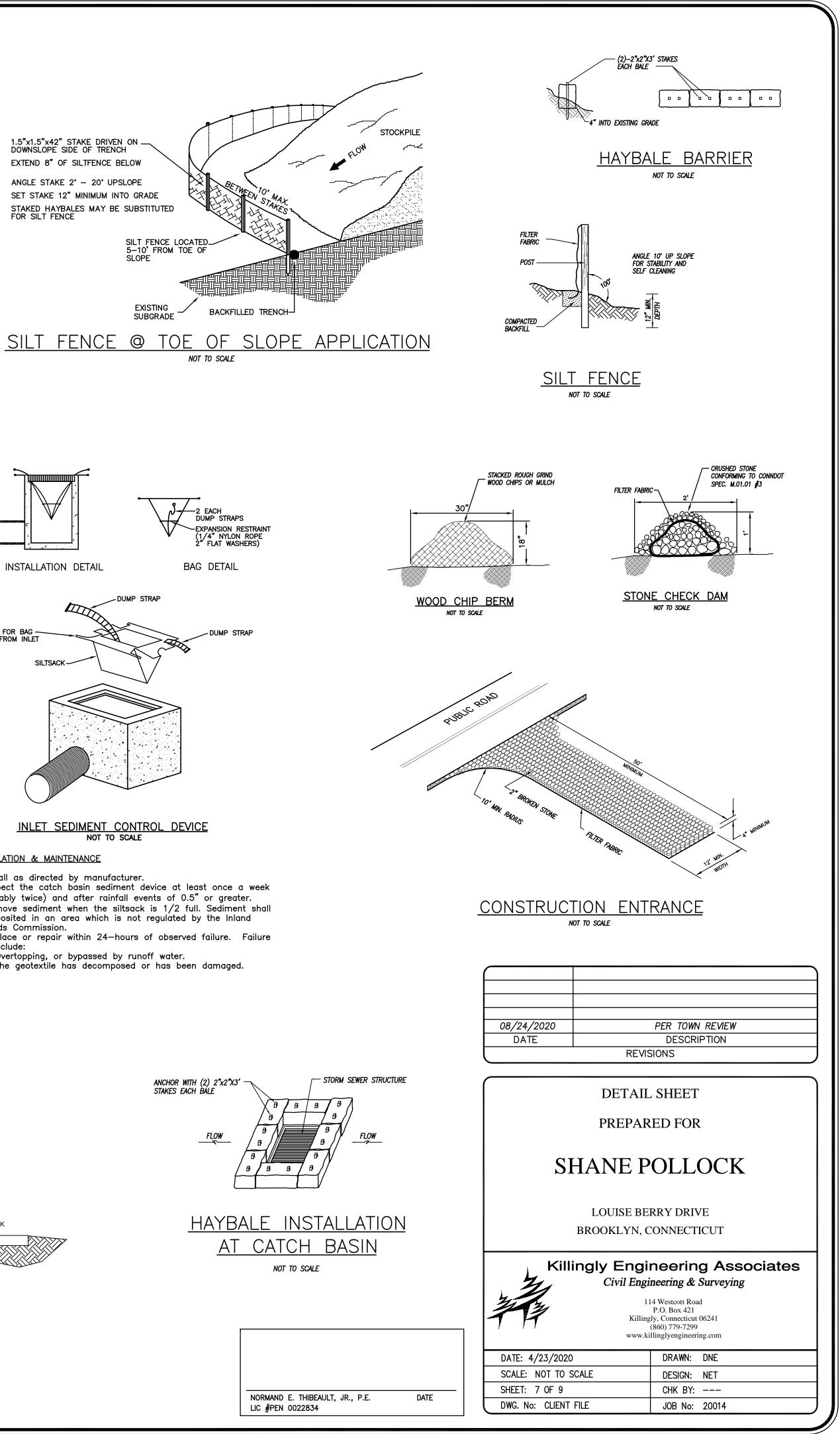


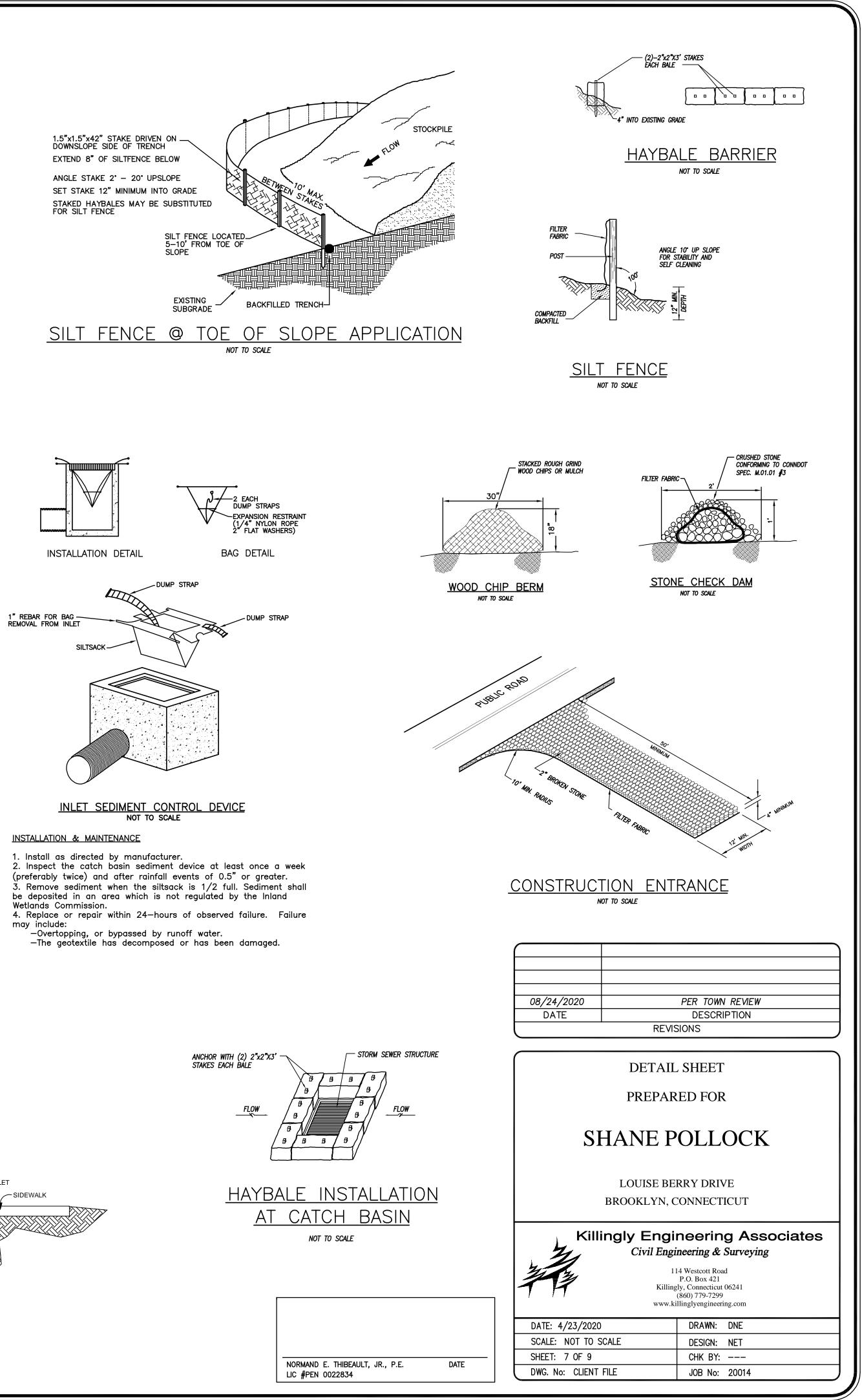
PUMPING OUTLET BASIN NOT TO SCALE

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



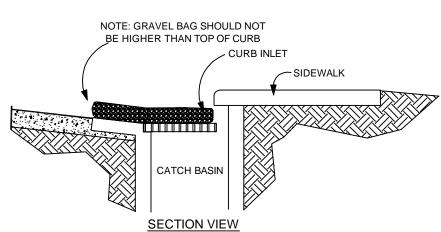




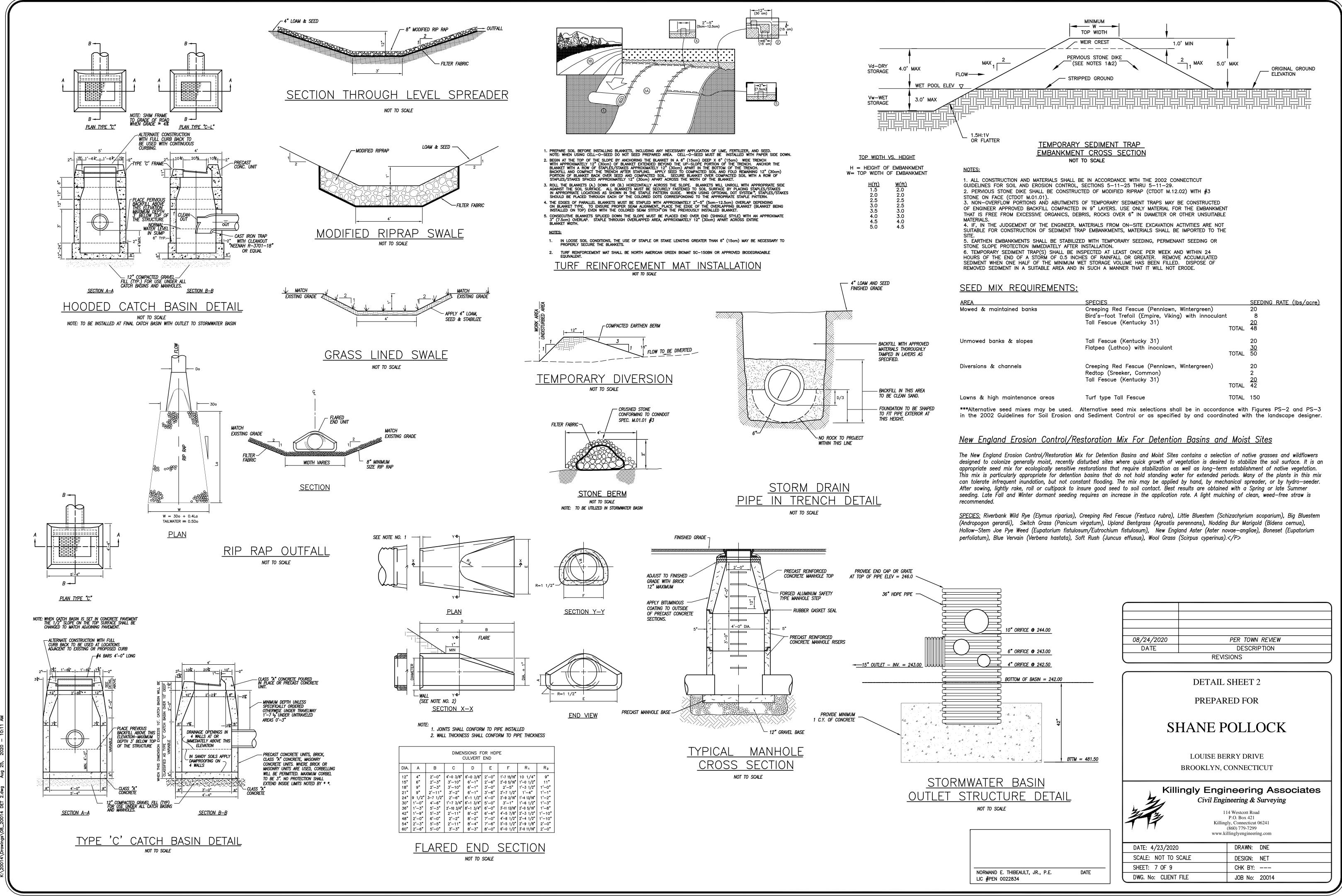


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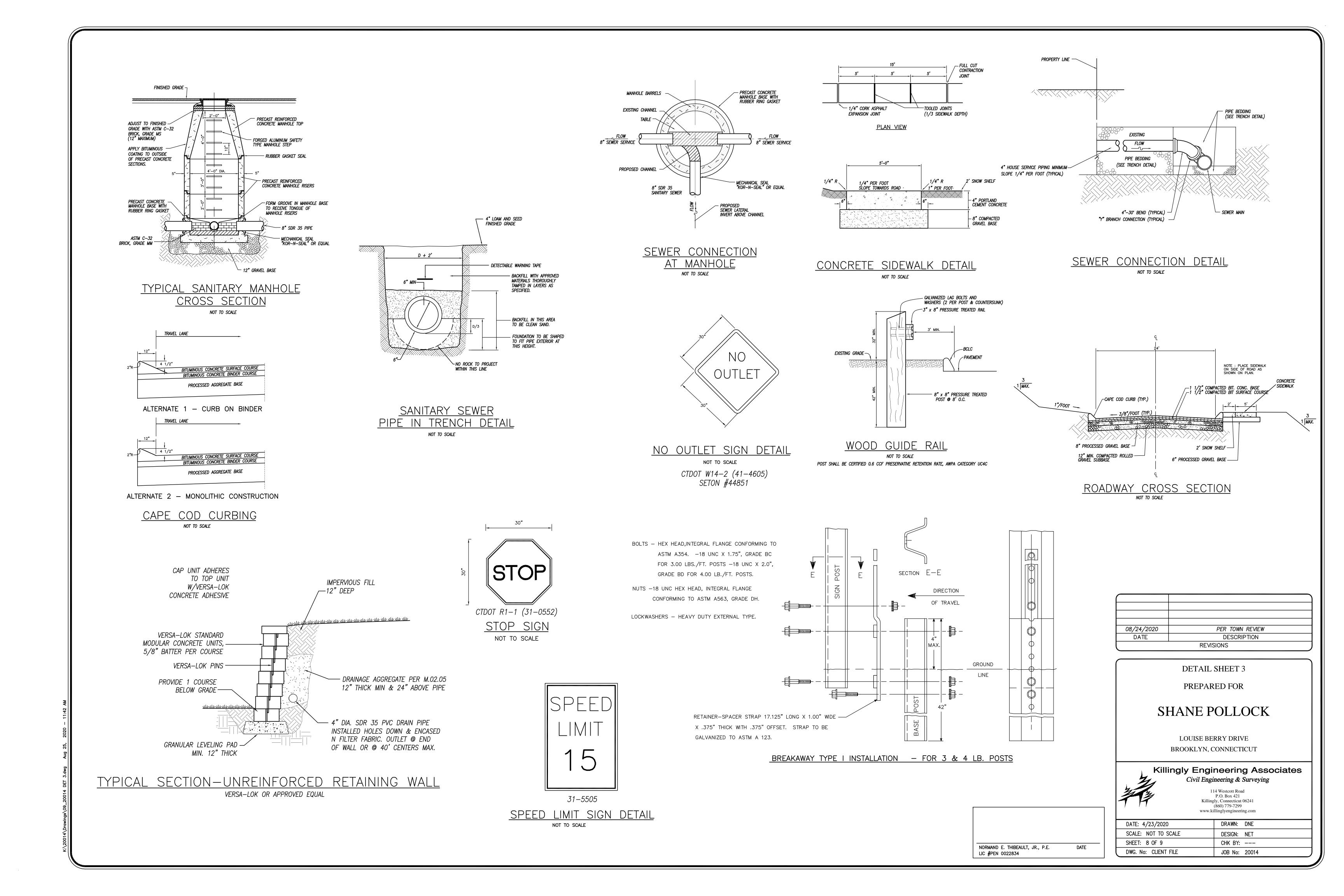
- 1. PLACE GRAVEL BAG BARRIER ON GENTLY SLOPING STREET, WHERE WATER CAN POND
- AND ALLOW SEDIMENT TO SEPARATE FROM RUNNOFF. 2. USE SAND BAGS OF WOVEN GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH  $\frac{1}{2}$  INCH
- (OR SMALLER) GRAVEL. BAGS MUST BE LAYERED SUCH THAT NO GAPS ARE EVIDENT. INSPECT BARRIERS 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.



STANDARD GRAVEL BAG CURB INLET PROTECTION



10" ORIFICE @ 244.00			
	08/24/2020	PER TOWN REVIEW	
6* ORIFICE @ 243.00	DATE	DESCRIPTION	
4" ORIFICE @ 242.50		REVISIONS	
BOTTOM OF BASIN = 242.00		DETAIL SHEET 2	
		PREPARED FOR	
	51	HANE POLLOCK	
BTTM = 481.50	LOUISE BERRY DRIVE		
		BROOKLYN, CONNECTICUT	
STORMWATER BASIN			
	Killi	ngly Engineering Associates	
<u>TLET STRUCTURE DETAIL</u>	Civil Engineering & Surveying		
NOT TO SCALE	2	114 Westcott Road	
		P.O. Box 421 Killingly, Connecticut 06241	
		(860) 779-7299 www.killinglyengineering.com	
		www.kiningryongineering.com	
	DATE: 4/23/2020	DRAWN: DNE	
	SCALE: NOT TO S	CALE DESIGN: NET	
NORMAND E. THIBEAULT, JR., P.E. DATE	SHEET: 7 OF 9	СНК ВҮ:	
LIC #PEN 0022834	DWG. No: CLIENT	FILE JOB No: 20014	



# Killingly Engineering Associates Civil Engineering & Surveying

P.O. Box 421 Killingly, CT 06241 Phone: 860-779-7299 www.killinglyengineering.com

August 24, 2020

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 review NECCOG comments on the referenced project dated July, 2020 we offer the following; please note that an additional sheet has been added to the plan set:

### Sheet 2 of 9

1. The soil Scientists signature block has been added to the plan

### Sheet 3 of 9

- 1. All curbing will be bituminous concrete and radii 5' unless otherwise noted. This notation has been added to the plans.
- 2. Sidewalks are shown 5' wide with a 2' snow shelf as requested.
- 3. The project does not propose public improvements along Louise Berry Drive, specifically sidewalks.
- 4. Dwellings are proposed to be 2-bedrooms.
- 5. Each dwelling unit will have a garage for one interior parking space.
- 6. Block retaining wall has been labeled as "Versa-Lok or equal". A guide rail has been added at the top of the wall.
- 7. Curbing has been shown around the landscaped islands for units 1-3.
- 8. Guide rail adjacent to unit 3 has been labeled accordingly.
- 9. Recreation area is for passive recreation such as picnicking, ball playing, frisbee etc. The temporary sedimentation basin is "temporary" and will be eliminated at the end of construction and the areas restored. The use of the access easement will not be impacted by either the temporary basin or passive recreation.
- 10. Slopes have been labeled 3H:1V and 2H:1V in some areas. These steeper slopes are proposed to reduce the grading footprint and will be treated with turf reinforcement matting.

### Sheet 4 of 9

- 1. Light poles have been added to the plans.
- 2. Restoration of the area where the temporary sedimentation basin has been noted on the plans.
- 3. Additional landscaping to screen the basin maintenance access has been shown.

### Sheets 5 & 6 of 9

Please note that a road profile sheet has been added to the plans which provides most of the information requested in the review.

- 1. Catch basin information has been added to the roadway profile.
- 2. Drainage pipe information is shown on the profile and in table form.
- 3. Roof leaders will be HDPE pipe.
- 4. Sanitary sewer information is shown on the profile and in table form.
- 5. Sanitary sewer pipe information is shown on the profile and in table form.
- 6. Cleanouts for sanitary sewer connections will be provided.
- 7. Additional sanitary sewer manholes have been added to the plans and each unit will be individually routed to the sanitary sewer system.
- 8. The existing sanitary sewer system is within an existing easement; the project is not proposing this easement. Connection to this sanitary sewer and to the existing waterline will be under the jurisdiction of the sewer authority and CT Water.
- 9. The existing sanitary manhole is not accessible but we do not anticipate conflicts with the proposed and existing waterline with the sanitary sewer connection as there is 15'-18' of elevation change from the final proposed manhole in the cul-de-sac. The plans have been forwarded to CT water for review and the connection will be reviewed with the Killingly WPCA prior to P&Z submission. We have not excavated test holes and would not do so without permission from CT Water.
- 10. Information regarding the existing waterline within the easement has been requested from CT Water.
- 11. As with the previous responses, we will call out the required connections, fittings, clamps when we receive the redlined plans from CT Water as we have done on numerous projects.
- 12. Waiting for redlines from CT Water.
- 13. Hydrants will be installed in locations required by code. We will determine whether buildings will required sprinklers or firewall separation.
- 14. The waterline will be looped from the service in the easement to an existing line in Louise Berry Drive in order to maintain water quality, pressure and volume requirements.
- 15. Distribution and water bill handling will be determined by the developer and CT Water. We don't believe this is a Wetlands or P&Z issue.
- 16. Final design of the water system will be per CT Water which we have done in previous projects. It is currently being reviewed.
- 17. The water main will be designed and installed with the required bends, fittings and thrust blocks.
- 18. The water main will be looped to a water main in Louise Berry Drive thereby alleviating the concern of water quality & pressure.
- 19. The drainage outlet from the detention basin will discharge to the existing wetlands where drainage from the property currently flows; the drainage pattern is not altered.
- 20. The riprap outlet is designed as a level spreader. Velocities from the discharge pipe are minimal.
- 21. Level spreader has been labeled and dimensioned.
- 22. Additional E&S has been shown as recommended.
- 23. The temporary sedimentation basin has been removed from the location previously show on the plan because the drainage area to that point is minimal. The area will be utilized for soil stockpiling.
- 24. The rain garden was for roof drainage for the building it was adjacent to. That feature has been eliminated and roof drainage will be directed to the stormwater collection system.

### Sheet 7 of 9

- 1. Construction notes/General Provisions, note 9 has been modified to state what materials shall be removed from the site.
- 2. A topsoil stockpile location has been added to the plans.
- 3. CT Water is the entity with jurisdiction over the water line and ultimately, the sanitary sewer discharge will be conveyed to the Town of Killingly WPCA. We will work with the town and water company as we have in past projects to coordinate connections. Even with private developments, CT will own and maintain the water line.
- 4. In order to be utilized for a temporary sediment trap during construction, the stormwater basin will be constructed with the sediment forebay as shown with a crushed stone filter. Catch basins will be installed with E&S controls as well. To keep sediment from being transported to the wetlands, the stormwater basin outlet structure will not be installed until the roadway has been stabilized and a low-level outlet encased in crushed stone and filter fabric will be installed for use during construction.
- 5. The "Utilities to edge of right of way" note has been modified accordingly.
- 6. The temporary sedimentation basin has been removed from the plans and the need to add it to the sequence of construction is not necessary.

### Sheet 8 of 9

- 1. We have not designed with a plunge pool and therefore a detail for it is not shown.
- 2. Grass & riprap swale details have been added to the plans.
- 3. A cross section of the outlet structure is shown on the detail sheet and a summary of water elevations for design storms is provided in the drainage report.
- 4. We will excavate test pits in the area of the proposed stormwater basin prior to submission to Planning & Zoning.
- 5. The flared end section detail has been replaced with one for HDPE pipe.
- 6. The catch basin detail has been modified to show a 4' sump as requested.
- 7. The turf reinforcement mat selection has been modified to a degradable product.
- 8. The call out for the hood has been more clearly specified.
- 9. The hood will be utilized at the last catch basin prior to discharge to the stormwater basin.

### Sheet 9 of 9

- 1. Curbing has been modified to a Cape Cod style curb.
- 2. The type of brick for the sanitary manhole has been specified on the plan.
- 3. The sanitary sewer pipe in trench detail has been modified accordingly.
- 4. Kor-N-Seal connections have been specified for the sanitary sewer connections.
- 5. Specification for the preservative retention and AWPA classification of the guide rail has been added to the detail.
- 6. Guide rail is shown adjacent to the accessible units at the site entrance.
- 7. Speed limit sign has been modified accordingly.
- 8. The "No Outlet" sign detail has been modified accordingly.
- 9. The stop sign detail has been modified accordingly.
- 10. The retaining wall section has been modified accordingly. It should be noted that the detail was taken from the Versa-Lok website.
- 11. Roadway detail has been modified accordingly.
- 12. The sidewalk detail has been modified accordingly.

### Sheet 9 of 9

- 1. The 40-scale plans are in accordance with the town's regulations and are standard for a project of this type.
- 2. Detailed drainage calculations have been completed and will be forwarded for review.
- 3. A profile of the roadway has been added to the plans.
- 4. We have provided 2 parking spaces per unit and a 24' wide roadway. We can discuss the need/requirement for additional parking with Town staff.
- 5. The soil scientist is preparing an impact report that we will forward upon completion.
- 6. We have not formally discussed sanitary sewer flow with the WPCA but at 150 GPD per bedroom we would anticipate 15,300 GPD and 42.5 GPM peak with a peaking factor of 4. From previous work we have done for discharges to the Killingly WPCA, we know that they are currently running well below plant capacity. Per a telephone conversation with a representative from Suez (Killingly WPCA), they feel that Brooklyn is also currently operating well below their allowable capacity.
- 7. We trust that the plans as submitted are not "schematic" in nature. We understand that there is work to be completed with the water distribution system design but we are waiting for response from CT Water before making these adjustments to the plans.
- 8. The paperwork on the condominium documents will be provided in a draft format for the P&Z submission. Typically, these documents are not completed until all approvals have been obtained from local and state agencies and any special requirements can be incorporated into the documents upon approvals.
- 9. Killingly Engineering will be conducting all survey stakeout and as-builts including the interior layouts for condominiums declarations. We are currently doing this type of work for 2 similar developments, one in Killingly and one in Plainfield.
- 10. The "common space" will be defined in the condominium documents as required.
- 11. A typical floor plan and elevation of a building will be provided for the P&Z submission as required.
- 12. CT Water will assume ownership and maintenance of the water main and the Association will assume ownership and maintenance of the sanitary sewer system.

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

Sincerely:

Somad Mibeally

Normand Thibeault, Jr., P.E.