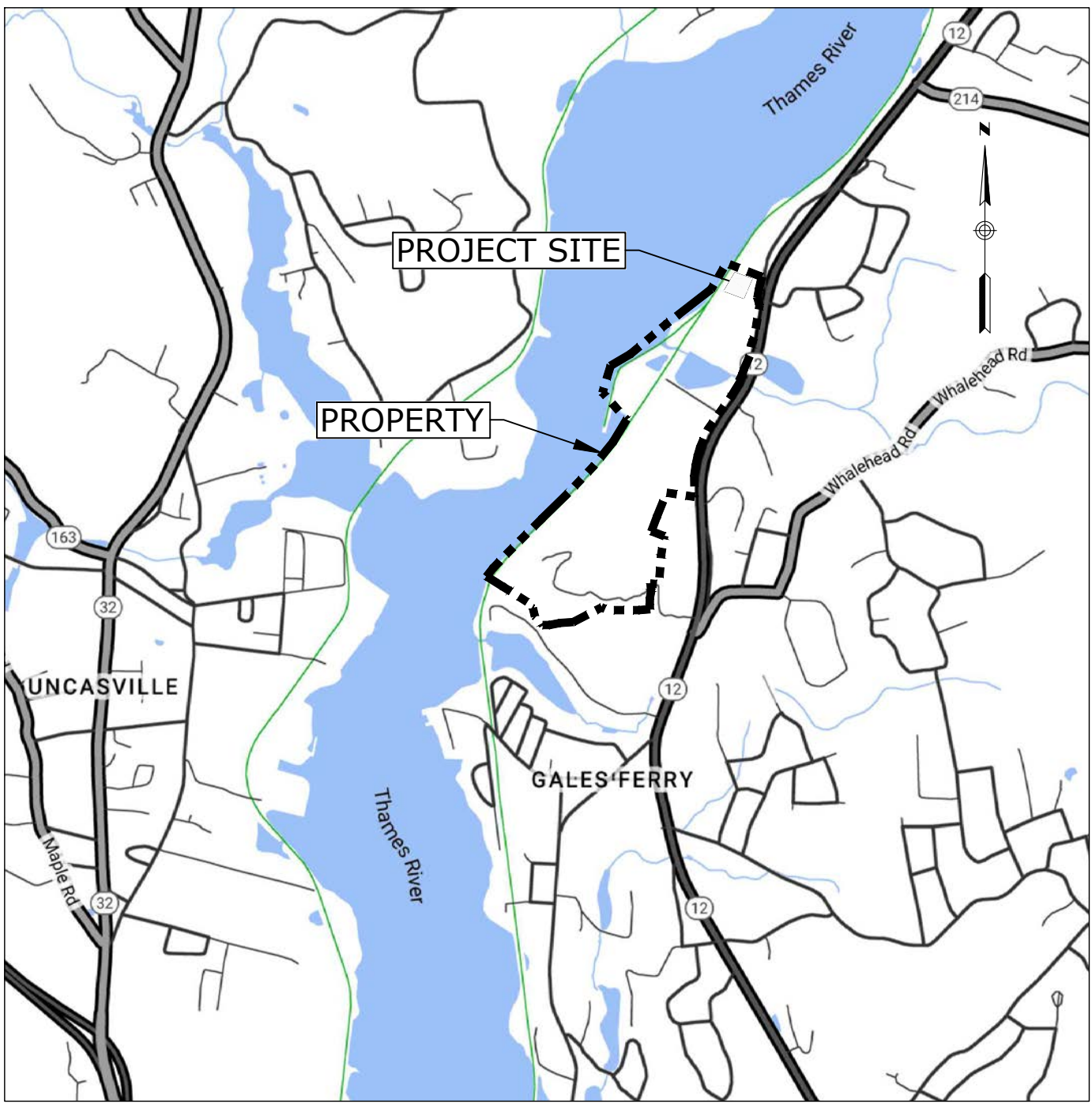


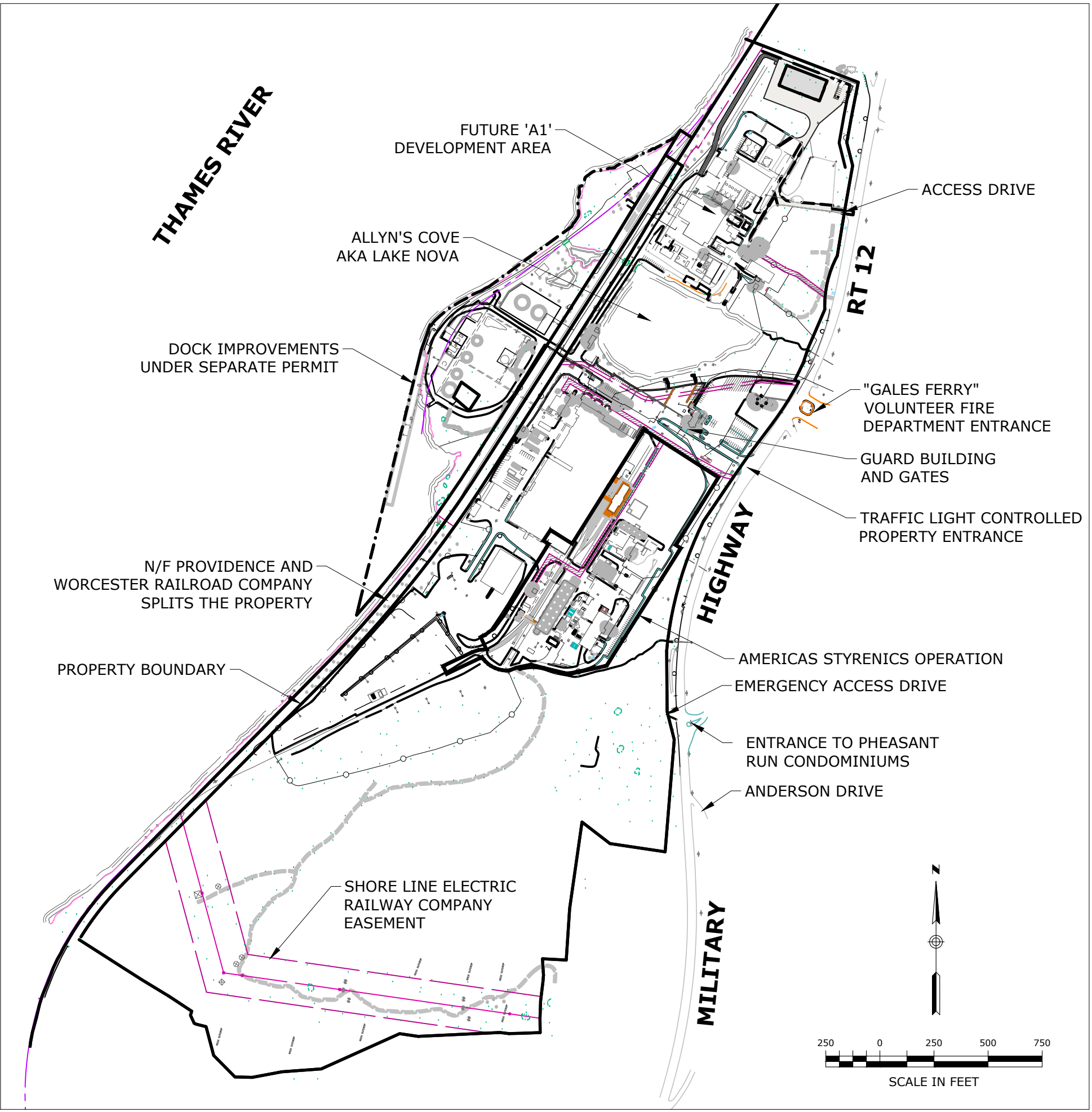
# GALES FERRY INTERMODAL STERLING FACILITY

1761 ROUTE 12  
GALES FERRY, CONNECTICUT 06335

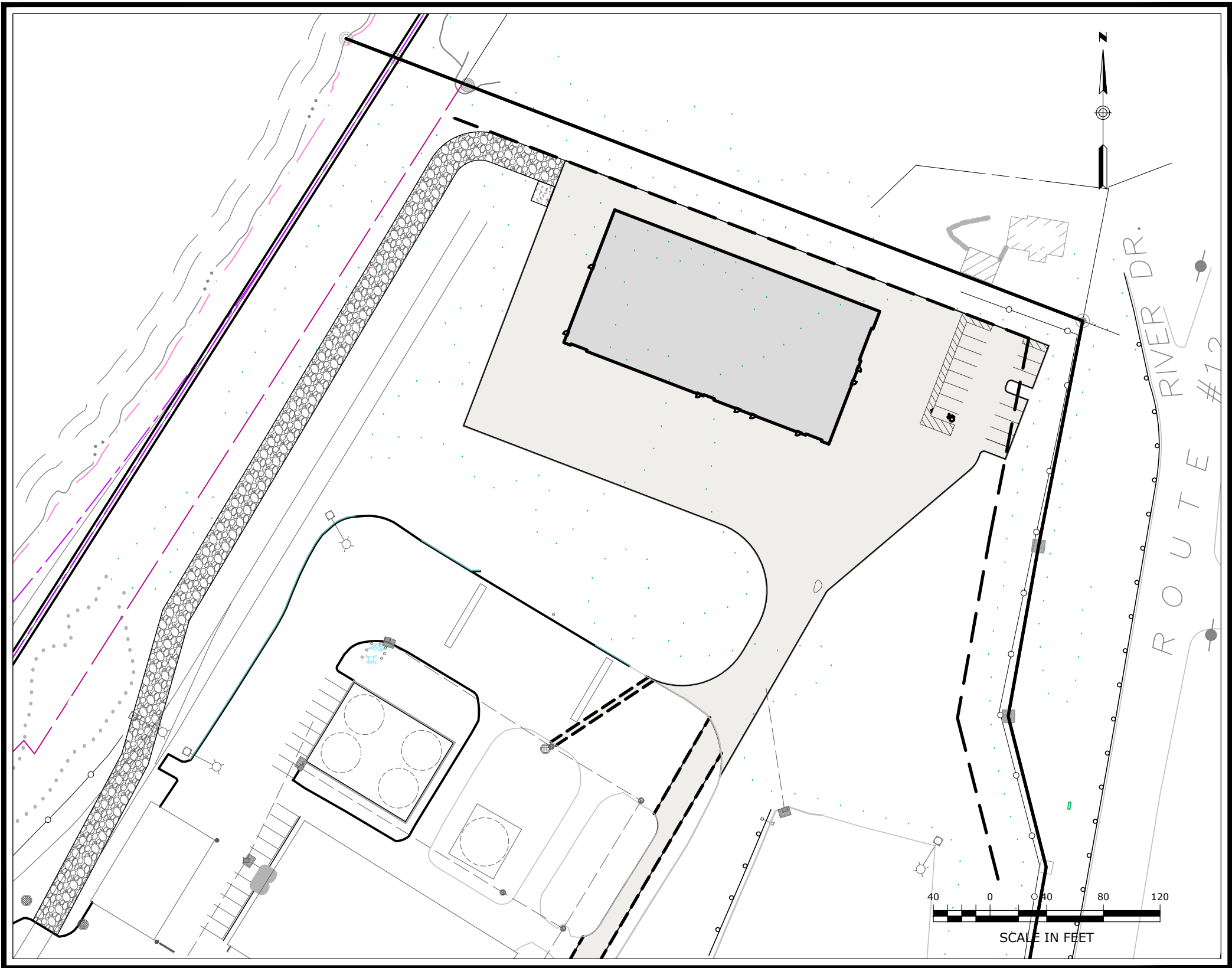
MARCH 07, 2023



LOCATION MAP  
SCALE: 1"=±2,000'



PROPERTY MAP AND ADJACENT FEATURES



DRAWING INDEX		
SHEET NO.	DRAWING	TITLE
1	-	COVER SHEET
2	C-1	NOTES, LEGEND, AND ABBREVIATIONS
3	#2010063	PROPERTY SURVEY
4	C-2	OVERALL SITE PLAN
5	C-3	SITE PREPARATION AND DEMOLITION PLAN
6	C-4	SITE PLAN LAYOUT
7	C-5	GRADING AND DRAINAGE PLAN
8	C-6	UTILITY PLAN
9	C-7	SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN
10	C-8	SUBSURFACE SEWAGE DISPOSAL SECTIONS, DETAILS & NOTES
11	C-9	SOIL EROSION AND SEDIMENT CONTROL PLAN
12	L-1	LANDSCAPING PLAN
13	C-10	PHOTOMETRIC AND LIGHTING PLAN
14	C-11	COASTAL AREA MANAGEMENT PLAN
15	C-12	SITE DETAILS 1
16	C-13	SITE DETAILS 2
17	C-14	SITE DETAILS 3
18	C-15	STORMWATER DETAILS
19	C-16	SOIL EROSION AND SEDIMENT CONTROL DETAILS
20	C-17	SIGHTLINE DEMONSTRATION PLAN

Property Owner / Applicant:

GALES FERRY INTERMODAL LLC  
549 SOUTH STREET  
QUINCY, MA 02169



Prepared By:

Engineer:  
Loureiro Engineering Associates, Inc.  
100 Northwest Drive · Plainville, Connecticut 06062  
Phone: 860-747-6181 · Fax: 860-747-8822  
An Employee Owned Company · [www.Loureiro.com](http://www.Loureiro.com)  
Engineering · Construction · EH&S · Energy  
Waste · Facility Services · Laboratory



PZ PERMIT # _____	DATE OF APPROVAL _____	EXPIRATION DATE _____
PZC CHAIRMAN OR SECRETARY _____	DATE _____	



SURVEY NOTES

- THIS PLAN IS BASED ON MAP REFERENCE A.
- REFERENCE IS MADE TO THE TOWN OF LEDYARD, CT LAND EVIDENCE RECORDS VOLUME 621 AT PAGE 981 FOR THE SUBJECT PROPERTY.
- THE SUBJECT PROPERTY IS LOCATED ENTIRELY WITHIN THE "I" INDUSTRIAL ZONE DISTRICT.
- "NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP NEW LONDON COUNTY, CONNECTICUT ALL JURISDICTIONS PANEL 354, TOWN OF LEDYARD, MAP NUMBER 0901C03540 EFFECTIVE DATE JULY 18, 2011 FEDERAL EMERGENCY MANAGEMENT AGENCY" INDICATES THE SUBJECT PROPERTY IS LOCATED IN ZONE AE (EL 12) AND ZONE X.
- THE SUBJECT PROPERTY IS SHOWN ON THE TOWN OF LEDYARD, CT TAX ASSESSOR MAP 61 BLOCK 2120 AS LOT 1761 WHICH HAS ASSIGNED STREET ADDRESSES OF 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335.
- UNDERGROUND UTILITIES MUST BE FIELD VERIFIED PRIOR TO ANY EXCAVATION.
- INLAND WETLANDS WERE DELINEATED IN THE FIELD BY JMM WETLAND CONSULTING SERVICES, LLC AND LOCATED BY LOUREIRO ENGINEERING ASSOCIATES, INC., GROTON, CONNECTICUT.

MAP REFERENCES

- A. PROPERTY SURVEY, PROPERTY OF TRINSEO LLC, #1737 & #1761 MILITARY HIGHWAY (ROUTE 12), LEDYARD, GALES FERRY, CT, PREPARED FOR: JAY CASHMAN, INC., 549 SOUTH STREET, QUINCY, MA, SCALE: 1"=100', DATE: 5/10/2022, BY CHA.

SITE NOTES:

- THE APPLICANT/OWNER IS GALES FERRY INTERMODAL LLC OF 549 SOUTH STREET, QUINCY, MA.
- THE APPLICANT IS PROPOSING TO CONSTRUCT A 20,000 SF INDUSTRIAL BUILDING WHICH WILL BE UTILIZED BY THE APPLICANT, AND/OR ITS AFFILIATES, FOR STORAGE AND REPAIR OF MARINE EQUIPMENT AND APPURTENANCES WHICH ARE UTILIZED BY THE APPLICANT'S AFFILIATES IN CONJUNCTION WITH ITS MARINE CONTRACTING AND DREDGING OPERATIONS.
- OTHER USES ON THE SITE CURRENTLY INCLUDE MANUFACTURING OF STYROFOAM PRODUCTS BY AMERICAS STYRENICS, A TENANT OF THE PROPERTY.
- THE PURPOSE OF THESE PLANS IS FOR REVIEW BY THE LEDGE LIGHT HEALTH DISTRICT FOR COMPLIANCE WITH THE PUBLIC HEALTH CODE AND THE TOWN OF LEDYARD PLANNING & ZONING COMMISSION FOR A SPECIAL PERMIT APPLICATION FOR THE NEW INDUSTRIAL BUILDING. THESE PLANS ARE FOR PERMIT PURPOSES ONLY AND ARE NOT TO BE USED FOR CONTRACT DOCUMENTS.
- FOR EXACT BUILDING DIMENSIONS, SEE BUILDING PLANS PROVIDED.
- THE SUBJECT PROPERTY IS LOCATED WITHIN THE 'I' INDUSTRIAL ZONE. THE PARCEL DOES LIE WITHIN THE COASTAL AREA MANAGEMENT ZONE. A PORTION OF THE SITE IS WITHIN THE FEMA FLOOD ZONES.
- LOT COVERAGE CALCULATIONS:
  - A. ALLOWED @ 70% = 70% X 6,882,480 SF = 4,817,736 SF
  - B. PROVIDED: 2,091,741 (EXISTING) + 73,965 (PROPOSED) / 6,882,480 SF = 31.5 %
- PARKING CALCULATIONS FOR NEW INDUSTRIAL BUILDING:
  - A. REQUIRED:
    - 1 SPACE PER EMPLOYEE ON MAX SHIFT PLUS 1 SPACE PER FLEET VEHICLE
    - 1 SPACE PER EMPLOYEE ON MAX SHIFT X 10 EMPLOYEES PLUS 1 SPACE PER FLEET VEHICLE X 7 FLEET VEHICLES = 17 SPACES REQUIRED
  - B. PROPOSED:
    - 17 SPACES

NOTE: OTHER ON-SITE BUILDINGS AND USES WERE NOT EVALUATED FOR PARKING REQUIREMENTS.

- THERE SHALL BE NO ACTIVITY WITHIN THE WETLAND OR 100 FOOT INLAND WETLAND UPLAND REVIEW AREA UNLESS OTHERWISE PERMITTED AND AS SHOWN ON THESE PLANS.
- ANY MODIFICATION TO THE PLANS, INCLUDING ANY RECONFIGURATION OF THE PROPOSED FLOOR PLAN, IMPOSED BY ANOTHER FEDERAL, STATE OR LOCAL AGENCY SHALL REQUIRE ADDITIONAL REVIEW BY TOWN STAFF OR THE COMMISSION, WHICHEVER IS APPROPRIATE.
- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS INCLUDING A CONNECTICUT D.O.T. ENCRoACHMENT PERMIT FOR ALL WORK WITHIN THE D.O.T. RIGHT-OF-WAY PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN, REVIEW AND ADHERE TO ALL REQUIREMENTS AND ANY CONDITIONS OF APPROVAL OF THE TOWN OF LEDYARD.
- NO SIGNAGE IS PROPOSED WITH THIS APPLICATION. ANY FUTURE SIGNAGE SHALL MEET THE ZONING REGULATIONS REQUIREMENTS AND WILL REQUIRE THE NECESSARY PERMITS.
- ANY EXTERIOR LIGHTING SHALL BE FULL CUTOFF AND SHALL BE SHIELDED TO DIRECT LIGHT AND GLARE AWAY FROM ALL ADJOINING PROPERTIES.
- ALL PROPOSED PAVEMENT MARKINGS SHALL BE INSTALLED IN THE LOCATIONS SHOWN WITH DURABLE WHITE PAVEMENT MARKING PAINT AND IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.). THE HANDICAP PARKING SYMBOLS SHALL BE WHITE WITH STANDARD HANDICAP BLUE BACKGROUNDS. ALL TRAFFIC CONTROL SIGNS SHALL CONFORM TO M.U.T.C.D. STANDARDS.
- NEW SIDEWALKS, RAMPS AND DRIVEWAYS SHALL BE INSTALLED TO PROVIDE SMOOTH TRANSITION FOR PEDESTRIANS AND VEHICLES.
- ALL CURB/HANDICAP RAMP DESIGNS SHALL CONFORM TO ANSI STANDARDS OR ADA ACT OF 1991, WHICHEVER IS MOST RESTRICTIVE.
- ALL JOINTS BETWEEN EXISTING AND NEW PAVEMENT SHALL BE PROPERLY SAWCUT, TACK COATED AND SEALED AS APPLICABLE. ALL PROPOSED JOINTS SHALL BE FLUSH AND MATCH EXISTING GRADES. SAWCUT LINES MAY BE MODIFIED AS NECESSARY TO MEET CONSTRUCTION REQUIREMENTS UPON REVIEW AND APPROVAL BY THE DESIGN ENGINEER.
- ALL EXISTING CURBING, PAVEMENT, ETC. DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPLACED/RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR.
- ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" STANDARDS.

UTILITY NOTES:

- UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 PRIOR TO INITIATION OF THIS PROJECT. IF UTILITIES DIFFER FROM THOSE SHOWN ON THIS PLAN, ENGINEER SHALL BE NOTIFIED.
- SCHEMATIC UNDERGROUND UTILITIES (ELECTRIC, TELEPHONE, COMMUNICATIONS, WATER) ARE SHOWN ON THESE PLANS FOR INFORMATIONAL PURPOSES ONLY. FINAL LOCATIONS WILL BE DETERMINED BY RESPECTIVE UTILITY AUTHORITIES AND INSTALLATION SHALL CONFORM TO UTILITY AUTHORITY POLICIES AND PRACTICES.
- ALL NEW UTILITIES, INCLUDING CATV, WILL BE LOCATED UNDERGROUND.
- ELECTRIC, TELEPHONE AND COMMUNICATION SERVICES SHALL CONFORM TO THE POLICIES AND PRACTICES OF THE APPROPRIATE UTILITY AUTHORITIES.
- UTILITY SERVICE SIZES, MATERIALS, AND INSTALLATIONS SHALL BE APPROVED AND INSPECTED BY THE APPROPRIATE UTILITY COMPANY.
- PROVIDE MINIMUM VERTICAL SEPARATION OF 12" FROM WATER MAIN TO DRAINAGE PIPING AND 18" TO SEWER PIPING.
- LOCATION AND SIZE OF ALL BUILDING UTILITY CONNECTIONS SHALL BE COORDINATED WITH BUILDING ARCHITECTURAL PLANS AND APPROPRIATE UTILITY AUTHORITY.
- WATER LINE INSTALLATION NOTES:
  - A. DOMESTIC AND FIRE PROTECTION WATER SERVICES SHALL BE SIZED BASED ON DEMAN AND COORDINATED WITH GROTON UTILITIES, THE PROVIDER THROUGH THE TOWN OF LEDYARD WPCA.
  - B. SITE MUST BE AT SUBGRADE BEFORE WATER UTILITIES CAN BE INSTALLED.
  - C. ALL WATER MAIN AND SERVICE INSTALLATIONS SHALL CONFORM TO THE CITY OF GROTON, DEPARTMENT OF UTILITIES, WATER MAIN AND SERVICE CONSTRUCTION SPECIFICATIONS, WITH MOST CURRENT REVISIONS.
  - D. APPROVED BACKFLOW PREVENTERS ARE REQUIRED ON ALL FIRE SPRINKLER AND DOMESTIC WATER LINES.
  - E. MINIMUM COVER OVER TOP OF WATER LINES SHALL BE 4.5' FROM FINISHED GRADE.
  - F. NO BACKFILLING OF PIPE SHALL BE DONE UNTIL A DESIGNATED REPRESENTATIVE OF THE CITY OF GROTON, DEPARTMENT OF UTILITIES HAS MADE AN INSPECTION AND INSTALLATION HAS BEEN APPROVED.
  - G. PIPE SEPARATIONS:
    - a. 10' MINIMUM BETWEEN WATER AND SEWER
    - b. 10' MINIMUM BETWEEN WATER AND BUILDINGS
    - c. 5' MINIMUM BETWEEN WATER AND CATCH BASINS OR DRAIN PIPES
  - H. WATER LINE GATE VALVES TO BE "OPEN LEFT, CLOSE RIGHT".
  - I. NEW WATER LINES TO BE CHLORINATED, PRESSURE TESTED, WATER QUALITY SAMPLED, AND FLUSHED PER CITY OF GROTON, DEPARTMENT OF UTILITIES REQUIREMENTS PRIOR TO BEING PLACED INTO SERVICE.
- MINIMUM 6" SEPARATION BETWEEN ELECTRIC AND ALL OTHER PIPES SUCH AS WATER, SEWER AND DRAINS.
- ALL UTILITIES AND ON-SITE STORM DRAINAGE SHALL BE STRUCTURALLY SUPPORTED TO MINIMIZE DISRUPTION FROM SETTLEMENT OF UNDERLYING SOIL.

EROSION AND SEDIMENTATION (E&S) CONTROL PLAN:

NARRATIVE

- THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN IS FOR THE CONSTRUCTION OF A NEW 20,000 SF INDUSTRIAL BUILDING WITH ASSOCIATED LOADING DOCKS, ACCESS DRIVE, PARKING, UTILITY IMPROVEMENTS, LANDSCAPING IMPROVEMENTS, STORMWATER MANAGEMENT IMPROVEMENTS, A NEW SUBSURFACE SEWAGE DISPOSAL SYSTEM, AND OTHER ASSOCIATED SITE IMPROVEMENTS.
- THE TOPOGRAPHY VARIES ACROSS THE SITE AND GENERALLY SLOPES FROM ROUTE 12 TO THE EXISTING ON-SITE INLAND WETLANDS. THE PORTION OF THE SITE WHERE THE PROPOSED WORK IS LOCATED SLOPES TO THE NORTH, SOUTH AND WEST. THE UNDERLYING SOIL ON THE SITE IS MOSTLY CONSIST OF THE LOAMY SAND, HYDROLOGIC SOIL GROUP B.
- A LARGE PORTION OF THE UPLAND SOILS WILL BE DISTURBED BY EARTHWORK ACTIVITIES AND THE INTENT OF THIS EROSION AND SEDIMENT CONTROL PLAN IS TO ESTABLISH STORMWATER CONTROLS DURING CONSTRUCTION TO PREVENT THE DISCHARGE OF SEDIMENT LADEN RUNOFF FROM ENTERING THE EXISTING INLAND WETLANDS.
- EROSION CONTROL MEASURES INTENDED TO MINIMIZE SOIL EROSION AND TO CONTROL SEDIMENTATION DURING CONSTRUCTION INCLUDE:
  - A. THE INSTALLATION OF SILT FENCE ALONG THE DOWN-GRADIENT LIMIT OF DISTURBANCE. INSTALL HAYBALES AS SHOWN ON PLANS.
  - B. INSTALL SILTSACKS IN EXISTING CATCH BASINS IN THE PROJECT AREA. INSTALL SILT SACKS IN NEW CATCH BASINS DURING CONSTRUCTION.
  - C. THE IMMEDIATE STABILIZATION OF FINAL GRADED AREAS THROUGH THE PLACEMENT OF RIPRAP, TOPSOIL, SEED, MULCH AND EROSION CONTROL NETTING.
  - D. DEVELOPMENT OF A CONSTRUCTION OPERATIONS PLAN IN CONSIDERATION OF BASIC CONSTRUCTION SEQUENCING OUTLINED HEREIN.
- IT IS ANTICIPATED THAT SITE WORK CONSTRUCTION WILL BEGIN IN THE SPRING OF 2023 AND WILL BE COMPLETED IN THE FALL OF 2023.

GENERAL E&S REQUIREMENTS

- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE TOWN REPRESENTATIVE TO DISCUSS ESC REQUIREMENTS AND STORMWATER MANAGEMENT PROCEDURES.
- CONSTRUCTION ENTRANCE SHALL BE INSTALLED BEFORE CONSTRUCTION TRAFFIC INTO AND OUT OF THE SITE BEGINS.
- THE CONTRACTOR SHALL INSTALL HAYBALES AND SILT FENCING AS SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN PRIOR TO INITIATING CONSTRUCTION ACTIVITIES AND SHALL BE MAINTAINED/REPAIRED UNTIL FINAL STABILIZATION OF ALL DISTURBED AREAS.
- THE CONTRACTOR SHALL SEED AND MULCH DISTURBED AREAS EXPECTED TO REMAIN UNSTABILIZED FOR A PERIOD OF MORE THAN 30 DAYS.
- THE CONTRACTOR SHALL COMPLETE PERMANENT SEEDING BETWEEN APRIL 15TH THROUGH JUNE 15TH AND AUGUST 15TH THROUGH SEPTEMBER 15TH. APPLY PERMANENT SOIL STABILIZATION MEASURES TO ALL GRADED AREAS WITHIN 7 DAYS OF ESTABLISHING FINAL GRADE AT A RATE OF 90 POUNDS PER 1,000 SQUARE FEET. RECOMMENDED SEED MIXTURE: FUTURA 2000 BY THE CHAS. C. HART CO. CONTAINING THE FOLLOWING VARIETIES OF PERENNIAL RYEGRASSES: FIESTA II, BLAZER II, DASHER II AND EXPRESS.
- UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF SEDIMENT AND DEBRIS. ALL REMOVED SEDIMENTS AND DEBRIS SHALL BE DISPOSED OFF-SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL DURING THE CONSTRUCTION PROCESS. THE CONSTRUCTION MANAGER SHALL INSPECT THE SITE TO ASSURE DUST IS ADEQUATELY CONTROLLED. IF THE CONSTRUCTION MANAGER DETERMINES DUST CONTROL MEASURES ARE NOT ADEQUATE, THE CONTRACTOR SHALL BE REQUIRED TO INCREASE THESE MEASURES AS DIRECTED BY THE CONSTRUCTION MANAGER.
- THE CONTRACTOR SHALL MAINTAIN EROSION CONTROLS.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF CONNECTICUT SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. ALL MEASURES SHALL BE MAINTAINED AND UPGRADED TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION.
- THE CONSTRUCTION MANAGER SHALL BE RESPONSIBLE FOR IMPLEMENTING AND INSPECTING EROSION AND SEDIMENT CONTROL MEASURES PER THIS PLAN AND SHALL INFORM ALL CONTRACTORS OF THE OBJECTIVES AND REQUIREMENTS OF THE PLAN. THE OWNER SHALL NOTIFY THE PROPER TOWN AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY AND SHALL ADVISE THE TOWN REGARDING THE NEED FOR IMPLEMENTING ADDITIONAL CONTROL MEASURES OR MAINTAINING EXISTING MEASURES AS DEEMED NECESSARY DURING CONSTRUCTION. WEEKLY INSPECTIONS SHALL BE CONDUCTED AND/OR WITHIN 24 HOURS OF THE END OF A STORM HAVING A RAINFALL AMOUNT OF 1/4 INCH OR GREATER. MONTHLY WRITTEN REPORTS SHALL BE PREPARED INFORMING THE TOWN OF LEDYARD OBSERVATIONS, MAINTENANCE, AND CORRECTIVE ACTIONS.

CONSTRUCTION SEQUENCE

THE INTENT OF THE FOLLOWING CONSTRUCTION SEQUENCE IS TO ESTABLISH STORMWATER CONTROLS DURING EARTHWORK ACTIVITIES TO PREVENT THE DISCHARGE OF SEDIMENT LADEN RUNOFF FROM ENTERING STORM DRAIN SYSTEMS, WETLANDS AND WATERCOURSES.

THE ESC PLAN SHOWS THE PROPOSED GRADING WHICH DEPICTS THE APPROXIMATE EXCAVATION LIMITS AND RESULTING DRAINAGE PATTERNS UPON WHICH THE ESC MEASURES ARE PREDICATED. THE CONTRACTOR SHALL DEVELOP A CONSTRUCTION EXCAVATION PLAN BASED ON THEIR OPERATIONAL REQUIREMENTS.

- CONTACT "CALL BEFORE YOU DIG" TO MARK OUT ALL UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- ENSURE ALL LAND USE PERMITS HAVE BEEN SECURED. OBTAIN ALL NECESSARY PERMITS.
- THE PROJECT LAND SURVEYOR SHALL STAKE OUT PROPOSED CLEARING LIMITS PRIOR TO CONSTRUCTION.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCE, SEDIMENT FENCES AND/OR HAY BALE BARRIERS AS SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN.
- REMOVE ALL TREES, BRUSH AND STUMPS WITHIN CLEARING LIMITS AS NECESSARY. PROTECT WETLANDS AT ALL TIMES. THERE SHALL BE NO BURIAL OF CONSTRUCTION DEBRIS, STUMPS, BRUSH OR UNSUITABLE MATERIAL ON SITE.
- EXCAVATE AND/OR FILL WORK SITE TO SUBGRADE LEVEL.
  - A. NO ROCK CRUSHING AND/OR BLASTING IS PROPOSED. IF BLASTING IS REQUIRED FOR ROCK REMOVAL, A PRE-BLAST SURVEY SHALL BE PERFORMED. IF BLASTING AND ROCK CRUSHING ARE REQUIRED THEN APPROVAL OF THE PLANNING AND ZONING COMMISSION IS REQUIRED.
  - B. FILL WILL BE PLACED AND COMPACTED IN 8 INCH LIFTS AND SHALL BE FREE OF BRUSH, RUBBISH, LOGS, BUILDING DEBRIS, OR ANY OTHER OBJECTIONABLE MATERIAL.
  - C. MOISTEN SOIL SURFACE PERIODICALLY WITH WATER TO MINIMIZE DUST.
- THE PROPOSED BUILDING AND SEPTIC SYSTEM SHALL BE STAKED OUT BY A LICENSED LAND SURVEYOR PRIOR TO CONSTRUCTION.
- BEGIN CONSTRUCTION OF BUILDINGS, SEPTIC SYSTEM, AND INSTALL UTILITIES. ADD EROSION CONTROL DEVICES AS NEEDED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING THE BUILDING AND SEPTIC SYSTEM IN THE EXACT LOCATION SHOWN AND SHALL BE CONSTRUCTED TO THE EXACT DIMENSIONS SHOWN ON THE LATEST SITE AND ARCHITECTURAL PLANS IN ACCORDANCE WITH THE APPROVED PLANS.
- INSTALL STORMWATER MANAGEMENT IMPROVEMENTS AND DRAINAGE STRUCTURES STARTING FROM THE MOST DOWNGRADIENT IMPROVEMENTS.
- ALL DISTURBED AREAS NOT COVERED BY BUILDINGS, PARKING, SIDEWALKS, GRAVEL SURFACES, ETC., SHALL BE GRADED AND STABILIZED AS FOLLOWS:
  - A. PLACE MINIMUM 4 INCHES OF TOPSOIL IN ALL AREAS.
  - B. APPLY RECOMMENDED SEED MIXTURE AT RECOMMENDED RATE.
  - C. APPLY STRAW OR HAY MULCH ON ALL SEEDED AREAS. ALL GRADED AREAS WITH SLOPES GRADED AT 3H:1V OR STEEPER SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS.
- PLACE AND COMPACT BASE MATERIAL TO FINAL GRADE. INSTALL PAVEMENT, CURB, SIDEWALKS, GRAVEL STEPS, ETC.
- INSTALL FINAL PAVEMENT COURSE.
- FINAL GRADE AND PLACE TOPSOIL SEED AND MULCH.
- WHEN ALL GRADED AREAS ARE PERMANENTLY STABILIZED, REMOVE ALL EROSION AND SEDIMENT CONTROLS. REMOVE TRAPPED SEDIMENT.

MAINTENANCE OF EROSION CONTROL DEVICES:

1. HAYBALE BARRIERS/GEOTEXTILE SILT FENCES:

- INSPECT HAY BALE BARRIERS/GEOTEXTILE SILT FENCE AT LEAST ONCE A WEEK AND WITHIN 24 HOURS AFTER THE END OF A STORM WITH A RAINFALL AMOUNT OF 1/2" OR GREATER TO DETERMINE MAINTENANCE NEEDS.
- REMOVE SEDIMENT DEPOSITS OR INSTALL A SECONDARY BARRIER/FENCE WHEN SEDIMENT DEPOSITS REACH APPROXIMATELY ONE HALF HEIGHT OF THE BARRIER/FENCE.
- REPLACE OR REPAIR THE BARRIER/FENCE WITHIN 24 HOURS OF OBSERVED FAILURE. IF REPETITIVE FAILURE OCCURS, CONSULT 2002 GUIDELINES FOR TROUBLESHOOTING FAILURES.
- MAINTAIN THE HAY BALE BARRIER/SILT FENCE UNTIL THE CONTRIBUTING AREA IS STABILIZED.
- AFTER UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE STAKES FROM HAY BALES; PULL UP FENCE SUPPORT POSTS AND CUT OFF GEOTEXTILE AT GROUND. UNLESS OTHERWISE REQUIRED, HAY BALES MAY BE LEFT IN PLACE OR BROKEN UP FOR GROUND COVER. IF ACCUMULATED SEDIMENT EXCEEDS 6 INCHES, RE-GRADE OR REMOVE SEDIMENT. STABILIZE ANY DISTURBED SOILS.
- CONSTRUCTION ENTRANCES AND ROADWAYS:
  - A. MAINTAIN THE ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING AND WASHING OF SEDIMENTS ONTO PAVED SURFACES.
  - B. PROVIDE PERIODIC TOP DRESSING AND ADDITIONAL STONE OR LENGTH AS NECESSARY.
  - C. IMMEDIATELY REMOVE ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED SURFACES. ROADS ADJACENT TO THE CONSTRUCTION SITE SHALL BE LEFT CLEAN EVERY DAY.

STORMWATER MANAGEMENT SYSTEM MAINTENANCE PLAN:

- GENERAL
  - A. THE ACCESS DRIVE AND PARKING AREAS SHOULD BE SWEEPED AT LEAST ONCE PER YEAR, PREFERABLY AFTER THE END OF THE WINTER SANDING SEASON.
- CATCH BASINS AND MANHOLES
  - A. A CONNECTICUT-LICENSED HAULER SHALL PUMP THE SUMPS OF ON-SITE CATCH BASINS AND MANHOLES, AND SHALL DISPOSE OF THE PUMPING LEGALLY. ROAD SAND MAY BE REUSED FOR WINTER SANDING, BUT MAY NOT BE STORED ON-SITE. AS PART OF THE HAULING CONTRACT, THE HAULER SHALL NOTIFY THE PROPERTY OWNER IN WRITING WHERE THE MATERIAL IS BEING DISPOSED.
  - B. EACH CATCH BASIN SHALL BE INSPECTED EVERY FOUR MONTHS, WITH ONE INSPECTION OCCURRING DURING THE MONTH OF APRIL. ANY DEBRIS OCCURRING WITHIN ONE FOOT FROM THE BOTTOM OF EACH SUMP SHALL BE REMOVED BY VACUUM "VACTOR" TYPE OF MAINTENANCE EQUIPMENT.
- STORMTECH UNDERGROUND INFILTRATION/DETENTION SYSTEM
  - A. THE ISOLATOR ROWS SHALL BE CLEANED AT THE END OF CONSTRUCTION ONCE THE CONTRIBUTING AREAS ARE FULLY STABILIZED. FOR THE FIRST YEAR OF OPERATION FOLLOWING CONSTRUCTION, THE CHAMBER ROWS SHALL BE INSPECTED ONCE EVERY 6 MONTHS.
  - B. AFTER THE FIRST YEAR OF OPERATION, THE CHAMBERS SHALL BE INSPECTED A MINIMUM OF ONCE PER YEAR. IF UPON VISUAL INSPECTION IT IS FOUND THAT SEDIMENT HAS ACCUMULATED, A STADIA ROD SHOULD BE INSERTED TO DETERMINE THE DEPTH OF THE SEDIMENT. WHEN THE AVERAGE DEPTH OF ACCUMULATION EXCEEDS 3", A CLEAN-OUT SHOULD BE PERFORMED AND PROPERLY DISPOSED OFF-SITE. CLEAN-OUT SHOULD BE ACCOMPLISHED USING A JETVAC PROCESS.
  - C. A DETAILED MAINTENANCE LOGBOOK SHALL BE KEPT ON-SITE FOR THE UNITS BY THE PROPERTY OWNER/MANAGER. INFORMATION IS TO INCLUDE, BUT NOT BE LIMITED TO, THE DATE OF INSPECTION, RECORD OF SEDIMENT DEPTH, GENERAL OBSERVATIONS, AND DATE OF CLEANING PERFORMED.
- HYDRODYNAMIC SEPARATOR
  - A. THE SEPARATOR SHALL BE CLEANED PERIODICALLY DURING CONSTRUCTION, AND AT THE END OF CONSTRUCTION ONCE THE LANDSCAPED AREAS ARE FULLY STABILIZED.
  - B. FOR THE FIRST YEAR OF OPERATION FOLLOWING CONSTRUCTION, THE SEPARATOR SHALL BE INSPECTED ONCE EVERY 4 MONTHS FOR THE MONTHS OF NOVEMBER, MARCH, AND JULY. A GRADUATED MEASURING DEVICE SHALL BE INSERTED INTO MANHOLE AND MEASUREMENTS OF ANY ACCUMULATIONS WILL BE RECORDED. CLEANING WILL OCCUR WHEN DEBRIS HAS ACCUMULATED TO A DEPTH OF 20" OR GREATER.
  - C. AFTER THE FIRST YEAR OF OPERATION, THE SEPARATOR SHALL BE INSPECTED A MINIMUM OF TWICE PER YEAR IN THE SAME MANNER AS DESCRIBED ABOVE. WHEN THE DEPTH OF ACCUMULATION REACHES 20", A CLEAN-OUT SHOULD BE PERFORMED AND SEDIMENT PROPERLY DISPOSED OF OFF-SITE. DEBRIS WILL BE REMOVED BY VACUUM "VACTOR" TYPE OF EQUIPMENT. THE MANHOLE SHOULD THEN BE PRESSURE WASHED TO REMOVE REMAINING SEDIMENT AND DEBRIS AND THE WATER SHOULD THEN BE VACUUMED OUT. ONCE CLEANING IS COMPLETE THE MANHOLE SHOULD BE REFILLED WITH WATER.
  - D. A DETAILED MAINTENANCE LOGBOOK SHALL BE KEPT FOR THE UNIT. INFORMATION IS TO INCLUDE THE DATE OF INSPECTION, RECORD OF GRIT DEPTH, CONDITION OF TANK, OBSERVATION OF ANY FLOATABLE DEBRIS, AND DATE OF CLEANING PERFORMED.

ZONING DATA TABLE

'I' INDUSTRIAL ZONE  
USE - INDUSTRIAL, HEAVY

ITEM	REQUIRED	PROVIDED
LOT AREA	200,000 SQ. FT. (4.59 AC.)	6,882,480 SQ. FT. (158 AC.)
FRONTAGE	200 FT.	3700 ± FT.
LOT WIDTH	200 FT	> 200 FT.
FRONT SETBACK	35 FT.	141 ± FT.
SIDE SETBACK	25 FT	45 ± FT.
REAR SETBACK	25 FT.	220 ± FT.
LOT COVERAGE (%) (SEE SITE NOTE 5)	70% (4,817,736 SQ. FT.)	31.5 % ( 2,165,706 SQ. FT.)
BUILDING HEIGHT	65 FT.	32 ± FT. (SEE ARCHITECTURAL PLANS)
PARKING (# OF SPACES) (SEE SITE NOTE 6)	17 SPACES	17 SPACES
WATER SUPPLY	MUNICIPAL	
SANITARY DISPOSAL	ONSITE SSDS	



**Loureiro**  
Water & Facility Services • Laboratory  
Engineering • Construction • EIR • Energy  
**Loureiro Engineering Associates, Inc.**  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335  
Tel: 860-747-6181 • Fax: 860-747-6822  
An Employee-Owned Company • www.loureiro.com  
©Loureiro Engineering Associates, Inc.  
All Rights Reserved 2023

**NOTES, LEGEND, AND ABBREVIATIONS**

**GALES FERRY INTERMODAL LLC**  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335

**GALES FERRY INTERMODAL LLC**  
549 SOUTH STREET, QUINCY, MA 02469

LEGEND

- |          |   |      |                        |
|----------|---|------|------------------------|
| AC       | ACRES                                   | ---  | EXISTING CONTOUR       |
| BIT CONC | BITUMINOUS CONCRETE                     | ---  | EXISTING INDEX CONTOUR |
| TC       | TOP OF CURB                             | x6.1 | NEW SPOT GRADE         |
| CHD      | CONNECTICUT HIGHWAY DEPARTMENT MONUMENT | —5—  | NEW CONTOUR            |
|          |   | —5—  | NEW INDEX CONTOUR      |
| BC       | BOTTOM OF CURB                          | —    | BUILDING SETBACK LINE  |
| C.O.     | CLEAN OUT                               | —W—  | MUNICIPAL WATER        |
| CL&P     | CONNECTICUT LIGHT & POWER               | —E—  | UNDERGROUND ELECTRIC   |
| LLR      | LEDYARD LAND RECORDS                    |      | CATCH BASIN W/ E&S     |
| FF       | FINISHED FLOOR                          |      | SEDIMENT FENCE         |
| INV      | INVERT                                  |      | SIGN                   |
| M/L      | MORE OR LESS                            |      | UTILITY POLE           |
| MIN      | MINIMUM                                 |      | DECIDUOUS TREE         |
| N/F      | NOW OR FORMERLY                         |      |                        |
| SF       | SQUARE FEET                             |      |                        |
| TYP      | TYPICAL                                 |      |                        |

13

SOIL TYPE - TAKEN FROM NATURAL RESOURCES CONSERVATION SERVICE, WEBSOIL SURVEY, NATIONAL COOPERATIVE SOIL SURVEY

PZ PERMIT #	DATE OF APPROVAL	EXPIRATION DATE
PZC CHAIRMAN OR SECRETARY		DATE



# MAP REFERENCES

- 1.) "RIGHT OF WAY AND TRACK MAP OPERATED BY THE NORWICH AND WORCESTER R.R. CO. OPERATED BY THE NEW YORK NEW HAVEN AND HARTFORD R.R. CO. FROM WORCESTER TO GROTON STATION 3379+20 TO STATION 3405+60 TOWN OF LEDYARD, STATE OF CONN" SCALE 1"=50' DATE: JUNE 30, 1915 REVISED THROUGH OCTOBER 9, 1947, OFFICE OF VALUATION ENGINEER, BOSTON MASS. MAP NO. V.5063 / 129.
- 2.) "RIGHT OF WAY AND TRACK MAP OPERATED BY THE NORWICH AND WORCESTER R.R. CO. OPERATED BY THE NEW YORK NEW HAVEN AND HARTFORD R.R. CO. FROM WORCESTER TO GROTON STATION 3405+60 TO STATION 32+00. TOWN OF LEDYARD, STATE OF CONN" SCALE 1"=50' DATE: JUNE 30, 1915, OFFICE OF VALUATION ENGINEER, BOSTON MASS. MAP NO. V.5063 / 130.
- 3.) "RIGHT OF WAY AND TRACK MAP OPERATED BY THE NORWICH AND WORCESTER R.R. CO. OPERATED BY THE NEW YORK NEW HAVEN AND HARTFORD R.R. CO. FROM WORCESTER TO GROTON STATION 32+00 TO STATION 58+40 TOWN OF LEDYARD, STATE OF CONN" SCALE 1"=50' DATE: JUNE 30, 1915 REVISED THROUGH APRIL 11, 1951, OFFICE OF VALUATION ENGINEER, BOSTON MASS. MAP NO. V.5063 / 131.
- 4.) "RIGHT OF WAY AND TRACK MAP OPERATED BY THE NORWICH AND WORCESTER R.R. CO. OPERATED BY THE NEW YORK NEW HAVEN AND HARTFORD R.R. CO. FROM WORCESTER TO GROTON STATION 58+40 TO STATION 84+80 TOWN OF LEDYARD, STATE OF CONN" SCALE 1"=50' DATE: JUNE 30, 1915 REVISED THROUGH APRIL 11, 1951, OFFICE OF VALUATION ENGINEER, BOSTON MASS. MAP NO. V.5063 / 132.

# MAP REFERENCES-CONTINUED

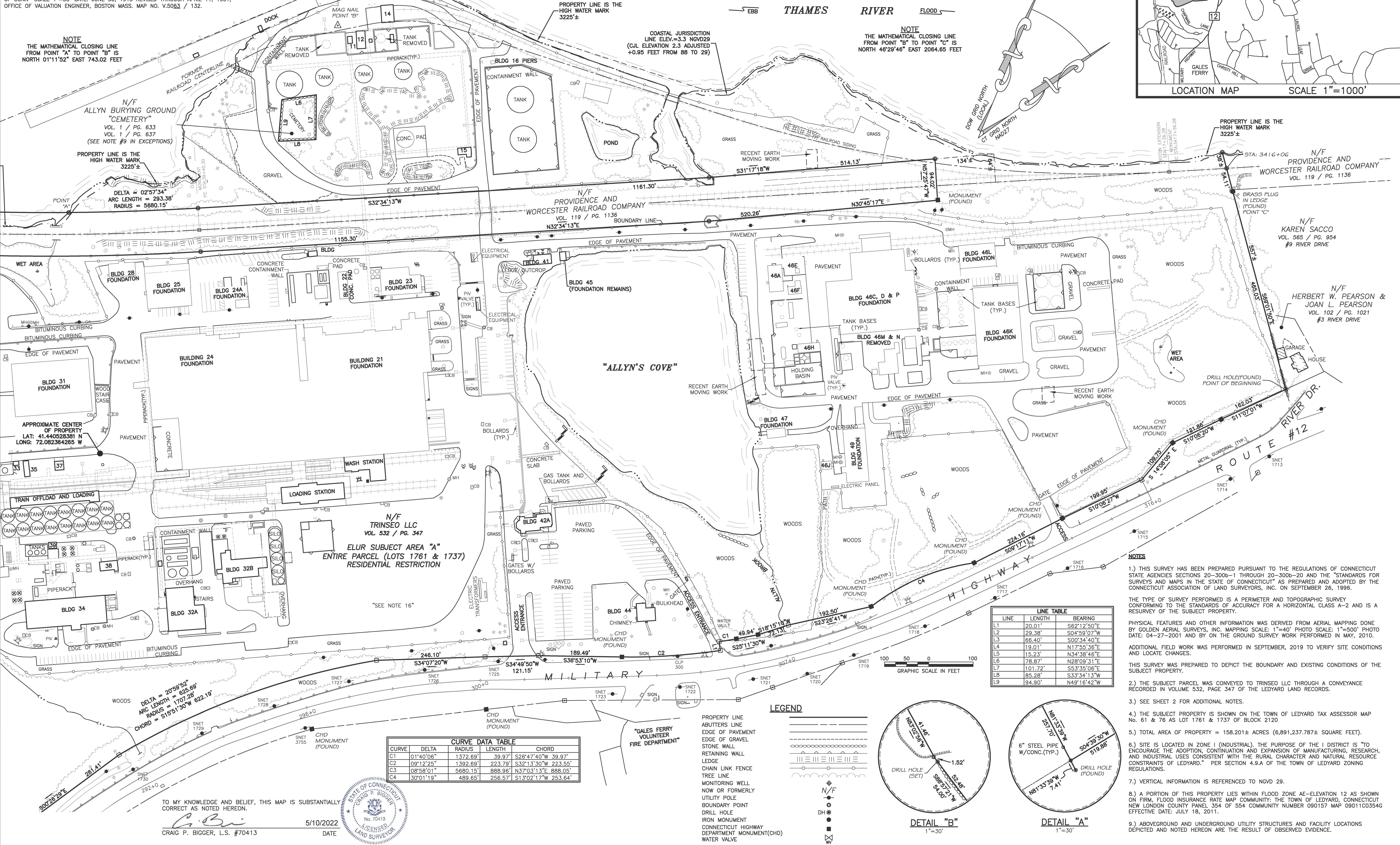
- 5.) "NORWICH AND WORCESTER RAILROAD REAL ESTATE & RIGHT OF WAY DEPARTMENT LAND IN LEDYARD, CONN. TO BE CONVEYED TO THE DOW CHEMICAL COMPANY" SCALE 1"=200' DATE: SEPTEMBER 1950 REVISED THROUGH OCTOBER 1950. ON FILE AS MAP NO. 8A.
- 6.) "LOCATION OF THE RIGHT OF WAY OF THE CONNECTICUT LIGHT & POWER COMPANY ACROSS THE PROPERTY OF THE DOW CHEMICAL COMPANY, TOWN OF LEDYARD, COUNTY OF NEW LONDON, STATE OF CONNECTICUT" SCALE 1"=200' DATE: APRIL 17, 1951.
- 7.) "MAP OF PROPERTY OWNED BY THE DOW CHEMICAL COMPANY LOCATED AT ALLYN'S POINT ON THE WEST SIDE OF ROUTE 12 AND EAST OF THE NEW YORK NEW HAVEN & HARTFORD RAILROAD CO. LEDYARD, CONN." SCALE: 1"=100' DATE: JULY 1952 REVISED AUGUST 1953, G.L. BILDERBECK CONSULTING ENGINEERS, NEW LONDON, CONN.
- 8.) "MAP SHOWING PROPERTY OWNED BY DOW CHEMICAL COMPANY, ALLYN'S POINT, LEDYARD, CONN." SCALE: 1"=100' DATE: DECEMBER 1953, G.L. BILDERBECK, CONSULTING ENGINEERS, NEW LONDON, CONN. ON FILE AS MAP NO. 43A.

# MAP REFERENCES-CONTINUED

- 9.) "CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF LEDYARD NORWICH-GROTON ROAD GALES FERRY ROAD TO ALLYN'S BROOK NORTHERLY TO LEDARD-PRESTON TOWN LINE" SCALE 1"=40' DATE: NOVEMBER 5, 1957, SHEETS 1 THROUGH 3 OF 9 PROJECT NUMBER: 71-16. THESE MAPS SUPERSEDE PROJECT 71-05. SHEET 3 REVISED AUGUST 25, 1967.
- 10.) "CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF LEDYARD GROTON-NORWICH ROAD GALES FERRY ROAD TO ALLYN'S BROOK" SCALE 1"=40' DATE: NOVEMBER 5, 1957, SHEETS 1 THROUGH 4 OF 4. PROJECT NUMBER 71-15. THESE MAPS SUPERSEDE PROJECT 71-04. SHEET 1 REVISED THROUGH MAY 17, 2004.
- 11.) "PLAN SHOWING LANDS NOW AND FORMALLY OF H. WINTHROP HURLBUTT LEDYARD, CONNECTICUT" SCALE 1"=100' DATE: OCTOBER 1964, GEORGE H. DIETER, LAND SURVEYOR, ON FILE AS MAP # 226.
- 12.) "PLAN OF PROPERTY TO BE CONVEYED TO THE TOWN OF LEDYARD BY THE DOW CHEMICAL COMPANY, TOWN OF LEDYARD, CONN." SCALE: 1"=100' DATE: APRIL 1972, CHANDLER, PALMER & KING, NORWICH, CONN.

# MAP REFERENCES-CONTINUED

- 13.) "PLAN SHOWING PARCELS OF LAND WITH BUILDINGS PROPERTY OF JAMES L. LEWIS AND ALICE L. LEWIS, PENTWAY AT WEST END CHAPMAN LANE LEDYARD, CONNECTICUT" SCALE 1"=20' DATE JUNE 1976, GEORGE H. DIETER, LAND SURVEYOR, ON FILE AS MAP # 672.
- 14.) "TOPOGRAPHICAL PLAN, PLAN OF A PORTION OF DOW CHEMICAL CO. ALLYN'S POINT PLANT GALES FERRY, CONN." SCALE: 1"=40' DATE: JULY 9, 1984 REVISIONS THROUGH AUGUST 28, 1984, CHANDLER, PALMER & KING, NORWICH, CONN.
- 15.) "MONUMENTED PROPERTY SURVEY MAP DEPICTING LAND OF GALES FERRY MARINA, INC. A PORTION OF LAND OF JAMES L. LEWIS AND LUCILLE A. LUPINACCI, CHAPMAN LANE, GALES FERRY, LEDYARD, CONNECTICUT" SCALE: 1"=40' DATE: MARCH 26, 1994 REVISED APRIL 19, 1994, DAVID L. STEIN, LAND SURVEYOR, WESTBROOK, CONNECTICUT, ON FILE AS MAP #1753.
- 16.) "COMPILED PLAN MAP SHOWING EASEMENT AREA TO BE GRANTED TO THE YANKEE GAS SERVICES COMPANY ACROSS THE PROPERTY OF DOW CHEMICAL COMPANY (ALLYN'S POINT PLANT) #1761 ROUTE 12 GALES FERRY-LEDYARD CONNECTICUT SCALE: 1"=60' SHEET 1 OF 1 DATE: 03-04-2010 YANKEE FID #E0048, BY CME ASSOCIATES, INC. ON FILE AS MAP #2629.



Drawing Copyright © 2015

33 Wilbur Cross Way, Mansfield, CT 06268  
101 East River Drive, 1st Floor  
East Hartford, CT 06108  
860-885-1055 | www.chacompanies.com

PREPARED FOR:

JAY CASHMAN, INC.

549 SOUTH STREET  
QUINCY, MA

PROPERTY OF

TRINSEO LLC

#1737 & 1761 MILITARY  
HIGHWAY (ROUTE 12)  
LEDYARD, GALES FERRY, CT

PROPERTY SURVEY

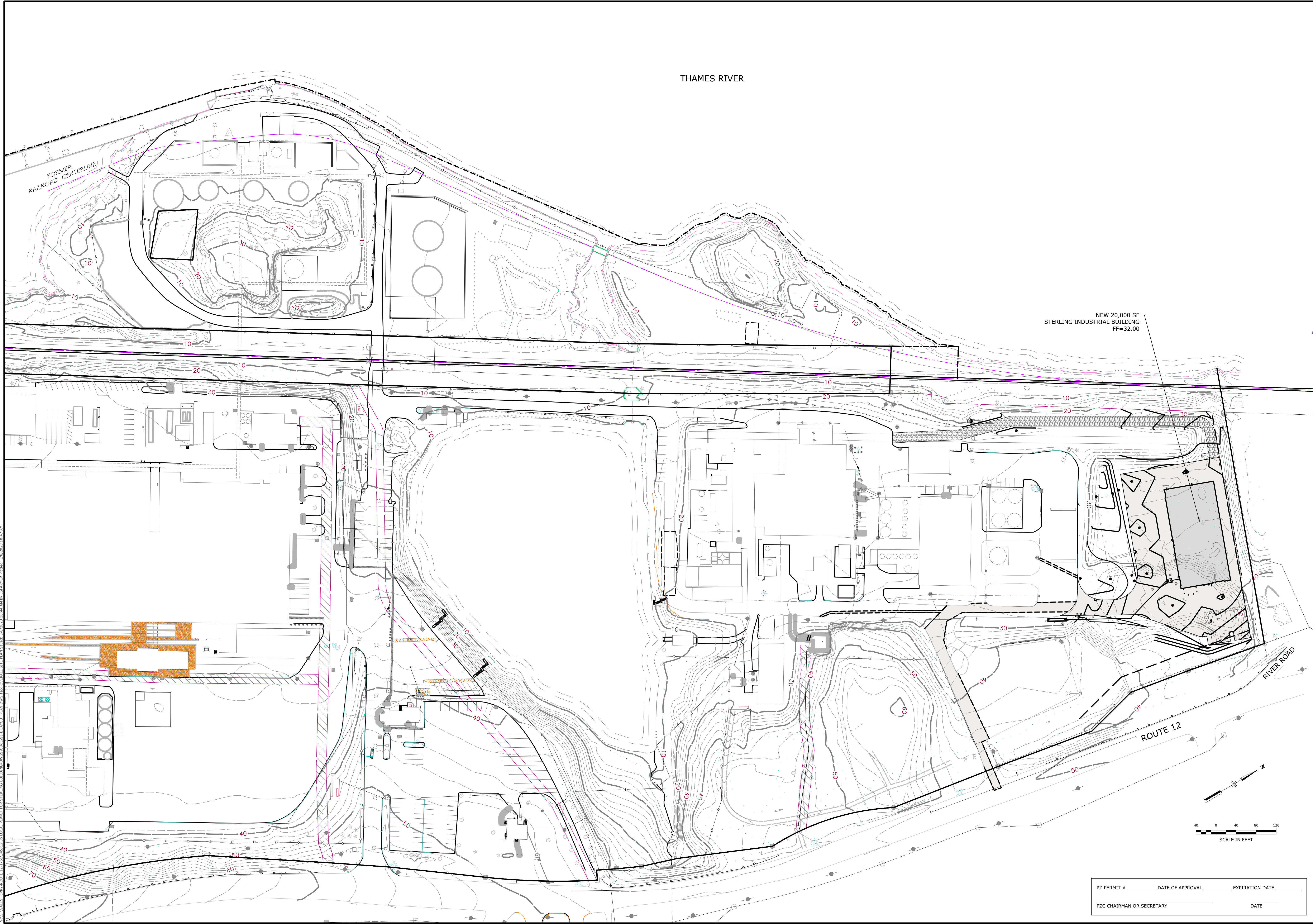
No.	Submital / Revision	App'd	By	Date

Designed By:	Drawn By:	Checked By:
---	CB	CB
Issue Date:	Project No:	Scale:
5/10/2022	076625	1" = 100'

Drawing No.:

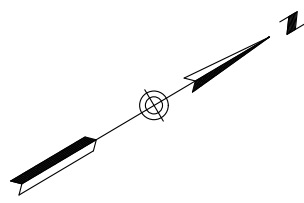
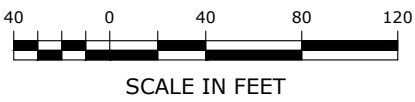
SHEET 1 OF 2





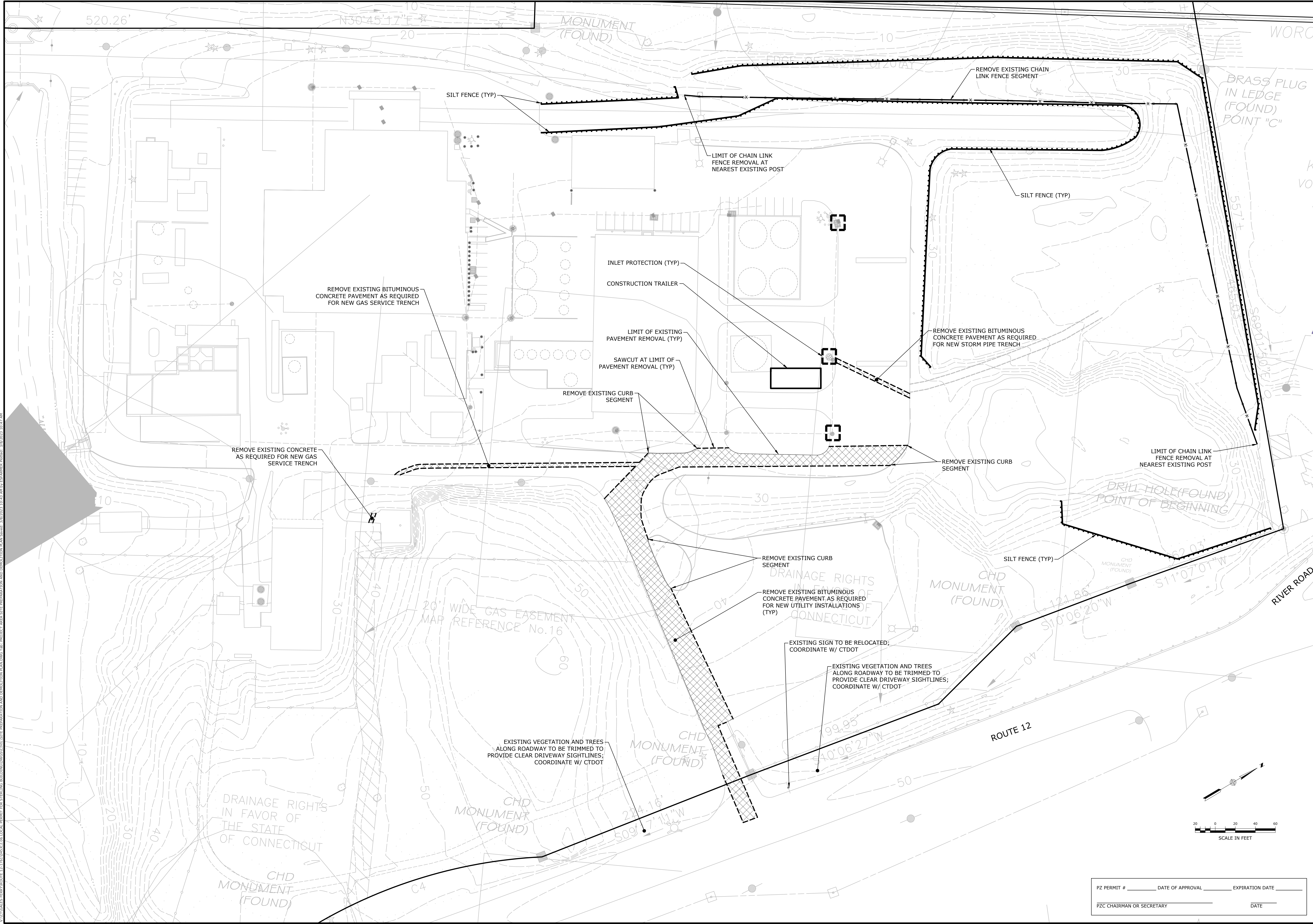
V:\ACT\GALES FERRY\ROUTE 12-27A\ASDC2.06 LOCAL PERMIT FOR STERLING BUILDING\SC01 SITE LAYOUT PLAN.DWG Job: OVERALL SITE PLAN DWG Job: 3/6/2023 10:44 AM by: ESK/AMH Rev: 3/6/2023 10:47 AM

PZ PERMIT #	DATE OF APPROVAL	EXPIRATION DATE
PZC CHAIRMAN OR SECRETARY	DATE	



OVERALL SITE PLAN		SCALE 1"=100'		DATE 03/07/2023	
		DRAWN BY ESF		APPROVED BY SRM	
GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335 GALES FERRY INTERMODAL LLC 383 SOUTH STREET, SUITE 101, GALESFERRY, CT 06435		CONV. NO. 0451C2.06		DATE 03/07/2023	
		DRAWN BY ESF		APPROVED BY SRM	
C-2		SHEET NO. 4		NO. OF SHEETS 20	
Loureiro Engineering Associates, Inc. Water • Utility Services • Laboratory Professional Engineer No. 10281 All Rights Reserved 2023		STATE OF CONNECTICUT Professional Engineer No. 10281		DESCRIPTION OF REVISION	
				REV.	
				DATE	
				APPR.	





\\CT\GALES FERRY\ROUTE 12\17A\0451C2.06\LOCAL PERMIT FOR STEELING BUILDINGS\CONSTRUCTION SITE PREPARATION AND DEMOLITION PLAN.DWG (c) PROJECT AREA SITE PREPARATION AND DEMOLITION PLAN.Swed: 3/6/2023 10:43 AM by: ISABRHEB Printed: 3/6/2023 10:47 AM

PZ PERMIT #	DATE OF APPROVAL	EXPIRATION DATE
PZC CHAIRMAN OR SECRETARY	DATE	

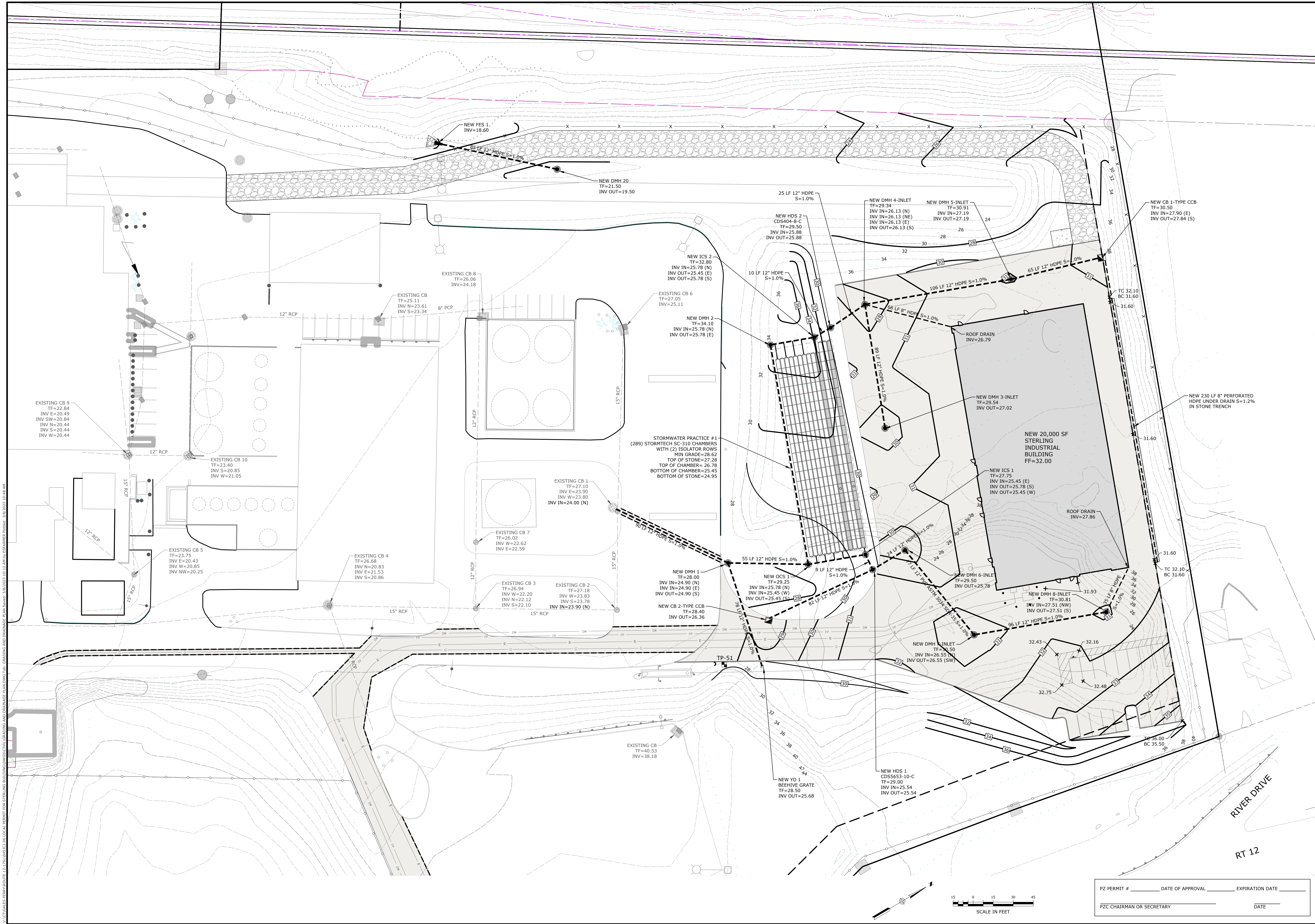
SITE PREPARATION AND DEMOLITION PLAN		GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335 GALES FERRY INTERMODAL LLC 383 SOUTH STREET, SUITE 101, DANBURY, CT 06810	
SCALE 1"=40'	CROWN NO. 0451C2.06	DRAWN BY ESP	DATE 03/07/2023
APPROVED BY SRM		DATE 03/07/2023	
C-3		SHEET NO. 5	NO. OF SHEETS 20
PZ PERMIT #		DATE OF APPROVAL	EXPIRATION DATE
PZC CHAIRMAN OR SECRETARY		DATE	
LOUREIRO ENGINEERING ASSOCIATES, INC. ENGINEERING • CONSULTING • DESIGN • CONSTRUCTION • LABORATORY 1761 ROUTE 12, GALES FERRY, CT 06335 PHONE: 860-747-6311 FAX: 860-747-8822 WWW.LOUREIRO-ENG.COM ALL RIGHTS RESERVED 2023		STATE OF CONNECTICUT OFFICE OF THE REGISTERED PROFESSIONAL ENGINEER No. 10281 EXPIRATION DATE 03/07/2023	
REV.		DESCRIPTION OF REVISION	
DATE		APPROVED	







V:\ACT\GALES FERRY\ROUTE 12-17A\USC2\04 LOCAL PERMIT FOR STERLING BUILDING\SCULPTURAL GRADING AND DRAINAGE PLAN.DWG (2). GRADING AND DRAINAGE PLAN.DWG (2). 10/2/2023 10:12:43 AM by: ESKANER Printed: 3/6/2023 10:48 AM



SCALE		DRAWN BY		DATE	
1"=30'	04/12/2023	ESP	SRM	03/07/2023	03/07/2023

DRAWING		NO. OF SHEETS	
C-5	7		20

DESCRIPTION OF REVISION		DATE	REV.

**GALES FERRY INTERMODAL**  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335

**GALES FERRY INTERMODAL LLC**  
383 SOUTH STREET, SUITE 100, DANBURY, CT 06810

**Loureiro**  
Water & Facility Services • Laboratory  
Engineering • Construction • EIR • Energy

**Loureiro Engineering Associates, Inc.**  
1761 ROUTE 12, GALES FERRY, CT 06335  
Phone: 860-747-6161 • Fax: 860-747-6822  
An Employee-Owned Company • www.loureiro.com  
© Loureiro Engineering Associates, Inc. All Rights Reserved 2023

STATE OF CONNECTICUT  
Professional Engineer  
No. 10281

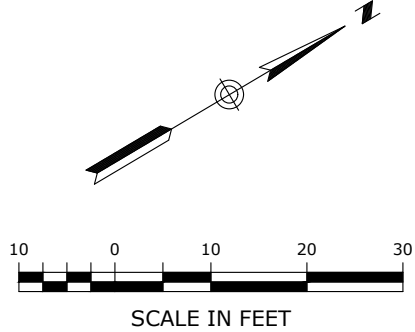
PZ PERMIT # \_\_\_\_\_ DATE OF APPROVAL \_\_\_\_\_ EXPIRATION DATE \_\_\_\_\_

PZC CHAIRMAN OR SECRETARY \_\_\_\_\_ DATE \_\_\_\_\_









PLAN REFERENCES AND SITE NOTES

A. "PROPERTY AND TOPOGRAPHIC SURVEY PREPARED FOR STYRON LCL "ALLYN'S POINT PLANT" 1737 & 1761 MILITARY HIGHWAY - ROUTE 12, GALES FERRY, LEDYARD, CONNECTICUT PREPARED BY CMC ASSOCIATES, INC. DATED SEPTEMBER 2, 2010

B. TOWN OF LEDYARD FILL - PUBLIC WATER IS AVAILABLE ON THIS SITE AND ALL ABUTTING PROPERTIES

BASIS OF DESIGN

1. SDDS DESIGN IS IN ACCORDANCE WITH THE CONNECTICUT PUBLIC HEALTH CODE, ON-SITE SEWAGE DISPOSAL REGULATIONS AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS.

2. DESIGN FLOWS - 20,000 SQUARE FOOT (SF) EQUIPMENT MAINTENANCE GARAGE. NUMBER OF EMPLOYEES - 10. ASSUME TWO SHIFTS AS A REASONABLE FACTOR OF SAFETY ALLOCATING 20 EMPLOYEES AT 25 GALLONS PER DAY (GPD) PER EMPLOYEE. DESIGN FLOW - 500 GPD.

3. SEPTIC TANK REQUIRED - MINIMUM 1,000 GALLONS. SEPTIC TANK PROVIDED - 1,250 HS-20 DESIGNED FOR TRAFFIC AREA.

4. LEACHING SYSTEM DESIGN -USING 48-INCH CONCRETE LEACHING GALLEYS HS-20 DESIGNED FOR TRAFFIC AREA.  
PERCOLATION RATE = <10.0 MIN/INCH;  
APPLICATION RATE = 1.5 GPD/SF OF EFFECTIVE LEACHING AREA (ELA)  
ELA REQUIRED = 500 GPD/1.5 GPD/SF = 334 SF  
LEACHING SYSTEM: 48-INCH HIGH CONCRETE LEACHING GALLEYS = 9.2 SF/LF ELA  
ELA PROVIDED = NINE 4-FOOT LONG GALLEYS WITH 12-INCHES OF NO. 4 CRUSHED STONE AROUND  
36-FEET OF GALLEYS PLUS 2-FEET OF CRUSHED STONE AT THE ENDS  
36-FEET X 9.2 SF/LF ELA = 349 SF ELA

5. ALL FILL AND TOPSOIL WITHIN FIVE FEET SURROUNDING THE LEACHING SYSTEM AREA SHALL BE REMOVED AND REPLACED WITH SUITABLE SELECT FILL AS NEEDED.

6. MLSS:  
AVERAGE DEPTH TO RESTRICTIVE LAYER:  
CATEGORY 2  
NATIVE SOIL = "5"  
55" + 24" OF SELECT FILL = 79" > 60"  
NO MLSS REQUIRED

SEPTIC SYSTEM INVERT SCHEDULE	
BUILDING SEWER INVERT	
	29.50
SEPTIC TANK INVERT	IN
	OUT
	29.15
	28.90
LEACHING GALLEYS	TOP
	BOTTOM
	26.35
	22.35
LEACHING GALLEY INVERT	
	25.85

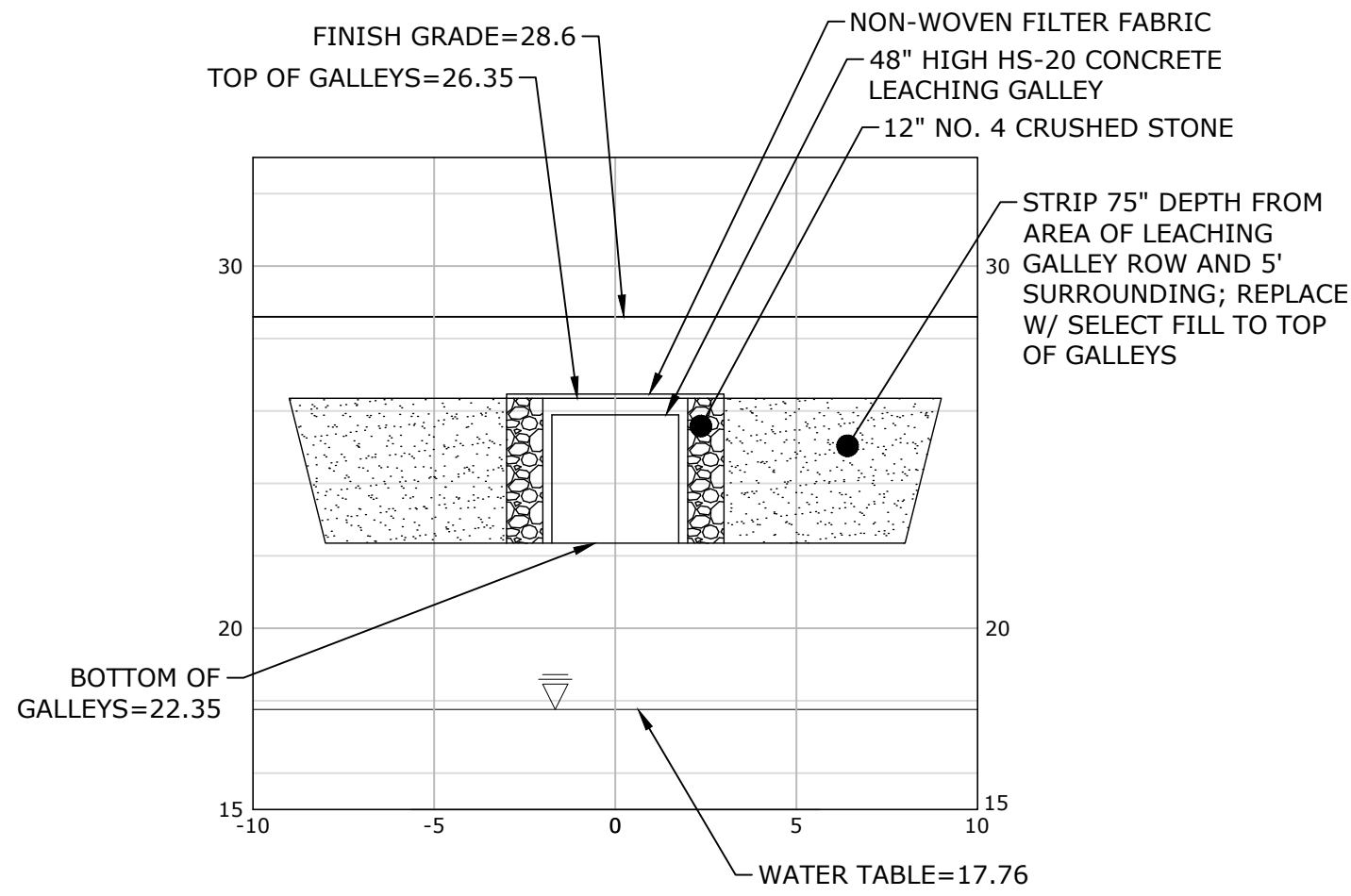
AKA 1 & 1/2" STONE	
SIEVE SIZE	PERCENT PASSING (BY WEIGHT)
2"	100
1 1/2"	90-100
1"	20-55
3/4"	0-15
1/2"	N/A
3/8"	0-5
#4	N/A
#40	0-3
#200	0-1 1/2

\* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75 IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10 AND THE #200 SIEVE DOES NOT EXCEED 5.

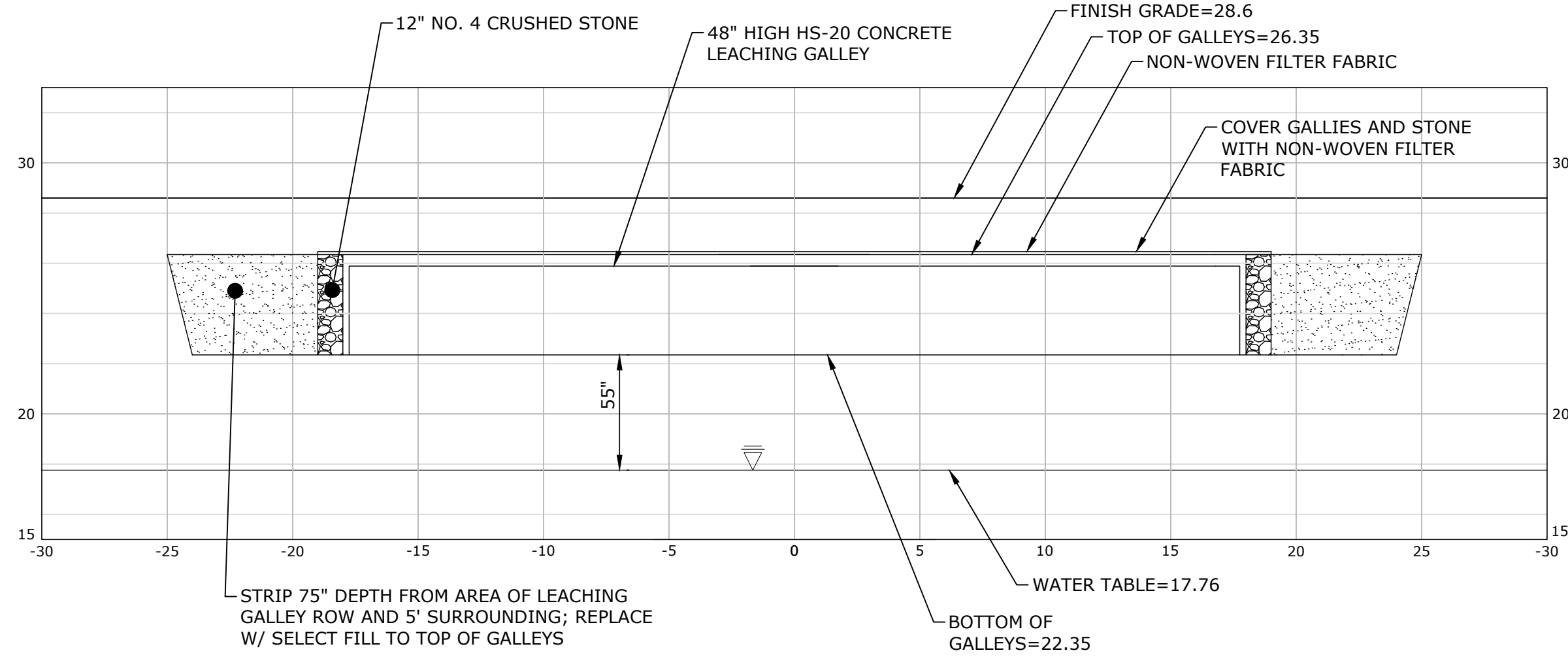
PZ PERMIT # \_\_\_\_\_ DATE OF APPROVAL \_\_\_\_\_ EXPIRATION DATE \_\_\_\_\_

\_\_\_\_\_  
PZC CHAIRMAN OR SECRETARY DATE





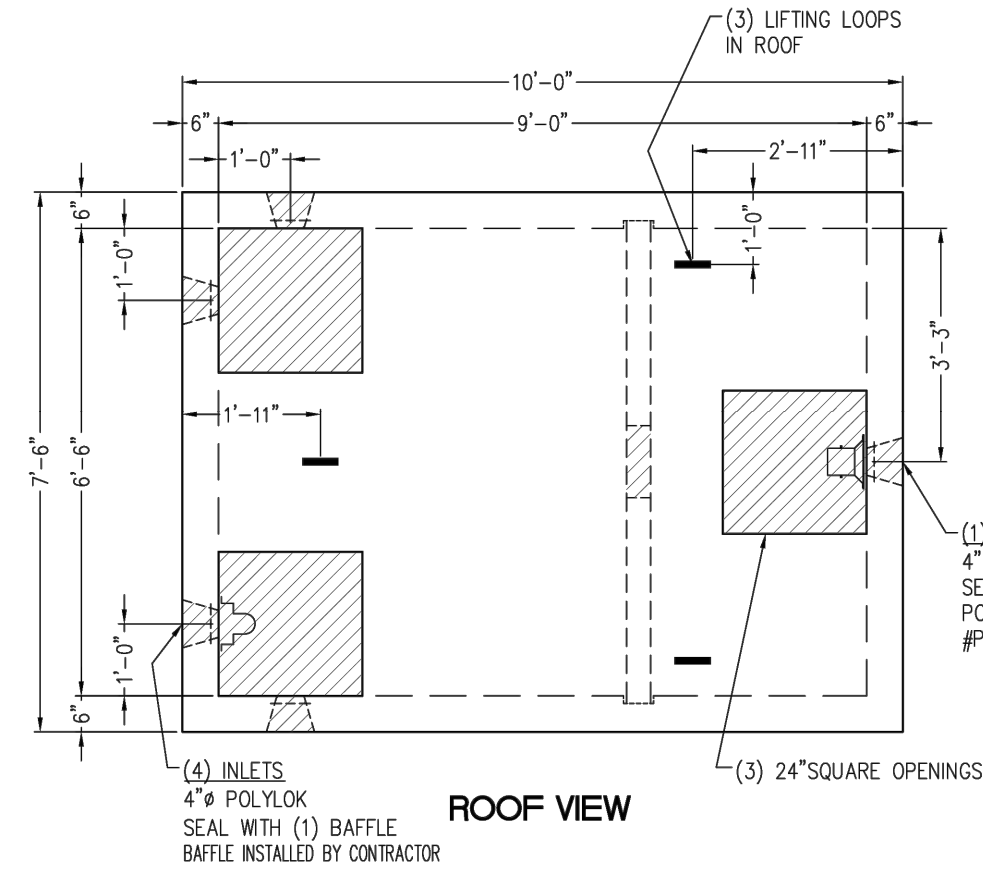
**A-A SECTION VIEW**  
SCALE: 1"=5'H&V



**B-B SECTION VIEW**  
SCALE: 1"=5'H&V

**SUBSURFACE SEWAGE DISPOSAL SYSTEM (SSDS) CONSTRUCTION NOTES:**

- REFER TO SOIL EROSION AND SEDIMENT CONTROL PLAN FOR EROSION PROTECTION.
- PROCEDURES FOR THE INSTALLATION OF FILL:
  - NO EXCAVATION SHALL OCCUR PRIOR TO NOTIFYING "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 OR 811.
  - INSTALL EROSION CONTROL ALONG THE DOWN-GRADIENT LIMITS OF FILL IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
  - STRIP ALL VEGETATION, ORGANIC MATTER AND UNSUITABLE OVERBURDEN INCLUDING THE BURIED TOPSOIL TO A DEPTH OF 75-INCHES BELOW GRADE IN THE AREA OF AND TEN FEET SURROUNDING THE NEW LEACHING SYSTEM. REMOVE ANY UNSUITABLE MATERIAL WHICH MAY INTERFERE WITH THE PROPER FUNCTION OF THE SYSTEM.
  - SCARIFY THE SURFACE IN THE PROPOSED LEACHING SYSTEM AREA PRIOR TO PLACING ANY SELECT FILL MATERIAL. AVOID COMPACTING THE SCARIFIED AREA. FILL SHALL NOT BE PLACED OVER SNOW OR FROZEN GROUND. DISCONTINUE FILL PLACEMENT DURING HEAVY RAINFALL AND A MINIMUM OF 24 HOURS THEREAFTER.
  - SELECT FILL SHALL BE PLACED WITHIN OR ADJACENT TO THE LEACHING SYSTEM PER THE PLAN AND SHALL MEET THE REQUIREMENTS OF SECTION VII.A OF THE TECHNICAL STANDARDS. SELECT FILL SHALL BE PLACED TO THE TOP OF THE PROPOSED LEACHING GALLEYS AND SHALL EXTEND A MINIMUM OF FIVE FEET Laterally IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE LEACHING SYSTEM AND TO DEPTHS INDICATED IN THE CROSS SECTION. THE SELECT FILL MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90% DENSITY.
  - A SIEVE ANALYSIS FROM A SOIL TESTING LABORATORY SHALL BE PROVIDED TO LEDGE LIGHT HEALTH DISTRICT FOR ALL SELECT FILL MATERIAL TO DEMONSTRATE COMPLIANCE WITH THE TECHNICAL STANDARDS.
  - NATIVE SOIL OR COMMON FILL SHALL BE USED AS BACKFILL BEYOND THE LIMITS OF SELECT FILL AND BELOW THE TOPSOIL LAYER.
- NO UTILITIES SHALL BE INSTALLED THROUGH ANY PORTION OF THE LEACHING SYSTEM.
- SEPTIC TANK SHALL BE SET LEVEL ON A MINIMUM OF SIX INCHES OF PROCESSED AGGREGATE OR BROKEN STONE PLACED ON COMPACTED SUBGRADE. BACKFILL AROUND THE TANK SHALL BE PLACED AND COMPACTED IN SIX INCH LIFTS.
- HS-20 SEPTIC TANK SHALL BE EQUIPPED WITH RISERS TO GRADE EQUIPPED WITH CAST IRON MANHOLE COVERS WITH A MINIMUM WEIGHT OF 59 POUNDS EQUIPPED WITH A LOCKING FEATURE.
- PERCOLATION TESTS SHALL BE PERFORMED IN THE PRIMARY AND RESERVE LEACHING SYSTEM AREAS PRIOR TO CONSTRUCTION TO CONFIRM DESIGN PERCOLATION RATE. DESIGN ENGINEER SHALL PROVIDE PERCOLATION TEST RESULTS TO LEDGE LIGHT HEALTH DISTRICT UPON COMPLETION. IF THE PERCOLATION RATE IS SLOWER THAN THE DESIGN RATE, REVISIONS TO THE LEACHING SYSTEM WILL BE REQUIRED.
- THE NEW SSDS SHALL BE STAKED BY A LICENSED SURVEYOR AND A BENCH MARK SHALL BE ESTABLISHED AT THE LOCATION SHOWN ON THE SSDS PLAN.
- THE INSTALLER SHALL SUBMIT TO LEDGE LIGHT HEALTH DISTRICT UPON 30 DAYS OF COMPLETION SCALED OR TIED AS-BUILT DRAWINGS OF ALL SSDS COMPONENTS. THE DRAWING SHALL INCLUDE THE NAME OF THE INSTALLER, DATE AND PROPERTY LOCATION/ADDRESS.
- ALL STORM AND/OR ROOF DRAINS WITHIN 25 FEET OF THE SEPTIC SYSTEM SHALL BE TIGHT PIPE WITH NO FREE-DRAINING BEDDING MATERIAL IN TRENCH.

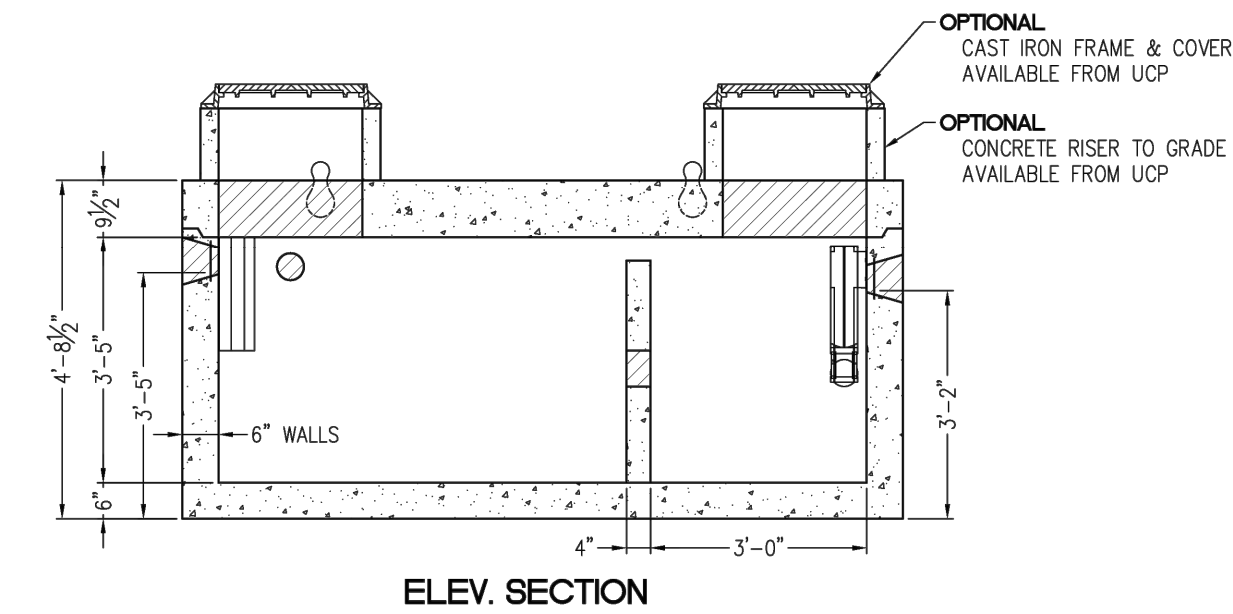


**1,250 GALLON  
HS-20  
SEPTIC TANK**

TANK DESIGN SPECIFICATIONS  
CONFORMS TO LATEST:  
ASTM DESIGNATION C1227

NOTES:  
1. JOINT SEALANT IS BUTYL RUBBER  
MASTIC TYPE SEAL THAT CONFORMS  
TO LATEST AASHTO SPEC. M-198.  
4. REINFORCING STEEL DEFORMED  
BARS CONFORM TO LATEST ASTM  
SPEC. A706, GRADE 60.  
COVER 1 1/2" UNLESS NOTED.  
5. CONCRETE COMPRESSIVE  
STRENGTH-5,000 PSI AT 28 DAYS  
SELF CONSOLIDATING CONCRETE.  
6. METHOD OF MANUFACTURE:  
WET CAST.  
7. BOTTOM SECTION IS MONOLITHIC.  
8. DESIGNED FOR AASHTO HS-20  
LOADING WITH 6" TO 60" OF SOIL COVER.  
9. ALL PIPING PROVIDED AND  
INSTALLED BY CONTRACTOR.  
10. LIFTING - LIFTING LOOPS IN ROOF  
SLUNG LIFTING NOTCHED IN BASE SECTION

WEIGHT CHART	
PRODUCT	APPROX. WEIGHT
TANK W/BAFFLE	24,900 LBS.



**1,250 GALLON HS-20 SEPTIC TANK**  
NOT TO SCALE

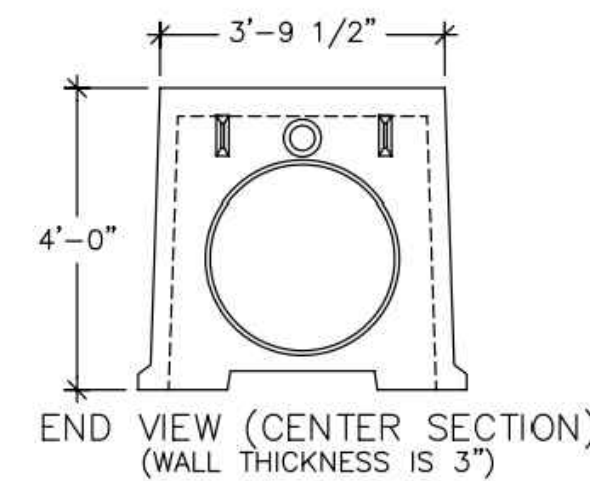
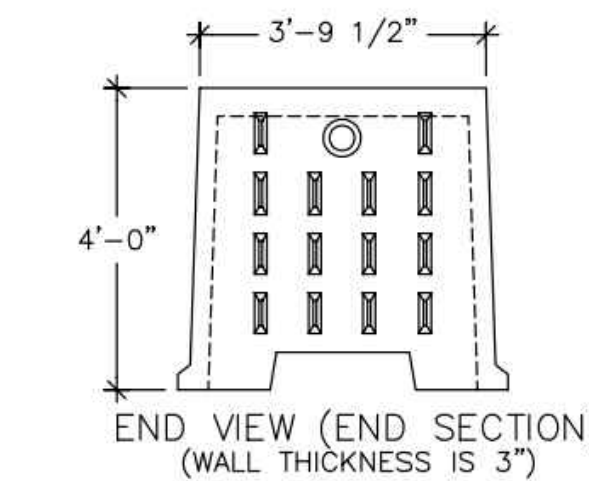
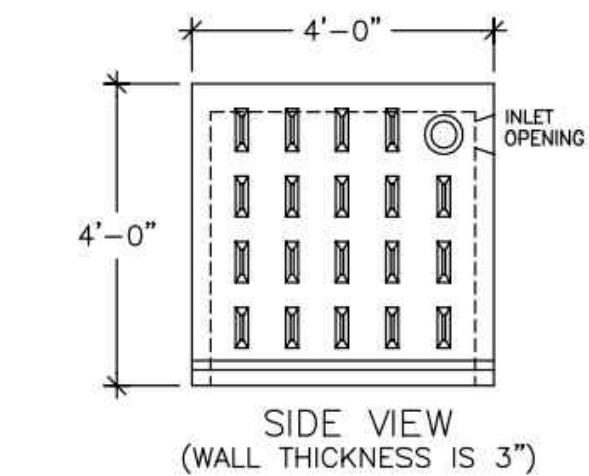
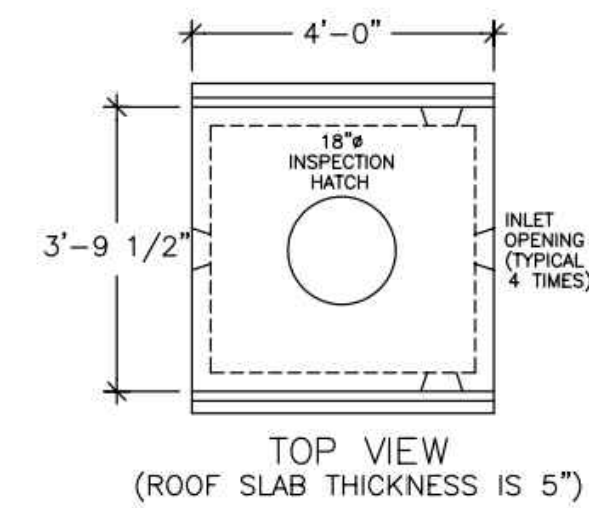
**4'x4'x4' GALLEY  
HS-20 LEACHING  
CHAMBER**

GALLEY DESIGN SPECIFICATIONS  
CONFORMS TO LATEST:  
ASTM DESIGNATION C913

NOTES:  
1. PIPE INLET LOCATIONS HAVE 4" DIAMETER KNOCKOUTS, TYPICAL. CUSTOM KNOCKOUTS CAN BE CAST ON REQUEST.  
2. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPECIFICATION A615.  
3. CONCRETE COMPRESSIVE STRENGTH- 4000 PSI AT 28 DAYS.  
4. METHOD OF MANUFACTURE: WET CAST.  
5. SECTION IS MONOLITHIC.  
6. THE GALLEY IS DESIGNED FOR HS-20 LOADING w/18" OF SOIL COVER.

WEIGHT CHART	
PRODUCT	APPROX. WEIGHT
4'x4'x4' GALLEY	2200 LBS.

LEACHING DATA			
FLOW LINE (INCHES)	LEACHING (Gall/LF)	LEACHING (FT 2/UNIT)	INSIDE CAPACITY (GALLONS)
36	9.2	36.8	330



**48" HIGH HS-20 LEACHING GALLEY**  
NOT TO SCALE

PZ PERMIT # _____	DATE OF APPROVAL _____	EXPIRATION DATE _____
PZC CHAIRMAN OR SECRETARY _____	DATE _____	

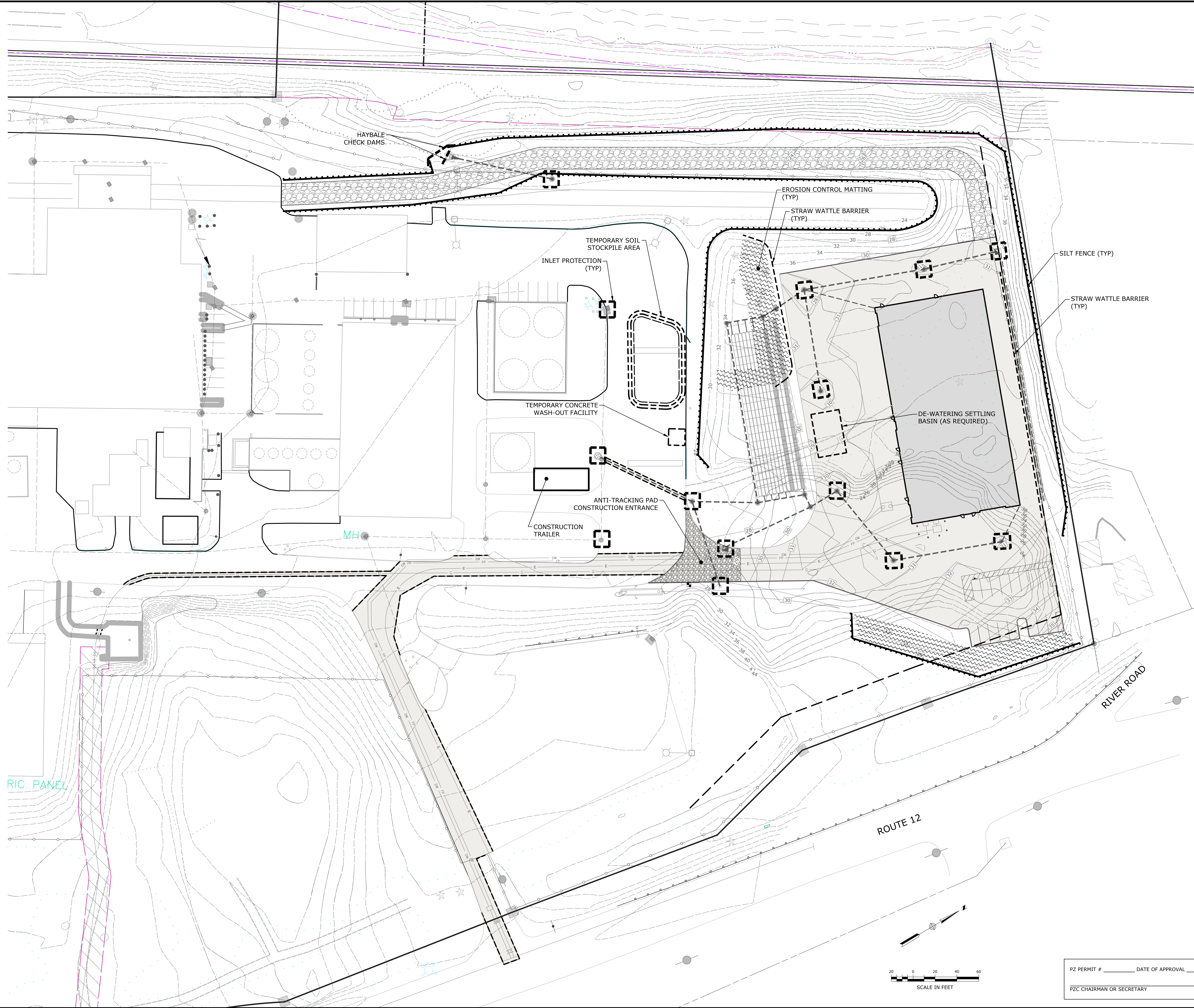
**SUBSURFACE SEWAGE DISPOSAL SECTIONS, DETAILS & NOTES**

**GALES FERRY INTERMODAL**  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335  
**GALES FERRY INTERMODAL LLC**  
349 SOUTH STREET, QUINCY, MA 02169

**C-8**



V:\CT\GALES FERRY\ROUTE 12\1761\USC2.06\LOCAL PERMIT FOR STEELING BUILDINGS\SOIL EROSION AND SEDIMENT CONTROL PLAN\DWG Tab: SOIL EROSION AND SEDIMENT CONTROL PLAN Saved: 3/6/2023 10:06 AM by: ESABHAR.Burdel: 3/6/2023 10:49 AM



PZ PERMIT #	DATE OF APPROVAL	EXPIRATION DATE
PZC CHAIRMAN OR SECRETARY	DATE	

SOIL EROSION AND SEDIMENT CONTROL PLAN		SCALE 1"=40'		CROWN NO. 0451C2.06		DATE 03/07/2023		DATE 03/07/2023	
GALES FERRY INTERMODAL 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335		DRAWN BY ESP		APPROVED BY SRM		DATE 03/07/2023		DATE 03/07/2023	
GALES FERRY INTERMODAL LLC 383 SOUTH STREET, SUITE 101, NEW BRITAIN, CT 06053		C-9		NO. OF SHEETS 11		NO. OF SHEETS 20		NO. OF SHEETS 20	
DESCRIPTION OF REVISION		REV.		DATE		APPR.		DATE	

**Loureiro**  
Water & Facility Services • Laboratory  
Engineering • Construction • EIR • EIR • EIR  
Loureiro Engineering Associates, Inc.  
1761 Route 12, Gales Ferry, CT 06335  
Tel: 860-747-6181 • Fax: 860-747-8822  
An Employee-Owned Company • www.loureiro.com  
© Loureiro Engineering Associates, Inc. All Rights Reserved 2023

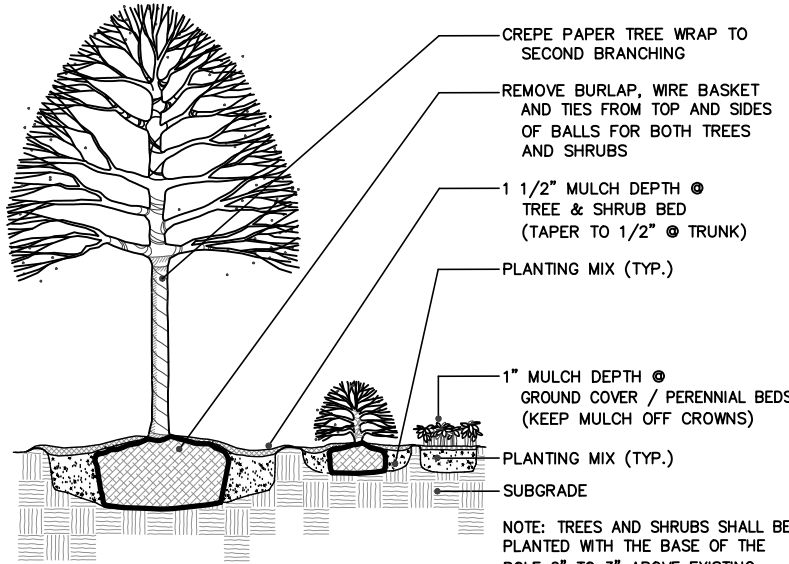


PLANT SCHEDULE

KEY	QTY.	TECHNICAL NAME	COMMON NAME	SIZE	COND.
DECIDUOUS TREES					
LS	2	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2"-2.5" CAL.	B&B
MV	1	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA	6'-7' HT.	B&B
CONIFEROUS TREES					
TP	55	THUJA PLICATA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	5'-6' HT.	B&B
SHRUBS					
CS	37	CORNUS SERICEA 'FLAVIRAMEA'	YELLOW TWIG DOGWOOD	3 GAL.	CONT.
IG	8	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	3 GAL.	CONT.
PERENNIALS					
ES	42	ERAGOSTIS SPECTABILIS	PURPLE LOVE GRASS	1 GAL.	CONT.
PN	112	PANICUM VIRGATUM 'NORTHWIND'	NORTHWIND SWITCHGRASS	3 GAL.	CONT.
PV	15	PHYSOTEGIA VIRGINIANA 'VIVID'	VIVID OBEDIENT PLANT	1GAL.	CONT.
PD	21	PENSTEMON DIGITALIS 'HUSKER RED'	HUSKER RED BEARDTONGUE	1 GAL.	CONT.

GENERAL NOTES - LANDSCAPING:

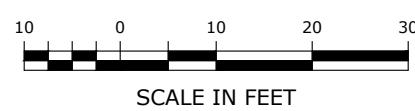
- AS CONSTRUCTION PROGRESSES, FINE GRADE AND SEED OR SOD AS SOON AS POSSIBLE TO REDUCE RUNOFF.
- ALL PLANTING BEDS TO BE TOPSOILED TO A DEPTH OF 12".
- IN ALL SHRUB BEDS TO RECEIVE MASS PLANTING, PROVIDE PINE BARK MULCH AS DETAILED. ESTABLISH A NEAT, SMOOTH EDGE BETWEEN MULCH AND LAWN.
- ADJUSTMENTS IN THE LOCATIONS OF PLANT MATERIALS MAY BE NECESSARY DUE TO LOCATIONS OF UTILITIES. ADJUSTMENTS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE.
- PROVIDE AND INSTALL ALL PLANTS SHOWN ON THE PLANTING PLAN DRAWINGS; THE QUANTITIES IN THE PLANT LIST ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. IF DISCREPANCIES OCCUR, THE DRAWING SYMBOLS PREVAIL OVER THE PLANT LIST QUANTITIES.



PLANTING DETAIL – TYP  
NOT TO SCALE

AUGMENT EXISTING  
VEGETATION WITHIN  
BUFFER AREA

25' LANDSCAPE BUFFER



PZ PERMIT #	DATE OF APPROVAL	EXPIRATION DATE
PZC CHAIRMAN OR SECRETARY	DATE	

LANDSCAPING PLAN

**GALES FERRY INTERMODAL**  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335

**GALES FERRY INTERMODAL LLC**  
383 SOUTH STREET, SUITE 201, NEW BRITAIN, CT 06053

**Loureiro**  
Water • Facility Services • Laboratory  
Engineering • Construction • EIRIS • Energy

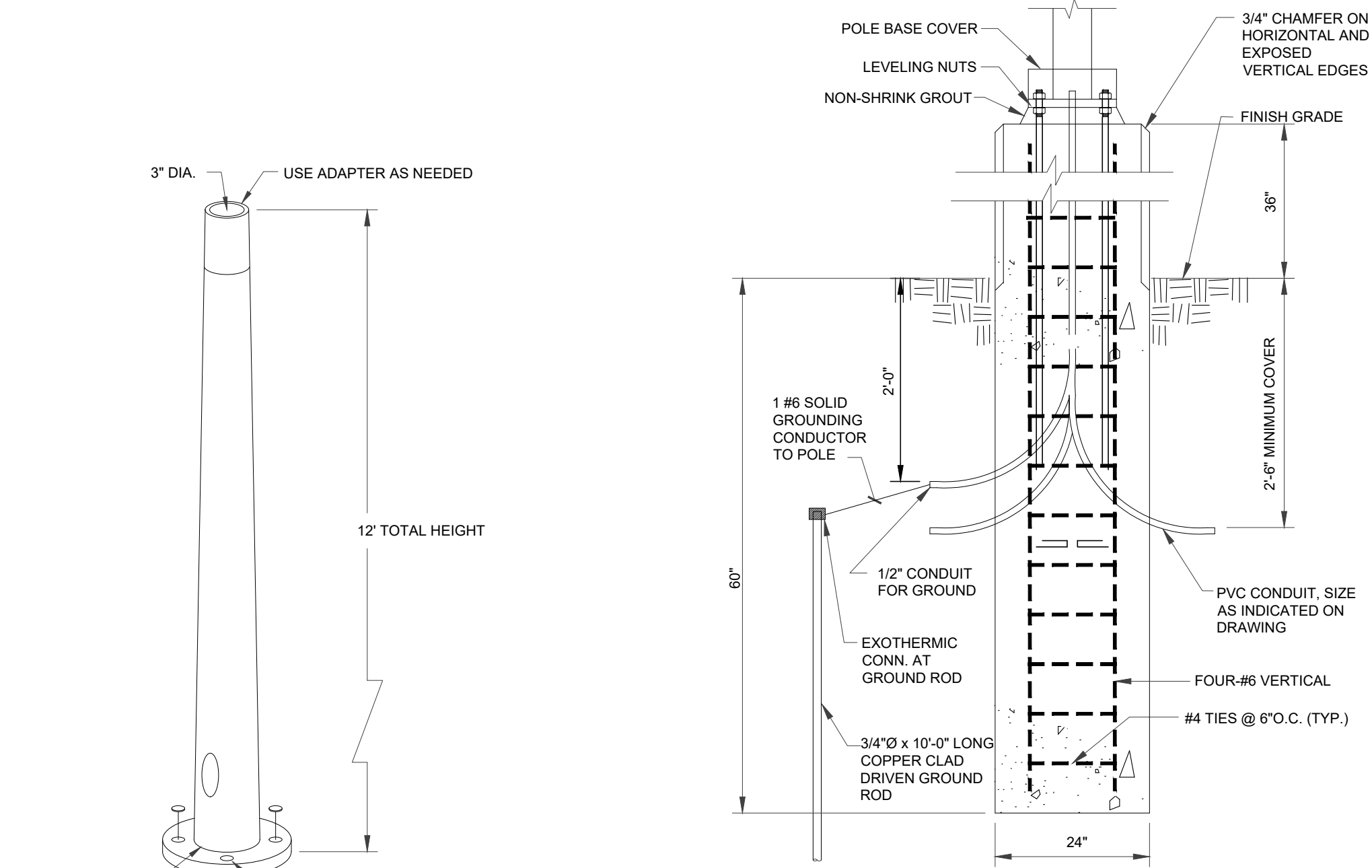
**Loureiro Engineering Associates, Inc.**  
1761 ROUTE 12, SUITE 201, NEW BRITAIN, CT 06053  
Phone: 860-747-6311 • Fax: 860-747-6822  
www.loureiroeng.com  
An Employee-Owned Company • www.loureiroeng.com  
©Loureiro Engineering Associates, Inc. All Rights Reserved 2023

SCALE	1"=20'
COUNT NO.	0451C2.06
DRAWN BY	ADP
DATE	03/07/2023
APPROVED BY	SRM
DATE	03/07/2023

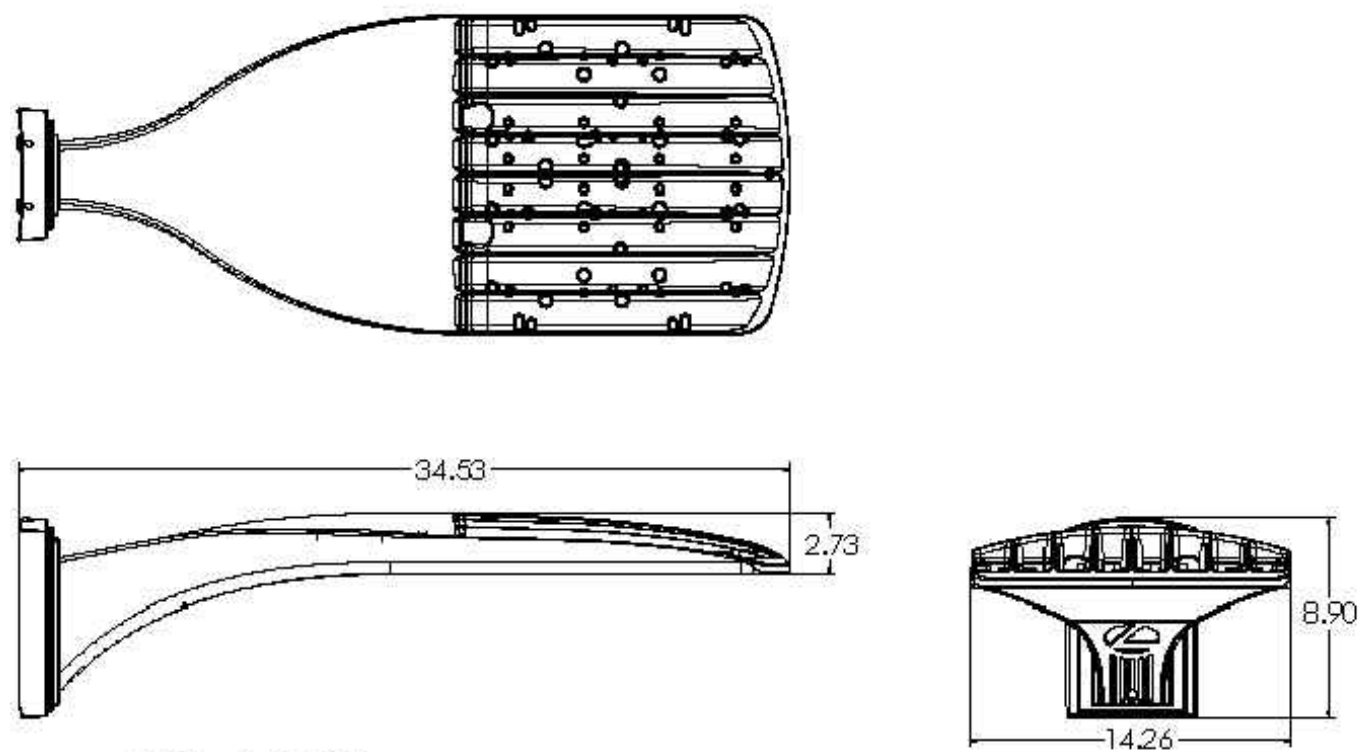


SCHEDULE									
SYMBOL	LABEL	QUANTITY	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	NUMBER LAMPS	LUMENS PER LAMP	LIGHT LOSS FACTOR	WATTAGE
	P3-TWX2	9	LITHONIA LIGHTING	TWX2 LED P3 40K	TWX2 LED WITH P3-PERFORMANCE PACKAGE, 4000K	1	5295	0.85	39.1538
	P2-T3M	6	LITHONIA LIGHTING	DSX1 LED P2 40K T3M MVOLT	DSX1 LED P2 40K T3M MVOLT	1	8641	0.85	70
	P2-TFT M-HS	1	LITHONIA LIGHTING	DSX1 LED P2 40K TFTM MVOLT HS WITH HOUSESIDE SHIELD	DSX1 LED P2 40K TFTM MVOLT HS WITH HOUSESIDE SHIELD	1	6495	0.85	70
	P2-T3M-HS	5	LITHONIA LIGHTING	DSX1 LED P2 40K T3M MVOLT HS WITH HOUSESIDE SHIELD	DSX1 LED P2 40K T3M MVOLT HS WITH HOUSESIDE SHIELD	1	7002	0.85	70

STATISTICS						
DESCRIPTION	SYMBOL	AVG	MAX	MIN	MAX/MIN	AVG/MIN
DRIVE/PARKING	+	1.8 fc	7.1 fc	0.0 fc	N/A	N/A
PROPERTY LINE	+	0.0 fc	0.5 fc	0.0 fc	N/A	N/A

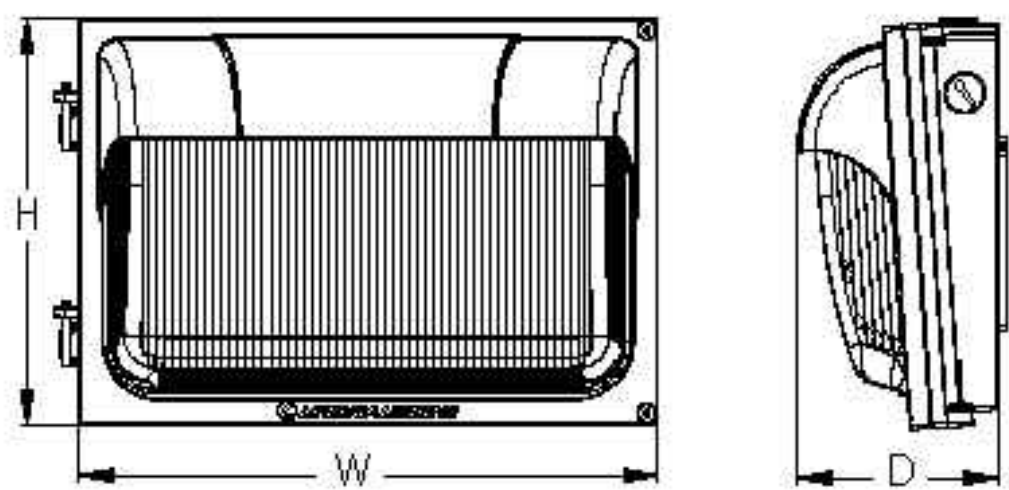


NOTE: COORDINATE POLE WITH BASE.  
**TAPERED ALUMINUM LUMINAIRE POLE**  
SCALE: NONE

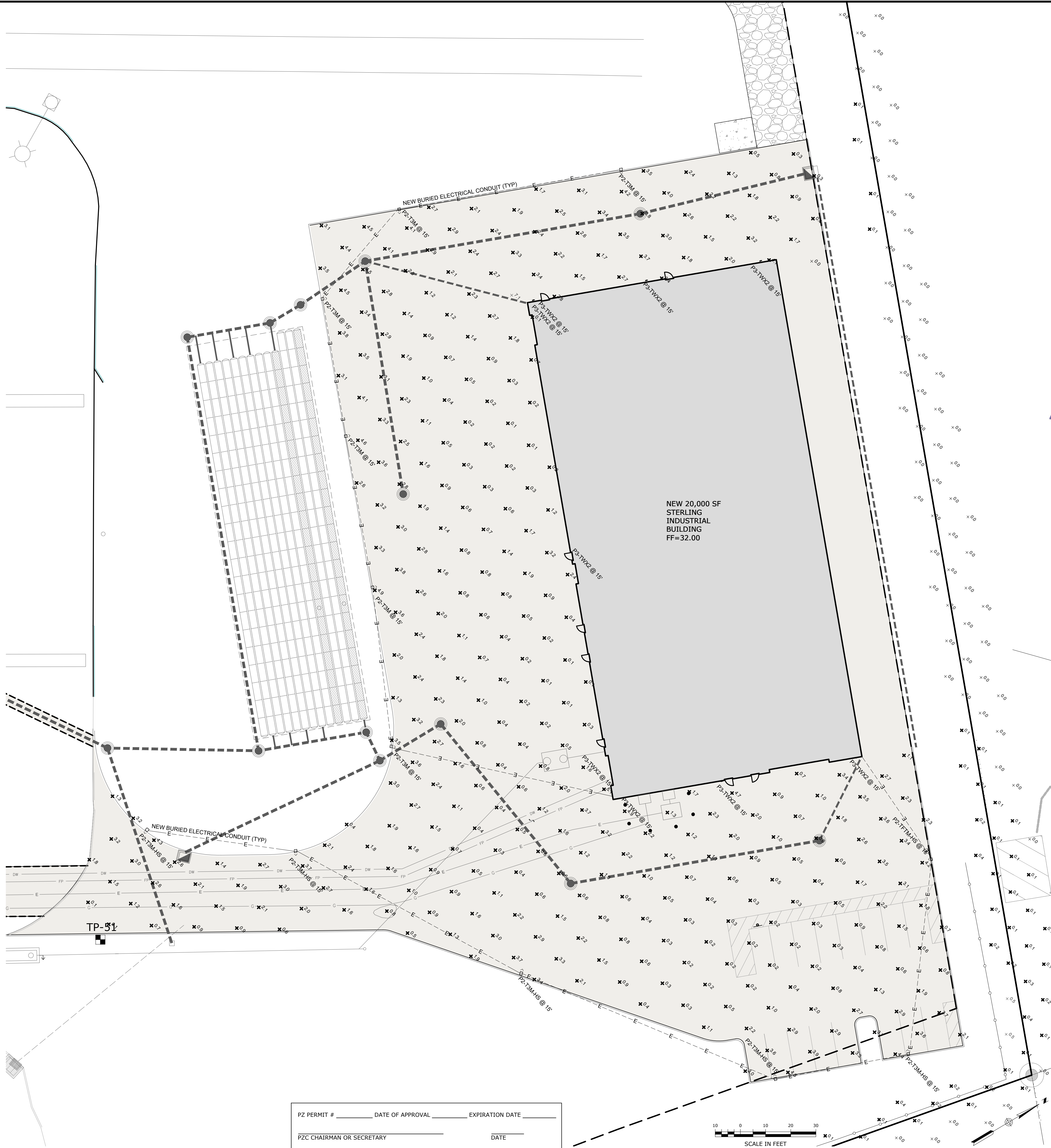


**DSX1 with WBA**  
NOTES  
LITHONIA LIGHTING, DSX1 LED WITH WBA, P2, 40K, T3M/TFTM, MVOLT, HS (POLE MOUNT).  
**POLE MOUNTED LIGHT**  
SCALE: NONE

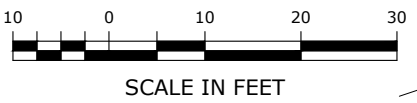
**TWX2:**  
Width: 13.0"  
Height: 9.0"  
Depth: 4.5"  
Weight: 11 lbs



NOTES  
CONTRACTOR SELECT™ TWX2 LED ALO, ADJUSTABLE LIGHT OUTPUT WALPACK  
SHIELD LUMINAIRE TO BE COORDINATED IN SHOP DRAWING TO REFLECT PHOTOMETRIC DISTRIBUTION SHOWN.  
**WALL PACK LIGHT**  
SCALE: NONE



PZ PERMIT # _____	DATE OF APPROVAL _____	EXPIRATION DATE _____
PZC CHAIRMAN OR SECRETARY _____	DATE _____	

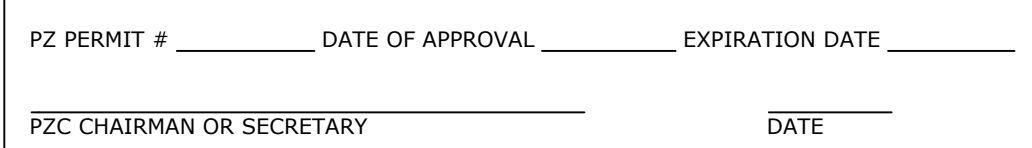
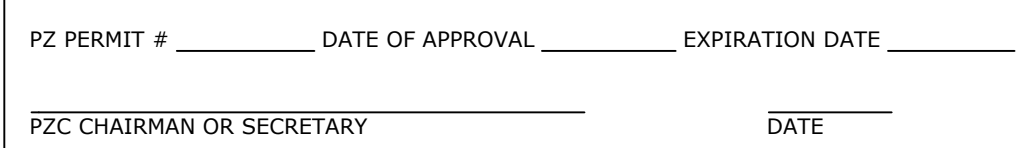


STATE OF CONNECTICUT OFFICE OF THE REGISTERED PROFESSIONAL ENGINEER No. 10281 LOUREIRO		DATE 03/07/2023		DATE 03/07/2023	
LOUREIRO Water & Facility Services & Laboratory Engineering • Construction • EIR • Energy 144 Main Street, Suite 200 Westport, CT 06880 Tel: 860-747-6111 Fax: 860-747-8822 www.loureiro.com © Loureiro Engineering Associates, Inc. All Rights Reserved 2023		DRAWN BY ESF		APPROVED BY SRM	
<b>PHOTOMETRIC AND LIGHTING PLAN</b>					
<b>GALES FERRY INTERMODAL</b> 1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335 <b>GALES FERRY INTERMODAL LLC</b> 353 SOUTH STREET, SUITE 102, WESTPORT, CT 06880					
SHEET NO. 13		NO. OF SHEETS 20		DRAWING <b>C-10</b>	









**SITE DETAILS 1**

---

**GALES FERRY INTERMODAL**  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335

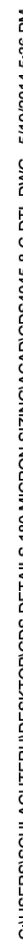
PREPARED FOR:

**GALES FERRY INTERMODAL LLC**  
543 SOUTH STREET, QUINCY, MA 02169









## ELECTRICAL LINE TRENCH

NOT TO SCALE

## WATER LINE TRENCH

NOT TO SCALE

REV.



SCALE NOT TO SCALE	CONM. NO. 045JC2.06	DRAWN BY ESF	DATE 03/07/07
		APPROVED BY SRM	DATE 03/07/07

### SITE DETAILS 3

**GALES FERRY INTERMODAL**  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335

PREPARED FOR:

**GALES FERRY INTERMODAL LLC**  
549 SOUTH STREET, QUINCY, MA 02169

### DRAWING

# C-14

SHEET NO.	17	NO. OF SHEETS	20
-----------	----	---------------	----

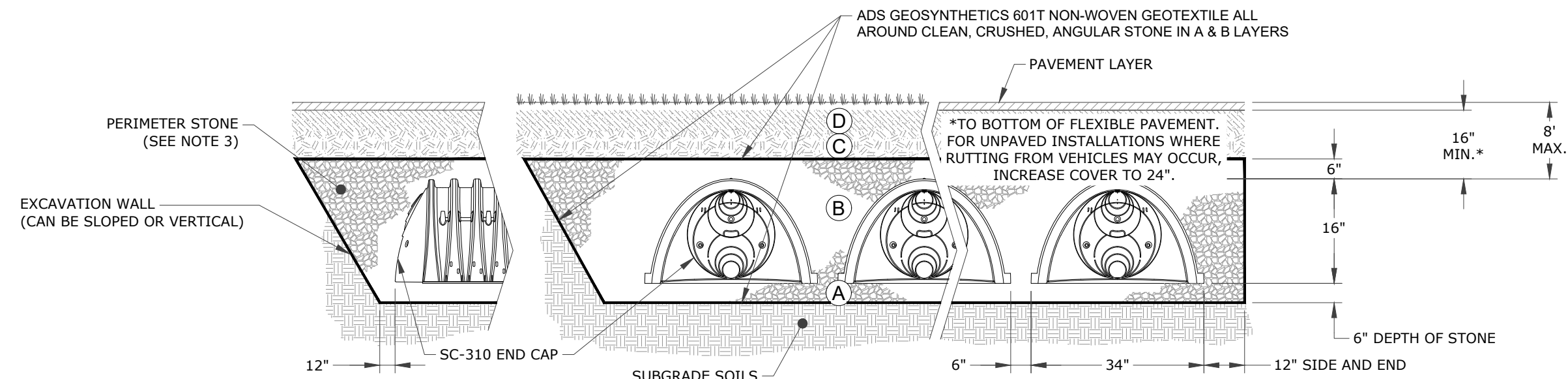
PZ PERMIT #	DATE OF APPROVAL	EXPIRATION DATE
-------------	------------------	-----------------

PZC CHAIRMAN OR SECRETARY

DATE \_\_\_\_\_

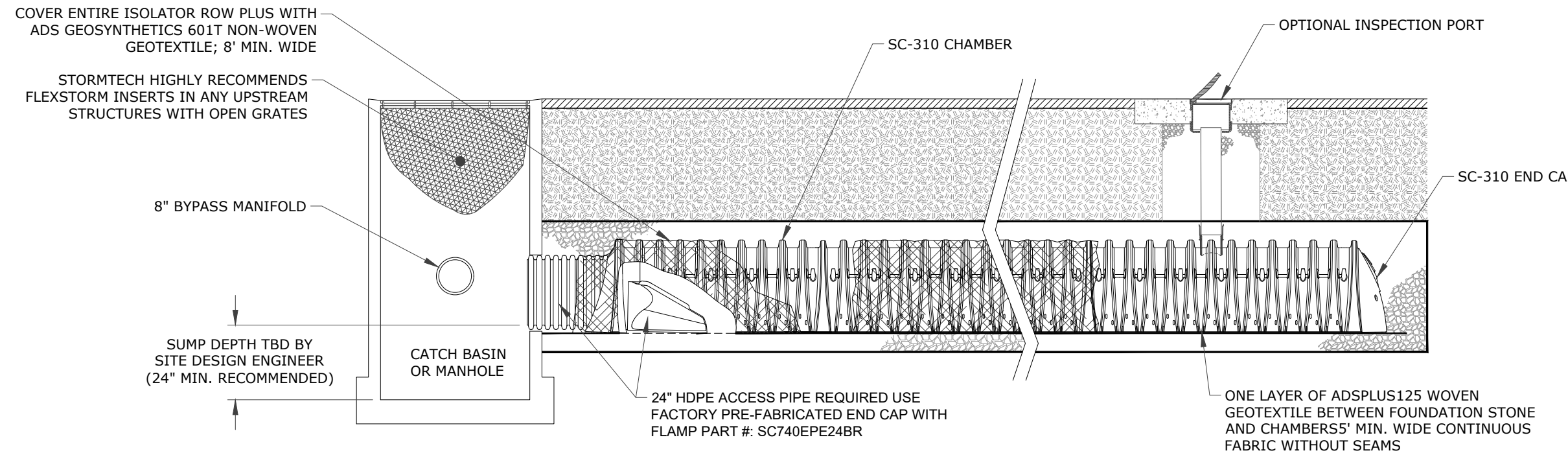


V:\ACT\GALES FERRY\ROUTE 12-1761\ASCE\2-061 LOCAL PERMIT FOR STERLING BUILDINGS\COLLUTAILS.DWG Job: STORMWATER DETAILS Sheet: 3/02/2023 1:10:07 AM by: RSR\BMR\B Printed: 3/02/2023 10:50 AM



- NOTES:
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
  2. SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
  3. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
  4. REQUIREMENTS FOR HANDLING AND INSTALLATION:
    - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
    - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
    - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

**ADS STORMTECH SC-310 CROSS-SECTION**  
NOT TO SCALE



**ADS STORMTECH SC-310 ISOLATOR ROW**  
NOT TO SCALE

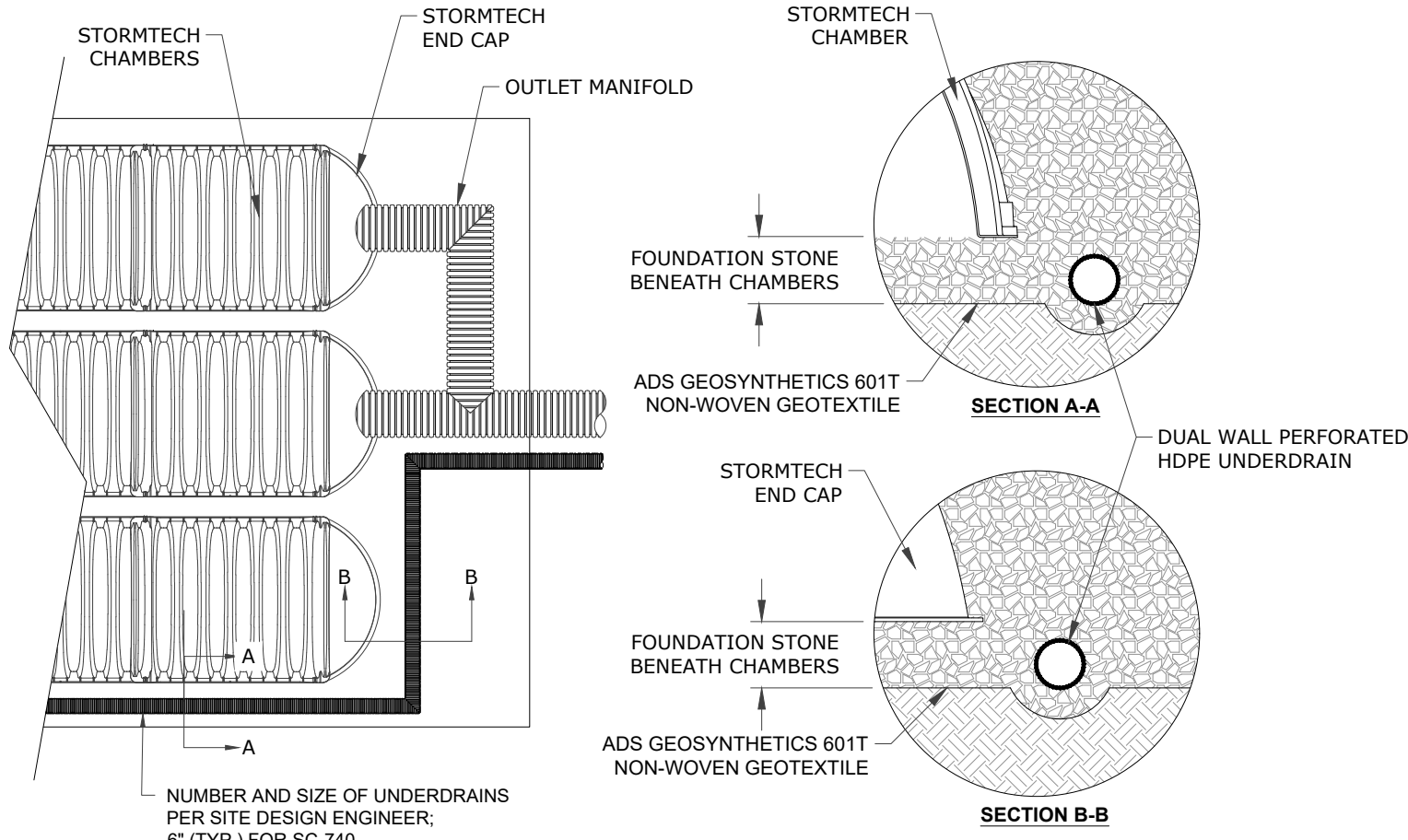
PART #	STUB	ADS STORMTECH SC-310 STUB LOCATIONS IN END CAPS		
		A	B	C
SC310EPE06T / SC310EPE06TPC	6" (150 mm)	9.6" (244 mm)	5.8" (147 mm)	---
SC310EPE06B / SC310EPE06BPC	---	---	---	0.5" (13 mm)
SC310EPE08T / SC310EPE08TPC	8" (200 mm)	11.9" (302 mm)	3.5" (89 mm)	---
SC310EPE08B / SC310EPE08BPC	---	---	---	0.6" (15 mm)
SC310EPE10T / SC310EPE10TPC	10" (250 mm)	12.7" (323 mm)	1.4" (36 mm)	---
SC310EPE10B / SC310EPE10BPC	---	---	---	0.7" (18 mm)
SC310EPE12B	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)

ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

\* FOR THE SC310EPE12B THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL.

**ADS STORMTECH SC-310 STUB LOCATIONS IN END CAPS**  
NOT TO SCALE

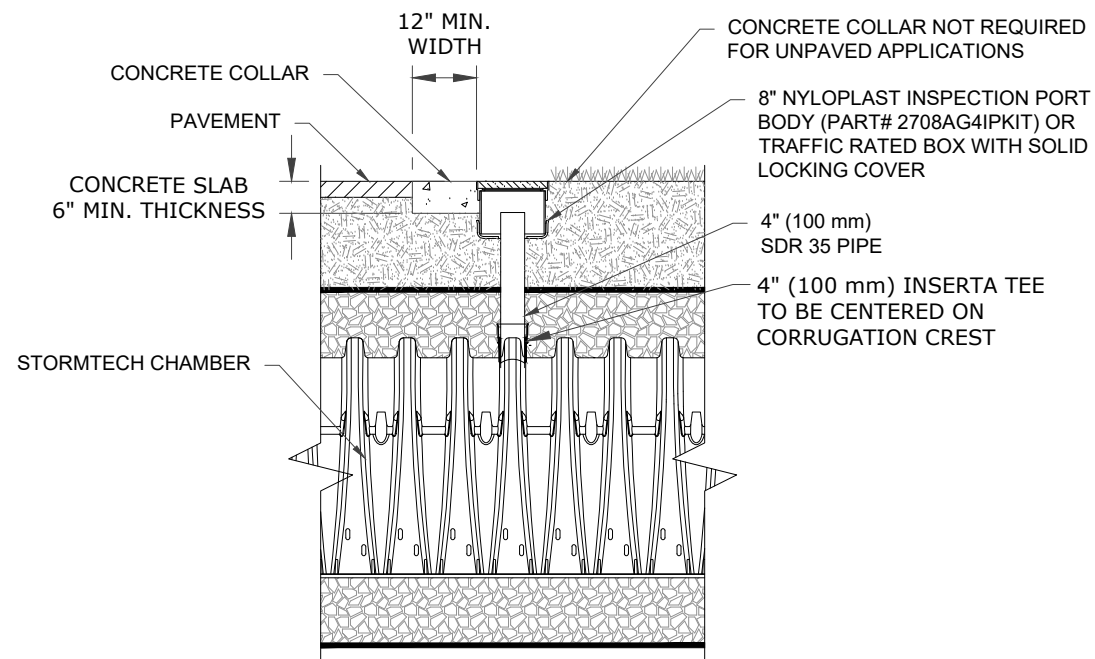


**ADS STORMTECH SC-310 UNDERDRAIN**  
NOT TO SCALE

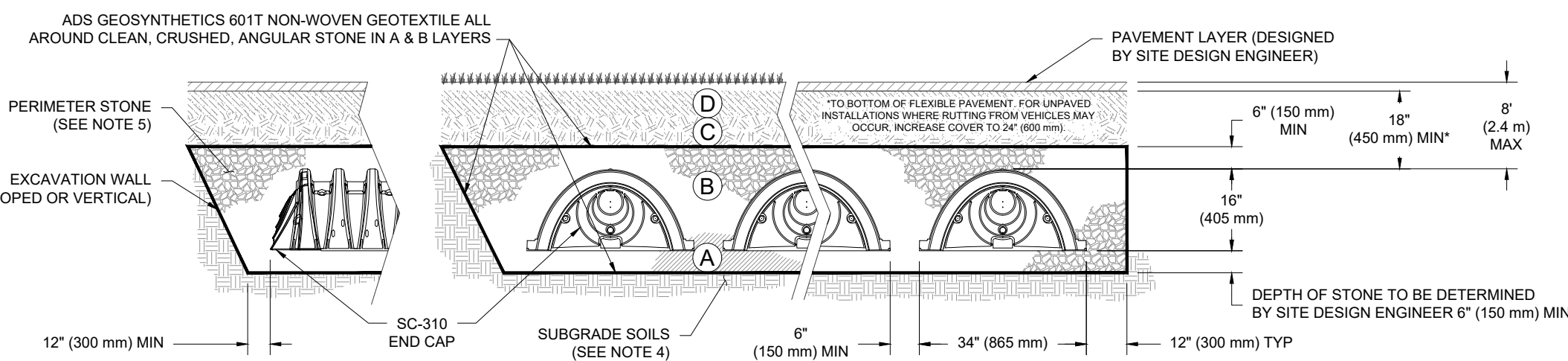
**ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS**

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	<b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	<b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2.4, A-3 OR AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	<b>EMBEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	<b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>

- PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
  2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
  3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
  4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



**ADS STORMTECH SC-310 4" PVC INSPECTION PORT**  
NOT TO SCALE



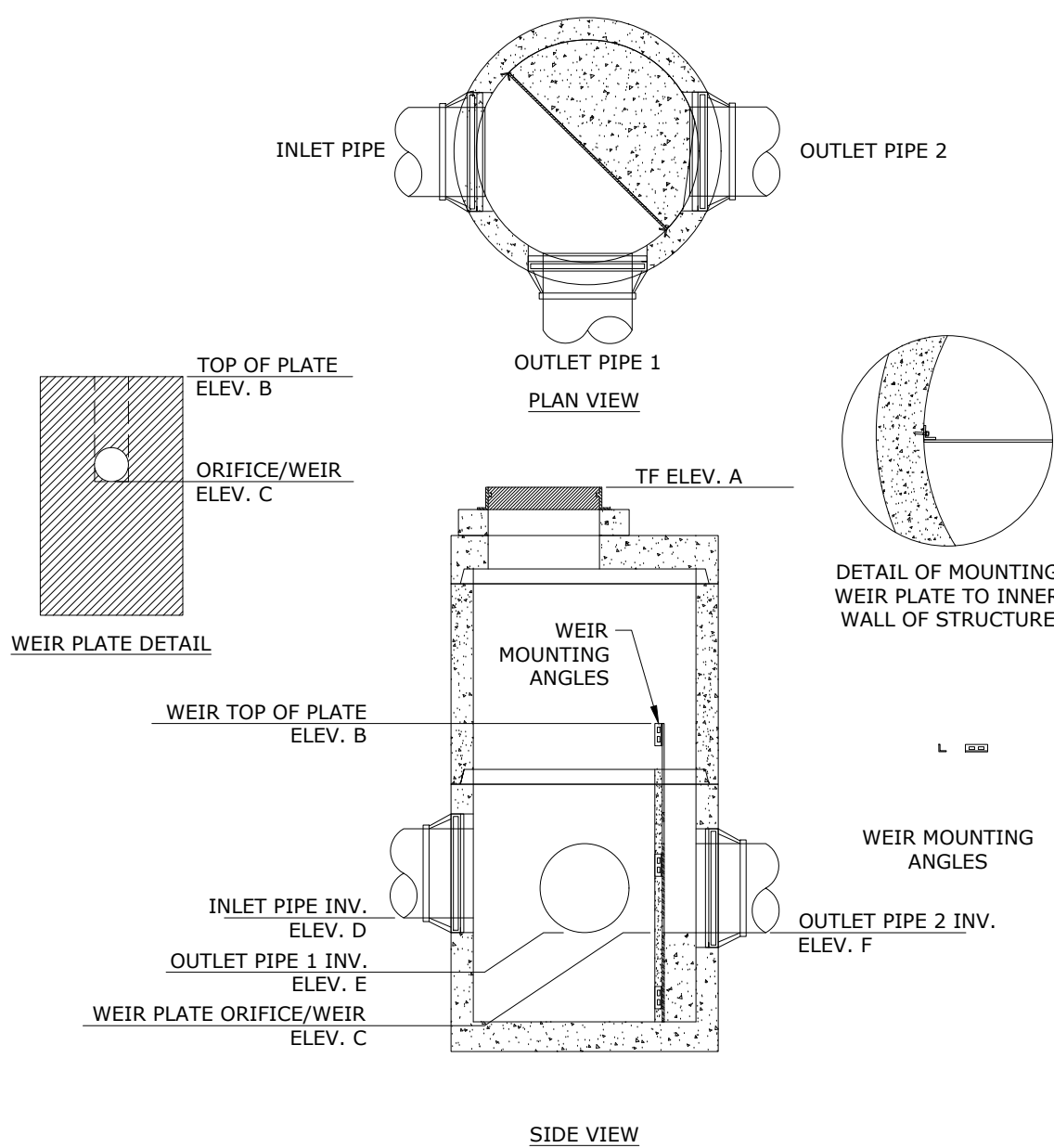
**ADS STORMTECH ACCEPTABLE FILL MATERIALS**  
NOT TO SCALE

UNDERGROUND DETENTION SYSTEM ELEVATION SUMMARY TABLE									
STRUCTURE ID	CHAMBER TYPE	NUMBER OF CHAMBERS	TOP OF STONE ELEV.	TOP OF CHAMBER ELEV.	BOTTOM OF CHAMBER ELEV.	BOTTOM OF STONE ELEV.	INLET MANIFOLD SIZE	OUTLET MANIFOLD SIZE	INLET STUB INVERT ELEV.
STORMWATER MANAGEMENT AREA 3	SC-310	156	28.33	27.83	26.50	26.00	12"x6"	12"x12"	26.54(6'0")

**ADS STORMTECH SC-310 ELEVATION SUMMARY TABLE**

INLET/OUTLET CONTROL STRUCTURE ELEVATION SUMMARY TABLE						
STRUCTURE ID	TOP OF FRAME ELEV. A	TOP OF WEIR PLATE ELEV. B	LOW-FLOW ORIFICE/WEIR INVERT ELEV. C	INLET PIPE INVERT ELEV. D	OUTLET PIPE 1 INVERT ELEV. E	OUTLET PIPE 2 INVERT ELEV. F
ICS-1	55.40	52.00	--	48.10 (18'0") (N)	48.10 (12'0"; ISOLATOR ROW) (S)	48.10 (12'0"; INLET MANIFOLD) (E)
ICS-2	32.30	27.70	--	26.60 (15'0") (W)	26.60 (6'0"; ISOLATOR ROW) (E)	26.60 (12'0"; INLET MANIFOLD) (N & S)
ICS-3	31.75	27.70	--	26.60 (12'0") (N)	26.60 (6'0"; ISOLATOR ROW) (W)	26.60 (12'0"; INLET MANIFOLD) (S)
ICS-4	30.55	27.70	--	26.60 (12'0") (S)	26.60 (6'0"; ISOLATOR ROW) (W)	26.60 (12'0"; INLET MANIFOLD) (N)
OCS-1	37.45	36.45	35.00 (5'0" ORIFICE) 31.00 (6'0" ORIFICE)	--	--	31.00 (15'0") (E)
OCS-2	55.80	52.70	50.00 (6'0" ORIFICE) 48.00 (5'0" ORIFICE)	48.10 (12'0") (W)	--	45.00 (15'0") (N)
OCS-3	31.70	27.83	9.1 (6'0" ORIFICE) 8.5 (6'0" ORIFICE)	26.60 (12'0") (N)	--	25.50 (12'0") (E)

**INLET CONTROL STRUCTURE (ICS) AND OUTLET CONTROL STRUCTURE (OCS)**



NOTE:  
\*5" OR 6" DIA. PRECAST BASES MAY BE USED WHEN REQUIRED DUE TO SIZE OR NUMBER OF PIPES AT THE MANHOLE. PRECAST REDUCERS WILL BE PLACED ABOVE THE 5" AND 6" BASES. WALL THICKNESS TO INCREASE 1" FOR EACH 1" OF INSIDE DIAMETER INCREASE.

**STORMTECH SYSTEM OVERFLOW CONTROL STRUCTURE DETAIL**  
NOT TO SCALE

PZ PERMIT #	DATE OF APPROVAL	EXPIRATION DATE
PZC CHAIRMAN OR SECRETARY	DATE	

STATE OF CONNECTICUT  
REGISTERED PROFESSIONAL ENGINEER  
No. 10285  
GALES FERRY INTERMODAL LLC  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335  
353 SOUTH STREET, SUITE 202, BRIDGEPORT, CT 06606  
© Loureiro Engineering Associates, Inc. All Rights Reserved 2023

SCALE  
NOT TO SCALE

DATE  
03/07/2023

DATE  
03/07/2023

CONV. NO.  
0451C2.06

NO. OF SHEETS  
20

STORMWATER DETAILS

GALES FERRY INTERMODAL  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335  
GALES FERRY INTERMODAL LLC  
353 SOUTH STREET, SUITE 202, BRIDGEPORT, CT 06606

DRAWING  
**C-15**

REV.

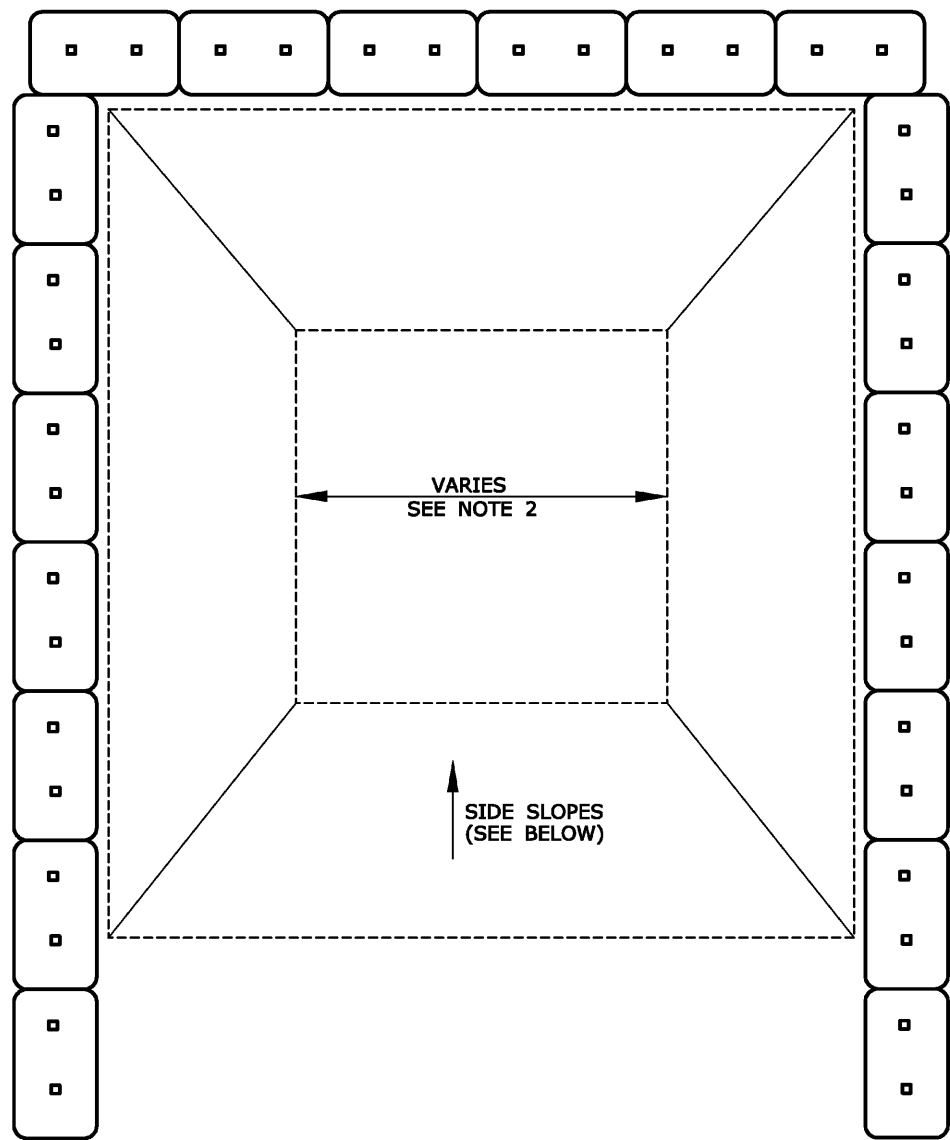
DESCRIPTION OF REVISION

DATE

APPR.



\\CT\GALES\_FERRY\ROUTE 12\TRA\USC2\04\LOCAL\PERMIT FOR EROSION CONTROL DETAILS.DWG Job: EROSION CONTROL DETAILS, Sheet: 3/8/2023 11:07:41 AM by: ESKANMER Printed: 3/8/2023 11:55:40 AM



PLAN

HAY BALES OR  
COMPACTED EARTH BERM  
(SEE NOTE 3)

SIDE SLOPES  
(SEE BELOW)

HAY BALES OR  
COMPACTED EARTH BERM  
(SEE NOTE 3)

DEPTH VARIES  
SEE NOTE 2

EXISTING GROUND

10 MIL POLYETHYLENE SHEETING

SAND BAGS TO SECURE  
SHEETING (OR METHOD  
AS DIRECTED BY ENGINEER)

SIDE SLOPES TO BE  
2H:1V OR 3H:1V (NOMINAL)

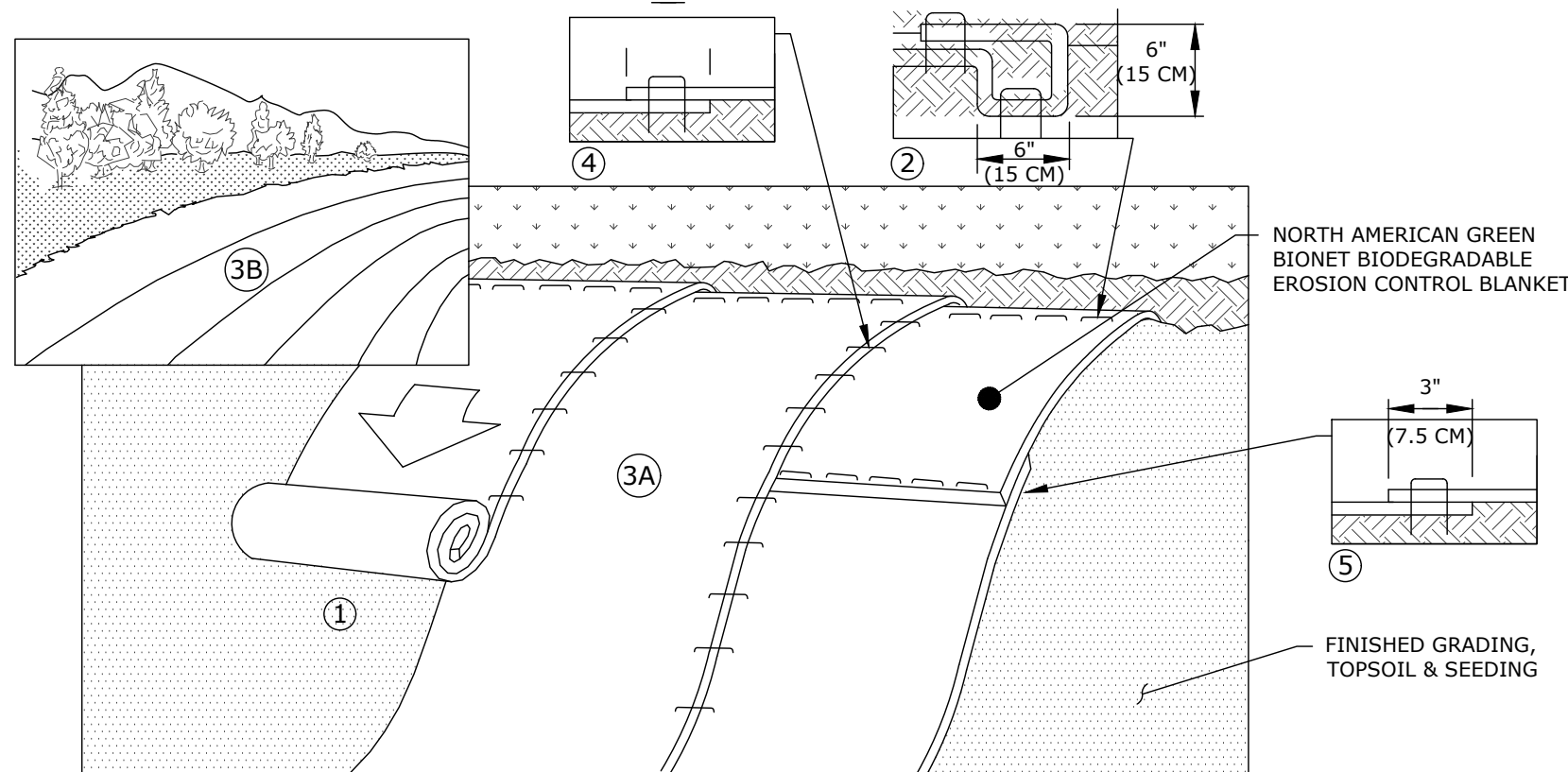
### CONCRETE WASHOUT AREA

SCALE: NONE

- NOTE:
- CONTRACTOR TO LOCATE, ERECT, AND MAINTAIN.

#### GENERAL NOTES:

- CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.
- THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING OF THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER.  
  
LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED AT LEAST 50 FEET FROM ANY STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE RESOURCE. THE FLOOD CONTINGENCY PLAN MUST ADDRESS THE CONCRETE WASHOUT IF THE WASHOUT IS TO BE LOCATED WITHIN THE FLOODPLAIN.  
  
SIZE: THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING, BUT NOT LIMITED TO, OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.
- SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.
- SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED METHOD.
- WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS.
- HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S DEPTH. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.
- PAYMENT FOR THIS ITEM IS TO BE INCLUDED UNDER THE GENERAL COST OF THE WORK FOR THE PROJECT, INCLUDING SITE RESTORATION.

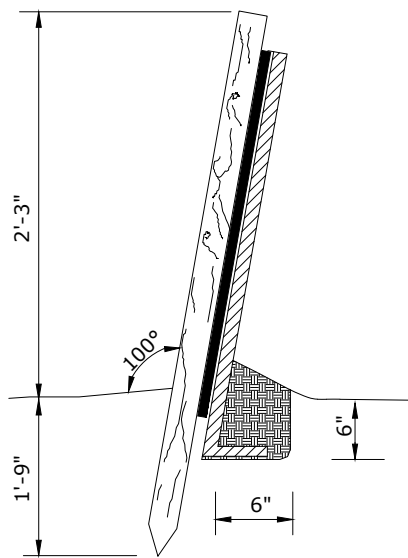


#### Notes:

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 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. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM), MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
- 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.
- 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.
- CONSECUTIVE BLANKETS SPICED 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.

#### EROSION CONTROL BLANKET DETAIL

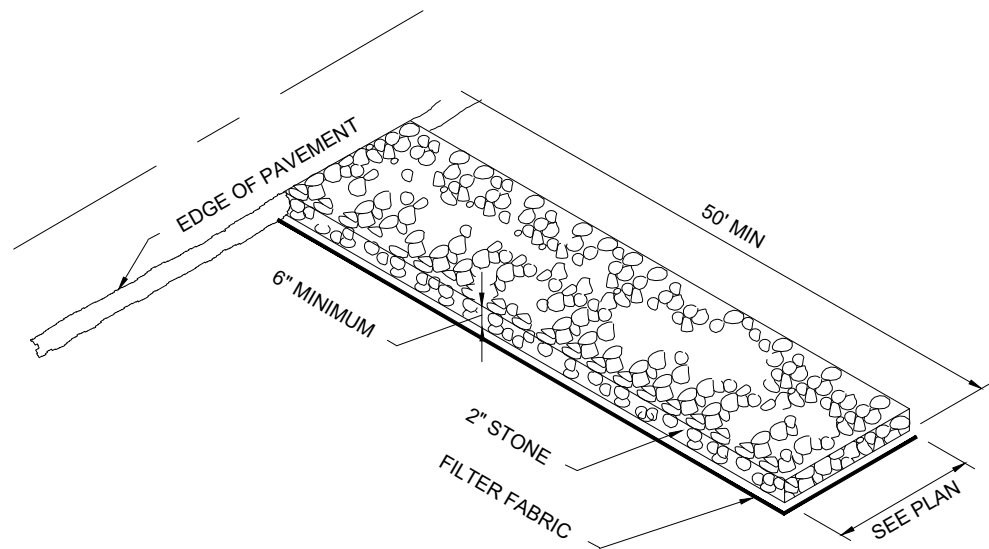
NOT TO SCALE



NOTE: PREMANUFACTURED FENCE MAY BE USED.

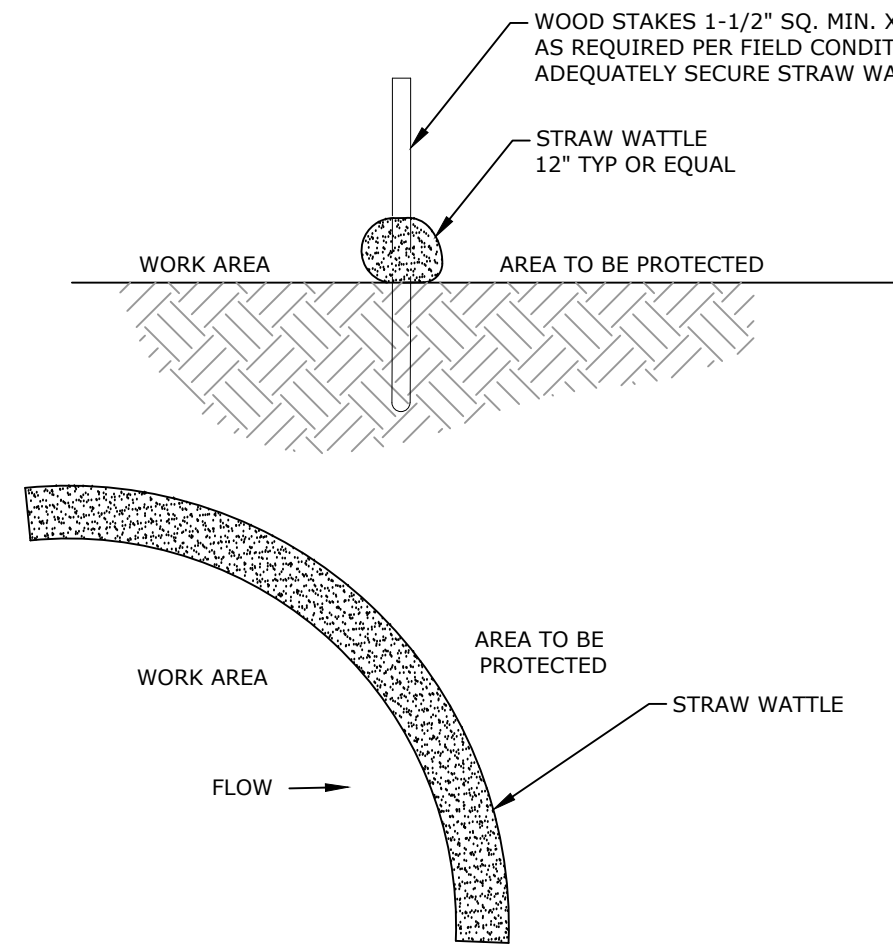
#### SILT FENCE

NOT TO SCALE



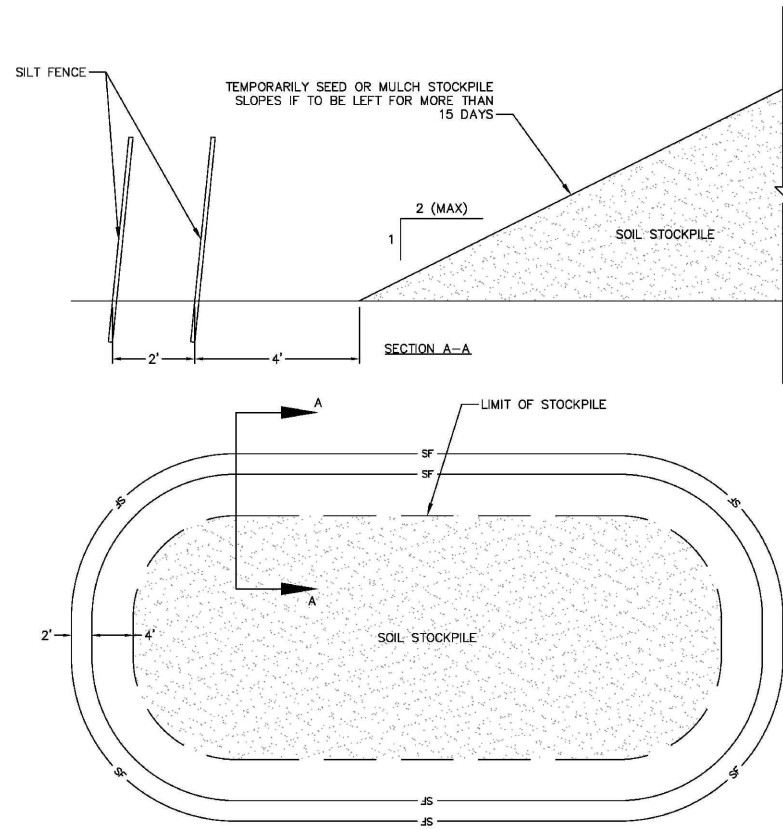
#### TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE



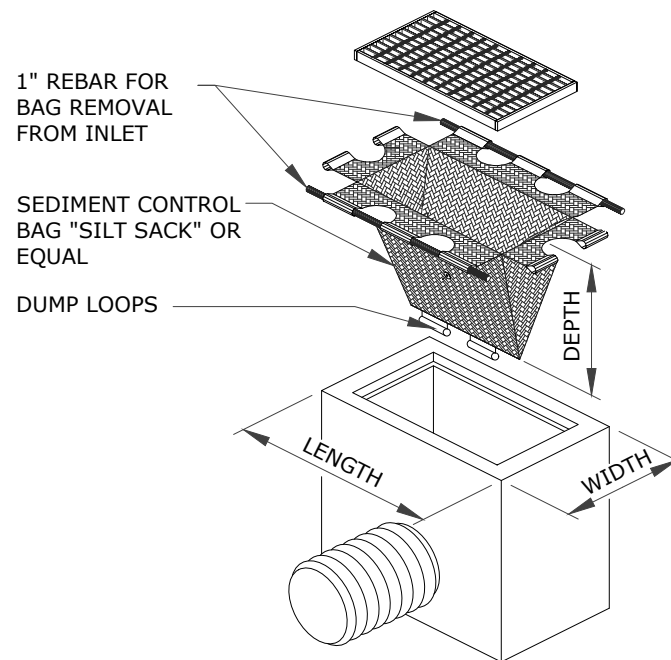
#### STRAW WATTLE DETAIL

NOT TO SCALE

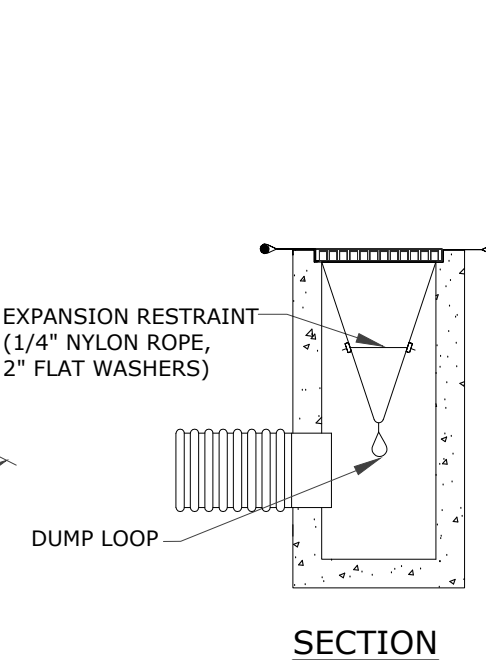


#### TEMPORARY SOIL STOCKPILE DETAIL

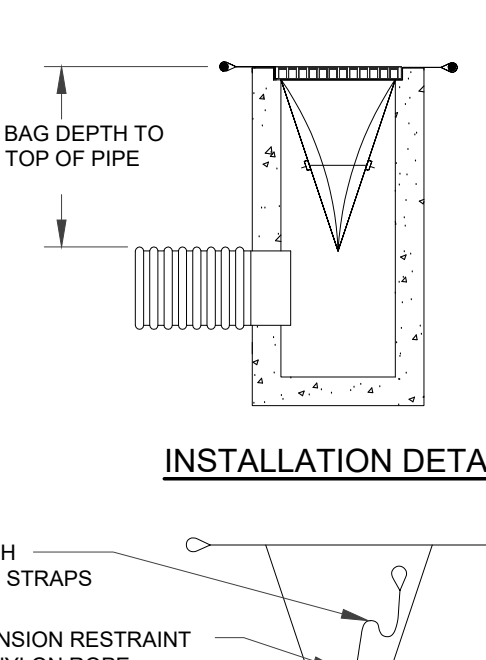
NOT TO SCALE



#### PERSPECTIVE VIEW



#### SECTION



#### INSTALLATION DETAIL

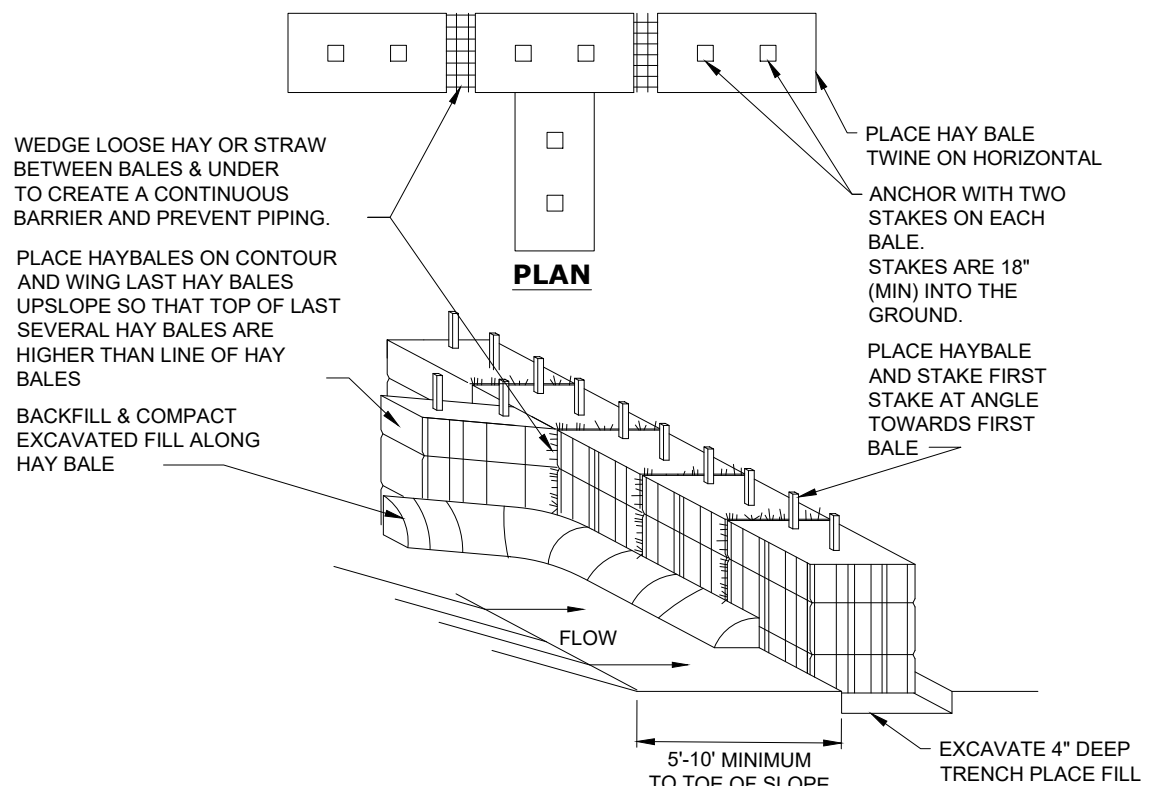
#### BAG DETAIL

#### NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CORRECT SIZE DEVICE FOR EACH INLET. FOR NON-STANDARD CATCH BASINS AND INLETS, THE CONTRACTOR SHALL MEASURE DIMENSIONS IN THE FIELD AND ORDER THE APPROPRIATE SIZE(S).
- THE INLET SEDIMENT CONTROL DEVICE SHALL BE OF HIGH FLOW DESIGN (200 GAL/MIN/FT), AS PER THE MANUFACTURER'S SPECS.
- THE SEDIMENT CONTROL DEVICE SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND CLEANED AND MAINTAINED A MINIMUM ONCE PER MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT. THE FILTER SHALL BE REPLACED OR CLEANED WHEN THE BAG BECOMES HALF FULL. THE FILTER SHALL BE CLEANED IN A MANNER WHICH ENSURES THAT ALL SEDIMENT REMAINS ON SITE.
- SUBSTITUTION OF A SHEET OF FILTER FABRIC PLACED OVER THE OPENING OF THE INLET IS NOT APPROVED.
- RECESSED CURB INLET CATCH BASINS MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS, SIZE OF FILTER INLET SACK TO BE DETERMINED BY MANUFACTURER.
- THE FILTER DEVICE SHALL BE MANUFACTURED BY ACF ENVIRONMENTAL OR APPROVED EQUAL.

#### CATCH BASIN FILTER (SILT SACK) DETAIL

NOT TO SCALE



#### SECTION

#### HAYBALE BARRIER

NOT TO SCALE

WEDGE LOOSE HAY OR STRAW BETWEEN BALES & UNDER TO CREATE A CONTINUOUS BARRIER AND PREVENT PIPING. PLACE HAYBALES ON CONTOUR AND WING LAST HAY BALES UPSLOPE SO THAT TOP OF LAST SEVERAL HAY BALES ARE HIGHER THAN LINE OF HAY BALES. BACKFILL & COMPACT EXCAVATED FILL ALONG HAY BALE.

#### PLAN

#### FLOW

#### EXCAVATE 4" DEEP TRENCH PLACE FILL UPSLOPE OF TRENCH

#### 5'-10" MINIMUM TO TOE OF SLOPE

#### PLACE HAY BALE TWINE ON HORIZONTAL ANCHOR WITH TWO STAKES ON EACH BALE. STAKES ARE 18" (MIN) INTO THE GROUND. PLACE HAYBALE AND STAKE FIRST STAKE AT ANGLE TOWARDS FIRST BALE.

### SOIL EROSION AND SEDIMENT CONTROL DETAILS

**GALES FERRY INTERMODAL**  
1761 ROUTE 12, GALES FERRY, CONNECTICUT 06335  
**GALES FERRY INTERMODAL LLC**  
383 SOUTH STREET, SUITE 101, BRIDGEPORT, CT 06610

DRAWING

**C-16**

SHEET NO. 19 NO. OF SHEETS 20

PZ PERMIT # \_\_\_\_\_ DATE OF APPROVAL \_\_\_\_\_ EXPIRATION DATE \_\_\_\_\_

PZC CHAIRMAN OR SECRETARY \_\_\_\_\_

DATE \_\_\_\_\_

DESCRIPTION OF REVISION  
REV. DATE



**Loureiro**  
Engineering Associates, Inc.  
Water & Utility Services & Laboratory  
Engineers • Constructors • EITs • Surveyors  
1761 ROUTE 12, GALES FERRY, CT 06335  
Tel: 860-747-6161 Fax: 860-747-6822  
www.loureiroeng.com  
An Employee-Owned Company • www.loureiroeng.com  
© Loureiro Engineering Associates, Inc.  
All Rights Reserved 2023



