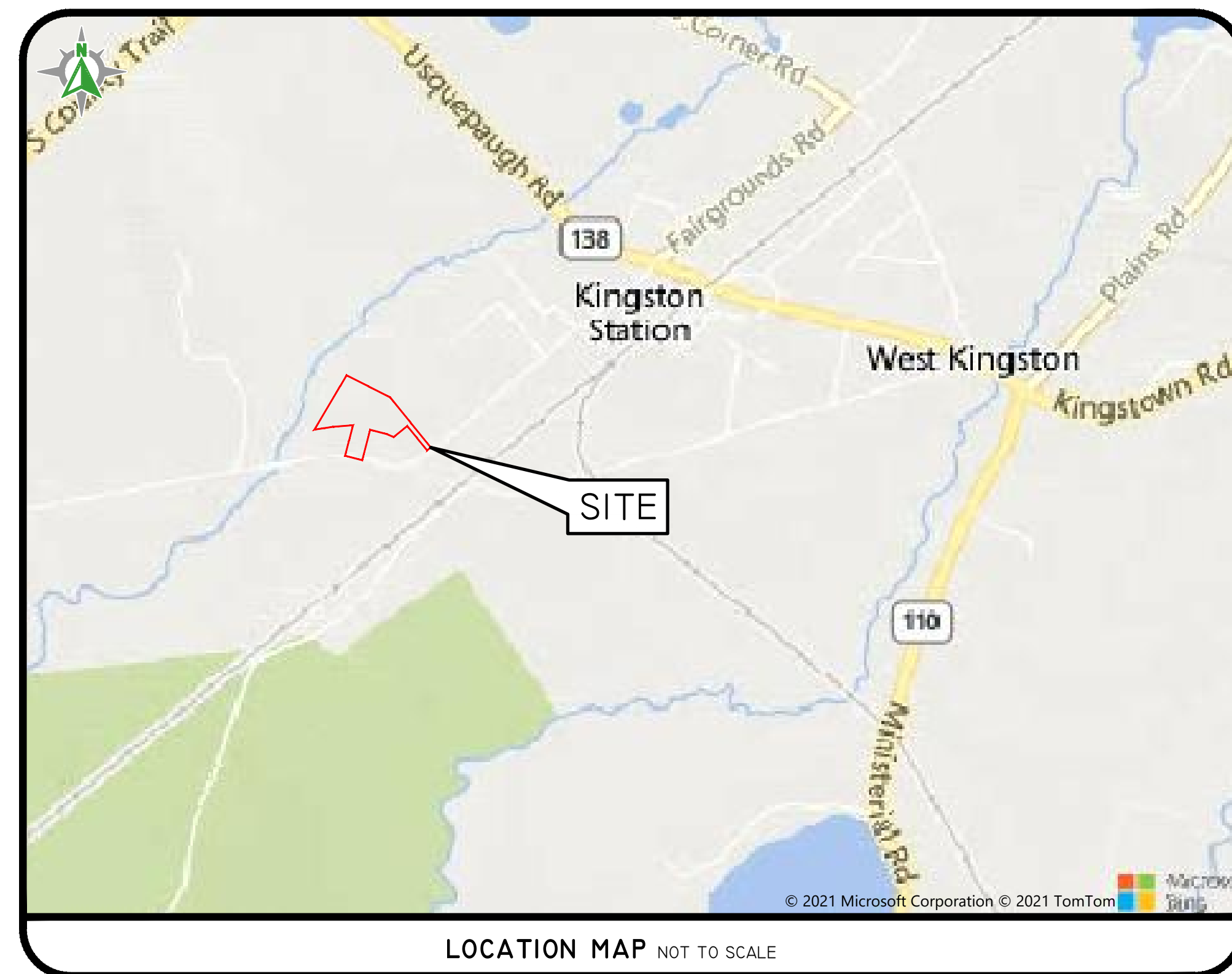


TOWN PRELIMINARY SUBMISSION

551 LIBERTY LANE

LOCATED ON 551 LIBERTY LANE
SOUTH KINGSTOWN, RHODE ISLAND

ASSESSOR'S PLAT 21-3 LOT 21



SHEET LIST

- 1 COVER SHEET
- 2 AERIAL AND HALF MILE RADIUS
- 3 NOTES AND LEGEND
- 4 EXISTING CONDITIONS PLAN
- 5 SOIL EROSION & SEDIMENT CONTROL PLAN
- 6 SITE LAYOUT PLAN
- 7 GRADING AND UTILITIES PLAN
- 8 POND COMPLEX A1 DETAILS
- 9 POND COMPLEX A2 DETAILS
- 10 STORMCRETE DETAILS
- 11 DETAIL SHEET
- 12 LANDSCAPE PLAN
- 13 LANDSCAPE NOTES & DETAILS

PERMITS AND APPROVALS

RIDEM RIPDES GENERAL PERMIT FOR STORMWATER DISCHARGE DURING CONSTRUCTION ACTIVITY ("CGP") (PERMIT AUTHORIZATION NO. RIRI02215), DATE OF APPROVAL: JANUARY 11, 2022

SESC / O&M

THE SOIL EROSION AND SEDIMENT CONTROL PLAN (SESC) AND STORMWATER OPERATION AND MAINTENANCE PLAN (O&M) ARE REQUIRED DOCUMENTS WITH THIS PLAN SET AND MUST BE MAINTAINED BY THE CONTRACTOR AND OWNER ON SITE.

DIPrete Engineering



Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-664-6006 www.diprete-eng.com

Boston • Providence • Newport

DAVID A. RUSSO

No. 14345

REGISTERED PROFESSIONAL ENGINEER CIVIL

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY THE TOWN ENGINEER.

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA COMPLIANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

SEE UTILITY NOTE ON SHEET 2.

NO.	DATE	DESCRIPTION	BY	DESIGN BY
1	09-27-2022	TOWN PRELIMINARY SUBMISSION	J.L.S.	
2	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
3	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
4	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
5	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
6	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
7	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
8	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
9	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
10	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
11	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
12	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	
13	09-27-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.	

COVER SHEET

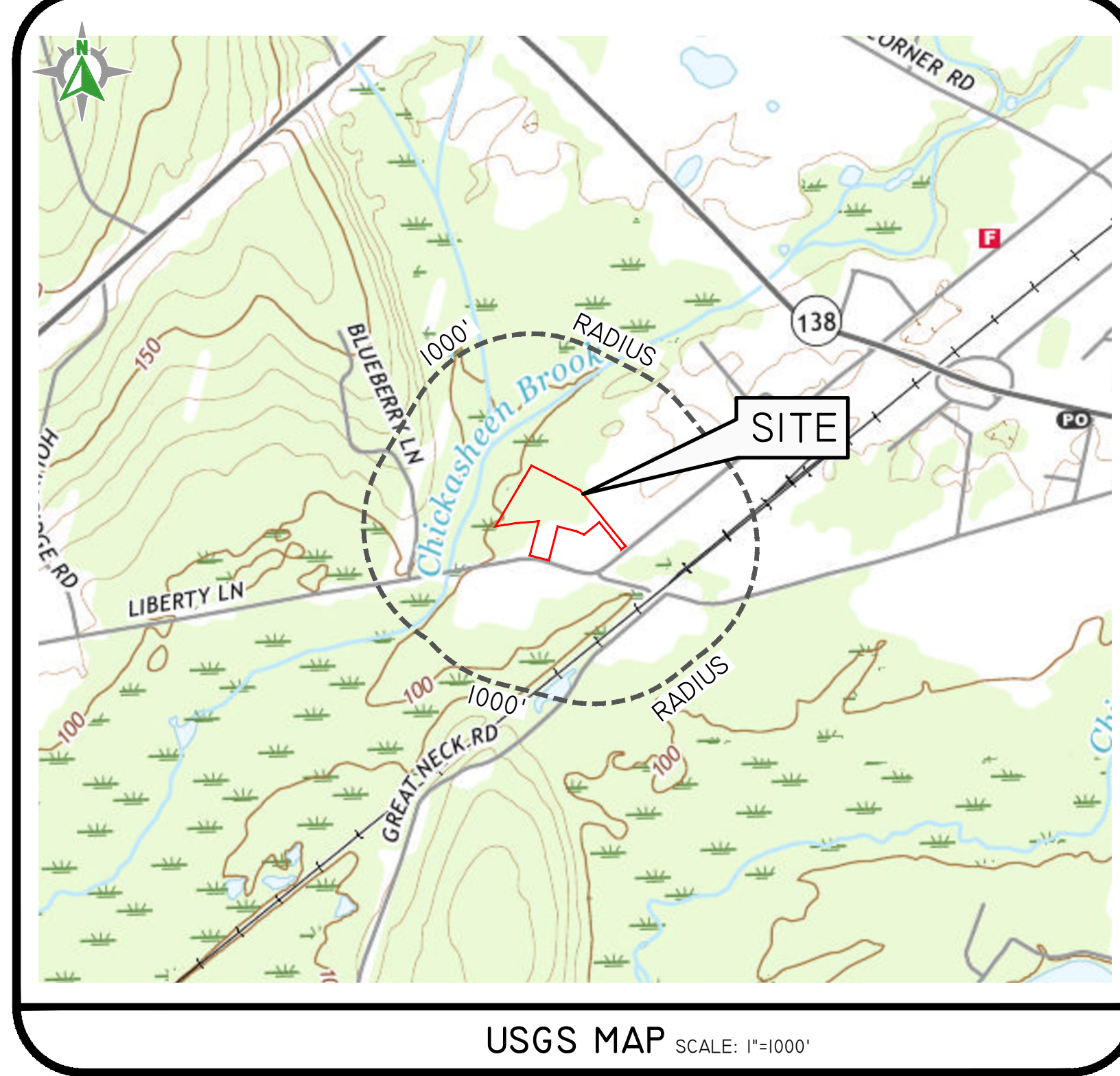
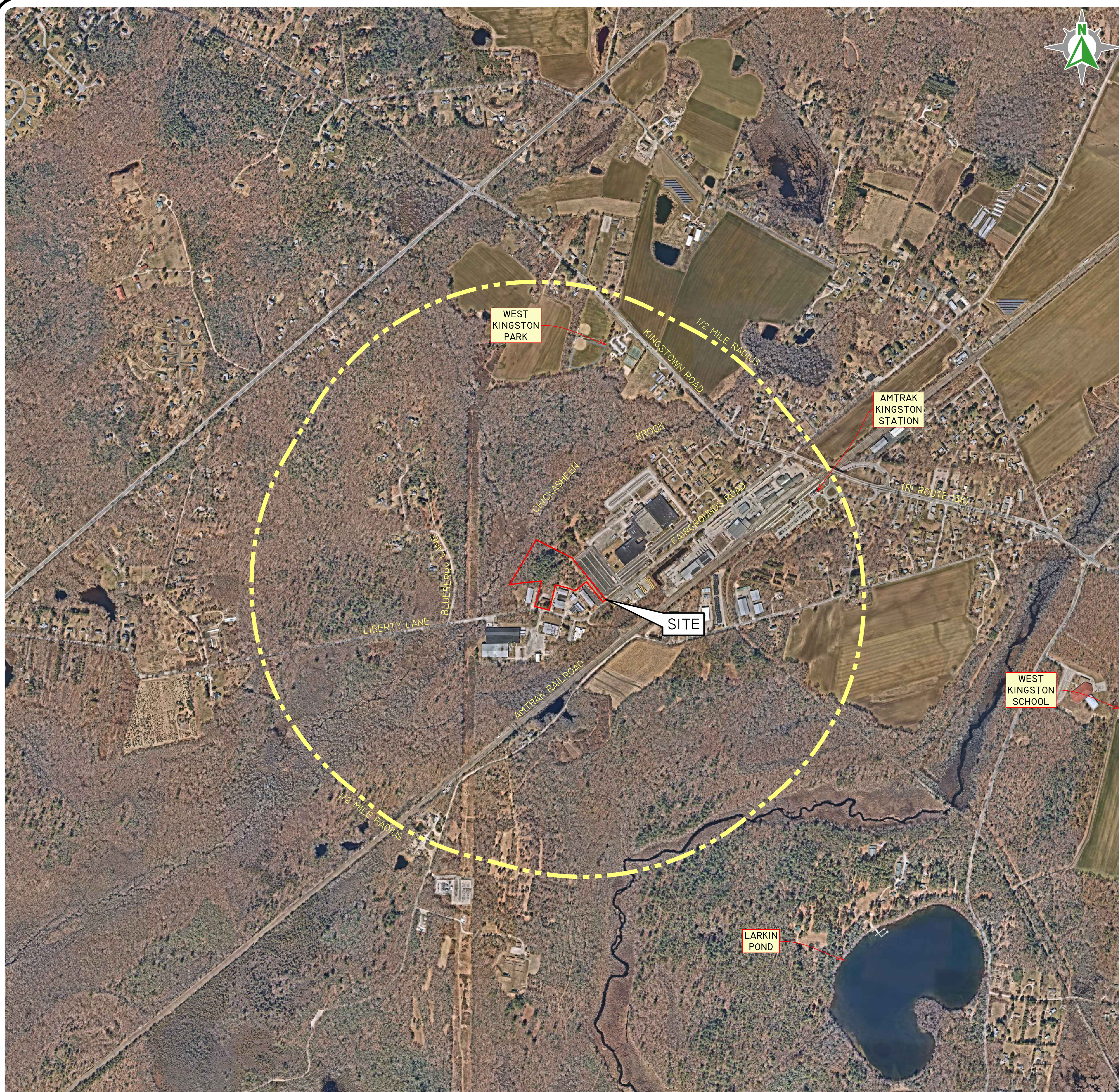
551 LIBERTY LANE

ASSESSOR'S PLAT 21-3 LOT 21

SOUTH KINGSTOWN, RHODE ISLAND

PREPARED FOR: SOUTH COUNTY POST & BEAM, INC. 521 LIBERTY LANE, WEST KINGSTOWN, RHODE ISLAND TEL 401-783-4415 FAX 401-783-4494

DE:JOB NO: 2324-008 COPYRIGHT 2022 BY DIPRETE ENGINEERING ASSOCIATES, INC.



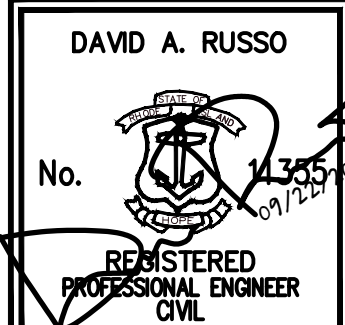
USGS MAP SCALE: 1"=1000'

PHOTO OBTAINED FROM NEARMAP.COM
DATE OF PHOTOGRAPHY 3/14/2020

SCALE: 1"=500'
0 250' 500' 1000'



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Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-664-6006 www.diprete-eng.com



REGISTERED PROFESSIONAL ENGINEER CIVIL

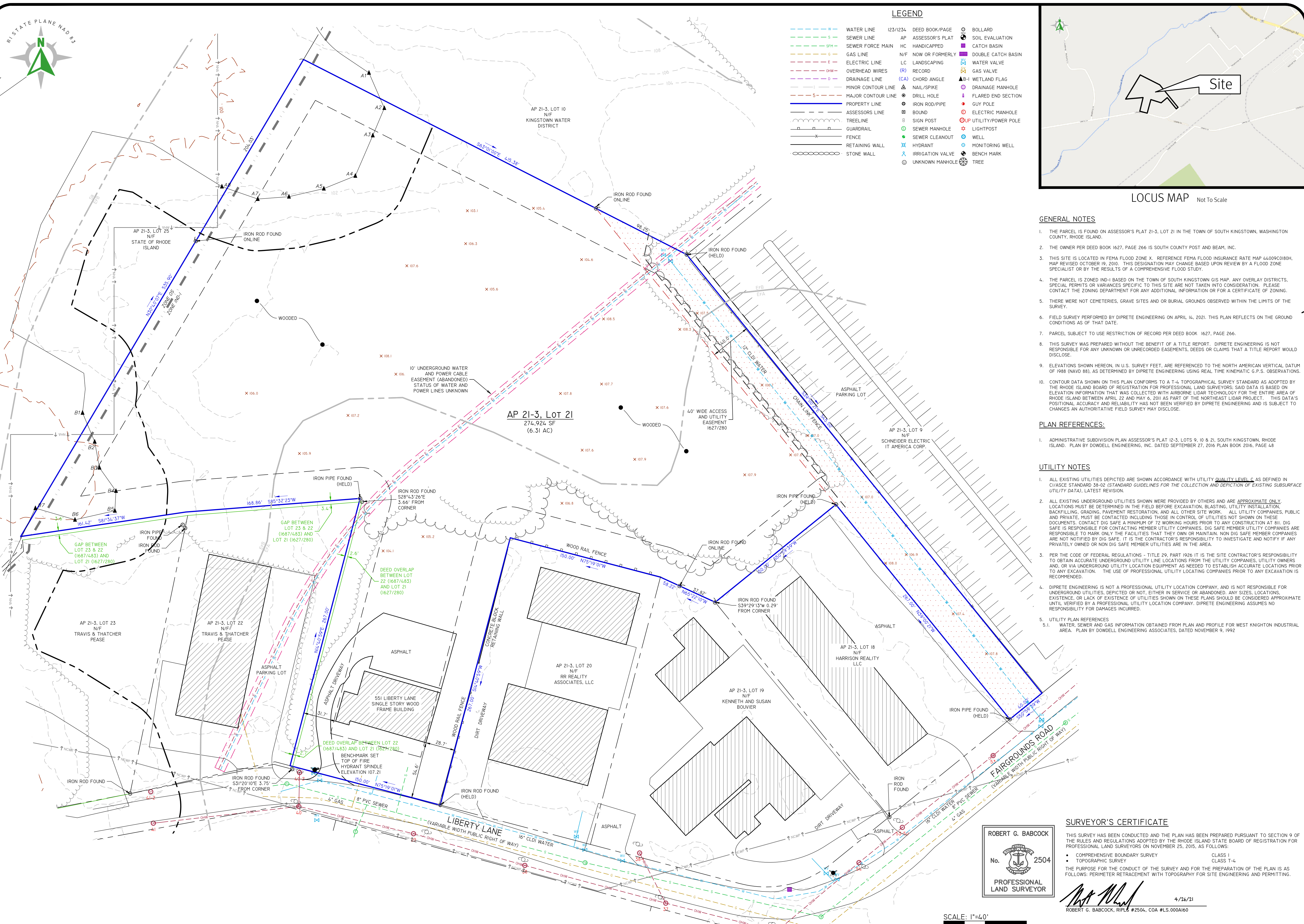
THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS ACCOMPANIED BY THE PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE.
DIPRETE ENGINEERING, INC. IS THE ENGINEER OF RECORD FOR THIS PROJECT.
THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEASUREMENTS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS AND OSHA COMPLIANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.
EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND NOT GUARANTEED. OCCURRENCE OF UNIDENTIFIED UTILITIES IS THE USER'S RESPONSIBILITY. SEE UTILITY NOTE ON SHEET 5.

NO.	DATE	DESCRIPTION	BY
7	09-22-2022	TOWN PRELIMINARY SUBMISSION	J.L.S.
6	05-24-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.
5	2-03-2022	TOWN PRELIMINARY SUBMISSION	J.P.P.
4	12-01-2021	DESIGN	BY:
3	09-22-2022	TOWN PRELIMINARY SUBMISSION	J.L.S.
2	05-24-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.
1	2-03-2022	TOWN PRELIMINARY SUBMISSION	J.P.P.

DESIGN BY: N.H.P.

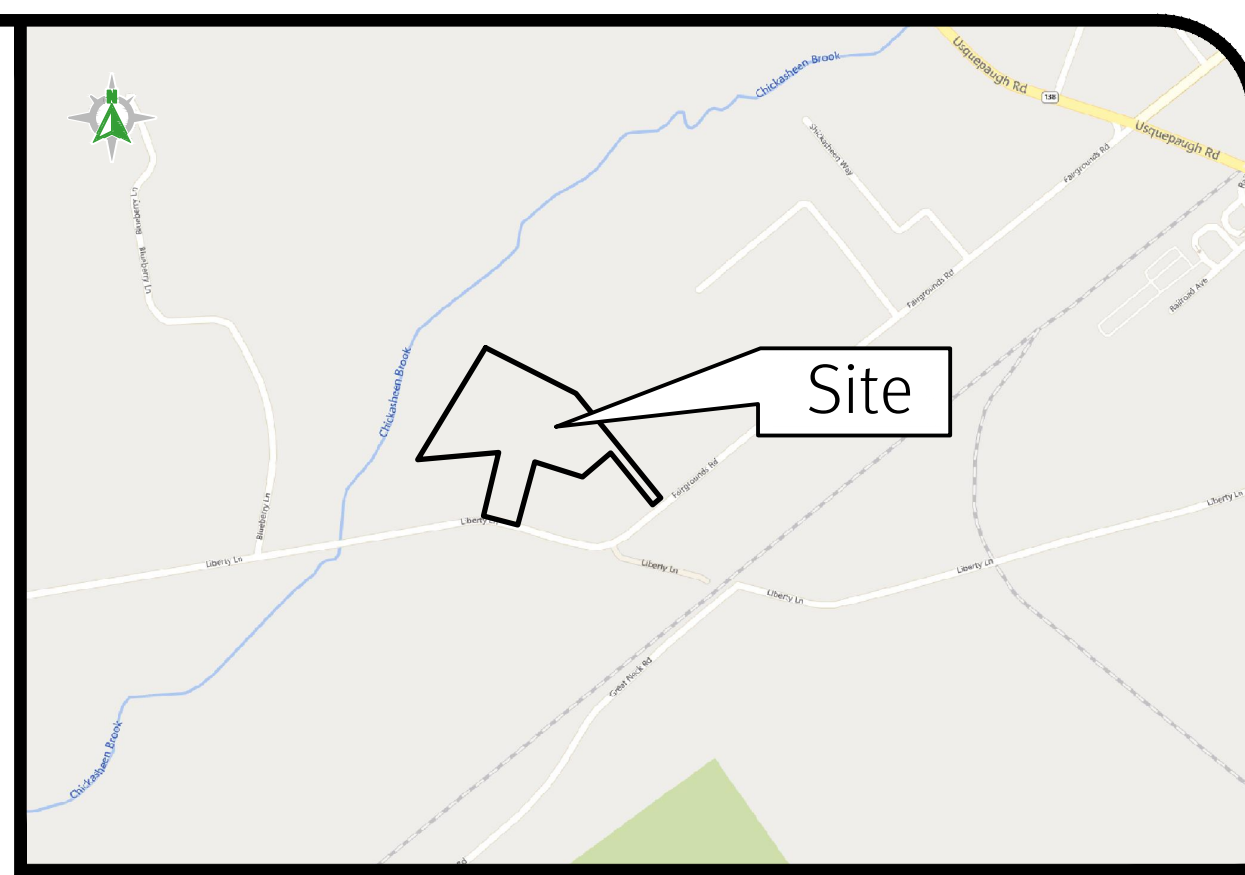
AERIAL AND HALF MILE RADIUS
551 LIBERTY LANE
ASSESSOR'S PLAT 21-3 LOT 21
SOUTH KINGSTOWN, RHODE ISLAND
PREPARED FOR:
SOUTH COUNTY POST & BEAM, INC.
521 LIBERTY LANE, WEST KINGSTON, RHODE ISLAND
TEL 401-783-4415 FAX 401-783-4494

Z:\DEVELOPMENT\PROJECTS\21-3\05 LIBERTY LANE STORAGE\AUTOCAD DRAWINGS\21-3-05-CVAE.DWG PLOTTER: 9/22/2022



LEGEND

- WATER LINE 123/1234 DEED BOOK/PAGE
- SEWER LINE AP ASSESSOR'S PLAT
- SEWER FORCE MAIN HC HANDICAPPED
- GAS LINE N/F NOW OR FORMERLY
- ELECTRIC LINE LC LANDSCAPING
- OVERHEAD WIRES (R) RECORD
- DRAINAGE LINE (CA) CHORD ANGLE
- MINOR CONTOUR LINE ▲ NAIL/SPIKE
- MAJOR CONTOUR LINE ● DRILL HOLE
- PROPERTY LINE ○ IRON ROD/PIPE
- ASSESSORS LINE □ BOUND
- TREELINE x SIGN POST
- GUARDRAIL [Symbol] GUARDRAIL
- FENCE [Symbol] FENCE
- RETAINING WALL [Symbol] RETAINING WALL
- STONE WALL [Symbol] STONE WALL
- BOLLARD
- SOIL EVALUATION
- CATCH BASIN
- DOUBLE CATCH BASIN
- WATER VALVE
- GAS VALVE
- ▲ WETLAND FLAG
- DRAINAGE MANHOLE
- FLARED END SECTION
- GUY POLE
- ELECTRIC MANHOLE
- UTILITY/POWER POLE
- LIGHTPOST
- WELL
- MONITORING WELL
- BENCH MARK
- TREE



LOCUS MAP Not To Scale

GENERAL NOTES

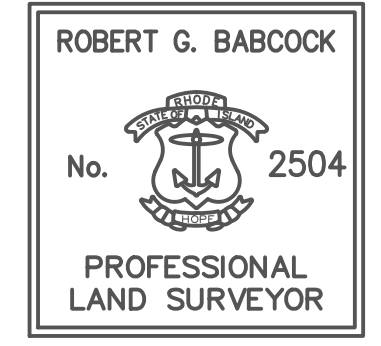
- THE PARCEL IS FOUND ON ASSESSOR'S PLAT 21-3, LOT 21 IN THE TOWN OF SOUTH KINGSTOWN, WASHINGTON COUNTY, RHODE ISLAND.
- THE OWNER PER DEED BOOK 1627, PAGE 266 IS SOUTH COUNTY POST AND BEAM, INC.
- THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. REFERENCE FEMA FLOOD INSURANCE RATE MAP 44099C0180H, MAP REVISED OCTOBER 19, 2010. THIS DESIGNATION MAY CHANGE BASED UPON REVIEW BY A FLOOD ZONE SPECIALIST OR BY THE RESULTS OF A COMPREHENSIVE FLOOD STUDY.
- THE PARCEL IS ZONED IND-1 BASED ON THE TOWN OF SOUTH KINGSTOWN GIS MAP. ANY OVERLAY DISTRICTS, SPECIAL PERMITS OR VARIANCES SPECIFIC TO THIS SITE ARE NOT TAKEN INTO CONSIDERATION. PLEASE CONTACT THE ZONING DEPARTMENT FOR ANY ADDITIONAL INFORMATION OR FOR A CERTIFICATE OF ZONING.
- THERE WERE NOT CEMETERIES, GRAVE SITES AND OR BURIAL GROUNDS OBSERVED WITHIN THE LIMITS OF THE SURVEY.
- FIELD SURVEY PERFORMED BY DIPRETE ENGINEERING ON APRIL 14, 2021. THIS PLAN REFLECTS ON THE GROUND CONDITIONS AS OF THAT DATE.
- PARCEL SUBJECT TO EASEMENT RESTRICTION OF RECORD PER DEED BOOK 1627, PAGE 266.
- THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY UNKNOWN OR UNRECORDED EASEMENTS, DEEDS OR CLAIMS THAT A TITLE REPORT WOULD DISCLOSE.
- ELEVATIONS SHOWN HEREON, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY DIPRETE ENGINEERING USING REAL TIME KINEMATIC G.P.S. OBSERVATIONS.
- CONTOUR DATA SHOWN ON THIS PLAN CONFORMS TO A T-4 TOPOGRAPHICAL SURVEY STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS; SAID DATA IS BASED ON ELEVATION INFORMATION THAT WAS COLLECTED WITH AIRBORNE LIDAR TECHNOLOGY FOR THE ENTIRE AREA OF RHODE ISLAND BETWEEN APRIL 22 AND MAY 6, 2011 AS PART OF THE NORTHEAST LIDAR PROJECT. THIS DATA'S POSITIONAL ACCURACY AND RELIABILITY HAS NOT BEEN VERIFIED BY DIPRETE ENGINEERING AND IS SUBJECT TO CHANGES AN AUTHORITY FIELD SURVEY MAY DISCLOSE.

PLAN REFERENCES:

- ADMINISTRATIVE SUBDIVISION PLAN ASSESSOR'S PLAT 12-3, LOTS 9, 10 & 21, SOUTH KINGSTOWN, RHODE ISLAND. PLAN BY DOWDELL ENGINEERING, INC. DATED SEPTEMBER 27, 2016 PLAN BOOK 2016, PAGE 48

UTILITY NOTES

- ALL EXISTING UTILITIES DEPICTED ARE SHOWN ACCORDANCE WITH UTILITY QUALITY LEVEL C, AS DEFINED IN CHASSE STANDARD 38-02 (STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA), LATEST REVISION.
- ALL EXISTING UNDERGROUND UTILITIES SHOWN WERE PROVIDED BY OTHERS AND ARE APPROXIMATE ONLY. LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE EXCAVATION, BLASTING, UTILITY INSTALLATION, BACKFILLING, GRADING, PAVEMENT RESTORATION, AND ALL OTHER SITE WORK. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THESE DOCUMENTS. CONTACT DIG SAFE A MINIMUM OF 72 WORKING HOURS PRIOR TO ANY CONSTRUCTION AT 811. DIG SAFE IS RESPONSIBLE FOR CONTACTING MEMBER UTILITY COMPANIES. DIG SAFE MEMBER UTILITY COMPANIES ARE RESPONSIBLE TO MARK ONLY THE FACILITIES THAT THEY OWN OR MAINTAIN. NON DIG SAFE MEMBER COMPANIES ARE NOT NOTIFIED BY DIG SAFE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND NOTIFY IF ANY PRIVATELY OWNED OR NON DIG SAFE MEMBER UTILITIES ARE IN THE AREA.
- PER THE CODE OF FEDERAL REGULATIONS - TITLE 29, PART 1926 IT IS THE SITE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ACCURATE UNDERGROUND UTILITY LINE LOCATIONS FROM THE UTILITY COMPANIES, UTILITY OWNERS AND, OR VIA UNDERGROUND UTILITY LOCATION EQUIPMENT AS NEEDED TO ESTABLISH ACCURATE LOCATIONS PRIOR TO ANY EXCAVATION. THE USE OF PROFESSIONAL UTILITY LOCATING COMPANIES PRIOR TO ANY EXCAVATION IS RECOMMENDED.
- DIPRETE ENGINEERING IS NOT A PROFESSIONAL UTILITY LOCATION COMPANY, AND IS NOT RESPONSIBLE FOR UNDERGROUND UTILITIES, DEPICTED OR NOT, EITHER IN SERVICE OR ABANDONED, ANY SIZES, LOCATIONS, EXISTENCE, OR LACK OF EXISTENCE OF UTILITIES SHOWN ON THESE PLANS SHOULD BE CONSIDERED APPROXIMATE UNTIL VERIFIED BY A PROFESSIONAL UTILITY LOCATION COMPANY. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED.
- UTILITY PLAN REFERENCES
 - WATER, SEWER AND GAS INFORMATION OBTAINED FROM PLAN AND PROFILE FOR WEST KNIGHTON INDUSTRIAL AREA. PLAN BY DOWDELL ENGINEERING ASSOCIATES, DATED NOVEMBER 9, 1992



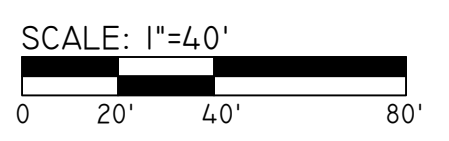
SURVEYOR'S CERTIFICATE

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

- COMPREHENSIVE BOUNDARY SURVEY CLASS I
- TOPOGRAPHIC SURVEY CLASS T-4

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS: PERIMETER RETRACEMENT WITH TOPOGRAPHY FOR SITE ENGINEERING AND PERMITTING.

Robert G. Babcock
 ROBERT G. BABCOCK, R.I.P.L.S. #2504, COA #LS.000A160
 4/26/21



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DAVID A. RUSSO
 No. 1335
 REGISTERED PROFESSIONAL ENGINEER CIVIL

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

NO.	DATE	DESCRIPTION	DESIGN BY: N.H.P.
1	09-22-2020	TOWN PRELIMINARY SUBMISSION	J.L.S.
2	05-24-2021	LOW PRELIMINARY SUBMISSION	K.M.P.
3	2-20-2022	LOW PRELIMINARY SUBMISSION	N.H.P.
4	04-14-2022	FINAL PRELIMINARY SUBMISSION	N.H.P.

DESIGN BY: N.H.P.

EXISTING CONDITIONS PLAN
 551 LIBERTY LANE
 ASSESSOR'S PLAT 21-3 LOT 21
 SOUTH KINGSTOWN, RHODE ISLAND
 SOUTH COUNTY POST & BEAM, INC.
 521 LIBERTY LANE, WEST KINGSTOWN, RHODE ISLAND
 TEL 401-783-4415 FAX 401-783-4494

GENERAL NOTES:

1. THE TEMPORARY SEDIMENT TRAP SHALL MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST REVISION) SECTION SIX: SEDIMENT CONTROL MEASURES
2. THE TEMPORARY SEDIMENT TRAP MUST PROVIDE A STORAGE VOLUME FOR ONE INCH OF RUNOFF FROM THE CONTRIBUTING AREA. HALF OF THE STORAGE MUST BE PROVIDED IN THE FORM OF WET STORAGE. SEE DETAIL BELOW SECTION 6 OF THE RISESCH.
3. ALL CUT AND FILL SLOPES MUST BE 2:1 OR FLATTER EXCEPT FOR THE EXCAVATED WET STORAGE AREA WHERE SLOPES MUST NOT EXCEED 1.5:1.
4. THE OUTLET MUST BE LOCATED AT THE MOST DISTANT HYDRAULIC POINT FROM THE INLET.
5. THE OUTLET CONSISTS OF A PERVIOUS STONE DIKE WITH A CORE OF MODIFIED RIPRAP AND FACED ON THE UPSTREAM SIDE WITH STONE.
6. TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO STABILIZED GROUND.
7. MAXIMUM HEIGHT OF A TEMPORARY SEDIMENT TRAP EMBANKMENT IS LIMITED TO 5 FEET (BOTTOM OF DRY STORAGE TO TOP OF EMBANKMENT). TOTAL EMBANKMENT HEIGHT MUST NOT EXCEED 6 FEET (BOTTOM OF WET STORAGE TO TOP OF EMBANKMENT).
8. SIDE SLOPES OF THE EMBANKMENT MUST BE 2:1 OR FLATTER.
9. MODIFIED RIPRAP SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.03.2.
10. FILTER STONE SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.03 TABLE 1, COLUMN V FILTER STONE.

INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS:

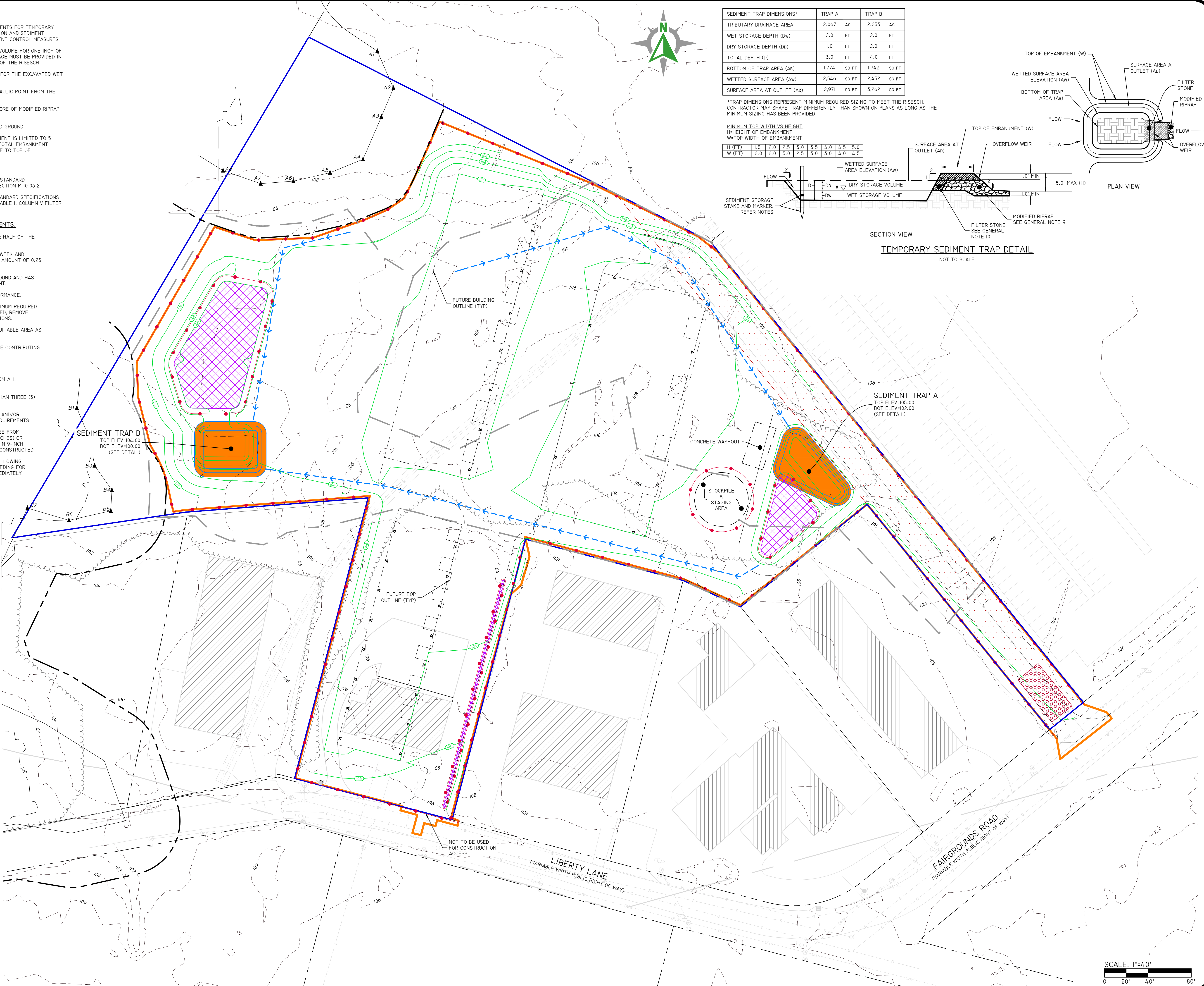
1. INSTALL "SEDIMENT STORAGE" STAKE WITH A MARKER AT ONE HALF OF THE WET STORAGE VOLUME.
2. INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCH OR GREATER.
3. CHECK THE OUTLET TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
4. CHECK FOR SEDIMENT ACCUMULATION AND FILTRATION PERFORMANCE.
5. WHEN SEDIMENTS HAVE ACCUMULATED TO ONE HALF THE MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATER THE TRAP AS NEEDED, REMOVE SEDIMENTS AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
6. DISPOSE OF THE SEDIMENT REMOVED FROM THE BASIN IN A SUITABLE AREA AS DESIGNATED BY THE GEOTECHNICAL ENGINEER.
7. THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.

INSTALLATION NOTES:

1. CLEAR, GRUB AND STRIP ALL VEGETATION AND ROOT MAT FROM ALL PROPOSED EMBANKMENT AND OUTLET AREA.
2. REMOVE STONES AND ROCKS WHOSE DIAMETER IS GREATER THAN THREE (3) INCHES AND OTHER DEBRIS.
3. EXCAVATE WET STORAGE AND CONSTRUCT THE EMBANKMENT AND/OR OUTLET AS NEEDED TO ATTAIN THE NECESSARY STORAGE REQUIREMENTS.
4. USE ONLY FILL MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, LARGE ROCKS (OVER SIX (6) INCHES) OR OTHER UNSUITABLE MATERIALS. COMPACT THE EMBANKMENT IN 9-INCH LAYERS BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
5. STABILIZE THE EARTHEN EMBANKMENT USING ANY OF THE FOLLOWING MEASURES: SEEDING FOR TEMPORARY VEGETATION COVER; SEEDING FOR PERMANENT VEGETATIVE COVER; OR SLOPE PROTECTION, IMMEDIATELY AFTER INSTALLATION.

SOIL EROSION CONTROL LEGEND

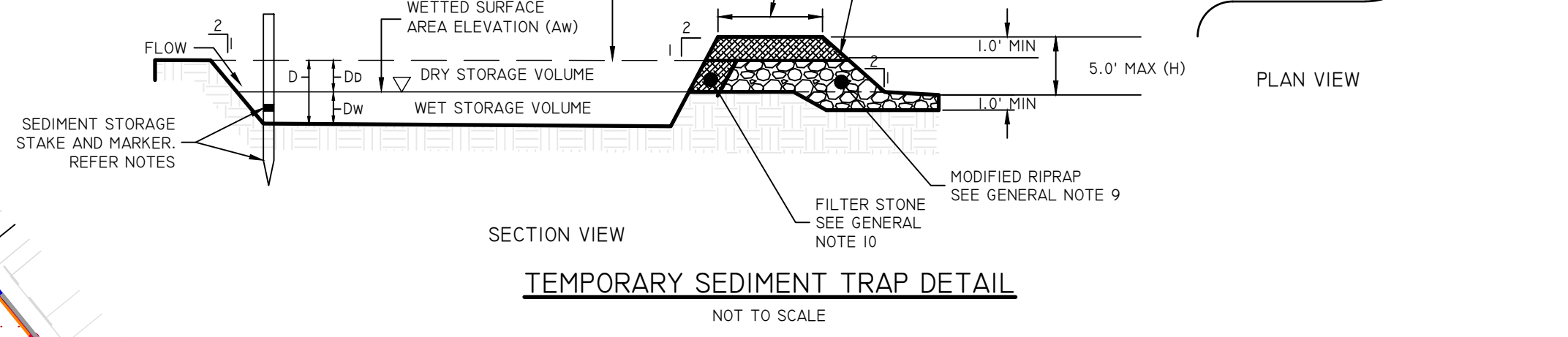
- DIVERSION RUNOFF CONVEYANCE MEASURE (SWALE AND/OR BERM)
- TEMPORARY SEDIMENT TRAP
- EROSION CONTROL (COMPOST SOCK, SILT FENCE (RI STD 9.2.0, OR APPROVED EQUAL))
- LIMIT OF DISTURBANCE (NO SEDIMENT CONTROL)
- LIMIT OF DISTURBANCE (WITH SEDIMENT CONTROL)
- TRIBUTARY AREA TO SESC BHP
- CONSTRUCTION ENTRANCE (RIDOT STD 9.9.0)
- INFILTRATING AREA (TO BE PROTECTED BY COMPOST SOCK OR SILT FENCE)
- FINAL CONTOUR GRADE
- INLET SEDIMENT CONTROL



SEDIMENT TRAP DIMENSIONS*	TRAP A	TRAP B
TRIBUTARY DRAINAGE AREA	2.067 AC	2.253 AC
WET STORAGE DEPTH (DW)	2.0 FT	2.0 FT
DRY STORAGE DEPTH (DD)	1.0 FT	2.0 FT
TOTAL DEPTH (D)	3.0 FT	4.0 FT
BOTTOM OF TRAP AREA (Ab)	1,774 SQ.FT	1,742 SQ.FT
WETTED SURFACE AREA (Aw)	2,546 SQ.FT	2,452 SQ.FT
SURFACE AREA AT OUTLET (Ad)	2,971 SQ.FT	3,262 SQ.FT

*TRAP DIMENSIONS REPRESENT MINIMUM REQUIRED SIZING TO MEET THE RISESCH. CONTRACTOR MAY SHAPE TRAP DIFFERENTLY THAN SHOWN ON PLANS AS LONG AS THE MINIMUM SIZING HAS BEEN PROVIDED.

MINIMUM TOP WIDTH VS HEIGHT	
H (FT)	W (FT)
1.5	2.0
2.0	3.0
2.5	3.5
3.0	4.0
3.5	4.5
4.0	5.0
4.5	5.0



Diprete Engineering
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 tel: 401-943-1000 fax: 401-664-6006 www.diprete-eng.com

DAVID A. RUSSO
 No. 14305
 REGISTERED PROFESSIONAL ENGINEER CIVIL

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY THE TOWN ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR ALL AS-BUILT CONDITIONS. EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. DAMAGE TO EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. SEE UTILITY NOTES ON SHEET 1.

NO.	DATE	DESCRIPTION	BY
1	09-22-2022	TOWN PRELIMINARY SUBMISSION	J.L.S.
2	09-24-2022	TOWN PRELIMINARY SUBMISSION	K.M.P.
3	09-24-2022	TOWN PRELIMINARY SUBMISSION	N.H.P.

DESIGN BY: N.H.P.

SOIL EROSION & SEDIMENT CONTROL PLAN
 551 LIBERTY LANE
 ASSESSOR'S PLAT 21-3 LOT 21
 SOUTH KINGSTOWN, RHODE ISLAND
SOUTH COUNTY POST & BEAM, INC.
 521 LIBERTY LANE, WEST KINGSTON, RHODE ISLAND
 TEL 401-783-4415 FAX 401-783-4494

PREPARED FOR: SOUTH COUNTY POST & BEAM, INC.
 DE: JOB NO: 2204-008 COPYRIGHT 2022 BY DIPRETE ENGINEERING ASSOCIATES, INC.

SCALE: 1"=40'
 0 20' 40' 80'

SHEET **5** OF 13



DEVELOPMENT DATA:

TOTAL SITE AREA:	6.31 ACRES±
TOTAL NUMBER OF BUILDINGS:	3
TOTAL NUMBER OF UNITS:	3
TOTAL LOT AREA:	6.31 ACRES±
TOTAL OPEN SPACE:	0.0 ACRES±
AVERAGE LOT AREA:	6.31 ACRES±
RIGHT OF WAY AREA:	N/A
RIGHT OF WAY WIDTH:	N/A
LENGTH OF ROAD:	N/A
PAVEMENT WIDTH:	24'

DIMENSIONAL REGULATIONS:

CURRENT ZONING:	IND-1	REQUIRED	PROVIDED
MINIMUM LOT AREA:	40,000 SF	274,924 SF	
MINIMUM FRONTAGE AND LOT WIDTH:	150'	150'+40'	
MINIMUM FRONT AND CORNER SIDE YARD:	40'	40'	
MINIMUM SIDE YARD:	30'	30'	
MINIMUM REAR YARD:	30'	30.1'	
MAXIMUM STRUCTURE HEIGHT:	40'	<40'	
MAXIMUM LOT COVERAGE:	80%	48%	

PARKING REGULATIONS:

PARKING USE:	ALL TYPES OF MANUFACTURING, STORAGE AND WHOLESALE USES PERMITTED IN ANY MANUFACTURING DISTRICT; FREIGHT OR PASSENGER TERMINALS.
PARKING REQUIREMENT:	1 SPACE FOR EVERY 2 EMPLOYEES (ON THE LARGEST SHIFT FOR WHICH THE BUILDING IS DESIGNED), PLUS 1 FOR EACH MOTOR VEHICLE MAINTAINED OR USED ON THE PREMISES (MINIMUM OF 4 SPACES)
PROPOSED BUILDING 1:	43 EMPLOYEES = 22 SPACES
PROPOSED BUILDING 2:	43 EMPLOYEES = 22 SPACES
PROPOSED BUILDING 3:	40 EMPLOYEES = 20 SPACES
TOTAL REQUIRED PARKING SPACES:	64 SPACES
TOTAL PARKING SPACES PROVIDED:	64 SPACES
ADA PARKING REQUIREMENT:	1 SPACE

SITE
AP 21-3 LOT 21
AREA=274,924 SF
(6.31 ACRES)

BUILDING 1
21,600 SF

BUILDING 2
22,500 SF

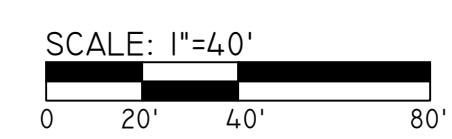
BUILDING 3
13,520 SF

POND COMPLEX A2
(SEE SHEET 9)

POND COMPLEX A1
(SEE SHEET 8)

LINED STONE TRENCH WITH UNDERDRAIN
(SEE DETAIL SHEET 10)

STORMCRETE INFILTRATION SYSTEM
(SEE DETAIL SHEET 10)



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No. 1335
REGISTERED PROFESSIONAL ENGINEER CIVIL

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY THE TOWN OF CRANSTON. THE DESIGNER ASSUMES NO LIABILITY FOR ANY DAMAGE TO PERSONS OR PROPERTY CAUSED BY THE USE OF THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEASUREMENTS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS IN AND OUT OF THE DESIGN. EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR. SEE UTILITY NOTES ON SHEET 1.

NO.	DATE	DESCRIPTION	DESIGN BY
1	09-22-2022	TOWN PRELIMINARY SUBMISSION	N.H.P.
2	09-24-2022	LOW PRELIMINARY SUBMISSION	N.H.P.
3	10-10-2022	LOW PRELIMINARY SUBMISSION	N.H.P.
4	10-10-2022	LOW PRELIMINARY SUBMISSION	N.H.P.
5	10-10-2022	LOW PRELIMINARY SUBMISSION	N.H.P.
6	10-10-2022	LOW PRELIMINARY SUBMISSION	N.H.P.
7	09-22-2022	TOWN PRELIMINARY SUBMISSION	N.H.P.

SITE LAYOUT PLAN
551 LIBERTY LANE
ASSESSOR'S PLAT 21-3 LOT 21
SOUTH KINGSTOWN, RHODE ISLAND

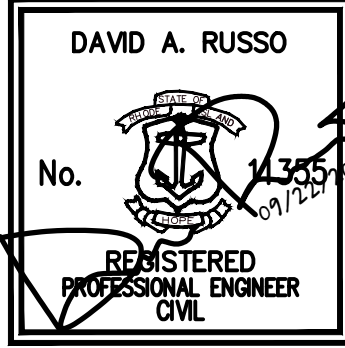
PREPARED FOR:
SOUTH COUNTY POST & BEAM, INC.
521 LIBERTY LANE, WEST KINGSTOWN, RHODE ISLAND
TEL 401-783-4415 FAX 401-783-4494

DE. JOB NO.: 22-04-008. COPYRIGHT 2022 BY DIPRETE ENGINEERING ASSOCIATES, INC.

SCALE: 1"=40'

SHEET **6** OF 13

Z:\DEMAN\PROJECTS\22-04-008 LIBERTY LANE STORAGE\AUTOCAD DRAWINGS\22-04-008-PLAN-LAYOUT.PLOTTER 9/22/2022



THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS APPROVED BY THE REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ON STAFF HAS DESIGNED THIS PLAN SET. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR THE DESIGN OF THE STRUCTURES, METHODS, SAFETY, PRECAUTIONS AND REQUIREMENTS, AND OSHA DESIGN. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE ABOVE. MAKE SURE IN THE IMPLEMENTATION OF THIS PLAN AND EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. MAKE SURE TO VERIFY ALL UTILITIES BEFORE CONSTRUCTION. SEE UTILITY NOTE ON SHEET 1.

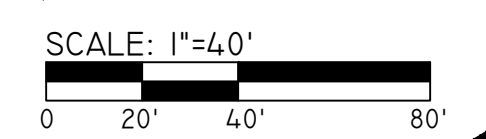
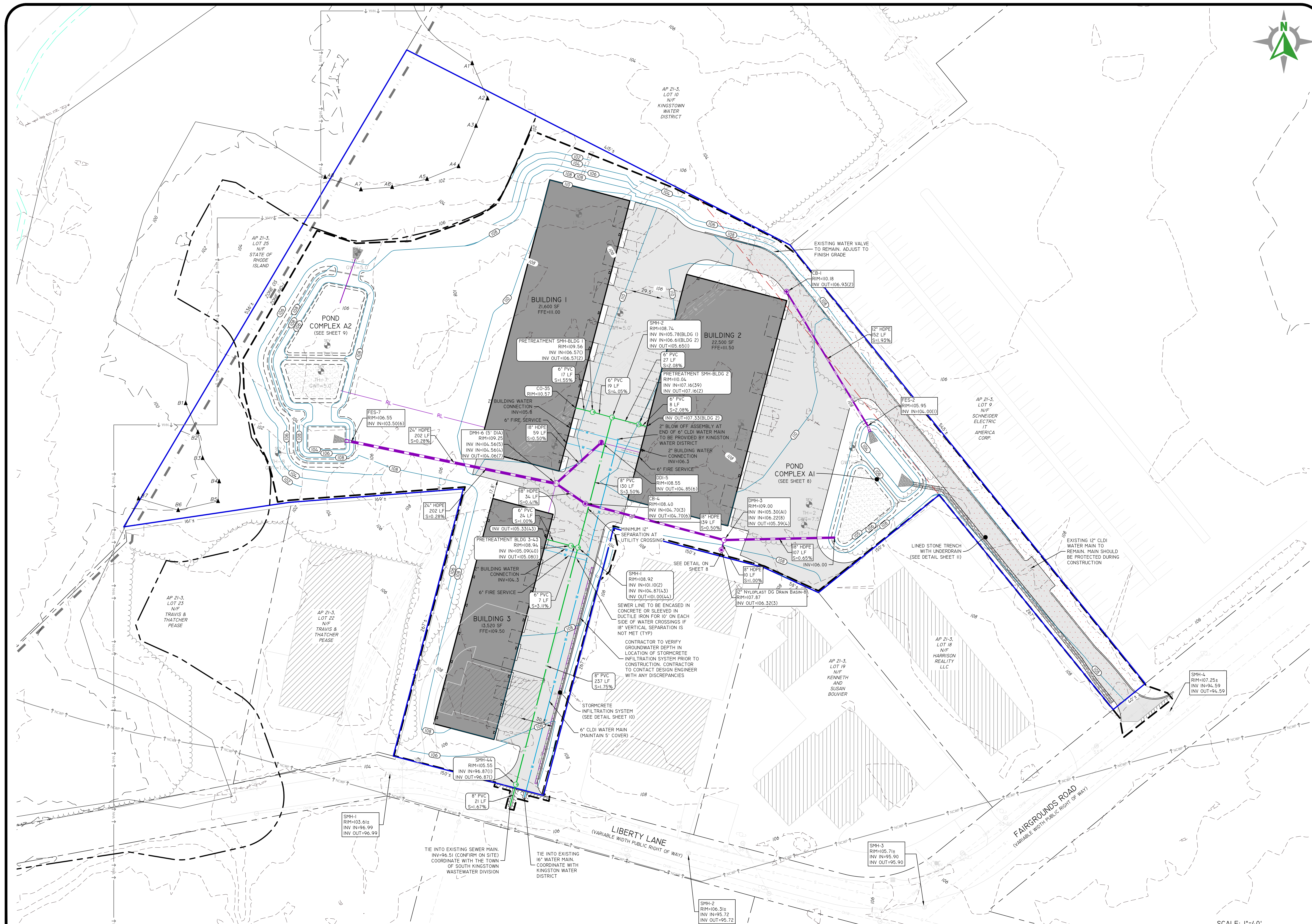
DESIGN BY: N.H.P.
DRAWN BY: N.H.P.
CHECKED BY: N.H.P.
DATE: 09-22-2022
TOWN PRELIMINARY SUBMISSION
K.M.P.
DATE: 05-24-2022
LOW PRELIMINARY SUBMISSION
K.M.P.
DATE: 02-23-2022
TOWN PRELIMINARY SUBMISSION
J.L.S.

GRADING AND UTILITIES PLAN

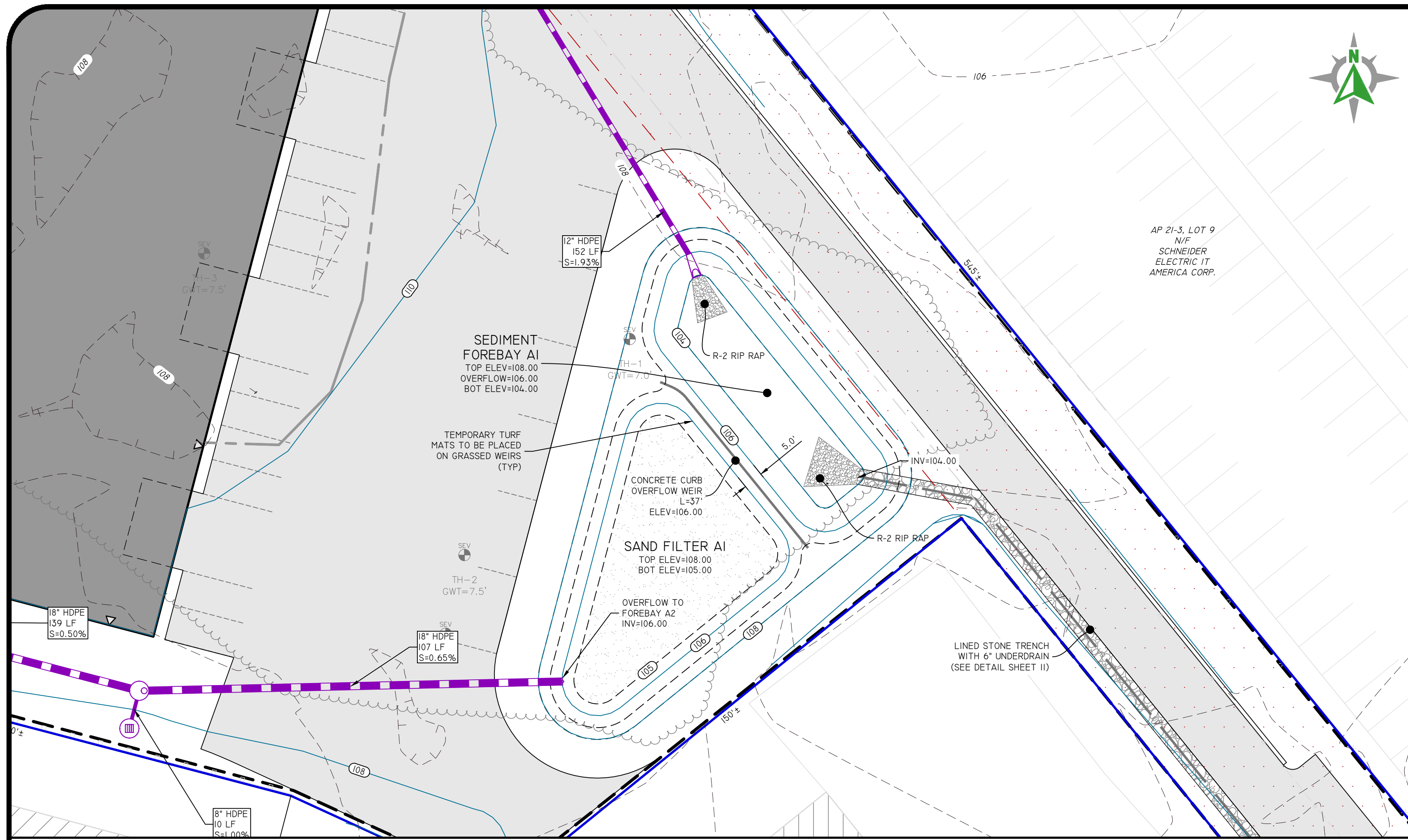
551 LIBERTY LANE
ASSESSOR'S PLAT 21-3 LOT 21
SOUTH KINGSTOWN, RHODE ISLAND
SOUTH COUNTY POST & BEAM, INC.
521 LIBERTY LANE, WEST KINGSTON, RHODE ISLAND
TEL 401-783-4415 FAX 401-783-4494

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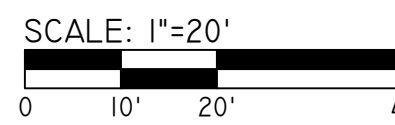
DESIGN BY: N.H.P.
DRAWN BY: N.H.P.
CHECKED BY: N.H.P.
DATE: 09-22-2022
TOWN PRELIMINARY SUBMISSION
K.M.P.
DATE: 05-24-2022
LOW PRELIMINARY SUBMISSION
K.M.P.
DATE: 02-23-2022
TOWN PRELIMINARY SUBMISSION
J.L.S.



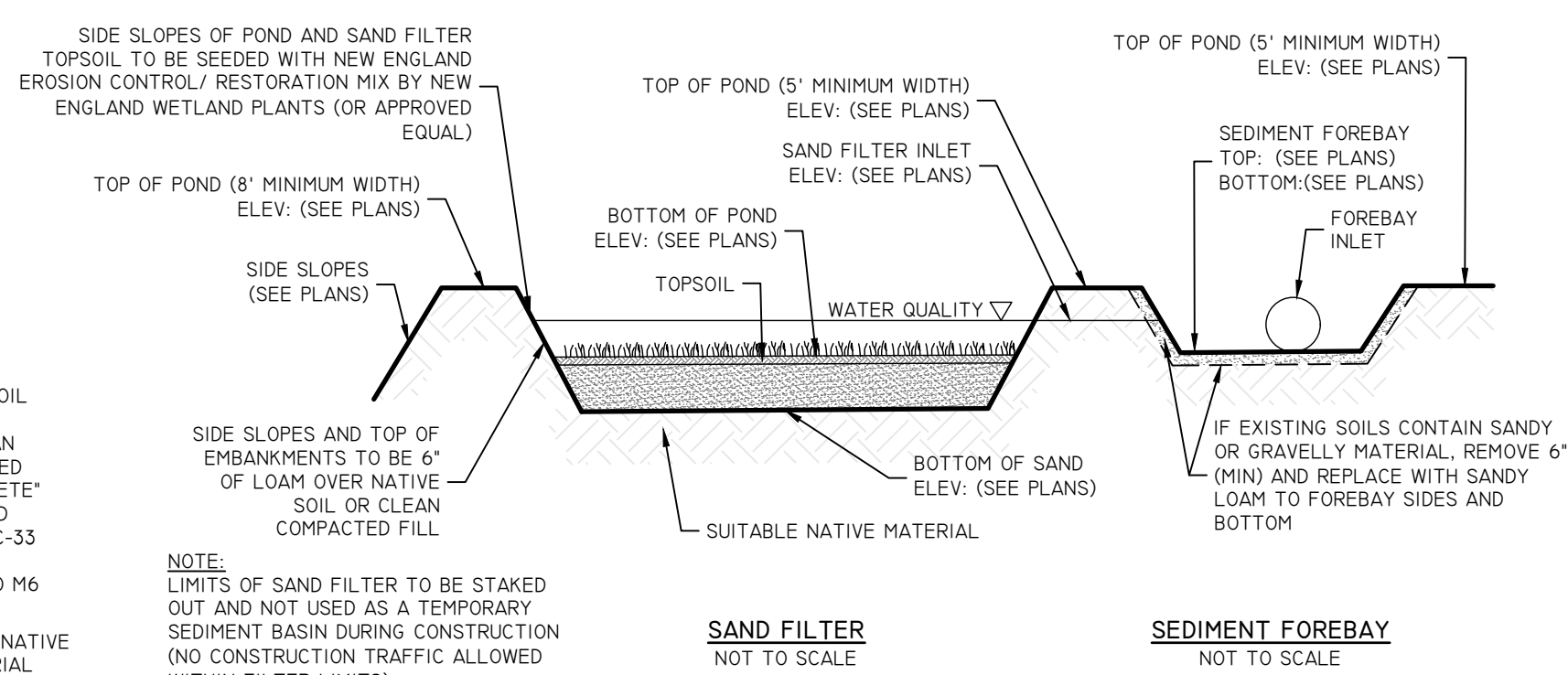
Z:\DEMAN\PROJECTS\221-005 LIBERTY LANE STORAGE\AUTOCAD DRAWINGS\21-3-08-PLANNING\PLOTTED 9/22/2022



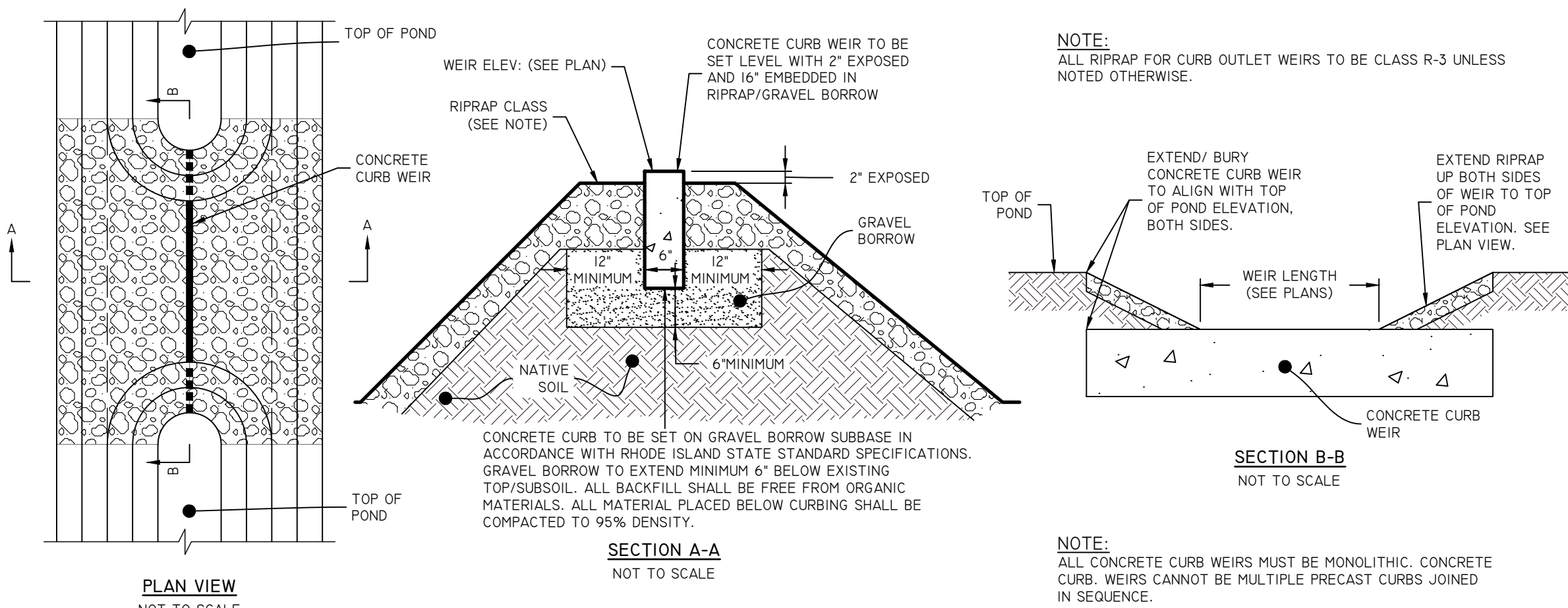
POND COMPLEX AI



DESCRIPTION	SNDF-AI
TOP OF POND ELEVATION	108.00
100 YEAR STORM ELEVATION	107.42
10 YEAR STORM ELEVATION	106.37
1 YEAR STORM ELEVATION	105.08
WG STORM ELEVATION	103.39
BOTTOM OF POND ELEVATION	105.00
TOP SOIL DEPTH	0.5'
SAND DEPTH	1.5'
BOTTOM OF SAND ELEVATION	103.00
SEASONAL HIGH GWT ELEVATION	101.00
SOIL EVALUATION	TH-1

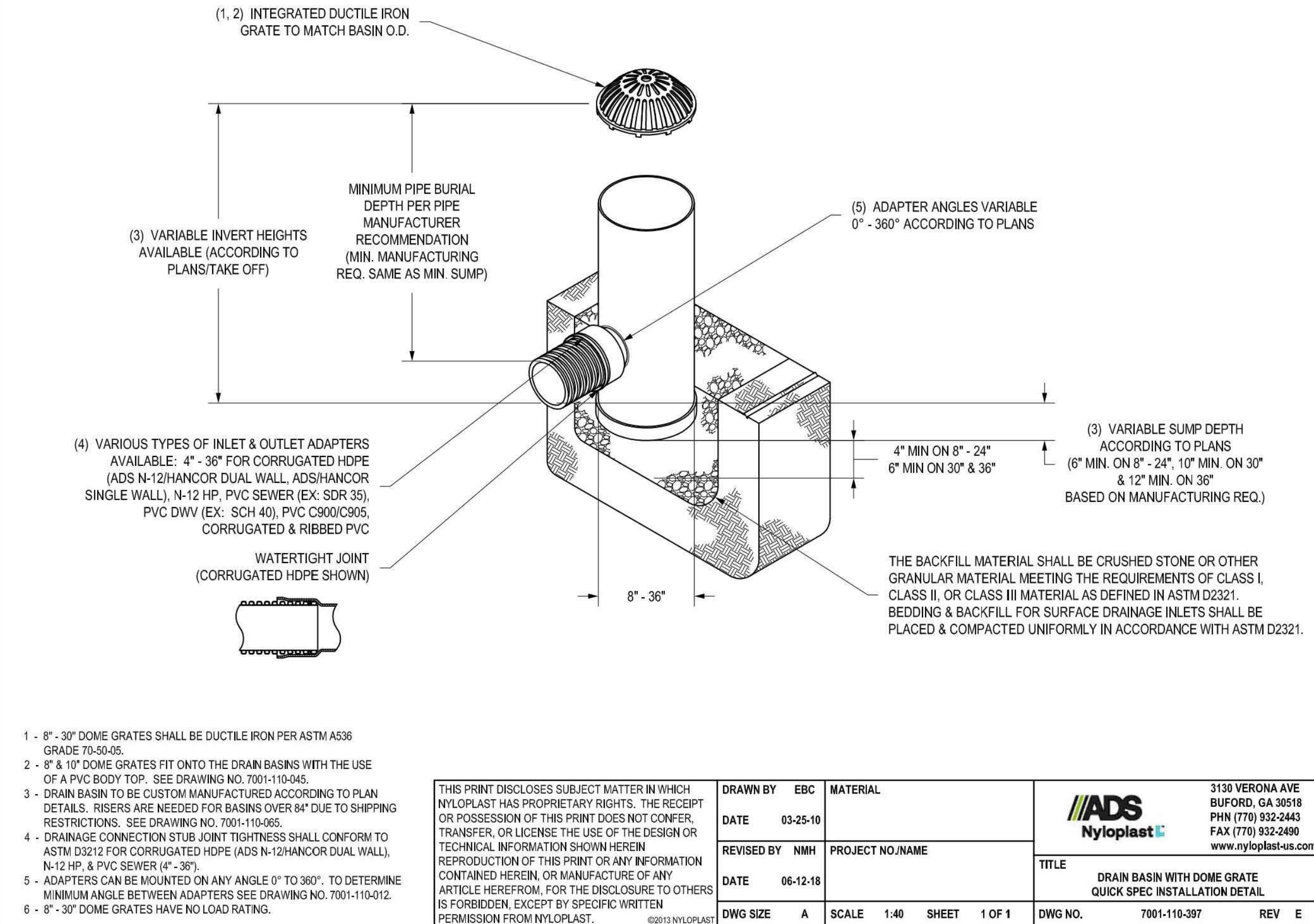


SAND FILTER BMP SYSTEM NOT TO SCALE



CURB OUTLET WEIR NOT TO SCALE

NYLOPLAST DRAIN BASIN WITH DOME GRATE



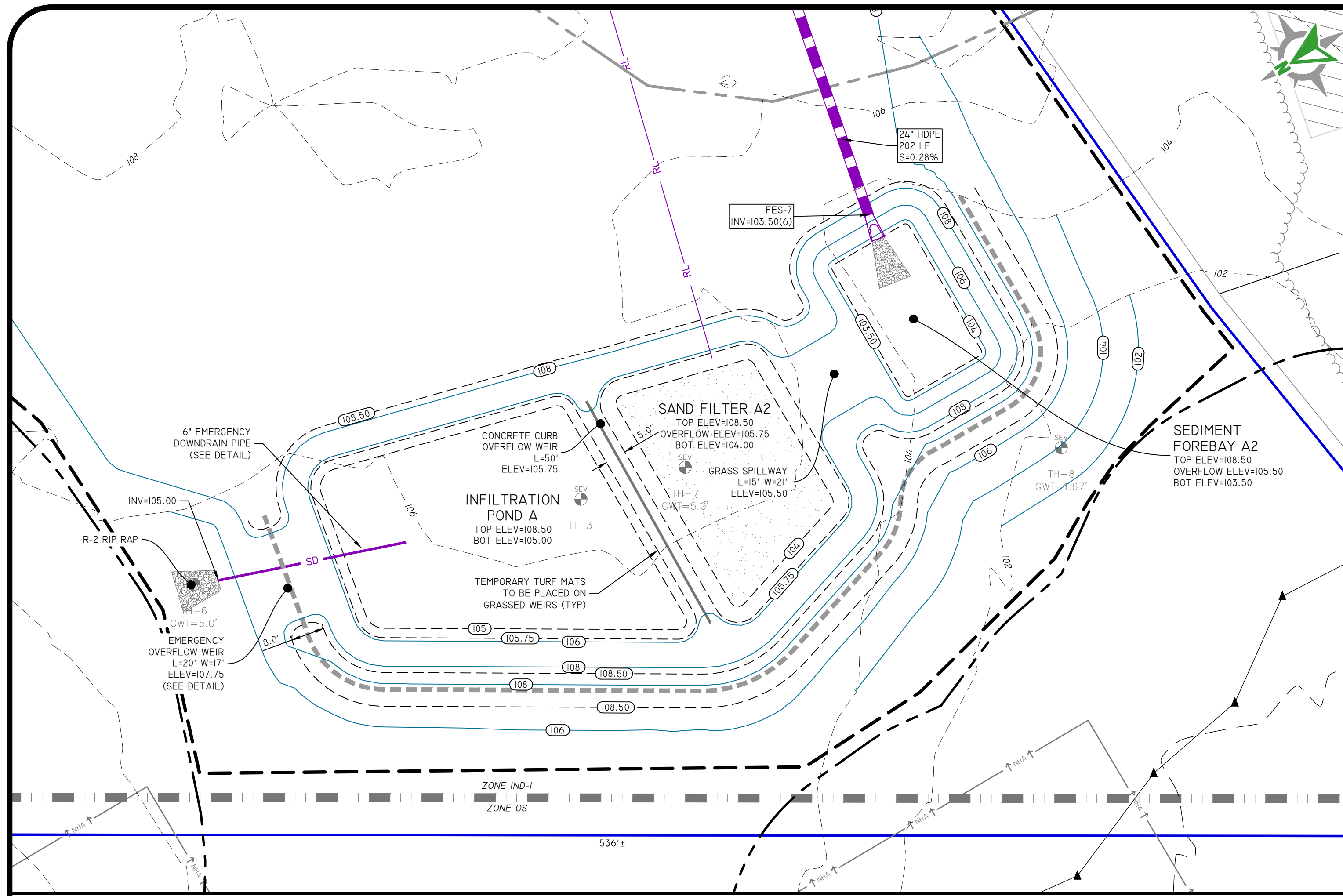
Diprete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-664-6006 www.diprete-eng.com

DAVID A. RUSSO
No. 1335
REGISTERED PROFESSIONAL ENGINEER CIVIL

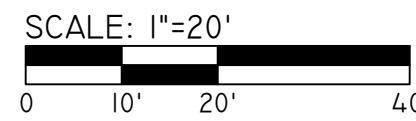
THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY THE ENGINEER OF RECORD. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEASUREMENTS, SURVEYING, AND FIELD DATA. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. SEE UTILITY NOTE ON SHEET 1.

NO.	DATE	DESCRIPTION	BY
1	09-22-2009	TOWN PRELIMINARY SUBMISSION	J.L.S.
2	05-24-2010	LOW PRELIMINARY SUBMISSION	K.M.P.
3	06-12-2010	FINAL PRELIMINARY SUBMISSION	N.M.H.
4	06-12-2010	CONSTRUCTION PERMITS	N.M.H.
5	06-12-2010	CONSTRUCTION PERMITS	N.M.H.
6	06-12-2010	CONSTRUCTION PERMITS	N.M.H.
7	09-22-2009	TOWN PRELIMINARY SUBMISSION	J.L.S.
8	05-24-2010	LOW PRELIMINARY SUBMISSION	K.M.P.
9	06-12-2010	FINAL PRELIMINARY SUBMISSION	N.M.H.
10	06-12-2010	CONSTRUCTION PERMITS	N.M.H.
11	06-12-2010	CONSTRUCTION PERMITS	N.M.H.
12	06-12-2010	CONSTRUCTION PERMITS	N.M.H.

POND COMPLEX AI DETAILS
551 LIBERTY LANE
ASSESSOR'S PLAT 21-3 LOT 21
SOUTH KINGSTOWN, RHODE ISLAND
PREPARED FOR:
SOUTH COUNTY POST & BEAM, INC.
521 LIBERTY LANE, WEST KINGSTON, RHODE ISLAND
TEL 401-783-4415 FAX 401-783-4494



POND COMPLEX A2



DESCRIPTION	IP-A
TOP OF POND ELEVATION	108.50
100 YEAR STORM ELEVATION	107.25
10 YEAR STORM ELEVATION	105.91
1 YEAR STORM ELEVATION	105.01
BOTTOM OF POND ELEVATION	105.00
SEASONAL HIGH GWT ELEVATION	101.00
SOIL EVALUATION	TH-7

NOTES:

- LIMITS OF INFILTRATION POND MUST BE STAKED OUT AND MUST NOT BE USED AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION (NO CONSTRUCTION TRAFFIC ALLOWED WITHIN POND LIMITS).
- INFILTRATION PONDS MUST NOT BE USED FOR STOCKPILING, VEHICLE PARKING OR ANY OTHER ANCILLARY STORING OF OBJECTS OR MATERIALS, TEMPORARY OR PERMANENT, AT ANY TIME.
- INFILTRATION PONDS MUST BE ADEQUATELY PROTECTED FROM SEDIMENT LADEN RUNOFF DURING CONSTRUCTION.
- FOLLOWING CONSTRUCTION AND STABILIZATION OF ALL UPSTREAM AREAS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY AND ALL SEDIMENT FROM INFILTRATION PONDS. IF SEDIMENT REMOVAL IS REQUIRED THE CONTRACTOR MUST ALSO ROTOTILL THE ENTIRE POND BOTTOM TO A MINIMUM DEPTH OF 24" AND RE-ESTABLISH TO FINAL DESIGN GRADES AND COVER TYPES.
- SOILS MUST BE TRACKED INTO PLACE. NO COMPACTION EQUIPMENT ALLOWED.

SIDE SLOPES OF POND TO BE SEED WITH NEW ENGLAND CONTROL/ RESTORATION MIX BY NEW ENGLAND WETLAND PLANTS (OR APPROVED EQUAL).

BOTTOM AND SIDE SLOPES OF POND TO BE SEED WITH NEW ENGLAND EROSION CONTROL/ RESTORATION MIX BY NEW ENGLAND WETLAND PLANTS (OR APPROVED EQUAL).

TOP OF POND (5' MINIMUM WIDTH) ELEV: (SEE PLANS)

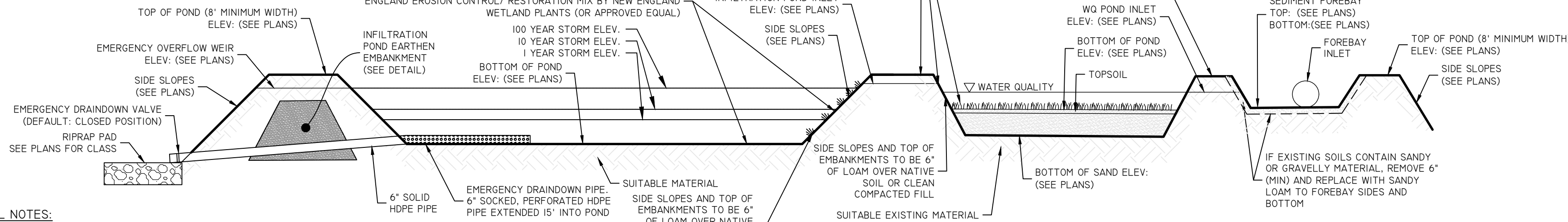
INFILTRATION POND INLET ELEV: (SEE PLANS)

TOP OF POND (5' MINIMUM WIDTH) ELEV: (SEE PLANS)

SEDIMENT FOREBAY TOP: (SEE PLANS) BOTTOM: (SEE PLANS)

TOP OF POND (5' MINIMUM WIDTH) ELEV: (SEE PLANS)

BOTTOM OF POND EXCAVATION MUST BE MONITORED/ INSPECTED BY SITE ENGINEER OR GEOTECHNICAL ENGINEER. CONTRACTOR MUST PROVIDE ADEQUATE NOTICE FOR INSPECTION.



POND FILL NOTES:

- IF FILL IS REQUIRED WITHIN THE FOOTPRINT OF AN INFILTRATION POND, CONTRACTOR MUST REMOVE TOP AND SUBSOILS/ EXCAVATE DOWN TO THE C HORIZON AND BACKFILL WITH SUITABLE MATERIAL THAT HAS EQUAL OR GREATER INFILTRATION PARAMETERS THAN THE EXISTING SOIL HORIZONS BENEATH. ON-SITE MATERIALS MAY BE USED AT THE DIRECTION OF THE SITE ENGINEER OR GEOTECHNICAL ENGINEER. B HORIZON OR PART THEREOF MAY BE LEFT IN PLACE FOLLOWING ASSESSMENT AND DIRECTION BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
- FILL OPERATIONS MUST BE MONITORED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER. CONTRACTOR MUST PROVIDE ADEQUATE NOTICE PRIOR TO FILLING.

INFILTRATION POND
NOT TO SCALE

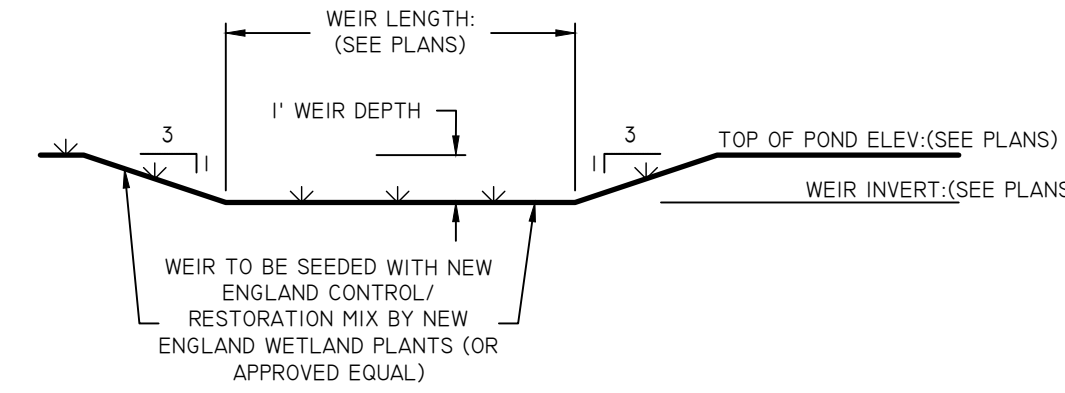
WQ INFILTRATION POND BMP SYSTEM
NOT TO SCALE

SAND FILTER
NOT TO SCALE

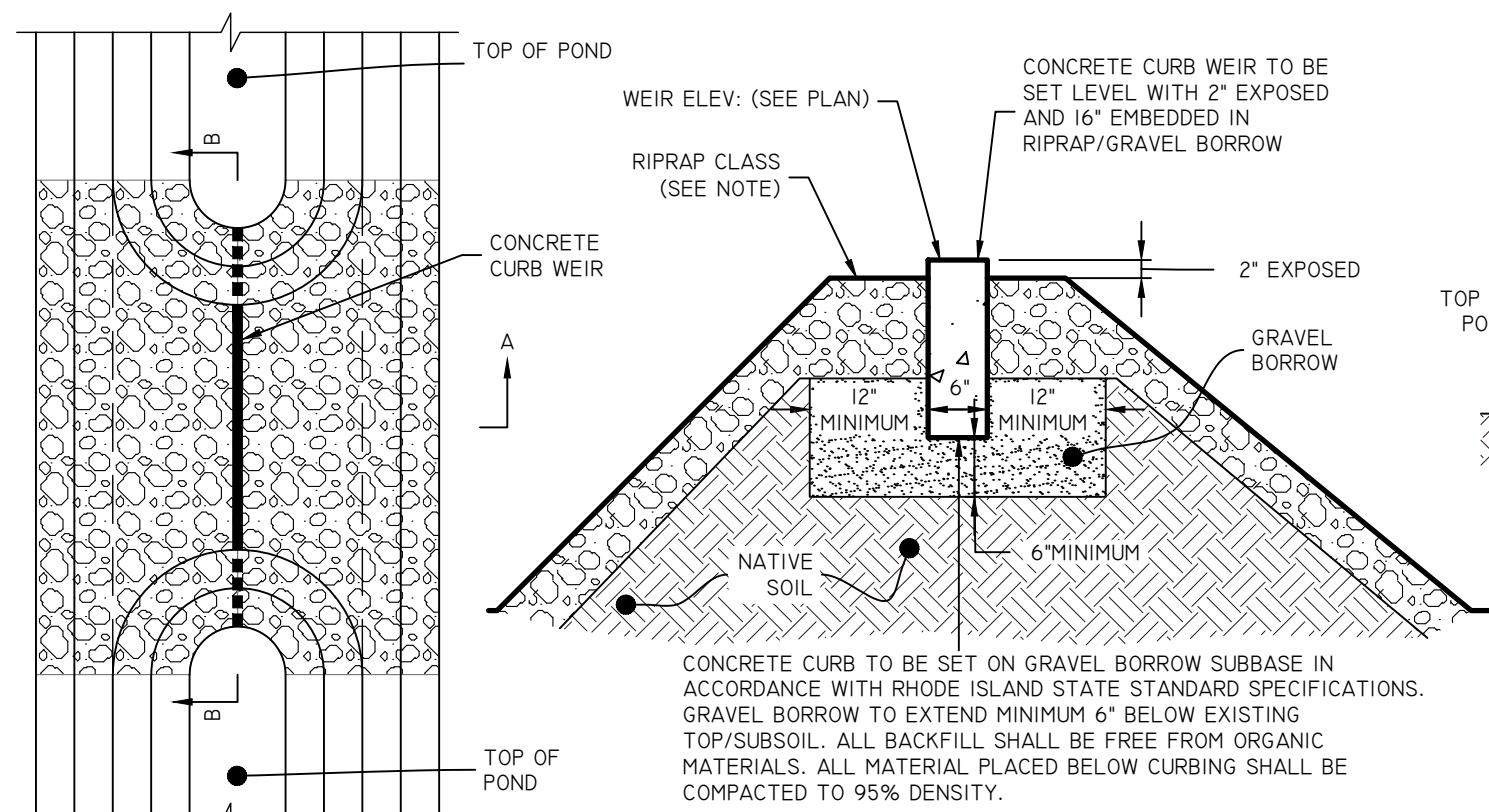
SEDIMENT FOREBAY
NOT TO SCALE

DESCRIPTION	SNDF-A2
TOP OF POND ELEVATION	108.50
100 YEAR STORM ELEVATION	107.25
10 YEAR STORM ELEVATION	105.95
1 YEAR STORM ELEVATION	105.85
WQ STORM ELEVATION	105.18
BOTTOM OF POND ELEVATION	104.00
TOP SOIL DEPTH	0.5'
SAND DEPTH	1.5'
BOTTOM OF SAND ELEVATION	102.00
SEASONAL HIGH GWT ELEVATION	101.00
SOIL EVALUATION	TH-7

NOTE: LIMITS OF INFILTRATION POND TO BE STAKED OUT AND NOT USED AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION (NO CONSTRUCTION TRAFFIC ALLOWED WITHIN FILTER LIMITS)



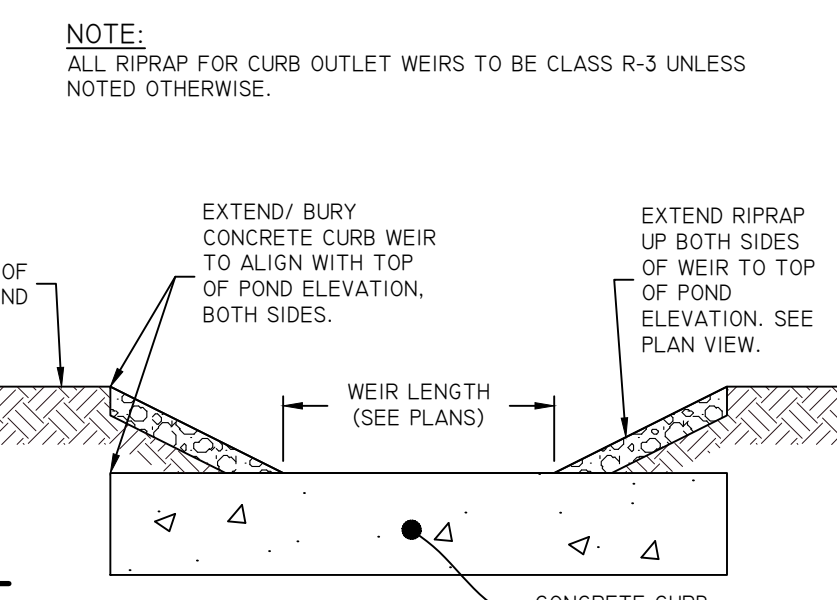
EMERGENCY OVERFLOW WEIR
NOT TO SCALE



PLAN VIEW
NOT TO SCALE

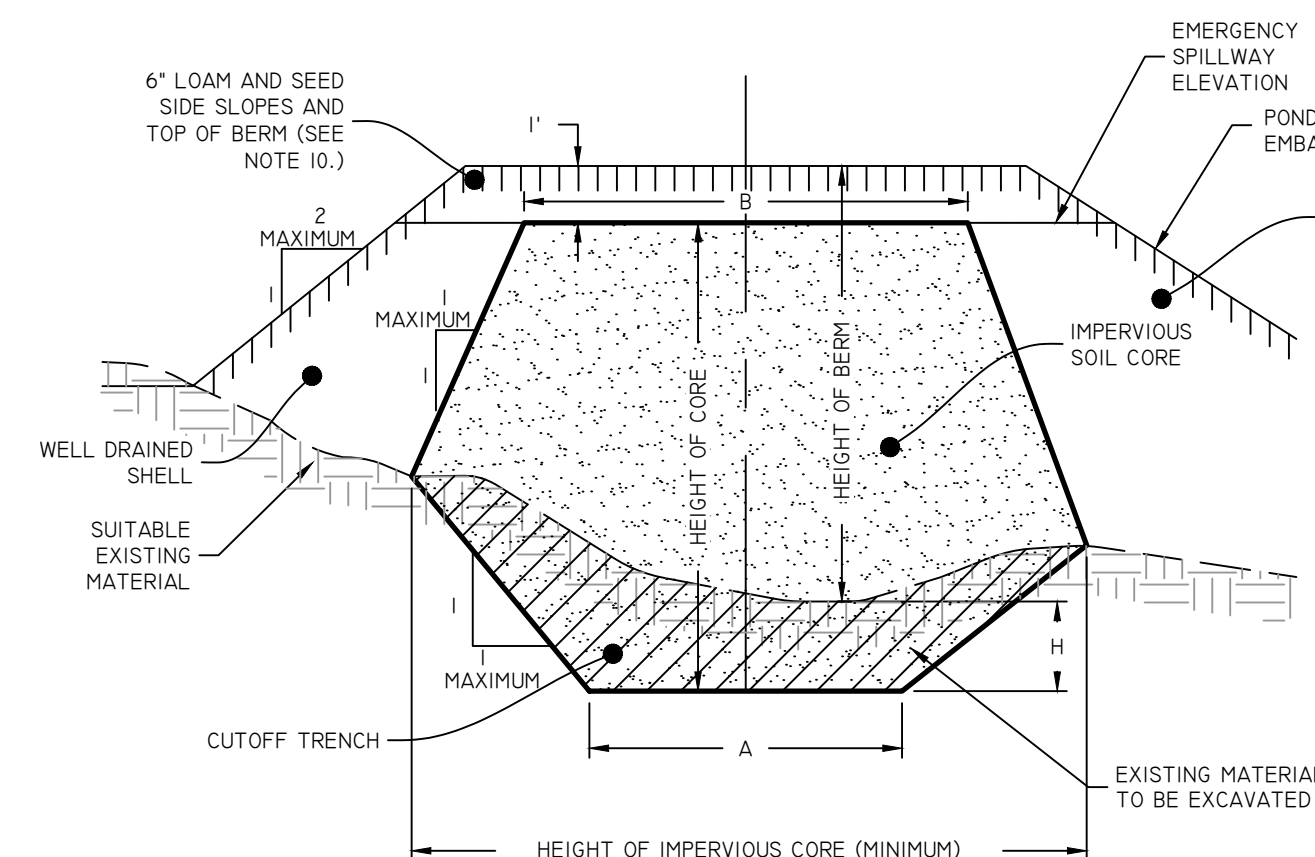
SECTION A-A
NOT TO SCALE

CURB OUTLET WEIR
NOT TO SCALE



SECTION B-B
NOT TO SCALE

NOTE: ALL CONCRETE CURB WEIRS MUST BE MONOLITHIC. CONCRETE CURB WEIRS CANNOT BE MULTIPLE PRECAST CURBS JOINED IN SEQUENCE.



POND EARTHEN EMBANKMENT
NOT TO SCALE

BERM HEIGHT (FT)	TOP WIDTH OF CORE - B (FT)
0-6.5	8
6.6-9.8	9.2
9.9-13.1	9.8
13.2-16.4	10.8
16.5-19.7	11.5

NOTES:

- IMPERVIOUS SOIL CORE TO BE PROVIDED FOR ALL POND EMBANKMENTS.
- IMPERVIOUS SOIL CORE TO BE CONSTRUCTED OF A MATERIAL WITH A MINIMUM OF 5% PASSING THE #200 SIEVE AND A MAXIMUM PERMEABILITY OF 0.0005 CM/S.
- WELL DRAINED SHELL TO BE CONSTRUCTED OF GRAVEL AND/OR SAND BERM LESS THAN 5% PASSING THE #200 SIEVE.
- MINIMUM DEPTH OF CUTOFF TRENCH (H) SHALL BE 3/4 OF THE TOTAL BERM HEIGHT.
- THE IMPERVIOUS CORE AT A MINIMUM SHALL EXTEND UP BOTH ABUTMENTS TO THE EMERGENCY SPILLWAY ELEVATION.
- THE MINIMUM BOTTOM WIDTH (A) SHALL BE 5'-8", AND WIDE ENOUGH TO PERMIT OPERATION OF COMPACTION EQUIPMENT.
- SIDE SLOPES OF THE TRENCH SHALL BE NO STEEPER THAN 1:1.
- IF BEDROCK IS ENCOUNTERED BELOW THE DAM THE CUT OFF TRENCH CAN BE REDUCED TO 1'x1' (AXH).
- COMPACTION REQUIREMENTS FOR THE SHELL AND IMPERVIOUS CORE TO BE 95% OF THE MODIFIED PROCTOR PER ASTM D1557. ALL FILL TO BE PLACED IN LIFTS NOT EXCEEDING 12".
- SIDE SLOPE OF POND EMBANKMENT TO BE 2:1 MAXIMUM. IF SIDE SLOPES ARE STEEPER THAN 3:1, SLOPE PROTECTION MUST BE UTILIZED ON POND EMBANKMENT. THIS INCLUDES, BUT NOT LIMITED TO, RIPRAP AND EROSION CONTROL MATS.
- THE IMPERVIOUS CORE SHALL BE KEPT FREE FROM STANDING WATER DURING THE BACKFILL OPERATION.
- ALL EMBANKMENT INSTALLATIONS TO BE SUPERVISED BY A GEOTECHNICAL ENGINEER.
- ANY PROPOSED DEVIATIONS FROM THIS DETAIL MUST BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SUBMITTED TO THE SITE ENGINEER (AND AHJ WHERE REQUIRED) FOR REVIEW PRIOR TO CONSTRUCTION.

POND COMPLEX A2 DETAILS

551 LIBERTY LANE
ASSESSOR'S PLAT 21-3 LOT 21
SOUTH KINGSTOWN, RHODE ISLAND
PREPARED FOR:
SOUTH COUNTY POST & BEAM, INC.
521 LIBERTY LANE, WEST KINGSTON, RHODE ISLAND
TEL 401-783-4415 FAX 401-783-4494

Diprete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-644-6006 www.diprete-eng.com
Boston • Providence • Newport

DAVID A. RUSSO
No. 1335
REGISTERED PROFESSIONAL ENGINEER CIVIL

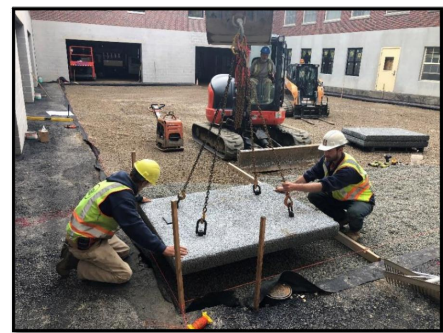
THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY THE STATE OF RHODE ISLAND. A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING HAS REVIEWED THIS PLAN SET AND HAS DETERMINED THAT IT COMPLIES WITH THE REQUIREMENTS OF THE ENGINEERING PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS OF THE DESIGN. THE CONTRACTOR IS RESPONSIBLE FOR THE ACCURACY OF THE DATA AND INFORMATION PROVIDED TO THE ENGINEER. EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. SEE UTILITY NOTE ON SHEET 1.

NO.	DATE	DESCRIPTION	BY:
1	09-22-2023	LOAN PRELIMINARY SUBMISSION	J.L.S.
2	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
3	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
4	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
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13	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
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15	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
16	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
17	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
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83	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
84	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
85	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
86	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
87	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
88	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
89	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
90	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
91	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
92	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
93	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
94	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
95	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
96	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
97	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
98	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
99	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.
100	09-24-2023	LOAN PRELIMINARY SUBMISSION	K.M.P.



Stormcrete® Modular Precast Porous Concrete Stormwater System

Handling and Installation Manual



1. Recommended Equipment

In addition to the typical earthmoving, materials handling and grading equipment, the following hand tools should also be available –

- 2 or 4-way chains, cables or straps rated to lift the slabs – refer to Table 2 for the number of lifting points and the slab weights
- Cordless impact wrench or ratchet wrench with 3/4" socket for installing and removing lifting swivel bolts
- Lifting swivels supplied by manufacturer
- Rakes and shovels for leveling screed stone
- 1.25" minimum diameter screed rails
- 2"x4" or other material to use as a screed
- Plastic plugs and slab spacers supplied by manufacturer.
- Backpack blower to keep slabs surface clean during and after installation.
- Diamond Bladed Masonry Cutoff Saw (6" cutting depth min. – typically requires a minimum 16" diameter blade – check saw specifications).

2. Offloading and Storage

- Prior to offloading a delivery truck the slabs on the truck shall be carefully inspected for any damage. Any observed damage shall be immediately reported to the delivery driver and the quantity and type of damage shall be noted on the delivery ticket.
- Offloading should be performed by a trained and experienced equipment operator. Due to the unique structural properties of porous concrete, extra care should be taken when handling the slabs.
- A forklift or similar equipment should be used when offloading Stormcrete® slabs. It is recommended that the equipment be fitted with forks. Chains, cables or slings should never be wrapped around slabs for offloading or installation.
- Slabs should be offloaded evenly from both sides of the truck to ensure that the trailer does not become unstable.
- Slabs delivered on pallets should be offloaded as shipped. Slabs delivered on damage must be picked from the highest level of damage. **Never pick up slabs with more than one layer of damage.** (Please see Table 1 for Stormcrete® slab sizes, shipping configurations and corresponding weights).

Slab Size	Number of slabs per pallet/damage	Number of slabs per stack	Approx. Slab Weight (lbs.)	Approx. LIR Weight (lbs.)
5' x 4' x 6"	4	4	645	369
5' x 2' x 6"	4	4	645	369
4' x 2.5' x 6"	4	4	645	369

Table 1

- Stored slabs must be placed on a level or nearly level stable surface. In dusty environments slabs should be covered to prevent dust and debris from settling on slab surfaces.

- Allow approximately 1 s.f. of storage area for every 1 s.f. of Stormcrete® Slabs purchased.

- When stacking or restacking slabs 4" by 4" timbers should be placed parallel to one another and located directly beneath imbedded lifting points. Do not place timbers in the middle of the slabs or on the ends. Timbers should be at a minimum 1" thicker than the fork thickness. Place timbers between each double stack of slabs (see image below).

- Lower slabs evenly such that the slab comes into contact with both timbers simultaneously. To prevent edge damage, slabs should be set flat on timbers so that one edge does not contact timbers while opposite edge is supported by forks.



3. Sub-Base Preparation

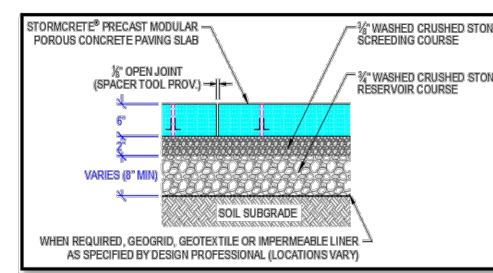
Reservoir Layer Placement:

Reservoir layer shall not be placed and/or compact in rain or snow, or on saturated or frozen subgrade.

In all cases reservoir stone shall be placed and compacted against rigid lateral boundaries, i.e., in situ, undisturbed native soils, fill materials compacted to 95% Standard Proctor density or concrete curb and headers. Compaction of reservoir stone against any flexible boundaries shall not be permitted.

Although the approved plans shall govern over installation details and specifications, the following instructions are provided by the manufacturer as minimum guidelines:

- Reservoir stone layer shall be constructed per approved drawings using 3/2" or AASHTO No. 57 crushed angular stone. The stone must be washed and free of fines.
- Compact reservoir storage layer in maximum 12" lifts, with a minimum of two complete coverages, one pass each in mutually perpendicular directions, with a 2 to 5 ton smooth, single or double drum roller operated in vibratory mode. Following vibratory compaction, repeat two complete coverage's, one pass each in mutually perpendicular directions, with the roller operated in static mode. Continue static rolling until there is no visible movement, weaving or deflection in the surface of the storage reservoir layer.
- For small areas inaccessible by large rollers follow the above directions using a walk-behind plate compactor. Repeat two complete coverages in each direction.
- The surface tolerance of the compacted storage reservoir layer shall be +/- 3/4 in. under a 10 ft. straightedge.
- Where specified on the design plans, place geotextile on prepared subgrade side slopes and extend a maximum of 1 foot under the bottom of the storage reservoir. Do not place geotextile under other areas of infiltrating system unless specified on the approved plans. Secure in place to prevent disturbance from vehicles and/or worker foot traffic.



Screeding Layer Placement

It is critical that the crushed stone leveling course surface be screeded flat so that the slabs are fully supported with no bridging or mounding beneath. Crushed stone base shall not be placed under or screeded in rain or snow, or on saturated or frozen subbase.

- Screeding layer shall be placed per approved drawings using 3/8" crushed angular stone or No. 8 Stone. The stone must be washed and free of fines.
- Place and spread the stone evenly over the reservoir course to a thickness of +/- 2". Level the surface of crushed stone (screeding is strongly recommended).



- Screen using a minimum 1.25" diameter rigid screed rail placed adjacent or below the slab location with the top of the rails set at the screeding level.

- Do not compact or disturb leveled screeding layer (if screed rails are placed in panel locations, carefully remove them to prevent disturbance to the leveling base layer).
- The uniformity of the leveling (base) layer determines the differential settlement between precast porous concrete paving slabs.
- The slab installation contractor should not correct deficiencies in the leveling layer by shimming with additional stone rather the slabs should be lifted out and the entire area should be re-levelled.

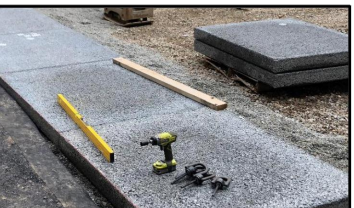
4. Setting Stormcrete® Porous Concrete Slabs

Recommended Lifting Hardware

- Slabs shall only be lifted and placed using supplied hoist ring swivels, 2 or 4-way chains, wire rope or nylon straps rated for the lift weight shall be used per the manufacturer's recommendations to lift slabs – do not exceed minimum recommended angle for lifting chains.



- Swivels shall be securely bolted snug to the slab. Check to ensure that the bolt extends the full depth of the lifting socket. To avoid damage to the surface do not over-tighten bolts. (An electric impact wrench with a 3/4" socket is the most efficient way to attach and remove the swivels).



Individual slabs should only be lifted by equipment that is rated for the slab weights shown in the adjacent table:

Slab Dimension (ft)	Max Slab Weight (lbs.)	Lifting Points
5' x 4' x 6"	1290	4
5' x 2' x 6"	645	2
4' x 2.5' x 6"	645	2

Chains, cables or slings should never be wrapped around slabs for placement under any circumstances.

Placing Slabs

Precast porous concrete slabs shall not be placed in heavy rain or snow, or on saturated or frozen base.

Because the units are precast in a controlled environment, they are delivered to the site pre-cured which allows them to be parked or driven on immediately after placement. They may also be placed year-round, in almost any type of weather or temperature conditions.

WARNING – ENSURE THAT PLASTIC SPACER THAT ARE USED TO SEPARATE SLABS IN A STACK ARE REMOVED FROM THE BOTTOM OF ALL SLABS BEFORE SLAB PLACEMENT.

- Whenever possible place slabs in a staggered pattern(s) as shown below or as depicted on approved drawings.



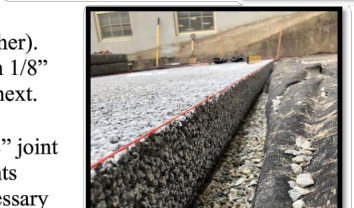
- On gutter applications a string line shall be used to ensure that the curbing is straight enough to allow for proper placement of the slabs. If the existing curbing does not follow a straight alignment then the slabs should follow the alignment of a string line placed mostly parallel to the curb and 1/2" away from the point that is furthest toward the roadway to allow for a minimum 1/2" joint.

- Guide units into place by hand, being careful not to pinch fingers. Horizontal adjustments can be made with wood wedges, levers, and rubber mallets as needed (If pry bars are used they should never come into direct contact with the top corner of the slab).

- Adjacent slabs shall be separated from each other by the placement of two 3/8" thick High-Density Polyethylene spacers (Part No. 18SP) supplied by the manufacturer. Spacer shall be trimmed to the right height to fit and adhered to previously placed slab with a construction adhesive such as Liquid Nails Heavy Duty Construction Adhesive or approved equal.



- Care should be taken to place adjacent slabs at same elevation (i.e. level to each other). Slab surfaces shall not deviate by more than 1/8" vertically and horizontally from one to the next.



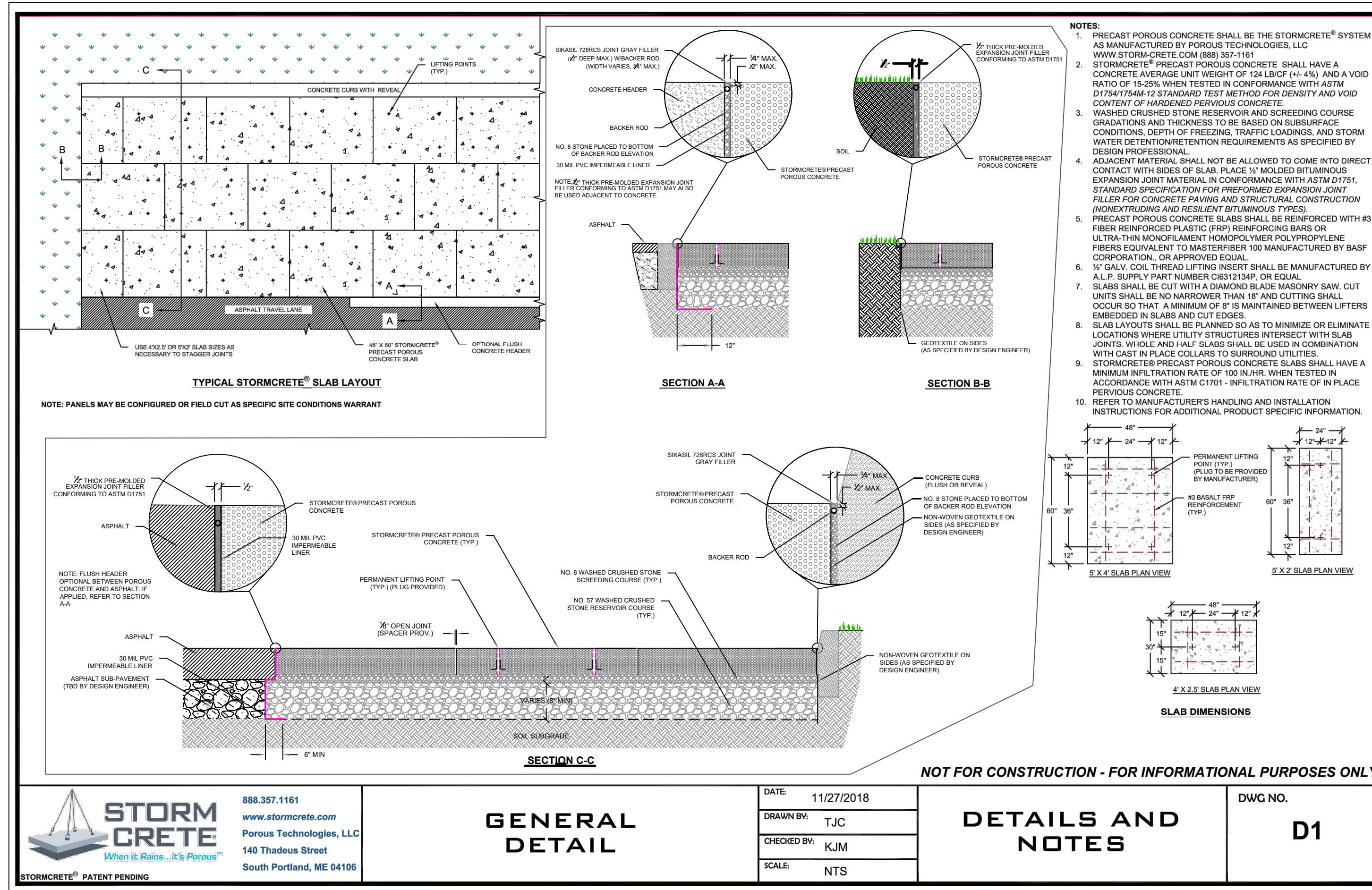
- Placed Slabs should maintain consistent 1/8" joint widths and horizontal and vertical alignments should be continuously straightened as necessary as paving proceeds.

- Joints between adjacent rows of panels shall be staggered when possible.

- Keep slabs covered until all adjacent areas are stabilized to prevent dust and debris from reducing porosity of slabs. A backpack blower should be employed throughout the installation process to keep slab surfaces clean. Place erosion and sediment control barriers to prevent eroding areas from draining onto slabs.

- Whenever possible set slabs with equipment positioned next to slab area and not on previously installed slabs. When it is necessary to position equipment on slabs during setting use only light machines equipped with either tires or rubber tracks.

	TREATMENT SYSTEM
TOP OF STORMCRETE	105.50
TOP OF LEVELING COURSE	105.00
TOP OF STONE	104.83
BOTTOM OF STONE	104.16
WQ STORM ELEVATION	104.27
SEASONAL HIGH GW ELEVATION	101.00
SOIL EVALUATION	TH-5



STORMCRETE® PATENT PENDING

888.357.1161
www.stormcrete.com
Porous Technologies, LLC
140 Thaddeus Street
South Portland, ME 04106

GENERAL DETAIL

DATE: 11/27/2018
DRAWN BY: TJC
CHECKED BY: KJM
SCALE: NTS

DETAILS AND NOTES

DWG NO. **D1**

"STORMCRETE®" PRECAST POROUS CONCRETE SLAB (PERMEABLE PAVEMENT)

NOT TO SCALE

- Immediately after the Stormcrete® system has been placed, use provided 1/2" nylon caps (Part No. 12NC) to fill imbedded lifting points. Care should be taken to make sure the plastic caps are flush with the surface; do not press caps down into the imbedded lifting points.
- Keep equipment off unrestrained paving slabs and subgrade material.
- Report any damage immediately to the project design professional.

Cutting

- When required, cut slabs with a diamond bladed masonry saw with a plunge depth of 6" minimum.
- If field adjustments are required, slabs should be cut as indicated on the approved drawings.
- Cut slabs shall be no narrower than 18" and cutting shall occur so that a minimum of two imbedded lifters remain for safe lifting and setting.
- Cutting should be performed away from sub-base material and other slabs. Do not cut slabs while in a stack or on top of another slab.
- Cover adjacent areas of slab being cut to prevent dust and debris from entering into the porous concrete.
- Slab layouts shall be planned to minimize or eliminate locations where utility structures intersect with slab joints. Whole and half slabs shall be used in combination with cast in place collars to surround utilities.

Grade Breaks

- Stormcrete® slabs should be placed on a level sub-base. If grade breaks are present, ensure that they occur at an open joint.
- If a grade break does not occur at an open joint cut the slab to create an open joint at the break. If cutting is required reference the cutting section above.

Edge Restraints

- NEVER place fluid material (asphalt, concrete, soil, etc.) directly up against the Stormcrete® slabs. Fluid materials shall be separated from Stormcrete® slabs by the use of a 1/2" preformed expansion joint material conforming to ASTM D7151 Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction
- Install edge restraints per approved drawings and manufacturer's recommendations at the indicated locations and elevations.
- Anchor edge restraints directly to finished leveling layer in accordance with the manufacturer's requirements.
- The use of loose stone as a filler material adjacent to slabs should be avoided in favor of expansion joint material conforming to ASTM D7151 Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (preferred).
- When placing Stormcrete® Precast Porous Concrete slabs against existing concrete structures where it is not possible to pre-install 1/2" expansion joint material joints may be filled with No. 8 clean washed gravel beneath closed cell foam backer rod and a maximum depth of 1/2" of elastomeric sealant such as

- Sikasil 728 RCS Limestone joint filler or approved equal. In all cases the use of a preformed expansion joint material conforming to ASTM D7151 Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction is preferred.

5. SLAB PROTECTION & FINAL INSPECTION

- After work in the section is complete, the contractor shall be responsible for protecting the precast porous paving slab system from damage and/or contamination from mud, dirt, grass cuttings and accumulation of foliage and debris through the duration of construction. This should include a regular vacuum sweeping schedule. It is important that you do not attempt to wash the construction area clean. This will result in lost debris draining into the slabs/stone.

- Any slabs cracked or damaged during installation shall be replaced with new ones at the installers cost.
- Reset slabs not in conformance with specified installation tolerances.

- Check for and remove any accumulation of sediment or debris observed. This can be done by manually sweeping, vacuum sweepers, and in some cases, backpack blowers.



- Check final surface elevations of set slabs for conformance to design drawings. Slab surfaces shall not deviate by more than 1/8" vertically from one to the next and to adjacent surfaces.
- The surface elevation of set slabs shall be flush with manholes or the top of utility structures.

6. STORMCRETE® PRECAST POROUS CONCRETE INSTALLATION TRAINING PROGRAM

- Installation contractors are strongly encouraged to participate in the Stormcrete® Precast Porous Concrete Installation Training Program. This program ensures that installers are properly trained in the installation of Stormcrete® products. Installers successfully completing the Training Program shall receive a certificate valid for 2 years and shall be responsible for reviewing the Handling and Installation Manual and Training Program Test Questions (with correct answers) with Laborers under their employ.

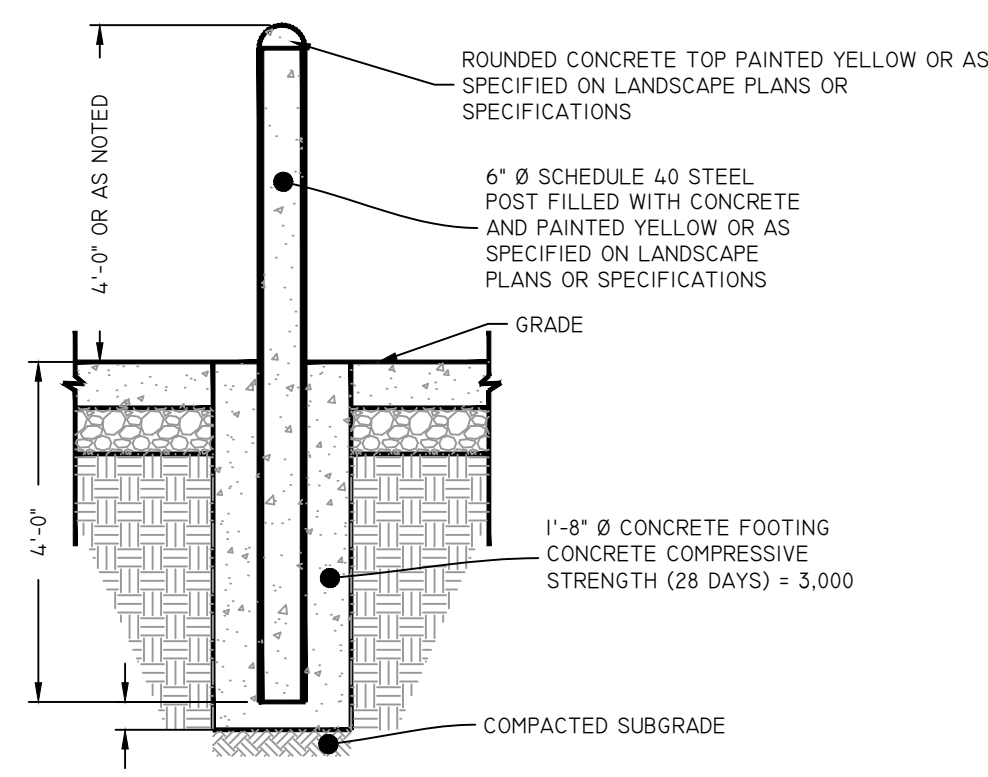
THIS DRAWING SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY THE DESIGN PROFESSIONAL ENGINEER OF RECORD.

DAVID A. RUSSO
REGISTERED PROFESSIONAL ENGINEER
CIVIL

STORMCRETE DETAILS

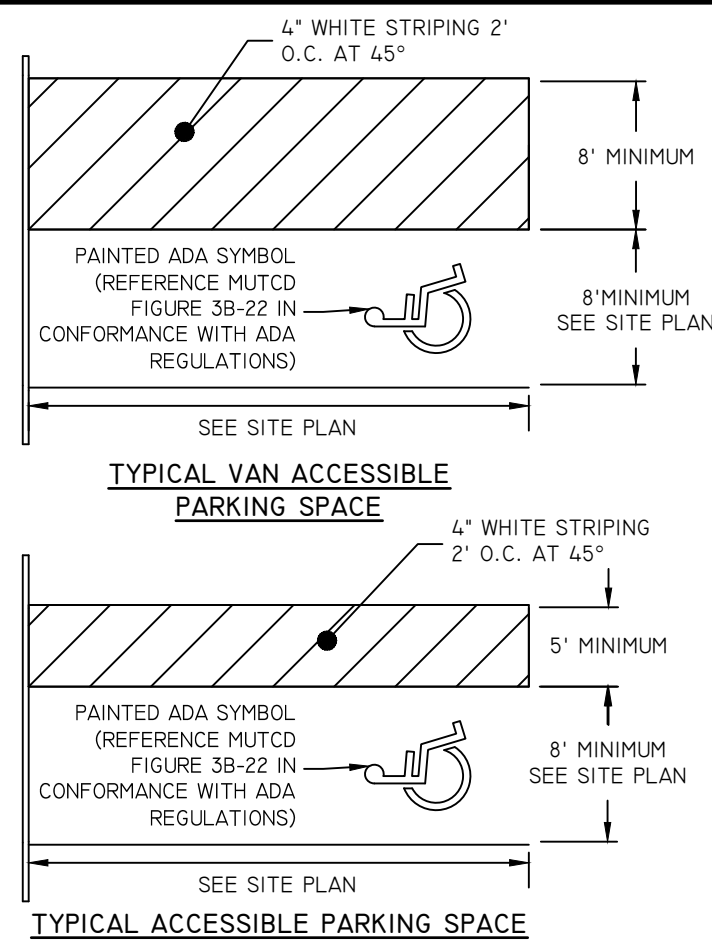
551 LIBERTY LANE
ASSESSOR'S PLAT 21-3 LOT 21
SOUTH KINGSTOWN, RHODE ISLAND

DESIGNED BY: N.H.P.
DRAWN BY: N.H.P.
DATE: 11/27/2018
SCALE: NTS



BOLLARD DETAIL

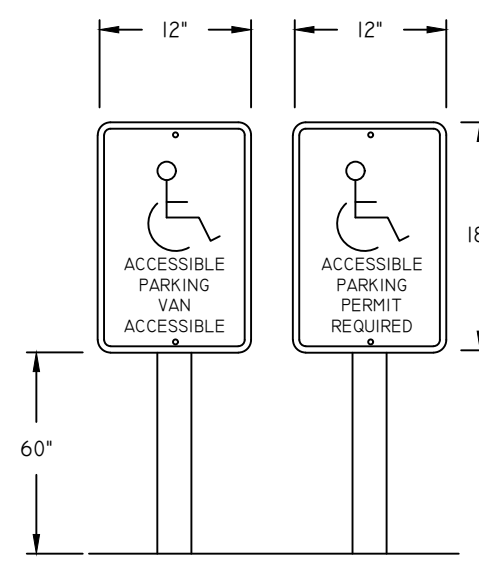
NOT TO SCALE



TYPICAL ACCESSIBLE PARKING SPACES

NOT TO SCALE

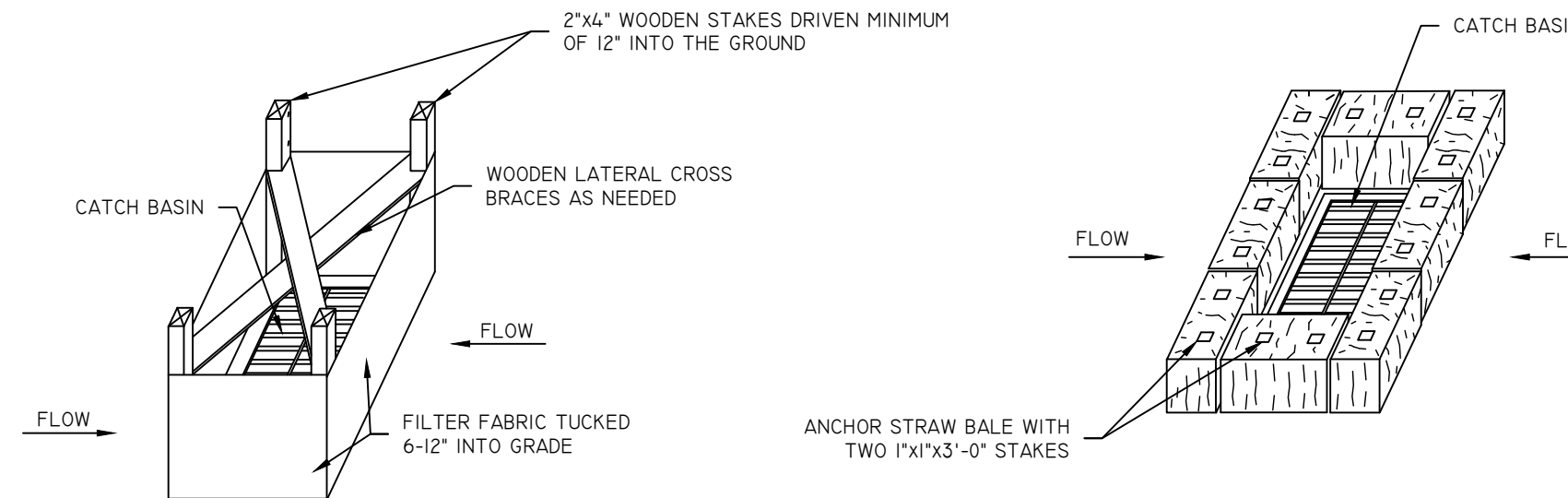
- NOTES:**
1. ALL PAINT MUST BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F. PAINT MUST BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
 2. APPLY 2 COATS OF TRAFFIC TYPE PAINT. APPLY THE FIRST COAT NOT LESS THAN FIVE DAYS AFTER THE PLACING OF BITUMINOUS PAVEMENT. ALLOW FOR MINIMUM CURE TIME OF 24 HOURS BETWEEN APPLICATIONS.
 3. FOR REDEVELOPMENT SITES, PAINT COLOR AND SIZE/ STENCILING OF PAINTED ADA SYMBOL MUST MATCH ADJACENT SPACES, SO LONG AS THEY COMPLY WITH THE CURRENT EDITIONS OF ALL APPLICABLE STANDARDS AND REGULATIONS.



TYPICAL ACCESSIBLE PARKING POST & SIGN

NOT TO SCALE

- NOTES:**
1. SIGN MUST BE PLACED BEHIND APPLICABLE VAN ACCESSIBLE OR ACCESSIBLE SPACE AS SHOWN ON SITE PLAN.
 2. ACCESSIBLE PARKING SPACES AND SIGNAGE MUST COMPLY WITH LATEST VERSION OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) OR THE APPLICABLE STATE/ MUNICIPAL BUILDING CODE, WHICHEVER STANDARD CONTROLS.



SILT FENCE INSTALLATION FOR CATCH BASINS AT LOW POINTS

- NOTES:**
1. STORMWATER INLETS WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED.
 2. SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM.
 3. REFER TO LONG TERM/SHORT TERM MAINTENANCE NOTES AND OPERATION & MAINTENANCE PLAN FOR TIMING OF PLACEMENT AND REMOVAL OF EROSION CONTROL ELEMENTS.

CATCH BASIN EROSION CONTROL

NOT TO SCALE

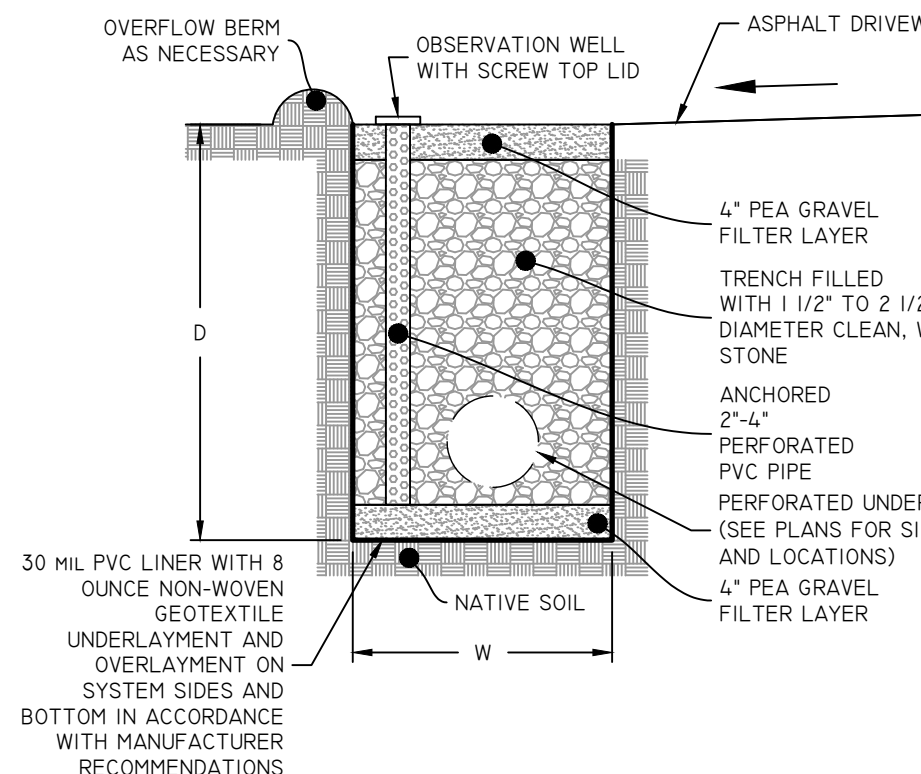
STONE TRENCH DESIGN NOTES

1. THE BOTTOM OF THE STONE RESERVOIR SHALL BE COMPLETELY FLAT OR NEARLY SO IN ORDER TO ALLOW CAPTURED RUNOFF TO BE COLLECTED BY THE PERFORATED UNDERDRAIN ALONG THE ENTIRE BOTTOM SURFACE AREA.
2. AN OBSERVATION WELL SHALL BE INSTALLED IN EVERY INFILTRATION TRENCH, CONSISTING OF AN ANCHORED 4 TO 6 INCH DIAMETER PERFORATED PVC PIPE WITH A SCREW-TOP CAP INSTALLED FLUSH WITH THE GROUND SURFACE.

MAINTENANCE

THE FOLLOWING MAINTENANCE PROCEDURES SHALL BE FOLLOWED FOR THE STONE TRENCHES:

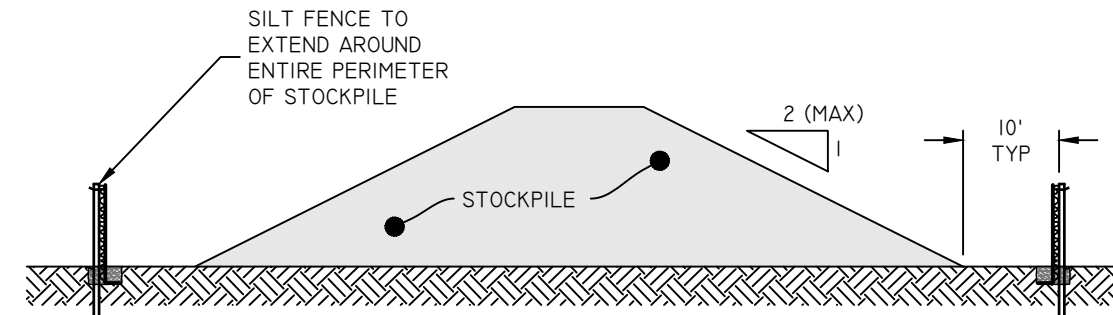
1. FOR STONE TRENCHES, ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED FROM THE SURFACE ANNUALLY.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE STONE TRENCHES DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER. THE CONTRACTOR'S MAINTENANCE/INSPECTION RESPONSIBILITIES MUST INCLUDE REPLACING THE STONE WITHIN THE TRENCHES IF STORMWATER REMAINS IN THE STONE TRENCHES LONGER THAN 48 HOURS. THE CONTRACTOR MUST INSPECT STONE TRENCHES AFTER EACH STORM GREATER THAN 0.5 INCHES AND REPAIR AS NECESSARY. THE OWNER MUST INSPECT THE STONE TRENCHES SEMIANNUALLY AND AFTER RAINFALL EVENTS GREATER THAN ONE INCH. IF REPAIRS ARE NEEDED, THEY MUST BE CARRIED OUT IMMEDIATELY. REPAIRS ARE NECESSARY IF STORMWATER REMAINS IN THE STONE TRENCHES LONGER THAN 48 HOURS.



LINED STONE TRENCH

NOT TO SCALE

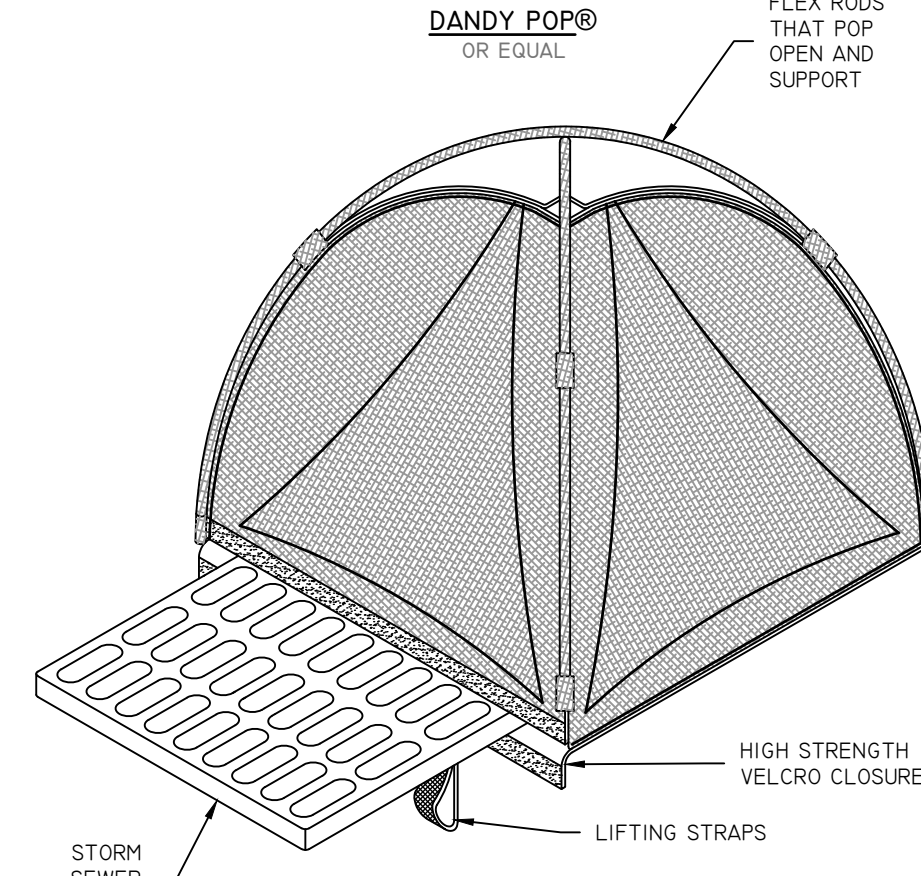
LOCATION	TRENCH DEPTH (D)	TRENCH WIDTH (W)
STONE TRENCH	24"	24"



STOCKPILE PROTECTION

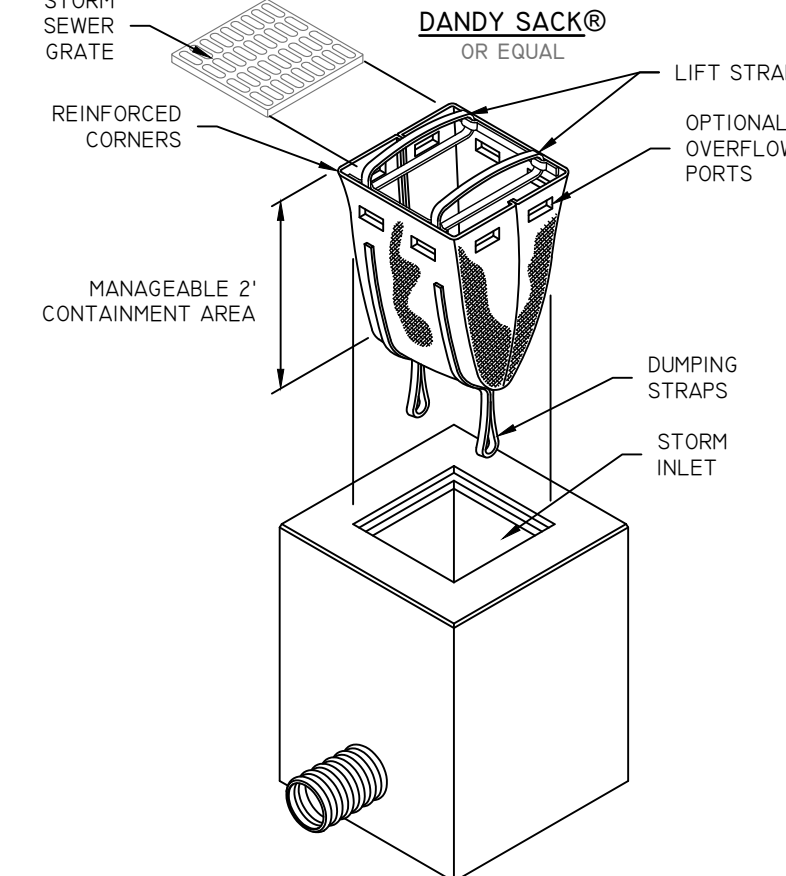
NOT TO SCALE

- NOTES:**
1. ALL STOCKPILES MUST BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH SECTION 3 "STOCKPILE AND STAGING AREA MANAGEMENT" OF THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (CURRENT EDITION).
 2. DIVERT ALL STORMWATER AWAY FROM STOCKPILES.
 3. SOIL STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE WITH SEED MIX COMPATIBLE WITH THE SOIL TYPE.
 4. STOCKPILE AND SILT FENCE MUST BE INSPECTED AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF 1/2" OF RAINFALL. REPAIR/ REPLACE SILT FENCE (AND STOCKPILE COVERS WHERE APPLICABLE) AS NEEDED TO KEEP THEM FUNCTIONING ADEQUATELY.
 5. SEDIMENT TRAPPED BY SILT FENCES MUST BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.



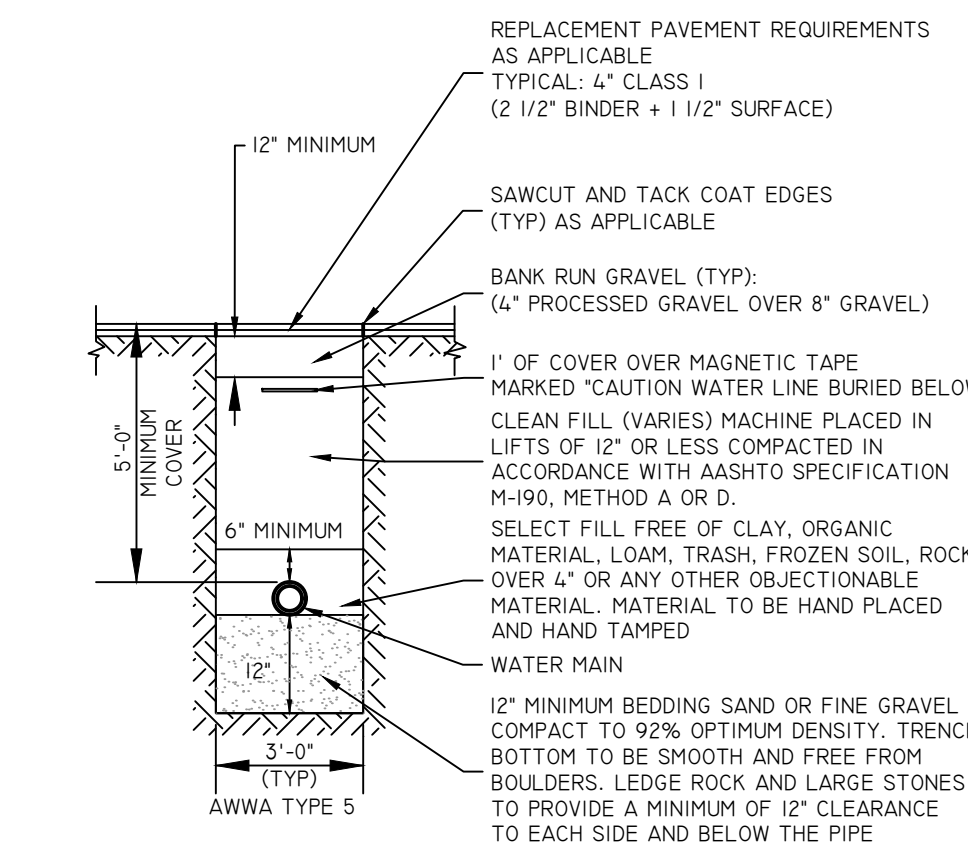
INLET SEDIMENT CONTROL DEVICES

NOT TO SCALE

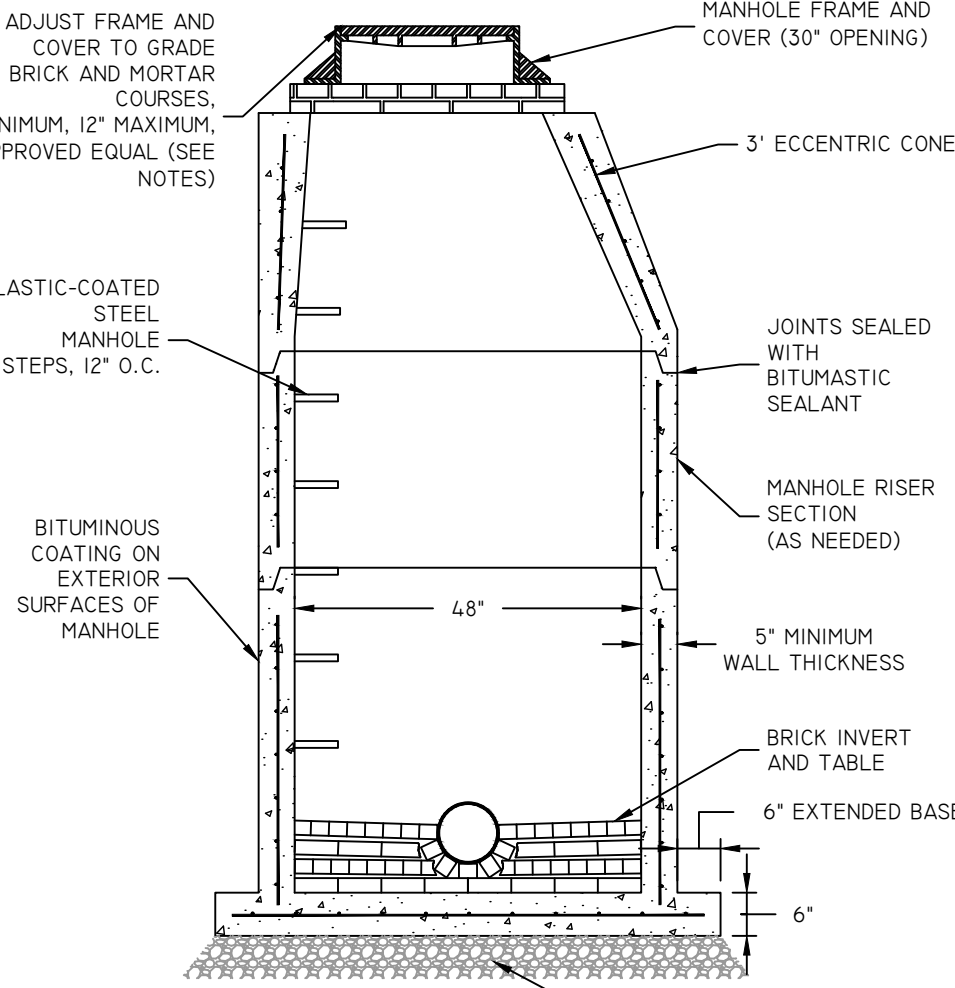


WATER TRENCH DETAIL

NOT TO SCALE

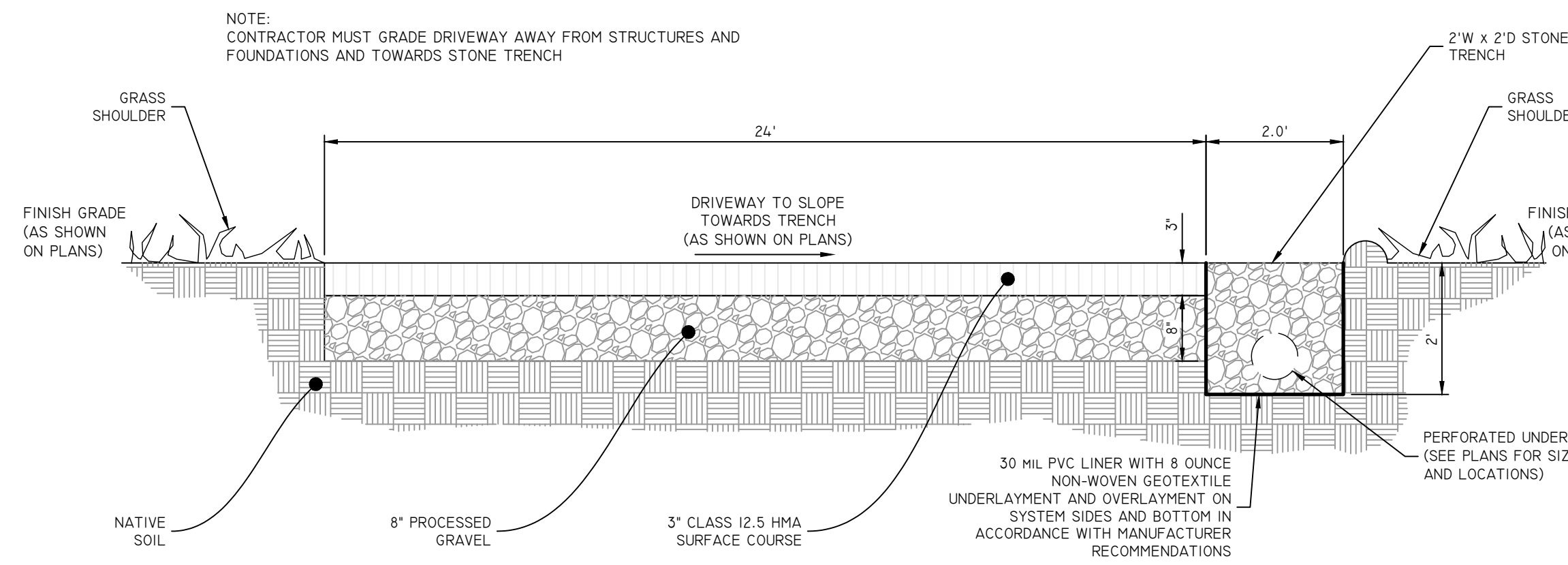


- NOTES:**
1. MANHOLE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM-C478.
 2. INVERT AND TABLE SHALL CONSIST ENTIRELY OF BRICK AND MORTAR. NO SAND FILLER SHALL BE ALLOWED.
 3. MANHOLES SHALL BE VACUUM TESTED PRIOR TO ACCEPTANCE, IN ACCORDANCE WITH THE SEWER AUTHORITY SANITARY RULES AND REGULATIONS. UNDER NO CIRCUMSTANCES WILL INFILTRATION TESTING BE ACCEPTED.
 4. BOLTED AND GASKETED COVERS SHALL BE USED ON MANHOLES IN OFF-ROAD AREAS.
 5. TAPPING OF MANHOLES MUST BE AUTHORIZED AND INSPECTED BY THE SEWER AUTHORITY. THE ONLY APPROVED METHOD FOR TAPPING MANHOLES SHALL BE BY CORE-DRILLING THE MANHOLE AND INSTALLING A "KOR-N-SEAL" BOOT.
 6. PRECAST CONCRETE GRADE RINGS, HDPE GRADE RINGS, OR OTHER RIM ADJUSTMENT PRODUCTS MAY BE USED IN LIEU OF BRICK AND MORTAR WITH THE PERMISSION OF THE SEWER AUTHORITY.



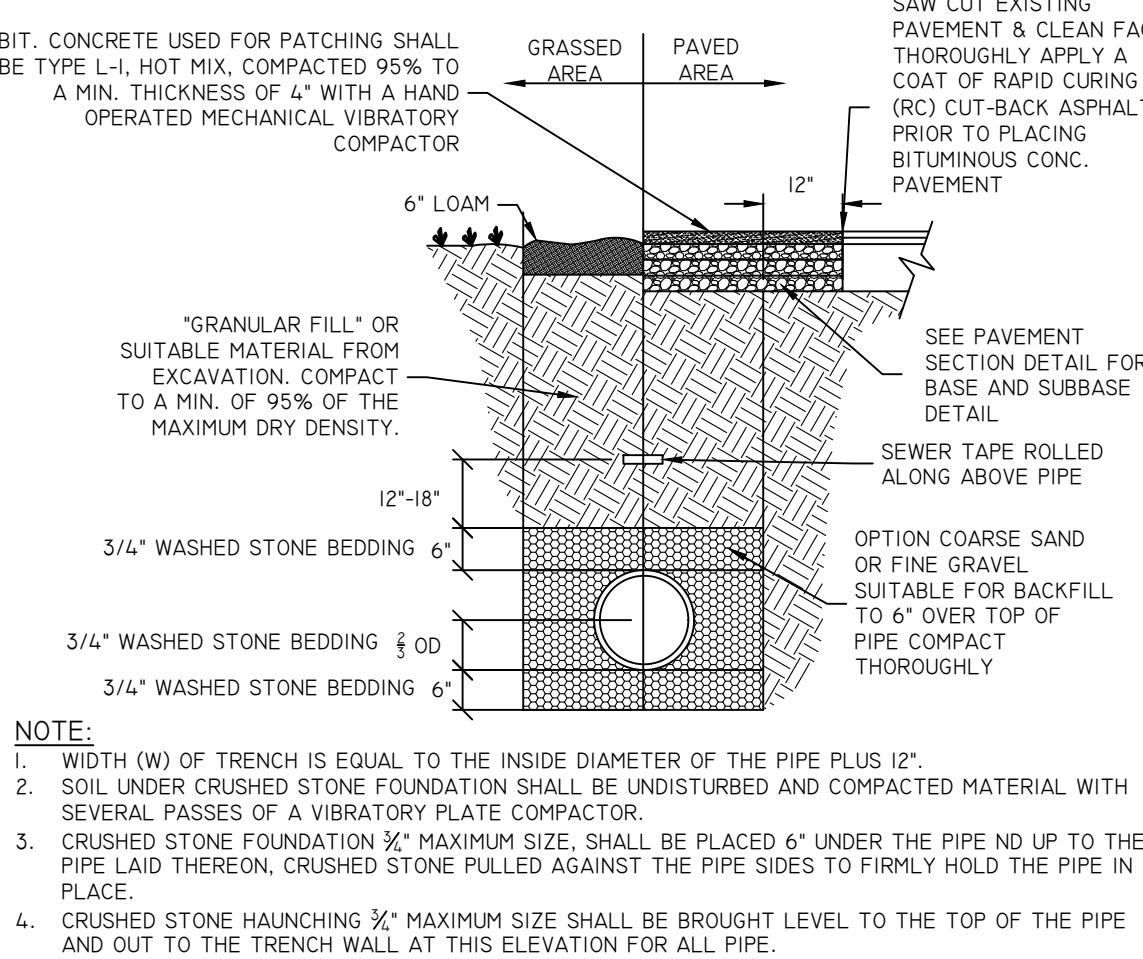
SEWER MANHOLE

NOT TO SCALE



DRIVEWAY SECTION WITH STONE TRENCH

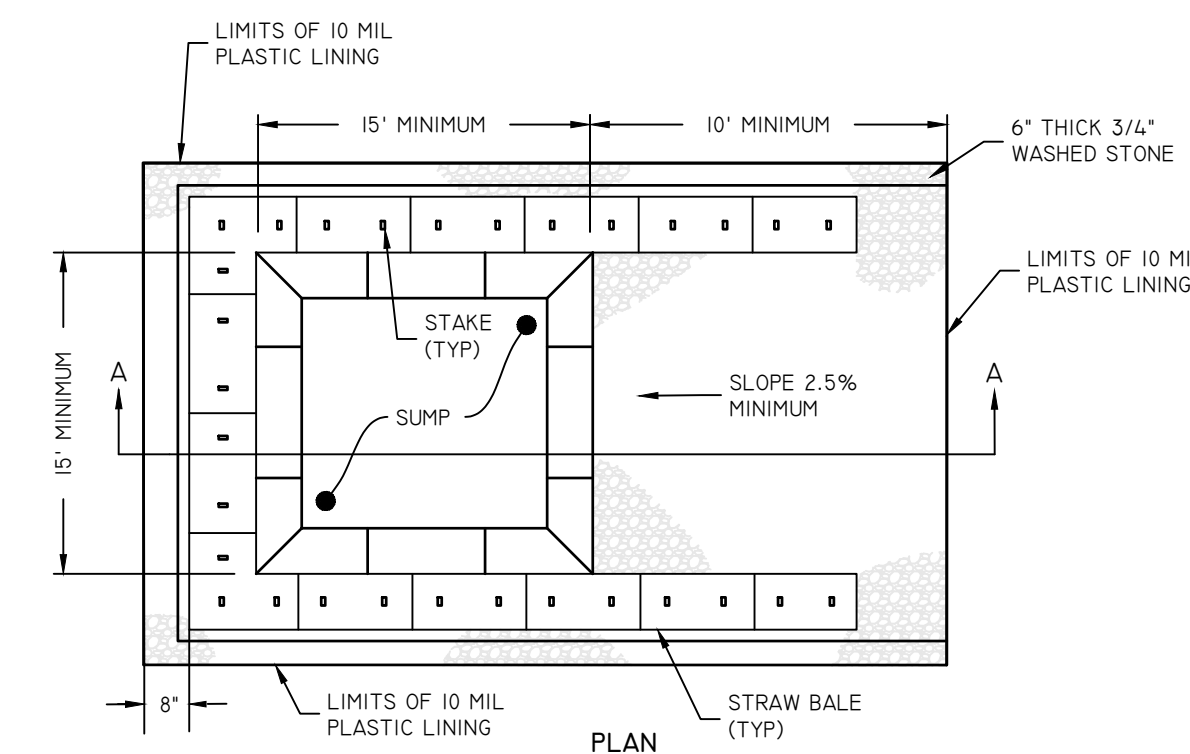
NOT TO SCALE



SEWER TRENCH DETAIL

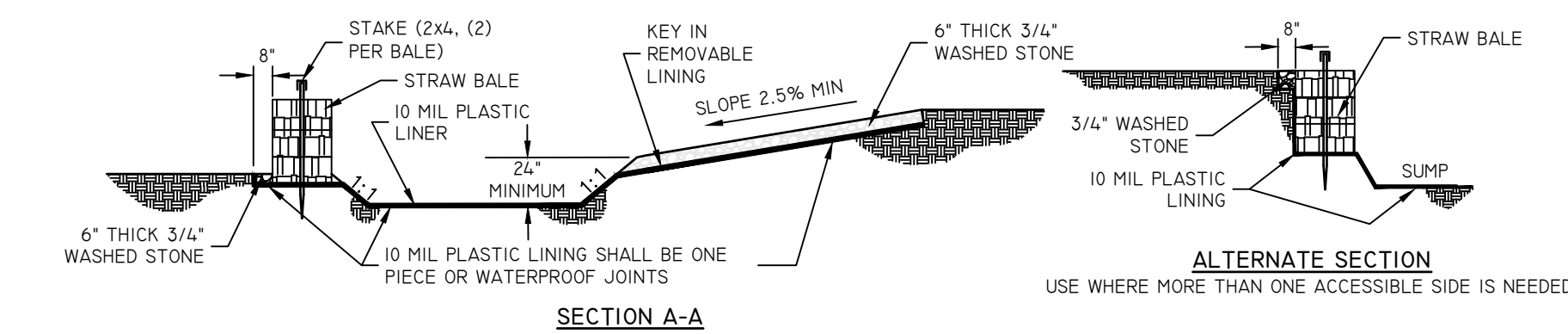
NOT TO SCALE

- NOTE:**
1. WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12".
 2. SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR.
 3. CRUSHED STONE FOUNDATION 3/4" MAXIMUM SIZE, SHALL BE PLACED 6" UNDER THE PIPE NO UP TO THE PIPE LAID THEREON, CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
 4. CRUSHED STONE HAUNCHING 3/4" MAXIMUM SIZE SHALL BE BROUGHT LEVEL TO THE TOP OF THE PIPE AND OUT TO THE TRENCH WALL AT THIS ELEVATION FOR ALL PIPE.



CONCRETE WASHOUT AREA

NOT TO SCALE

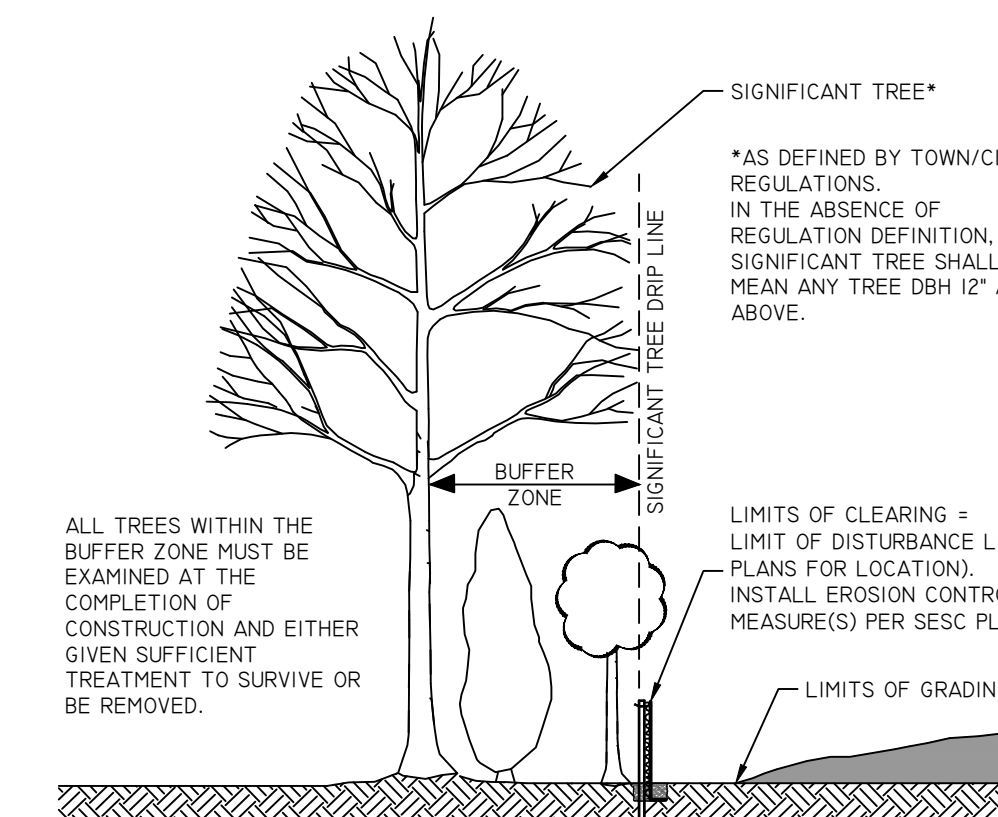


NOTES:

1. PIT IS SPECIFICALLY DESIGNATED, DIKED AND IMPERVIOUS CONTAINMENT TO PREVENT CONTACT BETWEEN CONCRETE WASH AND STORMWATER.
2. WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE WATER.
3. FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12".
4. FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED.
5. SAWCUT PORTLAND CEMENT CONCRETE, RESIDUE FROM SAWCUT AND GRINDING TO BE DISPOSED OF IN THE PIT.
6. CONCRETE WASHOUTS SHALL BE LOCATED A MINIMUM OF 100' FROM DRAINAGE WAYS, INLETS, AND SURFACE WATERS.
7. MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.

WASHOUT SIGN

ALL CONCRETE TRUCKS SHALL WASHOUT HERE



LIMIT OF DISTURBANCE AT VEGETATION

NOT TO SCALE

DETAIL SHEET

551 LIBERTY LANE

ASSASSOR'S PLAT 21-3 LOT 21

SOUTH KINGSTOWN, RHODE ISLAND

PREPARED FOR: SOUTH COUNTY POST & BEAM, INC.

521 LIBERTY LANE, WEST KINGSTOWN, RHODE ISLAND

TEL 401-783-4415 FAX 401-783-4494

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER OF RHODE ISLAND.

NO.	DATE	DESCRIPTION	BY:	CHK:
1	09-22-2023	LOW PRELIMINARY SUBMISSION	J.L.S.	
2	09-24-2023	LOW PRELIMINARY SUBMISSION	K.M.B.	
3	09-24-2023	LOW PRELIMINARY SUBMISSION	J.L.S.	
4	09-24-2023	LOW PRELIMINARY SUBMISSION	J.L.S.	
5	09-24-2023	LOW PRELIMINARY SUBMISSION	J.L.S.	
6	09-24-2023	LOW PRELIMINARY SUBMISSION	J.L.S.	
7	09-22-2023	LOW PRELIMINARY SUBMISSION	J.L.S.	

DESIGN BY: N.H.P.
DRAWN BY: N.H.P.

DAVID A. RUSSO
No. 1335
REGISTERED PROFESSIONAL ENGINEER CIVIL

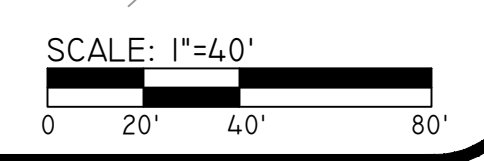
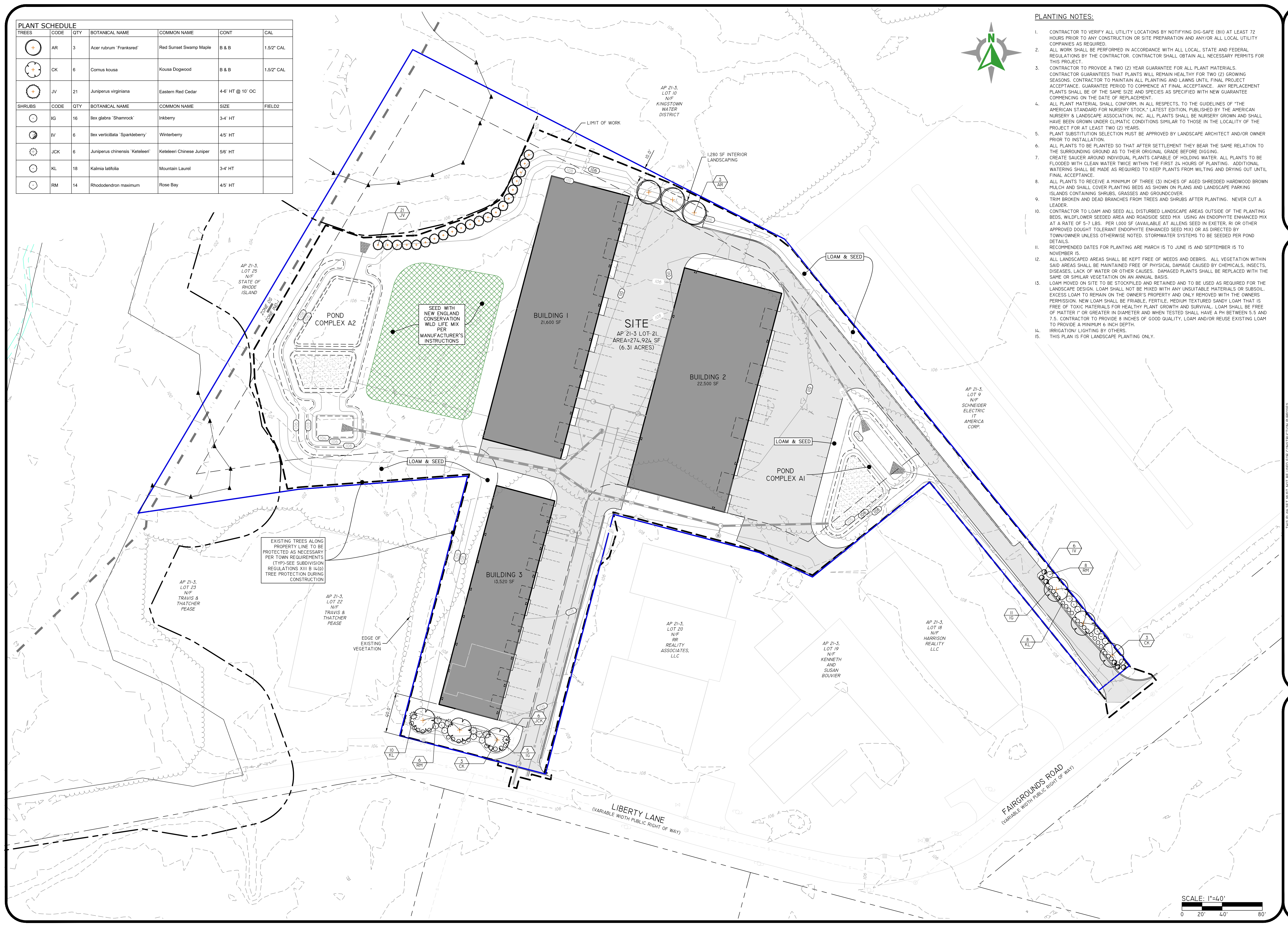
Diprete Engineering
Two Starford Court Cranston, RI 02920
tel 401-943-1000 fax 401-644-6006 www.diprete-eng.com

Boston • Providence • Newport

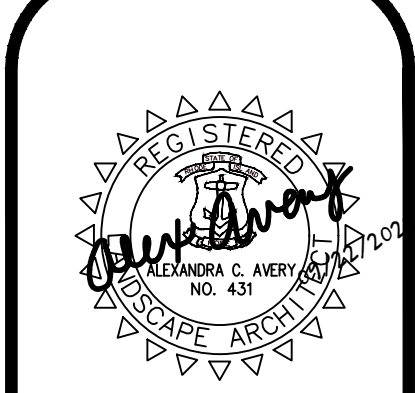
PLANT SCHEDULE						
TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL
	AR	3	Acer rubrum 'Franksred'	Red Sunset Swamp Maple	B & B	1.5'2" CAL
	CK	6	Cornus kousa	Kousa Dogwood	B & B	1.5'2" CAL
	JV	21	Juniperus virginiana	Eastern Red Cedar	4'-6" HT @ 10' OC	
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	FIELD2
	IG	16	Ilex glabra 'Shamrock'	Inkberry	3'-4" HT	
	IV	6	Ilex verticillata 'Sparkleberry'	Winterberry	4'/5" HT	
	JCK	6	Juniperus chinensis 'Keteleeri'	Keteleeri Chinese Juniper	5'/6" HT	
	KL	18	Kalmia latifolia	Mountain Laurel	3'-4" HT	
	RM	14	Rhododendron maximum	Rose Bay	4'/5" HT	

PLANTING NOTES:

- CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS BY NOTIFYING DIG-SAFE (811) AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION OR SITE PREPARATION AND ANY/OR ALL LOCAL UTILITY COMPANIES AS REQUIRED.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS BY THE CONTRACTOR. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR THIS PROJECT.
- CONTRACTOR TO PROVIDE A TWO (2) YEAR GUARANTEE FOR ALL PLANT MATERIALS. CONTRACTOR GUARANTEES THAT PLANTS WILL REMAIN HEALTHY FOR TWO (2) GROWING SEASONS. CONTRACTOR TO MAINTAIN ALL PLANTING AND LAWS UNTIL FINAL PROJECT ACCEPTANCE. GUARANTEE PERIOD TO COMMENCE AT FINAL ACCEPTANCE. ANY REPLACEMENT PLANTS SHALL BE OF THE SAME SIZE AND SPECIES AS SPECIFIED WITH NEW GUARANTEE COMMENCING ON THE DATE OF REPLACEMENT.
- ALL PLANT MATERIAL SHALL CONFORM, IN ALL RESPECTS, TO THE GUIDELINES OF "THE AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION, INC. ALL PLANTS SHALL BE NURSERY GROWN AND SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS.
- PLANT SUBSTITUTION SELECTION MUST BE APPROVED BY LANDSCAPE ARCHITECT AND/OR OWNER PRIOR TO INSTALLATION.
- ALL PLANTS TO BE PLANTED SO THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS TO THEIR ORIGINAL GRADE BEFORE DIGGING.
- CREATE SAUCER AROUND INDIVIDUAL PLANTS CAPABLE OF HOLDING WATER. ALL PLANTS TO BE FLOODED WITH CLEAN WATER TWICE WITHIN THE FIRST 24 HOURS OF PLANTING. ADDITIONAL WATERING SHALL BE MADE AS REQUIRED TO KEEP PLANTS FROM WILTING AND DRYING OUT UNTIL FINAL ACCEPTANCE.
- ALL PLANTS TO RECEIVE A MINIMUM OF THREE (3) INCHES OF AGED SHREDDED HARDWOOD BROWN MULCH AND SHALL COVER PLANTING BEDS AS SHOWN ON PLANS AND LANDSCAPE PARKING ISLANDS CONTAINING SHRUBS, GRASSES AND GROUNDCOVER.
- TRIM BROKEN AND DEAD BRANCHES FROM TREES AND SHRUBS AFTER PLANTING. NEVER CUT A LEADER.
- CONTRACTOR TO LOAM AND SEED ALL DISTURBED LANDSCAPE AREAS OUTSIDE OF THE PLANTING BEDS, WILDFLOWER SEED AREA AND ROADSIDE SEED MIX USING AN ENDOPHYTE ENHANCED MIX AT A RATE OF 5-7 LBS. PER 1,000 SF (AVAILABLE AT ALLENS SEED IN EXETER, RI OR OTHER APPROVED DOUGHT TOLERANT ENDOPHYTE ENHANCED SEED MIX) OR AS DIRECTED BY TOWN/OWNER UNLESS OTHERWISE NOTED. STORMWATER SYSTEMS TO BE SEED PER POND DETAILS.
- RECOMMENDED DATES FOR PLANTING ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.
- ALL LANDSCAPED AREAS SHALL BE KEPT FREE OF WEEDS AND DEBRIS. ALL VEGETATION WITHIN SAID AREAS SHALL BE MAINTAINED FREE OF PHYSICAL DAMAGE CAUSED BY CHEMICALS, INSECTS, DISEASES, LACK OF WATER OR OTHER CAUSES. DAMAGED PLANTS SHALL BE REPLACED WITH THE SAME OR SIMILAR VEGETATION ON AN ANNUAL BASIS.
- LOAM MOVED ON SITE TO BE STOCKPILED AND RETAINED AND TO BE USED AS REQUIRED FOR THE LANDSCAPE DESIGN. LOAM SHALL NOT BE MIXED WITH ANY UNSUITABLE MATERIALS OR SUBSOIL. EXCESS LOAM TO REMAIN ON THE OWNER'S PROPERTY AND ONLY REMOVED WITH THE OWNERS PERMISSION. NEW LOAM SHALL BE FRIABLE, FERTILE, MEDIUM TEXTURED SANDY LOAM THAT IS FREE OF TOXIC MATERIALS FOR HEALTHY PLANT GROWTH AND SURVIVAL. LOAM SHALL BE OF MATTER 1" OR GREATER IN DIAMETER AND WHEN TESTED SHALL HAVE A PH BETWEEN 5.5 AND 7.5. CONTRACTOR TO PROVIDE 6 INCHES OF GOOD QUALITY LOAM AND/OR REUSE EXISTING LOAM TO PROVIDE A MINIMUM 6 INCH DEPTH.
- IRRIGATION/ LIGHTING BY OTHERS.
- THIS PLAN IS FOR LANDSCAPE PLANTING ONLY.



DiPrete Engineering
 990 North Main Street, Suite 200, South Kingstown, RI 02881
 Tel: 401-949-1800 Fax: 401-464-6006 www.diprete-eng.com



THIS PLAN SET IS NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS APPROVED BY THE TOWN OF SOUTH KINGSTOWN. ANY CHANGES TO THIS PLAN SET MUST BE APPROVED BY THE TOWN OF SOUTH KINGSTOWN. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEASUREMENTS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA DESIGN. EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. LANDSCAPE ARCHITECT HAS CONDUCTED VISUAL SURVEY ONLY. SEE UTILITY NOTE ON SHEET 3.

NO.	DATE	DESCRIPTION	DESIGN BY: N.K.P.
1	08-24-2022	TOWN PRELIMINARY SUBMISSION	J.L.S.
2	09-22-2022	TOWN PRELIMINARY SUBMISSION	K.R.R.
3	10-20-2022	TOWN PRELIMINARY SUBMISSION	N.P.P.
4	11-15-2022	TOWN PRELIMINARY SUBMISSION	B.T.

LANDSCAPE PLAN
551 LIBERTY LANE
 ASSESSOR'S PLAT 21-3 LOT 21
 SOUTH KINGSTOWN, RHODE ISLAND
 PREPARED FOR:
SOUTH COUNTY POST & BEAM, INC.
 521 LIBERTY LANE, WEST KINGSTON, RHODE ISLAND
 TEL: 401-773-4448 FAX: 401-763-4494

Z:\DEPT\PROJECTS\21-3-008 LIBERTY LANE STORAGE\AUTOCAD DRAWINGS\21-3-008-LARC.DWG PLOTTED: 9/29/2022

TOWN OF SOUTH KINGSTOWN
SUBDIVISION & LAND DEVELOPMENT REGULATIONS
SECTION IV. SPECIAL REQUIREMENTS
G. LANDSCAPING - GENERAL STANDARDS & SPECIFICATIONS

1. PLANT MATERIALS - STANDARDS

PLANT MATERIALS SHALL CONFORM TO THE REQUIREMENTS DESCRIBED IN THE LATEST EDITION OF AMERICAN SELECTION FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSEYMEN. PLANT MATERIALS SHALL BE SELECTED FROM THE PUBLICATION ENTITLED SUSTAINABLE TREES AND SHRUBS FOR SOUTHERN NEW ENGLAND, UNIVERSITY OF RHODE ISLAND AND UNIVERSITY OF MASSACHUSETTS COOPERATIVE EXTENSION SYSTEMS, 2ND EDITION, 1995, OR LATEST AMENDMENT. ALL TIME OF PLANTING, PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED BELOW:

- A) STREET TREES AND SHADE TREES SHALL MEET THE REQUIREMENTS OF ARTICLE XIII, SECTION 13 OF THESE REGULATIONS.
- B) MINIMUM SIZE FOR SMALL EVERGREEN TREES OR LARGE SHRUBS SHALL BE SIX TO EIGHT (6-8) FEET IN HEIGHT.
- C) MINIMUM SIZE FOR LOW SHRUBS SHALL BE FOUR (4) FT. IN HEIGHT.
- D) SPACING OF SHRUBS AND OTHER PLANT MATERIALS WHICH ARE INTENDED TO PROVIDE A VISUAL AND/OR AUDIO SCREEN SHALL BE DETERMINED BY THE ANTICIPATED HEIGHT AND SPREAD OF THE PLANT AT MATURITY, BUT SHALL BE PLANTED IN STAGGERED ROWS SO AS TO ACHIEVE A DENSE APPEARANCE WITHIN ONE YEAR OF PLANTING. IN ADDITION TO PLANT MATERIALS, THE PLANNING BOARD MAY REQUIRE THE PLACEMENT OF A SIX-FOOT-HIGH OPAQUE FENCE OR OTHER BARRIER IF THE BOARD DETERMINES THAT THE INITIAL PLANTING WILL NOT ACHIEVE THE INTENDED SCREENING EFFECT WITHIN ONE YEAR OF PLANTING. ALL PLANTINGS SHALL BE MAINTAINED AND GUARANTEED A PERIOD OF ONE YEAR.

2. STREET LANDSCAPING

WHENEVER A PARKING OR LOADING AREA ADJOINS A PUBLIC STREET RIGHT-OF-WAY, OR THE RIGHT-OF-WAY OF A PRIVATE STREET WHICH IS OR MAY BE CUSTOMARILY USED BY THE PUBLIC AS ACCESS TO THE PARKING OR LOADING FACILITY, A LANDSCAPED STRIP OF LAND SHALL BE CONSTRUCTED OR MAINTAINED ALONG THE ENTIRE STREET FRONTAGE, EXCEPT FOR ANY NECESSARY DRIVEWAYS, AS PROVIDED HEREIN. THERE ARE FIVE (5) BASIC OPTIONS FOR A LANDSCAPED STRIP ALONG A STREET AS SHOWN IN THE ILLUSTRATIONS ON THE FOLLOWING PAGES. FOR THE PURPOSE OF THESE REGULATIONS, THE DESIGN AND LAYOUT OF SITE FEATURES SHOWN ARE INTENDED TO BE ILLUSTRATIVE DESIGN GUIDELINES. THE PLANNING BOARD MAY MODIFY THE SPECIFIC DESIGN DURING DEVELOPMENT PLAN REVIEW WHERE NECESSARY TO ACHIEVE THE PURPOSES AND GOALS OF THIS SECTION.

- A) A STRIP OF LAND OF MINIMUM 10 FOOT WIDTH BETWEEN THE RIGHT-OF-WAY AND THE PARKING/LOADING FACILITY PLANTED AS A PARTIAL LANDSCAPE SCREEN. (SEE FIGURE 1).
- B) AN EARTH BERRY OF MINIMUM 6 FOOT WIDTH THAT IS AT LEAST 2.5 FEET HIGHER THAN THE FINISHED ELEVATION OF THE PARKING LOT AND PLANTED AS A PARTIAL LANDSCAPE SCREEN. (SEE FIGURE 2).
- C) A STRIP OF LAND OF MINIMUM 6 FOOT WIDTH WITH A MINIMUM 3-FOOT GRADE DROP FROM THE RIGHT-OF-WAY TO THE PARKING LOT AND PLANTED AS A PARTIAL LANDSCAPE SCREEN. (SEE FIGURE 3).
- D) A STRIP OF LAND OF MINIMUM 4 FOOT WIDTH TO PROVIDE A STONE WALL, BRICK OR OTHER MASONRY WALL HAVING A MINIMUM HEIGHT OF 3 FEET AND PLANTED AS A PARTIAL LANDSCAPE SCREEN. (SEE FIGURE 4).
- E) A WOODED BUFFER STRIP OF LAND OF MINIMUM 25 FOOT WIDTH OF EXISTING WOOLANDS OR OTHER NATURAL FEATURES SUCH AS WETLANDS, HILLSIDES, OR ROCK OUTCROPS SUFFICIENT TO SCREEN ADJACENT RIGHTS-OF-WAY. (SEE FIGURE 5).

PLANTING IS PROPOSED AT THE SITE ENTRANCES ALONG LIBERTY LANE AND FAIRGROUNDS ROAD.

3. PERIMETER LANDSCAPING - PARKING LOTS AND LOADING FACILITIES

THE PERIMETER OF THE PARKING LOT AND LOADING FACILITY SHALL BE SURROUNDED BY A LANDSCAPED STRIP AS ILLUSTRATED IN FIGURE 7. THE WIDTH OF THE PERIMETER LANDSCAPING STRIP SHALL BE AS FOLLOWS:
NO LESS THAN TEN (10) FEET IN WIDTH WHERE THE PARKING AREA CONTAINS FIVE (5) SPACES OR MORE OR WHICH EXCEEDS 2500 SQ. FT. OF PAVED AREA, AND;
NO LESS THAN FIVE (5) FEET IN WIDTH WHERE THE PARKING AREA CONTAINS LESS THAN FIVE (5) SPACES OR WHICH HAS LESS THAN 2,500 SQ. FT. OF PAVED PARKING AREA.

LANDSCAPING OF THE PERIMETER OF A PARKING LOT SHALL INCLUDE AT LEAST ONE TREE PLUS THREE (3) LOW SHRUBS OR GROUND COVER PLANTS FOR EVERY THIRTY-FIVE (35) LINEAR FEET OF PERIMETER.

PLANTING IS PROPOSED AROUND THE PERIMETER OF THE SITE WHERE FEASIBLE.

4. INTERIOR LANDSCAPING

THE INTERIOR AREAS OF PARKING LOTS (EXCLUSIVE OF LOADING AREAS) SHALL ALSO BE LANDSCAPED. THE MINIMUM AMOUNT OF INTERIOR PARKING LOT LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING TABLE:

TOTAL AREA OF PARKING LOT	MINIMUM PERCENT OF THE TOTAL PARKING LOT AREA THAT MUST BE AN INTERIOR LANDSCAPING AREA
< 2,500 SQ. FT.	NO REQUIREMENT
2,500 TO 20,000 SQ. FT.	5%
20,001 TO 50,000 SQ. FT.	8%
50,000 SQ. FT.	10%

SUCH INTERIOR LANDSCAPING SHALL BE PROVIDED AS A COMBINATION OF ANY OF THE WAYS PROVIDED BELOW. REFER TO FIGURE 8.

- A) 9-FOOT WIDE X 18' INTERMEDIATE ISLANDS: AT LEAST 1 TREE, PLUS AT LEAST 3 LOW SHRUBS OR GROUND COVER PLANTS AND/OR TURF GRASS.
- B) 18' X 18' CORNER ISLANDS: AT LEAST 1 TREE, PLUS AT LEAST 6 LOW SHRUBS OR GROUND COVER PLANTS AND/OR TURF GRASS.
- C) 9-FOOT WIDE CENTER AND DRIVE ISLANDS: AT LEAST 3 TREES PER 100 LINEAR FEET, PLUS AT LEAST 6 LOW SHRUBS OR GROUND COVER PLANTS PER 100 LINEAR FEET AND/OR TURF GRASS.
- D) 9-FOOT WIDE X 18' HALF END ISLANDS: AT LEAST 1 TREE, PLUS AT LEAST 3 LOW SHRUBS OR GROUND COVER PLANTS AND/OR TURF GRASS.
- E) 9-FOOT WIDE X 36' FULL END ISLANDS: AT LEAST 2 TREES, PLUS AT LEAST 6 LOW SHRUBS OR GROUND COVER PLANTS AND/OR TURF GRASS.

TURF GRASS:

- F) COMMON LANDSCAPED AREAS USED TO DIRECT VEHICULAR OR PEDESTRIAN TRAFFIC, TO DELINEATE PARKING OR TO PRESERVE EXISTING NATURAL FEATURES: AT LEAST 1 TREE PER 500 SQ. FT. AREA PLUS AT LEAST 6 LOW SHRUBS OR GROUND COVER PLANTS AND/OR TURF GRASS.
- LOW SHRUBS OR TURF MAY BE SUBSTITUTED FOR TREES WITHIN THE INTERIOR OF PARKING AREAS WHERE EXISTING TREE COVER IS PRESENT OR IS BEING PROVIDED AS PART OF REQUIRED PERIMETER OR STREET RIGHT-OF-WAY LANDSCAPING OR IS ADJACENT TO THE PARKING AREA AND IS OF SUFFICIENT HEIGHT AND DENSITY TO ACHIEVE THE GOALS AND PURPOSES OF THIS SECTION. INTERIOR LANDSCAPED AREAS SHALL BE DISTRIBUTED THROUGHOUT THE PARKING LOT AS MUCH AS POSSIBLE IN ORDER TO AVOID LARGE EXPANSES OF PAVEMENT, OR AS DETERMINED BY THE PLANNING BOARD AT THE TIME OF DEVELOPMENT PLAN REVIEW. LANDSCAPED STRIPS ALONG THE STREET OR PERIMETER LANDSCAPING SHALL NOT BE COUNTED TO MEET THESE INTERIOR LANDSCAPING REQUIREMENTS.

PARKING AREA IS 10,368 SF THEREFORE 5% INTERIOR LANDSCAPING IS REQUIRED.

INTERIOR LANDSCAPING REQUIRED = 10,368 x 0.05 = 518.4 SF
INTERIOR LANDSCAPING PROVIDED = 1,280 SF
1,280 SF / 10,368 SF = 12.3% (0.123) > 5% INTERIOR PARKING REQUIRED

INTERIOR LANDSCAPING CONSIST OF TREES AND LAWN

5.

BUILDING LANDSCAPING
PAVEMENT FOR PARKING AREAS, EXCLUSIVE OF LOADING AREAS AND DRIVEWAYS, SHALL NOT DIRECTLY ABUT THE WALL OF ANY PRINCIPAL BUILDING FACING ANY PUBLIC STREET WHICH PROVIDES LOT FRONTAGE. THERE SHALL BE A LANDSCAPED AREA BETWEEN THE PARKING SURFACE AND BUILDING WALL OF AT LEAST THREE (3) FEET IN WIDTH. LANDSCAPING SHALL BE PROVIDED IN SAID AREA TO INCLUDE SHRUBS, ORNAMENTAL TREES, GROUND COVER PLANTS OR TURF GRASS. THIS REQUIREMENT SHALL NOT BE CONSTRUED SO AS TO PROHIBIT THE CONSTRUCTION OF PERMITTED DECKS, PORCHES, SIGNS, LIGHTING, WALKS OR RAISED PLANTERS ALONG SAID BUILDING WALL. PROVIDED THAT LANDSCAPING AND PLANT MATERIALS ARE INCORPORATED INTO THE DESIGN. IN THE CASE OF CORNER LOTS, EACH BUILDING WALL FACING ADJACENT STREETS SHALL BE SO LANDSCAPED. THE REQUIREMENTS FOR BUILDING LANDSCAPING IN THIS SUBSECTION SHALL NOT APPLY TO CD ZONING DISTRICTS.

BUILDING LANDSCAPING BY OWNER.

6.

LOCATION OF LOADING SPACES
OFF-STREET LOADING SPACES SHALL BE LOCATED UPON THE LOT IN SUCH A MANNER SO AS TO BE HIDDEN FROM DIRECT VIEW FROM ADJACENT PUBLIC OR PRIVATE STREETS. IN COMMERCIAL AND MANUFACTURING ZONING DISTRICTS, AND IN ANY SPECIAL MANAGEMENT DISTRICT, LOADING FACILITIES SHALL NOT BE LOCATED IN THE AREA BETWEEN THE PRINCIPAL BUILDING AND THE STREET LINE. LOADING FACILITIES SHALL BE LOCATED TOWARD THE REAR OF THE BUILDING IN SUCH A MANNER AS TO BE EFFECTIVELY SCREENED FROM ADJACENT STREETS. IF CONDITIONS DO NOT PERMIT SUCH A LOCATION, LOADING SPACES MAY BE LOCATED ON THE SIDE OF THE BUILDING PROVIDED THAT, TO THE MAXIMUM EXTENT POSSIBLE, THEY ARE SCREENED FROM ADJACENT STREETS OR ABUTTING RESIDENTIAL USES OR ZONING DISTRICTS. MINIMUM SCREENING FOR LOADING SPACES IN SIDE YARDS SHALL BE AS PROVIDED IN FIGURE 6 FOR ANY OF THE OPTIONS FOR A FULL LANDSCAPE SCREEN.

SITE DOES NOT ABUT ANY RESIDENTIAL USES OR ZONING DISTRICTS.

7. TRANSITION YARD LANDSCAPING STANDARDS

TRANSITION YARD LANDSCAPING IS REQUIRED WHENEVER A BUFFER BETWEEN ADJACENT INCOMPATIBLE LAND USES IS NECESSARY IN ORDER TO PHYSICALLY SEPARATE AND VISUALLY SCREEN SUCH ADJACENT LAND USES. TRANSITION YARDS ARE REQUIRED IN THE FOLLOWING SITUATIONS AND ARE REQUIRED TO PROVIDE THE FOLLOWING LANDSCAPING AND BUFFERING:

- A) INDUSTRIAL USES OR ZONING DISTRICTS ABUTTING RESIDENTIAL ZONING DISTRICTS - IN ANY ZONING DISTRICT, A LOT WHICH CONTAINS ANY INDUSTRIAL USE, AND A LOT IN ANY INDUSTRIAL ZONING DISTRICT WHICH ABUTS ANY RESIDENTIAL ZONING DISTRICT SHALL PROVIDE A SIDE YARD AND A REAR YARD AT LEAST EQUAL TO TWICE THE SIDE OR REAR YARD REQUIREMENT OF THE ADJOINING RESIDENTIAL DISTRICT. WHERE MORE THAN ONE RESIDENTIAL DISTRICT ABUTS, THE DISTRICT IMPOSING THE HIGHER STANDARD SHALL APPLY. SIDE AND REAR YARDS IN THE INDUSTRIAL DISTRICT SHALL BE BUFFERED IN ANY OF THE FOLLOWING WAYS:
 - 50-FOOT WOODED BUFFER, OR
 - 20-FOOT PARTIAL LANDSCAPE SCREEN, OR
 - 10-FOOT FULL LANDSCAPE SCREEN.
- B) COMMERCIAL ZONING DISTRICTS ABUTTING RESIDENTIAL ZONING DISTRICTS - LOTS IN ANY COMMERCIAL ZONING DISTRICT WHICH ABUT ANY RESIDENTIAL ZONING DISTRICT SHALL PROVIDE A SIDE YARD AND A REAR YARD AT LEAST EQUAL TO THE SIDE OR REAR YARD REQUIREMENT OF THE ADJOINING RESIDENTIAL DISTRICT, EXCEPT THAT CORNER SIDE YARD REQUIREMENTS FOR SUCH LOTS MAY BE PROVIDED AS REQUIRED IN THE COMMERCIAL DISTRICT, WHERE MORE THAN ONE RESIDENTIAL DISTRICT ABUTS, THE DISTRICT IMPOSING THE HIGHER STANDARD SHALL APPLY. SIDE AND REAR YARDS IN THE COMMERCIAL DISTRICT SHALL BE BUFFERED IN ANY OF THE FOLLOWING WAYS:
 - 50-FOOT WOODED BUFFER, OR
 - 20-FOOT PARTIAL LANDSCAPE SCREEN, OR
 - 10-FOOT FULL LANDSCAPE SCREEN.

SITE DOES NOT ABUT ANY RESIDENTIAL USES OR ZONING DISTRICTS.

8.

LANDSCAPED STREET YARDS
WITHIN ANY ZONING DISTRICT WITHIN THE KINGSTOWN ROAD SPECIAL MANAGEMENT DISTRICT, ANY LOT HAVING DIRECT FRONTAGE ON KINGSTOWN ROAD, SAUGATUCKET ROAD OR CURTIS CORNER ROAD SHALL PROVIDE LANDSCAPED STREET YARDS AS PROVIDED IN SECTION 60A OF THE ZONING ORDINANCE. THE DELINEATION OF THE LANDSCAPED STREET YARD IS ILLUSTRATED BY FIGURE 9.

NOT APPLICABLE.

9. ALTERNATIVE METHODS OF COMPLIANCE

WHERE LANDSCAPING REQUIRED BY THIS SECTION IS NOT PRACTICAL FOR REASONS OF AVAILABLE LAND AREA, CONFLICT WITH OVERHEAD WIRES OR OTHER PHYSICAL CONDITIONS, THE PLANNING BOARD MAY PERMIT ALTERNATIVE LANDSCAPING OR MAY WAIVE, REDUCE OR OTHERWISE MODIFY THE REQUIREMENTS FOR SUCH LANDSCAPING. IN APPLYING FOR SUCH WAIVER THE APPLICANT SHALL PROPOSE ALTERNATIVE METHODS OF PROVIDING LANDSCAPING, SCREENING OR BUFFERING IN ORDER TO MEET THE GOALS AND PURPOSES OF THIS SECTION.

NEW PLANTING IS PROPOSED TO FULFILL LANDSCAPE REQUIREMENTS WHERE FEASIBLE.

SECTION XIII. DESIGN & PUBLIC IMPROVEMENT STANDARDS

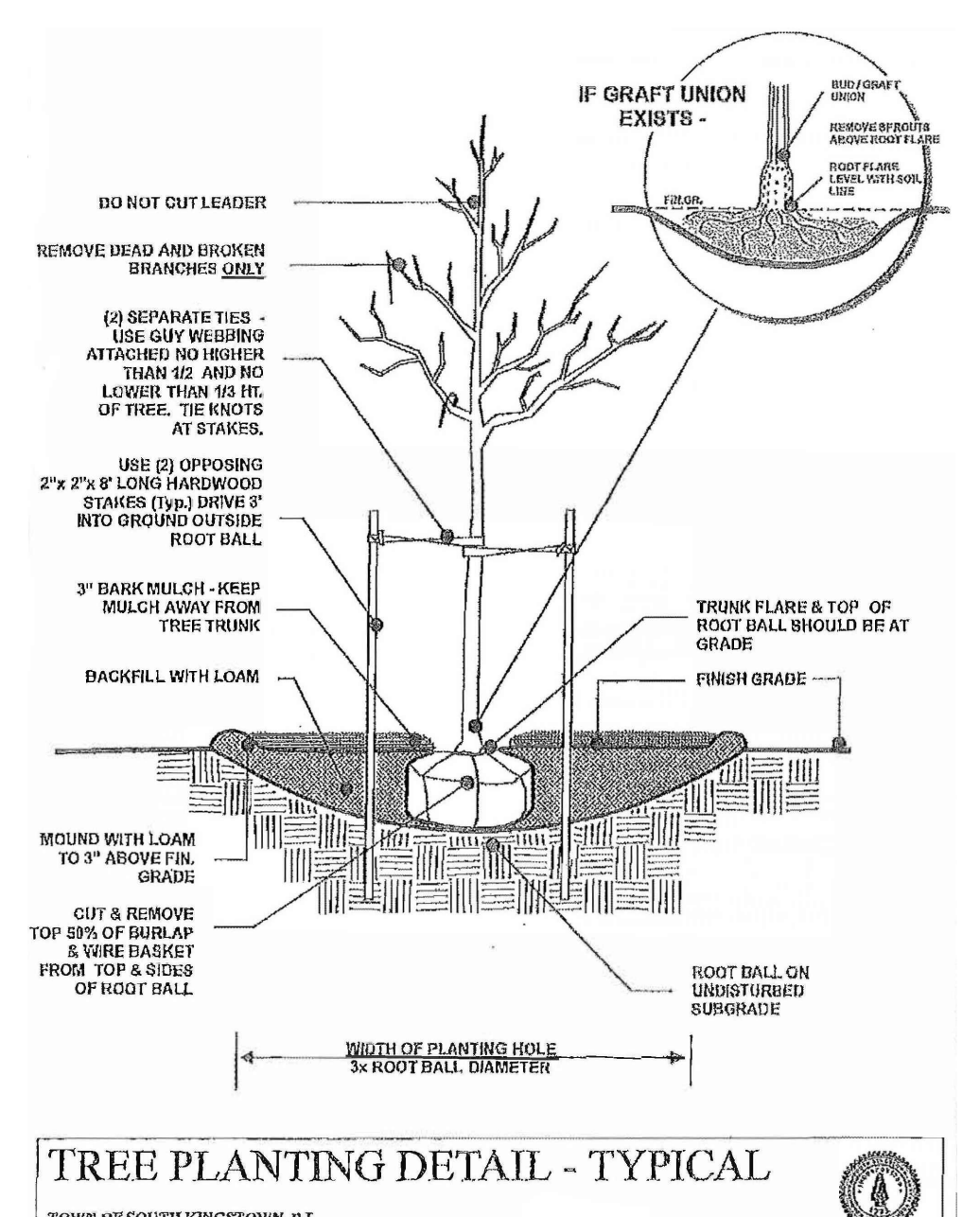
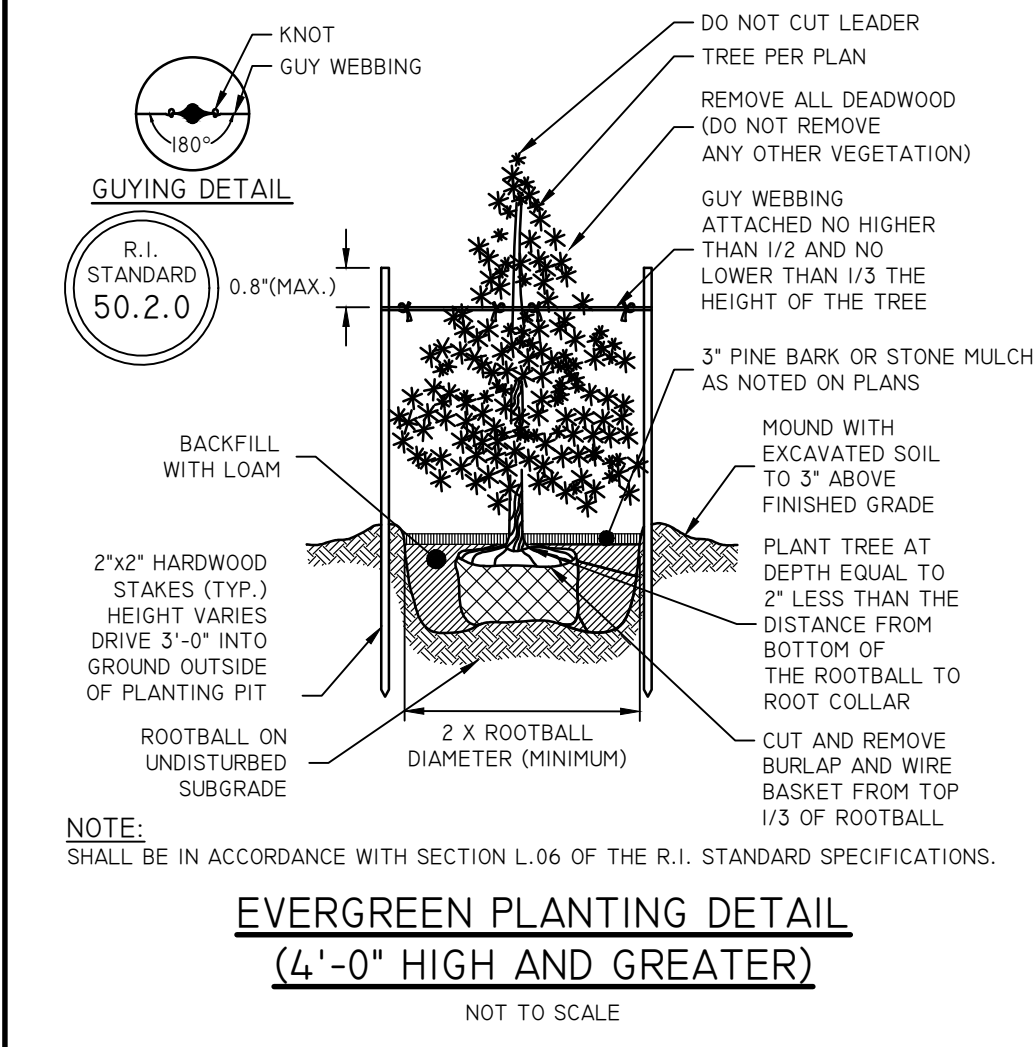
B. STREET DESIGN STANDARDS

13. STREET TREES

WHERE NATURAL TREE GROWTH IS DETERMINED BY THE PLANNING BOARD TO BE INSUFFICIENT, THE PLANNING BOARD SHALL REQUIRE THE SUBDIVIDER TO PLANT STREET TREES APPROPRIATE FOR THE TERRAIN, SOIL AND CLIMATIC CONDITIONS ENCOUNTERED IN THE SUBDIVISION, AND IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

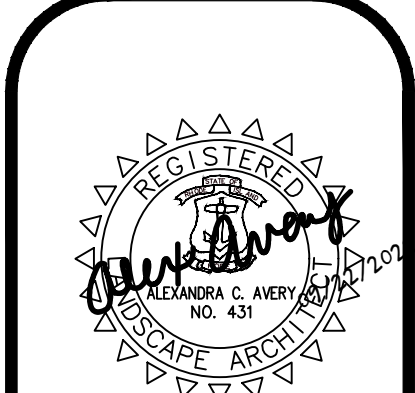
- A. LOCATION - STREET TREES SHALL BE LOCATED AS SHOWN IN FIGURE 3 OR ON THE PORTION OF BUILDING LOTS WITHIN 10 FEET OF THE STREET RIGHT-OF-WAY LINE. IF ASSURANCE CAN BE GIVEN BY THE SUBDIVIDER THAT THE TREES WILL NOT BE DISTURBED BY BUILDING ACTIVITIES, IN EITHER CASE, NO STREET TREES SHALL BE LOCATED SO AS TO INTERFERE WITH OVERHEAD OR UNDERGROUND UTILITY LINES.
- B. TREES SHALL BE SPACED APPROXIMATELY 30 FEET TO 50 FEET ON CENTER, DEPENDING ON ANTICIPATED ULTIMATE SIZE.
- C. TYPE - THE SPECIES SELECTED ARE TO BE SUITABLE FOR ZONE 6 HARDINESS AND SHALL BE SELECTED FROM THE PUBLICATION ENTITLED 'SUSTAINABLE TREES AND SHRUBS FOR SOUTHERN NEW ENGLAND,' (UNIVERSITY OF RHODE ISLAND AND UNIVERSITY OF MASSACHUSETTS COOPERATIVE EXTENSION SYSTEMS, 1995) AND SHALL BE SELECTED FOR SUITABILITY FOR THE LOCATION. WHERE MULTIPLE TREES ARE TO BE PLANTED, MONOCULTURE PLANTING SHOULD BE AVOIDED.
- D. SIZE - SPECIES SHALL BE 1 1/2 TO 2 INCHES CALIPER, MEASURED ONE-FOOT FROM GROUND LEVEL IN PLACE, AND 6 FEEL L0 8 FEET OF HEIGHT IN PLACE.
- E. QUALITY - STREET TREES SHALL BE BALLED AND BURLAPPED WITH GOOD ROOT DEVELOPMENT AND BRANCHING CHARACTERISTICS. TREES SHALL HAVE A WELL-DEFINED CENTRAL LEADER. ALL TREES SHALL BE OF LICENSED NURSERY STOCK. NATIVE SPECIES SHOULD BE USED WHENEVER POSSIBLE. DEAD AND BROKEN BRANCHES SHALL BE REMOVED. NO MORE THAN 25% OF BRANCHES SHALL BE REMOVED AT TIME OF PLANTING.
- F. PLANTING - THE SUBDIVIDER SHALL ENGAGE A RHODE ISLAND LICENSED ARBORIST TO BE ON SITE DURING PLANTING TO ENSURE THAT THE FOLLOWING STANDARDS AND PROCEDURES ARE OBSERVED DURING PLANTING:
 - THE TOP 50% OF BURLAP AND WIRE BASKET SHALL BE REMOVED.
 - ENOUGH SOIL FROM THE TOP OF THE ROOT BALL SHALL BE REMOVED TO EXPOSE TRUNK/ROOT FLARE.
 - TORN OR RAGGED ROOTS SHALL BE PRUNED TO MAKE A CLEAN TERMINATION.
 - TREES SHALL BE PLANTED IN BOWL-SHAPED HOLE THREE (3) LINES THE WIDTH OF THE ROOT BALL.
 - THE SOIL AL THE BOTTOM OF THE HOLE SHALL BE COMPACTED TO RESIST SETTLING OF THE TREE.
 - SOIL THAT IS NUTRIENT DEFICIENT SHALL BE AMENDED BY THE ADDITION OF COMPOST PRIOR TO BACKFILLING THE HOLE.
 - TREES SHALL BE PLANTED AT A DEPTH THAT ALLOWS FULL EXPOSURE OF TRUNK/ROOT FLARE.
 - TREES SHALL BE STAKED AND GUYED, USING ARBOR TAPE THAT IS NOT PULLED TAUT.
 - SOIL FROM THE PLANTING HOLE SHALL BE BUILT UP ALONG THE PERIMETER, TO ACT AS A DAM TO RETAIN WATER.
 - TREES SHALL BE MULCHED WITH 2 (TWO) TO 3 (THREE) INCHES OF MULCH, KEEPING MULCH 3 (THREE) INCHES AWAY FROM TRUNK.

STREET TREES, SHRUBS AND LOAM AND SEED IS PROPOSED ALONG STREET RIGHT-OF-WAYS /ENTANCES DRIVEWAYS. THE SPECIES SELECTED ARE SUITABLE FOR ZONE 6 HARDINESS AND ARE SELECTED FROM THE PUBLICATION ENTITLED 'SUSTAINABLE TREES AND SHRUBS FOR SOUTHERN NEW ENGLAND,' (UNIVERSITY OF RHODE ISLAND AND UNIVERSITY OF MASSACHUSETTS COOPERATIVE EXTENSION SYSTEMS, 1995). TREE SPECIES PROPOSED ARE 1 1/2 TO 2 INCHES CALIPER.



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NO.	DATE	DESCRIPTION	BY	CHKD.
1	08-26-2022	TOWN TREE TRIMMING SUBMISSION	N.K.P.	J.L.S.
2	09-22-2022	TOWN TREE TRIMMING SUBMISSION	N.K.P.	J.L.S.

DESIGN BY: N.K.P.

LANDSCAPE NOTES & DETAILS

551 LIBERTY LANE
ASSESSOR'S PLAT 21-3 LOT 21
SOUTH KINGSTOWN, RHODE ISLAND

PREPARED FOR:
SOUTH COUNTY POST & BEAM, INC.
521 LIBERTY LANE, WEST KINGSTON, RHODE ISLAND
TEL: 401-773-4444 FAX: 401-773-4494

DESIGNED BY: N.K.P.

SHEET **13** OF 13