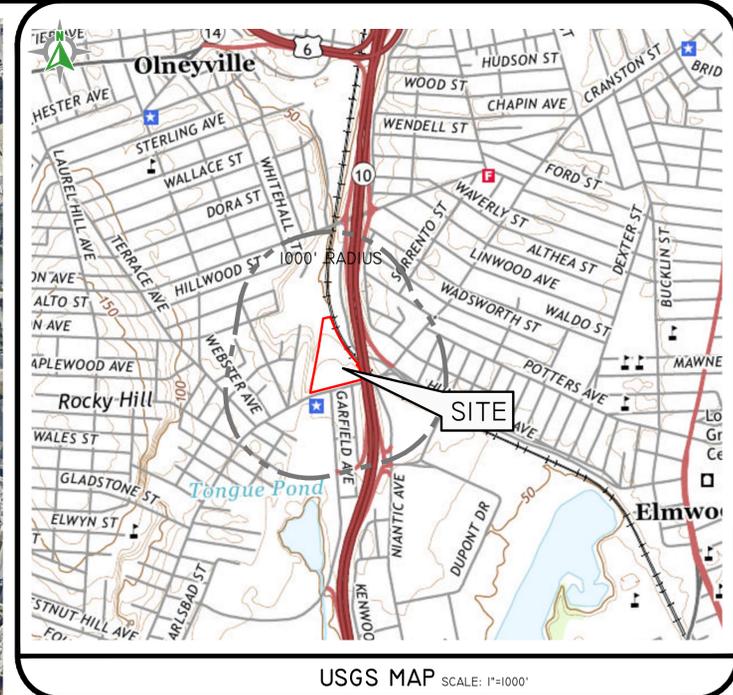
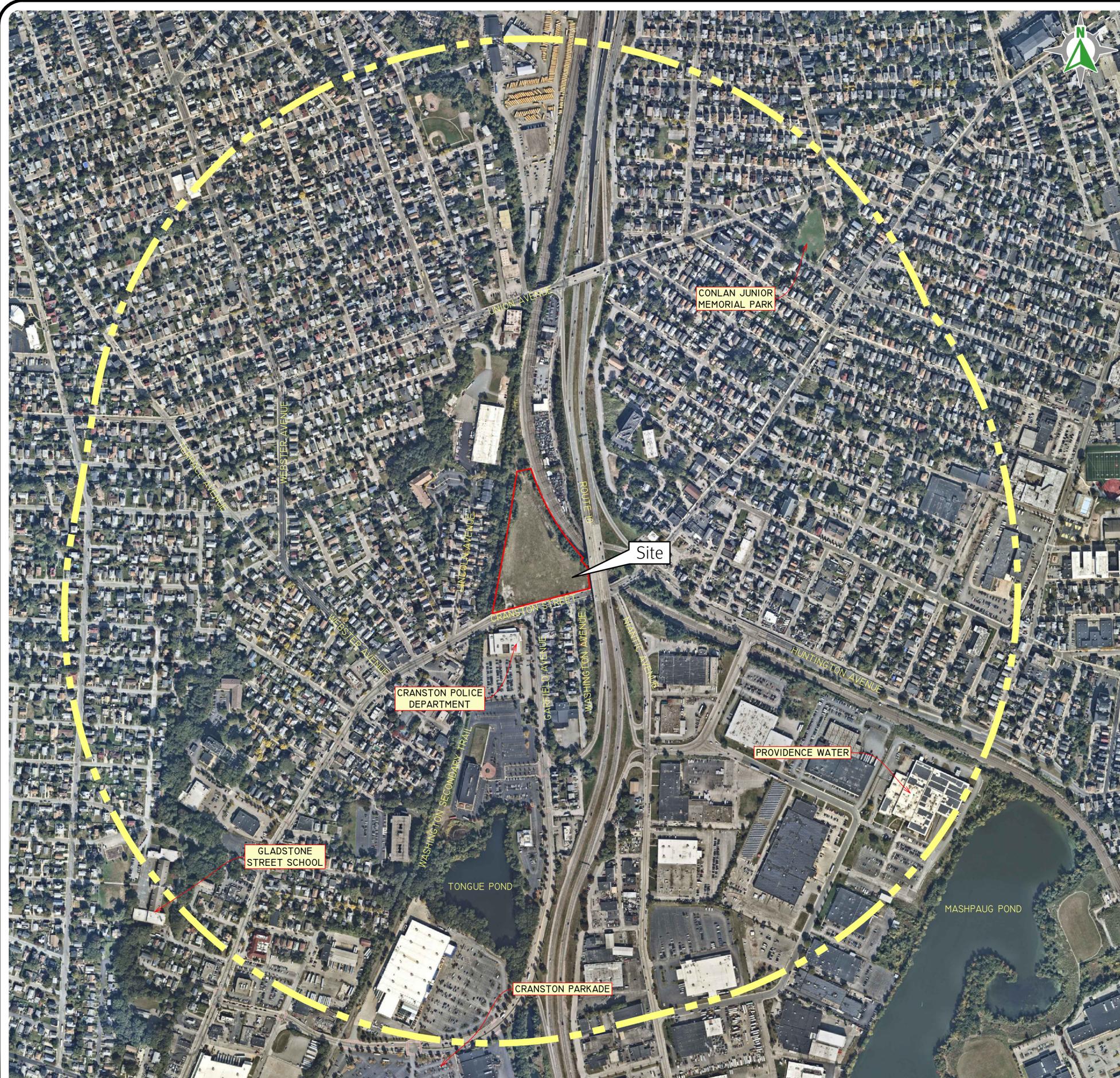




Z:\BENJAMIN\PROJECTS\1928-001 CRANSTON STREET 777\AUTOCAD DRAWINGS\1928-001-CV-AR.DWG PLOTTED: 5/24/2022



USGS MAP SCALE: 1"=1000'

PHOTO OBTAINED FROM NEARMAP.  
DATE OF PHOTOGRAPHY 10/12/2021.  
SCALE: 1"=300'



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**Boston • Providence • Newport**

**DANA R. NISSET**  
No. 11876  
REGISTERED PROFESSIONAL ENGINEER CIVIL

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED FOR CONSTRUCTION AND STAMPED BY THE REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.  
DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE ENGINEERING PROJECT. DIPRETE ENGINEERING, DIPRETE ENGINEERING DOES NOT WARRANT PLANS BY ANY OTHER PARTY.  
THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND UTILITIES INFORMATION FROM THE RELEVANT AGENCIES.  
EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED DUE TO LOCATIONS OF EXISTING UTILITIES.

NO.	DATE	DESCRIPTION	DESIGN BY:
06/27/2022		DEVELOPMENT PLAN REVIEW SUBMISSION	NJK
06/27/2022		ASSESSOR'S PLAN SUBMISSION	B.T.

**AERIAL & HALF MILE RADIUS**  
**TROLLEY BARN PLAZA**  
ASSESSOR'S PLAT 7 LOT 1  
CRANSTON, RHODE ISLAND  
PREPARED FOR:  
**TROLLEY BARN ASSOCIATES LLC**  
C/O FIRST HARTFORD REALTY CORP.  
P.O. BOX 1270, MANCHESTER, CT 06045

GENERAL NOTES:

- 1. THE SITE IS LOCATED ON THE CITY OF CRANSTON ASSESSOR'S PLAT 7 LOT 1.
2. THE SITE IS APPROXIMATELY 6.61 ACRES AND IS ZONED C5\*.
\*PER ZONE CHANGE AMENDMENT APPROVED ON 1/27/2022
3. THE OWNER OF AP 7 LOT 1 IS:
BREWERY PARKADE INC 50%
CHARLES MONTAGUE REALTY LLC 35%
CHARLOTTE MONTAGUE REALTY LLC 15%
100 WESTMINSTER ST
PROVIDENCE, RI 02903

- 4. THIS SITE IS LOCATED IN FEMA FLOOD ZONE X (UNSHADED). REFERENCE FEMA FLOOD INSURANCE RATE MAP 44070302H, MAP REVISION OCTOBER 2, 2015. (FLOOD PLAIN DESCRIPTIONS SHOWN BELOW).
• ZONE X (UNSHADED) - THIS SITE IS LOCATED IN FEMA FLOOD ZONE X, WHICH ARE AREAS WHERE THERE IS MINIMAL FLOODING.

- 5. THE BOUNDARY LINES AS SHOWN ON THE ENGINEERING PLAN SET DEPICTS THE RESULTS OF A CLASS I BOUNDARY RETRACEMENT SURVEY AS PERFORMED BY DIPRETE ENGINEERING ASSOCIATES, INC. THIS PLAN IS NOT TO BE CONSTRUED AS A CLASS I BOUNDARY RETRACEMENT SURVEY PLAN AND IS NOT SUITABLE FOR RECORDING AS A CLASS I STANDARD SURVEY PLAN.
6. OFF-SITE CONTOUR DATA SHOWN ON THIS PLAN CONFORMS TO A 1-4 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.

- 7. ALL WORK PERFORMED HEREIN IS TO BE COVERED BY CURRENT EDITIONS OF THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CITY OF CRANSTON STANDARD SPECIFICATIONS AND DETAILS AND SPECIFICATIONS INCLUDED AS PART OF THE DRAWINGS. IN AREAS OF CONFLICT BETWEEN THE DIFFERENT SPECIFICATIONS, THE DESIGN PLANS AND PROJECT SPECIFICATIONS WILL TAKE PRECEDENCE OVER THE GENERAL SPECIFICATIONS AND THE DESIGN ENGINEER WILL INTERPRET THE CONSTRUCTION REQUIREMENTS. THE CONTRACTOR IS ADVISED TO SUBMIT A REQUEST FOR INFORMATION (RFI) FOR ANY AREAS OF CONFLICT BEFORE COMMITTING TO CONSTRUCTION.

- 8. THE SITE IS NOT WITHIN A:
GROUNDWATER PROTECTION AREA (RIDEM)
NATURAL HERITAGE AREA (RIDEM)
SPECIAL FLOOD HAZARD DISTRICT (TOWN)

- 9. THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE PROJECT PLANS AND THE CONTRACTOR/OWNER MUST MAINTAIN THESE DOCUMENTS AS PART OF A FULL PLAN SET:
• SOIL EROSION AND SEDIMENT CONTROL PLAN (SESC). THE SESC CONTAINS THE FOLLOWING:
•• EROSION CONTROL MEASURES
•• SHORT TERM MAINTENANCE
•• ESTABLISHMENT OF VEGETATIVE COVER
•• CONSTRUCTION POLLUTION PREVENTION
•• SEQUENCE OF CONSTRUCTION
•• STORMWATER OPERATION AND MAINTENANCE PLAN (OBM). THE OBM CONTAINS:
•• LONG TERM MAINTENANCE
•• LONG TERM POLLUTION PREVENTION

- 10. THIS PLAN SET REFERENCES RIDOT STANDARD DETAILS (DESIGNATED AS RIDOT STD X.X.X), RIDOT STANDARD DETAILS ARE AVAILABLE FROM RIDOT AND ONLINE AT:
HTTP://WWW.DOT.RI.GOV/BUSINESS/CONTRACTORS/CONSULTANTS.PHP.

- 11. THE SITE IS TO BE SERVICED BY PUBLIC WATER AND PUBLIC SEWER

- 12. THE DRAINAGE SYSTEM IS DESIGNED TO MEET THE CITY OF CRANSTON'S SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WITH THE USE OF CATCH BASINS, CULVERTS, UNDERGROUND DRAINAGE BASINS, AND DRAINAGE POND. THE STORMWATER MANAGEMENT SYSTEM MEETS THE RIDEM BEST MANAGEMENT PRACTICES.

- 13. THE SITE IS PROPOSED TO BE BUILT IN ONE PHASE.

- 14. SOIL EVALUATIONS WERE COMPLETED BY DIPRETE ENGINEERING ON MAY 3, 2021.

- 15. ANY PROPRIETARY PRODUCTS REFERENCED IN THIS PLAN SET ARE REPRESENTATIVE OF THE MINIMUM DESIGN REQUIREMENTS FOR THE PURPOSE THEY PROPOSE TO SERVE. ALTERNATIVES TO ANY PROPRIETARY PRODUCT MAY BE SUBMITTED TO THE ENGINEER OF RECORD FOR CONSIDERATION, WHICH MUST BE ACCOMPANIED BY APPROPRIATE SPECIFICATION SHEETS/DESIGN CALCULATIONS THAT DEMONSTRATE THE ALTERNATIVE(S) MEET THE MINIMUM DESIGN PARAMETERS OF THE PRODUCT SHOWN ON THE PLANS. NO ALTERNATIVES MAY BE USED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.

- 16. THIS PLAN SET MAY REFERENCE AND/OR INCLUDE REPRODUCTIONS OF PROPRIETARY PRODUCTS/ DETAILS BY OTHERS, AND/OR THEIR ASSOCIATED SPECIFICATIONS. ANY REFERENCE OR REPRODUCED PROPRIETARY PRODUCT OR DETAIL BY OTHERS THAT IS SHOWN ON DIPRETE PLANS IS STRICTLY FOR INFORMATION/SPECIFICATION PURPOSES ONLY. DIPRETE ENGINEERING DOES NOT WARRANT ANY PROPRIETARY PRODUCTS, DETAILS BY OTHERS OR THEIR RESPECTIVE DESIGNS. IF A DIPRETE ENGINEERING PLAN INCLUDES A PROPRIETARY PRODUCT DETAIL BY OTHERS (EITHER EXPLICITLY OR IMPLIED) AND IS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND/OR REGISTERED LANDSCAPE ARCHITECT OF DIPRETE ENGINEERING, SAID STAMP DOES NOT EXTEND TO ANY PORTION OF THE PROPRIETARY PRODUCT/DETAIL BY OTHERS OR ITS DESIGN.

SOIL INFORMATION:

(REFERENCE: SOIL MAPPING OBTAINED FROM RIGIS. SOIL GEOGRAPHIC DATA DEVELOPED BY THE RHODE ISLAND SOIL SURVEY PROGRAM IN PARTNERSHIP WITH THE NATIONAL COOPERATIVE SOIL SURVEY)

SOIL NAME DESCRIPTION

- MU MERRIMAC-URBAN LAND COMPLEX
UD URBERTHENS-URBAN LAND COMPLEX
UR URBAN LAND

AMERICANS WITH DISABILITIES ACT (ADA) NOTES:

- 1. ALL IMPROVEMENTS MUST COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) BY THE US DEPARTMENT OF JUSTICE (CURRENT EDITION).
2. MAXIMUM RUNNING SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 4.5% (0.045 FT/FT), AND MAXIMUM CROSS SLOPE ACROSS ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 1.5% (0.015 FT/FT).
3. ADA PARKING SPACES AND LOADING AREAS: THE STEEPEST SLOPE OF THE SPACE, MEASURED IN ANY DIRECTION (INCLUDING DIAGONALLY), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.
4. A MINIMUM 5'x5' LANDING MUST BE PROVIDED IN FRONT OF ALL PUBLICLY ACCESSIBLE BUILDING ENTRANCES/ EGRESSES. THE STEEPEST SLOPE OF THE LANDING, MEASURED IN ANY DIRECTION (INCLUDING DIAGONAL), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.
5. FOR EVERY 6' (OR FRACTION OF 6') ADA PARKING SPACES, AT LEAST ONE MUST BE A VAN PARKING SPACE. FOR EXAMPLE, IF 7 ADA PARKING SPACES ARE REQUIRED, A MINIMUM OF 2 MUST BE VAN SPACES.
6. NOTWITHSTANDING THE NOTES LISTED ABOVE, TOWN OR STATE-SPECIFIC STANDARDS MAY BE MORE STRINGENT AND OVERRULE. IT IS THE RESPONSIBILITY OF THE USER OF THIS PLAN SET TO MAINTAIN COMPLIANCE WITH THE CONTROLLING STANDARD.
7. NOTE THAT THE GRADING/PLAN VIEWS AND DETAILS CONTAINED WITHIN THIS PLAN SET MAY NOT SHOW THE DETAIL NECESSARY TO CONSTRUCT WALKWAYS, RAMPS AND SPACES TO COMPLY WITH THE ABOVE REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE LEVEL OF CARE NECESSARY TO BE CERTAIN THAT THE CONSTRUCTED PRODUCT MEETS ADA/CONTROLLING STANDARDS. IN THE EVENT OF ANY NONCOMPLIANCE, THE CONTRACTOR MUST NOTIFY THE DESIGNER BEFORE CONSTRUCTION FOR ADVICE IN FINDING A RESOLUTION.

ZONE CHANGE & COMPREHENSIVE PLAN AMENDMENT:

- 1. A ZONE CHANGE AMENDMENT WAS APPROVED BY CRANSTON CITY COUNCIL ON 1/27/2022 TO CHANGE THE ZONING OF THE PROPERTY FROM M-2 ZONE TO C-5 ZONE WITH CONDITIONS.
2. AMENDMENTS TO THE COMPREHENSIVE PLAN FOR THE CITY OF CRANSTON REGARDING THIS PROPERTY WERE APPROVED BY CRANSTON CITY COUNCIL ON 1/27/2022.

SOIL EROSION AND SEDIMENT CONTROL NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ON SITE WHICH MUST BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS AND AUTHORITY HAVING JURISDICTION. THE CONTRACTOR MUST NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
2. ALL EROSION CONTROL INCLUDING (BUT NOT LIMITED TO) TEMPORARY SWALES, TEMPORARY SEDIMENT TRAPS, ETC. MUST BE INSTALLED PER THE LATEST EDITION OF THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL (RISESC) HANDBOOK AND THE SOIL EROSION AND SEDIMENT CONTROL PLANS. NOTE THE SOIL EROSION AND SEDIMENT CONTROL SHOWN ON THESE PLANS ARE THE MINIMUM QUANTITY/TYPE OF EROSION CONTROL DEVICES AND MATERIALS DEEMED REQUIRED BY DIPRETE ENGINEERING TO MEET THE OBJECTIVES OF THE RISESC HANDBOOK, BUT IS CONSIDERED A GUIDE ONLY. ADDITIONAL MEASURES/ALTERNATE CONFIGURATIONS MAY BE REQUIRED IN ORDER TO MEET THE RISESC HANDBOOK BASED ON FACTORS INCLUDING (BUT NOT LIMITED TO) SITE PARAMETERS, WEATHER, INSPECTIONS AND UNIQUE FEATURES. THE SESC WILL CONTINUE TO EVOLVE THROUGHOUT CONSTRUCTION/PHASES. PURSUANT TO NOTE 1 ABOVE, SESC REMAINS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE SITE IS FULLY STABILIZED AND/OR SESC RESPONSIBILITIES ARE ASSUMED BY THE OWNER IN WRITING.
3. TEMPORARY SWALES MUST BE USED TO CONTROL RUNOFF DURING CONSTRUCTION OF THE PROPOSED SITE WORK, AND MUST BE VEGETATED AFTER CONSTRUCTION. EROSION CONTROL MATS MUST BE INSTALLED, IF NECESSARY, TO PREVENT EROSION AND SUPPORT VEGETATION. AFTER CONSTRUCTION IS COMPLETE AND TRIBUTARY AREAS TO THE SWALES HAVE BEEN STABILIZED, THE TEMPORARY SWALES MUST BE CLEARED AND FINAL DESIGN, INCLUDING INSTALLATION OF THE GRASS SWALE MUST BE PER THE DESIGN PLANS.
4. ONCE THE SEDIMENT TRAPS ARE NO LONGER REQUIRED AND ALL TRIBUTARY AREAS HAVE BEEN STABILIZED, THE TEMPORARY SEDIMENT TRAPS MUST BE CLEARED AND BROUGHT TO FINAL DESIGN GRADES.
5. INLET PROTECTION MUST BE INSTALLED ON ALL CATCH BASINS ONCE CONSTRUCTED.
6. FOR SEQUENCE OF CONSTRUCTION, PROJECT PHASING AND CONSTRUCTION PHASING SEE SESC PLAN.
7. CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER AND OWNER.
8. IF CONCRETE TRUCKS ARE WASHED OUT ON SITE, ALL WASHOUT MUST BE PERFORMED IN THE DESIGNATED CONCRETE WASHOUT AREA.

DEMOLITION NOTES:

- 1. CONTRACTOR MUST OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR TO COORDINATE ALL DEMOLITION WITH THE APPROVED REMEDIAL ACTION WORK PLAN BY CMG ENVIRONMENTAL, INC.
3. CONTRACTOR MUST PERFORM DAILY SWEEPING AT CONSTRUCTION ENTRANCES DURING DEMOLITION AND CONSTRUCTION TO MINIMIZE SEDIMENTS ON EXTERNAL STREETS.
4. ANY EXISTING BUILDING(S) AND PROPERTY PROPOSED TO REMAIN THAT ARE DAMAGED BY THE CONTRACTOR MUST BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR IS RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) ALL MATERIALS INDICATED ON THE PLANS UNLESS SPECIFIED OTHERWISE HEREIN. R&D MATERIALS INCLUDE BUT ARE NOT LIMITED TO PAVEMENT, GRAVEL, CATCH BASINS, MANHOLES, GRATES/FRAMES/COVERS, AND ANY EXCESS SOIL THAT IS NOT INCORPORATED INTO THE WORK.
6. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, ALL DISTURBED AREAS INCLUDING THE CONTRACTOR'S STOCKPILE AND STAGING AREAS WITHIN THE LIMIT OF WORK MUST BE RESTORED TO MATCH THE DESIGN PLANS.
7. CONTRACTOR MUST DOCUMENT LOCATION OF ALL SUBSURFACE UTILITIES REMAINING IN PLACE AFTER DEMOLITION ACTIVE AND INACTIVE. CONTRACTOR MUST BE DOCUMENTED BY FIELD SURVEY OR SWING TIES. COPIES OF LOCATION DOCUMENTATION MUST BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF DEMOLITION AND PRIOR TO START OF NEW CONSTRUCTION. A MARKER MUST BE INSTALLED TO FINISH GROUND AT ALL INSTALLED CAPS/PLUGS. THE MARKER CAN BE A POST IN CONSTRUCTION AREAS OR PAINTED ON A PERMANENT SURFACE.
8. ACTIVE UTILITY LINES AND STRUCTURES NOT SPECIFICALLY NOTED ON PLANS, BUT WHICH ARE ENCOUNTERED TO BE IN CONFLICT WITH THE PROPOSED WORK, MUST BE EXTENDED, PROTECTED, OR REWORKED BY THE CONTRACTOR AS DIRECTED OR REQUIRED BY THE UTILITY ENTITY OR OWNER UNLESS OTHERWISE NOTED.
9. INACTIVE SUBSURFACE UTILITIES NOT IN CONFLICT WITH THE PROPOSED WORK AREA MAY BE ABANDONED IN PLACE WITH WRITTEN PERMISSION FROM THE OWNER.

TRAFFIC NOTES:

- 1. ALL TRAFFIC CONTROL MUST CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CURRENT EDITION.
2. DURING CONSTRUCTION, TRAFFIC CONES MUST BE USED FOR SEPARATION OF ACTIVE TRAFFIC FROM WORK ZONE PER MUTCD REQUIREMENTS.
3. DURING CONSTRUCTION FLAGGERS MUST BE EMPLOYED TO ENSURE SAFETY FOR INTERACTION OF CONSTRUCTION VEHICLES AND ACTIVE TRAFFIC.
4. ALL SIGNS, FLAGGERS, TRAFFIC CONTROL DEVICES, AND TEMPORARY TRAFFIC ZONE ACTIVITIES MUST MEET THE REQUIREMENTS OF THE MUTCD LATEST EDITION AND SUBSEQUENT ADDENDA.
5. TEMPORARY CONSTRUCTION SIGNS MUST BE MOUNTED ON RIDOT APPROVED SUPPORTS AND MUST BE REMOVED OR COVERED WHEN NOT APPLICABLE.

AS-BUILT NOTES:

ALL COMPONENTS OF THE DRAINAGE, SEWER, AND WATER SYSTEMS MUST BE FIELD LOCATED PRIOR TO COVERING. NOTIFY SURVEYOR A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE OF NEED FOR FIELD LOCATION OF IMPROVEMENTS. SURVEYOR MUST PROVIDE OWNER AND CONTRACTOR WITH WRITTEN NOTICE OF COMPLETION OF FIELD WORK PRIOR TO CONTRACTOR COVERING IMPROVEMENTS. OWNER/DIPRETE WILL NOT ACCEPT FIELD MEASUREMENTS FROM THE SITE CONTRACTOR.

LAYOUT AND MATERIALS:

- 1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURBING MUST BE PRECAST CONCRETE, MONOLITHIC CONCRETE, CAST-IN-PLACE CONCRETE, OR AS LABELED ON THE PLANS.
3. SIDEWALK MUST BE CONCRETE, EXPOSED AGGREGATE CONCRETE, OR AS LABELED ON THE PLANS.
4. SYMBOLS & LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR MUST REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
5. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS PERTAINING TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOD PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
6. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION MUST BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
7. CONTRACTOR MUST NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS. CONTRACTOR MUST VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE STAMPED PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
8. ALL GUARDRAIL ONSITE MUST BE STEEL BACKED TIMBER GUARDRAIL WITH STEEL POSTS, IN CONFORMANCE WITH SECTION 5.4.1.7 OF THE ASHTO ROADSIDE DESIGN GUIDE. ALTERNATIVE GUARDRAILS WILL BE CONSIDERED BY THE DESIGN ENGINEER IF THEY ARE DOT APPROVED EQUAL AND ACCEPTABLE TO THE OWNER. ALTERNATIVES MUST BE APPROVED IN WRITING BY THE OWNER AND DESIGN ENGINEER PRIOR TO CONSTRUCTION. GUARDRAIL IS REQUIRED AT ALL ROADWAYS/PARKING LOTS/PAVED TRAFFIC AREAS ADJACENT TO SLOPES WITH A HEIGHT GREATER THAN SIX FEET AT A 3:1 SLOPE, AND ALL SLOPES WITH A HEIGHT GREATER THAN THREE FEET AT A 2:1 SLOPE, AND ALL RETAINING WALLS GREATER THAN TWO FEET IN HEIGHT. THE CONTRACTOR IS RESPONSIBLE TO MEET ANY AND ALL GUARDRAIL PROVISIONS THAT MAY BE REQUIRED BY THE AHJ.
9. INFRARED TREATMENT OF PAVEMENT IS REQUIRED AT ALL CURB CUTS, AT ANY DISTURBED PAVEMENT ON ROADWAYS, AND WHERE ANY NEW PAVEMENT MEETS EXISTING PAVEMENT.
10. ALL EXISTING PAVEMENT MARKING REMOVED AS INCIDENTAL DURING CONSTRUCTION MUST BE REPLACED IN-KIND FOLLOWING COMPLETION OF CONSTRUCTION UNLESS OTHERWISE NOTED.
11. NEW PAVEMENT MARKING MUST BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF ASHPTO M249 TYPE F. PAINT MUST BE APPLIED AS SPECIFIED BY THE MANUFACTURER.

GRADING AND UTILITY NOTES:

- 1. CONSTRUCTION TO COMMENCE FALL/WINTER 2022 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
2. THE CONTRACTOR MUST COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDINGS. THIS MUST BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.
3. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUNDWATER IS DIRECTED AWAY FROM THE STRUCTURE.
4. PRIOR TO START OF CONSTRUCTION, CONTRACTOR MUST VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES. CONTRACTOR MUST NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
5. ALL PROPOSED UNDERGROUND UTILITIES SERVING THE SITE AND BUILDINGS MUST BE COORDINATED WITH OWNER, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.
6. ALL RETAINING WALLS AND STEEP SLOPES ARE SUBJECT TO FINAL STRUCTURAL DESIGN. DIPRETE ENGINEERING IS NOT PROVIDING THE STRUCTURAL DESIGN OF THESE ITEMS. ALL WALLS AND STEEP SLOPES MUST BE DESIGNED AND BUILT UNDER THE DIRECTION OF A RHODE ISLAND LICENSED PROFESSIONAL ENGINEER SUITABLY QUALIFIED IN GEOTECHNICAL ENGINEERING AND CERTIFIED TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS MUST BE SUBMITTED PRIOR TO CONSTRUCTION. FINAL STRUCTURAL DESIGN MUST INCORPORATE THE INTENT OF THE GRADING SHOWN ON THESE PLANS AND ALL WORK MUST BE WITHIN THE LIMIT OF DISTURBANCE SHOWN ON THE PLANS.
7. ALL CUT AND FILL WORK MUST BE DONE UNDER THE DIRECTION OF A PROFESSIONAL GEOTECHNICAL ENGINEER, WITH TESTING AND CERTIFICATION PROVIDED TO THE OWNER AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING IS NOT PROVIDING THE FULL SPECIFICATION, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.
8. MATERIAL STOCKPILES MUST NOT BE LOCATED IN THE RIGHT-OF-WAY, AND TRENCHES MUST NOT BE LEFT OPEN OVERNIGHT.
9. ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, MUST BE DISCARDED OFF SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. STUMPS MUST BE GROUND ON OR REMOVED.
10. THE SITE WILL HAVE 6" CONCRETE CURBING. SITE GRADING/CONTOURS SHOWN ON THE PLANS DO NOT NECESSARILY REFLECT THE APPROPRIATE CURBING REVEAL. CONTRACTOR MUST INSTALL CURBING WITH APPROPRIATE REVEAL UNLESS OTHERWISE NOTED.
11. NO STUMP DUMPS ARE PROPOSED ON SITE.
12. ALL DRAINAGE OUTFALLS ARE DESIGNED TO BE INSTALLED AT EXISTING GROUND ELEVATION. CONTRACTOR MUST IMMEDIATELY NOTIFY DIPRETE ENGINEERING OF ANY DISCREPANCIES WHERE EXISTING GROUND IS HIGHER THAN OUTFALL DESIGN ELEVATION. ANY RESOLUTION OF DISCREPANCIES BY THE CONTRACTOR, UNLESS AUTHORIZED IN WRITING IN ADVANCE BY THE OWNER AND DIPRETE ENGINEERING, IS DONE AT THE CONTRACTOR'S RISK.
13. CONTRACTOR MUST PROVIDE SUD CUTTING AND FULL DEPTH PAVEMENT RESTORATION IN AREAS WHERE PAVEMENT AND/OR SIDEWALK IS REMOVED FOR UTILITY INSTALLATION.
14. IF ROADWAY SURFACE PAVEMENT COURSE IS NOT TO BE INSTALLED FOR 12 MONTHS OR MORE AFTER INSTALLATION OF DRAINAGE STRUCTURES, ALL CATCH BASIN RIMS MUST BE SET AT BINDER GRADE AND RAISED TO FINAL PAVEMENT GRADE PRIOR TO PLACEMENT OF SURFACE COURSE.

DRAINAGE

- ALL DRAINAGE PIPING MUST BE HIGH-DENSITY POLYETHYLENE (HDPE) WITH WATERTIGHT JOINTS WHERE INSTALLED WITHIN THE SEASONAL HIGH GROUNDWATER TABLE, UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.
DRAINAGE STRUCTURES MUST BE AS FOLLOWS (UNLESS OTHERWISE NOTED ON PLANS):
• CATCH BASINS ALONG CURBING: RIDOT STD. 4.4.0, TYPE F, 4" DIAMETER WITH APRON STONE
• CATCH BASINS NOT ALONG CURBING: RIDOT STD 4.4.0, 4" DIAMETER
• CATCH BASINS MUST HAVE 3 FT SUMP WITHOUT SEEP HOLES
• SINGLE FRAME CATCH BASIN GRATES: RIDOT STD 6.3.2
• MANHOLES: RIDOT STD 4.2.0, 4.2.1 OR 4.2.2 AS REQUIRED
• DRAINAGE MANHOLE COVERS: RIDOT STD 6.2.1
• DROP INLETS: RIDOT STD 4.5.0, 4.5.1 OR 4.5.2
• APRON STONE, WHERE REQUIRED: RIDOT STD 7.1.17 OR 7.1.8

ALL DRAINAGE STRUCTURES MUST BE WATERTIGHT.

- DRAINAGE CONNECTIONS FROM ALL YARD DRAINS (YD), AREA DRAINS (AD), TRENCH DRAINS (TD), FRENCH DRAINS (FD), WALL DRAINS (WD), AND DOWNSPOUTS (DS) ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. THE LEVEL OF DETAIL SHOWN DOES NOT INCLUDE ALL JOINTS THAT MAY BE REQUIRED FOR CONSTRUCTION. ALL FITTINGS AND PIPE SLOPES THAT TIE INTO MAIN TRUNK LINE MUST BE FIELD FIT BY CONTRACTOR.

SANITARY SEWER

ALL SANITARY SEWER PIPING MUST BE SCH 40 UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS. ALL SEWER IMPROVEMENTS MUST COMPLY WITH VECMA WATER RULES AND REGULATIONS AND ANY APPLICABLE AUTHORITY HAVING JURISDICTION, INCLUDING (BUT NOT LIMITED TO) MATERIALS, DIMENSIONS AND ACCESS COVERS. CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR APPROVAL BY ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

WATER

ALL WATER MAINS MUST BE CEMENT LINED DUCTILE IRON PIPE (CLDIP). ALL WATER MAIN IMPROVEMENTS MUST COMPLY WITH PROVIDENCE WATER REGULATIONS AND ANY APPLICABLE AUTHORITY HAVING JURISDICTION, INCLUDING (BUT NOT LIMITED TO) MATERIALS, DIMENSIONS AND ACCESS COVERS. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND SUBMITTALS TO THE ENGINEER OF RECORD FOR APPROVAL. FOR ALL WATER IMPROVEMENTS AND APPURTENANCES INCLUDING BUT NOT LIMITED TO PIPES, VALVES, FITTINGS, HEAT ENCLOSURES, AND BACKFLOW PREVENTERS. ALL COMPONENTS OF THE WATER SYSTEM MUST BE ASBUILT PER PROVIDENCE WATER REQUIREMENTS. ALL COMPONENTS OF THE WATER SYSTEM MUST BE INSPECTED BY PROVIDENCE WATER. CONTRACTOR MUST COORDINATE ALL IMPROVEMENTS WITH PROVIDENCE WATER TO ENSURE INSPECTOR IS ON SITE.

ELECTRIC/TELECOM/GAS

PROPOSED GAS, ELECTRIC, CABLE AND DATA UTILITIES ARE SHOWN SCHEMATICALLY AND ARE PROPOSED TO BE UNDERGROUND. OWNER AND CONTRACTOR MUST COORDINATE FINAL DESIGN WITH APPROPRIATE UTILITY COMPANIES. ALL WORK MUST BE IN ACCORDANCE WITH EACH UTILITY COMPANY'S STANDARDS AND DETAILS AS WELL AS LOCAL AND FEDERAL REGULATIONS. THIS INCLUDES BUT IS NOT LIMITED TO POLES, TRANSFORMERS, PULL BOXES, CONCRETE PADS, CONCRETE ENCASMENTS AND CONDUITS. CONNECTION POINTS FOR ELECTRIC AND TELECOM UTILITIES, AT THE EXISTING INFRASTRUCTURE, ARE CURRENTLY SHOWN AS UNDERGROUND UTILITIES. THESE UTILITIES MAY BE UNDERGROUND OR OVERHEAD AND MUST BE COORDINATED WITH NATIONAL GRID PRIOR TO CONSTRUCTION.

SITE LIGHTING

SITE LIGHTING (TEMPORARY AND PERMANENT) MUST BE DIRECTED AWAY FROM AND SHIELDED FROM ENVIRONMENTALLY SENSITIVE AREAS AND ADJUTING LANDS. EXACT LOCATIONS OF LIGHT POLES MUST BE COORDINATED WITH THE APPROPRIATE UTILITIES, AND MUST BE LOCATED WITHIN THE STREET RIGHT-OF-WAY. FINAL LIGHTING AND CONDUIT LOCATIONS BY OTHERS.

ABBREVIATIONS LEGEND

Table with 2 columns: Abbreviation and Description. Includes ADA (Americans with Disability Act), AHJ (Authority Having Jurisdiction), AP (Assessor's Plat), ARCH (Architect), BC (Bottom of Curb), BT (Bottom of Testhole), BIT (Bituminous (Berm)), BIO (Bioretention), BS (Basepoint Slab Elevation), BW (Finished Grade at Bottom of Wall), CB (Catch Basin), (C) (Calculated), RL (Right Leader), ROW (Right-of-Way), (CA) (Chord Angle), SD (Subdrain), SED (Sediment Forebay), SF (Square Foot), SFL (State Freeway Line), SPM (Sewer Force Main), SG (Slab on Grade Elevation), SHL (State Highway Line), SMH (Sewer Manhole), SNDF (Sand Filter), EOP (Edge of Pavement), ESC (Erosion and Sediment Control), EX (Existing), FES (Flared End Section), FFE (Finish Floor Elevation), GS (Garage Slab Elevation), GWT (Ground Water Table), HW (Headwall), HC (High Capacity Catch Basin Grate), HDPE (High Density Polyethylene), ID (Inlet Drain), INV (Invert), IP (Infiltration Pond), LARCH (Landscape Architect), LF (Linear Feet), LOD (Limit of Disturbance), LP (Light Pole), (M) (Measured), HEP (Mechanical/Electrical/Plumbing Engineer), N/F (Now or Formerly), OHW (Overhead Wire), PE (Polyethylene), P (Property Line), PR (Proposed), FVC (Polyvinyl Chloride), R (Radius), R&D (Remove and Dispose), RCP (Reinforced Concrete Pipe), RHIB (Rhode Island), HIGHWAY BOUND, ROW LEADER, RIGHT-OF-WAY, S (Slope), SD (Subdrain), SED (Sediment Forebay), SF (Square Foot), SFL (State Freeway Line), SPM (Sewer Force Main), SG (Slab on Grade Elevation), SHL (State Highway Line), SMH (Sewer Manhole), SNDF (Sand Filter), SS (Side Slope), STA (Station), TC (Top of Curb), TD (Trench Drain), TF (Top of Foundation), TRANS (Transition), TW (Top of Wall (Finished)), GRADE AT TOP OF WALL), TYP (Typical), UDS (Underground), DETENTION SYSTEM), UIS (Underground), INFILTRATION SYSTEM), UP (Utility Pole), WQ (Walkout Elevation), WQ (Water Quality), (M) (Measured), (M) (Measured), HEP (Mechanical/Electrical/Plumbing Engineer)

EXISTING LEGEND

Table with 2 columns: Symbol and Description. Includes NAIL FOUND/SET, DRILL HOLE FOUND/SET, SOIL EVALUATION, CATCH BASIN, DOUBLE CATCH BASIN, DMB (Drainage Manhole), FES (Flared End Section), GUY POLE, ELECTRIC MANHOLE, UTILITY/POWER POLE, LIGHTPOST, SEWER/SEPTIC MANHOLE, SEWER VALVE, CLEANOUT, HYDRANT, IRRIGATION VALVE, WATER VALVE, WELL, MONITORING WELL, UNKNOWN MANHOLE, GAS VALVE, BENCH MARK, STREAM FLOW DIRECTION, PROPERTY LINE, BUILDING SETBACKS, CHAIN LINK FENCE, GUARDRAIL SEE LAYOUT AND MATERIALS NOTE B, RETAINING WALL, MINOR CONTOUR LINE, MAJOR CONTOUR LINE, SPOT ELEVATION, EDGE OF PAVEMENT, BITUMINOUS BERM, CONCRETE CURB (RIDOT STD 7.1.0), MONOLITHIC CONCRETE CURB AND SIDEWALK, BUILDING FOOTPRINT, BUILDING OVERHANG, ASPHALT PAVEMENT, HEAVY DUTY ASPHALT PAVEMENT, HEAVY DUTY CONCRETE, CONCRETE, ASPHALT SIDEWALK, SAWCUT LINE, SIGN (RIDOT STD 24.6.2 AS APPLICABLE), SINGLE LIGHT, DOUBLE LIGHT, OVERHANGING LIGHT, ACCESSIBLE PARKING SPACE SYMBOLS, BUILDING INGRESS/EGRESS, DRAINAGE LINE, PERFORATED SUBDRAIN, SWALE, SEWER FORCE MAIN, GAS LINE, WATER LINE, HYDRANT ASSEMBLY, WATER SHUT OFF, WATER VALVE, THRUST BLOCK, SEWER LINE, OVERHEAD WIRE, ELECTRIC, TELEPHONE, CABLE LINE, ETC, LIMIT OF DISTURBANCE/ LIMIT OF CLEARING, SEDIMENTATION BARRIER, SILT FENCE (RIDOT STD 9.2.0), COMPOST SOCK OR APPROVED EQUAL, SLOPES STEEPER THAN 3:1 (2:1 OR 1:1 SLOPES), UNDERGROUND INFILTRATION OUTLINE, POND ACCESS, RIFRAP, SAND FILTER, BIO RETENTION, CATCH BASIN, DOUBLE CATCH BASIN, MANHOLE, FLARED END SECTION, HEADWALL

PROPOSED LEGEND

Table with 2 columns: Symbol and Description. Includes PROPERTY LINE, BUILDING SETBACKS, CHAIN LINK FENCE, GUARDRAIL SEE LAYOUT AND MATERIALS NOTE B, RETAINING WALL, MINOR CONTOUR LINE, MAJOR CONTOUR LINE, SPOT ELEVATION, EDGE OF PAVEMENT, BITUMINOUS BERM, CONCRETE CURB (RIDOT STD 7.1.0), MONOLITHIC CONCRETE CURB AND SIDEWALK, BUILDING FOOTPRINT, BUILDING OVERHANG, ASPHALT PAVEMENT, HEAVY DUTY ASPHALT PAVEMENT, HEAVY DUTY CONCRETE, CONCRETE, ASPHALT SIDEWALK, SAWCUT LINE, SIGN (RIDOT STD 24.6.2 AS APPLICABLE), SINGLE LIGHT, DOUBLE LIGHT, OVERHANGING LIGHT, ACCESSIBLE PARKING SPACE SYMBOLS, BUILDING INGRESS/EGRESS, DRAINAGE LINE, PERFORATED SUBDRAIN, SWALE, SEWER FORCE MAIN, GAS LINE, WATER LINE, HYDRANT ASSEMBLY, WATER SHUT OFF, WATER VALVE, THRUST BLOCK, SEWER LINE, OVERHEAD WIRE, ELECTRIC, TELEPHONE, CABLE LINE, ETC, LIMIT OF DISTURBANCE/ LIMIT OF CLEARING, SEDIMENTATION BARRIER, SILT FENCE (RIDOT STD 9.2.0), COMPOST SOCK OR APPROVED EQUAL, SLOPES STEEPER THAN 3:1 (2:1 OR 1:1 SLOPES), UNDERGROUND INFILTRATION OUTLINE, POND ACCESS, RIFRAP, SAND FILTER, BIO RETENTION, CATCH BASIN, DOUBLE CATCH BASIN, MANHOLE, FLARED END SECTION, HEADWALL

UTILITY NOTE:

ALL UNDERGROUND UTILITIES SHOWN ON THESE PLANS 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 FIELD 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 CORRECTLY BY A PROFESSIONAL UTILITY LOCATION COMPANY. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED.

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Professional Engineer seal for Dana R. Niset, Registered Professional Engineer, Civil, No. 11876, State of Rhode Island.

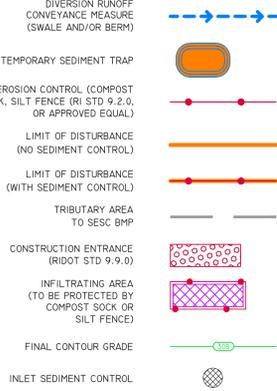
Professional Engineer seal for Diprete Engineering, Inc., Registered Professional Engineer, Civil, No. 11876, State of Rhode Island.

Table with 2 columns: Date and Description. Includes 06/14/2022 (Development Plan Review Submission), 07/27/2022 (Preliminary Plan Submission), 08/17/2022 (Final Plan Submission).

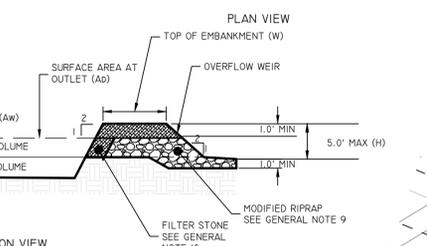
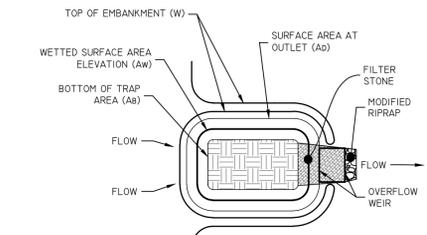
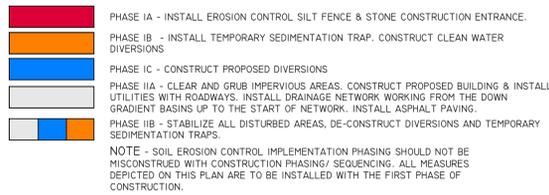
NOTES AND LEGEND section for Trolley Barn Plaza, Assessor's Plat 7 Lot 1, Cranston, Rhode Island. Includes contact information for Trolley Barn Associates LLC, P.O. Box 1270, Manchester, CT 06045.



**SOIL EROSION CONTROL LEGEND**



**SOIL EROSION CONTROL IMPLEMENTATION PHASING**



MINIMUM TOP WIDTH VS HEIGHT  
H=HEIGHT OF EMBANKMENT  
W=TOP WIDTH OF EMBANKMENT

H (FT)	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
W (FT)	2.0	2.0	3.0	2.5	3.0	3.0	4.0	4.5

SEDIMENT TRAP DIMENSIONS*	TRAP A	TRAP B
TRIBUTARY DRAINAGE AREA	2.78 AC	2.70 AC
WET STORAGE DEPTH (Dw)	2.0 FT	2.0 FT
DRY STORAGE DEPTH (Dd)	2.0 FT	2.0 FT
TOTAL DEPTH (D)	4.0 FT	4.0 FT
BOTTOM OF TRAP AREA (Ab)	2,350 SQ.FT	2,361 SQ.FT
WETTED SURFACE AREA (Aw)	3,234 SQ.FT	3,185 SQ.FT
SURFACE AREA AT OUTLET (Ad)	4,209 SQ.FT	4,111 SQ.FT

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

**TEMPORARY SEDIMENT TRAP DETAIL**  
NOT TO SCALE

**GENERAL NOTES:**

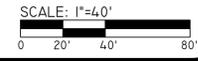
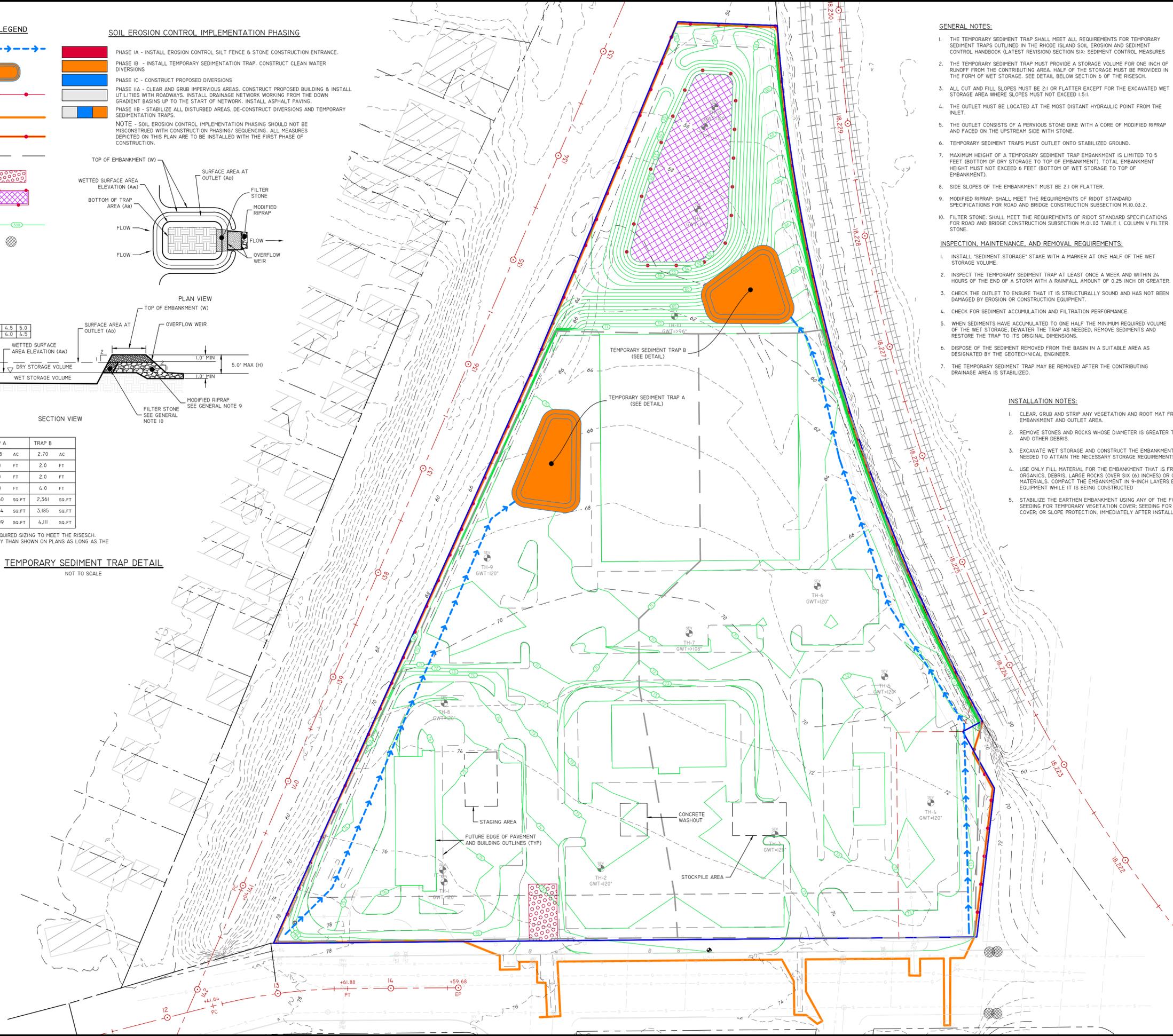
1. THE TEMPORARY SEDIMENT TRAP SHALL MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST REVISION) SECTION SIX: SEDIMENT CONTROL MEASURES
2. THE TEMPORARY SEDIMENT TRAP MUST PROVIDE A STORAGE VOLUME FOR ONE INCH OF RUNOFF FROM THE CONTRIBUTING AREA. HALF OF THE STORAGE MUST BE PROVIDED IN THE FORM OF WET STORAGE. SEE DETAIL BELOW SECTION 6 OF THE RISESCHE.
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 I, 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 ANY VEGETATION AND ROOT MAT FROM ANY 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.



**DiPrete Engineering**  
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**Boston • Providence • Newport**

**DANA R. NISSET**  
No. 11876  
REGISTERED PROFESSIONAL ENGINEER CIVIL

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DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE ENGINEERING PROJECT. DIPRETE ENGINEERING DOES NOT WARRANT PLANS BY ANY OTHER PARTY.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND UTILITIES INFORMATION IN THE IMPLEMENTATION OF THIS PLAN AND FOR OBTAINING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. ONLY DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED DUE TO LOCATIONS OF EXISTING UTILITIES.

NO.	DATE	DESCRIPTION	DESIGN BY:
06/27/2022		DEVELOPMENT PLAN REVIEW SUBMISSION	NDK/JMS
07/27/2022		CONTRACT PLAN SUBMISSION	NDK/JMS

**SOIL EROSION & SEDIMENT CONTROL PLAN**

**TROLLEY BARN PLAZA**  
ASSESSOR'S PLAT 7 LOT 1  
CRANSTON, RHODE ISLAND

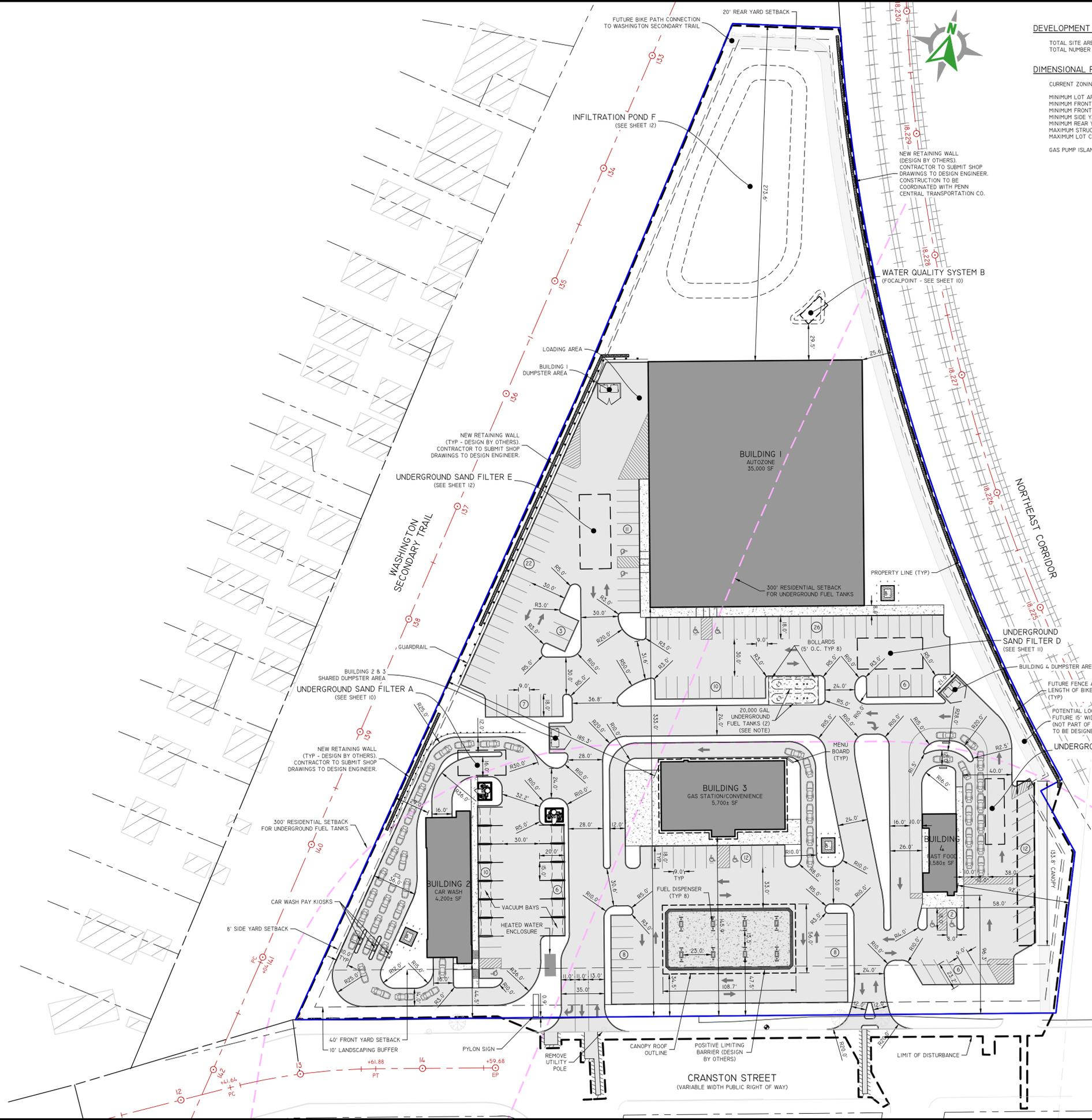
PREPARED FOR:  
**TROLLEY BARN ASSOCIATES LLC**  
C/O FIRST HARTFORD REALTY CORP.  
P.O. BOX 1270, MANCHESTER, CT 06045

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SHEET **5** OF 15

Z:\DEPMAN\PROJECTS\1928-001 CRANSTON STREET 777\AUTOCAD DRAWINGS\1928-001-PLAN.DWG PLOT DATE: 5/24/2022

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**DEVELOPMENT DATA:**

TOTAL SITE AREA: 6.61± ACRES  
 TOTAL NUMBER OF BUILDINGS: 4

**DIMENSIONAL REGULATIONS:**

CURRENT ZONING:	C5 REQUIRED	DRIVE IN REQUIRED	PROVIDED	GAS REQUIRED	PROVIDED
MINIMUM LOT AREA:	10,000 SF	40,000 SF		12,000SF	
MINIMUM FRONTAGE AND LOT WIDTH:	80'	200'	624'	120'	624'
MINIMUM FRONT AND CORNER SIDE YARD:	30'	40'	96.3'	40'	145.9'
MINIMUM SIDE YARD:	8'	20'	92.1'	10'	> 10'
MINIMUM REAR YARD:	20'	20'	273.6'	10'	273.6'
MAXIMUM STRUCTURE HEIGHT:	35'	< 35'	16%	< 35'	16%
MAXIMUM LOT COVERAGE:	60%				

GAS PUMP ISLANDS PERMITTED IN FRONT SETBACK: MIN 15' FROM ANY PROPERTY LINE.

**PARKING REGULATIONS:**

BUILDING	PARKING USE:	RETAIL ESTABLISHMENT
BUILDING 1	RETAIL	1 SPACE PER 200 SF GFA
GROSS FLOOR AREA PROPOSED:	7,000 SF	
PARKING CALCULATION:	7,000 / 200 = 35 SPACES	
PARKING REQUIRED:	35 SPACES	
BUILDING 2	WAREHOUSE/STORAGE:	1 SPACE PER EMPLOYEE
EMPLOYEES PROPOSED:	20 EMPLOYEES	
PARKING CALCULATION:	20 SPACES	
PARKING REQUIRED:	20 SPACES	
TOTAL PARKING REQUIRED:	55 SPACES	
TOTAL PARKING SPACES PROVIDED:	85 SPACES (4 HANDICAP)	
BUILDING 3	RESTAURANT ESTABLISHMENT	1 SPACE PER 300 SF GFA
GROSS FLOOR AREA PROPOSED:	4,200 SF	
PARKING CALCULATION:	4,200 / 300 = 14 SPACES	
PARKING SPACES PROVIDED:	16 SPACES (1 HANDICAP)	
BUILDING 4	RESTAURANT ESTABLISHMENT	1 SPACE PER 300 SF GFA
GROSS FLOOR AREA PROPOSED:	5,700 SF	
PARKING CALCULATION:	5,700 / 200 = 28.5 = 29 SPACES	
PARKING SPACES PROVIDED:	28 SPACES (2 HANDICAP)	
TOTAL DEVELOPMENT:		
TOTAL SPACES REQUIRED:	129 SPACES	
TOTAL SPACES PROVIDED:	149 SPACES	

**UNDERGROUND FUEL TANKS NOTE:**

THE PROPOSED GAS STATION WILL HAVE TWO 20,000 GALLON UNDERGROUND STORAGE TANKS BOTH WITH A 14,000/6,000 SPLIT BETWEEN 87/93 AND DIESEL. BOTH TANKS WILL BE DOUBLE WALLED WITH SENSORS IN BETWEEN THE TANK LAYERS THAT WILL ALERT AN ALARM SYSTEM IF EITHER OF THE TANK WALLS ARE PENETRATED. ADDITIONALLY, THERE ARE MULTIPLE SYSTEM OF VALVES AND SENSORS THROUGHOUT THE SYSTEM IN CASE OF ANY SPILLS OR OVERFLOWS.

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**DANA R. NISSET**  
 No. 11876  
 REGISTERED PROFESSIONAL ENGINEER CIVIL

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NO.	DATE	DESCRIPTION	DESIGN BY:
1	05/17/2022	DEVELOPMENT PLAN REVIEW SUBMISSION	NDK/LWS
2	06/27/2022	FINAL PLAN SUBMISSION	NDK/LWS

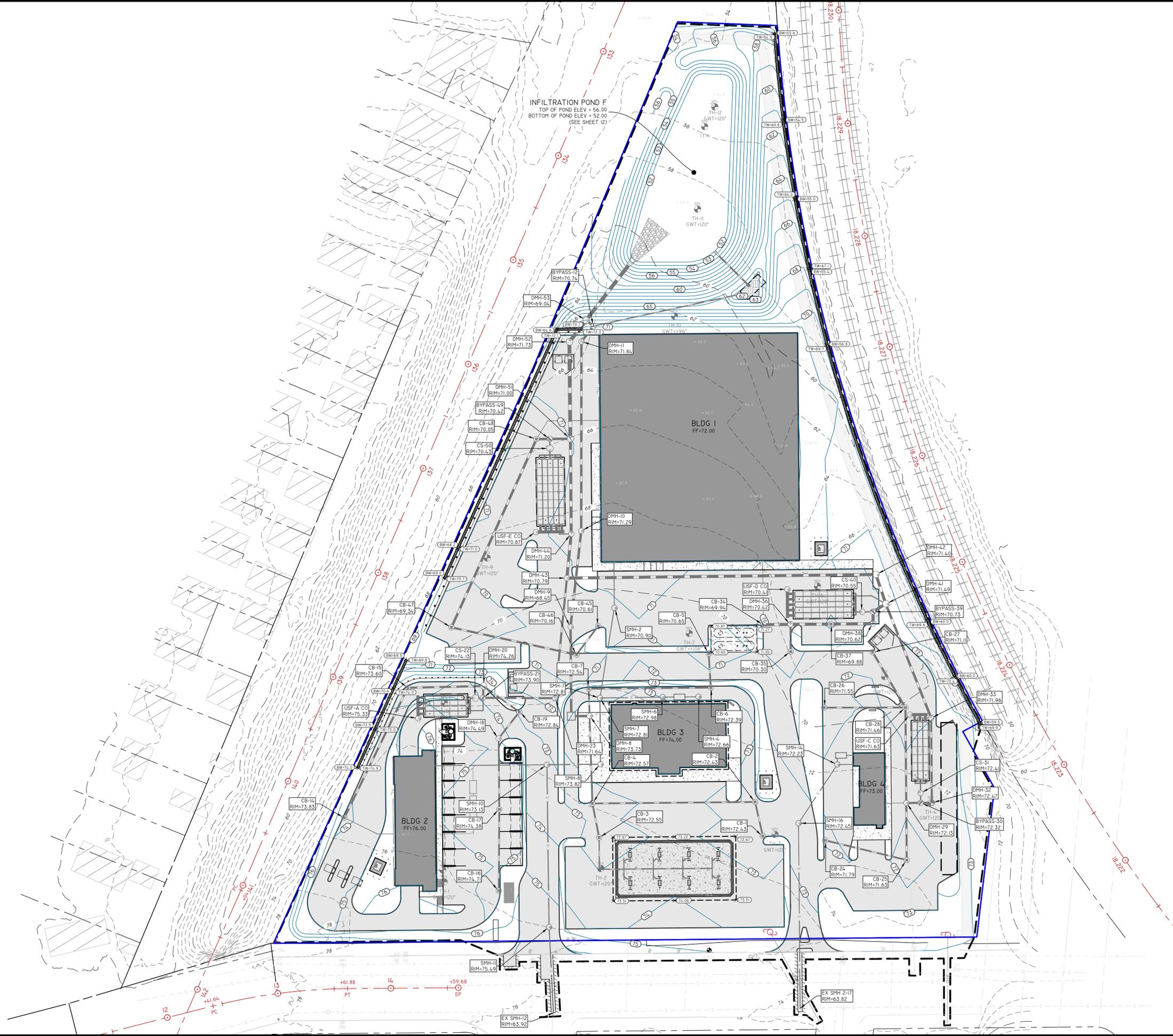
**SITE LAYOUT PLAN**  
**TROLLEY BARN PLAZA**  
 ASSESSOR'S PLAT 7 LOT 1  
 CRANSTON, RHODE ISLAND

PREPARED FOR:  
**TROLLEY BARN ASSOCIATES LLC**  
 C/O FIRST HARTFORD REALTY CORP.  
 P.O. BOX 1270, MANCHESTER, CT 06045

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Z:\DEPARTMENT\PROJECTS\1928-001 CRANSTON STREET 777\AUTOCAD DRAWINGS\1928-001-PLAN.DWG PLOTTED: 5/24/2022



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

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NO.	DATE	DESCRIPTION	DESIGN BY:
01/27/2022		DEVELOPMENT PLAN REVIEW SUBMISSION	NJK
02/27/2022		FINAL DEVELOPMENT PLAN SUBMISSION	NJK
05/24/2022		FINAL DEVELOPMENT PLAN SUBMISSION	NJK

**GRADING PLAN**  
**TROLLEY BARN PLAZA**  
ASSESSOR'S PLAT 7 LOT 1  
CRANSTON, RHODE ISLAND

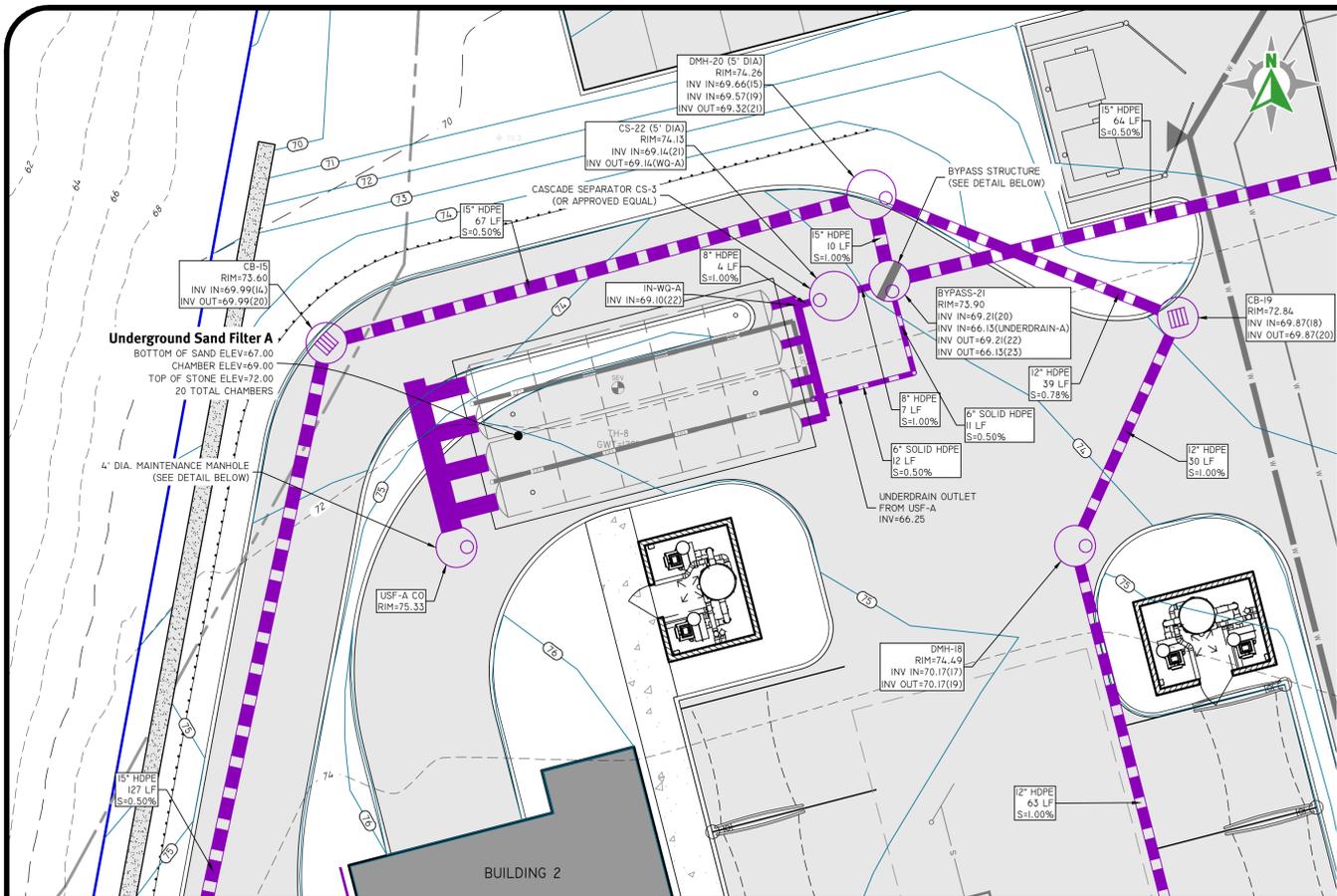
PREPARED FOR:  
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C/O FIRST HARTFORD REALTY CORP.  
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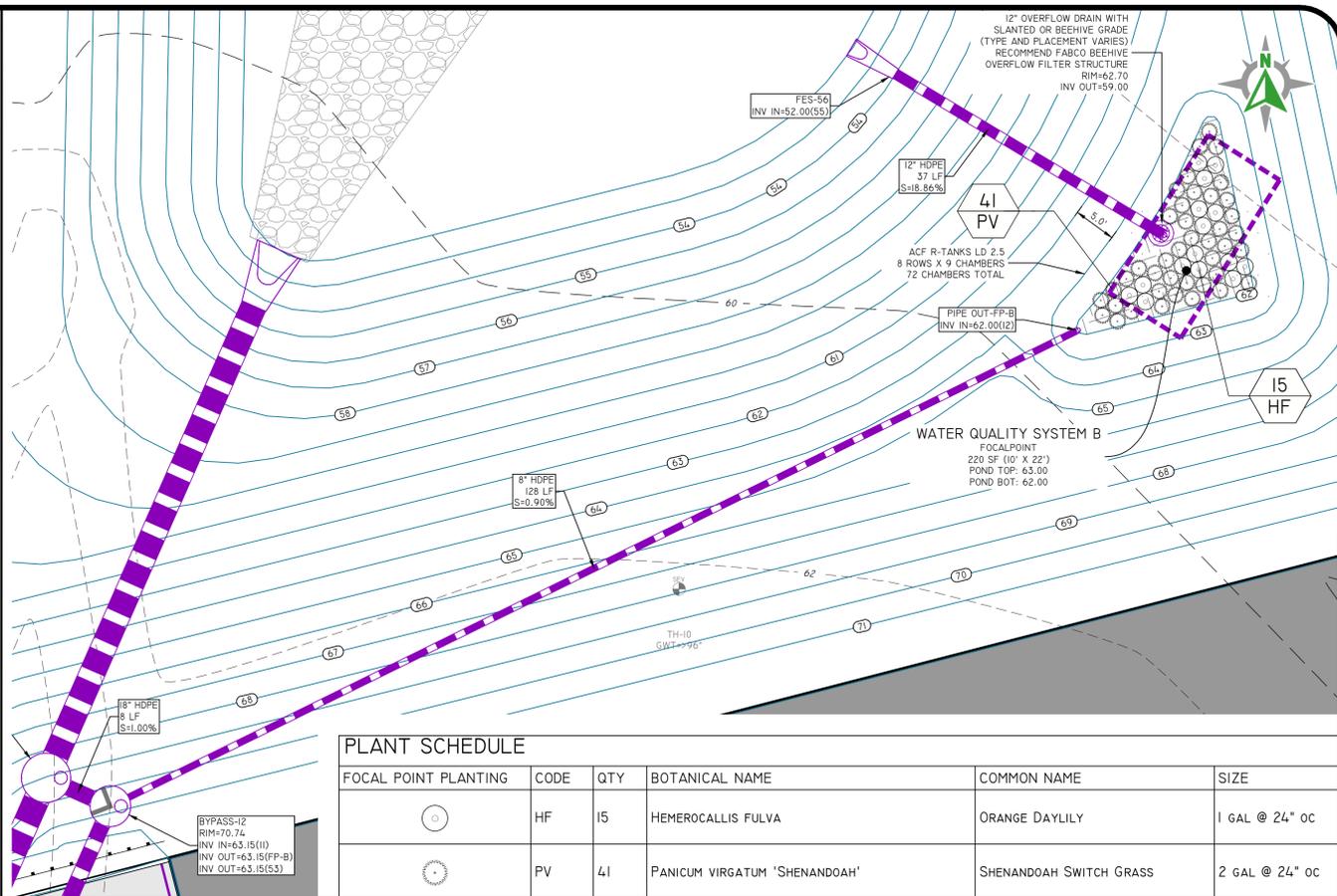






**UNDERGROUND SAND FILTER A**

SCALE: 1"=10'  
0 5' 10' 20'



**FOCAL POINT B**

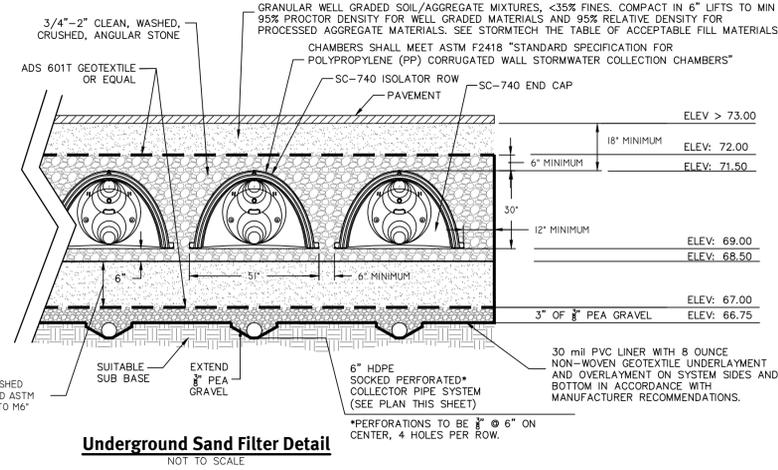
SCALE: 1"=10'  
0 5' 10' 20'

**PLANT SCHEDULE**

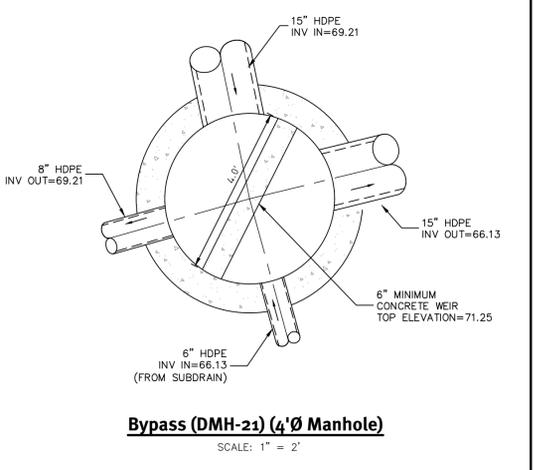
FOCAL POINT PLANTING	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
○	HF	15	HEMEROCALLIS FULVA	ORANGE DAYLILY	1 GAL @ 24" OC
●	PV	41	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	2 GAL @ 24" OC

DESCRIPTION	USF-A
TOP OF UIS STONE ELEVATION	72.00
BOTTOM OF UIS STONE ELEVATION	68.50
100 YEAR STORM ELEVATION	71.84
10 YEAR STORM ELEVATION	71.50
1 YEAR STORM ELEVATION	70.24
WO STORM ELEVATION	68.90
SEASONAL HIGH GWT ELEVATION	62.00±
SOIL EVALUATION	TH-8

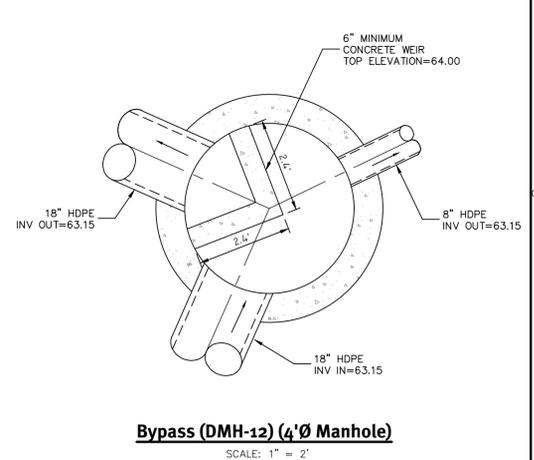
- NOTES:**
- THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
  - SEE LATEST STORMTECH DESIGN MANUAL.
  - ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.



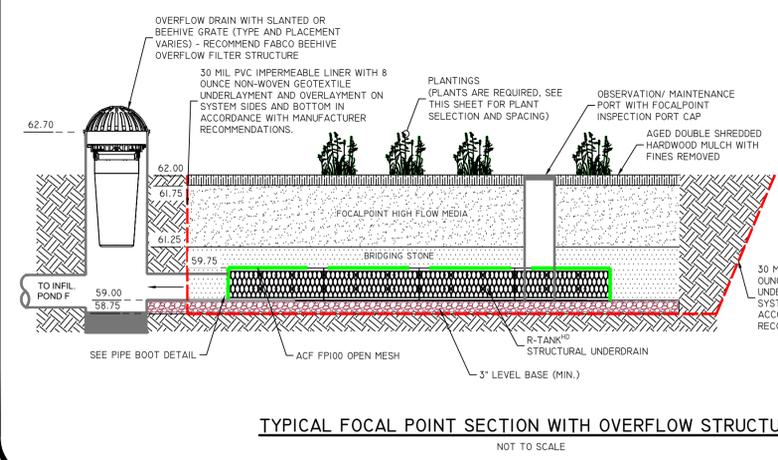
**Underground Sand Filter Detail**  
NOT TO SCALE



**Bypass (DMH-21) (4" Manhole)**  
SCALE: 1" = 2'

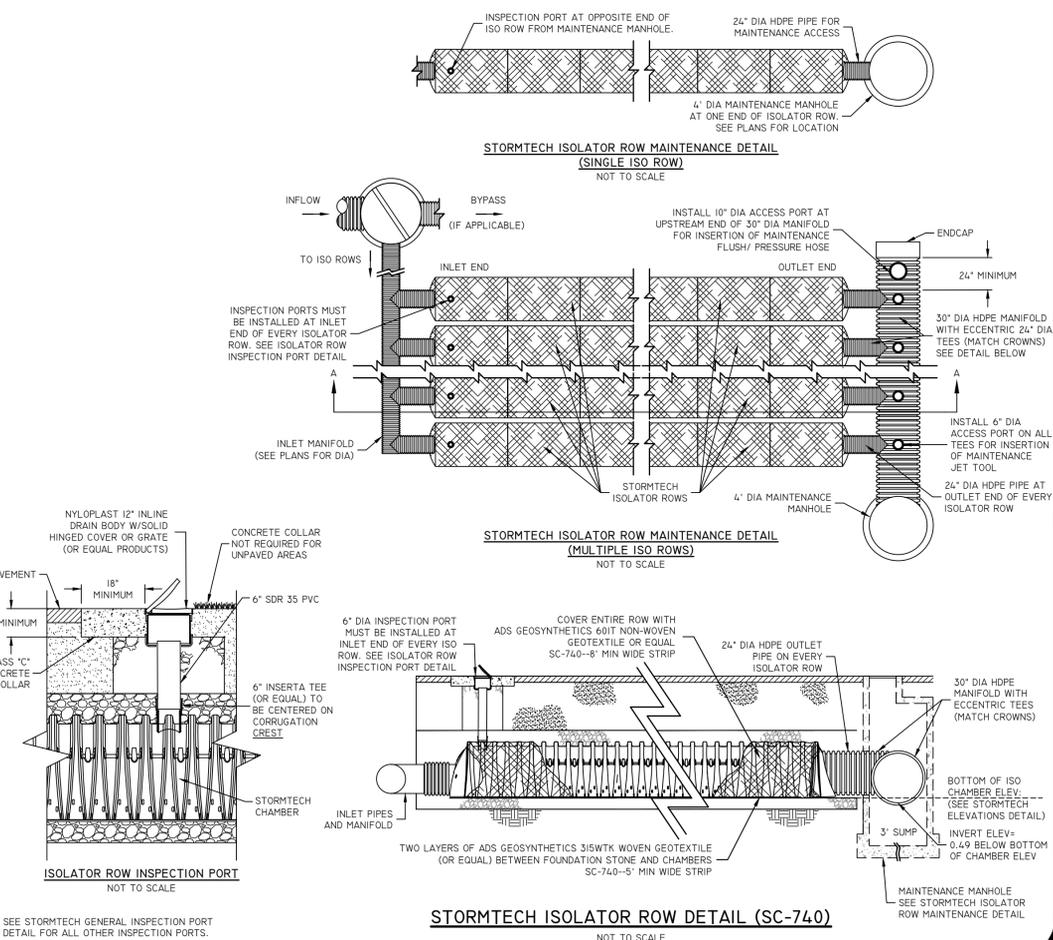


**Bypass (DMH-12) (4" Manhole)**  
SCALE: 1" = 2'



**TYPICAL FOCAL POINT SECTION WITH OVERFLOW STRUCTURE**  
NOT TO SCALE

DESCRIPTION	FOCAL POINT
TOP OF FOCAL POINT ELEVATION	63.00
BOTTOM OF FOCAL POINT ELEVATION	62.00
100 YEAR STORM ELEVATION	62.92
10 YEAR STORM ELEVATION	62.88
1 YEAR STORM ELEVATION	62.86
SEASONAL HIGH GWT ELEVATION	45.20±
SOIL EVALUATION	TH-16



**STORMTECH ISOLATOR ROW MAINTENANCE DETAIL (SINGLE ISO ROW)**  
NOT TO SCALE

**STORMTECH ISOLATOR ROW MAINTENANCE DETAIL (MULTIPLE ISO ROWS)**  
NOT TO SCALE

**ISOLATOR ROW INSPECTION PORT**  
NOT TO SCALE

**STORMTECH ISOLATOR ROW DETAIL (SC-740)**  
NOT TO SCALE

**DiPrete Engineering**  
Two Stafford Court Cranston, RI 02920  
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com

**Boston • Providence • Newport**

**DANA R. NISSET**  
No. 11876  
REGISTERED PROFESSIONAL ENGINEER CIVIL

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

DIPRETE ENGINEERING ONLY WARRANTS PLANS ONLY DIPRETE ENGINEERING SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THE PLANS OR FOR ANY DAMAGE TO PERSONS OR PROPERTY CAUSED BY THE USE OF THESE PLANS. DIPRETE ENGINEERING DOES NOT WARRANT PLANS BY ANY OTHER PARTY.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND UTILITIES LOCATIONS PRIOR TO CONSTRUCTION. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND FOR ANY DAMAGES INCURRED DUE TO LOCATIONS OF EXISTING UTILITIES.

NO.	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	DATE	DESCRIPTION
1	02/27/2022	PRELIMINARY PLAN REVIEW SUBMISSION				
2	02/27/2022	FINAL PLAN SUBMISSION				

DESIGN BY: NDK/JMS

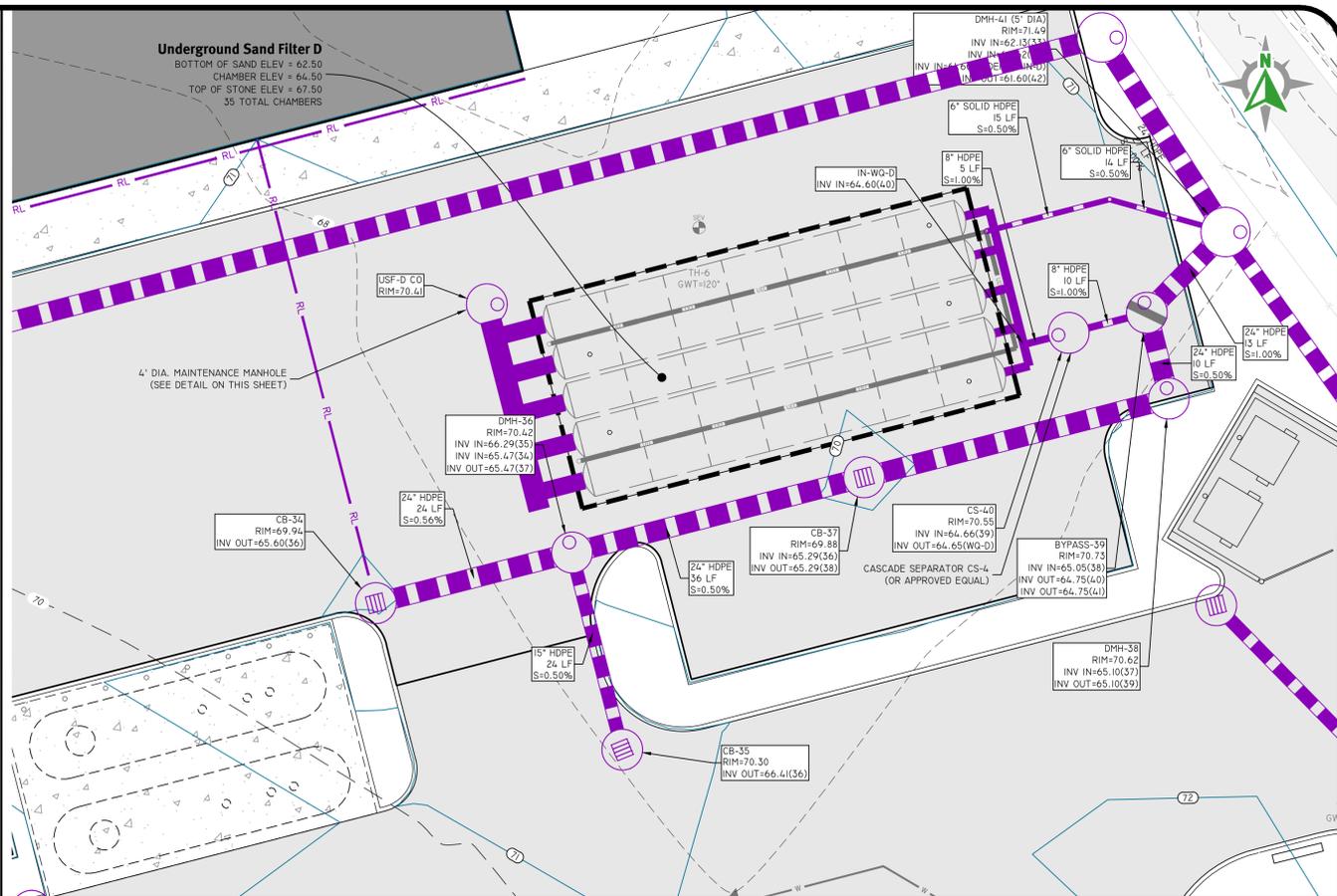
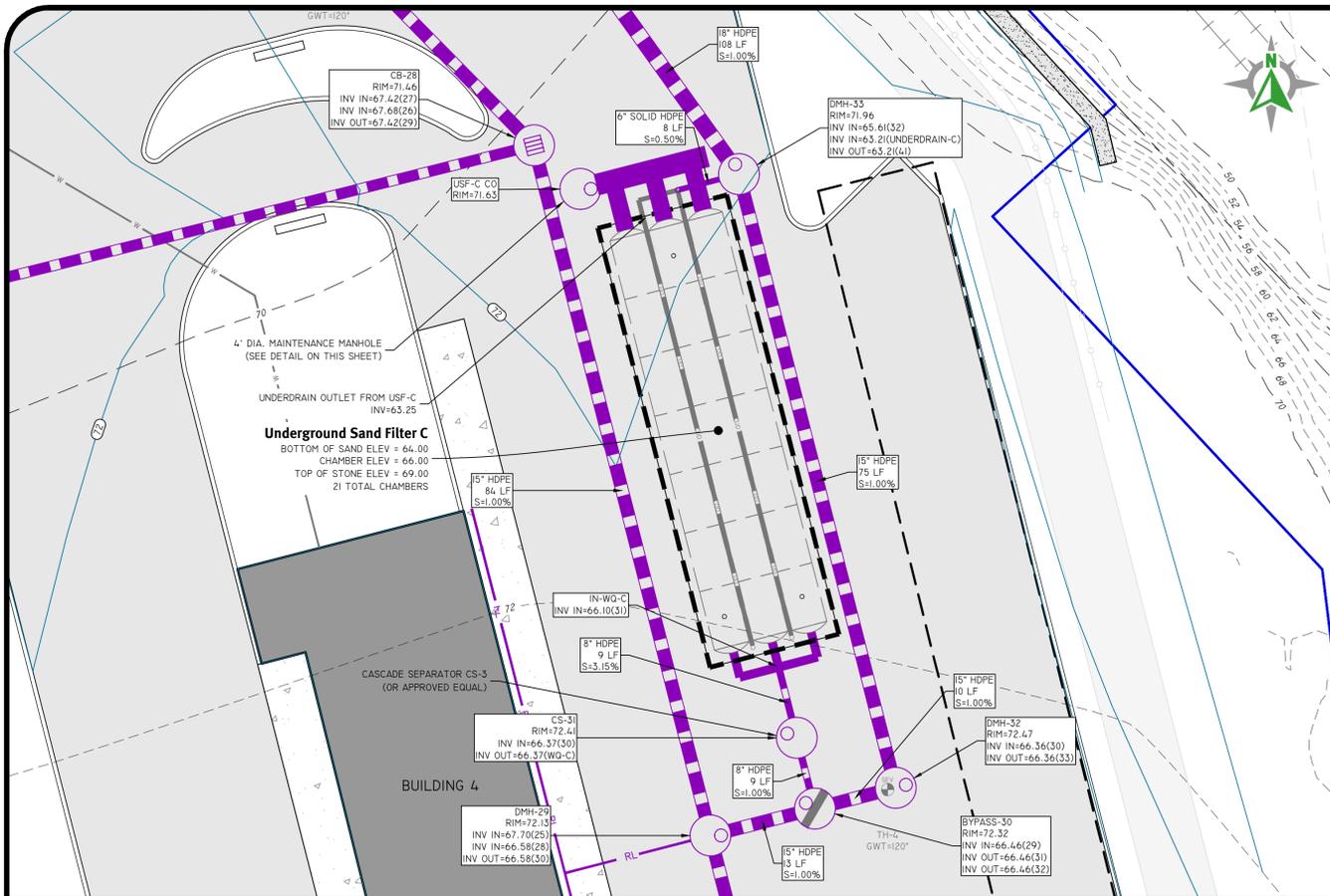
**BMP DETAILS - 1**

**TROLLEY BARN PLAZA**  
ASSESSOR'S PLAT 7 LOT 1  
CRANSTON, RHODE ISLAND

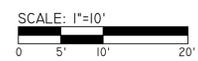
PREPARED FOR:  
**TROLLEY BARN ASSOCIATES LLC**  
C/O FIRST HARBOR REALTY CORP.  
P.O. BOX 1270, MANCHESTER, CT 06045

DESIGN NO.: BR24-001 COPYRIGHT © 2022 BY DIPRETE ENGINEERING ASSOCIATES, INC.

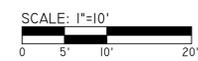
SHEET 10 OF 15



UNDERGROUND SAND FILTER C

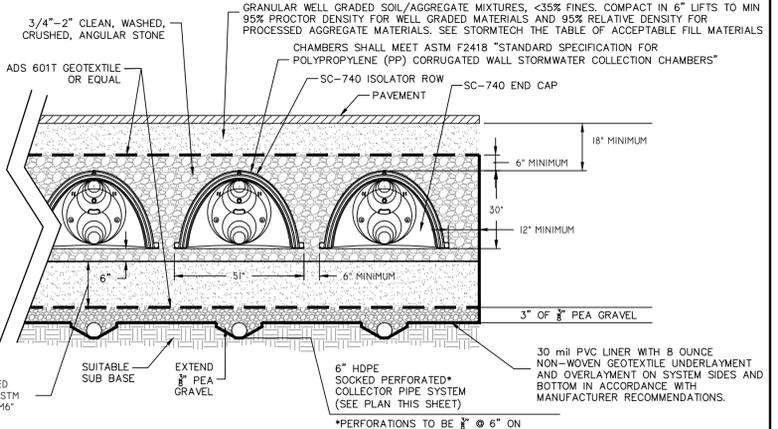


UNDERGROUND SAND FILTER D

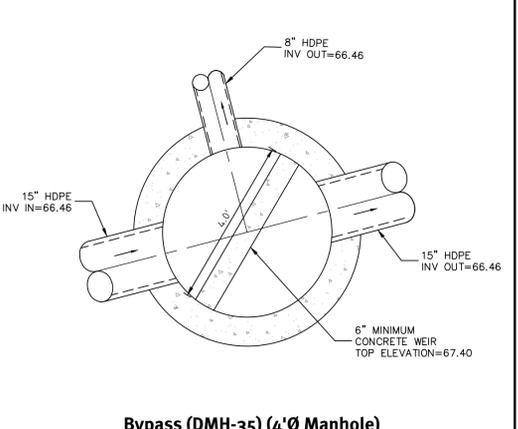


DESCRIPTION	USF-C	USF-D
TOP OF UIS STONE ELEVATION	69.00	67.50
BOTTOM OF UIS STONE ELEVATION	65.50	64.00
100 YEAR STORM ELEVATION	68.02	67.33
10 YEAR STORM ELEVATION	67.58	66.83
1 YEAR STORM ELEVATION	66.90	66.26
WO STORM ELEVATION	65.20	64.26
SEASONAL HIGH GWT ELEVATION	59.00±	59.00±
SOIL EVALUATION	TH-4	TH-6

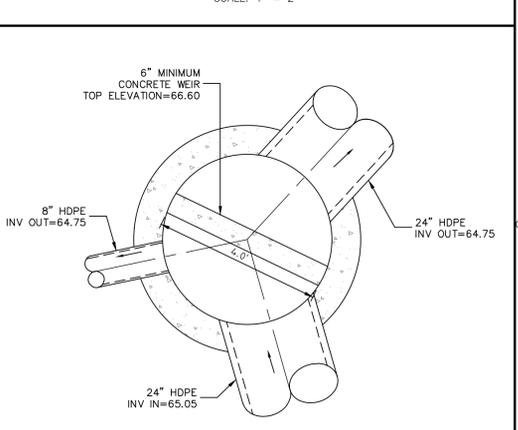
- NOTES:**
- THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.
  - SEE LATEST STORMTECH DESIGN MANUAL.
  - ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.



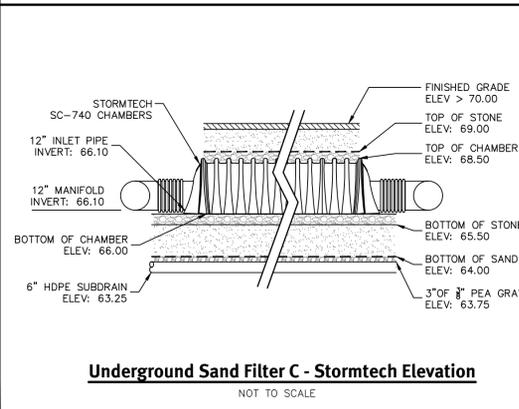
Underground Sand Filter Detail  
NOT TO SCALE



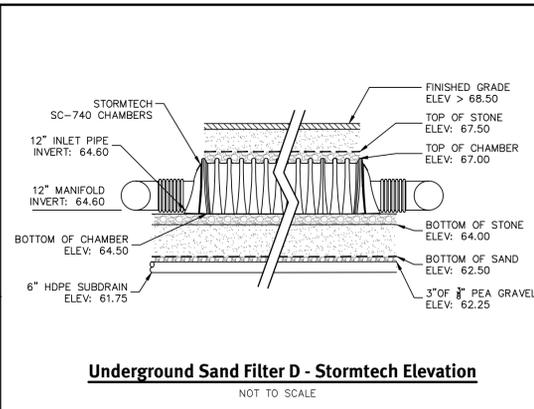
Bypass (DMH-35) (4'Ø Manhole)  
SCALE: 1" = 2'



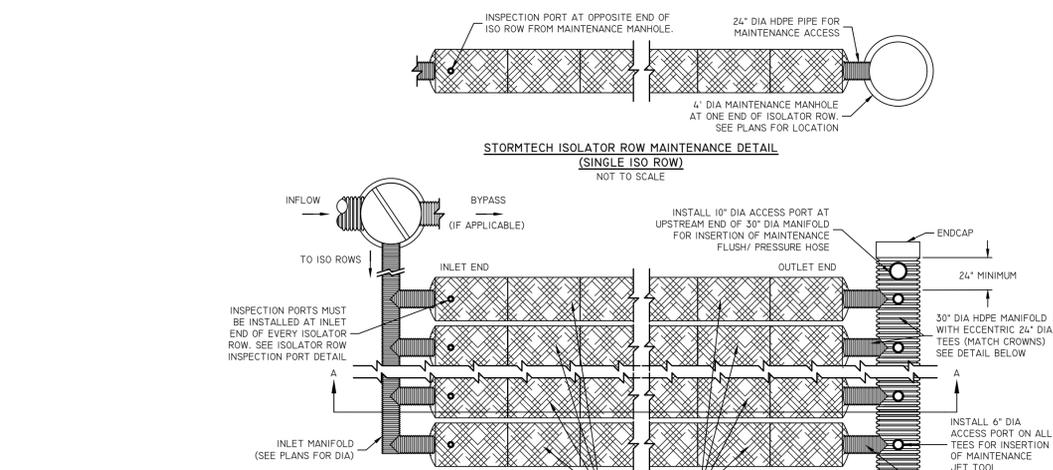
Bypass (DMH-46) (4'Ø Manhole)  
SCALE: 1" = 2'



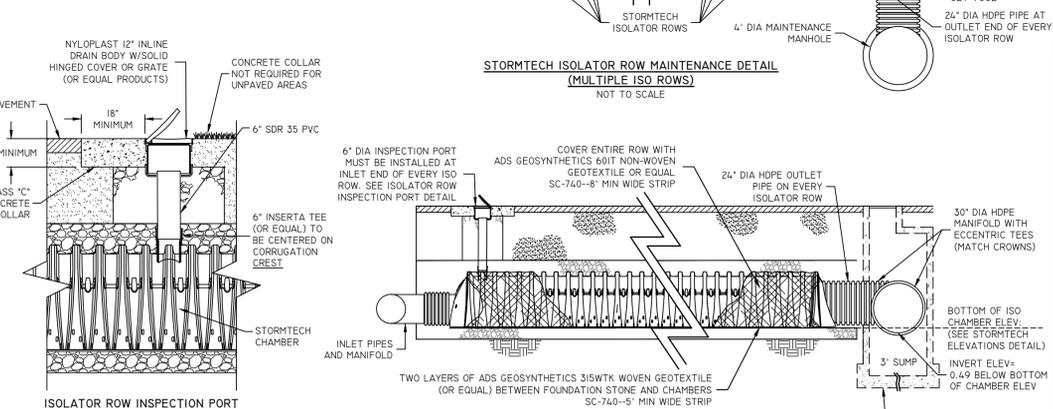
Underground Sand Filter C - Stormtech Elevation  
NOT TO SCALE



Underground Sand Filter D - Stormtech Elevation  
NOT TO SCALE



STORMTECH ISOLATOR ROW MAINTENANCE DETAIL (SINGLE ISO ROW)  
NOT TO SCALE



STORMTECH ISOLATOR ROW MAINTENANCE DETAIL (MULTIPLE ISO ROWS)  
NOT TO SCALE



STORMTECH ISOLATOR ROW DETAIL (SC-740)  
NOT TO SCALE

**DiPrete Engineering**  
Two Stafford Court Cranston, RI 02920  
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com

**Boston • Providence • Newport**

**DANA R. NISSET**  
No. 11876  
REGISTERED PROFESSIONAL ENGINEER CIVIL

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED AND SIGNED BY THE REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE PROFESSIONAL ENGINEER'S BASIS. DIPRETE ENGINEERING DOES NOT WARRANT PLANS BY ANY OTHER PARTY. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND UTILITIES LOCATIONS PRIOR TO THE BEGINNING OF CONSTRUCTION. ONLY DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED DUE TO LOCATIONS OF EXISTING UTILITIES.

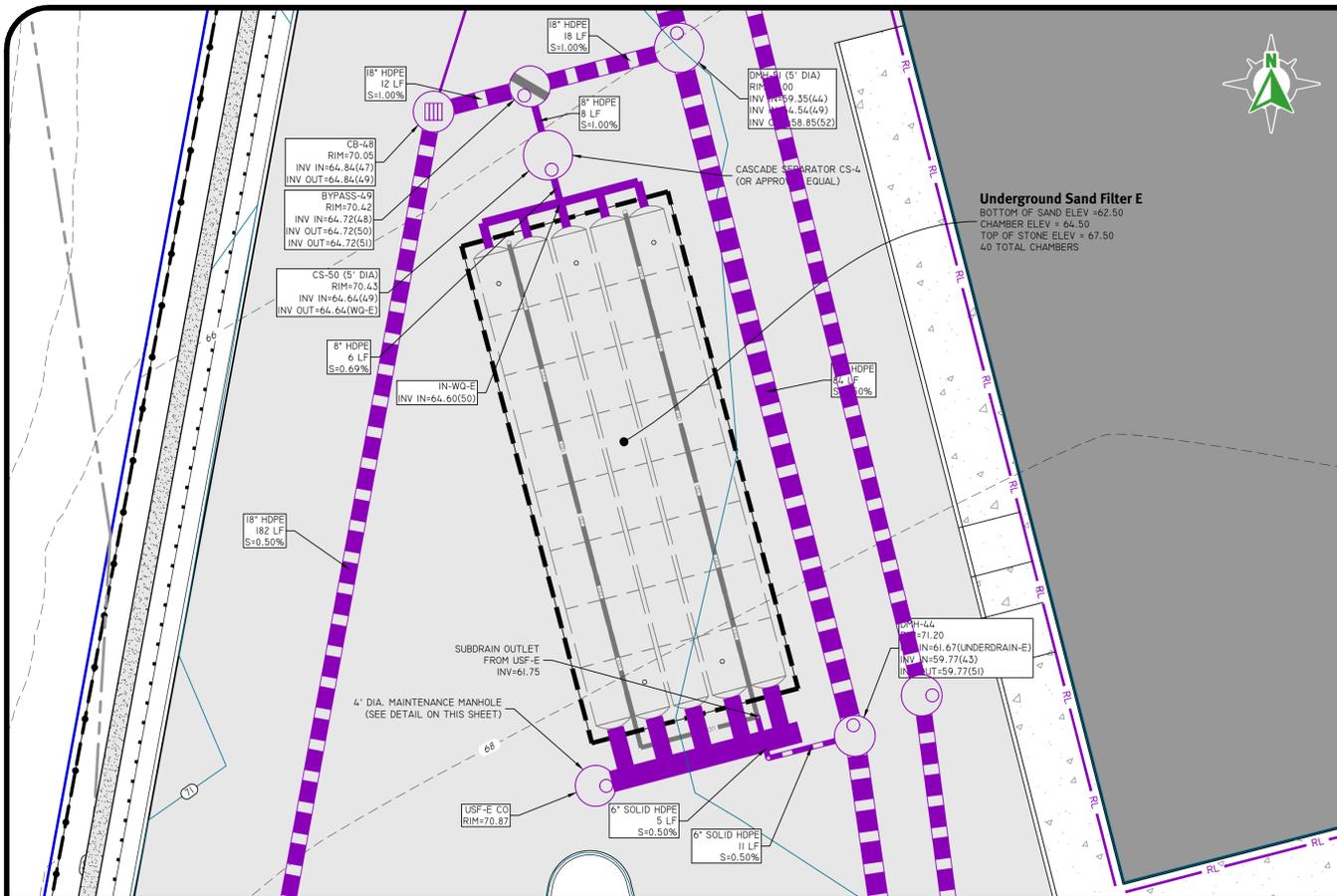
NO.	DATE	DESCRIPTION	DESIGNED BY
1	06/12/2022	PRELIMINARY PLAN REVIEW SUBMISSION	DNK
2	06/27/2022	FINAL PLAN SUBMISSION	DNK
3	07/12/2022	DESCRIPTION	DNK

**BMP DETAILS - 2**

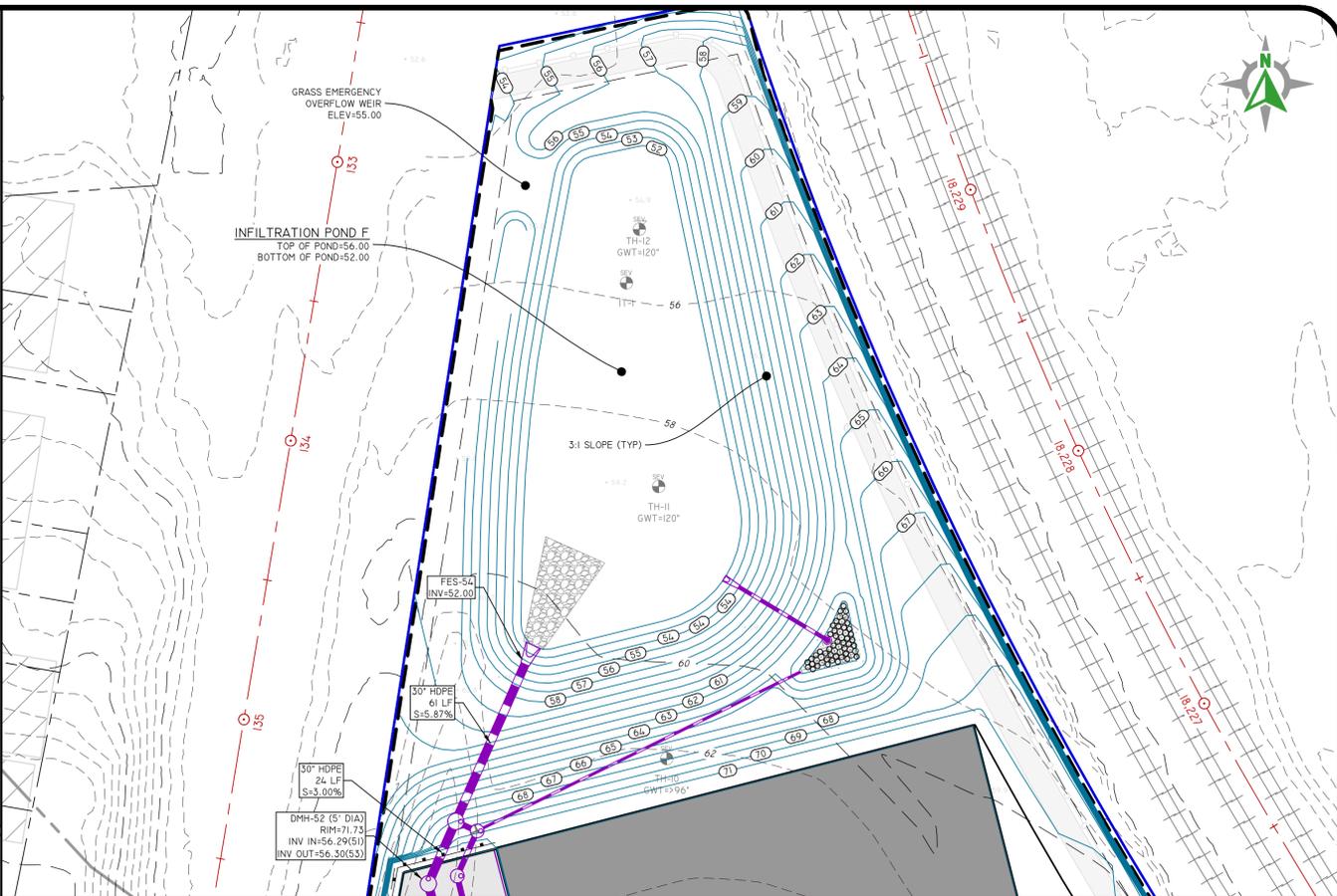
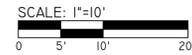
**TROLLEY BARN PLAZA**  
ASSESSOR'S PLAT 7 LOT 1  
CRANSTON, RHODE ISLAND

**TROLLEY BARN ASSOCIATES LLC**  
C/O FIRST HARTFORD REALTY, C/OP  
P.O. BOX 1270, MANCHESTER, CT 06045

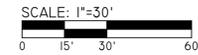
DESIGNED BY: DNK/JMS  
DRAWN BY: DNK/JMS



**UNDERGROUND SAND FILTER E**

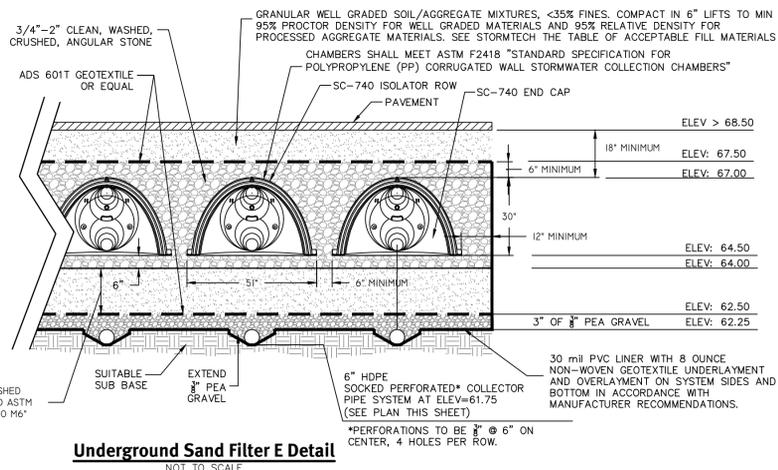


**INFILTRATION POND F**

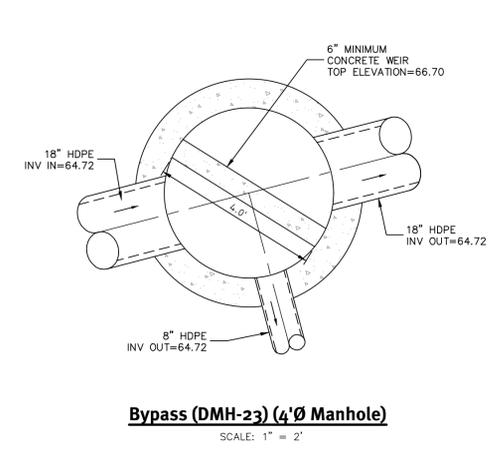


DESCRIPTION	USF-E
TOP OF UIS STONE ELEVATION	67.50
BOTTOM OF UIS STONE ELEVATION	64.00
100 YEAR STORM ELEVATION	67.47
10 YEAR STORM ELEVATION	66.93
1 YEAR STORM ELEVATION	66.40
WQ STORM ELEVATION	64.37
SEASONAL HIGH GWT ELEVATION	58.50±
SOIL EVALUATION	TH-9

**NOTES:**  
 1. THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS. SEE APPLICABLE STORMTECH CONSTRUCTION GUIDES AND ALL APPLICABLE DOCUMENTS FOR SPECIFIC MATERIAL REQUIREMENTS.  
 2. SEE LATEST STORMTECH DESIGN MANUAL.  
 3. ALL STORMTECH CHAMBERS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND THESE PLANS CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

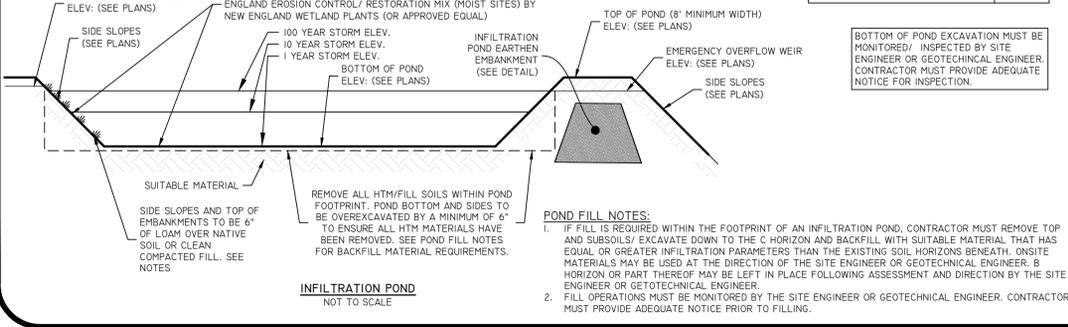


**Underground Sand Filter E Detail**  
NOT TO SCALE

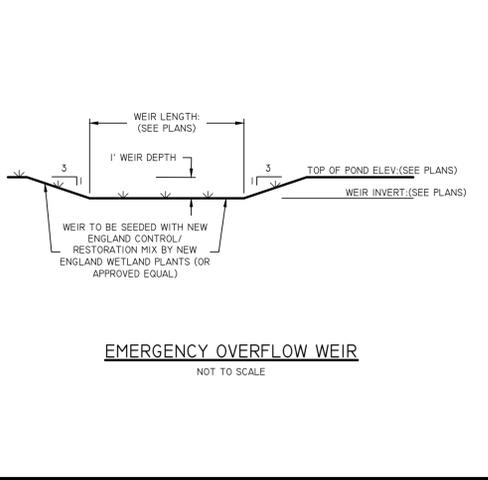


**Bypass (DMH-23) (4" Manhole)**  
SCALE: 1" = 2"

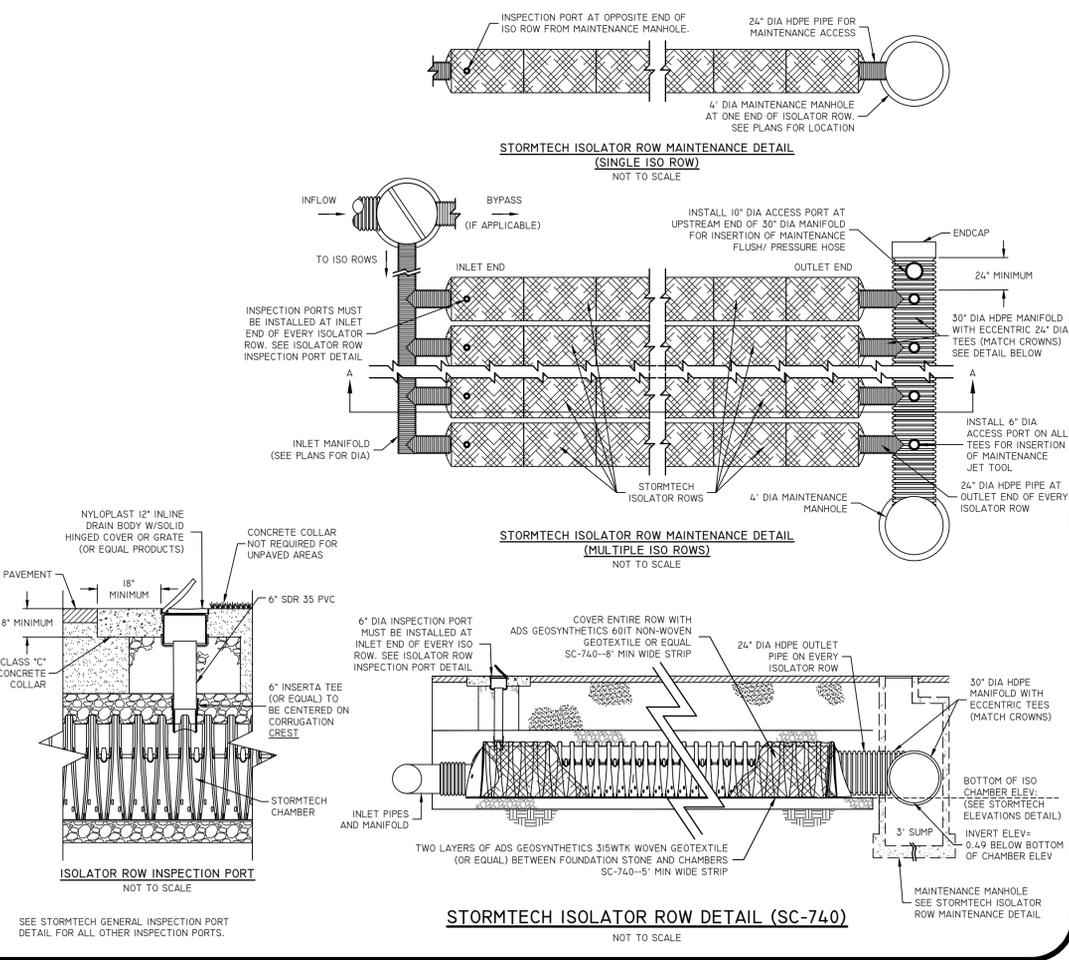
DESCRIPTION	IP-F
TOP OF POND ELEVATION	56.00
100 YEAR STORM ELEVATION	54.95
10 YEAR STORM ELEVATION	52.67
1 YEAR STORM ELEVATION	52.01
BOTTOM OF POND ELEVATION	52.00
SEASONAL HIGH GWT ELEVATION	45.20±
SOIL EVALUATION	TH-12



**INFILTRATION POND**  
NOT TO SCALE



**EMERGENCY OVERFLOW WEIR**  
NOT TO SCALE



**STORMTECH ISOLATOR ROW DETAIL (SC-740)**  
NOT TO SCALE

**DiPrete Engineering**  
 Two Stafford Court Cranston, RI 02920  
 tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com

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**DANA R. NISSET**  
 No. 11876  
 REGISTERED PROFESSIONAL ENGINEER CIVIL

NO.	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	DATE	DESCRIPTION
1	06/21/2022	DEVELOPMENT PLAN REVIEW SUBMISSION				
2	06/27/2022	DEVELOPMENT PLAN SUBMISSION				
3	07/12/2022	DESIGNATION				

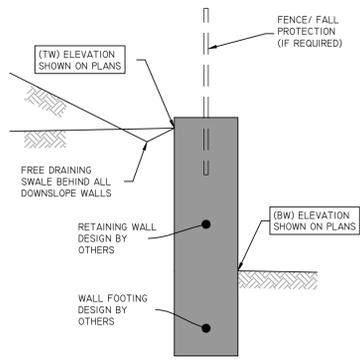
**BMP DETAILS - 3**

**TROLLEY BARN PLAZA**  
 ASSESSOR'S PLAT 7 LOT 1  
 CRANSTON, RHODE ISLAND

**TROLLEY BARN ASSOCIATES LLC**  
 C/O FIRST HARTFORD REALTY CORP.  
 P.O. BOX 1270, MANCHESTER, CT 06045

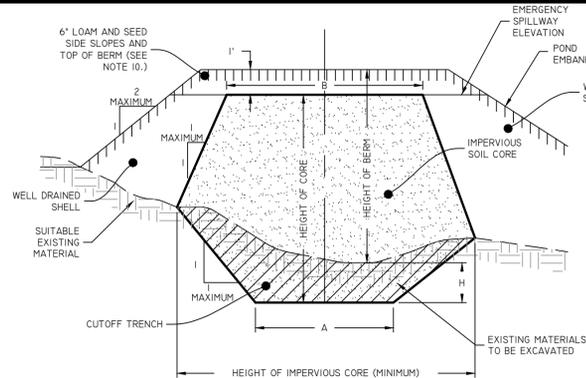
DESIGNED BY: NDK/JMS  
 CHECKED BY: NDK/JMS  
 DATE: 06/27/2022  
 SHEET 12 OF 15





**TYPICAL RETAINING WALL SECTION**

NOT TO SCALE



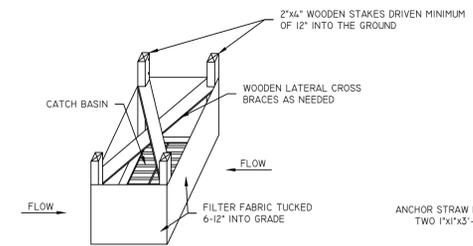
**POND EARTHEN EMBANKMENT**

NOT TO SCALE

BERM HEIGHT (FT)	TOP WIDTH OF CORE - B (FT)
0-6.5	8.2
6.6-9.8	9.2
9.9-13.1	9.8
13.2-16.4	10.8
16.5-19.7	11.5

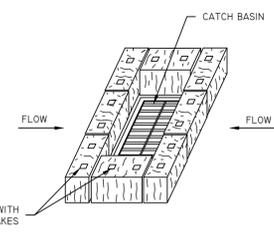
**NOTES:**

1. IMPERVIOUS SOIL CORE TO BE PROVIDED FOR ALL POND EMBANKMENTS.
2. IMPERVIOUS SOIL CORE TO BE CONSTRUCTED OF A MATERIAL WITH A MINIMUM OF 55% PASSING THE #200 SIEVE AND A MAXIMUM PERMEABILITY OF 0.00005 CM/S.
3. WELL DRAINED SHELL TO BE CONSTRUCTED OF GRAVEL AND/OR SAND WITH LESS THAN 5% PASSING THE #200 SIEVE.
4. MINIMUM DEPTH OF CUTOFF TRENCH (H) SHALL BE 3/4 OF THE TOTAL BERM HEIGHT.
5. THE IMPERVIOUS CORE AT A MINIMUM SHALL EXTEND UP BOTH ABUTMENTS TO THE EMERGENCY SPILLWAY ELEVATION.
6. THE MINIMUM BOTTOM WIDTH (A) SHALL BE 5'-8", AND WIDE ENOUGH TO PERMIT OPERATION OF COMPACTION EQUIPMENT.
7. SIDE SLOPES OF THE TRENCH SHALL BE NO STEEPER THAN 1:1.
8. IF BEDROCK IS ENCOUNTERED BELOW THE DAM THE CUT OFF TRENCH CAN BE REDUCED TO 1'x1' (MIN).
9. 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".
10. 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.
11. THE IMPERVIOUS CORE SHALL BE KEPT FREE FROM STANDING WATER DURING THE BACKFILL OPERATION.
12. ALL EMBANKMENT INSTALLATIONS TO BE SUPERVISED BY A GEOTECHNICAL ENGINEER.
13. ANY PROPOSED DEVIATIONS FROM THIS DETAIL MUST BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SUBMITTED TO THE SITE ENGINEER (AND A/E WHERE REQUIRED) FOR REVIEW PRIOR TO CONSTRUCTION.



**SILT FENCE INSTALLATION FOR CATCH BASINS AT LOW POINTS**

NOT TO SCALE



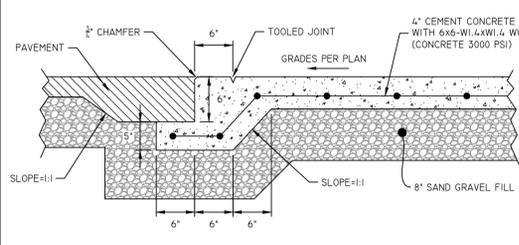
**STRAW BALE FILTER INSTALLATION FOR CATCH BASINS AT LOW POINTS**

NOT TO SCALE

**CATCH BASIN EROSION CONTROL**

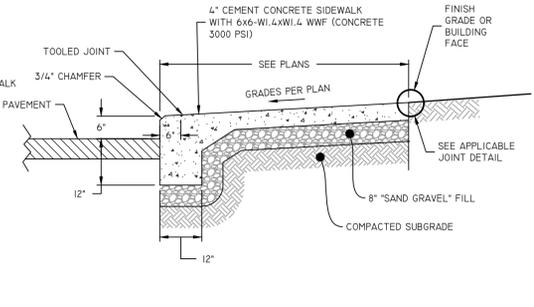
NOT TO SCALE

- NOTE:**
1. SEE SITE PLAN FOR SIDEWALK WIDTH AND GRADES.
  2. SURFACE TEXTURE SHALL BE A LIGHT BROOMING, TRANSVERSE TO THE LENGTH OF THE WALK. CARE MUST BE TAKEN TO ENSURE A UNIFORM GRADE, FREE OF SAGS AND SHORT GRADE CHANGES.
  3. ALL IMPROVEMENTS MUST COMPLY WITH THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) BY THE DEPARTMENT OF JUSTICE, CURRENT EDITION.
  4. PROVIDE EXPANSION JOINTS AT MAX. 16 FT. O.C. WITH PREFORMED JOINT FILLER AND SEALANT.
  5. PROVIDE CONTROL JOINTS AT 5' O.C.
  6. MUST BE IN ACCORDANCE WITH THE R.I. STANDARD SPECIFICATIONS, CURRENT EDITION.



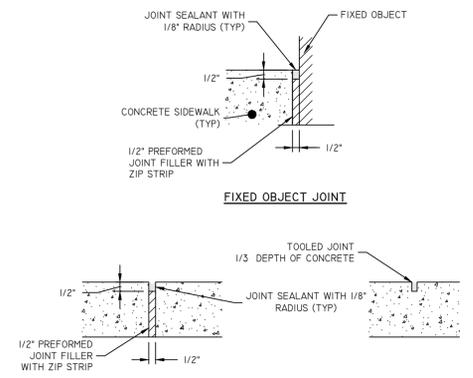
**MONOLITHIC CONCRETE SIDEWALK (FLUSH)**

NOT TO SCALE

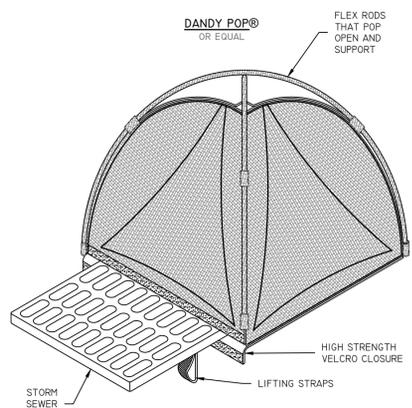


**MONOLITHIC CONCRETE SIDEWALK (6" REVEAL)**

NOT TO SCALE

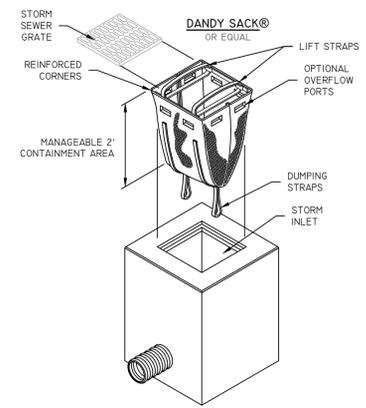


**EXPANSION JOINT CONTROL JOINT**



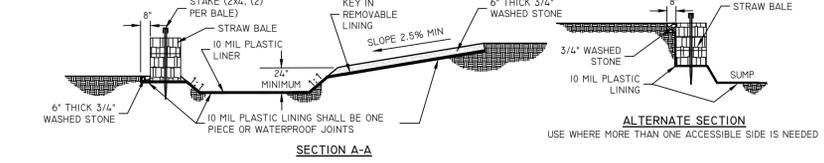
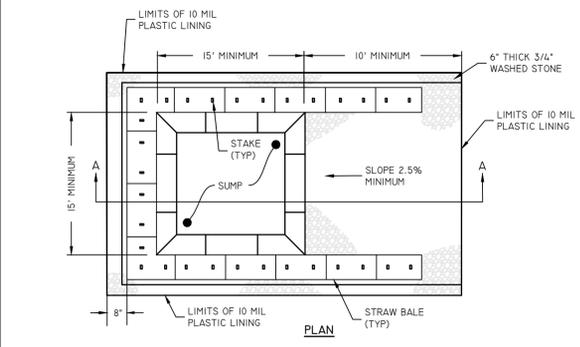
**INLET SEDIMENT CONTROL DEVICES**

NOT TO SCALE



**INLET SEDIMENT CONTROL DEVICES**

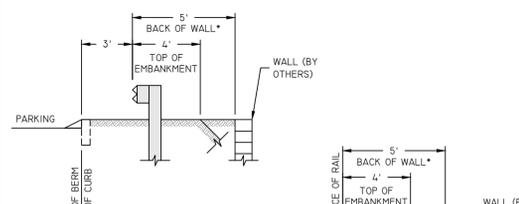
NOT TO SCALE



- NOTE:**
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.

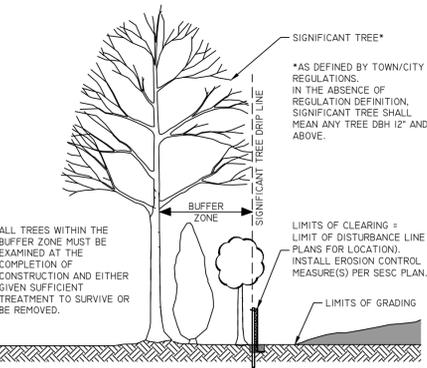
**CONCRETE WASHOUT AREA**

NOT TO SCALE



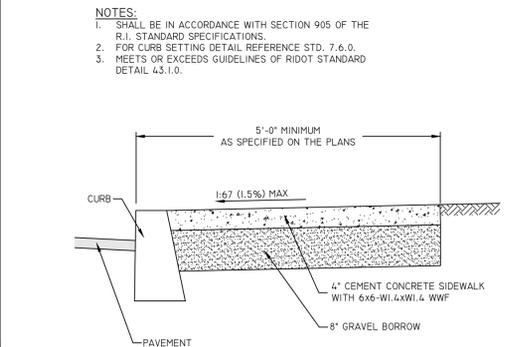
**GUARDRAIL OFFSET SCENARIOS**

NOT TO SCALE



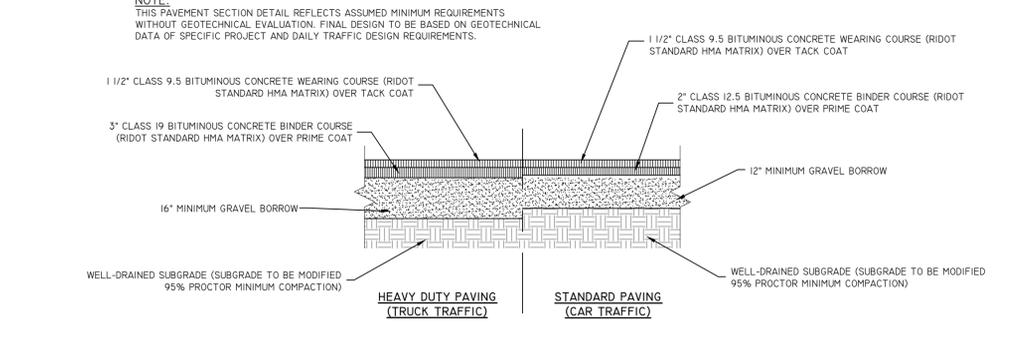
**LIMIT OF DISTURBANCE AT VEGETATION**

NOT TO SCALE



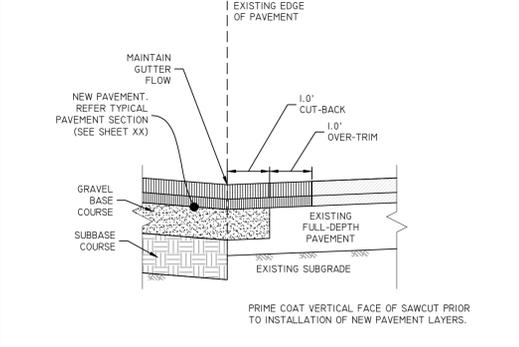
**CEMENT CONCRETE SIDEWALK**

NOT TO SCALE



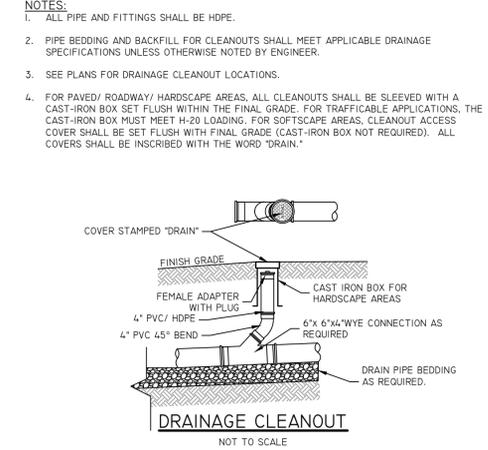
**TYPICAL PAVEMENT SECTION**

NOT TO SCALE



**PAVEMENT TIE-IN DETAIL**

NOT TO SCALE



**DRAINAGE CLEANOUT**

NOT TO SCALE

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**Boston • Providence • Newport**

**DANA R. NISSET**  
 REGISTERED PROFESSIONAL ENGINEER CIVIL  
 No. 11876  
 5/1/2014

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS STAMPED AND SIGNED FOR CONSTRUCTION AND STAMPED BY AN ENGINEER.  
 DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE ENGINEERING PROJECT. DIPRETE ENGINEERING DOES NOT WARRANT PLANS BY ANY OTHER PARTY.  
 THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND UTILITIES UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. ONLY DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED DUE TO LOCATIONS OF EXISTING UTILITIES.  
 DESIGN BY: NDK/AMS

NO.	DATE	DESCRIPTION
01/17/2022		DEVELOPMENT PLAN REVIEW SUBMISSION
02/17/2022		CONTRACT PLAN SUBMISSION

**DETAIL SHEET - 1**

**TROLLEY BARN PLAZA**  
 ASSESSOR'S PLAT 7 LOT 1  
 CRANSTON, RHODE ISLAND

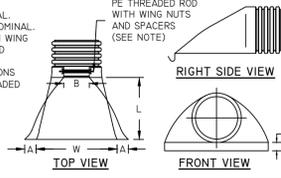
PREPARED FOR:  
**TROLLEY BARN ASSOCIATES LLC**  
 C/O FIRST HARTBORN REALTY CORP.  
 P.O. BOX 1270, MANCHESTER, CT 06045

DE JOB NO. 282400. COPYRIGHT 2022 BY DIPRETE ENGINEERING ASSOCIATES, INC.

SHEET **14** OF 15

Z:\DEPMAN\PROJECTS\19284-001\_Cranston\STREET 777\AUTOCAD DRAWINGS\19284-001\_PLAN\BMP DWG PLOT16 5/24/2022

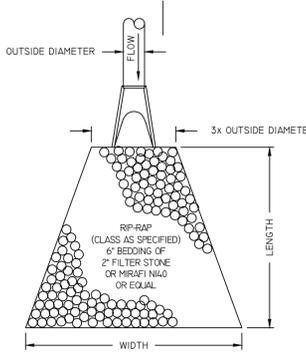
- NOTE:  
 1. ADS OR APPROVED EQUAL.  
 2. ALL DIMENSIONS ARE NOMINAL.  
 3. PE THREADED ROD WITH WING NUTS PROVIDED FOR END SECTIONS 12" - 24".  
 4. 30" AND 36" END SECTIONS REQUIRE TWO (2) THREADED RODS FOR ASSEMBLY.



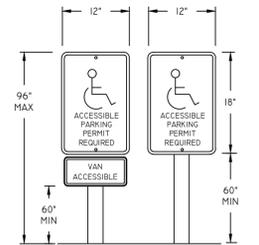
PART #	PIPE SIZE	A	B (MAX)	H	L	W
120NP	12 IN (300 MM)	6.50 IN (165 MM)	10 IN (254 MM)	6.50 IN (165 MM)	25 IN (635 MM)	29 IN (737 MM)
150NP	15 IN (375 MM)	6.50 IN (165 MM)	10 IN (254 MM)	6.50 IN (165 MM)	25 IN (635 MM)	29 IN (737 MM)
180 NP	18 IN (450 MM)	7.50 IN (191 MM)	15 IN (381 MM)	6.50 IN (165 MM)	32 IN (813 MM)	35 IN (889 MM)
240NP	24 IN (600 MM)	7.50 IN (191 MM)	18 IN (457 MM)	6.50 IN (165 MM)	36 IN (914 MM)	45 IN (1143 MM)
300NP	30 IN (750 MM)	7.50 IN (191 MM)	12 IN (305 MM)	8.60 IN (218 MM)	58 IN (1473 MM)	63 IN (1600 MM)
360NP	36 IN (900 MM)	7.50 IN (191 MM)	25 IN (635 MM)	8.60 IN (218 MM)	58 IN (1473 MM)	63 IN (1600 MM)

**HDPE FLARED END SECTION**  
 NOT TO SCALE

FLARED END	LENGTH	WIDTH	CLASS
FES-54	37'	23'	R-4

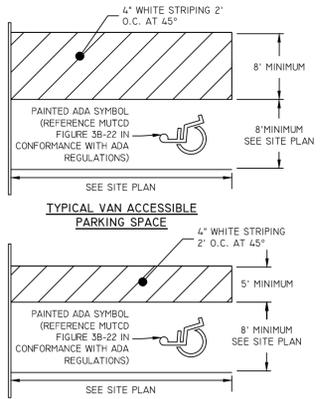


**RIP-RAP APRON/ FE DETAIL**  
 NOT TO SCALE



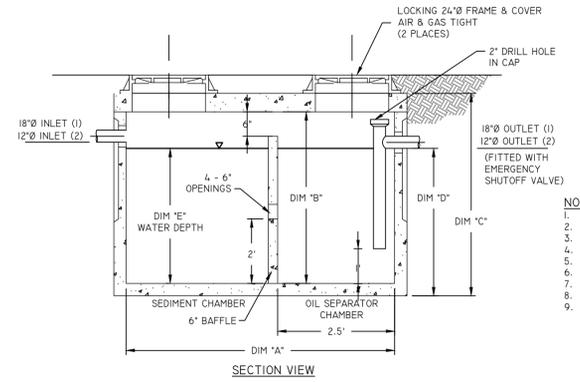
- NOTE:  
 1. SIGN MUST BE PLACED BEHIND APPLICABLE VAN ACCESSIBLE OR ACCESSIBLE SPACE AS SHOWN ON SITE PLAN.  
 2. ACCESSIBLE PARKING SPACES AND SIGNAGE MUST COMPLY WITH LATEST VERSION OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) OR THE APPLICABLE STATE/ MUNICIPAL BUILDING CODE, WHICHEVER STANDARD CONTROLS.  
 3. THE MAXIMUM HEIGHT OF THE TOP OF THE HIGHEST SIGN SHALL BE 96".  
 4. THE MINIMUM HEIGHT OF THE BOTTOM OF THE LOWEST SIGN SHALL BE 60".

**TYPICAL ACCESSIBLE PARKING SIGN**  
 NOT TO SCALE



- NOTE:  
 1. ALL PAINT MUST BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M218 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 SPACES**  
 NOT TO SCALE

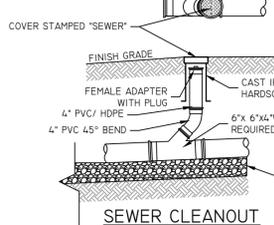


GALLON CAPACITY	1000
MODEL NO.	OW-1000
DIM "A"	6'-0" SQ.
DIM "B"	5'-0"
DIM "C"	6'-0"
DIM "D"	4'-6"
WATER DEPTH DIM "E"	4'-0"

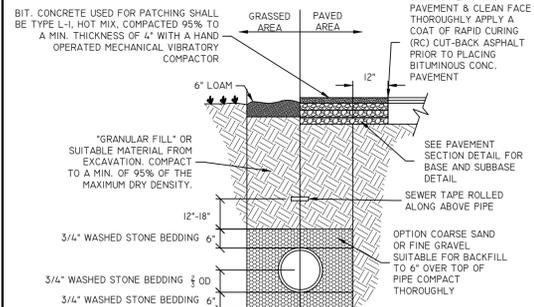
- NOTE:  
 1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH F'c = 5000 PSI  
 2. REBAR: ASTM A-615 GRADE 60  
 3. DESIGN: ASTM C-858 AND ACI 318  
 4. LOADS: AASHTO H-20 TRUCK WHEEL WITH 30% IMPACT PER AASHTO  
 5. CONTRACTOR TO SUPPLY AND INSTALL ALL PIPING AND SAMPLING TEES  
 6. CONSTRUCTION JOINT SEALANT 1" DIA. BUTYL RUBBER OR EQUIVALENT  
 7. INTERIOR OF TANK IS COATED WITH PETROLEUM RESISTANT EPOXY SEALANT  
 8. BAFFLE TO BE TIGHTLY SEALED AT SIDEWALLS AND AT THE ROOF  
 9. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO DESIGN ENGINEER FOR APPROVAL PRIOR TO ORDERING OIL/WATER SEPARATOR (OW-1000).

**1,000 GALLON OIL/WATER SEPARATOR**  
**(OLD CASTLE PRECAST OR APPROVED EQUAL)**  
 NOT TO SCALE

- NOTE:  
 1. ALL PIPE AND FITTINGS SHALL BE SCH-40 PVC.  
 2. PIPE BEDDING AND BACKFILL FOR CLEANOUTS SHALL MEET APPLICABLE SEWER SPECIFICATIONS UNLESS OTHERWISE NOTED BY ENGINEER.  
 3. FOR SEPTIC APPLICATIONS, CLEANOUTS ARE REQUIRED AT INTERVALS NOT GREATER THAN 75'. FOR ALL OTHER APPLICATIONS, A MINIMUM OF ONE CLEANOUT SHALL BE PLACED ON EACH LATERAL, 5' FROM THE STRUCTURE, AND FOR LONGER RUNS, CLEANOUTS SHALL BE LOCATED EVERY 100'.  
 4. FOR PAVED/ ROADWAY/ HARDSCAPE AREAS, ALL CLEANOUTS SHALL BE SLEEVED WITH A CAST-IRON BOX SET FLUSH WITH THE FINAL GRADE. FOR TRAFFICABLE APPLICATIONS, THE CAST-IRON BOX MUST MEET H-20 LOADINGS. FOR SOFTSCAPE AREAS, CLEANOUT ACCESS COVER SHALL BE SET FLUSH WITH FINAL GRADE (CAST-IRON BOX NOT REQUIRED). ALL COVERS SHALL BE INSCRIBED WITH THE WORD "SEWER."

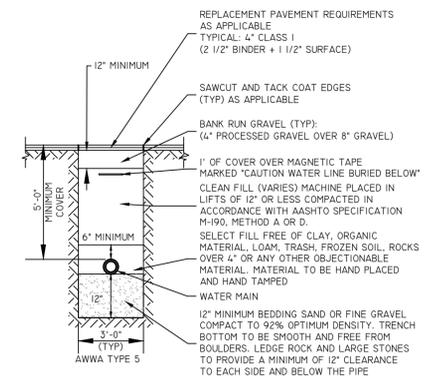


**SEWER CLEANOUT**  
 NOT TO SCALE



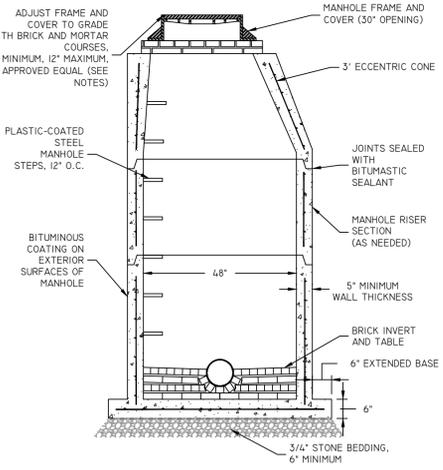
- NOTE:  
 1. WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12".  
 2. SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR.  
 3. CRUSHED STONE FOUNDATION 3/4" MAXIMUM SIZE, SHALL BE PLACED 6" UNDER THE PIPE AND 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.

**SEWER TRENCH DETAIL**  
 NOT TO SCALE



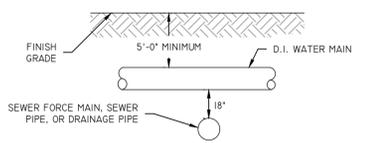
**WATER TRENCH DETAIL**  
 NOT TO SCALE

- NOTE:  
 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 EXFILTRATION 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.

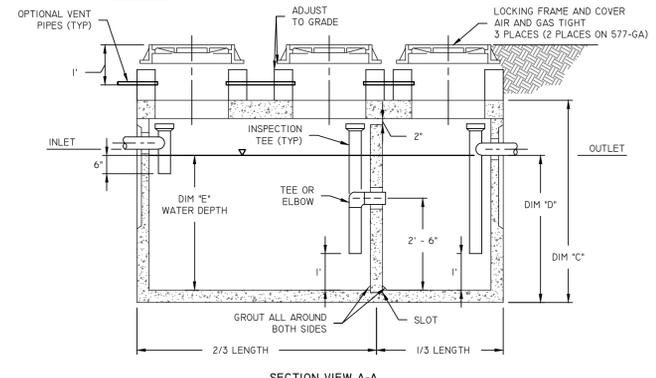
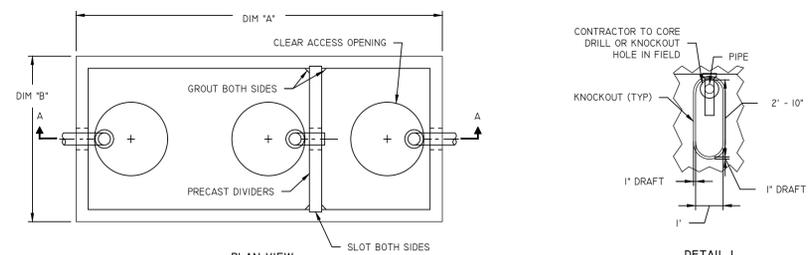


**SEWER MANHOLE**  
 NOT TO SCALE

- NOTE:  
 1. THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED UTILITY SHOULD BE A MINIMUM OF 18".  
 2. THE HORIZONTAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED UTILITY SHALL BE A MINIMUM OF 10".  
 3. IF 1 OR 2 CAN NOT BE MAINTAINED THE PROPOSED UTILITY IS TO BE ENCASED IN CONCRETE 12" ON EITHER SIDE OF THE CROSSING.



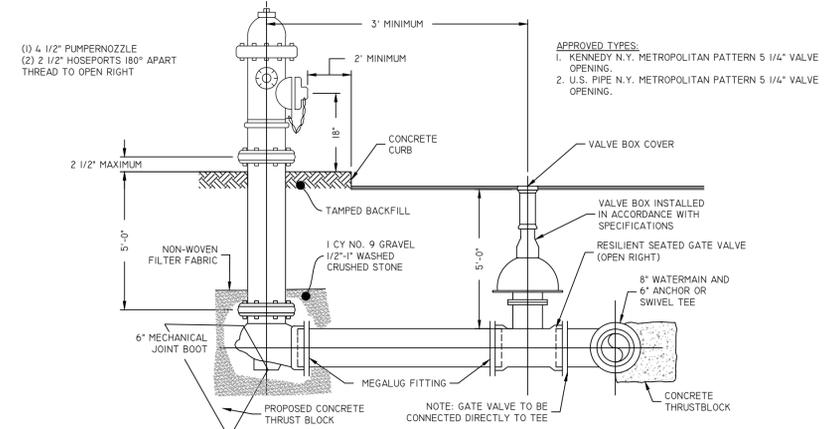
**UTILITY SEPARATION**  
 NOT TO SCALE



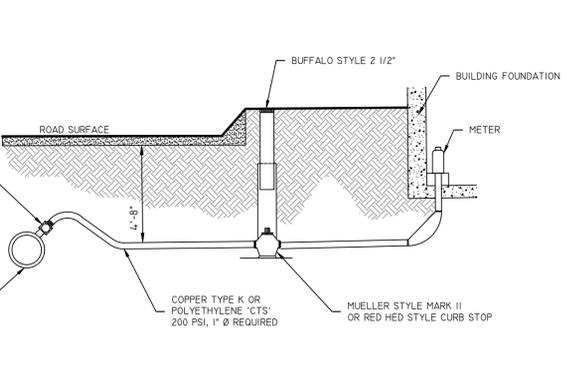
GALLON CAPACITY	600	800	1000	1500	2000	2500	3000	4000	5000	6000	7000
UV MODEL NO.	577-GA	577-GA	4484-GA	5106-GA	612-GA	612-GA	712-GA	712-GA	814-GA	818-GA	818-GA
DIM "A"	7'-0"	7'-0"	9'-0"	11'-2"	12'-8"	12'-8"	13'-1"	13'-1"	15'-7"	19'-11"	19'-11"
DIM "B"	4'-8"	4'-8"	5'-0"	5'-8"	6'-8"	6'-8"	8'-0"	8'-0"	9'-7"	9'-11"	9'-11"
DIM "C"	7'-0"	7'-0"	7'-2"	7'-2"	8'-0"	8'-0"	8'-7"	8'-7"	10'-0 1/2"	10'-5"	10'-5"
DIM "D"	3'-7"	4'-8"	4'-2"	4'-3"	4'-7"	5'-1"	5'-6 1/2"	5'-1"	6'-8"	7'-4"	8'-0"
WATER DEPTH DIM "E"	3'-3"	4'-4"	3'-10"	3'-11"	3'-9 1/2"	4'-9"	4'-8"	6'-3"	6'-1"	5'-8"	6'-7"

- NOTE:  
 1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH F'c = 4500 PSI  
 2. REBAR: ASTM A-615 GRADE 60  
 3. MESH: ASTM A-185 GRADE 65  
 4. DESIGN: ACI-318-02 BUILDING CODE, ASTM C-857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"  
 5. LOADS: H-20 TRUCK WHEEL WITH 30% IMPACT PER AASHTO  
 6. FILL WITH CLEAN WATER PRIOR TO START-UP OF SYSTEM  
 7. CONTRACTOR TO SUPPLY AND INSTALL ALL PIPING AND SAMPLING TEES  
 8. GRAY WATER ONLY, BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER  
 9. FOR MASSACHUSETTS PROJECTS THE PIPES FROM BUILDING TO GREASE TRAP AND FROM GREASE TRAP TO NEXT DOWNSTREAM STRUCTURE MUST BE CAST IRON AND IN ACCORDANCE WITH 284CMR.

**GREASE INTERCEPTOR**  
 NOT TO SCALE



**AWWA C502 DRY BARREL FIRE HYDRANT**  
 NOT TO SCALE



**WATER SERVICE INSTALLATION (TYP)**  
 NOT TO SCALE

**DiPrete Engineering**  
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 tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com

**Boston • Providence • Newport**

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 No. 11876  
 REGISTERED PROFESSIONAL ENGINEER CIVIL

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NO.	DATE	DESCRIPTION	DESIGN BY:
1	06/14/2022	DEVELOPMENT PLAN REVIEW SUBMISSION	NDK
2	06/27/2022	REVISION PLAN SUBMISSION	NDK
3	07/12/2022	REVISION PLAN SUBMISSION	NDK
4	07/12/2022	REVISION PLAN SUBMISSION	NDK

**DETAIL SHEET - 2**  
**TROLLEY BARN PLAZA**  
 ASSESSOR'S PLAT 7 LOT 1  
 CRANSTON, RHODE ISLAND

PREPARED FOR:  
**TROLLEY BARN ASSOCIATES LLC**  
 C/O FIRST HARBOR REALTY CORP.  
 P.O. BOX 1270, MANCHESTER, CT 06045

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