

TOWN OF JOHNSTON **REQUEST FOR PROPOSALS**

Johnston War Memorial Park Recreational Splash Pad Project – Utility Construction Work

RFP Number 2024-005

Issuing Department Buildings & Grounds

Department

Mandatory Pre-Bid Conference Thursday, January 18th 2024

Location 1583 Hartford Avenue, Johnston

Time 10:00am

Bid Due Date & Opening Thursday, February 1st 2024

Time 10:00am



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The Town of Johnston is seeking proposals for Utility Construction Work on the Johnston War Memorial Park Recreational Splash Pad Project.

SUBMISSION OF BIDS INSTRUCTIONS

Sealed bids will be accepted at the Office of the Town Clerk at Johnston Town Hall. Proposals may be submitted up to 10:00 AM Thursday, February 1st 2024. All proposals will then be publicly opened and read aloud in the Conference Room located at Town Hall.

A Mandatory Pre-Bid Conference will be held at 10:00 AM on Thursday, January 18th 2024. Located at the Johnston War Memorial Park, 1583 Hartford Avenue, Johnston, RI 02919. Bidders must attend and sign in at the pre-bid conference; any bid submitted without attending the mandatory pre-bid conference will be rejected.

A sealed package must be submitted containing one (1) original bid, labeled original and one (1) unbound copy.

The bids must be marked with the name and address of the bidder, and the date and time of bid opening. Bids must be received prior to the due date and time. Bids received after that time shall be returned unopened. Packages submitted must be sealed and clearly marked: "JWMP – Utility Construction Work" Any communications that are not competitive sealed proposals should have "NOT A BID" written on the envelope or wrapper.

Envelopes containing bids must be sealed and addressed to:

Town Clerk's Office Johnston Town Hall 1385 Hartford Avenue Johnston, RI 02919

The Town is not responsible for accepting any submissions delivered to other town buildings. Bids received prior to the time of opening will be securely kept, unopened until the opening time. No responsibility will attach to an officer or person for the premature opening of a bid not properly addressed and identified.

Documents Required for Submission with Sealed Bid

- 1. A sealed package must be submitted containing one (1) original bid, labeled original and one (1) unbound copy.
- 2. Bid Bond or Certified Bank Check: Must be for 10% of the price of the Bid.
- 3. Bid Form: found on page 8 of this RFP. Must be signed by a responsible member of the firm with their signature and official title.



Documents Required if Selected as Winning Bidder

- 1. Performance Bond or Certified Bank Check: Must be for 100% of completed cost of project/service.
- 2. Insurance Binder: A certificate of insurance indicating liability and workers' compensation coverage must be provided.
- 3. IRS Form W-9: Should be completed and submitted if the bidder falls under IRS requirements to file this form.

NOTICES TO PROPOSERS

- I. Any bidder may withdraw the firm's bid by written request at any time prior to the advertised time for opening. Telephonic, email or facsimile transmitted bids, amendments, or withdrawals will not be accepted.
- II. Unless otherwise specified, no bid may be withdrawn after the date and time of the bid opening. Time is of the essence in this bid and failure to deliver within the time period shall be considered default.
- III. If any proprietary, trade, brand or manufacturer's name or part number is used herein in describing the required equipment, it shall be understood to indicate the minimum standard of composition and quality desired, and shall not be construed to exclude equipment that equals or exceeds the functional capability and quality of the named equipment. If bids are based on such equipment, indicate the manufacturer's name, model and number for the equipment and include any literature or other explanation of the equipment's quality or performance.
- IV. Negligence on the part of the bidder in preparing the bid confers no rights for the withdrawal of the bid after said bid has been opened.
- V. Descriptive materials such as plans, drawings, photographs, written descriptions, and particularly manufacturer's literature that will enable the Town to determine the exact quality, design and appearance of the equipment proposed, shall accompany the bid. All equipment listed, or shown, in the manufacturer's literature, drawings or photographs, and approved by the Town, shall be furnished.
- VI. All prices bid must be on the basis of F.O.B. Delivery Point, Town of Johnston. Therefore, shipping costs are to be included within the process quoted. Deliveries must consist only of new merchandise or equipment and shall be made between 7:30am and 3:00pm, or as may be arranged during emergencies.
- VII. Bids received prior to the time of opening will be securely kept, unopened. No responsibility will attach to an officer or person for the premature opening of a bid not properly addressed and identified.
- VIII. The Finance Director or his designee may waive any or all bids for cause, failure to meet specifications or any reason deemed appropriate. The Town of Johnston reserves the right to reject any or all responses or parts thereof, to waive any informality in them, or accept any bid deemed in the best interest of the Town.



PURCHASING DEPARTMENT

TOWN OF JOHNSTON, RHODE ISLAND

IX. An award will be given in writing to the bidder whose offer provides the greatest value to the Town, from the standpoint of meeting specifications and requirements of bidding documents, suitability to purpose, quality, service, previous experience, price, ability to deliver, or for any other reason deemed by the Town to be in its own best interest. Any final analysis or weighted point score does not imply that one bidder is superior to another, but simply, in the Town's judgment the bidder selected appears to offer the best overall solution for our current and anticipated needs. Thus, the result will not be determined by price alone.

Award will be based on, but not limited necessarily to the following (where applicable):

- a) Adherence to all conditions and requirements of the bid specifications;
- b) Total bid price; (including any discounts), unit bid price, or extended price;
- c) General reputation and experience of bidders;
- d) Evaluation of the bidder's ability to service the Town;
- e) Financial responsibility of the bidder;
- f) Prior knowledge of and experience with the bidder in terms of past performance;
- g) Needs and requirements of the Town;
- h) Experience with the products involved;
- i) Bidder's ability to meet delivery and stocking requirements;
- j) Delivery date or service date; and
- k) Ordering method.
- X. After the bid is awarded, all documents pertaining to the successful bid will be available for public inspection in the Town purchasing office.
- XI. If all Bids exceed the available funds, the Finance Director may re-solicit new Bids or enter into competitive negotiations with two or more of the lowest bidders meeting all requirements as outlined.
- XII. A reasonable inquiry to determine the responsibility of the bidder or offer may be conducted. Failure to promptly supply information related to such an inquiry may be grounds for disqualification of a bidder. All information supplied is confidential.
- XIII. The Town may make such investigations as it deems necessary to determine the ability of the bidder to provide the materials or services, and the bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if such bidder fails to satisfy the Town that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.
- XIV. Bid price shall be firm; unit price shall include any and all trade discounts. Price shall be inclusive of any freight, handling, delivery surcharges or any other incidental charges. Your bid shall be exclusive of any Federal or State taxes, as the Town of Johnston is exempt from payment of such taxes. A certificate of exemption shall be forwarded to the elected vendor upon request.
- XV. Delivery shall be made to the Town of Johnston on the "ship to" address of the Purchase Order. Delivery is required within the time stated herein from the date of the issuance of the purchase order, unless otherwise noted. Delivery shall include assembly, servicing and placement of equipment in operable status unless specified otherwise. No deliveries shall become due or acceptable without a written Purchase Order issued by the Town of Johnston.



PURCHASING DEPARTMENT

TOWN OF JOHNSTON, RHODE ISLAND

- XVI. The Department Director, or his designee, shall accomplish inspection and acceptance of materials/equipment purchased for the department.
- XVII. In case of default, the Town may procure the materials from other sources and hold the bidder responsible for any excess costs occasioned thereby and may immediately cancel the Purchase Order.
- XVIII. Bidders are advised that this section of the specifications will be evaluated before the technical specifications. Bids that do not comply with our General Conditions, Bonding, Insurance, Delivery, Bidder Qualifications, Service and Warranty requirements will be immediately deemed non-responsive and shall be immediately rejected without further review of the technical specification.
 - XIX. Bids not received by the Bid Submittal Deadline are late. Late Bids will be returned to Bidders unopened.
 - XX. No employee, officer or agent of the Town of Johnston shall participate in the selection, the award or administration, of the contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when one of the following has a financial or other interest in any firm proposing on or selected for the award:
 - a) The employee or an officer or agent of the employee;
 - b) Any member of the employee's immediate family;
 - c) The employee's business partner; or
 - d) An organization that employs, or is about to employ, any of the above.
 - XXI. This is a "prevailing wage" contract. Prevailing Wage refers to the requirements of the Rhode Island General Law 37-13 and the general prevailing rate of pay for regular, holiday and overtime wages to be paid to each craftsman, mechanic, teamster, laborer or other type of worker performing work on public works projects when state or municipal funds are used in excess of \$1,000. Contractors must refer to the applicable Davis Bacon Wage Determination rate schedule available at the Rhode Island Department of Labor and Training website to determine the prevailing wage rates for a public works construction project.



INQURIES

Any questions concerning clarification on any portion of this RFP should be made to:

By Mail:

Tyler P. Carney Johnston Town Hall 1385 Hartford Avenue Johnston RI, 02919

By Email:

Tyler P. Carney tcarney@johnston-ri.us

All bidders are responsible for ensuring that no addenda have been made to the original proposal package. All proposal packages and addenda shall be posted to the Town's website and are also available by contacting Tyler Carney, at tearney@johnston-ri.us



BID FORM

Name of Bidder (Firm or Individual):	
Contact Name:	
Contact Phone Number:	
Contact Email:	
Business Address:	
Total Bid Amount:	
	Signature of Representative
	Title of Representative
	Date



SCOPE OF WORK

Invitation to bid Domestic Water, Sewer, and Electrical Utility Construction for a Recreational Splash Pad at Johnston War Memorial Park (JWMP)

Deliverables and Scope of Work:

- 1. Obtain any and all necessary building permit(s) from the Town of Johnston (fees are waived for this project).
- 2. Provide any and all pertinent drawings, plans, and/or product submittals related to the project to the Buildings & Grounds Department as well as the Town Building Official/Department of Planning and Public Services (DPPS).
- 3. Provide and set up safety measures as required by OSHA.
- 4. Provide and set up all necessary temporary fencing, cones, caution tape, and roadway plates to safely secure the project area and any open holes that may be present during project work, as well as after hours, for the overall safety of those present and JWMP.
- 5. Provide any and all necessary labor, materials, and equipment to complete the utility construction requirements for a domestic water line, sanitary sewer line, and electrical supply, as shown and described in the JWMP.SplashPad.PermitSet.1982-008.11152023 (11 Pages), Plumbing.Electrical.Layout.SplashPad, JWMP.Survey.07212023, and JWMP.SplashPad.ConcreteSlabDesign plans (see attached).
- 6. Per the contracted Splash Pad Installer, M.E. O'Brien & Sons, Inc., the "stubs" installed for the utilities are to be located within 20 feet of the designated Splash Pad area. Final connection of the utility stubs will be required after M.E. O'Brien & Sons has installed the Splash Pad and its related components.
- 7. Any electrical cabinet or meter work requirements are to be provided for under the electrical utility component of this RFP/Bid. Please note that power is currently available in the area of the proposed Splash Pad in the form of a small exterior service panel with a meter. This, and all current infrastructure present at Johnston War Memorial Park (JWMP), can be looked at during the Mandatory Pre-Bid Conference related to this RFP.
- 8. Perform all work according to State of Rhode Island Building Code and all relevant codes.
- 9. Proper state licenses/certifications are required for all trades and related work.
- 10. All labor is prevailing wage as per State, Federal, and Davis Bacon Act Guidelines, thus requiring Certified Payroll submissions to the Town.



- 11. Utility installation is to be fully functional, with an on-site review for staff members in order to have system familiarity.
- 12. All bidded work is to be completed expeditiously so that the Splash Pad can be installed in the Spring and the recreational facility can be open to the community on 6/8/2024.
- 13. One-year full warranty of parts and labor at no charge, including technical support as needed.
- 14. Furnish and honor all manufacturers' warranties for the terms and periods listed.
- 15. Leave premises clean and orderly.



Attached Documents

- I. JWMP Splash Pad Concrete Slab Design (5 Pages)
- II. JWMP Splash Pad Permit Set (11 Pages)
- III. JWMP Survey (2 Pages)
- IV. Plumbing Electrical Layout Splash Pad (2 Pages)

PROJECT CERTIFICATION

In accordance with Rhode Island General Law 23-27.3 Section 128.0 of the Rhode Island Building Code, I. RI Registration No. 6123, being a registered professional Architect Engineer hereby certify that: I have prepared or directly supervised the preparation of drawings, computation, and specifications concerning the above described project and that be best of my knowledge such drawings, computation, and specifications meet all applicable provisions of the Rhode Island State Building Codes, all acceptable engineering practices and laws for the proposed project. I further certify that I shall perform the necessary professional services and be present on the construction site on a regular and periodic basis to determine that the work is proceeding in accordance with the documents approved for the building permit and shall be responsible for the following as specified in section 128.2.2 8 23-37.3-128.2.2 Responsibilities. — A professional engineer or registered architect on behalf of the owner shall be responsible for the following: (1) Review of the shop drawings, samples, and other submittates of the contractor as required by the construction contract documents submitted for permit and approval for conformance to the design concept. (2) All change orders to the contract documents shall be submitted to the building official after approval by the professional engineer or registered architect. (3) Review and approval of the testing procedures listed in § 23-27.3-128.4 and Part IX chapter 43. The engineer or architect shall notify the owner, building official, and contractor of the results of all tests and the required corrective measures which need to be taken. (4) Ensure special engineering or architectural inspection of critical construction components requiring controlled materials, or construction specified in the acceptable engineering practice standards as listed in Appendix A. (Comment see Ch 35 SBC-1) be present on the construction site on a regular and periodic basis to determine that, generally, the	PROPERTY OWNER OF RECORD PROJECT TITLE ADDRESS TOWN NAME OF BUILDING SCOPE OF PROJECT SCOPE OF CERTIFICATION	Town of Johnston Splash Pad 1583 Hartford Ave Johnston N/A Construction of rei public aquatic facil ENTIRE PROJECT FIRE PROTECTION CIVIL / SITE	nforced concrete slab on gity ARCHITECTU	grade with embedde	9/23 P CODE 02919
following: (1) Review of the shop drawings, samples, and other submittals of the contractor as required by the construction contract documents submitted for permit and approval for conformance to the design concept. (2) All change orders to the contract documents shall be submitted to the building official after approval by the professional engineer or registered architect. (3) Review and approval of the testing procedures listed in § 23-27.3-128.4 and Part IX chapter 43. The engineer or architect shall notify the owner, building official, and contractor of the results of all tests and the required corrective measures which need to be taken. (4) Ensure special engineering or architectural inspection of critical construction components requiring controlled materials, or construction specified in the accepted engineering practice standards as listed in Appendix A. (Comment see Ch 35 SBC-1) be present on the construction is on a regular and periodic basis to determine that, generally, the work is proceeding in accordance with the documents approved for the permit. Pursuant to Section 128.2.3, I shall submit A progress report together with pertinent comments to the state building official. Upon completion of the work I shall submit a final project report as to the satisfactory completion and readiness of the project for occupancy. Firm Name: Civil CADD Services Inc 150 Higginson Avenue Lincoln, RI 02865	RI Registration No <u>6193</u> , being a register the preparation of drawings, computation, ar such drawings, computation, and specification engineering practices and laws for the propose I further certify that I shall perform the necessary to determine that the work is proceeding.	red professional Architend specifications concesions meet all applicables applicables applicables project. The sessary professional sering in accordance with the serious professional serious	eet / Engineer hereby certify rning the above described p e provisions of the Rhode I vices and be present on the	that: I have prepared roject and that to the b Island State Building construction site on a	or directly supervised best of my knowledge Codes, all acceptable a regular and periodic
At Completion X A progress report together with pertinent comments to the state building official. Upon completion of the work I shall submit a final project report as to the satisfactory completion and readiness of the project for occupancy. Firm Name: Address: Civil CADD Services Inc	following: (1) Review of the shop drawings, sample submitted for permit and approval (2) All change orders to the contract do or registered architect. (3) Review and approval of the testing notify the owner, building official, taken. (4) Ensure special engineering or arc construction specified in the accept be present on the construction site on a	les, and other submittator conformance to the ocuments shall be submerocedures listed in § and contractor of the rehitectural inspection of the dengineering practical regular and periodical	ls of the contractor as requive design concept. Sitted to the building official 23-27.3-128.4 and Part IX Sesults of all tests and the require control of critical construction compresses tandards as listed in Apple	ired by the construction after approval by the chapter 43. The enging uired corrective meass ponents requiring contents A. (Comment se	professional engineer neer or architect shall need to be ntrolled materials, or e Ch 35 SBC-1)
Address: 150 Higginson Avenue Lincoln, RI 02865 Phone: 401-419-9791 RECISTERED 9/23 PROVESSIONAL ENGINEER Owners Statement: I hereby acknowledge the above and agree to notify the Building	A progress report together with pertinent con	At Com	pletion X Iding official. Upon complet		
Signature of Owner	Owners Statement: I hereby acknowledge the above and agree to	Address: Phone:	150 Higginson Avenue Lincoln, RI 02865 401-419-9791		

Johnston Memorial Park – Splash Pad

Narrative

General

All new design and construction to be executed under this permit will be compliant with the Rhode Island State Building Code, RISBC-1

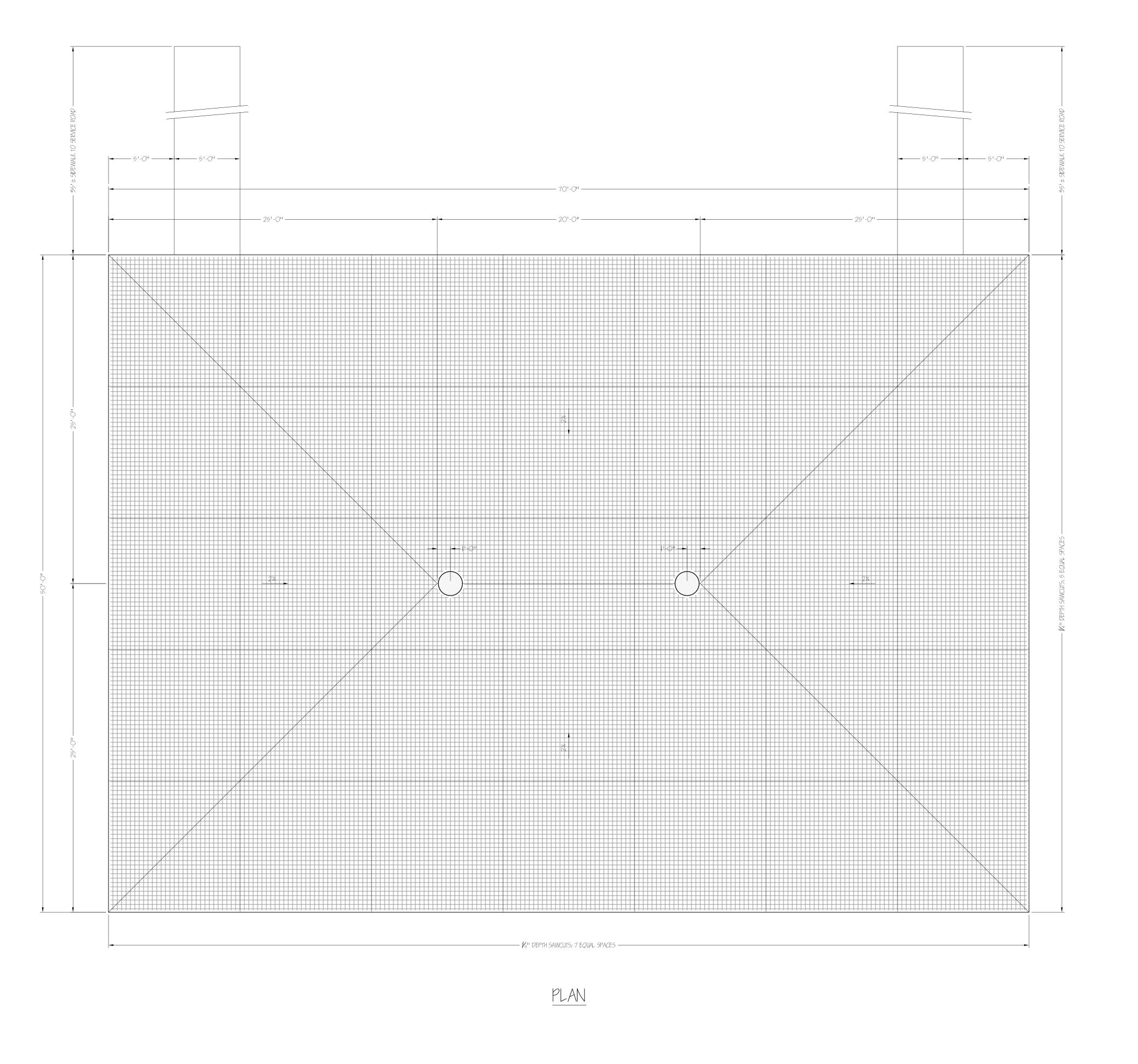
The work is to construct a reinforced concrete slab with embedded piping, as described in the accompanying plans and General Contractor's contract.

STATEMENT OF SPECIAL INSPECTIONS

1705.1 General.

Where special inspection or testing is required by Section 1704, 1707 or 1708, the registered design professional in responsible charge shall prepare a statement of special inspections in accordance with Section 1705 for submittal by the permit applicant (see Section 1704.1.1).

Special inspection is waived for the construction of the slab on grade. No special wind or seismic loading provisions are applicable.



GENERAL NOTES

I. MATERIALS: CONCRETE

0NCKC1C f'c 3,000psi

max, aqq, size 3/811

max. w/ c 0,40

Slump Range: 4''±1'' REINFORCEMENT

ASTM A185 WELDED WIRE FABRIC FY 65,000psi

FULL SPLICE OCCURS WITH OVERLAP OF AT LEAST 2 WIRES,

3, WORK 1HIS DRAWING WITH PLUMBING PLAN, PLUMBING IS EMBEDED IN 1HE SLAB.

2. DO NOT ADD ADDITIONAL WATER TO CONCRETE ON-SITE. IF ADDITIONAL WORKABILITY IS DESIRED, PLAN
THE MIX DESIGN TO USE A SUPERPLASTICIZER.

4. SPRAY DEVICE BASES ARE EMBEDDED IN THE SLAB - NO EXTERNAL ANCHORAGES ARE REQUIRED.

5 PROVIDE BROOM FINISH OF TOP SLAB SURFACE WITHIN: 4 HOURS OF SET IN COLD WEATHER

4 HOURS OF SET IN COLD WEATH! I HOUR OF SET IN HOT WEATHER,

6. PROVIDE SAWCUT JOINTS USING AN EARLY-ENTRY SAW IMMEDIATELY AFTER FINISHING.

7. MOIST CURE SLAB SURFACE IN ACCORDANCE WITH STANDARD ACI PRACTICES, CURING COMPOUND RECOMMENDED.

8. OPTIONALLY FILL SAWCUTS WITH SIKAFLEX OR SIMILAR PRODUCT TO REDUCE RISK OF EDGE SPALLS.

9. OPERATION AND MAINTENANCE PLAN BY OTHERS.

10. SUBGRADE PREPARATION TO MEET 95% MAX, DENSITY REQUIREMENTS,

II. SLAB NOT DESIGNED FOR VEHICULAR LOADS. FENCING AROUND PERIMETER IS RECOMMENDED.

12. PROVIDE CONCRETE MIX DESIGN FOR APPROVAL PRIOR TO PLACEMENT.

ERIC J WISHART

No. 6193

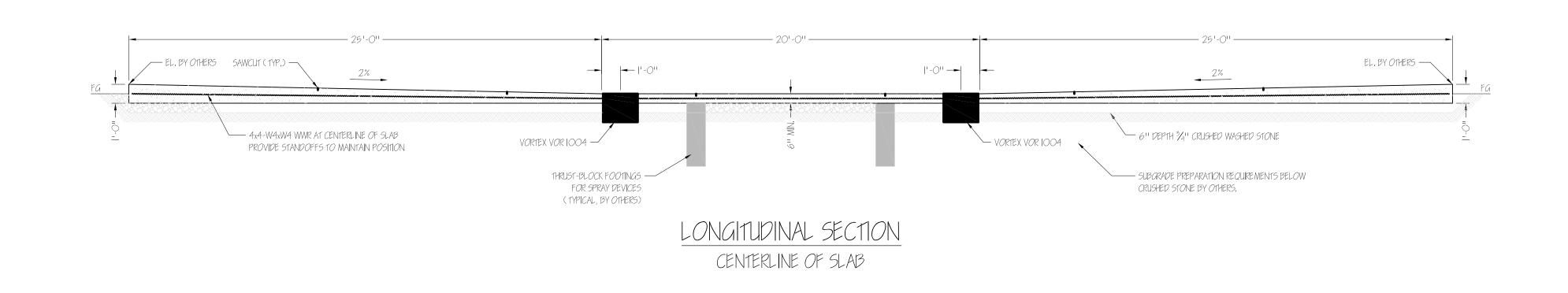
PROFESSIONAL ENGINEER

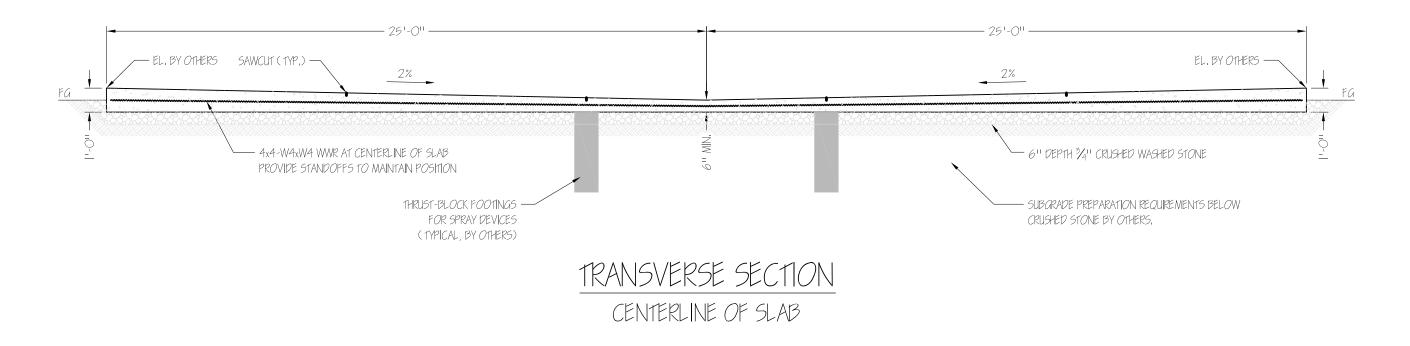
REVISIONS

NO. DATE BY DESCRIPTION

O'Brien & Sons, Inc.

O'Brien





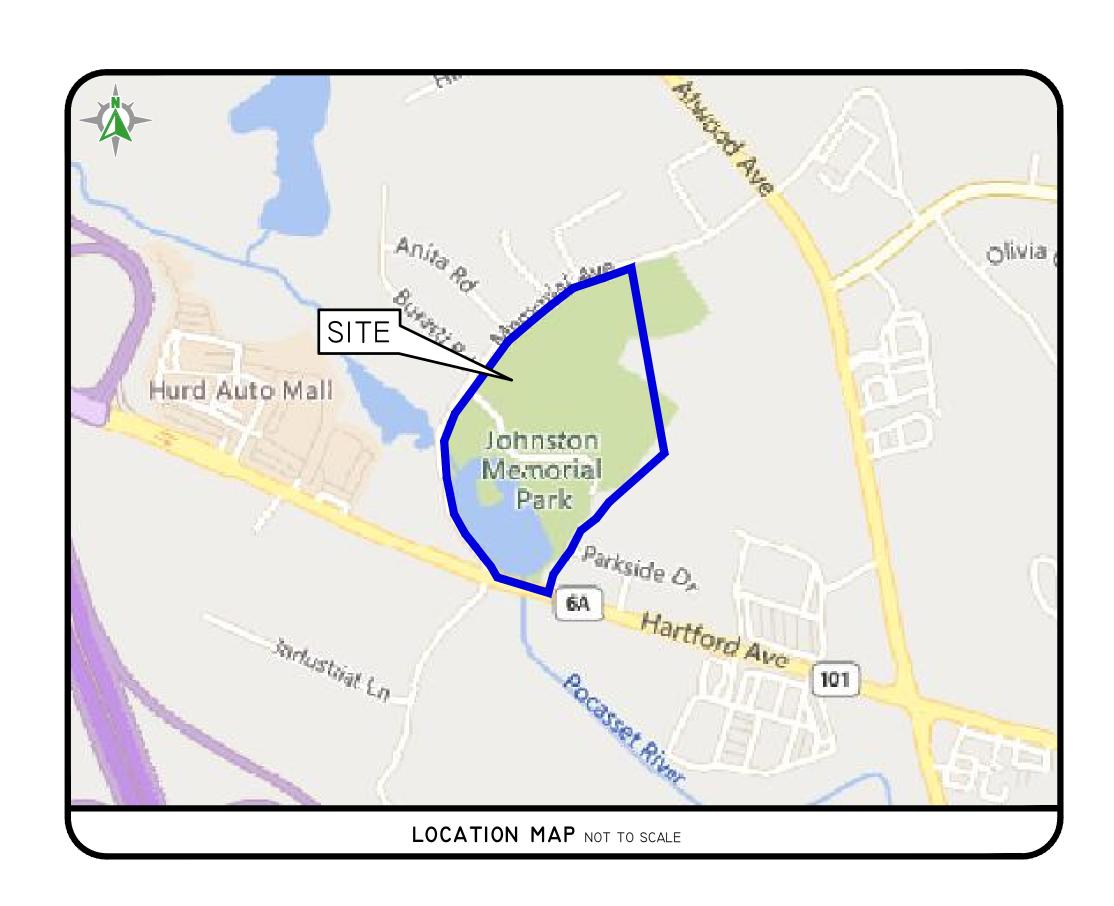


		REVISIONS	PREPARED EXCLUSIVELY FOR		PREPARED BY	EMAIL: civilcadd@gmail.com				SC	CALE: ½"=1'-0"
N	DATE BY	DESCRIPTION		SCALE ADJUSTMENT GUIDE				hnston Memor			ROJ. NO. N/A
			O'Brien & Sons, Inc.	O" 1" THIS BAR IS ONE INCH ON	Civil CAD	OD Services Inc	Spla	ash Pad - Conc	rete Slab	DW	VG. NO.
				THE ORIGINAL DRAWNG.	150 HIGGINSON AVENUE	LINCOLN, RI 02865	DESIGNED BY: DATE:	DRAWN BY: DATE:	CHECKED BY:	DATE:	5-2

JOHNSTON MEMORIAL PARK

1583 HARTFORD AVENUE JOHNSTON, RHODE ISLAND

ASSESSOR'S PLAT 53 LOT 24, 25, 71, 72



SESC / O&M THE SOIL EROSION AND SEDIMENT CONTROL PLAN (SESC) AND STORMWATER OPERATION AND MAINTENANCE PLAN (0&M) ARE REQUIRED DOCUMENTS WITH THIS PLAN SET AND MUST BE MAINTAINED BY THE CONTRACTOR AND OWNER ON SITE.

JOHNSTON, RI 02919

- 4. THIS SITE IS LOCATED IN FEMA FLOOD ZONES AE AND X. REFERENCE FEMA FLOOD INSURANCE RATE MAP 44007C0284H, MAP REVISED OCTOBER, 2, 2015. (FLOOD PLAIN DESCRIPTIONS SHOWN
- ZONE AE THIS SITE IS LOCATED IN FEMA FLOOD ZONE AE. ZONE AE ARE SPECIAL FLOOD. HAZARD AREAS INUNDATED BY 100-YEAR FLOOD. BASE FLOOD ELEVATIONS HAVE BEEN
- ZONE X (UNSHADED) THIS SITE IS LOCATED IN FEMA FLOOD ZONE X, WHICH ARE AREAS WHERE THERE IS MINIMAL FLOODING.
- 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. 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.
- 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 FLEVATION 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 AUTHORITATIVE FIELD SURVEY MAY DISCLOSE.
- ALL WORK PERFORMED HEREIN IS TO BE GOVERNED BY CURRENT EDITIONS OF THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, TOWN OF JOHNSTON 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 CEOR WILL INTERPRET THE CONSTRUCTION REQUIREMENT. THE CONTRACTOR IS ADVISED TO SUBMIT A REQUEST FOR INFORMATION (RFI) FOR ANY AREAS OF CONFLICT BEFORE COMMITTING TO CONSTRUCTION.
- 8. THE SITE IS WITHIN A:

FOLLOWING:

NATURAL HERITAGE AREA (RIDEM)

9. THE SITE IS NOT WITHIN A:

GROUNDWATER PROTECTION AREA (RIDEM) NARROW RIVER SPECIAL AREA MANAGEMENT PLAN (CRMC) SALT PONDS SPECIAL AREA MANAGEMENT PLAN (CRMC) GROUNDWATER PROTECTION OVERLAY DISTRICT (TOWN)

- 10. THE SITE IS LOCATED WITHIN THE FRESHWATER WETLAND BUFFER URBAN REGION/RIVER PROTECTION REGION I/RIVER PROTECTION REGION 2 PER THE FRESHWATER WETLANDS BUFFER REGIONS MAPS (250-RICR-I50-I5-3.24)
- 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
- •• EROSION CONTROL MEASURES
- •• SHORT TERM MAINTENANCE •• ESTABLISHMENT OF VEGETATIVE COVER
- CONSTRUCTION POLLUTION PREVENTION •• SEQUENCE OF CONSTRUCTION
- STORMWATER OPERATION AND MAINTENANCE PLAN (0&M). THE 0&M CONTAINS:
- •• LONG TERM MAINTENANCE •• LONG TERM POLLUTION PREVENTION

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

- THE DRAINAGE SYSTEM IS DESIGNED WILL MEET THE TOWN OF JOHNSTON SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WITH THE USE OF CATCH BASINS CULVERTS AND LINDERGROUND DRAINAGE BASINS. THE STORMWATER MANAGEMENT SYSTEM MEETS THE RIDEM BEST MANAGEMENT PRACTICES.
- 15. THE SITE IS PROPOSED TO BE BUILT IN (4) PHASES.

16. BORINGS AND BORING LOGS, TEST PITS, SOIL EVALUATIONS, WERE COMPLETED BY DIPRETE ENGINEERING ON AUGUST 9TH 2023.

7. WETLAND EDGE DELINEATED BY DIPRETE ENGINEERING AND SURVEYED BY DIPRETE ENGINEERING USING SUBMETER GPS ON DATE MAY 11TH 2023.

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

- CANTON AND CHARLTON FINE SANDY LOAMS, VERY ROCKY, 3 TO 15 PERCENT SLOPES MERRIMAC-URBAN LAND COMPLEX RIDGEBURY, WHITMAN, AND LEICESTER EXTREMELY STONY FINE SANDY
- LAYOUT AND MATERIALS:

URBAN LAND

- 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 CAST-IN-PLACE CONCRETE, OR AS LABELED ON THE PLANS.
- 3. SIDEWALK MUST BE CONCRETE, OR AS LABELED ON THE PLANS.

UDORTHENTS-URBAN LAND COMPLEX

- 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MEET ALL SIGNAGE AND PAVEMENT MARKING REQUIREMENTS OF THE MUTCD AND AUTHORITIES HAVING JURISDICTION, REGARDLESS OF ITEMS SHOWN (OR NOT SHOWN) ON THIS PLAN SET. THIS INCLUDES (BUT MAY NOT BE LIMITED TO) SIGN TYPE, NUMBER OF SIGNS, POLE/ MOUNTING TYPE, PAVEMENT MARKING LOCATIONS/ TYPE/ WIDTH, MATERIALS, INSTALLATION METHODS, AND ANY ADDITIONAL SIGNS AND/OR MARKINGS THAT MAY BE REQUIRED. THE CONTRACTOR MUST NOTIFY THE CEOR OF ANY MODIFICATIONS OR DISCREPANCIES PRIOR TO ORDERING OR INSTALLING SIGNAGE/ PAVEMENT MARKINGS.
- SYMBOLS AND 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
- SEE ARCHITECTURAL AND SPLASH PAD VENDOR DRAWINGS FOR EXACT DIMENSIONS AND DETAILS PERTAINING TO THE SPLASH PAD, INCLUDING SIDEWALKS, RAMPS, ENTRANCES, UTILITY CONNECTIONS, ETC
- CONTROL POINTS, PROPOSED BOUNDS, AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION MUST BE SET OR RESET BY A PROFESSIONAL LICENSED
- 8. CONTRACTOR MUST NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS AND DATA FILES THAT ARE OBTAINED FROM THE CEOR. 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.
- . ALL GUARDRAIL ONSITE MUST BE STEEL BACKED TIMBER GUARDRAIL WITH STEEL POSTS, IN CONFORMANCE WITH SECTION 5.4.1.7 OF THE AASHTO ROADSIDE DESIGN GUIDE. ALTERNATIVE GUARDRAILS WILL BE CONSIDERED BY THE CEOR IF THEY ARE DOT APPROVED EQUAL AND ACCEPTABLE TO THE OWNER. ALTERNATIVES MUST BE APPROVED IN WRITING BY THE OWNER AND THE CEOR 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:I SLOPE, AND ALL SLOPES WITH A HEIGHT GREATER THAN THREE FEET AT A 2:I 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.
- INFRARED TREATMENT OF PAVEMENT IS REQUIRED AT ALL CURB CUTS, AT ANY DISTURBED
- PAVEMENT ON ROADWAYS, AND WHERE ANY NEW PAVEMENT MEETS EXISTING PAVEMENT. ALL EXISTING PAVEMENT MARKING REMOVED AS INCIDENTAL DURING CONSTRUCTION MUST BE REPLACED IN-KIND FOLLOWING COMPLETION OF CONSTRUCTION UNLESS OTHERWISE NOTED.

SOIL EROSION AND SEDIMENT CONTROL NOTES:

- I. THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ON SITE WHICH I. CONSTRUCTION TO COMMENCE FALL 2023 OR UPON RECEIPT OF ALL NECESSARY APPROVALS. MUST BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS AND AUTHORITY HAVING JURISDICTION. THE CONTRACTOR MUST NOTIFY THE CEOR, THE DIRECTOR OF PUBLIC WORKS. 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, TEMPORARY SEDIMENT BASINS, DEWATERING BASINS, 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 PLAN(S). NOTE THE SOIL EROSION AND SEDIMENT CONTROL SHOWN ON THESE PLANS ARE THE MINIMUM QUANTITY/TYPE OF FROSION CONTROL DEVICES AND MATERIALS DEEMED REQUIRED BY THE CEOR 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 I ABOVE, SESC REMAINS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE SITE IS FULLY STABILIZED AND/OR SESC RESPONSIBILITIES ARE ASSUMED BY THE OWNER IN
- 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/SEDIMENT BASINS ARE NO LONGER REQUIRED AND ALL TRIBUTARY AREAS HAVE BEEN STABILIZED, THE TEMPORARY SEDIMENT BASINS/TRAPS MUST BE CLEANED 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
- 7. CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM THE CEOR AND
- 8. IF CONCRETE TRUCKS ARE WASHED OUT ON SITE, ALL WASHOUT MUST BE PERFORMED IN THE DESIGNATED CONCRETE WASHOUT AREA.

SOIL EROSION AND SEDIMENT CONTROL PHASING NOTES

I. OVERALL SITE CONSTRUCTION PHASING TO BE BASED PER SEDIMENT TRAP/ BASIN CONTRIBUTING CATCHMENT, UNLESS OTHERWISE APPROVED IN WRITING BY THE CEOR.

- 2. SEDIMENT EROSION CONTROL PHASING TO MINIMIZE DISTURBANCE TO THE MAXIMUM EXTENT PRACTICABLE
- 3. ANY AREAS THAT ARE CLEARED AND GRUBBED THAT ARE FITHER A) NOT TRIBUTARY TO A SEDIMENT TRAP OR BASIN, OR B) ARE NOT INTENDED FOR IMMEDIATE DEVELOPMENT/ EARTHWORKING, MUST BE STABILIZED IMMEDIATELY INCLUDING (BUT NOT LIMITED TO) SLOPE INTERRUPTORS, HYDROSEED BONDED FIBRE MATRIX (BFM), EROSION CONTROL MULCH (ECM), OR FLEXIBLE GROWTH MEDIUM (FGM) BEST SUITED TO THE INSITU SOIL PARAMETERS AS ASSESSED BY THE GEOTECHNICAL ENGINEER

DEMOLITION NOTES:

I. CONTRACTOR MUST NOTIFY "DIG SAFE" AT 8II (OR I-888-344-7233) A MINIMUM OF 72 HOURS BEFORE EXCAVATING.

- 2. CONTRACTOR MUST OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.
- 3. CONTRACTOR MUST PERFORM DAILY SWEEPING AT CONSTRUCTION ENTRANCES DURING
- DEMOLITION AND CONSTRUCTION TO MINIMIZE SEDIMENTS ON EXTERNAL STREETS. 4. CONTRACTOR MUST BACKFILL ALL TRENCHES BEFORE LEAVING THE SITE AT THE END OF EACH
- 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. 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 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. CONTRACTOR MUST DOCUMENT LOCATION OF ALL SUBSURFACE UTILITIES REMAINING IN PLACE AFTER DEMOLITION (ACTIVE AND INACTIVE/ARANDONED) I OCATION MUST BE DOCUMENTED BY FIELD SURVEY OR SWING TIES. COPIES OF LOCATION DOCUMENTATION MUST BE PROVIDED TO THE DRAINAGE STRUCTURES MUST BE AS FOLLOWS (UNLESS OTHERWISE NOTED ON PLANS): OWNER FOLLOWING COMPLETION OF DEMOLITION AND PRIOR TO START OF NEW CONSTRUCTION. A

 • CATCH BASINS ALONG CURBING: RIDOT STD. 4.4.0, TYPE F, 4' DIAMETER WITH APRON STONE ARKER MUST BE INSTALLED TO FINISH GROUND AT ALL INSTALLED CAPS/PLUGS CAN BE A POST IN CONSTRUCTION AREAS OR PAINTED ON A PERMANENT SURFACE.
- 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.
- 10. CONTRACTOR MUST COORDINATE THE CUTTING AND CAPPING OF ALL UTILITIES WITH THE OWNER, THE MUNICIPALITY, AND ALL APPLICABLE UTILITY ENTITIES HAVING JURISDICTION.
- INACTIVE SUBSURFACE UTILITIES NOT IN CONFLICT WITH THE PROPOSED WORK AREA MAY BE ABANDONED IN PLACE WITH WRITTEN PERMISSION FROM THE OWNER.

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 ENGINEERING WILL NOT ACCEPT FIELD MEASUREMENTS FROM THE SITE CONTRACTOR.

GRADING, DRAINAGE, AND UTILITY NOTES:

- 2. THE CONTRACTOR MUST COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. 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 THE CEOR OF ANY DISCREPANCIES PRIOR TO
- 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 FILL SPECIFICATION. GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF
- 8. MATERIAL STOCKPILES MUST NOT BE LOCATED IN THE RIGHT-OF-WAY, AND TRENCHES MUST NOT BE LEFT OPEN OVERNIGHT.
- 10. 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

9. ALL LOAM IN DISTURBED AREAS MUST BE STOCKPILED FOR FUTURE USE.

- II. THE SITE WILL HAVE 3" BITUMINOUS BERM AND/OR 6" CONCRETE/GRANITE CURBING. SITE GRADING/CONTOURS SHOWN ON THE PLANS DO NOT NECESSARILY REFLECT THE APPROPRIATE BERM/CURBING REVEAL. CONTRACTOR MUST INSTALL CURBING WITH APPROPRIATE REVEAL UNLESS OTHERWISE NOTED.
- 12. NO STUMP DUMPS ARE ALLOWED ON SITE.
- 13. ALL DRAINAGE OUTFALLS ARE DESIGNED TO BE INSTALLED AT EXISTING GROUND ELEVATION. CONTRACTOR MUST IMMEDIATELY NOTIFY THE CEOR 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 THE CEOR, IS DONE AT THE CONTRACTOR'S RISK
- 14. CONTRACTOR MUST PROVIDE SAW CUTTING AND FULL DEPTH PAVEMENT RESTORATION IN AREAS WHERE PAVEMENT AND/OR SIDEWALK IS REMOVED FOR UTILITY INSTALLATION.
- 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.

15. IF ROADWAY SURFACE PAVEMENT COURSE IS NOT TO BE INSTALLED FOR 12 MONTHS OR MORE

- 16. ALL RESIDENTIAL BUILDING SLABS (BASEMENT AND/OR SLAB ON GRADE), REGARDLESS OF FINISH FLOOR ELEVATIONS SHOWN ON PLANS, MUST HAVE A MINIMUM OF 12" OF SEPARATION TO THE SEASONAL HIGH GROUNDWATER TABLE.
- 17. CONTRACTOR MUST HOLD/ SUPPORT/ RESTORE ALL EXISTING UTILITY COMPONENTS INCLUDING (BUT NOT LIMITED TO) POLES, MAST ARMS AND ABOVEGROUND OBJECTS AS NECESSARY DURING THE PROPOSED WORKS AND ELECTRICAL INSTALLATION, CONTRACTOR MUST COORDINATE SAID WORKS WITH ALL ASSOCIATED UTILITY OWNERS ACCORDINGLY. ANY EXISTING ITEMS DAMAGED OR REMOVED AS INCIDENTAL DURING UTILITY CONNECTION/ ELECTRICAL INSTALLATION INCLUDING (BUT NOT LIMITED TO) CURB IN THE ROW MUST BE REPLACED IN KIND FOLLOWING COMPLETION OF WORKS.

ALL DRAINAGE PIPING MUST BE HIGH-DENSITY POLYETHYLENE (HDPE). OR EQUAL. WITH WATERTIGHT JOINTS WHERE INSTALLED WITHIN THE SEASONAL HIGH GROUNDWATER TABLE, UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS. ALL DRAINAGE STRUCTURES MUST BE WATERTIGHT. ALL STORMWATER PIPE WITHIN THE STATE'S RIGHT-OF-WAY MUST BE REINFORCED

CONCRETE PIPE (RCP). DRAINAGE STRUCTURES DO NOT REQUIRE BRICK INVERT AS SHOWN IN DOT

- CATCH BASINS NOT ALONG CURBING: RIDOT STD 4.4.0, 4' DIAMETER
- CATCH BASINS MUST HAVE 3 FT SUMPS WITHOUT SEEP HOLES SINGLE FRAME CATCH BASIN GRATES: RIDOT STD 6.3.2
- DOUBLE FRAME CATCH BASIN GRATES: RIDOT STD 6.3.2 HIGH CAPACITY CATCH BASIN GRATES: RIDOT STD 6.3.4 AND INSTALLED ANYWHERE GRADES ARE
- 6% AND STEEPER 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 7.1.7 OR 7.1.8
- HEADWALLS: RIDOT STD 2.1.0 MANHOLES: RIDOT STD 4.2.0, 4.2.1 OR 4.2.2 AS REQUIRED. SEE NOTES BELOW FOR COVER TYPE
- ALL OUTLET CONTROL STRUCTURES (OCS) AND DRAINAGE MANHOLES WITH INTERNAL WEIRS MUST USE FLAT TOP STRUCTURE COVER. FOR ALL OTHER DRAINAGE STRUCTURES: IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE
- THE APPROPRIATE STRUCTURE TOP REQUIRED (E.G. CONE TOP, FLAT TOP ETC) TO MEET THE DESIGN PARAMETERS AS SHOWN ON THESE PLANS, INCLUDING (BUT NOT LIMITED TO) THE RELATIONSHIP BETWEEN FINISH SURFACE ELEVATION/ DEPTH TO PIPE INVERTS AND MEETING MANUFACTURER/ AHJ REQUIREMENTS & SPECIFICATIONS.

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.

ALL SANITARY SEWER PIPING MUST BE SDR 35 UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE

SPECIFICATIONS. ALL SEWER IMPROVEMENTS MUST COMPLY WITH THE NARRAGANSETT BAY COMMISSION 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 ALL PIPES FROM BUILDING TO GREASE TRAP/INTERCEPTOR AND FROM GREASE TRAP/INTERCEPTOR TO THE NEXT STRUCTURE MUST BE CAST IRON AND IN ACCORDANCE WITH 284CMR.

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.

IN THE CASE OF ANY NEW HYDRANT INSTALLED IN OR NEXT TO AN EXISTING SIDEWALK, THE CONTRACTOR MUST INCREASE THE WIDTH OF THE SIDEWALK, AS NECESSARY, TO MAINTAIN A MINIMUM OF 3'-0" CLEAR WIDTH FROM THE OUTERMOST COMPONENTS OF THE HYDRANT TO THE EDGE OF THE SIDEWALK. THE 3'-0" SIDEWALK WIDTH IS REQUIRED ONLY ON ONE SIDE OF THE HYDRANT TO PROVIDE A CLEAR PATH ON THE SIDEWALK.

PROPOSED GAS, ELECTRIC, CABLE AND DATA UTILITIES ARE SHOWN SCHEMATICALLY AND ARE

PROPOSED TO BE UNDERGROUND. OWNER AND CONTRACTOR MUST COORDINATE FINAL DESIGN WITH

INFRASTRUCTURE, ARE CURRENTLY SHOWN AS UNDERGROUND UTILITIES. THESE UTILITIES MAY BE

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 ENCASEMENTS AND CONDUITS. CONNECTION POINTS FOR ELECTRIC AND TELECOM UTILITIES, AT THE EXISTING

SITE LIGHTING (TEMPORARY AND PERMANENT) MUST BE DIRECTED AWAY FROM AND SHIELDED FROM ENVIRONMENTALLY SENSITIVE AREAS AND ABUTTING 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.

UNDERGROUND OR OVERHEAD AND MUST BE COORDINATED WITH RI ENERGY PRIOR TO CONSTRUCTION.

ABBREVIATIONS LEGEND

- ADA AMERICANS WITH DISABILITY ACT N/F NOW OR FORMERLY AHJ AUTHORITY HAVING JURISDICTION OHW OVERHEAD WIRE ASSESSOR'S PLAT
 - PE POLYETHYLENE
 - PROPERTY LINE PR PROPOSED PVC POLYVINYL CHLORIDE R RADIUS

R&D REMOVE AND DISPOSE

HIGHWAY BOUND

RIHB RHODE ISLAND

RL ROOF LEADER

ROW RIGHT-OF-WAY

SED SEDIMENT FOREBAY

SFL STATE FREEWAY LINE

SHL STATE HIGHWAY LINE

SMH SEWER MANHOLE

SNDF SAND FILTER

SS SIDE SLOPE

TC TOP OF CURB

TD TRENCH DRAIN

TF TOP OF FOUNDATION

TW TOP OF WALL (FINISHED

DETENTION SYSTEM

INFILTRATION SYSTEM

GRADE AT TOP OF WALL

STA STATION

TRANS TRANSITION

TYP TYPICAL

UDS UNDERGROUND

UIS UNDERGROUND

UP UTILITY POLE

WQ WATER QUALITY

WO WALKOUT ELEVATION

SG SLAB ON GRADE ELEVATION

SFM SEWER FORCE MAIN

SF SQUARE FOOT

S SLOPE

SD SUBDRAIN

RCP REINFORCED CONCRETE PIPE

- BITUMINOUS (BERM) BIO BIORETENTION BASEMENT SLAB ELEVATION FINISHED GRADE AT BOTTOM OF WALL
- CB CATCH BASIN (C) CALCULATED
- CENTERLINE (CA) CHORD ANGLE CEOR CIVIL ENGINEER OF RECORD. DIPRETE ENGINEERING UNLESS DESIGNATED

ARCHITEC^{*}

BOTTOM OF CURP

BOTTOM OF TESTHOLE

- OTHERWISE BY OWNER CLDIP CONCRETE LINED DUCTILE IRON PIPE
- CONC CONCRETE DCB DOUBLE CATCH BASIN
- DMH DRAINAGE MANHOLE DETENTION POND ELEV ELEVATION

DI DROP INLET

- EOP EDGE OF PAVEMENT ESC EROSION AND SEDIMENT CONTROL EX EXISTING
- FES FLARED END SECTION FFE FINISH FLOOR ELEVATION GARAGE SLAB ELEVATION
- GWT GROUND WATER TABLE HC HIGH CAPACITY CATCH BASIN GRATE
- ID INLINE DRAIN IP INFILTRATION POND

HDPE HIGH DENSITY POLYETHYLENE

- LARCH LANDSCAPE ARCHITECT LINEAR FEET LOD LIMIT OF DISTURBANCE
- MEASURED MECHANICAL/ELECTRICAL/ PLUMBING ENGINEER

NOT ALL ITEMS SHOWN WILL APPEAR ON PLANS

- (48.1.0) RIDOT STD DETECTABLE WARNING SYSTEM ADA SPACE PAVEMENT MARKINGS MUST COMPLY WITH ALL ADA
- AND MUTCD REGULATIONS AND REQUIREMENTS. (ADAR) ADA CURB RAMP MUST COMPLY WITH ALL ADA REGULATIONS AND

AMERICANS WITH DISABILITIES ACT (ADA) NOTES:

- 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
- 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).
- 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). THE CEOR GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND
- 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
- NOTWITHSTANDING THE NOTES LISTED ABOVE, TOWN OR STATE-SPECIFIC STANDARDS MAY BE MAINTAIN COMPLIANCE WITH THE CONTROLLING STANDARD.
- 7. NOTE THAT THE GRADING/PLAN VIEWS AND DETAILS CONTAINED WITHIN THIS PLAN SET MAY NOT STANDARDS. IN THE EVENT OF ANY NONCOMPLIANCE, THE CONTRACTOR MUST NOTIFY THE CEOR BEFORE CONSTRUCTION FOR ADVICE IN FINDING A RESOLUTION.

EXISTING LEGEND

(AS SHOWN ON PROPOSED PLANS) NOT ALL ITEMS SHOWN WILL APPEAR ON PLANS

PROPERTY LINE NAIL FOUND/SET __ _ _ _ ASSESSORS LINE DRILL HOLE FOUND/SET IRON ROD FOUND/SET BUILDING BOUND FOUND/SET BRUSHLINE TREELINE BOLLARD GUARDRAIL SOIL EVALUATION FENCE CB CATCH BASIN RETAINING WAL DOUBLE CATCH BASIN DCB STONE WALL DRAINAGE MANHOLE DMH — — 2 — MINOR CONTOUR LINE FES FLARED END SECTION MAJOR CONTOUR LINE GUY POLE WATER LINE EMH ELECTRIC MANHOLE SEWER LINE UP UTILITY/POWER POLE SEWER FORCE MAIN LIGHTPOST SEWER/SEPTIC MANHOLE GAS LINE SMH ELECTRIC LINE SEWER VALVE OVERHEAD WIRES CLEANOUT DRAINAGE LINE HYDRANT SOILS LINES IRRIGATION VALVE WATER VALVE 25' BUFFER 50' BUFFER WELL ---- 75' ---- -- 75' BUFFER MONITORING WELL ---- 100' ---- - - 100' BUFFER UNKNOWN MANHOLE GAS VALVE ---- I50' ---- - I50' BUFFER

BENCH MARK **~~~** FEMA BOUNDAR' STREAM FLOW DIRECTION STREAM WETLAND LINE & FLAG ----- STATE HIGHWAY LINE —— ↑ NHA ↑——— NATURAL HERITAGE ------ STATE FREEWAY LINE PROTECTION NON-COMMUNITY _____ ↑ NCWP ↑ WELLHEAD PROTECTION

NOT ALL ITEMS SHOWN WILL APPEAR ON PLANS

PROPERTY LINE BUILDING SETBACKS —O——O——— CHAINLINK FENCE MATERIALS NOTE 10 RETAINING WALL

REQUIREMENTS.

I. ALL IMPROVEMENTS MUST COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY FT/FT), AND MAXIMUM CROSS SLOPE ACROSS ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 1.5%

THE CEOR GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.

- CROSS SLOPES IN ORDER TO COMPLY.
- MORE STRINGENT AND OVERRULE. IT IS THE RESPONSIBILITY OF THE USER OF THIS PLAN SET TO
- 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

— ↑ GWO ↑ GROUNDWATER OVERLAY GROUNDWATER RECHARGE AREA GROUNDWATER RESERVOIR COMMUNITY WELLHEAD

PROPOSED LEGEND

CONCRETE CURF (RIDOT STD 7.1.0)

BUILDING FOOTPRINT BUILDING OVERHAN

DRAINAGE LINE $--\rightarrow--\rightarrow--\rightarrow--$ SWALE GUARDRAIL SEE LAYOUT AND MINOR CONTOUR LINE

MAJOR CONTOUR LIN SPOT ELEVATION

EDGE OF PAVEMENT BITUMINOUS BERN

MONOLITHIC CONCRETE _____ CURB AND SIDEWALK

ASPHALT PAVEMENT

CONCRETE

ASPHALT SIDEWALK SAWCUT LINE 111111111111111111

SIGN (RIDOT STD 24.6.2 AS APPLICABLE) ACCESSIBLE PARKING SPACE SYMBOLS

NOTE: THIS PLAN SET MUST BE REPRODUCED IN COLOR

HEAVY DUTY ASPHALT

HEAVY DUTY CONCRETE

MILL AND OVERLAY

PAVEMENT

SINGLE LIGHT BUILDING INGRESS/EGRESS

 $\times\times\times\times\times\times\times\times\times$

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

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

RESTORATION, AND ALL OTHER SITE WORK. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING

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.

JTILITY NOTE

THE PURPOSE OF THIS PLAN SET IS TO OBTAIN A PERMIT FROM THE REGULATORY AGENCY IT WAS SUBMITTED TO. THIS PLAN SET CONTAINS THE REQUIRED INFORMATION NECESSARY FOR APPROVAL BY THE SPECIFIC AGENCY IT WAS SUBMITTED TO AND MAY NOT HAVE INFORMATION NECESSARY FOR OTHER REGULATORY AGENCIES. THIS PLAN SET MUST NOT BE CONSTRUED AS A FULL CONSTRUCTION OR BID SET. ADDITIONAL DETAIL IS REQUIRED FOR CONSTRUCTION AND BID DOCUMENTS, SUCH AS (BUT NOT LIMITED TO) FINE GRADING, GRADING BETWEEN THE CONTOUR INTERVAL, ADDITIONAL SURVEY/ MAPPING, BUILDING SHAPE/ LOCATION, ADA, UTILITY CONNECTIONS, UTILITY CROSSINGS, SURFACE AND GROUND WATER MITIGATION, SOIL STABILITY AND CONSISTENCY, SPECIFIC END USER NEEDS, CONSTRUCTABILITY ISSUES, ETC. ANY USER OF THESE PLANS SHOULD UNDERSTAND THIS LIMITATION.

BRIAN P THALMANN

ELECTRIC, TELEPHONE, CABLE

LIMIT OF DISTURBANCE/ LIMIT OF CLEARING SLOPES STEEPER THAN 3:1 (2:1

OR I:I SLOPES) INFILTRATION OUTLINE

SAND FILTER CATCH BASIN DOUBLE CATCH BASIN DRAINAGE MANHOLE

PERFORATED SUBDRAIN

SEWER FORCE MAIN

HYDRANT ASSEMBLY

WATER SHUT OFF

WATER VALVE

THRUST BLOCK

OVERHEAD WIRE

UNDERGROUND

POND ACCESS

SEWER LINE

GAS LINE

WATER LINE

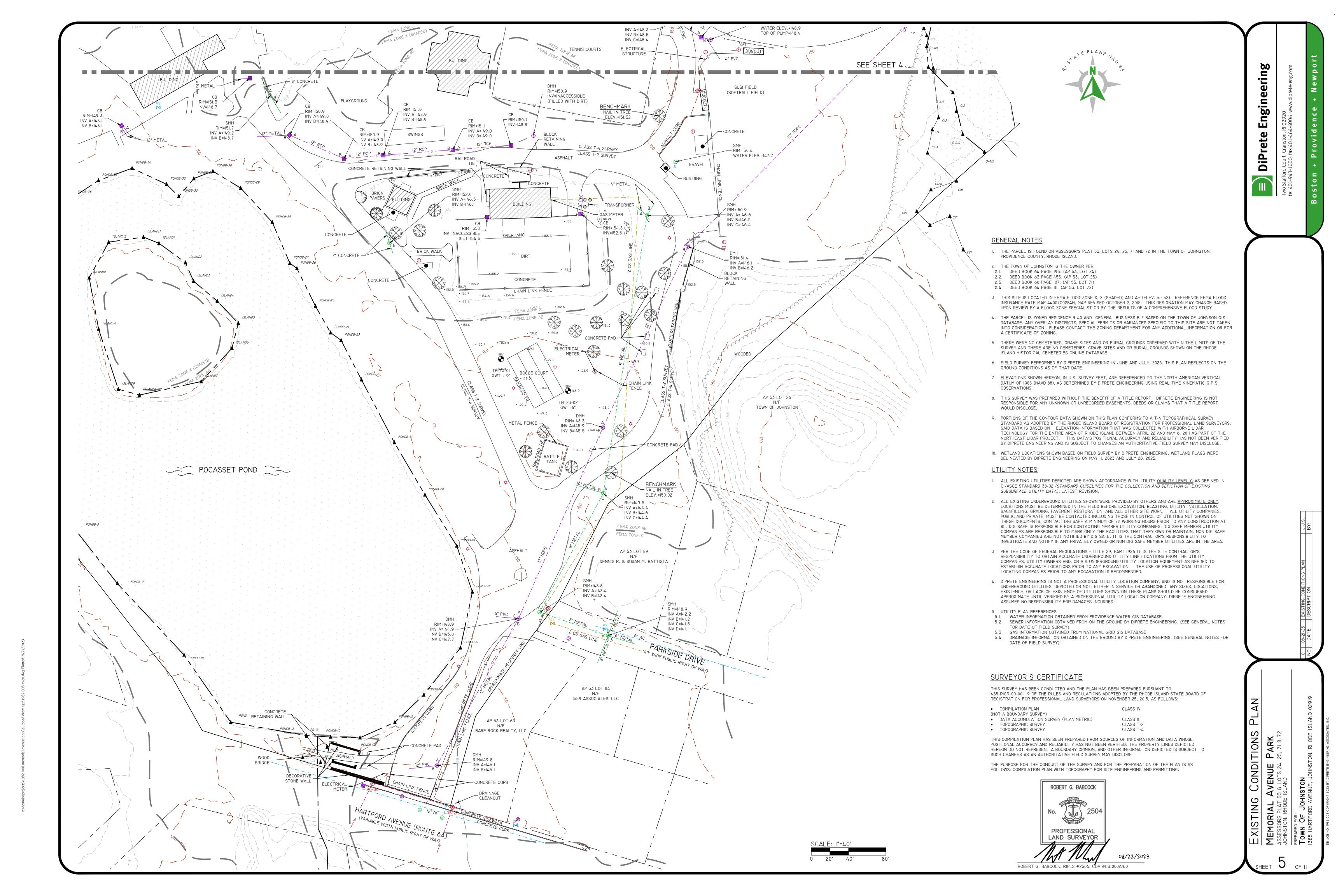
FLARED END SECTION HEADWALL SEWER MANHOLE

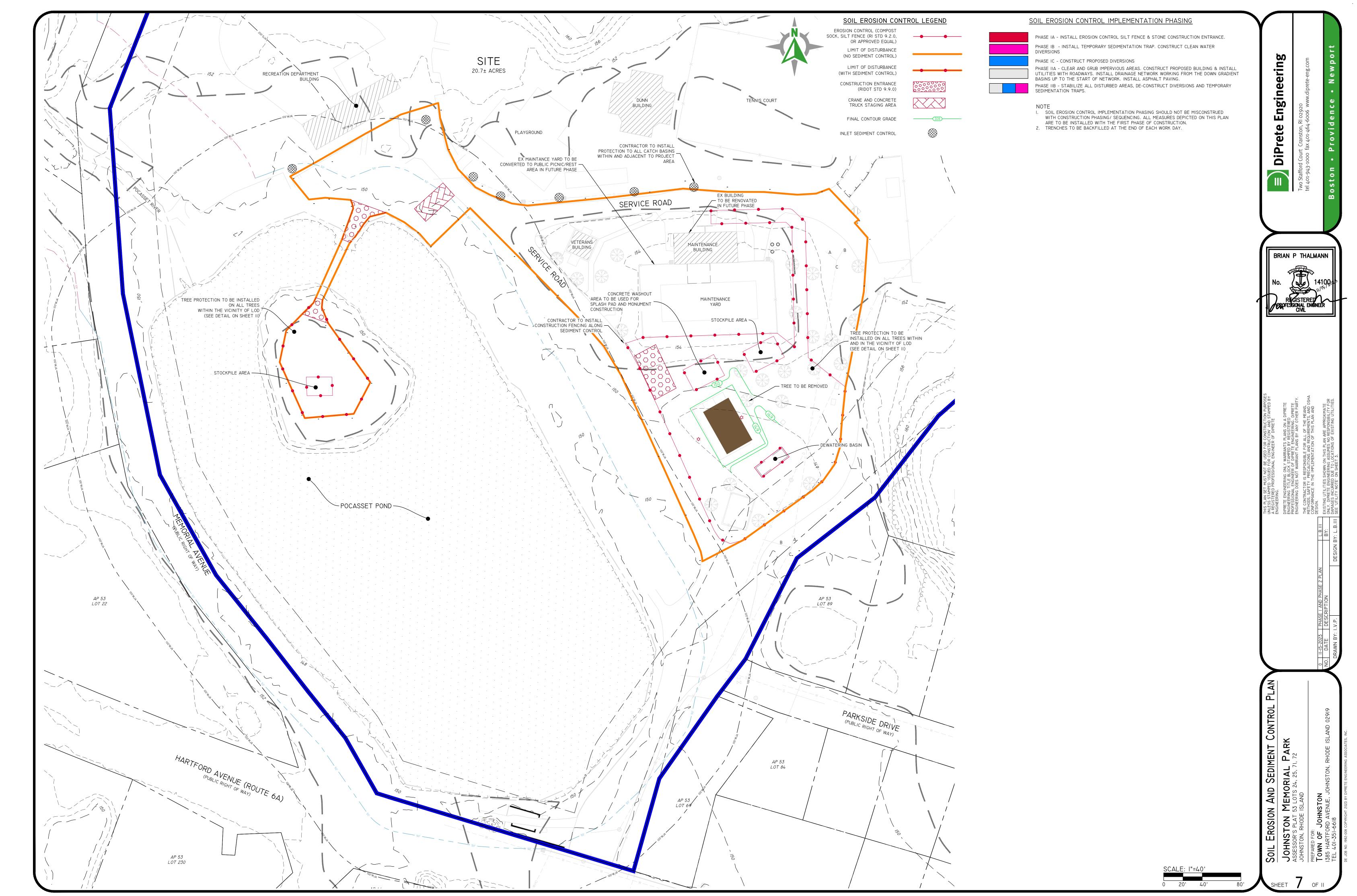
> DOUBLE LIGHT OVERHANGING LIGHT

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

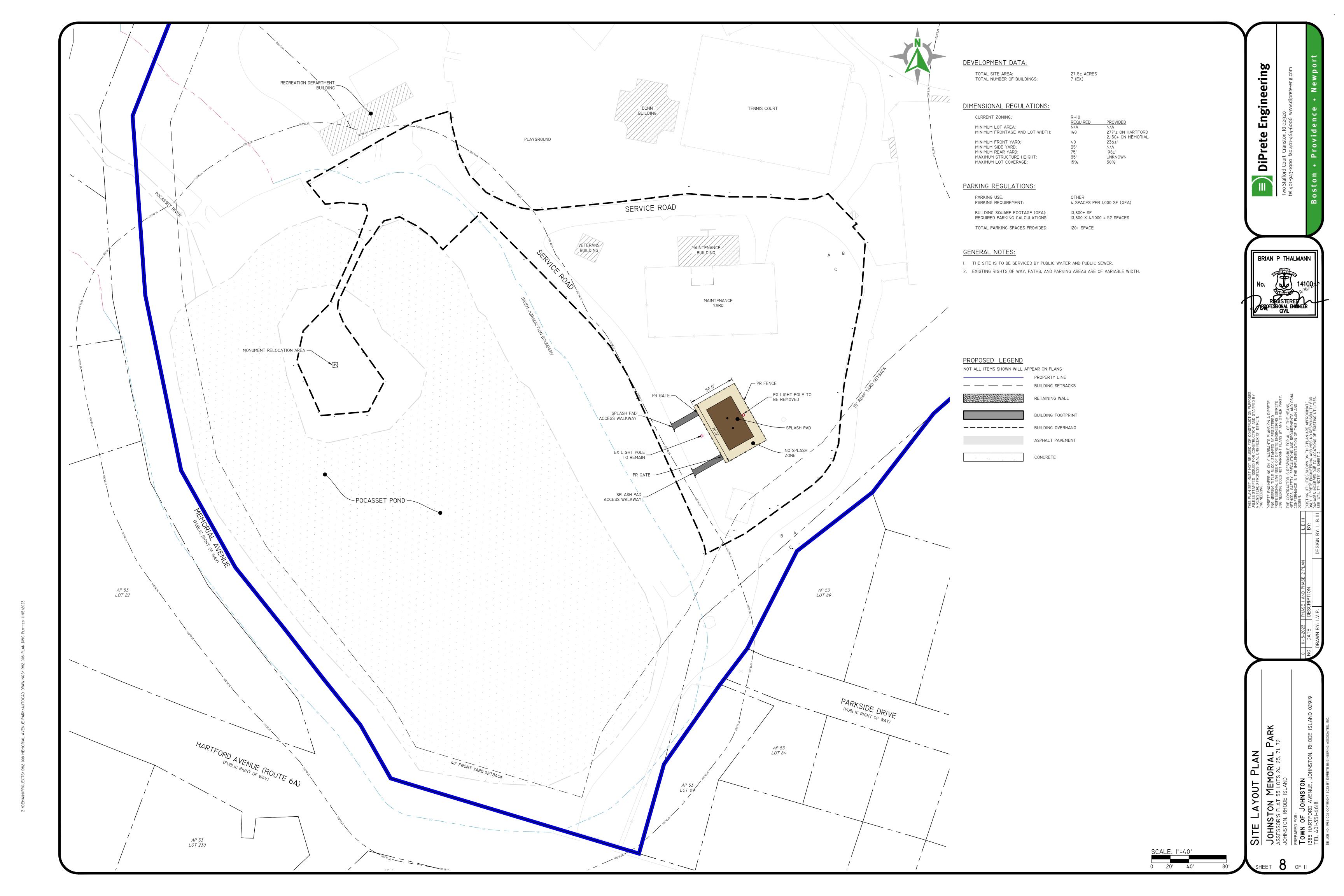
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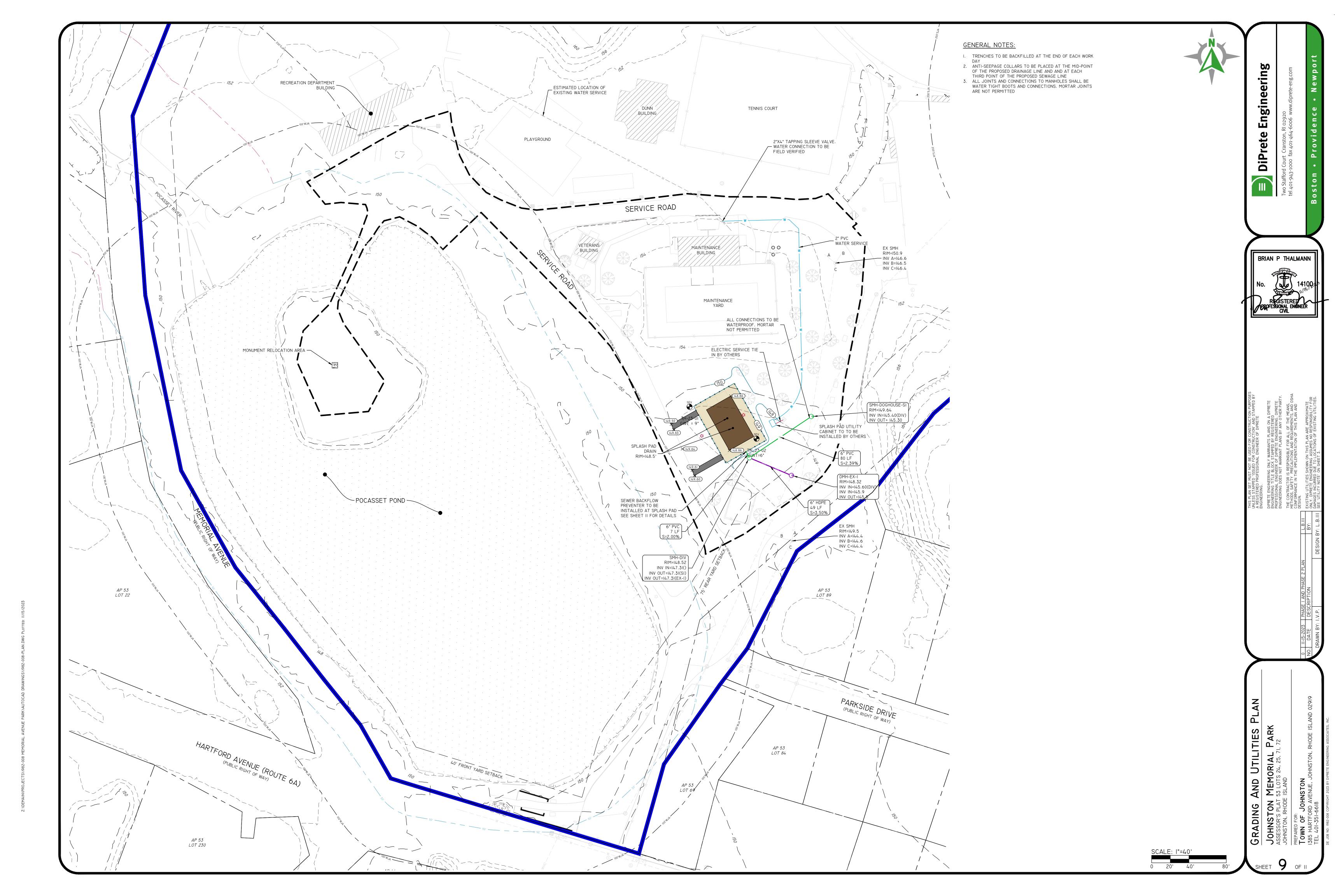
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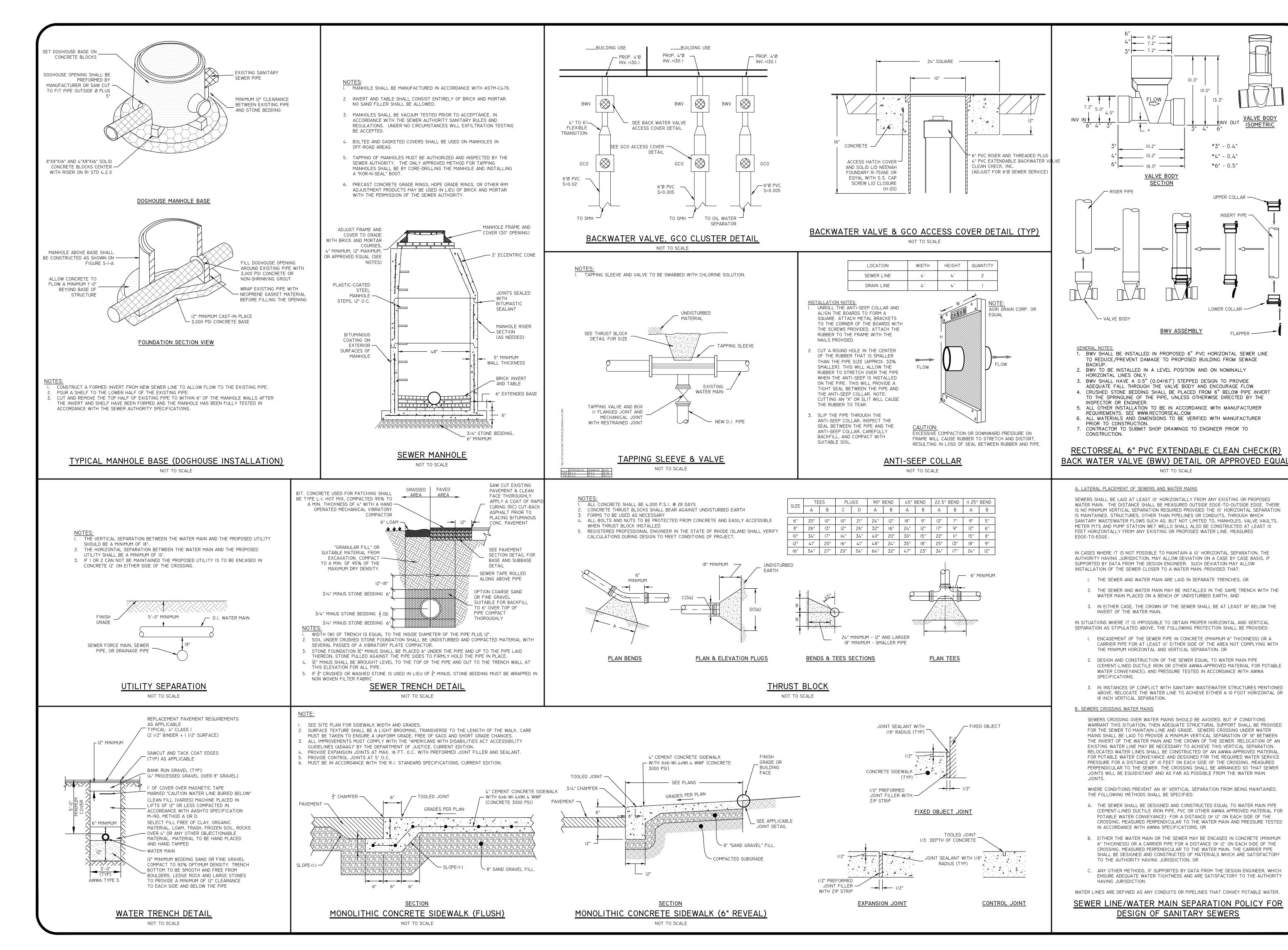




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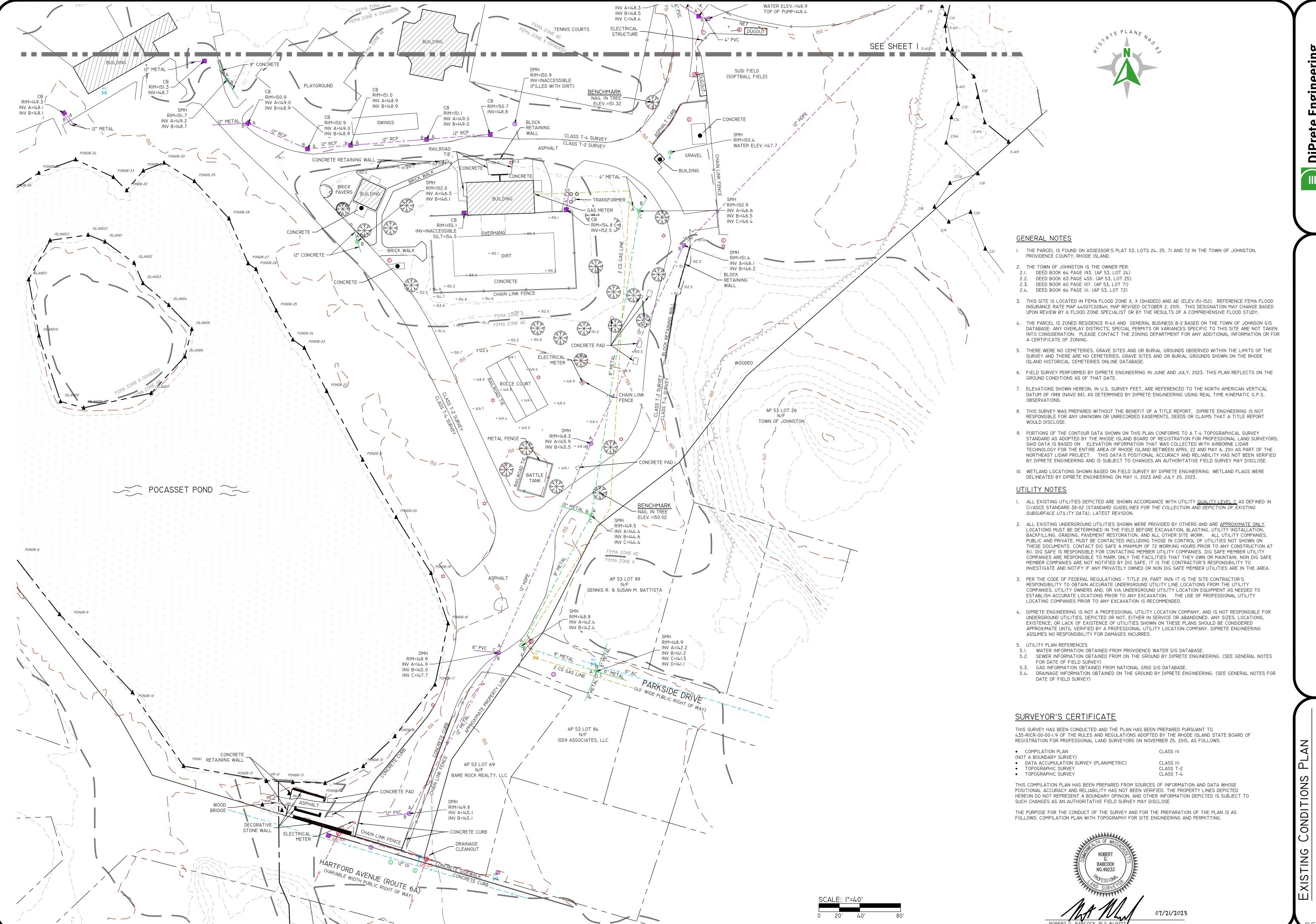
BRIAN P THALMANN

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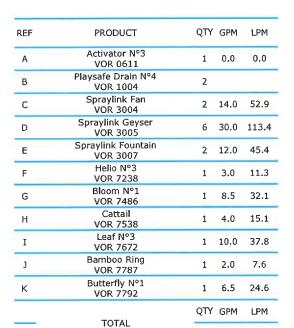
SPLASHPAD DIMENSION

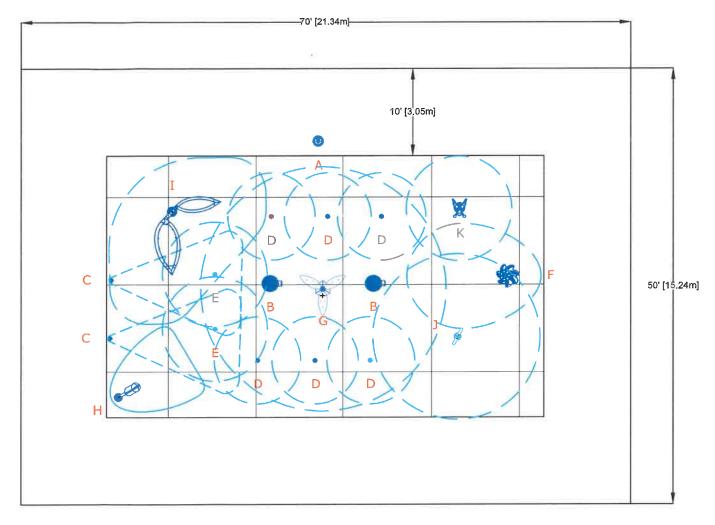
TOTAL AREA: 3500 ft² 325 m²

SPRAY AREA: 1500 ft² 139 m²

GRID SIZE: $10 \times 10 \text{ ft}$ $3 \times 3 \text{ m}$

PRODUCT LEGEND

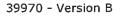




5'[1.5m] SPRAY FREE CONCRETE AREA ALL AROUND THE SPLASHPAD

NOTE: QUANTITY AND LOCATION OF DRAINS BASED ON VORTEX RECOMMENDATIONS.

MODIFICATIONS MAY BE REQUIRED DUE TO SPECIFIC SITE CONDITIONS AND/OR LOCAL CODE.

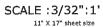


March 08, 2023

19 90 340.2









1 PIPING

- 1.1 WDS CONFIGURATION ARE SCHEMATIC AND MAY BE MOVED OR ADJUSTED ON SITE BY VORTEX CERTIFIED INSTALLER TO ADJUST FOR SITE CONDITIONS
- 1.2 ANY REQUIRED WATER METER ON THE CITY WATER MAIN SHALL BE PROVIDED BY INSTALLER, PRESSURE REGULATOR AND BACKFLOW PREVENTER WILL BE PROVIDED BY VORTEX
- $1.3\,\,$ ALL PIPE LINES TO FEATURES TO HAVE A 1% MINIMUM RECOMMENDED SLOPE FOR PROPER WINTERIZATION.
- 1.4 ALL LINE SIZING (FEATURE CONNECTION TABLE) ASSUMES A MAXIMUM DISTANCE OF 100 FEET BETWEEN THE WATER DISTRIBUTION MANIFOLD AND THE FURTHEST PLAY PRODUCT, DISTANCES ABOVE 100 FEET MAY REQUIRE AN INCREASE IN LINE SIZING. PLEASE CONTACT VORTEX.
- 1.5 QUANTITY AND LOCATION OF DRAINS BASED ON MAXIMUM FLOW FOR THE INDICATED PIPE DIAMETER AT 1% SLOPE. MODIFICATIONS MAY BE REQUIRED DUE TO SPECIFIC SITE CONDITIONS AND LOCAL CODE.
- PRESSURE LINES ARE RECOMMENDED TO BE SCHEDULE 80 PVC OR PEX, AND NON-PRESSURE LINES TO BE SCHEDULE 40, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.

 1.7 DRAINAGE LINES ARE RECOMMENDED TO BE SDR 35, UNLESS OTHERWISE
- REQUESTED BY LOCAL CODE.
- 1.8 PIPING SHOULD BE INSPECTED AFTER TRANSPORTATION FOR CUTS, SCRATCHES, GOUGES OR SPLITS; DAMAGED SECTIONS MUST BE DISCARDED OR CUT OUT.
- 1.9 PIPE SHALL BE INSTALLED BELOW THE FROST LEVEL NOT LESS THAN 12" (ASTM F-645) UNLESS OTHERWISE REQUESTED BY LOCAL CODE.
- 1,10 PIPE INSTALLATION MINIMUM COVER SHOULD BE EVALUATED ACCORDING TO ASTM D-2774, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.
- 1.11 SPECIAL CONSIDERATIONS SHOULD BE TAKEN FOR THERMAL CONDITIONS, EXPANSION AND CONTRACTIONS DUE TO TEMPERATURE SHOULD BE EVALUATED BEFORE THE INSTALLATION BY THE CONTRACTOR.
- 1.12 VALVE NUMBER 1 IS LOCATED TO THE LEFT OF THE MANIFOLD FACING THE SOLENOID.
- JOLINOID.

 1.13 MINIMUM 50 PSI REQUIRED AT THE INLET OF THE BACKFLOW PREVENTER AND PRESSURE REGULATING DEVICE.

 1.14 MAXIMUM FLOW CAPACITY OF MANIFOLD IS 72 GPM.

 1.15 TOTAL FLOW OF FEATURE IS 90 GPM.

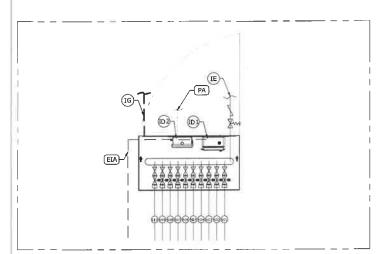
- 1.16 FACTORY MAXIMUM SEQUENCING FLOW IS 50 GPM ACTUAL FLOW MAY VARY DUE TO SITE CONDITIONS.

2 ELECTRICAL

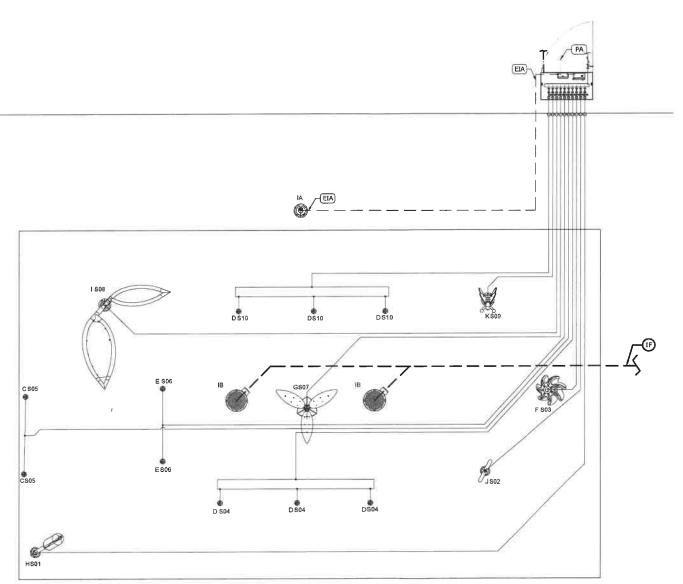
- 2.1 WIRING FROM THE CONTROLLER TO EACH ACTIVATOR SHALL BE #22 AWG, A TOTAL OF FIVE (5) CONDUCTORS PER ACTIVATOR. CABLE LENGTH UP TO 246' (75m), PROVIDED BY VORTEX.
- 2.2 ALL CONNECTIONS TO THE CONTROLLER AND OTHER VORTEX ELECTRICAL PANEL SHALL BE PERFORMED USING AN APPROVED NEMA 4X CONNECTOR.
- 2.3 WIRE FROM MAIN POWER TO VORTEX PANEL TO BE DETERMINED BY OTHERS
- 2.4 MAINTAIN A MINIMUM CLEARANCE ZONE OF 36" IN FRONT OF ELECTRICAL PANEL,
- UNLESS OTHERWISE REQUESTED BY LOCAL CODE.
- ONLESS DI HERWIJSE REQUESTED BY LOCAL CODE.

 2.5 USE #8 BARE SOLID COPPER BONDING WIRE BETWEEN FEATURES TO A
 GROUNDING ROD IN THE SOIL, TIED INTO REBAR GRID, OR AS PER LOCAL CODE.
 SPRAYLINKS FEATURE DO NOT REQUIRE BONDING.

 2.6 AS PER ELECTRICAL CONSTRUCTION AND SAFETY CODES: CONTROLLER
 CONTROLLER AND ANY OTHER ELECTRICAL ENCLOSURES MUST BE HARD-WIRED TO A
 GROUND FAULT CIRCUIT INTERRUPTER (GFCI) FROM THE INPUT POWER SOURCE.
- 2.7 ALL ELECTRICAL WORK SHOULD BE PERFORMED BY A LICENCE ELECTRICIAN IN ACCORDANCE TO LOCAL ELECTRICAL CONSTRUCTION AND SAFETY CODES.
- 2.8 THE MAESTROPRO CONTROL PANEL IS POWERED THROUGH A MAESTROPRO POWER 2.9 THE POWER CABLE TO MAESTROPRO POWER BOX IS SUPPLIED BY INSTALLER.
- 2.10 THE MAESTROPRO CONTROL PANEL INTEGRATES 24 DIGITAL OUTPUTS WITH 24 VAC AND 12 DIGITAL INPUTS. 2.11 FOR REMOTE ACCESS ABILITY, A HARD CONNECTION TO AN EXISTING NETWORK IS REQUIRED USING A CAT 5 CABLE OR A CELLULAR NANO-SIM CARD WITH DATA-PLAN.







(1)	PLUMBING & ELECTRIC	CAL LAYOUT
PE-001		
	WATER LINE	
	DRAIN LINE	25
	ELECTRICAL LINE	

			Feature Connection	Table			
Manifold Output Ref.	Solenoid Valve	Feature Ref.	Feature	Qty	Line Size	Gpm	Output (ID1)
S01	1" Std	н	Cattail VOR 7538	1	1"	4	Output-1
S02	1" Std	3	Bamboo Ring VOR 7787	1	1"	2	Output-2
S03	1" Std	F	Helio N°3 VOR 7238	1	1"	3	Output-3
S04	1" Std	D	Spraylink Geyser VOR 3005	3	1 1/2"	15	Output-4
S05	1" Std	С	Spraylink Fan VOR 3004	2	1 1/2"	14	Output-5
S06	1" Std	E	Spraylink Fountain VOR 3007	2	1"	12	Output-6
S07	1" Std	G	Bloom N°1 VOR 7486	1	1"	8.5	Output-7
508	1" Std	I	Leaf N°3 VOR 7672	1	1"	10.5	Output-8
S09	1" Std	к	Butterfly N°1 VOR 7792	1	1*	6,5	Output-9
S10	1" Std	D	Spraylink Geyser VOR 3005	3	1 1/2"	15	Output-10

			Electrical L	ine Connecti	ons Power
Product Code	From	То	# Conductors	Gauge/ Type	Note
PA	Main Power Line (by Other)	ID2- 120VAC	3	TBD (by Other)	120V, 1 Phase, 60Hz, 10Amps Breake Recommended ±5% Voltage Drop is Acceptable

			Electrical Line	Connections Contr	roller Inputs
Product Code	From	То	# Conductors	Gauge/Type	Note
EIA	ID1-Input 1	IA	5	22	Activator No.3, 24 VDC, Max 345 mA, 246' (75m) Long Cable (by Vortex)

	Product Legend	
Product Ref,	Product	Qty
IA	Activator No.3 VOR 0611	1
IB	Playsafe Drain No4 VOR 1004	2
IC	Water Distribution System; ECCC Cabinet Command Center 2.0 39970D2303R00	1
ID1	MaestroPro Controller 24out/12in 33907,3200	1
ID2	MaestroPro Power Box 33907,3200	1
IE	2" City Water Line (by Other)	1
IF	6" Drain line To municipal Drain (by Other)	1
IG	4" TYP Drain Line With Strainer Connected to Drainage System. Ensure P-Trap is Below Frost Line to Prevent Freezing. (by Installer)	1
Xv-0	2" Pressure Regulator (By Vortex)	1
Xwo	2" Backflow Preventer (By Vortex)	1
	1" Solenoid Valve with Ball Valve & Union	10

0	VO	RT	EX

VORTEX USA Inc. 3500 South Dupont Highway, Suite EP-101 Dover, Delaware United States 19901 Phone: +1 (877) 586-7839

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Park Memorial

Project Location Johnston Project Number 39970

Version VB

Drawing Title

Plumbing & Electrical Layout

Drawn by	Verified by
BR	МАВ
Scale	Date
1/4"=1'-0"	11/April/2023

	Abbreviations	Drawing #	Drawing Name	Rev#	
PE	Plumbing & Electrical Layout	PE-001	Plumbing & Electrical Layout	00	P