



CITY OF PROVIDENCE, RHODE ISLAND

Department: Parks Department

RFP Title: Education Center and Pavilion for the Roger Williams Park Zoo

Opening Date: 09/11/2023

Addendum #: # 1

Issue Date: 09/06/2023

The purpose of this addendum is:

Revisions to plans and specifications from RFI's sent by bidders. See Addendum # 1 attached



WENDY NILSSON
Superintendent of Parks

BRETT P. SMILEY
Mayor

Addendum # 1

New Education Center & Events Pavilion
at the Roger Williams Park Zoo
1000 Elmwood Ave., Providence, RI 02905

September 6, 2023

Total Pages Including Cover (9 Pages)

Acknowledge Addenda on Bid Form

**** BID DUE DATE MONDAY, SEPTEMBER 11, 2023 AT 2:15PM ****

- This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated June 15, 2023 as noted below.
- Please advise all sub-contractors.
- Acknowledge receipt of this Addendum in the space provided on the Bid Form.

Attachments:

1. Addendum Cover Sheet (1 Page)

Questions/Clarifications:

GENERAL

- A. The following are questions submitted by Bidders to the Owner and their subsequent answers are highlighted in red.
1. Question: Please provide the "Advanced Utility Site Plan" as referred to on C-3.0, Note # 2
Response: Advanced Utility Site Plans can be found in Section 01 10 13 Information Available to Bidders in the Project Manual. We have included a larger copy of these drawings as part of this Addendum.
 2. Question: Can we assume, because it is on zoo property, that the wet taps do not have to be performed by the PWSB?
Response: Wet taps are not required to be performed by Providence Water.

PROVIDENCE PARKS DEPARTMENT
1000 Elmwood Avenue, Providence, RI 02905
Phone: 401-680-7201



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3. Question: On dwg. C-6.0, there are three water connections to main lines – two of them are called out as *tapping sleeves and valves*, but the third (a four-inch domestic service to the Pavilion) is labeled as *service tap*. What does that mean – is it another TS&V or is there already a tee with a short, capped length of pipe?
Response: 4" domestic service to Pavilion requires wet tap – On sheet C-6.0, REMOVE "Service Tap" on 4" domestic service line and REPLACE with "6"x4" TS&V"
4. Question: On dwg. ES-1.1 it calls for reinforced concrete duct bank – please provide the size, arrangement, and spacing of the rebar.
Response: See attached SKE-1 for duct bank detail.
5. Question: Demolition Note #3 on C-3.0 indicates that the Greenhouse and Shed will be relocated by the Owner under a separate contract. Please confirm what scope of work the Contractor will be required to perform.
Response: The Greenhouse and Shed noted to be relocated by the Owner are to be relocated by the GC. The Shed is to be relocated to Parking Lot C, adjacent to the proposed Horticultural Compound. The Greenhouse is to be disassembled and transported to the same location as the Shed. The Greenhouse is to be disassembled in a manner that it can be reassembled for future use. The GC is responsible for demolishing all foundations, concrete slabs, remaining walls, and all utilities from the sites of the Shed and Greenhouse.
6. Question: Demolition Note #2 on C-3.0 indicates there is a "Advanced Utility Site Plan..." Please provide this information.
Response: See response to Question #1.
7. Question: There are existing parking lot lights and EV Car chargers which will need to be removed. Please provide scope for these items.
Response: It appears that there is a light pole that was not shown on the survey that may be impacted by the project. All lighting fixtures impacted by the project sitework shall be removed and salvaged for owner re-use. EV stations were installed after the survey was completed; however, it is believed they are outside the area of work. EV stations are to remain in-place and any modifications that may be required shall be coordinated with the owner/Civil & Electrical Engineer prior to proceeding with the work.
8. Question: Are we to assume that the gravel base under the paving (to be removed and replaced) is ok to remain and just regraded/compacted.
Response: Existing material shall be removed for full depth of pavement section. Existing gravel verified to meet the project requirements may be reused as gravel base.



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9. Question: There is no detail for the new asphalt walks – is it the same as the lot paving.
Response: Asphalt walkways shall be constructed in accordance with RIDOT standards and specifications for bituminous concrete sidewalk as outlined on RI STD detail 43.2.0 (single 3” lift over 8-inch gravel base). All sidewalks that will receive vehicular traffic and are main pathways are to be constructed using 1.5 inch binder and 1.5 inch topcoat on an 8 inch gravel base.
10. Question: The drawings and the specs refer to a GeoTech Report – Where can I find it?
Response: The GeoTech Report can be found in Section 01 10 13 Information Available to Bidders in the Project Manual.
11. Question: Pavement markings – spec is not clear – epoxy or water-based (big difference in cost)?
Response: Pavement markings shall be epoxy based.
12. Question: Please provide specifications for the cable railing system at the Pavilion south patio.
Response: See attached cable railing system specification.
13. Question: Who is responsible for providing and installing roof-mounted solar panel supports and attachment hardware.
Response: The GC is responsible for including all components of the solar system within the project budget.
14. Question: Are graphics for door sidelights to be inserted in the glass, or installed as a film?
Response: The sidelight graphics are a component of the specified system, see specification section 08 81 13 Decorative Glass Glazing. The GC can provide an alternate price to install graphics as a film, however, the base bid is to include graphics that are part of the glass system.
15. Question: Please clarify which doors on the schedule are to receive graphics.
Response: Graphics are part of sidelights for doors 104, 106 and 109.
16. Question: Please clarify who is responsible for providing wall and door-sidelight graphics? If GC is responsible, please provide specifications.
Response: The specifications for the graphics can be found in specification section 08 81 13 Decorative Glass Glazing and Section 08 81 15 Decorative Glass Glazing Panel Wall Frame. The GC is to provide these as part of the contract. The images that will be used will be provided by the Owner and/or Architect to the GC for use in the specified system.
17. Question: Please provide a plantings list to coordinate with the planting layout.
Response: See sheet A-L1.5 which has been provided as part of this addendum.
18. Question: Please Clarify the door and frame elevation types for door A104.
Response: Door and frame types for door A104 is to be the same as Door A106.



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19. Question: Please indicate the wall type designation for non-labeled wall between A105, A130 and A131.
Response: The wall between A130, A131 & A129 is to be W6. All other non-labeled walls are to be W4a unless noted otherwise elsewhere in the drawings.
20. Question: Please indicate the wall type designation for non-labeled wall between A102, A102a, A103, and A129.
Response: All non-labeled walls are to be W4a unless noted otherwise elsewhere in the drawings.
21. Question: Please indicate the wall type designation for non-labeled wall between A113 & A114.
Response: All non-labeled walls are to be W4a unless noted otherwise elsewhere in the drawings.
22. Question: Please indicate the wall type designation for non-labeled wall between A111, A112, A113, and A114.
Response: All non-labeled walls are to be W4a unless noted otherwise elsewhere in the drawings.
23. Question: Please indicate the wall type designation for non-labeled walls along column line 4.
Response: Walls along column line 4 are to be W8a.
24. Question: Please indicate the wall type designation for non-labeled wall shown in A100.
Response: The non-labeled wall in A100 is to be W4b.
25. Question: Please indicate the wall type designation for exterior walls.
Response: Exterior walls do not have a wall type designation. See wall sections and details for exterior wall construction.
26. Question: Please provide the electrical concrete duct back details.
Response: See response to Question #4.
27. Question: Please indicate the wall type designation for non-labeled wall in A117.
Response: The non-labeled wall in A117 is to be wall type W8a.
28. Question: Please indicate the wall type designation for non-labeled wall between A123.
Response: All walls in A123 are labeled, see A-A1.1.
29. Question: Please confirm if all electrical trenching is to be concrete-encased.
Response: Yes, all electrical wire is to be concrete-encased.
30. Question: Please confirm if there are any new site lighting requirements.
Response: See response to Question #7.



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31. Question: Please indicate the wall type designation for non-labeled wall between A105, A130 and A131.
Response: The wall between A130, A131 & A129 is to be W6. All other non-labeled walls are to be W4a unless noted otherwise elsewhere in the drawings.
32. Question: Please provide construction details for weatherproof enclosure and supporting pad for emergency back up generator for the new education building.
Response: Generator enclosure is premanufactured by generator manufacturer. The generator pad detail is to be similar to equipment pad detail 5/B-A1.0. Size to fit Generator and/or other ground mounted equipment.
33. Question: Please confirm generator is to be furnished and installed by GC's EC or if owner provided.
Response: GC is to furnish and install generator as specified.
34. Question: Spec book provides a section regarding rolling fire doors; please clarify where these can be located on drawings.
Response: Provide and Install an overhead rolling fire door in front of the elevator door on the upper level. The door is to be mounted above ceiling in Elev Lobby A216.
35. Question: Please clarify which plan supersedes regarding flooring for rooms A106, A107, A108 and A109. A-A9.0 states to provide LIN1 and either LIN2 or LIN3: A-A9.1 shows to provide LIN 1 and LIN 4.
Response: Where there are conflicts use A-A9.1.
36. Question: Planting Plan A-L1.5 appears to be missing; please provide.
Response: A-L1.5 was missing from the original set of drawings. See attached.
37. Question: Can a bid extension please be provided? With the RFI deadline being on the 5th and bids due on the 11th there will not be enough time provided for contractors to react.
Response: The bid deadline will not be extended due to approval dates that need to be met through the City and Zoo.
38. Question: There is Quarry tile specification for this job, but no quarry tile is shown on the Finish Schedule. Is there Quarry Tile on this project?
Response: See sheet B-A6.1. Quarry Tile is called out in Kitchen B103.
39. Question: The Finish Plan shows Room A217 getting sealed concrete. The Finish Schedule shows it getting LIN 4. Which is correct?
Response: See response to question 35.



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40. Question: The Finish schedule identifies PORT tile #3 as a 6"x6" tile from the Crossville Basalt collection. There is not a 6"x6" size option in that collection. What size tile do they want to use for PORT3?
Response: PORT3 should be 12"x12" tiles.
41. Question: Many rooms receive a combination of PORT1, which is 12"x24" tile as well as PORT2, which is a 12"x12" tile. Is there a pattern plan for the floor tile?
Response: See floor pattern shown on 2/A-A9.1. Dimensions on floor pattern are incorrect. Change dimensions on floor pattern layout from 24x24 and 24x48 to 12"x12" and 12"x24".
42. Question: Stair A223 identifies as receiving DMP panels? Is just the upper stair landing getting wall panels or the entire stairwell including all walls above the steps?
Response: The entire stairwell is to receive DMP panels.
43. Question: Please provide more detail on the Security Fence heights around the Animal Shelters and the Front of the Education Pavilion.
Response: All zoo perimeter fence (front and to the sides of the Education Center) are to be a minimum of 8'-0" in height and needs to have a below grade dig fence 2 feet below grade. Fencing around the animal shelter & outdoor enclosures are to be 8'-0" high with a 2 foot below grade dig fence. The other fences are indicated on the Landscape plans.
44. Question: Can the watermain be shut down with existing gate valves to do the lowering of the watermain? Do we need to install a bypass to keep the main active during this work?
Response: Water mains may be shut down for limited periods of time for relocation work with Owner notifications and coordination. Any utility shutdowns will need at least a week of notification and coordination and must include a proposed duration of the shutdown.
45. Question: Please provide more information about the retaining walls adjacent to the Education Center. Specifically, the details for sections with and without the fence mounted on top. There are only details for the modular and boulders walls.
Response: The retaining walls adjacent to the building should be similar in construction to section 4/A-S2.0. See Civil drawings for all adjacent retaining walls.
46. Question: How deep do you want me excavating for the foundations? Should I just assume excavating all of the fill, and leaving that sandy natural layer in place? Do you want me excavating to take out the organic layer in the Education Center footprint? Are we excavating the Peat layer shown under the Pavilion Footprint?
Response: In the base bid included removal of fill down to natural sandy layer. See updated bid form to include an allowance of \$50,000 to deal with areas located below the sandy layer.



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47. Question: Should we use the Asphalt Standard Duty detail for the Asphalt Walkways? If not, please provide a detail.
Response: See response to question #9.
48. Question: Please provide a designation for lighting fixture types. Drawing B-E3.1 and B-A8-0 does not show anything.
Response: Light fixtures shown in Event Space B100 are to be PHF3 – pendent fixtures. Perimeter fixtures in B100 (North and South Walls) are to be Track1. 2x2 fixtures shown are to be RL1 and LED utility strip fixtures are to be used in the mechanical and electrical spaces. LED Can lights to be used in the corridors.
49. Question: Regarding drawing ES1.1 Electrical site plan. Is the 12kv schematic one line diagram part of this bid?
Response: Yes – the 12kv electrical system is to be included as part of the GC’s bid. RI Energy will provide a new metering cabinet at the service entrance for GC to connect too.
50. Question: Reference 2/A-S4.1 and 12/A-S3.0 Details do not indicate typical web blocking. Please advise if blocking is required.
Response: Yes, blocking should be provided.

PROJECT MANUAL

GENERAL

ITEM NO. 1 – PRE-BID CONFERENCE SIGN-IN SHEET

- A. Attached to this Addendum is the Pre-Bid Conference Sign-in Sheet.

ITEM NO. 2 – NEW SPECIFICATION SECTIONS

- A. Include all the following new Specification sections attached to this Addendum as an integral part of these Bidding Documents.
Section 05 73 16 – ORNAMENTAL CABLE RAILINGS
Section 06 61 16 – SOLID SURFACING MATERIAL

ITEM NO. 3 – DOCUMENT 00 00 10 – TABLE OF CONTENTS

- A. Add section “Section 05 73 16 – ORNAMENTAL CABLE RAILINGS”
B. Add section “Section 06 61 16 – SOLID SURFACING MATERIAL”



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ITEM NO. 4 – DOCUMENT 00410 – SUPPLEMENTAL BID FORM

- A. Delete the Supplemental Bid Form in its entirety and substitute with the new Revised Document dated 9/6/2023 attached to this Addendum.

ARCHITECTURAL

ITEM NO. 1 – SECTION 08 54 13 – FIBERGLASS WINDOWS

- A. Delete all references to awning windows throughout the document. All the windows throughout the building are to be fixed. Delete the insect screens and all hardware associated with awnings.

ITEM NO. 2 – DRAWINGS A-A1.1 and A-A1.2

- A. Add the following note:

The countertops in the following rooms are to be either SS-3 or SS-4 solid surface material as specified in the new Specification Section 06 61 16 – Solid Surfacing Material included in this Addendum: Classrooms A104, A106, A107, A108, A109, A125, A126 and Breakroom A213.

ITEM NO. 3 – DRAWING A-A6.0

- A. Change Frame Elevation notation from F7 to F1 on doors A107 and A108.

ITEM NO. 4 – DRAWING A-A8.0 and A-A8.1

- A. Change the lighting layout as shown on the revised drawings attached for locations.

DRAWINGS

GENERAL

ITEM NO. 1 – REVISED DRAWINGS

- A. Remove the following drawings and replace them with revised drawings attached to this Addendum.
 - A-A8.0 Lower-Level Reflected Ceiling Plan
 - A-A8.1 Upper-Level Reflected Ceiling Plan



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ITEM NO. 2 – SK DRAWINGS

- A. Include all the following SK drawings attached to this Addendum as an integral part of these Bidding Documents.
SKE-1 Duct Bank Detail

ITEM NO. 3 – NEW DRAWINGS

- A. Include the following drawings attached to this Addendum as an integral part of these Bidding Documents.
A-L1.5 Project-Wide Landscape Details & Schedule

END OF ADDENDUM NO. 1



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

SUPPLEMENTAL BID FORM

Revised 9-6-2023

EDUCATION CENTER & EVENTS PAVILION AT THE ROGER WILLIAMS PARK ZOO

BASE BID: Work of the Project includes the new Education Center & Events Pavilion at the Roger Williams Park Zoo as described on the drawings and in this project manual.

In addition to stating the Total Base Bid, The bidder shall state Unit Prices for related work listed under each bid item which represents the work items included in the Total Base Bid. The Unit Prices are quoted for computing adjustments to the Base Bid prior to Contract award, as well as during the course of construction, based upon extra work ordered by the City or for work countermanded, reduced or omitted by the City in order to stay within the Project budget.

Base Bid Items and Unit prices are to be Completed prices to be added or deducted on the basis of quantities of work involved, for each item in place in the unit indicated.

BASE BID No.1: The Base Bid scope of work for this project shall include, but not be limited to the following:
All work pertaining to the construction of the new **Education Center and Pavilion** as described on the drawings and in this project manual.

All Work Included in this Project Base Bid Shall be Completed for the lump sum of:

Dollars

(\$ _____), **TOTAL BASE BID**

ALLOWANCES:

We have included the specified Allowances, from Section 01 21 00 in Division 1 of the Specifications, in the above Base Bid sums as follows:

Allowance No. 1 – Signage for the Education Center	\$ 45,000.00
Allowance No. 2 - Signage for the Events Pavilion	\$ 6,000.00
Allowance No. 3 – Furniture for the Education Center	\$ 250,000.00
Allowance No. 4 – Furniture for the Events Pavilion	\$ 50,000.00
Allowance No. 5 - Modifications necessary to new construction due to unforeseen conditions (Education Center)	\$ 400,000.00

Allowance No. 6 - Modifications necessary to new construction due to unforeseen conditions (Events Pavilion)	\$ 100,000.00
Allowance No. 7 – Testing & Inspection for the Education Center	\$ 10,000.00
Allowance No. 8 – Testing & Inspection for the Events Pavilion	\$ 10,000.00
Allowance No. 9 - Remove and dispose off-site unsuitable materials/soils (non-hazardous) and replace with gravel and backfill.	<u>\$ 50,000.00</u>
Grand Total of all nine Allowances	\$ 921,000.00



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

ALTERNATES

Alternate No. 1: Impact Resistant Wall Protection Material Substitution:

All Work Included in this Alternate No. 1 Shall be Completed for the lump sum of:

Dollars

(\$ _____), **TOTAL FOR ALTERNATE NO. 1**

UNIT PRICES:

Item Description	Unit Quantity	Unit Value
a. Excavate and dispose off site bedrock and ledge	One Cubic Yard	\$ _____
b. Remove and dispose off site boulders over 2 Cubic Yards in size (Base Bid includes 2 Cubic Yards & under)	One Cubic Yard	\$ _____
c. Remove and dispose off-site unsuitable materials/soils (non-hazardous) and replace with gravel and backfill.	One Cubic Yard	\$ _____
d. Furnish and install 4" deep loam and grass seed	One Square Yard	\$ _____
e. Furnish and install compacted "gravel fill" as specified.	One Cubic Yard.	\$ _____

Please note that the list above is not intended to include all items required to complete the base bid scope of work but can and shall be used to adjust the contract prior to or after award – in the best interest of the City of Providence.

BIDDER: _____

SECTION 05 73 16

ORNAMENTAL CABLE RAILINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Related Documents:
The Drawings and general provisions of the Contract, including General and Supplementary General Conditions, and Division 1 Requirements, apply to the work in this Section.

1.2 SECTION INCLUDES

- A. Ornamental stainless steel cable railing system.

1.3 REFERENCES

- A. ASTM International (ASTM):
 1. ASTM A 554 - Standard Specification for Welded Stainless Steel Mechanical Tubing.
 2. ASTM A 492 - Standard Specification for Stainless Steel Rope Wire.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Manufacturer's specifications and technical data including the following:
 1. Detailed specification of construction and fabrication.
 2. Manufacturer's installation instructions.
- C. Shop Drawings: Submit shop drawings for fabrication and installation. Include the following:
 1. Plans, elevations, and detail sections.
 2. Indicate materials, methods, finishes, and types of joinery, fasteners, anchorages, and accessory items.
 3. Where materials or fabrications are indicated to comply with certain design loadings, include structural computations, material properties, and other information needed for structural analysis.
- D. Samples: Prepare samples on metal of same alloy and thickness to be used for the Work if requested by the Architect.
- E. Quality Control Submittals: Statement of manufacturer's qualifications.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Not less than 10 years experience in the actual production of specified products.
- B. Installer's Qualifications: Firm with demonstrated experience in installation of systems similar in complexity to those required for this Project.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Section 01 60 00.
- B. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards.
- C. Store materials in manufacturer's original sealed, labeled packaging until ready for installation and in accordance with manufacturer's instructions. Protect from damage.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.8 REGULATORY REQUIREMENTS

- A. Conform to all applicable Federal, State and local codes and laws.

1.9 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's standard 3 year limited warranty under the provisions of Section 01 78 00.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: AGS Stainless, Inc. - Cable Rail, which is located at: 7873 N. E. Day Rd.; Bainbridge Island, WA 98110; Toll Free Tel: 888-842-9492; Tel: 206-842-9492; Fax: 206-842-8179 ; Email:[request info \(info@agsstainless.com\)](mailto:info@agsstainless.com);
Web:www.agsstainless.com

Model: Rainier

- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

2.2 SYSTEM DESCRIPTION - GENERAL

- A. Custom, shop-fabricated stainless steel railing frame with mechanical fittings and attachment for field installation.
 - 1. Infill: Horizontal cabling.
- B. Shop fabricate such that no jobsite welding, grinding or cutting is required.

2.3 STAINLESS STEEL RAILING SYSTEMS

- A. Stainless Steel Railing System: Clearview Railing System as manufactured by AGS Stainless, Inc.
 - 1. Type: Rainier - Cable railing.
 - 2. Fabrication: Factory welded components. Verify dimensions on site prior to shop fabrication.

- a. Mill joints to a tight, hairline fit.
 - b. Miter corner joints.
 3. Structural Requirements: Fabricate integral railings and component connections to meet or exceed the requirements as set forth in the current, adopted ICC International Building Code (IBC), and governing local code as applicable.
- B. Posts:
1. Post Material: ASTM A 554, Type A316 stainless steel, minimum Fy=40 ksi.
 2. Post Size: 1-1/2 inch (38.1 mm) x 1-1/2 inch (38.1 mm).
 3. Post Mounting Configuration: Top mount, as indicated on installation Drawings.
- C. Top Rails:
1. Top Rail Material: ASTM A 554, Type A316 stainless steel, minimum Fy=40 ksi.
 2. Top Rail Shape, Size: Round, 1-5/8 inch (15.8 mm) diameter x 16 gauge tubing.
 3. Infill - Cables
 - a. Material: ASTM A 492, stainless steel, Type 316.
 - b. Construction: 1 X 19.
 - c. Diameter: 1/8 inch (3 mm) diameter.
 - d. Lay: Left Hand Lang's.
 - e. Core: Stainless steel.
 - f. Cables provided in lengths approximately six inches longer than required for their designated run with fitting attached at one end; requires one end of each length of cable to be field cut and fittings field attached.
 - g. Cable Fitting Materials: Stainless steel, Type 316.
 - h. Cable Attachments: Factory, machine swaged or field, hand swaged.
 - i. Tensioning Method: Threaded terminals.
- D. Finish to be powder coat in color selected by Architect from manufacturer's standard colors.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Do not proceed with installation until substrates have been properly prepared and deviations from manufacturer's recommended tolerances are corrected. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- B. Commencement of installation constitutes acceptance of conditions.

3.2 INSTALLATION

- A. Install railing system plumb, level, and true and in accordance with manufacturer's installation instructions and recommendations.
- B. Do not tighten the cables more than what is necessary to eliminate any sag.
- C. Provide anchorage devices and fittings to secure to in-place construction to adjacent construction. Separate dissimilar materials with bushings, grommets or washers to prevent electrolytic corrosion.
- D. Do not cut components, except for cable as required for installation, or abrade component finishes. Field touch-up of finishes only acceptable if done as per manufacturer's

recommendations. Return components with damaged finishes to shop for required alterations according to manufacturer's return policy, followed by complete refinishing or provide new components.

- E. Secure mounting brackets to building structure in a positive manner using manufacturer recommended reinforcement and anchorage methods for substrate conditions. Locate brackets and hardware at spacing required to support structural loads.
- F. Installation of railing system shall be rigid and secure, installed by mechanics experienced in erection of architectural metal. Mounting hardware shall be drawn up tightly. Rails shall be set plumb and aligned.

3.3 CLEANING

- A. Clean under provisions of Section 01 70 00.

3.4 PROTECTION OF FINISHED WORK

- A. Protect finished product and work under provisions of Section 01 70 00.

END OF SECTION

SECTION 06 61 16

SOLID SURFACING MATERIAL

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Solid surfacing material application where indicated.

1.02 REFERENCES

- A. ISSFA-2, "Classification And Standards Publication of Solid Surfacing Material".
- B. ANSI Z124-3 for vanities and Z124-6 for kitchen sinks.
- C. NSF Standard 51 for use in both splash and food service areas.
- D. ASTM G21 "Fungal Resistance", no growth.
- E. ASTM G22 "Bacterial Resistance", no growth.
- F. Stain Resistance, ANSI Z124-6-5.2 1997.

1.03 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: Manufacturer's technical literature indicating physical properties and performance criteria for solid surfacing materials and related components.
- C. Shop Drawings: Indicate design parameters, adjacent construction, materials, dimensions, thickness, fabrication details, tolerances, jointing methods, method of support, anchorages, integration with plumbing fixtures and connections, and colors.
- D. Samples: Submit two, 2 inch by 2 inch samples representative of colors, patterns, textures, finishes and edge treatments. Approved samples will be retained as a standard for the work.
- E. Informational Submittals: Submit following packaged separately from other submittals:
 - 1. Maintenance Data: Manufacturer's recommended cleaning and maintenance procedures. Include in project closeout documents.

1.04 RELATED SECTIONS

- A. Prefinished cabinets and casework.

1.05 QUALITY ASSURANCE

- A. Conform to national sanitation foundation, standard #51 requirements.
- B. Design Load: Deflection limited to 1/360.

- C. Fire-Test-Response Characteristics: Provide solid surfacing fabrications with the following surface-burning characteristics as determined by testing identical products per ASTM E 84 by UL 723 or another testing and inspecting agency acceptable to authorities having jurisdiction:
 - 1. Flame-Spread Index: 25 or less.
 - 2. Smoke-Developed Index: 450 or less.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, handle and protect products to site under provisions of Section 01 60 00.
- B. Store and protect joint adhesive and sealant from freezing or overheating in accordance with manufacturer's instructions.
- C. Provide protective coverings of suitable material. Take special precautions at corners.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Adhesive and sealant shall be installed in environmental conditions as specified by the manufacturer. Not to be installed below 65 degrees F.

1.08 FIELD MEASUREMENTS

- A. Field verify all dimensions prior to fabrication.

1.09 COORDINATION

- A. Coordinate work under provisions of Section 01 31 00.
- B. Coordinate sizes and locations of plumbing, cut-outs and other related Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

1.10 WARRANTY

- A. Provide 10 year warranty under provisions of Section 01 78 00.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Everform Solid Surfacing by Formica Corporation
Listed as SS-3 and SS-4.
(Different standard colors & patterns as selected by the Architect.)
- B. Other acceptable manufacturers offering equivalent products.
 - 1. Corian by the Dupont Co.
- C. Substitutions: Under provisions of Section 01 60 00.

2.02 MATERIALS

- A. Solid Surfacing Materials: Homogeneous solid sheets of filled plastic resin complying with ISSFA-2.
 - 1. Colors and Patterns: As selected by Architect from manufacturer's full range of materials including all price groups and all series.
 - 2. Solid surfacing material is to contain a minimum 10% of combined Pre-consumer and Post-consumer recycled content.
- B. Special Features: Eased edge treatments.
- C. Accessories:
 - 1. Adhesives: For seams and drop edges, Formica Solid Surfacing Seaming Cartridges, 9 ounce; color to blend with sheet material.
 - 2. VOC Limits for Installation Adhesives and Glues: Use installation adhesives that comply with the limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- D. Sheets are to be 1/2" unless noted otherwise. Solid surface is to be adhesively joined with no exposed seams.
- E. Silicone sealant to be color coordinated.

2.03 FABRICATION

- A. Assemble work at shop following manufacturer's printed fabrication instructions and deliver to job ready for installation. Manufacture in largest practical pieces for handling and shipping without seams.
 - 1. Fabricate work square and to required lines.
 - 2. Recess and conceal fasteners, connections, and reinforcing.
 - 3. Design construction and installation details to allow for expansion and contraction of materials. Properly frame material with tight, hairline joints held rigidly in place.
 - 4. Provide cut-outs for plumbing fixtures and trim, washroom accessories, appliances, and related items. Confirm lay-out with manufacturer's cut-out templates before beginning work. Round corners of cut-outs and sand edges smooth.
 - 5. Do not exceed manufacturer's recommended unsupported overhang distances.
 - 6. Finish exposed surfaces smooth and polish to low sheen.
 - 7. Radius corners and edges.
- B. Countertops: Horizontal surfaces of 1/2 inch thick (unless noted otherwise), Solid Surfacing, adhesively joined with no exposed seams, edge details as indicated on drawings. If not indicated on drawings the leading edge is to be a Half Bullnose Edge.
- C. Vertical Surfaces: 1/4 inch or 1/2 inch thick Solid Surfacing, adhesively joined with no exposed seams, edge details as indicated.

`All cutouts shall be made as required to install sink, faucets, etc. as specified elsewhere.

- D. All countertops shall include a 4" high by 1/2" thick splash where counter abuts walls unless noted otherwise on the drawings. All splash leading edges shall have a radius (eased) edge unless noted otherwise. All connecting corners shall be mitered.

2.04 FINISH

- A. Provide surface with a fine matte finish.
- B. Colors shall be as selected by the Architect from the manufacturer's entire standard selections from the groups noted in the Materials paragraph above.

2.05 QUALITY CONTROL

- A. Solid surfacing material shall meet or exceed the physical properties as tested by the methods listed in Section 1.02 of this specification.

PART 3 - EXECUTION

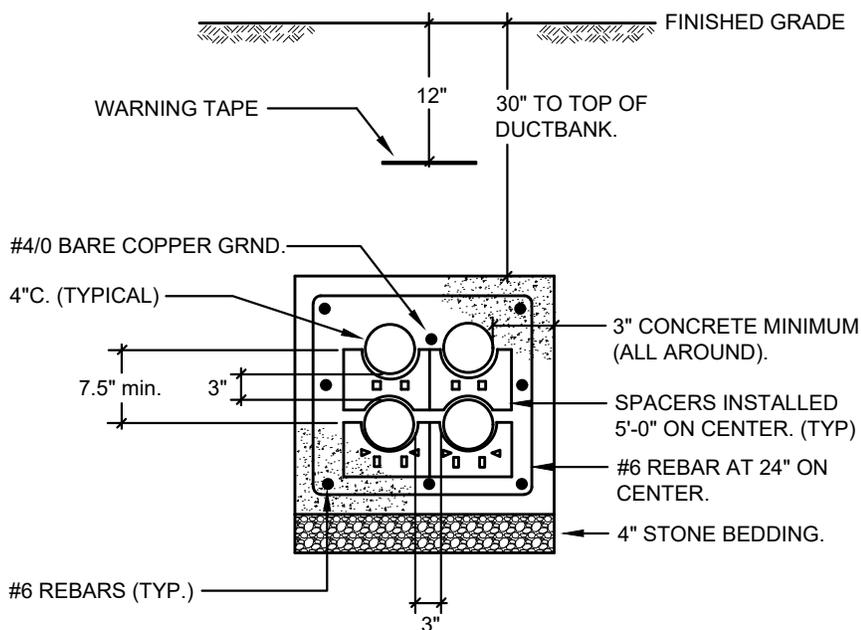
3.01 INSTALLATION

- A. Components shall be installed as per manufacturer's instructions.
- B. Set items plumb, level, rigid and solidly adhered to substrate.
- C. Prefit items: Adjust supports to make fit. Align joints over support framing.

3.02 CLEANING

- A. Clean work under provisions of Section 01 70 00.
- B. Clean and polish fabrications in accordance with manufacturer's instructions.
- C. Promptly remove excessive mastic and seam adhesive.
- D. Clean tops and splashes in accordance with manufacturer's recommendations.

END OF SECTION



TYPICAL DUCT BANK CONSTRUCTION DETAIL

NOT TO SCALE

ADDENDUM NO.	
SHEET TITLE: DUCTBANK DETAIL	REFERENCED DRAWING/S ES1.1
DRAWN BY: SPC	DRAWING NO.
DATE: 09/05/2023	SKE.1



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Education Center & Pavilion
Roger Williams Park Zoo
1000 ELMWOOD AVE
PROVIDENCE, RHODE ISLAND

SA Job No. 18050

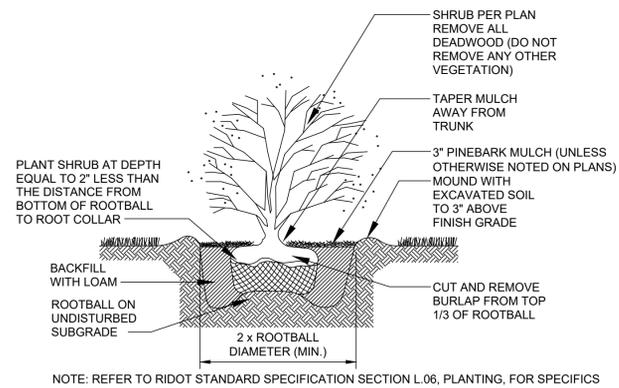
PLANT SCHEDULE - PROJECT WIDE

DECIDUOUS TREES	CODE	QTY	BOTANICAL / COMMON NAME	B&B	CALIPER
	AS6	2	Acer saccharum 'Green Mountain' TM / Green Mountain Sugar Maple	B & B	2"Cal
	Ta	1	Tilia americana / American Linden	B & B	1.25"Cal
	Vb	1	Viburnum prunifolium / Blackhaw Viburnum	CONT.	3 GAL.
EVERGREEN TREES	CODE	QTY	BOTANICAL / COMMON NAME	B&B	CALIPER
	IO2	8	Ilex opaca / American Holly provide 1 male plant in total count with remaing to be female	B & B	
	JS2	7	Juniperus chinensis 'Spartan' / Spartan Juniper	B & B;	
	JVB	4	Juniperus virginiana / Eastern Red Cedar	B & B	
	JV2	4	Juniperus virginiana / Eastern Red Cedar Native to RI	B & B	
FLOWERING TREES	CODE	QTY	BOTANICAL / COMMON NAME	B&B	CALIPER
	Pc14	4	Prunus virginiana / Chokecherry	B&B; 5'-6" HT.	
	SP6	1	Stewartia pseudocamellia / Japanese Stewartia	B & B	2.5"Cal
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT/B&B	SIZE
	CH	6	Clethra alnifolia 'Hummingbird' / Summersweet	CONT	5 gal
	CS3	5	Clethra alnifolia 'Ruby Spice' / Ruby Spice Clethra	36"-42"; B&B	
	EK2	18	Euonymus kiautschovicus 'Manhattan' / Manhattan Euonymus	3'-4"; B&B	
	Fa2	24	Forsythia x 'Showoff Scarlet' / Arnold's Dwarf Forsythia	CONT	5 gal
	FG	6	Fothergilla gardenii / Dwarf Fothergilla/Dwarf Bottle Brush Mature Height: 3'-4'	CONT	3 gal
	HMPE	15	Hydrangea macrophylla 'Pink Elf' / Pink Elf Hydrangea	5 gal	
	IG2	17	Ilex glabra / Inkberry Holly FACW	3'-4"; B&B	
	IGS	6	Ilex glabra 'Shamrock' / Inkberry Mature Height: 3'-4'	CONT	5 gal
	KL1	8	Kalmia latifolia / Mountain Laurel	B&B; 3'-4" HT.	
	LB2	3	Lindera benzoin / Spicebush	CONT	5 gal
	MP	8	Myrica pensylvanica / Northern Bayberry	3'-4"; B&B	
	RN3	10	Rhododendron catawbiense 'Nova Zembla' / Catawba Rhododendron Mature Height: 5'	4' - 5"; B&B	
	RR	22	Rhododendron catawbiense 'Roseum Elegans' / Catawba Rhododendron Mature Height: 8'-10'	3' - 4"; B&B	
	SB2	1	Spiraea x bumalda 'Anthony Waterer' / Anthony Waterer Spirea Mature Height: 3'-5'	CONT	5 gal
	Va5	2	Viburnum trilobum / American Cranberrybush	3'-4"; B&B	
	VTC	11	Viburnum trilobum 'Compactum' / Compact American Cranberry Viburnum	CONT	3 gal

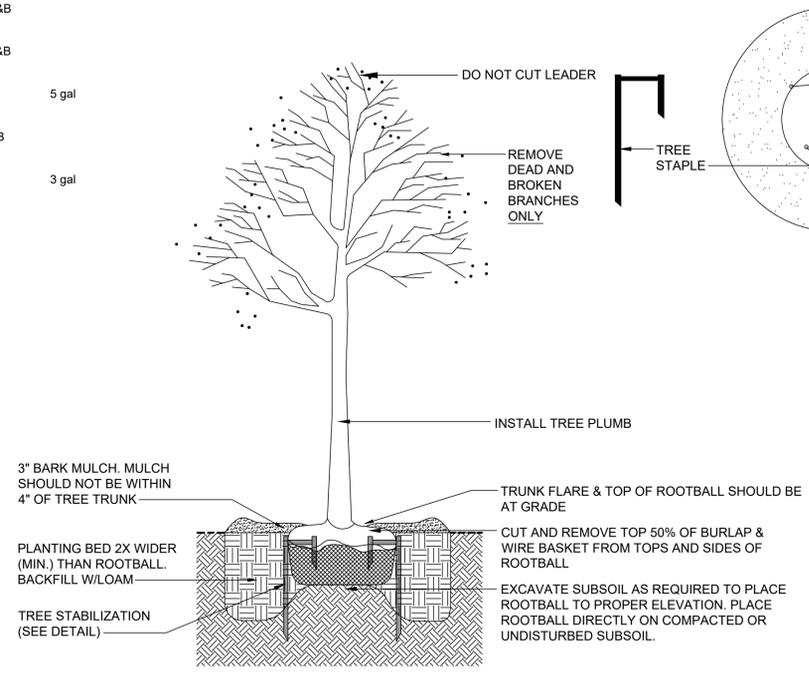
LANDSCAPE NOTES:

1. GUARANTEE THAT, UPON COMPLETION AND FINAL ACCEPTANCE, LANDSCAPE PLANTINGS CONFORM TO REQUIREMENTS OF CONTRACT DOCUMENTS. PROVIDE A WARRANTY FOR TREE PLANTINGS FOR A MINIMUM OF TWO (2) YEARS, INCLUDING TWO (2) CONTINUOUS GROWING SEASONS. COMMENCE WARRANTY ON DATE IDENTIFIED IN THE 'CERTIFICATE OF FINAL COMPLETION'.
2. REPLACEMENTS: PLANTS OF SAME SIZE AND SPECIES AS SPECIFIED, PLANTED IN THE NEXT GROWING SEASON, WITH NEW WARRANTY AND EXTENDED MAINTENANCE SERVICE COMMENCING ON THE DATE OF REPLACEMENT.
3. PLANT MATERIALS SHALL BE OF SIZE AND CALIPER REQUIRED AND CONFORM TO THE REQUIREMENTS DESCRIBED IN THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
4. PLANTS OF OTHER KINDS THAN THOSE NAMED IN THE PLANT SCHEDULE SHALL NOT BE ACCEPTED WITHOUT APPROVAL. REPLACEMENT PLANTS LARGER IN SIZE THAN EXISTING MAY BE USED IF APPROVED BY THE A/E, PROVIDED USE OF LARGER PLANTS DOES NOT INCREASE CONTRACT PRICE.
5. A PROFESSIONAL HORTICULTURIST/NURSERYMAN SHALL BE CONSULTED TO DETERMINE THE PROPER TIME TO MOVE AND INSTALL PLANT MATERIAL SO THAT STRESS TO THE PLANT IS MINIMIZED. PLANTING OF DECIDUOUS MATERIAL MAY BE CONTINUED DURING WINTER MONTHS PROVIDED THERE IS NO FROST IN THE GROUND AND FROST-FREE TOPSOIL PLANTING MIXTURES ARE USED.
6. UNLESS OTHERWISE APPROVED BY THE A/E, ALL PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES AND SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS.
7. SET PLANTS PLUMB AND AT SUCH A LEVEL THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. SETTLE BACKFILL MATERIAL FOR PLANTS, THOROUGHLY & PROPERLY, BY FIRING OR TAMPING. ACCOMPANY BACKFILLING WITH THOROUGH WATERING UNLESS OTHERWISE APPROVED. FORM SAUCER CAPABLE OF HOLDING WATER AROUND INDIVIDUAL PLANTS.
8. FERTILIZE SHRUB BEDS WITH 10-6-4 FERTILIZER AT THE RATE OF 3 POUNDS PER 100 SQUARE FEET OF SURFACE AREA, BROAD CAST. APPLY THE FERTILIZER UNIFORMLY TO THE SURFACE BEDS AND WORK INTO THE UPPER TWO (2) INCHES OF SOIL. FERTILIZE INDIVIDUAL TREES AT THE RATE OF ONE (1) AGRIFORM PELLETT PER INCH OF TREE DIAMETER (FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS). APPLY A SECOND APPLICATION OF FERTILIZER TO ALL PLANT ITEMS AT THE SAME SPECIFIED RATES OVER THE MULCH AT THE END OF AN EIGHT WEEK PERIOD.

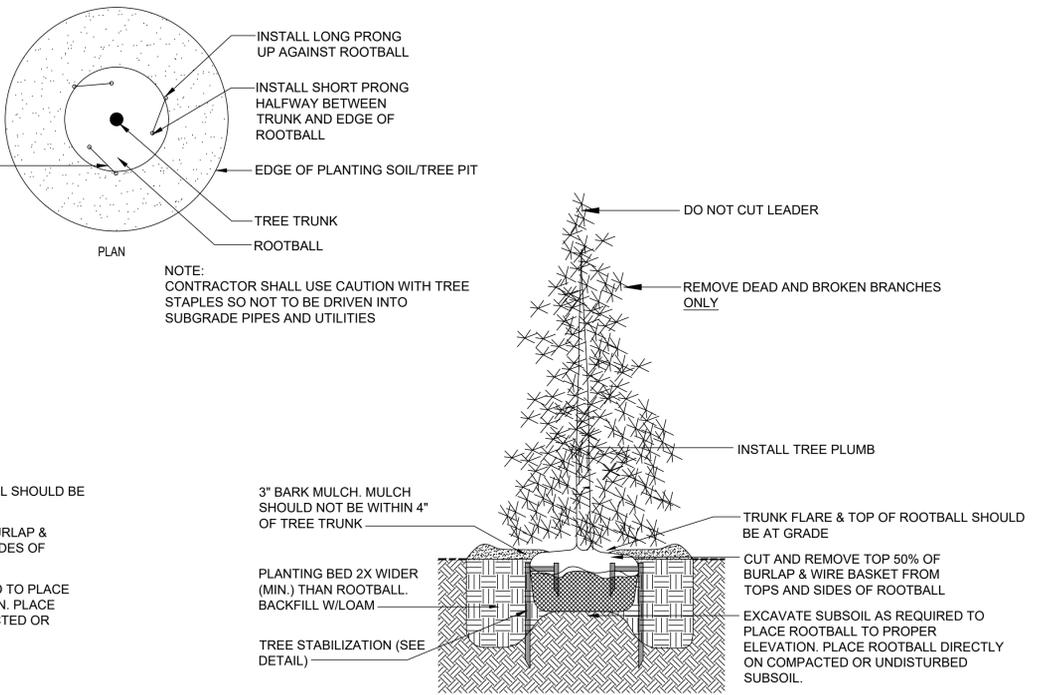
9. CONTAINER GROWN MATERIALS: REMOVE PLANT FROM CONTAINER AND "BUTTERFLY" ROOT BALL OR OTHERWISE SPREAD OUT ROOTS ON SETTING MOUND. BACKFILL SHALL BE SIFTED THROUGH THEM AND SOLIDLY FIRMED.
10. AFTER PLANTING PRUNE ONLY BROKEN OR DEFORMED BRANCHES AND IN SUCH MANNER AS TO PRESERVE NATURAL CHARACTER OF PLANT.
11. IMMEDIATELY AFTER PLANTING, STAKE TREES OVER FIVE (5) FEET AS INDICATED ON DETAIL DRAWING INDICATED OR APPROVED BY THE OWNERS REPRESENTATIVE. MULCH SHALL BE APPLIED A MINIMUM OF THREE (3) INCHES IN DEPTH IN ALL PLANTING BEDS, AS INDICATED ON THE DRAWINGS.
12. THE PLANTS SHALL BE WATERED IMMEDIATELY FOLLOWING PLANTING, PREFERABLY WHEN TWO THIRDS OF THE BACKFILL HAS BEEN PLACED SO ALL AIR POCKETS ARE REMOVED AND THE PLANT PROPERLY SET. ADDITIONAL WATERING SHALL BE MADE AT LEAST ONCE EVERY THREE (3) WEEKS UNLESS OTHERWISE DIRECTED UNTIL FINAL ACCEPTANCE OF THE PLANT MATERIAL.
13. INSTALL 'JUTE MESH' EROSION CONTROL FABRIC WHERE FINAL GRADES ARE 3:1 (33%) OR GREATER PER MANUFACTURER'S INSTRUCTIONS.
14. UNLESS OTHERWISE SPECIFIED, CONTRACTOR TO LOAM AND SEED ALL DISTURBED AREAS. SEEDING NOTE: USE UNIVERSITY OF RHODE ISLAND NO. 2 IMPROVED SEED MIX OR EQUAL. TREE PRUNING NOTE: STREET TREES SHOULD BE PRUNED TO MAINTAIN A MINIMAL BRANCH HEIGHT OF 8' WITHIN TWO (2) YEARS OF INSTALLATION OF THE TREE.
15. LANDSCAPE ESTABLISHMENT AND MAINTENANCE NOTE: CONTRACTOR SHALL ENSURE THAT ALL LAWN AREAS AND PLANTINGS ARE FULLY ESTABLISHED AND ACCEPTABLE TO THE OWNER'S REPRESENTATIVE PRIOR TO RELINQUISHING THEIR RESPONSIBILITIES FOR MAINTENANCE OF THESE AREAS.
16. TREE PROTECTION NOTE: NO MATERIAL, TEMPORARY SOIL DEPOSIT OR EXCAVATION SHALL OCCUR WITHIN FOUR FEET OF SHRUBS OR WITHIN TWO FEET OF THE DRIP LINE OF ANY SHRUBS OR TREES TO REMAIN. ANY RETAINED EXISTING VEGETATION SHALL BE PROTECTED AS PER DETAIL ON PLAN.



SHRUB PLANTING DETAIL
no scale



TREE PLANTING DETAIL
no scale



EVERGREEN TREE PLANTING DETAIL
no scale



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Diane C. Soule & Associates, ASLA
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Smithfield, Rhode Island 02917
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401.231.0738
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Education Center & Pavilion



1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907

Revision Schedule	
Revision Number	Revision Date

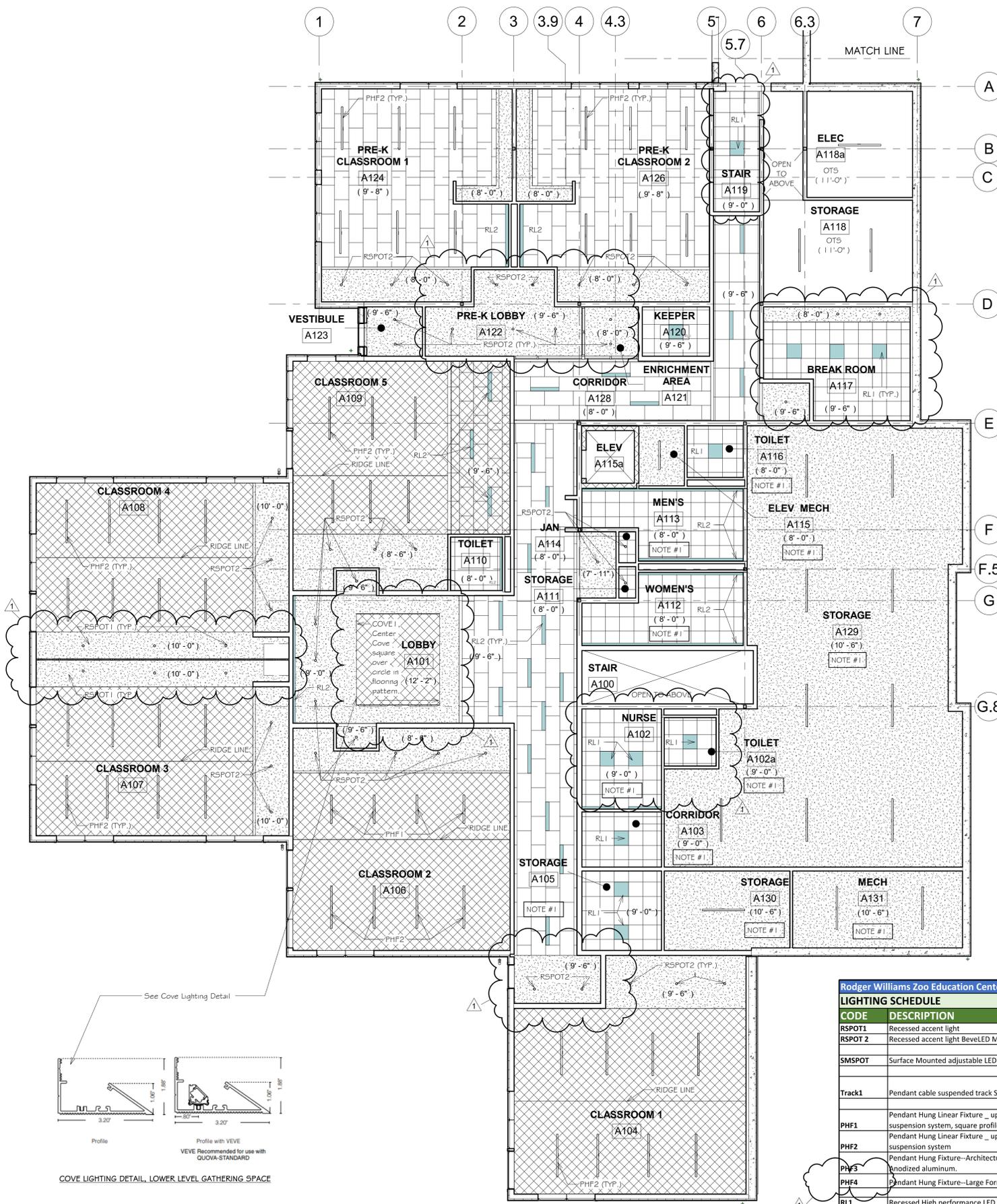
ISSUED FOR CONSTRUCTION
JUNE 15, 2023

SHEET TITLE
PROJECT-WIDE

LANDSCAPE
DETAILS &
SCHEDULE

DRAWN BY: DCS	JOB NUMBER: 7213-00
CHECKED BY: DCS	DATE: 06/13/2019

A-L1.5

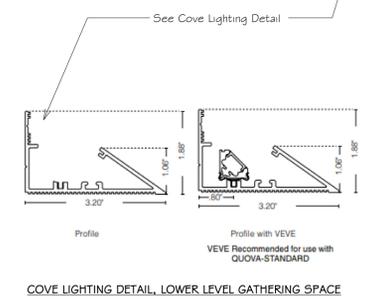
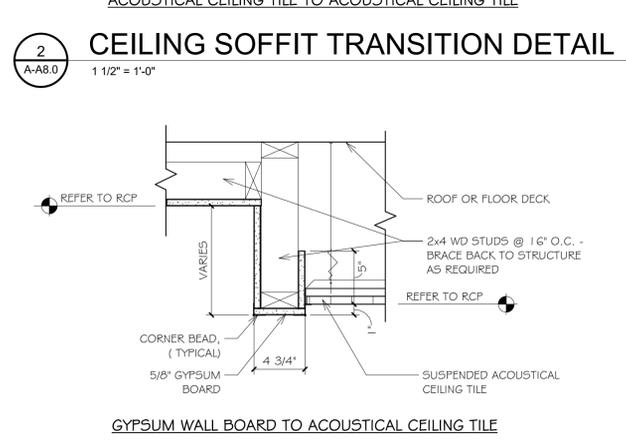
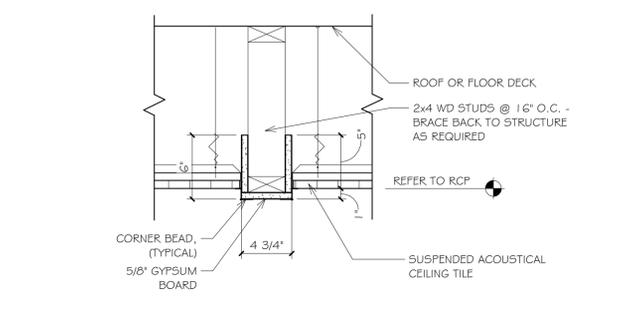


LEGEND

- 2x2' ACOUSTICAL LAY-IN TILE
- NEW PAINTED 5/8" GWB. PROVIDE METAL CEILING OR SOFFIT CONSTRUCTION AS REQUIRED. PROVIDE FIRE-RATED ASSEMBLIES WHERE NOTED
- CEILING HEIGHT
OTS = OPEN TO STRUCTURE
BOS = BOTTOM OF STRUCTURE
- 2x4' ACOUSTIC TILE, LAY IN GRID-TYPE RUNNING BOND PATTERN, WITH LINEAR RECESSED LED, DOWNLIGHT.
- TECTUM ACOUSTICAL TILES, LAY IN GRID
- TECTUM ACOUSTICAL PANELS, SURFACE MOUNTED OVER GWB
- ARMSTRONG INTEGRATED TECHZONE CEILING WITH RECESSED LINEAR OR PENDANT HUNG FIXTURES
- SLIM PROFILE PENDANT LIGHTING
- CIRCULAR PENDANT HUNG FIXTURE

NOTES

- WOOD FLOOR ASSEMBLY TO BE ONE HOUR.
- UL L508. SEE DETAIL 3/G2.1 FOR MORE INFORMATION



Rodger Williams Zoo Education Center and Pavilion Lighting Schedule 9/5/2023

CODE	DESCRIPTION	MANUFACTURER	STYLE	COLOR	MODEL
RSPOT1	Recessed accent light	DeltaLight	DeltaLight	White	Spy 39 ST
RSPOT 2	Recessed accent light BeveLED Mini	USAI Lighting	B3RDF round , trimmed	White	B3RA 3\" Round Adjustable
SMSPOT	Surface Mounted adjustable LED Flood Light	DesignPlan	Small, adjustable surface mounted Flood light	White	Krill 3.0
Track1	Pendant cable suspended track System	Lighting Services Inc.	ControlTrack System, CONTROLTrack seamless surface Track with cable pendant mounting system	White	
PHF1	Pendant Hung Linear Fixture _ up, down lighting capabilities. 48\" length , Adjustable suspension system, square profile	Axis Lighting	Beam 2 Square, compact 2.5\" square form	White	CCHSL70090
PHF2	Pendant Hung Linear Fixture _ up, down lighting capabilities, 14\" , Adjustable suspension system	Axis Lighting	Beam 2 Square, compact 2.5\" square form	White	
PHF3	Pendant Hung Fixture--Architectural LED High and Low Bay Pendant, Spun Matte Anodized aluminum.	Alcon Lighting	Spun Matte Anodized Aluminum Housing	Anodized	15203AN40KEM
PHF4	Pendant Hung Fixture--Large Formate Round Direct pendant LED	Eureka Lighting	Area Ceiling Suspended	White	4815D-24
RL1	Recessed High performance LED Fixture, 24\" x 24\"	Axis Lighting	Aura	White	
RL2	Recessed High performance LED fixture, 2\" x 6\"	Axis Lighting	BEAM		B25QRLED
RL4	Recessed High performance LED Fixture, 24\" x 48\"	Axis Lighting			
COVE1	Indirect Light Cove LED Luminarie, High efficiency Fixture	Axis Lighting	Cove PERFECT, Consult Manufacturer to determine the best fixture length combination to fill the cove opening.	White	
EXSPOT1	Exterior flood light for illuminating large buildings, 7 variable light distributions	ERCO	Exterior Pole Mounted Luminaire	Weather Resistent Housing	Kona 94
EXSPOT2	Exterior flood light for illuminating signage, 7 variable light distributions	ERCO	Exterior Pole Mounted Luminaire	Weather Resistent Housing	to be determined

1 E.C. LOWER CEILING PLAN
1/8" = 1'-0"

SZ ARCHITECTS
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Education Center & Pavilion

ROGER WILLIAMS PARK ZOO
1000 ELMWOOD AVENUE,
PROVIDENCE, RI 02907

Revision Schedule

Revision Number	Revision Date
10	Date 10

ISSUED FOR CONSTRUCTION
JUNE 15, 2023

SHEET TITLE
LOWER LEVEL REFLECTED CEILING PLAN

DRAWN BY: SOS JOB NUMBER: 18050
CHECKED BY: MS DATE: 06/15/2023

A-A8.0

SHEET: OF:

Revision Schedule

Revision Number	Revision Date
10	Date 10

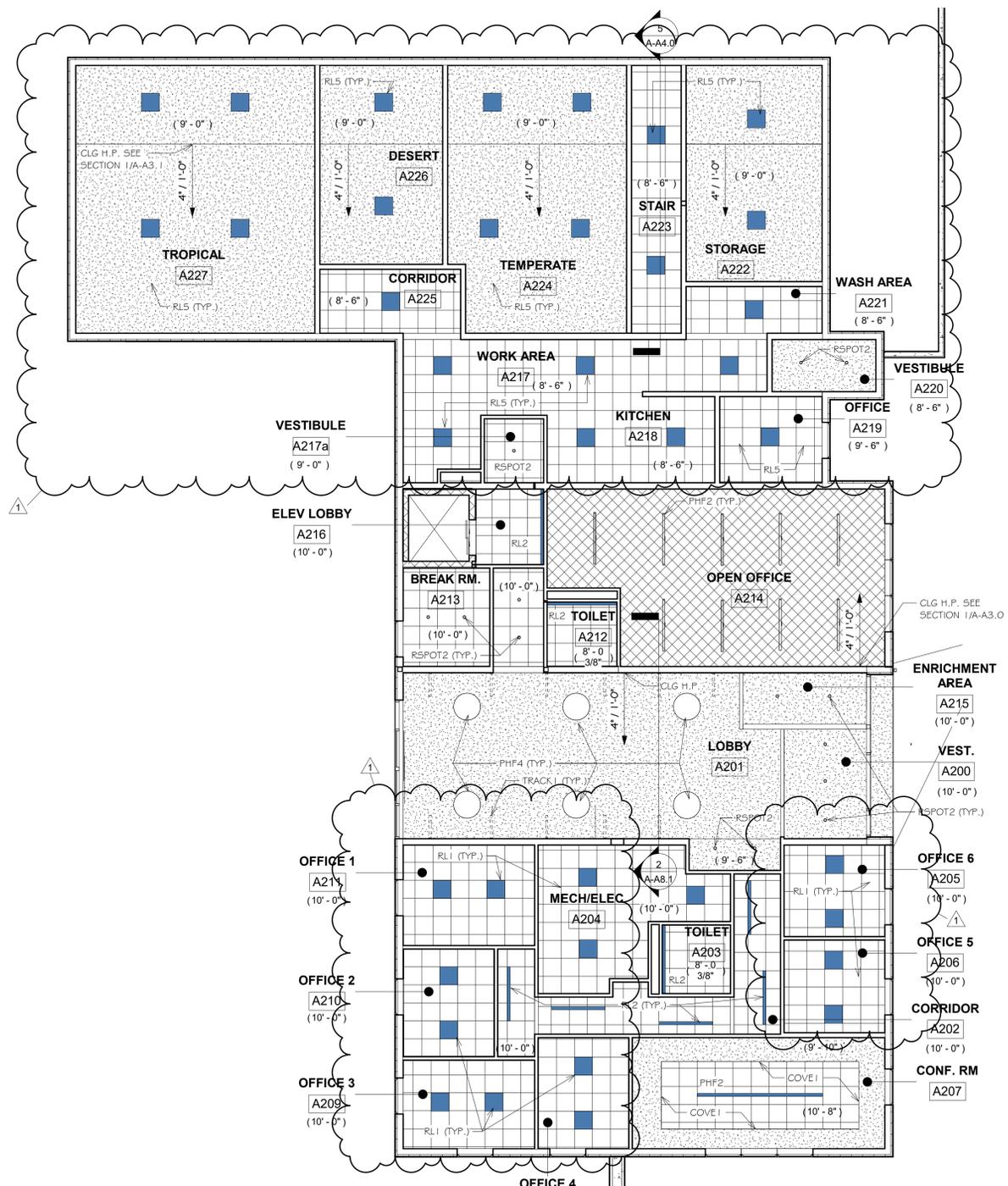
ISSUED FOR CONSTRUCTION
 JUNE 15, 2023

SHEET TITLE
UPPER LEVEL REFLECTED CEILING PLAN

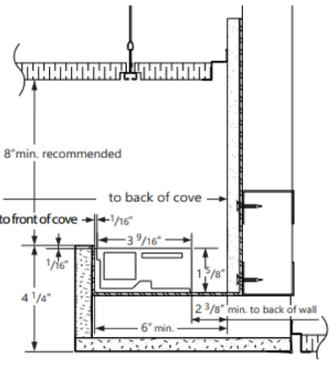
DRAWN BY: SOS JOB NUMBER: 18050
 CHECKED BY: MS DATE: 06/15/2023

A-A8.1

SHEET: OF:



1
A-A8.1
E.C. UPPER CEILING PLAN
 1/8" = 1'-0"

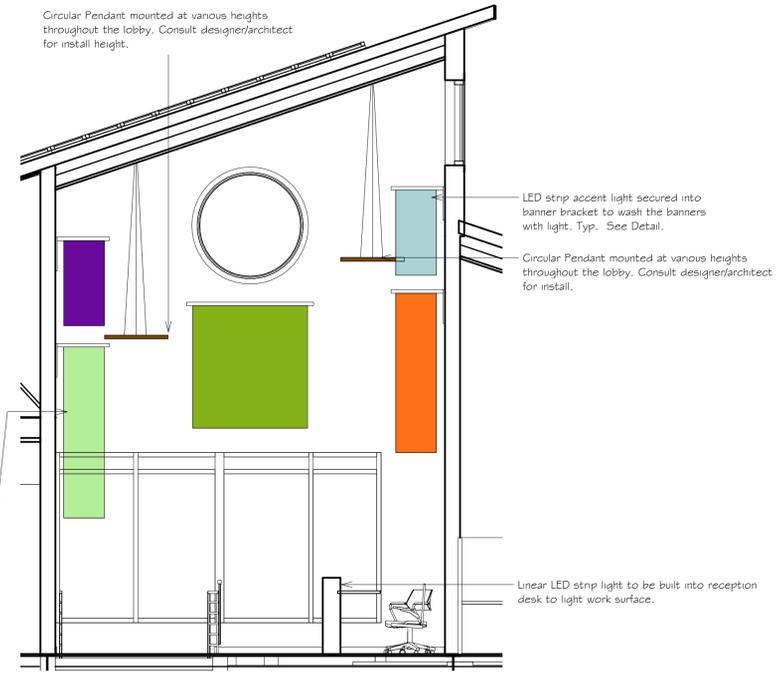


COVE LIGHTING DETAIL AT CONFERENCE ROOM.

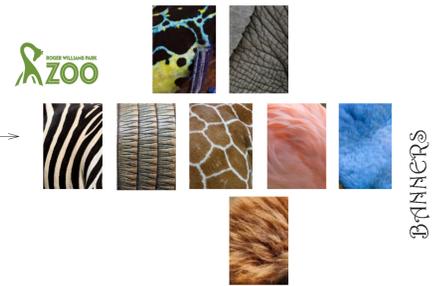
LEGEND

- 2x2' ACOUSTICAL LAY-IN TILE
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NOTES
 1. WOOD FLOOR ASSEMBLY TO BE ONE HOUR, #UL L508. SEE DETAIL 3/G2.1 FOR MORE INFORMATION



2
A-A8.1
Lobby Pendant Lighting and Banner Installation
 1/4" = 1'-0"



BANNERS

ADVANCE UTILITY SITE PLANS

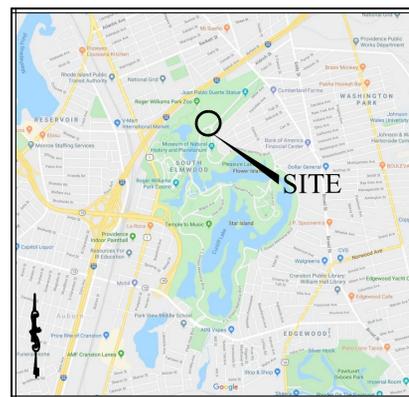
FOR:

ROGER WILLIAMS PARK ZOO EDUCATION CENTER & PAVILION

A.P. 90, LOT 1
1000 ELMWOOD AVENUE
PROVIDENCE, R.I. 02907

PREPARED FOR:

CITY OF PROVIDENCE
CITY HALL
PROVIDENCE, R.I. 02903



LOCUS MAP
NOT TO SCALE

DESIGN TEAM:



**Saccoccio &
Associates, Inc.**

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GAROFALO
GAROFALO & ASSOCIATES, INC.
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LAND PLANNERS, ENVIRONMENTAL SCIENTISTS
P.O. BOX 8145 PROVIDENCE, R.I. 02940
1-401-273-6000

JOB NO.7213-00

DATED:
DECEMBER 16, 2022

SHEET INDEX

SHEET	PLAN TITLE	LATEST REVISION
-	COVER SHEET	
1.0	GENERAL NOTES AND LEGEND	
2.0	DEMOLITION PLAN	
3.0	SITE PREPARATION PLAN	
4.0	CONSTRUCTION DETAILS-1	

ISSUED FOR
CONSTRUCTION



GENERAL CONSTRUCTION NOTES:

1. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE TRAILER AT ALL TIMES. DEVIATIONS OR CHANGES WILL NOT BE ALLOWED UNLESS BY WRITTEN APPROVAL FROM THE ENGINEER.
2. SITEWORK CONSTRUCTION SHALL NOT COMMENCE UNTIL ALL APPROVALS HAVE BEEN SECURED. REQUIRED PERMITS/APPROVALS FOR THE PROJECT INCLUDE BUT NOT LIMITED TO THE FOLLOWING: SITE PLAN APPROVAL BY THE CITY OF PROVIDENCE/ROGER WILLIAMS PARK ZOO.
3. THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SITE CONDITIONS AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING, INSTALLING OR PROCEEDING WITH WORK.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND TO TAKE WHATEVER NECESSARY MEASURES NEEDED TO PROVIDE FOR THEIR PROTECTION. THE ENGINEER HAS DILIGENTLY ATTEMPTED TO LOCATE AND INDICATE ALL EXISTING UNDERGROUND UTILITIES AND FACILITIES ON THE DRAWINGS; HOWEVER, THE INFORMATION SHOWN IS FOR THE CONTRACTORS CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UTILITIES SHOWN OR NOT SHOWN. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE ANY EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION, VERIFY ALL DIMENSIONS, SITE CONDITIONS AND MATERIALS. THE CONTRACTOR MUST CONTACT THE LOCAL UTILITY COMPANIES FOR EXACT LOCATION OF UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE START OF ANY WORK. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND REPLACE ANY AND ALL DAMAGE MADE TO UTILITIES BY THE CONTRACTOR.
5. THE CONTRACTOR MUST NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITIES IN THE AREA OF PROPOSED CONSTRUCTION, EXCAVATION OR BLASTING AT LEAST THREE WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION, EXCAVATION OR BLASTING. ALL WATER, SEWER, GAS AND ALL OTHER UTILITIES MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
6. METHODS AND MATERIALS USED IN THE CONSTRUCTION OF IMPROVEMENTS MUST CONFORM TO THE CITY OF PROVIDENCE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS AND THE STATE OF RHODE ISLAND DEPARTMENT OF TRANSPORTATION CONSTRUCTION SPECIFICATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PAVEMENT, DRIVEWAYS, SIDEWALKS, WALL, CURBS, ETC. DAMAGED DURING CONSTRUCTION WITH MATCHING MATERIALS.
8. THE CONTRACTOR AGREES THAT HE WILL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE PROJECT SITE CONDITIONS THROUGHOUT CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONJUNCTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
9. ALL MATERIALS USED FOR CONSTRUCTION MUST BE NEW AND FREE OF DEFECTS. USED OR SALVAGED MATERIAL WILL NOT BE ALLOWED UNLESS WRITTEN APPROVAL FROM THE OWNER IS OBTAINED BY THE CONTRACTOR.
10. NECESSARY BARRICADES, LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL METHODS AS MAYBE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC MUST BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION BY THE CONTRACTOR.
11. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR IS REQUIRED TO DEVELOP AND IMPLEMENT A PLAN FOR THE TEMPORARY CONTROL OF VEHICULAR AND PEDESTRIAN TRAFFIC FOR WORK WITHIN PUBLIC STREET RIGHT-OF-WAY AT THE SITE EGRESS. CONTRACTOR SHALL OBTAIN APPROVAL OF SAID PLAN FROM APPROPRIATE STATE AND COMMUNITY PUBLIC SAFETY OFFICIALS.
12. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION. SHOP DRAWINGS OF PRECAST STRUCTURES SHALL BE REVIEWED BY THE ENGINEER AND APPROVED BEFORE USE.
13. IF ANY EXISTING STRUCTURES AND/OR UTILITIES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, EITHER ON THE PROJECT SITE, ADJACENT PROPERTIES, OR WITHIN STATE RIGHT-OF-WAY, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.

SURVEY REFERENCE:

1. THE EXISTING CONDITIONS SHOWN WERE PROVIDED BY THE ROGER WILLIAMS PARK ZOO FOR USE IN THE PROJECT DESIGN AND ARE BASED ON DRAWINGS PREPARED BY BERKSHIRE DESIGN GROUP, ET. AL. THE EXISTING MAPPING HAS BEEN SUPPLEMENTED BY LIMITED FIELD 'EDITS BY GAROFALO & ASSOCIATES, BASED ON OBSERVED CONDITIONS IN JULY 2019 AND RECORD PLANS FOR PAST CONSTRUCTION WITHIN AND ADJACENT TO THE WORK ZONE. FIELD SURVEY WAS PERFORMED BY GAROFALO & ASSOCIATES WITHIN THE ZEBRA EXHIBIT IN OCTOBER, 2019 TO SUPPLEMENT THE BASE MAPPING PROVIDED.

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 4-35-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS

DATA ACCUMULATION SURVEY CLASS III
TOPOGRAPHIC SURVEY ACCURACY T-2

GENERAL UTILITY NOTES:

1. THE CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888-344-7233) AND ALL LOCAL AUTHORITIES & UTILITY COMPANIES TO VERIFY LOCATIONS OF UTILITIES WITHIN THE AREA 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION OR DEMOLITION FOR THE PURPOSE OF COORDINATING THE MARKING OF UNDERGROUND UTILITIES. LOCATION AND DEPTHS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY, LOCATE AND PROTECT EXISTING UTILITIES IN THE FIELD WHETHER OR NOT SHOWN ON THE DRAWINGS.
2. ALL WORK SHALL BE IN COMPLETE ACCORDANCE WITH ALL APPLICABLE STATE, FEDERAL AND LOCAL CODES, AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER/DEVELOPER.
3. THE CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF ALL UNDERGROUND UTILITIES AND APPURTENANCES TO MINIMIZE DISTURBANCE OF CURBING, PAVING AND COMPACTED SUBGRADE. THE CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER & ALL LOCAL UTILITY COMPANIES 48 HOURS BEFORE EACH PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER OF ANY DISCREPANCIES OR ERRORS DISCOVERED IN THE PLANS.
4. BEDDING REQUIREMENTS SPECIFIED HEREIN ARE TO BE CONSIDERED AS MINIMUMS FOR RELATIVELY DRY, STABLE EARTH CONDITIONS. ADDITIONAL BEDDING SHALL BE REQUIRED FOR ROCK TRENCHES AND WET AREA. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO PROVIDE SUCH ADDITIONAL BEDDING AS MAY BE REQUIRED TO PROPERLY CONSTRUCT THE WORK.
5. THE CONTRACTOR SHALL REMOVE ANY ABANDONED FOUNDATIONS, UTILITY STRUCTURES, BURIED DEBRIS ETC. WHICH INTERFERE WITH THE INSTALLATION OF THE UTILITY WORK. ALL SUCH STRUCTURES SHALL BE COMPLETELY REMOVED AND THE EXCAVATED AREA SHALL BE BACKFILLED WITH COMPACTED GRAVEL IN 6" LIFTS TO 95% COMPACTION TO 6" BELOW THE BOTTOM OF THE UTILITY AND PIPE.
6. COMPACTION OF THE BACKFILL OF ALL TRENCHES SHALL BE COMPACTED TO THE DENSITY OF 95% OF THE THEORETICAL MAXIMUM DRY DENSITY (ASTM D698). BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED IN LIFTS NOT TO EXCEED ONE FOOT IN COMPACTED FILL THICKNESS. CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM THE DATE OF PROJECT APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. ALL PIPING LAYOUT INDICATED ON THESE PLANS IS DIAGRAMMATIC ONLY AND DOES NOT SHOW ALL THE REQUIRED FITTINGS FOR PROPER ALIGNMENT. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS TO OBTAIN PROPER ALIGNMENT AND FOR EXISTING UTILITY CONNECTIONS BASED UPON FIELD CONDITIONS.
8. IF DURING EXCAVATION THE TRENCH WIDTH EXCEEDS THE SUM OF THE PIPE O.D. PLUS 2'-0", PLACE AND COMPACT THE FILL TO 12" ABOVE THE PIPE AND RE-EXCAVATE TO REQUIRED GRADE.
9. ALL WATER SERVICE MATERIALS AND WORKMANSHIP SHALL CONFORM TO PROVIDENCE WATER SUPPLY BOARD REGULATIONS, STANDARDS AND SPECIFICATIONS.
10. SEWER LINES SHALL BE INSTALLED AT A MINIMUM 10 FOOT HORIZONTAL SEPARATION FROM ANY PROPOSED OR EXISTING WATER LINE. WHENEVER SEWER LINES MUST CROSS WATER LINES, THE SEWER SHALL BE INSTALLED SO THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHERE 18 INCH VERTICAL SEPARATION & 10 FOOT HORIZONTAL SEPARATION CAN NOT BE MET AT WATER AND SEWER CROSSINGS, THE SEWER PIPE SHALL BE ENCASED IN EITHER DUCTILE IRON OR #900 BLUE BRUTE PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF CROSSING.
11. STORM DRAINS 12" AND OVER SHALL BE SMOOTH INTERIOR WALL AND EXTERIOR CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) PIPE CAPABLE OF WITHSTANDING (H-20) LOAD UNLESS NOTED OTHERWISE. PIPE SHALL BE JOINED USING BELL & SPIGOT JOINTS MEETING OR EXCEED ASTM F2648. THE JOINT SHALL BE SOIL-TIGHT AND GASKETS SHALL MEET OR EXCEED ASTM F477. HDPE PIPE SHALL BE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS INC. (ADS), HANCOR PIPE OR LANE PIPE. ALL STORM DRAINAGE PIPING SHALL BE LAID ON A SMOOTH CONTINUOUS GRADE WITH NO VISIBLE BENDS AT THE JOINTS. WHERE INDICATED ON DRAWINGS REINFORCED CONCRETE PIPE (RCP) PIPE SHALL BE CLASS III RCP WITH "O" RING GASKET JOINTS
12. GAS SERVICE FACILITIES SHALL BE DESIGNED BY OTHERS. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE UTILITY INSTALLATIONS AS REQUIRED TO ENSURE ADEQUATE GAS SERVICE IS PROVIDED AND SHALL BE RESPONSIBLE FOR ALL INSTALLATION PROCEDURES (TRENCHING, LAYING PIPE, ETC.) AS ARE REQUIRED BY THE GAS COMPANY FOR COMPLETE AND IN PLACE CONSTRUCTION.
13. ELECTRIC SERVICE FACILITIES SHALL BE DESIGNED BY OTHERS. ELECTRIC SERVICE AND TRANSFORMER PAD SHALL CONFORM TO THE REQUIREMENTS OF THE ELECTRIC COMPANY. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ADEQUATE ELECTRIC SERVICE IS PROVIDED AND SHALL BE RESPONSIBLE FOR ALL INSTALLATION PROCEDURES (TRENCHING, LAYING PIPE, ETC.) AS ARE REQUIRED BY THE ELECTRIC COMPANY FOR COMPLETE AND IN PLACE CONSTRUCTION. REFER TO ELECTRICAL DRAWINGS FOR DETAILS ON ALL UNDERGROUND ELECTRIC.
14. TEL/CABLE SERVICE FACILITIES SHALL BE DESIGNED BY OTHERS. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ADEQUATE UTILITY SERVICE IS PROVIDED AND SHALL BE RESPONSIBLE FOR ALL INSTALLATION PROCEDURES (TRENCHING, LAYING PIPE ETC.) AS IS REQUIRED BY THE LOCAL UTILITY CO. FOR COMPLETE AND IN PLACE CONSTRUCTION. REFER TO ELECTRICAL DRAWINGS FOR ALL UNDERGROUND ELECTRIC.

GENERAL DRAINAGE & GRADING NOTES:

1. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
2. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
3. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
4. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
5. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH THE CITY OF PROVIDENCE SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
6. INSTALL SILT SACKS AT ALL INLETS AFTER INSTALLATION.

SEQUENCE AND STAGING OF LAND

DISTURBING ACTIVITIES:

1. SURVEY AND STAKE THE DRAINAGE STRUCTURES, LIMIT OF WORK AND SEDIMENTATION BARRIERS.
2. PLACE SEDIMENTATION BARRIERS (SILT SOCK OR SILT FENCE) AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. LIMIT OF WORK IS NEVER TO EXTEND BEYOND THE SEDIMENTATION BARRIERS.
3. BEGIN ROADWAY AND DRAINAGE WORK (CLEARING AND GRUBBING, EXCAVATING AND GRADING, ETC.). TOP SOIL TO BE STRIPPED AND STOCKPILED IN APPROVED AREAS. THE STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION BARRIER AND COVERED OR TEMPORARILY SEEDED. NO RUNOFF TO BE DISCHARGED TO THE DETENTION STRUCTURES UNTIL THE BINDER COURSE OF PAVEMENT IS INSTALLED AND DISTURBED AREAS ARE STABILIZED.
4. BEGIN CLEARING WITHIN AREAS OF THE PROPOSED STRUCTURES FOLLOWING CONSTRUCTION OF ROADWAY.
5. ALL PROPOSED CATCH BASINS MUST BE LINED WITH SILT SACKS IMMEDIATELY AFTER INSTALLATION.
6. SWEEP THE ROADWAY AREAS TO REMOVE ALL SEDIMENTS.
7. FLUSH AND/OR REPAIR DRAINAGE AREAS AS NEEDED.
8. REMOVE ALL TEMPORARY SESC MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS.

SEDIMENTATION CONTROL PROGRAM:

1. EXTREME CARE SHALL BE EXERCISED TO PREVENT ANY SEDIMENTS FROM ENTERING THE ADJOINING PROPERTIES.
2. BANKS OR SLOPES OVER 5% SHALL BE SEEDED AS SOON AS POSSIBLE AND BE PROTECTED WITH STRAW OR FIBER MULCH.
3. DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
4. SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
5. CARE SHALL BE TAKEN SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECTED TO STORM WATER FLOW.
6. ADDITIONAL SILT SOCKS AND/OR SILT FENCE SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.

EROSION CONTROL and SOIL STABILIZATION PROGRAM:

1. DENUDED SLOPES SHALL NOT BE LEFT EXPOSED FOR EXCESSIVE PERIODS OF TIME.
2. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEEDED OR PROTECTED BY THAT DATE FOR ANY WORK COMPLETED DURING EACH CONSTRUCTION YEAR.
3. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
4. HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 2000 LBS/ACRE.
5. ALL TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
6. THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS.
7. THE SEED MIX SHALL BE INOCULATED WITHIN TWENTY FOUR (24) HOURS, BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
8. THE DESIGN MIX FOR TEMPORARY EROSION CONTROL AND SOIL STABILIZATION:

TYPE	% BY WEIGHT
CREeping RED FESCUE	70
ASTORIA BENTGRASS	5
BIRDSPOT TREEFOIL	15
PERENNIAL RYEGRASS	10
APPLICATION RATE	100 LBS/ACRE

LIMING AND FERTILIZE AS REQUIRED TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS.

9. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE (1) YEAR, AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE.
10. ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1ST THROUGH OCTOBER 15TH.
11. STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN FIFTEEN (15) DAYS OF FINAL GRADING.
12. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS OR FLOOD PLAINS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN THIRTY PERCENT (30%) AND STOCKPILES SHALL ALSO BE SEEDED AND/OR STABILIZED AND COMPLETELY ENCLOSED WITH A CONTINUOUS LINE OF STAKED HAYBALES AND/OR SILTFENCE. (SEE DETAIL)
13. ON BOTH STEEP AND LONG SLOPES, CONSIDERATION SHOULD BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.

SITE LEGEND

EXISTING	NEW	DESCRIPTION
		CENTERLINE (LAYOUT)
		STORM DRAIN
		ELECTRIC (UNDERGROUND)
		FIRE SERVICE
		FOOTING DRAIN
		GAS
		OVERHEAD WIRE
		PROPERTY LINE
		SANITARY SEWER
		SITE LIGHTING SERVICE
		TELEPHONE
		WATER
		CONTOUR
		SPOT GRADE
		SPOT GRADE (BOT. OF CURB)
		SPOT GRADE (TOP OF CURB)
		SPOT GRADE (BOT. OF WALL)
		SPOT GRADE (TOP OF WALL)
		BITUMINOUS CONC. CURB
		CAPE COD BERM
		PRECAST CONC. CURB
		PRECAST SLOPED MOUNT. CURB
		SLOPED GRANITE CURB
		VERTICAL GRANITE CURB
		CHAINLINK FENCE (CLF)
		STOCKADE FENCE (STKF)
		BORING LOCATION
		CATCH BASIN
		DOUBLE GRATE CATCH BASIN
		CONCRETE THRUST BLOCK
		DRAIN MANHOLE
		FLARED END STRUCTURE
		SEWER MANHOLE
		WATER SERVICE
		UTILITY POLE
		FIRE HYDRANT
		GATE VALVE AND CURB BOX
		HANDICAP SYMBOL (PRKG. SPACE)
		SIGN
		WETLAND
		SOIL EVALUATION LOCATION
		TEST PIT LOCATION
		FIRE DEPARTMENT CONNECTION
		POST INDICATOR VALVE (PIV)
		ELECTRIC MANHOLE (EMH)
		TELEPHONE MANHOLE (TMH)
		TRANSFORMER PAD
		GENERATOR PAD
		GROUND CLEANOUT
		SIGHT LIGHT POLE
		TRAFFIC FLOW DIRECTION
		CONTINUOUS ROW OF HAYBALES
		RIDIOT/PROVIDENCE STD DETAIL REFERENCE

ABBREVIATIONS

CI	CAST IRON PIPE
CLDI	CEMENT LINED DUCTILE IRON PIPE
CLF	CHAINLINK FENCE
CTE	POINT OF CONNECTION TO EXISTING
D.I.	DUCTILE IRON PIPE
ESHWT	ESTIMATED SEASONAL HIGH WATER TABLE
ETR	EXISTING TO REMAIN
EX	EXISTING
F&I	FURNISH AND INSTALL
HDPE	HIGH DENSITY POLYETHYLENE PIPE
INV.	INVERT ELEVATION
MTE	MATCH TO EXISTING
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
VF	VERIFY IN FIELD
WQS	WATER QUALITY STRUCTURE



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Education Center & Pavilion Advance Utility Site Plans

1000 Elmwood Avenue Providence, RI 02907

Roger Williams Park Zoo

ISSUED FOR CONSTRUCTION

Revision Schedule	
Revision Number	Revision Date

SHEET TITLE
GENERAL NOTES & LEGEND

DRAWN BY: KYY JOB NUMBER: 7213-00

CHECKED BY: SSH DATE: 12/16/2022

1.0

SHEET: 2 OF: 5



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Park Zoo

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Revision Schedule

Revision Number	Revision Date

SHEET TITLE

DEMOLITION PLAN

DRAWN BY: KYY JOB NUMBER: 7213-00

CHECKED BY: SSH DATE: 12/16/2022

2.0

SHEET: 3 OF: 5

KEY NOTES:

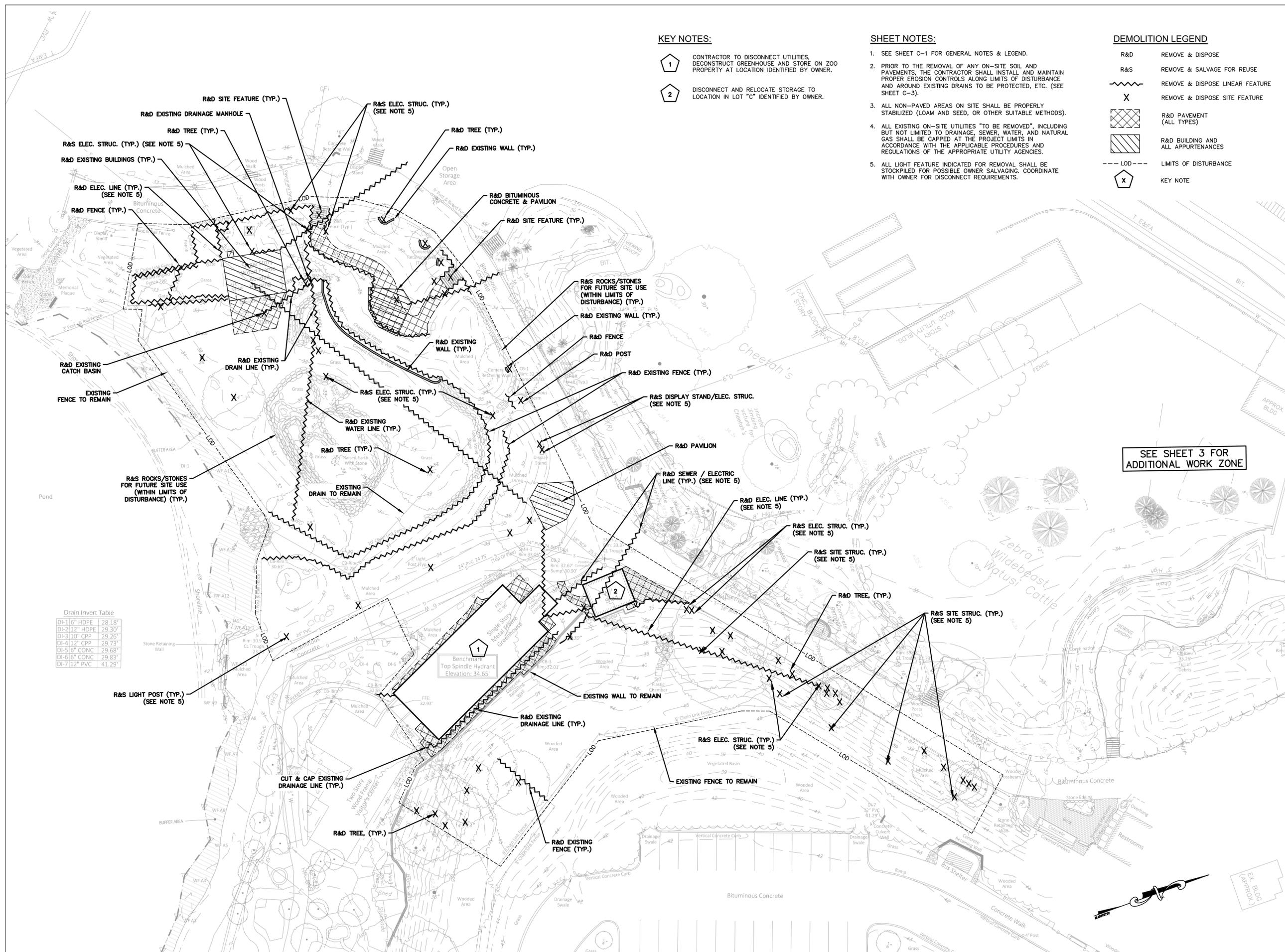
- CONTRACTOR TO DISCONNECT UTILITIES, DECONSTRUCT GREENHOUSE AND STORE ON ZOO PROPERTY AT LOCATION IDENTIFIED BY OWNER.
- DISCONNECT AND RELOCATE STORAGE TO LOCATION IN LOT "C" IDENTIFIED BY OWNER.

SHEET NOTES:

- SEE SHEET C-1 FOR GENERAL NOTES & LEGEND.
- PRIOR TO THE REMOVAL OF ANY ON-SITE SOIL AND PAVEMENTS, THE CONTRACTOR SHALL INSTALL AND MAINTAIN PROPER EROSION CONTROLS ALONG LIMITS OF DISTURBANCE AND AROUND EXISTING DRAINS TO BE PROTECTED, ETC. (SEE SHEET C-3).
- ALL NON-PAVED AREAS ON SITE SHALL BE PROPERLY STABILIZED (LOAM AND SEED, OR OTHER SUITABLE METHODS).
- ALL EXISTING ON-SITE UTILITIES "TO BE REMOVED", INCLUDING BUT NOT LIMITED TO DRAINAGE, SEWER, WATER, AND NATURAL GAS SHALL BE CAPPED AT THE PROJECT LIMITS IN ACCORDANCE WITH THE APPLICABLE PROCEDURES AND REGULATIONS OF THE APPROPRIATE UTILITY AGENCIES.
- ALL LIGHT FEATURE INDICATED FOR REMOVAL SHALL BE STOCKPILED FOR POSSIBLE OWNER SALVAGING. COORDINATE WITH OWNER FOR DISCONNECT REQUIREMENTS.

DEMOLITION LEGEND

- R&D REMOVE & DISPOSE
- R&S REMOVE & SALVAGE FOR REUSE
- ~ ~ ~ REMOVE & DISPOSE LINEAR FEATURE
- X REMOVE & DISPOSE SITE FEATURE
- [Cross-hatched] R&D PAVEMENT (ALL TYPES)
- [Diagonal lines] R&D BUILDING AND ALL APPURTENANCES
- - - LOD - - - LIMITS OF DISTURBANCE
- [X in circle] KEY NOTE

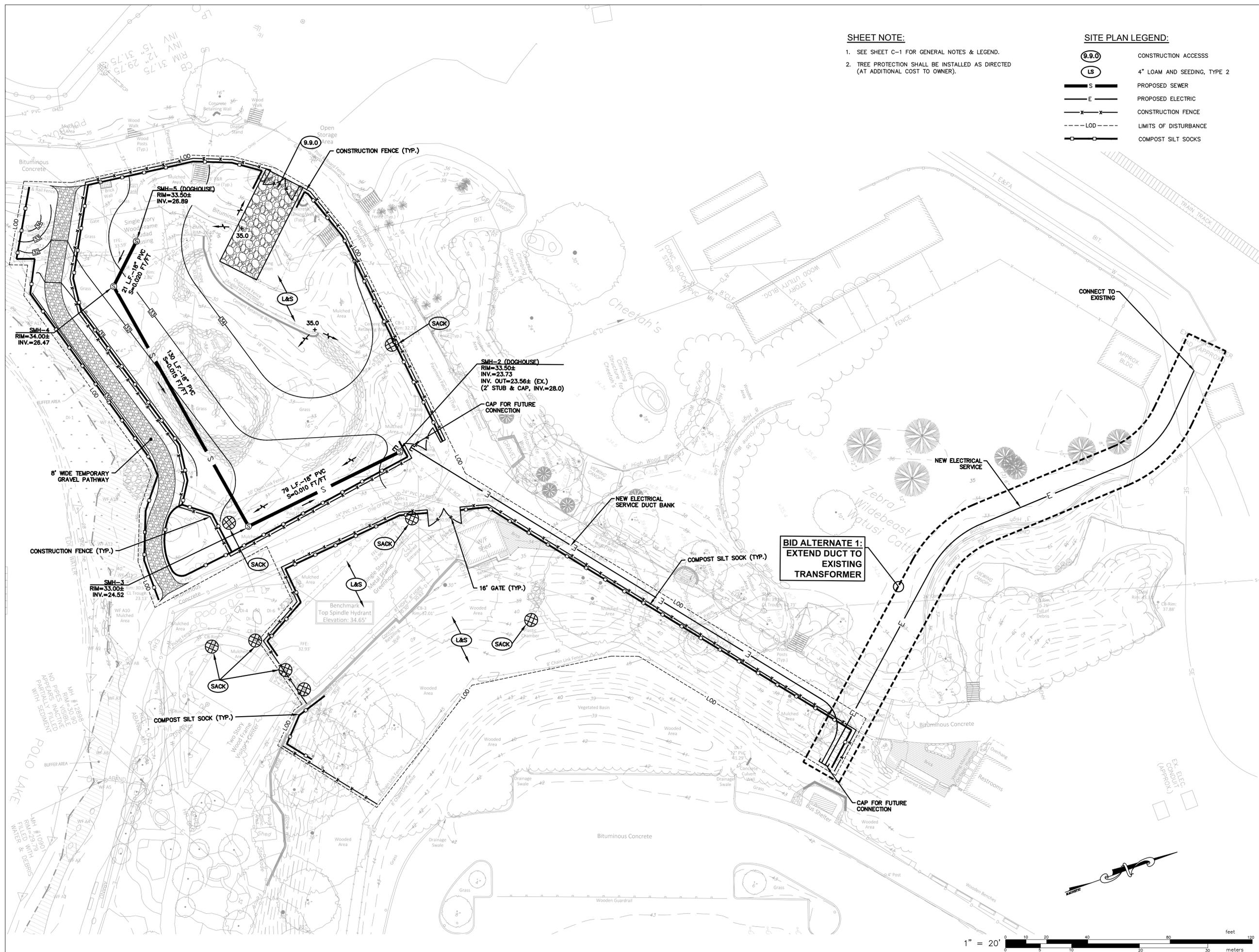


Drain Invert Table

DI-1 6" HDPE	28.18'
DI-2 12" HDPE	29.30'
DI-3 10" CPP	29.26'
DI-4 12" CPP	29.73'
DI-5 6" CONC	29.68'
DI-6 6" CONC	29.83'
DI-7 12" PVC	41.29'



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SHEET NOTE:

- SEE SHEET C-1 FOR GENERAL NOTES & LEGEND.
- TREE PROTECTION SHALL BE INSTALLED AS DIRECTED (AT ADDITIONAL COST TO OWNER).

SITE PLAN LEGEND:

- 9.9.0 CONSTRUCTION ACCESS
- LS 4" LOAM AND SEEDING, TYPE 2
- S PROPOSED SEWER
- E PROPOSED ELECTRIC
- X CONSTRUCTION FENCE
- LOD LIMITS OF DISTURBANCE
- COMPOST SILT SOCKS



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Roger Williams Park Zoo

ISSUED FOR CONSTRUCTION

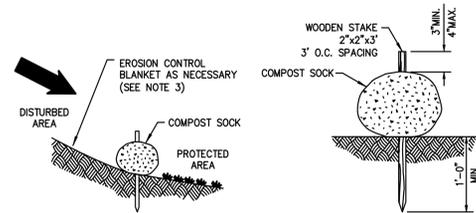
Revision Schedule	
Revision Number	Revision Date

SHEET TITLE
 SITE PREPARATION PLAN

DRAWN BY: KYJ JOB NUMBER: 7213-00
 CHECKED BY: SSH DATE: 12/16/2022

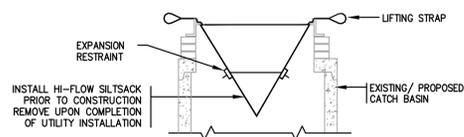
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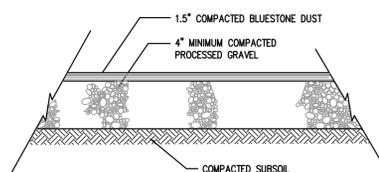


- NOTES:**
1. COMPOST SOCK SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS. COMPOST SOCK SHALL BE A MINIMUM OF 8" IN DIAMETER.
 2. COMPOST MATERIAL TO BE DISPersed ON SITE, AS DETERMINED BY THE ENGINEER.
 3. WHEN PLACING COMPOST SOCK ON SLOPES, USE EROSION CONTROL BLANKET IF SPECIFIED ON PLANS.
 4. ALWAYS INSTALL COMPOST SOCK PERPENDICULAR TO SLOPE AND ALONG CONTOUR LINES.
 5. REMOVE SEDIMENT FROM THE UP SLOPE SIDE OF THE COMPOST SOCK WHEN ACCUMULATION HAS REACHED 1/2 OF THE EFFECTIVE HEIGHT OF THE COMPOST SOCK.
 6. NO STAKES ARE REQUIRED WHERE COMPOST SOCK IS INSTALLED ON PAVEMENT.

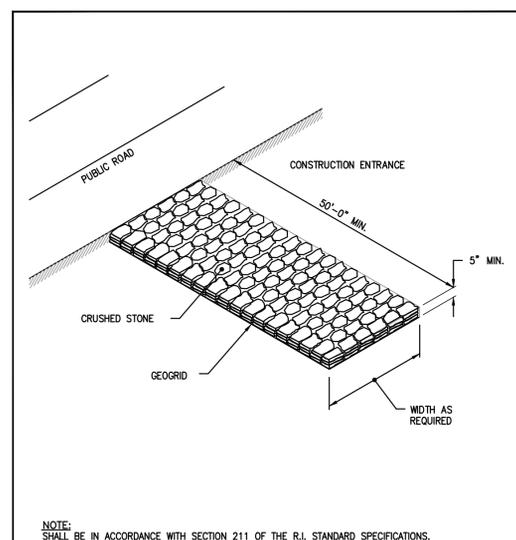
COMPOST SILT SOCK
NOT TO SCALE



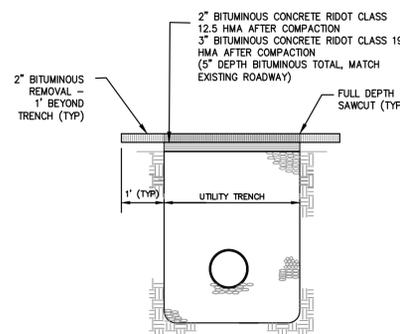
SILTSACK® AT CATCH BASIN
NOT TO SCALE



GRAVEL PATHWAY
NOT TO SCALE

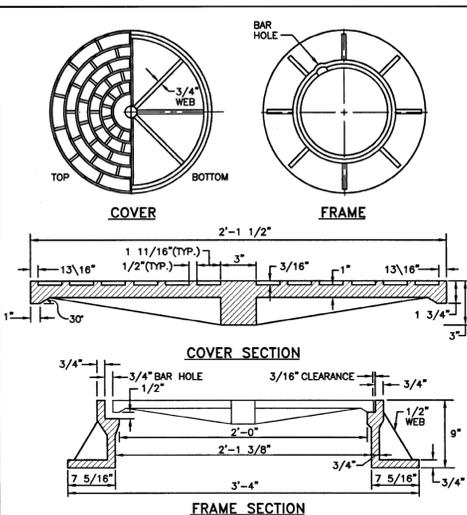


CONSTRUCTION ACCESS
NOT TO SCALE



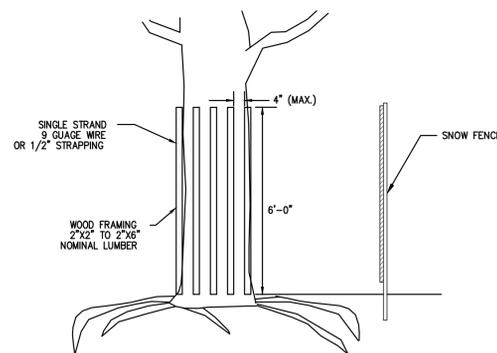
- NOTE:**
- FOLLOWING SETTLING OF PAVEMENT WITHIN THE UTILITY TRENCHES, THE CONTRACTOR SHALL REMOVE 2" BITUMINOUS ACROSS ENTIRE TRENCH WORK ZONE (AND 1' BEYOND TRENCHES) AND REPLACE WITH 2" BITUMINOUS CONCRETE, CLASS 12.5.

TRENCH RESURFACING
NOT TO SCALE

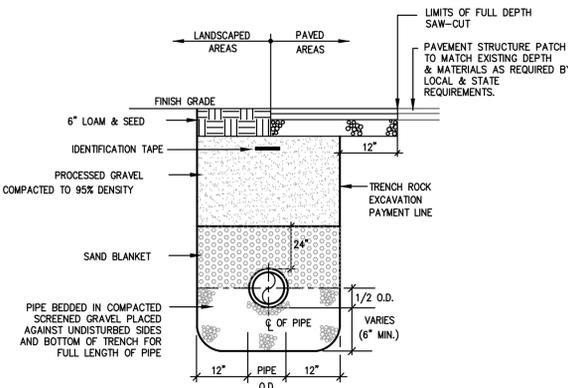


- NOTES:**
1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
 2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.

HEAVY-DUTY ROUND FRAME AND COVER
R.I. STANDARD 6.2.1

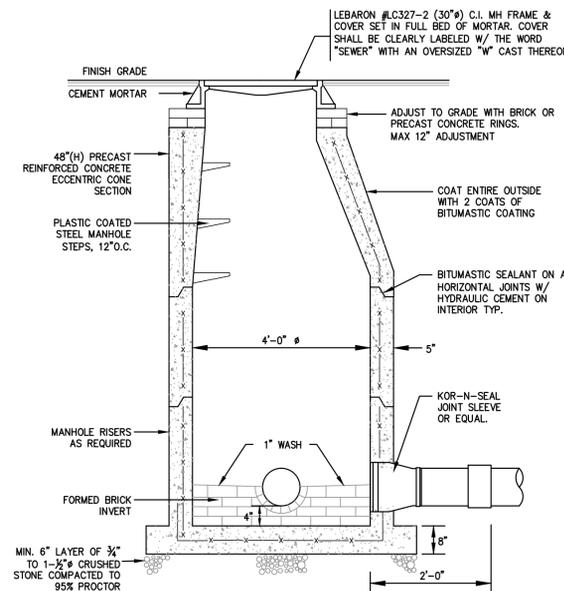


TREE PROTECTION
NOT TO SCALE



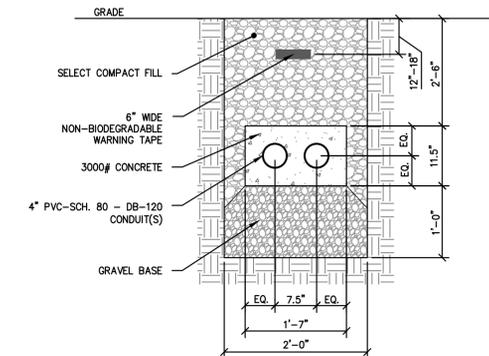
- NOTES:**
- METALLIZED 2" WIDE DETECTABLE IDENTIFICATION TAPE SHALL BE INSTALLED OVER SEWER LINES 12" BELOW FINISH GRADE.
- MINIMUM DEPTH OF COVER SHALL BE 5'-0"

TRENCH SECTION (SEWER)
NOT TO SCALE

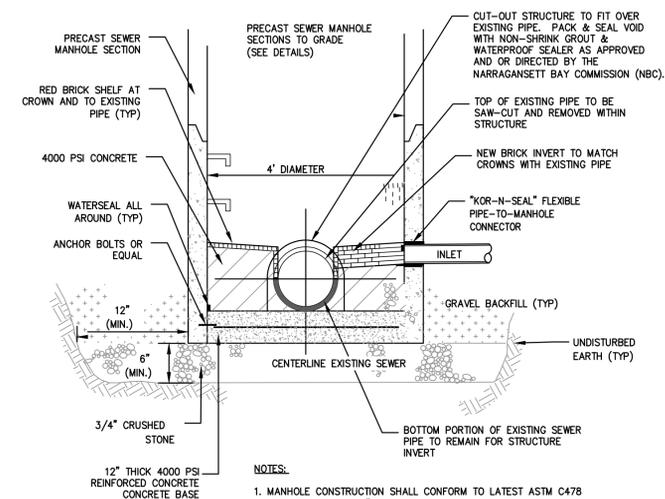


- NOTE:**
- ALL LIFTING HOLES TO BE PLUGGED IN AND OUT WITH HYDRAULIC CEMENT.

SANITARY SEWER MANHOLE
NOT TO SCALE



DUCT BANK
NOT TO SCALE



- NOTES:**
1. MANHOLE CONSTRUCTION SHALL CONFORM TO LATEST ASTM C478 SPECIFICATION FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS AND THE R.I. STANDARD DETAILS.
 2. SERVICE SHALL BE MAINTAINED WITHIN EXISTING MAIN THROUGHOUT CONSTRUCTION.

SANITARY SEWER "DOG HOUSE" MANHOLE
NOT TO SCALE



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Education Center & Pavilion
Advance Utility
Site Plans

1000 Elmwood Avenue
Providence, RI 02907

Roger Williams Park Zoo

ISSUED FOR CONSTRUCTION

Revision Schedule	
Revision Number	Revision Date

SHEET TITLE
DETAILS PLAN

DRAWN BY: KYY JOB NUMBER: 7213-00
CHECKED BY: SSH DATE: 12/16/2022

4.0

SHEET: 5 OF: 5