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To: All Prospective Bidders
From: Patricia A. Peshka, Purchasing Agent
Date: May 20, 2020
Re: **Bid 2020-313 Buckeye Brook Restoration Project**

Addendum #1

Please be advised that the information provided comprises of Addendum #1.

After the mandatory pre-bid conference held on Wednesday 13 May 2020, there were questions regarding the specifications and scope of work. Potential bidders should note the following.

Representatives Present: Joe Onorato, Solitude Lake Management
Andy Mansoor, Rain for Rent
Jim Marsh, William Anthony Excavating
John Key, Key Corp.
Jonathan Gawrys, SumCo
Daniel Reed, NEI
Andy Pratt, Ferreria Construction
William Facente, City of Warwick
Eric Hindinger, City of Warwick
Jay Brolin, RIAC
Amy Hunt, EA Engineering

Prospective Bidders and all concerned are hereby notified of the following changes in the Contract Documents of the BUCKEYE BROOK RESTORATION PROJECT in WARWICK, RI. These changes

shall be incorporated in and shall become an integral part of the Contract Documents. The number (No. 1) and date (5/20/2020) of this addendum shall be entered into the space provided on the Acknowledge of Addendum Form.

**CITY OF WARWICK, RHODE ISLAND
BUCKEYE BROOK RESTORATION PROJECT
BID 2020-313
ADDENDUM NO. 1
20 May 2020**

The following information is provided as part of the Contract Documents as Addendum No. 1.

INTRODUCTION

Amy Hunt, the Project Manager from EA Engineering (EA), opened the Prebid meeting with introductions of the Construction Management Team and gave a general overview of the project and reviewed agenda items.

UPDATED BID DOCUMENTS

1. Notice to Bidders – Page 6. Replace this paragraph:

“The City reserves the right to terminate the contract or any part of the contract in the best interests of the City, upon 30-day notice to the contractor. The City will incur no liability for materials or services not yet ordered if it terminates in the best interests of the City. If the City terminates in the interests of the City after an order for materials or services has been placed, the contractor will be entitled to compensation upon submission of invoices and proper proof of claim, in that proportion which its services and products were satisfactorily rendered or provided, as well as expenses necessarily incurred in the performance of work up to time of termination.”

With the following paragraph:

“The City reserves the right to terminate the contract or any part of the contract in the best interests of the City, upon 30-day notice to the contractor, unless the reason to terminate pertains to environmental findings, in which case, the City reserves the right to terminate the contract upon a 5-day notice. The City will incur no liability for materials or services not yet ordered if it terminates in the best interests of the City. If the City terminates in the interests of the City after an order for materials or services has been placed, the contractor will be entitled to compensation upon submission of invoices and proper proof of claim, in that proportion which its services and products were satisfactorily rendered or provided, as well as expenses necessarily incurred in the performance of work up to time of termination.”

2. The Prevailing Wage information has been updated and is included as part of this addendum. This wage information replaces the previous wage information.

BID FORM

3. A revised Bid Form has been included as part of this addendum. This bid form replaces the previous bid form.
 - Bid Item No. 7 has been revised from Lump Sum to Unit Price (Per Ton)
 - Add/Deduct Bid Items have been added
 - Additional Alternate Bid Items have been added.
 - Time of Completion section has been revised.

PRICE AND PAYMENT PROCEDURES

4. Specification 012000 - Price and Payment Procedures Specification has been revised and included as part of this addendum. This revised specification replaces the previous specification.
 - Description of bid items have been changed to reflect changes on the bid form

TEMPORARY EROSION AND SEDIMENT CONTROLS

5. PART 2, 2.6, A – Add the following

“2.6 SILT BAG

A. Such bags shall be used to filter dewatered fraction of stockpiled soil if water is sampled and found to be uncontaminated. The silt bag shall be made from permeable non-woven geotextile fabric into which water is pumped. Sediment is filtered on the inside of the bag and water diffuses out. Dewatering bags must be sized appropriately for flow rates entering the bags. The apparent opening size of the geotextile shall be suitable for the sediment grain size distribution. Bags must be placed on gravel bedding. Full dewatering bags must be removed from site and disposed of in a lawful manner.”

6. Part 3, 3.2 F – Add the following:

“A. Silt Sack: Install in accordance with manufacturer’s written instructions.”

EARTHWORK

7. Part 1, 1.5 B – Replace with the following:

“D. Excavation shall not begin until one month after herbicide has been applied and be completed by 31 October.”

8. Part 1, 1.5, D – Add the following:

“A. Sediment testing shall be submitted for a three (3) day turn around time.”

SITE RESTORATION

9. Part 3, 3.5, B-E – Delete sections B, C, D and E

The following questions were made by Bidders via email during the Question Period and the meeting.

10. Comment: RIDEM permit expires 7/19/20. Has it been renewed?
Response: Yes, the permit is in the process of being renewed.
11. Comment: Bid Form Item 7 unit is stated as Lump Sum, yet the measurement and payments section classifies it as a unit price per ton.
Response: This item will be paid for on a Per Ton basis. A revised bid form is attached. An Add/Deduct Unit Price Bid Item has been also been added for Phragmites Australis Excavation as directed by the Engineer.
12. Comment: What is the frequency of soils testing needed to determine contaminated soils?
Response: The frequency of testing will be determined by the proposed, base bid disposal facility. Additional testing (if required to send material to alternate facilities) will be included in the Allowance.
13. Comment: What category of contaminated soils do we carry for the alternate pricing? For example, arsenic (>7PPM – 40PPM), arsenic (>40PPM), heavy metals, etc.?
Response: An additional Alternate Bid item has been added to clarify the type of waste that could be encountered. As the material has not been sampled previously, the Contractor should assume that the material in the base bid should be accepted at RIRRC. Contaminated material (ALT-1) should be bid to reflect disposing of the material at a landfill that accepts CERCLA waste (i.e. Turnkey Landfill in Rochester, NH). Hazardous material (ALT-2) should be bid to reflect disposing of the material at a RCRA Subtitle C landfill.
14. Comment: What is the anticipated depth of excavation to remove the invasive species?
Response: See section 3.4 of Excavation. It is anticipated that the root system of Phragmites australis will extend 2 feet +/- below grade; however, the actual cut depth of the root wad will be determined by field conditions. An add/deduct bid item has been added to the bid form if measurements vary from the 2' assumption of the root mat.
15. Comment: The native seed mix table in the drawings do not add up to 100% by weight. The spec book also references RIDOT M.18.10.6 Native Seed Mix. This also does not match the drawings with respect to Perennial Ryegrass and Fescue % by weight.
Response: The table on the drawings has been updated to reflect the RIDOT M. 18.10.6 Native Seed mix.
16. Comment: Where do the straw bales go?
Response: The straw bales are an optional erosion and sediment control measure for the contractor to use if necessary.
17. Comment: It appears that the only benchmarks on the drawings are on the north side of Warwick Pond and very close together. Is there any horizontal and vertical control closer to the site.
Response: The only benchmarks for the site are shown on the drawings.
18. Comment: According to 004113 -5 6.1 para 2, Final completion is no later than 10/31/20. According to 017000-5, 1.7.C.1, a pre-requisite for final completion is the completion

of the Vegetation Establishment Period which appears to be 60 days, according to 329219-3 1.8.A.1. This constraint does not fit the logic of the project.

Response: Dates for Final Completion have been clarified in the revised Bid Form.

19. In cross section detail for the dewatering area cells the temporary structure appears to be on flat ground. There is up to a 6' grade difference on plan view. Will any grading need to take place prior to the installation of the dewatering basin? If not, will this design hold the weight of the wet excavated soils?

Response: The contractor will need to provide for temporary site grading to install the dewatering basins, and then restore the site at the completion of the project. The dewatering areas can be located anywhere within the RCA

20. Can the brook be accessed from the northeastern side?

Response: Yes, if the contractor would like to access from the north side, they can arrange access with the airport.

21. When can phrag spraying commence?

Phrag spraying can commence as soon as July 31, provided the flowers are out on the phragmites by then.

22. What is the estimated quantity material to be removed? If the quantity is exceeded, can there be a change order?

Response: The estimated volume to be removed is 4,920 CY (~ 5,390 Tons) of material. An add/deduct has been added to the bid form for additional material removed per the direction of the engineer.

23. Is there Bathymetry of the brook?

Response: There is limited bathymetry data for the site. Existing ground surface elevations are shown on the profile view. The contractor shall be responsible for confirming the top of the root mat of phrag and excavating approximately two feet below that elevation to excavate to the bottom of the phragmites root mat. If the engineer determines additional excavation is necessary, the engineer and contractor will agree on an additional depth to add to the contract. That additional volume will be paid for under Add/Deduct Bid Item AD-6A.

24. Can there be an extension of time to perform work? In-water or out?

Response: The time frame that the contractor is allowed to be working within the wetlands is from July 1 – October 31. See the revised bid form for additional clarification on the work performance window.

25. What are the MBE/WBE requirements?

Response: There is no requirement that the contract be awarded to a MBE/WBE – but it is encouraged that it be awarded to lowest qualified bidder is a MBE/WBE. The contractor should hire MBE/WBE and Section 3 businesses when available.

26. Must you stay on the access roadway to get access to the brook?

Response: The Contractor may access the brook anywhere within the limit of disturbance. However, note that there is no access immediately under the overhead wires between the FAA towers.

27. What was the history of the excavators that sank? If this happened again, what would need to be done to remedy the situation and prevent any environmental impacts?
Response: Jay Brolin of RIAC stated that two excavators in the peat during a previous RIAC construction project. One was not reclaimed until the end of the project. Booms we placed around the excavators and RIDEM was called in to inspect the scene. Jay assumed the same protocol would be required at this site. The contractor should note that low ground pressure equipment is required for this project, and the qualifications section require the contractor to show experience with excavation in wetlands.
28. Can water from the dewatering area be discharged to the brook if testing is clean?
Response: Yes, this water can be discharged after filtering through a silt sock.
29. Can excavated material be treated and left on airport property?
Response: No, this material must be removed from the site.
30. Who is responsible for the Erosion Control Inspection Logs?
The Contractor is responsible for inspecting and maintain these logs in accordance with the RI Soil Erosion and Sediment Control Handbook, as specified in accordance with the Temporary Erosion Control Specification.
31. What contaminants are known in the brook and the soils?
Response: Due to site access issues at the time of design, sediment samples were not collected. Jay Brolin reported that a draft TMDL is being prepared for Buckeye Brook that lists Benthic-Macroinvertebrate, Cadmium, Copper, Iron, Dissolved Oxygen Impairments.
32. What are the concerns with the upstream landfill?
Response: There are several landfills located upgradient of the site – no public information exists on contamination of Buckeye Brook from these landfills.
33. 317200-2 1.6.D Requires restoration of asphalt road that extends from Range Rd. What quantity should we carry?
Response: Specification 312316 - Excavation states that the road will need to be repaired if damaged by the contractor. Please plan to carry the quantity needed for anticipated damage to the roadway.
34. 329219-6 3.5.D Is the asphalt emulsion specification correct?
Response: It is typically correct, however, this method has been removed from the specification in accordance with the RIDOT specification.
35. Exhibit A - RIDEM Permit bullet 19 states that if there is a "Recognized Environmental Concern" as defined in ASTM E-1527-13, soils must be sampled to determine if they exceed the soil objectives in 250-RICR-140-30-1. Will the sampling requirements from RIRRC fulfill this soil sampling requirement?
Response: No, if there is evidence of a recognized environmental concern, sampling for the Direct Exposure Criteria would be covered under the Allowance.
36. Exhibit A - RIDEM Permit bullet 21 & 22: Who is responsible for the environmental consultant to monitor the river herring and phragmites excavation?

Response: EA Engineering will be on-site for construction oversight and will fulfill these requirements.

Should you have any questions, please contact Bill Facente, Office of Housing & Community Development, at 401-921-9688.

Thank you for your interest in this project.

Attachments

Davis Bacon Wage Rates

Revised Bid Form

Revised Price and Payment Procedures

Drawings C-104, C-107 & C-108

"General Decision Number: RI20200001 05/01/2020

Superseded General Decision Number: RI20190001

State: Rhode Island

Construction Types: Building, Heavy (Heavy and Marine) and Highway

Counties: Rhode Island Statewide.

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories) HEAVY, HIGHWAY AND MARINE CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	01/24/2020
2	02/21/2020
3	03/06/2020
4	03/13/2020
5	05/01/2020

ASBE0006-006 12/01/2019

Rates

Fringes

HAZARDOUS MATERIAL HANDLER
(Includes preparation,

wetting, stripping, removal
 scrapping, vacuuming, bagging
 & disposing of all insulation
 materials, whether they
 contain asbestos or not, from
 mechanical systems).....\$ 36.60 22.40

 ASBE0006-008 09/01/2019

	Rates	Fringes
Asbestos Worker/Insulator Includes application of all insulating materials, protective coverings, coatings & finishes to all types of mechanical systems.	\$ 43.60	29.90

 BOIL0029-001 01/01/2017

	Rates	Fringes
BOILERMAKER.....	\$ 42.42	24.92

 BRRIO003-001 12/01/2019

	Rates	Fringes
Bricklayer, Stonemason, Pointer, Caulker & Cleaner.....	\$ 41.00	27.83

 BRRIO003-002 03/01/2020

	Rates	Fringes
Marble Setter, Terrazzo Worker & Tile Setter.....	\$ 40.78	28.92

 BRRIO003-003 03/01/2020

	Rates	Fringes
Marble, Tile & Terrazzo Finisher.....	\$ 34.10	27.88

 CARP0330-001 09/01/2019

	Rates	Fringes
CARPENTER (Includes Soft Floor Layer).....	\$ 38.48	28.60
Diver Tender.....	\$ 36.28	27.15
DIVER.....	\$ 49.28	28.50
Piledriver.....	\$ 37.13	28.45
WELDER.....	\$ 39.48	28.60

 FOOTNOTES:

When not diving or tending the diver, the diver and diver tender shall receive the piledriver rate. Diver tenders shall receive \$1.00 per hour above the pile driver rate when tending the diver.

Work on free-standing stacks, concrete silos & public utility electrical power houses, which are over 35 ft. in height when constructed: \$.50 per hour additional.

Work on exterior concrete shear wall gang forms, 45 ft. or more above ground elevation or on setback: \$.50 per hour additional.

The designated piledriver, known as the "monkey": \$1.00 per hour additional.

 CARP1121-002 01/06/2020

	Rates	Fringes
MILLWRIGHT.....	\$ 39.07	29.15

 ELEC0099-002 06/01/2019

	Rates	Fringes
ELECTRICIAN.....	\$ 40.40	57.24%
Teledata System Installer.....	\$ 30.30	13.10%+14.53

FOOTNOTES:

Work of a hazardous nature, or where the work height is 30 ft. or more from the floor, except when working OSHA-approved lifts: 20% per hour additional.

Work in tunnels below ground level in combined sewer outfall: 20% per hour additional.

 ELEV0039-001 01/01/2020

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 53.25	34.765+a+b

FOOTNOTES:

A. PAID HOLIDAYS: New Years Day; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; the Friday after Thanksgiving Day; and Christmas Day.

B. Employer contributes 8% basic hourly rate for 5 years or more of service of 6% basic hourly rate for 6 months to 5 years of service as vacation pay credit.

 ENGI0057-001 12/01/2019

	Rates	Fringes
Operating Engineer: (power plants, sewer treatment plants, pumping stations, tunnels, caissons, piers, docks, bridges, wind turbines, subterranean & other marine and heavy construction work)		
GROUP 1.....	\$ 42.55	25.95+a
GROUP 2.....	\$ 40.55	25.95+a
GROUP 3.....	\$ 36.17	25.95+a
GROUP 4.....	\$ 33.32	25.95+a
GROUP 5.....	\$ 39.60	25.95+a
GROUP 6.....	\$ 30.40	25.95+a
GROUP 7.....	\$ 24.40	25.95+a
GROUP 8.....	\$ 36.25	25.95+a
GROUP 9.....	\$ 40.17	25.95+a

a. BOOM LENGTHS, INCLUDING JIBS:

150 feet and over + \$ 2.00
180 feet and over + \$ 3.00
210 feet and over + \$ 4.00
240 feet and over + \$ 5.00
270 feet and over + \$ 7.00
300 feet and over + \$ 8.00
350 feet and over + \$ 9.00
400 feet and over + \$10.00

a. PAID HOLIDAYS:

New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

a. FOOTNOTES:

Hazmat work: \$2.00 per hour additional.
Tunnel/Shaft work: \$5.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, lighters, boom trucks and derricks

GROUP 2: Digging machine, Ross Carrier, locomotive, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, graders, front end loader (3 yds. and over), vibratory hammer & vacuum truck, roadheaders, forklifts, economobile type equipment, tunnel boring machines, concrete pump and on site concrete plants.

GROUP 3: Oilers on cranes.

GROUP 4: Oiler on crawler backhoe.

GROUP 5: Bulldozer, bobcats, skid steer loader, tractor, scraper, combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile-powered sweeper (3-yd. capacity), 8-ft. sweeper minimum 65 HP).

GROUP 6: Well-point installation crew.

GROUP 7: Utility Engineers and Signal Persons

GROUP 8: Heater, concrete mixer, stone crusher, welding machine, generator and light plant, gas and electric driven pump and air compressor.

GROUP 9: Boat & tug operator.

 ENGI0057-002 11/01/2019

	Rates	Fringes
Power Equipment Operator (highway construction projects; water and sewerline projects which are incidental to highway construction projects; and bridge projects that do not span water)		
GROUP 1.....	\$ 35.70	25.95+a
GROUP 2.....	\$ 30.40	25.95+a
GROUP 3.....	\$ 24.40	25.95+a
GROUP 4.....	\$ 30.98	25.95+a
GROUP 5.....	\$ 34.68	25.95+a
GROUP 6.....	\$ 34.30	25.95+a
GROUP 7.....	\$ 29.95	25.95+a
GROUP 8.....	\$ 31.33	25.95+a
GROUP 9.....	\$ 33.28	25.95+a

a. FOOTNOTE: a. Any employee who works three days in the week in which a holiday falls shall be paid for the holiday.

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Digging machine, crane, piledriver, lighter, locomotive, derrick, hoist, boom truck, John Henry's, directional drilling machine, cold planer, reclaimer, paver, spreader, grader, front end loader (3 yds. and over), vacuum truck, test boring machine operator, veemere saw, water blaster, hydro-demolition robot, forklift, economobile, Ross Carrier, concrete pump operator and boats

GROUP 2: Well point installation crew

GROUP 3: Utlity engineers and signal persons

GROUP 4: Oiler on cranes

GROUP 5: Combination loader backhoe, front end loader (less than 3 yds.), forklift, bulldozers & scrapers and boats

GROUP 6: Roller, skid steer loaders, street sweeper

GROUP 7: Gas and electric drive heater, concrete mixer, light plant, welding machine, pump & compressor

GROUP 8: Stone crusher

GROUP 9: Mechanic & welder

ENGI0057-003 12/01/2019

BUILDING CONSTRUCTION

	Rates	Fringes
Power Equipment Operator		
GROUP 1.....	\$ 41.82	25.95+a
GROUP 2.....	\$ 39.82	25.95+a
GROUP 3.....	\$ 39.60	25.95+a
GROUP 4.....	\$ 35.60	25.95+a
GROUP 5.....	\$ 32.75	25.95+a
GROUP 6.....	\$ 38.90	25.95+a
GROUP 7.....	\$ 38.47	25.95+a
GROUP 8.....	\$ 35.79	25.95+a

a. BOOM LENGTHS, INCLUDING JIBS:

- 150 ft. and over: + \$ 2.00
- 180 ft. and over: + \$ 3.00
- 210 ft. and over: + \$ 4.00
- 240 ft. and over: + \$ 5.00
- 270 ft. and over: + \$ 7.00
- 300 ft. and over: + \$ 8.00
- 350 ft. and over: + \$ 9.00
- 400 ft. and over: + \$10.00

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

- a. FOOTNOTE: Hazmat work: \$2.00 per hour additional.
- Tunnel/Shaft work: \$5.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, lighters, boom trucks and derricks.

GROUP 2: Digging machine, Ross carrier, locomotive, hoist,

elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, front end loader (3 yds. and over), vibratory hammer and vacuum truck

GROUP 3: Telehandler equipment, forklift, concrete pump & on-site concrete plant

GROUP 4: Fireman & oiler on cranes

GROUP 5: Oiler on crawler backhoe

GROUP 6: Bulldozer, skid steer loaders, bobcats, tractor, grader, scraper, combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile powered sweeper (3 yds. capacity), 8-ft. sweeper (minimum 65 hp)

GROUP 7: Well point installation crew

GROUP 8: Heater, concrete mixer, stone crusher, welding machine, generator for light plant, gas and electric driven pump & air compressor

IRON037-001 09/16/2019

	Rates	Fringes
IRONWORKER.....	\$ 36.27	28.98

LABO271-001 06/02/2019

BUILDING CONSTRUCTION

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 31.80	25.05
GROUP 2.....	\$ 32.05	25.05
GROUP 3.....	\$ 32.55	25.05
GROUP 4.....	\$ 32.80	25.05
GROUP 5.....	\$ 33.80	25.05

LABORERS CLASSIFICATIONS

GROUP 1: Laborer, Carpenter Tender, Mason Tender, Cement Finisher Tender, Scaffold Erector, Wrecking Laborer, Asbestos Removal [Non-Mechanical Systems]

GROUP 2: Asphalt Raker, Adzemen, Pipe Trench Bracer, Demolition Burner, Chain Saw Operator, Fence & Guard Rail Erector, Setter of Metal Forms for Roadways, Mortar Mixer, Pipelayer, Riprap & Dry Stonewall Builder, Highway Stone Spreader, Pneumatic Tool Operator, Wagon Drill Operator, Tree Trimmer, Barco-Type Jumping Tamper, Mechanical Grinder Operator

GROUP 3: Pre-Cast Floor & Roof Plank Erectors

GROUP 4: Air Track Operator, Hydraulic & Similar Self-Powered Drill, Block Paver, Rammer, Curb Setter, Powderman & Blaster

GROUP 5: Toxic Waste Remover

LABO0271-002 06/02/2019

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
LABORER		
COMPRESSED AIR		
Group 1.....	\$ 49.23	23.50
Group 2.....	\$ 38.75	23.50
Group 3.....	\$ 51.23	23.50
FREE AIR		
Group 1.....	\$ 41.30	23.50
Group 2.....	\$ 38.75	23.50
Group 3.....	\$ 43.30	23.50
LABORER		
Group 1.....	\$ 31.80	23.05
Group 2.....	\$ 32.05	23.05
Group 3.....	\$ 32.80	23.05
Group 4.....	\$ 25.30	23.05
Group 5.....	\$ 33.80	23.05
OPEN AIR CAISSON, UNDERPINNING WORK AND BORING CREW		
Bottom Man.....	\$ 37.80	23.05
Top Man & Laborer.....	\$ 36.85	23.05
TEST BORING		
Driller.....	\$ 38.25	23.05
Laborer.....	\$ 36.85	23.05

LABORER CLASSIFICATIONS

GROUP 1: Laborer; Carpenter tender; Cement finisher tender; Wrecking laborer; Asbestos removers [non-mechanical systems]; Plant laborer; Driller in quarries

GROUP 2: Adzeperson; Asphalt raker; Barcotype jumping tamper; Chain saw operators; Concrete and power buggy operator; Concrete saw operator; Demolition burner; Fence and guard rail erector; Highway stone spreader; Laser beam operator; Mechanical grinder operator; Mason tender; Mortar mixer; Pneumatic tool operator; Riprap and dry stonewall builder; Scaffold erector; Setter of metal forms for roadways; Wagon drill operator; Wood chipper operator; Pipelayer; Pipe trench bracer

GROUP 3: Air track drill operator; Hydraulic and similar powered drills; Brick paver; Block paver; Rammer and curb setter; Powderperson and blaster

GROUP 4: Flagger & signaler

GROUP 5: Toxic waste remover

LABORER - COMPRESSED AIR CLASSIFICATIONS

GROUP 1: Mucking machine operator, tunnel laborer, brake person, track person, miner, grout person, lock tender, gauge tender, miner: motor person & all others in compressed air

GROUP 2: Change house attendant, powder watchperson, top person on iron

GROUP 3: Hazardous waste work within the ""HOT"" zone

LABORER - FREE AIR CLASSIFICATIONS

GROUP 1: Grout person - pumps, brake person, track person, form mover & stripper (wood & steel), shaft laborer, laborer topside, outside motorperson, miner, conveyor operator, miner welder, heading motorperson, erecting operator, mucking machine operator, nozzle person, rodperson, safety miner, shaft & tunnel, steel & rodperson, mole nipper, concrete worker, form erector (wood, steel and all accessories), cement finisher (this type of work only), top signal person, bottom person (when heading is 50' from shaft), burner, shield operator and TBM operator

GROUP 2: Change house attendant, powder watchperson

GROUP 3: Hazardous waste work within the ""HOT"" zone

PAIN0011-005 06/01/2019

	Rates	Fringes
PAINTER		
Brush and Roller.....	\$ 34.62	21.80
Epoxy, Tanks, Towers, Swing Stage & Structural		
Steel.....	\$ 36.62	21.80
Spray, Sand & Water		
Blasting.....	\$ 37.62	21.80
Taper.....	\$ 35.37	21.80
Wall Coverer.....	\$ 35.12	21.80

PAIN0011-006 06/01/2019

	Rates	Fringes
GLAZIER.....	\$ 38.18	21.80

FOOTNOTES:

SWING STAGE: \$1.00 per hour additional.

PAID HOLIDAYS: Labor Day & Christmas Day.

PAIN0011-011 06/01/2019

	Rates	Fringes
Painter (Bridge Work).....	\$ 51.00	21.80

PAIN0035-008 06/01/2011

	Rates	Fringes
Sign Painter.....	\$ 24.79	13.72

PLAS0040-001 06/03/2019

BUILDING CONSTRUCTION

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 36.00	27.15

FOOTNOTE: Cement Mason: Work on free swinging scaffolds under 3 planks width and which is 20 or more feet above ground and any offset structure: \$.30 per hour additional.

PLAS0040-002 07/01/2019

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 32.85	22.20

PLAS0040-003 07/01/2019

	Rates	Fringes
PLASTERER.....	\$ 37.55	27.50

PLUM0051-002 03/02/2020

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 43.69	30.05

ROOF0033-004 12/01/2019

	Rates	Fringes
ROOFER.....	\$ 37.90	27.25

SFRI0669-001 01/02/2020

	Rates	Fringes
SPRINKLER FITTER.....	\$ 45.67	24.74

* SHEE0017-002 12/01/2019

	Rates	Fringes
Sheet Metal Worker.....	\$ 37.13	36.38

TEAM0251-001 05/01/2019

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 27.96	26.8525+A+B+C
GROUP 2.....	\$ 27.61	26.8525+A+B+C
GROUP 3.....	\$ 27.66	26.8525+A+B+C
GROUP 4.....	\$ 27.71	26.8525+A+B+C
GROUP 5.....	\$ 27.81	26.8525+A+B+C
GROUP 6.....	\$ 28.21	26.8525+A+B+C
GROUP 7.....	\$ 28.41	26.8525+A+B+C
GROUP 8.....	\$ 27.91	26.8525+A+B+C
GROUP 9.....	\$ 28.16	26.8525+A+B+C
GROUP 10.....	\$ 27.96	26.8525+A+B+C

FOOTNOTES:

A. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, plus Presidents' Day, Columbus Day, Veteran's Day & V-J Day, providing the employee has worked at least one day in the calendar week in which the holiday falls.

B. Employee who has been on the payroll for 1 year or more but less than 5 years and has worked 150 Days during the last year of employment shall receive 1 week's paid vacation; 5 to 10 years - 2 weeks' paid vacation; 10 or more years - 3 week's paid vacation.

C. Employees on the seniority list shall be paid a one hundred dollar (\$100.00) bonus for every four hundred (400) hours worked, up to a maximum of five hundred dollars (\$500.00)

All drivers working on a defined hazard material job site shall be paid a premium of \$2.00 per hour over applicable rate.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Pick-up trucks, station wagons, & panel trucks

GROUP 2: Two-axle on low beds

GROUP 3: Two-axle dump truck

GROUP 4: Three-axle dump truck

GROUP 5: Four- and five-axle equipment

GROUP 6: Low-bed or boom trailer.

GROUP 7: Trailers when used on a double hook up (pulling 2 trailers)

GROUP 8: Special earth-moving equipment, under 35 tons

GROUP 9: Special earth-moving equipment, 35 tons or over

GROUP 10: Tractor trailer

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

SECTION 004113 – BID FORM

CONTRACT IDENTIFICATION:

Buckeye Brook
2000 Post Road #8
Warwick, Rhode Island 02886

ARTICLE 1 – BID RECIPIENT

1.1 This Bid shall be submitted to:

City of Warwick – Purchasing Division

1.2 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the City of Warwick, Rhode Island, in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.1 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 calendar days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of the City of Warwick, Rhode Island.

2.2 Bidder accepts that the City of Warwick, Rhode Island, shall have the sole right and discretion to accept any Base Bid, if any. Such decision of acceptance by the City of Warwick, Rhode Island, will evaluate the sum of the Base Bids and any accepted extended Unit Bids in determining the successful low bidder.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.1 In submitting this Bid, Bidder represents that:

A. Bidder has examined the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

B. Bidder is familiar with and is satisfied as to all federal, state and local laws and regulations that may affect cost, progress and performance of the Work.

C. Bidder has obtained and carefully studied (or accepts the consequences for not doing so) all additional or supplementary examinations, investigations, explorations, tests,

- studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site, which may affect cost, progress, or performance of the Work, or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- D. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- E. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- F. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- G. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- H. Bidder will submit written evidence of its authority to do business in the state where the Project is located not later than the date of its execution of the Agreement.
- I. Bidder ensures compliance with the all federal regulations, laws, statues, and authorities contained in Exhibit E. – *Federal Construction Contract Provisions*.
- J. Bidder shall submit, along with this completed Bid Form, all required documents, completed and signed as needed, that are contained in Exhibit F. – *Completed with Bid Submittal – Prevailing Wage*.

ARTICLE 4 – FURTHER REPRESENTATIONS

4.1 Bidder further represents that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation.
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.

- C. Bidder has not solicited or induced any individual or entity to refrain from bidding.
- D. Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over EA Engineering, Science, and Technology, Inc., PBC.

ARTICLE 5 – BASIS OF BID

5.1 Bidder will complete the Work in accordance with the Contract Documents for the following lump sum prices:

A. The following lump sum bid prices form the project’s base contract price.

LUMP SUM BASE BID ITEMS

LUMP SUM BID ITEM NO.	LUMP SUM BASE BID PRICE IN WORDS	LUMP SUM BASE BID PRICE IN FIGURES
1.	MOBILIZATION/DEMOBILIZATION _____ (Lump Sum)	\$ _____
2.	TEMPORARY EROSION AND SEDIMENTATION CONTROLS _____ (Lump Sum)	\$ _____
3.	SITE CLEARING _____ (Lump Sum)	\$ _____
4.	HERBICIDE APPLICATION _____ (Lump Sum)	\$ _____
5.	CONTROL OF WATER _____ (Lump Sum)	\$ _____
6.	<i>PHRAGMITES AUSTRALIS</i> EXCAVATION _____ (Lump Sum)	\$ _____

7.	SITE RESTORATION	
	(Lump Sum)	\$ _____
8.	ALLOWANCES	
	Thirty Thousand and 00/100 (Lump Sum)	\$ 30,000

UNIT PRICE BID ITEMS

UNIT PRICE BID ITEM NO.	QUANTITY	UNIT PRICE BASE BID PRICE IN WORDS	UNIT PRICE BASE BID PRICE IN FIGURES
9	5,390	<i>PHRAGMITES AUSTRALIS</i> TRANSPORTATION AND DISPOSAL (NON- CONTAMINATED)	
	(Unit Price Per Ton)		\$ _____

TOTAL BASE BID PRICE FOR ITEMS 1 THROUGH 10:

\$ _____ (Amount in Figures)

_____ (Amount in Words)

A. The following add/deduct unit bid prices are for add/deduct purposes only in variance from the stated estimated quantities, the costs for which shall be included in Lump Sum Bid Item 6 – *Phragmites Australis* Excavation, as noted above.

1. Payment under add/deduct unit bid items listed below would only be made for the quantity of work completed and accepted in variance to the indicated quantities, respectively.
2. Any such work in variance to the respective base quantities will only be approved and accepted by the Engineer under written authorization of respective variance quantities prior to completion of the work items. Actual quantities will be measured and verified in the field by the Engineer. As such, respective base quantities shown below are for bidder’s reference in preparing the lump sum price for Sum Bid Item 6 – *Phragmites Australis* Excavation, as noted above.

ADD / DEDUCT UNIT BID ITEMS

ADD/ DEDUCT UNIT BID ITEM NO.	BASE QUANTITY IN LUMP SUM BID ITEM NO. 6	ADD/DEDUCT UNIT BID PRICE IN WORDS	ADD/DEDUCT UNIT BID PRICE IN FIGURES
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AD-6A.	5,390	PHRAGMITES EXCAVATION	
		_____	\$ _____
		(Unit Price per Ton)	

B. The following unit price alternate bid price will be added to the project's base contract price only if sediment is found to be contaminated or hazardous.

ALTERNATE BID ITEMS

BID ITEM NO.	BID PRICE IN WORDS	BID PRICE IN FIGURES
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ALT-1	PHRAGMITES AUSTRALIS TRANSPORTATION AND DISPOSAL (CONTAMINATED)	
	_____	\$ _____
	(Unit Price per Ton)	

ALT-2	PHRAGMITES AUSTRALIS TRANSPORTATION AND DISPOSAL (HAZARDOUS)	
	_____	\$ _____
	(Unit Price per Ton)	

ALT-3	DEWATERED FRACTION TRANSPORTATION AND DISPOSAL (CONTAMINATED)	
	_____	\$ _____
	(Unit Price per Gallon)	

ARTICLE 6 – TIME OF COMPLETION

6.1 Bidder agrees that the Work will be substantially complete within approximately 80 calendar days after the date when the Contract Times commence to run, or by 31 October 2020, whichever occurs sooner, and no in-water work shall occur after this 31 October 2020.

Substantial completion for in-water work shall be no later than October 22, 2020 and final completion for in-water work no later than October 31, 2020 (not including the vegetation establishment period). Timing is governed by outside funding sources that are not flexible. Failure to achieve these deadlines may result in the loss of funds and additional costs incurred by the Contractor so time is of the essence. By submitting a bid for this project you agree to the project schedule time requirements and acknowledge failure to meet the deadlines may result in out of pocket expenses fully incurred by the Contractor.

Substantial completion shall include, but not be limited to, herbicide application, excavation of *Phragmites australis*, its root wad, and adhered sediment, the legal transportation and disposal of waste from the Site, removal of soil erosion and sediment control devices from the Site, removal of all temporary cofferdam(s), and site restoration as indicated on the Contract Drawings.

ARTICLE 7 – DEFINED TERMS

7.1 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders.

ARTICLE 8 – BID SUBMITTAL

8.1 This Bid submitted by:

If Bidder is:

AN INDIVIDUAL

Name (typed or printed): _____

By: _____

(SEAL)

(Individual's signature)

Doing business as: _____

Business address: _____

Phone No.: _____ Fax No.: _____

A PARTNERSHIP

Partnership Name: _____
(SEAL)

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone No.: _____ Fax No.: _____

A CORPORATION

Corporation Name: _____
(SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(CORPORATE SEAL)

Attest _____
(Signature of Corporate Secretary)

Business address: _____

Phone No.: _____ Fax No.: _____

Date of Qualification to do business is _____.

A JOINT VENTURE

Joint Venturer Name: _____

(SEAL)

By: _____

(Signature of joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

Joint Venturer Name: _____
(SEAL)

By: _____
(Signature — attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

Phone and Fax Number, and Address for receipt of official communications:

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

SUBMITTED on _____, 20____.

State Contractor License No. _____

SECTION 012000 – PRICE AND PAYMENT PROCEDURES

PART 1 – GENERAL

1.1 SCOPE

- A. This Section describes the measurement and payment for the Work to be completed under each item in the Bid Form. The descriptions may not reference all of the associated Work. Work specified but not designated as a separate Bid item is considered incidental to all Bid items. The Contractor shall review all work associated with each Work item and shall have no claim for being unfamiliar with the requirements of these specifications.

1.2 DEFINITIONS

- A. Payment Items: the Owner's distribution of the Contract Sum through listed work items, as outlined in this Section, reviewed, and accepted by the Engineer.
 - 1. Each item is specified to include a defined scope of services. The payment items have been established for the Owner's convenience only, and not all materials, labor, equipment, or services of a payment item are guaranteed to be listed or specified herein.
 - 2. Include costs associated with items of work required to complete the defined scope of services within the appropriately specified payment item.
 - 3. Payment items include all necessary products, materials, equipment, plus costs for delivery, handling, storage, installation, all applicable fees and taxes (where applicable), administrative over-site, tools, labor, incidentals, research and testing, overhead, and profit.
 - 4. All work and associated costs described in the Contract Documents shall be included in the payment items described herein.
 - 5. The Contractor shall include, in the Total Lump Sum Base Bid, the cost associated with securing a performance bond and a labor and material payment bond in the amount of 100 percent of the Total Lump Sum Base Bid Price.
 - 6. The price so-stated on the bid form for the payment items below, constitutes full and complete compensation for all products, materials, equipment, tools labor, overhead and profit, and incidentals required to finish the Work and accepted by the Engineer.

1.3 DESCRIPTION OF BASE BID LUMP SUM PRICE PAY ITEMS

- A. The payment items listed below include references to Specification Sections of work to be completed under the payment item; however, not all Sections of related work are guaranteed to be listed.
- B. Bid Price Item No. 1 – Mobilization/Demobilization:
1. Work associated with this item will be paid for at the stated price including respective portions of work under all specifications necessary to initiate, sustain and conclude Contractor's activities at the project site:
 - a. Includes, but is not limited to, all labor, equipment, tools, and materials necessary to complete the work associated with the mobilization and demobilization of temporary utilities, materials, personnel, and equipment to and from the project site. Also includes restoring all incidental areas inside or outside the project limits disturbed by Contractor's activities or traffic control, by seeding and establishing satisfactory vegetation to existing condition or better. Mobilization shall be considered complete when the Contractor has commenced the work onsite. Demobilization shall be considered to be complete when the Contractor has achieved final completion of the Work and removed all equipment and materials from the site.
 - b. This work also includes Contractor's general requirements for completing the Work, including temporary measures not specified elsewhere and miscellaneous costs associated with the Work including construction stakeout, survey, and as-built drawings.
 - c. Payment: Lump Sum.
 - d. Measurement: This item will not be measured for payment. This bid item shall be paid at 20 percent upon the complete mobilization/demobilization to the site for herbicide application, and 30 percent upon the complete mobilization to the site for Phragmites Australis Excavation. The remaining 50 percent payment will be made upon the complete demobilization from the site. Billing for this Work will be permitted upon the completion, inspection, and acceptance (by the Engineer) for this Work. Progress billing will not be allowed.
- C. Bid Price Item No. 2 – Temporary Erosion and Sedimentation Controls:
1. Work associated with this item will be paid for at the stated price including, but not limited to, work under the following:

- a. Section 015700 – Temporary Erosion and Sediment Control
 - b. Includes, but is not limited to, installing, maintaining, and removing all temporary erosion and sedimentation control measures, and practices for completion of all Work associated with the project. Includes construction access, staging areas, and installing/maintaining controls or establishing temporary vegetation in areas to remain dormant for extended periods as indicated on the Contract Drawings.
 2. Payment: Lump Sum.
 3. Measurement: This item will not be measured for payment. This bid item shall be paid at 40 percent upon the successful installation of all temporary erosion and sedimentation controls. The remaining 60 percent payment will be made upon the complete removal of these controls from the site. Proper maintenance of controls is expected throughout the Project. Billing for this Work will be permitted upon the completion, inspection and acceptance (by the Engineer) for this Work. Progress billing will not be allowed.
- D. Bid Price Item No. 3 – Site Clearing
1. Work associated with this item will be paid for at the stated price including, but not limited to, Work under the following:
 - a. Section 311000 – Site Clearing
 - b. Includes, but is not limited to, protecting existing trees and vegetation, utilities, and other items to remain, clearing and grubbing, selective clearing and/or trimming of trees and vegetation as indicated on Contract Drawings. Item also includes tree and stump removal, selective clearing, grubbing, removal of trees limbs as required to complete Work. Includes offsite disposal of tree limbs, trees, and stumps.
 2. Payment: Lump Sum.
 3. Measurement: Payment is based on total completion of this bid item. Billing for this Work will be permitted upon the completion, inspection and acceptance (by the Engineer) for this Work. Progress billing will not be allowed.

- E. Bid Price Item No. 4 – Herbicide Application:
1. Work associated with this item will be paid for at the stated price including, but not limited to, Work under the following:
 - a. Section 317200 – Herbicide Application
 - b. Includes, but is not limited to, mark-out of the area to receive herbicide application and the herbicide application itself.
 2. Payment: Lump Sum.
 3. Measurement: Payment is based on total completion of this bid item. Billing for this Work will be permitted upon the completion, inspection and acceptance (by the Engineer) for this Work. Progress billing will not be allowed.
- F. Bid Price Item No. 5 – Control of Water:
1. Work associated with this item will be paid for at the stated price including, but not limited to, Work under the following:
 - a. Section 312319 – Control of Water
 - b. Includes, but is not limited to, temporary water control measures including cofferdams and water bypass/diversion conveyances (Water Control System) for normal water control including design and sequencing, construction, installation, maintenance, and removal of temporary protective facilities and appurtenances required to convey surface water beyond or around project work areas. Temporary measures and appurtenances may include, but are not limited to, control of surface water, cofferdams, and pipes. Also includes safe conveyance of water and flood flows and protection of existing features, constructed improvements, work-in-progress, and downstream areas during abnormally high stormwater runoff events.
 2. Payment: Lump Sum.
 3. Measurement: Payment is based on total percent completion of this bid item. Billing for this Work will be permitted upon the completion, inspection, and acceptance (by the Engineer) for this Work.

G. Bid Price Item No. 6 – *Phragmites Australis* Excavation

1. Work associated with this item will be paid for at the stated price including, but not limited to, Work under the following:
 - a. Section 312316 – Excavation
 - b. Includes, but is not limited to, excavation, dewatering, and stockpiling as required for *Phragmites australis* removal; this Work shall consist of excavation of *Phragmites australis* and its root wad and adhered sediment as specified in the Contract Drawings.
2. Payment – Lump Sum.
3. Measurement: Payment is based on total percent completion of this bid item. Billing for this Work will be permitted upon the completion, inspection, and acceptance (by the Engineer) for this Work.

H. Bid Price Item No. 7 – Site Restoration

1. Work associated with this item will be paid for under the allowance stated including, but not limited to, Work under the following:
 - a. All or portions of Division 1 specifications, as applicable
 - b. Section 329219 – Site Restoration
 - c. Includes, but is not limited to, replacing onsite stockpiled topsoil, furnishing, storing, protecting and installing plantings where indicated on the drawings.
 - d. Includes permanent seeding and vegetative restoration of the project site. Includes all costs associated with maintenance, reseeding, and replanting necessary to achieve vegetation success criteria establishing in the technical specifications.
2. Payment – Lump Sum.
3. Measurement: Payment is based on total completion of this bid item. Billing for this Work will be permitted upon the completion, inspection and acceptance (by the Engineer) for this Work. Progress billing will not be allowed.

I. Bid Price Item No. 8 – Allowances

1. In addition to the "Lump Sum Base Bid Items" all bidding Contractors are required to carry specified dollar allowances to cover items that could not be adequately detailed, quantified, or require input from the Contractor to determine the most responsible, reasonable, and cost effective method of installation. If the Contractor is instructed to conduct work outside of the basic project scope outlined herein s/he shall immediately provide a written description of the modified scope and pricing for work to be conducted. The Owner reserves the right to accept, negotiate, or reject stated Contractor pricing. If work is authorized, the Contractor shall commence with the additional work immediately so as not to delay the project completion date. Adjustments to the completion date may be made by the Owner upon request, but must be stated in writing. If the Owner elects not to accept the proposed Contractor pricing for work covered by an allowance, the Owner may seek additional outside bids to conduct the work by other qualified contractors. Any allowance funds carried in the project bid, but not expended or obligated by the conclusion of the project, shall remain property of the Owner and may not be invoiced by the Contractor. Contractor is instructed to add the total amount of allowances to the base bid and provide a "Total Lump Sum Base Bid Cost".
2. Payment – Lump Sum
3. Measurement: Payment is based on total percent completion of this bid item. Billing for this Work will be permitted upon the completion, inspection and acceptance (by the Engineer) for this Work.

1.4 DESCRIPTION OF UNIT PRICE BID PRICE PAY ITEMS

- A. Bid Price Item No. 9 – Phragmites australis Transportation and Disposal (Non-Contaminated)
 1. Waste characterization sampling and analysis has not been performed (to be completed by the Contractor during excavation); therefore, the required landfill disposition of excavated Phragmites australis and its root wad and the adhered sediment are not currently known. This bid item assumes the excavated Phragmites australis and its root wad and the adhered sediment will be considered non-contaminated. Regardless of classification, waste profiling and disposal facility approval are considered to be incidental for this item. This bid item may be removed and replaced with ALT-1 or ALT-2 after characterization sampling if the excavated Phragmites australis and its root wad and the adhered sediment are found to be contaminated. Work associated with this item will be paid for at the stated price including, but not limited to, Work under the following:

- a. All or portions of Division 1 specifications, as applicable.
 - b. Section 312316 – Excavation
 - c. Includes, but is not limited to, transportation and disposal of excavated *Phragmites australis* and its root wad and the adhered sediment (if characterization finds materials to be non-contaminated).
2. Payment – Unit price: per Ton
 3. Measurement: The excavated *Phragmites australis* and its root wad, and the adhered sediment must be dewatered sufficient to pass the paint filter test prior to disposal. Payment shall be made on the number of tons measured by certified weight receipts and material shipping and disposal records.

1.5 DESCRIPTION OF ADD/DEDUCT BID PRICE PAY ITEMS

A. Add/Deduct Bid Price Item No. AD-6A – *Phragmites Australis* Excavation

1. Work associated with this item will be paid for at the stated price including, but not limited to, Work under the following
 - a. Section 312316 – Excavation
 - b. Includes, but is not limited to, excavation, dewatering, and stockpiling as required for *Phragmites australis* removal; this Work shall consist of excavation of *Phragmites australis* and its root wad and adhered sediment as specified in the Contract Drawings.
4. Payment – Per Ton
5. Measurement: Payment is based on number of tons measures by certified weight receipts and documented in accordance with the Project Manual and as directed in writing by the Engineer.

1.6 DESCRIPTION OF ALTERNATE BID PRICE PAY ITEMS

A. Alternate Bid Price Item No. ALT-1– *Phragmites australis* Transportation and Disposal (Contaminated):

1. Waste characterization sampling and analysis has not been performed (to be completed by the Contractor); therefore, the required landfill disposition of excavated *Phragmites australis* and its root wad and the adhered sediment are not currently known. This alternative bid item assumes the excavated *Phragmites australis* and its root wad and the adhered sediment will be considered contaminated and sent to a landfill certified to accept CRCLA waste (i.e. Turnkey Landfill in Rochester, NH). This bid item may replace Bid Item No. 9 after characterization sampling if the excavated *Phragmites australis* and its root wad, and the adhered sediment are found to be contaminated. Work associated with this item will be paid for at the stated price including, but not limited to, Work under the following:
 - a. All or portions of Division 1 specifications, as applicable.
 - b. Section 312316 – Excavation
 - c. Includes, but is not limited to, transportation and disposal of excavated *Phragmites australis* and its root wad and the adhered sediment (if characterization finds materials to be hazardous).
 2. Payment – Unit price: per ton.
 3. Measurement: The excavated *Phragmites australis* and its root wad, and the adhered sediment must be dewatered sufficient to pass the paint filter test prior to disposal. Payment shall be made on the basis of material shipping and disposal records.
- B. Alternate Bid Price Item No. ALT-2– *Phragmites australis* Transportation and Disposal (Hazardous):
4. Waste characterization sampling and analysis has not been performed (to be completed by the Contractor); therefore, the required landfill disposition of excavated *Phragmites australis* and its root wad and the adhered sediment are not currently known. This alternative bid item assumes the excavated *Phragmites australis* and its root wad and the adhered sediment will be considered contaminated and sent to a RCRA Subtitle C Landfill. This bid item may replace Bid Item No. 9 after characterization sampling if the excavated *Phragmites australis* and its root wad, and the adhered sediment are found to be contaminated. Work associated with this item will be paid for at the stated price including, but not limited to, Work under the following:
 - a. All or portions of Division 1 specifications, as applicable.
 - b. Section 312316 – Excavation

c. Includes, but is not limited to, transportation and disposal of excavated *Phragmites australis* and its root wad and the adhered sediment (if characterization finds materials to be hazardous).

5. Payment – Unit price: per ton.

6. Measurement: The excavated *Phragmites australis* and its root wad, and the adhered sediment must be dewatered sufficient to pass the paint filter test prior to disposal. Payment shall be made on the basis of material shipping and disposal records.

C.

D. Alternate Bid Price Item No. ALT-3 – Dewatered Fraction Transportation and Disposal (Hazardous):

1. Waste characterization sampling and analysis has not been performed (to be completed by the Contractor); therefore, the characterization of the dewatered fraction is not currently known. This alternative bid item assumes the dewatered fraction will be need to be disposed of at Warwick Sewer Authority. Regardless of classification, waste profiling and disposal facility approval are considered to be incidental for this item. This bid item does not replace any base bid item, but rather is in addition to these items. Work associated with this item will be paid for at the stated price including, but not limited to, Work under the following:

a. All or portions of Division 1 specifications, as applicable.

b. Section 312316 – Excavation

c. Includes, but is not limited to, transportation and disposal of dewatered fraction (if characterization finds water to be hazardous).

2. Payment – Unit price: per gallon.

3. Measurement: Payment shall be made on the basis of material shipping and disposal records.

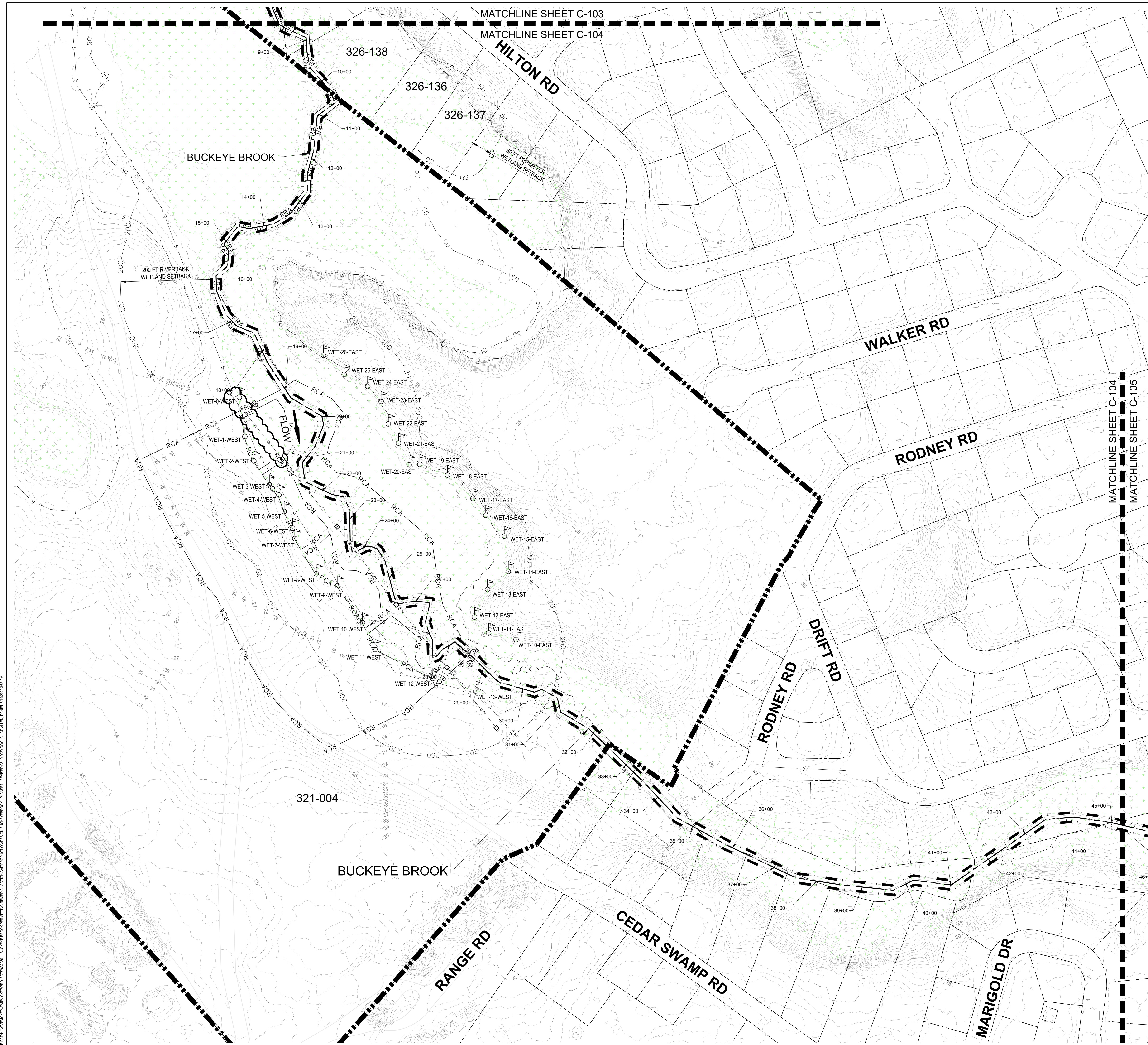
PART 2 – PRODUCTS

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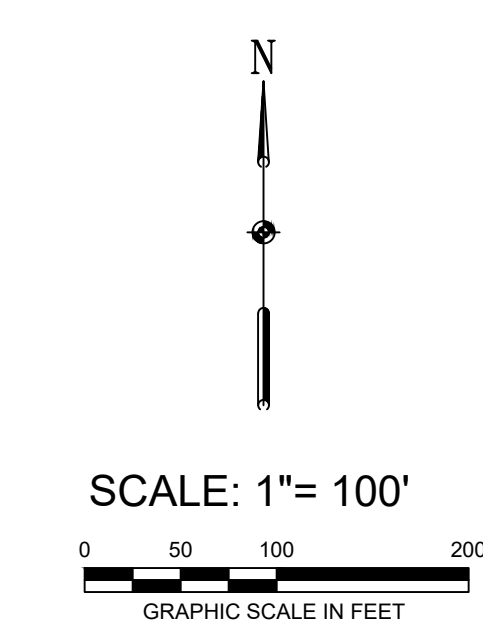
PART 3 – EXECUTION

Not Used.

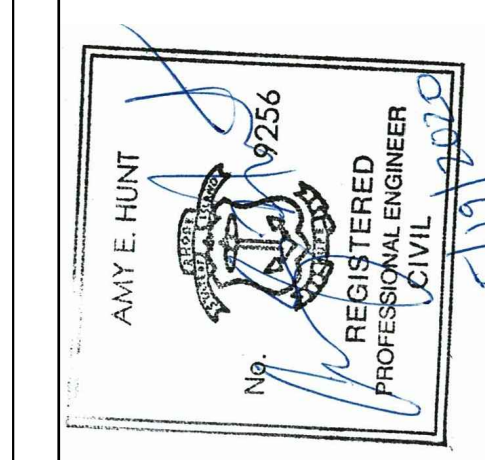
END OF SECTION 012000



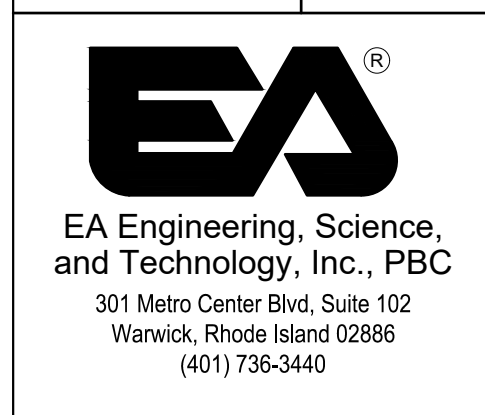
- NOTES**
- DISTANCE OF DOWNSTREAM EXTENT OF PROJECT TO INTERSECTION OF RODNEY ROAD AND DRIFT ROAD IS APPROXIMATELY 800 FT EAST.
 - WETLAND RESOURCES ARE FROM THE NATIONAL WETLANDS INVENTORY FOR RHODE ISLAND FROM RIGIS DATABASE, DATED 2014.
 - WETLAND FLAGS SHOWN HEREIN WERE DELINEATED BY EA IN MAY AND NOVEMBER 2017.
- LEGEND:**
- SUBJECT SITE PROPERTY BOUNDARY
 - PROPERTY LINES
 - EXISTING MAJOR CONTOURS
 - EXISTING MINOR CONTOURS
 - EXISTING 100-YEAR FLOODPLAIN LINE
 - APPROXIMATE LOCATION OF SEWER PIPE
 - EXISTING WETLANDS
 - BUCKEYE BROOK APPROXIMATE CENTERLINE
 - EXISTING EDGE OF WATER
 - 50 FT PERIMETER WETLAND SETBACK
 - 200 FT RIVERBANK WETLAND SETBACK
 - FLOOD REDUCTION AREA LIMIT OF DISTURBANCE
 - RESTORATION CONSTRUCTION AREA LIMIT OF DISTURBANCE
 - FLOW DIRECTION
 - SURVEYED WETLANDS LOCATIONS
 - EXISTING LIGHT TOWER WITH OVERHEAD LINE
 - EXISTING LIGHT TOWER WITH UNDERGROUND LINE
 - EXISTING SEWER MANHOLE
 - EXISTING TREES GREATER THAN 3-IN DIAMETER



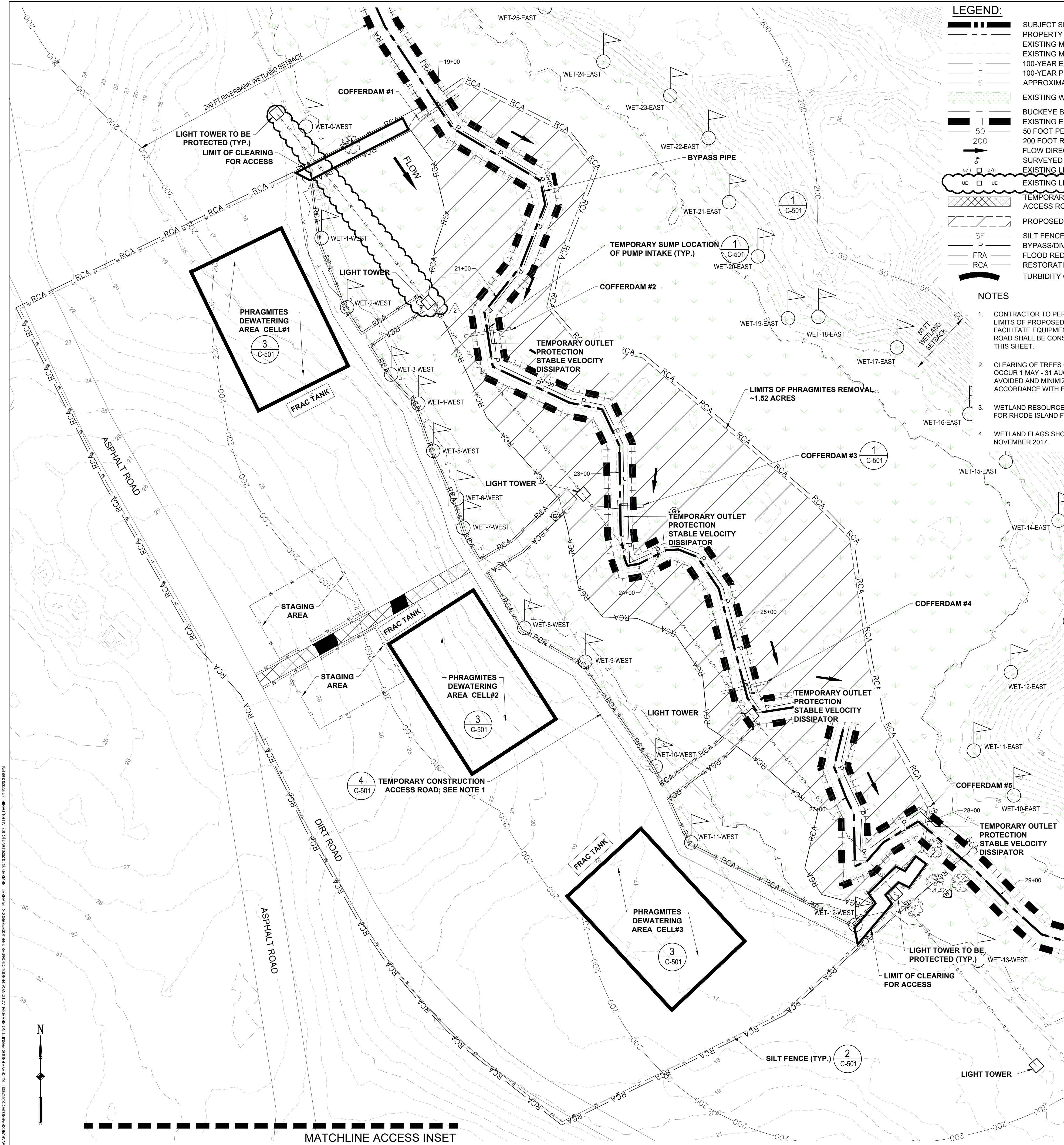
DESIGN INFORMATION		REVISIONS	
DESIGNED BY:	AMT	DATE:	11/06/18
DRAWN BY:	DPA	BY:	AMT
CHECKED BY:	MB	NO.:	1
PROJECT MANAGER:	AEH	NO.:	2
		DATE:	5/19/20
		BY:	AEH
		DESCRIPTION:	REVISED PER RIDEI COMMENTS
			ADDENDUM #1



BUCKEYE BROOK RESTORATION
 2000 POST ROAD, PLAT 321 LOT 0004
 CITY OF WARWICK DEPARTMENT OF PUBLIC WORKS / RIDOT
 WARWICK, RHODE ISLAND
 EXISTING CONDITIONS AND RESOURCE AREA MAP SHEET 3



FOR CONSTRUCTION

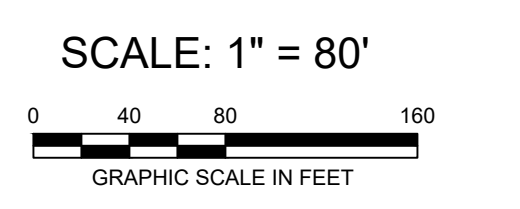
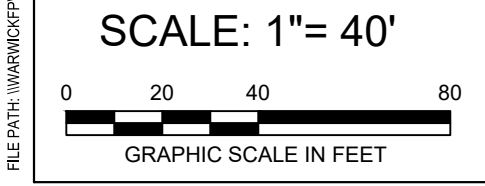
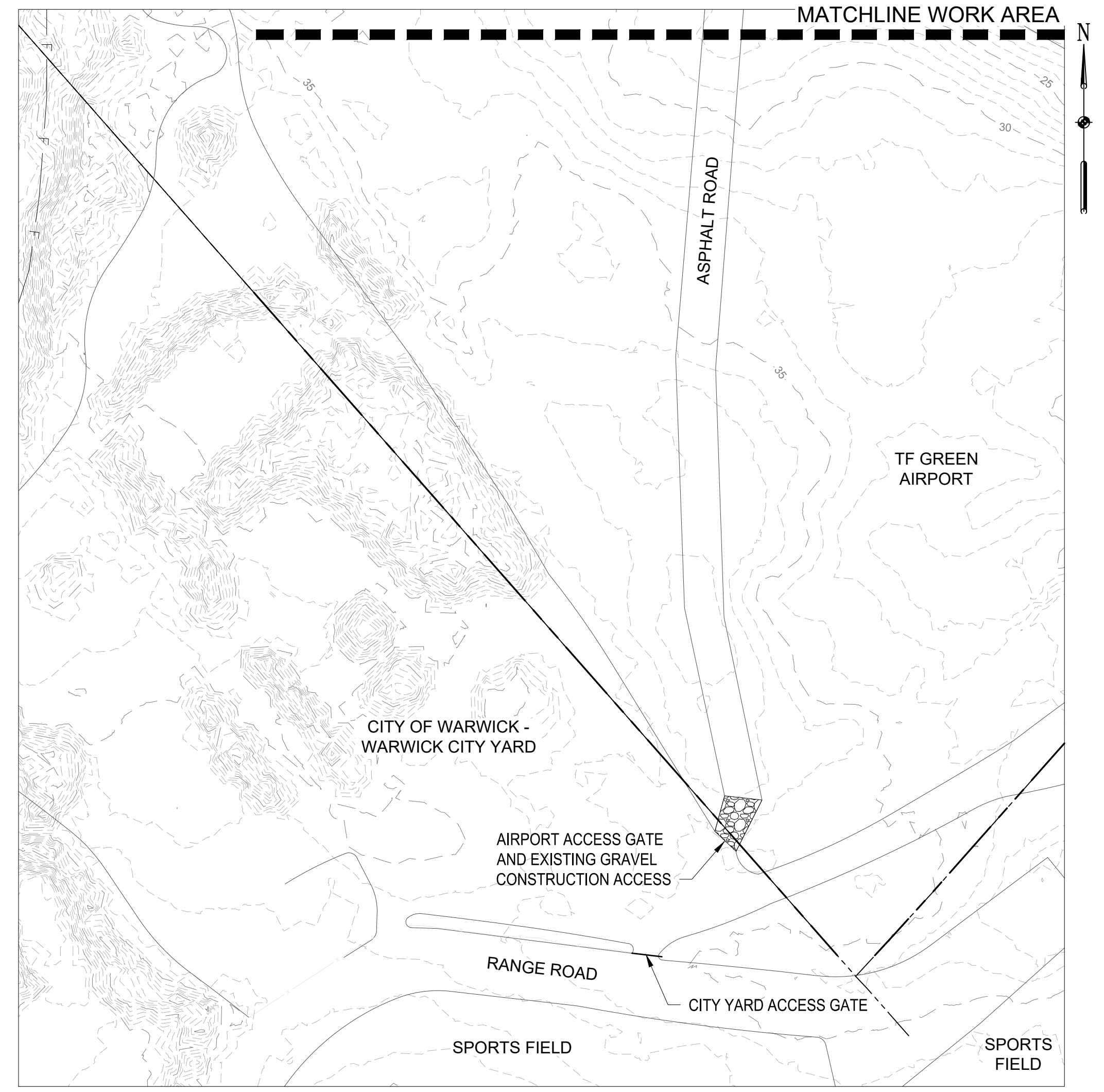


LEGEND:

- SUBJECT SITE PROPERTY BOUNDARY
- PROPERTY LINES
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- 100-YEAR EXISTING FLOODPLAIN LINE
- 100-YEAR PROPOSED FLOODPLAIN LINE
- APPROXIMATE LOCATION OF SEWER PIPE
- EXISTING WETLANDS
- BUCKEYE BROOK APPROXIMATE CENTERLINE
- EXISTING EDGE OF WATER
- 50 FOOT PERIMETER WETLAND SETBACK
- 200 FOOT RIVERBANK WETLAND SETBACK
- FLOW DIRECTION
- SURVEYED WETLANDS LOCATIONS
- EXISTING LIGHT TOWER WITH OVERHEAD LINE
- EXISTING LIGHT TOWER WITH UNDERGROUND LINE
- TEMPORARY CONSTRUCTION ACCESS ROAD
- PROPOSED PHRAGMITES REMOVAL
- SILT FENCE
- BYPASS/DIVERSION
- FLOOD REDUCTION AREA LIMIT OF DISTURBANCE
- RESTORATION CONSTRUCTION AREA LIMIT OF DISTURBANCE
- TURBIDITY CURTAIN

- NOTES**
- CONTRACTOR TO PERFORM SELECTIVE CLEARING AND TRIMMING WITHIN LIMITS OF PROPOSED TEMPORARY CONSTRUCTION ACCESS ROAD TO FACILITATE EQUIPMENT AND ACCESS. TEMPORARY CONSTRUCTION ACCESS ROAD SHALL BE CONSTRUCTED AS NECESSARY WITHIN LIMITS DEFINED ON THIS SHEET.
 - CLEARING OF TREES GREATER THAN 3 INCHES IN DIAMETER SHALL NOT OCCUR 1 MAY - 31 AUGUST. REMOVAL OF SHRUBS OR SAPLINGS SHALL BE AVOIDED AND MINIMIZED TO THE MAXIMUM EXTENT PRACTICAL AND IN ACCORDANCE WITH ENVIRONMENTAL CLEARING REQUIREMENTS.
 - WETLAND RESOURCES ARE FROM THE NATIONAL WETLANDS INVENTORY FOR RHODE ISLAND FROM RIGIS DATABASE, DATED 2014.
 - WETLAND FLAGS SHOWN HEREIN WERE DELINEATED BY EA IN MAY AND NOVEMBER 2017.

- SEQUENCE OF CONSTRUCTION**
- GENERAL SEQUENCE OF CONSTRUCTION NOTES**
- TEMPORARY COFFERDAMMING SHALL BE INSTALLED DURING LOW FLOW PERIOD (1 JULY - 31 OCTOBER) AND BE MAINTAINED SO AS NOT TO ALLOW A SEDIMENT PLUME IN THE WATERCOURSE. SOIL DISTURBANCE IN THE WATERCOURSE MUST BE TEMPORARILY CEASED IN THE EVENT OF A FORECASTED 2-YEAR OR GREATER STORM EVENT, CORRESPONDING TO FLOW OF 21.2 CFS. ALTERNATIVE MEANS OF WATER DIVERSION, SUCH AS SHEETING, MAY BE PERMISSIBLE BY RIDEM.
 - THE CONTRACTOR SHALL BE AWARE THAT THE GROUND SURFACE WITHIN THE LOD MAY BE COMPRISED OF PEAT AND BE EXTREMELY UNSUITABLE. LOW GROUND PRESSURE EQUIPMENT SHALL BE USED. MARSH/TIMBER MATTING FOR ACCESS WITHIN WETLAND RECOMMENDED.
 - CONTRACTOR SHALL SUBMIT A COMPLETE AND DETAILED WATER CONTROL PLAN TO EA FOR REVIEW AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR SHALL STAKE OUT ALL LIMITS OF DISTURBANCE PRIOR TO THE PRE-CONSTRUCTION MEETING FOR REVIEW. THE LIMITS OF DISTURBANCE AND EROSION AND SEDIMENT CONTROL REQUIREMENTS WILL BE REVIEWED BY THE TEAM DURING THE PRE-CONSTRUCTION MEETING. THE PARTICIPANTS WILL ALSO DESIGNATE THE CONTRACTOR'S STAGING AREA, DEWATERING AREA, AND FLAG ALL TREES WITHIN THE LIMIT OF DISTURBANCE WHICH WILL BE REMOVED DURING CONSTRUCTION. TREES SHALL NOT BE REMOVED WITHIN THE LIMIT OF DISTURBANCE WITHOUT APPROVAL FROM THE LOCAL AUTHORITY.
 - THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION UNTIL ALL EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL STAY WITHIN THE LIMITS OF THE DISTURBANCE AS SHOWN ON THE PLANS AND MINIMIZE DISTURBANCE WITHIN THE WORK AREA WHENEVER POSSIBLE.
 - THE CONTRACTOR SHALL BEGIN WORK AT THE UPSTREAM SECTION AND PROCEED DOWNSTREAM BEGINNING WITH THE ESTABLISHMENT OF STABILIZED CONSTRUCTION ACCESS ROADS. THE CONTRACTOR SHALL ONLY BEGIN WORK IN AN AREA WHICH CAN BE COMPLETED BY THE END OF THE DAY INCLUDING GRADING ADJACENT TO THE CHANNEL. THE CONTRACTOR MAY CREATE SMALLER CELLS TO FACILITATE THIS WORK. AT THE END OF EACH WORK DAY, THE WORK AREA MUST BE STABILIZED AND THE BYPASS REMOVED FROM THE CHANNEL. WORK SHALL NOT BE CONDUCTED IN THE CHANNEL DURING RAIN EVENTS. WORK SHALL ONLY OCCUR WITHIN A SINGLE CELL AT ONE TIME.
 - THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION UNTIL ALL EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL STAY WITHIN THE LIMITS OF THE DISTURBANCE AS SHOWN ON THE PLANS AND MINIMIZE DISTURBANCE WITHIN THE WORK AREA WHENEVER POSSIBLE.
 - PHRAGMITES AUSTRALIS SHALL BE REMOVED AS INDICATED BY THE DESIGN PLANS AND ALL SURFACES GRADED IN ACCORDANCE WITH THE PLANS AND TYPICAL CROSS-SECTIONS. ALL GRADINGS ABOVE THE WATER SURFACE MUST BE STABILIZED AT THE END OF EACH DAY WITH SEED AND MULCH AS SPECIFIED ON THE PLANS.
 - AFTER CONSTRUCTION, ALL DISTURBED AREAS SHALL BE REVEGETATED AS PER THE PLANTING PLAN.
 - SOIL DISTURBANCE SHALL BE CEASED DURING ANY HIGH FLOW EVENT AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE EXPECTED TO CONTROL FLOW AROUND THE SITE.
- PHASE 1: HERBICIDE APPLICATION**
- CLEAR WITHIN LIMITS OF CONSTRUCTION ACCESS ROAD AS NECESSARY.
 - DATES: FROM 31 AUGUST TO 30 SEPTEMBER.
 - SPRAY HERBICIDE.
- PHASE 2: PHRAGMITES AUSTRALIS REMOVAL AND REVEGETATION**
- DATES: FROM 1 OCTOBER TO 31 OCTOBER. PHRAGMITES AUSTRALIS REMOVAL SHALL OCCUR NO LESS THAN 30 DAYS AFTER HERBICIDE APPLICATION.
 - INSTALL STABILIZED CONSTRUCTION ENTRANCE AND ESTABLISH STAGING AREAS AND PHRAGMITES DEWATERING AREAS. INSTALL EROSION AND SEDIMENT CONTROL DEVICES.
 - ESTABLISH TEMPORARY ACCESS ROAD TO ACCESS THE PROJECT SITE BETWEEN STATION 19+00 FT. AND STATION 28+50 FT.
 - INSTALL TEMPORARY ACCESS BRIDGES AS NECESSARY.
 - OBTAIN CONFIRMATORY ELEVATIONS OF CHANNEL BOTTOM AND ALONG PROPOSED ROUTE OF BYPASS PIPES ALONG STREAMBANK TO VERIFY FLOW REGIME FOR BYPASS SYSTEM.
 - WITH 72 HOURS OF FORECAST DRY WEATHER BEGIN BYPASS WORK IN AN UPSTREAM TO DOWNSTREAM DIRECTION. INSTALL INLET AND OUTLET PROTECTION FOR THE BYPASS PRIOR TO REDIRECTING FLOW. ONLY EXCAVATE PHRAGMITES AUSTRALIS EXTENTS OF WORK THAT CAN BE FULLY COMPLETED WITHIN THE WORKING DAY. ALL DISTURBED AREAS MUST BE FULLY STABILIZED AT THE END OF EACH WORK DAY AND BYPASS SHALL BE DISCONTINUED DAILY.
 - PERFORM PHRAGMITES AUSTRALIS REMOVAL, SALVAGING AND STOCKPILING REMOVED TREES AND OTHER WOODY MATERIAL. PLACE THE EXCAVATED MATERIALS IN THE DESIGNATED DEWATERING AREA AND PUMP WATER TO FRAC TANKS. THE ADEQUACY OF PHRAGMITES AUSTRALIS REMOVAL SHALL BE PERFORMED TO THE ENGINEER'S APPROVAL.
 - DEWATERED WATER SHALL BE PUMPED TO FRAC TANKS AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
 - REMOVE TEMPORARY ACCESS BRIDGES AS NECESSARY
 - ONCE WORK IS COMPLETE, STABILIZE BANKS OF THE BROOK AND ALL DISTURBED AREAS SHALL BE REGRADED AND STABILIZED WITH THE PROPOSED SEED MIX OR STRAW MULCH AS SPECIFIED.



REVISIONS		DESCRIPTION
BY:	AMT	REVISED PER REVISION COMMENTS
DATE:	AMT	ADDITIONAL#1
NO.:	1	2
DESIGNED BY:	AMT	
DRAWN BY:	DPA	
CHECKED BY:	MB	
PROJECT MANAGER:	AEH	

AMY E. HUNT
REGISTERED PROFESSIONAL ENGINEER
CIVIL
No. 97256

BUCKEYE BROOK RESTORATION
2000 POST ROAD, PLAT 321 LOT 0004
CITY OF WARWICK DEPARTMENT OF PUBLIC WORKS / RIDOT

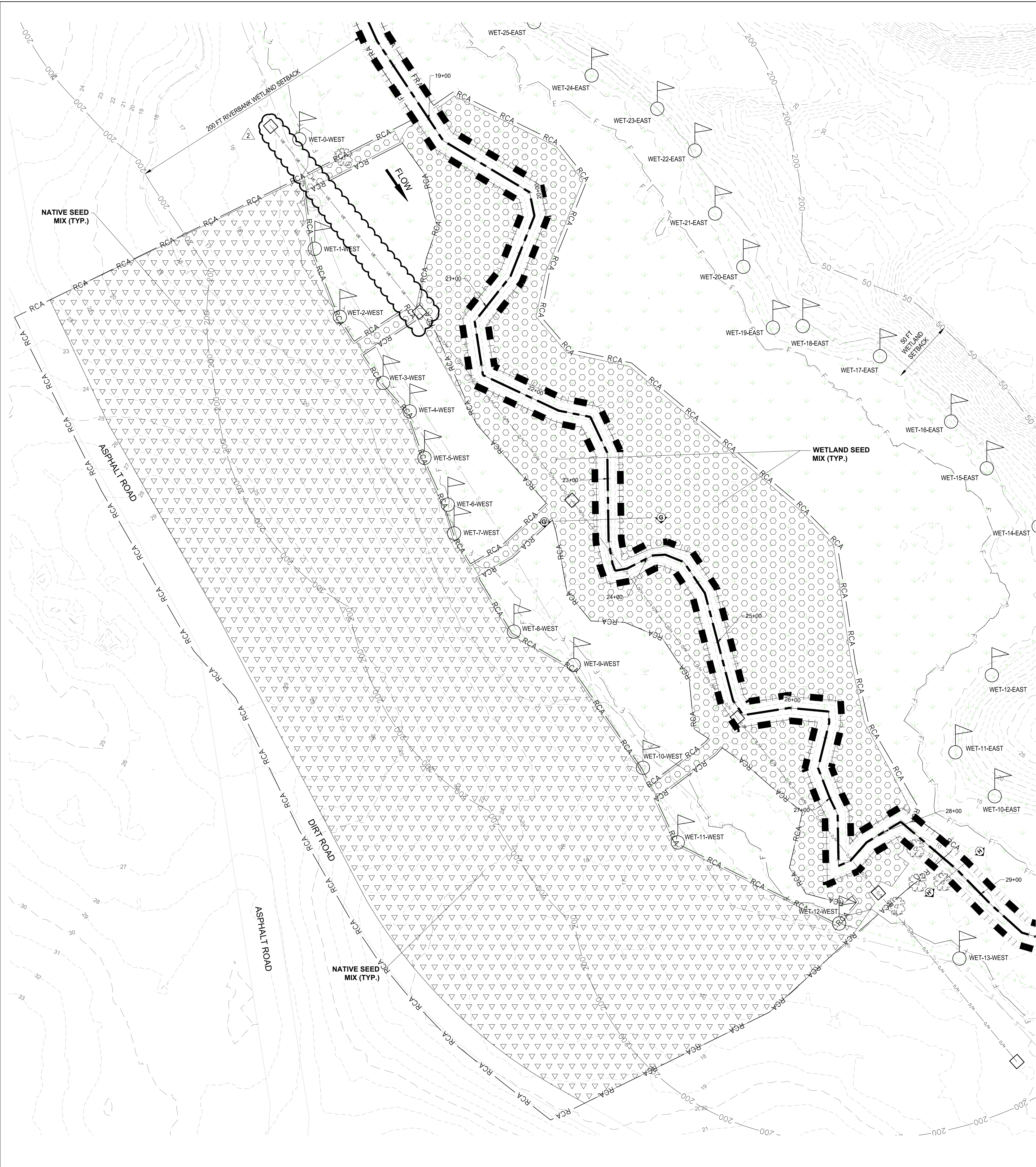
WARWICK, RHODE ISLAND

PHRAGMITES REMOVAL, EROSION CONTROL, AND CONSTRUCTION ACCESS & SEQUENCING PLAN

EA Engineering, Science, and Technology, Inc., PBC
301 Metro Center Blvd, Suite 102
Warwick, Rhode Island 02886
(401) 736-3440

DATE: APRIL 2020
PROJECT NUMBER: 63293.01
C-107
SHEET: 9 OF 12

FOR CONSTRUCTION

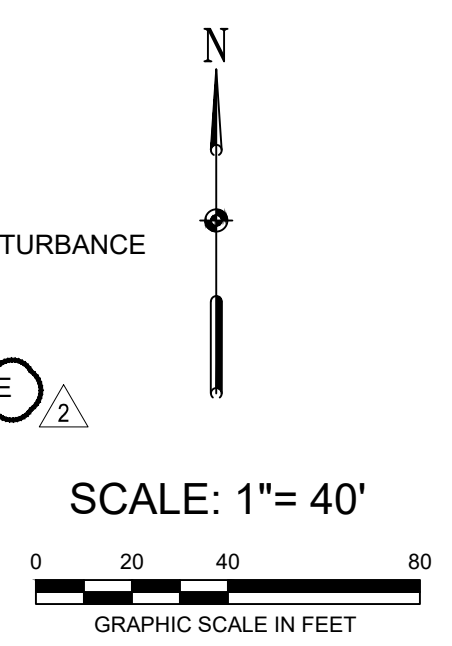


- NOTES:
- TEMPORARY ACCESS AREA, STAGING AREA, AND TEMPORARY CONSTRUCTION ENTRANCE SHALL BE REGRADED, RESTORED, AND SEEDED WITH NATIVE SEED MIX AS INDICATED ON THIS SHEET AND AS NECESSARY. TEMPORARY SEED MIX SHALL BE 40% ANNUAL RYEGRASS AND 60% PERENNIAL RYEGRASS.
APPLICATION RATE: TEMPORARY COVER = 25 LBS/ACRE
NATIVE SEED MIX = 60 LBS/ACRE
REMOVE CRUSHED STONE AND TEMPORARY CONSTRUCTION ACCESS MATERIALS FROM ALL AREAS TO PRE-CONSTRUCTION GRADES. TOP-DRESS WITH TOPSOIL AND SEED TO ESTABLISH STABLE VEGETATION.
 - ANY DISTURBED AREA ABOVE THE WATER SURFACE ELEVATION AND WITHIN FLAGGED WETLAND BOUNDARIES SHALL BE SEEDED WITH WETLAND SEED MIX AS INDICATED ON THIS SHEET. TEMPORARY COVER SHALL BE 40% ANNUAL RYEGRASS AND 60% PERENNIAL RYEGRASS. PLAN VIEW OF THIS AREA IS APPROXIMATE. ACTUAL AREA OF RESTORATION TO BE DETERMINED IN THE FIELD AFTER PHASE II.
APPLICATION RATE: TEMPORARY COVER = 18 LBS/ACRE
WETLAND SEED MIX = 18 LBS/ACRE
 - WETLAND RESOURCES ARE FROM THE NATIONAL WETLANDS INVENTORY FOR RHODE ISLAND FROM RIGIS DATABASE, DATED 2014.
 - WETLAND FLAGS SHOWN HEREIN WERE DELINEATED BY EA IN MAY AND NOVEMBER 2017.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR A MINIMUM OF 85 PERCENT VEGETATIVE COVERAGE AFTER ONE GROWING SEASON.

NATIVE SEED MIX (TYPE 4 JOB SPECIFIC)			
Botanical Name	Common Name	% By Weight	Vol. By Pure Live Seed
<i>Panicum virgatum</i>	Switch Grass	20	75
<i>Schizachyrium scoparium</i>	Little Bluestem	25	75
<i>Lolium perenne</i>	Perennial Ryegrass	25	90
<i>Festuca ovina</i>	Hard Fescue	30	78

NEW ENGLAND WETMIX (WETLAND SEED MIX)		
Botanical Name	Common Name	Indicator
<i>Carex lurida</i>	Lurid Sedge	OBL
<i>Carex scoparia</i>	Blunt Broom Sedge	FACW
<i>Verbena hastata</i>	Blue Vervain	FACW
<i>Carex lupulina</i>	Hop Sedge	OBL
<i>Scirpus atrovirens</i>	Green Bulrush	OBL
<i>Panicum rigidulum</i>	Redtop Panic Grass	FACW+
<i>Deschampsia cespitosa</i>	Tufted Hairgrass	FACW
<i>Bidens aristosa</i>	Tickseed Sunflower/Bur Marigold	FACW
<i>Eleocharis palustris</i>	Creeping Spike Rush	OBL
<i>Juncus effusus</i>	Soft Rush	FACW+
<i>Carex crinita</i>	Fringed Sedge	OBL
<i>Mimulus ringens</i>	Square Stemmed Monkey Flower	OBL
<i>Aster puniceus</i>	Swamp Aster	OBL
<i>Eupatorium perfoliatum</i>	Boneset	FACW
<i>Glyceria canadensis</i>	Rattlesnake Grass	OBL
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL
<i>Helenium autumnale</i>	Common Sneezeweed	FACW+
<i>Penthorum sedoides</i>	Ditch Stonecrop	OBL

- LEGEND:
- SUBJECT SITE PROPERTY BOUNDARY
 - PROPERTY LINES
 - EXISTING MAJOR CONTOURS
 - EXISTING MINOR CONTOURS
 - 100-YEAR EXISTING FLOODPLAIN LINE
 - 100-YEAR PROPOSED FLOODPLAIN LINE
 - APPROXIMATE LOCATION OF SEWER PIPE
 - EXISTING WETLANDS
 - BUCKEYE BROOK APPROXIMATE CENTERLINE
 - EXISTING EDGE OF WATER/APPROXIMATE OBSERVED DAY WATER SURFACE ELEVATION
 - 50 FT PERIMETER WETLAND SETBACK
 - 200 FT RIVERBANK WETLAND SETBACK
 - FRA FLOOD REDUCTION AREA LIMIT OF DISTURBANCE
 - RCA RESTORATION CONSTRUCTION AREA LIMIT OF DISTURBANCE
 - FLOW DIRECTION
 - SURVEYED WETLANDS LOCATIONS
 - EXISTING LIGHT TOWER WITH OVERHEAD LINE
 - EXISTING LIGHT TOWER WITH UNDERGROUND LINE
 - NATIVE SEED MIX PLACEMENT AREA
 - WETLAND SEED MIX PLACEMENT AREA



DESIGNED BY: AMT	DRAWN BY: DPA	CHECKED BY: MB	PROJECT MANAGER: AEH	NO.	DATE	BY	DESCRIPTION
				1	11/02/18	AMT	REVISED PER RIDEH COMMENTS
				2	5/19/20	AEH	ADDendum #1

BUCKEYE BROOK RESTORATION
 2000 POST ROAD, PLAT 321 LOT 0004
 CITY OF WARWICK DEPARTMENT OF PUBLIC WORKS / RIDOT
 WARWICK, RHODE ISLAND
 RESTORATION PLAN

EA Engineering, Science, and Technology, Inc., PBC
 301 Metro Center Blvd, Suite 102
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 (401) 736-3440

DATE: APRIL 2020
PROJECT NUMBER: 63293.01
C-108
SHEET: 10 OF 12

FILE PATH: I:\MANAGEMENT\PROJECTS\63293\63293_010\BUCKEYE BROOK RESTORATION\ACTION\PRODUCTION\BUCKEYE BROOK RESTORATION - PLAN SET - REVISED 04/2020\DWG\63293_010_10.DWG
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FOR CONSTRUCTION