



**State of Rhode Island
Department of Administration / Division of Purchases
One Capitol Hill, Providence, Rhode Island 02908-5855
Tel: (401) 574-8100 Fax: (401) 574-8387**

**Solicitation Information
March 5, 2014**

ADDENDUM # 2

RFQ # 7548454

**TITLE: WHIPPLE HALL EJECTION STATION DISCHARGE - RIC
SUBMISSION DEADLINE: Wednesday March 12, 2014 at 11:00 am (Local Time)**

Notice to Vendors:

- Attached is additional information and questions with responses.

**Thomas Bovis
Interdepartmental Project Manager**

Interested parties should monitor this website, on a regular basis, for any additional information that may be posted.

**CDM SMITH INC.
Consulting Engineers
260 West Exchange Street, Suite 300
Providence, RI 02093**

Date Issued: Tuesday March 4, 2014

TO: ALL BIDDERS OF RECORD

**RE: RHODE ISLAND COLLEGE
INFRASTRUCTURE IMPROVEMENTS
WHIPPLE HALL EJECTION STATION
DISCHARGE MODIFICATION**

GENERAL BID DATE: March 12, 2014 at 11:00 AM

ADDENDUM NO. 2

This addendum shall be made a part of the Contract Documents as provided in the Information to Bidders for the above referenced project.

Acknowledge receipt of this Addendum by inserting the number on Page 00300-1 of the Bid Form. Failure to do so may subject the bidder to disqualification.

CONTRACT DOCUMENTS - SPECIFICATIONS

SECTION 00010 – TABLE OF CONTENTS

1. DELETE Section 00010 in its entirety and replaced with revised Section 00010, in **Attachment A.**

SECTION 00200 – INVITATION TO BID

1. Note that the mandatory pre-bid conference was held on February 24, 2014.

SECTION 00300 – BID FORM

1. DELETE the Bid Form in its entirety and replace with revised Bid Form Section 00300, in **Attachment B.**

SECTION 00500 – AGREEMENT

1. DELETE Section 00500 in its entirety and replace with revised Agreement, Section 00500, in **Attachment C**

SECTION 01025– MEASUREMENT AND PAYMENT

1. DELETE Section 01025 in its entirety and replace with revised Measurement and Payment, Section 01025, in **Attachment D**.

SECTION 01103 – HEALTH AND SAFETY REQUIREMENTS

1. Add the attached specification, in **Attachment E**, Section 01103, Health and Safety Requirements, to the Contract Documents.

SECTION 02117 – RHODE ISLAND COLLEGE SOIL EXCAVATION AND MANAGEMENT

1. Add the attached specification, in **Attachment F**, Section 02117, Rhode Island College Soil Excavation and Management, to the Contract Documents.

SECTION 02125 – TRANSPORTATION AND DISPOSAL OF CONTAMINATED MATERIAL

1. Add the attached specification, in **Attachment G**, Section 02125, Transportation and Disposal of Contaminated Material, to the Contract Documents.

CONTRACT DOCUMENTS - PLANS**SHEET C-1**

1. SUBSTITUTE Sheet C-1 with revised sheet C-1, in **Attachment H**.
 - a. Note that Test Pits 3-5 were added to the plans and the previously proposed 8-inch Ductile Iron sewer has been increased to a 12-inch Ductile Iron sewer pipe.

PREBID CONFERENCE

A mandatory Prebid conference was held at the Rhode Island College-Capital Project Office at 9:00 AM on Monday, February 24, 2014.

The following is a list of questions asked during the prebid conference:

QUESTIONS

- 1) **Were there any borings done for this project?**
Response: No borings were performed for this Project; however, test pit data for a recent project in the vicinity of this project is included in **Attachment I**.
- 2) **Is there any flow data?**
Response: There is no available flow data. The Contractor should assume that the existing 12-inch sewer main to be connected into at station 0+00 is flowing near full capacity.
- 3) **What buildings are tied into this sewer?**
Response: The Lucius A. Whipple Hall will be the only building tied into the new proposed sewer system. The sewer service connection to the John Nazarian Center for Performing Arts on Library Road will be abandoned.

- 4) **Is filter fabric required?**
Response: Yes, please see the Trench and Pavement Restoration Typical Detail on Sheet C-2 of the Contract Drawings.
- 5) **Will bypass pumping be required?**
Response: The Contractor will be required to bypass and maintain flow when installing the new 5' diameter sewer manhole at station 0+00 as required per Item 2b.
- 6) **Will the sign-in sheet be posted?**
Response: The sign-in sheet is posted on www.purchasing.ri.gov – Bid Number:7548454
- 7) **There was mention of Night Work, will that be required?**
Response: Night work is not anticipated at this time; however, all requests for night work shall be submitted for approval by Rhode Island College. The Contractor should be advised that the Rhode Island College campus is active 24/7.
- 8) **Why is there 50 cubic yards of Miscellaneous Concrete (Item #6)? How is this item used?**
Response: The miscellaneous concrete (Item #6) will be used as directed by the Owner or Engineer to compensate the Contractor for placing concrete. This item will cover any miscellaneous concrete used to concrete encase the external drop connections, pipe connections, concrete pipe encasements, utility encasements, and as directed.
- 9) **Should Item #1b be paid per pound or each?**
Response: Item #1b- shall be paid per each connection.
- 10) **Are there any restrictions on hours of operation?**
Response: Typically start at 7:00 am and end between 3:00-4:00 PM but the College can be somewhat flexible depending on the activity. All work will need to be carefully coordinated with the college.

Are there any apprenticeship requirements

Response: Contractor is to adhere to the State Contract Addendum Rhode Island Department of Labor and Training Prevailing Wage Requirements (37-13-1 ET SEQ) and Title 37 – Public Property and Works Chapter 37-13 Labor and Payment of Debts by Contractors Section 37-13-7.

END OF ADDENDUM NO. 2

ATTACHMENT A

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ATTACHMENT B

**BID FORM
TO**

Rhode Island College

Infrastructure Improvements

Whipple Hall Ejector Station Discharge Modification

Contract Number: XXXXXXXXXXXX

The undersigned declares that the only persons or parties interested in this Bid as principals are as stated; that the Bid is made without any collusion with other persons, firms, or corporations; that all the Contract Documents as prepared by CDM Smith Inc., 260 West Exchange Street, Suite 300, Providence, RI 02903 and dated August 2013 have been carefully examined; that the undersigned is fully informed in regard to all conditions pertaining to the Work and the place where it is to be done, and from them the undersigned makes this Bid. These prices shall cover all expenses incurred in performing the Work required under the Contract Documents, of which this Bid Form is a part.

If a Notice of Award accompanied by at least six unsigned copies of the Agreement and all other applicable Contract Documents is delivered to the undersigned within thirty days, excluding Saturdays, Sundays, and legal holidays, after the actual date of the opening of the Bids, the undersigned will within five days, excluding Saturdays, Sundays, and legal holidays, after the date of receipt of such notification, execute and return all copies of the Agreement and all other applicable Contract Documents to OWNER. The premiums for all Bonds required shall be paid by CONTRACTOR and shall be included in the Contract Price. The undersigned Bidder further agrees that the Bid Security accompanying this Bid shall become the property of OWNER if the Bidder fails to execute the Agreement as stated above.

The undersigned hereby agrees that the Contract Time shall commence ten days following the Effective Date of the Agreement, and to fully complete the work on or before June 30, 2014, and in accordance with the terms as stated in the Agreement. The undersigned further agrees to pay OWNER, as liquidated damages, \$750.00 per day for each calendar day beyond the Contract Time Limit or extension thereof that the Work remains incomplete, in accordance with the terms of the Agreement.

The undersigned acknowledges receipt of addenda numbered:

In accordance with the above understanding, the undersigned proposes to perform the Work, furnish all materials and complete the Work in its entirety in the manner and under the conditions required at the prices listed as follows:

**RHODE ISLAND COLLEGE
WHIPPLE HALL EJECTOR STATION DISCHARGE MODIFICATION
CONTRACT NO:**

BID FORM

<u>Item No.</u>	<u>Estimated Quantity</u>		<u>Brief Description of Items With Unit Bid Price in Words</u>	<u>Unit Bid Price In Figures</u>	<u>Amount in Figures</u>
1a	690	lin. ft	Furnish and install new 8-inch CL52 Ductile Iron (DI) pipe, including earth excavation and backfill	\$ _____	\$ _____
			per linear foot		
1b	2	ea.	Furnish and install new 6-inch CL 52 Ductile Iron (DI) sanitary sewer service	\$ _____	\$ _____
			each		
2a	3	ea.	Furnish and install 4' diameter, precast concrete manhole,	\$ _____	\$ _____
			each		
2b	1	ea.	Furnish and install new 5' DIA SMH, including bypass, connection of existing, transition pipe, and outside drop connection	\$ _____	\$ _____
			each		
3a	100	c.y.	Rock and boulder excavation	\$50.00	\$5,000.00
			Fifty Dollars per cubic yard		
3b	100	c.y.	Additional payment for rock and boulder excavation over the established price	\$ _____	\$ _____
			per cubic yard		
			**Negative unit bid price will not be allowed		

**RHODE ISLAND COLLEGE
WHIPPLE HALL EJECTOR STATION DISCHARGE MODIFICATION
CONTRACT NO:**

BID FORM

<u>Item No.</u>	<u>Estimated Quantity</u>		<u>Brief Description of Items With Unit Bid Price in Words</u>	<u>Unit Bid Price In Figures</u>	<u>Amount in Figures</u>
4a	120	c.y.	Bank-run gravel for pavement, driveway and sidewalk base	\$ _____	\$ _____

			per cubic yard		
4b	100	c.y.	Screened gravel	\$ _____	\$ _____

			per cubic yard		
5	20	c.y.	Excavation below normal grade including gravel refill	\$ _____	\$ _____

			per cubic yard		
6	50	c.y.	Miscellaneous concrete	\$ _____	\$ _____

			per cubic yard		
7a	320	sq. yd.	Furnish and install initial trench-width pavement, which includes 2-1/2-inch thick plant mix binder course	\$ _____	\$ _____

			per square yard		
7b	470	sq. yd.	Furnish and install final trench-width pavement, which includes 2-1/2-inch Binder and 1 1/2-inch thick Class I-1, top course	\$ _____	\$ _____

			per square yard		
7c	120	sq. yd.	Concrete Walk Repair, including curb		\$ _____

			per square yard		

**RHODE ISLAND COLLEGE
WHIPPLE HALL EJECTOR STATION DISCHARGE MODIFICATION
CONTRACT NO:**

BID FORM

Item No.	Estimated Quantity		Brief Description of Items With Unit Bid Price in Words	Unit Bid Price In Figures	Amount in Figures
8	50	c.y.	Test Pits		
			_____	\$ _____	\$ _____
			per cubic yard		
9	1	L.S.	Policing Allowance		
			_____		\$28,000.00
			Twenty Eight Thousand Dollars Allowance		
10	1	L.S.	Miscellaneous work and clean up		
			_____		\$ _____
			lump sum		
11a	175	TON	Handling of regulated non-hazardous soils		
			_____		\$ _____
			lump sum		
11b	175	TON	Handling of regulated hazardous soils		
			_____		\$ _____
			lump sum		

BID SUMMARY

SUBTOTAL PAGE 00300-4:	\$ _____
SUBTOTAL PAGE 00300-3:	\$ _____
SUBTOTAL PAGE 00300-2:	\$ _____
SUBTOTAL BID PRICE	\$ _____

12	1	L.S.	Mobilization (Not to exceed 5% of subtotal bid price above)		
			_____		\$ _____
			lump sum		
TOTAL BID PRICE					\$ _____

The undersigned agrees that extra work, if any, will be performed in accordance with Article 10 of the Conditions of the Contract and will be paid for in accordance with Article 11 of the Conditions of the Contract.

Amounts shall be shown in both words and figures, where indicated. In case of discrepancy, the amount shown in words will govern.

The above prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance and incidentals required to complete the Work.

The names and residences of all persons and parties interested in the foregoing Bid as principals are as follows:

(Give first and last names in full. In the case of a corporation, see Article 8.3 of the Instructions to Bidders, in the case of a limited liability company [LLC], see Article 8.4 of the instructions to Bidders, in the case of a partnership, see Article 8.5 of the Instructions to Bidders.)

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work.

The undersigned hereby certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this section, the word "person" shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

Social Security Number
or Federal Identification
Number

Signature of Individual or
Corporate Name

By: _____
Corporate Officer
(if applicable)

Notice of acceptance should be mailed, faxed, or delivered to the following:

(Name)

By: _____
(Title)

(Business Address)

(City and State)

Date _____

Note: If the Bidder is a corporation, indicate State of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses, if different from business address.

ATTACHMENT C

Rhode Island College
Infrastructure Improvements
Whipple Hall Ejection Station Discharge Modification

Contract Number: XXXXXXXX

AGREEMENT

THIS AGREEMENT made as of the _____ day of _____ in the year 2014 by and between Rhode Island College, acting through its Director of Capital Projects Administration hereinafter called OWNER and _____ with legal address and principal place of business at _____ hereinafter called CONTRACTOR. OWNER and CONTRACTOR in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1. WORK.

1.1 CONTRACTOR shall perform the Work as specified or indicated in the Contract Documents. The Work is as described in SECTION 01010.

ARTICLE 2. ENGINEER.

2.1 The Project has been designed by CDM Smith, 260 West Exchange Street, Suite 300, Providence, RI 02903 who will act as ENGINEER in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3. CONTRACT TIME.

3.1 The work shall be completed on or before June 31, 2014.

3.2 CONTRACTOR agrees that the Work shall be prosecuted regularly, diligently and uninterruptedly and at such rate of progress as will insure full completion thereof within the Contract Time stated above. It is expressly understood and agreed, by and between CONTRACTOR and OWNER that the Contract Time is reasonable for the completion of the Work, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

ARTICLE 4. CONTRACT PRICE.

4.1 OWNER will pay CONTRACTOR for performance of the Work in accordance with the Contract Documents in current funds at the unit price and lump sum prices agreed upon in the CONTRACTOR's Bid Form attached to this Agreement.

ARTICLE 5. APPLICATIONS FOR PAYMENT

5.1 CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the Conditions of the Contract. Applications for Payment will be processed by ENGINEER as provided in the Conditions of the Contract.

ARTICLE 6. PROGRESS AND FINAL PAYMENTS

6.1 OWNER will make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, monthly during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in Paragraph 14.01. of the Conditions of the Contract.

6.2 Prior to Substantial Completion, progress payments will be in an amount equal to 95 percent of the value of the Work completed, less the aggregate of payments previously made.

6.3 Upon Substantial Completion, OWNER will pay an amount sufficient to increase total payments to CONTRACTOR to 99 percent of the Contract Price, less retainages as ENGINEER shall determine, in accordance with Paragraph 14.02. of the Conditions of the Contract.

6.4 Upon final inspection and acceptance of the Work, in accordance with Paragraph 14.07. of the Conditions of the Contract, OWNER will pay the remainder of the Contract Price as recommended by ENGINEER.

ARTICLE 7. LIQUIDATED DAMAGES

7.1 OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the Contract Time specified in Article 3 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER \$750.00 per day for each calendar day of delay until the Work is complete.

7.2 Provided, that CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the Work is for reasons included in Paragraph 12.03. of the General Conditions.

7.3 Provided, further, that CONTRACTOR shall furnish OWNER the required notification of such delays in accordance with Paragraph 12.02. of the General Conditions.

ARTICLE 8. ASSURANCE

8.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and Federal, State and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

8.2 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data as CONTRACTOR deems necessary for the performance of the Work at the Contract Price within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required for such purposes.

8.3 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

8.4 CONTRACTOR has given ENGINEER written notice of any conflict, error or discrepancy that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

8.5 CONTRACTOR agrees that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

ARTICLE 9. CONTRACT DOCUMENTS.

9.1 The Contract Documents which comprise the Contract between OWNER and CONTRACTOR are attached hereto and made a part hereof and consist of the following:

9.1.1 Invitation To Bid.

9.1.2 Instructions To Bidders.

9.1.3 Bid Form.

9.1.4 This Agreement.

9.1.5 Performance Bond, EJCDC Document C-610, 2010 edition, Payment Bond, EJCDC Document C-615, 2010 edition, and other required Bonds.

9.1.6 General Conditions, EJCDC Document No. C-700, 2007 edition.

9.1.7 Supplementary Conditions Parts I and II.

9.1.8 Specifications (as listed in Table of Contents).

9.1.9 Drawings, numbered 133080-P-4306 through 133080-P-4310, inclusive and dated November 2013.

9.1.10 Addenda numbers _____ to _____, inclusive.

9.1.11 Any modification, including Change Orders, duly delivered after execution of Agreement.

ARTICLE 10. MISCELLANEOUS

10.1 Terms used in this Agreement which are defined in Article 1 of the Conditions of the Contract shall have the meanings assigned in the Conditions of the Contract.

10.2 Neither OWNER nor CONTRACTOR shall, without the prior written consent of the other, assign or sublet in whole or in part any interest under any of the Contract Documents; and, specifically but without limitation, CONTRACTOR shall not assign any monies due or to become due without the prior written consent of OWNER. In case CONTRACTOR assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to CONTRACTOR shall be subject to prior claims of all persons, firms and corporations for services rendered or materials supplied for the performance of the Work called for in this Contract.

10.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

10.4 The Contract Documents constitute the entire agreement between OWNER and CONTRACTOR and may only be altered, amended or repealed by a Modification.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement in sextuple. Four copies each have been delivered to OWNER and one copy each to CONTRACTOR and ENGINEER. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on their behalf.

This Agreement shall become effective on _____, 2013.

CONTRACTOR

OWNER

BY

BY

(CORPORATE SEAL)

(CORPORATE SEAL)

Attest

Attest

Address for giving notices

Address for giving notices

Note: If CONTRACTOR is a corporation, an affidavit giving the principal the right to sign the Agreement must accompany the executed Agreement.

ATTACHMENT D

SECTION 01025
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 DUCTILE IRON (DI) SEWER PIPE AND SERVICE (ITEMS 1A AND 1B)

A. Measurement

1. Ductile Iron sewer main of the size specified on the Bid Form (Item 1a) will be measured in place on a linear foot basis. Measurement for payment does not signify that the sewer main is accepted.
2. Measurement for length will be along the horizontal centerline of the pipe, with no deductions for fittings and will be to the center of manholes. Measurement will be to the nearest tenth of a foot.
3. Sewer services (Item 1b) shall be measured as each service connected to the new sewer main.

B. Payment

1. Payment for furnishing and installing ductile iron pipe of the class and size specified will be made for the respective quantities as above determined, at the applicable price per linear foot bid under Item 1a in the Bid Form. Such price and payment shall be full compensation for cutting and removing existing pavement; trench excavation (excluding rock and boulder excavation); sheeting and bracing; dewatering and drainage; furnishing and installing all gravel backfill material; bedding; furnishing and installing any geotextile filter fabric; installing impervious dams; disposal of excess excavated material; furnishing, laying and jointing the pipe; backfilling; compaction; restoring the trench surface to grade; restoring all physical features to grade and original condition, including curbs, sidewalks and driveways; loaming and seeding; cleaning and testing the pipe and all else incidental thereto for which separate payment is not provided under other Items in the Bid Form.
2. Payment for furnishing and installing sewer services is based on each service connected to the new sewer main, as herein specified, and will be made under Item 1b. Price and payment shall be full compensation for furnishing and installing the pipe, wye branches, fittings, adapters, gaskets, jointing and all work required for, or incidental to the satisfactory completion of the Item for which payment is not provided under other items in the Bid Form.
3. Payment for rock and boulder excavation will be made under Items 3a and 3b.

1.02 FURNISH, INSTALL AND CONNECT TO SEWER MANHOLES (ITEMS 2A AND 2B)

A. Measurement

1. Sanitary sewer precast concrete manholes installed (Item 2a) and replacement of existing brick manhole with new 5' dia. precast manhole, with connection of new and existing mains, (Item 2b) shall be measured as the number of each at sizes actually installed in the completed project and accepted by the Engineer.

B. Payment

1. Payment shall include furnishing and installing sewer manholes. Price and payment will be full compensation for cutting and removing existing pavement, excavation (excluding rock and boulder excavation), sheeting and bracing, placing screened gravel where required, setting, jointing, installation, bedding, filter fabric, frame, cover, fittings, manhole rungs, connections, brick invert, shelf, all forms, reinforcing, concrete and masonry materials, backfilling, compaction, cleaning and testing as specified and all work required for or incidental to the satisfactory completion of the Items for which separate payment is not provided under other items in the Bid Form.
2. Payment for replacement of existing sewer manhole shall be full compensation for all work needed to provide a new 5' diameter sewer manhole with drop connection for new DI sewer, transition pipe for connection of existing 12" VC pipe to manhole and flexible couplings. Payment is full compensation for all work and materials associated with building external drop connection, and connection to existing sewer system, including pipe, fittings, bedding, concrete, backfill and compaction; bypass of existing sanitary sewer, .
3. Payment for rock and boulder excavation will be made under Items 3a and 3b.

1.03 ROCK AND BOULDER EXCAVATION (ITEMS 3A AND 3B)

A. Measurement

1. When rock is encountered, the material shall be uncovered and the Engineer notified. The Engineer will take cross sections of the rock surface. If the Contractor fails to uncover the rock and notify the Engineer to allow ample time for cross-sectioning the undisturbed material, the Contractor shall have no right-of-claim to any classification other than that allowed by the Engineer. Removal of old concrete foundations, if any, shall be classified as rock.
2. Measurement of rock excavation in pipe trenches shall be maximum 4-feet in width.
3. Measurement for depth shall be from the top of the rock formation to the normal depth of the pipe as shown on the Drawings.
4. The pay limit for rock and boulder removal for manholes shall commence one foot outside the widest dimension of the structure or shall be the maximum connecting trench width, whichever is greater. No allowance will be made for overbreakage.
5. Boulders of more than 1 cu yd in volume when encountered in earth or trench excavation will be measured for payment.
6. The quantity of rock and boulder excavation to be paid for will be the number of cubic yards of rock or boulders measured in place, as directed by the Engineer, within the limits herein specified.

B. Payment

1. Payment for rock and boulder excavation will be made for the quantities as above determined at the fixed unit price for Item 3a in the Bid Form plus any additional unit price bid for Item 3b, measured in cubic yards, which price and payment will be full compensation for excavation, blasting and disposal of rock and boulder, backfilling and providing screened gravel for any deficiency of trench backfill, pre-blast survey, and all work incidental thereto, for which payment is not provided under other items. No payment will be made under Items 4a and 4b for refill material to replace any deficiency of backfill material.

1.04 GRAVEL FILL (ITEMS 4A AND 4B)

A. Measurement

1. Bank-run gravel and gravel borrow (Item 4a), when its use is approved and when furnished, placed and compacted for pavement subbase and for miscellaneous purposes, will be measured in cubic yards at actual in-place compacted dimensions as determined by the Engineer. When used for pavement subbase, the maximum width measured for payment shall be 4.0-ft. The width measured for payment shall be centered horizontally along the center of the pipe. Maximum depth measured for payment shall be as shown on the drawings. No allowance will be made for loss from consolidation of material. Truck measurement will not be permitted. Material excavated from trench which is used as pavement subbase will not be measured for payment.
2. Screened gravel (Item 4b) when used in conjunction with utility crossings and other locations when its use is ordered by the Engineer will be measured in cubic yards at actual in-place dimensions as determined by the Engineer. When used in trenches for pipe bedding in bedrock, the width measured for payment shall not exceed 4.0-ft.

B. Payment

1. Payment for furnishing and placing bank-run gravel and screened gravel will be made for the quantity determined above at the respective unit prices bid for Items 4a and 4b, respectively. Price and payment shall be full compensation for furnishing, hauling, placing, and compacting gravel and all else incidental thereto for which separate payment is not provided under other items in the Bid Form. Filter fabric is included for payment under this item.

1.05 EXCAVATION BELOW NORMAL GRADE (ITEM 5)

A. Measurement

1. Measurement of earth excavation and refill below normal grade (Item 5) will extend only downward for a width of 4.0-ft measured 2.0-ft on each side of the pipe center to a depth determined by the Engineer in the field where a width of 7.0-ft will be used.
2. If the trench bottom is below normal grade through error by the Contractor or if improper drainage softens the subgrade and additional excavation in the trench is required before laying the pipe, such removal and replacement of material will not be measured for payment.

B. Payment

1. Payment for earth excavation and refill below normal grade will be made for the quantity as above-determined at the price per cubic yard bid for Item 5 in the Bid Form. Price and payment shall be full compensation for excavation and disposal of all materials below normal grade, furnishing, placing and compacting screened gravel and all other work incidental thereto for which separate payment is not provided under other items in the Bid Form.

1.06 CONCRETE (ITEM 6)

A. Measurement

1. Concrete (Item 6) shall be measured in place in the completed work by average dimensions in each of three planes. Slip measurement shall not be allowed.

B. Payment

1. Payment for concrete thrust blocks, drop connections and concrete used for miscellaneous purposes shall be made for the quantity measured in place (cubic yards) at the unit price bid in the Bid Form for Item 6 and shall be full compensation for all work required for, or incidental to the satisfactory completion of the Item for which separate payment is not provided under other items in the Bid Form.

1.07 PAVEMENT REPLACEMENT (ITEMS 7A, 7B, 7C)

A. Measurement

1. Initial trench pavement, (Item 7a), measurement for payment will be in square yards as actually placed, but not exceeding trench widths shown on the drawings. Measurement shall be horizontally centered along the center of the pipe.
2. Permanent trench pavement, (Item 7b), measurement for payment will be in square yards as actually placed, but not exceeding trench widths shown on the drawings, horizontally centered along the center of the pipe.
3. Concrete Walk Repair, (Item 7c), shall be measured in square yards actually constructed, including concrete curb.

B. Payment

1. Payment for trench pavements (Items 7a and 7b), complete in place and approved by the Engineer, will be made for the quantity determined above at the appropriate unit price bid in the Bid Form. Price and payment shall be full compensation for cleaning and preparing the surface of the gravel base, furnishing, placing and maintaining the trench pavement, including labor, materials, calcium chloride for dust control, sealant, tack coat, compaction and all else incidental thereto for which payment is not provided under other items in the Bid Form.
2. Payment for concrete walk repair (Item 7c) complete in place and approved by the Engineer, will be made for the quantity determined above at the appropriate unit price bid in the Bid Form. Price and payment shall be full compensation for cleaning and preparing the surface of the gravel base, furnishing, placing, maintaining and curing the concrete

surface and installation of new concrete curb, including labor, materials, calcium chloride for dust control, sealant, compaction and all else incidental thereto for which payment is not provided under other items in the Bid Form.

3. Payment for bank-run (subbase) gravel is included in Item 4a.

1.08 TEST PITS (ITEM 8)

A. Measurement and Payment

1. Test pits for the purposes of locating underground utilities are specified under Section 02221. Measurement shall be the actual number of test pits ordered by the Engineer and furnished by the Contractor. Test pits shall be paid at the unit price bid in Item 8 in the Bid Form for the above determined quantity and shall be full compensation for cutting pavement, excavation, backfilling, temporary patching, permanent paving and all other work required for or incidental to the satisfactory completion of this Item.

1.09 POLICING ALLOWANCE (ITEM 9)

A. Measurement and Payment

1. Payment for special assignments of personnel of the appropriate Police Departments (Item 9) will be made for the actual amount invoiced to the Contractor by the Police Departments. Allowance established in the Bid Form is for bidding purposes only. Progress payments will be made by the Engineer only upon receipt of paid invoices from the Contractor.

1.10 MISCELLANEOUS WORK AND CLEANUP (ITEM 10)

A. Measurement and Payment

1. Payment for miscellaneous work and cleanup (Item 10) will be made at the lump sum price bid in the Bid Form. This price shall be full compensation for furnishing all labor, materials, equipment and incidentals required to do all the work specified in Section 02901 including work not specifically included under other items but which are obviously necessary for the proper completion of the Contract. Payment for traffic management and work of utility locating company are also paid under this item. Partial payments shall be based on the breakdown of the items as specified in Section 02901.

B. Payment

1. Payment shall include compensation for all insurance, bonds, site preparation, and, in general, all costs associated with establishing the work on site to assure that it is proceeding in a continuous manner.

1.11 DISPOSAL OF CONTAMINATED SOILS (Item 11a thru b)

A. Measurement

1. Measurement for stockpiling, transportation and disposal of material, including soil and debris, shall be on a unit weight basis in tons based on scale measurement computed to the nearest 0.1 ton, documented by certified weight slips from the Rhode Island College Approved offsite disposal facility.

B. Payment

1. Payment for the transportation and disposal of material defined as regulated – non-hazardous will be made at the price per ton bid for Item 11a of the Bid Form, which price and payment shall be full compensation for excavation, stockpiling, loading, and transportation of all contaminated soils encountered during construction activities at Rhode Island College; all permit and disposal fees; characterization; waste disposal documentation including profiles and bills of lading or manifests; and all else incidental thereto for which separate payment is not provided under other items.
2. Payment for the transportation and disposal of the contaminated material defined as Regulated- Hazardous will be made at the price per ton bid for Item 11b of the Bid Form, which price and payment shall be full compensation for excavation, stockpiling, loading, and transportation of all contaminated soils encountered during construction activities at Rhode Island College; all permit and disposal fees; characterization; waste disposal documentation including profiles and bills of lading or manifests; and all else incidental thereto for which separate payment is not provided under other items.

1.12 MOBILIZATION (Item 12)

A. Measurement

1. Measurement for payment of mobilization costs (Item 12) shall be on a lump sum basis but the cost shall not exceed 5 percent of the bid, excluding this item.

B. Payment

1. Payment of the lump sum price bid in the Bid Form for Item 12 shall be full compensation for all costs associated with initiating the Contract, exclusive of the cost of materials.

END OF SECTION

ATTACHMENT E

SECTION 01103

HEALTH AND SAFETY REQUIREMENTS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This work shall consist of preparing and implementing a Health and Safety (H&S) Plan to establish in detail the protocols necessary for protecting workers and facility staff from potential hazards during the project, including work specified in Sections 02117 and 02125.
- B. Recent site investigations have not indicated the presence of soil or groundwater contamination remaining at the site; however potential chemical hazards include undiscovered fuel oil releases encountered during site excavation activities.

1.02 RELATED WORK

- A. Contaminated Soil Excavation is included in Section 02117.
- B. Transportation and Disposal of Contaminated Material is included in Section 02125.

1.03 DESCRIPTION OF REQUIREMENTS

- A. This Section describes the minimum health and safety requirements for this project. The Contractor shall develop a detailed H&S Plan using this section as a basis and delineating additional details and requirements as deemed necessary. The H&S Plan must establish in detail the protocols necessary for protecting workers from potential hazards encountered during potential exposure to contaminated soil excavation and management activities.
- B. The Contractor shall utilize the services of a certified industrial hygienist (CIH) by the American Board of Industrial Hygienists (ABIH) to develop and implement the H&S plan, including any on-site air monitoring program, conducting initial site specific training and provide continued support for all health and safety activities as needed, including the upgrading or downgrading of the level of personnel protection.
- C. In addition, a Site Safety and Health Officer (SSHO) shall assist and represent the CIH in the continued implementation and enforcement of the H&S Plan. The SSHO shall be assigned to the site on a full time basis during performance of activities covered by the H&S plan and shall be either the Contractor's employee or a subcontractor who reports to the Contractor and the CIH in matters pertaining to site safety and health.
- D. The H&S Plan shall provide procedures to provide appropriate protection in the event that contaminated materials are encountered during tank removal activities.

- E. The H&S Plan must include requirements for appropriate field screening equipment, including, at a minimum: combustible gas indicator (CGI), oxygen meter, and photoionization detector (PID).
- F. The H&S Plan must include procedures for confined space entry. Prior to entry of personnel into a confined space, monitoring for combustible gas and oxygen levels must be performed and proper ventilation maintained.
- G. The H&S Plan shall include but not necessarily be limited to, the following components as required by OSHA 29 CFR 1926.65(b)4 and 1926.65(l)(2):
 - 1. Site Description and Evaluation.
 - 2. Names of key personnel and alternate responsible for site safety and health (responsibilities and chain of command).
 - 3. Safety and health hazard assessment and risk analysis for each site task and operator (Accident Prevention Plan).
 - 4. Education and Training.
 - 5. Personnel Protective Equipment.
 - 6. Medical Surveillance.
 - 7. Air Monitoring (Environmental).
 - 8. Standard Operating Procedures, Engineering Controls and Work Practices.
 - 9. Site Control Measures (Work Zones, Communications and Security).
 - 10. Personnel Hygiene and Decontamination.
 - 11. Equipment Decontamination.
 - 12. Logs, Reports and Record Keeping.
 - 13. Heat/Cold Stress Monitoring.
 - 14. Pre-emergency planning
 - 15. Personnel roles, lines of authority, training and communication
 - 16. Emergency recognition and prevention
 - 17. Safe distances and places of refuge

18. Site security and control
19. Evacuation routes and procedures
20. Decontamination
21. Emergency medical treatment and first aid
22. Emergency alerting and response procedures
23. Critique of response and follow-up
24. Personnel Protection Equipment and emergency equipment

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300, and within 14 days after issuance of Notice to Proceed, the following:
 1. Qualifications of CIH.
 2. Qualifications of SSHO.
 3. H&S Plan

1.05 REGULATORY REQUIREMENTS

- A. OSHA 29 CFR 1926.65, Hazardous Waste Operations and Emergency Response
- B. OSHA 29 CFR 1926, Safety and Health Regulations for Construction

1.06 TRAINING

- A. The Contractor shall certify that all Contractor personnel assigned for the purpose of performing or supervising work in accordance with the provisions of the H&S plan have received appropriate safety training in accordance with 29 CFR 1926.65. Training shall consist of a minimum of 40 hours of health and safety training and 8 hours refresher training annually. In addition, Contractor's supervisory personnel shall have a minimum of 8 hours additional specialized training for managing hazardous waste operations.
- B. Additionally, the Contractor shall be responsible for, and shall guarantee that, only personnel successfully completing the required training are permitted to enter designated areas of the site where worker protection is required.

1.07 MEDICAL SURVEILLANCE

- A. The Contractor shall certify that the services of an occupational physician will be provided and utilized to provide the minimum medical examinations and surveillance specified herein for all workers performing or supervising work in accordance with the provisions of the H&S plan.
- B. The entire medical surveillance program shall meet the requirements of OSHA standard 29 CFR 1926.65(f) including the provision requiring the Contractor to obtain a physician's written medical opinion based on site specific information furnished by the Contractor.
 - 1. Maintain all medical surveillance records in accordance with 29 CFR 1926.65 and make these records available to the Engineer or other regulatory agencies as required.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

ATTACHMENT F

SECTION 02117

RHODE ISLAND COLLEGE SOIL EXCAVATION AND MANAGEMENT

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Past analysis of soil samples collected within the Rhode Island College campus have indicated the presence of the metal arsenic at concentration above the Residential Direct Exposure Criterion of 7 mg/kg established by the Rhode Island Department of Environmental Management (RIDEM). The presence of the regulatory exceedance resulted in RIDEM notification; that required the implementation of a program to properly manage the soil on-site, and the proper reuse and/or disposal of excess soil that was removed the site.
- B. The Contractor shall assume that all soils within the project area for the Whipple Hall Ejection Station Discharge Modification Project are similarly impacted, and as such, must be handled as "impacted" unless demonstrated otherwise through analytical testing. Accordingly, no excess soil shall be transported offsite for unrestricted reuse without a formal evaluation by an Environmental Engineer.
- C. All excavated soil shall be characterized in one of the following three categories:
 - 1. **Non-Regulated** – Soil which meet RIDEM Residential Direct Exposure Criteria (RDEC) for all constituents as listed in Table 1 of the Remediation Regulations. Results are below the RDEC, soils in this category do not require special handling.
 - 2. **Regulated Non-Hazardous** – Soil which does not meet Rhode Island Department of Environmental Management (RIDEM) Residential Direct Exposure Criteria (RDEC) for all constituents as listed in Table 1 of the latest published Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases. These soils must be managed properly and taken to a permitted receiving facility for reuse or disposal.
 - 3. **Regulated – Hazardous** – Shall mean any material defined as such waste pursuant to the Rhode Island Rules and Regulations for Hazardous Waste Management and/or as defined under the Resource Conservation and Recovery Act (RCRA). Results exceed US EPA RCRA hazardous waste criteria. These soils are subject to US EPA RCRA regulations and must be transported and disposed of at a RCRA-permitted treatment, storage, disposal (TSD) facility in accordance with the regulations.
- D. Furnish all labor, material, tools and equipment, and incidentals necessary for excavating, handling, stockpiling, sampling and analysis of excavated soil, inclusive of health and safety plan compliance as specified by RIDEM-Remediation Regulations and related regulations and for emergency response.
- E. All Work shall comply with Regulations listed in Paragraph 1.05

1.02 RELATED WORK

- A. Specification Section 01103 Health and Safety Plan Requirements are solely the responsibility of the Contractor. Since the excavations are in or proximate to disposal sites listed under the RIDEM-Remediation Regulations, a contractor plan is required to govern the Contractor's workers including any subcontractor personnel. Protection of public health and safety in an excavation area is also the Contractor's responsibility with provisions to be included in the plan.
- B. Section 02125 Transportation and disposal of Material.
- C. Upon the finding of a reporting condition under the Residential Direct Exposure Criterion, the Contractor shall notify the Engineer/LSP who shall submit a release notification form (RNF) and release abatement measure (RAM) plan to the Rhode Department of Environmental Management (RIDEM) describing the activities and obtain a release tracking number for the work. Status reports, updates and completion statement are also the responsibility of the Engineer/LSP.
- D. The Contractor shall sample and analyze the soil for disposal/reuse parameters in-situ prior to excavation and contact— Kevin Fitta, at 401-456-9885 (kfitta@rid.edu) — shall submit the RAM plan prior to any soil excavation by the Contractor. In-situ sampling shall be at a frequency of at least 1 sample per 500 cubic yards of Rhode Island College soil estimated to be excavated.
- E. Prepare a plan outlining daily shut-down procedures, including covering and securing all stockpiled soils with polyethylene sheeting and, if warranted, the application of water to all exposed surfaces. The plan shall include means of preventing off-hour access.

1.03 SUBMITTALS

- A. Submit to Engineer a work plan providing details of in situ urban soil sampling and analysis, excavation and reuse, stockpile sampling and analysis, disposal, as well as management of any impacted groundwater based on groundwater discharge to the nearest Rhode Island College sewer.
- B. Submit all in situ soil data, stockpile soil data, and other analytical data by facsimile or email to Engineer directly from laboratory.
- C. Submit data summary tables and a listing of general disposal facility requirements comparison within one week of receipt of the analytical data.

1.04 REGULATORY REQUIREMENTS

- A. RIDEM Rules and Regulation for the Investigation and Remediation of Hazardous Material Releases – Residential Direct Exposure Criteria (RDEC) for all constituents as listed in Table of the Remediation Regulations.
- B. RIDEM Rules and Regulations for Hazardous Waste Management
- C. For any soil or waste shipped across state lines, the requirements, standards and guidance in that location apply to transportation and disposal.
- D. U.S. Department of Environmental Protection, Federal Hazardous Waste Regulations Reg. 40 CFR 361-268

PART 2 PRODUCTS

2.01 GENERAL

- A. The Contractor shall provide all employees and Subcontractor(s) with personal protective equipment and protective clothing consistent with the levels of protection for this Work as indicated in the Contractor's Site Health and Safety Plan.

2.02 HIGH DENSITY POLYETHYLENE (HDPE) LINING FOR STOCKPILES

- A. The high density polyethylene liner/cover shall be manufactured of new, first-quality product designed and manufactured specifically for the intended use and have the following properties:
 - 1. The material shall be 3-ply polyethylene reinforced with a nonwoven grid of high strength nylon cord.
 - 2. The material shall be U.V. resistant (black in color) and cold crack resistant to minus 40 degrees F.
 - 3. The material shall be manufactured in a minimum 12-ft seamless width. Labels on the rolls shall identify the thickness, length, width and manufacturer's mark number. Material thickness shall be as specified below:
 - a. Excavated materials shall be placed on a base lined with 20 mil (or higher gauge) polyethylene and shall be completely and securely covered with 6 mil (or higher gauge) polyethylene.
- B. All Contractor personnel shall wear personal protective equipment and protective clothing consistent with the levels of protection for this Work as indicated in his/her Health and Safety Plan.

PART 3 EXECUTION

3.01 GENERAL

- A. The Owner will be the generator and will sign waste profiles, hazardous waste manifests, non-hazardous waste manifests, bills of lading BOLs) and material shipping records (MSRs) as prepared by the contractor and approved by the Engineer/LSP and signed by the LSP.
- B. Sample and analyze soil in-situ prior to excavation.
- C. The Contractor shall identify appropriate disposal facilities, seek Engineer/LSP and Owner concurrence and make all necessary arrangements for disposal of materials.
- D. Perform all soil and material excavation work in accordance with the Health and Safety Plan.
- E. Excavate soil to the limits necessary to achieve the required sizes to support the Work and as directed by the Engineer/LSP. Excessive excavation quantities over and above that which is normal or required to complete the work will not be eligible for compensation.
- F. All site health and safety controls and monitoring equipment shall be fully established and in operation prior to beginning any urban soil excavation. Site controls shall include but not be

limited to work zones properly barricaded, decontamination/truck wash facilities, and all support equipment and supplies including personal protective equipment.

3.02 EXCAVATION OF CONTAMINATED SOILS

- A. Work and decontamination procedures in areas containing contaminated media and material shall be performed in accordance with standard industry practices including use of decontamination facilities, barriers, liners, and other means to control cross-contamination.

3.03 STORAGE OF EXCAVATED MATERIAL

- A. Temporarily stockpile excess excavated contaminated soil on-site in stockpiles not exceeding a volume of 200 cubic yards each pending soil characterization based on the review of analytical results. Soil shall be stockpiled in accordance with this Section. Blending of soil between excavation locations to attain composition thresholds by dilution is not allowed. Engineer shall inspect all stockpile locations. Load and go techniques for excess soil based on adequate in-situ sampling are allowed subject to Engineer's approval.
- B. Excavated contaminated soils for disposal or reuse not adequately characterized in-situ shall be stockpiled on-site in accordance with the most recent version of RIDEM guidance policies while samples are analyzed for chemical constituents, in accordance with RIDEM and disposal facility specified analytical methods.
 - 1. The stockpiles shall be labeled and tracked to provide complete data necessary to locate any stockpile within the site. All Work necessary to coordinate stockpiling from placement to disposal shall be included. The Contractor shall provide Engineer with duplicate copies of all documentation at the time of stockpiling. Stockpile location(s) are to be proposed by the Contractor and approved by the Owner and Engineer.
 - 2. The temporarily stockpiled soil must be removed from the site or reused in accordance with applicable regulatory deadlines or no later than the completion date of this Contract, whichever is less.
 - 3. The polyethylene shall be bermed around the edges of the stockpiles to prevent any infiltration of stormwater or exfiltration of leachate. The berm height shall be a minimum of 12-in.
 - 4. The polyethylene shall be adequately secured to prevent damage or loss by wind or other weather elements.
- C. Stockpiles shall be securely barricaded and clearly labeled.
- D. Soils shall be suitably dewatered prior to their leaving the site, to prevent free water from developing during transport to the disposal facility.
- E. Hay bales shall be placed around the stockpiles.

3.04 BACKFILLING/REUSE

- A. Geotechnically suitable soil may be reused on site following contaminant sampling, analysis, review and approval by the Engineer/LSP. No soil containing debris such as metal, glass,

ceramics shall be backfilled within 3 feet of finished grade or within 3 feet of a structure wall. No urban soil of any kind shall be backfilled within 3 feet of a structure wall.

3.05 SOIL AND MATERIAL TRACKING, STOCKPILE SAMPLING AND ANALYSIS

- A. Provide to the Engineer and Owner, on a daily basis, copies of field records documenting the location of in-situ samples, stockpiled material in the grid system, and stockpile identification data.
- B. Track all soil exceeding RDEC constituents from excavation to final disposition.
- C. Take samples in such a manner as not to cause any cross-contamination. All sampling equipment shall be decontaminated between collection of samples from each location or stockpile or disposable trowels and containers employed. In-situ samples for site characterization and reuse/disposal considerations shall be discrete samples from a fill interval of no more than a 5 foot vertical interval or from a visually discrete layer of a test pit wall. For stockpiles, a minimum of 5 discrete samples, with the exception of volatile organic samples, shall be collected and composited from each stockpile. Discrete samples shall be collected at even spacing from within and around the stockpile. One composite sample shall be formed from the discrete samples collected from each stockpile.
- E. Submit a copy of all analyses to the Engineer within 2 days of receipt of the laboratory report. Analytical data shall be kept confidential, distributed only to Owner and the disposal facilities. A review period of one week should be anticipated for Engineer's review of analytical data.

3.06 DISPOSAL FACILITY TESTING

- A. The Contractor shall be responsible for characterizing the soil for the purpose of obtaining approvals for final disposal of contaminated, surplus and unsuitable soil and material. The Contractor shall collect soil samples to perform testing required by the disposal facility.
 - 1. Submit a copy of all analytical results to the Engineer within 2 days of receipt of the laboratory report. Analytical data shall be kept confidential, and distributed to the Owner and Engineer only. Engineer's review of data will be 2 days.
- B. Sampling of contaminated soil shall be accomplished at sufficient and adequately distributed locations so that the concentrations of the chemical constituents are adequately characterized.
- C. Coordinate schedule so that Engineer/LSP representative may observe sample collection.

3.07 WASTE PROFILES AND SHIPPING DOCUMENTS

- A. Prepare and submit to the Engineer for review all waste profiles, shipping papers, opinion letters, and coordinate with disposal facilities.
- B. Prepare all manifests and if necessary, land ban certifications. Submit these to the Engineer for review at least 7 days before transport. Engineer will be responsible for obtaining Owner's signature prior to said use.

- C. Prepare bill of lading forms and material shipping records. Submit these to the Engineer for review at least 7 days before transport. Engineer will sign as LSP on bill of lading and LSP opinion letter and will be responsible for obtaining Owner's signature prior to said use.
- D. Submit to Owner and the Engineer, prior to receiving progress payment, documentation certifying that all materials were transported to, accepted, and disposed of, at the selected receiving facility.
 - 1. Facility signed manifests and original bills of lading (forms BWSC-12A, -12B and -12C) and material shipping records.
 - 2. Certified tare and gross weights for each load.

END OF SECTION

ATTACHMENT G

SECTION 02125

TRANSPORTATION AND DISPOSAL OF CONTAMINATED MATERIAL

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, material, tools and equipment necessary for the transportation and disposal of contaminated materials generated from site construction activities. Contaminated materials include, but are not limited to: contaminated soil and groundwater; and floating product.
- B. The Contractor shall be responsible for determining the appropriate disposal location based on soil sampling and analysis results from Section 02117 and disposal facility testing results from this Section. Disposal determination will be subject to the Engineer's review.
- C. The Owner will be the generator and will sign all waste profiles, bills of lading and hazardous waste manifests. Owner information is as follows:

Owner's Name: Mr. Kevin Fitta
Owner's Title: Director of Capital Projects
Owner's Address: 600 Mount Pleasant Avenue, Providence, RI 02903
Owner's Telephone Number: 401-222-2797
Project Name: Whipple Hall Ejection Station Discharge Modification
Site Address: 600 Mount Pleasant Avenue, Providence, RI 02903

- D. For contaminated soil disposal, where more than one disposal option exists, the Contractor shall select the least costly disposal option.

1.02 RELATED WORK

- A. Contaminated Soil Excavation is included in Section 02117.
- B. Health and Safety Plan Requirements are included in Section 01103.

1.03 SUBMITTALS

- A. Submit, in accordance with Section 01300, all pertinent information relating to the transport and disposal of materials specified herein. The information submitted shall include the following:
 - 1. Transporter Information:
 - a. Name and address of common carrier transporters to be used on project.
 - b. Name and address of licensed hazardous waste transporters to be used on project. Provide current licenses and permits to operate in all states affected by transport. Provide current EPA transporter license.

2. Facility Information

a. General Information

- i. Facility Name
- ii. Facility Address
- iii. Name of Contact Person
- iv. Title of Contact Person
- v. Telephone Number of Contact Person
- vi. Permit Number

- b. The facility shall provide written confirmation that they are permitted to accept and will accept material of the general quality and quantity described by these Specifications.
- c. The facility shall provide a listing of all current and valid permits, licenses, letters of approval, and other authorizations to operate that they hold, pertaining to the receipt and management of materials specified in this Contract.
- d. Submit a complete list of the disposal facility's permitted allowable contaminant levels and physical characteristic requirements for contaminated material, and list any required regulatory approvals for individual waste streams.

- B. Provide the Engineer with originals of all hazardous waste manifests, non-hazardous waste manifests and bills of lading, and material shipping records, no less than 7 days in advance of shipping OHM off site.
- C. Submit to the Engineer, copies of all analytical data. Analytical data shall be kept confidential, and distributed to the Engineer only.
- D. Submit to the Engineer, electronically, within 48 hours of receipt of wastes at accepting disposal, recycling and reuse facilities, copies of facility-signed hazardous waste manifests, non-hazardous waste manifests, bills of lading and material shipping records.

1.04 DEFINITIONS

- A. In-State Landfill - This type of landfill shall be approved by the State of Rhode Island to handle soils classified as regulated by RIDEM Method 1 Residential Direct Exposure Criteria (RDEC).
- B. In-State Recycling Facility - This type of recycling facility shall be approved by the State of Rhode Island to handle soils classified as regulated by RIDEM Method 1 Residential Direct Exposure Criteria (RDEC).
- C. Out-of-State Landfill - This type of landfill shall be state approved or permitted to accept soil that is not classified as either a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR Part 261 or PCB waste as defined in 40 CFR 761. This type of landfill shall accept soil for disposal and reuse purposes.

- D. Out-of-State Recycling Facility - This type of facility shall be state approved or permitted to accept soil that is not classified as either a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR Part 261 or PCB waste as defined in 40 CFR 761.
- E. RCRA Landfill – This type of landfill shall be state and federally approved to accept soil that is classified as either a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR 261.
- F. RCRA TSD Facility – This type of facility shall be state and federally approved to accept soil that is classified as either a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR 261.
- G. TCLP Material – Soil, through Toxicity Characteristic Leaching Procedure (TCLP) analysis, that exceeds the regulatory limit established for any one or more RCRA contaminants set forth in Table 1 of 40 CFR 261.24.
- H. Listed Waste Material – Soil, through VOC analysis, that indicates the presence of any of F-code wastes set forth in 40 CFR 261.31 or U-code wastes set forth in 40 CFR 261.33.
- I. Disposal Facility – In-state Landfill, In-State Recycling Facility, Out-of-State Landfill, Out-of-State Recycling Facility, RCRA Landfill or RCRA TSD Facility.
- J. TSD – Treatment, storage and disposal.
- K. Underlying Hazardous Constituent (UHC) – As defined in 40 CFR 268.2, “Any constituent listed in 40 CFR 268.48, Table UTS – Universal Treatment Standards, except fluoride, selenium, sulfides, vanadium and zinc which can be reasonably expected to be present at the point of generations of the hazardous waste, at a concentration above the constituent-specific UTS treatment standard.” For this project, metals and PAHs are the UHCs, “reasonably expected” to be present above applicable UTS.
- L. Universal Treatment Standard (UTS) – Numerical standards set forth in 40 CFR 268.48, Table UTS – Universal Treatment Standards. Non-wastewater and wastewater treatment standard levels that are used to regulate most prohibited hazardous wastes. Applicable UTS for soils are defined in 40 CFR 268.49(c).

1.05 REGULATORY REQUIREMENTS

A. Rhode Island Department of Environmental Management

- 1. RIDEM – Rules and Regulation for Hazardous Waste Management
- 2. RIDEM – Rules and Regulation for the Investigation and Remediation of Hazardous Material Releases

B. United States Department of Environmental Protection (EPA)

- 1. Federal Hazardous Waste Regulations, 40 CFR 261-268.

- C. Disposal of TCLP material at RCRA Landfills is subject to all applicable provisions of the Phase IV Land Disposal Restrictions (LDR) of 40 CFR 268. The Work of this Section shall include all necessary supplemental treatment required to reduce concentrations of all Underlying Hazardous Constituents (UHCs) to levels below applicable Universal Treatment Standards (UTS) prior to landfill disposal.

PART 2 PRODUCTS

2.01 GENERAL

- A. All Contractor personnel shall wear personal protective equipment and protective clothing consistent with the levels of protection for this Work as indicated in the Health and Safety Plan described in Section 01103.

PART 3 EXECUTION

3.01 GENERAL

- A. The Owner will be the generator and will sign waste profiles, hazardous waste manifests, non-hazardous waste manifests, bills of lading and material shipping records.
- B. The Contractor shall identify appropriate disposal facilities and make all necessary arrangements for disposal of materials.

3.02 DISPOSAL FACILITY TESTING

- A. The Contractor shall be responsible for characterizing the soil (and groundwater, if required) for the purpose of obtaining approvals for final disposal of contaminated, surplus and unsuitable soil. The Contractor shall collect soil samples to perform testing required by the disposal facility.
 - 1. Submit a copy of all analytical results to the Engineer within 2 days of receipt of the laboratory report. Analytical data shall be kept confidential, and distributed to the Owner and Engineer only. Engineer's review of data will be 2 days.
 - 2. Disposal facility testing can be integrated into the stockpile testing specified in Section 02117.
- B. Sampling of contaminated soil shall be done at sufficient and adequately distributed locations so that the concentrations of the chemical constituents are adequately characterized.
- C. Coordinate schedule so that Engineer may observe sample collection.

3.03 WASTE PROFILES AND SHIPPING DOCUMENTS

- A. Prepare and submit to the Engineer for review all waste profiles, LSP opinion letters, and coordinate with disposal facilities.

- B. Prepare all manifests and if necessary, land ban certifications. Submit these to the Engineer for review at least 7 days before transport. Engineer will be responsible for obtaining Owner's signature prior to said use.
- C. Prepare bill of lading forms and material shipping records. Submit these to the Engineer for review at least 7 days before transport. Engineer will sign as LSP on bill of lading and LSP opinion letter and will be responsible for obtaining Owner's signature prior to said use.
- D. Submit to Owner and the Engineer, prior to receiving progress payment, documentation, including weight slips certifying that all materials were transported to, accepted, and disposed of, at the selected receiving facility.
 - 1. Facility signed manifests and original bills of lading (forms BWSC 112, BWSC 112A and BWSC 112B) and material shipping records.
 - 2. Certified tare and gross weights for each load.

3.04 TRANSPORT AND DISPOSAL

- A. The Contractor shall not be permitted to transport materials off-site until all disposal facility documentation has been received, reviewed, and accepted by Owner and the Engineer.
- B. Transport and dispose in accordance with all United States Department of Transportation (DOT), USEPA, RIDEM regulations and other regulations of all affected states.
- C. The Contractor shall be responsible for ensuring that free-liquid does not develop during transport. "Wet soils" shall not be loaded for transport. A representative sample from each truckload of waste material must pass the Paint Filter Liquids Test, SW - 846 EPA Method 9095B before transport off-site. The Contractor shall be responsible to properly dispose of any free liquids that may result during transportation.
- D. For TCLP Material, stabilize and reduce UHCs to below applicable UTS to comply with Phase IV of the Land Disposal Restrictions (LDR).
- E. The temporarily stored material must be removed from the site in accordance with applicable regulatory deadlines, however no later than the completion date of this Contract. Dispose of hazardous waste within 90 days of generation.
- F. All vehicles hauling wastes from the site shall be inspected prior to leaving the site. Vehicles with waste not properly covered or contained to prevent loss of material will not be allowed to leave the site.
- G. The Contractor shall perform vehicle inspection before leaving the site. All soil residues on the truck undercarriage shall be removed before leaving the site with residue collected and disposed of in accordance with applicable regulations. The Contractor shall prevent tracking of site soils onto public roads and shall be responsible for all actions necessary to properly remove and dispose of waste material spilled in transit or tracked off site; this action will be performed at the Contractor's expense.

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ADDENDUM 2
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END OF SECTION

ATTACHMENT H

ATTACHMENT I

Whipple Hall Ejection Station Discharge Project
 Sub-surface Soil Information

VHB Test Pit 3

^M	0 to 2 inches	Asphalt.
^C1	2 to 13 inches	Dark yellowish brown (10YR 4/4) gravelly sand (HTM).
Apb	13 to 21 inches	Very dark grayish brown (10YR 3/2) fine sandy loam, weak fine subangular blocky structure, friable, abrupt wavy boundary.
Bwb1	21 to 29 inches	Light olive brown (2.5Y 5/6) silt loam, weak fine subangular blocky structure, friable, clear wavy boundary.
Bwb2	29 to 34 inches	Light olive brown (2.5Y 5/6) silt loam with many medium and coarse yellowish brown (10YR 5/6) light olive brown (2.5Y 5/3), and grayish brown (2.5Y 5/2) redox features, weak fine subangular blocky structure, friable, clear wavy boundary.
2C1	34 to 42 inches	Light olive brown (2.5Y 5/3) gravelly loamy sand with common medium 2.5Y 5/4 redox features, structureless massive, friable, clear wavy boundary.
3C2	42 to 60 inches	Light yellowish brown (2.5Y 6/3) silt loam with many medium and coarse light olive brown (2.5Y 5/6), yellowish brown (10YR 5/6), and grayish brown (2.5Y 5/2) redox. features, structureless massive friable to slightly firm, clear wavy boundary.
4Cd3	60 to 114 inches	Light olive brown (2.5Y 5/3) fine sandy loam with light gray (2.5Y 7/2) and 2.5Y 5/4 redox features, structureless massive firm.

Described 1/17/2014, No free water observed.

Whipple Hall Ejection Station Discharge Project
 Sub-surface Soil Information

VHB Test Pit 4

^M	0 to 2 inches	Asphalt.
^C1	2 to 10 inches	Dark yellowish brown (10YR 4/4) gravelly sand (HTM).
Apb	10 to 13 inches	Very dark grayish brown (10YR 3/2) fine sandy loam, structureless massive, friable, abrupt wavy boundary.
Bwb1	13 to 16 inches	Yellowish brown (10YR 5/6) fine sandy loam, weak fine subangular blocky structure, friable, clear wavy boundary.
Bwb2	16 to 22 inches	Light yellowish brown (2.5Y 6/4) loamy sand, weak fine subangular blocky structure, friable, clear wavy boundary.
2C1	22 to 37 inches	Light olive brown (2.5Y 5/3) silt loam with many medium and coarse grayish brown (2.5Y 5/2) and 2.5Y 5/6 redox features, structureless massive, friable, abrupt wavy boundary.
3C2	37 to 61 inches	Light olive brown (2.5Y 5/3) gravelly loamy sand with common medium 2.5Y 5/4 silt skins on coarse fragment and redox features with same color as well as black (10YR 2/1) manganese masses, structureless massive friable to slightly firm, clear wavy boundary.
4Cd3	61 to 114 inches	Light olive brown (2.5Y 5/3) loamy sand with sandy loam masses and common medium 2.5Y 5/4 redox features, structureless massive firm.

Described 1/17/2014, No free water observed.

Whipple Hall Ejection Station Discharge Project
 Sub-surface Soil Information

VHB Test Pit 5

^M	0 to 3 inches	Asphalt.
^C1	3 to 14 inches	Dark yellowish brown (10YR 4/4) loamy sand (HTM).
Apb	14 to 23 inches	Very dark grayish brown (10YR 3/2) sandy loam, structureless massive, friable, clear wavy boundary.
Bwb	23 to 30 inches	Light olive brown (2.5Y 5/4) silt loam with common medium and coarse 2.5Y 5/3 redox features, weak fine subangular blocky structure, friable, clear wavy boundary.
C1	30 to 96 inches	Light olive brown (2.5Y 5/4) silt loam with common medium and coarse light brownish gray (2.5Y 6/2), yellowish brown (10YR 5/6) and brown (7.5YR 4/4) redox features, structureless massive, friable, abrupt wavy boundary.
2Cd2	96 to 122 inches	Light olive brown (2.5Y 5/3) silt loam with common medium and coarse light brownish gray (2.5Y 6/2), yellowish brown (10YR 5/6) and brown (7.5YR 4/4) redox features, structureless massive friable to slightly firm.

Described 1/17/2014, No free water observed.