STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

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June 14, 2012

ADDENDUM NUMBER THREE

RFQ # 7449729

TITLE: CONSTRUCTION OF THE MARINE LOGISTICS SUPPORT FACILITY, URI

Closing Date and Time: 6/19/12 at 1:45 PM

Per the issuance of this ADDENDUM # 3
(29 pages, including this cover sheet)

[X] **Specification Change /Addition / Clarification**

DOCUMENT 00900 - ADDENDA AND MODIFICATIONS

ADDENDUM NO. 3 – June 12, 2012

FROM: Lamborghini/ Feibelman Ltd.
14 Imperial Place, Suite 201
Providence, RI 02903

TO: Prospective Bidders

This Addendum forms a part of the Contract Documents and modifies the Bidding Documents issued March 16, 2012, Addendum #1 and Addendum #2 with amendments and additions noted below.

Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.

This Addendum consists of four pages, and the following Documents:

No.	Description	Issue Date	Number of pages
	Sign-in Sheet Pre-Bid Meeting 6-12-12	June 12, 2012	1
00410	Bid Form	June 6, 2012	3
01201	Price and Payment Procedures Attachment A	June 6, 2012	2
RIDOT 9.90	Construction Access	June 15, 1998	1
	Soil Condition Report	March 17, 2011	17

QUESTIONS AND ANSWERS

Two mandatory pre-bid meetings were held at CACS 111, one on May 31, 2012 at 10:30 am, the second at 10 am on June 12, 2012. The Sign-in Sheet for the May 31, 2012 meeting was issued with addendum #2; and the Sign-in Sheet for the June 12, 2012 meeting is attached to this addendum.

The following questions were asked at the Pre-Bid Meetings or were received during the Bidding period.

1. Question: Document 00710-3, Article 8 indicates that the project will use the Superintendent form of Project Management. Paragraph 3.9.2 of Document 00700 describes this form of supervision and indicates that the Superintendent shall not work with tools or perform actual trades Work. May the superintendent perform work?

   Answer: The Superintendent's primary responsibility shall be the supervision of the work of all of the workers and subcontractors on site. However, for this project, the Superintendent, in addition to supervisory responsibilities shall be permitted to perform work.

2. Question: What is the requirement for a vehicle washdown facility?

   Answer: Refer to Section 02100, Article 3.06, "Vehicle Washdown Facility." Sediment shall be controlled in accordance with the RICRMC permit and Rhode Island Erosion and Sediment Control Handbook, reference Section D, pages 5-8. See attached RI Standard Detail for construction entrance. Provide a water hose for wash down if necessary.

3. Question: Section 01500 requires the provision of a 6-foot high chain link fence. Where shall this be located? Are there other areas of the site available to the contractor for parking and storage?

   Answer: The fence shall be constructed approximately 10-15 feet from proposed building along the south and east sides and approximately 30 feet from the building along the west and north sides. The Owner will permit the contractor to use an existing rough graded area to the south of the site for parking and storage. Contractor shall grade and secure that area as required. Maintain access for Owner's ongoing operations at the Perkins Building.

4. Question: Refer to concrete curb detail 2/S1.3. Is this detail used? If so, where?

   Answer: This detail is not used. Delete it.

5. Question: Refer to concrete pad detail at 1/S1.3. Is this detail used? If so, where?

   Answer: Concrete pad detail is not used. Delete it.

6. Question: Drawing A1.1, West Elevation, note refers to detail 4 for windows. Provide window detail.

   Answer: No window details for these fixed windows are offered as the detail varies depending on manufacturer. Refer to Project Manual. The intent of the note on the West Elevation was to refer to window note that indicates "Provide flashing, framing, and trim to suit."

7. Question: Refer to Drawings M1.1, P1.1, and E1.1. These drawings show Column 3-line partition as alternate. If so, which alternate as this in conflict with Drawing A1.1 which shows this partition as base bid.

   Answer: This partition is Base Bid.

8. Question: Drawing A1.1. Provide detail at drywall construction to floor. Is concrete curb required per detail 2/S1.3? Is special finish required eg: vinyl base?

   Answer: At drywall construction to floor, secure stud track to concrete and provide gypsum board partition as indicated. Along both sides of partitions, provide 4" cove vinyl base. Base shall be 1/8" thick, color -black. Manufacturer shall be Armstrong, Roppe, Burke or Johnsonite.

9. Question: Drawing A1.1. At Detail 6/A1.1, explain the reference to an alternate.

   Answer: Delete reference to Alternate. This detail applies to partitions along column lines 3 and 4 and describes Base Bid work.

10. Question: Drawing C1.2 shows new utility pole with new underground electrical service. Drawing E0.1 shows existing pole 6 to remain with new service to this pole. Please coordinate to show if new pole is required and if existing pole 6 remains or is to be removed.

    Answer: National Grid will determine whether new pole is required. For Bidding Purposes, assume new service will come from existing pole.

11. Question: Spec Section 02315-1.06a states soils investigation reports and data are included in the contract documents. Please forward documentation.

    Answer: See attached seventeen page Soil Conditions Report.

12. Question: The specification on sheet E2.4 calls for the fire alarm devices to be addressable while the drawing E1.1 clearly calls for several devices to be conventional. Is this system intended to be an all conventional or all addressable fire alarm system?

    Answer: The Fire Alarm System is an addressable system. However, addressable devices are temperature sensitive. Therefore, in the unheated spaces of the building, conventional devices are indicated. These conventional devices are tied into the addressable fire alarm system via addressable monitor modules. In the heated space, there are addressable devices as well as the monitor modules serving the conventional devices.

CHANGES TO PROJECT MANUAL

DOCUMENT 00410 – BID FORM

13. Delete Document 00410- Bid Form, and insert new Document 00410- Bid Form, revised 6/6/12, issued as part of this Addendum.

SECTION 01200 - PRICE AND PAYMENT PROCEDURES

14. Delete Article “1.04 TESTING AND INSPECTION ALLOWANCE” and insert the following Article and Subparagraphs in its place.

“1.04 TESTING AND INSPECTION ALLOWANCES

A. Costs Included in Testing and Inspecting Allowances: Cost of engaging a testing and inspecting agency; execution of tests and inspecting; and reporting results.

B. Costs Not Included in the Testing and Inspecting Allowance But Included in the Contract Sum:
   Costs of incidental labor and facilities required to assist testing or inspecting agency.
   Cost of testing services used by Contractor separate from Contract Document Requirements.
   Costs of retesting upon failure of previous tests as determined by Architect.

C. Payment Procedures:
   1. Submit one copy of the inspecting or testing firm’s invoice with each copy of the next application for payment.
   2. Pay invoice on approval by Architect.

D. Testing and Inspecting Allowances Schedule:
   1. See Attachment A."

SECTION 01200 - PRICE AND PAYMENT PROCEDURES- Attachment A

15. Delete 01201 - Attachment A and insert new 01201 Attachment A, revised June 6, 2012.

SECTION 01400 – QUALITY REQUIREMENTS

16. In Article 1.06 TESTING AND INSPECTION SERVICES, delete Paragraph 1.06A and substitute the following:

    "A. The Contractor will submit the name of an independent firm to the Architect for approval by the Owner, to perform the testing and inspection services. The Contractor shall pay for the services from the Testing and Inspection Allowance described in Section 01200 and specified in 01201 Attachment A."

CHANGES TO THE DRAWINGS

DRAWING E1.1 – ELECTRICAL FLOOR PLANS

17. In Room 101, remove the Fire Alarm connected multi-sensor, and replace it with a fire alarm system connected smoke detector.

DRAWING E2.3 – FIRE ALARM SPECIFICATIONS, SHEET 1 OF 2

18. In Section 2.1A of the specifications, eliminate EST3 as an acceptable manufacturer.

END OF ADDENDUM NO. 3

OFFICE OF CAPITAL PROJECTS
MEETING ATTENDANCE FORM

#7449729

PROJECT: ML Support Facility

SUBJECT: Pre Bid Meeting

LOCATION: URI Meeting Room @ Bay Campus. Rm 111 CASS

DATE: 6/12/12

NAME	REPRESENTING	ADDRESS(e-mail) & TELEPHONE
Robert C Schultz	URI	RSCHULTZ@URI.edu 874.4845
Barbara Feibelman	URI	BRPALA@AOL.COM 272-4505
Jeffrey Callahan	URI	callahan@gso.uri.edu
Mark Menard	Nadeau Corporation	mmenard@nadeaucorp.com 508-399-6776 / 508-326-8527

DOCUMENT 00410 - BID FORM

Date: _____

To: The Department of Administration, Division of Purchases
One Capitol Hill, Providence, RI 02908

Project: Marine Logistics Support Facility
University of Rhode Island, Narragansett Bay Campus

Submitted by: _____
(include address,
tel. & FAX nos., _____
and license no.
if applicable)_____

1. BID
Having examined the Place of The Work and all matters referred to in the Bid Documents and in the Contract Documents prepared by the Design Agent or Owner's Representative for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of:

_____($ _____.)
(written, and numerically)

- We have included the specified Inspection and Testing Allowances, from Section 01200 in Division 1 of the Specifications, in the above Bid Sum.

  Inspection and Testing Allowance: $ 20,000.

- We have included the required Bid security in the above Bid Sum. We have included 100% Payment and Performance Bonds in the above Bid Sum.

- We have included the original Bid and required additional **"public copy"** if required by Document 00210 – Supplemental Instructions to Bidders.

2. ALTERNATES

We propose to modify the above Bid Sum by the following amount(s) as identified by (a) numbered Alternative(s) specified in Section 01200 of the Specifications, and as may be selected by the Owner:

Add Alternate A (described on drawings and elsewhere as Alternate #3) - Rack Storage
Add: _____ ($_____)

Add Alternate B (described on drawings and elsewhere as Alternate #4) - Sink and Associated Work
Add: _____ ($_____)

Add Alternate C (described on drawings and elsewhere as Alternate #1)- Additional Unit Heater and Additional Roof and Wall Insulation at Room 103.
Add: _____ ($_____)

Add Alternate D (described on drawings and elsewehere as Alternate #2) - Additional Roof and Wall Insulation at Room 102.
Add: _____ ($_____)

Add Alternate E (described on drawings and elsewhere as Alternate #5) – "Special Weathertightness Warranty for Standing-Seam Metal Roof Panels"
Add: _____ ($_____)

3. ACCEPTANCE

This offer shall be open to acceptance and is irrevocable for sixty days from the bid closing date. If this bid is accepted by the Owner within the time period stated above, we will:

- Proceed under the Agreement, subject to compliance with required State regulatory agency approvals as described in the Bid Documents.
- Furnish the required bonds in compliance with amended provisions of the Instructions to Bidders.
- Commence work within seven days after receipt of a Purchase Order from URI Purchasing.

If this bid is accepted within the time stated, and we fail to commence the Work, or we fail to provide the required Bonds, the security deposit shall be forfeited as damages to the Owner by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.*

In the event our bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.*

4. CONTRACT TIME

If this Bid is accepted, we will achieve Substantial Completion of the Work by 240 calendar days after issuance of Purchase Order. We have included all premium time or additional staffing required to accommodate this schedule.

6. LIQUIDATED DAMAGES, TIME IS OF THE ESSENCE
If we fail to achieve certification of Substantial Completion at the expiration of the agreed upon Contract Time indicated above, we acknowledge that we will be assessed Liquidated Damages for each calendar day the project continues to be in default of Substantial Completion, as follows:

$ 500 per calendar day.

7. REQUIREMENT FOR LICENSE NUMBER
In compliance with the requirements of Rhode Island General Law, Section 5-65-23, my Rhode Island license number for the work to be performed by this firm as prime contractor is:

LICENSE NUMBER: _____ .

8. ADDENDA
The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.

Addendum No. 1, dated _____

Addendum No. 2, dated _____

Addendum No. 3, dated _____,

Etc.

9. BID FORM SIGNATURE(S)

_____
(Bidder's name)

By: _____

Title: _____

Corporate Seal:

END OF DOCUMENT

Section 01200 - Attachment A

A. Contingency Allowances

1. None required.

B. Cash Allowances

1. None Required

C. Unit Prices

1. None Required

D. Testing and Inspection Allowance:

1. Include the sum of $20,000. for payment of testing for soil, compaction, concrete and steel testing.

E. Alternates. Note that the Drawings and other sections of the Project Manual refer to these alternates by the numerical indication that is offered in parentheses below. If alternates are accepted, the Owner will accept one or more alternates in the alphabetical order listed below.

2. Add Alternate A (described on drawings and elsewhere as Alternate # 3)- Rack StorageAt Rooms 101 and 102, provide rack storage as indicated.

3. Add Alternate B (described on drawings and elsewhere as Alternate # 4)- Sink and Associated Work :
Provide site work associated with the provision of sanitary sewer line. At Room 101, provide sink, hot water heater, and associated plumbing and electrical work.

4. Add Alternate C (described on drawings and elsewhere as Alternate # 1)- Additional Unit Heater and Associated Work:
At Room 103, provide unit heater, thermostat, gas piping, electrical work, and other associated work. At Room 103, provide additional insulation at roof and exterior walls. Refer to Metal Wall and Roof Insulation Schedule on the Drawings for insulation requirements.

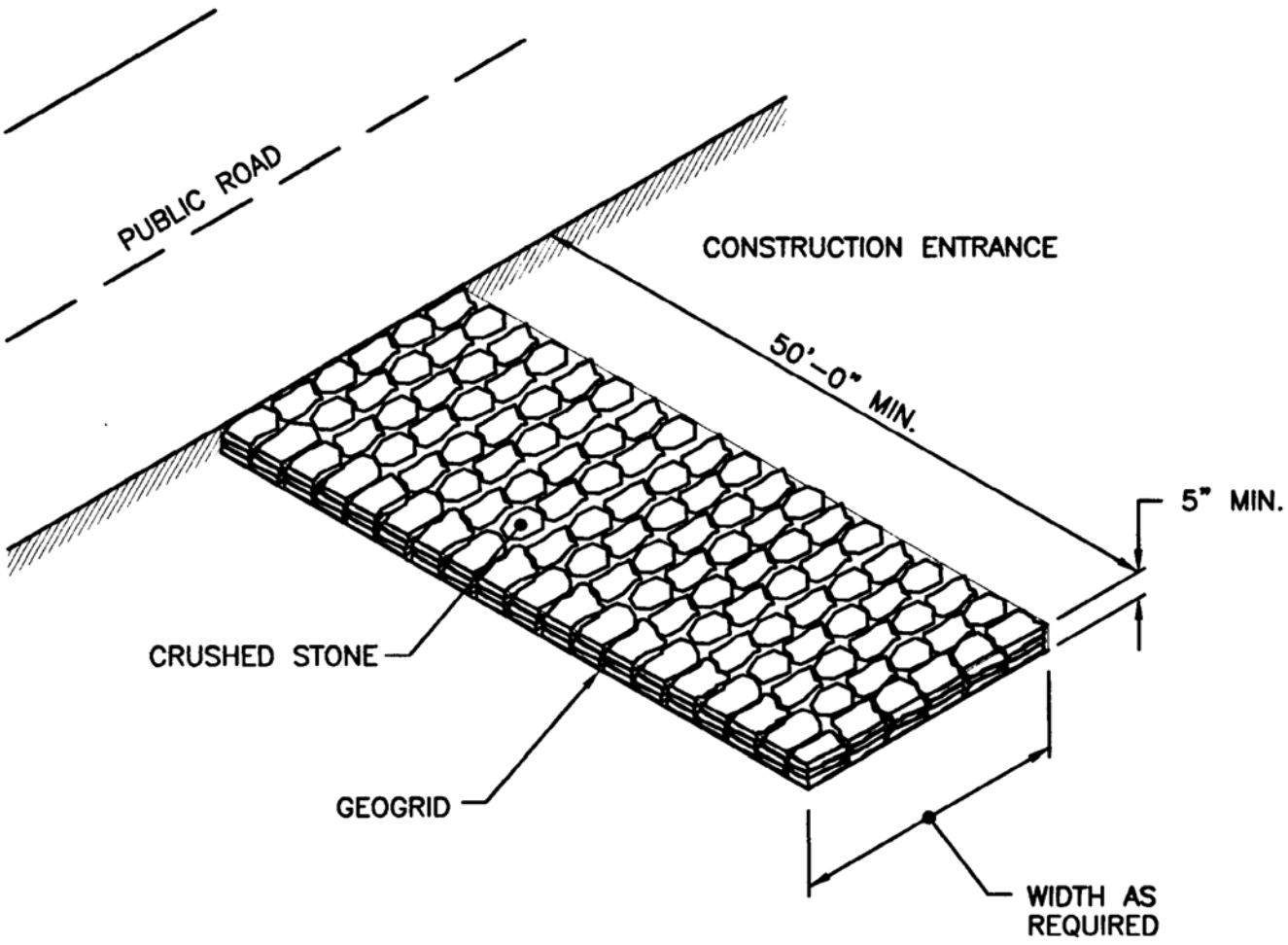
5. Add Alternate D (described on drawings and elsewhere as Alternate # 2)- Additional Insulation:
At Room 102, provide additional insulation at roof and exterior walls. Refer to Metal Wall and Roof Insulation Schedule on the Drawings for insulation requirements.

6. Add Alternate E (described on drawings and elsewhere as Alternate # 5)- Special Weathertightness Warranty for Metal Roof Panels:
Provide special warranry as specified in section 133419 Metal Building Systems.

E. Payroll Reporting

1. Forms for the submission of Certified Payroll Records may be found from the Rhode Island Prevailing Wage Website in either PDF or Excel formats. These forms must be used on monthly submittals.

END OF ATTACHMENT



NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

CONSTRUCTION ACCESS

CHIEF ENGINEER TRANSPORTATION

CHIEF DESIGN ENGINEER TRANSPORTATION

JUNE 15, 1998
ISSUE DATE

R.I. STANDARD 9.9.0

Soil Condition Assessment and Seasonal High Groundwater Estimation
Proposed Marine Storage Building
URI – Bay Campus
Pier Road
Narragansett, Rhode Island

Soil Condition Assessment

According to the National Resource Conservation Service (NRCS) Web Soil Survey (WSS) the soils within the area are classified as Pittstown Silt Loam (PmB). According to the NRCS soil descriptions, PmB soils are moderately drained soils with a depth to water of about 18 to 36 inches. NRCS classifies the flooding frequency and ponding frequency as. The NRCS PmB description sheet is attached to this report.

GRA met Bruce Vallone of Odeh Engineers, Inc. (Odeh) at the site on March 17, 2011. Mr. Vallone had a copy of a plan that showed the proposed Marine Storage Building and existing stormwater and sanitary sewer piping. Representatives of URI were on-site and located an underground electric line that runs from the southeast corner of the uphill building to the northeast corner of the Quonset hut storage building.

The soils in the four test pit locations appeared to be consistent with the Pittstown Silt Loam soil description. Test pits TP-1 and TP-2 appeared to have fill above the natural soil. In general, a twelve inch thick silt loam A horizon was present in each test pit. Test pits TP-1 and TP-4 had a one-foot thick fine sand layer present at two to three feet below grade. This sand layer was not observed in test pits TP-2 and TP-3. A very dense silt loam C horizon was present in all four test pits at depths ranging from 3.5 to 6 feet below grade. This C horizon continued to the bottom of each test pit. Pieces of broken shale and some shale cobble sized fragments were present in the C horizon. rous cobbles and occasional boulders was then present to the bottom of the test pits. Soil Suitability Evaluation forms for each test pit are appended to this report. The test pit locations are shown on the attached plans.

TP-2 and TP-3 are located at the downgradient side of the proposed building location. These two test pits were representative of soil conditions in areas where a potential stormwater infiltration system would be located. GRA attempted to complete a falling head permeability test at TP-2 at a depth of 30 inches below grade. However, due to the dense material and the numerous broken shale and cobble sized fragments the test could not be completed. GRA then excavated a twelve-inch diameter hole and completed a percolation type test to evaluate soil permeability. After saturation the water level in the percolation test hole dropped ½-inch in 12 minutes.

According to the Rhode Island Stormwater Design and Installation Standards Manual dated December 2010 the field infiltration rate and a factor of safety of 2 shall be used to determine the design infiltration rate. The design infiltration rate would be 0.25 inches in twelve minutes or 1.25 inches per hour. The design infiltration rate is above the Manual's Stormwater Infiltration Practices minimum feasible soil infiltration rate of 0.5 inches per hour.

Soil Condition Assessment and Seasonal High Groundwater Estimation
Proposed Marine Storage Building
URI – Bay Campus
Pier Road
Narragansett, Rhode Island

Seasonal High Groundwater Estimation

Groundwater was not encountered in any of the test pits. Mottling was not observed in any test pit. Bedrock was not encountered in any test pit.

The estimated depth to seasonal high groundwater is estimated to be 10 feet below grade. It should be noted that there is the potential for a perched water table above the very dense C horizon.

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Soil Condition Assessment and Seasonal High Groundwater Estimation
Proposed Marine Storage Building
URI - Bay Campus
Pier Road
Narragansett, Rhode Island

Site Locus Map

Test pits 03-17-11 at Bay Campus

Soil Condition Assessment and Seasonal High Groundwater Estimation
Proposed Marine Storage Building
URI – Bay Campus
Pier Road
Narragansett, Rhode Island

NRCS WSS Soil Classification Map

Soil Map—State of Rhode Island: Bristol, Kent, Newport, Providence, and Washington Counties
(URI Bay Campus - Marine Storage Building)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:693 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 19N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Rhode Island: Bristol, Kent, Newport, Providence, and Washington Counties
Survey Area Data: Version 7, Dec 8, 2010

Date(s) aerial images were photographed: 7/19/2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

State of Rhode Island: Bristol, Kent, Newport, Providence, and Washington Counties (RI600)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CaD	Canton-Charlton-Rock outcrop complex, 15 to 35 percent slopes	0.0	2.8%
PmB	Pittstown silt loam, 3 to 8 percent slopes	1.7	97.2%
Totals for Area of Interest		**1.7**	**100.0%**

Soil Condition Assessment and Seasonal High Groundwater Estimation
Proposed Marine Storage Building
URI – Bay Campus
Pier Road
Narragansett, Rhode Island

NRCS Soil Classification Description

LOCATION PITTSTOWN MA NH NY RI VT

Established Series
Rev. DGG-WHT-DAS
03/2010

PITTSTOWN SERIES

The Pittstown series consists of moderately well drained soils formed in lodgement till derived mainly from slate, phyllite, shale, and schist. These soils are very deep to bedrock and moderately deep to a densic contact. They are nearly level through moderately steep soils on uplands. Slope ranges from 0 through 25 percent. Saturated hydraulic conductivity is moderately high or high in the mineral solum and moderately low or moderately high in the substratum. Mean annual temperature is about 49 degrees F. (9 degrees C.), and mean annual precipitation is about 45 inches (1143 millimeters).

TAXONOMIC CLASS: Coarse-loamy, mixed, active, mesic Aquic Dystrudepts

TYPICAL PEDON: Pittstown loam, cultivated field. (Colors are for moist soil unless noted.)

Ap--0 to 10 inches (0 to 25 centimeters); very dark grayish brown (10YR 3/2) loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; 10 percent phyllite fragments; very strongly acid; abrupt smooth boundary.

Bw1--10 to 18 inches (25 to 46 centimeters); olive brown (2.5Y 4/4) loam; weak medium granular structure; friable; 10 percent phyllite fragments; very strongly acid; abrupt smooth boundary.

Bw2--18 to 29 inches (46 to 74 centimeters); olive (5Y 4/3) channery loam; massive; friable; 15 percent phyllite fragments; common medium prominent dark yellowish brown (10YR 4/4) masses of iron accumulations and common medium distinct gray (5Y 5/1) iron depletions; very strongly acid; abrupt smooth boundary.

Cd--29 to 65 inches (74 to 165 centimeters); olive (5Y 5/3) channery loam; massive; very firm, brittle; 20 percent phyllite fragments; many coarse prominent dark yellowish brown (10YR 4/4) masses of iron accumulation and many coarse distinct olive gray (5Y 5/2) iron depletions; very strongly acid.

TYPE LOCATION: Bristol County, Massachusetts; Town of Somerset, 400 feet north of Wilbur Avenue, and 900 feet east of Brayton Point Road. Fall River, MA quadrangle: Latitude 41 degrees, 43 minutes, 25 seconds N. and Longitude 71 degrees, 10 minutes, 35 seconds W., NAD 1927.

RANGE IN CHARACTERISTICS: Thickness of the mineral solum and depth to dense substratum ranges from 20 through 30 inches (50 through 76 centimeters), but the range currently includes 15 through 30 inches (38 through 76 centimeters). Depth to redoximorphic features ranges from 15 through 24 inches (38 through 60 centimeters). The solum in the fine earth fraction is silt loam, loam, or very fine sandy loam with more than 65 percent silt plus very fine sand. Rock fragments consist of dark phyllite, slate, and schist. Rock fragments, by volume, larger than 10 inches range from 0 through 20 percent in the surface and 0 through 5 percent in the subsoil and substratum. 3 through 10 inch size fragments range from 0 through 15 percent in surface, 0 through 10 percent in the subsoil, and 0 through 15 percent in the substratum. Fragments less than 3 inches range from 5 through 25 percent in the surface, 5 through 25 percent in the subsoil, and 15 through 30 percent in the substratum. The soil,

below the A or Ap horizon and above a depth of 30 inches (76 centimeters), is very strongly acid through moderately acid where not limed, and ranges from very strongly acid through slightly acid below a depth of 30 inches (76 centimeters).

Some pedons have an O horizon underlain by a thin A horizon. The A horizon has hue of 10YR, value of 2 or 3, and chroma of l through 3.

The Ap horizon, where present, has hue of 10YR, value of 2 through 4, and chroma of 2 or 3. Structure is granular. Consistence is friable or very friable.

Some pedons have a thin E horizon.

The upper part of the Bw horizon has hue of 7.5YR through 2.5Y, value of 4 or 5, and chroma of 3 through 6. The lower part of the Bw horizon has hue of 2.5Y or 5Y, value of 4 or 5, and chroma of 3 through 6. Redoximorphic depletions and concentrations are few or common in the upper part of the Bw and from few to many in the lower part. Structure commonly is blocky or granular. Consistence is friable or very friable.

Some pedons have a friable BC or C horizon above the Cd horizon. They have hue of 10YR through 5Y, value of 4 or 5, and chroma of 2 through 4. Texture is similar to the Cd horizon.

The Cd horizon has hue of 10YR through 5Y, value of 4 or 6, and chroma of 2 through 4. It is silt loam, very fine sandy loam, or loam in the fine-earth fraction. It is firm through extremely firm. The horizon is normally massive, but may have weak plate-like divisions.

COMPETING SERIES: These are the Chautauqua, Pompton, Rainbow, Sutton, Wapping, Wilbraham, and Woodbridge series. Chautauqua, Pompton, Sutton, and Wapping soils do not have densic materials in the substratum. Ludlow soils have hue of 5YR or redder in the Bw horizon. Rainbow soils have a lithologic discontinuity. Woodbridge soils have less than 65 percent silt and very fine sand in the B horizon. Wilbraham soils are poorly drained, but formed in reddish parent material so that they do not exhibit the low chroma matrix colors required for Aquepts.

GEOGRAPHIC SETTING: Pittstown soils are nearly level through moderately steep soils on glaciated uplands. Slope ranges from 0 through 25 percent. The soils developed in loamy till derived principally from dark phyllite, slate, or schist. Mean annual air temperature ranges from 45 through 52 degrees F. (7 through 11 degrees C.), and mean annual precipitation ranges from 40 through 50 inches (1016 through 1270 millimeters). The frost-free period ranges from 120 to 180 days.

GEOGRAPHICALLY ASSOCIATED SOILS: The well drained Bernardston, poorly drained Stissing, and very poorly drained Mansfield soils are associated in a drainage sequence. The excessively drained Quonset and the somewhat excessively drained Warwick soils are on nearby outwash plains, terraces, eskers, and kames. The well drained Dutchess soils, which do not have a dense substratum, the shallow to bedrock Nassau and Kearsarge soils and the moderately deep to bedrock Cardigan soils are closely associated on the uplands.

DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY: Moderately well drained. Surface runoff is medium. Saturated hydraulic conductivity is moderately high or high in the mineral solum and moderately low or moderately high in the substratum.

USE AND VEGETATION: Mostly forested. Cleared areas are used for growing hay and pasture in

support of dairy farming. Principal trees are northern red, white and scarlet oak, red and sugar maple, gray and yellow birch, white ash, eastern white pine, and eastern hemlock.

DISTRIBUTION AND EXTENT: Glaciated uplands in Massachusetts, New Hampshire, Rhode Island, Vermont, and eastern New York. MLRA 144A. The series is of moderate extent, estimated to be about 96,000 acres.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Amherst, Massachusetts.

SERIES ESTABLISHED: Sullivan County, New York, 1938.

REMARKS: This revision reflects changes to the range in characteristics as well as general updating to metric units. In the past, the Pittstown series was mapped in areas that are now considered frigid. These areas require investigation are not included in the modern range of the series.

Diagnostic horizons and features recognized in this pedon are:
1. Ochric epipedon - the zone from 0 to 10 inches (0 to 25 centimeters) (Ap horizon).
2. Cambic horizon - the zone from 10 to 29 inches (25 to 74 centimeters) (Bw horizons).
3. Densic material- the zone from 29 through 65 inches (74 through 165 centimeters) (Cd horizon).
4. Aquic subgroup - presence of low chroma iron depletions at 18 inches (46 centimeters) (Bw1 horizon).
5) Particle-size control section - the zone from 10 through 29 inches (25 through 74 centimeters) (Bw horizons).

ADDITIONAL DATA: Full characterization data for sample no. 78NH005025 and 78NH019010. Pedons analyzed by the NSSL, Lincoln, NE.

National Cooperative Soil Survey
U.S.A.

Soil Condition Assessment and Seasonal High Groundwater Estimation
Proposed Marine Storage Building
URI – Bay Campus
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Narragansett, Rhode Island

Test Pit Soil Descriptions

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Department of Environmental Management
Office of Water Resources

Site Evaluation Form
Part A - Soil Profile Description

Application Number _____

Property Owner: URI
Property Location: Bay Campus SW of Perkins Small Boat Facility
Date of Test Hole: 03-17-11
Soil Evaluator: Steven Caderette License Number: _____
Weather: Sunny 55°F Shaded: Yes ☐ No ☑ Time: _____

TH 3 Horizon	Depth	Horizon Boundaries Dist	Horizon Boundaries Topo	Soil Colors Matrix	Soil Colors Re-Dox Features	Re-Dox Description Ab. S. Con.	Texture	Structure	Consistence	Soil Category
A	12			10YR 2/2	None		sil	ofm	l	
B_1	24	C	W	2.5Y 3/2	None		sil	ofm	l	
B_2	39	C	W	10YR 6/6	None		fsl	ofm	l	
C	120	C	W	2.5Y 3/2	None		gsil	zf sbk	l	

TH 4 Horizon	Depth	Horizon Boundaries Dist	Horizon Boundaries Topo	Soil Colors Matrix	Soil Colors Re-Dox Features	Re-Dox Description Ab. S. Con.	Texture	Structure	Consistence	Soil Category
A	12			10YR 3/2	None		sil	ofm	l	
B_1	36	C	W	2.5Y 3/2	None		gsil	ofm	l	
C_1	44	C	W	2.5Y 4/2	None		s	ofm	l	
C_2	138	C	W	2.5Y 3/3	None		gsil	zf sbk	l	

Soil Class: A Ledgement Till
Depth to Groundwater Seepage: None observed
Estimated Seasonal High Water Table: TP-3 39" TP-4 44"
Perched water table likely e B/C horizon interface

Total Depth of each Test Hole: TP-3 120" TP-4 138"
Depth to Impervious or Limiting Layer: Not reached
Comments: _____

Part B

Site Evaluation - to be completed by Class II or III Designer or Soil Evaluator

Please use the area below to locate:

1. Test holes
2. Approximate direction of due north
3. Offsets from test holes to fixed points such as street, utility pole, or other permanent, marked object

Key:
- Approximate location of test holes
- x% Estimated gradient and direction of slope
- N Approximate direction of due north

See attached plan

1. Relief and Slope: Slope to east
2. Presence of any watercourse, wetlands or surface water bodies, within 200 feet of test holes: YES☐ NO☐ If yes, locate on above sketch.
3. Presence of existing or proposed private drinking water wells within 200 feet of test holes: YES☐ NO☑ If yes, locate on above sketch.
4. Public drinking water wells within 500 feet of test holes: YES☐ NO☑ If yes, locate on above sketch.
5. Is site within the watershed of a public drinking water reservoir or other critical area defined in SD 19.00? YES☐ NO☑
6. Has soil been excavated from or fill deposited on site? YES☑ NO☐ If yes, locate on above sketch.
7. Site's potential for flooding or ponding: NONE☑ SLIGHT☐ MODERATE☐ SEVERE☐
8. Landscape position: Test pits 3 & 4 on side hill location
9. Vegetation: TP-3 & TP-4 grass vegetation TP-3 also had cut small brush
10. Indicate approximate location of property lines and roadways.
11. Additional comments, site constraints or additional information regarding site:

Certification

The undersigned hereby certifies that all information on this application and accompanying forms, submittals and sketches are true and accurate and that I have been authorized by the owner(s) to conduct these necessary field investigations and submit this request.

Part A prepared by: Signature License #

Part B prepared by: Signature License #

FOR OFFICE USE ONLY

Decision: Approved ☐ Disclaimed ☐

Comments:

Signature Authorized Agent Date

revised 5/8/01

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Department of Environmental Management
Office of Water Resources

Site Evaluation Form
Part A - Soil Profile Description

Application Number _____

Property Owner: URI
Property Location: Bay Campus - SW of Perkins Small Boat Facility
Date of Test Hole: 03-17-11
Soil Evaluator: Steve Caderette License Number: _____
Weather: Sunny 55°F Shaded: Yes ☐ No ☑ Time: AM

TH 1 Horizon	Depth	Horizon Boundaries Dist	Horizon Boundaries Topo	Soil Colors Matrix	Soil Colors Re-Dox Features	Re-Dox Description Ab. S. Con.	Texture	Structure	Consistence	Soil Category
F	30			10YR 6/4	None		sl	o Mm	l	2
A	43	a	b	10YR 3/1	None		sil	o f m	l	2
B	55	c	w	10YR 4/2	None		sil	o f m	l	8
C_1	75	c	w	2.5Y 6/2	None		s	o f sg	l	2
C_2	120	c	w	2.5Y 4/2	None		gsil	2 f sbk	fr	5

TH 2 Horizon	Depth	Horizon Boundaries Dist	Horizon Boundaries Topo	Soil Colors Matrix	Soil Colors Re-Dox Features	Re-Dox Description Ab. S. Con.	Texture	Structure	Consistence	Soil Category
F_1	3			10YR 4/2	None		sil	o Mm	l	2
F_2	9	a	b	10YR 5/6	None		s	o M sg	l	2
B_1	30	a	b	2.5Y 4/2	None		gsil	2 f sbk	fr	5
B_2	60	c	w	10YR 4/2	None		gsil	2 f sbk	fr	5
C	120	c	w	2.5Y 4/2	None		vgs.l	2 f sbk	fr	5

Soil Class: A Lodgement till
Total Depth of each Test Hole: TP-1 120" TP-2 120"
Depth to Groundwater Seepage: None observed
Depth to Impervious or Limiting Layer: Not encountered
Estimated Seasonal High Water Table: TH-1 55" TH-2 60"
Comments: Perched water table likely at B/C horizon interface

Part B

Site Evaluation - to be completed by Class II or III Designer or Soil Evaluator

Please use the area below to locate:

1. Test holes
2. Approximate direction of due north
3. Offsets from test holes to fixed points such as street, utility pole, or other permanent, marked object

Key:
- Approximate location of test holes
- x% → Estimated gradient and direction of slope
- N Approximate direction of due north

See attached plan

1. Relief and Slope: Slope to east
2. Presence of any watercourse, wetlands or surface water bodies, within 200 feet of test holes: YES☐ NO☐ If yes, locate on above sketch.
3. Presence of existing or proposed private drinking water wells within 200 feet of test holes: YES☐ NO☒ If yes, locate on above sketch.
4. Public drinking water wells within 500 feet of test holes: YES☐ NO☒ If yes, locate on above sketch.
5. Is site within the watershed of a public drinking water reservoir or other critical area defined in SD 19.00? YES☐ NO☒
6. Has soil been excavated from or fill deposited on site? YES☑ NO☐ If yes, locate on above sketch.
7. Site's potential for flooding or ponding: NONE☑ SLIGHT☐ MODERATE☐ SEVERE☐
8. Landscape position: Side of hill
9. Vegetation: TP-1 grass TP-2 sparse grass
10. Indicate approximate location of property lines and roadways. See plan
11. Additional comments, site constraints or additional information regarding site: _____

Certification

The undersigned hereby certifies that all information on this application and accompanying forms, submittals and sketches are true and accurate and that I have been authorized by the owner(s) to conduct these necessary field investigations and submit this request.

Part A prepared by: _____ Signature _____ License #

Part B prepared by: _____ Signature _____ License #

FOR OFFICE USE ONLY

Decision: Approved ☐ Disclaimed ☐

Comments: _____

_____ Signature Authorized Agent

_____ Date

revised 5/8/01