

ADDENDUM NO. 1

Bidding and Contract Documents

For

Clear Runway Visibility Zone and Relocate Fuel Tanks
North Central State Airport
Smithfield, Rhode Island

RHODE ISLAND AIRPORT CORPORATION

April 4, 2013

PREPARED BY:
Fuss & O'Neill Inc.
317 Iron Horse Way
Suite 204
Providence, RI 02908

NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 1

Prospective Bidders and all concerned are hereby notified of the following changes in the Contract Documents for CLEAR RUNWAY VISIBILITY ZONE AND RELOCATE FUEL TANKS at the North Central State Airport. These changes shall be incorporated into and shall become an integral part of the contract documents. The number and date of this addendum must be entered into the space provided on Page P-4 of the Proposal Forms. These changes will be incorporated into the Conformed Contract Documents to be issued to the successful bidder.

BIDDER QUESTIONS

- Q1. *It appears by the signs schedule that there are six (6) new signs (S1 thru S6), pay item 73 only contains a quantity of five (5). It also appears that there are twenty-two (22) panel replacements against pay item 74. [Is this] correct and will an addendum be issued changing the bid quantities?*
- A1. There are six (6) new signs. Addendum No. 1 modifies taxiway designations of the stub taxiways to T/W C and T/W D, eliminating the need for the sign panel changes. Refer to the attached FIGURE 1 Taxiway Designation Sign Change sheet CP-003 and FIGURE 2 Electrical Sign Table sheet EA-502.
- Q2. *[Is there] information in the specifications or on the drawings in reference to the Fuel Management Integrator and Fuel Management System required for the project?*
- A2. The Fuel Management Integrator system shall be manufactured by Varec or an approved equal. There are two (2) remote Varec 8130 transmitters required at the fueling station, and one (1) Varec 8650 operator interface terminal (OIT) required for the remote terminal unit (RTU) located at the office. The contractor shall include system configuration and programming by the manufacturer with the contractor's bid.
- Q3. *Will the local building official be involved with the electrical work?*
- A3. All work shall be coordinated with the State Building Inspector's office.
- Q4. *How long can you have the fuel tanks out of service?*
- A4. The Contractor shall prepare a work plan upon initiation of the project that identifies the duration for which the fuel tanks will be out of service. Refer to specification P-690 for additional information regarding temporary fuel storage. The Contractor shall coordinate with the Resident Engineer to ensure temporary fuel storage facilities do not affect airport operations when the permanent tanks are not in service and or otherwise not accessible to airport staff during construction.
- Q5. *Who is responsible for damage to Limerock Road?*
- A5. The Contractor is responsible for damage caused by its vehicles, personnel, or equipment during the execution of the contract.
- Q6. *Did not see RIDOT gravel quantity on the proposal forms.*
- A6. Gravel borrow is included on the proposal forms under P-152 Off-Site Gravel Borrow. Refer to the Drawings for locations where the gravel is used.
- Q7. *Can asphalt pavement be reclaimed and used for pavement subbase?*
- A7. Yes. Refer to Addendum Item 8.
- Q8. *Is fine grading paid for within vegetated areas?*

- A8. Fine grading for vegetated for areas within the limit of disturbance is included under T-905 Topsoil and Seeding and seeding. Trimming and fine grading includes is an additional item for phased construction for all areas within the limit of work east of the stream crossing.
- Q9. *The work hours are limited with the short project schedule. Can alternative hours be used?*
- A9. Refer to Addendum Item No. 4.
- Q10. *Will RIAC be responsible for performance testing?*
- A10. The contractor is responsible for testing as described in the Contract Documents. RIAC will engage a third party to conduct independent tests.

CLARIFICATIONS

There are no clarifications issued in this addendum.

PROJECT MANUAL VOLUME 1 - DIVISION 0

ADDENDUM ITEM NO. 1

Bid Form, Section 00320, page P-9, DELETE Pay Item 43 - 18" HDPE Storm Drain and Pay Item 44 - 18" HDPE Flared End.

ADDENDUM ITEM NO. 2

Bid Form, Section 00320, page P-12, DELETE Pay Item 74 – Remove and Replace Sign Panel.

PROJECT MANUAL VOLUME 1 – DIVISION 2

ADDENDUM ITEM NO. 3

Section M-001, page M-001-2, DELETE "ninety (90) calendar days" and REPLACE with "one hundred twenty (120) calendar days."

ADDENDUM ITEM NO. 4

Section M-001, page M-001-2, DELETE "Contractor's work hours shall be from 7:30 AM to 5:30 PM" and REPLACE with "Contractor's normal work hours are 7:00 AM to 3:30 PM."

ADDENDUM ITEM NO. 5

Section D-701S, Storm Drainage for Service Road and Fuel Tank Apron Area, Part 5.1, DELETE pay items D-701S.4 - 18-inch HDPE Piping and D-701S.5 - 18-inch HDPE Flared End.

ADDENDUM ITEM NO. 6

Section L-125, DELETE "This item includes removing existing sign panels and replacing with new sign panels", Section 125-4.4, and pay item L-125.6. See attached L-125.

DESIGN DRAWINGS

ADDENDUM ITEM NO. 7

ADD "clean and flush 8" dia. cast iron cross culvert." Refer to attached FIGURE 3 Site Plan No. 3 sheet CS-110.

ADDENDUM ITEM NO. 8

ADD Anchor Bolts note, Tank Anchors note, Welds note, Bracket Plan, Bracket Section, and bracket locations for AVGAS and Jet A fuel tanks. Refer to attached FIGURE 4 Structural Notes and Details sheet SA-501.

ADDENDUM ITEM NO. 9

P-209 Crushed Aggregate: The Contractor may use the aggregate produced by asphalt pavement recycling operations, with the exception that in no case will material larger than 2" in any dimension be permitted in the aggregate base, and no more than 50% of the material can be from the recycled bituminous pavement. All material over 2" shall be removed by the Contractor. The material will be sampled and tested by the Contractor after processing to determine the density and moisture requirements for placing and compaction of the recycled aggregate base material. Placement and testing shall be in accordance with P-209. Gradation shall comply with the table below:

Sieve	% Passing
2 inch (50.0 mm)	100
1 1/2 inch (37.0 mm)	70-100
1 inch (25.0 mm)	55-85
3/4 inch (13.0 mm)	50-80
No. 4 (4.75 mm)	30-60
No. 40 (0.45 mm)	10-30
No. 200 (0.075 mm)	5-15

PRE-BID MEETING

Sign-In Log attached.

APPROVED BY: Date: 4/4/13


RIAC Signature

END OF ADDENDUM No. 1

Rhode Island Airport Corporation
 Clear Runway Visibility Zone and Relocate Fuel Tanks
 North Central State Airport
 Smithfield, Rhode Island
 RIAC Construction Contract No. 24841/AIP No. 3-44-0004-XX-XXXX
 SCHEDULE OF PRICES

Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
38	D-701.1	150 LF	12" R.C.P. Storm Drain (Class III) at _____ Dollars & Cents per Linear Foot				
39	D-701.2	200 LF	18" R.C.P. Storm Drain (Class III) at _____ Dollars & Cents per Linear Foot				
40	D-701S.1	35 LF	8" HDPE Storm Drain at _____ Dollars & Cents per Linear Foot				
41	D-701S.2	35 LF	15" HDPE Storm Drain at _____ Dollars & Cents per Linear Foot				
42	D-701S.3	1 EA	15" HDPE Flared End at _____ Dollars & Cents per Each				
43	D -701S.4	10 LF	18" HDPE Storm Drain at _____ Dollars & Cents per Linear Foot				
44	D -701S.5	2 EA	18" HDPE Flared End at _____ Dollars & Cents per Each				
45	D-701S.6	20 LF	48" R.C.P. Storm Drain (Class V) at _____ Dollars & Cents per Linear Foot				
46	D-701S.7	2 EA	Concrete Headwalls for Pipe Culverts at _____ Dollars & Cents per Each				
47	D-701S.8	35 LF	Trench Drain with Concrete Encasement at _____ Dollars & Cents per Linear Foot				

Rhode Island Airport Corporation
 Clear Runway Visibility Zone and Relocate Fuel Tanks
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 SCHEDULE OF PRICES

Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
67	L-110.1	125 LF	4 Way, 4" PVC Concrete Encased Ductbank at _____ Dollars & Cents per Linear Foot				
68	L-110.2	75 LF	2 Way, 4" Split-Style PVC Concrete Encased Ductbank at _____ Dollars & Cents per Linear Foot				
69	L-125.1	5 EA	Furnish and Install Elevated Blue MITL Base Mounted Taxiway Light at _____ Dollars & Cents per Each				
70	L-125.2	26 EA	Furnish and Install Elevated Blue MITL Stake Mounted Taxiway Light at _____ Dollars & Cents per Each				
71	L-125.3	1 EA	Relocate Existing Elevated Base Mounted Taxiway Light at _____ Dollars & Cents per Each				
72	L-125.4	1 EA	Relocate Existing Elevated Stake Mounted Taxiway Light at _____ Dollars & Cents per Each				
73	L-125.5	5 EA	Furnish and Install New Airfield Lighted Sign on New Concrete Foundation at _____ Dollars & Cents per Each				
74	L-125.6	20 EA	Remove and Replace Sign Panel at _____ Dollars & Cents per Each				

PROJECT ITEM L-125
AIRPORT LIGHTING SYSTEMS

DESCRIPTION

125-1.1 GENERAL. This item consists of airport lighting systems modified, relocated, furnished, and installed in accordance with this specification and the applicable FAA Advisory Circulars. The systems shall be installed at the locations and in accordance with the dimensions, designs and details shown in the Drawings. This item includes furnishing all equipment, materials, services, and incidentals necessary to place the systems into operation as completed units of work, to the satisfaction of the Engineer.

This item shall include furnishing and installing Medium Intensity Taxiway Lighting [MITL] systems, with base mounted, and stake mounted elevated light fixtures connected by conduit.

This item shall include removing existing taxiway edge lights and stacking on airport property.

This item shall include removing and disposing off airport property existing light bases, pull cans, and transformers.

This item shall include furnishing and installing new lighted airfield signs on a new concrete foundation.

This item shall include relocating existing signs to new locations on a new concrete foundation.

~~This item includes removing existing sign panels and replacing with new sign panels.~~

125-1.2 REFERENCED MATERIALS.

Additional details pertaining to specific systems covered in this item are contained in the Advisory Circulars (latest edition) listed below:

150/5340-18C	Standards for Airport Sign Systems
150/5340-30A	Design and Installation Details for Airport Visual Aids
150/5345-7E	Specification for L-824 underground Electrical Cable for Airport Lighting Circuits
150/5345-10E	Specification for Constant Current Regulators and Regulator Monitors
150/5345-26C	Specification for L-823 Plug and Receptacle, Cable Connectors
150/5345-42C	Specification for Airport Light Bases, Transformer Housings, Junction Boxes and Accessories
150/5345-44F	Specification for Taxiway and Runway Signs
150/5345-46B	Specification for Runway and Taxiway Light Fixtures
150/5345-47A	Specification for Isolation Transformers

150/5345-53B

Airfield Lighting Equipment Certification Program

The Contractor is responsible for using the latest edition of the referenced FAA Advisory Circulars.

125-1.3 SUBMITTALS.

SHOP DRAWINGS. Shop Drawings of each airfield lighting component, indicating certification of meeting FAA Specifications, shall be submitted for review prior to ordering any materials for this Item. This submittal shall include a description of the proposed method of installation for all airfield lighting components. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the Contract Documents. Submittals shall include as a minimum the following data:

- a. Safety precautions used while installing and maintaining the equipment.
- b. Complete schematics and interconnecting wiring diagrams.
- c. Complete parts lists with each circuit component keyed to designations assigned on schematics and wiring diagrams. Complete information shall be given for each part to permit ordering of replacement parts. This information shall include the components rating, name of manufacturer and the manufacturer's part number.
- d. Troubleshooting procedures.
- e. Physical characteristics (weight, size, mounting dimensions etc.).

The submittals shall be in accordance with Specification L-100.

125-1.4 QUALIFICATIONS

The Engineer reserves the right to reject any equipment which, in his opinion, does not meet the system design and the standards and codes specified herein.

125-1.5 PERMITS AND CERTIFICATES

The Contractor shall be responsible for the procurement of, and payment for, all permits and certificates necessary to construct and place in operation all work to be performed, and for all legally imposed charges made by the local authorities for inspection and approval services of the bureaus administering all applicable codes and regulations. Permits must be secured before work begins and a copy provided to Landmark & RIAC. All personnel performing electrical work shall be licensed.

EQUIPMENT AND MATERIALS

125-2.1 GENERAL.

- a. Airport lighting equipment and materials covered by FAA specifications shall be certified to meet the Federal Aviation Administration specifications by an independent laboratory as defined in the Advisory Circular 150-5345-53C, Airport Lighting Equipment Certification Program.
- b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through the manufacturer's certification of compliance with the applicable specifications. The Contractor shall submit the manufacturer's certificates of compliance with the applicable equipment submittals.

125-2.2 BASIS OF DESIGN.

The airfield lighting systems are designed using the below listed maximum fixture and sign volt-ampere [VA] loads. Approved airfield lighting fixtures with higher volt-ampere loads are NOT permissible. The series lighting circuit shall be 6.6 amps.

L-861T Elevated MITL

45VA

125-2.3 BASE MOUNTED LIGHTS.

This work item shall include the installation of new taxiway edge lights and/or relocation of existing base mounted lights as indicated on the Drawings. The installation of the taxiway edge lights shall include the light fixtures, lamps, stems, frangible couplings, isolation transformer, secondary transformer cables and all components such as mounting hardware, transformers, wires, cables, and connectors on a new L-867 light base at the proposed locations. The new light bases shall include new concrete foundations and base cover plates. The base cover plate shall be secured with two inch (2") stainless steel bolts.

125-2.4 STAKE MOUNTED LIGHTS.

The work under this section of these specifications shall consist of furnishing and installing new stake mounted taxiway edge lights on new stakes. The work shall include the furnishing and installing of all required fixtures, lamps and transformers; making all electrical connections; test; marking; and all other equipment materials, services and incidentals necessary to place the lighting systems in operation.

125-2.5 TAXIWAY GUIDANCE SIGNS.

Taxiway Guidance Signs shall conform to the following classifications and in accordance with the sign schedule on the contract drawings:

Type: L-858Y (Direction or Destination, see sign schedule)
L-858R (Mandatory, see sign schedule)
L-858L (Location, see sign schedule)

Size 2: 24" Legend panel with a 15" legend

Style 2: powered from a series circuit of 4.8 to 6.6 amperes

Style 3: powered from a series circuit of 2.8 to 6.6 amperes

Style 4: unlighted, retroreflective

Class 2: Operation from -40 degrees F to 131 degrees F

Mode 2: Able to withstand wind loads of 200 mph

Signs shall be furnished and installed with lamps on new concrete foundations, with bases installed in the concrete foundation, isolation transformers, L-823 connector kits, grounding rods all shall be incorporated in the base and tethers as shown on the contract drawing details. Signs lengths shall be determined by the sign manufacturer.

125-2.6 ISOLATION TRANSFORMERS.

All isolation transformers shall meet the requirements of AC 150/5345-47 for L-830 transformers. All transformers shall be 60 hertz and rated for 6.6 primary and secondary amps. The transformers shall be sized to meet the sign and fixture manufacturer's recommendations. Provide secondary lead jumper cable manufactured by transformer manufacturer suitable for remote transformer installation.

125-2.7 BASE CANS.

All base cans shall meet the requirements of AC 150/5345-42, type L-867 (non-load bearing) or L-868 (load bearing) where shown on the plans. L-868 shall be used when in-pavement and needs to withstand aircraft and other heavy vehicular loadings. L-867 shall be used when base is needed to withstand occasional light vehicular loads. Base Cans shall be Class I, size as noted, and 24 inches deep. Provide an "O" ring gasket to improve water tightness. L-867 cans shall be ordered with grommets holes to accommodate the PVC raceways indicated on the Drawings. New basecans shall be ordered with conduit hubs as shown in detailed drawings. L-868 cans shall be orders with hubs to accommodate the rigid steel or PVC conduit indicated on the Drawings.

Special attention must be paid to the orientation of grommets or hub entry holes, conduit runs, fixture orientation and bolt circles, bolt circle diameter, and the location of risers, spacers, adapter rings, mounting plates, frangible couplings, and two piece cans to facilitate the installations.

The Contractor should note that the diameter of the base cans required for a particular light type may vary from manufacturer to manufacturer. No bases of diameter smaller than 12 inches will be allowed.

There are locations on the drawings where it will be necessary to supply bases with specially located, additional 2" grommets or hub openings to facilitate the installation. The contractor shall identify these special bases and submit shop drawings to the Engineer for approval, identifying the location of the special hub cans and the details of the hub locations. No field core drills, hub welding or other adjustments to the bases which destroy the galvanizing will be allowed unless specified in the drawings at locations explicitly called out.

Provide safety ground lugs inside all base cans.

Solid steel cover plates for bases may be required for staging installations and shall have the correct bolt circle and thickness to connect to the various cans and to provide a top surface flush with the surrounding pavement or grade. Cover plates shall provide countersunk protection of connecting nut heads. Cover plates shall be considered incidental and turned over to Engineer when removed.

125-2.8 CONCRETE.

Plain and reinforced concrete used shall conform to the requirements of Project Item P-610.

125-2.9 CONDUIT.

PVC Conduit shall conform to Project Item L-110 of these Specifications. Rigid steel (RGS) conduit, where shown on the plans, shall be rigid galvanized steel conduit, UL 6, hot-dip galvanized, threaded type. All 90 degree rigid steel elbows shall be long radius type. Install insulated throat grounding busing on all conduit terminations. RGS fittings and conduit bodies shall be all steel threaded fittings and conduit bodies.

125-2.10 LAMPS.

All lamps shall be new and meet manufacturer's requirements.

125-2.11 CABLE CONNECTIONS (SPLICES).

Cable connections shall conform to the requirements of Project Item L-108.

125-2.12 BOLTING HARDWARE.

All airfield bolting hardware shall be stainless steel and meet FAA Requirements. All bolts shall be 2" long, fully threaded, hex head bolts.

CONSTRUCTION METHODS

125-3.1 INSTALLATION

a. All fixtures, base cans, etc. shall be installed as shown on the Drawings or approved shop Drawings and in accordance with the applicable FAA Advisory Circulars. Tolerances given in the FAA Advisory Circulars, these Specifications, and the Drawings shall not be exceeded.

Items not installed in accordance with the FAA Advisory Circulars, these Specifications and Drawings shall be replaced by and at the expense of the Contractor.

b. Assemble units and connect to the system in accordance with the manufacturer's recommendations and instructions.

c. Provide 3 feet of slack for each cable in: each base can, each "home run" connection, each cable entering or leaving a light base, stake mounted light or sign base. Provide 15 feet of slack of each cable in each handhole.

d. Painted and galvanized surfaces that are damaged during installation or core drilling shall be repaired according to the manufacturer's recommendations, to the satisfaction of the Owner and Engineer. Spray on galvanized coatings are not acceptable and must be painted.

e. The airfield lighting bolting hardware and threaded connections, i.e. frangible couplings shall be coated with GE Dielectric Compound, G 624, before being screwed together.

f. Cleanup of the slurry created when drilling for the light bases shall occur immediately after drilling is complete. No slurry shall be allowed to dry on the pavements at any time.

g. After all of the signs and lighting fixtures are installed on a circuit, the Contractor shall calibrate the operation of each sign on the circuit in accordance with the recommendations of the manufacturer of the signs. The Contractor shall submit a dated, signed log of sign calibrations to the Engineer.

h. All exit signs shall be on the runway circuit.

i. All lighting fixtures shall be furnished and installed with new lamps.

j. These specifications and the accompanying drawings provide the provision by the Contractor of labor and materials to install a complete electrical system as indicated on the drawings and/or as specified.

125-3.2 MISCELLANEOUS WORK

a. Provide all necessary sizes, locations, arrangements, details and data required for proper construction of concrete bases, chases, pockets, holes, sleeves, etc., which are to be built into the construction for the accommodation of work to be installed under this section of the Specifications

b. Other portions of these Specifications and all drawings shall be carefully examined to determine the requirements of the project as a whole and to determine interconnecting points between the various points. All such interconnections shall be properly made and with due regard for correct arrangements suited to the equipment or material concerned.

125-3.3 PROTECTION OF WORK

Reasonable care shall be exercised for the protection against damage to all electrical equipment, apparatus, materials, devices and accessories during the course of construction, through the use of protective coverings, barriers, railings and similar devices. Protection shall be suitable for application as approved by the Engineers. Damages resultant from negligence or lack of protection shall be corrected to the Engineer's satisfaction at no additional cost to the Owner.

125-3.4 WIRING AND ELEMENTARY DIAGRAMS

Wiring and elementary diagrams for equipment as shown on the drawings are based on the product of the specified equipment manufacturer and are shown for convenience to aid in estimating the extent of the work involved. The equipment actually installed shall be wired and connected in accordance with the equipment manufacturer. All equipment so connected shall be made to operate in a safe, proper and efficient manner.

125-3.5 TESTING.

a. Fully test the installation by continuous operation for a period of not less than 4 hours in each of the operating levels as a completed unit, prior to acceptance by the Owner and Engineer.

b. Up to 2 walk-throughs may be initiated by the Owner or the Engineer during which the airfield lighting units would be required to be in operation. Additional walk-throughs may be necessary depending upon the number of discrepancies found on the previous walk-throughs.

c. The Contractor is responsible for lamp replacements and necessary maintenance of airfield items during the testing, construction and walk-through periods.

d. Test cabling per the specifications of Project Item L-108.

e. The Contractor shall perform the necessary inspection and tests for some items concurrently with the installation because of subsequent inaccessibility of some components. The Engineer shall be notified by the Contractor 48 hours in advance of any testing.

f. All testing shall be witnessed and signed by the Contractor. Testing records must be turned over to the Engineer within 48 hours.

125-3.6 REMOVING AND RELOCATING TAXIWAY LIGHTS

Existing light fixtures and isolation transformers shall be removed and relocated to the new location as shown on the plans. The remaining existing series circuit wire, ground wires, counterpoise wires, ground rods and raceways will be removed between the light fixtures to be relocated and disposed of off site. Once the existing series circuit wire, ground wires, counterpoise wires, ground rods and raceways are removed between fixtures, new series circuit wire, ground wires, counterpoise, ground rods and raceways as necessary shall be installed and the void shall be backfilled with material to match existing. In existing turf areas, the void shall be backfilled with P-154 Sub-base Course or other approved excavated material. All material shall be installed in lifts approved by the Engineer and shall be thoroughly compacted. Area shall be restored with 4" topsoil and seed.

125-3.7 EDGE LIGHT.

All light locations to be surveyed and staked prior to base can or stake mounted installation. Engineer and RIAC must have opportunity to review prior to actual light installation. Install edge lights and adjust optics per manufacturer's instructions and as specified in the applicable advisory circulars.

125-3.8 GROUNDING.

Provide a grounding conductor for all electrical equipment, conduit, and electrical enclosures as required by the specifications of Project Item L-108.

METHOD OF MEASUREMENT

125-4.1 The quantity of "Furnish and Install Elevated Blue MITL Base Mounted Taxiway Light" or "Furnish and Install Elevated Blue MITL Stake Mounted Taxiway Light", to be paid for under this item shall be the number of taxiway lights, each, installed, complete and in place, accepted by the Owner and the Engineer, tested, operational and measured by the Engineer. Furnishing and installing lamps, isolation transformers, ground wire connections, stakes, base can, concrete encasement of the base can, concrete reinforcement, all excavation required to place the base, all dewatering operations and stabilization, all backfill and compacting and all restoration of the site will not be measured for separate payment and will be considered to be included in the price bid for this item.

Spare lamps, transformers and blue lenses furnished and turned over to the Airport Manager where specified shall not be measured separately for payment and will be considered incidental to furnishing and installing the taxiway edge lights.

125-4.2 The quantity of "Relocate Existing Light Fixture" to be relocated to be paid for under this item shall be the number of base-mounted light fixtures, each, and stake-mounted light fixtures and transformers, each, removed from the ground and relocated and includes removal of associated wiring, conduits, grounding, and ground rods as shown on the plans. The installation of new series circuit wires, ground wires, counterpoise and ground rods shall be per Section L-108 of these Specifications. This item also includes all saw cutting, excavation of all material (including pavement) and off-site disposal, backfill (P-154, P-209, P-401, etc.), compaction and surface restoration.

125-4.3 The quantity of "Furnish and Install New Airfield Lighted Signs on New Concrete Foundations" to be paid for under this item shall be the number of signs, each, furnished and installed at the location shown on the Drawings, operational, tested, accepted by the Owner and the Engineer, and measured by the Engineer, regardless of varying sign lengths in accordance with the sign schedule. Furnishing and installing

lamps, isolation transformers, wiring from the transformer base to the sign, ground wire, ground rods, furnishing and installing the base cans, risers, concrete encasement of the base cans, concrete reinforcement, concrete for the foundation, all excavation and conduit trench required to place the base, all dewatering operations and trench stabilization, all backfill and compacting and all restoration of the site will not be measured for separate payment and will be considered to be included in the price bid for this item. Adjusting the operation of the sign in accordance with the manufacturer's installation instructions as well as testing the operation of the sign are included in the work and are not measured separately for payment.

~~125-4.4 The quantity of "Remove and Replace Sign Panel" to be paid for under this item shall be the number of panels actually replaced and shall include all incidentals necessary to complete the item. Each sign will be tested, adjusted and must be accepted by the Owner and the Engineer to be measured for payment.~~

125-4.5 The quantity of "Testing and Inspection of Airport Lighting Systems" shall be measured for payment as a lump sum. The lump sum shall include the Contractor's operation of all new systems and preparation of the systems for testing and inspection by the Owner and the Engineer. The Contractor shall provide all equipment, labor and tools required to open base cans, signs, remove light fixtures, open panelboards and wireways to allow testing, inspection, and demonstration of system operation. The Contractor shall be prepared to facilitate this testing, inspection and demonstration on two occasions under this item. If additional testing, inspections, or demonstrations are required because of discrepancies in the Contractor's work, the additional testing, inspection and demonstrations will not be measured for payment.

BASIS OF PAYMENT

125-5.1 Payment will be made at the contract unit price for each item completed and installed in place by the Contractor, operational, tested and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, grading, assembly, and installation of these materials, and for all labor, equipment, tools, and all incidentals necessary to complete each item.

125-5.2 Payment will be made at the contract unit price per lump for each lump sum item completed and installed in place by the Contractor, operational, tested and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, grading, assembly, and installation of these materials, and for all labor, equipment, tools, and all incidentals necessary to complete each item.

Payment will be made under:

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
L-125.1	Furnish and Install Elevated Blue MITL Base Mounted Taxiway Light _____	Per Each
L-125.2	Furnish and Install Elevated Blue MITL Stake Mounted Taxiway Light _____	Per Each
L-125.3	Relocate Existing Elevated Base Mounted Taxiway Light _____	Per Each
L-125.4	Relocate Existing Elevated Stake Mounted Taxiway Light _____	Per Each
L-125.5	Furnish and Install New Airfield Lighted Sign on New Concrete Foundation _____	Per Each
L-125.6	Remove and Replace Sign Panel _____	Per Each

L-125.7 Testing of Airfield Lighting System _____ Per Lump Sum

MATERIAL REQUIREMENTS

AC 150/5345-42C Specification for Airport Light Bases, Transformer Housings, Junction
Boxes, and Accessories

AC 150/5345-46A Runway and Taxiway Light Fixtures

AC 150/5345-47A Isolation Transformers for Airport Lighting Systems

AC 150/5370-10 Standard Specifications for Construction of Airports.

END OF PROJECT ITEM L-125

Sign-In Log

Pre-Bid Meeting

**North Central State Airport (SFZ)
CLEAR RUNWAY VISIBILITY ZONE
AND RELOCATE FUEL TANKS
Smithfield, RI**

RIAC Construction Contract No. 24841

March 21, 2013

Name	Company Name	Phone Number	E-mail Address
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CHRIS WESCHE	JH LYNCH	(401) 333-4300	CWESCHE@JHLYNCH.COM
Paul Gill	Gill Services	941-4444	Paul@Gillservices.com
Al Borden	Equality Construction	(401)-215-0173	Al@Capcoent.com
Amrred Shihadeh	RIAC	401.737.4000	ashihadeh@riac.com
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Chris Conley	PB	617-960-4943	conleycb@pbworld.com

Dewet Principe Rossi Elec 401-265-3585 dprincipe@rossielec.com
(OVER)

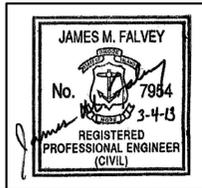
ELECTRICAL SIGN TABLE

		EXISTING CONDITION					FINAL CONDITION					
SIGN NO.	TYPE	SIZE	CLASS	STYLE	FRONT	BACK	SIZE	CLASS	STYLE	FRONT	BACK	NOTES
S1	L-858Y						2	2	2	△ B C → Y/B B/Y	B Y/B	1, 2, 3, 4
S2	L-858Y						2	2	2	C ← B → Y/B B/Y	C Y/B	1, 2, 3, 4
S3	L-858Y						2	2	2	← C B B/Y Y/B	B Y/B	1, 2, 3, 4
S4	L-858Y						2	2	2	B D → Y/B B/Y	B Y/B	1, 2, 3, 4
S5	L-858Y						2	2	2	D ← B → Y/B B/Y	D Y/B	1, 2, 3, 4
S6	L-858Y						2	2	2	← D B B/Y Y/B	B Y/B	1, 2, 3, 4
ES18	L-858Y	2	2	2	← B4 B B/Y Y/B	B Y/B	2	2	2	← B6 B B/Y Y/B	B Y/B	3
ES19	L-858Y	2	2	3	B4 → B/Y B/Y	BLANK	2	2	3	B6 → B/Y B/Y	BLANK	3
ES20	L-858Y	2	2	3	← B4 B/Y B/Y	BLANK	2	2	3	← B6 B/Y B/Y	BLANK	3
ES21	L-858Y	2	2	2	B4 ← B → Y/B B/Y	B4 Y/B	2	2	2	B6 ← B → Y/B B/Y	B6 Y/B	3
ES22	L-858Y	2	2	2	B B4 → Y/B B/Y	B Y/B	2	2	2	B B6 → Y/B B/Y	B Y/B	3
ES23	L-858Y	2	2	2	← B5 B B/Y Y/B	B Y/B	2	2	2	← B7 B B/Y Y/B	B Y/B	3
ES24	L-858R	2	2	3	B5 5-23 Y/B W/R	B5 B/Y Y/B	2	2	3	B7 5-23 Y/B W/R	B7 B/Y Y/B	3
ES25	L-858Y	2	2	3	B5 → B/Y B/Y	BLANK	2	2	3	B7 → B/Y B/Y	BLANK	3
ES26	L-858Y	2	2	3	← B5 B/Y B/Y	BLANK	2	2	3	← B7 B/Y B/Y	BLANK	3
ES27	L-858Y	2	2	2	B5 ← B → Y/B B/Y	B5 Y/B	2	2	2	B7 ← B → Y/B B/Y	B7 Y/B	3
ES28	L-858Y	2	2	2	← B6 B B/Y Y/B	B Y/B	2	2	2	← B8 B B/Y Y/B	B Y/B	3
ES29	L-858Y	2	2	2	B B5 → Y/B B/Y	B Y/B	2	2	2	B B7 → Y/B B/Y	B Y/B	3
ES30	L-858Y	2	2	2	B6 B → Y/B B/Y	B6 Y/B	2	2	2	B8 B → Y/B B/Y	B8 Y/B	3
ES31	L-858R	2	2	3	B6 23 Y/B W/R	B6 B/Y Y/B	2	2	3	B8 23 Y/B W/R	B8 B/Y Y/B	3
ES32	L-858Y	2	2	3	B6 → B/Y B/Y	BLANK	2	2	3	B8 → B/Y B/Y	BLANK	3
ES33	L-858R	2	2	3	B4 5-23 Y/B W/R	B4 B/Y Y/B	2	2	3	B6 5-23 Y/B W/R	B6 B/Y Y/B	3

△ NOT IN CONTRACT

NOTES:

- SIGN INSTALLED AT AN OFFSET OF 20 FT FROM PAVEMENT EDGE PERPENDICULAR TO TAXIWAY/RUNWAY CENTERLINE.
- TEMPORARY PANELS REQUIRED SHALL BE CONSIDERED INCIDENTAL TO NEW AIRFIELD LIGHTED SIGN PAY ITEM. SWITCH TO FINAL CONDITION SHALL BE MADE DURING PHASE PH-S.
- LOCATION/DIRECTIONAL SIGN INSTALLED AT A DISTANCE OF 93 FEET FROM CROSSING TAXIWAY CENTERLINE (NO PART OF SIGN WILL BE CLOSER THAN 93 FT TO CROSSING TAXIWAY CENTERLINE).
- Y/B = YELLOW LETTERS ON BLACK BACKGROUND WITH YELLOW BORDER
- B/Y = BLACK LETTERS ON YELLOW BACKGROUND
- W/R = WHITE LETTERS OUTLINED WITH BLACK ON RED BACKGROUND
- ALL SIGNS SHALL BE ORDERED WITH NUMBER OF MODULES TO FIT FINAL CONDITION SIGN MESSAGE. ENGINEER SHALL VERIFY THROUGH THE SHOP DRAWING PROCESS.



Rhode Island Airport Corporation
NORTH CENTRAL AIRPORT
 CLEAR RVZ AND RELOCATE FUEL TANKS

SHEET TITLE ELECTRICAL SIGN TABLE				
DESIGNED CBC	DRAWN BJD	CHECKED CBC	APPROVED JMF	
PROJECT NO. 3-44-0004-XX-2013				
DATE: MAR. 2013				
SHEET EA-502				



REVISION NUMBER	REVISION DATE	DESCRIPTION
△	4/2013	ADDENDUM NO. 1

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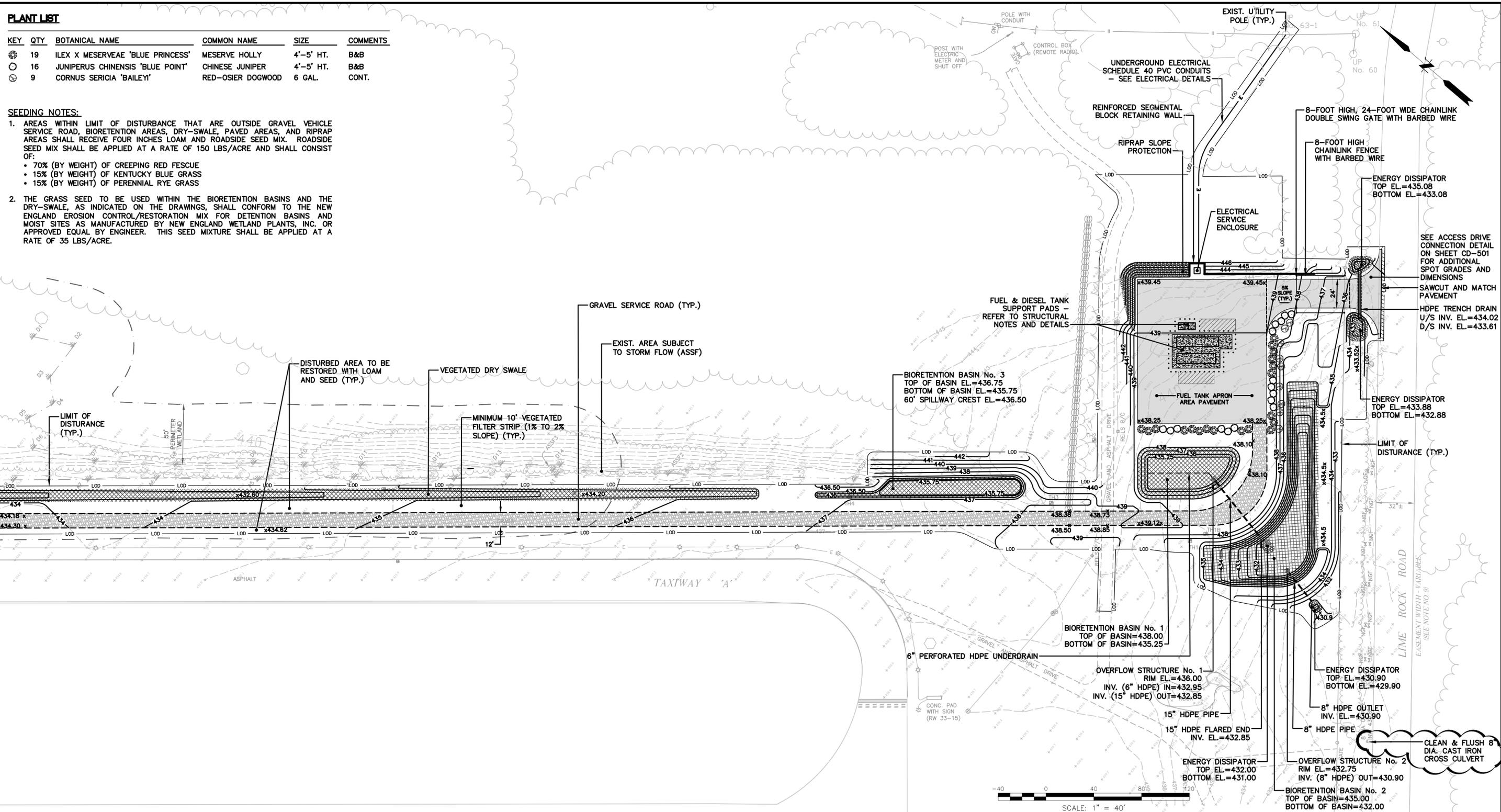
PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
☉	19	ILEX X MESERVEAE 'BLUE PRINCESS'	MESERVE HOLLY	4'-5' HT.	B&B
☉	16	JUNIPERUS CHINENSIS 'BLUE POINT'	CHINESE JUNIPER	4'-5' HT.	B&B
☉	9	CORNUS SERICIA 'BAILEY'	RED-OSIER DOGWOOD	6 GAL.	CONT.

SEEDING NOTES:

- AREAS WITHIN LIMIT OF DISTURBANCE THAT ARE OUTSIDE GRAVEL VEHICLE SERVICE ROAD, BIORETENTION AREAS, DRY-SWALE, PAVED AREAS, AND RIPRAP AREAS SHALL RECEIVE FOUR INCHES LOAM AND ROADSIDE SEED MIX. ROADSIDE SEED MIX SHALL BE APPLIED AT A RATE OF 150 LBS/ACRE AND SHALL CONSIST OF:
 - 70% (BY WEIGHT) OF CREEPING RED FESCUE
 - 15% (BY WEIGHT) OF KENTUCKY BLUE GRASS
 - 15% (BY WEIGHT) OF PERENNIAL RYE GRASS
- THE GRASS SEED TO BE USED WITHIN THE BIORETENTION BASINS AND THE DRY-SWALE, AS INDICATED ON THE DRAWINGS, SHALL CONFORM TO THE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES AS MANUFACTURED BY NEW ENGLAND WETLAND PLANTS, INC. OR APPROVED EQUAL BY ENGINEER. THIS SEED MIXTURE SHALL BE APPLIED AT A RATE OF 35 LBS/ACRE.

MATCH LINE SEE SHEET CS-109



SCALE: 1" = 40'



Rhode Island Airport Corporation
NORTH CENTRAL AIRPORT
CLEAR RVZ AND RELOCATE FUEL TANKS

SHEET TITLE
SITE PLAN No. 3

DESIGNED SDA	DRAWN AGG/SDA	CHECKED SMM	APPROVED DEA
PROJECT NO. 3-44-0004-XX-XXXX		DATE: FEB. 2013	
FUSS & O'NEILL		SHEET CS-110	

REVISION NUMBER	REVISION DATE	DESCRIPTION

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GENERAL NOTES:

- THE WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED, AND SHALL BE CONSTRUCTED, IN ACCORDANCE WITH THE FOLLOWING:
 - STRUCTURAL REQUIREMENTS OF THE SBC-2010, THE 2010 RHODE ISLAND STATE BUILDING CODE, INCLUDING THE 2003 INTERNATIONAL BUILDING CODE, EXCEPT AS AMENDED, ALTERED, OR DELETED BY THE ADDITIONAL PROVISIONS IN THE RHODE ISLAND STATE BUILDING CODE.
 - FAM A/C 150-5730-10F
- ALL STRUCTURAL WORK SHOWN OR SPECIFIED ON THESE DRAWINGS IS SUBJECT TO REVIEW BY THE ENGINEER. ASPECTS OF THE WORK FOUND NOT IN CONFORMANCE WITH THE STRUCTURAL DOCUMENTS SHALL BE CORRECTED AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED AND EXISTING DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION TO ASSURE PROPER FIT AND FINISH OF THE WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. THE FIELD MEASUREMENTS SHALL BE PROVIDED TO THE ENGINEER FOR ACCEPTANCE PRIOR TO BEGINNING THE WORK. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE ENGINEER.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW BEFORE PROCEEDING WITH WORK. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS. SHOP DRAWINGS SHALL BEAR THE REVIEW AND APPROVAL STAMP OF THE CONTRACTOR, IN ACCORDANCE WITH THE GENERAL CONDITIONS.
- THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES FOR THE DURATION OF THE PROJECT.
- THE OWNER AND CONTRACTOR(S) SHALL ADHERE TO THE TERMS AND CONDITION OF PERMIT(S) ISSUED BY THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND ANY OTHER STATE OR FEDERAL AGENCIES HAVING JURISDICTION.
- SIZES AND LOCATIONS OF ALL REQUIRED EMBEDDED ITEMS FOR ALL TRADES SUCH AS ANCHOR BOLTS, PIPING SLEEVES, HOLD-DOWN ANCHORS, ETC., SHALL BE COORDINATED BY THE CONTRACTOR WITH OTHER TRADES.

CONCRETE NOTES:

- ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING:
 - THE LATEST EDITION OF ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
 - THE LATEST EDITION OF ACI 302.1R-04 "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION"
 - THE LATEST EDITION OF ACI 305 "HOT WEATHER CONCRETE"
 - THE LATEST EDITION OF ACI 306 "COLD WEATHER CONCRETE"
 - THE LATEST EDITION AND MODIFICATIONS TO THE SBC-1-2004, THE 2004 RHODE ISLAND STATE BUILDING CODE.
- ALL REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING:
 - DEFORMED STEEL BARS SHALL BE ASTM A615 GRADE 60 DETAILED IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES"
 - DEFORMED STEEL FABRIC SHALL PROVIDE AN EQUIVALENT AREA OF STEEL AS THE BAR SIZE AND SPACING INDICATED AND SHALL COMPLY ASTM A497.
- ALL METAL TIES OR ANCHORAGES WHICH ARE REQUIRED FOR CONCRETE FORMWORK SHALL BE SO CONSTRUCTED THAT THEY CAN BE REMOVED TO AT LEAST TWO INCHES FROM THE EXPOSED SURFACE OF THE CONCRETE WITHOUT CAUSING DAMAGE TO THE CONCRETE SURFACE.
- STEEL REINFORCEMENT FOR CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM CONCRETE COVER AS FOLLOWS UNLESS OTHERWISE INDICATED:
 - CONCRETE DEPOSITED AGAINST GROUND: 3 IN.
 - CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: 2 IN.
- ALL REINFORCING BARS SHALL BE CONTINUOUS AND LAPPED A MINIMUM OF 48 BAR DIAMETERS AT ALL SPLICES, CORNERS, AND INTERSECTIONS UNLESS NOTED OTHERWISE.
- ALL REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPOSED LOCATION PRIOR TO AND DURING PLACEMENT OF CONCRETE USING APPROVED CHAIRS, SPACERS AND TIE WIRE AS REQUIRED. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER.
- ALL REINFORCEMENT SHALL BE EPOXY-COATED.
- CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL DEVELOP A COMPRESSIVE STRENGTH AS INDICATED BELOW. SUBMIT CONCRETE MIX DESIGN FOR APPROVAL BY THE ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.
 - CONCRETE TANK SUPPORT SLAB (LET-A AND AVGAS): 5,000 PSI IN 28 DAYS
 - ALL OTHER CONCRETE: 4,000 PSI IN 28 DAYS
- ALL CONCRETE SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH THE SPECIFICATIONS.
- ALL CONCRETE SHALL BE CONSOLIDATED BY INTERNAL VIBRATION IN ACCORDANCE WITH ACI 304, "RECOMMENDED PRACTICE FOR CONSOLIDATION OF CONCRETE."
- CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER. CONSTRUCTION JOINTS SHOWN ON THE PLANS SHALL NOT BE OMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LIMITING POURS TO MINIMIZE SHRINKAGE CRACKING.
- JOINT SEAL SHALL BE A MOISTURE-CURED, 1-COMPONENT, POLYURETHANE-BASED, NON-SAG ELASTOMERIC SEALANT. JOINT SEAL SHALL MEET THE FOLLOWING REQUIREMENTS:
 - FEDERAL SPECIFICATION TT-S-00230C, TYPE II
 - ASTM C-920, TYPE S, GRADE NS, CLASS 25
 - SUITABLE FOR VERTICAL OR HORIZONTAL JOINTS
 - SUITABLE FOR USE AS ELASTIC SEALANT BETWEEN DISSIMILAR MATERIALS
 - CAPABLE OF +/- 25% JOINT MOVEMENT WHEN JOINTS ARE LESS THAN 1/2" IN WIDTH
 - LET FUEL RESISTANT
- WATERSTOPS SHALL BE PVC WATERSTOPS INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. WATERSTOPS SHALL BE INSTALLED HORIZONTALLY ALONG THE JOINT AND TURNED DOWN 4 INCHES FROM THE EDGE OF THE SLAB AND TERMINATED AT THE BOTTOM OF THE SLAB HAUNCH. CONFIGURATION OF WATERSTOPS SHALL BE RIBBED WITH CENTER BULB TO ALLOW FOR MOVEMENT OF THE JOINT.
- CONCRETE SHALL NOT BE PLACED IN STANDING WATER OR AGAINST FROZEN GROUND.
- EXPOSED HORIZONTAL SURFACES OF CONCRETE SHALL BE TROWELED FINISHED.
- PROVIDE A 1" TOOLED EDGE ON ALL EXPOSED HORIZONTAL EDGES OF CONCRETE.

CRUSHED AGGREGATE BASE COURSE:

- BASE COURSE SHALL BE COMPACTED TO NO LESS THAN 95% OF THE DRY DENSITY ACHIEVED BY AASHTO T180, METHOD D.
- THE CRUSHED AGGREGATE BASE MATERIAL SHALL BE PLACED ON THE MOISTENED SUBGRADE IN LAYERS OF UNIFORM THICKNESS WITH A MECHANICAL SPREADER.
- THE MAXIMUM DEPTH OF A COMPACTED LAYER SHALL BE 6 IN. (150 MM). IF THE TOTAL DEPTH OF THE COMPACTED MATERIAL IS MORE THAN 6 IN. (150 MM), IT SHALL BE CONSTRUCTED IN TWO OR MORE LAYERS. IN MULTI-LAYER CONSTRUCTION, THE BASE COURSE SHALL BE PLACED IN APPROXIMATELY EQUAL-DEPTH LAYERS.
- EACH LAYER OF COMPACTED GRANULAR FILL SHALL BE COMPACTED AT OPTIMUM MOISTURE CONTENT.

RELOCATED FUEL TANKS:

- THE EXISTING FUEL TANKS SHALL BE RELOCATED AS INDICATED ON THE PLANS AND IN ACCORDANCE WITH THE SPECIFICATIONS.
- THE CONTRACTOR SHALL CONDUCT REPAIRS OF THE FUEL STORAGE TANKS AS RECOMMENDED WITHIN THE PROJECT SPECIFICATIONS.
- THE FUEL STORAGE TANKS SHALL NOT BE PHYSICALLY ATTACHED TO THE CONCRETE SUPPORT SLABS.

ANCHOR BOLTS:

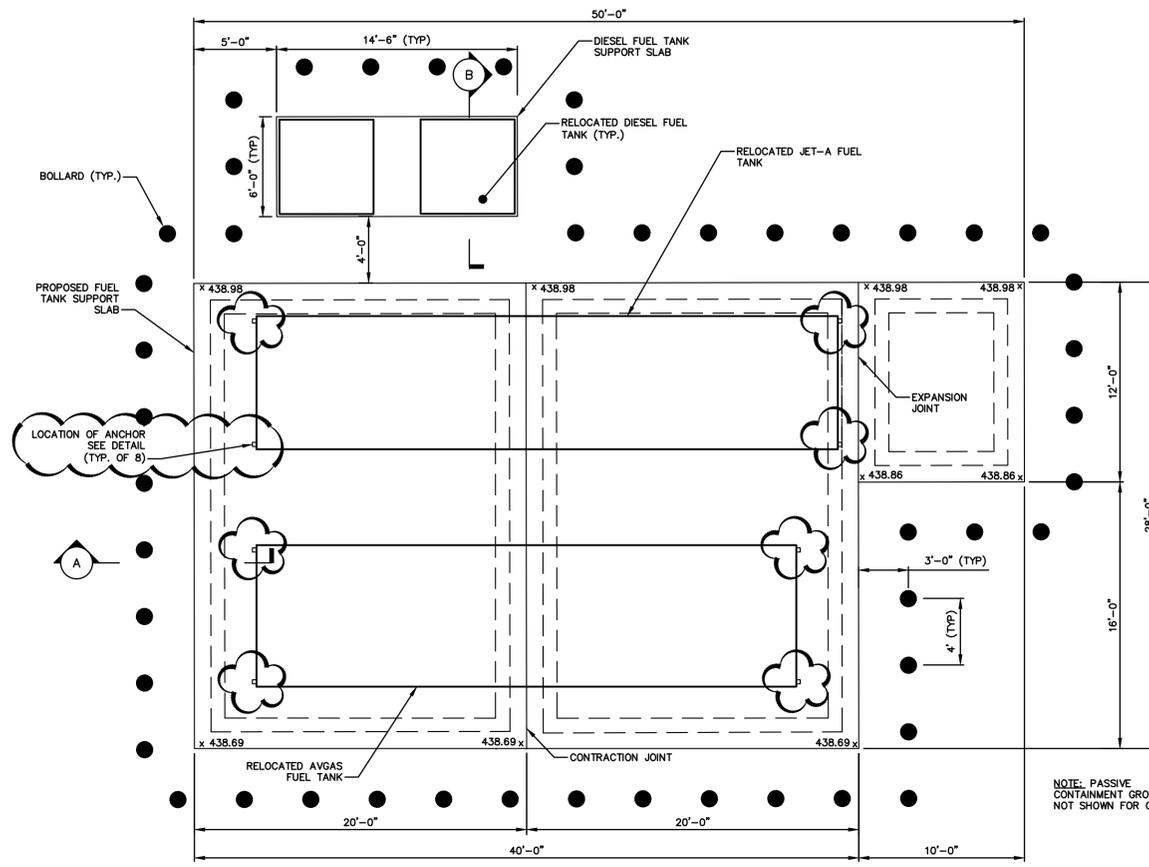
- ANCHOR BOLTS SECURING TANKS TO THE CONCRETE SLAB SHALL BE HILTI KWIK BOLT 3 POST INSTALLED MECHANICAL ANCHORS OR APPROVED EQUAL.
 - DIAMETER: 3/4"
 - MIN. EMBEDMENT: 4 3/4"
- BOLT HOLES IN STEEL PLATES USED TO SECURE FUEL TANKS TO FACE OF CONCRETE SLAB SHALL BE BOLT DIAMETER PLUS 3/16".
- BOLT HOLES IN SPACERS SHALL BE BOLT DIAMETER PLUS 3/16".
- THE CONTRACTOR SHALL INSTALL ANCHOR BOLTS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

TANK ANCHORS:

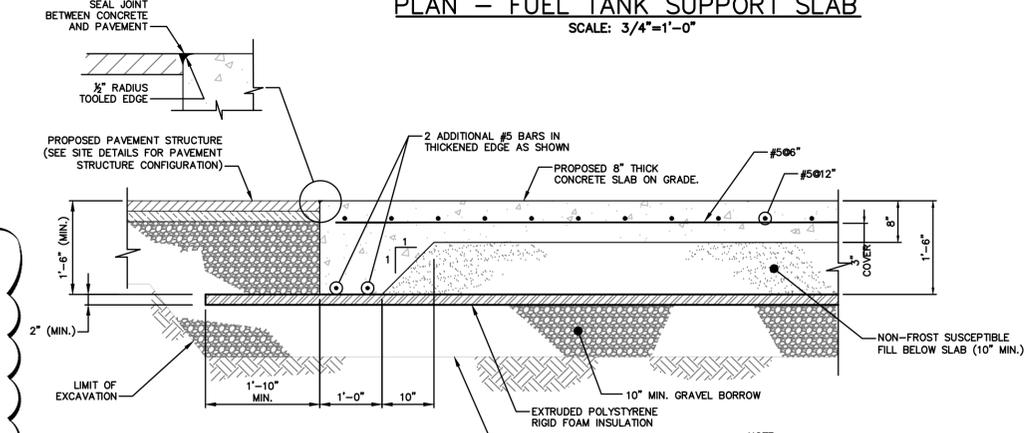
- THE STEEL ANGLES TO BE WELDED TO THE TANK SUPPORTS SHALL BE NEW, CLEAN, AND STRAIGHT.
- STEEL ANGLES SHALL COMPLY WITH ASTM A36.
- STEEL ANGLES SHALL RECEIVE A PRIMER COAT CONSISTING OF AN EPOXY PRIMER APPLIED AT A SPREADING RATE RECOMMENDED BY THE MANUFACTURER.
- COORDINATE SELECTION OF SHOP PRIMERS, INTERMEDIATE COAT AND TOPCOATS TO ENSURE COMPATIBILITY.
- COLOR OF THE TOPCOAT SHALL CLOSELY MATCH THE COLOR OF THE PAINT TO REMAIN.
- INTERMEDIATE COAT: ALIPHATIC POLYURETHANE ENAMEL APPLIED AT A SPREADING RATE RECOMMENDED BY THE MANUFACTURER TO ACHIEVE A DRY FILM THICKNESS OF 2.0 TO 4.0 MILS.
- TOPCOAT: SEMI-GLOSS, ALIPHATIC POLYURETHANE ENAMEL APPLIED AT A SPREADING RATE RECOMMENDED BY THE MANUFACTURER TO ACHIEVE A DRY FILM THICKNESS OF 2.0 TO 4.0 MILS.
- APPLY COATINGS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND ONLY WHEN THE TEMPERATURE IS WITHIN THE MANUFACTURER'S ACCEPTABLE TEMPERATURE RANGE.
- DO NOT APPLY COATINGS IN SNOW, RAIN, FOG OR MIST, WHEN THE RELATIVE HUMIDITY EXCEEDS 85 PERCENT, AT TEMPERATURES LESS THAN 5 DEGREES ABOVE THE DEW POINT, OR TO DAMP AND WET SURFACES.

WELDS:

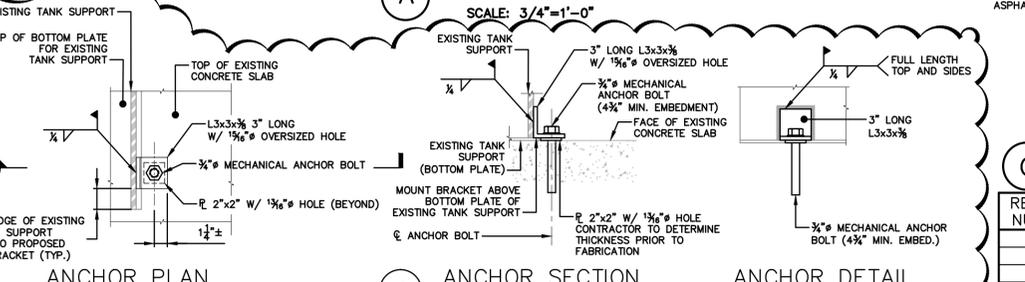
- ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY D11-2010 STRUCTURAL WELDING CODE-STEEL.
- ALL FILLET WELDING SHALL BE A MINIMUM OF 1/4" WELD UNLESS NOTED OTHERWISE ON DRAWINGS.
- PROVIDE WELDER CERTIFICATIONS FOR REVIEW PRIOR TO PERFORMING THE WORK. WELDERS SHALL BE CERTIFIED IN ACCORDANCE WITH AWS D11.1-2010 STRUCTURAL WELDING CODE-STEEL.
- SELECT WELDING RODS ACCORDING TO AWS SPECIFICATIONS FOR METAL ALLOY WELDED.
- REMOVE ALL PAINT, DIRT OIL AND GREASE FROM THE SURFACES BEING WELDED.
- WELD CORNERS AND SEAMS CONTINUOUSLY.
- OBTAIN FUSION WITHOUT UNDERCUT OR OVERLAP.
- REMOVE WELDING FLUX IMMEDIATELY AND FINISH WELDS AND SURFACES SMOOTH AND BLENDED.



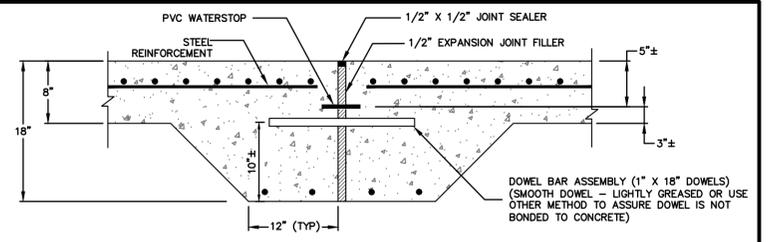
PLAN - FUEL TANK SUPPORT SLAB
SCALE: 3/4"=1'-0"



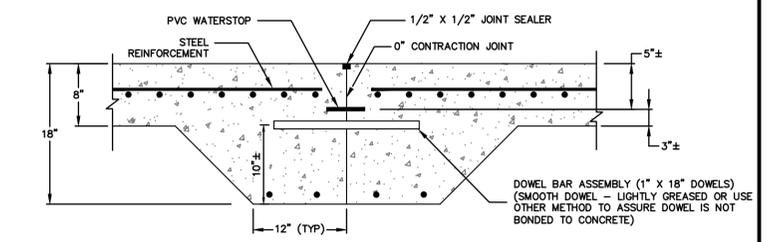
A SLAB SECTION
SCALE: 3/4"=1'-0"



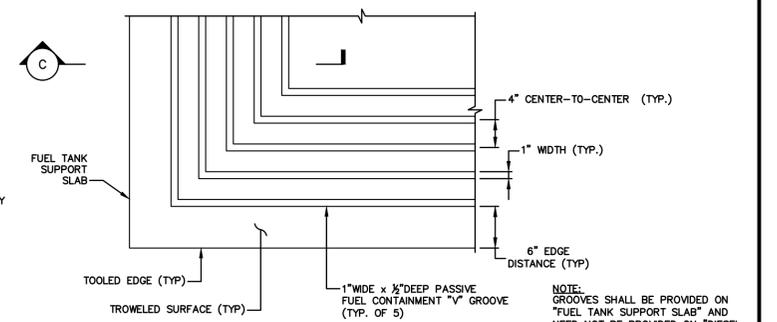
ANCHOR PLAN SCALE: 1-1/2" = 1'-0"
ANCHOR SECTION SCALE: 1-1/2" = 1'-0"
ANCHOR DETAIL SCALE: 1-1/2" = 1'-0"



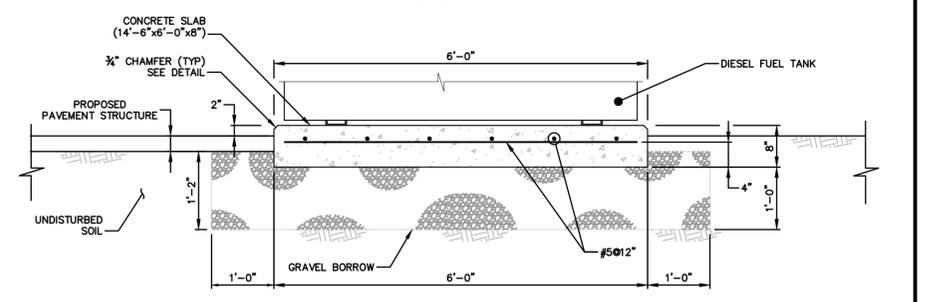
EXPANSION JOINT
NOT TO SCALE



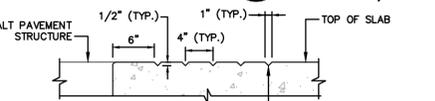
CONTRACTION JOINT
NOT TO SCALE



CONTAINMENT GROOVE LAYOUT
SCALE: 1"=1'-0"



B DIESEL FUEL TANK SLAB SECTION
SCALE: 3/4"=1'-0"



C PASSIVE FUEL CONTAINMENT GROOVES
SCALE: 1"=1'-0"

REVISION NUMBER	REVISION DATE	DESCRIPTION

Rhode Island Airport Corporation
NORTH CENTRAL AIRPORT
CLEAR RVZ AND RELOCATE FUEL TANKS

SHEET TITLE
STRUCTURAL NOTES AND DETAILS

DESIGNED	DRAWN	CHECKED	APPROVED
PROJECT NO. 3-44-0004-XX-XXXX		DATE: FEB. 2013	
FUSS & O'NEILL		SHEET SA-501	

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