

January 22, 2015

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATION
DEPARTMENT OF ADMINISTRATION

DIVISION OF PURCHASES BID NO. 7549237

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

RHODE ISLAND CONTRACT NO.2014-CB-072

FEDERAL-AID PROJECT NO. FAP Nos: BRO-0307(005)

Shippee Bridge No. 307

STA. 124+08.00 TO STA. 127+69.00

CITY/TOWN OF Burrillville

COUNTY OF PROVIDENCE

NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 5 Prospective bidders and all concerned are hereby notified of the following changes in the Plans, Specifications, Proposal and Distribution of Quantities for this contract. These changes shall be incorporated in the Plans, Specifications, Proposal and Distribution of Quantities, and shall become an integral part of the Contract Documents.

A. Clarification

1. Schedule Development Process

Once the Schedule Development process is complete the Department will require monthly schedule meetings while the Shop Drawing and Fabrication process takes place. Once construction starts, bi-weekly meetings will resume.

B. Contract Documents

1. Special Provisions - Job Specific

a. Delete the Job Specific Specifications Index page in its entirety and replace with Job Specific Specifications Index (R-1) attached to this Addendum No. 5. Item Code 804.9914 Title has been revised.

b. Delete page JS-50 in its entirety and insert revised page JS-50 (R-1) attached to this Addendum No. 5. The Design Calculations section, item 5 has been revised to clarify design methodology terms.

c. Delete page JS-62 in its entirety and insert revised page JS-62 (R-1) attached to this Addendum No. 5. The description for Code 804.9914 has been revised for clarification of load testing requirements.

2. Distribution of Quantities

a. Delete pages Index 1 (R-2) and Index 2 (R-2) in their entirety and insert revised pages Index 1 (R-2) and Index 2 (R-2) attached to this Addendum No. 5. The quantities have been revised for Item Code Nos. 823.1750 and 821.1690; the Item Code Description for 804.9914 has been revised; and new Item Code Nos. T20.006 and T20.0104 have been added.

b. Delete pages 6, 9, and 17 in their entirety and insert revised pages 6 (R-1), 9 (R-1) and 17 (R-1) attached to this Addendum No. 5. The quantities for Item Code Nos. 823.1750 and 821.1690 have been revised; the Item Code Description for 804.9914 has been revised; and new Item Code Nos. T20.006 and T20.0104 have been added.

C. Plans - Volume 1

1. General Notes-1 (Structure) – Vol. I – Sheet 12 of 49

a. Modify this sheet as shown on Sketch No. 1 attached to this Addendum No. 5. The first bulleted note under Deep Foundations section has been revised to clarify lateral load requirements to be utilized in the design of micro piles at each abutment.

2. Demolition Plans-2 – Vol. I – Sheet 17 of 49

a. Modify this sheet as shown on Sketch No. 2 attached to this Addendum No. 5. Demolition Note 2 has been added for clarification of existing reinforcement removal limits for existing Northwest Wingwall.

3. Pile Layout and Pay Limits South Abutment – Vol. I – Sheet 22 of 49

a. Modify this sheet as shown on Sketch No. 3 attached to this Addendum No. 5. A callout note on Section C has been modified to clarify the drilled & grouted micropile shaft diameter. Note No. 4 has been added to clarify the requirement for CMP Pipe and peastone at all micropile locations.



 RI Department of Transportation
Chief Engineer

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JOB SPECIFIC SPECIFICATIONS**

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108.01	Subletting of Contract	JS-3
108.1000	Prosecution and Progress	JS-4
109.04	Differing Site Conditions (TAC 259)	JS-5
109.06	Partial Payments	JS-9
109.09	Acceptance and Final Payment	JS-10
201.9901	Sandbag Dike System	JS-11
206.9901	6" Compost Filter Sock	JS-12
212.1000	Maintenance and Cleaning of Erosion and Pollution Controls	JS-13
401.9901	Modified Class 9.5 Hot Mix Asphalt for Bridge Decks	JS-14
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803.9901	Remove and Dispose Existing Substructure and Walls	JS-43
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804.99	Micropiles	JS-48
804.9911	Mobilization & Demobilization of Micropile Equipment	JS-48
804.9912	Drilled Micropile	JS-48
804.9914	Micropile Load Test (600 Kips)	JS-48
808.9901	Scour Countermeasure Concrete Slab	JS-63
Section 809	Precast-Prestressed Structure Concrete	JS-64
809.9901	Precast Concrete Substructure Abutments	JS-75
809.9902	Precast Concrete Approach Slabs	JS-75
810.9901	Galvanized Bar Reinforcement for Structures	JS-79
813.9901	Prefabricated Waterproofing Sheet Membrane	JS-83
813.9902	Neoprene Sheeting Waterproofing	JS-86
Section 814	Placement of Concrete Bridge Decks	JS-89
901.9901	Furnish and Install Metal Beam Guardrail – Southwest Approach	JS-90
907.1000	Dust Control	JS-91
937.1000	Maintenance and Movement of Traffic Protective Devices	JS-92
938.1000	Price Adjustments	JS-93
L.02.1000	Seeding	JS-94

most current Edition of the *AASHTO LRFD Bridge Design Specifications*, including current interim specifications.

8. Minimum 28-day compressive strength of concrete or cement grout shall be 5,000 psi.
9. The design shall be completed in accordance with the requirements indicated in the AASHTO LRFD Bridge Design Specifications, latest edition.

Micropile Design Submittals. Before the planned start of micropile structure construction, the Contractor shall submit complete design calculations and working drawings to the Engineer for review and approval. This submittal shall include an installation narrative, all details, dimensions, quantities, ground profiles, and cross-sections necessary to construct the micropile structure. The installation narrative shall provide details of the specific method of construction, the proposed procedure for by-pass of obstructions, the proposed equipment for pile installation, and means and methods for measuring grout quantities and pressures during installation. The proposed records keeping format shall be described and a sample installation form provided for approval. The Contractor shall verify the limits of the micropile structure and ground survey data before preparing the detailed working drawings.

The drawings and calculations shall be signed and sealed by the Contractor's Professional Engineer or by the Consultant designer's Professional Engineer (if applicable), previously approved by the Engineer. If the micropile Contractor uses a consultant design engineer to prepare the design, the micropile Contractor shall still have overall contract responsibility for both the design and the construction.

Design Calculations. The design calculations shall include, but not be limited to, the following items:

1. A written summary report which describes the overall micropile design.
2. Applicable code requirements and design references.
3. Micropile structure critical design cross-section(s) geometry including soil/rock strata and piezometric levels and location, magnitude and direction of design applied loadings, including slope or external surcharge loads.
4. Design criteria including soil/rock shear strengths (friction angle and cohesion), unit weights, and ground-grout bond values and micropile drillhole diameter assumptions for each soil/rock strata.
5. Resistance factors and calculated resistances used in the design on the ground-grout bond values, surcharges, soil/rock and material unit weights, steel, grout, and concrete materials.
6. Design calculation sheets (both static and seismic) with the project number, micropile structure location, designation, date of preparation, initials of designer and checker, and page number at the top of each page. Provide an index page with the design calculations.
7. Design notes including an explanation of any symbols and computer programs used in the design.
8. Pile to precast abutment stem connection calculations.

Working Drawings. The working drawings shall include all information required for the construction and quality control of the piling. Working drawings shall include, but not be limited to, the following items unless provided in the Plans:

CODE 804.9914 Micropile Load Test 600 Kips. “Micropile Load Test 600 Kips” shall be measured by the number of micropile load tests actually performed by the Contractor in accordance with the Plans, this Specification, and/or as directed by the Engineer.

Incidental Items. The following items of work shall not be measured separately for payment, but shall be considered incidental to the other items of work inherent to this Specification: Micropile Design; Working Drawings; Construction Submittals; Construction Site Survey and Monitoring; Site Drainage Control; Layout, Elevation and Location Control; Measurement and Marking; By-pass or Removal of Obstructions; Pile Splices; Replacement of Damaged, Defective, or Misaligned Piles; and Additional Load Tests required due to pile failure.

BASIS OF PAYMENT.

Mobilization & Demobilization of Micropile Equipment. “Mobilization & Demobilization of Micropile Equipment” will be paid for at the contract lump sum price as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment necessary for the handling, drilling and grouting of the micropiles and for the removing of same upon completion of the work.

Drilled Micropile. The accepted quantity of “Drilled Micropile” will be paid for at the contract unit price per each as listed in the Proposal. The price so-stated constitutes full and complete compensation for all design, labor, materials, tools, equipment and all other incidental items of work necessary to finish the work, complete and accepted by the Engineer, including drilling, furnishing, and placing the reinforcing steel and casing, grouting, and pile top attachments. The micropile Contractor is also responsible for estimating the grout take. No extra payment will be made for grout overruns.

Micropile Load Test. The accepted number of “Micropile Load Test” will be paid for at the contract unit price per each test as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including instrumentation and all other incidentals required to finish the work, complete and accepted by the Engineer.

Table of Contents - Distribution of Quantities

Project Name - Shippee Bridge No. 307

Estimate Name - ADDENDUM No. 5

R.I. Contract No. - 2014-CB-072

FAP Nos: BRO-0307(005)

ItemCode	Description	Page
201.0321	CLEARING AND GRUBBING	1
201.0407	** ITEM DELETED **	1
201.0415	REMOVE AND DISPOSE GUARDRAIL AND POST ALL TYPES	1
201.0610	REMOVE AND DISPOSE DIRECTIONAL, WARNING, REGULATORY, SERVICE, AND STREET SIGNS	1
201.9901	SANDBAG DIKE SYSTEM	1
202.0100	EARTH EXCAVATION	2
203.0100	STRUCTURAL EXCAVATION EARTH	2
203.0700	PERVIOUS FILL	2
204.0100	TRIMMING AND FINE GRADING	3
206.9901	6" COMPOST FILTER SOCK	3
208.0100	DEWATERING BASIN STANDARD 9.7.0	3
212.2000	CLEANING AND MAINTENANCE OF EROSION CONTROLS	3
302.0100	GRAVEL BORROW SUBBASE COURSE	3
303.0100	SPECIAL GRADED AGGREGATE FOR SHAPING AND TRIMMING DRIVEWAYS OR SHOULDERS	4
401.9902	CLASS 19.0 HOT MIX ASPHALT	4
401.9903	CLASS 12.5 HOT MIX ASPHALT	4
403.0300	ASPHALT EMULSION TACK COAT	5
711.0110	3'' PAVED WATERWAY CLASS I-1 STANDARD 8.4.0	5
711.0300	SEEDED DITCH STANDARD 8.1.0	5
800.9901	SHIPPEE BRIDGE NO. 307 SUPERSTRUCTURE	5
803.9901	REMOVE AND DISPOSE EXISTING SUBSTRUCTURE AND WALLS	5
803.9902	REMOVE AND DISPOSE EXISTING SUPERSTRUCTURE	6
804.9911	MOBILIZATION & DEMOBILIZATION OF MICROPILE EQUIPMENT	6
804.9912	DRILLED MICROPILES	6
804.9914	MICROPILE LOAD TEST 600 KIPS	6
808.0321	CONCRETE SUBSTRUCTURE CLASS HP 3/4'' WALL CAP	6
808.0322	CONCRETE SUBSTRUCTURE CLASS HP 3/4'' END POSTS	6
808.0504	CONCRETE SUBSTRUCTURE CLASS XX 3/4" WALL FOOTING	7
808.0505	CONCRETE SUBSTRUCTURE CLASS HP 3/4'' WALL STEMS	7
808.0602	CONCRETE SUBSTRUCTURE CLASS HP 3/4'' BACKWALLS	7
808.9901	SCOUR COUNTERMEASURE CONCRETE SLAB	8
809.9901	PRECAST CONCRETE SUBSTRUCTURE ABUTMENTS	8
809.9902	PRECAST CONCRETE APPROACH SLABS	8
810.9901	GALVANIZED BAR REINFORCEMENT FRO STRUCTURES	8
819.0800	DRILL AND GROUT REINFORCING DOWELS	8
821.1690	SAW & SEALING JOINTS IN BITUMINOUS CONCRETE PAVEMENT	9
823.1750	ASPHALTIC EXPANSION JOINT SYSTEM	9
833.0400	GRANITE IDENTIFICATION TABLETS	9
901.0193	GUARDRAIL STEEL BEAM SINGLE FACE STANDARD 34.2.0	9
901.0196	GUARDRAIL CONNECTION TO EXISTING ENDPST TRAILING END SECTION, STANDARD 34.3.6	9
901.0197	GUARDRAIL CONNECTION TO EXISTING ENDPST APPROACH END SECTION, STANDARD 34.3.5	10
901.0199	GUARDRAIL END TREATMENT, ENERGY ABSORBING TERMINAL	10
901.9901	FURNISH AND INSTALL METAL BEAM GUARDRAIL - SOUTHWEST APPROACH	10
903.9901	TEMPORARY CHAIN LINK FENCE, 6' HIGH WITH GATE, CONCRETE BLOCK BASE	10
905.0110	PORTLAND CEMENT SIDEWALK MONOLITHIC STANDARD 43.1.0	10
906.0110	GRANITE CURB, QUARRY SPLIT STRAIGHT, STANDARD 7.3.0	11
906.0120	GRANITE WHEELCHAIR RAMP CURB STANDARDS 7.3.3, 43.3.0 AND 43.3.1	11
907.0100	WATER FOR DUST CONTROL	11
914.5010	FLAGPERSONS	11

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ItemCode	Description	Page
914.5020	FLAGPERSONS - OVERTIME	11
917.0105	REMOVE AND REPLACE RURAL MAILBOX POST WITH STANDARD 15.1.0	12
922.0100	TEMPORARY CONSTRUCTION SIGNS STANDARD 29.1.0 AND 27.1.1	12
923.0105	DRUM BARRICADE STANDARD 26.2.0	12
923.0125	PLASTIC PIPE TYPE III BARRICADE STANDARD 26.3.1	12
923.0200	FLUORESCENT TRAFFIC CONES STANDARD 26.1.0	13
926.0130	PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL STANDARD 40.5.0	13
926.0140	REFLECTIVE DELINEATORS FOR TEMPORARY CONCRETE BARRIERS	13
929.0110	FIELD OFFICE	13
932.0100	CUTTING AND MATCHING ASPHALT	13
932.0200	FULL-DEPTH SAWCUT OF BITUMINOUS PAVEMENT	14
936.0110	MOBILIZATION	14
937.0200	MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION	14
943.0200	TRAINEE MAN-HOURS	14
L01.0102	LOAM BORROW 4 INCHES DEEP	14
L02.0102	RESIDENTIAL SEEDING (TYPE 2)	15
T15.0100	DIRECTIONAL REGULATORY AND WARNING SIGNS	15
T16.0200	REMOVE AND RELOCATE GROUND MOUNTED SIGN	15
T20.1000	REMOVE EXISTING PAVEMENT MARKINGS	15
T20.2006	6 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	15
T20.2012	12 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	16
T20.2014	4 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW	16
201.0409	REMOVE AND DISPOSE FLEXIBLE PAVEMENT	16
701.8003	PIPE BEDDING CLASS C	16
810.0200	STANDARD BARS GRADE 60	16
T20.0006	6 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT	17
T20.0104	4 INCH YELLOW FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT	17

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Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
022	803.9902	REMOVE AND DISPOSE EXISTING SUPERSTRUCTURE SHIPPEE BRIDGE EXISTING BRIDGE SUPERSTRUCTURE	LS	1.00	0011	01
				Item 803.9902 Total:		1.00
023	804.9911	MOBILIZATION & DEMOBILIZATION OF MICROPILE EQUIPMENT SHIPPEE BRIDGE LUMP SUM	LS	1.00	0011	01
				Item 804.9911 Total:		1.00
024	804.9912	DRILLED MICROPILES SHIPPEE BRIDGE NORTH ABUTMENT SOUTH ABUTMENT	EACH	6.00 6.00	0011 0011	01 01
				Item 804.9912 Total:		12.00
025	804.9914	MICROPILE LOAD TEST 600 KIPS SHIPPEE BRIDGE PER JS SPEC	EACH	1.00	0011	01
				Item 804.9914 Total:		1.00
026	808.0321	CONCRETE SUBSTRUCTURE CLASS HP 3/4'' WALL CAP SHIPPEE BRIDGE NORTHWEST WINGWALL SOUTHEAST WINGWALL	CY	5.00 20.00	0011 0011	01 01
				Item 808.0321 Total:		25.00
027	808.0322	CONCRETE SUBSTRUCTURE CLASS HP 3/4'' END POSTS	CY			

Distribution of Quantities

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Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
036	821.1690	SAW & SEALING JOINTS IN BITUMINOUS CONCRETE PAVEMENT SHIPPEE BRIDGE	LF			
		NORTH ABUTMENT		32.00	0011	01
		SOUTH ABUTMENT		32.00	0011	01
Item 821.1690 Total:				64.00		
037	823.1750	ASPHALTIC EXPANSION JOINT SYSTEM SHIPPEE BRIDGE	LF			
		NORTH ABUTMENT		32.00	0011	01
		SOUTH ABUTMENT		32.00	0011	01
Item 823.1750 Total:				64.00		
038	833.0400	GRANITE IDENTIFICATION TABLETS SHIPPEE BRIDGE	EACH			
		NORTH AND SOUTH		2.00	0011	01
Item 833.0400 Total:				2.00		
039	901.0193	GUARDRAIL STEEL BEAM SINGLE FACE STANDARD 34.2.0 SHIPPEE BRIDGE	LF			
		NORTHEAST CORNER		75.00	0011	01
		NORTHWEST CORNER		50.00	0011	01
		SOUTHEAST CORNER		75.00	0011	01
Item 901.0193 Total:				200.00		
040	901.0196	GUARDRAIL CONNECTION TO EXISTING ENDPOST TRAILING END SECTION, STANDARD 34.3.6 SHIPPEE BRIDGE	EACH			
		NE CORNER		1.00	0011	01
		SW CORNER		1.00	0011	01
Item 901.0196 Total:				2.00		

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Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
074	810.0200	Cont.				
				Item 810.0200 Total:	2,210.00	
075	T20.0006	6 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT SHIPPEE BRIDGE STA 124+08.00 TO STA 127+69.06	LF	730.00	0011	01
				Item T20.0006 Total:	730.00	
076	T20.0104	4 INCH YELLOW FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT SHIPPEE BRIDGE STA 124+08.00 TO STA 127+69.06	LF	365.00	0011	01
				Item T20.0104 Total:	365.00	

GENERAL NOTES-1 (STRUCTURE), SHEET 12 OF 49

DELETE 1ST BULLETED NOTE UNDER DEEP FOUNDATIONS, REPLACE WITH THE FOLLOWING:

- MICROPILE RESISTANCE VALUES GIVEN IN THE TABLES ABOVE ARE MINIMUM REQUIRED RESISTANCES. A LATERAL LOAD OF 24 KIPS AT ELEVATION 343.50 AT EACH ABUTMENT SHALL BE INCLUDED IN THE DESIGN OF THE MICROPILES.**

RIC No. 2014-CB-072



55 Capital Boulevard, Second Floor
Rocky Hill, CT 06067
P: 860 436 5600 F: 860 436 5601
392 Wampanoag Trail
East Providence, RI 02915
P: 401 233 2993 F: 401 383 0773

RHODE ISLAND DEPARTMENT OF TRANSPORTATION	
BRIDGE RECONSTRUCTION SHIPPEE BRIDGE NO. 307 ROUTE 98 OVER NIPMUC RIVER BURRILLVILLE, RHODE ISLAND	
ADDENDUM NO. 5 SKETCH NO. 1	
CHECKED BY	PRIME
DATE	JAN 2015
SCALE	

DEMOLITION PLAN-2, SHEET 17 OF 49

ADD NEW NOTE NO. 2, AS FOLLOWS:

- 2. AT THE NORTHWEST WINGWALL, THE EXISTING REINFORCING STEEL TO REMAIN, IS ONLY WITHIN THE LIMITS OF THE PROPOSED CAST-IN-PLACE CONCRETE WORK AT THE WEST END OF THE NORTH ABUTMENT. FOR PROPOSED CAST-IN-PLACE CONCRETE LIMITS, SEE SHEET 27. EXISTING REINFORCING STEEL BEYOND THESE LIMITS SHALL BE REMOVED.**

RIC No. 2014-CB-072

 PRIME AE Group, Inc.	55 Capital Boulevard, Second Floor Rocky Hill, CT 06067 P: 860 436 5600 F: 860 436 5601
	392 Wampanoag Trail East Providence, RI 02915 P: 401 233 2993 F: 401 383 0773

RHODE ISLAND DEPARTMENT OF TRANSPORTATION
BRIDGE RECONSTRUCTION SHIPPEE BRIDGE NO. 307 ROUTE 98 OVER NIPMUC RIVER BURRILLVILLE, RHODE ISLAND
ADDENDUM NO. 5 SKETCH NO. 2
CHECKED BY <u>PRIME</u> DATE <u>JAN 2015</u> SCALE _____

PILE LAYOUT AND PAY LIMITS SOUTH ABUTMENT, SHEET 22 OF 49

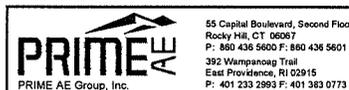
SECTION C

DELETE CALLOUT: “(9” TO 10” Φ)”
REPLACE WITH: “(8” NOMINAL) MATCH STEEL CASING DIAMETER”

ADD NEW NOTE NO. 4, AS FOLLOWS:

4. CMP AND PEASTONE MATERIAL DETAIL IS REQUIRED AT ALL MICROPILE LOCATIONS ON BOTH ABUTMENTS.

RIC No. 2014-CB-072



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BRIDGE RECONSTRUCTION SHIPPEE BRIDGE NO. 307 ROUTE 98 OVER NIPMUC RIVER BURRILLVILLE, RHODE ISLAND
ADDENDUM NO. 5 SKETCH NO. 3
CHECKED BY <u>PRIME</u> DATE <u>JAN 2015</u> SCALE _____