



Maura Healey, Governor  
Kimberley Driscoll, Lieutenant Governor  
Monica Tibbitts-Nutt, Secretary & CEO  
Jonathan L. Gulliver, Highway Administrator



March 15, 2024

608762-124916

ADDENDUM NO. 4

To Prospective Bidders and Others on:

**BOSTON-CAMBRIDGE**  
**Federal Aid Project Nos. HIP(BR)-0036(018)X**  
**Bridge Preservation of B-16-246=C-01-029,**  
**Eliot Street over the Charles River**

THIS PROPOSAL TO BE OPENED AND READ: TUESDAY, MARCH 19, 2024 at 2:00 P.M.

Transmitting revisions to the Contract Documents as follows:

- |                         |   |
|-------------------------|---|
| <u>DOCUMENT 00104:</u>  | Revised page 3.   |
| <u>DOCUMENT 00813:</u>  | Deleted document in its entirety and inserted new document (4 pages). |
| <u>DOCUMENT A00801:</u> | Revised pages 133.1, and 133.2.                                       |
| <u>DOCUMENT B00420:</u> | Revised pages 12 and 13.  |

Take note of the above, substitute the revised pages for the originals, delete document indicated, insert new document in proper order, and acknowledge Addendum No. 4 in your Expedite Proposal file before submitting your bid.

Very truly yours,

Eric M. Cardone, P.E.  
Construction Contracts Engineer

SP  
cc: A. Christakis, Project Manager

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④ Addendum No. 4, March 15, 2024

① Addendum No.1, March 8, 2024

**NOTICE TO CONTRACTORS** (Continued)

**PRICE ADJUSTMENTS**

④ ① This Contract contains price adjustments for hot mix asphalt and Portland cement mixtures, diesel fuel, and gasoline. For reference the base prices are as follows: liquid asphalt \$637.50 per ton, Portland cement \$425.53 per ton, diesel fuel \$3.279 per gallon, and gasoline \$2.582 per gallon, and Steel Base Price Index 436.7. MassDOT posts the **Price Adjustments** on their Highway Division's website at <https://www.mass.gov/massdot-contract-price-adjustments>

This Contract contains Price Adjustments for steel. See Document 00813 - PRICE ADJUSTMENT FOR STRUCTURAL STEEL AND REINFORCING STEEL for their application and base prices.

MassDOT projects are subject to the rules and regulations of the Architectural Access Board (521 CMR 1.00 et seq.)

Prospective bidders and interested parties can access this information and more via the internet at [WWW.COMMBUYS.COM](http://WWW.COMMBUYS.COM).

BY: Monica G. Tibbits-Nutt, Secretary and CEO, MassDOT  
Jonathan L. Gulliver, Administrator, MassDOT Highway Division  
SATURDAY, DECEMBER 30, 2023

## DOCUMENT 00813

## SPECIAL PROVISIONS

## PRICE ADJUSTMENTS FOR STRUCTURAL STEEL AND REINFORCING STEEL

March 14, 2024

This special provision applies to all projects containing the use of structural steel and/or reinforcing steel as specified elsewhere in the Contract work. It applies to all structural steel and all reinforcing steel, as defined below, on the project. Compliance with this provision is mandatory, i.e., there are no “opt-in” or “opt-out” clauses. Price adjustments will be handled as described below and shall only apply to unfabricated reinforcing steel bars and unfabricated structural steel material, consisting of rolled shapes, plate steel, sheet piling, pipe piles, steel castings and steel forgings.

Price adjustments will be variances between Base Prices and Period Prices. Base Prices and Period Prices are defined below.

Price adjustments will only be made if the variances between Base Prices and Period Prices are 5% or more. A variance can result in the Period Price being either higher or lower than the Base Price. Once the 5% threshold has been achieved, the adjustment will apply to the full variance between the Base Price and the Period Price.

Price adjustments will be calculated by multiplying the number of pounds of unfabricated structural steel material or unfabricated reinforcing steel bars on a project by the index factor calculated as shown below under Example of a Period Price Calculation.

Price adjustments will *not* include guardrail panels or the costs of shop drawing preparation, handling, fabrication, coatings, transportation, storage, installation, profit, overhead, fuel costs, fuel surcharges, or other such charges not related to the cost of the unfabricated structural steel and unfabricated reinforcing steel.

The weight of steel subject to a price adjustment shall not exceed the final shipping weight of the fabricated part by more than 10%.

Base Prices and Period Prices are defined as follows:

Base Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are fixed prices determined by the Department and found in the table below. While it is the intention of the Department to make this table comprehensive, some of a project’s unfabricated structural steel and/or unfabricated reinforcing steel may be inadvertently omitted. Should this occur, the Contractor shall bring the omission to the Department’s attention so that a contract alteration may be processed that adds the missing steel to the table and its price adjustments to the Contract.

The Base Price Date is the month and year of the most recent finalized period price index at the time that MassDOT opened bids for the project. The Base Price Index for this contract is the Steel PPI listed in the Notice to Contractors.

Period Prices of unfabricated structural steel and unfabricated reinforcing steel on a project are variable prices that have been calculated using the Period Price Date and an index of steel prices to adjust the Base Price.

The Period Price Date is the date the steel was delivered to the fabricator as evidenced by an official bill of lading submitted to the Department containing a description of the shipped materials, weights of the shipped materials and the date of shipment. This date is used to select the Period Price Index.

The index used for the calculation of Period Prices is the U.S. Department of Labor Bureau of Labor Statistics Producer Price Index (PPI) Series ID WPU101702 (Not Seasonally Adjusted, Group: Metals and Metal Products, Item: Semi-finished Steel Mill Products.) As this index is subject to revision for a period of up to four (4) months after its original publication, no price adjustments will be made until the index for the period is finalized, i.e., the index is no longer suffixed with a “(P)”.

Period Prices are determined as follows:

Period Price = Base Price X Index Factor

Index Factor = Period Price Index / Base Price Index

Example of a Period Price Calculation:

Calculate the Period Price for December 2009 using a Base Price from March 2009 of \$0.82/Pound for 1,000 Pounds of ASTM A709 (AASHTO M270) Grade A36 Structural Steel Plate.

The Period Price Date is December 2009. From the PPI website\*, the Period Price Index = 218.0.

The Base Price Date is March 2009. From the PPI website\*, the Base Price Index = 229.4.

Index Factor = Period Price Index / Base Price Index = 218.0 / 229.4 = 0.950

Period Price = Base Price X Index Factor = \$0.82/Pound X 0.950 = \$0.78/Pound

Since \$0.82 - \$0.78 = \$0.04 is less than 5% of \$0.82, no price adjustment is required.

If the \$0.04 difference shown above was greater than 5% of the Base Price, then the price adjustment would be 1,000 Pounds X \$0.04/Pound = \$40.00. Since the Period Price of \$0.78/Pound is less than the Base Price of \$0.82/Pound, indicating a drop in the price of steel between the bid and the delivery of material, a credit of \$40.00 would be owed to MassDOT. When the Period Price is higher than the Base Price, the price adjustment is owed to the Contractor.

\* To access the PPI website and obtain a Base Price Index or a Period Price Index, go to <http://data.bls.gov/cgi-bin/srgate>

End of example.

The Contractor will be paid for unfabricated structural steel and unfabricated reinforcing steel under the respective contract pay items for all components constructed of either structural steel or reinforced Portland cement concrete under their respective Contract Pay Items.

Price adjustments, as herein provided for, will be paid separately as follows:

Structural Steel

Pay Item Number 999.449 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.457 for negative (-) pay adjustments (credits to MassDOT Highway Division)

Reinforcing Steel

Pay Item Number 999.466 for positive (+) pay adjustments (payments to the Contractor)

Pay Item Number 999.467 for negative (-) pay adjustments (credits to MassDOT Highway Division)

No price adjustment will be made for price changes after the Contract Completion Date, unless the MassDOT Highway Division has approved an extension of Contract Time for the Contract.

TABLE

Steel Type	Price per Pound	
1	ASTM A615/A615M Grade 60 (AASHTO M31 Grade 60 or 420) Reinforcing Steel	\$0.68
2	ASTM A27 (AASHTO M103) Steel Castings, H-Pile Points & Pipe Pile Shoes (See Note below.)	\$0.93
3	ASTM A668 / A668M (AASHTO M102) Steel Forgings	\$0.93
4	ASTM A108 (AASHTO M169) Steel Forgings for Shear Studs	\$0.97
5	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Plate	\$1.03
6	ASTM A709/A709M Grade 36 / AASHTO M270M/M270 Grade 36 or 250 Structural Steel Shapes	\$0.96
7	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Plate	\$1.03
8	ASTM A709/A709M Grade 50 / AASHTO M270M/M270 Grade 50 or 345 Structural Steel Shapes	\$0.96
9	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Plate	\$1.07
10	ASTM A709/A709M Grade 50WT / AASHTO M270M/M270 Grade 50WT or 345WT Structural Steel Shapes	\$0.97
11	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W 345W Structural Steel Plate	\$1.07
12	ASTM A709/A709M Grade 50W / AASHTO M270M/M270 Grade 50W or 345W Structural Steel Shapes	\$0.97
13	ASTM A709/A709M Grade HPS 50W / AASHTO M270M/M270 Grade HPS 50W or 345W Structural Steel Plate	\$1.12
14	ASTM A709/A709M Grade HPS 70W / AASHTO M270M/M270 Grade HPS 70W or 485W Structural Steel Plate	\$1.19
15	ASTM A514/A514M-05 Grade HPS 100W / AASHTO M270M/M270 Grade HPS 100W or 690W Structural Steel Plate	\$1.82
16	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Plate	\$1.07
17	ASTM A992/A992M Grade 50S / AASHTO M270M/M270 Grade 50S or 345S Structural Steel Shapes	\$0.97
18	ASTM A276 Type 316 Stainless Steel	\$5.43
19	ASTM A240 Type 316 Stainless Steel	\$5.43
20	ASTM A148 Grade 80/50 Steel Castings (See Note below.)	\$1.87
21	ASTM A53 Grade B Structural Steel Pipe	\$1.20
22	ASTM A500 Grades A, B, 36 & 50 Structural Steel Pipe	\$1.20
23	ASTM A252, Grades 240 (36 KSI) & 414 (60 KSI) Pipe Pile	\$0.95
24	ASTM 252, Grade 2 Permanent Steel Casing	\$0.95
25	ASTM A36 (AASHTO M183) for H-piles, steel supports and sign supports	\$1.02
26	ASTM A328 / A328M, Grade 50 (AASHTO M202) Steel Sheetpiling	\$1.79
27	ASTM A572 / A572M, Grade 50 Sheetpiling	\$1.79
28	ASTM A36/36M, Grade 50	\$1.03
29	ASTM A570, Grade 50	\$1.02
30	ASTM A572 (AASHTO M223), Grade 50 H-Piles	\$1.03
31	ASTM A1085 Grade A (50 KSI) Steel Hollow Structural Sections (HSS), heat-treated per ASTM A1085 Supplement S1	\$1.20
32	AREA 140 LB Rail and Track Accessories	\$0.61

NOTE: Steel Castings are generally used only on moveable bridges. Cast iron frames, grates and pipe are not "steel" castings and will not be considered for price adjustments.

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**ITEM 909.5****RAPID SETTING CONCRETE****CUBIC YARD**

The work under this Item shall conform to the relevant Provisions of Subsection 901 of the Standard Specifications and the following:

The work under this Item shall consist of furnishing and placing rapid setting cementitious material at deck repair locations or as required by the Engineer.

The rapid setting cementitious product shall be qualified rapid set material that shall have completed testing through AASHTO's National Transportation Program (NTPEP) and is included on the MassDOT Qualified Construction Material List (QCML).

The rapid setting cementitious material shall be expanded with aggregate for placements that are two (2) inches or more in depth and must be formulated to develop a minimum compressive strength of 2000 psi within two (2) hours.

The product shall be expanded using clean non-reactive aggregates from a MassDOT approved source according to a formulation acceptable to the manufacturer. Submit certified test reports showing the aggregate is non-reactive. Aggregate specified, labeled, and furnished by the rapid set patching material manufacturer may be used with approval of the Engineer. The mixing process for expanding the rapid setting patching material shall be performed per the Manufacturer's recommendations.

The Contractor will be required to cast twelve (12) cylinders from trial batch for compressive strength testing, in accordance with AASHTO T 161. The trial batch production shall use the same materials and processes as those to be used to produce the rapid setting patching material for the contract.

Trial batching shall be conducted in the presence of the Engineer. The concrete cylinders shall be cast by a certified technician for testing at an independent laboratory approved by MassDOT. Acceptance shall be based on the average compressive strength of three (3) cylinder breaks. The cylinders shall be tested at two (2) hours and seven (7) days. The minimum average compressive strength of the specimens (including 20% overdesign requirement) shall be 2400 psi at two (2) hours and 5000 psi at seven (7) days. Two sets of three (3) cylinders shall be reserved for quality assurance testing by MassDOT Research and Material Section. The contractor shall coordinate delivery of the concrete cylinders to a MassDOT facility so that they may be tested for compressive strength at two hours. No cylinders shall be handled or transported until they have cured for a minimum of 1 hour.

Retesting through trial batching will be required if the rapid setting cementitious product, aggregate source, or the process to produce the patching material changes.

The Contractor shall give the Engineer a 10-day minimum advance notification of trial batch production.

**Construction Method**

The surface to receive the rapid setting repair material shall be properly prepared and free from frost, ice, mud, water, grease, dirt, and any other materials that will hamper the bond.

Prior to placing the rapid setting repair material, the patch area shall be flushed with clean potable water to remove all dust and then blasted with oil free compressed air to remove all standing water.



**ITEM 909.5** (Continued)

Product shall be placed per the manufacturer's recommendation for temperature, included additional steps for placement during cold weather. It is understood that the cold weather steps required for placement come at an additional cost to the Contractor. When temperatures during the repair of a bridge deck will generally be less than 35 degrees F during mixing, placement, and hydration the contractor will be compensated an additional 10% of the unit bid price under non-bid Items.

The rapid setting repair material shall be cured and protected until the minimum compressive strength is achieved.

The Contractor shall be required to mix and place the cement by using an eight (8) cubic foot minimum rubber-blade mobile mixer. Two (2) mixers will be required to be on site, of which one mixer can be used as a back-up. Sufficient mixing and placing equipment shall be provided on the construction site by the Contractor to ensure that a breakdown of equipment will not cause significant delays in completing the scheduled work in the shift.

Approval by the Engineer for all formwork shall be required prior to placement of any concrete.

The Engineer may require the Contractor to vibrate and/or power screed the patched area.

Payment for such equipment shall be considered incidental to this Item.

Rapid setting concrete placements shall be completed no later than 2:00 AM for nighttime operations so that the required compressive strength of 2000 psi is attained before the area is opened to traffic no later than 5:00 A.M.

Formwork shall be maintained and remain in place a minimum of seventy-two (72) hours after placement.

All formwork placed under this contract must be removed no later than forty-five (45) days after it was initially placed. Failure to remove formwork within forty-five (45) days may result in its removal by others, with the associated costs being assessed to the Contractor.

**METHOD OF MEASUREMENT**

Item 909.5 will be measured for payment by the Cubic Yard of rapid setting concrete furnished and installed, complete in place.

**BASIS OF PAYMENT**

Item 909.5 will be paid at the Contract unit price per Cubic Yard, which price shall include all labor, materials, tools, equipment, trial batching, testing, and all incidental costs required to complete the work, as required by the Engineer.

Where formwork is installed for concrete placement, payment of seventy percent (70%) of the Cubic Yard price of this item will be made upon complete concrete installation.

The remaining thirty (30%) of the Cubic Yard price of this Item will be paid only after complete formwork removed by the Contractor.

④ Addendum No. 4, March 15, 2024

Addendum No. 3, March 14, 2024

Project # 608762		Contract # 124916		
Location : BOSTON - CAMBRIDGE				
Description : Bridge Preservation of B-16-246=C-01-029, Eliot Street over the Charles River				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
866.106	2,220	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)  AT _____ PER FOOT		
867.106	1,100	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)  AT _____ PER FOOT		
874.41	25	TRAFFIC SIGNS REMOVED AND DISCARDED  AT _____ EACH		
900.411	10	TRUSS ENCASEMENT REPAIRS - DEEP  AT _____ PER CUBIC YARD		
900.412	50	TRUSS ENCASEMENT REPAIRS - SHALLOW  AT _____ PER SQUARE YARD		
900.413	10	CONCRETE BEAM REPAIRS  AT _____ PER CUBIC YARD		
900.414	10	CONCRETE DIAPHRAGM REPAIRS  AT _____ PER CUBIC YARD		
905.	5	4000 PSI, 3/8 INCH, 660 CEMENT CONCRETE  AT _____ PER CUBIC YARD		
④ 909.05	3	RAPID SETTING CONCRETE  AT _____ PER CUBIC YARD		

④

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Item 909.99 has been deleted.

Project # 608762		Contract # 124916		
Location : BOSTON - CAMBRIDGE				
Description : Bridge Preservation of B-16-246=C-01-029, Eliot Street over the Charles River				
ITEM #	QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICE	AMOUNT
910.1	23,550	STEEL REINFORCEMENT FOR STRUCTURES - EPOXY COATED  AT _____ PER POUND		
912.5	48	DRILLED AND GROUTED #5 DOWELS  AT _____ EACH		
912.6	20	DRILLED AND GROUTED #6 DOWELS  AT _____ EACH		
912.7	427	DRILLED AND GROUTED #7 DOWELS  AT _____ EACH		
960.2	230	GRANITE CAP STONE DOWELS, SS  AT _____ EACH		
966.	25,100	MEMBRANE WATERPROOFING FOR BRIDGE DECK REPAIRS  AT _____ PER SQUARE FOOT		
968.4	4	SCUPPER-REMOVED  AT _____ EACH		
973.	170	BRIDGE EXPANSION JOINT REPLACEMENT  AT _____ PER FOOT		
998.	1	STUDY AND ANALYSIS OF MASONRY MATERIALS AND PROCEDURES  AT _____ LUMP SUM		
<b>Total Qty:</b>		192,165		