

CONTRACT DOCUMENTS
FOR
MISCELENOUS WORK AND RESURFACING OF

Bigelow St
Endicott St

CONTRACT M25-2

BID NO. 8501-W6

DEPARTMENT OF PUBLIC WORKS
CITY OF WORCESTER, MASSACHUSETTS

July 2025

TABLE OF CONTENTS

GENERAL DOCUMENTS.....	1-163
BID SHEETS.....	164-169
TIME OF COMPLETION.....	170
INFORMATION FOR BIDDERS.....	170-173
SPECIAL PROVISIONS.....	174-195
APPENDIX A: CONSTRUCTION SPECIFICATIOS	
APPENDIX B: EoED EXHIBITS	

BID PREPARED BY:

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Assistant Civil Engineer

BID REVIEWED BY:

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Assistant Director of Engineering

BID APPROVED BY:

JAY MELLO, P.E.
Assistant Commissioner of
Engineering

BID ADMINISTERED BY:

CHRIS J. GAGLIASTRO
Purchasing Agent

LUMP SUM RESERVE

The Contractor is advised that the lump sum reserve for contingency work shall be utilized, as required by the City of Worcester for additional work that may be required by the City and agreed to by the Contractor. This reserve will also be used for the City to compensate directly for flag men (when Police are unavailable) and testing as determined by the contracting officer. Any reserve balance remaining at the end of the contract will be returned to the City of Worcester.

The City reserves the right to reject any bid, wholly or in part, and to make awards in a manner deemed in the best interests of the City.

The above estimated quantities form an approximate statement of the extent of the work to be done, based upon the estimate of the Contracting Officer. The City does not expressly or by implication agree that the actual quantity of work will correspond therewith but reserves the right to increase or decrease the quantity of any class or portion of the work, as may be deemed necessary by the Contracting Officer.

TIME FOR PERFORMANCE

Locations listed in this contract shall be substantially completed no later than November 15th, 2026. Completion of the Work for this Contract shall be no later than 30 days after the date of substantial completion for any location.

BID PRICES

The Bidder agrees to perform the work described in the specifications and shown on the plans for the following unit prices:

ITEM #	ESTIMATED QUANTITY	ITEM DESCRIPTION	UNIT PRICES	EXTENDED AMOUNT
			DOLLAR/CENTS IN FIGURES	DOLLAR/CENTS IN FIGURES
1	2	Mobilization Costs	\$_____	\$_____
	(	) LS	Per Lump Sum (LS)	
2	9	Movable Street Barricade	\$_____	\$_____
	(	) EA	Per Each (EA)	
3	1,264	Erosion Control Device - Straw Wattles	\$_____	\$_____
	(	) LF	Per Linear Foot (LF)	
4	46	Inlet Sediment Control Device - Silt Sacks	\$_____	\$_____
	(	) EA	Per Each (EA)	
5	4	Tree Removal	\$_____	\$_____
	(	) EA	Per Each (EA)	
6	1	Tree Protection	\$_____	\$_____
	(	) EA	Per Each (EA)	
7	11	Remove & Reset Street Lights, new footings	\$_____	\$_____
	(	) EA	Per Each (EA)	
8	4	Remove & Reset Parking Signs	\$_____	\$_____
	(	) EA	Per Each (EA)	

9	10	Remove & Reset Stop Signs	\$ _____	\$ _____
		(_____) EA	Per Each (EA)	
10	1	Remove & Salvage Monument & Sign	\$ _____	\$ _____
		(_____) EA	Per Each (EA)	
11	7	Remove & Reset Fire Hydrants	\$ _____	\$ _____
		(_____) EA	Per Each (EA)	
12	2	Remove & Dispose Parking Signs	\$ _____	\$ _____
		(_____) EA	Per Each (EA)	
13	21	Remove & Dispose Catch Basin/Drain	\$ _____	\$ _____
		(_____) EA	Per Each (EA)	
14	370	Remove & Dispose Drainage Pipe	\$ _____	\$ _____
		(_____) LF	Per Linear Foot (LF)	
15	32	Strip & Stockpile Topsoil (4" Depth)	\$ _____	\$ _____
		(_____) CY	Per Cubic Yard (CY)	
16	382	Saw Cutting	\$ _____	\$ _____
		(_____) LF	Per Linear Foot (LF)	
17	246	Remove & Reset Ex. Pavers (@ Entry Plaza)	\$ _____	\$ _____
		(_____) SF	Per Square Foot (SF)	
18	497	Remove & Dispose Ex. Pavers	\$ _____	\$ _____
		(_____) SF	Per Square Foot (SF)	

19	55	Remove & Dispose Subbase Material Below Pavers	\$_____	\$_____
		() SY	Per Square Yard (SY)	
20	2,601	Remove & Dispose Concrete Pavement	\$_____	\$_____
		() SY	Per Square Yard (SY)	
21	2,082	Remove & Dispose Asphalt Pavement-- Mill @2"	\$_____	\$_____
		() SY	Per Square Yard (SY)	
22	5,762	Remove & Dispose Asphalt Pavement- Full Depth	\$_____	\$_____
		() SY	Per Square Yard (SY)	
23	1,140	Remove & Reset Vertical Granite Curb	\$_____	\$_____
		() LF	Per Linear Foot (LF)	
24	2,365	Remove & Demolish Vertical Granite Curb	\$_____	\$_____
		() LF	Per Linear Foot (LF)	
25	3,673	Remove & Dispose Contaminated Soils (Group A-1)	\$_____	\$_____
		() TON	Per Ton (TON)	
26	1,625	Remove & Dispose Contaminated Soils (Group B-1)	\$_____	\$_____
		() TON	Per Ton (TON)	
27	2	Misc. Protection, Salvage and Demo of Site Elements	\$_____	\$_____
		() LS	Per Lump Sum (LS)	
28	5,165	Initial Earthwork (Excavation) @ 2' depth	\$_____	\$_____
		() CY	Per Cubic Yard (CY)	

29	10,993	Cut/Fill	\$ _____	\$ _____
	(	) SY	Per Square Yard (SY)	
30	10,993	Rough/Fine Grading	\$ _____	\$ _____
	(	) SY	Per Square Yard (SY)	
31	452	Disposal Contaminated Soil (Group A-1) (additional excavation needed at proposed utilities)	\$ _____	\$ _____
	(	) TON	Per Ton (TON)	
32	92	Disposal Contaminated Soil (Group B-1) (additional excavation needed at proposed utilities)	\$ _____	\$ _____
	(	) TON	Per Ton (TON)	
33	4	Manhole	\$ _____	\$ _____
	(	) EA	Per Each (EA)	
34	4	Hydrodynamic Separators (Contech)	\$ _____	\$ _____
	(	) EA	Per Each (EA)	
35	19	Catch Basins	\$ _____	\$ _____
	(	) EA	Per Each (EA)	
36	824	12" RCP Pipe	\$ _____	\$ _____
	(	) LF	Per Linear Foot (LF)	
37	4,600	R-Tank	\$ _____	\$ _____
	(	) CF	Per Cubic Foot (CF)	
38	100	Stone Reservoir @ 2'	\$ _____	\$ _____
	(	) CY	Per Cubic Yard (CY)	
39	306	Non-Woven Geotextile Filter Fabric	\$ _____	\$ _____
	(	) SY	Per Square Yard (SY)	

40	290	Subsurface Stone Reservoirs	\$_____	\$_____
	(	) CY	Per Cubic Yard (CY)	
41	8	Area Drains (Beehive Overflow)	\$_____	\$_____
	(	) EA	Per Each (EA)	
42	3	Rain Guardian Turret	\$_____	\$_____
	(	) EA	Per Each (EA)	
43	2,100	Focal Point System	\$_____	\$_____
	(	) SF	Per Square Foot (SF)	
44	2,378	New Vertical Granite Curb	\$_____	\$_____
	(	) LF	Per Linear Foot (LF)	
45	175	New Flush Granite Curb	\$_____	\$_____
	(	) LF	Per Linear Foot (LF)	
46	8	Bituminous Concrete - Pedestrian (Bike) @ 1.5"	\$_____	\$_____
	(	) TON	Per Ton (TON)	
47	51	Base Course @ 1.5"	\$_____	\$_____
	(	) CY	Per Cubic Yard (CY)	
48	245	Compact Aggregate Base @ 8"	\$_____	\$_____
	(	) CY	Per Cubic Yard (CY)	

49	58	Bituminous Concrete - Vehicular @ 1.5"	\$ _____	\$ _____
		(_____) TON	Per Ton (TON)	
50	264	Choker Course @ 2.5"	\$ _____	\$ _____
		(_____) CY	Per Cubic Yard (CY)	
51	1,269	Bituminous Paving- Gravel Base @ 12"	\$ _____	\$ _____
		(_____) CY	Per Cubic Yard (CY)	
52	2,743	Cast-In-Place Concrete Pavement @ 4"	\$ _____	\$ _____
		(_____) SY	Per Square Yard (SY)	
53	609	Concrete Paving- Gravel Base @ 8"	\$ _____	\$ _____
		(_____) CY	Per Cubic Yard (CY)	
54	394	Reinforced Cast-In-Place Concrete Pavement @ 6"	\$ _____	\$ _____
		(_____) SY	Per Square Yard (SY)	
55	132	Concrete Paving- Gravel Base @ 12"	\$ _____	\$ _____
		(_____) CY	Per Cubic Yard (CY)	
56	936	Concrete Unit Paver	\$ _____	\$ _____
		(_____) SF	Per Square Foot (SF)	
57	12	Impervious Paver Concrete Base @ 4"	\$ _____	\$ _____
		(_____) CY	Per Cubic Yard (CY)	
58	171	Mill & Overlay Bituminous Concrete @ 1.5"	\$ _____	\$ _____
		(_____) TON	Per Ton (TON)	

59	1,733	Painted Crosswalks	\$_____	\$_____
		() LF	Per Linear Foot (LF)	
60	2,776	Traffic Striping - Yellow Center Lines	\$_____	\$_____
		() LF	Per Linear Foot (LF)	
61	2,015	Traffic Markings (arrows, Icons, warning zones)	\$_____	\$_____
		() SF	Per Square Foot (SF)	
62	4	Traffic Signs and Posts	\$_____	\$_____
		() EA	Per Each (EA)	
63	2	Rectangular Rapid Flashing Beacons (RRFB)	\$_____	\$_____
		() EA	Per Each (EA)	
64	10	Bollard (AIC 157-158DB)	\$_____	\$_____
		() EA	Per Each (EA)	
65	54	Detectable Warning Mats, 2'x4' (include northside of west end on Endicott)	\$_____	\$_____
		() EA	Per Each (EA)	
66	1,410	Conduit and Wire	\$_____	\$_____
		() LF	Per Linear Foot (LF)	
67	0	Remove & Reset Street Lights, new footings (Covered under Site Prep)	\$_____	\$_____
		() LS	Per Lump Sum (LS)	
68	30	Tree Planting	\$_____	\$_____
		() EA	Per Each (EA)	

69	7	StormTree Tree Box Filter (Includes Freight and Shipping	\$_____	\$_____
		(_____) EA	Per Each (EA)	
70	2,052	Shrubs/Perennials/Rain Garden	\$_____	\$_____
		(_____) SF	Per Square Foot (SF)	
71	777	Loam & Seeding - w/ loam borrow 6" Depth	\$_____	\$_____
		(_____) SF	Per Square Foot (SF)	

TOTAL AMOUNT OF BASE BID ITEMS FOR COMPARISON OF BIDS

_____ Dollars (\$_____)
(In Words) (In Figures)

INFORMATION FOR BIDDERS

GENERAL DESCRIPTION

This bid consists of work in approximate quantities as listed in the Proposal Forms, which state the location and description of the work to be done and the materials to be furnished.

This Contract shall adhere to the specifications provided within this document as well as the accompanying plans prepared by Weston and Sampson, titled "City of Worcester, Green Island Phase 2", dated May 27, 2025.

The plans and specifications, proposal and addenda shall form part of this contract.

SCOPE OF WORK

The work to be done under this Contract consists of the construction of various roadway improvements along the f within the City of Worcester:

Street	Limits	Length
Endicott St	Quinsigamond Ave to Harding St	1,120 ft
Bigelow St	Endicott St to Lafayette St	700 ft

The work to be performed will include excavation, asphalt reclamation, paving with hot mix asphalt, asphalt berm, granite curb, concrete and asphalt sidewalks, drainage structures, bioretention areas, plantings, and other incidental work as required.

Work under this Contract shall be paid for at the contract unit bid prices, which shall constitute full compensation for all material, labor, equipment, etc., required to satisfactorily complete the work.

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN CONFORMANCE WITH THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 2023, THE 2017 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION CONSTRUCTION STANDARD DETAILS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE 2009 MANUAL OF UNIFORM CONTROL DEVICES, THE 2022 MASSACHUSETTS AMENDMENTS TO THE MANUAL OF UNIFORM CONTROL DEVICES, THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, THE SPECIFICATIONS, THE PLANS, AND THESE SPECIAL PROVISIONS.

ADDENDA

The bidder is required to acknowledge receipt of any Addenda issued to this contract by

inserting the Addendum number in the space provided on the proposal form.

CHANGES IN SCOPE

The City of Worcester reserves the right to increase or reduce the amount of this contract. Changes in scope may be ordered at any time up to project acceptance at the contract unit bid prices.

BID PRICE ADJUSTMENTS

This Contract contains a price adjustment for bituminous concrete mixtures. The base price for liquid asphalt on this project is \$635.00 per ton.

This Contract contains price adjustments for diesel fuel and gasoline. The base price for diesel fuel on this project is \$2.766 per gallon and for gasoline \$2.453 per gallon.

This Contract contains price adjustments for Portland cement. The base price for Portland cement on this project is \$425.13 per ton.

EQUIPMENT

Each bidder shall state in his bid the character, make and amount of equipment that he proposes to employ on the work. After bids are opened any bidder may be required to show that he owns, controls by firm option, or can procure the equipment necessary for commencing, prosecuting, and completing the work as required by the specifications.

EXPERIENCE

Each bidder shall state in his bid whether he is now or ever has been engaged on any other contract or other work similar to that proposed, giving the year in which it was done and the manner of its execution and shall submit such other information as will tend to show his ability to prosecute vigorously the work required in these specifications. A successful bidder will be required to employ an organization thoroughly experienced and skilled in the type of work to be done. After the opening of bids any bidder may be required to submit satisfactory evidence that the specific organization which he proposes to employ on this contract has successfully executed work of the nature and quality indicated herein.

INVESTIGATION OF CONDITIONS

Bidders are expected to visit the locality of the work and acquaint themselves with all available information concerning local conditions. They are also expected to make their own estimates of the facilities needed and difficulties attending the execution of the proposed contract including local conditions, availability of labor, uncertainties of weather and other contingencies. In no event will the City assume any responsibility whatever for an interpretation, deduction or conclusion drawn from the inspection of the site. Failure to acquaint himself with all available information concerning these conditions will not relieve the successful bidder from responsibility for estimating the difference and costs of

successfully performing the complete work.

PRE-BID CONFERENCE

A Pre-Bid Conference will be held at 20 East Worcester Street, Worcester, MA 01604, in the first-floor conference room August 6th, 2025, 10 am.

QUANTITIES

All bids will be compared on the total estimate of quantities of work to be done, as shown in the proposal.

These quantities are approximate only, being given as a basis for the comparison of bids to determine the approximate amount of the consideration of the contract. The bidder will be required to complete the work specified or as shown on the drawings, within the required performance period, whether the required quantities are more or less than the amounts herein estimated without any change in the contract unit price. The final payment will not be made until the work is so completed.

The unit price bid for each item must allow for all collateral, incidental, or indirect costs connected with it.

SIMILAR CONSTRUCTION IN OTHER LOCATIONS

Construction of similar work may be needed in other locations and may be included in this Contract by agreement between the City and the Contractor. Any such work is to be paid for on a unit price basis at the prices bid under this Contract. Extra Work Orders will be given to the Contractor for any such work on a unit price basis at the prices bid in the Contract. The purpose of this provision is to permit the inclusion of any emergency or rush projects that may arise.

SPECIAL PROVISIONS

ASPHALT JOINTS

Hot poured rubberized asphalt shall be used in the sealing of transverse and longitudinal Butt joints as specified in Section 460 of the Massachusetts Department of Transportation's Supplemental Specifications. Additionally, tack coat and stone dust shall be applied to all other joints composed of hot mix asphalt immediately after paving, or as required by the Contracting Officer.

Hot poured rubberized asphalt will be paid for under Item 435, whereas tack coat and stone dust shall be considered incidental and compensation shall be included in the contract bid price for the respective hot mix asphalt items.

BARRICADES AND WARNING SIGNS

Prior to start of any work the Contractor will be required to supply and install construction safety signing on each approach to the work zone as directed by the Contracting Officer. Signing shall read "STREET UNDER CONSTRUCTION" or "ROAD WORK AHEAD" or as directed by the Contracting Officer. Signing shall conform to applicable provisions of Section 850 of the Massachusetts Standard Specifications for Highways and Bridges latest edition.

CASTINGS

Protection of all utility castings within work areas shall be the responsibility of the Contractor, including locating castings prior to construction, storing castings during construction, and safeguarding castings from construction operations. Any casting damaged due to the Contractor's operation shall be replaced at the Contractor's cost.

The Contractor will be required to return all excess drain, water, or sewer castings that were replaced or abandoned during the work to the City yard at 1065 Millbury Street This work will be performed as a subsidiary obligation by the Contractor and no additional payment will be made by the City.

Water service curb stops encountered in the sidewalk area requiring final adjustment and not meeting criteria for payment under Item 304.03 shall be set to final grade by the Contractor as a subsidiary obligation and no additional payment for this work will be made by the City.

Gas, electric, and telecommunications castings and structures will be adjusted by the owning agency. The Contractor is responsible for notifying all relevant private utilities of the work being performing and coordinating the adjustment of all gas, electric, and telecommunications castings and structures.

Final adjustment to grade of castings within the roadway must be made after leveling course or binder course has been laid or as directed by the Contracting Officer.

Raised castings must be marked with high visibility paint at the end of day and remarked before the weekend. Castings can be raised for a maximum of 10 days before final paving.

COLD WEATHER PAVING

Paving operations will only be allowed when the ground temperature is minimum 40 degrees (F) and rising. Paving will not be allowed after November 15th without authorization from the Contracting Officer.

COLLARS

Concrete collars, as per the standard construction details, shall be placed around drainage castings, sewer castings, telephone structures, water service boxes, and utility boxes that are in pavement areas on residential streets, streets with low traffic volumes or as directed by the Engineer.

Asphalt collars shall be used on arterial roadways, streets with high traffic volumes, or as directed by the Engineer. Asphalt collars shall be paid for under item 424.

The Contractor will excavate around manhole structures a minimum 6-foot diameter donut (allowing a minimum width of 20 inches, from the casting. Compaction shall be completed using a compactor weighing a minimum of 250 pounds) to a depth of 8 inches, the masonry shall be removed to such depth as directed by the Contracting Officer and new masonry shall be constructed to conform to the proposed design. Material from this excavation will be satisfactorily disposed of by the Contractor. The excavated area will then be filled with SUPERPAVE 12.5 mm Level 2 bituminous concrete binder course placed in two lifts and thoroughly compacted with a plate compactor. Payment for this work shall be covered under the contract price bid for Item 424.

The Contractor will excavate around catch basins a minimum of 18" wide to a depth of 8 inches, the masonry shall be removed to such a depth as directed by the Contracting Officer and new masonry shall be constructed to conform to the proposed design. Material from this excavation will be satisfactorily disposed of by the Contractor. The excavated area will then be filled with SUPERPAVE 12.5 mm Level 2 bituminous concrete binder course placed in two lifts and thoroughly compacted with a plate compactor. Payment for this work shall be covered under the contract price bid for Item 424.

COMPACTION TESTING

Where required by the Contracting Officer, compaction testing will be done by the City of Worcester. The backfill shall be placed in suitable layers necessary to accomplish a minimum of 95% compaction which shall be achieved by mechanical or vibratory compaction equipment. The testing will apply to all areas of construction.

The portion of materials passing the No. 40 sieve shall have a liquid limit not greater than 25 and a plasticity index not greater than 6. The reclaimed pavement borrow shall be compacted to a minimum of 95% of AASHTO T 180 proctor density. Liquid limits shall be determined by AASHTO T 90. If a location fails to meet the above compaction standards, this requirement may be waived at the discretion of the Engineer. Waiver of this requirement shall only be applicable for locations at which, in the opinion of the

Engineer, the composition, nature, and/or physical characteristics of the existing underlying material are such that achieving 95% compaction would have a negative impact on the stability and/or structural integrity of the roadway. Waivers of the compaction requirement shall be issued on a location specific basis. Issuance of a waiver for one testing location does not extend the waiver of testing requirements to other locations along the same roadway. If a location is granted, Contractor shall compact sub-base to the satisfaction of Engineer.

Reclaimed pavement borrow material shall be processed by mechanical means and blended to form a homogeneous material. The equipment for producing crushed material shall be of adequate size and have sufficient adjustments to produce the desired materials. Blended materials that are stockpiled for more than 3 months shall be reworked to a uniform material and retested prior to use however, the Engineer may require additional testing any time the materials appear excessively hard, wet and/or segregated. The processed materials shall be stockpiled in such a manner as to minimize segregation of particle sizes. All reclaimed pavements borrow material shall come from approved sources and stockpiles. The amount of combined crushed asphalt pavement and crushed cement concrete shall not exceed 50% by volume as determined by visual inspection, and/or by laboratory tests required by the Engineer

COOPERATION BY CONTRACTOR

Attention is directed to the provisions relating to rights of public corporations and municipal departments to enter the site of the improvement and alter, replace, and/or install facilities at such times when the Contractor will be prosecuting other required work contiguous thereto.

CONTRACTOR RESPONSIBILITY

The contractor must care for, replace, and restore to good condition to the satisfaction of the Commissioner of Public Works & Parks any utilities, fences, sidewalks, posts, poles or other structures damaged by or interfered with by the contractor outside the scope of work. The contractor shall perform any necessary replacement, reparation or restoration at no additional compensation.

Damage resulting from the operation of the contractor to any structure in the street or ground near or within the scope of work (and not required to be changed under the contract) shall be replaced, repaired or restored by the contractor at no additional compensation.

The contractor shall have no grounds for additional compensation because of expenses due to encountering existing pipes, conduits or structures.

The contractor shall cooperate with all other contractors or other forces within the limits of the work specified. The contractor shall allow the necessary access to the site to other contractors and utility companies and their agents. The contractor shall be responsible for preventing damage by others to the work performed under this contract or for having damage repaired, either by the party responsible or at his own expense.

DEFINITIONS

Except for specific reference to Department Standards and Operations, the usage of the term Contracting Officer shall mean the City of Worcester Commissioner of Public Works or their duly authorized Agent. Engineer shall mean the City of Worcester Director of Engineering or their duly authorized agent. Contractor shall mean the business entity awarded and contractually obligated to perform the work described in the contract documents.

DEWATERING

Where excavations become inundated with water, whether from groundwater or surface runoff, the Contractor shall be responsible for dewatering the excavation prior to installing structures and/or pipes and backfill. Dewatering activities shall be performed in such a manner as to prevent the transport of any sediment downstream. Locations of materials and methods used for dewatering shall be approved by the Engineer prior to use. Costs associated with dewatering activities shall be considered incidental to the overall project, and no additional compensation shall be made.

DISPOSAL, HANDLING, AND OWNERSHIP OF SURPLUS EXCAVATED MATERIALS / GRINDINGS

Grindings generated from the Contractor's milling operations may, at the discretion of the Engineer, become the property of the City. If directed, the milled grindings shall be provided and transported to the City material drop off yard at 1065 Millbury Street by the Contractor, as directed by the Engineer.

As directed by the Engineer, any excess material generated from pulverization activities occurring under this contract and needed for reuse as sub-base in other locations of this contract shall be made available to the City. Said material shall be provided and transported to the location by the Contractor at no additional cost to the City.

All surplus excavated, milled, or pulverized material not required or suitable for reuse on the project, or otherwise not wanted by the City, shall become the property of the Contractor and removed and disposed of outside and away from the limits of the project at no additional cost to the City in accordance with all local rules and the approval of local governmental authorities having jurisdiction over the disposal of such materials. Any excess material that the City decides to keep shall be transported to and stored at the City material drop off yard at 1065 Millbury Street by the Contractor, as directed by the Contracting Officer. Loading, transporting, and unloading shall be done by the Contractor without additional compensation. Payment for this work shall be included in the unit price under the applicable item from which the material was obtained.

DISTURBANCE OF EXISTING BOUNDS

Where existing bounds are disturbed by the Contractor's activities, they shall be reset by a Registered Land Surveyor at the Contractor's expense. A certification by the Registered Land Surveyor performing the work shall be made and submitted to the Engineer for all bounds reset.

DUST CONTROL

The Contractor is responsible for dust control throughout construction as required by the Engineer. The use of water or calcium chloride, as a means of controlling dust may be required to minimize airborne dust. The cost of dust control is incidental to the contract.

EMERGENCY CONTACT

The Contractor shall provide the name of the person to be notified for repairs or emergencies as well as a phone number at which this individual can be contacted 24-hours a day. Failure to respond to emergencies will necessitate the actuation of City crews at the Contractor's expense.

ESTABLISHMENT OF GRASS

The contractor will be responsible for the healthy growth of all grass seed placed until it is established and free of weeds, including watering. Any required replacement will be at no cost to the City. All required work, including excavation and re-loam and seeding, will be done at the contractor's expense. A component of any street being considered complete is the grass being fully established and healthy.

FINAL CLEAN-UP

Upon completion of the work and before acceptance and final payment, the Contractor shall remove and dispose of in an approved manner at his own expense, from the right-of-way, construction site, dredging site, and adjoining property, all temporary structures and all surplus materials and rubbish which the Contractor may have accumulated during the prosecution of the work, and shall leave the areas in a neat and orderly condition. No equipment or material shall be left within any of the aforementioned areas after acceptance of the Contract without the written permission of the Engineer. The Contractor shall not abandon any material at or near the site regardless of whether or not it has any value. All removed material must be disposed of in accordance with all Local, State, and Federal laws and regulations.

HOURS OF WORK

The City will permit the Contractor to work Monday thru Friday between the hours of 7:00 A.M. and 3:30 P.M., except as otherwise permitted by the Contracting Officer. All construction work shall be completed or suspended for the winter season by November 15th, 2024 unless a specific waiver is granted by the Contracting Officer.

INSPECTION OF WORK

The Contractor is advised that the City of Worcester will be provided with a schedule of operations and will at various times during the construction of the project be on-site to inspect procedures and give directions. For the purpose of observing work that affects their respective properties, inspectors for public agencies and utility companies shall be permitted access to the work, but all official orders and directives to the Contractor will be

issued by the City of Worcester Engineer or his duly authorized agent.

IRON CASTINGS AND PIPE

All new iron castings and pipe used on this project shall be North American made.

METHOD OR SEQUENCE OF CONSTRUCTION

The Contractor shall obtain approval for his proposed method and sequence of construction, including procedures for maintaining traffic, from the City of Worcester Engineer or his duly authorized agent, prior to performing the work.

NIGHTTIME WORK ZONE ILLUMINATION

Illumination of work zones during nighttime hours shall be the responsibility of the Contractor. Nighttime hours are defined as one-half hour before sunrise to one-half hour after sunset. All nighttime work shall require prior written approval by the Engineer. Work zones shall be illuminated to levels that provide adequate light to perform all anticipated work activities, complete thorough inspection of the work, and allow for work to be executed in a safe manner. The table below details the required illumination for work activities during nighttime hours.

Illumination Level	Required Minimum Illuminance (ft-candles [lux])	Work Types
I*	5 ft-candles [54 lux]	<ul style="list-style-type: none">• Work zone and traffic control set up, Staging, Layout and measurement, Excavation, Sweeping, Cleaning, Landscaping, Truck clean out areas• Required in the area of lane and/or road closures and tapers and continuously throughout the closure/taper• Required a minimum of 400 feet ahead and 800 feet behind a paving or milling machine. This area shall be extended as necessary to incorporate all vehicle and equipment operations associated with the paving operation. An exception to this requirement shall be made for finish rollers can work beyond the area of Level I illumination using floodlights mounted on the roller.
II	10 ft-candles [108 lux]	<ul style="list-style-type: none">• Application of roadway markings, Immediate area of asphalt paving, milling, and concrete placement and/or removal operations, including bridge decks• Required 50 feet ahead of and 100 feet behind a paving or milling machine.

III	20 ft-candles [215 lux]	<ul style="list-style-type: none"> • Crack sealing of asphalt pavement including pre-application clearing of cracks, Asphalt pavement or concrete joint repair, structural crack filling, and patching and repairs, Installation of signal equipment or other electrical/mechanical equipment, Tasks involving fine details or intricate parts and equipment.
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*Minimum acceptable level for all areas within the work zone

At the request of the Engineer, the Contractor shall provide a work zone lighting plan including a description of the work zone, location and type of lighting, descriptions and technical specifications of illumination and energy generation sources, and calculations confirming adherence with the above illumination requirements. For the purposes of this provision, head lamps, hand-held lighting, or lighting installed on vehicles for the purpose of driving shall not be considered appropriate illumination sources.

All lighting shall be planned, installed, and operated as to avoid glare that affects traffic on the roadway or that causes annoyance or discomfort for residences adjacent to the work zone. The Contractor shall locate and aim lighting fixtures to provide the required level of illumination and uniformity in the work zone without the creation of objectionable glare. To the maximum extent practicable, the Contractor shall eliminate spillage of light from the work zone to adjacent residences. Determination of when glare or spillage exceeds acceptable levels, either for traffic or for adjacent residences, shall be the discretion of the Engineer.

The Contractor shall be responsible for providing all personnel, equipment, energy generation/storage, and materials necessary to illuminate nighttime work zones to the levels prescribed in this provision. Work zone illumination shall be considered incidental to this contract and no separate compensation shall be provided.

NIGHTTIME PAVING

This specification establishes the criteria for determining whether paving and maintenance work should primarily occur during nighttime or daytime hours. The decision is based on factors such as traffic volume, safety considerations, noise impact, work duration, emergency needs, and resource availability. Night work is preferred to minimize traffic congestion and safety risks.

The Contracting Officer reviews and approves work schedules based on these considerations, with exceptions requiring justification and approval. Contractors must comply with approved schedules and implement necessary mitigation measures for traffic, noise, and safety. This specification aims to optimize the balance between traffic efficiency, safety, and community well-being when determining construction timing on all streets.

NOTICE TO OWNERS OF UTILITIES AND PUBLIC SERVICE DEPARTMENTS:

Written notice shall be given by the Contractor to all public service corporations or officials

owning or having charge of Public or Private Utilities and Departments of his intentions to commence operations affecting such utilities and Departments at least one (1) week in advance of the start of such operations and the Contractor shall at the same time file a copy of said notice with the Engineer. The names of the principal City Departments and Utilities which may be affected will be provided to the Contractor at the pre-construction meeting.

**The Contractor shall notify “Massachusetts DIG SAFE” and procure a DIG SAFE number 72 hours prior to disturbing existing ground in any way.
DIG SAFE Call Center - 1-888-344-7233.**

Before the Contractor begins any work on operations which might result in damage to utility pipes or structures the Contractor shall verify the locations of existing overhead and subsurface utilities in the vicinity of the work with the listed Departments and Utility Companies and conduct his operations so as to avoid any damage to them.

NOTICE TO PROCEED

The Bidder must agree to commence work on or before the date specified in the written "Notice to Proceed" issued by the City, and/or Engineer acting on behalf of the City, and to fully complete the project within the time specified in the contract.

OSHA REQUIREMENTS

The work to be performed under this Contract by the General Contractor and all subcontractors is to be performed in compliance with the Occupational Safety and Health Act of 1970, including all amendments thereto.

OVERLOADED TRUCKS

Materials delivered to the project in motor vehicles or semi-trailer units that exceed the legal maximum gross weight allowed for the particular class as specified in Section 19A of Chapter 90 of the General Laws of Massachusetts will not be accepted.

PAVEMENT MARKINGS

The Contractor shall take all steps necessary to preserve and protect pavement markings within work areas which are indicated by the Engineer to remain undisturbed throughout construction. Prior to the start of construction, the Contractor shall inspect all pavement markings and report any existing deficient or damaged markings to the Engineer. Any pavement markings indicated to remain undisturbed during construction or any pavement markings outside of work areas which are damaged by the Contractor's operations shall be replaced by the Contractor at their cost.

Following the completion of final paving, the Contractor shall reestablish roadway markings in accordance with plans provided by the Engineer. If no plans are provided, the Contractor shall confirm with the Engineer that no modifications are planned and proceed with reestablishing pavement markings as were in place prior to the start of construction. All new or reestablished pavement markings shall be paid for under the appropriate Section 500 item.

All permanent roadway markings shall be reflective thermoplastic and shall conform to the relevant sections of the MUTCD and City of Worcester Standard Specifications. Pavement marking operations will only be allowed when the ground temperature is minimum 50 degrees (F) and rising. Pavement marking operations shall not be performed if the roadway to be marked is wet or damp with moisture. Pavement marking operations will not be allowed after October 31st without written authorization from the Contracting Officer. If permanent pavement marking operations have not been completed by October 31st, the Contractor shall install temporary water-borne markings at the Direction of the Engineer at no additional cost to the City. The Contractor shall be responsible for maintaining water-borne markings throughout the winter shut-down period.

PEDESTRIAN ACCESS

An ADA compliant pedestrian walkway must be continuously maintained throughout the construction process. This can be accomplished by excavating one side of the roadway sidewalk, leaving the other side untouched until the excavated sidewalk is complete. If the Contractor wishes to excavate the sidewalks on both sides of the roadway simultaneously, an ADA compliant temporary pedestrian walkway must be constructed. The temporary walkway will include such items as roadway barriers, signage and signals, temporary striping, etc. Access to properties must be continuously maintained at all times during the construction process. No section of sidewalk is to remain uncompleted for more than 7 days from date of excavation, unless otherwise directed by the contracting officer in writing. Any sidewalk section open for more than 7 days is to be temporary paved, at no additional cost to the City. No allowance will be granted for weekends or holidays.

PERMITS

Prior to commencement of work, the Contractor shall be responsible for obtaining all necessary construction permits. Distinct permits are required for each work location. Permit necessary for the work may include, but are not limited to, Trench Permits and Street Opening Permits. Permits can be obtained from the DPW&P Engineering Division located at 20 East Worcester Street, Worcester, Massachusetts or online at <https://worcesterma.viewpointcloud.com>.

POLICE PROTECTION

The City of Worcester will furnish and pay for police when and where the City decides police protection is necessary. The Contractor shall notify the Engineer of the anticipated requirements as the work progresses, so that each day's protection can be scheduled not later than the preceding day.

PORTABLE CHANGEABLE MESSAGE SIGN

The Contractor shall have two portable variable message signs readily available for use on this contract. Use of variable message signs shall be at the direction of the Engineer.

PRE-CONSTRUCTION PHOTOGRAPHS

Prior to the start of work the Contractor shall perform a photographic and video survey of all areas included in the contract. Photographic and video survey shall clearly capture the pre-construction condition of all components and infrastructure within the ROW as well as the frontage of all abutting properties. The Contractor shall take care to capture the condition of any and all items which may be claimed to be disturbed by construction activities including but not limited to driveways, walkways, retaining walls, fences, guard The Contractor shall, prior to beginning work on the project, submit to the Engineer photographs, in an appropriate format of the road and sidewalk condition of all streets to be excavated. The Post construction photographs shall also be submitted to the Engineer by the Contractor after substantial completion. Said photographs shall be supplied to the City as a subsidiary obligation by the Contractor

PRECAUTIONS UNDER ELECTRIC LINES

The bidders attention is directed to the AASHTO Guide on Occupational Safety on Highway Construction Projects, Subpart N, 1926.550, relating to construction equipment clearances at overhead electric lines, which states in part "... the minimum clearance between the lines and any part of the crane or load must be at least 10 feet from lines rated 50 KV or below, and greater distances for high voltage ...".

For the protection of personnel and equipment, the Contractor should be aware of this regulation especially during paving operations using large semi-trailer vehicles.

PROCEDURES FOR SHOP DRAWING SUBMITTALS

The following procedure shall be followed when making shop drawing submittals for this project:

1. The Prime Contractor shall submit four (4) sets of drawings directly to the Engineer for preliminary review.
2. The Engineer will send a written reply, returning two (2) sets to the Prime Contractor within seven (7) working days of receipt of the drawings.
3. If the Engineer's reply indicates rejection or advises corrections or additions to the drawings, steps 1 and 2 are repeated until the Engineer indicates that approval will be given.
4. The Contractor shall then submit four (4) sets of drawings to the Engineer for approval and distribution by the Engineer per the standard operating procedures of the Department.
5. The Contractor shall take care that every separate document in each set of every submittal shall carry the following identifying information:
 - Information Required
 - a. Project No.
 - b. Identifying Item Number from proposal, if applicable
 - c. Locations where material is proposed to be used, if applicable
 - d. Name of submitting contractor

- e. Personal signature and title of an official of the Prime Contractor authorized to make shop drawings submittals
- f. Date of signature or submittal

The Contractor shall not receive payment for, nor will he be allowed to install any item or materials which require shop drawing approval unless and until he receives shop drawing approval for that item.

Within 15 days after receipt of an approved shop drawing for any item, the Contractor shall provide the Engineer written proof that he has ordered such approved materials required on the subject contract and a written confirmation on such order and delivery schedule from the manufacturer of the item. This delivery schedule shall be appropriate for timely completion of this project.

PROJECT SUPERINTENDENT

The Contractor shall be required to have on site at all times during the course construction activities a full-time superintendent whom will be in responsible charge of this project. This individual will be the exclusive agent for the Contractor maintaining continuous correspondence with the Engineer. The Contractor will notify the Engineer in writing whenever a change of superintendent is warranted.

PROPER NOTIFICATION

The Contractor will be required to provide at least 48 hours notice to the Contracting Officer before locating in work sites previously unoccupied under this contract or before proceeding with paving operations.

PROTECTION OF EXISTING TREES

Trees and shrubs that are not designated on the plans, or by the Engineer, to be cut, removed, destroyed or trimmed shall be saved from harm and injury. The Contractor shall provide measures to prevent any harm and injury caused during construction operations.

PROTECTION OF EXISTING INFRASTRUCTURE DURING EXCAVATION

Excavation and backfill operations shall be carried out in a manner that will prevent cave-in of excavations or the undermining, damage or disturbing of existing utilities and structures or of new work.

Any excavations improperly backfilled, or where settlement occurs, shall be reopened to the depth required, then refilled with new materials and compacted, and the surface restored to the required grade and condition at no additional expense to the Owner.

Any damage due to excavation, backfilling or settlement of the backfill, or injury to persons or damage to property occurring as a result of such damage, shall be the responsibility of

the Contractor. All costs to repair such damage, in a manner satisfactory to the Owner, shall be borne by the Contractor at no additional expense to the Owner.

Where existing subsurface utilities or other facilities adjacent to or crossing through the excavation require temporary support or protection, such temporary support or protection shall be satisfactorily provided by the Contractor at no additional expense to the Owner. All necessary measures shall be taken by the Contractor to prevent lateral movement or settlement of existing facilities or of work in progress.

The plans indicate the approximate location of existing overhead and subsurface utilities in the vicinity of the work and the bidders are advised to verify this information, as its accuracy and completeness are not guaranteed by the Owner or Engineer.

PROTECTION OF UTILITIES AND PROPERTIES

The Contractor's attention is directed to the location of underground utilities in the existing and proposed roadways.

The Contract Drawings indicate the approximate location in plan of existing overhead and subsurface utilities in the vicinity of the work. Whatever measures are necessary to protect these lines, structures, and other associated infrastructure during the work shall be included in the contract unit price for the various items involved.

In case of damage to utilities, the Contractor shall promptly notify the Owner and shall, if requested, furnish manpower under the Owner's direction in getting access to the utility. Pipes, structures, or other infrastructure damaged by the operation of the Contractor may be repaired by the Owner, the municipality, or the utility company. The cost of such repairs shall be borne by the Contractor without compensation therefore.

The work to be done under this contract may necessitate changes in the properties of utility companies or the municipality hereinbefore listed. Immediately after executing the contract, the Contractor shall confer with the owners of all utilities in order that relocations of mains or services may be made at times consistent with operations of the Contract.

PROVISIONS FOR TRAVEL AND PROSECUTION OF THE WORK

Access shall be maintained for all abutters so that they may use the driveways and approaches adjacent to their properties. Pedestrian access to abutting property and access for emergency vehicles shall be provided at all times.

Alternate one-way traffic may be maintained during working hours, however the Contractor will be required to provide two unobstructed lanes for two-way traffic during non-working hours.

All construction equipment, material and debris shall be removed from the traveled way at the end of each working day and shall be stored in such manner as not to interfere with the flow of driveway traffic or pedestrians.

The Contractor shall coordinate his work with the work to be done by other Contractors on the site, public utilities or other agencies, and he shall so schedule his operations as

to cause the least interruption to the normal flow of all traffic types. Reasonable facilities shall be provided by the Contractor for the safe and convenient passage of pedestrians and vehicles through and within the project area.

Particular care shall be taken to establish and maintain methods and procedures which will not create unnecessary or unusual hazards to public safety. The placement of necessary devices will be for daily work periods and shall be removed after the completion of work operations. Signs having messages that are irrelevant to normal traffic conditions shall be removed or properly covered at the end of each work period. Signs are to be kept clean at all times and legends shall be distinctive and unmarred.

PUBLIC SAFETY AND CONVENIENCE

Vehicular and pedestrian traffic will be maintained on all streets located within and adjacent to the project unless permission is received in writing from the Commissioner of Public Works or his representative to close the street.

The Contractor shall take every measure necessary for the protection of personnel and property. Where construction operations are such that a hazard exists to the public, all safety precautions shall be maintained.

Trenches shall not be excavated in traveled ways until all materials and equipment required for such work are at the site and available for immediate use. When work is not in progress, trenches in areas subject to public travel shall be covered with steel plates capable of safely sustaining a 36.5-ton truckload with impact without additional compensation. The work in each trench shall be practically continuous, with the placing of pipe, backfilling, and paving of the roadway surfaces closely following each preceding operation. Payment for steel plates will be included under the unit bid price for the respective item for which the work is being performed, regardless of width of trench.

The Contractor shall at all times, until written acceptance of the physical work by the Owner, be responsible for the protection of the work and shall take all precautions for preventing injuries to persons or damage to property on or about the project.

RESPONSIBILITY FOR DAMAGE CLAIMS

The Contractor shall indemnify, defend and save harmless the Municipality and all of its or their offices, agents and employees against all suits, claims or liability of every name and nature, for or on account of any injuries to persons or damage to property arising out of or in consequence of the acts of the Contractor in the performance of the work covered by the Contract or failure to comply with the terms and conditions of said Contract, whether by himself or his employees or Subcontractors, but only in respect of such injuries or damages sustained during the performance and prior to the completion and acceptance of the work covered by the contract.

The Contractor will be held responsible for any and all claims for damage to underground structures such as, but not restricted to, water or gas mains, pipes, conduits, manholes or catch basins, due to his operation or to the operations of any of his Subcontractors.

RIGID ROAD BASE

Where rigid base exists the Contractor will be required to remove said base from around manholes, catch basins and water boxes and replace with superpave 12.5mm level 2 binder course thoroughly compacted in 2 lifts with a plate compactor. Superpave 12.5mm level 2 binder will be paid for under Item #424 Bituminous Concrete Drives and Various Areas for manholes and catch basins. The superpave 12.5mm level 2 binder course collar at water gate boxes will be a subsidiary obligation of the Contractor.

SAW CUTTING

Sawcuts shall be made in existing pavements to provide a neat, square edge at limits of excavation and to provide a clean joint where new pavement and sidewalks are to match existing. Sawcuts shall also be made where shown on the Contract Drawings, or otherwise directed by the Engineer. Sawcuts shall be made to the depth directed and shall be clean and even. All cuts shall be made using an approved power-driven saw. All sawcuts, regardless of depth or material cut into, shall be considered incidental and compensation will be included in the contract bid prices for the related work items.

SCHEDULE OF WORK

The Contractor shall submit to and for the comments of the Contracting Officer, a schedule of operations within ten (10) days after the mailing of the executed Contract to the Contractor. The schedule shall show the proposed methods of construction, sequence of work, and the time the Contractor proposed to complete the various items of work within the performance period specified in the contract. No permits will be issued until these schedules are submitted and approved by the Engineer. Revised construction schedules and schedule of values may be requested by the Engineer, with a frequency of no less than 30 days between submissions.

At no time shall the Contractor conduct construction operations on more than 5 street locations or ½ mile of streets or unless otherwise permitted in writing by the Engineer. A street is deemed to be in construction if any items for that location remain unfinished, such as sign erection/replacement, permanent pavement marking, etc.

STAKEOUT

The Contractor shall be responsible for all required construction stakeout including establishing location and elevation of utility castings and structures and setting stakes for grading purposes and for re-establishing edges of pavement after reclamation or excavation operations, or as otherwise required by the Engineer.

STEEL PLATES IN CONSTRUCTION ZONES

At the end of each working day where trenches in areas of public travel are covered with steel plates, each edge of such plates shall be pinned and either beveled or protected by a slope of 2-feet horizontally to 1-inch vertically. Temporary bituminous

concrete patching material shall be used to construct the ramps. The cost of necessary materials and their maintenance and removal will be considered incidental to the item involved with no separate payment.

STREET LIGHTING

Street lighting shall be maintained during all phases of construction by operation of the existing street lighting infrastructure, or a substitute approved by the Contracting Officer. If unmarked or shallow, unprotected direct burial street lighting conduit is damaged during construction, the Contractor shall install 2" electrical conduit and 12"x12" pull boxes where directed by the Engineer. Payment for this work shall be under Item 806.2 and Item 810.4. Damage to pre-marked existing street light conduit which is 12 inches or greater below the surface shall be the responsibility of the Contractor to repair. All repairs shall conform to the requirements of the Contract Officer.

STREET OPENINGS

The Contractor shall place informative flyers at all properties abutting work areas five (5) business days prior construction/opening for each street under this contract as well as five days prior to the start of any major construction operation which will impact abutters, including but not limited to reclamation, milling, sidewalk excavation/installation, and paving. Informative flyers will be provided to the Contractor by the Engineer. The cost of informative flyering by the Contractor is incidental to this contract.

No new street openings shall be allowed after October 15th unless permitted in writing by the Contracting Officer.

STREET SWEEPING

The Contractor shall be responsible for street sweeping by mechanical street sweeper vehicle to clear the paved surface of all debris, to the extent as determined by the Engineer. The timing of the street sweeping operation should be such that the road remains sufficiently clean between the completion of the sweeping and the start of any reclamation and/or paving. Should the Engineer decide that the road surface requires additional sweeping, no additional compensation shall be offered the Contractor to complete this process. No additional compensation will be allowed when street sweeping operations are used as a means of clearing off and/or exposing areas of pavement covered with vegetation or debris.

There shall be no separate payment for street sweeping. Payment for such work shall be included in the various cold planning, reclaiming, and hot mix asphalt items. All material collected from the street sweeping process shall be disposed of by the Contractor outside and away from the limits of the project in accordance with all local rules and regulations with no additional measurement or payment to be made.

SIGNS & POLES

The Contractor will be required to return any or all excess signs and poles that were replaced

or abandoned to the DPW&P Sign Shop at 26 Albany Street, unless otherwise directed by the Contracting Officer. This work will be performed as a subsidiary obligation by the Contractor and no additional payment will be made by the City.

TEMPORARY SIGNAGE

When stop signs, yield signs, and other safety-oriented signage are removed during construction, temporary signs shall be installed immediately and will remain in place until permanent signs are placed.

TIME OF COMPLETION

The bidder shall complete all the work of this contract by **November 15, 2026.**

TRAFFIC MANAGEMENT PLAN

The Contractor shall prepare and submit a traffic management plan to the Engineer for review and approval by the Engineer and the Worcester Police Department. The Traffic Management Plan shall be prepared for all streets in the contract, unless specifically directed otherwise by the Engineer. The Traffic Management Plan shall contain information on proposed detour routes if requested, location and type of detour and warning signs, barricades and other safety and traffic control means and devices to ensure a safe, orderly flow of vehicular and pedestrian traffic.

Traffic safety signage (STOP signs, DO NOT ENTER signs, ONE WAY signs, etc.) shall be maintained for the duration of construction, in all locations. The Contractor is fully responsible for the maintenance of any temporary signage.

All temporary and permanent signs, traffic control devices, and pavement markings shall conform to the latest relevant sections of the Manual on Uniform Traffic Control Devices (MUTCD), and the Massachusetts Standard Specifications for Highways and Bridges.

The Traffic Management plan shall be submitted for review at least seven (7) days prior to any work being performed on the project roadways. No work would be allowed until the Traffic Management Plan is approved by the Engineer and implemented by the Contractor.

Temporary pavement markings and other traffic control devices shall be provided in accordance with the Contractor's Traffic Management Plan and as directed by the Engineer.

The cost of preparing the traffic management plan and providing and maintaining temporary traffic control devices shall be borne by the Contractor.

USE OF CITY SUPPLIED MATERIAL TO REPLACE UNSUITABLES

If existing material excavated during construction is deemed unsuitable for backfill, at the City's discretion the City may supply additional material to be used as backfill, otherwise gravel borrow (M1.03.0 Type b) may be required. If the City supplies additional material

to be used as backfill to replace unsuitable materials, no extra payment will be made.

VEHICULAR SAFETY

All automotive equipment not protected by traffic cones or flares that is working on the project in areas open to traffic shall have one amber flashing or strobe warning light mounted on the cab roof or on the highest practical point of the machinery. These lights shall be in operation whenever the equipment is working or traveling in the project work area at a speed less than 25 M.P.H. Flashers must be visible to both oncoming and overtaking vehicular traffic and shall have a light source of 32 minimum candlepower and a flashing frequency of 50-60 times per minute.

All personnel who are working in areas open to traffic shall wear MHD approved safety vests.

All vehicles except passenger cars which are assigned to the project which operate at speeds of 25 MPH or less shall have an official SLOW MOVING VEHICLE emblem displayed in accordance with the provisions of Section 7 of Chapter 90 of the General Laws as amended by Chapter 684 of the Acts of 1970.

WINTER SHUTDOWN

Any incomplete construction shall be stabilized for the winter on, or before **November 15th, 202X**. The stabilization shall allow the streets and sidewalks to be fully accessible throughout the winter. The contractor will be responsible for repairing any deficiencies to the stabilized areas. The final construction of any incomplete areas shall take place the following season, at no additional cost to the City.

MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES

ENGLISH AND METRIC UNITS

Document 00811

Revised: 07/08/2016

This provision applies to all projects using greater than 100 tons (91 megagrams) of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the Notice to Contractors section of the bid documents.

Price Adjustments will be based on the variance in price, for the liquid asphalt component only, between the Base Price and the Period Price. They shall not include transportation or other charges. Price Adjustments will occur on a monthly basis.

Base Price

The Base Price of liquid asphalt on a project as listed in the Notice to Contractors section of the bid documents is a fixed price determined by the Department at the time of the bid using the same method as the determination of the Period Price detailed below. The Base Price shall be used in all bids.

Period Price

The Period Price is the price of liquid asphalt for each monthly period as determined by the Department using the average selling price per standard ton of PG64-28 paving grade (primary binder classification) asphalt, FOB manufacturer's terminal, as listed under the "East Coast Market - New England, Boston, Massachusetts area" section of the Poten & Partners, Inc. "Asphalt Weekly Monitor". This average selling price is listed in the issue having a publication date of the second Friday of the month and will be posted as the Period Price for that month. The Department will post this Period Price on its website at <http://www.mhd.state.ma.us/> within two (2) business days following its receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners has granted the Department the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor. This method of period price determination was formerly called the New Asphalt Period Price Method. Separate website postings using both the New Asphalt Period Price Method and the Old Asphalt Period Price Method were discontinued after June 2013.

Price Adjustment Determination, Calculation and Payment

The Contract Price of the HMA mixture will be paid under the respective item in the Contract. Price Adjustments, as herein provided, either upwards or downwards, will be made after the work has been performed using the monthly period price for the month during which the work was performed.

Price Adjustments will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M3.11.03. Price Adjustments will be

separate payment items. Price Adjustments will be calculated using the following equation:

Price Adjustment = Tons of HMA Placed X Liquid Asphalt Content % X RAP
Factor X (Period Price - Base Price)

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE –
ENGLISH UNITS
Document 00812
Revised: 01/26/2009

This monthly fuel price adjustment is inserted in this contract because the national and worldwide energy situation has made the future cost of fuel unpredictable. This adjustment will provide for either additional compensation to the Contractor or repayment to the City, depending on an increase or decrease in the average price of diesel fuel or gasoline.

This adjustment will be based on fuel usage factors for various items of work developed by the Highway Research Board in Circular 158, dated July 1974. These factors will be multiplied by the quantities of work done in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.

The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Contract Documents.

The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchased made during each month.

This adjustment will be effected only if the variance from the base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No adjustment will be paid for work done beyond the extended completion date of any contract.

The fuel price adjustment will apply only to the following items of work at the fuel factors shown:

ITEMS COVERED	FUEL FACTORS	
	Diesel	Gasoline
Excavation and Borrow Work: Items 116, 118, 120, 121, 122, 124, 125, 126, 128 (Both Factors Used)	0.29 Gallons/CY	0.15 Gallons/CY
Surfacing Work: All Items containing Hot Mix	2.90 Gallons/Ton	Does Not Apply

PRICE ADJUSTMENT FOR PORTLAND CEMENT CONCRETE MIXES

Document 00814

January 12, 2009

This provision applies to all projects using greater than 100 Cubic yards (76 Cubic Meters) of Portland cement concrete containing Portland cement as stipulated in the Information to Bidders section of the Bid Documents. This Price Adjustment will occur on a monthly basis.

The Price Adjustment will be based on the variance in price for the Portland cement component only from the Base Price to the Period Price. It shall not include transportation or other charges.

The Base Price of Portland cement on a project is a fixed price determined at the time of bid by the contracting officer by using the same method as for the determination of the Period Price (see below) and found in the Information to Bidders.

The Period Price of Portland cement will be determined by using the latest published price, in dollars per ton (U.S.), for Portland cement (Type I) quoted for Boston, U.S.A. in the **Construction Economics** section of *ENR Engineering News-Record* magazine or at the ENR website <http://www.enr.com> under **Construction Economics**. The Period Price will be posted on the MassDOT website the Wednesday immediately following the publishing of the monthly price in ENR, which is normally the first week of the month.

The Contract Price of the Portland cement concrete mix will be paid under the respective item in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which the work was performed.

The price adjustment applies only to the actual Portland cement content in the mix placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M4.02.01. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.

The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of cubic yards of Portland cement concrete placed during each monthly period times the Portland cement content percentage times the variance in price between the Base Price and Period Price of Portland cement.

This Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deductions of the 5% from either upward or downward adjustments.

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is an approved extension of time.