

Addendum No. 3 to IFB #26-45



CITY OF SOMERVILLE, MASSACHUSETTS
Department of Procurement and Contracting Services
JAKE WILSON
MAYOR

To: All Parties on Record with the City of Somerville as Holding IFB #26-45 Shore Drive
Greenway Construction

From: Felisa Gárate, Senior Procurement Manager

Date: 2/26/2026

Re: Questions and Answers
Extension of Bid Submission Deadline
Revised Supplemental Unit Pricing
Traffic Control Specifications & Site Furnishing Specifications Revisions

Addendum No. 3 to IFB #26-45

Please acknowledge receipt of this Addendum by signing below and including this form in your proposal package. Failure to do so may subject the proposer to disqualification.

NAME OF COMPANY / INDIVIDUAL: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

TELEPHONE/FAX/EMAIL: _____

SIGNATURE OF AUTHORIZED INDIVIDUAL: _____

ACKNOWLEDGEMENT OF ADDENDA:

Addendum #1 _____ **#2** _____ **#3** _____ **#4** _____

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The City of Somerville is extending the bid submission deadline to: Friday, March 6th, 2026, at 11:00AM

Revised Supplemental Unit Pricing

- Per questions asked by vendors below, the Supplemental Unit Pricing pages have been updated accordingly. Changes are detailed further in the answers provided below.
 - Please note: The Supplemental Unit Pricing is to provide unit prices for additional unanticipated work. This is separate from the lump sum bid.

Traffic Control Specifications & Site Furnishing Specifications Revisions

- SECTION 01 55 26 Traffic Control, and SECTION 32 30 10 Site Furnishings have both been revised and are attached to this addendum.

#	Question	Answer
1.	Item 4 and 5- Specifications for these items require monthly site visits, including photographic documentation and the development of an "Invasive Species Plan", but item 5 is by the square foot. We believe it would be beneficial to provide Item 5 "Invasive Vegetation Management" by the lump sum to include the plan and site monthly site monitoring and item 4 "Weeding (Mechanical or Herbicide) by the hour, no areas identified on the plans for treatment of invasives.	Supplemental Unit Pricing section items 4 and 5 have been updated to per hour. For additional context, please refer to 1.04 within Specifications 01 22 00 Supplemental Unit Pricing for clarification on the intended use of providing Unit Prices. For base bid weeding requirements please refer to the Technical Specifications sections 01 56 30 Temporary Plant Protection and Arborist Scope, 32 92 00 Seeding, and 329300 Planting. For base bid invasive management, please refer to 31 13 19 Invasive Plant Removal.
2.	Item 10 and 11- Removal and Disposal of Asphaltic Concrete Pavement and Existing Concrete Sidewalk by the ton. Request to be changed to cubic yard. The majority of available dump sites near the project location do not have scales.	Supplemental unit pricing has been updated to cubic yard for items 10 and 11.
3.	Item 12- Removal and Disposal of Existing Granite Curb. Plans show curb removed and stacked, confirm all existing granite curb will be removed and discarded.	Granite curbs are to be removed and stacked for reuse to the fullest extent possible. The Supplemental Unit Price Item 12 for granite curb removal and discard provides a supplemental unit price in the event that this condition occurs during construction.

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4.	Item 13- Pavement Marking removal by the foot. Typically measured by the square foot to capture various width pavement markings.	Supplemental Unit Pricing section has been updated to cubic yards for item 13.
5.	Item 17- Remove and Relocate Utility Pole. Request this item be removed from contractor scope and coordinated directly by city with appreciate utility companies. Can not accurately price due to lack of information.	For Item 17 "Remove and Relocate Light Pole, Each", refer to Site Electrical Plan Series E2 and Specifications section 26 00 01 Electrical. For Item 18, "Remove and Relocate Utility Pole," refer to our response to Bidder Question 23.
6.	Item 25- Reflectorized White Line. Does this include various width white line and chevrons at raised speed tables?	Yes, for any additional unanticipated reflectorized lines that may occur during construction.
7.	Item 31- Remove and Reset Granite Curb. Plans shown all new VA-4 (6x18) and VA-5 (6x24) granite curb. Please provide locations of R+R curb.	Granite curbs are to be removed, stored on site, and reused to the fullest extent possible, refer to CR1 and TR0 series, and notes on TR0 series.
8.	Item 32- Bituminous Asphalt Pavement by the cubic yard. Request to be paid by the ton, assume this will be for shared use path. Item 24- Asphalt for Patching provided by the ton.	Supplemental Unit Pricing section has been updated to tons for items 32.
9.	Item 33- Concrete Pavement, Sidewalks, Pads by the cubic yard. Request this be paid by the square yard, regardless of depth.	Supplemental Unit Pricing section has been updated to square yard for item 33.
10.	Item 43- 6" PVC Perforated Pipe. CB-03(New) shows 6" PVC connecting to existing drain pipe in roadway not associated with tree trenches. Will this be compensated under item 43?	Supplemental Unit Price item provided is separate from base bid for potential unanticipated additional work.
11.	Item 52- Tapping Sleeve and Gate- Advise on where this will be encountered. No dimensions are provided for the size of tapping sleeve.	Supplemental Unit Price item provided is separate from base bid for potential unanticipated additional work. In base bid there is one associated with the Hydrant see detail on C1.10 and 33 11 13.
12.	Item 57- Geotextile Fabric by the cubic yard. Typically seen by the square yard.	We have updated the unit price sheet to square yard for item 57.
13.	Item 58 and 59- Drain Basin and Grate, Dome Frame and Grate. Please clarify if the grate will be included in the cost of the nyloplast structure under item 58 or paid separately under item 59. Subsurface Tree trench #3 shows an additional drain basin intersecting the 6" PVC from CB-01. Confirm if this is a 6x6 PVC TEE or another	Supplemental Unit Price items provided are separate from base bid for potential unanticipated additional work, refer to Civil drawings and Technical Specifications for base design. Per C-1.7 and C-1.9, DB 03 A is a nyloplast structure with manhole cover located within shared use path.

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	nyloplast structure and if it will receive a solid cover or grate.	
14.	Item 61 Replace Panels on Existing Trash and Recycling Receptacles. Change item description to Remove, Refurbish, and Reset Existing Trash and Recycling Receptacles. Please provide manufacturer for replacing damaged components.	Relocation, refurbishment and re-setting existing trash receptacles is included in base bid per 32 30 10 and Detail 4/L4-01. In the Supplemental Unit Pricing, Item 61 provides price for potential additional refurbishing of panels if deemed necessary during construction.
15.	While receiving the plans, we noticed that the following construction activities do not have applicable pay items: <ul style="list-style-type: none"> • Existing Park Benches Removed- 3 Each • Remove and Discarded Fence- 110 Feet • Remove and Discard Guardrail- 385 Feet • Remove Store and Reinstall Granite DCR Marker- 1 Each • Rodent Control- 1 Lump Sum 	Supplemental Unit Price Items are provided in the event that additional items are deemed necessary during the construction process. Although additional work involving these items are not anticipated, the following has been added to the Supplemental Unit Pricing list for clarification: removal of park benches, removal of existing guardrail, and remove and replace granite markers as items 85, 86, 87. Rodent Control is included in the base bid and has not been added as an additional item. There is no anticipated existing fence removal.
16.	Police Details- City typically provides a police detail allowance item to compensate details if/when required. Typically, around 5% of the contract value.	The City will provide an answer to this question in addendum #4.
17.	Confirm construction site will be restricted from pedestrians and bicycles for the extent of work. No necessary accommodations are required for access during non-work hours.	Refer to note regarding chainlink fence and traffic management plan on C-1.1. See Specifications section 01 50 00 Security and Protection Facilities requirements. Additionally, see items throughout specs about requirements for protective fencing on areas including planting soil, structural soil, seeding, and trees.
18.	Confirm the re-use of existing topsoil is acceptable for Park: Loam and Seed Lawn Repair Areas granted it meets specification requirements.	Refer to Specifications Section 32 91 15 for Soil requirements, and 32 91 18 for Sand Based Structural Soils testing requirements, and potential for reuse.
19.	What is the anticipated frequency of compaction testing for each soil type?	Refer to Specifications Section 32 91 15 for Planting Soil testing requirements and 32 91 18 for Sand Based Structural Soils testing requirements.
20.	Are there any MBE/WBE requirements on this project?	No.

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21.	Will the bid be awarded based on the lump sum value or the unit prices requested in the bid form? If looking for pricing (add/deduct) on 85 items, would it be beneficial for the bid to be submitted as a unit price bid and not a lump sum bid?	The bid award is based on the lump sum value of the project. Refer to 1.04 within Specifications 01 22 00 Supplemental Unit Pricing section for clarification on the intended use of providing Unit Prices, which is to provide unit prices for additional unanticipated work. This is separate from the lump sum bid.
22.	If curb called out to be removed and reset is deemed inadequate for reuse and the contractor has to purchase new, how will this be paid?	Supplemental unit pricing item 12 is provided for unanticipated granite remove/discard and item 30 is for unanticipated installation of granite curb. As noted in specifications and responses to other bid questions, Supplemental Unit Price items are separate from base bid; they are for potential unanticipated additional work.
23.	How will unit price item #18 be bid if Eversource owns and is responsible for removing and relocating?	Supplemental Unit Price item provided is separate from base bid for potential unanticipated additional work. We have removed line item 18 from the Supplemental Unit Pricing. You will find information related to the contractor's coordination responsibility on C-1.0 notes and in the Technical Specifications. in the Civil drawings (C-Series) For the base bid, please refer to Site Plan (L1-Series) for the location of utility poles to be relocated. See Civil and Electrical sheets for more information on what is included in the base bid.
24.	Unit price item #32, bituminous asphalt pavement, is listed per CY. Should this item be per TN?	We have updated the unit price sheet to bill by the ton for item 32.
25.	Unit price item #57, geotextile fabric, is listed per CY. Should this item be per SY?	We have updated the unit price sheet to square yard for item 57.
26.	Can a manufacturer or model be provided for the DCR standard benches?	The project specifications are open in nature, refer to Section 32 30 10 for performance specification and product information.
27.	What is the depth of existing asphalt?	We do not have this type of record information. In our experience, existing pavement depths (thickness) is between 4" and 8", but we have experienced outliers in both directions.
28.	Should unit price items 74-75 and 77-81 be per each?	Supplemental Unit Pricing section has been updated to complete, each for items 74, 75, 77-81.

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29.	Item #81 is for landscape/deep plugs but there aren't any plugs listed in the plant schedule. Can you please clarify?	Included in the event that plugs are submitted as a substitute for plants on schedule during the review process.
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01 22 00
SUPPLEMENTAL UNIT PRICING

PART 1 – GENERAL

1.00 GENERAL PROVISIONS

- A Attention is directed to the PROCUREMENT AND CONTRACTING REQUIREMENTS and all Sections within DIVISION 01, GENERAL REQUIREMENTS, which are made a part of this Section of the Specifications.

1.01 SUMMARY

- A The proposed Contract Price listed on the bid form includes all site improvements furnished and installed, complete per the contract documents. Unit prices are given for changes in the work only.

1.02 RELATED REQUIREMENTS

- A Refer to GENERAL CONDITIONS for limitations.
- B Examine Contract Documents for requirements that affect work of this Section.

1.03 QUANTITIES AND COST ADJUSTMENTS

- A As soon as the work involved in each unit cost item has been completed, submit documentation to establish the actual quantities provided. Submit to the Architect for review and issuance of Change Order.
- B Change Order amount for each unit cost item will be based on actual quantities multiplied by the unit cost. This unit cost includes all mark-ups applicable taxes, overhead, and profit as described below.

1.04 UNIT PRICES

- A Should certain additional work be required, or should the quantities of certain classes of work be increased or decreased from those required by the Contract Documents, by authorization of the Owner, the below unit prices shall, at the option of the Owner, be the basis of payment to the Contractor or credit to the Owner, for such increase or decrease in the work. The Unit Prices shall represent the exact net amount per unit to be paid the Contractor (in the case of additions or increases) or to be refunded the Owner (in the case of decreases). No additional adjustment will be allowed for overhead, profit, insurance, or other direct or indirect expenses of the Contractor or Subcontractors. No additional adjustments will be allowed for over excavation, overblasting, or other work without the prior written approval of the Owner.

<u>Unit</u>	<u>Add</u>	<u>Deduct</u>
1. Remove tree, per inch tree caliper	\$ _____	\$ _____
2. 6' HT. construction fence / tree protection, per lin. ft.	\$ _____	\$ _____
3. Certified Arborist, per hour	\$ _____	\$ _____
4. Weeding (mechanical and/or herbicide if applicable), per hour.	\$ _____	\$ _____
5. Invasive Vegetation Management (best practices and per OOC), per hour.	\$ _____	\$ _____
6. Compost Silt Sock Erosion Control, per lin. ft.	\$ _____	\$ _____
7. Inlet Sediment Control Device (Silt Sack), each	\$ _____	\$ _____
8. Cleaning and Maintenance of Erosion Controls, each	\$ _____	\$ _____
9. Saw cutting existing pavement, per lin. ft.	\$ _____	\$ _____
10. Remove and dispose of existing asphaltic concrete pavement, per c.y.	\$ _____	\$ _____
11. Remove and dispose of existing concrete sidewalk, per c.y.	\$ _____	\$ _____
12. Remove and dispose of existing granite curb, per lin. ft.	\$ _____	\$ _____
13. Pavement marking removal, per sq. ft	\$ _____	\$ _____
14. Drainage Structure Adjusted, Each	\$ _____	\$ _____
15. Drainage Structure Abandoned, Each	\$ _____	\$ _____
16. Drainage Structure Removed, Each	\$ _____	\$ _____
17. Remove and Relocate Light Pole, Each	\$ _____	\$ _____
18. Remove Hydrant, Each	\$ _____	\$ _____
19. Excavation of Soils, per c.y.	\$ _____	\$ _____
20. Disposal of soils, per c.y.	\$ _____	\$ _____
21. Furnish and install common fill material, as specified, per cu. yd.	\$ _____	\$ _____
22. Changes in earthwork, per c.y.	\$ _____	\$ _____

23. Asphalt for Patching, per ton	\$ _____	\$ _____
24. Reflectorized White Line, per lin. ft.	\$ _____	\$ _____
25. Reflectorized Yellow Line, per lin. ft.	\$ _____	\$ _____
26. Steel Backed Timber Guardrail, per lin. ft	\$ _____	\$ _____
27. Traffic Sign and Sign Post, per each	\$ _____	\$ _____
28. Speed humps, per each	\$ _____	\$ _____
29. Granite Curb, complete in-place, per lin. ft.	\$ _____	\$ _____
30. Remove and Reset Granite Curb, complete in-place, per lin. ft.	\$ _____	\$ _____
31. Bituminous asphalt pavement, complete in-place, per ton.	\$ _____	\$ _____
32. Concrete pavement, sidewalks, pads, complete in-place, per sq. yd.	\$ _____	\$ _____
33. Gravel Borrow subbase, per cu. yd.	\$ _____	\$ _____
34. Dense Grade subbase, per cu. yd.	\$ _____	\$ _____
35. Trail Surface Aggregate pavement, complete in place, per cu. yd.	\$ _____	\$ _____
36. Site Lighting Pedestrian Fixture with Pole, complete in place, each	\$ _____	\$ _____
37. Precast Concrete Pole Base, complete in place, each	\$ _____	\$ _____
38. Electrical Handhole, complete in place, each	\$ _____	\$ _____
39. Conduit and Wiring, per lin. ft	\$ _____	\$ _____
40. Power Cabinet, complete in place	\$ _____	\$ _____
41. 4" PVC Perforated Pipe, lin. ft	\$ _____	\$ _____
42. 6" PVC Perforated Pipe, lin. ft	\$ _____	\$ _____
43. 12" HDPE Perforated Pipe, lin. ft	\$ _____	\$ _____
44. Catch Basin, furnished and installed, each	\$ _____	\$ _____
45. Frame and Cover, furnished and installed, each	\$ _____	\$ _____

46. Frame and Grate, furnished and installed, each	\$ _____	\$ _____
47. Drainage Cleanout, each	\$ _____	\$ _____
48. Catch Basin Core and Connect to Structure, each	\$ _____	\$ _____
49. Furnish and Install New Fire Hydrant, each	\$ _____	\$ _____
50. 6" Gate Valve and Box, each	\$ _____	\$ _____
51. Tapping Sleeve and Gate, each	\$ _____	\$ _____
52. 6" Pipe with Rubber Gasket, linear foot	\$ _____	\$ _____
53. Curb inlets at Sediment Forebay, per each	\$ _____	\$ _____
54. Curb Inlet Plates, per lin. ft.	\$ _____	\$ _____
55. Sediment Forebay Surfacing, per sq. ft.	\$ _____	\$ _____
56. Geotextile Fabric, per sq. yd.	\$ _____	\$ _____
57. Drain Basin and Grate, each	\$ _____	\$ _____
58. Dome Frame and Grate, each	\$ _____	\$ _____
59. ¾" Washed Crushed Stone, per TON	\$ _____	\$ _____
60. Replace Panels on Existing Trash and Recycling Receptacles, each	\$ _____	\$ _____
61. Bike Safety Fence, per lin. ft.	\$ _____	\$ _____
62. Circle Arm Benches, furnished and installed complete, each	\$ _____	\$ _____
63. Interpretive Park Signage, furnished and installed complete, each	\$ _____	\$ _____
64. Vehicular Bollards, furnished and installed complete, each	\$ _____	\$ _____
65. Horticultural Soil Blend, furnished and installed complete, per cu. yd.	\$ _____	\$ _____
66. Lawn Soil, furnished and installed complete, per cu. yd.	\$ _____	\$ _____
67. Meadow Soil Blend, furnished and installed complete, per cu. yd.	\$ _____	\$ _____

68. Sand Based Structural Soil, furnished and installed complete, per cu. yd.	\$ _____	\$ _____
69. Coarse Wood Mulch, furnished and installed complete, per cu. yd.	\$ _____	\$ _____
70. Composted Leaf Mulch, furnished and installed complete, per cu. yd.	\$ _____	\$ _____
71. Compost Tea Application, per sq. ft.	\$ _____	\$ _____
72. Straw Mulch for seeded areas, furnished and installed complete, per sq ft.	\$ _____	\$ _____
73. Deciduous Tree - 2"- 2.5" cal., furnished and installed, complete, each	\$ _____	\$ _____
74. Deciduous Tree – 1.5"- 2" cal., furnished and installed, complete, each	\$ _____	\$ _____
75. Multi-Stemmed Tree – 8', furnished and installed complete, each	\$ _____	\$ _____
76. Shrub, #3 Container, furnished and installed complete, each	\$ _____	\$ _____
77. Perennial, #2 Container, furnished and installed complete, each	\$ _____	\$ _____
78. Perennial, #1 Container, furnished and installed complete, each	\$ _____	\$ _____
79. Perennial, Quarts, furnished and installed complete, each	\$ _____	\$ _____
80. Perennial, Landscape/Deep Plugs, furnished and installed complete, each	\$ _____	\$ _____
81. Native Seed, hand seed complete in place, per sq. ft	\$ _____	\$ _____
82. Temporary Protection Fence for Native Seed, per lin. ft	\$ _____	\$ _____
83. Aggregate for hand-seeding, per sq. ft.	\$ _____	\$ _____
84. Hydroseeded Lawn, complete in place, per sq ft.	\$ _____	\$ _____
85. Remove and Discard existing park Benches, complete in place, per each	\$ _____	\$ _____
86. Remove and Discard Existing Guardrail, per lin. ft.	\$ _____	\$ _____
87. Remove, Store, and Reinstall Granite DCR Marker, per each	\$ _____	\$ _____

- B. The above unit prices shall include all labor, materials, dewatering, shoring, removal, overhead, profit, insurance, warranty and 1 or 2 year maintenance periods, etc., to cover the finished work of the several kinds called for. Changes shall be processed in accordance with the provisions of the Document 00 52 10, AGREEMENT FORM governing Changes in the Work and Section 01 26 00, CONTRACT MODIFICATION PROCEDURES.

- C. The above unit prices shall be guaranteed through final completion.

END OF SECTION

SECTION 01 55 26

TRAFFIC CONTROL

PART 1 GENERAL

1.00 GENERAL PROVISIONS

- A. Attention is directed to the PROCUREMENT AND CONTRACTING REQUIREMENTS and all Sections within DIVISION 01, GENERAL REQUIREMENTS, which are made a part of this Section of the Specifications.

1.01 REQUIREMENTS INCLUDED

- A. Vehicular Traffic Control: Provide, operate, and maintain temporary equipment, services, and personnel, with traffic control and protective devices, as required to expedite vehicular traffic flow on haul routes, at site entrances, at on-site access roads, and parking areas during construction.
 - 1. Provide open fire lane maintained throughout the construction period to provide uninterrupted access to Project site; include lighting of access lane. Lane shall be approved by local fire chief.
 - 2. Provide police detail and traffic control at designated project entrances and exits during any and all hauling and heavy traffic operations.

1.02 RELATED REQUIREMENTS

- A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:
 - 1. Section 013100, PROJECT MANAGEMENT AND COORDINATION.
 - 2. Section 015000, TEMPORARY FACILITIES AND CONTROLS.
 - 3. Section 015500, VEHICULAR ACCESS AND PARKING.

1.03 REFERENCED STANDARDS

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.
 - 1. Commonwealth of Massachusetts Department of Transportation
~~(MassDOT) Highway Department (MHD): Specifications~~ Standard
Specifications for Highways and Bridges (latest edition)

1.04 TRAFFIC CONTROL

- A. Provide traffic control required to direct and maintain an orderly flow of traffic in all areas under Contractor's control or affected by Contractor's operations.

TRAFFIC CONTROL

- B. Provide traffic control and directional signs, mounted on barricades or standard posts:
 - 1. At each change of direction of a roadway and at each crossroad.
 - 2. At detours.
 - 3. At parking areas.

1.05 POLICE DETAILS

- A. Police Services:
 - 1. The Contractor shall obtain police services as identified in the Traffic Management Plan or that the Architect or the City deems necessary to provide direction and control of traffic within and through the project area during construction operations. The police officers shall be obtained from the City of Somerville Police Department.
 - 2. Compensation for police services will be paid by Contractor on an hourly basis, at the prevailing wage rate in accordance with the City of Somerville Police Department regulations for the time spent at the project. No additional payment will be made for training, equipment, travel time, transportation, or any administrative charges associated with the costs of providing police services.
 - 3. Remove temporary equipment and facilities when no longer required, restore grounds to original, or specified conditions.

1.06 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, or construction operations. Locate parking for construction vehicles at locations approved by the Owner and Architect.
- B. Monitor parking of construction personnel's private vehicles:
 - 1. Maintain free vehicular access to and through parking areas.
 - 2. Prohibit parking on or adjacent to access roads, or in non designated areas.

1.07 HAUL ROUTES

- A. Consult with governing authorities, establish public thoroughfares which will be used as haul routes and site access.
- B. Confine construction traffic to designated haul routes.
- C. Provide traffic control at critical areas of haul routes to expedite traffic flow and to minimize interference with normal public traffic.
- D. The Contractor shall not close or obstruct any portion of any street, public or private, without obtaining permits therefore from the proper authorities. If any street or private way shall be rendered unsafe by the Contractor's operations, the Contractor shall make such repairs or provide such temporary ways or guards as shall be acceptable to the governing authority.
- E. The Contractor shall conduct the work at all times so that the abutters shall have access to their property. When public or private property is isolated by the temporary closure of a road, the Contractor shall be responsible for providing such safe means of access to a public way.

TRAFFIC CONTROL

PART 2 PRODUCTS

2.01 SAFETY CONTROLS AND SAFETY SIGNING

- A. Safety controls and safety signing for construction operations shall conform to the relevant provisions of ~~MassDOT~~ Standard Specifications Section 850.

PART 3 EXECUTION

Not Used

END OF SECTION

TRAFFIC CONTROL

01 55 26 - 3

SECTION 32 30 10

SITE FURNISHINGS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

1. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.
2. Examine all other Sections of the Specifications for requirements which affect work under this Section whether or not such work is specifically mentioned in this Section.
3. Coordinate work with that of all other trades affecting or affected by the work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.2 WORK INCLUDED

1. Provide labor, materials, and equipment necessary to complete the work of this Section, including but not limited to the following:
 1. Bench
 2. Relocated Trash and Recycling Receptacle – Replacement Panels
 3. Relocated DCR Park Gateway Pillar
2. See Drawings for location and details.

1.3 RELATED WORK

1. Section 03 20 00, Concrete Reinforcing
2. Section 03 33 00, Cast in Place Concrete
3. Section 10 14 30, Exterior Signage, for Interpretive Signage
4. Section 31 10 00, Site Clearing
5. Section 31 20 00, Earth Moving
6. Section 32 15 40, Trail Surface Aggregate

1.4 QUALITY ASSURANCE

1. Source: For each type of product required for the work of this Section, provide products of one manufacturer and source for consistency.
2. Codes and Standards: Perform site furnishings work in compliance with applicable requirements of governing authorities having jurisdiction. Workmanship and finish shall be equal to the best practice of modern shops for each item of work.

3. Qualifications of Workers: Use adequate numbers of skilled workers who are trained in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work of this Section.
4. The work of this Section shall be completely coordinated with the work of other Sections. Verify dimensions and work of other trades which adjoin materials of this Section before installing items specified.
5. Installation of all Site Furnishing shall be done only after excavation and construction work which might damage them has been completed. Damage caused during installation shall be repaired and /or replaced prior to acceptance and at the contractor's cost.
6. Existing paving areas shall, if damaged or removed during the course of this work, shall be repaired or replaced per the specifications. Workmanship and materials for such repairs and replacement, except as otherwise noted, shall match as closely as possible those employed in existing work.
7. All Site Furnishings shall be installed in a workman like manner.

1.5 REFERENCES

1. Contractor is responsible to ensure that materials and methods of construction shall comply with all applicable state and local building codes
2. American Society for Testing Materials, latest edition, Standards A-120, VA 569, and A-500.
3. US Access Board ADA, current edition.
4. Code of Massachusetts Regulations Title 521
5. Perform work in accordance with all applicable laws, codes and regulations required by the City of Boston and the Commonwealth of Massachusetts and Conservation Commission.

1.6 PRODUCT HANDLING AND STORAGE

1. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism, and theft.
2. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling.

1.7 SUBMITTALS, SHOP DRAWINGS, AND MOCKUP

1. Product Data: Provide manufacturer's product data showing installation and limitations in use of each site furnishing and any associated components in this Section. Supply Certificates of Compliance for all materials required for fabrication and installation.
2. Product shop drawings: Contractor shall supply shop drawings at an approved scale for location, installation and erection of the site furnishing items under this Section. Shop drawings shall indicate size, dimensions, materials, finish, connections with conduit to utilities, footings, pads or foundations, hardware, and anchorage, and all other items required for complete installation. All connection details and structural requirements shall be included in the base bid, even if not explicitly shown in the drawing. Verify measurements at job site. Where items must fit and coordinate with finished surfaces and/or constructed spaces, take measurements at site

and not from drawings. Provide shop drawings of the following site furnishing elements for Owner's Representative's approval prior to fabrication:

- a. Bench
 - b. Relocated Trash and Recycling Receptacle Replacement Parts
 - c. Relocated Granite Pillar
3. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience, include lists of at least five similar completed projects with project names and addresses, names and addresses of architects and owners, date completed and description of work completed.
4. Samples:
1. Material samples of all standard colors and finishes available for color selection and approval by Owner's Representative of the following:
 - a. Bench:
 - a) Bench material and finish sample
 - b) Granite Paver material and finish sample
 - c) Bitumen Setting Bed: asphalt cement mix design to be used in the Bitumen Setting Bed conforming to ASTM D 3381. Including Neoprene modified asphalt adhesive product catalog sheets with specifications. Sieve analysis per ASTM C 136 for sand mixed with bitumen.
 - d) Trash and Recycling Receptacle: material and finish sample for all replacement parts identified in field walk with LA and Owner's Representative.

1.8 ADA AND MAAB COMPLIANCE

1. Contractor shall ensure that installation of all site furnishings meet ADA and MAAB compliance.

PART 2 - PRODUCTS

2.1 PARK BENCH

- A. Manufacturer: Custom Fabrication to meet DCR standard specifications.
- B. Model: DCR Circle Arm Bench
- C. Size: 71" x 23"
- D. Material: Wood Slats, Cast Iron Bench Supports, Steel Support Bars
- E. Granite Paver shall be sourced from local New England source. Finish color to match granite curbs, or equal as approved by the LA and Owner's Rep through the submittal process. All visible surfaces to have a thermal finish. Install flush with adjacent TSA grade.

2.2 RELOCATED TRASH AND RECYCLING RECEPTACLE – REPLACEMENT PANELS

- A. Relocated Trash and Recycling Receptacles to be field located. Final location to be approved by Owner.
- B. Mount Type: Surface Mounted
- C. Replacement Panels: .

1. Replacement panels for existing trash receptacles to be relocated will be provided by the fabricator and reviewed by the Owner.
2. A representative from the City Public Space and Urban Forestry department, the Landscape Architect, and the Contractor will walk the site to review the existing trash receptacles, determine the quantity of replacement panels necessary, and confirm locations for reinstallation.
3. Note: All materials, and colors shall be in accordance with the City of Somerville DPW and the department of conservation and recreation standards.

2.3 DCR PARK GATEWAY PILLAR

- A. Remove and stockpile existing DCR pillar on Site for reinstallation. DCR Park Gateway Pillar to be field located with DCR staff prior to new installation to ensure it is not in the way of maintenance vehicles.
- B. Pillar and footings are DCR standard details and provided by Owner. General Contractor is responsible for taking responsibility for structural integrity of these items and providing Structural Engineering review as needed.
- C. DCR Granite Pillar is to be protected from damage during removal, storage and reinstallation. Contractor shall be responsible for replacement pillar in kind if existing pillar is damaged. If new pillar is needed, provide shop drawings and product data as outlined in 1.7 of this Section and per requirements of Division 01.

2.1 CEMENT CONCRETE AND FOOTINGS

- A. Cement concrete for post footings shall conform to Section 03 30 00, CAST IN PLACE CONCRETE of these Specifications.
- B. Concrete reinforcement for the post footings shall conform to Section 03 20 00, CONCRETE REINFORCING of these Specifications.
- C. Concrete slabs and surfaces for Site Furnishings shall conform to Section 32 13 13, CONCRETE PAVEMENT.

2.2 NEOPRENE TACK COAT

- A. Neoprene modified asphalt adhesive:
 1. Karnak 230 2% neo-asphalt paving block adhesive.

Note: Only apply enough Neoprene Tack Coat to completely cover the Bitumen Setting Bed. Applying an excessive amount of Neoprene Tack Coat can cause the material to expand during summer months and ooze up through the paver joint damaging the paver surface.

2.3 BITUMEN SETTING BED MATERIALS

- A. Sand for asphalt bed:
 1. Clean, non-plastic, free from deleterious or foreign matter, symmetrically shaped, natural or manufactured from crushed rock.
 2. Graded according to ASTM C 136.
 3. Bedding Sand Material Requirements: Conform to the grading requirements of ASTM C 33 with modifications as shown in Table 2.

TABLE 2 – BITUMEN SETTING BED
 GRADATION REQUIREMENTS FOR BITUMEN SETTING BED

ASTM C 33	
Sieve Size	Percent Passing

No. 4 (4.75 mm)	100
No. 8 (2.36 mm)	85 to 100
No. 16 (1.18 mm)	50 to 85
No. 30 (0.600 mm)	25 to 60
No. 50 (0.300 mm)	10 to 30
No. 100 (0.150 mm)	2 to 10
No. 200 (0.075)	2 to 10

- B. Asphalt Cement:
 - 1. Provide Asphalt Cement used in the bituminous setting bed conforming to ASTM D 946 with a penetration at 77 degrees F. 100G., 5 sec of minimum 85 millimetres and a maximum of 100 millimetres.
 - 2. Combine the dried fine aggregate with hot asphalt cement, and heat the mix to approximately 300 degrees Fahrenheit (150° C), at an asphalt plant. Mix the approximated proportion of materials including 7% asphalt cement and 93% fine aggregate. Proportioned by weight each ton of the batch in the approximate ratio of 145 lbs (66 kg) asphalt to 1,855 lbs (840 kg) sand.
- C. Primer for base:
 - 1. Anionic asphalt emulsion SS-1h, per ASTM D 977.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine assemblies where reinforced to receive anchors, to verify that locations of concealed reinforcements have been clearly marked for Installer. Locate reinforcements and mark locations if not already done.
- B. Examine areas indicated to receive Site Furnishings for compliance with requirements for installation tolerances and other conditions affecting performance for the following items before placing the Site Furnishings.
- C. At Benches and Granite Pavers:
 - 1. Verify that Cast-in-Place Concrete Underlayment strength, thickness, surface tolerances and elevations conform to specified requirements.
 - 2. Verify that the Bitumen Setting Bed materials, thickness, compacted density, surface tolerances and elevations conform to specified requirements.
 - 5. Verify that concrete surfaces to receive the bitumen bedding material are free of dust, oil, grease, paint, wax, curing compounds, primer, sealers, form release agents, from cracks over 3/16 in. (5 mm) in width, or any deleterious substances and debris which may prevent or reduce bonding.
 - 6. Conduct moisture tests to verify that concrete surfaces are cured, free from hydrostatic pressure and having a moisture content of less than 5%.
 - 7. Verify location, type, and elevations of edge restraints, [concrete collars around] utility structures, and drainage inlets.
 - 8. Do not proceed with installation of Bitumen Setting Bed or Pavers until base conditions are corrected by the General Contractor or designated subcontractor.
 - 9. Proceed with installation only after unsatisfactory conditions have been corrected.
 - 1. Beginning of Bitumen Setting Bed and Paver installation signifies acceptance of Cast-in-Place Concrete Underlayment.

3.2 INSTALLATION, GENERAL

- A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing site furnishings in-place construction. Include threaded fasteners for concrete inserts, through-bolts, and other connectors. Contractor to submit manufacturers installation method in show drawings for Owners Representative's approval.
- B. Protect furnishings from paint spatter, splashed concrete, and other construction damage by wrapping and taping in place plastic sheeting or heavy kraft paper around all site furnishings until adjacent work is completed. Repair any damage to finish in a manner consistent with manufacturer's recommendations.
- C. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing site furnishing. Set site furnishings accurately in location, alignment, and elevation, measured from established lines and levels.
- D. Do not weld, cut, or abrade surfaces of components that have been coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
- E. Provide temporary bracing or anchors in formwork for items that are to be built into concrete or similar construction.
- F. Corrosion Protection: Coat concealed surfaces of metal that will come into contact with grout, concrete, masonry, wood, or dissimilar metals with a heavy coat of bituminous paint.
- G. Site furnishings shall be erected as indicated on the Drawings, plumb, level, snug, free from rocking and in accordance with manufacturer's recommendations. Make necessary shimming and final adjustments.
- H. Shims shall be black and sized so that they do not protrude beyond the base of the item so as to be visible in completed installation.

3.03 INSTALLATION OF GRANITE AT BENCHES:

- A. CONCRETE BASE PREPERATION:
 - 1. Fill any cracks under 3/16 in. (5 mm) wide with mortar.
 - 2. Sweep the surface clean.
- B. ASPHALT PRIMER:
 - 1. Apply Bitumen Setting Bed Asphalt primer to Cast-in-Place Concrete Underlayment to bond the bituminous bedding material to the concrete base.

Note: Utilize Cut Back Asphalt Specification (Rapid Curing Type), per ASTM D 2028-97 (2004) and AASHTO M-81.
- C. BITUMEN SETTING BED:
 - 1. Place in panels between 3/4 inch (20 mm) high screed rails spaced approximately 12 ft (4 m). Set the depth screed rails carefully to bring the Bitumen Bedding material to proper grade, to insure proper Paver finished height. Place Bitumen Bedding material between the parallel screed rails. Rake and screed smooth with strike board. Fill any depressions with fresh bituminous material to produce a smooth, firm and even setting bed after each pass.
 - 2. Use screed rails to achieve a level setting bed conforming to elevations and slope shown on the drawings. After one panel is completed, advance screed rails to the next position in readiness for screeding adjacent panels with strike board. Fill depressions left from removed screed rails and smooth to height consistent with panel.

3. Place an area in size that will remain at least 270° F (130° C) during compaction.
 4. Compact the Bitumen Setting Bed with a powered roller compactor to an even, nominal thickness of 3/4 inch (20 mm) after compaction while still hot. Adjusted the Bitumen Setting Bed to accommodate the required finished grade of the Pavers. Proper attention to elevations during the construction of the concrete base material will insure maintaining the required nominal 3/4 inch thick Bitumen Setting Bed.
 5. Re-heat, fill, and compact low areas with Bitumen Setting Bed materials to conform to slope and elevation shown on the drawings.
 6. Re-heat, remove, level, and compact Bitumen Setting Bed in high areas to conform to slope and elevation shown on the drawings.
 7. Correct irregularities or evenness in the grade of the concrete base surface with Setting Bed materials only.
- D. NEOPRENE MODIFIED ASPHALT ADHESIVE:
1. Apply to cold asphalt setting bed with notched trowel with serrations not exceeding 1/16 inch (2 mm). Do not apply pavers to adhesive until dry skin forms on surface of adhesive, approximately 2-3 hours depending on air temperature.
- E. GRANITE PAVERS
1. Replace Granite Pavers with chips, cracks, voids, discolorations, and other defects that might be visible in finished work.
 2. Exercise care in handling pavers to prevent surfaces from contacting backs or edges of other units.
 4. Place Pavers using layout as indicated.
 5. Use string lines or chalk lines to align pavers.
 6. Set surface elevation of pavers 1/8 in. (3 mm) above adjacent drainage inlets, concrete collars or channels.
 7. Place units hand tight against spacer bars. Adjust horizontal placement of laid pavers to align straight.
 - a. When installation is performed with mechanical equipment, use only unit pavers with spacer bars on sides of each unit.
 8. Provide space between paver units of 1/32 in. (1 mm) wide to achieve straight bond lines.
 9. Prevent joint (bond) lines from shifting more than ±1/2 in. (±13 mm) over 50 ft. (15 m) from string lines.
 10. Fill gaps between units or at edges of the paved area that exceed 3/8 inch (10 mm) with pieces cut to fit from full-size unit pavers.
 11. Cut Pavers with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges, only as necessary. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable.
 12. Prevent all traffic on installed Pavers until Trail Surface Aggregate and Benches have been installed in full. Keep skid steer and forklift equipment off newly laid Pavers.
 13. Vibrate Pavers into leveling course with a low-amplitude plate vibrator capable of a to 5000-lbf (22-kN) compaction force at 80 to 90 Hz. Perform at least three passes across paving with vibrator. Vibrate under the following conditions:
 - a. After edge pavers are installed and there is a completed surface or before surface is exposed to rain.
 - b. Compact installed Pavers to within 6 feet (2 meters) of the laying face before ending each day's work. Cover Pavers that have not been compacted and leveling course on which pavers have not been placed, with nonstaining plastic sheets to prevent Setting Bed Sand from becoming disturbed.
 14. Protect Paver surface from scuffing during compaction by utilizing a urethane pad.
 15. Remove any cracked or structurally damaged Pavers and replace with new units prior to installing Trail Surface Aggregate or Benche.
- 3.04 FIELD QUALITY CONTROL – GRANITE PAVERS AT BENCHES
- A. Verify final elevations for conformance to the drawings after sweeping the surface clean.

1. Prevent final Paver finished grade elevations from deviating more than $\pm 3/8$ in. (± 10 mm) under a 10 ft (3 m) straightedge or indicated slope, for finished surface of paving.
- B. Lippage: No greater than $1/32$ in. (0.8 mm) difference in height between Pavers and adjacent paved surfaces, including Trail Surface Aggregate.

3.3 ADJUSTING AND CLEANING

- A. Cleaning:
 1. Clean any surfaces impacted during construction by washing thoroughly with clean water and soap followed by thorough rinsing with clean water.
 2. All site furnishings shall be delivered in an 'as new' condition. If damage is apparent, replace item in full including labor until acceptable by the Owner's representative.
- B. Touchup Painting for Shop Painted Surfaces: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
 1. Apply by brush or spray to provide a minimum 2.0-mil (0.05-mm) dry film thickness.

END OF SECTION