



OFFICE OF THE PURCHASING AGENT

City of Leominster, Massachusetts

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LEOMINSTER, MASSACHUSETTS 01453
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Addendum #1 – January 14, 2025

Invitation for Bids:

Twin Cities Rail Trail Phase III

I.F.B. Due Date: - January 24, 2025, at 11:00 A.M.

This Addendum does hereby become a part of the IFB document referenced above; it supersedes and/or adds additional requirements to the original specifications. Please be aware of these changes when submitting your IFB submission for the above-mentioned bid.

The **bid due date** has been pushed back to **Friday, January 24, 2025 @ 11:00 A.M.**, to allow for time to review all clarifications covered in this Addendum.

Below directives bidders are to follow regarding the bid documents, as well as questions the City has received regarding the above-named bid, with the City's responses provided.

ITEM 1-1: BID FORM

DELETE Project Bid Form, consisting of 7 pages, and **REPLACE** with Project Bid Form, consisting of 7 pages, attached hereto as Attachment A. Please note the addition of bid unit items 015300.06 Allowance for Temporary Fencing and 015300.07 Allowance for Police Detail.

ITEM 1-2: SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

DELETE Section 01 50 00 – Temporary Facilities and Controls, consisting of 5 pages, and **REPLACE** Section 01 50 00 – Temporary Facilities and Controls, consisting of 5 pages, attached hereto as Attachment B.

ITEM 1-3: Section 01 53 00– TEMPORARY CONSTRUCTION

DELETE 01 53 00 – Temporary Construction, consisting of 7 pages, and **REPLACE** with Section 31 20 00 – Earth Moving, consisting of 7 pages, attached hereto as Attachment C.

ITEM 1-4: Section 31 00 00 – EARTHWORK

DELETE Section 31 00 00 – Earthwork, consisting of 14 pages, and **REPLACE** with Section 31 00 00 – Earthwork, consisting of 14 pages, attached hereto as Attachment D.

ITEM 1-5: Section 32 17 00 – PAVING SPECIALTIES

DELETE Section 32 17 00 – Paving Specialties, consisting of 8 pages, and **REPLACE** with Section 32 17 00 – Paving Specialties, consisting of 8 pages, attached hereto as Attachment E.

ITEM 1-6: The following are questions which were sent to the City, with their respective answers:

Q1 Specification Page 32 05 05-3 of 7, Part F, states “Contractor shall insure that traffic is maintained throughout construction and that flaggers and police details are provided by the Contractor at his/her expense to maintain right-of-way and public safety for vehicles entering and exiting the site and during construction in the public rights-of-way and as required by The City of Leominster.” Can a police allowance be put into the bid so that all bidders are including the same amount of money for police to ensure a competitive process or state that the contractor will be re-imbursed (per MassDOT specs) for any police required?

A1 **A bid item with an allowance for police detail has been added to the bid form. It is not anticipated that police detail will be extensive. The City of Leominster will reimburse the Contractor for any required Police details. Only actual costs incurred will be reimbursed, no markups of any kind are allowed (Leominster is NOT following MassDOT reimbursement policies). Contractor will invoice Police Detail costs separately.**

Q2 If work is on the rail trail, and not on the existing streets or sidewalks, will a police detail be required?

A2 **Police detail will not be required for work on the rail trail that does not impact cross street traffic.**

Q3 Similar to Question 2, if vehicles are entering/exiting the rail trail through side streets, yet no work is being conducted on the side streets, will a police detail be required?

A3 **If said entering/exiting does not impact traffic or pedestrians, no police detail will be required.**

Q4 Regarding Item Imprint System-Median paid by the SF, reference section 32 10 00-- will the attached “Endurablend” Pavement surfacing system be allowed as an “Equal”-see attached specification as this system is the latest technology and through field experience, has better performance characteristics.

A4 **No assurance is made at this time that a particular material will be acceptable. The material for the Imprint System – Median is required to meet the requirements of specification section 32 10 00.**

Q5 In the “Invitation for Bids” it states “A Performance Bond in an amount equal to fifty hundred (50%) percent of the total amount of the contract price with a surety company ...” Can you clarify “fifty hundred percent?” Any reason the City would not want payment and performance bonds for 100%?

A5 **The original bond language in the bid is incorrect and is to be deleted and replaced with the following; “fifty percent (50%) Labor and Materials Payment Bond” The type and amount of the bond asked for is what is required by Massachusetts General Law.**

Q6 Reference to MassDOT Standard Specifications, 2024 edition is referenced in many locations and the work is clearly meant to abide by those standards yet bid item numbers, format and sequence, do not follow typical MassDOT item numbers. Can the bid form be modified to the MassDOT typical item numbers?

A6 **No, the bid form will not be modified.**

- Q7** Being that MassDOT specifications are incorporated into the work, please provide a pre-qualification requirement for this project and dictate the category of work and the amount that any contractors shall be pre-qualified to bid this project? As it stands now, any contractor that can furnish a bond can bid the project, but that alone, does not concur with MassDOT specifications
- A7** **This is not a MassDOT project, MassDOT prequalification is not a requirement of this contract. There is no MassDOT funding involved in this project. MassDOT construction specifications are cited in the bid documents as a baseline for the proper construction of the rail trail work.**
- Q8** Page 03 30 00-2 of 2 states that the latest edition and all supplements by MassDOT are part of the contract. Confirm that the attached soil handling MassDOT engineering Directive, P-22-001 is a required specification and shall be incorporated into this project regarding the handling of soils.
- A8** **No, MassDOT Engineering Directives, including P-22-001 are not considered part of the contract.**
- Q9** Confirm that Will CADD files be provided to the contractor for their own use?
- A9** **Yes, CAD files will be provided to the contractor.**
- Q10** There are a few references for as-built drawings to be submitted. Do as-built drawings need to be stamped by a PLS or PE registered in the State of MA?
- A10** **As-Built drawings must be stamped by a PLS registered in the State of Massachusetts.**
- Q11** For as-built submission, the specifications do not call for CADD files being submitted but just full-size hard copy drawings. Can this be clarified-are pdf's and CADD files suitable for satisfying "as-built" submissions?
- A11** **Yes, PDFs and CAD files are suitable for satisfying as-built submissions.**
- Q12** There is no language indicating MassDOT typical payment adjustments for commodities such as liquid asphalt, diesel, cement, steel, etc. The fact that MassDOT specifications are frequently referenced leads contractors to believe that pay adjustments will be part of the project. Can pay adjustments be made part of the project (see attached diesel-fuel and gas spec language).
- A12** **Payment adjustments for commodities will be allowed in the same manner as MassDOT projects are adjusted. See Attachment F for commodity base prices and adjustment language. Attachment F is understood to be added to the existing General Conditions.**
- Q13** Please establish the base price for all commodities so that all contractors are relying on the same base price for said commodities and a level playing field.
- A13** **See response to question #12.**
- Q14** Please confirm that liquidated damages of \$0 as listed on page 00300-1 as well as page 00500-2 is accurate. MassDOT standards do provide a table for liquidated damages depending on the amount of the contract but this would seem to contradict the \$0 amount stipulated.
- A14** **There are NO liquidated damages for this contract.**

- Q15** Specification page 00 73 00-9 of 9, section 1.19, A states to submit a plan for site access and construction fencing. Page 03 30 00-2 of 5 states to erect 6' chain link temporary fence prior to commencement of work. There is no item pay item for temporary construction fence. The fence is not shown on the plans. The fence should be the entire perimeter of the work zone. Can an item and specification be provided showing chain link details, location of fence and any scrim requirements that the City of Leominster expects?
- A15** **A bid item for temporary fencing will be added to the contract under Section 01 53 00 Temporary Construction. The Contractor is responsible for determining the extents of fencing required to maintain a safe site perimeter in the area of active work. Payment for temporary fencing will be an allowance.**
- Q16** Confirm that the City of Leominster is satisfied with ringing the entire job site with temporary fence from start to finish, including sidewalks at cross streets. This is to prevent access as well as vandalism, such as graffiti, to any completed sidewalks or furnishings until final acceptance.
- A16** **The city is not anticipating the entire project be fenced from start to finish. The extents of fencing shall be determined by the Contractor to respond to needs for security and safety during active work. An allowance for temporary fencing has been included under section 01 53 00.**
- Q17** Pursuant to Section 1.11, A, on page 03 30 00-2 of 5, if keeping sidewalks closed at side streets is not feasible, please confirm that the contractor will not be held responsible for any damage done to any work such as graffiti or other vandalism, if the contractor is not allowed to keep the new construction fenced in until final completion and acceptance.
- A17** **Fencing newly completed work for protection until final acceptance is acceptable provided that safe and accessible pedestrian access is provided along an alternative route.**
- Q18** Page 01 30 00-4 of 5 states the requirement of weekly meetings. Is furnishing the owner/engineer with a field office required for these meetings or does the City of Leominster have a space that could be used for such meetings?
- A18** **No, a field office is not required for this project. Site meetings will be held either on site, virtually or at a location provided by the City of Leominster.**
- Q19** Page 01 53 00-1 of 7 references "Furnishing, installing, and maintaining all equipment required by the engineer within a satisfactory office space as specified herein." There are no specifications for a field office or a pay item calling out a field office. If a field office is required, please provide size, furnishings, sanitary facility requirements, equipment, etc. or any other requirements that are expected and for how long that it will be required. Consider adding MassDOT item 740. for field office by the month.
- A19** **No, a field office is not required for this project. The above referenced language has been revised in section 01 53 00.**
- Q20** Page 03 30 00-1 of 5, Section 1.04 calls for temporary lighting to be established until the new lights are installed. Confirm that there is no new lighting being constructed and therefore no temporary lighting (other than any that the contractor may deem necessary) is required.
- A20** **Correct, there is no new lighting on this project.**

- Q21** Page 03-30 00-3 of 5, Section 1.14A calls to provide 2 project ID signs and provides the text. Please provide the desired size of the signs and under what pay item it will be measured and paid for.
- A21** **Project ID signs size shall be 36"x48". Shop drawing to be provided to Owner and Landscape Architect for review of text and layout as per requirements of Section 01 50 00 1.14 A. This item will be paid for under pay item 01 53 00.03 Mobilization.**
- Q22** Confirm that soil testing of PFAS is not a requirement during sampling, testing and characterization of soils as it is not mentioned in the contaminated soil disposal specifications.
- A22** **Soil testing of PFAS is not required during sampling, testing, and characterization of soils for this project.**
- Q23** Item 4.02, J. on page 31 00 00-13 of 14 states payment for track excavation is by the TON. Should this be FOOT as Item 31 00 00.15 is listed in the bid form as 100 FT?
- A23** **For Item 31 00 00.15, the unit should be FOOT to match the bid form.**
- Q24** At the top of page 31 00 00-14 of 14 it states in areas where the rails have already been removed and the timber cross ties remain, their removal will be measured and paid for under Unclassified Excavation. It then goes on to say that disposal of treated wood products shall be measured and paid under item 31 00 00.17-Disposal of Treated wood products. Confirm that Railroad tie excavation will be paid both by the CY under unclassified excavation and per TON for the disposal of treated wood.
- A24** **Excavation to remove the existing wood ties shall be paid for under item 31 00 00.01 Unclassified Excavation on a per CY basis. The disposal of the removed wood ties shall be paid for under Item 31 00 00.17 Disposal of Treated Wood Products on a per TON basis.**
- Q25** Page 32 05 05-5 of 7 states "Every effort shall be made to keep noise levels down before the hour of 9 AM. Work shall not begin before 7 AM or occur after 5 PM." Confirm that construction equipment and trucks may be started and operated with all safety backup alarm devices from the hours of 7AM - 5PM.
- A25** **Equipment and work vehicles may be started and used at 7am. Efforts shall be made to avoid other loud noise levels before 9am.**
- Q26** Page 32 17 00-8 of 8 lists quantities not consistent with bid items. Please clarify the unit for 32 17 00.05 and 32 17 00.17 on the specification page.
- A26** **For Item 32 17 00.05, the unit should be EACH to match the bid form.
For Item 32 17 00.17 the unit should be EACH to match the bid form.**
- Q27** Page 32 30 00-20 of 21 states "C. GRANITE PAVING will be measured per SQUARE FOOT complete in place including all labor, materials, base materials, excavation, grading, fine grading, compaction, freight, equipment, and miscellaneous items necessary to complete the Work as specified and as shown on the Drawings." Base materials is somewhat open to interpretation-can you confirm that the concrete slab under the granite pavers is incidental to the granite paving item or will it be paid under the concrete sidewalk item?
- A27** **Yes, the concrete base slab under the granite pavers is incidental to item 32 30 00.03 Granite Paving and shall not be measured or paid for separately.**

Q28 Page 32 30 00-20 of 21 states "C. GRANITE PAVING will be measured per SQUARE FOOT complete in place including all labor, materials, base materials, excavation, grading, fine grading, compaction, freight, equipment, and miscellaneous items necessary to complete the Work as specified and as shown on the Drawings." Base materials is somewhat open to interpretation-can you confirm that the concrete slab under the granite pavers is incidental to the granite paving item or will it be paid under the concrete sidewalk item?

A28 **Yes, the concrete base slab under the granite pavers is incidental to item 32 30 00.03 Granite Paving and shall not be measured or paid for separately.**

Q29 Will any reinforcing bar be needed for the granite seat-wall foundation?

A29 **#4 Rebar reinforcing, in both directions, will be required for the Granite Seat Wall foundations; exact layout and quantity to be coordinated during shop drawing review.**

Q30 Are there any mbe/wbe participation goals for the project?

A30 **No.**

Q31 Is the project tax exempt?

A31 **Yes.**

CITY OF LEOMINSTER

By: Gregory C. Chapdelaine,
Purchasing Agent

Addendum #1 - Attachment A
January 13, 2025

BID FORM
LEOMINSTER, MASSACHUSETTS
TWIN CITIES RAIL TRAIL AT LEOMINSTER DEPOT

ITEM NO.	Approx. Quantity	Item with Unit Bid Price Written in Words	Unit Price		Amount	
			Dollars	Cents	Dollars	Cents
01 53 00.01	5	Silt Sack Dust Control, at Per EACH				
01 53 00.02	4	Bound Removed and Reset, at Per Each				
01 53 00.03	1	Mobilization, at Per Lump Sum				
01 53 00.04	1	NPDES Stormwater Pollution Prevention Plan at Per Lump Sum				
01 53 00.05	330	Sediment Control Barrier, at Per Foot				
01 53 00.06	1	Allowance for Temporary Fencing, at Per Allowance	\$ 20,000.00	.00	\$ 20,000.00	.00
01 53 00.07	1	Allowance for Police Detail, at Per Allowance	\$ 5,000.00	.00	\$ 5,000.00	.00
01 56 39.01	950	Tree Protection Fencing, at Per Foot				
01 56 39.02	2	Pruning of Existing Trees to Remain, at Per Each				
03 30 00.01	620	Pedestrian Concrete Paving, at Per Square Yard				
03 30 00.02	50	Cement Concrete Pedestrian Curb Ramp, at Per Square Yard				
31 00 00.01	1,300	Unclassified Excavation, at Per Cubic Yard				
31 00 00.02	50	Test Pit for Exploration, at Per Cubic Yard				
31 00 00.03	500	Ordinary Borrow, at Per Cubic Yard				
31 00 00.04	800	Gravel Borrow, at Per Cubic Yard				

31 00 00.05	2	Crushed Stone, at Per Ton				
31 00 00.06	3,000	Fine Grading and Compaction - Subgrade Area, at Per Square Yard				
31 00 00.07	1	Environmental Health and Safety Program, at Per Lump Sum				
31 00 00.08	40	Personal Protection Level C Upgrade, at Per Hour				
31 00 00.09	40	Licensed Site Professional Services, at Per Hour				
31 00 00.10	1,270	Disposal of Unregulated Soil, at Per Ton				
31 00 00.11	80	Disposal of Regulated Soil - In-State Facility, at Per Ton				
31 00 00.12	80	Disposal of Regulated Soil - Out-of- State Facility, at Per Ton				
31 00 00.13	80	Disposal of Hazardous Waste, at Per Ton				
31 00 00.14	10	Geotextile Fabric for Separation, at Per Square Yard				
31 00 00.15	100	Track Excavation, at Per Foot				
31 00 00.16	10	Disposal of Treated Wood Products, at Per Ton				
32 05 05.01	0.5	Clearing and Grubbing, at Per Acre				
32 05 05.02	0.3	Selective Clearing and Thinning, at Per Acre				
32 05 05.03	20	Sawcutting Asphalt Pavement, at Per Foot				

32 05 05.04	60	Sawcutting Portland Cement Concrete, at Per Foot				
32 10 00.01	13,460	Calcium Chloride for Roadway Dust Control, at Per Pound				
32 10 00.02	10	Water for Roadway Dust Control, at Per 1,000 Gallons				
32 10 00.03	210	Superpave Surface Course - 9.5 (SSC - 9.5), at Per Ton				
32 10 00.04	340	Superpave Intermediate Course - 19.0 (SIC - 19.0), at Per Ton				
32 10 00.05	20	HMA for Patching, at Per Ton				
32 10 00.06	200	Asphalt Emulsion for Tack Coat, at Per Gallon				
32 1000.07	120	HMA Joint Adhesive, at Per Foot				
32 10 00.08	20	Temporary Asphalt Patching, at Per Ton				
32 10 00.09	4	Hotmix Asphalt Sidewalk or Driveway, at Per Ton				
32 10 00.10	230	Imprint System - Median, at Per Square Foot				
32 10 00.11	24	Brick Walk Removed and Relaid, at Per Square Yard				
32 12 10.01	40	Control of Invasive Plants Existing on Site, at Per Hour				
32 12 20.01	8	Invasive Plant Management Strategy, at Per Hour				
32 16 00.01	150	Granite Curb Type VB - Straight, at Per Foot				

32 16 00.02	170	Granite Curb Type VB - Curved, at Per Foot				
32 16 00.03	36	Granite Transition Curb for Pedestrian Curb Ramps - Straight, at Per Foot				
32 16 00.04	20	Granite Transition Curb for Pedestrian Curb Ramps - Curved, at Per Foot				
32 16 00.05	180	Curb Removed and Reset, at Per Foot				
32 16 00.06	260	Curb Removed and Discarded, at Per Foot				
32 17 00.01	90	Warning-Regulatory and Route Marker - Aluminum Panel (Type A), at Per Square Foot				
32 17 00.02	20	Sign Sup (N/Guide)+RTE MKR W/1 Brkway Post Assembly - Steel, at Per Each				
32 17 00.03	510	Safety Signing for Traffic Management, at Per Square Foot				
32 17 00.04	110	Temporary Pedestrian Barricade, at Per Foot				
32 17 00.05	10	Temporary Pedestrian Curb Ramp, at Per Each				
32 17 00.06	4	Portable Breakaway Barricade Type III, at Per Each				
32 17 00.07	100	Pavement Marking Removal, at Per Square Foot				
32 17 00.08	50	Arrow Board, at Per Day				
32 17 00.09	1,900	Reflectorized Drum, at Per Day				

32 17 00.1	20	12 Inch ReflectORIZED White Line (Painted), at Per Foot				
32 17 00.11	390	4 Inch ReflectORIZED Yellow Line (Painted), at Per Foot				
32 17 00.12	40	Pavement Legend ReflectORIZED White (Painted), at Per Square Foot				
32 17 00.13	40	Pavement Arrows and Legends ReflectORIZED White (Thermoplastic), at Per Square Foot				
32 17 00.14	30	Pavement Arrows and Legends ReflectORIZED Blue (Thermoplastic), at Per Square Foot				
32 17 00.15	560	6 Inch ReflectORIZED White Line (Thermoplastic), at Per Foot				
32 17 00.16	630	12 Inch ReflectORIZED White Line (Thermoplastic), at Per Foot				
32 17 00.17	1	Miscellaneous Sign Removed and Reset, at Per Each				
32 30 00.01	81	Granite Seat Walls, at Per Foot				
32 30 00.02	3	Granite Marker, at Per Each				
32 30 00.03	498	Granite Paving, at Per Square Foot				
32 30 00.04	2	Interpretive Sign, at Per Each				
32 30 00.05	1	Trailhead Sign, at Per Each				
32 33 00.06	260	Split Rail Fence, at Per Foot				
32 33 00.07	400	Wood Guardrail, at Per Foot				

32 33 00.01	2	Trash Receptacle, at Per Each				
32 33 00.02	2	Curved Park Bench, at Per Each				
32 33 00.03	4	Curved Park Bench on Wall, at Per Each				
32 33 00.04	2	Picnic Table with Seats, at Per Each				
32 33 00.05	1	Accessible Picnic Table with Seats, at Per Each				
32 33 00.06	5	Bicycle Rack, at Per Each				
32 90 00.01	560	Planting Soil, at Per Cubic Yard				
32 90 00.02	3,623	Seeded Lawn, at Per Square Yard				
32 90 00.03	5	Amelanchier canadensis 6'-8' Height, at Per Each				
32 90 00.04	3	Crataegus viridis 'Winter King' 2.5'-3' Cal. , at Per Each				
32 90 00.05	3	Juniperus virginiana 5'-6' Height, at Per Each				
32 90 00.06	3	Liquidambar styraciflua 'Rotundiloba' 3.5"-4" Cal., at Per Each				
32 90 00.07	1	Nyssa sylvatica 3.5"-4" Cal., at Per Each				
32 90 00.08	32	Cornus sericea 7 Gal., at Per Each				
32 90 00.09	18	Ilex glabra 'Shamrock' 7 Gal., at Per Each				
32 90 00.10	8	Viburnum trilobum 7 Gal., at Per Each				

32 90 00.11	85	Hemerocallis 'Joan Senior' 1 Gal., at Per Each				
32 90 00.12	130	Hemerocallis 'Rosy Returns' 1 Gal., at Per Each				
32 90 00.13	90	Symphoricaricium novae-angliae 1 Gal., at Per Each				
32 90 00.14	71	Rudbeckia fulgida 'Goldsturm' 1 Gal., at Per Each				
33 40 00.01	1	Drainage Structure Remodeled, at Per Each				
TOTAL BID PRICE:						
			<i>TOTAL BID PRICE (DOLLARS)</i>		<i>TOTAL BID PRICE (CENTS)</i>	

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Temporary Utilities: Electricity, lighting, ventilation, water, and sanitary facilities.
- B. Temporary Controls: Barriers, fencing, water control, enclosures, protection of the Work, and security.
- C. Construction Facilities: Parking, progress cleaning, project and signage.

1.02 RELATED SECTIONS

- A. Section 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS: Final cleaning

1.03 TEMPORARY ELECTRICITY

- A. Provide and pay for power service required from the pertinent local electrical utility company.
- B. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required. Provide flexible power cords as required.
- C. Provide main service disconnect and over current protection at convenient location.

1.04 TEMPORARY LIGHTING

- A. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- B. Maintain lighting and provide routine repairs.
- C. Maintain existing lighting along all sidewalk and roadway edges.

1.05 TEMPORARY WATER SERVICE

- A. Connect to existing water source for construction operations.
- B. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.
- C. Obtain necessary permits from the local municipality; pay all costs of permit and water used during term of contract.

1.06 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Existing facilities shall not be used.

1.07 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide protection for plants designated to remain. Replace damaged plants.
- C. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

1.08 FENCING

- A. As required by other contract requirements.
- B. Contractor shall erect 6'-0" ht. Chain Link temporary fence and install safety controls prior to commencement of site work.
- C. Add securely attached signs which say, "Construction Zone-No Trespassing" at 50'-0" intervals along fence.

1.09 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.10 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.
- C. Provide protective coverings at walls, projections and openings.
- D. Protect surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

1.11 SECURITY

- A. Provide security and facilities to protect Work and existing facilities from unauthorized entry, or damage, including graffiti, vandalism, or theft.

- B. As part of the project scope, provide police details to maintain pedestrian and vehicular safety and in order to ensure construction access control.

1.12 PARKING AND SITE ACCESS

- A. Arrange for temporary off-site parking to accommodate construction personnel.
- B. Contractor shall coordinate site access with City's Engineering Department.

1.13 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove water materials, debris, and rubbish from site weekly and dispose off-site.

1.14 PROJECT IDENTIFICATION

- A. Provide two (2) Project Identification signs to be located where directed by Owner and Landscape Architect, as depicted herein. The sign layout shall be as the following: (provide a shop drawing to Owner and Landscape Architect for review of sign and text layout.):

TWIN CITIES RAIL TRAIL: PHASE 3

City of Leominster
Dean Mazzarella, Mayor

Department of Public Works

Nicholas Kremp
Conservation Agent, Department Of Conservation

Landscape Architect
Brown, Richardson + Rowe, Inc.
Boston, MA

General Contractor
Company Name
City, State

Engineer
Stantec
Burlington, MA



Funding for this project generously provided by:

GATEWAY CITY PARKS PROGRAM
Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

CITY OF LEOMINSTER



- B. Signs shall be made of durable, exterior grade painted plywood or metal securely mounted to wood posts, be of the sizes indicated on the accompanying plans and be professionally lettered as shown on the Drawings herein. Submit samples of color and lettering layouts to Landscape Architect for approval.
- C. Signs shall be securely mounted with galvanized metal attachments to wood or steel posts and shall be framed so as to be durable. All attachments and mountings shall be child safe and vandal resistant.
- D. Signs shall be installed facing the street or access points to the construction area so as to be visible and to inform the general public. Where possible, the signs should be located so as not to conflict with the construction process.
- E. The construction signs shall be maintained in satisfactory condition during construction and then removed and disposed of legally by the contractor just prior to the final acceptance of the work.
- F. As directed, permanent signs shall be installed and protected until project acceptance.
- G. Remove all signs at Substantial Completion and dispose of or deliver to storage area as directed by Owner.

- H. No other temporary signs are allowed without Owner's permission except those required by law.

1.15 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary above grade or buried utilities, equipment, facilities, materials, prior to Final Application for Payment inspection.
- B. Remove underground installations to a minimum depth of 2 feet (600 mm). Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.

END OF SECTION

SECTION 01 53 00
TEMPORARY CONSTRUCTION

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Include the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 1 – GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.
- B. Examine all other Sections of the specifications for requirements which affect Work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under the Contract.
- D. The work shall conform to the relevant provisions of the Commonwealth of Massachusetts Department of Transportation (MassDOT) Standard Specifications 2024 Edition for Highways and Bridges and the Supplemental Specifications.

1.02 SUMMARY

- A. This Section specifies requirements for the following types of work and related items, but is not limited to:
 - 1. Furnishing and installing sediment collection and control devices at the locations shown on the plans and as required by the Engineer.
 - 2. Removing and resetting existing bounds within the limits of work.
 - 3. Mobilization
 - 4. Preparation and implementation of a Storm Water Pollution Prevention Plan.
 - 5. Installation of temporary fencing.

1.03 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following related work is to be performed under the designated SECTIONS:
 - 1. Section 01 56 39 – TREE PROTECTION

PART 2 – PRODUCTS

2.01 SILT SACK

- A. The sediment collection sack (silt sack) shall be manufactured from a woven polypropylene fabric with an oil-absorbent pillow insert or made completely from an oil-

absorbent fabric with a woven pillow insert that meets or exceeds the following specifications.

<u>Properties</u>	<u>Test Method</u>	<u>Units</u>
Grab Tensile Strength	ASTM D-4362	265 LBS
Grab Tensile Elongation	ASTM D-4362	20%
Puncture	ASTM D-4833	135 LBS
Mullen Burst	ASTM D-3786	420 LBS
Trapezoid Tear	ASTM D-4533	45 LBS
UV Resistance	ASTM D-4355	90%
Apparent Opening Size	ASTM D-4751	20 US SIEVE
Flow Rate	ASTM D-4491	200 GAL/MIN/SQ FT
Permittivity	ASTM D-4491	1.5 SEC-1

2.02 BOUND REMOVED AND RESET

- A. Products used shall meet the requirements of Section 710 of the Standard Specifications and the following:
- B. When bound is reset within pavement, cement concrete used for collar shall meet the requirements of Section M4.02.00 of the Standard Specifications.

2.03 SEDIMENT CONTROL BARRIER

A. Compost Filter Tubes

Compost filter tubes shall have a minimum diameter of 12". Compost material inside the filter tube shall meet M1.06.0 of the Standard Specifications, except for the following: no peat, manure or bio-solids shall be used; no kiln-dried wood or construction debris shall be allowed; material shall pass through a 2-inch sieve; and the C:N ratio shall be disregarded. Outer tube fabric shall be made of 100% biodegradable materials (i.e., cotton, hemp or jute) and shall have a knitted mesh with openings that allow for sufficient water flow and effective sediment capture.

2.04 TEMPORARY FENCING

- A. Products used shall meet the requirements of Section 644 of the Standard Specifications and the following:
- B. Temporary fence shall be 6 feet high and of chain link construction.

PART 3 – EXECUTION

3.01 SILT SACK

- A. All existing and new catch basin structures within the limits of work shall have sediment collection sacks installed and maintained in good working order until the completion of

all construction activities within the drainage collection area of each drainage structure. Sediment collection sacks (silt sacks) shall be replaced if damaged, if no longer working properly and / or as required by the Resident Engineer.

Refer to construction plan details showing the sediment collection sack device. Contractor shall be responsible for field measuring all existing and new drainage structures to ensure that the proper size sediment collection sack is provided for each structure.

Sediment removed from the silt sacks shall be handled in accordance with the requirements of Section 227 of the Standard Specifications.

3.02 BOUND REMOVED AND RESET

- A. Methods of execution used shall meet the requirements of Section 710 of the Standard Specifications and the following:
- B. Bounds reset within paved surfaces shall be reset flush to the pavement with a cement concrete collar as described in the Contract Drawings.

3.03 NPDES STORMWATER POLLUTION PREVENTION PLAN

Methods Pursuant to the Federal Clean Water Act, construction activities which disturb one acre or more are required to apply to the U.S. Environmental Protection Agency (EPA) for coverage under the NPDES General Permit for Storm Water Discharges From Construction Activities. On July 14, 2008 (73 FR 40338), EPA issued the final NPDES Construction General Permit (CGP) for construction activity.

The NPDES CGP requires the submission of a Notice of Intent (NOI) to the U.S. EPA prior to the start of construction (defined as any activity which disturbs land, including clearing and grubbing). There is a seven (7) day review period commencing from the date on which EPA enters the Notice into their database. The Contractor is advised that, based on the review of the NOI, EPA may require additional information, including but not limited to, the submission of the Storm Water Pollution Prevention Plan for review. Work may not commence on the project until final authorization has been granted by EPA. Any additional time required by EPA for review of submittals will not constitute a basis for claim of delay.

In addition, if the project discharges to an Outstanding Resource Water, vernal pool, or is within a coastal ACEC as identified by the Massachusetts Department of Environmental Protection (DEP), a separate notification to DEP is required. DEP may also require submission of the Storm Water Pollution Prevention Plan for review and approval. Filing fees associated with the notification to DEP and, if required, the SWPPP filing to DEP shall be paid by the Contractor.

The General Permit also requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the afore-mentioned statutes and regulations. The Plan will include the General Permit conditions and detailed descriptions of controls of erosion and sedimentation to be implemented during

construction. It is the responsibility of the Contractor to prepare the SWPPP to meet the requirements of the most recently issued CGP. The Contractor shall submit the Plan to the Engineer for approval at least four weeks prior to any site activities. It is the responsibility of the Contractor to be familiar with the General Permit conditions and the conditions of any state Wetlands Protection Act Order, Water Quality Certification, Corps of Engineers Section 404 Permit and other environmental permits applicable to this project and to include in the Stormwater Pollution Prevention Plan the methods and means necessary to comply with applicable conditions of said permits.

It is the responsibility of the Contractor to complete the SWPPP in accordance with the EPA Construction General Permit, provide all information required, and obtain any and all certifications as required by the Construction General Permit. Any amendments to the SWPPP required by site conditions, schedule changes, revised work, construction methodologies, and the like are the responsibility of the Contractor. Amendments will require the approval of the Engineer prior to implementation.

Included in the General Permit conditions is the requirement for inspection of all erosion controls and site conditions on a weekly basis as well as after each incidence of rainfall exceeding 0.5 inches in twenty-four hours. The Contractor shall choose a qualified individual who will be on-site during construction to perform these inspections. The Engineer must approve the contractor's inspector. In addition, if the Engineer determines at any time that the inspector's performance is inadequate, the Contractor shall provide an alternate inspector. Written weekly inspection forms, storm event inspection forms, and Monthly Summary Reports must be completed and provided to the Engineer. Monthly Summary Reports must include a summary of construction activities undertaken during the reporting period, general site conditions, erosion control maintenance and corrective actions taken, the anticipated schedule of construction activities for the next reporting period, any SWPPP amendments, and representative photographs.

The Contractor is responsible for preparation of the Plan, all SWPPP certifications, inspections, reports and any and all corrective actions necessary to comply with the provisions of the General Permit. Work associated with performance of inspections is not included under this Item. The Standard Specifications require adequate erosion control for the duration of the Contract. Inspection of these controls is considered incidental to the applicable items. This Item addresses acceptable completion of the SWPPP, any revisions/amendments required during construction, and preparation of monthly reports. In addition, any erosion controls beyond those specified in bid items elsewhere in this contract which are selected by the Contractor to facilitate and/or address the Contractor's schedule, methods and prosecution of the work shall be considered incidental to this item.

The CGP requires the submission of a Notice of Termination (NOT) from all operators when final stabilization has been achieved. Approval of final stabilization by the Engineer and confirmation of submission of the NOT will be required prior to submission of the Resident Engineer's Final Estimate.

3.04 SEDIMENT CONTROL BARRIER

- A. Prior to initial placement of barriers, the Contractor and the Engineer shall review locations specified on the plans and adjust placement to ensure that the placement will provide maximum effectiveness.

Barriers shall be staked, and/or wedged as specified herein and according to the Manufacturer's instructions. Barriers shall be securely in contact with existing soil such that there is no flow beneath the barrier. Tubes shall be tamped, but not trenched, to ensure good contact with soil.

- B. Maintenance of the sediment control barrier shall be per Section 670.60 of the Standard Specifications or per the Stormwater Pollution Prevention Plan (SWPPP), whichever is more restrictive.

The contractor shall inspect the sediment barrier in accordance with relevant permits. At a minimum, barriers shall be inspected at least once every 7 calendar days and after a rain event resulting in 0.25 inches or more of rainfall. Contractor shall be responsible for ensuring that an effective barrier is in place and working effectively for all phases of the Contract.

Barriers that decompose such that they no longer provide the function required shall be repaired or replaced as directed. If the resulting berm of compost within the fabric tube is sufficiently intact and continues to provide effective water and sediment control, barrier does not necessarily require replacement.

- C. Barriers shall be dismantled and/or removed, as required, when construction work is complete, and upslope areas have been permanently stabilized and after receiving permission to do so from the Engineer.

Regardless of site context, nonbiodegradable material and components of the sediment barriers, including photo-biodegradable fabric, plastic netting, nylon twine, shall be removed and disposed off-site by the Contractor.

For naturalized areas, biodegradable, natural fabric and material may be left in place to decompose on-site. In urban, residential, or other locations where aesthetics is a concern, the following shall apply:

- Compost filter tube fabric shall be cut and removed, and compost shall be raked to blend evenly (as would be done with a soil amendment or mulch). No more than a 2-inch depth shall be left on soil substrate.

3.05 TEMPORARY FENCING

Temporary construction fencing shall be installed in accordance with Section 600 of the Standard Specifications. Temporary fencing shall be erected in a substantial manner, straight, plumb, and true as required by the Engineer. Gates shall be built into the fence at approved locations and at a size required to allow access and egress to the work.

PART 4 – COMPENSATION

4.01 MEASUREMENT

- A. Measurement for SILT SACK will be made on a per EACH (EA) basis for each silt sack actually installed in a catch basin.
- B. Measurement for BOUND REMOVED AND RESET will be made on a per EACH (EA) basis inclusive of cement concrete collar as required.
- C. Measurement for MOBILIZATION shall be in conformance with Section 748.80 of the Standard Specifications.
- D. Measurement for NPDES STORMWATER POLLUTION PREVENTION PLAN will be made on a LUMP SUM (LS) basis.
- E. Measurement for SEDIMENT CONTROL BARRIER will be made on a per FOOT (FT).
- F. Measurement for ALLOWANCE FOR TEMPORARY FENCING will be made on a per ALLOWANCE basis.
- G. Measurement for ALLOWANCE FOR POLICE DETAILS will be made on a per ALLOWANCE basis.

4.02 PAYMENT

- A. Payment for SILT SACK will be at the per EACH (EA) contract price. This price shall include full compensation for all labor, materials, tools, equipment, maintenance, final removal, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified. Removal and disposal of sedimentation is incidental to this item in conformance with the applicable provisions of Section 227 of the Standard Specifications.
- B. Payment for BOUND REMOVED AND RESET will be at the per EACH (EA) contract price in conformance with the applicable provisions of Section 710 of the Standard Specifications. This price shall include full compensation for cement concrete collar as required, all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- C. Payment for MOBILIZATION shall be in conformance with Section 748.80 of the Standard Specifications.
- D. Payment for NPDES STORMWATER POLLUTION PREVENTION PLAN including but not limited to, SWPPP preparation, required SWPPP amendments (including revisions/addenda pre, during, and post- construction) NOI and NOT submissions, certifications, DEP filing fee (if required), inspections, preparation of weekly, monthly, and other required reports, distribution of copies, and all other requirements as described in this special provision are included in the LUMP Sum price for this item. Upon final acceptance of the SWPPP, a payment equal to 50% of the Contract Lump Sum price

shall be paid. The remaining 50% of the Lump Sum shall be paid in 10% increments distributed equally throughout the remaining period of the Contract, not including extensions of time.

- E. Payment for SEDIMENT CONTROL BARRIER will be at the per FOOT (FOOT) contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- F. The cost for Temporary Fencing will be deducted out of the allowance provided under ALLOWANCE FOR TEMPORARY FENCING.
- G. The cost for Police Details will be deducted out of the allowance provided under ALLOWANCE FOR POLICE DETAILS. The Contractor is responsible for verifying that the police detail billing department waives the surcharge for police details for this contract. The Engineer will not approve and payment for surcharges from the police detail department.

4.03 PAYMENT ITEMS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
01 53 00.01	SILT SACK	EACH
01 53 00.02	BOUND REMOVED AND RESET	EACH
01 53 00.03	MOBILIZATION	LUMP SUM
01 53 00.04	NPDES STORMWATER POLLUTION PREVENTION PLAN	LUMP SUM
01 53 00.05	SEDIMENT CONTROL BARRIER	FOOT
01 53 00.06	ALLOWANCE FOR TEMPORARY FENCING	ALLOWANCE
01 53 00.07	ALLOWANCE FOR POLICE DETAILS	ALLOWANCE

END OF SECTION

SECTION 31 00 00
EARTHWORK

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Include the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 1 – GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.
- B. Examine all other Sections of the specifications for requirements which affect Work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under the Contract.
- D. The work shall conform to the relevant provisions of the Commonwealth of Massachusetts Department of Transportation (MassDOT) Standard Specifications for Highways and Bridges 2024 Edition and the Supplemental Specifications.

1.02 SUMMARY

- A. This Section specifies requirements for the following types of work and related items, but is not limited to:
 - 1. Excavation and disposal of all materials encountered within the limits of the Contract not being removed under other items.
 - 2. Excavation of test pits to determine the location of underground utilities

1.03 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. The following related work is to be performed under the designated SECTIONS:
 - 1. Section 01 53 00 – TEMPORARY CONSTRUCTION
 - 2. Section 32 10 00 – BASES, BALLASTS, AND PAVING
 - 3. Section 32 90 00 – PLANTING AND LAWNS

PART 2 – PRODUCTS

2.01 ORDINARY BORROW

- A. Products used shall meet the requirements of Section 150 of the Standard Specifications.

2.02 GRAVEL BORROW

- A. Products used shall meet the requirements of Section 150 of the Standard Specifications.

2.03 PERSONAL PROTECTION LEVEL C UPGRADE

- A. Products shall include appropriate protective equipment (PPE) for all personnel in an area either containing or suspected of containing a hazardous environment. The protective equipment and its use shall be in compliance with the Environmental Health and Safety Program (EHASP) and all appropriate regulations and/or standards for employee working conditions.

2.04 DISPOSAL OF UNREGULATED SOIL

- A. Unregulated Soil consists of soil, fill and dredged material with measured levels of oil and hazardous material (OHM) contamination at concentrations below the applicable Reportable Concentrations (RCs) presented in the MCP. Unregulated soil consists of material which may be reused (or otherwise disposed) as fill within the Commonwealth of Massachusetts subject to the non-degradation criteria of the MCP (310 CMR 40.0032(3)), in a restricted manner, such that they are sent to a location with equal or higher concentrations of similar contaminants. Disposal areas include licensed disposal facilities, approved industrial settings in areas which will be capped or covered with pavement or loamed and seeded, and for purposes of this project should be reused as fill within the project site construction corridor whenever possible. The material cannot be placed in residential and/or environmentally sensitive (e.g. wetlands) areas. Under no circumstances shall contaminated soils be placed in an uncontaminated or less contaminated area (including the area above the groundwater table if this area shows no sign of contamination).

The Contractor shall submit to the City the proposed disposal area for unregulated soils for approval. If such a disposal area is not a licensed disposal facility, the Contractor shall submit to the Engineer analytical data to characterize the disposal area sufficiently to verify that the unregulated material generated within the City construction project limits is equal to or less than the contaminant levels at the disposal site and meets the non-degradation requirements of the MCP. In addition, the Contractor shall provide written confirmation from the owner of the proposed disposal area that s/he has been provided with the analytical data for both the materials to be disposed as well as the disposal site characterization and that s/he agrees to accept this material. A Material Shipping Record or Bill of Lading, as appropriate, shall be used to track the off-site disposal of unregulated soil and a copy, signed by the disposal facility or property owner, shall be provided to the Engineer in order to document legal disposal of the unregulated material.

2.05 DISPOSAL OF REGULATED SOIL – IN-STATE FACILITY

- A. Regulated Soil consists of materials containing measurable levels of OHM that are equal to or exceed the applicable Reportable Concentrations for the site as defined by the MCP, 310 CMR 40.0000. Regulated soil which meets the MCP reuse criteria of the applicable soil/groundwater category for this project area may be reused on site provided that it meets the appropriate geotechnical criteria established by the Engineer. Regulated Soil may be reused (as daily or intermediate cover or pre-cap contouring material) or disposed (as buried waste) at lined landfills within the Commonwealth of Massachusetts or at an unlined landfill that is approved by the Massachusetts Department of Environmental Protection

(DEP) for accepting such material, in accordance with DEP Policy #COMM-97-001, or at a similar out-of-state facility. It should be noted that soils which exceed the levels and criteria for disposal at in-state landfills, as outlined in COMM-97-001, may be shipped to an in-state landfill, but require approval from the DEP Division of Solid Waste Management and receiving facility. An additional management alternative for this material is recycling into asphalt. Regulated Soils may also be recycled at a DEP approved recycling facility possessing a Class A recycling permit subject to acceptance by the facility and compliance with DEP Policy #BWSC-94-400. Regulated Soil removed from the site for disposal or treatment must be removed via an LSP approved Bill of Lading, Manifest or applicable material tracking form. This type of facility shall be approved/permitted by the State in which it operates to accept the class of contaminated soil in accordance with all applicable local, state and federal regulations.

2.06 DISPOSAL OF REGULATED SOIL – OUT-OF-STATE FACILITY

- A. Regulated Soil consists of materials containing measurable levels of OHM that are equal to or exceed the applicable Reportable Concentrations for the site as defined by the MCP, 310 CMR 40.0000. Regulated soil which meets the MCP reuse criteria of the applicable soil/groundwater category for this project area may be reused on site provided that it meets the appropriate geotechnical criteria established by the Engineer. Regulated Soil may be reused (as daily or intermediate cover or pre-cap contouring material) or disposed (as buried waste) at lined landfills within the Commonwealth of Massachusetts or at an unlined landfill that is approved by the Massachusetts Department of Environmental Protection (DEP) for accepting such material, in accordance with DEP Policy #COMM-97-001, or at a similar out-of-state facility. It should be noted that soils which exceed the levels and criteria for disposal at in-state landfills, as outlined in COMM-97-001, may be shipped to an in-state landfill, but require approval from the DEP Division of Solid Waste Management and receiving facility. An additional management alternative for this material is recycling into asphalt. Regulated Soils may also be recycled at a DEP approved recycling facility possessing a Class A recycling permit subject to acceptance by the facility and compliance with DEP Policy #BWSC-94-400. Regulated Soil removed from the site for disposal or treatment must be removed via an LSP approved Bill of Lading, Manifest or applicable material tracking form. This type of facility shall be approved/permitted by the State in which it operates to accept the class of contaminated soil in accordance with all applicable local, state and federal regulations.

2.07 DISPOSAL OF HAZARDOUS WASTE

- A. Hazardous Waste consists of materials which must be disposed of at a facility permitted and operated in full compliance with Federal Regulation 40 CFR 260-265, Massachusetts Regulation 310 CMR 30.000, Toxic Substances Control Act (TSCA) regulations, or the equivalent regulations of other states, and all other applicable local, state, and federal regulations. All excavated materials classified as hazardous waste shall be disposed of at an out-of-state permitted facility. This facility shall be a RCRA hazardous waste or TSCA facility, or RCRA hazardous waste incinerator. This type of facility shall be approved/permitted by the State in which it operates to accept hazardous waste in accordance with all applicable local, state and federal regulations and shall be permitted to accept all contamination which may be present in the soil excavate. The Contractor shall ensure that, when needed, the facility can accept TSCA waste materials i.e.

polychlorinated biphenyls (PCBs). Hazardous waste must be removed from the site for disposal or treatment via an LSP approved Manifest.

2.08 GEOTEXTILE FABRIC FOR SEPARATION

- A. Products used shall conform to the requirements of AASHTO M 288 for the intended application, selected from the MassDOT Qualified Materials List and shall be used as shown on the contract drawings.

PART 3 – EXECUTION

3.01 UNCLASSIFIED EXCAVATION

- A. All Methods of execution used shall meet the requirements of Section 120 of the Standard Specifications and as noted on the Plans.

3.02 TEST PIT FOR EXPLORATION

- A. All Methods of execution used shall meet the requirements of Section 140 of the Standard Specifications.

3.03 ORDINARY BORROW

- B. All Methods of execution used shall meet the requirements of Section 150 of the Standard Specifications and as noted on the Plans.

3.04 GRAVEL BORROW

- A. All Methods of execution used shall meet the requirements of Section 150 of the Standard Specifications and as noted on the Plans.

3.05 CRUSHED STONE

- A. All Methods of execution used shall meet the requirements of Section 150 of the Standard Specifications and as noted on the Plans.

3.06 FINE GRADING AND COMPACTING – SUBGRADE AREA

- A. Methods of execution used shall meet the requirements of Section 170 of the Standard Specifications and as noted on the Plans.

3.07 ENVIRONMENTAL HEALTH AND SAFETY PROGRAM

- A. The Contractor shall prepare and implement a site-specific Environmental Health and Safety Plan (EHASP) which has been approved and stamped by a Certified Industrial Hygienist (CIH) and includes the preparer's name and work experience. The EHASP shall include appropriate components required by OSHA Standard 29 CFR 1910.120(b) and the Massachusetts Contingency plan (MCP) 310 CMR 40.0018 and must comply with all applicable state and federal laws, regulations, standards and guidelines, and provide a

degree of protection and training appropriate for implementation on the project. The EHASP shall be a dynamic document with provision for change to reflect new information, new practices or procedures, changing site environmental conditions or other situations which may affect site workers and the public. The EHASP shall be developed and implemented independently from the standard construction HASP required to work on all MassDOT construction projects.

Health and safety procedures provided by the Contractor shall comply with all the appropriate regulations that address employee working conditions, including but not limited to standards established by OSHA and National Institute for Occupational Safety and Health (NIOSH). Equipment used for the purpose of health and safety shall be approved by and meet pertinent standards and specifications of the appropriate regulatory agencies.

A copy of the most up-to-date version of the EHASP shall be maintained on-site at all times by the Contractor. The on-site copy shall contain the signature of the Engineer and each on-site employee of the City, Contractor, and Subcontractors involved with on-site activities. The employee's signature on the EHASP shall be deemed prima facie evidence that the employee has read and understands the plan. Updated copies of signature sheets shall be submitted to the Engineer.

The EHASP shall specify a Contractor Site Safety and Health Officer responsible for implementation of the EHASP and to oversee all construction activities, including handling, storage, sampling and transport, which require contact with or exposure to potentially hazardous materials.

The level of protection, required to ensure the health and safety of on-site personnel will be stipulated in the EHASP. The Site Safety and Health Officer shall implement the EHASP based on changing site and weather conditions, type of operation or activity, chemical compounds identified on-site, concentration of the chemicals, air monitoring data, physical state of the hazardous materials, potential duration of exposure to hazardous materials, dexterity required to perform work, decontamination procedures, necessary personnel and type of equipment to be utilized.

During implementation of the EHASP, a daily log shall be kept by the Site Safety and Health Officer and a copy shall be provided weekly to the Engineer. This log shall be used to record a description of the weather conditions, levels of personal protection being employed, screening data and any other information relevant to on-site environmental safety conditions. The Site Safety and Health Officer shall sign and date the daily log.

3.08 PERSONAL PROTECTION LEVEL C UPGRADE

- A. Contingencies for upgrading the level of protection for on-site workers will be identified in the EHASP and the Contractor shall have the capability to implement the personal protection upgrade in a timely manner. The protective equipment and its use shall be in compliance with the EHASP and all appropriate regulations and/or standards for employee working conditions.

3.09 LICENSED SITE PROFESSIONAL SERVICES

- A. Within limited areas of the project site, soils, sediments and/or groundwater may be contaminated. A Licensed Site Professional (LSP) shall be required to provide the services necessary to comply with the requirements of the MCP. These services may include sampling, analysis and characterization of potentially contaminated media, preparation of Immediate Response Action (IRA) Plans, Utility-Related Abatement Measure (URAM) and Release Abatement Measure (RAM) Plans, Imminent Hazard Evaluations, status reports, transmittal forms, release notification forms, risk assessments, completion statements, and related documents required pursuant to the Massachusetts Contingency Plan (MCP). LSP hours related to the characterization and disposal of contaminated soil and/or sediment are incidental to the disposal items. An estimate of LSP services to be provided shall be submitted to the Engineer for approval before any LSP activity begins.

The name and qualifications of the LSP and all environmental technicians to be assigned to the project shall be submitted to the Engineer for approval at least four weeks prior to initial site activities. The LSP shall have a current, valid license issued by the Massachusetts Board of Registration of Hazardous Waste Site Cleanup Professionals. The LSP shall have significant experience in the oversight of MCP activities at active construction sites. Qualification packages for the LSP and each technician shall include a resume, all recent work assignments with responsibilities identified (previous 5 years), and applicable training and certifications. A list of all Notices of Noncompliance, Notice of Audit Findings and Enforcement Orders issued by the DEP shall be submitted for all work assignments listed for the LSP and environmental technicians.

The LSP shall evaluate soil and/or sediment with discoloration, odor, and presence of petroleum liquid or sheening on the groundwater surface, or any abnormal gas or materials in the ground which are known or suspected to be oil or hazardous materials. Excavated soil and sediment which is suspected of petroleum contamination shall be field screened using the jar headspace procedures according to established DEP Guidance. All field screening equipment must be pre-approved by the Engineer. The LSP shall ensure proper on site calibration of all field screening instrumentation.

The Engineer shall be contacted immediately when observations or any field screening results verify contamination requiring further analysis, and/or enhanced management of suspect soil and/or sediment. Any enhanced management of contaminated soil to ensure proper stockpiling and storage is incidental to the LSP Services item. The LSP shall adequately characterize subsurface conditions prior to backfill in areas where contaminated material has been excavated. The Engineer shall approve the locations of the testing sites prior to the sampling.

Contaminated soil, sediment and/or groundwater shall be handled in accordance with all applicable state and federal statutes, regulations and policies. The LSP shall adequately characterize contaminated media for comparison to the requirements of the MCP. The Contractor and the LSP shall be aware of the reporting requirements for releases of oil and/or other hazardous material (OHM) as set forth in federal and state laws and regulations, and shall both be held responsible for performing the work in accordance with all applicable Federal and State laws and regulations. The LSP shall maintain written records in a clear and concise format which tracks the excavation, stockpiling, analysis and reuse/disposal of all suspect contaminated soils, sediments and groundwater. These

records shall be up-to-date and available to the Engineer on a bi-weekly basis. The LSP shall review and summarize the laboratory data from any analyses performed on contaminated media. A report shall be delivered to the Engineer outlining the material sampling methods, laboratory analysis results and proposed course of action. The laboratory report together with Chain of Custody forms for all analytical results shall be submitted to the Engineer within 14 days after completion of such analyses.

The LSP and Contractor shall be held responsible for the submission of all MCP-related documents to the Engineer at least 14 days in advance of any timeframe specified in the MCP and for the timely submission of data and tracking information as noted within this Item. All documents prepared under this Item must be reviewed and signed by the approved LSP. The Contractor and LSP shall be responsible for all fines, penalties and enforcement requirements imposed by applicable regulatory agencies for failure to meet regulatory and contract timeframes. No compensation will be provided for such fines, penalties and enforcement actions.

The Contractor and the LSP shall be aware of the reporting requirements for releases of oil and/or other hazardous material (OHM) as set forth in federal and state laws and regulations, and shall both be held responsible for performing the work in accordance with all applicable Federal and State laws and regulations.

If the Contractor causes a release of OHM, the Contractor shall be responsible for assessing and remediating the release in accordance with all pertinent State and Federal regulations, including securing the services of a LSP, at his own expense.

The LSP shall coordinate all activities involving both the City and the DEP through the Engineer. Any notification of release shall be approved by the Department before submittal to the DEP, except if an imminent hazard condition exists as defined in 309 CMR 4.03(4)(b).

B. Laboratory Testing in Support of LSP Services

Laboratory testing provides for analytical testing in support of LSP services related to maintaining MCP compliance, such as delineating the extent and type of contamination present. Sampling and testing for disposal purposes are not included.

In order to maintain compliance with the MCP or other regulatory requirements, the LSP shall request approval from the Engineer to obtain samples from various locations and depths within the project area and to perform laboratory analyses on those samples. The samples shall be delivered to a DEP-certified laboratory using proper chain-of-custody documentation for analyses which, depending upon site conditions and suspected and/or identified contaminants of concern, may include, but are not limited to, metals, polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polycyclic aromatic hydrocarbons (PAHs), extractable petroleum hydrocarbons (EPHs) and volatile petroleum hydrocarbons (VPHs). Subsequent testing, depending upon initial results, may be required for Toxicity Characteristic Leaching Procedure (TCLP) analyses (EPA Method 1311) for metals.

3.10 DISPOSAL OF UNREGULATED SOIL, DISPOSAL OF REGULATED SOIL – IN-STATE FACILITY, DISPOSAL OF REGULATED SOIL – OUT-OF-STATE FACILITY, DISPOSAL OF HAZARDOUS WASTE

- A. The work under these Items shall include the transportation and disposal of contaminated material excavated, or excavated and stockpiled. It shall also include the cost of any additional laboratory analyses required by a particular disposal facility beyond the standard disposal test set.

Excavation of existing subsurface materials may include the excavation of contaminated soils. The Contractor shall be responsible for the proper coordination of characterization, transport and disposal, recycling or reuse of contaminated soils. Disposal, recycling or reuse will be referred to as “disposal” for the remainder of this specification unless otherwise stated. However, regardless of the use of the term herein, there will be no compensation under these items for reuse within the project limits. The Contractor will be responsible for coordinating the activities necessary for characterization, transport and disposal of contaminated soils. Such coordination will include the Engineer and his/her designee overseeing management of contaminated materials. Contaminated soils must be disposed of in a manner appropriate for the soil classification as described below and in accordance with the applicable laws of local, state and federal authorities. The Contractor shall be responsible for identifying a disposal facility(s) licensed to accept the class of contaminated soils to be managed and assure that the facility can accept the anticipated volume of soil contemplated by the project. The Contractor shall be responsible for hiring a Licensed Site Professional (LSP) and all ancillary professional services including laboratories as needed for this work. The Contractor will be responsible for obtaining all permits, approvals, manifests, waste profiles, Bills of Lading, etc. subject to the approval of the Engineer prior to the removal of the contaminated soil from the site. The Contractor and LSP shall prepare and submit to the Engineer for approval all documents required under the Massachusetts Contingency Plan (MCP) and related laws and environmental regulations to conduct characterization, transport, and disposal of contaminated materials.

- B. The Contractor shall be responsible for monitoring, sampling and testing during and following excavation of contaminated soils to determine the specific class of contaminated material. Monitoring, sampling and testing frequency and techniques should be performed in accordance with these items. Additional sampling and analysis may be necessary to meet the requirements of the disposal facility license. The cost of such additional sampling and analysis shall be included in the bid cost for the applicable disposal items. The Contractor shall obtain sufficient information to demonstrate that the contaminated soil meets the disposal criteria set by the receiving facility that will accept the material.

No excavated material will be permanently placed on-site or removed for off-site disposal until the results of chemical analyses have been received and the materials have been properly classified. The Contractor shall submit to the Engineer results of field and laboratory chemical analyses tests within seven days after their completion, accompanied by the classification of the material determined by the Contractor, and the intended disposition of the material. The Contractor shall submit to the Engineer for review all plans and documents relevant to LSP services, including but not limited to, all documents that must be submitted to the DEP.

Copies of the fully executed Weight Slips/Bills of Lading/Manifests/Material Shipping Records or other material tracking form received by the Contractor from each disposal facility and for each load disposed of at that facility, shall be submitted to Engineer and the Contractor's LSP within three (3) days of receipt by the Contractor. The Contractor is responsible for preparing and submitting such documents for review and signature by the LSP or other appropriate person with signatory authority, three (3) days in advance of transporting soil off-site. The Contractor shall furnish a form attached to each manifest or other material tracking form for all material removed off-site, certifying that the material was delivered to the site approved for the class of material. If the proposed disposition of the material is for reuse within the project construction corridor, the Contractor shall cooperate with the City to obtain a suitable representative sample(s) of the material to establish its structural characteristics in order to meet the applicable structural requirements as fill for the project.

All material transported off-site shall be loaded by the Contractor into properly licensed and permitted vehicles and transported directly to the selected disposal or recycling facility and be accompanied by the applicable shipping paper. At a minimum, truck bodies must be structurally sound with sealed tail gates, and trucks shall be lined and loads covered with a liner, which shall be placed to form a continuous waterproof tarpaulin to protect the load from wind and rain.

- C. Tools and equipment which are to be taken from and reused off site shall be decontaminated in accordance with applicable local, state and federal regulations. This requirement shall include, but not be limited to, all tools, heavy machinery and excavating and hauling equipment used during excavation, stockpiling and handling of contaminated material. Decontamination of equipment is considered incidental to the applicable excavation item.
- D. The Contractor shall be responsible for adhering to regulations, specifications and recognized standard practices related to contaminated material handling during excavation and disposal activities. The City shall not be responsible at any time for the Contractor's violation of pertinent State or Federal regulations or endangerment of laborers and others. The Contractor shall comply with all rules, regulations, laws, permits and ordinances of all authorities having jurisdiction including, but not limited to, Massachusetts Department of Environmental Protection, the U.S. Environmental Protection Agency, Federal Department of Transportation (DOT), Massachusetts Water Resources Authority (MWRA), the Commonwealth of Massachusetts and other applicable local, state and federal agencies governing the disposal of contaminated soils.

All labor, materials, equipment and services necessary to make the work comply with such regulations shall be provided by the Contractor without additional cost to the City. Whenever there is a conflict or overlap within the regulations, the most stringent provisions are applicable. The Contractor shall reimburse The City for all costs it incurs, including penalties and/or for fines, as a result of the Contractor's failure to adhere to the regulations, specifications, recognized standard practices, etc., that relate to contaminated material handling, transportation and disposal

- E. Summary of Sampling Results, Classification of Material and Proposed Disposal Option. The following information, presented in tabular format, must be submitted to the Engineer for review and approval prior to any reuse on-site or disposal off-site. This requirement is on-going throughout the project duration. At least two weeks prior to the start of any excavation activity, the Contractor shall submit a tracking template to be used to present the information as stipulated below. Excavation will not begin until the format is acceptable to the City.

Characterization Reports will be submitted for all soil, sediment, debris and groundwater characterized through the sampling and analysis programs required under Items 310000.07 through 310000.13. Each report will include a site plan which identifies the sampling locations represented in the Report. The Construction Plan sheets may be used as a baseplan to record this information.

The Sampling Results will be presented in tabular format. Each sample will be identified by appropriate identification matching the sample identification shown on the Chain of Custody Record. The sample must also be identified by location (e.g. grid number or stockpile number). For each sample, the following information must be listed: the classification (unregulated, regulated, etc.), proposed disposal option for the stockpile or unit of material represented, and, all analytical results.

Each Characterization Report will include the laboratory analytical report and Chain of Custody Record for the samples included in the Report.

Stockpiling, Transport, and Disposal.

At least two weeks prior to the start of any excavation activity, the Contractor shall submit, in writing, the following for review and shall not begin excavation activity until the entire submittal is acceptable to the City.

Excavation and Stockpiling Protocol:

Provide a written description of the management protocols for performing excavation and stockpiling and/or direct loading for transport, referencing the locations and methods of excavating and stockpiling excavated material in accordance with Items 310000.07 through 310000.09.

Disposal and Recycling Facilities:

Provide the name, address, applicable licenses and approved waste profile for disposal and recycling location(s) where contaminated soil will be disposed. Present information substantiating the suitability of proposed sites to receive classifications of materials intended to be disposed there, including the ability of the facility to accept anticipated volumes of material.

Provide a summary of the history of compliance actions for each disposal/recycling facility proposed to be used by the Contractor. The compliance history shall include a comprehensive list of any state or federal citations, notices of non-compliance, consent decrees or violations relative to the management of waste (including remediation waste) at the facility. Material should not be sent to facilities which are actively considered by the DEP, USEPA or other responsible agency to be in violation of federal, state or local

hazardous waste or hazardous material regulations. The City reserves the right to reject any facility on the basis of poor compliance history.

Transportation:

The name, address, applicable license and insurance certificates of the licensed hauler(s) and equipment and handling methods to be used in excavation, segregation, transport, disposal or recycling.

Material Tracking and Analytical Documentation for Reuse/Disposal:

The following documents are required for all excavation, reuse and disposal operations and shall be in the format described. At least two weeks prior to the start of any excavation or demolition activity, the Contractor shall submit the tracking templates required to present the information as stipulated below. Excavation or demolition will not begin until the format is acceptable to the City.

All soils, sediments and demolition debris must be tracked from the point of excavation to stockpiling to onsite treatment/processing operations to off-site disposal or onsite reuse as applicable.

Demolition Debris:

Demolition debris must be tracked if the debris is stockpiled at a location other than the point of origin or if treatment or material processing is conducted. Identification of locations will be based on the station-offset of the location. The tracking table will identify date and point of generation, any field screening such as PID or dust monitoring, visual observations/comments, quantity, and stockpile ID/processing operation location. For each unit of material tracked, the table will also track reuse of the material on-site, providing reuse date, location of reuse as defined by start and end station, width of reuse location by offset, the fill elevation range, quantity, and finish grade for said location. For demolition debris which is not reused on site, the table will also track disposal of the material as defined by disposal date, quantity and disposal facility. The table must provide a reference to any analytical data generated for the material.

Soil/Sediment:

Soil excavation will be identified based on the station-offset of the excavation location limits. The tracking table will identify date and point of generation, any field screening such as PID or dust monitoring, visual observations, quantity, and stockpile number/location. For each unit of material tracked, the table will also track reuse of the material on-site and disposal of the material offsite using the same categories identified for demolition debris above.

3.11 GEOTEXTILE FABRIC FOR SEPARATION

- A. Geotextile Fabric for Separation is intended to be used at locations of existing railroad whistle posts. Geotextile Fabric for Separation shall be constructed in accordance with the detail indicated on the Contract Drawings.

3.12 TRACK EXCAVATION

- A. All materials excavated and removed under Track Excavation shall be approved for removal prior to the Contractor commencing activities. All materials removed will become

the property of the Contractor and shall be disposed of in accordance with all local, State and Federal regulations. No stockpiling of rail materials within the Right-of-Way shall be allowed without prior approval from the Engineer.

3.13 DISPOSAL OF TREATED WOOD PRODUCTS

- A. Work under this item shall include, but not be limited to the transportation and disposal of treated wood railroad ties (removed under Items 03 10 00.01 & 03 10 00.17), fences, posts, and other treated existing wood products as required by the Engineer, which are excavated or removed by other items in the contract

PART 4 – COMPENSATION

4.01 MEASUREMENT

- A. Measurement of items shall be in accordance with Sections 120, 140, 150, 170, and 751 of the Standard Specifications unless otherwise stated below.
- B. Measurement for ENVIRONMENTAL HEALTH AND SAFETY PROGRAM will be made on a per LUMP SUM (LS) basis in conformance with the Contract Drawings.
- C. Measurement for PERSONAL PROTECTION LEVEL C UPGRADE will be made on a per HOUR (HR) basis in conformance with the Contract Drawings.
- D. Measurement for LICENSED SITE PROFESSIONAL SERVICES will be made on a per HOUR (HR) basis in conformance with the Contract Drawings.
- E. Measurement for DISPOSAL OF UNREGULATED SOIL will be made on a per TON basis in conformance with the Contract Drawings.
- F. Measurement for DISPOSAL OF REGULATED SOIL – IN-STATE FACILITY will be made on a per TON basis in conformance with the Contract Drawings.
- G. Measurement for DISPOSAL OF REGULATED SOIL – OUT-OF-STATE FACILITY will be made on a per TON basis in conformance with the Contract Drawings.
- H. Measurement for DISPOSAL OF HAZARDOUS WASTE will be made on a per TON basis in conformance with the Contract Drawings.
- I. Measurement for GEOTEXTILE FABRIC FOR SEPARATION will be made on a per SQUARE YARD (SY) basis in conformance with the Contract Drawings.
- J. Measurement for TRACK EXCAVATION will be made on a per FOOT (FT) of single track removed basis. The measurement will be along the centerline between the 2 rails that form the single track. A single track is defined as a pair of rails, ties and all connecting hardware.
- K. Measurement for DISPOSAL OF TREATED WOOD PRODUCTS will be made on a per TON basis in conformance with the Contract Drawings.

4.02 PAYMENT

- A. Payment of items shall be in accordance with Sections 120, 140, 150, 170, and 751 of the Standard Specifications unless otherwise stated below.
- B. Payment for ENVIRONMENTAL HEALTH AND SAFETY PROGRAM will be at the per LUMP SUM (LS) contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- C. Payment for PERSONAL PROTECTION LEVEL C UPGRADE will be at the per HOUR (HR) contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- D. Payment for LICENSED SITE PROFESSIONAL SERVICES will be at the per HOUR (HR) contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- E. Payment for DISPOSAL OF UNREGULATED SOIL will be at the per TON contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- F. Payment for DISPOSAL OF REGULATED SOIL – IN-STATE FACILITY will be at the per TON contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- G. Payment for DISPOSAL OF REGULATED SOIL – OUT-OF-STATE FACILITY will be at the per TON contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- H. Payment for DISPOSAL OF HAZARDOUS WASTE will be at the per TON contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- I. Payment for GEOTEXTILE FABRIC FOR SEPARATION will be at the per SQUARE YARD (SY) contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified.
- J. Payment for TRACK EXCAVATION will be made at the per FOOT contract price. This price shall include all labor, tools, equipment, materials, testing, loading, transportation, approvals, and permits necessary for the completion of the work.

In areas of the project where the rails have already been removed and the timber cross ties remain, their removal will be measured and paid for under Item 03 10 00.01, UNCLASSIFIED EXCAVATION.

Disposal of treated wood products shall be measured and paid for under Item 03 10 00.17, DISPOSAL OF TREATED WOOD PRODUCTS.

- K. Payment for DISPOSAL OF TREATED WOOD PRODUCTS will be at the per TON contract price. This price shall include full compensation for all labor, tools, equipment, materials, testing, loading, transportation, approvals, and permits necessary for the completion of the work.

4.03 PAYMENT ITEMS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
31 00 00.01	UNCLASSIFIED EXCAVATION	CUBIC YARD
31 00 00.02	TEST PIT FOR EXPLORATION	CUBIC YARD
31 00 00.03	ORDINARY BORROW	CUBIC YARD
31 00 00.04	GRAVEL BORROW	CUBIC YARD
31 00 00.05	CRUSHED STONE	TON
31 00 00.06	FINE GRADING AND COMPACTING – SUBGRADE AREA	SQUARE YARD
31 00 00.07	ENVIRONMENTAL HEALTH AND SAFETY PROGRAM	LUMPSUM
31 00 00.08	PERSONAL PROTECTION LEVE C UPGRADE	HOURL
31 00 00.09	LICENSED SITE PROFESSIONAL SERVICES	HOURL
31 00 00.10	DISPOSAL OF UNREGULATED SOIL	TON
31 00 00.11	DISPOSAL OF REGULATED SOIL – IN-STATE FACILITY	TON
31 00 00.12	DISPOSAL OF REGULATED SOIL – OUT-OF-STATE FACILITY	TON
31 00 00.13	DISPOSAL OF HAZARDOUS WASTE	TON
31 00 00.14	GEOTEXTILE FABRIC FOR SEPARATION	SQUARE YARD
31 00 00.15	TRACK EXCAVATION	FOOT
31 00 00.16	DISPOSAL OF TREATED WOOD PRODUCTS	TON

END OF SECTION

SECTION 32 17 00

PAVING SPECIALTIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Include GENERAL CONDITIONS and all parts of Division 1 as part of this Section.
- B. Examine all other Sections of the specifications for requirements which affect Work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of all Work under the Contract.
- D. The work shall conform to the relevant provisions of the Commonwealth of Massachusetts Department of Transportation (MassDOT) Standard Specifications for Highways and Bridges 2024 Edition and the Supplemental Specifications and the 2009 Manual of Uniform Traffic Control Devices (MUTCD), as amended.

1.02 SUMMARY

- A. This Section specifies requirements for the following types of work and related items, but is not limited to:
 - 1. Furnishing and installing warning and regulatory signs at the locations shown on the plans or as required by the Engineer.
 - 2. Removing existing pavement markings as required by the Engineer.
 - 3. Furnishing materials and application of painted and reflectorized thermoplastic pavement markings, at the locations shown on the plans and as required by the Engineer.
 - 4. Furnishing, deploying, maintaining in proper operating conditions, and removing temporary pedestrian barricades and temporary pedestrian ramps as part of a Temporary Pedestrian Access Route (TPAR) in order to guide pedestrians around a fully- or partially-closed sidewalk. These devices are intended to prevent pedestrians from entering the work area and to prevent pedestrians from inadvertently entering the vehicle travel lane by providing visual and physical separation between each space.

1.03 RELATED WORK SPECIFIED IN OTHER SECTIONS

- 1. Section 03 30 00 – CAST IN PLACE CONCRETE
- 2. Section 32 10 00 – BASES, BALLASTS, AND PAVING

3. Section 32 16 00 – CURBS AND GUTTERS

PART 2 - PRODUCTS

2.01 WARNING-REGULATORY AND ROUTE MARKER – ALUMINUM PANEL
(TYPE A)

- A. Products used shall meet the requirements of Section 828 of the Standard Specifications unless otherwise noted on the Plans.

2.02 SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY – STEEL

- A. Products used shall meet the requirements of Section 840 of the Standard Specifications.

2.03 SAFETY SIGNING FOR TRAFFIC MANAGEMENT

- A. Products used shall meet the requirements of Section 850 of the Standard Specifications.

2.04 TEMPORARY PEDESTRIAN BARRICADE

- A. The Temporary Pedestrian Barricade shall have a continuous bottom rail or edge no more than two (2) inches above the ground and eight (8) inches in height (minimum) to accommodate cane users, have a smooth and continuous hand railing along the top edge no less than 32 inches above the ground and not obstruct or project into the pedestrian path of travel. Barricade walls shall be nearly vertical and generally within the same plane.
- B. If exposed to traffic, Temporary Pedestrian Barricades shall be crashworthy.

2.05 TEMPORARY PEDESTRIAN CURB RAMP

- A. The Temporary Pedestrian Curb Ramp shall provide a 48 inch minimum width, with a firm, stable, and non-slip surface. Protective edging with a two (2) inch minimum height shall be installed when the curb ramp or landing platform has a vertical drop of six (6) inches or greater. The Temporary Pedestrian Curb Ramp walkway and landing area surface shall be of a solid, continuous, contrasting color abutting up to the existing sidewalk.
- B. If a Temporary Pedestrian Curb Ramp leads to a crosswalk, a detectable warning pad must be used at the base of the ramp; if it leads to a protected path that does not conflict with vehicular traffic then a detectable pad shall not be used.

2.06 PORTABLE BREAKAWAY BARRICADE TYPE III

- A. Products used shall meet the requirements of Section 850 of the Standard Specifications.

2.07 PAVEMENT MARKING REMOVAL

- A. Products used shall meet the requirements of Section 850 of the Standard Specifications.

2.08 ARROW BOARD

- A. Products used shall meet the requirements of Section 850 of the Standard Specifications.

2.09 REFLECTORIZED DRUM

- A. Products used shall meet the requirements of Section 850 of the Standard Specifications.

2.10 12 INCH REFLECTORIZED WHITE LINE (PAINTED)

- A. Products used shall meet the requirements of Section 860 of the Standard Specifications.

2.11 4 INCH REFLECTORIZED YELLOW LINE (PAINTED)

- A. Products used shall meet the requirements of Section 860 of the Standard Specifications and the following:
Pavement marking width shall be 4 inches.

2.12 PAVEMENT LEGEND REFLECTORIZED WHITE (PAINTED)

- A. Products used shall meet the requirements of Section 860 of the Standard Specifications.

2.13 PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC)

- A. Products used shall meet the requirements of Section 860 of the Standard Specifications.

2.14 PAVEMENT ARROWS AND LEGENDS REFLECTORIZED BLUE (THERMOPLASTIC)

- A. Products used shall meet the requirements of Section 860 of the Standard Specifications.
- B. Background paint for the accessible parking space markings shall be blue in the dimensions and at locations shown on the Contract Drawings.

2.15 6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)

- A. Products used shall meet the requirements of Section 860 of the Standard Specifications.

2.16 12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)

- A. Products used shall meet the requirements of Section 860 of the Standard Specifications.

2.17 MISCELLANEOUS SIGN REMOVED AND RESET

- A. Products used shall be the existing signs and supports. If in the opinion of the Engineer, the existing sign panel is unsuitable for reuse, a new sign panel of a size and composition equal to the existing sign panel shall be furnished, as required by the Engineer. The hardware used to attach the sign panel to the new or existing sign support shall be the existing bolts, brackets or clamps, or new and equal quality equipment furnished by the Contractor, as directed by the Engineer.

PART 3 - EXECUTION

3.01 WARNING-REGULATORY AND ROUTE MARKER – ALUMINUM PANEL (TYPE A)

- A. Methods of execution used shall meet the requirements of Section 828 of the Standard Specifications.

3.02 SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY – STEEL

- A. Methods of execution used shall meet the requirements of Section 840 of the Standard Specifications.

3.03 SAFETY SIGNING FOR TRAFFIC MANAGEMENT

- A. Methods of execution used shall meet the requirements of Section 850 of the Standard Specifications.

3.04 TEMPORARY PEDESTRIAN BARRICADE

- A. The Temporary Pedestrian Barricade shall be placed in an area that will provide pedestrians with a Temporary Pedestrian Access Route on a smooth, continuous hard surface for its entirety. The geometry and alignment of the facility shall meet the applicable requirements of the “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities” and the Massachusetts Architectural Access Board.
- B. The recommended width of the Temporary Pedestrian Barricade is 60 inches, but if constraints exist a minimum clear width of 48 inches shall be provided along its entirety. If a 60-inch width cannot be accommodated in full, a 60 inch by 60 inch passing space shall be provided every 200 feet or less along the Temporary Pedestrian Access Route.

- C. Turning areas shall be 60 inches by 60 inches minimum.
- D. Lateral joints between any surfaces shall not exceed 0.5 inches. Lateral edges may be vertical up to 0.25 inches high and shall be beveled at 1V:2H between 0.25 inches and 0.5 inches.
- E. The Temporary Pedestrian Access Route shall be kept clear of debris, snow, and ice and the Temporary Pedestrian Barricade shall not obstruct drainage.

3.05 TEMPORARY PEDESTRIAN CURB RAMP

- A. The Temporary Pedestrian Curb Ramp shall be placed in an area that will provide pedestrians with a Temporary Pedestrian Access Route on a smooth, continuous hard surface for its entirety. The geometry and alignment of the facility shall meet the applicable requirements of the “Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities” and the Massachusetts Architectural Access Board.
- B. The recommended width of the Temporary Pedestrian Access Route is 60 inches, but if constraints exist a minimum clear width of 48 inches shall be provided along its entirety. If a 60-inch width cannot be accommodated in full, a 60 inch by 60 inch passing space shall be provided every 200 feet or less along the Temporary Pedestrian Access Route.
- C. Turning areas shall be 60 inches by 60 inches minimum.
- D. Lateral joints between any surfaces shall not exceed 0.5 inches. Lateral edges may be vertical up to 0.25 inches high and shall be beveled at 1V:2H between 0.25 inches and 0.5 inches.
- E. The Temporary Pedestrian Access Route shall be kept clear of debris, snow, and ice and the Temporary Pedestrian Curb Ramps shall not obstruct drainage.

3.06 PORTABLE BREAKAWAY BARRICADE TYPE III

- A. Methods of execution used shall meet the requirements of Section 850 of the Standard Specifications.

3.07 PAVEMENT MARKING REMOVAL

- A. Methods of execution used shall meet the requirements of Section 850 of the Standard Specifications.

3.08 ARROW BOARD

- A. Methods of execution used shall meet the requirements of Section 850 of the Standard Specifications.

3.09 REFLECTORIZED DRUM

- A. Methods of execution used shall meet the requirements of Section 850 of the Standard Specifications.
- 3.10 12 INCH REFLECTORIZED WHITE LINE (PAINTED)
- A. Methods of execution used shall meet the requirements of Section 860 of the Standard Specifications.
- 3.11 4 INCH REFLECTORIZED YELLOW LINE (PAINTED)
- A. Methods of execution used shall meet the requirements of Section 860 of the Standard Specifications and the following:

Pavement marking width shall be 4 inches.
- 3.12 PAVEMENT LEGEND REFLECTORIZED. WHITE (PAINTED)
- A. Methods of execution used shall meet the requirements of Section 850 of the Standard Specifications.
- 3.13 PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC)
- A. Products used shall meet the requirements of Section 860 of the Standard Specifications.
- 3.14 PAVEMENT ARROWS AND LEGENDS REFLECTORIZED BLUE (THERMOPLASTIC)
- A. Methods of execution used shall meet the requirements of Section 850 of the Standard Specifications.
- 3.15 6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)
- A. Methods of execution shall meet the requirements of Section 860 of the Standard Specifications.
- 3.16 12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)
- A. Methods of execution used shall meet the requirements of Section 860 of the Standard Specifications.
- 3.17 MISCELLANEOUS SIGN REMOVED AND RESET
- A. The work under this item shall be in accordance with the relevant provisions of Section 800 of the Standard Specifications. Sign panels to be removed and reset shall be cleaned before being remounted on new or existing sign supports. The Contractor shall replace at their own expense all sign panels or sign supports that are damaged or lost either directly or indirectly as a result of carelessness.

PART 4 - COMPENSATION

4.01 MEASUREMENT

- A. Measurement of items shall be in accordance with Section 828, 840, 850, and 860 of the Standard Specifications unless otherwise stated below.
- B. Measurement for TEMPORARY PEDESTRIAN BARRICADE shall be per FOOT (FT) of barricade complete in place.
- C. Measurement for TEMPORARY PEDESTRIAN CURB RAMP shall be per EACH (EA) curb ramp complete in place.
- D. Measurement for MISCELLANEOUS SIGN REMOVED AND RESET will be made on a per EACH (EA) basis in conformance with the Contract Drawings.

4.02 PAYMENT

- A. Payment of items shall be in accordance with applicable Sections 828, 840, 850, and 860 of the Standard Specifications unless otherwise stated below.
- B. Payment for TEMPORARY PEDESTRIAN BARRICADE shall be per FOOT (FT) at the contract price. This price shall include all labor, equipment, materials, to furnish, install, maintain, dismantle, remove, and all incidental costs required to complete the work.
- C. Payment for TEMPORARY PEDESTRIAN CURB RAMP shall be per EACH (EA) curb ramp at the contract price. This price shall include all lab labor, equipment, materials, to furnish, install, maintain, dismantle, remove, and all incidental costs required to complete the work.
- D. Payment for MISCELLANEOUS SIGN REMOVED AND RESET shall be at the per EACH (EA) contract price. This price shall include full compensation for all labor, materials, tools, and equipment, and all other incidental work necessary to complete the work of this item as indicated on the Contract Drawings and as herein specified. It shall also include all necessary mounting fixtures (nuts, bolts and other miscellaneous items) to complete the work.

4.03 PAYMENT ITEMS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
32 17 00.01	WARNING-REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A)	SQUARE FOOT
32 17 00.02	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY – STEEL	EACH
32 17 00.03	SAFETY SIGNING FOR TRAFFIC MANAGEMENT	SQUARE FOOT

32 17 00.04	TEMPORARY PEDESTRIAN BARRICADE	FOOT
32 17 00.05	TEMPORARY PEDESTRIAN CURB RAMP	EACH
32 17 00.06	PORTABLE BREAKAWAY BARRICADE TYPE III	EACH
32 17 00.07	PAVEMENT MARKING REMOVAL	SQUARE FOOT
32 17 00.08	ARROW BOARD	DAY
32 17 00.09	REFLECTORIZED DRUM	DAY
32 17 00.10	12 INCH REFLECTORIZED WHITE LINE (PAINTED)	FOOT
32 17 00.11	4 INCH REFLECTORIZED YELLOW LINE (PAINTED)	FOOT
32 17 00.12	PAVEMENT LEGEND REFLECTORIZED WHITE (PAINTED)	SQUARE FOOT
32 17 00.13	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC)	SQUARE FOOT
32 17 00.14	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED BLUE (THERMOPLASTIC)	SQUARE FOOT
32 17 00.15	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	FOOT
32 17 00.16	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	FOOT
32 17 00.17	MISCELLANEOUS SIGN REMOVED AND RESET	EACH

END OF SECTION

Twin Cities Rail Trail Phase III
The City of Leominster
Leominster, MA

Addendum #1 – Attachment F
January 13, 2025

COMMODITY PRICE ADJUSTMENTS

This Contract contains price adjustments for Liquid Asphalt, Diesel Fuel, Gasoline, and Portland Cement. The base price for Liquid Asphalt shall be **\$560.00 per ton**, the base price for Diesel Fuel shall be **\$2.694 per gallon**, the base price for Gasoline shall be **\$2.329 per gallon**, and the base price for Portland Cement shall be **\$425.53 per ton**. Take note that this price adjustment applies **ONLY** to the actual virgin Liquid Asphalt content in the mixture placed on the job in accordance with Standard Specifications for Highways and Bridges, Division III, Section M3.11.03 and **ONLY** the Portland Cement content in the concrete mixture placed on the job for cast-in place concrete.

Adjustments to these base prices will follow the MassDOT current contract price adjustments.