

**MILESTONE INCENTIVES AND MILESTONE LIQUIDATED DAMAGES PROVISIONS**

In order to minimize the hazard, cost and inconvenience to the traveling public, pollution of the environment, and because the work covered by this Contract must be completed by the established dates, it is necessary to limit the time of construction work which interferes with traffic as specified in Prosecution and Progress, Article 1.08.04, of the Special Provisions.

The Construction Completion Date for this Contract was developed assuming extended working hours as well as multiple shifts, including but not limited to five (5) day, six (6) day and seven (7) day work weeks, except as indicated and restricted by the "Limitations of Operations", and working fifty-two (52) weeks per year, for the length of the Contract. To meet the Construction Completion Date, it is expected that the Contractor will be working extended shifts and using premium time simultaneously at multiple Project locations to complete the required work. The low bidder shall demonstrate to the Department that they have the qualified, necessary labor force and equipment to complete the work by the Construction Completion Date.

The Contractor can expect to complete temperature sensitive work during the winter months. Therefore, preparations must be made by the Contractor to protect this work from the cold and adverse conditions that the winter months may bring. There will be no additional compensation paid to the Contractor for this work but it shall be included in the general cost of the work.

The construction of this Contract shall be phased so that all existing Eversource Energy (Eversource) and Frontier Communications (Frontier) facilities remain in place until the permanent infrastructure for these utilities is in place and operable. The Contractor is responsible for coordinating with the utility companies to ensure that all existing utilities in Atlantic Street and South State Street have been relocated or abandoned prior to beginning the construction of the bridge pier or any other work that requires utilities relocation. The utility work by Eversource and Frontier is scheduled to be completed by December 1, 2018.

The Contractor is hereby made aware that work in the area of this Contract is on-going under State Project No. 135-326, which includes the construction of I-95 NB Exit 8 ramp over Atlantic Street, drainage and utility work in South State Street that began April 2016 and is scheduled to be completed June 2018. The Contractor is responsible for coordinating work with adjacent contractors.

The Contractor is responsible for developing its own phasing plan for the Engineer's approval for the Project work, including self-performed utility work. A suggested phasing plan, representing one possible sequence, is provided in the Contract Plans for the Contractor's information.

Although the Contractor is responsible for developing its own phasing plan, the Contractor shall comply with the following construction milestones and specified timeframes:

**REPLACEMENT OF MNR BRIDGE OVER ATLANTIC STREET – STATE PROJECT  
NO. 135-301**

The Contractor is hereby advised that this Project contains activities which have been deemed critical to the commencement, progress and completion of the Project. The Department has established two (2) Milestone dates associated with Project 135-301 to ensure that critical stages of work are coordinated for the successful completion of the Project and other work. These Milestone dates have associated incentive payments as well as Liquidated Damages.

In addition, the Contractor is hereby advised that the completion of this Project is dependent on work to be performed by Metro-North Commuter Railroad Company (MNR), Eversource, Frontier and other parties. In order to allow these other parties to complete their work, the Contractor may be restricted from performing Contract work at certain locations within the Project limits during certain time periods. Anticipated access restrictions are described below and in Prosecution and Progress, Article 1.08.04, of the Special Provisions, but the Contractor shall coordinate with the Engineer, MNR, and any other required parties on a regular basis to ensure that conflicts are avoided. During the restricted periods, the Contractor shall schedule operations so that work at other, non-restricted, locations can be completed.

Failure to complete this work within the specified completion date will result in the assessment of Liquidated Damages as described below:

Should the Contractor complete the specified Milestone tasks on or before the Milestone Incentive Completion Date (When the “Allowable Milestone Completion Date” is the same as the “Milestone Incentive Completion Date”), the total payment, where applicable, shall be the “Lump Sum Milestone Incentive Payment” as defined below.

Lump Sum Milestone Incentive Payment = Milestone Incentive Bonus Payment Amount + (Milestone Incentive Hourly or Milestone Incentive Daily Payment Amount x (number of hours or days the Contract Milestone elements complete before the Milestone Incentive Completion Date”))

Should the Contractor fail to complete the specified Milestone tasks by the Milestone Incentive Completion Date (When the “Allowable Milestone Completion Date” is the same as the “Milestone Incentive Completion Date”) no Milestone Incentive Bonus Payment will be made and Milestone Liquidated Damages will be assessed for each hour or day that the specified Contract Construction Milestone is complete after the "Allowable Milestone Completion Date”.

Total Milestone Liquidated Damages = Milestone Liquidated Damages Hourly (or Daily) Amount x (number of hours or days the Contract Milestone elements complete after the “Allowable Milestone Completion Date”)

## Atlantic Street Readiness Plan

The Contractor shall develop and submit an Atlantic Street Readiness Plan. The purpose of this plan is to ensure all resources are in place prior to the Atlantic Street Closure and to eliminate possible delays.

The information included in the Readiness Plan shall contain but is not limited to:

- a. Construction Schedule showing the closure of Atlantic Street after the existing utilities have been relocated but no earlier than February 18, 2019.
  - o Also any outstanding construction activities to be completed including anticipated early/late completion dates
- b. 'As Built' Utility Schedules
- c. Schedule of Submittals
- d. Material Delivery Dates
- e. Detailed sequence of activities including, but not limited to staffing and shift times.
- f. Description of any special resources, including back up equivalent resources.
  - o Including specialized equipment and contingency plans for mechanical failure
- g. MPT Coordination

The Readiness Plan shall be submitted to the Department a minimum of forty-five (45) days prior to the anticipated start of the Atlantic Street closure, which the Department will review and provide comments. A minimum of fourteen (14) calendar days prior to the anticipated closure date, the Contractor shall provide a confirmation report to the Department detailing how the Contractor has addressed all the Department's comments and pending items. Five (5) days prior to the start of the Atlantic Street closure, the Contractor shall meet with the Department to review any outstanding readiness items and coordinate final details for the implementation of the road closure.

The Readiness Plan shall include the schedule for the following activities showing 100% completion prior to the Structure roll-in date of June 28, 2019:

### Complete Assembly of Bridge Superstructures

- The assembly of the bridge superstructure units for all bridge spans for Railroad Track Nos. 2,4 and 1,3 and 5,7 at designated locations north and south of the bridge.
  - o The completed assembly shall include completion of all concrete curing to the required design strength
  - o Installation of the spray-applied liquid membrane
  - o Delivery of all bridge bearings to a nearby staging area.
  - o Inspected by the Engineer.
    - Acceptance will in writing by the Engineer

- o Time for corrective work.

Preparation of Bridge Abutments

- This work shall include excavation, installation of all micro-piles, construction of the concrete pile cap, and bridge seats.
  - o The Contractor’s attention is directed to the fact that the start of construction of the bridge abutments is constrained by the construction of the jump spans, at track level, which is anticipated to start April 2018.
  - o Inspected by the Engineer.
    - Acceptance will be in writing by the Engineer
  - o Time for corrective work.

Preparation of Bridge Pier Substructure

- This work shall include installation of all micro-piles
- Construction of the concrete pile cap
- Installation of all anchor bolts into the pile cap.
- Delivery of all Structural Steel pier columns to a nearby staging area.
- Inspected by the Engineer.
  - o Acceptance will be in writing by the Engineer
- Time for corrective work.

**Milestone Incentive and Milestone Liquidated Damages Tables**

<b>Description of the Work – Milestone 1</b>
<p><b><u>Complete Installation of Bridge Superstructures</u></b></p> <p>This work shall include the demolition of the existing bridge superstructure and installing the new bridge superstructures while maintaining two (2) active railroad tracks in accordance with the Contract. The work shall include installation of all ballast, ties and rails across the bridge for five (5) tracks (Tracks 4, 2, 1, 3, and 5) in accordance with all contract requirements.</p> <p>The Contractor shall incorporate, into its phasing plan, the time allotted for the complete installation of the bridge superstructures. In accordance with the timeframe provided by Metro-North Commuter Railroad Company (MNR) and detailed in Prosecution and Progress of the Special Provisions, said work shall begin at 10:00 P.M. on Friday June 28, 2019 and shall be completed by 6:00 P.M. on Sunday July 7, 2019 which includes a total of approximately 13 hours required by MNR for testing and work necessary to take tracks 4, 2, and 1 out of service and return tracks 4 and 2 back to service and take tracks 3 and 5 out of service.</p> <p>The period from Sunday July 7, 2019 at 6:00 P.M. to Monday July 8, 2019 at 5:00 A.M. (11 hours) is required by MNR for testing and work necessary to return tracks 1, 3 and 5 to</p>

service on July 8, 2019 by 5:00 A.M.	
<b>Milestone 1 Incentive Completion Date</b> By 6:00 P.M. July 7, 2019	<b>Milestone 1 Incentive Bonus Payment Amount</b> \$1,000,000.00
<b>Allowable Milestone 1 Completion Date</b> 6:00 P.M. July 7, 2019	<b>Milestone 1 Incentive Hourly Payment Amount</b> \$1,250.00
<b>Allowable Milestone 1 Completion Date</b> 6:00 P.M. July 7, 2019	<b>Milestone 1 Liquidated Damages Hourly Amount</b> \$1,250.00

<b>Description of the Work – Milestone 2</b>	
<p><b><u>Atlantic Street and South State Street Detours</u></b>                      Atlantic Street, between Dock Street and South State Street, will be closed from the start date for the construction of the bridge pier to a maximum of sixty calendar days after the demolition and installation of the new bridge (M&amp;PT Stage 2). The work associated with Atlantic and South State Streets Detours will include the reconstruction of Atlantic Street, South State Street and Manhattan Street (M&amp;PT Stage 3). The duration of this detour must be the minimum time possible, with a maximum duration of sixty (60) calendar days starting from the complete installation date of the bridge superstructure (July 8, 2019 at 5:00 A.M.), with the opening of all three (3) roadways to traffic and all normal travel lanes, including turning lanes. Elements to be completed include but limited to the following items required to safely open the completed roadways to traffic: Bituminous concrete pavement and overlays, permanent drainage systems, permanent illumination, permanent signing and pavement markings, all traffic control devices, permanent curbing, permanent sidewalks, permanent brick pavers, and all other items incidental thereto. All work requiring this detour must be completed by 12:00 A.M. September 7, 2019.</p>	
<b>Milestone 2 Incentive Completion Date</b> By 12:00 A.M. September 7, 2019	<b>Milestone 2 Incentive Bonus Payment Amount</b> \$400,000.00
<b>Milestone 2 Completion Date</b> 12:00 A.M. September 7, 2019	<b>Milestone 2 Incentive Daily Payment Amount</b> \$7,500.00
<b>Milestone 2 Completion Date</b> 12:00 A.M. September 7, 2019	<b>Milestone 2 Liquidated Damges Daily Amount</b> \$7,500.00

## Milestone Incentive Payment Terms and Conditions

Prior to beginning work on the project, the Contractor shall furnish to the Engineer for approval a Critical Path Method (CPM) schedule that details all of the hour-by-hour (for Milestone 1) and day-to-day (for Milestone 2) operations necessary to complete the above described work. The schedule shall include activity descriptions, activity durations, and interdependence between activities, where applicable. The activities are to be described so that the work is readily identifiable and the progress on each activity can be readily measured and monitored during the noted timeframe. The Contractor must also provide the anticipated number of shifts, the hours per shift, and the anticipated number of personnel staffed per shift.

The Department shall pay to the Contractor a Lump Sum Incentive Payment under Item No. 0108100A, as set forth in the Incentive and Liquidated Damages Table by which the actual completion date of the pertinent work meets or precedes the pertinent "Milestone Incentive Completion Date." The Engineer shall determine said Date and the amount of any appropriate payment(s) to be made in this regard, subject to the conditions set forth hereinabove. For purposes of calculation and determination of entitlement to incentive payments hereunder, the Milestone Incentive Completion Date have been established for the Contract, and said Date will not be adjusted thereafter for any reasons, cause or circumstance, regardless of fault on the part of any party, except in the instance of a catastrophic event (*i.e.*, hurricane or a declared state of emergency), acts of State in either its sovereign or contractual capacity or acts of another contractor in performance of a contract with the State, utility work by Utility Companies, and track outages by MNR.

Under these provisions the Contractor must anticipate that Project delays may occur and may arise from any one of various kinds of events and circumstances prior to or during the Contract period, including, but not limited to, the deletion of Contract work, the issuing of construction orders, the execution of supplemental agreements, the discovery of differing site conditions, the adding of extra work to the Contract, the emergence of right-of-way conflicts, problems with the obtaining or the terms of permits, action or inaction by persons or entities working on the Project or by third parties, delays in the process of reviewing or approving shop drawings, expansion of the physical limits of the Project, the effects of weather conditions on Project activities, the occurrence of weekends or holidays, the suspension of any Project operation, or other events, forces or factors that affect highway or railroad construction work. Such events, forces or factors, and the Project delays, disruptions, inefficiencies or any other detrimental effects caused by them, are to be deemed to have been anticipated and contemplated by the parties in entering into this Contract, and shall not extend or constitute cause for extending any Milestone Incentive Completion Date for the purpose of determining whether or not any milestone incentive payment is due to the Contractor, or of calculating the amount of any milestone incentive payment due to the Contractor.

Further, any and all costs or detrimental effects incurred by the Contractor in accelerating its work in an attempt to meet the Milestone Incentive Completion Date that may be due the Contractor, regardless of the effects of any delay, disruption, inefficiency or other detrimental effect of the kinds of events, forces or factors referred to above, shall be solely the Contractor's responsibility, and may not be used as the basis for any claim by the Contractor for additional compensation. The Contractor's sole means, if any, for recovering such acceleration costs from

the State shall be the milestone incentive payment(s) that will be due if it completes the pertinent work prior to the relevant Milestone Incentive Completion Date.

If a catastrophic event (as defined above), acts of State in either its sovereign or contractual capacity or acts of another contractor in performance of a contract with the State directly and substantially delays or disrupts a portion of the Contract work described in the Milestone Incentive and Milestone Liquidated Damages Table, and if said effects and their claimed extent are supported by the Contractor's Critical Path Schedule, the Contractor and the Department shall agree on the number of calendar days by which to extend the pertinent Milestone Incentive Completion Date(s), and the adjusted Date(s) will be used in calculating any related milestone incentive payment(s). If the Contractor and the Department cannot agree on the appropriate adjustment of the pertinent Date(s), the Department will adjust the Date(s) in accordance with the period of delay that the Department reasonably deems to have been caused solely by the catastrophic event, acts of State in either its sovereign or contractual capacity or acts of another contractor in performance of a contract with the State. The Contractor shall have no right whatsoever to contest such determination, except in the event that the Contractor establishes that the number of calendar days of delay recognized by the Department in this context was arbitrary and without any reasonable basis.

A Waiver of Claim (WOC) executed between the Contractor and the Department will be issued to establish the extended pertinent Milestone Incentive Completion Date(s). The WOC will be incorporated into the Contract by Construction Order.

If the Contractor elects to take advantage of the milestone incentive payment provisions, and if any portion of said provisions conflicts with any other provision of the Contract, the Contract shall be interpreted in accordance with these additional milestone incentive payment provisions:

(1) To take advantage of the milestone incentive payment provisions, the Contractor must actually complete the pertinent work and obtain written verification from the Engineer that the actual milestone described work is accepted and the completion date was on or before the pertinent Milestone Incentive Completion Date.

(2) Within 30 days of receiving such verification of its actual completion date, the Contractor must provide written notification to the administrating District Engineer that the Contractor elects to receive payment(s) under these provisions. A copy of the Engineer's verification of the acceptance of the work and the pertinent actual completion date(s) must be enclosed with the notice to the District Engineer. In said written notice the Contractor, in the following language, shall:

"waive and release the State from any and all claims, causes of action, issues, demands, disputes, matters or controversies of any nature or kind, known or unknown, present or potential, which the Contractor, its employees, agents or successors may have, may have had or ever may have against the Department, its officials, employees, consultants, or its other agents or representatives, in connection with the Contract or the Project, including, but not limited to, claims regarding Project work performed or deleted, construction orders, supplemental

agreements, delays, disruptions, differing site conditions, utility conflicts, design changes or defects, time extensions, extra work, right-of-way issues, permitting issues, actions of suppliers or subcontractors or other contractors or third parties, shop drawing review or rejection, expansion of the physical Project limits, weather conditions, weekend or holiday cessation of Project activities, restrictions of working hours, suspensions of the Contractor's operations, extended or unabsorbed home office or jobsite overhead, lost profits, markups on subcontractor work, acceleration costs, and any other direct or indirect costs, and any other adverse impacts, events, conditions or circumstances or potential damages, relating to or arising out of the Contract or the Project through the date of this letter. This waiver and release and acknowledgement of satisfaction shall be all-inclusive and absolute, except for any routine adjustment by the Department of final quantity estimates."

If the Contractor does not, (1) prior to the Milestone Incentive Completion Date, complete the described Milestone Contract work and obtain written verification from the Engineer of the acceptance and actual completion date of said work, or (2) within thirty (30) days of said written verification, give the required written notice to the District Engineer of its election to receive incentive payment under the Contract, then the Contractor shall have no right to any payment under these milestone incentive payment provisions.

Without regard to any verification by the Engineer that pertinent Contract work has been completed and accepted, and without regard to whether or not any milestone incentive has been elected or earned under these provisions, the Contractor shall remain responsible for all Contract work and the continued maintenance thereof until such date as the Department formally accepts all work under the Contract in accordance with Section 1.08.14 of these Specifications.

### **Milestone Liquidated Damages Terms and Conditions**

Whether or not the Contractor elects to take advantage of these milestone incentive payment provisions, this milestone liquidated damage provisions shall apply to all circumstances in which the Engineer does not verify in writing that the pertinent Contract work has been completed on or before the "Allowable Milestone Completion Date" listed in the Milestone Incentive and Milestone Liquidated Damages Table. The phrase "Allowable Milestone Completion Date," as used in this Provision shall mean the "Allowable Completion Date" as it may have been adjusted by the Department pursuant to Section 1.08.08.

If the Contractor does not complete the pertinent work on or before the applicable Allowable Milestone Completion Date, the Department will deduct from monies otherwise owed to the Contractor the pertinent "Milestone Liquidated Damages Daily Amount" listed in the Milestone Incentive and Milestone Liquidated Damages Table for each calendar day that it takes the Contractor to complete said work beyond the Allowable Milestone Completion Date. The "Milestone Liquidated Damages Amount" and "Allowable Milestone Completion Date" for each Contract Milestone listed in the Milestone Incentive and Milestone Liquidated Damages Table is the same as a Contract Milestone, liquidated damage and calendar date indicated in the special provision "Contract Time and Liquidated Damages."



**ITEM #0108100A - LUMP SUM INCENTIVE PAYMENT (ESTIMATED COST)**

**Description:** Under this item, the Contractor will receive a Lump Sum Incentive Payment earned in accordance with the MILESTONE INCENTIVE AND MILESTONE LIQUIDATED DAMAGES PROVISIONS included in this Contract.

**Basis of Payment:** The “Lump Sum Incentive Payment” will be calculated using the method indicated in the MILESTONE INCENTIVE AND MILESTONE LIQUIDATED DAMAGES PROVISIONS.

The sum of money shown on the estimate, and in the itemized proposal as “Estimated Cost” for this item will be considered the bid price although payment will be made as described above. The estimated cost figure is not to be altered in any manner by the bidder. If the bidder should alter the amount shown, the altered figure will be disregarded and the original cost figure will be used to determine the amount of the bid for this Contract.

<u>Pay Item</u>	<u>Pay Unit</u>
Lump Sum Incentive Payment (Estimated Cost)	est.

**CONTRACT TIME AND LIQUIDATED DAMAGES**

For Federal Aid Project No. H121(002) – (State Project No. 135-301) and Federal Aid Project No. N/A – (State Project No. 301-163) the Construction Completion Date of June 30, 2020 will be allowed for completion of the work and liquidated damages charge to apply will be Eighteen Thousand dollars (\$18,000) per calendar day. Liquidated Damages, if any apply, under this Contract will be assessed with no maximum assessment.