

ATTACHMENTS B & C – NORMAL WORK SHIFTS AND EXAMPLES OF SPECIAL PROVISION 8.00

DEVELOPED FOR ***CONSTRUCTION PLANNING***
DURING THE ***DESIGN PHASE***

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DISCLAIMER - The intent of this guideline is to assist Designer when creating a Contract Time Determination Study; primarily eliminating a need to create standardized coding, reporting, formatting and to assist in the general schedule set up only. This tool-kit information is provided for informational purposes and is available for use as a schedule development guideline only. This information may not reflect specific contract requirements. MassDOT does not guarantee the schedule information to be free from errors or inconsistencies, and the presence of such errors or inconsistencies does not relieve the Designer or a Contractor, from preparing schedule submittals in accordance with the specific Contract requirements and the requirements of the Engineer. MassDOT makes no representations or warranties of any kind, express or implied, about the accuracy, reliability, or completeness with respect to the guidance herein or any of the information, services, or related content contained therein for any purpose.

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MassDOT reserves the right to update, remove, or amend any of the information contained in this guideline as needed without prior notice. For updates, please refer to the MassDOT website prior to starting schedule submissions.

ATTACHMENT B – NORMAL WORK SHIFTS – MODIFIED AS NEEDED

Per the MassDOT Standard Specifications for Highways and Bridges, 7.09 states the following.

SECTION 7.00 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

SUBSECTION 7.09 Public Safety and Convenience.

(page 27) Add the following paragraph above the 2nd paragraph from the bottom:

Work is restricted to a normal 8-hour day, 5-day week, with the Prime Contractor and all Subcontractors working on the same shift. No work shall be done on Saturdays, Sundays, holidays, or the day before or after a holiday without prior approval of the Engineer.

However, many contracts may be planned using extended work-hours/shifts. The Designer may need to modify this section as required to inform the contractor of this bid basis/expectation. The Designer should consult with the District prior to starting the CTD.

Particular roads/highways may be more prone to holiday peak traffic conditions which may warrant closure surrounding holiday periods, in these cases the CTD should adjust the work periods accordingly.

SECTION 8.00 PROSECUTION AND PROGRESS

SUBSECTION 8.03 Prosecution of Work

Add/amend the following at the end of the Section:

{This should be ahead of the Contractual and Interim Milestones}

The Contractor is hereby notified that winter work is expected for this project and has been taken into account in setting the completion date for the contract. Items of work that are expected to continue through the winter include, but are not limited to, the following: ***{Designer to insert specific work elements, e.g. closure pours; setting and grouting of precast elements; setting of prefabricated elements: etc.}***. If the work to be performed during the winter includes concrete or mortar, the relevant provisions of Section 901.72 shall be followed. Any costs, either direct costs or resulting from inefficiencies, related to continuing work in the winter shall be included in the contractor's bid and shall not be cause for a claim for a time extension or additional compensation.

Contractual Completion Milestones:

This Contract contains the following Contractual Milestones that are to be included in the Contractor's Baseline Contract Progress Schedule submission. The contractor shall identify the completion of the work pertaining to each Contractual Milestone through the inclusion of a Finish Milestone in the accepted baseline Contract Progress Schedule.

- **MS#01 – Contractor Field Completion:** The Contractor shall achieve Contractor Field Completion within X,XXX calendar days from Notice to Proceed.

Contractor Field Completion shall be defined as the date that completion of all physical contract Work has been performed, including the completion of the punchlist work and the Contractor has fully demobilized from the field operations.

- **MS#02 – Substantial Completion:** The Contractor shall achieve Substantial Completion within X,XXX calendar days from Notice to Proceed.

Substantial Completion shall be described as the date that a walkthrough of the entire contract Work has been performed by the Resident Engineer, and the Work required by the Contract, including paperwork, has been completed, except for work having a contract price of less than one percent of

the adjusted contract price, including overruns, underruns and all contract amendments. All Material submittals must have been received by the District Materials Lab.

- **MS#03 – Full Beneficial Use:** The Contractor shall achieve Full Beneficial Use within XXX calendar days from Notice to Proceed.

Full Beneficial Use shall be described as the date that the majority of the contract Work has been completed and the asset(s) has been opened for full multi-modal transportation use, except for limited contract work items that do not materially impair or hinder the intended public use of the transportation facility. All anticipated lane takings have been completed, except for minor, short-term work items.

ADDITIONAL/INTERIM MILESTONES

Note – The use of Interim Milestone is discouraged by MassDOT unless there are Incentive/Disincentives offered to the Contractor and/or there are complicated stages that rely upon significant/critical Utility coordination. In this case, to allow the Contractor some flexibility in scheduling the work to allow for the follow-on utility relocations, MassDOT allows for a floating interim milestone (i.e. does not need to be completed by a particular date after NTP – but this still provides the benefit of an interim milestone to capture the planning steps needed District advanced preparation and coordination of the third-party Utility company).

Examples:

- **MS#04 – Interim Milestone: Completion of the Installation of the Beams in Stage 2 – to allow for secondary Utility relocations.** The Contractor shall complete the work associated with the Stage 2 beam installation, which will allow for the start of the installation of the main gas line, as planned in Stage 2 (as described in AR#02). The Contractor shall identify the completion of this work with a Finish Milestone using the stated description. And will provide the Engineer with advance notice prior to completing this work to allow for the specified notification of Utility companies.

SUBSECTION 8.06 Limitations of Operations

Add/amend the following at the end of the Section:

Access Restraints:

This contract will contain Access Restraint(s) to provide an anticipated start date of certain portions of the Work that are restrained by a Third Party (such as a Utility). An Access Restraint is a restriction of physical work, of a specific area or operation in the Contract, to allow all bidders to evaluate anticipated work restrictions, equally, during the pre-bid planning stages. The Contract Time (duration) has considered these portions of the work and has been developed with the initial information that has been provided by the Third Party, and accepted by MassDOT. The Contractor shall be required to communicate and coordinate with all

affected Third Parties, and may be required to perform support aspects of the third party scope (as noted in the Contract Documents) well in advance of the start of the applicable third party scope. The Contractor must clearly identify all aspects of this work in the preparation of the Construction Schedule and throughout the contract duration.

This contract contains the following Access Restraints that are to be included in the Contractor's Baseline Schedule submission:

- **AR#01 – Access Restraint #01:** The Contractor will be restricted from starting any physical * Work associated with the start of the traffic shift for Stage 1 until XXX calendar days after NTP, to allow for the relocation of the aerial utilities. See Attachment ____ PUC Form and Subsection 8.14 Utility Coordination and Documentation Requirements.
- **AR#02 – Access Restraint #02:** The Contractor will be restricted from starting any physical * work associated with the deck installation (in Stage 2) until X calendar days after the completion of Milestone #03 (MS#04), to allow for the relocation of NSTAR gas line. See Attachment ____ PUC Form and Subsection 8.14 Utility Coordination and Documentation Requirements.
- **AR#03 – Access Restraint #03:** The Contractor will be restricted from starting any physical * Work associated with the start of the traffic shift for Stage 3 until 25 calendar days after Milestone #04 (MS#05), to allow for the relocation of the utilities into their permanent location. See Attachment ____ PUC Form and Subsection 8.14 Utility Coordination and Documentation Requirements.
- **AR#0X – Access Restraint #0X:** The contractor will be restricted from Starting **MS#04 - Interim Milestone: Closing of Bridge to Traffic for Construction** no earlier than **15 April 2012** to avoid the 60 calendar days bridge closure window to start during the winter season.

In accordance with the requirements provided in Section 8.02 the Contractor shall provide a project baseline schedule, in accordance with the terms and conditions of the contract that identifies all affected third parties and the Access Restraints noted above. During the prosecution of Work, and as part of the Monthly Schedule Update Submission, the Contractor shall provide proof of notification to those third parties.

If, during the prosecution of the Work, the Contractor is delayed by a Third Party, the Contractor will identify delays, as identified with the most recent schedule update, provide proper notification to the Engineer, evaluate options to recover, and present to the Engineer for approval. Should the Contractor's critical path be significantly impacted, by the actions or inactions of the Third Party, and no viable recovery options are accepted by MassDOT, the Contractor may submit a request for Time Extension accompanied by a complete Time Entitlement Analysis, to clearly demonstrate the impact of the delay. Only after all of the schedule requirements have been met (*see section 8.02 and 8.10 Determination and Extension of Contract Time for Completion*), and it is clear that the Contractor demonstrates that it has coordinated properly and worked expeditiously with the Third Party, and that none of the Contractor's actions or inactions contributed to the

delay, will the Engineer approve a Time Extension request. Under no circumstances will compensation be provided for delays associated with a Third Party/Utility.

Work Restrictions:

Additionally, this contract contains the following work restrictions that are to be included in the Contractor's Baseline Schedule submission:

- Route XXX shall be closed to traffic for a period of no more than 30 calendar days to accomplish the work described in Phase Y. Route XXX shall be restored to traffic the final configuration shown in Phase X no later than 4:00 AM on Monday, DD Month, YYYY.
- Route YYY shall be closed to traffic for a period of no more than 54 hours to accomplish the work described in Phase Y. The shutdown period is required to occur during the Columbus Day weekend with the closure of Route YYY starting no earlier than 11:00 PM on Friday, DD Month, YYYY. Route YYY shall be restored to traffic the final configuration shown in Phase X no later than 72 hours later, by 4:00 AM on Monday, DD Month, YYYY.
- Due to peak traffic conditions during the summer season, no work shall impede on normal traffic conditions during the period between Memorial Day weekend and Labor Day weekend. The restrictions starts XXX.....
- Progress on both bridges should be sequenced as shown in the Traffic Management Plans. The phases for each bridge should be sequenced to eliminate traffic shifts between the bridges.
- The Contractor is reminded that, in bidding this work, the Contractor is obligated to meet the Contract Milestones (Time) and is obligated to plan the successful completion of Work, prior to submitting the bid.
- In this case, the Contract Time has been developed utilizing extended shifts for portions, or all aspects, of these construction operations: _____, _____, _____, and _____. In the evaluation of the bid price, preparation of bid documents, and the ability to meet the Contract Time, the Contractor is allowed to work 6 Days per week, for 10 hours per day, from ____ a.m. to ____p.m. for these identified operations.
- Additionally, the Contractor is prohibited from working from ____ to ____ for any operation related to XXX
- In submitting a bid price for this contract, the Contractor acknowledges that a detailed plan has been developed to meet the Contract Time for all aspects of the Contract; including shift work; extended work hour requirements/restrictions; all of the limitations of operations; utility coordination, as well as the planning of all subcontractor and supplier operations.

- The roadway shall be open to all traffic between the dates of XXX and YYY.
- The contract time has been developed assuming that project work will occur throughout the winter season – See new Section 8.03 for expecting work to proceed in the winter (with winter protection considerations as a basis)

SUBSECTION 8.11 – Failure to Complete Work on Time

Add/amend the following at the end of the Section:

Liquidated Damages for failure to meet Project Milestones:

Additionally, this contract contains the following liquidated damages:

- XXX

Note to Designer/Engineers: *MassDOT is currently contemplating an adjustment to have LDs apply to the Full Beneficial Use Milestone. Check with MassDOT P.M.*

Incentives/Disincentives:

Additionally, this contract contains the following Incentives/Disincentives:

- XXX