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**PORTSMOUTH-KITTERY
16189B**

July 1, 2021

SPECIAL PROVISION**AMENDMENT TO SECTION 619 – MAINTENANCE OF TRAFFIC**

Add or replace the following sections:

Replace in Materials:

2.1.3 Retroreflective sheeting for traffic control devices, including permanent and operational construction signing, shall conform to AASHTO M 268 (ASTM D 4956), Type VII, Type VIII or Type IX (prismatic) retroreflecting sheeting.

2.1.3.1 All barricades, cones, drums, flexible delineators, and vertical panel markers shall be fabricated with high intensity orange and white fluorescent retroreflective sheeting conforming to AASHTO M 268 (ASTM D 4956), Type VII, Type VIII or Type IX (prismatic).

2.1.7 The Contractor shall provide a Certificate of Compliance stating that traffic control devices being provided meet the testing and evaluation criteria of NCHRP 350 as implemented by the 350 Agreement. If the equipment has been manufactured after December 31, 2019, the Contractor shall also provide certification that the equipment has been tested in accordance with MASH criteria.

Add in Materials:

2.1.1.4 All traffic control devices shall conform to the Manual for Assessing Safety Hardware (MASH) requirements if the traffic control device was manufactured after December 31, 2019.

2.1.3.5 The bottom of mainline and ramp traffic control signs intending to remain longer than three (3) days, except as provided in 2009 MUTCD Section 6F.03 paragraph 12, shall be mounted 5 feet or greater above the edge of pavement on posts or portable sign supports.

2.1.4.1 Post mounted signs must be erected so that the sign face is in a true vertical position. All signs shall be placed so that they are not obstructed in any manner and immediately modified to ensure proper visibility if obstructed.

2.1.5.1 PCM signs shall be a Ver-Mac PCMS-1210 or an approved equivalent. PCM signs shall include the following features:

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- a) The face of the PCM sign trailer shall be delineated on a permanent basis by affixing retro-reflective material (conspicuity material) in a continuous line as seen by oncoming drivers.
- b) The PCM sign shall have an all-LED display that shall be legible from a distance of 1,000 feet.
- c) The PCM sign shall be NTCIP compliant (NTCIP 1203 & 1204)
- d) The PCM sign shall be capable of being programmed by a remote computer via a data (IP over Cell) cellular modem connection. All components shall be capable of fully integrating with and providing data to the Owners' Advanced Transportation Management System (ATMS) known as New England Compass ATMS. The PCM system shall provide for remote sign operation and shall be managed and controlled from the Owners' ATMS.
- e) The PCM sign shall have GPS location capability by adding on a GPS device capable of providing GPS location remotely to the NHDOT Transportation Management Center (TMC), MaineDOT's TMC, and MTA's Traffic Management and Communications Center (TMCC).
- f) Each communication port on each NTCIP device shall be configurable to support both NTCIP 2101:2001 v01.19 and NTCIP 2103 v02. Only one of these profiles shall be active at any given time.
- g) Communications shall be NTCIP-compatible using the TNCIP 2202 v01.05 Internet transport profile, and the NTCIP 2104 Ethernet sub network profile. This shall permit the controller to be operated on any typical Ethernet network using the TCP/IP and UDP/IP protocols.
- h) The PCM shall be programmable by Vanguard Software by Daktronics. The PCM manufacturer shall provide technical support to the Owners to integrate the PCM into the software platform.
- i) The PCM system shall include reporting diagnostic status to calculate deductions for downtime.

2.3 All jobsite personnel shall always wear a safety vest labeled as ANSI 107-2004 standard performance for Class 3 risk exposures. This requirement also applies to truck drivers and equipment operators when out of an enclosed cab.

2.4 All vehicles used during the installation and removal of traffic control devices, including lane closures, shall be equipped with a vehicle-mounted lighted arrow board or high intensity LED full width light bar acceptable to the Owners. The arrow board or full width light bar shall be capable of displaying a left arrow, right arrow, double arrow, and light bar patterns.

Add in Construction Requirements:

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3.1.2.2 A request for a complete stoppage of traffic must be submitted to the Owners for approval. The Contractor is required to receive approval from NHDOT for all stoppages on the New Hampshire roadways, from MTA for all stoppages on the Maine Turnpike, and from MaineDOT for all other stoppages in Maine. The request shall be submitted by the Traffic Control Supervisor at least five (5) working days prior to the day of the requested stoppage of traffic and two (2) days for a stoppage less than five minutes. All requests must be received by 12:00 PM (noon) to be considered as received on that day. Requests received after 12:00 PM shall be considered as received the following day. The NHDOT Contract Administrator will coordinate with MTA and MaineDOT for final approval and communicate the final decision back to the Contractor before any stoppages take place.

3.1.2.3 All work shall be prosecuted so that full traffic flow on all sections of the highway lanes and interchange ramps shall be unimpeded whenever possible.

3.1.2.4 During non-work hours, three travel lanes in each direction (each direction being 36 feet wide including/excluding shoulder) shall be maintained at all times.

3.1.2.5 Unless otherwise specified or approved, the minimum main line width for a single travel lane shall be 14 ft and minimum ramp widths of 16 ft which must be maintained at all times, from ½ hour before sunrise to ½ hour after sunset as indicated on the sunrise/sunset table at <http://www.sunrisesunset.com/usa/Maine.asp> for the Town of Kittery.

3.1.2.6 The Contractor's personnel and equipment shall avoid crossing traffic whenever possible. No Contractor's vehicle may slow down or stop in a traffic lane unless said lane has previously been made safe with signs and barricades.

3.1.2.7 The Contractor will not be allowed to utilize existing median crossovers, construct temporary median crossovers, or use Toll Plazas to turn around. Storage of materials or equipment on crossovers will not be permitted.

3.1.2.8 No vehicle will move onto the traveled way at such a time or in such a manner so as to cause undue concern or danger to traffic approaching from either direction. The Contractor or their employees are not empowered to stop traffic.

3.1.2.9 Access to, and egress from, the construction area shall be with the direction of travel without crossing traffic. Construction vehicles are prohibited from merging with mainline traffic during the weekday morning and weekday evening peak traffic hours unless approved in the TMP. The Contractor shall develop work zone access/egress with acceleration and deceleration areas and should utilize interchange ramp areas whenever feasible.

3.1.2.10 The Contractor shall furnish approved signs reading "Construction Vehicle – Keep Back" or "Construction Vehicle – Do Not Follow" to be used on trucks hauling to the Project. The signs shall be a minimum of 30 inch by 60 inch black and orange, and meet construction sign retro reflectivity requirements.

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3.1.2.11 Where space is available, pavement striping for all tapers shall create a minimum buffer of 250 feet to the point where the temporary concrete barrier taper ends and becomes parallel to the travelway. Temporary concrete barrier should be tapered at a rate of 15:1 or 100 feet, whichever is longer. In restricted space areas, the Contractor may request a barrier taper rate of not less than 8:1.

Replace in Construction Requirements:

3.1.6 All vehicles used on the Project shall be equipped with amber flashing lights, visible from both front and rear, or by means of a single or multiple, approved type, revolving, flashing or strobe lights mounted so as to be visible 360 degrees. Auxiliary lighting shall have sufficient intensity to be visible at 500 feet in normal daylight and a flash rate between 1Hz and 4Hz. The vehicle flashing system shall be in continuous operation while the vehicle is on any part of the project and positioned or mounted in such a way to not be obstructed by vehicle mounted or other equipment. Dump trucks and utility trucks shall have a strobe light mounted on each side of the vehicle.

Add in Construction Requirements

3.1.6.1 No equipment or vehicles of the Contractor, their subcontractors, or employees engaged in work on this contract shall be parked or stopped on lanes carrying traffic, or on lanes or shoulders adjacent to lanes carrying traffic, at any time except as required by ongoing work operations. Contractor equipment or vehicles shall never be used to stop, block, or channelize traffic.

3.1.6.2 Vehicles parked on the shoulder shall be located so all portions of the vehicle(s) are a minimum of one foot from the traveled way.

3.1.7 Lane Closures, Shoulder Closures, Ramp Closures and Traffic Stoppages

3.1.7.1 A lane closure shall be required when a danger to the traveling public may exist.

3.1.7.2 A lane closure shall be required whenever personnel will be working within four feet of an active travel lane for paving operations, striping layout and placement, drainage work, and overhead work (i.e. bridges and sign structures).

3.1.7.3 Loading/unloading trucks shall not be closer than six feet from an open travel lane.

3.1.7.4 Shoulder closures, lane closures, and lane shifts meeting the MUTCD guidelines, other than those shown in the plans, shall be submitted for approval prior to use in the construction operations. No lane closures will be allowed during non-working hours, weekends, and/or holiday periods unless included in the approved Contract transportation management plan (TMP) as long-term traffic control requirements.

3.1.7.4.1 The Contractor shall maintain a minimum of three (3) lanes of traffic during the following periods, termed the “Peak Traffic Periods”:

- a. The Friday 10 days before Memorial Day to June 15:
 - i. Northbound: Fridays and Saturdays
 - ii. Southbound: Saturdays, Sundays and Memorial Day
- b. June 16 to the day after Labor Day: both Northbound and Southbound

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- c. Two days after Labor Day to the day after Columbus Day
 - i. Northbound: Fridays and Saturdays
 - ii. Southbound: Saturdays, Sundays and Columbus Day
- d. Two days after Columbus Day to the weekend before Thanksgiving
 - i. Southbound: Sundays and Veteran's Day
- e. Wednesday before Thanksgiving through the Sunday after, both Northbound and Southbound

3.1.7.4.2 The Contractor shall maintain a minimum of two (2) lanes of traffic in each direction at all other times, except as allowed by the tables and paragraphs below.

3.1.7.4.3 During the times listed in 3.1.7.4.1 and 3.1.7.4.2 above, temporary lane closures will be allowed as noted in the table below.

Peak Traffic Periods				
Day of the Week	Start Time for maintaining a minimum of two (2) lanes of traffic	Start Time for maintaining a minimum of one (1) lanes of traffic	End time for maintaining a minimum of one (1) lane of traffic	End time for maintaining a minimum of two (2) lanes of traffic
Weekday Nights (Monday through Thursday) (NB)	9:00 PM	11:00 PM	5:00 AM	7:00 AM
Weekday Nights (Monday through Thursday)(SB)	7:00 PM	10:00 PM	4:00 AM	5:00 AM
Friday Nights (NB)	10:00 PM	Not Allowed	Not Allowed	7:00 AM
Friday Nights (SB)	8:00 PM	10:00 PM	6:00 AM	7:00 AM
Sunday Nights (NB)	7:00 PM	10:00 PM	5:00 AM	7:00 AM
Sunday Nights (SB)	11:00 PM	Not Allowed	Not Allowed	7:00 AM

Non-Peak Traffic Periods		
Day of the Week	Start Time for maintaining a minimum of one (1) lanes of traffic	End time for maintaining a minimum of one (1) lane of traffic
Weekday Nights (Monday through Thursday) (NB)	10:00 PM	6:00 AM
Weekday Nights (Monday through Thursday)(SB)	8:00 PM	5:00 AM
Friday Nights (NB)	10:00 PM	7:00 AM
Friday Nights (SB)	9:00 PM	6:00 AM
Sunday Nights (NB)	9:00 PM	6:00 AM
Sunday Nights (SB)	10:00 PM	5:00 AM

3.1.7.4.5 The Contractor shall not have any temporary lane closures on Holidays.

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3.1.7.4.6 The Contractor shall not have any temporary lane closures, except for emergency repairs, during the weekends of Memorial Day, Labor Day, and Columbus Day, beginning at 6:00 am the Friday before through the Tuesday after at 8:00 pm.

3.1.7.4.7 The Contractor shall not have any temporary lane closures, except for emergency repairs, during the following timeframes;

- a. July 2, 2021, beginning at 6:00 am through July 6, 2021 at 8:00 pm.
- b. July 1, 2022, beginning at 6:00 am through July 5, 2022 at 8:00 pm.

3.1.7.4.8 The Contractor shall not have any temporary lane closures, except for emergency repairs during the week of Thanksgiving beginning at 5:00 am the Wednesday before through the Sunday after at 10:00 pm.

3.1.7.5 Lane closures shall be removed if work requiring the lane closure is not ongoing unless included in the TMP as a long-term traffic control requirement.

3.1.7.6 The Contractor shall follow the following procedures when closing any travel lanes:

- 1) The sign package shall be erected starting with the first sign and proceeding to the start of the taper. The sign crew shall erect signs with the vehicle within the outside shoulder;
- 2) Position the arrow board with the proper arrow at the beginning of the taper; and,
- 3) When arrow board is in place, continue with the drums/cones to secure the work area.
- 4) To dismantle the lane closure, start with last drums/cone placed and work in reverse order until all the drums are removed. The arrow board which was installed first shall be the final traffic control device removed, excluding the sign package. The remaining sign package shall be picked-up starting with the first sign placed and continuing in the direction of traffic and with the vehicle in the outside shoulder.

3.1.7.7 Shoulder closures shall be required at locations where the Contractor requires access to the main line from a work area.

3.1.7.8 Shoulder closures with drums shall be removed at the end of the workday. Temporary shoulder closures with drums will not be allowed during periods of inclement weather as determined by Owner.

3.1.7.9 Shoulder closures with concrete barrier shall be placed prior to the start of the work requiring concrete barrier and shall remain in place until the work activity is completed.

3.1.7.10 No daytime ramp closures will be allowed without prior approval.

3.1.7.11 The Contractor shall not have multiple ramp closures at the same time if they affect active detours. Ensure appropriate and approved detour and/or warning signs are in place prior to any closures.

3.1.7.12 Temporary single lane closures are allowed upon approval. Lane and/or ramp closure setup may not begin until the beginning time specified. Closures that are setup early or that remain in place outside of the approved time period shall be considered a violation of the Maintenance of Traffic requirements and shall be removed immediately. The installation of the construction signs

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will be considered setting up the lane closure. Removal of the last construction sign will be considered removal of the closure. Construction signs shall be installed immediately prior to the start of the closure and shall be promptly removed when no longer required. The installation and removal of a closure, including signs, channelizing devices, and arrow boards shall be a continuous operation. The Owners reserve the right to order the removal of an approved closure.

3.1.7.13 Equipment Moves

3.1.7.13.1 A request for a complete stoppage of traffic must be submitted to the Owners for approval. The Contractor is required to receive approval from NHDOT for all stoppages on the New Hampshire roadways, from MTA for all stoppages on the Maine Turnpike, and from MaineDOT for all other stoppages in Maine. The request shall be submitted for approval by the Traffic Control Supervisor to the NHDOT Contract Administrator (CA) at least five (5) working days prior to the day of the requested stoppage of traffic and two (2) days for a stoppage less than five minutes. All requests must be received by 12:00 PM (noon) to be considered as received on that day. Requests received after 12:00 PM shall be considered as received the following day. The CA will coordinate with MTA and MaineDOT for final approval and communicate the final decision back to the Contractor before any stoppages take place.

3.1.7.13.2 A complete stoppage of traffic for an equipment move (including delivery of materials to the median) may be considered for approval if the action cannot reasonably be completed with the erection of a lane closure. The Contractor shall be responsible for the installation of signs "Expect Stopped Traffic" and signs W3-4 "Be Prepared to Stop," in accordance with single lane closures immediately prior to the equipment move. Signs will be required on any adjacent ramps within proximity to the stoppage. These signs shall be covered when not applicable. The maximum time for which traffic may be stopped and held for an equipment move at any single time shall be five (5) minutes. The durations shall be measured as the time between the time the last car passes the work area until the time the Owner determines that all travel lanes are clear. The traffic shall only be stopped for the minimum period of time required to complete the approved activity.

3.1.7.13.3 Only Uniformed Officers with Vehicle shall stop traffic along I-95 and the Maine Turnpike and its ramps. The Contractor shall obtain Uniformed Officers in accordance with Section 618 and the Technical Proposal.

3.1.7.13.4 Unapproved movement of equipment or materials across the travel lanes shall be considered a violation of the Maintenance of Traffic requirements. Delays that exceed the five (5) minutes stoppage allowance for equipment moves shall be considered a violation of the Maintenance of Traffic requirements. See Section 3.1.13 for additional information about violations.

3.1.7.14 Traffic Stoppages

3.1.7.14.1 During the erection or removal of overhead structures or signs, traffic shall be stopped and may be held for periods of up to 25 minutes during these operations. Before the roadway is reopened, all materials shall be secured so they will not endanger traffic passing underneath.

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3.1.7.14.1.1 Unapproved traffic stoppages or stoppages that exceed the 25 minute limitation shall be considered a violation of the Maintenance of Traffic requirements. See Section 3.1.13 for additional information about violations.

3.1.7.14.2 Blasting of Ledge: Stoppages for blasting will be allowed Monday through Thursday between 9 AM and 3 PM and on Fridays between 9 AM and 12 PM (noon). The maximum time for which traffic may be stopped at any single time shall be six (6) minutes. This duration shall be measured as the time between the time that the last car passes the work area, until the time the CA determines that all travel lanes are cleared of blast debris. The Contractor shall reduce the size of the blast, change the design and method of the blast, use more mats, or otherwise alter the blasting so that the traffic is not stopped for more than six minutes. Whenever the volume of traffic is excessive such that a six-minute interruption would cause objectionable congestion, in the opinion of the CA, the hours during which blasting may occur may be further restricted. A detailed blasting plan shall be submitted to the CA for approval.

3.1.7.14.2.1 Unapproved traffic stoppages or stoppages for blasting that exceed the 6 minute limitation shall be considered a violation of the Maintenance of Traffic requirements. See Section 3.1.13 for additional information about violations.

3.1.7.15 Clear Zone

3.1.7.15.1 The clear zone, beginning at the edge of the traveled way opened to traffic, shall be 30 feet. No storage of equipment or material will be allowed in the median.

3.1.7.15.2 No equipment or vehicles of the Contractor, their subcontractors, or employees engaged in work on this contract shall be parked or stopped on lanes carrying traffic, or on lanes or shoulders adjacent to lanes carrying traffic, at any time except as required by ongoing work operations. Contractor equipment or vehicles shall never be used to stop, block, or channelize traffic.

3.1.7.15.3 The Contractor shall take necessary care at all times, in all operations and use of his equipment, to protect and facilitate traffic. During periods when no work is occurring, the Contractor's equipment shall not be left in a location that could obstruct the free flow of traffic.

3.1.7.16 PCM Signs

3.1.7.16.1 When the Contractor uses a PCM sign on the Project, the Contractor shall complete and/or provide the following:

3.1.7.16.1.1 Submit a catalog cut shop drawing to the Engineer of all proposed equipment for review and approval.

3.1.7.16.1.2 Establish and pay for a data cellular account so that PCMs may be remotely programmed and operated from each of the Owner's Communications' Centers.

3.1.7.16.1.3 The Contractor shall submit a Smart Work Zone Integration worksheet, found on NHDOT's website (<http://www.nh.gov/dot/business/contractors.htm>), to allow

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integration of the proposed devices into the Owners's ATMS. The worksheet will be used by both the Owners and the Contractor to ensure devices integrate into the ATMS without providing a network security risk to the Owners.

3.1.7.16.1.4 Provide the manufacturer's software necessary to change the PCM messages remotely from the Owners Communications' Centers and the Owner's on-site Engineer's computer if necessary or requested.

3.1.7.16.1.5 Provide training on the operation of the PCM to the Owner's on-site Engineer and Owner's Communication Centers representatives.

3.1.7.16.1.6 Make all PCM signs on the project work site available to the Owners for any/all emergency situations as defined by the TMP. This shall include the preemption of any messages running at the time of need as approved by the Owners and the Owners' on-site Engineer.

3.1.7.16.2 The PCM signs shall be on-site, with cellular account established, GPS location capable, and all training required complete within one month after mobilization or seven (7) days prior to implementing traffic shifts, detours or stoppages, whichever is sooner. Implementation of traffic shifts, detours, or stoppages of traffic will not be permitted without PCM signs on-site with the specified MTA TMCC, Maine TMC, and NHDOT TMC Software Platform integration and training.

3.1.7.16.3 PCM signs shall be set up in advisory mode starting one week prior to work beginning, and 2 weeks in advance of any ramp closures or detours, unless otherwise approved or directed.

3.1.13 Maine Turnpike Traffic Control Requirements. – The following requirements are specific to work along the Maine Turnpike. All construction operations require the submission of an **MTA Work Permit** in accordance with the Technical Provisions. The minimum requirements that shall be maintained for working on, over, or adjacent to the Maine Turnpike roadway are outlined in this specification and in the MTA Work Permit document in the Technical Provisions.

3.1.13.1 Violations of the Maintenance of Traffic related to early set-up or late removal of temporary lane closures shall be subject to a lane rental fee of \$1,000 per five minute violation for every five minutes that the Contractor is in violation. Payment of the lane rental fee will be deducted from the next project payment.

3.1.13.2 Violations of the Maintenance of Traffic related to unapproved movement of equipment or materials shall be subject to a minimum fine of \$500 per occurrence with an additional \$500 per minute thereafter. The fine will be deducted from the next project payment.

3.1.13.3 Violations of the Maintenance of Traffic related to traffic stoppage for the erection or removal of overhead sign structures or signs with an allowance of up to 25 minutes shall be subject to a fine of \$2,500 per five minute period for each roadway that is not reopened in excess of the 25 minute limit. The fine will be deducted from the next project payment.

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3.1.13.4 Violations of the Maintenance of Traffic related to traffic stoppages for blasting operations is subject to a fine of \$1,000 per minute for every minute traffic is stopped in excess of the time allowance. The fine will be deducted from the next project payment.

Replace in Construction Requirements:

3.2.6.2 Park worker's private vehicles close together in a group outside the clear zone of the traveled way as specified in the TMP unless protected by portable barriers and in areas pre-approved by the Owners.

Add in Construction Requirements:

3.2.9 Existing guardrails and/or barriers shall be maintained until removal is necessary for construction. The Contractor shall use a temporary concrete barrier, as approved by the Engineer, while the guardrails and/or barriers are absent. Permanent guardrails and barriers shall be installed as soon as possible to minimize risk to the public.

3.2.10 The use of construction signs and warning devices not shown on the Plans, in the TMP, or in the MUTCD is prohibited.

3.3.6 Repainting of pavement marking lines, if required to maintain the effectiveness of the line shall be considered incidental to the maintenance of traffic control devices, no separate payment will be made.

3.3.7 Traffic striping changes shall not be made unless there is sufficient time, equipment, materials, and personnel available to complete the change properly before the end of the workday.