

March 28, 2025

**ADDENDUM NO. 1**

**RE: Item #6, April 2, 2025 Letting - NH 0013(171), PCN 09LC, Beadle, Hand County - PCC  
Pavement Grinding**

**TO WHOM IT MAY CONCERN:**

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

**SPECIAL PROVISIONS:** NO CHANGE

**SDEBS BID PROPOSAL:** NO CHANGE

**PLANS:** Please destroy sheets 13 & 14 and replace with the enclosed sheets, dated 3/28/25.

**Sheet 13:** NONREINFORCED PCC PAVEMENT REPAIR note was revised. *The strength required to open the pavement to traffic has been revised to 2,500 psi.*

**Sheet 13:** FAST TRACK CONCRETE FOR PCC PAVEMENT REPAIR note was revised. *The strength required to open the pavement to traffic has been revised to 2,500 psi.*

Sincerely,

Sam Weisgram  
Engineering Supervisor

SW/cj

CC: Mark Peterson, Aberdeen Region Engineer  
Brad Letcher, Huron Area Engineer

**TEMPORARY PAVEMENT MARKING**

Temporary flexible vertical markers (tabs) will be installed on one side of the centerline rumble for the temporary pavement marking. No passing zones will be marked in accordance with Specifications. DO NOT PASS (R4-1) and PASS WITH CARE (R4-2) signs will also be used in addition to the temporary flexible vertical markers (tabs) placed per Specifications to mark no passing zones.

The total length of no passing zone on this project is estimated to be 1.98 miles.

It is estimated that 5 DO NOT PASS and 5 PASS WITH CARE signs will be required.

Covers on the tabs will be sufficiently secured to prevent traffic from dislodging the cover and when removed, the covers will be properly disposed of. The Contractor will remove and properly dispose of the tabs after permanent pavement marking is applied. Method of removal will be nondestructive to the road surface and will be accomplished within one week of completion of the permanent pavement marking.

Full reflectivity of all temporary flexible vertical markers (tabs) is required at all times. The Contractor will be required to replace any missing or non-reflective tabs after each installation as detailed below at no additional cost to the State.

Quantities of Temporary Pavement Markings consist of:

- One pass at repair locations as determined by the Engineer
- One pass on top of the ground surface

In the absence of a signed lane closure or pilot car operation, FLAGGER (W20-7) symbol signs and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights will be positioned on the shoulder in advance of workers for both directions of traffic during the installation and removal of the temporary flexible vertical markers (tabs). The traffic control device used will be moved intermittently to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1) sign, a WORKER (W21-1) symbol sign or a BE PREPARED TO STOP (W3-4) sign will be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work must be approved by the Engineer.

Prior to nightfall, tabs will be required to mark centerline on segments of roadway where existing centerline markings have been removed and new markings have not been installed.

**TRAFFIC CONTROL FOR PCCP REPAIR**

Each mainline concrete repair location, from which the in-place concrete has been removed, will be marked with a minimum of two reflectorized drums.

Construction workspaces on undivided roadways will be limited to 300 feet in length. The distance between the closest points of any two construction workspaces, including channeling devices, will not be less than 3 miles. Drivers in two-way traffic workspaces must be able to see approaching traffic through and beyond the work zone.

Construction workspaces in urban areas will be limited to 3 blocks in length. The minimum distance between workspaces will be 3 blocks.

When work is in progress within an intersection, Flaggers will be required to direct traffic.

Reflectorized drums or Type 2 Barricades will be used to maintain a minimum of two-way traffic at intersecting roads or streets. The Contractor will mark and maintain alternating one-way access to businesses and residences along the project with cones, drums, or Type 1 Barricades. The Contractor will advise affected businesses before a restriction to the business is installed, as well as the anticipated duration of the restriction.

The Contractor will maintain pedestrian access at crosswalk locations. Additional traffic control devices will be used as necessary to accommodate the pedestrian traffic if work activities block an existing crosswalk.

**REMOVE CONCRETE PAVEMENT**

Approximate locations of existing non-reinforced concrete pavement to be removed are provided in the Table of PCC Pavement Repair. Prior to removal the Contractor will saw cut full depth at the limits of the removal area as directed by the Engineer. Existing concrete in the replacement areas will be removed by the lift out method or by means that minimize damage to the sides of the remaining in place concrete. All removed concrete will be removed from within the right of way by the end of the workday and disposed of at the Contractor's waste disposal site.

The Contractor will notify the Engineer two working days prior to beginning work at each location so the Engineer may mark out removal limits. The Engineer will mark exact dimensions prior to removal of concrete pavement. Payment will be made for quantity marked out and measured in the field. Variations from plans estimated quantities and/or locations will not be considered cause for re-negotiation of the contract unit prices.

Care will be exercised in the removal of concrete slab panels to avoid damage to adjacent pavement, manholes and inlets. Damage to adjacent pavement, manholes, and/or inlets will be repaired to the satisfaction of the Engineer at the Contractor's expense.

After concrete removal has been accomplished, the Contractor will shape, water, and recompact the remaining granular material prior to placement of concrete. Any additional gravel cushion required to prepare the area will be furnished and placed by the Contractor and will be incidental to the contract unit price per square yard for the various PCC Pavement Repair bid items.

Gravel cushion material will be from a Contractor furnished source. Water content and compaction will be to the satisfaction of the Engineer.

Removal of Concrete Pavement will be incidental to the FAST TRACK CONCRETE FOR PCC PAVEMENT REPAIR and NONREINFORCED PCC PAVEMENT REPAIR bid items. This payment will be full compensation for full and partial depth sawing, removal of all PCC Pavement, disposal of all removed material, and all equipment, labor, and incidentals necessary to satisfactorily complete work.

**NONREINFORCED PCC PAVEMENT REPAIR**

Concrete will meet the requirements stated in Section 380 of the Specifications, except as modified by the following notes:

The fine aggregate will be screened over a one-inch square-opening screen just prior to introduction into the concrete paving mix if required by the Engineer.

The slump requirement will be limited to 3" maximum after water reducer is added and the concrete will contain 4.5% to 7.0% entrained air. The concrete will contain a minimum of 50% coarse aggregate by weight. Coarse aggregate will be crushed ledge rock, Size No. 1 unless an alternative gradation is approved by the Concrete Engineer as part of the mix design submittal. The mix design will contain at least 650 lbs of Type I or II cement or 600 lbs of Type III cement per cubic yard. The minimum 28-day compressive strength will be 4,000 psi. The Contractor is responsible for the mix design used. The Contractor will submit a mix design and supporting documentation for approval at least 2 weeks prior to use.

The use of a water reducer at manufacturer's recommended dosage will be required.

Concrete will be cured with white pigmented curing compound (ASTM C309, Type 2) applied as soon as practical at a rate of 125 square feet per gallon. Concrete will be cured for a minimum of 48 hours before opening to traffic. The 48 hours is based upon a concrete surface temperature of 60°F or higher throughout the cure period. If the concrete surface temperature falls below 60°F, the cure time will be extended, or other measures taken, at no additional cost to the State. A strength of 2,500 psi must be attained prior to opening to traffic.

Upon placement of the concrete, repair areas will be straight edged to ensure a smooth riding surface and will be textured longitudinally with the pavement by finishing with a stiff broom. Repair areas will then be checked with a 10' foot straight edge. The permissible longitudinal and transverse surface deviation will be 1/8" in 10'.

Concrete will be covered with suitable insulation blanket consisting of a layer of closed cell polystyrene foam protected by at least one layer of plastic. Insulation blanket will have an R-value of at least 0.5, as rated by the manufacturer. Insulation blanket will be left in place, except for joint sawing operations, until the 2,500 psi is attained. Insulation blanket will be overlapped on to the existing concrete by 4'. This requirement for covering repair areas with insulation blankets may be waived during periods of hot weather upon approval of the Engineer.

Cost for performing the aforementioned work including sawing and removing concrete, furnishing and placing concrete, sawing and sealing joints, repairing gravel and asphalt concrete shoulders, labor, tools and equipment will be included in the contract unit price per square yard for "Nonreinforced PCC Pavement Repair".

**FAST TRACK CONCRETE FOR PCC PAVEMENT REPAIR**

Fast Track Concrete will be used for two-lane roadway repair locations to ensure that the pavement repair area has obtained 2,500 psi within 8 hours after placement or by 7:00am the day after placement so it can be opened to traffic.

An initial cylinder will be made, and the Engineer will calibrate a Swiss Hammer to it. Subsequent strength tests will be by Swiss Hammer. Cylinders will be made according to Materials Manual requirements and the Swiss Hammer calibration regularly updated according to the early break cylinders.

The Engineer will test the repair areas after an initial 8-hour cure period by Swiss Hammer. If the area does not meet strength after the 8-hour cure period, the area will be tested every 2 hours until nightfall, then not again until 7:00am. No section is to be opened to traffic without the permission of the Engineer.

The fine aggregate will be screened over a one-inch square-opening screen just prior to introduction into the concrete paving mix if required by the Engineer.

The slump requirement prior to use of a set accelerator or super-plasticizer will be limited to 2" maximum. After the addition of admixtures, the maximum slump will be 8" and the concrete will contain 4.5% to 7.5% entrained air. The concrete will contain a minimum of 50% coarse aggregate by weight. Coarse aggregate will be crushed ledge rock, Size No. 1, unless an alternative gradation is approved by the Concrete Engineer as part of the mix design submittal. The mix design will contain at least 700 lbs. of Type I or II cement or 650 lbs. of Type III cement per cubic yard. The minimum 28-day compressive strength will be 4,000 psi. The Contractor is responsible for the mix design used. The Contractor will submit a mix design and supporting documentation for approval at least 2 weeks prior to use.

The use of a set accelerator and/or super-plasticizer at manufacturer's recommended dosage will be required. Both admixtures will be added at the project site.

Fast Track Concrete will be cured with white pigmented curing compound (AASHTO M148, Type 2) applied as soon as practical at a rate of 125 square feet per gallon.

Upon placement of the concrete, repair areas will be straight edged to ensure a smooth riding surface and will be textured longitudinally with the pavement by finishing with a stiff broom. Repair areas will then be checked with a 10' foot straight edge. The permissible longitudinal and transverse surface deviation will be 1/8" in 10'.

Concrete will be immediately covered with suitable insulation blanket consisting of a layer of closed cell polystyrene foam protected by at least one layer of plastic. Insulation blanket will have an R value of at least 0.5, as rated by the manufacturer. Insulation blanket will be left in place, except for joint sawing operations, until 2,500 psi strength is attained. Insulation blanket will be overlapped on to the existing concrete by 4'. This requirement for covering repair areas with insulation blankets may be waived during periods of hot weather upon approval of the Engineer.

The concrete repair area will be removed, replaced, and opened to traffic in the same day during daylight hours.

Once concrete is placed, if it does not achieve 2,500 psi prior to nightfall, the Contractor will maintain traffic control and provide temporary pavement marking on centerline until the Engineer determines that the 2,500 psi has been achieved.

If the concrete does not achieve 2,500 psi by 7 a.m. the day after placement, the Contractor will provide proper traffic control needed (at no cost to the State) until the Engineer determines the 2,500 psi has been obtained. No additional work zones will be set up until strength requirement is met. If strength requirement has not been met by 36 hours after placement, the patches will be removed and replaced at no cost to the State.

Cost for performing the aforementioned work including sawing and removing concrete, furnishing and placing Fast Track Concrete, sawing and sealing joints, repairing gravel and asphalt concrete shoulders, labor, tools and equipment will be included in the contract unit price per square yard for "Fast Track Concrete for PCC Pavement Repair".

**TABLE OF SUPERELEVATION**

STATION TO STATION	REMARKS
Sta. 2+80 to Sta. 107+38.74 Sta. 107+38.74 to Sta. 110+28.74 Sta. 110+28.74 to Sta. 120+55.37	Normal Crown Section Superelevation Transition 2°00' Curve Rt. 0.055 ft/ft Point of Rotation 12' Rt. Of Centerline
Sta. 120+55.37 to Sta. 123+45.37 Sta. 128+53.89 to Sta. 131+43.89 Sta. 131+43.89 to Sta. 141+51.49	Superelevation Transition Superelevation Transition 2°00' Curve Lt. 0.055 ft/ft Point of Rotation 12' Lt. Of Centerline
Sta. 141+51.49 to Sta. 144+41.49	Superelevation Transition
Sta. 144+41.49 to Sta. 309+21.80	Normal Crown Section
Sta. 309+21.80 to Sta. 312+11.80 Sta. 312+11.80 to Sta. 324+40.34	Superelevation Transition 2° 00' Curve Rt. 0.055 ft/ft Point of Rotation 12' Rt. Of Centerline
Sta. 324+40.34 to Sta. 327+30.34	Superelevation Transition
Sta. 327+30.34 to Sta. 763+55.52	Normal Crown Section
Sta. 763+55.52 to Sta. 765+95.52 Sta. 765+95.52 to Sta. 771+36.25	Superelevation Transition 2°00' Curve Lt. 0.055 ft/ft Point of Rotation 12' Lt. Of Centerline
Sta. 771+36.25 to Sta. 773+76.25	Superelevation Transition
Sta. 773+76.25 to Sta. 217+00(2 <sup>ND</sup> )	Normal Crown Section

**STEEL BAR INSERTION**

The Contractor will insert the Steel Bars (1 inch epoxy coated plain round dowel bars and No. 8 epoxy coated deformed tie bars) into drilled holes in

the existing concrete pavement. Anchoring of the steel bars in the drilled holes will conform to the Specifications.

The steel bars will be cut to the specified length by sawing or shearing and will be free from burring or other deformations.

Epoxy coated plain round steel bars will be inserted on 12-inch centers in the transverse joint. The first steel bar will be placed a minimum of 3 inches and a maximum of 6 inches from the outside edge of the slab.

Epoxy coated deformed steel bars will be inserted on 18-inch centers in the transverse joint. The first steel bar will be placed a minimum of 3 inches and a maximum of 9 inches from the outside edge of the slab.

Epoxy coated deformed steel bars will be inserted on 48-inch centers in the longitudinal joint and will be placed a minimum of 15 inches from the existing transverse contraction joint.

Epoxy coated deformed steel bars will be inserted on 30-inch centers in the longitudinal joint and will be placed a minimum of 15 inches from the existing transverse contraction joint.

**REPAIR TYPE A SPALLS**

Spall repair work will be done prior to Planing or Grinding PCC Pavement.

Concrete Patch Material will be Type III conforming to Section 390.2 B.3.

As an alternative, the Contractor may remove concrete by milling, provided it produces results similar to the sawing and chipping process described in the Specifications.

Spalls which are repaired according to plans and specifications and exhibit partial re-spalling or cracking, will be repaired to the satisfaction of the Engineer at no additional cost to the State.

**REPAIR CONCRETE CURB, GUTTER, AND INLET**

The existing concrete curb, gutter, and inlet at Sta. 100+50 is damaged and will be replaced. New curb and gutter will match in place. The inlet cost will be covered in bid items "Remove Drop Inlet Frame and Grate Assembly", "Type B Frame and Grate", "Precast Drop Inlet Collar". Other areas may be designated by the Engineer.

If the end of any section to be removed does not fall on an existing joint, a sawed joint must be made to provide a vertical face for the new joint. The inlet frame and grate assembly will be removed for reset. All work associated with the inlet and grate removal and reset will be paid for under: Remove Drop Inlet Frame and Grate Assembly for Reset and Reset Drop Inlet Frame and Grate Assembly.

Existing foundation material will be shaped and compacted to a firm uniform bearing surface, conforming to the existing section or established grades as set by the Engineer. Unsuitable foundation material will be removed and replaced as directed.