

MAINE TURNPIKE AUTHORITY

ADDENDUM NO. 1

CONTRACT 2017.04

BRIDGE REPAIR

HIGH STREET UNDERPASS BRIDGE (MM 103.60)

SUPERSTRUCTURE REPLACEMENT

WINTHROP ROAD UNDERPASS BRIDGE (MM 108.30)

General

Addendum No. 2 is scheduled to be issued on Friday February 10, 2017. All questions regarding Contract 2017.04 should be submitted by the end of the day Wednesday February 8, 2017 to be answered in this addendum. Questions received after that time may not be answered.

The Authority has received questions regarding the allowable lane closure windows for the Winthrop Road Underpass superstructure replacement. The Authority is reviewing the requirements and will issue updated allowable lane closure windows as part of Addendum No. 2.

Make the following changes to the bid documents:

In the Contract Documents, Proposal, **REMOVE** page P - 9 and **REPLACE** with the attached revised page P - 9.

In the Contract Documents, Part 2 - Special Provisions, **REMOVE** pages SP - 3 and SP - 4 and **REPLACE** with the attached revised pages SP - 3 and SP - 4.

In the Contract Documents, Part 2 - Special Provisions, Section 104.4.7 Cooperation With Other Contractors on page SP - 6 under the Adjacent contracts currently scheduled for the 2017 construction season include: **ADD** "MaineDOT WIN 024005.00 - Light Capital Paving on Winthrop Road"

In the Contract Documents, Part 2 - Special Provisions, Section 535.04 Plant is **DELETED** in its entirety and **REPLACED** with the following:

"The plant where the full-depth precast concrete deck panels are fabricated shall be a PCI certified plant with a plant certification in Group B1, B2, B3 or B4.

In addition to the PCI plant certification requirement, the fabricator of the full-depth precast concrete deck panels shall have within the last five years successfully completed at least one verifiable similar full-depth precast concrete deck panels project or at least three projects that included fabrication of precast concrete bridge components such as piers, abutments, segmental girders, or prestressed beams/girders."

ADD the attached Special Provision Section 401.

Questions:

The following are questions asked at the pre-bid meeting held on February 2, 2017 or submitted to the Maine Turnpike Authority in writing. Answers to the questions are noted. Bidders shall utilize this information in preparing their bid.

Question 1: Plan sheet 2 Estimated Quantities and Earthwork lists there are 2 Item 607.23 Chain Link Fence Gates, where do the plans note where the gates will be installed. Also in the details there is a single gate and a double gate, where in the plans does it specify what size gate should be used?

Response: *As noted in General Construction Note 4 on Sheet 3 of the Contract Plans – “Chain link fence gates shall be 3 feet wide single gates. A gate shall be located on each side of the turnpike roadway. Exact location of the gate shall be determined in the field by the Resident”.*

Question 2: On plan sheet 22, “remove and reset fence (typ)” is noted, is this item listed in the bid quantities? Also where is the new fence going in?

Response: *As noted in General Construction Note 6 on Sheet 3 of the Contract Plans – “At Winthrop Road, the existing ROW fence within the limits of work, as shown on the plans or as directed by the Resident, shall be removed and disposed. This work shall be incidental to the proposed fence items”.*

The proposed fence shall be reset in the similar location as the existing fence, as directed by the Resident. The proposed fence will be paid under Items 607.17, 607.23, 607.32 and 607.33. The estimated quantities for each of these items is shown in the Estimated Quantities table on Sheet 2 of the Contract Plans.

Question 3: Under Section 535.04, the fabrication plant is required to be PCI certified within Groups B2, B3 or B4. Those levels of certification comply with pre-stressing standards and procedures. These full depth panels, as designed, have no pre-stressed reinforcing, thus alleviating the PCI necessity. Could the MTA consider waiving this requirement of 535 or perhaps the item could be adequately covered under Section 534.

Response: *As noted above, Section 535.04 has been revised to include PCI Plant Certification Group B1 - Precast Bridge Products (No Prestressed Reinforcement).*

Attachments

- Pre-Bid Agenda (4 pages)
- Pre-Bid Sign-In Sheet (1 page)
- Revised Page P-9 (1 page)
- Revised Pages SP-3 and SP-4 (2 pages)
- Special Provision Section 401 (2 pages)

Note: The above items shall be considered as part of the bid submittal.

The total number of pages included with this addendum is thirteen (13).

All bidders are requested to acknowledge the receipt of the Addendum No. 1 by signing below and faxing this sheet to Nate Carll, Purchasing Department, (207) 871-7739. Bidders are also required to acknowledge receipt of this Addendum No. 1 on Page P-10 of the bid package.

Business Name

Print Name and Title

Signature

Date

February 6, 2017

Very truly yours,

MAINE TURNPIKE AUTHORITY

Purchasing Manager
Maine Turnpike Authority

MAINE TURNPIKE AUTHORITY

Pre-Bid Conference

CONTRACT 2017.04

Bridge Repair
High Street Underpass (MM 103.60)

Superstructure Replacement
Winthrop Road Underpass Bridge (MM 108.30)

February 2, 2017 10:00 AM

1) Location:

The general limits of work are as shown in the contract plans. The High Street Underpass is located at Mile 103.60 of the Maine Turnpike and the Winthrop Road Underpass is located at Mile 108.30 of the Maine Turnpike.

2) General Description:

The work at the High Street Underpass consists of repairs to the existing bridge over the Maine Turnpike in the Town of West Gardiner, Maine. The work generally includes bridge pavement and membrane replacement, approach work and paving, deck expansion joint modification, bridge drain grate modification and substructure repairs.

The work at the Winthrop Road Underpass consists of replacing the existing bridge superstructure over the Maine Turnpike in the Town of Hallowell, Maine. The work includes concrete deck and steel girder replacement, concrete substructure modifications and repairs, approach work and paving, guardrail, bridge rail, maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications.

3) Bid:

- a) February 16, 2017 at 11:00 A.M. at MTA headquarters 2360 Congress Street, Portland.
- b) All bid and contractual questions shall be directed to Purchasing Department, Phone No. (207) 871-7771, Ext. 115.
- c) All questions on plans and specifications shall be in writing and shall be directed (faxed) to Purchasing Department, of the Maine Turnpike Authority. Fax No. (207) 871-7739.

4) Notification:

- a) Contractor shall notify and obtain approval from the Authority prior to visiting the Project sites for field inspection. The contact person is Mr. Steve Tartre at (207) 871-7771, ext. 144.

5) Construction Schedule/Prosecution of Work:

- a) February 23, 2017 Contract Start

High Street Underpass

June 20, 2017 or end of 16/17 school year High Street Closure May Start
High Street May Be Closed for Maximum of 28 Calendar Days
August 18, 2017 High Street Work Complete

Winthrop Road Underpass

September 5, 2017 Winthrop Road Closure May Start
Winthrop Road May Be Closed for Maximum of 55 Calendar Days
October 30, 2017 Winthrop Road Substantially Complete

- b) Incentive/Disincentive for Early or Late Opening of Winthrop Road assessed in accordance with Subsection 107.4.6.1
 - i) Early opening incentive is \$5,000 for each complete Calendar Day that Winthrop Road is substantially complete and reopened to two lanes of traffic prior to the 55 Calendar Day bridge closure deadline. The maximum combined incentive is capped at \$75,000.
 - ii) Late opening disincentive is \$5,000 for each Calendar Day, or portion of a Calendar Day, that Winthrop Road is not reopened to two lanes of traffic after the 55 Calendar Day bridge closure deadline. The maximum combined disincentive is capped at \$75,000. These are in addition to contract liquidated damages.
 - c) Liquidated damages for both bridges assessed in accordance with Subsection 107.7.2 for each calendar day substantial completion is not achieved.
- 6) Maine Department of Labor – Fair Hourly Wages (Special Provision 104.3.8)
- a) Heavy and Bridge wages
 - b) Highway and Earthwork wages
- 7) Response to Damage Claims (Supplemental Specification 104.3.11):
- a) Contractor responsible for responding to all damage claims within 30 days.
- 8) Lead Paint (Special Provision 105.2.4.2):
- a) Contractor to acknowledge the potential presence of lead paint and associated precautions thereto.
- 9) Maintenance During Winter Construction (Supplemental Specification 105.4.3)
- a) Contractor responsible for the maintenance of erosion control and traffic control devices.
 - b) Contractor responsible for removal of snow and ice to maintain drainage.
 - c) Authority is responsible for winter road maintenance for the Maine Turnpike paved travel way open to traffic.
- 10) Permit Requirements (Special Provision 105.8.2)
- a) The Project is subject to the requirements of the Maine Pollutant Discharge Elimination System (MPDES) General Permit for Stormwater Discharge from Construction Activity

- b) A Notice of Intent (NOI), accompanied by a Limit of Disturbance (LOD) plan, was submitted by the Authority to the DEP for coverage under the Maine Construction General Permit (MCGP).
- c) Compliance with the erosion and sedimentation control requirements outlined in this Contract is required by the Contractor.
- d) MaineDOT Best Management Practices

11) General Requirements

- a) U-Turns at toll plazas and median openings not allowed. (Supplemental Specification 105.5.1)
- b) Contractor access to and from the mainline shall not negatively impact mainline traffic flow. The Contractor may be required to establish lane closures to provide for safe access. Refer to Special Provision 652, Specific Project Maintenance of Traffic Requirements, for lane closure requirements and restrictions.
- c) All vehicles used on the Project, including concrete delivery trucks, shall be equipped with amber flashing beacons in accordance with the Special Provision 652.3.4.
- d) Class III safety vests must be worn at all times.

12) Traffic Control (Special Provision Section 652):

- a) Contractor is responsible for supplying all traffic control devices.
- b) Contractor is responsible for placement, relocation, removal and maintenance of traffic control devices. Maintenance of traffic control devices is a 24-hour a day, seven days per week, responsibility. Contractor shall inspect devices as required.
- c) High Street will be closed to through traffic between Hinkley Road and West Hill Road. Winthrop Road will be closed to through traffic between Whitten Road and High Street. Temporary detours shall be established and maintained at all times in accordance with the details shown on the Plans.
- d) Turnpike Lane closures
 - i) One lane of traffic flowing in each direction at all times. Minimum traveling width of 14' required.
 - ii) Requests for temporary lane closures shall be submitted a minimum of two working days in advance of scheduled closure. Requests are subject to approval by MTA.
- e) Stoppages of traffic for erection or removal of structural steel
 - i) Fee of \$2,500 per five-minute period for each roadway (northbound and southbound) if the complete stoppage of traffic exceeds 25 minutes
 - ii) Requests shall be submitted five days in advance of schedule stoppage. Request subject to approval of MTA.
- f) Stoppages of traffic for moving heavy or slow equipment across or on the travel lanes (stoppages less than five minutes)
 - i) Fee of \$500 per five minutes in excess of the five-minute allowance.
 - ii) Requests shall be submitted two working days in advance of scheduled stoppage. Request subject to approval by MTA.
- g) All signs, which do not apply to current construction activity, shall be 100% covered or removed in accordance with the plans. This includes any speed limit signs when work zone speed is in operation.
- h) Traffic control devices shall be NCHRP 350 compliant.

13) Specific Contract Items

- a) Special Provision 502 – Structural Concrete - Ultra-High Performance Concrete

- b) Special Provision 535 – Precast, Prestressed Concrete Superstructure - Full-Depth Precast Concrete Deck Panels
 - i) Note precast deck panel fabricator qualifications requirements

14) Questions:

MTA Contract 2017.04

Bridge Repair
High Street Underpass Bridge (MM 103.60)

Superstructure Replacement
Winthrop Road Underpass Bridge (MM 108.30)

PREBID MEETING 10:00AM FEBRUARY 2, 2017 - ATTENDANCE SHEET

NAME	COMPANY	EMAIL	PHONE
Gordon Edgerton	VHB	Gedgerton@vhb.com	207-219-0602
Tim Bryant	VHB	Tbryant@vhb.com	207-210-3663
ANDY KITTREDGE	CPM	ANDYK@CPMCONSTRUCTORS.COM	207 865-0000
BRIAN MacFARLANE	WYMAN & SIMPSON	bmacfarlane@wymanandsimpson.com	207-737-4471
GREG SCOTT	SEWIT CONCR CORP	gscott207@gmail.com	632-0521
MATT ENGELMAN	SUPERIOR CONCRETE	MATT@AMERICANCONCRETE.COM	784-1388
JOHN BRANSCOM	MTA	jbranscom@maineturnpike.com	671-3457
Andy McCrum	Superior Concrete	andyc@americanconcrete.com	784-1388
ART BURGESS	PRATT & SONS, INC	art@prattandsons.net	345-3311
Steve Tantre	MTA	stantre@maineturnpike.com	871-7771 ext
Scott Warchel	MTA	swarchel@maineturnpike.com	482-8121

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
BROUGHT FORWARD:							
652.45	Truck Mounted Attenuator	Cal. Day	140	200	00	28000	00
656.50	Baled Hay, in place	Each	15				
656.632	30 inch Temporary Silt Fence	Linear Foot	2050				
659.10	Mobilization	Lump Sum	1				
TOTAL:							

THIS DOCUMENT MUST BE CLEARLY POSTED AT THE PERTAINING STATE FUNDED PREVAILING WAGE CONSTRUCTION SITE

State of Maine
 Department of Labor
 Bureau of Labor Standards
 Technical Services Division
 Augusta, Maine 04333-0045
 Telephone (207) 623-7906

Wage Determination - In accordance with 26 MRSA §1301 et. seq., this is a determination by the Bureau of Labor Standards, of the fair minimum wage rate to be paid laborers and workers employed on the below titled project.

Title of Project -----2017.04-High Street Underpass Bridge Repair and Winthrop Road Underpass Superstructure Replacement-

Location of Project --Hallowell & West Gardiner

**2017 Fair Minimum Wage Rates
 Heavy & Bridge Kennebec County**

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Backhoe Loader Operator	\$18.25	\$2.36	\$20.61	Ironworker - Ornamental	\$18.50	\$6.42	\$24.92
Boilermaker	\$20.88	\$8.35	\$29.23	Ironworker - Reinforcing	\$25.75	\$5.37	\$31.12
Boom Truck (Truck Crane) Operator	\$23.13	\$9.40	\$32.53	Ironworker - Structural	\$22.50	\$6.04	\$28.54
Bricklayer	\$23.09	\$2.65	\$25.74	Laborers (Incl. Helpers & Tenders)	\$17.00	\$1.21	\$18.21
Bulldozer Operator	\$20.55	\$3.83	\$24.38	Laborer - Skilled	\$20.18	\$5.42	\$25.60
Carpenter	\$21.25	\$3.18	\$24.43	Line Erector - Power/Cable Splicer	\$20.49	\$5.36	\$25.85
Carpenter - Rough	\$19.00	\$5.62	\$24.62	Loader Operator - Front-End	\$22.00	\$4.00	\$26.00
Cement Mason/Finisher	\$16.78	\$1.15	\$17.93	Mechanic- Maintenance	\$20.00	\$4.56	\$24.56
Communication Equip Installer	\$17.00	\$4.62	\$21.62	Mechanic- Refrigeration	\$22.83	\$4.22	\$27.05
Comm Transmission Erector-Microwave & Cell	\$21.25	\$3.02	\$24.27	Millwright	\$24.75	\$6.64	\$31.39
Crane Operator <15 Tons	\$19.50	\$7.23	\$26.73	Painter	\$18.00	\$5.33	\$23.33
Crane Operator =>15 Tons)	\$24.79	\$7.47	\$32.26	Paver Operator	\$19.25	\$1.45	\$20.70
Crusher Plant Operator	\$18.00	\$2.91	\$20.91	Pile Driver Operator	\$30.00	\$6.96	\$36.96
Diver	\$21.00	\$6.83	\$27.83	Pipe/Steam/Sprinkler Fitter	\$26.38	\$3.18	\$29.56
Driller - Rock	\$23.00	\$8.27	\$31.27	Pipelayer	\$20.00	\$2.85	\$22.85
Earth Auger Operator	\$22.97	\$5.41	\$28.38	Rigger	\$20.50	\$4.74	\$25.24
Electrician - Licensed	\$26.00	\$6.28	\$32.28	Roller Operator - Earth	\$18.01	\$0.39	\$18.40
Electrician Helper/Cable Puller (Licensed)	\$17.50	\$2.19	\$19.69	Roller Operator - Pavement	\$18.75	\$4.65	\$23.40
Excavator Operator	\$22.00	\$6.47	\$28.47	Sand/Water Blaster	\$14.25	\$5.70	\$19.95
Fence Setter	\$14.75	\$0.00	\$14.75	Truck Driver - Light	\$16.00	\$1.00	\$17.00
Grader/Scraper Operator	\$17.50	\$2.11	\$19.61	Truck Driver - Heavy	\$17.00	\$2.23	\$19.23
Hot Top Plant Operator	\$22.50	\$6.09	\$28.59	Truck Driver - Tractor Trailer	\$20.00	\$5.46	\$25.46

The Laborer classifications include a wide range of work duties. Therefore, if any specific occupation to be employed on this project is not listed in this determination, call the Bureau of Labor Standards at the above number for further clarification.

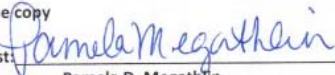
Welders are classified in the trade to which the welding is incidental.

Apprentices - The minimum wage rate for registered apprentices are those set forth in the standards and policies of the Maine State Apprenticeship and Training Council for approved apprenticeship programs.

Posting of Schedule - Posting of this schedule is required in accordance with 26 MRSA §1301 et. seq., by any contractor holding a State contract for construction valued at \$50,000 or more and any subcontractors to such a contractor.

Appeal - Any person affected by the determination of these rates may appeal to the Commissioner of Labor by filing a written notice with the Commissioner stating the specific grounds of the objection within ten (10) days from the filing of these rates with the Secretary of State.

Determination No: HB-008-2017
 Filing Date: January 9, 2017
 Expiration Date: 12-31-2017
 BLS(Heavy & Bridge Kennebec)

A true copy
 Attest: 
 Pamela D. Megathlin
 Director
 Bureau of Labor Standards

THIS DOCUMENT MUST BE CLEARLY POSTED AT THE PERTAINING STATE FUNDED PREVAILING WAGE CONSTRUCTION SITE

State of Maine
 Department of Labor
 Bureau of Labor Standards
 Technical Services Division
 Augusta, Maine 04333-0045
 Telephone (207) 623-7906

Wage Determination - In accordance with 26 MRSA §1301 et. seq., this is a determination by the Bureau of Labor Standards, of the fair minimum wage rate to be paid laborers and workers employed on the below titled project.

Title of Project -----2017.04-High Street Underpass Bridge Repair and Winthrop Road Underpass Superstructure Replacement

Location of Project -Hallowell & West Gardiner

**2017 Fair Minimum Wage Rates
 Highway & Earthwork Kennebec County**

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Asphalt Raker	\$15.00	\$0.00	\$15.00	Line Erector - Power/Cable Splicer	\$25.38	\$6.01	\$31.39
Backhoe Loader Operator	\$19.00	\$1.57	\$20.57	Loader Operator - Front-End	\$17.88	\$3.83	\$21.71
Blasters	\$20.98	\$7.16	\$28.14	Mechanic- Maintenance	\$19.80	\$2.12	\$21.92
Boom Truck (Truck Crane) Operator	\$16.00	\$3.45	\$19.45	Painter	\$16.00	\$0.00	\$16.00
Bulldozer Operator	\$18.75	\$0.92	\$19.67	Paver Operator	\$19.00	\$0.00	\$19.00
Carpenter - Rough	\$18.30	\$2.74	\$21.04	Pipelayer	\$20.00	\$3.91	\$23.91
Cement Mason/Finisher	\$16.78	\$1.15	\$17.93	Pump Installer	\$18.00	\$3.76	\$21.76
Concrete Mixing Plant Operator	\$22.15	\$7.39	\$29.54	Reclaimer Operator	\$21.25	\$12.33	\$33.58
Crusher Plant Operator	\$19.45	\$4.68	\$24.13	Roller Operator - Earth	\$15.81	\$0.15	\$15.96
Driller - Rock	\$21.00	\$3.81	\$24.81	Roller Operator - Pavement	\$17.78	\$4.11	\$21.89
Electrician - Licensed	\$24.42	\$3.88	\$28.30	Screed/Wheelman	\$18.75	\$1.31	\$20.06
Excavator Operator	\$19.00	\$2.30	\$21.30	Stone Mason	\$18.00	\$0.00	\$18.00
Flagger	\$13.00	\$0.00	\$13.00	Sweeper Operator - Discontinued	\$19.14	\$12.63	\$31.77
Grader/Scrapper Operator	\$16.50	\$1.24	\$17.74	Tool Operator - Powder Actuated - Discontinued	\$11.50	\$0.00	\$11.50
Highway Worker/Guardrail Installer	\$18.65	\$5.11	\$23.76	Transfer Machine Operator	\$21.25	\$0.00	\$21.25
Hot Top Plant Operator	\$27.73	\$10.44	\$38.17	Truck Driver - Light	\$16.00	\$1.00	\$17.00
Industrial Truck (Forklift) Operator	\$19.00	\$0.00	\$19.00	Truck Driver - Medium	\$17.00	\$2.10	\$19.10
Ironworker - Reinforcing	\$25.75	\$5.14	\$30.89	Truck Driver - Heavy	\$15.00	\$0.57	\$15.57
Ironworker - Structural	\$22.00	\$5.70	\$27.70	Truck Driver - Tractor Trailer	\$18.50	\$1.31	\$19.81
Laborers (Incl.Helpers & Tenders)	\$14.00	\$0.68	\$14.68	Truck Driver - Mixer (Cement)	\$16.00	\$3.49	\$19.49
Laborer - Skilled	\$16.50	\$2.25	\$18.75				

The Laborer classifications include a wide range of work duties. Therefore, if any specific occupation to be employed on this project is not listed in this determination, call the Bureau of Labor Standards at the above number for further clarification.

Welders are classified in the trade to which the welding is incidental.

Apprentices - The minimum wage rate for registered apprentices are those set forth in the standards and policies of the Maine State Apprenticeship and Training Council for approved apprenticeship programs.

Posting of Schedule - Posting of this schedule is required in accordance with 26 MRSA §1301 et. seq., by any contractor holding a State contract for construction valued at \$50,000 or more and any subcontractors to such a contractor.

Appeal - Any person affected by the determination of these rates may appeal to the Commissioner of Labor by filing a written notice with the Commissioner stating the specific grounds of the objection within ten (10) days from the filing of these rates with the Secretary of State.

Determination No: HI-015-2017

Filing Date: January 9, 2017

Expiration Date: 12-31-2017

BLS(Highway & Earthwork Kennebec)

A true copy

Attest:

Pamela D. Megathlin
 Pamela D. Megathlin
 Director
 Bureau of Labor Standards

SPECIAL PROVISION
SECTION 401
HOT MIX ASPHALT PAVEMENT

Section 401.02 in Maine Turnpike Authority 2016 Supplemental Specifications is deleted in its entirety and replaced with the following:

401.02 Materials

Aggregates for HMA Pavements Coarse Aggregate and fine aggregate for HMA pavements shall be graded such that when combined in the proper proportions, including filler if required, the resultant blend will meet the composition of mixture for the type of pavement specified. Materials shall meet the requirements specified in Section 700 – Materials:

Asphalt Cement	702.01
Aggregates for HMA Pavement	703.07
RAP for HMA Pavement	703.08
HMA Mixture Composition	703.09

Surface HMA Coarse aggregate The material retained on the No. 4 sieve, shall consist of angular fragments obtained from crushed quarry stone and be free of dirt or other objectionable materials. Coarse aggregate shall have a Micro-Deval value of 16.0 percent or less as determined by AASHTO T 327. The crushed stone shall have a maximum of 1.5% material finer than the No. 200 mesh when tested in accordance with AASHTO T-11. Flat and elongated particles shall not exceed a maximum of 8% at a 5:1 ratio in accordance with ASTM D-4791. Coarse aggregate angularity shall be a minimum of 95/90 in accordance with AASHTO T-335.

Surface HMA Fine aggregate The material passing the No. 4 sieve, shall be crushed manufactured sand free from dirt, clay balls, or other objectionable material. Natural sand may be incorporated into the mix at a rate no greater than 13 percent by weight of total aggregate. The unconfined void content of the fine aggregate blend shall be a 45 minimum value when tested in accordance with AASHTO T-304, method A. AASHTO T-176 sand equivalent value shall be 45 minimum.

Asphalt Low Modulus Joint Sealer Asphalt Low Modulus Joint Sealer shall be a modified asphalt and rubber compound designed for sealing and improving the strength and performance of the base asphalt cement and shall conform to ASTM D6690 Type IV and the following specifications:

Cone Penetration	90-150
Flow @ 60°C [140°F]	3.0mm [1/8 in] max
Bond, non-immersed	Three 12.7mm [1/2 in] specimens pass 3 cycles @ 200% extension @ -29°C [-20°F]
Resilience, %	60 min
Asphalt Compatibility, ASTM D5329	pass*

* There shall be no failure in adhesion, formation of any oily exudate at the interface between the sealant and asphaltic concrete or other deleterious effects on the asphaltic concrete or sealant when tested at 60°C [140°F].

The contractor shall provide the Resident or authorized representative with a copy of the material manufacturer's recommendations pertaining to heating, application, and reheating prior to the beginning of operations or the changing of materials.