

Janet T. Mills

## STATE OF MAINE Department of Transportation 16 State House Station Augusta, Maine 04333-0016

Bruce A. Van Note

March 4, 2025 Subject: Pavement Milling, Ultra-Thin Bonded Wearing Course WIN: 027498.00 Location: Benton, Fairfield, Oakland, Sidney, Augusta & Waterville Amendment No. 3

Dear Sir/Ms.:

Please make the following changes to the Bid Book:

**INSERT** attached "SPECIAL PROVISION SECTION 643 (Weigh-In -Motion system)", 4 pages, dated 03/05/2025 after page 219.

**REMOVE** pages 17 thru 21, "Proposal Schedule of Items" dated 02/07/2025 and **REPLACE** with the attached revised "Proposal Schedule of Items", 5 pages, dated 03/05/2025.

**REMOVE** page 218, "WIM Typical Highway Plans" and **REPLACE** with the attached revised "WIM Typical Highway Plans", 1 page.

**REMOVE** page 219, "Plan Sheet WIM (Weigh-In-Motion) sites are to be installed to these dimensions" dated 02/07/2025 and **REPLACE** with the attached revised "Plan Sheet WIM (Weigh-In-Motion) sites are to be installed to these dimensions", 2 pages, dated 03/05/2025.

INSERT attached "Sidney Typical Diagram", 1 page, dated 03/05/2025 after page 220.

The following questions have been received:

**Question:** The bid specifications do not include any details on the cabinet and/or the traffic counter. Is the contractor to provide a new cabinet and traffic counter, or will the State provide that equipment? If the equipment is contractor supplied, provide a specification detailing the requirements.

**Question:** Will the department be providing a Rack Mounted Control Unit for the Weight In Motion Station or is it the responsibility of the contractor?

**Response:** There are existing WIM and Continuous Count stations in place. The scope of work is to replace the in pavement stations, no new cabinet or junction box. Please see the new 643 WIN Special Provision, details, and 649 Continuous Count Station Special Provision, and details.

Also see the new Schedule of Items adding Item 649.10 Continuous Count Station.

Consider these changes and information prior to submitting your bid on March 12, 2025.

Sincerely,

Kege Whichagell

George M. A. Macdougall P.E. Contracts & Specifications Engineer

Project(s): 027498.00

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Proposal Schedule of Items

Alt Mbr ID:

Page 1 of 5

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Proposal ID: 027498.00

Contractor:

Proposal Line	Item ID	Approximate	Unit Price		Bid An	Bid Amount	
Number	Description	Quantity and Units	Dollars	Cents	Dollars	Cents	
0010	202.2023	390,000.000					
	REMOVING PAVEMENT SURFACE - MEDIUM CUT DRUM	SY		:		:	
0020		127,000.000					
0030	403.2081	2.300.000		·		`	
	12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	T				·	
0040	403.2111	1,000.000					
	9.5 MM POLYMER MODIFIED HMA (SHIM)	I		<sup>1</sup>		:	
0050		3,000.000					
0000	BITOMINOUS TACK COAT - APPLIED	G		•			
0060	EMULSIFIED ASPHALT SEALCOAT, APPLIED	130,000.000 SY		 			
0070	424.22	85,000.000					
	ASPHALT RUBBER CRACK SEALER TYPE 2, APPLIED	LB		'		<u>.</u>	
0080	424.3333	7,000.000					
	LOW MODULUS JOINT SEALER, APPLIED	LF		·		·	
0090		55,000.000					
	CRACK REPAIR - HOT POUR MASTIC	LB		i		;	
0100	462.301 POLYMER MODIFIED ULTRATHIN BONDED WEARING COURSE	360,000.000 SY				 :	
0110	606.1305	51.000					
	31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	EA		! :		!	

# Proposal Schedule of Items

Page 2 of 5

 Proposal ID: 027498.00
 Project(s): 027498.00

 SECTION: 1
 HIGHWAY ITEMS

 Alt Set ID:
 Alt Mbr ID:

Contractor:

Proposal	Item ID	Approximate	Unit Price	Bid Amount	
Number	Description	Quantity and Units	Dollars Cents	Dollars Cents	
0120	606.178 GUARDRAIL BEAM	500.000 L F			
0130	606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	5.000 EA	!		
0140	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	150.000 EA	<u> </u>	!	
0150	606.362 GUARDRAIL ADJUSTED	7,500.000 LF	!	!	
0160	606.363 GUARDRAIL REMOVE AND DISPOSE	125.000 LF	<u> </u>	<u> </u>	
0170	606.367 REPLACE UNUSABLE EXISTING GUARDRAIL POSTS	15.000 EA	<u> </u>	<u> </u>	
0180	606.93 SACRIFICIAL CRASH CUSHION	2.000 EA	!	<u> </u>	
0190	618.14 SEEDING METHOD NUMBER 2	700.000 UN	<u> </u>	<u> </u>	
0200	619.12 MULCH	700.000 UN	l	<u> </u>	
0210	627.18 12 " SOLID WHITE PAVEMENT MARKING	10,000.000 LF	<u> </u>	<u> </u>	
0220	627.30 GROOVING FOR PAVEMENT MARKING	134,000.000 SF	<u> </u>	!	
0230	627.744 6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	12,000.000 LF	<u> </u>	<u> </u>	

Project(s): 027498.00

Proposal Schedule of Items

Alt Mbr ID:

Page 3 of 5

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Proposal ID: 027498.00

Contractor:

Proposal	Item ID	Approximate	Unit Price	Bid Amount	
Number	Description	Quantity and Units	Dollars Cents	Dollars Cents	
0240	627.745 6" WHITE OR YELLOW POLYUREA PAVEMENT MARKING LINE (RECESSED)	260,000.000 LF	<u> </u>	<u> </u>	
0250	627.78 TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	330,000.000 LF	<u> </u>		
0260	627.781 TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	350,000.000 LF	<u> </u>	<u> </u>	
0270	629.05 HAND LABOR, STRAIGHT TIME	75.000 HR	!	!	
0280	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	200.000 HR	<u> </u>	!	
0290	631.13 BULLDOZER (INCLUDING OPERATOR)	100.000 HR	!	<u> </u>	
0300	631.133 SKID STEER (INCLUDING OPERATOR)	75.000 HR		l	
0310	631.14 GRADER (INCLUDING OPERATOR)	50.000 HR	!	<u> </u>	
0320	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	400.000 HR		!	
0330	631.212 SMALL PAVEMENT GRINDER (INCLUDING OPERATOR)	50.000 HR	<u> </u>	<u> </u>	
0340	631.22 FRONT END LOADER (INCLUDING OPERATOR)	50.000 HR	!	<u>l</u>	

# Proposal Schedule of Items

Page 4 of 5

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Proposal ID: 027498.00		Project(s): 027498.00	
SECTION: 1	HIGHWAY ITEMS		
Alt Set ID:	Alt Mbr ID:		

Contractor:

Proposal	Item ID	Approximate	Unit Price	Bid Amount	
Number	Description	Quantity and Units	Dollars Cents	Dollars Cents	
0350	639.18 FIELD OFFICE TYPE A	1.000 EA	!	<u> </u>	
0360	643.87 WEIGH-IN-MOTION SYSTEM	1.000 EA	!	<u> </u>	
0370	649.10 CONTINUOUS COUNT STATION	1.000 EA	!	<u> </u>	
0380	652.30 FLASHING ARROW BOARD	5.000 EA	!	<u> </u>	
0390	652.33 DRUM	200.000 EA	!	<u> </u>	
0400	652.34 CONE	1,300.000 EA	!	<u> </u>	
0410	652.35 CONSTRUCTION SIGNS	4,000.000 SF	!	!	
0420	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	160.000 CD	<u> </u>	<u> </u>	
0430	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	5.000 EA	<u> </u>	<u> </u>	
0440	652.441 TYPE 1 SMART WORK ZONE SYSTEM	2.000 EA	!	!	
0450	652.442 TYPE 2 SMART WORK ZONE SYSTEM	1.000 EA	<u> </u>	<u> </u>	
0460	652.45 AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	4.000 EA	!	<u> </u>	

Project(s): 027498.00

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Proposal Schedule of Items

Alt Mbr ID:

Page 5 of 5

3/5/2025

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Proposal ID: 027498.00

Contractor:

Proposal Line	Item ID Description	Approximate	Unit Price	Bid Amount	
Number		Quantity and Units	Dollars Cents	Dollars Cents	
0470	652.46 SEQUENTIAL FLASHING WARNING LIGHTS	40.000 EA	<u> </u>	!	
0480	652.47 TEMPORARY PORTABLE RUMBLE STRIP	8.000 GP	<u> </u>	!	
0490	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM		<u> </u>	
0500	659.10 MOBILIZATION	LUMP SUM		<u> </u>	
0510	801.03 TEST PITS	6.000 EA	<u> </u>	<u> </u>	
	Section: 1		Total:	<u> </u>	
			Total Bid:	<u> </u>	



# SPECIAL PROVISION <u>SECTION 649.10</u> CONTINUOUS COUNT STATIONS

<u>649.01</u> Description This work shall consist of furnishing and installing piezo-electric sensors and inductive loops for Continuous Count Stations (CCS) in accordance with these specifications and recommended manufacturer's recommendations.

<u>649.04</u> Inductance Loop Detectors shall be installed according to the manufacturer's recommendation, subject to approval, below the surface course of pavement. Each detector shall be supplied complete with comprehensive installation instructions.

A template shall be used to layout and paint the loops. The pavement slot for wire shall be 3 to 4 inches below the finished surface and not closer than 18 inches from the edge of pavement or the curb. Sites with 2 loops per lane shall be installed 16' leading-edge to leading-edge. The right-angle corners of the pavement slot shall be chamfered or drilled to eliminate sharp bends in the loop wires. Loop corner saw cuts shall overlap at the corners (minimum 8") for uniform depth to ensure corners are at the required depth throughout.

Sensor saw cuts are not permitted when the current, or expected, road and/or air temperature is less than 33 degrees Fahrenheit. All debris and moisture shall be removed from the loop pavement slot before installation of loop wires. Sharp objects shall not be used to force the sensor wires into the saw cut. Sections of backer rod shall be used to hold down the wire before sealing and shall be removed after the first pass of sealant. The pavement slot shall be filled to the road surface with an approved sealing compound such as ProSeal 6006 EX to form a waterproof bond with the pavement after installing the wire loop.

Loop sensor cables shall run continuously without any splices from the roadway, through the junction box, and directly into the cabinet. Loop splices are to be avoided, except as specifically authorized by the Contract Administrator. A minimum of 2' and maximum of 2.5' of loop wire will be left in each junction box. Each sensor lead-in shall exit the pavement in a separate 1" conduit and be uninterrupted to the nearest pull box. Sensor exit conduits shall be a minimum of 18" from the apron edge of pavement, 12" apart, and 5" deep.

All installations will incorporate 4 turns of counterclockwise wrapped loops. All loops shall be cut square 6' x 6' with four turns of encased wire. Loop homeruns shall remain twisted at the rate of 4 turns per foot from the corner of the loop to the cabinet.

Loop detector cable enclosed in tubing shall be No. 14 AWG stranded copper. Loop detector cable and tubing shall conform to the requirements of IMSA 51-7.

A megger reading of at least 500 M ohms shall be obtained for each loop installed. This test shall be made at 500 volts immediately before the sealant is installed and again after the sealant has set at least 24 hours. All sensors shall be disconnected from the detector amplifier during testing.

<u>649.05</u> Piezo Axle Sensor (BL) Piezo axle sensors shall be Measurement Specialties BL piezoelectric or approved equivalent. Piezo axle sensors shall be installed using AS475 Axle Sensor Grout (System 400) resin-based grout. Piezo sensors and installation materials (grout) must be stored in a temperature controlled environment kept between 68° to 90° a minimum of 24 hours prior to installation.

Sensor saw cuts are not permitted when the current, or expected, road and/or air temperature is less than 33°F. For cold-weather piezo sensor installations (>33°), infra-red heaters shall be used when the road temperature is less than 50°F. The heaters will be used to warm the pavement to a minimum surface temperature of 70°F, but not to exceed 90°F utilizing infra-Red heat lamps. Under no circumstances shall the heater be applied to a bare piezo sensor element. The heaters should be spaced across the entire length of the piezo saw-cut so that the saw cut is heated evenly.

Piezo sensors should be positioned and installed in areas that are free of voids, cracks and pavement joints, perpendicular to traffic and centered in the travel lane. Unless directed otherwise, for lanes >11' a 10' piezo shall be installed in the center of the lane, and for lanes <11'an 8' piezo shall be installed in the center of the lane. In-asphalt sensor arrays and homeruns should be offset a minimum of 12 inches.

All saw-cuts shall be clean and dry before wires are placed in them. Sharp objects shall not be used to force the sensor wires into the saw cut. The piezo sensor cable shall be protected with an external conduit from end of the sensor saw cut to the first junction box. Each sensor lead-in shall exit the pavement in a separate 1" conduit and be uninterrupted to the nearest pull box. Sensor exit conduits shall be a minimum of 18" from the apron edge of pavement, 12" apart, and 5" deep.

All vehicle classification sites shall be installed with a loop-piezo-loop lane configuration; all volume sites shall be installed with two loops per lane.

<u>649.06</u> Method of Measurement Continuous Count Stations will be measured for payment for each site that has been installed with inductive loops and piezos, and accurately classifies the traffic according to FHWA's Scheme F.

<u>649.07</u> <u>Basis of Payment</u> Continuous Count Stations will be paid for each location at the contract price, which payment will be full compensation for furnishing and installing all materials, labor, and equipment necessary for installation of functional inductive loop and piezo sensors in each lane of travel.

Payment will be made under:

Pay Item		<u>Pay Unit</u>
649.10	Continuous Count Station	Each

Augusta 27498.00 **Interstate 95 SB** February 22, 2025

# **SPECIAL PROVISION** SECTION 643 (Weigh-In -Motion system)

# Description

This work shall consist of installing a Weigh-in-Motion (WIM) system, as shown in the attached standard detail.

Task	Description of work		
Task Loop Installation	<ul> <li>Description of work</li> <li>Lead in saw cuts to be 2 inches deep by 3/8 inch wide</li> <li>Loops are to be centered in the lane, 6 feet by 6 feet with 4 turns of No. 14 AWG stranded copper. Loop detector cable and tubing shall conform to the requirements of IMSA 51-7.</li> <li>A template shall be used to layout and paint the loops. The pavement slot for wire shall be 3 to 4 inches below the finished surface and not closer than 18 inches from the edge of pavement or the curb. Sites with 2 loops per lane shall be installed 16' leading-edge to leading-edge. The right-angle corners of the pavement slot shall be chamfered or drilled to eliminate sharp bends in the loop wires. Loop corner saw cuts shall overlap at the corners (minimum 8") for uniform depth to ensure corners are at the required depth throughout.</li> <li>Sensor saw cuts are not permitted when the current, or expected, road and/or air temperature is less than 33 degrees Fahrenheit. All debris and moisture shall be removed from the loop pavement slot be fore installation of loop wires. Sharp objects shall not be used to be objects and the used to be objects and the sharp bends in the loop pavement slot he fore installation of loop wires. Sharp objects shall not be used to be fore installation of loop wires. Sharp objects shall not be used to be fore installation of loop wires. Sharp objects shall not be used to be fore installation of loop wires. Sharp objects shall not be used to be fore installation of loop wires. Sharp objects shall not be used to be fore installation of loop wires. Sharp objects shall not be used to be objects and the pavement slot be fore installation.</li> </ul>		
	<ul> <li>be used to hold down the wire before sealing and shall be removed after the first pass of sealant. The pavement slot shall be filled to the road surface with an approved sealing compound such as ProSeal 6006 EX to form a waterproof bond with the pavement after installing the wire loop.</li> <li>Loop lead-in wires from controller box are to be twisted (min 3 twists per foot), and routed separately to each loop for each travel lane.</li> <li>Loops shall be wrapped (installed) in a counter clockwise direction</li> <li>Loop sensor cables shall run continuously without any splices from the roadway, through the junction box, and directly into the cabinet. Loop splices are to be avoided, except as specifically authorized by the Contract Administrator. A minimum of 2' and maximum of 2.5' of loop wire will be left in each junction box.</li> </ul>		

	Each sensor lead-in shall exit the pavement in a separate 1" conduit and be uninterrupted to the nearest pull box
	<ul> <li>Sensor exit conduits shall be a minimum of 18" from the aprop</li> </ul>
	edge of payement 12" apart and 5" deep
	• A megger reading of at least 500 M ohms shall be obtained for
	each loop installed. This test shall be made at 500 volts
	immediately before the sealant is installed and again after the
	sealant has set at least 24 hours. All sensors shall be disconnected
	from the detector amplifier during testing.
	• There shall be 5 feet of the lead-in wire in the cabinet to be
	connected by MDOT to the WIM electronics.
Piezo sensor	<ul> <li>Installation will be done by Kistlser certified installers</li> </ul>
Installation	• The sensors supplied will be 2 meter quartz sensors by Kistlser
	Corp of 75 John Glenn Drive, Amherst, NY. Sensors will not
	require any temperature compensation.
	• Sensor wires will not be routed with loop wires. Sensor wires will
	also be separated from other sensor wires.
	• Sensors to be located 13 inches downstream of trailing edge of
	loop.
	<ul> <li>Center line sensor must be located in advance of shoulder sensor according to travel direction.</li> </ul>
	• sensor wires shall be routed back to the cabinet. There shall be 4
	feet of lead in wire in the cabinet, terminated with a female BNC
	connector.
Cabinet and post	<ul> <li>post shall be 20 foot long, pressure treated 6 inch by 6 inch post meeting section 720.12</li> </ul>
	<ul> <li>Post shall be installed 6 feet in the ground and drilled to the TS 350 breakaway standard.</li> </ul>
	• Unpainted aluminum M cabinet (H 51" x W 30" x D 18") no
	police door required shall be installed on the above post with the
	center of the cabinet being 5 feet above ground level.
	• 1 12 volt 200 Watt solar panel shall be installed on the top of the
	post. Panel shall be facing south with an angle of approximately
	$60^{\circ}$ to the horizontal.
Ducting	• A tier 2 23,000lb rated tier 2 junction box (18" x 24" x 18") will be
	set in the ground next to the shoulder, top flush with surface, this
	will be connected to buried 1.5 inch PVC conduit that enters into
	the bottom of the Type M cabinet (conduit will be installed a
	minimum of 3 feet deep) from edge of pavement to M cabinet
	(including expansion couplings). All loop wires and sensor wires
	shall enter the cabinet via this conduit junction box and conduit.

# Materials

Contractor will be asked to supply and install:

- (2) Kistler sensors per lane (as shown in detail)
- (2) IMSA loop ducts per lane meeting standard 718.04

MaineDOT will supply

• WiM measurement and control unit and required remote communications, which will be installed in the cabinet by Maine DOT

# Weigh in Motion Installation

Sensor loop:

- Lead in saw cuts to be 2 inches deep by 3/8 inch wide
- Loops are to be centered in the lane, 6 feet by 6 feet with 4 turns of No. 14 AWG stranded copper. Loop detector cable and tubing shall conform to the requirements of IMSA 51-7.
- A template shall be used to layout and paint the loops. The pavement slot for wire shall be 3 to 4 inches below the finished surface and not closer than 18 inches from the edge of pavement or the curb. Sites with 2 loops per lane shall be installed 16' leading-edge to leading-edge. The right-angle corners of the pavement slot shall be chamfered or drilled to eliminate sharp bends in the loop wires. Loop corner saw cuts shall overlap at the corners (minimum 8") for uniform depth to ensure corners are at the required depth throughout.
- Sensor saw cuts are not permitted when the current, or expected, road and/or air temperature is less than 33 degrees Fahrenheit. All debris and moisture shall be removed from the loop pavement slot before installation of loop wires. Sharp objects shall not be used to force the sensor wires into the saw cut. Sections of backer rod shall be used to hold down the wire before sealing and shall be removed after the first pass of sealant. The pavement slot shall be filled to the road surface with an approved sealing compound such as ProSeal 6006 EX to form a waterproof bond with the pavement after installing the wire loop.
- Loop lead-in wires from controller box are to be twisted (min 3 twists per foot), and routed separately to each loop for each travel lane.
- Loops shall be wrapped (installed) in a counter clockwise direction
- Loop sensor cables shall run continuously without any splices from the roadway, through the junction box, and directly into the cabinet. Loop splices are to be avoided, except as specifically authorized by the Contract Administrator. A minimum of 2' and maximum of 2.5' of loop wire will be left in each junction box. Each sensor lead-in shall exit the pavement in a separate 1" conduit and be uninterrupted to the nearest pull box.

- Sensor exit conduits shall be a minimum of 18" from the apron edge of pavement, 12" apart, and 5" deep.
- A megger reading of at least 500 M ohms shall be obtained for each loop installed. This test shall be made at 500 volts immediately before the sealant is installed and again after the sealant has set at least 24 hours. All sensors shall be disconnected from the detector amplifier during testing.
- There shall be 5 feet of the lead-in wire in the cabinet to be connected by MDOT to the WIM electronics.

Piezo Sensor:

- Lead in saw cuts to be 2 inches deep by 3/8 inch wide
- The sensors supplied will be 2 meter quartz sensors by Kistlser Corp of 75 John Glenn Drive, Amherst, NY. Sensors will not require any temperature compensation.
- Sensor wires will not be routed with loop wires. Sensor wires will also be separated from other sensor wires.
- Sensors to be located 13 inches downstream of trailing edge of loop.
- After sensor grout hardens, the grout/sensor surface will be ground to be level with pavement.
- Furthest sensor's lead-in will not pass in front of nearest sensor array.
- Leading edge to leading edge of sensor to be 12 feet.
- Center line sensor must be located in advance of shoulder sensor according to travel direction.
- Installation should resemble the configuration labeled "Two Way Highway" for one northbound and one southbound lane, and "Interstate or Other Divided Highway" for two or more northbound and two or more southbound lanes.

MaineDOT staff to mark location during construction. Call Aaron Buotte, MaineDOT WIM Program Coordinator prior to installation. He can be reached via e-mail at <u>aaron.c.boutte@maine.gov</u> or via phone at (207) 215 8103.

Method of measurement

WIM site shall be measured as one lump sum, completed in place, inspected and accepted

Basis of payment

Payment will be made upon completion of the project specific special provision and detail outlined in this contract

Pay Item		Pay Unit
Item	643.87 Weigh in Motion System	LS

#### 44.46255, - 69. 711867

#### I-95 North/South 4 Lane Road Layout







# Plan Sheet WIM (Weigh-In-Motion) sites are to be installed to these dimensions

Sensor loop:

- Lead in saw cuts to be 2 inches deep by 3/8 inch wide
- Loops are to be centered in the lane, 6 feet by 6 feet with 4 turns of No. 14 AWG stranded copper. Loop detector cable and tubing shall conform to the requirements of IMSA 51-7.
- A template shall be used to layout and paint the loops. The pavement slot for wire shall be 3 to 4 inches below the finished surface and not closer than 18 inches from the edge of pavement or the curb. Sites with 2 loops per lane shall be installed 16' leading-edge to leading-edge. The right-angle corners of the pavement slot shall be chamfered or drilled to eliminate sharp bends in the loop wires. Loop corner saw cuts shall overlap at the corners (minimum 8") for uniform depth to ensure corners are at the required depth throughout.
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- Loops shall be wrapped (installed) in a counter clockwise direction
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- Sensor exit conduits shall be a minimum of 18" from the apron edge of pavement, 12" apart, and 5" deep.
- A megger reading of at least 500 M ohms shall be obtained for each loop installed. This test shall be made at 500 volts immediately before the sealant is installed and again after the sealant has set at least 24 hours. All sensors shall be disconnected from the detector amplifier during testing.
- There shall be 5 feet of the lead-in wire in the cabinet to be connected by MDOT to the WIM electronics.

Piezo Sensor:

- Lead in saw cuts to be 2 inches deep by 3/8 inch wide
- The sensors supplied will be 2 meter quartz sensors by Kistlser Corp of 75 John Glenn Drive, Amherst, NY. Sensors will not require any temperature compensation.
- Sensor wires will not be routed with loop wires. Sensor wires will also be separated from other sensor wires.
- Sensors to be located 13 inches downstream of trailing edge of loop.
- After sensor grout hardens, the grout/sensor surface will be ground to be level with pavement.
- Furthest sensor's lead-in will not pass in front of nearest sensor array.
- Leading edge to leading edge of sensor to be 12 feet.
- Center line sensor must be located in advance of shoulder sensor according to travel direction.
- Installation should resemble the configuration labeled "Two Way Highway" for one northbound and one southbound lane, and "Interstate or Other Divided Highway" for two or more northbound and two or more southbound lanes.

MaineDOT staff to mark location during construction. Call Aaron Buotte, MaineDOT WIM Program Coordinator prior to installation. He can be reached via e-mail at <u>aaron.c.boutte@maine.gov</u> or via phone at (207) 215 8103.

Cabinet: