## **ON CALL**

# ELECTRICAL SIGNAL & LIGHTING MAINTENANCE SERVICES

(NO PIN PROJECT)

**STATEWIDE** 

2010

# MAINTENANCE & OPERATIONS

## **STATE PROJECT**

### **BIDDING INSTRUCTIONS**

- 1. Complete the bid forms with pen and ink.
- 2. The following are to be completed and returned with the bid:
  - a. A copy of the Notice to Contractors
  - b. the completed Acknowledgement of Bid Amendments form
  - c. the completed Schedule of Items in Appendix A
  - d. two (2) copies of the completed and signed Contract Agreement for Transportation Related Maintenance Services form
  - e. The completed Contractor Information Sheet
  - f. Any other certifications or Bid requirements listed in the Bid Documents as due by Bid opening
- 3. For security and other reasons, all Bid Packages which are mailed or delivered, shall be provided in double (one envelope inside the other) envelopes. The *Inner Envelope* shall have the following information provided on it:

Bid Enclosed - Do Not Open

Title:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

In Addition to the usual address information, the *Outer Envelope* should have written or typed on it:

Double Envelope: Bid Enclosed

Title:

Town:

Date of Bid Opening:

Name of Contractor:

Hand-carried Bids may be in one envelope, and should be marked with the following information:

Bid Enclosed: Do Not Open

Title:

Town:

Name of Contractor:

- 4. If a paper Bid is to be hand carried, deliver directly to the Reception Desk using the "Public Entrance" which is located on the Capitol Street side of the DOT Headquarters Building in Augusta. If a paper Bid is to be sent express, Federal Express overnight delivery is suggested as the package is delivered directly to the DOT Headquarters Building, Mailroom, in Augusta located at 24 Child Street in Augusta. Other means, such as U.S. Postal's Service Express Mail has proven not to be reliable. If a paper bid is to be mailed, the mailing address is Maine Department of Transportation, 24 Child Street, 16 State House Station, Augusta, ME 04333-0016.
- 5. If you need further information regarding Bid preparation, call the DOT Contracts Section at (207) 624-3410. For complete bidding requirements, refer to Section 102 of the Maine Department of Transportation, Standard Specification, Revision of December 2002.

## **NOTICE**

The Maine Department of Transportation is attempting to improve the way Bid Amendments/Addendums are handled, and allow for an electronic downloading of bid packages from our website, while continuing to maintain a planholders list.

Prospective bidders, subcontractors or suppliers who wish to download a copy of the bid package and receive a courtesy notification of project specific bid amendments, must provide an email address to Diane Barnes or Mike Babb at the MDOT Contracts mailbox at: <a href="MDOT.contracts@maine.gov">MDOT.contracts@maine.gov</a>. Each bid package will require a separate request.

Additionally, interested parties will be responsible for reviewing and retrieving the Bid Amendments in their bids using the Acknowledgement of bid Amendment Form.

The downloading of bid packages from the MDOT website is <u>not</u> the same as providing an electronic bid to the Department. Electronic bids must be submitted via <a href="http://www.BIDX.com">http://www.BIDX.com</a>. For information on electronic bidding contact Larry Childs at <a href="Larry.Childs@maine.gov">Larry.Childs@maine.gov</a>.

## **NOTICE**

## Bidders:

Please use the attached "Request for Information" form when faxing questions and comments concerning specific Contracts that have been Advertised for Bid. Include additional numbered pages as required. Questions are to be faxed to the number listed in the Notice to Contractors. This is the only allowable mechanism for answering Project specific questions. Maine DOT will not be bound to any answers to Project specific questions received during the Bidding phase through other processes.

## State of Maine Department of Transportation

# REQUEST FOR INFORMATION

Date _	 11me	
Information Requested:	Town(s):	
Request by:	 Phone: ()	
	the number listed in the Noti	
Response:		
Doomongo Dvu	Data	<del></del>

## **Vendor Registration**

Prospective Bidders must register as a vendor with the Department of Administrative & Financial Services if the vendor is awarded a contract. Vendors will not be able to receive payment without first being registered. Vendors/Contractors will find information and register through the following link –

http://www.maine.gov/purchases/vendorinfo/vss.htm.

## **CONTRACTOR INFORMATION**

(Date)		(Sig	gnature)	
		(Name and Title Printed)		_
		(Contr	ractor Name)	
		Vendor Cı	ustomer Number	
ling Address: Street/P	О Вох	Vendor Cu	stomer Number  State	

Electrical Signal & Lighting Maintenance Services
August 3, 2004
Supercedes March 17, 2004

## SPECIAL PROVISION 102.7.3 ACKNOWLEDGMENT OF BID AMENDMENTS

With this form, the Bidder acknowledges its responsibility to check for all Amendments to the Bid Package. For each Project under Advertisement, Amendments are located at <a href="http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php">http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php</a> It is the responsibility of the Bidder to determine if there are Amendments to the Project, to download them, to incorporate them into their Bid Package, and to reference the Amendment number and the date on the form below. The Maine DOT will not post Bid Amendments any later than noon the day before Bid opening without individually notifying all the planholders.

Amendment Number	Date

The Contractor, for itself, its successors and assigns, hereby acknowledges that it has received all of the above referenced Amendments to the Bid Package.

	CONTRACTOR	
Date	Signature of authorized representative	
	(Name and Title Printed)	

Page 1 of 1 9

## STATE OF MAINE DEPARTMENT OF TRANSPORTATION NOTICE TO CONTRACTORS

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for Electrical Signal & Lighting Maintenance Services STATEWIDE" will be received from contractors at the Reception Desk, Maine DOT Building, Child Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on <u>December 15, 2010</u>, and at that time and place publicly opened and read. Bids will be accepted from all bidders. All responsive bidders must have completed, or successfully complete, a Traffic Signals/Lighting or project specific prequalification to be considered for the award of this contract.

Location: Statewide

Description and Outline of Work: Perform Electrical Services/Maintenance and parts for Traffic Signals, Overhead Flashing Beacons, Overhead Lighting and all appurtenances attached to those devices.

Contracts will be awarded to multiple responsive responsible Bidders.

For general information regarding Bidding and Contracting procedures, contact Scott Bickford at (207)624-3410. Our webpage at <a href="http://www.maine.gov/mdot/contractor-consultant-information/contractor-cons.php">http://www.maine.gov/mdot/contractor-consultant-information/contractor-cons.php</a> contains a copy of the schedule of items, Plan Holders List, written portions of bid amendments (not drawings), and bid results. For Project-specific information fax all questions to Gail MacMunn at (207)624-3431. Questions received after 12:00 noon of Friday prior to bid date will not be answered. Bidders shall not contact any other Departmental staff for clarification of Contract provisions, and the Department will not be responsible for any interpretations so obtained. Hearing impaired persons may call the Telecommunication Device for the Deaf at (207) 888-516-9364.

### There will be no Bid Bond, Performance or Payment Bond required.

Bid proposal packages are available at <a href="http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php">http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php</a> and may also be obtained at no cost at the MaineDOT building in Augusta, Maine or by telephone at 207-624-3536 between the hours of 8:00 A.M. and 4:30 P.M.

Each bid must be made on State forms provided by the Department.

This Contract is subject to all applicable State Laws.

All work shall be governed by "State of Maine, Department of Transportation, Standard Specifications, Revision of December 2002", price \$10 [\$13 by mail], and Standard Details, Revision of December 2002, price \$20 [\$25 by mail] Standard Detail updates can be found at <a href="http://www.state.me.us/mdot/project/design/homepg.htm">http://www.state.me.us/mdot/project/design/homepg.htm</a>

The right is hereby reserved to the MDOT to reject any or all Bids.

Augusta, Maine November 24, 2010

Rhonda Fletcher
Assistant Director
Maintenance and Operations

# MAINE DEPARTMENT OF TRANSPORTATION CONTRACT AGREEMENT TRANSPORTATION RELATED MAINTENANCE SERVICES

This CONTRACT is made on the date last signed below, by and between the State of Maine			
ting through and by its Department of Transportation ("Department" or "MaineDOT"), an			
ncy of state government with its principal administrative offices located at Child Street			
Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333			
0016, and ("Contractor"			
a corporation or other legal entity organized under the laws of the State of, with			
its principal place of business located at, with a mailing address of			
and a telephone number of			
The Vendor Customer Number of the Contractor is			
The following attachments are hereby incorporated into this Contract by reference:			
Appendix A – Special Provision - Specifications of Work to be Performed			
Appendix B – Special Provisions for State Funded Transportation Related			
Maintenance Services			

The Department and the Contractor, in consideration of the mutual promises set forth in this Contract (hereinafter "Contract") hereby agree as follows:

### A. The Work.

The Contractor agrees to complete all work described in Appendix A – Special Provision - Specifications of Work to be Performed, and under the terms of the Contract <u>Electrical Signal & Lighting Maintenance Services</u>, <u>Statewide</u>, Maine.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, facilities, permanent materials and temporary materials and services required to perform the Work including quality control, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

#### B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before the dates given in Appendix A. This contract commences on January 1, 2011 or when executed, whichever is latest and expires on **December 31, 2013**.

#### C. Price.

The original Contract amount is <u>Five Hundred Thousand Dollars and no cents</u> \$500,000.00. The Contract amount will be determined by the actual work authorized and performed and the prices included in Appendix A. The Maine DOT does not guarantee the use of any or all of the Contract amount.

#### D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the State of Maine, Department of Transportation, Standard Specifications, Revision of December 2002, Sections 101, 102, 103, 104, 105, 110, 111, 500, 600 and 700, Special Provisions, Contract Agreement and Appendices. It is agreed and understood that this Contract will be governed by the documents listed above.

### E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

- 1. All of the statements, representations, covenants, and certifications required or set forth in the Contract are still complete and accurate as of the date of this contract.
- 2. The Contractor knows of no legal, contractual, or financial impediment that prevents Contractor from entering into this Contract.
- 3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

## F. Agreement.

The undersigned, having carefully examined the site of work, scope of work, State of Maine, Department of Transportation, Standard Specifications, Revision of December 2002 Sections, Special Provisions, Contract Agreement and Appendices contained herein, hereby agrees to supply all the services, materials, tools, equipment and labor to complete the whole of the work in strict accordance with the terms and conditions of this Contract at the prices agreed to in Appendix A.

The Contractor agrees to perform the work required at the prices specified above in accordance with the terms of this Contract and to provide the appropriate insurance.

### Contractor also agrees:

First: Contractor agrees to perform extra work, not described in Appendix A, which may be ordered by the Department, and to accept as full compensation the amount determined upon basis as provided in the contract documents.

Second: Contractor understands that Work may commence two weeks after Contract Execution, unless provided elsewhere in this contract and that Work must be completed within the time limits given in this Contract.

Third: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Fourth: The Contractor hereby certifies, to the best of its knowledge and belief that: the Contractor has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby executes two duplicate originals of this Contract and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

	CONTRACTOR
Date Representative	(Signature of Legally Authorized
	of the Contractor)
	(Name and Title Printed)

## G. Award.

Your offer is hereby accepted.
documents referenced herein.

This award consummates the Contract, and the MAINE DEPARTMENT OF TRANSPORTATION

By:

Rhonda Fletcher
Assistant Director

Maintenance & Operations

# MAINE DEPARTMENT OF TRANSPORTATION CONTRACT AGREEMENT TRANSPORTATION RELATED MAINTENANCE SERVICES

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0016, and ("Contractor"			
a corporation or other legal entity organized under the laws of the State of, with			
its principal place of business located at,			
with a mailing address of			
and a telephone number of			
The Vendor Customer Number of the Contractor is			
The following attachments are hereby incorporated into this Contract by reference:			
Appendix A – Special Provision - Specifications of Work to be Performed			
Appendix B – Special Provisions for State Funded Transportation Related			
Maintenance Services			

The Department and the Contractor, in consideration of the mutual promises set forth in this Contract (hereinafter "Contract") hereby agree as follows:

### A. The Work.

The Contractor agrees to complete all work described in Appendix A – Special Provision - Specifications of Work to be Performed, and under the terms of the Contract <u>Electrical Signal & Lighting Maintenance Services</u>, <u>Statewide</u>, Maine.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, facilities, permanent materials and temporary materials and services required to perform the Work including quality control, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

#### B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before the dates given in Appendix A. This contract commences on January 1, 2011 or when executed, whichever is latest and expires on <u>December 31, 2013</u>.

### C. Price.

The original Contract amount is <u>Five Hundred Thousand Dollars and no cents</u> \$500,000.00. The Contract amount will be determined by the actual work authorized and performed and the prices included in Appendix A. The Maine DOT does not guarantee the use of any or all of the Contract amount.

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IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby executes two duplicate originals of this Contract and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

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MAINE DEPARTMENT OF TRANSPORTATION

By:

Rhonda Fletcher
Assistant Director

Maintenance & Operations

# MAINE DEPARTMENT OF TRANSPORTATION CONTRACT AGREEMENT TRANSPORTATION RELATED MAINTENANCE SERVICES

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a corporation or other legal entity organized under the laws of the State of, with
its principal place of business located at
with a mailing address of
and a telephone number of
The Vendor Customer Number of the Contractor is
The following attachments are hereby incorporated into this Contract by reference:
Appendix A - Special Provision   Specifications of Work to be Performed
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The Department and the Contractor, in consideration of the mutual promises set forth in this Contract (hereinafter 'Contract') hereby agree as follows:

## A. The Work.

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The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, facilities, permanent materials and temporary materials and services required to perform the Work including quality control, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

#### B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before the dates given in Appendix A. This contract expires on **December 31, 2013**.

### C. Price.

The original Contract amount is <u>Five Hundred Thousand Dollars and no cents</u> \$500,000.00. The Contract amount will be determined by the actual work authorized and performed and the prices included in Appendix A. The Maine DOT does not guarantee the use of any or all of the Contract amount.

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IN WITNESS WHEREOF, the Contractor for itself, its successors and assigns, hereby executes two duplicate originals of this Contract and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date Representative

(Signature of Legally Authorized

of the Contractor)

(Name and Title Printed)

## G. Award.

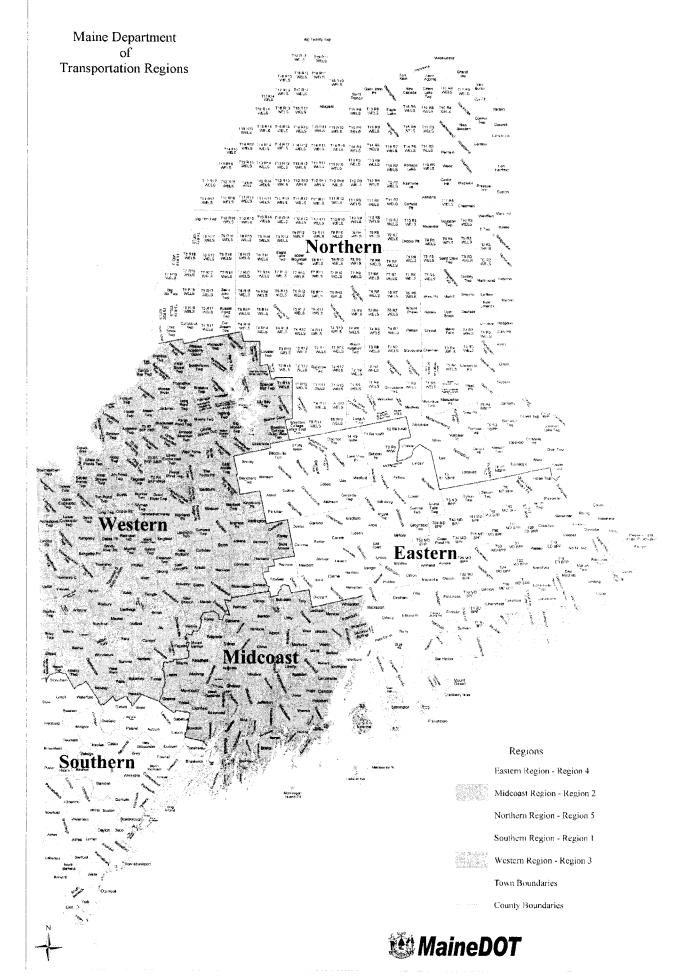
Your offer is hereby accepted. documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

Rhonda Fletcher
Assistant Director
Maintenance & Operations



## APPENDIX A

## SPECIAL PROVISION

## Specifications of Work to Be Performed

<u>For</u>

## ELECTRICAL SIGNAL & LIGHTING MAINTENANCE SERVICES STATEWIDE

Contractor			

## SCHEDULE OF ITEMS

All prices for parts "installed" price

Item	Unit	<u>Price</u>
12 inch Bi-model Yellow/Green Arrow		
LED	Each	
12 inch Red Arrow LED	Each	
12" inch Yellow Arrow LED	Each	
12" inch Green Arrow LED	Each	
12" inch Red Ball LED	Each	
12" inch Yellow Ball LED	Each	
12" inch Green Ball LED	Each	
8" inch Red Ball LED	Each	
8" inch Yellow Ball LED	Each	
8" inch Green Ball LED	Each	
TS-2 Type 1 Controller	Each	
TS-2 Type 2 Controller	Each	
6 foot by 40 foot quadrapole inductance loop (with IMSA Spec 51-5 loop wire with tube jacket)	Each	
6 foot by 6 foot inductance loop (with IMSA Spec 51-5 loop wire with tube jacket)  Kistler "Lineas" sensors 2 meter lead cable	Each	
100 meter Including grout to install and installation	Each	
Microwave detector Type TC20	Each	

Microwave detector Type TC26	Each
	Linear
Directional Boring	Foot
Microwave detector presence Type	Each
Signal cable direct earth burial (12 AWG)	Linear
4 conductor	Foot
Signal cable direct earth burial (12 AWG)	Linear
7 conductor	Foot
Signal cable direct earth burial (12 AWG)	Linear
12 conductor	Foot
Self supporting aerial cable (12 AWG) 5	Linear
conductor	Foot
Self supporting aerial cable (12 AWG) 7	Linear
conductor	Foot
Self supporting aerial cable (12 AWG) 12	Linear
conductor	Foot
Communication cable (19AWG 12 pair)	Linear
IMSA Spec 59-2 and 60-2	Foot
Pre-wired Conduit #10 wire	Linear
(3 conductor)	Foot
Pre-wired Conduit #8 wire	Linear
(3 conductor)	Foot
Pre-wired Conduit #6 wire	Linear
(3 conductor)	Foot
Pre-wired Conduit #3 wire	Linear
(3 conductor)	Foot
Pre-wired Conduit #2 wire	Linear
(3 conductor)	Foot
Pre-wired Conduit #1 wire	Linear
(3 conductor)	Foot
480 volt 100 amp lighting service on pole	
with lighting contactor and twist lock	
photocell	Each
Controller Cabinet Type M	Each
Controller Cabinet Type P	Each
Controller Cabinet Type F	Each
Controller Cabinet Type M (with back	
panel)	Each
Controller Cabinet Type P (with back	
panel)	Each
Controller Cabinet Type F (with back	
panel)	Each

Malfunction Management Unit	Each
NEMA Conflict Monitor 12 Channel	Each
Dual Indicator Load switches	Each
Loop amplifiers (2 channel) rack mounted	Each
Loop amplifiers (Single channel) shelf mounted	Each
	Linear
Span wire (5/16 inch)	Foot
	Linear
Tether wire (1/4 inch)	Foot
Strand vise (5/16 inch)	Each
250 Watt Metal Halide Bulb	Each
150 Watt Metal Halide Bulb	Each
250 Watt High Pressure Sodium Bulb	
(IES distribution Type 2)	Each
250 Watt High Pressure Sodium Bulb	
(IES distribution Type 3)	Each
150 Watt High Pressure Sodium Bulb	Foot
(IES distribution Type 2) 150 Watt High Pressure Sodium Bulb	Each
(IES distribution Type 3)	Each
• -	
18" Concrete Foundation	Each
24" Concrete Foundation	Each
30" Concrete Foundation	Each
36" Concrete Foundation	Each
Manitoba Safety T-base or approved equal	Each
Frangible Coupling Breakaway	
Transformer Base	Each
Junction Box (see MDOT Standard	
Details)	Each
Light fixture (Mongoose Type) full IES	
cutoff for 150 watt high pressure sodium	Each
Light fixture (Mongoose Type) full IES	
cutoff for 250 watt high pressure sodium	Each
Light fixture (Mongoose Type) full IES cutoff for 150 watt metal Halide	Fach
Light fixture (Mongoose Type) full IES	Each
cutoff for 250 watt Metal Halide	Each
Catoff for 250 water from Hand	Lucii

Light fixture (Cohrobard Type) full IEC	
Light fixture (Cobrahead Type) full IES cutoff for 150 watt high pressure sodium	Each
Light fixture Cobrahead Type) full IES	Lacii
cutoff for 250 watt high pressure sodium	Each
Light fixture (Cobrahead Type) full IES	
cutoff for 150 watt Metal Halide	Each
Light fixture Cobrahead Type) full IES	
cutoff for 250 watt Metal Halide	Each
DVC Calcadrala 40	Linear
PVC Schedule 40	Foot Linear
PVC Schedule 80	Foot
Signal Housing for 12" signal head	Each
Traffic Control for 4 way intersection	T
(Including signs, drums, cones) Traffic Control for 3 way intersection	Lump sum
(Including signs, drums, cones)	Lump sum
Traffic Control for Interstate Shoulder	Lump sum
closure (Including signs, drums, cones)	Lump sum
Traffic Control for Interstate lane closure	
(Including signs, drums, cones)	Lump sum
Pedestal Poles (10 foot)	Each
Pedestrian Heads (18 inch LED)	Each
Pedestrian Heads (18 inch LED	
countdown)	Each
40 foot aluminum light pole	Each
Wood poles with guys	Each
Back plates for 3-section heads	Each
Back plates for 4-section heads	Each
Back plates for 5-section heads	Each
Bracket arms for light poles	Each
Astro-bracket for 5-section head	Each
Astro-bracket for 5-section head	Each
Goosenecks	Each
Pedestrian Push Button	Each
Span wire mount bracket	Each
Tether Clamp Assembly	Each

Flash transfer relay (35 amps)  Mercury relays (30 amps)  Each  Line filters (30 amps)  Each  Solar panel (45 watt) with mounting brackets  Flagger  Hour  12 inch Bi-model Yellow/Green Arrow  LED  Each  12 inch Red Arrow LED  Travel Time to Region 1 (time to travel to and from any site in the region, includes time for an electrician to travel both ways and the cost of bucket truck, including fuel)  Each  Calendar  Day
Line filters (30 amps)  Solar panel (45 watt) with mounting brackets  Each  Flagger  Hour  12 inch Bi-model Yellow/Green Arrow  LED  Each  12 inch Red Arrow LED  Travel Time to Region 1 (time to travel to and from any site in the region, includes time for an electrician to travel both ways and the cost of bucket  Calendar
Solar panel (45 watt) with mounting brackets  Flagger  Hour  12 inch Bi-model Yellow/Green Arrow LED  Each  12 inch Red Arrow LED  Each  Travel Time to Region 1 (time to travel to and from any site in the region, includes time for an electrician to travel both ways and the cost of bucket  Calendar
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Flagger Hour  12 inch Bi-model Yellow/Green Arrow LED Each  12 inch Red Arrow LED Each  Travel Time to Region 1 (time to travel to and from any site in the region, includes time for an electrician to travel both ways and the cost of bucket  Calendar
12 inch Bi-model Yellow/Green Arrow LED Each  12 inch Red Arrow LED Each  Travel Time to Region 1 (time to travel to and from any site in the region, includes time for an electrician to travel both ways and the cost of bucket  Calendar
LED Each  12 inch Red Arrow LED Each  Travel Time to Region 1 (time to travel to and from any site in the region, includes time for an electrician to travel both ways and the cost of bucket Calendar
12 inch Red Arrow LED  Travel Time to Region 1 (time to travel to and from any site in the region, includes time for an electrician to travel both ways and the cost of bucket  Each  Calendar
Travel Time to Region 1 (time to travel to and from any site in the region, includes time for an electrician to travel both ways and the cost of bucket  Calendar
(time to travel to and from any site in the region, includes time for an electrician to travel both ways and the cost of bucket  Calendar
region, includes time for an electrician to travel both ways and the cost of bucket Calendar
travel both ways and the cost of bucket Calendar
truck, including fuel) Day
Travel Time to Region 2
(time to travel to and from any site in the
region, includes time for an electrician to
travel both ways and the cost of bucket Calendar
truck, including fuel) Day
Travel Time to Region 3
(time to travel to and from any site in the
region, includes time for an electrician to
travel both ways and the cost of bucket Calendar
truck, including fuel) Day
Travel Time to Region 4
(time to travel to and from any site in the
region, includes time for an electrician to
travel both ways and the cost of bucket Calendar
truck, including fuel) Day
Travel Time to Region 5
(time to travel to and from any site in the
region, includes time for an electrician to
travel both ways and the cost of bucket Calendar
truck, including fuel) Day

Regions 1 thru 5 are as shown on the attached map, for a list of towns in a region, please contact Stephen Landry at <u>Stephen.landry@maine.gov</u> and one will be sent to you electronically.

## Contract Administrator The contract administrator for this contract will be:

Name: <u>Steve Landry</u>

Title: Assistant State Traffic Engineer
Address: MDOT Maintenance & Operations

16 State House Station Augusta, Maine 04333-0016

(207) 624-3632

## **Contractor Requirements**

All work must be performed by or under a Master Electrician. Work will be on an as needed basis. Provider shall be on-call 24 hours/day and have the ability to respond and underway to the job site within an hour. All responsive bidders must have completed, or successfully complete, a Traffic Signals/Lighting or project specific prequalification to be considered for the award of this contract.

## Scope of Work

The Maine Department of Transportation proposes to procure general electrical services and parts for repairs to Traffic Signals, Overhead Flashing Beacons, Overhead Lighting, Weigh-in –Motion, ITS and all appurtenances attached to these devices and related Electrical Services.

All parts shall meet National Electrical Code, ITE, and IES Standards. All work and parts needed to complete this contract shall be governed by and be in conformity with the Standard Specifications (December 2002 edition) and the Standard Details (December 2002 edition). Traffic Control shall be in conformance with the most recent edition of the Manual on Uniform Traffic Control Devices. All work will be completed as required by Maine DOT in accordance with Specifications, Plans and the MDOT's Best Management Practices for Erosion and Sedimentation Control Manual (MDOT BMP Manual).

Work covered by this Contract consists of providing all labor and furnishing all equipment, supplies and other applicable tools to perform the services stated above.

The Contractor is responsible to respond in a timely manner to requests to provide services. Should the response not meet the Department's requirements, the Department will request services from another Contractor.

The Contractor shall provide traffic control if MaineDOT has not provided a work zone setup at the job site. The Contractor shall provide erosion control.

## **Additional Requirements for LED's**

1.) All LED fixtures shall be Energy Star Qualified. LED fixtures shall have the capability to be installed in the housings produced by, but not limited to, the following manufacturers:

American Signal Co.; Eagle Signal Controls; Econolite Control Prod. Inc.; General Traffic Equipment Corp.; McCain Traffic Supply; Peek Traffic; Peek/Sarasota Traffic Inc.; Traffic Parts; LFE; Pelco; Crouse Hinds

### Warranty for LED's

Manufacturer will provide the following warranty provisions:

- (1) Replacement or repair of an LED signal module that fails to function as intended due to workmanship or material defects within the first 60 months from the date of delivery.
- (2) Replacement or repair of LED signal modules that exhibit luminous intensity of less than the minimum values specified in Table 1 of ITE specification VTCSH-Part-2 July 1998, within the first 36 months from the date of delivery.

### Mobilization

The contractor shall be paid for mobilization by the calendar day for each day they provide service to The MaineDOT. All other equipment and personnel will not be measured for payment for mobilization and mobilization will be considered to be incidental to related contract items.

Basis of Award and Assignment Letters

The Department will award a contract to more than one successful bidder. Contracts will be awarded to the firm or firms that have acceptable bid prices, have the ability to respond in a timely manner and are experienced/qualified and meet "Contractor requirements". A responsible Bid will be determined by dividing the bid price for each item by a price MDOT has determined for each item and taking a sum of the quotients. Unbalanced line item Bids will be just cause for rejecting a proposal. The Department will determine what justifies unbalanced Bids.

The dollar amount of this Contract is in no way a guarantee that the Department will Assign Work for any or all of the total amount.

The Department and each responsive bidder will enter into a Contract that will obligate each Contractor to perform work at prices listed by the bidder in the Schedule of Items depending upon the needs of the Department and the ability of the Contractor according to the following terms. Work will be assigned under these contracts according to the following process: The Department will estimate the Contractor with the lowest cost for

the particular Work (the "Assignment"), the ability to perform the Work, the typical response time and the proximity to the Work and that Contractor will have first option to perform work. If this Contractor is unable to accept the Assignment, respond in a timely manner or to complete the Assignment in the allotted time, then the Contract Administrator will contact the firm that is estimated to have the next lowest assignment cost to see if that Contractor will accept the Assignment and subsequent Contractors in ascending order of the amount of their bids, until a Contractor accepts the Assignment. The Department will estimate for a particular Assignment based on the individual unit bid prices for the total quantity of estimated work in that Assignment and the travel cost. The Department and the Contractor shall mutually agree to quantities and schedules prior to the Contractor beginning the Assignment.

If, a Contractor fails to provide labor or equipment specified in the Contract, fails to perform the Assignment with sufficient labor, Equipment, or Materials to assure the timely Completion of the Assignment, fails to perform Work when as authorized, performs Work in an unsatisfactory manner, or fails to meet other contractual requirements, the Department reserves the right to immediately go directly to the second and subsequent low bid Contractor, complete the Work with its own forces or use such other methods as in the opinion of the Department are required for to complete the Work. The Department may terminate the Contract by written Notice of Termination.

Not all electrical work in will be done under these contracts. Work may also be done by the Department and other means not associated with this solicitation.

<u>Allowable Work Times</u> The Contractor shall perform work as agreed. The Contractor is solely responsible for the planning and execution of Work in order to complete the Work within the agreed time.

<u>Project Specific Emergency Planning</u> The Contractor shall ensure that essential police, fire, rescue, and ambulance services have reasonable and timely access to and through the Project Limits. The Contractor shall, as appropriate, contact all emergency service providers in the area, discuss potential impacts on emergency operations (including water supply for fire suppression), and minimize any negative impacts.

## SPECIAL PROVISION SECTION 101 CONTRACT INTERPRETATION

<u>101.2 Definitions Apparent Successful Bidder</u> Delete the section in its entirety and replace with the following:

"All Bidders with the responsive responsible Bids as determined by the Department. The Department may not execute the Contract with the Apparent Successful Bidders if a) the Apparent Successful Bidder fails to comply with all applicable pre-Award conditions or other pre-execution requirements of the Contract or b) if the Department chooses not to Award a Contract."

<u>101.2 Definitions Successful Bidder</u> Delete the section in its entirety and replace with the following:

"All responsive, responsible bidders to whom the Department intends to award the Contract. This status is evidenced by a "Notice of Intent to Award" Letter sent to the Successful Bidders."

## SPECIAL PROVISION SECTION 102 BIDDING

102.7.1 Location and Time Add the following sentence "As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments form, the completed Schedule of Items, 2 copies of the completed Contract Agreement, Transportation Related Maintenance Services form, and any other Certifications or Bid Requirements listed in the Bid Book."

## SPECIAL PROVISION SECTION 103 AWARD AND CONTRACTING

A Bid Guaranty is not required.

Performance and Payment Bonds are not required.

<u>103.4 Notice of Award</u> Delete the section in its entirety and replace with the following:

The Department has 30 Days following Bid Opening to Deliver a written Notice of Intent to Award and request insurance and other information from the Apparent Successful Bidders. All items must be delivered to the Department's Bureau of Maintenance and Operations. Once these pre-execution conditions are met, the Department will execute the Contract. The Notice of Intent to Award will set forth and/or reference the conditions

that the Bidder must fulfill before Contract Execution. If the Department and an Apparent Successful Bidder agree, an extension of the Bid and Bid prices may occur and the Bid remains viable.

<u>103.5.1 Performance and Payment Bonds</u> Delete the entire section 103.5.1.

<u>103.5.4 Execution of Contract By Bidder</u> Delete the section in its entirety and replace with the following:

"The properly completed and signed Contract form provided with the Bid constitutes the Bidder's offer. Once the Department has received the insurance, and any other pre-award items required, the Department will sign the Contract Agreement, Transportation Related Maintenance Services form and execute the Contract. The point of Contract execution is when the Department signs the contract.

## SPECIAL PROVISION SECTION 104 GENERAL RIGHTS AND RESPONSIBILITIES

104.3.8A. Federal Wage Rates and Labor Laws Delete the entire section 104.3.8A.

104.3.8B State Wage Rates and Labor Laws Delete the entire section 104.3.8B.

104.4.3 Progress Meetings Delete the entire section 104.4.3.

## SPECIAL PROVISION SECTION 105 GENERAL SCOPE OF WORK

<u>Scope of Section</u> This project is not federally funded. The federal requirements set forth in Appendix A of the Department of Transportation, Standard Specifications, do not apply.

# SPECIAL PROVISION <u>SECTION 502</u> STRUCTURAL CONCRETE

(QC/QA Acceptance Methods)

CLASS OF	ITEM	DESCRIPTION	P	METHOD
CONCRETE	NUMBER			
LP	626.31	18" Foundation	i	С
LP	626.32	24" Foundation	-	C
LP	626.33	30" Foundation	i	С
LP	626.331	36" Foundation	ı	C

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# SPECIAL PROVISION <u>SECTION 502</u> STRUCTURAL CONCRETE (Quality Level Analysis)

<u>502.01 Description</u> In second sentence, replace "...METHOD B Small Quantity Product Verification..." with "...METHOD B Statistical Acceptance..."

502.05 Composition and Proportioning Delete Table 1 and replace with the following;

Concrete	Compressive Strength		Perme	ability	Entra	ained	Notes
CLASS					Air		
	(PSI)				(%)		
	LSL	USL	LSL	USL	LSL	USL	
S	2,900	N/A	N/A	N/A	6.0	8.5	1, 5
A	4,350			2,400	6.0	8.5	1,2,5,6
P					5 ½	7 ½	1,2,3,4,5
LP	5,075			2,000	6.0	8.5	1,2,5,6
Fill	2,900	N/A	N/A	N/A	N/A	N/A	6

TABLE 1- Methods A, B, and C

## 502.503 Delete and replace with the following;

"502.0503 Quality Assurance METHOD B The Department will determine the acceptability of the concrete through a quality assurance program.

The Department will take Quality Assurance samples a minimum of once per sublot on a statistically random basis. Quality Assurance tests will include compressive strength, air content and permeability.

Concrete sampling for quality assurance tests will be taken at the discharge point, with pumped concrete sampling taken at the discharge end of the pump line.

Lot Size A lot size shall consist of the total quantity represented by each class of concrete in the Contract, except in the case when the same class of concrete is paid for under both lump sum items and unit price items in the Contract; in this case, the lump sum item quantities shall comprise 1 lot and the unit price item quantities shall comprise a separate lot. A lot shall consist of a minimum of 3 and a maximum of 10 sublots. If a lot is comprised of more than 10 sublots, sized in accordance with Table #3, then this quantity shall be divided equally into 2, or more, lots such that there is a minimum of 3 and a maximum of 10 sublots per lot. If there is insufficient quantity in a lot to meet the recommended minimum sublot size, then the lot shall be divided into 3 equal sublots.

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<u>Sublot Size, General</u> The size of each sublot shall be determined in accordance with Table #3. The Resident may vary sublot sizes based on placement sizes and sequence.

Sublot Size, Unit Price Items Sublot sizes will initially be determined from estimated quantities. When the actual final quantity of concrete is determined: If there is less than one-half the estimated sublot quantity in the remaining quantity, then this quantity shall be combined with the previous sublot, and no further Acceptance testing will be performed; if there is more than one-half the estimated sublot quantity in the remaining quantity, then this quantity shall constitute the last sublot and shall be represented by Acceptance test results. If it becomes apparent part way through a lot that, due to an underrun in quantity, there will be an insufficient quantity of concrete to comprise three sublots, then the Resident may adjust the sizes of the remaining sublots and select new sample locations based on the revised estimated quantity of concrete remaining in the lot.

<u>Sublot Size, Lump Sum Items</u> Each lot shall be divided into sublots of equal size, based on the estimated quantity of concrete.

TABLE 3

Quantity m <sup>3</sup> [cy]	Recommended Sublot Size m <sup>3</sup> [cy]
0-400 [0-500]	40 [50]
401-800 [501-1000]	60 [75]
801-1600 [1001-2000]	80 [100]
1601 [2001]or greater	200 [250]

Determination of the concrete cover over reinforcing steel for structural concrete shall be made prior to concrete being placed in the forms. Bar supports, chairs, slab bolsters, and side form spacers shall meet the requirements of Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice, Chapter 3 Section 2.5 Class 1, Section 2.6 Class 1A, or Section 4. All supports shall meet the requirements for type and spacing as stated in the CRSI Manual of Standard Practice, Chapter 3. Concrete will not be placed until the placing of the reinforcing steel and supports have been approved by the Resident. If the Contractor fails to secure Department approval prior to placement, the Contractor's failure shall be cause for removal and replacement at the Contractor's expense. The Contractor shall notify the Resident, at least 48 hours prior to the placement, when the reinforcing steel will be ready for checking. Sufficient time must be allowed for the checking process and any needed repairs.

Evaluation of materials will be made using the specification limits in Table 1.

Compressive strength tests will be completed by the Department in accordance with AASHTO-T22 at  $\geq$  28 days, except that no slump will be taken. The average of two concrete cylinders per sublot will constitute a test result and this average will be used to determine the compressive strength for pay adjustment computations.

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Testing for Entrained Air in concrete, at the rate of one test per sublot, shall be in accordance with AASHTO T152.

Rapid Chloride Permeability test specimens will be completed by the Resident in accordance with AASHTO T-277 at an age  $\geq$  56 days. Two 100 mm x 200 mm [4 in x 8 in] cylinders will be taken per sublot placed.

Surface Tolerance, Alignment and Trueness, Plumb and Batter, and Finish will be measured as described in Section 502.0502.

<u>Rejection by Resident</u> For an individual sublot with a calculated pay factor of less than 0.80, the Department will, at its sole discretion:

- <u>A.</u> Require the Contractor to remove and replace the entire affected placement with concrete meeting the Contract requirements at no additional expense to the Department, or
- <u>B.</u> Accept the material, at a reduced payment as determined by the Department. (See also Section 502.191)

For a lot in progress, the Contractor shall discontinue operations whenever one or more of the following occurs:

- <u>A.</u> The pay factor for any property drops below 1.00 and the Contractor is taking no corrective action
- B. The pay factor for any property is less than 0.90
- C. The Contractor fails to follow the QC Plan"
- 502.18 Method of Measurement Under Section E. make the following change from "....Method A, and under Section 502.19..." to "...Method A, Section 502.0503- Quality Assurance Method B, and under Section 502.19..."
- <u>502.19 Basis of Payment</u> Modify the first sentence of the seventh paragraph from "...accepted under Method A." to "...accepted under Method A and Method B."
- <u>502.191 Pay Adjustment for Compressive Strength</u> Add the following as the second sentence to the first paragraph; "Pay factors (PF) for pay adjustments for compressive strength will be determined using the Quality Level Analysis as specified in Section 106."
- 502.192 Pay Adjustment for Chloride Permeability Delete and replace with the following;

"Pay factors (PF) for pay adjustments for Chloride Permeability will be determined using the Quality Level Analysis as specified in Section 106.

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Values greater than 4000 coulombs shall be subject to rejection and replacement at no additional cost to the Department."

502.193 Pay Adjustment for Air Content Delete and replace with the following;

"Pay factors (PF) for pay adjustments for air content will be determined using the Quality Level Analysis as specified in Section 106."

Add the following Section;

"502.195 Pay Adjustments for Compressive Strength, Chloride Permeability and Air Content The Composite Pay Factor (CPF) for each lot of concrete shall be computed as follows:

```
CPF = [(Compressive Strength PF-1)(0.20)] + [(Air Content PF-1)(0.40)] + [(Chloride Permeability PF-1)(0.40)]
```

The pay adjustment for each lot of concrete shall be computed as follows:

Lot Pay Adjustment =  $P \times CPF \times Lot Size$ 

There will be no positive pay adjustments for Method B Concrete."

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# SPECIAL PROVISION <u>SECTION 626</u> Foundations

#### 626.034 Concrete Foundations

Pre-cast Foundations shall not be permitted for foundations greater than 18".

If the Contractor uses precast foundations, the Contractor shall unconditionally warrant and guaranty for two years that the foundations won't tip. If the Department discovers any tipping during the two year warranty period, the Contractor agrees to perform all remedial work at no additional cost or liability to the Department.

## SPECIAL PROVISION Section 634 and 643 Highway Lighting and Traffic Signals

<u>Section 634.09</u> testing of highway lighting, the first sentence shall be amended as follows:

Before acceptance of the work, the contractor shall cause the following tests to be made on all lighting circuits, by a licensed electrician.

The tests do not need to be performed in the presence of the Resident, but the test results shall be recorded on the Highway Lighting Quality Control Check List and submitted to the Resident by the Contractor for acceptance. The form shall be signed by the licensed electrician certifying that the highway lighting meets the requirements of section 634.09.

<u>Subsection 634.14</u>, field testing of Traffic Signals, the first sentence shall be amended as follows:

Before acceptance of the work the contractor shall cause the following tests to be made on all traffic signal equipment and circuits, by a licensed electrician.

The tests do not need to be performed in the presence of the Resident, but the test results shall be recorded on the Traffic Signal Quality Control Check List and submitted to the Resident by the Contractor for acceptance. The form shall be signed by the licensed electrician certifying that the signal equipment and circuits meet the requirements of section 634.14.

#### **Highway Lighting Quality Control Checklist**

#### **Subsection 634.09 Field Testing** Project Pin # Location (if multiple services, please be specific)-**Grounding Electrode Resistance at service Number of Circuits** Hand-Off-Auto Switch? Circuit #1 Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) Current draw- (during normal operation) Leg #1 Leg #2 Operating Voltage at last pole Circuit #2 Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) Current draw- (during normal operation) Leg #1 Leg #2 Operating Voltage at last pole \_\_\_\_\_, certify that this work was done in accordance with subsection 643.14 and current NEC guidelines, and (YEAR) when tested, was functioning as intended. Electrician's Signature Electrician's License #

#### **Highway Lighting Quality Control Checklist**

#### **Subsection 634.09 Field Testing** Project Pin # Location (if multiple services, please be specific)-**Grounding Electrode Resistance at service Number of Circuits Hand-Off-Auto Switch?** Circuit #3 Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) **Current draw**- (during normal operation) Leg #1 Leg #2 Operating Voltage at last pole Circuit #4 Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) **Current draw**- (during normal operation) Leg #1 Leg #2 Operating Voltage at last pole \_\_\_\_\_\_, certify that this work was done in accordance with subsection 643.14 and current NEC \_\_\_\_\_ \_\_\_\_ guidelines, and (YEAR) when tested, was functioning as intended. **Electrician's Signature**

Electrician's License #

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#### **Traffic Signal Quality Control Checklist**

Subsection 643.1	4 Field Testing			
Project Pin#				
Grounding Electrode	e Resistance at service			
ID tags on loop amp	s / detector cards?			
Location				
Street Approach				
Loop #	Resistance			
Phase #	Meg to ground			
L,C, or R Lane	Amount of bondo covering loop			
Pulse or Presence				
Street Approach				
Loop #	Resistance			
Phase #	Meg to ground			
L,C, or R Lane	Amount of bondo covering loop			
Pulse or Presence	Pulse or Presence			
Street Approach				
Loop #	Resistance			
Phase #	Meg to ground			
L,C, or R Lane	Amount of bondo covering loop			
Pulse or Presence				
l,	, certify that this work was done in accordance			
with subsection 643	.14 and current NEC guidelines, and			
when tested, was functioning as intended.				
Electrician's Signatu	ure			
Flectricain's License #				

# SPECIAL PROVISION <u>SECTION 643</u> TRAFFIC SIGNALS

<u>Under 643.023 Design and Fabrication</u>, add the following to the end of the first paragraph:

Cantilevered signal support structures with mast arms shall be classified as Fatigue Category III with Fatigue Importance Factors ( $I_f$ ) of 0.59 for Natural Wind Gusts and 0.68 for Truck-Induced Gusts unless specified otherwise on the contract plans.

If Category II is specified on the contract plans, the Fatigue Importance Factors ( $I_f$ ) shall be 0.80 for Natural Wind Gusts and 0.84 for Truck-Induced Gusts. If Category I is specified on the contract plans, the Fatigue Importance Factors ( $I_f$ ) shall be 1.0 for Natural Wind Gusts and 1.0 for Truck-Induced Gusts.

Designing for fatigue induced by Galloping or Vortex Shedding is not required for traffic signal structures with mast or bracket arms.

<u>643.09 Service Connection</u>, add the following after the last paragraph:

"All meter mounting devices shall be installed so that the meters will be upright (plumb). They shall be installed with the top of the meter not less than 1.2 M [48 in] nor more than 1.5 M [60 in] from the floor to the final grade. Exceptions to this height requirement will be made where special permission has been given to install group or modular metering, overall metering enclosures, or pole-mounted meters. Level grade shall be maintained for a minimum of 1.0 M [3 ft] in front of the meter enclosure to provide a safe working space. In order to meet this requirement on uneven terrain, as an option, the Contractor may install a pressure-treated wood platform.

For any non-residential (industrial or commercial) self-contained meter socket the bypass requirements are single phase, 100 or 150 amp, single handle lever operated.

The Contractor shall meet all requirements and regulations of Utility Companies when installing equipment on their poles and for the service connection. It is the responsibility of the Contractor to contact the appropriate Utility to determine their specific requirements."

# SPECIAL PROVISION <u>SECTION 645</u> HIGHWAY SIGNING

Under <u>645.023 Support Structures</u>, add the following to the first paragraph just prior to the last sentence:

Minimum fatigue design default values for cantilever & butterfly sign support structures shall be classified as Fatigue Category I with Fatigue Importance Factors ( $I_f$ ) of 1.0 for Galloping, 1.0 for Natural Wind Gusts and 1.0 for Truck-Induced Gusts. Bridge type sign support structures supporting variable message signs (VMS) shall also use this fatigue criteria in their design.

Minimum fatigue design default values for bridge type structures, without VMS, shall be classified as Fatigue Category II with Importance Factors (I<sub>f</sub>) of 0.65 for Galloping, 0.75 for Natural Wind Gusts and 0.89 for Truck-Induced Gusts.

Under <u>645 Support Structures</u>, <u>b. Bridge</u>, <u>Cantilever</u>, <u>and Butterfly Type</u> <u>Sign Supports</u>, modify the 1<sup>st</sup> sentence in paragraph 2 to read:

"Signs shall be placed on the support structure such that the bottom edges are aligned (unless written consent from the Fabrication Engineer is obtained), while accommodating the minimum height requirement - see Section 645.06.

Modify the  $\mathbf{4}^{th}$  sentence of paragraph 2 to read:

"This additional theoretical sign load shall be computed by: For single signs increasing the sign widths an additional 25% without changing the horizontal midpoint of the sign; For multiple signs the sign widths shall be increased 25% toward the outside sign edges. The height shall be increased 25% without changing the bottom edge elevation of the signs."

Under <u>645.06 Installation of Type I Signs</u>, <u>b. Sign Panels</u>, modify the 4<sup>th</sup> sentence of the 1st paragraph to read:

"Sign panels on overhead structures shall provide a minimum vertical clearance of 5.5 meters [18 ft] to the highest point of the roadway surface under the sign(s).

# SPECIAL PROVISION SECTION 652 MAINTENANCE OF TRAFFIC Construction Sign Sheeting Material

Super high intensity fluorescent retroreflective sheeting, ASTM D 4956 - Type VII, Type VIII, or Type IX (prismatic), is required for all construction signs.

#### **SPECIAL PROVISIONS**

#### FOR STATE FUNDED TRANSPORTATION RELATED MAINTENANCE SERVICES

- 1. <u>BENEFITS AND DEDUCTIONS</u> If the Contractor is an individual, the Contractor understands and agrees that he/she is an independent contractor for whom no Federal or State Income Tax will be deducted by the Department, and for whom no retirement benefits, survivor benefit insurance, group life insurance, vacation and sick leave, and similar benefits available to State employees will accrue. The Contractor further understands that annual information returns, as required by the Internal Revenue Code or State of Maine Income Tax Law, will be filed by the State Controller with the Internal Revenue Service and the State of Maine Bureau of Revenue Services, copies of which will be furnished to the Contractor for his/her Income Tax records.
- 2. <u>INDEPENDENT CAPACITY</u> In the performance of this Contract, the parties hereto agree that the Contractor, and any agents and employees of the Contractor shall act in the capacity of an independent contractor and not as officers or employees or agents of the State.
- 3. **DEPARTMENT'S REPRESENTATIVE** The Contract Administrator shall be the Department's representative during the period of this Contract. The Contract Administrator has authority to curtail services if necessary to ensure proper execution of the Contract, to take actions needed to assure that the Contractor's Work conforms with the Contract, to decide questions regarding quality and acceptability of Work, to suspend Work, to reject Unacceptable or Unauthorized Work and to refuse to approve Progress and Final Payments until Unacceptable or Unauthorized Work is corrected. The Contract Administrator shall certify to the Department when payments under the Contract are due and the amounts to be paid. He/she shall make decisions on all claims of the Contractor. Unless authorized by the Contract Administrator, other Departmental employees are not authorized to alter or waive the provisions of the Contract or to issue instructions contrary to the Contract.

The Department has the authority to inspect all Materials and every detail of the Work. The Contractor shall provide the Department with safe access to all portions of the Work in Conformity with all applicable OSHA requirements. The Contractor shall furnish the Department with all information and assistance required to make a detailed inspection.

- 4. <u>CONTRACT ADMINISTRATOR</u> All progress reports, correspondence and related submissions from the Contractor shall be submitted to the Department's Project Manager who is designated as the Contract Administrator on behalf of the Department for this Contract, except where specified otherwise in this Contract.
- 5. <u>CHANGES IN THE WORK</u> The Department shall have the right to alter the nature and extent of the Work as provided in the Contract, the Contract Amount being adjusted accordingly. In no event shall Contractor fail or refuse to continue the performance of its obligations under this Contract because of the inability of the parties to agree on an

adjustment or adjustments. Any changes to the Contract that affect scope, compensation, time, quality, or other Contract requirements shall be by written Contract Modification, signed by both parties.

- 6. <u>SUBCONTRACTS</u> The Contractor is responsible for assuring that its subcontractors have sufficient skill and experience to perform the pursuant to the Contract. The Contractor is responsible for subcontractors that it employs and for coordinating and managing its subcontractors. The Contractor agrees to indemnify, defend, and hold harmless MaineDOT from and against all claims and causes of action arising out of any act or omission of Contractor's subcontractors, their agents, representatives, and employees. The Contractor agrees to indemnify the MaineDOT and hold it harmless from any claims asserted by, against or on behalf of Contractor's subcontractors. Included in this release is the Contractor's agreement to waive any claims against MaineDOT to recover losses allegedly suffered by a subcontrator. If Work under this Contract is performed pursuant to subcontracts, the Contractor's obligations are not diminished and the Contractor remains responsible for all Work under the Contract.
- 7. **SUBLETTING, ASSIGNMENT OR TRANSFER** The Contractor shall not sublet, sell, transfer, assign or otherwise dispose of this Contract or any portion thereof, or of its right, title or interest therein, without written request to and written consent of the Contract Administrator. No subcontracts or transfer of the Contract shall in any case release the Contractor of its liability under this Contract.
- 8. **EQUAL EMPLOYMENT OPPORTUNITY** During the performance of this Contract, the Contractor agrees as follows:
  - a. The Contractor shall not discriminate against any employee or applicant for employment relating to this Contract because of race, color, religious creed, sex, national origin, ancestry, age, physical or mental disability, or sexual orientation, unless related to a bona fide occupational qualification. The Contractor shall take affirmative action to ensure that applicants are employed and employees are treated during employment, without regard to their race, color, religion, sex, age, national origin, physical or mental disability, or sexual orientation.

Such action shall include but not be limited to the following: employment, upgrading, demotions, or transfers; recruitment or recruitment advertising; layoffs or terminations; rates of pay or other forms of compensation; and selection for training including apprenticeship. The Contractor agrees to post in conspicuous places available to employees and applicants for employment notices setting forth the provisions of this nondiscrimination clause.

b. The Contractor shall, in all solicitations or advertising for employees placed by or on behalf of the Contractor relating to this Contract, state that all qualified applicants shall receive consideration for employment without regard to race, color, religious creed, sex, national origin, ancestry, age, physical or mental disability, or sexual orientation.

- c. The Contractor shall send to each labor union or representative of the workers with which it has a collective bargaining Contract, or other Contract or understanding, whereby it is furnished with labor for the performance of this Contract a notice to be provided by the contracting agency, advising the said labor union or workers' representative of the Contractor's commitment under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. The Contractor shall inform the contracting Department's Equal Employment Opportunity Coordinator of any discrimination complaints brought to an external regulatory body (Maine Human Rights Commission, EEOC, Office of Civil Rights) against their agency by any individual as well as any lawsuit regarding alleged discriminatory practice.
- e. The Contractor shall comply with all aspects of the Americans with Disabilities Act (ADA) in employment and in the provision of service to include accessibility and reasonable accommodations for employees and clients.
- f. Contractors and subcontractors with contracts in excess of \$50,000 shall also pursue in good faith affirmative action programs.
- g. The Contractor shall cause the foregoing provisions to be inserted in any subcontract for any work covered by this Contract so that such provisions shall be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.
- 9. <u>EMPLOYMENT AND PERSONNEL</u> The Contractor shall not engage any person in the employ of any State Department or Agency in a position that would constitute a violation of 5 MRSA § 18 or 17 MRSA § 3104. The Contractor shall not engage on a full-time, part-time or other basis pursuant to this Contract any personnel who are or have been at any time during the period of this Contract in the employ of the State of Maine, except regularly retired employees, without the written consent. Further, the Contractor shall not engage on this project on a full-time, part-time or other basis during the period of this Contract any retired employee of MaineDOT who has not been retired for at least one year without the written consent. The Contractor shall cause the foregoing provisions to be inserted in any subcontract for any work covered by this Contract so that such provisions shall be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.
- 10. **STATE EMPLOYEES NOT TO BENEFIT** No individual employed by the State of Maine at the time this Contract is executed or any time thereafter shall be admitted to any share or part of this Contract or to any benefit that might arise therefrom directly or indirectly that would constitute a violation of 5 MRSA § 18 or 17 MRSA § 3104. No other individual employed by the State at the time this Contract is executed or at any time thereafter shall be admitted to any share or part of this Contract or to any benefit that might arise therefrom

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directly or indirectly due to his employment by or financial interest in the Contractor or any affiliate of the Contractor, without the written consent of the Department. The Contractor shall cause the foregoing provisions to be inserted in any subcontract for any work covered by this Contract so that such provisions shall be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

- 11. <u>WARRANTY OF NO COLLUSION</u> The Contractor hereby certifies that it did not, directly or indirectly, enter into any agreement, participate in any collusion or otherwise take any action in restraint of competitive bidding in connection with this Contract. For breach or violation of this warranty, MaineDOT shall have the right to annul this Contract without liability. Further, MaineDOT shall have the right to recover the full amount of such fee, commission, gift, or the value of consideration that may have been transferred by the Contractor in violation of this clause.
- 12. **RECORDS; ACCESS** The Contractor and its subcontractors shall maintain all books, documents, payrolls, papers, accounting records and information of any type on any medium ("Project Records") that pertain to this Contract for such period as specified under Maine Uniform Accounting and Auditing Practices for Community Agencies (MAAP) rules. Upon request by MaineDOT, the Contractor and its subcontractors shall make Work Records available for inspection and must provide MaineDOT with copies at all reasonable times without cost or liability to MaineDOT.
- 13. **TERMINATION AND FAILURE TO PERFORM** The Department may terminate this Contract with or without cause upon 7 days written notice. Termination of the contract shall not relieve the Contractor of its contractual responsibilities for the work completed prior to termination (including warranty obligations), nor shall it relieve the Surety of its obligation for claims arising from the Work or the Contract. The Department will pay for all accepted items of Work completed prior to the date of Termination at agreed upon prices.

If for any reason the Contractor is unable to complete the work in an acceptable manner the Department may give written Notice of Default to the Contractor, which will outline the required remedies. Any delay by the Department in providing a written Notice of Default shall in no way constitute a waiver by the Department of any provision of the Contract. If the Department determines the default is not curable, the notice of default shall also include the date of termination. Termination of the Contract or portion thereof shall not relieve the Contractor of its Contractual responsibilities for the Work completed.

In addition the Department may enter into an Agreement with another entity for the Completion of the Work, or use such other methods as in the opinion of the Department are required for the Completion of the intent of the Contract in an acceptable and timely manner.

14. **GOVERNMENTAL REQUIREMENTS** The Contractor warrants and represents that it will comply with all governmental ordinances, laws and regulations including all applicable laws and regulations of OSHA.

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15. **GOVERNING LAW** This Contract shall be governed in all respects by the laws, statutes, and regulations of the United States of America and of the State of Maine. Any legal proceeding against the State regarding this Contract shall be brought in State of Maine administrative or judicial forums. The Contractor consents to personal jurisdiction in the State of Maine.

If, in the performance of this Agreement, there arises a dispute between the Contractor and MaineDOT that cannot be resolved by the parties to the Contract, the parties may agree to submit the dispute to non-binding Alternate Dispute Resolution. All disputes shall be governed by Maine law, and all actions shall be filed in the Kennebec Superior Court, in Augusta Maine.

**STATE HELD HARMLESS** The Contractor agrees to indemnify, defend and hold harmless the State, its officers, agents and employees from any and all claims, costs, expenses, injuries, liabilities, losses and damages of every kind and description (hereinafter in this paragraph referred to as "claims") resulting from or arising out of the performance of this Contract by the Contractor, its employees, agents or subcontractors. Claims to which this indemnification applies include, but are not limited to, the following: (i) claims suffered or incurred by any Contractor, subcontractor, materialman, laborer and any other person, firm, corporation or other legal entity providing work, services, materials, equipment or supplies in connection with the performance of this Contract; (ii) claims arising out of a violation or infringement of any proprietary right, copyright, trademark, right of privacy or other right arising out of publication, translation, development, reproduction, delivery, use, or disposition of any data, information or other matter furnished or used in connection with this Contract; (iii) Claims arising out of a libelous or other unlawful matter used or developed in connection with this Contract; (iv) claims suffered or incurred by any person who may be otherwise injured or damaged in the performance of this Contract; and (v) all legal costs and other expenses of defense against any asserted claims to which this indemnification applies. This indemnification does not extend to a claim that results solely and directly from (i) the Department's negligence or unlawful act, or (ii) action by the Contractor taken in reasonable reliance upon an instruction or direction given by an authorized person acting on behalf of the Department in accordance with this Contract.

The Department's employees and other representatives act solely as representatives of the Department when conducting and exercising authority granted to them under the Contract. Such persons have no liability either personally or as Department employees.

- 17. **NOTICE OF CLAIMS** The Contractor shall give the Contract Administrator immediate notice in writing of any legal action or suit filed related in any way to the Contract or which may affect the performance of duties under the Contract, and prompt notice of any claim made against the Contractor by any subcontractor which may result in litigation related in any way to the Contract or which may affect the performance of duties under the Contract.
- 18. <u>INSURANCE</u> The Contractor shall provide signed, valid, and enforceable certificate(s) of insurance complying with this Section. All insurance must be procured from insurance companies licensed or approved to do business in the State of Maine by the State of Maine, Bureau of Insurance. The Contractor shall pay all premiums and take all other

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actions necessary to keep required insurances in effect for the duration of the Contract obligations, excluding warranty obligations.

<u>Workers' Compensation</u> For all Work performed by the Contractor and any subcontractor, the Contractor and each subcontractor shall carry Workers' Compensation Insurance or shall qualify as a self-insurer with the State of Maine Workers' Compensation Board in accordance with the requirements of the laws of the State of Maine. If maritime exposures exist, coverage shall include United States Long Shore and Harbor Workers coverage.

Commercial General Liability With respect to all Work performed by the Contractor and any subcontractors, the Contractor and any subcontractors shall carry commercial general liability insurance in an amount not less than \$400,000.00 per occurrence and \$2,000,000.00 in the Aggregate. The coverage must include products, completed operations, and Contractual liability coverages. The Contractual liability insurance shall cover the Contractor's obligations to indemnify the Department as provided in this Contract. The coverage shall also include protection against damage claims due to use of explosives, collapse, and underground coverage if the Work involves such exposures. The Department shall be named as additional insured on the Commercial General Liability insurance policies carried by the Contractor that are applicable to the Work.

<u>Automobile Liability</u> The Contractor shall carry Automobile Liability Insurance covering the operation of all motor vehicles including any that are rented, leased, borrowed, or otherwise used in connection with the Project. The minimum limit of liability under this Section shall be \$400,000.00 per occurrence.

<u>Claims.</u> Each insurance policy shall include a provision requiring the insurer to investigate and defend all named insured's against any and all claims for death, bodily injury or property damage, even if groundless.

- 19. **SEVERABILITY** The invalidity or unenforceability of any particular provision or part thereof of this Contract shall not affect the remainder of said provision or any other provisions, and this Contract shall be construed in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
- 20. <u>INTEGRATION</u> All terms of this Contract are to be interpreted in such a way as to be consistent at all times. If the Contractor discovers any ambiguity, error, omission, conflict, or discrepancy related to the Contract, the Contractor must notify MaineDOT of the ambiguity or waive claims resulting from any such ambiguity. In the case of ambiguity the following components of the Contract shall control in the following descending order of priority:

Contract Agreement, Transportation Related Maintenance Services
Bid Amendments (most recent to least recent)
Appendix A – Special Provision Specifications of Work to be Performed or Request for Proposals
Appendix C – Special Provisions

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Appendix B – Special Provisions for State Funded Transportation Related
Maintenance Services
Any remaining appendices in alphabetical order.
Any remaining Special Provisions
The Department's Notice to Contractors and any amendments

State of Maine, Department of Transportation, Standard Specifications, Revision of December 2002 as updated through advertisement

- 21. **FORCE MAJEURE** The Department may, at its discretion, excuse the performance of an obligation by a party under this Contract in the event that performance of that obligation by that party is prevented by an act of God, act of war, riot, fire, explosion, flood or other catastrophe, sabotage, severe shortage of fuel, power or raw materials, change in law, court order, national defense requirement, or strike or labor dispute, provided that any such event and the delay caused thereby is beyond the control of, and could not reasonably be avoided by, that party. The Department may, at its discretion, extend the time period for performance of the obligation excused under this section by the period of the excused delay together with a reasonable period to reinstate compliance with the terms of this Contract.
- 22. **FURNISHING OF OTHER PROPERTY RIGHTS, LICENSES AND PERMITS**The Contractor shall acquire, at its sole expense, all property rights outside the Project Limits needed for construction staging, yarding, construction, waste disposal, or other Project-related purpose. The Contractor shall also acquire, at its sole expense, all licenses, Permits and other permissions that are necessary or appropriate to perform the Work that are not furnished by the Department.
- 23. <u>ALLOWABLE WORK TIMES</u> Work can be performed at any time except Saturdays, Sundays, Holidays and state government closure days, unless expressly specified otherwise in this Contract. Holidays are defined as New Year's Day, Martin Luther King Day, President's Day, Patriot's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. If a Holiday occurs on a Sunday, the following Monday shall be considered a Holiday. If a Holiday occurs on a Saturday, the preceding Friday shall be considered a Holiday. Saturday, Sunday or Holiday work must be approved by the Department. The Contractor is solely responsible for the planning and execution of Work in order to complete the Work within the Contract Time.
- 24. **SET-OFF RIGHTS** MaineDOT shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, MaineDOT's right to withhold and take possession of monies due to the Contractor under this Contract up to any amounts the Contractor owes to the State of Maine pursuant to this Contract or any other contract, including any contract for a term commencing prior to the term of this Contract, plus any amounts that Contractor owes the State of Maine for any reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. MaineDOT shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Controller.

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25. **WORKERS AND EQUIPMENT** The Contractor shall at all times provide all Superintendents, forepersons, laborers, inspectors, Subcontractors, subconsultants, Equipment, Materials, and Incidentals as needed to perform the Work in Conformance within the Contract Time. The Contractor shall provide all safeguards, safety devices, and protective Equipment and take all other action that is necessary to continuously and effectively protect the safety and health of all persons from hazards related to the Work.

Any person employed by the Contractor or by any Subcontractor or any officer or representative or agent of the Subcontractor, who, in the opinion of the Contract Administrator, is intemperate or disorderly, shall be removed immediately by the Contractor or Subcontractor employing such person. The employee shall not be employed again in any portion of the Work without prior approval from the Contract Administrator. Should the Contractor fail to remove such person or persons as required above or fail to furnish suitable and sufficient personnel for the proper prosecution of the Work, the Contract Administrator may suspend the Work by written notice until such orders are complied with.

All persons employed by or through the Contractor, except for registered trainees, shall have sufficient skill and experience to perform the Work properly. The Department may require that the Contractor discharge any such person who the Department determines jeopardizes safety of any person or the Project without cost or liability to the Department. If the Department determines that such person's performance jeopardizes the intent of the Contract otherwise, the Department may, but is not required, to notify the Contractor of such a determination. Such notice, or lack thereof, does not affect the Contractor's duties regarding Workers. Upon Receipt of such notice, the Contractor shall take any action it determines necessary to fulfill its obligations under the Contract.

#### 26. **ENVIRONMENTAL REQUIREMENTS**

<u>Temporary Soil Erosion and Water Pollution Control</u> If the Work involves excavation or placement of soil, the Contractor shall stabilize the area on a daily basis and comply with all applicable federal, state, and local laws, rules, regulations, permit requirements and conditions.

Hazardous Materials If the Contractor encounters any condition that indicates the presence of uncontrolled petroleum or hazardous Materials, the Contractor shall immediately stop Work, notify the Department, treat any such conditions with extreme caution, and secure the area of potential hazard to minimize health risks to Workers and the public, and to prevent additional releases of contaminants into the environment. Such conditions include the presence of barrels, tanks, unexpected odors, discoloration of soil or water, an oily sheen on soil or water, excessively hot earth, smoke, or any other condition indicating uncontrolled petroleum or hazardous Materials. The Contractor shall continue Work in other areas of the Project unless otherwise directed by the Department. The Contractor shall comply with all federal, State, and local laws concerning the handling, storage, treatment, and disposal of uncontrolled petroleum or hazardous Material.

<u>Waste Materials</u> All waste materials shall be disposed of in accordance with all federal, State, and local laws.

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<u>Environmental Non-compliance - Remedies and Costs</u> The Contractor shall be in non-compliance if it, or Subcontractors at any tier, fail to comply with the terms of this Contract or any applicable environmental or land use law or regulation including Project specific permit conditions.

If the Contractor is in non-compliance, the Department may, at its discretion:

- A. Withhold all Progress Payments, or any portion thereof, during the period the Contractor is in non-compliance;
- B. Remedy such non-compliance using State forces or another Contractor and deduct all costs incurred by the Department from Progress Payments. Such costs include direct costs, Project Engineering costs, and Contractor costs from amounts otherwise due the Contractor, and/or
- C. Suspend the Work for cause and without cost or liability to the Department. Said suspension shall continue until the Contractor has addressed all non-compliance issues as directed by the Department.

The Contractor shall be responsible for any fines and penalties assessed by environmental or land use regulatory agencies due to such non-compliance. Such penalties may be withheld from amounts otherwise due the Contractor.

27. **QUALITY AND STANDARDS** Materials and manufactured products incorporated into the work shall be new unless otherwise specified, free from defect, and in conformity with the contract. When material is fabricated or treated with another material or where any combination of materials is assembled to form a finished product, any or all of which are covered by specifications, the Department may reject the finished product if any of the components do not comply with the specifications. The Department may reject materials not conforming to the Specifications at any time, and the Contractor shall remove them immediately from the project site unless otherwise instructed by the Department. The Contractor shall not store or use rejected materials on any Department project.

If there is no applicable standard set forth in this contract for particular Work, then the Contractor shall perform that Work in accordance with industry standards prevailing at the time of bid. If the Department determines that Work is non-conforming, the Contractor shall remove, replace, or otherwise correct all unacceptable work as directed by the Department at the expense of the Contractor, without cost or liability to the Department.

28. **WARRANTY PROVISIONS** The Contractor unconditionally warrants and guarantees that the Work will be free from warranty defects for one year or as otherwise specified in this Contract. If the Department discovers any warranty defects during the warranty period, the Contractor agrees to perform all remedial work, at no additional cost or liability to the Department. Remedial Work will be completed within two weeks unless a more immediate response is required for safety or convenience, as determined by the Department.

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The Contractor hereby assigns to the Department the right to enforce all manufacturer's warranties or guarantees on all materials, equipment or products purchased for the work that exceed the nature or duration of the warranty obligations assumed by the Contractor under this Contract.

The Contractor agrees that the warranty obligations provided by this Contract shall be reported as an outstanding obligation in the event of bankruptcy, dissolution, or the sale, merger, or cessation of operations of the Contractor.

29. **PAYMENT** The Contractor shall submit an itemized invoice to the Department for services monthly, at the completion of the Work or as otherwise noted in the Contract documents for approval and payment. At a minimum, invoices shall include the following information:

Contractor name, address & Contract Number
Invoice Date & Number
Dates of Service
Description and Location of Service
Quantities at the Prices contained in the Contractor's Bid

The Department will approve complete and correct invoices for accepted Work invoiced at bid prices. Payments to the Contractor shall be full compensation for furnishing all labor, equipment, materials, services, and incidentals used to perform all Work under the Contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of any kind arising from the nature or execution of the Work. The Contractor shall pay all taxes, charges, fees, and allowances. Except as expressly provided otherwise in this Contract, all such taxes, charges, fees, and allowances are Incidental to the Contract. Most items are exempt from Maine sales tax. The Contractor shall Bid in accordance with the Maine statutory exemption from sales tax. The Department may require that the Contractor submit backup documentation including copies of receipts, invoices, and itemized payments to Subcontractors. The Acceptance by the Contractor of the final payment, as evidenced by cashing of the final payment check, constitutes a release to the Department from all claims and liability under the Contract.

The Department may withhold payments claimed by the Contractor on account of:

- A. Incomplete, Inaccurate or Incorrect Invoices,
- B. Defective Work or non-conforming Work,
- C. Damages for Non-conforming, Defective or Unauthorized Work or Equipment,
- D. Damage to a third party,
- E. Claims filed or reasonable evidence indicating probable filing of claims,
- F. Failure of the Contractor to make payments to Subcontractors or for Materials or labor.
- G. Regulatory non-compliance or enforcement,
- H. Failure to submit Documentation

- I. All other causes that the Department reasonably determines negatively affect the State's interest.
- 30. **RESPONSIBILITY FOR DAMAGE TO WORK** Except for damage to Project caused by Uncontrollable Events, the Contractor shall bear all risk of loss relating to the Work until Final Acceptance, regardless of cause, including completed Work, temporary Structures, and all other items or Materials not yet incorporated into the Work.

The Contractor shall, at its sole expense, rebuild, repair, restore, or replace such damaged Work or otherwise make good any losses that arise from such damage ("rebuilding, etc."). If the Contractor fails to Promptly commence and continue such rebuilding, etc., the Department may, upon 48 hours advance written notice, commence rebuilding, etc. of the damaged property without liability to the Department with its own forces or with Contracted forces and all costs will be deducted from amounts otherwise due the Contractor.

31. **RESPONSIBILITY FOR PROPERTY OF OTHERS** The Contractor shall not enter private property outside the Project Limits without first obtaining permission from the Owners.

The Contractor shall be responsible for all damage to public or private property of any kind resulting from any act, omission, neglect, or misconduct of the Contractor until Final Acceptance. The preceding sentence includes damage to vehicles passing through the Work area.

The Contractor shall, at its sole expense, rebuild, repair, restore, or replace such damaged property or otherwise make any good losses that arise from such damage ("rebuilding, etc."). If the Contractor fails to commence and continue such rebuilding, etc. in a timely manner, the Department may, upon 48 hours advance written notice, commence rebuilding, etc. of the damaged property without liability to the Department with its own forces or with Contracted forces, and all costs will be deducted from amounts otherwise due the Contractor.

32. **NOTICE REQUIRED** When the Contractor becomes aware of facts or circumstances that may cause the Contractor to seek additional compensation, time, or any other change in Contract requirements ("Issue"), then the Contractor shall notify the Contract Administrator within 48 hours and before commencing any part of the Work relating to the Issue. The notice must describe the basic nature and extent of the Issue.

The written notice or confirmation will be known as a "Notice of Issue for Consideration". The Contractor will not be entitled to any additional compensation, time, or any other change to Contract requirements without a timely Notice of Issue for Consideration.

33. **ENTIRE CONTRACT** This document contains the entire Contract of the parties, and neither party shall be bound by any statement or representation not contained herein. No waiver shall be deemed to have been made by any of the parties unless expressed in writing and signed by the waiving party. The parties expressly agree that they shall not

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assert in any action relating to the Contract that any implied waiver occurred between the parties which is not expressed in writing. The failure of any party to insist in any one or more instances upon strict performance of any of the terms or provisions of the Contract, or to exercise an option or election under the Contract, shall not be construed as a waiver or relinquishment for the future of such terms, provisions, option or election, but the same shall continue in full force and effect, and no waiver by any party of any one or more of its rights or remedies under the Contract shall be deemed to be a waiver of any prior or subsequent rights or remedy under the Contract or at law.

#### STANDARD DETAIL UPDATES

Standard Details and Standard Detail updates are available at: <a href="http://www.maine.gov/mdot/contractor-consultant-information/ss\_standard\_details\_updates.php">http://www.maine.gov/mdot/contractor-consultant-information/ss\_standard\_details\_updates.php</a>

<u>Detail #</u> 504(15)	Description Diaphragms	Revision Date 12/30/02
507(04)	Steel Bridge Railing	2/05/03
526(33)	Concrete Transition Barrier	8/18/03
645(06)	H-Beam Posts – Highway Signing	7/21/04
645(09)	Installation of Type II Signs	7/21/04
626(09)	Electrical Junction Box for Traffic Signals and Lighting	2/25/05
604(01)	Catch Basins	11/16/05
604(05)	Type "A" & "B" Catch Basin Tops	11/16/05
604(06)	Type "C" Catch Basin Tops	11/16/05
604(07)	Manhole Top "D"	11/16/05
604(09)	Catch Basin Type "E"	11/16/05
606(02)	Multiple Mailbox Support	11/16/05
606(07)	Reflectorized Beam Guardrail Delineator Details	11/16/05
609(06)	Vertical Bridge Curb	11/16/05
504(23)	Hand-Hold Details	12/08/05
609(03)	Curb Type 3	6/27/06
609(07)	Curb Type 1	6/27/06
535(01)	Precast Superstructure - Shear Key	10/12/06
535(02)	Precast Superstructure - Curb Key & Drip Notch	10/12/06
535(03)	Precast Superstructure - Shear Key	10/12/06

Precast Superstructure - Shear Key	10/12/06
Precast Superstructure - Post Tensioning	10/12/06
Precast Superstructure - Sections	10/12/06
Precast Superstructure - Precast Slab & Box	10/12/06
Precast Superstructure - Sections	10/12/06
Precast Superstructure - Stirrups	10/12/06
Precast Superstructure - Plan	10/12/06
Precast Superstructure - Reinforcing	10/12/06
Precast Superstructure - Notes	10/12/06
Drives on Sidewalk Sections	2/06/07
Drives on Non-Sidewalk Sections	2/06/07
Precast Superstructure - Shear Key	12/5/07
Precast Superstructure - Shear Key Precast Superstructure - Shear Key	12/5/07 12/5/07
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Precast Superstructure - Shear Key	12/5/07
Precast Superstructure - Shear Key Precast Superstructure - Post Tensioning	12/5/07 12/5/07
Precast Superstructure - Shear Key  Precast Superstructure - Post Tensioning  Precast Superstructure - Notes	12/5/07 12/5/07 12/5/07
Precast Superstructure - Shear Key  Precast Superstructure - Post Tensioning  Precast Superstructure - Notes  Drives on Sidewalk Sections	12/5/07 12/5/07 12/5/07 1/04/08
	Precast Superstructure - Post Tensioning  Precast Superstructure - Sections  Precast Superstructure - Precast Slab & Box  Precast Superstructure - Sections  Precast Superstructure - Plan  Precast Superstructure - Reinforcing  Precast Superstructure - Notes  Drives on Sidewalk Sections

535(05)	Precast Superstructure - Post Tensioning	5/20/08
502(03)	Concrete Curb - Bituminous Wearing Surface	2/2/09
502(03)A	Concrete Curb - Concrete Wearing Surface	2/2/09
502(07)	Precast Concrete Deck Panels - Layout Plan	2/2/09
502(07)A	Precast Concrete Deck Panels - Layout Plan	2/2/09
502(08)	Precast Concrete Deck Panels - Panel Plan	2/2/09
502(09)	Precast Concrete Deck Panels - Blocking Detail	2/2/09
502(10)	Precast Concrete Deck Panels	2/2/09
502(11)	Precast Concrete Deck Panels	2/2/09
502(12)	Precast Concrete Deck Panels - Notes	2/2/09
502(12)A	Precast Concrete Deck Panels - Notes	2/2/09
526(06)	Permanent Concrete Barrier	2/2/09
526(08)	Permanent Concrete Barrier – Type IIIA	2/2/09
526(08)A	Permanent Concrete Barrier – Type IIIA	2/2/09
526(13)	Permanent Concrete Barrier – Type IIIB	2/2/09
526(14)	Permanent Concrete Barrier – Type IIIB	2/2/09
526(21)	Concrete Transition Barrier	2/2/09
526(39)	Texas Classic Rail – Between Window	2/2/09
526(40)	Texas Classic Rail – Through Window	2/2/09
526(41)	Texas Classic Rail – Through Post	2/2/09
526(42)	Texas Classic Rail – Through Nose	2/2/09
606(20)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
606(21)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
606(22)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09

606(23)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
609(06)	Vertical Bridge Curb	2/2/09
609(08)	Precast Concrete Transition Curb	2/2/09
502(12)	Precast Concrete Desk Panels	9/09
504(22)	Diaphragm & Crossframe Notes	9/09
626(09)	Electrical Junction Box for Traffic Signals and Lighting	8/20/10

#### SUPPLEMENTAL SPECIFICATION

(Corrections, Additions, & Revisions to Standard Specifications - Revision of December 2002)

#### SECTION 101 CONTRACT INTERPRETATION

#### 101.2 Definitions

<u>Closeout Documentation</u> Replace the sentence "A letter stating the amount..... DBE goals." with "DBE Goal Attainment Verification Form"

Add "<u>Environmental Information</u> Hazardous waste assessments, dredge material test results, boring logs, geophysical studies, and other records and reports of the environmental conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation."

Add "<u>Fabrication Engineer</u> The Department's representative responsible for Quality Assurance of pre-fabricated products that are produced off-site."

<u>Geotechnical Information</u> Replace with the following: "Boring logs, soil reports, geotechnical design reports, ground penetrating radar evaluations, seismic refraction studies, and other records of subsurface conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation."

#### <u>SECTION 102</u> DELIVERY OF BIDS

- 102.7.1 Location and Time Add the following sentence "As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments form, the completed Schedule of Items, 2 copies of the completed Agreement, Offer, & Award form, a Bid Bond or Bid Guarantee, and any other Certifications or Bid Requirements listed in the Bid Book."
- <u>102.11.1 Non-curable Bid Defects</u> Replace E. with "E. The unit price and bid amount is not provided or a lump sum price is not provided or is illegible as determined by the Department."

#### SECTION 103 AWARD AND CONTRACTING

103.3.1 Notice and Information Gathering Change the first paragraph to read as follows: "After Bid Opening and as a condition for Award of a Contract, the Department may require an Apparent Successful Bidder to demonstrate to the Department's satisfaction that the Bidder is responsible and qualified to perform the Work."

## SECTION 104 GENERAL RIGHTS AND RESPONSIBILITIES

<u>104.3.14 Interpretation and Interpolation</u> In the first sentence, change "...and Geotechnical Information." to "...Environmental Information, and Geotechnical Information." Delete the entire Section 104.5.9 and replace with the following:

#### SECTION 105 GENERAL SCOPE OF WORK

Delete the entire Section 105.6 and replace with the following:

105.6.1 Department Provided Services The Department will provide the Contractor with the description and coordinates of vertical and horizontal control points, set by the Department, within the Project Limits, for full construction Projects and other Projects where survey control is necessary. For Projects of 1,500 feet in length, or less: The Department will provide three points. For Projects between 1,500 and 5,000 feet in length: The Department will provide one set of two points at each end of the Project. For Projects in excess of 5,000 feet in length, the Department will provide one set of two points at each end of the Project, plus one additional set of two points for each mile of Project length. For non-full construction Projects and other Projects where survey control is not necessary, the Department will not set any control points and, therefore, will not provide description and coordinates of any control points. Upon request of the Contractor, the Department will provide the Department's survey data management software and Survey Manual to the Contractor, or its survey Subcontractor, for the exclusive use on the Department's Projects.

105.6.2 Contractor Provided Services Utilizing the survey information and points provided by the Department, described in Subsection 105.6.1, Department Provided Services, the Contractor shall provide all additional survey layout necessary to complete the Work. This may include, but not be limited to, reestablishing all points provided by the Department, establishing additional control points, running axis lines, providing layout and maintenance of all other lines, grades, or points, and survey quality control to ensure conformance with the Contract. The Contractor is also responsible for providing construction centerline, or close reference points, for all Utility Facilities relocations and adjustments as necessary to complete the Work. When the Work is to connect with existing Structures, the Contractor shall verify all dimensions before proceeding with the Work. The Contractor shall employ or retain competent engineering and/or surveying personnel to fulfill these responsibilities.

The Contractor must notify the Department of any errors or inconsistencies regarding the data and layout provided by the Department as provided by Section 104.3.3 - Duty to Notify Department If Ambiguities Discovered.

105.6.2.1 Survey Quality Control The Contractor is responsible for all construction survey quality control. Construction survey quality control is generally defined as, first, performing initial field survey layout of the Work and, second, performing an independent check of the initial layout using independent survey data to assure the accuracy of the initial layout; additional iterations of checks may be required if significant discrepancies are discovered in this process. Construction survey layout quality control also requires written documentation of the layout process such that the process can be followed and repeated, if necessary, by an independent survey crew.

105.6.3 Survey Quality Assurance It is the Department's prerogative to perform construction survey quality assurance. Construction survey quality assurance may, or may not, be performed by the Department. Construction survey quality assurance is generally defined as an independent check of the construction survey quality control. The construction survey

quality assurance process may involve physically checking the Contractor's construction survey layout using independent survey data, or may simply involve reviewing the construction survey quality control written documentation. If the Department elects to physically check the Contractor's survey layout, the Contractor's designated surveyor may be required to be present. The Department will provide a minimum notice of 48 hours to the Contractor, whenever possible, if the Contractor's designated surveyor's presence is required. Any errors discovered through the quality assurance process shall be corrected by the Contractor, at no additional cost to the Department.

105.6.4 Boundary Markers The Contractor shall preserve and protect from damage all monuments or other points that mark the boundaries of the Right-of-Way or abutting parcels that are outside the area that must be disturbed to perform the Work. The Contractor indemnifies and holds harmless the Department from all claims to reestablish the former location of all such monuments or points including claims arising from 14 MRSA § 7554-A. For a related provision, see Section 104.3.11 - Responsibility for Property of Others.

#### SECTION 106 QUALITY

<u>106.4.3 Testing</u> Change the first sentence in paragraph three from "...maintain records of all inspections and tests." to "...maintain original documentation of all inspections, tests, and calculations used to generate reports."

<u>106.6 Acceptance</u> Add the following to paragraph 1 of A: "This includes Sections 401 - Hot Mix Asphalt, 402 - Pavement Smoothness, and 502 - Structural Concrete - Method A - Air Content."

Add the following to the beginning of paragraph 3 of A: "For pay factors based on Quality Level Analysis, and"

<u>106.7.1 Standard Deviation Method</u> Add the following to F: "Note: In cases where the mean of the values is equal to either the USL or the LSL, then the PWL will be 50 regardless of the computed value of s."

Add the following to H: "Method C Hot Mix Asphalt: PF = [55 + (Quality Level \*0.5)] \* 0.01"

#### SECTION 107 TIME

<u>107.3.1 General</u> Add the following: "If a Holiday occurs on a Sunday, the following Monday shall be considered a Holiday. Sunday or Holiday work must be approved by the Department, except that the Contractor may work on Martin Luther King Day, President's Day, Patriot's Day, the Friday after Thanksgiving, and Columbus Day without the Department's approval."

<u>107.7.2 Schedule of Liquidated Damages</u> Replace the table of Liquidated Damages as follows:

From Up to and Amount of Liquidated

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More Than	Including	Damages per Calendar Day
\$0	\$100,000	\$225
\$100,000	\$250,000	\$350
\$250,000	\$500,000	\$475
\$500,000	\$1,000,000	\$675
\$1,000,000	\$2,000,000	\$900
\$2,000,000	\$4,000,000	\$1,000
\$4,000,000	and more	\$2,100

#### SECTION 108 PAYMENT

Remove Section 108.4 and replace with the following:

"108.4 Payment for Materials Obtained and Stored Acting upon a request from the Contractor and accompanied by bills or receipted bills, the Department will pay for all or part of the value of acceptable, non-perishable Materials that are to be incorporated in the Work, including Materials that are to be incorporated into the Work, not delivered on the Work site, and stored at places acceptable to the Department. Examples of such Materials include steel piles, stone masonry, curbing, timber and lumber, metal Culverts, stone and sand, gravel, and other Materials. The Department will not make payment on living or perishable Materials until acceptably planted in their final locations.

If payment for Materials is made to the Contractor based on bills, only, then the Contractor must provide receipted bills to the Department for these Materials within 14 days of the date the Contractor receives payment for the Materials. Failure of the Contractor to provide receipted bills for these Materials within 14 days of the dated the Contractor receives payment will result in the paid amount being withheld from the subsequent progress payment, or payments, until such time the receipted bills are received by the Department.

Materials paid for by the Department are the property of the Department, but the risk of loss shall remain with the Contractor. Payment for Materials does not constitute Acceptance of the Material. If Materials for which the Department has paid are later found to be unacceptable, then the Department may withhold amounts reflecting such unacceptable Materials from payments otherwise due the Contractor.

In the event of Default, the Department may use or cause to be used all paid-for Materials in any manner that is in the best interest of the Department."

#### SECTION 109 CHANGES

109.1.1 Changes Permitted Add the following to the end of the paragraph: "There will be no adjustment to Contract Time due to an increase or decrease in quantities, compared to those estimated, except as addressed through Contract Modification(s)."

- <u>109.1.2 Substantial Changes to Major Items</u> Add the following to the end of the paragraph: "Contract Time adjustments may be made for substantial changes to Major Items when the change affects the Critical Path, as determined by the Department"
- 109.4.4 Investigation / Adjustment Third sentence, delete the words "subsections (A) (E)"

#### 109.5.1 Definitions - Types of Delays

- <u>B. Compensable Delay</u> Replace (1) with the following; "a weather related Uncontrollable Event of such an unusually severe nature that a Federal Emergency Disaster is declared. The Contractor will only be entitled to an Equitable Adjustment if the Project falls within the geographic boundaries prescribed under the disaster declaration."
- 109.7.2 Basis of Payment Replace with the following: "Adjustments will be established by mutual Agreement based upon Unit or Lump Sum Prices. These agreed Unit or Lump Sum prices will be full compensation and no additions or mark-ups are allowed. If Agreement cannot be reached, the Contractor shall accept payment on a Force Account basis as provided in Section 109.7.5 Force Account Work, as full and complete compensation for all Work relating to the Equitable Adjustment."
- 109.7.3 Compensable Items Delete this Section entirely.
- <u>109.7.4 Non-Compensable Items</u> Replace with the following: "The Contractor is not entitled to compensation or reimbursement for any of the following items:
  - A. Total profit or home office overhead in excess of 15%,
    - B. ......"

#### 109.7.5 Force Account Work

#### C Equipment

Paragraph 2, delete sentence 1 which starts; "Equipment leased...."

Paragraph 6, change sentence 2 from "The Contractor may furnish..." to read "If requested by the Department, the Contractor will produce cost data to assist the Department in the establishment of such rental rate, including all records that are relevant to the Actual Costs including rental Receipts, acquisition costs, financing documents, lease Agreements, and maintenance and operational cost records."

Add the following paragraph; "Equipment leased by the Contractor for Force Account Work and actually used on the Project will be paid for at the actual invoice amount plus 10% markup for administrative costs."

#### Add the following section;

"F. Subcontractor Work When accomplishing Force Account Work that utilizes Subcontractors, the Contractor will be allowed a maximum markup of 5% for profit and overhead on the Subcontractor's portion of the Force Account Work. If the Department does not accept the Subcontractor quote, then the Subcontractor work will be subject to the Force Account provisions with a 5% markup for profit & overhead."

#### SECTION 110 INDEMNIFICATION, BONDING, AND INSURANCE

Delete the entire Section 110.2.3 and replace with the following:

110.2.3 Bonding for Landscape Establishment Period The Contractor shall provide a signed, valid, and enforceable Performance, Warranty, or Maintenance Bond complying with the Contract, to the Department at Final Acceptance.

The bond shall be in the full amount for all Pay Items for work pursuant to Sec 621, Landscape, payable to the "Treasurer - State of Maine," and on the Department's forms, on exact copies thereof, or on forms that do not contain any significant variations from the Department's forms as solely determined by the Department.

The Contractor shall pay all premiums and take all other actions necessary to keep said bond in effect for the duration of the Landscape Establishment Period described in Special Provision 621.0036 - Establishment Period. If the Surety becomes financially insolvent, ceases to be licensed or approved to do business in the State of Maine, or stops operating in the United States, the Contractor shall file new bonds complying with this Section within 10 Days of the date the Contractor is notified or becomes aware of such change.

All Bonds shall be procured from a company organized and operating in the United States, licensed or approved to do business in the State of Maine by the State of Maine Department of Business Regulation, Bureau of Insurance, and listed on the latest Federal Department of the Treasury listing for "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies."

By issuing a bond, the Surety agrees to be bound by all terms of the Contract, including those related to payment, time for performance, quality, warranties, and the Department's self-help remedy provided in Section 112.1 - Default to the same extent as if all terms of the Contract are contained in the bond(s).

Regarding claims related to any obligations covered by the bond, the Surety shall provide, within 60 Days of Receipt of written notice thereof, full payment of the entire claim or written notice of all bases upon which it is denying or contesting payment. Failure of the Surety to provide such notice within the 60-day period constitutes the Surety's waiver of any right to deny or contest payment and the Surety's acknowledgment that the claim is valid and undisputed.

## SECTION 202 REMOVING STRUCTURES AND OBSTRUCTIONS

<u>202.02 Removing Buildings</u> Make the following change to the last sentence in the final paragraph, change "...Code of Maine Regulations 401." to "...Department of Environmental Protection Maine Solid Waste Management Rules, 06-096 CMR Ch. 401, Landfill Siting, Design and Operation."

#### SECTION 203 EXCAVATION AND EMBANKMENT

<u>203.01 Description</u> Under b. Rock Excavation; add the following sentence: "The use of perchlorate is not allowed in blasting operations."

Delete the entire Section 203.041 and replace with the following:

"203.041 Salvage of Existing Hot Mix Asphalt Pavement All existing hot mix asphalt pavement designated to be removed under this contract must be salvaged for utilization. Existing hot mix asphalt pavement material shall not be deposited in any waste area or be placed below subgrade in any embankment.

Methods of utilization may be any of the following:

- 1. Used as a replacement for untreated aggregate surface course on entrances provided the material contains no particles greater than 50 mm [2 in] in any dimension. Payment will be made under Pay Item 411.09, Untreated Aggregate Surface Course or 411.10, Untreated Aggregate Surface Course, Truck Measure. Material shall be placed, shaped, compacted and stabilized as directed by the Resident.
  - 2. Stockpiled at commercial or approved sites for commercial or MaineDOT use.
- 3. Other approved methods proposed by the Contractor, and approved by the Resident which will assure proper use of the existing hot mix asphalt pavement.

The cost of salvaging hot mix asphalt material will be included for payment under the applicable pay item, with no additional allowances made, which will be full compensation for removing, temporarily stockpiling, and rehandling, if necessary, and utilizing the material in entrances or other approved uses, or stockpiling at an approved site as described above. The material will also be measured and paid for under the applicable Pay Item if it is reused for aggregate in entrances, or other approved uses."

#### SECTION 502 STRUCTURAL CONCRETE

502.05 Composition and Proportioning; TABLE #1; NOTE #2; third sentence; Change "...alcohol based saline sealer..." to "alcohol based silane sealer...". Add NOTE #6 to Class S Concrete.

<u>502.0502</u> Quality Assurance Method A - Rejection by Resident Change the first sentence to read: "For an individual sublot with <u>test results failing to meet the criteria in Table #1, or if the calculated pay factor for Air Content is less than 0.80......"</u>

<u>502.0503</u> Quality Assurance Method B - Rejection by Resident Change the first sentence to read: "For material represented by a verification test with <u>test results failing to meet the criteria</u> in Table #1, the Department will....."

<u>502.0505</u> Resolution of Disputed Acceptance Test Results Combine the second and third sentence to read: "Circumstances may arise, however, <u>where</u> the Department may ......" 502.10 Forms and False work

<u>D. Removal of Forms and False work</u> 1., First paragraph; first, second, and third sentence; replace "forms" with "forms and false work"

#### 502.11 Placing Concrete

G. Concrete Wearing Surface and Structural Slabs on Precast Superstructures Last paragraph; third sentence; replace "The temperature of the concrete shall not exceed 24° C [75° F} at the time of placement." with "The temperature of the concrete shall not exceed 24° C [75° F} at the time the concrete is placed in its final position."

<u>502.15 Curing Concrete</u> First paragraph; replace the first sentence with the following; "All concrete surfaces shall be kept wet with clean, fresh water for a curing period of at least 7 days after concrete placing, with the exception of vertical surfaces as provided for in Section 502.10 (D) - Removal of Forms and False work."

Second paragraph; delete the first two sentences.

Third paragraph; delete the entire paragraph which starts "When the ambient temperature...." Fourth paragraph; delete "approved" to now read "...continuously wet for the entire curing period..."

Fifth paragraph; second sentence; change "...as soon as it is possible to do so without damaging the concrete surface." to "...as soon as possible."

Seventh paragraph; first sentence; change "...until the end of the curing period." to "...until the end of the curing period, except as provided for in Section 502.10(D) - Removal of Forms and False work."

<u>502.19 Basis of Payment</u> First paragraph, second sentence; add "pier nose armor" to the list of items included in the contract price for concrete.

#### SECTION 503 REINFORCING STEEL

<u>503.06 Placing and Fastening</u> Change the second paragraph, first sentence from: "All tack welding shall be done in accordance with Section 504, Structural Steel." to "All tack welding shall be done in accordance with AWS D1.4 Structural Welding Code - Reinforcing Steel."

#### SECTION 504 STRUCTURAL STEEL

<u>504.09 Facilities for Inspection</u> Add the follow as the last paragraph: "Failure to comply with the above requirements will be consider to be a denial to allow access to work by the Contractor. The Department will reject any work done when access for inspection is denied."

- 504.18 Plates for Fabricated Members Change the second paragraph, first sentence from: "...ASTM A 898/A 898 M..." to "...ASTM A 898/A 898 M or ASTM A 435/A 435 M as applicable and..."
- <u>504.31 Shop Assembly</u> Add the following as the last sentence: "The minimum assembly length shall include bearing centerlines of at least two substructure units."
- <u>504.64 Non Destructive Testing-Ancillary Bridge Products and Support Structures</u> Change the third paragraph, first sentence from "One hundred percent…" to "Twenty five percent…"

## SECTION 535 PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

- <u>535.02 Materials</u> Change "Steel Strand for Concrete Reinforcement" to "Steel Strand." Add the following to the beginning of the third paragraph; "Concrete shall be Class P conforming to the requirements in this section. 28 day compressive strength shall be as stated on the plans. Coarse aggregate...."
- <u>535.05 Inspection Facilities</u> Add the follow as the last paragraph: "If the above requirements are not met, the Contractor shall be considered to be in violation of Standard Specification 104.2.5 Right to Inspect Work. All work occurring during a violation of this specification will be rejected."
- 535.26 Lateral Post-Tensioning Replace the first paragraph; "A final tension..." with "Overstressing strands for setting losses cannot be accomplished for chuck to chuck lengths of 7.6 m [25 ft] and less. In such instances, refer to the Plans for all materials and methods. Otherwise, post-tensioning shall be in accordance with PCI standards and shall provide the anchorage force noted in the Plans. The applied jacking force shall be no less than 100% of the design jacking force."

## SECTION 603 PIPE CULVERTS AND STORM DRAINS

603.0311 Corrugated Polyethylene Pipe for Option III Replace the Minimum Mandrel Diameter Table with the following:

Nominal Size	Minimum Mandrel	Nominal Size	Minimum Mandrel
US Customary (in)	Diameter (in)	Metric (mm)	Diameter (mm)
12	11.23	300	280.73
15	14.04	375	350.91
18	16.84	450	421.09
24	22.46	600	561.45
30	28.07	750	701.81
36	33.69	900	842.18
42	39.30	1050	982.54
48	44.92	1200	1122.90

#### SECTION 604 MANHOLES, INLETS, AND CATCH BASINS

#### 604.02 Materials Add the following:

"Tops and Traps 712.07 Corrugated Metal Units 712.08 Catch Basin and Manhole Steps 712.09"

#### SECTION 605 UNDERDRAINS

605.05 Underdrain Outlets Make the following change:

In the first paragraph, second sentence, delete the words "metal pipe".

#### SECTION 606 GUARDRAIL

606.02 Materials Delete the entire paragraph which reads "The sole patented supplier of multiple mailbox...." and replace with "Acceptable multiple mailbox assemblies shall be listed on the Department's Approved Products List and shall be NCHRP 350 tested and approved." Delete the entire paragraph which reads "Retroreflective beam guardrail delineators...." and replace with "Reflectorized sheeting for Guardrail Delineators shall meet the requirements of Section 719.01 - Reflective Sheeting. Delineators shall be fabricated from high-impact, ultraviolet and weather resistant thermoplastic.

606.09 Basis of Payment First paragraph; delete the second and third sentence in their entirety and replace with "Butterfly-type guardrail reflectorized delineators shall be mounted on all Wbeam guardrail at an interval of every 10 posts [62.5 ft] on tangents sections and every 5 posts [31.25 ft] on curved sections as directed by the Resident. On divided highways, the delineators shall be yellow on the left hand side and silver/white on the right hand side. On two-way roadways, the delineators shall be silver/white on the right hand side. All delineators shall have retroreflective sheeting applied to only the traffic facing side. Reflectorized guardrail delineators will not be paid for directly, but will be considered incidental to the guardrail items."

#### SECTION 609 CURB

609.04 Bituminous Curb f., Delete the requirement "Color Natural (White)"

## SECTION 610 STONE FILL, RIPRAP, STONE BLANKET, AND STONE DITCH PROTECTION

Add the following paragraph to Section 610.02:

"Materials shall meet the requirements of the following Sections of Special Provision 703:

Stone Fill	703.25
Plain and Hand Laid Riprap	703.26
Stone Blanket	703.27
Heavy Riprap	703.28
Definitions	703.32"

Add the following paragraph to Section 610.032.a.

"Stone fill and stone blanket shall be placed on the slope in a well-knit, compact and uniform layer. The surface stones shall be chinked with smaller stone from the same source."

Add the following paragraph to Section 610.032.b:

"Riprap shall be placed on the slope in a well-knit, compact and uniform layer. The surface stones shall be chinked with smaller stone from the same source."

Add the following to Section 610.032: "Section 610.032.d. The grading of riprap, stone fill, stone blanket and stone ditch protection shall be determined by the Resident by visual inspection of the load before it is dumped into place, or, if ordered by the Resident, by dumping individual loads on a flat surface and sorting and measuring the individual rocks contained in the load. A separate, reference pile of stone with the required gradation will be placed by the Contractor at a convenient location where the Resident can see and judge by eye the suitability of the rock being placed during the duration of the project. The Resident reserves the right to reject stone at the job site or stockpile, and in place. Stone rejected at the job site or in place shall be removed from the site at no additional cost to the Department."

### SECTION 615 LOAM

615.02 Materials Make the following change:

Organic Content Percent by Volume

Humus "5% - 10%", as determined by Ignition Test

### SECTION 618 SEEDING

618.01 Description Change the first sentence to read as follows: "This work shall consist of furnishing and applying seed ....." Also remove ",and cellulose fiber mulch" from 618.01(a). 618.03 Rates of Application In 618.03(a), remove the last sentence and replace with the following: "These rates shall apply to Seeding Method 2, 3, and Crown Vetch."

In 618.03(c) "1.8 kg [4 lb]/unit." to "1.95 kg [4 lb]/unit."

618.09 Construction Method In 618.09(a) 1, sentence two, replace "100 mm [4 in]" with "25 mm [1 in] (Method 1 areas) and 50 mm [2 in] (Method 2 areas)"

618.15 Temporary Seeding Change the Pay Unit from Unit to Kg [lb].

### SECTION 620 GEOTEXTILES

### 620.03 Placement Section (c)

Title: Replace "Non-woven" in title with "Erosion Control".

First Paragraph: Replace first word "Non-woven" with "Woven monofilament".

Second Paragraph: Replace second word "Non-woven" with "Erosion Control".

### 620.07 Shipment, Storage, Protection and Repair of Fabric Section (a)

Replace the second sentence with the following: "Damaged geotextiles, <u>as identified by the Resident</u>, shall be repaired immediately."

### 620.09 Basis of Payment

Pay Item 620.58: Replace "Non-woven" with "Erosion Control" Pay Item 620.59: Replace "Non-woven" with "Erosion Control"

## SECTION 621 LANDSCAPING

<u>621.0036 Establishment Period</u> In paragraph 4 and 5, change "time of Final Acceptance" to "end of the period of establishment". In Paragraph 7, change "Final Acceptance date" to "end of the period of establishment" and change "date of Final Acceptance" to "end of the period of establishment".

### SECTION 626 HIGHWAY SIGNING

626.034 Concrete Foundations Add to the following to the end of the second paragraph: "Precast and cast-in-place foundations shall be warranteed against leaning and corrosion for two years after the project is completed. If the lean is greater than 2 degrees from normal or the foundation is spalling within the first two years, the Contractor shall replace the foundation at no extra cost."

### SECTION 627 PAVEMENT MARKINGS

627.10 Basis of Payment Add to the following to the end of the third paragraph: "If allowed by Special Provision, the Contractor may utilize Temporary Bi-Directional Yellow and White(As required) Delineators as temporary pavement marking lines and paid for at the contract lump sum price. Such payment will include as many applications as required and removal."

### SECTION 637 DUST CONTROL

637.06 Basis of Payment Add the following after the second sentence of the third paragraph: "Failure by the Contractor to follow Standard Specification or Special Provision - Section 637 and/or the Contractor's own Soil Erosion and Pollution Control Plan concerning Dust Control and/or the Contractor's own Traffic Control Plan concerning Dust Control and/or visible evidence of excessive dust problems, as determined by the Resident, will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department's Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Additional penalties may also be assessed in accordance with Special Provision 652 - Work Zone Traffic Control and Standard Specification 656 - Temporary Soil Erosion and Water Pollution Control."

### SECTION 639 ENGINEERING FACILITIES

<u>639.04 Field Offices</u> Change the forth to last paragraph from: "The Contractor shall provide a fully functional desktop copier..." to "....desktop copier/scanner..."

<u>Description</u> Change "Floor Area" to "Floor Area (Outside Dimension)". Change Type B floor area from "15 (160)" to "20 (217)".

639.09 Telephone Paragraph 1 is amended as follows:

"The contractor shall provide **two** telephone lines and two telephones,...."

Add-"In addition the contractor will supply one computer broadband connection, modem lease and router. The router shall have wireless access and be 802.11n or 802.11g capable and wireless. The type of connection supplied will be contingent upon the availability of services (i.e. DSL or Cable Broadband). It shall be the contractor's option to provide dynamic or static IP addresses through the service. **The selected service will have a minimum downstream connection of 1.5 Mbps and 384 Kbps upstream.** The contractor shall be responsible for the installation charges and all reinstallation charges following suspended periods. Monthly service and maintenance charges shall be billed by the Internet Service Provider (ISP) directly to the contractor."

## SECTION 652 MAINTENANCE OF TRAFFIC

652.2.3 Flashing Arrow Board Delete the existing 5 paragraphs and replace with the following: Flashing Arrow Panels (FAP) must be of a type that has been submitted to AASHTO's National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations' Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels.

FAP units shall meet requirements of the current Manual on Uniform Traffic Control Devices

(MUTCD) for Type "C" panels as described in Section 6F.56 - Temporary Traffic Control Devices. An FAP shall have matrix of a minimum of 15 low-glare, sealed beam, Par 46 elements capable of either flashing or sequential displays as well as the various operating modes as described in the MUTCD, Chapter 6-F. If an FAP consisting of a bulb matrix is used, each element should be recess-mounted or equipped with an upper hood of not less than 180 degrees. The color presented by the elements shall be yellow.

FAP elements shall be capable of at least a 50 percent dimming from full brilliance. Full brilliance should be used for daytime operation and the dimmed mode shall be used for nighttime operation. FAP shall be at least 2.4 M x 1.2 M [96" x 48"] and finished in non-reflective black. The FAP shall be interpretable for a distance not less than 1.6 km [1 mile].

Operating modes shall include, flashing arrow, sequential arrow, sequential chevron, flashing double arrow, and flashing caution. In the three arrow signals, the second light from the arrow point shall not operate.

The minimum element on-time shall be 50 percent for the flashing mode, with equal intervals of 25 percent for each sequential phase. The flashing rate shall be not less than 25 nor more than 40 flashes per minute. All on-board circuitry shall be solid state.

Primary power source shall be 12 volt solar with a battery back-up to provide continuous operation when failure of the primary power source occurs, up to 30 days with fully charged batteries. Batteries must be capable of being charged from an onboard 110 volt AC power source and the unit shall be equipped with a cable for this purpose.

Controller and battery compartments shall be enclosed in lockable, weather-tight boxes. The FAP shall be mounted on a pneumatic-tired trailer or other suitable support for hauling to various locations, as directed. The minimum mounting height of an arrow panel should be 2.1 M [7 feet] from the roadway to the bottom of the panel.

The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers.

A portable changeable message sign may be used to simulate an arrow panel display."

<u>652.2.4 Other Devices</u> Delete the last paragraph and add the following:

"652.2.5 Portable Changeable Message Sign Trailer mounted Portable Changeable Message Signs (PCMS) must be of a type that has been submitted to AASHTO's National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations' Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels. The PCMS unit shall meet or exceed the current specifications of the Manual on Uniform Traffic Control Devices (MUTCD), 6F.55.

The front face of the sign should be covered with a low-glare protective material. The color of the LED elements shall be amber on a black background. The PCMS should be visible from a distance of 0.8 km [0.5 mile] day and night and have a minimum 15° viewing angle. Characters must be legible from a distance of at least 200 M [650 feet].

The message panel should have adjustable display rates (minimum of 3 seconds per phase), so that the entire message can be read at least twice at the posted speed, the off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed. Each message shall consist of either one or two phases. A phase shall consist of up to eight characters per line. The unit must be capable of displaying at least three lines of text with eight characters per line. Each character shall be 457 mm [18"] high. Each character module shall use at least a five wide and seven high pixel matrix. The text of the messages shall not scroll or travel horizontally or vertically across the face of the sign.

Units shall automatically adjust their brightness under varying light conditions to maintain legibility.

The control system shall include a display screen upon which messages can be reviewed before being displayed on the message sign. The control system shall be capable of maintaining memory when power is unavailable. Message must be changeable with either a notebook computer or an on-board keypad. The controller shall have the capability to store a minimum of 200 user-defined and 200 pre-programmed messages. Controller and battery compartments shall be enclosed in lockable, weather-tight boxes.

PCMS units shall have the capability of being made programmable by means of wireless communications. PCMS units shall also be fully capable of having an on-board radar system installed if required for a particular application.

PCMS' primary power source shall be solar with a battery back-up to provide continuous operation when failure of the primary power source occurs. Batteries must be capable of being charged from a 110 volt AC power source. The unit must also be capable of being operated solely from a 110 volt AC power source and be equipped with a cable for this purpose.

The PCMS shall be mounted on a trailer in such a way that the bottom of the message sign panel shall be a minimum of 2.1 M [7 ft] above the roadway in urban areas and 1.5 M [5 ft] above the roadway in rural areas when it is in the operating mode. PCMS trailers should be of a heavy duty type with a 51 mm [2"] ball hitch and a minimum of four leveling jacks (at each corner). The sign shall be capable of being rotated 360° relative to the trailer. The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers."

<u>652.3.3 Submittal of Traffic Control Plan</u> In item e. change "A list of all certified flaggers..." to "A list of all the Contractor's certified flaggers..."

Add the follow to the list of requirements: "k. The plan for unexpected nighttime work along with a list of emergency nighttime equipment available on-site."

In the last paragraph add the following as the second sentence: "The Department will review and provide comments to the Contractor within 14 days of receipt of the TCP." Add the following as the last sentence: "The creation and modification of the TCP will be considered incidental to the related 652 items."

<u>652.3.5 Installation of Traffic Control Devices</u> In the first paragraph, first sentence; change "Signs shall be erected..." to "Portable signs shall be erected..." In the third sentence; change

"Signs must be erected so that the sign face..." to "Post-mounted signs must also be erected so that the sign face..."

652.4 Flaggers Replace the first paragraph with the following; "The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier who is employing that flagger. All flaggers must carry an official certification card with them while flagging that has been issued by their employer. Flaggers shall wear safety apparel meeting ANSI 107-2004 Class 2 risk exposure that clearly identifies the wearer as a person, and is visible at a minimum distance of 300 m [1000 ft], and shall wear a hardhat with 360° retro-reflectivity. For nighttime conditions, Class 3 apparel, meeting ANSI 107-2004, shall be worn along with a hardhat with 360° retro-reflectivity. Retro-reflective or flashing SLOW/STOP paddles shall be used, and the flagger station shall be illuminated to assure visibility in accordance with 652.6.2."

Second paragraph, first sentence; change "...have sufficient distance to stop before entering the workspace." to "...have sufficient distance to stop at the intended stopping point." Third sentence; change "At a spot obstruction..." to "At a spot obstruction with adequate sight distance,..."

Fourth paragraph, delete and replace with "Flaggers shall be provided as a minimum, a 10 minute break, every 2 hours and a 30 minute or longer lunch period away from the work station. Flaggers may only receive 1 unpaid break per day; all other breaks must be paid. Sufficient certified flaggers shall be available onsite to provide for continuous flagging operations during break periods. Breaker flaggers will not be paid for separately, but shall be considered incidental to the appropriate pay item."

#### Add the following:

"652.5.1 Rumble Strip Crossing When lane shifts or lane closures require traffic to cross a permanent longitudinal rumble strip for 7 calendar days or less, the Contractor shall install warning signs that read "RUMBLE STRIP CROSSING" with a supplemental Motorcycle Plaque, (W8-15P).

When lane shifts or lane closures require traffic to cross a permanent longitudinal rumble strip for more than 7 calendar days, the Contractor shall pave in the rumble strips in the area that traffic will cross, unless otherwise directed by the Resident. Rumble strips shall be replaced prior to the end of the project, when it is no longer necessary to cross them."

652.6 Nightwork Delete this section entirely and replace with the following:

"652.6.1 Daylight Work Times Unless otherwise described in the Contract, the Contractor is allowed to commence work and end work daily according to the Sunrise/Sunset Table at: <a href="http://www.sunrisesunset.com/usa/Maine.asp">http://www.sunrisesunset.com/usa/Maine.asp</a>. If the Project town is not listed, the closest town on the list will be used as agreed at the Preconstruction Meeting. Any work conducted before sunrise or after sunset will be considered Night Work.

<u>652.6.2 Night Work</u> When Night Work occurs (either scheduled or unscheduled), the Contractor shall provide and maintain lighting on all equipment and at all work stations.

The lighting facilities shall be capable of providing light of sufficient intensity to permit good workmanship, safety and proper inspection at all times. The lighting shall be cut off and arranged on stanchions at a height that will provide perimeter lighting for each piece of equipment and will not interfere with traffic, including commercial vehicles, approaching the work site from either direction.

The Contractor shall have available portable floodlights for special areas.

The Contractor shall utilize padding, shielding or other insulation of mechanical and electrical equipment, if necessary, to minimize noise, and shall provide sufficient fuel, spare lamps, generators, etc. to maintain lighting of the work site.

The Contractor shall submit a lighting plan at the Preconstruction Conference, showing the type and location of lights to be used for night work. The Resident may require modifications be made to the lighting set up in actual field conditions.

Prior to beginning any Night Work, the Contractor shall furnish a light meter for the Residents use that is capable of measuring the range of light levels from 5 to 20 foot-candles.

Horizontal illumination, for activities on the ground, shall be measured with the photometer parallel to the road surface. For purposes of roadway lighting, the photometer is placed on the pavement. Vertical illumination, for overhead activities, shall be measured with the photometer perpendicular to the road surface. Measurements shall be taken at the height and location of the overhead activity.

The following minimum light levels are required for Night Work lighting;

### Level I: (5 foot-candles)

- All work operations by Contractor's personnel in areas of general construction operations, including layout and measurements ahead of the actual work, , cleaning and sweeping, , and seeding.
- Areas where crew movement may take place.
- Stockpile areas.
- At the area of lane closure, continuously through the lane closure, including the setup and removal of the closures.
- State Field Offices and facilities.

### Level II: (10 foot-candles)

- On and around (360 degrees) construction equipment in the work zone.
- 50 feet ahead of, 100 feet behind, and along the sides of paving or milling machines in the work zone.

## Level III: (20 foot-candles)

- Flagging Stations
- Pavement or structural crack and pothole filling.
- Pavement patching and repairs.
- Installation of signal equipment, or other electrical or mechanical equipment.
- Curb work, drainage, sidewalk work, excavation, landscaping, and any other work using ground labor, supervision, or inspection.

All workers shall wear safety apparel labeled as meeting the ANSI 107-2004 standard performance for Class 3 risk exposure.

The Contractor shall apply 2- inch wide retro-reflective tape, with alternating red and white segments, to outline the front back and sides of construction vehicles and equipment, to define their shape and size to the extent practicable. Pickup trucks and personal vehicles are exempt from this requirement. The Contractor shall furnish approved signs reading "Construction Vehicle - Keep Back" to be used on trucks hauling to the project when such signs are deemed necessary by the Resident. The signs shall be a minimum of 30 inches by 60 inches, Black and Orange, ASTM D 4956 - Type VII, Type VIII, or Type IX (prismatic).

All vehicles used on the project, including pickup trucks and personal vehicles, shall be equipped with amber flashing lights, visible from both front and rear, or by means of single, approved type, revolving, flashing or strobe lights mounted so as to be visible 360°. The vehicle flashing system shall be in continuous operation while the vehicle is on any part of the project.

The Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item.

Payment for lighting, vehicle mounted signs and other costs accrued because of night work will not be made directly but will be considered incidental to the related contract items."

652.8.2 Other Items Replace the last paragraph with the following: "There will be no payment made under any 652 pay items after the expiration of the adjusted total contract time."

## SECTION 653 POLYSTYRENE PLASTIC INSULATION

<u>653.05 Placing Backfill</u> In the second sentence; change "...shall be not less than 150 mm [6 in] loose measure." to "...shall be not less than 250 mm [10 in] loose measure." In the third sentence; change "...crawler type bulldozer of not more than 390 kg/m² [80 lb/ft²] ground contact pressure..." to "...crawler type bulldozer of not more than 4875 kg/m² [2000 lb/ft²] ground contact pressure..."

<u>653.06 Compaction</u> In the last sentence; change "...not more than 390 kg/m $^2$  [80 lb/ft $^2$ ] ground contact..." to "...not more than 4875 kg/m $^2$  [2000 lb/ft $^2$ ] ground contact..."

# SECTION 656 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL

<u>656.5.1 If Pay Item 656.75 Provided</u> Replace the second paragraph with the following: "Failure by the Contractor to follow Standard Specification or Special Provision - Section 656

and/or the Contractor's own Soil Erosion and Pollution Control Plan will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department's Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item."

### SECTION 701 STRUCTURAL CONCRETE RELATED MATERIALS

701.10 Fly Ash - Chemical Requirements Change all references from "ASTM C311" to "ASTM C114".

## SECTION 703 AGGREGATES

703.05 Aggregate for Sand Leveling Change the percent passing the 9.5 mm [3/8 in] sieve from "85 – 10" to "85 – 100"

703.06 Aggregate for Base and Subbase Delete the first paragraph: "The material shall have..." and replace with "The material shall have a minimum degradation value of 15 as determined by Washington State DOT Test Method T113, Method of Test for Determination of Degradation Value (March 2002 version), except that the reported degradation value will be the result of testing a single specimen from that portion of a sample that passes the 12.5 mm [½ in] sieve and is retained on the 2.00 mm [No. 10] sieve, minus any reclaimed asphalt pavement used."

703.07 Aggregates for HMA Pavements Delete the forth paragraph: "The composite blend shall have..." and replace with "The composite blend, minus any reclaimed asphalt pavement used, shall have a Micro-Deval value of 18.0 or less as determined by AASHTO T 327. In the event the material exceeds the Micro Deval limit, a Washington Degradation test shall be performed. The material shall be acceptable if it has a value of 30 or more as determined by Washington State DOT Test Method T 113, Method of Test for Determination of Degradation Value (March 2002 version) except that the reported degradation value will be the result of testing a single composite specimen from that portion of the sample that passes the 12.5mm [1/2 inch] sieve and is retained on the 2.00mm [No 10] sieve, minus any reclaimed asphalt pavement used."

<u>703.09 HMA Mixture Composition</u> The coarse and fine aggregate shall meet the requirements of Section 703.07. The several aggregate fractions for mixtures shall be sized, graded, and combined in such proportions that the resulting composite blends will meet the grading requirements of the following table.

#### AGGREGATE GRADATION CONTROL POINTS

Nominal Maximum Aggregate SizeControl Points (Perce			ent Passing)		
SIEVE	TYPE 25	TYPE 19	TYPE 12.5	TYPE 9.5	TYPE 4.75
SIZE	mm	mm	mm	mm	mm
	PERC	ENT BY WEIG	GHT PASSING - 0	COMBINED AC	GGREGATE
37.5 mm	100				
25 mm	90-100	100			
19 mm	-90	90-100	100		
12.5 mm		-90	90-100	100	100
9.5 mm		-	-90	90-100	95-100
4.75 mm		-	-	-90	80-100
2.36 mm	19-45	23-49	28-58	32-67	40 - 80
1.18 mm		-	-	-	-
600 μm		-	-	-	-
300 μm		-	-	-	-
75 μm	1-7	2-8	2-10	2-10	2-10

Gradation Classification---- The combined aggregate gradation shall be classified as coarse-graded when it passes below the Primary Control Sieve (PCS) control point as defined in the following table. All other gradations shall be classified as fine-graded.

#### **GRADATION CLASSIFICATION**

PCS Control Point for Mixture Nominal Maximum Aggregate Size				
(% passing)				
Nominal Maximum Aggregate	TYPE 25	TYPE 19	TYPE 12.5	TYPE 9.5
Size	mm	mm	mm	mm
Primary Control Sieve	4.75 mm	4.75 mm	2.36 mm	2.36 mm
PCS Control Point (% passing)	40	47	39	47

If a Grading "D" mixture is allowed per Special Provision Section 403, it shall meet the following gradation and the aggregate requirements of Section 703.07.

Sieve	Percentage by Weight
Designation	Passing Square Mesh Sieves
½ inch	100
3/8 inch	93-100
No. 4	60-80
No. 8	46-65
No. 16	25-55
No. 30	16-40
No. 50	10-30
No. 100	6-22
No. 200	3.0-8.0

<u>703.18 Common Borrow</u> Replace the first paragraph with the following: "Common borrow shall consist of earth, suitable for embankment construction. It shall be free from frozen material, perishable rubbish, peat, and other unsuitable material including material currently or

previously contaminated by chemical, radiological, or biological agents unless the material is from a DOT project and authorized by DEP for use."

703.22 Underdrain Backfill Material Change the first paragraph from "...for Underdrain Type B..." to "...for Underdrain Type B and C..."

Replace subsections 703.25 through 703.28 with the following:

"703.25 Stone Fill Stones for stone fill shall consist of hard, sound, durable rock that will not disintegrate by exposure to water or weather. Stone for stone fill shall be angular and rough. Rounded, subrounded, or long thin stones will not be allowed. Stone for stone fill may be obtained from quarries or by screening oversized rock from earth borrow pits. The maximum allowable length to thickness ratio will be 3:1. The minimum stone size (10 lbs) shall have an average dimension of 5 inches. The maximum stone size (500 lbs) shall have a maximum dimension of approximately 36 inches. Larger stones may be used if approved by the Resident. Fifty percent of the stones by volume shall have an average dimension of 12 inches (200 lbs).

703.26 Plain and Hand Laid Riprap Stone for riprap shall consist of hard, sound durable rock that will not disintegrate by exposure to water or weather. Stone for riprap shall be angular and rough. Rounded, subrounded or long thin stones will not be allowed. The maximum allowable length to width ratio will be 3:1. Stone for riprap may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (10 lbs) shall have an average dimension of 5 inches. The maximum stone size (200 lbs) shall have an average dimension of approximately 12 inches. Larger stones may be used if approved by the Resident. Fifty percent of the stones by volume shall have an average dimension greater than 9 inches (50 lbs).

703.27 Stone Blanket Stones for stone blanket shall consist of sound durable rock that will not disintegrate by exposure to water or weather. Stone for stone blanket shall be angular and rough. Rounded or subrounded stones will not be allowed. Stones may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (300 lbs) shall have minimum dimension of 14 inches, and the maximum stone size (3000 lbs) shall have a maximum dimension of approximately 66 inches. Fifty percent of the stones by volume shall have average dimension greater than 24 inches (1000 lbs).

703.28 Heavy Riprap Stone for heavy riprap shall consist of hard, sound, durable rock that will not disintegrate by exposure to water or weather. Stone for heavy riprap shall be angular and rough. Rounded, subrounded, or thin, flat stones will not be allowed. The maximum allowable length to width ratio will be 3:1. Stone for heavy riprap may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (500 lbs) shall have minimum dimension of 15 inches, and at least fifty percent of the stones by volume shall have an average dimension greater than 24 inches (1000 lbs)."

Add the following paragraph:

"703.32 Definitions (ASTM D 2488, Table 1).

Angular: Particles have sharp edges and relatively plane sides with unpolished surfaces Subrounded: Particles have nearly plane sides but have well-rounded corners and edges Rounded: Particles have smoothly curved sides and no edges"

### SECTION 706 NON-METALLIC PIPE

706.06 Corrugated Polyethylene Pipe for Underdrain, Option I and Option III Culvert Pipe Change the first sentence from "...300 mm diameters to 900 mm" to "...300 mm diameters to 1200 mm" Delete, in it's entirety, the last sentence which begins "This pipe and resins..." and replace with the following; "Manufacturers of corrugated polyethylene pipe must participate in, and maintain compliance with, AASHTO's National Transportation Product Evaluation Program (www.ntpep.org) which audits producers of plastic pipe. A certificate of compliance must be provided with each shipment."

## SECTION 709 REINFORCING STEEL AND WELDED STEEL WIRE FABIC

709.03 Steel Strand Change the second paragraph from "...shall be 12mm [½ inch] AASHTO M203M/M203 (ASTM A416/A416M)..." to "...shall be 15.24 mm [0.600 inch] diameter AASHTO M203 (ASTM A416)..."

## SECTION 710 FENCE AND GUARDRAIL

710.03 Chain Link Fabric Add the following sentence: "Chain Link fabric for PVC coated shall conform to the requirements of AASHTO M181, Type IV-Class B."

710.04 Metal Beam Rail Replace with the following: "Galvanized steel rail elements shall conform to the requirements of AASHTO M 180, Class A, Type II.

When corrosion resistant steel is specified, rail shall conform to AASHTO M 180, Class A, Type IV. Beams of corrosion resistant steel shall not be painted or galvanized. They shall be so handled and stored that the traffic face of these beams, used in a continuous run of guardrail, shall not show a distinctive color differential.

When metal beam rail is to be installed on a curve having a radius of curvature of 150 ft. or less, the beam sections shall be fabricated on an arc to the required radius and permanently stamped or embossed with the designated radius.

The engineer may take one piece of guardrail, a backup plate, and end or buffer section from each 200 pieces in a lot, or from each lot if less than 200 pieces are included therein for determination of compliance with specification requirements. If one piece fails to conform to the requirements of this specification, two other pieces shall be tested. If either of these pieces fails to conform to the requirements of this specification, the lot of material represented by these samples shall be rejected. A lot shall be considered that quantity of material offered for inspection at one time that bears the same heat and coating identification."

 $\underline{710.07~Guardrail~Posts}$  Section b. change "...AASHTO M183/M183M..." to "...AASHTO M 270M/M 270 Grade 250 (36)..."

## <u>SECTION 712</u> MISCELLANEOUS HIGHWAY MATERIALS

712.04 Stone Curbing and Edging Delete the existing and replace with the following: "Stone for curbing and edging shall be approved granite from acceptable sources. The stone shall be hard and durable, predominantly gray in color, free from seams that would be likely to impair its structural integrity, and of a smooth splitting character. Natural grain size and color variations characteristic of the source deposit will be permitted. Such natural variations may include bands or clusters of mineral crystallization provided they do not impair the structural integrity of the curb stone. The Contractor shall submit for approval the name of the quarry that is the proposed source of the granite for curb materials along with full scale color photos of the granite. Such submission shall be made sufficiently in advance of ordering so that the Resident may have an opportunity to judge the stone, both as to quality and appearance. Samples of curbing shall be submitted for approval only when requested by the Resident. The dimensions, shape, and other details shall be as shown on the plans."

712.06 Precast Concrete Units In the first paragraph, change "...ASTM C478M..." to "...AASHTO M199..." Delete the second paragraph and replace with the following; "Approved structural fibers may be used as a replacement of 6 x 6 #10 gauge welded wire fabric when used at an approved dosage rate for the construction of manhole and catch basin units. The material used shall be one of the products listed on the Maine Department of Transportation's Approved Product List of Structural Fiber Reinforcement." Delete the fifth paragraph and replace with the following; "The concrete mix design shall be approved by the Department. Concrete shall contain 6% air content, plus or minus 1½% tolerance when tested according to AASHTO T152. All concrete shall develop a minimum compressive strength of 28 MPa [4000 psi] in 28 days when tested according to AASHTO T22. The absorption of a specimen, when tested according to AASHTO T280, Test Method "A", shall not exceed nine percent of the dry mass."

### Add the following:

<u>"712.07 Tops, and Traps</u> These metal units shall conform to the plan dimensions and to the following specification requirements for the designated materials.

Gray iron or ductile iron castings shall conform to the requirements of AASHTO M306 unless otherwise designated."

<u>712.08 Corrugated Metal Units</u> The units shall conform to plan dimensions and the metal to AASHTO M36/M36M. Bituminous coating, when specified, shall conform to AASHTO M190 Type A.

<u>712.09 Catch Basin and Manhole Steps</u> Steps for catch basins and for manholes shall conform to ASTM C478M [ASTM C478], Section 13 for either of the following material:

(a) Aluminum steps-ASTM B221M, [ASTM B211] Alloy 6061-T6 or 6005-T5.

- (b) Reinforced plastic steps Steel reinforcing bar with injection molded plastic coating copolymer polypropylene. Polypropylene shall conform to ASTM D 4101.
- 712.23 Flashing Lights Flashing Lights shall be power operated or battery operated as specified.
  - (a) Power operated flashing lights shall consist of housing, adapters, lamps, sockets, reflectors, lens, hoods and other necessary equipment designed to give clearly visible signal indications within an angle of at least 45 degrees and from 3 to 90 m [10 to 300 ft] under all light and atmospheric conditions.

Two circuit flasher controllers with a two-circuit filter capable of providing alternate flashing operations at the rate of not less than 50 nor more than 60 flashes per minute shall be provided.

The lamps shall be 650 lumens, 120 volt traffic signal lamps with sockets constructed to properly focus and hold the lamp firmly in position.

The housing shall have a rotatable sun visor not less than 175 mm [7 in] in length designed to shield the lens.

Reflectors shall be of such design that light from a properly focused lamp will reflect the light rays parallel. Reflectors shall have a maximum diameter at the point of contact with the lens of approximately 200 mm [8 in].

The lens shall consist of a round one-piece convex amber material which, when mounted, shall have a visible diameter of approximately 200 mm [8 in]. They shall distribute light and not diffuse it. The distribution of the light shall be asymmetrical in a downward direction. The light distribution of the lens shall not be uniform, but shall consist of a small high intensity portion with narrow distribution for long distance throw and a larger low intensity portion with wide distribution for short distance throw. Lenses shall be marked to indicate the top and bottom of the lens.

(b) Battery operated flashing lights shall be self- illuminated by an electric lamp behind the lens. These lights shall also be externally illuminated by reflex-reflective elements built into the lens to enable it to be seen by reflex-reflection of the light from the headlights of oncoming traffic. The batteries must be entirely enclosed in a case. A locking device must secure the case. The light shall have a flash rate of not less than 50 nor more than 60 flashes per minute from minus 30 °C [minus 20 °F] to plus 65 °C [plus 150 °F]. The light shall have an on time of not less than 10 percent of the flash cycle. The light beam projected upon a surface perpendicular to the axis of the light beam shall produce a lighted rectangular projection whose minimum horizontal dimension shall be 5 degrees each side of the horizontal axis. The effective intensity shall not have an initial value greater than 15.0 candelas or drop below 4.0 candelas during the first 336 hours of continuous flashing. The illuminated lens shall appear to be uniformly bright over its entire illuminated surface when viewed from any point within an angle of 9 degrees each side of the vertical axis and 5 degrees each side of the horizontal axis. The lens shall not be less than 175 mm [7 in] in diameter including a reflex-reflector ring of 13 mm [½ in] minimum width around the periphery. The lens shall be yellow in color and have a minimum relative luminous transmittance of 0.440 with a luminance of 2854° Kelvin.

The lens shall be one-piece construction. The lens material shall be plastic and meet the luminous transmission requirements of this specification. The case containing the batteries and circuitry shall be constructed of a material capable of withstanding abuse equal to or greater than 1.21 mm thick steel [No. 18 U.S. Standard Gage Steel]. The housing and the lens frame, if of metal shall be properly cleaned, degreased and pretreated to promote adhesion. It shall be given one or more coats of enamel which, when dry shall completely obscure the metal. The enamel coating shall be of such quality that when the coated case is struck a light blow with a sharp tool, the paint will not chip or crack and if scratched with a knife will not powder. The case shall be so constructed and closed as to exclude moisture that would affect the proper operation of light. The case shall have a weep hole to allow the escape of moisture from condensation. Photoelectric controls, if provided, shall keep the light operating whenever the ambient light falls below 215 lx [20 foot candles]. Each light shall be plainly marked as to the manufacturer's name and model number.

If required by the Resident, certification as to conformance to these specifications shall be furnished based on results of tests made by an independent testing laboratory. All lights are subject to random inspection and testing. All necessary random samples shall be provided to the Resident upon request without cost to the Department. All such samples shall be returned to the Contractor upon completion of the tests.

- 712.32 Copper Tubing Copper tubing and fittings shall conform to the requirements of ASTM B88M Type A [ASTM B88, Type K] or better.
- <u>712.33 Non-metallic Pipe, Flexible</u> Non-metallic pipe and pipe fittings shall be acceptable flexible pipe manufactured from virgin polyethylene polymer suitable for transmitting liquids intended for human or animal consumption.
- 712.34 Non-metallic Pipe, Rigid Non-metallic pipe shall be Schedule 40 polyvinylchloride (PVC) that meets the requirement of ASTM D1785. Fittings shall be of the same material.
- <u>712.341 Metallic Pipe</u> Metallic pipe shall be ANSI, Standard B36.10, Schedule 40 steel pipe conforming to the requirements of ASTM A53 Types E or S, Grade B. End plates shall be steel conforming to ASTM A36/A36M.

Both the sleeve and end plates shall be hot dip galvanized. Pipe sleeve splices shall be welded splices with full penetration weld before galvanizing.

- <u>712.35 Epoxy Resin</u> Epoxy resin for grouting or sealing shall consist of a mineral filled thixotropic, flexible epoxy resin having a pot life of approximately one hour at 10°C [50°F]. The grout shall be an approved product suitable for cementing steel dowels into the preformed holes of curb inlets and adjacent curbing. The sealant shall be an approved product, light gray in color and suitable for coating the surface.
- 712.36 Bituminous Curb The asphalt cement for bituminous curb shall be of the grade required for the wearing course, or shall be Viscosity Grade AC-20 meeting the current requirements of Subsection 702.01 Asphalt Cement. The aggregate shall conform to the

requirements of Subsection 703.07. The coarse aggregate portion retained on the 2.36 mm [No. 8] sieve may be either crushed rock or crushed gravel.

The mineral constituents of the bituminous mixture shall be sized and graded and combined in a composite blend that will produce a stable durable curbing with an acceptable texture.

Bituminous material for curb shall meet the requirements of Section 403 - Hot Bituminous Pavement.

712.37 Precast Concrete Slab Portland cement concrete for precast slabs shall meet the requirements of Section 502 - Structural Concrete, Class A.

The slabs shall be precast to the dimension shown on the plans and cross section and in accordance with the Standard Detail plans for Concrete Sidewalk Slab. The surface shall be finished with a float finish in accordance with Subsection 502.14(c). Lift devices of sufficient strength to hold the slab while suspended from cables shall be cast into the top or back of the slab.

<u>712.38 Stone Slab</u> Stone slabs shall be of granite from an acceptable source, hard, durable, predominantly gray in color, free from seams which impair the structural integrity and be of smooth splitting character. Natural color variations characteristic of the deposit will be permitted. Exposed surfaces shall be free from drill holes or indications of drill holes. The granite slabs in any one section of backslope must be all the same finish.

The granite slabs shall be scabble dressed or sawed to an approximately true plane having no projections or depressions over 13 mm [½ in] under a 600 mm [2 ft] straightedge or over 25 mm [1 in] under a 1200 mm [4 ft] straightedge. The arris at the intersection of the top surface and exposed front face shall be pitched so that the arris line is uniform throughout the length of the installed slabs. The sides shall be square to the exposed face unless the slabs are to be set on a radius or other special condition which requires that the joints be cut to fit, but in any case shall be so finished that when the stones are placed side by side no space more than 20 mm [3/4 in] shall show in the joint for the full exposed height.

Liftpin holes in all sides will be allowed except on the exposed face.

### SECTION 717 ROADSIDE IMPROVEMENT MATERIAL

717.03 C. Method #3 - Roadside Mixture #3 Change the seed proportions to the following:

Crown Vetch 25%
Perennial Lupine 25%
Red Clover 12.5%
Annual Rye 37.5%

717.05 Mulch Binder Change the third sentence to read as follows:

<sup>&</sup>quot;Paper fiber mulch may be used as a binder at the rate of 2.3 kg/unit [5 lb/unit]."

## SECTION 720 STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS

720.08 U-Channel Posts Change the first sentence from "..., U-Channel posts..." to "..., Rib Back U-Channel posts..."

### SECTION 722 GEOTEXTILES

<u>722.01 Stabilization/Reinforcement Geotextile</u> Add the following to note #3; "The strengths specified in the columns labeled"<50%" and "≥ 50%" refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the "<50%" column. Submittals must include the percent elongation at which the material was tested."

722.02 Drainage Geotextile Add the following to note #3; "The strengths specified in the columns labeled"<50%" and "≥ 50%" refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the "<50%" column. Submittals must include the percent elongation at which the material was tested."

722.01 Erosion Control Geotextile Add the following note to Elongation in the Mechanical Property Table; "The strengths specified in the columns labeled"<50%" and "≥ 50%" refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the "<50%" column. Submittals must include the percent elongation at which the material was tested."