

**SERVICE AND CONSTRUCTION**

**STATEWIDE**

**HERBICIDE APPLICATION STATE RAILROADS**

**WIN: 018599.21H**

**2021**

**Updated 05/15/2020**

# **STATE PROJECT**

**MAINTENANCE & OPERATIONS**

## BIDDING INSTRUCTIONS

1. Use pen and ink to complete all paper Bids. Signatures shall be original. Stamped and copied signatures will not be accepted. Bids are not accepted by email or FAX.

**NOTE: Electronic Bids will not be accepted for this bid.**

2. As a minimum, the following should be received prior to the time of Bid opening: a) a copy of the Notice to Contractors, b) the completed Acknowledgement of Bid Amendments form, c) the completed Schedule of Items or Schedule of Items in Appendix A, d) two copies of the completed and signed Contract Agreement form, e) the completed Contractor Information Sheet, and f) any other certifications or Bid requirements listed in the Bid Documents as due by Bid opening.
3. Include prices for all items in the Schedule of Items. Or all items in section bid or all items to be bid
4. All Bid Packages which are mailed or sent express, shall be provided in double (one envelope inside the other) envelopes, for security and other reasons. The *Inner Envelope* shall have the following information provided on it:

Bid Enclosed - Do Not Open  
WIN or Title: 018599.21H Herbicide Application State Railroad  
Towns, Regions or Location: Statewide  
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  
WIN or Title: 018599.21H Herbicide Application State Railroad  
Towns, Regions or Location: Statewide  
Date of Bid Opening:  
Name of Contractor:

If a paper Bid is to be sent express, please take note that overnight services do not always arrive in time and that delivery may be affected by carrier volume, weather and other factors. Packages using express services should be sent to directly to the DOT Headquarters Building, Maine Department of Transportation, 24 Child Street, Augusta. "FedEx First Overnight" delivery is suggested as the package is delivered directly to the DOT Headquarters Building, Mailroom, 24 Child Street, Augusta. Allow extra days for U.S. Postal Service Express Mail which has proven not to be reliable and sometimes does not deliver directly to the DOT Headquarters Building but instead delivers to the State of Maine Mail Distribution Center.

If a paper bid is to be mailed, the mailing address is Maine Department of Transportation, 16 State House Station, Augusta, ME 04333-0016. Allow additional working days for this mail to pass through the state mail system in addition to the US Postal Service as this mail is not delivered directly to the Department of Transportation.

If a paper Bid is to be hand carried, deliver directly to the "Public Entrance" which is located on the Capitol Street side of the DOT Headquarters Building in Augusta. <http://www.maine.gov/mdot/contact>. Hand-carried Bids may be in one envelope, and should be marked with the following information:

Bid Enclosed: Do Not Open  
WIN or Title: 018599.21H Herbicide Application State Railroad  
Towns, Regions or Location: Statewide  
Date of Bid Opening:  
Name of Contractor:

*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 Specifications, March 2020 Edition.*

# 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 an optional plan holders 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 fill out the on-line plan holder registration form and provide an email address to the MDOT Contracts mailbox at: [MDOT.contracts@maine.gov](mailto:MDOT.contracts@maine.gov). Each bid package will require a separate request.**

**Additionally, interested parties will be responsible for reviewing and retrieving the Bid Amendments from our web site, and acknowledging receipt and incorporating those Bid Amendments in their bids using the Acknowledgement of Bid Amendment Form.**

# NOTICE

Bidders:

Please use the attached “Request for Information” form when submitting questions concerning specific Contracts that have been advertised for Bid, include additional numbered pages as required. RFI’s may be faxed to 207-624-3431, submitted electronically through the Departments web page of advertised projects by selecting the RFI tab on the project details page or via e-mail to [RFI-Contracts.MDOT@maine.gov](mailto:RFI-Contracts.MDOT@maine.gov).

These are the only allowable mechanisms 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.

When submitting RFIs by Email please follow the same guidelines as stated on the “Request for Information” form and include the word “RFI” along with the Project name and Identification number in the subject line.



### **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/venbid/index.shtml>

## CONTRACTOR INFORMATION

**Contractor Name:** \_\_\_\_\_

**Mailing Address:** \_\_\_\_\_

**Vendor Customer Number:** \_\_\_\_\_

**Contact Information (Primary Contact):** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Cell Phone:** \_\_\_\_\_

**Fax:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Mailing Address (if different from above):** \_\_\_\_\_

\_\_\_\_\_

**The company has the following organizational structure:**

**Sole Proprietorship**

**Limited Liability Company**

**Partnership**

**Joint Venture**

**Corporation**

**Other:** \_\_\_\_\_

\_\_\_\_\_  
**(Date)**

\_\_\_\_\_  
**(Signature)**

\_\_\_\_\_  
**(Name and Title Printed)**

## 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 **Herbicide Application State Railroads** Statewide” will be received from contractors at the Reception Desk, MaineDOT Building, Capitol Street, Augusta, Maine, until 11:00 o’clock A.M. (prevailing time) on May 12, 2021 and at that time and place, publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must demonstrate successful completion of projects of similar size and scope to be considered for the award of this contract. **Electronic Bidding will not be available for this bid.**

Description: WIN 018599.21H

Location: Statewide

Outline of Work: Application of Herbicide for MaineDOT maintained Railroads ROW and other incidental work.

For general information regarding Bidding and Contracting procedures, contact George Macdougall at (207) 624-3410. Our webpage at <http://www.maine.gov/mdot/contractors/> contains a copy of the Schedule of Items, Plan Holders List, written portions of bid amendments, bid results and an electronic form for RFI submittal. For Project-specific information fax all questions to **Gail Iler** at (207) 624-3431, use electronic RFI form or email questions to [RFI-Contracts.MDOT@maine.gov](mailto:RFI-Contracts.MDOT@maine.gov), project name and identification number should be in the subject line. 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. TTY users call Maine Relay 711.

Bid Documents, specifications and bid forms can be viewed and obtained digitally at no cost at <http://www.maine.gov/mdot/contractors/>. They may be seen at the MaineDOT Building in Augusta, Maine and at the Department of Transportation’s Regional Offices in Augusta, Scarborough, Wilton, Bangor and Presque Isle. They can be obtained at no cost at the Department at 24 Child Street, Augusta, ME, between the hours of 8:00 a.m. to 4:30 p.m., may be requested by telephone at (207) 624-3536 between the hours of 8:00 a.m. to 4:30 p.m, or from Maine Department of Transportation, Attn.: Mailroom, 16 State House Station, Augusta, Maine 04333-0016.

**There will be no bid bond, performance bond or payment bond required.**

Each Bid must be made upon blank 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, March 2020 Edition*, price \$10 [\$15 by mail], and *Standard Details, March 2020 Edition*, price \$10 [\$15 by mail]. They also may be purchased by telephone at (207) 624-3536 between the hours of 8:00 a.m. to 4:30 p.m. *Standard Detail* updates can be found at <http://www.maine.gov/mdot/contractors/publications/>.

The right is hereby reserved to the MaineDOT to reject any or all bids.

Augusta, Maine  
April 21, 2021



RICK DUBOIS, DIRECTOR  
MULTIMODAL OPERATIONS  
BUREAU OF MAINTENANCE & OPERATIONS

**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 <http://www.maine.gov/mdot/contractors/> . 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)

**MAINE DEPARTMENT OF TRANSPORTATION**  
**CONTRACT AGREEMENT**  
**TRANSPORTATION RELATED MAINTENANCE WORK**

This CONTRACT is made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (“Department” or “MaineDOT”), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address of 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 Work

The Department and the Contractor, in consideration of the mutual promises set forth in this Contract Agreement (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 for **WIN 018599.21H Herbicide Application on State Railroads, in 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.**

This contract commences on May 30, 2021 and expires on **May 30, 2022** unless extended under the terms of this contract. At the Department’s discretion and upon mutual agreement with the Contractor, the Contract may be extended for time and money, under all the terms of this contract, at bid prices for agreed periods of time up to approximately three (3) additional years.

**C. Price.**

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and that the amount of this offer is

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\$ \_\_\_\_\_ .

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, March 2020 Edition* as updated through advertisement, Division 100 - General Conditions, 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. Contract Agreement.**

The undersigned, having carefully examined the site of work, scope of work, State of Maine, Department of Transportation, *Standard Specifications, March 2020 Edition*, Division 100 - General Conditions, 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 upon 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.

Fifth: Contractor further agrees to provide insurance as required by this Contract.

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

**CONTRACTOR**

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Signature of Legally Authorized Representative  
of the Contractor)

\_\_\_\_\_  
(Name and Title Printed)

**G. Award.**

Your offer is hereby accepted. This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: Rick Dubois  
Director, Multimodal Operations  
Bureau of Maintenance & Operations

**MAINE DEPARTMENT OF TRANSPORTATION**  
**CONTRACT AGREEMENT**  
**TRANSPORTATION RELATED MAINTENANCE WORK**

This CONTRACT is made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (“Department” or “MaineDOT”), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address of 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 Work

The Department and the Contractor, in consideration of the mutual promises set forth in this Contract Agreement (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 for **WIN 018599.21H Herbicide Application on State Railroads, in 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.**

This contract commences on May 30, 2021 and expires on **May 30, 2022** unless extended under the terms of this contract. At the Department’s discretion and upon mutual agreement with the Contractor, the Contract may be extended for time and money, under all the terms of this contract, at bid prices for agreed periods of time up to approximately three (3) additional years.

**C. Price.**

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and that the amount of this offer is

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\$ \_\_\_\_\_ .

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, March 2020 Edition* as updated through advertisement, Division 100 - General Conditions, 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. Contract Agreement.**

The undersigned, having carefully examined the site of work, scope of work, State of Maine, Department of Transportation, *Standard Specifications, March 2020 Edition*, Division 100 - General Conditions, 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 upon 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.

Fifth: Contractor further agrees to provide insurance as required by this Contract.

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

**CONTRACTOR**

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Signature of Legally Authorized Representative  
of the Contractor)

\_\_\_\_\_  
(Name and Title Printed)

**G. Award.**

Your offer is hereby accepted. This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: Rick Dubois  
Director, Multimodal Operations  
Bureau of Maintenance & Operations

CTM: \_\_\_\_\_

TEDOCS# \_\_\_\_\_

CSN \_\_\_\_\_

**MAINE DEPARTMENT OF TRANSPORTATION**  
**CONTRACT AGREEMENT**  
**TRANSPORTATION RELATED MAINTENANCE WORK**

This CONTRACT is made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (“Department” or “MaineDOT”), an agency 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 ABC COMPANY (“Contractor”) a corporation or other legal entity organized under the laws of the State of ME, with its principal place of business located at 123 ANY STREET, TOWN, ST 00000, with a mailing address of PO BOX XXX, TOWN, ST 00000, and a telephone number of (123)456-7890.

The Vendor Customer Number of the Contractor is VC00000000.

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 Work

The Department and the Contractor, in consideration of the mutual promises set forth in this Contract Agreement (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 for **Heating Services**, in **Regions 2, 3 & 4**, 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.**

This contract commences on December 15, 2018 or when executed, whichever is latest and expires on **December 15, 2019** unless extended under the terms of this contract. At the Department's discretion and upon mutual agreement with the Contractor, the Contract may be extended for time and money, under all the terms of this contract, at bid prices for agreed periods of time up to approximately four (4) additional years.

**C. Price.**

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and that the amount of this offer is **(Place bid here in alphabetical form such as One Hundred Two dollars)** **\$ (repeat bid here in numerical terms, such as \$102.00)** .

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, March 2020 Edition* as updated through advertisement, Division 100 - General Conditions, 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. Contract Agreement.**

The undersigned, having carefully examined the site of work, scope of work, State of Maine, Department of Transportation, *Standard Specifications, March 2020 Edition*, Division 100 - General Conditions, 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 upon 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.

Fifth: Contractor further agrees to provide insurance as required by this Contract.



APPENDIX A  
SPECIAL PROVISION  
SPECIFICATIONS OF WORK TO BE PERFORMED

Contractor \_\_\_\_\_

SCHEDULE OF ITEMS

- The Bid must be Delivered to the precise location and by the precise time set forth in the Notice to Contractors or any applicable Bid Amendment.
- Required unit prices, lump sum prices and/or bid amounts must be provided and legible.
- Do not make handwritten changes to the bid documents.

**Basis of Award shall be the 2021 season. At the Department’s discretion and upon mutual agreement with the Contractor, the Contract may be extended up to 3 additional one-year periods at the bid prices given for that year listed below.**

**Bidder is required to bid all Items.**

**2021 Season**

Description	Estimated Quantity per Season	Unit	Unit Cost (per acre cost)	Total Cost (Unit Cost times Quantity)
<b>Program 1</b> 1 Qt. Aquaneat 4.5 Oz. Esplanade 6 Oz. Milestone 4 Oz. Oust XP	1179 acres	Acre	\$	\$
<b>Program 3</b> 2 Qt. Aquaneat 16 Oz Nufilm IR (Ballast only)	143 acres	Acre	\$	\$
<b>BASIS OF AWARD</b>			<b>Total Bid Price for 2021 Season</b>	\$

**2022 Season**

Description	Estimated Quantity per Season	Unit	Unit Cost (per acre cost)	Total Cost (Unit Cost times Quantity)
<b>Program 2</b> 1 Qt. Aquaneat 4.5 Oz. Esplanade 4 Oz. Oust Extra 16 Oz. NuFilm IR	1179 acres	Acre	\$	\$
<b>Program 3</b> 2 Qt. Aquaneat 16 Oz Nufilm IR (Ballast only)	143 acres	Acre	\$	\$
<b>Total Bid Price for 2022 Season</b>				\$

SCHEDULE OF ITEMS

**2023 Season**

Description	Estimated Quantity per Season	Unit	Unit Cost (per acre cost)	Total Cost (Unit Cost times Quantity)
<b>Program 1</b> 1 Qt. Aquaneat 4.5 Oz. Esplanade 6 Oz. Milestone 4 Oz. Oust XP	1179 acres	Acre	\$	\$
<b>Program 3</b> 2 Qt. Aquaneat 16 Oz Nufilm IR (Ballast only)	143 acres	Acre	\$	\$
<b>Total Bid Price for 2023 Season</b>				\$

**2024 Season**

Description	Estimated Quantity per Season	Unit	Unit Cost (per acre cost)	Total Cost (Unit Cost times Quantity)
<b>Program 2</b> 1 Qt. Aquaneat 4.5 Oz. Esplanade 4 Oz. Oust Extra 16 Oz. NuFilm IR	1179 acres	Acre	\$	\$
<b>Program 3</b> 2 Qt. Aquaneat 16 Oz Nufilm IR (Ballast only)	143 acres	Acre	\$	\$
<b>Total Bid Price for 2024 Season</b>				\$

- **Paper bids must be signed in pen and ink. Signatures shall be original. Stamped and copied signatures will not be accepted.**

By signing below, the Bidder (1) represents that the Bidder has examined the Contract Agreement contained in the Bid Documents, the Contract, all documents referenced in said Contract, and the site and scope of work, (2) does hereby bid and offer to enter into this contract to construct and/or perform the Work in strict accordance with the terms and conditions of this Contract at the unit prices bid in the attached "Schedule of Items", (3) represents that the Bidder has given the Department notice of any errors or ambiguities related to the documents or the work that have been discovered by the Bidder, (4) represents that the above-named organization is the legal entity entering into the resulting contract with the Department if they are awarded the contract and, (5) represents that the undersigned is authorized to enter contractual obligations on behalf of the above-named organization.

Bidder acknowledges that the properly completed and signed Schedule of Items provided with the Bid constitutes the Bidder's offer and that this offer shall remain open for 30 calendar days after the date of opening of bids.

The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder 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.

Use pen and ink to complete paper bids. Signatures shall be original. Stamped and copied signatures will not be accepted.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Print Bidder's Name and Title)

Bids are not accepted by email or FAX. If a paper Bid is to be sent express, please take note that overnight services do not always arrive in time. Packages using express services should be sent to Maine Department of Transportation, 24 Child Street, Augusta, Maine.

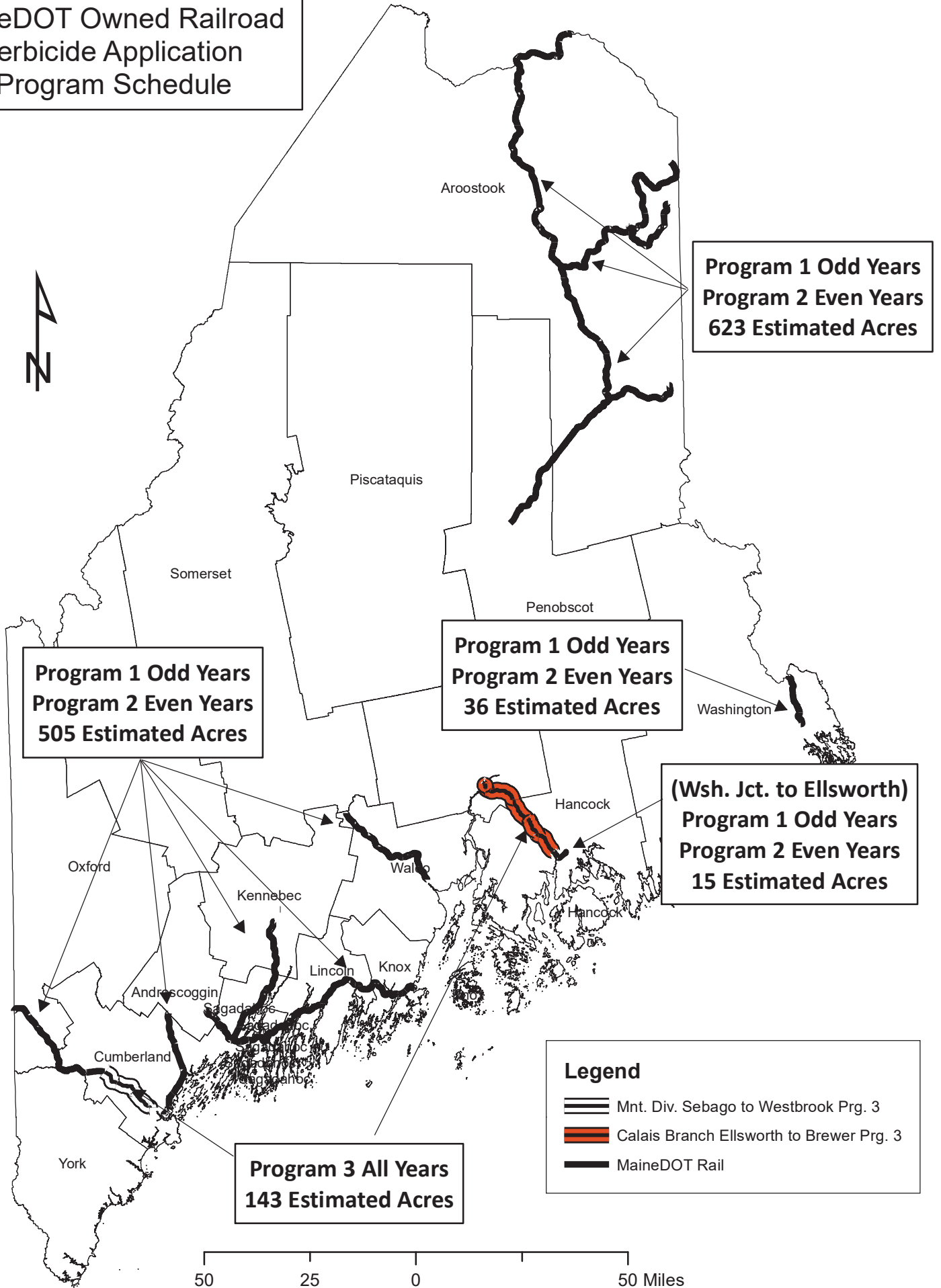
**Electronic bidding will NOT be  
available  
for this bid.**

**Bids will NOT be accepted  
by email or fax.**

**SIGNED PAPER BIDS ARE  
REQUIRED  
and may be  
mailed, sent express or hand delivered.**

For further information, see "BIDDING INSTRUCTIONS"  
which are located near the front of the bid book.

**MaineDOT Owned Railroad  
Herbicide Application  
Program Schedule**



**Program 1 Odd Years  
Program 2 Even Years  
623 Estimated Acres**




**Program 1 Odd Years  
Program 2 Even Years  
505 Estimated Acres**

**Program 1 Odd Years  
Program 2 Even Years  
36 Estimated Acres**

**(Wsh. Jct. to Ellsworth)  
Program 1 Odd Years  
Program 2 Even Years  
15 Estimated Acres**

**Program 3 All Years  
143 Estimated Acres**

**Legend**

-  Mnt. Div. Sebago to Westbrook Prg. 3
-  Calais Branch Ellsworth to Brewer Prg. 3
-  MaineDOT Rail

Contract Administrator

The Contract Administrator for this contract will be:

Greg Gay ([Greg.Gay@maine.gov](mailto:Greg.Gay@maine.gov))  
Transportation Maintenance Manager Railroads  
Maine DOT  
16 State House Station  
Augusta, ME 04330

The Contractor shall contact the Contract Administrator, in order to coordinate the work. The Contractor shall submit invoices to the Contract Administrator as described in this contract.

Contractor Requirements

1. After Bid Opening and prior to contract Award, the Apparent Successful Bidder must provide proof of the following:
  - a. A currently employed Master level Maine licensed Pesticide Applicator.
  - b. A copy of the current employees Master level Maine Pesticide licensure.
2. The Contractor shall apply herbicides on State maintained Railroad ROW in accordance with the public notification schedule provided by the Contractor and in accordance with variances from Board of Pesticides Control applied for and successfully obtained by the Contractor, and in accordance with properly posted and approved Department no-spray agreements.
3. The Contractor must employ a minimum of one Master level Maine licensed pesticide applicator with current license and Category 6A Rights of Way as required by Board of Pesticides Control for the intended work. The Contractor shall provide a commercial Operator or Master level Maine licensed pesticide applicator with the same category to be on site for every herbicide application.
4. The Department may suspend Work if the Contractor fails to produce licenses when required by the Department at any time during the contract. The Department will not authorize Work to commence again until the Department has received and verified the Contractor's licenses.
5. The Contractor shall apply herbicides in accordance with the standards of the Maine Board of Pesticides Control, the Department, and all applicable regulatory agencies to include but not be limited to quality of application, safety standards, spill mitigation, and personal conduct.
6. The Contractor shall supply all the equipment necessary to apply herbicides in a safe and effective manner.
7. The Contractor shall have a complete SPC Economy Universal Spill Kit such as those supplied by Sorbent Products or equivalent, in all vehicles that are carrying herbicides whether concentrates or mixes which will be verified prior to the commencement of any workday.

8. The Contractor will maintain and submit copies of a daily report in compliance with Chapter 50 of Maine pesticide law and additionally provide record of: track segment, specific start/stop locations, start/stop times, vehicle number, acres sprayed, width of pattern, chemicals applied, personnel on job, department representative on job, train delays, and signature of spray operator to the Department Contract Administrator at the end of each day.
9. The Contractor must understand and be familiar with and at all times observe and comply with all federal, state, and local laws, ordinances, and regulations which in any manner affect the conduct of this work. The Department may suspend Work if violations are observed. The Contractor shall not resume work until the violations are resolved to the satisfaction of the Department.
10. In the event adequate control of vegetation is not achieved the contractor shall re-treat areas at no charge to the Department to achieve level of control. Such retreatment shall be coordinated with the Railroad Manager for timing of track access and support personnel. Some circumstances that may prevent adequate control of vegetation may include but are not limited to heavy rain soon after application that washes material away, misapplication, and turbid water, water harness, or extreme water pH.
11. The Contractor will not be compensated for non-approved work, regulatory violations, or fraudulent reporting.
12. There shall be no guarantee of a minimum number of acres sprayed. The Department will only pay for actual acres sprayed. The Department will not pay for travel time to or from work. The Contractor is considered to be at work during the day while performing assigned duties and travelling from one site to another.
13. Workers shall have appropriate personal safety equipment including but not limited to hard hats, reflective vests, safety glasses, hearing protection, steel toe boots, and PPE to comply with all federal and state regulations, and Department policies.

#### Herbicides Specifications

The herbicide programs shown in schedule of items shall be applied by the Contractor. The Department shall designate which program shall be used on an area. Equivalent generic products which contain the same active ingredients at the same concentration may be substituted for the chemicals listed with the exception of **Nufilm IR**.

#### Allowable Work Times

The Contractor is allowed to commence work and end work daily according to the Sunrise/Sunset Table <http://www.sunrisesunset.com/usa/Maine/>. If the project town is not listed, the closest town on the list will be used as agreed.

#### Contractor's Safety Program

In order to be awarded a contract, the Bidder must have a current, applicable Safety Plan on file with the Department or must submit to the Department's Bureau of Maintenance & Operations, an acceptable, current Contractor's Safety Plan or Project and Site Specific Safety Plan to the Department which identifies and addresses job hazards of the expected contract work and complies with all applicable federal, State, and local laws governing safety including all applicable laws and regulations of Occupational Safety and Health Administration (OSHA).

The Bidder's Project and Site Specific Safety Plan shall address the specific activities or tasks that require protection and establish the procedures that are to be followed to minimize the hazard. Specific statements which describe both what action is to be taken and how it is to be performed are preferable.

If a copy of the Contractor's Safety Plan is not on file with the Contracts Section of the Department, the Contractor must submit, prior to Contract award, a Safety Plan to the Department. The Contractor's Safety Plan shall identify and address job hazards of the expected contract work and shall comply with all applicable federal, State, and local laws governing safety including all applicable laws and regulations of OSHA.

#### Award

In order to be considered for the award of this contract, the Bidder and key employees that will be assigned to the Work in this Contract shall have successfully completed projects of similar size and scope and have sufficient experience in the Application of Herbicide. Said experience shall include, at a minimum, at least three (3) projects of equal or greater complexity than the work required by this Contract completed by the Bidder in the last five (5) years.

Areas of experience shall include, but are not limited to:

- Herbicide Application on State Railroad
- Work performed in live traffic in accordance to the Manual on Uniform Traffic Control Devices (MUTCD)
- Work performed in or around water bodies in compliance with standards set by the Maine Department of Environmental Protection (MDEP).

The Contractor shall have and maintain current licenses, authorizations, ratings and registrations for the duration of the contract.

The Bidder shall be able to comply with the Contract Requirements, be able to deliver according to the contract schedule, and have a history of satisfactory performance.

The Department will notify the Apparent Successful Bidder of the requirements for post-bid, pre-award qualifications and the Bidder shall provide all of the items within seven (7) days of the notice. The Contractor shall submit two copies or an electronic copy of all required submittals to the Department.

The Bidder may be required to submit evidence of compliance with all Contractor Requirements set forth in this Contract.

If the Bidder does not have a history of satisfactory performance performing similar Work under contracts with the Department that meets the Contractor Requirements regarding experience, the Bidder may be required to submit written documentation setting forth the experience of the Bidder's key personnel who will be performing the Work specified in the contract documents, including a description of similar work completed in the last five (5) years that highlight the Bidder's and subcontractors' related experience. Such information shall include:

1. the key personnel's experience and number of years performing work related specifically to the Scope of Work in this contract;
2. the name of the owner for whom the work was performed;
3. the name and telephone number of a contact person;
4. a description and value of the work performed by key personnel.

The Bidder may be required to submit the relevant experience of the key personnel and supervisors who will be performing Work under this contract, their experience and number of years performing work related specifically to the Scope of Work in this contract.

The Bidder's submittal may be required to include a statement describing the personnel and equipment available for the Work and demonstrating that the Bidder is able to deliver according to the contract schedule. Contractors may be required post bid pre award to demonstrate they meet some of the contractor requirements.

Upon receipt of the pre-award submittals, the Department will review the submissions and determine if the submitted evidence or information satisfies the Department requirement that the bidder is qualified to properly carry out the terms of the Contract.

Bidders shall ensure that all information required herein is submitted. Provision of inaccurate information or failure to provide all completed and required information may result in the Bidder being determined to be "Not Qualified" or disqualified as non-responsive. Within 14 days, the Department will review the submissions and determine if the available evidence or information satisfies the Department requirement that the bidder is qualified to properly carry out the terms of the Contract. The Department reserves the right to communicate in writing with Bidders, if needed, to obtain additions to and/or clarification of information contained in the submittals received. The qualifications submitted will be checked for general conformance with the concept of the project and compliance with the requirements set out in the Contract Documents. Review by the Department, comments by the Department, or any failure to review or comment, shall not absolve the Contractor of its responsibility or to shift any responsibility to the Department. The Bidder shall have 3 days to submit additions and clarifications. The Bidder will have no additional opportunity to submit or clarify information. The Department will not provide an opportunity for the Bidder to meet to present evidence.

Based on these submissions, the Department will make one of the following determinations:

1. Qualified - The Contractor has satisfied the post-bid, pre-award qualification requirements and demonstrated to the Department's satisfaction that it is responsible, can meet the Contractor Requirements set forth in this contract, and is qualified to perform this type of work.
2. Not Qualified - Bidder is not qualified to properly carry out the terms of the Contract and/or the submission does not meet specifications and accepted standards and is not acceptable, as determined by the Department.

There is no Appeal process and the determination of "Not Qualified" is final. The Department will reject the bid as non-responsive, and the Award process will proceed without the unqualified Bidder.

The Department will notify the Bidder of its determination in writing. If a determination of "Not Qualified" is rendered, the notice will set forth reasons to the extent practical. Such reasons may include the following:

- A. Not meeting contract Contractor Requirements
- B. Insufficient experience
- C. No Safety Plan or Project and Site Specific Safety Plan or an unacceptable Safety Plan or Project and Site Specific Safety Plan
- D. Default(s) or termination(s) on past or current Contracts.
- E. Failure to pay or settle all bills for labor, Materials or services on past or current Contracts.
- F. Failure to provide Closeout Documentation on past or current Contracts.
- G. Failure to fulfill warranty obligations on past or current Contracts.
- H. Failure to comply with directives of the Department on past or current Contracts.
- I. "Below Standard" performance as determined from the Department's Contractor's Performance Rating process.
- J. Insufficient bonding capability or Inability of the Contractor to obtain or retain performance or Payment Bonds meeting MDOT requirements.
- K. Failure to accept an Award of a Contract made by the Department to the Contractor.
- L. Making materially false, deceptive, or misleading Statements or omissions, whether or not under oath, regarding a claim on prior Contracts or on the Contractor's Prequalification Application or the Post-Bid Qualifications submittals.
- M. Failure to provide information requested by the Department in a timely manner.
- N. Debarment, suspension or a denial of prequalification or "award of contract" by any federal, State, or local governmental procurement agency or the Contractor's Agreement to refrain from Bidding as part of the settlement with any such agencies or any of the reasons contained in Section 102.02 of the "Rules Regarding Debarment of Contractors," Maine Department of Transportation Register 17-229, Chapter 102 (October 2, 1985).

- O. Failure to demonstrate ability to do work to the satisfaction and at the sole discretion of the Department.
- P. Number of personnel working directly for the Contractor with applicable knowledge and experience is significantly below industry standards.
- Q. Safety Record, Environmental Record, Civil Rights, or Equal Opportunity Record significantly below industry standards. Serious misconduct that the Department reasonably determines will substantially and adversely affect the cost, quality, or timeliness of Work, or the safety of workers or the public, any deceptive, evasive, or fraudulent statements or omissions contained in the Application, made or omitted at any interview or hearing, or otherwise made to or omitted from the Department; or any other substantial deficiencies in experience or conduct that are clearly below industry standards and that clearly demonstrate in the sole discretion of the Department that the Contractor is “Not Qualified.”

SPECIAL PROVISION SECTION 101  
CONTRACT INTERPRETATION

101.2 Definitions Add the following:

“MaineDOT The Department of Transportation of the State of Maine, as established by 23 MRSA §4205 et seq. for the administration of Highway, Bridge, and other public Works; acting through the Commissioner and his/her duly authorized representatives.”

101.2 Definitions Add the following:

“Contract Agreement form The Contract Agreement, Offer and Award, the Maine Department of Transportation Contract Agreement Transportation Related Maintenance Work, the Maine Department of Transportation Contract Agreement to Purchase Supplies, Materials and/or Equipment for a Specific Project, Contract Agreement to Purchase Materials and/or Equipment for a Project and Related Work, the Maine Department of Transportation Private Equipment Rental Agreement – with an Operator, the Maine Department of Transportation Private Equipment Rental Agreement – without an Operator, or other contract agreement contained in the bid documents.”

SPECIAL PROVISION SECTION 102  
BIDDING

102.7.1 Location and Time Delete the entire section and replace with the following:

“The Bidder must Deliver its Bid in a sealed envelope to the exact location and before the precise time (as determined by the Department) specified in the Notice to Contractors or any applicable Bid Amendment. The sealed envelope must be labeled with the Bidder's name, the Project location, WIN and Title, and the words “Bid Enclosed”. 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 form, and any other Certifications or Bid Requirements listed in the Bid Book. For a related provision, see Section 102.11 - "Bid Responsiveness".

102.11.1 Non-curable Bid Defects Revise the item on the list of non-curable Bid Defects for which the Department will reject Bids as non-responsive that reads “The Bid is not signed by a duly authorized representative of the Bidder.” by replacing it with the following:

“The Bid is not signed by a duly authorized representative of the Bidder.

- Properly submitted electronic bids meet this requirement.
- Paper bids must include either (1) one or more signed copies of the Contract Agreement form or (2) a signed copy of the Schedule of Items.”

102.11.1 Non-curable Bid Defects Revise this subsection by removing the words “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.” and replacing it with the following:

“The unit price and bid amount is not provided if (1) the item quantity is not one or lump sum or, (2) the lump sum contract price is not provided or, (3) the unit price, bid amount or lump sum price is illegible as determined by the Department.”

102.11.2 Curable Bid Defects Revise the section by replacing it with the following:

“Unless the Department waives a curable Bid defect, the Bidder must cure, within the time stated in the written notice by the Department, but not less than 24 hours, all other Bid Defects not listed in Section 102.11.1 - Non-curable Bid Defects that are identified by the Department. Failure to cure such Defects within said time may result in forfeiture of the Bidder’s Bid Guaranty. Upon such failure, the Department may take any action in the best interests of the Department, including those set forth in Section 103.6 - Failure to Fulfill Award Conditions.

Such curable Bid Defects include, but are not limited to, the following.

The Bidder signs only one of the Contract Agreement Offer & Award forms.

Missing total sum of the items provided in the Schedule of Items.

The prices or signatures on the Bid or Bid Guaranty are not in ink or other non-erasable substance.

Failure to acknowledge Receipt and consideration of all Bid Amendments.

The Bid includes only one signed Contract Agreement form.

The Bid does not include a signed Contract Agreement form but does include a signed Schedule of Items.

If a submitted bid contains any additional conditions or alternate bidding language, the Bidder may cure the defect by removing all conditions and alternate language or the Department will reject the bid as non-responsive.

All other Defects that do not create a significant question as to the Bidder’s total Bid amount or the Bidder’s ability to complete the Work within the Contract Time or by the Contract Completion Date as determined by the Department.”

SPECIAL PROVISION SECTION 103  
AWARD AND CONTRACTING

103.1.1 Unit Prices Govern Add the following at the end of the paragraph:

“If the item quantity is one and either a unit price or bid amount is not provided, the unit price or bid amount omitted shall be determined mathematically by the Department.”

103.5 Award Conditions Replace the first paragraph with the following:

“The Apparent Successful Bidder must provide and/or perform all of the items listed in this Section 103.5 within 14 Days of Receipt of the Notice of Intent to Award. Unless indicated otherwise, all items must be Delivered to the Department’s Bureau of Maintenance & Operations.”

103.5.4 Execution of Contract By Bidder Delete the entire section 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 bonds, insurance, and any other pre-award items required, the Department will sign and execute the Contract. The point of Contract execution is when the Contractor receives written notice that the contract has been signed by the Department and executed.”

SPECIAL PROVISION SECTION 104  
GENERAL RIGHTS AND RESPONSIBILITIES

104.3.8A. Federal Wage Rates and Labor Laws Delete the entire section 104.3.8A. Federal Wage Rates do not apply to this work.

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

## APPENDIX B

April 29, 2020

### SPECIAL PROVISIONS FOR STATE FUNDED TRANSPORTATION RELATED MAINTENANCE WORK

1. **BENEFITS AND DEDUCTIONS** 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. **INDEPENDENT CAPACITY** 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 Work 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. **CONTRACT ADMINISTRATOR** 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. **CHANGES IN THE WORK** 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. **SUBCONTRACTS** 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 subcontractor. 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 Work 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. **EMPLOYMENT AND PERSONNEL** 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 of the Department. 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 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. **WARRANTY OF NO COLLUSION** 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.

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.

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

Workers' Compensation 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.

Automobile Liability 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.

Claims. 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. **INTEGRATION** 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 Work
- Bid Amendments (most recent to least recent)
- Appendix A – Special Provision Specifications of Work to be Performed or Request for Proposals
- Appendix B – Special Provisions for State Funded Transportation Related Maintenance Work
- Appendix C – Special Provisions
- 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, March 2020 Edition,  
Division 100 - General Conditions, 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. **ALLOWABLE WORK TIMES** 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, Indigenous Peoples 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.

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

Temporary Soil Erosion and Water Pollution Control 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.

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

Environmental Non-compliance - Remedies and Costs 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.

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 Work 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 Work
- Description and Location of Work
- 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, or failure of Subcontractors to make payments to Sub-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 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.

**SUPPLEMENTAL SPECIFICATIONS**  
**(Corrections, Additions, & Revisions to Standard Specifications – March 2020)**

**SECTION 102**  
**BIDDING**

102.11 Bid Responsiveness Revise the paragraph that states  
“The Bid is not signed by a duly authorized representative of the Bidder.” So that it reads:

**“The Bid is not signed by a duly authorized representative of the Bidder.**

- **Properly submitted electronic bids meet this requirement.**
- **Paper bids must include at least one signed copy of the Contract Agreement Offer & Award form.”**

**SECTION 104**  
**GENERAL RIGHTS AND RESPONSIBILITIES**

104.2.1 Furnishing of Right-of-Way Revise the last sentence in the first paragraph by removing  
“105.4.5 – Special Detours” and replacing it with “**105.4.5 – Maintenance of Existing Structures.**”.

**SECTION 106**  
**QUALITY**

106.6 Acceptance Revise this Subsection by replacing the paragraph beginning with “Acceptance of Hot Mix Asphalt Pavement will be based” with:

**“Acceptance of Hot Mix Asphalt Pavement will be based on Method A or C Statistical Acceptance, or Method B or D Acceptance as specified. The method of acceptance for each item is defined in Special Provision, Section 403, Hot Mix Asphalt Pavement. When items of Hot Mix Asphalt Pavement are not so designated, Method A will be utilized whenever there are more than 1000 tons per Hot Mix Asphalt Pavement item, and Method B will be utilized when there are less than or equal to 1000 tons per Hot Mix Asphalt Pavement item.”**

Revise Subsection “B” by removing it and replacing it with:

**“B. Items not designated for Statistical Acceptance will utilize Method B or D Acceptance testing to validate the quality of the material incorporated into the Project. For material paid under Item 403.209 – Method D, or designated to be visually accepted, the Contractor shall provide the Department with a Certification Letter that indicates that the material supplied complies with the Specifications. Test results representative of the certified material shall be attached to the letter.**

**The Department will randomly sample and test the certified Material for properties noted in Table 1 of Section 502 - Structural Concrete or Table 14 of Section –401.21 Acceptance Method B & D. Material will be subject to rejection as noted in Structural Concrete Section 502.195 - Quality Assurance Method C Concrete or Hot Mix Asphalt, Section 401.2022 Pay Adjustment – Method B & D.”**

106.7.1 Standard Deviation Method Revise 106.7.1, subsection H by removing the following from the first paragraph:

“Method B:  $PF = [70 + (\text{Quality Level} * 0.33)] * 0.01$ ”

## SECTION 110 INDEMNIFICATION, BONDING, AND INSURANCE

110.3.9 Administrative & General Provisions Amend this subsection by adding “**Automobile Liability**” under letter A) Additional Insured to the list of exceptions.

## SECTION 401 HOT MIX ASPHALT PAVEMENT

401.19 Contractor Quality Control Amend this Section by adding the following to the end:  
**“Failure to comply with the approved QCP will result in work suspension and pay reductions as outlined in Section 106.4.6. The Quality Control Plan Value shall be the total bid value for all items covered by the QCP as identified in Special Provision 403.”**

## SECTION 502 STRUCTURAL CONCRETE

502.09 Forms and Falsework Amend this subsection by adding the subsection title “**502.10 Placing Concrete**” after section “D” Removal of Forms and False work” and after the paragraph beginning with “2. Forms and False work, including blocking...”. So that a new subsection starts and reads:

**“502.10 Placing Concrete**

A. **General Concrete shall not be placed until forms ....”**

502.1701 Quality Control, Method A and B Revise this Section so that the first paragraph and the first sentence of the second paragraph read:

**“502.17 Quality Control** The Contractor shall control the quality of the concrete through testing, inspection, and practices which shall be described in the QCP, sufficient to assure a product meeting the Contract requirements. The QCP shall meet the requirements of Section 106, Quality, and this specification. No work under this item shall proceed until the QCP is submitted to and approved by the Department. Failure to comply with the approved QCP will result in work suspension and pay reductions as outlined in Section 106.4.6. The Quality Control Plan Value shall be the total bid value for all cast-in-place items covered by the QCP,

using the P value listed in Special Provision 502. If no P value is listed, a value of \$350, or bid value per cubic yard, whichever is less, shall be used.

**502.1701 Quality Control, Method A and B** The QCP shall address all elements that affect the quality of the structural concrete including, but not limited to, the following: “

502.18, Method of Measurement, Revise Subsection ‘F’ by removing the word ‘transverse’ so that it reads: “**Saw cut grooving of concrete wearing surfaces, complete and accepted, will be measured for payment as one lump sum.**”

502.19, Basis of Payment, Revise the third paragraph by removing the word ‘transverse’ so that it reads: “**Saw cut grooving of concrete wearing surfaces will be paid for at the Contract Lump Sum Price, which shall be payment for furnishing all materials, labor, and equipment, including depth gauges and all incidentals, to satisfactorily complete the work.**”

(Also see 535.24 and 535.25 for related changes)

## SECTION 506 SHOP APPLIED PROTECTIVE COATING – STEEL

506.13 Surface Preparation Amend this section by adding this paragraph to the end:

**“Steel shall meet the requirements of SSPC SP8 Pickling prior to being immersed in the zinc tanks. Verification of the surface preparation shall be included in the QC documentation.”**

## SECTION 523 BEARINGS

523.22 Fabrication Amend this subsection by adding the following: “**Elastomeric Bearings shall be fabricated in accordance with AASHTO M251.**”

## SECTION 526 CONCRETE BARRIER

Amend this section by deleting it in its entirety and replacing it with:

**“526.01 Description This work shall consist of the furnishing, constructing, erecting, setting, resetting, and removal of concrete barrier and associated elements in accordance with these specifications, the Standard Details, and the lines and grades shown on the Plans or established by the Resident.**

**The types of concrete barrier are designated as follows:**

**Portable Concrete Barrier Type I** Double faced removable barrier in accordance with the Standard Details.

**Permanent Concrete Barrier Type II** Double faced barrier as shown on the Plans.

**Permanent Concrete Barrier Type IIIa** Single faced barrier 32 inches high in accordance with the Standard Details or as shown on the Plans.

**Permanent Concrete Barrier Type IIIb** Single faced barrier 42 inches high in accordance with the Standard Details or as shown on the Plans.

**Permanent Concrete Transition Barrier** Barrier of various heights joining steel bridge rail to steel guardrail in accordance with the Standard Details or as shown on the Plans.

**Permanent Texas Classic Rail Barrier** Traffic rail or sidewalk rail, in accordance with the Standard Details or as shown on the Plans.

#### **526.02 Materials**

a. **Concrete** Concrete for barriers, both permanent and portable, shall have a design strength of 5,000 psi.

For cast-in-place barrier: The concrete shall be Class LP, in accordance with Standard Specification Section 502, Structural Concrete.

For precast barrier: The concrete shall meet the requirements of Standard Specification 712.061, Structural Precast Concrete Units, except that the stripping strength for precast barriers is 4,000 psi.

b. **Reinforcing Steel** Reinforcing steel shall meet the requirements of Section 503, Reinforcing Steel.

c. **Structural Steel** Plates and barrier connections shall meet the requirements specified in Standard Specification 504 - Structural Steel and shall be hot dip galvanized after fabrication in accordance with Standard Specification 506, Shop Applied Protective Coating – Steel

d. **Bolts** Bolts shall meet the requirements specified in Section 713.02, High Strength Bolts.

e. **Connecting Pins for Portable Concrete Barrier** Portable concrete barriers must be connected using a 1- inch diameter pin. The connecting pin must be smooth, not deformed, i.e., reinforcing bar may not be used, and shall meet the strength requirements of ASTM A449 steel. Materials with greater strength may be used with the approval of the Department.

**f. Anchor Pins for Portable Concrete Barrier** Anchoring to concrete or asphalt will be required when specified on the Plans. When required, portable concrete barriers must be anchored using a 1 ½ - inch diameter anchor pin. The anchor pin must be smooth, not deformed, i.e., reinforcing bar may not be used, and shall meet the strength requirements of ASTM A36 steel. Materials with greater strength may be used with the approval of the Department.

**g. Device Crashworthiness** MaineDOT is transitioning to MASH2016 criteria for Portable Concrete Barrier on the following schedule:

New Portable Concrete Barrier shall be crash tested and/or evaluated to MASH2016 criteria.

Current Portable Concrete Barrier in useful serviceable condition that is successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.

Other current Portable Concrete Barrier that is deemed acceptable by the Department may be utilized on projects off the National Highway System through December 31, 2024.

#### **526.03 Construction Requirements**

Cast-in-place barriers shall be fabricated in accordance with Standard Specification Section 502, Structural Concrete. Precast barriers shall be fabricated in accordance with Standard Specification 534, Precast Structural Concrete.

Concrete finish for permanent barrier shall be rubbed as defined in Standard Specification Section 502, Structural Concrete, 502.13 D2 or an approved equal.

Portable concrete barrier shall be generally free from fins and porous areas and shall present a neat and uniform appearance.

Permanent barrier shall have a protective coating applied in accordance with Standard Specification Section 515, Protective Coating for Concrete Surfaces.

Reflective delineators for concrete median barrier shall meet the requirements of Special Provision 645, Highway Signing.

Preformed Joint Filler shall meet the requirements specified in Subsection 705.01, Preformed Expansion Joint Filler.

Permissible dimensional tolerances for all concrete barriers shall be as follows:

a. Cross-sectional dimensions shall not vary from design dimensions by more than ¼ inch. The vertical centerline shall not be out of plumb by more than ¼ inch.

b. Longitudinal dimensions shall not vary from the design dimensions by more than  $\frac{1}{4}$  inch per 10 feet of barrier section and shall not exceed  $\frac{3}{4}$  inches per section.

c. Location of anchoring holes shall not vary by more than  $\frac{1}{2}$  inch from the dimensions shown in the concrete barrier details on the Plans.

d. Surface straightness shall not vary more than  $\frac{1}{4}$  inch under a 10-foot straightedge.

e. The barrier shall have no significant cracking. Significant cracking is defined as fractures or cracks passing through the section, or any continuous crack extending for a length of 12 inches or more, regardless of position in the section.

**526.04 Method of Measurement** Permanent Concrete Barrier Type II, IIIa, IIIb, Texas Classic Rail, and Precast Median Barrier will be measured for payment by lump sum, complete in place.

Portable concrete barrier, both anchored and unanchored will be measured for payment by lump sum. Lump sum measurement will include verification of the installation and removal of all portable concrete at the completion of the Contractor's operations.

The Contractor shall replace sections of portable concrete barrier, including anchored barrier damaged by the traveling public when directed by the Resident. Replacement sections will be measured for payment in accordance with Standard Specification 109.7, Equitable Adjustments to Compensation and Time.

Transition barrier will be measured by each, complete in place.

**526.05 Basis of Payment** The accepted quantities of Concrete Barrier Type II, IIIa, IIIb, Texas Classic Rail, and Precast Median Barrier will be paid for at the Contract lump sum price for the type specified, complete in place.

The accepted quantities of Portable Concrete Barrier Type I, both anchored and unanchored will be paid for at the Contract lump sum price. Such payment shall be full compensation for furnishing all materials, assembling, moving, resetting, transporting, temporarily storing, removing barrier, furnishing new parts as necessary, and all incidentals necessary to complete the work.

Portable barrier shall become the property of the Contractor upon completion of the use of the barrier on the project and shall be removed from the project site by the Contractor.

Transition barrier will be paid for at the Contract price each, complete in place.

The accepted quantity of all types of concrete barrier, whether portable or permanent, will be paid for at the lump sum or per each price, as applicable, which payment shall be full compensation for all materials, including reinforcing steel, protective coating, reflective delineators, steel plates and hardware, equipment, labor and incidentals required, as necessary, to complete the work.

Payment will be made under:

	<u>Pay Item</u>	<u>Pay Unit</u>
526.301	Portable Concrete Barrier, Type I	Lump Sum
526.304	Portable Concrete Barrier, Anchored Type I	Lump Sum
526.312	Permanent Concrete Barrier Type II	Lump Sum
526.321	Permanent Concrete Barrier Type IIIa	Lump Sum
526.323	Texas Classic Rail	Lump Sum
526.331	Permanent Concrete Barrier Type IIIb	Lump Sum
526.34	Permanent Concrete Transition Barrier	Each
526.502	Precast Concrete Median Barrier	Lump Sum”

SECTION 527  
ENERGY ABSORBING UNIT

527.02 Materials Amend this section by deleting it in its entirety and replacing it with:

**“MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

**Portable Crash Cushions will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 3 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.**

**Work Zone Crash Cushions shall be selected from the Department’s Qualified Products List of Crash Cushions/Impact Attenuators or approved equal.”**

SECTION 535  
PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

535.24, Installation of Slabs, Beams, and Girders Revise the 5<sup>th</sup> paragraph by replacing “6.0 and 9.0” to “5.0 and 8.0” so it reads: **“Ready mixed grout shall achieve a design compressive strength of 6,000 psi at 28 days, have an entrained air content of between 5.0 and 8.0 percent, be non-shrink, flowable, and contain a non-shrink additive listed on the Department QPL for expansive cements.”**

535.25, Installation of Precast/Prestressed Deck Panels Revise the 2<sup>nd</sup> paragraph by replacing “6.0 and 9.0” to “5.0 and 8.0” so it reads: **“Ready mixed grout shall achieve a design compressive strength of 6,000 psi at 28 days, have an entrained air content of between 5.0 and 8.0 percent,**

**be non-shrink, flowable, and contain a non-shrink additive listed on the Department QPL for expansive cements.”**

SECTION 606  
GUARDRAIL

Amend this section by replacing it with the following:

606.01 Description This work shall consist of furnishing and installing guardrail components in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans or as established. Guardrail is designated as:

31” W-Beam Guardrail - Mid-Way Splice

Galvanized steel w-beam, 8” wood or composite offset blocks, galvanized steel posts

Thrie Beam

Galvanized steel thrie beam, 8” wood or composite offset blocks, galvanized steel posts

Median guardrail shall consist of two beams of the above types, mounted on single posts.

Bridge mounted guardrail shall consist of furnishing all labor, materials, and equipment necessary to install guardrail as shown on the plans. This work shall also include drilling for and installation of offset blocks if specified, and incidental hardware necessary for satisfactory completion of the work.

Remove and Reset and Remove, Modify, and Reset guardrail shall consist of removing the existing designated guardrail and resetting in a new location as shown on the plans or directed by the Resident. Remove, Modify, and Reset guardrail and Modify guardrail include the following guardrail modifications: Removing plate washers at all posts, except at anchorage assemblies as noted on the Standard Details, adding offset blocks, and other modifications as listed in the Construction Notes or General Notes. Modifications shall conform to the guardrail Standard Details.

Bridge Connection shall consist of the installation and attachment of beam guardrail to the existing bridge. This work shall consist of constructing a concrete end post or modifying an existing end post as required, furnishing, and installing a terminal connector, necessary hardware, and incidentals required to complete the work as shown on the plans. Bridge Transition shall consist of a bridge connection and furnishing and installing guardrail components as shown in the Standard Details.

606.02 Materials Materials shall meet the requirements specified in the following Sections of Division 700 - Materials:

Timber Preservative

708.05

Metal Beam Rail	710.04
Guardrail Posts	710.07
Guardrail Hardware	710.08

Guardrail components shall meet the applicable standards of "A Guide to Standardized Highway Barrier Hardware" prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Task Force 13 Report.

Posts for underdrain delineators shall be "U" channel steel, 8 ft long, 2 ½ lb/ft minimum and have 3/8-inch round holes, 1-inch center to center for a minimum distance of 2 ft from the top of the post.

Reflectorized Flexible Guardrail Markers shall be mounted on all guardrails. A marker shall be mounted onto guardrail posts at the flared guardrail terminal end point and tangent point, both at the leading and trailing ends of each run of guardrail. The marker's flexible posts shall be gray with either silver-white or yellow reflectors (to match the edge line striping) at the tangents, red at leading ends, and green at trailing ends. Whenever the guardrail terminal is not flared, markers will only be required at the terminal end point. These shall be red or green as appropriate. Markers shall be installed on the protected side of guardrail posts unless otherwise approved by the Resident. Reflectorized flexible guardrail markers shall be from the Department's Qualified Products List of Delineators. The marker shall be gray, flexible, durable, and of a non-discoloring material to which 3-inch by 9-inch reflectors shall be applied, and capable of recovering from repeated impacts and meeting MASH 16 requirements. Reflective material shall meet the requirements of Section 719.01 for ASTM D 4956 Type III reflective sheeting. The marker shall be secured to the guardrail post with two fasteners, as shown in the Standard Details.

Reflectorized beam guardrail ("butterfly"-type) delineators shall be mounted on all "w"-beam guardrail. The delineators shall be mounted within the guardrail beam at guardrail posts. Delineators shall be fabricated from high-impact, ultraviolet & weather resistant thermoplastic. Reflectorized beam guardrail delineators shall be placed at approximately 62.5 ft intervals or every tenth post on tangents and at approximately 31.25 ft intervals or every fifth post on curves. Exact locations of the delineators shall be as directed by the Resident. On divided highways, the left-hand delineators shall be yellow, and the right-hand delineators shall be silver/white. On two directional highways, the right-hand side shall be silver/white, and no reflectorized delineator used on the left. All reflectors shall have reflective sheeting applied to only one side of the delineator facing the direction of traffic as shown in the Standard Details. Reflectorized sheeting for guardrail delineators shall meet the requirements of Section 719.01.

Single wood post shall be of cedar, white oak, or tamarack, well-seasoned, straight, and sound and have been cut from live trees. The outer and inner bark shall be removed, and all knots trimmed flush with the surface of the post. Posts shall be uniform taper and free of kinks and bends.

Single steel post shall conform to the requirements of Section 710.07 b.

Single steel pipe post shall be galvanized, seamless steel pipe conforming to the requirements of ASTM A120, Schedule No. 40, Standard Weight.

Acceptable multiple mailbox assemblies shall be listed on the Department's Qualified Products List and shall be MASH 16 tested and approved.

Flared and Tangent w-beam guardrail terminals and guardrail offset blocks shall be from the Department's Qualified Products List. Flared terminals shall be installed with a 4 ft offset as shown in the Manufacturer's installation instructions.

Anchorage assemblies used to anchor trailing ends, radius guardrail, or other ends not exposed to traffic shall meet the applicable standards of "A Guide to Standardized Highway Barrier Hardware" prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Task Force 13 Report, Drawing SEW02a.

Existing materials damaged or lost during adjusting, removing and resetting, or removing, modifying, and resetting, shall be replaced by the Contractor without additional compensation. Existing guardrail posts and guardrail beams found to be unfit for reuse shall be replaced when directed by the Resident.

606.03 Posts Posts for guardrail shall be set plumb in holes or they may be driven if suitable driving equipment is used to prevent battering and distorting the post. When posts are driven through pavement, the damaged area around the post shall be repaired with approved bituminous patching. Damage to lighting and signal conduit and conductors shall be repaired by the Contractor.

When set in holes, posts shall be on a stable foundation and the space around the posts, backfilled in layers with suitable material, thoroughly tamped.

The reflectorized flexible guardrail markers shall be set plumb with the reflective surface facing the oncoming traffic. Markers shall be installed on the protected side of guardrail posts. Markers, which become bent or otherwise damaged, shall be removed and replaced with new markers.

Single wood posts shall be set plumb in holes and backfilled in layers with suitable material, thoroughly tamped. The Resident will designate the elevation and shape of the top. The posts, that are not pressure treated, shall be painted two coats of good quality oil base exterior house paint.

Single steel posts shall be set plumb in holes as specified for single wood posts or they may be driven if suitable driving equipment is used to prevent battering and distorting the post.

Additional bolt holes required in existing posts shall be drilled or punched, but the size of the holes shall not exceed the dimensions given in the Standard Details. Metal around the holes shall be thoroughly cleaned and painted with two coats of approved aluminum rust resistant paint. Holes shall not be burned.

606.04 Rails Brackets and fittings shall be placed and fastened as shown on the plans. Rail beams shall be erected and aligned to provide a smooth, continuous barrier. Beams shall be lapped with the exposed end away from approaching traffic.

End assemblies shall be installed as shown on the plans and shall be securely attached to the rail section and end post.

All bolts shall be of sufficient length to extend beyond the nuts but not more than ½ inch. Nuts shall be drawn tight.

Additional bolt holes required in existing beams shall be drilled or punched, but the size of the holes shall not exceed the dimensions given in the Standard Details. Metal around the holes shall be thoroughly cleaned and painted with two coats of approved aluminum rust resistant paint. Holes shall not be burned.

606.045 Offset Blocks The same offset block material is to be provided for the entire project unless otherwise specified.

606.05 Shoulder Widening At designated locations the existing shoulder of the roadway shall be widened as shown on the plans. All grading, paving, seeding, and other necessary work shall be in accordance with the Specifications for the type work being done.

606.06 Mail Box Post Single wood post shall be installed at the designated location for the support of the mailbox. The multiple mailbox assemblies shall be installed at the designated location in accordance with the Standard Details and as recommended by the Manufacturer. Attachment of the mailbox to the post will be the responsibility of the home or business owner.

606.07 Abraded Surfaces All galvanized surfaces of new guardrail and posts, which have been abraded so that the base metal is exposed, and the threaded portions of all fittings and fasteners and cut ends of bolts shall be cleaned and painted with two coats of approved rust resistant paint.

606.08 Method of Measurement Guardrail will be measured by the linear foot from center to center of end posts along the gradient of the rail except where end connections are made to masonry or steel structures, in which case measurement will be as shown on the plans. When connected to radius rail, measurement will be to the end of the last tangent beam.

Guardrail terminal, reflectorized flexible guardrail marker, terminal end, anchorage assembly, bridge transition, bridge connection, multiple mailbox post, and single post will be measured by each unit of the kind specified and installed.

Widened shoulder will be measured as a unit of grading within the limits shown on the plans.

Excavation in solid rock for placement of posts will be paid under force account unless otherwise indicated in the Bid Documents.

606.09 Basis of Payment The accepted quantities of guardrail will be paid for at the contract unit price per linear foot for the type specified, complete in place. Reflectorized beam guardrail (“butterfly”-type) delineators will not be paid for directly but will be considered incidental to guardrail items. Reflectorized flexible guardrail marker, terminal end, anchorage assembly, bridge transition, bridge connection, multiple mailbox post, and single post will be paid for at the contract unit price each for the kind specified complete in place.

Guardrail terminals will be paid for at the contract price each, complete in place which price shall be full payment for furnishing and installing all components including the terminal section, posts, offset blocks, "w" beam, cable foundation posts, plates and for all incidentals necessary to complete the installation within the limits as shown on the Standard Details or the Manufacturer's installation instructions. Pay limits for a flared terminal will be 37.5 feet. Pay limits for a tangent terminal will be 50 feet. Each guardrail terminal will be clearly marked with the Manufacturer's name and model number to facilitate any future needed repair. Such payment shall also be full compensation for furnishing all material, excavating, backfilling holes, assembling, and all incidentals necessary to complete the work, except that for excavation for posts or anchorages in solid ledge rock, payment will be made under 109.7.5 – Force Account. Type III Retroreflective Adhesive Sheeting shall be applied to the approach buffer end sections and sized to substantially cover the end section. On all roadways, the ends shall be marked with alternating black and retroreflective yellow stripes. The stripes shall be 3 in wide and sloped down at an angle of 45 degrees toward the side on which traffic is to pass the end section. Guardrail terminals shall also include a set of installation drawings supplied to the Resident.

Anchorage to bridge end posts will be part of the bridge work. Connections thereto will be considered included in the unit bid price for guardrail.

Guardrail to be placed on a radius of curvature of 150 ft or less will be paid for under the designated radius pay item for the type guardrail being placed.

Widened shoulder will be paid for at the contract unit price each complete in place and will be full compensation for furnishing and placing, grading and compaction of aggregate subbase and any required fill material.

Adjust guardrail will be paid for at the contract unit price per linear foot and will be full compensation for adjusting to grade. Payment shall also include adjusting guardrail terminals where required.

Modify guardrail will be paid for at the contract unit price per linear foot and will be full compensation for furnishing and installing offset blocks, additional posts, and other specified modifications; removing, modifying, installing, and adjusting to grade existing posts and beams; removing plate washers and backup plates, and all incidentals necessary to complete the work. Payment shall also include removing and resetting guardrail terminals where required.

Remove and Reset guardrail will be paid for at the contract unit price per linear foot and will be full compensation for removing, transporting, storing, reassembling all parts, necessary cutting, furnishing new parts when necessary, reinstalling at the new location, and all other incidentals necessary to complete the work. Payment shall also include removing and resetting guardrail terminals when required.

Remove, Modify, and Reset guardrail will be paid for at the contract unit price per foot and will be full compensation for the requirements listed in Modify guardrail and Remove and Reset guardrail.

Bridge Connections will be paid for at the contract unit price each. Payment shall include, attaching the connection to the endpost including furnishing and placing concrete and reinforcing steel

necessary to construct new endposts if required, furnishing and installing the terminal connector, and all miscellaneous hardware, labor, equipment, and incidentals necessary to complete the work.

Bridge Transitions will be paid for at the contract unit price each. Payment shall include furnishing and installing the thrie beam or “w”-beam terminal connector, doubled beam section, and transition section, where called for, posts, hardware, precast concrete transition curb, and any other necessary materials and labor, including the bridge connection as stated in the previous paragraph.

No payment will be made for guardrail removed, but not reset and all costs for such removal shall be considered incidental to the various contract pay items.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
606.1301 31” W-Beam Guardrail - Mid-Way Splice – Single Faced	Linear Foot
606.1302 31” W-Beam Guardrail - Mid-Way Splice – Double Faced	Linear Foot
606.1303 31” W-Beam Guardrail - Mid-Way Splice, 15’ Radius and Less	Linear Foot
606.1304 31” W-Beam Guardrail - Mid-Way Splice, Over 15’ Radius	Linear Foot
606.1305 31” W-Beam Guardrail - Mid-Way Splice Flared Terminal	Each
606.1306 31” W-Beam Guardrail - Mid-Way Splice Tangent Terminal	Each
606.1307 Bridge Transition (Asymmetrical) – Type IA	Each
606.1721 Bridge Transition - Type I	Each
606.1722 Bridge Transition - Type II	Each
606.1731 Bridge Connection - Type I	Each
606.1732 Bridge Connection - Type II	Each
606.178 Guardrail Beam	Linear Foot
606.25 Terminal Connector	Each
606.257 Terminal Connector - Thrie Beam	Each
606.259 Anchorage Assembly	Each
606.265 Terminal End-Single Rail - Galvanized Steel	Each
606.266 Terminal End-Single Rail - Corrosion Resistant Steel	Each
606.275 Terminal End-Double Rail - Galvanized Steel	Each
606.276 Terminal End-Double Rail - Corrosion Resistant Steel	Each
606.353 Reflectorized Flexible Guardrail Marker	Each
606.354 Remove and Reset Reflectorized Flexible Guardrail Marker	Each
606.356 Underdrain Delineator Post	Each
606.358 Guardrail, Modify	Linear Foot
606.362 Guardrail, Adjust	Linear Foot
606.365 Guardrail, Remove, Modify, and Reset	Linear Foot
606.366 Guardrail, Remove and Reset	Linear Foot
606.367 Replace Unusable Existing Guardrail Posts	Each
606.47 Single Wood Post	Each
606.48 Single Galvanized Steel Post	Each
606.50 Single Steel Pipe Post	Each
606.51 Multiple Mailbox Support	Each

606.568	Guardrail, Modify - Double Rail	Linear Foot
606.63	Thrie Beam Rail Beam	Linear Foot
606.64	Guardrail Thrie Beam - Double Rail	Linear Foot
606.65	Guardrail Thrie Beam - Single Rail	Linear Foot
606.66	Terminal End Thrie Beam	Each
606.70	Transition Section - Thrie Beam	Each
606.71	Guardrail Thrie Beam - 15 ft radius and less	Linear Foot
606.72	Guardrail Thrie Beam - over 15 ft radius	Linear Foot
606.73	Guardrail Thrie Beam - Single Rail Bridge Mounted	Linear Foot
606.74	Guardrail - Single Rail Bridge Mounted	Linear Foot
606.753	Widen Shoulder for Low Volume Guardrail End	Each
606.754	Widen Shoulder for Flared Guardrail Terminal	Each
606.78	Low Volume Guardrail End	Each
606.80	Buried-in-Slope Guardrail End	Each

## SECTION 609 CURB

609.02 Materials Revise the paragraph beginning “The Contractor shall submit a concrete mix...” so that it reads:

**“The Contractor shall submit a concrete mix design for the Portland Cement Concrete to the Resident, with a minimum designed compressive strength of 3000 psi concrete fill.”**

609.03 Vertical Stone Curb, Terminal Section and Transition Sections and Portland Cement Concrete Curb, Terminal Sections and Transition Sections Revise this section by underlining the section number and title so that it reads in the spec book as:

**“609.03 Vertical Stone Curb, Terminal Section and Transition Sections and Portland Cement Concrete Curb, Terminal Sections and Transition Sections”**

Revise the last paragraph beginning with “The Contractor may elect...” so that it reads:

**“The Contractor may elect to substitute concrete to backfill Stone Curbing or Stone Edging at their option. If the concrete backfill option is elected, the Concrete Fill shall meet the requirements of 609.02.”**

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

610.02 Materials Amend this subsection by adding the following to the end of the material list:  
**“Stone Ditch Protection 703.29”**

SECTION 618  
SEEDING

618.08 Mulching Revise this Section so that the third sentence reads: “Mulch for Seeding Method Number 1 shall only be cellulous fiber mulch Section 619.04 (b) or straw mulch Section 619.04 (a).”

SECTION 626  
FOUNDATIONS, CONDUIT, AND JUNCTION BOXES FOR HIGHWAY  
SIGNING, LIGHTING, AND SIGNALS

626.034 Concrete Foundations Revise this Section by changing ‘626.037’ to ‘**626.036**’ in the Second Paragraph which begins with “Foundations shall consist of cast-in-place...”.

Revise the 10<sup>th</sup> paragraph beginning with “Before placing concrete, the required elbows...” by removing “...**in accordance with Standard Specification 633.**”

SECTION 627  
PAVEMENT MARKINGS

627.06 Application Revise this subsection by replacing the paragraph beginning with “ On other final pavement markings...” with the following:

**“On other final pavement markings and on curb, where the paint is applied by hand painting or spraying, application shall be one uniform covering coat at least 16 mils thick. Before the paint has dried, the glass beads shall be applied by a pressure system that will force the glass beads onto the undried paint as uniformly as possible.**

**Painted lines and markings shall be applied in accordance with the manufacturer’s published recommendations. These recommendations will be supplied to the Resident prior to installation.”**

SECTION 643  
TRAFFIC SIGNALS

643.021 Materials Amend this subsection by adding the following at the end:

**“MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

**Temporary Traffic Control Signals will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 4 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.”**

643.09 Service Connection Revise this subsection by removing the paragraph that begins with “Traffic signal services shall have...”.

And by removing the paragraphs beginning with “ A service ground rod shall be installed...” and “A total of 4, 10’ service...” and replace them with **“A total of 4, 10’ service ground rods shall be installed and properly connected together on the outside of the cabinet foundation. One ground rod shall be located at each corner and shall be either flush or slightly below finished grade. The connection between the ground rod and the ground wire shall be an exothermic connection such as a Cadweld. The ground wire from the interconnected ground rods shall be routed through a conduit in the foundation and into the base of the cabinet”**.

## SECTION 645 HIGHWAY SIGNING

Section 645.023 Sign Support Structures. Under letter “c.”, revise the fifth paragraph beginning with “In addition to the required details...” by removing the words **”and foundation”** from the 5<sup>th</sup> sentence.

Section 645.08 Method of Measurement. Revise the second paragraph beginning with “Bridge-type, cantilever and...” by removing the words **”including the foundation”** .

Section 645.09 Basis of Payment. Revise the third paragraph beginning with “The accepted bridge-type, cantilever and...” by removing the word **”foundation”** from the second sentence. Add the following sentence to the end of the paragraph **“Conduits, Junction Boxes, and Foundations will be paid for under Section 626.”**

## SECTION 652 MAINTENANCE OF TRAFFIC

Amend this Section by adding the following new subsection:

**“652.2.6 Device Crashworthiness MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

**Category 1 (Cones, Drums, Tubular Markers, Flexible Delineators, and similar devices that have little chance of causing windshield penetration, tire damage, or other significant effect on the control or trajectory of a vehicle) – All Category 1 devices will be manufacturer self-certified as MASH2016 by January 1, 2025. Current Category 1 devices in useful serviceable condition that are not self-certified as MASH2016 compliant may be utilized through December 31, 2024.**

**Category 2 (Barricades, Portable Sign Supports, Category 1 devices with attachments, and similar devices that are not expected to produce significant vehicular velocity change but may be otherwise hazardous) – All Category 2 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2025. Current Category 2 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2024.**

**Category 3 (Portable Concrete Barrier, Portable Crash Cushions, Truck Mounted Attenuators, Category 2 devices weighing more than 100 pounds, and similar devices that are expected to produce significant vehicular velocity change or other harmful reactions) – All Category 3 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 3 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029. (See Standard Specification 526 for additional Portable Concrete Barrier information).**

**Category 4 (Trailer Mounted Devices: Arrow Boards, Temporary Traffic Control Signals, Area Lighting, Portable Changeable Message Sign, and other similar devices.) – All Category 4 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 4 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.”**

652.4 Flaggers Revise the first paragraph of this section so that it reads:

“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.”

## SECTION 681

### PRECAST AGGREGATE-FILLED, CONCRETE BLOCK GRAVITY WALL

681.08 Basis of Payment Amend this section by adding the Item Number “**681.10**” in front of the item “Precast Aggregate-Filled Concrete Block Gravity Wall” at the end of the section.

SECTION 703  
AGGREGATES

Add the following to Section 703 - Aggregates

703.01 Fine Aggregate for Concrete Fine aggregate for concrete shall consist of natural sand or, when approved by the Resident, other inert materials with similar characteristics or combinations thereof, having strong, durable particles. Fine aggregate from different sources of supply shall not be mixed or stored in the same pile nor used alternately in the same class of construction or mix without permission of the Resident.

All fine aggregate shall be free from injurious amounts of organic impurities. Should the fine aggregate, when subjected to the colorimetric test for organic impurities, AASHTO T 21, produce a color darker than the reference standard color solution (laboratory designation Plate III), the fine aggregate shall be rejected.

Fine aggregate shall have a sand equivalent value of not less than 75 when tested in accordance with AASHTO T 176.

Fine aggregate sources shall meet the Alkali Silica Reactivity (ASR) requirements of Section 703.0201.

The fineness modulus shall not be less than 2.26 or more than 3.14. If this value is exceeded, the fine aggregate will be rejected unless suitable adjustments are made in proportions of coarse and fine aggregate. The fineness modulus of fine aggregate shall be determined by adding the cumulative percentages of material by weight retained on the following sieves: Nos. 4, 8, 16, 30, 50, 100 and dividing by 100.

Fine aggregate, from an individual source when tested for absorption as specified in AASHTO T 84, shall show an absorption of not more than 2.3 percent.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
$\frac{3}{8}$ inch	100
No. 4	95-100
No. 8	80-100
No. 16	50-85

No. 30	25-60
No. 50	10-30
No. 100	2-10
No. 200	0-5.0

703.02 Coarse Aggregate for Concrete Coarse aggregate for concrete shall consist of crushed stone or gravel having hard, strong, durable pieces, free from adherent coatings and of which the composite blend retained on the 3/8 inch sieve shall contain no more than 15 percent, by weight of flat and elongated particles when performed in accordance with test method ASTM D 4791, Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate, using a dimensional ratio of 1:5.

The coarse aggregate from an individual source shall have an absorption no greater than 2.0 percent by weight determined in accordance with AASHTO T 85 modified for weight of sample.

The composite blend shall have a Micro-Deval value of 18.0 percent or less as determined by AASHTO T 327 or not exceed 40 percent loss as determined by AASHTO T 96.

Coarse aggregate sources shall meet the Alkali Silica Reactivity (ASR) requirements of Section 703.0201.

Coarse aggregate shall conform to the requirements of the following table for the size or sizes designated and shall be well graded between the limits specified.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves			
	A	AA	S	LATEX
Grading	A	AA	S	LATEX
Aggregate Size	1 inch	3/4 inch	1 1/2 inch	1/2 inch
2 inch			100	
1 1/2 inch	100		95-100	
1 inch	95-100	100	-	
3/4 inch	-	90-100	35-70	100
1/2 inch	25-60	-	-	90-100
3/8 inch	-	20-55	10-30	40-70
No. 4	0-10	0-10	0-5	0-15
No. 8	0-5	0-5	-	0-5
No. 16	-	-	-	-
No. 50	-	-	-	-
No. 200	0 - 1.5	0 - 1.5	0 - 1.5	0 - 1.5

703.0201 Alkali Silica Reactive Aggregates All coarse and fine aggregates proposed for use in concrete shall be tested for Alkali Silica Reactivity (ASR) potential under AASHTO T 303 (ASTM C 1260), Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction, prior to being accepted for use. Acceptance will be based on testing performed by an accredited independent lab submitted to the Department. Aggregate submittals will be required on a

5-year cycle, unless the source or character of the aggregate in question has changed within 5 years from the last test date.

As per AASHTO T 303 (ASTM C 1260): Use of a particular coarse or fine aggregate will be allowed with no restrictions when the mortar bars made with this aggregate expand less than or equal to 0.10 percent at 30 days from casting. Use of a particular coarse or fine aggregate will be classified as potentially reactive when the mortar bars made with this aggregate expand greater than 0.10 percent at 30 days from casting. Use of this aggregate will only be allowed with the use of cement-pozzolan blends and/or chemical admixtures that result in mortar bar expansion of less than 0.10 percent at 30 days from casting as tested under ASTM C 1567.

Acceptable pozzolans and chemical admixtures that may be used when an aggregate is classified as potentially reactive include, but are not limited to the following:

- a. Class F Coal Fly Ash meeting the requirements of AASHTO M 295
- b. Ground Granulated Blast Furnace Slag (Grade 100 or 120) meeting the requirements of AASHTO M 302
- c. Densified Silica Fume meeting the requirements of AASHTO M 307
- d. Lithium-based admixtures
- e. Metakaolin

Pozzolans or chemical admixtures required to offset the effects of potentially reactive aggregates will be incorporated into the concrete at no additional cost to the Department.

703.05 Aggregate for Sand Leveling Aggregate for sand leveling shall be sand of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The aggregate shall meet the grading requirements of the following table.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
$\frac{3}{8}$ inch	85-100
No. 200	0-5.0

703.06 Aggregate for Base and Subbase The following shall apply to Sections (a.) and (c.) below. The material shall have a Micro-Deval value of 25.0 or less as determined by AASHTO T 327. If the Micro-Deval value exceeds 25.0, the Washington State Degradation DOT Test Method T113, Method of Test for Determination of Degradation Value (January 2009 version) shall be performed, except that the test shall be performed on the portion of the sample that passes the  $\frac{1}{2}$  in sieve and is retained on the No. 10 sieve. If the material has a Washington Degradation value of less than 15, the material shall be rejected.

The material used in Section (b.) below shall have a Micro-Deval value of 25.0 or less as determined by AASHTO T 327. If the Micro-Deval value exceeds 25.0 the material may be used if it does not exceed 25 percent loss on AASHTO T 96, Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

Recycled Asphalt Pavement (RAP) shall not be used for or blended with aggregate base or subbase.

- a. Aggregate for base, Type A and B shall be crushed ledge or crushed gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a 3 inch sieve shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Type A	Type B
½ inch	45-70	35-75
¼ inch	30-55	25-60
No. 40	0-20	0-25
No. 200	0-6.0	0-6.0

At least 50 percent by weight of the material retained on the No. 4 sieve shall have at least one fractured face as tested by AASHTO T 335.

Type A aggregate for base shall only contain particles of rock that will pass the 2 inch square mesh sieve.

Type B aggregate for base shall only contain particles of rock that will pass the 4 inch square mesh sieve.

- b. Aggregate for base, Type C shall be crushed ledge or crushed gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The material shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
	Type C
4 inches	100
3 inches	90-100
2 inches	75-100
1 inch	50-80
½ inch	30-60
No. 4	15-40
No. 200	0-6.0

At least 50 percent by weight of the material coarser than the No. 4 sieve shall have at least one fractured face as tested by AASHTO T 335.

- c. Aggregate for subbase shall be sand or gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a 3 inch sieve shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Type D	Type E
½ in	35-80	
¼ inch	25-65	25-100
No. 40	0-30	0-50
No. 200	0-7.0	0-7.0

Type D aggregate for subbase gravel may contain up to 50 percent by weight Recycled Concrete Aggregate (RCA). When RCA is used, the portion of the resulting blend of gravel and RCA retained on a ½” square mesh sieve shall contain a total of no more than 5 percent by weight of other recycled materials such as brick, concrete masonry block, or asphalt pavement as determined by visual inspection.

RCA shall be substantially free of wood, metal, plaster, and gypsum board as defined in Note 9 in Section 7.4 of AASHTO M 319. RCA shall also be free of all substances that fall under the category of solid waste or hazardous materials.

Aggregate for subbase shall not contain particles of rock which will not pass the 6 inch square mesh sieve.

703.08 Recycled Asphalt Pavement Recycled asphalt pavement shall consist of salvaged asphalt materials from milled pavements or production waste that has been processed before use to meet the requirements of the job mix formula. It shall be free of winter sand, granular fill, construction debris, or other materials not generally considered asphalt pavement.

703.081 RAP for Asphalt Pavement Recycled Asphalt Pavement (RAP) may be introduced into hot-mix asphalt pavement at percentages approved by the Department according to the MaineDOT Policies and Procedures for HMA Sampling and Testing.

If approved by the Department, the Contractor shall provide documentation stating the source, test results for average residual asphalt content, and stockpile gradations showing RAP materials have been sized to meet the maximum aggregate size requirements of each mix designation. The Department will obtain samples for verification and approval prior to its use.

The maximum allowable percent of RAP shall be determined by the asphalt content, the percent passing the 0.075 mm sieve, the ratio between the percent passing the 0.075 mm sieve and the asphalt content, and Coarse Micro-Deval loss values as tested by the Department.

The maximum percentage of RAP allowable shall be the lowest percentage as determined according to Table 4 below:

<b>Classification</b>	<b>Maximum RAP Percentage Allowed</b>	<b>Asphalt content standard deviation</b>	<b>Percent passing 0.075 mm sieve standard deviation</b>	<b>Percent passing 0.075 mm sieve / asphalt content ratio</b>	<b>Residual aggregate M-D loss value</b>
<b>Class III</b>	<b>10%</b>	<b>≤ 1.0</b>	<b>N/A</b>	<b>≤ 4.0</b>	<b>≤ 18</b>
<b>Class II</b>	<b>20%</b>	<b>≤ 0.5</b>	<b>≤ 1.0</b>	<b>≤ 2.8</b>	
<b>Class I</b>	<b>30%</b>	<b>≤ 0.3</b>	<b>≤ 0.5</b>	<b>≤ 1.8</b>	

Table 4: Maximum Percent RAP According to Test Results

The Department will monitor RAP asphalt content and gradation during production by testing samples from the stockpile at approximately 15,000 T intervals (in terms of mix production). The allowable variance limits (from the numerical average values used for mix designs) for this testing are determined based upon the maximum allowable RAP percentage and are shown below in Table 5.

Table 5: RAP Verification Limits

<b>Classification</b>	<b>Asphalt content (compared to aim)</b>	<b>Percent passing 0.075 mm sieve (compared to aim)</b>
<b>Class III</b>	<b>± 1.5</b>	<b>± 2.0</b>
<b>Class II</b>	<b>± 1.0</b>	<b>± 1.5</b>
<b>Class I</b>	<b>± 0.5</b>	<b>± 0.7</b>

For specification purposes, RAP will be categorized as follows:

Class III – A maximum of 10.0 percent of Class III RAP may be used in any base, intermediate base, surface, or shim mixture. A maximum of 20.0 percent of Class III RAP may be used in hand-placed mixes for item 403.209.

Class II – A maximum of 20.0 percent Class II RAP in any base, binder, surface, or shim

course.

Class I – A maximum of 20.0 percent Class I RAP may be used in any base, intermediate base, surface, or shim mixture without requiring a change to the specified asphalt binder. A maximum of 30.0 percent Class I RAP may be used in in any base or intermediate base mixture provided that a PG 58-28 or PG 58-34 asphalt binder is used. A maximum of 30.0 percent Class I RAP may be used in any surface or shim mixture provided that PG 58-34 asphalt binder is used. Mixtures exceeding 20.0 percent Class I RAP must be evaluated and approved by the Department.

The Contractor may use up to two different RAP sources in any one mix design. The total RAP percentage of the mix shall not exceed the maximum allowed for the highest classification RAP source used (i.e. if a Class I & Class III used, total RAP must not exceed 30.0%). The blended RAP material must meet all the requirements of the classification for which the RAP is entered (i.e. 10% Class III with 20% Class I, blend must meet Class I criteria). The Department may take belt cuts of the blended RAP to verify the material meets these requirements. If the Contractor elects to use more than one RAP source in a design, the Contractor shall provide an acceptable point of sampling blended RAP material from the feed belt.

In the event that RAP source or properties change, the Contractor shall notify the Department of the change and submit new documentation stating the new source or properties a minimum of 72 hours prior to the change to allow for obtaining new samples and approval.

## SECTION 710 FENCE AND GUARDRAIL

710.06 Fence Posts and Braces Revise the first Paragraph so that it reads:

“Wood posts shall be of cedar, white oak, or tamarack or other AWP A approved species, of the diameter or section and length shown on the plans.”

Remove the fourth paragraph which starts “ That portion of wood posts...”.

Revise the paragraph beginning with “Braces shall be of spruce, eastern hemlock ... so that it now reads:

“Braces shall be of spruce, eastern hemlock, Norway pine, pitch pine, or tamarack timbers or other AWP A approved species, or spruce, cedar, tamarack or other AWP A approved species round posts of sufficient length to make a diagonal brace between adjacent posts. All wood posts and braces shall be pressure-treated in accordance with AASHTO M 133 and AWP A U1, UC4A Commodity Specification B: Posts. “

710.07 Guardrail Posts Revise this section so that the first sentence of section a. reads:

“a. Wood posts shall be of Norway pine, southern yellow pine, pitch pine, Douglas fir, red pine, white pine, or eastern hemlock or other AWPAs approved species.”

Revise the next paragraph so that it reads:

Wood posts and offset brackets shall be preservative treated in accordance with the requirements of AASHTO M 133 and AWPAs U1, UC4A Commodity Specification B: Posts.

## SECTION 712 MISCELLANEOUS HIGHWAY MATERIAL

712.061 Structural Precast Units Amend this section by adding the following sentence to the end of the first paragraph of the Construction subsection:

**“Facilities certified by NPCA or PCI shall provide to the Fabrication Engineer a copy of their annual audit to include deficiency reports and corrective actions.”**

Revise this section by changing the letter “b” of ASTM C1611 of the Concrete Testing subsection so that it reads:

**“b. Air content shall be 5.0% to 8.0%.”**

## SECTION 718 TRAFFIC SIGNALS MATERIAL

718.03 Signal Mounting Amend the paragraph beginning with “All trunions, brackets and...” by adding **“For polycarbonate signal heads with more than 3 sections or requiring mounting extensions greater than 12 inches in length, reinforcing plates shall be used to reinforce the housings at the point of attachment.”** to the end of the paragraph.

718.08 Controller Cabinet Revise this subsection by replacing the paragraph beginning with “The cabinet shall be supplied with LED light panels...” on or about page 7-66 with **“The cabinet shall be supplied with white LED light panels which shall automatically illuminate via a door open switch whenever one of the four main cabinet doors are opened for the ground mount cabinet or two main doors for the side of pole cabinet. The ground mounted cabinet shall contain four LED light panels per side totaling eight panels for the cabinet; one panel each at the top and bottom portion of the front side and back side on the Control side and Power/Auxiliary side of the cabinet. Each light panel shall produce a minimum of 250 lumens for a total minimum lumen output of 2000 lumens with all eight panels illuminated. The minimum output per side would be 1000 lumens. The LED panels shall be protected by a clear shatterproof shield. The side of pole mounted cabinet shall contain four light panels; one at the top of the rack assembly and one at the bottom rack assembly on each side of the cabinet. A second door open status**

**switch per door shall activate a controller input to log a report event that one of the doors was opened. All door open status switches shall be connected to the same controller input. For the ground mount cabinet, there shall be two switches on each of the four main doors. For the side-of-pole mount cabinet, there shall be two switches on each of the two main doors.”**

Revise this subsection by replacing the paragraph beginning with “The cabinet shall be supplied with a generator panel ...” on or about page 7-68 with:

**“The cabinet shall be supplied with a generator panel. The generator panel shall consist of a manual transfer switch and a twist-lock connector for generator hookup. The transfer switch knob and twist-lock connector shall be located inside a stainless steel enclosure with a separate lockable door accessed with a Corbin #2 key. The unit shall be mounted on the left, exterior of the control side wall of the ground mount cabinet a minimum of 36” above the surrounding grade and on the lower left side of the pole mounted cabinet. The generator transfer switch shall be a Reliance C30A1N Signa Series or approved equal. “**

Revise this subsection by removing the following from the paragraph beginning with “The ground mounted cabinet shall be supplied and installed with an electric service meter socket trim and electrical service disconnect switch ...” on or about page 7-69: **“(removed: thus preventing that space from being used either by equipment supplied as part of the project, or future equipment that would be installed in the rack system. Joe indicated that he would add this language to the detail so it is covered.)”**.

Revise this subsection by replacing the following in the paragraph beginning with “The Contractor shall reconfigure the default user name...” on or around page 7-70; “MaineDOT IT” with **“MaineDOT Traffic Division”**.

In the paragraph beginning with “Tests shall be conducted by the contractor...” on or around page 7-73, amend this subsection by removing **“in the state of Maine and”** after “The facility shall be”.

Amend this Section by adding the following subsection:

**718.13 Field Monitoring Unit (FMU)** This item of work shall conform to this specification. This item shall consist of furnishing and installing a Field Monitoring Unit (FMU) and software, as well as all needed accessories required for a full and complete installation, including but not limited to power adapters, Ethernet cables, and interface cables, as described herein.

Where applicable, communications from MaineDOT’s cloud-based Central Management System (CMS) to the on-street traffic signal controllers shall be made through fiber optic interconnect cable connected back to existing internet connections and/or the Field Monitoring Unit (FMU). The Contractor shall furnish and install all materials necessary for a complete and operational fiber optic interconnection to all project intersections as shown on the plans. All connections to the CMS cloud-based system shall be via a secure VPN network.

The FMU shall be the only remote connection device used by isolated intersections to connect to the cloud-based system. All connections shall be encrypted VPN tunnels. The Contractor shall coordinate all configuration settings with MaineDOT IT and the Engineer.

The FMU central web based interface shall be a separate element from the CMS.

MATERIALS: The materials for this work shall conform to the following requirements:

1. The work under this item specifies the requirements for the FMU. The FMU shall operate independent of the brand/type of intersection controller deployed in the ATC traffic cabinet.
2. The FMU shall conform to the following requirements:
  - 2.1 The FMU shall function correctly between -34 degrees C and +74 degrees C.
  - 2.2 The FMU shall be provided with appropriately rated connectors that allows the FMU to be exchanged by unplugging connectors, without tools.
  - 2.3 The FMU shall monitor and log all ATC Controller and ATC cabinet faults and or alarms.
  - 2.4 The FMU shall be wired directly to the ATC cabinet.
  - 2.5 The FMU shall have an internal cellular modem running at 4G LTE.
    - 2.5.1 The Cellular modem shall be designed to be replaced / upgraded to 5G service when available.
  - 2.6 The FMU shall incorporate an integrated GPS and cell modem.
  - 2.7 The configuration of the FMU shall be accomplished by accessing the internal web server with a browser. It shall be possible to configure the FMU without any special software.
  - 2.8 The FMU shall be powered via a standard 120V input power.
  - 2.9 The FMU shall allow for the routing of the controller configuration packets to and from the controller (either by Ethernet or serial communications) for any type of controller utilized by the MaineDOT. In this way it shall be possible to configure the controller and utilize the controller specific software to interrogate the controller, and the FMU shall provide the communications pipe which allows this to be accomplished.
  - 2.10 The FMU shall, within the size limitations above, include a battery and battery charging/monitoring circuit, to allow the FMU to function correctly even when all power to the intersection has failed. The battery shall continue to power the FMU for a minimum of 5 hours after all power has failed to the intersection.
  - 2.11 The FMU shall incorporate an integrated GPS which will allow the FMU to geo-locate itself on the FMU management software map, without configuration.
  - 2.12 The FMU shall operate without requiring a static IP address. The only configuration required at the FMU is to enter the URL of where the FMU management software is hosted.

- 2.13 In the event that the cell service is interrupted or is not available, the FMU shall store any events that occur in internal memory and forward these events automatically to the FMU management software when the cell service is restored. In this way, a complete record of events at the device can be maintained even if cell service is interrupted for a period. The system will store 5000 events.
- 2.14 The FMU shall utilize HTTP and HTTPS protocols, and XML data structures, for communication with the FMU management software. In this way the data will be open for future expansion and competition. The use of secret proprietary protocols is not permitted.
- 2.15 The FMU shall include Ethernet communications via an Ethernet Port with RJ45 connector.
- 2.16 The FMU shall include weather proof antennas.

### **3. Map Display FMU Management Software**

- 3.1 The FMU shall include a scrollable, zoomable map display, with the intersections and other monitored devices shown as representative icons on the map. The map shall include the ability to see the intersections using Google Streetview.
- 3.2 The alarm status of the intersection shall be clearly indicated on the icon on the map, so that the user can see at a glance which intersections are in alarm.
- 3.3 The map display shall also include a list of intersections, with the number and priority of alarms indicated on the list. Intersections in high priority alarm shall be moved to the top of the list, followed by medium priority, low priority and then finally by intersections not in alarm.
- 3.4 The icons shall change to be able to clearly indicate if an intersection is offline.
- 3.5 Clicking on the icon on the map shall expose a box with the current parameters of the intersection shown.
- 3.6 The default map display position and zoom shall be configurable by user, so that the user's view will default to show the intersections that the user is responsible for managing.
- 3.7 The map view shall have the ability to show Google traffic overlays on the map.

### **4. Intersection Detail Display FMU Management Software**

- 4.1 It shall be possible to drill down, either from the map icon or from the list, to a device level detail for the intersection, which as a minimum shall display the following parameters:

- 4.1.1 The alarm status, with priority indicated, and a text description of the alarm (if an alarm is present for this device).
- 4.1.2 The time since the last communication with the device
- 4.1.3 The following parameters (real time now values, minimum for the day values, maximum for the day values, and average for the day values)
  - 4.1.3.1 The AC mains voltage (value)
  - 4.1.3.2 The battery back-up voltage (value)
  - 4.1.3.3 The cabinet temperature (value)
  - 4.1.3.4 The cabinet humidity (value)
  - 4.1.3.5 The presence of AC power (OK or Fail)
  - 4.1.3.6 The flashing status of the intersection (OK or Flashing)
  - 4.1.3.7 Stop Time status (OK or Stop Time Active)
  - 4.1.3.8 The cabinet door status (Open or Closed)
  - 4.1.3.9 The intersection fan status (Fan On or Fan off)
- 4.1.4 It shall be possible to view graphs of each of the value parameters in graphical form, over the recent two-week period. This includes real time graphs of:
  - 4.1.4.1 The AC mains voltage
  - 4.1.4.2 The battery back-up voltage
  - 4.1.4.3 The cabinet temperature
  - 4.1.4.4 The cabinet humidity

## 5. **Diagnostics and Log Display FMU Management Software**

- 5.1 From the device level detail within the FMU management software, it shall be possible to drill down to get the raw data; the error logs; and the communications logs to allow a technician to fault-find problems.
- 5.2 It shall be possible to filter the logs by Device; by Device Type and/or by Group as well as between dates.
- 5.3 It shall be possible to print these selected logs to a local printer or a PDF file.
- 5.4 It shall be possible to export these logs to Excel on the local computer for further analysis.

## 6. **Alarms FMU Management Software**

- 6.1 The FMU management software shall have a comprehensive alarm generation capability

- 6.2 It shall be possible to configure alarms to be generated on any parameter becoming out of tolerance, including analog values, digital values and enumerated values.
- 6.3 Alarms shall be configurable to be of Low, High or Critical Priority.
- 6.4 The alarm priority shall be displayed throughout the FMU management software, on all displays, using color codes such as red-critical; yellow – high; and amber-low to indicate the priority of the alarm.
- 6.5 The current active alarms shall be accessible for view via an expandable window, to see which alarms are active and when the alarm occurred. The highest priority alarms shall rise to the top of the list.

## **7. Alerts FMU Management Software**

- 7.1 The FMU management software shall have comprehensive alerting capability, to enable the response personnel to be notified when an abnormal situation has occurred.
- 7.2 It shall be possible to configure alerts to one or more personnel for each alarm. This will cause, as selected, an SMS and/or an email to be sent to the person when an alarm occurs.
- 7.3 The alert shall be configurable to optionally send via email and/or via SMS a message when an alarm clears.
- 7.4 The intention is that the FMU management software provides the alerts to the user in near real time. The SMS and email shall be issued within 30 seconds of the occurrence of event which results in an alert being issued.

## **8. Hosting and Connectivity and Service FMU / FMU Management Software**

- 8.1 The contractor shall supply the FMU with the FMU manufacturers 10 year options for Connectivity and Service, as part of the purchase price. The Connectivity and Service agreement shall include at a minimum:
  - 8.1.1 Cellular Connectivity
  - 8.1.2 No cellular overage charges
  - 8.1.3 Extended warranty on the hardware for the period of the Connectivity and Service Agreement
  - 8.1.4 Over-the-air software updates
  - 8.1.5 Over-the-air security updates
  - 8.1.6 Future Connected Vehicles Service

## **SECTION 720**

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

720.12 Wood Sign Posts Revise the first sentence so that it reads:

Wood sign posts shall be rectangular, straight and sound timber, cut from live growing native spruce, red pine, hemlock, cedar trees or other AWWA approved species, free from loose knots or other structurally weakening defects of importance, such as shake or holes or heart rot.

Revise the third paragraph that starts with “When pressure treated...” so that it reads:

All sign posts shall be pressure-treated in accordance with AASHTO M 133 and AWWA Standard U1, UC4A, Commodity Specification A: Sawn Products.