Final Plans

1. Check to be sure the title page is signed with engineer’s stamp as required by law.
2. Verify that all pay items on the plans also are on the Schedule of Items.

Specifications

1. Make sure that specifications and special provisions include the following:
   - Description of the work;
   - Materials;
   - Requirements to construct and accept the work;
   - Measurement, specifying what, when and how to measure for payment; and
   - Basis of payment.

Bid Documents

1. Bid inserts and instructions labeled, “State Project.”
2. Notice to Contractors, which includes:
   - Bid opening date and time (*pay attention to holidays*)
   - MaineDOT Project WIN, description, location, and outline of work
   - Basis of award
   - Statement that MaineDOT Standard Specifications apply
   - Bid bond amount
   - Projects *less than* $125,000 require no performance surety bond or payment surety bond. Bonds are required for projects exceeding $125,000.
   - For projects *greater than* $300,000, a bidder must complete a highway, bridge or project specific pre-qualification through MaineDOT to be awarded the contract.
   - For projects *less than* $300,000: “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.”
3. Special Provision 102.7.3, Acknowledgement of Bid Amendments
4. Schedule of Items – with item numbers, approximate quantities, and units
5. Contract Agreement, Offer and Award form: two copies
   - Check Section B, “Time,” to be sure completion date matches Special Provision 107
6. Forms labeled, “Sample” – one copy each:
   - Contract Agreement, Offer and Award
   - Contract Performance Bond
   - Contract Payment Bond

7. Special Provision (SP) Section 104, Utilities (if there is utility work)

8. SP Section 105, General Scope of Work: Limitations of Operations (if applicable)

9. SP Section 105, Overlimit Movement Permits (if applicable, based on nature of work)

10. SP Section 107, Prosecution and Progress: Scheduling of Work
    - Ensure completion date matches date in Contract Agreement, Offer & Award

11. SP Section 401, Hot Mix Asphalt Pavement (if there is paving work)

12. SP Section 403, Hot Mix Asphalt (if there is paving work; will be prepared by MaineDOT)

13. SP Section 502, Structural Concrete (if there is concrete work)

14. SP Section 652, Maintenance of Traffic (if traffic control is required on a public highway)

15. Standard Detail updates
    - Latest version is online: https://www.maine.gov/mdot/contractors/publications/

    - Latest version is online: https://www.maine.gov/mdot/contractors/publications/
STATE PROJECT
(Locally Administered)
BIDDING INSTRUCTIONS

FOR ALL PROJECTS:

1. Use pen and ink to complete all paper bids.

2. The following documents must be received before the time of the bid opening:
   a) Copy of Notice to Contractors;
   b) Completed Acknowledgement of Bid Amendments form;
   c) Completed Schedule of Items;
   d) Two copies of the completed and signed Contract Agreement, Offer & Award form;
   e) Bid Guaranty (if required); and
   f) Any other certifications or bid requirements listed in the bid documents that are due by bid opening.

3. Include prices for all items in the Schedule of Items (excluding non-selected alternates).

4. Bid Guaranty acceptable forms are:
   a) Properly completed and signed bid bond on MaineDOT’s prescribed form (or on a form that does not contain significant variations from the MaineDOT’s form) for 5% of the bid amount; or
   b) Official Bank Check, Cashier’s Check, Certified Check, U.S. Postal Money Order or Negotiable Certificate of Deposit in the amount stated in the Notice to Contractors.

5. “FedEx First Overnight” delivery of paper bids is suggested. Other means, such as the U.S. Postal Service’s Express Mail, have proven to be unreliable.

If you need more information about bid preparation, please call: ___________________________________________ at _____________________

For complete bidding requirements, refer to Section 102 of the Maine Department of Transportation, Standard Specifications, November 2014 Edition
NOTICE

For security and other reasons, all Bid Packages which are mailed, shall be provided in double (one envelope inside the other) envelopes. The *Inner Envelope* shall have the following information provided on it:

- Bid Enclosed - Do Not Open
- PIN:
- Town:
- Date of Bid Opening:
- Name of Contractor with mailing address and telephone number:

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

- Double Envelope: Bid Enclosed
- PIN:
- Town:
- Date of Bid Opening:
- Name of Contractor:
  *This should not be much of a change for those of you who use Federal Express or similar services.*

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

- Bid Enclosed: Do Not Open
- PIN:
- Town:
- Name of Contractor:

October 16, 2001
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
Bid Guaranty-Bid Bond Form

KNOW ALL MEN BY THESE PRESENTS THAT

__________________________________________, of the City/Town of ______________________ and State of _________________
as Principal, and ________________________________________________________________ as Surety, a Corporation duly organized under the laws of the State of _________________ and having a usual place of Business in __________________________ and hereby held and firmly bound unto the Treasurer of the State of Maine in the sum of _________________, for payment which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

The condition of this obligation is that the Principal has submitted to the Maine Department of Transportation, hereafter Department, a certain bid, attached hereto and incorporated as a part herein, to enter into a written contract for the construction of __________________________________

__________________________________________ and if the Department shall accept said bid and the Principal shall execute and deliver a contract in the form attached hereto (properly completed in accordance with said bid) and shall furnish bonds for this faithful performance of said contract, and for the payment of all persons performing labor or furnishing material in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be null and void; otherwise it shall remain in full force, and effect.

Signed and sealed this ______ day of _____________ 20___

WITNESS:                      PRINCIPAL:  
__________________________________________        
__________________________________________        
__________________________________________        

WITNESS                      SURETY:  
__________________________________________        
__________________________________________        
__________________________________________        

Name of Local Agency:  _____________
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 _____________ or submitted via e-mail to _____________________.

These are the only allowable mechanisms for answering Project specific questions. The Municipality 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.
REQUEST FOR INFORMATION

Date: _______________     Time: __________

Information Requested:                WIN: __________  Town(s): _________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________

___________________
Request by:  _______________________________  Phone: (______)_____________________
Bid Date:  _________________________________  Fax:  (_____)________________________

Complete top portion of form and transmit to the number listed in the Notice to Contractors

RFI No: ________   RFI received: __________________________________________

Response:____________________________________________________
____________________________________________________
____________________________________________________
____________________________________________________
____________________________________________________
____________________________________________________

Response By:________________________________  Date: __________________________
State Project

[INSERT NAME OF MUNICIPALITY]
NOTICE TO CONTRACTORS

Sealed Bids addressed to the Municipality of <Name> and endorsed on the wrapper “Bids for Building Something in the Municipality of NAME” will be received from contractors at the at o’clock (prevailing time) on and at that time and place publicly opened and read. Bids will be accepted from all bidders.

If estimated contract price is greater than $300,000, use this language:
The lowest responsive bidder must have completed, or successfully complete, a [Highway, Bridge or Project-Specific] prequalification to be considered for the award of this contract.

If estimated contract price is less than $300,000, use this language:
The lowest responsive bidder must demonstrate successful completion of projects of similar size and scope to be considered for the award of this contract.

Description: WIN

Location: In County, project is located

Outline of Work: and other incidental work.

The basis of award will be

For general information regarding bidding and contracting procedures, contact at (207) . Questions received after will not be answered. Bidders shall not contact any other municipal staff for clarification of contract provisions, and the Municipality will not be responsible for any interpretations so obtained.

Plans, specifications and bid forms may be seen at the Municipal Office at . They may be purchased from between the hours of by cash, credit card (Visa/Mastercard) or check payable to Municipality of , Attention: . They also may be purchased by telephone at (207) between the hours of Full size plans $00 ($00 by mail). Half size plans $00 ($00 by mail), Bid Book $00 ($00 by mail), Single Sheets $0, payment in advance, all non-refundable.

Each bid must be made upon blank forms provided by the Municipality and must be accompanied either by a bid bond at 5% of the bid amount or an official bank check, cashier’s check, certified check, certificate of deposit, or United States postal money order in the amount of $00000, payable to Municipality of as a bid guaranty. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each in the amount of 100 percent of the contract price, will be required of the successful bidder.

This Contract is subject to all applicable federal and state Laws.

All work shall be governed by “State of Maine, Department of Transportation, Standard Specifications, November 2014 Edition”, price $10 [$15 by mail], and Standard Details, November 2014 Edition, price $10 [$15 by mail]. They also may be purchased by telephone at (207) 624-3536 from 8:00 a.m. to 4:30 p.m. Standard Detail updates can be found at http://www.maine.gov/mdot/contractors/publications/.

The Municipality hereby reserves the right to reject any or all bids.

<Municipality>, Maine
<Date>  NAME OF ENGINEER OF RECORD
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 __________________________. It is the responsibility of the Bidder to determine if there are Amendments to the Project, to download them, to incorporate them into its Bid Package, and to reference the Amendment number and the date on the form below. The Municipality will not post Bid Amendments any later than noon the day before Bid opening without individually notifying all the planholders.

<table>
<thead>
<tr>
<th>Amendment Number</th>
<th>Date</th>
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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)
Proposal Schedule of Items

Proposal ID:

Contractor: ____________________________________________

<table>
<thead>
<tr>
<th>Pay Item Number</th>
<th>Item Description</th>
<th>Approx. Quantity</th>
<th>Unit of Measure</th>
<th>Unit Price</th>
<th>Bid Amount</th>
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</table>

TOTAL BID: ____________________________
CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT is made on the date last signed below, by and between the Municipality of ____________, a body corporate and politic with its principal administrative offices at _______________, (“the Municipality”), and ________________________________ a corporation or other legal entity organized under the laws of the State of _________________, with its principal place of business located at ________________________________

The Municipality and the Contractor, in consideration of the mutual promises set forth in this Agreement (the “Contract”), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, Project WIN ______________, for ________________ in the Municipality of ____________, County of ____________, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

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

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

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before _________________. Further, the Municipality may deduct from money otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of November 2014, and related Special Provisions.

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 for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is ________________

$________________________ Performance Bond and Payment Bond each being 100% of the amount of this Contract.
D. **Contract.**

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Design Plans, Maine Department of Transportation Standard Specifications (Revision of November 2014), Maine Department of Transportation Standard Details (Revision of November 2014), as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. 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/or certifications required or set forth in the Bid and the Bid Documents, and the Contract are still complete and accurate as of the date of this Agreement.

2. The Contractor knows of no legal, contractual, or financial impediment to 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. **Offer.**

The undersigned, having carefully examined the site of work, the Design Plans, the Maine Department of Transportation’s Standard Specifications (Revision of November 2014) as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

**WIN : in , State of Maine,**

State of Maine, on which bids will be received until the time specified in the “Notice to Contractors,” does hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items.”

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Municipality in writing.
As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items,” which may be ordered by the Project Resident for the Municipality, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Maine Department of Transportation Standard Specifications, Revision of November 2014, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U.S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Municipality of Bar Harbor and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Maine Department of Transportation’s Standard Specifications, Revision of November 2014, and complete the Work within the time limits given in the Special Provisions of this Contract.

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

Fifth: 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 Municipality.

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

_____________________________________  _______________________________________
CONTRACTOR

Date (Signature of Legally Authorized Representative of Contractor)

____________________________ _______________________________________
Witness (Name and Title Printed)

G. Award.

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

__________________________________  ____________________________
Date                                                                 By:

__________________________________
Witness
**CONTRACT AGREEMENT, OFFER & AWARD**

AGREEMENT is made on the date last signed below, by and between the Municipality of , a body corporate and politic with its principal administrative offices at (“the Municipality”), and a corporation or other legal entity organized under the laws of the State of , with its principal place of business located at

The Municipality and the Contractor, in consideration of the mutual promises set forth in this Agreement (the “Contract”), hereby agree as follows:

A. **The Work.**

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, Project WIN , for in the Municipality of , County of , Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

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

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

B. **Time.**

The Contractor agrees to complete all Work, except warranty work, on or before . Further, the Municipality may deduct from money otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of November 2014, and related Special Provisions.

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 for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is $ Performance Bond and Payment Bond each being 100% of the amount of this Contract.
D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Design Plans, Maine Department of Transportation Standard Specifications (Revision of November 2014), Maine Department of Transportation Standard Details (Revision of November 2014), as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. 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/or certifications required or set forth in the Bid and the Bid Documents, and the Contract are still complete and accurate as of the date of this Agreement.

2. The Contractor knows of no legal, contractual, or financial impediment to 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. Offer.

The undersigned, having carefully examined the site of work, the Design Plans, the Maine Department of Transportation’s Standard Specifications (Revision of November 2014) as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

WIN : in ,

State of Maine, on which bids will be received until the time specified in the “Notice to Contractors,” does hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items.”

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Municipality in writing.
As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items,” which may be ordered by the Project Resident for the Municipality, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Maine Department of Transportation Standard Specifications, Revision of November 2014, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U.S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Municipality of Bar Harbor and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Maine Department of Transportation’s Standard Specifications, Revision of November 2014, and complete the Work within the time limits given in the Special Provisions of this Contract.

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

Fifth: 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 Municipality.

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

CONTRACTOR

__________________________________________
Date (Signature of Legally Authorized Representative
of Contractor)

__________________________________________
Witness (Name and Title Printed)

G. Award.

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

________________________________________

Date

By:

________________________________________

Witness

Contract Agreement, Offer and Award Form – State Project (Rev. December 2016)
CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), 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 __________ (Name of the firm bidding the job) a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at (address of the firm bidding the job)

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

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, PIN No.1224.00, for the Hot Mix Asphalt Overlay in the town/city of South Nowhere, County of Washington, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

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

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

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before November 15, 2006. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, November 2014 Edition and related Special Provisions.
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 for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is **(Place bid here in alphabetical form such as One Hundred and Two dollars and 10 cents)______________________________** $ (repeat bid here in numerical terms, such as $102.10) __________ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. **Contract.**

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. 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/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to Division 100 of the Standard Specifications November 2014 Edition (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.

2. The Contractor knows of no legal, contractual, or financial impediment to 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. Offer.


PIN 1234.00 South Nowhere, Hot Mix Asphalt Overlay

State of Maine, on which bids will be received until the time specified in the “Notice to Contractors” do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items”.

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items”, which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Standard Specifications, November 2014 Edition, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U. S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications November 2014 Edition and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor’s Disadvantaged Business Enterprise Utilization Plan with their bid.

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

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement 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)

____________________________

(Witness Sign Here)

Witness

____________________________

(Witness)

____________________________

(Print Name Here)

(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: Bruce A. Van Note, Commissioner

____________________________

(Witness)
BOND # _____________________

CONTRACT PERFORMANCE BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That __________________________
________________________ in the State of _________________________,
as principal, and ...............................................................
and……………………………………... , a corporation duly organized
under the laws of the State of .................................. and having a
usual place of business ................................................................., as Surety,
are held and firmly bound unto the Treasurer of the State of Maine in
the sum of ______________________________ and 00/100 Dollars ($                    ),
to be paid said Treasurer of the State of Maine or his successors in
office, for which payment well and truly to be made, Principal and Surety
bind themselves, their heirs, executors and administrators, successors
and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Principal designated
as Contractor in the Contract to construct Project Number ____________ in
the Municipality of ________________________ promptly and faithfully performs
the Contract, then this obligation shall be null and void; otherwise it shall
remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time
made by the State of Maine.

Signed and sealed this .................................. day of ............................................, 20….. .

WITNESSES: SIGNATURES:

CONTRACTOR:

Signature....................................................     ..........................................…........................
Print Name Legibly ...................................     Print Name Legibly ...……........................

SURETY:

Signature ...................................................     .....……........................................................
Print Name Legibly ..................................     Print Name Legibly .....................................

SURETY ADDRESS: NAME OF LOCAL AGENCY:
..................................................................      ADDRESS ..................................................
..................................................................      ..……………............................................
..................................................................      .......……………..........................................
TELEPHONE...........................................      .......……………..........................................

vii
BOND # _______________________

CONTRACT PAYMENT BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _________________________________
_________________________ in the State of _______________________, as principal,
and....................................................................…....................................................... ........... a corporation duly organized under the laws of the State of ................. and having a
usual place of business in ..........................................................................................,
as Surety, are held and firmly bound unto the Treasurer of the State of Maine for the use
and benefit of claimants as herein below defined, in the sum of
__________________________________________ and 00/100 Dollars ($                    )
for the payment whereof Principal and Surety bind themselves, their heirs, executors and
administrators, successors and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Principal designated as Contractor in
the Contract to construct Project Number ____________ in the Municipality of
_________________________ promptly satisfies all claims and demands incurred for all
labor and material, used or required by him in connection with the work contemplated by
said Contract, and fully reimburses the obligee for all outlay and expense which the
obligee may incur in making good any default of said Principal, then this obligation shall
be null and void; otherwise it shall remain in full force and effect.

A claimant is defined as one having a direct contract with the Principal or with a
Subcontractor of the Principal for labor, material or both, used or reasonably required for
use in the performance of the contract.

Signed and sealed this ............................................. day of ......................................................, 20 ... .

WITNESS:     SIGNATURES:

CONTRACTOR:

Signature............................................................................................................................
Print Name Legibly ............................................     Print Name Legibly ..................................

SURETY:

Signature............................................................................................................................
Print Name Legibly ............................................     Print Name Legibly ..................................

SURETY ADDRESS:    NAME OF LOCAL AGENCY:

............................................................ ADDRESS ................................................
................................................................... ……………....................................................

TELEPHONE ........................................... ………………................................................
SPECIAL PROVISION
SECTION 107
CONTRACT TIME

The specified contract completion date is [Insert Date]
SPECIAL PROVISIONS

SECTION 104
Utilities

UTILITY COORDINATION
The contractor has primary responsibility for coordinating their work with utilities after contract award. The contractor shall communicate directly with the utilities regarding any utility work necessary to maintain the contractor’s schedule and prevent project construction delays. The contractor shall notify the resident of any issues.

THE CONTRACTOR SHALL PLAN AND CONDUCT WORK ACCORDINGLY.

MEETING
A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications {is} required.

GENERAL INFORMATION
These Special Provisions outline the arrangements that have been made by the Department for utility and/or railroad work to be undertaken in conjunction with this project. The following list identifies all known utilities or railroads having facilities presently located within the limits of this project or intending to install facilities during project construction.

Utilities have been notified and will be furnished a project specification.

<table>
<thead>
<tr>
<th>Utility/Railroad</th>
<th>Aerial</th>
<th>Underground</th>
<th>Railroad</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Utility Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility/Railroad</td>
</tr>
<tr>
<td>------------------</td>
</tr>
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</table>

{Coordinator’s Initials}
Temporary utility adjustments are **not** anticipated.

Unless otherwise specified, any underground utility facilities shown on the project plans represent approximate locations gathered from available information. The Department cannot certify the level of accuracy of this data. Underground facilities indicated on the topographic sheets (plan views) have been collected from historical records and/or on-site designations provided by the respective utility companies. Underground facilities indicated on the cross-sections have been carried over from the plan view data and may also include further approximations of the elevations (depths) based upon straight-line interpolation from the nearest manholes, gate valves, or test pits.

All adjustments are to be made by the respective utility/railroad unless otherwise specified herein.

Fire hydrants shall not be disturbed until all necessary work has been accomplished to provide proper fire protection.

All clearing and tree removal in areas where utilities are involved must be completed before the utilities are able to relocate their facilities.

It is the responsibility of the Contractor with the Utility Pole owner, to layout all of the proposed pole locations in the field prior to the start of utility relocations. Should any adjustments be needed, the Utility will document adjustments and inform the Department prior to utility relocations.

The Contractor shall provide the utilities access to the new pole locations. Construction of any spot cuts or fills in excess of 2 feet must be completed prior to utility relocations. The Contractor shall prepare a plan for how access and the spot cuts and fills will be accomplished and what the schedule will be for performing the work. This plan will be discussed at the pre-construction utility meeting.

**Specific information regarding the line voltage can be requested from {Name of Electric Utility}**

Utility working days are Monday through Friday. Times are estimated on the basis of a single crew for each utility. Any times and dates mentioned are estimates only and are dependent upon favorable weather, working conditions, and freedom from emergencies. The Contractor shall have no claim against the Department if they are exceeded.

**BUY AMERICA**

Utility construction work performed as part this federal-aid project is subject to the requirements of Buy America in accordance with Federal Regulation 23 CFR 635.410 Section 1518. Specific requirements are presented in MaineDOT Standard Specification Section 100, Appendix A, Section 3.A., Buy America.
AERIAL

Summary:

<table>
<thead>
<tr>
<th>Utility</th>
<th>Pole Set</th>
<th>New Wires/Cables</th>
<th>Trans. Wires/Cables</th>
<th>Remove Poles</th>
<th>Estimated Working Days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

Total:

Utility Specific Issues:

{Company #1}

{Company #2}

{Discussion}

{Company #3}

{Discussion}

{Company #4}

{Discussion}

Pole List:

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<tr>
<th>Existing Pole #</th>
<th>Existing Station</th>
<th>Left/Right</th>
<th>Existing Offset</th>
<th>Proposed Station</th>
<th>Left/Right</th>
<th>Proposed Offset</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>LT RT</td>
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<td>LT RT</td>
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</tbody>
</table>

SUBSURFACE
Summary:

<table>
<thead>
<tr>
<th>Utility</th>
<th>Summary of Work</th>
<th>Estimated Working Days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Total:

Utility Specific Issues:

{Company #1}
{Discussion}

{Company #2}
{Discussion}

{Company #3}
{Discussion}

RAILROAD

{Company #1}
{Discussion}

MAINTAINING UTILITY LOCATION MARKINGS
The Contractor will be responsible for maintaining the buried utility location markings following the initial locating by the appropriate utility or their designated representative.

UTILITY SIGNING
Any utility working within the construction limits of this project shall ensure that the traveling public is adequately protected at all times. All work areas shall be signed, lighted, and traffic flaggers employed as determined by field conditions. All traffic controls shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, as issued by the Federal Highway Administration.
STANDARD DETAIL UPDATES


<table>
<thead>
<tr>
<th>Detail #</th>
<th>Description</th>
<th>Revision Date</th>
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</thead>
<tbody>
<tr>
<td>501(02)</td>
<td>Pipe Pile Splice</td>
<td>3/05/2015</td>
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<td>501(03)</td>
<td>H – Pile Splice</td>
<td>3/05/2015</td>
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<tr>
<td>504(07)</td>
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<td>10/13/2015</td>
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<tr>
<td>504(10)</td>
<td>Drip Bar Details</td>
<td>9/06/2017</td>
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<td>Shear Connectors</td>
<td>10/24/2016</td>
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<tr>
<td>507(14)</td>
<td>Steel Bridge Railing</td>
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<tr>
<td>507(31)</td>
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<td>526(02)</td>
<td>Temporary Concrete Barrier</td>
<td>2/01/2018</td>
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<tr>
<td>609(9)</td>
<td>Concrete Slip Form Curb</td>
<td>5/06/2018</td>
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<tr>
<td>626(07)</td>
<td>Conduit Trench for Traffic Signals, Highway Signing</td>
<td>5/17/2018</td>
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<td>Highway Signing and Lighting</td>
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<td>645(06)</td>
<td>H-Beam Posts Highway Signing</td>
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<td>652(06)</td>
<td>Construction Signs</td>
<td>10/24/2016</td>
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<td>652(12)</td>
<td>Construction Traffic Control</td>
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<tr>
<td>802(05)</td>
<td>Roadway Culvert End Slope Treatment</td>
<td>1/03/2017</td>
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</tbody>
</table>
SUPPLEMENTAL SPECIFICATIONS
(Corrections, Additions, & Revisions to Standard Specifications - November 2014)

SECTION 101
CONTRACT INTERPRETATION

101.1 Abbreviations Revise the definition of AWPA to “American Wood Protection Association”.

101.2 Definitions
Page 1-5 – Remove the definition of Bridge in its entirety and replace with:
“Bridge  A structure that is erected over a depression or an obstruction, such as water, a highway or a railway, and has an opening measured along the centerline of the Roadway of more than 20 feet between: The faces of abutments; spring line of arches; extreme ends of openings of box culverts, pipes or pipe arches; or the extreme ends of openings for multiple box culverts, pipes or pipe arches.”

Page 1-12 – Remove the definition of Large Culvert in its entirety and replace with:
“Large Culvert  Any structure not defined as a Culvert or Bridge that provides a drainage or non-drainage opening under the Roadway or Approaches to the Roadway, with an opening that is 5 feet but less than 10 feet.”

Remove the definition of Minor Span in its entirety and replace with:
“Minor Span  Same definition as Bridge, except having an opening of between 10 feet and 20 feet, inclusive.”

SECTION 103
AWARD AND CONTRACTING

Amend this Section by adding the following:

“103.1a  Tie Bids - In the case where two responsive bids from responsible bidders are equal monetarily, the Department shall determine the apparent low bidder by flipping a coin. The coin shall have sides clearly marked as heads and tails. The contractor whose first letter in their official company name that comes first in the alphabet shall be heads.

If there are three bids, each bidder will flip the coin and the bidder with the odd toss will be the winner. (i.e. if the results are two heads and a tails, the bidder who had tails is the winner). For a three way tie, bidders may flip their own coin or have the Contracts Engineer flip for them.

The coin flip will occur at the next bid opening by the Contracts and Specifications Engineer or a designee. The tied bidders may attend the coin flip in person or watch on the internet as they choose.”
In 103.3.2 Notice of Determination  Revise this section by removing sections A – M and replacing with the following A - K:

(A) Default(s) or termination(s) on past or current Contracts.

(B) Failure on past or current Contracts to pay or settle all bills for labor, Materials or services; to comply with directives of the Department, to fulfill warranty obligations, or to provide Closeout Documentation.

(C) "Below Standard" performance as determined from the Department’s Contractor’s Performance Rating process.

(D) Insufficient bonding capability or Inability of the Contractor to obtain or retain performance or Payment Bonds meeting MDOT requirements, or a pattern of unsupported Claims.

(E) Failure to accept an Award of a Contract made by the Department.

(F) Failure to provide information requested by the Department in a timely manner.

(G) 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).

(H) Failure to demonstrate ability to do work to the satisfaction and at the sole discretion of the Department.

(I) Number of personnel working directly for the Contractor with applicable knowledge and experience is significantly below industry standards.

(J) Safety Record, Environmental Record, Civil Rights or Equal Opportunity Record significantly below industry standards.

(K) 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”.

Page 2 of 51
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES

This Section shall be amended by adding the following two sub-sections:

104.3.8.1 Electronic Payroll Submission  On federally funded projects the prime contractor, all subcontractors, and lower-tier subcontractors will submit their certified payrolls electronically utilizing the Elations system. There is no charge to the contracting community for the use of this service. The submission of paper payrolls will not be allowed or accepted. Additional information can be found at [http://www.maine.gov/mdot/contractors/](http://www.maine.gov/mdot/contractors/) under the “Bidder Info” go to “Electronic Payroll System.”

104.3.8.2 Payment Tracking  On federally funded projects the prime contractor and all subcontractors and lower-tier subcontractors will track and confirm the delivery and receipt of all payments through the Elation System

104.4.10 Coordination of Road Closure / Bridge Closure / Bridge Width Restrictions
Revise the last sentence by adding a period after ‘Resident’; remove the “and” after Resident; and adding “not covered by Pay Items” between ‘costs’ and ‘will’. So that the last paragraph reads “All Newspaper notices, radio announcements and any notifications will be subject to the approval of the Resident. All costs not covered by Pay Items will be considered incidental to the Contract.”.

104.5.5 Prompt Payment of Subcontractors Add the following paragraph to this subsection:

C. Payment Tracking Federal Projects  On federally funded projects, the prime contractor, subcontractors and lower-tier subcontractors will track and confirm the delivery and receipt of all payments through the Elation System. They will be responsible for entering all payments to all sub and lower tier contractors. MaineDOT will run a query monthly to ensure that contractors are complying and generate an e-mail to contractors who have not responded to confirm receipt of MaineDOT payment or contractor payment to lower tier subcontractors.

SECTION 105
GENERAL SCOPE OF WORK

105.2.5 Compliance with Health and Safety Laws  Remove the second paragraph of this subsection in its entirety and replace with:

“For related provisions, see Sections 105.2.3 – Project Specific Emergency Planning, 105.3 – Traffic Control and Management and 105.4 – Maintenance of work.”

105.4.5 Special Detours Remove this subsection in its entirety and replace with:
“105.4.5 Maintenance of Existing Structures  When a new Bridge or Minor Span is being installed on a new alignment and the existing structure is to remain in service, the Department will maintain the existing structure and the portions of the roadway required for maintaining traffic until such time that the new structure is opened to traffic and the existing structure is taken out of service. A similar situation exists when a new Bridge or Minor Span is being installed on the same alignment as the existing structure, requiring a temporary detour to be installed by the Contractor per Section 510, Special Detours, prior to removal of the existing structure. In this case, the Department will maintain the existing structure and the portions of the existing roadway required for maintaining traffic until such time that either the temporary detour is opened to traffic or the Contractor begins any work on the existing structure, including, but not limited to, repairs, modifications, moving, demolition or removal. In either case, once the new structure or temporary detour is opened to traffic, or the Contractor begins any work on the existing structure, the Contractor shall be solely responsible for all maintenance of the existing structure and the portions of the existing approaches that lie outside the new roadway or the temporary detour, respectively. This specification is not intended to supersede Standard Specification Section 104.3.11, Responsibility for Property of Others.”

105.6.2.4 Department Verification  Add the following to the end of the first sentence:
“or other approved method, such as reference staking, to allow the Department to independently verify the accuracy of the work, as approved by the Department.”

SECTION 106  QUALITY

106.3.4 Storage  Revise this Section by adding the following sentence after the first sentence:
“Materials shall not be stored under or in close proximity to Highway Structures unless the Contractor receives written permission from the Resident.”

106.4.1 General - In the first sentence, remove “When required by Special Provision,” and replace with “When required elsewhere in the Contract,”

Revise Subsection C by replacing the last sentence with the following:

Approval of both standard and project specific QCPs shall be as outlined in paragraph B above, with the exception that the initial 14 day review period for standard plans will begin on March 1, and that the supplemental project specific QCP for the project shall be submitted a minimum of 14 days prior to any related work being performed with an initial review period of 7 days.
SECTION 107
TIME

107.7.2 SCHEDULE OF LIQUIDATED DAMAGES

Revise this section by removing the numbers in the chart and replace with the following:

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
<th>From</th>
<th>To and Including</th>
<th>Per Diem Amount of Liquidated Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>More Than</td>
<td>Calendar Day</td>
<td></td>
</tr>
<tr>
<td>$ 0</td>
<td>$ 100,000.00</td>
<td>$250.00</td>
<td></td>
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<td>$ 100,000.00</td>
<td>$ 250,000.00</td>
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<td>$4,000,000.00 and More</td>
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<td>$2,100.00</td>
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</table>

SECTION 108
PAYMENT

108.3 Retainage - Remove the paragraph beginning with “The Contractor may withdraw…” in its entirety.

108.4.1 Price Adjustment for Hot Mix Asphalt:
Remove this section in its entirety and replace with the following:

For all contracts with hot mix asphalt in excess of 500 tons total, a price adjustment for performance graded binder will be made for the following pay items:

- Item 403.102 Hot Mix Asphalt – Special Areas
- Item 403.206 Hot Mix Asphalt - 25 mm
- Item 403.207 Hot Mix Asphalt - 19 mm
- Item 403.2071 Hot Mix Asphalt - 19 mm (Polymer Modified)
- Item 403.2072 Hot Mix Asphalt - 19 mm (Asphalt Rich Base)
- Item 403.208 Hot Mix Asphalt - 12.5 mm
- Item 403.2081 Hot Mix Asphalt - 12.5 mm (Polymer Modified)
- Item 403.209 Hot Mix Asphalt - 9.5 mm (sidewalks, drives, & incidentals)
- Item 403.210 Hot Mix Asphalt - 9.5 mm
- Item 403.2101 Hot Mix Asphalt - 9.5 mm (Polymer Modified)
- Item 403.2102 Hot Mix Asphalt - 9.5 mm (Asphalt Rich Base)
Item 403.2104  Hot Mix Asphalt - 9.5 mm (Thin Lift Surface Treatment)
Item 403.21041 Hot Mix Asphalt - 9.5 mm (Polymer Modified Thin Lift Surface Treatment)
Item 403.211  Hot Mix Asphalt – Shim
Item 403.2111 Hot Mix Asphalt – Shim (Polymer Modified)
Item 403.212  Hot Mix Asphalt - 4.75 mm (Shim)
Item 403.213  Hot Mix Asphalt - 12.5 mm (base and intermediate course)
Item 403.2131 Hot Mix Asphalt - 12.5 mm (base and intermediate course Polymer Modified)
Item 403.2132 Hot Mix Asphalt - 12.5 mm (Asphalt Rich Base and intermediate course)
Item 403.214  Hot Mix Asphalt - 4.75 mm (Surface)
Item 403.235 Hot Mix Asphalt (High Performance Rubberized HMA)
Item 403.301 Hot Mix Asphalt (Asphalt Rubber Gap-Graded)
Item 404.70 Colored Hot Mix Asphalt – 9.5mm (Surface)
Item 404.72 Colored Hot Mix Asphalt – 9.5mm (Islands, sidewalks, & incidentals)
Item 461.13 Light Capital Pavement
Item 461.210 9.5 mm HMA - Paver Placed Surface
Item 462.30 Ultra-Thin Bonded Wearing Course
Item 462.301 Polymer Modified Ultra-Thin Bonded Wearing Course

Price adjustments will be based on the variance in costs for the performance graded binder component of hot mix asphalt. They will be determined as follows:

The quantity of hot mix asphalt for each pay item will be multiplied by the performance graded binder percentages given in the table below times the difference in price between the base price and the period price of asphalt cement. Adjustments will be made upward or downward, as prices increase or decrease.

Item 403.102–6.2%
Item 403.206–4.8%
Item 403.207–5.2%
Item 403.2071–5.2%
Item 403.2072–5.8%
Item 403.208–5.6%
Item 403.2081–5.6%
Item 403.209–6.2%
Item 403.210–6.2%
Item 403.2101–6.2%
Item 403.2102–6.8%
Item 403.2104–6.2%
Item 403.21041–6.2%
Item 403.211–6.2%
Item 403.2111–6.2%
Item 403.212–6.8%
Item 403.213–5.6%
Item 403.2131–5.6%
Hot Mix Asphalt: The quantity of hot mix asphalt will be determined from the quantity shown on the progress estimate for each pay period.

Base Price: The base price of performance graded binder to be used is the price per standard ton current with the bid opening date. This price is determined by using the average New England Selling Price (Excluding the Connecticut market area), as listed in the Asphalt Weekly Monitor.

Period Price: The period price of performance graded binder will be determined by the Department by using the average New England Selling Price (Excluding the Connecticut market area), listed in the Asphalt Weekly Monitor current with the paving date. The maximum Period Price for paving after the adjusted Contract Completion Date will be the Period Price on the adjusted Contract Completion Date.

SECTION 109
CHANGES

109.5.1 Definitions - Types of Delays
Delete Paragraph ‘A’ in its entirety and replace with:

“A. Excusable Delay Except as expressly provided otherwise by this Contract, an "Excusable Delay" is a Delay to the Critical Path that is directly and solely caused by (1) a weather related Event of such an unusually severe nature that a Federal Emergency Disaster is declared. The Contractor will only be entitled to an adjustment of time if the Project falls within the geographic boundaries prescribed under the disaster declaration. or (2) a flooding event at the effected location of the Project that results in a Q25 headwater elevation, or greater, but less than a Q50 headwater elevation. Theoretical headwater elevations will be determined by the Department; actual headwater elevations will be determined by the Contractor and verified by the Department or (3) An Uncontrollable Event."

SECTION 110
INDEMNIFICATION, BONDING AND INSURANCE
110.3.9 Administrative & General Provisions

   B. Defense of Claims  Amend this section by adding the following sentence to the end:
   “The Contractor’s insurer shall name the Department of Transportation as a released party
   (Releasee”) on any release or settlement agreement for settled claims.”

APPENDIX A TO DIVISION 100

Remove Section D in its entirety as this is now covered in Section 105.10 EQUAL OPPORTUNITY
AND CIVIL RIGHTS.

SECTION 203
EXCAVATION AND EMBANKMENT

203.02 Materials
At the bottom of page 2-12, add as the first item in the list:
Crushed Stone, ¾ inch  703.13

203.042 Rock Excavation and Blasting
On page 2-16, add the word “No” to the third sentence in Section 5 Submittals, Subsection V, 1 so
that it reads:
“No blasting products will be allowed on the job site if the date codes are missing.”

203.09 Preparation of Embankment Area  Revise the first sentence of the second paragraph so that
it reads:
“When fill material is placed against existing slopes or previously placed fill, the interface shall
be continuously benched by excavating steps of sufficient width to permit operations of placing
and compacting the additional material.”

SECTION 304
AGGREGATE BASE AND SUBBASE COURSE

304.02 – Aggregate  Add the following sentence before the sentence starting with “When designated
on the plans…”: “Aggregate Base Course – Type C will be capped with 2” of millings or
Untreated Aggregate Surface Course – Type B. Payment for this material will be made under
304.16”

Revise the sentence beginning “When designated on the Plans, Type E…” by removing “When
designated on the Plans,” so it reads “Type E subbase may be used 9 inches below and lower
beneath the pavement.”

SECTION 307
FULL DEPTH RECYCLED PAVEMENT
Remove this Section in its entirety and replace with:

SECTION 307
FULL DEPTH RECYCLING
(UNTREATED OR TREATED WITH EMULSIFIED ASPHALT STABILIZER)

307.01 Description  This work shall consist of pulverizing a portion of the existing roadway structure into a homogenous mass, adding an emulsified asphalt stabilizer (if required) to the depth of the pulverized material specified in the contract, placing and compacting this material to the lines, grades, and dimensions shown on the plans or established by the Resident.

MATERIALS

307.02 Pulverized Material  Pulverized material shall consist of the existing asphalt pavement layers and one inch or more as specified of the underlying gravel, pulverized and blended into a homogenous mass. Pulverized material will be processed to 100% passing a 2 inch square mesh sieve.

307.021 New Aggregate and Additional Recycled Material  New aggregate, if required by the contract, shall meet the requirements of Subsection 703.10 - Aggregate for Untreated Surface Course and Leveling Course, Type A. Aggregate Subbase Course Gravel Type D processed to 100 percent passing a 2 inch square mesh sieve and meeting the requirements of 703.06 – Aggregate for Base and Subbase may be used in areas requiring depths greater than 2 inches. New aggregate, will be measured and paid for under the appropriate item.

Recycled material, if required, shall consist of salvaged asphalt material from the project or from off-site stockpiles that has been processed before use to 100 percent passing a 2 inch square mesh sieve. Recycled material shall be conditionally accepted at the source by the Resident. It shall be free of winter sand, granular fill, construction debris, or other materials not generally considered asphalt pavement.

Recycled material generated and salvaged from the project shall be used within the roadway limits to the extent it is available as described in 307.09. No additional payment will be made for material salvaged from the project.

Recycled material supplied from off-site stockpiles shall be paid for as described in the contract, or by contract modification.

307.022 Emulsified Asphalt Stabilizer.  If required, the emulsified asphalt stabilizer shall be grade MS-2, MS-4, SS-1, or CSS-1 meeting the requirements of Subsection 702.04 Emulsified Asphalt.

307.023 Water  Water shall be clean and free from deleterious concentrations of acids, alkalis, salts or other organic or chemical substances.
307.024 Portland Cement If required, Portland Cement shall be Type I or II meeting the requirements of AASHTO M85.

307.025 Hydrated Lime If required, Hydrated Lime shall meet the requirements of AASHTO M216.

EQUIPMENT

307.03 Pulverizer The pulverizer shall be a self-propelled machine, specifically manufactured for full-depth recycling work and capable of reducing the required existing materials to a size that will pass a 2 inch square mesh sieve. The machine shall be equipped with standard automatic depth controls and must maintain a consistent cutting depth and width. The machine also shall be equipped with a gauge to show depth of material being processed.

307.04 Liquid Mixer Unit or Distributor. If treatment of the recycled layer with emulsified asphalt is required by the contract, a liquid mixing unit or distributor shall be used to introduce the emulsified asphalt stabilizer into the pulverized material. The mixing unit shall contain a liquid distribution and mixing system which has been specifically manufactured for full-depth recycling work, capable of mixing the pulverized material with an evenly metered distribution of emulsified asphalt into a homogeneous mixture, to the depth and width required.

The mixing unit shall be designed, equipped, maintained, and operated so that emulsified asphalt stabilizer at constant temperature may be applied uniformly on variable widths of pulverized material up to 6 feet at readily determined and controlled rates from 0.01 to 1.06 gal/yd² with uniform pressure and with an allowable variation from any specified rate not to exceed 0.01 gal/yd². Mixing units shall include a tachometer, pressure gages, and accurate volume measuring devices or a calibrated tank and a thermometer for measuring temperatures of tank contents.

307.041 Cement or Lime Spreader If required by the contract, spreading of the Portland Cement or Hydrated Lime shall be done with a spreader truck designed to spread dry particulate (such as Portland Cement or Lime) or other approved means to insure a uniform distribution across the roadway and minimize fugitive dust. Pneumatic application, including through a slotted pipe, will not be permitted. Other systems that have been developed include fog systems, vacuum systems, etc. Slurry applications may also be accepted. The Department reserves the right to accept or reject the method of spreading cement. The Contractor shall provide a method for verifying that the correct amount of cement is being applied.

307.05 Placement Equipment Placement of the Full Depth recycled material to the required slope and grade shall be done with an approved highway grader or by another method approved by the Resident.

307.06 Rollers The full depth recycled material shall be rolled with a vibratory pad foot roller, a vibratory steel drum soil compactor and a pneumatic tire roller. The pad foot roller drum shall have a minimum of 112 tamping feet 3 inches in height, a minimum contact area per foot of 17 inch², and a minimum width of 84 inches. The vibratory steel drum roller shall have a
minimum 84 inch width single drum. The pneumatic tire roller shall meet the requirements of Section 401.10 and the minimum allowable tire pressure shall be 85 psi.

MIX DESIGN

If treatment of the recycled layer with emulsified asphalt is required by the contract, the Department will supply a mix design for the emulsified asphalt stabilized material based on test results from pavement and soil analysis taken to the design depth. The Department will provide the following information prior to construction:

1. Percent of emulsified asphalt to be used.
2. Quantity of lime or cement to be added.
3. Optimum moisture content for proper compaction.
4. Additional aggregate (if required).

After a test strip has been completed or as the work progresses, it may be necessary for the Resident to make necessary adjustments to the mix design. Changes to compensation will be in accordance with the Mix Design Special Provision.

CONSTRUCTION REQUIREMENTS

307.06 Pulverizing The entire depth of existing pavement shall be pulverized together with 1 inch or more of the underlying gravel into a homogenous mass. All pulverizing shall be done with equipment that will provide a homogenous mass of pulverized material, processed in-place, which will pass a 2 inch square mesh sieve.

307.07 Weather Limitations Full depth recycled work shall be performed when:

A. Recycling operations will be allowed between May 15th and September 15th inclusive in Zone 1 - Areas north of US Route 2 from Gilead to Bangor and north of Route 9 from Bangor to Calais. Recycling will be allowed between May 1st and September 30th inclusive in Zone 2 - Areas south of Zone 1 including the US Route 2 and Route 9 boundaries.
B. The atmospheric temperature, as determined by an approved thermometer placed in the shade at the recycling location, is 50°F and rising.
C. When there is no standing water on the surface.
D. During generally dry conditions, or when weather conditions are such that proper pulverizing, mixing, grading, finishing and curing can be obtained using proper procedures, and when compaction can be accomplished as determined by the Resident.
E. When the surface is not frozen and when overnight temperatures are expected to be above 32°F.
F. Wind conditions are such that the spreading of lime or cement on the roadway ahead of the recycling machine will not adversely affect the operation.
307.08 Surface Tolerance  The complete surface of the Full Depth Recycled course shall be shaped and maintained to a tolerance, above or below the required cross sectional shape, of \( \frac{3}{8} \) inch.

307.09 Full Depth Recycling Procedure  New aggregate or recycled material meeting the requirements of Section 307.021 - New Aggregate and Additional Recycled Material, shall be added as necessary to restore cross-slope and/or grade before pulverizing. Locations will be shown on the plans or described in the construction notes. The Resident may add other locations while construction of the project is in progress. The Contractor will use recycled material to the extent it is available, in lieu of new aggregate. The material shall then be pulverized, processed, and blended into a homogeneous mass passing a 2 inch square mesh sieve. Material found not pulverized down to a 2 inch size will be required to be reprocessed by the recycler with successive passes until approved by the Resident.

Should the Contractor be required to add new aggregate or recycled material to restore cross-slope and/or grade after the initial pulverizing process, those areas will require re-processing to blend into a homogenous mass passing a 2 in square mesh sieve.

Sufficient water shall be added during the recycling process to maintain optimum moisture for compaction.

The resultant material from the initial pulverizing processes shall be graded and compacted to the cross-slope and profile shown on the plans or as directed by the Resident. The Contractor will also be responsible for re-establishing the existing profile grade. The completed surface of the full depth recycled course shall be shaped and maintained to a tolerance, above or below the required cross sectional shape, of \( \frac{3}{8} \) inch. Areas not meeting this tolerance will be repaired as described in Section 307.091. The initial pulverizing process density requirements will be the same as Section 307.101 unless otherwise directed by the Resident.

Additives, if required, shall be introduced following completion of the initial pulverizing and blending process. Emulsified asphalt stabilizer shall be incorporated into the top of the processed material as specified in section 307.04 to the depth specified in the contract by use of the liquid mixer unit or a distributor, at the rate specified in the mix design. The emulsified asphalt shall then be uniformly blended into a homogeneous mass until an apparent uniform distribution has occurred. The rate of application may be adjusted as necessary by the Resident. Cement or lime shall be introduced as described in section 307.041. The resultant material shall be graded and compacted to the cross-slope and profile shown on the plans or as directed by the Resident. The Contractor will also be responsible for re-establishing the existing profile grade.

After final compaction, the roadway surface shall be treated with a light application of water, and rolled with pneumatic-tired rollers to create a close-knit texture. The finished layer shall be free from:

A. Surface laminations.
B. Segregation of fine and coarse aggregate.
C. Corrugations, centerline differential, potholes, or any other defects that may adversely
affect the performance of the layer, or any layers to be placed upon it. The Contractor shall protect and maintain the recycled layer until a lift of pavement is applied. Any damage or defects in the layer shall be repaired immediately. An even and uniform surface shall be maintained. The recycled surface shall be swept prior to hot mix asphalt overlay placement.

307.091 Repairs Repairs and maintenance of the recycled layers, resulting from damage caused by traffic, weather or environmental conditions, or resulting from damage caused by the Contractor’s operations or equipment, shall be completed at no additional cost to the Department.

For recycled layers stabilized with emulsified asphalt, low areas will be repaired using a hot mix asphalt shim. Areas up to 1 inch high can be repaired by milling or shimming with hot mix asphalt. Areas greater than 1 inch high will be repaired using a hot mix asphalt shim. All repair work will be done with the Resident’s approval at the Contractor’s expense.
TESTING REQUIREMENTS

307.10 Quality Control The Contractor shall operate in accordance with the approved Quality Control Plan (QCP) to assure a product meeting the contract requirements. The QCP shall meet the requirements of Section 106.4 - Quality Control and this Section. The Contractor shall not begin recycling operations until the Department approves the QCP in writing. Prior to performing any recycling process, the Department and the Contractor shall hold a Pre-recycle conference to discuss the recycling schedule, type and amount of equipment to be used, sequence of operations, and traffic control. A copy of the QC random numbers to be used on the project shall be provided to the Resident. All field supervisors including the responsible onsite recycling process supervisor shall attend this meeting.

The QCP shall address any items that affect the quality of the Recycling Process including, but not limited to, the following:

A. Sources for all materials, including New Aggregate and Additional Recycled Material.
B. Make and type of rollers including weight, weight per inch of steel wheels, and average contact pressure for pneumatic tired rollers.
C. Testing Plan.
D. Recycling operations including recycling speed, methods to ensure that segregation is minimized, grading and compacting operations.
E. Methods for protecting the finished product from damage and procedures for any necessary corrective action.
F. Method of grade checks.
G. Examples of Quality Control forms.
H. Name, responsibilities, and qualifications of the Responsible onsite Recycling Supervisor experienced and knowledgeable with the process.
I. A note that all testing will be done in accordance with AASHTO and MDOT/ACM procedures.

The Project Superintendent shall be named in the QCP, and the responsibilities for successful implementation of the QCP shall be outlined.

The Contractor shall sample, test, and evaluate the full depth reclamation process in accordance with the following minimum frequencies:

MINIMUM QUALITY CONTROL FREQUENCIES
<table>
<thead>
<tr>
<th>Test or Action</th>
<th>Frequency</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>1 per 1000 feet / lane</td>
<td>AASHTO T 310</td>
</tr>
<tr>
<td>Air Temperature</td>
<td>4 per day at even intervals</td>
<td></td>
</tr>
<tr>
<td>Surface Temperature</td>
<td>At the beginning and end of each days operation</td>
<td></td>
</tr>
<tr>
<td>Yield of all materials (Daily yield, yield since last test, and total project yield.)</td>
<td>1 per 1000 ft/lane</td>
<td></td>
</tr>
</tbody>
</table>

The Department may view any QC test and request a QC test at any time. The Contractor shall submit all QC test reports and summaries in writing, signed by the appropriate technician, to the Department’s onsite representative by 1:00 P.M. on the next working day, except when otherwise noted in the QCP due to local restrictions. The Contractor shall make all test results, including randomly sampled densities, available to the Department onsite.

The Contractor shall cease recycling operations whenever one of the following occurs:

A. The Contractor fails to follow the approved QCP.
B. The Contractor fails to achieve 98 percent density after corrective action has been taken.
C. The finished product is visually defective, as determined by the Resident.
D. The computed yield differs from the mix design by 10 percent or more.

Recycling operations shall not resume until the Department approves the corrective action to be taken.

307.101 Test Strip The contractor shall assemble all items of equipment for the recycling operation on the first day of the recycling work. The Contractor shall construct a test strip for the project at a location approved by the Resident. The Responsible onsite Recycling Supervisor will work with Department personnel to determine the suitability of the mixed material, moisture control within the mixed material, and compaction and surface finish. The test strip section is required to:

A. Demonstrate that the equipment and processes can produce recycled layers to meet the requirements specified in these special provisions.
B. Determine the effect on the gradation of the recycled material by varying the forward speed of the recycling machine and the rotation rate of the milling drum.
C. Determine the optimum moisture necessary to achieve proper compaction of the recycled layer.

D. Determine the sequence and manner of rolling necessary to obtain the compaction requirements and establish a target density. The Contractor and the Department will both conduct testing with their respective gauges at this time.

The test strip shall be at least 300 feet in length of a full lane-width (or a half-road width). Full recycling production will not start until a passing test strip has been accomplished. If a test strip fails to meet the requirements of this specification, the Contractor will be required to repair or replace the test strip to the satisfaction of the Resident. Any repairs, replacement, or duplication of the test strip will be at the Contractor’s expense.

After the test strip has been pulverized, and the roadway brought to proper shape, the Contractor shall add water until it is determined that optimum moisture has been obtained. The test strip shall then be rolled using the specified compaction equipment as directed until the density readings show an increase in dry density of less than 1 pcf for the final four roller passes of each roller. The Contractor and Department will each determine a target density using their respective gauges by performing several additional density tests and averaging them. The average of these tests will be used as the target density of the recycled material for QC and Acceptance purposes.

Following completion of the test strip, compaction of the material shall continue until a density of not less than 98 percent of the test strip target density has been achieved for the full width and depth of the layer. During the construction and compaction of the Full Depth Recycled base, should three consecutive Acceptance test results for density fail to meet a minimum of 95 percent of the target density, or exceed 102 percent of target density, a new test strip shall be constructed.

**ACCEPTANCE TEST FREQUENCY**

<table>
<thead>
<tr>
<th>Property</th>
<th>Frequency</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-place Density</td>
<td>1 per 2000 ft / lane</td>
<td>AASHTO T 310</td>
</tr>
</tbody>
</table>

307.102 Curing. No new pavement shall be placed on the full depth recycled pavement until curing has reduced the moisture content to 1 percent or less by total weight of the mixture, or a curing period of 4 days has elapsed, whichever comes first.

307.11 Method of Measurement Full Depth Recycled Pavement (Untreated or Treated with Emulsified Asphalt Stabilizer) will be measured by the square yard.
307.12 Basis of Payment  The accepted quantity of Full Depth Recycled Asphalt Pavement (Untreated or Treated with Emulsified Asphalt Stabilizer) will be paid for at the contract unit price per square yard, complete in-place which price will be full compensation for furnishing all equipment, materials and labor for pulverizing, blending, placing, grading, compacting, and for all incidentals necessary to complete the work.

The addition of materials to restore profile grade and/or cross-slope in areas shown on the plans or described in the construction notes will be paid separately under designated pay items within the contract. No additional payment will be made for materials salvaged from the project.

Payments will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>307.331 Full Depth Recycled Pavement (Untreated)</td>
<td>Square Yard</td>
</tr>
<tr>
<td>307.332 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) 5 in. depth</td>
<td>Square Yard</td>
</tr>
<tr>
<td>307.333 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) 6 in. depth</td>
<td>Square Yard</td>
</tr>
</tbody>
</table>

SECTION 411
UNTREATED AGGREGATE SURFACE COURSE

411.02 – Aggregate  Add the following to the end of the first sentence: “- Type A”

SECTION 501
FOUNDATION PILES

501.05 – Method of Measurement

b. Piles Furnished – After the second sentence, add the sentence “Measurement will not include any pile tips”.

c. Piles in Place – Add the sentence to the end of the second paragraph, “Measurement will include the pile tips”.

d. Pile Tips – Add the words “on the Pile” to the end of the sentence.
SECTION 502
STRUCTURAL CONCRETE

502.05 Composition and Proportioning
Replace Table 1 with

TABLE 1

<table>
<thead>
<tr>
<th>Concrete CLASS</th>
<th>Minimum Compressive Strength (PSI)</th>
<th>Permeability as indicated by Surface Resistivity (KOhm-cm)</th>
<th>Entrained Air (%)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>3,000</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>4,000</td>
<td>14</td>
<td>6.0</td>
<td>9.0</td>
</tr>
<tr>
<td>P</td>
<td>-----</td>
<td>-----</td>
<td>5.5</td>
<td>7.5</td>
</tr>
<tr>
<td>LP</td>
<td>5,000</td>
<td>17</td>
<td>6.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Fill</td>
<td>3,000</td>
<td>N/A</td>
<td>6.0</td>
<td>9.0</td>
</tr>
</tbody>
</table>

In the list of information submitted by the contractor for a mix design:
   Item J Replace “Target Coulomb Value.” with “Target KOhm-cm Value.”

Note #1 - Remove, “…Standard Specification Section 711.05, Protective Coating for Concrete Surfaces, and per the manufacturer's recommendations, at no additional cost to the Department.” and replace with, “…Standard Specification Section 515, Protective Coating for Concrete Surfaces, at no additional cost to the Department.”

502.1703 Acceptance Methods A and B
In the paragraph that starts with “The Department will take Acceptance…” Remove the word chloride from chloride permeability in the last sentence.

Replace the paragraph starting with “Rapid Chloride Permeability specimens…” With the following:
   “Surface Resistivity specimens will be tested by the Department in accordance with AASHTO TP-95 at an age ≥ 56 days. Four 4 inch x 8 inch cylinders will be cast per sublot placed. The average of three concrete specimens per sublot will constitute a test result and this average will be used to determine the permeability for pay adjustment computations.”
502.1706 Acceptance Method C

Remove in its entirety and Replace with:

**502.1706 Acceptance Method C**  The Department will determine the acceptability of the concrete through Acceptance testing. Acceptance tests will include compressive strength, air content and permeability. Method C concrete not meeting the requirements listed in Table 1 shall be removed and replaced at no cost to the Department. At the Department’s sole discretion, material not meeting requirements may be left in place and paid for at a reduced price as described in Section 502.195.

502.1707 Resolution of Disputed Acceptance Test Results

Section B

Remove “Rapid Chloride” from the section heading.

In paragraph 4 replace T-277 with TP-95

502.192 Pay Adjustment for Chloride Permeability

Remove “Chloride” from the heading and from the first sentence.

Replace the sentence that starts with “values greater than…” and replace with “values less than 10 KOhms-cm for Class A concrete or 11 KOhms-cm for Class LP concrete shall be subject to rejection and replacement, at no additional cost to the Department.”

502.194 Pay Adjustments for Compressive Strength, Chloride Permeability and Air Content, Methods A and B

Remove the word “Chloride” from the section heading and from the equation for CPF.

502.195 Pay Adjustment Method C

In Table 6: Method C Pay Reductions (page 5-53)

Under “Entrained Air” for “Class Fill”, in the first line, change from “< 4.0 (Removal)” to “< 4.5 (Removal)”

In Table 6: Method C PAY REDUCTIONS, revise the Chloride Permeability section by removing it in its entirety and replacing it with:

| Surface Resistivity {Permeability in Kohm-cms and Pay Reduction per CY} |
|------------------|----------------|----------|----------|
| 15-16 ($50)      | 13 ($25)       | N/A      | N/A      |
| 13-14 ($75)      | 12 ($50)       | N/A      | N/A      |
| 12 ($100)        | 11 ($75)       | N/A      | N/A      |
| 11 ($125)        | 10 ($100)      | N/A      | N/A      |
| < 11 (Removal)   | < 10 (Removal) | N/A      | N/A      |
SECTION 503
REINFORCING STEEL

503.06 Placing and Fastening  Revise this Subsection by removing, in its entirety, the paragraph which begins, “Stainless steel reinforcement shall not be tied to any other type of reinforcement……”

SECTION 504
STRUCTURAL STEEL

504.26 Welding  Remove the second paragraph beginning with “The range of heat….” in its entirety.

504.29 Welding ASTM A 709 HPS 70W Steel. Remove the third paragraph beginning with “Make Weld runoff tabs…” in its entirety.

SECTION 510
SPECIAL DETOURS

510.032 Geometric and Approach Design a. Horizontal alignment
The third paragraph of this section is revised to read as follows:

“The roadway width shall be increased on curved portions of the Special Detour to account for the off tracking characteristics of WB-62 vehicle in accordance with the AASHTO publication A Policy On Geometric Design of Highways and Streets (the Green Book), chapter 3 table entitled Design Widths of Pavements for Turning Roadways.”

SECTION 527
ENERGY ABSORBING UNIT

527.02 Materials  This section is revised to read as follows.

527.02 Materials  Work Zone Crash Cushions must comply with NCHRP Report 350. Work Zone Crash Cushions shall be selected from MaineDOT’s Qualified Products List of Crash Cushions / Impact Attenuators, or an approved equal.

SECTION 534
PRECAST STRUCTURAL CONCRETE

534.14  Process Control Test Cylinders
Revise this subsection to read:

“534.14 Acceptance and Quality Control Testing of Concrete  Refer to Section 712.061.”
SECTION 535
PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

Section 535.08 – Quality Assurance
Revise the second paragraph to read:

“The QAI will perform acceptance sampling and testing and will witness or review documentation, workmanship and testing to assure the Work is being performed in accordance with the Contract Documents.”

Section 535.15 - Process Control Test Cylinders
Revise the first paragraph to read:

“535.15 Acceptance and Quality Control Testing of Concrete Acceptance of structural precast/prestressed units, for each day’s production, will be determined by the Department, based on compliance with this specification and satisfactory concrete testing results. At least once per week, the QAI will make 2 concrete cylinders (6 cylinders when the Contract includes permeability requirements) for use by the Department; cylinders shall be standard cured in accordance with AASHTO T23 (ASTM C31). The QAI will perform entrained air content and slump flow testing, determine water-cement ratio and determine temperature of the sampled concrete at the time of cylinder casting. All testing equipment required by the QAI to perform this testing shall be provided in accordance with Standard Specification Section 502.041, Testing Equipment. In addition, the Contractor shall provide a slump cone meeting the requirements of AASHTO T 119. Providing and maintaining testing and curing equipment shall be considered incidental to the work and no additional payment will be made.”

Insert the following as the second paragraph of Section 535.15:

“Quality Control concrete test cylinders shall be made for each day’s cast and each form bed used. Cylinders tested to determine strand release strength and design strength shall be field cured in accordance with AASHTO T23 (ASTM C31). 28 day cylinders shall be standard cured. Record unit identification, entrained air content, water-cement ratio, slump flow and temperature of the sampled concrete at the time of cylinder casting.”

SECTION 604
MANHOLES, INLETS CATCH BASINS

604.04 Adjusting Catch Basins and Manholes,

Add the following paragraph to the end of 604.04 b:
The Department will allow the use of metal ring inserts set into the manhole top frame or composite risers placed beneath the manhole frame to adjust manhole slope and grade for paving projects. The use of metal ring inserts shall be in accordance with 604.04 d. Ring Insert Requirements. The use of composite risers shall be in accordance with 604.04 e. Composite Riser Requirements.

Add the following paragraph after the first paragraph of 604.04 c:

The Department will allow the use of metal ring inserts set into the manhole top frame or composite risers placed beneath the manhole frame to adjust manhole slope and grade for paving projects. The use of metal ring inserts shall be in accordance with 604.04 d. Ring Insert Requirements. The use of composite risers shall be in accordance with 604.04 e. Composite Riser Requirements.

Add the following sections to 604.04:

**d. Ring Insert Requirements**  
Ring inserts to adjust manhole top frame slope and grade will be allowed in accordance with the following requirements:

1) **Materials**

   i. All ring inserts must be made of iron. *Multiple ring inserts will not be allowed.* The single ring insert may be any height up to a maximum of 2 inches tall.

   ii. Ring inserts shall not be welded to the manhole frame to prevent brittle failure of the cast iron frame.

   iii. Ring inserts shall be fastened to the manhole frame using liquid steel-filled epoxy such as Loctite Fixmaster Steel Liquid or equivalent. The epoxy shall be installed in accordance with the manufacturer’s recommendations.

2) **Where Ring Inserts May/May Not Be Used**

   i. MaineDOT will allow the use of a single manhole ring insert to raise manholes on state and state-aid highways.

   ii. *Manhole ring inserts may not be used along state and state-aid highway sections where the speed limit is 40 miles per hour or more.* The standard brick and mortar or flat composite risers beneath the manhole frame must be used at these locations.
3) Construction Requirements For The Use of Iron Manhole Ring Inserts

i. Wherever iron ring inserts are used to raise manhole top elevations, the rings shall be fastened to the existing manhole frame using liquid steel-filled epoxy. The liquid steel-filled epoxy shall be placed evenly around the entire manhole frame before placing the ring insert. Unbonded ring inserts will not be allowed. If the manufacturer’s recommended construction practices result in loose or unacceptable manhole cover restraint, standard brick and mortar or flat composite risers beneath the manhole frame must be used at these locations.

e. Composite Riser Requirements Flat or beveled, doughnut-shaped, composite risers placed beneath the manhole frame to adjust slope and grade are allowed. The composite riser shall be fastened to both the top of the concrete cone and bottom of the manhole frame with the manufacturer’s recommended epoxy. Composite risers may be used at all locations on state and state-aid highways under any legal speed limit without restriction.

SECTION 606 GUARDRAIL

606.09 Basis of Payment Amend the first sentence of the eighth paragraph of this subsection by removing the word “meter” and replace it with “linear foot”.

SECTION 608 SIDEWALKS

608.021 Sidewalk Materials Revise this section by removing the second paragraph which begins with “Portland cement concrete shall…” in its entirety and replace with “Portland cement concrete shall be Class A and meet the requirements of Section 502, Structural Concrete.”

SECTION 609 CURB

609.03 Vertical Stone Curb, Terminal Section and Transition Sections and Portland Cement Concrete Curb, Terminal Sections and Transition Sections Amend this section by adding the following paragraph to the end of it:

“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 following is added to Standard Specification 609 – Curb”
609.02 Materials  Amend this section by adding the following to it:

Portland cement and Portland Pozzolan Cement  701.01  
Water  701.02  
Fine Aggregate for Concrete  703.01  
Coarse Aggregate for Concrete  703.02  

The Contractor shall submit a concrete mix design for the Portland Cement Concrete to the Resident, with a minimum designed compressive strength of 4000 psi Class A concrete.

609.10 Basis of Payment  Revise by changing the fifth paragraph which begins with “There will be no separate payment…” this section by removing the word “cement” and replacing it with “concrete fill, mortar”.

SECTION 619  
MULCH  

619.07 Basis of Payment  Amend this section by adding the words “; Bark Mulch and Erosion Control Mix will be paid for by the Cubic Yard;” into the first sentence so that it reads:

“The accepted areas mulched will be paid for at the contract price per unit; Bark Mulch and Erosion Control Mix will be paid for by the Cubic Yard; which shall be full compensation for furnishing and spreading the hay or straw and mulch binder, cellulose fiber mulch, bark mulch or erosion control mix.

Revise the second sentence by removing “ for pay item 619.1201” So that it reads:

“When Mulch is measured in Bales, each bale will be paid for at 60% of the contract price per Unit”.

Revise this section by removing all pay items and replace them with the following:

619.12 Mulch  Unit  
619.13 Bark Mulch  Cubic Yard  
619.14 Erosion Control Mix  Cubic Yard  

SECTION 621  
LANDSCAPING  

621.0002 Materials - General  
In the list of items change “Organic Humus” to “Humus”.
621.0019 Plant Pits and Beds

c  Class A Planting
In the third paragraph beginning with “The plant pit…” change “½ inch” to “1 inch”

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

626.02 General  Amend the Material list by adding the following to the list:

Gravel Borrow       703.20

Revise the Material List by removing:

Prewired Conduit       715.04
Metallic Junction and Fuse Box     715.05

626.021 Miscellaneous Material  Amend this section by adding the following to the end of it:

“All concrete for concrete encasement of conduit shall be Fill Class concrete in accordance with the applicable requirements of Section 502 – Structural Concrete.”

Amend the third paragraph that begins with “If grouting is necessary…” by adding “included on the Qualified Product List and” after the word “material”.

626.03 General  Amend this section by adding the following section to the end of it

“626.0301 Electrical Supply Lines and Service Connections  The following requirements shall apply to Electric Supply Lines and Service Connections feeding traffic signalization equipment control boxes and lighting breaker boxes.

Whenever possible, the meter and breaker panel feeding traffic signal control boxes or lighting control boxes shall be constructed within 30 feet of the service drop pole.

All underground service connections that are constructed in trenches and carrying Secondary Utility Power to a MaineDOT meter and breaker panel, or, directly to MaineDOT traffic signalization control cabinets or lighting breaker boxes shall be in Rigid Metal Conduit or concrete encased PVC conduit.

Where trenchless technologies are employed to install the service connection conduit, Schedule 120 PVC conduit shall be used for the trenchless bore section of conduit. In addition, concrete encasement shall be used for any PVC conduit placed in trench sections and carrying Secondary Utility Power more than 10 feet before or after the limits of the trenchless bore conduit.
The construction practices described above shall be used for service connections up to a maximum of 600 feet. There may be rare exceptional cases where the service connection must exceed 600 feet. In these cases, the power companies may require primary power be run over 600 feet for the purpose of power consumption and dependable service. These cases will be evaluated on a case-by-case basis for alternate power feed methods and/or the need for steel or concrete encased conduit.”

626.031 Conduit  Revise this section by removing the second paragraph which begins with “Trenches for conduits…” and replace it with the following:

“Trenches for conduits shall be excavated to a width that will permit proper installation of the conduit and to a minimum depth of 3 feet below finish grade as measured from the top of the conduit. If deeper depths are required, the conduit shall be installed at the depth shown on the plans or as directed. Conduit shall not interfere with poles, guardrail posts, sign foundations or other objects.”

Amend the third paragraph which begins with “All junction or pull boxes…” by adding “concrete, in accordance with the applicable requirements of Section 502 – Structural Concrete,” after Class LP.

Revise the fifth paragraph which begins with “After the trench has been…” by adding the following to the end of it:

“Where concrete encasement is required around the conduit, backfilling with approved material may begin adjacent to and above the encased conduit no sooner than 24 hours after concrete placement.”

Remove the following:

“All underground conduit shall be placed to at least the depth shown on the plans and shall not interfere with poles, guardrail posts, sign foundations or other objects.”

Revise the paragraph beginning with “All conduit ends shall…” by removing “Prewired Conduit shall be sealed during construction to prevent entry of moisture, dirt, or rocks.”

626.033 Polyvinylchloride Conduit Installation  Amend the first paragraph of this section which begins with “Polyvinylchloride conduit and High Density…” by adding the following to the end of it:

“In addition, PVC conduit used for Electrical Supply Lines and Services constructed as underground service connections in trenches and carrying Secondary Utility Power to a MaineDOT meter and breaker panel, or, directly to MaineDOT traffic signalization control cabinets or lighting breaker boxes shall be concrete encased. When trenchless technologies are used to install PVC conduit, concrete encasement shall not be required.
Concrete encasement shall consist of a minimum of 4 inches of concrete above, below and on both sides of the conduit that shall have a minimum compressive strength of 3000 psi and a maximum aggregate size of 1-inch (Fill Class concrete). The concrete encasement may be backfilled no sooner than 24 hours after placement.

"NON-METALLIC UNDER PAVEMENT CONDUIT INSTALLATION"

Where noted on the drawings, non-metallic under pavement conduit of schedule 80 or greater rating shall be provided to facilitate conduit crossing of the existing highway and ramps without disruption to the existing highway and ramp pavement surface. The non-metallic under pavement conduit shall be hydraulically jacked or directional bored below the highway and ramp at a depth of not less than (36 inches). Under pavement conduit shall extend for a distance of (10 feet) beyond the highway or ramp edge at each side.”

Amend the sixth paragraph which begins with “Where PVC conduit runs are…” by changing “3 inch minimum bedding” to “6 inch minimum bedding”.

626.034 Concrete Foundations

Revise this section by removing the third paragraph which begins with “In the absence of Design Requirements…” in its entirety and replace with the following:

“In the absence of design requirements being provided on the plans, the Contractor shall prepare and submit the foundation design(s) to the Department for review. The Contractor may propose an alternate shallow spread footing or drilled shaft configuration/design than that set forth on the drawings. Design shall be in accordance with AASHTO LRFD Specifications for Structural Supports for Highway Sign, Luminaires and Traffic Signals, current edition; AASHTO LRFD Bridge Design Specifications, current edition; and FHWA-NHI-10-016 Drilled Shafts, Construction Procedures and Design Methods, current edition. Where conflicting requirements occur, the more stringent requirements shall govern. In addition to other design requirements, foundation design shall account for Torsion for which a minimum Factor of Safety equal to 1.2 shall be achieved. In evaluating axial capacity and torsional resistance in cohesionless soils, load transfer coefficient or side resistance coefficient (beta, β) will be used in accordance with Subsection 13.3.5.1 of FHWA-NHI-10-016, with beta determined in accordance with Equations 13-13 and 13-11 for silty sands to sandy silts (with varying amounts of gravel). The design criteria for the resistance of drilled shaft and spread footing foundations against overturning, sliding and bearing capacity failure shall meet the requirements of Section 4 of AASHTO LRFD Bridge Design Specifications, current edition. The structural design of foundations shall meet the requirements of AASHTO LRFD Bridge Design Specifications, current edition. The Contractor shall submit to the Department for review, three (3) copies of detailed plans and calculations of the proposed design. Design shall be prepared and sealed by a Professional Engineer licensed in the State of Maine. Construction of foundation(s) shall not commence until the Department has reviewed the foundation design.”
On Page 6-85, add the following paragraph before the paragraph beginning with “Drilled shafts shall not be…”:

“No foundation design will be required for 18- and 24-inch diameter foundations for structures less than 30-feet tall and with no projecting arms. A foundation design prepared by a Professional Engineer licensed in accordance with the laws of the State of Maine will be required for all other foundations. Precast foundations will be permitted for 18 and 24-inch diameter foundations for structures less than 30-feet tall and with no projecting arms. Where precast foundations are permitted, flowable concrete fill shall be used as backfill in the annular space, and placed from the bottom up. Construction of precast foundations shall conform to the Standard Details and all requirements of Section 712.061 except that the concrete shall have a minimum permeability of 17 kOhm-cm and the use of calcium nitrite will not be required. “

On Page 6-86, Revise the paragraph beginning with “Concrete for drilled shafts…” so that a portion of it reads as follows:

“….The Contractor shall provide temporary dewatering of excavations for foundations such that concrete is placed in the dry. Concrete for drilled shafts shall be placed in accordance with Section 502.10 as temporary casing is withdrawn to prevent debris from contaminating the foundation and to ensure concrete is cast against the surrounding soil. Concrete for drilled shafts and spread footings shall be Class LP in accordance with Section 502 - Structural Concrete. Precast foundations will not be permitted except as specified above in this Section. Backfill for spread footing foundations shall be Gravel Borrow meeting the requirements of Section 703.20 - Gravel Borrow…..”

626.05 Basis of Payment Amend this section by removing the following paragraphs:
The one which starts with “Payment will be made for the total number of linear feet of prewired conduit…”
The one which starts with “Prewired conduit within the foundations…”

Amend this subsection by adding the following paragraph and Pay Items:

“Payment will be made for the total number of linear feet of under pavement conduit actually furnished, installed and accepted at the contract price per linear foot. This price shall include the cost of: furnishing and installing the conduit; excavating; furnishing special backfilling materials, pull wire, fittings, grounding and bonding; test cleaning interiors of conduits and all materials, labor, equipment and incidentals necessary to complete the work.”

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>PayUnit</th>
</tr>
</thead>
<tbody>
<tr>
<td>626.221 Non-metallic Conduit, Concrete Encased</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>626.251 Non-Metallic Under pavement Conduit</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>(Schedule 80 or greater rating)</td>
<td></td>
</tr>
</tbody>
</table>
Remove the following Pay Items:

- 626.23 Prewired Conduit Secondary Wiring Linear Foot
- 626.24 Prewired Conduit Primary Wiring Linear Foot

SECTION 627
PAVEMENT MARKINGS

Revise this section by removing it in its entirety and replacing with the following:

627.01 Description This work shall consist of furnishing and placing reflectorized pavement lines and markings, removing pavement lines and markings, and furnishing and applying reflectorized paint to curbing in reasonably close conformity with the plans and as designated.

627.02 Materials Materials shall conform to the requirements specified in the following Sections of Division 700 - Materials.

- Pavement Marking Paint 708.03
- Reflectorized Plastic Pavement Marking 712.05

Temporary Bi-directional Yellow Delineators shall be Temporary Object Markers (T.O.M.) as manufactured by the Davidson Plastic Company, 18726 East Valley Highway, Kent, WA 98031 or an approved equal.

627.04 General All pavement lines and markings shall be applied in accordance with the latest edition of Manual on Uniform Traffic Control Devices.

Longitudinal lines placed on tangent roadway segments shall be straight and true. Longitudinal lines placed on curves shall be continuous smoothly curved lines consistent with the roadway alignment. All pavement markings placed shall meet the tolerance limits shown on the plans.

Unless otherwise shown on the plans, non-interstate lines shall be 4 inches wide and broken lines shall consist of alternate 10 foot painted line segments and 30 foot gaps. On controlled access divided highways and on the interstate system lines shall be 6 inches wide and broken lines shall consist of alternate 15 foot painted line segments and 25 foot gaps. Width tolerance shall be +/- ¼ inch.
Temporary pavement marking lines, defined in Special Provision Section 652, Maintenance of Traffic, Temporary Centerline, will be applied as many times as necessary to properly delineate traffic lanes for the safe passage of traffic. Bi-directional delineators may be used in place of temporary lines, except where specified otherwise in Special Provision 652 Maintenance of Traffic, Temporary Centerline. Delineators will be applied at 40 foot intervals.

In overnight lane closure areas that are not to be overlaid, temporary plastic lines or raised pavement markers shall be used through the length of the taper.

Newly painted lines, markings and curb shall be protected from traffic by the use of cones, stationary vehicles or other approved methods until the paint is dry.

**627.05 Preparation of Surface** Immediately before applying the pavement marking paint to the pavement or curb, the surface shall be dry and entirely free from dirt, grease, oil, or other foreign matter.

Surface preparation for application of plastic markings shall conform to the manufacturer's recommendations.

**627.06 Application** Prior to applying paint for final pavement lines, the Contractor shall perform a test for paint thickness by furnishing and placing a piece of smooth, clean metal with an area of at least 144 in² in the path of the striping truck. The striping truck shall be passed over the piece of metal, painting the surface as it passes, without applying beads. The result of this test will be used to determine the pressure setting and speed of the truck when applying paint to obtain the specified thickness. Additional paint thickness testing may be required on the final paint markings. The wet thickness of paint without beads on final pavement lines shall be a minimum of 16 mils.

On other final pavement markings and on curb, where the paint is applied by hand painting or spraying, application shall be in two uniform covering coats, each at least 10 mils thick. Before the second coat of 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.

Glass beads shall be applied to the final and temporary pavement lines, marking and curb at a sufficient rate and in sufficient quantity to assure complete and uniform coverage of hand painted surfaces and achieve proper reflectivity.

Permanent and temporary white lines and markings shall have a minimum final reflectivity value of 250 milli-candela per square meter per lux (mcd/m²/lux) and permanent and temporary yellow lines and markings shall have a minimum final reflectivity value of 150 milli-candela per square meter per lux (mcd/m²/lux), as measured by the Department. Measurements taken to determine reflectivity shall be done within 4 weeks after final placement.
If the final reflectivity values are less than the described minimums, the Contractor shall repaint those areas not meeting required reflectivity at no cost to the Department. If the final reflectivity values are less than the described minimums after the second attempt, the Contractor will submit in writing a plan of action to meet the reflectivity minimums prior to continuing any work. Once the plan has been reviewed and approved by the Department, the Contractor shall reapply at no cost to the Department.

Temporary painted lines and markings shall be applied as specified for permanent painted lines, except that the thickness shall be a minimum of 16 mils.

Temporary pliant polymer marking material shall be used for temporary markings on the final pavement and on pavements not to be resurfaced when such pavement markings do not conform to the final pavement markings pattern.

The plastic final pavement lines and markings shall be applied in accordance with the manufacturer's recommendations by the inlay method of application.

627.07 Establishment Period Inlaid plastic pavement lines and marking material furnished and installed under this contract for final pavement markings shall still be subject to a six-month period of establishment.

The period of establishment shall commence as soon as the plastic pavement lines and markings are complete and in place and shall continue for six months. At the end of the establishment period, a minimum of 95% of the plastic pavement lines and markings shall still be in place to be acceptable.

If less than 95% of the plastic pavement lines and markings are in place after six months, the Contractor shall replace all unsatisfactory plastic pavement lines and markings on the project without additional payment. Plastic pavement lines and markings designated for replacement shall be installed according to these specifications, unless otherwise directed. Plastic pavement lines and markings replaced at the end of the six month establishment period will not be subject to a further establishment period.

627.08 Removing Lines and Markings When it is necessary to remove pavement lines and markings, it shall be done by high pressure water, grinding or other approved acceptable means. The method chosen must be capable of completely eradicating the existing line or marking without excessive damage to the pavement. Burning and the use of solvents to remove temporary markings from final pavement or from existing pavement not to be resurfaced will not be permitted.
627.09 Method of Measurement The quantity of pavement marking lines identified in the contract as a plan quantity pay item, the measurement of payment will be the number of feet shown in the Schedule of Items. This quantity will be considered final and no adjustments will be made except when changes resulting in increases or decreases are made by the Resident.

The accepted quantity of temporary or permanent pavement marking lines when identified in the contract as a linear foot item shall be measured and paid for at the contract unit price per linear foot for the total amount applied and accepted.

Double yellow centerline, broken or solid, will be considered one line for measurement purposes. The measurement of broken lines will include the gaps when painted and will not include the gaps when plastic. Double Yellow Centerline, broken or solid shall not be paid through intersections or side roads and will be paid for the actual length of painted line.

Broken white lines will include the gaps when painted and will not include the gaps when plastic inlaid pavement lines are applied. Yellow or white solid edge lines and will not be paid through intersections or side roads and will be measured by the actual length of painted line.

Temporary pavement marking lines shall not be paid through intersections or side roads and will be measured per linear foot of actual length of painted and accepted.

Reflectorized curb will be measured or computed by the square foot of curb surface actually painted and reflectorized.

The accepted quantity of removing existing pavement markings will be measured by the square foot.

Temporary Bi-directional Yellow Delineators will be measured by each unit, complete in place, maintained, and accepted.

627.10 Basis of Payment The accepted quantity of pavement marking lines identified in the contract as a plan quantity pay item will be paid for at the contract unit price for plan quantity. No adjustment will be made to the quantity for payment, except as described 627.09 Method of Measurement

The quantity of permanent or temporary pavement marking lines identified in the contract paid by the linear foot will be measured for payment as described under section 627.09 Method of Measurement.

All other permanent pavement markings will be paid for at the contract unit price per square foot in accordance with 627.09 Method of Measurement.
If allowed by Special Provision, the Contractor may utilize Temporary Bi-Directional Yellow and White (as required) Delineators. When utilized, payment will be made as temporary pavement marking lines, measured and paid at the contract unit price per linear foot. Such payment will include as many applications as required and removal.

Payment for final plastic pavement lines and markings will be made in two parts. The first payment of 75% will be made when plastic pavement lines and markings are placed. The payment of the remaining 25% will be made at the end of the establishment period for all plastic line and pavement markings accepted.

The accepted quantity of any pavement marking lines will be paid for at the contract unit price and will include as many applications as required and removal when required.

The accepted quantity of Temporary Bi-directional Yellow Delineators will be paid for at the contract unit price.

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>627.18 12 inch Solid White Pavement Marking Line</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>627.711 White or Yellow Pavement Marking Line - Plan Quantity</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>627.733 4” White or Yellow Painted Pavement Marking Line</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>627.744 6” White or Yellow Painted Pavement Marking Line</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>627.75 White or Yellow Pavement &amp; Curb Marking</td>
<td>Square Foot</td>
</tr>
<tr>
<td>627.77 Removing Existing Pavement Marking</td>
<td>Square Foot</td>
</tr>
<tr>
<td>627.78 Temporary 4“ Painted Pavement Marking Line, White or Yellow</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>627.781 Temporary 6“ Painted Pavement Marking Line, White or Yellow</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>627.407 Reflectorized Plastic, White or Yellow Pavement Marking</td>
<td>Square Foot</td>
</tr>
<tr>
<td>627.4071 Reflectorized Plastic, White or Yellow Pavement Marking Line - Plan Quantity</td>
<td>Linear Foot</td>
</tr>
<tr>
<td>627.811 Temporary Bi-directional Yellow Delineators</td>
<td>Each</td>
</tr>
</tbody>
</table>

**SECTION 639**
ENGINEERING FACILITIES

Revise this section by removing this section in its entirety and replace with the following:

**639.01 Description** This work shall consist of providing, erecting, lighting, equipping and maintaining buildings to be solely used by the Resident and other assigned Department representatives as a field office. Upon completion of the work, the buildings and equipment shall remain the property of the Contractor.
639.02 Materials Materials for buildings shall be of good quality customarily used in standard frame house or office trailer construction.

639.03 General The building of the type called for shall be provided before the start of work, and shall remain until work is completed and accepted, unless earlier removal is authorized. The location shall be approved by the Resident and should be adjacent or virtually adjacent to the Project.

A fire extinguisher shall be provided in each building or office trailer for electrical and chemical fires and effective on all solvents used in the building.

Walls, roof, floor, windows, and doors shall be tightly constructed to the required area.

Furnishings shall be supplied as called for. Doors shall be equipped with locks and all keys shall be in the possession of the Resident. Windows shall be equipped with latches so they may be locked on the inside. Window screens and screen doors shall be supplied when necessary. Adequate desk and desk space shall be provided. If a portable table is supplied, it should be adjustable to accommodate the various heights of employees. A 5-way adjustable office chair shall be provided in the quantities listed.

639.04 Field Offices Field Offices are designated Type A, Type B, or Type C. Buildings, including trailers, may be provided if they substantially equal or exceed the following requirements. Air conditioning, appropriate to the building size, shall be provided in all field offices.

The walls, roof, and floor of the building shall be completely insulated with a minimum insulation value of R-15. Office trailers shall be either new or in very good used condition. The interior walls shall be covered with suitable wall paneling. The entire office trailer shall be for the exclusive use of the Resident. The office trailer shall be winterized and completely enclosed at the bottom, if the trailer will be used in cold weather.

Other types of buildings and facilities may be furnished of equal or better quality. A public work area will be provided in the field office that shall be designed and constructed so that individuals with disabilities can approach, enter, and exit this area.

At least one accessible route to the field office shall be provided from accessible parking. The accessible route shall comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and this specification.
The minimum clear width of an accessible route shall be 36 inches except at doors. The least possible slope shall be used for an accessible route. An accessible route with a running slope greater than 1:20 shall be considered a ramp. Maximum ramp slope is 1:12. The maximum rise for any run of a ramp shall be 30 inches and the minimum clear width shall be 36 inches. Nowhere shall the cross slope of an accessible route exceed 1:50. Changes in level up to ¼ inch may be vertical and without edge treatment. Changes in level between ¼ inch and ½ inch shall be beveled with a slope no greater than 1:2. Ramp floor surfaces shall be stable, firm, and slip-resistant.

Ground floor surfaces along accessible routes and in accessible rooms and spaces including floors, walks, ramps, stairs, and curb ramps, shall be stable, firm, and slip-resistant.

The main door to the public work area shall have a minimum clear opening of 32 inches with the door opened 90 degrees, measured between the face of door and the opposite stop. Minimum maneuvering clearances at doors shall be provided. The floor or ground area within the required clearances shall be level and clear.

The handle and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping. Lever-operated mechanisms push type mechanisms, and U-shaped handles are acceptable designs. Hardware required for accessible door passage shall be mounted no higher than 48 inches above finished floor. A minimum of 3 parking spaces will be supplied for Class B & C Field Offices and 6 for Class A. One wheelchair accessible parking space shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance.

Level landings shall be provided at bottom and top of each run. The landing shall be at least as wide as the ramp run leading to it with a minimum length of 60 inches.

If a ramp run has a rise greater than 6 inches or a horizontal projection greater than 72 inches, then it shall have handrails on both sides. Handrails shall have the following features:

1) Handrails shall be provided along both sides of ramp segments. The inside handrail on switchback ramps shall always be continuous.

2) If handrails are not continuous, they shall extend at least 12 inches beyond the top and bottom of the ramp segment and shall be parallel with the floor or ground surface.

3) The clear space between the handrail and the wall shall be 1½ inch.

4) Gripping surfaces shall be continuous.

5) Top of handrail gripping surfaces shall be mounted between 34 and 38 inches above ramp surfaces.
6) Ends of handrails shall be either rounded or returned smoothly to floor, wall, or post.

7) Handrails shall not rotate within their fittings.

8) The diameter or width of the gripping surfaces of a handrail shall be 1¼ to 1½ inch, or the shape shall provide an equivalent gripping surface.

Firm and sturdy steps shall also be provided with 7 inch maximum riser and 11 inch minimum depth, and at least one handrail extending from the top of the steps to a minimum 12 inches beyond the bottom of the steps.

The Contractor will make reasonable effort(s) to provide wheelchair accessible toilet facilities when "portable" facilities are provided.

The Contractor shall provide wheelchair accessible toilet facilities when flush type facilities, that is, those with running water, are provided; and the Contractor shall provide wheelchair accessible portable facilities, if used, when the contract duration exceeds two continuous construction seasons.

In addition to the facilities previously specified in this subsection, each field office shall meet the following minimum requirements:

<table>
<thead>
<tr>
<th>Description</th>
<th>Type A</th>
<th>Type B</th>
<th>Type C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor Area (Outside Dimension) - ft²</td>
<td>312</td>
<td>220</td>
<td>125</td>
</tr>
<tr>
<td>Inside Wall Height – feet</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Window Area - ft²</td>
<td>55</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Drafting Table Surface Area - ft²</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Drafting Stools - each</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Office Desks - each</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ergonomic Swivel Chairs - ea (5-way adjustable)</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Folding Chairs - each</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Lighting Units - each</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Electric Wall Outlets - each</td>
<td>6</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Power Strip Surge Protectors - each</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Wall Closets - each</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Plan Rack for minimum of 6 sets of plans</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Toilet Facility</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Wastebaskets - each</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

All windows shall be provided with shades or blinds.
The toilet facility shall be for the exclusive use of State personnel. If requested, the Contractor will supply a lock to ensure exclusive use.

The Resident will have the option to reject any furniture or supplies provided to the field office based on general condition.

One hundred ten volt, 60 cycle, continuous electric service shall be supplied for lighting and 15 amp duplex wall outlets. Lighting shall consist of florescent light units with rapid start bulbs or LED shop style lights located over the work areas for a minimum of 50 foot candles overall. At least one external light source will be provided.

Drafting surfaces shall be 40 inches above the floor and have shelves beneath. Shelves for plans and rolls shall also be furnished overhead. Drafting stools shall be approximately 28 inches high.

Desks shall be single or double pedestal standard office type, and shall be in addition to “built-in” type desks in the office trailer.

Field offices shall be furnished with one four-drawer letter size metal filing cabinet.

Wall closets shall be 21 inches wide, 15 inches deep, and at least 4 feet high.

Each office shall be furnished with a broom, dustpan, sweeping compound, trash bags, and with cleaning material for cleaning glass. If the field office is carpeted, then a vacuum cleaner will be provided. The contractor will be responsible for disposing of trash from the field office.

The Contractor shall provide a fully functional wireless desktop copier/scanner/printer, capable of copying field books, for the Resident’s use during the project. All maintenance and supplies, except paper, shall be the responsibility of the Contractor.

The Contractor shall provide bottled water and a microwave for the duration of the project. All maintenance and supplies shall be the responsibility of the Contractor. Alternate source of water, such as a water cooler, may be provided as approved by resident.

The Contractor shall provide a 4 cubic-foot refrigerator in the field office for the duration of the project.

Each office shall be furnished with a 10-person general-purpose first aid kit. The first aid kit shall be periodically inspected and refilled as necessary.

639.08 Heat Heat appropriate to the building size shall be supplied by the Contractor to maintain an acceptable room temperature during occupancy.
639.091 Broadband Connection The contractor will supply one computer broadband connection, modem lease and router. The router shall have wireless access and be 802.11n or newer capable. The type of connection supplied will be contingent upon the availability of services (i.e. DSL or Cable Broadband). It shall be the contractor’s option to provide dynamic or static IP addresses through the service. The selected service will have a minimum download connection of 5.0 Mbps and 1.0 Mbps upload. The contractor shall be responsible for the installation charges and all reinstallation charges following suspended periods. Monthly service and maintenance charges shall be billed by the Internet Service Provider (ISP) directly to the contractor.

639.10 Method of Measurement Field office will be measured by the unit or lump sum for each building provided, equipped and maintained satisfactorily.

639.11 Basis of Payment The accepted quantity of field office will be paid for at the contract unit price each or lump sum which payment shall be full compensation for furnishing until contract completion, erecting, equipping, maintaining, furnishing electricity, heating, installing and maintaining toilet facilities and if necessary removing the buildings or office trailers.

Payment for these items will be made in 3 parts; the first payment of ½ to be made after the Contractor has supplied the building or office trailer and it has been approved. The remaining payments shall be made at intervals as follows:

A second payment of ¼ shall be made when one-half of the anticipated work has been completed.

The final payment of the remaining ¼ shall be made upon completion of the work.

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>639.18 Field Office, Type A</td>
<td>Each</td>
</tr>
<tr>
<td>639.19 Field Office, Type B</td>
<td>Each</td>
</tr>
<tr>
<td>639.20 Field Office, Type C</td>
<td>Each</td>
</tr>
</tbody>
</table>

SECTION 652
MAINTENANCE OF TRAFFIC

652.2.4 Other Devices Revise this Section by removing the following paragraph:
“STOP/SLOW paddles shall be the primary and preferred hand held signaling device. Flags shall be limited to Emergencies. The paddle shall have an octagonal shape and be at least 18 inches wide with letters at least 6 inches high and should be fabricated from semi-rigid material”
And replace with these two paragraphs
“Flaggers shall use a STOP / SLOW hand held paddle as the primary and preferred hand signaling device. Use of flags shall be limited to emergency situations.

STOP / SLOW paddles shall have high intensity prismatic retro reflective sheeting Type XI, have an octagonal shape on a rigid handle and shall be at least 18 inches wide with letters at least 6 inches high and shall be constructed from light semi-rigid material. The STOP (R1-1) face shall have white letters and a white border on a red background. The SLOW (W20-8) face shall have black letters and a black border on an orange background. Paddles in existing stock meeting the current specification (Type VII, Type VIII, or Type IX) may be utilized until the end of the service life or until 12/31/18. All new paddles must meet the Type XI requirements.”

652.3.3 Submittal of Traffic Control Plan  On page 6-148, note f, in the last sentence revise the “105.2.2” to “105.2.3” so that the last sentence reads, “For a related provision, see Section 105.2.3 – Project Specific Emergency Planning.”.

652.3.4 General  Revise the eighth paragraph by removing “Earth Berm” and replace it with “Concrete Barrier”.

Amend this section by adding the following paragraph before the paragraph beginning with “Special Detours and temporary structures…”:

“A temporary ramp shall be constructed with HMA at the ends of the roadway section paved or milled each day. The use of millings or RAP will not be allowed, but cold patch may be temporarily utilized until HMA plants are open for the season. The maximum ramp change in elevation shall not exceed 4” vertical. For Interstate Highways or roadways with speed limits equaling or exceeding 50 mph; temporary ramps shall be constructed at a length of eight feet per inch of transition depth. For roadways with speed limits less than 50 mph and greater than 25 mph, temporary ramps shall be constructed at a length of four feet per inch of transition depth. For roadways with speed limits 25 mph or less, temporary ramps shall be constructed at a length of two feet per inch of transition depth. Materials, placement, maintenance, and removal shall be incidental to contract items.”

652.4 Flaggers  Revise this section by removing the first paragraph, and replace it with the following”

“The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier. All flaggers must carry an official certification card with them at all times while flagging.

For daytime conditions, flaggers shall wear a top (vest, shirt or jacket) that is orange, yellow, yellow-green, or fluorescent versions of these colors meeting ANSI 107-2004, Class 2 or Class 3, along with a hardhat with 360 ° retro-reflectivity.
For nighttime conditions, flaggers shall wear all Class 3 apparel, meeting ANSI 107-2004, including a Class 3 top (vest, shirt or jacket) and a Class E bottom (pants or coveralls), shall be worn along with a hardhat with 360° retro-reflectivity and shall be visible at a minimum distance of 1000 ft. Flagger stations must be illuminated in nighttime conditions to assure visibility and will be specifically addressed in detail in the Contractor’s TCP”.

652.41 TRAFFIC OFFICERS
Revise this subsection so that the subsection number and title is

“652.4.1 TRAFFIC OFFICERS ”

SECTION 656
TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL

656.5.2 If No Pay Item Add the following to the end of the first paragraph:
“Failure by the Contractor to follow Standard Specification or Special Provision - Section 656 will result in a violation letter and a reduction in payment as shown in the schedule list in 656.5.1. The Department’s Resident or any other representative of The Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item.”

SECTION 660
ON-THE-JOB TRAINING

660.06 Method of Measurement

Remove the first sentence in its entirety and replace with “The OJT item will be measured by the number of OJT hours by a trainee who has successfully completed an approved training program.”

660.07 Basis of payment to the Contractor

Remove the last word in the first sentence so that the first sentence reads “The OJT shall be paid for once successfully completed at the contract unit price per hour.”

Payment will be made under

Change the Pay Item from “660.22” to “660.21” and change the Pay Unit from “Each” to “Hour”.

SECTION 672
PRECAST CONCRETE BLOCK GRAVITY WALL

672.035 Backfill Material– Revise this section by adding the following after the second paragraph: Backfill materials shall meet the criteria in the following table.
<table>
<thead>
<tr>
<th>Base Polymer</th>
<th>Property</th>
<th>Criteria</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyester (PET)</td>
<td>pH</td>
<td>3&lt; pH &lt; 9</td>
<td>AASHTO T-289</td>
</tr>
<tr>
<td>Polyolefin (PP &amp; HDPE)</td>
<td>pH</td>
<td>pH &gt; 3</td>
<td>AASHTO T-289</td>
</tr>
</tbody>
</table>

672.04 Design Requirements – Revise this section by replacing items 2 and 3 in the second paragraph with the following:


SECTION 673
WETCAST SMALL LANDSCAPE BLOCK WALL

673.035 Backfill Material – Revise this section by adding the following after the second paragraph:

Backfill materials shall meet the criteria in the following table.

<table>
<thead>
<tr>
<th>Base Polymer</th>
<th>Property</th>
<th>Criteria</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyester (PET)</td>
<td>pH</td>
<td>3&lt; pH &lt; 9</td>
<td>AASHTO T-289</td>
</tr>
<tr>
<td>Polyolefin (PP &amp; HDPE)</td>
<td>pH</td>
<td>pH &gt; 3</td>
<td>AASHTO T-289</td>
</tr>
</tbody>
</table>

673.04 Design Requirements – Revise this section by replacing items 2 and 3 in the second paragraph with the following:

3. FHWA-NHI-09-087 Corrosion/Degradation of Soil Reinforcements for Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, current edition
SECTION 674
PREFABRICATED CONCRETE MODULAR GRAVITY WALL

674.02 Materials
Amend this section by adding the following after “Concrete Units:” and before the paragraph beginning with “Tolerances ”.

Concrete shall be Class P. The concrete shall contain a minimum of 5.5 gallons per cubic yard of calcium nitrite solution.

The minimum permeability of the concrete as indicated by Surface Resistivity shall be 17 KOhm-cm.

Defects  Defects which may cause rejection of precast units include, but are not limited to, the following:
Any discontinuity (crack, rock pocket, etc.) of the concrete which could allow moisture to reach the reinforcing steel.
Rock pockets or honeycomb over 6 square inches in area or over 1 inch deep.
Edge or corner breakage exceeding 12 inches in length or 1 inch in depth.
Any other defect that clearly and substantially impacts the quality, durability, or maintainability of the structure, as determined by the Fabrication Engineer.

Repair honeycombing, ragged or irregular edges and other non-structural or cosmetic defects using a patching material from the MaineDOT Qualified Products List (QPL). The repair, including preparation of the repair area, mixing and application and curing of the patching material, shall be in accordance with the manufacturer's product data sheet. Corners that are not exposed in the final product may be ground smooth with no further repair necessary if the depth of the defect does not exceed 1/2 inch. Remove form ties and other hardware to a depth of not less than 1 inch from the face of the concrete and patch the holes using a patching material from the MaineDOT QPL.

Repair structural defects only with the approval of the Fabrication Engineer. Submit a nonconformance report (NCR) to the Fabrication Engineer with a proposed repair procedure. Do not perform structural repairs without an NCR that has been reviewed by the Fabrication Engineer. Structural defects include, but are not be limited to, exposed reinforcing steel or strand, cracks in bearing areas, through cracks and cracks 0.013 inch in width that extend more than 12 inches in length in any direction. Give the QAI adequate notice prior to beginning any structural repairs.
677.03 Design Requirements – Revise this section by replacing items 6, 7 and 8 in the second paragraph with the following:

8. FHWA-NHI-09-087 Corrosion/Degradation of Soil Reinforcements for Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, current edition

On page 6 - 203 change “636.041” to “677.041”

Amend 677.042 Precast Panel Tolerances and Surface Finish by the addition of the following:

Defects Defects which may cause rejection of precast units include, but are not limited to, the following:

Any discontinuity (crack, rock pocket, etc.) of the concrete which could allow moisture to reach the reinforcing steel.
Rock pockets or honeycomb over 6 square inches in area or over 1 inch deep.
Edge or corner breakage exceeding 12 inches in length or 1 inch in depth.
Any other defect that clearly and substantially impacts the quality, durability, or maintainability of the structure, as determined by the Fabrication Engineer.

Repair honeycombing, ragged or irregular edges and other non-structural or cosmetic defects using a patching material from the MaineDOT Qualified Products List (QPL). The repair, including preparation of the repair area, mixing and application and curing of the patching material, shall be in accordance with the manufacturer's product data sheet. Corners that are not exposed in the final product may be ground smooth with no further repair necessary if the depth of the defect does not exceed 1/2 inch. Remove form ties and other hardware to a depth of not less than 1 inch from the face of the concrete and patch the holes using a patching material from the MaineDOT QPL.

Repair structural defects only with the approval of the Fabrication Engineer. Submit a nonconformance report (NCR) to the Fabrication Engineer with a proposed repair procedure. Do not perform structural repairs without an NCR that has been reviewed by the Fabrication Engineer. Structural defects include, but are not limited to, exposed reinforcing steel or strand, cracks in bearing areas, through cracks and cracks 0.013 inch in width that extend more than 12 inches in length in any direction. Give the QAI adequate notice prior to beginning any structural repairs.

**SECTION 702**
**BITUMINOUS MATERIAL**

702.01 Asphalt Cement - Remove this section in its entirety and replace with the following:
Performance-Graded Asphalt Binder (PGAB) that has not been modified with polymer shall
conform to the requirements of AASHTO M 320. Polymer modified binder shall meet the requirements of AASHTO M 332 (including Appendix X1), except that the percent difference in nonrecoverable creep compliance, Jnrdiff, shall not be enforced. Performance-Graded Asphalt Binder shall not contain re-refined engine oil bottoms (REOB).

The Contractor shall arrange for the Supplier to furnish the following items to the Department’s Asphalt Pavement Engineer:
a. A Quality Control Plan that conforms to the requirements of AASHTO R 26 “Certifying Suppliers of Performance-Graded Asphalt Binders” and

b. A CERTIFICATE OF ANALYSIS for all asphalt materials furnished for use on the project. The Certificate shall include the actual test results of the material in storage from which the shipments are being made. Certificates shall be supplied for each lot, batch, or blend of each type and grade of material. A new certificate shall be issued at least every 30 days or upon receiving or manufacture of a new material. The original of each Certificate of Analysis shall be mailed to the Departments Asphalt Pavement Engineer.

The Contractor shall give the supplier sufficient notice of orders to permit testing and certification. Material not certified will not be accepted for use.
Deliveries of asphalt materials shall be accompanied by a Bill of Lading containing the information required under Section 108.1.3 f. The Bill of Lading shall include the applicable certificate number and shall include a printed or stamped statement such as the following: “THIS IS TO CERTIFY THAT THE ASPHALT MATERIAL REPRESENTED BY THIS LOADING INVOICE CONFORMS TO THE SPECIFICATIONS OF THE PURCHASER FOR THE MATERIAL TYPE AND GRADE STATED THEREON.”

In the event an intermediate hauler of the asphalt material is involved, a copy of their own delivery slip shall be furnished, as well as a copy of the supplier's loading invoice. The hauler's delivery slip and the supplier's loading invoice shall be cross-referenced by use of their respective serial numbers.

All non-bituminous components added to the binder prior to the sampling point for binder certification shall be included on the asphalt binder Certificate of Analysis identifying their presence. All non-bituminous components added after the certification sampling point and prior to transport shall be included on the Bill of Lading. All non-bituminous components added to the binder at the HMA plant shall be identified on the mix plant documentation and accompanied by test results and certification showing the effect of the additives introduced, if any.

702.04 Emulsified Asphalt

Revise this Section by removing the first paragraph in its entirety and replace with the following:

Emulsified Asphalt shall conform to the requirements of AASHTO M 140. Cationic emulsified asphalt shall conform to the requirements of AASHTO M 208. Anionic emulsified asphalt Grade RS-1h shall conform to the requirements in the following table:
### Type

<table>
<thead>
<tr>
<th>Grade</th>
<th>Rapid-Setting RS-1h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests on Emulsions</td>
<td>min</td>
</tr>
<tr>
<td>Viscosity, Saybolt Furol at 25°C SFS</td>
<td>20</td>
</tr>
<tr>
<td>Storage Stability test, 24-h, %(^A)</td>
<td>-</td>
</tr>
<tr>
<td>Demulsibility, 35 ml, 0.02 N CaCl(_2), %</td>
<td>60</td>
</tr>
<tr>
<td>Sieve Test, %(^A)</td>
<td>-</td>
</tr>
<tr>
<td>Residue by distillation, %</td>
<td>55</td>
</tr>
<tr>
<td>Tests on Residue from Distillation Test</td>
<td>min</td>
</tr>
<tr>
<td>Penetration, 25°C 100g, 5 s</td>
<td>40</td>
</tr>
<tr>
<td>Ductility, 25°C 5 cm/min, cm</td>
<td>40</td>
</tr>
<tr>
<td>Solubility in trichloroethylene or n-propyl bromide, %</td>
<td>97.5</td>
</tr>
</tbody>
</table>

\(^A\) This requirement is waived if successful application of material has been achieved in the field.

### SECTION 703

#### AGGREGATES

703.01 Fine Aggregate for Concrete  Replace the second paragraph with the following:

“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 organic plate number 3, the fine aggregate shall be rejected.”

703.0201 Alkali Silica Reactive Aggregates. Remove this section in its entirety and replace with the following:

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:

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

703.06 Aggregate for Base and Subbase  - Remove the first two paragraphs in their entirety and replace with these:
“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 ½ 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.”

703.081 RAP for Asphalt Pavement
Remove this section in its entirety and replace with the following:

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:

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

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>
<thead>
<tr>
<th>Classification</th>
<th>Asphalt content (compared to aim)</th>
<th>Percent passing 0.075 mm sieve (compared to aim)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class III</td>
<td>± 1.5</td>
<td>± 2.0</td>
</tr>
<tr>
<td>Class II</td>
<td>± 1.0</td>
<td>± 1.5</td>
</tr>
<tr>
<td>Class I</td>
<td>± 0.5</td>
<td>± 0.7</td>
</tr>
</tbody>
</table>
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 any base or intermediate base mixture provided that a PG 58-28 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 or 52-34 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.

703.19 Granular Borrow

Remove the gradation requirements table, and replace with the following:

<table>
<thead>
<tr>
<th>Sieve Designation</th>
<th>Percentage by Weight Passing Square Mesh Sieves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Material for Underwater Backfill</td>
</tr>
<tr>
<td>6 inch</td>
<td>100</td>
</tr>
<tr>
<td>No. 40</td>
<td>0-70</td>
</tr>
<tr>
<td>No. 200</td>
<td>0-7.0</td>
</tr>
</tbody>
</table>
703.33 Stone Ballast  - In the third paragraph, remove the words “less than” before 2.60 and add the words “or greater” after 2.60.

SECTION 708
PAINTS AND PRESERVATIVES

708.05 Timber Preservative  Revise this section by removing it in its entirety and replacing with:
“Timber preservatives shall conform to the requirements of AASHTO M 133 and AWPA Standard U1. All preservatives shall meet the requirements of the US EPA regulations under the Federal Insecticide, Fungicide and Rodenticide Act.”

SECTION 709
REINFORCING STEEL AND WELDED STEEL WIRE FABRIC

709.01 Reinforcing Steel  Revise this section by removing the sentence starting with “The chemical composition…” in the third paragraph and replace it with the following:
“The chemical composition shall conform to one of the types listed in Table 2 of ASTM A955 or UNS S32304 Duplex.”

SECTION 710
FENCE AND GUARDRAIL

710.07 Guardrail Posts  Amend subsection ‘a’ by removing the words “white oak”, “cedar”, “tamarack”, “maple”, “beech”, “birch” and “red oak” from the first sentence. Also in the first sentence, place an “or” between “pine” and “eastern hemlock”. In the second sentence remove the words “well seasoned”. Remove the sentence beginning with “Wood posts and offset brackets…” and replace it with: “Wood posts and offset brackets shall be preservative treated in accordance with the requirements of AASHTO M 133 and AWPA U1, UC4A Commodity Specification A: Sawn Products.”

SECTION 712
MISCELLANEOUS HIGHWAY MATERIAL

712.061- Structural Precast Concrete Units

Under the heading, Quality Control and Quality Assurance, revise the fourth paragraph to read:
“Acceptance is the prerogative of the Department. The Department will conduct Quality Assurance (QA) in accordance with Standard Specification Subsection 106.5. Testing deemed necessary by the Department that is in addition to the minimum testing requirements will be scheduled to minimize interference with the production schedule. The QAI will perform acceptance sampling and testing and will witness or review documentation, workmanship and testing to assure the Work is being performed in accordance with the Contract Documents.”
Under the heading, Concrete Testing, revise the first paragraph to read as the following two paragraphs:

“Concrete Testing  Acceptance of structural precast units, for each day’s production, will be determined by the Department, based on compliance with this specification and satisfactory concrete testing results.

At least once per week, the QAI will make 2 concrete cylinders (6 cylinders when the Contract includes permeability requirements) for use by the Department; cylinders shall be standard cured in accordance with AASHTO T23 (ASTM C31). The QAI will perform entrained air content and slump flow testing, determine water-cement ratio and determine temperature of the sampled concrete at the time of cylinder casting. All testing equipment required by the QAI to perform this testing shall be in accordance with Standard Specification Section 502.041, Testing Equipment. In addition, the Contractor shall provide a slump cone meeting the requirements of AASHTO T 119. Providing and maintaining testing and curing equipment shall be considered incidental to the work and no additional payment will be made.

Quality Control test cylinders shall be made and tested in accordance with the following standards:

AASHTO T 22 (ASTM C39) Test Method for Compressive Strength of Cylindrical Concrete Specimens

AASHTO T23 (ASTM C31) Practice for Making and Curing Concrete Test Specimens in Field

AASHTO T141 (ASTM C172) Practice for Sampling Freshly Mixed Concrete

AASHTO T152 (ASTM C231) Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method

AASHTO T196 (ASTM C173) Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method

ASTM C1064 Test Method for Temperature of Freshly mixed Portland Cement Concrete

ASTM C1611 Standard Test Method for Slump Flow of Self-Consolidating Concrete”

Under the heading, Concrete Testing, delete the paragraph that begins:
“At least once per week, the Contractor shall make 2 concrete cylinders…..for use by the Department…..”

SECTION 713
STRUCTURAL STEEL AND RELATED MATERIAL

Section 713.01- Structural Steel  Revise this Section by removing the sentence:
“ Impact test sampling and testing procedures shall be in accordance with AASHTO T.”

And replace it with: “Impact test sampling and testing procedures shall be in accordance with AASHTO T 243 M/T 243 and AASHTO T 244.”
SECTION 717
ROADSIDE IMPROVEMENT MATERIAL

717.02 Agricultural Ground Limestone

In the table after the third paragraph which starts with “Liquid lime…” change the Specification for Nitrogen (N) from “15.5 percent of which 1% is from ammoniac nitrogen and 14.5% is from Nitrate Nitrogen” to read “15.5 % of which 1% is from Ammoniacal Nitrogen and 14.5 % is from Nitrate Nitrogen”

717.061 Erosion Control Blankets Revise this section by removing it in its entirety and replacing it with the following:

“717.061 Erosion Control Blankets Shall consist of a machine produced rolled blanket of biodegradable fibers, evenly distributed over the entire area of blanket, of a consistent thickness, sewn into a biodegradable mesh on the top and bottom surface using a cotton blend thread. The blanket shall remain in place when subject to shear stress of 1.55 lb/ft². The blanket shall remain intact until grass is established. The blanket shall be a product currently listed on the department’s Qualified Products List (QPL) of Erosion Control Products. See Section 618.10 - Seeding, Maintenance and Acceptance.”

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

720.10 Wood Utility Pole Amend the first sentence in this section by adding “, Red Pine” after “Douglas Fir”.

Remove the paragraph beginning with “Wood Utility poles…” with:

“Wood Utility poles shall be pressure treated, after fabrication in accordance with AASHTO Specifications M 133 and AWPA U1, UC4B, Commodity Specification D: Poles.”

720.12 Wood Sign Posts Remove the first sentence and replace with “Wood sign posts shall be rectangular, straight and sound timber, cut from live growing native spruce, red pine, hemlock or cedar trees, free from loose knots or other structurally weakening defects of importance, such as shake or holes or heart rot.”

Remove the paragraph beginning with “When pressure treated sign posts are called for on the plans …” with “When pressure treated sign posts are called for on the plans, the wood shall be Yellow Pine, Number 2 or better, or the species listed above. The pressure treated wood shall meet AASHTO M 133 and AWPA Standard U1, UC4A, Commodity Specification A: Sawn Products.”