

FAIRFIELD
LOW BID DESIGN-BUILD PROJECT
NEW COLD STORAGE BUILDING
&
CONCRETE FLOOR IN COLD STORAGE
BDG#35813

22211.00

2016

MAINTENANCE & OPERATIONS

STATE PROJECT

BIDDING INSTRUCTIONS

1. Use pen and ink to complete all paper Bids.
2. See Special Provision, Design-Build Project Requirements for submission requirements, submissions, packaging and labeling and other related information.
3. Include prices for all items in the Schedule of Items.
4. Bid Guaranty acceptable forms are:
 - a) a properly completed and signed Bid Bond on the Department's prescribed form (or on a form that does not contain any significant variations from the Department's form as determined by the Department) for 5% of the Bid Amount or
 - b) an 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 or
 - c) an electronic bid bond submitted with an electronic bid.

*If you need further information regarding Bid preparation, call the DOT
Contracts Section at (207) 624-3410.*

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

NOTICE

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

Prospective bidders, subcontractors or suppliers who wish to download a copy of the bid package and receive a courtesy notification of project specific bid amendments must fill out the on-line plan holder registration form and provide an email address to the MDOT Contracts mailbox at: MDOT.contracts@maine.gov. Each bid package will require a separate request.

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

The downloading of bid packages from the MDOT website is not the same as providing an electronic bid to the Department. Electronic bids must be submitted via <http://www.BIDX.com>. For information on electronic bidding contact Patrick Corum at patrick.corum@maine.gov , Rebecca Snowden at rebecca.snowden@maine.gov or Diane Barnes at diane.barnes@maine.gov.

NOTICE

Bidders:

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

These are the only allowable mechanisms for answering Project specific questions. Maine DOT will not be bound to any answers to Project specific questions received during the Bidding phase through other processes.

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

Vendor Registration

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

<http://www.maine.gov/purchases/venbid/index.shtml>

CONTRACTOR INFORMATION

Contractor Name: _____

Mailing Address: _____

Vendor Customer Number: _____

Contact Information (Primary Contact): _____

Phone: _____ **Cell Phone:** _____

Fax: _____

Email: _____

Mailing Address (if different from above): _____

The company has the following organizational structure:

Sole Proprietorship

Limited Liability Company

Partnership

Joint Venture

Corporation

Other: _____

(Date)

(Signature)

(Name and Title Printed)

**STATE OF MAINE DEPARTMENT OF TRANSPORTATION
NOTICE TO CONTRACTORS**

Sealed Proposals addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Proposals for **New Cold Storage Building and Concrete Floor in BDG 35813** in the town of **Fairfield**" will be received from contractors at the Reception Desk, Maine DOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on May 18, 2016 and at that time and place publicly opened and read. Proposals will be accepted from all bidders. The lowest responsive bidder must have completed, or successfully complete, a Building or project specific prequalification to be considered for the award of this contract.

Description: WIN 22211.00

Location: In Somerset County, project is located in Fairfield on the MaineDOT maintenance lot on Route 201

Outline of Work: Design and Construction of Cold Storage Building and Concrete Floor in BDG35813 and other incidental work.

For general information regarding Bidding and Contracting procedures, contact George Macdougall at (207) 624-3410. Our webpage at <http://www.maine.gov/mdot/contractors/> contains a copy of the Schedule of Items, Plan Holders List, written portions of bid amendments, bid results and an electronic form for RFI submittal. For Project-specific information fax all questions to **Gail Iler** at (207) 624-3431, use electronic RFI form or email questions to RFI-Contracts.MDOT@maine.gov, project name and identification number should be in the subject line. Questions received after 12:00 noon of Friday prior to bid date will not be answered. Bidders shall not contact any other Departmental staff for clarification of Contract provisions, and the Department will not be responsible for any interpretations so obtained. TTY users call Maine Relay 711.

Plans, specifications and bid forms may be seen at the Maine DOT Building in Augusta, Maine and at the Department of Transportation's Regional Office in Augusta. They may be purchased from the Department between the hours of 8:00 a.m. to 4:30 p.m. by cash, credit card (Visa/Mastercard) or check payable to Treasurer, State of Maine sent to Maine Department of Transportation, Attn.: Mailroom, 16 State House Station, Augusta, Maine 04333-0016. They also may be purchased by telephone at (207) 624-3536 between the hours of 8:00 a.m. to 4:30 p.m. Bid Book \$10 (\$13 by mail).

Each Bid must be made upon blank forms provided by the Department and must be accompanied 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 \$5,000 payable to Treasurer, State of Maine as a Bid guarantee. 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.

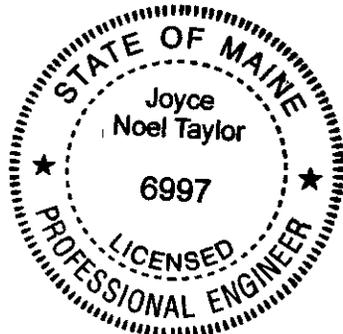
This Contract is subject to all applicable State Laws.

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 between the hours of 8:00 a.m. to 4:30 p.m. Standard Detail updates can be found at <http://www.maine.gov/mdot/contractors/publications/>.

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

Augusta, Maine
April 27, 2016


JOYCE NOEL TAYLOR P. E.
CHIEF ENGINEER



Fairfield
New Cold Storage Building and
Concrete Floor in BDG35813
22211.00
April 14, 2011
Supersedes August 3, 2004

**SPECIAL PROVISION 102.7.3
ACKNOWLEDGMENT OF BID AMENDMENTS**

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

Amendment Number	Date

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

CONTRACTOR

Date

Signature of authorized representative

(Name and Title Printed)

4/15/2016

Maine Department of Transportation

Proposal Schedule of Items

Page 1 of 1

Proposal ID: 022211.00

Project(s): 022211.00

SECTION: 1 BUILDING

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	815.00 BUILDING - FAIRFIELD NEW COLD STORAGE	LUMP SUM	LUMP	SUM	_____	_____
0020	815.00 BUILDING - FAIRFIELD EXISTING BDG 35813	LUMP SUM	LUMP	SUM	_____	_____
Section: 1			Total:		_____	_____
			Total Bid:		_____	_____

Design-Build Contract Agreement

CONTRACT 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 24 Child, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and _____, a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at _____ (Design-Builder).

The Department and the Design-Builder, in consideration of the mutual promises set forth in the Contract Documents, hereby agree as follows:

A. The Work.

The Design-Builder agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, **WIN 22211.00** for the design and construction of **NewCold Storage Building and Concrete Floor in BDG35813** in the town of **Fairfield**, County of Somerset, Maine. The Work includes the design, construction, and maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Design-Builder shall be responsible for furnishing all Design, 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.

B. Time.

The Design-Builder agrees to complete all Work, except warranty work, on or before **October 1, 2016**. Further, the Department may deduct from moneys otherwise due the Design-Builder, 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 and Lump Sum Price(s) shown on 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.

The Contract, which may be amended, modified, or supplemented in writing only through a Contract Modification, consists of the following documents:

1. This Design-Build Contract Agreement;
2. All portions of the Project Requirements, Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement;
3. Performance, payment, warranty, and other bonds;
4. All specifications, manuals, guides, laws and all other documents referenced in any of the above documents.

It is agreed and understood that the Contract will be governed by the documents listed above.

E. Certifications.

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

1. All of the statements, representations, covenants, and/or certifications required or set forth in Contract Documents, including those in Special Provisions and Bid Documents are still complete and accurate as of the date of this Contract Agreement.
2. The Design-Builder knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Design-Builder to sign this Contract Agreement on behalf of the Design-Builder and to legally bind the Design-Builder to the terms of this Contract Agreement.

F. Representations.

The undersigned, having carefully examined the site of work, the Project Requirements, Standard Specifications - November 2014 Edition, Supplemental Specifications, Contract Agreement; and Contract Bonds contained herein for design and construction of: **WIN 22211.00** for the design and construction of **New Cold Storage Building and Concrete Floor in BDG35813** in the town of **Fairfield**, 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 the 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 the Contract and for the lump sum price(s) in the attached Schedule of Items.

The Design-Builder agrees to perform the work required at the price specified above and in accordance with the terms of the Contract, and to provide the appropriate insurance and bonds if this offer is accepted by the Department in writing.

As Design-Builder 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 10 days of notice of intent to award the contract.

Third: To begin the Work on the date specified in the Project Requirements and complete the Work within the time limits given in the Contract.

Fourth: That the Lump Sum Price(s) shall remain open for thirty (30) Calendar Days after the date of Bid Opening.

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

DESIGN-BUILDER

Date

Witness

(Name and Title Printed)

Execution by the Department consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David Bernhardt Commissioner

Witness

Design-Build Contract Agreement

CONTRACT 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 24 Child, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and _____, a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at _____ (Design-Builder).

The Department and the Design-Builder, in consideration of the mutual promises set forth in the Contract Documents, hereby agree as follows:

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The Design-Builder shall be responsible for furnishing all Design, 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.

B. Time.

The Design-Builder agrees to complete all Work, except warranty work, on or before **October 1, 2016**. Further, the Department may deduct from moneys otherwise due the Design-Builder, 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 and Lump Sum Price(s) shown on 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.

The Contract, which may be amended, modified, or supplemented in writing only through a Contract Modification, consists of the following documents:

1. This Design-Build Contract Agreement;
2. All portions of the Project Requirements, Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement;
3. Performance, payment, warranty, and other bonds;
4. All specifications, manuals, guides, laws and all other documents referenced in any of the above documents.

It is agreed and understood that the Contract will be governed by the documents listed above.

E. Certifications.

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

1. All of the statements, representations, covenants, and/or certifications required or set forth in Contract Documents, including those in Special Provisions and Bid Documents are still complete and accurate as of the date of this Contract Agreement.
2. The Design-Builder knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Design-Builder to sign this Contract Agreement on behalf of the Design-Builder and to legally bind the Design-Builder to the terms of this Contract Agreement.

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The Design-Builder agrees to perform the work required at the price specified above and in accordance with the terms of the Contract, and to provide the appropriate insurance and bonds if this offer is accepted by the Department in writing.

As Design-Builder 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 10 days of notice of intent to award the contract.

Third: To begin the Work on the date specified in the Project Requirements and complete the Work within the time limits given in the Contract.

Fourth: That the Lump Sum Price(s) shall remain open for thirty (30) Calendar Days after the date of Bid Opening.

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

DESIGN-BUILDER

Date

Witness

(Name and Title Printed)

Execution by the Department consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David Bernhardt Commissioner

Witness

BOND # _____

CONTRACT PERFORMANCE 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
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.....

.....

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

.....

State of Maine
Department of Labor
Bureau of Labor Standards
Wage and Hour Division
Augusta, Maine 04333-0045
Telephone (207) 623-7906

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

Title of Project -----Fairfield Cold Storage Bldg

Location of Project --Fairfield, Somerset County

**2016 Fair Minimum Wage Rates
Building 2 (other than 1 & 2 family homes) Somerset County**

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Asbestos/Lead Removal Worker	\$13.00	\$0.62	\$13.62	Insulation Installer	\$19.25	\$2.33	\$21.58
Assembler – Metal Building	\$13.63	\$3.38	\$17.01	Ironworker – Reinforcing	\$21.00	\$6.80	\$27.80
Boom Truck (Truck Crane) Operator	\$21.00	\$2.85	\$23.85	Ironworker – Structural	\$26.20	\$20.52	\$46.72
Bricklayer	\$23.00	\$1.25	\$24.25	Laborers (Incl. Helpers & Tenders)	\$13.38	\$0.36	\$13.74
Bulldozer Operator	\$17.63	\$3.24	\$20.87	Laborer – Skilled	\$16.00	\$0.77	\$16.77
Carpenter	\$19.00	\$2.08	\$21.08	Loader Operator – Front End	\$17.21	\$2.66	\$19.87
Carpenter – Acoustical	\$15.00	\$2.68	\$17.68	Mechanic – Maintenance	\$20.25	\$2.79	\$23.04
Carpenter – Rough	\$18.00	\$0.11	\$18.11	Mechanic – Refrigeration	\$22.00	\$3.90	\$25.90
Cement Mason/Finisher	\$16.75	\$1.51	\$18.26	Millwright	\$23.95	\$19.19	\$43.14
Communication Equipment Installer	\$23.06	\$11.89	\$34.95	Oil/Fuel Burner Servicer & Inst(licensed)	\$24.22	\$5.52	\$29.74
Concrete Pump Operator	\$24.25	\$5.40	\$29.65	Painter	\$17.88	\$0.00	\$17.88
Crane Operator <15 Tons	\$21.25	\$2.58	\$23.83	Paperhanger	\$17.00	\$3.16	\$20.16
Crane Operator =>15 Tons	\$24.50	\$6.61	\$31.11	Pipe/Steam/Sprinkler Fitter	\$26.25	\$13.84	\$40.09
Crusher Plant Operator	\$15.80	\$3.76	\$19.56	Pipe Layer	\$19.33	\$2.37	\$21.70
Dry-Wall Applicator	\$18.00	\$2.63	\$20.63	Plasterer	\$43.93	\$27.43	\$71.36
Dry-Wall Taper & Finisher	\$20.00	\$1.54	\$21.54	Plumber (Licensed)	\$23.88	\$3.16	\$27.04
Electrician – Licensed	\$24.34	\$4.87	\$29.21	Plumber Helper/Trainee (Licensed)	\$17.45	\$2.57	\$20.02
Electrician Helper/Cable Puller (Licensed)	\$16.00	\$2.20	\$18.20	Propane & Natural Gas Service & inst.	\$21.00	\$3.87	\$24.87
Elevator Constructor/Installer	\$53.30	\$29.95	\$83.25	Roofer	\$15.00	\$1.15	\$16.15
Excavator Operator	\$19.06	\$2.44	\$21.50	Sheet Metal Worker	\$17.25	\$3.25	\$20.50
Fence Setter	\$15.25	\$1.32	\$16.57	Sider	\$22.75	\$4.33	\$27.08
Flagger	\$16.70	\$7.95	\$24.65	Stone Mason	\$17.80	\$0.00	\$17.80
Floor Layer	\$19.50	\$4.51	\$24.01	Tile Setter	\$21.25	\$4.76	\$26.01
Furniture Installer/Assembler	\$13.75	\$0.85	\$14.60	Truck Driver – Light	\$15.00	\$0.99	\$15.99
Glazier	\$20.82	\$2.71	\$23.53	Truck Driver – Medium	\$15.00	\$0.10	\$15.10
Grader/Scraper Operator	\$17.50	\$1.04	\$18.54	Truck Driver – Heavy	\$14.00	\$0.62	\$14.62
Heating, Ventilation, Air Conditioning	\$23.08	\$5.53	\$28.61	Truck Driver – Tractor Trailer	\$16.24	\$3.28	\$19.52

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

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

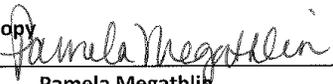
Apprentices - The minimum wage rate for registered apprentices are those set forth in the standards and policies of the Maine State Apprenticeship and Training Council for approved apprenticeship programs.

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

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

Determination No: B2-042-2016
Filing Date: March 17, 2016

Expiration Date: 12-31-2016

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

SPECIAL PROVISION
SECTION 102
Bidding
(Non-curable Bid Defects)

In addition to the existing non-curable Bid Defects specified in the Departments Standard Specification, section 102.11.1 Non-Curable Bid Defects, the Design Builder is required to submit the following document(s):

- 1) Form A: Technical Proposal Certification
- 2) If the Design-Builder is submitting an Alternative Design, then the requirement includes Form B: Alternative Design Form

Form A: Technical Proposal Certification is required by the Design-Build team to certify that their intent is to Design and Build the building as specified in the contract Bid documents.

Form B: Alternative Design Form is required by the Design-Build team that is submitting a bid that does not follow the requirements of the building specified in the contract Bid documents.

Special Provision

Contract Forms

Form A: Technical Proposal Certification Form

(Required to be submitted with Bid)

Form B: Alternative Design Form (AKA AD Form)

(When submitting an Alternative Design, Forms A & B are required to be submitted with Bid)

Form A – Technical Proposal Certification Form
(This form is required to be submitted with Bid)

New Fairfield Cold Storage Building and Concrete Floor in BDG35813

Project WIN 22211.00

Name of Designer & Design Firm

Name of Builder

By signing below the above Bidder hereby certifies that to the best of the Design-Builder knowledge and belief:

The Design-Build team has read and understands the Contract Documents and is able to produce a design and construct a building that meets or exceeds the specifications contained in these bid documents.

The Design-Build team has received and considered complete copies of all Amendments numbered _____ through _____.

The Design-Build team has read, reviewed and considered all materials and items supplied by the MaineDOT and posted on the MaineDOT website:

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

The Designer, Builder and other Major Participants and key personnel indicated with the prequalification process will be used on this project.

This Bid is responsive.

The Person signing below is legally authorized to do so for both the Designer and Builder.

Name of Proposer (Print)

Signature in Ink

Date

Form B – Alternate Design Form
Fairfield – New Cold Storage Building and Concrete
Floor in BDG35813
Project WIN 22211.00

Form B is required for all **Alternate Designs only** when submitting Form B, Form A is also required to be submitted with Bid

Name of Designer & Design Firm

Name of Builder

At the time of Bid opening of the price proposals the Design-Building team must submit **Form B: Alternate Design Form** with their Bid package that includes the following: Instructions: This form is to be used as a cover letter to accompany the documents required for Submittal of Alternative Designs.

1. Detailed Description of Alternate Design Describe requirements of 1 through 5 of Section 2.2
Submittal of Alternate Designs. No. of Pages _____
2. Schematic Drawings and Product Details No. of Pages _____
3. Detailed description of other projects where the AD was used No. of Pages _____
4. Detailed description of the risk associated with the use of this AD No. of Pages _____
5. _____ No. of Pages _____
6. _____ No. of Pages _____
7. _____ No. of Pages _____

TOTAL Number of Pages included with submittal _____

The Person signing below is legally authorized to do so for both the Designer and Builder.

Name of Proposer (Print) Signature in Ink Date

NOTICE TO CONTRACTORS - PREFERRED EMPLOYEES

Sec. 1303. Public Works; minimum wage

In the employment of laborers in the construction of public works, including state highways, by the State or by persons contracting for the construction, preference must first be given to citizens of the State who are qualified to perform the work to which the employment relates and, if they can not be obtained in sufficient numbers, then to citizens of the United States. Every contract for public works construction must contain a provision for employing citizens of this State or the United States. The hourly wage and benefit rate paid to laborers employed in the construction of public works, including state highways, may not be less than the fair minimum rate as determined in accordance with section 1308. Any contractor who knowingly and willfully violates this section is subject to a fine of not less than \$250 per employee violation. Each day that any contractor employs a laborer at less than the wage and benefit minimum stipulated in this section constitutes a separate violation of this section. [1997, c. 757, §1 (amd).]

SPECIAL PROVISION
DESIGN-BUILD PROJECT REQUIREMENTS

1. GENERAL INFORMATION

Issuance of Notice to Contractors

This Request for Proposals, issued by the Maine Department of Transportation (the Department) constitutes a request for Design-Builder Teams to submit proposals (bids) to design and build Cold Storage Building and Reinforced Concrete Floor in Existing Cold Storage BDG35813 at the Maine Department of Transportation Maintenance lot on Route 201 in Fairfield in accordance with the contract documents.

Procurement Process Overview

The Department is requesting that contractors, designers and builders submit proposals (bids) to design and build a cold storage building and reinforced concrete floor in existing cold storage BDG35813 in Fairfield on the date specified in the Notice to Contractors. Proposers are qualified to submit proposals if they have an engineer of record licensed in Maine and adequate prior experience building. The Proposal shall consist of the following two components: (1) the Technical Proposal Certification and if applicable, the Alternative Design Form and Alternative Design submittals and (2) the Price Proposal (Bid). Pursuant to Title 23, MRSA, Chapter 410, Section 4244, Design-Build Contracting, the Department intends to award a Design-Build Contract to the Design-Builder that submits the Price Proposal (Bid) determined by the Department to be lowest responsive and responsible bid. No determination of best value will be made by the Department. The Department reserves the right to reject any or all Proposals. The Apparent Low Bidder will be the Bidder that submits an apparently responsive Technical Proposal and the lowest apparently responsive Bid. The Successful Bidder will be notified, and then the team shall submit technical design and drawings and other project related information for review and comments. Upon accepted and completed review and comments, the Department will award the contract and then issue a "Release for Construction" notification to the Design-Builder for Construction to commence.

Overall Intent of Contract Documents

The intent of the Contract Documents is to provide for the design, construction, and completion of the Work described in the Contract in conformity with the Contract. The Design-Builder shall furnish all design services, labor, materials, equipment, tools, transportation services, supplies and all incidentals required to complete the Work in accordance with the Contract.

The RFP is the document consisting of the Agreement, Project Requirements, and related Special Provisions that is distributed to prequalified Proposers for the purposes of transmitting project information to the Proposers, setting forth procedures to be used during the Proposal preparation period, specifying Proposal submittals, establishing the Proposal evaluation process, and specifying procedures and pre-award submittal requirements for award and execution of the Contract.

The Proposal is the submittal by the Design-Builder (then designated a “Proposer”) in response to the RFP. The Proposal represents the offer by the Design-Builder to perform the Work in accordance with the Contract, and the component of its Proposal known as the Technical Proposal; and for the price submitted in the component of its Proposal known as the Price Proposal. The Proposal is a Contract Document to the extent that it meets or exceeds the requirements of the other Contract Documents. In other words, if the Proposal includes statements that can reasonably be interpreted as offers to provide higher quality items than otherwise required by the Contract or to perform services in addition to those otherwise required, or otherwise contain terms which are more advantageous to the Department than the requirements of the other Contract Documents, the Department obligations hereunder shall include compliance with all such statements, offers and terms. This offer is accepted by the Department upon award of the Contract.

The Contract is the written agreement setting forth the respective rights and obligations of the Department and the Design-Builder from execution of the Contract until the performance of all warranty obligations set forth in the Contract.

2. PROPOSAL SUBMISSION REQUIREMENTS

The Bidder must Deliver its Price Proposal Package (Bid), Technical Proposal Package and Bid Guaranty in a sealed envelope to the exact location and before the precise time (as determined by the Department) specified in the Notice to Contractors or any applicable Bid Amendment. The Price Proposal Package (Bid), Technical Proposal Package and Bid Guaranty must be signed by duly authorized individuals. The sealed envelope must be labeled with the Bidder's name, the Project location, WIN, and the words “Bid Enclosed”.

Design-Build team shall provide responses to all information requested in this Special Provision. Failure to respond or failure to provide requested information may result in a determination by the Department, in its sole discretion, that a Proposal (Bid) is non-responsive. The Department shall have no obligation to compensate any unsuccessful Design-Build for its efforts in preparing a Price Proposal Package (Bid).

Technical & Price Proposal (Bid) Package Content Requirements

As a minimum, the Bidder will submit a Proposal package consisting of two sealed envelopes. The Proposal Packages shall be submitted on the forms supplied by the Department or copy thereof and must include:

Envelope 1, the Price Proposal Package (Bid) containing

1. the completed Schedule of Items and
2. two copies of the completed Agreement, Offer, & Award form,
3. a Bid Bond or Bid Guaranty

Envelope 2, the Technical Proposal Package containing

1. the Notice to Contractors,
2. the completed Acknowledgement of Bid Amendments form,
3. the Technical Proposal including
 - 3.1. the completed Form A - Technical Proposal Certification Form or
 - 3.2. a completed Form A - Technical Proposal Certification Form and Form B – Alternate Design Form and Alternative Design submittals and
4. the completed Contractor Information Sheet
5. any other Certifications or Bid Requirements listed in the Bid Book.

Price Proposal (Bid)

The Bidder must submit the Price Proposal Package in a sealed envelope. The Price Proposal Package (Bid) consists of a completed Schedule of Items and two copies of a signed Contract, Agreement, Offer and Award.

Technical Proposal

The Bidder must submit a Technical Proposal Package which consists of a completed Form A - Technical Proposal Certification Form or a completed Form A - Technical Proposal Certification Form and Form B – Alternate Design Form and Alternative Design submittals.

Alternative Designs (AD)

The Department will consider AD's submitted by the Design-Builder in accordance with the process set forth in Section 2. Design-Builders shall identify and submit the AD Form (Form B - Alternative Design Form) and package with their Technical Proposal at the time and on the day stated in the Notice to Contractors. The Department will use the AD review process described in Section 2 to provide Design-Builders with the opportunity to propose changes to the Project Requirements that are equal or better in quality or effect as determined by the Department in its sole discretion.

Submission of Proposals and Package Labels

If using any kind of Delivery Service, the Delivery envelope shall be capable of being sealed and large enough to contain two sealed envelopes: (1) the sealed Price Proposal Package (bid) envelope and (2) the Technical Proposal Package, such that the Delivery envelope can be opened without opening either the actual Proposal Package (bid) envelope or the Technical Proposal Package envelope and clearly marked as follows:

All Proposals shall be provided in double (two envelopes inside a single larger envelope) envelopes, for security and other reasons.

The Price Proposal Package *Inner Envelope* shall have the following information provided on it:

Bid Enclosed - Do Not Open

WIN: 22211.00

Town: Fairfield

Date of Bid Opening:

Name of Contractor with mailing address and telephone number

The Technical Proposal Package *Inner Envelope* shall have the following information provided on it:

Technical Proposal - Do Not Open
WIN: 22211.00
Town: Fairfield
Date of Bid Opening:
Name of Contractor with mailing address and telephone number

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

Double Envelope: Bid Enclosed
WIN: 22211.00
Town: Fairfield
Date of Bid Opening:
Name of Contractor:

If a paper Bid is to be hand carried, deliver directly to the Reception Desk using the “Public Entrance” which is located on the Capitol Street side of the DOT Headquarters Building in Augusta.
<http://www.maine.gov/mdot/mainedotdirections.htm>.

Submittal of Alternative Designs (AD)

The Department will not review or accept AD’s prior to the Bid Opening. At the time of Bid opening of the price proposals the Design-Building team must submit the AD’s form and include a package that shall include the following:

1. Description: A detailed description and schematic drawings of the configuration of the AD or other appropriate descriptive information (including, if appropriate, product details;
2. Usage: Where and how the AD would be used on the Project;
3. Deviations: References to requirements of the Contract documents that are inconsistent with the proposed AD, an explanation of the nature of the deviations from said requirements, and a request for Approval of such deviations;
4. Analysis: An analysis justifying use of the AD and why the deviations from the requirements of the contract documents should be allowed;
5. Impacts: Discussion of potential impacts on vehicular and pedestrian traffic, environmental impacts identified on appropriate environmental documents, safety and life-cycle Project impacts, and infrastructure costs (including impacts on the cost of repair and maintenance);
6. History: A detailed description of other projects where the AD has been used, the success of such usage, and names and telephone numbers of project owners that can confirm such statements; and
7. Risks: A description of added risks to the Department and other Persons associated with implementing the AD.

Departments Review of Alternative Designs (AD)

The Department will review the AD submitted. If an AD is summarily approved or not approved, the Department's comments will inform the Design-Builder that its technical concept appears to be generally acceptable or if is not acceptable. If the Department needs more information to determine whether or not the AD will be approved or not approved, the Department may submit written questions to the Design-Builder and/or request a one-on-one meeting in order to better understand the details of the AD. The Department may conditionally approve an AD based on required revisions to a portion or portions of the AD.

The Department will make one of the following determinations with respect to a reviewed AD:

1. The AD is approved.
2. The AD is not approved.
3. The AD is not approved in its present form, but is approved subject to satisfaction, in the Department's sole judgment, of specified conditions.
4. The submittal does not qualify as an AD, but may be included in the Technical Proposal without an AD (i.e., the concept complies with the Contract Documents requirements).
5. Decision on the AD is pending receipt of additional information and/or one-on-one meeting.

Approval of an AD will constitute a change in the specific requirements of the Contract Documents associated with the approved AD. Should the Design-Builder be unable to obtain required approvals for any AD incorporated into the Contract Documents, or if the concept otherwise proves to be infeasible, the Design-Builder will be required to conform to the original RFP requirements. Each Design-Builder, by submittal of its AD and Bid, acknowledges that the opportunity to submit AD's was offered to all Design-Builders, and waives any right to object to the Department's determinations regarding acceptability of AD's.

Procurement Schedule

Though subject to change, the Department anticipates following the contracting schedule below. Proposers are cautioned that this schedule is subject to change and the Proposer should not rely upon it to determine, for example, when actual construction may commence.

Milestone	Date
MaineDOT Advertises Project for Questions and Comments	April 27, 2016
Deadline for Bidders to Submit Questions (RFI's)	May 13 at 12:00 PM EDT
MaineDOT Issues Response to Questions via Addendum	Monday, May 16 at 12:00 pm EDT
Bid Opening of Request for Proposals	May 18, 2016
MaineDOT Issues Notice of Proposal Responsiveness to Apparent low Bidder	May 21, 2016
Design – Builder Submits Technical Design Package	June 3, 2016
MaineDOT Reviews and Comments and Responds to Technical Design Package	June 17, 2016
MaineDOT Awards Contract	To be Determined
MaineDOT Releases plans for Construction	To be Determined
Design-Builder Begins Construction (approximately)	To be Determined
Design-Builder Completes Construction	October 1, 2016

If any dates are changed, the Department will notify the bidders in advance by a bid addendum (pre-bid) and a contract modification (post-bid). In the event that a time period provided the bid documents falls on a Holiday, Saturday, or Sunday, the party required to act within said time period shall be considered in compliance with said time period provided said party acts as required on the next Departmental business day thereafter.

The Apparent Low Bidder will be the Bidder that submits a responsive Technical Proposal and the lowest apparently responsive Bid, as determined by the Department. No determination of best value will be made by the Department.

Proposals will be opened and publicly read at the time and place specified in the Notice to Contractors or any applicable Bid Amendments. The Department will read only the names of the Bidders. No other information will be made available prior to evaluation and award notification. Unit and lump sum prices are available for inspection by the Bidders immediately after Award. All Proposals shall be sequestered until notification of award by the contracting agency after which time they become public record.

The public reading of a Proposal does not constitute a determination by the Department of whether the Proposal is responsive or of whether the Bidder is responsible, though the Department may refuse to read Proposals that are obviously non-responsive. Accordingly, the Department may reject a Proposal as non-responsive and/or determine a Bidder is not responsible or ineligible to Bid even if that Bidder's Proposal is read at Bid Opening.

3. TECHNICAL AND DESIGN REQUIREMENTS

Project Goals

The Department's primary goals for the Project include the following:

1. To deliver a cost effective Project;
2. To design and construct a safe, durable, appropriately sized, and low maintenance Building and
3. To minimize impacts to the MaineDOT employees working onsite, local residences, local communities, and emergency services during construction.

Design Scope

The Design-Build Price Proposal (Bid) shall include the cost of design, construction and other incidentals as part of the Cold Storage Buildings in Fairfield. The scope of Cold Storage Buildings in Fairfield Building shall include at a minimum the following:

1. The Cost of Design, Technical Proposal and Construction of the Project.
2. The New Fairfield Cold Storage Building shall be approximately 50' X 50' and the Existing Cold Storage BDG35813 Reinforced Concrete Floor shall be approximately 55' x 32'.
3. Buildings shall be wood framed with steel roofing and siding. There shall be no obstructions with in the floor area.
4. The roofs shall have a 5:12 pitch or greater.
5. Roofs are to include vapor barrier and a continuous ridge vent. The eaves/soffits shall have vents as needed and determined by the Design Engineer.
6. The sill plates shall be constructed with pressure treated lumber.
7. The garage doors shall be a commercial grade with struts. The color shall be white with no windows. The garage door opener shall be a commercial grade opener. 3" tracks, 3" long stem ball bearing rollers, Torsion springs will be helically wound with oil-tempered wire, Minimum insulation value of R15 insulation type will be foamed in place CFC free Polyurethane core, minimum of 26 gauge exterior and interior steel skin sections, heavy duty adjustable top roller brackets Section joints will be tongue and groove, Commercial grade door and attaching hardware.
8. All entry doors shall be 36"X 80" commercial grade steel doors, 24"x 30" half glass and steel frame. Door and jam will be painted white with exterior grade paint.
9. The siding shall be constructed with a maximum 8' high steel sheathing from the ground to the first joint so that if damage occurs only the 8 foot piece will need replacing.
10. The steel siding and roofing shall be attached by stainless steel screws.
11. The steel roofing and siding shall be a minimum 26 gauge. The roof and siding shall be the same color (Dark Green). If there are multiple greens to choose from, then the color shall be selected by the Department from the manufacturer's standard colors.
12. The concrete slabs will be sloped (1/4" per foot) 4-6 feet from the outside edge at all garage door openings so that water runs out of the building.

13. The concrete slabs shall be constructed with re-steel or wire mesh.
14. The gable ends shall be on the 42' wide ends.
15. The Contractor shall supply and give to the Department two sheets of the steel siding and roofing per building.
16. All electrical work will be done by MaineDOT after the building is constructed.
17. The Design-Builder is responsible for all permits associated with this proposal.
18. The MaineDOT will provide a laydown area that will be mutually agreed upon by the MaineDOT and the Design-Builder.
19. The Design-Builder is responsible for incorporating all Special Provisions within this document.
20. Overall project management.
21. The Department will have a gravel pad in place prior to the contractor beginning construction. It shall be compacted and graded within 2' of the final grade. The Design-Build team will be responsible for the final fine grading and compaction.
22. The Department will provide the Design-Builder with horizontal and vertical control and conceptual slab layout. The Design-Builder shall provide the additional layout necessary to complete the Work.
23. If the surface upon which the concrete slab structure is to rest is disturbed, it shall be re-graded and re-compacted to the extent directed by the Department.
24. Placing of gravel borrow used for bedding (If engineered for special bedding) for the footings shall meet the requirements of Standard Specification, Section 206, Structural Excavation.

Technical Design Package

The Technical Design Package includes all Design Plans, Notes and Computations generated by the Design-Builder during preparation to build the Project.

Design

The Apparent Low Bidder, when notified in writing, shall submit their Technical Design Package, by the time specified in the Procurement Schedule.

Design Plans, Notes and Computations generated by the Design-Builder during preparation shall become the property of the Department and be submitted to the Department with the Technical Design.

The plans, design and computations shall be sealed by a Maine Licensed Professional Engineer. The Design-Builder shall prepare computer generated design plans for the Department to review. The Plans, when applicable, shall be include:

- 1) Title sheet
- 2) Key Plan and Index
- 3) Quantity Estimates
- 4) Building floor plans, elevations and typical sections
- 5) Framing, roof and truss plans

- 6) Foundation plans and typical sections
- 7) General Layout and Geometry
- 8) General notes
- 9) Any additional plans, cross-sections, details, standard details, or drawings, the Design-Builder or Department feels is necessary to convey how the proposed design satisfies the Project requirements.

Design Notes and Computations

Design notes and calculations, which shall be recorded on 8-1/2" x 11" computation sheets, appropriately titled, numbered, dated, indexed and signed by the designer and checker. Computer output forms and other oversized sheets shall be folded or legibly reduced for submittal to 8-1/2" x 11" size. The data shall be bound in a hard back folder for submittal to the Department along with an electronic copy on Adobe Acrobat format, and shall include the following data:

- 1) All field survey notes and computations
- 2) Primary and Secondary Survey Control used for Design and Construction
- 3) All Structural and Foundation Design and independent design check computations
- 4) Foundation report and geotechnical analysis and-or assumptions
- 5) Structural load data
- 6) Computation of quantities
- 7) Documentation of decisions reached resulting from meetings, telephone conversations, site visits or other.

Construction Schedule

Provide the Schedule for answering remaining design comments and construction of the Project.

Contract Time

All Work, excluding warranty work, required by the Contract must be complete by no later than the date specified in Special Provision, Section 107, Contract Time. Liquidated Damages will be assessed in accordance with Section 107 of the Standard Specifications for each Calendar Day that the Work is extended beyond the Completion Date.

If an earlier Completion Date is identified in the Proposal and accepted by the Department, then the earlier Completion Date shall become the baseline Completion Date and shall be incorporated into the Design-Build Contract Agreement and used to calculate Liquidated Damages.

Technical Design Documents

All design documents included in this Project shall meet the requirements, Specifications and code requirements of MaineDOT, Municipal Codes and applicable Industry Standards.

Technical Design Submittals and Reviews

The Technical Design Package shall be submitted to the MaineDOT within two weeks of the Notice of Proposal Responsiveness to the Apparent Low Bidder in accordance with the

Procurement Schedule and the Department will review all design submittals and respond with comments in accordance with the Procurement Schedule. Upon completion of the day review period the Department may; 1) Notify the Design-Builder in writing that the Department considers all documentation is present and release the plan for construction with comments **or** 2) if the Department considers that all required documentation is **not** included, the Design-Builder will be asked to supply the necessary information with 7 days of notification, and upon submittal of the requested information, another 7 day review periods begins for the Department. If the Departments review the Technical Design Package and sends written comment(s) to the Design-Builder, the Design-Builder is then responsible for incorporating the comments into the design documents before the plans are released for construction.

Re-submittal Process

As a result of the Technical Design Package review, the Department will notify the Design-Builder that a re-submittal is required. Each re-submittal shall address all comments from the prior review. In the event of a required re-submittal, the Department will then have an additional 7 days to review the re-submittal.

If the Department and the Design-Builder require more than the submittal and review periods scheduled in the Procurement Schedule, the Completion Date of the project will not be revised. The Design-Builder shall not be entitled to any additional compensation or time extensions due to a re-submittal request by the Department.

Release for Construction (RFC)

Upon a review of all the plans and design documents, the Department will notify the Design-Builder that the review of the Technical Design Package has been complete, with or without comments, and if a re-submittal is not required, the final design may be released for Construction.

The Design-Builder is responsible for releasing the plans to the field personnel and is responsible to ensure that there is a tracking mechanism in place so that all parties, field and office, have the latest updated set of plans.

The Design-Builder shall submit a final set of design documents that is inclusive of early contract provisions, drawings, design and check computations and comments and shall supersede all previously submitted packages.

Design Changes

The Department or the Design-Builder may initiate changes to the design after a design package has been released for construction. If such design changes are at the sole option of the Design-Builder and they are not scope changes, they shall not be cause for additional time or compensation.

Design changes to segments or plans that have been RFC or to the final plans shall be approved in writing by the designer responsible for the original design or by a Maine Licensed Professional Engineer of equal or greater experience than the original designer, if the original designer is no longer available. The changes shall be tracked and documented accordingly. The Department shall be given adequate time for a review of RFC plans to comment on these

changes before any implementation of any Design Change(s). The review time required will coincide with the complexity of the Design Change(s).

All plans, special provisions and calculations prepared for design changes shall be sealed, signed and dated by a Maine Licensed Professional Engineer who possesses the requirements stated within this special provision.

The Department reserves the right to review and approve all design changes. Once plans have been Release for Construction, only those Design Changes that have been approved may be implemented into the construction of the building.

The Department reserves the right to request Design Changes to this project. All revisions and Design Changes requested after RFC, shall be documented through a Contract Modification as per Standard Specifications, Section 109-Changes.

4. ADMINISTRATION

Insurance

This Project will require Owner's and Design-Builder's Protective Liability Insurance in accordance with the amounts specified in Subsection 110.3.5 of the Maine Department of Transportation Standard Specifications.

Insurance certificates of the General Contractor and a copy of the Professional Liability Insurance certificate of the Professional Engineer shall be submitted prior to Contract Execution.

Wage Rates

State wage rates apply on this Project, in accordance with Subsection 104.3.8B of the Maine Department of Transportation Standard Specification.

Administration and Coordination

The Design-Builder shall, at a minimum, provide project administrative coordination during the design phase, prior to any construction activity and during construction. Such coordination shall include the coordination of design, all onsite and offsite construction disciplines and the Department.

Project Administration – Status Reporting

The Design-Builder shall, at a minimum, provide project administrative coordination during the design phase and prior to any construction activity. Such coordination shall include the coordination of design, construction disciplines and the Department. During the course of the project, the successful Proposer shall submit to the MaineDOT Project Manager a Bi-Weekly Project Status Report of the accomplishments from the preceding week. The Status Report shall be used to keep the Project Manager informed about the status of the Project and any related issues. Information will include:

- A written statement describing the work accomplished during the period and to date.
- An update to the Construction Schedule and potential issues and delays
- A time estimate of the effort to complete the specified services and task
- Any information pertaining all design revisions
- Contract modifications to date and any anticipated contract modifications
- The plan to remedy and address any non-conforming or unacceptable work
- Provide information related to any changes in key personnel.

Geotechnical Design and Construction

If the Design-Builder's Technical Proposal includes structural materials or elements for which there are no design, fabrication, and/or construction requirements found in construction industry and applicable standards, then the Design-Builder shall submit appropriate documentation approved by the proprietor, designer, etc. for the design, fabrication, and construction requirements to the Department.

Erosion and Sedimentation Control Requirement

The Design-Builder shall provide continuous and effective soil erosion and water pollution control in compliance with Section 656 – Temporary Soil Erosion and Water Pollution Control of the Standard Specifications, and the latest version of the Supplemental Specification (Repair Spec). In addition, the Design-Builder shall comply with Special Provision 656.

5. UTILITIES

General Design-Builder Responsibilities

The Technical Design Package shall address the manner in which utilities will be maintained and/or temporarily or permanently relocated. The Design-Builder is required to coordinate all utility relocations required as part of the Project in accordance with the Maine Department of Transportation Standard Specifications, Maine Department of Transportation Utility Accommodation Policy (17-229 CMR Chapter 210), Title 23 MRSA § 154, and Title 23 CFR § 645.

Verification of the Location of Existing Utilities

The Design-Builder bears full responsibility for verifying, at its own expense, the existence, exact location, and size of any utility to be relocated or otherwise impacted on either a temporary or permanent basis for the Project. If a surface inspection of the area shows the existence of, or gives the Design-Builder cause to suspect the existence of, any previously unidentified utilities, or the Design-Builder otherwise has cause to suspect that other previously unidentified utilities exist, then Design-Builder shall undertake all appropriate investigations by contacting Utility Owners and conducting field investigations at the expense of the utilities as necessary to verify the existence, location, and size of such utilities.

6. PROJECT COMPLETION AND FINAL PAYMENT

Project Closeout Procedures

The Contractor shall make final changeover of permanent locks and deliver keys to Department, and complete final cleaning requirements, including touchup painting, touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

Project Final Cleaning

The Contractor shall clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program and comply with manufacturer's written instructions.

1. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
2. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
3. Remove tools, construction equipment, machinery, and surplus material from Project site.
4. Remove snow and ice to provide safe access to building.
5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
6. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
7. Sweep concrete floors broom clean in unoccupied spaces.
8. Remove labels that are not permanent.
9. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
10. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.

Closeout Documentation

The following documents shall be added to the required list of closeout documentation:

Project Record Drawings, (AKA As-Builts)
Warranties
Maintenance & Operations Manual

The Contractor shall prepare and submit Project Record Documents, operation and maintenance manuals, and similar final record information.

Warranty

The Design-Builder unconditionally warrants and guarantees that the project will be free from warranty defects for one year from the date of Physical Work Complete.

If the Department discovers any warranty defects during the warranty period, the Design-Builder agrees to promptly perform all remedial work at no additional cost or liability to the Department.

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

Measurement and Payment

Item 815.00 Building will be measured for payment as one lump sum, designed, complete in place and accepted.

Item 815.00 Building will be paid for at the contract lump sum price, complete and accepted which shall be full compensation for the all the design, work as indicated on the plans and as called for in the contract, including excavation, borrow, gravel, stone, geotextile, electrical requirements, backfill, labor, equipment and materials for building construction and other contract related incidentals necessary to complete the work.

<u>Pay Item</u>	<u>Pay Unit</u>
815.00 Building - Fairfield New Cold Storage	Lump Sum
815.00 Building - Fairfield Existing BDG35813	Lump Sum

SPECIAL PROVISIONS

SPECIAL PROVISION SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES

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

104.3.8B State Wage Rates and Labor Laws The State wage rates enclosed apply to this project.

SPECIAL PROVISION
SECTION 107
Time
(Contract Time)

The Contractor will be allowed to commence work anytime provided that all required plans/submittals have been received and approved by the Department.

The specified Contract Completion Date is October 1, 2016.

Completion of Physical Work occurs when the Work is complete and has undergone a successful final inspection. Liquidated Damages will cease upon the physical completion of the Work. The Contractor shall deliver the Materials Certification, as applicable, to the Department within 30 Days of the date of the notification that the Physical Work is Complete. Within 75 Days of the receipt of these documents, the Department will advise the Contractor in writing of the Final Quantities and any damages to be assessed for the Project. The Contractor shall resolve any Project issues that remain and provide the All Bills Paid and Request for Final Payment Letters to the Department within 30 Days. Completion occurs when the Contractor has finished all Work pursuant to the Contract, including Delivery and acceptance of all Documentation. Completion does not mean substantial Completion. The Department will make Final Payment, including the release of all remaining retainage following Completion, when the Work is complete and has undergone a successful final inspection and all documentation is complete.

SPECIAL PROVISION
SECTION 108 Payment

This Section contains general provisions related to payment including measurement of quantities, progress payment(s), retainage, the right to withhold payment, and other payment-related terms.

Scope of Payment.

Payments to the Design-builder shall be full compensation for the design, fabrication, materials, equipment, labor, construction and overall project management for performing all work under this contract in a complete and acceptable manner and for all risk, loss, damage, or expense of any kind arising from the nature or execution of the Work. The Contractor shall pay all taxes, charges, fees, and allowances. The Department may require that the Contractor submit backup documentation including copies of receipts, invoices, and itemized payments to Subcontractors.

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

- A. Incomplete, Inaccurate or Incorrect Invoices,
- B. Defective Work or non-conforming Work,
- C. Damages for Non-conforming, Defective or Unauthorized Work or Equipment,
- D. Damage to a third party,
- E. Claims filed or reasonable evidence indicating probable filing of claims,
- F. Failure of the Contractor to make payments to Subcontractors or for Materials or labor,
- G. Regulatory non-compliance or enforcement,
- H. Failure to submit Documentation
- I. Failure to provide the Department the opportunity to inspect the Work
- J. Substantial evidence that the Project cannot be completed for the unpaid balance,
- K. Substantial evidence that the amount due the Department will exceed the unpaid balance

Payout Schedule.

The Department will pay ten percent (10%) of the value of the contract upon award of the contract upon submission of an acceptable invoice by the Design-Builder. Subsequent Progress payments, exclusive of retainage and Final Payment, will occur upon submission of acceptable invoices by the Design-Builder. The value of the invoice shall concur with the value of the work perform, as determined by the Department. No payment shall be made when, in the judgment of the Department, the Work is not proceeding in accordance with the provisions of the Contract or when the total value of the Work done since the last estimate amounts to less than \$5,000 dollars.

Submission of Invoices

The Department will make payments based upon approved complete and correct invoices for accepted Work invoiced. No such payment will be made if, in the judgment of the Department, the Work is not in accordance with the provisions of the Contract.

At a minimum, invoices shall include the following information:

1. Contractor name, address & Contract Number
2. Invoice Date & Number
3. Dates of Service
4. Description and Location of Service
5. Quantities at the Prices contained in the Contractor's Bid
6. Percent complete of each Item priced at the Unit cost for each Item at the Unit Prices contained in the Contractor's Bid
7. Extra Work agreed to by written Contract Modification
8. Total amount due

Retainage.

The Department will pay one hundred percent (100%) of each approved Progress Payment until the Work is approximately fifty percent (50%) complete. Thereafter, the Department will deduct five percent (5%) of the amount of each Progress Payment as retainage. In the event that the Department believes that the retainage will be insufficient to cover the Contractor's obligations under this Contract, the Department may withhold a greater percentage of the money to cover Contractor obligations.

The Department may hold, temporarily or permanently, retainage as needed to assure timely Completion of the Work and payment of all Subcontractors and Suppliers in Conformity with the Contract.

Final Payment.

The Department will make Final Payment, including the release of all remaining retainage following Completion, when the Work is complete and has undergone a successful final inspection and all documentation is complete.

Documents required of the Design-Builder by the Department for final acceptance of the Project include: Letter "All Bills Paid", Request for Final Payment, Certificate of Materials, Agreement with Final Quantities and as-built drawings stamped by the Design-Builder's Engineer. The Department reserves the right to add to this list of required closeout documentation.

SPECIAL PROVISION
SECTION 502
CAST-IN-PLACE CONCRETE

PART 1 – GENERAL

1.1 Summary

This work shall consist of furnishing and constructing all cast-in-place Portland Cement Concrete as shown on the contract drawings and as required to complete the work. This work includes all steel reinforcement, form work, anchor bolts, sleeves and any other accessories necessary to complete the work. All concrete mixes must be batched and designed in accordance with this specification and the approved design.

1.2 References

All work shall comply with the applicable provisions of the following codes:

- A. American Concrete Institute ACI-318-08 “Building Code Requirements for Structural Concrete and Commentary”
- B. American Concrete Institute ACI-301-10 “Specifications for Structural Concrete”.
- C. Concrete-Reinforcing Steel Institute CRSI Handbook, 10th Edition.
- D. ASTM C94 Standard Specification for Ready-Mixed Concrete.

1.3 Submittals

At least 30 days prior to the first placement, a concrete mix design shall be submitted by the contractor to the Department for approval. No concrete shall be placed on the project until the concrete mix design has been approved by the Department. The mix design submitted by the contractor to the Department shall include the following information:

- A. Description of individual coarse aggregate stockpiles, original source, bulk specific gravity, absorption and gradation. A combined coarse aggregate blended gradation shall be provided.
- B. Description of fine aggregate, original source, bulk specific gravity, absorption, colorimetric, gradation, and Fineness Modulus (F.M.).
- C. Description and amount of cement.
- D. Target water-cement ration.
- E. Target water content by volume.
- F. Target strength.
- G. Target air content, slump and concrete temperature
- H. Target concrete unit weight.
- I. Type and dosages of air entraining and chemical admixtures.

Approval by the Department will be contingent upon the ability of the mix design proportions to produce the concrete strength requirement and other factors that may affect durability.

The Contractor shall provide the Department with at least two copies of shop drawing for all reinforcing steel and other accessories to be cast-in-place. Shop drawings shall be submitted at least 30 days in advance of concrete placement and shall be reviewed by the Department prior to placement.

1.4 Testing

Concrete acceptance testing will be performed by the Department. The Department will determine the acceptability of the concrete through a quality assurance program. Quality assurance tests will include compressive strength and air content. Concrete sampling for quality assurance tests will be taken at the discharge end of the pump line.

Compressive strength tests will be completed by the Department in accordance with AASHTO T22 at 28 days, except that no slump will be taken. The test average of two concrete cylinders will determine the compressive strength.

Testing for entrained air in concrete shall be in accordance with AASHTO T152.

Concrete not meeting the standards implied in these specifications or as indicated on the Plans shall be removed and replaced by the Contractor and no cost to the Department.

1.5 Quality Assurance

Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment. Measuring and batching of materials shall be performed at a Department approved batching plant.

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

PART 2 – PRODUCTS

2.1 Concrete

A. Materials shall meet the requirements specified in the following sections of Division 700 Materials of the “State of Maine, Department of Transportation, Standard Specifications, November 2014 Edition.”

1. Portland Cement and Portland Pozzolan Cement	701.01
2. Water	701.02
3. Air Entraining Admixtures	701.03
4. Water Reducing Admixture	701.04
5. Water Reducing, High Range Admixture	701.0401
6. Set Retarding Admixtures	701.05
7. Curing Materials	701.06
8. Water Stops	701.07
9. Smoothed Surface Asphalt Roll Roofing (Formerly	701.08
10. Heavy Roofing Felt)	
11. Fly Ash	701.10
12. Calcium Nitrate Solution	701.11
13. Silica Fume	701.12
14. Ground Granulated Blast Furnace Slag	701.13
15. Fine Aggregate for Concrete	703.01
16. Course Aggregate for Concrete	703.02
17. Alkali Silica Reactive Aggregates	703.0201
18. Preformed Expansion Joint Filler	705.01

B. Cement

Cement shall be Portland cement conforming to ASTM C-150 for type I, II or III as specified.

C. Aggregates

1. Concrete aggregate shall conform to ASTM Specification C-33. All aggregates shall be free from frozen materials and other impurities.
2. Fine aggregates shall be clean sand free from clay, loam and other deleterious substances.
3. Coarse aggregate shall be durable, clean, crushed stone or gravel, free from clay, loam and other deleterious substances.

D. Water

Water shall be clean and potable containing no deleterious impurities which may be harmful to concrete or accessories.

E. Admixtures

Prohibited admixture: Calcium chloride, thiocyanates or admixture containing more than 0.05% chloride ions are not permitted.

All admixtures products shall be listed on the Maine DOT Qualified Products List. (<http://www.maine.gov/mdot/tr/qpl/index.htm>)

Certification: Written conformance to the above mentioned requirements and the chloride ion content of the admixture will be required from the admixture manufacturer prior to mix design review by the Department.

2.2 Steel

Reinforcing steel shall conform to ASTM A-615 and be of an approved manufacturer. All bars shall be new, Grade 60 and shall be at the sizes shown on the drawings.

All reinforcing steel shall meet the requirements of Reinforcing Steel, Section 709.01 of the "State of Maine, Department of Transportation, Standard Specifications, November 2014 Edition"

Steel accessories shall be at the sizes and types as shown on the Drawings unless otherwise specified and shall include all spaces, chairs, ties and other devices for properly spacing, supporting and fastening reinforcement in place. Anchor bolts shall be F1554, Grade 36 or better and of the sizes and types shown on the Drawings.

2.3 Accessories

Non-shrink Grout shall be listed on the Maine DOT Qualified Products List (<http://www.maine.gov/mdot/tr/qpl/index.htm>)

2.4 Joint Sealants

Joint filler shall be listed on the Maine DOT Qualified Products List (<http://www.maine.gov/mdot/tr/qpl/index.htm>)

PART 3 – EXECUTION

3.1 Concrete Proportioning

Concrete shall conform to the following requirements:

Min. Strength 28 Day- psi	Max. Size Coarse Agg.	% Air (1%)	Min-Max Slump	Min Chem. Fac.	Max W/C
4350	¾	5-7.5*	2-4**	611 #/CY	0.45

*Target Air is 6% with-1% ; + 1.5% Range

**Min-Max slump is before the addition of water reducing admixtures.

Coarse aggregate for concrete shall meet the requirements of Section 703.02 for Class “A” or “AA”.

3.2 Formwork

All construction form work shall be of sufficient strength and construction to safely withstand the loads imposed, conforming to ACI 347. Forms shall be suitably tied and/or bolted together to maintain the specified dimensions. ¾ –inch chamfer strips shall be placed at all exposed corners unless otherwise specified. Forms shall be built to conform to the dimensions, location, contours and details shown on the Plans. The faces of forms against which the concrete is to be placed shall be dressed smooth and uniform and shall be free from winds, twists, buckles and other irregularities.

Materials – Forms shall be smooth, treated plywood or steel. Plywood forms shall be coated with form oil and steel forms shall be coated with water or other approved substances to facilitate removal. Only non-staining substances shall be used.

All foreign matter within the forms shall be removed before depositing concrete in them.

All forms shall be inspected and approved by the Department prior to placing any concrete within them.

Build into the forms all collars or sleeves required for piping and wiring, and any anchors and inserts as shown on the Drawings.

Forms shall be left in place until the concrete has developed 80 percent of the design strength, and proven by a break of two cylinders. The formwork may be removed 48 hours after the completion of the concrete placement with the approval of the Department and when the following conditions are met:

- A. Immediately after the forms are removed, defects in the concrete surface shall be repaired in accordance with section 502.13 of the “State of Maine, Department of Transportation, Standard Specifications, November 2014 Edition” and the repaired area is thoroughly dampened with water. The surfaces of exposed concrete shall be cured for the remainder of the 7-day curing period by the application of a product listed on the Maine Department of Transportation Prequalified list of curing compounds. The curing compound shall be applied continuously by an approved pressure spraying or distributing equipment at a rate necessary to obtain an even, continuous membrane, meeting the manufacturer’s recommendation but at a rate of not less than 0.21/m² [1 gal/200ft²] of surface. Other methods of curing concrete may be used with the prior approval of the Department.

- B. Forms and false work, including blocks and bracing, shall not be removed without the consent of the Department. The Department’s consent shall not relieve the Contractor of responsibility for the safety of the work. In no case shall any portion of the wood forms be left in the concrete. As the forms are removed, all projection metal devices that have been used for holding the forms in place shall be removed in accordance with Section 502.10 and the holes shall be filled as required in Section 502.13 of the “State of Maine, Department of Transportation, Standard Specifications, November 2014 Edition”.

Forms shall be removed so as not to damage the concrete.

3.3 Placing Concrete

Placing of all concrete shall be done in accordance with Section 502.11 of the “State of Maine, Department of Transportation, Standard Specifications, November 2014 Edition”.

All concrete shall be placed before it has taken its initial set, in any case, as specified in Section 502.11. Concrete shall be placed in horizontal layers in such a manner as to avoid separation and segregation. A sufficient number of workers for the proper handling, tamping and operation of vibrators shall be provided to compact each layer before the succeeding layer is placed and to prevent the formation of cold joints between layers. Care shall be taken to prevent mortar from spattering on structural steel, reinforcing steel and forms. Any concrete or mortar that becomes dried on structural steel, reinforcing steel or forms shall be thoroughly cleaned off before the final covering with concrete. Following the placing of the concrete, all exposed surfaces shall be thoroughly cleaned as required, with care not to injure any surfaces.

Concrete in any section of a structure shall be placed in approximately horizontal layers of such thickness that the entire surface shall be covered by a succeeding layer before the underlying layer has taken its initial set. Layers shall not exceed 18in in thickness and shall be compacted to become an integral part of the layer below. Should the placement be unavoidably delayed long enough to allow the underlying layer to take initial set or produce a so-called “cold joint”, the following steps shall be taken:

- A. An incomplete horizontal layer shall be bulk-headed off to produce a vertical joint
- B. Horizontal joints shall be treated as required in Section 502.11(f) of the “State of Maine, Department of Transportation, Standard Specifications, November 2014 Edition”.
- C. Portland Cement concreted with a high range, water reducing admixture shall not be placed when the concrete mix temperature is below 5°[85]
- D. Fresh concrete, threatened with rain damage shall be protected by approved means. Sufficient material for covering the work expected to be done in one day shall be on hand at all times for emergency use. The covering shall be supported above the surface of the concrete.

Concrete mixed in transit mixers shall be placed within 90 minutes of addition of water at the plant. Delivery tickets shall state the time of water addition of water at the plant. Delivery tickets shall state the time of water addition or departure from the plant if this is within 10 minutes. If the concrete cannot be placed within the specified time limitations, the Department may require that all cement be added at the job site. No additional water shall be added without consulting the Department. Nay additional water added to the concrete on the site is the Contractor’s sole responsibility and risk. The contractor shall provide a Certificate of Compliance for each truckload of concrete to the Department at the time of the load placement. The Certificate of Compliance shall be a form acceptable to the Department and shall include the following:

- A. Contract Name & Number
- B. Facility/Building Name
- C. Manufacturing Plant (Batching Facility)
- D. Name of Contractor (Prime Contractor)
- E. Date
- F. Time Batched/Time Discharged
- G. Truck No.
- H. Quantity (Quantity Batched this Load)
- I. Type of concrete by Class and Producer Design Mix No.
- J. Cement Brand or Type, and Shipment Certification No.
- K. Temperature of Concrete at Discharge
- L. Target Weights per cubic yard and Actual Batched Weights for:
 - 1. Cement
 - 2. Course Concrete Aggregate
 - 3. Fine Concrete Aggregate
 - 4. Water (including free moisture in aggregates and water added at the project)
 - 5. Admixtures Brand and Quantity (fluid ounces/cubic yard)
- M. Air Entraining Admixture
- N. Water reducing admixtures
- O. Other admixtures
- P. Placement Location

Power vibrators shall be provided to thoroughly consolidate and compact the concrete. Vibrators shall not be used to push or move concrete laterally in forms. Excessive vibration will not be permitted. A minimum of two power vibrators shall be on the site when pouring the concrete. Vibrators shall be an approved type, with a frequency of 5,000 to 10,000 cycles per minute and shall be visibly capable of properly consolidating the designed mixture. Sufficient vibrators shall be used to consolidate the incoming concrete within 5 minutes after placing.

A float finish for horizontal surfaces shall be achieved by placing an excess of concrete in the form and removing or striking off the excess with a template or screed, forcing the coarse aggregate below the surface. Creation of concave surfaces shall be avoided. After the concrete has been struck off, the surface shall be thoroughly floated to the finished grade with a suitable floating tool. Aluminum and steel floats are not allowed. Float finish, unless otherwise required, shall be given to all horizontal surfaces. The rate of placing concrete shall be limited to that which can be finished without undue delay and shall not be placed more than 3 m [10 ft] ahead of strike-off. Neat cement paste, dry cement powder or the use of mortar for topping or plastering of concrete surfaces will not be permitted.

Lightweight, vibrating screeds shall be used on slab structures and shall have the following features:

- A. It shall be portable and easily moved, relocated, or adjusted by no more than four persons.
- B. The power unit shall be operable without disturbing the screeded concrete.
- C. It shall be self-propelled with controls that will allow a uniform rate of travel and by which the rate of travel can be increased, decreased or stopped.
- D. It shall have controlled, uniform, variable frequency vibration, end to end.
- E. It shall be fully adjustable for flats, crowns, or valleys.
- F. The screed length shall be adjustable to accommodate the available work area.

When a lightweight vibrating screed is utilized, the concrete shall be placed or cut to no more than 13 mm [$\frac{1}{2}$ in] above the finished grade in front of the front screed. The screed shall be operated such that at least 1 m [3 ft] of concrete is in position in front of the screed.

The texturing of concrete surfaces shall be applied as approved by the Resident. The surface tolerance and texture shall be acceptable to the Resident, or the placement may be suspended until remedial action has been taken. The Resident may order the removal and replacement of material damaged by rainfall.

Immediately after screeding, floating and texturing, the surface of the concrete shall be tested for trueness, by the Contractor, with a 3 m [10 ft] straightedge and all irregularities corrected at once in order to provide a final surface within the tolerance required. The surface shall be checked both transversely and longitudinally. Any area that requires finishing to correct surface irregularities shall be retextured. After the concrete has cured the surface may be tested with a

3m [10 ft] straightedge or a lightweight profiler. The maximum deviation of surface in inches below 10 foot straightedge is 1/8inch.

3.4 Protection and Curing of Concrete

All concrete shall be placed /protected in accordance with Section 502.08 Cold Weather Concrete of the “State of Maine, Department of Transportation, Standard Specifications, November 2014 Edition.”

Fresh concrete shall be protected from rain, cold and excessive temperature. Concrete shall be placed at temperatures between 40°F and 90°F. When air temperatures are below 40°F, materials shall be heated and maintained above 50°F for at least 5 days after placement.

All concrete surfaces, if not protected by forms, shall be kept thoroughly wet either by sprinkling or by the use of wet burlap, cotton mats or other suitable fabric with clean fresh water for a curing period at least 7 days after placing of concrete or until the end of the curing period. Polyethylene sheets shall not be placed directly on the concrete, but may be placed over the fabric cover to prevent drying except as provided in 3.2 Formwork, Section F.

All slabs and wearing surfaces shall be water cured only and kept continuously wet for the entire approved curing period by covering with one of the following systems:

- A. 2 layers of wet burlap,
- B. 2 layers of wet cotton mats,
- C. 1 layer of wet burlap and either a polyethylene sheet or a polyethylene coated burlap blanket,
- D. 1 layer of wet cotton mats and either a polyethylene sheet or a polyethylene coated burlap blanket.

The first layer of either the burlap or the cotton mats shall be wet and shall be applied as soon as it is possible to do so without damaging the concrete surface. Polyethylene sheets shall not be placed directly on the concrete, but may be placed over the fabric cover to prevent drying.

3.5 Finishing

A. Exposed Concrete

- 1. After the removal of forms, remove all form ties to at least 1 inch below surfaces. Remove all loose and honeycombed concrete, fins and other surface irregularities.
- 2. Concrete patching – After cleaning out all holes, honeycombs and other areas to be patched, moisten surface and apply non-shrink grout or a mixture of one part Portland Cement and 3 parts sand, taking care to match the concrete.

3. All concrete which will be exposed to view, shall be hand rubbed using carborundum bricks, burlap or other approved method. Finished surfaces should present a smooth, even appearance of uniform color.
- B. Unexposed Concrete
1. All unexposed concrete shall have tie holes, honeycombs and other holes filled with patching mortar as above. Fins and other irregularities shall be removed so as to present a uniform surface.
 2. Unexposed concrete will not require a rubbed finish after patching.
- C. Penetrations – All wall or floor penetrations by pipes, conduit and other inserts shall be sealed with non-shrink grout around entire penetration to provide a watertight finish.

SPECIAL PROVISION
SECTION 503
REINFORCING STEEL

Description This work shall consist of furnishing and placing of reinforcement in accordance with these specifications and in conformance with the Plans, Supplemental Specifications and Special Provisions.

Materials Materials shall meet the requirements of the following State of Maine Standard Specifications Sections of Division 700-Materials.

Reinforcing Steel	709.01
Welded Steel Wire Fabric	709.02

Schedule of Material When the Department does not furnish reinforcing steel schedules, the Contractor shall submit order lists, bending diagrams and bar layout drawings to the Resident for approval. The reinforcing steel shall not be ordered until these lists and drawings are approved. Approval shall not relieve the Contractor of full responsibility for the satisfactory completion of this item. When the Department allows the use of precast concrete deck panels, or any other significant changes that effect the quantity of reinforcing steel, the Contractor shall be responsible for revising the reinforcing steel schedule; the revised schedule shall be submitted to the Resident for approval.

Protection of Material Reinforcement shall be stored on skids or other supports a minimum of 12 in above the ground surface and protected at all times from damage and surface contamination. The storage supports shall be constructed of wood, or other material that will not damage the surface of the reinforcement or epoxy coating. Bundles of bars shall be stored on supports in a single layer. Each bundle shall be placed on the supports in a single layer. Each bundle shall be placed on the supports out of contact with adjacent bundles.

If it is expected that epoxy-coated bars will be required to be stored outdoors for a period in excess of three months, then they shall be protected from ultraviolet radiation.

Fabrication Bending of reinforcing bars and tolerances for bending of reinforcing bars shall be in conformance with the latest edition of “Manual of Standard Practice of the Concrete Reinforcing Steel Institute” and the “Detailing Manual of the American Concrete Institute”. Unless otherwise specifically authorized, bars shall be bent cold.

Placing and Fastening All steel reinforcement shall be accurately placed in the positions shown on the plans and shall be firmly held there during the placing and setting of the concrete. Immediately before placing concrete, steel reinforcement shall be free from all foreign material, which could decrease the bond between the steel and concrete. Such foreign material shall include, but not be limited to, dirt, loose mill scale, excessive rust, paint, oil, bitumen and dried concrete mortar.

Bars shall be fastened together at all intersections except where spacing is less than 1 ft. in either direction, in which case, fastening at alternate intersections of each bar with other bars will be permitted providing this will hold all the bars securely in position. This fastening may be tightly twisted wire. Welding on epoxy-coated reinforcing steel will not be permitted under any condition.

Proper distances from the forms shall be maintained by means of stays, blocks, ties, hangers or other approved means. Blocks used for this purpose shall be precast Portland cement mortar blocks of approved shape and dimensions. Chairs may be used for this purpose and, when used, must be plastic, plastic coated, epoxy coated or plastic tipped. Layers of bars may be separated by precast Portland cement mortar blocks or other approved devices. The use of pebbles, pieces of broken stone or brick, metal pipe or wooden blocks shall not be permitted. The placing of reinforcement as concrete placement progresses, without definite and secure means of holding the steel in its correct position, shall not be permitted except in the case of welded steel wire fabric or bar mats.

Epoxy-coated reinforcing bars supported on formwork shall rest on coated wire bar supports, or on bar supports mad of dielectric material or other acceptable materials. Wire bar supports shall be coated with dielectric material for a minimum distance of 2 from the point of contact with the reinforcing bars. Reinforcing bars used as support bars shall be epoxy-coated. In walls, spreader bars shall be epoxy-coated.

Tie wire for epoxy-coated reinforcing steel shall be soft annealed wire that has been nylon, epoxy or plastic coated.

Field bending or cutting of epoxy-coated reinforcing bars will not be allowed, unless otherwise indicated on the plans or permitted by the Resident. When field bending or cutting is allowed, all damaged coating areas shall be repaired in accordance with the patching requirements.

Bars in the foundation walls shall be placed so as to clear anchor bolts.

When specified on the contract plans, reinforcing steel shall be anchored into drilled holes.

The anchoring material shall be one of the products listed on the Maine Department of Transportation's list of Prequalified Type 3 Anchoring Materials. Installation shall be in accordance with the manufacturer's published recommendations.

At each anchor location, existing reinforcing will be located to avoid drilling through existing bars. Where interferences are found to exist, location adjustments will be determined by the Resident.

Minimum embedment lengths of reinforcing bars shall comply with the manufacturer's published recommendations for the anchoring material selected. These embedment lengths shall be verified by the Resident before installation of the reinforcing bars. The reinforcing steel

lengths indicated on the Plans may be reduced, at the Contractor’s option, to the determined minimum embedment lengths.

Reinforcement shall be inspected and approved by the Resident before any concrete is placed.

Splicing Reinforcing bars shall be spliced in accordance with the requirements of this section, and in the locations shown on the plans. No modifications of, or additions to, the splice arrangements shown on the plans shall be made without the Resident’s prior approval. Any additional splices authorized shall be staggered as much as possible. All splices shall be made in a manner that will ensure that not less than 75% of the minimum clear distance to other bars will be maintained, as compared to the cover and clear distance requirements for the unspliced bar.

Lapped splices shall be made by placing the bars in contact and wiring them together. Splice laps shall be made in accordance with the following table, unless otherwise noted on the plans.

Minimum Lap Splice Length (inches) ¹									
Bar Type	Bar Size								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
Plain	14	18	22	26	33	43	54	68	83
Epoxy Coated	21	27	33	39	50	64	80	103	124

¹ Lap Splice lengths are based on the following parameters: Minimum center to-center spacing between bars of 6 in; nominal yield strength of the reinforcing steel of 60 ksi; minimum 28 –day compression strength of concrete of 4350 psi. When any of the preceding parameters is altered, appropriate minimum lap slice lengths will be determined by the Resident. When lap splices are placed horizontally in an element where the concrete depth below the splice will be 12 in, or more, the indicated lap splice lengths shall be multiplied by a factor of 1.4.

Mechanical couplers may be used for splicing reinforcing bars, provided they are approved by the Resident and conform to the following requirements:

- a. Tension Couplers- Couplers shall be able to develop 1.25 times the theoretical yield strength of the spliced bar in tension. Bolted and wedge-lock type couplers will not be allowed.
- b. Compression Couplers- Coupler shall be capable of maintaining the splice bars in alignment prior to and during concrete placement. For reinforcing bars designed to act in compression, the individual bar ends shall be within 1½° of being “square” to the final 12 in of the bar. Additionally, abutting bar ends shall be in contact, and the angle of the gap between abutting bar ends shall be 3°, or less.
- c. Mechanical Couplers Any mechanical couplers using a threaded splicer and dowel in combination, requiring a lapped splice with the reinforcing bars, shall have a minimum lap

splice length as required by this Section. Welded splices may be made by the “Thermit” process or, with the approval of the Resident, by the shielded metal arc welding process or the self-shielded flux-core arc welding process. The latter two processes shall be used in strict conformation with the requirements of the latest edition of AWS D1.4 “Structural Welding Code – Welding Reinforcing Steel” and any applicable provisions of Section 504, Structural Steel. The Contractor shall submit complete details of their proposed method of making welded splices for the Resident’s approval.

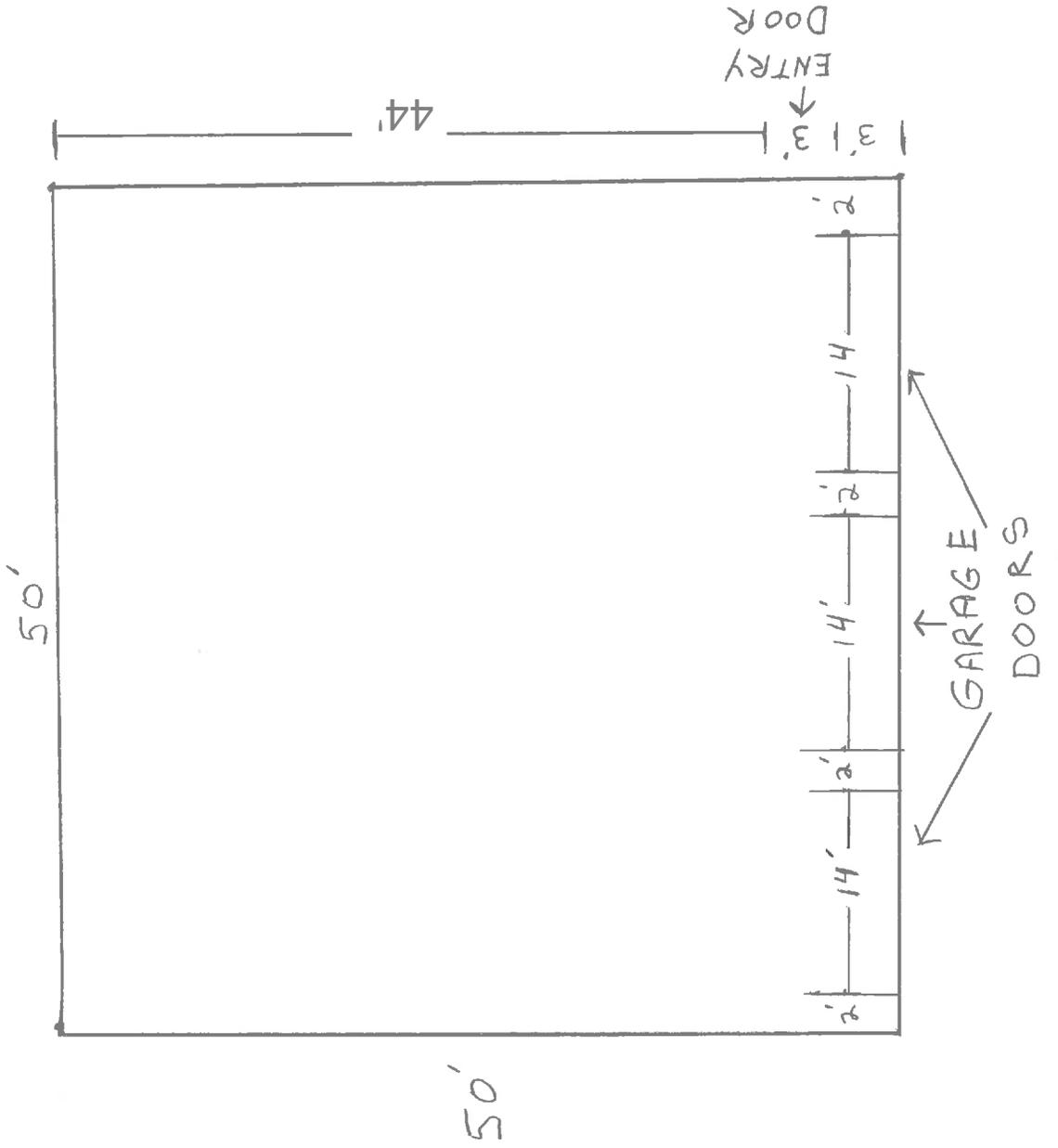
Lapping Sections of welded steel wire fabric shall securely fasten to adjoining sections and overlap. All laps shall be in accordance with Wire Reinforcement Institute Manual of Standard Practice.

Bar mats shall be spliced as required for the individual bars.

Substitution Substitution of different size bars shall not be permitted except with the written authorization of the Resident.

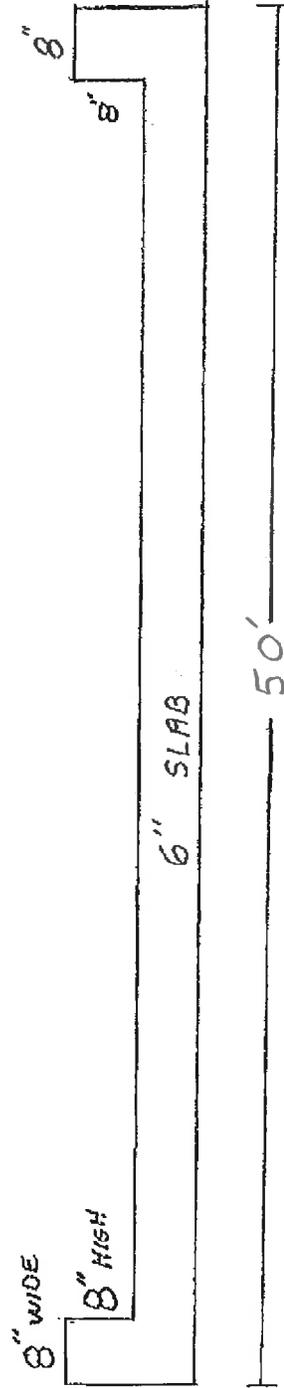
FAIRFIELD COLD STORAGE BUILDING. 50' BY 50' WITH 16' HIGH CEILINGS.

3 - 14' x 14' GARAGE DOORS WITH NO GLASS. 1 - 3'-0" x 6'-8" FIBERGLASS ENTRY DOOR WITH GLASS.



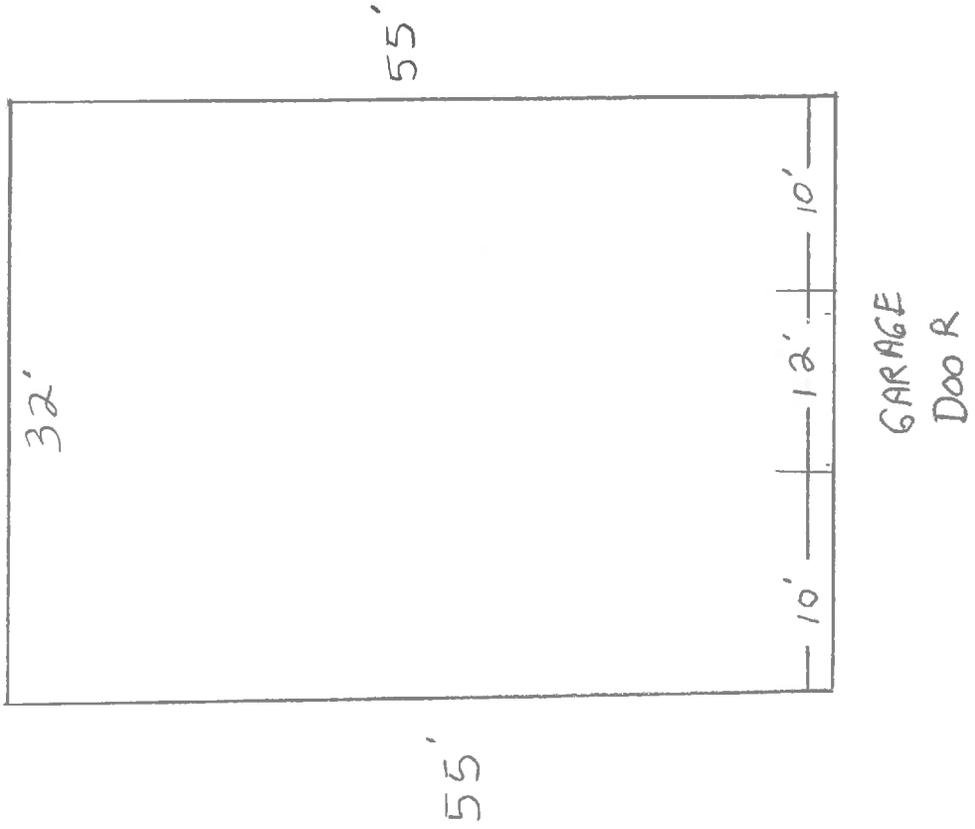
FAIRFIELD COLD STORAGE BUILDING. 50' BY 50' WITH 16' HIGH CEILINGS.

3 - 14' x 14' GARAGE DOORS WITH NO GLASS. 1 - 3'-0" x 6'-8" FIBERGLASS ENTRY DOOR WITH GLASS.



EXISTING FAIRFIELD COLD STORAGE BUILDING WITH GRAVEL FLOOR 32' BY 55'.

INSTALL 1 - 12' W x 10' H GARAGE DOOR WITH NO GLASS.
PLACE A 6" REINFORCED CONCRETE FLOOR IN EXISTING BUILDING
GRADING OF THE EXISTING GRAVEL FLOOR WILL BE COMPLETED BY THE STATE



SPECIAL PROVISION
SECTION 06100
ROUGH CARPENTRY

PART 1 – GENERAL

1.1 Summary

- A. This work consists of all labor, materials and equipment necessary to complete the work as shown on the Drawings and as specified herein.

1.2 References

- A. International Building Code, Latest Edition.

1.3 Workmanship

- A. Only experienced personnel shall be engaged in this work.

1.4 Delivery, Storage and Handling

- A. Deliver the materials to the job site and store in a safe area, out of the way of traffic, shored up off the ground surface and covered to protect from weather.

PART 2 – PRODUCTS

2.1 Dimension Lumber

- A. Dimension lumber shall be Eastern Spruce or other wood approved by the Department and shall comply with grading requirements of the Northeastern Lumber Manufacturers Association for Common, Number 2 or better, and shall bear the grade stamp.
- B. When specified on the Plans or in part 4, stress grade structural lumber shall be provided. Stress grade lumber shall bear appropriate stamp for the specified grade and species.
- C. Wood for pressure treating and special installation shall be southern yellow pine meeting the requirements of the Southern Pine Inspection Bureau (SPIB) for Number 2 or better.
- D. All lumber shall not exceed 19% moisture content.

2.2 Plywood

- A. All plywood shall be 4/5-ply minimum and shall comply with U.S. Product Standard PS-1 for softwood plywood and shall bear the specified grade and stamp of the American Plywood Association.
- B. Unless otherwise shown on the Drawings, plywood shall meet the following requirements:

<u>Use</u>	<u>Thickness</u>	<u>Grade</u>	<u>Glue</u>	<u>Span Rating</u>
Roof	5/8" T&G	OSB Structural 1	Exterior	40/20
Exterior Sheathing	1/2"	OSB Structural 1	Exterior	32/16
Interior Sheathing	1/2"	C-D	Exterior	32/16
Electrical Backboard	3/4"	BC	Exterior	N/A

- C. All OSB shall be coated oriented strand board (OSB) sheathing in lieu of exterior wall sheathing, equivalent to "Advantech" by Huber Industries. Appropriate Sizes and Grades of plywood may be substituted at the contractor's option.

2.3 Accessories

- A. Nails shall be new, galvanized as appropriate, common nails of appropriate lengths and sizes to adequately join the wood. Use galvanized where exposed to weather or pressure treated lumber or where shown on the Drawings.
- B. Joist hangers, framing anchors shall be 18-gauge, galvanized steel such as manufactured by Kant Sag, Simpson, or approved equivalent.
- C. Special Nails shall be used where shown on the Drawings or as recommended by manufacturer.
- D. Glue shall be an all purpose subfloor and construction adhesive, suitable for interior and exterior use, as manufactured by DAP, GE, Ohio Sealants, of approved equivalents.

2.4 Pressure Treated Lumber (P.T.)

- A. Lumber or plywood in contact with ground or fresh water shall be treated in accordance with AWPA Standards C2 and LP-22 and shall be rated 0.60 retention.
- B. Lumber in direct contact with concrete, masonry, or steel, not in contact with soil or fresh water shall be treated in accordance with AWPA Standards C2 and LP-2 and shall be rated 0.40 retention.
- C. Pressure treatment shall be water borne chromate copper arsenate (ACQ).
- D. Wood shall be dried after treatment.

PART 3 – EXECUTION

3.1 Preparation

- A. Carefully select individual lumber pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing.
- B. Cut out and discard defects which render a piece unable to serve its intended function.
- C. Lumber will be rejected by the Department if it is excessively warped, twisted, bowed, mildewed or molded, as well as if it is improperly installed.

3.2 Erection

- A. All framing work shall produce joints which are tight, true, and well nailed with members assembled in accordance with the Drawings and with pertinent codes and regulations.
- B. All framing and fastening shall equal or exceed HUD Minimum Property Standards, Manual of Accepted Practices and the requirements of the IBC.
- C. Do not shim any framing member.
- D. Install horizontal and sloped members with crown up.
- E. Do not notch, cut or bore members for pipes, ducts, conduits, or for any other reason, except as shown on the Drawings and as approved by the Department.
- F. Bearing surfaces on which structural members rest shall provide a full, even support.
- G. Joists, rafters and similar members shall be fastened with at least two (2) galvanized steel hangers or anchors and nailed completely.
- H. Install solid block bridging at midpoint of joists or as shown on the Drawings.
- I. Provide all shims, blocking and bracing as shown on the Drawings and as approved by the Department to complete the work.
- J. In addition to normal framing operations, install wood blocking or backing required to support the work of other trades.

3.3 Plywood Sheathing

- A. Unless otherwise specified or approved by the Department, install plywood with the face grain perpendicular to framing and central joints over supports. Leave 1/16-inch gap where adjacent plywood panels meet.
- B. Stagger plywood joints so that all joints do not lie on the same support. Nail as shown in the recommended fastening schedule in this Section.

3.4 Nailing

- A. Use galvanized nails except as otherwise indicated. Make tight connections between members. Countersink nail heads on exposed carpentry work and fill holes.
- B. Install fasteners without splitting wood; pre-drill as required.
- C. All nailing shall comply with the IBS, Recommended Fastening Schedule (found in table 2304.9.1), unless special requirements are shown on the Drawings.

3.5 Concrete Bearing

- A. All wood which bears against concrete, earth, steel or masonry shall be pressure treated as specified on the Drawings or as approved by the Department.

SPECIAL PROVISION
SECTION 07467
METAL SIDING

PART 1 – GENERAL

1.1 Summary

- A. Provide preformed metal siding and roofing where shown on the Drawings, as specified herein and as needed for a complete and proper installation.
- B. Related Work: Documents affecting work of this Section include, but are not necessarily limited to, Section 06100 - Rough Carpentry and Section 06192- Laminated Lumber.

1.2 Quality Assurance

- A. Use adequate number of skilled workmen who are thoroughly trained and experienced in the necessary crafts who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.3 Submittals

- A. Product Date: Within 15 calendar days after the Contractor has received the Department's notice to Proceed, submit:
 - Materials list of items proposed to be provided under this Section
 - Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 - Shop drawings in sufficient detail to show fabrication, installation, anchorage and interface of the work of this Section with the work of adjacent trades;
 - Sample of two (2) full panel width by 6" length of finished exterior siding, interior liner and permanent trim pieces.
 - Sample of each fastener employed, one each.
 - Manufacturer's recommended installation procedures which, when approved by the Department, will become the basis for accepting or rejecting actual installation procedures used on the work.

PART 2 – PRODUCTS

2.1 Preformed Metal Siding and Roofing

- A. Metal siding shall be 26 gauge Everlast II with a galvalume finish, or equivalent.
- B. Panels shall be a maximum length possible to minimize end laps.

2.2 Accessory Items

- A. Provide subgirts, perimeter trim, closures and other required components as needed to comprise the complete preformed metal siding system, using the materials and gauges recommended by the manufacturer and approved by the Department, and providing finish on exposed surfaces precisely matching the finish on the other exposed surfaces.
- B. Provide fasteners, washers and sealants as recommended by the manufacturer.

PART 3 - EXECUTION

3.1 Surface Conditions

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.2 Installation

- A. Install the work of this Section in strict accordance with the manufacturer's recommended installation procedures as approved by the Department.
- B. Set siding plumb, level and true to line, without warp or rack, to a tolerance of 1 in 600.
- C. Touch up mars, scratches, and cut edges to match original finish.

SPECIAL PROVISION
SECTION 07611
METAL ROOFING

PART 1 - GENERAL

1.1 Summary

- A. Work included shall consist of installing a standing seam metal roofing complete with concealed fasteners and accessories for a water tight system. Metal roofing shall be continuous, contoured to the profile of the roof arch, with no butt seams.

1.2 Quality Assurance

- A. Contractor shall be approved in writing by the roofing manufacturer and shall substantiate a minimum of three years experience installing standing seam roofing.

1.3 Submittals

- A. Submit two copies of detailed shop drawings to the Department for review at least fifteen (15) days prior to incorporation into the work. Shop drawings shall be approved and assigned a number by the manufacturer.
- B. Shop drawings shall include the following:
- Outline of roof and roof size.
 - Layout of panels
 - Location and types of proposed penetrations.
 - Perimeter details
 - Penetration details
 - Manufacturer's data on the proposed materials including panels, anchor clips and fasteners.
 - Calculations with registered engineer's seal, licensed in the State of Maine, verifying roof panel and attachment method resists applicable wind pressure imposed on it applicable with the IBC 2012.
- C. Submit written approval of contractor by manufacturer.
- D. Submit sample warranty and maintenance instructions.

1.4 Warranty

- A. Provide manufacturer's written twenty year warranty for weather tightness against leaks in roof panels cause by ordinary wear and tear under normal weather conditions.

- B. Roof finish coating shall be warranted against rust, peeling, chipping, cracking and blistering for a period of twenty years.
- C. Contractor shall provide written three year warranty, guaranteeing the roof system to be watertight and free of defects.
- D. Contractor shall provide detailed instructions for preventative maintenance and noting a list of harmful substances that may damage roofing.

PART 2 – PRODUCTS

2.1 Roof Panels

- A. Roof panels shall be 26-gauge Grade C Galvalume ASTM 792-86, AZ 55 with a “Satin Finish”.
- B. Panels shall have a standing, interlocking seam, 16” wide with a seam height of 1.5”.
- C. Panels shall be roll-formed in continuous lengths from eave to ridge.
- D. Color of panel to be approved by the Department or Resident.

2.2 Fasteners

- A. Panels shall be fastened to the substrate with a concealed clip system that accommodates thermal movement.
- B. Fasteners shall be concealed.

2.3 Flashing

- A. Flash all other roof penetrations.
- B. Flashing shall be as recommended by the roofing manufacturer and as approved by the Department. Flashing shall be a minimum of 0.040 aluminum or 26 gauge galvanized steel.
- C. Rubber boot pipe flashing shall be used around vent pipes.

2.4 Sealants

- A. Sealants between roof panels shall be as recommended by the manufacturer.
- B. Provide all required sealants at trim, roof penetrations, etc.
- C. Sealants shall be non-drying elastomer based material.

2.5 Fascia, Trim and Accessories

- A. Fascia and metal trim shall be prefinished 0.040 aluminum or 26 gauges galvanized steel.

- B. Ridge cap shall be a continuous venting metal ridge cover, as provided by the roofing manufacturer.

2.6 Acceptable Manufacturers

- A. Everlast Metals
- B. Approved Equivalent

2.7 Provisions for Expansion/Contraction

- A. End wall trim and roof transition flashings shall allow the roof to move relative to walls as the roof expands and contracts with temperature changes.
- B. Movement of roof panels relative to other panels shall be accommodated by the use of clips that allow movement of up to 1" in either direction.
- C. Ridge assembly shall be designed to allow roof panels to move lengthwise with expansion/contraction as the roof panel temperature changes. Parts shall be factory prepunched for correct field assembly. If panels are formed in the field by manufacturer, panels may be punched in field as required by manufacturer. Panel closures and interior reinforcing straps shall be installed to seal the panel ends at the ridge. The attachment fasteners shall not be exposed on the weather side. A lock seam plug shall be used to seal the lock seam portion of the panel. A hi-tensile steel ridge cover shall span from panel closure to panel closure and flex as the roof system expands and contracts.

PART 3 – EXECUTION

3.1 Inspection

- A. Contractor shall inspect the substrate prior to installing metal roofing to insure that the surface is sound and uniform. Correct any irregularities prior to proceeding with the work.

3.2 Installation

- A. Fasten metal panels to structural substrate with movable clips that are seamed into the standing seam side lap
- B. Fasten clips to structural substrate in accordance with manufacturer's recommendations.
- C. Panel to panel connections shall be made with a positive, standing lock seam, continuously locked or crimped together by mechanical means during installation.
- D. All side lap sealant shall be factory applied.

- E. Install accessories such as penetration flashings and eave closures in accordance with manufacturer's recommendations, as approved by the Department.

3.3 Final Inspection

- A. A final inspection of the roofing system shall be made by the roofing manufacturer's representative as soon as construction is complete. Coordinate final manufacturer's inspection with the Department. Provide written certification that the metal roof system has been installed in accordance with the manufacturer's recommendations.

SPECIAL PROVISION
SECTION 07920
SEALANTS AND CAULKING

PART 1 – GENERAL

1.1 Summary

- A. Provide all labor, materials and equipment to complete sealing and caulking as shown on the drawings and as specified herein.

1.2 Scope of Work

- A. Sealing and caulking shall be performed on all exterior joints including but not limited to:
 - 1. Around door, frames and windows.
 - 2. Joints around wall, ceiling and penetrations such as electrical boxes, pipes, etc.
 - 3. Joints between dissimilar building materials such as concrete and wood, wood and metal, etc., where water might enter.
- B. Interior caulking of all wall, floor, and ceiling penetrations.
- C. Sealing of concrete joints is covered on the plans.

1.3 References

- A. All sealants and caulking shall comply with ASTM C920, Standard Specification for elastomeric joint sealants.

PART 2 – PRODUCTS

2.1 Exterior Caulking

- A. Exterior caulking between prefinished surfaces shall be a one component silicone joint sealant; “Spectrum 1” by Tremco Sealant Systems, Dow Corning “795 Silicone Building Sealant”, or approved equivalent.
- B. Exterior caulking for use on paintable surfaces shall be an acrylic latex joint sealant; “Tremco Acrylic Latex Caulk”; Bostik “Chem-Caulk 600”, or approved equivalents.

2.2 Interior Caulking

- A. Interior caulking for bedding electrical boxes, outlets, pipes or other wall penetrations and around interior doors, frames and windows shall be a non-hardening sealant; “Tremco Acoustical Sealant”, Bostik “Chem-Caulk 600”, or approved equivalents.
- B. Interior caulking per penetrations through fire wall or smoke barriers such as conduits, pipes and ducts shall be a one component fire resistant caulk or putty; 3M Fire Barrier Caulk “CP25” or Putty “303”, or approved equivalents.

2.3 Joint Filler

- A. Joint filler for backing caulking shall be non-absorbent precompressed foam sealant; “Will-Seal 150”, by Will-Seal Construction Foams; “York-Seal 100” by York Manufacturing, Inc., or approved equivalents.

PART 3 – EXECUTION

3.1 Preparation

- A. All joints and spaces to be caulked shall be dry, clean and free from dust and loose materials.
- B. If necessary mask or otherwise protect adjacent surfaces.

3.2 Installation

- A. All sealants and caulking shall be installed according to the manufacturer’s recommendations.
- B. Caulking shall be applied with suitable equipment such as with a caulking gun.
- C. Use foam backing for joints deeper than ½-inch. Pack into joint allowing at least ¼-inch for caulking.
- D. Caulking shall be applied so that surfaces are slightly concave, tight and smooth. Joints shall be air and water tight.
- E. Caulk or putty around fire and smoke wall penetrations shall be applied so as to provide a complete fire barrier sealing system.
- F. Remove excess caulking and clean adjacent surfaces with approved cleaners.

SPECIAL PROVISIONS
ADDITIONS AND REVISIONS TO STANDARD SPECIFICATIONS

SPECIAL PROVISION SECTION 101
CONTRACT INTERPRETATION

101.1 Abbreviations. Add the following:

D-B	Design-Builder
D-B Teams	Proposers
RFC	Release for Construction
RFP	Request for Proposals for the Project

101.2 Definitions Add the following:

Agreement. The document executed by the Department and the Design-Builder entitled “Design-Build Contract Agreement,” as well as all documents listed in said Design-Build Contract Agreement .

Apparent Low Bidder A Bidder that submits the lowest apparently responsive Bid. The Apparent Low Bidder may not be Awarded the Contract if a) the Bid is later found to be non-responsive in accordance with Section 102.11, b) the Bidder is found to be not responsible, c) the Bidder fails to comply with all applicable pre-Award Conditions, other pre-execution requirements of the Contract, or d) the Department chooses not to Award a Contract.

Apparent Successful Bidder The Bidder with the lowest responsive Bid as determined by the Department. A responsive responsible Bidder, usually the Apparent Low Bidder, that is Awarded the Contract. The Department may not execute the Contract with the Apparent Successful Bidder if a) the Apparent Successful Bidder fails to comply with all applicable pre-Award conditions or other pre-execution requirements of the Contract or b) if the Department chooses not to Award a Contract.

Bid The offer by a Bidder on forms prescribed by the Department to design and construct the Project in Conformity with all provisions of the Bid Documents for the price(s) set forth. Bid is also used synonymously with the term, “Price Proposal”.

Bidder An individual, firm, corporation, limited liability company, partnership, joint venture, sole proprietorship, or other entity that submits a Proposal. Upon Contract Execution, the successful Bidder becomes the Contractor.

Closeout Documentation. Documents required of the Design-Builder by the Department for final acceptance of the Project. These documents are: Letter “All Bills Paid”, Request for Final Payment, Certificate of Materials, Agreement with Final Quantities on Contractor’s letterhead, as-built drawings stamped by an Engineer. The Department reserves the right to add to this list of required closeout documentation.

Contract. The entire agreement between the Department and the Design-Builder, as evidenced by the Contract Documents. All documents affecting the respective rights and responsibilities of the Department and the Contractor. These documents include, but are not limited to, the Contract Agreement, Project specific proposal Bid Book, the RFP, the Notice to Contractors, Plans, the Department’s Standard Specifications and Standard Details, Special Provisions, Bid Amendments, Contract Modifications, and all documents incorporated by reference.

Contract Execution. Execution of the Contract by the Commissioner or his/her authorized agent by signing the Agreement, which action (upon written notification to the Design-Builder) forms a contract as provided in Subsection 103.8 - Execution of Contract by Department.

Contractor. The legal entity that will be executing the Contract and that will be a single point of responsibility for all obligations under the Contract. The Contractor shall be independent with respect to the Department and shall not be an employee, agent, or representative of the Department. After the Department has executed the Contract by cosigning the Contract Agreement form provided in the Bid Documents, previously signed by the successful bidder, the Successful Bidder in a low Bid process becomes the Contractor. The Contractor will be the single point of responsibility for all Contract obligations to the Department. The Contractor shall be an independent Contractor with respect to the Department and shall not be an employee, agent, or representative of the Department. Alternatively, “Contractor,” with a lower case “c,” may mean a firm engaged in construction Work.

Design Documents. Design-Builder drawings, specifications, calculations, records, reports or other documents, including shop drawings and special process procedures, which may be used for design, manufacture fabrication, installation, testing, examination and certification of items.

Design-Builder. See the definition for Contractor.

Designer. The entity responsible for design and related work for the Project, either through subcontract to the Design-Builder or otherwise.

Engineer. Unless otherwise indicated in this Contract, a professional engineer licensed in the State of Maine who is an employee of the Design-Builder, or a

Subcontractor, with the responsibility and authority to require that the Work be performed in conformity with the Contract Documents.

Invoice. The Design-Builder's request for progress payment, also called an Application for Progress Payment.

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

Price Proposal The offer by a Bidder on forms prescribed by the Department to design and construct the Project in Conformity with all provisions of the Bid Documents for the price(s) set forth. Bid is also used synonymously with the term, "Bid."

Proposal. The offer by a Proposer to design and construct the Project and perform the Work submitted in response to the RFP. In order to be responsive, the Proposal must meet all requirements and must offer to perform the Work in accordance with the Contract, and the Proposer's Technical Proposal, for the price submitted in the Proposer's Price Proposal. The Proposal consists of two major components and related certifications, bonds, and documentation, to be submitted separately but simultaneously: the Technical Proposal and the Price Proposal.

Proposer. An individual, firm, corporation, limited liability company, partnership, joint venture, sole proprietorship or other entity that was prequalified by the Department and that intends to submit a Proposal for the Work. After execution of the Contract, the Proposer is known as the "Design-Builder". Proposer is also used synonymously with the term, "Bidder".

Request for Proposal (RFP). The document issued by the Department asking for proposals, such as when soliciting for an anticipated Design-Build Contract, and all other documents issued by the Department and identified as part of the RFP.

Technical Proposal. The part of a Proposal detailing, among other things, schedule, management, organization, design, and construction of the project.

SPECIAL PROVISION SECTION 102
BIDDING

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

The Bidder must Deliver its Bid and Bid Guaranty in a sealed envelope to the exact location and before the precise time (as determined by the Department) specified in the

Notice to Contractors or any applicable Bid Amendment. The sealed envelope must be labeled with the Bidder's name, the Project or Work location, WIN, and the words "Bid Enclosed". As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments form, the completed Schedule of Items, 2 copies of the completed Contract form, and any other Certifications or Bid Requirements listed in the Bid Book. For a related provision, see Section 102.11 - "Bid Responsiveness".

102.11.2 Curable Bid Defects Add the following after 102.11.2 E:

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

SPECIAL PROVISION SECTION 103
AWARD AND CONTRACTING

103.5 Award Conditions Replace the first paragraph with the following:

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

103.5.4 Execution of Contract By Bidder Delete the entire section and replace with the following:

"The properly completed and signed Contract form provided with the Bid constitutes the Bidder's offer. Once the Department has received the bonds, insurance, and any other pre-award items required, the Department will sign and execute the Contract. The point of Contract execution is when the Contractor receives written notice that the contract has been signed by the Department and executed."

SUPPLEMENTAL SPECIFICATIONS
(Corrections, Additions, & Revisions to Standard Specifications - November 2014)

SECTION 101
CONTRACT INTERPRETATION

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 104
GENERAL RIGHTS AND RESPONSIBILITIES

104.4.4 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**

105.4.5 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**

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

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 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%
Item 403.2132–6.2%
Item 403.214–6.8%
Item 403.235–5.5%
Item 403.301–6.2%
Item 404.70–6.2%
Item 404.72–6.2%
Item 461.13–6.5%
Item 462.30–0.0021 tons/SY
Item 462.301–0.0021 tons/SY

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.”

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.”

SECTION 304 **AGGREGATE BASE AND SUBBASE COURSE**

304.02 Aggregate

Remove the sentence “Aggregate for base and subbase courses shall be material meeting the aggregate type requirements specified in the following table” in its entirety and the table that follows it with headings of ‘Material’ and ‘Aggregate Type’.

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”**

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.
- 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 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

Test or Action	Frequency	Test Method
Density	1 per 1000 feet / lane	AASHTO T 310
Air Temperature	4 per day at even intervals	
Surface Temperature	At the beginning and end of each days operation	
Yield of all materials (Daily yield, yield since last test, and total project yield.)	1 per 1000 ft/lane	

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

Property	Frequency	Test Method
In-place Density	1 per 2000 ft / lane	AASHTO T 310

308.102 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:

<u>Pay Item</u>	<u>Pay Unit</u>
307.331 Full Depth Recycled Pavement (Untreated) Yard	Square
307.332 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) 5 in. depth Yard	Square
307.333 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) 6 in. depth Yard	Square

SECTION 411
UNTREATED AGGRAGATE 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

Concrete CLASS	Minimum Compressive Strength (PSI)	Permeability as indicated by Surface Resistivity (KOhm-cm)	Entrained Air (%)		Notes
			LSL	USL	
S	3,000	N/A	N/A	N/A	4,5
A	4,000	14	6.0	9.0	1,4,5
P	-----	-----	5.5	7.5	1,2,3,4
LP	5,000	17	6.0	9.0	1,4,5
Fill	3,000	N/A	6.0	9.0	4,5

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 \geq 56 days. Four 4 inch x 8 inch cylinders will be cast per subplot placed. The average of three concrete specimens per subplot 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 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 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.

Acceptance Testing of Precast/Prestressed Concrete
Suggested Revisions to the Standard Specification to Require Acceptance Testing to be done by Representatives of the MaineDOT

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 619

MULCH

619.07 Basis of Payment

In the list of Pay Items add “**619.12 Mulch**” with a Pay Unit of “**Unit**”.

Change the description of 619.1201 from “Mulch” to “**Mulch – Plan Quantity**”

In the list of Pay Items add “**619.13 Bark Mulch**” with a Pay Unit of “**CY**”.

Change the description of 619.1301 from “Bark Mulch” to “**Mulch – Plan Quantity**”

In the list of Pay Items add “**619.14 Erosion Control Mix**” with a Pay Unit of “**CY**”.

Change the description of 619.1401 from “Erosion Control Mix” to “**Mulch – Plan Quantity**”

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

626.033 Polyvinylchloride Conduit Installation Amend the following subsection by adding the following paragraph to its end:

“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.”

626.034 Concrete Foundations

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, add the following to the paragraph beginning with “Concrete for drilled shafts...” so that 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 A 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 subsection by adding the following paragraph and Pay Item:

“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.”

Pay Item	Pay Unit
626.251 Non-Metallic Under pavement Conduit (Schedule 80 or greater rating)	(Linear Foot)

SECTION 627 **PAVEMENT MARKINGS**

627.10 Basis of Payment Remove the existing “627.78 Temporary Pavement Marking Line, White or Yellow” and replace with: **627.78 TEMP 4" PAINT PVMT MARK LINE W
OR Y LF**

SECTION 652

MAINTENANCE OF TRAFFIC

652.3 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**”.

652.4 Flaggers In the first paragraph, revise the fifth sentence which says:

For nighttime conditions, Class 3 apparel, meeting ANSI 107-2004, shall be worn along with a hardhat with 360° retro-reflectivity.

So that it reads:

For nighttime conditions, 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.

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 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.

SECTION 677

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

SECTION 703 **AGGREGATES**

703.0201 Alkali Silica Reactive Aggregates

Remove this section in its entirety and replace with the following:

703.0201 Alkali Silica Reactive Aggregates. All coarse and fine aggregates proposed for use in concrete shall be tested for Alkali Silica Reactivity (ASR) potential under AASHTO T 303 (ASTM C 1260), Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction, prior to being accepted for use. Acceptance will be based on testing performed by an accredited independent lab submitted to the Department. Aggregate submittals will be required on a 5-year cycle, unless the source or character of the aggregate in question has changed within 5 years from the last test date.

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

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

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. “

703.19 Granular Borrow

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

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Material for Underwater Backfill	Material for Embankment Construction
6 inch	100	
No. 40	0-70	0-70
No. 200	0-7.0	0-20.0

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 712 **MISCELLANEOUS HIGHWAY MATERIAL**

Section 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 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 /5 is from Nitrate Nitrogen” to read “**15.5 % of which 1% is from Ammoniacal Nitrogen and 14.5 % is from Nitrate Nitrogen**”