

This Document is for informational purposes only.

“Standard and Supplemental Specifications for Road and Bridge Construction 2020 V2.0 Edition” can be found at the following link:

<https://www.mdt.mt.gov/other/webdata/external/const/specifications/2020/SPEC-BOOK/2020-SPEC-BOOK-V2.0.pdf>

Specification Revisions

February 11, 2021

The Department has revisions to 16 Standard Specifications

1. 105.17.2 Final Acceptance
2. 107.28 PUBLIC INVOLVEMENT
3. 108.07.1 Completion Date Contracts
4. 108.07.2 Calendar Day Contracts
5. 108.07.3 Working Day Contracts
6. 401.03.17 Tack Coat
7. 401.04.6 Tack Coat
8. 407.03.3 Application of Emulsified Materials
9. 409.03.11 Fog Seal
10. 552.03.11 Concrete Finish
11. 555.03.5 Reinforcing Steel Material Guaranty and Random Sampling
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14. 556.03.12 Marking and Shipping
15. 607.03.4 Constructing Barbed and Woven Wire Fence
16. 617.03.2 Equipment Lists and Drawings

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PROPOSED DRAFT

105.17.2 Final Acceptance

Contract time assessment will not cease until all warranty issues are corrected and the Final Acceptance Contractor's Certificate of Work Complete form has been received and approved. The Project Manager may suspend contract time for punch-list items provided the roadway is in a safe and convenient condition. The date the form is approved is the Final Acceptance. Maintain the insurance specified in Subsection 107.13 until the Final Acceptance.

~~Completion and approval of the Contractor's Certificate of Work Complete form is not a statement or commitment by the Department that the work meets all contract requirements and does not waive or alter any of the contract's terms.~~

REASON: To make Material audits more streamlined and the project close out process smoother.

COMMENTS:

Add "is approved" to the end of the last sentence. As written it could be interpreted to mean they don't have to maintain the insurance past submittal of the Final Acceptance by the contractor.

Can the revised 105-17-2 Final Acceptance form be made to the MCA for review prior to be implemented?

FINAL ACCEPTANCE

105.17.2 Final Acceptance

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~~Completion and approval of the Contractor's Certificate of Work Complete form is not a statement or commitment by the Department that the work meets all contract requirements and does not waive or alter any of the contract's terms.~~

NO CHANGES TO THE PROPOSED DRAFT

FINAL ACCEPTANCE

107.28 PUBLIC INVOLVEMENT

A. Public Relations. The Department may provide public relations or may hire a public involvement (PI) firm to develop and administer a communication plan. Coordinate activities with the PI firm or the Department. The name and contact information for the PI firm will be available from the Project Manager following award of the contract.

Attend all public meetings held by the PI firm or the Department. Public meetings may be held up to once per week. Provide a brief description of current operations, an anticipated schedule of work for the upcoming week, description of current detours, delays, closures, and possible effects on residents and businesses, such as temporary loss of access and construction traffic.

1. Coordinate with the PI firm or the Department to develop a written summary of the intended operations at least 10 calendar days prior to the start of construction or any disruption of traffic.
2. Upon approval of a traffic control plan and at least 10 calendar days prior to beginning construction and disrupting traffic, coordinate with the PI firm or the Department to provide appropriate information to the media. This information must specify at a minimum the impact of the construction on the public, duration, sequence of the work, and project overview.

B. Contractor Requirements – During Construction. For the purposes of this specification, the period “during construction” is defined as the time beginning at the point when normal traffic operations are first disrupted and ending when all work is complete. During this period, perform the following tasks:

1. If requested, install signs on the project denoting the portable radio station information and Contractor phone number for problems and complaints regarding the project. Maintain these signs until the resumption of normal traffic operations. Install signs at locations approved by the Project Manager. Signs will be paid for in accordance with the Traffic Control Rate Schedule if required.
2. Coordinate with the PI firm or the Department so they can contact and inform individual businesses and residents at least 3 calendar days prior to conducting operations at locations that may affect their access or convenience.
3. Provide contact information.
 - a. Provide a 24-hour contact number to the Project Manager for emergency use.
 - b. Provide a Contractor staffed local telephone number with live personnel available to answer the phone during working hours, for public comments, questions, or complaints. Ensure the telephone has been connected and in service before any work is commenced that has the potential for inconveniencing any residence or business establishment adjacent to the project. Make the phone number available to the public by furnishing it to the PI firm or Department for news/information releases and including it in the traffic advisory constant loop on the Department’s portable radio station, if available. Do not use answering

machines during working hours; answering machines are acceptable after working hours, with all messages answered by completion of the next workday. Maintain a written log of calls that identifies the caller; the nature of the comment, question, or complaint; and disposition. Make the log available to the Project Manager upon request.

- c. Act within 24 hours to resolve complaints about safety and convenience. Refer changes in project design, traffic control, or extra work to the Project Manager for approval before acting.
- 4. The PI firm or the Department will update the media. Coordinate with the PI firm or the Department so they can provide regular, at least once per month, project status reports and future impacts to the travelling public, landowners, and businesses. Make updates and traffic advisories available to them as well to facilitate positive news coverage. The goal is to garner news coverage of the project any time major changes or milestones occur.

Coordinate with the PI firm or the Department so they can provide project advisories in the form of radio spots, if requested.

Ensure advisories include the Contractor provided contact number for the public to call for additional information. Coordinate with the PI firm or the Department to update the advisories after every weekly progress meeting; or more often if conditions change substantially, such as significant unanticipated schedule changes and changes in detour routes as applicable.

Public Relations and coordination with the PI firm is not measured separately for payment.

REASON: Add Special to Standard Specs

COMMENTS:

NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

108.07.1 Completion Date Contracts

The actual completion date is the date the Project Manager approves the Final Acceptance Contractor's Certificate of Work Complete form in accordance with Subsection 105.17.2.

REASON: The name of the form was changed to Final Acceptance.

COMMENTS:

**NO CHANGES TO THE PROPOSED DRAFT
FINAL ACCEPTANCE**

108.07.2 Calendar Day Contracts

Contract time assessment will cease when the Project Manager approves the ~~Contractor's Certificate of Work Complete~~ Final Acceptance form under Subsection 105.17.2.

REASON: The name of the form was changed to Final Acceptance.

COMMENTS:

NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

108.07.3 Working Day Contracts

Contract time assessment will cease when the Project Manager approves the ~~Contractor's Certificate of Work Complete~~ Final Acceptance form in accordance with Subsection 105.17.2.

REASON: The name of the form was changed to Final Acceptance.

COMMENTS:

**NO CHANGES TO THE PROPOSED DRAFT
FINAL ACCEPTANCE**

401.03.17 Tack Coat

Apply tack coat in accordance with Section 402, 407 and the contract.

Apply tack coat on aggregate treated surfaces, existing surfacing to be overlaid and between lifts when pavement is constructed in multiple lifts.

REASON: Section 402 was updated in Spec book V1.1 and applies to this Subsection.

COMMENTS:

**NO CHANGES TO THE PROPOSED DRAFT
FINAL ACCEPTANCE**

401.04.6 Tack Coat

Tack coat is ~~incidental to the plant mix surfacing and is not~~ measured for payment in accordance with Subsection 407.04.

REASON: The spec conflicts with Subsection 407.04 and will allow for payment of emulsified asphalt when specified as a contract pay item.

COMMENTS:

NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

407.03.3 Application of Emulsified Materials

~~Apply the emulsified asphalt in accordance with Subsection 402.03.9 Dilute emulsified asphalt to a 50-50 ratio with water, unless other approved proportions are directed by the Project Manager. Apply diluted emulsified asphalt for tack coat as specified by the Project Manager at a minimum rate of 0.1 gallon per square yard (0.45 L/m²).~~

~~When a double shot of emulsion is called for in the contract, apply 2 applications at the minimum rate specified above. Ensure the first shot is cured prior to applying the second.~~

REASON: The information is already in the spec book under 402.03.9 with greater detail.

COMMENTS:

NO CHANGES TO THE PROPOSED DRAFT
FINAL ACCEPTANCE

409.03.11 Fog Seal

Apply the emulsified asphalt in accordance with Subsection 402.03.9

REASON: To make it easier to find in the spec book.

COMMENTS:

THE PROPOSED DRAFT WAS NOT IMPLEMENTED AT THIS TIME.

551.03.8 Testing and Acceptance of Concrete

**TABLE 551-4
ITEMS INCLUDED FOR PAY FACTOR ADJUSTMENT**

Class	Items
Deck	Include all items except metal bridge rail and bridge deck repair
Drilled Shaft	Include all items
Overlay-SF	
Pave	
Structure	Include concrete class bid items and Revise Barrier items
<u>Structure-Low Slump</u>	<u>Include concrete class bid items and Revise Barrier items</u>
General	Include concrete class bid items Include items in Subsection 608 Include items in Subsection 609 Include items measured by the volume Exclude all other items

The following formulas are used to calculate the OLPF and unit price adjustment ADJ. All pay factors (PF_S , PF_P , PF_{AC} , and PF_G) must be 1.00 or greater for the production lot to be eligible for positive ADJ (incentive). No OLPF can exceed 1.15.

$$OLPF = PF_S \times PF_{AC} \times PF_P \times PF_G$$

$$ADJ = (OLPF - 1) \times Price$$

Where

ADJ = Price adjustment per pay unit to be applied to the production lot quantity

Price = Contract unit price for the pay item with the following exceptions:

- Classes Structure, Structure-Low Slump, Deck and Overlay will be calculated using the greater of the contract bid price or \$500 per cubic yard.
- Class Drilled Shaft will be calculated using the greater of the contract bid price or \$300 per cubic yard.

If a pay factor is not applicable to a specific class of concrete, the pay factor (PF) will be 1.00. Use Table 551-9 to determine pay factors applicable to specific classes of concrete.

**TABLE 551-9
PAY FACTORS FOR CONCRETE**

PF Type	Deck	Overlay	Structure	<u>Structure Low Slump</u>	General	Drilled Shaft	Pave
PF _S	X	X	X	X	X	X	X
PF _{AC}	X	X	X	X	X		X
PF _P	X	X					
PF _G	X	X	X	X	X	X	X

REASON: Add Special to Standard Specs

COMMENTS:

Postpone implementing the spec for now and reevaluate it in a year. If/When this is added to the Specs, Materials would like to possibly make other changes in the specs concerning Class Structure- Low Slump.

The Special Provision 551 Base Price for Concrete was revised (12-17-20) to include Class Structure-Low Slump.

NOT IMPLEMENTED

NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

552.03.11 Concrete Finish

B. Bridge Decks. Finish deck slabs by the machine method, excluding small or irregularly shaped areas where a machine is impractical. Calculate form elevations at tenth points, including compensation for dead load deflections shown in the plans, and submit to the Project Manager prior to forming the deck.

1. Machine Method. Use a self-propelled transverse finishing machine to strike off and finish the surface of deck-slab concrete. Furnish the Project Manager information on the location and method of rail support, size of rail members, and a description of the machine.

Trial-run the finishing machine over the entire deck area to be finished before placing any concrete. ~~Make the trial run with the machine and rails set to the specified grade and section.~~ Attach a spacer to the bottom of the strike-off $\frac{1}{8}$ -inch (3 mm) in thickness less than the concrete cover shown in the contract. ~~Adjust the support rails to compensate for dead-load deflections in the bridge girders. Adjust transverse strike-off support rails to match any changes in the deck section. Make transverse rail adjustments to maintain the specified surface tolerances. Record trial run transverse rail adjustments for use during the deck finishing operations.~~ Make all adjustments necessary to maintain-produce the correct finished proper grade, section, concrete cover over slab reinforcement, and slab thickness. ~~before any concrete is placed.~~

REASON: Update the spec to reflect actual practice.

COMMENTS:

The language added to the first paragraph requires the contractor to submit the tenth point information prior to forming the deck. Does this need to happen in advance of them forming the deck so there's adequate time to review it or is the information simply for the file in case something goes wrong?

PROPOSED DRAFT

555.03.5 Reinforcing Steel Material Guaranty and Random Sampling

Furnish the following for each shipment of reinforcing steel delivered to the project;
~~duplicate copies of the following:~~

1. Shipping invoice showing the weight and price per pound (kg) of all the steel in the shipment;
- ~~2. Certified mill test reports showing physical and chemical analysis on each heat of reinforcing steel;~~
- ~~32.~~ A statement from the final fabricator identifying the size, grade, and type of steel supplied and certifying ~~that the mill tests furnished are representative of the reinforcing steel furnished~~ meets the contract requirements and ~~that it meets~~ Subsection 106.09 requirements;
~~and~~
- ~~43.~~ For epoxy-coated reinforcing bars, the coating applicator must furnish with each shipment a certificate of compliance confirming that the coated reinforcing bars were cleaned, coated, and tested in accordance with ASTM A775 and Subsection 106.09. ~~Additionally, the certification must include for each bar size the preheat temperatures, cure times, thickness checks, holidays detected, and bend test results.~~
- ~~4.~~ The name and location of the original source (Mill) of the steel and epoxy coater, if applicable, in accordance with Subsection 711.01.

A shipment is the quantity of reinforcing steel in each truckload delivered to the project. When delivery is by railroad car, each 20 tons (18.1 MT), or fraction thereof, is a shipment.

The Department reserves the right to sample and test rebar. Furnish ~~the~~ samples as requested for testing.

If samples are requested, do not place concrete until the steel test results are known. If a reinforcing steel sample fails, 2 additional samples representing the failed sample will be tested. If either of the check samples fails, the steel in the shipment represented by the failing sample may be rejected; or if the Project Manager determines that the steel is usable, a price reduction will be assessed as follows:

$$P = A \times B$$

Where:

A = Total invoice price of reinforcing steel in the lot¹

B = 10%, 20%, or 30%, dependent upon departure from specifications; the value to be used will be determined by the Project Manager

P = Price reduction for the lot

Notes:

1. A lot is defined as all the bars of one bar number and pattern of deformation contained in an individual shipment.

The amount of reduction calculated above will be deducted from monies due the Contractor on the final estimate.

Remove and replace all rejected steel at Contractor expense. Furnish invoice statements, mill reports, and fabrication certificates for replacement steel. Replacement steel is subject to the tests-requirements specified above.

REASON: When an item is prefabricated not requiring certified mill certs to be delivered to the projects and allowing the fabricators to maintain mill certs at their locations.

COMMENTS:

Under #3-2 it states “.....certifying the steel furnished meets the contract requirements and Subsection 106.09 requirements.” The Subsection 106.09 requirements are contract requirements so that part isn’t really necessary but it does seem like a good idea to call it out separately for clarity. I’d suggest rewording though to say something like “.....certifying the steel furnished meets the contract requirements for quality and domestic origin.”

FINAL ACCEPTANCE

555.03.5 Reinforcing Steel Material Guaranty and Random Sampling

Furnish the following for each shipment of reinforcing steel delivered to the project;
~~duplicate copies of the following:~~

1. Shipping invoice showing the weight and price per pound (kg) of all the steel in the shipment;
- ~~2. Certified mill test reports showing physical and chemical analysis on each heat of reinforcing steel;~~
- ~~32.~~ A statement from the final fabricator identifying the size, grade, and type of steel supplied and certifying that the mill tests furnished are representative of the reinforcing steel furnished meets the contract requirements for quality and Domestic Materials and that it meets Subsection 106.09 requirements; and
- ~~43.~~ For epoxy-coated reinforcing bars, the coating applicator must furnish with each shipment a certificate of compliance confirming that the coated reinforcing bars were cleaned, coated, and tested in accordance with ASTM A775 and Subsection 106.09. ~~Additionally, the certification must include for each bar size the preheat temperatures, cure times, thickness checks, holidays detected, and bend test results.~~
- ~~4.~~ The name and location of the original source (Mill) of the steel and epoxy coater, if applicable, in accordance with Subsection 711.01.

A shipment is the quantity of reinforcing steel in each truckload delivered to the project. When delivery is by railroad car, each 20 tons (18.1 MT), or fraction thereof, is a shipment.

The Department reserves the right to sample and test rebar. Furnish ~~the~~ samples as requested for testing.

If samples are requested, do not place concrete until the steel test results are known. If a reinforcing steel sample fails, 2 additional samples representing the failed sample will be tested. If either of the check samples fails, the steel in the shipment represented by the failing sample may be rejected; or if the Project Manager determines that the steel is usable, a price reduction will be assessed as follows:

$$P = A \times B$$

Where:

A = Total invoice price of reinforcing steel in the lot¹

B = 10%, 20%, or 30%, dependent upon departure from specifications; the value to be used will be determined by the Project Manager

P = Price reduction for the lot

Notes:

1. A lot is defined as all the bars of one bar number and pattern of deformation contained in an individual shipment.

The amount of reduction calculated above will be deducted from monies due the Contractor on the final estimate.

Remove and replace all rejected steel at Contractor expense. Furnish invoice statements, mill reports, and fabrication certificates for replacement steel. Replacement steel is subject to the tests-requirements specified above.

NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

556.03.2 Submittals

4. All dimensions, geometrical information, details, and other data required for fabrication. Include camber information, blocking diagrams and shop splices;
 5. Denote specification, grade, finish, required toughness testing and required surface preparation for all steel plates, shapes, pipes, tubes, bars and all miscellaneous hardware such as shear studs, bolts, stud bolts, threaded rods, nuts and washers;
 6. ~~For galvanized items, identify~~ Identify the applicable specification for galvanized items. ~~For painted items, specify~~ Specify paint type, manufacturer and recommended dried film thickness for each coat applied in the shop for painted items. Also identify surface preparation for each item to be painted. For paint requirements see Sections [612](#) and [710](#);
- B. Certificate of Compliance.** Furnish a manufacturer's Certificate of Compliance for all bolts, nuts, washers, and load indicator washers. Include documentation in accordance with Subsection 106.09 and certified mill test reports and test reports performed on the finished bolt confirming that all of the materials provided meet the requirements of the applicable AASHTO or ASTM specification. The documentation must include the name and address of the test laboratory, the date of testing, lot identification and the sample sizes of bolts and nuts used for each test performed for the certification.
- Submit the following items to the Project Manager before installation:

REASON: When an item is prefabricated not requiring certified mill certs to be delivered to the projects and allowing the fabricators to maintain mill certs at their locations.

COMMENTS:

NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

556.03.3 Mill and Shop Inspection

4. **Mill Test Reports.** Furnish the Project Manager signed documentation in accordance with Subsection 106.09. Certify all steel meets the project specifications. a complete certified mill test report showing chemical analysis and physical tests for each heat of steel for all members. Identify each piece of steel with a mark number on the mill test report.

REASON: When an item is prefabricated not requiring certified mill certs to be delivered to the projects and allowing the fabricators to maintain mill certs at their locations.

COMMENTS:

NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

556.03.12 Marking and Shipping

A shipping statement must accompany the material and be marked to clearly identify it with the delivered material and ~~mill test reports~~ the relevant domestic material and contract specification certifications.

Mark the weight on members weighing 3 tons (2.7 MT) or more. Load and unload structural members on trucks or cars without stressing or causing damage.

Pack bolts, loose nuts, or washers of each size separately. Ship pins, small parts, bolts, washers, and nuts in boxes, crates, kegs, or barrels, with the gross weight of each package not exceeding 300 pounds (136 kg). Plainly mark each shipping container, listing and describing the contents on the outside of each shipping container.

REASON: When an item is prefabricated not requiring certified mill certs to be delivered to the projects and allowing the fabricators to maintain mill certs at their locations.

COMMENTS:

NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

607.03.4 Constructing Barbed and Woven Wire Fence

Construct barbed, smooth and woven wire fences meeting the contract requirements and the following:

- A. Posts and Braces.** Excavate post holes, footing excavations, and anchors as shown in the [Detailed Drawings](#).

Wood posts may be driven. Repair or replace all damaged posts at Contractor expense.

Treat cut or trimmed areas on posts and braces with 3 applications of a copper naphthenate solution containing a minimum of 2% copper metal in accordance with AWPA M4.

Securely nail braces to terminal and brace posts.

Metal posts not specified to be set in concrete may be driven. Place and grout metal posts placed in rock as specified.

[Furnish a watertight cap to fit and remain secure over the outside top of circular metal posts.](#)

REASON: To prevent birds and other wildlife from getting trapped inside the pipe and eventually dying.

COMMENTS:

NO CHANGES TO THE PROPOSED DRAFT FINAL ACCEPTANCE

617.03.2 Equipment Lists and Drawings

5. ~~Certified mill test report's for pole material~~ Provide signed documentation in accordance with Subsection 106.09 and the manufacturer's certification that pole material and galvanizing meets specifications.

Submit all equipment guaranties and warranties.

~~Comply with the requirements of Subsection 106.09~~

REASON: When an item is prefabricated not requiring certified mill certs to be delivered to the projects and allowing the fabricators to maintain mill certs at their locations.

COMMENTS: