Final Specification Revisions

June 2025 Specifications

The Department proposed revisions to 12 Standard Specifications and 10 Detailed Drawings. These proposed revisions were out for comment during the month of April 2025. The following are the final and approved changes to the proposed specifications.

Red = added text; Green = ~~deleted text~~; Blue = changed text

Comment period ended April 30th.

100 English – Metric Units

Note: All metric equivalents will be removed from the Specifications.

101.01 GENERAL

The Standard Specifications are written in ~~dual units with~~ English units ~~first, followed by Metric units in parenthesis~~. ~~The contract will be in one of the two units~~. All submittals and documentation provided to the Department must be in English ~~or Metric~~ units ~~as shown in the contract~~.

101.02 ACRONYMS AND ABBREVIATIONS

The Department uses the following english abbreviations in the Schedule of Items for the respective units of measurement. Metric abbreviations are for information only.

TABLE 101-1 follows

109.01 MEASUREMENT OF QUANTITIES

Work completed under the contract will be measured using the United States standard measure ~~or the metric system when specified~~.

~~Where the standard measure is given in the English system, approximate metric equivalents are shown in parentheses. No guarantee is provided, explicit or implicit, that the units are exact conversions. Work will be accepted based on measures in the contract. Specified metric tolerances apply to metric contracts~~.

Final Draft: Work completed under the contract will be measured using the United States Customary Units ~~standard measure or the metric system when specified.~~

105.03 Conformity with Plans and Specifications

TABLE 105-3
MAXIMUM ALLOWABLE VARIANCE AND DIVERGENCE

Notes: 1. ~~The pay factor is the same whether the plant mix is measured in English or metric units.~~ Final pay factors are rounded to 2 decimals and used in calculating the value of the incentive/disincentive.

Reason: Removing all metric equivalents.

Final Draft: No Changes to the draft spec; Published as shown with the exception of 109.01.

105.02.1 Contractor Furnished Drawings.

2nd Paragraph:

Furnish the Department with Contractor prepared working drawings that detail required work not included in the contract plans. Prepare all working drawings using English ~~or Metric~~ units ~~as shown in the contract~~. Upon request, submit manufacture literature describing the materials and equipment to be incorporated into the work. This requirement to submit drawings and literature applies to all items not specifically requested elsewhere in the contract.

4th Paragraph:

The Department's approval of the fabricator's shop detail drawings is ~~verification that the fabricator and Contractor have correctly interpreted the intent of the contract documents, and the details reflect the material and connection requirements~~ authorization to begin fabrication. "Approval" does not relieve the Contractor or fabricator of the responsibility for accuracy of design, dimensions, completeness, or adherence to the requirements of the contract, nor does it permit deviations from the contract without the Department's ~~documented~~ written consent.

Reason: clarification.

Final Draft: No Changes to the draft spec; Published as shown

106.01.2 Samples, Tests, and Cited Specifications

B. Materials Accepted by Department Testing.

Added as last paragraph to Subsection B.

Department test results performed by Department qualified technicians are considered final unless the Contractor provides verifiable quality control data to dispute the Department's quality assurance results.

Reason: *Clarification.*

~~Department test results performed by Department qualified technicians are considered final unless the Contractor provides verifiable quality control data to dispute the Department's quality assurance results~~.

Final Draft: Proposed spec will be removed

107.10.2 Protection of Traffic and Highway Structures

Cover exposed bridge elements including expansion joints, culverts, curbs, gutters, guard fences, road signs, manhole lids, water valve box covers, and other roadside structures to protect them from splash or spray when applying material.

Clean these same items of all bituminous material, cover aggregate, dirt, or other deleterious material caused by the Contractor's operations.

Repair all Contractor caused damage to the highway or structures at Contractor expense.

107.10.~~2~~ 3 American Legion Fatality Markers

410.03.9 ~~Protection of Traffic and Highway Structures~~

~~**A. Traffic Control.** Furnish traffic control meeting the contract requirements and Section 618.~~

~~**B. Structure Protection.** Cover exposed bridge elements including expansion joints, culverts, curbs, gutters, guard fences, road signs, manhole lids, water valve box covers, and other roadside structures to protect them from splash or spray when applying bituminous material.~~

~~Clean these same items of all bituminous material, cover aggregate, dirt, or other material caused by the Contractor's operations.~~

~~Repair all Contractor caused damage to the highway or structures at Contractor expense.~~

410.04.3 ~~Traffic Control~~ Reserved

~~Traffic control is measured in accordance with Subsection 618.04.~~

410.05 BASIS OF PAYMENT

Payment for the completed and accepted quantities is made under the following:

Pay Item	Pay Unit
Bituminous Material	Gallon or Ton
Cover Aggregate	Cubic Yard or Ton
~~Traffic Control~~	~~See Subsection 618.05~~

Surface sweeping or cleaning, watering of aggregate stockpiles and the roadway surface, repairing damaged surfaces or surfaces with excess bituminous material, and protection and repair of structures specified in accordance with Subsection ~~410.03.9~~ 107.10.2 are ~~incidental to and included in payment for other items of the contract~~ not measured separately for payment~~.~~

407.03.5 Traffic Control and Protection of Highway Structures

~~Furnish traffic control meeting the approved traffic control plan and Section 618~~.

Furnish highway structure protection in accordance with Subsection ~~410.03.9~~ 107.10.2.

409.03.4 Protection of Traffic and Highway Structures

~~Provide traffic control meeting Section 618 and the approved traffic control plan~~. Provide highway structure protection in accordance with Subsection ~~410.03.9(B)~~ 107.10.2~~.~~ Provide dust control during sweeping and brooming.

~~411.03.6 Traffic Control~~

~~Furnish traffic control in accordance with Section 618.~~

Reason: reference all "protection of structures" in Subsection 107.10.2, rather than in multiple locations.

Final Draft:

107.10.2 Protection of Traffic and Highway Structures

Protect exposed bridge elements (including expansion joints), culverts, curbs, gutters, guard fences, road signs, manhole lids, water valve box covers, and other roadside structures ~~to protect them~~ from splash or spray when applying material.

Clean these same items of all bituminous material, cover aggregate, dirt, or other deleterious material caused by the Contractor's operations.

Repair all Contractor caused damage to the highway or structures at Contractor expense.

Section 403

SECTION 403
CRACK SEALING

403.01 DESCRIPTION

This work consists of routing, cleaning, and sealing the transverse and specified longitudinal cracks ~~in accordance with Subsection 403.03.1~~ in the roadway surface with the ~~specified~~ required sealant.

403.02 MATERIALS

A. Crack Sealant. Use a sealant that is listed on the QPL and in accordance with Subsection 707.01 for cracks smaller than 1.5 inches wide.

B. Crack Sealing – Mastic. Furnish mastic in accordance with ASTM D8260 Type 3 for cracks wider than 1.5 inches wide.

C. Backer Rod. Furnish backer rod that is listed on the QPL. Furnish backer rod in accordance with ASTM D5249, Type 1. The backer rod used must be compatible with the crack sealant placement temperature and sized for cracks in accordance with Subsection 403.03.4.

D. Blotter Material. Use toilet paper or an approved liquid blotter material for crack sealant. The liquid blotter must be a commercially manufactured surfactant. Provide blotter that is not detrimental to the crack sealant or the surfacing material.

Use ⅜ inch minus aggregate for Crack Sealing – Mastic.

403.03 CONSTRUCTION REQUIREMENTS

403.03.1 General

Install crack sealant and crack sealant mastic in accordance with the Detailed Drawings and the Contract. Install in accordance with the manufacturer's recommendations.

Work half of the roadway at a time.

Limit routing and crack sealing work to 1 maximum 2.0-mile work area.

Submit the type of blotter material, ~~and~~ application rates, and installation instructions to be used for crack sealant. The application rate must be sufficient to protect the crack sealant material.

403.03.2 Routing

~~Rout all existing cracks that are between ⅛ and 1-inch (3 and 25 mm) wide.~~

~~Rout all longitudinal cracks to produce straight ¾-inch (19 mm) vertical walls and a ¾-inch (19 mm) wide flat bottom reservoir.~~

~~Rout the transverse cracks to produce straight ½-inch (13 mm) vertical walls and a 1½-inch (38 mm) wide flat bottom reservoir.~~

Rout existing cracks in accordance with the Detailed Drawings.

Rout when the roadway is dry.

Remove and dispose of the routed material from the roadway before opening the roadway to traffic.

403.03.3 Cleaning

Ensure the joint or crack has been properly cleaned using compressed air. Vegetation that cannot be removed using compressed air must be removed using other means.

The reservoir and crack must be dry and free of dust, dirt, and loose materials immediately before placing the backer rod, if applicable, and applying the crack sealant, or crack sealant mastic.

403.03.4 Crack Sealing

Install backer rod ~~in cracks 1½-inch (38 mm) wide and larger~~ if applicable. Place sealant material as soon as practicable after the routed cracks are deemed clean and dry. Place sealant material within 24 hours of routing.

Follow the sealant manufacturer's handling, mixing and application temperature requirements. Meet the following requirements:

1. Ensure no moisture is present in cracks or reservoirs to prevent bubbling and non-adhesion of sealant during installation.
2. Apply sealant filling the reservoir flush to the top using a pressure type applicator.
3. Do not allow sealant to collect or pool at the low end of crack or reservoir elevation.
4. Open the completed work to traffic once the sealant does not track; and
5. Repair or replace all seal work damaged by traffic at Contractor expense.

Seal previously repaired cracks to restore water resistance. Spread and smooth the sealant as required to seal the reservoir, but do not exceed 2 inches of spread sealant on the roadway.

Apply blotter material to all ~~sealed cracks~~ crack sealing.

403.03.5 Crack Filling Mastic

Handle and apply the crack sealing mastic in accordance with the manufacturer's recommendations and the following:

1. Do not rout cracks to be filled with mastic
2. Do not apply mastic on wet or frosty surfaces.
3. Apply mastic material immediately after cleaning the crack or joint.
4. Prevent mastic from flowing out of the end of the crack.
5. Provide a manufactures approved melter to place mastic. Equipment must be capable of heating the product in a melting device. The melter must be equipped with an effective horizontal agitator system that is able to maintain a uniformly mixed product, have a thermostatically controlled hot oil jacketed heating system, and have an effective means of dispensing the product.
6. Pour into the prepared areas at the proper application temperature. Ensure the hot-applied material is levelled and the edges are tapered down to the roadway surface using an appropriately sized shoe for the crack.

403.03.6 ~~Temperature~~ Weather Limitations

Do not rout when the mat temperature is below 35 °F.

Apply the sealant when the roadway surface temperature is between ~~35~~ 40 and 120 °F.

Cease crack sealing operations if a rain event occurs. Do not resume sealing operations until cracks are clean and dry.

403.04 METHOD OF MEASUREMENT

Crack sealing is measured by the pound of material placed.

Blotter material is not measured separately.

403.05 BASIS OF PAYMENT

Payment for the completed and accepted quantities is made under the following:

Pay Item	Pay Unit
Crack Sealing	Pound
Crack Sealing – Mastic	Pound

Blotter material is included in the contract unit price and is not paid for separately.

Reason: add mastic to Section 403 and update requirements.

Final Draft: Changes to the proposed draft are shown below

403.01 DESCRIPTION

This work consists of routing, cleaning, and sealing the transverse and specified longitudinal cracks ~~in accordance with Subsection 403.03.1~~ in the roadway surface with the ~~specified~~ required sealant.

403.02 MATERIALS

A. Crack Sealant. Use a sealant that is listed on the QPL and in accordance with Subsection 707.01 for cracks ~~smaller~~ less than ~~1.5~~ 1-½ inches wide.

B. ~~Crack Sealing~~ Mastic. Furnish mastic in accordance with ASTM D8260 Type 3 for cracks ~~wider than 1.5 inches wide~~. 1-½ inches or wider.

~~**C. Backer Rod.** Furnish backer rod that is listed on the QPL. Furnish backer rod in accordance with ASTM D5249, Type 1. The backer rod used must be compatible with the crack sealant placement temperature and sized for cracks in accordance with Subsection 403.03.4.~~

D. Blotter Material. Use toilet paper or an approved liquid blotter material for crack sealant. The liquid blotter must be a commercially manufactured surfactant. Provide blotter that is not detrimental to the crack sealant or the surfacing material.

~~Use ⅜ inch minus aggregate for Crack Sealing – Mastic.~~

403.03 CONSTRUCTION REQUIREMENTS

403.03.1 General

Place crack sealant and ~~crack sealant~~ mastic in accordance with the Detailed Drawings and the Contract. Place in accordance with the manufacturer's recommendations.

Work half ~~of~~ the roadway at a time.

Limit routing and crack sealing work to ~~1~~ one maximum 2.0-mile work area.

Submit the type of blotter material, ~~and~~ application rates, and installation instructions to be used for crack sealant or mastic. The application rate must be sufficient to protect the crack sealant or mastic material.

403.03.2 Routing

~~Rout all existing cracks that are between ⅛ and 1 inch (3 and 25 mm) wide.~~

~~Rout all longitudinal cracks to produce straight ¾ inch (19 mm) vertical walls and a ¾ inch (19 mm) wide flat bottom reservoir.~~

~~Rout the transverse cracks to produce straight ½ inch (13 mm) vertical walls and a 1½ inch (38 mm) wide flat bottom reservoir.~~

Rout existing cracks in accordance with the Detailed Drawings.

Rout when the roadway is dry.

Remove and dispose of the routed material from the roadway before opening the roadway to traffic.

403.03.3 Cleaning

Ensure the joint or crack has been properly cleaned using compressed air. Vegetation that cannot be removed using compressed air must be removed using other means.

The reservoir and crack must be dry and free of dust, dirt, and loose materials immediately before ~~placing the backer rod, if applicable, and~~ applying the crack sealant, or ~~crack sealant~~ mastic.

403.03.4 Crack Sealing

~~Install backer rod in cracks 1½-inch (38 mm) wide and larger if applicable.~~ Place sealant material as soon as practicable after the routed cracks are deemed clean and dry. Place sealant material within 24 hours of routing.

Follow the sealant manufacturer's handling, mixing and application temperature requirements. Meet the following requirements:

1. Ensure no moisture is present in cracks or reservoirs to prevent bubbling and non-adhesion of sealant during installation.
2. Apply sealant filling the reservoir flush to the top using a pressure type applicator.
3. Do not allow sealant to collect or pool at the low end of crack or reservoir elevation.
4. Open the completed work to traffic once the sealant does not track; and
5. Repair or replace all seal work damaged by traffic at Contractor expense.

Seal previously repaired cracks to restore water resistance. Spread and smooth the sealant as required to seal the reservoir, but do not exceed 2 inches of spread sealant on the roadway.

Apply blotter material to all ~~sealed cracks~~ crack ~~sealing~~ sealant.

403.03.5 Crack Filling Mastic

Handle and apply the crack sealing mastic in accordance with the manufacturer's recommendations and the following:

1. Do not rout cracks to be filled with mastic
2. Do not apply mastic on wet or frosty surfaces.
3. Apply mastic material immediately after cleaning the crack or joint.
4. Prevent mastic from flowing out of the end of the crack.
5. Provide a manufactures approved melter to place mastic. Equipment must be capable of heating the product in a melting device. The melter must be equipped with an effective horizontal agitator system that is able to maintain a uniformly mixed product, have a thermostatically controlled hot oil jacketed heating system, and have an effective means of dispensing the product.
6. Pour into the prepared areas at the proper application temperature. Ensure the hot-applied material is levelled and the edges are tapered down to the roadway surface using an appropriately sized shoe for the crack.

403.03.6 ~~Temperature~~ Weather Limitations

Do not rout when the mat temperature is below 35 °F.

Apply the sealant when the roadway surface temperature is between ~~35~~ 40 and 120 °F.

Cease crack sealing or crack filling operations if a rain event occurs. Do not resume ~~sealing~~ operations until cracks are clean and dry.

403.04 METHOD OF MEASUREMENT

Crack ~~sealing~~ sealant and mastic ~~is~~ are measured by the pound of material placed.

~~Blotter material is not measured separately.~~

403.05 BASIS OF PAYMENT

Payment for the completed and accepted quantities is made under the following:

Pay Item	Pay Unit
Crack Sealing	Pound
Crack ~~Sealing~~ Filling– Mastic	Pound

Blotter material is included in the contract unit price and is not paid for separately

554.03.9 Finish on Exposed Surfaces

Add as last paragraph:

Fill lift holes with an approved non-shrink grout. Neoprene or other manufacturer furnished plugs are prohibited.

Reason: the use of neoprene was not sealing the lift holes. Non-shrink grout will be required.

Final Draft: Proposed spec will be **removed**.

558 Drilled Shafts

558.03.7 Permanent Casing

3. If field welding, submit the weld procedures and certifications in accordance with Section 624.

558.03.11 Installation of Cross-hole Sonic Logging (CSL) Tubes

Add as last paragraph:

Tubes that do not extend to the bottom of the shaft will be considered deficient. Coring to examine the bottom condition of the shaft may be required and must be performed at the contractor's expense.

558.03.15 Shaft Testing and Acceptance

A. Cross-Hole Sonic Logging.

The Project Manager will accept or reject the shaft based on the CSL testing or a subsequent ~~drilled core~~ investigation. For any drilled shaft determined by CSL testing to be of uncertain quality, investigate by ~~drill~~ drilling core samples or other physical investigation as directed by the Project Manager. If core drilling is used, furnish a drill with a minimum diameter of 2½ inches. Drill at locations and to depths specified by the Project Manager. Use a core drilling method that provides complete core recovery and minimizes abrasion and erosion of the core. Grout all core holes when directed by the Project Manager.

B. Corrective Action. If the CSL or subsequent ~~coring~~ investigation identifies any defect in the shaft that compromises the capacity of the shaft, repair the shaft by a method approved by the Project Manager. Submit a repair plan ~~no later than 14 calendar days after notification~~ in accordance with the Table of Contractor's Submittals.

Reason: update and clean up.

Final Draft: Published as shown with the following exception:

A. Cross-Hole Sonic Logging.

The Project Manager will accept or reject the shaft based on the CSL testing or a subsequent ~~drilled core~~ investigation. For any drilled shaft determined by CSL testing to be of uncertain quality, investigate by ~~drill~~ drilling core samples or other physical investigation as directed by the Project Manager. When core drilling is directed, drill a minimum 2½ inch diameter core. Drill at locations and to depths specified by the Project Manager. Use a core drilling method that provides complete core recovery and minimizes abrasion and erosion of the core. Grout all core holes when directed by the Project Manager.

B. Corrective Action. If the CSL or subsequent ~~coring~~ investigation identifies any defect in the shaft that compromises the capacity of the shaft, repair the shaft by a

method approved by the Project Manager. Submit a repair plan ~~no later than 14 calendar days after notification~~ in accordance with the Table of Contractor Submittals.

604.04.1 Manhole and Inlet Structure Bases

Manhole and Inlet Structure bases are measured by the each for the first 5 vertical feet of the structure. Manhole and Inlet Structures less than 5 feet from ~~the top of the floor slab~~ structure invert to the top of the ~~roof slab or additional barrel is~~ manhole lid or inlet grate is measured as one manhole or inlet base. Measurements are made at the center of the manhole.

Structures exceeding 5 feet will include an additional barrel.

604.04.2 Additional Barrel

Additional Barrels are measured by the foot as the vertical distance from the ~~top of floor slab~~ structure invert to the top of ~~the roof slab~~ the manhole lid or grate, or additional barrel minus the 5-foot base.

Reason: update the measurement for manhole and structure bases.

Final Draft: Proposed spec will be **removed**.

618 Updates

618.03.2 Traffic Control Plan

B. Traffic Control Plan Updates. Submit an updated traffic control plan that represents proposed or current activities. ~~If the traffic control plan previously provided is current and changes to traffic control operations are not anticipated, provide written notification of this information~~. Failure to submit an updated traffic control plan on time is cause for the Project Manager to suspend work on the project. ~~Submit updates to the traffic control plan at the following times:~~

~~1. On the 1st of each month for projects located in the Billings, Glendive, or Great Falls districts. On the 15th of each month for projects located in the Butte or Missoula districts.~~

2. ~~When changes to the original construction operation plan requires a change to the traffic control plan. Coordinate the revision of the traffic control plan with the submission of the project schedule updates per Subsections 108.03.2~~. If the traffic control is not proceeding consistent with the Contractor's most recent traffic control plan, the Project Manager ~~may~~ will require that the Contractor submit an updated traffic control plan that accurately reflects the Contractor's construction operations. Submit updates no later than the end of the following day. If a required updated traffic control plan is not received or operations are not being conducted as per the current traffic control plan, the Project Manager may issue a project shut down order. Submit an updated traffic control plan prior to continuing work. Shut down orders due to the failure to meet traffic control requirements will not be considered as justification for additional compensation or contract time.

618.03.8 Traffic Control at drop-off areas

Where:

W = Recoverable width, 4H:1V or flatter, in feet from the drop-off to the ~~far~~ edge of the ~~adjacent traffic lane(s)~~ traveled way closest to the hazard ~~with the same direction of traffic~~

TABLE 618-4

TRAFFIC CONTROL DEVICE BASED ON SPACING FACTOR

Spacing Factor	Device Type
Less than 20 feet	Positive barrier, if ~~48~~ 12 hours lapses before filling

Space devices at the spacing factor. If W is less than 14 feet, do not exceed spacing in feet that is double the posted speed in miles per hour.

Reason: Spec revision to standardize the clear recovery and protection needs and increase safety in drop off areas.

618.03.10 Speed Feedback Signs

A. Materials. Furnish a Speed Feedback Sign (SFS) with a static sign size measuring 36" X 48".

B. Construction Requirements.

1) Trailer. The trailer must not impede the flow of motor vehicles, bicyclists, or pedestrians.

2) Sign. Meet the following requirements:

a) Display should be activated only when an approaching vehicle is detected traveling 5 MPH or more over the posted speed limit.

b) Legend must be set to a minimum height of 26 inches and a visibility of at least ½ mile.

c) Must include the legend "YOUR SPEED XX MPH" or approved legend. The color of the changeable message must be a yellow legend on a black background.

d) YOUR SPEED" display must be visible above standard height barrier rail.

e) The display must be programmed to display "SLOW DOWN" when the vehicle speed exceeds 10 MPH over the posted speed limit. The speed of the vehicle will not be displayed when the speed exceeds 15 MPH over the posted speed.

f) Use photocells to detect ambient light on the speed display. The system must automatically adjust the brightness of the LEDs, accordingly, dim the display brightness in darkness and increase to full brightness in daylight.

3) Location. Install the SFS 1000' to 1500' upstream of workers adjacent to live traffic. When in use, a W3-5 sign must be installed 500 feet before the SFS.

If an SFS is operated at one location for longer than 2 weeks, periodic police enforcement must be requested by the Project Manager.

618.04.7 Speed Feedback Signs

Speed Feedback Signs are measured by the units of traffic control devices used and accepted. The relative value is shown in the Traffic Control Rate Schedule. Include the cost of SFS for Traffic Control- LS or Traffic Control – Day in the unit bid cost for those items.

Reason: clean up from Traffic Control meeting.

Final Draft: Published as shown with the following exception:

618.03.2 Traffic Control Plan

B. Traffic Control Plan Updates. Submit an updated traffic control plan that accurately reflects current or proposed construction activities. ~~If the traffic control plan previously provided is current and changes to traffic control operations are not anticipated, provide written notification of this information. Failure to submit an updated traffic control plan on time is cause for the Project Manager to suspend work on the project. Submit updates to the traffic control plan at the following times:~~

~~1. On the 1st of each month for projects located in the Billings, Glendive, or Great Falls districts. On the 15th of each month for projects located in the Butte or Missoula districts.~~

~~2.~~ ~~When changes to the original construction operation plan requires a change to the traffic control plan. Coordinate the revision of the traffic control plan with the submission of the project schedule updates per Subsections 108.03.2~~. If ~~the~~ traffic control is not proceeding ~~consistent~~ consistently with the Contractor's most recent traffic control plan, the Project Manager ~~may~~ will require that the Contractor submit an updated traffic control plan that accurately reflects the Contractor's construction operations. Submit updates no later than the end of the following day. If a required updated traffic control plan is not received or operations are not being conducted as per the current traffic control plan, the Project Manager may issue a project shut down order. Submit an updated traffic control plan prior to continuing work. Shut down orders due to the failure to meet traffic control requirements will not be considered as justification for additional compensation or contract time.

618.03.8 Traffic Control at drop-off areas

Where:

W = Recoverable width, 4H:1V or flatter, in feet from the drop-off to the ~~far~~ edge of the ~~adjacent traffic lane(s)~~ traveled way closest to the hazard ~~with the same direction of traffic~~

TABLE 618-4

TRAFFIC CONTROL DEVICE BASED ON SPACING FACTOR

Spacing Factor	Device Type
Less than 20 feet	Positive barrier, if ~~48~~ 12 hours lapses before filling

Space devices at the spacing factor. If W is less than 14 feet, do not exceed spacing in feet that is double the posted speed in miles per hour.

618.03.10 Speed Feedback Signs

A. Materials. Furnish a Speed Feedback Sign (SFS) with a static sign size measuring 36” X 48”.

B. Construction Requirements.

1) Trailer. The trailer must not impede the flow of motor vehicles, bicyclists, or pedestrians.

2) Sign. Meet the following requirements:

a) Display should be activated only when an approaching vehicle is detected traveling 5 MPH or more over the posted speed limit.

b) Legend must be set to a minimum height of 18 inches with a visibility of at least ½ mile.

c) Must include the legend “YOUR SPEED XX MPH” or approved legend. The color of the changeable message must be a yellow legend on a black background.

d) YOUR SPEED” display must be visible above standard height barrier rail.

e) The display must be programmed to display “SLOW DOWN” when the vehicle speed exceeds 10 MPH over the posted speed limit. The speed of the vehicle will not be displayed when the speed exceeds 15 MPH over the posted speed.

f) Display must not flash, strobe, change color, or use other animated elements integrated into the changeable legend display. When no vehicles are approaching, the changeable display must not display a legend.

g) Use photocells to detect ambient light on the speed display. The system must automatically adjust the brightness of the LEDs, accordingly, dim the display brightness in darkness and increase to full brightness in daylight.

3) Location. Install the SFS 1000’ to 1500’ upstream of workers adjacent to live traffic. When in use, a W3-5 sign must be installed 500 feet before the SFS.

~~If an SFS is operated at one location for longer than 2 weeks, periodic police enforcement will be requested by the Project Manager.~~

701.02 Aggregate for Surfacing

701.02.1 General Requirements

A. Source Approval. Passing wear test results are mandatory for Department approval of sources.

No changes to the remainder of the Spec.

B. Department Review. The Department has 30 calendar days from receipt of the test sample to furnish the test results.

No changes to the remainder of the Spec.

701.02 AGGREGATE FOR BITUMINOUS MIXTURES

701.03.1 General Requirements

A. Source Approval. Passing wear test results are mandatory for Department approval of bituminized material aggregate sources.

No changes to the remainder of the Spec.

B. Department Review. The Department has 30 calendar days from receipt of the test sample to furnish the test results.

Reason: Create A and B for clarity that the Source approval pertains to all paragraphs. Independent lab tests do not pertain to QA sampling.

Reason: Cleanup.

Final Draft: No changes to the proposed spec. Published as shown.

717.03 Rapid Setting Patch Material

717.03 RAPID SETTING PATCH MATERIAL

Furnish products that are listed on the QPL. Products must be evaluated by AASHTO Product Evaluation and Audit Solutions. Meet the requirements of Table 717-2 for the type of patching material and follow the manufacturer's recommendations for the placement scenario (horizontal, vertical, or overhead placement).

TABLE 717-2

PROPERTIES OF RAPID SETTING CONCRETE PATCH MATERIAL

		Patch Material Type		
Test Method	**Procedure**	**Cementitious**	**Polymer**	**Polymer Modified**
AASHTO T161	Freeze thaw Procedure A	>90@300 cycles		
ASTM C882[1]	Bond strength slant shear (min.)		1 day: 1000 psi 7 day: 1500 psi	
ASTM C1583	Bond strength direct tension (min.)	225 psi	1 day: 110 psi 7 day: 200 psi 28 day: 275 psi	
AASHTO T358	Surface Resistivity (min.)	25 kΩ-cm		25kΩ-cm
ASTM C579	Compressive strength	Refer to ASTM C928 (R1, R2, or R3)	7 day: >5000 psi	Refer to ASTM C928 (R1, R2, or R3)
ASTM C884	Thermal compatibility		Pass	Pass

Note 1. As modified by ASTM C928

Reason: Add requirements for Rapid setting patch material.

Final Draft: Changes to the proposed spec are:

Furnish products that are listed on the QPL. ~~Products must be evaluated by AASHTO Product Evaluation and Audit Solutions.~~ Meet the requirements of Table 717-2 for the type of patching material and follow the manufacturer's recommendations for the placement scenario (horizontal, vertical, or overhead placement).

Detailed Drawings

There are 10 Drawings proposed for revision.

To view these proposed revisions, please open the following link:

Detailed Drawings Proposed Revisions

ERRATA

100 Acronyms & ECCB

There are 5 instances of the Acronym ECCB in our 100s Sections. ECCB will be replaced as ECCS throughout. Also, Engineering Construction Contracting Bureau will be replaced with the acronym ECCS.

~~ECCB.....Engineering Construction Contracting Bureau~~
ECCS.....Engineering Construction Contracting Section

102.01 JOINT-VENTURE BIDS

Execute a "Declaration of Joint Venture and Power of Attorney" form, available from the Department's ~~Engineering Construction Contracting Bureau~~ ECCS, to submit bid packages for highway

102.11 Withdrawal of Proposals

Submit withdrawal requests to ~~ECCB~~ ECCS before the time set for opening bid proposals. A bidder may withdraw any Proposal using EBS, in person, through an authorized agent, or by submitting the bid withdrawal from to ~~ECCB~~ ECCS via email (mdteccs@mt.gov) before any bid Proposal on that project is opened.

The request must be received by ~~ECCB~~ ECCS no later than 4:30 p.m. 2 business days after the day of the bid opening (not counting the day of the opening).

103.07 EXECUTION AND APPROVAL OF CONTRACT

A. General. Return to the Engineering Construction Contracting ~~Bureau~~ ECCS in Helena no later than 5:00 p.m. on the 20th calendar day after award, not counting the date of receipt of the contract documents:

103.10 SUBCONTRACTOR REPORT

No later than 6 calendar days after the date of bid-opening (the date of bid opening to count as the first full day), the apparent low bidder must submit to ~~ECCB~~ ECCS.

103.11 PROPOSED AGGREGATE SOURCE(S)

No later than 7 calendar days after the date of bid opening (the date of bid opening to count as the first full day), the apparent low bidder must submit to ~~ECCB~~ ECCS, during its regular work hours,

623.02 MATERIALS

~~Use~~ Furnish metal mailboxes listed on the QPL. ~~For Mailbox, Mailbox – Large, and Mailbox Extra Large.~~ The mailbox carrier service door must be embossed with the following two statements: "U.S. MAIL" in a minimum of ½-inch high letters and "Approved By The Postmaster General" in a minimum of 3⁄16-inch high letters.

709.11 ~~TYPE II ALUMINIZED CORRUGATED STEEL PIPE~~ Reserved

709.12 TYPE II ALUMINIZED CORRUGATED STEEL PIPE

Specifications Revision Process

Submit proposed changes in writing to the Specifications Engineer. Include the following:

1. The title and Section or Subsection to be revised.
2. A description of the change needed. It is recommended that proposed language be includedbut is not required.
3. List any specifications, Detailed Drawings or manual sections that may be affected due to theproposed revision.
4. A brief explanation to support the need and reason for the change. The Specifications Engineer may request additional supporting data and analysis after receipt of the proposed specification revision.
5. A brief statement explaining if the revision requires an implementation plan and if so, statewho may be impacted by the change. Will the change require advance notice prior to implementation to ensure lead time to allow coordination and compliance with the change?
6. A list of those consulted and involved with the recommended change.

Submit the proposed change in one of the following ways:

1. MDT employees may e-mail to MDT Construction Specifications
2. External submissions emailed to mdtspecifications@mt.gov

The complete revision process is available here:
https://www.mdt.mt.gov/other/webdata/external/const/proposed_spec_changes/SPEC_REVISION_PROCESS.PDF