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The following Subsections have been revised since September 11, 2014. Current revisions are noted by an * before the date on this index.

**SUPPLEMENTAL SPECIFICATIONS TO MONTANA
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
2014 EDITION**

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SUPPLEMENTAL SPECIFICATIONS

The following are supplementary or amendatory to the 2014 Edition of the Standard Specifications for Road and Bridge Construction insofar as they apply to this contract.

101.02-ACRONYMS AND ABBREVIATIONS Page 2 2-26-15

Rescind and replace the following Acronym:

D/ADust to actual asphalt ratio

Add the following Acronym:

DPDust to effective asphalt ratio

101.03 DEFINITIONS (CALENDAR DAY) Page 6 4-16-15

Rescind and replace the following definition:

CALENDAR DAY

Every day shown on the calendar, beginning and ending at midnight.

For calendar day contracts, all days are assessed except no work days and days on which the Contractor is specifically required by the contract to suspend construction operations. Calendar days will be charged during no work days for each day construction activities occur that have any impact on the traveling public, exclusive of traffic flowing unimpeded on approved detours or emergency and maintenance repairs to the project, when the time requirements under Subsection 104.05.2 are met.

101.03 DEFINITIONS (MAJOR ITEM) Page 8 10-9-14

Rescind and replace the following definition:

MAJOR ITEM

Individual bid items having a bid value equal to or exceeding 5% of the total Contractor's bid.

101.03 DEFINITIONS (NO WORK DAYS) Page 9 4-16-15

Within the definition, rescind the second sentence (that begins, "Travelway maintenance...") and replace with the following:

Travelway maintenance in accordance with Subsection 104.05.2, stormwater BMP maintenance, and providing protection for the public are exempt and this work may be accomplished on no work days without assessment of contract time.

102.03 CONTRACTOR REGISTRATION Page 15 12-11-14

Rescind the first paragraph (that begins, "Montana law...") and replace with the following:

Montana law requires all contractors, except those exempted by MCA 39-9-211, to register with the Montana Department of Labor & Industry.

102.07(B) BIDDING REQUIREMENTS Page 17 10-9-14

Within the third paragraph, rescind the third sentence (that begins, "Return a computer...") and replace with the following:

Return an electronic storage device containing the complete project files for all projects bid with the bid package.

103.09.2 BID DOCUMENTATION INVENTORY AFFIDAVIT AND ESCROW AGREEMENT Page 24 10-9-14

Within the third (last) paragraph, rescind the web link (that begins, "http://www...") and replace with the following:

<http://www.mdt.mt.gov/publications/forms.shtml#con>

105.03.3(C) RIDE SPECIFICATION (QUALITY INCENTIVE ALLOWANCE) Page 37 12-11-14

Within Subsection 105.03.3(C), rescind the second paragraph (that begins, "The incentive or disincentive...") as well as the formulas and variables that follow and replace with the following:

Incentive or disincentive for surface smoothness will be calculated based on the ride category and the entire project length in each travel lane or measured section using the following equation. The calculated value will be applied as a line item adjustment to the plant mix item on the estimate. Calculate the pay adjustment as follows:

Pay adjustment = (Pay Factor -1) x L x Unit Cost
 Pay Factor = Calculate using appropriate project category formulas
 L = Measured lane length
 Unit Cost = Use appropriate value from Table 105-4

Rescind Table 105-4, Unit Cost, and replace with the following:

TABLE 105-4
 UNIT COST

Category	Description	Unit Cost/ft.
I or III	Typical section with 0.3 ft. or greater plant mix surfacing	\$6.425
I, II, or III	Typical section with 0.2 to 0.29 ft. plant mix surfacing	\$4.283
I, II, or III	Typical section with 0.19 ft. or less plant mix surfacing	\$3.213

Note: Isolation lifts are not considered part of the surfacing section when determining appropriate overlay depth.

105.17.1(7) FINAL WALK THROUGH PROCESS Page 50 2-26-15

Within part 6, replace the form with the following:
 MDT-CON-105_17_1D

Rescind and replace part 7 with the following:

7. The Project Manager will grant Conditional Final Acceptance within 30 calendar days of the receipt of the request for the final walk-through verification. If the punch-list items are fully resolved, no further action is required. If deficiencies still exist, payment will be deducted from the estimate as appropriate. The final acceptance will be granted when all contract-specific warranties have expired and all warranty issues have been resolved.

105.17.2 FINAL ACCEPTANCE Page 50 2-26-15

Within the first paragraph, rescind the first sentence (that begins, "When the Final Walk-through...") and replace with the following:

When the Final Walk-through Process is complete (conditional final acceptance), all project-specific warranties have expired, and all warranty issues have been resolved, submit the Contractor's Certificate of Work Complete using form MDT-CON-105_17_2.

106.02.5(A) GENERAL Page 56 10-9-14

Within the first paragraph, rescind the second sentence (that begins, "Comply with the ...") and replace with the following:

Comply with the pertinent statutes relating to open cut mining (Section 82-4 MCA); hard rock mining (Section 82-4-3 MCA); water quality (Section 75-5 MCA); stream bank preservation (Section 75-5 MCA); the Montana County Noxious Weed Management Act Section 7-22-21 MCA; and all other applicable federal, state, and local statutes, regulations and ordinances.

107.11.5 NOXIOUS WEED MANAGEMENT Page 67 10-9-14

Within the fourth paragraph, rescind the web link (that begins, "www.agr...") and replace with the following:

<http://agr.mt.gov/agr/Programs/Weeds/>

108.03 PROSECUTION OF WORK Page 78 2-26-15

Rescind Subsection 108.03 and replace with the following:

108.03 PROSECUTION OF WORK

108.03.1 General

Begin obtaining all air quality, water quality and storm water runoff permits, approval of reclamation plans, and archaeological and historical clearances immediately upon receipt of the notice of contract award letter from the Department. Furnish the completed applications to secure permits, approvals or clearances as they are submitted to the respective agency. Furnish approved permits, reclamation plans and clearances necessary to complete the work in conformance with all federal, state and contract requirements.

The Department will reimburse all reasonable costs incurred in securing the permits, approvals and clearances if the Department does not execute the contract for reasons outside its control.

A pre-construction conference will be held on a mutually agreed date between the Contractor, Department and other parties interested in the work before work within the project limits begins no later than 20 calendar days after the Notice to Proceed date. The Contractor's superintendent in charge of the project must attend the conference. Encourage subcontractors to attend. No payments will be made on the contract until the pre-construction conference has been held.

Obtain written approval before starting night work. Provide work area flood lighting for night work and do not rely solely on equipment lights. Night work approval may be rescinded at any time.

Suspending and resuming work on all or a part of the contract will be by Subsection 105.01.

Work may be suspended on working day contracts for unsuitable weather or for other conditions that are detrimental to the work accuracy and quality. Prevent damage and repair damaged work that was not protected during the suspension at Contractor expense. No time extensions will be approved for work to correct non-protected work.

Store materials to protect against damage and without obstructing, endangering or impeding traffic.

Do not allow water to pond on the roadway or within the construction limits, excluding environmental protective devices. Open ditches and shoulder drains, and take other actions to protect the public and the work.

The Department does not authorize project suspension by the Contractor and time will be charged during unauthorized project suspensions. If the Contractor suspends the project, provide written notification of the suspension to the Project Manager 7 calendar days before the suspension. The Contractor is responsible for all maintenance required during unauthorized suspensions and for all work and materials required due to the suspension.

108.03.2 Project Schedules

Furnish a WN that details the work and time (working days, calendar days or completion date) to complete the contract. The initial schedule must show that the work will be completed in the time frame specified in the contract.

A. ASC Schedules. For projects not subject to Subsection 108.03.2(B) requirements, submit a schedule in accordance with the Table of Contractor Submittals. No other work, except obtaining permits, may begin until the schedule requirements have been met. No payments will be made on the contract until the submitted schedule is reviewed.

The Contractor may use a CPM schedule as the ASC if it meets the requirements described in Subsection 108.03.2(A) herein and results in no additional cost to the Department.

1. Include in the ASC:

a. A bar chart chronologically sequenced and to time scale showing the following:

1) All work activities with a completion duration of 5 or more working days. (For this requirement, working days does not exclude the period from November 16th through April 15th.)

2) Any work activity that has an impact on completion of the project.

b. The relationship of each work activity listed in Subsection 108.03.2(A)(1)(a) to other work activities, permits, plans, submittals and approvals required to complete the project.

c. Work activity durations by working days or calendar days as appropriate. Indicate non-working periods exceeding 3 days on each activity bar.

2. Include in the WN:

a. The proposed work process sequence describing the relationship of the work activities listed in Subsection 108.03.2(A)(1) required to complete the contract, including shop drawing submittals, permits (including estimated maximum waiting periods for all required permits), fabrication and delivery activities.

b. A detailed description and the progress time of each work activity listed in Subsection 108.03.2(A)(1) measured by working day or calendar day, as appropriate.

c. A detailed description of the ASC, including holidays, planned workdays per week, number of shifts per day, hours per shift, size of work crews and resources used.

d. Adjustments to activity durations and production rates to account for weather.

Submit an updated ASC and WN every month in which work is performed, one week before the end of the project's monthly estimate cycle. The ASC and WN should show current progress and all revisions or modifications that reflect changes in the method or manner of the work, specification changes, extra work, changes in duration, changes in shifts, work crews or resources. If the work is not proceeding consistently with the Contractor's most recently reviewed ASC and WN, the Project Manager may require that the Contractor submit 2 copies of an updated ASC and WN that accurately reflect the Contractor's progress, resource allocation for the project, and revised schedule. Submit the updated ASC and WN within 1 working day of the Project Manager's request. Ensure that the WN and ASC submitted meet the above requirements and accurately reflect the work progress.

Any delay in beginning or prosecuting work that is caused by the Contractor's failure to provide an ASC or WN when and as required is solely the responsibility of the Contractor, and is not an excusable delay.

Prosecute the work with the resources required to complete the contract within the time shown in the Contractor's updated ASC and WN.

The Department may withhold 10% of each monthly progress estimate for failure to submit an initial or updated ASC or WN on time and in the manner required. Payment withheld for violation of the schedule requirements will be included in the next progress estimate following the Contractor's submission of the required ASC and WN. The Project Manager's review does not attest to the validity of the ASC or WN.

B. CPM Scheduling. Develop, maintain and provide a detailed time-scaled computer generated progress schedule using the critical path method that is compatible with Primavera P6 or other Primavera product which generates a .xer file type.

Submit a schedule in accordance with the Table of Contractor Submittals. No other work, except obtaining permits, may begin until the schedule requirements have been met. No payments will be made on the contract until the submitted schedule is reviewed.

Schedule all contract work including that of subcontractors, vendors and suppliers. The initial schedule must show that the work will be completed in the time frame specified in the contract.

Prepare the initial CPM schedule as an Activity On Node (AON) or Precedence Diagramming Method (PDM).

The Project Manager may withhold 10% of each monthly progress estimate for failure to submit an original or updated CPM schedule on time and in the manner required. Payment withheld for violation of the schedule requirements will be included in the next progress estimate following the Contractor's submission of the required CPM schedule. The Project Manager's approval of the CPM schedule does not attest to the validity of the Contractor's assumptions, logic constraints, dependency relationships, resource allocations, labor and equipment or other schedule aspects.

1. Preparation and Submission of Schedule. Prepare an initial schedule and submit an electronic file compatible with Primavera P6 or other Primavera product which generates a .xer file type. Once an accepted baseline schedule is submitted, furnish one ANSI D (24-inch by 36-inch) paper copy. Submit all items listed in Subsection 108.03.3(C).

Attend a meeting scheduled by the Project Manager within 10 calendar days of the Project Manager's receipt of the CPM schedule to review, correct or adjust the CPM schedule if required.

Make all schedule adjustments and corrections discussed at the meeting and re-submit the revised schedule within 15 calendar days after the meeting. Plan and execute the work to meet project milestones and completion dates.
2. Initial Schedule Requirements. Include the requirements listed in Subsection 108.03.3(C) and the following:
 - a. Total float sort; responsibility/early start sort; area/early start sort;
 - b. 60-day look ahead bar charts by early start; and
 - c. Logic diagram having a maximum 100 activities for each ANSI D (24-inch by 36-inch) size sheet. Ensure each sheet includes project number, page number, title, match data or diagram correlation and key to identify all components used in the diagram.
3. Schedule Requirements. Submit schedules that include:
 - a. Activity identification numbers;
 - b. Project milestones;
 - c. Activity descriptions;
 - d. Appropriate relationships;
 - e. Activity durations of no more than 30 days. Submit activity manpower, equipment, unit quantities and production rates to the Project Manager for review;
 - f. Procurement of permits;
 - g. Material procurement separated into at least two activities, fabrication and delivery. Include time for delivering all submittals and Department review of working drawing submittals as separate items in the schedule logic for all items requiring submittal, review and approval;
 - h. Activities coded to reflect the party performing each activity (only one party performs each activity) including subcontractors and suppliers and the area/location of each activity;
 - i. Work days per week, holidays, number of shifts per day, hours per shift and major equipment to be used;
 - j. Phasing (staging) details, if the work has phasing or is to be performed in phases;
 - k. A WN which describes the following:
 - Anticipated work in an orderly sequence of the construction phasing;
 - Activity relationships;
 - Anticipated problems; and
 - Anticipated project completion dates, in a detailed description.

Narratives that are a listing of the work will not be accepted. Include written narratives with each submission;
 - l. Calendars, including weekends, holidays, or other Contractor non-work periods. Use project specific calendars. All activities must be identified by entry of their appropriate calendar; and
 - m. Adjustments to activity durations and production rates to account for weather.

Use only contractual constraints in the schedule logic.

Float is defined as the amount of time between when an activity "can start" and when it "must start". Total float is float shared with all other activities and is defined as the amount of time an activity can be delayed without affecting the overall time of project completion. Float is a shared commodity, not for the exclusive use or financial benefit of either party. Either party has the full use of float until it is depleted.

The critical path is defined as the longest continuous sequence of activities through the network schedule that establishes the minimum overall project duration. The submitted activity sequence and durations must generate a CPM schedule having a critical path with zero float. Keep multiple critical paths and near-critical paths to a minimum. Describe multiple critical paths and near-critical paths with thorough and reasonable justification in the written narrative.

Show the sequence and interdependence of all activities required for the complete performance of all items of work under this contract, including acquiring all the environmental permits. Show all network "dummies" on the diagram.

The Department reserves the right to limit the number of activities on the schedule to between 50 and 1000 activities.

Describe the activities so that the work is identifiable and the progress on each activity is measurable.
4. Schedule Updates and Progress Payments. Schedule and attend monthly project progress meetings to compare the schedule to the actual finish dates of completed activities, the remaining duration of uncompleted activities and the proposed logic and/or time estimate revisions. Provide the status of activities at these meetings, and the schedule updates based on this information, once it has been verified.

Each month of the project, one week before the end of the project's monthly estimate cycle, submit an electronic file using Primavera P6 or other Primavera product which generates a .xer file type and a .PDF file containing:

 - a. Total float sort;
 - b. The data date and current date line on the bar chart.
 - c. A narrative report describing the critical path, logic revisions or modifications to the schedule, including, but not limited to: changes in the method or manner of the work, changes in specifications, extra work, changes in duration, etc.; and
 - d. Any revised activity on node diagrams for the following:
 - 1) Delay in the completion of any critical activity;
 - 2) Actual prosecution of the work that is different than that represented on the CPM schedule; and
 - 3) The addition, deletion, or revision of activities required by contract modification or logic revisions.

Ensure monthly schedule updates reflect the previous month's actual work. The contract time will be adjusted only as specified in the contract. Furnish documentation to support requests for time extensions for milestone dates or the contract completion date.

The Project Manager may suspend work under Subsection 105.01(A) if the WN or project schedule does not accurately reflect the actual progress of the work; the suspension may continue until an accurate WN and project schedule is submitted.

Failure to submit either a CPM or ASC schedule or schedule update to the Project Manager within 2 calendar days of its due date will result in a monthly deduction in accordance with Table 108.1A.

TABLE 108-1A
PROJECT SCHEDULE DEDUCTIONS

Original Contract Amount		Monthly Deduction
From More Than	To and Including	
\$ 0	\$ 1,000,000	\$ 300
\$ 1,000,000	\$ 3,000,000	\$ 700
\$ 3,000,000	—	\$ 1,000

C. CPM Scheduling Method of Measurement

CPM schedule is measured by the lump sum. Other scheduling requirements are not measured for payment.

D. CPM Scheduling Basis of Payment

Payment for all costs associated with CPM scheduling is included in the lump sum contract unit price for CPM scheduling. Payment for all costs associated with other scheduling requirements is included in the payment for other items of work.

Failure to submit a revised CPM schedule as specified may also result in withholding 10% of each monthly progress estimate. Payment withheld for violation of the schedule requirements will be included in the next progress estimate following the Contractor's submission of the required schedule.

Partial payments for CPM scheduling will be made based on the lump sum contract unit price as follows:

1. 50% when the initial schedule is finalized.
2. 75% when the overall project is 50% complete.
3. 100% when all updates have been submitted.

108.08 FAILURE TO COMPLETE ON TIME

Page 86

12-11-14

Rescind Table 108-2 and replace with the following:

TABLE 108-1
SCHEDULE OF LIQUIDATED DAMAGES

ORIGINAL CONTRACT AMOUNT		DAILY CHARGE
From More Than	To and Including	Working Day or Calendar Day
\$ 0	\$ 150,000	\$ 993
\$ 150,000	\$ 350,000	\$ 1,167
\$ 350,000	\$ 700,000	\$ 1,396
\$ 700,000	\$ 1,000,000	\$ 1,553
\$ 1,000,000	\$ 2,000,000	\$ 2,084
\$ 2,000,000	\$ 4,000,000	\$ 2,380
\$ 4,000,000	\$ 7,000,000	\$ 2,969
\$ 7,000,000	\$ 12,000,000	\$ 3,604
\$ 12,000,000	—	\$ 4,338

109.06 GENERAL

Page 94

4-16-14

Rescind the second paragraph (that begins, "The Department reserves...") and replace with the following:

The Department reserves the right to withhold all or part of any partial payments earned under the contract until all tax payments due or owed to the State of Montana are paid in full.

201.03.1 GENERAL

Page 99

10-9-14

Rescind the seventh paragraph (that begins, "Stake construction limits ...") and replace with the following:

Stake construction limits for cuts, fills, channel changes, ditches, fence lines, utility relocation, roadside development areas, selective thinning for sight distance, grubbing, and similar areas to establish clearing and grubbing limits in accordance with Subsection 105.08.

203.03.1 EXCAVATION

Page 108

10-9-14

Rescind the second paragraph of Subsection (G) Digout, (that begins, "Provide special...") and replace with the following:

Furnish replacement material for digouts in accordance with Subsection 701.12.

Rescind the first and second paragraphs of Subsection (H) Sub Excavation, (that begins, "In areas of...") and replace with the following:

Unless otherwise shown in the contract or directed by the Project Manager, in areas of sub excavation, excavate the full road width to a depth of 2 feet (600 mm) below the top of the subgrade soils or to a depth where the subgrade soils are firm and stable, whichever is shallower. Excavate parallel to the finish grade, day lighting to the left and right slopes. Slope the ends of the excavation no steeper than a 10H:1V. Dispose of the excavated material to the satisfaction of the Project Manager.

Furnish sub-ex replacement material in accordance with Subsection 701.12.

206.03.2(B) STRUCTURES

Rescind Subsection 206.03.2(B) and replace with the following:

B. Structures. If a bridge is chosen as means for conveyance of the waterway, provide a minimum waterway opening of sufficient size to accommodate the 2-year flood event, spanning the active channels with 1-foot (305 mm) minimum freeboard. Construct all temporary bents in a manner that the current remains un-deflected. Provide adequate bulkheads at the approach fills to prevent fill materials from entering the waterway.

Provide the detour bridge with a width greater than or equal to that of the existing bridge, with a design live load capacity of HL-93 loading, for LRFD designs, or AASHTO HS-20 (MS-18), for ASD and LFD designs. Provide a rail system with blunt end protection at all bridge ends. Ensure the approach rail system meets either NCHRP 350 or MASH crash test requirements in accordance with Table 206-1. Ensure the bridge rail can resist railing design forces as specified in the AASHTO LRFD (Table A13.2-1) for the detour design speed in accordance with Table 206-1.

TABLE 206-1
DETOUR BRIDGE DESIGN

Design Speed	Bridge Rail	Approach Rail Elements
≤ 30 mph	TL-1	TL-1
> 30 mph – 45 mph	TL-1	TL-2
> 45 mph	TL-2	TL-3

208.03.2 WATER POLLUTION CONTROL

Within part C, rescind the fifth (last) paragraph (that begins, "BMPs will be...") and replace with the following:

BMPs will be inspected during construction and during the final inspection to ensure they are installed, maintained, and functioning as required by the contract and permits. BMPs will be inspected as part of the final walk-through to ensure they are adequate, maintained, and functioning properly.

Within part D, rescind the sixth (last) sentence (that begins, "Provide a copy...") and replace with the following:

Provide a copy of the NOI package submitted and confirmation for receipt of a complete NOI package from the permitting agency to the Project Manager prior to conducting any ground disturbance activities.

Rescind the second paragraph of Subsection 208.03.2 (the paragraph following part D) (that begins, "Do not transfer...") and replace with the following:

Do not transfer or terminate the General Storm Water Permit coverage until the BMPs are inspected and accepted and all records required under the permit, including inspection and monitoring reports, are furnished to the Project Manager. The Department may require that certain BMPs be removed and/or replaced by another type of BMP as a condition of permit transfer.

Within the fifth (last) paragraph of Subsection 208.03.2, rescind the first sentence (that begins, "When submitting the...") and replace with the following:

When submitting the MPDES General Storm Water Permit transfer package/application to the Department, include a check for the permit transfer fee.

208.03.3 AQUATIC RESOURCE PROTECTION

Within part A, rescind the part 1 (that begins, "Do not operate...") and replace with the following:

1. Do not operate mechanized equipment in any regulated aquatic resource, unless authorized in accordance with Subsection 208.03.3(B).

Within part A, rescind the part 2 (that begins, "Isolate work zones...") and replace with the following:

2. Isolate work zones from flowing and standing waters during construction, unless authorized in accordance with Subsection 208.03.3(B).

Within part A, rescind the part 5 (that begins, "Do not place ...") and replace with the following:

- 5. Do not place fill or other materials in any regulated aquatic resource unless included in the contract or authorized in accordance with Subsection 208.03.3(B).

Within part B, add the following sentence to the end of the first paragraph:

Submit Temporary Facility and Construction Activity permit applications for COE 404 and SPA 124 Notifications in accordance with Subsection 107.11.2.

Rescind the fifth (last) paragraph of Subsection 208.03.3 (that begins, "Submit copies of...") and replace with the following:

Submit copies of the plans and application packages, their modifications, or their revisions to the Project Manager. The Department will review each submittal of the plans and application packages, their modifications, or their revisions, and either request revisions or submit to applicable resource and regulatory agencies within 21 calendar days. Resource and regulatory agency review time does not begin until the Department submits the application to the applicable agencies. Do not begin work on temporary construction facilities or modifications to approved plans until receiving written notification from the Project Manager that all of the required approvals from the regulatory and resource agencies have been obtained and distributed. The Department will distribute COE 404 and SPA 124 approvals within 5 business days of receipt of all required approvals.

208.05.1 BASIS OF PAYMENT Page 137 4-16-15

Within the second paragraph, rescind the first sentence (that begins, "Failure to implement...") and replace with the following:

Failure to provide erosion and sediment controls that prevent discharges to adjacent properties and/or aquatic resources, implement BMPs identified in the SWPPP, update the SWPPP as required by the Construction General Permit, or conduct BMP inspections and submit inspection reports renders the BMPs unacceptable.

208.05.1 TEMPORARY EROSION AND SEDIMENT CONTROL - LUMP SUM Page 138 2-26-15

Within Table 208-1, rescind the term "substantial work complete date" and replace with "Conditional final acceptance".

Within the third paragraph, rescind the third sentence (that begins "Payment for quantities..") and replace with the following:

Payment for quantities required by an event or extra work, and approved by the Project Manager, will be measured and paid for in accordance with the Erosion Control Rate Schedule contained in the contract at a unit price of \$1.00 per unit.

Rescind the fourth paragraph (that begins, "The installation of additional...") and replace with the following"

The installation of additional BMPs requested by the Department at the final inspection will be measured and paid for in accordance with the Erosion Control Rate Schedule.

212.01 DESCRIPTION Page 149 4-16-15

Rescind the first (only) paragraph (that begins, "Obliterate roadway...") and replace with the following:

Obliterate roadway includes removal of the existing roadway and related items, rehabilitating the abandoned roadway area by scarifying and shaping, and re-vegetation.

212.03 CONSTRUCTION REQUIREMENTS Page 149 4-16-15

Within the third paragraph, rescind the third (last) sentence (that begins, "Spread the salvaged...") and replace with the following:

Re-vegetate the disturbed areas in accordance with Section 610..

212.04 METHOD OF MEASUREMENT Page 149 4-16-15

Rescind the second and third paragraphs and replace with the following:

Re-vegetation is measured and paid for in accordance with Section 610.

212.05 BASIS OF PAYMENT Page 149 4-16-15

Remove the following pay items and units from the table:

Table with 2 columns: Pay Item, Pay Unit. Rows: Seeding, Acre (ha); Topsoil, Cubic Yard (m³)

Within Table 301-1 Surface Smoothness, replace the aggregate size (that specifies, "1-inch (25 mm) and less") with the following:

Less than 1½-inch (40 mm)

401.03 CONSTRUCTION REQUIREMENTS

Page 170

10-9-14

Within the fourth paragraph, rescind the third sentence (that begins, "Furnish the Project Manager...") and replace with the following:

Furnish the Project Manager 1 copy of form CB30QA-VM (S) with the proposed job mix targets for VMA, VFA, VTM, and D/A.

Within the fifth paragraph, rescind the fourth sentence (that begins, "Submit to the...") and replace with the following:

Submit to the Project Manager 1 signed copy of form CB30-QA-VM (S) with the revised job mix targets for VMA, VFA, VTM and D/A.

401.03.1 MIX DESIGN

Page 171

10-9-14

Within the first paragraph, rescind the eighth sentence (that begins, "For mix designs using...") and replace with the following:

For mix designs using RAP, furnish the asphalt content and gradation of the RAP and furnish the total asphalt content and Job Mix Formula gradation including the RAP.

401.03.3 MIX DESIGN

Page 172

10-9-14

Add the following paragraph following the test procedures:

When material is tested in accordance with MT 332, if the height of gyratory specimens is out of tolerance, an evaluation will be conducted to determine if the specimen will be retained or discarded. The Department will check plant production information, test equipment, processes, calculations, etc. for issues. If a problem is noted in processes controlled by the Contractor, the test will be considered valid. If a problem is found with the testing or other Department process, or no issues with Contractor production are identified, the test will be redone on material from the same sample, if possible. If a non-correctable testing problem is found, the specimen will be discarded.

401.03.5 ACCEPTANCE COMMERCIAL PLANT MIX SURFACING

Page 172

10-9-14

Rescind the second paragraph (that begins, "A \$3.00/ton...") and replace with the following:

For the first 1000 tons (1000 MT), a \$3.00/ton maximum price reduction in the unit bid price for plant mix surfacing will be applied for any mix represented by a test not meeting the VMA, VFA, VTM, or D/A specified. A \$3.00/ton price reduction (\$9.00/ton maximum) in the unit bid price for plant mix surfacing will be applied to any subsequent mix for each test not meeting the VMA, VFA, VTM, or D/A specified. Price reductions will be assessed on the quantity of material represented by each failing sample. The quantity of material represented by each sample is the total tons of material produced divided by the total number of samples representing the material.

402.03 CONSTRUCTION REQUIREMENTS

Page 187

10-9-14

Rescind the first (only) paragraph (that begins, "Mix and apply...") and replace with the following:

Mix and apply bituminous material meeting the applicable requirements in Sections 401, 407, 409, and 410.

402.04 METHOD OF MEASUREMENT

Page 192

10-9-14

Within the sixth (last) paragraph, rescind the first sentence (that begins, "Use flow rate...") and replace with the following:

Use flow rate meters in accordance with Subsection 401.03.12, to measure the material.

403.02(A) CRACK SEALANT

Page 193

12-11-14

Rescind Subsection 403.02(A) and replace with the following:

A. Crack Sealant. Use a sealant that is listed on the QPL and in accordance with Subsection 707.01.

Within the first paragraph, rescind the third (last) sentence (that begins, "Do not rout further...") and replace with the following:

Place sealant material within 24 hours of routing.

Add the following to the end of the list:

7. Do not apply bituminous material within 72 hours of performing crack sealing.

Rescind Subsection 409.03.10(B) and replace with the following:

- B. Final Sweeping and Brooming. Perform final sweeping and brooming operations to remove excess loose material no sooner than 5 calendar days before final pavement markings. Coordinate with the Project Manager to ensure Final Sweeping and Brooming is necessary. Provide traffic control in accordance with Section 618.

Rescind the first (only) sentence (that begins, "Furnish air-entraining...") and replace with the following:

Furnish air-entraining admixtures in accordance with Subsection 551.02.6.

Add the following paragraphs following the first paragraph (that begins, "Construct the joints..."):

Space the transverse joints not less than 10 feet (3.0 m) and not more than 15 feet (4.5 m). Space longitudinal joints not further than 13 feet (3.96 m) and as close to lane lines as possible. Skew longitudinal lines along mainline to match lane lines ahead.

Construct transverse joints at a 90° angle to the centerline. Continue transverse joints through the curb. Skew longitudinal and transverse joints to intersect all manholes, boxes, and inlets. The angle of joint intersection or between joints and a free edge must not be less than 60°. Space joint offsets not less than 18 inches (455 mm).

Rescind Subsection 501.03.16 Opening to traffic and replace with the following:

Do not permit traffic or Contractor equipment, excluding joint sawing and sealing equipment, on the concrete until one of the following test results indicate the concrete has developed sufficient strength.

- A. Flex Beam Method. Prepare the concrete flex beams in accordance with MT 101 and test for modulus of rupture using AASHTO T 97.

One test set consists of 3 beams. Take the concrete for the test beams from different concrete batches for each 2,500 square yards (2,100 m²) of concrete pavement and make at least 2 sets per day. Test the beam sets for modulus of rupture. Cure the test beams under the same environmental conditions as the pavement they represent. The pavement, represented by the beams, may be opened to traffic when the average modulus of rupture of the set exceeds 350 psi (2,415 kPa) and no individual beam's modulus of rupture is less than 300 psi (2,070 kPa).

The Contractor may select the time for testing the beams. Test the flex beams on or near the project, using Contractor furnished equipment and with a Department Inspector witnessing the tests.

Include all costs to make, cure and test the flex beams in the contract unit price for PCCP.

- B. Maturity Meter Method. Prepare concrete flex beams or compressive test cylinders to validate the maturity meter performance curves. Furnish the Project Manager the maturity-strength relationship and maturity curves along with supporting data for verification. Maturity-strength relationship must indicate compressive strengths of 2500 psi or greater. Develop the maturity meter index curves before construction has commenced.

Determine the time for testing flex beams. Furnish suitable testing equipment.

The pavement may be opened to traffic and construction equipment, with Project Manager's approval, when the maturity meter readings reflect target values have been met.

Furnish all equipment, including maturity meter, thermocouples, wire, and a qualified technician to monitor the maturity meter system.

- C. Concrete Test Cylinder Method. Prepare concrete test cylinders according to MT 101 and MT 105, and test for compressive strength according to AASHTO T 22.

Make a minimum of one set of three compressive test cylinders, sampled from random locations, for each 2,500 square yards (square meters) of concrete pavement but not less than two sets per day. Test compressive test cylinders in sets of three for compressive strength. Cure test cylinders under the same conditions as the pavement they represent.

The pavement may be opened to traffic and construction equipment, with Project Manager's approval, when the average compressive strength of a set of test cylinders is 2500 psi (17,237 kPa) or greater with no single test less than 2,000 psi (13,790 kPa).

Determine the time for testing cylinders. Furnish suitable equipment and test compressive cylinders on or near the project.

Opening to traffic does not constitute a final acceptance of the pavement. The pavement is accepted upon confirmation of the 28-day flexural strength. Repair all concrete damaged prior to the final acceptance at Contractor expense.

551.03.1 CLASSIFICATION Page 227 10-9-14

Within Table 551-2, rescind the "Use" for "Drilled Shaft" concrete and replace with the following:

Used for drilled shafts.

551.03.2(F) SELF-CONSOLIDATING CONCRETE (SCC) Page 232 10-9-14

Under Bullet (4), within the second paragraph, rescind the second sentence (that begins, "If SCC is...") and replace with the following:

If SCC is used in the production of precast items, meet the testing requirements in Subsection 554.03.6.

551.03.3 BATCHING, MIXING, HANDLING AND SAMPLING Page 233 10-9-14

Rescind the fifth paragraph (that begins, "Concrete batch plants...") and replace with the following:

Meet the requirements of ASTM C94 for all concrete batch plants and operations prior to and throughout production of concrete for any work, including concrete for any field trial batches. In addition to ASTM C94, meet the following requirements throughout the production of concrete:

551.03.3(H) JOB-SITE ADDITIONS Page 234 12-11-14

Rescind the first paragraph (that begins, "Do not make any...") and replace with the following:

On-site addition of air entraining or high range water reducing admixtures is permitted up to 2 times. Do not re-dose with other admixtures without the approval of the Project Manager. On-site dosing of water or admixture in no way relieves the contractor of producing passing plastic and hardened concrete test results.

551.03.8(B)(1)(b) AIR CONTENT Page 245 12-11-14

Rescind the first paragraph (that begins, "Concrete air content...") and replace with the following:

Concrete air content will be determined in accordance with MT 102 or ASTM C457 on the same sample used to make the compression test cylinders for acceptance and on samples taken according to MT 601. A separate air content pay factor will be computed for each test result and the lot air content pay factor will be the average of the individual test result pay factors. The pay factor for each lot based on air content is determined from Table 551-6.

Rescind Table 551-6 and replace with the following:

TABLE 551-6
AIR CONTENT PAY FACTORS

Lot Acceptance, Air Content			
Classes General, Pave, Deck, Overlay, and Structure Concrete		Used when mix design incorporates $\geq 1\frac{1}{2}$ -inch nominal maximum aggregate gradation	
Air content, x (%)	Air content pay factor, PF_{AC}	Air content, x (%)	Air content pay factor, PF_{AC}
$x \geq 5.5\%$	$PF_{AC} = 1.0$	$x \geq 4.5\%$	$PF_{AC} = 1.0$
$5.5\% > x \geq 4.5\%$	$PF_{AC} = 1.0 - 0.1(5.5 - x)$	$4.5\% > x \geq 4.0\%$	$PF_{AC} = 1.0 - 0.2(4.5 - x)$
$4.5\% > x \geq 3.0\%$	$PF_{AC} = 0.9 - 0.6(4.5 - x)$	$4.0\% > x \geq 2.5\%$	$PF_{AC} = 0.9 - 0.6(4.0 - x)$
$3.0\% > x$	Remove and Replace	$2.5\% > x$	Remove and Replace

553.03.1 FABRICATION Page 268 10-9-14

Add the following sentences to the end of the second paragraph, (that begins, "Furnish a copy..."):

New manufacturing plants may operate under the parent plant's quality assurance and control programs for a maximum of 18 months from the date of opening. Plants currently operating under this exemption may do so only until January 1, 2016.

Within the tenth paragraph, rescind the second (last) sentence, (that begins, "The Project Manager may...") and replace with the following:

The Engineer may direct other tests to determine release strengths.

556.03.1 PRE-QUALIFICATION FOR STEEL FABRICATORS

Rescind Subsection 556.03.1 and replace with the following:

Use metal fabricators that are pre-qualified under the AISC Quality Certification Program for the items listed below. The Department will make an exemption for new manufacturing plants that are of the same ownership as an existing certified plant, provided the new manufacturing plant operates under the same quality assurance and control programs as the certified plants, modified to address any production differences, and all fabrication is performed under the direct supervision of a quality assurance and control manager provided by an existing pre-qualified plant. Direct supervision means that the quality assurance and control manager is on site during all fabrication performed in the new fabrication plant and is responsible for the quality assurance and control activities. For new manufacturing plants, submit and receive approval of any proposed modifications to the parent plant's quality assurance and control program prior to beginning production. Allow 30 business days from the date submitted for Department review and approval. New manufacturing plants may operate under the parent plant's quality assurance and control programs for a maximum of 18 months from the date of opening. Plants currently operating under this exemption may do so only until January 1, 2016. Items not listed may be fabricated by non-certified shops. Use metal fabricators having the following AISC quality certification categories:

1. Use fabricators having Advanced Bridges (ABR) certification to fabricate the following:
 - a. Fracture critical members and attachments. Fabricators must have the fracture critical endorsement (F).
 - b. Tub, trapezoidal or closed box girders, large or non-preassembled trusses [over 200 feet (60 m)], cable supported bridges, bascule bridges, arches and bridges with tight radius.
2. Use fabricators having Intermediate Bridges (IBR) certification to fabricate the following:
 - a. Fracture critical members and attachments. Fabricators must have the Fracture Critical Endorsement (F).
 - b. Rolled beams with field or shop splices, either straight or with a radius over 500 ft.
 - c. Built-up I-shaped plate girders with constant depth, either straight or with a radius over 500 feet (150 m).
 - d. Built-up I-shaped plate girders with variable web depth (e.g., haunched), either straight or with a radius over 1000 feet (305 m).
 - e. A truss with a length of 200 feet (60 m) or less that is entirely or substantially pre-assembles at a certified facility and shipped in no more than three sub-assemblies.
 - f. Welded floor beams.
 - g. Diaphragms for horizontally curved girders.
3. Use fabricators having Simple Bridges (SBR) certification to fabricate the following:
 - a. Non-spliced rolled beams.
 - b. Non-spliced rolled floor beams.
 - c. Non-spliced rolled diaphragms for straight girders (does not include diaphragms used for concrete beams).
4. Use fabricators having an SBR or Bridge and Highway Metal Component Manufacturers certification to fabricate the following:
 - a. Bridge expansion joints.
 - b. Steel grid decking.
 - c. Bridge expansion bearings.
 - d. Overhead sign bridge and cantilever sign structures.
 - e. Lighting poles and anchor bases.

561.03.3 PROCEDURES

Under (A) Hydrodemolition, rescind the third paragraph (that begins, "Remove any remaining...").

Following Subsection (B), rescind the first and second paragraphs (that begins, "Remove concrete in...") and replace with the following:

Remove concrete, in areas designated for removal that milling equipment cannot reach, with chipping hammers no larger than a nominal 15 pound (7 kg) class or other equipment as approved by the project manager. This work is measured and paid for as Bridge Deck Milling.

Thoroughly clean the deck of all aggregate, paste, residue, oil, and any other substance that may interfere with the repair or overlay concrete. Use cleaning methods that do not damage remaining concrete, reinforcing steel, or that cause debonding of remaining concrete and reinforcing steel.

562.03.3 LOCATION AND INSPECTION OF REPAIR AREAS

Rescind bullets 1, 2 and 3 and replace with the following:

1. Complete milling operations, if included in the contract, prior to the locating of Class A or B repair areas
2. Use compressed air to dry the deck and to blow it clean of debris. The Project Manager will then locate and mark areas of Class A and Class B deck repair.
3. Notify the Project Manager if repair work reveals areas which differ from the marked areas.

562.03.4 CONCRETE REMOVAL Page 315 10-9-14

Within bullet 2, rescind the third sentence (that begins, "If the bond...").

562.03.5 REINFORCING STEEL Page 316 10-9-14

Within the first paragraph, rescind the second (last) sentence (that begins, "Remove concrete as...").

562.04 METHOD OF MEASUREMENT Page 317 10-9-14

Rescind the fourth (last) paragraph (that begins, "Replacement of reinforcing...") and replace with the following:

Replacement of reinforcing bars will be measured and paid for in accordance with Subsection 109.04. Replace any reinforcing bars damaged by Contractor operations at Contractor expense. When not located in an area of Class A or B repair, work necessary to provide reinforcement clearance in accordance with Subsection 562.03.5 will be measured and paid for in accordance with Subsection 109.04.

564.03 CONSTRUCTION REQUIREMENTS Page 323 10-9-14

Within Table 564-1, rescind the row showing Pre-Stressed Concrete Beam requirements and replace with the following:

Pre-Stressed Concrete Beams	Refer to Subsection 553.03.15
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603.03.4 BACKFILLING Page 336 2-26-15

Add the following sentence at the end of the fourth paragraph (which begins "Compact backfill equally..."):

Meet the moisture and density requirements of Subsection 203.03.3.

603.03.5 RESTORATION AND MAINTENANCE OF EXISTING PAVEMENT Page 336 2-26-15

Rescind Subsection 603.03.5 and replace with the following:

Restore the existing pavement excavated for pipe installation using material equal to or better than the in place pavement. Restoration includes replacing and compacting excavated aggregate base with materials equal to those in the existing roadway and placing either CLSM or new plant mix surfacing equal to the existing, but not less than 3 inches (75 mm) in thickness. Place and compact the replacement plant mix surfacing to match the adjacent pavement providing a smooth riding surface, including the joints.

Maintain the restored areas in good condition until the new surfacing is placed.

606.03.2 INSTALLING POSTS Page 342 12-11-14

Rescind the first paragraph (that begins, "If the posthole is...") and replace with the following:

Complete guardrail widening prior to new post installation.

Install posts in accordance with manufacturer recommendations. Drive posts unless conditions require excavation and backfilling. If the posthole is excavated, compact the posthole bottom, insert the post, and backfill and compact around the post in 6-inch (150 mm) loose layers ensuring the material is at optimum moisture before placing and compacting the next layer. Maintain the post line and grade.

Rescind the second paragraph (that begins, "Always drive steel ...").

608.02 MATERIALS Page 353 4-16-15

Rescind the second, third, and fourth (last) paragraphs of Subsection 618.02 and replace with the following:

Use cast iron DWDs having a natural grey finish. Use DWDs – Type 1 for new sidewalk construction. DWDs – Type 1 are cast directly into sidewalk. Use DWDs – Type 2 for retrofits on existing sidewalks. Ensure gray iron castings are manufactured from iron conforming to ASTM A48 Class 30B, as noted in AASHTO M 306. Ensure ductile iron castings are manufactured from iron conforming to ASTM A536 Grade 80-55-06

Furnish DWDs listed on the QPL.

608.03.3 DETECTABLE WARNING DEVICES Page 353 4-16-15

Rescind the Subsection 618.03.3 and replace with the following:

608.03.3 Detectable Warning Devices

- A. General. Install DWDs so they extend the full width of the ramp, and the edge of the dome panel is located no more than 6 inches (150 mm) from the back of curb. Ensure that DWD edges are flush with adjacent sidewalk without gap or lip, with domes protruding above adjacent surfaces. If DWDs require cutting, locate non-factory edges on the exterior side of DWD installation.
- B. Type 2. Saw cut from existing sidewalk the minimum area required to allow installation. Remove the old sidewalk full depth within the cut area. Place new concrete meeting Section 608 requirements, and install DWD in accordance with manufacturer recommendation.

608.04 METHOD OF MEASUREMENT Page 353 4-16-15

Rescind the second paragraph of (that begins, "DWDs are measured...") and replace with the following:

DWDs are measured by the square yard (m2) installed and accepted. For Type 2 DWDs, removal of existing devices, concrete sawing and removal, and all new concrete is not measured separately for payment.

609.03.6 BITUMINOUS CURBS Page 356 12-11-14

Rescind Subsection 609.03.6 and replace with the following:

609.03.6 Reserved

610.02 MATERIALS Page 359 10-9-14

Add the following material to the existing table:

Weed Control Mat.....713.06

610.03.2 SEEDING, FERTILIZING, AND MULCHING Page 361 10-9-14

Add the following sentence to the end of Bullet (G) Composting:

Compost rates are dry weight equivalent.

610.03.4 EROSION CONTROL BLANKET Page 362 2-26-15

Rescind the title of Subsection 610.03.4 and replace with the following:

610.03.4 Rolled Erosion Control Products

Within the first paragraph, rescind the first sentence (that begins, "Prepare, fertilize, and seed...") and replace with the following:

Prepare, fertilize, and seed the rolled erosion control products areas before placement.

610.03.5 WEED CONTROL MAT Page 362 10-9-14

Add the following Subsection:

610.03.5 Weed Control Mat
Handle and place weed control mat following the manufacturer's recommendations.

610.04.7 SOIL RETENTION BLANKET Page 363 2-26-15

Rescind Subsection 610.04.7 and replace with the following:

610.04.7 Rolled Erosion Control Products
Rolled Erosion Control Products is measured by the square yard (m²) in place.

610.04.9 WEED CONTROL MAT Page 363 10-9-14

Add the following Subsection:

610.04.9 Weed Control Mat
Weed control mat is measured by the square yard (m²) in place.

Rescind and replace the pay item "Soil Retention Blanket" with "Rolled Erosion Control Products"

Add the following pay items and unit to the end of the existing table:

<u>Pay Item</u>	<u>Pay Unit</u>
Weed Control Mat	Square Yard (m ²)

612.03.3(C)(1) SHOP PAINT

Page 369

10-9-14

Within the first paragraph, rescind the second sentence (that begins, "Do not paint...") and replace with the following:

Do not paint surfaces in contact with other metal surfaces or concrete, except as noted in Subsection 612.03.5(A).

613.03.4 CONCRETE DRAINAGE CHUTES

Page 374

10-9-14

Rescind Subsection 613.03.4 and replace with the following:

613.03.4 Drainage Chutes

Construct drainage chutes as shown in the Detailed Drawings.

618.03.12 TRAFFIC CONTROL FOR STRIPING OPERATIONS

Page 402

10-9-14

Rescind Subsection 618.03.12 and replace with the following:

618.03.12 Traffic Control for Striping and Sweeping Operations

Provide the following traffic control for striping and final sweep and broom operations not performed under closed lane or pilot car situations.

1. Furnish and operate a shadow vehicle equipped with a truck or trailer-mounted attenuator in accordance with Subsection 618.02 conforming to appropriate test levels. Position the truck to follow within 150 to 1,000 feet (45 - 305 m) on pavement marking removal and application, and sweeping and brooming. When placing or removing traffic cones that protect the pavement markings, use a vehicle with a truck-mounted attenuator or follow with a shadow vehicle possessing a truck mounted attenuator.
2. Equip shadow vehicles with an arrow board facing rear-approaching traffic.
 - a. On multiple-lane roadways, place the arrow board display in lane shift mode (sequential arrow mode).
 - b. On two-lane two-way roadways, place the arrow board in a hazard warning mode not displaying the lane-shift mode
3. If peak hours are specified in the contract, provide the Project Manager a schedule of striping and final sweep and broom operations at least 48 hours prior to work. Perform work during off-peak hours in order to minimize impacts to the traveling public unless approved differently by the Project Manager.
4. For striping operations, include all costs associated with this work in the striping bid item.
5. If requested by the Project Manager, provide a WN identifying the proposed traffic control devices to be used for striping or final sweep and broom operations. If the Contractor and Project Manager agree that additional traffic control devices not listed in items 1 through 3 are warranted; the additional traffic control devices will be measured and paid in accordance with Subsections 618.04 and 618.05.

Failure to properly notify the Project Manager or provide adequate traffic control renders the striping or final sweep and broom operation unacceptable and unauthorized. Unacceptable or unauthorized work will be addressed in accordance with Subsection 105.12.

619.03.8 DELINEATORS

Page 411

10-9-14

Add the following sentence to the end of the first paragraph (that begins, "Furnish and install new...):

Furnish and install snow poles, if required, in accordance with the Detailed Drawings.

619.04.4 DELINEATORS

Page 412

10-9-14

Rescind the first paragraph (that begins, "Delineators of each...") and replace with the following:

Delineators of each type specified are measured by the unit and include the reflector, mounting hardware, post, and snow pole, if applicable, complete in place.

622.03.3 SUBSURFACE DRAINAGE GEOTEXTILE FILTER

Page 425

10-9-14

Within the fifth paragraph, rescind the second (last) sentence (that begins, "If a perforated...).

Within the first paragraph, rescind the first sentence (that begins, "Use mailboxes listed...") and replace with the following:

Use metal mailboxes listed on the QPL for Mailbox and Mailbox - Large.

701.02.9 AGGREGATE FOR CTB

Within Table 701-13, rescind the 4-12 percent passing the No. 200 (0.075 mm) sieve, and replace with 2-12 percent passing the No. 200 (0.075 mm) sieve.

701.03.1 GENERAL REQUIREMENTS

Within Table 701-14, rescind row showing Sand equivalent, and replace with the following:

Sand equivalent (MT 213 or AASHTO T 176 ³)	45% min.
--	----------

701.03.2 AGGREGATE FOR PLANT MIX SURFACING

Within Table 701-15, rescind the ≥13.5% minimum VMA for the ½-inch mix, and replace with ≥14.5% minimum VMA for the ½-inch mix.

Within Table 701-18, rescind the rows showing VMA and D/A requirements for non-commercial mix and replace with the following:

VMA	13.0 to 17.0	14.5 to 18.0	15.5 to 18.4	± 0.6	12.4 to 17.6	13.9 to 18.6	14.9 to 19.0
D/A ⁴	0.6 to 1.4			±0.2	0.4 to 1.6		

Within Table 701-18, rescind the rows showing VMA and D/A requirements for commercial mix and replace with the following:

VMA	12.4 to 17.6	13.9 to 18.6	14.9 to 19.0	N/A	N/A
D/A	0.4 to 1.6			N/A	N/A

701.12 DIGOUT AND SUB-EX REPLACEMENT MATERIAL

Rescind Subsection 701.12 Digout and Sub-ex Replacement Material and replace with the following:

Furnish replacement material for digout and sub excavation areas consisting of a well-graded sand and gravel, free of organic and other deleterious material, meeting the AASHTO M 145 requirements for A-1-a group classification as amended by Table 701-24. The material may consist of up to 50% RAP, uniformly blended. Crusher reject material may be used for either application provided it meets the requirements in Table 701-24.

TABLE 701-24
DIGOUT AND SUB EXCAVATION REPLACEMENT MATERIAL

Percentage By Weight Passing Square Mesh Sieves		
	Sieve size	Percent Passing
Digout	2-inch (50 mm)	100
	No. 200 (0.075 mm)	8 maximum
Sub excavation	6-inch (152 mm)	100
	No. 200 (0.075 mm)	8 maximum
Crusher Reject	4-inch (100 mm)	100
	No. 4 (4.75 mm)	0-50
	No. 40 (0.425 mm)	0-30
	No. 200 (0.075 mm)	8 maximum

704.01.1 SHEET ALUMINUM

Within Table 704-1, rescind the third heading "Maximum Back Brace Spacing Thickness" and replace with the following:

Maximum Back Brace Spacing

704.01.10(A) GENERAL

Remove the following Traffic Control Rate Schedule Group Numbers from Table 704-3:

18 (sign panel), 23, and 28.

704.02.1 ALUMINUM SIGNS

Page 469

10-9-14

Within the second paragraph, rescind the third sentence (than begins, "Coat in accordance...") and replace with the following:

Coat in accordance with ASTM B921 or B449 Class 2, 10 to 35 milligrams thick per square foot (0.093 m²).

707.01 CONCRETE JOINT FILLERS

Page 475

12-11-14

Rescind the heading only (707.01 CONCRETE JOINT FILLERS) and replace with the following:

707.01 JOINT FILLERS

707.01.1 CONCRETE PAVEMENTS

Page 475

12-11-14

Rescind Subsection 707.01.1 and replace with the following:

707.01.1 Pavement

- A. Expansion Joint Filler. Furnish expansion joint filler Type II cork in accordance with AASHTO M 153.
- B. Joint Sealing Material. Furnish sealing material for all types of pavement joints that is a hot-poured thermoplastic rubber or rubber asphalt compound in accordance with ASTM D6690, furnished in one grade only. Use ready-mixed, cold applied joint fillers for sealing concrete pavement joints only with the Project Manager's prior written approval.

708.05 PVC GRAVITY SEWER AND DRAIN PIPE

Page 477

4-16-15

Rescind Subsections 708.05, 708.05.1, 708.05.2 and 708.05.3 and replace with the following:

708.05 PVC GRAVITY PIPE

Furnish PVC pipe in accordance with ASTM D1784, and produced by a continuous extrusion process employing a prime grade of unplasticized polyvinyl chloride. Ensure the grade used is highly resistant to hydrogen sulfide, sulfuric acid, gasoline, oil, detergents and other chemicals found in sewage and industrial wastes. Furnish perforated pipe in accordance with ASTM D2729.

Ensure each pipe length is marked with nominal size, PVC cell classification, ASTM designation and SDR, if applicable. Ensure pipe has a minimum SDR of 35.

With the exception of Schedule 40 or 80 PVC conduit, ensure each pipe length has a bell providing a watertight joint when joining the bell and spigot with a rubber ring. Make joint using a rubber gasket compressed between the outer surface of the spigot and the inner surface of the bell. Ensure the joint is completely sealed by the gasket, providing a watertight joint under all service conditions, including expansion, contraction, settlement and pipe deformation. Assemble the rubber ring joint according to manufacturer recommendation.

708.05.1 Schedule 40 or 80 PVC Conduit

For non-electrical conduit, furnish schedule 40 or 80 PVC pipe.

708.05.2 PSM PVC Pipe

Furnish PSM PVC pipe 4-inch through 15-inch nominal diameter gravity pipe in accordance with ASTM D3034.

708.05.3 Large diameter PVC Pipe

Furnish large diameter PVC pipe 18-inch through 48-inch in accordance with ASTM F679.

708.05.4 Profile Wall PVC

Furnish corrugated exterior with smooth wall interior profile wall PVC gravity pipe 4-inch through 36-inch (100 - 900 mm) nominal diameter in accordance with ASTM F949.

708.05 PVC PRESSURE WATER PIPE

Page 478

4-16-15

Rescind Subsections 708.06, 708.06.1 and 708.06.2 and replace with the following:

708.06 PVC PRESSURE PIPE

708.06.1 Pressurized Water Pipe

Furnish pressure PVC water pipe 4-inch through 12-inch (100 mm - 300 mm) nominal diameter in accordance with AWWA Specification C-900.

Furnish pressure PVC pipe 14-inch through 48-inch (350 mm-1200 mm) nominal diameter in accordance with AWWA Specification C-905.

Use DR 25 Class 165 pipe. Ensure pipe joints are bell and spigot and include an elastomeric gasket. Pipe sections must be marked with diameter, code designation, DR, pressure class, and AWWA specification.

708.06.1 Pressurized Sewer Pipe

Furnish pressure PVC sewer pipe in accordance with ASTM D2241.

Within Table 710-7, replace the ASTM Designation for testing Thickness with D7091.

711.01.3 WIRE AND WIRE MESH

Page 489

10-9-14

Rescind the third (last) paragraph (than begins, "Furnish bar mats ...") and replace with the following:

Furnish bar mats in accordance with AASHTO M 54.

711.19 METRIC PLATE SUBSTITUTION

Page 493

10-9-14

Rescind the first sentence of the first paragraph (than begins, "Define the requirements...") and replace with the following:

Substituting standard inch-sized steel plate for metric steel plate is allowed.

713.06 RESERVED

Page 501

10-9-14

Rescind Subsection 713.06 and replace with the following:

713.06 WEED CONTROL MAT

Furnish a machine woven weed control mat composed of synthetic polypropylene or polyolefin fibers. Meet the requirements in Table 713-9.

TABLE 713-9
WEED CONTROL MAT

Property	Value	Test Method
Average weight	minimum 4 oz/yd ²	ASTM D3776
Water permeability	10-15 gallons per min per square foot	ASTM D4491
UV stability (minimum % tensile retention)	70%	ASTM D4355 (2,500-hour exposure)
Grab tensile strength	Warp: 90 lbs minimum Fill: 50 lbs minimum	ASTM D4632

713.12 ROLLED EROSION CONTROL PRODUCTS

Page 503

12-11-14

Rescind Subsection 713.12 and replace with the following:

713.12 Rolled Erosion Control Products

Furnish rolled erosion control products listed on the Department's QPL, as specified in the contract and meeting the requirements of this Subsection. If required, furnish natural fiber netting or stitching consisting of woven 100% biodegradable natural fibers such as coir, jute or sisal. Furnish blankets designed to stabilize and hold previously applied mulch or compost on slopes as well as newly constructed stream banks and slopes.

Natural fiber netting is available in various fiber types, strengths, weights and mesh-opening sizes.

A. Erosion Control Blankets. Furnish 100% biodegradable products for all types.

1. Short Term Blanket. An erosion control blanket composed of 100% straw or 100% excelsior.
2. Long Term Blanket. An erosion control blanket composed of 70% straw and 30% coconut or 100% excelsior.
3. High Performance Blanket. An erosion control blanket composed of 100% coconut or 100% excelsior.

B. Permanent Turf Reinforcement Mat.

1. Synthetic Fiber Matrix. Furnish a web of mechanically bonded synthetic fibers that are entangled to form a strong and dimensionally stable mat. Place fibers between 2 or 3 high-strength, biaxially oriented nets mechanically bound together by stitching with polyolefin thread. The netting material must be resistant to biological, chemical, and ultra-violet degradation.
2. Natural Fiber Matrix. Furnish a natural fiber matrix constructed of two or three nets of heavy-duty polypropylene, polyethylene or nylon. The internal matrix fiber is composed of a natural fiber such as curled wood, straw or coconut.

TABLE 713-4
ROLLED EROSION CONTROL

Type	Mass ¹ (lbs/Yd)	Tensile Strength – MD ² (lbs/ft)	Min. Shear Strength (lbs/ft ²)
Short term	0.5	190	1.70 ³
Long term	0.5	190	2.0 ³
High performance	0.6	190	2.25 ³
TRM – natural fiber matrix	0.8	500	10.0 ⁴
TRM – synthetic fiber matrix	0.5	300	12.0 ⁴

Notes:

1. Combined fiber matrix and netting
2. Machine direct
3. Minimum shear stress the rolled erosion control product (un-vegetated) can sustain without physical damage or excess erosion (>1/2-inch soil loss) during a 30-minute flow event per ASTM D6460.
4. Minimum shear stress the TRM (fully vegetated) can sustain without physical damage or excess erosion (>1/2-inch soil loss) during a 30-minute flow event per ASTM D6460.

713.13 COMPOST Page 504 10-9-14

Rescind the second paragraph (that begins, “Furnish compost in...”) and replace with the following:

Furnish compost listed on the QPL and in accordance with Table 713-8.

714.04 WATERBORNE TRAFFIC PAINT Page 507 4-16-15

Add the following sentence to the end of the first (only) paragraph:

Blue, red or black paint may be used without being NTPEP tested if the base paint is the same chemical composition as a NTPEP tested paint.

Below Table 714-2, add the following note referring to the “Color” section of Table 714-2:

Note 1: Furnish black paint in accordance with color chip 37038 of Federal Standard 595B.

714.05 HIGH DURABILITY WATERBORNE TRAFFIC PAINT Page 508 4-16-15

Add the following sentence to the end of the first (only) paragraph:

Blue, red or black paint may be used without being NTPEP tested if the base paint is the same chemical composition as a NTPEP tested paint.

Below Table 714-3, add the following note referring to the “Color” section of Table 714-3:

Note 1: Furnish black paint in accordance with color chip 37038 of Federal Standard 595B.

714.06 EPOXY OR OTHER POLYMERIC TRAFFIC PAINT Page 509 4-16-15

Add the following sentence to the end of the first (only) paragraph:

Blue, red or black paint may be used without being NTPEP tested if the base paint is the same chemical composition as a NTPEP tested paint.

Below Table 714-4, add the following note referring to the “Color” section of Table 714-4:

Note 1: Furnish black paint in accordance with color chip 37038 of Federal Standard 595B.

714.08 REFLECTIVE GLASS BEADS Page 512 4-16-15

Rescind Subsection 714.08 and replace with the following:

714.08 REFLECTIVE GLASS BEADS

Furnish glass beads for reflectorizing traffic pavement markings in accordance with AASHTO M 247. Gradation and roundness will be determined in accordance with AASHTO PP 74. In the event of a dispute, ASTM D1274 will be used for gradation determination and ASTM D1155 will be used for roundness determination.

Rescind Subsection 717.02.2(C) and replace with the following:

- C. Deck Sealant Sand. Furnish sand for bridge deck crack sealing operations in accordance with manufacturer's recommendations.