

**2025 SUPPLEMENTAL
SPECIFICATIONS FOR THE
2023 STANDARD
SPECIFICATIONS FOR
HIGHWAY CONSTRUCTION**

Note: 2025 revisions are indicated by a single line to the left

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ON PAGE 12, 101.04 - DEFINITIONS

Delete the definition for “Contingency Item” in its entirety and replace with the following in alphabetical order:

Contingency Amount. A dollar amount for items of work that are difficult to accurately estimate or quantify. The Department will pay for authorized work performed under a contingency item as required by the contract. Payment for accepted work will be made using the force account method (109.03.C.5) or as approved by the Engineer.

ON PAGE 17, 101.04 - DEFINITIONS

Delete the current definition for “Significant Change” and replace with:

Significant Change. When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed plans or work, or when a contract pay item is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. An allowance for an increase in quantity will apply only to the portion in excess of 125 percent of the original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

ON PAGE 19, 101.04 – DEFINITIONS

Add the following to bullet point 1 under the definition for Working Day:

and the day after Thanksgiving.

ON PAGE 21, 102.03 - EXAMINATION OF PLANS, SPECIFICATIONS, AND PROJECT SITE

Delete the last sentence of paragraph 4, starting with “Bidders must...”

ON PAGE 21, 102.04 - PREPARATION OF A PROPOSAL

Delete the last sentence of paragraph 3 and replace with:

Addenda acknowledgement required by inclusion of the addenda cover letter for each addenda with hard copy bid submittal or by downloading the addenda EBSX file through BidX for electronic bids.

ON PAGE 23, 102.10 - PROPOSAL ACCEPTANCE AND IRREGULAR PROPOSALS

Delete “omissions of addenda” in item no. 5 and replace with:

“lack of addenda acknowledgement”

ON PAGE 23, 102.10 - PROPOSAL ACCEPTANCE AND IRREGULAR PROPOSAL

Add the following to the numbered list:

8. Not having a UEI (Unique Entity Identifier) at the time of bid on a federal-aid contract.

ON PAGE 29, 104.02.A - GENERAL

Delete the fourth paragraph and replace with:

If the Engineer issues a change order revising the contract, sign the change order by signing a hardcopy or by noting approval in AASHTOWare within 5 days of receipt. If returning an unsigned change order, notify the Engineer in writing within 5 days of receipt of the reason for not signing the change order. The Department may withhold payment for the change order work until the Contractor submits a signed change order or unsigned change order with a written explanation.

ON PAGE 40, 105.11 - INSPECTION OF WORK

Delete the last two paragraphs of the section.

ON PAGE 41, 105.14.C - MAINTENANCE OF PUBLIC HAUL ROADS

Delete the first full paragraph under this section starting with “The Contractor is responsible for...”

ON PAGE 61, 106.06 - STORAGE AND HANDLING OF MATERIALS

In the third sentence of the first paragraph, delete “re inspect” and replace with “re-inspect”.

ON PAGE 66, 107.01.B - NON-FEDERAL AID CONTRACTS

Delete the section and replace with the following:

Non-federal-aid contracts must comply with 44-1001 through 44-1005, Idaho Code. Certify compliance monthly during the life of the contract using form ITD-2434, Idaho 95% Resident Monthly Workforce Certification for State-Funded Contracts. If a Contractor is not in compliance, they are required to take corrective action to restore compliance. Failure to supply the form ITD-2434 certifying monthly compliance may be considered a breach of the construction contract.

ON PAGE 66, 107.02 - PERMITS AND LICENSES

Change the section name to “Permits, Licenses, and Taxes”.

ON PAGE 69, 107.10 - RESPONSIBILITY FOR INJURY DAMAGE

Delete the fourth paragraph and replace with:

Submit a certificate of insurance to the email address provided on the Award letter and do not start work before obtaining approval of the insurance coverage by the Department.

ON PAGE 75, 107.17.B - CONTRACTOR SUPPORT AREAS

Delete “found” from the fifth sentence of the first full paragraph and replace with “present”.

ON PAGE 80, 107.17.K – CGP REQUIREMENTS

Delete the second paragraph under item 4 and replace with:

Do not begin construction activities until an authorization letter is received from IDEQ. If the review period exceeds 14 days it is considered an excusable/ non-compensable delay per 108.07.B.

ON PAGE 87, 108.01 - SUBLETTING OF CONTRACT

Delete the second sentence fourth paragraph and replace with the following:

For federal-aid contracts, the subcontractor must have a Unique Entity Identifier (UEI) prior to Engineer approval of subcontract agreement.

ON PAGE 91, 108.05 – LIMITATION OF OPERATIONS

Delete the second paragraph and replace with:

Do not work on a roadway open to the traveling public, except for normal maintenance operations, during a 3-day holiday weekend, on July 3, 4, and 5, or the day after Thanksgiving.

ON PAGE 100, 109.01.A.6.B - WEIGHT

Delete the first sentence of the second paragraph starting with “Material measurement...” and replace with the following:

At the time and location of material placement, provide printed scale weight tickets indicating the project name, project number, contract pay item number, load date, load time, load number, truck number, load gross weight, load tare weight, and load net weight. Hand-written or hand-corrected tickets are not acceptable without approval of the Engineer.

ON PAGE 101, 109.01.A.14 - ELECTRONIC TICKETING (e-Ticketing) FOR MATERIALS

Add the following section after 109.01.A.13.

14. ELECTRONIC TICKETING (e-Ticketing) FOR MATERIALS

The Contractor is encouraged to use e-Ticketing for materials delivery. The Contractor and the Engineer will decide at or before the Preconstruction Conference which bid items will be subject to e-Ticketing. Once this selection has been made, the Contractor may switch back to paper tickets by providing written notification to the Engineer. Contractor may switch to paper tickets 3 business days after providing this notice.

The cost associated with creating and maintaining electronic ticketing data and placing identifying vehicle numbers on the delivery vehicles is incidental to the associated pay item.

Provide electronic data for material weight tickets of bituminous, non-bituminous and aggregate materials delivered to the project. Place an identifying vehicle number on the delivery vehicle. The identifying vehicle number may be its license plate. This e-Ticketing requires that the Contractor have internet service available and connected to the plant loadout system/software. These provisions do not preclude or dismiss the contractor producing paper tickets required by the contractor’s quality assurance plan or used by the contractor as a back-up.

Use the Department's E-Ticketing Vendor. The Department's e-Ticketing vendor has no-cost connectors available to install in existing plant load out system/software at no cost. If the Contractor has an e-Ticketing vendor already, this connector does not interfere with other existing e-Ticketing vendor..

Register here <https://haulhub.com/itd/#signmeup> to begin using the Department's Electronic Ticketing Portal system.

Training is found at <https://learn.haulhub.com/>

A. General Requirements

As electronic tickets (e-Tickets) are generated, submit them to the Department using the Electronic Ticketing Portal: <https://www.e-dot.com>. The Department will reject any load that does not have a corresponding e-Ticket unless the cause is beyond the Contractor's control wherein the data cannot be uploaded directly into the cloud within ten (10) minutes of load-out, e.g., no internet availability, equipment malfunction, etc. In such circumstances, paper tickets may be permitted at the discretion of the Engineer for the duration of the extenuating circumstance. Notify the Engineer immediately of such circumstances. The Department may reject any ticket(s) received later than 10 minutes from when the ticket was created.

Payment for material weight delivered to the project will be based upon the e-Tickets marked "Delivered," less waste and excess material weight as noted in 106.04 of the Standard Specifications, and any audit corrections.

Do not reissue or reprint tickets that have been marked "Delivered," "Pending," or "Rejected" without first notifying the Engineer. The Engineer may reject a reissued or reprinted ticket at their discretion. When a reissued or reprinted ticket is rejected, payment will be based upon the original ticket.

For materials subject to the Contractor's Quality Control Plan, incorporate e-Ticketing.

B. Data Integration

Request a list of the Department's naming nomenclature. Include in the request an identification of what system the supplier utilizes for its load read-out weighing system. If necessary, use the Department's Application Programming Interface (API) to integrate with the Department's Electronic Ticketing Portal. Utilize the API to provide electronic data from the load read-out weighing system at the material source in a manner that is acceptable by the Department's Electronic Ticketing Portal. Update the load readout weighing system and API as necessary to maintain connection to the Department's Electronic Ticketing Portal.

Provide the following data on each e-Ticket:

1. General Ticket information (All Materials).

- a. Date.
- b. ITD Project Number.
- c. Name of Contractor
- d. Name of material supplier.
- e. Unique truck ID.
- f. Plant/scale name (source).
- g. Ticketed time.

2. **Portland Cement Concrete.**
 - a. Loaded time (water/cement time).
 - b. Wet and dry batch weights
 - 1) %Moisture of aggregates
 - c. Load Number
 - d. Yards delivered
 - e. Water:
 - 1) In aggregate.
 - 2) Total water.
 - 3) Water/cement ratio.
 - 4) Max water/cement ratio.
 - 5) Allowable water to add.
 - f. Admixtures (including brand names if available):
 - 1) Retarder and weights.
 - 2) Water reducer and weights.
 - 3) Air entrainment and weights.
 - 4) Special performance admixtures and weights.
 - 5) Concrete fibers.
 - g. Cementitious material(s) and weights.
 - h. CPI Name and certificate number.
3. **Flexible Pavement Mixture.**
 - a. Type of material.
 - b. Gross weight (if not automatic weighed).
 - c. Tare weight (if not automatic weighed).
 - d. Net weight.
 - e. Mix design number.
4. **Optional Additional Truck Status (Will be accepted when available - All Materials)**
 - a. Left plant.
 - b. Arrive at project.
 - c. Begin unload.
 - d. Finish unload.
 - e. Leave project.

Loads which do not have the required e-Ticket data upon arrival at project site will be rejected. No payment will be made for rejected material.

C. Setup and Calibration

Conduct a test of each supplier's integration with the Department's Electronic Ticketing Portal prior to shipping material. Complete test at least seven days prior to shipping material unless otherwise approved by the Engineer. The test must involve at least four calibration e-Tickets from each supplier approved for use on the project. The calibration e-Tickets must accurately reflect categories 1-4 shown above; all other categories shall be marked "TEST." After the Engineer confirms that the calibration e-Tickets have been entered into the Department's Electronic Ticketing Portal, void the e-Tickets with the reason "Calibration Testing."

D. Small Quantity Exceptions

e-Ticketing will not be required for material suppliers who produce less than the specified quantity minimums:

- Embankment materials: 5000 Tons
- Aggregates: 3000 Tons
- Flexible pavements: 2250 Tons
- Concrete: 50 CY

ON PAGE 105, 109.03.B – PAYMENT FOR QUANTITY VARIATIONS

Delete the second paragraph and replace with:

If the total pay quantity of a work item varies from the bid quantity by more than 25 percent, the Department will appraise whether an adjustment is warranted based on a written request by the Engineer or the Contractor. The Department may make an adjustment to the unit price if justified. The Engineer and the Contractor must agree to the adjustment before the performance of the work. The Department's contract unit price adjustment will equal the difference between the contract unit price and the actual unit cost to perform the work, plus 6 percent profit.

ON PAGE 114, 109.08.3 - ACCEPTANCE AND FINAL PAYMENT

Delete the word "retainage" in Item 3 under 109.08 and replace with "withholding".

ON PAGE 116, 110.01 – GENERAL REQUIREMENTS

Delete the last sentence of the first paragraph and replace with:

To find the nearest employment office go to the Local Office Directory on the Idaho Department of Labor website.

In the fourth paragraph, delete the phone number listed and change to:

208-334-8884

ON PAGE 116, 110.02.A – EMPLOYMENT LISTS, LABOR SELECTIONS, NON-DISCRIMINATION

Delete the first two paragraphs and replace with:

To find the nearest employment office go to the Local Office Directory on the Idaho Department of Labor website.

The Contractor may use the services of the employment office for obtaining labor of the intermediate and skilled grade.

ON PAGE 137, 203.05 - BASIS OF PAYMENT

Add the following:

Saw cutting is incidental to the associated removal item.

ON PAGE 147, 205.03.H.3.a - QUALIFICATIONS

Delete the last sentence in the first paragraph starting with “Provide the following...” and replace with the following:

The Blaster in Charge must meet the following minimum experience and qualifications or be pre-approved as a Blasting Consultant on ITD’s Consultant Term Agreement List.

ON PAGE 147, 205.03.H.3.a - QUALIFICATIONS

Delete item (7).

ON PAGE 183, 301.03.A - GENERAL

Delete the word “enough” from the last sentence of the last paragraph.

ON PAGE 187, 303.03.A - GENERAL

Delete the word “enough” from the last sentence of the last paragraph.

ON PAGE 188, 303.03.C - AGGREGATE BASE MATERIAL

Revise the section name to: “C. Aggregate Base Material - Load, Haul, and Place”

Delete “Load, Haul, and Place.” from the first paragraph.

ON PAGE 192, 308 – CEMENT RECYCLED ASPHALT BASE STABILIZATION (CRABS)

Delete the entire section and replace with:

SECTION 308 – CEMENT RECYCLED ASPHALT BASE STABILIZATION (CRABS)

308.01 Description.

Recycle the existing roadway pavement and a portion of the base layer.

Follow the specified grade control class.

1. Class I CRABS: use field-established elevations.
2. Class II CRABS: use prescribed elevations.

308.02 Materials.

Use materials conforming to the following requirements:

Use cement as specified in the project plan sheets. If no cement is specified refer to 701. If an alternate type of cement is proposed for use, obtain approval from the Department. 1L cements are allowable for use.

Use water that is clear and without oil and other contaminants.

Perform quality control density testing using an uncorrected nuclear gauge in accordance with FOP for AASHTO T 310 Method A Modified. AASHTO T 310 Method A Modified specifies that the nuclear gauge be operated in backscatter mode to establish the breakover curve. Conduct at least 1 compaction test for every 7,200 square yards of CRABS work.

308.03 Construction Requirements.

Before mobilization, submit a plan of operations for CRABS processing, including traffic control.

A. General.

Construct the CRABS while the existing pavement temperature is above and is expected to remain above 40°F for 24 hours after final completion.

Do not spread portland cement over puddled water, during rain, when rain is imminent, or when wind will not allow uniform spread on the roadway or will cause displacement of cement before mixing.

Add cement and process no more of the roadway than can be repaved in 1 day of paving production. Do not allow traffic to drive on the CRABS surface unless approved by the engineer.

Unless the approved traffic control plan requires traffic to be detoured to an alternate roadway, open the roadway to traffic at the end of each working day. Traffic can travel on compacted pulverized material, if approved by the Engineer. Grade and water the pulverized surface at least once every 24 hours if traffic is allowed to drive on the pulverized surface.

On Class I work, establish the final CRABS surface elevation in the field. Survey the existing roadway surface to produce a surface file (DTM format) for submission to the Engineer for review. Allow at least 7 working days for review. Do not begin work until the submitted surface file has been approved. Adjustments to the surface profile, if approved by the Department, will be made. On tangent roadway sections, the cross slope must be a 2% crown with a centerline at the existing crown location. Match existing cross slopes on superelevated and transitions sections of roadway. Use the approved surface file to establish grade control and maintain the grades of the roadway as specified. Machine control can be used if approved by the Department. Finish the CRABS surface to within 0.03 foot of the approved elevations from the submitted surface file.

On Class II work, the Department will provide grade elevations for the top of the CRABS layer. Finish the CRABS surface to within 0.03 foot of the elevations provided.

Do not waste material before approval of the final elevation for either class.

B. Initial Pulverization.

Before pulverization, strip and waste any vegetation encountered around approaches and inside the typical CRABS section.

Pulverize the pavement to the depth specified in the plans. The surface of the pulverized pavement prior to the application of cement must be at an elevation so that, when processed and recompact to the required density, the final elevation will match the approved elevation. Overlap pulverization passes at least 6 inches between longitudinal joints and 2 feet between transverse joints. The pulverized material must have 100% passing the 3-inch sieve. Gradation of the material will be accepted by visual inspection. If the pulverized pavement does not contain enough fine material to achieve compaction, additional material can be added on top of the subgrade or from below from deeper pulverizing, if approved by the Engineer.

Document the existing pavement thickness every 0.1 mile in each lane. Submit this documentation to the Department.

Notify the Engineer of any poor quality subbase materials (e.g., soft spots, clays, silts, organic materials) as they are encountered.

If traffic is allowed on the surface prior to the CRABS process and after initial pulverization, shape and compact the pulverized material before the CRABS mixing process.

C. CRABS Process.

Furnish portland cement in bulk. Add the cement to the pulverized material using a mechanical spreader at the rate specified in the plans +/- 5 percent. Synchronize the application rate with the machine speed to provide uniform application. Spread the cement in a dry state and do not allow blowing of the cement. Upon approval of the engineer, slurry cement application may be used.

After spreading the portland cement, mix the cement with the pulverized material to obtain the required depth and width. Start mixing cement within 30 minutes of placement. Distribute only as much portland cement as can be mixed and compacted within the same working day.

Use a road mixing machine (pugmill, auger, or cross-shaft mixer) capable of providing a uniform homogeneous mixture. Introduce the water through the mixing machine using a metering device. Add the correct quantity of water to produce a mixture within 3% of optimum moisture content for compaction. Do not allow water leakage from equipment. Do not add excessive water. Mix the existing pulverized pavement, base, and cement to the full depth as specified.

More than 1 pass of the mixer may be required. Introduce water with the final mixing pass.

Ensure and document the mixing thickness every 0.3 mile in each lane.

Provide continuous grade and cross-slope control including surveying (blue topping or confidence points to verify the DTM model).

It is expected that the pulverized material will swell 15 to 30 percent before compaction. Construct the cross slope as shown in the approved DTM surface . Adjustments may be required to the existing roadway profile to provide a consistent grade and to avoid adding new material or wasting existing material. If necessary, reestablish the roadway profile and cross slopes to provide a roadway section that is consistent with the typical section. Obtain approval for any modifications to the approved DTM surface. For CRABS Class II work, the grades in the Department-provided gradebook may be adjusted to avoid adding new material or wasting existing material upon approval.

Account for swell in the grading operation that may leave the processed surface above the adjacent surface. Incorporate all pulverized material into the CRABS layer. Shape and finish the CRABS surface without adding new material or wasting existing material.

Grade designated shoulder material to a location and elevation on the shoulder that is below the top of the CRABS layer. Do not use cement-treated material for shoulder material.

Place windrow material designated for removal adjacent to, but outside the limits of pulverization. Dispose of material following final shaping and before application of cement.

Use a motor grader, mechanical spreader, paver, or grade trimmer to shape the mixture.

For the compaction train, include at least 1 rubber-tired roller, 1 vibratory roller, and 1 vibratory pad-foot soil compactor. Use compaction equipment and/or rolling methods to produce the required compaction without damaging the work.

The vibratory soil compactor will have a minimum centrifugal force of 15 tons, minimum drum width of 60 inches, and minimum pad height of 3½ inches. Use the vibratory pad-foot soil compactor after the cement has been mixed.

Perform all other final process rolling and blading after completion of the vibratory pad foot operation.

Establish a roller pattern using in-place density from an uncorrected nuclear gauge in accordance with FOP for AASHTO T 310 Method A Modified. Use the roller pattern as a standard from which to measure compaction. Compaction is achieved when additional roller passes add no more than 0.5 pound per cubic feet to the previous in-place density. Ensure a “false break” or leveling-off point is not used for compaction density. Reestablish a new roller pattern when mixture properties change and at least every 7,200 square yards of finished surface.

Perform grading and rolling without wasting material.

Accomplish all shaping, final process rolling and associated blading within 2 hours of the initial blending of the cement and water. Do not use vibratory rollers on the CRABS surface beyond the 2 hours after the addition of water and cement.

Cure completed CRABS material by applying a prime coat or another approved sealing membrane or by keeping the processed and compacted material visibly moist until the first lift of plant mix is applied. The method of curing must be included in the submitted plan of operations for CRABS. If prime coat or another approved sealing membrane is used, apply as soon as possible once the CRABS material can support the weight of the application equipment without causing damage to the completed CRABS

surface. Keep the CRABS surface continuously moist until the application of the curing material. Do not apply prime coat to the completed CRABS surface if standing water is present.

If prime coat or another approved sealing membrane is used to cure the CRABS the Engineer will approve the proper application rate. The application rate of the prime coat or sealing membrane may be adjusted for proper application and sealing of the CRABS surface as approved by the Engineer. Allow the prime coat or sealing membrane to dry before construction equipment or traffic is allowed on the surface. If construction equipment needs to travel on the surface before the prime coat or sealing membrane is dry, clean dry blotter sand can be applied to the surface to prevent tracking or damage to the surface. Repair tracking or damage to the tack coat at no additional cost to the Department.

Pave over the CRABS as soon as possible following compaction and within 48 hours after the introduction of cement and water to the CRABS. If the CRABS surface is protected and being properly cured, the 48 hour timeline can be extended if approved by the Engineer.

Tight-blading and static rolling may be required before applying the initial lift of plant mix due to surface deformation, raveling, or other irregularities. Ensure there is no loose material on the CRABS surface at the time of plant mix paving. After paving, blade the roadway shoulders to provide a uniform appearance.

308.04 Method of Measurement.

Pulverized existing surface and CRABS will be measured by the square yard.

Portland cement will be measured by the ton using certified weights indicating the truck and trailer number, tare weight, gross weight, net weight, and date. When the measurement of Portland cement is based on certified weight certificates, the following will apply:

1. An occasional loaded transporting vehicle will be weighed on a local certified scale and a copy of the weight certificate will be submitted before the discharge of material. The Engineer will determine when loaded transporting vehicles will be weighed.
2. At the Engineer's request, randomly selected, empty transporting vehicles may be weighed on a local, certified scale able to produce a scale ticket for the Engineer's documentation and verification.

For discrepancies between the weight certificates and weights obtained at the project site, the Engineer will be the sole judge in determining the quantity of portland cement used.

308.05 Basis of Payment.

The Department will pay for acceptable quantities as follows:

Pay Item	Pay Unit
Pulverize Existing Surface	SY
Cement Recycled Asphalt Base Stabilization Class ____	SY
Portland Cement	Ton
Prime Coat	Gallon

The following work is incidental, and the cost included in the CRABS contract pay items including:

1. Stripping and disposing of unsuitable materials.
2. Grade control work.
3. Additional required pulverization and mixing passes.
4. Brooming.
5. Grading, rolling, and shaping.
6. Mixing water and water required to keep the CRABS surface moist for shoulder dressing.
7. Blade the shoulders to be smooth and at a uniform slope leaving no clumps or debris.

ON PAGE 242, TABLE 409.01.A - CLASSIFICATION

Delete Table 409.01-1 and replace with the following:

Table 409.01-1 – Basic Mix Design Parameters				
Concrete Class in 100 psi (28 or 56 Day) (a) (b) (g)(h)	Minimum Cementitious Content lb/yd³ (c) (d) (e) (f)	Water to Cement Ratio	Slump in	Air Content Percent
45	600	0.42 maximum	2 maximum	4 - 7
<p>(a) The class of concrete is the specified compressive strength when using the applicable tests as specified in 409.02.</p> <p>(b) A design value of 5,600 psi is specified to achieve the specified compressive strength.</p> <p>(c) Cementitious is cement plus secondary cementitious material (SCM).</p> <p>(d) It may not always be possible to produce concrete of the required strength using the minimum cementitious contents. No separate payment will be made by the Department for additional cementitious material required to meet specified strength.</p> <p>(e) Use SCM as specified in 714.</p> <p>(f) It may not always be possible to produce concrete using the minimum SCM content that will ensure mortar bar expansion does not exceed the standard limit when tested in accordance with CRD C 662 or ASTM C 1293. If additional SCM is needed to meet mortar bar expansion requirements, the Contractor may add it to the mix without a corresponding increase in cement provided the strength requirements are met. Obtain approval to add lithium or other mitigating measures to meet the mortar bar expansion requirement. A separate payment will not be made by the Department for additional cementitious material required to meet the specified compressive strength.</p> <p>(g) Concrete class designated as Class F will contain SCM. Minimum SCM content varies by product, for fly ash and slag cement (slag) minimum content is 20% by weight of total cementitious material. Fly ash will not exceed 25% of total cementitious material. Slag will not exceed 35% of the total cementitious material. Ternary and quaternary blends will contain at least 20% SCM. Total SCM content will not exceed 50%.</p> <p>(h) When using blended cements, the strength development may take longer than it would have with ordinary portland cements. If the schedule allows, designing the mix for 56-day strength will allow for a reduced cement content to reduce the potential for shrinkage cracking.</p>				

ON PAGE 242, 409.01.B – ACCEPTANCE

Add the following after the second sentence in the first paragraph:

Strength is accepted based on the results of the 28-day, or 56-day compressive strength tests, if needed, as determined in accordance with AASHTO T 22.

Delete the second paragraph and replace with:

When the 28-day or 56-day strength for a test falls below the specified strength, concrete represented by that test is subject to rejection or a price reduction.

ON PAGE 243, 409.01.B – ACCEPTANCE

Add the following to the end of the first sentence of the third paragraph:

... , or 70 calendar days for the 56-day strength.

Delete the second sentence of the third paragraph and replace with:

Cores obtained after 42 or 70 calendar days will only be acceptable to the Engineer when the Contractor submits a correlation curve developed by a Department approved independent testing laboratory to relate strength at the actual test age to 28-day or 56-day strength for a particular class and design mix represented by cores.

Delete the second sentence of the last paragraph and replace with:

If results of 7-day strength tests are low or show a downward trend, predicting concrete may not meet the specified 28-day or 56-day strength, make corrective changes.

ON PAGE 243, 409.01.B – ACCEPTANCE

Delete the second sentence of the last paragraph and replace with:

The Department will provide the 7-day break data to the Contractor. If results of 7-day strength tests are low or show a downward trend, predicting concrete may not meet the specified 28-day or 56-day strength, make corrective changes.

ON PAGE 244, TABLE 409.02-1 – CHARACTERIZING EFFECTIVENESS OF MITIGATION IN CONCRETE

Add the following after “CRD C662” in the Title:

“or ASTM C1567”.

ON PAGE 245, 409.02 - MATERIALS

Delete the reference to standard test method AASHTO T 23 and replace with the following:

Standard Practice for Making and Curing Concrete Test Specimens in the Field
(Except use single use molds made of plastic) AASHTO R 100

ON PAGE 247, 409.03.A - PROPORTIONING

Delete “CRD-C 662CRD-C 662” from the first sentence of the last paragraph on the page.

ON PAGE 251, 409.03.D - MIXING AND DELIVERING

Under Item 10, delete “85°F” and replace with “90°F”.

ON PAGE 252, 409.03.F.3 - TEMPERATURE LIMITATIONS

Delete the text in Item 3 and 4 and replace with the following:

3. Do not place concrete if the concrete temperature is greater than 90°F. Do not place concrete when the evaporation rate is greater than 0.15 pounds per square foot per hour when tested in accordance with Idaho IT 133. Submit for acceptance an evaporation and curing plan as described in 409.03.M. If the evaporation rate approaches 0.15 pounds per square foot, implement the accepted evaporation and curing plan. Admixtures can be used to extend delivery times and revolutions if noted in the mix design with the approval of the Engineer. Night or early morning placement may be necessary to avoid excess evaporation. Ice used as part of the mixing water must be completely melted by the time the mixing is completed.
4. Do not place concrete against any surface with a temperature less than 32°F or greater than 90°F.

ON PAGE 259, 409.03.M - COLD WEATHER CONCRETING WORK PLAN

Replace section name with:

M. Cold and Hot Weather Concreting Work Plans

ON PAGE 260, 409.03.M - COLD WEATHER CONCRETING WORK PLAN

Add the following hot weather information to the end of the section.

Submit for approval a hot weather concreting work plan, also known as an evaporation and curing plan, when ambient temperatures are likely to be above 85°F during placement or when the evaporation rate could potentially approach 0.15 pounds per square foot due to wind and other factors. At no time can the concrete temperature or evaporation rate exceed the limitations specified. The plan may include development of a concrete mixture and a detailed plan for mixing, transporting, placing, protecting, curing and testing of concrete. Precautions must be made to avoid thermal cracking or deleterious effects to the concrete due to high temperatures. Retempering is not allowed.

Use of established mathematical and empirical models will be required.

Evaporation retardant must be on hand and available for use as an emergency protection when the curing operation is delayed. Do not use evaporation retardant as a finishing aid. Evaporation retardant material and use must be addressed in the Contractor's evaporation and curing plan.

ON PAGE 262, 409.05 – BASIS OF PAYMENT

Add the following prior to the second paragraph beginning with "Drilling holes..."

The Department will pay for concrete in two payments. The Department will pay for 50% of the quantity of concrete placed at the contract price per square yard after placement. Upon acceptance of the material, the remainder will be paid, plus or minus adjustments for strength and thickness. No payment will be made for removal and replacement of rejected material.

ON PAGE 301, 502.01.A - CLASSIFICATION

Delete Table 502.01-1 and replace with:

Table 502.01-1 – Basic Mix Design Parameters				
Concrete Class in (100 psi) (28 or 56 day) ^{(a)(i)}	Minimum Cementitious Content lb/yd³ ^{(b) (c)}	Maximum Cementitious Content lb/yd³	Maximum Water Cement Ratio	Air Content Percent
65 and greater, Self-consolidated concrete ^{(d)(e)(f)(g)}	660	NA	0.42	0-6.0
45 to less than 65 ^{(d)(e)(f)(g)}	560	710	0.44	0-6.0
35 to less than 45 ^{(d)(e)(f)(g)}	470	615	0.44	0-6.0
30	470	570	0.50	6.5±1.5
Seal Concrete	660	N/A	0.60	0 - 6.0
Mass Concrete ^{(d)(e)(g)(h)}	560	N/A	0.44	0-6.0

a) Numerical part of class designation is the specified compressive strength when using the applicable tests as specified in 502.02.

b) Cementitious is cement and secondary cementitious materials (SCM).

c) It may not always be possible to produce concrete using the minimum SCM content that will ensure mortar bar expansion does not exceed the standard limit when tested in accordance with CRD C 662 or ASTM C 1293. If additional SCM is needed to meet mortar bar expansion requirements, the Contractor may add it to the mix without a corresponding increase in cement provided the strength requirements are met. Obtain approval to add lithium or other mitigating measures to meet the mortar bar expansion requirement. A separate payment will not be made by the Department for additional cementitious material required to meet the specified compressive strength.

d) Concrete designated as Class A will have an air content of 6.5 plus or minus 1.5 percent.

e) Concrete designated as Class C will have a maximum water cement ratio of 0.40, water reducer required, and air content of 6.5 plus or minus 1.5 percent.

f) Concrete designated as Class F will contain SCM. Minimum SCM content varies by product; for fly ash and slag cement (slag) minimum content is 20% by weight of total cementitious material. Fly ash will not exceed 25% of total cementitious material. Slag will not exceed 35% of the total cementitious material. For silica fume, minimum content is 7.5% by weight of total cementitious material. Silica fume will not exceed 10% of the total cementitious material. Ternary and quaternary blends will contain at least 20% SCM. Total SCM content will not exceed 50%.

g) Provide SCM meeting the requirements of 714.

h) Use only Type I, II, IL, IP or IS cements. Any combination of slag or Class F fly ash. Class C may be used with a maximum substitution of 20%. Maximum total substitution of SCM must not exceed 50%, including the amount of blended cement. Water reducing or retarding admixtures may be used to aid in air entrainment. Non-chlorine accelerators are allowed.

i) When using blended cements, the strength development may take longer than it would have with ordinary portland cements. If the schedule allows, designing the mix for 56-day strength will allow for a reduced cement content to reduce the potential for shrinkage cracking.

ON PAGE 302, 502.01.B – ACCEPTANCE

Add the following after the second sentence in the first paragraph:

Strength is accepted based on the results of the 28-day, or 56-day compressive strength tests, if needed, as determined in accordance with AASHTO T 22.

Add the following sentence to the end of the first paragraph:

When the 28-day or 56-day strength for a test falls below the specified strength, concrete represented by that test is subject to rejection or a price reduction. Make approved corrective changes if results of 7-day strength tests are low or show a downward trend predicting concrete may not meet the specified 28-day or 56-day strength.

ON PAGE 302, 502.01.A - CLASSIFICATION

In the first sentence of the last paragraph, delete “303” and replace with “380”.

ON PAGE 303, 502.01.B – ACCEPTANCE

Delete the following from the first sentence of the second paragraph:

...at no additional cost to the Department

Add the following to the end of the first sentence of the third paragraph:

... , or 70 calendar days for the 56-day strength.

Delete the second sentence of the third paragraph and replace with:

Cores obtained after 42 or 70 calendar days will only be acceptable to the Engineer when the Contractor submits a correlation curve developed by a Department approved independent testing laboratory to relate strength at the actual test age to 28-day or 56-day strength for a particular class and design mix represented by cores.

Add to the end of the fourth full paragraph starting with “The Engineer and the Contractor...”

When results of the drilled core testing indicates passing results, the cost to perform the coring and testing will be borne by the Department or its representatives.

ON PAGE 304, 502.01.B – ACCEPTANCE

Delete the second sentence of the first paragraph and replace with:

The Department will provide the 7-day break data to the Contractor. Make approved corrective changes if results of 7-day strength tests are low or show a downward trend predicting concrete may not meet the specified 28-day or 56-day strength.

ON PAGE 304, Table 502.02-1 – CHARACTERIZING EFFECTIVENESS OF MITIGATION IN CONCRETE

Add the following after “CRD C662” in the Title:

“or ASTM C1567”.

ON PAGE 305, 502.02 - MATERIALS

Delete the reference to standard test method AASHTO T 23 and replace with the following:

Standard Practice for Making and Curing Concrete Test Specimens in the Field
(Except use single use molds made of plastic) AASHTO R 100

Delete test method “Determining the Percentage of Fracture of Coarse Aggregate”.

ON PAGE 306, 502.02 - MATERIALS

Add the following to the list of test methods:

Standard Test Method for Determination of Length of Change of Concrete Due to Alkali-Silica
Reaction.....ASTM C 1293

ON PAGE 311, 502.03.D.10 - MIXING AND DELIVERY

Delete Item 10 and replace with the following:

10. Do not place concrete when the concrete temperature is below 50°F. Do not place concrete if the concrete temperature is greater than 80°F for bridge decks or when placing concrete where the least dimension is greater than 3.0 feet; otherwise, the concrete temperature must not exceed 85°F. The concrete temperature must not exceed 85°F at the time of placement for precast members. Refer to 502.03.F.4 for temperature limitations with massive placements. When placing flatwork, do not place concrete when the evaporation rate is greater than 0.15 pounds per square foot per hour when tested in accordance with Idaho IT 133. Submit for acceptance an evaporation and curing plan as described in 409.03.M if the concrete temperatures are anticipated to approach the temperature limitations specified or if the evaporation rate is anticipated to approach 0.15 pound per square foot for flatwork. Implement the accepted evaporation and curing plan when appropriate based on the actual concrete temperature and evaporation rates. Admixtures can be used to extend delivery times and revolutions if noted in the mix design with the approval of the Engineer. Night or early morning placement may be necessary to avoid excess evaporation. Ice used as part of the mixing water must be completely melted by the time the mixing is completed.
11. Do not place concrete against any surface with a temperature less than 32°F or greater than 90°F.

ON PAGE 308, TABLE 502.03-3 – STRENGTH VALUE

Delete Table 502.03-3 and replace with:

Table 502.03-3 – Strength Value

Concrete Class	Location	Design Mix Strength
Specified Strength 3,000 psi thru 5,000 psi	Concrete, except cast in-place girders	Specified Strength +1,200 psi
	Cast-in-place girders	Specified Strength + 1,600 psi
Specified Strength over 5,000 psi	Concrete	1.1 x Specified Strength + 700 psi

ON PAGE 312 AND 313, 502.03.E.3.a(6) - FALSEWORK AND FORMS

Delete item (6), including the “Note”, and replace with the following:

(6) For applying the lateral pressure formulas, columns are defined as elements with no plan dimension exceeding 6.5 feet. Walls are defined as vertical elements with at least 1 plan dimension greater than 6.5 feet.

ON PAGE 317, 502.03.E.5 - REMOVAL OF FALSEWORK AND FORMS

Replace the first paragraph with the following:

Perform maturity testing in accordance with ASTM C1074 or field-cured cylinder testing to determine compressive strength for form removal and loading.

ON PAGE 317 AND 318, 502.03.E.5 - REMOVAL OF FALSEWORK AND FORMS

Correct formatting by replacing Table 502.03-5 with:

Table 502.03-5 – Form and Falsework Removal and Loading of Concrete

Part 1: Removal of Forms and Falsework Structural Element	Minimum Days ^{(a) (b) (f)}	Percent of Design Strength ^(e)
Side forms for: footings, abutment caps, pier caps, traffic and pedestrian barriers, end diaphragms, intermediate diaphragms, sleeper beams, moment slabs, and other side forms not supporting the concrete mass	1	—
Columns, abutment backwalls, and retaining walls	3	50
Cantilever bridge deck sidewalks	7	—
Bridge decks, top slabs of concrete box culverts or stifflegs ^(c)	10	80
Crossbeams, caps, box girders, T-beam Girders, and flat slab superstructures ^(c)	7	80
Signal, Luminaire, and Sign Support Foundations	7	80
Part 2: Subsequent Loading ^(d) of Structural Element	Minimum Days ^{(a) (f)}	Percent of Design Strength ^(e)
Footings and abutments	3	80
Approach slabs, sleeper beams, moment slabs, and bottom slabs of box girders with falsework in place	5	80
Columns and walls	5	100
Bridge decks, top slabs of concrete box culverts or stifflegs and other members	10	100
Signal, Luminaire, and Sign Support Foundations	7	100
Erecting girders on pier caps	7	100
<p>(a) From the time of the last placement in the forms or falsework supports and excluding the days when the surrounding temperature is below 40°F for a total of 4 hours or more. Requirements in 502.03.G still apply. The Contractor will monitor the temperature during curing time by continuous recording thermometers.</p> <p>(b) Do not remove forms until the concrete has sufficient strength to prevent damage to the surface or cause over stressing of the concrete.</p> <p>(c) Where continuous spans are involved, the time for spans will be determined by the last concrete placed.</p> <p>(d) Except loads from formwork and reinforcing steel of further concrete placements.</p> <p>(e) Standard concrete mix designs may not achieve strength in the minimum days shown.</p> <p>(f) 1 day is 24 hours.</p>		

ON PAGE 322, 502.03.G.1 - COLD WEATHER CONCRETING

Delete items b and c, and renumber the remaining items in alphabetical order.

ON PAGE 323, 502.03.H - HOT WEATHER CONCRETING

Delete the first sentence of the first paragraph and replace with:

Submit for acceptance an evaporation and curing plan as described in 409.03.M.2 if the concrete temperatures are anticipated to approach the temperature limitations specified or if the evaporation rate is anticipated to approach 0.15 pounds per square foot per hour for flatwork.

ON PAGE 328, 502.05.1 – CONCRETE

Delete the first two full sentences of the first paragraph and replace with:

The Department will pay for concrete of the class and schedule specified in two payments. The Department will pay for 50% of the quantity of concrete placed at the contract price per cubic yard or square yard after placement. Upon acceptance of the material, the remainder will be paid, minus adjustments for strength. No payment will be made for removal and replacement of rejected materials.

ON PAGE 329, 502.05.6 - SURFACE RESISTIVITY PRICE ADJUSTMENT

Delete the first full sentence and replace with the following:

The Department will pay the price adjustment to the contract unit price for each lot of Schedule No. 2 concrete meeting the surface resistivity requirements in Table 502.05-2 when measured using AASHTO T 358 at 28 calendar days.

Change the number of the table to: "502.05-2"

ON PAGE 330, 503.03.B - PROTECTION OF MATERIAL

Remove the 4th sentence and replace with the following:

Do not flame cut reinforcing steel.

Prevent condensation from forming on the bars. Store and cover epoxy-coated metal reinforcement off the ground to protect them from sunlight, salt spray, and weather exposure. Do not drag or drop epoxy-coated reinforcing steel. Repair coating cracks, abrasions, chips, and bond loss before oxidation appears on the bar surface.

ON PAGE 331, 503.03.D - PLACING AND FASTENING

Add the following after the fifth sentence of the 1st paragraph:

Locate supports at least 1.5 times the maximum aggregate size or 2 inches, whichever is greater, from formed corners to allow for concrete consolidation around the supports.

ON PAGE 333, 503.03.E - SPLICES

Replace the first sentence of the first full paragraph with the following:

Make one tension test specimen splice to represent each lot of bars spliced at the project site and submit to a qualified lab for testing. Submit test results to the Engineer before installation.

Delete criteria 2 of the sixth paragraph and replace with:

- 2. Slippage for AASHTO M 31 Grade 60 bars within a splice sleeve is limited to a maximum of 0.01 inches for bar sizes up to No. 14, and 0.03 inches for No. 18 bars. Measure the slippage between gauge points clear of the splice sleeve. Take measurements in accordance with ASTM A1034.

ON PAGE 333, 503.05 - BASIS OF PAYMENT

Add the following to the end of the pay item list:

Metal Reinforcement, Type W.....lb

ON PAGE 335, 504.01.F - SHOP PLANS

Add the following after the last sentence of the first paragraph:

If the girder top flange or web is to be used to support the deck forms or screed machines, show the method and location of support in the girder shop drawings for approval prior to fabrication.

ON PAGE 338, 504.03.D - FIT AND BEARING

Replace all instances of “mill” with “finish”

Replace the first sentence of the last paragraph with the following:

Finish bearing stiffeners so they will bear evenly against the flange in accordance with ANSI/AASHTO/AWS D1.5 Section 5.5.9.

ON PAGE 342, 504.03.L.1 - BOLTED CONNECTIONS

Delete the first paragraph and replace with:

General. High-strength bolted connections are slip critical. Provide galvanized Type 1 bolts and galvanized Direct Tension Indicators (DTIs) for painted structures. Provide Type 3 bolts and Type 3 Direct Tension Indicators (DTIs) for weathering steel structures.

Delete the fifth paragraph.

ON PAGE 343, 504.02.L.1 - GENERAL

In the third paragraph, delete item “a.” and replace with the following:

- a. The complete fastener assembly, including lubrication if required, to be used in the work satisfies the proof load requirements specified in ASTM F3125 Table 5.

ON PAGE 344, 504.02.L.1 - GENERAL

Delete the second paragraph starting with “When bolts...”, and delete Table 504.03-2 – Bolt Tension.

ON PAGE 344, 504.03.L.2 - TIGHTENING METHODS

Delete the first sentence and replace with:

Tightening Methods. Tighten using the DTI method. Turn-of-nut method requires prior approval.

ON PAGE 344, 504.03.L.2.a.(2) - BOLT TENSION

Add the following to the end of section (a):

Modify the verification test procedure as follows: the maximum number of spaces in which the 0.005 inch gage is refused is the number of spaces on the washer minus one.

Add the following section after section (b):

(c) Tension all bolts and inspect all DTIs with a feeler gage, in the presence of the Engineer. Install DTIs with a minimum of a two-person crew, with one individual preventing the element at the DTI from turning and a second individual measuring the gap of the DTI to determine the proper tension of the bolt.

ON PAGE 346, 504.03.M.2 - PREHEATING

Delete “, Section 4” from the sentence.

ON PAGE 347, 504.03.M.3 – WELDING PROCEDURES

Delete “, Sections 5.7 and 5.12” from the last sentence of the first paragraph.

ON PAGE 347, 504.03.M.4 - FILLERS

Delete “Table 4.2” from the sentence.

ON PAGE 348, 504.03.M.6.b - RADIOGRAPHIC INSPECTION

Add the following to the end of the paragraph:

Provide an inspection report in digital format that includes a full set of radiographic digital images per AWS D1.5 Ch 8.12.3. Phased array ultrasonic testing (PAUT) is not allowed as a replacement for radiographic inspection.

ON PAGE 352, 505.03.B - HELMET ASSEMBLY

Delete the 3rd sentence and replace with the following:

Provide a pile hammer helmet assembly (strike plate, hammer cushion, drive cap base, and pile insert or pile adapter) that is approved by the pile hammer manufacturer and sized for the pile hammer. Field fabricated pile hammer components are not acceptable.

ON PAGE 357, 505.05 - BASIS OF PAYMENT

Delete the second paragraph of Section 505.05 and replace it with the following:

Splice steel pile before driving: the Department will pay for up to 1 splice per pile if the estimated pile lengths are 60 feet or longer. Splice steel pile during driving: the Department will pay for up to 1 splice per pile for estimated pile lengths from 60 up to 100 feet and up to 2 splices per pile for estimated pile lengths that are greater than 100 feet.

ON PAGE 373 AND 374, TABLE 510.02-2 - LATEX-MODIFIED CONCRETE PROPERTIES

Modify the formatting of Table 510.02-2 as follows:

Table 510.02-2 – Latex-Modified Concrete Properties

Mix Design Item	Requirement
Cement content	660 lb/yd ³
Latex emulsion admixture	25 gal/yd ³
Approx. added water ^(a) , including free moisture in the FA & CA	150 lb/yd ³
Air content, percent of plastic mix	0 - 6.5
Slump ^(b)	4 - 6 in
Percent fine aggregate as percent of total aggregate by weight (rounded CA)	55 ± 5
Percent fine aggregate as percent of total aggregate by weight (crushed CA)	60 ± 5
Weight ratio of cement-FA-CA- (rounded CA) ^(c)	1:2.5:2.0 dry basis
Weight ratio of cement-FA-CA- (crushed CA) ^(c)	1:2.7:1.8 dry basis
28-day compressive strength (Minimum)	4,000 psi
<p>(a) This is in addition to the latex. Adjust the water added to control the slump and to produce net water-cement ratios of 0.35 to 0.40 by weight.</p> <p>(b) Measure the slump 4 to 5 minutes after discharge from the mixer or immediately ahead of the finisher.</p> <p>(c) The Contractor may adjust the dry-weight ratios within limits as approved. The Contractor may increase the FA ratio by as much as 0.2 if the CA is reduced by an equivalent amount.</p>	

ON PAGE 373, TABLE 510.02-2 - LATEX-MODIFIED CONCRETE PROPERTIES

Delete “Cement Content” and replace with “Cementitious Content (Cement + SCM)”.

ON PAGE 374, TABLE 510.02-3 - SILICA FUME CONCRETE PROPERTIES

Delete “Cement Content” and replace with “Cementitious Content (Cement + SCM)”.

Delete “Course” from “Course Aggregates” and replace with “Coarse”.

ON PAGE 377, 510.03.E - PLACING AND FINISHING

Add the following to the end of the first paragraph:

Remove any plastic sheeting prior to placement of bonding coat.

Delete “visqueen” from the first paragraph and replace with “plastic sheeting”.

ON PAGE 381, 511.01.B.3 - SUBMITTALS

Add the following after item “f”:

g. Submit a quality control plan for acceptance.

ON PAGE 384, 511.03.A - SURFACE PREPARATION

Delete the second paragraph and replace with:

For structure rehabilitation, remove foreign materials from the concrete surface before applying waterproofing system. Repairs and patches must be fully cured before applying waterproofing. Prepare the surface according to an accepted quality control plan.

ON PAGE 384, 511.03.B.1 - TYPE C APPLICATION OF PENETRATING WATER REPELLENT SYSTEM

Delete the word “sandblasted” from the third sentence of the first paragraph and replace with “prepared”.

ON PAGE 389, 511.04 - METHOD OF MEASUREMENT

Replace the first sentence with the following:

The Engineer will measure acceptably completed work by the square yard based on plan quantity.

ON PAGE 400, TABLE 522.02-1 - CDF MIXTURE PROPERTIES

Delete Table 522.02-1 and replace with the following:

Table 522.02-1 – CDF Mixture Properties¹

	MIN. CEMENT CONTENT (LB/CY)	FLY ASH (CLASS F) OR SLAG CONTENT (LB/CY)	MAX WATER TO CEMENTITIOUS RATIO	FINE AGGREGATE (SSD) (LB/CY)	COARSE AGGREGATE (SSD) (LB/CY)	SLUMP ⁴ (INCH)	AIR ⁴ CONTENT (%)
Flowable Fill	50	0-260	2.0	1300-3000	0-2500 ²	6-8	0-15
Low Flowability Fill	100	--	4.0	1300-2000	1300-1900 ³	0-2	0-5

Notes:

1. Refer to ACI 229R for guidance.
2. 3/8 inch to No. 4 according to ASTM C33, or pea gravel.
3. 3/4 inch according to ASTM C33.
4. Provided for guidance.

ON PAGE 418, 553.02 – MATERIALS

Replace the 5th sentence in the 2nd paragraph with the following:

If the aggregate type is not specified in the plans, provide calcined bauxite aggregate.

ON PAGE 426, 565.01 - DESCRIPTION

Delete last sentence of the first paragraph and delete the 2 products listed.

ON PAGE 426, 565.02 - MATERIALS

Delete entire section and replace with:

Provide premeasured polymer asphalt expansion joint binder material, aggregate, backer rod (closed cell foam expansion joint filler), bridging plate, and location spikes in accordance with ASTM D6297.

ON PAGE 429, 566.03 - CONSTRUCTION REQUIREMENTS

Add new first paragraph:

Ensure the compression seal manufacturer's representative is present during the first installation of each joint type.

ON PAGE 430, 567.03.B - INSTALLATION

Delete the first sentence of the first paragraph and replace with:

Install the expansion joint as specified, per the approved shop drawings and manufacturer's instructions.

ON PAGE 435, 569.01 - DESCRIPTION

Replace the first sentence with the following:

Remove and dispose of existing expansion joint system and deck to the limits specified.

ON PAGE 435, 569.03 - CONSTRUCTION REQUIREMENTS

Replace the second paragraph with the following:

Remove and dispose of existing expansion joint headers, steel armor angles, sliding plates, embedded hardware, joint seals, and concrete within the specified removal limits so the concrete is not damaged beyond the limits shown.

Replace the last sentence of the third paragraph:

Repair damage to existing reinforcement, concrete overbreak, or other damage outside the limits specified in accordance with 582.03 at no additional cost to the Department.

ON PAGE 437, 574 – ANTI-GRAFFITI COATING

Delete the entire section and replace with:

SECTION 574 - ANTI-GRAFFITI COATING

574.01 Description.

Provide anti-graffiti coating on concrete surfaces.

A. System Types. Use one of the following system types:

- (1) Type 1 Chemical Removal. Coatings that are chemically resistant that allow for the removal of graffiti with solvent or chemical graffiti removers.
- (2) Type 2 Water Cleanable. Coatings that allow for graffiti removal with a high-pressure water wash.

574.02 Materials.

Provide a clear or pigmented anti-graffiti coating system. Use an aliphatic urethane system with a clear finish for the anti-graffiti system topcoat. Use a permanent anti-graffiti coating for the protection of raw concrete substrates. Provide color pigment of base or sealer coat that meet the following requirements:

Table 574.02-1 Type 1 Chemical Removal		
Property	Requirement	Test Method
Graffiti Resistance	Cleanability Level: 8, 9, or 10	ASTM D6578
	Recleanability: Min. 10 cycles	

Table 574.02-2 Type 2 Water Cleanable		
Property	Requirement	Test Method
Graffiti Resistance	Cleanability Level: 1	ASTM D7089
	Recleanability: Min. 10 cycles	

Provide coatings and primers from the same manufacturer. Ensure removal products do not damage or cause pigment loss of the coating.

1. Submittals:

- a. Provide accredited laboratory test reports, performed within three years of submittal, demonstrating conformance with Tables 574.02-1 or 574.02-2.
- b. The manufacturer's safety data sheet (SDS) for each of the components.
- c. The manufacturer's current product data sheets and installation instructions for the product.

Allow five business days for review and approval of submittals and resubmittals.

574.03 Construction Requirements.

Prepare surfaces to be coated by sandblasting to ensure surface is clean and free from foreign substances per manufacturer's instructions.

Apply base or sealer coat to the concrete surfaces. Apply anti-graffiti coating in accordance with manufacturer's installation instructions. Submit the guarantees and warranties.

Coat exposed surfaces of designated concrete superstructures, substructures, retaining walls, MSE walls, and coping to a line one foot below finished grade. Cover exposed bridge and wall surfaces except the deck and the underside of the deck surfaces.

574.04 Method of Measurement.

The Engineer will measure acceptably completed work by the square foot.

574.05 Basis of Payment.

The Department will pay for acceptable quantities at the contract unit price as follows:

Pay Item	Pay Unit
Anti-Graffiti Coating, Ty ____	SF

Surface preparation is incidental.

ON PAGE 439, 576.02.A - SUBMITTALS

Delete the following sentence:

Provide certifications bearing the notarized signature of a manufacturer's representative having quality control responsibility.

ON PAGE 446, 578.02 - MATERIALS

Revise the second sentence in the second paragraph:

Provide reinforcing steel meeting AASHTO M31, Grade 60S or Grade 80S.

In the third sentence of the second paragraph, delete "ASTM A497" and replace with "AASHTO M 336".

ON PAGE 446, 578.03 - CONSTRUCTION REQUIREMENTS

Delete the last sentence of the second paragraph and replace with:

Provide box culvert dimensional tolerances in accordance with ASTM C1577, Section 12. Provide three-sided frame dimensional tolerances in accordance with ASTM C1504, Section 11.

ON PAGE 454, 582.02.A - PREPARATION OF CONCRETE SURFACES

Delete item 6.

ON PAGE 455, 582.03 - CONSTRUCTION REQUIREMENTS

Replace A through D with the following:

A. Preparation of Concrete Surfaces.

Mark out and score removal areas to a depth of ½-inch with a dry concrete saw to form faces perpendicular to the surface. Angle the sawcut or adjust the sawcut depth as needed to avoid penetrating other bridge elements or damaging existing metal reinforcement.

Remove unsound concrete using jackhammers with a nominal rating of 15 pounds or less and held at an angle of 45° or less from the concrete surface. Do not remove concrete within ½-inch of girder bearing systems, including neoprene pads or lead plates, between the bearing seat and 4 inches above the bottom of abutment and pier caps. Notify the Engineer if unsound concrete is found within

½-inch of the girder bearing system. If any reinforcement is or becomes exposed during the removal and the bond between concrete and reinforcement is destroyed, remove deteriorated, loose, or unsound concrete to a minimum depth of ¾-inch behind the bar or to the depth of sound concrete, whichever is greater. Exercise care to prevent additional damage or debonding of metal reinforcement in adjacent concrete areas.

After concrete removal, sandblast the cavity and the surrounding concrete area to remove dirt, oil, grease, paint, corrosion deposits, dust, laitance, and bond inhibiting materials. Prepare the cavity using mechanical scarification or additional sandblasting to provide a minimum surface profile of ± 1/8-inch.

Protect property and traffic from damage and flying debris during concrete removal and sandblasting operations.

B. Existing Reinforcing Steel.

Repair or replace damaged (cracked, broken, gouged, or deteriorated) metal reinforcement where the effective bar area is less than 75 percent of the original bar diameter. Embed and splice replacement bars as directed. Embed supplemental bars as directed.

Clean exposed reinforcing steel to remove dirt, oil, grease, paint, corrosion deposits, dust, laitance, and bond-inhibiting materials immediately prior to patch material placement. Protect cleaned metal reinforcement from the elements and from contamination.

C. Inspection.

Prior to mortar placement, allow the Engineer to inspect concrete areas after final surface preparation has been completed for approval. After allowing the mortar to set in accordance with the manufacturer’s recommendations, sound the repaired areas with a sounding bar or hammer. The Engineer must be present during the sounding inspection. Remove and replace any unsound patches at no additional cost to the Department.

D. Finish.

Place mortar for each repair area in a single continuous pour or as directed. Match the texture of the existing surface and ensure the finished surface is flush with the existing surface. Immediately after removing forms, remove any excess mortar that has accumulated over an intended joint.

ON PAGE 473, 601.02 - MATERIALS

Add the following after “Ribbed Polyvinyl Chloride (PVC) Pipe”:

Corrugated PE Pipe.....	706.16
Ribbed PE Pipe	706.17

Add the abbreviation “(PP)” after “Polypropylene Pipe”.

ON PAGE 475, 601.03.D - PLASTIC PIPE

Delete the fourth paragraph and replace with the following;

Test PE lines for leakage in accordance with ASTM F2164. A maximum leakage rate of 0.15 gallon per inch of pipe diameter per 100 feet of pipe length per hour is allowed.

Test PP lines for leakage in accordance with ASTM F2487. A maximum leakage rate of 0.15 gallon per inch of pipe diameter per 100 feet of pipe length per hour is allowed.

ON PAGE 492, 612.04 - METHOD OF MEASUREMENT

Add the following to the end of the last sentence in item “1”:

“, and short radius w-beam guardrail system”

Add the following after “...guardrail transitions, “ in item “2”:

“short radius w-beam guardrail system, “

ON PAGE 493, 612.05 - BASIS OF PAYMENT

Delete the second to last paragraph and replace with:

Miscellaneous guardrail or barrier components, including precast concrete barrier anchor pinning, are incidental to the guardrail or barrier pay items.

ON PAGE 495, 614.02 – MATERIALS

Add the following to the list of materials:

Preformed Expansion Joint Filler 704.1

ON PAGE 496, 614.05 – BASIS OF PAYMENT

Delete the last two paragraphs, starting with “Detectable...”, and replace with:

If there is not an associated Excavation or Removal item, Excavation and Backfill are incidental to the associated pay item.

Detectable warning surfaces and preformed expansion joint filler are incidental to the associated pay item.

ON PAGE 497, 615.02 – MATERIALS

Add the following to the list of materials:

Preformed Expansion Joint Filler 704.1

ON PAGE 498, 615.05 – BASIS OF PAYMENT

Delete the last sentence and replace with the following:

Excavation, backfill, reinforcing steel, diluted emulsified asphalt for tack coat, and preformed expansion joint filler are incidental to the associated curb, gutter, curb and gutter, or traffic separator pay items.

ON PAGE 509, 619.02 - MATERIALS

Delete the following section references and replace with those listed below:

LED Luminaires713.04
Rigid Steel Conduit713.11
Plastic Conduit713.11
Concrete Junction Boxes713.11
Composite Junction Boxes713.11
Electrical Conductors713.11

ON PAGE 515, 620.03.C - BACKFILLING & FINISHING

Delete the last paragraph starting with “Submit a contingency spill and prevention plan with ...”

ON PAGE 526, SUBSECTION 623.02 – MATERIALS

Add the following after the first paragraph:

The contractor has the option to use shotcrete in place of 509 concrete. Provide shotcrete meeting ACI 506R-16 Grading No. 2.

ON PAGE 526, SUBSECTION 623.03 – CONSTRUCTION REQUIREMENTS

Replace the first sentence with the following:

Construct as specified in 509, or as specified in ACI 506R-16 if using shotcrete.

ON PAGE 529, 626.02.A - TEMPORARY TRAFFIC CONTROL SIGNS

Add the following to the end of the section:

Do not use double-sided signs.

ON PAGE 529, 626.02.B - CHANNELIZING DEVICES

Add “, or cones” after “barricades” and delete “, or other channelizing devices” in the first sentence of the first paragraph.

ON PAGE 532, 626.03.A - GENERAL

Delete the phrase “As specified in 105.14.D,” from the third sentence of the first paragraph.

ON PAGE 534, 626.04 - METHOD OF MEASUREMENT

Under Item 2, add “, cones” after “drums”.

ON PAGE 535, 626.05 - BASIS OF PAYMENT

Add the following pay item, in alphabetical order:

Cones..... Each

ON PAGE 540, 627.03.C.1 - SURFACE PREPARATION

Delete “3.2.9” from the first paragraph and replace with “5.2.9”.

ON PAGE 542, 627.03.C.4 - FIELD PAINTING AND REPAIR

Delete the first sentence of the first full paragraph and replace with:

Clean the erected exposed bolted areas, including remaining faying surfaces and bolts, and paint areas with exposed primer with intermediate and topcoat application.

ON PAGE 549, 630.05 - BASIS OF PAYMENT

Add the following to the end of the section:

Preparation of pavement surface before pavement marking application is incidental.

ON PAGE 553, 632.05 - BASIS OF PAYMENT

Add the following to the end of the section:

Debris containment, water treatment, disposal, cleanup, submittals, and other related work are incidental.

ON PAGE 557, 636-639 - RESERVED

Add new Section 636 and change the section heading to “637-639 RESERVED”.

636 - DRAIN ROCK

636.01 Description.

Provide and place drain rock as shown on the plans.

636.02 Materials.

Provide material as specified in:

Drain Rock.....711.01

636.03 Construction Requirements.

Place Drain Rock as specified on the plans or as directed.

636.04 Method of Measurement.

The Engineer will measure acceptably completed work by the cubic yard.

636.05 Basis of Payment.

The Department will pay for the accepted quantities at the contract unit price as follows:

Pay Item	Unit
Drain Rock	CY

ON PAGE 591, 656.03.B - TRAFFIC CABINET EVALUATION & TESTING

Delete the first paragraph and replace with:

Submit the cabinet wiring schematic, Malfunction Management Unit (MMU) jumper list, and the application programming for the control equipment for approval before fabrication begins.

ON PAGE 592, 656.03.B - TRAFFIC CABINET EVALUATION & TESTING

Add “(Gate 3 on Coffey St.)” after “Signal Shop” in the address.

ON PAGE 601, 675.01 - DESCRIPTION

Delete the last sentence.

ON PAGE 618, 701.01 - GENERAL REQUIREMENTS

Delete “Type I, II, or III” from the Portland Cement materials reference and replace with:

“Type I, II, III, or V”

Add the following after “IT, or IS” for Blended Hydraulic Cement:

with the appropriate suffix for the application (none, MS, HS, or HE)

Add the following material reference below Blended Hydraulic Cement:

Hydraulic Cement.....ASTM C1157 Type GU, MS, HS, or HE

ON PAGE 618, 701.01.A - PORTLAND CEMENT

Delete “Portland” from the title.

Delete the first paragraph and replace with:

Portland Cement Type I (General Purpose), Type II (Moderate Sulfate Resistance), Type III (High Early Strength), or Type V or equivalent Blended Hydraulic Cement or Hydraulic Cement according to Table 701.01-1.

Table 701.01-1 - Portland Cement / Blended Cement / Hydraulic Cement Equivalencies

AASHTO M 85	AASHTO M240	ASTM C1157
Type I	IS, IP, IL, IT	GU
Type II	IS(MS), IP(MS), IL(MS), IT(MS)	MS
Type III	IS(HE), IP(HE), IL(HE), IT(HE)	HE
Type V	IS(HS), IP(HS), IL(HS), IT(HS)	HS

Delete the second, third, and fourth paragraph.

ON PAGE 618, 701.1.B - BLENDED HYDRAULIC CEMENT

Delete “(≤ 10)” from first sentence of first paragraph.

Delete “(≤ 10)” from first sentence of second paragraph.

ON PAGE 619, 702.03 - EMULSIFIED ASPHALTS

Delete Items 1 and 2 and replace with:

1. Standard Specification for Emulsified Asphalt.....AASHTO M 140
For SS-1 and SS-1h, provide Rotational Paddle Viscosity measurements @ 25°C for information only. Report the test results on or with the Bill of Lading in addition to Saybolt Viscosity results.
2. Standard Specification for Cationic Emulsified Asphalt.....AASHTO M 208
For CSS-1 and CSS-1h, provide Rotational Paddle Viscosity measurements @ 25°C for information only. Report the test results on or with the Bill of Lading in addition to Saybolt Viscosity results.

ON PAGE 628 AND 629, TABLE 703.02-9 – COMBINED AGGREGATE SIZE NO. AND GRADATION

Delete Table 703.02-2 and replace with:

Table 703.02-9 – Combined Aggregate Size No. and Gradation

Individual Percent Retained					
Sieve size	1C	2C	3C	4C	5C
2½ in	—	—	—	—	0
2 in	—	—	—	0	0 - 10
1½ in	—	—	0	0 - 10	4 - 18
1 in	—	0	0 - 10	4 - 18	6 - 20
¾ in	0	0 - 10	4 - 18	6 - 20	6 - 20
½ in	0 - 10	4 - 18	6 - 20	6 - 20	6 - 20
⅜ in	5 - 18	6 - 20	6 - 20	6 - 20	6 - 20
No. 4	4 - 20	6 - 20	6 - 20	6 - 20	6 - 20
No. 8	4 - 20	0 - 16	0 - 16	0 - 16	0 - 16
No. 16	4 - 20	0 - 16	0 - 16	0 - 16	0 - 16
No. 30	4 - 20	6 - 20	6 - 20	6 - 20	6 - 20
No. 50	4 - 20	6 - 20	6 - 20	6 - 20	6 - 20
No. 100	4 - 20	4 - 18	4 - 18	4 - 18	4 - 18
No. 200	0 - 6.0	0 - 6.0	0 - 6.0	0 - 6.0	0 - 6.0
pan	0 - 3.0	0 - 3.0	0 - 3.0	0 - 3.0	0 - 3.0

ON PAGE 625, 703.02.A - GENERAL

Add superscript (b) to the title of Table 703.02-1 after “General Concrete Aggregate Criteria”.

In Table 703.02-1, under Ethylene Glycol, add superscript (c) after “90% minimum retained”.

Add the following after Note (a) at the bottom of Table 703.02-1.

- b) Testing provided for source approval can be used to meet these requirements, unless the material has changed since this testing was done. At the discretion of the Engineer, additional testing may be required.
- c) For basalt materials only. Note that alluviums with basalt must also be tested.

ON PAGE 629, 703.02.D - COMBINED AGGREGATE GRADATION FOR CONCRETE

Delete Items 1, 2 and 3 below the second paragraph and replace with the following:

1. Seventy (70) for all concrete, other than concrete wearing surfaces.
2. Seventy (70) for concrete wearing surfaces (e.g., bridge decks, pavements, approach slabs) with 2.0 percent or less than passing the No. 200 sieve.
3. Eighty (80) for all concrete wearing surfaces with between 2.0 percent and 3.0 percent passing the No. 200 Sieve.

ON PAGE 628, 703.02.D - COMBINED AGGREGATE GRADATION FOR CONCRETE

In the last sentence of the first paragraph, delete “Method B:” and replace with “Method A or B.”

ON PAGE 632, 703.05 - AGGREGATE FOR SUPERPAVE HMA PAVEMENT

In Table 703.05-1, Superpave Mixture Requirements, delete the row with “R-Value”.

ON PAGE 636, 703.08 - AGGREGATE FOR OPEN GRADED BASE

Delete the first sentence of the first paragraph and replace with the following:

Meet aggregate gradation requirements specified in Table 703.08-1 in accordance with AASHTO T 27 for Class I and II, T 27/ T 11 for Class III.

ON PAGE 637, 703.08 -AGGREGATE FOR OPEN GRADED BASE

Delete the following from the last line of Table 703.08-2 under Fracture Face:

90% retained on #4 with 2 fractured faces for Class II

ON PAGE 643, 704.05 - SILICONE SEALANT

In the 2nd full paragraph, delete the 3rd sentence starting with “Do not place...”

ON PAGES 644 AND 645, TABLE 704.06-1 - ELASTOMERIC REQUIREMENTS

Delete Table 704.06-1 and replace with the following:

Table 704.06-1 – Elastomeric Requirements

Physical Property	Test Method	Performance Requirements
Hardness, Durometer A	ASTM D2240	60 ± 10 points
Tensile strength	ASTM D412	2,000 psi, minimum
Elongation at break	ASTM D412	300%, minimum
Brittleness temperature	ASTM D746	- 40°F (- 40°C)
Tear resistance	ASTM D624 (Die C)	150 lb/in minimum
Flame resistance	ASTM C542	must not propagate flame
Resistance to heat aging change in original properties after 70 hr at 212°F (100°C) Hardness Elongation Tensile strength	ASTM D573 ASTM D573 ASTM D573	+ 10 points, maximum - 40%, maximum - 15%, maximum
Resistance to oil aging change in volume after 70 hr immersion in ASTM oil No. 3 at 212°F (100°C)	ASTM D471	+ 80%, maximum
Resistance to ozone condition after exposure to 100 pphm ozone in air for 100 hr at 100°F (38°C) (sample under 20 percent strain)	ASTM D1149	No cracks
Resistance to permanent set compression set after 22 hours at 158°F (70°C)	ASTM D395 (Method B)	30%, maximum
Resistance to water change in weight after 7 days immersion at 158°F (70°C)	ASTM D471	+ 5%, maximum

ON PAGE 650, 706.18 - STEEL REINFORCED RIBBED PE PIPE

Replace the paragraph with the following:

Meet AASHTO M 335 for SRRPE Pipe nominal size of 12 to 60 inches in diameter. Meet AASHTO MP 40 for SRRPE Pipe nominal size of 66 to 120 inches in diameter. Limit size of SRRPE to 120 inches maximum diameter.

ON PAGE 656, 708.02 - REINFORCING STEEL

In the first sentence of the first paragraph, delete “M 55” and replace with “M 336”.

Delete the 2nd sentence of the first paragraph and replace with:

Provide other reinforcing steel meeting AASHTO M31 Grade 40S or 60S, unless otherwise specified. For bar marked “W/S”, the Department will test the bar for the “Type S” requirements, unless the “Type W” is specified and the “Type W” pay item is used.

Delete the third sentence of the first paragraph and replace with the following:

The Contractor may substitute plain or deformed steel-welded wire reinforcement that meets AASHTO M 336 for AASHTO M 31 reinforcing steel with approval.

ON PAGE 657, 708.06.1 - 9.2.2

Delete “3.2.3” from the first paragraph and replace with “5.2.3”.

ON PAGE 658, 708.06.2.a - BOLTS - GENERAL

Delete the fifth paragraph, starting with “Ensure the maximum...”

ON PAGE 671, 709.04 - SET RETARDING ADMIXTURE

Delete Section 709.04 and replace with the following:

709.04 Chemical Admixtures – Types A-G, and Type S

A. Types A through G.

Meet ASTM C494.

B. Type S

Type S admixtures must be approved by the Engineer prior to use. Provide data sheets and describe intended use and dosage. Provide a letter from manufacturer stating that it will not adversely impact the concrete and describe any limitations. Type S admixtures must not have adverse effects on the properties of concrete when tested in accordance with ASTM C494. Manufacturers must also provide data that the product will meet the performance claimed.

Delete Section 709.05 and renumber 709.06 to 709.05.

ON PAGE 676, 711 - ROADSIDE IMPROVEMENT MATERIAL

Add 711.01 Drain Rock to the beginning of the section and renumber the following sections from “711.01 to 711.03. Reserved.” to “711.02 and 711.03. Reserved.”

711.01 Drain Rock

Meet the requirements of Tables 711.01-1 and 711.01-2. Provide material from an approved source according to 106.09.

Table 711.01-1 – Gradation Requirements (AASHTO T27)

Sieve Size	Percent Passing
4-inch	100
3-inch	95-100
2-inch	60-90
1-inch	25-60
¾-inch	20-70
No. 4	0-10
No. 200	0-3

Table 711.01-2 – Drain Rock Quality Testing Criteria

Property	Test Method	Requirement
Void Space	AASHTO T 19M	30% Minimum
Los Angeles Abrasion	AASHTO T 96	45% Maximum
Ethylene Glycol	Idaho IT 116	75% Minimum Retained
Apparent Specific Gravity	AASHTO T 85	2.5 Minimum

ON PAGE 677, TABLE 711.04-2 - GRADATION REQUIREMENT FOR RIPRAP

Delete Table 711.04-2 and replace with:

Table 711.04-2 – Gradation Requirement for Riprap (a)

Class	Nominal Riprap Size, D₅₀^(b) (inches)	Percent of Rock Equal or Smaller, D_x	Range of Intermediate Dimensions^(c) (inches)
I	6	100	12 ^(d)
		85	7-10
		50	6-7
		15	3-5
II	9	100	18 ^(d)
		85	11-14
		50	8-11
		15	5-8
III	12	100	24 ^(d)
		85	15 - 19
		50	11 - 14
		15	7 - 11
V	18	100	36 ^(d)
		85	23 - 28
		50	17 - 21
		15	11 - 16
VII	24	100	48 ^(d)
		85	31 - 37
		50	23 - 28
		15	14 - 21
VIII	30	100	60 ^(d)
		85	39 - 46
		50	28 - 35
		15	18 - 26

Class	Nominal Riprap Size, D ₅₀ ^(b) (inches)	Percent of Rock Equal or Smaller, D _x	Range of Intermediate Dimensions ^(c) (inches)
IX	36	100	72 ^(d)
		85	47 - 56
		50	34 - 42
		15	22 - 32
X ^(e)	42	100	84 ^(d)
		85	54 - 65
		50	40 - 49
		15	25 - 37
<p>(a) Riprap class, size, and gradation consistent with FHWA – Hydraulic Engineering Circular No. 23. (b) The size for which 50% by weight of the particles are smaller. (c) Furnish rock with intermediate dimension (width and thickness) of at least one-third its length (longest axis). (d) Maximum intermediate dimension. (e) For any riprap larger than Class X, a qualified Engineer will determine the riprap size through an appropriate evaluation and provide a suitable gradation.</p>			

ON PAGE 685, 711.22 - HYDRAULIC EROSION CONTROL PRODUCTS (HECP)

Add “biodegradable” to the first sentence of the first paragraph after “...applied blends of...”.

ON PAGE 688, 713.01.A.3 - PEDESTRIAN SIGNAL POLE REQUIREMENTS

Delete item “a” and replace with the following:

- a. A 4-inch schedule 40 or 80 aluminum pole.

ON PAGE 689, 713.04.A - ILLUMINATION POLES

Delete “Error! References source not found” in the first full paragraph and replace with the “708.19”.

ON PAGE 701, 715.01 - MESH

In the first sentence of the first paragraph following Table 715.01-1, delete “ ASTM A185” and replace with “AASHTO M 336”.

In the second sentence of the second paragraph following Table 715.01-1, delete “ ASTM A185” and replace with “AASHTO M 336”.

ON PAGE 712, 720.07.3.b – CATEGORY 2

Delete the second sentence of the first paragraph and replace with:

In addition to those tests specified in Category 1, test the aggregate recovered from the RAP extraction process as follows:

Delete item (1) and replace with:

(1) AASHTO T 96 and Idaho IT 15 at a frequency of 1 test per stockpile.

Delete the first sentence of item (3) and replace with:

AASHTO T 304 and IT 146 (performed on non-extracted RAP) at a minimum testing frequency of 1 test per 5,000 tons on a blended composite sample of material obtained at 1,000 ton increments.

ON PAGE 712 AND 713, 720.07.3 - RECYCLED ASPHALT PAVEMENT (RAP)

Delete the last two sentences of the last paragraph on the page, starting with “The standard deviation of the correlation results...”

ON PAGE 715, 720.10 - DETECTABLE WARNING SURFACES.

Delete the first paragraph and replace with:

Provide cast iron detectible warning surface (DWS) products or provide non-cast iron DWS products that have been evaluated and meet testing specifications through AASHTO Product Evaluation & Audit Solutions. Meet the requirements in Table 720.10-1.