**FEDERAL HIGHWAY ADMINISTRATION**

**EASTERN FEDERAL LANDS HIGHWAY DIVISION**

**LIBRARY OF SPECIFICATIONS (LOS)**

**FOR**

**FP-24**

LOS Version

08 November 2024

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*INCLUDE THE FOLLOWING ON ALL PROJECTS*

*REMOVE ITALICS FROM INSERT FIELDS*

$$000.00A

FEDERAL HIGHWAY ADMINISTRATION

EASTERN FEDERAL LANDS HIGHWAY DIVISION

SPECIAL CONTRACT REQUIREMENTS

Project *INSERT PROJECT NAME / NUMBER - REMOVE ITALICS*

*INSERT PARK, FOREST, REFUGE, OR PARTNER AGENCY NAME - REMOVE ITALICS*

The following Special Contract Requirements amend and supplement the *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-24)*, U. S. Department of Transportation, Federal Highway Administration.

*INCLUDE SECTION 104 ON ALL PROJECTS WITH CLAUSE $$104.06A AS A MINIMUM*

$$104.00A

Section 104. — CONTROL OF WORK

Revised 24 May 2024

*INCLUDE THE FOLLOWING ON ALL PROJECTS*

$$104.06A

104.06(c). Add the following to the first paragraph:

Provide one full-size (22- by 34-inch) paper copy of the plans from the Government-furnished electronic plans and use this set of plans exclusively for as-built drawings.

*INCLUDE THE FOLLOWING ON NPS PROJECTS (IF INCLUDING FOR OTHER PARTNERS, MAKE APPROPRIATE EDITS)*

$$104.08A

104.08. Add the following to the second paragraph:

When hauling on National Park Service roads, do not exceed the load restrictions shown in Table 104-1.

|  |  |
| --- | --- |
| **Table 104-1**  **Load Restrictions** | |
| **Single Units** | **Gross Vehicle Weight, pounds** |
| 2 axles | 40,000 |
| 3 axles | 48,000 |
| 4 or more axles | 52,000 |
| **Combination Units** | **Gross Vehicle Weight, pounds** |
| 3 axles | 57,000 |
| 4 axles | 62,000 |
| 5 or more axles | 66,000 |

Where the ground is saturated with water or during periods of freezing and thawing, the CO may impose further load restrictions or suspend hauling.

*INCLUDE THE FOLLOWING SPEC INSTRUCTION LINE IF ANY OF THE CLAUSES $$104.08C, $$104.08D, OR $$104.08E ARE INCLUDED*

$$104.08B

104.08. Add the following:

*INCLUDE THE FOLLOWING IF HAULING MATERIALS INTO THE PROJECT (VERIFY WITH THE PARTNER AND DISCUSS WITH CONSTRUCTION)*

$$104.08C

Hauling will only be permitted from the nearest point of public access to the work site. Minimize hauling over completed pavement.

*INCLUDE THE FOLLOWING IF RESTRICTING ACCESS TO THE PROJECT THROUGH A SPECIFIC ROADWAY (VERIFY WITH THE PARTNER AND DISCUSS WITH CONSTRUCTION)*

$$104.08D

Do not use *(insert roadway name)* to access the project site during construction.

*INCLUDE THE FOLLOWING IF HAULING MATERIALS INTO THE PROJECT (VERIFY WITH THE PARTNER AND DISCUSS WITH CONSTRUCTION)*

$$104.08E

Operate loaded vehicles hauling material at speeds not exceeding 40 miles per hour or the posted speed limit, whichever is lower, and spaced at 500-foot minimum intervals. When hauling on bridges, do not exceed 25 miles per hour or the posted speed limit, whichever is lower, or operate more than 1 loaded hauling vehicle at a time.

*INCLUDE THE FOLLOWING IF THERE IS THE POSSIBILITY OF OTHER CONSTRUCTION PROJECTS OCCURRING IN THE VICINITY*

$$104.11A

104.11. Add the following:

Coincident with this contract, other contracts for construction projects may be underway or may commence during the construction of this project. Coordinate with the CO and other contractors to minimize disruption to this project and to other construction projects in the area.

*INCLUDE SECTION 106 AS APPLICABLE*

$$106.00A

**Section 106. — ACCEPTANCE OF WORK**

Revised 24 May 2024

*INCLUDE THE FOLLOWING IF MATERIAL IS BEING ACCEPTED UNDER SUBSECTION 106.05 STATISTICAL EVALUATION (USUALLY FOR THE FOLLOWING ITEMS: 258, 301, 309, 311, 314, 401, 402, 404, 405, 407, 552, 565, 566, 568, AND 569 - SEE THE APPROPRIATE FP “ACCEPTANCE” SUBSECTION FOR THESE SECTIONS) (INCLUDE NO MATTER IF THE PAY ITEM QUANTITY QUALIFIES FOR A MATERIAL INCENTIVE OR NOT) (IF CLAUSE $$106.05A IS INCLUDED, ALSO INCLUDE CLAUSE $$154.05A)*

$$106.05A

106.05. Add the following to the second paragraph:

The QL-Pay program, along with instructions, can be found at <https://highways.dot.gov/federal-lands/materials/ql-pay>.

*INCLUDE SECTION 108 ON ALL PROJECTS WITH CLAUSES $$108.01A, $$108.01D\*, AND $$108.03A AS A MINIMUM. \* = SEE SPECIFIC INSTRUCTIONS FOR CLAUSES $$108.01D AND $$108.01E.*

*REMOVE ITALICS AND PARENTHESES FROM INSERT FIELDS BUT KEEP THE HIGHLIGHTING*

$$108.00A

Section 108. — PROSECUTION AND PROGRESS

Revised 24 May 2024

*SUBSECTION 108.01 IS FOR WORK RESTRICTIONS THAT APPLY TO THE ENTIRE PROJECT; TYPICALLY THESE ARE DATE RELATED RESTRICTIONS. SPECIFIC RESTRICTIONS RELATED TO A SPECIFIC WORK ITEM BELONG IN THAT SPECIFIC SECTION OF THE SCRS (FOR EXAMPLE, IF TREE CUTTING IS RESTRICTED TO CERTAIN SIZES OF TREES, THAT RESTRICTION SHOULD BE IN SECTION 201 OR 202, NOT IN SECTION 108).*

*INCLUDE THE FOLLOWING SPEC INSTRUCTION LINE WHEN ANY OF THE CLAUSES $$108.01B THRU $$108.01J ARE USED*

$$108.01A

108.01. Add the following:

*INCLUDE THE FOLLOWING FOR PROJECTS WITH A SPECIFIC CONSTRUCTION START DATE (TYPICALLY, THIS SPEC IS ONLY USED IF THERE WILL BE A SIGNIFICANT DELAY BETWEEN CONTRACT AWARD AND NTP; IN OTHER WORDS, PROJECTS THAT REQUIRE A "DELAYED NTP" AND WILL BE AWARDED AT LEAST 2 MONTHS BEFORE CONSTRUCTION CAN START. OTHER TYPICAL REASONS ARE FOR THOSE PROJECTS THAT REQUIRE A “NO EARLIER THAN” START DATE BECAUSE OF A SPECIFIC NEPA OR PERMITTING REQUIREMENT LIKE TREE CUTTING, ANIMAL HABITAT, STREAM RESTRICTIONS, ETC.) (DO NOT USE IF THE PROJECT IS GOING TO BE ADVERTISED WITHIN 4 MONTHS OF THE START DATE)*

$$108.01B

Construction activities at the project site cannot begin any earlier than *(insert specific date MM DD, YYYY)*. However, the Contractor may perform any preconstruction activities (such as submitting shop drawings and material mix designs) to prepare for the start of construction once the contract is awarded and the NTP has been issued. Contract time will start as determined by the CO either at time of contract award or as specified in the NTP.

*INCLUDE THE FOLLOWING FOR PROJECTS WITH A SPECIFIC CONSTRUCTION END DATE (TYPICALLY, THIS SPEC IS ONLY USED IF A COMPLETION DATE IS REQUIRED BASED ON A SPECIFIED PURPOSE LIKE A RESTRICTION FROM NEPA OR A SPECIAL EVENT WITHIN THE PARTNER AGENCY) (DO NOT USE IF THE CONSTRUCTION END DATE IS DICTATED BY THE CPM AND THE CALCULATED CALENDAR DAYS)*

$$108.01C

Complete all construction activities no later than *(insert specific date MM DD, YYYY)*.

*INCLUDE CLAUSE $$108.01D ON ALL PROJECTS UNLESS ONE OR MORE OF CLAUSES $$108.01G THRU $$108.01I ARE APPLICABLE (IF ONE OR MORE OF CLAUSES $$108.01G THRU $$108.01I ARE APPLICABLE, USE CLAUSE $$108.01E AND $$108.01F, AND THE APPLICABLE CLAUSES $$108.01G THRU $$108.01I)*

$$108.01D

No work will be permitted on Sundays or National legal holidays.

*INCLUDE CLAUSE $$108.01E AND $$108.01F, AND THE APPLICABLE CLAUSES $$108.0G THRU $$108.01I ON ALL PROJECTS UNLESS NONE OF CLAUSES $$108.01G THRU $$108.01I ARE APPLICABLE (CORRECT SUBSECTION LETTERS (a) THRU (d) AS NEEDED) (IF NONE OF CLAUSES $$108.01G THRU $$108.01I ARE APPLICABLE, USE CLAUSE $$108.01D ONLY)*

$$108.01E

Construction operations are limited as follows:

$$108.01F

**(a)** No work will be permitted on Sundays or National legal holidays.

*INCLUDE THE FOLLOWING WHEN THE CONTRACTOR IS NOT ALLOWED TO WORK ON SPECIFIC DAYS. DO NOT INCLUDE THE YEAR IF THE DATE REMAINS THE SAME EVERY YEAR. IF ONLY ONE DAY IS LISTED, DO NOT USE BULLETS; INSTEAD, UPDATE THE “FOLLOWING DAYS” WORDING TO CREATE ONE SENTENCE*

$$108.01G

**(b)** No work will be permitted on the following days:

* *(insert specific date MM DD, YYYY)*
* *(insert specific date MM DD, YYYY)*
* *(insert specific date MM DD, YYYY)*

*INCLUDE THE FOLLOWING WHEN THE CONTRACTOR IS NOT ALLOWED TO WORK DURING SPECIFIC PERIODS. DO NOT INCLUDE THE YEAR IF THE PERIOD REMAINS THE SAME EVERY YEAR. IF ONLY ONE PERIOD IS LISTED, DO NOT USE BULLETS; INSTEAD, UPDATE THE “FOLLOWING PERIODS” WORDING TO CREATE ONE SENTENCE*

$$108.01H

**(c)** No work will be permitted during the following periods:

* *(insert specific date range MM DD, YYYY to MM DD, YYYY)*
* *(insert specific date range MM DD, YYYY to MM DD, YYYY)*
* *(insert specific date range MM DD, YYYY to MM DD, YYYY)*

*INCLUDE THE FOLLOWING ONLY IF SPECIFIC DAYS AND PERIODS OF SPECIAL EVENTS ARE NOT KNOWN (TYPICALLY USED FOR NPS NATIONAL CAPITOL REGION DC AREA PROJECTS)*

$$108.01I

**(d)** No work will be permitted on days with special events occurring in the vicinity, as determined by the CO.

*INCLUDE THE FOLLOWING IF ANY OF THE CLAUSES $$108.01D THRU $$108.01I ARE USED, AND IF APPLICABLE - VERIFY THE MINIMUM AMOUNT OF TIME NEEDED FOR APPROVAL WITH CONSTRUCTION*

$$108.01J

If the Contractor finds it necessary to work on one of these restricted days, request approval from the CO at least 7 days before the planned work.

*INCLUDE THE FOLLOWING ON ALL PROJECTS (IN ADDITION, INCLUDE CLAUSES $$155.02A AND $$155.04A THRU $$155.04F)*

$$108.03A

108.04(c). Delete the last paragraph and substitute the following:

For delays due to weather, demonstrate that the weather was unusually severe (as defined under Section 155) based on the most recent 10 years of historical data according to FAR Clause 52.249-10 Default (FixedPrice Construction). If a time extension is requested for unusually severe weather, submit a time impact analysis according to Subsection 108.04(b) and include supporting historical weather data according to Subsections 155.04A and 155.04B. The following criteria will be used for determining a time extension for unusually severe weather:

**(1) Time adjustment for rain delays.** If the net number of actual workdays lost to rain is less than the total lost days for the month in question, then no time adjustment will be made. If the net number of actual workdays lost to rain is more than the total lost days for the month in question, then a time extension may be granted.

**(2) Time adjustment for other weather delays.** If a time extension is requested for other unusually severe weather conditions (such as snow, extreme cold or heat, or high winds), follow the same calculation, submittal, and criteria procedures as outlined for rain delays.

*INCLUDE SECTION 109 ON ALL PROJECTS WITH CLAUSES $$109.08A, $$109.08B, AND $$109.08C AS A MINIMUM*

*REMOVE ITALICS AND PARENTHESES FROM INSERT FIELDS BUT KEEP THE HIGHLIGHTING*

$$109.00A

**Section 109. — MEASUREMENT AND PAYMENT**

Revised 16 September 2024

*INCLUDE THE FOLLOWING FOR PROJECTS WITH 414 ASPHALT PAVEMENT CRACK SEALING PAY ITEMS PAID BY THE MILE*

$$109.02A

109.02(m). Add the following:

Calculate miles in parking areas based on an 11-foot lane width. Convert the square footage of a parking area into miles using the following equation:

Parking Area Miles = parking area square feet / (11 feet x 5,280 feet/mile)

*INCLUDE THE FUEL PRICE ADJUSTMENT PROVISION FOR PROJECTS WITH PAY ITEMS LISTED IN TABLE 109-2 BELOW - VERIFY WITH CONSTRUCTION IF THE PROVISION IS APPROPRIATE FOR THE PROJECT AND IF THE ITEMS WITH LOW QUANTITIES SHOULD BE INCLUDED.*

$$109.06A

Add the following after Subsection 109.06:

**109.06A Fuel Price Adjustment Provision.** This provision provides for a price adjustment in the form of payment to the Contractor or a rebate to the Government for fluctuations in the cost of diesel fuel consumed in the performance of applicable construction work.

This price adjustment provision is intended to reduce but not eliminate the cost effects of price uncertainty to the Contractor and the Government for diesel fuel consumed in the construction of this contract. It provides for sharing by the Government in a portion of the Contractor’s risk, which could result from unusual price fluctuations. The provision is not intended to compensate the Contractor for normal day-to-day fluctuations and seasonal changes or to serve as a guarantee of full compensation for diesel fuel price fluctuations.

This price adjustment provision is applicable only to contract items listed as eligible pay items in Table 109-2. This price adjustment provision is also applicable to eligible pay items when the Government adds extra work to the contract.

The Fuel Price Adjustment Provision will remain in effect throughout the duration of the contract. Enactment of this provision will only be considered when the increase or decrease in the price of diesel fuel as defined herein exceeds 10 percent.

No price adjustments will be made for work performed beyond the contract completion date.

**(a) Price indexes.** The Government will determine price indexes for diesel fuel using price data obtained from the Oil Price Information Service (OPIS), which publishes a weekly newsletter on the distillate wholesale rack prices for major cities throughout the United States. The OPIS 5-day newsletter average rack price of Gross Ultra Low Sulfur, No. 2 Diesel Fuel reported for *(insert the nearest applicable rack city - consult with Construction)* will be averaged and used to establish a base price index (BPI) and a monthly performance price index (MPPI). These diesel fuel indexes are defined as follows:

* **Base price index (BPI).** The BPI is the price index determined by arithmetic average as specified above, shown in the four weekly publications immediately preceding the contract award. It is as follows:

BASE PRICE INDEX (BPI) FOR GROSS ULTRA LOW SULFUR, NO. 2 DIESEL FUEL

PER GALLON = $ See Note (1) .

Note (1): BPI is calculated by the Government and inserted here immediately before contract award.

* **Monthly performance price index (MPPI).** The MPPI is the monthly price index at the time of performance of applicable work as determined by arithmetic average as specified above, shown in the four weekly publications issued before the last Wednesday of the month in which the work was performed.

The diesel fuel BPI and MPPI will be posted at [https://highways.dot.gov/federal‑lands/business/escalation‑factors](https://highways.dot.gov/federallands/business/escalationfactors).

**(b) Price adjustments.** Price adjustments calculated by the Government are not intended to reflect the Contractor’s actual purchase price. The ratio of the monthly performance price index and the base price index (MPPI/BPI) is calculated and used to determine price adjustments for eligible pay items as follows:

* **No price adjustment.** when the MPPI/BPI ratio falls within the range of 0.90 to 1.10, no price adjustment will be made for any diesel fuel consumed in construction work performed during the relevant month.
* **Government rebate.** When the MPPI/BPI ratio is calculated to be less than 0.90, the Government is due a rebate determined in accordance with the following formula:

Government rebate = [0.90 – (MPPI/BPI)] (BPI) (Q) (FUF)

* **Contractor payment.** When the MPPI/BPI ratio is calculated to be greater than 1.10, the Contractor is due additional payment determined in accordance with the following formula:

Contractor payment = [(MPPI/BPI) – 1.10] (BPI) (Q) (FUF)

The following definitions are applicable to both the Government rebate and the Contractor payment formulas:

MPPI = Monthly Performance Price Index for the month during which diesel fuel is consumed in the performance of applicable construction work.

BPI = Base Price Index that is established immediately preceding the contract award.

Q = Quantity of work on the project during the progress payment period for eligible pay items shown in Table 109-2.

FUF = Fuel Usage Factor shown in Table 109-2 applicable to No. 2 diesel fuel.

*EDIT THIS TABLE TO ONLY INCLUDE ITEMS THAT APPLY TO THE PROJECT - VERIFY WITH CONSTRUCTION IF THE ITEMS WITH LOW QUANTITIES SHOULD BE INCLUDED*

|  |  |  |
| --- | --- | --- |
| **Table 109-2**  **Eligible Pay Items for Price Adjustments and Associated Fuel Usage Factors** | | |
| **Eligible Pay Items** | **Fuel Usage Factor** | |
| **Earthwork** | | |
| **Section 204 – Excavation and Embankment**  20401 Roadway Excavation  20402 Subexcavation  20403 Unclassified Borrow  20404 Unclassified Borrow(1)  20410 Select Borrow  20411 Select Borrow(1)  20420 Embankment Construction  20421 Rock Excavation | 0.30 gallons per cubic yard | |
| **Aggregate and Base Courses** | | |
| **Section 301 – Untreated Aggregate Courses**  30101 Aggregate Base  30102 Aggregate Base(1)  30103 Aggregate Base(1)  30105 Subbase  30106 Subbase(1)  30107 Subbase(1)  30110 Aggregate Surface Course  30111 Aggregate Surface Course(1)  30112 Aggregate Surface Course(1) | 0.70 gallons per ton | |
| **Section 305 – Full Depth Reclamation with Cement**  30501 Full Depth Reclamation with Cement(1)  30502 Full Depth Reclamation with Cement | 0.30 gallons per square yard | |
| **Section 306 – Full Depth Reclamation with Asphalt**  30601 Full Depth Reclamation with Emulsified Asphalt(1)  30602 Full Depth Reclamation with Emulsified Asphalt  30603 Full Depth Reclamation with Foamed Asphalt(1)  30604 Full Depth Reclamation with Foamed Asphalt | 0.30 gallons per square yard | |
| **Section 308 – Emulsified Asphalt-Treated Base Course**  30801 Emulsified Asphalt-Treated Aggregate Base  30802 Emulsified Asphalt-Treated Aggregate Base(1)  30803 Emulsified Asphalt-Treated Aggregate Base(1) | 0.70 gallons per ton | |
| **Section 309 – Cold Central Plant Recycled Asphalt Base Course**  30901 Cold Recycled Asphalt Base Course  30902 Cold Recycled Asphalt Base Course(1) | 0.70 gallons per ton | |
| **Section 310 – Cold In-Place Recycled Asphalt Base Course**  31001 Cold In-Place Recycled Asphalt Base Course(1)  31002 Cold In-Place Recycled Asphalt Base Course | 0.15 gallons per square yard | |
| **Section 311 – Stabilized Aggregate Surface Course**  31101 Stabilized Aggregate Surface Course(1)  31102 Stabilized Aggregate Surface Course(1)  31103 Stabilized Aggregate Surface Course | 0.70 gallons per ton | |
| **Asphalt Pavements and Surface Treatments** | | |
| **Section 401 – Asphalt Concrete Pavement By Gyratory Mix Design Method**  40101 Asphalt Concrete Pavement, Gyratory Mix  40102 Asphalt Concrete Pavement, Gyratory Mix, Wedge and Leveling Course | 2.40 gallons per ton | |
| **Section 402 – Asphalt Concrete Pavement by Hveem or Marshall Mix Design Method**  40201 Asphalt Concrete Pavement, Marshall Mix  40201 Asphalt Concrete Pavement, Hveem Mix  40202 Asphalt Concrete Pavement, Marshall Mix, Wedge and Leveling Course  40202 Asphalt Concrete Pavement, Hveem Mix, Wedge and Leveling Course | 2.40 gallons per ton | |
| **Section 403 – Asphalt Concrete**  40301 Asphalt Concrete Pavement  40302 Asphalt Concrete Pavement(1)  40303 Asphalt Concrete Pavement, Wedge and Leveling Course | 2.40 gallons per ton | |
| **Section 404 – Thin Lift Asphalt Concrete** **Pavement**  40401 Thin Lift Asphalt Concrete Pavement  40402 Thin Lift Asphalt Concrete Pavement (1) | 2.40 gallons per ton |
| **Section 405 – Open-Graded Asphalt Friction Course**  40501 Open-Graded Asphalt Friction Course | 2.40 gallons per ton | |
| **Section 407 – Chip Seal**  40701 Chip Seal  40702 Chip Seal(1) | 2.40 gallons per ton |
| **Section 408 – Ultrathin Bonded Wearing Course**  40801 Ultrathin Bonded Wearing Course  40802 Ultrathin Bonded Wearing Course(1) | 2.40 gallons per ton |
| (1) The Government will convert work quantities as necessary to match the units associated with the applicable Fuel Usage Factor.  *DELETE THIS FOOTNOTE IF ALL OF THE CORRESPONDING PAY ITEMS HAVE ALSO BEEN DELETED* | | |

**(c) Price adjustment compensation.** Monthly adjustments will be accrued. The final price adjustment will be paid, or rebated, after completion of all work for each eligible pay item. The Contractor may request a partial price adjustment payment once every 12 months, or when the unpaid accrued increase exceeds $10,000. The Government will take a rebate when the deductive accrual exceeds $10,000.

The maximum allowable monthly and final price adjustment to the Contractor or rebate to the Government for fluctuations in the cost of diesel fuel is limited to a MPPI/BPI ratio of 1.6 and 0.4, respectively.

*ADDITIONAL INSTRUCTIONS FOR THE FUEL PRICE ADJUSTMENT PROVISION*

*FOR EACH CONTRACT PAY ITEM USED IN TABLE 109-2, INSERT THE FOLLOWING STATEMENT IN THE APPLICABLE PAYMENT SUBSECTION(S) OF THE CORRESPONDING WORK SECTION(S):*

204.17. 301.10. 305.17. 306.15. 308.10. 309.13. 310.14. 311.10. 401.20. 402.19. 403.14. 404.19. 405.15. 407.15. 408.17. Add the following:

A price adjustment will be made for fluctuations in the cost of diesel fuel used in the performance of applicable construction work according to Subsection 109.06A.

*ALSO NOTE THAT THE ABOVE SPEC IS WRITTEN IN HIDDEN TEXT AND THAT IT NEEDS TO BE UN-HIDDEN AFTER INSERTED IN THE CORRECT LOCATION(S)*

*INCLUDE THE* *ASPHALT BINDER PRICE ADJUSTMENT PROVISION FOR PROJECTS WITH A TOTAL ASPHALT QUANTITY OVER 1000 TONS (SEE BULLETED LIST BELOW FOR ELIGIBLE ASPHALT-RELATED PAY ITEMS). ALSO INCLUDE FOR ASPHALT PROJECTS WITH A CONSTRUCTION DURATION OF MORE THAN 1 YEAR.*

$$109.06B

**109.06B Asphalt Binder Price Adjustment Provision.** This provision provides for a price adjustment in the form of payment to the Contractor or a rebate to the Government for fluctuations in the cost of asphalt binder used in the performance of applicable construction work.

This price adjustment provision is intended to reduce but not eliminate the cost effects of price uncertainty to the Contractor and the Government for asphalt binder used in the construction of this contract. It provides for sharing by the Government in a portion of the Contractor’s risk, which could result from unusual price fluctuations. The provision is not intended to compensate the Contractor for normal day-to-day fluctuations and seasonal changes or to serve as a guarantee of full compensation for asphalt binder price fluctuations.

This price adjustment provision is applicable only to the asphalt binder, as defined in Subsection 702.01, and incorporated in the following contract pay items:

*EDIT THIS LIST TO ONLY INCLUDE ITEMS THAT APPLY TO THE PROJECT (COMPLETE THE BID ITEM NUMBER BY UPDATING THE “xxxx” PORTION)*

* 40101-xxxx Asphalt Concrete Pavement, Gyratory Mix
* 40102-xxxx Asphalt Concrete Pavement, Gyratory Mix, Wedge and Leveling Course
* 40201-xxxx Asphalt Concrete Pavement, Marshall Mix
* 40201-xxxx Asphalt Concrete Pavement, Hveem Mix
* 40202-xxxx Asphalt Concrete Pavement, Marshall Mix, Wedge and Leveling Course
* 40202-xxxx Asphalt Concrete Pavement, Hveem Mix, Wedge and Leveling Course
* 40301-xxxx Asphalt Concrete Pavement
* 40302-xxxx Asphalt Concrete Pavement
* 40303-xxxx Asphalt Concrete Pavement, Wedge and Leveling Course
* 40401-xxxx Thin Lift Asphalt Concrete Pavement
* 40402-xxxx Thin Lift Asphalt Concrete Pavement
* 40501-xxxx Open-Graded Asphalt Friction Course
* 40801-xxxx Ultrathin Bonded Wearing Course
* 40802-xxxx Ultrathin Bonded Wearing Course

This price adjustment provision is also applicable to eligible pay items when the Government adds extra work to the contract.

The Asphalt Binder Price Adjustment Provision will remain in effect throughout the duration of the contract. Enactment of this provision will only be considered when the increase or decrease in the price of asphalt binder exceeds 10 percent.

No price adjustments will be made for work performed beyond the contract completion date.

**(a) Price indexes.** The Government will determine price indexes for asphalt binder using price data obtained from Poten and Partners, Inc., which publishes a weekly report (*Asphalt Weekly Monitor*®) on high and low selling prices for states in five regions throughout the United States.

The weekly high and low selling price data reported for *(select the applicable region from this list and delete the others* East Coast/Northeast Mid-Continent/Midwest Gulf Coast/Mid-South Rocky Mountains  West Coast/Northwest *delete the parentheses and remove any italics)* will be averaged and used to establish a base price index (BPI) and a monthly performance price index (MPPI). These asphalt binder indexes are defined as follows:

* **Base price index (BPI).** The BPI is the price index determined by arithmetic average as specified above, shown in the four weekly publications immediately preceding the contract award. It is as follows:

BASE PRICE INDEX (BPI) FOR ASPHALT BINDER

PER SHORT TON (TON) = $ See Note (1) .

Note (1): BPI is calculated by the Government and inserted here immediately before contract award.

* **Monthly performance price index (MPPI).** The MPPI is the monthly price index at the time of performance of applicable work as determined by arithmetic average as specified above, shown in the four weekly publications issued before the last Wednesday of the month in which the work was performed.

The asphalt binder BPI and MPPI will be posted at [https://highways.dot.gov/federal‑lands/business/escalation‑factors](https://highways.dot.gov/federallands/business/escalationfactors).

**(b) Price adjustments.** Price adjustments calculated by the Government are not intended to reflect the Contractor’s actual purchase price. The ratio of the monthly performance price index and the base price index (MPPI/BPI) is calculated and used to determine price adjustments for eligible pay items as follows:

* **No price adjustment.** when the MPPI/BPI ratio falls within the range of 0.90 to 1.10, no price adjustment will be made for any asphalt binder used in construction work performed during the relevant month.
* **Government rebate.** When the MPPI/BPI ratio is calculated to be less than 0.90, the Government is due a rebate determined in accordance with the following formula:

Government rebate = [0.90 – (MPPI/BPI)] (BPI) (Q)

* **Contractor payment.** When the MPPI/BPI ratio is calculated to be greater than 1.10, the Contractor is due additional payment determined in accordance with the following formula:

Contractor payment = [(MPPI/BPI) – 1.10] (BPI) (Q)

The following definitions are applicable to both the Government rebate and the Contractor payment formulas:

MPPI = Monthly Performance Price Index for the month during which asphalt binder is used in the performance of applicable construction work.

BPI = Base Price Index that is established immediately preceding the contract award.

Q = Quantity in tons of asphalt binder for each pay item that was used on the project during the progress payment period. The quantity will be calculated using the asphalt content of the approved mix design and the following formula:

Q = Asphalt Concrete Pavement tons placed x (% Asphalt/100)

**(c) Price adjustment compensation.** Monthly adjustments will be accrued. The final price adjustment will be paid, or rebated, after completion of all work for each eligible pay item. The Contractor may request a partial price adjustment payment once every 12 months, or when the unpaid accrued increase exceeds $10,000. The Government will take a rebate when the deductive accrual exceeds $10,000.

The maximum allowable monthly and final price adjustment to the Contractor or rebate to the Government for fluctuations in the cost of asphalt binder is limited to a MPPI/BPI ratio of 1.6 and 0.4, respectively.

*ADDITIONAL INSTRUCTIONS FOR THE ASPHALT BINDER PRICE ADJUSTMENT PROVISION*

*FOR EACH CONTRACT PAY ITEM USED IN THE BULLETED LIST ABOVE, INSERT THE FOLLOWING STATEMENT IN THE APPLICABLE PAYMENT SUBSECTION(S) OF THE CORRESPONDING WORK SECTION(S):*

401.20. 402.19. 403.14. 404.19. 405.15. 408.17. Add the following:

A price adjustment will be made for fluctuations in the cost of asphalt binder used in the performance of applicable construction work according to Subsection 109.06B.

*ALSO NOTE THAT THE ABOVE SPEC IS WRITTEN IN HIDDEN TEXT AND THAT IT NEEDS TO BE UN-HIDDEN AFTER INSERTED IN THE CORRECT LOCATION(S)*

*INCLUDE CLAUSES $$109.08A, $$109.08B, AND $$109.08C ON ALL PROJECTS*

$$109.08A

109.08(a). Add the following:

Submit invoices electronically to [EFLConstructionInvoices@dot.gov](mailto:EFLConstructionInvoices@dot.gov) with email copy to the CO and the project engineer.

$$109.08B

109.08(b)(3). Add the following:

Include an electronic or wet signature on the certification; facsimiles will not be accepted.

$$109.08C

109.08(d). Add the following after the first sentence of the second paragraph:

Invoices received after 3:00 p.m. Eastern Time will be marked as received the following business day.

*INCLUDE THE FOLLOWING WHEN A SWPPP IS REQUIRED (TYPICALLY WHEN THE TOTAL DISTURBED AREA IS GREATER THAN 1 ACRE) - VERIFY WITH ENVIRONMENT (IF USING THIS CLAUSE, INCLUDE ALL APPLICABLE SECTION 157 CLAUSES AND PAY ITEM 15720-0000 STORM WATER POLLUTION PREVENTION PLAN)*

$$109.08D

109.08(h)(1). Add the following:

The CO may withhold full or partial progress payment until the SWPPP is brought into compliance according to Section 157.

*INCLUDE SECTION 152 ON ALL PROJECTS WITH CLAUSE $$152.03A AS A MINIMUM.*

$$152.00A

Section 152. — CONSTRUCTION SURVEY AND STAKING

Revised 17 June 2024

*INCLUDE THE FOLLOWING ON ALL PROJECTS*

$$152.03A

152.03(b). Add the following:

Include procedures for how control will be established and maintained.

*INCLUDE THE FOLLOWING IF THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING INITIAL REFERENCE POINTS AND HORZ/VERT CONTROL (I.E. INCLUDE IF SURVEY CONTROL IS NOT INCLUDED IN THE PLANS) (VERIFY WITH SURVEY)*

$$152.04A

152.04. Delete the fourth, fifth, and ninth paragraphs, and substitute the following:

The Government did not set initial horizontal or vertical control for the project. No survey data will be furnished.

Establish initial reference lines and control points, with horizontal and vertical control points as necessary, to perform the construction survey and staking. Obtain approval before starting construction.

*INCLUDE THE FOLLOWING FOR ROADWAY PROJECTS GREATER THAN ½-MILE LONG - VERIFY THE MAXIMUM SPACING WITH CONSTRUCTION*

$$152.05A

152.05(a). Add the following:

Set benchmarks a maximum spacing of 1,000 feet along the length of the roadway.

*INCLUDE THE FOLLOWING IF THE PROJECT INCLUDES PERMANENT ROW AND/OR BOUNDARY MONUMENTATION ALONG PRIVATE PROPERTY (VERIFY WITH SURVEY IF REQUIRED) (IF CLAUSE $$152.05B IS USED, AN ASSOCIATED 15215-4000 PAY ITEM IS USUALLY REQUIRED)*

$$152.05B

152.05(k). Add the following:

Perform the portion of the survey work required to establish permanent monuments and markers by a professional land surveyor registered in the *(insert one of the following wordings “State of …” or “Commonwealth of …” or “Territory of …” and insert appropriate name - REMOVE ITALICS, PARENTHESES, AND QUOTATION MARKS)*.

*INCLUDE THE FOLLOWING ON ROADWAY PAVING PROJECTS WITH MAINLINE STRIPING WHERE THE LIMITS OF THE MAINLINE PASSING/NO PASSING ZONES HAVE NOT BEEN INCLUDED IN THE PS&E (TYPICALLY, THIS SPEC IS USED ON MILLING AND OVERLAY AND PAVEMENT PRESERVATION PROJECTS) (DISCUSS WITH CONSTRUCTION) (IF USED, ALSO INCLUDE CLAUSE $$634.03A)*

$$152.05C

152.05(l). Add the following:

Survey the existing centerline pavement markings to record the existing passing and no-passing zones. Submit the survey to the CO before performing pavement removal or resurfacing work. Use this survey to reestablish the existing passing and no-passing zones according to Section 634.

*INCLUDE SECTION 154 ON ALL PROJECTS WITH CLAUSES $$154.02A, $$154.03A, AND $$154.03B AS A MINIMUM*

$$154.00A

Section 154. — CONTRACTOR SAMPLING AND TESTING

Revised 17 June 2024

*INCLUDE CLAUSES $$154.02A, $$154.03A, AND $$154.03B ON ALL PROJECTS*

$$154.02A

154.02. Add the following:

Submit formal requests for using alternate AASHTO or state department of transportation approved test methods for review. Alternate methods may be allowed based on documented equivalence to the method specified and if approved by the CO.

$$154.03A

154.03. Add the following:

Provide the Government’s portion of the sample or split sample in an acceptable container suitable for shipment with clear identification of the sample on the container to the CO. The CO will insert a completed FHWA Form 1600E, *Government Lab Test Request* inside the container. The CO will seal the container with specialty chain-of-custody security tape and will sign the security tape.

The CO will furnish a copy of the completed FHWA Form 1600E. Attach the FHWA Form 1600E copy to the outside of the container so the sample identification is clearly and completely visible.

Ship the security-sealed sample by overnight or next day shipping to the EFLHD Central Laboratory at the following address within 24 hours of receiving the sample from the CO:

Federal Highway Administration

Eastern Federal Lands Highway Division

1827 Jack Delozier Drive

Sevierville, Tennessee 37876

ATTN: MATERIALS LABORATORY

Provide the sample’s shipping information, including tracking number, sample identification, and expected date of delivery, within 24 hours.

$$154.03B

For the split sample of asphalt concrete pavement material, provide boxes that are coated with silicone-coated paper throughout the interior.

*INCLUDE THE FOLLOWING IF MATERIAL IS BEING ACCEPTED UNDER SUBSECTION 106.05 STATISTICAL EVALUATION (USUALLY FOR THE FOLLOWING ITEMS: 258, 301, 308, 311, 314, 401, 402, 404, 405, 407, 552, 565, 566, 568, AND 569 - SEE THE APPROPRIATE FP “ACCEPTANCE” SUBSECTION FOR THESE SECTIONS) (INCLUDE NO MATTER IF THE PAY ITEM QUANTITY QUALIFIES FOR A MATERIAL INCENTIVE OR NOT) (IF CLAUSE $$154.05A IS INCLUDED, ALSO INCLUDE CLAUSE $$106.05A)*

$$154.05A

154.05. Add the following:

For items accepted under Subsection 106.05, use the QL-Pay software program to determine pay factors and report pay factors determined by QL-Pay. Submit a copy of all current test results and pay factor calculations based on those tests on a weekly basis. When large quantities are produced, calculate pay factors as soon as possible. Use this information to make any necessary adjustments to operations to achieve acceptable pay factors. See Subsection 106.01 for conditions upon which the Government may use the Contractor’s test results.

*INCLUDE SECTION 155 ON ALL PROJECTS*

*DETERMINE WHICH TYPE OF CONSTRUCTION SCHEDULE (EITHER A BCM OR A CPM) WILL BE REQUIRED FROM THE CONTRACTOR (SEE FP SUBSECTION 155.05) AND SEE INSTRUCTIONS FOR WHICH $$155.05 CLAUSES TO INCLUDE*

*TYPICALLY THE SIMPLER BCM IS USED FOR SMALLER, UNCOMPLICATED PROJECTS AND THE CPM IS USED FOR LARGER, MORE COMPLEX PROJECTS (VERIFY WITH CONSTRUCTION WHICH CONSTRUCTION SCHEDULE SHOULD BE REQUIRED)*

*IF THE CPM CONSTRUCTION SCHEDULE IS REQUIRED, VERIFY WITH CONSTRUCTION IF PAY ITEM 15501-0000 SHOULD BE INCLUDED*

$$155.00A

Section 155. — SCHEDULES FOR CONSTRUCTION CONTRACTS

Revised 23 October 2024

*INCLUDE CLAUSE $$155.02A ON ALL PROJECTS (IN ADDITION, INCLUDE CLAUSES $$155.04A THRU $$155.04F, AND CLAUSE $$108.03A)*

$$155.02A

155.02. Add the following:

**(f) Drying day.** A workday immediately following a rainfall equal to or greater than 1.00 inch which is potentially lost because of wet ground conditions.

**(g) Rain day.** A potentially lost workday on which rainfall is equal to or greater than 0.10 inches.

**(h) Reasonably predictable weather.** The number of workdays that can expect to be lost in any month due to rainfall based on 10-year historical weather data.

**(i) Unusually severe weather.** When the number of actual workdays lost is greater than the reasonably predictable weather for a specific month.

**(j) Workday.** A day not excluded from work by Section 108.

*INCLUDE CLAUSE $$155.03A FOR MOST PROJECTS AND WHEN THE LONG CRITICAL PATH METHOD (CPM) IS NOT NEEDED (CONSULT WITH CONSTRUCTION ON WHICH CONSTRUCTION SCHEDULE TYPE IS REQUIRED … FP 155.05(a) CPM SCHEDULE OR FP 155.05(b) BCM SCHEDULE) (SEE FURTHER INSTRUCTIONS FOR CLAUSES $$155.05A THRU AND $$155.05D)*

$$155.03A

155.03. Add the following:

Prepare and submit a Bar Chart Method (BCM) construction schedule.

*INCLUDE CLAUSES $$155.04A THRU $$155.04F ON ALL PROJECTS (IN ADDITION, INCLUDE CLAUSES $$155.02A AND $$108.03A)*

$$155.04A

155.04(i). Add the following:

If a subcontract has not yet been awarded for a certain portion of the work, include the schedule for that work.

$$155.04B

155.04. Add the following:

**(l)** A completed Table 155-1 prepared according to Subsection 155.04A.

$$155.04C

Add the following after Subsection 155.04:

$$155.04D

**155.04A Reasonably Predictable Weather.** Determine reasonably predictable weather for this contract by completing Table 155-1. Calculate data for Table 155-1 by computing the average number of workdays lost (rain days plus drying days) for each month and the standard deviation from the average, using the last 10 years of historical weather data from the nearest National Oceanic and Atmospheric Administration (NOAA) weather data collection station. Add the average number of workdays lost to the standard deviation. The total number of lost days (average workdays lost plus 1 standard deviation, rounded to whole days) will be considered normal for each month.

At the option of the Contractor, provide the necessary instrumentation to support weather-related impacts to the project if using the nearest weather station is impractical. If onsite weather instrumentation is not provided, use the nearest weather station.

Provide a weekly summary of the weather data gathered to the CO.

$$155.04E

**155.04B Unusually Severe Weather.** If requesting a time extension due to unusually severe weather, calculate the number of actual workdays lost by totaling the actual rain days plus the actual drying days occurring in the month in question. From this total, deduct any workdays meeting any one of the following conditions:

**(a)** The rain day or drying day occurred on a non-work weekday such as a holiday.

**(b)** The rainfall occurred at a time when no weather dependent work was in progress or occurred during planned or unplanned shutdowns due to other circumstances such as equipment failure, strikes, material supplies, delays, etc.

**(c)** The Contractor was still working or able to work on weather dependent activities to the extent that less than 50 percent of the workday was lost due to weather.

If the net number of actual workdays lost is greater than the total lost days, then unusually severe weather occurred during the month in question.

$$155.04F

| **Table 155-1**  **Reasonably Predictable Weather** | | | |
| --- | --- | --- | --- |
| Project Number: | | | |
| Project Location: | | | |
| NOAA Station Location: | | | |
| Data Years (10-year history): | | | |
| **Month** | **Average Workdays Lost** | **Standard Deviation** | **Total Lost Days** |
| January |  |  |  |
| February |  |  |  |
| March |  |  |  |
| April |  |  |  |
| May |  |  |  |
| June |  |  |  |
| July |  |  |  |
| August |  |  |  |
| September |  |  |  |
| October |  |  |  |
| November |  |  |  |
| December |  |  |  |

*INCLUDE CLAUSES $$155.05A AND $$155.05B FOR LARGER, MORE COMPLEX PROJECTS WHEN CLAUSE $$155.03A IS NOT USED (THESE CLAUSES ARE ONLY NEEDED WHEN THE CRITICAL PATH METHOD (CPM) IS REQUIRED) (SEE INSTRUCTIONS FOR CLAUSE $$155.03A AND CONSULT WITH CONSTRUCTION) (IF THESE CLAUSES ARE INCLUDED, DO NOT INCLUDE CLAUSE $$155.05C)*

$$155.05A

155.05(a)(1)*(a)*. Add the following:

Include unreflected items, or components of work within a pay item, as separate activities as directed by the CO.

$$155.05B

155.05(a)(1)*(b)*. Add the following:

If the project is of sufficient complexity that the activity description cannot be legibly placed on the diagram, include a tabulation of all activities by their activity IDs.

*INCLUDE CLAUSE $$155.05C WHEN CLAUSE $$155.03A IS USED (THIS CLAUSE IS ONLY NEEDED WHEN THE BAR CHART METHOD (BCM) IS REQUIRED) (CONSULT WITH CONSTRUCTION) (IF THIS CLAUSE IS INCLUDED, DO NOT INCLUDE CLAUSES $$155.05A AND $$155.05B)*

$$155.05C

155.05(b)(1)*(c)*. Add the following:

Include unreflected items, or components of work within a pay item, as separate activities as directed by the CO.

*INCLUDE CLAUSE $$155.05D ON ALL PROJECTS*

$$155.05D

155.05(b)(3). Add the following:

As a minimum, include the following:

* Contractor quality control plan;
* Asphalt mix designs;
* Concrete mix designs;
* Bridge falsework and formwork designs;
* Manufactured items;
* Test panels; and
* Contract specialty items.

*INCLUDE SECTION 156 ON ALL PROJECTS WITH THE FOLLOWING CLAUSES AS A MINIMUM:*

* *$$156.03A;*
* *$$156.07A OR $$156.07B; AND*
* *$$156.08A OR $$156.08B*

*REMOVE ITALICS, PARENTHESES, AND QUOTATION MARKS FROM INSERT FIELDS BUT KEEP THE HIGHLIGHTING*

$$156.00A

**Section 156. — PUBLIC TRAFFIC**

Revised 11 October 2024

*INCLUDE THE FOLLOWING*

$$156.03A

156.03. Add the following to the first paragraph:

Submit a temporary traffic control plan conforming to the following:

1. Ensures the safe and efficient movement of pedestrian, bicycle, and vehicular traffic, including emergency vehicles, at all times during construction;
2. Includes the scheduling and performance of work to minimize disruption to public traffic; and
3. Accommodates the construction operations as approved under Section 155.

Revise the temporary traffic control plan as necessary to accommodate approved changes in the construction schedule. Submit the revised temporary traffic control plan at least 14 days before implementation unless otherwise approved.

*INCLUDE THE FOLLOWING SPEC INSTRUCTION LINE (CLAUSE $$156.03B) IF ANY OF THE CLAUSES $$156.03C THRU $$156.03H ARE USED - VERIFY WITH PARTNER AGENCY AND CONSTRUCTION IF CLAUSES ARE APPROPRIATE FOR THE PROJECT*

$$156.03B

156.03. Add the following:

*INCLUDE THE FOLLOWING FOR PROJECTS WHERE PORTABLE CHANGEABLE MESSAGE SIGNS ARE REQUIRED BEFORE STARTING CONSTRUCTION TO WARN TRAFFIC OF UPCOMING WORK*

$$156.03C

Install portable changeable message signs as shown in the plans or as directed no later than *(insert minimum amount)* days before starting on-site construction activities.

*INCLUDE THE FOLLOWING IF APPLICABLE*

$$156.03D

Maintain one lane of traffic at all times.

*INCLUDE THE FOLLOWING IF THE PROJECT HAS MULTIPLE ROADWAYS BUT SINGLE LANE CLOSURES ARE ONLY ALLOWED FOR A SPECIFIC ROADWAY - DO NOT INCLUDE IF THE PROJECT ONLY HAS ONE ROADWAY OR IF SINGLE LANE CLOSURES ARE ALLOWED FOR ALL ROADWAYS WITHIN THE PROJECT*

$$156.03E

Single lane closures are only allowed on *(insert roadway name)* as approved.

*INCLUDE THE FOLLOWING IF SPECIFYING A PERIOD WHEN ROADWAY CLOSURES ARE ALLOWED - DO NOT INCLUDE IF ROADWAY CLOSURES ARE ALLOWED THROUGHOUT THE DURATION OF THE PROJECT*

$$156.03F

Roadway closures are only allowed on *(insert roadway name)* from *(insert specific date MM DD, YYYY)* to *(insert specific date MM DD, YYYY)* as approved.

*INCLUDE THE FOLLOWING IF APPROVAL IS NEEDED FOR ROADWAY CLOSURES*

$$156.03G

Close *(insert roadway name)* to traffic during construction as approved. Open roadway within 24 hours after completion of work or as directed.

*INCLUDE THE FOLLOWING IF A SPECIFIC ROADWAY CANNOT BE CLOSED THROUGHOUT THE DURATION OF THE PROJECT*

$$156.03H

Do not close *(insert roadway name)* to traffic during construction.

*INCLUDE THE FOLLOWING FOR SPECIFIC ROADWAYS OR FACILITIES THAT NEED TO HAVE ACCESS AND REMAIN OPEN DURING CONSTRUCTION*

$$156.04A

156.04(b). Add the following:

Maintain access to *(insert roadways or facilities)* at all times.

*INCLUDE THE FOLLOWING IF DRAINS OR INLETS ARE PRESENT WITHIN THE PROJECT LIMITS - VERIFY IF THE 157 INLET PROTECTION PAY ITEM IS NEEDED*

$$156.04B

156.04(f). Add the following:

Ensure that drains and inlets within the project limits are fully functional throughout the duration of the project.

*INCLUDE THE FOLLOWING FOR PROJECTS IN URBAN AREAS - REVISE ALLOWABLE DELAY AS NEEDED TO FIT PROJECT SPECIFIC NEEDS*

$$156.06A

156.06(a). Delete the Subsection and substitute the following:

**(a)** Limit construction-caused delays to public traffic to no more than 15 minutes per passage through the project.

*INCLUDE THE FOLLOWING IF PROVIDING A LANE WIDTH OF 10 FEET IS NOT POSSIBLE*

$$156.06B

156.06(d). Delete the first sentence and substitute the following:

Provide minimum lane widths of 9 feet.

*INCLUDE THE FOLLOWING SPEC INSTRUCTION LINE (CLAUSE $$156.06C) IF ANY OF THE CLAUSES $$156.06D THRU $$156.06G ARE USED - VERIFY WITH PARTNER AGENCY AND CONSTRUCTION IF CLAUSES ARE APPROPRIATE FOR THE PROJECT*

$$156.06C

156.06(e). Add the following:

*INCLUDE THE FOLLOWING TO SPECIFY THE LOCATION OF THE STAGING AREA - VERIFY THE LOCATION WITH PARTNER AGENCY AND CONSTRUCTION*

$$156.06D

The Contractor may use *(insert location)* as a staging area. Obtain approval from the CO before using this location for staging.

*INCLUDE THE FOLLOWING IF THE STAGING AREA IS OUTSIDE THE CONSTRUCTION LIMITS AND NOT PART OF THE FINAL CONSTRUCTION - VERIFY WITH CONSTRUCTION IF CLAUSE IS APPROPRIATE FOR THE PROJECT*

$$156.06E

Document the preconstruction condition of proposed staging areas using a combination of photographs and survey measurements as directed. Take a sufficient number of high-resolution color digital photographs to adequately record the preconstruction condition. Clearly label the photographs with notes, GPS, or other referencing necessary to adequately establish each photograph’s location. Provide electronic copies of the photographs to the CO. These photographs will be used to establish the extent of restoration required when the staging area is no longer needed. Do not begin staging area work until the documentation of the preconstruction conditions has been approved.

*INCLUDE THE FOLLOWING FOR MOST PROJECTS (SEE INSTRUCTIONS FOR CLAUSE $$156.06G) - DO NOT INCLUDE BOTH CLAUSE $$156.06F AND CLAUSE $$156.06G - VERIFY WITH CONSTRUCTION WHICH CLAUSE IS APPROPRIATE FOR THE PROJECT*

$$156.06F

Restore staging areas to their preconstruction condition as directed and at no additional cost to the Government.

*INCLUDE THE FOLLOWING ONLY IF THE CONTRACTOR IS REQUIRED BY THE PARTNER AGENCY TO BUILD A STAGING AREA (SUCH AS WITH A STOCKADE FENCE AROUND THE AREA) - DO NOT INCLUDE BOTH CLAUSE $$156.06F AND CLAUSE $$156.06G - VERIFY WITH CONSTRUCTION WHICH CLAUSE IS APPROPRIATE FOR THE PROJECT*

$$156.06G

Restore staging areas to their preconstruction condition as directed.

*INCLUDE THE FOLLOWING FOR LIMITING THE LENGTH OF LANE CLOSURES*

$$156.06H

156.06. Add the following:

**(j)** Limit lane closures to no more than *(insert maximum distance allowed)* feet unless otherwise approved.

*INCLUDE THE FOLLOWING IF NIGHTTIME OPERATIONS ARE NOT PERMITTED - VERIFY WITH PARTNER AGENCY AND CONSTRUCTION IF CLAUSE IS APPROPRIATE FOR THE PROJECT (IF USING THIS CLAUSE, DO NOT INCLUDE CLAUSES $$156.07B, $$156.07C, OR $$156.07D)*

$$156.07A

156.07. Delete the second and third paragraphs, and substitute the following:

Nighttime operations are not permitted.

*INCLUDE THE FOLLOWING IF NIGHTTIME OPERATIONS ARE PERMITTED - VERIFY WITH PARTNER AGENCY AND CONSTRUCTION IF CLAUSE IS APPROPRIATE FOR THE PROJECT - VERIFY WITH CONSTRUCTION THE MINIMUM AMOUNT OF TIME NEEDED FOR THE REQUEST (IF USING THIS CLAUSE, DO NOT INCLUDE CLAUSE $$156.08A)*

$$156.07B

156.07. Add the following:

Nighttime operations are permitted as approved. Submit request for approval at least 3 days before any planned nighttime operations.

*INCLUDE THE FOLLOWING IF THERE ARE ANY ACTIVITIES THAT ARE NOT TO BE PERFORMED AT NIGHT - VERIFY WITH PARTNER AGENCY AND CONSTRUCTION IF CLAUSE IS APPROPRIATE FOR THE PROJECT (IF USING THIS CLAUSE, DO NOT INCLUDE CLAUSE $$156.07A)*

$$156.07C

Do not perform *(insert activities that the Contractor cannot perform at night)* work at night.

*INCLUDE THE FOLLOWING IF THERE ARE ANY SPECIFIC ACTIVITIES THAT ARE REQUIRED TO BE PERFORMED AT NIGHT - VERIFY WITH PARTNER AGENCY AND CONSTRUCTION IF CLAUSE IS APPROPRIATE FOR THE PROJECT (IF USING THIS CLAUSE, DO NOT INCLUDE CLAUSE $$156.7A)*

$$156.07D

Perform *(insert activities that the Contractor is required to perform at night)* work at night.

*INCLUDE THE FOLLOWING FOR RUSH HOUR RESTRICTIONS ON PROJECTS WITH HIGH ADT OR IN URBAN AREAS - OBTAIN RUSH HOUR INFORMATION FROM THE PARTNER AGENCY - VERIFY WITH CONSTRUCTION IF THE RUSH HOURS ARE REASONABLE AND IF PAYMENT REDUCTION AMOUNT IS ADEQUATE*

$$156.07E

Add the following after Subsection 156.07:

**156.07A Rush Hour Operations.** Perform construction operations so they do not interfere with traffic during the rush hours shown in Table 156-1.

|  |  |
| --- | --- |
| **Table 156-1**  **Rush Hours (Monday to Friday)** | |
| **Morning** | #:## a.m. to #:## a.m. |
| **Evening** | #:## p.m. to #:## p.m. |

Do not install traffic control devices during the rush hours. Before rush hours begin, remove materials, equipment, and non-applicable traffic control devices from the roadway and install the necessary traffic control devices to safely maintain traffic. The CO reserves the right to review the Contractor’s progress before the rush hours begin. The CO may direct the Contractor to stop operations to ensure the Contractor completes all work, including the appropriate setup of traffic control devices, before the rush hours begin.

Failing to complete work and removing traffic control devices before a rush hour begins, or installing or removing them during rush hours will be considered Contractor noncompliance. Noncompliance will result in a reduction in payment to the Contractor equal to $(*insert amount*) per hour, for each hour or portion thereof. This reduction in payment will be subtracted from the Contractor’s progress payments and will be unrecoverable.

*INCLUDE THE FOLLOWING FOR URBAN OR COMPLEX PROJECTS, INCLUDING PROJECTS THAT HAVE ROAD CLOSURES AND/OR TEMPORARY DETOURS - VERIFY WITH CONSTRUCTION IF CLAUSE IS APPROPRIATE FOR THE PROJECT (IF USING THIS CLAUSE, DO NOT INCLUDE CLAUSE $$156.08B)*

$$156.08A

156.08. Add the following:

Provide a full-time TCS exclusively for the project. Ensure the TCS is on the site at all times when work is being performed and available during non-work periods.

*INCLUDE THE FOLLOWING FOR RURAL OR UNCOMPLICATED PROJECTS - VERIFY WITH CONSTRUCTION IF CLAUSE IS APPROPRIATE FOR THE PROJECT (IF USING THIS CLAUSE, DO NOT INCLUDE CLAUSE $$156.08A)*

$$156.08B

156.08. Delete the second paragraph and substitute the following:

The superintendent may serve as the TCS provided the requirements of Subsection 156.02 are met.

*INCLUDE SECTION 157 AS NEEDED BASED ON CLAUSE INSTRUCTIONS*

*REMOVE ITALICS, PARENTHESES, AND QUOTATION MARKS FROM INSERT AND SELECT FIELDS - DO NOT REMOVE THE YELLOW HIGHLIGHTING FROM SELECTED ITEMS - USE BLUE HIGHLIGHTING ON INSERTED ITEMS*

$$157.00A

Section 157. — SOIL EROSION AND SEDIMENT CONTROL

Revised 23 September 2024

*INCLUDE CLAUSES $$157.04A AND $$157.04B ON ALL PROJECTS THAT REQUIRE THE CONTRACTOR TO PREPARE/UPDATE/MAINTAIN A STORMWATER POLLUTION PREVENTION PLAN (SWPPP), WHICH IS TYPICALLY REQUIRED ON PROJECTS WITH A MINIMUM OF 1 ACRE OF DISTURBANCE - VERIFY APPLICABILITY AND LANGUAGE SELECTION WITH ENVIRONMENT (IF USING THESE CLAUSES, ALSO INCLUDE CLAUSES $$109.08D, $$157.04D, $$157.16A, AND $$157.18A - IN ADDITION, INCLUDE PAY ITEM 15720-0000 STORMWATER POLLUTION PREVENTION PLAN)*

$$157.04A

157.04. Add the following:

This project is covered under the *(insert NPDES permit under which the SWPPP is prepared)*.

$$157.04B

157.04. Add the following to the second paragraph:

*(select “*Prepare a*” or “*Update the Government-furnished draft*”)* SWPPP in accordance with the EPA and state requirements using the information provided in the plans, specifications, and permits obtained for the project. At least 7 days before the preconstruction conference, submit an electronic copyof the SWPPP according to Subsection 104.06.

*INCLUDE THE FOLLOWING ONLY IF REQUIRED BY THE STATE PERMITTING AGENCY - VERIFY WITH ENVIRONMENT - CONFIRM THE CO-APPLICANT WITH ENVIRONMENT*

$$157.04C

Once the SWPPP is approved, submit a Notice of Intent (NOI) to the *(insert State permitting agency)* as a co-applicant of the FHWA. Provide a copy of the NOI and evidence of its submission.

*INCLUDE THE FOLLOWING ON PROJECTS THAT REQUIRE A SWPPP - SEE INSTRUCTIONS FOR $$157.04A*

$$157.04D

Update the SWPPP constantly throughout the project as work is performed and when changes are made to the project. Maintain a copy of the current SWPPP on-site at all times.

*INCLUDE THE FOLLOWING ONLY IF REQUIRED BY THE STATE PERMITTING AGENCY - VERIFY WITH ENVIRONMENT*

$$157.04E

Post a notice of the project and SWPPP near the main entrance of the construction site.

*INCLUDE THE FOLLOWING ONLY IF REQUIRED BY THE STATE PERMITTING AGENCY - VERIFY WITH ENVIRONMENT*

$$157.04F

Upon completion of construction, submit a Notice of Termination (NOT) to the *(insert State permitting agency)*. Provide a copy of the NOT and evidence of its submission.

*INCLUDE THE FOLLOWING ON PROJECTS THAT REQUIRE A SWPPP - SEE INSTRUCTIONS FOR $$157.04A*

$$157.16A

157.16. Add the following:

The SWPPP will be evaluated under Subsection 106.02. The SWPPP will be jointly reviewed for accuracy and completeness by the CO and the Contractor before the submission of each monthly invoice. If the review finds that the SWPPP is not in compliance, payment of the Contractor’s invoice will be withheld until the SWPPP is brought up to date as outlined in Subsection 109.08(h)(1).

*INCLUDE THE FOLLOWING ON PROJECTS THAT REQUIRE A SWPPP - SEE INSTRUCTIONS FOR $$157.04A - IN ADDITION, INCLUDE PAY ITEM 15720-0000 STORM WATER POLLUTION PREVENTION PLAN - VERIFY SELECTION OF PROPER LANGUAGE WITH ENVIRONMENT - THEN, VERIFY WITH CONSTRUCTION IF PAYMENT PERCENTAGES ARE ADEQUATE AND ADJUST IF NECESSARY*

$$157.18A

157.18. Add the following:

Progress payments for *(select “*preparing*” or “*updating*”)* and maintaining a SWPPP will be paid as follows:

* 25 percent of the pay item amount will be paid upon acceptance of the SWPPP *(insert “*and upon submittal of the NOI copy and evidence of its submission to the CO*” if submission of a NOI is required by the permitting agency, delete this field if not required)*.
* An additional 50 percent of the pay item amount will be prorated based on total work complete.
* The remaining portion of the pay item amount will be paid *(select either “*upon submittal of the NOT copy and evidence of its submission to the CO*” if a NOT is required, otherwise, select “*at final acceptance*”)*.

*INCLUDE SECTION 255 ON ALL PROJECTS WITH MECHANICALLY-STABILIZED EARTH WALLS*

$$255.00A

**Section 255. — MECHANICALLY-STABILIZED EARTH WALLS**

Revised 23 October 2024

*INCLUDE CLAUSE ##255.04A*

##255.04A

255.04. Delete the second sentence of Footnote (1) in Table 255-1 and substitute the following:

For example, 65 feet height multiply 6.5×value.

*INCLUDE SECTION 301 ON ALL PROJECTS WITH 301 AGGREGATE PAY ITEMS*

$$301.00A

Section 301. — UNTREATED AGGREGATE COURSES

Revised 30 August 2024

*INCLUDE CLAUSES $$301.03A AND $$301.03B ON ALL PROJECTS WITH 301 AGGREGATE PAY ITEMS*

*WHEN USING CLAUSE $$301.03A, ALSO INCLUDE CLAUSE $$154.03A*

$$301.03A

301.03. Add the following to the second paragraph:

Submit the representative 300-pound sample to the EFLHD Central Laboratory in Sevierville, Tennessee at the address shown in Subsection 154.03.

*WHEN USING CLAUSE $$301.03B, ALSO INCLUDE CLAUSE $$703.05F, AND THE FOLLOWING:*

* *FOR PROJECTS WITH AGGREGATE BASE, INCLUDE CLAUSE $$703.05C.*
* *FOR PROJECTS WITH SURFACE COURSE AGGREGATE, INCLUDE CLAUSE $$703.05E.*

*SEE SUBSECTION 703.05 CLAUSES FOR ADDITIONAL INSTRUCTIONS FOR EACH TYPE OF 301 AGGREGATE PAY ITEM*

$$301.03B

301.03. Add the following:

An alternate state department of transportation aggregate gradation that is produced according to Subsection 703.05 may be submitted for approval. Provide target values within the allowable target value range of the state department of transportation aggregate gradation. When target values are not provided, the preproduction target values will be the midpoint of the allowable target value range of the state department of transportation aggregate gradation. The allowable deviation (±) from the target values will be according to Table 703-2A.

The maximum allowable pay factor under Subsection 301.10 for a state department of transportation aggregate gradation will be 1.00.

*INCLUDE SECTION 401 ON ALL PROJECTS WITH 401 ASPHALT PAY ITEMS AND AS NEEDED BASED ON CLAUSE INSTRUCTIONS AND WHEN RECOMMENDED BY THE PAVEMENTS REPORT/MEMO AND/OR BY THE MATERIALS ENGINEER*

*FOR PROJECTS WITH 401 ASPHALT PAY ITEMS, UPDATE PAY ITEM NAMES (EEBACS SUPPLEMENTAL DESCRIPTIONS) TO INCLUDE ASPHALT BINDER PERFORMANCE GRADE (CONSULT WITH MATERIALS ENGINEER) AND PAVEMENT ROUGHNESS (CONSULT WITH PAVEMENTS ENGINEER) - SEE OTHER GUIDANCE ON HOW TO ADD REQUIRED INFO TO PAY ITEM NAMES AND HOW TO SHOW ON TYPICAL SECTIONS*

$$401.00A

Section 401. — ASPHALT CONCRETE PAVEMENT

BY GYRATORY MIX DESIGN METHOD

Revised 23 September 2024

*INCLUDE THE FOLLOWING FOR PROJECTS IN STATES THAT HAVE CHANGED THE GYRATORY LEVELS SPECIFIED IN TABLE 401-1 (VERIFY WITH MATERIALS ENGINEER IF CLAUSE IS APPROPRIATE TO USE)*

$$401.03A

401.03. Add the following:

An approved state department of transportation asphalt concrete pavement mixture that has the specified nominal maximum size aggregate, traffic level (design ESAL), and asphalt binder grade, and that conforms to Tables 401-1 and 401-2, may be submitted for approval.

*INCLUDE CLAUSES $$401.03B, $$401.03C, $$401.03D, AND $$401.03E ON ALL PROJECTS WITH 401 ASPHALT PAY ITEMS*

$$401.03B

401.03(a). Delete the Subsection and substitute the following:

**(a) RAP.** Limit the quantity of RAP by mass in the JMF for the top lift of surface course to 15 percent. Limit the quantity of RAP by mass in the JMF for intermediate and base courses to 30 percent. For intermediate and base courses containing 20 to 30 percent by mass RAP, reduce the asphalt binder performance grade by 6°C for both high temperature and low temperature performance grades.

$$401.03C

401.03(d). Add the following after the first sentence:

Submit all JMF materials and information to the EFLHD Central Laboratory in Sevierville, Tennessee at the address shown in Subsection 154.03, with a copy to the CO as directed.

$$401.03D

401.03(d). Add the following:

If a state department of transportation asphalt concrete pavement mixture is requested for approval, submit a state department of transportation JMF approved within the past 12 months. Include documentation from a state department of transportation official certifying that the JMF is an approved state department of transportation asphalt concrete pavement mixture.

$$401.03E

401.03(d)(4). Add the following:

For JMFs with percentages of RAP greater than 15 percent, include a QCP according to Section 153 that documents the methods used to control the RAP percentage.

*INCLUDE THE FOLLOWING SPEC INSTRUCTION LINE (CLAUSE $$401.13A) IF ANY OF THE CLAUSES $$401.13B THRU $$401.13C ARE USED*

$$401.13A

401.13. Add the following:

*INCLUDE THE FOLLOWING ON ALL PROJECTS WITH 401 ASPHALT PAY ITEMS (TYPICALLY USED FOR PROJECTS WITH MAINLINE PAVING) (TYPICALLY NOT USED FOR PROJECTS WITH ONLY PARKING AREAS OR NARROW/CONFINED AREAS)*

$$401.13B

Begin paving operations at the furthest location from the asphalt plant and proceed towards the plant.

*INCLUDE THE FOLLOWING WHEN AN MTV IS REQUIRED (TYPICALLY USED FOR PROJECTS WITH GREATER THAN 1.0 MILES OF MAINLINE PAVING AND PAVEMENT ROUGHNESS TYPE I, II, OR III) (VERIFY WITH CONSTRUCTION IF CLAUSE IS APPROPRIATE TO USE) (VERIFY WITH PAVEMENTS IF EXISTING PAVEMENT STRUCTURE CAN SUPPORT AN MTV) (DO NOT USE IF ONLY PAVING PARKING AREAS OR NARROW/CONFINED AREAS)*

$$401.13C

Use an MTV for paving operations.

*INCLUDE SECTION 402 ON ALL PROJECTS WITH 402 ASPHALT PAY ITEMS AND AS NEEDED BASED ON CLAUSE INSTRUCTIONS AND WHEN RECOMMENDED BY THE PAVEMENTS REPORT/MEMO AND/OR BY THE MATERIALS ENGINEER*

*FOR PROJECTS WITH 402 ASPHALT PAY ITEMS, UPDATE PAY ITEM NAMES (EEBACS SUPPLEMENTAL DESCRIPTIONS) TO INCLUDE ASPHALT BINDER PERFORMANCE GRADE (CONSULT WITH MATERIALS ENGINEER) AND PAVEMENT ROUGHNESS (CONSULT WITH PAVEMENTS ENGINEER) - SEE OTHER GUIDANCE ON HOW TO ADD REQUIRED INFO TO PAY ITEM NAMES AND HOW TO SHOW ON TYPICAL SECTIONS*

$$402.00A

Section 402. — ASPHALT CONCRETE PAVEMENT

BY HVEEM OR MARSHALL MIX DESIGN METHOD

Revised 23 October 2024

*INCLUDE THE FOLLOWING FOR PROJECTS IN STATES THAT HAVE ASPHALT SPECIFICATIONS SIMILAR TO THE FP (VERIFY WITH MATERIALS ENGINEER IF CLAUSE IS APPROPRIATE TO USE)*

$$402.03A

402.03. Add the following:

An approved state department of transportation asphalt concrete pavement mixture may be submitted for approval if the mixture conforms to the following:

* Contains the same maximum size aggregate as the specified aggregate gradation;
* Follows the design parameters (b), (c), and (d) shown in Table 402-1 for the specified class of mix; and
* Meets the requirements of Table 402-2.

The allowable deviations for an approved state department of transportation asphalt concrete pavement mixture’s aggregate gradation will be the allowable deviations shown in Tables 703-2 and 703-3 for the specified grading.

*INCLUDE CLAUSES $$402.03B, $$402.03C, $$402.03D, AND $$402.03E ON ALL PROJECTS WITH 402 ASPHALT PAY ITEMS*

$$402.03B

402.03(a). Delete the Subsection and substitute the following:

**(a) RAP.** Limit the quantity of RAP by mass in the JMF for the top lift of surface course to 15 percent. Limit the quantity of RAP by mass in the JMF for intermediate and base courses to 30 percent. For intermediate and base courses containing 20 to 30 percent by mass RAP, reduce the asphalt binder performance grade by 6°C for both high temperature and low temperature performance grades.

$$402.03C

402.03(d). Add the following after the first sentence:

Submit all JMF materials and information to the EFLHD Central Laboratory in Sevierville, Tennessee at the address shown in Subsection 154.03, with a copy to the CO as directed.

$$402.03D

402.03(d). Add the following:

If a state department of transportation asphalt concrete pavement mixture is requested for approval, submit a state department of transportation JMF approved within the past 12 months. Include documentation from a state department of transportation official certifying that the JMF is an approved state department of transportation asphalt concrete pavement mixture.

$$402.03E

402.03(d)(4). Add the following:

For JMFs with percentages of RAP greater than 15 percent, include a QCP according to Section 153 that documents the methods used to control the RAP percentage.

*INCLUDE THE FOLLOWING SPEC INSTRUCTION LINE (CLAUSE $$402.13A) IF ANY OF THE CLAUSES $$402.13B THRU $$402.13C ARE USED*

$$402.13A

402.13. Add the following:

*INCLUDE THE FOLLOWING ON ALL PROJECTS WITH 402 ASPHALT PAY ITEMS (TYPICALLY USED FOR PROJECTS WITH MAINLINE PAVING) (TYPICALLY NOT USED FOR PROJECTS WITH ONLY PARKING AREAS OR NARROW/CONFINED AREAS)*

$$402.13B

In addition to Subsection 401.13, begin paving operations at the furthest location from the asphalt plant and proceed towards the plant.

*INCLUDE THE FOLLOWING WHEN AN MTV IS REQUIRED (TYPICALLY USED FOR PROJECTS WITH GREATER THAN 1.0 MILES OF MAINLINE PAVING AND PAVEMENT ROUGHNESS TYPE I, II, OR III) (VERIFY WITH CONSTRUCTION IF CLAUSE IS APPROPRIATE TO USE) (VERIFY WITH PAVEMENTS IF EXISTING PAVEMENT STRUCTURE CAN SUPPORT AN MTV) (DO NOT USE IF ONLY PAVING PARKING AREAS OR NARROW/CONFINED AREAS)*

$$402.13C

Use an MTV for paving operations.

*INCLUDE SECTION 412 ON ALL PROJECTS WITH 401, 402, 403, 404, 405, 418, 559, AND/OR 609 (ASPHALT CURB) WORK AND WHEN RECOMMENDED BY THE PAVEMENTS REPORT/MEMO AND/OR BY THE MATERIALS ENGINEER*

$$412.00A

Section 412. — ASPHALT TACK COAT

Revised 11 October 2024

*INCLUDE CLAUSE $$412.06A ON ALL PROJECTS WITH 412 ASPHALT TACK COAT APPLICATION - VERIFY WITH MATERIALS ENGINEER IF CLAUSE IS APPROPRIATE TO USE*

$$412.06A

412.06. Add the following to the second paragraph:

Control the rate of application within plus or minus 0.01 gallons per square yard of the target application rate and within the allowable range. Provide the CO with the specific gravity of the bituminous material corrected for spray temperature.

*INCLUDE CLAUSE $$412.07A WHEN ONE OR MORE OF THE FOLLOWING SITUATIONS APPLY:*

1. *A 412 ASPHALT TACK COAT PAY ITEM IS INCLUDED.*
2. *FOR LARGE PROJECTS, WHICH ARE TYPICALLY DEFINED AS ONE OR MORE OF THE FOLLOWING:*

* *THE LENGTH OF THE PAVED ROADWAY IS 2-LANE MILES OR MORE OF CONTINUOUS ASPHALT CONCRETE PAVEMENT PLACEMENT; AND/OR*
* *THE AVERAGE DAILY TRAFFIC OF ANY ROAD ON THE PROJECT IS GREATER THAN 3000 VEH/DAY).*

*(THE LARGE PROJECT DEFINITION DOES NOT ALWAYS DETERMINE WHETHER OR NOT TO INCLUDE A 412 PAY ITEM)*

1. *WHEN RECOMMENDED BY MATERIALS ENGINEER (VERIFY WITH MATERIALS ENGINEER IF CLAUSE IS APPROPRIATE TO USE).*

*(IF CLAUSE $$412.07A IS USED, ALSO INCLUDE CLAUSE $$412.99A)*

$$412.07A

412.07. Add the following:

Test distributor for residual application rate and frequency in accordance with Table 412-1, ASTM D2995, Option A, and the following:

1. Record the tare weight of the nonwoven geotextile materials;
2. Place the nonwoven geotextile on the road surface;
3. Apply the tack coat over the nonwoven geotextile;
4. Immediately record the weight of the nonwoven geotextile with tack coat;
5. Record the temperature of the tack coat;
6. Subtract the tare weight of the nonwoven geotextile to determine the weight of tack coat;
7. Convert the weight of tack coat to application rate according to ASTM D2995, Section 8, Calculation (Transverse Application Rate);
8. Correct the calculated application rate using temperature correction multiplier shown in the Asphalt Institute, *A Basic Asphalt Emulsion Manual*, Table B-1; and
9. Determine the tack coat residual application rate using the residual percentages shown in ASTM D2995, Table 1.

*INCLUDE CLAUSE $$412.08A WHEN A 412 ASPHALT TACK COAT PAY ITEM IS* ***NOT*** *INCLUDED AND THE TACK COAT IS CONSIDERED SUBSIDIARY TO THE ASPHALT WORK (IF CLAUSE $$412.08A IS USED, DO NOT INCLUDE CLAUSE $$412.08B)*

$$412.08A

412.08 and 412.09. Delete the Subsections and substitute the following:

**Measurement and Payment**

**412.08** Do not measure asphalt tack coat for payment. See Subsection 109.05.

*INCLUDE CLAUSE $$412.08B WHEN A 412 ASPHALT TACK COAT PAY ITEM IS INCLUDED (IF CLAUSE $$412.08B IS USED, DO NOT INCLUDE CLAUSE $$412.08A)*

$$412.08B

412.08. Add the following to the second paragraph:

Material quantities placed in excess of the approved application rates will not be measured for payment.

*SEE INSTRUCTIONS FOR CLAUSE $$412.07A. INCLUDE CLAUSE $$412.99A WHEN CLAUSE $$412.07A IS INCLUDED*

$$412.99A

Add the following to Table 412-1:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 412-1 (continued)**  **Sampling, Testing, and Acceptance Requirements** | | | | | | | | | |
| **Material or**  **Product**  **(Subsection)** | **Type of**  **Acceptance**  **(Subsection)** | **Characteristic** | **Category** | **Test Methods**  **Specifications** | **Sampling**  **Frequency** | **Point of**  **Sampling** | **Split**  **Sample** | **Reporting**  **Time** | **Remarks** |
| **Production (continued)** | | | | | | | | | |
| Emulsified  asphalt  or  asphalt  binder | Measured &  tested for  conformance  (106.04) | Quality | − | ASTM D2995, Option A | 1 at start of  work  &  1 per  2500 linear  feet | Behind distributor truck before material breaks & before paving | No | Upon  completion  of  measurement | Completed  by  Contractor  &  observed  by the CO |

*INCLUDE SECTION 414 ON ALL PROJECTS WITH 414 PAY ITEMS AND AS NEEDED BASED ON CLAUSE INSTRUCTIONS AND WHEN RECOMMENDED BY THE PAVEMENT REPORT/MEMO AND/OR BY THE MATERIALS ENGINEER. (IF USING LOS 414, ALSO INCLUDE LOS SECTION 712).*

$$414.00A

**Section 414. — ASPHALT PAVEMENT CRACK AND JOINT SEALING AND FILLING**

Revised 03 July 2024

*INCLUDE CLAUSE $$414.03A IF SPECIFYING THE WIDTH OF CRACKS NOT REQUIRING CLEANING - VERIFY WITH PAVEMENTS AND/OR MATERIALS ENGINEER IF CLAUSE IS APPROPRIATE TO USE. (IF USED, VERIFY/REVISE THE MAXIMUM WIDTH OF CRACKS THAT DO NOT REQUIRE CLEANING).*

$$414.03A

414.03. Add the following:

Do not clean cracks less than ½-inch wide.

*INCLUDE CLAUSE $$414.05A FOR CRACK SEALING AND FILLING.*

$$414.05A

414.05. Add the following:

Do not rout cracks unless directed by the CO.

*INCLUDE CLAUSE $$414.06A IF SPECIFYING THE WIDTH OF CRACKS NOT REQUIRING SEALING OR FILLING - VERIFY WITH PAVEMENTS AND/OR MATERIALS ENGINEER IF CLAUSE IS APPROPRIATE TO USE. (IF USED, VERIFY/REVISE THE MAXIMUM WIDTH OF CRACKS THAT DO NOT REQUIRE SEALING OR FILLING).*

$$414.06A

414.06. Add the following:

Do not seal or fill cracks less than ½-inch wide.

*INCLUDE SECTION 628 ON PROJECTS WITH BYPASS PUMPING DIVERSION WORK.*

$$628.00A

**Section 628. — TEMPORAY STREAM DIVERSIONS**

Revised 23 October 2024

*INCLUDE THE FOLLOWING.*

##628.05A

628.05(d). Delete the third sentence and substitute the following:

Place a mesh screen over the intake with a maximum mesh size of 3/32 inch.

*INCLUDE SECTION 632 FOR PROJECTS WHERE THERE ARE UNDERGROUND UTILITIES PRESENT OR IF THERE IS THE POSSIBILITY OF ENCOUNTERING THEM - INCLUDE INDIVIDUAL CLAUSES AS NEEDED BASED ON CLAUSE INSTRUCTIONS*

*REMOVE ITALICS AND PARENTHESES FROM INSERT FIELDS BUT KEEP THE HIGHLIGHTING*

$$632.00A

**Section 632. — LOCATING UTILITIES**

Revised 24 September 2024

*INCLUDE CLAUSES $$632.02A, $$632.03A, AND $$632.04A*

$$632.02A

632.02. Add the following to the second paragraph:

Contact *(insert name of local locator service)* at *(insert phone number),* or online at *(insert web address),* at least 48 hours before any excavation to have the utilities marked in the field. If *(insert name of local locator service)* does not perform this service at the project site, contact and ensure that a commercial utility location service marks underground utilities in the field before any excavation begins. Notify the CO 48 hours before any excavation.

Exercise special care and extreme caution in order to protect and avoid damage to any utility company facilities. Existing utilities have been generally located and shown in the plans as they are believed to exist. The Government assumes no responsibility for the accuracy of locations shown in the plans. Locate and ensure the safety of all existing utilities. Coordinate the repair of damage caused by construction with the utility owners. Pay costs associated with these repairs. See Subsection 107.02(d) for additional requirements.

$$632.03A

632.03. Add the following to the second paragraph:

Backfill using the excavated material or an approved equal. Thoroughly compact backfill material using appropriate compaction methods as approved. Replace aggregate courses and asphalt concrete pavement using approved materials and thicknesses, and appropriate compaction methods. For concrete pavements, use a fast setting concrete.

$$632.04A

632.04. Delete the Subsection and substitute the following:

**632.04 Reporting.** Submit a report of the utility location findings within 48 hours. In the report, describe the utility found (size, material, and function), the locating methods utilized, and plan and profile mapping of the utility. Determine the elevation and coordinates of the top of utility and prepare a field sketch of the pit with photographs. Indicate the date, station, and offset of the utility. Indicate potential conflicts with proposed construction activities and recommendations for mitigation or relocation.

*INCLUDE THE FOLLOWING IF LOCATING UTILITIES IS SUBSIDIARY TO THE PROJECT WORK AND THERE IS NO 632 PAY ITEM INCLUDED (IF USING THIS CLAUSE, DO NOT INCLUDE CLAUSE $$632.08A)*

$$632.07A

632.07 and 632.08. Delete the Subsections and substitute the following:

**Measurement and Payment**

**632.07** Do not measure locating utilities for payment. See Subsection 109.05.

*INCLUDE THE FOLLOWING WHEN USING THE LPSM 63201-0000 LOCATE UTILITIES PAY ITEM (IF USING THIS CLAUSE, DO NOT INCLUDE CLAUSE $$632.07A)*

$$632.08A

632.08. Delete the second paragraph and substitute the following:

Progress payments for locating utilities by the lump sum will be paid as follows:

**(a)** 50 percent of the pay item amount will be paid after initial marking.

**(b)** An additional 25 percent of the pay item amount will be paid after completion of 50 percent of the original contract amount.

**(c)** The remaining portion of the pay item amount will be paid after the maintenance of the utility markings is no longer needed as determined by the CO.

*INCLUDE SECTION 634 AS NEEDED BASED ON CLAUSE INSTRUCTIONS*

$$634.00A

Section 634. — PERMANENT PAVEMENT MARKINGS

Revised 18 June 2024

*INCLUDE THE FOLLOWING WHEN CLAUSE $$152.05C IS USED* *(SEE INSTRUCTIONS FOR CLAUSE $$152.05C)*

$$634.03A

634.03. Add the following to the first paragraph:

Use the survey information obtained under Subsection 152.05(l) and provide a report prepared by a Traffic Engineer that evaluates the existing passing and no-passing zone lengths. Include proposed passing and no-passing zone limits in the evaluation report. Reestablish the passing and no-passing zones based on the evaluation report and as directed by the CO.

*INCLUDE SECTION 635 ON ALL PROJECTS WITH CLAUSES $$635.04A, $$635.04B, AND $$635.07A AS A MINIMUM*

*REMOVE ITALICS, PARENTHESES, AND QUOTATION MARKS FROM INSERT FIELDS BUT KEEP THE HIGHLIGHTING*

$$635.00A

Section 635. — TEMPORARY TRAFFIC CONTROL

Revised 09 September 2024

*INCLUDE CLAUSES $$635.04A AND $$635.04B ON ALL PROJECTS*

$$635.04A

635.04(e). Add the following:

If *marginal* or *unacceptable* devices are not corrected in the timeframe specified, the CO will provide written notification of those devices not in compliance with the contract. If the Contractor fails to bring the specified devices into compliance within a 24-hour period, the CO may assess a daily reduction in payment to the Contractor of $*(insert amount, typically ½ of the liquidated damages amount shown in Subsection 108.05)* per day. The CO may continue to assess the daily reduction in payment for each additional 24-hour period until the devices are corrected. This reduction in payment will be subtracted from the Contractor’s progress payments and will be unrecoverable. Use of this reduction in payment does not waive the CO’s right to suspend the work in whole or in part according to Subsection 108.06.

$$635.04B

635.04(g). Add the following:

Submit a certification indicating that the devices are crashworthy as defined in Subsection 101.04.

*INCLUDE THE FOLLOWING WHEN USING THE LPSM 63501-000 TEMPORARY TRAFFIC CONTROL PAY ITEM - EDIT THE LIST AS NEEDED FOR PROJECT SPECIFIC REQUIREMENTS (SUCH AS “PILOT CARS”, “TEMPORARY PAVEMENT MARKINGS”, OR ANY OTHER TTC DEVICES LISTED IN SUBSECTIONS 635.05 THRU 635.24)*

$$635.04C

635.04. Add the following:

**(h)** As a minimum, provide and install the following temporary traffic control devices:

1. Construction signing;
2. Type 3 barricades;
3. Drums;
4. Cones;
5. Type (*insert required type(s) of warning lights “A, B, and/or C”*) warning lights;
6. Flaggers;
7. Portable changeable message signs; and
8. Other miscellaneous temporary traffic control devices that may be required by the CO.

*INCLUDE THE FOLLOWING ON ALL PROJECTS*

$$635.07A

635.07. Delete the second paragraph and substitute the following:

Remove or completely cover unnecessary signs, or signs that conflict with the construction signing or the approved temporary traffic control plan. Cover signs that are not removed so that no part of the covered sign is visible to traffic. Use sign covers meeting the following requirements:

1. Large enough to completely cover the sign;
2. Easy to attach to and remove from the sign without damaging the sign face. Do not use adhesives, glues, tapes, or mechanical fasteners that mar face of the sign;
3. Black, non-reflective, and opaque;
4. Made of plywood (at least ⅜ inches thick), aluminum (at least 0.040 inches thick), or other acceptable materials that will not be lifted, bent, or damaged by wind as approved by the CO; and
5. Durable enough to resist deterioration due to weathering and atmospheric conditions for the duration of the project.

*INCLUDE THE FOLLOWING IN HIGH-ADT SITUATIONS TO WARN USERS OF SHORT-TERM OPERATIONS*

$$635.07B

635.07. Add the following:

Provide 16-inch (minimum) square flags that are fluorescent orange or fluorescent red-orange in color. Mount flags on top of signs in accordance with the MUTCD.

*INCLUDE THE FOLLOWING IF USING TEMPORARY BARRIERS*

$$635.12A

635.12. Add the following:

Use FHWA-approved temporary barriers meeting test level *(select appropriate test level – use* “2 (TL-2)” *for speeds less than or equal to 45 mph, or use* “3 (TL-3)” *for speeds greater than 45 mph)* criteria, according to industry crashworthiness standards. For a list of acceptable manufacturers and products, refer to the FHWA Longitudinal Barriers and Bridge Rails listing found at <https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/listing.cfm?code=long>. Install temporary barriers according to the manufacturer’s recommendations.

*INCLUDE THE FOLLOWING IF THE PROJECT HAS ASPHALT ROADWAYS*

$$635.17A

635.17. Add the following:

Patch and maintain the traveled way to provide a smooth, uniform traveling surface as directed by the CO. Correct raveling and other deficiencies as directed by the CO. Remove loose material.

*INCLUDE THE FOLLOWING IF USING TEMPORARY CRASH CUSHIONS*

$$635.18A

635.18. Add the following:

Use FHWA-approved temporary crash cushions meeting test level *(select appropriate test level – use* “2 (TL-2)” *for speeds less than or equal to 45 mph, or use* “3 (TL-3)” *for speeds greater than 45 mph)* criteria, according to industry crashworthiness standards. For a list of acceptable manufacturers and products, refer to the FHWA Barrier Terminals and Crash Cushions listing found at <https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/listing.cfm?code=cushions>. Install temporary crash cushions according to the manufacturer’s recommendations.

*INCLUDE CLAUSES $$635.19A AND $$635.19B FOR TEMPORARY TRAFFIC SIGNALS - ALSO SEE INSTRUCTIONS BELOW AND INCLUDE EITHER CLAUSE $$635.19C OR $$635.19D*

$$635.19A

635.19. Add the following:

At least 14 days before the planned use of the temporary traffic signal system, submit a signal timing sequence and cycle for approval according to Subsection 104.06. Provide an all red clearance time assuming a vehicle speed of 5 miles per hour through the work zone.

Design the system to be fail-safe. Ensure the system monitors the following conditions:

**(a)** Lack of green, yellow, or red signal indication voltage;

**(b)** Total loss of indication on any approach;

**(c)** Presence of multiple signal indications on any approach;

**(d)** Conflicting green/yellow signal indications; and

**(e)** Low power condition.

In the event any of these conditions are detected, immediately begin flashing operation of red signal indications in all directions.

Test the approved timing cycle to determine acceptability with prevailing traffic conditions. Revise the timing cycle as needed or as directed by the CO to pass traffic through the signalized zone to meet the requirements of Subsection 156.06(a).

$$635.19B

Inspect temporary signal systems daily, even during periods when no construction activities are taking place, to ensure they are working properly.

*SELECT EITHER CLAUSE $$635.19C OR $$635.19D BASED ON AVAILABILITY OF COMMERCIAL ELECTRICITY - SEE INSTRUCTIONS FOR CLAUSE $$635.19A - VERIFY AVAILABILITY OF COMMERCIAL ELECTRICITY WITH PARTNER AGENCY*

$$635.19C

Commercial electricity is available to power the temporary signal system at the *(insert location)*. Coordinate with the local utility company according to Subsection 107.02(d). Provide an automatic backup power source capable of running the signal for at least 36 hours.

*SEE INSTRUCTIONS FOR $$635.19C*

$$635.19D

Commercial electricity is not available at the project site. Provide a power source to operate the temporary signal system. Provide an automatic backup power source capable of running the signal for at least 36 hours.

*USE ONE OF THE VARIATIONS OF SECTION 637 LISTED BELOW DEPENDING ON THE PROJECT REQUIREMENTS. SEE VARIATIONS LOS INSTRUCTIONS AND VERIFY WITH CONSTRUCTION WHICH IS ACCEPTABLE*

*USE THIS* *VARIATION OF SECTION 637 WHEN THE CONTRACTOR IS REQUIRED TO PROVIDE A FIELD OFFICE FOR THE FHWA PROJECT ENGINEER TO USE (PAY ITEMS 63701-0000 AND 63702-0000)*

*DO NOT USE* *THIS VARIATION WHEN THE PARTNER AGENCY PROVIDES A FIELD OFFICE. SEE THE ALTERNATE 637 LOS SECTIONS FOR THE OTHER SECTION 637 SITUATIONS - VERIFY WITH CONSTRUCTION WHICH VARIATION IS MOST APPROPRIATE TO USE*

*REMOVE ITALICS AND PARENTHESES FROM INSERT FIELDS BUT KEEP THE* *HIGHLIGHTING*

$$637.00A\_1

**Section 637. — FACILITIES AND SERVICES**

Revised 25 September 2024

*INCLUDE THE FOLLOWING SPEC INSTRUCTION LINE (CLAUSE $$637.02A\_1) AND ONE OF THE CLAUSES $$637.02B\_1, $$637.02C\_1, OR $$637.02D\_1 AS APPROPRIATE - VERIFY WITH CONSTRUCTION WHICH OF THE CLAUSES $$637.02B\_1, $$637.02C\_1, OR $$637.02D\_1 IS APPROPRIATE TO USE*

$$637.02A\_1

637.02. Add the following:

*INCLUDE CLAUSE $$637.02B\_1 WHEN A SPECIFIC FIELD OFFICE LOCATION HAS BEEN AGREED ON BY THE PARTNER AGENCY AND CONSTRUCTION (IF CLAUSE $$637.02B\_1 IS USED, ALSO INCLUDE THE SPEC INSTRUCTION LINE ABOVE (CLAUSE $$637.02A\_1))*

$$637.02B\_1

Locate the Government field office at *(insert location)*, as approved by the CO.

*INCLUDE CLAUSE $$637.02C\_1 FOR URBAN PROJECTS - USE FOR A DISTANCE OF 5 MILES OR LESS; IF NECESSARY, ADJUST DISTANCE AFTER DISCUSSION WITH CONSTRUCTION (IF CLAUSE $$637.02C\_1 IS USED, ALSO INCLUDE THE SPEC INSTRUCTION LINE ABOVE (CLAUSE $$637.02A\_1))*

$$637.02C\_1

Locate the Government field office within 5 miles of the project site and where highspeed internet service, as described in Subsection 637.04(k), is available.

*INCLUDE CLAUSE $$637.02D\_1 FOR RURAL PROJECTS - USE FOR A DISTANCE OF 5 MILES OR MORE; IF NECESSARY, ADJUST DISTANCE AFTER DISCUSSION WITH CONSTRUCTION (IF CLAUSE $$637.02D\_1 IS USED, ALSO INCLUDE THE SPEC INSTRUCTION LINE ABOVE (CLAUSE $$637.02A\_1))*

$$637.02D\_1

Locate the Government field office within 15 miles of the project site and where highspeed internet service, as described in Subsection 637.04(k), is available. In remote locations where highspeed internet service is not available, the field office distance range may be extended or waived by the CO.

*INCLUDE CLAUSE $$637.02E\_1 (ALSO INCLUDE THE SPEC INSTRUCTION LINE ABOVE (CLAUSE $$637.02A\_1))*

$$637.02E\_1

Clean the Government field office weekly to the approval of the CO.

*INCLUDE CLAUSE $$637.03A\_1*

$$637.03A\_1

637.03(a). Add the following:

Provide a storage facility conforming to Subsection 637.03(c).

Provide office equipment conforming to Subsection 637.03(e). Include an adequate supply of surge protectors for the office equipment.

*INCLUDE CLAUSES $$637.03B\_1* *AND $$637.03C\_1 ON LARGE PROJECTS IF ADDITIONAL STORAGE SPACE IS NEEDED FOR MATERIAL SAMPLES (INCLUDE WHEN ASPHALT AND/OR AGGREGATE PAY ITEM QUANTITIES ARE MORE THAN 15,000 TONS AND/OR WHEN CONCRETE PAY ITEM QUANTITIES ARE MORE THAN 5,500 CUYD) - VERIFY WITH CONSTRUCTION IF THE HIGHLIGHTED SAMPLE QUANTITIES NEED TO BE INCREASED (DO NOT DECREASE THE HIGHLIGHTED SAMPLE QUANTITIES)*

$$637.03B\_1

637.03(c). Add the following after the first sentence:

Ensure the storage facility has a minimum 6-foot inside (floor to ceiling) dimension and can accommodate one or a combination of the following:

* A minimum of 60 asphalt concrete samples and at least 3000 pounds.
* A minimum of 5 aggregate samples and at least 3000 pounds.
* A minimum of forty 6- by 12-inch concrete test cylinders.

Provide enough space for each sample. Samples may be stacked three units high using the sample containers required in Subsection 154.03.

Maintain a temperature ranging from 40 to 80 ºF within the storage facility.

$$637.03C\_1

637.03(c). Add the following:

**(3) Storage room.** Provide a fifth divided and separate storage area within the Government field office.

*INCLUDE CLAUSE $$637.03D\_1 AND THE 2ND AND 3RD BULLETS FOR ALL PROJECTS*

*FOR NATR PROJECTS OR LARGE PROJECTS NEEDING EXTRA FHWA STAFF DURING CONSTRUCTION, INCLUDE THE 1ST BULLET - VERIFY WITH CONSTRUCTION IF THE LARGER FIELD OFFICE SIZE IS NEEDED FOR OTHER NON-NATR PROJECTS*

$$637.03D\_1

Table 637-1. Amend the Field Office requirements as follows:

* Delete the "Floor space, square feet, 400" of the first row and substitute "Floor space, square feet, 800".
* Add "Closet, 45-cubic foot, 1 each".
* Add "with paper towels supply" to the "Sink with faucets for both hot and cold water" row.

*INCLUDE CLAUSE $$637.03E\_1*

$$637.03E\_1

637.03. Add the following:

**(e) Office equipment.** Provide the following office equipment in the Government field office:

**(1) Laser copy machine.** One self-feeding plain paper photocopying machine with the following minimum capabilities:

*(a)* Reproducing black and white, and color copies for each size paper;

*(b)* Equipped with 3 separate paper trays so that copying can be performed with 8½- by 11-inch (letter size), 8½- by 14-inch (legal size), and 11- by 17-inch paper without switching paper or paper trays;

*(c)* Automatic document feeder capable of making at least 20 copies per minute for each size paper;

*(d)* Reducing or enlarging originals, including duplex (double-sided) copying, for each size paper;

*(e)* Copying to Universal Serial Bus (USB) flash drive in Adobe Acrobat (\*.pdf) file format; and

*(f)* Built-in wireless technology (Wi-Fi capable).

Provide all necessary supplies for the laser copy machine, including paper.

**(2) Laser printer.** One plain paper printing machine with the following minimum capabilities:

*(a)* Producing black and white, and color prints for each size paper;

*(b)* Equipped with 3 separate paper trays so that printing can be performed with 8½- by 11-inch (letter size), 8½- by 14-inch (legal size), and 11- by 17-inch paper without switching paper or paper trays;

*(c)* Automatic paper feeder capable of making at least 20 prints per minute for each size paper;

*(d)* Producing duplex (double-sided) prints for each size paper;

*(e)* Printing from direct personal computer (PC) and local area network (LAN) connections;

*(f)* Scanning to Adobe Acrobat (\*.pdf) file format; and

*(g)* Built-in wireless technology (Wi-Fi capable).

The laser printer may be one machine in combination with the laser copy machine. Provide all necessary supplies for the laser printer, including paper.

**(3) Laser facsimile (FAX) machine.** One FAX machine with the following minimum capabilities:

*(a)* Automatic document feeder with a minimum capacity of 20 pages;

*(b)* Sending standard size documents up to and including 11- by 17-inch paper;

*(c)* Printing on plain paper; and

*(d)* Automatic dial/redial.

The laser FAX machine may be one machine in combination with the laser copy machine. Provide all necessary supplies for the laser FAX machine, including paper.

**(4) High definition computer monitor.** One high definition LCD or LED computer monitor with the following minimum capabilities:

*(a)* 27-inch flat viewing screen;

*(b)* Video Graphics Array (VGA) and High Definition Multimedia Interface (HDMI) ports; and

*(c)* Supports an optimal resolution of 1920 x 1080 at 60Hz.

**(5) Computer keyboard.** One computer keyboard with the following minimum capabilities:

*(a)* Standard 104-key Windows U.S. English QWERTY with keys for alphabet, functions, arrows, and numeric keypad; and

*(b)* Connects to a windows-based computer by either a USB cord or wirelessly.

**(6) Computer mouse.** One ergonomic computer mouse with the following minimum capabilities:

*(a)* Standard 2-button with a wheel for scrolling; and

*(b)* Connects to a windows-based computer by either a USB cord or wirelessly.

*INCLUDE CLAUSES $$637.04A\_1 AND $$637.04B\_1*

$$637.04A\_1

637.04(k). Add the following:

Submit firewall configuration for approval. Do not change the firewall configuration after it is approved. Do not connect any equipment to the system other than U.S. Department of Transportation equipment.

$$637.04B\_1

637.04. Add the following:

**(n) Wireless air card.** Provide one high speed, wireless air card for use with a Government laptop computer capable of providing access to the FHWA’s virtual private network (VPN).

*USE THIS VARIATION OF SECTION 637 WHEN THE PARTNER AGENCY PROVIDES A FIELD OFFICE FOR THE FHWA PROJECT ENGINEER TO USE -* ***VERIFY WITH CONSTRUCTION IF THIS IS ACCEPTABLE; MOST PROJECTS ARE TO HAVE THE CONTACTOR PROVIDE THE FHWA FIELD OFFICE, NOT THE PARTNER AGENCY***

*DO NOT USE THIS VARIATION WHEN THE CONTRACTOR IS REQUIRED TO PROVIDE THE FHWA FIELD OFFICE. SEE THE ALTERNATE 637 LOS SECTIONS FOR THE OTHER SECTION 637 SITUATIONS - VERIFY WITH CONSTRUCTION WHICH VARIATION IS MOST APPROPRIATE TO USE*

*VERIFY THE FOLLOWING WITH THE PARTNER AGENCY AND CONSTRUCTION WHEN USING THIS VARIATION OF SECTION 637:*

* *INCLUDE THE OFFICE CLEANING CLAUSE $$637.03B\_2 BASED ON IF THE PARTNER AGENCY IS OR IS NOT GOING TO CLEAN THE OFFICE.*
* *INCLUDE THE OFFICE EQUIPMENT CLAUSE $$637.03F\_2* *AND UPDATE ACCORDINGLY BASED ON IF THE PARTNER AGENCY IS OR IS NOT GOING TO PROVIDE ANY OF THE LISTED OFFICE EQUIPMENT FOR THE PROJECT ENGINEER TO USE.*
* *INCLUDE THE FIREWALL CLAUSE $$637.04A\_2 BASED ON IF THE PARTNER AGENCY’S CURRENT FIREWALL CONFIGURATION PROVIDES ADEQUATE PROTECTION FOR THE FHWA’S REQUIREMENTS.*

*WHEN THIS VARIATION IS USED, UPDATE THE PAY ITEM NAME (EEBACS SUPPLEMENTAL DESCRIPTION) TO INCLUDE “(GOVERNMENT-PROVIDED)”*

*REMOVE ITALICS AND PARENTHESES FROM INSERT FIELDS BUT KEEP THE HIGHLIGHTING*

$$637.00A\_2

**Section 637. — FACILITIES AND SERVICES**

Revised 25 September 2024

*INCLUDE CLAUSE $$637.03A\_2*

$$637.03A\_2

637.03. Delete the second and third paragraphs, and substitute the following:

The Government field office space will be provided by the *(insert partner agency)* at the *(insert location)*.

*INCLUDE CLAUSE $$637.03B\_2 IF THE CONTRACTOR IS REQUIRED TO CLEAN THE FIELD OFFICE - VERIFY WITH THE PARTNER AGENCY IF THE CONTRACTOR NEEDS TO CLEAN THE FIELD OFFICE OR IF THE PARTNER AGENCY WILL DO THIS AS PART OF THEIR STANDARD OPERATIONS (IF CLAUSE $$637.03B\_2 IS USED, ALSO INCLUDE THE SPEC INSTRUCTION LINE ABOVE (CLAUSE $$637.03A\_2))*

$$637.03B\_2

Clean the Government-provided field office weekly to the approval of the CO.

*INCLUDE CLAUSE $$637.03C\_2*

$$637.03C\_2

637.03(a). Delete the Subsection and substitute the following:

**(a) Government-provided field office.** Install furnishings and maintain the Government-provided field office according to Table 637-2, and as directed. Unless otherwise specified, provide furnishings of standard size, character, and condition for their function. Provide batteries and light bulbs necessary for the provided furnishings.

Provide a storage facility conforming to Subsection 637.03(c).

Provide office equipment conforming to Subsection 637.03(e). Include an adequate supply of surge protectors for the office equipment.

*INCLUDE CLAUSES $$637.03D\_2 AND $$637.03E\_2 ON LARGE PROJECTS IF ADDITIONAL STORAGE SPACE IS NEEDED FOR MATERIAL SAMPLES (INCLUDE WHEN ASPHALT AND/OR AGGREGATE PAY ITEM QUANTITIES ARE MORE THAN 15,000 TONS AND/OR WHEN CONCRETE PAY ITEM QUANTITIES ARE MORE THAN 5,500 CUYD) - VERIFY WITH CONSTRUCTION IF THE HIGHLIGHTED SAMPLE QUANTITIES NEED TO BE INCREASED (DO NOT DECREASE THE HIGHLIGHTED SAMPLE QUANTITIES)*

$$637.03D\_2

637.03(c). Add the following after the first sentence:

Ensure the storage facility has a minimum 6-foot inside (floor to ceiling) dimension and can accommodate one or a combination of the following:

* A minimum of 60 asphalt concrete samples and at least 3000 pounds.
* A minimum of 5 aggregate samples and at least 3000 pounds.
* A minimum of forty 6- by 12-inch concrete test cylinders.

Provide enough space for each sample. Samples may be stacked three units high using the sample containers required in Subsection 154.03.

Maintain a temperature ranging from 40 to 80 ºF within the storage facility.

$$637.03E\_2

637.03(c). Add the following:

**(3) Storage room.** Provide a fifth divided and separate storage area within the Government field office.

*INCLUDE CLAUSE $$637.03F\_2 AND ADJUST THE LIST OF OFFICE EQUIPMENT AS NEEDED - SEE INSTRUCTION FOR CLAUSE $$637.00A\_2 AND VERIFY WITH THE PARTNER AGENCY AND CONSTRUCTION IF ANY OF THE OFFICE EQUIPMENT LISTED BELOW WILL BE PROVIDED BY THE PARTNER AGENCY AND WHAT OFFICE EQUIPMENT NEEDS TO BE SUPPLIED BY THE CONTRACTOR*

$$637.03F\_2

637.03. Add the following:

**(e) Office equipment.** Provide the following office equipment in the Government-provided field office:

**(1) Laser copy machine.** One self-feeding plain paper photocopying machine with the following minimum capabilities:

*(a)* Reproducing black and white, and color copies for each size paper;

*(b)* Equipped with 3 separate paper trays so that copying can be performed with 8½- by 11-inch (letter size), 8½- by 14-inch (legal size), and 11- by 17-inch paper without switching paper or paper trays;

*(c)* Automatic document feeder capable of making at least 20 copies per minute for each size paper;

*(d)* Reducing or enlarging originals, including duplex (double-sided) copying, for each size paper;

*(e)* Copying to Universal Serial Bus (USB) flash drive in Adobe Acrobat (\*.pdf) file format; and

*(f)* Built-in wireless technology (Wi-Fi capable).

Provide all necessary supplies for the laser copy machine, including paper.

**(2) Laser printer.** One plain paper printing machine with the following minimum capabilities:

*(a)* Producing black and white, and color prints for each size paper;

*(b)* Equipped with 3 separate paper trays so that printing can be performed with 8½- by 11-inch (letter size), 8½- by 14-inch (legal size), and 11- by 17-inch paper without switching paper or paper trays;

*(c)* Automatic paper feeder capable of making at least 20 prints per minute for each size paper;

*(d)* Producing duplex (double-sided) prints for each size paper;

*(e)* Printing from direct personal computer (PC) and local area network (LAN) connections;

*(f)* Scanning to Adobe Acrobat (\*.pdf) file format; and

*(g)* Built-in wireless technology (Wi-Fi capable).

The laser printer may be one machine in combination with the laser copy machine. Provide all necessary supplies for the laser printer, including paper.

**(3) Laser facsimile (FAX) machine.** One FAX machine with the following minimum capabilities:

*(a)* Automatic document feeder with a minimum capacity of 20 pages;

*(b)* Sending standard size documents up to and including 11- by 17-inch paper;

*(c)* Printing on plain paper; and

*(d)* Automatic dial/redial.

The laser FAX machine may be one machine in combination with the laser copy machine. Provide all necessary supplies for the laser FAX machine, including paper.

**(4) High definition computer monitor.** One high definition LCD or LED computer monitor with the following minimum capabilities:

*(a)* 27-inch flat viewing screen;

*(b)* Video Graphics Array (VGA) and High Definition Multimedia Interface (HDMI) ports; and

*(c)* Supports an optimal resolution of 1920 x 1080 at 60Hz.

**(5) Computer keyboard.** One computer keyboard with the following minimum capabilities:

*(a)* Standard 104-key Windows U.S. English QWERTY with keys for alphabet, functions, arrows, and numeric keypad; and

*(b)* Connects to a windows-based computer by either a USB cord or wirelessly.

**(6) Computer mouse.** One ergonomic computer mouse with the following minimum capabilities:

*(a)* Standard 2-button with a wheel for scrolling; and

*(b)* Connects to a windows-based computer by either a USB cord or wirelessly.

*INCLUDE CLAUSE $$637.04A\_2 AS NEEDED - SEE INSTRUCTION FOR CLAUSE $$637.00A\_2 AND VERIFY WITH THE PARTNER AGENCY, CONSTRUCTION, AND EFLHD’S IT OFFICE IF THE PARTNER AGENCY’S CURRENT FIREWALL CONFIGURATION PROVIDES ADEQUATE PROTECTION FOR THE FHWA’S REQUIREMENTS*

$$637.04A\_2

637.04(k). Add the following:

Submit firewall configuration for approval. Do not change the firewall configuration after it is approved. Do not connect any equipment to the system other than U.S. Department of Transportation equipment.

*INCLUDE CLAUSE $$637.04B\_2*

$$637.04B\_2

637.04. Add the following:

**(n) Wireless air card.** Provide one high speed, wireless air card for use with a Government laptop computer capable of providing access to the FHWA’s virtual private network (VPN).

*USE THIS VARIATION OF SECTION 637 WHEN USING THE “FIELD OFFICE EQUIPMENT” OR “FIELD OFFICE SERVICES” PAY ITEMS (SEE SPECIFIC PAY ITEMS BELOW) TO REQUIRE 1 OR 2 MISCELLANEOUS PIECES OF EQUIPMENT OR SERVICES FOR THE FHWA PROJECT ENGINEER TO USE - IF MORE THAN 2 MISCELLANEOUS PIECES OF EQUIPMENT ARE NEEDED, CONSIDER USING THE PARTNER AGENCY PROVIDED FIELD OFFICE VARIATION INSTEAD AND UPDATE ACCORDINGLY*

* *USE FIELD OFFICE EQUIPMENT PAY ITEMS 63709-0000 (EACH), 63710-0000 (LPSM) OR 63711-0000 (MO) TO PAY FOR FIELD OFFICE EQUIPMENT SUCH AS PRINTERS, COPY MACHINES, … ETC.*
* *USE FIELD OFFICE SERVICES PAY ITEMS 63712-0000 (LPSM) OR 63713-0000 (MO) TO PAY FOR FIELD OFFICE SERVICES SUCH AS HIGH SPEED INTERNET ACCESS*

*DO NOT USE THIS VARIATION FOR CONTRACTOR PROVIDED OR PARTNER AGENCY PROVIDED FIELD OFFICE PAY ITEMS. SEE THE ALTERNATE 637 LOS SECTIONS FOR THE OTHER SECTION 637 SITUATIONS - VERIFY WITH CONSTRUCTION WHICH VARIATION IS MOST APPROPRIATE TO USE*

*REMOVE ITALICS, PARENTHESES, AND QUOTATION MARKS FROM INSERT FIELDS BUT KEEP THE HIGHLIGHTING*

$$637.00A\_3

**Section 637. — FACILITIES AND SERVICES**

Revised 25 September 2024

*INCLUDE CLAUSE $$637.03A\_3 AND UPDATE AS INSTRUCTED BELOW.* *VERIFY WITH CONSTRUCTION WHAT EQUIPMENT IS NEEDED. IF ONLY ONE* *PIECE OF EQUIPMENT IS REQUIRED, DO NOT LIST THE EQUIPMENT; CREATE A SENTENCE FOR ITS GENERAL DESCRIPTION FOLLOWED BY A LIST OF SPECIFIC EQUIPMENT REQUIREMENTS. IF MORE THAN TWO PIECES OF EQUIPMENT ARE REQUIRED, SEE INSTRUCTION FOR CLAUSE $$637.00A\_3 ABOVE*

$$637.03A\_3

637.03. Add the following:

**(e) Office equipment.** Provide the following office equipment:

**(1)** (*Insert description of office equipment to be provided and the requirements of the equipment - use Clause $$637.03E\_1 in the LOS Variation 637-1 “Contractor Supplied Field Office Equipment” as a guide and follow the formatting shown*); and

**(2)** (*Insert description of office equipment to be provided and the requirements of the equipment - use Clause $$637.03E\_1 in the LOS Variation 637-1 “Contractor Supplied Field Office Equipment” as a guide and follow the formatting shown*).

*INCLUDE CLAUSE $$637.04A\_3 WHEN AN AIR CARD IS REQUIRED FOR THE FHWA PROJECT ENGINEER - VERIFY WITH CONSTRUCTION IF THE CLAUSE IS NEEDED*

$$637.04A\_3

637.04. Add the following:

**(n) Wireless air card and service.** Provide one high speed, wireless air card and service for use with a Government laptop computer capable of providing access to the FHWA’s virtual private network (VPN).

*INCLUDE SECTION 702 AS NEEDED BASED ON CLAUSE INSTRUCTIONS*

$$702.00A

**Section 702. — ASPHALT MATERIAL AND ADDITIVES**

Revised 30 August 2024

*INCLUDE THE FOLLOWING ON ALL PROJECTS WITH ASPHALT CONCRETE PAVEMENT*

$$702.01A

702.01. Add the following:

Do not use asphalt binders with re-fined engine oil bottoms (REOB), oil recovered at the bottom of a vacuum tower, or vacuum tower asphalt extenders (VTAE).

*INCLUDE SECTION 703 AS NEEDED BASED ON CLAUSE INSTRUCTIONS*

*REMOVE ITALICS, BOLDING, AND PARENTHESES FROM INSERT FIELDS BUT KEEP THE HIGHLIGHTING*

$$703.00A

Section 703. — AGGREGATE

Revised 30 August 2024

*INCLUDE THE FOLLOWING FOR ALL WORK THAT REQUIRES CONCRETE*

$$703.02A

703.02. Add the following:

Do not use gravel.

*INCLUDE CLAUSES $$703.05A AND $$703.05B FOR SUBBASE, BASE, AND SURFACE COURSE AGGREGATES (INCLUDE FOR ALL PROJECTS WITH 301, 308, AND 311 PAY ITEMS)*

$$703.05A

703.05(a). Delete the text of Subsections **(3)** and **(4)**; they are not required.

$$703.05B

703.05(a). Add the following:

**(7)** California bearing ratio as determined by ## percent minimum

AASHTO T 193 at 95 percent of maximum dry

density in accordance with AASHTO T 180 (Method D).

*(obtain CBR value from Materials Engineer or Pavements)*

*INCLUDE THE FOLLOWING IF ALLOWING THE CONTRACTOR THE OPTION OF USING A STATE GRADATION FOR SUBBASE AND AGGREGATE BASE ONLY (SEE CLAUSE $$301.03B) - DO NOT INCLUDE FOR SURFACE COURSE AGGREGATE (SEE INSTRUCTIONS FOR CLAUSE $$703.05E) (INCLUDE FOR ALL PROJECTS WITH 301 AGGREGATE BASE ONLY AND 308 PAY ITEMS - DO NOT INCLUDE FOR 301 SURFACE COURSE AGGREGATE OR 311 PAY ITEMS) (IF USED, ALSO INCLUDE CLAUSE $$301.03B)*

$$703.05C

703.05(b)(1). Add the following:

The gradation only of the aggregate base may conform to the requirements of the current edition of the *(insert State Agency name and Specification Book name)*, *(insert acceptable State aggregate gradation and subsection and/or table reference -* ***obtain from the Materials Engineer****)*, found at *(insert link to the* ***website*** *containing the State Specification Book* ***not a direct link to the spec book****)*, subject to the approval of the CO. Conform to the requirements of Subsections 703.05(a) and 703.05(b) for all other properties. Submit the request according to Subsection 301.03.

*INCLUDE THE FOLLOWING FOR SUBBASE AND AGGREGATE BASE - DO NOT INCLUDE FOR SURFACE COURSE AGGREGATE (INCLUDE FOR ALL PROJECTS WITH 301 AGGREGATE BASE ONLY AND 308 PAY ITEMS - DO NOT INCLUDE FOR 311 PAY ITEMS)*

$$703.05D

703.05(b). Add the following:

**(3)** Plasticity index, AASHTO T 90 3 maximum

*INCLUDE THE FOLLOWING IF ALLOWING THE CONTRACTOR THE OPTION OF USING A STATE GRADATION FOR AGGREGATE SURFACE COURSE ONLY (SEE CLAUSE $$301.03B) - DO NOT INCLUDE FOR SUBBASE OR AGGREGATE BASE (SEE INSTRUCTIONS FOR CLAUSE $$703.05C) (INCLUDE FOR ALL PROJECTS WITH 301 AGGREGATE SURFACE COURSE ONLY AND 311 PAY ITEMS - DO NOT INCLUDE FOR 301 SUBBASE OR AGGREGATE BASE COURSE AGGREGATE OR 308 PAY ITEMS) (IF USED, ALSO INCLUDE CLAUSE $$301.03B)*

$$703.05E

703.05(c). Add the following:

The gradation only of the aggregate surface course may conform to the requirements of the current edition of the *(insert State Agency name and Specification Book name)*, *(insert acceptable State aggregate gradation and subsection and/or table reference -* ***obtain from the Materials Engineer****)*, found at *(insert link to the* ***website*** *containing the State Specification Book* ***not a direct link to the spec book****)*, subject to the approval of the CO. Conform to the requirements of Subsections 703.05(a) and 703.05(c) for all other properties. Submit the request according to Subsection 301.03.

*INCLUDE THE FOLLOWING FOR SUBBASE, BASE, AND SURFACE COURSE AGGREGATES (INCLUDE FOR ALL PROJECTS WITH 301, 308, AND 311 PAY ITEMS) (IF USED, ALSO INCLUDE CLAUSE $$301.03B)*

$$703.05F

703.05. Add the following:

|  |  |  |
| --- | --- | --- |
| **Table 703-2A**  **State Department of Transportation Gradation**  **Allowable Deviation Based on Target Value** | | |
| **Percent by Mass Passing** | | **Allowable**  **Deviation** |
| **Minimum** | **Maximum** |
| 90.1 | 100.0 | 6 |
| 80.1 | 90.0 | 8 |
| 30.1 | 80.0 | 8 |
| 20.1 | 30.0 | 8 |
| 10.1 | 20.0 | 6 |
| 0 | 10.0 | 4 |

*INCLUDE THE FOLLOWING FOR AGGREGATE-TOPSOIL COURSES < 1 ½ INCHES IN DEPTH (INCLUDE FOR ALL PROJECTS WITH 313 PAY ITEMS WITH A TYPICAL SECTION OF LESS THAN 1 ½ INCH-DEPTH)*

$$703.13A

703.13. Delete the Subsection and substitute the following:

**703.13 Aggregate for Aggregate-Topsoil Course.** Conform to AASHTO M 80, Class E and AASHTO M 43, Size Number 67.

*INCLUDE SECTION 712 AS NEEDED BASED ON CLAUSE INSTRUCTIONS*

$$712.00A

**Section 712. — JOINT MATERIAL**

Revised 30 August 2024

*INCLUDE THE FOLLOWING WHEN CRACK FILLING IS REQUIRED (TYPICALLY FOR PROJECTS WITH 414 CRACK FILLING PAY ITEMS) (IF USING THIS CLAUSE, ALSO INCLUDE LOS SECTION 414).*

$$712.01A

712.01(a)(2). Delete the Subsection and substitute the following:

**(2)** Crack filler, hot-applied, pourable, aggregate filled, ASTM D5078

polymer modified mastic for concrete and asphalt

concrete pavements.

*INCLUDE SECTION 714 FOR PROJECTS WITH WORK THAT REQUIRES GEOSYNTHETIC MATERIAL AND BASED ON CLAUSE INSTRUCTIONS*

$$714.00A

Section 714. — GEOSYNTHETIC MATERIAL

Revised 08 November 2024

*INCLUDE THE FOLLOWING SPEC INSTRUCTION LINE AND SUBSECTION TITLE TEXT (CLAUSE ##714.01A) FOR PROJECTS REQUIRING GEOTEXTILE FILTERS AND VERIFY WITH GEOTECH AND HYDRAULICS WHICH ONE OF THE THREE CLAUSES ##714.01B, ##714.01C, OR ##714.01D IS APPROPRIATE FOR THE PROJECT (USE ONLY ONE OF THE CLAUSES ##714.01B, ##714.01C, OR ##714.01D)*

##714.01A

714.01(c). Delete the Subsection and substitute the following:

**(c) Geotextile filter.** Provide geotextile filter for the following installations:

*INCLUDE THE FOLLOWING FOR PROJECTS REQUIRING GEOTEXTILE FILTERS WITH <15 PERCENT OF IN SITU SOIL PASSING THE NO. 200 SIEVE* *(IF CLAUSE ##714.01B IS USED, DO NOT INCLUDE CLAUSES ##714.01C OR ##714.01D)*

##714.01B

**(1) Riprap, special rock embankment, rock buttress, and other high survivability applications.** Conform to AASHTO M 288 Table 1, Class 1 (either <50 percent elongation or ≥50 percent elongation) and the following:

*(a)* Minimum permittivity, ASTM D4491 0.7 sec-1

(*b)* Maximum apparent opening size, ASTM D4751 0.43 mm maximum average

roll value

*(c)* Minimum ultraviolet stability, ASTM D4355 50 percent strength retained

after 500 hours of exposure

**(2) Underdrains and other subsurface drainage applications.** Conform to AASHTO M 288 Table 1, Class 2 (either <50 percent elongation or ≥50 percent elongation) and the following:

*(a)* Minimum permittivity, ASTM D4491 0.5 sec-1

*(b)* Maximum apparent opening size, ASTM D4751 0.43 mm maximum average

roll value

*(c)* Minimum ultraviolet stability, ASTM D4355 50 percent strength retained

after 500 hours of exposure

*INCLUDE THE FOLLOWING FOR PROJECTS REQUIRING GEOTEXTILE FILTERS WITH 15 TO 50 PERCENT OF IN SITU SOIL PASSING THE NO. 200 SIEVE (IF CLAUSE ##714.01C IS USED, DO NOT INCLUDE CLAUSES ##714.01B OR ##714.01D)*

##714.01C

**(1) Riprap, special rock embankment, rock buttress, and other high survivability applications.** Conform to AASHTO M 288 Table 1, Class 1 (either <50 percent elongation or ≥50 percent elongation) and the following:

*(a)* Minimum permittivity, ASTM D4491 0.2 sec-1

(*b)* Maximum apparent opening size, ASTM D4751 0.25 mm maximum average

roll value

*(c)* Minimum ultraviolet stability, ASTM D4355 50 percent strength retained

after 500 hours of exposure

**(2) Underdrains and other subsurface drainage applications.** Conform to AASHTO M 288 Table 1, Class 2 (either <50 percent elongation or ≥50 percent elongation) and the following:

*(a)* Minimum permittivity, ASTM D4491 0.2 sec-1

*(b)* Maximum apparent opening size, ASTM D4751 0.25 mm maximum average

roll value

*(c)* Minimum ultraviolet stability, ASTM D4355 50 percent strength retained

after 500 hours of exposure

*INCLUDE THE FOLLOWING FOR PROJECTS REQUIRING GEOTEXTILE FILTERS WITH >50 PERCENT OF IN SITU SOIL PASSING THE NO. 200 SIEVE (IF CLAUSE ##714.01D IS USED, DO NOT INCLUDE CLAUSES ##714.01B OR ##714.01C)*

##714.01D

**(1) Riprap, special rock embankment, rock buttress, and other high survivability applications.** Conform to AASHTO M 288 Table 1, Class 1 (either <50 percent elongation or ≥50 percent elongation) and the following:

*(a)* Minimum permittivity, ASTM D4491 0.1 sec-1

(*b)* Maximum apparent opening size, ASTM D4751 0.22 mm maximum average

roll value

*(c)* Minimum ultraviolet stability, ASTM D4355 50 percent strength retained

after 500 hours of exposure

**(2) Underdrains and other subsurface drainage applications.** Conform to AASHTO M 288 Table 1, Class 2 (either <50 percent elongation or ≥50 percent elongation) and the following:

*(a)* Minimum permittivity, ASTM D4491 0.1 sec-1

*(b)* Maximum apparent opening size, ASTM D4751 0.22 mm maximum average

roll value

*(c)* Minimum ultraviolet stability, ASTM D4355 50 percent strength retained

after 500 hours of exposure

*INCLUDE THE FOLLOWING FOR SUBGRADE STABILIZATION GEOTEXTILE WHEN VERY SOFT/WEAK SUBGRADES REQUIRE A PRODUCT WITH HIGHER REINFORCEMENT STRENGTH THAN A TYPICAL SOIL STABILIZATION GEOTEXTILE -VERIFY WITH GEOTECH IF THE CLAUSE IS APPROPRIATE TO USE*

##714.01E

714.01. Add the following:

**(e) Subgrade stabilization geotextile.** Conform to AASHTO M 288, Table 12, Class 4A.

*INCLUDE SECTION 718 AS NEEDED BASED ON CLAUSE INSTRUCTIONS*

$$718.00A

**Section 718. — TRAFFIC SIGNING AND MARKING MATERIAL**

Revised 30 August 2024

*INCLUDE THE FOLLOWING WHEN RETROREFLECTIVE SHEETING IS REQUIRED (TYPICALLY FOR 633 PERMANENT SIGN PANELS AND 635 TEMPORARY TRAFFIC CONTROL DEVICES)*

$$718.01A

718.01. Add the following:

For a list of acceptable manufacturers and products, refer to the FHWA, *Traffic Sign Retroreflective Sheeting Identification Guide* found at <http://safety.fhwa.dot.gov/roadway_dept/night_visib/sign_visib/sheetguide/>.