MINUTES
OF
IOWA DOT SPECIFICATION COMMITTEE MEETING

July 10, 2025

Members Present:	Mark Dunn	Contracts & Specifications Bureau
	Dillon Feldmann	Local Systems Bureau
	Daniel Harness	Design Bureau
	Eric Johnsen, Chair	Contracts & Specifications Bureau
	Wes Musgrove	Construction & Materials Bureau
	Shane Neuhaus	District 6 - Materials
	Scott Nixon	District 1 – DCE
	Mike Nop	Bridges & Structures Bureau
	Willy Sorenson	Traffic & Safety Bureau
Members Not Present:	Christy Vanbuskirk	Fairfield RCE
	Tony Gustafson	Chief Engineer
Advisory Members Present:	Luke Bowdish	Fayette County
	Jeff Brinkman	Contracts & Specifications Bureau
	Dave Carney	SUDAS
	Ben Hucker	Maintenance Bureau
	Yahir Jimenez	Fairfield RCE Office
	Brian Johnson	Construction & Materials Bureau
	Nate Thede	Project Management
	Andrew Zimmerman	FHWA

The Specification Committee met on Thursday, July 10, 2025, at 9:00 a.m. Eric Johnsen, Specifications Engineer, opened the meeting. The items were discussed in accordance with the agenda dated June 30, 2025.

1. Article 1102.19, Equal Employment Opportunity and Affirmative Action Requirements.

The Contracts and Specifications Bureau requested the change to comply with a new Iowa Law, SF418.

2. Article 1105.12, B, 1, Temporary Primary Haul Roads.

The Construction and Materials Bureau requested to clarify the intent that the tonnage limit required for haul road designation is 5000 tons or more per item/material and not a cumulative total for all items/materials.

3. Article 2214.03, D, 8, Limitations (Pavement Scarification).

The Construction and Materials Bureau requested to require placement 10 working days after the start of scarification, not after the entire project is scarified.

4. Articles 2529.02, B, Portland Cement Concrete. (Full Depth Finish Patches)

The Construction and Materials Bureau requested an update for simplicity in the field and make

requirements the same as structural concrete.

5. Article 4101.01, General Requirements (Portland Cement).

The Construction and Materials Bureau requested changes to more closely match ASTM C150 and ASTM C595 alkali limits.

6. DS-23068, Quality Management Concrete (QM-C).

The Construction and Materials Bureau requested revisions to the Developmental Specifications for Quality Management Concrete (QM-C).

7. DS-23075, High Performance Thin Lift Overlay.

The Construction and Materials Bureau requested revisions to the Developmental Specifications for High Performance Thin Lift Overlay.

8. SS-23008, Hot Mix Asphalt Interlayer.

The Construction and Materials Bureau requested revisions to the Supplemental Specifications for Hot Mix Asphalt Interlayer.

Form 510130 (07-24)

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SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jeff Brinkman/ Eric Johnsen	**Bureau/Office:** Specifications	**Item 1**
Submittal Date: June 9, 2025	**Proposed Effective Date:** July 15, 2025	
Article No.: 1102.19 **Title:** Equal Employment Opportunity and Affirmative Action Requirements.	**Other:**	

Specification Committee Action: Approved as recommended			
Deferred:	**Not Approved:**	**Approved Date:** 7/10/25	**Effective Date:** 7/15/25
Specification Committee Approved Text: See Specification Section Recommended Text			
Comments: Placed as a proposal note starting with July 2025 letting.			

Specification Section Recommended Text:

1102.19, B, 2, Equal Employment Opportunity.

Replace the Article:

In hiring and employment practices, the absence of discrimination on the basis of race, religion, sex, sexual orientation, ~~gender identity,~~ color, national origin, age, disability, or other protected classification under Federal, state, or local law

1102.19, B, 8, Segregated Facilities.

Replace the first sentence:

Employee facilities that are separated on the basis of race, religion, color, national origin, age, sex, sexual orientation, ~~gender identity,~~ or disability either by explicit directive or by fact because of habit, local custom, or any other reason.

1102.19, C, 1, The EEO/AA Operating Statement.

Replace the Article:

"It is the policy of this Company to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, ~~gender identity,~~ color, national origin, age, or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

1102.19, F, Personnel Actions.

Replace the first sentence:

Wages, working conditions, employee benefits, and personnel actions of every type including hiring, upgrading, promotion, transfer, demotion, layoff, and termination shall be made without regard to race, color, religion, sex, sexual orientation, ~~gender identity,~~ national origin, age, or disability.

Comments: Applied by proposal note starting with July Letting		
Member's Requested Change: **(Do not use 'Track Changes', or 'Mark-Up'.**		
Reason for Revision: Per new Iowa law, SF418.		
New Bid Item Required (X one)	**Yes**	**No** X
Bid Item Modification Required (X one)	**Yes**	**No** X
Bid Item Obsoletion Required (X one)	**Yes**	**No** X
Comments:		
County or City Comments:		
Industry Comments:		

Form 510130 (02-24)

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SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove/ Kevin Merryman	**Bureau/Office:** Construction and Materials	**Item 2**
Submittal Date: May 28, 2025	**Proposed Effective Date:** April 2026	
Article No.: 1105.12, B, 1, **Title:** Temporary Primary Road Haul Roads	**Other:**	

Specification Committee Action: Approved as recommended

Deferred:	**Not Approved:**	**Approved Date:** 7/10/25	**Effective Date:** 4/21/26

Specification Committee Approved Text: See Specification Section Recommended Text

Comments: None.

Specification Section Recommended Text:

1105.12, B, 1.

Replace the first sentence:

When items or materials such as those listed, in an amount equal to or greater than 5000 tons per item or material, are to be transported to the work by truck, and when requested by the Contractor, or on its own initiative, the Department will designate a temporary Primary Road haul road.

Comments:

1105.12 TEMPORARY PRIMARY ROAD HAUL ROADS.

B. Designation of Temporary Primary Road Haul Roads shall be as follows:

1. When items or materials such as those listed, in an amount equal to or greater than 5000 tons per item or material, are to be transported to the work by truck, and when requested by the Contractor, or on its own initiative, the Department will designate a temporary Primary Road haul road. In making such designation, the Department will only consider routes which are physically capable for such use. In addition, the Department will consider if the route submitted by the Contractor is practical and feasible regarding length of haul, road conditions, traffic, and maximum utilization of the Primary Road System. The designation will include a separate return route from the project if requested by the Contractor when granular surfaced roads are to be used for the return route. If a separate return route is not requested by the Contractor, it will be designated by the Contracting Authority.

Reason for Revision: To clarify the specification intent that the tonnage limit required for haul road designation is 5000 tons or more per item/material and not a cumulative total for all items/materials. This is defined in PPM 500.13.

New Bid Item Required (X one)	**Yes**	**No X**
Bid Item Modification Required (X one)	**Yes**	**No X**
Bid Item Obsoletion Required (X one)	**Yes**	**No X**

Comments:
County or City Comments:
Industry Comments:

Form 510130 (07-24)

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SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove/ Brian Johnson	**Bureau/Office:** Construction and Materials Bureau	**Item 3**
Submittal Date: June 19, 2025	**Proposed Effective Date:** April 2026 update	
Article No.: 2214.03, D, 8 **Title:** Pavement Scarification	**Other:**	

Specification Committee Action: Approved with changes

Deferred:	**Not Approved:**	**Approved Date:** 7/10/25	**Effective Date:** 4/21/26

Specification Committee Approved Text:

2214.03, D, 8.

Replace the first sentence:

When a scarified surface is open to traffic, ~~C~~commence overlay (HMA, PCC, Seal Coat, Slurry Seal, etc.) placement operations ~~within~~ no later than 10 working days after ~~completion of~~ commencing the scarification operation on any portion of the project.

Comments: The Construction and Materials Bureau provided some additional revisions after discussion with the ICPA. These revisions clarify the intent.

Specification Section Recommended Text:

2214.03, D, 8.

Replace the first sentence:

Commence overlay (HMA, PCC, Seal Coat, Slurry Seal, etc.) placement operations ~~within~~ no later than 10 working days after ~~completion of~~ commencing the scarification operation.

Comments:

Member's Requested Change: **(Do not use 'Track Changes', or 'Mark-Up'. Use ~~Strikeout~~ and Highlight.)**

2214.03.D. Limitations

8. Commence overlay (HMA, PCC, Seal Coat, Slurry Seal, etc.) placement operations ~~within~~ no later than 10 working days after ~~completion of~~ commencing the scarification operation. Once started, continue placement operations each working day until the scarified surface is completely covered. Failure to comply with these requirements will result in the assessment of a price adjustment equal to the liquidated damages stated in the contract documents. Repair damage to the scarified surface during the time period for which liquidated damages are being assessed.

Reason for Revision: To require placement 10 working days after the start of scarification, not after the entire project is scarified. This will enhance roadway safety, reduce pavement deterioration, and minimize cost disputes related to surface damage.

New Bid Item Required (X one)	**Yes**	**No X**
Bid Item Modification Required (X one)	**Yes**	**No X**
Bid Item Obsoletion Required (X one)	**Yes**	**No X**
Comments:		
County or City Comments:		
Industry Comments:		

Form 510130 (08-15)

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SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove	**Office:** Construction & Materials	**Item 4**
Submittal Date: June 10, 2025	**Proposed Effective Date:** April 2026	
Article No.: 2529.02, B **Title:** Portland Cement Concrete (Full Depth Finish Patches)	**Other:**	

Specification Committee Action: Approved as recommended

Deferred:	**Not Approved:**	**Approved Date:** 7/10/25	**Effective Date:** 4/21/26

Specification Committee Approved Text: See Specification Section Recommended Text

Comments: None.

Specification Section Recommended Text:

2529.02, B, Portland Cement Concrete.

Replace Articles 1 and 2:

1. **Slump.**
   - **a.** Slump, measured according to Materials I.M. 317 prior to addition of calcium chloride solution, ~~is to be between 1 inch and 2 1/2 inches as a target range, allowing a maximum of 3 inches. If calcium chloride solution is not to be added, the slump~~ is to be between 1 inch and 3 inches as a target range, allowing a maximum of 4 inches.
   - **b.** When a Type A Mid Range water reducing admixture is used, the slump, tested prior to the addition of calcium chloride, is to be between 1 inch and 4 inches as a target range, allowing a maximum of 5 inches.

2. **Air Entrainment.**
   The entrained air content of the unconsolidated concrete will be determined according to Materials I.M. 318, prior to addition of calcium chloride if it is to be added. The air entrainment shall be ~~as follows:~~ 6.5%, with a maximum variation of -1.0% and +2.0%.
   ~~**a.** When calcium chloride is to be added: 5.0%, with a tolerance of ± 2.0%.~~
   ~~**b.** When no calcium chloride is to be added: 6.5%, with a tolerance of ± 1.5%.~~

Comments:

Member's Requested Change: (Do not use **'Track Changes'**, or **'Mark-Up'**. Use ~~**Strikeout**~~ and **Highlight**.)

2529.02 B Portland Cement Concrete

1. **Slump.**
   - **a.** Slump, measured according to Materials I.M. 317 prior to addition of calcium chloride solution, ~~is to be between 1 inch and 2 1/2 inches as a target range, allowing a maximum of 3 inches. If calcium chloride solution is not to be added, the slump~~ is to be between 1 inch and 3 inches as a target range, allowing a maximum of 4 inches.
   - **b.** When a Type A Mid Range water reducing admixture is used, the slump, tested prior to the addition of calcium chloride, is to be between 1 inch and 4 inches as a target range, allowing a maximum of 5 inches.

2. Air Entrainment. The entrained air content of the unconsolidated concrete will be determined according to Materials I.M. 318, prior to addition of calcium chloride if it is to be added. The air entrainment shall be 6.5%, with a maximum variation of -1.0% and +2.0%. ~~as follows:~~ ~~**a.** When calcium chloride is to be added: 5.0%, with a tolerance of ± 2.0%.~~ ~~**b.** When no calcium chloride is to be added: 6.5%, with a tolerance of ± 1.5%.~~
Reason for Revision: Update for simplicity in the field and avoid any confusion. Too many extra testing requirements. Make requirements the same as structural concrete.

New Bid Item Required (X one)	**Yes**	**No X**
Bid Item Modification Required (X one)	**Yes**	**No X**
Bid Item Obsoletion Required (X one)	**Yes**	**No X**
Comments:		
County or City Comments:		
Industry Comments: Sent to ICPA		

Form 510130 (08-15)

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SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove	**Office:** Construction & Materials	**Item 5**
Submittal Date: June 10, 2025	**Proposed Effective Date:** April 2026	
Article No.: 4101.01 **Title:** General Requirements	**Other:**	

Specification Committee Action: Approved as recommended

Deferred:	**Not Approved:**	**Approved Date:** 7/10/25	**Effective Date:** 4/21/26

Specification Committee Approved Text: See Specification Section Recommended Text

Comments: Decimal point was left off original agenda, changed from “010%” to “0.10%”

Specification Section Recommended Text:

4101.01, A, 2.

Replace the Article:

Limit the alkali content expressed as total equivalent sodium oxide to no more than 0.60% for all cements. For cements with alkali content greater than 0.60%, apply either of the following.

a. Limit alkali loading to 4.0 pounds per cubic yard, calculated in accordance with ASTM C1778 or

b. Submit ASTM C1567 test results demonstrating expansion of less than 0.10% at 14 days, with proposed mix design materials.

c. Submit annually or when materials change.

4101.01, B, ASTM C 595 Cements.

Delete Article 3 and **renumber** following Article:

~~**3.** To produce blended cement, use an approved Type I, II or IL cement with an alkali content expressed as a total equivalent being no more than 0.75% from the clinker portion.~~

~~**4**~~ **3.** Limit total replacement of Type IT to no more than 50 weight percent.

4101.01, C, ASTM C 1157 Cements.

Replace the Article:

Unless specified otherwise, meet the requirements of ASTM C 1157 and ~~the following requirements:~~

~~**1.** Limit the alkali content expressed as a total equivalent being no more than 0.75% from the clinker portion.~~

~~**2.** L~~limit total replacement to no more than 50 weight percent.

Comments:

Member’s Requested Change: (Do not use ‘Track Changes’, or ‘Mark-Up’. Use ~~Strikeout~~ and Highlight.)

4101.01 GENERAL REQUIREMENTS.

A. ASTM C 150 Cements.

1. Unless specified otherwise, meet the requirements of ASTM C 150.

2. Limit the alkali content expressed as total equivalent sodium oxide to no more than 0.60% for all cements. For cements with alkali content greater than 0.60%, apply either of the following.
a. Limit alkali loading to 4.0 pounds per cubic yard, calculated in accordance with ASTM C1778 or
b. Submit ASTM C1567 test results demonstrating expansion of less than 010% at 14 days, with proposed mix design materials.
c. Submit annually or when materials change.

B. ASTM C 595 Cements.
Unless specified otherwise, meet the requirements of ASTM C 595 and the following requirements:

1. Pozzolan constituent of Type IP cement no more than 25 weight percent of the Portland-pozzolan cement.

2. Slag constituent of Type IS cement no more than 40 weight percent of the Portland blast-furnace slag cement.

3. ~~To produce blended cement, use an approved Type I, II or IL cement with an alkali content expressed as a total equivalent being no more than 0.75% from the clinker portion.~~

4. Limit total replacement of Type IT to no more than 50 weight percent.

C. ASTM C 1157 Cements.
Unless specified otherwise, meet the requirements of ASTM C 1157 and the following requirements:

1. ~~Limit the alkali content expressed as a total equivalent being no more than 0.75% from the clinker portion.~~

2. Limit total replacement to no more than 50 weight percent.

Reason for Revision: ASTM C150 no longer requires alkali limit as an optional requirement. Since all producers have change to ASTM C595 blended cements, some cement producers of ASTM C150 Type III cements alkali changing to higher than 0.60%. Additional testing can be utilized to allow the higher alkali contents.

ASTM C595 cements do not include alkali limits and was just added to have a value with the C150 requirement.

New Bid Item Required (X one)	**Yes**	**No X**
Bid Item Modification Required (X one)	**Yes**	**No X**
Bid Item Obsoletion Required (X one)	**Yes**	**No X**
Comments:		
County or City Comments:		
Industry Comments: Sent to ICPA		

Form 510130 (08-15)

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SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove	**Office:** Construction & Materials	**Item 6**
Submittal Date: June 10, 2025	**Proposed Effective Date:** September 16, 2025	
Article No.: Title:	**Other:** DS-23068, Quality Management Concrete (QM-C)	

Specification Committee Action: Approved as recommended			
Deferred:	**Not Approved:**	**Approved Date:** 7/10/25	**Effective Date:** 9/16/25
Specification Committee Approved Text: See attached Developmental Specifications for Quality Management Concrete (QM-C).			
Comments:			
Specification Section Recommended Text: See attached draft Developmental Specifications for Quality Management Concrete (QM-C).			
Comments:			

Member's Requested Change: (Do not use '**Track Changes**', or '**Mark-Up**'. Use ~~**Strikeout**~~ and **Highlight**.)
DS-230068 attached
Table DS-230688.05-1; Water/Cementitious Ratio; Limits; changed from 0.42 to 0.435

Reason for Revision: Update w/c ratio on quality control table. Missed this one last update

New Bid Item Required (X one)	**Yes**	**No X**
Bid Item Modification Required (X one)	**Yes**	**No X**
Bid Item Obsoletion Required (X one)	**Yes**	**No X**

Comments:

County or City Comments:

Industry Comments: Sent to ICPA

DS- 23077
(Replaces DS-23068)

DEVELOPMENTAL SPECIFICATIONS FOR QUALITY MANAGEMENT CONCRETE (QM-C)

Effective Date
September 16, 2025

THE STANDARD SPECIFICATIONS, SERIES 2023, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

23077.01 DESCRIPTION.

A. This specification identifies a concrete mixture design with an optimum combined aggregate gradation, and the Contractor's testing and quality control responsibilities. Optimization of the aggregates should produce concrete with low water requirement as well as improved workability and finishing characteristics. While concrete strength is important and is measured, it is not the basis for optimization of the concrete mixture design.

B. Testing and quality control apply to all Contractor produced concrete using the Concrete Design Mixture (CDM). The CDM applies to mainline slip form pavement. At the Contractor's option, the CDM may apply to any other slip form paving.

23077.02 MATERIALS.

For all materials, meet the quality requirements for the respective items in Division 41 of the Standard Specifications. Compatibility of all material combinations is the Contractor's responsibility based on acquired field experience with proposed materials.

23077.03 CONCRETE DESIGN MIXTURE.

A. An Iowa DOT PCC Level III Certified Technician is responsible for the development of the CDM. Develop a CDM based on a unit volume of 1.000 according to industry standard practice, and containing proportions of materials, including admixtures. Base the proportions upon saturated surface dry aggregates to produce a workable concrete mixture meeting the constraints of Table DS-23068.03-1:

Table DS-23077.03-1: Concrete Mixture Constraints

Constraint	Value
Nominal Maximum Coarse Aggregate Size	Greater than or equal to 1 inch
Gradation	Materials I.M. 532
Cementitious Content	Minimum, 560 pounds per cubic yard*
Fly Ash Substitution Rate	See Article 2301.02, B, 6
Water/Cementitious Ratio	Maximum, 0.435
Air Content	6% ±1%, Design Absolute Volume = 0.060

Constraint	Value
28 Day Flexural Strength, Third Point	Minimum, 640 pounds per square inch

* The minimum cement content assumes the use of Type I/II cement with a specific gravity of 3.14 for an absolute volume of 0.106. If cement other than Type I/II is used, use an absolute volume of 0.106 and determine the weight of cement from the specific gravity of the cement. Cement content may need to be increased to maintain the water to cementitious ratio during hot weather conditions.

B. Develop a target combined gradation in Zone II for each CDM based on normal production gradations and the relative percentages of each individual aggregate. Submit Form 955QMC to aggregate producer(s) to ensure individual gradations used are acceptable. Limit the percent passing the No. 200 sieve to no more than 1.5% for the combined aggregate gradation. When the coarse aggregate used meets the increase in percent passing the No. 200 sieve, according to Section 4109, Aggregate Gradation Table, Note 10 of the Standard Specifications, limit the percent passing the No. 200 sieve to no more than 2.0% for the combined aggregate gradation.

C. Contractor may use water reducing admixture, Type A, or water reducing and retarding admixture, Type D, in the CDM.

23077.04 MIX DESIGN DOCUMENTATION.
At least 7 calendar days prior to the start of paving, submit a CDM report to the District Materials Engineer for approval on Iowa DOT form. Contract extensions will not be allowed due to inadequate or additional CDMs.

23077.05 QUALITY CONTROL.

A. General.

1. The Contractor is responsible for quality control of the concrete. An Iowa DOT PCC Level II Certified Technician is required to oversee quality control operations. The individual conducting the testing on grade is required to be an Iowa DOT PCC Level I Certified Technician. Calibrate and correlate testing equipment prior to and during paving operations.

2. At least 7 calendar days prior to the preconstruction conference, submit to the Engineer a Quality Control Plan complying with Materials I.M. 530. Include the proposed mix design(s) with the Quality Control Plan. Do not begin paving until the plan is reviewed for compliance with the contract documents. Maintain equipment and qualified personnel to direct and perform all field quality control sampling and testing necessary to:
- Determine the various properties of the concrete governed by the contract documents, and
- Maintain the properties described in this specification.

B. Quality Control Testing.

1. Perform all quality control tests necessary to control the production and construction processes applicable to this specification and as set forth in the Quality Control Plan. Take samples for quality control testing in a random manner according to the prescribed sampling rate. Perform the tests listed in Table DS-23068.05-1:

Table DS-23077.05-1: Quality Control Table

Test	Limits	Testing Frequency	Test Methods
Unit Weight (Mass) of Plastic Concrete	Monitor for changes, ±3%	Twice/day	AASHTO T 121
Gradation Combined % Passing	See Article DS-23077.05, B, 2	1/1500 cubic yard	Materials I.M. 216, 301, 302, 531

Test	Limits	Testing Frequency	Test Methods
Aggregate moisture contents	See Materials I.M. 527	1/1500 cubic yard	Materials I.M. 308
Air Content Plastic Concrete in Front of Paver	See Article 2301.02, B, 4	1/350 cubic yard or 1/100 cubic yard (ready mix)	Materials I.M. 318
Air Content Plastic Concrete in Back of Paver	May be used by Project Engineer to adjust target air in front of paver	2/day for first 3 days and 1/week thereafter (for each paver used)	Materials I.M. 318
Water/Cementitious Ratio	~~0.42~~ 0.435 maximum	Twice/day	Materials I.M. 527
Vibrator frequency	See Article 2301.03, A, 3, a, 6, a	With Electronic Vibration Monitoring: Twice/day Without Electronic Vibration Monitoring: Twice/Vibrator/Day	Materials I.M. 384

2. Maintain the running average of three combined aggregate gradation tests within the limits established by the CDM target gradation and the working ranges of Table DS-23068.05-2:

Table DS-23077.05-2: CDM Target Gradations

Sieve Size	Working Range
No. 4 or greater	±5%
No. 8 to No. 30	±4%
No. 50	±3%
No. 100	±2%
minus No. 200	See Article DS-23077.03

C. Corrective Action.

For QM-C mixes only, plot all process control test results on control charts as described in Materials I.M. 530.

1. **Aggregate Tests.**
   Take corrective action when the running average approaches the working range limits. When a combined gradation test result for a sieve exceeds the working range limits, adjust the target and notify the Engineer. If the verification test result for the minus No. 200 exceeds the limits in Article DS-23068.03 for the combined gradation, the material represented by that test for this sieve will be considered non-complying. Price adjustments will be assessed based on Coarseness/Workability Factors as described in Article DS-23068.07, E.

2. **Concrete Tests.**
   Take corrective action when an individual test result approaches the control limits. Notify the Engineer whenever an individual test result exceeds the control limits.

D. Acceptable Field Adjustments.

1. All mix changes must be mutually agreed upon between the Contractor and Engineer. Document all mix changes on the QM-C Mix Adjustment form. Determine batch weights using a basic water cement ratio of 0.40. When the water cement ratio varies more than ±0.03 from the basic water cement ratio, adjust the mix design to unit volume of 1.000. A change in the source of materials or an addition of admixtures or additives requires a new CDM. The following are small adjustments that may be made without a new CDM being required:
   - Increase cementitious content.
   - Decrease fly ash substitution rate.
   - Aggregate proportions may be adjusted from CDM proportions by a maximum of ± 4% for

each aggregate.
- Change water reducer to water reducer retarder.
- Adjustment in water reducer or water reducer retarder admixture dosage.
- Change in source of fly ash.
- Change in source of sand, provided target gradation limits are met.

2. When circumstances arise, such as a cement plant breakdown, that create cement supply problems, a change in cement source may be allowed with the Engineer's approval. Consult the District Materials Engineer for approval of other changes to the mix design. A set of three beams for 28 day flexural strength testing may be required to document the changes.

3. Should conditions beyond the Contractor's control prevent completion of the work with the CDM, a Class C mix, or a mix based on Class C mix proportions using project materials, will be allowed, at no additional cost to the Contracting Authority. Mutual agreement between the Contractor and Engineer is required. When Class C mix, or mix based on Class C mix proportions using project materials is allowed it will not be considered in the coarseness and workability lot evaluation.

E. Hand Finished Pavement.
Use project materials based on Class C or Class M concrete mix proportions. With approval of the Engineer, the Contractor's CDM may be used for hand finished pavement. Quality control, as required in this specification, will not apply to hand finished pavement.

23077.06 METHOD OF MEASUREMENT.
Measurement will be as follows:

A. Standard or Slip-Form Portland Cement Concrete Pavement, QM-C.
Square yards shown in the contract documents.

B. Portland Cement Concrete Overlay, QM-C, Furnish Only.
Article 2310.04, A, of the Standard Specifications applies.

C. Portland Cement Concrete Overlay, QM-C, Placement Only.
Article 2310.04, B, of the Standard Specifications applies.

D. Hand Finished Pavement.
Square yards of Standard or Slip-Form Portland Cement Concrete Pavement, QM-C, constructed using Class C or Class M mixtures. For overlays, the Engineer will compute the number of:
- Square yards of Portland Cement Concrete Overlay, QM-C, Placement Only, constructed using Class C or Class M mixtures, and
- Cubic yards of Class C and Class M mixtures used.

23077.07 BASIS OF PAYMENT.
The cost for furnishing labor, equipment, and materials for the work required by the Contractor to design, test, and provide process control for production of QM-C shall be included in the contract unit price for QM-C bid items. Payment will be the contract unit prices as follows:

A. Standard or Slip Form Portland Cement Concrete Pavement, QM-C.
Contract unit price for Standard or Slip-Form Portland Cement Concrete Pavement, QM-C, per square yard.

B. Portland Cement Concrete Overlay, QM-C, Furnish Only.
Article 2310.05, A, of the Standard Specifications applies. Average coarseness and workability factor for each lot will be determined according to Materials I.M. 530.

C. Portland Cement Concrete Overlay, QM-C, Placement Only.
Article 2310.05, B, of the Standard Specifications applies. Average coarseness and workability

factor for each lot will be determined according to Materials I.M. 530.

D. Hand Finished Pavement.

1. Standard or Slip-Form Portland Cement Concrete Pavement, QM-C: per square yard.

2. Portland Cement Concrete Overlay, QM-C, Placement Only: per square yard.

3. Portland Cement Concrete Overlay, QM-C, Furnish Only: per cubic yard.

E. Price Adjustment

Failure to provide an optimized gradation within Zone II, when required, will result in the following price adjustments.

Table DS-23077.07-1: Price Adjustments

Gradation Zone (Materials I.M. 532)	Price Adjustment Per Lot
IV	2%
I	5%

Form 510130 (08-15)

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SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Brian Johnson/Wes Musgrove	**Bureau/Office:** Construction and Materials	**Item 7**
Submittal Date: June 10, 20256	**Proposed Effective Date:** September 16, 2025	
Article No.: **Title:**	**Other:** DS-23075, High Performance Thin Lift Overlay	

Specification Committee Action: Approved with changes

Deferred:	**Not Approved:**	**Approved Date:** 7/10/25	**Effective Date:** 9/16/25

Specification Committee Approved Text: See attached Developmental Specifications for High Performance Thin Lift Overlay.

Comments: Construction and Materials Bureau requested to revise updated limit from 6 mm to 6.00 mm to account for standard rounding practice.

Specification Section Recommended Text: See attached draft Developmental Specifications for High Performance Thin Lift Overlay.

Comments:

Member's Requested Change: **(Do not use 'Track Changes', or 'Mark-Up'. Use ~~Strikeout~~ and Highlight.)**

See Attachment

Reason for Revision: (2 changes)

1.) Failure criteria for Hamburg Testing is changing from no more than 4mm to 6.00mm of rutting at 8000 passes

2.) The Lab Void acceptance article referenced was incorrect because someone added a new note in 2303.05 Basis of payment. Therefore, this changes our note to reference.

New Bid Item Required (X one)	**Yes**	**No X**
Bid Item Modification Required (X one)	**Yes**	**No X**
Bid Item Obsoletion Required (X one)	**Yes**	**No X**

Comments:

County or City Comments:

Industry Comments:

DS- 23078
(Replace DS-23075)

DEVELOPMENTAL SPECIFICATIONS
FOR
HIGH PERFORMANCE THIN LIFT OVERLAY

Effective Date
September 16, 2025

THE STANDARD SPECIFICATIONS, SERIES 2023, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

23078.01 DESCRIPTION.
These specifications describe requirements for a highly polymer modified asphalt thin lift surface course. Apply Section 2303 of the Standard Specifications unless otherwise directed in these specifications.

23078.02 MATERIALS.

A. Asphalt Binder.
Use PG 64-34E+ with a minimum percent recovery of 90% when tested at 64°C per AASHTO T 350 at 3.2 kPa.

B. Mix Design.

1. General.

Table DS-23078.02-1: Mix Design

Test or Quality	Value
Design Gyrations	50
Design Voids Target (Based on %Gmm)	≤2.0
Film Thickness	8.0 – 15.0
Aggregate Quality	A
Crushed Content (minimum)	50%
FAA (minimum)	40
Sand Equivalency (minimum)	50

2. Friction Aggregate.
- Interstates: minimum 30% of Total Aggregate shall be Type 2 or better
- Non-Interstates: minimum 50% of Total Aggregate shall be Type 4 or better

3. Hamburg Testing (AASHTO T324).
Required only for Interstate paving mixes. Compact to 3.5% air voids. No more than ~~4 mm~~

6.00 mm rutting in the first 8000 passes.

4. Do not use more than 15.0% binder replacement. Do not use RAS.

5. **Gradation.**

Table DS-23078.02-2: Thin Lift Overlay Gradation

Sieve Size	Min % Passing	Max % Passing
1½ inch		
1 inch		
3/8 inch	91	100
#4		90
#8	27	63
#16		
#30		
#50		
#100		
#200	2	10

23078.03 CONSTRUCTION.

A. Apply tack coat prior to placement of thin lift overlay according to Section 2303 of the Standard Specifications.

B. Keep the production temperature of HMA mixtures between 225ºF and 335ºF until placed on the grade.

C. Compact with static steel wheeled roller.

D. Do not open to traffic until the entire mat has cooled below 150°F.

E. Quality Assurance/Quality Control.

1. **Field Voids Acceptance.**
   Acceptance for field voids shall be based on visual field observations. Should problems be observed, the Engineer may require density gauge readings to verify field voids are less than or equal to 2%.

2. **Lab Voids Acceptance.**
   Sample from windrow or hopper. Apply ~~Article 2303.05, A, 3, a, 2~~ Article 2303.05, A, 3, a, 3, of the Standard Specifications for AAD acceptance. Air void target is based on approved JMF.

3. Take at least one cold feed for gradation control each day of production.

23078.04 METHOD OF MEASUREMENT.
Hot Mix Asphalt Thin Lift Overlay will be measured according to Article 2303.04 of the Standard Specifications.

23078.05 BASIS OF PAYMENT.
Hot Mix Asphalt Thin Lift Overlay will be paid for according to Article 2303.05 of the Standard Specifications.

Form 510130 (08-15)

IOWA | DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Brian Johnson/Wes Musgrove	**Office:** Construction and Materials	**Item 8**
Submittal Date: May 27, 2025	**Proposed Effective Date:** September 16, 2025	
Article No.: SS-23008 **Title:** Hot Mix Asphalt Interlayer	**Other:** SS-23008, Hot Mix Asphalt Interlayer	

Specification Committee Action: Approved as recommended			
Deferred:	**Not Approved:**	**Approved Date:** 7/10/25	**Effective Date:** 9/16/25
Specification Committee Approved Text: See attached Supplemental Specifications for Hot Mix Asphalt Interlayer.			
Comments: None.			
Specification Section Recommended Text: See attached draft Supplemental Specifications for Hot Mix Asphalt Interlayer.			
Comments:			

Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use ~~Strikeout~~ and Highlight.) See Attachment		
Reason for Revision: The Lab Void acceptance article referenced was incorrect because someone added a new note in 2303.05 Basis of payment. Therefore, this changes our note to reference.		
New Bid Item Required (X one)	**Yes**	**No X**
Bid Item Modification Required (X one)	**Yes**	**No X**
Bid Item Obsoletion Required (X one)	**Yes**	**No X**
Comments:		
County or City Comments:		
Industry Comments:		

SS- 23009
(Replaces SS-23008)

SUPPLEMENTAL SPECIFICATIONS
FOR
HOT MIX ASPHALT INTERLAYER

Effective Date
September 16, 2025

THE STANDARD SPECIFICATIONS, SERIES 2023, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SUPPLEMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

23009.01 DESCRIPTION.
These specifications describe requirements for a highly polymer modified asphalt interlayer. Apply Section 2303 of the Standard Specifications unless otherwise directed in these specifications.

23009.02 MATERIALS.

A. Asphalt Binder.
Use a PG 58-34E.

B. Mix Design.

1. See Materials I.M. 510 Appendix A.

2. Mix approval is based on Performance Testing Requirements per Materials I.M. 510 Appendix A.

3. Do not use RAP.

23009.03 CONSTRUCTION.

A. Apply tack coat prior to placement of HMA interlayer according to Section 2303 of the Standard Specifications.

B. Compact with static steel wheeled roller.

C. Do not open to traffic until the entire mat has cooled below 150°F.

D. Quality Assurance/Quality Control.

1. **Field Voids Acceptance.**
   Acceptance for field voids shall be based on visual field observations. Should problems be observed, the Engineer may require density gauge readings to verify field voids are less than or equal to 2%.

2. **Lab Voids Acceptance.**
   Sample from windrow or hopper. Apply ~~Article 2303.05, A, 3, a, 2~~ Article 2303.05, A, 3, a, 3, of the Standard Specifications for AAD acceptance. Air void target is based on approved JMF.

3. Take at least one cold feed for gradation control each day of production.

23009.04 METHOD OF MEASUREMENT.
Hot Mix Asphalt Interlayer, of the size specified, will be measured according to Article 2303.04 of the Standard Specifications.

23009.05 BASIS OF PAYMENT.
Hot Mix Asphalt Interlayer, of the size specified, will be paid for according to Article 2303.05 of the Standard Specifications.