MINUTES
OF
IOWA DOT SPECIFICATION COMMITTEE MEETING

February 14, 2019

Members Present:	Darwin Bishop	District 3 - Construction
	Roger Boulet	District 6 - Materials
	Donna Buchwald	Office of Local Systems
	Daniel Harness	Office of Design
	Eric Johnsen, Secretary	Specifications Section
	Scott Nixon	District 4 - Creston RCE
	Gary Novey	Office of Bridges & Structures
	Tom Reis, Chair	Specifications Section
	Willy Sorensen	Office of Traffic & Safety
Members Not Present:	Mark Dunn	Office of Contracts
	Wes Musgrove	Office of Construction & Materials
	Charlie Purcell	Project Delivery Bureau
Advisory Members Present:	Thomas Anderson	Clarke County
	Robert Fangmann	Cedar County
	Lisa McDaniel	FHWA
	Kim Vancleave	Employee Services
	Paul Wiegand	SUDAS

The Specification Committee met on Thursday, February 14, 2019, at 9:00 a.m. in the NW Wing, 1st Floor Conference Room. Tom Reis, Specifications Engineer, opened the meeting. The items were discussed in accordance with the agenda dated February 5, 2019:

The minutes are as follows:

1. Article 2107.04, B, 4, Compacting Backfill Adjacent to Bridges, Culverts, or Structures.

The Office of Design requested to clarify the H dimension when compacting floodable backfill.

2. Article 2303.03, C, 3, d, 2, a, Production of Hot Mix Asphalt Mixtures.

The Office of Construction and Materials requested to apply late season WMA temperature restrictions to early season as well.

3. Article 2303.03, C, 7, a, 2, Miscellaneous Operations (Construction).

The Office of Construction and Materials requested to make compaction of leveling and strengthening courses Class II, so that coring may be waived by the Engineer.

4. Article 2414.02, B, Pipe and Structural Steel Pedestrian Hand Railings.

The Office of Design requested to specify an applicable Materials I.M. so that Contractors use approved suppliers.

5. Article 4127.03, A, Aggregate for Flexible Paving Mixtures.

The Office of Construction and Materials requested to add clay and mud restrictions for fine aggregate for flexible paving mixtures.

6. Article 4137.01, General Requirements (Asphalt Binder).

The Office of Construction and Materials requested to include test procedure requirements for the new asphalt binder grade specified for High Performance Thin Lift Overlays.

7. DS-15021, Transverse Joint Leveling for HMA Pavements.

The Office of Construction and Materials requested revisions to the Developmental Specifications for Transverse Joint Leveling for HMA Pavements.

8. DS-15066, High Performance Thin Lift Overlay.

The Office of Construction and Materials requested revisions to the DS-15066, Developmental Specifications for High Performance Thin Lift Overlay.

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Mike Kennerly / Daniel Harness	**Office:** Design	**Item 1**
Submittal Date: 1-31-19	**Proposed Effective Date:** 10-15-19	
Article No.: 2107.04, B, 4 **Title:** Compacting Backfill Adjacent to Bridges, Culverts, or Structures	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 2/14/2019	**Effective Date:** 10/15/2019

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: Committee questioned measurement of this bid item. This item is calculated from given plan dimensions, so would be a plan quantity.

Specification Section Recommended Text:

2107.04, B, 4, Compacting Backfill Adjacent to Bridges, Culverts, or Structures.

Replace the equation for calculating H:

H = nominal height of structure opening, feet. If floodable backfill per Standard Road Plan DR-111 is used, H is the height from top of floodable backfill to top of structure.

Comments:

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

2107.04, B, 4, Compacting Backfill Adjacent to Bridges, Culverts, or Structures.

Replace the equation for calculating H:

H = nominal height of structure opening, feet. If floodable backfill per Standard Road Plan DR-111 is used, H is the height from top of floodable backfill to top of structure.

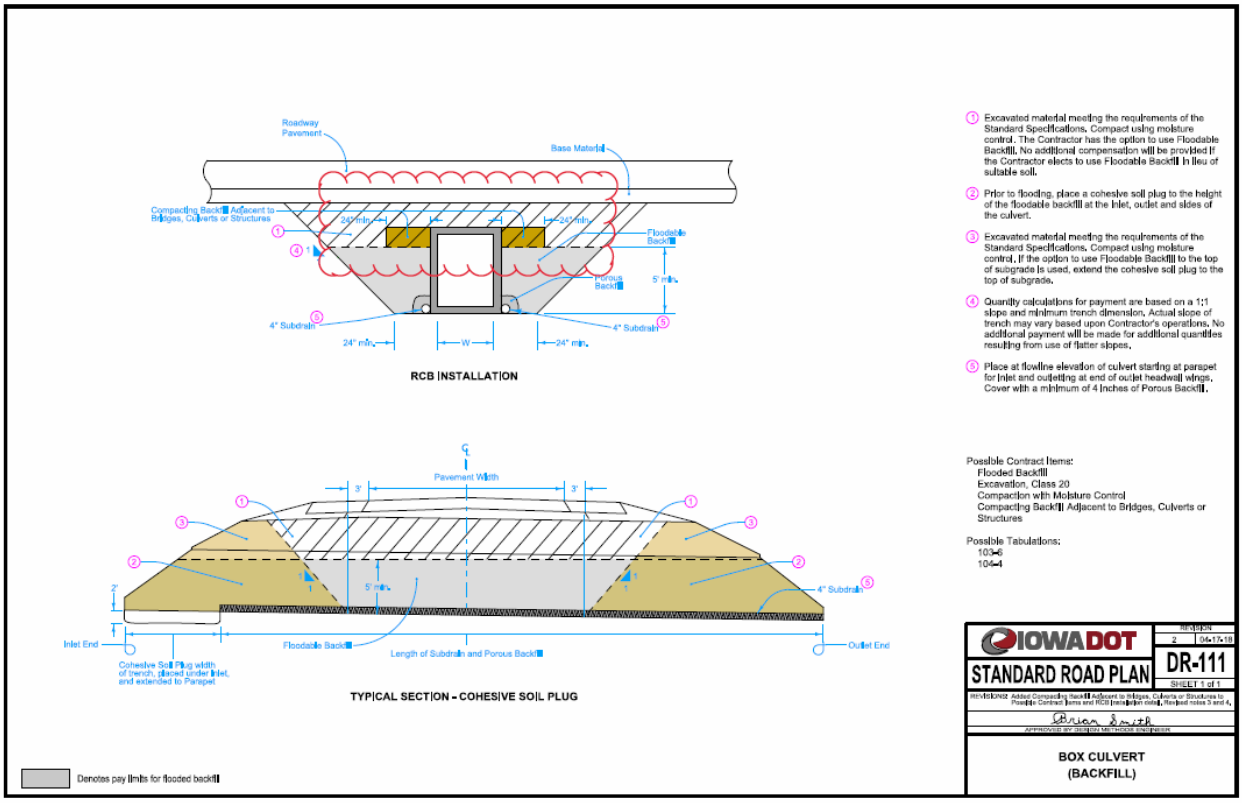
Reason for Revision: When floodable backfill of DR-111 is used, compacting adjacent to the culvert is calculated from the top of floodable backfill to the top of structure. This change will line the specs up with the standard.

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:


Roadway Pavement
Base Material
Compacting Backfill Adjacent to Bridges, Culverts or Structures
24" min.
24" min.
Floodable Backfill
Porous Backfill
5' min.
4" Subdrain
4" Subdrain
24" min.
W
24" min.
RCB INSTALLATION
Pavement Width
3'
3'
2'
5' min.
4" Subdrain
Inlet End
Cohesive Soil Plug width of trench, placed under inlet, and extended to Parapet
Floodable Backfill
Length of Subdrain and Porous Backfill
Outlet End
TYPICAL SECTION - COHESIVE SOIL PLUG
Denotes pay limits for flooded backfill
1 Excavated material meeting the requirements of the Standard Specifications. Compact using moisture control. The Contractor has the option to use Floodable Backfill. No additional compensation will be provided if the Contractor elects to use Floodable Backfill in lieu of suitable soil.
2 Prior to flooding, place a cohesive soil plug to the height of the floodable backfill at the inlet, outlet and sides of the culvert.
3 Excavated material meeting the requirements of the Standard Specifications. Compact using moisture control. If the option to use Floodable Backfill is to the top of subgrade is used, extend the cohesive soil plug to the top of subgrade.
4 Quantity calculations for payment are based on a 1:1 slope and minimum trench dimension. Actual slope of trench may vary based upon Contractor's operations. No additional payment will be made for additional quantities resulting from use of flatter slopes.
5 Place at flowline elevation of culvert starting at parapet for inlet and outletting at end of outlet headwall wings. Cover with a minimum of 4 inches of Porous Backfill.
Possible Contract Items:
Flooded Backfill
Excavation, Class 20
Compaction with Moisture Control
Compacting Backfill Adjacent to Bridges, Culverts or Structures
Possible Tabulations:
103-6
104-4
IOWADOT
REVISION
2 04-17-18
STANDARD ROAD PLAN
DR-111
SHEET 1 of 1
REVISIONS: Added Compacting Backfill Adjacent to Bridges, Culverts or Structures to Possible Contract Items and RCB Installation detail, Revised notes 3 and 4.
Brian Smith
APPROVED BY DESIGN METHODS ENGINEER
BOX CULVERT (BACKFILL)

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove / Jeff Schmitt	**Office:** Construction & Materials	**Item 2**
Submittal Date: 11-16-2018	**Proposed Effective Date:** Oct. 2019 GS	
Article No.: 2303.03, C, 3, d, 2, a **Title:** Production of Hot Mix Asphalt Mixtures	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 2/14/2019	**Effective Date:** 10/15/2019

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None

Specification Section Recommended Text:

2303.03, C, 3, d, 2, a.

Replace the second sentence:

Maximum production temperature for WMA is 330ºF before May 1st and after October 1st.

Comments:

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

d. Production of Hot Mix Asphalt Mixtures.

2) Do not allow the temperature of the mixtures to fall outside the following parameters:

a) Keep the production temperature of WMA mixtures between 215ºF and 280ºF until placed on the grade. Maximum production temperature for WMA is 330ºF before May 1st and after October 1st.

Reason for Revision: Similar low ambient temperature issues occur prior to May 1st that occur after October 1st. Revise specification to address both timeframes. This revision was discussed and recommended by the District Materials Engineers at their November 14, 2018 meeting.

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)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove / Jeff Schmitt	**Office:** Construction & Materials	**Item 3**
Submittal Date: 11-13-2018	**Proposed Effective Date:** October 2019 GS	
Article No.: 2303.03, C, 7, a, 2 **Title:** Miscellaneous Operations (Construction)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 2/14/2019	**Effective Date:** 10/15/2019

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2303.03, C, 7, a, 2.

Add to the end of the Article:

This is considered as Class II compaction.

Comments:

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

7. Miscellaneous Operations.

a. Leveling and Strengthening Courses.

1) Use the same mixture specified for the base or intermediate course.

2) Compact leveling courses and intermediate mixtures placed as leveling/scratch courses (less than or equal to 1 inch plan thickness) using pneumatic and vibratory rollers. This is considered as Class II compaction.

Reason for Revision: Thin leveling / scratch courses are very thin (and often variable) thickness, making sampling and testing (by coring) very difficult. Class II designation allows the Engineer to waive coring if compaction is thorough and effective, which is typically ensured by use of pneumatic and vibratory rollers.

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)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Mike Kennerly / Daniel Harness	**Office:** Design	**Item 4**
Submittal Date: 2-1-19	**Proposed Effective Date:** 10-15-19	
Article No.: 2414.02, B **Title:** Pipe and Structural Steel Pedestrian Hand Railings	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 2/14/2019	**Effective Date:** 10/15/2019

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2414.02, B, Pipe and Structural Steel Pedestrian Hand Railings.

Add the Article:

3. Comply with Materials I.M. 557.

Comments:

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

2414.02, B, 3.

Add as a new Article:

Comply with Materials I.M. 557.

Reason for Revision: This is being missed and contractors are supplying hand railings that have been produced by fabricators not listed in MAPLE.

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)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove / Bob Dawson	**Office:** Construction & Materials	**Item 5**
Submittal Date: 12/24/2018	**Proposed Effective Date:** October 2019 GS	
Article No.: 4127.03, A **Title:** Aggregate for Flexible Paving Mixtures	**Other:**	

Specification Committee Action: Approved with changes.

Deferred:	**Not Approved:**	**Approved Date:** 2/14/2019	**Effective Date:** 10/15/2019

Specification Committee Approved Text:

4127.03, A.

Replace the Article:

Natural sand ~~containing no more than 0.01% organic matter when tested using Iowa DOT Materials Laboratory Test Method No. 215~~ meeting the requirements of Table 4127.03-1. A gradation for wearing course mixture of no more than 50% retained between two consecutive standard sieves below the No. 4 sieve or gravel aggregate with 100% passing the 3/8 inch sieve meeting these requirements.

Table 4127.03-1: Fine Aggregate Quality (Flexible Paving Mixtures)

Fine Aggregate Quality	Type A Maximum %	Type B Maximum %	Test Method
Organic Matter	0.01	0.01	Iowa DOT Materials Laboratory Test Method No. 215
Clay Lumps/Friable Particles	1.5	3.0	AASHTO T 112

Comments: Office of Construction and Materials revised the test method for clay lumps/friable particles, as the Materials I.M. previously cited is for coarse aggregate.

Specification Section Recommended Text:

4127.03, A.

Replace the Article:

Natural sand ~~containing no more than 0.01% organic matter when tested using Iowa DOT Materials Laboratory Test Method No. 215~~ meeting the requirements of Table 4127.03-1. A gradation for wearing course mixture of no more than 50% retained between two consecutive standard sieves below the No. 4 sieve or gravel aggregate with 100% passing the 3/8 inch sieve meeting these requirements.

Table 4127.03-1: Fine Aggregate Quality (Flexible Paving Mixtures)

Fine Aggregate Quality	Type A Maximum %	Type B Maximum %	Test Method
Organic Matter	0.01	0.01	Iowa DOT Materials Laboratory Test Method No. 215
Clay Lumps/Friable Particles	1.5	3.0	Materials I.M. 368[(a)]

(a) Use Method A for initial test. If Method A fails, Method B may be used.

Comments:

Action: Add Clay Lump / Friable Particle maximum limits and place in a Table with the Organic Material limits.

Section 4127. Aggregate for Flexible Paving Mixtures

4127.03 FINE AGGREGATE.

A. Natural sand ~~containing no more than 0.01% organic matter when tested using Iowa DOT Materials Laboratory Test Method No. 215~~ meeting the requirements of Table 4127.03-1. A gradation for wearing course mixture of no more than 50% retained between two consecutive standard sieves below the No. 4 sieve or gravel aggregate with 100% passing the 3/8 inch sieve meeting these requirements.

Table 4127.03-1: Fine Aggregate Quality (Flexible Paving Mixtures)

Fine Aggregate Quality	Type A Maximum %	Type B Maximum %	Test Method
Organic Matter	0.01	0.01	Iowa DOT Materials Laboratory Test Method No. 215
Clay Lumps/Friable Particles	1.5	3.0	Materials I.M. 368[(a)]

(b) Use Method A for initial test. If Method A fails, Method B may be used.

B. Crushed gravel or stone processed from coarse aggregate meeting the requirements of Article 4127.02.

Reason for Revision: Clay and Mud have become a problem in some sand sources.

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: A sand producer requested a specification limit for clay after rejection of a stockpile.

County or City Comments:

Industry Comments:

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove / Jeff Schmitt	**Office:** Construction & Materials	**Item 6**
Submittal Date: 12-21-2018	**Proposed Effective Date:** Oct. 2019 GS	
Article No.: 4137.01 **Title:** General Requirements (Asphalt Binder)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 2/14/2019	**Effective Date:** 10/15/2019

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: PG 64-34E asphalt binder bid item was created as the PG 64-34E+ asphalt binder bid item had already been created.

Specification Section Recommended Text:

4137.01, General Requirements.

Add the Article:

G. When PG 64-34E+ is specified, the binder shall comply with requirements of PG 64-34E except that a minimum percent recovery of 90% when tested at 64°C per AASHTO T 350 at 3.2 kPa is required.

Comments:

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

Add new paragraph to the article:

G. When PG 64-34E+ is specified, the binder shall comply with requirements of PG 64-34E except that a minimum percent recovery of 90% when tested at 64°C per AASHTO T 350 at 3.2 kPa is required.

Reason for Revision: Include test procedure requirements for the new asphalt binder grade (PG 64-34E+) specified for High Performance Thin Lift Overlays. This revision, recommended by Scott Schram, is intended to ensure adequate elastic (crack resistance) properties in the resulting asphalt mixture.

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

Comments: This revision will require new PG 64-34E+ and PG 64-34E asphalt binder bid items.

County or City Comments:

Industry Comments: Asphalt supplier indicated that they can produce the new binder grade.

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove / Jeff Schmitt	**Office:** Construction & Materials	**Item 7**
Submittal Date: 11-13-2018	**Proposed Effective Date:** April 16, 2019	
Article No.: **Title:**	**Other:** DS-15021, Developmental Specifications for Transverse Joint Leveling for HMA Pavements	

Specification Committee Action: Approved with changes.

Deferred:	**Not Approved:**	**Approved Date:** 2/14/2019	**Effective Date:** 4/16/2019

Specification Committee Approved Text: See attached Developmental Specifications for Transverse Joint Leveling for HMA Pavements.

Comments: Per recommendation from District 6, the bid item names were changed to reflect the change to the DS title. This also changed some language throughout the DS.

Specification Section Recommended Text: See attached Draft Developmental Specifications for Transverse Joint Leveling for HMA Pavements.

Comments:

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

Revise the approved product list (at the end of Article 15021.02) as follows:

- PolyPatch mixtures manufactured by ~~CRAFTO,~~ CRAFCO, INC.
- Mastic One manufactured by ~~PAVETECH International~~ CRAFCO, INC.
- Level and Go Repair Mastic manufactured by Deery American Corporation
- Pave Patch manufactured by ~~Right Pointe~~ RIGHT / POINTE, LLC.
- SAMIscreed Asphalt Repair Mastic manufactured by Fibrecrete Preservation Technologies Inc.

Reason for Revision: Revise the approved product list to correct typographical error, manufacturer name changes, and to add new approved product. SAMIscreed was reviewed and determined to be an approved equal product by Scott Sommers, Manufactured Products Engineer in the Office of Construction and Materials.

DS-15021 refers to Transverse Joint leveling. If there is the ability to rename it I would recommend Transverse Crack leveling since HMA doesn't have joints. A minor thing, but even though it says for HMA pavements I would hate for someone to try and use this on a transverse joints on a PCC pavement to fix faulting.

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-15070
(New)

DEVELOPMENTAL SPECIFICATIONS
FOR
TRANSVERSE ~~JOINT~~ CRACK LEVELING FOR HMA PAVEMENTS

Effective Date
April 16, 2019

THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

15070.01 ~~GENERAL~~ DESCRIPTION.

A. Fill shallow depressions in the pavement and adjacent to cracks with an approved hot-applied, pourable, self-adhesive material that has a uniform texture, and adheres to the pavement surface. Fill all cracks in the application area. The intended purpose is to level the surface of the depression and improve the ride of the pavement.

B. When crack cleaning and filling is a part of the contract, that work will be covered by a separate specification.

15070.02 MATERIALS.

Use material consisting of an approved hot blended aggregate filled polymer mastic repair product for leveling, sealing, filling, and making thin bonded repairs to pavements. Use mastic specifically formulated to repair distresses which are larger than those typically repaired by crack and joint sealing, but do not ~~requiring~~ require milling or patching methods for the repair. Use material that is flexible, self-adhering, and resistant to deformation by vehicle loadings. The following is a list of approved products. The Contractor has the option of using an approved equal product.

- PolyPatch mixtures manufactured by ~~CRAFTO~~ CRAFCO, INC.
- Mastic One manufactured by ~~PAVETECH International~~ CRAFCO, INC.
- Level and Go Repair Mastic manufactured by Deery American Corporation
- Pave Patch manufactured by ~~Right Pointe~~ RIGHT / POINTE, LLC.
- SAMIscreed Asphalt Repair Mastic manufactured by Fibrecrete Preservation Technologies Inc.

15070.03 CONSTRUCTION.

A. Equipment.

1. Furnish:

- Equipment to prepare the pavement, including the removal of loose, deteriorated, or undesirable material from the ~~joint~~ crack to be repaired,
- Heating and application equipment, and
- Equipment needed to perform the leveling work.

2. Standard cleaning methods used to clean pavements, such as power brooms, compressed air, high-pressure water, and hand tools will be acceptable. Water flushing will not be permitted in areas where considerable cracks are present in the pavement surface.

3. Use equipment, tools, and machines recommended by the product manufacturer for heating and distributing the leveling material. Maintain equipment in satisfactory working order at all times.

B. Construction.

1. Immediately prior to applying the leveling material, clean the surface and cracks of all loose material, vegetation, and other objectionable material. Obtain the Engineer's approval for surface preparation prior to applying material.

2. Ensure the pavement surface is dry prior to spreading the material across the ~~joint or~~ crack to be leveled.

3. Place the leveling material so the finish elevation is level with, or no more than 0.25 inch above, the surrounding pavement surface.

4. Heat and apply leveling material as recommended by the product manufacturer.

C. Limitations of Operations.

1. Conduct the work on one lane at a time unless the road is closed to traffic. If the road is not closed, conduct all operations to provide a minimum of inconvenience to traffic. Do not open the roadway with placed leveling material until the material is properly cured and will not track or be damaged by traffic.

2. Adjust the work schedule so that all work of transverse ~~joint~~ crack leveling will be completed in one working day if the road is not closed to traffic.

3. Apply Articles 1107.08, 1107.09, and 1108.03 of the Standard Specifications.

15070.04 METHOD OF MEASUREMENT.

A. Transverse ~~Joint~~ Crack Cleaning and Sealing.

1. Calculated based on centerline miles measured to the nearest 0.1 mile. The calculations will be based on two-lane pavement, corrected for main line pavement of more than two lanes, including climbing lanes.

2. At intersections, rest areas, and interchanges designated for transverse ~~joint~~ crack leveling, the additional areas of widened pavement, ramps, storage lanes, turning lanes, paved medians, and parking in rest areas will not be separately measured for payment.

3. Between limits for which transverse ~~joint~~ crack cleaning and sealing is intended for either pavement or shoulders, no deductions will be made for bridges, intersections, or other interruptions where transverse ~~joints~~ cracks are not to be cleaned and sealed.

B. Transverse ~~Joint~~ Crack Leveling.
Pounds of material placed for Transverse ~~Joint~~ Crack Leveling on the project. The Engineer will deduct unused quantities based on actual scaled weight, product carton (container) content weight, or estimates.

15070.05 BASIS OF PAYMENT.
Payment will be the contract unit price as follows:

A. Transverse ~~Joint~~ Crack Cleaning and Sealing.

1. Per mile.

2. Payment is full compensation for furnishing all equipment, tools, labor, surface preparation, mixing, and placing the leveling material except for the leveling material.

B. Transverse ~~Joint~~ Crack Leveling.
Per pound.

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Wes Musgrove / Jeff Schmitt	**Office:** Construction & Materials	**Item 8**
Submittal Date: 12-21-2018	**Proposed Effective Date:** April 16, 2019	
Article No.: **Title:**	**Other:** DS-15066, Developmental Specifications for High Performance Thin Lift Overlay	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 2/14/2019	**Effective Date:** 4/16/2019

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

Comments: None.

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.)**

15066.02 MATERIALS.

A. Asphalt Binder.
Use PG ~~58-34E+~~ 64-34E+ with a minimum percent recovery of 90% when tested at ~~58~~ 64°C per AASHTO T 350 at 3.2 kPa.

Reason for Revision: Change the specified asphalt binder from PG 58-34E+ to PG 64-34E+ and the corresponding test temperature from 58°C to 64°C. These revisions, recommended by Scott Schram, are intended to ensure adequate elastic (crack resistance) properties in the resulting asphalt mixture.

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

Comments: This revision will require new PG 64-34E+ and PG 64-34E asphalt binder bid items.

County or City Comments:

Industry Comments: Asphalt supplier indicated that they can produce the new binder grade.

DS-15071
(Replaces DS-15066)

DEVELOPMENTAL SPECIFICATIONS
FOR
HIGH PERFORMANCE THIN LIFT OVERLAY

Effective Date
April 16, 2019

THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

15071.01 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.

15071.02 MATERIALS.

A. Asphalt Binder.
Use PG ~~58-34E+~~ 64-34E+ with a minimum percent recovery of 90% when tested at ~~58°C~~ 64°C per AASHTO T 350 at 3.2 kPa.

B. Mix Design.

1. Design Gyrations	50
Design Voids Target (Based on %Gmm)	≤ 2.0
Film Thickness	8.0 – 13.0
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).
Compact to 3.5% air voids. No more than 4 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-15071: 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

15071.03 CONSTRUCTION.

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

B. Pave when ambient temperatures are at least 60ºF and rising.

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 Class II compaction defined in Section 2303 of the Standard Specifications.

2. Lab Voids Acceptance.
Sample from windrow or hopper. Apply Article 2303.05, A, 3, a, 2, 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.

15071.04 METHOD OF MEASUREMENT.
Hot Mix Asphalt Thin Lift Overlay will be measured according to Article 2303.04 of the Standard Specifications.

15071.05 BASIS OF PAYMENT.
Hot Mix Asphalt Thin Lift Overlay will be paid for according to Article 2303.05 of the Standard Specifications.