**MINUTES**
**OF**
**IOWA DOT SPECIFICATION COMMITTEE MEETING**

**September 12, 2019**

| | | |
|---|---|---|
| **Members Present:** | Darwin Bishop | District 3 - Construction |
| | Roger Boulet | District 6 - Materials |
| | Donna Buchwald | Local Systems Bureau |
| | Daniel Harness | Design Bureau |
| | Eric Johnsen, Secretary | Contracts & Specifications Bureau |
| | Wes Musgrove | Construction & Materials Bureau |
| | Scott Nixon | District 4 - Creston RCE |
| | Mike Nop | Bridges & Structures Bureau |
| | Tom Reis, Chair | Contracts & Specifications Bureau |
| **Members Not Present:** | Mark Dunn | Contracts & Specifications Bureau |
| | Charlie Purcell | Project Delivery Division |
| | Willy Sorensen | Traffic & Safety Bureau |
| **Advisory Members Present:** | Michael Cain | FHWA |

The Specification Committee met on Thursday, September 12, 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 revised agenda dated September 9, 2019:

The minutes are as follows:

**1. Article 2429.02, B, 3, Field Splices.**

The Specifications Section requested to clarify that bolts for field splices will be inspected per Article 2408.03, S, 5, c.

**2. Article 2529.02, A, Hot Mix Asphalt Mixture (Materials).**

The Construction and Materials Bureau requested to bring the full depth patching specification in-line with existing requirements for partial depth patching.

**3. Article 2530.02, B, 2, a, Class B Patching Material (Partial Depth Finish Patches).**

The Specifications Section requested to correct the coarse aggregate requirements for Class B partial depth PCC finish patches.

**4. Article 4101.01, B, 2, Portland Cement.**

The Construction and Materials Bureau requested to allow a higher slag content in Type IS cement.

**5. Article 4108.01, A, Supplementary Cementitious Materials.**

The Construction and Materials Bureau requested to revise the fly ash specifications to allow a blend of Class F and Class C fly ash.

**6. Article 4123.03, Quality (Modified Subbase Material).**

The Construction and Materials Bureau requested to revise the quality requirements for virgin modified subbase.

**7. DS-15076, Girder Erection Plan.**

The Bridges and Structures Bureau requested approval of Developmental Specifications for Girder Erection Plan.

**8. DS-15075, Small Business Development Contracts.**

The Civil Rights Bureau requested revisions to the Developmental Specifications for Small Business Development Contracts.

Form 510130 (08-15)

IOWA DOT

## SPECIFICATION REVISION SUBMITTAL FORM

| | | |
|---|---|---|
| **Submitted by:** Eric Johnsen / Tom Reis | **Office:** Specifications | **Item 1** |
| **Submittal Date:** 6/19/2019 | **Proposed Effective Date:** April 2020 | |
| **Article No.:** 2429.02, B, 3<br>**Title:** Field Splices | **Other:** | |

**Specification Committee Action:** Approved as recommended.

| | | | |
|---|---|---|---|
| **Deferred:** | **Not Approved:** | **Approved Date:** 9/12/2019 | **Effective Date:** 4/21/2020 |

**Specification Committee Approved Text:** See Specification Section Recommended Text.

**Comments:** None.

**Specification Section Recommended Text:**
**2429.02, B, 3, Field Splices:**

**Replace** the third bullet:

- Field connection bolts tightened by the "turn-of-nut method" to obtain proper torque. See Articles 2408.03, S, 5, b and 2408.03, S, 5, c.

**Comments:**

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

**Reason for Revision:** Clarify that bolts for field splices will be inspected per Article 2408.03, S, 5, c.

| | | |
|---|---|---|
| **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 2** |
| **Submittal Date:** 07-15-2019 | **Proposed Effective Date:** April 2020 GS | |
| **Article No.:** 2529.02, A<br>**Title:** Hot Mix Asphalt Mixture (Materials) | **Other:** | |

**Specification Committee Action:** Approved as recommended.

| | | | |
|---|---|---|---|
| **Deferred:** | **Not Approved:** | **Approved Date:** 9/12/2019 | **Effective Date:** 4/21/2020 |

**Specification Committee Approved Text:** See Specification Section Recommended Text.

**Comments:** None.

**Specification Section Recommended Text:**

**2529.02, A, Hot Mix Asphalt Mixture.**

**Add** to the end of the Article:

For full depth patches on HMA overlay projects, the binder grade specified for mainline intermediate or surface course may be substituted.

**Comments:**

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

Add a new sentence to the end of the article:

**2529.02 MATERIALS.**

**A. Hot Mix Asphalt Mixture.**

Unless stated elsewhere in the contract documents, use HMA meeting or exceeding Section 2303 requirements for a Standard Traffic (ST) surface mixture. Use an asphalt binder meeting or exceeding PG 64-22S or PG 58-28H. For full depth patches on HMA overlay projects, the binder grade specified for mainline intermediate or surface course may be substituted.

**Reason for Revision:** For HMA overlay projects, the contractor often doesn't have the extra binder tank space required when the binder grade for patching differs from the grade specified for mainline course(s). The revision brings the full depth patching specification in-line with existing requirements for partial depth patching.

| | | |
|---|---|---|
| **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:** Discussed and recommended for approval by DME's at their June 12, 2019 meeting.

**County or City Comments:**

**Industry Comments:**

Form 510130 (08-15)

## SPECIFICATION REVISION SUBMITTAL FORM

| | | |
|---|---|---|
| **Submitted by:** Eric Johnsen / Tom Reis | **Office:** Specifications | **Item 3** |
| **Submittal Date:** 8/7/2019 | **Proposed Effective Date:** April 2020 GS | |
| **Article No.:** 2530.02, B, 2, a<br>**Title:** Class B Patching Material (Partial Depth Finish Patches) | **Other:** | |

**Specification Committee Action:** Approved as recommended.

| | | | |
|---|---|---|---|
| **Deferred:** | **Not Approved:** | **Approved Date:** 9/12/2019 | **Effective Date:** 4/21/2020 |

**Specification Committee Approved Text:** See Specification Section Recommended Text.

**Comments:** None.

**Specification Section Recommended Text:**

**2530.02, B, 2, a.**

**Replace** the third bullet:

- For coarse aggregate, ~~meet the requirements of Section 4115 and Gradation No. 5, Aggregate Gradation Table, Appendix~~ use crushed carbonate stone chips or pea gravel, minimum Class 2 durability, meeting requirements of Section 4112.

**Comments:**

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

**Reason for Revision:** To correct an error from when DS-15050 was incorporated into the Standard Specifications.

| | | |
|---|---|---|
| **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:**

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## SPECIFICATION REVISION SUBMITTAL FORM

| | | |
|---|---|---|
| **Submitted by:** Wes Musgrove / Todd Hanson | **Office:** Construction & Materials | **Item 4** |
| **Submittal Date:** | **Proposed Effective Date:** October 2019 | |
| **Article No.:** 4101.01, B, 2<br>**Title:** Portland Cement | **Other:** | |

**Specification Committee Action:** Approved as recommended.

| | | | |
|---|---|---|---|
| **Deferred:** | **Not Approved:** | **Approved Date:** 9/12/2019 | **Effective Date:** 4/21/2020 |

**Specification Committee Approved Text:** See Specification Section Recommended Text.

**Comments:** None.

**Specification Section Recommended Text:**
**4101.01, B, 2.**

**Replace** the Article:
Slag constituent of Type IS cement no more than ~~35~~ 40 weight percent of the Portland blast-furnace slag cement.

**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.

**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 ~~35~~ 40 weight percent of the Portland blast-furnace slag cement.

**Reason for Revision:** Central Plains Cement Company is now producing a Type IS(38) cement to meet alkali silica reactivity requirements in Nebraska. This product would be available in the Council Bluffs area and the 35% limit would not allow the use.

| | | |
|---|---|---|
| **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:** Spec change from industry request.

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## SPECIFICATION REVISION SUBMITTAL FORM

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|---|---|---|
| **Submitted by:** Wes Musgrove / Todd Hanson | **Office:** Construction & Materials | **Item 5** |
| **Submittal Date:** | **Proposed Effective Date:** October 2019 | |
| **Article No.:** 4108.01, A<br>**Title:** Supplementary Cementitious Materials | **Other:** | |

**Specification Committee Action:** Approved as recommended.

| | | | |
|---|---|---|---|
| **Deferred:** | **Not Approved:** | **Approved Date:** 9/12/2019 | **Effective Date:** 4/21/2020 |

**Specification Committee Approved Text:** See Specification Section Recommended Text.

**Comments:** None.

**Specification Section Recommended Text:**
**4108.01, A.**

**Replace** the Article:

Comply with ~~AASHTO M 295~~ ASTM C 618 or ASTM C 1697, either Class N, Class F, or Class C, except the value of alkalies are not to exceed 3.80% as determined by Materials I.M. 491.17.

**Comments:**

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

**4108.01 FLY ASH AND NATURAL POZZOLANS.**

**A.** Comply with ASTM C 618 or ASTM C 1697 ~~AASHTO M 295~~, either Class N, Class F, or Class C, except the value of alkalies are not to exceed 3.80% as determined by Materials I.M. 491.17.

**B.** When Class F is required, a Class C fly ash with minimum total oxides ($SiO_2$ + $Al_2O_3$ + $Fe_2O_3$) of 66% and minimum $SiO_2$ of 38% may be used.

**Reason for Revision:** Boral would like to produce an ASTM C1697 fly ash which is a blend of Class F and Class C fly ash. Iowa DOT already allows blends of Type IPF and Class C ash at the concrete plant. The Class F and Class C blend typically produces concrete with very low permeability. Also, this blend would be better to use in mass concrete applications.

| | | |
|---|---|---|
| **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:** Spec change from industry request.

Form 510130 (08-15)

IOWA DOT

## SPECIFICATION REVISION SUBMITTAL FORM

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|---|---|---|
| **Submitted by:** Wes Musgrove / Bob Dawson | **Office:** Construction & Materials | **Item 6** |
| **Submittal Date:** | **Proposed Effective Date:** | |
| **Article No.:** 4123.03<br>**Title:** Quality (Modified Subbase Material) | **Other:** | |

**Specification Committee Action:** This item was deferred to a future meeting to have time to review the table title and applicability.

| **Deferred:** | **Not Approved:** | **Approved Date:** | **Effective Date:** |
|---|---|---|---|

**Specification Committee Approved Text:**

**Comments:**

**Specification Section Recommended Text:**

**4123.03, Quality.**

**Replace** the Article:

**A.** The requirements of Table 4123.03-1 apply to blended and non-blended virgin materials:

**Table 4123.03-1: Aggregate Quality (Blended and Non-Blended Virgin Materials)**

| Aggregate Quality | Maximum Percent Allowed | Test Method |
|---|---|---|
| Abrasion ~~(a)~~ | ~~45~~ 50 | AASHTO T 96 |
| C Freeze | 15 | Office of Materials Test Method No. Iowa 211, Method C |
| Alumina ~~(b)~~ (a) (No. 40 material) | 4.7 | Office of Materials Test Method No. Iowa 222 |

~~(a) Virgin material with $Al_2O_3$ not exceeding 0.7 (+4) or A-freeze not exceeding 10 may have an abrasion maximum of 55.~~

~~(b) For gravel or gravel/non-gravel blend, have a plasticity index not exceeding 7 for each source.~~

(a) Gravel does not have an Alumina requirement.

~~**B.** Acquire gravel or gravel/non-gravel blend products from a gravel source with a plasticity index not exceeding 7.~~

**Comments:**

**Action: Revision of variable abrasion and elimination of plasticity index.**

**Section 4123. Modified Subbase Material**

**4123.03 QUALITY.**

**A.** The requirements of Table 4123.03-1 apply to blended and non-blended virgin materials:

**Table 4123.03-1: Aggregate Quality (Blended and Non-Blended Virgin Materials)**

| Aggregate Quality | Maximum Percent Allowed | Test Method |
|---|---|---|
| Abrasion ~~(a)~~ | ~~45~~ 50 | AASHTO T 96 |

| | | |
|---|---|---|
| C Freeze | 15 | Office of Materials Test Method No. Iowa 211, Method C |
| Alumina ~~(b)~~ (a) (No. 40 material) | 4.7 | Office of Materials Test Method No. Iowa 222 |

~~(a) Virgin material with $Al_2O_3$ not exceeding 0.7 (+4) or A-freeze not exceeding 10 may have an abrasion maximum of 55.~~
~~(b) For gravel or gravel/non-gravel blend, have a plasticity index not exceeding 7 for each source.~~
(a) Gravel does not have an Alumina requirement.

~~**B.** Acquire gravel or gravel/non-gravel blend products from a gravel source with a plasticity index not exceeding 7.~~

**Reason for Revision:** The variable abrasion is difficult to track and plasticity index is a soil test and was a poor test for non-plastic gravels.

| | | |
|---|---|---|
| **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:** This revision was reviewed at the June 12th DME meeting. After further discussion the conclusion was to move forward with the revision.

**County or City Comments:**

**Industry Comments:**

Form 510130 (08-15)

IOWA DOT

## SPECIFICATION REVISION SUBMITTAL FORM

| | | |
|---|---|---|
| **Submitted by:** Michael Nop | **Office:** Bridges and Structures | **Item 7** |
| **Submittal Date:** 8/5/2019 | **Proposed Effective Date:** 10/10/2019 | |
| **Article No.:** New DS-15076<br>**Title:** Developmental Specifications for Girder Erection Plan | **Other:** | |

**Specification Committee Action:** Approved with minor changes.

| | | | |
|---|---|---|---|
| **Deferred:** | **Not Approved:** | **Approved Date:** 9/12/2019 | **Effective Date:** 12/17/2019 |

**Specification Committee Approved Text:** See attached DS-15076, Developmental Specifications for Girder Erection Plan.

**Comments:** The Bridges and Structures Bureau requested to keep weight and capacity as part of the erection plans and procedures. The industry had some concern about the requirements, but nothing specific to indicate that these items would cause issues.

The Bridges and Structures Bureau described the exceptions to changing the Girder Erection Plan. The Committee agreed with the allowance of these exceptions.

The Committee discussed the use of the word “certified” to describe a Professional Engineer signing the erection plans. This is consistent within the DS and with the falsework specifications in the Standard Specifications.

**Specification Section Recommended Text:** See attached Draft DS-15XXX, Developmental Specifications for Girder Erection Plan.

**Comments:**

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

The proposed developmental specification is the same as the special provision except for the two modifications shown in 15XXX.03, D, 6, a and 15XXX.04, B. Both modifications are due to input from the construction industry. Both modifications need additional discussion, but especially the first one.

**Reason for Revision:** Currently a special provision is used when girder erection plans are required. Contractors are familiar with the special provision since it has been used on a number of projects. The next logical step is to turn the special provision into a developmental specification.

| | | |
|---|---|---|
| **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:**

**County or City Comments:**

**Industry Comments:**

**DS-15076**
**(New)**

**DEVELOPMENTAL SPECIFICATIONS**
**FOR**
**GIRDER ERECTION PLAN**

**Effective Date**
**December 17, 2019**

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

**15076.01 DESCRIPTION.**
This work consists of developing, engineering, and submitting a detailed Girder Erection Plan which shall include erection plans and procedures substantiated with appropriate erection engineering calculations.

**15076.02 CERTIFICATION.**
The Girder Erection Plan submittal consisting of erection plans and procedures shall be certified by a Professional Engineer licensed in the State of Iowa, known in this document as the Erection Engineer. Erection engineering calculations used in the preparation of the Girder Erection Plan shall only be submitted if requested by the Engineer. If the Engineer requests erection engineering calculations, they shall be submitted with the certification of the Erection Engineer.

**15076.03 DETAILS OF GIRDER ERECTION PLAN SUBMITTAL.**

**A. Review.**
The Engineer will be allowed a minimum of 30 working days to review the submittal. The Engineer will provide notification to the Contractor either indicating “No Exceptions Taken” or “Revise and Resubmit”.

**B. Erection Plans and Procedures Overview.**

**1.** The term “erection plans” refers specifically to the engineering drawings prepared by the Erection Engineer describing and specifying the erection (i.e., the field-installation and member-placement) of the structural steel. Erection Plans may also refer in a more general context to the combination of engineering drawings and erection procedures describing and specifying the erection (i.e., the field-installation and member-placement) of the structural steel.

**2.** The term “erection procedures” refers to the documents describing the specific sequence, methods, equipment, and other directives the Contractor shall follow in erecting the structural steel. The terms “erection plans” and “erection procedures” are not synonymous, but the erection plans and erection procedures shall be fully integrated with each other and shall together describe and specify all aspects of how the structural steel is to be erected,

including, but not limited to, sequence of erection, methods or techniques to be used, equipment to be used, and materials to be used along with any temporary works or other devices necessary.

**3.** The erection plans and procedures shall address all requirements for erection of the structural steel into the final designed configuration. All written review comments provided by the Engineer shall be addressed to the Engineer's satisfaction prior to the start of erection. As a minimum, the erection plans and procedures shall include consideration of all items described in Article D below.

**C. Erection Engineering Calculations.**

**1.** Appropriate erection engineering calculations to substantiate the structural adequacy and stability of the bridge system for each step of the steel erection shall be performed to substantiate the erection plans and procedures.

**2.** At a minimum and as appropriate, erection engineering calculations shall conform to the following guide specifications:
- Guide Design Specifications for Bridge Temporary Works, AASHTO, 2nd Edition, 2017
- Guide Specifications for Wind Loads on Bridges During Construction, AASHTO, 1st Edition, 2017

**3.** Erection engineering calculations to substantiate the structural adequacy and stability of the erected structure and any associated temporary works and/or temporary components do not need to be included in the Girder Erection Plan submittal. However, the Engineer reserves the right to request the submittal of erection engineering calculations for review and approval at any time. If requested, such calculations shall be submitted within 14 calendar days of request by the Engineer.

**D. Erection Plans and Procedures.**

**1. Plan of Work Area.**
The erection plan shall include:
- A plan of the work area showing the proposed bridge,
- The permanent support structures (piers and abutments),
- Roads,
- Railroad tracks,
- Waterways (including location and dimensions of any navigational channel(s) and any navigational clearances which must be respected during construction),
- Overhead and underground utilities,
- Structures and conditions that may limit access (consideration of clearance requirements over roadways or railroads),
- Staging or material storage areas,
- Right-of-way and property lines,
- Information, plans, etc. regarding maintenance of traffic requirements, lane or road closures, restrictions, durations, etc. necessary to protect public safety for all erection operations over or adjacent to live traffic, and
- Any other information that may be pertinent to the steel erection.

**2. Erection Sequence.**
Erection plans and procedures shall indicate the erection sequence for primary members (including indication of any attached secondary members), noting the use of temporary support conditions, such as holding crane positions, temporary supports, falsework, etc. The

erection sequence shall be shown in an illustrative plan view of the bridge for each erection stage, highlighting the structural components to be erected, their weights and center of gravity locations, lifting crane locations for primary member picks, and any temporary support conditions that are necessary during the particular stage. The illustrative plan view shall be accompanied with a written narrative of the procedure to be followed by the steel erector, which shall state items such as structural components to be erected, use of temporary supports, use of temporary bracing, hold cranes, etc. Member reference marks, when reflected on the erection plans and procedures, should be the same as used on shop detail drawings.

3. **Delivery Location.**
   The submittal shall indicate the delivery location and orientation of primary members.

4. **Crane Information.**
   - **a.** The erection plans and procedures shall show the location of each crane to be used for each primary member to pick (see Article DS-15076.03, D, 2), the crane type, crane pick radius, crane support methods (crane mats, barges, work trestles, etc.), and the means of attachment to the girders being lifted or supported.
   - **b.** The erection submittal shall include capacity charts or tables that address and demonstrate the adequacy of each crane configuration, boom length, counterweight configuration, outrigger configuration, and pick weight required to do the proposed work. The erection plans and procedures shall also indicate any potential above- or below-ground obstructions or restrictions to crane operations (such as existing structures, utilities, etc.).
   - **c.** If the submitted cranes are not available at the time of construction, the Contractor can propose alternate cranes, subject to review and approval by the Engineer. The submittal package for alternate cranes shall include capacity charts or tables that address and demonstrate the adequacy of each crane configuration, boom length, counterweight configuration, outrigger configuration, and pick weight required to do the proposed work; however, resubmittal of the full Girder Erection Plan is not required.
   - **d.** Plans associated with crane supports (such as crane mats, barges, work trestles, etc.) shall also be included. When applicable, manufacturers' certification documents or catalog cuts for pre-engineered devices or equipment may be used to meet this requirement; these items shall be included in the submittal and shall be subject to review and approval by the Engineer. Calculations for crane supports (crane mats, barges, work trestles, etc.) do not need to be included in the submittal, but the Engineer reserves the right to request their submittal for review and approval at any time. If requested, such calculations shall be submitted within 14 calendar days of request by the Engineer.

5. **Primary Member Crane Pick Information.**
   The submittal shall include the lifting weight of the primary member picks, including rigging and pre-attached elements (such as cross-frames or splice plates). It shall also include the approximate center of gravity locations for the primary member picks of non-symmetric girders and assemblies.

6. **Lifting Devices and Special Procedures.**
   - **a.** The erection plans and procedures shall include the details, weight, capacity, and arrangement of all rigging (beam clamps, lifting lugs, etc.) and all lifting devices (such as spreader and lifting beams) required for lifting primary members. The submittal shall also specify details for rigging or lifting devices bolted or welded to permanent members, including the method and time (shop or field) of attachment and capacity, as well as methods, time, and responsibility for removal.
   - **b.** As necessary, the submittal shall provide special lifting/handling procedures for any primary member with potential stability or slenderness issues.

7. **Bolting Requirements.**
   The submittal shall indicate the bolting requirements for field splices and cross-frame (or diaphragm) connections for each stage.

8. **Bearing Blocking and Tie-Down Details.**
   The submittal shall indicate blocking and/or tie-down details for the bridge bearings, and associated force demands as necessary.

9. **Load Restrictions.**
   Restrictions regarding wind loading, construction dead and live loadings, and any other applicable loading restrictions shall be included in the submittal, as necessary.

10. **Temporary Supports.**
    **a.** The submittal shall include the location of temporary support structures (see Article DS-15076.03, D, 2) and bracing, as well as details of the temporary support structure itself. If the temporary support is to be prefabricated (selected from a supplier's catalogue), the type and capacity shall be defined in the submittal, as necessary; lateral capacity as well as vertical capacity requirements shall be considered as appropriate. If the temporary support is to be constructed by the Contractor on site, a complete design with full details, including member sizes, connections, and bracing elements shall be provided in the submittal in accordance with Article 2408.03, L of the Standard Specifications. In either case, details regarding the upper grillage and temporary bearing assembly (i.e., details of how the steel girders will bear on the temporary support), including the top of falsework (bottom of structural steel) elevations, shall also be included in the erection plans and procedures. In addition, all foundation requirements for temporary support structures shall be provided in the submittal.
    **b.** The submittal shall indicate the location of hold cranes that are used to provide temporary support to the steel assembly (see Article DS-15076.03, D, 2) and the associated crane loads. The hold crane type, capacity, boom lengths, pick radius, and means of attachment to the girders shall also be indicated in the submittal.
    **c.** The submittal shall include the location and details for temporary tie-downs that are required to facilitate the steel erection, as well as the associated tie-down loads. At a minimum, the details shall include the tie-down, girder attachment devices, and anchoring devices.
    **d.** The submittal shall indicate when, and under what conditions, temporary supports or holding cranes may be released in the erection sequence, and if they may be left in place while subsequent erection proceeds.
    **e.** The submittal shall indicate appropriate restraint of girders from twisting and/or layover at supports. Girders should be restrained from twist and/or layover at supports unless the need for such restraint is demonstrated to be unnecessary by appropriate analysis in the erection engineering calculations.

11. **Jacking Devices.**
    The submittal shall indicate jacking devices that will be required to complete the steel erection. Their location, type, size, and capacity shall be indicated, as well as their intended use, sequence of engagement, load level, jack pressure table, and any other key parameters of their operation.

**15076.04 CONSTRUCTION.**

**A.** The Contractor shall protect the structural integrity of the bridge superstructure components from fabrication to final approved placement. Damage sustained by structural steel, during erection shall

be repaired or replaced by the Contractor, to the satisfaction of the Engineer at no additional cost to the Contracting Authority.

**B.** Changes in the approved Girder Erection Plan will not be allowed except under one of the following three conditions:
- Changes in the Girder Erection Plan shall be approved by the Engineer, or
- Changes in the Girder Erection Plan shall be approved by the Erection Engineer, when the Erection Engineer is present on the construction site to approve the changes. Written documentation of the changes to the Girder Erection Plan shall be certified by the Erection Engineer and submitted to the Engineer within 3 calendar days, or
- Changes in the Girder Erection Plan shall be approved and certified by the Erection Engineer in written form to the Contractor and submitted to the Engineer prior to implementation.

**C.** Upon completion of construction operations and Engineer approval, equipment shall be removed, and existing ground lines and site conditions modified by the Contractor to facilitate construction activities shall be restored to undamaged existing condition unless approved otherwise by the Engineer.

**15076.05 METHOD OF MEASUREMENT.**

No measurement will be made.

**15076.06 BASIS OF PAYMENT.**

Costs of furnishing, submitting, and revising the Girder Erection Plan shall be included under contract bid item Girder Erection Plan.

**SPECIFICATION REVISION SUBMITTAL FORM**

| | | |
|---|---|---|
| **Submitted by:** Nikita Rainey / Karen Kienast | **Office:** Civil Rights Bureau | **Item 8** |
| **Submittal Date:** 08/19/2019 | **Proposed Effective Date:** 10/15/2019 | |
| **Article No.:** DS-15048<br>**Title:** Developmental Specifications for Small Business Development Contracts | **Other:** | |

**Specification Committee Action:** Approved as recommended.

| | | | |
|---|---|---|---|
| **Deferred:** | **Not Approved:** | **Approved Date:** 9/12/2019 | **Effective Date:** 10/15/2015 |

**Specification Committee Approved Text:** See attached DS-15075, Developmental Specifications for Small Business Development Contracts.

**Comments:** None.

**Specification Section Recommended Text:** See attached Draft Developmental Specifications for Small Business Development Contracts.

**Comments:**

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

**15048.01 DESCRIPTION.**

The intent of this specification is for the Department to comply with Iowa Code 314.14 ~~49 CFR 26.39~~ by providing contracts where only small businesses compete against each other, and not against large established contractors fostering small business participation.

**15048.02 DEFINITIONS.**

**Certified Small Business Contractors (CSBC)** – A contractor who has been recognized as meeting the requirements of a Small Business contractor by the Iowa DOT's ~~Office of Employee Services - Civil Rights Section.~~ Civil Rights Bureau.

**Small Business** - A firm which meets the requirement of Iowa Code 314.13(8) which defines a *"Small business" a*s any enterprise which is operated for profit, under a single management, and which has either fewer than twenty employees or an annual gross income of less than four million dollars computed as the average of the three preceding fiscal years ~~US Small Business Administration (SBA) regulations at 13 CFR Part 121, as amended. Size standards for each applicant shall be determined by identifying the firm's primary area(s) of work, locating the related North American Industry Classification (NAICS) code(s) and applying the corresponding SBA size standard.~~

**Small Business Certification** – A document completed by a small business and submitted to the Iowa DOT's ~~Office of Employee Services - Civil Rights Section~~ Civil Rights Bureau certifying the firm complies with the size requirements of the Iowa Code ~~314.14~~ 314.13(8) Small Business requirements ~~SBA regulations at 13 CFR Part 121, as amended~~. The Department may require the small business to provide additional proof of eligibility to verify the requirements of Iowa Code ~~314.14~~ 314.13(8) ~~the SBA~~ definition of a small business are not exceeded.

**Reason for Revision:** Small Business Development Contracts, while an element in the Iowa DOT's DBE Program, is funded with state funds and compliance is defined by Iowa Code. Also, Civil Rights is

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| its own Bureau and no longer under Office of Employee Services. | | |
| **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-15075**
**(Replaces DS-15048)**

**DEVELOPMENTAL SPECIFICATIONS**
**FOR**
**SMALL BUSINESS DEVELOPMENT CONTRACTS**

**Effective Date**
**October 15, 2019**

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

**15075.01 DESCRIPTION.**
The intent of this specification is for the Department to comply with ~~49 CFR 26.39~~ Iowa Code 314.14 by providing contracts where only small businesses compete against each other, and not against large established contractors fostering small business participation.

**15075.02 DEFINITIONS.**

**Certified Small Business Contractors (CSBC)** – A contractor who has been recognized as meeting the requirements of a Small Business contractor by the Iowa DOT's ~~Office of Employee Services -~~ Civil Rights ~~Section~~ Bureau.

**Prequalification** – Submittal of a Contractors Financial-Equipment-Experience (FEE) Statement as described in Article 1102.01 of the Standard Specifications

**Small Business** – A firm which meets the requirement of ~~US Small Business Administration (SBA) regulations at 13 CFR Part 121, as amended~~ Iowa Code 314.13(8) which defines a *"Small business" as* any enterprise which is operated for profit, under a single management, and which has either fewer than twenty employees or an annual gross income of less than four million dollars computed as the average of the three preceding fiscal years. ~~Size standards for each applicant shall be determined by identifying the firm's primary area(s) of work, locating the related North American Industry Classification System (NAICS) code(s) and applying the corresponding SBA size standard.~~

**Small Business Certification** – A document completed by a small business and submitted to the Iowa DOT's ~~Office of Employee Services -~~ Civil Rights ~~Section~~ Bureau certifying the firm complies with the size requirements of the ~~SBA regulations at 13 CFR Part 121, as amended~~ Iowa Code 314.13(8) Small Business requirements. The Department may require the small business to provide additional proof of eligibility to verify the requirements of the ~~SBA~~ Iowa Code 314.13(8) definition of a small business are not exceeded.

**Targeted Small Business (TSB)** – Iowa Code 15.102 paragraph 7a defines a *"Targeted small business"* as a small business which is 51% or more owned, operated, and actively managed by one or more women, minority persons, or persons with a disability.

**TSB Bond Waiver** – Iowa Code 12.44 requires agencies of state government to waive the requirement of satisfaction, performance, surety, or bid bonds for targeted small businesses which are able to demonstrate the inability of securing such a bond because of a lack of experience, lack of net worth, or lack of capital. This waiver will not apply to businesses with a record of repeated failure of substantial performance or material breach of contract in prior circumstances. The waiver will only be applied to a project or individual transaction amounting to fifty thousand dollars or less, notwithstanding Iowa Code 573.2. In order to qualify, the TSB shall provide written evidence to the Department of inspections and appeals that the bond would otherwise be denied the business. The granting of the waiver will in no way relieve the business from its contractual obligations and will not preclude the Department from pursuing any remedies under law upon default or breach of contract. The Department of inspections and appeals will certify TSBs for eligibility and participation in this program and will make this information available to other state agencies.

**15075.03 BIDDING FOR CONTRACTS.**

**A.** Only firms designated as approved Certified Small Business Contractors (CSBCs) by the Department will be allowed to bid on proposals designated for Small Business Contractors. A CSBC wishing to bid on a proposal designated for Small Business Contractors shall submit a written request to bid using the standard Iowa DOT procedures to be approved to bid on a proposal. The Department will give either written approval or denial of each request. Prequalification by the Department is not required, but the Department may require a CSBC to provide references or examples of similar types of work in order to be approved for bidding on individual proposals.

**B.** Prior to execution of a contract, the CSBC will be required to provide:

**1.** A Certificate of Insurance (as required by Article 1103.04 of the Standard Specifications) and

**2.** For contracts exceeding $25,000, either a Performance Bond (as required by Article 1103.05 of the Standard Specifications) or a TSB Bond Waiver.

**C.** A Traffic Control Technician according to Article 2528.01, C, 1, of the Standard Specifications is not required for this contract.

**15075.04 CONSTRUCTION OF THE WORK.**

**A.** Article 1108.01 of the Standard Specifications allows a contractor to subcontract up to 70% of the contract amount.

**B.** While the Department recognizes that a small business may not have all the equipment and resources of larger contractors, all requirements of the contract documents shall apply to the CSBC.

**15075.05 PAYMENT FOR WORK.**
Payment for work will be according to Article 1109.05 of the Standard Specifications.