Iowa Department of Transportation

MINUTES
OF
IOWA DOT SPECIFICATION COMMITTEE MEETING

March 11, 2004
(Revised March 22, 2004)

Members Present:	John Adam, Director	Statewide Operations Bureau
	Tom Reis, Chair	Specifications Section
	Jim Berger	Office of Materials
	Roger Bierbaum	Office of Contracts
	Troy Jerman	Office of Traffic and Safety
	Doug McDonald	RCE - Marshalltown
	Keith Norris	District 2-Materials Office
	Gary Novey	Office of Bridges and Structures
	John Smythe	Office of Construction
Members Not Present:	Larry Jesse	Office of Local Systems
	Mike Kennerly	Office of Design
	Bruce Kuehl	District 6-Construction Office
From FHWA:	Lisa Rold	
	Andy Wilson	
Others Present:	Donna Buchwald, Secretary	Specifications Section
	LeRoy Bergmann	Office of Local Systems
	Mark Bortle	Office of Construction
	Kevin Griggs	Office of Location and Environment
	Will Stein	Office of Design
	Wayne Sunday	Office of Construction

Tom Reis, Specifications Engineer, opened the meeting. The following items were discussed in accordance with the March 3, 2004 agenda:

1. Article 1105.14, Placement of Fill Material in Streams and Water Bodies.

The Office of Design requested a change to Article 1105.14 that will update the specifications to clarify how temporary stream crossings and causeways.

2. Article 1105.15, Value Engineering Incentive Proposal.

The Office of Design requested a change to Article 1105.15 that will modify the specification thus eliminate the need for a Standard Plan Note.

3. Article 2301.25, Sealing Joints.

The Office of Construction requested a change to Article 2301.25 that will eliminate the need to place tape at the edge of slab to prevent flow of sealer material from the joint opening.

4. Article 4109.02, Aggregate Gradation Table.

The Office of Materials requested a change to Article 4109.02 that will modify the gradation for granular backfill used in floodable applications and under flowable mortar.

5. Article 4123.01 Description (Modified Subbase Material).

The Office of Materials requested a change to Article 4123.01 that will identify a test method for determining crushed content for aggregates.

6. Article 4186.03, A, 2, a, Interstate and Primary Highways (Work Zone Signs and Devices).

The Office of Construction requested a change to Article 4186.03, A, 2, a, that will require all work zone devices to utilize Type VII (Iowa) for orange and Type III/IV for white retroreflective sheeting.

7. Miscellaneous Specifications and other Highway Division Document Discussion.

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Mike Kennerly/Will Stein	**Office:** Design	**Item 1**
Submittal Date: February 20, 2004	**Proposed Effective Date:** October 19, 2004	
Article No.: 1105.14 **Title:** Placement of Fill Material in Streams and Water Bodies	**Other:**	

Specification Committee Action:

Deferred:	**Not Approved:**	**Approved Date:** 3-11-04	**Effective Date:** 10-19-04

Specification Committee Approved Text:

Replace the forth paragraph:

> For Interstate and Primary projects, the use of stream crossings and causeways will be indicated in the Clean Water Act Section 404 Permit cover letter included in the proposal form. Temporary stream crossings or causeways shall be bridged or culverted to not restrict expected high flows or disrupt the movement of aquatic life native to the stream or water body. They shall not extend over 100 feet (30 m) into any swamp, bog, marsh, or similar area that is adjacent to the stream or water body. Expected high flows are those flows which the Contractor expects to experience during the period of time that the crossing is in place. They shall maintain pre-construction downstream flow conditions. Contractors are encouraged to construct these during low flows. ~~Temporary stream crossings~~ They shall be maintained to prevent unnecessary erosion and other non-point sources of pollution. ~~Temporary crossings~~ When no longer needed, they shall be removed ~~after they are no longer needed~~ and all disturbed areas shall be reshaped and stabilized. The cost for constructing temporary stream crossings or causeways will not be paid for separately and shall be considered incidental to the contract price for mobilization.

Comments: Standard Road Plan RL-16 has been developed which states the materials that are acceptable for use in stream crossings and causeways. The Office of Location and Environment states in the Clean Water Act Section 404 Permit cover letter if a stream crossing or causeway is permitted and includes reference to the Standard.

The Office of Local Systems had concerns about requiring the local agencies to use this Standard. The Office of Local Systems has concerns that the Department would require the local agencies to have more requirements for their stream crossings than the 404 permit requires. The DNR does not have specific requirements for temporary fill. It only states “implement appropriate measures to insure that sediment is not introduced to waters of the United States during construction of the projects”. The regional 404 permit that the Office of Local Systems was quoting stated that the stream crossing had to be shown in the plans. The Specification Committee stated that if a local agency does not want to attach the RL-16 or set other standard requirements for stream crossing, their contractors are going to have to make decisions when they bid and the local agencies will have to deal with the consequences.

In the past the Department has experienced unacceptable practices in construction of stream crossings; contractors have used mud and dirt for the crossings. The Department believes it is common sense and good practice to be responsible to the environment to not allow sediment to enter the stream. Therefore, it should not depend on stream flow quantity or possible rainfalls, a requirement for not encroaching on the environment should be included. The Department spends tens of thousands of dollars every year on temporary erosion control, so it does not make sense that the contractors would be allow to push truck loads of dirt and debris into the streams.

Regulator agencies prefer to not be specific in their requirements. In order to have a biddable set of plans, the Department must bridge the gap. The Department developed the RL-16 for what is considered to be acceptable stream crossings. Ideally this information would be included in the plans, but often the designer

does not know at turn-in if a stream crossing or causeway is going to be permitted, therefore they are unable to include it on the title sheet tabulation of Standard Road Plans. Therefore, because of the hierarchy of the contract documents, the next opportunity is to include the usage, or non-usage, for stream crossings in the proposal form.

The cost of the stream crossing or causeway is being added to mobilization because there may be times when a stream crossing or causeway is needed and there is not a structure on the project.

Specification Section Recommended Text:

Replace the forth paragraph:

> The use of stream crossings and causeways will be indicated in the Clean Water Act Section 404 Permit as part of the proposal form. Temporary stream crossings or causeways shall be bridged or culverted to not restrict expected high flows or disrupt the movement of aquatic life native to the stream or water body. They shall not extend over 100 feet (30 m) into any swamp, bog, marsh, or similar area that is adjacent to the stream or water body. Expected high flows are those flows which the Contractor expects to experience during the period of time that the crossing is in place. They shall maintain pre-construction downstream flow conditions. Contractors are encouraged to construct these during low flows. ~~Temporary stream crossings~~ They shall be maintained to prevent unnecessary erosion and other non-point sources of pollution. ~~Temporary crossings~~ When no longer needed, they shall be removed ~~after they are no longer needed~~ and all disturbed areas shall be reshaped and stabilized. The cost for constructing temporary stream crossings or causeways will not be paid for separately and shall be considered incidental to the contract unit price for the structure.

Comments:

Member's Requested Change (Redline/Strikeout):

Revise Paragraph 4

1105.14 PLACEMENT OF FILL MATERIAL IN STREAMS AND WATER BODIES.
The placement of fill material in streams is regulated by Federal and State law. The intent of this specification is to require the Contractor's operations in streams and other water bodies and adjacent swamps, marshes, bogs, or similar areas to be in compliance with Federal and State regulations.

Fill material means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

Fill material shall consist of clean, suitable, naturally occurring material, which is free from unacceptable levels of toxic pollutants.

If temporary stream crossings or causeways are allowed, they shall be constructed according to Standard Road Plan RL-16 (version effective with the project Letting date). If they are not allowed, it will be indicated on the 404 Permit Cover Memo. Temporary stream crossings or causeways shall be bridged or culverted to not restrict expected high flows or disrupt the movement of aquatic life native to the stream or water body. They shall not extend over 100 feet (30 m) into any swamp, bog, marsh, or similar area that is adjacent to the stream or water body. Expected high flows are those flows which the Contractor expects to experience during the period of time that the crossing is in place. These shall maintain pre-construction downstream flow conditions. Contractors are encouraged to construct these during low flows. Temporary stream crossings and causeways shall be maintained to prevent unnecessary erosion and other non-point sources of pollution. When no longer needed, temporary crossings and causeways shall be removed ~~after they are no longer needed.~~ and all disturbed areas shall be reshaped and stabilized.~~during removal.~~ The cost for constructing temporary stream crossings or causeways will not be paid for and will be considered incidental to the price bid for "Mobilization".

Reason for Revision: Update Specification to clarify how Temporary Stream Crossings and Causeways will be addressed.					
County or City Input Needed (X one)			**Yes**	**No** X	
Comments:					
Industry Input Needed (X one)			**Yes**	**No** X	
Industry Notified:	**Yes**	**No**	**Industry Concurrence:**	**Yes**	**No**
Comments:					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Mike Kennerly/Will Stein	**Office:** Design	**Item 2**
Submittal Date: February 20, 2004	**Proposed Effective Date:** October 19, 2004	
Article No.: 1105.15 **Title:** Value Engineering Incentive Proposal	**Other:**	

Specification Committee Action:

Deferred:	**Not Approved:** 3-11-04	**Approved Date:**	**Effective Date:**

Specification Committee Approved Text: None.

Comments: The Office of Construction stated that the topic of Value Engineering is included the Construction Manual as a suggested topic of discussion at preconstruction conferences. It is common practice for the Value Engineering submittal process to be discussed at the pre-construction conferences. The Specification Committee did not believe that this statement needed to be included as a standard plan note or in the specifications.

Specification Section Recommended Text:

Add fourth sentence to first paragraph:
A pamphlet and conceptual proposal form will be available at the preconstruction conference.

Comments:

Member's Requested Change (Redline/Strikeout):

Add to article.
1105.15 VALUE ENGINEERING INCENTIVE PROPOSAL.
The Contractor may submit written Value Engineering Incentive Proposals to the Engineer, for changing the plans, specifications, or other contract requirements. The purpose of this provision is to encourage the Contractor to suggest alternative lower cost or more efficient construction and to share with the Contractor any cost savings. The changes shall not impair the essential functions or characteristics of the project, including but not limited to service life, economy of operation, ease of maintenance, desired appearance, or design and safety standards. A pamphlet and conceptual proposal form will be available at the preconstruction conference.

Reason for Revision: By adding the above sentence, it would eliminate the need for Standard Note 203-4 (from the Road Design Details Manual) to be inserted in every plan. The reference to Value Engineering will still be shown on the Title Sheet, but no longer within the plan.

County or City Input Needed (X one)	**Yes**	**No** X
Comments:		

Industry Input Needed (X one)			**Yes**	**No** X	
Industry Notified:	**Yes**	**No**	**Industry Concurrence:**	**Yes**	**No**
Comments:					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: John Smythe/Kevin Merryman	**Office:** Construction	**Item 3**
Submittal Date: February 11, 2004	**Proposed Effective Date:** October 19, 2004	
Article No.: 2301.25 **Title:** Sealing Joints	**Other:**	

Specification Committee Action:

Deferred:	**Not Approved:**	**Approved Date:** 3-11-04	**Effective Date:** 10-19-04

Specification Committee Approved Text: Specifications Section recommended language.

Comments: No comments.

Specification Section Recommended Text:

Delete the seventh sentence of the eighth paragraph:

~~To ensure that the transverse joint is filled uniformly across the entire width of pavement, the joint opening at the pavement edge shall be sealed with tape to prevent flow of the sealer material from the joint opening during the sealing operation.~~

Comments:

Member's Requested Change (Redline/Strikeout):

Joint sealer shall be prepared and installed in the joint and to the proper level as shown in the contract documents and as recommended by the manufacturer. Hot poured sealers shall be heated in a thermostatically controlled heating kettle of a type approved by the Engineer. The material shall be heated to the temperature required for use, but not above that recommended by the manufacturer. When a silicone sealer is installed, the joint faces shall be primed if recommended by the sealer manufacturer. The silicone sealer shall be forced into the joint with a suitable tool as recommended by the manufacturer. Self leveling silicone sealers do not require tooling. ~~To ensure that the transverse joint is filled uniformly across the entire width of pavement, the joint opening at the pavement edge shall be sealed with tape to prevent flow of the sealer material from the joint opening during the sealing operation.~~ After sealing, excess sealer shall be removed from the pavement surface.

Reason for Revision: The RH-50 and RH-51 Standard Road Plans require sawcuts to terminate ½" to ¾" from the edge of pavement. Because of this requirement, it is no longer necessary to place tape at the edge of slab to prevent flow of the sealer material from the joint opening.

County or City Input Needed (X one)	**Yes**	**No** X

Comments: Input is not necessary since the above change simply brings the specification in line with the current practice in the field and the requirements in the Standard Road Plans.

Industry Input Needed (X one)			**Yes**	**No** X	
Industry Notified:	**Yes**	**No** X	**Industry Concurrence:**	**Yes**	**No**

Comments: Input is not necessary since the above change simply brings the specification in line with the current practice in the field and the requirements in the Standard Road Plans.

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger/ Brian Gossman and Bob Dawson	**Office:** Materials	**Item 4**
Submittal Date: January 29, 2004	**Proposed Effective Date:** October 2004	
Article No.: 4109.02 **Title:** Aggregate Gradation Table	**Other:**	

Specification Committee Action:

Deferred:	**Not Approved:**	**Approved Date:** 3-11-04	**Effective Date:** 10-19-04

Specification Committee Approved Text: Specifications Section recommended language.

Comments: The granular backfill requirements are only being changed in floodable applications under flowable mortar and natural sand situations. The Office of Construction is performed research on this issue and waiting for additional results. It is believed that this change will help prevent settlement and address the issue with drainage. Some counties are trying this process on bridge approaches to help with that settlement issue also. More changes may be requested in the future as results from testing are obtained. Research has been performed using just crushed limestone, and that process still creates settlement and drainage problems.

Specification Section Recommended Text:

Replace Note 9 of the Aggregate Gradation Table:

9. ~~When granular backfill is used under flowable mortar, one of the following alternative materials shall be used: natural sand complying with Section 4110, except the % passing the No. 200 sieve shall not exceed 4.0%. Gravel, crushed stone, or crushed concrete meeting gradation requirement of Section 4121.~~ For floodable applications and use under flowable mortar, natural sand and gravel with 100% passing the 1.5" (37.5 mm) screen; 20-90% passing the No. 8 (2.36 mm) sieve; and 0-4% passing the No. 200 (75 µm) sieve shall be used. If the material passing the No. 200 (75 µm) sieve is less than 2%, the percent passing the No. 8 (2.36 mm) sieve may be 100%.

Member's Requested Change (Redline/Strikeout):

Note 11: For floodable applications and use under flowable mortar, natural sand and gravel with 100% passing the 1.5" screen; 20-90% passing the #8; and 0-4% passing the #200 shall be used. If the material passing the #200 is less than 2%, the percent passing the #8 may be 100%.

Reason for Revision: Modified gradation for granular backfill used in floodable applications and under flowable mortar.

County or City Input Needed (X one)	**Yes**	**No** X
Comments:		

Industry Input Needed (X one)			**Yes** Done, though IQI and ILPA	**No**	
Industry Notified:	**Yes** X	**No**	**Industry Concurrence:**	**Yes** X	**No**
Comments: The current gradation for compacted granular backfill will not change.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger/ Bob Dawson	**Office:** Materials	**Item 5**
Submittal Date: January 29, 2004	**Proposed Effective Date:** October 19, 2004	
Article No.: 4123.01 **Title:** Description	**Other:**	

Specification Committee Action:

Deferred:	**Not Approved:**	**Approved Date:** 3-11-04	**Effective Date:** 10-19-04

Specification Committee Approved Text: Specifications Section recommended language.

Comments: The Office of Materials has developed a Materials I.M. to explain how to visually observe the minimum fractured faces.

Specification Section Recommended Text:

Replace third sentence of fourth paragraph:

> Crushed content of gravel, for purposes of this specification, is defined as the percentage of particles, by weight (mass), as visually observed to have a minimum of one fractured face, as determined by Materials I.M. 305.

Comments:

Member's Requested Change (Redline/Strikeout): (4th paragraph, last sentence.)

Crushed content of gravel, for purposes of this specification, is defined as the percentage of particles, by weight (mass), as visually observed to have a minimum of one fractured face, as determined by Materials I.M. 305.

Reason for Revision: Need to identify a test method for determining crushed content for aggregates.

County or City Input Needed (X one)	**Yes**	**No** X
Comments:		

Industry Input Needed (X one)			**Yes**	**No** X	
Industry Notified:	**Yes**	**No** X	**Industry Concurrence:**	**Yes**	**No**

Comments: New I.M. documenting current practice.

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: John Smythe / Mark Bortle	**Office:** Construction	**Item 6**
Submittal Date: February 23, 2004	**Proposed Effective Date:** October 19, 2004	
Article No.: 4186.03, A, 2, a **Title:** Interstate and Primary Highways	**Other:**	

Specification Committee Action:

Deferred:	**Not Approved:**	**Approved Date:** 3-11-04	**Effective Date:** immediately by letter, with inclusion in the 10-19-04 General Supplemental Specification.

Specification Committee Approved Text:

Replace the entire article.

~~Unless otherwise specified, all~~ All rigid signs with orange backgrounds shall use Type VII (Iowa) retroreflective sheeting. The legend shall be accomplished with black nonreflective sheeting that is direct applied or silk screened with black opaque ink. ~~Unless otherwise specified, all~~ All flexible roll-up signs with orange backgrounds shall use Type VI (Iowa) retroreflective sheeting. The legend shall be accomplished by silk screening with black opaque ink.

STOP/SLOW and SLOW/SLOW paddles shall use Type VII (Iowa) retroreflective sheeting. The black legend shall be accomplished with black nonreflective sheeting that is direct applied or silk screened with black opaque ink on orange Type VII (Iowa) retroreflective sheeting. The white legend shall be accomplished with transparent red ink that is reverse silk screened on white Type VII (Iowa) retroreflective sheeting.

Until January 1, 2007, Type III or IV retroreflective sheeting shall be used for barricades and vertical panels. Until January 1, 2007, reboundable drums, tubular markers, and other reboundable markers shall use Type III or IV retroreflective sheeting that is designed for reboundable devices.

After January 1, 2007, Type VII (Iowa) non-fluorescent retroreflective sheeting shall be used for barricades, vertical panels, and all other work zone traffic control devices that use premanufactured barricade sheeting. After January 1, 2007, Type VII (Iowa) fluorescent orange and Type III or IV white retroreflective sheeting shall be used for drums, 42 inch (1050 mm) channelizers, tubular markers, and all other work zone traffic control devices that use horizontal sheeting. Reboundable traffic control devices shall use Type III or IV or Type VII (Iowa) sheeting that is designed for such devices. At the Contractor's option, work zone traffic control devices sheeted with Type III or IV and VII (Iowa) retroreflective sheeting may be used prior to January 1, 2007, as long as all work zone traffic control devices of the same type on a project utilizes the same sheeting.

Comments: This change is to help the aging population see signs easily. This change is being required on all Interstate and Primary projects, but the contractor may ask the local agency if it may be used on their projects.

All devices of the same type must be of the same material. For example, all drums must be of the same material.

The Office of Maintenance is supportive of this change.

The new sheeting has a slightly higher initial price, but has lower maintenance and have more longevity.

The Specification Committee approved the change in the sheeting for traffic control signs. They also approved the Office of Construction to distribute a letter to the industry approving the use of the brighter sheeting on traffic control signs effective immediately.

Specification Section Recommended Text:

Replace the entire article.

~~Unless otherwise specified, all~~ All rigid signs with orange backgrounds shall use Type VII (Iowa) retroreflective sheeting. The legend shall be accomplished with black nonreflective sheeting that is direct applied or silk screened with black opaque ink. ~~Unless otherwise specified, all~~ All flexible roll-up signs with orange backgrounds shall use Type VI (Iowa) retroreflective sheeting. The legend shall be accomplished by silk screening with black opaque ink.

STOP/SLOW and SLOW/SLOW paddles shall use Type VII (Iowa) retroreflective sheeting. The black legend shall be accomplished with black nonreflective sheeting that is direct applied or silk screened with black opaque ink on orange Type VII (Iowa) retroreflective sheeting. The white legend shall be accomplished with transparent red ink that is reverse silk screened on white Type VII (Iowa) retroreflective sheeting.

~~Type III or IV retroreflective sheeting shall be used for barricades and vertical panels. Reboundable drums, tubular markers, and other reboundable markers shall use Type III or IV retroreflective sheeting that is designed for reboundable devices.~~

After January 1, 2007, Type VII (Iowa) non-fluorescent retroreflective sheeting shall be used for barricades, vertical panels, and all other work zone traffic control devices that use premanufactured barricade sheeting. After January 1, 2007, Type VII (Iowa) fluorescent orange and Type III / IV white retroreflective sheeting shall be used for drums, 42 inch (1050 mm) channelizers, tubular markers, and all other work zone traffic control devices that use horizontal sheeting. Reboundable traffic control devices shall use Type III / IV or Type VII (Iowa) sheeting that is designed for such devices. At the Contractor's option, work zone traffic control devices sheeted with Type VII (Iowa) retroreflective sheeting may be used prior to January 1, 2007, as long as all work zone traffic control devices on the project of the same type use Type VII (Iowa) sheeting.

Comments:

Member's Requested Change (Redline/Strikeout):

2. Work Zone Signs and Devices.

a. Interstate and Primary Highways.

~~Unless otherwise specified, all~~ All rigid signs with orange backgrounds shall use Type VII (Iowa) retroreflective sheeting. The legend shall be accomplished with black nonreflective sheeting that is direct applied or silk screened with black opaque ink. ~~Unless otherwise specified, all~~ All flexible roll-up signs with orange backgrounds shall use Type VI (Iowa) retroreflective sheeting. The legend shall be accomplished by silk screening with black opaque ink.

STOP/SLOW and SLOW/SLOW paddles shall use Type VII (Iowa) retroreflective sheeting. The black legend shall be accomplished with black nonreflective sheeting that is direct applied or silk screened with black opaque ink on orange Type VII (Iowa) retroreflective sheeting. The white legend shall be accomplished with transparent red ink that is reverse silk screened on white Type VII (Iowa) retroreflective sheeting.

~~Type III or IV retroreflective sheeting shall be used for barricades and vertical panels. Reboundable drums, tubular markers, and other reboundable markers shall use Type III or IV retroreflective sheeting that is designed for reboundable devices.~~

After January 1, 2007, Type VII (Iowa) non-fluorescent retroreflective sheeting shall be used for barricades, vertical panels, and other work zone traffic control devices that use premanufactured barricade sheeting. After January 1, 2007, Type VII (Iowa) fluorescent orange and Type III / IV white

retroreflective sheeting shall be used for drums, 42 inch (1050 mm) channelizers, tubular markers, and other work zone traffic control devices that use horizontal sheeting. Reboundable traffic control devices shall use Type III / IV or Type VII (Iowa) sheeting that is designed for such devices. At the Contractor' s option, work zone traffic control devices sheeted with Type VII (Iowa) retroreflective sheeting may be used prior to January 1, 2007, as long as all work zone traffic control devices on the project of the same type use Type VII (Iowa) sheeting.

Reason for Revision: The recently approved 42 inch (1050mm) channelizer already requires Type VII (Iowa) orange and Type III / IV white retroreflective sheeting. Since these devices are becoming the predominant laneline or centerline channelizing device it is recommended that all other work zone devices be required to have the same level of retroreflectivity. Barricade sheeting cannot be manufactured with fluorescent orange due to manufacturing difficulties, otherwise this sheeting would also be proposed to be fluorescent orange, therefore barricade sheeting is only required to be Type VII (Iowa) but not fluorescent with the proposed specification revision.

Another important reason for upgrading the retroreflectivity of the Department's work zone devices to the same standard as our signs is that Iowa's population is aging and older drivers need brighter signs and devices to help improve their recognition and reaction times in work zones.

These proposed changes are not being required for local administered projects, so Article 4186.03, A, 2, b is not being recommended for change.

County or City Input Needed (X one)	**Yes**	**No** X
Comments: No changes to the requirements for local agencies are being proposed.		

Industry Input Needed (X one)			**Yes** X	**No**	
Industry Notified:	**Yes** X	**No**	**Industry Concurrence:**	**Yes** X	**No**
Comments: Iowa's traffic safety industry has been directly involved in the development of this draft specification language and concurs with the proposed language and implementation date.					

7. Miscellaneous Specifications and other Highway Division Document Discussion

a. New Specification Book update (revised flowchart)
Specification Writing class

Due to budget constraints, the Specification Writing Course that was originally scheduled for March as been moved to July. Each class will be 2 days at a cost of $270 per person with 20-30 people per class. The Specification Committee and technical experts that will be helping with the rewriting will be included in the first round of training. Two seats are reserved for FHWA and 2 seats are reserved for SUDAS (CTRE). The Department's management asked that one class be held and evaluated before the second class is scheduled. The first class will include the Specification Committee, FHWA, and SUDAS; if additional seats are available, technical experts will be added as available.

Classes for the designers will be held later in the rewriting process for their understanding of the rewrite and preparation of Special Provisions. Inspectors and industry will be trained immediately before the new specification book is distributed. It is anticipated that the inspector and industry training will only take an hour or two and can be taught by the Specification Section staff.

New software/system

Currently the Specification Book is in WordPerfect. The Department has migrated to MSWord, and WordPerfect is no longer supported. Due to the random changing in MSWord of numbered lists and the random strikethrough of text in the most recent General Supplemental, the Specification Section has concerns about moving the book to MSWord. Therefore, the Specification Section is looking at other solutions.

An area that is being researched is a Content Management System (CMS). Software costs may be minimal, but there will probably be some programming/setup required. The SUDAS group is going to use the same system/program for their manual that the Specifications and Methods Sections choose.

The Specification Committee asked that the following be considered when choosing a new system/program for the Specification Book:

1. The process for submitting recommended changes to the Specification Section remain simple so that other offices do not have to get involved in learning a new word processing program.
2. Do not make the other offices that are submitting files for ERL translate their information for inclusion in ERL because it will increase their work load. They would like to continue to submit their files to the Specifications Section in MSWord format.
3. Keep the capability to print sections from ERL of the Construction Manual and Specifications.

b. ERL Format and Developing Design CD for ERL

The following items were discussed due to the long timeline that is needed for changes in order for the designers to have them by Week -20 in the letting process. This gives designers 4 weeks to update their plans before the Week -16 turn-in to Methods Section. This also moves up the timeframe for Specification changes about 4 to 6 weeks. Changes to electronic review and print-on-demand will help shorten this timeline 4 to 5 weeks.

Work has begun on an ERL-Design CD. This CD would include the following:

Road Design Manual, probably in HTML format
Road Design Details Manual, in MicroStation and probably pdf formats
Standard Road Plans, in MicroStation and probably pdf formats
Standard Specifications, continuing in HTML format
SUDAS Design Manual, probably in HTML format
SUDAS Standard Plates, in MicroStation, AutoCAD, and probably pdf formats
SUDAS Standard Specifications, continuing in HTML format
Supplemental Specifications, continuing in HTML format

Electronic Plan Review?
All Resident Construction Engineer (RCE) offices have a CADD workstation in their office, but not all may have an 11" x 17" printer. Some RCE offices are currently developing as-built drawings through ERMS software. It is anticipated that it might be another year before all RCE offices are developing their as-builts this way. The District offices have used the CADD workstation for transmitting drawings from other offices and the main complex that are not legible if they are faxed.

Impact on ERL Schedule?
Would shorten the schedule by 1 week.

Print-on-Demand

When will 7-week turn-in be implemented?
The Office of Contracts stated the 7 week turn-in schedule could be implemented if they have all the final information from the designer and print-on-demand is fully implemented. Print-on-demand is not currently being worked on because the Office of Contracts has not been able to find staff time to work on it. As for getting final information for the designers, the Office of Contracts only receives about 75% of the plans on turn-in day using the 10 to 11 week turn-in schedule, and the majority of those are changed within the following few weeks. Due to these problems, 7 week turn-in will probably not be implemented in the foreseeable future.

Impact on ERL Schedule?
Would shorten the schedule by 3 or 4 weeks.

c. Format of General Supplemental, Supplemental Specifications, Developmental Specifications, and Minutes.
The Specification Engineer asked if anyone has comments on the way the Specification Section marks up the changes in the documents. The Office of Local Systems stated that the green highlighting comes out almost illegible when printed on a color printer. The Specification Section stated that the green highlight is used so it is distinguishable on a black and white printer, like the General Supplemental and all other letting documents are printed. No other comments were made.

d. ERL-Construction update.
The ERL-Construction CDs that will be coming out for the April 2004 letting will only have one group of revisions on it, instead of the two that have been on the ERL in the past. The reason for this change is due to space on the CD; 710 MB were needed to continue with 2 revisions, but only 700 MB CDs are available. This will hopefully not be an inconvenience to the inspectors as they will be able to change their CDs on their computers. The problem will be with those users that rely solely on the Internet to view the ERL information. The Specification Section is working with the Department's Application Technology group to have two releases on the ERL on the Internet.

DVD technology may be the next step in the ERL, but because of the timeframe for computer replacement it will be approximately 4 more years before all of the Department's field laptops have DVD drives. The Department currently has a multiple CD burner, but in 4 years there may be a multiple DVD burner available within the Department; if not, the DVDs may be reproduced off site, as were the first ERL CDs.