IOWA DEPARTMENT OF TRANSPORTATION

TO OFFICE: District 5 **DATE:** January 31, 2012

ATTENTION: Jim Armstrong **REF.:** Warren County

See project numbers below

PIN: 00-91-035-030-01

OFFICE: Design

FROM:

SUBJECT: Field Exam

Kevin K. Patel

A field exam was held on Tuesday, November 21, 2011 to review the proposed plan for the reconstruction of I-35 from approximately 2 miles south of IA 92 to 2 miles north of IA 92, including the reconstruction of the IA 92 interchange and the replacement of the Middle River Bridges.

Those present for the field exam included the following: Jim Armstrong and Todd Netley from District 5; Yan Jia, Jenny Hoskins, Jason Prindle, Gary Kretlow, Amy Schleier, Kevin Hockett, and Kevin Patel from the Office of Design; Chris King from the Office of Bridges and Structures; Sharon Dumdei from the Office of Right of Way; and Colin Greenan from the Office of Location and Environment.

I-35 is a service level "A" roadway. The projected 2015 ADT and 2035 ADT traffic on I-35 is 22,700 vpd and 29,800 vpd respectively, with 25 % trucks. The estimated 2015 and 2035 traffic on IA 92 is 4,600 vpd and 6,200 vpd respectively, with 10% truck traffic.

Interstate 35 will be reconstructed to provide two 12 ft. wide lanes and an inside and outside 12 ft. paved shoulder. The typical section will provide additional capacity in the future for when the proposed inside shoulder will be converted to a passing lane and a new inside shoulder will be added to provide a 6-lane facility. The median width will be 106 ft. wide for the proposed 4-lane roadway and will decrease to 82 ft. wide when the northbound and southbound inside paved shoulders are added in the future. Median crossovers will be required to maintain traffic during construction.

The IA 92 interchange will be reconstructed with a diamond configuration. As the existing loop ramp in the south east quadrant will not be replaced (thus changing the number of access points) an interchange justification report will be required. The District Office will be responsible for preparing the IJR.

IA 92 in the area adjacent to the interchange will be converted from an existing 4-lane roadway to a 3-lane section. The lane configuration will be a 12' wide eastbound lane, a 12' wide westbound lane and a 16' wide center turn lane between the ramp terminals. Shoulders, 10 ft. wide (4' paved, 6' granular) and 6:1/3.5:1 foreslopes will also be added. The existing 207' x 40' and 207' x 30' pretensioned prestressed concrete beam bridges over I-35 will be replaced with one 316' x 60' pretensioned concrete beam bridge. The ramps for the

interchange will be 16' wide with 4' inside and 6' outside paved shoulders. The District advised that the ramps be kept open at all times; therefore, temporary pavement will be required for staging in order to maintain traffic.

The existing 280 ft. x 28 ft. twin box girder bridges over the Middle River will be replaced with 334 ft. x 60 ft. and a 334 ft. variable width bridge. The new bridge width will accommodate the ultimate 6-lane facility.

There are two archaeology sites, one on each side of the roadway that should be avoided. It was recommended to review the profile grade to increase the buffer area to the archaeology sites. The large fill height that the grades provide could also produce undesirable settlement; therefore, it may be advantageous to let the embankment settle prior to paving. This will impact the present staging and should be reviewed further.

The ox bow from the Middle River appears to be migrating closer to the northbound lanes. It was recommended that the channel banks be stabilized to reduce further encroachment.

Permanent and temporary right of way will be required. Access control rights will be acquired.

The preliminary earthwork quantities indicate approximately 943,000 cubic yards of class 10 borrow material will be required.

A bid item for construction survey and a field lab was requested by the District Office. The clearing and grubbing area required should be clearly shown on the plans. It may be advantageous to let a separate clearing and grubbing project. A special events tabulation was requested by the Office of Design. The existing guardrail inventory was requested from the District Office. The guardrail should become property of the contractor. The existing luminaires at the IA 92 interchange should also become property of the contractor.

No plans are included in this submittal; however, plan sheets may be viewed as pdf files on the LAN at: W:\Projects\P0022007\9103503000\Design\(353)_Grading_@_IA92_(NB)\D2Submital\FieldExamPlan.pdf

The first letting for this project is currently scheduled for December 2013. The total estimated construction cost shown in the concept was \$34,712,500. The total estimated construction cost is now \$42,232,100.

Project #	Description	Bridge	Road	Total
IM-35-2(353)5413-91	N.B. Grading	\$3,069,000	\$ 1,667,900	\$ 4,736,900
IM-35-2(354)5613-91	N.B. Grade and Pave	N/A	\$16,079,300	\$16,079,300
IM-35-2(378)5413-91	S.B. Grade and Pave	\$3,179,000	\$11,970,000	\$15,149,000
IM-35-2(410)5613-91	IA 92 Paving and Ramps	N/A	\$ 3,134,100	\$ 3,134,100
BRFIM-35-2(326)5605-91	IA 92 Bridge	\$2,890,000	\$ 242,800	\$ 3,132,800
	Total			\$42,232,100

KKP:mk

cc:	M. J. Dillavou	M. J. Sankey	S. J. Gent	M. J. Kennerly
	D. A. Widick	W. Sorenson	D. E. Ohman	T. L. Gettings
	E. C. Wright	Y. Jia	J. P. Rost	K. D. Nicholson
	R. L. Stanley	S. C. Marler	E. J. Ranney	T. Crouch
	L.C. Funnell	A. Schleier	D. R. Tebben	M. D. Masteller
	D. Matulac	M. A. Swenson	C. B. Brakke	J. W. Smith
	N. L. McDonald	D. A. Popp	B. Bradley	G. A. Novey
	D. R. Claman	J. McCollough	J. Vortherms	S. Sommers
	C. King	J. Hoskins	K. Hockett	T. Netley
	S. Dumdei	C. Greenan	G. Mulder	J. Prindle
	G. Kretlow			