

Existing Structure: Structure Number 101-3018 consists of a four-span, riveted, steel plate girder bridge built in 1950. The existing structure is 462'-0" long and 29'-6" wide. The substructure consists of spill-through concrete abutments and reinforced concrete wall-type piers with footings founded on timber piles. The existing structure shall be completely removed, unless noted otherwise. Kishwaukee Road will be closed during construction.

Bench Marks: Railroad spike in power pole Station 83+78.50, 75.30 ft. Rt., Elev. 687.86

Salvage: Existing Name Plate to be salvaged and delivered to Winnebago County Highway Dept.

**LOADING HS25**  
Allow 50 #/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

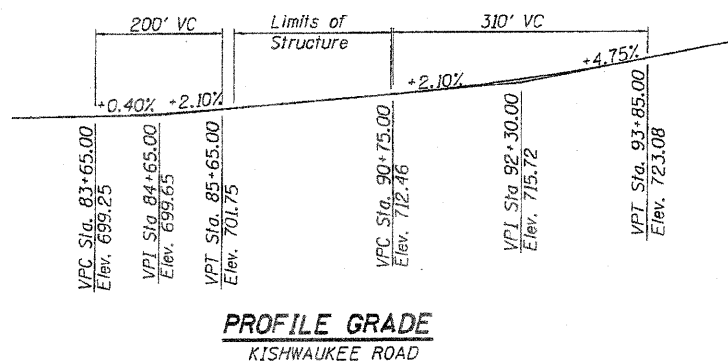
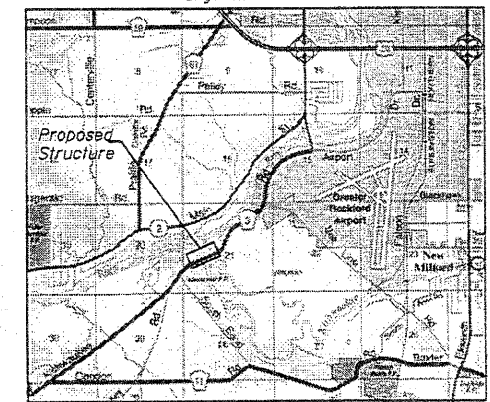
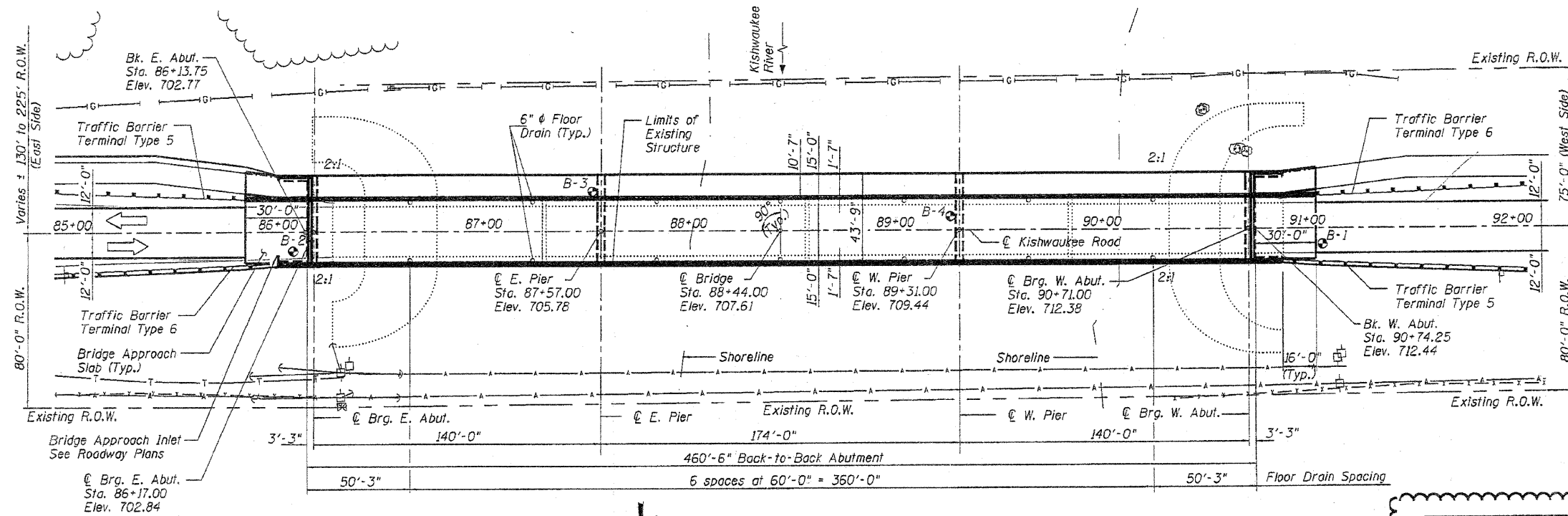
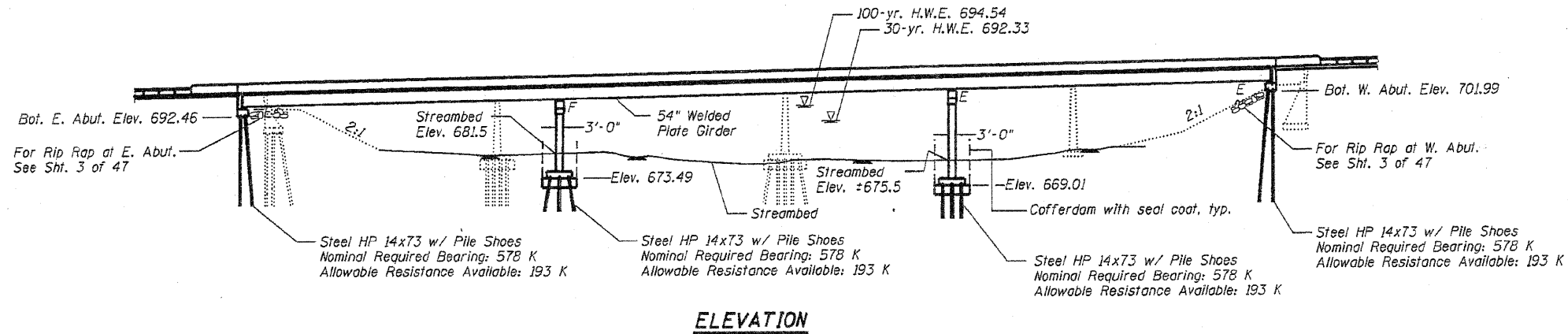
2002 AASHTO Standard Specifications for Highway Bridges  
1999 AASHTO Guide for the Development of Bicycle Facilities

**DESIGN STRESSES**

**FIELD UNITS**  
f'c = 3,500 psi  
fy = 60,000 psi (reinforcement)  
fy = 50,000 psi (AASHTO M270 Gr. 50)

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.035g  
Site Coefficient (S) = 1.0



**WATERWAY INFORMATION**

Drainage Area = 1257 sq. mi. Low Grade Elev. 699.21 ft. @ Sta. 83+50

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Nat. Head-Ft.		Headwater EL.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	30	24,200	4895	5023	692.33	-0.10	-0.14	692.23	692.19
Base	100	32,100	5700	5916	694.54	-0.16	-0.23	694.38	694.31

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elev. (ft)	E. Abut.	E. Pier	W. Pier	W. Abut.
	692.5	670.5	664.0	702.0

KISHWAUKEE RIVER  
BUILT 2011 BY  
WINNEBAGO COUNTY  
SEC. 03-00337-00-BR  
F.A.U. RT. 5103 STA. 88+44  
STR. NO. 101-3100 LOADING HL93

**NAME PLATE**  
See Sht. 515001

STUART M. KEMP  
LICENSED STRUCTURAL ENGINEER  
STATE OF ILLINOIS  
10/26/10  
11/30/10

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges.'"

**GENERAL PLAN & ELEVATION**  
STRUCTURE NUMBER 101-3100

PROFESSIONAL DESIGN FIRM LICENSE #184-001084  
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**HANSON**  
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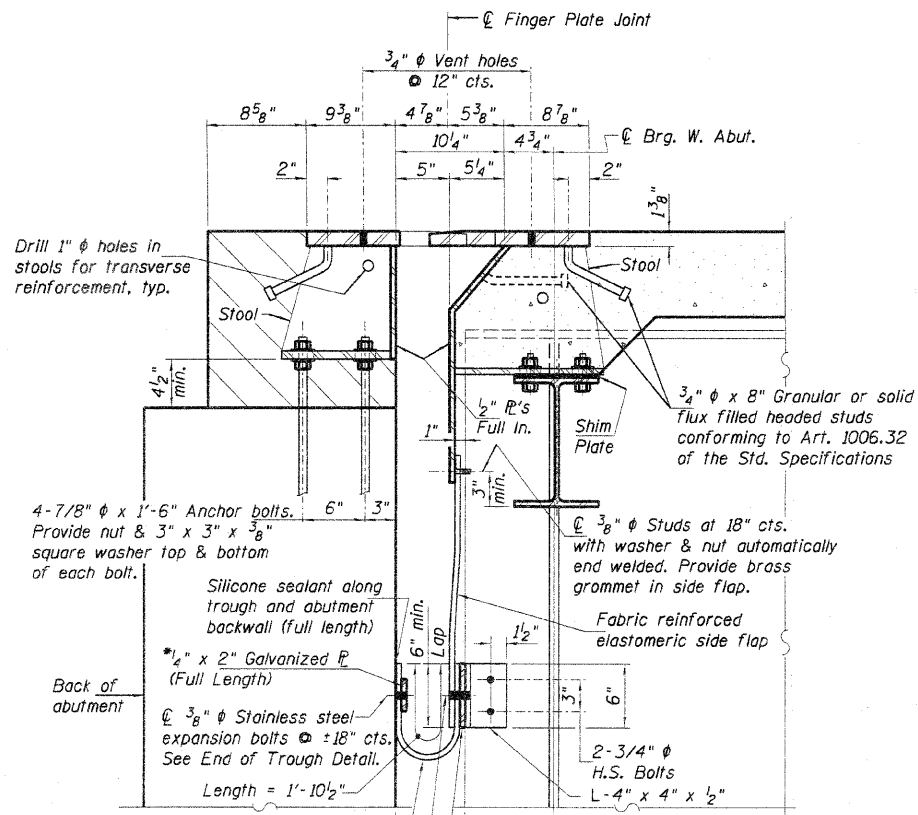
DESIGN NO. 03R1807  
SHEET NO. 1  
DATE 11/08/10  
47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5103	03-00337-00-BR	Winnebago	66	16

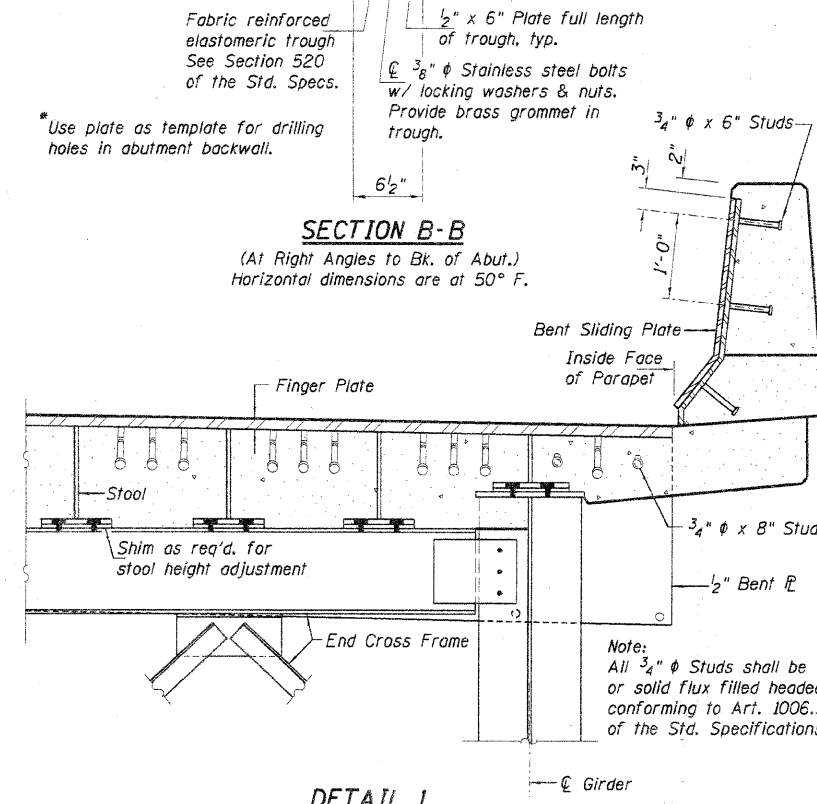
CONTRACT NO. 85523  
ILLINOIS FED. AID PROJECT

Revised 1-10-11 ADDENDUM NO. 1

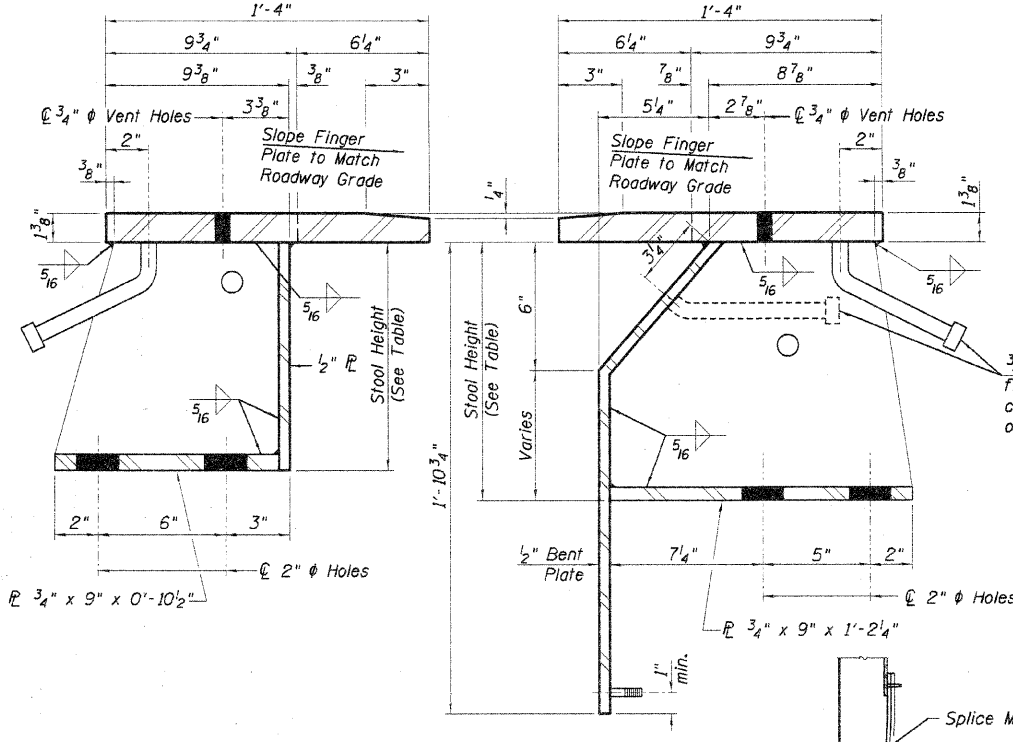
DATE PLOTTED: 11/23/10  
 PLOT SCALE: 1"=20'-0"  
 PLOT BY: JMK/SMK  
 CHECKED BY: JMK/SMK



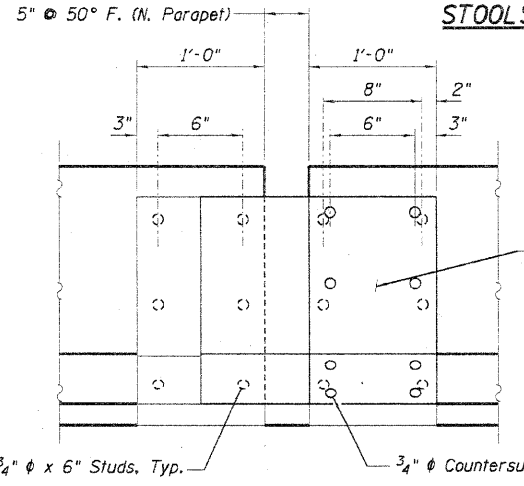
**SECTION B-B**  
(At Right Angles to Bk. of Abut.)  
Horizontal dimensions are at 50° F.



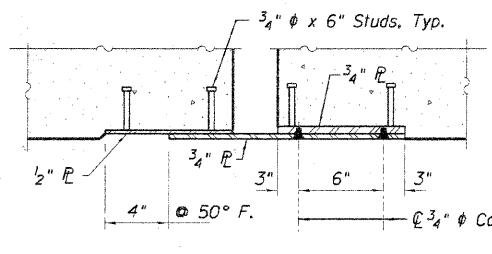
**DETAIL 1**



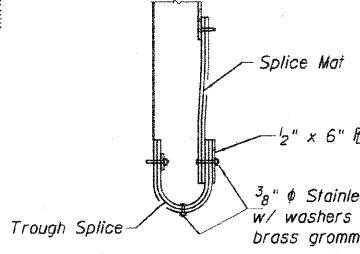
**STOOLS DETAIL**



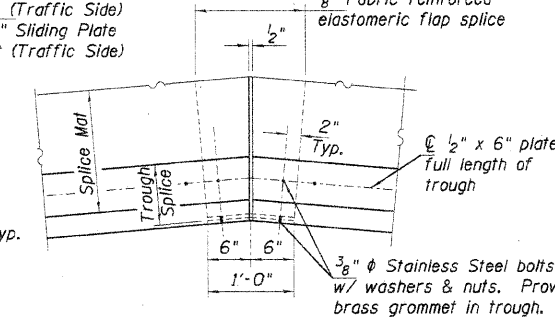
**INSIDE ELEVATION OF N. PARAPET AT JOINT**



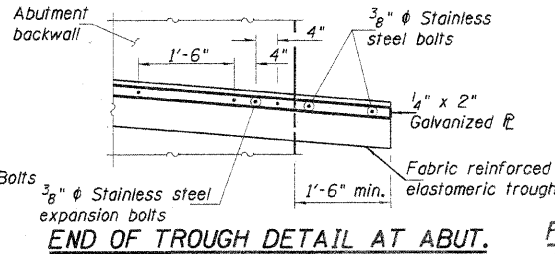
**HORIZONTAL SECTION OF N. PARAPET AT JOINT**



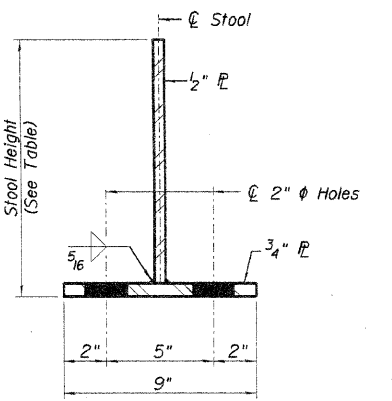
**SECTION THRU TROUGH SPLICE**



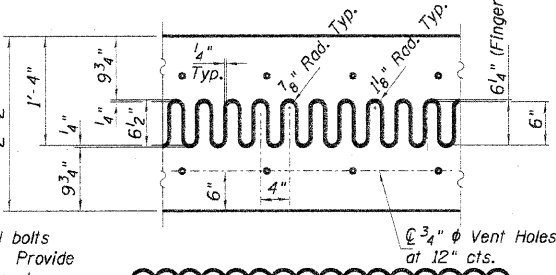
**TROUGH SPLICE DETAIL**



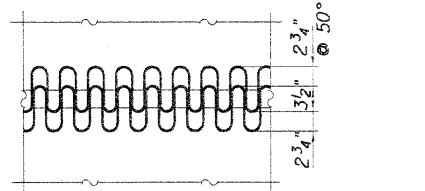
**END OF TROUGH DETAIL AT ABUT.**



**SECTION THRU STOOL**



**FLAME CUTTING DIAGRAM**  
Cut from PL 2'-4" x 3'-2 7/8" x 4'-2 1/4"  
Cut from PL 1'-8" x 2'-2" x 3'-6 3/4"



**FINGER PLATE SETTING DIAGRAM**

- NOTES:
1. Work this sheet with Sheet 15 of 47.
  2. Provide 1-1/4", 1-1/8" and 1-1/16" shim plates for stools supported by girders and cross frames.

**FINGER PLATE JOINT DETAIL**  
**STRUCTURE NUMBER 101-3100**

LAYOUT: JRP/SJK 08/23/10  
 DRAWN: MJA 10/25/10  
 REVIEWED: JRP/SJK 10/26/10

Revised 1-10-11 ADDENDUM NO. 1

PROFESSIONAL DESIGN FIRM LICENSE #184-001084



DATE: 11/08/10  
 SHEET NO. 16  
 47 SHEETS

F.A.U. RTE. 5103	SECTION 03-00337-00-BR	COUNTY Winnebago	TOTAL SHEETS 66	SHEET NO. 31
CONTRACT NO. 85523			ILLINOIS FED. AID PROJECT	