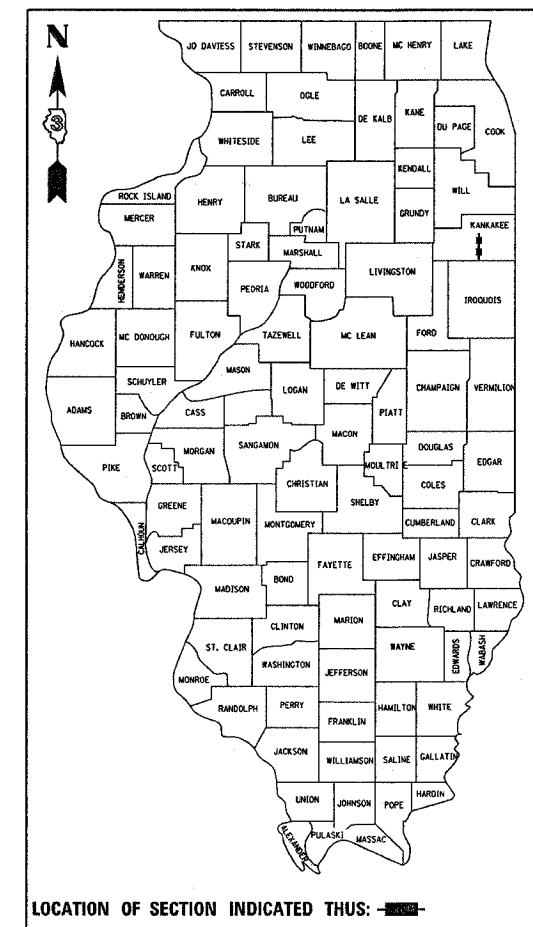


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
840	139 BR-1 & BR-2	KANKAKEE	69
ILLINOIS PROJECT			70 Sheets
Section 139 BR-1		Section 139 BR-2	
P-93-032-02		P-93-031-02	
D-93-052-05		D-93-022-05	

**INDEX OF SHEETS - BR-1**

SHEET NO.	DESCRIPTION
1.	COMBINED COVER SHEET
1A.	SIGNATURE BLOCK SHEET
2. - 3.	COMBINED SUMMARY OF QUANTITIES
4. - 49.	SECTION 139 BR-1 SHEETS
50. - 69.	SECTION 139 BR-2 SHEETS

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**FEDERAL AID HIGHWAY**  
**FAP ROUTE 840 (US 45 / 52)**  
**SECTION 139 BR-1 & BR-2**  
**PROJECT BHF-F-0840 (055)**  
**KANKAKEE COUNTY**  
**C - 93 - 020 - 05**

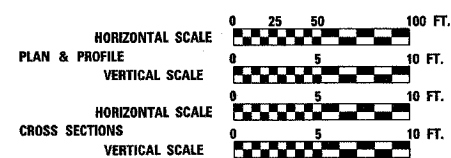


**FUNCTION CLASSIFICATION - RURAL MINOR ARTERIAL**  
**POSTED SPEED = 55 MPH**  
**2008 ADT = 6400**  
**P.V. = 90.4% S.U. = 5.2% M.U. = 4.4%**

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

SUBMITTED \_\_\_\_\_ 20\_\_\_\_  
  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
 December 8, 2006  
  
 ENGINEER OF DESIGN AND ENVIRONMENT  
 December 8, 2006  
  
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY**  
**OF THE STATE OF ILLINOIS**



**FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.**

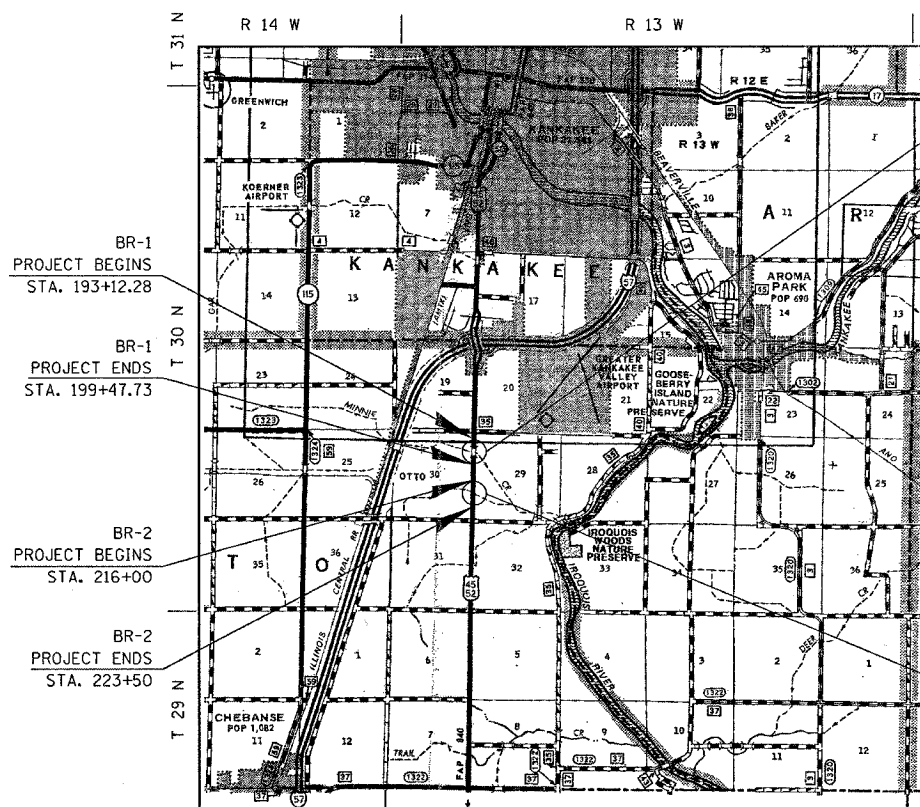
MICROFILMED \_\_\_\_\_  
 REEL NUMBER \_\_\_\_\_  
 AWARDED \_\_\_\_\_  
 RESIDENT ENGINEER \_\_\_\_\_  
 AS BUILT CHANGES WERE MADE \_\_\_\_\_  
 ON THE FOLLOWING SHEETS \_\_\_\_\_

JULIE 1-800-892-0123

DISTRICT 3 NO. (815) 434-6131

**PROJECT ENGINEER: JOE KANNEL**  
**UNIT CHIEF: PAT BRABOY**  
**TOWNSHIP: OTTO**

**CONTRACT NO. 66543**



BR-1  
 CONSISTS OF REMOVING THE EXISTING STRUCTURE'S SUPERSTRUCTURE AND BACKWALL (SN 046-0070) AT STA. 196+30 AND REPLACE WITH PRECAST PRESTRESSED CONCRETE DECK BEAM (17" DEPTH) AND PORTLAND CEMENT CONCRETE WEARING SURFACE 5" AND RELATED ROADWAY WORK.

BR-2  
 REPLACE BRIDGE 046-0098 WITH DOUBLE BOX CULVERT STA. 219.25

**LOCATION MAP**  
**NOT TO SCALE**

**TOTAL GROSS LENGTH = 2343.13 FT. = 0.442 MI.**  
**TOTAL NET LENGTH = 2343.13 FT. = 0.442 MI.**

**CONTRACT NO. 66543**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-14	KANKAKEE	69	1A
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DISTRICT THREE

PREPARED BY: *Ken Powell*  
DISTRICT STUDIES & PLANS ENGINEER

DATE: 10-30-06

EXAMINED BY: *Herbert K. Long*  
DISTRICT CONSTRUCTION ENGINEER

*Harold*  
DISTRICT MATERIALS ENGINEER

*Bruce Tucker*  
DISTRICT OPERATIONS ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SIGNATURE BLOCK**

\*DATE-TIME\*  
c:\projects\ep03102\0460070\cover.sht.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

### SUMMARY OF QUANTITIES

← BHF →  
X081-2A

CODE NUMBER	PAY ITEM	UNIT	PROJECT QUANTITY 80%/20% F.F.D. ST.	139 BR-1		139 BR-2	
				ROADWAY	BRIDGE	ROADWAY 1000	BRIDGE Y007
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	23	23		23	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	22	22		22	
20200100	EARTH EXCAVATION	CU YD	959	959	175	784	
20300100	CHANNEL EXCAVATION	CU YD	40			40	
20400800	FURNISHED EXCAVATION	CU YD	85	85	85		
20700220	POROUS GRANULAR EMBANKMENT	CU YD	201			201	
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	480	480		480	
21101615	TOPSOIL FURNISH AND PLACE 4"	SQ YD	970	970	970		
21400100	GRADING AND SHAPING DITCHES	FOOT	160	160	160		
25000210	SEEDING, CLASS 2A	ACRE	0.75	0.75		0.75	
25000300	SEEDING, CLASS 3	ACRE	0.2	0.2	0.2		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	88	88	18	70	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	88	88	18	70	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	88	88	18	70	
25100115	MULCH, METHOD 2	ACRE	0.95	0.95	0.2	0.75	
28000300	TEMPORARY DITCH CHECKS	EACH	15	15	5	10	
28000400	PERIMETER EROSION BARRIER	FOOT	1200	1200	1200		
28000500	INLET AND PIPE PROTECTION	EACH	1	1	1		
28000600	SEEDING, CLASS 7	ACRE	2.25	2.25		2.25	
28100107	STONE RIPRAP, CLASS A4	SQ YD	715	482		482	233
28100109	STONE RIPRAP, CLASS A5	SQ YD	1008		1008		
28200200	FILTER FABRIC	SQ YD	1723	482	1008	482	233
31100910	SUB-BASE GRANULAR MATERIAL, TYPE A, 12"	SQ YD	220	220		220	
35501330	HOT-MIX ASPHALT BASE COURSE, 1 1/2"	SQ YD	189	189		189	
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10	SQ YD	946	946	946		
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	98	98		98	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	537	537	294	243	
40600300	AGGREGATE (PRIME COAT)	TON	5.2	5.2	5.2		
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	338	338	163	175	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	753	753	347	406	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	400	400	209	191	
44000100	PAVEMENT REMOVAL	SQ YD	366	366	239	127	

### SUMMARY OF QUANTITIES

← BHF →  
X081-2A

CODE NUMBER	PAY ITEM	UNIT	PROJECT QUANTITY 80%/20% F.F.D. ST.	139 BR-1		139 BR-2	
				ROADWAY	BRIDGE	ROADWAY 1000	BRIDGE Y007
48101200	AGGREGATE SHOULDERS, TYPE B	TON	200	200			
48101500	AGGREGATE SHOULDERS, TYPE B, 6"	SQ YD	671	671		671	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1				1
50102400	CONCRETE REMOVAL	CU YD	6		6		
50105200	REMOVE EXISTING CULVERTS	EACH	3	3			3
50300225	CONCRETE STRUCTURES	CU YD	8		8		
50300260	BRIDGE DECK GROOVING	SQ YD	422		422		
<del>50300300</del>	PROTECTIVE COAT	SQ YD	444		444		
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	444		444		
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	3988		3988		
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3839		3839		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6970		6970		
50800515	BAR SPLICERS	EACH	113		113		
50901050	STEEL RAILING, TYPE SM	FOOT	208		208		
51500100	NAME PLATES	EACH	1		1		
52000110	PREFORMED JOINT STRIP SEAL	FOOT	95		95		
52100520	ANCHOR BOLTS, 1"	EACH	6		6		
54001000	BOX CULVERT END SECTIONS	EACH	2				2
54020707	PRECAST CONCRETE BOX CULVERT 7'x7' (M273)	FOOT	108				108
54200220	PIPE CULVERTS, CLASS D, TYPE 1, 15"	FOOT	82	82		82	
54200223	PIPE CULVERTS, CLASS D, TYPE 1, 18"	FOOT	52	52		52	
54213450	END SECTIONS, 15"	EACH	4	4		4	
54213453	END SECTIONS, 18"	EACH	2	2		2	
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	375	375	375		
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4	4		
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	1023	02	425		598
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	8	8			8
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8	4		4
67100100	MOBILIZATION	L SUM	1	1	0.5		0.5
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	1		
70100450	TRAFFIC CONTROL AND PROTECTION STANDARD 701201	L SUM	1	1	0.5		0.5

\* SPECIALTY ITEM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**PROJECT  
SUMMARY OF QUANTITIES**

SCALE: VERT. 10/13/2006  
HORIZ. 10/13/2006

DRAWN BY C. SUNTKEN  
CHECKED BY M. ZELINSKAS

PLOT DATE = 10/25/2006  
FILE NAME = #FILES  
PLOT SCALE = #SCALE#  
USER NAME = #USER#

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B40	139 BR-1	KANKAKEE	69	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

# SUMMARY OF QUANTITIES

←BHF→  
X081-2A  
←F→

CODE NUMBER	PAY ITEM	UNIT	PROJECT QUANTITY 80% / 20% Exp. / St.	139 BR-1		139 BR-2	
				ROADWAY	BRIDGE	ROADWAY 1000	BRIDGE Y007
70100460	TRAFFIC CONTROL AND PROTECTION STANDARD 701306	L SUM	1	1	0.5		0.5
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	70	70	50		20
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	1		
70106700	TEMPORARY RUMBLE STRIP	EACH	6	6	6		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3152	3152	3152		
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	26	26	26		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1102	1102	1102		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	517	517	517		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	517	517	517		
* 78001110	PAINT PAVEMENT MARKING-LINE 4"	FOOT	2626	2626	1272		1354
* 78001130	PAINT PAVEMENT MARKING-LINE 6"	FOOT	405	405	235		170
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	16	16	8		8
78200410	GUARDRAIL MARKERS, TYPE A	EACH	18	18	18		
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	4		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	450	450	450		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	16	16	8		8
X7011005	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	L SUM	1	1			1
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1			1	
50104650	SLOPE WALL REMOVAL	SQ YD	800			800	
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	48			48	
⊙ Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2		2		
⊙ Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2		2		

⊙ SFTY-3N  
\* SPECIALTY ITEM

PLOT DATE = 10/25/2006  
FILE NAME = #FILE#  
USER NAME = #USER#

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

## SUMMARY OF QUANTITIES

SCALE: VERT.      DRAWN BY C. SUNTKEN  
 HORIZ.              CHECKED BY M. ZELINSKAS  
 DATE 10/13/2006

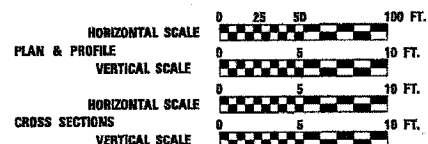


**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
4.	COVER SHEET AND INDEX OF SHEETS
5.	GENERAL NOTES
6.	SUMMARY OF QUANTITIES
7. - 9.	TYPICAL SECTIONS
10. - 11.	SCHEDULE OF QUANTITIES
12. - 14.	PLAN AND PROFILE SHEETS
15.	STAGING 1 PLANS
16.	STAGING 2 PLANS
17. - 30.	BRIDGE PLANS
31. - 44.	EXISTING BRIDGE PLANS (FOR INFORMATION ONLY)
45.	DETAIL
46. - 49.	CROSS SECTIONS

**HIGHWAY STANDARDS**

SEE SHEET 5



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

MICROFILMED \_\_\_\_\_  
 REEL NUMBER \_\_\_\_\_  
 AWARDED \_\_\_\_\_  
 RESIDENT ENGINEER \_\_\_\_\_  
 AS BUILT CHANGES WERE MADE  
 ON THE FOLLOWING SHEETS \_\_\_\_\_

JULIE 1-800-892-0123

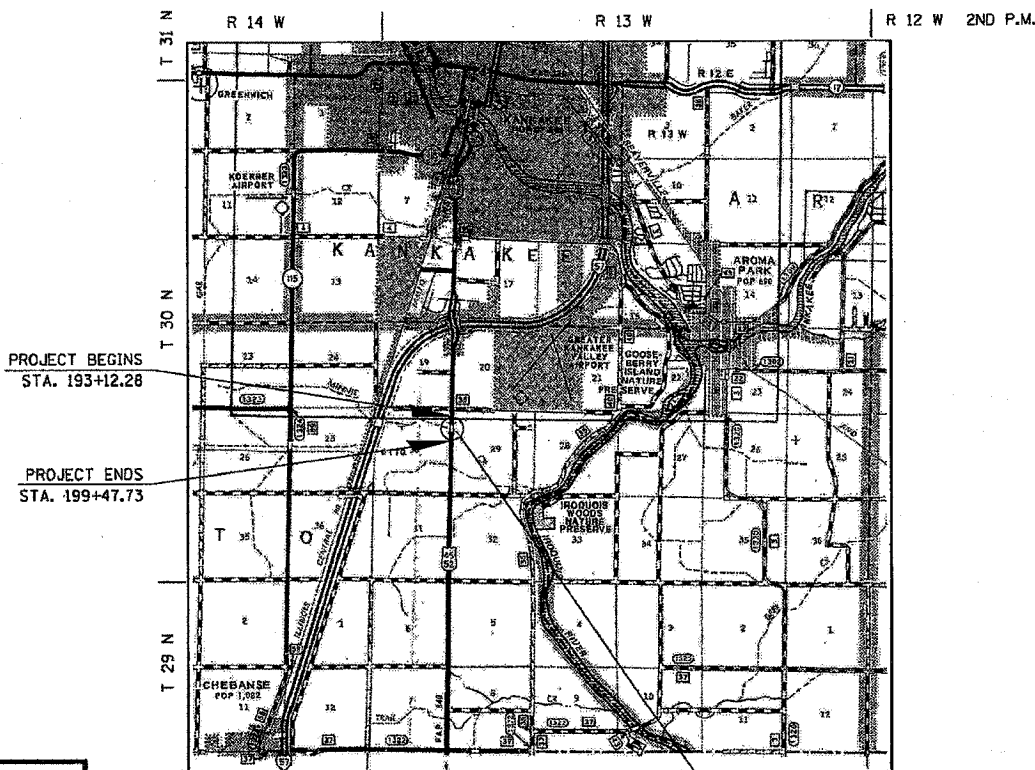
DISTRICT 3 NO. (815) 434-8131

PROJECT ENGINEER: DAN DRAPER  
 UNIT CHIEF: PAT BRABOY  
 TOWNSHIP: OTTO

CONTRACT NO. 66543



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**FEDERAL AID HIGHWAY**  
**FAP ROUTE 840 (US 45 / 52)**  
**SECTION 139 BR-1**  
**PROJECT**  
**KANKAKEE COUNTY**  
**C - 93 - 020 - 05**  
**BRIDGE SUPERSTRUCTURE REPLACEMENT**



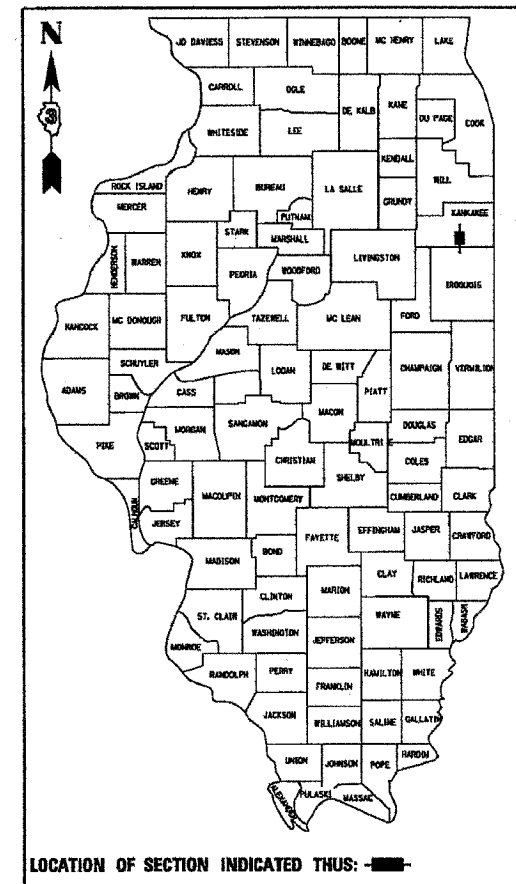
LOCATION MAP  
NOT TO SCALE

GROSS LENGTH = 1590.36 FT. = 0.300 MI.  
 NET LENGTH = 1590.36 FT. = 0.300 MI.

CONSISTS OF REMOVING THE EXISTING STRUCTURE'S SUPERSTRUCTURE AND BACKWALL (SN 046-0070) AT STA. 196+30 AND REPLACE WITH PRECAST PRESTRESSED CONCRETE DECK BEAM (17" DEPTH) AND PORTLAND CEMENT CONCRETE WEARING SURFACE 5" AND RELATED ROADWAY WORK.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
840	139 BR-1	KANKAKEE	69 4

P-93-032-02  
D-93-052-05



FUNCTION CLASSIFICATION - RURAL MINOR ARTERIAL  
 POSTED SPEED = 55 MPH  
 2008 ADT = 6400  
 P.V. = 90.4% S.U. = 5.2% M.U. = 4.4%

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED \_\_\_\_\_ 20\_\_\_\_  
 \_\_\_\_\_ 20\_\_\_\_ DISTRICT ENGINEER  
 \_\_\_\_\_ 20\_\_\_\_ ENGINEER OF DESIGN AND ENVIRONMENT  
 \_\_\_\_\_ 20\_\_\_\_ DIRECTOR, DIVISION OF HIGHWAYS



PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

\*DATE-TIME\*  
\*DGN-SPEC\*

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

# GENERAL NOTES

THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 advance notice is required for non-emergency work. The JULIE number is 800-892-0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

UTILITY	CONTACT	PHONE
_____	_____	_____

### COMMITMENTS

1. MEET WITH MINNIE CREEK DRAINAGE DISTRICT COMMISSIONERS TO DISCUSS FINAL DESIGN
- 2.
- 3.

The following Mixture Requirements are applicable for this project:

	Binder	Level Binder	Surface	Base Course
Performance Grade	PG64-22	PG64-22	PG64-22	PG64-22
Max % RAP Allowable**	15% ***	15% ***	10% ***	25%
Design Air Voids	4.0% @ N70	4.0% @ N70	4.0% @ N70	2.0% @ N50
Mixture Composition	IL 19.0	IL 9.5	IL 12.5 or IL 9.5	IL 19.0
Friction Aggregate			Mixture D	
Density Test Method	Cores / Nuclear	Satisfaction of the Engineer	Cores / Nuclear	Cores / Nuclear

\*\*\* If 3/8" RAP option is utilized, maximum percent may be increased to 25% for binder and 15% for surface course. Please review current RAP special provision

\*\* If RAP option is selected, the asphalt cement grade may need to be adjusted. This will be determined by the Engineer.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DISTRICT THREE

REVIEWED BY: \_\_\_\_\_  
DISTRICT STUDIES & PLANS ENGINEER

DATE: \_\_\_\_\_

EXAMINED BY: \_\_\_\_\_  
DISTRICT CONSTRUCTION ENGINEER

\_\_\_\_\_ DISTRICT MATERIALS ENGINEER

\_\_\_\_\_ DISTRICT OPERATIONS ENGINEER

### HIGHWAY STANDARDS

00001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT REBARS
001006	DECIMAL OF AN INCH AND OF A FOOT
515001-02	NAME PLATE FOR BRIDGES
630001-07	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
630301-04	STEEL PLATE BEAM GUARDRAIL
631032-03	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701006-02	OFF-RD. OPERATIONS 2L, 2W 4.5 m (15') TO PAVEMENT EDGE FOR SPEEDS ≥ 45 MPH
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY ON-RD. TO 600 mm (24") FOR SPEEDS ≥ 45 MPH
701301-02	LANE CLOSURE 2L, 2W SHORT TERM OPERATIONS
701306-01	LANE CLOSURE 2L, 2W SLOW MOVING OPERATIONS - DAY ONLY FOR SPEEDS ≥ 45 MPH
701311-02	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
701321-08	LANE CLOSURE 2L, 2W BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE 2L, 2W PAVEMENT WIDENING FOR SPEEDS ≥ 45 MPH
702001-06	TRAFFIC CONTROL DEVICES
704001-03	TEMPORARY CONCRETE BARRIER
780001-01	TYPICAL PAVEMENT MARKINGS

The following application rates have been used in calculating plan quantities:

Bituminous Materials (Prime Coat)	0.08 Gal/Sq Yd
Aggregate (Prime Coat)	0.002 Ton/Sq Yd
Hot Mix Asphalt Surface Course	112 Lbs/Sq Yd/Inch
Leveling Binder	112 Lbs/Sq Yd/Inch
Aggregate Shoulders, Type B	2.1 Ton/Cu Yd
Temporary Ditch Checks	7 bale or 5 tons aggregate

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>GENERAL NOTES</b>  SCALE: VERT. _____ HORIZ. _____ DATE 10/25/2006 DRAWN BY C. SUNTKEN CHECKED BY M. ZELINSKAS

PLOT DATE = 10/24/2006  
 FILE NAME = K:\DEPT\1\66543\05\06\BRUNNOTE.dgn  
 USER NAME = MZELINSKAS  
 PLOT NUMBER = 30940000  
 PLOT BY = MZELINSKAS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

# SCHEDULE OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	PROJECT QUANTITY	139 BR-1	
				ROADWAY 1000	BRIDGE X081-2A
20200100	EARTH EXCAVATION	CU YD	175	175	
20400800	FURNISHED EXCAVATION	CU YD	85	85	
21101615	TOPSOIL FURNISH AND PLACE 4"	SO YD	970	970	
21400100	GRADING AND SHAPING DITCHES	FOOT	160	160	
25000300	SEEDING, CLASS 3	ACRES	0.2	0.2	
25000400	NITROGEN FERTILIZER NUTRIENTS	POUND	18	18	
25000500	PHOSPHORUS FERTILIZER NUTRIENTS	POUND	18	18	
25000600	POTASSIUM FERTILIZER NUTRIENTS	POUND	18	18	
25100115	MULCH, METHOD 2	ACRE	0.20	0.2	
28000300	TEMPORARY DITCH CHECKS	EACH	5	5	
28000400	PERIMETER EROSION BARRIER	LIN FT	1200	1200	
28000500	INLET AND PIPE PROTECTION	EACH	1	1	
28000109	STONE RIPRAP, CLASS A5	SO YD	1008		1008
28200200	FILTER FABRIC	SO YD	1008		1008
31600710	HOT-MIX ASPHALT BASE COURSE WIDENING, 10	SO YD	946	946	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	294	294	
40600300	AGGREGATE (PRIME COAT)	TON	5.2	5.2	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	163	163	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	347	347	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	209	209	
40001000	PAVEMENT REMOVAL	SO YD	239	239	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	200	200	
50102400	CONCRETE REMOVAL	CU YD	6		6
50100225	CONCRETE STRUCTURES	CU YD	8		8
50300260	BRIDGE DECK GROOVING	SO YD	422		422
50300300	PROTECTIVE COAT	SO YD	444		444
50300205	CONCRETE WEARING SURFACE, 5"	SO YD	444		444
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SO FT	3988		3988
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3839		3839
50800200	REINFORCEMENT BARS, EPOXY COATED	POUND	6970		6970
50800515	BAR SPLICERS	EACH	113		113
50901005	STEEL BRIDGE RAIL, TYPE SM	FOOT	208		208
51500100	NAME PLATES	EACH	1		1

# SCHEDULE OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	PROJECT QUANTITY	139 BR-1	
				ROADWAY 1000	BRIDGE X081-2A
52000110	PREFORMED JOINT STRIP SEAL	FOOT	95		95
52100520	ANCHOR BOLTS, 1"	EACH	6		6
53000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	LIN FT	375	375	
63100007	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4		4
63100157	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4		4
63200010	GUARDRAIL REMOVAL	LIN FT	425	425	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4		4
67100100	MOBILIZATION	LUMP SUM	0.5		0.5
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	LUMP SUM	1		1
70100450	TRAFFIC CONTROL AND PROTECTION STANDARD 701201	LUMP SUM	0.5		0.5
70100460	TRAFFIC CONTROL AND PROTECTION STANDARD 701306	LUMP SUM	0.5		0.5
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	LUMP SUM	1		1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DAY	50		50
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1		1
70106700	TEMPORARY RUMBLE STRIP	EACH	6		6
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3152	3152	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	26	26	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	1102	1102	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	517	517	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	517	517	
70001100	PAINT PAVEMENT MARKING-LINE 4"	FOOT	1272	1272	
78001150	PAINT PAVEMENT MARKING-LINE 6"	FOOT	235	235	
78000400	RAISED REFLECTIVE PAVEMENT MARKERS	EACH	8	8	
78200410	GUARDRAIL MARKERS, TYPE A	EACH	18	18	
78200000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SO FT	450	450	
78800200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	8	8	1
X0003104	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		800
X0004058	SLOPE WALL REMOVAL	SO YD	800		48
20001900	ASBESTOS BEARING PAD REMOVAL	EACH	48		
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2		2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2		2

PLOT DATE : 10/25/2006  
 FILE NAME : #FILEL#  
 PLOT SCALE : #SCALE#  
 USER NAME : #USER#

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

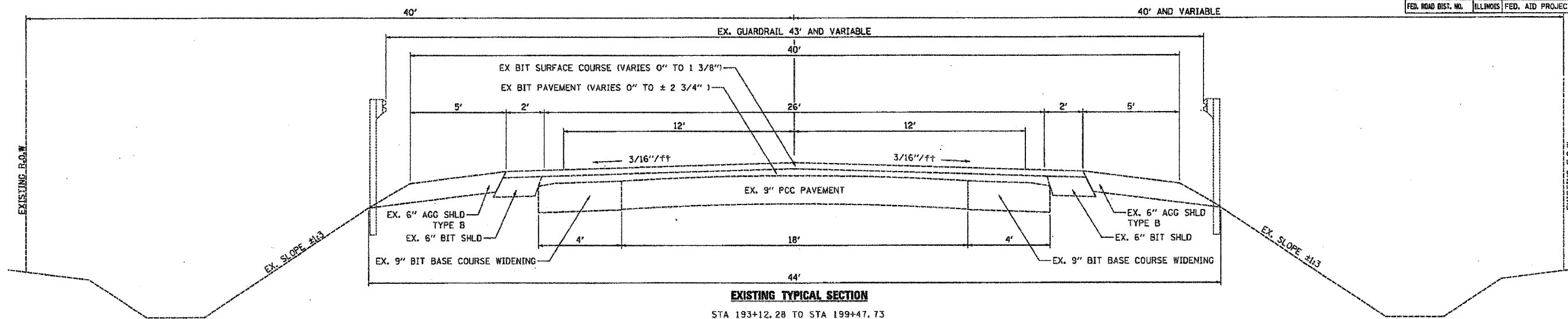
**PROJECT  
SUMMARY OF QUANTITIES**

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 HORIZ. \_\_\_\_\_  
 DATE: 10/13/2006

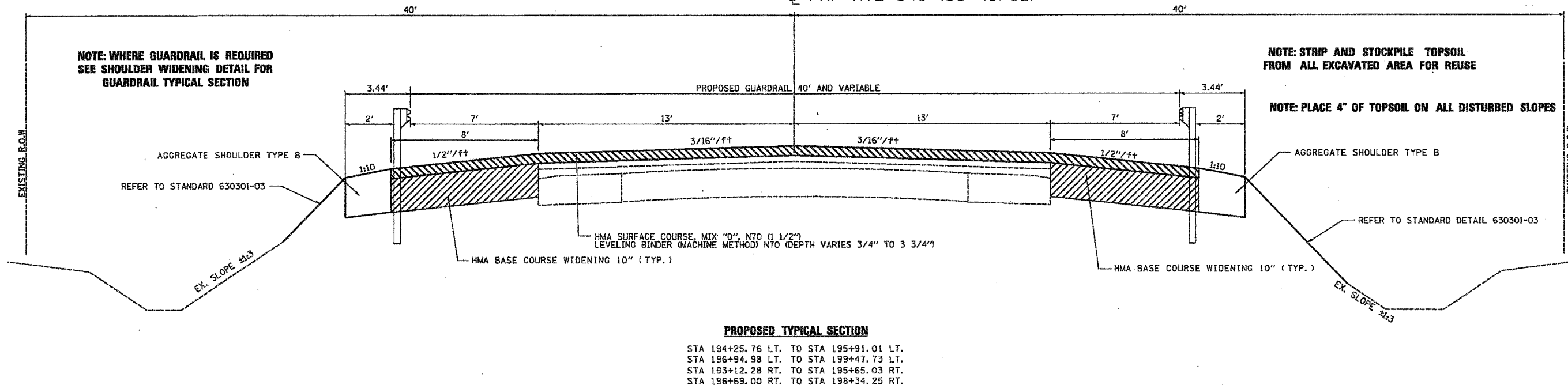
DRAWN BY: C. SUNTKEN  
 CHECKED BY: M. ZELINSKAS

F.A.P. SECTION COUNTY TOTAL SHEETS SHEET NO.
840 139 BR-1 KANKAKEE 69 7
STA. TO STA.
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

☉ FAP RTE 840 (US 45/52)



☉ FAP RTE 840 (US 45/52)



STRUCTURAL DESIGN TRAFFIC (S.D.T.) = 7700 (2018)

P.V. = 6961 (90.4%)  
 S.U. = 401 (5.2%)  
 M.U. = 339 (4.4%)

FACILITY CLASS = CLASS II ROAD  
 SUBGRADE RATING = POOR  
 T.F. = 1.17 (actual) 3.81 (minimum)  
 EAC = 480

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TYPICAL SECTIONS**

F.A.P. 840 (US 45/52)  
 SECTION 139 BR-1  
 KANKAKEE COUNTY

SCALE: VERT. NOT TO SCALE  
 HORIZ. NOT TO SCALE  
 DATE 10/13/2006

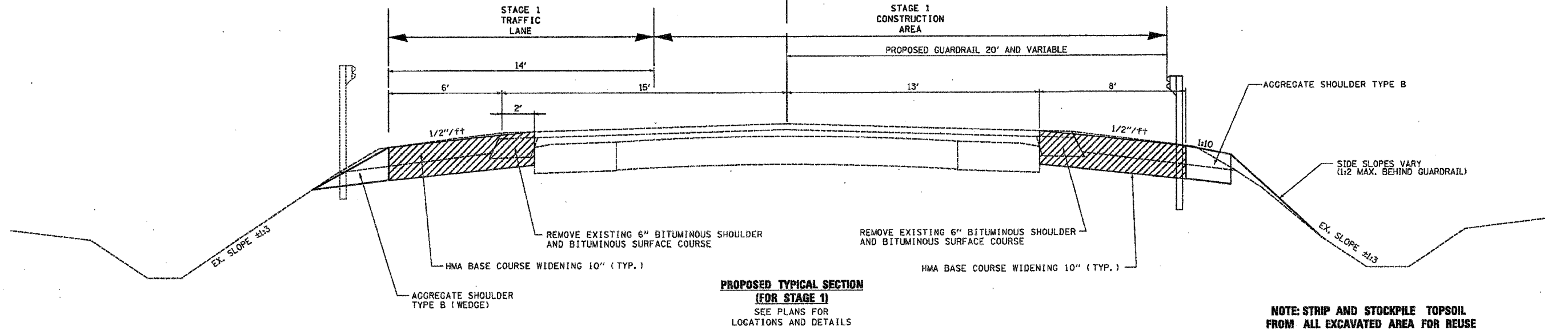
DRAWN BY C. SUNTKEN  
 CHECKED BY M. ZELINSKAS

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 PLOT SCALE = WIDE  
 USER NAME = JUDG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**NOTE: EAST SIDE BASE COURSE WIDENING MUST BE CONSTRUCTED PRIOR TO ANY OTHER ACTIVITIES**

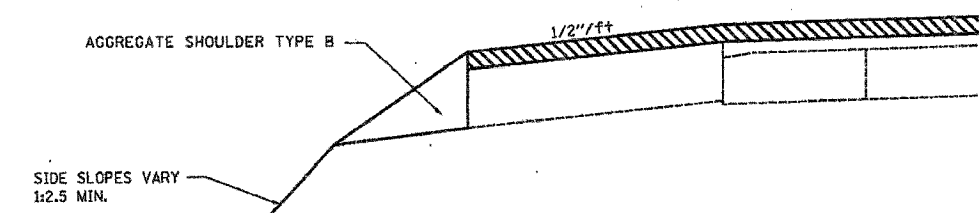
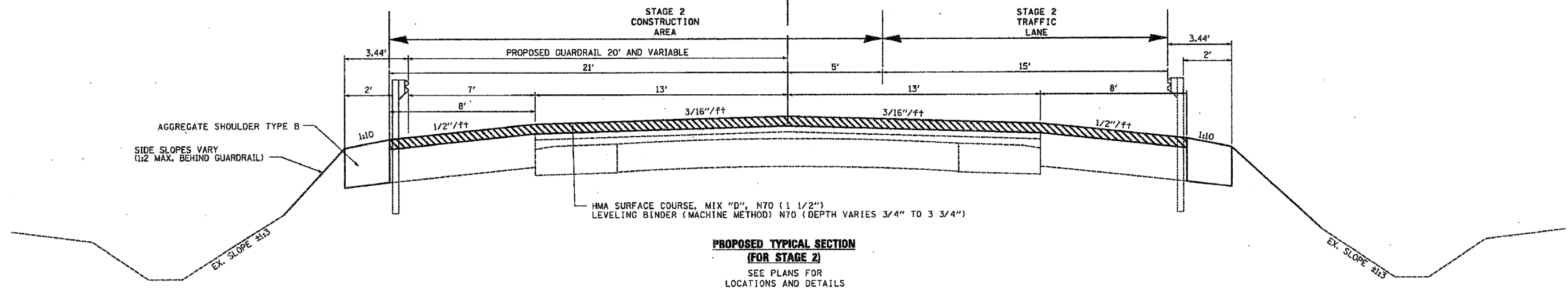
CL FAP RTE 840 (US 45/52)



**NOTE: STRIP AND STOCKPILE TOPSOIL FROM ALL EXCAVATED AREA FOR REUSE**

**NOTE: PLACE 4" OF TOPSOIL ON ALL DISTURBED SLOPES**

CL FAP RTE 840 (US 45/52)



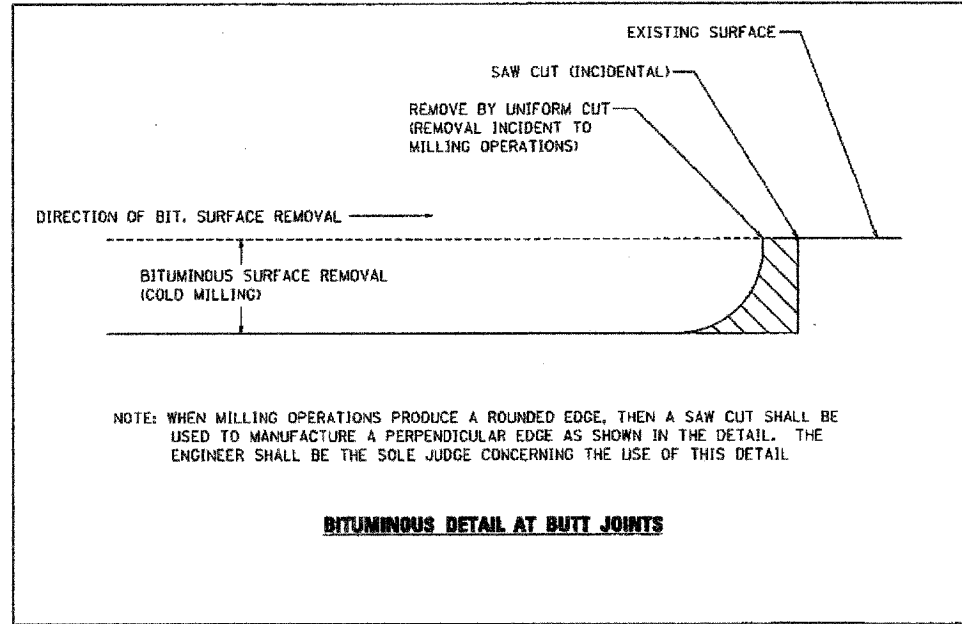
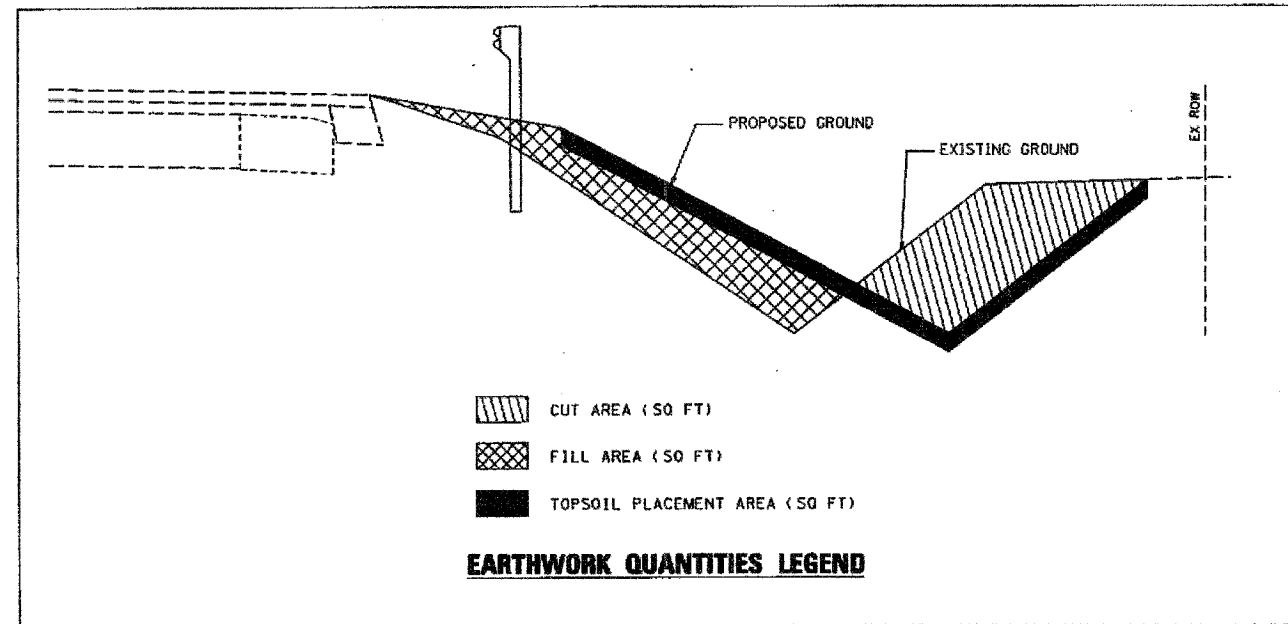
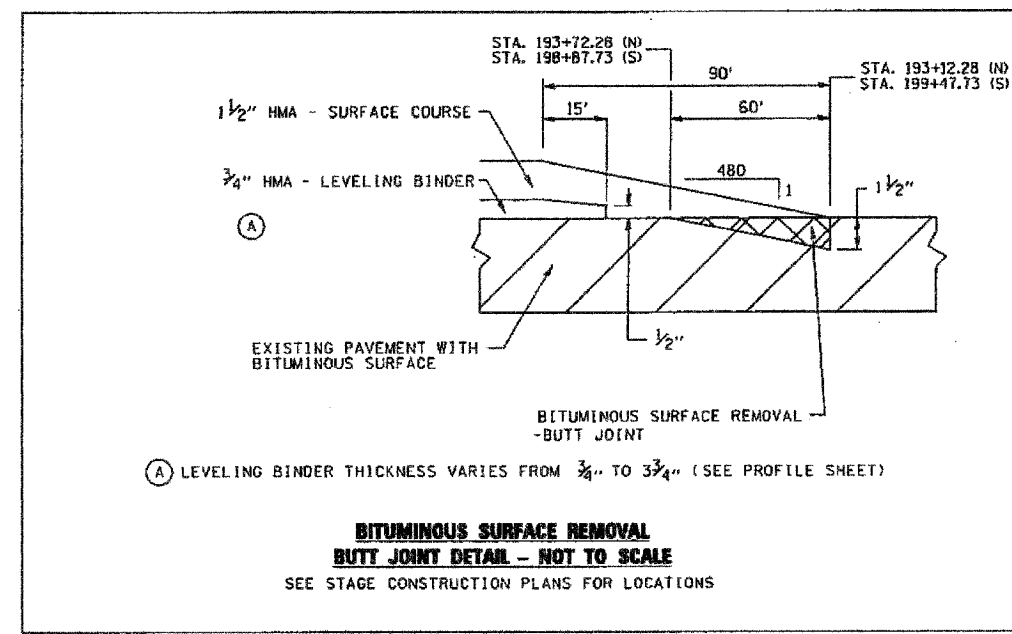
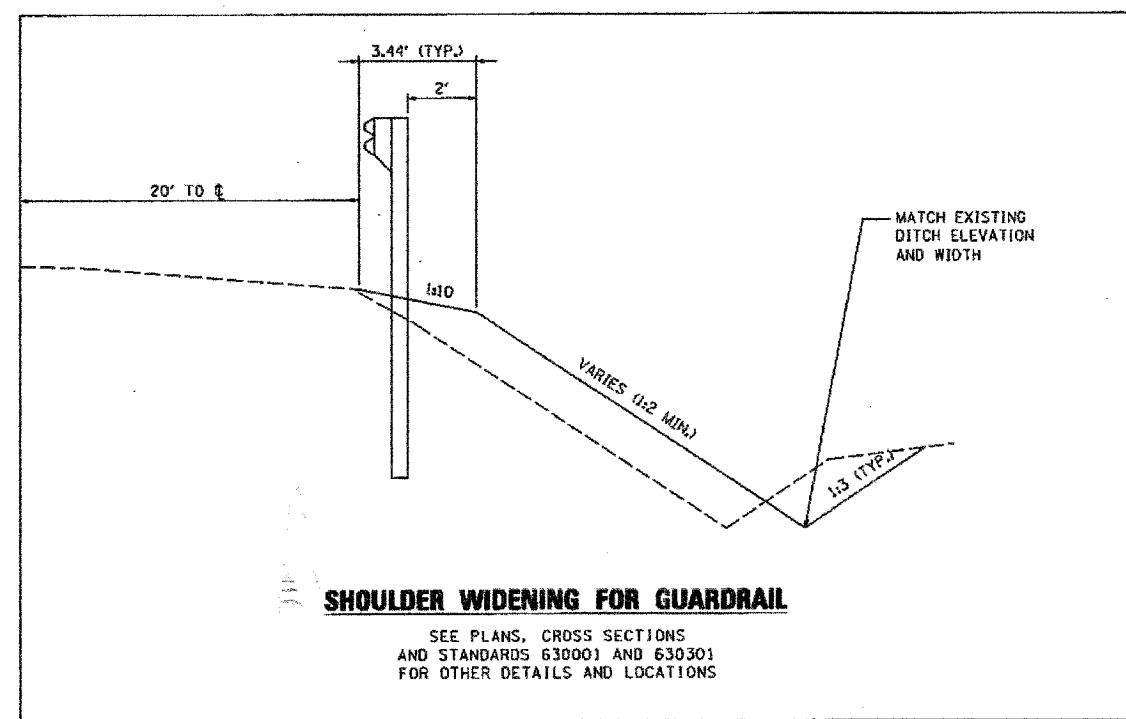
**PROPOSED TYPICAL SECTION (FOR STAGE 2)**  
STA 193+12.28 LT. TO STA 194+25.76 LT.  
STA 198+34.25 RT. TO STA 199+47.73 RT.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TYPICAL SECTIONS**  
F.A.P. 840 (US 45/52)  
SECTION 139 BR-1  
KANKAKEE COUNTY  
SCALE: VERT. NOT TO SCALE  
HORIZ. NOT TO SCALE  
DATE: 10/13/2006  
DRAWN BY: C. SUNTKEN  
CHECKED BY: M. ZELINSKAS

PLT DATE = 10/13/2006  
FILE NAME = AVERT\1\891\UNRESOLVED\TYPICAL.dgn  
PLT SCALE = 1"=20'  
USER NAME = JIBER

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLAT DATE = 10/13/2006  
 FILE NAME = 081104  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = WJG

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TYPICAL SECTIONS**  
 F.A.P. 840 (US 45/52)  
 SECTION 139 BR-1  
 KANKAKEE COUNTY  
 SCALE: VERT. NOT TO SCALE  
 HORIZ. NOT TO SCALE  
 DATE 10/13/2006  
 DRAWN BY C. SUNTKEN  
 CHECKED BY M. ZELINSKAS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	10
STA. TO STA.			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

**EARTHWORK SCHEDULE**

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE
STA. 193+12.28 TO BRIDGE	95	71	93	-22
BRIDGE TO STA. 199+47.73	77	58	118	-60
TOTAL	172	129	211	-82

20200100 EARTH EXCAVATION = 172  
 20400800 FURNISHED EXCAVATION = 82

21101615 TOPSOIL FURNISH AND PLACE 4"

LOCATION	SO YD
STA. 193+12.28 TO BRIDGE	556.6
BRIDGE TO STA. 199+47.73	413.3
TOTAL	969.9

21400100 GRADING AND SHAPING OF DITCHES

LOCATION	SIDE	FT
193+00 TO 193+50	RT.	50
193+40 TO 194+50	LT.	110
TOTAL		160

25000300 SEEDING, CLASS 3

LOCATION	ACRES
STA. 193+12.28 TO BRIDGE	0.1
BRIDGE TO STA. 199+47.73	0.1
TOTAL	0.2

25000400 NITROGEN FERTILIZER NUTRIENTS

LOCATION	LBS
STA. 193+12.28 TO BRIDGE	9
BRIDGE TO STA. 199+47.73	9
TOTAL	18

25000500 PHOSPHORUS FERTILIZER NUTRIENTS

LOCATION	LBS
STA. 193+12.28 TO BRIDGE	9
BRIDGE TO STA. 199+47.73	9
TOTAL	18

25000600 POTASSIUM FERTILIZER NUTRIENTS

LOCATION	LBS
STA. 193+12.28 TO BRIDGE	9
BRIDGE TO STA. 199+47.73	9
TOTAL	18

25100115 MULCH, METHOD 2

LOCATION	ACRES
STA. 193+12.28 TO BRIDGE	0.1
BRIDGE TO STA. 199+47.73	0.1
TOTAL	0.2

28000300 TEMPORARY DITCH CHECKS

LOCATION	TYPE	EACH
193+50 RT.	DITCH	1
194+50 LT.	DITCH	1
195+60 RT.	DITCH	1
196+00 LT.	DITCH	1
196+70 RT.	DITCH	1
TOTAL		5

28000400 PERIMETER EROSION BARRIER

LOCATION	LENGTH (FT)
STA 192+80 LT. TO STA 196+00 LT.	320
STA 192+80 RT. TO STA 195+70 RT.	290
STA 196+90 LT. TO STA 199+80 LT.	290
STA 196+60 RT. TO STA 198+00 RT.	140
STA 198+20 RT. TO STA 199+80 RT.	160
TOTAL	1200

28000500 INLET AND PIPE PROTECTION

LOCATION	EACH
198+60 RT.	1
TOTAL	1

35600716 HOT-MIX ASPHALT BASE COURSE WIDENING, 10"

LOCATION	SO YD
STA. 193+12.28 TO BRIDGE	473
BRIDGE TO STA. 199+47.73	473
TOTAL	946

40600100 BITUMINOUS MATERIALS (PRIME COAT)

LOCATION	GALLONS
STA. 193+12.28 TO BRIDGE	146.6
BRIDGE TO STA. 199+47.73	146.6
TOTAL	293.2

40600300 AGGREGATE (PRIME COAT)

LOCATION	TONS
STA. 193+12.28 TO BRIDGE	2.6
BRIDGE TO STA. 199+47.73	2.6
TOTAL	5.2

40600635 LEVELING BINDER (MACHINE METHOD), N70

LOCATION	TONS
STA. 193+12.28 TO BRIDGE	66.6
BRIDGE TO STA. 199+47.73	95.7
TOTAL	162.3

40600982 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

LOCATION	SO YD
STA. 193+12.28 TO BRIDGE	173.3
BRIDGE TO STA. 199+47.73	173.3
TOTAL	346.6

40603340 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

LOCATION	TONS
STA. 193+12.28 TO BRIDGE	104.4
BRIDGE TO STA. 199+47.73	104.4
TOTAL	208.8

44000100 PAVEMENT REMOVAL

LOCATION	TONS
STA. 193+12.28 TO BRIDGE	119
BRIDGE TO STA. 199+47.73	120
TOTAL	239

48101200 AGGREGATE SHOULDERS, TYPE B

LOCATION	TONS
STA. 193+12.28 TO BRIDGE	99.9
BRIDGE TO STA. 199+47.73	99.9
TOTAL	199.8

63000000 STEEL PLATE BEAM GUARD RAIL, TYPE A

LOCATION	SIDE	LENGTH
STA 195+09.76 TO STA 195+59.76	LT.	50'
STA 193+96.28 TO STA 195+33.78	RT.	137.5'
STA 198+63.73 TO STA 197+26.23	LT.	137.5'
STA 197+50.25 TO STA 197+00.25	RT.	50'
TOTAL		375'

63100087 TRAFFIC BARRIER TERMINAL, TYPE 6A

LOCATION	SIDE	NO.
STA 195+91.01	LT.	1
STA 195+65.03	RT.	1
STA 196+94.98	LT.	1
STA 196+69.00	RT.	1
TOTAL		4

63100167 TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)

LOCATION	SIDE	NO.
STA 194+59.76	LT.	1
STA 193+46.28	RT.	1
STA 199+13.73	LT.	1
STA 198+00.25	RT.	1
TOTAL		4

63200310 GUARDRAIL REMOVAL

LOCATION	LENGTH
STA. 193+12.28 TO BRIDGE	225'
BRIDGE TO STA. 199+47.73	200'
TOTAL	425'

67000400 ENGINEER'S FIELD OFFICE, TYPE A CAL MO

67100100 MOBILIZATION LUMP SUM 0.5

70100405 TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 LUMP SUM 1.0

70100450 TRAFFIC CONTROL AND PROTECTION STANDARD 701201 LUMP SUM 0.5

70100460 TRAFFIC CONTROL AND PROTECTION STANDARD 701306 LUMP SUM 0.5

70100500 TRAFFIC CONTROL AND PROTECTION, STANDARD 701326 LUMP SUM 1.0

70103815 TRAFFIC CONTROL SURVEILLANCE CAL DAY 50

70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1

70106700 TEMPORARY RUMBLE STRIP EACH 6

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SCHEDULES OF QUANTITIES**

SCALE: VERT.      DRAWN BY C. SUNTKEN  
 HORIZ.              CHECKED BY M. ZELINSKAS  
 DATE 10/25/2006

PLOT DATE = 10/25/2006  
 FILE NAME = M:\PROJECTS\2006\BRIDGE\QUANT - FROM DBO\QUANT.dgn  
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 USER NAME = JUBERL



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

70300220 TEMPORARY PAVEMENT MARKING - LINE 4"

LOCATION	STAGE	SIDE	LENGTH
193+12.28 TO 199+47.73	STAGE 1	LEFT	636
191+60 TO 201+00	STAGE 1	RIGHT	940
191+60 TO 201+00	STAGE 2	LEFT	940
193+12.28 TO 199+47.73	STAGE 2	RIGHT	636
TOTAL			3152

78100100 RAISED REFLECTIVE PAVEMENT MARKERS EACH 8

78200410 GUARDRAIL MARKERS, TYPE A EACH 18

70300280 TEMPORARY PAVEMENT MARKING - LINE 24"

LOCATION	STAGE	LENGTH
191+60	STAGE 1	13
201+00	STAGE 1	13
TOTAL		26

78201000 TERMINAL MARKER - DIRECT APPLIED EACH 4

78300100 PAVEMENT MARKING REMOVAL

LOCATION	SIDE	SQ FT
191+60 TO 193+12.28	CENTER	13
199+47.73 TO 201+00	CENTER	13
193+12.28 TO 199+47.73	LEFT	212
193+12.28 TO 199+47.73	RIGHT	212
TOTAL		450

70301000 WORK ZONE PAVEMENT MARKING REMOVAL

LOCATION	STAGE	SIDE	LENGTH
193+12.28 TO 199+47.73	STAGE 1	LEFT	212
191+60 TO 201+00	STAGE 1	RIGHT	313
191+60 TO 201+00	STAGE 2	LEFT	313
193+12.28 TO 199+47.73	STAGE 2	RIGHT	212
191+60	STAGE 2		26
201+00	STAGE 2		26
TOTAL			1102

78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL EACH 8

70400100 TEMPORARY CONCRETE BARRIER

LOCATION	LENGTH
193+71.63 TO 198+88.38	516.75
TOTAL	516.75

Z0030250 IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3 EACH 2

70400200 RELOCATE TEMPORARY CONCRETE BARRIER

LOCATION	LENGTH
193+71.63 TO 198+88.38	516.75
TOTAL	516.75

Z0030350 IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3 EACH 2

78001110 PAINT PAVEMENT MARKING-LINE 4"

LOCATION	SIDE	LENGTH
193+12.28 TO 199+47.73	LEFT	636
193+12.28 TO 199+47.73	RIGHT	636
TOTAL		1272

78001130 PAINT PAVEMENT MARKING-LINE 6"

LOCATION	SIDE	LENGTH
191+60 TO 201+00	CENTER	235

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SCHEDULES OF QUANTITIES**

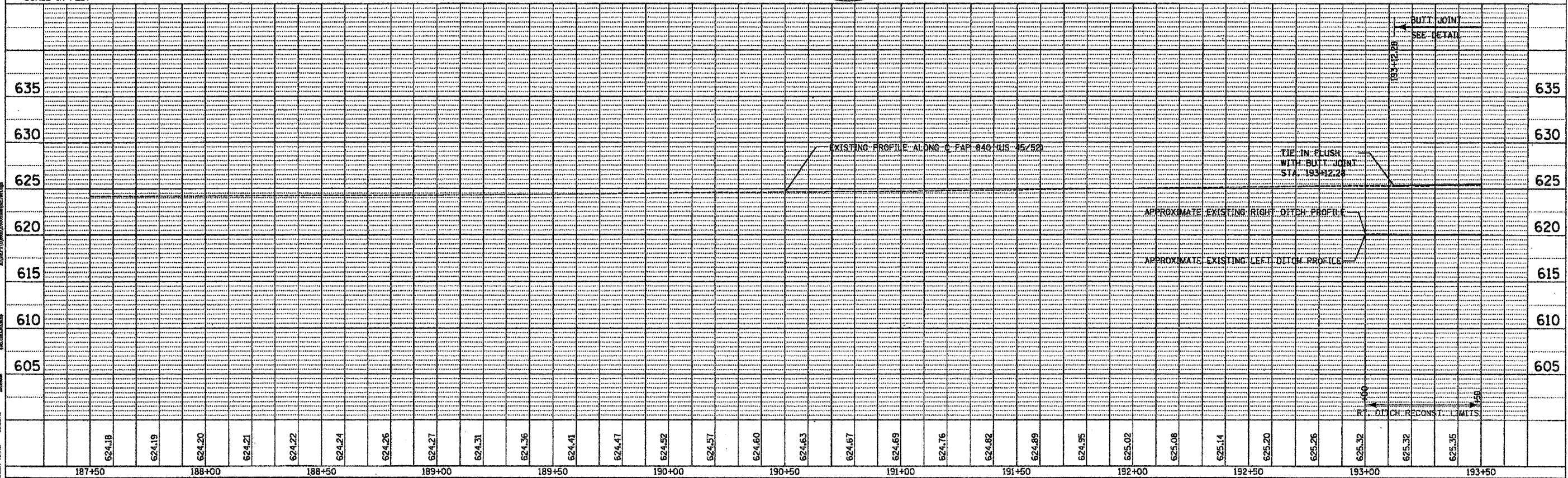
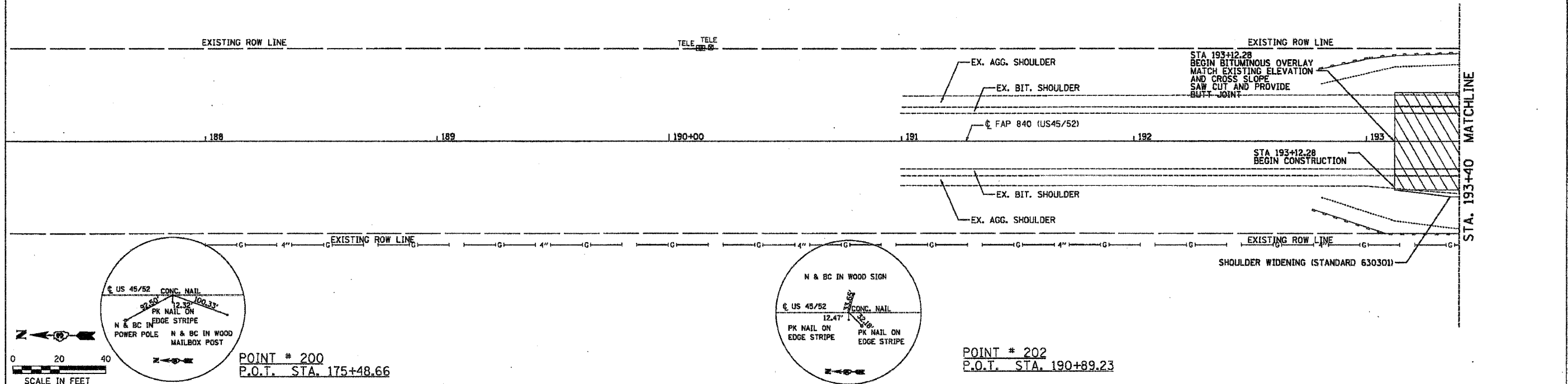
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HORIZ.  
DATE 10/25/2006

DRAWN BY C. SUNTKEN  
CHECKED BY M. ZELINSKAS

PLOT DATE = 10/25/2006  
 PLOT SCALE = 1/8"=1'-0"  
 PLOT USER = J. USER

CONTRACT NO. 665+3				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	12
STA. 187+30		TO STA. 193+40		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 PLOT SCALE: \_\_\_\_\_  
 USER NAME: \_\_\_\_\_

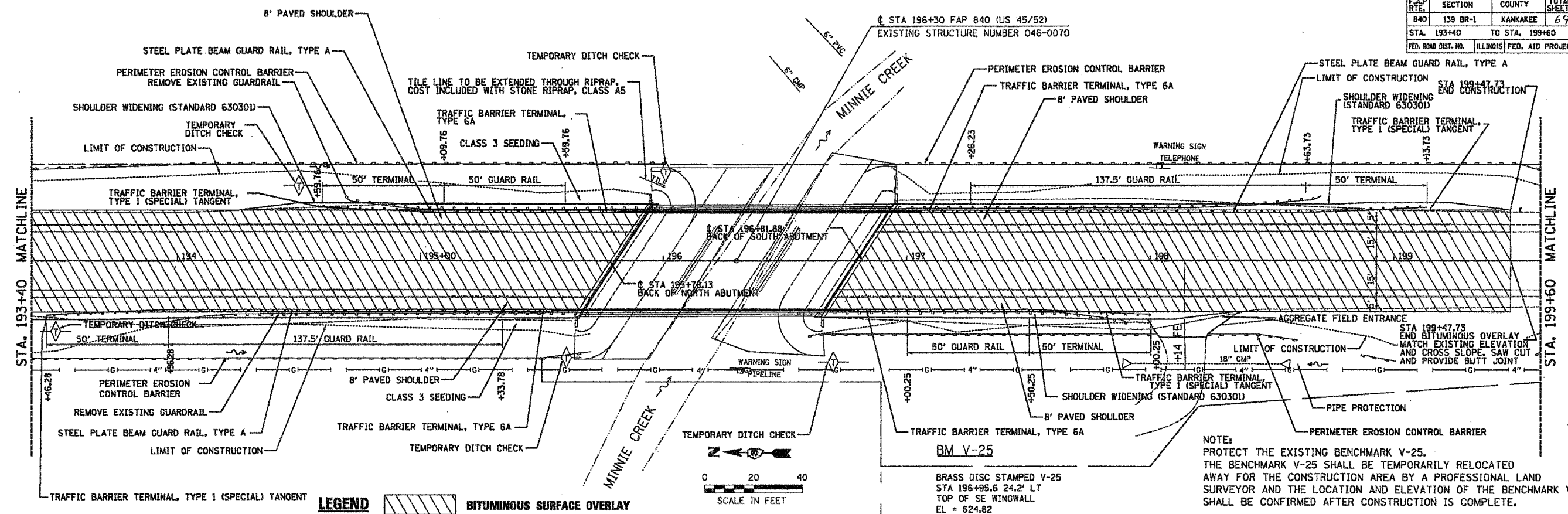


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 BY: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
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 USER NAME: \_\_\_\_\_

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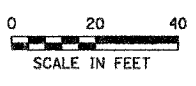
PLAN AND PROFILE — F.A.P. 840 (US 45/52) KANKAKEE COUNTY

CONTRACT NO. 665/3			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
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STA. 193+40		TO STA. 199+60	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

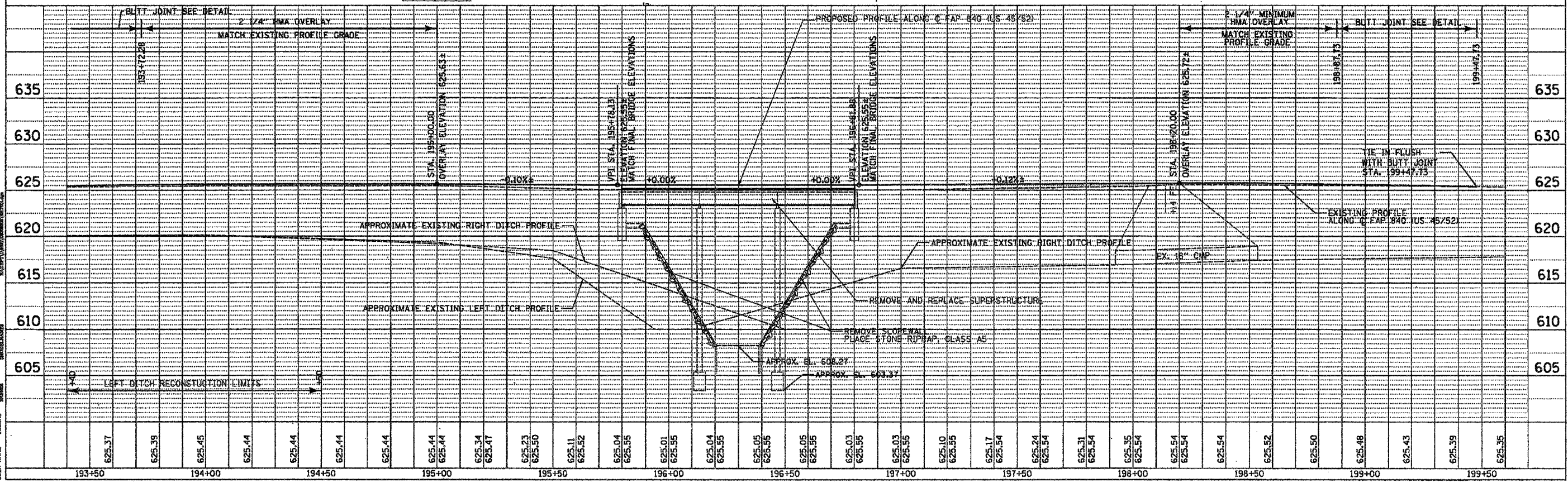


NOTE:  
 PROTECT THE EXISTING BENCHMARK V-25.  
 THE BENCHMARK V-25 SHALL BE TEMPORARILY RELOCATED AWAY FOR THE CONSTRUCTION AREA BY A PROFESSIONAL LAND SURVEYOR AND THE LOCATION AND ELEVATION OF THE BENCHMARK V-25 SHALL BE CONFIRMED AFTER CONSTRUCTION IS COMPLETE.

BM V-25  
 BRASS DISC STAMPED V-25  
 STA 196+95.6 24.2' LT  
 TOP OF SE WINGWALL  
 EL = 624.82



LEGEND BITUMINOUS SURFACE OVERLAY



PLAN AND PROFILE — F.A.P. 840 (US 45/52) KANKAKEE COUNTY

DATE	BY
REVISION	BY
PLAN	DATE
NOTE BOOK	NO.
FILE NAME	
STRUCTURE NOTATION	

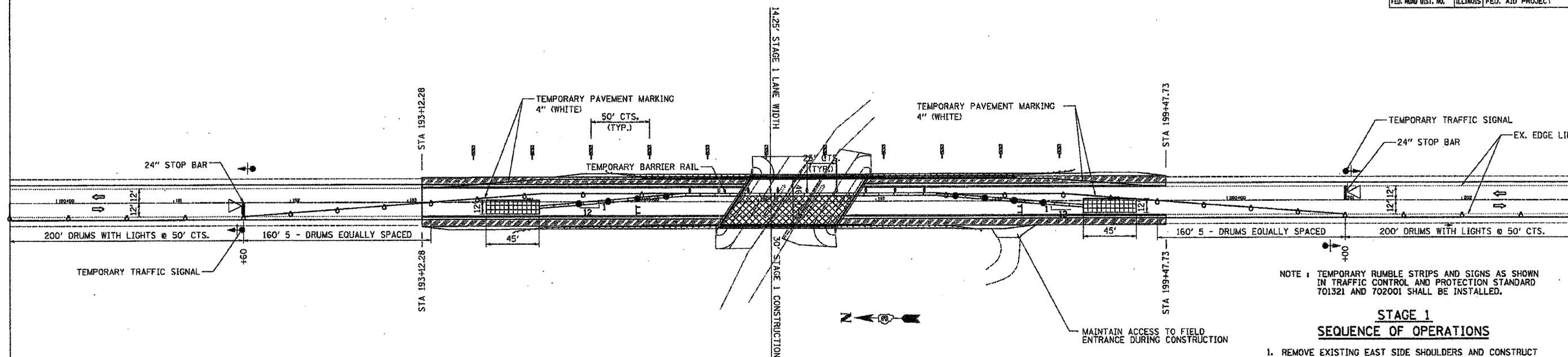
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REVISION	BY
PROFILE	DATE
NOTE BOOK	NO.
FILE NAME	
STRUCTURE NOTATION	

PLAT DATE = 10/12/2000  
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 PLOT SCALE = 8"=100'  
 USER NAME = LIBERT





F.A.P. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	15
STA. TO STA.		ILLINOIS FED. AID PROJECT		

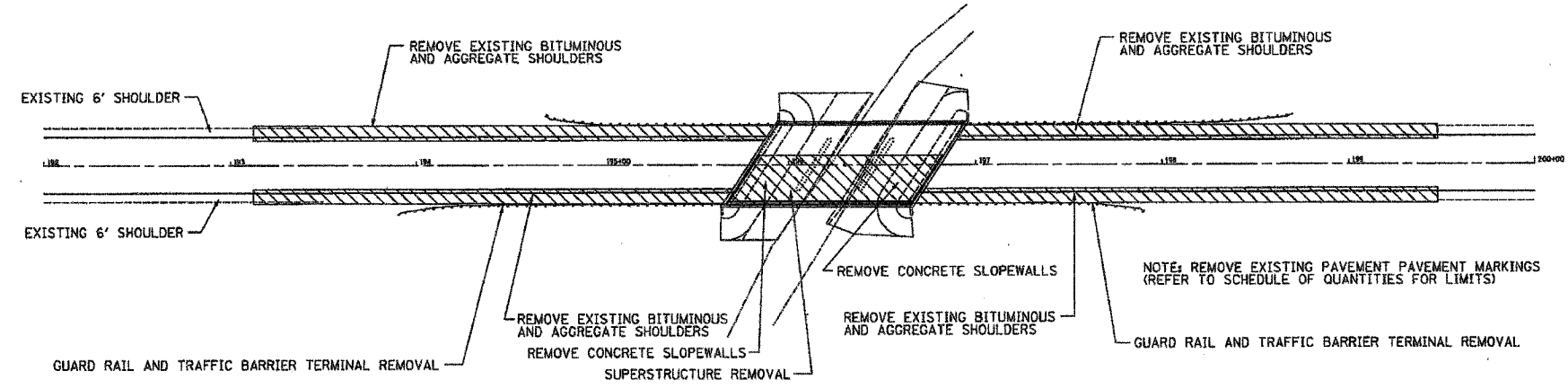


**TRAFFIC CONTROL SCHEMATIC**

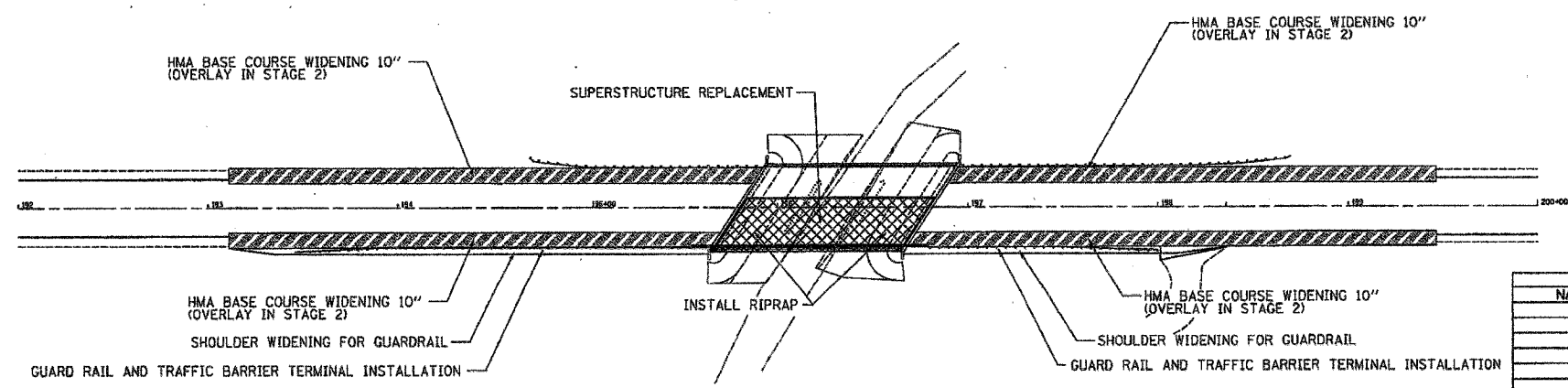
NOTE: TEMPORARY RUMBLE STRIPS AND SIGNS AS SHOWN IN TRAFFIC CONTROL AND PROTECTION STANDARD 701321 AND 702001 SHALL BE INSTALLED.

**STAGE 1 SEQUENCE OF OPERATIONS**

1. REMOVE EXISTING EAST SIDE SHOULDERS AND CONSTRUCT EAST SIDE HMA BASE COURSE WIDENING WITH THE AID OF TRAFFIC CONTROL AND PROTECTION STANDARD 701326.
2. INSTALL TEMPORARY TRAFFIC SIGNALS, ATTENUATOR BASES, ATTENUATORS, TEMPORARY CONCRETE BARRIERS AND DRUMS WITH THE AID OF TRAFFIC CONTROL AND PROTECTION STANDARDS 701201 AND 701006. ALL OTHER ITEMS AS PER THESE DETAILS AND AS PER LANE CLOSURE 2L, 2W, BRIDGE REPAIR WITH BARRIER STANDARD 701321. BEGIN OPERATING UNDER STAGE 1 TRAFFIC CONDITIONS WITH THE AID OF TRAFFIC CONTROL AND PROTECTION STANDARD 701201 AND 701006.
3. REMOVE EXISTING WEST SIDE SHOULDERS, GUARDRAIL & TRAFFIC BARRIER TERMINALS, EXCAVATE, AND REMOVE PORTION OF EXISTING SUPER-STRUCTURE AND CONCRETE SLOPEWALLS.
4. INSTALL RIPRAP. CONSTRUCT NEW PORTIONS OF PROPOSED SUPER-STRUCTURE, BACKFILL, COMPACT. INSTALL WEST SIDE HMA BASE COURSE WIDENING. INSTALL GUARDRAILS AND TRAFFIC BARRIER TERMINALS.



**REMOVAL SCHEMATIC**



**CONSTRUCTION SCHEMATIC**

**LEGEND**

- STRUCTURAL WORK AREA
- REMOVAL AREA (SEE NOTES)
- HMA BASE COURSE WIDENING 10"
- TYPE III BARRICADE
- MICROWAVE DETECTOR
- TRAFFIC SIGNALS WITH BACKPLATE
- DRUM WITH STEADY BURNING LIGHT
- STOP LINE 24"
- TEMPORARY IMPACT ATTENUATOR (NON-REDIRECTIVE) RESERVE AREA
- DOUBLE VERTICAL PANEL
- TYPE C BIDIRECTIONAL REFLECTOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANEL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**STAGE 1 CONSTRUCTION**

SCALE: VERT. HORIZ. DATE 10/13/2006

DRAWN BY C. SUNTKEN CHECKED BY M. ZELINSKAS

PLOT DATE = 10/13/2006  
 PLOT SCALE = 1"=40'  
 PLOT MAKE = JAGGED  
 PLOT MAKE = JAGGED  
 PLOT MAKE = JAGGED  
 PLOT MAKE = JAGGED



Bench Mark: Brass disk stamped V-25, Top of SE wingwall  
Elev. 624.60

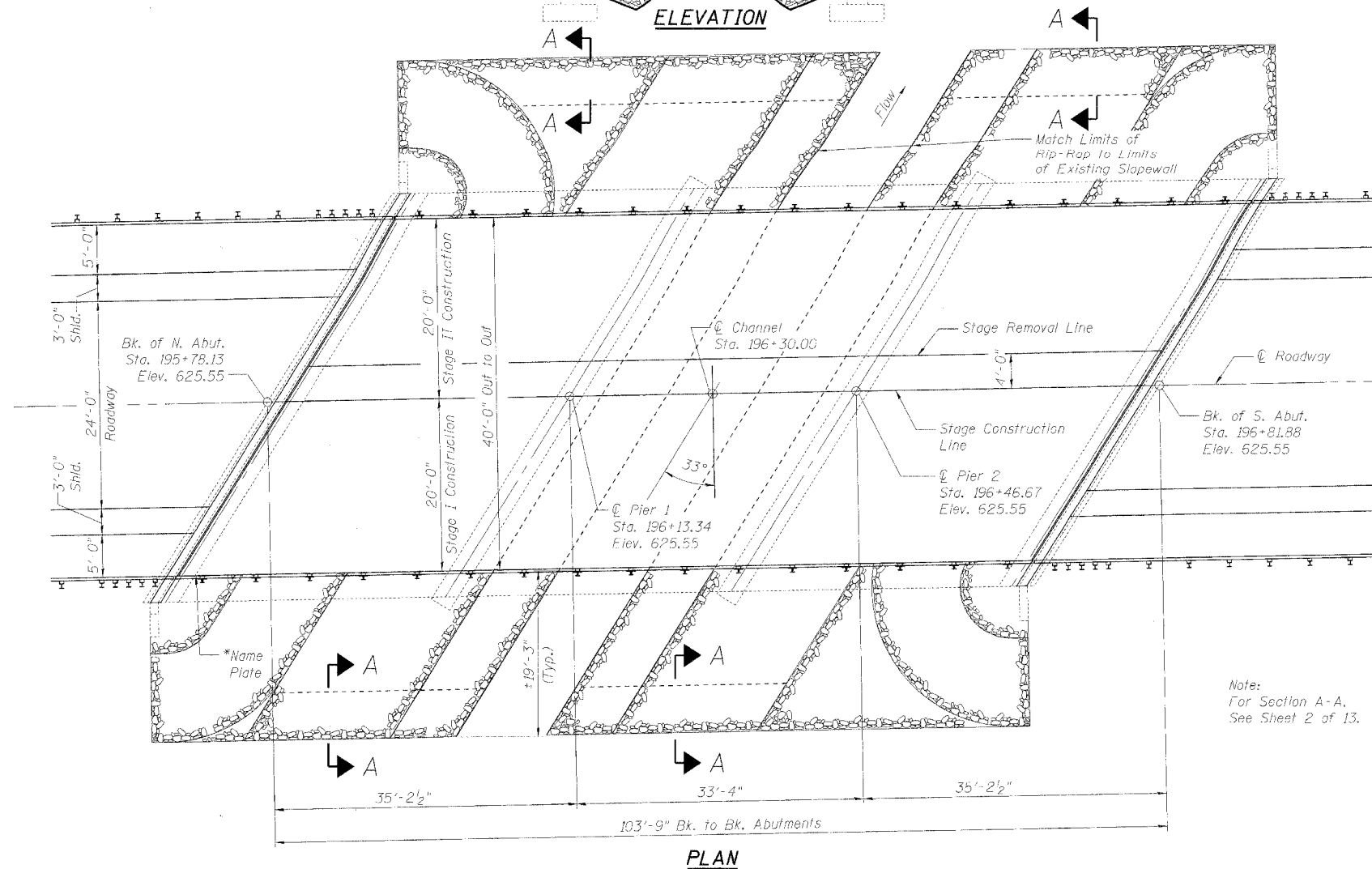
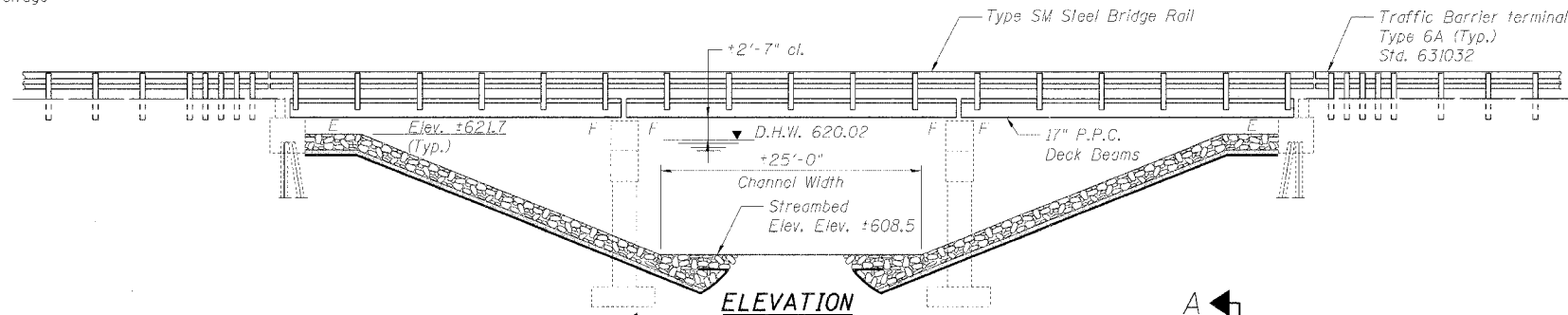
Existing Structure: S.N. 046-0070, three span, 103'-9" back to back of abutments, 46'-0" Out to Out.  
Precast, Prestressed Concrete Deck Beams on Open Pile Bent Abutments and Solid  
Wall Hammerhead Piers. Built as S.B.I. Route 49, Section 139 BR in 1971  
Traffic to be maintained utilizing stage construction.

No Salvage

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. 1
F.A.P. 840	139 BR-1	KANKAKEE	69 17	13 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #66543



INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Stage Construction Details
4. Temporary Concrete Barrier
5. Superstructure Details
6. Preformed Joint Strip Seal
7. Superstructure Details
8. Superstructure Details
9. Type SM Steel Bridge Rail
10. Concrete Removal Details
11. North Abutment
12. South Abutment
13. Bar Splicer

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$  psi  
 $f'_c = 5,000$  psi (concrete wearing surface)  
 $f_y = 36,000$  psi (structural steel)  
 $f_y = 60,000$  psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$  psi  
 $f'_c = 4,000$  psi  
 $f'_s = 270,000$  psi ( $1/2$ "  $\phi$  Low Lax Strands)  
 $f'_s = 202,000$  psi ( $1/2$ "  $\phi$  Low Lax Strands)

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th ed.

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

STATION 196+30  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.P. 840 SEC. 139 BR-1  
LOADING HS 20  
STR. NO. 046-0070

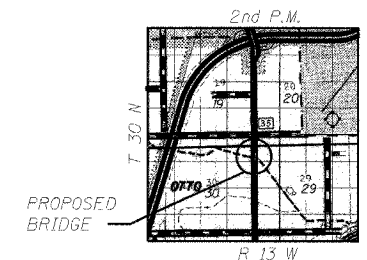
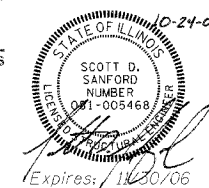
NAME PLATE  
See Std. 515001

Attach to backside of 8" rail element

\* Existing Name Plate shall be removed, cleaned and reattached adjacent to the new name plate. Cost included with "Name Plates".

APPROVED  
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson  
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

GENERAL PLAN & ELEVATION  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 196+30.00  
STRUCTURE NO. 046-0070

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.



WATERWAY INFORMATION

Drainage Area = 19.44 Sq. Mi. Low Grade Elev. = 623.43 feet @ Sta. 206+00

Flood	Freq. Yr.	Opening Sq. Ft.		Nat. Head - Ft.		Headwater El.	
		Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.
Design	50	2266	466	621.02	0.46	0.46	621.48
Base	100	2564	472	621.12	0.57	0.57	621.69
Overlapping							
Max. Calc.	500	3258	497	621.50	0.84	0.84	622.34



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 840	139 BR-1	KANKAKEE	69	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #66543

SHEET NO. 2  
13 SHEETS

**GENERAL NOTES**

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The Contractor is advised that the existing PPC Deck Beams are in deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedures shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels, and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats, the following shall be done: placements and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum, and grouting and curing the shear keys.

A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.

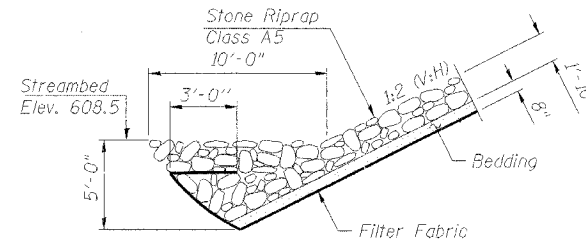
All structural steel shall conform to AASHTO classification M270 Gr. 36 unless otherwise noted.

All structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with "Furnishing and Erecting Structural Steel".

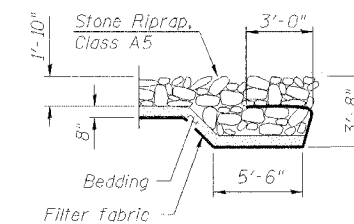
Repair of the pier caps shall be completed prior to placement of the new Deck Beams.

All construction joints shall be bonded.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.



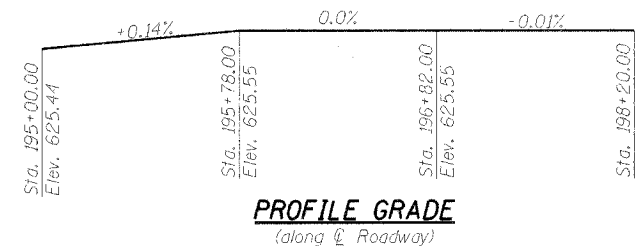
**STONE RIPRAP ANCHOR DETAIL**



**SECTION A-A**

**TOTAL BILL OF MATERIAL**

Item	Unit	Super	Sub.	Total
Stone Riprap, Class A5	Sq. Yd.		1008	1008
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		6.0	6.0
Slope Wall Removal	Sq. Yd.		800	800
Concrete Structures	Cu. Yd.		8.0	8.0
Bridge Deck Grooving	Sq. Yd.	422		422
Protective Coat	Sq. Yd.	444		444
Concrete Wearing Surface, 5"	Sq. Yd.	444		444
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	3988		3988
Furnishing and Erecting Structural Steel	Pound	3686	153	3839
Reinforcement Bars, Epoxy Coated	Pound	5510	1460	6970
Steel Bridge Rail, Type SM	Foot	208		208
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	95		95
Asbestos Bearing Pad Removal	Each	48		48
Bar Splicers	Each	101	12	113
Filter Fabric	Sq. Yd.		1008	1008
Anchor Bolts, 1"	Each		6	6



**PROFILE GRADE**

(along C Roadway)

\* Elevations shall be adjusted in the field as necessary to provide a minimum concrete wearing surface thickness of 5" as shown on sheet 5 of 13.

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

**WHKS & CO.**  
ENGINEERS PLANNERS LAND SURVEYORS  
MASON CITY, IA EAST DUBUQUE, L ANES, IA SPRINGFIELD, L ROCHESTER, MN

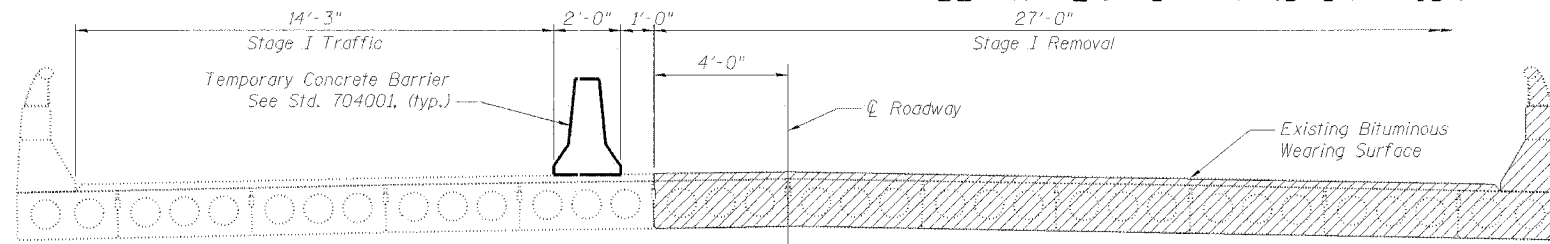
**GENERAL DATA**  
**US ROUTE 45/52 OVER MINNIE CREEK**  
**F.A.P. 840 SEC. 139 BR-1**  
**KANKAKEE COUNTY**  
**STATION 196+30.00**  
**STRUCTURE NO. 046-0070**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

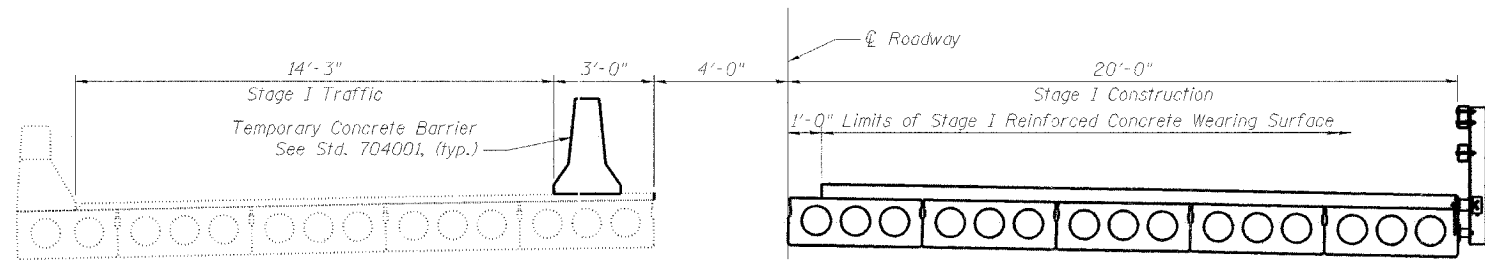
ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.
F.A.P. 840	139 BR-1	KANKAKEE	69	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #66543

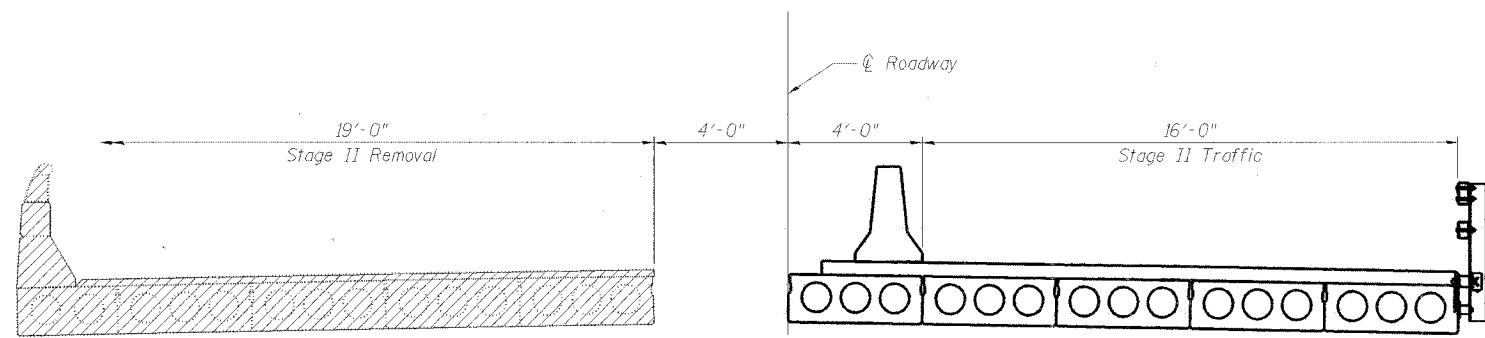
SHEET NO. 3  
13 SHEETS



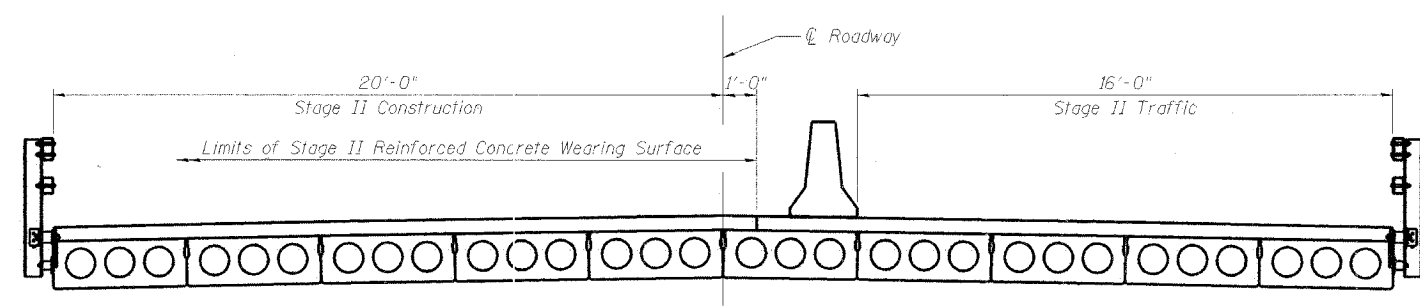
**STAGE I REMOVAL**



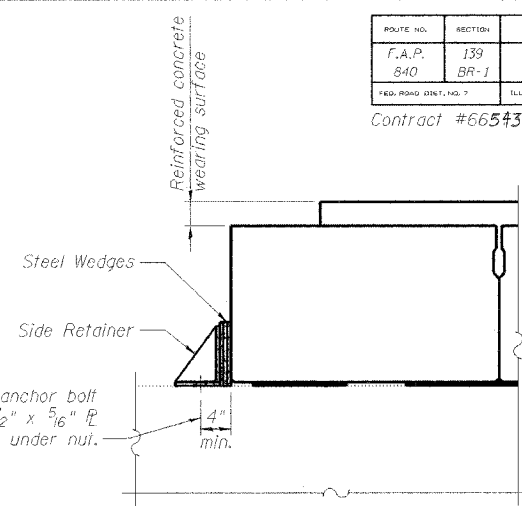
**STAGE I CONSTRUCTION**



**STAGE II REMOVAL**



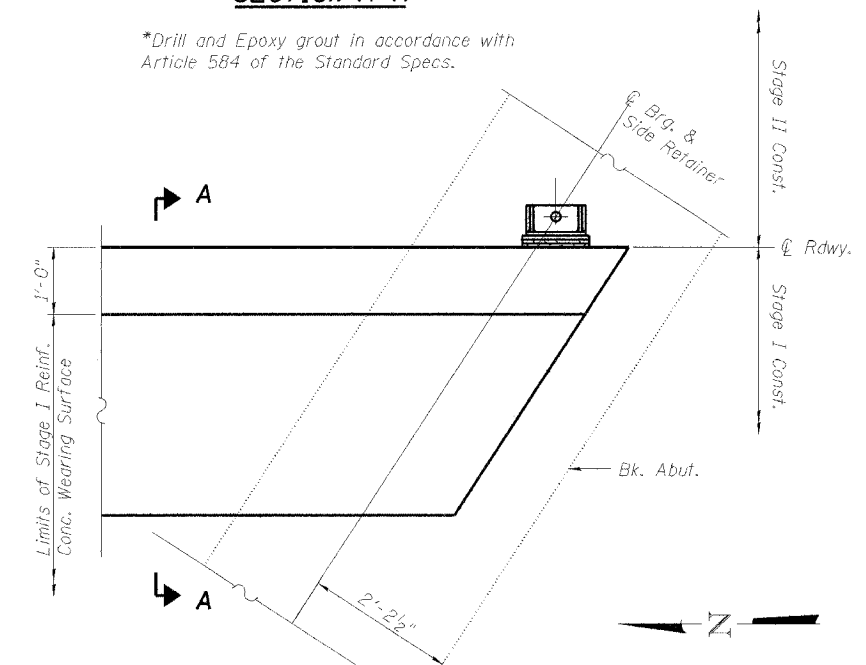
**STAGE II CONSTRUCTION**



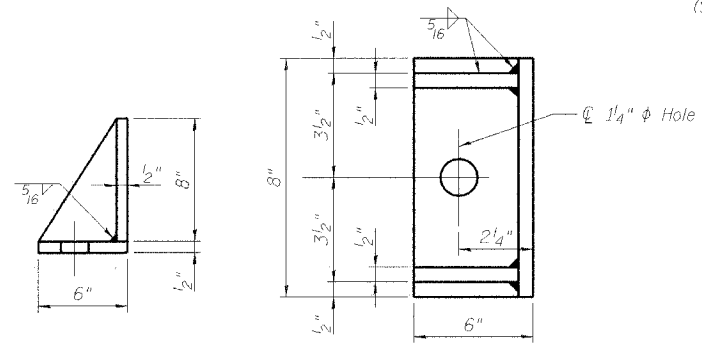
**SECTION A-A**

Notes:  
After Reinf. concrete surface is poured and cured the retainer angles shall be removed. Anchor Bolts shall be cut-off flush and covered with a layer of epoxy grout. Cost of side retainer and accessories is included with "Furnishing and Erecting Structural Steel".

\*Drill and Epoxy grout in accordance with Article 584 of the Standard Specs.



**PLAN**  
(Showing South Abutment)  
(North Abutment similar)



**SIDE RETAINER**

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

**STAGE CONSTRUCTION DETAILS**  
**US ROUTE 45/52 OVER MINNIE CREEK**  
**F.A.P. 840 SEC. 139 BR-1**  
**KANKAKEE COUNTY**  
**STATION 196+30.00**  
**STRUCTURE NO. 046-0070**

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

**WHKS & CO.**

ENGINEERS PLANNERS LAND SURVEYORS

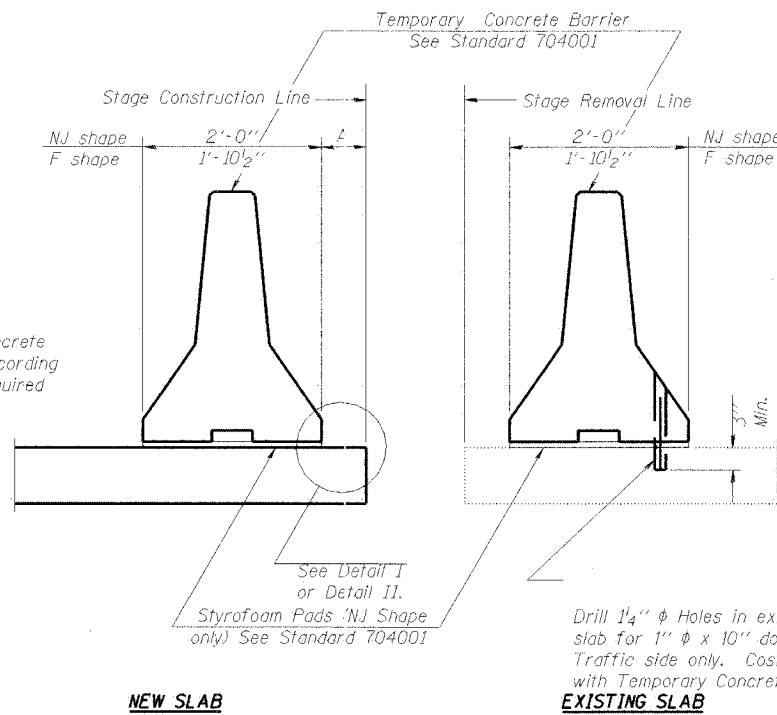
MASON CITY, IA EAST DUBUQUE, I AMES, IA SPRINGFIELD, I ROCHESTER, MN

Note:  
Hatched areas indicate Removal of Existing Superstructures.  
All cross-sections are looking South.  
All dimensions are at right angles to  $\phi$  Roadway.  
For quantity of Temporary Concrete Barrier, see Roadway Plans.  
Removal of existing bridge rail is included with Removal of Existing Superstructures.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4
F.A.P. 840	139 BR-1	KANKAKEE	69	20	13 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #66543

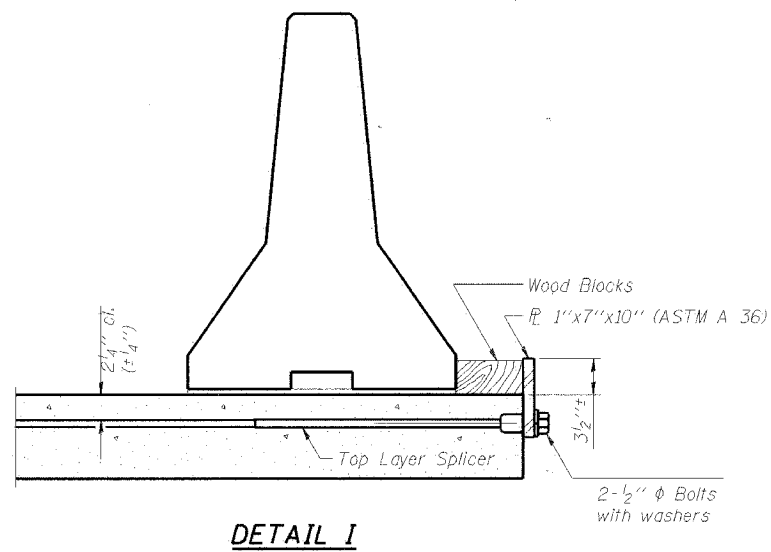


When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

**NOTES**

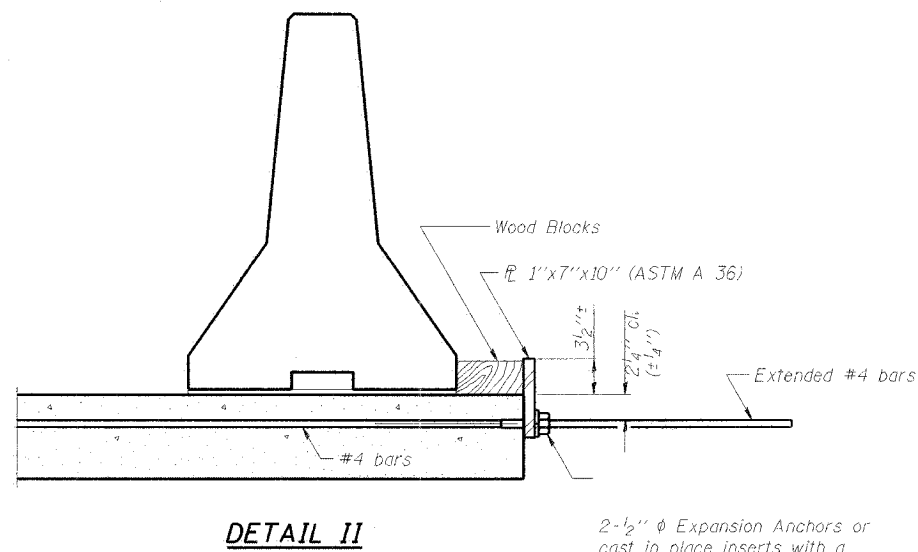
- Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel  $\bar{r}$  to the top layer of couplers with 2-1/2"  $\phi$  bolts screwed to coupler at approximate  $\bar{c}$  of each barrier panel.
- Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1"x7"x10" steel  $\bar{r}$  to the concrete slab with 2-1/2"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{c}$  of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.

**SECTIONS THRU SLAB**



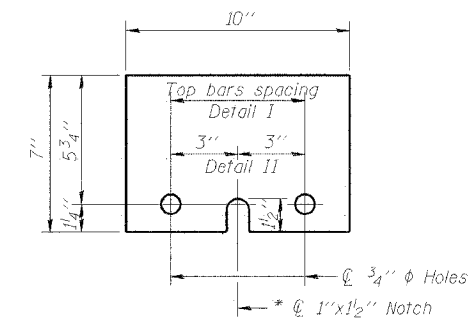
**DETAIL I**

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



**DETAIL II**

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



**1"x7"x10"**

\* Required only with Detail II

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.



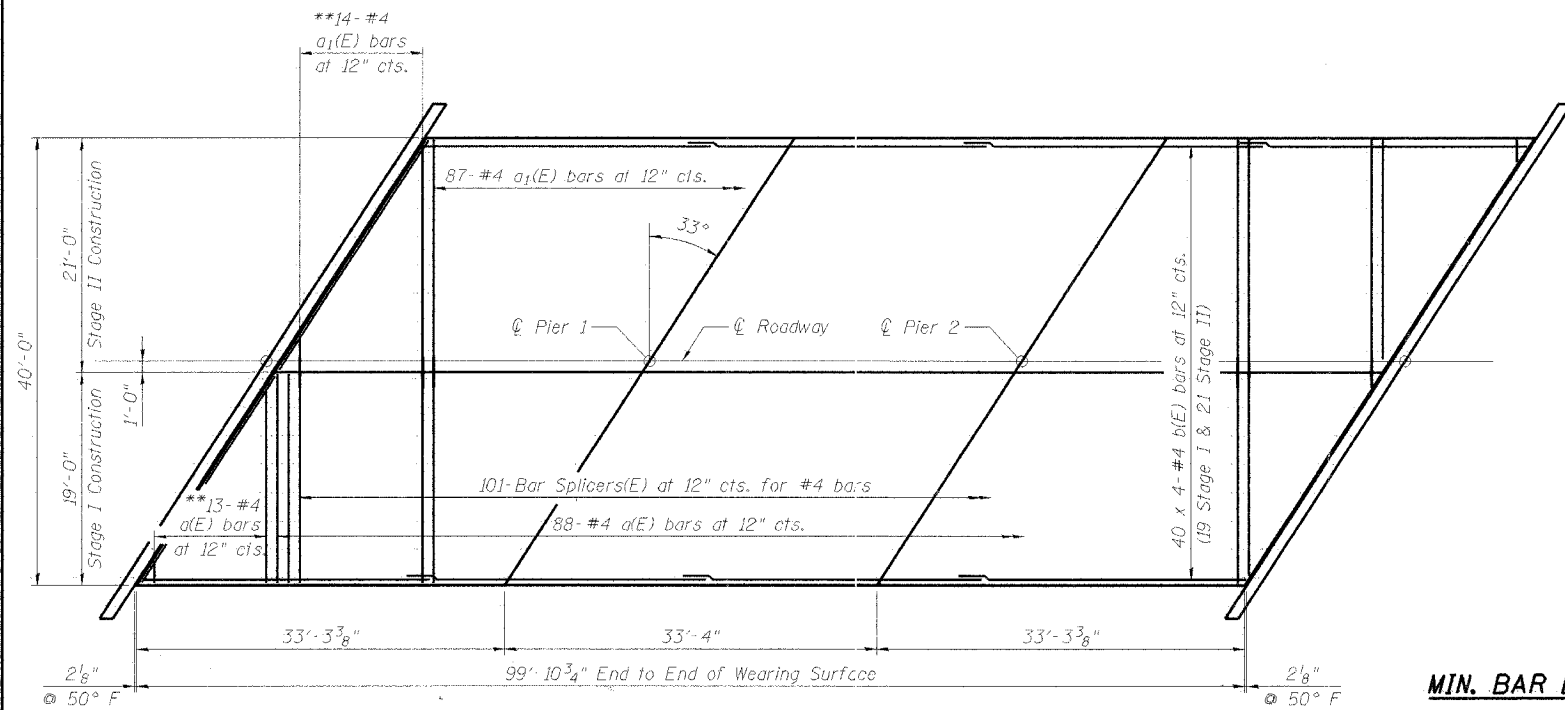
10-22-04

**TEMPORARY CONC. BARRIER  
FOR STAGE CONSTRUCTION  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 196+30.00  
STRUCTURE NO. 046-0070**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5
F.A.P. 840	139 BR-1	KANKAKEE	69	21	13 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

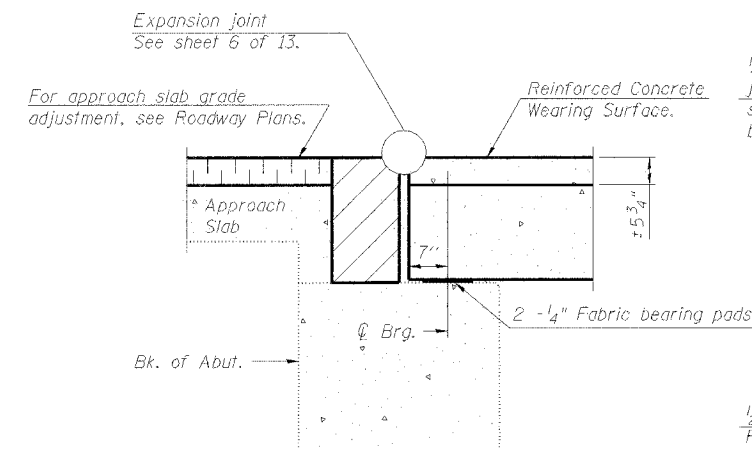
Contract #66543



**REINFORCED CONCRETE WEARING SURFACE PLAN**

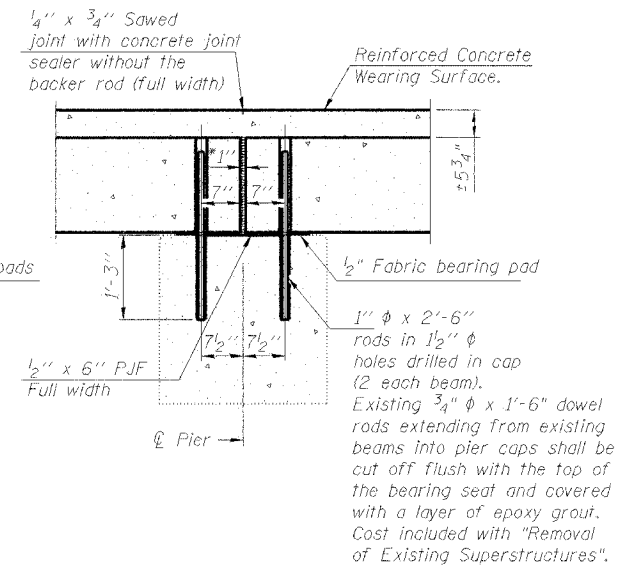
\*\* Order a(E) and a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

**MIN. BAR LAP**  
#4 bar = 1'-3"



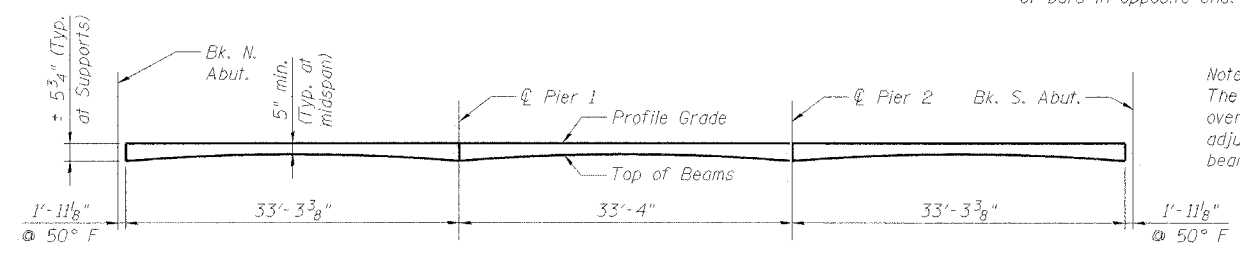
**SECTION THRU ABUTMENT**

**Notes:**  
All horizontal dimensions are at right angles to the beam. Hatched area to be poured after concrete wearing surface is in place. See sheet 7 of 13 for bearing pad details. After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys. Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus, 40 x 4 - #4 etc. indicates 40 lines of bars with 4 lengths per line.



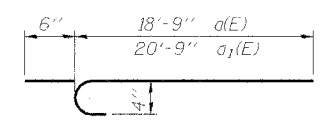
**SECTION THRU FIXED PIER**

\* 1" jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

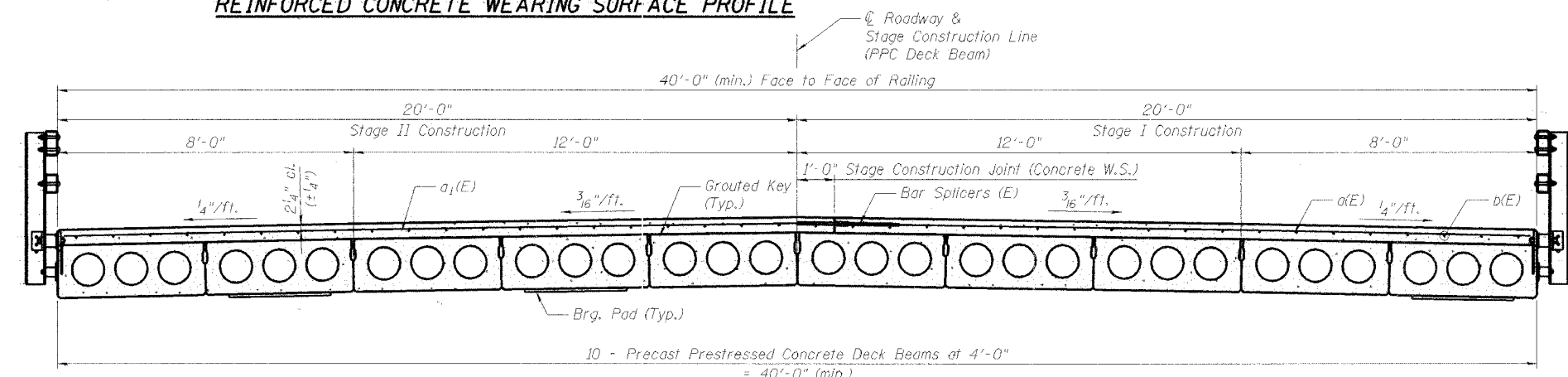


**REINFORCED CONCRETE WEARING SURFACE PROFILE**

**Note:**  
The thickness of the concrete overlay varies as required to adjust for the profile grade and beam camber.



**BARS a(E) & a1(E)**



**CROSS SECTION**  
(Looking South)

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	101	#4	19'-3"	U
a1(E)	101	#4	21'-3"	U
b(E)	160	#4	25'-11"	—
Concrete Wearing Surface, 5"		Sq. Yd.	444	
Reinforcement Bars, Epoxy Coated		Lb.	5510	

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

**WHKS & CO.**  
ENGINEERS PLANNERS LAND SURVEYORS  
MASON CITY, IA EAST DUBUQUE, IA AMES, IA SPRINGFIELD, IL ROCHESTER, MN

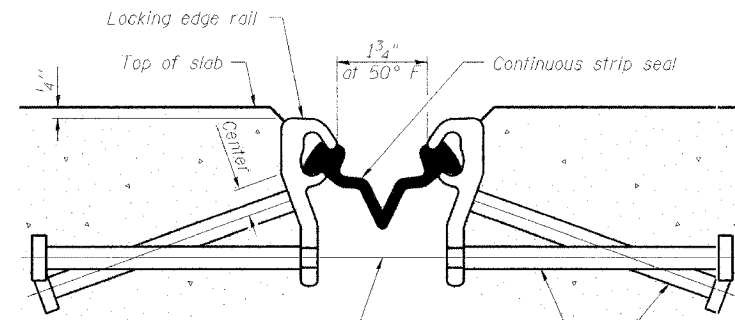
**SUPERSTRUCTURE DETAILS**  
**US ROUTE 45/52 OVER MINNIE CREEK**  
**F.A.P. 840 SEC. 139 BR-1**  
**KANKAKEE COUNTY**  
**STATION 196+30.00**  
**STRUCTURE NO. 046-0070**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO. 6 13 SHEETS
F.A.P. 840	139 BR-1	KANKAKEE	69	22	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #66543

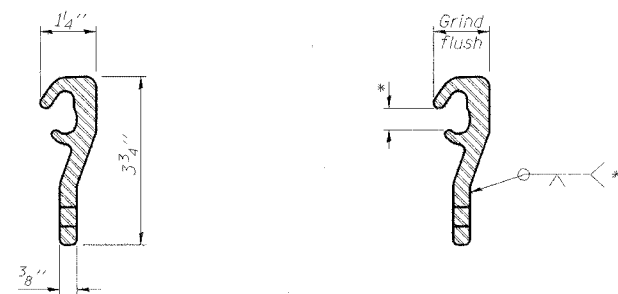
\* Omit weld at seal opening.



$\frac{7}{16}$ "  $\phi$  holes at 4'-0" cts. for  $\frac{3}{8}$ "  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Place  $\frac{1}{2}$ "  $\phi$  x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.

**SECTION THRU STRIP SEAL JOINT  
FOR OVERLAY OVER DECK BEAMS**



**LOCKING EDGE RAIL**

**LOCKING EDGE RAIL SPLICE**

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of  $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	foot	95

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.



**BRIDGE JOINT SYSTEM - EXPANSION  
(PREFORMED JOINT SEAL)  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 196+30.00  
STRUCTURE NO. 046-0070**

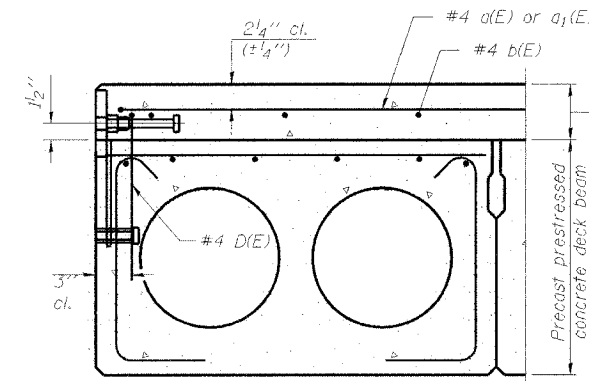
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.P. 840	139 BR-1	KANKAKEE	69	23
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 7

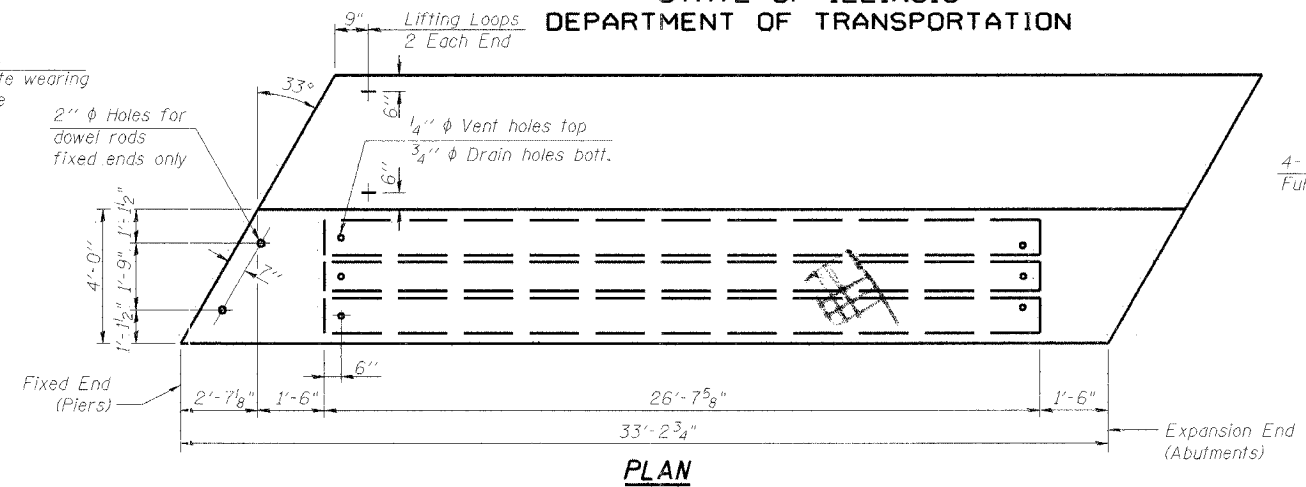
13 SHEETS

Contract #66543

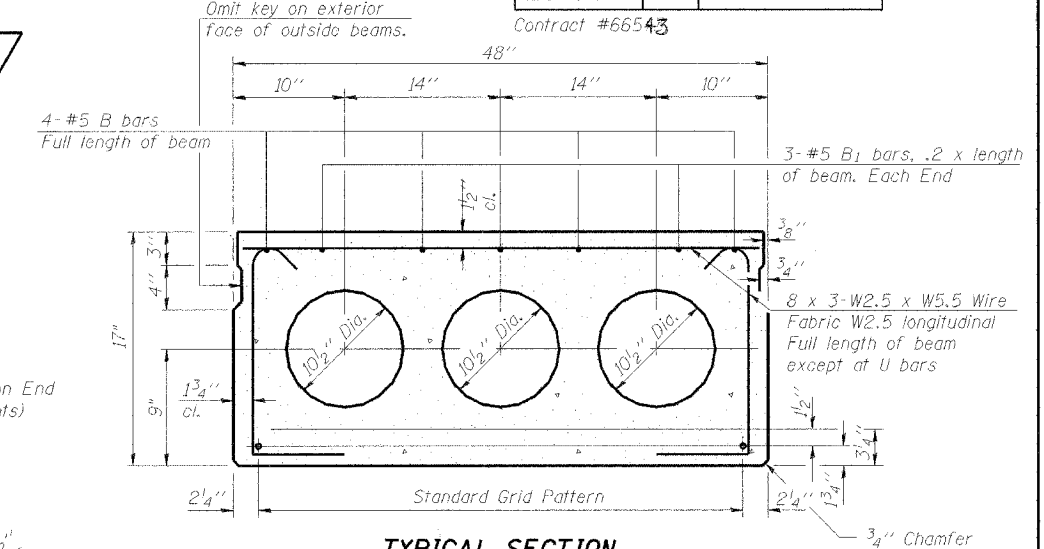


**SECTION THRU EXTERIOR BEAMS AT RAIL ANCHORAGE**

See Typical Section for strand patterns, dimensions and bar call outs.



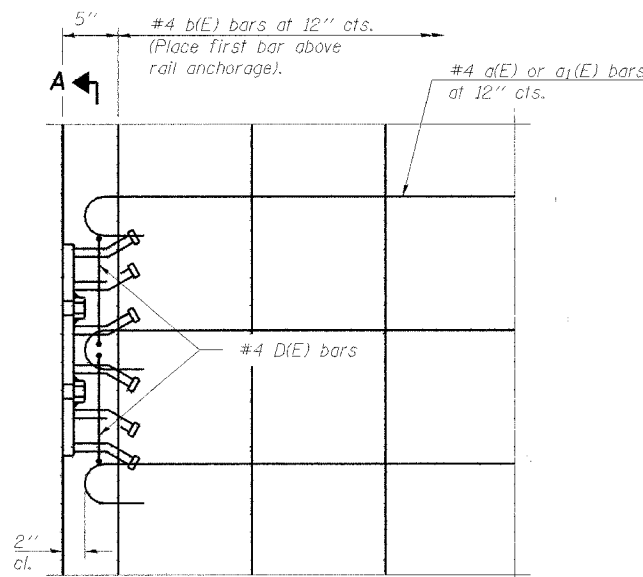
**PLAN**



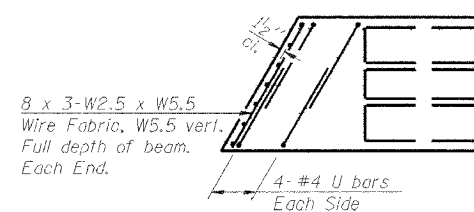
**TYPICAL SECTION**

12 - 1/2"  $\phi$  Strands, Each Strand Stressed to 30,900 Lbs.  
8 - Strands 1 3/4" up, 4 - Strands 3/4" up

Note:  
Place strands symmetrically about  $\phi$  of beam.

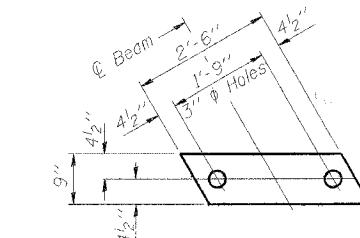


**PLAN**

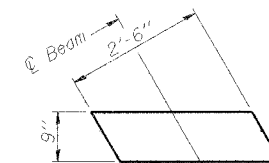


**END PLAN**

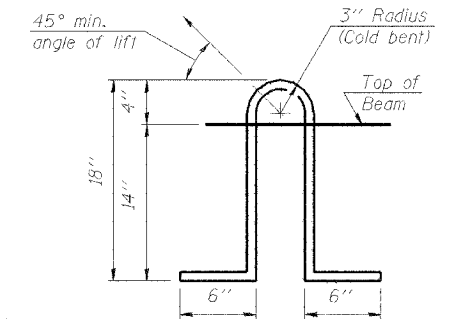
Notes:  
The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.



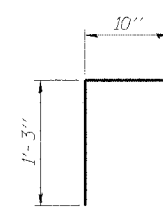
**FABRIC BEARING PAD - FIXED**  
(40 Req'd.)



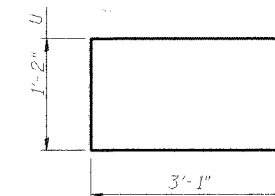
**FABRIC BEARING PAD - EXPANSION**  
(40 Req'd.)



**LIFTING LOOP DETAIL**



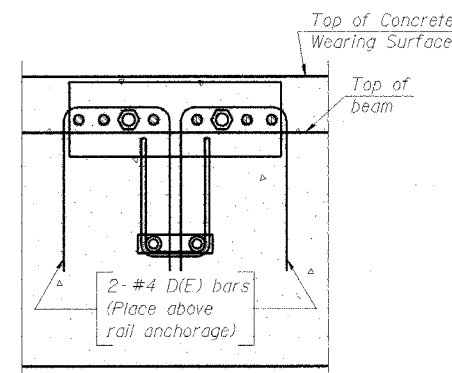
**BAR D(E)**



**BAR U**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
Precast Prestr. Conc. Deck Bms. (17" Depth)		Sq. Ft.	3988	



**SECTION A-A**

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

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**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2 - 1/2"  $\phi$  - 270 ksi strands, as shown. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Fabric Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength,  $f'_{ci}$ , shall be 4,000 p.s.i.

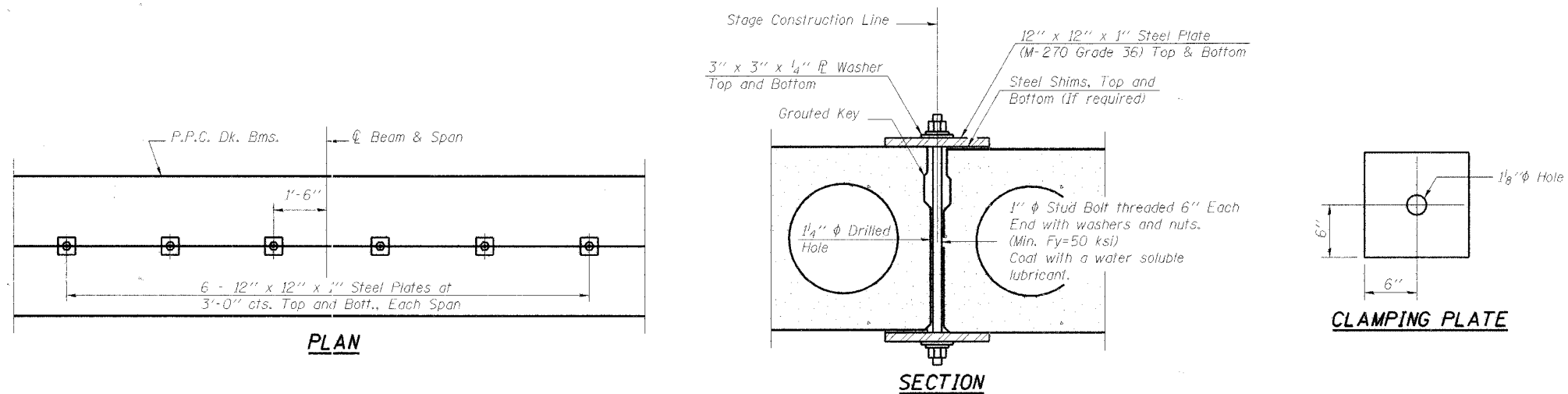
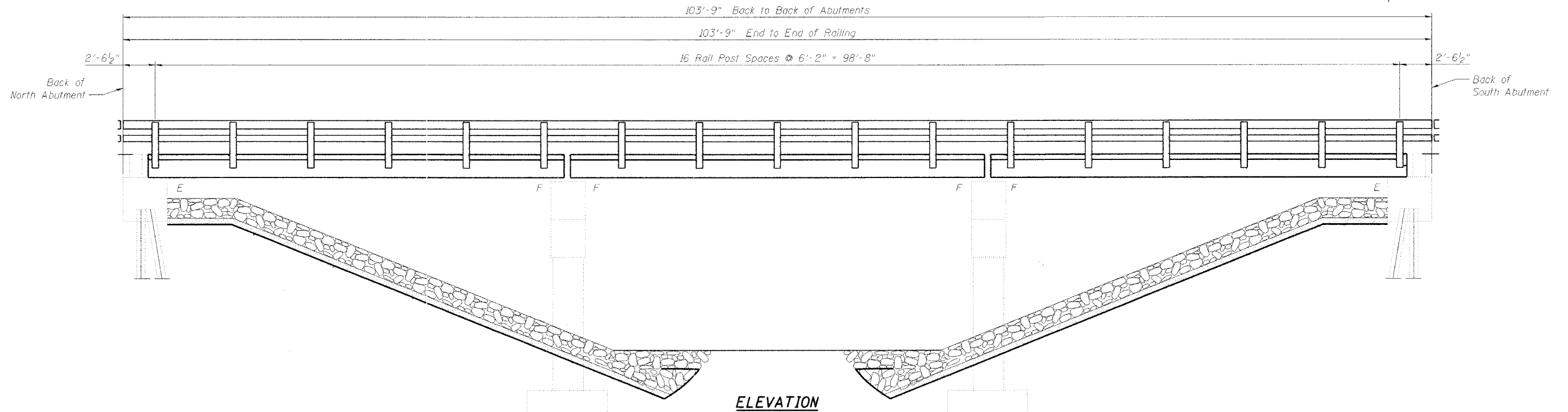
Note:  
Work this sheet with Sheet 8 of 13.

**SUPERSTRUCTURE DETAILS**  
**US ROUTE 45/52 OVER MINNIE CREEK**  
**F.A.P. 840 SEC. 139 BR-1**  
**KANKAKEE COUNTY**  
**STATION 196+30.00**  
**STRUCTURE NO. 046-0070**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8
F.A.P. 840	139 BR-1	KANKAKEE	69	24	13 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #66543



SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

See Special Provisions for Stage Construction of Precast Prestressed Concrete Deck Beams.  
Cost included with "Precast Prestressed Concrete Deck Beams".  
See Stage Construction Details for traffic lanes.

Note:  
Work this sheet with Sheet 7 of 13.

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

**WHKS & CO.**  
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MASON CITY, IA EAST DUNDEE, IL AMES, IA SPRINGFIELD, IL ROCHESTER, MN

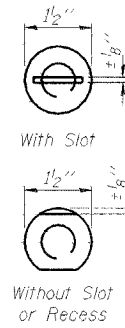
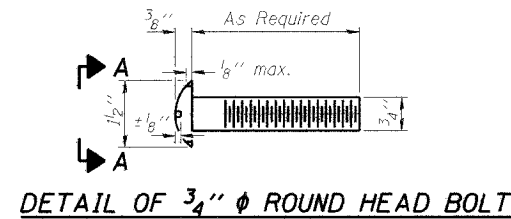
**SUPERSTRUCTURE DETAILS**  
**US ROUTE 45/52 OVER MINNIE CREEK**  
**F.A.P. 840 SEC. 139 BR-1**  
**KANKAKEE COUNTY**  
**STATION 196+30.00**  
**STRUCTURE NO. 046-0070**



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

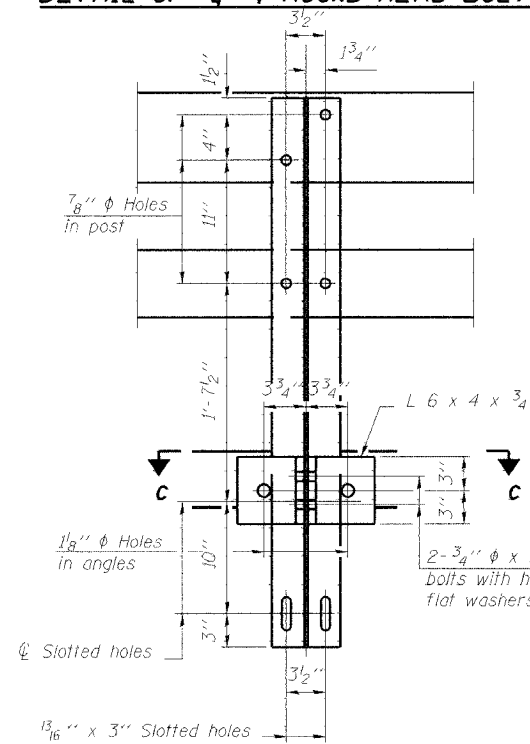
ROUTE NO.	SECTION	CLASS.	SPANS	SHEET NO.	SHEET NO.
F.A.P. 840	139 BR-1	KANKAKEE	69	25	13 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #66543

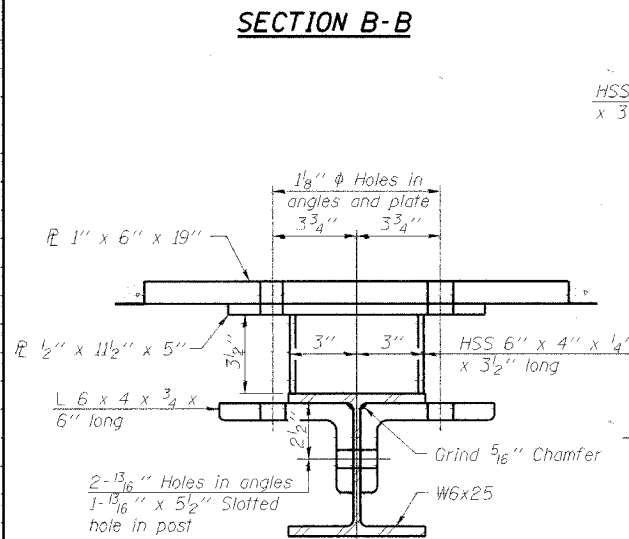


VIEW A-A

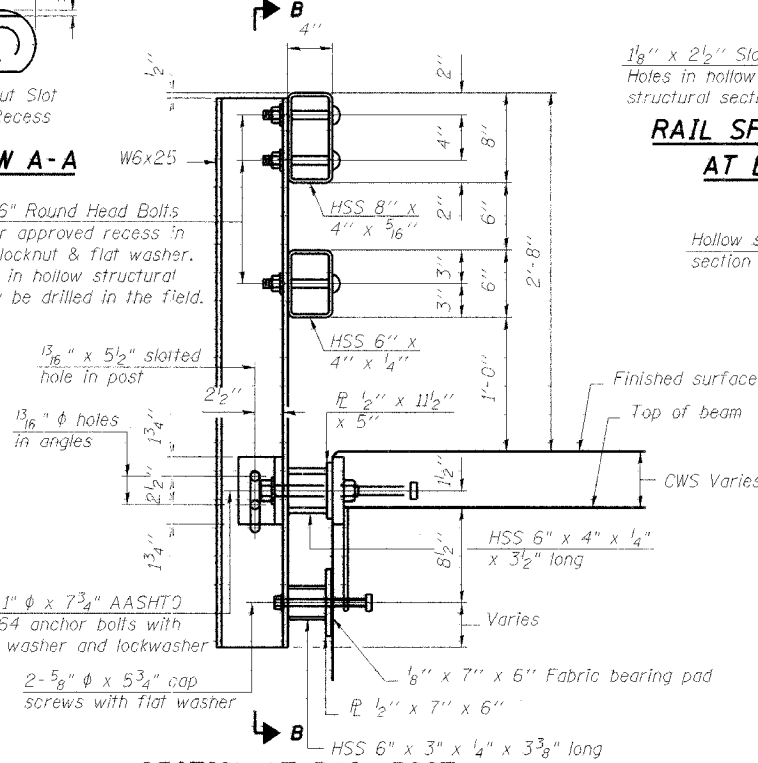
4- 3/4"  $\phi$  x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8"  $\phi$  holes in hollow structural section may be drilled in the field.



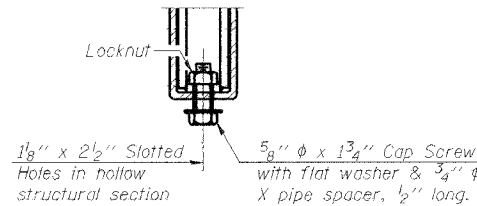
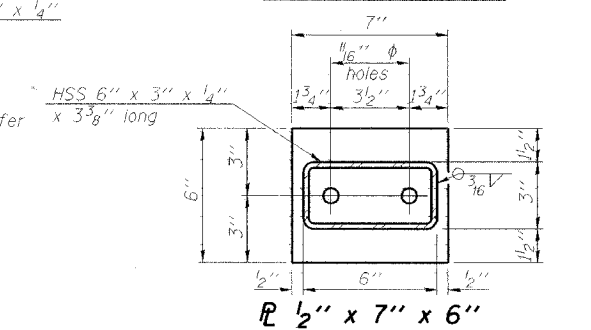
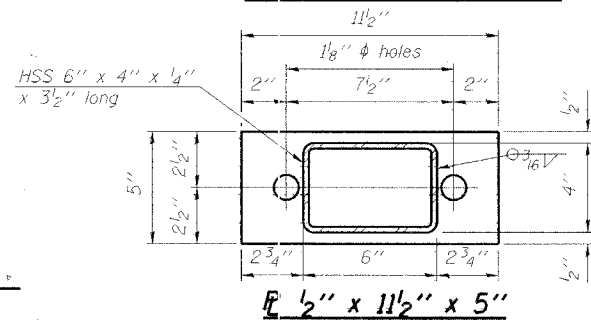
SECTION B-B



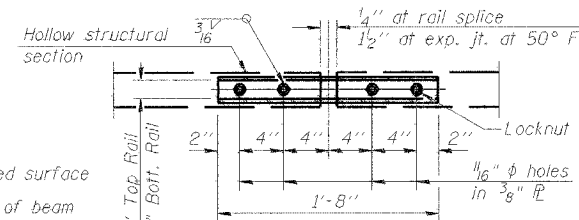
SECTION C-C



SECTION AT RAIL POST

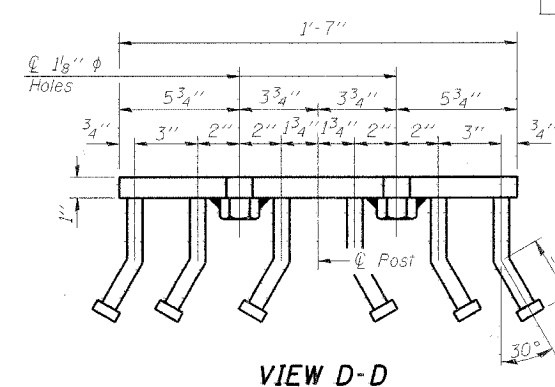


RAIL SPLICE CONNECTION AT EXPANSION JT.

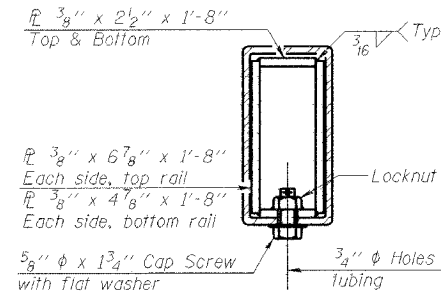


PLAN-BOTT. SPLICE P TYPICAL

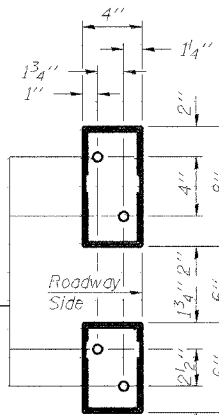
$\phi$  - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



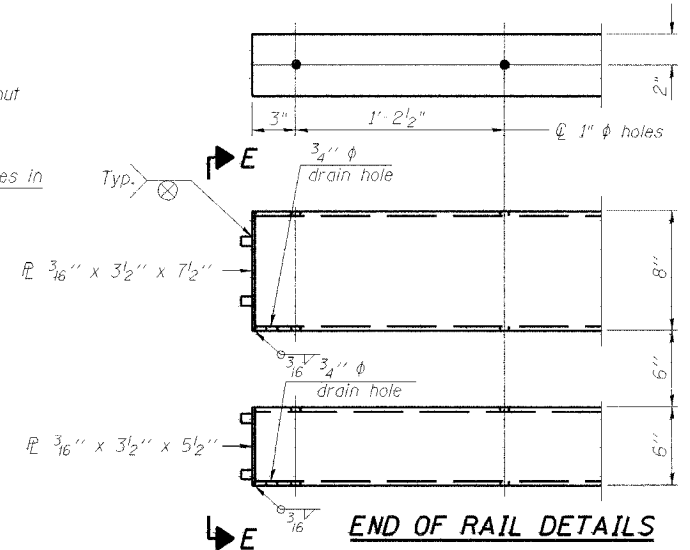
VIEW D-D



SECTION AT RAIL SPLICE



VIEW E-E



END OF RAIL DETAILS

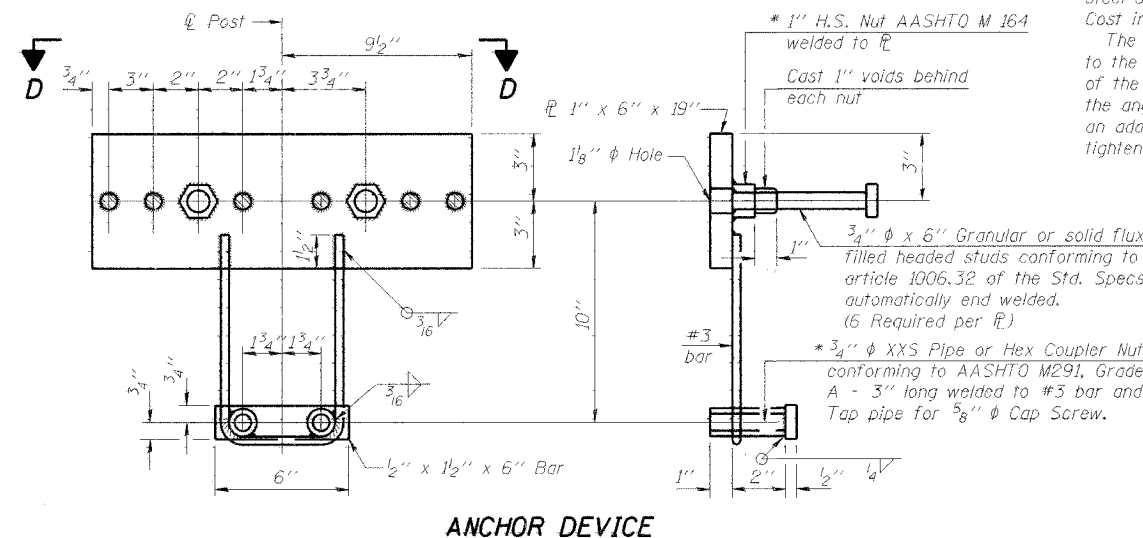
NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F. All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50. Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164. All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232. All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted. Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM. All field drilled holes shall be coated with an approved zinc rich paint before erection. For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM. The 3/4"  $\phi$  high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1"  $\phi$  high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8"  $\phi$  cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	208

**TYPE SM**  
**STEEL BRIDGE RAIL SIDE MOUNTED WITH CONCRETE WEARING SURFACE**  
**US ROUTE 45/52 OVER MINNIE CREEK**  
**F.A.P. 840 SEC. 139 BR-1**  
**KANKAKEE COUNTY**  
**STATION 196+30.00**  
**STRUCTURE NO. 046-0070**



ANCHOR DEVICE

\* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

Note:  
For Rail Post Spacing see Sheet 8 of 13.

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

R-34CWS

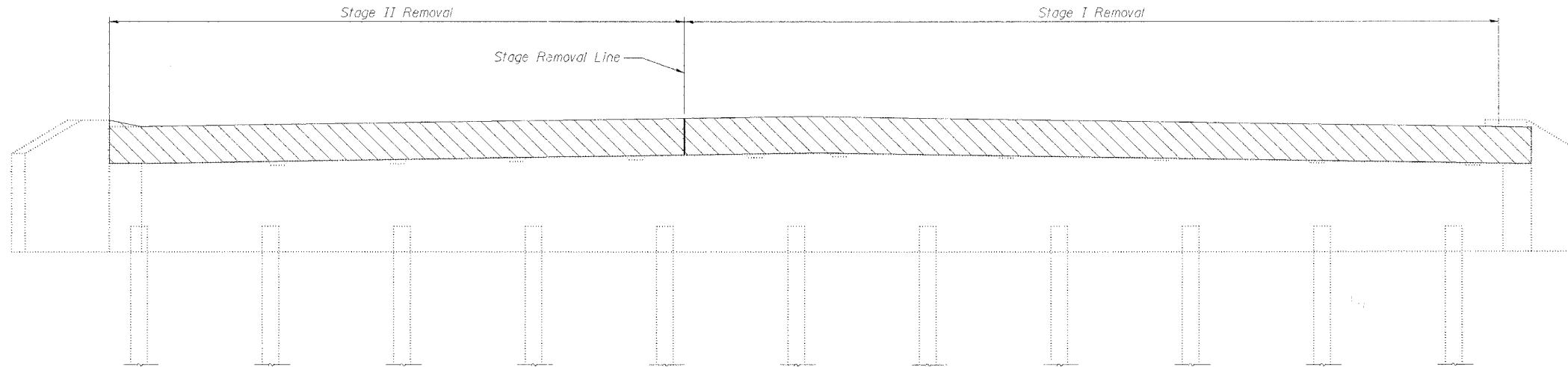
10-28-05 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/2" maximum CWS thickness)

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

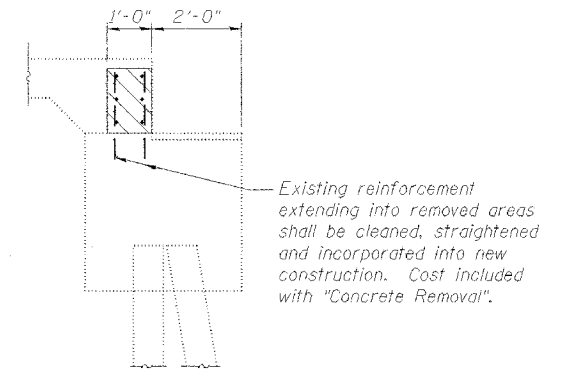
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10
F.A.P. 840	139 BR-1	KANKAKEE	69	26	13 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #66543

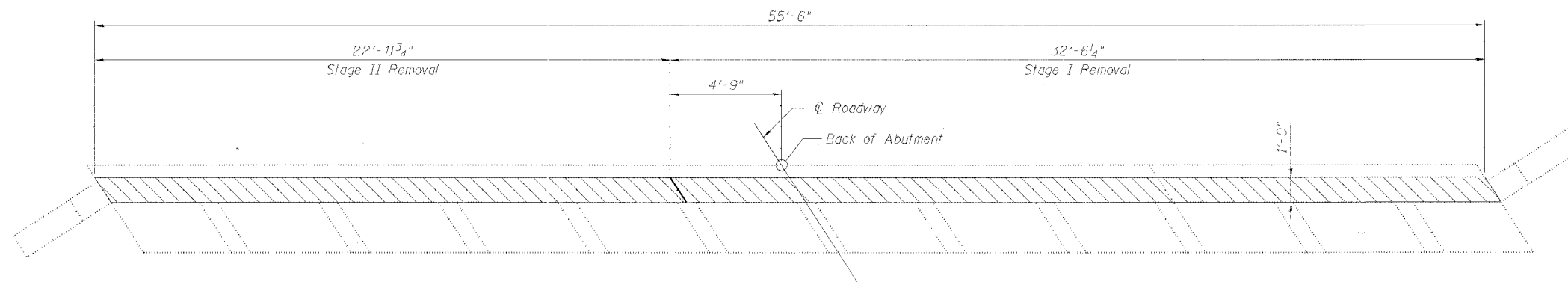


**ELEVATION**

(Looking South)  
(South Abutment shown  
North Abutment similar)



**SECTION THRU ABUTMENT**



**PLAN**

Note:  
For quantity of Concrete Removal,  
see sheets 11 and 12 of 13.

**LEGEND**

Indicates Concrete Removal

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

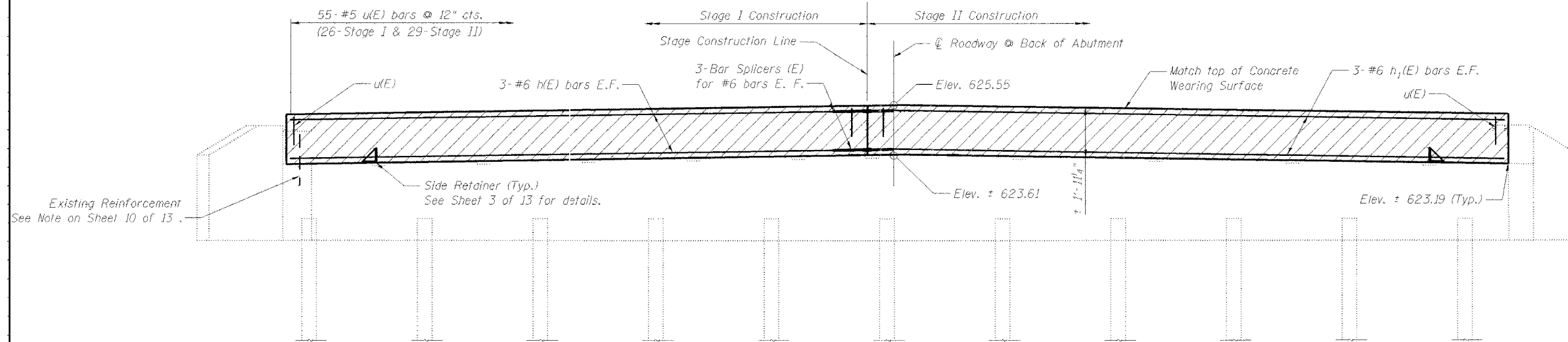
**WHKS & CO.**  
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**CONCRETE REMOVAL DETAILS**  
**US ROUTE 45/52 OVER MINNIE CREEK**  
**F.A.P. 840 SEC. 139 BR-1**  
**KANKAKEE COUNTY**  
**STATION 196+30.00**  
**STRUCTURE NO. 046-0070**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

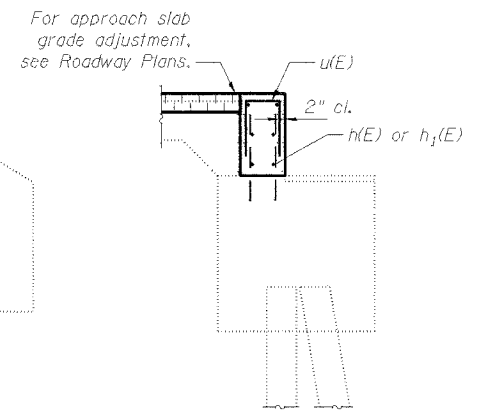
ROUTE NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11
F.A.P. 840	139 BR-1	KANKAKEE	69	27	13 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #66543

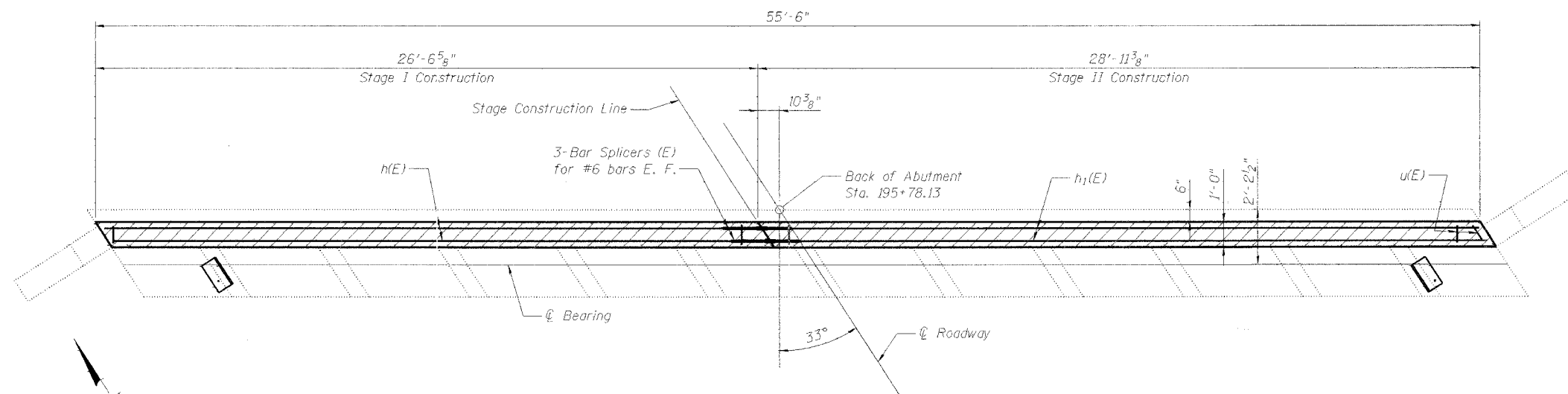


**ELEVATION**

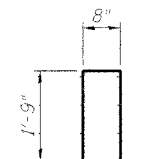
Note:  
Hatched area shall be poured after Concrete Wearing Surface is in place.  
Side Retainer and shims shall be in place prior to grouting of the shear keys.  
After Concrete Wearing Surface is poured and cured the Side Retainer shall be removed.  
Anchor bolts may be left in place.  
Cost of Side Retainer and accessories is included with "Furnishing and Erecting Structural Steel".  
For details of Side Retainer see Sheet 3 of 13.



**SECTION THRU ABUTMENT**



**PLAN**



**BAR u(E)**

**NORTH ABUTMENT  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
h(E)	6	#6	26'-3"	—	
h <sub>1</sub> (E)	6	#6	28'-8"	—	
u(E)	55	#5	4'-2"	□	
Concrete Structures				Cu. Yd.	4.0
Reinforcement Bars Epoxy Coated				Pound	730
Concrete Removal				Cu. Yd.	3.0

Reinforcement bars designated (E) shall be epoxy coated.

**MIN. BAR LAP**  
#5 = 1'-3"

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

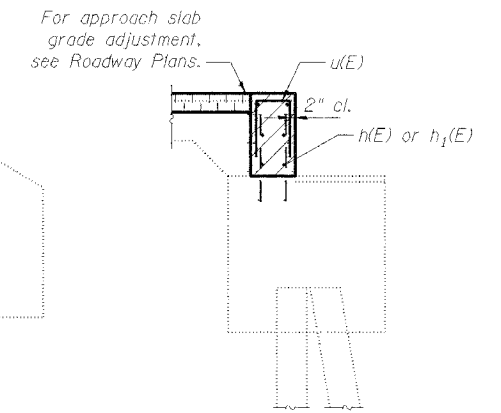
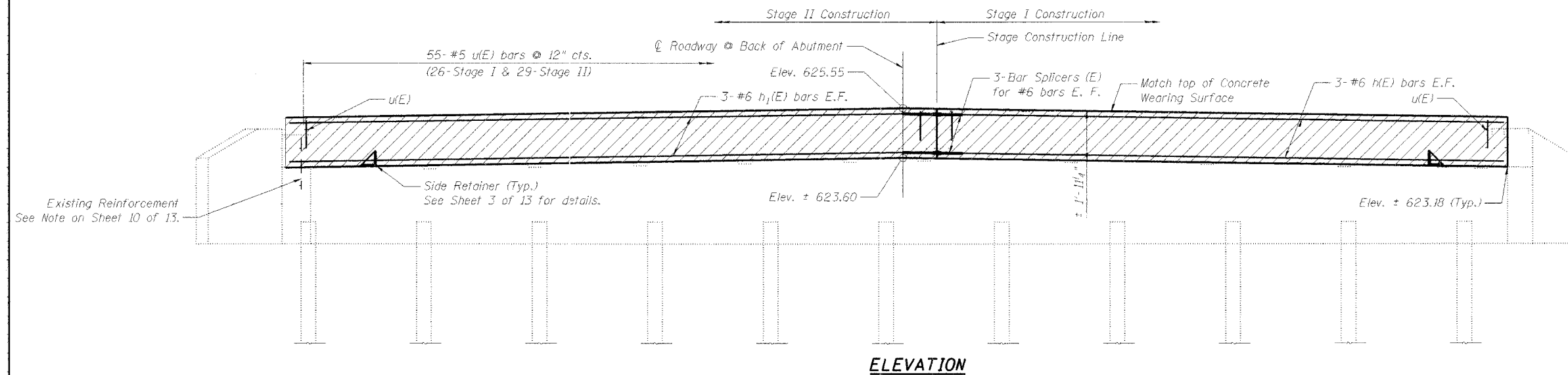


**NORTH ABUTMENT  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 196+30.00  
STRUCTURE NO. 046-0070**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

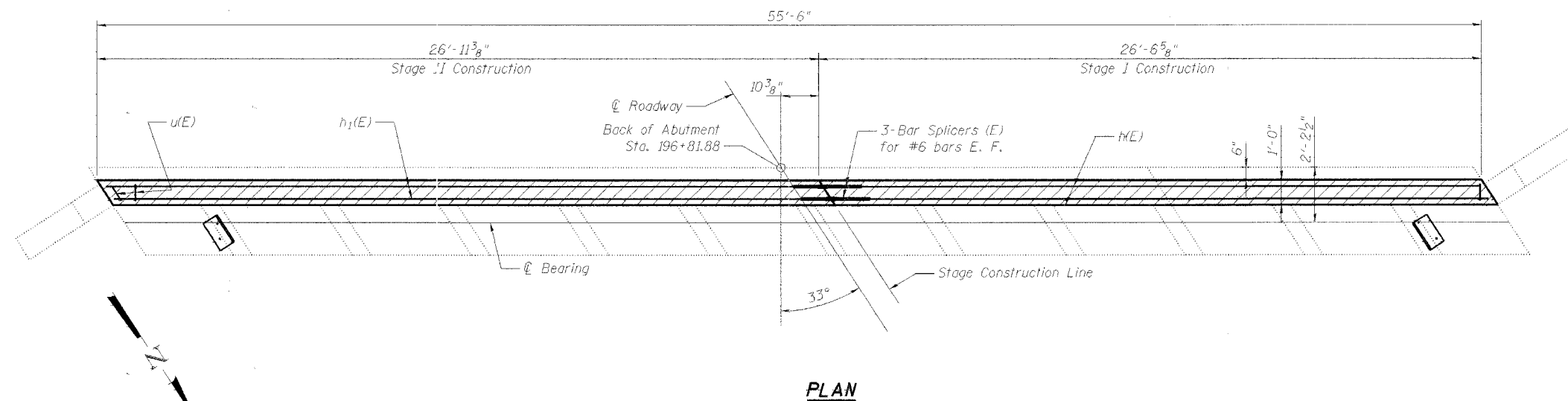
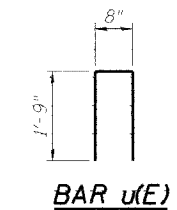
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 12
F.A.P. 840	139 BR-1	KANKAKEE	69	28	13 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #66543



**SECTION THRU ABUTMENT**

Note:  
Hatched area shall be poured after Concrete Wearing Surface is in place.  
Side Retainer and shims shall be in-place prior to grouting of the shear keys.  
After Concrete Wearing Surface is poured and cured the Side Retainer shall be removed.  
Anchor bolts may be left in place.  
Cost of Side Retainer and accessories is included with "Furnishing and Erecting Structural Steel".  
For details of Side Retainer see Sheet 3 of 13.



**SOUTH ABUTMENT  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
h(E)	6	#6	26'-3"	—	
h <sub>1</sub> (E)	6	#6	28'-8"	—	
u(E)	55	#5	4'-2"	□	
Concrete Structures				Cu. Yd.	4.0
Reinforcement Bars				Pound	730
Epoxy Coated					
Concrete Removal				Cu. Yd.	3.0

Reinforcement bars designated (E) shall be epoxy coated.

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

**WHKS & CO.**

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**SOUTH ABUTMENT  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 196+30.00  
STRUCTURE NO. 046-0070**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 840	139 BR-1	KANKAKEE	69 29	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #665A-3

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- Minimum Capacity =  $1.25 \times f_y \times A_1$   
(Tension in kips)
- Minimum \*Pull-out Strength =  $1.25 \times f_{s_{allow}} \times A_1$   
(Tension in kips)

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $f_{s_{allow}}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)  
 $A_1$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

The diameter of this part is equal or larger than the diameter of bar spliced.

**ROLLED THREAD DOWEL BAR**



**\*\* ONE PIECE**

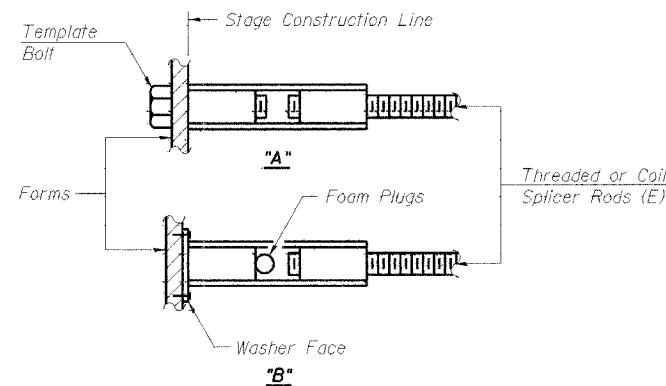
Wire Connector



**WELDED SECTIONS**

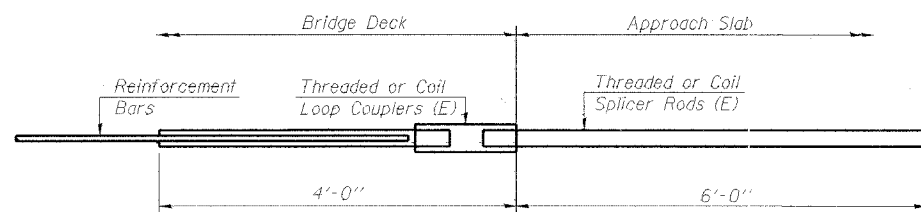
**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



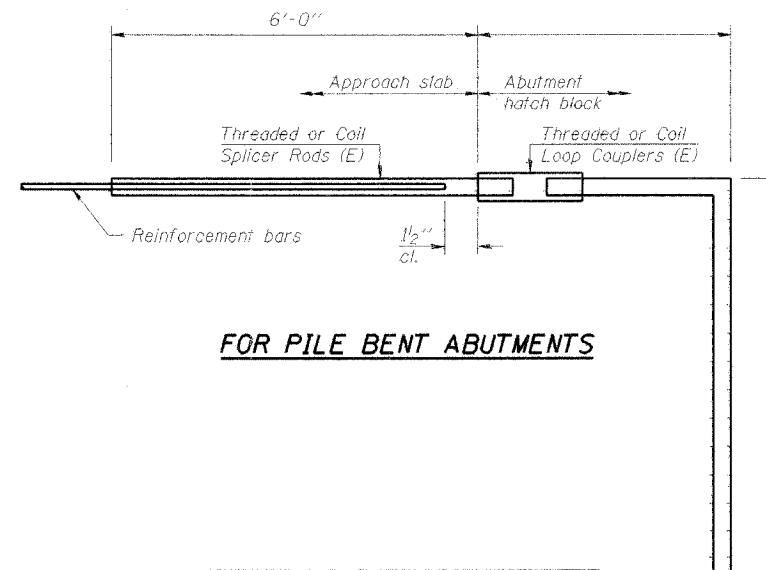
**INSTALLATION AND SETTING METHODS**

"A": Set bar splicer assembly by means of a template bolt.  
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
(E) : Indicates epoxy coating.



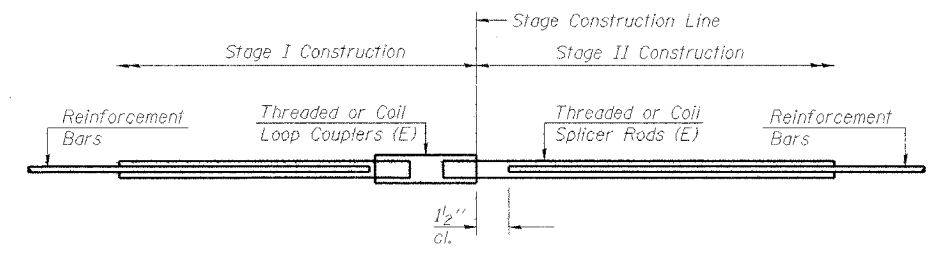
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = NA



**FOR PILE BENT ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = NA



**STANDARD**

Bar Size	No. Assemblies Required	Location
#4	101	Wearing Surface
#6	12	Abutments

DESIGNED	S.D.S.
CHECKED	C.W.C.
DRAWN	L.M.G./D.L.H.
CHECKED	S.D.S.

BSD-1

10-22-04

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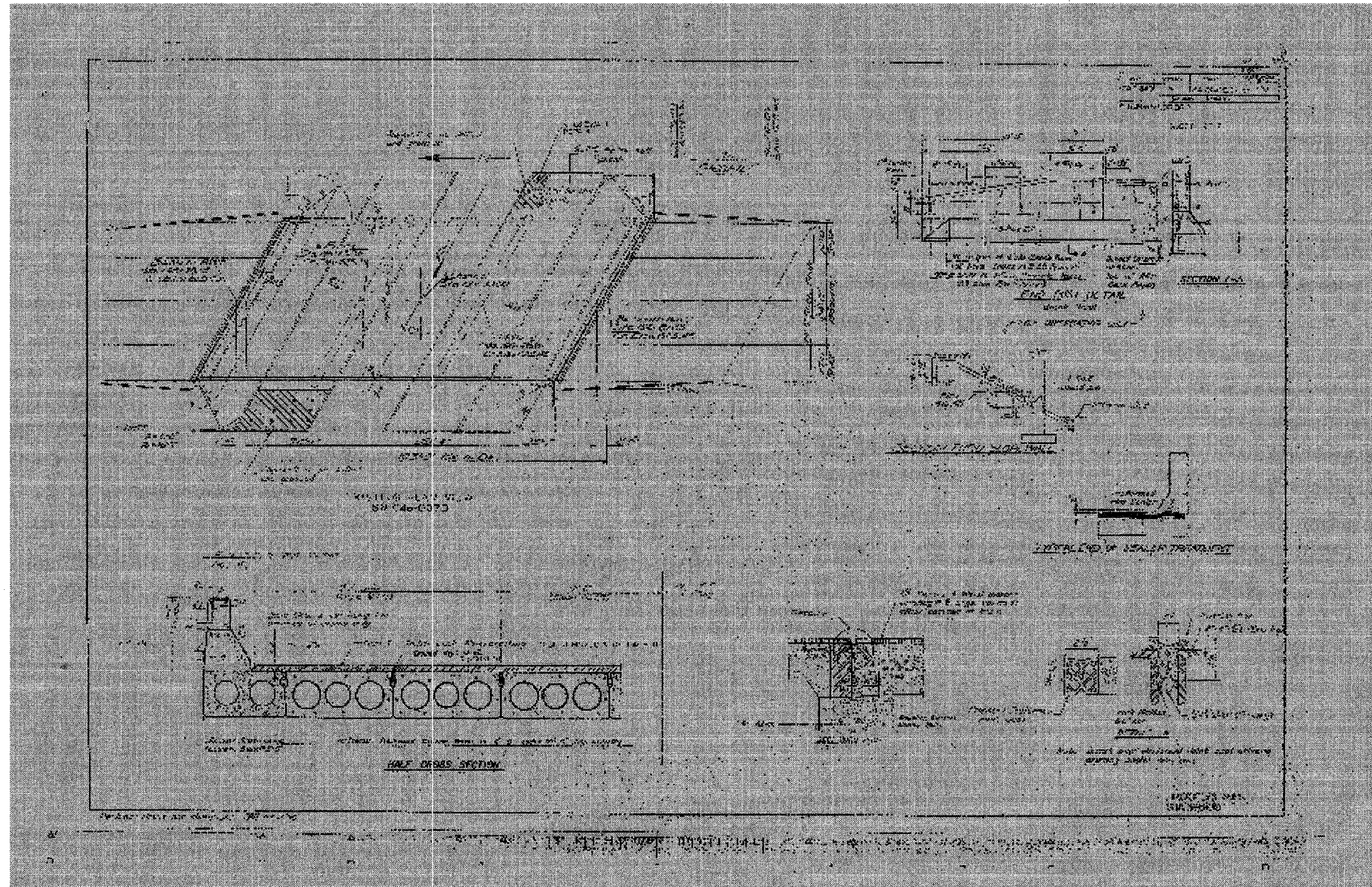
**BAR SPLICER ASSEMBLY DETAILS**  
**US ROUTE 45/52 OVER MINNIE CREEK**  
**F.A.P. 840 SEC. 139 BR-1**  
**KANKAKEE COUNTY**  
**STATION 196+30.00**  
**STRUCTURE NO. 046-0070**



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
F.A.P. 840	139 BR-1	KANKAKEE	69	30
FED. ROAD DIST. NO. 7		ILLINOIS	FED. ROAD PROJECT	

Contract #66543



DESIGNED	S.D.S.
CHECKED	-
DRAWN	L.M.G.
CHECKED	-

EXAMINED	200
PASSED	



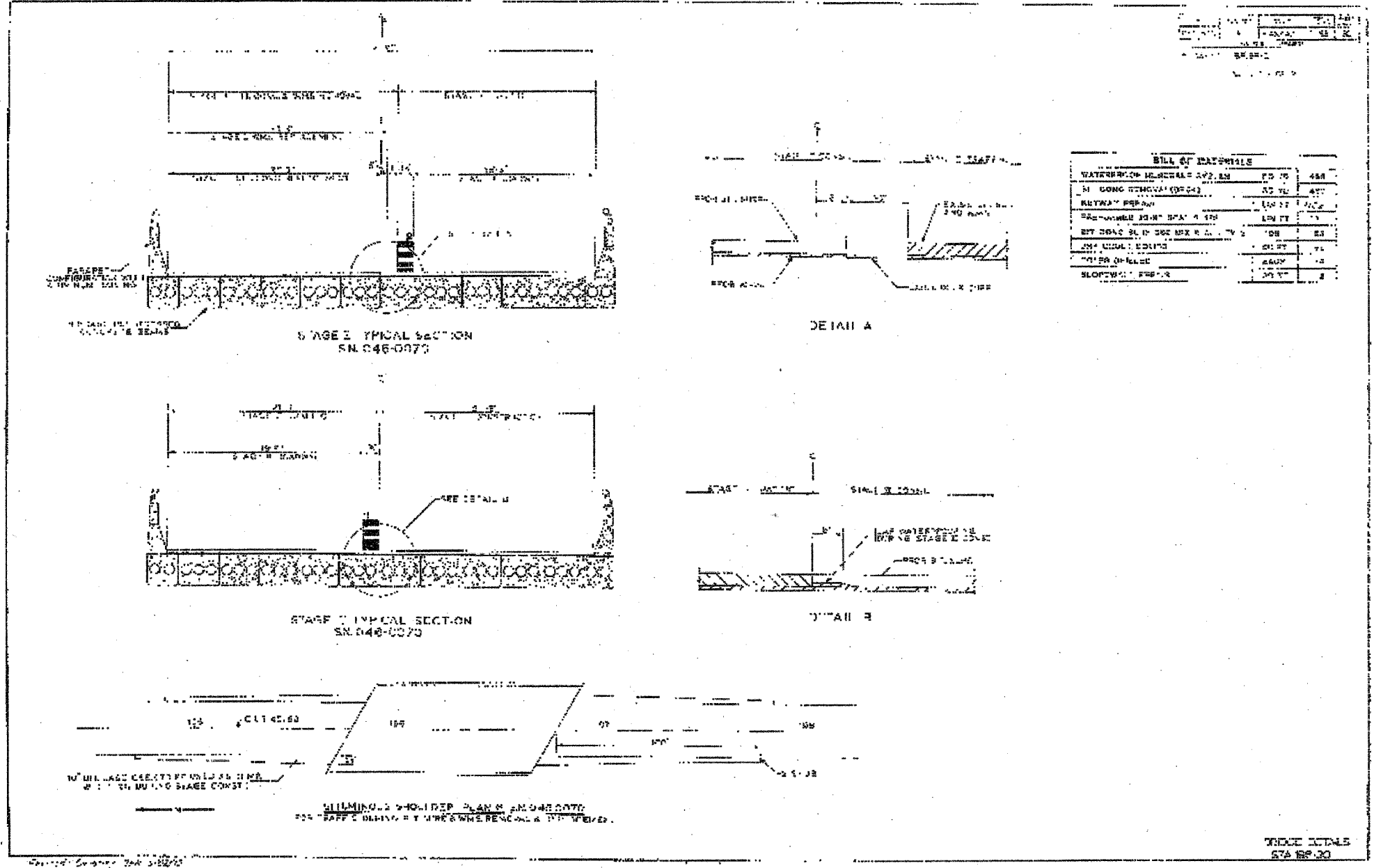
**FOR INFORMATION ONLY**

1990 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SHEET	COUNTY	JOB NO.	SHEET
F.A.P. 840	139 BR-1	KANKAKEE	69	31
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #66543



BILL OF MATERIALS			
WATERPROOF MEMBRANE 3/8" THK	450	10	450
1" CONC REMOVAL (REPAIR)	25	10	250
KEYWAY BRICK	120	10	1200
2" CONC SLAB 12" SPAC 4" DIA	100	10	1000
BT CONC SLAB 6" THK 12" SPAC 4" DIA	100	10	1000
2" CONC EDGING	20	10	200
1" CONC BRIDGE	10	10	100
SLOTTED BRIDGE	10	10	100

DESIGNED S.D.S.  
CHECKED -  
DRAWN L.M.G.  
CHECKED -

200  
EXAMINED \_\_\_\_\_  
PASSED \_\_\_\_\_  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

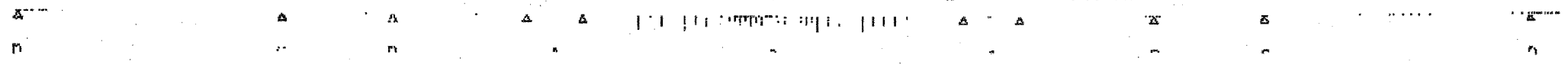
## WHKS & CO.

ENGINEERS PLANNERS LAND SURVEYORS

MASON CITY, IA    DUBUQUE, IA    AMES, IA    SPRINGFIELD, IL    ROCKFORD, IL

**FOR INFORMATION ONLY**

**1990 EXISTING PLANS**  
**US ROUTE 45/52 OVER MINNIE CREEK**  
**F.A.P. 840 SEC. 139 BR-1**  
**KANKAKEE COUNTY**  
**STATION 297+20.45**  
**STRUCTURE NO. 046-0070**



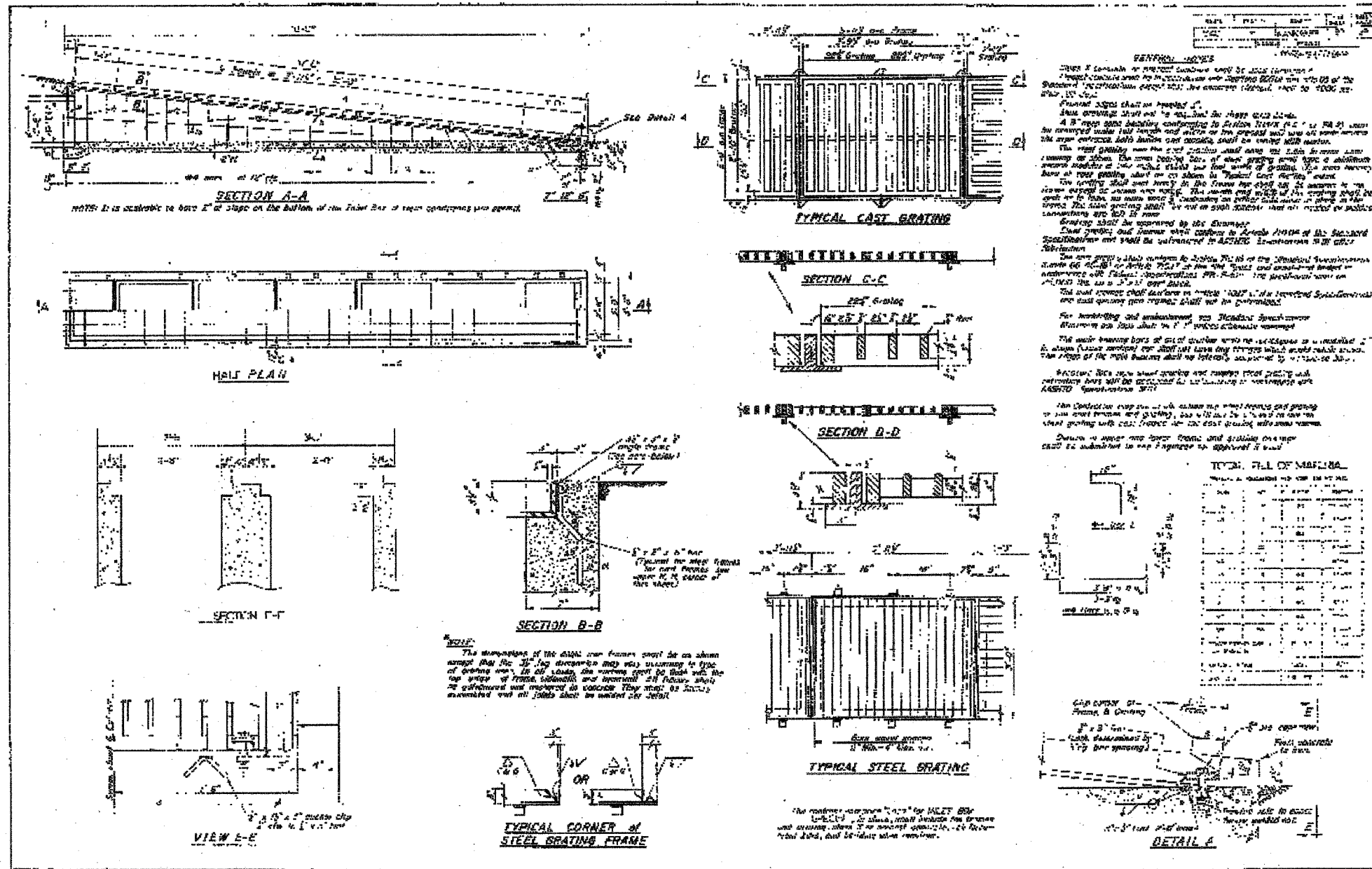
BRIDGE DETAILS  
STA 297.30



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
F.A.P. 840	139 BR-1	KANKAKEE	69	32
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #66543



DESIGNED	S.D.S.
CHECKED	
DRAWN	L.M.G.
CHECKED	

EXAMINED	200	ENGINEER OF BRIDGE DESIGN
PASSED		ENGINEER OF BRIDGES AND STRUCTURES

**WHKS & CO.**

ENGINEERS — PLANNERS — LAND SURVEYORS

MASON CITY, IA    DEBUILLE, IA    AND IA    SPRINGFIELD, IL    ROCKFORD, ILL.

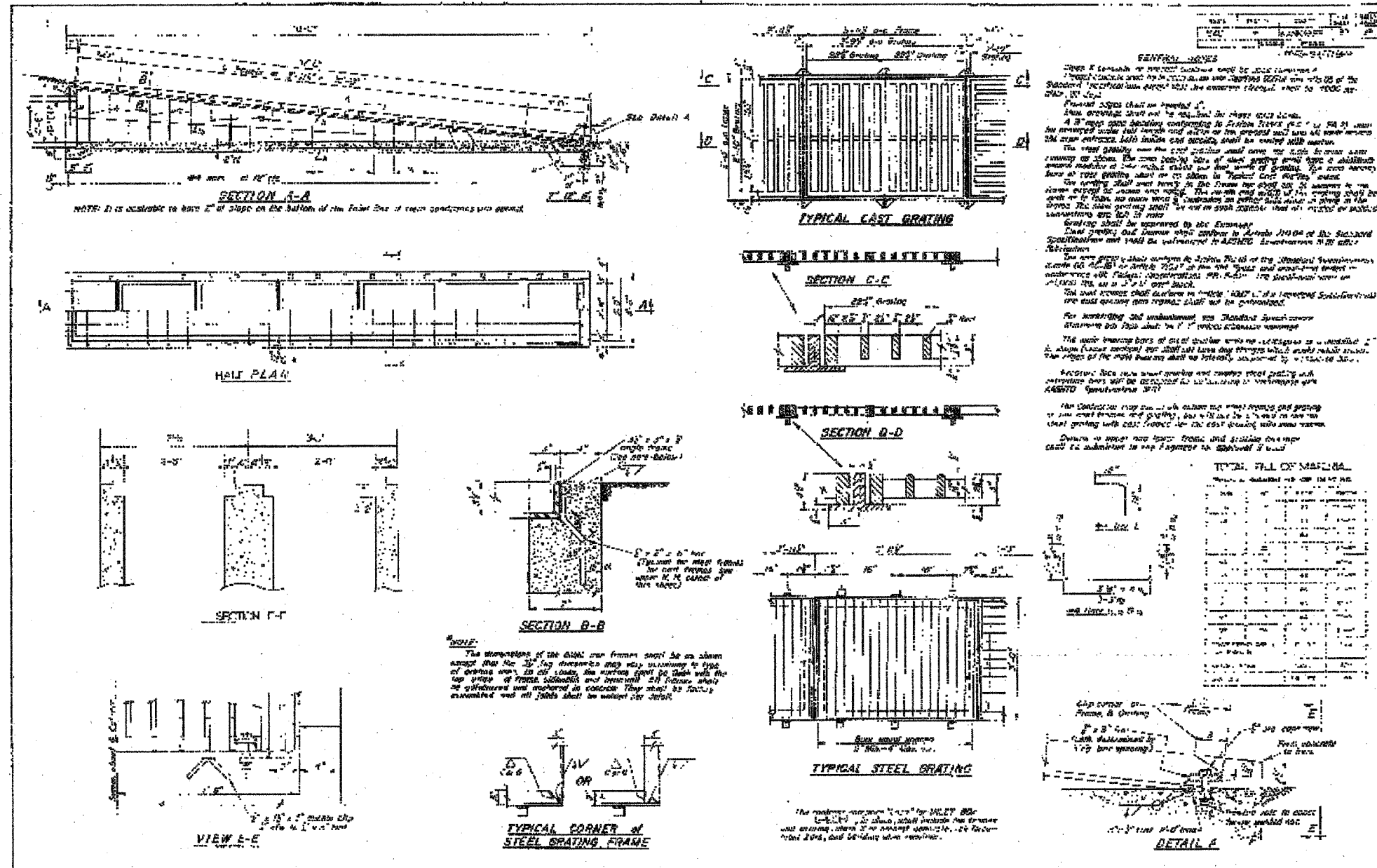
**FOR INFORMATION ONLY**

1990 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 840	139 BR-1	KANKAKEE	69	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #66543



DESIGNED	S.D.S.
CHECKED	-
DRAWN	L.M.G.
CHECKED	-

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

**WHKS & CO.**

ENGINEERS PLANNERS LAND SURVEYORS

MAISON VILLE, ILL. DEERFIELD, ILL. AMELIA, ILL. SPRINGFIELD, ILL. ROCKFORD, ILL.

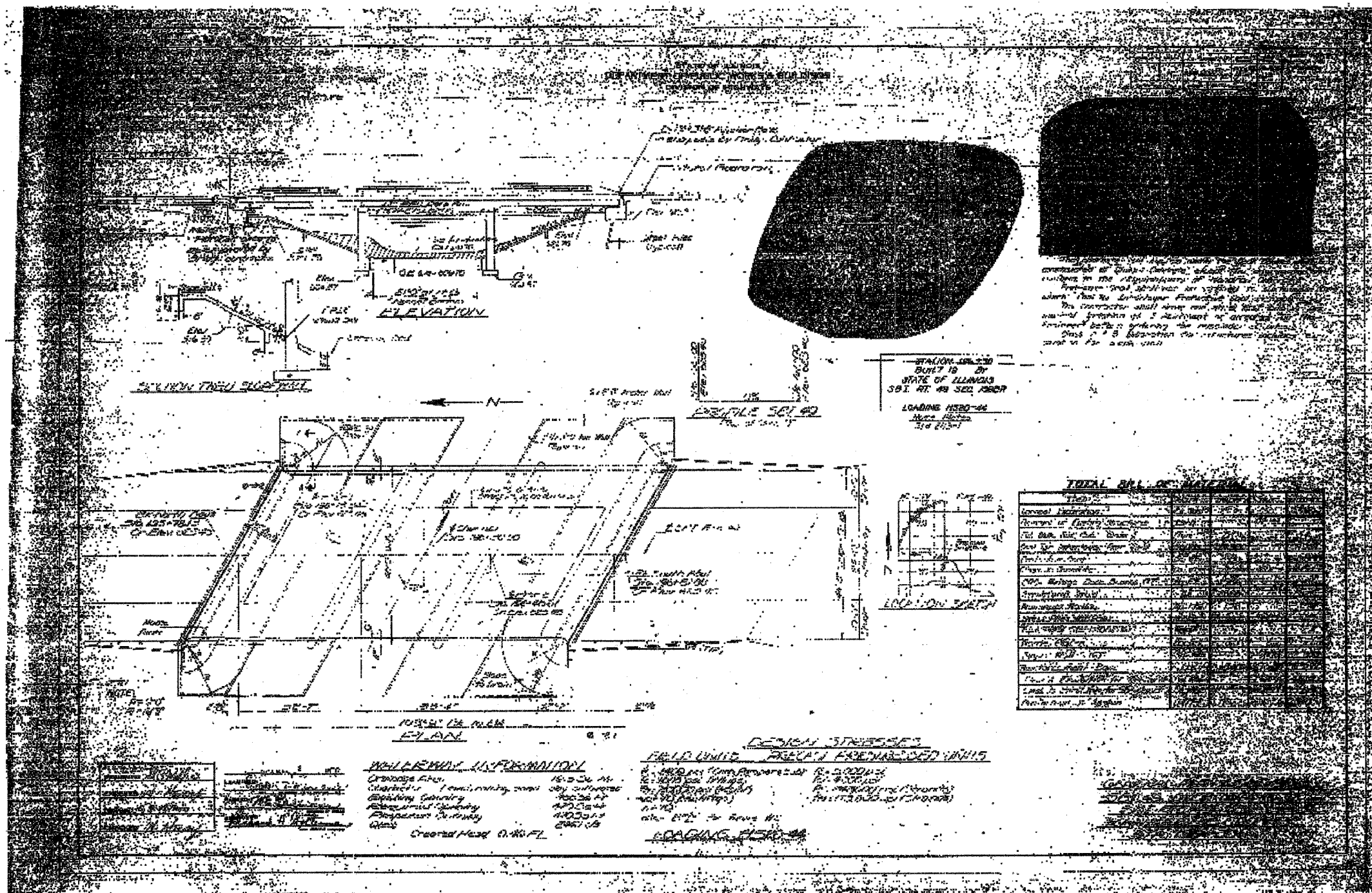
**FOR INFORMATION ONLY**

1990 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
F.A.P. 840	139 BR-1	KANKAKEE	69	34
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #66543



**TOTAL BILL OF MATERIALS**

ITEM	QUANTITY	UNIT	PRICE	TOTAL
Concrete				
Reinforcing Steel				
Structural Steel				
Timber				
Paint				
Other				
<b>TOTAL</b>				

**WHEELWAY INFORMATION**  
 Channel Size: 15' x 24" M  
 Channel Spacing: 24" on center  
 Channel Material: A36 Steel  
 Channel Length: 110' 0" x 2  
 Channel Weight: 2800 LBS

**FIELD LIMITS**  
 Bridge Length: 110' 0" x 2  
 Approach Length: 10' 0" x 2  
 Total Length: 130' 0" x 2

**DESIGN STRESSES**  
 Allowable Stress: 18,000 PSI  
 Factor of Safety: 1.5  
 Design Load: HS20-44

DESIGNED S.D.S.	
CHECKED	
DRAWN L.M.G.	
CHECKED	

EXAMINED	200
PASSED	

**WHKS & CO.**  
 ENGINEERS PLANNERS LAND SURVEYORS  
 MARION, ILL. | CAROLINA, ILL. | AMES, ILL. | SPRINGFIELD, ILL. | ROCHESTER, N.Y.

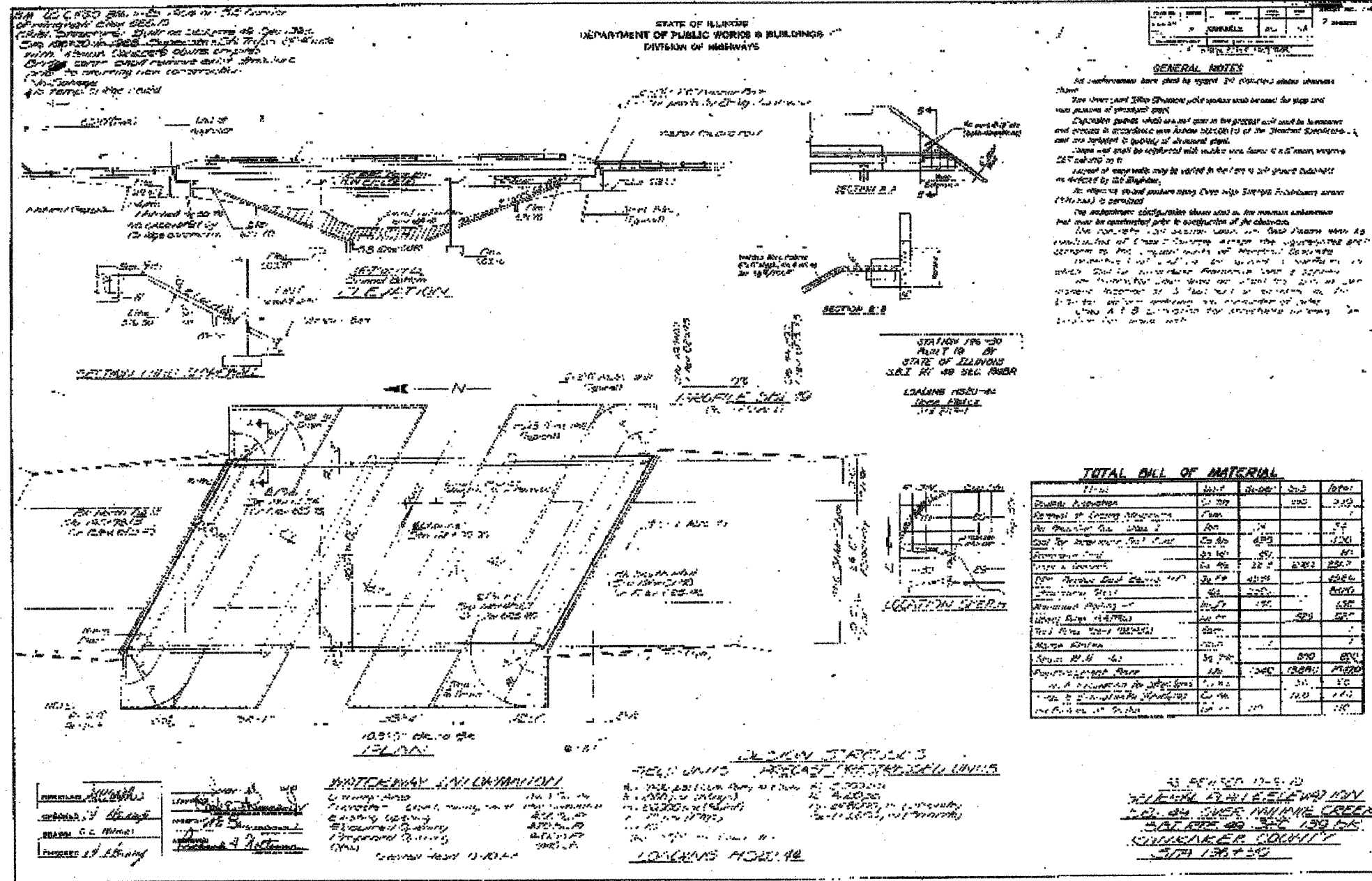
**FOR INFORMATION ONLY**

1970 EXISTING PLANS  
 US ROUTE 45/52 OVER MINNIE CREEK  
 F.A.P. 840 SEC. 139 BR-1  
 KANKAKEE COUNTY  
 STATION 297+20.45  
 STRUCTURE NO. 046-0070

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
F.A.P. 840	139 BR-1	KANKAKEE	69	35
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #66543

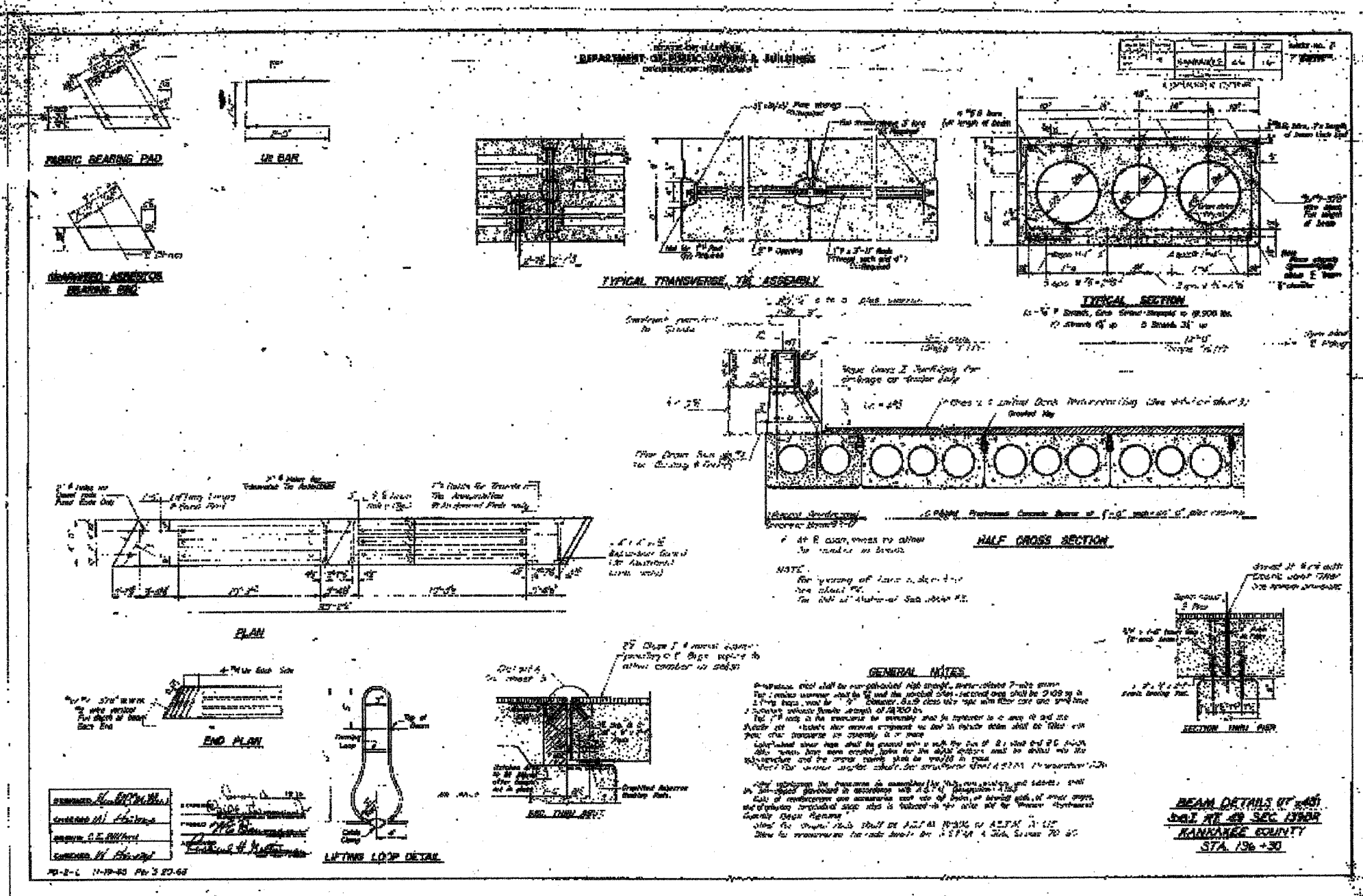




STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	TOTAL SHEETS
F.A.P. 840	139 BR-1	KANKAKEE	69	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #66543



DESIGNED	S.D.S.
CHECKED	-
DRAWN	L.M.G.
CHECKED	-

EXAMINED	200
PASSED	-

**WHKS & CO.**

ENGINEERS PLANNERS LAND SURVEYORS

MASON CITY, IOWA

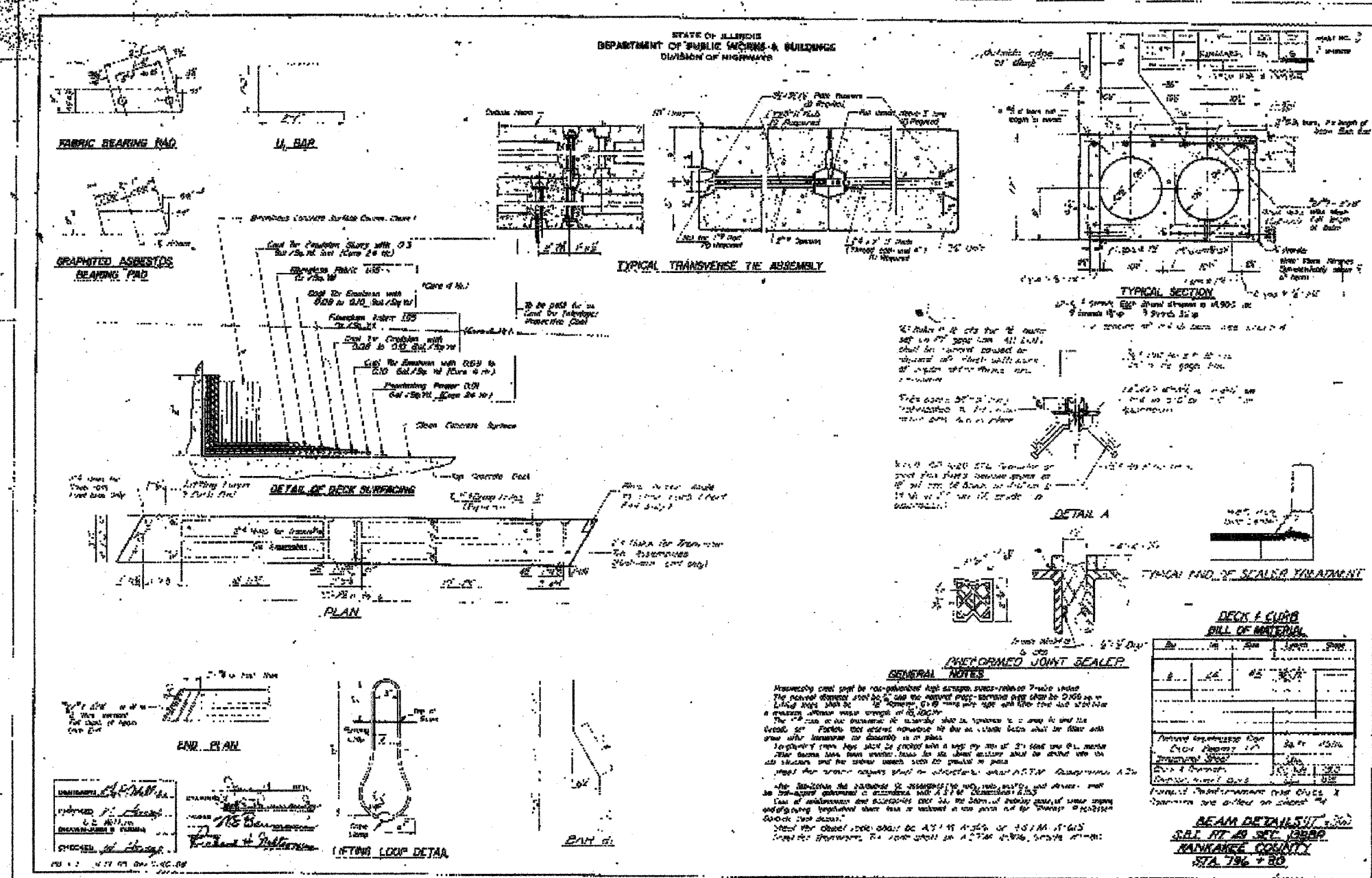
**FOR INFORMATION ONLY**

1970 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
F.A.P. 840	139 BR-1	KANKAKEE	61	37
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Contract #66543



DESIGNED	S.D.S.
CHECKED	-
DRAWN	L.M.G.
CHECKED	-

EXAMINED	200
PASSED	-

**WHKS & CO.**

ENGINEERS PLANNERS LAND SURVEYORS

MAISON VILLE, ILL. CHICAGO, ILL. AMELIA, ILL. SPRINGFIELD, ILL. ROCKFORD, ILL.

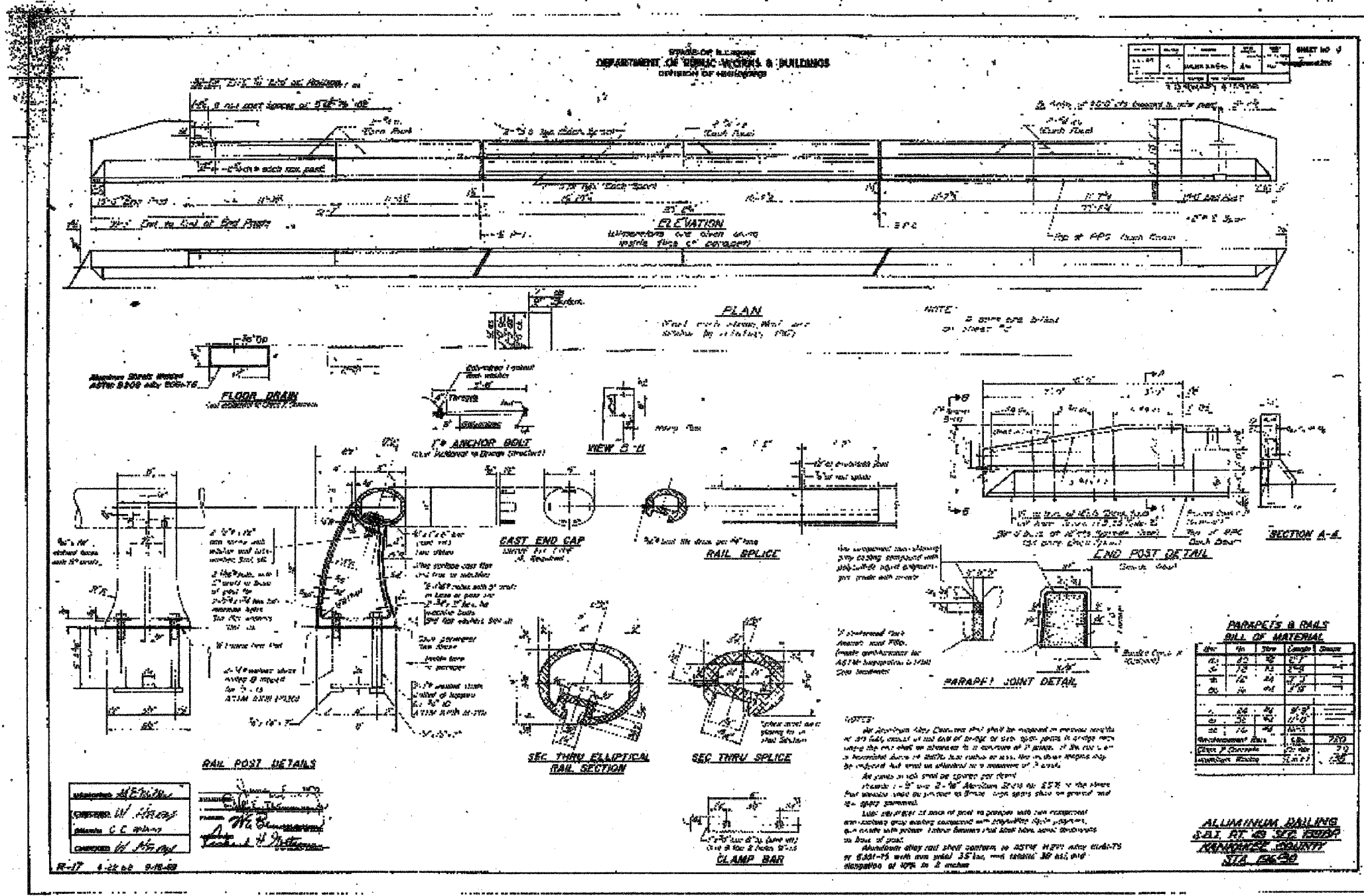
**FOR INFORMATION ONLY**

1970 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	"OF"
F.A.P. 840	139 BR-1	KANKAKEE	69	38
FED. ROAD DIST. NO. 7	OWNER	FED. AID PROJECT		

Contract #66543



DESIGNED S.D.S.	200
CHECKED	EXAMINED
DRAWN L.M.G.	ENGINEER OF BRIDGE DESIGN
CHECKED	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

**WHKS & CO.**  
ENGINEERS PLANNERS LAND SURVEYORS  
MASON CITY, IA BRIDGE, IA JAMES A. SPRINGFIELD, ILLINOIS

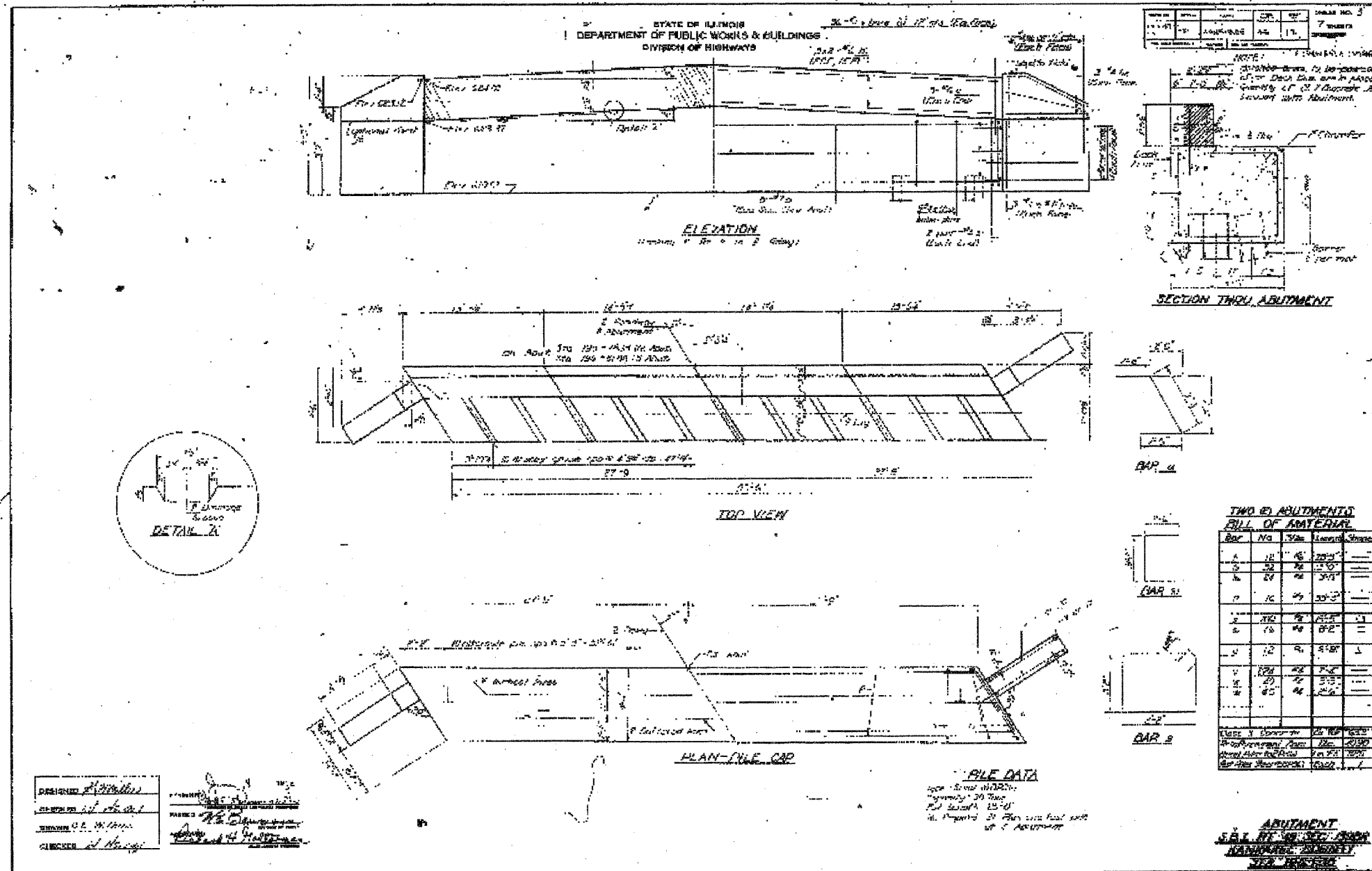
**FOR INFORMATION ONLY**

1970 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
F.A.P. 840	139 BR-1	KANKAKEE	69	39
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #66543



DESIGNED	S.D.S.
CHECKED	-
DRAWN	L.M.G.
CHECKED	-

EXAMINED	200
PASSED	-

**WHKS & CO.**  
ENGINEERS PLANNERS LAND SURVEYORS  
MASON, ILL. | DEBUILE, ILL. | AMES, ILL. | SPRINGFIELD, ILL. | ROCHESTER, MINN.

**FOR INFORMATION ONLY**

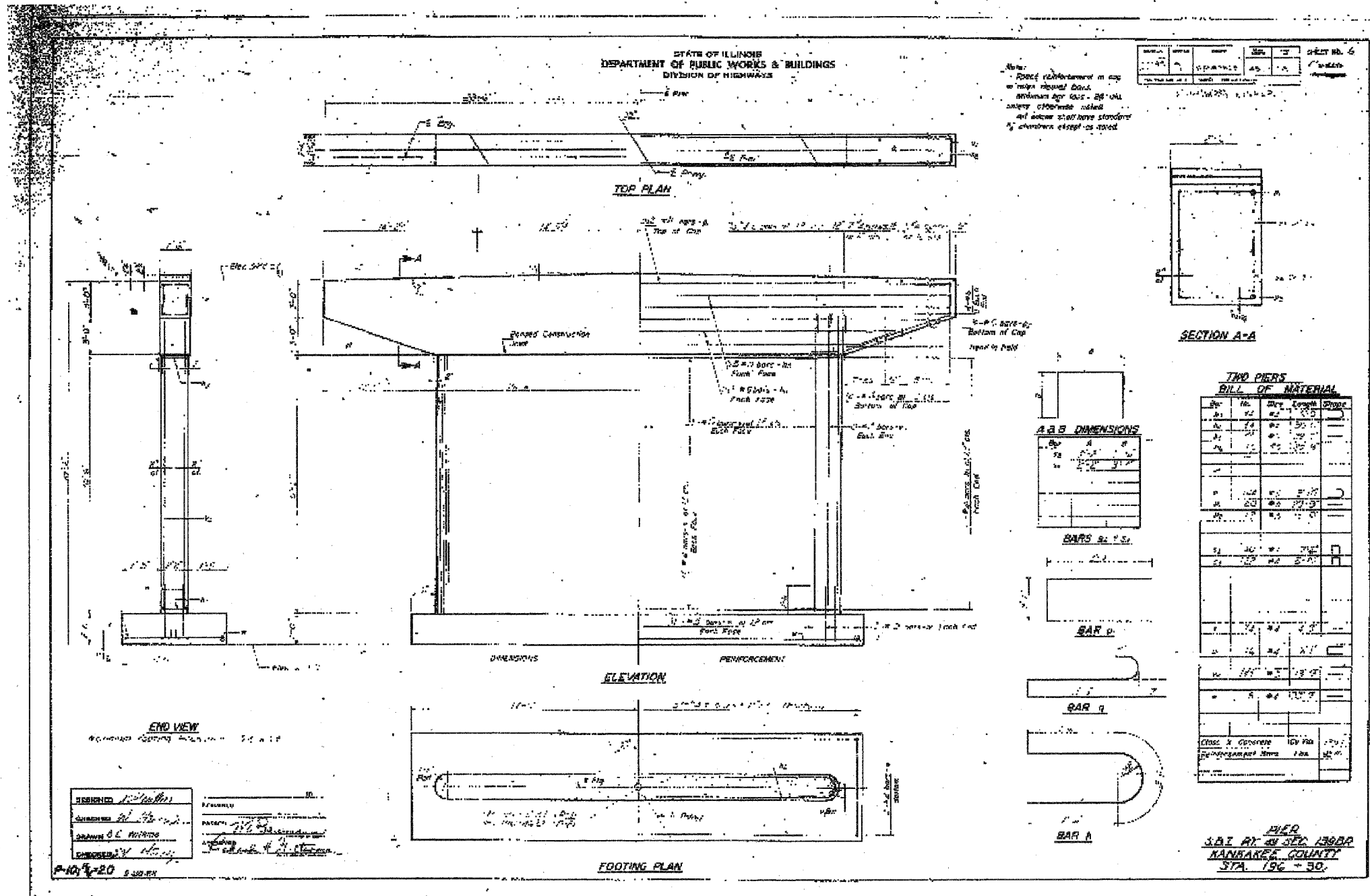
1970 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
F.A.P. 840	139 BR-1	KANKAKEE	69	40
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #66543

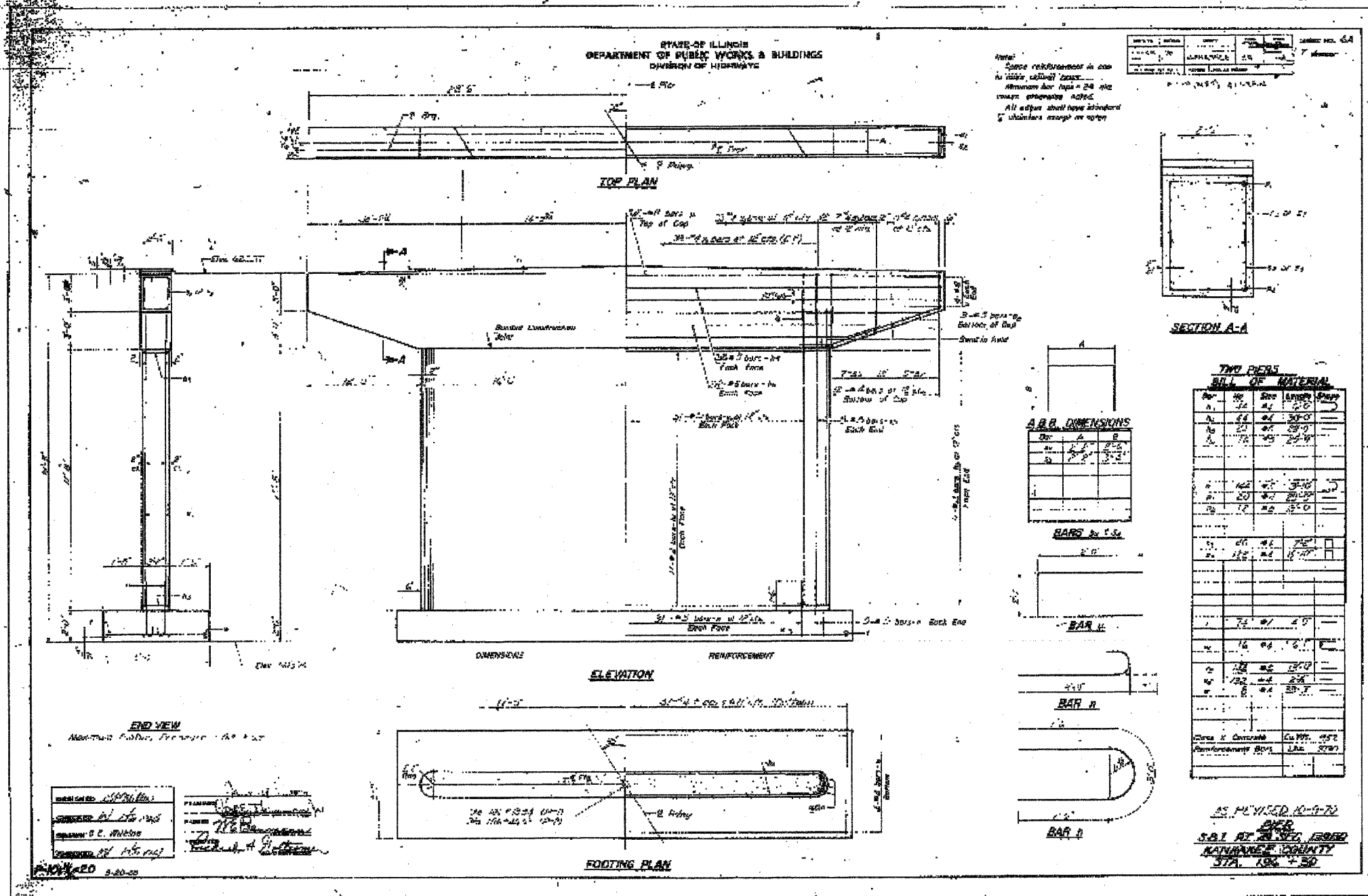


1970 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
F.A.P. 840	139 BR-1	KANKAKEE	69	41
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #665A3



DESIGNED S.D.S.	200
CHECKED	EXAMINED ENGINEER OF BRIDGE DESIGN
DRAWN L.M.G.	PASSED ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	

**WHKS & CO.**

ENGINEERS PLANNERS LAND SURVEYORS

MASON CITY, IA DEBOER, IA AMES, IA SPRINGFIELD, IL ROCKFORD, ILL.

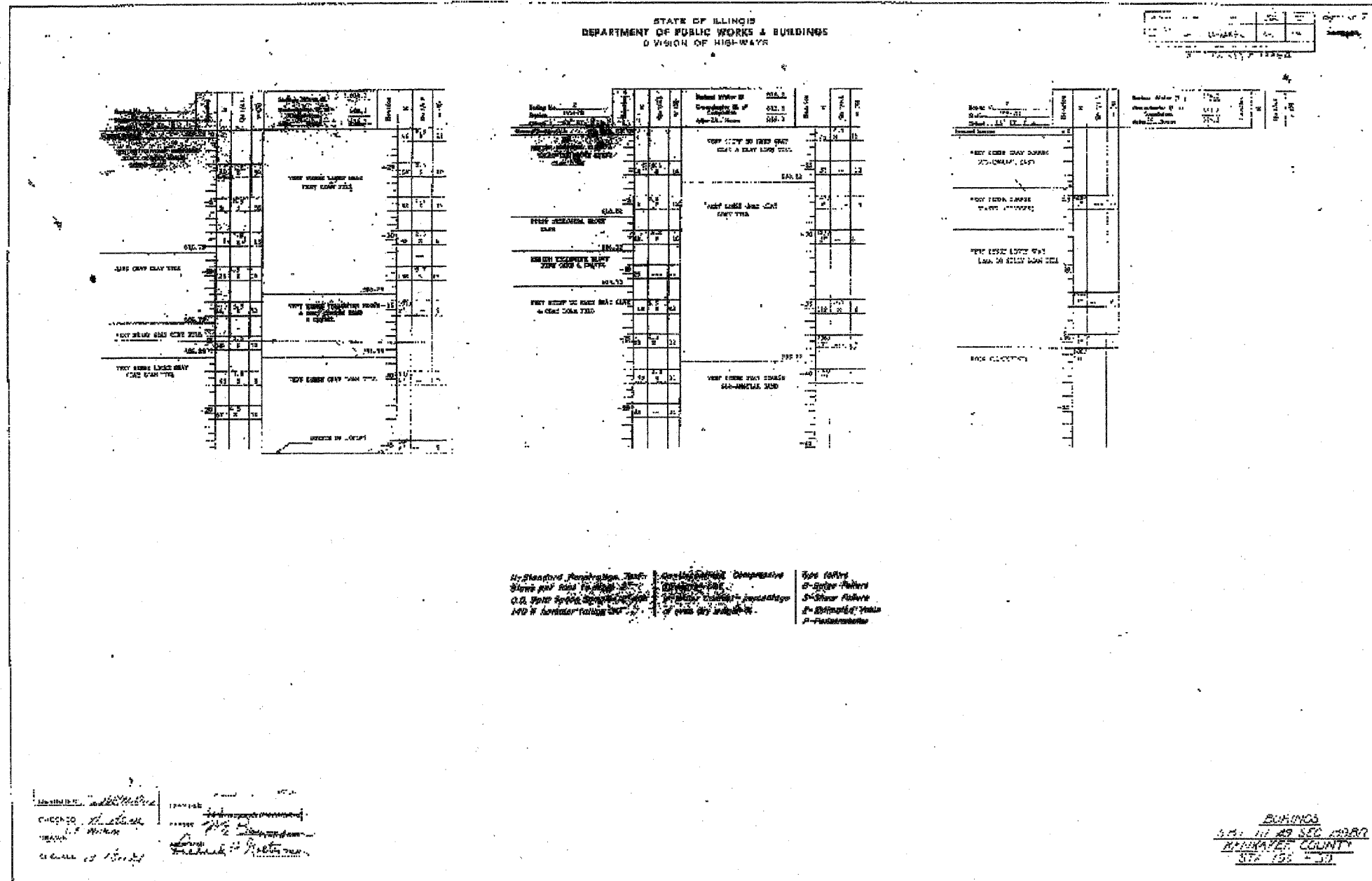
**FOR INFORMATION ONLY**

1970 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.P. 840	139 BR-1	KANKAKEE	69	42
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Contract #66543



DESIGNED	S.D.S.
CHECKED	-
DRAWN	L.M.G.
CHECKED	-

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

**WHKS & CO.**

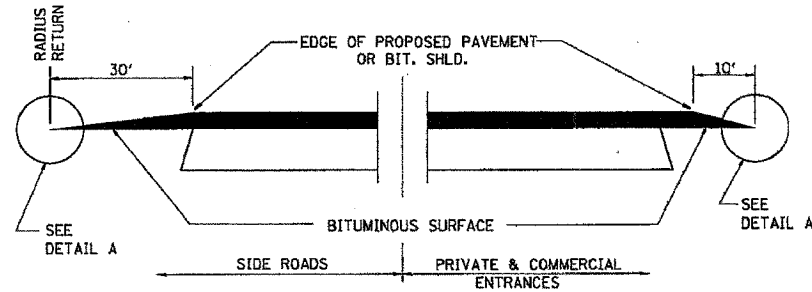
ENGINEERS PLANNERS LAND SURVEYORS

MASON CITY, IA    DEWOLE, IA    AMES, IA    SPRINGFIELD, IL    ROCHESTER, MN

**FOR INFORMATION ONLY**

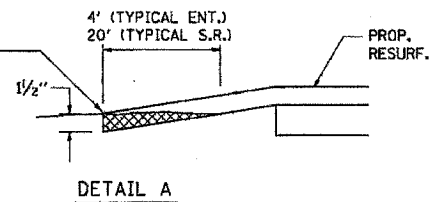
1970 EXISTING PLANS  
US ROUTE 45/52 OVER MINNIE CREEK  
F.A.P. 840 SEC. 139 BR-1  
KANKAKEE COUNTY  
STATION 297+20.45  
STRUCTURE NO. 046-0070

CONTRACT NO. 66543				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	43
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

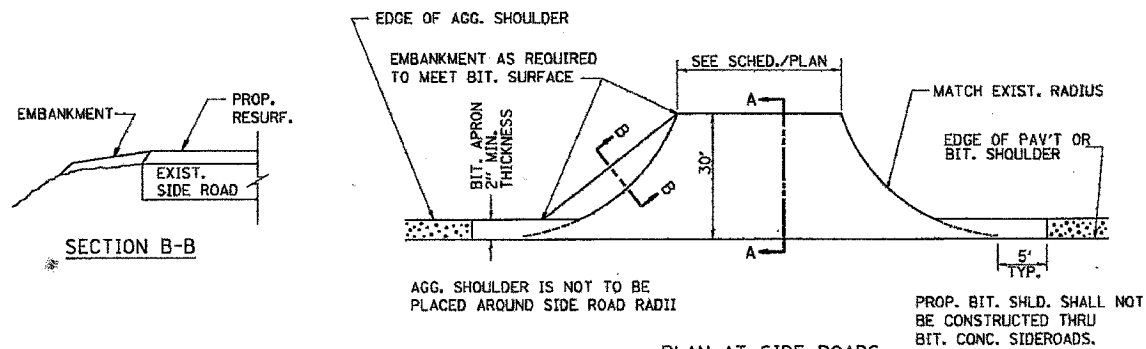


SECTION A-A  
DETAILS AT ENTRANCES & SIDE ROADS

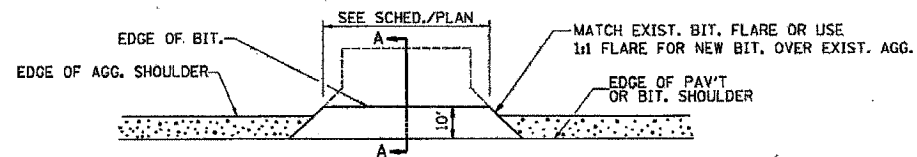
THE COST OF REMOVAL AT EXISTING BIT. OR P.C.C. LOCATIONS SHALL BE PAID FOR PER SQ. YD. BY THE APPROPRIATE PAY ITEM. REMOVAL AT EXISTING AGG. LOCATIONS SHALL BE INCIDENTAL TO THE BITUMINOUS. A-3 LOCATIONS SHALL BE FEATHER TAPERED.



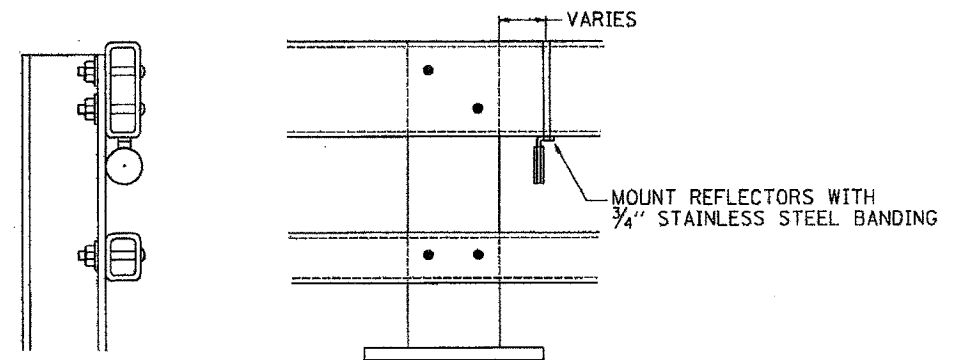
DETAIL A



PLAN AT SIDE ROADS



PLAN AT PRIVATE & COMMERCIAL ENTRANCES  
(DO NOT RESURFACE FIELD ENTRANCES)



NOTES:

- REFLECTORS SHALL MEET THE REQUIREMENTS OF ARTICLE 1097.03 OF THE STANDARD SPECIFICATIONS.
- FURNISHING AND INSTALLING THE COMPLETE REFLECTOR UNIT WILL BE PAID AT THE CONTRACT UNIT PRICE EACH FOR GUARD RAIL MARKERS.

**REFLECTOR MOUNTING  
DETAIL FOR STEEL RAIL**

630-7

PLOT DATE = 10/13/2006  
 FILE NAME = K:\DEPT\139\BR1\US4552\DETAILS.dgn  
 PLOT SCALE = 8"=1'-0"  
 USER NAME = JISER  
 PLOT NUMBER = 630-7

406-2

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**DETAILS**

SCALE: VERT. 1"=4'-0"  
 HORIZ. 1"=40'-0"  
 DATE 10/13/2006  
 DRAWN BY C. SUNTKEN  
 CHECKED BY M. ZELINSKAS

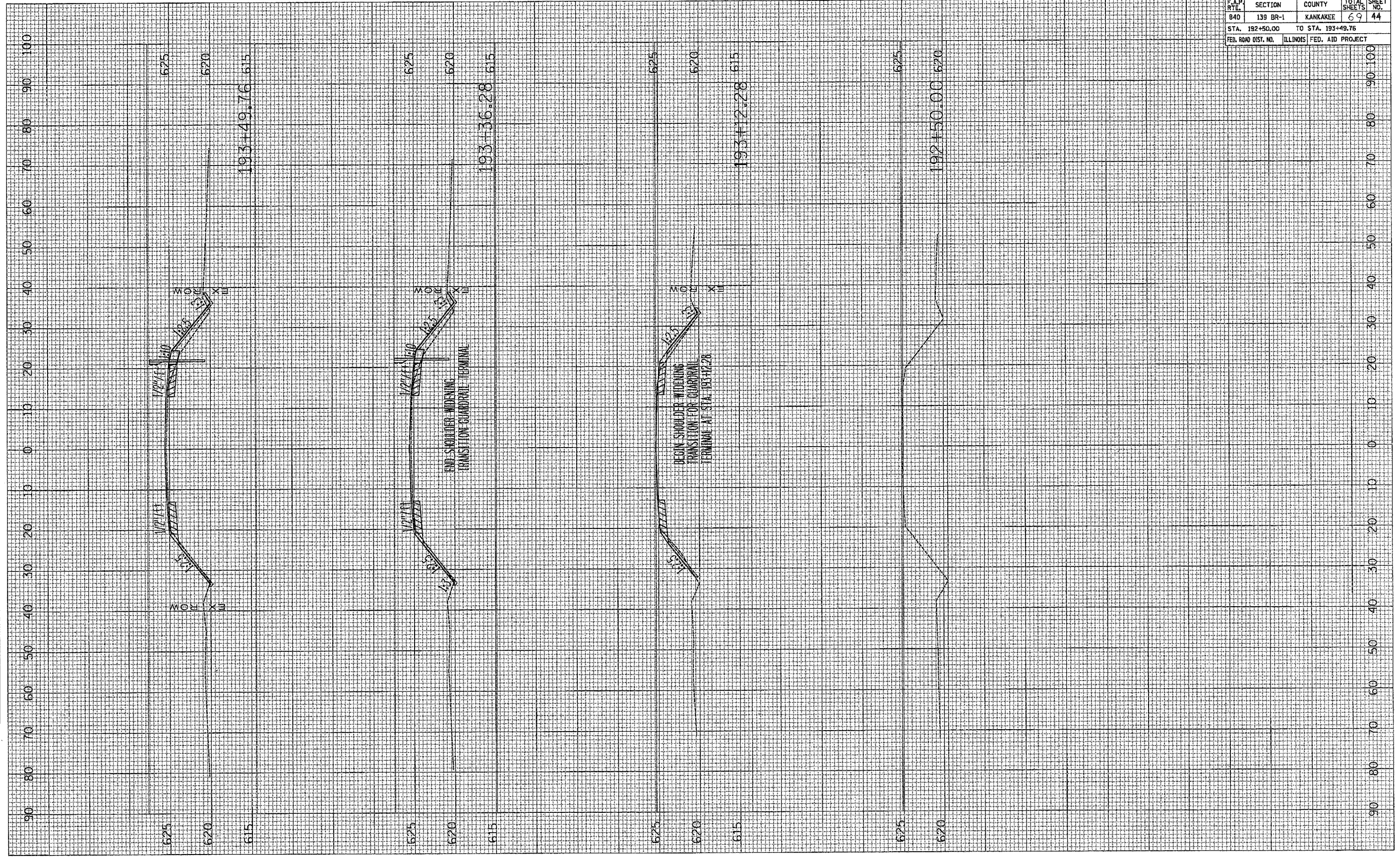


CONTRACT NO. 66543			
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
139 BR-1	KANKAKEE	69	44
STA. 192+50.00 TO STA. 193+49.76		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

FINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
NO.	

PLOT DATE = 10/12/2008  
 FILE NAME = S:\EPT\11871\107582828\RECORD\107582828.PLT  
 PLOT SCALE = 8000:1  
 USER NAME = JUSER

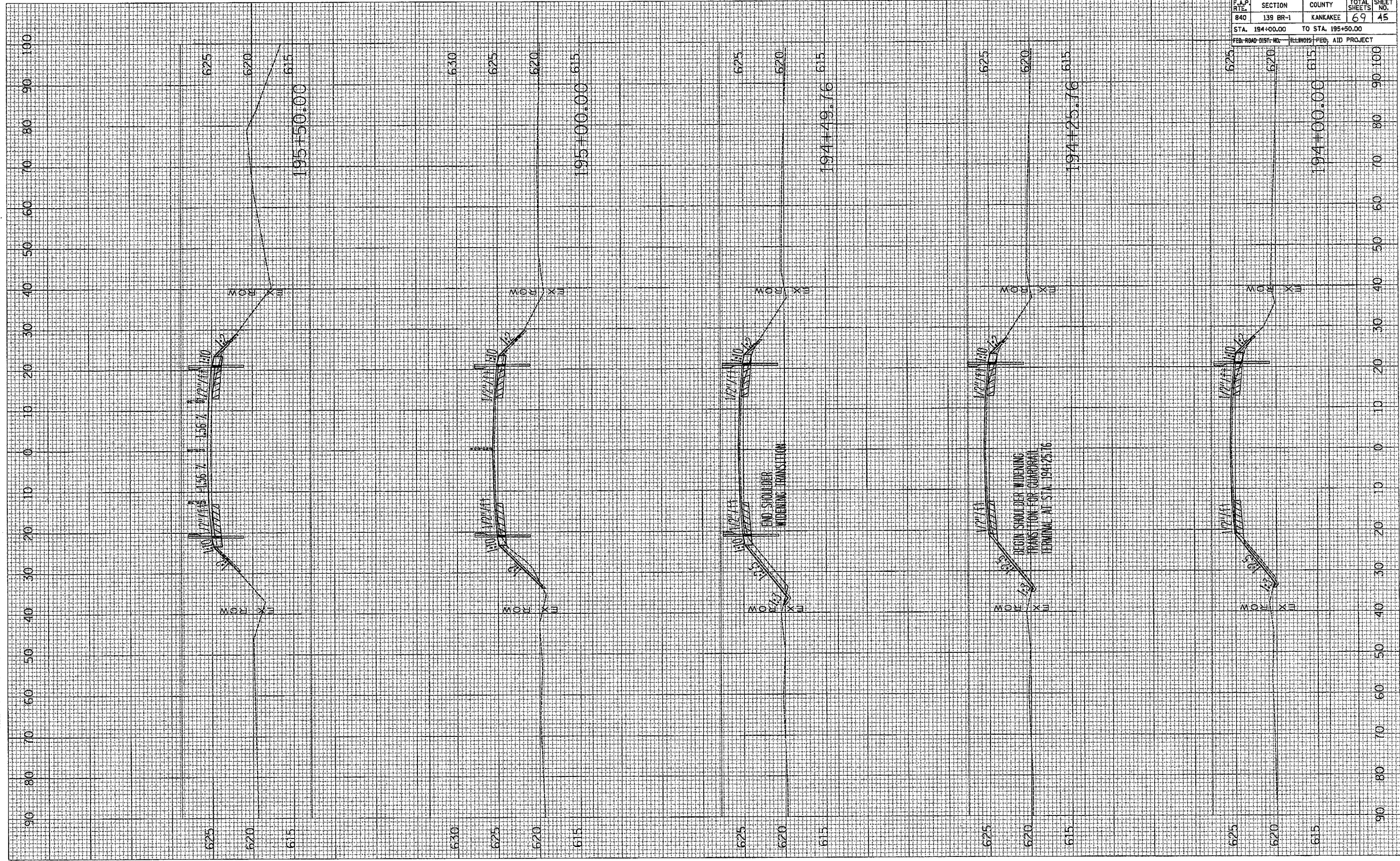




PLOT DATE = 10/13/2006  
 PLOT TIME = 10:51:00 AM  
 USER NAME = JASER

ORIGINAL SHEET NO. \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 DATE \_\_\_\_\_  
 BY \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_

FINAL SHEET NO. \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 DATE \_\_\_\_\_  
 BY \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_



CONTRACT NO. 66543			
P.A.P. RITE	SECTION	COUNTY	TOTAL SHEET NO.
840	139 BR-1	KANKAKEE	69 45
STA. 194+00.00		TO STA. 195+50.00	
FEB-RMO-DIST. NO. ILLINOIS FED. AID PROJECT			



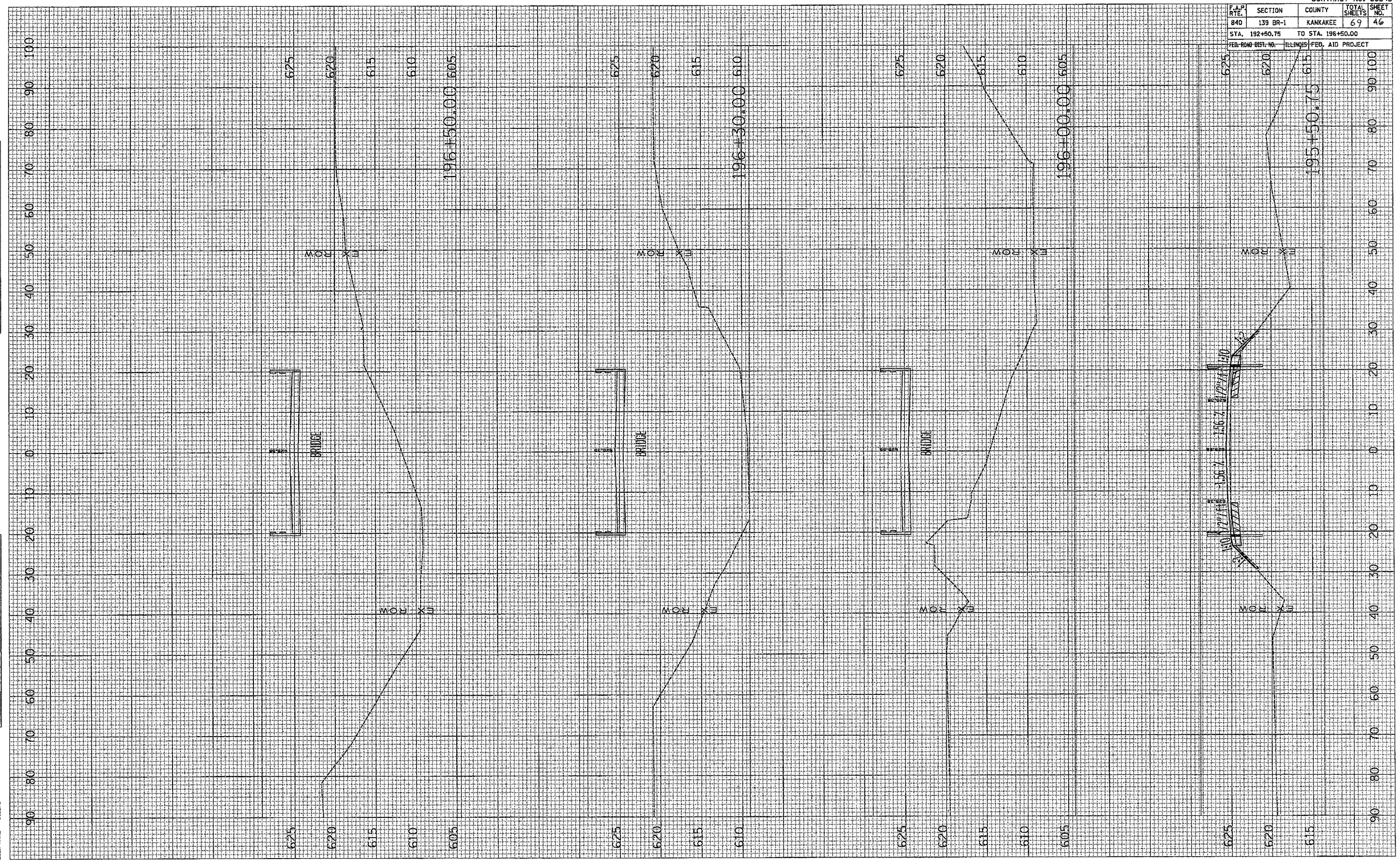
CONTRACT NO. 66543

F.A.P. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	46
STA. 192+50.75		TO STA. 196+50.00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	NO.
AREAS CHECKED	

ORIGINAL SURVEY	DATE
PLOTTED	BY
WHITE BOOK	NO.
AREAS CHECKED	

PLT DATE = 10/15/88  
FILE NAME = KANKAKEE\139BR1\139BR1.DWG  
PLOT SCALE = 800' = 1" (800'  
USER NAME = JUSER



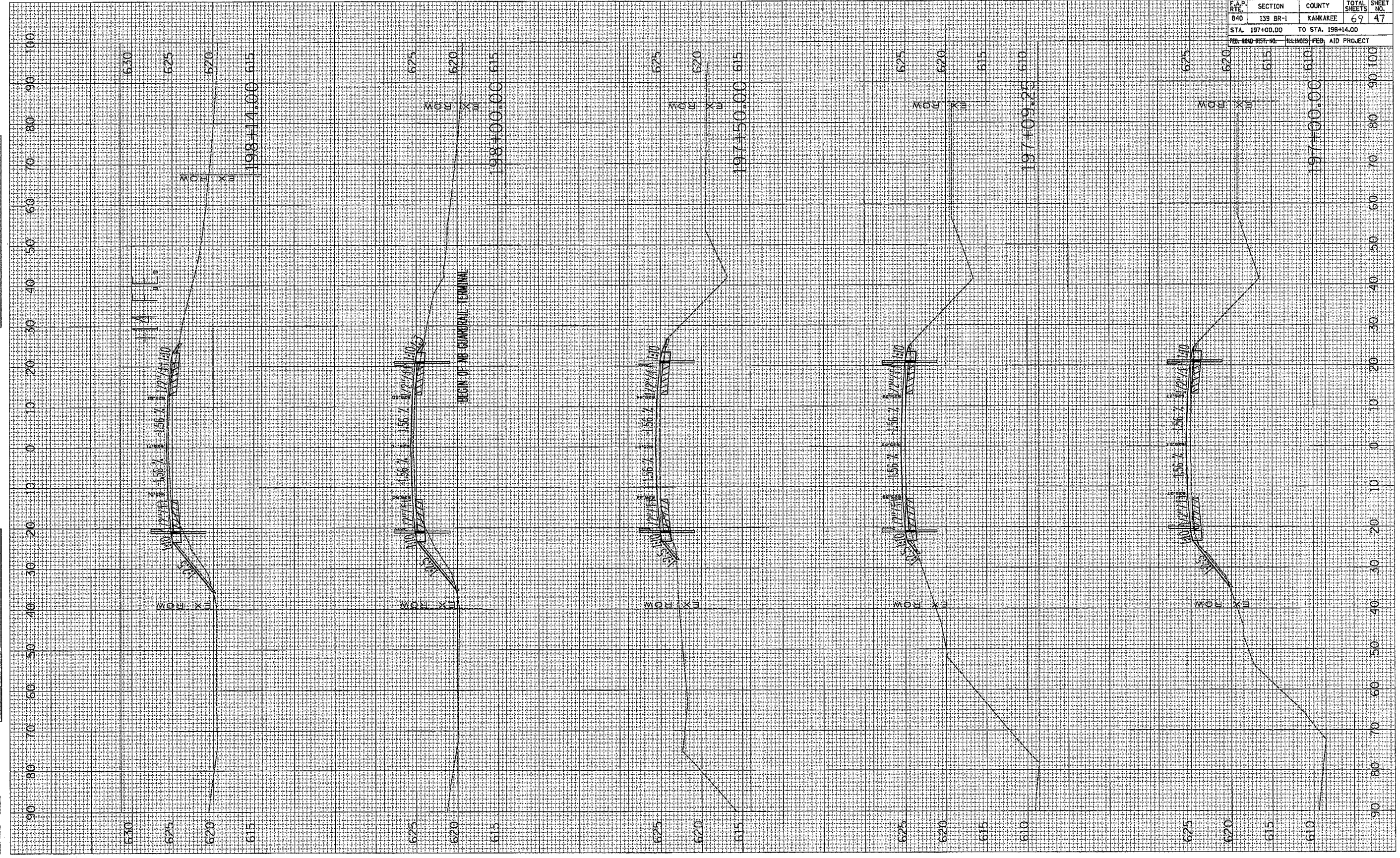


CONTRACT NO. 66543				
F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-1	KANKAKEE	69	47
STA. 197+00.00		TO STA. 198+14.00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FINAL SURVEY	DATE
PLOTTED	
NOTE BOOK NO.	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
PLOTTED	
NOTE BOOK NO.	
AREAS CHECKED	

PLOT DATE = 04/10/08  
 FILE NAME = KANKAKEE\840\139\139BR-1\SECTION 1  
 PLOT SCALE = 850/1250  
 USER NAME = JUBER



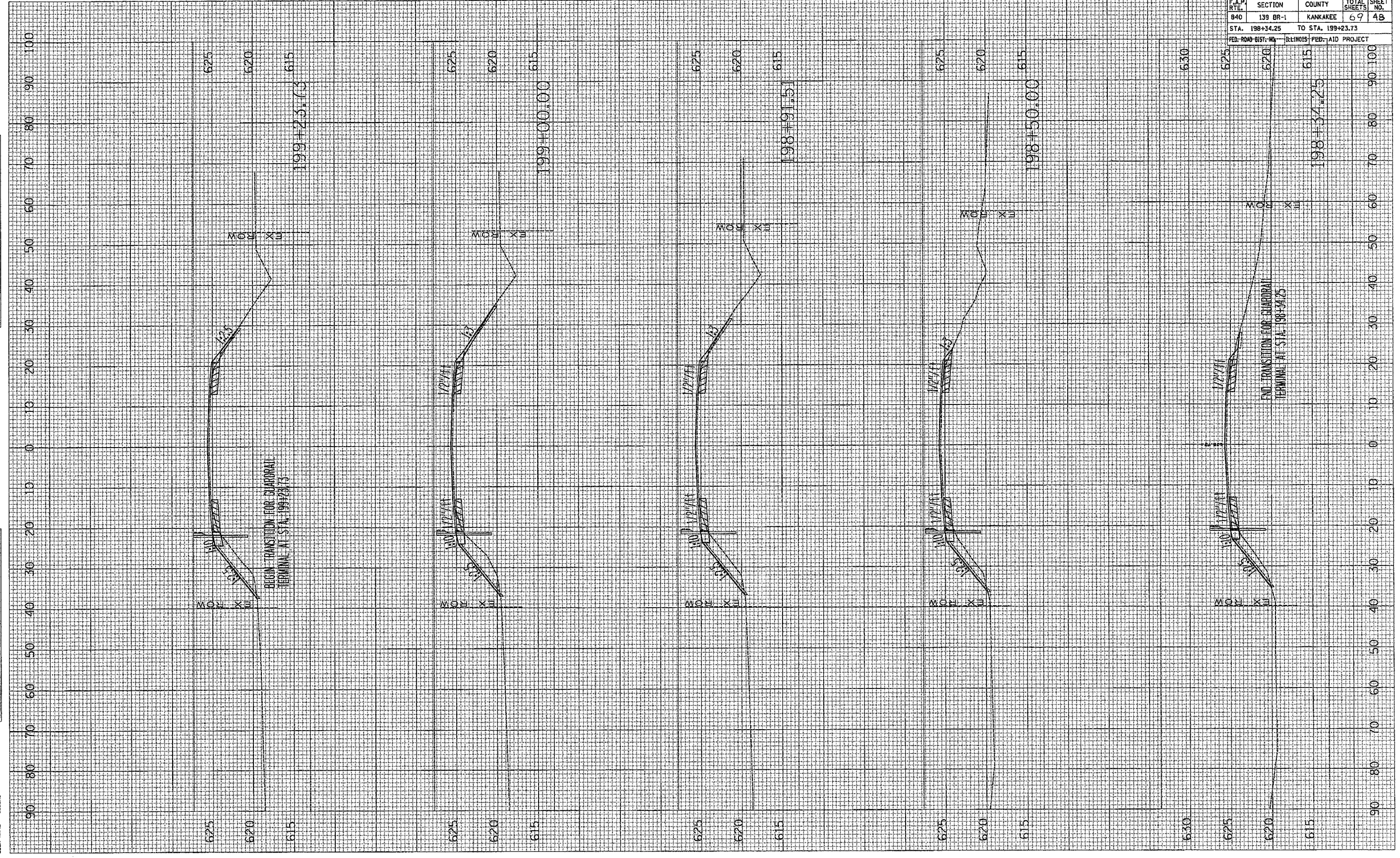


CONTRACT NO. 66543			
F.A.P. NO.	SECTION	COUNTY	TOTAL SHEET NO.
840	139 BR-1	KANKAKEE	69
STA. 198+34.25		TO STA. 199+23.73	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

FINAL SURVEY	DATE
PLANNED	
NOTE BOOK	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
PLANNED	
NOTE BOOK	
AREAS CHECKED	

DATE = 10/15/98  
 PLOT NAME = KANKAKEE BRIDGE  
 PLOT SCALE = 850/1  
 USER NAME = JBERN

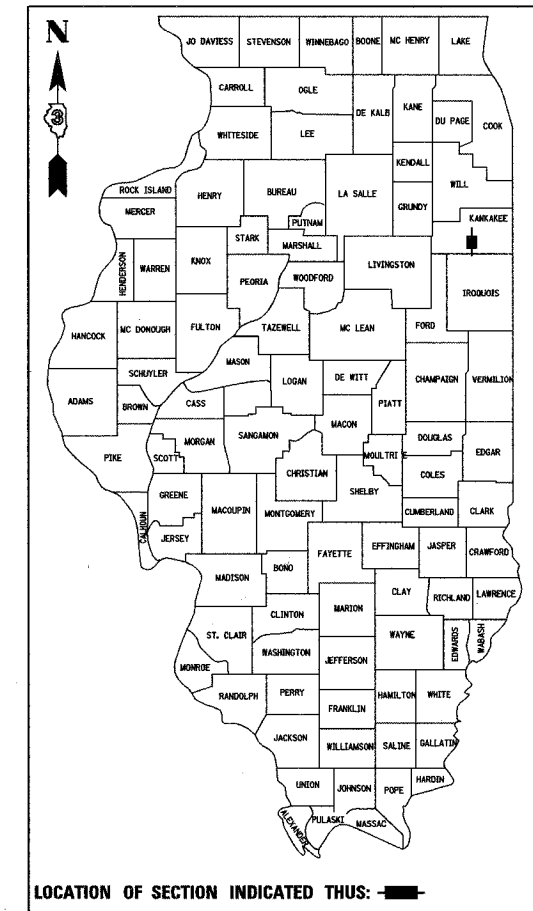






F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	69	50

P-93-031-02  
D-93-022-05



FUNCTION CLASSIFICATION	RURAL MINOR ARTERIAL
DESIGN SPEED	55 MPH
POSTED SPEED	55 MPH
ADT	6400 (2008); 7700 (2018)
P.V.	90.4%
S.U.	5.2%
M.U.	4.4%

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED \_\_\_\_\_ 20 \_\_\_\_\_  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

SUBMITTED \_\_\_\_\_ 20 \_\_\_\_\_  
ENGINEER OF DESIGN AND ENVIRONMENT

\_\_\_\_\_  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

# STATE OF ILLINOIS

## DEPARTMENT OF TRANSPORTATION

### DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

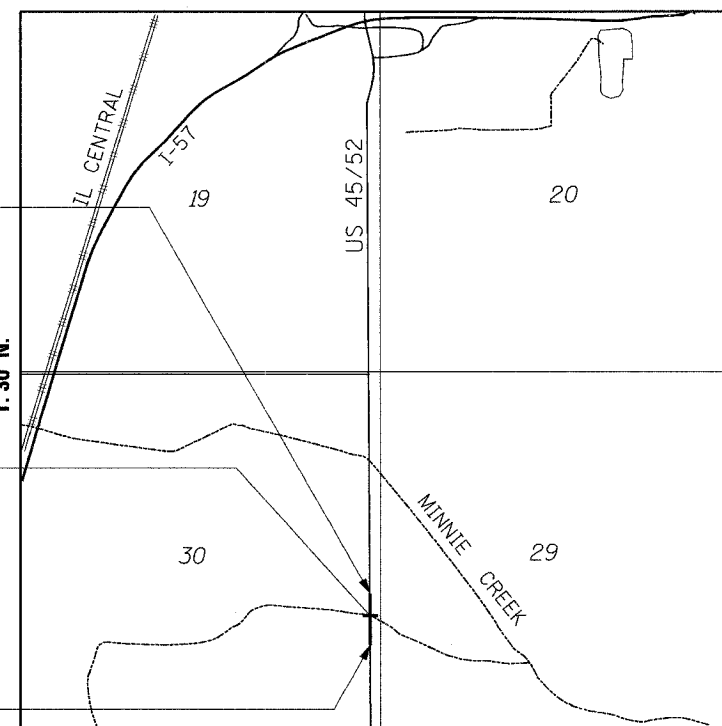
## FAP ROUTE 840 (US 45/52)

### SECTION 139 BR-2

## PROJECT

### KANKAKEE COUNTY

C - 93 - 020 - 05  
STRUCTURE REPLACEMENT AT UNNAMED TRIBUTARY OF MINNIE CREEK  
1.6 MILES SOUTH OF I-57  
R. 12 E., 3rd P.M.



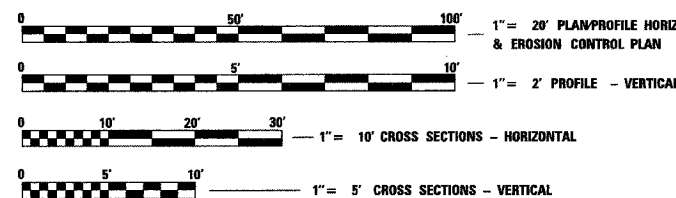
LOCATION MAP  
NOT TO SCALE

GROSS LENGTH = 677 FT. = 0.128 MI.  
NET LENGTH = 677 FT. = 0.128 MI.

**INDEX OF SHEETS**

1. COVER SHEET
2. GENERAL NOTES & STD. LIST
3. SUMMARY OF QUANTITIES
4. TYPICAL SECTIONS
5. SCHEDULE OF QUANTITIES
- 6.-8. PLAN & PROFILE SHEETS
9. DETOUR PLAN
10. MISCELLANEOUS DETAILS
11. EROSION & SEDIMENT CONTROL
12. RIGHT-OF-WAY PLAN
13. GENERAL PLAN & ELEVATION, DOUBLE 7x7 BOX CULVERT
14. DOUBLE 7'x7' BOX CULVERT END SECTION & WINGWALLS
15. SOIL BORINGS
16. EXISTING STRUCTURE PLANS
- 17.-20. CROSS SECTIONS

**HIGHWAY STANDARDS**  
SEE SHEET 2



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

MICROFILMED \_\_\_\_\_  
REEL NUMBER \_\_\_\_\_  
AWARDED \_\_\_\_\_  
RESIDENT ENGINEER \_\_\_\_\_  
AS BUILT CHANGES WERE MADE  
ON THE FOLLOWING SHEETS \_\_\_\_\_

JULIE 1-800-892-0123

DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: DAN DRAPER  
UNIT CHIEF: PAT BRABOY  
TOWNSHIP: OTTO

CONTRACT NO. 66543



MICHAEL J. BRYANT, P.E., S.E. DATE 3/28/06  
ILL. LICENSED PROFESSIONAL ENGINEER  
ILLINOIS NO. 44543 EXPIRES NOVEMBER 30, 2007

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139-BR2	KANKAKEE	69	51
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**GENERAL NOTES**

1. THE TOP 6 INCHES OF TOPSOIL SHALL BE STRIPPED FROM ALL DISTURBED AREAS OUTSIDE OF THE EXISTING BRIDGE ABUTMENTS. THIS MATERIAL SHALL BE STOCKPILED AT A LOCATION APPROVED BY THE ENGINEER AND REPLACED AFTER MAJOR GRADING OPERATIONS ARE COMPLETED. THIS WORK SHALL BE PAID FOR AS TOPSOIL EXCAVATION AND PLACEMENT. SEE EARTHWORK QUANTITIES LEGEND, THIS SHEET.
2. THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
3. AGGREGATE (PRIME COAT): FA 20 MAY BE USED IN ADDITION TO THE GRADATIONS LISTED IN THE 3RD PARAGRAPH OF ARTICLE 1003.03(G) OF THE STANDARD SPECIFICATIONS.
4. THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.
5. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.
6. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
7. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
8. ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.
9. ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.
10. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
11. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

12. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05 TONS/CU YD
BITUMINOUS MAT PRIME COAT	0.08 GAL/SQ YD OR 0.375 GAL/SQ YD
BITUMINOUS RESURFACING	112 LBS/SQ YD/IN
TEMPORARY DITCH CHECKS	9 BALES OR 5 TONS AGGREGATE

13. MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

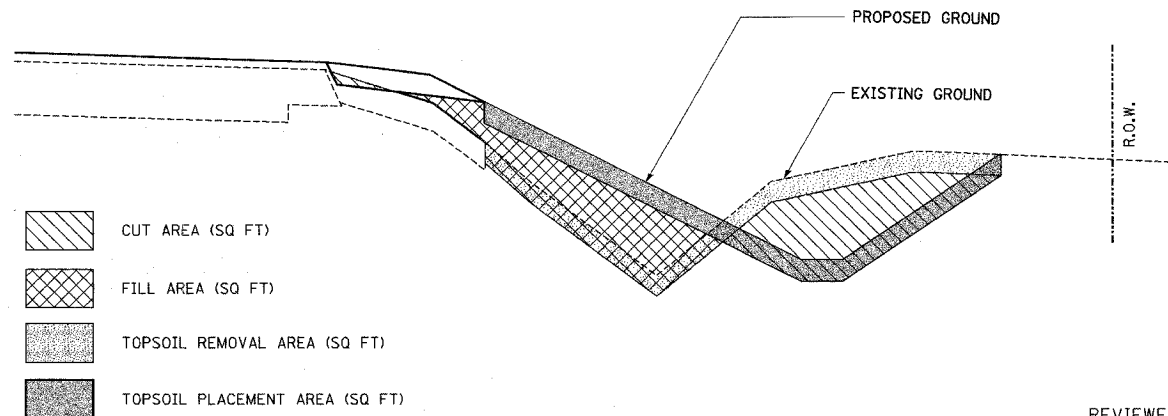
SBC	618 482 6157
COM ED	630 437 2236
COMCAST	630 600 6346
VERIZON NORTH, INC	309 663 3422
KANKAKEE MUNICIPAL UTILITIES	815 933 0445
NICOR GAS	815 754 3339

**LIST OF ILLINOIS DOT HIGHWAY STANDARDS**

- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS
- 280001-03 TEMPORARY EROSION CONTROL SYSTEMS
- 482001-01 BITUMINOUS SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
- 482011-02 BIT. SHOULDER STRIPS/SHOULDERS WITH RESURFACING OR WIDENING & RESURFACING PROJECTS
- 542301-01 PRECAST REINFORCED CONCRETE FLARED END SECTION
- 542401 METAL END SECTIONS FOR PIPE CULVERTS
- 666001 RIGHT-OF-WAY MARKERS
- 701001-01 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 4.5 m (15') AWAY
- 701006-02 OFF-RD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm FROM PAVEMENT EDGE
- 701011-01 OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701201-02 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEED > 45 MPH
- 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701306-01 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY FOR SPEED > 45 MPH
- 702001-06 TRAFFIC CONTROL DEVICES
- 780001-01 TYPICAL PAVEMENT MARKINGS

**COMMITMENTS**

NONE.



**EARTHWORK QUANTITIES LEGEND**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
REGION 2, DISTRICT THREE

REVIEWED BY: \_\_\_\_\_  
DISTRICT STUDIES & PLANS ENGINEER

DATE: \_\_\_\_\_

EXAMINED BY: \_\_\_\_\_  
DISTRICT CONSTRUCTION ENGINEER

\_\_\_\_\_  
DISTRICT MATERIALS ENGINEER

\_\_\_\_\_  
DISTRICT OPERATIONS ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAP ROUTE 840 (US 45/52)  
SEC 139 BR-2, KANKAKEE COUNTY  
**GENERAL NOTES, INDEX,  
AND STANDARDS LIST**

SCALE: VERT.	DRAWN BY
HORIZ.	CHECKED BY
DATE	

PLOT DATE = 3/28/2006  
FILE NAME = I:\STR\wco\139BR-2\Plans\kakes1-cover.dgn  
PLOT SCALE = #SCALE#  
REFERENCE = #REF#



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	69	52
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

# SCHEDULE OF QUANTITIES

PAY CODE	DESCRIPTION	UNIT	TOTAL	CONSTRUCTION TYPE CODE	
				Y007	1000
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	23		23
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	22		22
20200100	EARTH EXCAVATION	CU YD	784		784
20300100	CHANNEL EXCAVATION	CU YD	40	40	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	201	201	
2101505	TOPSOIL EXCAVATION & PLACEMENT	CU YD	480		480
25000210	SEEDING, CLASS 2A	ACRE	0.75		0.75
25000400	NITROGEN FERTILIZER NUTRIENTS	POUND	70		70
25000500	PHOSPHORUS FERTILIZER NUTRIENTS	POUND	70		70
25000600	POTASSIUM FERTILIZER NUTRIENTS	POUND	70		70
2510015	MULCH, METHOD 2	ACRE	0.75		0.75
28000100	TEMPORARY DITCH CHECKS	EACH	10		10
28000500	SEEDING, CLASS 7	ACRE	2.25		2.25
28100107	STONE RIPRAP, CLASS A4	SQ YD	715	233	482
28200200	FILTER FABRIC	SQ YD	715	233	482
31100110	SUB-BASE GRANULAR MATERIAL, TYPE A, 12"	SQ YD	220		220
35500130	HOT-MIX ASPHALT BASE COURSE, 11 1/2"	SQ YD	189		189
40200800	AGGREGATE SURFACE COURSE, TY B	TON	98		98
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	243		243
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	175		175
40800982	HOT - MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	406		406
40803340	HOT - MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	191		191
44000100	PAVEMENT REMOVAL	SQ YD	127		127
44101500	AGGREGATE SHOULDERS, TYPE B, 6"	SQ YD	671		671
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	
50105200	REMOVE EXISTING CULVERTS	EACH	3		3
54001000	BOX CULVERT END SECTIONS	EACH	2	2	
54020707	PRECAST CONCRETE BOX CULVERT 7'x7' (M273)	FOOT	108	108	

PAY CODE	DESCRIPTION	UNIT	TOTAL	CONSTRUCTION TYPE CODE	
				Y007	1000
54200220	PIPE CULVERTS, CLASS D, TY 1, 15"	FOOT	82		82
54200223	PIPE CULVERTS, CLASS D, TY 1, 18"	FOOT	52		52
54213450	END SECTIONS, 15"	EACH	4		4
54213453	END SECTIONS, 18"	EACH	2		2
63200310	GUARDRAIL REMOVAL	FOOT	598		598
66600105	FURNISHING & ERECTING RIGHT-OF-WAY MARKERS	EACH	8		8
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4		4
67100100	MOBILIZATION	L SUM	0.5		0.5
70100150	TRAFFIC CONTROL & PROTECTION STANDARD 701201	L SUM	0.5		0.5
70100160	TRAFFIC CONTROL & PROTECTION STANDARD 701306	L SUM	0.5		0.5
70100385	TRAFFIC CONTROL SURVEILLANCE	CAL DAY	20		20
78001110	PAINT PAVEMENT MARKING-LINE 4"	FOOT	1354		1354
78001130	PAINT PAVEMENT MARKING-LINE 6"	FOOT	170		170
78000100	RAISED REFLECTIVE PAVEMENT MARKERS	EACH	8		8
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	8		8
70110005	TRAFFIC CONTROL & PROTECTION FOR TEMPORARY DETOUR	L SUM	1		1

\* - SPECIALITY ITEM

PLOT DATE = 10/27/2006  
 FILE NAME = 840139  
 REFERENCE = 840139

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAP ROUTE 840 (US 45/52)  
 SEC 139 BR-2, KANKAKEE COUNTY

**SUMMARY OF QUANTITIES**

SCALE: VERT. \_\_\_\_\_  
 DATE: \_\_\_\_\_

DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_





F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139-BR2	KANKAKEE	69	54
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

LOCATION	31100910	40200800	40600100	40600980	44000100	48101500	X3550810	X4066426	X4066770
	SUBBASE GRANULAR MATERIAL TY A, 12"	AGGREGATE SURFACE COURSE TY B	BITUMINOUS MATERIALS (PR CT)	BITUMINOUS SURFACE REMOVAL BUTT JOINT	PAVEMENT REMOVAL	AGGREGATE SHOULDERS TYPE B, 6"	BITUMINOUS BASE COURSE SUPERPAVE, 1 1/2"	BIT CONC SURFACE CSE SUPERPAVE MIX "D", N70	LEVELING BINDER (MACHINE METHOD) SUPERPAVE, N70
STATION TO STATION	(SQ YD)	(TON)	(GALLON)	(SQ YD)	(SQ YD)	(SQ YD)	(SQ YD)	(TON)	(TON)
216+73			60	203		195		63	44
218+97	220		75		127	62	189	16	8
219+53	223+50		108	203		414		112	123
217+00 RT		31							
217+62 LT		36							
222+53 RT		31							
MISC.									
<b>TOTAL</b>	220	98	243	406	127	671	189	191	175

APPLICATION RATES FOR PRIME COAT = 0.08 GAL/SQ YD ON PAVEMENTS & 0.375 GAL/SQ YD ON AGGREGATE

LOCATION	542D0220	542D0223	54213450	5421453
	PIPE CULVERTS CLASS D, TY 1 15"	PIPE CULVERTS CLASS D, TY 1 18"	END SECTIONS 15'	END SECTIONS 18'
STATION TO STATION	(FOOT)	(FOOT)	(EACH)	(EACH)
216+72, 32.0' RT		52		2
217+47, 35.0' LT	37		2	
222+28, 36.0' RT	45		2	
<b>TOTAL</b>	82	52	4	2

LOCATION	28100107	Z0024400
	STONE RIPRAP CLASS A4	FILTER FABRIC
STATION TO STATION	(SQ YD)	(SQ YD)
218+50 LT	127	127
219+48 LT	110	110
218+50 RT	109	109
219+35 RT	136	136
<b>TOTAL</b>	482	482

SEE SHEET 13 FOR ADDITIONAL QUANTITIES

LOCATION	63200310
	GUARDRAIL REMOVAL
STATION TO STATION	(FOOT)
217+89 LT	127
219+34 LT	165
217+39 RT	178
219+34 RT	128
<b>TOTAL</b>	598

LOCATION	25000210	25000400	25000500	25000600	25100115	28000600	28000300
	SEEDING CLASS 2A	NITROGEN FERTILIZER NUTRIENTS	PHOSPHORUS FERTILIZER NUTRIENTS	POTASSIUM FERTILIZER NUTRIENTS	MULCH METHOD 2	SEEDING CLASS 7 (3 APPLICATIONS)	TEMPORARY DITCH CHECKS
STATION TO STATION	(ACRE)	(POUND)	(POUND)	(POUND)	(ACRE)	(ACRE)	(EACH)
216+50 LT	0.15	14	14	14	0.15	0.45	
216+50 RT	0.15	14	14	14	0.15	0.45	
219+25 LT	0.20	18	18	18	0.20	0.60	
219+25 RT	0.25	24	24	24	0.25	0.75	
216+75 RT							1
218+48 LT							1
218+48 RT							1
219+07 RT							1
219+21 RT							1
219+28 LT							1
219+41 LT							1
220+03 RT							1
220+03 LT							1
222+75 RT							1
<b>TOTAL</b>	0.75	70	70	70	0.75	2.25	10

APPLICATION RATE FOR FERTILIZERS = 90 LBS/ACRE

LOCATION	78001110	78001130
	PAINT PAVEMENT MARKING-LINE 4"	PAINT PAVEMENT MARKING-LINE 6"
STATION TO STATION	WHITE (FOOT)	YELLOW SKIP DASH (FOOT)
216+73	1354	170
<b>TOTAL</b>	1354	170

LOCATION	50105200
	REMOVE EXISTING CULVERTS
STATION	(EACH)
217+00 RT	1
217+62 LT	1
222+51 RT	1
<b>TOTAL</b>	3

LOCATION	20200100	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	STRUCTURE EXCAVATION (NOT A PAY ITEM) (SUITABLE FOR FILL)	STRUCTURE EXCAVATION (NOT A PAY ITEM) (UNSUITABLE FOR FILL)	STRUCTURE EXCAVATION MATERIAL SUITABLE FOR FILL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	20300100	20700220	21101505
	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	CHANNEL EXCAVATION (NOT SUITABLE FOR FILL)	POROUS GRANULAR EMBANKMENT	TOPSOIL EXCAVATION AND PLACEMENT
NW CORNER CUTS AND FILLS	177	133				158	-25			86
SW CORNER CUTS AND FILLS	290	217				211	6			168
NE CORNER CUTS AND FILLS	177	133				22	111			73
SE CORNER CUTS AND FILLS	140	105				151	-46			153
BOX CULVERT			260	60	195		195	40	201	
<b>TOTAL</b>	784	588	260	60	195	542	241	40	201	480

NOTE:  
 1. SHRINKAGE FACTOR = 0.75 FOR EARTH EXCAVATION & STRUCTURE EXCAVATION.  
 2. MATERIAL EXCAVATED BELOW EXISTING CHANNEL BETWEEN OUTSIDE WALLS OF PROPOSED BOX CULVERT CONSIDERED UNSUITABLE FILL.

LOCATION	201001100	20100210
	TREE REMOVAL (6 TO 15 UNITS DIA.)	TREE REMOVAL (OVER 15 UNITS DIA.)
STATION	OFFSET	(UNIT)
219+25	48' LT	9
219+40	38' LT	7
219+50	41' LT	7
220+15	36' LT	22
<b>TOTAL</b>		23

LOCATION	66600105
	FURNISHING & ERECTING ROW MARKERS
STATION	(EACH)
217+25, 40' LT	1
217+25, 40' RT	1
219+00, 70' LT	1
219+00, 70' RT	1
220+00, 70' LT	1
220+00, 70' RT	1
222+40, 40' LT	1
222+40, 40' RT	1
<b>TOTAL</b>	8

NAME	DATE

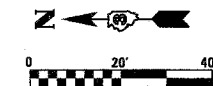
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAP ROUTE 840 (US 45/52)  
 SEC 139 BR-2, KANKAKEE COUNTY  
**SCHEDULE OF QUANTITIES**

SCALE: VERT. HORIZ.  
 DATE: DRAWN BY: CHECKED BY:

PLOT DATE = 3/29/2006  
 FILE NAME = I:\STR\work\8388-29\Plan\Kankakee\13-Sched\13.sch  
 PLOT SCALE = #SCALE#  
 REFERENCE = #REF#

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	69	55
STA. 214+00		TO STA. 216+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





EDDENA HISSONG  
17-29-300-001

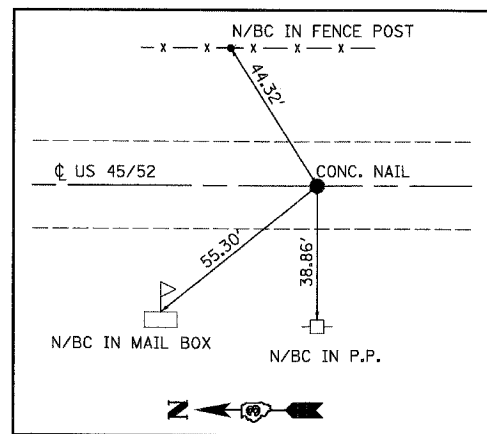


**BENCHMARKS**

BM2 - CHISELED "D" SW CORNER ABUTMENT  
SN 046-0098 STA. 219+34, 21.55' RT. ELEV. 623.24

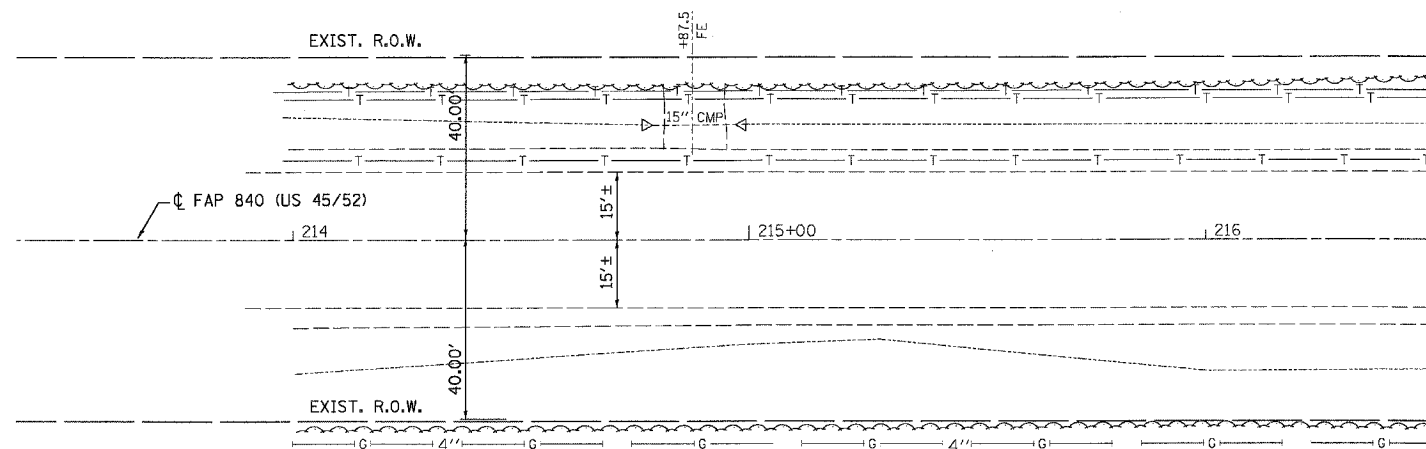
**LEGEND**

-  BITUMINOUS REMOVAL BUTT JT.
-  PAVEMENT REMOVAL
-  AGGREGATE SHOULDERS, TY B
-  RIPRAP, CLASS A4



**CENTERLINE TIE**

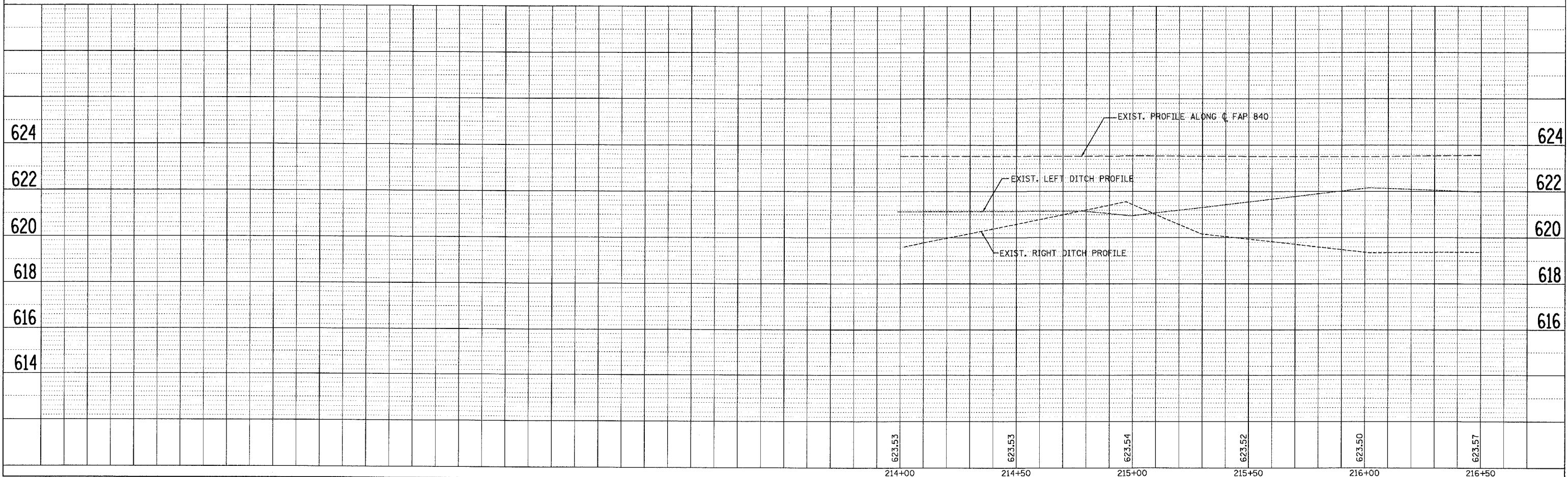
POT: STA. 207+01.72  
POINT# 204



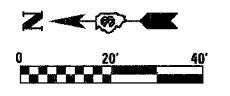
RICHARD & MONICA DEUTSCHE  
17-30-400-002

PLAN	SURVEYED	DATE
NOTE BOOK NO.	BY	
	CHECKED	
	DATE	

PROFILE	SURVEYED	DATE
NOTE BOOK NO.	BY	
	CHECKED	
	DATE	

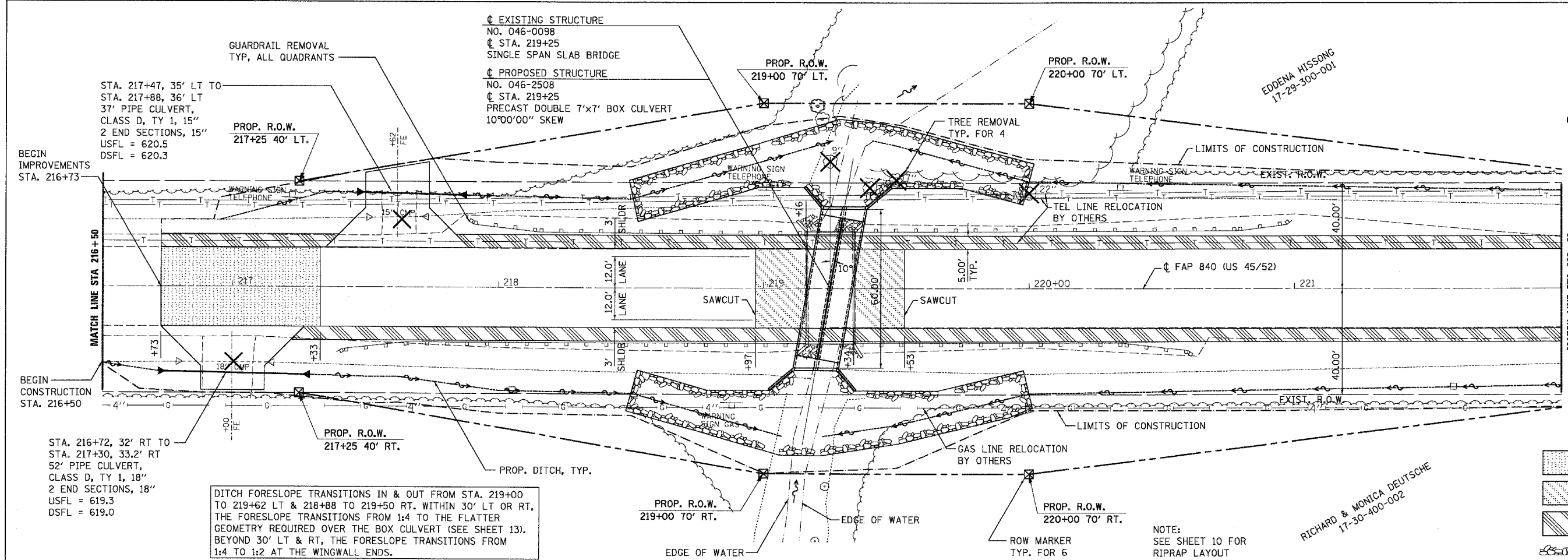


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B40	139 BR-2	KANKAKEE	69	56
STA. 216+50		TO STA. 222+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



DATE	BY
DATE	BY
DATE	BY

PLAN	SURVEYED	DATE



DITCH FORESLOPE TRANSITIONS IN & OUT FROM STA. 219+00 TO 219+62 LT & 218+88 TO 219+50 RT. WITHIN 30' LT OR RT, THE FORESLOPE TRANSITIONS FROM 1:4 TO THE FLATTER GEOMETRY REQUIRED OVER THE BOX CULVERT (SEE SHEET 13). BEYOND 30' LT & RT, THE FORESLOPE TRANSITIONS FROM 1:4 TO 1:2 AT THE WINGWALL ENDS.

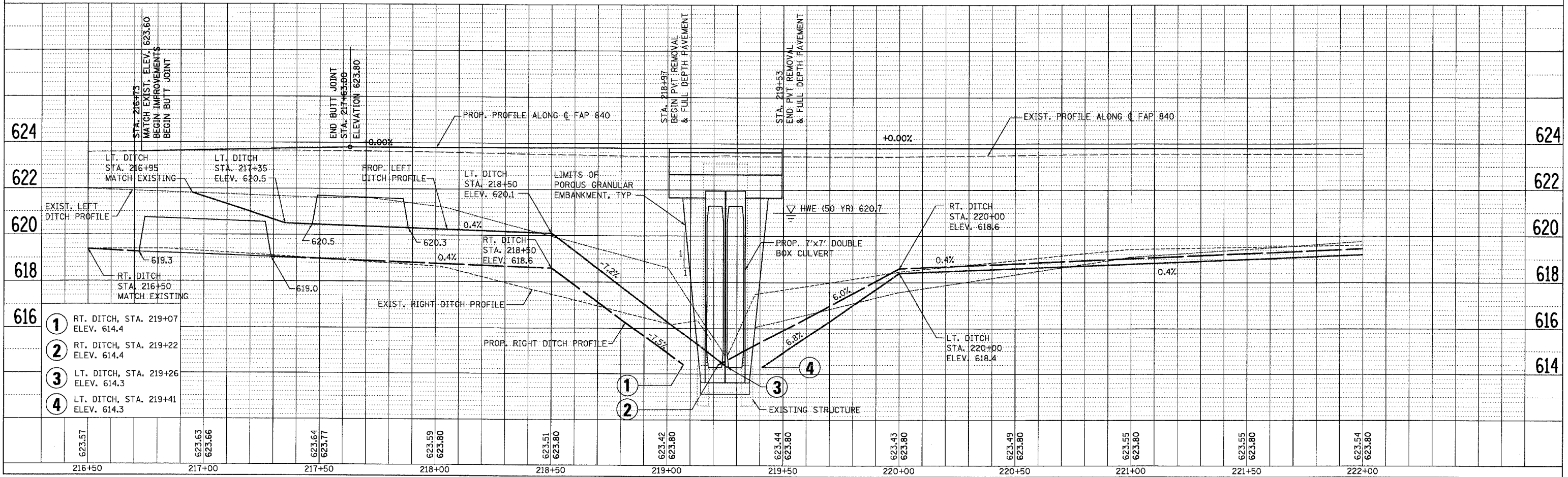
NOTE: SEE SHEET 10 FOR RIPRAP LAYOUT

**LEGEND**

	BITUMINOUS REMOVAL BUTT JOINT
	PAVEMENT REMOVAL
	AGGREGATE SHOULDERS, TY B
	RIPRAP, CLASS A4

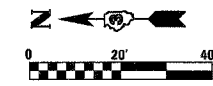
DATE	BY
DATE	BY
DATE	BY

PROFILE	SURVEYED	DATE



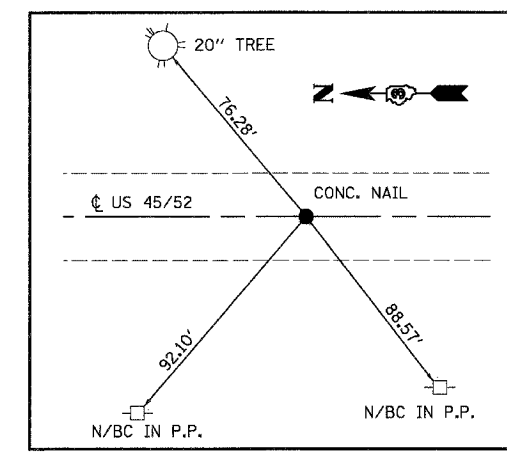
- ① RT. DITCH, STA. 219+07 ELEV. 614.4
- ② RT. DITCH, STA. 219+22 ELEV. 614.4
- ③ LT. DITCH, STA. 219+26 ELEV. 614.3
- ④ LT. DITCH, STA. 219+41 ELEV. 614.3

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	69	57
STA. 222+00		TO STA. 225+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**LEGEND**

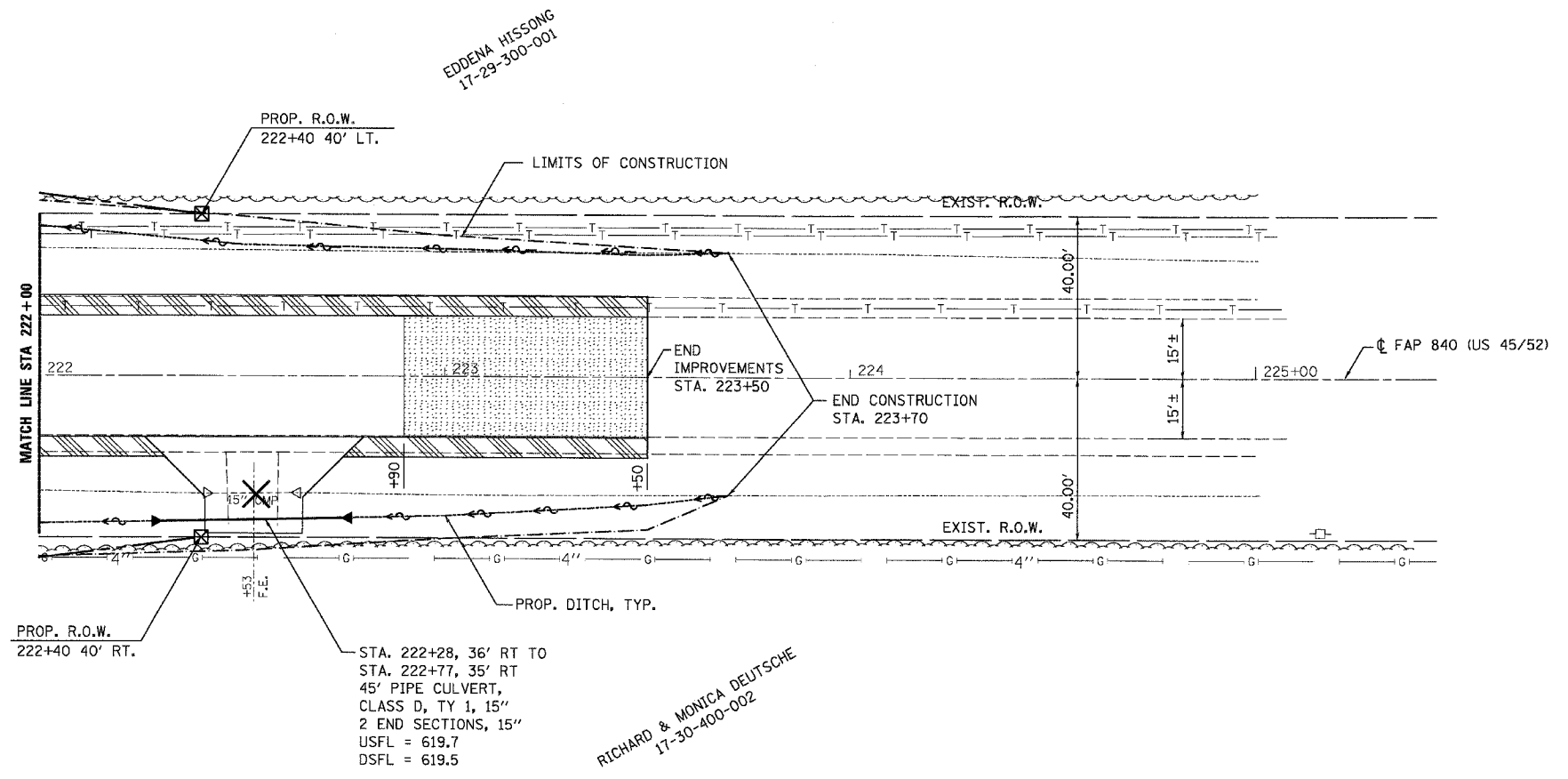
- BITUMINOUS REMOVAL BUTT JOINT
- PAVEMENT REMOVAL
- AGGREGATE SHOULDERS, TY B
- RIPRAP, CLASS A4



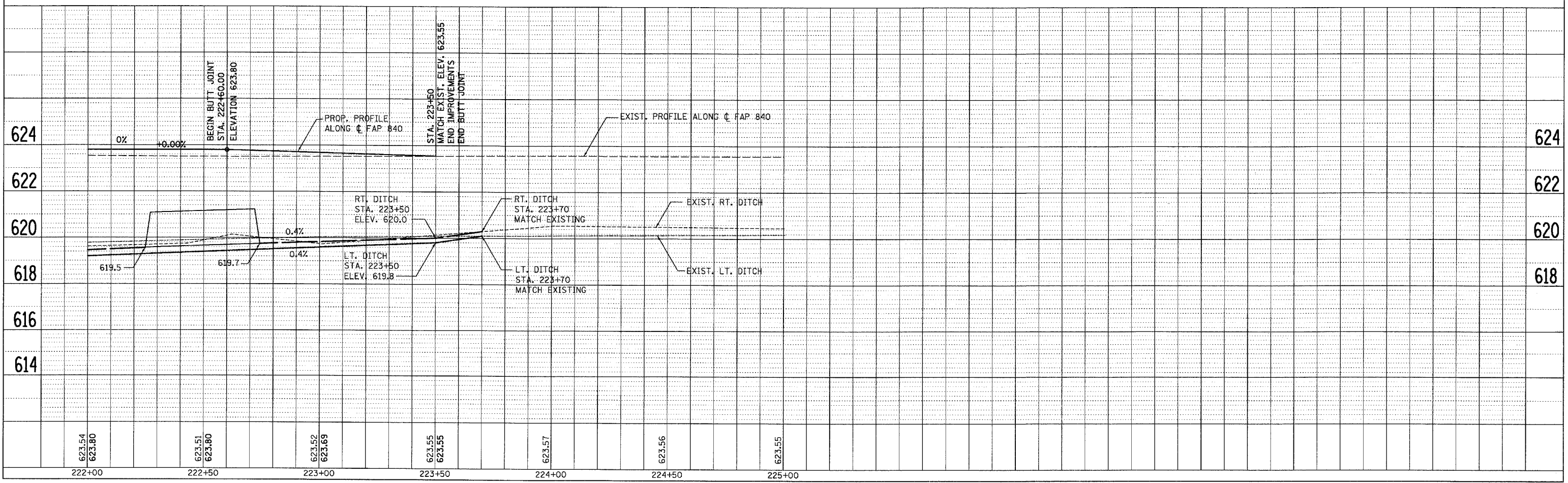
**CENTERLINE TIE**

POT: STA. 253+63.97  
POINT# 206

PLAN	SURVEYED	DATE
	NOTED	BY
	CHECKED	
	BY	
	DATE	
	NO.	
	FILE NAME	



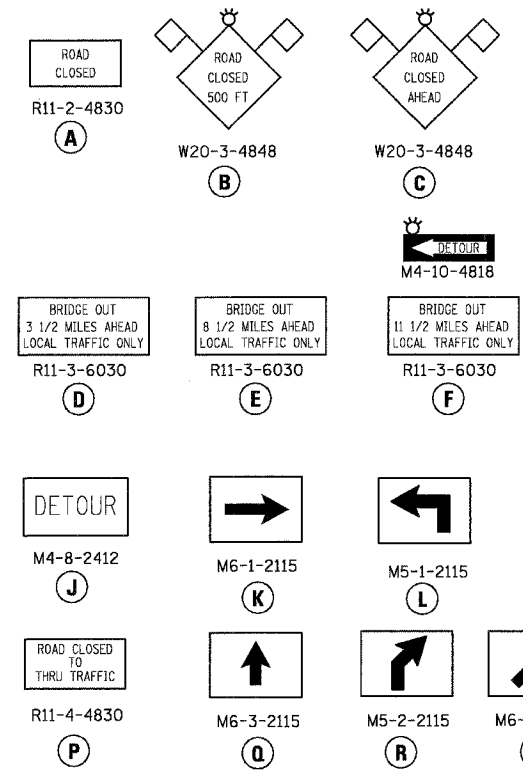
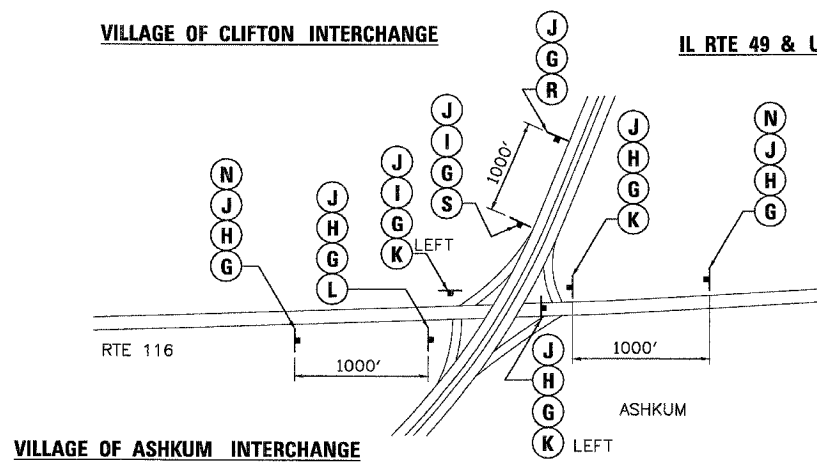
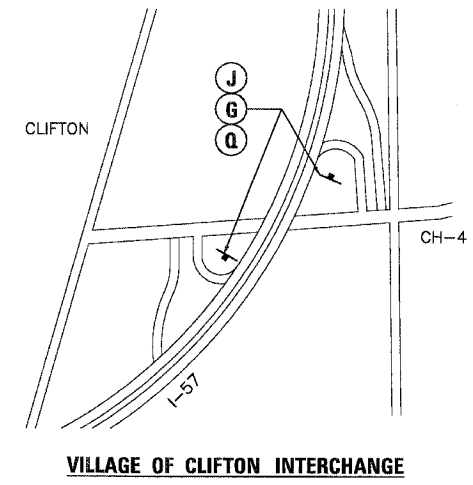
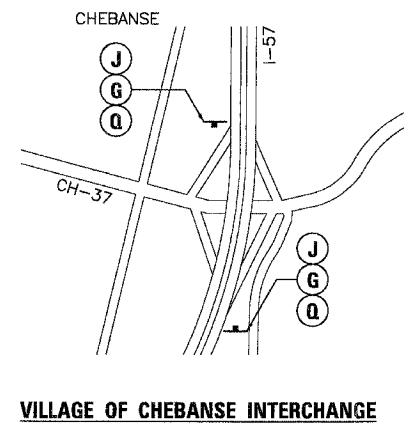
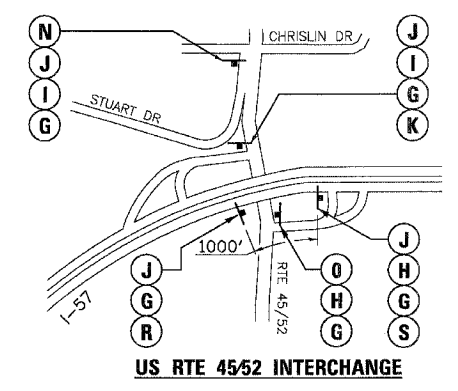
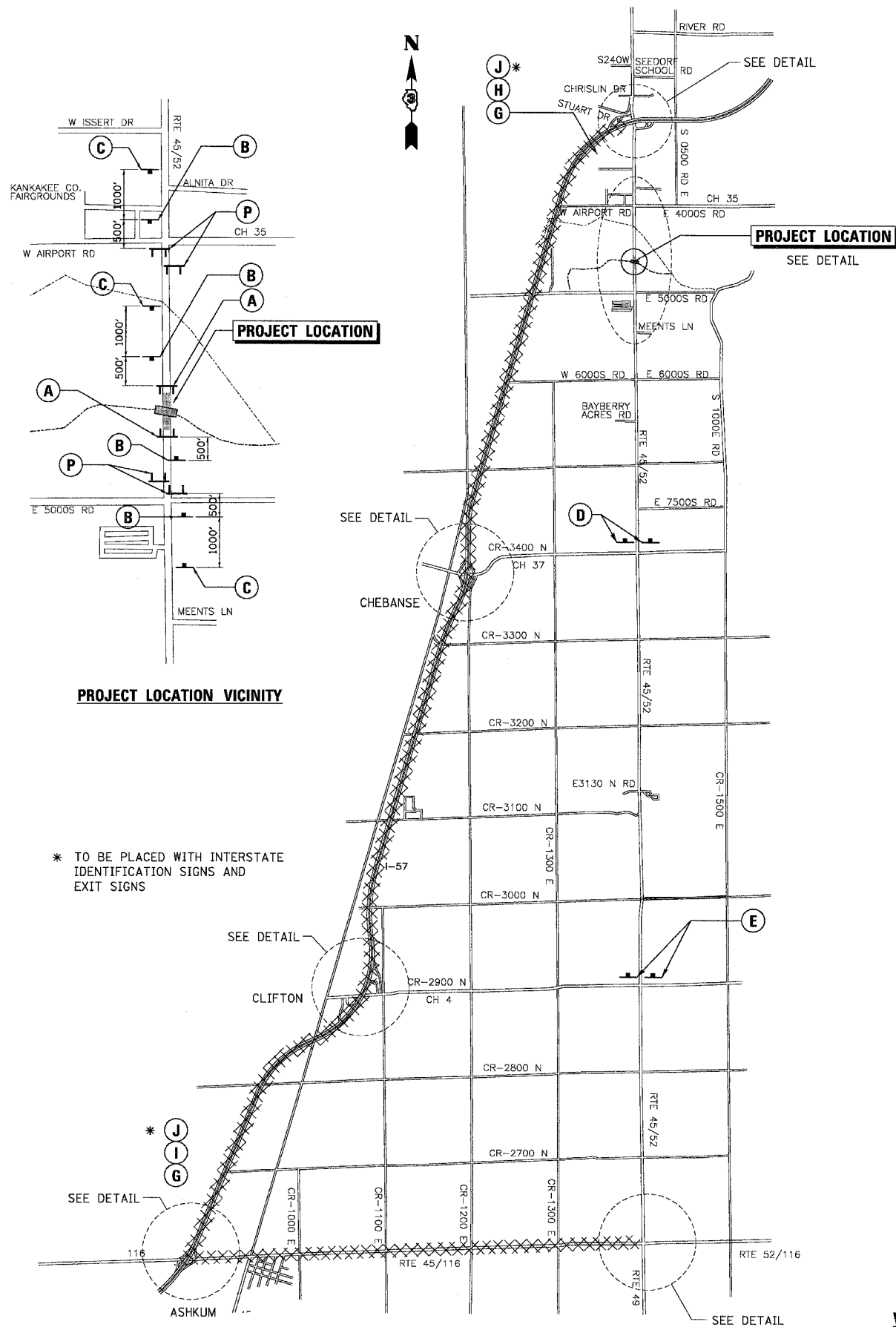
PROFILE	SURVEYED	DATE
	NOTED	BY
	CHECKED	
	BY	
	DATE	
	NO.	
	FILE NAME	



STA. 222+28, 36' RT TO  
STA. 222+77, 35' RT  
45' PIPE CULVERT,  
CLASS D, TY 1, 15"  
2 END SECTIONS, 15"  
USFL = 619.7  
DSFL = 619.5

RICHARD & MONICA DEUTSCHE  
17-30-400-002

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	69	58
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



**GENERAL NOTES**

- ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
- ALL SIGNS NOT ATTACHED TO BARRICADES SHALL BE POST MOUNTED, UNLESS OTHERWISE NOTED.
- LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
- THE ILLINOIS DEPARTMENT OF TRANSPORTATION WILL SUPPLY ALL US 45/52 ROUTE SIGNS FOR THIS DETOUR. THE CONTRACTOR SHALL NOTIFY DISTRICT 3 BUREAU OF OPERATIONS 14 CALENDAR DAYS PRIOR TO PLACING THE DETOUR.
- SEE SPECIAL PROVISIONS FOR TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.
- AT THE US 45/52 INTERSECTION:  
ON THE LEFT LEG, COVER "KANKAKEE" AND THE NORTH DIRECTIONAL ARROW. ALSO COVER ARROWS THAT POINT NORTH FOR US 52.  
ON THE EAST LEG, CHANGE ARROW DIRECTIONS ON THE US 52 ROUTE MARKERS SO THAT THEY POINT WEST AND NOT NORTH.  
ON THE SOUTH LEG, CHANGE NORTH ARROWS ON EXISTING US 45/52 SIGNS. ALSO, CHANGE KANKAKEE ARROW ON SOUTH LEG.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAP ROUTE 840 (US 45/52)  
SEC 139 BR-2, KANKAKEE COUNTY

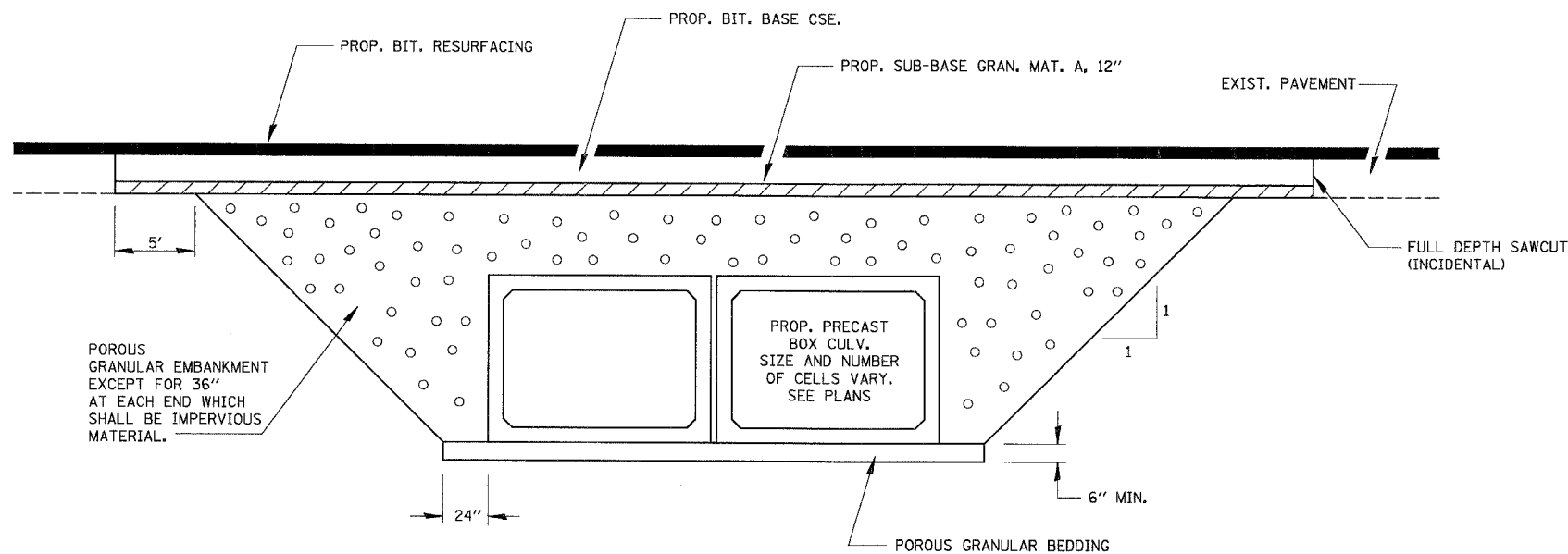
**DETOUR PLAN**

SCALE: VERT. HORIZ.  
DATE: DRAWN BY: CHECKED BY:

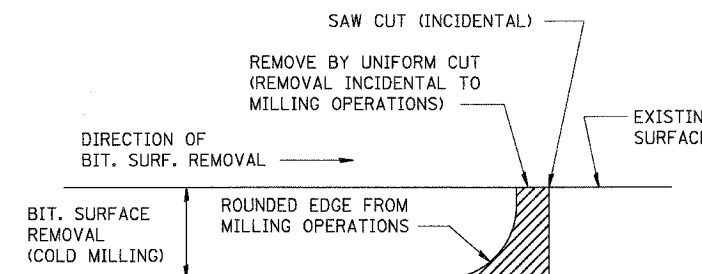
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 FILE NAME = I:\STR\1000\840BR-2\139\Kankakee\4-Detour.dgn  
 PLOT SCALE = ASCALE  
 REFERENCE = #REF#



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139-BR2	KANKAKEE	89	59
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

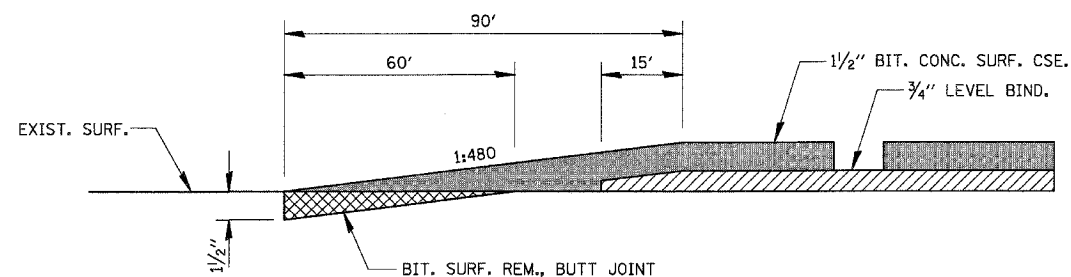


SECTION THROUGH PRECAST BOX CULVERT

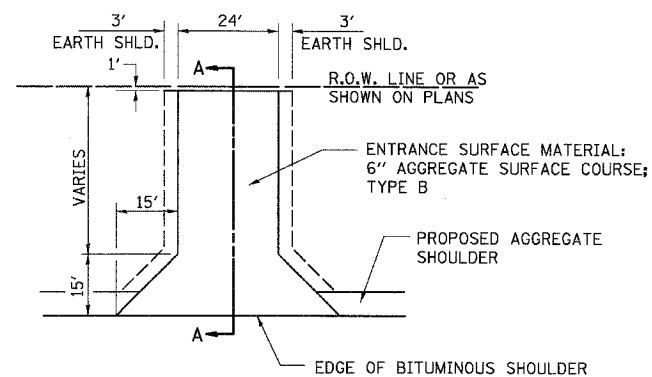


NOTE: WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

BITUMINOUS DETAIL AT BUTT JOINTS

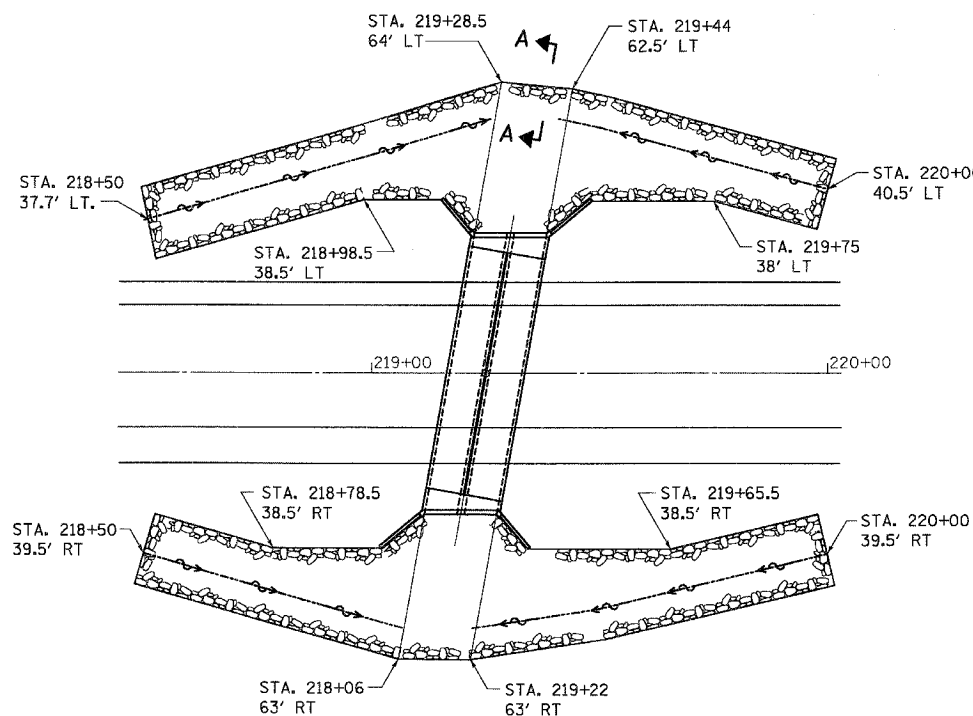


BUTT JOINT DETAIL

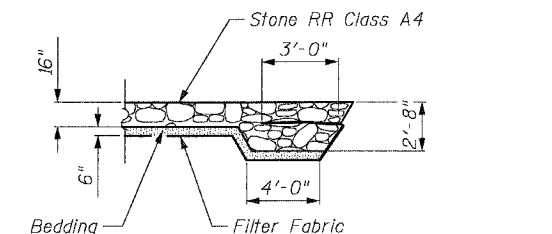


SECTION A-A

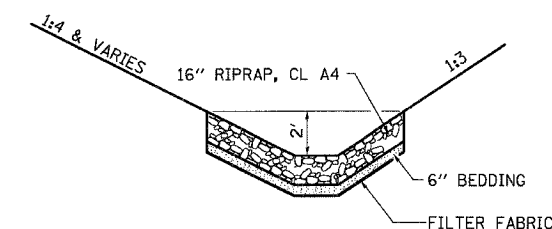
FIELD ENTRANCE DETAIL



RIPRAP LAYOUT



SECTION A-A FLANK DETAIL



RIPRAP LINED DITCH DETAIL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAP ROUTE 840 (US 45/52)  
SEC 139 BR-2, KANKAKEE COUNTY

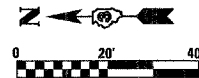
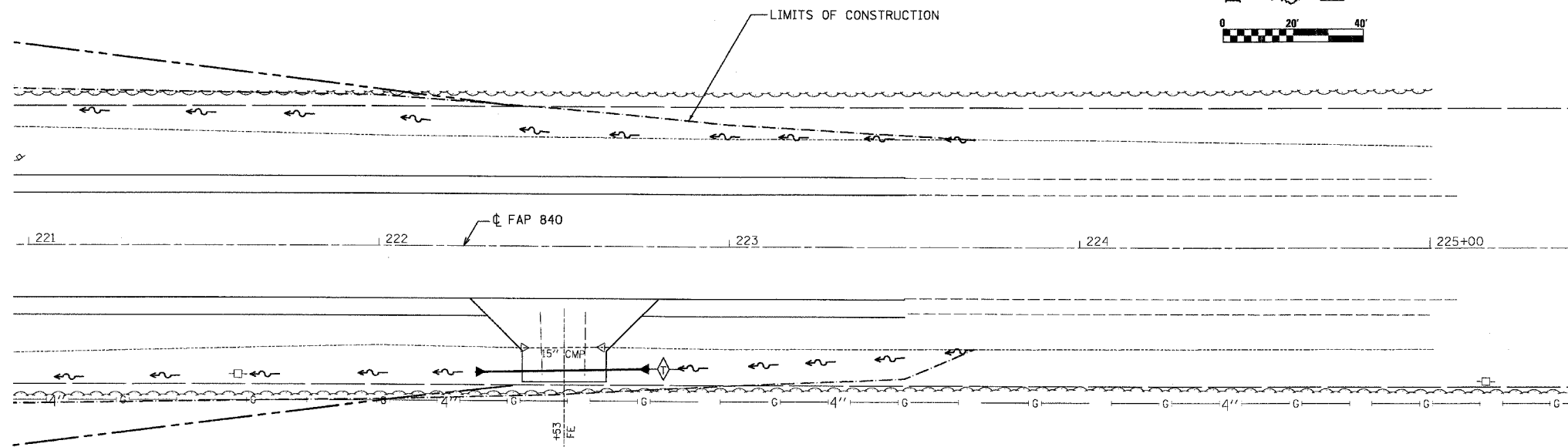
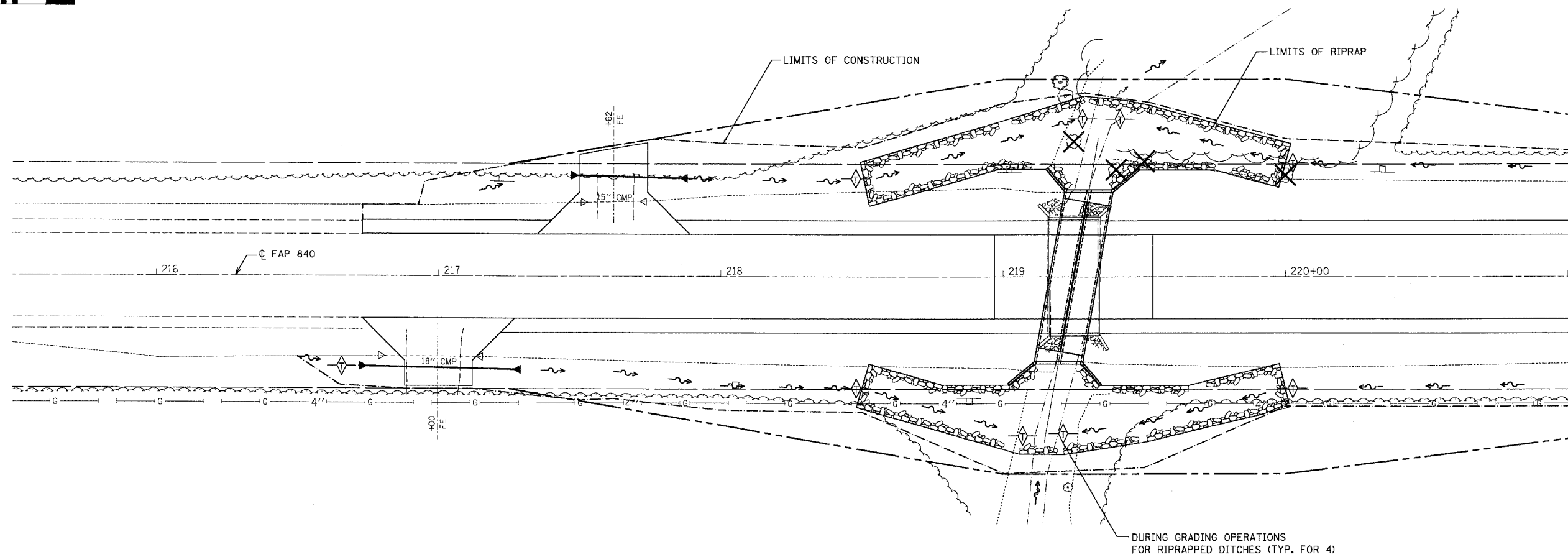
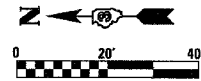
MISCELLANEOUS DETAILS

SCALE: VERT. HORIZ.  
DATE DRAWN BY CHECKED BY

PLOT DATE = 3/29/2006  
FILE NAME = I:\STR\proj\0308-29\Plan\Kankakee\18-Dist-Det.dgn  
PLOT SCALE = 850/11  
REFERENCE = #REF#



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	09	00
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**LEGEND**

- CONSTRUCTION LIMITS
- ◇ TEMPORARY DITCH CHECK
- ▣ RIPRAP CLASS A4
- ~ PROPOSED DITCH
- ◀ FLARED END SECTION

NOTE:  
USE SEEDING CLASS 7 AS TEMPORARY SEEDING FOR ALL AREAS DISTURBED BY CONSTRUCTION, IN ACCORDANCE WITH SWPPP.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAP ROUTE 840 (US 45/52)  
SEC 139 BR-2, KANKAKEE COUNTY  
**EROSION & SEDIMENT CONTROL**

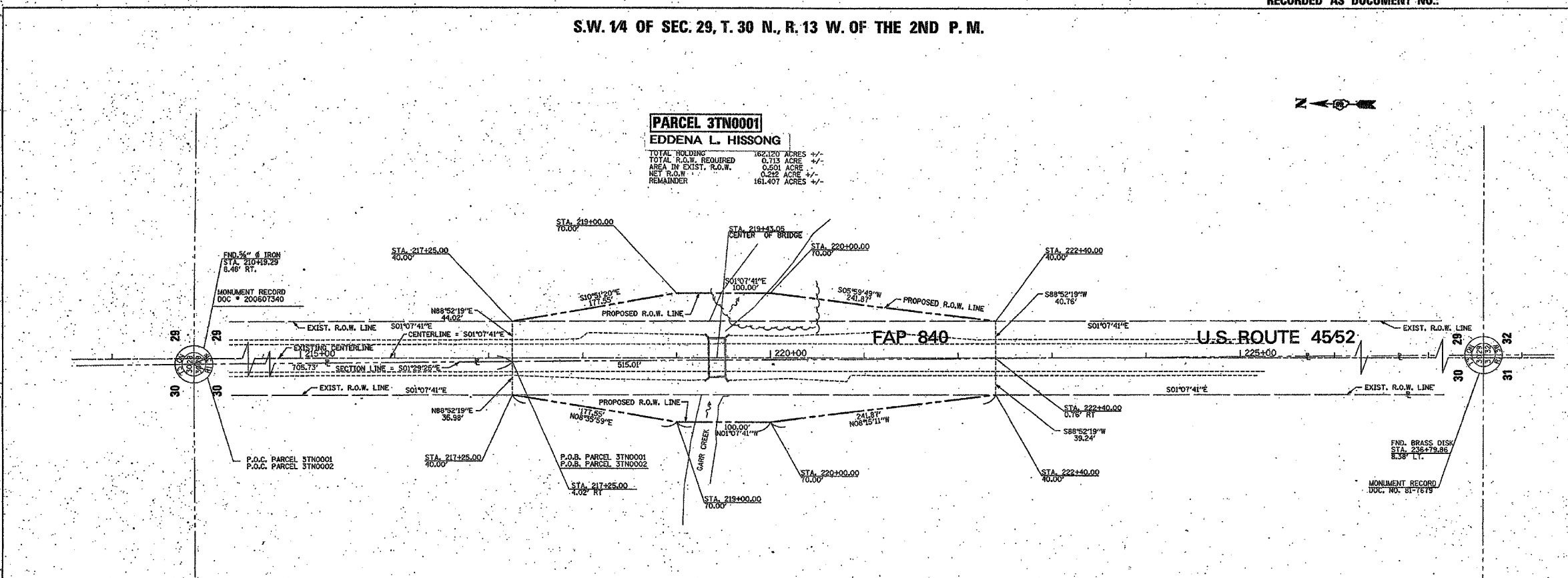
SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

PLOT DATE = 5/25/2006  
 FILE NAME = J:\STATION\03088-29\Plan\Kankakee\11-Erosion.dgn  
 PLOT SCALE = #SCALE#  
 REFERENCE = #REF#

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	69	61
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

RECORDED AS DOCUMENT NO.:

S.W. 1/4 OF SEC. 29, T. 30 N., R. 13 W. OF THE 2ND P. M.



**PARCEL 3TN0001**  
**EDDENA L. HISSONG**  
 TOTAL HOLDING 162.120 ACRES +/-  
 TOTAL R.O.W. REQUIRED 0.713 ACRE +/-  
 AREA IN EXIST. R.O.W. 0.260 ACRE +/-  
 NET R.O.W. 0.282 ACRE +/-  
 REMAINDER 161.407 ACRES +/-

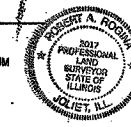
**PARCEL 3TN0002**  
**STEPHEN M. DEUTSCHE ET AL.**  
 TOTAL HOLDING 221.684 ACRES +/-  
 TOTAL R.O.W. REQUIRED 0.656 ACRE +/-  
 AREA IN EXIST. R.O.W. 0.444 ACRE +/-  
 NET R.O.W. 0.212 ACRE +/-  
 REMAINDER 221.028 ACRES +/-

1	AS SHOWN	BY
2	REVISION	DATE
3	REVISION	DATE
4	REVISION	DATE
5	REVISION	DATE

I, ROBERT A. ROGHNA, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF ILLINOIS HIGHWAY ROUTE 45 AND 52 WAS MADE BY ME OR UNDER MY DIRECTION AND THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT ALL MONUMENTS AND MARKS ARE OF THE CHARACTER AND OCCUPY THE POSITION SHOWN THEREON, AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

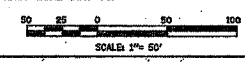
DATE: MAY 3, 2006

ROBERT A. ROGHNA  
 ILL. 2315, 2017  
 LICENSE EXPIRES 11/30/08



"THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY."

BEARINGS BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE (QUAD 53)



**RIGHT OF WAY PLANS**

ROUTE	FAP 840 IUS RTE'S 45/52
SECTION	139 BR-2
PROJECT	
COUNTY	KANKAKEE
JOB NUMBER	R-93-005-06
STATION	215+00 TO 225+00
SHEET	1 OF 1 SCALE 1" = 50'

S.E. 1/4 OF SEC. 30, T. 30 N., R. 13 W. OF THE 2ND P. M.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**RIGHT OF WAY PLANS**

SCALE: VERT. 1" = 20'  
 HORIZ. 1" = 50'  
 DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 840	139 BR-2	KANKAKEE	69	62
FED. ROAD DIST. NO. 7		S.L. DIST.	FED. AID PROJ. NO.	

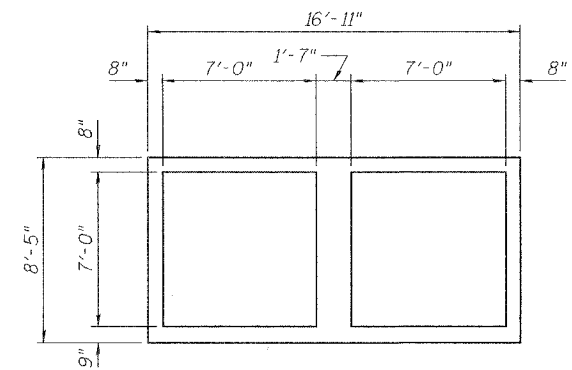
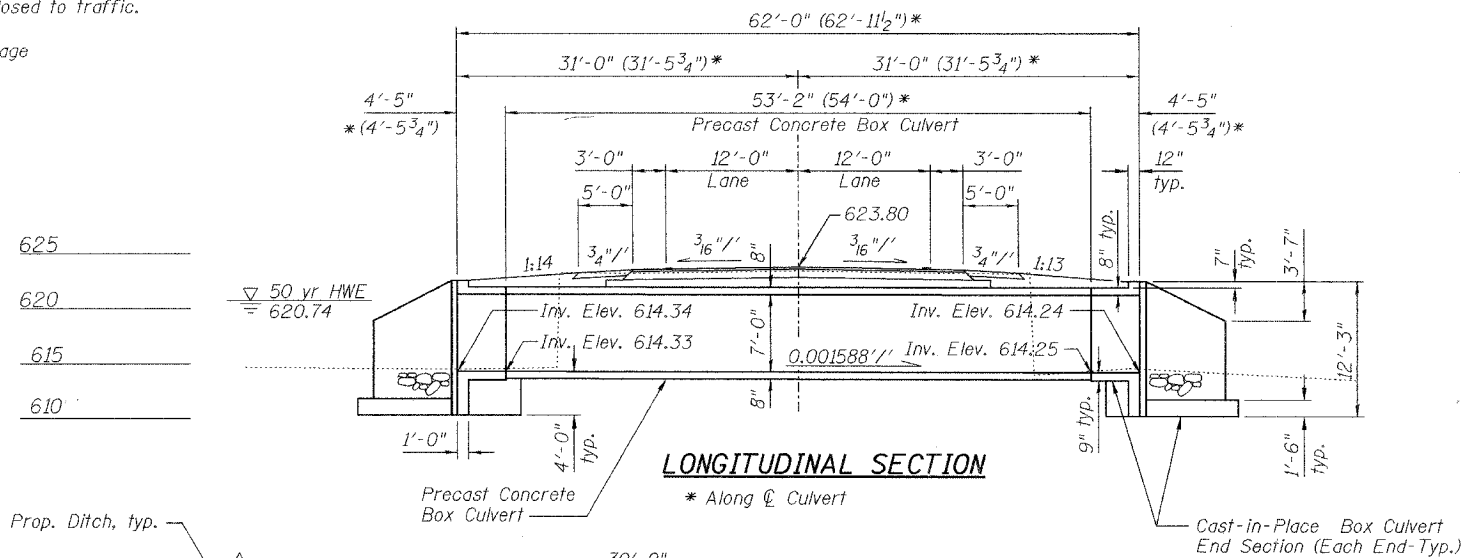
Contract # 66543

Bench Mark: Chiseled "□" on S.W. wingwall El. 623.24. To be relocated.

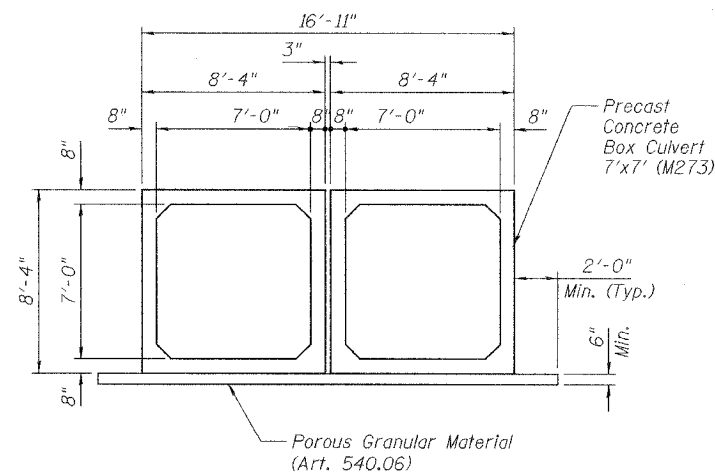
Existing Structure: S.N. 046-0098 built in 1928 as a single span closed abutment structure with a reinforced concrete slab measuring 16'-0" clear face to face of abutments, and out to out deck width of 42'-2", and 0° skew. Structure to be removed and replaced.

Road closed to traffic.

No Salvage



SECTION THRU CAST-IN-PLACE END SECTION



SECTION THRU PRECAST BARREL

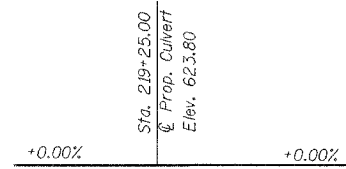
3" nominal space shall be left between adjacent precast sections. After the precast cells are in place and backfill has been placed to midheight of the precast concrete box section on each side, the space between the cells shall be filled with class SI concrete.

GENERAL NOTES

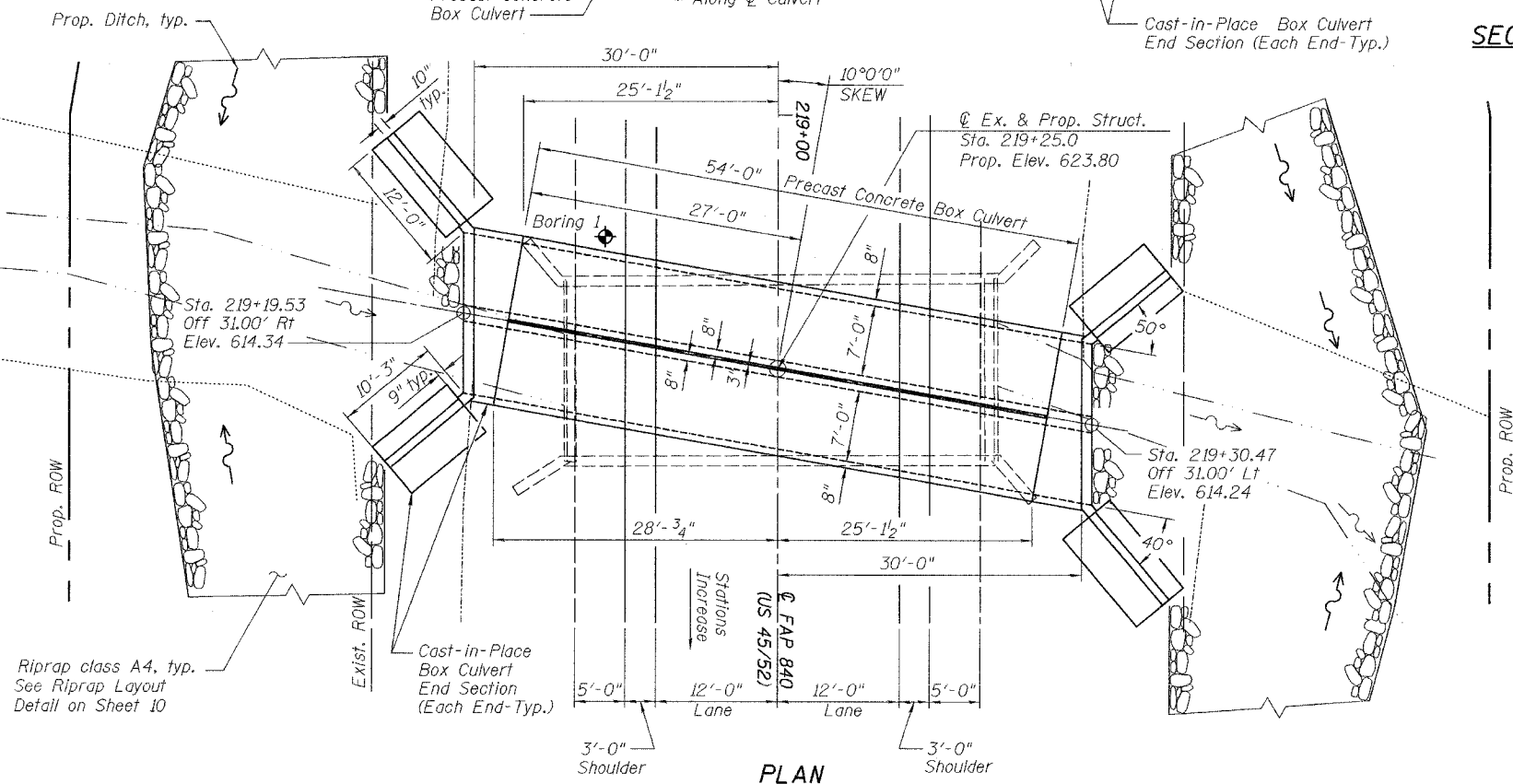
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (LL Modified). See Special Provisions.
2. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
3. All construction joints shall be bonded.
4. Excavation behind existing abutment walls shall be done before removing the existing superstructure.
5. Precast alternate is not allowed for end sections.
6. The end precast concrete box culvert sections shall be cast with 2'-0" of longitudinal reinforcement protruding from the end of the unit. The concrete half lap joint shall be eliminated at the outside box culvert units to facilitate reinforcement placement.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	233
Filter Fabric	Sq. Yd.	233
Removal of Existing Structures	Each	1
Box Culvert End Sections	Each	2
Precast Concrete Box Culverts 7'x7' (M273)	Foot	108



PROFILE GRADE  
(Along & Roadway)  
(Existing & Proposed)



PLAN

Note:  
Wingwall dimensions for NE & SW wings are the same, and for the NW & SE wings are the same.

DESIGNED	MJB
CHECKED	MAJ
DRAWN	MSJ
CHECKED	WCC

WATERWAY INFORMATION

Drainage Area = 1.93 mi<sup>2</sup> Low Grade Elev. 623.43 ft @ Sta. 219+00

Flood	Freq. Yr.	Q ft <sup>3</sup> /s	Opening Sq. ft		Nat. H.W.E. ft	Head - ft		Headwater Elev. - ft	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	250	77	80	620.0	0.1	0.0	620.1	620.0
Base	50	369	88	90	620.7	0.2	0.2	620.9	620.9
Overtopping	100	417	90	91	620.8	0.3	0.2	621.1	621.0
Max. Calc.	500	527	94	95	621.1	0.6	0.5	621.7	621.6

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface. (Precast)

DESIGN SPECIFICATIONS

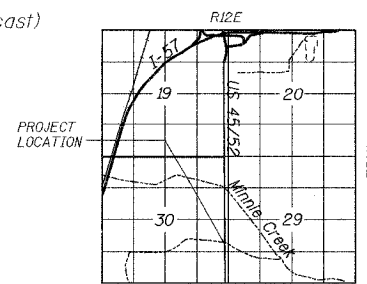
2003 AASHTO

DESIGN STRESSES

FIELD UNITS

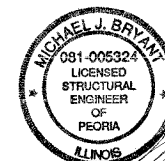
- f<sub>c</sub> = 3,500 psi (Cast-in-Place)
- f<sub>c</sub> = 5,000 psi (Precast)
- f<sub>y</sub> = 60,000 psi (reinforcement)
- f<sub>y</sub> = 65,000 psi (welded wire fabric)

Design Fill Height < 2' AASHTO Designation : M 273



LOCATION SKETCH

APPROVED  
FOR STRUCTURAL ADEQUACY ONLY



MICHAEL J. BRYANT, P.E., S.E.  
IL LICENSED STRUCTURAL ENGINEER  
ILLINOIS NO. 5324 EXPIRES NOVEMBER 30, 2006

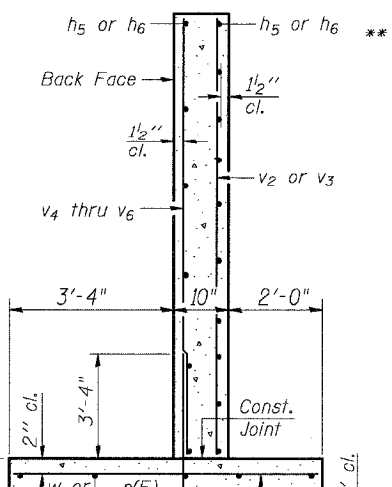
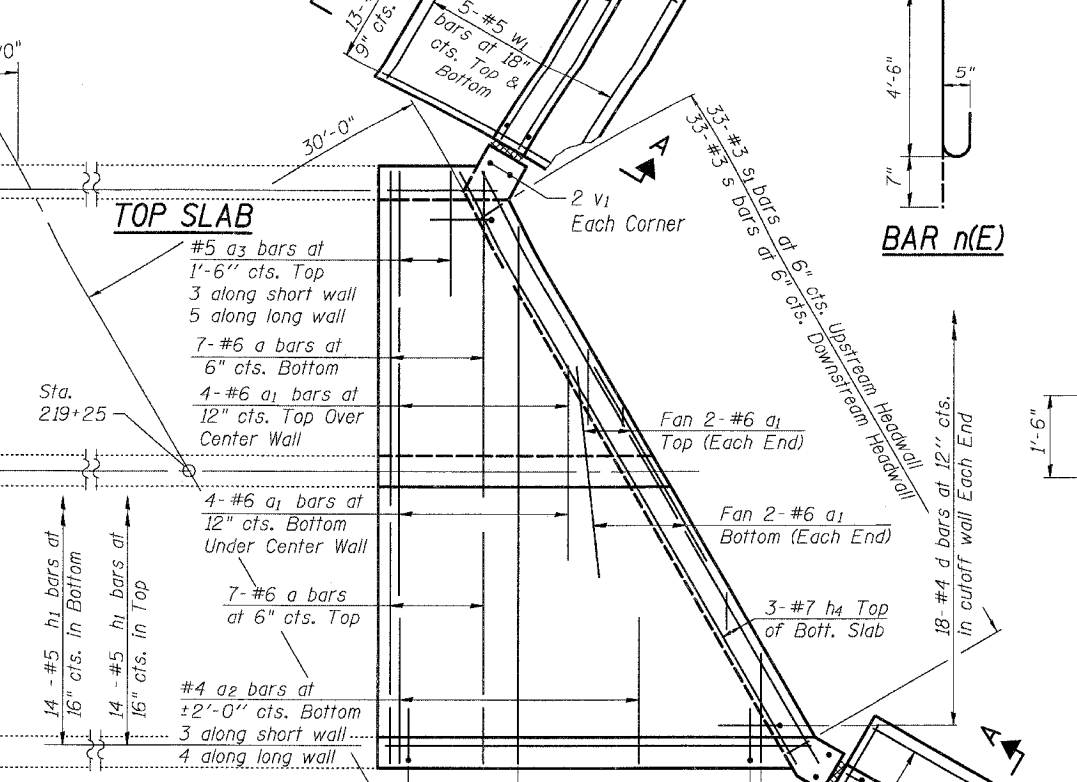
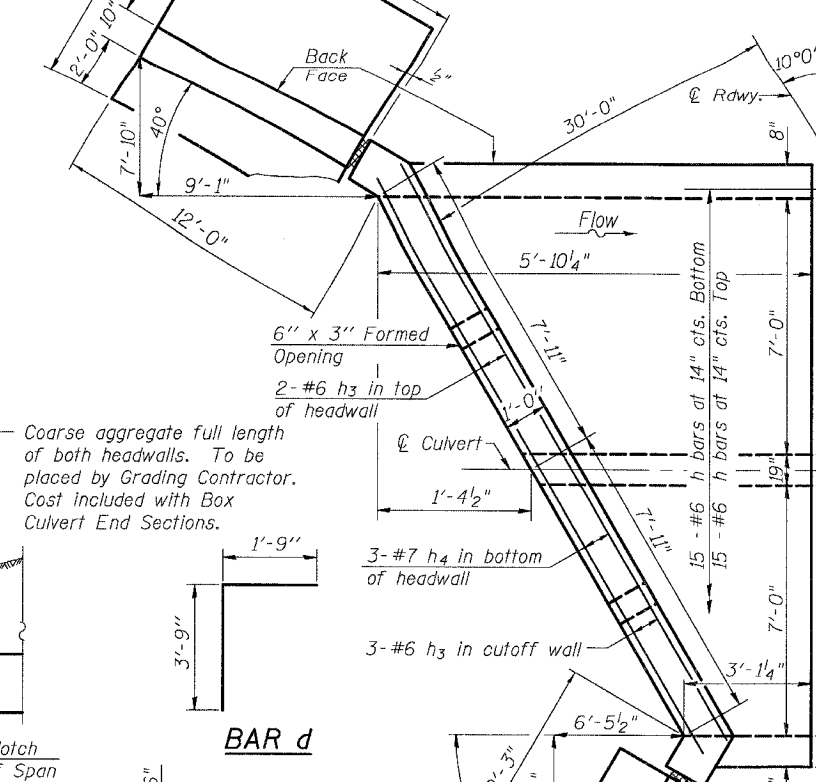
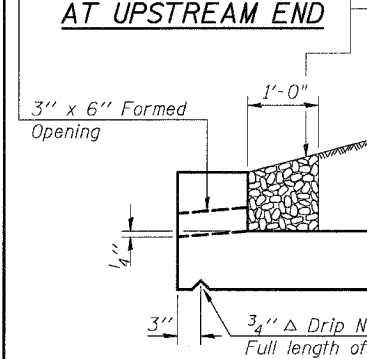
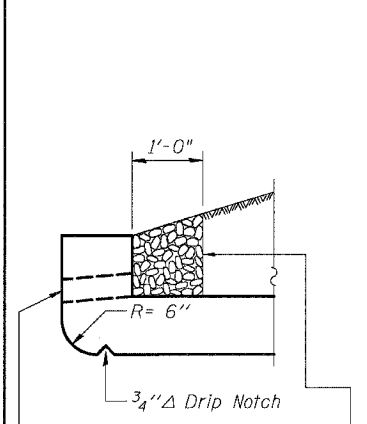
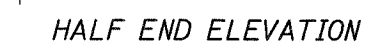
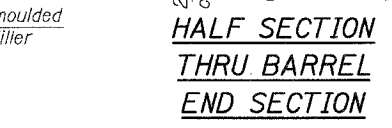
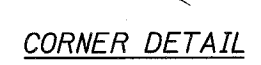
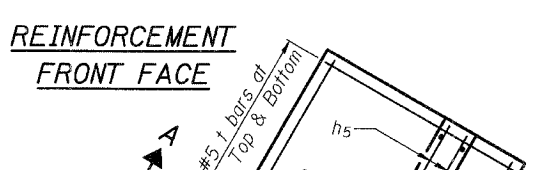
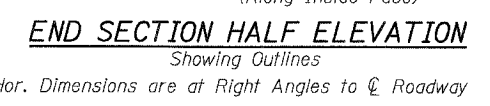
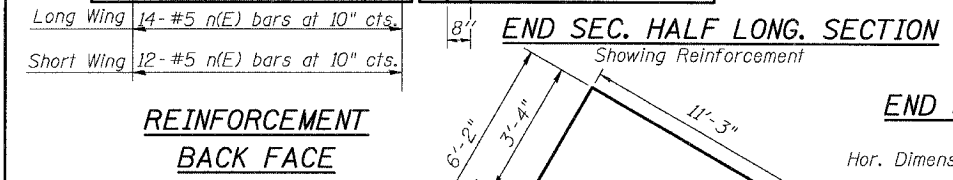
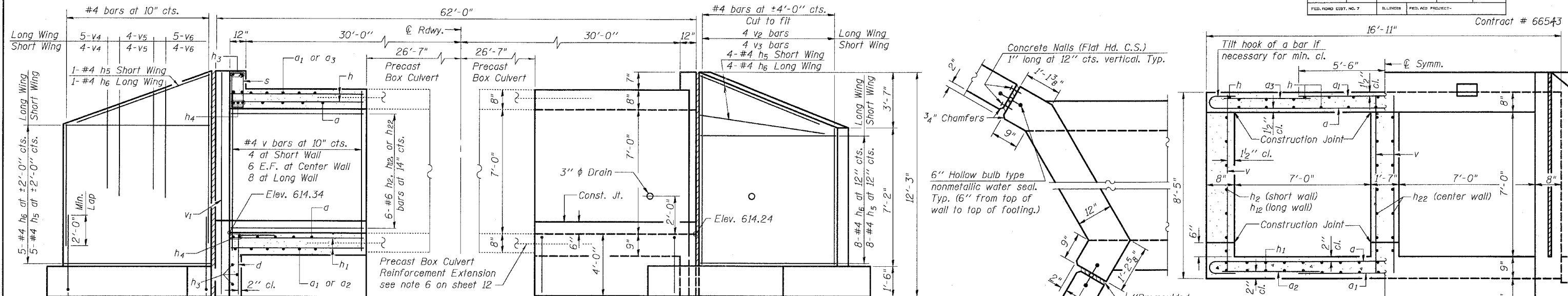
DATE

GENERAL PLAN AND ELEVATION  
U.S. ROUTE 45/52 OVER  
UNNAMED TRIBUTARY TO MINNIE CREEK  
FAP ROUTE 840 - SEC. 139 BR-2  
KANKAKEE COUNTY  
STATION 219+25.00  
EXISTING SN 046-0098  
PROPOSED SN 046-2508

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
FAP 840	139 BR-2	KANKAKEE	59 63	2 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 66543



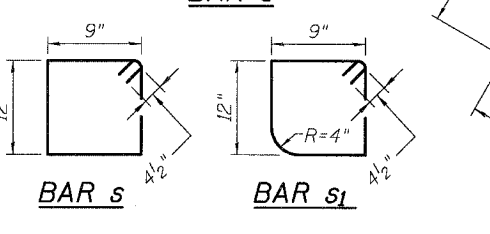
**BILL OF MATERIAL (2 End Sections)**

Bar	No.	Size	Length	Shape
a	40	#6	17'-11"	
a1	24	#6	11'-0"	
a2	14	#4	5'-6"	
a3	16	#5	6'-0"	
d	54	#4	5'-6"	
h	30	#6	8'-4"	
h1	28	#5	8'-4"	
h2	12	#6	2'-9"	
h3	10	#6	16'-3"	
h4	12	#7	16'-6"	
h5	36	#4	9'-1"	
h6	36	#4	10'-10"	
h12	12	#6	5'-6"	
h22	24	#6	4'-1"	
n(E)	52	#5	5'-1"	
s	33	#3	4'-3"	
s1	33	#3	4'-3"	
t	116	#5	5'-8"	
v	48	#4	8'-0"	
v1	8	#4	11'-0"	
v2	4	#4	17'-3"	
v3	4	#4	17'-3"	
v4	18	#4	7'-0"	
v5	16	#4	8'-0"	
v6	18	#4	9'-3"	
w	20	#5	10'-10"	
w1	20	#5	9'-1"	
Concrete Box Culverts		Cu. Yd.	46.8	**
Reinforcement Bars, Epoxy Coated		Pound	280	**
Reinforcement Bars		Pound	5760	**

Notes:  
Reinforcement bars designated (E) shall be epoxy coated.  
\*\* For Information Only. Cost included in Box Culvert End Sections

**DOUBLE 7'x7' BOX CULVERT  
END SECTION WITH WINGWALLS  
U.S. ROUTE 45/52 OVER  
UNNAMED TRIBUTARY TO MINNIE CREEK  
FAP ROUTE 840 - SEC. 139 BR-2  
KANKAKEE COUNTY  
STATION 219+25.00  
SN 046-2508**

DESIGNED	MJB
CHECKED	MAJ
DRAWN	MSJ
CHECKED	WCC



SHOWING OUTLINES  
SHOWING REINFORCEMENT

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	69	64
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**Illinois Department of Transportation**  
Division of Highways  
District 83, Ottawa

# SOIL BORING LOG

Page 1 of 1

Date 11/25/02

ROUTE FAP 840 (US 45/52) DESCRIPTION US 45/52 OVER UNNAMED STREAM SOUTH OF KANKAKEE LOGGED BY LM-IDOT

SECTION 139BR-2 LOCATION SE 1/4, SEC. 30, TWP. 30N, RNG. 13W, 2<sup>nd</sup> PM

COUNTY KANKAKEE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. <u>048-0098</u>	DEPTH IN S	BLOW S	U C S Qu	M O I S T	Surface Water Elev. <u>615.30</u> ft	DEPTH IN S	BLOW S	U C S Qu	M O I S T
Station <u>219+25</u>					Stream Bed Elev. _____ ft				
BORING NO. <u>1</u>	DEPTH IN S	BLOW S	U C S Qu	M O I S T	Groundwater Elev.:	DEPTH IN S	BLOW S	U C S Qu	M O I S T
Station <u>219+12</u>					First Encounter _____ ft				
Offset <u>17.00R RT</u>					Upon Completion <u>609.1</u> ft $\nabla$				
Ground Surface Elev. <u>623.08</u> ft	(ft)	(/ft)	(/ft)	(%)	After _____ Hrs. _____ ft	(ft)	(/ft)	(/ft)	(%)

AUGER SAMPLE <u>White Shoulder Stone Over Black to Brown SANDY LOAM</u>					Medium Gray Varved CLAY (continued)	2			
					<u>602.08</u>	2	0.6	26.3	
					Very Soft Gray SILTY LOAM TILL	3	-	-	
Ground Surface Elev. adjusted on 9/25/04 due to new survey data. <u>620.58</u>									
Loose Black to Brown Fine to Medium SAND	4			16.7		1			
	4					2	0.2	17.0	
	3					3	B		
					<u>598.58</u>				
	3				Hard Gray SILTY LOAM TILL	2			
Medium Black SANDY LOAM	3		13.8			7	4.0	13.0	
	3	0.6	27.3		<u>596.58</u>	8	P		
					End of Boring				
Loose Gray Fine to Coarse SAND	2		15.6						
	2								
	3		24.9						
Very Stiff Gray SILTY CLAY LOAM TILL	3								
	6	3.6	16.0						
	7	B							
Hard Gray SILTY CLAY LOAM TILL	5								
	10	4.5	14.5						
	17	P							
Hard Gray Varved CLAY with Minor SILT Layers	5								
	5	4.0	22.9						
	7	S							
Medium Gray Varved CLAY	3								
	4								
	6								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T205)  
BBS: from 137 (Rev. 8-99)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAP ROUTE 840 (US 45/52)  
SEC 139 BR-2, KANKAKEE COUNTY

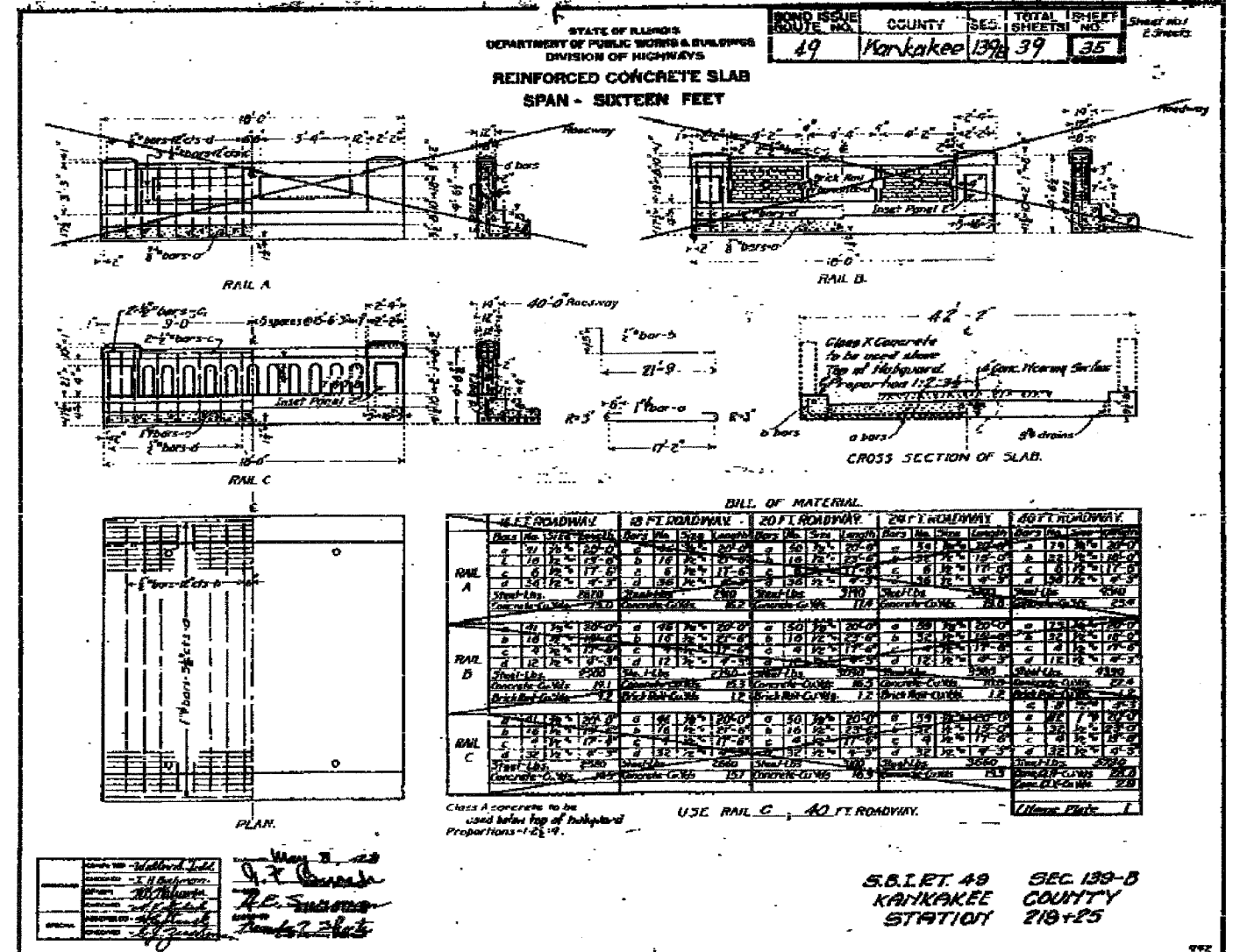
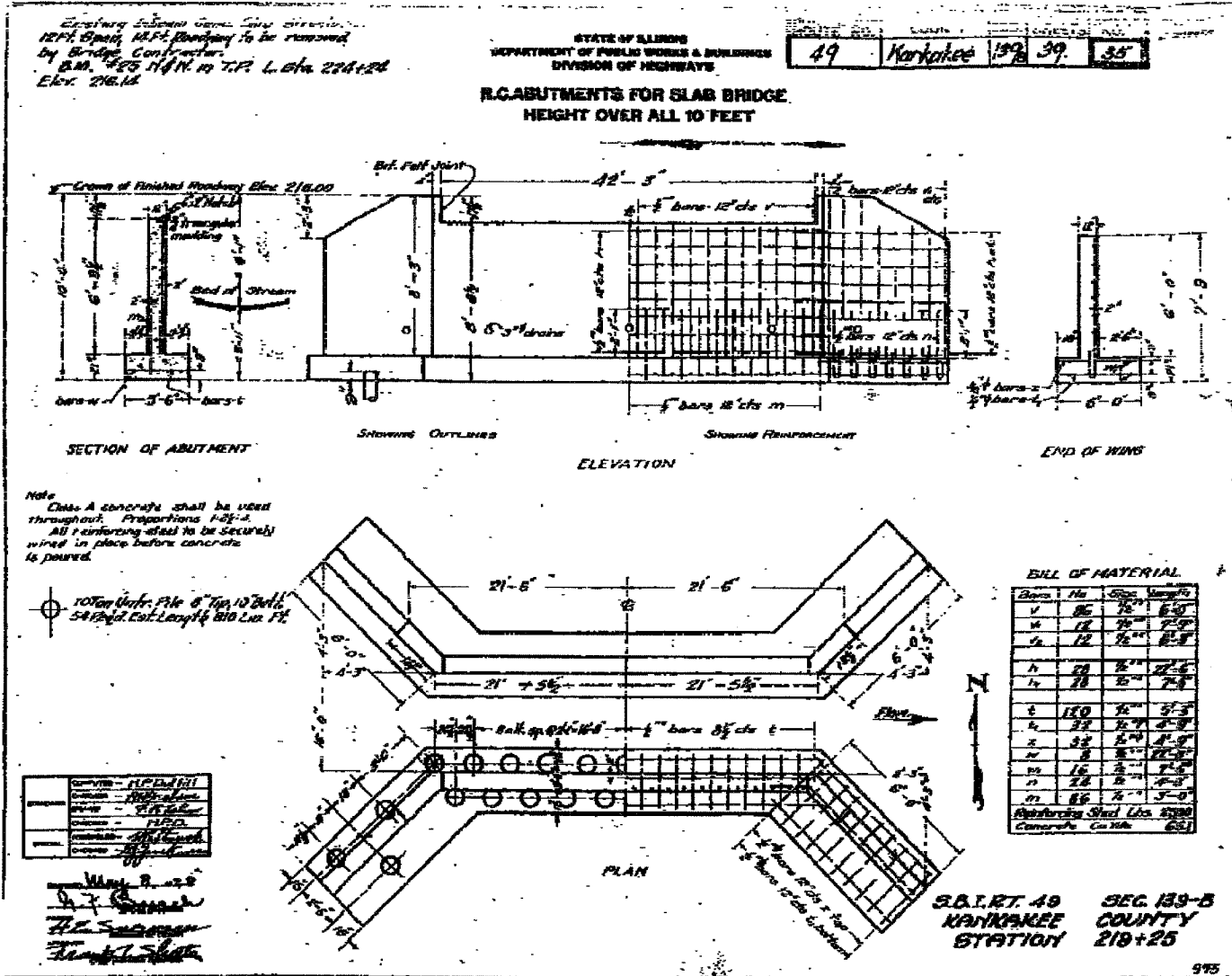
### SOIL BORING LOGS

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_

DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

PLOT DATE = 3/20/2005  
 FILE NAME = I:\STR\proj\8308-20\11ama\kankakee\137-Soil\_Boring.dgn  
 PLOT SCALE = 1"=20'  
 REFERENCE = #REF#

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	69	65
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FOR INFORMATION ONLY

DATE = 3/30/2006  
FILE NAME = #FILE#  
PLOT SCALE = #SCALE#  
REFERENCE = #REF#

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAP ROUTE 840 (US 45/52)  
SEC 139 BR-2, KANKAKEE COUNTY

**EXISTING STRUCTURE PLANS**

SCALE: VERT.      DRAWN BY  
          HORIZ.      CHECKED BY  
DATE

FVD/DA JOB NO. 308.29

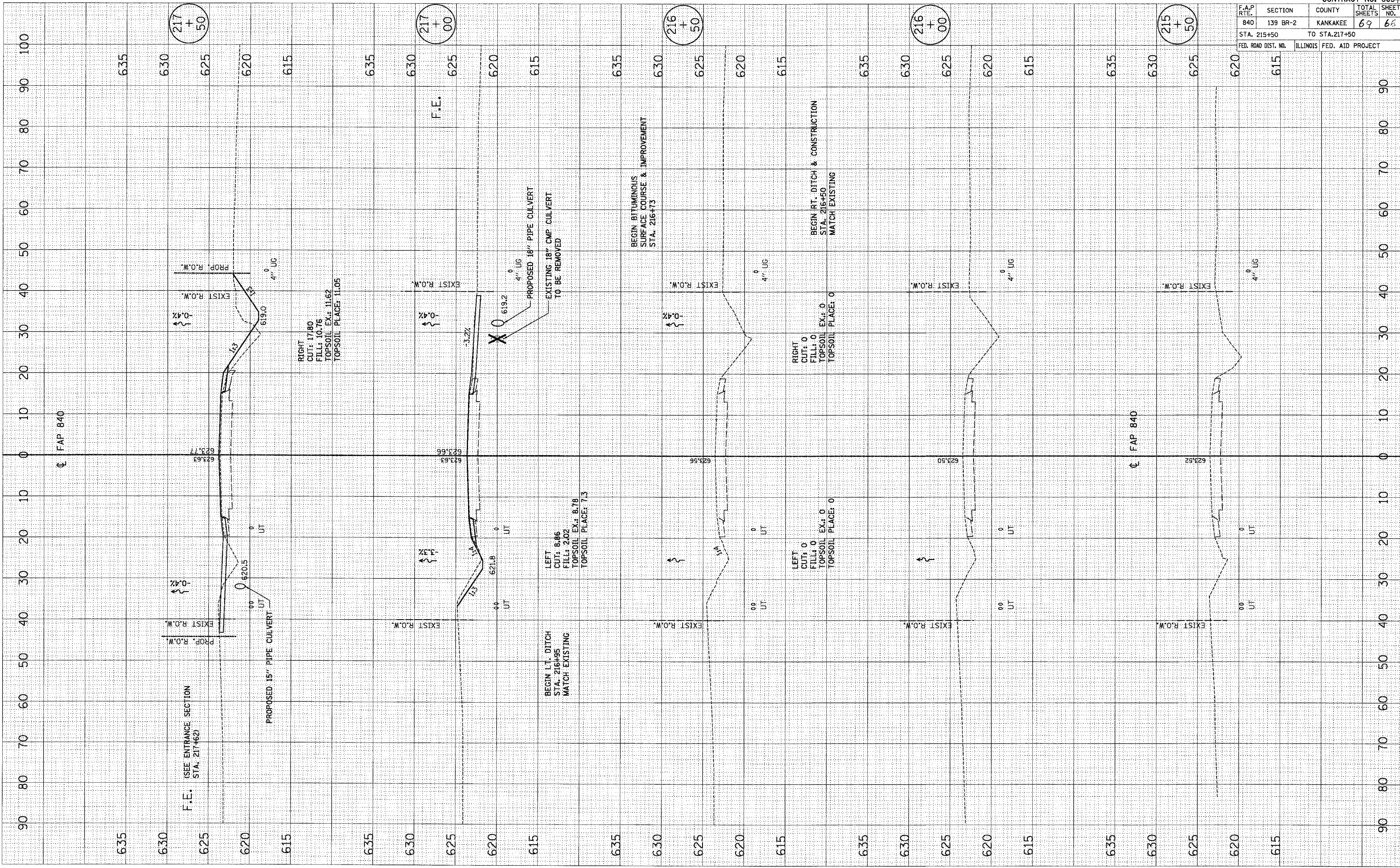


PLOT DATE = 2/28/2006  
 FILE NAME = 81FL1  
 PLOT SCALE = 8000:1  
 USER NAME = USER

ORIGINAL SURVEY  
 SURVEYED PLOTTED  
 NOTE BOOK TEMPLATE  
 NO. AREAS CHECKED

FINAL SURVEY  
 SURVEYED PLOTTED  
 NOTE BOOK TEMPLATE  
 NO. AREAS CHECKED

BY DATE



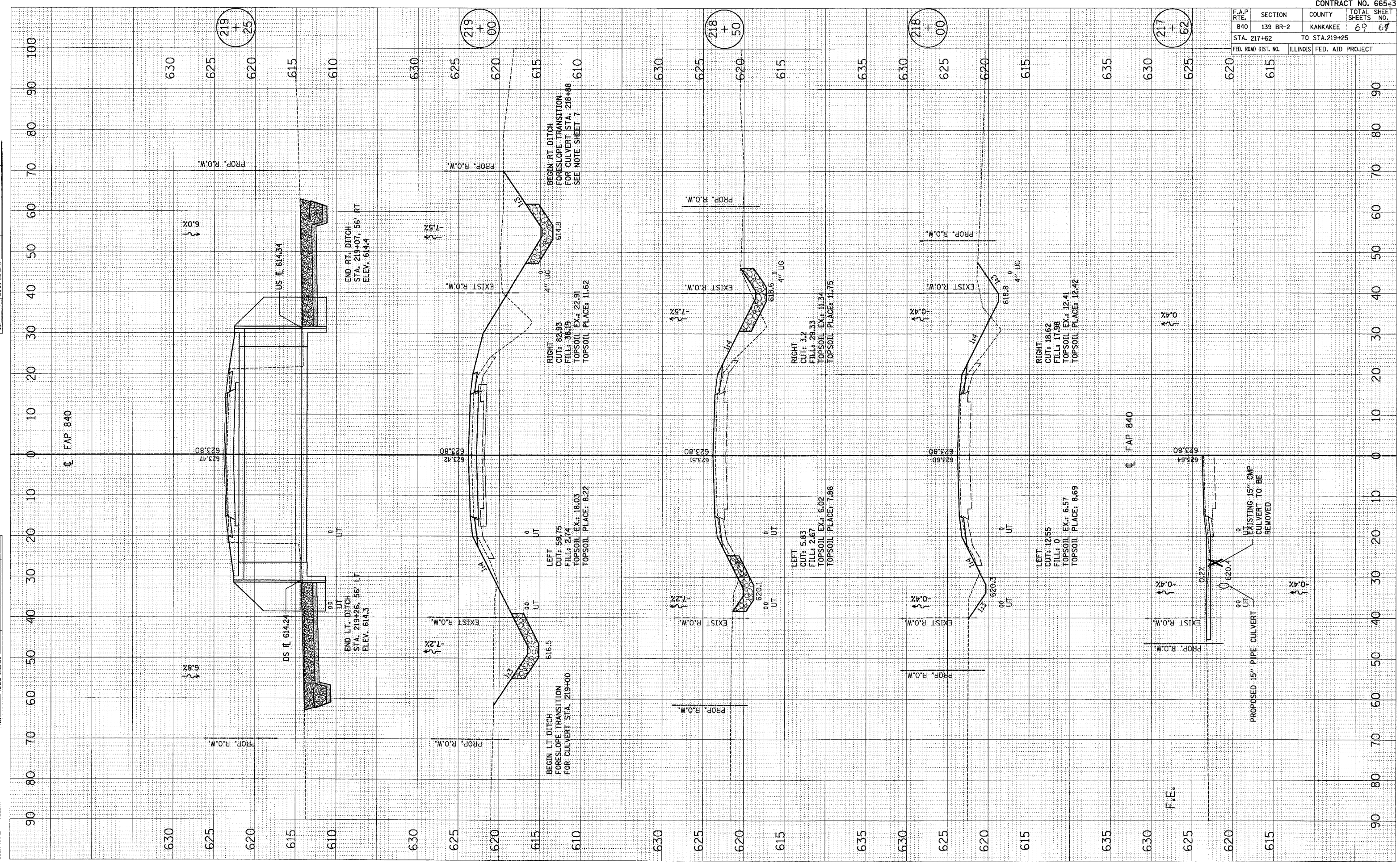
CONTRACT NO. 665/3			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
840	139 BR-2	KANKAKEE	69
STA. 215+50 TO STA. 217+50		SHEET NO. 63	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_ PLOTTED: \_\_\_\_\_  
 FINISHED: \_\_\_\_\_ NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_ AREAS CHECKED: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_ PLOTTED: \_\_\_\_\_  
 ORIGINAL: \_\_\_\_\_ NOTE: \_\_\_\_\_  
 NO. \_\_\_\_\_ AREAS CHECKED: \_\_\_\_\_

PLOT DATE = 02/09/2006  
 FILE NAME = 0452.FE  
 PLOT SCALE = 850/1  
 USER NAME = USER

CONTRACT NO. 665+3			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
840	139 BR-2	KANKAKEE	69
STA. 217+62 TO STA. 219+25		SHEET NO. 67	
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT

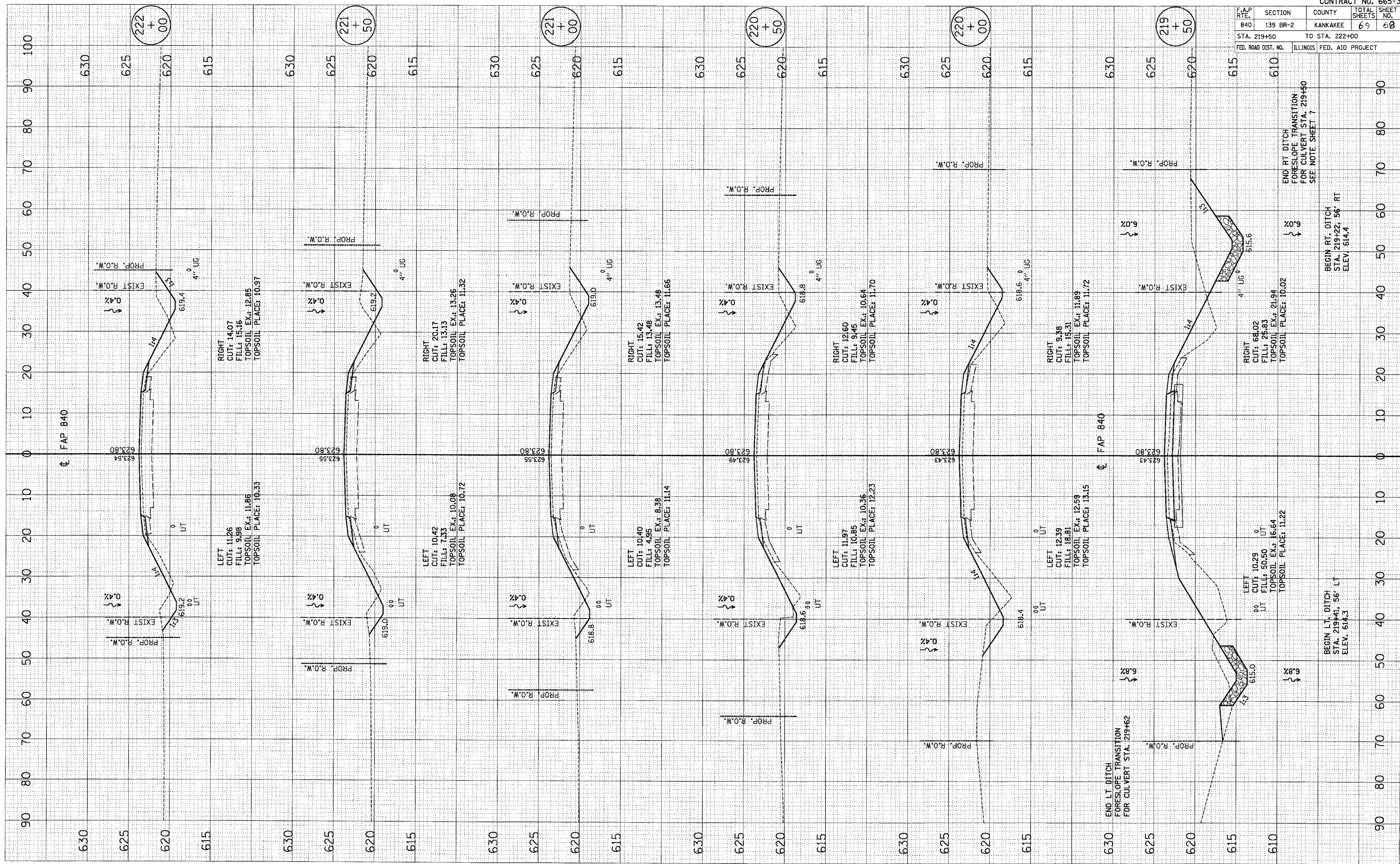




DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 TEMPLATE: \_\_\_\_\_  
 AREAS CHECKED: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 TEMPLATE: \_\_\_\_\_  
 AREAS CHECKED: \_\_\_\_\_

PLOT DATE = 2/28/2006  
 FILE NAME = FAP840  
 PLOT SCALE = 1/4"=1'-0"  
 USER NAME = USER



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	139 BR-2	KANKAKEE	69	68
STA. 219+50		TO STA. 222+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

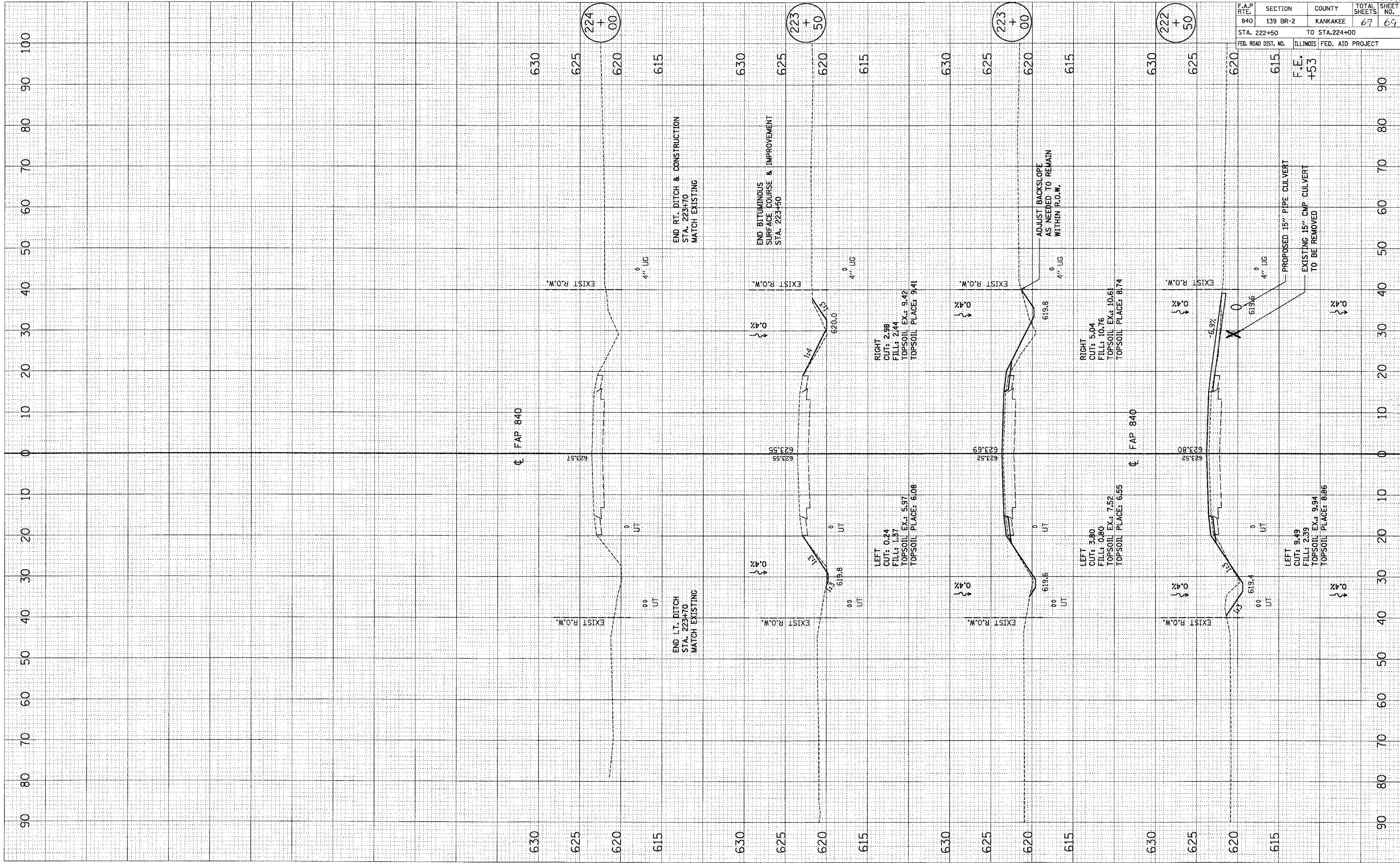
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 FILE NAME = #FILEL\*  
 SCALE = 800/1  
 USER NAME = WISEN

ORIGINAL SURVEY PLOTTED  
 SURVEY PLOTTED  
 NOTE BOOK  
 AREAS CHECKED

FINAL SURVEY PLOTTED  
 SURVEY PLOTTED  
 NOTE BOOK  
 AREAS CHECKED

BY DATE

BY DATE



F.A.P. RTE. 840		SECTION 139 BR-2	COUNTY KANKAKEE	TOTAL SHEETS 69	SHEET NO. 64
STA. 222+50			TO STA. 224+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			
F.E. +53					

CONTRACT NO. 665#3