

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS

F.A.I. ROUTE 57 (I-57)
SECTION (10-33 HB)BDR

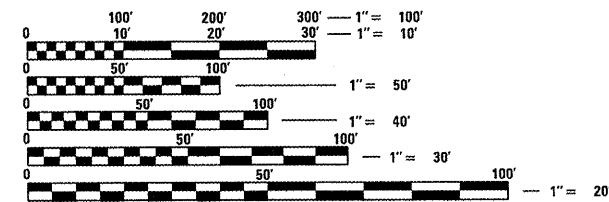
BRIDGE DECK REPAIRS
KIRBY AVENUE OVER FAI 57
CHAMPAIGN COUNTY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33 HB)BDR	CHAMPAIGN	27	1
		ILLINOIS	CONTRACT NO. 70924	

FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3

CURRENT TRAFFIC DATA	
KIRBY / (FAI-57)	
2011 ADT	= 7,600 / (23,500)
2031 ADT	= 10,900 / (32,500)
PU + PC %	= 90.3 / (75.9)
SU %	= 6.7 / (3.7)
MU%	= 3.0 / (20.4)

DESIGN DESIGNATION	
LOCAL STREET / (INTERSTATE)	

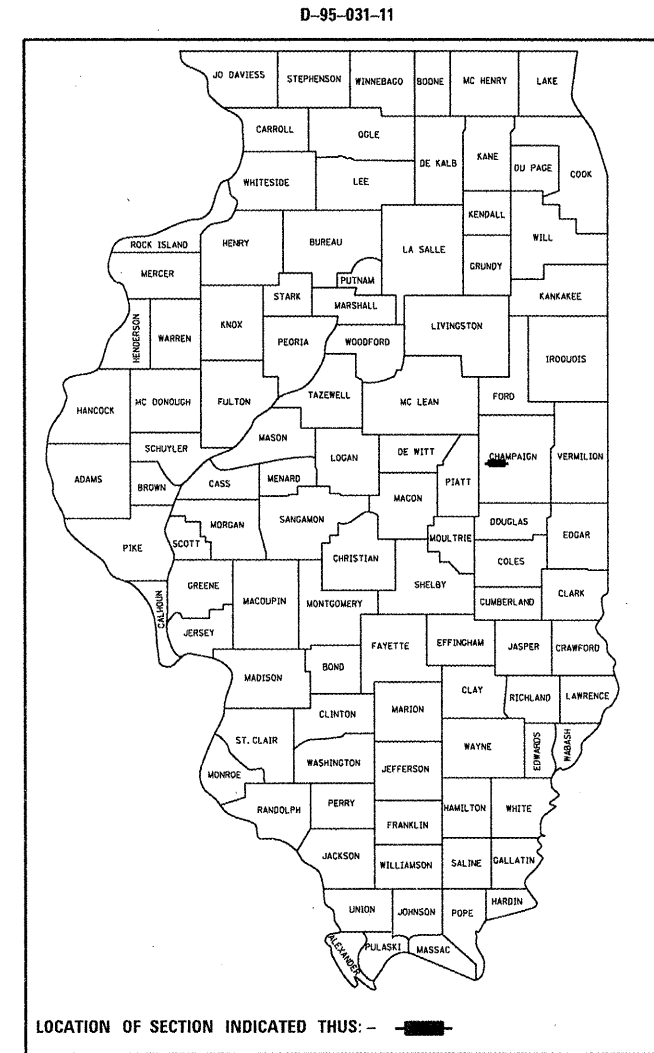
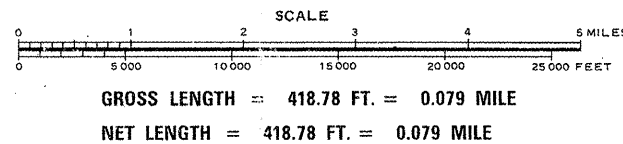
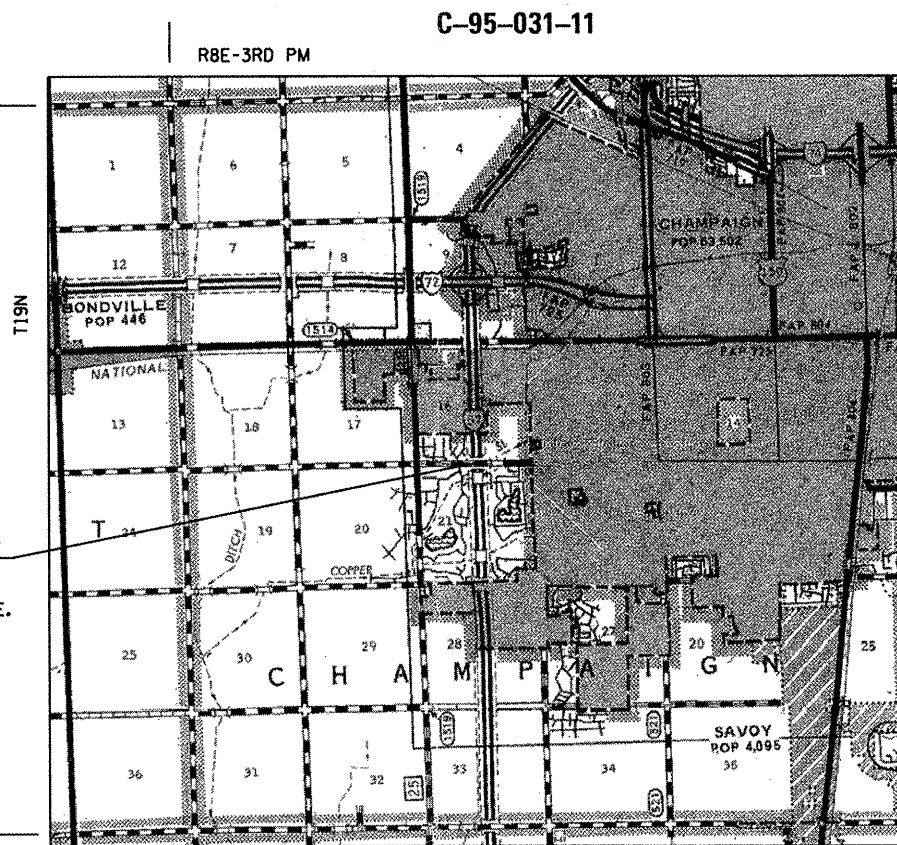


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811 CHAMPAIGN TOWNSHIP

PROJECT ENGINEER: TIM BRANDENBURG
 PROJECT MANAGER: TIM BRANDENBURG

CONTRACT NO. 70924



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED 10/6 20 11

Joseph A. Rosenbaum
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 9, 2011
Scott E. Stitt P.E.
 ACTING ENGINEER OF DESIGN AND ENVIRONMENT

December 9, 2011
William R. Fiedler
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS**

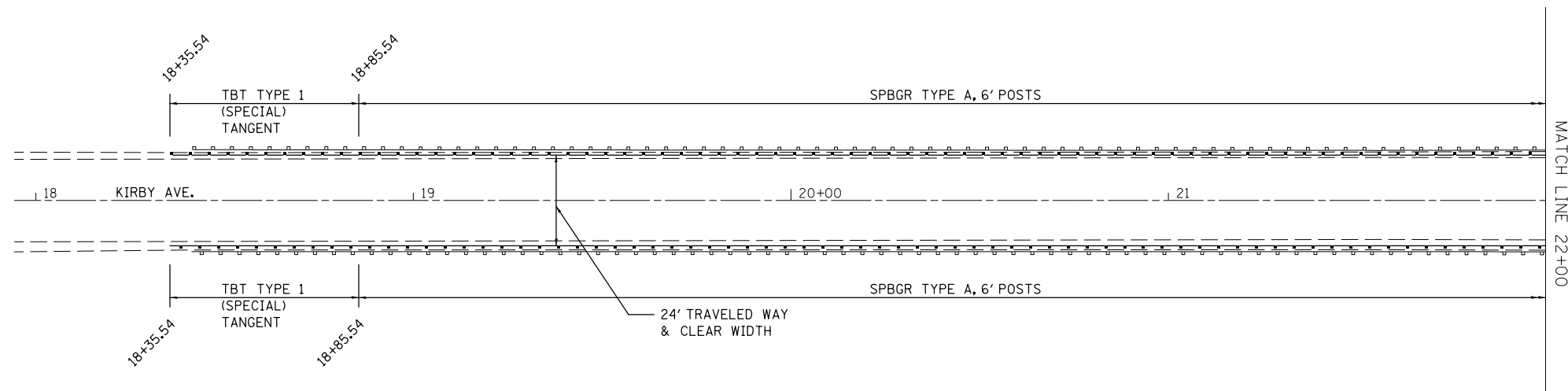
SUMMARY OF QUANTITIES

URBAN
 FAI-57
 CHAMPAIGN CO.
 INTERSTATE
 100% STATE
 MINOR
 STRUCTURE
 REPAIR
 0014
 S.N. 010-0103

CODE NO ITEM	UNIT	QUANTITY
40600100 BITUMINOUS MATERIALS (PRIME COAT)	GALLON	53.0
40600982 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	160.0
40603335 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	45.0
44201769 CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	36.0
50102400 CONCRETE REMOVAL	CU YD	12.3
50157300 PROTECTIVE SHIELD	SQ YD	213.0
50300255 CONCRETE SUPERSTRUCTURE	CU YD	12.3
50300260 BRIDGE DECK GROOVING	SQ YD	533.0
50300300 PROTECTIVE COAT	SQ YD	38.0
50800205 REINFORCEMENT BARS, EPOXY COATED	POUND	300.0
* 50900200 STEEL RAILING, TYPE 2399	FOOT	435.0
* 63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	2037.5
* 63100087 TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4.0
* 63100167 TRAFFIC BARRIER TERMINAL, TYPE 1(SPECIAL) TANGENT	EACH	4.0
63200310 GUARDRAIL REMOVAL	FOOT	2325.0
66101150 HOT-MIX ASPHALT SHOULDER CURB	FOOT	125.0
67100100 MOBILIZATION	L SUM	1.0
70100700 TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1.0
* 78001110 PAINT PAVEMENT MARKING - LINE 4"	FOOT	1700.0
* 78200410 GUARDRAIL MARKERS, TYPE A	EACH	36.0
* 78201000 TERMINAL MARKER - DIRECT APPLIED	EACH	4.0
X7015005 CHANGEABLE MESSAGE SIGN	CAL DA	24.0
Z0012130 BRIDGE DECK SCARIFICATION 3/4"	SQ YD	584.0
Z0012162 BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/4"	SQ YD	584.0
Z0015595 DECK DRAIN EXTENSIONS	EACH	8.0
Z0015802 PLUG EXISTING DECK DRAINS	EACH	16.0
Z0016002 DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	9.7
Z0016702 DETOUR SIGNING	L SUM	1.0
Z0041895 POLYMER CONCRETE	CU FT	2.3

*** SPECIALTY ITEM**

FILE NAME :	USER NAME : bucklesjj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pwork\pwork\bucklesjj\d0265817\0570924.sht-S00.dgn		DRAWN -	REVISED -			57	(10-33HB)BOR	Champaign	27	3	
PLOT SCALE : 40.0000' = 1" IN.		CHECKED -	REVISED -			CONTRACT NO. 70924		ILLINOIS FED. AID PROJECT			
PLOT DATE : 10/5/2011		DATE -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.			



FILE NAME =	USER NAME = bucklesjj	DESIGNED - TJB	REVISED -
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	PLOT DATE = 10/5/2011	DATE - 6/17/11	REVISED -

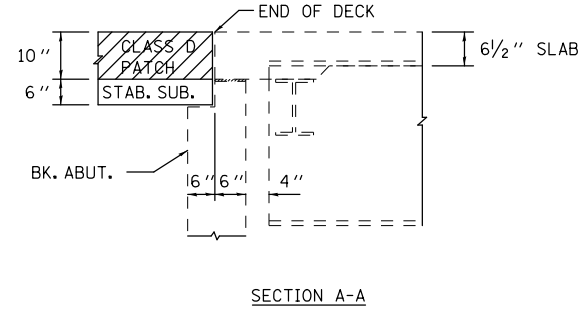
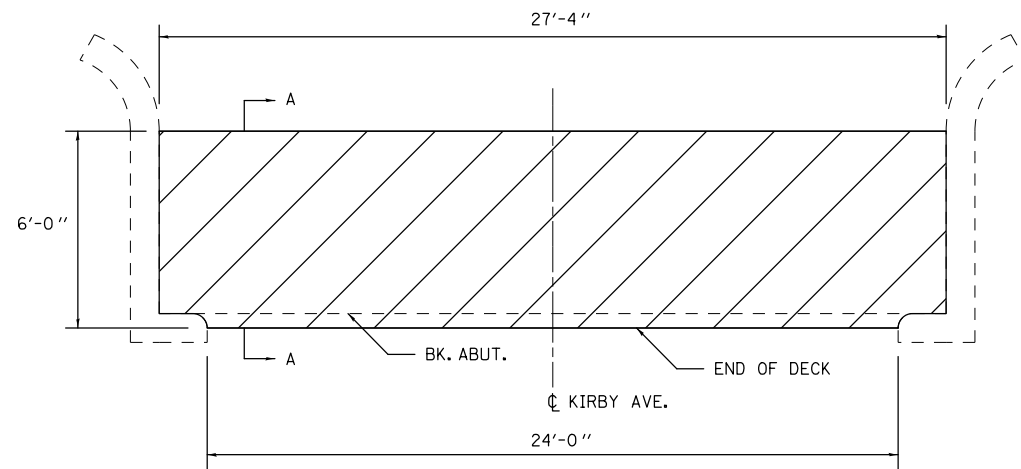
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN
KIRBY AVE.**

SCALE:	SHEET NO. OF	SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	4
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70924	

CLASS D PATCHING DETAILS



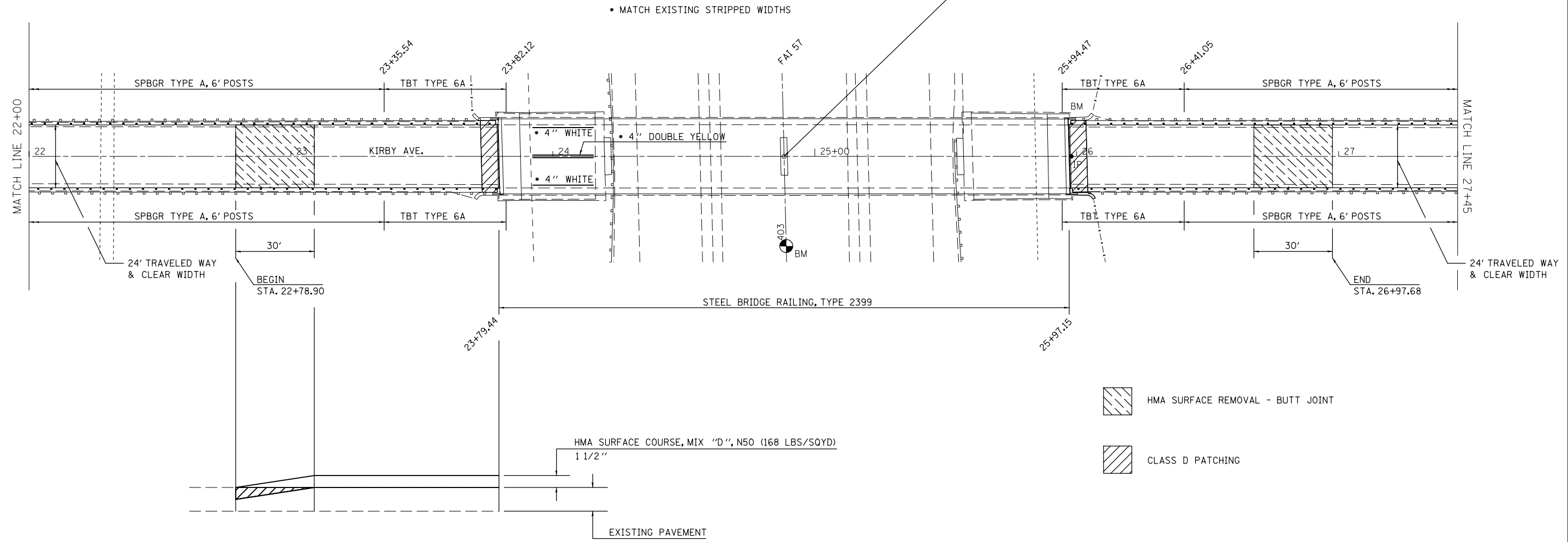
NOTE: SEE 4TH PARAGRAPH OF ARTICLE 442.11 FOR GUIDANCE CONCERNING SUBGRADE / SUBBASE.

CLASS D PATCHING



EXISTING S.N. 010-0103
KIRBY AVE. OVER FAI 57
STATION 403+34.43 @ FAI 57
24+88.29 @ KIRBY AVE.
PROPOSED STRUCTURE REPAIRS

SEE STRUCTURE PLANS FOR IMPROVEMENTS



HMA SURFACE REMOVAL - BUTT JOINT

CLASS D PATCHING

HMA & BUTT JOINT DETAIL

(SIMILAR EACH END)
R.E. SHOULD OBTAIN EXISTING KIRBY AVE. PROFILE PRIOR TO ESTABLISHING PROPOSED

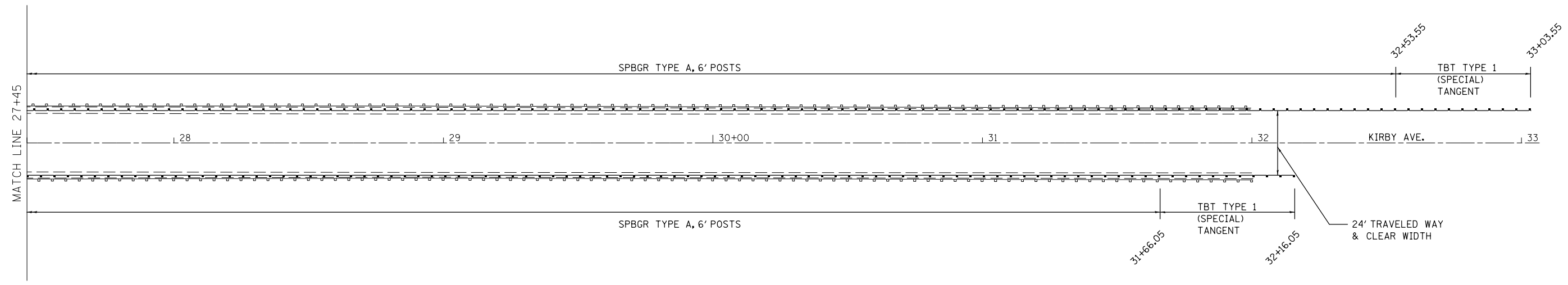
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	PLOT DATE = 10/5/2011	DATE - 6/17/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN
KIRBY AVE.**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	5
CONTRACT NO. 70924			ILLINOIS FED. AID PROJECT	



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	PLOT DATE = 10/5/2011	DATE - 6/17/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN
KIRBY AVE.**

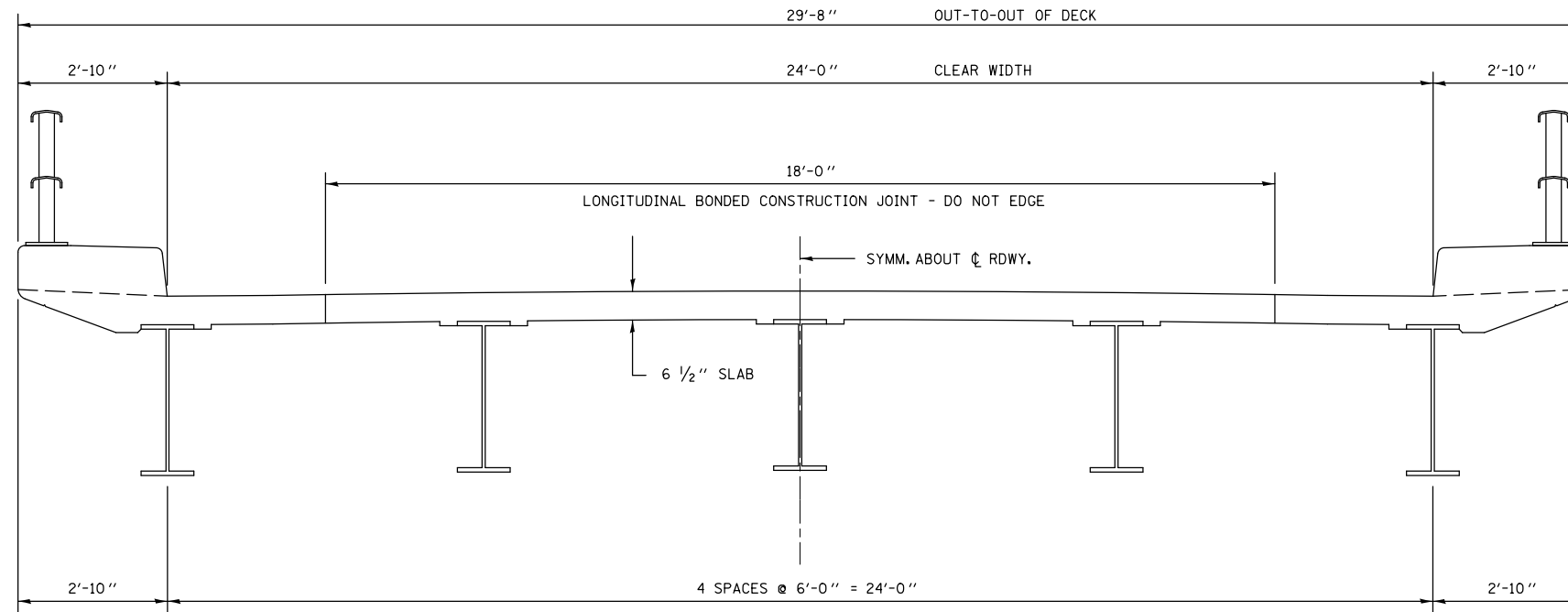
SCALE:	SHEET NO. OF SHEETS	STA. TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70924	

EXISTING DECK CROSS SECTION

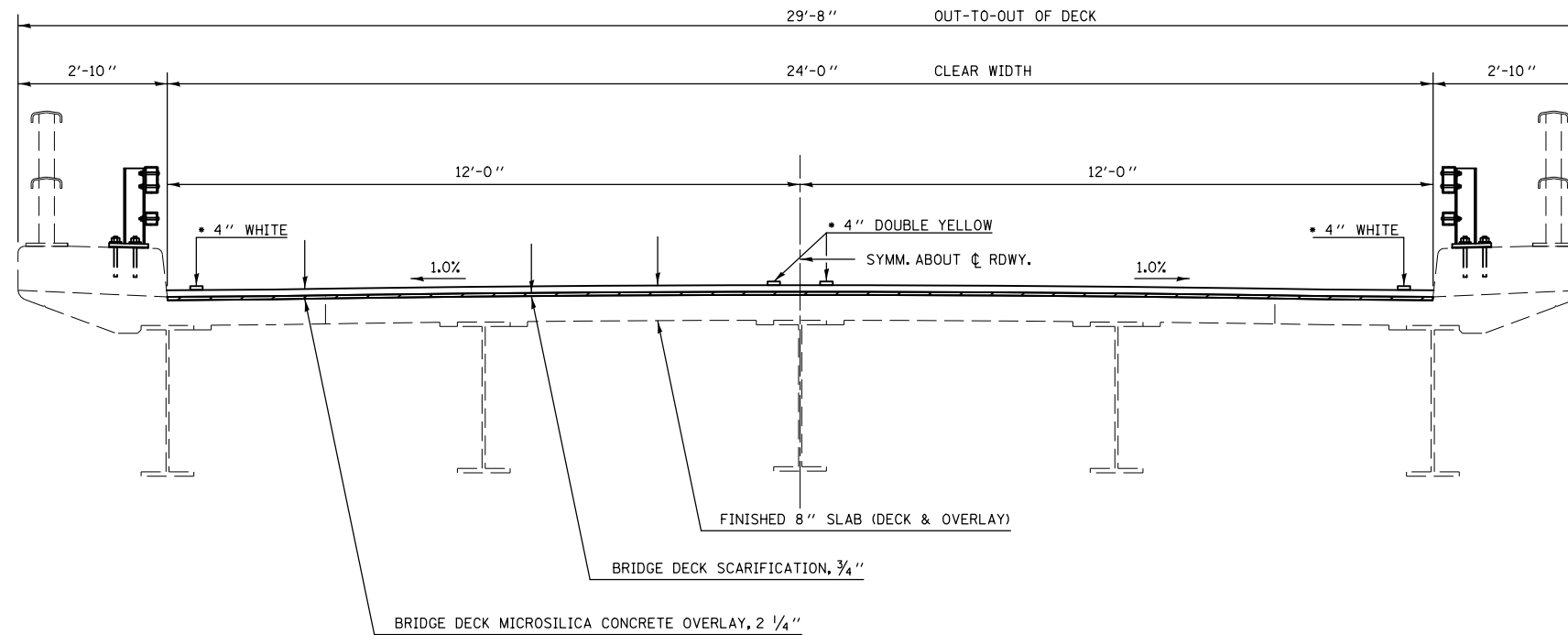
S.N. 010-0103

ROADWAY CROWN: 1" CIRCULAR CURVE FOR 10' EACH SIDE OF ϕ , REMAINDER SLOPED @ .2" PER FT. TOTAL CROWN 1 $\frac{3}{8}$ ". (AVE. 0.97%)



PROPOSED DECK CROSS SECTION

S.N. 010-0103



* MATCH EXISTING STRIPPED WIDTHS

FILE NAME =	USER NAME = bucklesjj	DESIGNED - TJB	REVISED -
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	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/5/2011	DATE - 6/17/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

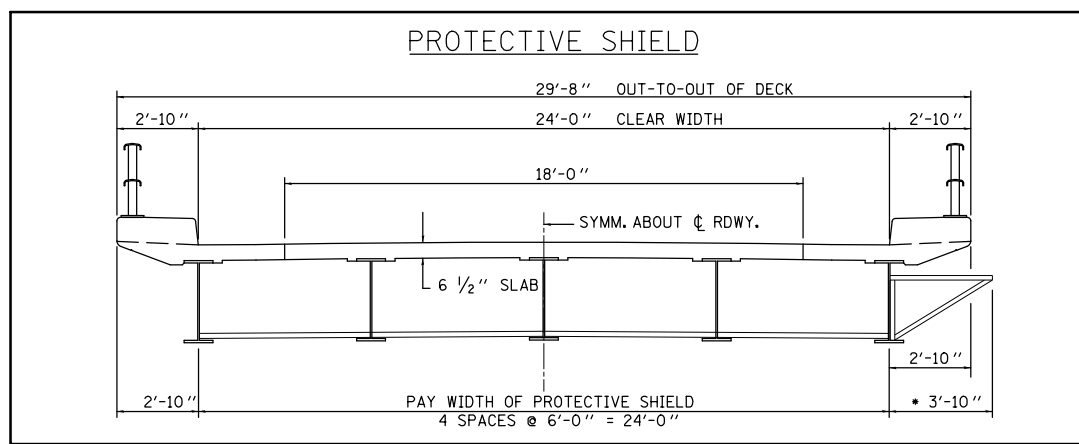
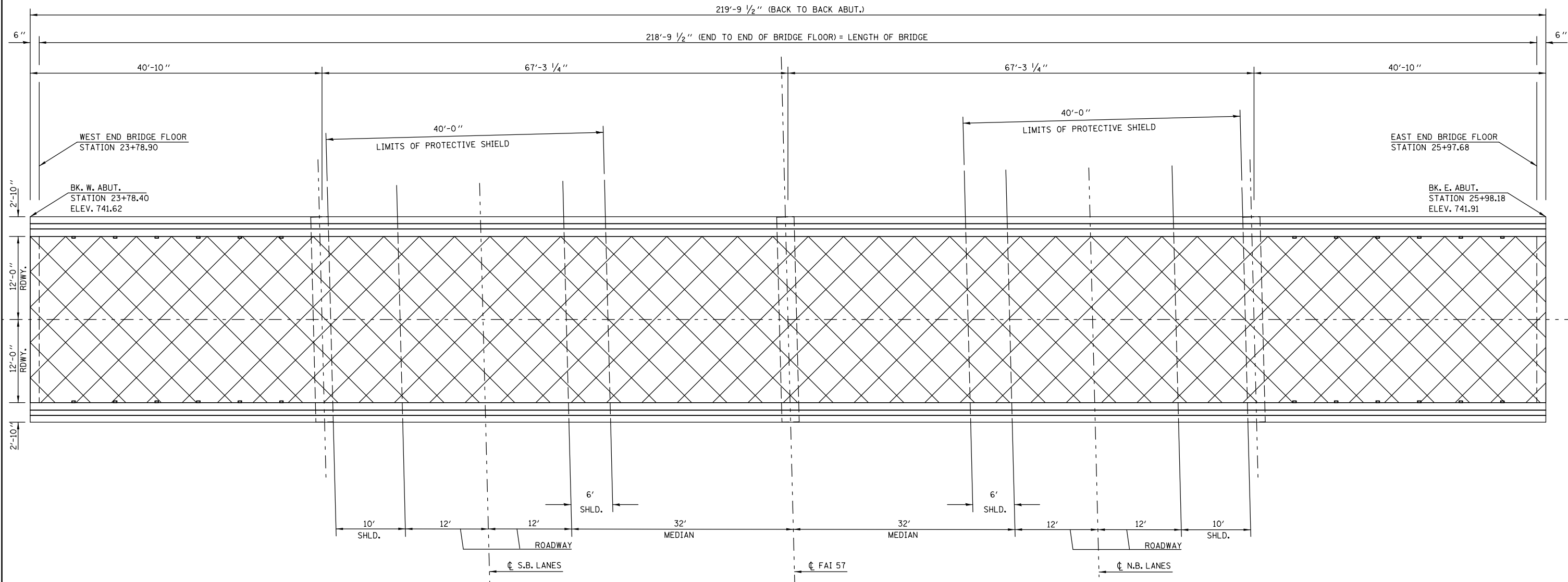
DECK CROSS SECTIONS
S.N. 010-0103

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	8
CONTRACT NO. 70924			ILLINOIS FED. AID PROJECT	

BRIDGE DECK WEARING SURFACE PLAN

S.N. 010-0103



• SUGGESTED PROTECTIVE SHIELD AT NINE (9) LOCATIONS OF PARAPET / SIDEWALK REPAIR SEE CONCRETE REMOVAL & CONCRETE SUPERSTRUCTURE COST AT CONTRACTORS EXPENSE

LEGEND

BRIDGE DECK MICRO SILICA CONCRETE OVERLAY, 2 1/4"

BILL OF MATERIALS

ITEM	UNIT	TOTAL
BRIDGE DECK SCARIFICATION, 3/4"	SQ YD	584.0
BRIDGE DECK MICRO-SILICA CONCRETE OVERLAY, 2 1/4"	SQ YD	584.0
PROTECTIVE SHIELD	SQ YD	213.0

FILE NAME =	USER NAME = bucklesjj	DESIGNED - TJB	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

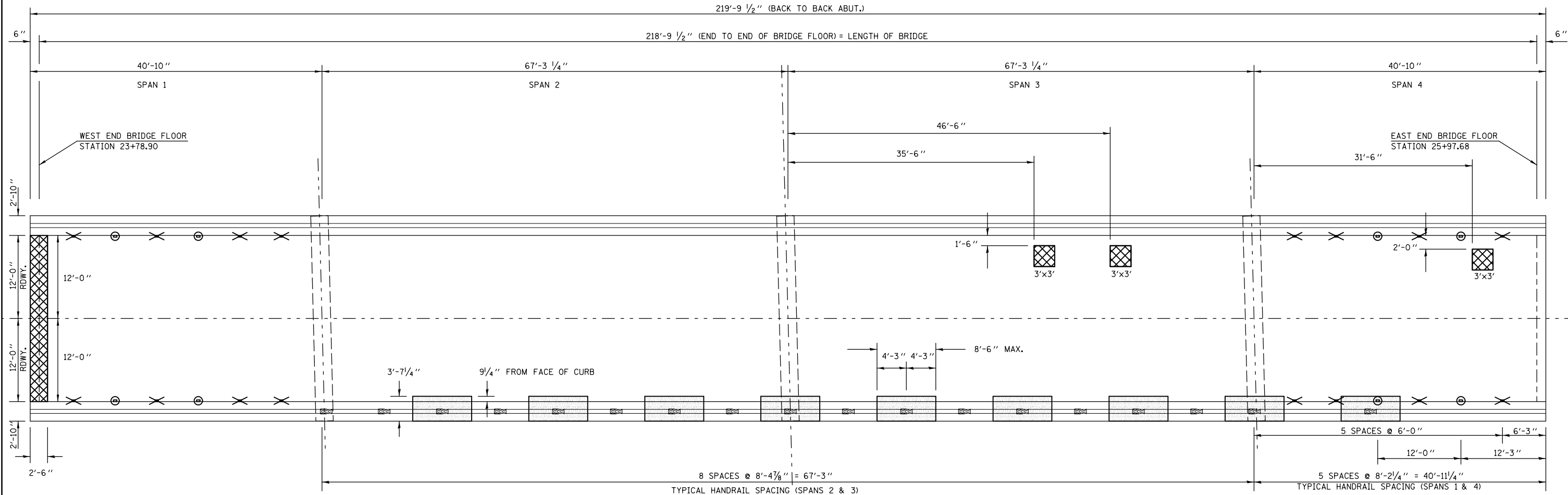
**BRIDGE DECK WEARING SURFACE PLAN
S.N. 010-0103**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	9
CONTRACT NO. 70924				
ILLINOIS FED. AID PROJECT				

SUPERSTRUCTURE REPAIR PLAN

S.N. 010-0103



LEGEND

- CONCRETE REMOVAL & CONCRETE SUPERSTRUCTURE
- DECK SLAB REPAIR, FULL-DEPTH
- PLUG EXISTING DECK DRAINS
- DECK DRAIN EXTENSIONS

NOTE:

EXISTING BARS SHALL BE REUSED, CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION.

PATCH SIZES SHOWN REPRESENT CONDITIONS AT THE TIME THE PLANS WERE COMPLETED. THE ACTUAL SIZES AND LOCATIONS OF PATCHING SHALL BE DETERMINED BY THE ENGINEER.

AREAS OF CONCRETE REMOVAL AND SUPERSTRUCTURE WERE IDENTIFIED JANUARY 19, 2011. SHOULD THE ENGINEER DETERMINE ADDITIONAL AREAS FOR REPAIR ADJACENT TO PROPOSED AREAS, REMOVAL AND REPLACEMENT SHALL BE STAGGERED. THE LENGTH OF REPAIR IS LIMITED TO A 8'-6" MAXIMUM.

SEE DECK DRAIN EXTENSIONS AND PLUG EXISTING DECK DRAINS DETAILS.

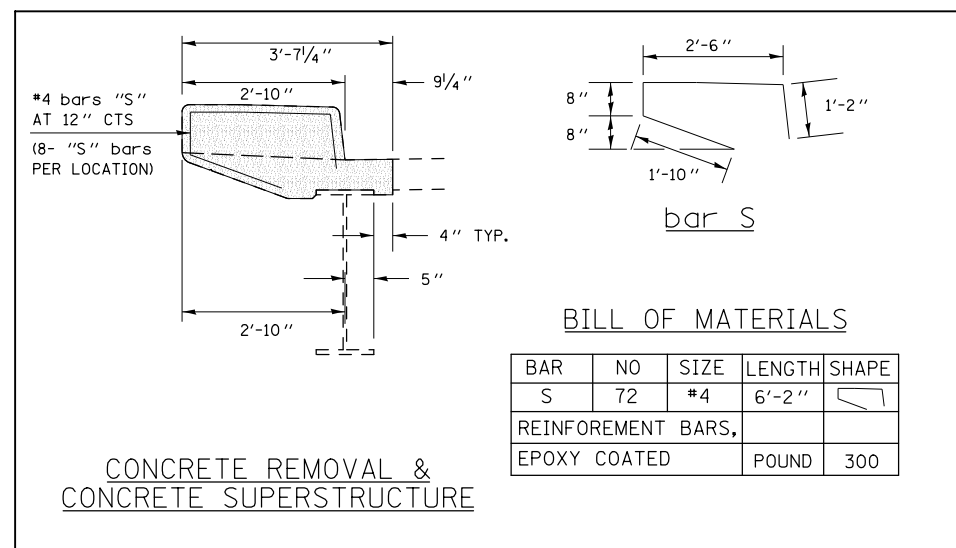
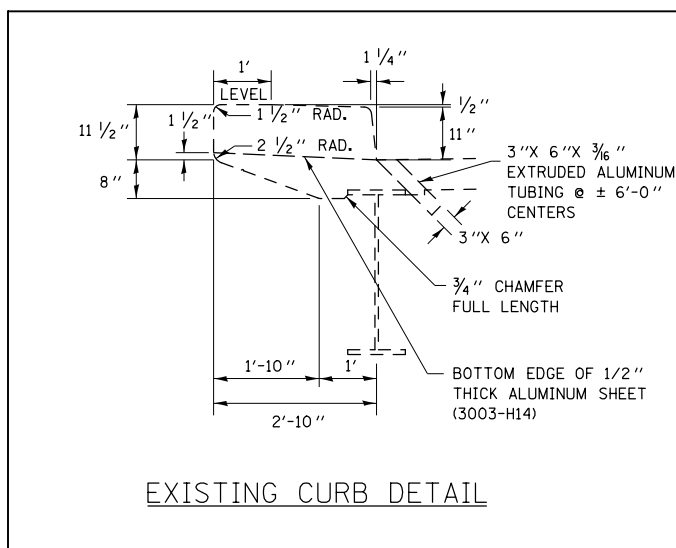
EXISTING HANDRAIL SHALL BE REMOVED AND RE-ERECTED. COST INCLUDED WITH CONCRETE REMOVAL AND CONCRETE SUPERSTRUCTURE. SEE HANDRAIL DETAILS FROM AS BUILT PLANS FOR RE-ERECTION.

BILL OF MATERIALS

BAR	NO	SIZE	LENGTH	SHAPE
S	72	#4	6'-2"	
REINFORCEMENT BARS, EPOXY COATED			POUND	300

BILL OF MATERIALS

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU YD	12.3
CONCRETE SUPERSTRUCTURE	CU YD	12.3
DECK SLAB REPAIR (FULL-DEPTH, TY II)	SQ YD	9.7
PLUG EXISTING DECK DRAINS	EACH	16.0
DECK DRAIN EXTENSIONS	EACH	8.0
REINFORCEMENT BARS, EPOXY COATED	POUND	300.0



FILE NAME =	USER NAME = bucklesjj	DESIGNED - TJB	REVISED -
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PLOT DATE = 10/5/2011		DATE - 6/17/11	REVISED -

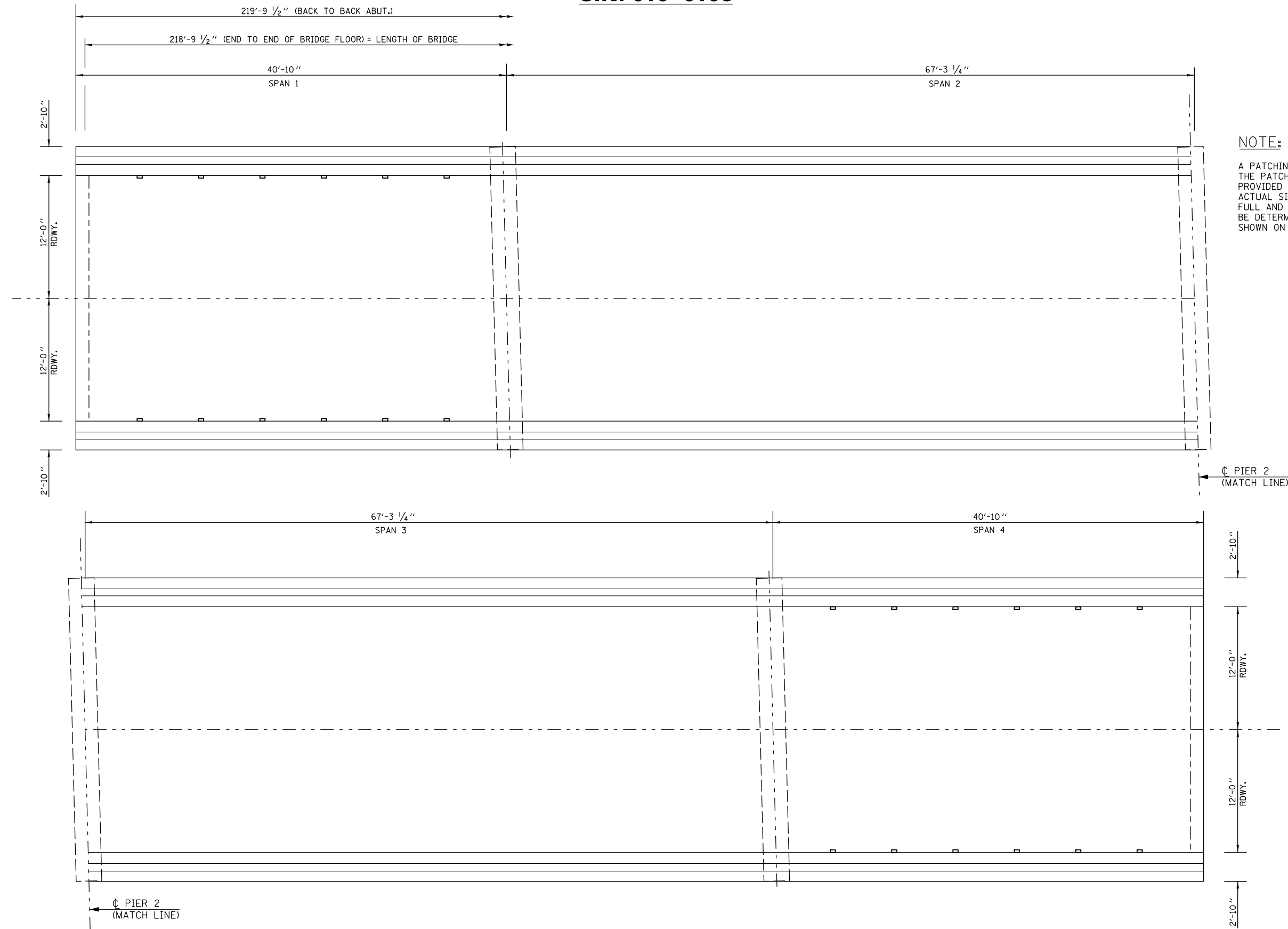
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPER STRUCTURE REPAIR PLAN
S.N. 010-0103**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	10
CONTRACT NO. 70924				
ILLINOIS FED. AID PROJECT				

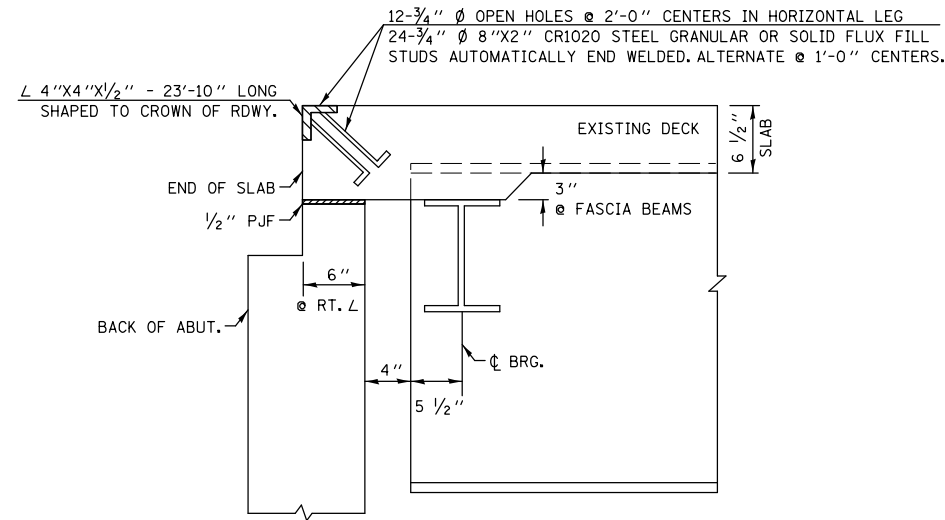
AS BUILT PATCHING PLAN S.N. 010-0103



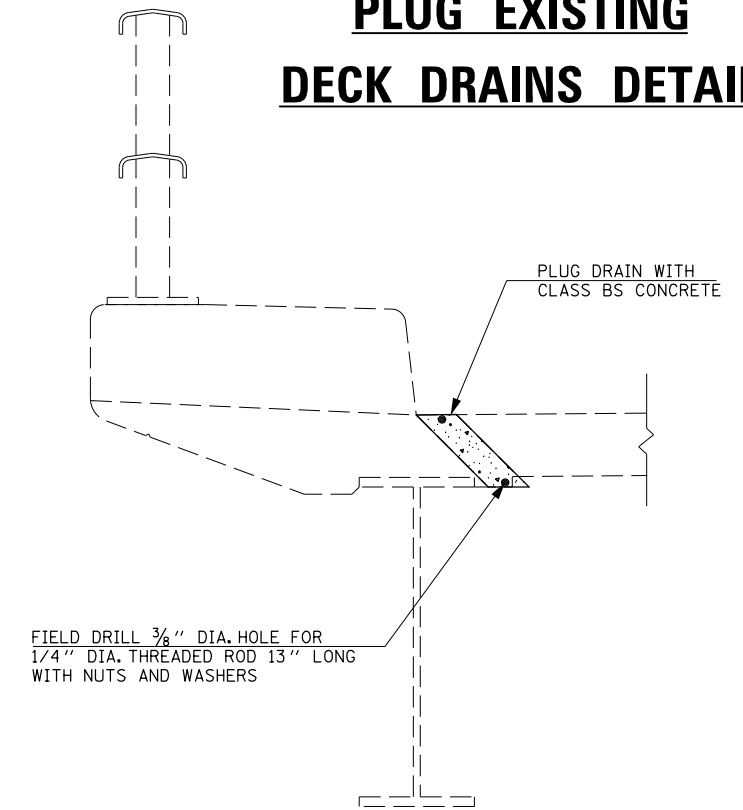
NOTE:
A PATCHING SURVEY WAS CONDUCTED AND THE PATCH SIZES AND LOCATIONS WERE PROVIDED ON THE PREVIOUS SHEET. ACTUAL SIZES AND LOCATIONS FOR THE FULL AND PARTIAL DEPTH PATCHING SHALL BE DETERMINED BY THE ENGINEER AND SHOWN ON THIS SHEET.

FILE NAME =	USER NAME = bucklesjj	DESIGNED - TJB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS BUILT PATCHING PLAN S.N. 010-0103			F.A.I. RTE. = 57	SECTION = (10-33HB)BDR	COUNTY = Champaign	TOTAL SHEETS = 27	SHEET NO. = 11
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	PLOT SCALE = 48.0000' / in.	CHECKED -	REVISED -							ILLINOIS FED. AID PROJECT		
	PLOT DATE = 10/5/2011	DATE - 6/17/11	REVISED -									

SECTION AT EXISTING JOINT

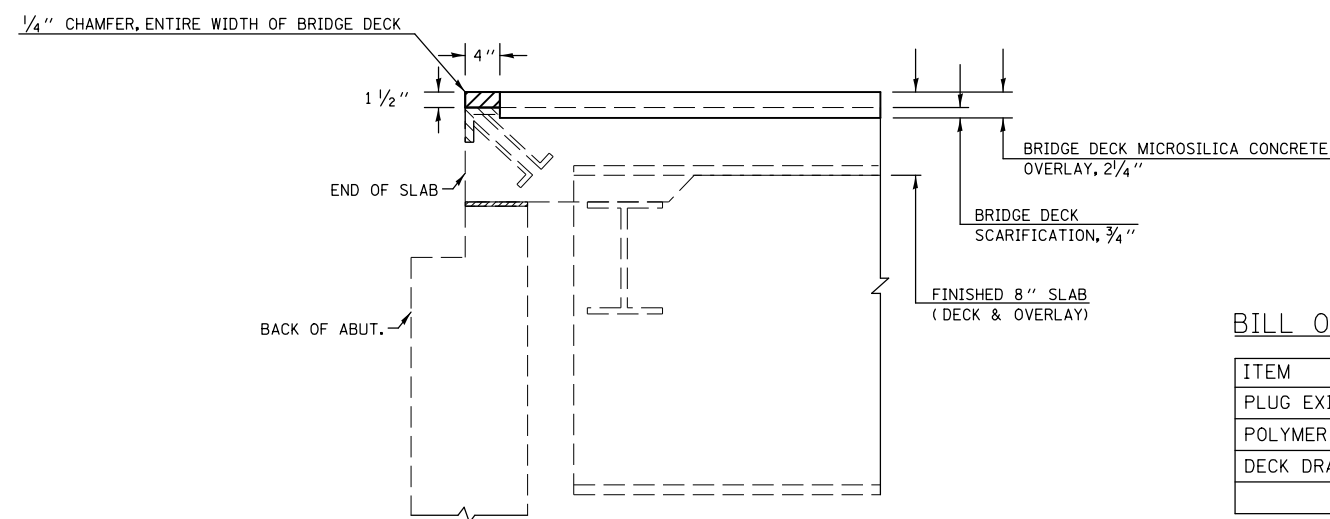


PLUG EXISTING DECK DRAINS DETAIL



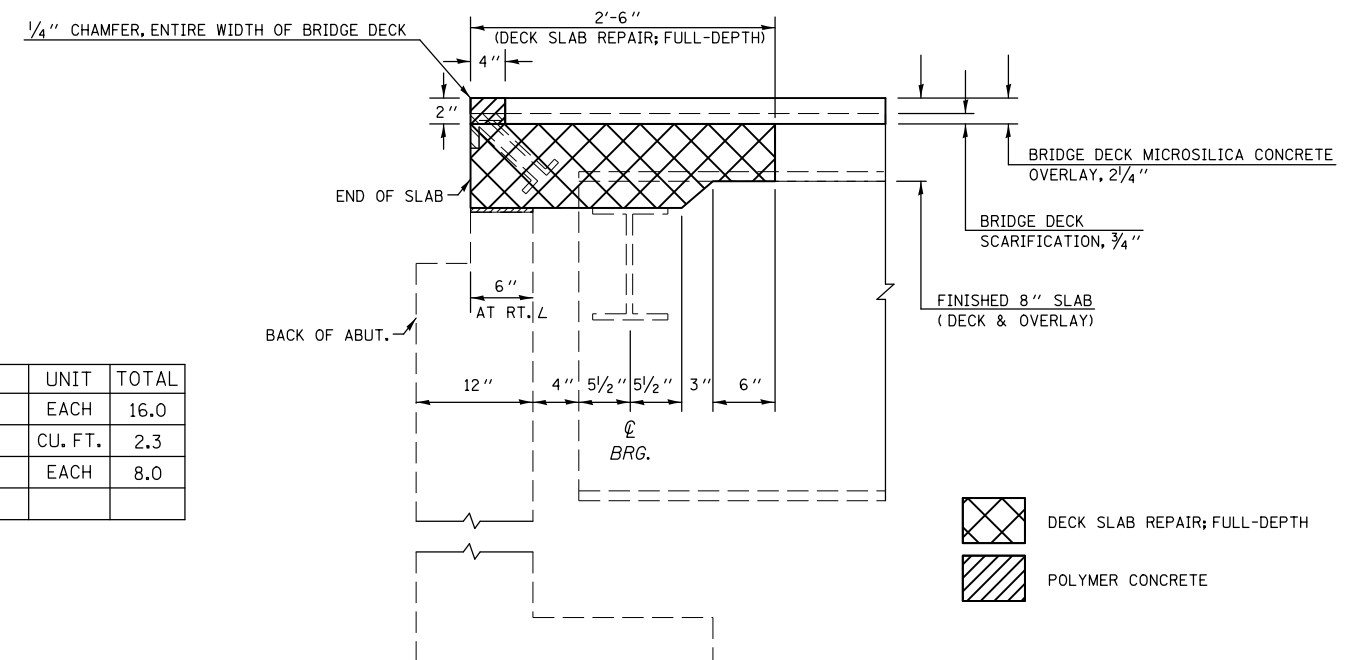
NOTE:
FOR EXISTING DECK DRAINS WITH EXTENSIONS, REMOVE THE BOTTOM PORTION OF EXISTING DRAIN. (COST INCLUDED WITH PLUG EXISTING DECK DRAINS)

SECTION AT PROPOSED JOINTS EAST ABUTMENT



 POLYMER CONCRETE

SECTION AT PROPOSED JOINTS WEST ABUTMENT



BILL OF MATERIALS

ITEM	UNIT	TOTAL
PLUG EXISTING DECK DRAINS	EACH	16.0
POLYMER CONCRETE	CU. FT.	2.3
DECK DRAIN EXTENSIONS	EACH	8.0

FILE NAME =	USER NAME = bucklesjj	DESIGNED -	REVISED -
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	PLOT DATE = 10/5/2011	DATE -	REVISED -

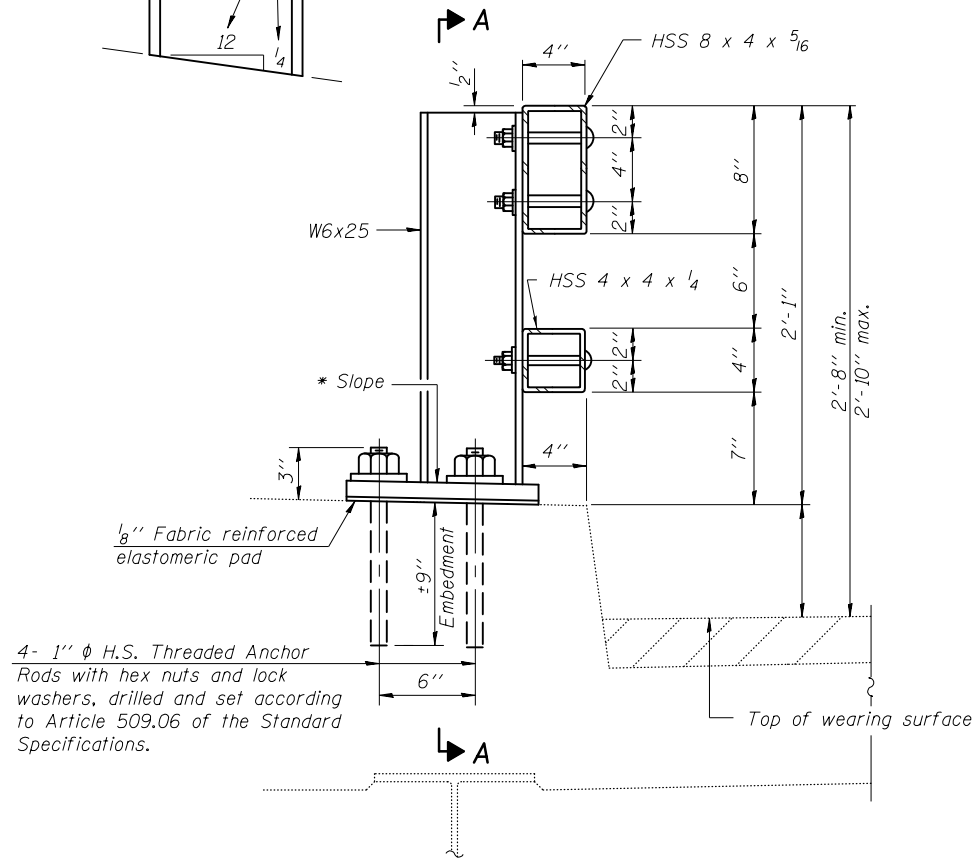
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT & DRAIN REPAIR DETAILS
S.N. 010-0103

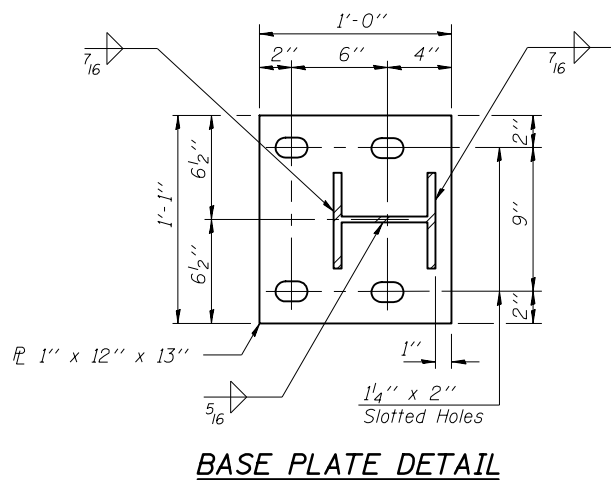
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	12
			CONTRACT NO. 70924	
ILLINOIS FED. AID PROJECT				

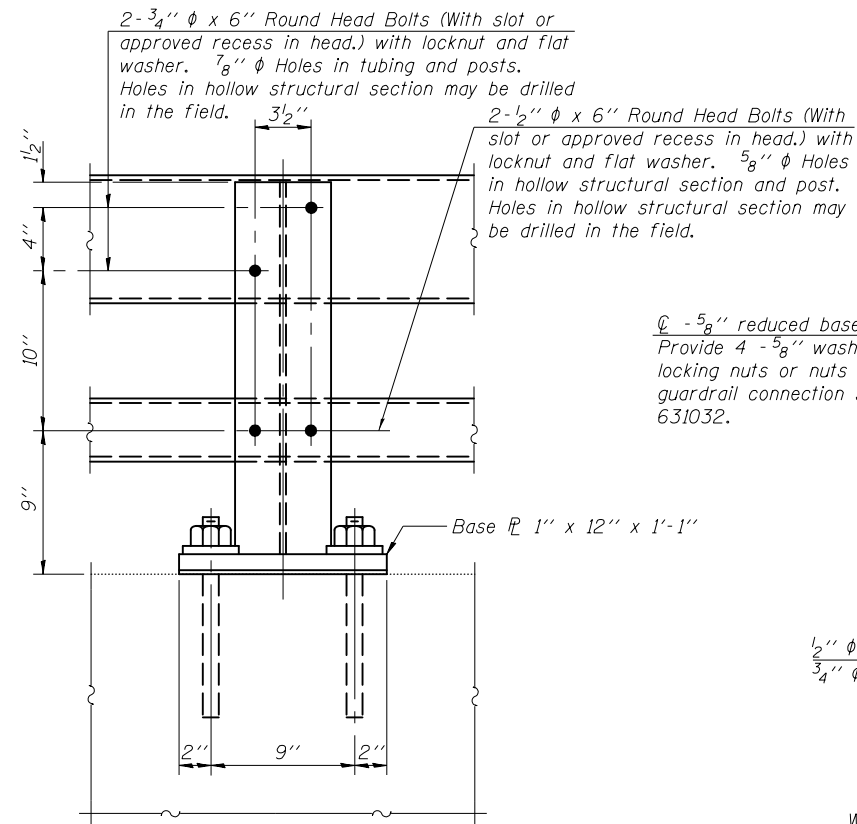
* Cut bottom end of post to curb slope.



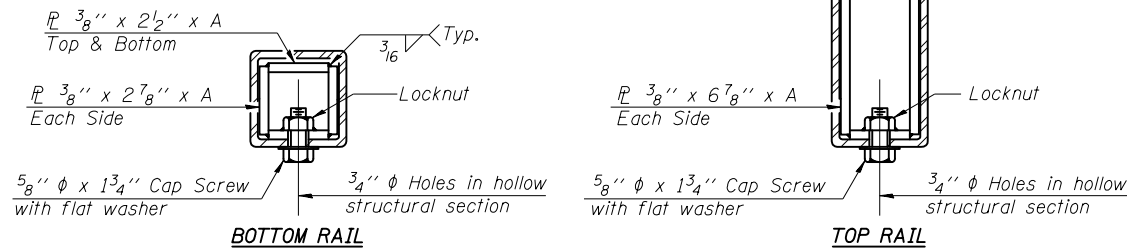
SECTION AT RAIL POST



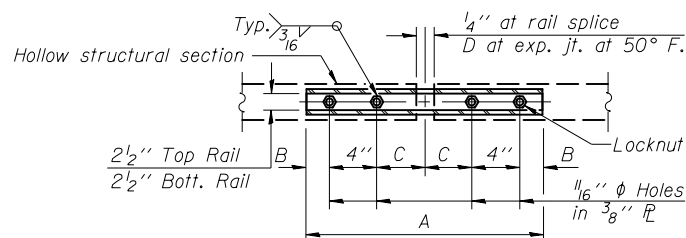
BASE PLATE DETAIL



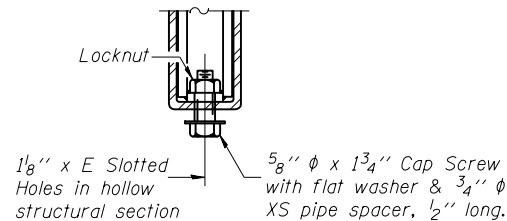
SECTION A-A



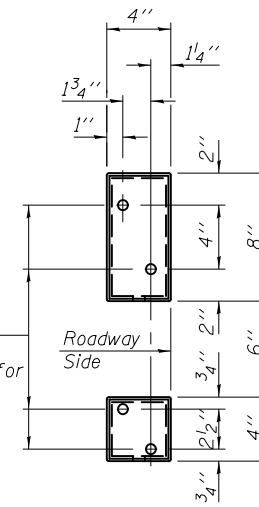
SECTIONS AT RAIL SPLICE



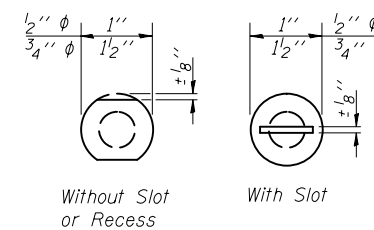
PLAN-BOTT. SPLICE P TYPICAL



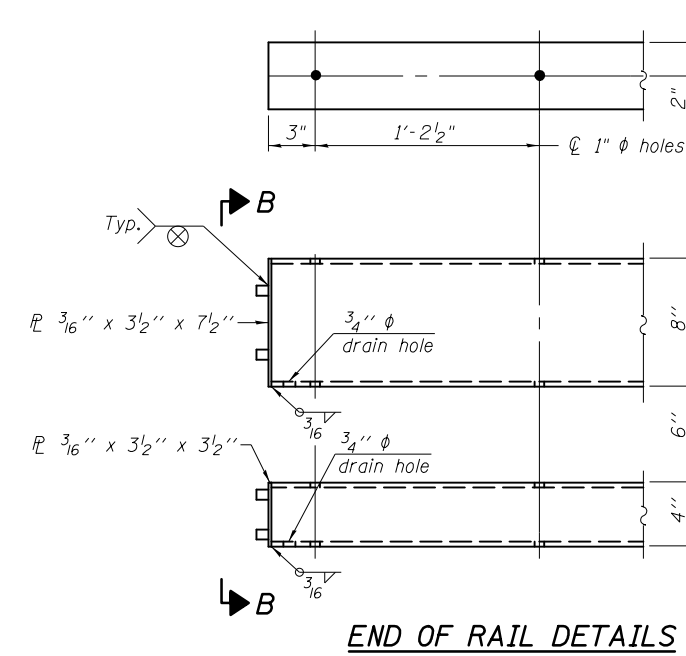
RAIL SPLICE CONNECTION AT EXPANSION JT.



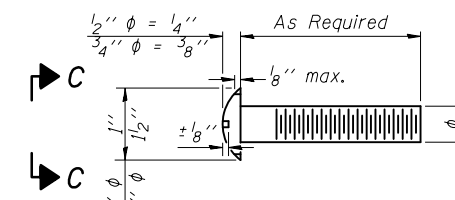
VIEW B-B



VIEW C-C



END OF RAIL DETAILS



DETAIL OF 1/2" & 3/4" ROUND HEAD BOLTS

Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤4"	2 1/2"	1'-8"	2"	4"	2 1/2"
>4" ≤6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
>6 1/2" ≤9"	5"	2'-4"	3 1/2"	6 1/2"	9"
>9" ≤13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	435.0

R-31

7-1-10

(6'-3" Maximum Post Spacing)

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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PLOT SCALE = 48.0000' / in.	CHECKED -	-	-
PLOT DATE = 10/5/2011	DATE -	-	-

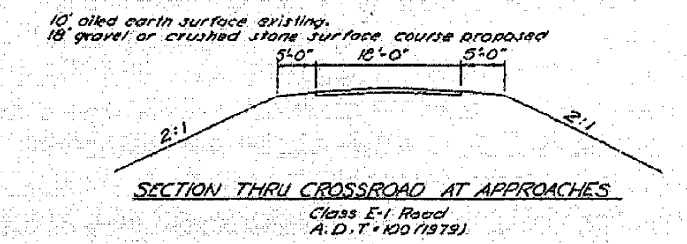
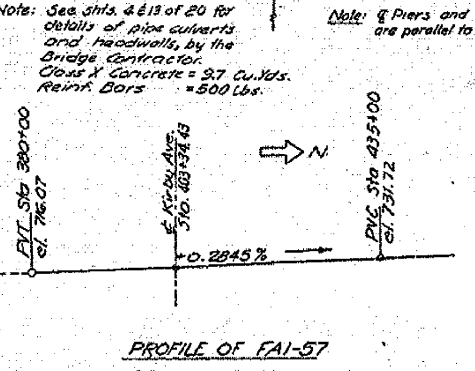
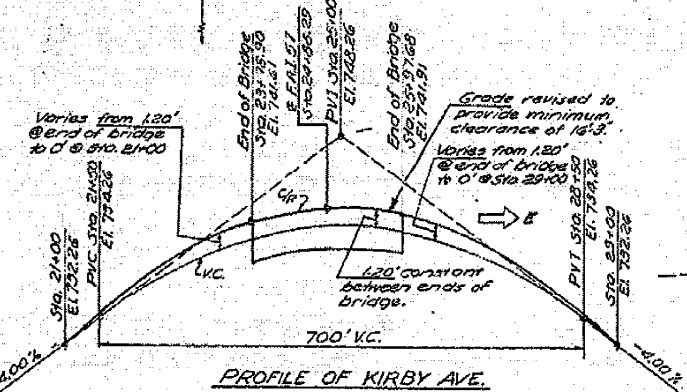
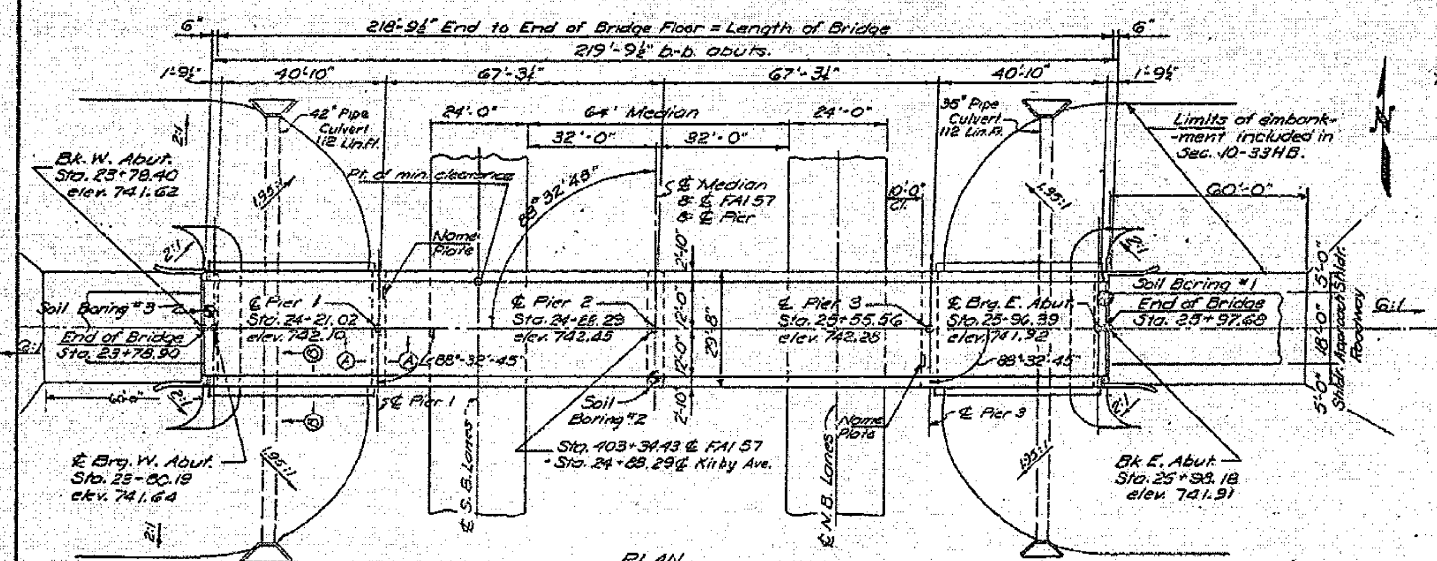
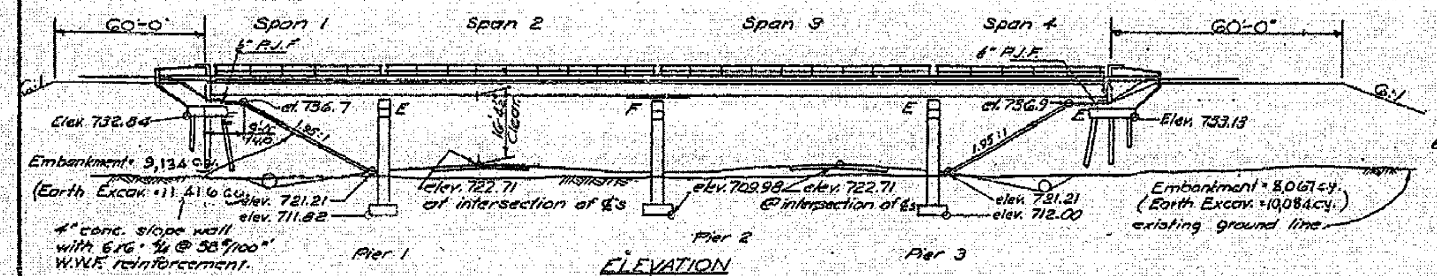
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STEEL RAILING, TYPE 2399
STRUCTURE NO. 010-0103**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	14
			CONTRACT NO. 70924	
ILLINOIS FED. AID PROJECT				

B.M. #122 on bottle cap in fence post 178' Rt.
 E. FAI 57 Sta. 403+44.25 Elev. 722.62.
 No existing structures.



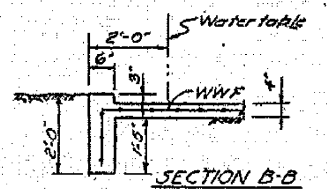
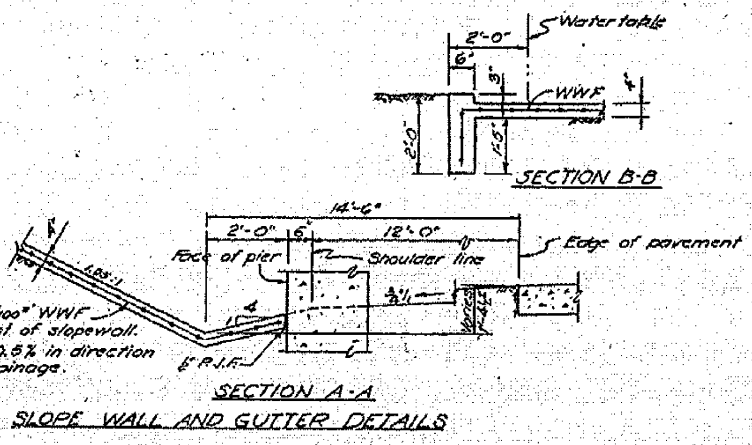
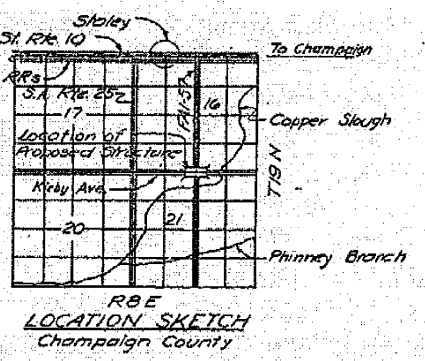
DESIGN STRESSES
 $f_c = 4000$ psi
 $f_s = 20,000$ psi (reinforcement)
 $f_b = 18,000$ psi (structure)
 $n = 10$
 $v = 75$ psi (footings)

LOADING
 H15 - S12-44

BORING DATA

Station	N	Qu	W	Notes
710	13	2.4	21.2	BROWN SILTY CLAY FIRM
	18	4.6	15.1	BROWN MOTTLED CLAY STIFF
	22	5.3	12.6	WATER ELEVATION AFTER 24 HOURS
	26	7.3	11.0	BROWN MOTTLED CLAY TILL
	30	7.7	11.0	VERY STIFF
700	22	7.7	11.1	BROWN MOTTLED CLAY TILL
	26	4.8	11.8	VERY STIFF
690	24	-	-	HARD GRAY CLAY TILL
	28	5.1	12.3	VERY STIFF

Station	N	Qu	W	Notes
710	12	1.9	16.0	BROWN SILTY CLAY FIRM
	17	4.1	12.4	BROWN MOTTLED CLAY STIFF
	18	3.4	13.3	WATER ELEVATION AFTER 24 HOURS
	21	5.3	13.2	BROWN MOTTLED CLAY TILL
	26	7.7	11.1	VERY STIFF
700	16	2.4	14.1	GRAY CLAY TILL
	18	2.1	14.1	VERY STIFF
690	16	-	-	HARD GRAY CLAY TILL
	18	-	-	VERY STIFF



- GENERAL NOTES**
- SPECIFICATIONS: THE STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 2, 1956, SHALL APPLY.
 - CONCRETE: CLASS X CONCRETE SHALL BE USED THROUGHOUT. THE CONCRETE FLOOR SLAB SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 61.10 OF THE STANDARD SPECIFICATIONS. COURSE SAGRETE WHICH IS TO BE USED IN END PILES MUST BE ABSOLUTELY FREE OF CHERT, FLINT, LIMONITE, LIGHTITE, AND SOFT SAND STONE.
 - METAL HANDRAIL: ALL RAIL POSTS, ANCHOR DEVICES AND LEAD PLATES SHALL BE INCLUDED IN PAYMENT FOR LIN. FT. OF METAL HANDRAIL. THE LENGTH PAID FOR SHALL BE THE OVERALL LENGTH ALONG THE TOP LONGITUDINAL RAILING MEMBER THROUGH ALL POSTS AND GAPS.
 - CONCRETE PILES: SEE SPECIAL PROVISIONS FOR OPTIONAL TYPES AND BASIS OF PAYMENT.
 - TEST PILES: THE CONTRACTOR SHALL DRIVE ONE TEST PILE AT EACH ABUTMENT IN PERMANENT LOCATION IN ACCORDANCE WITH ARTICLE 60.15 OF THE STANDARD SPECIFICATIONS BEFORE ORDERING THE REMAINDER OF THE PILES.
 - EMBANKMENT: MATERIAL FOR CONSTRUCTING THE EMBANKMENT AT EACH ABUTMENT SHALL BE OBTAINED FROM WITHIN THE LIMITS OF THE RIGHT-OF-WAY BETWEEN STATIONS 348 AND 355 AND IS INCLUDED FOR PAYMENT AS EARTH EXCAVATION.
 - PRE-CORING: HOLES SHALL BE PRE-CORING FOR THE ABUTMENT PILES IN ACCORDANCE WITH ARTICLE 60.9 (C) OF THE STANDARD SPECIFICATIONS.
 - PAINT: EXCEPT AS OTHERWISE PROVIDED, ALL STRUCTURAL STEEL AND METAL HANDRAIL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT IN ACCORDANCE WITH ARTICLES 55.1 THROUGH 55.5. ALL PAINT SHALL BE FURNISHED AND APPLIED BY THE CONTRACTOR.

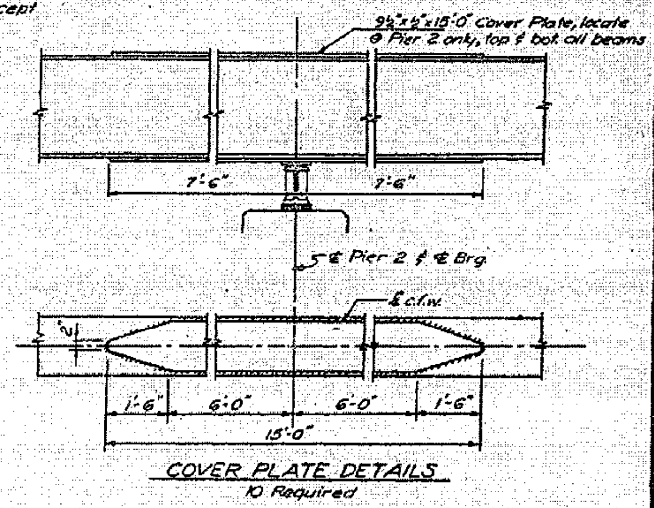
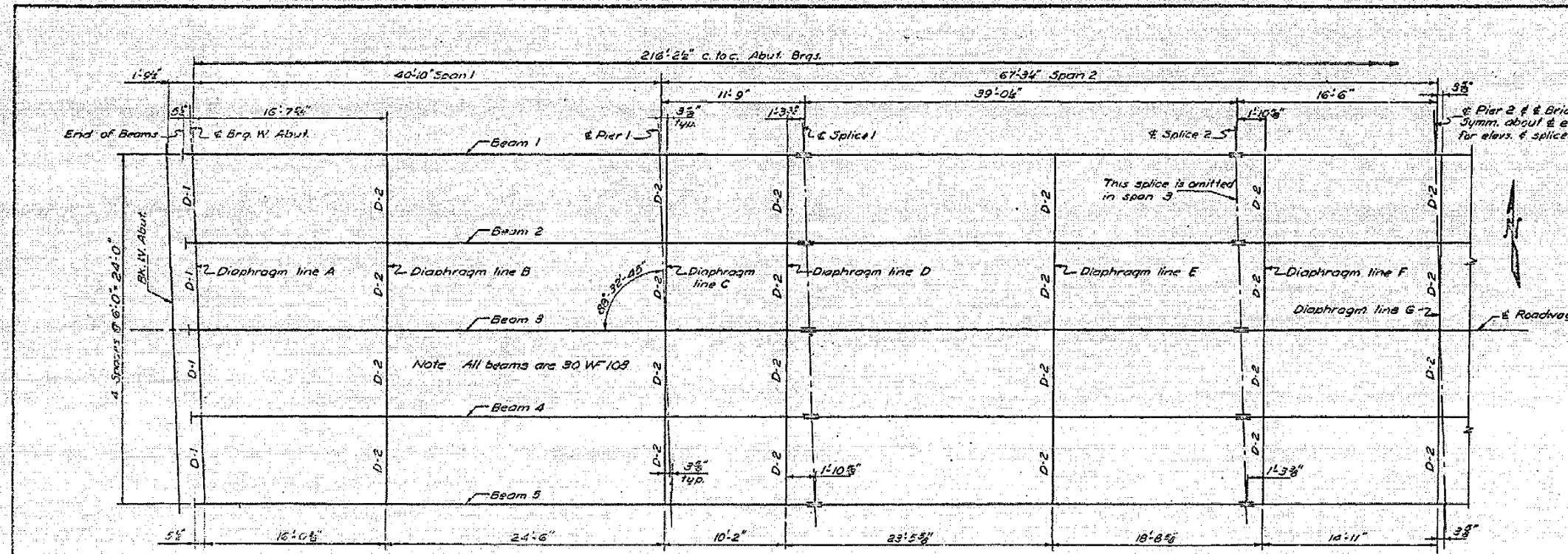
STATION 403+34.43
 BUILT BY
 STATE OF ILLINOIS
 F.A.I. RTE. 57 SEC. 10-33HB
 F.A. PROJECT 1-57-5(12)
 LOADING H15-S12

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUBSTR.	TOTAL
Class X Concrete	Cu. Yds.	173.6	219.2	392.8
Reinforcement Bars	Lbs.	32,393	16,869	49,262
Structural Steel	Lbs.	144,230	-	144,230
Metal Handrail	Lin. Ft.	435	-	435
Name Plates	Ea.	-	2	2
Slope Wall	Sq. Yds.	-	340	340
Class A Excav. for Structs.	Cu. Yds.	-	328	328
Concrete Piles	Lin. Ft.	-	610	610
Test Piles (Concrete)	Ea.	-	1	1
Pipe Culverts 72" dia.	36' Lin. Ft.	-	112	112
Pipe Culverts 42" dia.	32' Lin. Ft.	-	112	112
Earth Excavation	Cu. Yds.	2,500	-	2,500

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
 DIVISION OF HIGHWAYS

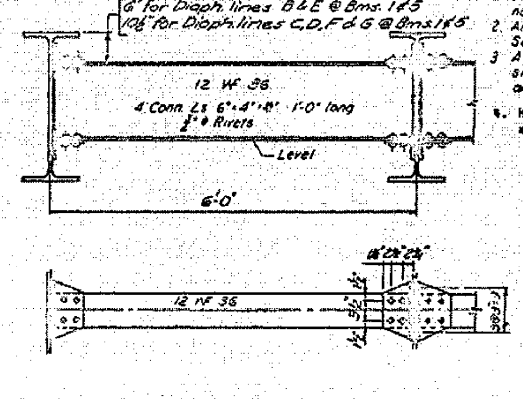
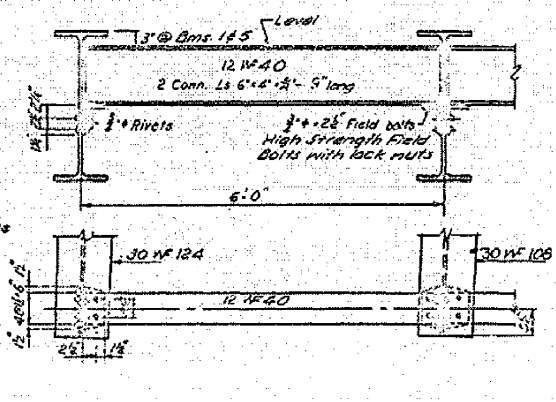
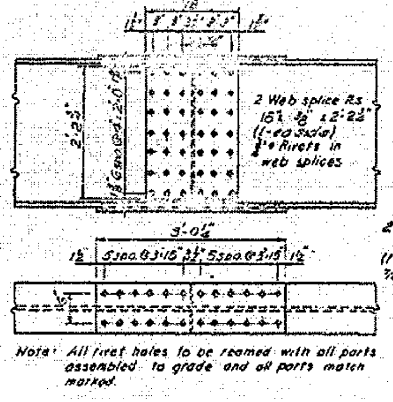
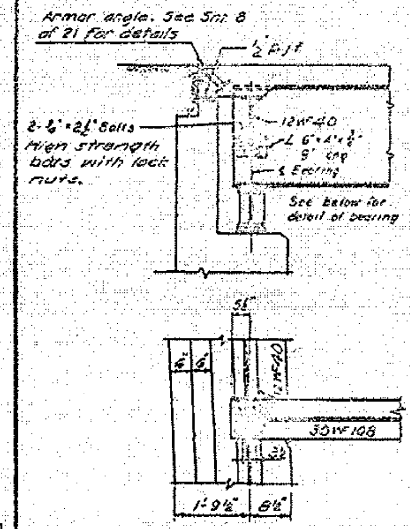
1	Vertical clearance and handrail	CBP 15-25-20
NO.	REVISION	BY DATE
GENERAL PLAN AND ELEVATION		
SECTION 10-33HB	STATION 403+34.43	
F.A.I. RTE. 57	PROJECT 1-57-5(12) 1-C	
CHAMPAIGN COUNTY		
CLARK, DAILY & DIETZ CONSULTING ENGINEERS URBANA, ILLINOIS		
DESIGNED CBP	SCALE AS NOTED	SHEET 1
DRAWN RWA	CHECKED CBP	DATE 9-15-58
OF 7		



FILL PLATES

Beam	W. Abut	Piers 1 & 3	Pier 2	E. Abut
3	9' x 1'-7"	9' x 1'-7"	9' x 1'-6"	9' x 1'-7"

Note: No fill plates are required at other bearing locations.

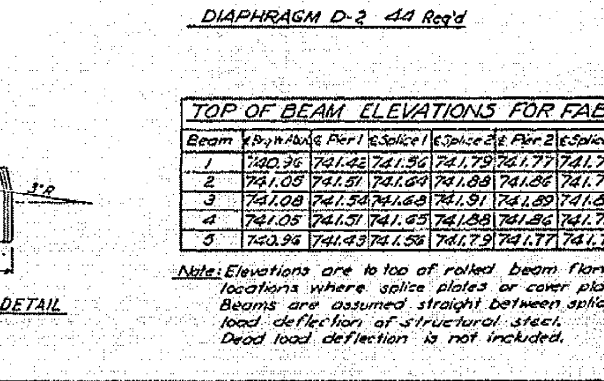
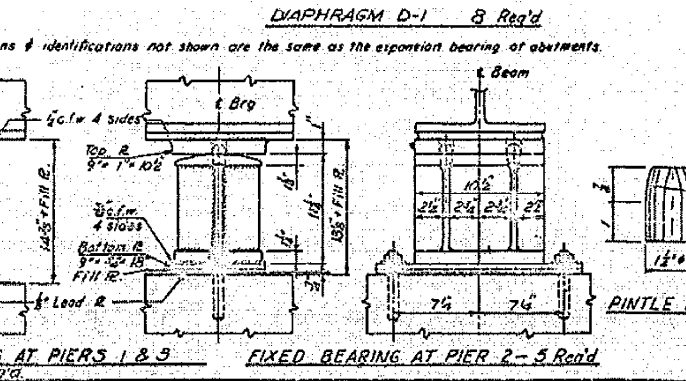
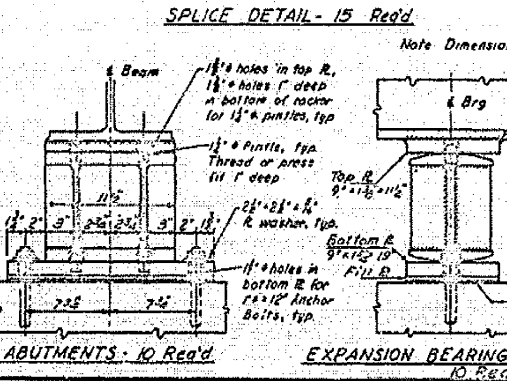
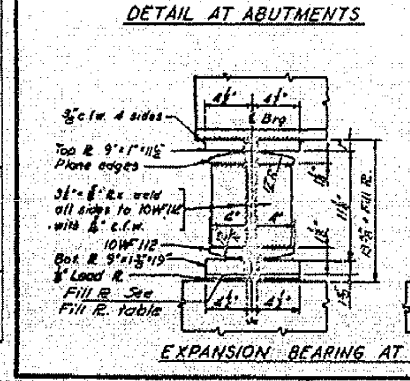


- SPECIAL NOTES:**
- Beams are not to be cambered for dead load deflection but advantage of natural camber is to be taken.
 - Anchor bolts shall be set before riveting cross frames over piers and abutments. See Article 54.9 (1) for setting of masonry bearing plates and anchor bolts.
 - All rockers, bearing plates, lead plates, anchor bolts, rivets and washers shall be seasoned, painted and set in accordance with Article 51.15 and are included for payment as Structural Steel.
 - High strength steel bolts may be substituted for field rivets in accordance with art. 54.9 (1) of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel in Girders	Lbs.	134,123
Structural Steel in Bearings	Lbs.	6,255
Structural Steel in Armor Angles	Lbs.	682
Structural Steel	Lbs.	140,060

796,370



TOP OF BEAM ELEVATIONS FOR FABRICATION

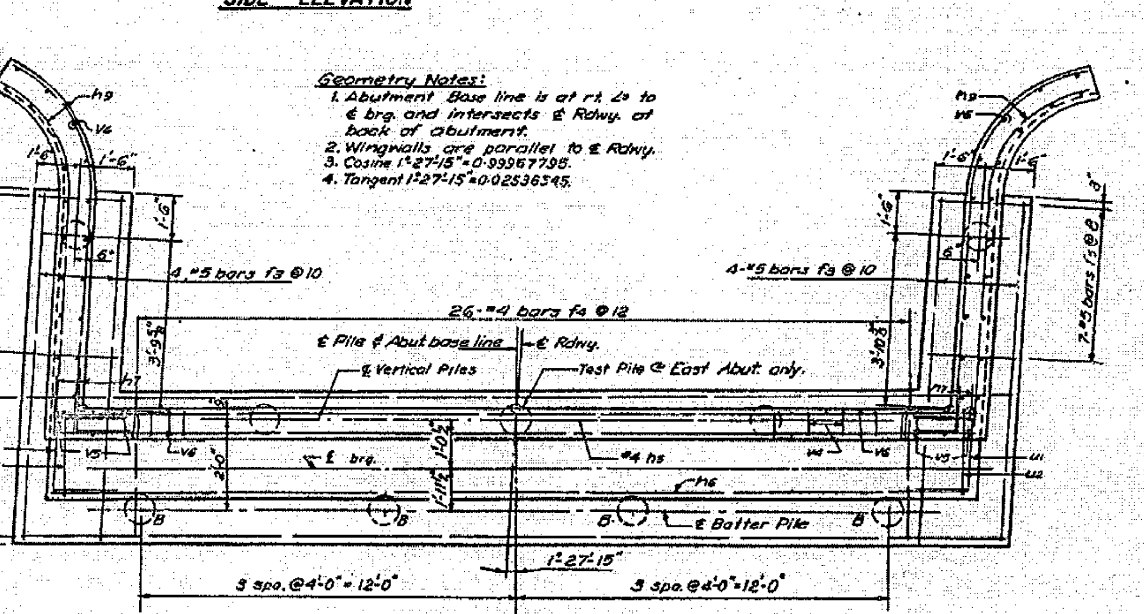
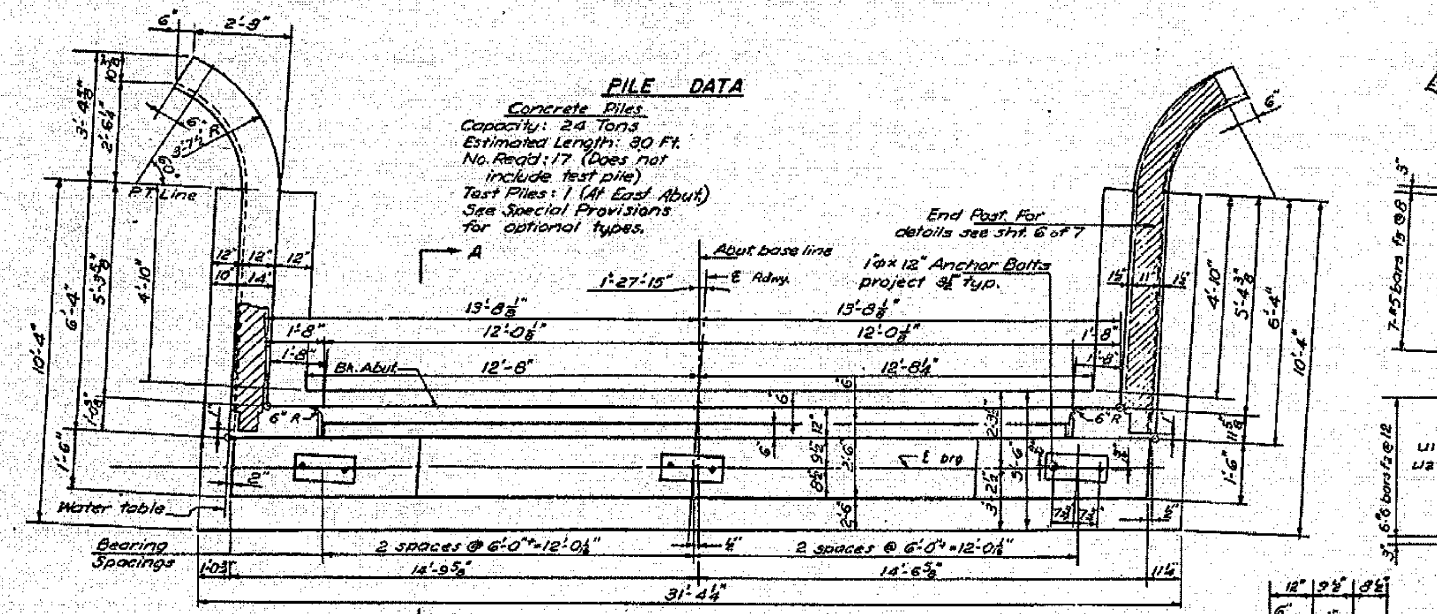
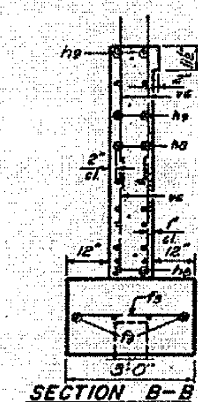
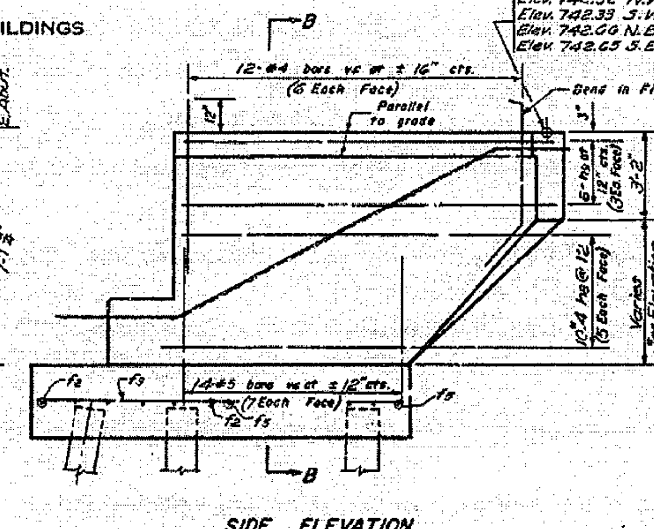
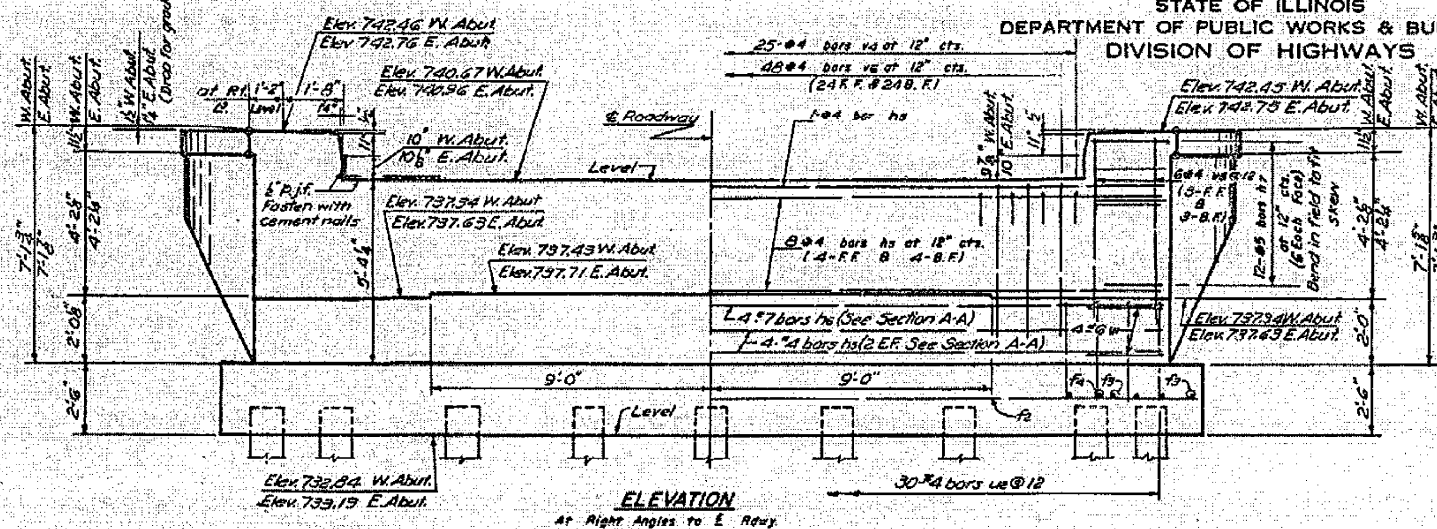
Beam	W. Abut	Pier 1	& Splice 1	& Splice 2.5	Pier 2	& Splice 3	Pier 3	Brq. E. Abut
1	740.36	741.22	741.96	741.79	741.77	741.71	741.61	741.25
2	741.05	741.51	741.69	741.89	741.86	741.79	741.69	741.34
3	741.08	741.54	741.68	741.91	741.89	741.82	741.72	741.37
4	741.05	741.51	741.65	741.88	741.86	741.79	741.69	741.33
5	740.94	741.43	741.58	741.79	741.77	741.70	741.60	741.25

Note: Elevations are to top of rolled beam flange, including locations where splice plates or cover plates are present. Beams are assumed straight between splices before dead load deflection of structural steel. Dead load deflection is not included.

STEEL FRAMING PLAN
 F.A.I. RTE. 57 SEC. 10-33HD
 CHAMPAIGN COUNTY
 STA. 403+34.43

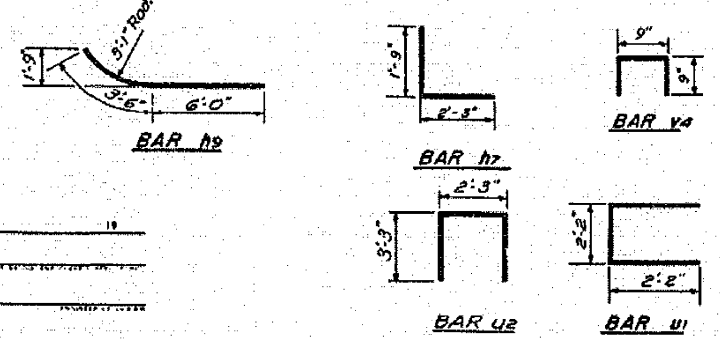
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	SECTION	COUNTY	SHEET NO.	SHEETS
F.A.I. 57	10-33HB	CHAMPAIGN	19	10



FILE DATA
Concrete Piles
Capacity: 24 Tons
Estimated Length: 30 Ft.
No. Reqd: 17 (Does not include test pile)
Test Piles: 1 (At East Abut)
See Special Provisions for optional types.

Geometry Notes:
1. Abutment Base line is at rt. to E. Rdwy. and intersects E. Rdwy. at back of abutment.
2. Wingwalls are parallel to E. Rdwy.
3. Cosine 1°27'15" = 0.99567795.
4. Tangent 1°27'15" = 0.02536345.



BILL OF REINFORCEMENT (2 Abut)

Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
h9	26	#4	29'-0"	—	f2	12	#6	31'-0"	—
h8	8	#7	29'-0"	—	f3	18	#5	10'-0"	—
h7	48	#3	4'-0"	L	f4	52	#4	5'-0"	—
h6	40	#4	6'-6"	—	f5	28	#5	2'-6"	—
h5	24	#3	9'-6"	—	u4	50	#4	2'-9"	□
					u5	24	#4	6'-2"	—
					u6	200	#8	4'-8"	—
u1	16	#6	6'-6"	□					
u2	60	#4	8'-9"	□					

BILL OF MATERIAL (2 ABUT)

Item	Unit	Quantity
Class X Concrete	Cu. Yd.	61.2
Reinforcement Bars	Lb.	3667
Concrete Piles	Lb. Ft.	510
Test Piles (Concrete)	Each	1

DESIGNED CBP
CHECKED RHA
DRAWN CBP 6-15-59
CHECKED RHA 8-23-59

EXAMINED
PASSED
APPROVED

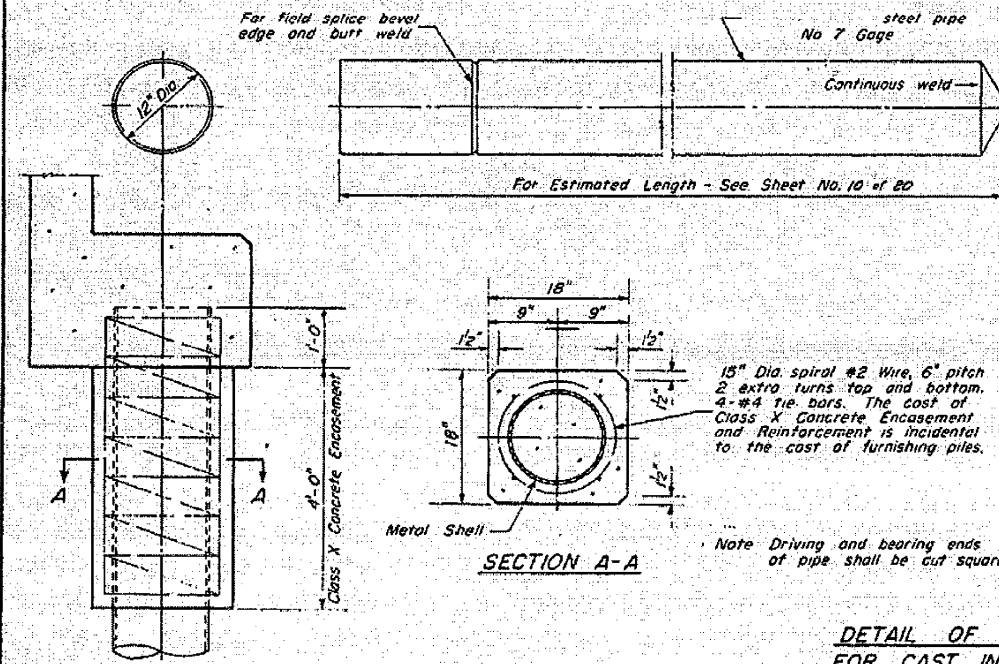
ABUTMENTS
FAIRTE 57 SEC. 10-33HB
CHAMPAIGN COUNTY
STA. 403+34.43

A-3 Drawn 5-21-58 Rev. 9-26-58

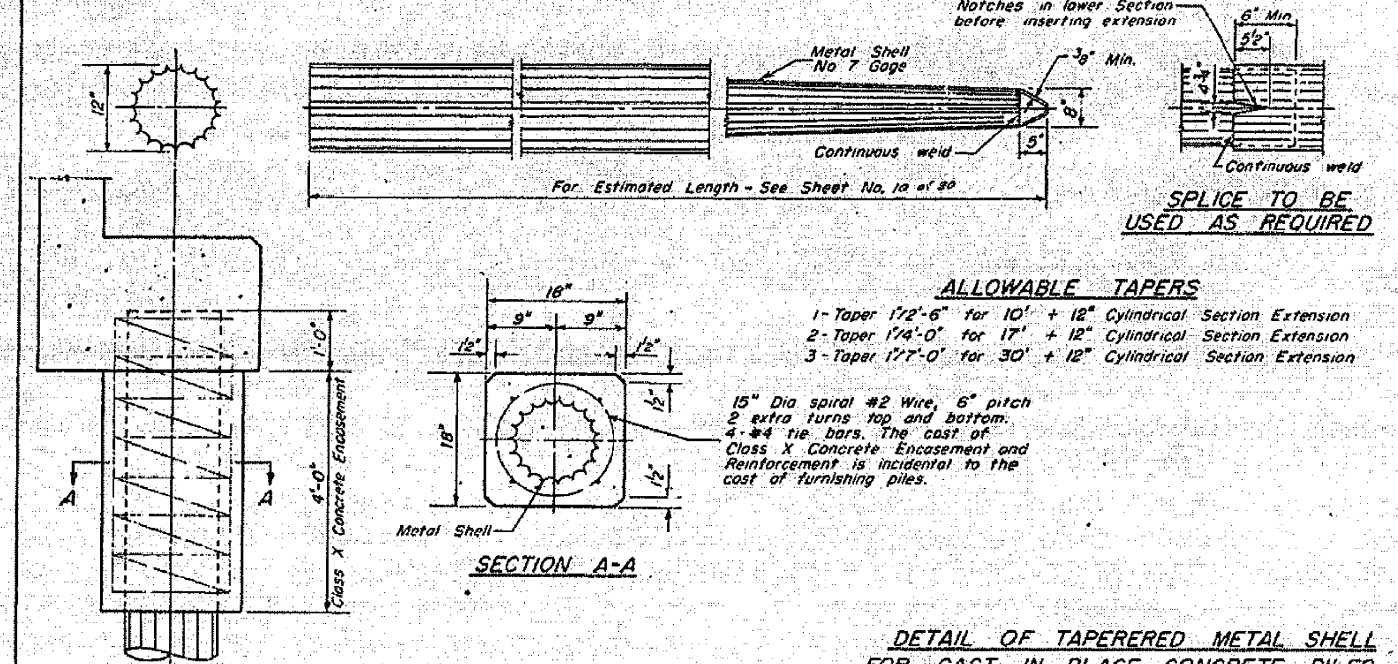
LOG NO. 394-V7

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

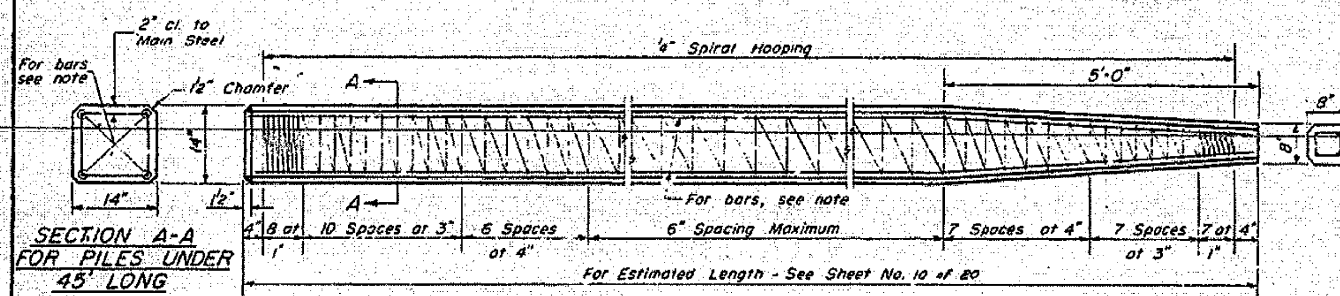
PROJECT	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.I. RTE. 57	10-33HB	CHAMPAIGN	19	12	7 SHEETS
ILLINOIS FED. AID PROJECT					



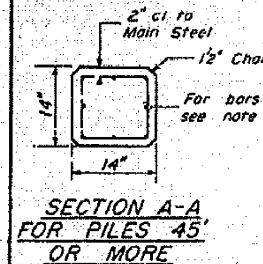
OPTIONAL FLAT END



DETAIL OF TAPERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



SECTION A-A FOR PILES UNDER 45' LONG

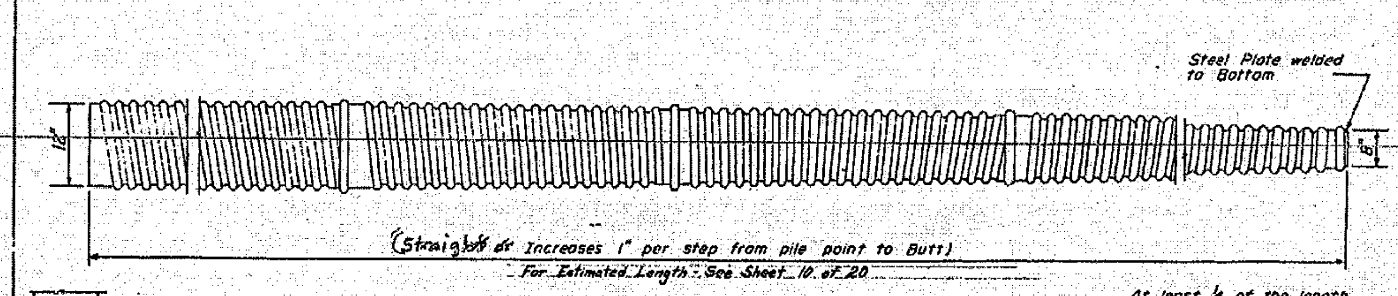


SECTION A-A FOR PILES 45' OR MORE

Note For 14" Piles 45' long or more use 8 #8 bars 4 for the full length and 4 to the point of bevel. For 14" Piles under 45' long use 4 #9 bars the full length.

Handling For Pile lengths up to 45', use two slings placed at a distance of 0.21 L* from each end. For Piles longer than 45', use three slings placed at a distance of 0.12 L* from each end and at mid-point of pile.

*L = Over all length of pile to be handled



SECTION A-A

DETAIL OF MANDREL DRIVEN STEP-TAPER OR STRAIGHT PILES FOR CAST IN PLACE CONCRETE PILES

DESIGNED	EXAMINED
W A Sausaman	ENGINEER OF ROAD & TRUCK STRUCTURES
	PASSED
	ENGINEER OF DESIGN
	APPROVED
	CHIEF HIGHWAY ENGINEER

X-1 Re-drawn 9-24-59

DETAIL OF PRECAST CONCRETE PILES

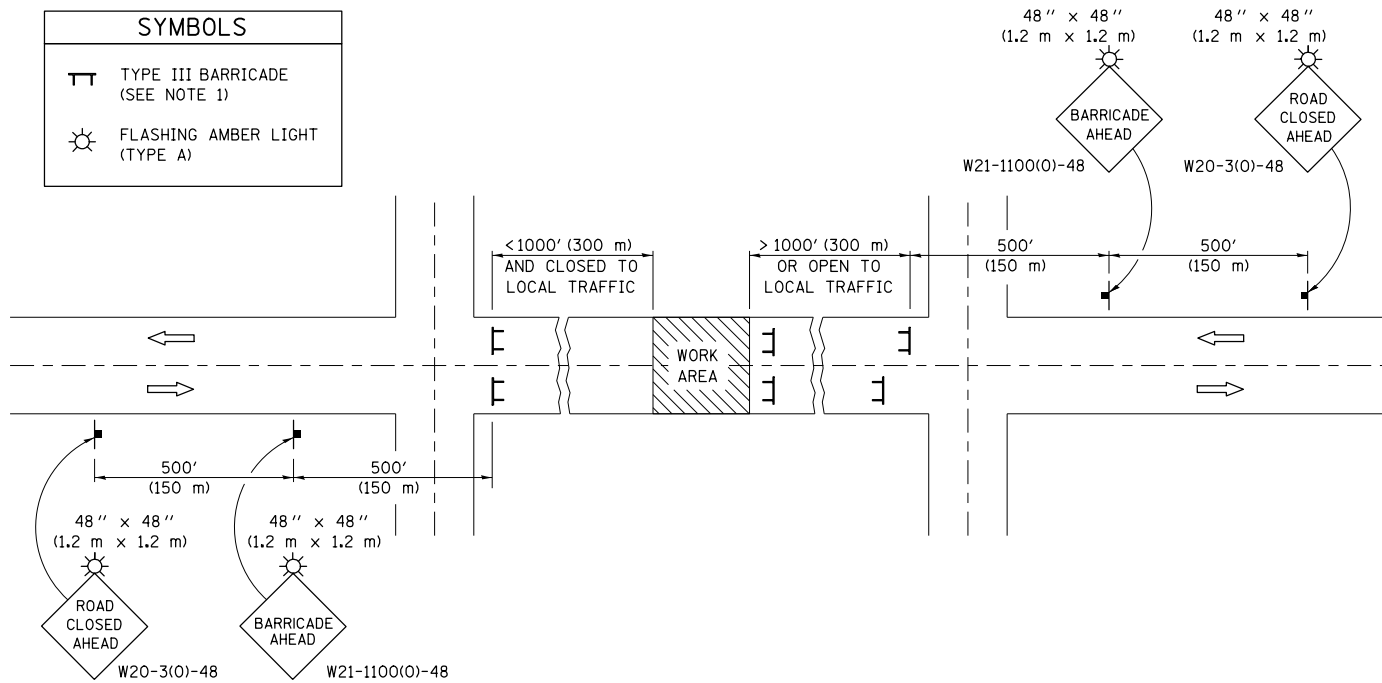
PILE DETAILS
F.A.I. RTE. 57 SEC. 10-33HB
CHAMPAIGN COUNTY
STA. 403+34.43

JOB NO. 394-V7

ROAD CLOSURE

SIDEROAD / STREET CLOSURE

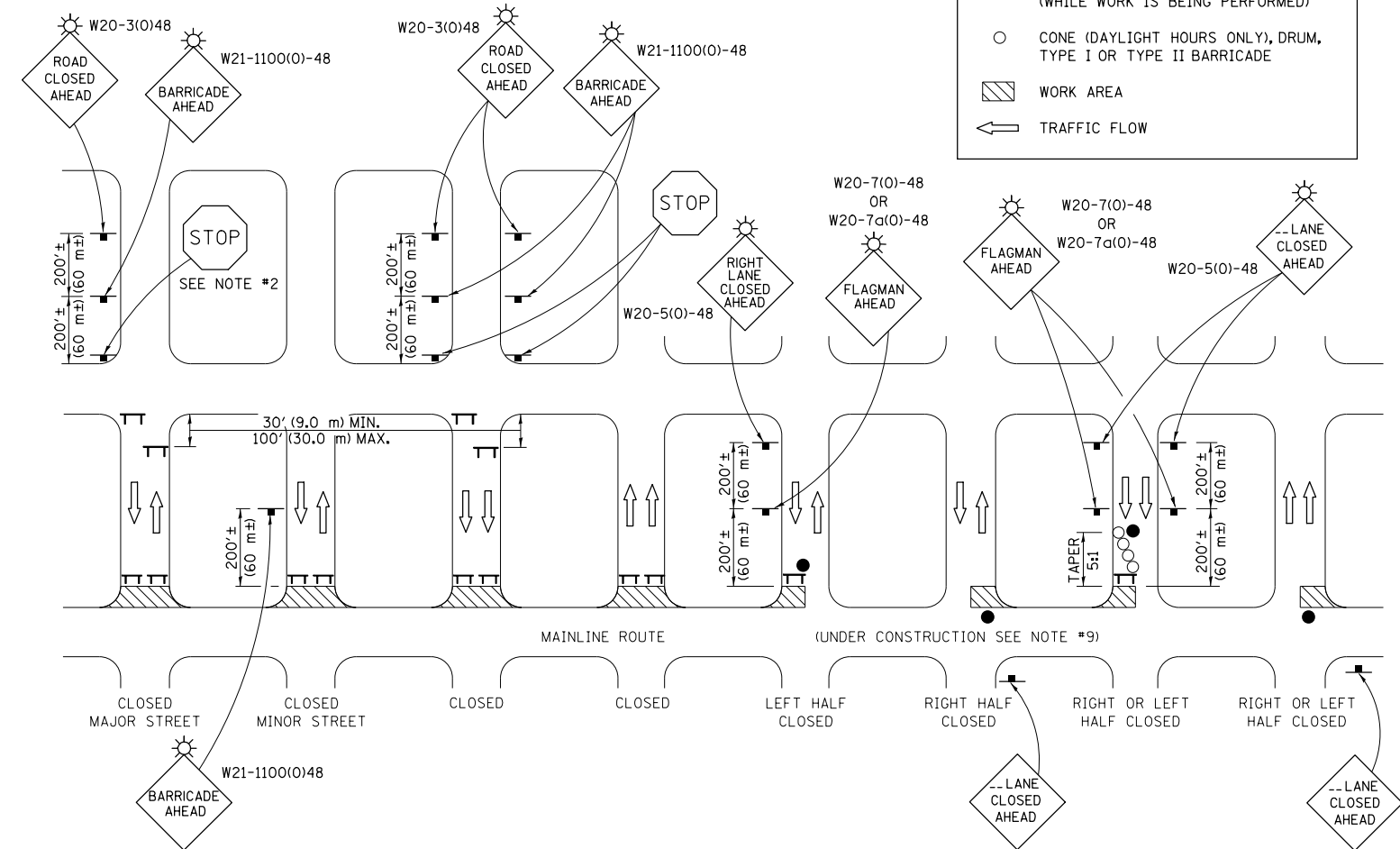
SYMBOLS	
	TYPE III BARRICADE (SEE NOTE 1)
	FLASHING AMBER LIGHT (TYPE A)



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON STANDARD 701901 "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- IF THE ROAD IS OPEN TO LOCAL TRAFFIC OR EXCEEDS 1000' (300 m), ANOTHER SET OF TYPE III BARRICADES, EQUIPPED AS IN NOTE 1 ABOVE, SHALL BE PLACED AT EACH END OF THE WORK AREA.
- WHEN A STOP CONDITION EXISTS, NO SIGNS ARE REQUIRED IN ADVANCE OF THE "STOP" SIGN WHEN THE ROAD IS CLOSED WITHIN 100' (30 m) OF THE INTERSECTION.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
- IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON AN NCHRP 350 TEMPORARY SIGN SUPPORT DIRECTLY IN FRONT OF THE BARRICADE.
- REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TY III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- A MINIMUM OF TWO FLASHING LIGHTS SHALL BE USED AT NIGHT ON EACH APPROACH IN ADVANCE OF THE WORK AREA. FLASHING LIGHTS SHALL BE INSTALLED ABOVE THE FIRST TWO SIGNS IN THE SERIES.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT. 725 AND BT. 726 ARE REQUIRED.
- WHEN A SIDEROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC DEVICES SHALL BE ERECTED AND PROVIDED AS DIRECTED BY THE ENGINEER.
- AN ADDITIONAL SIGN MAY BE REQUIRED AT A MAJOR INTERSECTING ROAD IN ADVANCE OF THE CLOSURE. THE ADDITIONAL SIGN SHALL GIVE THE DISTANCE TO THE BARRICADE IN MILES OR FRACTIONS OF A MILE.

SYMBOLS	
	TYPE III BARRICADE (SEE NOTE)
	FLASHING LIGHT
	FLAGGER WITH TRAFFIC CONTROL SIGN (WHILE WORK IS BEING PERFORMED)
	CONES (DAYLIGHT HOURS ONLY), DRUM, TYPE I OR TYPE II BARRICADE
	WORK AREA
	TRAFFIC FLOW



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- WHERE A STOP CONDITION EXISTS, AS SHOWN ABOVE, WARNING SIGNS MAY BE OMITTED IN ADVANCE OF THE "STOP" SIGN.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & MANUFACTURE OF TYPE III BARRICADES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ONE FLASHING LIGHT IS REQUIRED ABOVE EACH ADVANCE WARNING SIGN DURING HOURS OF DARKNESS.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT 725 AND BT 726 ARE REQUIRED.
- THE MAINLINE ROUTE TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS.
- ALL FLAGGERS REQUIRED AT SIDE ROADS AND ENTRANCES REMAINING OPEN TO TRAFFIC AND/OR ADDITIONAL BARRICADES REQUIRED BY THE ENGINEER TO CLOSE SIDE ROADS AND ENTRANCES WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = bucklesjj	DESIGNED -	REVISED - 11/06
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	PLOT DATE = 10/5/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

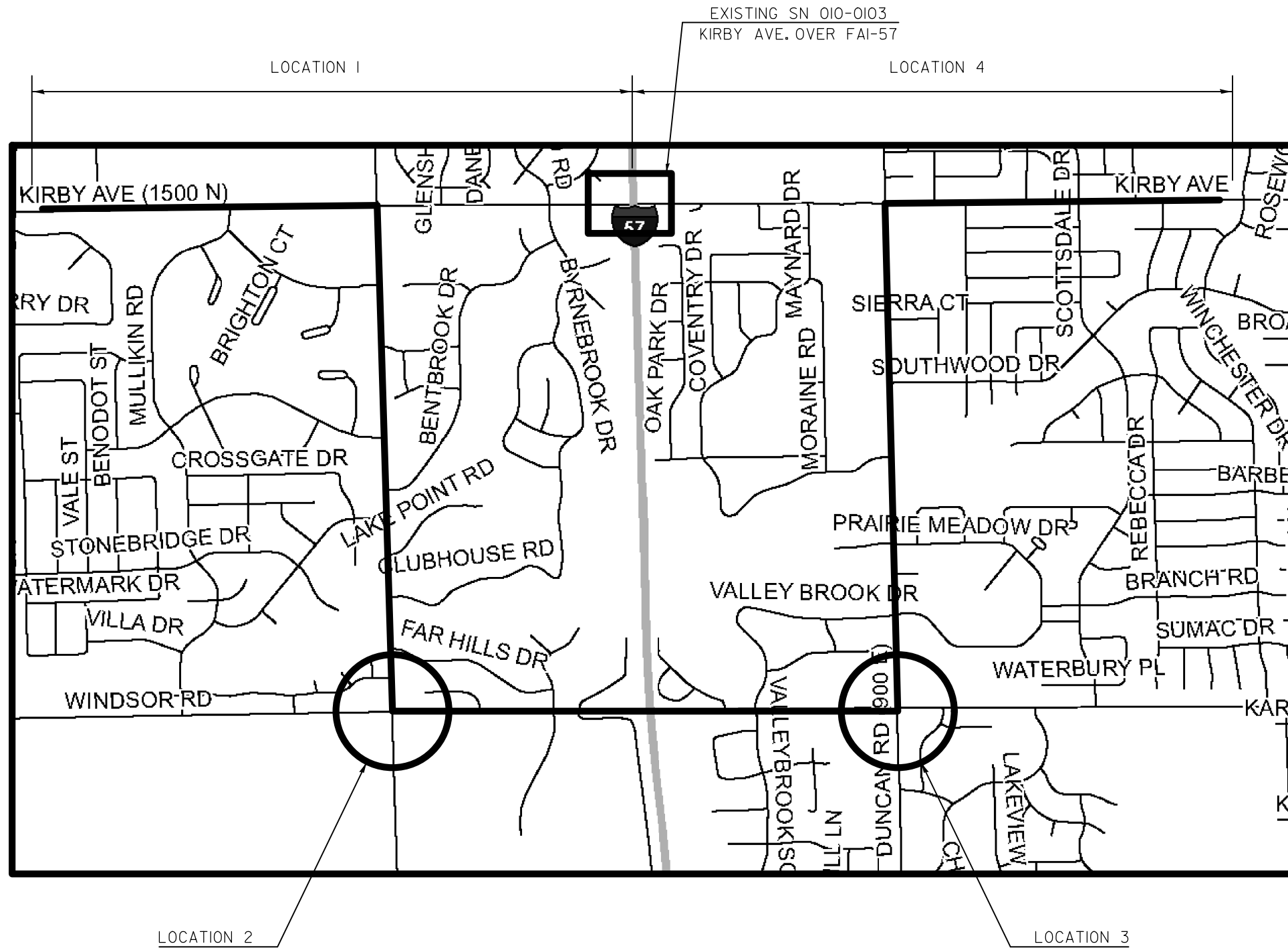
TRAFFIC CONTROL & PROTECTION DEVICES
(ROAD & SIDEROAD/STREET CLOSURES)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 7020000

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	22
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

MARKED LOCAL DETOUR FOR KIRBY AVE.



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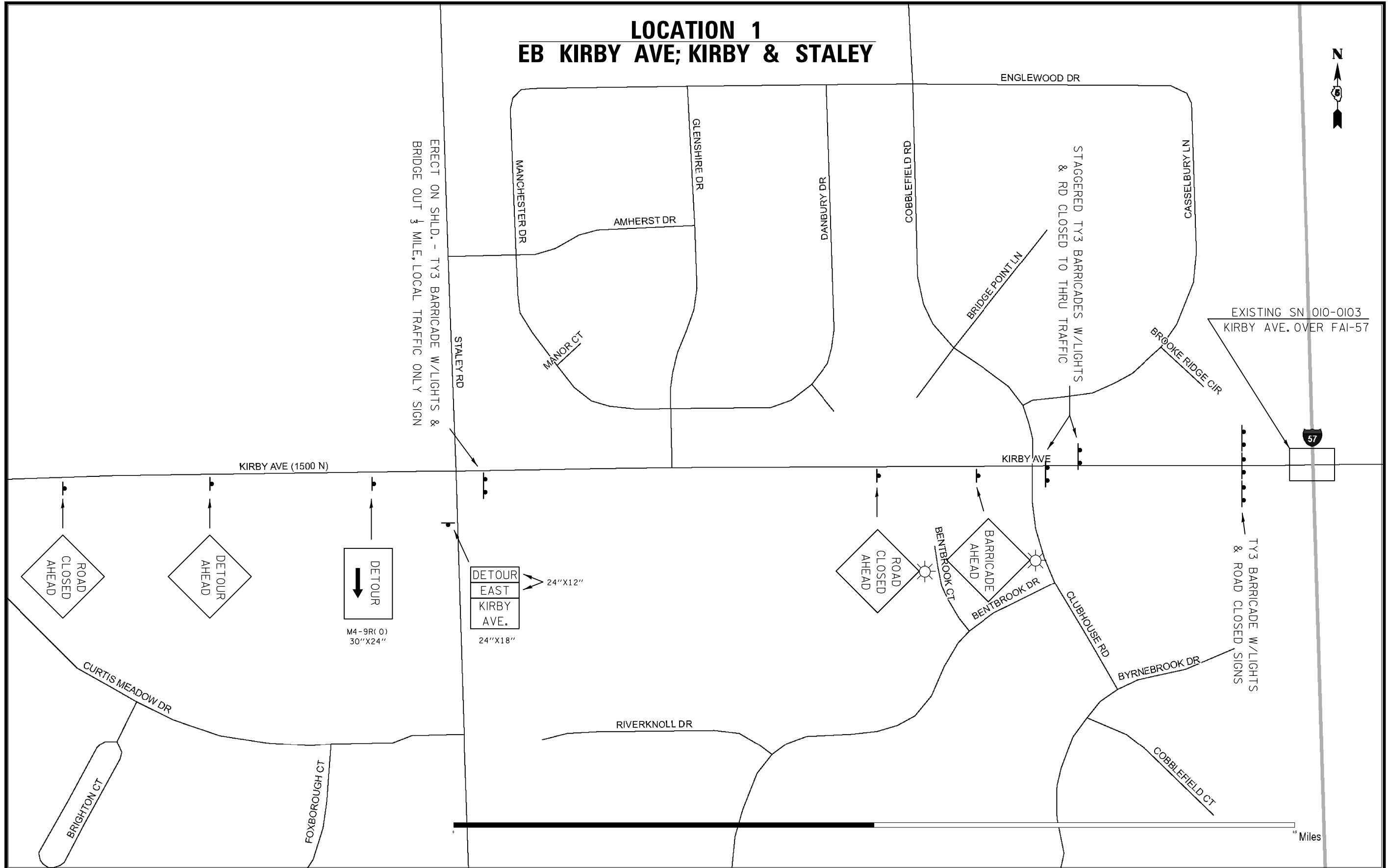
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING

SCALE: SHEET NO. 1 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	23
CONTRACT NO. 70924				
ILLINOIS FED. AID PROJECT				

LOCATION 1 EB KIRBY AVE; KIRBY & STALEY



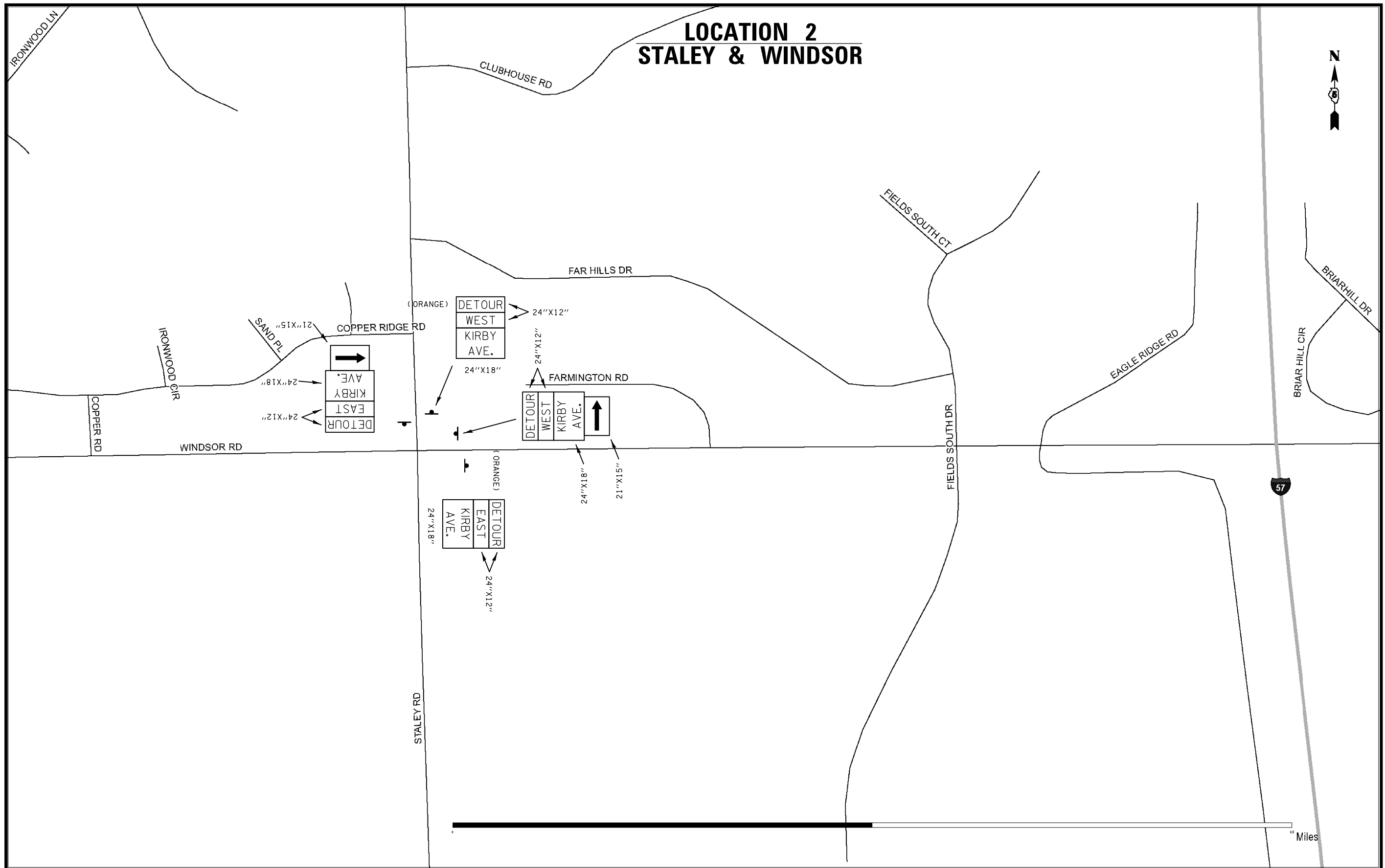
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PLOT DATE = 10/5/2011		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING	
SCALE:	STATION TO STATION
SHEET NO. 2	OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	24
CONTRACT NO. 70924				
ILLINOIS FED. AID PROJECT				

LOCATION 2 STALEY & WINDSOR



FILE NAME =	USER NAME = bucklesjj	DESIGNED -	REVISED -
ei:\pw\work\p\dot\bucklesjj\d0265817\0570924-sht-Details.dgn		DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/5/2011	DATE -	REVISED -

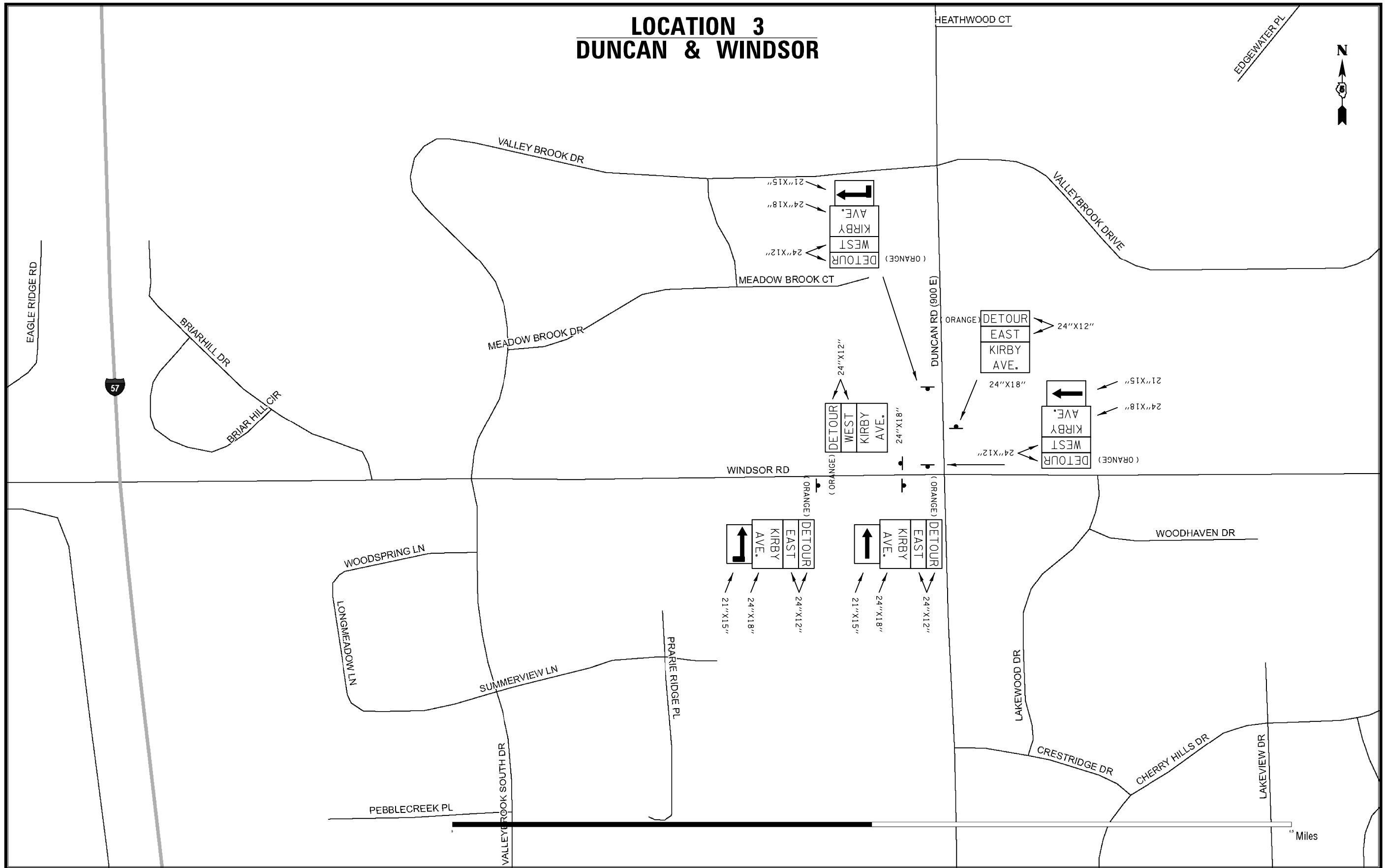
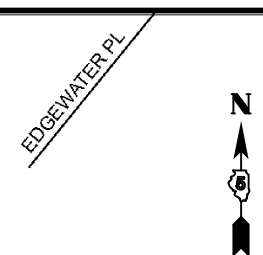
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING

SCALE: SHEET NO. 3 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	25
CONTRACT NO. 70924				
ILLINOIS FED. AID PROJECT				

LOCATION 3 DUNCAN & WINDSOR



FILE NAME =	USER NAME = bucklesjj	DESIGNED -	REVISED -
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	PLOT DATE = 10/5/2011	DATE -	REVISED -

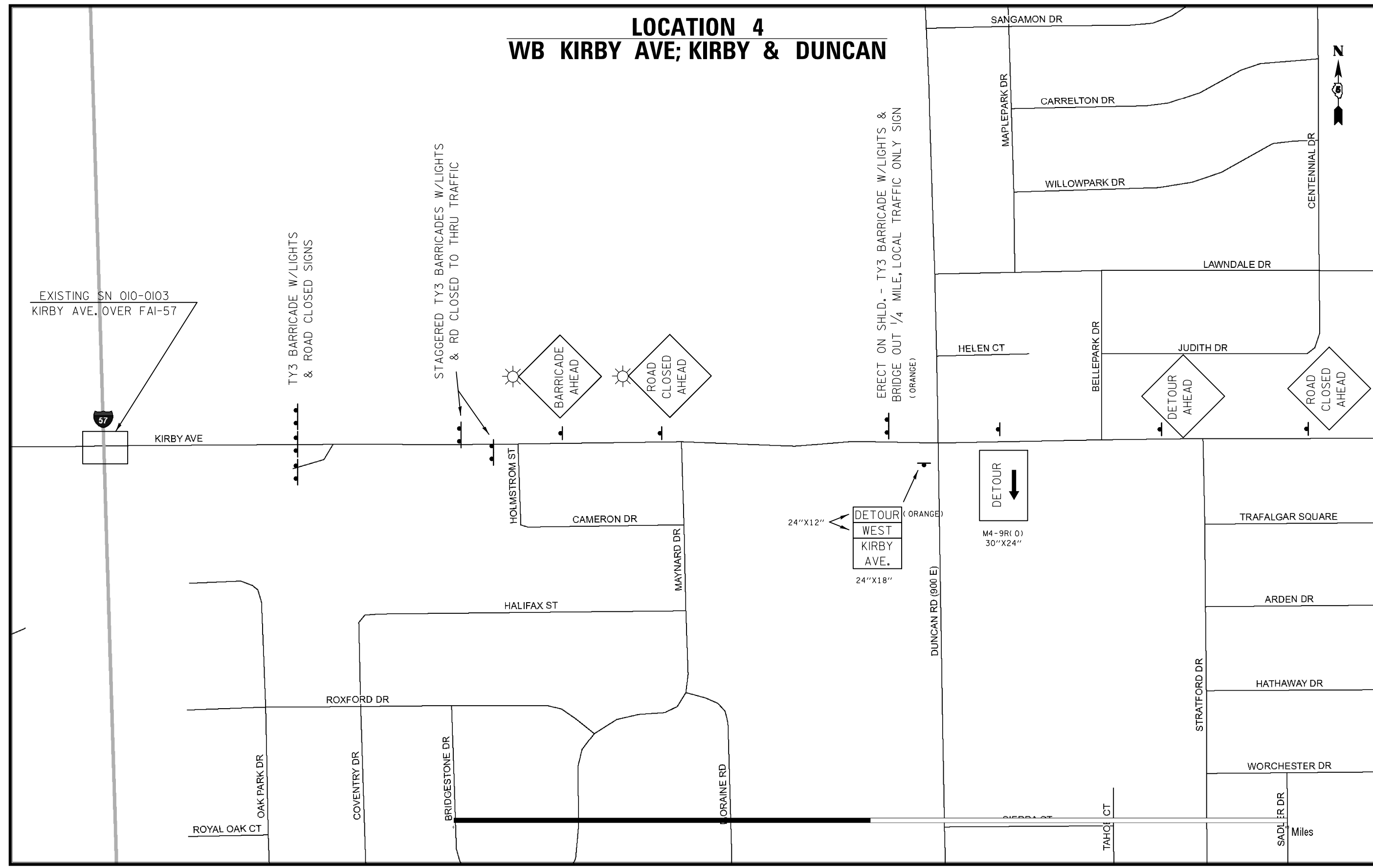
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING

SCALE: SHEET NO. 4 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	26
CONTRACT NO. 70924				
ILLINOIS FED. AID PROJECT				

LOCATION 4 WB KIRBY AVE; KIRBY & DUNCAN



EXISTING SN 010-0103
KIRBY AVE. OVER FAI-57

TY3 BARRICADE W/LIGHTS
& ROAD CLOSED SIGNS

STAGGERED TY3 BARRICADES W/LIGHTS
& RD CLOSED TO THRU TRAFFIC

ERECT ON SHLD. - TY3 BARRICADE W/LIGHTS &
BRIDGE OUT 1/4 MILE, LOCAL TRAFFIC ONLY SIGN
(ORANGE)

24"x12" DETOUR WEST KIRBY AVE. 24"x18" (ORANGE)

DETOUR
M4-9R(0)
30"x24"

FILE NAME =	USER NAME = bucklesjj	DESIGNED -	REVISED -
et:\pwork\pwork\dot\bucklesjj\d0265817\0570924-sht-Details.dgn		DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/5/2011	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING			
SCALE:	SHEET NO. 5	OF 5 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(10-33HB)BDR	Champaign	27	27
			CONTRACT NO. 70924	
ILLINOIS FED. AID PROJECT				