

PROJECT ENGINEER: KENSIL GARNETT
CONSULTANT LIAISON CONTACT: NANCY FASIG
CONSULTANT: THE UPCHURCH GROUP, INC.

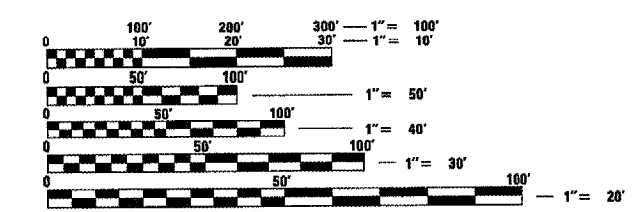
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LIST OF ILLINOIS DOT HIGHWAY STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 001001-01 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 482011-03 HMA SHOULDER STRIPS/SHOULDERS WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
- 515001-02 NAME PLATE FOR BRIDGES
- 630001-07 STEEL PLATE BEAM GUARDRAIL
- 631032-03 TRAFFIC BARRIER TERMINAL, TYPE 6 A
- 635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-01 REFLECTOR MARKER AND MOUNTING DETAILS
- 701001-01 OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
- 701006-02 OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE
- 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-02 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS DAY ONLY
- 701901 TRAFFIC CONTROL DEVICES
- 780001-01 TYPICAL PAVEMENT MARKINGS

SCALE



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.

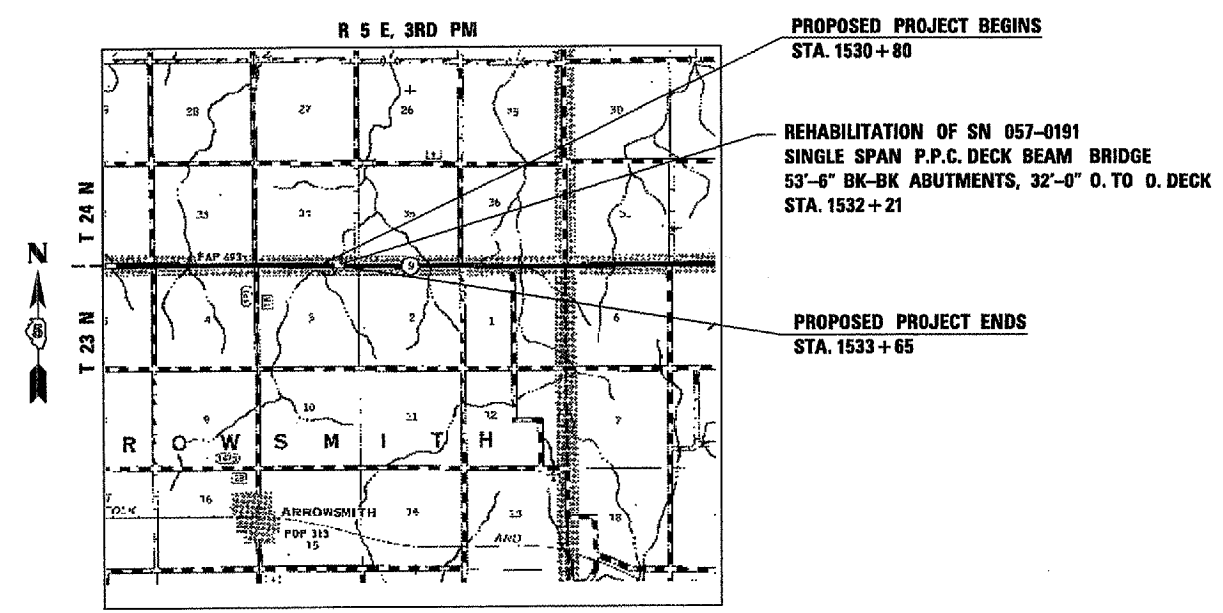
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

CONTRACT NO. 70610

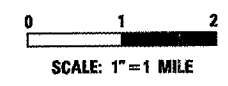
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
HIGHWAY IMPROVEMENT**

F.A.P. ROUTE 693 (IL RTE 9)
SECTION (21BR-3)BR
PROJECT: ACBHF-0693 (063)
**BRIDGE SUPERSTRUCTURE REPLACEMENT
BRAYS CREEK 0.8 MI. E. OF ARROWSMITH RD.
McLEAN COUNTY**

C-95-124-06



LOCATION MAP

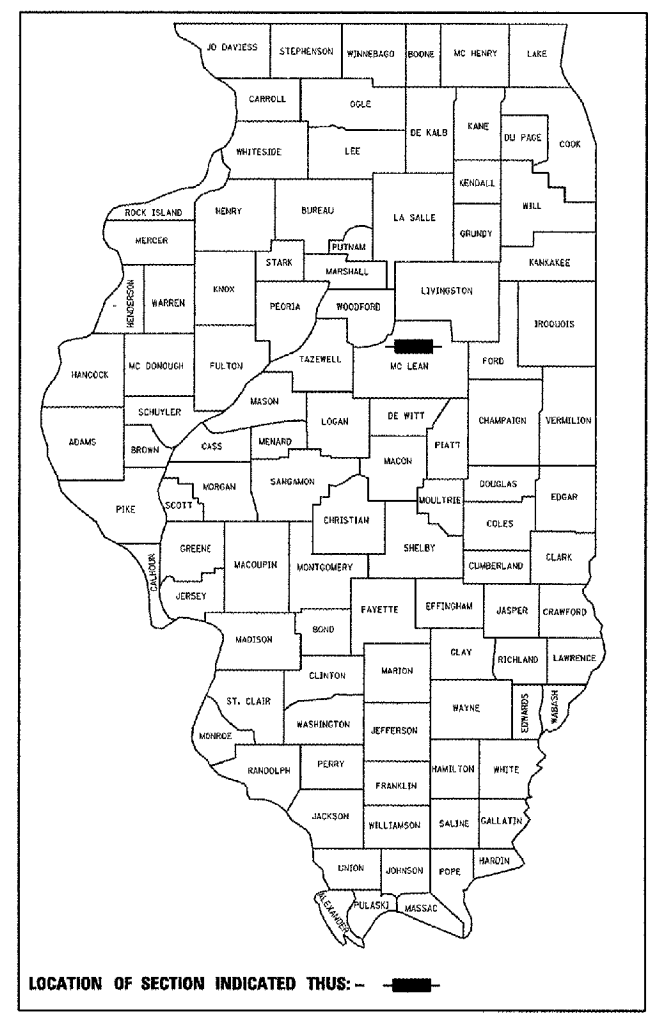


TOTAL AND NET LENGTH OF PROJECT = 285 FT. = 0.054 MI.



Martin J. Silvester, P.E.
LICENSE EXP. DATE 11-30-09

D-95-124-06



ADT = 1,800 (2006); 2,100 (2016)
%SU = 4.4 (2006)
%MU = 4.4 (2006)
TOWNSHIP: ARROWSMITH
FUNCTIONAL CLASSIFICATION:
MINOR ARTERIAL, (NON-URBAN)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED DEC 20 2007

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Eric E. Harnish
ENGINEER OF DESIGN AND ENVIRONMENT

February 1, 2008
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

G.N.-100
ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-105.09A
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G.N.-107.31
UTILITY LINES WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES INVOLVED (QUALITY LEVEL C &/OR QUALITY LEVEL D) AND THE ACCURACY SHOULD BE CONSIDERED APPROXIMATE ONLY.

UTILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THESE ADJUSTMENTS ARE BEING PERFORMED. J.U.L.I.E. - JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS SYSTEM (800)892-0123 OR 811.

G.N.-406
THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G.N. -406H

MIXTURE REQUIREMENTS

The following mixture requirements are applicable for this project:

MIXTURE USE(S):	HMA SURFACE COURSE	LEVELING BINDER (MACHINE METHOD)
LOCATION(S):	IL 9	IL 9
AC/PG:	PG 64-22	PG 64-22
RAP %: (MAX)	15%	25%
DESIGN AIR VOIDS:	4.0% @ 50 GYRATIONS	4.0% @ 50 GYRATIONS
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5	IL-9.5
FRICTION AGGREGATE:	MIX C	MIX C

G.N.-406.05b
ALL LEVELING BINDER OR BINDER SHALL BE GIVEN A FOG COAT OF PRIME BEFORE THE SURFACE COURSE IS PLACED WHEN DIRECTED BY THE ENGINEER.

THE FOG COAT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER GALLON FOR BITUMINOUS MATERIAL (PRIME COAT) AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

G.N.-1004.01
COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

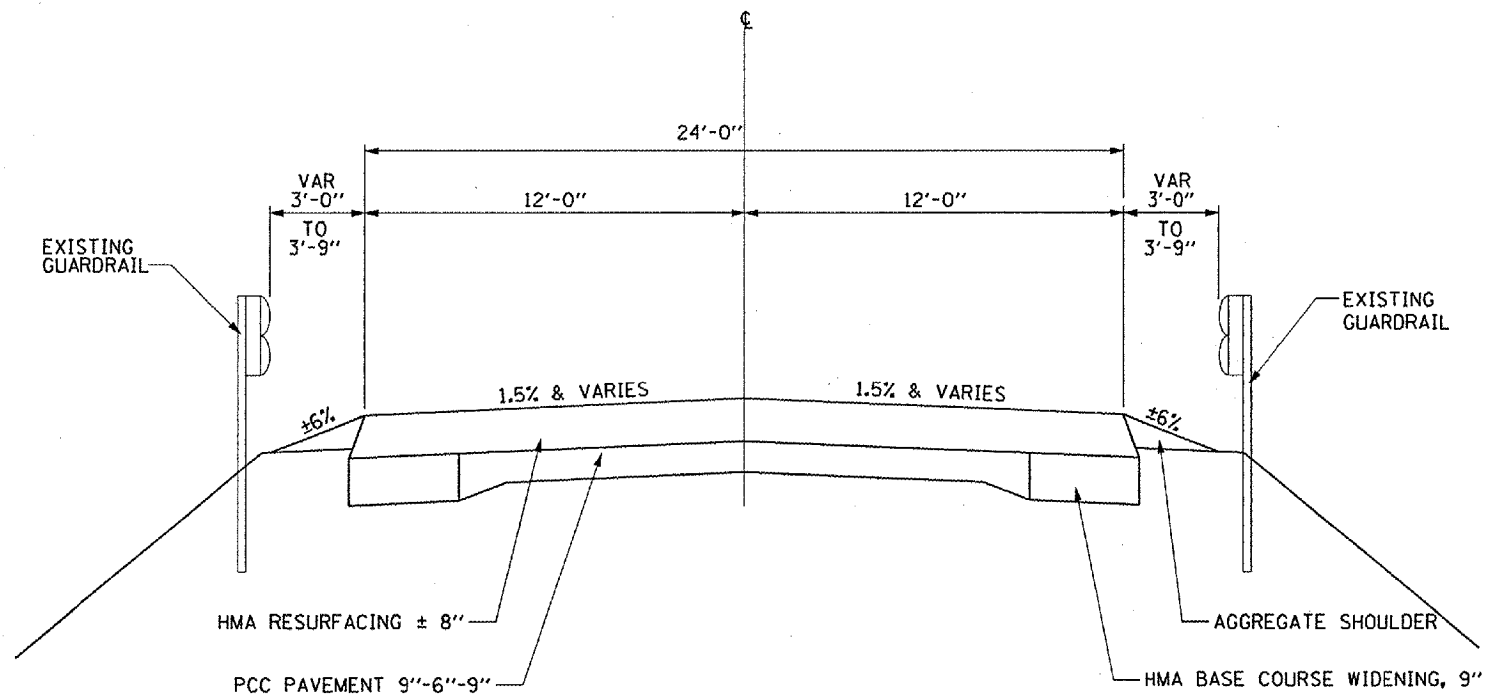
COMMITMENTS

THERE ARE NO COMMITMENTS ON THIS PROJECT.

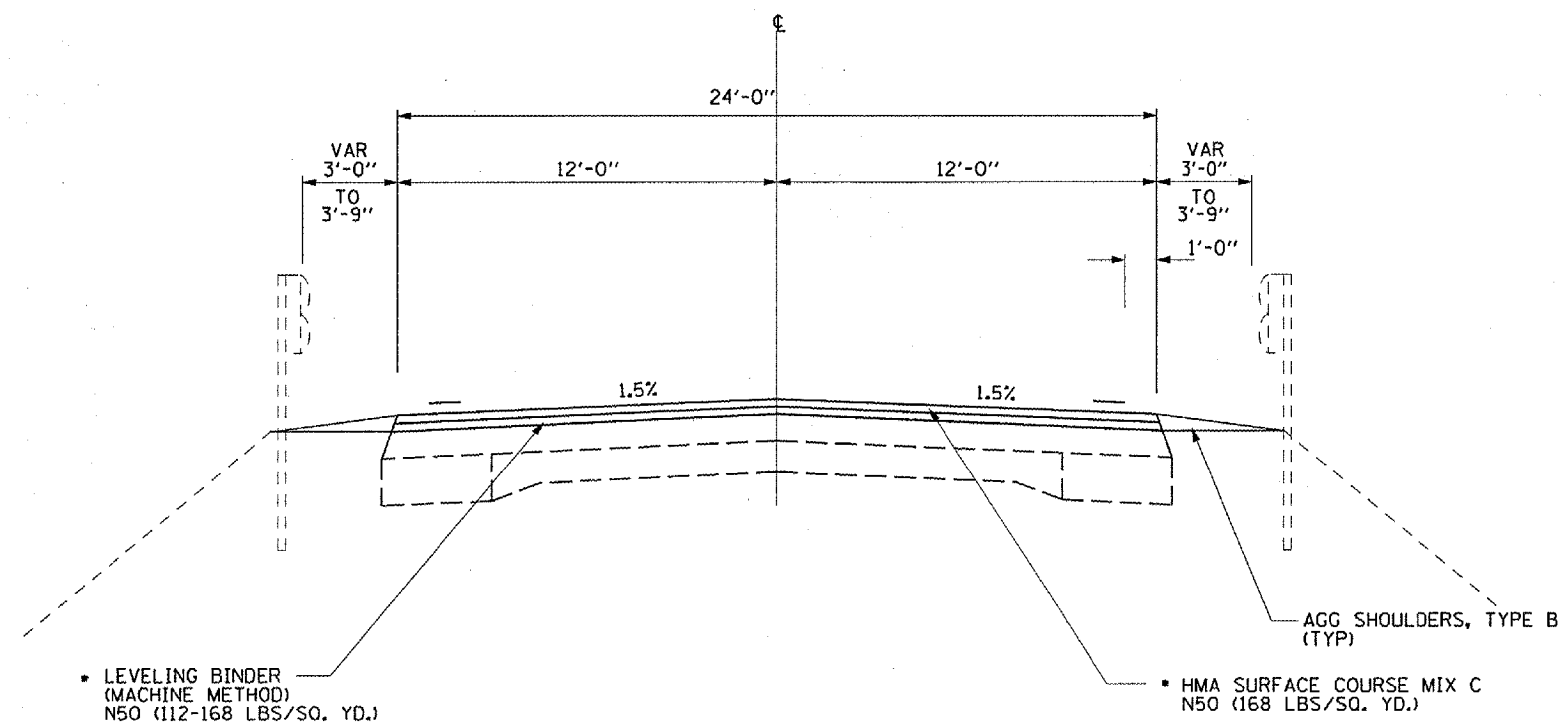
FILE NAME * \$FILE\$ABREV\$	USER NAME = collie-bv	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES ILLINOIS ROUTE 9 OVER BRAYS CREEK					F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - GEW	REVISED -							693	(21BR-31BR)	McLean	23	2
	PLOT SCALE = 2.0000 ' / IN.	CHECKED -	REVISED -							CONTRACT NO. 70610				
	PLOT DATE = 12/20/2007 \$TIME\$	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 5	ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES			80% FEDERAL 20% STATE CONSTRUCTION CODE X080-2A
CODE NO.	ITEM	UNIT	TOTAL QUANTITY
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	100
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	13
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	160
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	55
48101200	AGGREGATE SHOULDERS, TYPE B	TON	44
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
50102400	CONCRETE REMOVAL	CU YD	3.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	4.6
50300260	BRIDGE DECK GROOVING	SQ YD	174
50300300	PROTECTIVE COAT	SQ YD	185
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1611
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2920
• 50901050	STEEL RAILINGS, TYPE SM	FOOT	104
51500100	NAME PLATES	EACH	1
59000200	EPOXY CRACK INJECTION	FOOT	5
• 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	190
67000400	ENGINEERS FIELD OFFICE, TYPE A	CAL MO	4
67100100	MOBILIZATION	L SUM	1
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	28
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	10
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	640
• 78200420	GUARDRAIL MARKERS, TYPE B	EACH	12
• 78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	5
X0324865	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	265
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	3
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	179

• SPECIALTY ITEM



EXISTING TYPICAL SECTION
 STA 1530+80 TO STA 1531+95
 STA 1532+47 TO STA 1533+65



PROPOSED TYPICAL SECTION
 STA 1530+80 TO STA 1531+95
 STA 1532+47 TO STA 1533+65

• ALL HMA IS TO BE PLACED UTILIZING A STRINGLINE.

FILE NAME =	USER NAME = collorbw	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS ILLINOIS ROUTE 9 OVER BRAYS CREEK		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE ABBREVS	PLAT SCALE = 6.0000' / IN.	DRAWN - GEW	REVISED -				693	(21BR-31BR	McLean	23	4
THE UPCHURCH GROUP, INC.	PLAT DATE = 12/20/2007 *TIME\$	CHECKED -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 70610
		DATE -	REVISED -								FED. ROAD DIST. NO. 5 ILLINOIS FED. AID PROJECT

HMA SCHEDULE			
LOCATION	LEVELING BINDER (MACHINE METHOD), N50 (TON)	HMA SURFACE COURSE MIX "C", N50 (TON)	BITUMINOUS MATERIALS (PRIME COAT) (GALLON)
STA 1530+80 TO 1531+95	13.07	27.89	49.06
STA 1531+80 TO 1531+95			
STA 1532+47 TO 1533+65		27.10	50.34
TOTAL	13.07	54.99	99.4
USE	13	55	100

PAVEMENT MARKING SCHEDULE					
LOCATION	LENGTH (FOOT)	WORK ZONE PVMT MARKING REMOVAL	SHORT TERM PVMT MARKING LINE - 4"	PAINT PVMT MARKING LINE - 4"	
		YELLOW SKIP DASH & NO PASSING (SQ. FT.)	YELLOW (FOOT)	SOLID WHITE (FOOT)	YELLOW SKIP DASH & NO PASSING (FOOT)
STA 1530+80 TO 1533+65	285	10	28	570	70
TOTAL		10	28	570	70

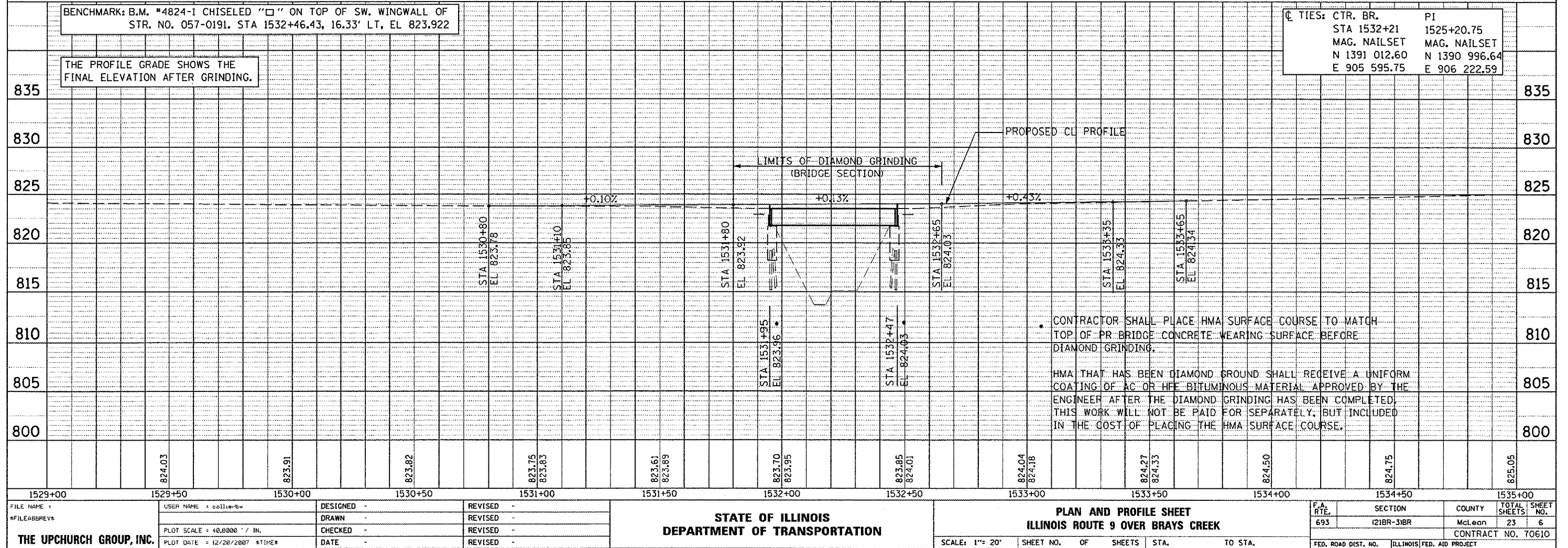
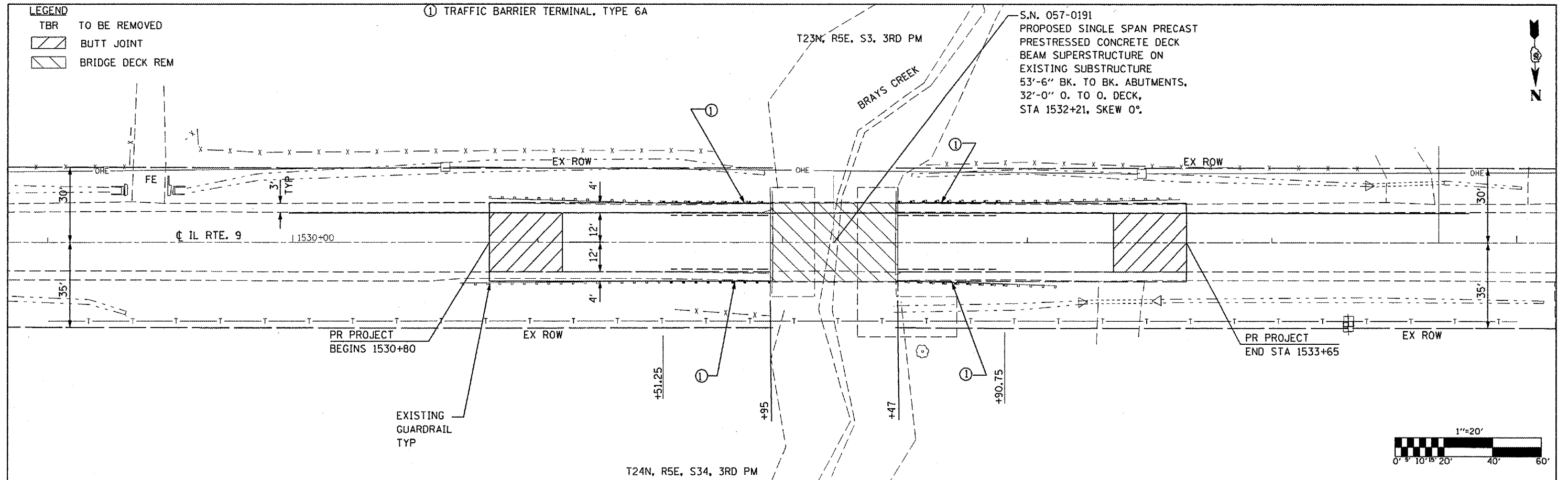
NOTE:
SHORT-TERM PAVEMENT MARKING QUANTITIES ARE FOR TWO APPLICATION.
• 10% OF TOTAL LENGTH FOR SHORT-TERM PAVEMENT MARKING

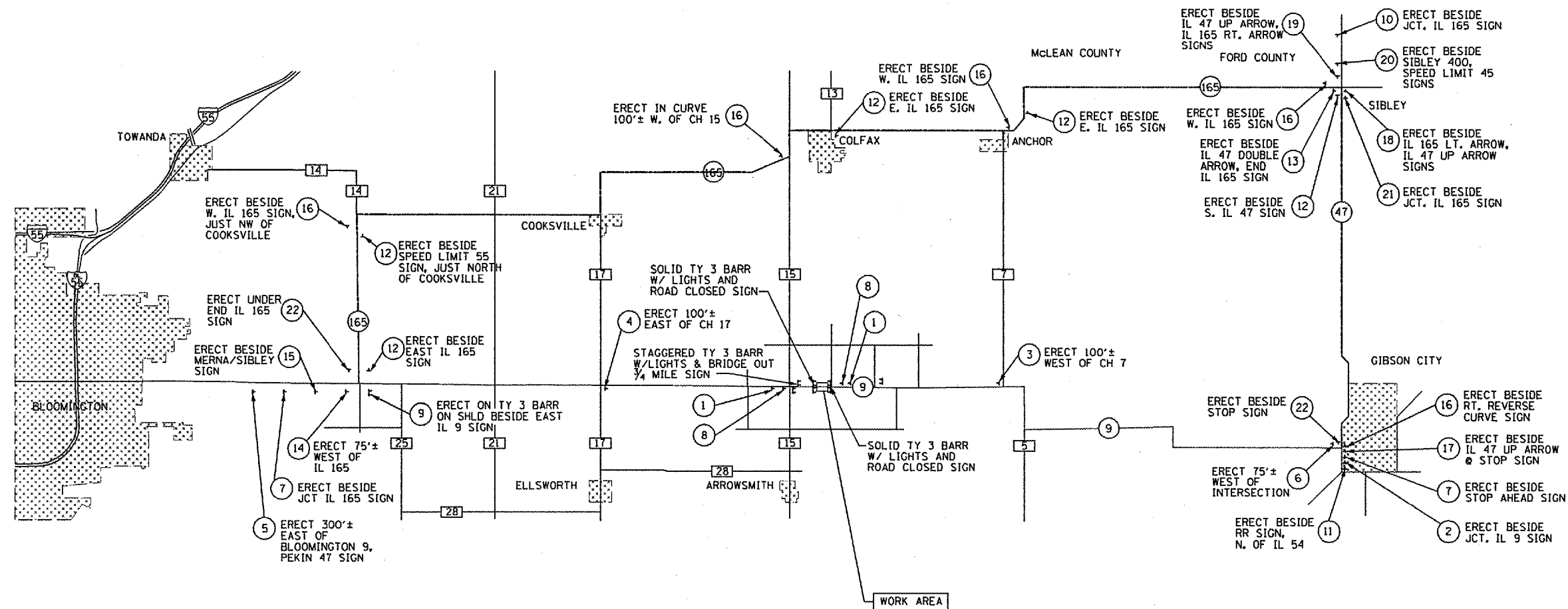
GUARDRAIL SCHEDULE		
LOCATION		TRAFFIC BARRIER TERMINAL TYPE 6A (EACH)
RT & LT	STA 1531+51.25 TO 1531+97	2
RT & LT	STA 1532+45 TO 1532+90.75	2
TOTAL		4
USE		4

GUARDRAIL & TERMINAL MARKERS SCHEDULE	
LOCATION	GUARDRAIL MARKERS TYPE B (EACH)
STA RT 1529+20 TO 1533+26.5	6
STA LT 1530+32.5 TO 1534+45.25	6
TOTAL	12

PLAN	REVIEWED	DATE
	BY	
	NOTED	
	ALIGNED	
	CHECKED	
	DESIGNED	
	FILED	
	FILE NAME	

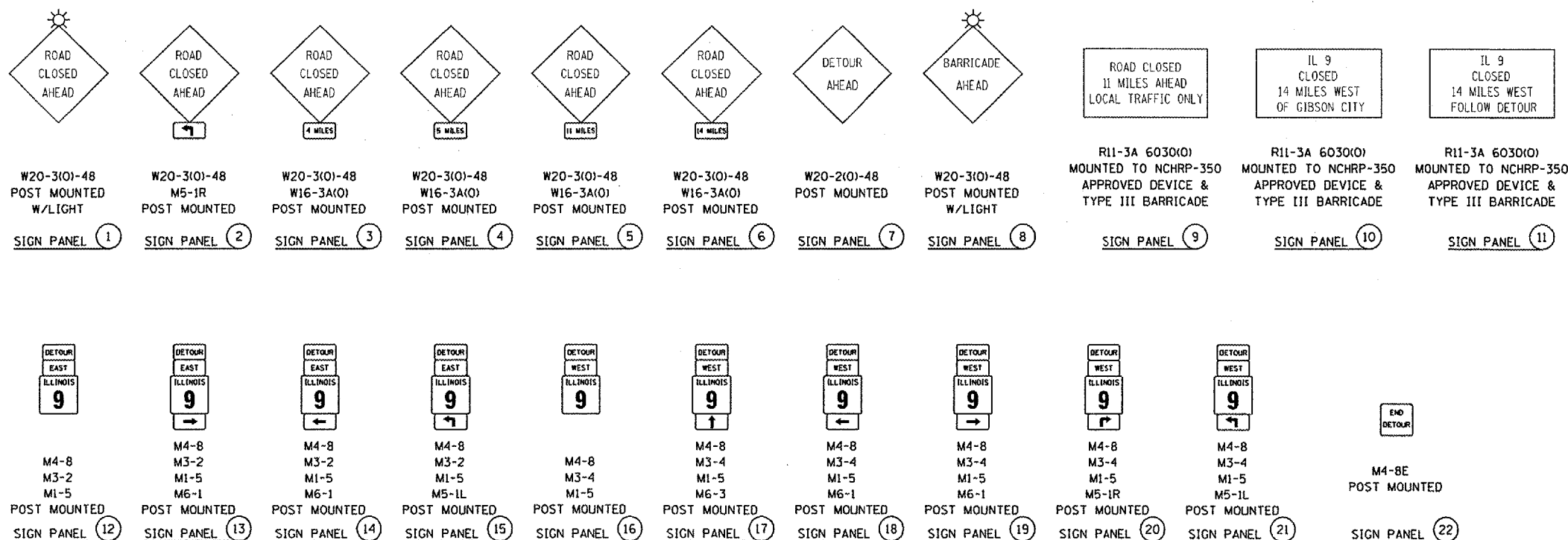
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	BY	
	NOTED	
	ALIGNED	
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	FILE NAME	





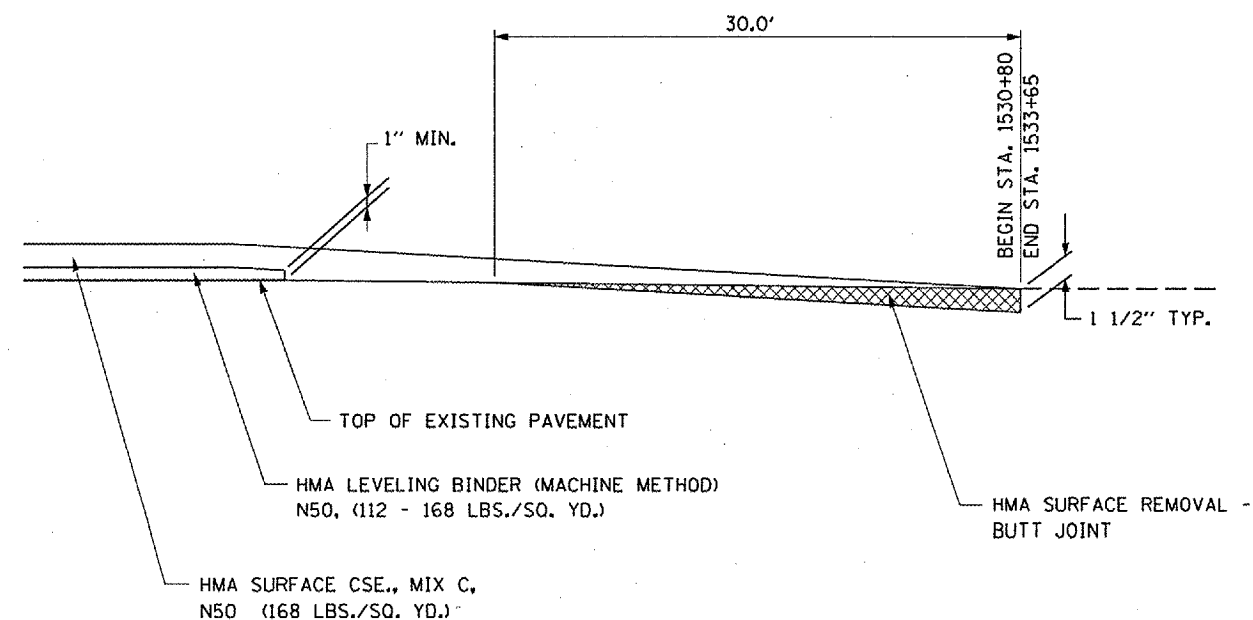
NOTES:

- IL 9 SHALL NOT BE CLOSED UNTIL ALL DETOUR SIGNING IS ERECTED AND APPROVED BY THE ENGINEER.
- ALL EXISTING SIGNING THAT IS NOT APPLICABLE WHILE THE DETOUR IS IN EFFECT SHALL BE COMPLETELY COVERED BY THE CONTRACTOR. COSTS FOR COVERING EXISTING SIGNS SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).
- ALL ADVANCED WARNING SIGNS SHALL BE POST MOUNTED AND EQUIPPED WITH A FLASHING AMBER LIGHT.
- AS A MINIMUM, ALL AMBER FLASHING LIGHTS THAT ARE REQUIRED FOR THE DETOUR SIGNING SHALL MEET THE REQUIREMENTS FOR TYPE A-LOW INTENSITY FLASHING LIGHTS PER ARTICLE 1084.01 OF THE STANDARD SPECIFICATIONS. ALL LIGHTS SHALL OPERATE DURING HOURS OF DARKNESS. ONLY LIGHTS THAT HAVE BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION SHALL BE USED.
- ALL TYPE III BARRICADES SHALL BE IN ACCORDANCE WITH STD 701901 AND SHALL BE EQUIPPED WITH TWO (2) APPROPRIATE R11-2 AND R11-3 SIGNS AND FLASHING AMBER LIGHTS.
- FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING THE SIGNING OF THE ROAD CLOSURE AS SHOWN ON THIS SHEET. PRIOR TO CLOSING THE ROAD, THE DISTRICT 5 BUREAU OF OPERATIONS SHALL BE NOTIFIED AT LEAST TEN (10) WORKING DAYS IN ADVANCE IN ORDER TO FABRICATE THE SIGNS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE ROAD CLOSURE WITH THE DISTRICT BUREAU OF OPERATIONS.
- TRAFFIC CONTROL SHOWN WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).
- 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.



FILE NAME =	USER NAME = colliebw	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		MAINTENANCE OF TRAFFIC DETOUR SIGNING ILLINOIS ROUTE 9 OVER BRAYS CREEK		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE ABBREVS		DRAWN -	REVISED -					693	(21BR-31BR	McLean	23	7
THE UPCHURCH GROUP, INC.	PLOT SCALE = 4:0.0000" = 1" IN.	CHECKED -	REVISED -					CONTRACT NO. 70610				
	PLOT DATE = 12/20/2007 *TIME*	DATE -	REVISED -					FED. ROAD DIST. NO. 5 [ILLINOIS] FED. AID PROJECT				
				SCALE:		SHEET NO. OF SHEETS STA. TO STA.						

TYPICAL BUTT JOINT DETAIL



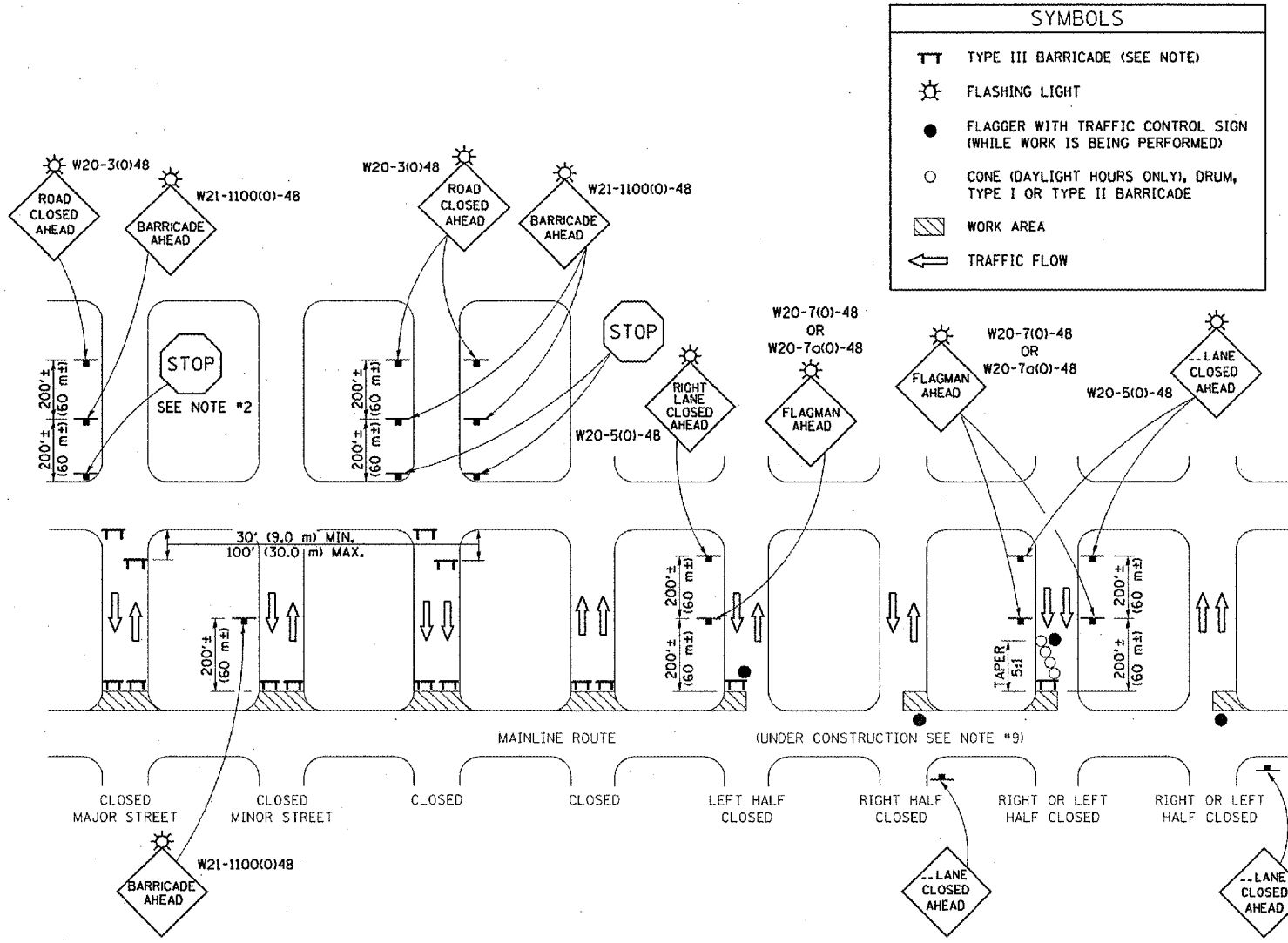
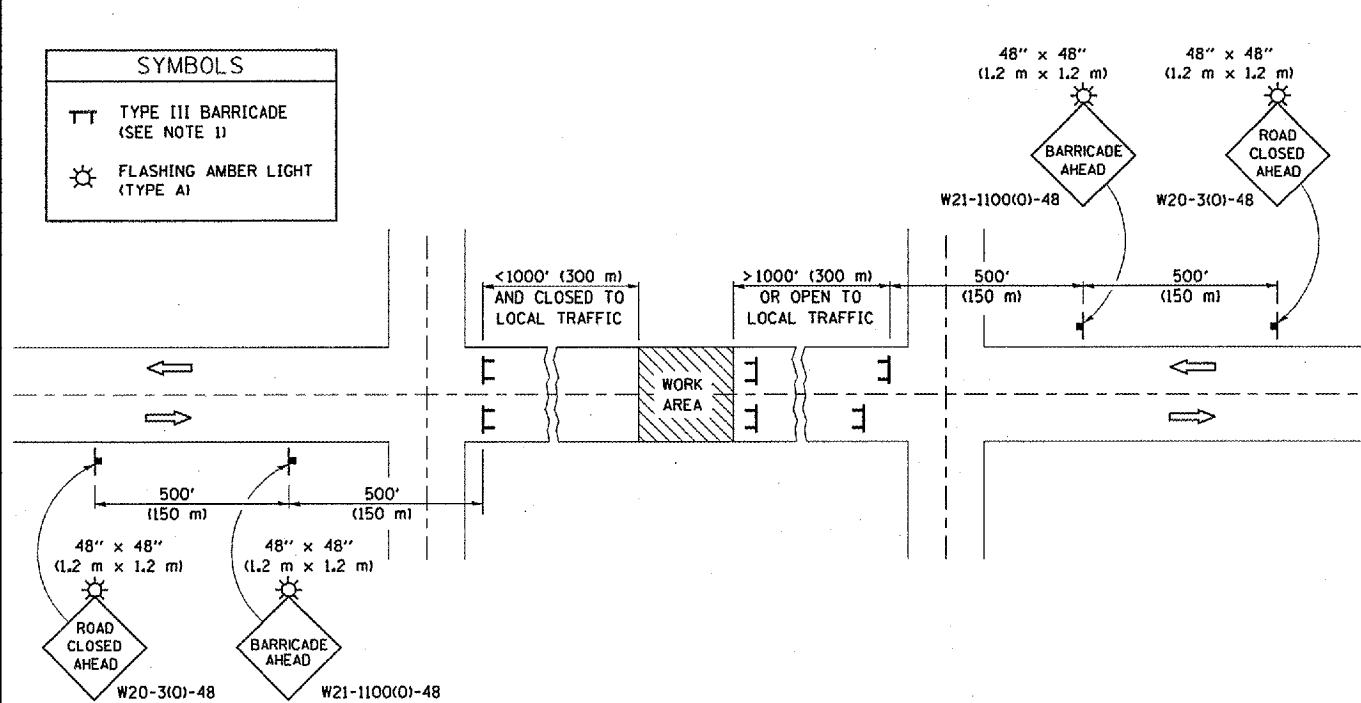
HMA SURFACE REMOVAL - BUTT JOINT				
LOCATION	LENGTH		AREA	
	FOOT	FOOT	SQ	YD
STA. 1530+80 TO STA. 1531+10	30	24	80	
STA. 1533+35 TO STA. 1533+65	30	24	80	
TOTAL			160	

TEMPORARY RAMP				
LOCATION	LENGTH		AREA	
	FOOT	FOOT	SQ	YD
STA. 1530+80 TO STA. 1530+85	5	24	13	
STA. 1531+85 TO STA. 1531+95	10	24	27	
STA. 1531+47 TO STA. 1531+57	10	24	27	
STA. 1533+60 TO STA. 1533+65	5	24	13	
TOTAL			80	

MILLING AND RESURFACING AT S.N. 057-0191 SHALL BE DONE WITH THE ROAD CLOSED TO ALL TRAFFIC. IF THE CONTRACTOR ELECTS TO DELAY THIS WORK UNTIL AFTER THE ROAD IS OPEN, ADDITIONAL TRAFFIC CONTROL, AGGREGATE PRIME COAT AND TEMPORARY RAMPS AT THE APPROACH PAVEMENT AND BUTT JOINT WILL BE REQUIRED. THE COST OF THESE ITEMS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE VARIOUS RESURFACING ITEMS.

ROAD CLOSURE

SIDEROAD / STREET CLOSURE



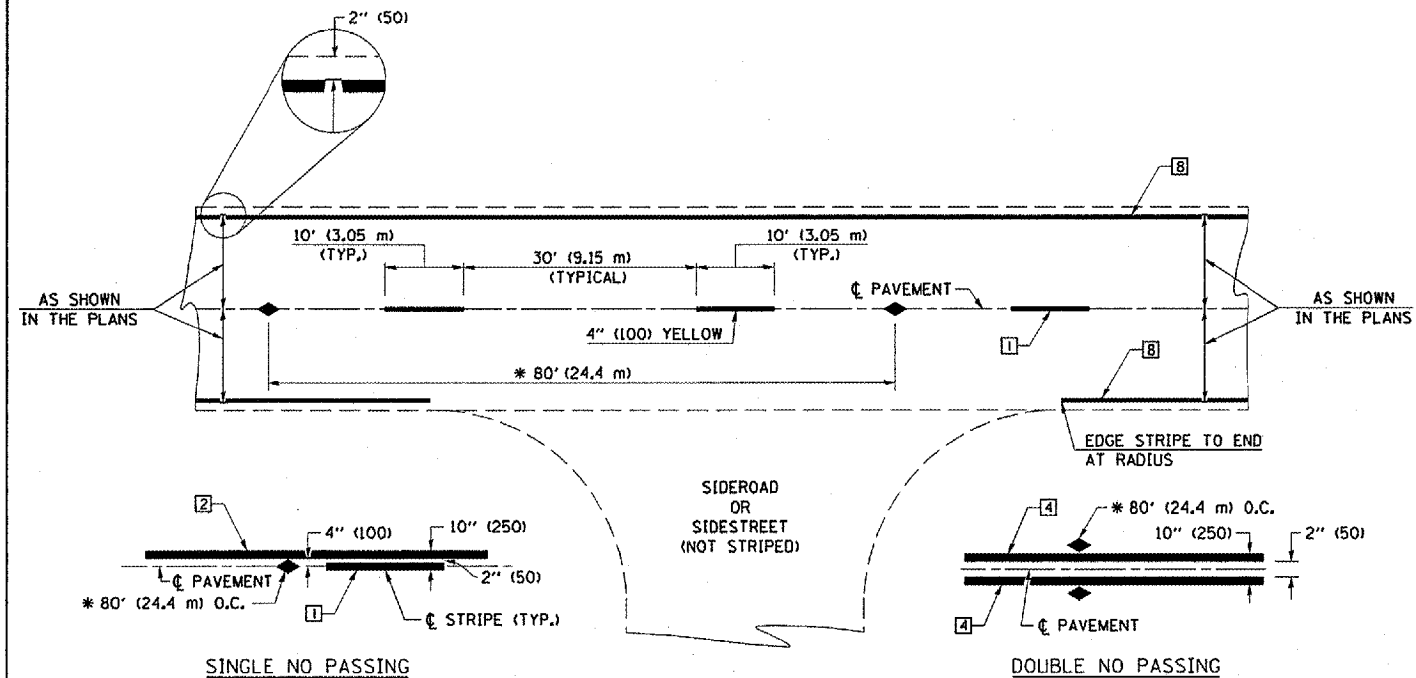
GENERAL NOTES

1. 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.
2. 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.
3. 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.
4. STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
5. 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.
6. REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TYPE III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
7. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
8. 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.
9. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
10. FORMS BT. 725 AND BT. 726 ARE REQUIRED.
11. 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.
12. 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.

GENERAL NOTES

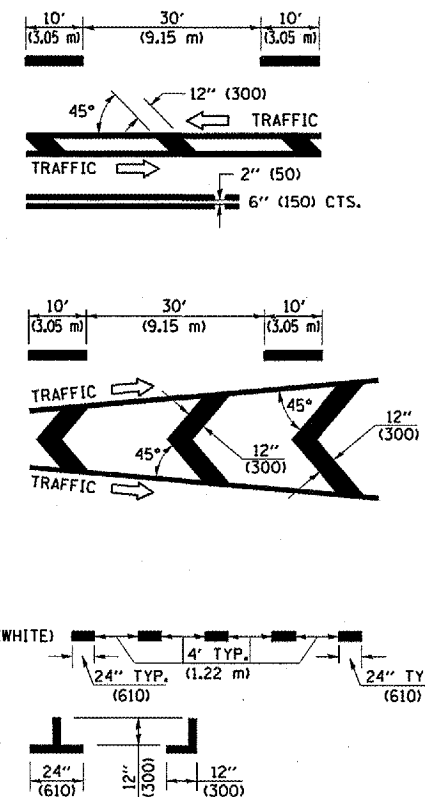
1. TYPE III BARRICADES SHALL BE AS SHOWN ON "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
2. WHERE A STOP CONDITION EXISTS, AS SHOWN ABOVE, WARNING SIGNS MAY BE OMITTED IN ADVANCE OF THE "STOP" SIGN.
3. STANDARD 702001 SHALL APPLY FOR THE PLACEMENT & MANUFACTURE OF TYPE III BARRICADES.
4. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
5. ONE FLASHING LIGHT IS REQUIRED ABOVE EACH ADVANCE WARNING SIGN DURING HOURS OF DARKNESS.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
7. FORMS BT 725 AND BT 726 ARE REQUIRED.
8. THE MAINLINE ROUTE TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS.
9. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS INVOLVING THE RECONSTRUCTION OF ALL APPLICABLE SIDE STREETS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

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



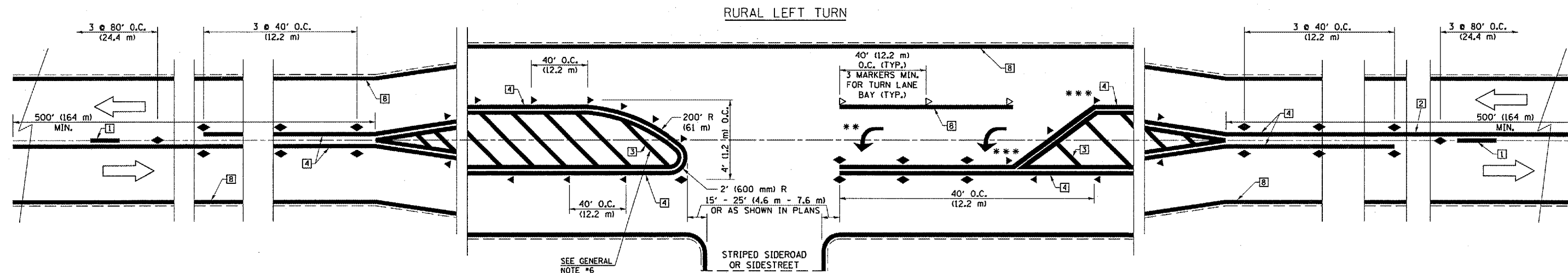
TYPICAL PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) LANE LINE EXTENSIONS (WHITE)
- 14 4" (100) PARKING WHITE



TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

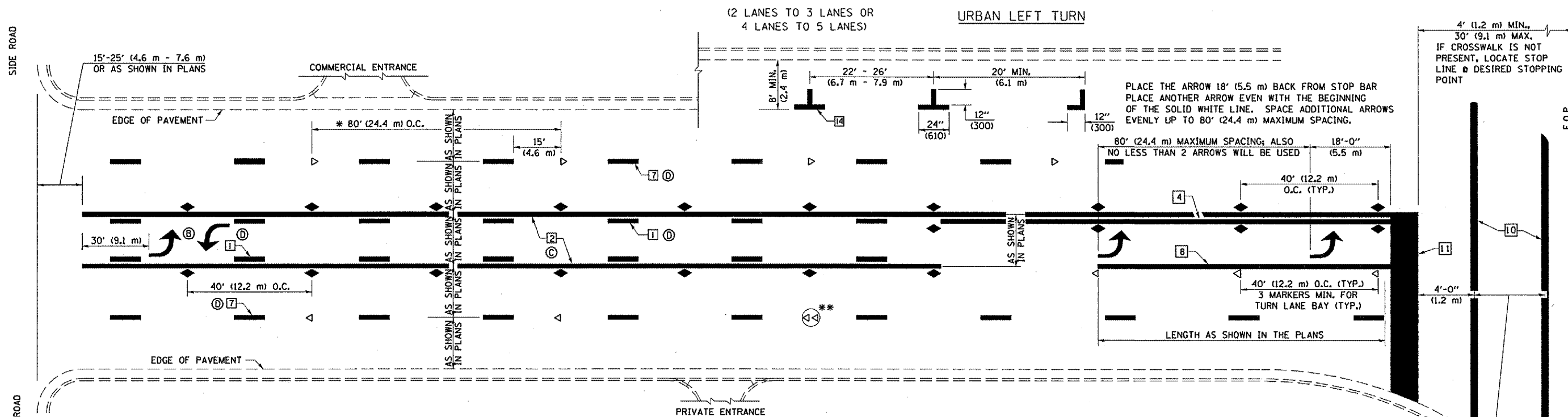


*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

** TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

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

FILE NAME =	USER NAME = collierbw	DESIGNED -	REVISED - 11/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\projects\512405 (v8)\2007.12.16 1dot	revisions\pm.sht	DRAWN -	REVISED -			693	(21BR-31BR)	MCLEAN	23	10	
PLOT SCALE = 40.0000' / IN.	CHECKED -	REVISED -				CONTRACT NO. 70610					
PLOT DATE = 12/20/2007	DATE -	REVISED -									
						SCALE:	SHEET NO. 1 OF 4 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

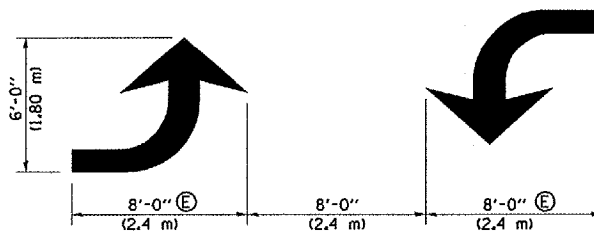
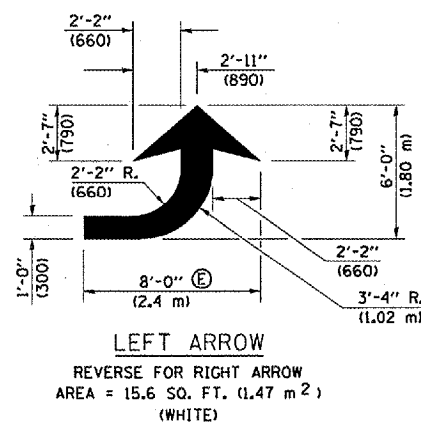


* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

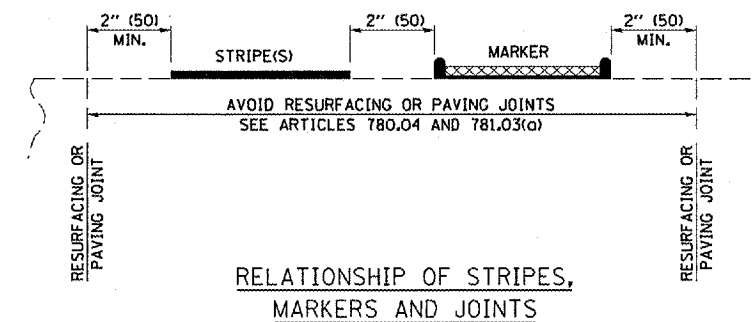
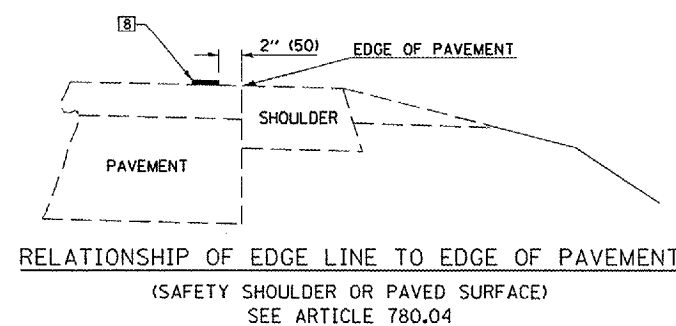
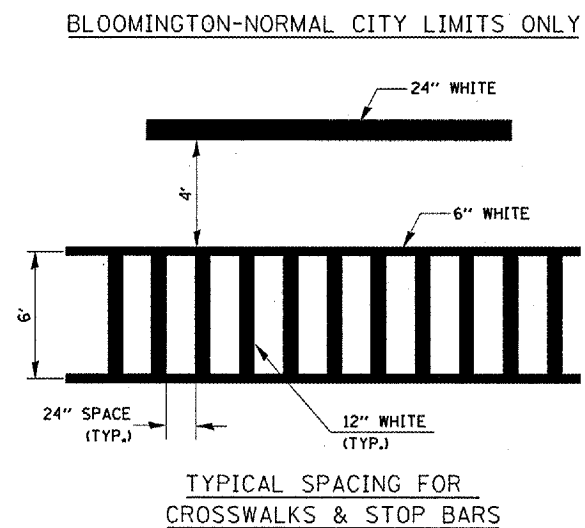
** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

GENERAL NOTES:

- ⑥ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
- ⑦ THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
- ⑧ THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.
- ⑨ USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)



TYPICAL DOUBLE
TURN ARROWS (WHITE)



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

FILE NAME = c:\projects\512405 (v8)\2007.12.18 (dot)	USER NAME = collorbw	DESIGNED -	REVISED - 11/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	revisions\pm.shs	DRAWN -	REVISED -					693	(21BR-31BR)	MCLEAN	23	11
	PLOT SCALE = 48.0000 ' / IN.	CHECKED -	REVISED -		CONTRACT NO. 70610							
	PLOT DATE = 12/20/2007	DATE -	REVISED -		SCALE:	SHEET NO. 2 OF 4 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

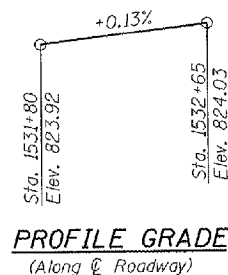
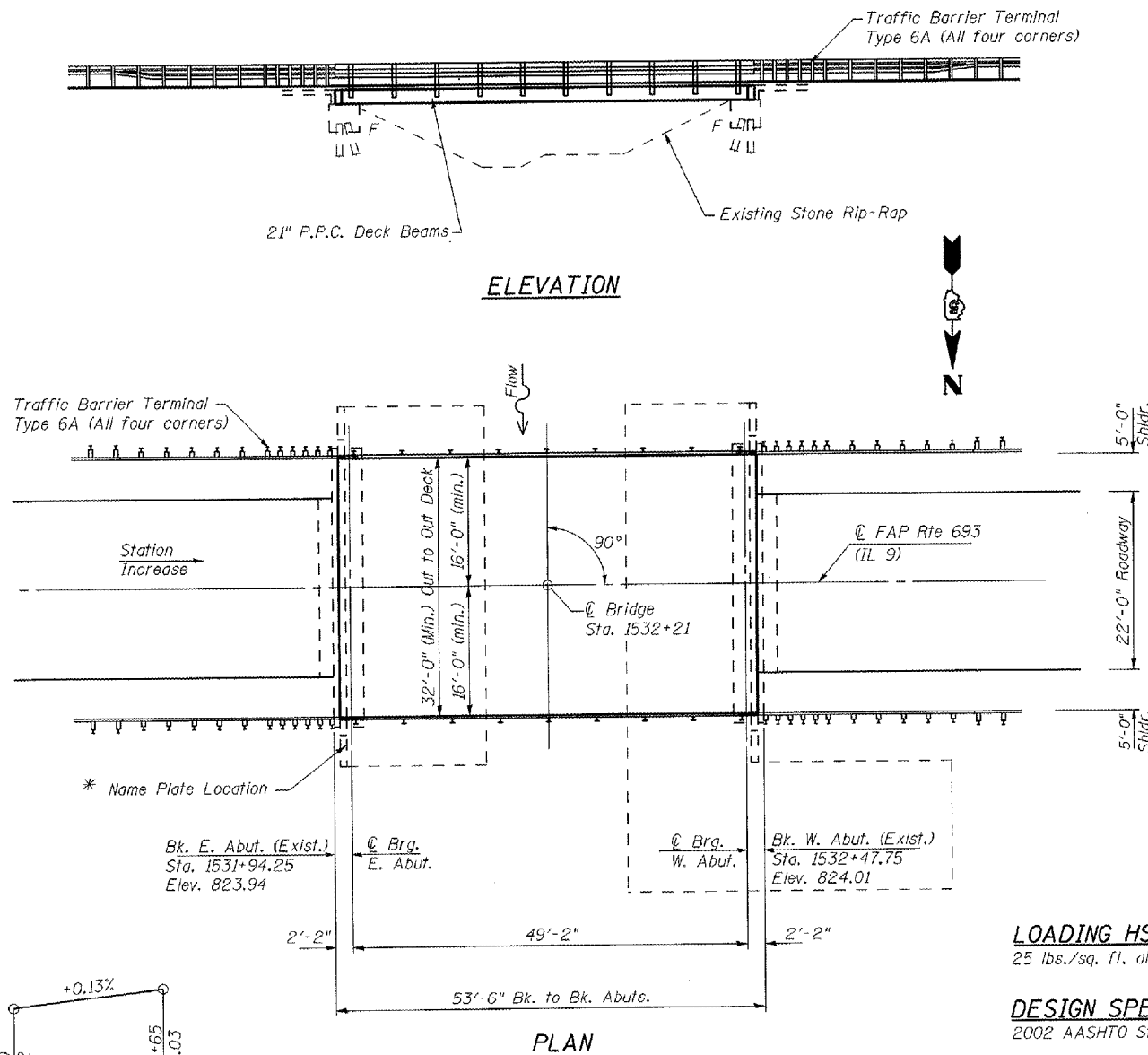
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
693	(21BR-3)BR	McLean	23	16
FED. ROAD DIST. NO. 7	ILL. PROJ. NO.	FED. AID PROJECT		7 SHEETS

Benchmark: B.M. #4824-1 Chiseled "□" on Top of Southwest Wingwall -16.33' Lt., Sta. 1532+46.43, Elevation 823.922.

Existing Structure: S.N. 057-0191. Built as F.A. Rte. 693, Section 21BR-3 at Sta. 1532+21 in 1985.
The existing Superstructure shall be removed and replaced.

Traffic is to be detoured.

No salvage.



PROFILE GRADE
(Along C Roadway)

The Profile Grade shows the final elevations after grinding. Up to 1/4\"/>

STATION 1532+21
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. 693 SEC. (21BR-3) BR
LOADING HS20-44
STR. NO. 057-0191

NAME PLATE
See Std. 515001

* Proposed Name Plate shall be mounted with concrete anchors adjacent to Existing Name Plate. Cost included with Name Plates.

INDEX OF SHEETS

- 1 GENERAL PLAN AND ELEVATION
- 2 SUPERSTRUCTURE
- 3 DECK BEAM DETAILS
- 4 SUPERSTRUCTURE DETAILS
- 5 STEEL RAILING, TYPE SM
- 6 EAST ABUTMENT
- 7 WEST ABUTMENT

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (rtd)
Engineer of Bridges & Structures

LOADING HS 20-44

25 lbs./sq. ft. allowance for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications 17th Edition

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f'_c = 5,000$ psi (Concrete Wearing Surface)
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ low lax strands)
 $f'_{si} = 201,960$ psi (1/2" ϕ low lax strands)

GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.

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 or 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.

The Contractor is advised that the existing P.P.C. Deck Beams are in a deteriorated condition with reduced load bearing capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removing and replacement of the superstructure.

The Minimum thickness of the Concrete Overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.

No instream work will be allowed on this project.

Repairs of abutments shall be completed prior to placement of the new beams.

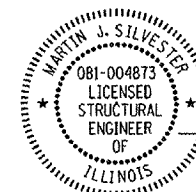
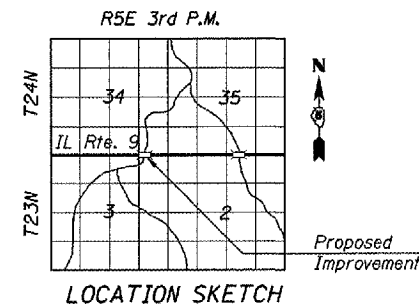
EXISTING WATERWAY INFORMATION

Drainage Area	3.72 Sq. Miles
H.W. Elev. (50 Year)	495.4
H.W. Elev. (100 Year)	495.6
Design Discharge (50 year)	870 c.f.s.
Required Opening	195 Sq. Ft.
Existing Opening	200 Sq. Ft.
Created Head for Design Flood	0.26'
100 year Discharge	1000 c.f.s.
Created Head for 100 year Flood	0.36'

Note: Information per original 1979 design plans.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Concrete Superstructure	Cu. Yd.	4.6		4.6
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1611		1611
Reinforcement Bars, Epoxy Coated	Pound	2220	700	2920
Steel Railing, Type SM	Foot	104		104
Name Plates	Each	1		1
Epoxy Crack Injection	Foot		5	5
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.		3	3
Concrete Removal	Cu. Yd.	3.6		3.6
Bridge Deck Grooving	Sq. Yd.	174		174
Protective Coat	Sq. Yd.	185		185
Concrete Wearing Surface, 5"	Sq. Yd.	179		179
Diamond Grinding (Bridge Section)	Sq. Yd.	265		265



Martin J. Silvester 12-12-07
MARTIN J. SILVESTER
STRUCTURAL ENGINEER
LICENSE EXP. DATE 11-30-08

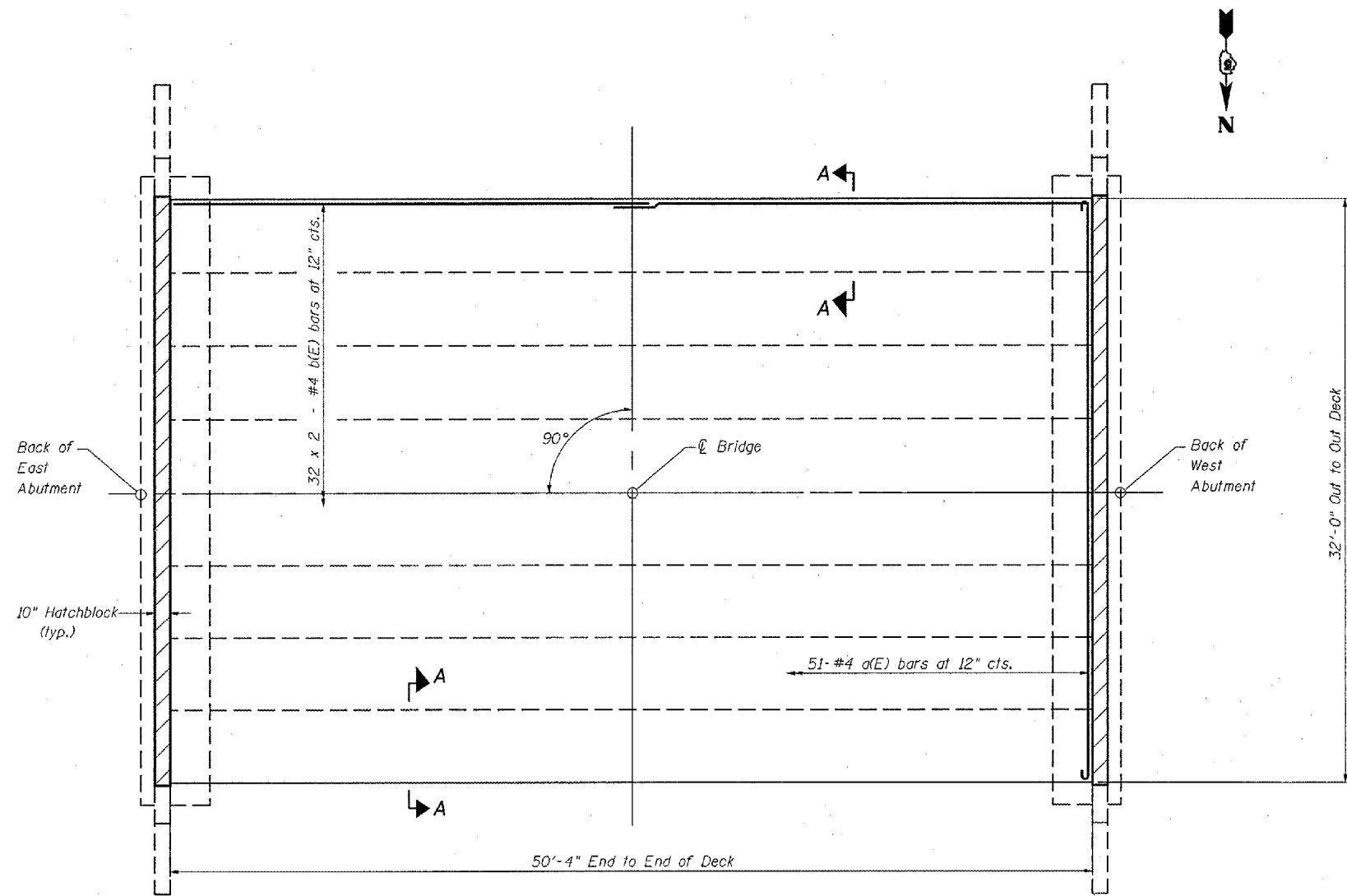
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN AND ELEVATION
RTE. 9 OVER BRAYS CREEK
FAP 693 SECTION (21BR-3)BR
MCLEAN COUNTY

STA. 1532+21 STR. NO. 057-0191

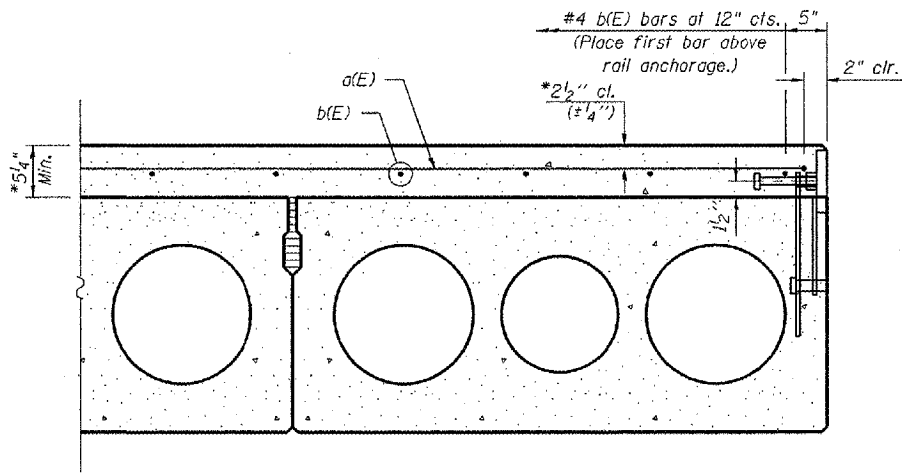
SCALE: VERT. DRAWN BY RMH
HORIZ. CHECKED BY MJS
DATE DEC 2007

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
693	(2)BR-3)BR	McLean	23	13
FED. ROAD DIST. NO. 7		ILL. IND. PROJECT	7 SHEETS	



PLAN

Notes:
For remainder of superstructure details, see Sheets 3 and 4 of 7.
Hatched area indicates concrete removal as shown on Sheets 6 and 7.
Bars indicated thus 32 x 2 - #4 etc. indicates 32 lines of bars with 2 per lengths per line.



SECTION A-A

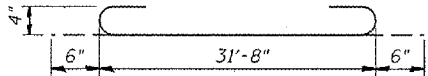
*Before grinding according to Bridge Smoothness Specifications.

MIN. BAR LAP

#4 Bar = 1'-8"

BILL OF MATERIAL

Bar	No.	Size	Length (ft)	Shape
a(E)	51	#4	32'-8"	
b(E)	64	#4	25'-10"	
Item		Unit	Qty.	
Reinforcement Bars, Epoxy Coated		Pound	2220	
Concrete Wearing Surface, 5"		Sq. Yd.	179	
Bridge Deck Grooving		Sq. Yd.	174	
Protective Coat		Sq. Yd.	185	
Diamond Grinding (Bridge Section)		Sq. Yd.	265	



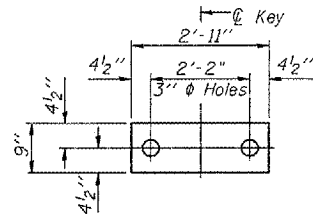
BAR a(E)

REVISIONS	
NAME	DATE

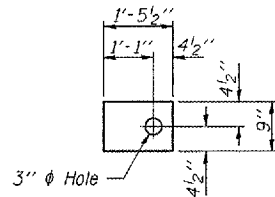
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE
IL RTE. 9 OVER BRAYS CREEK
FAP 693 SECTION (2)BR-3)BR
McLEAN COUNTY
STA. 1532+21 STR. NO. 057-0191
SCALE: VERT. DATE
HORIZ. DATE
DRAWN BY RMH
CHECKED BY MJS

PROJECT NO.	SECTION	COUNTY	SHEET NO.	SHEET
693	(2)BR-3)BR	McLean	23	14
FED. ROAD DIST. NO. 7				
ILLINOIS				

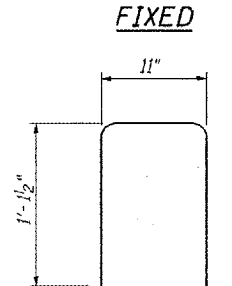
SHEET NO. 3
7 SHEETS



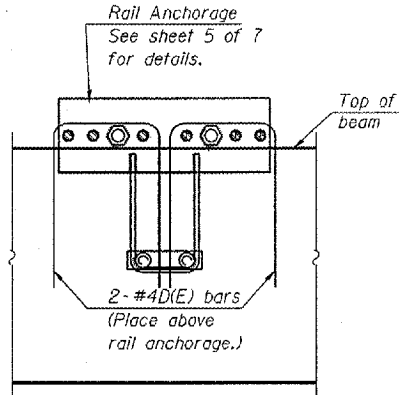
FABRIC BEARING PAD
(Interior)
(14 Required)



FABRIC BEARING PAD
(Exterior)
(4 Required)



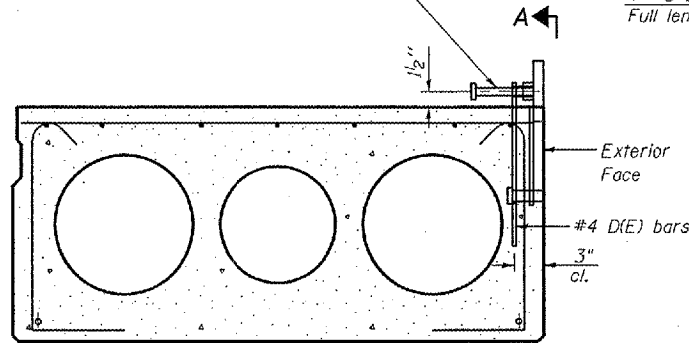
#4 D(E) BAR



SECTION A-A

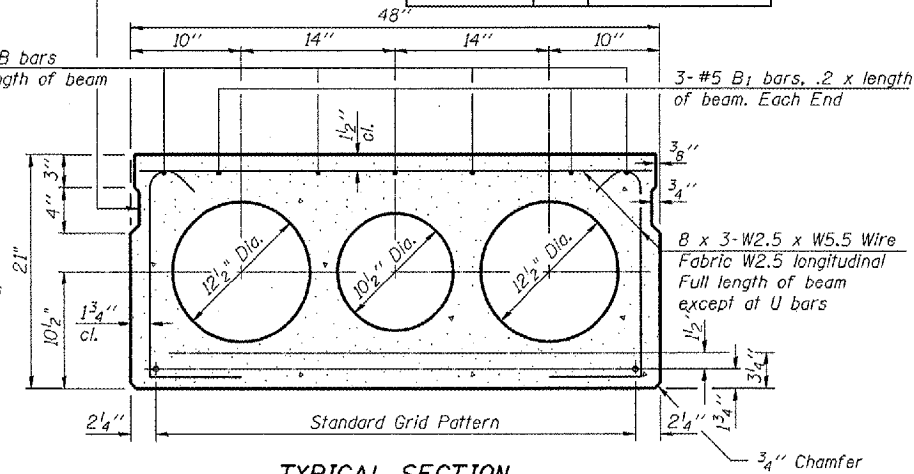
The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into beam. Drilling into the beam will not be permitted.

The Contractor shall ensure that neither the Rail Anchorage Device nor the Deck Beam is damaged during transportation.



SECTION THRU EXTERIOR BEAMS

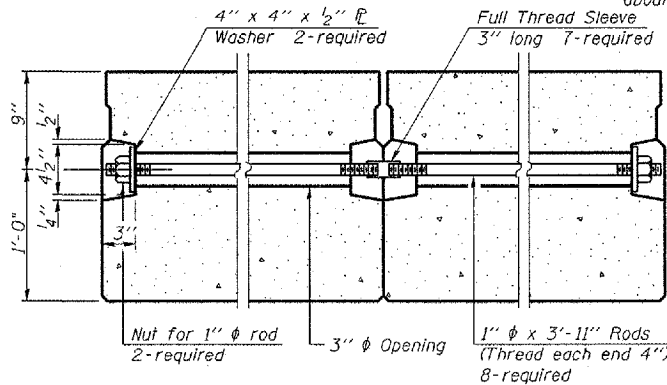
See Typical Section for strand pattern, dimensions and bar locations.



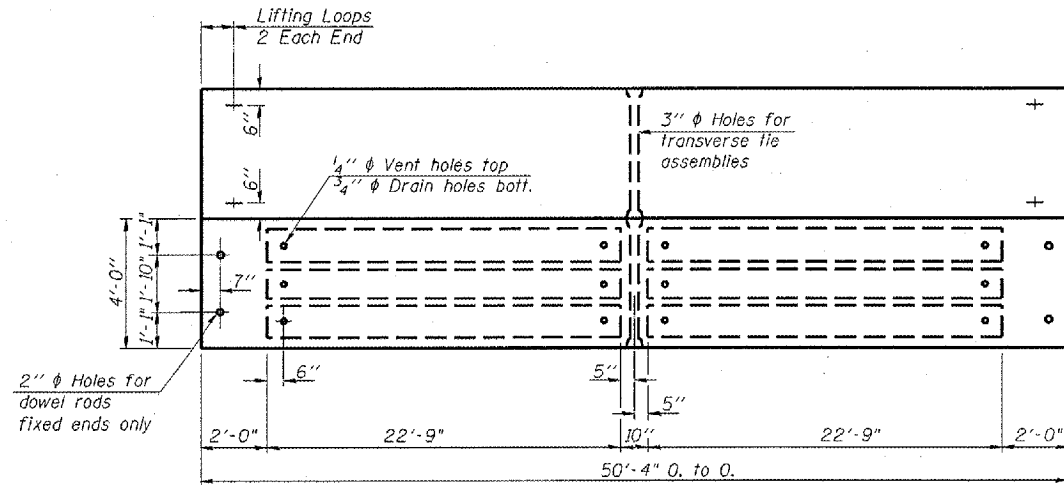
TYPICAL SECTION

20 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
14-Strands 1 3/4" up, 4-Strands 3/4" up, 2-Strands 15" up

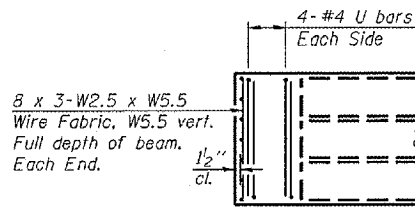
Note:
Place strands symmetrically about ϕ of beam.



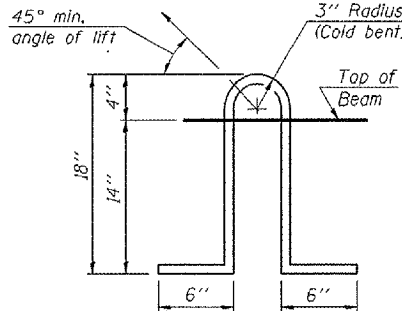
TYPICAL TRANSVERSE TIE ASSEMBLY



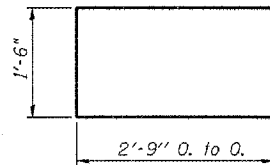
PLAN



END PLAN



LIFTING LOOP DETAIL



BAR U

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" ϕ 270 ksi strands, as shown.
- The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
- Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
- 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 Exterior 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, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Required Release Strength, f'cl, shall be 4,000 p.s.i.

BILL OF MATERIAL

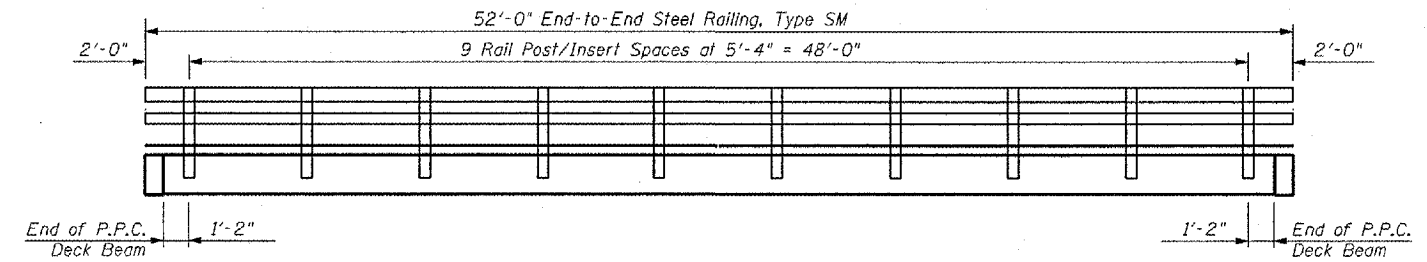
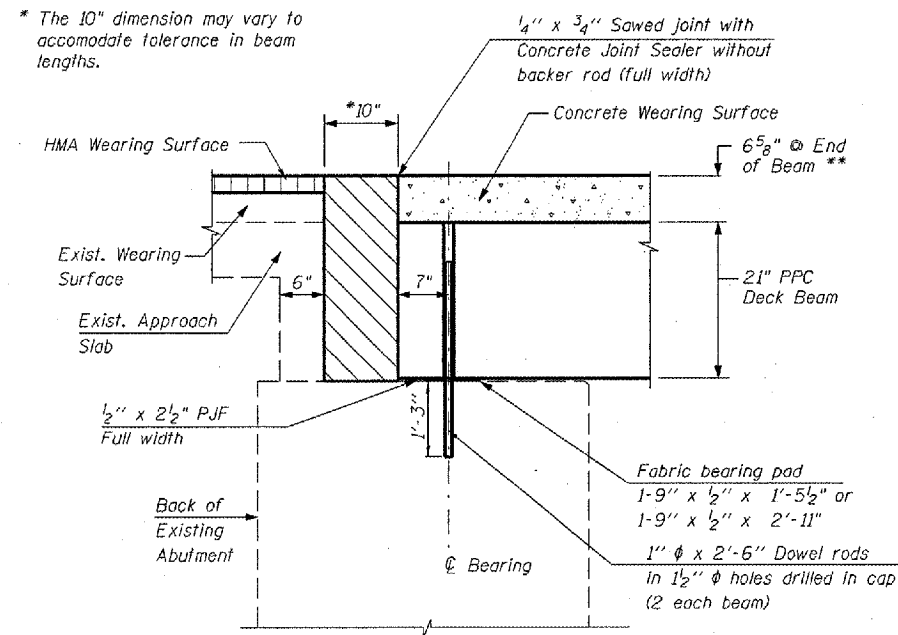
Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	1611

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK BEAM DETAILS
IL RTE. 9 OVER BRAYS CREEK
FAP 693 SECTION (2)BR-3)BR
McLEAN COUNTY
STA. 1532+21 STR. NO. 057-0191
SCALE: VERT. 1"=4'-0"
HORIZ. 1"=10'-0"
DATE 11-1-06
DRAWN BY RMH
CHECKED BY MJS

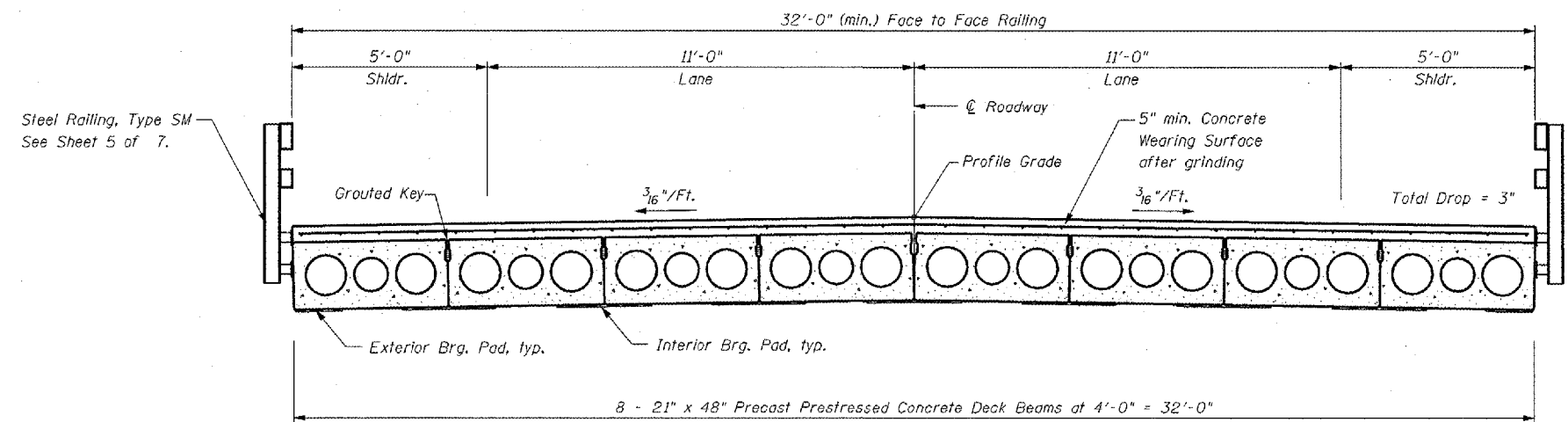
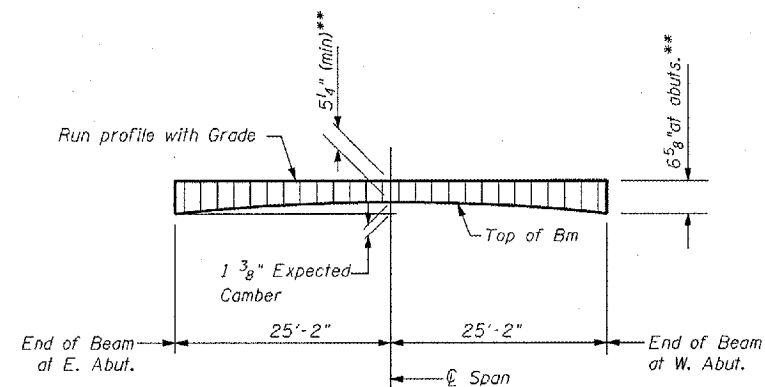
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(2)BR- 3)BR	McLean	23	15
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 4
7 SHEETS

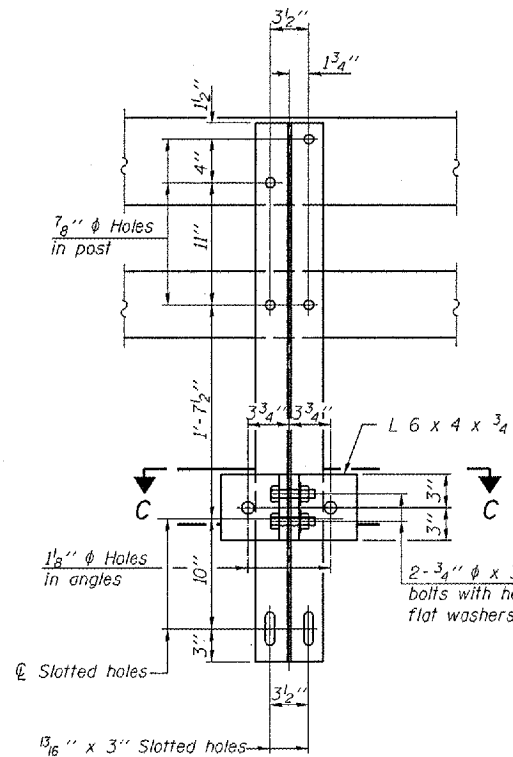
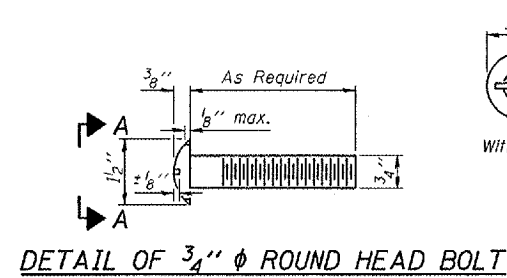


Notes :
After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (21" Depth).
Concrete wearing surface to be poured after grouting the shear keys. Hatched area to be poured after concrete wearing surface is in place.
Quantity included with Concrete Superstructure on sheet 6 and Tot 7.
All horizontal dimensions are at right angles to beam ends.
See sheet 3 of 7 for bearing pad details.

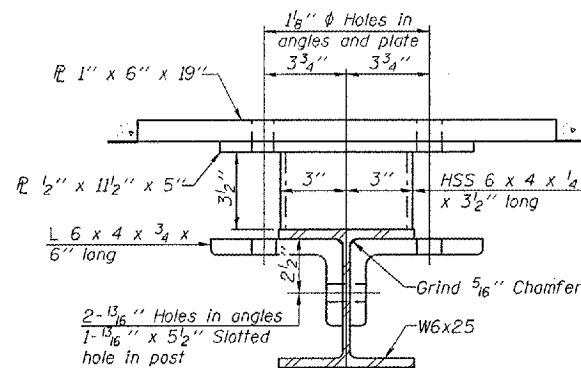
** Before Grinding according to Bridge Smoothness Specifications.

[illegible]

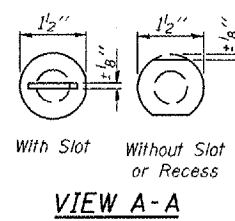
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
693	(21BR-3)BR	McLean	23	16	7 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



SECTION B-B

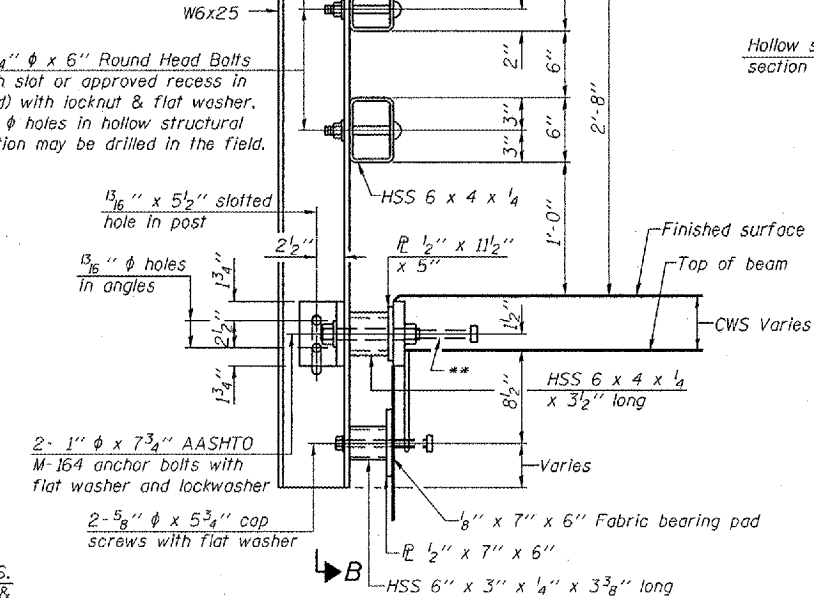


SECTION C-C

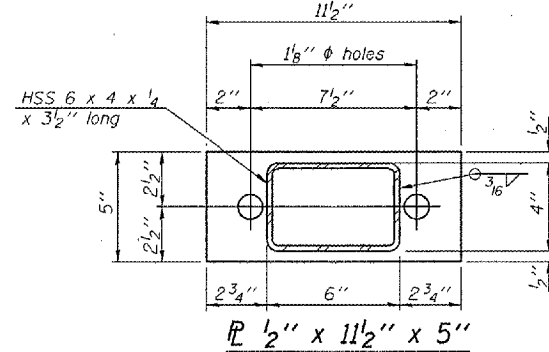


VIEW A-A

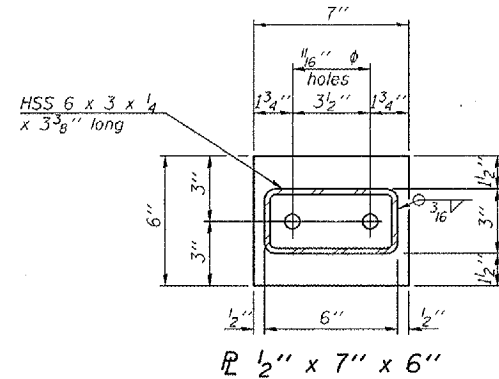
4-3/4" ϕ x 6" Round Head Bolts
(With slot or approved recess in head) with locknut & flat washer.
7/8" ϕ holes in hollow structural section may be drilled in the field.



SECTION AT RAIL POST

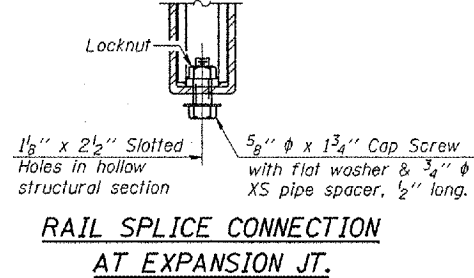


SECTION AT RAIL POST

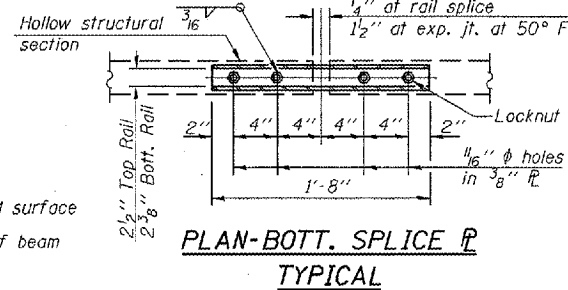


SECTION AT RAIL POST

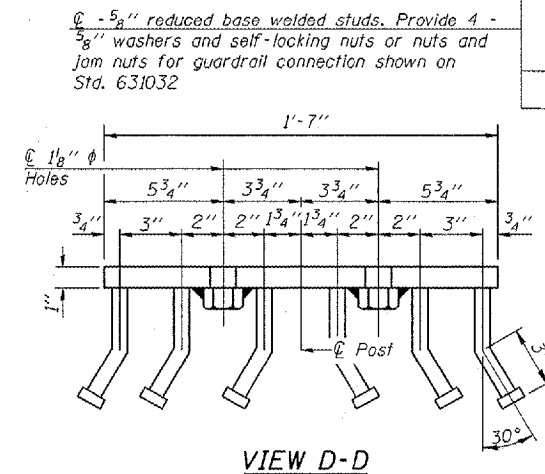
(6'-3" Maximum Post Spacing) (5" minimum to 7 1/2" maximum CWS thickness)



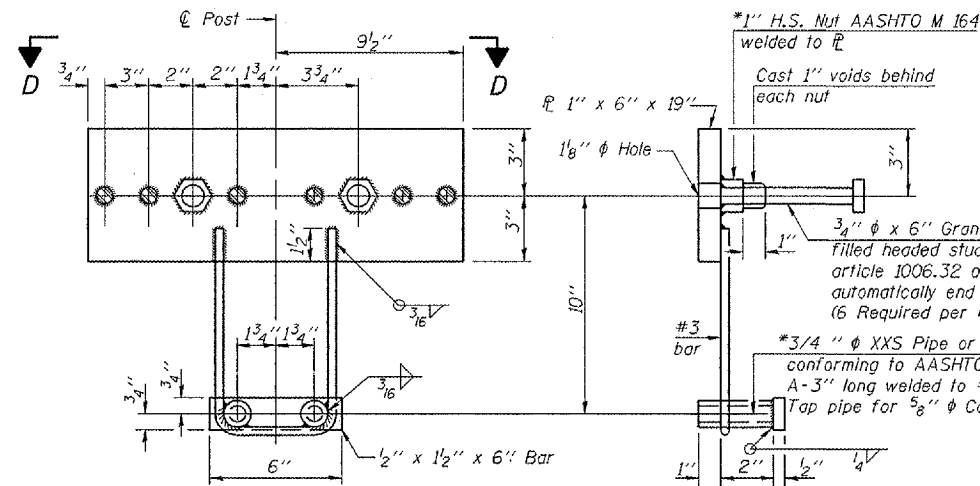
RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE R TYPICAL

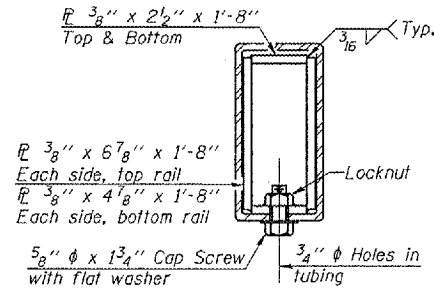


VIEW D-D

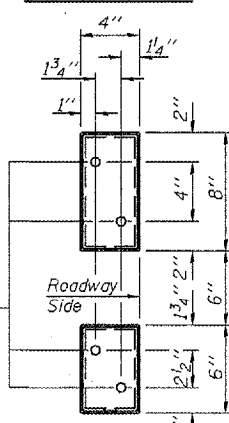


ANCHOR DEVICE

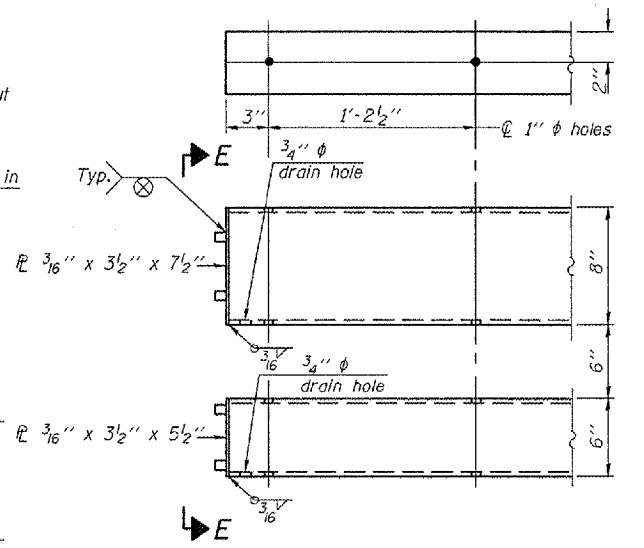
*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.



SECTION AT RAIL SPLICE



VIEW E-E



END OF RAIL DETAILS

Notes:
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 Railing, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
**The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	104

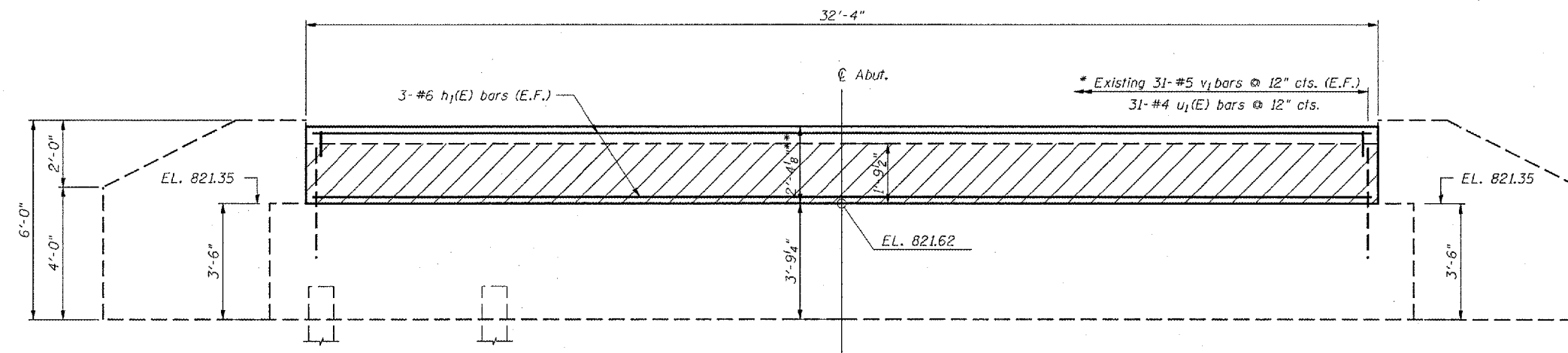
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STEEL RAILING, TYPE SM
IL RTE. 9 OVER BRAYS CREEK
FAP 693 SECTION (21BR-3)BR
McLEAN COUNTY
STA. 1532+21 STR. NO. 057-0191
SCALE: VERT. 1"=4'-0"
HORIZ. 1"=4'-0"
DATE: 10/1/07
DRAWN BY: RMH
CHECKED BY: MJS

R-34CWS

9-3-07

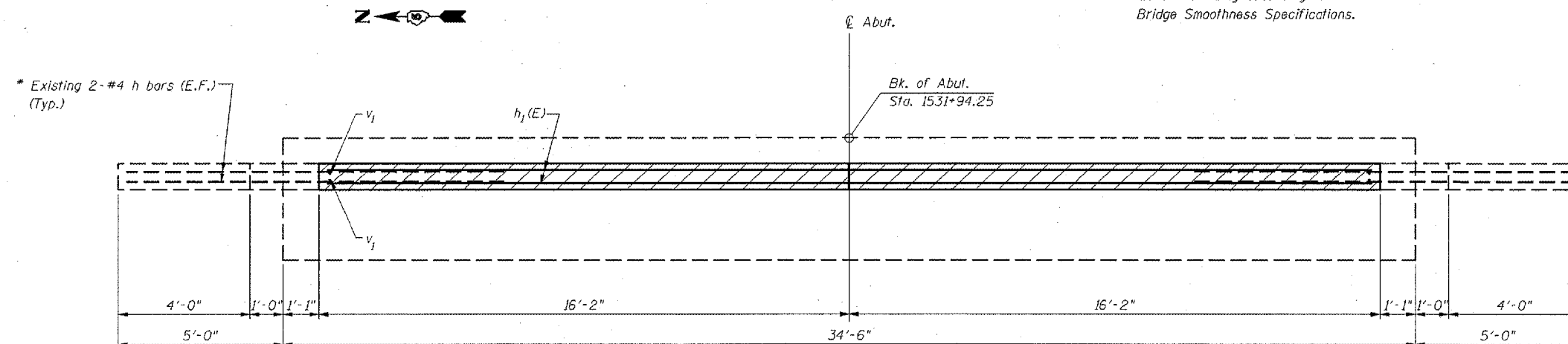
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6 7 SHEETS
693	121BR-31BR	McLean	23	17	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		



ELEVATION

* Existing Reinforcement extending into new construction shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

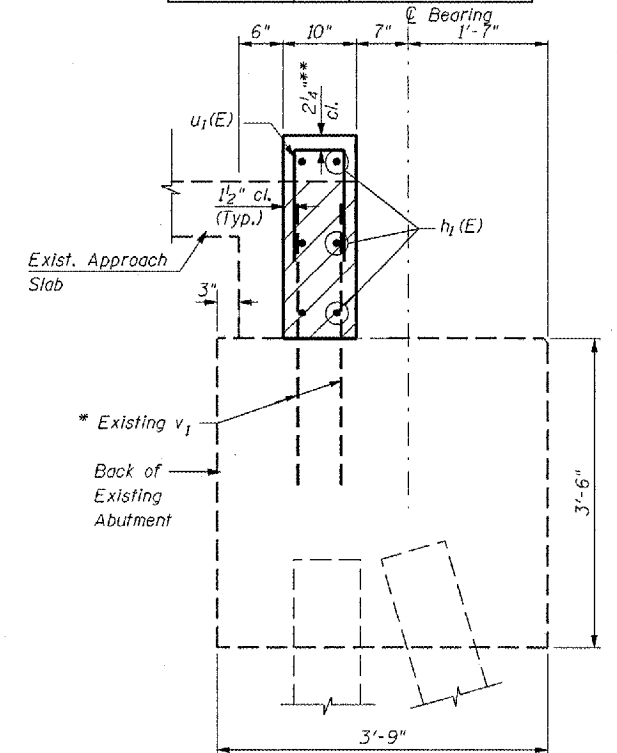
*** Before Grinding according to Bridge Smoothness Specifications.*



PLAN



Note:

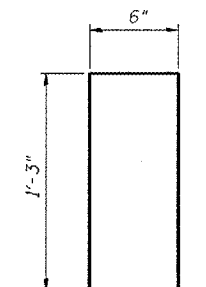
1. Hatched areas indicate Concrete Removal.
2. Burn or cut the existing dowel rods flush with existing bearing seat. Grind the existing dowel rods smooth and seal with epoxy. The cost of this work shall be included with "Removal of Existing Superstructures"



SECTION THRU ABUTMENT

BILL OF MATERIAL

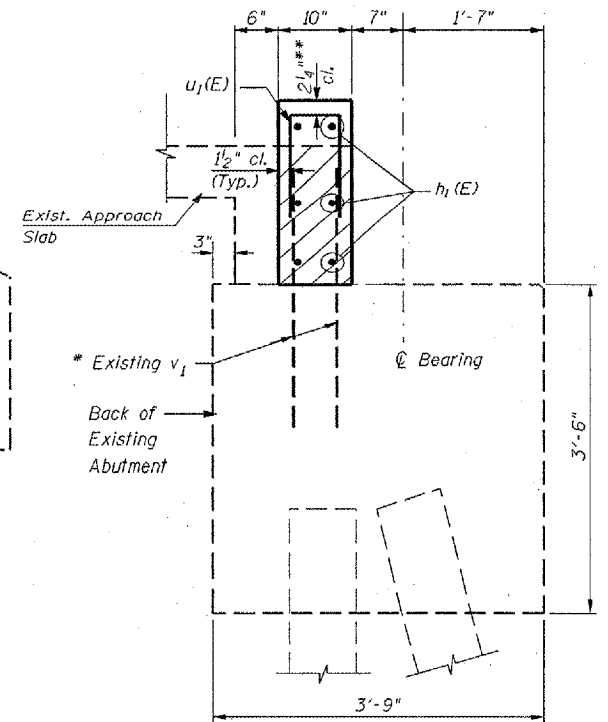
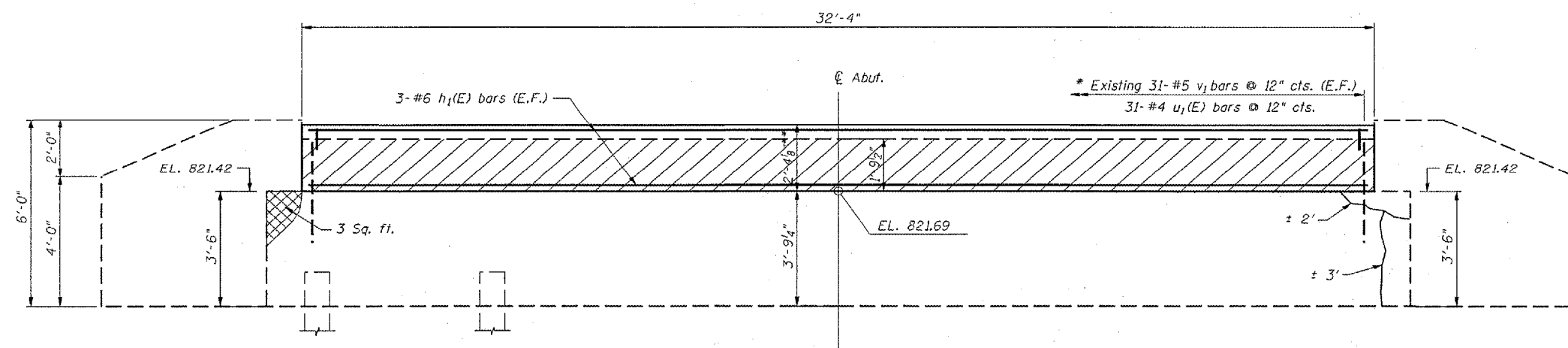
Bar	No.	Size	Length	Shape
$h_1 E$	6	#6	32'-0"	
$u_1(E)$	31	#4	3'-0"	
Concrete Removal			Cu. Yd.	1.8
Concrete Superstructure			Cu. Yd.	2.3
Reinforcement Bars, Epoxy Coated			Pound	350


$$\text{BAR } u_1(E)$$

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EAST ABUTMENT IL RTE. 9 OVER BRAYS CREEK FAP 693 SECTION (2)BR-3)BR McLEAN COUNTY STA. 1532+21 STR. NO. 057-0191
NAME	DATE	
SCALE: VERT.		DRAWN BY RMH
HORIZ.		CHECKED BY MJS
DATE \$DATE.		

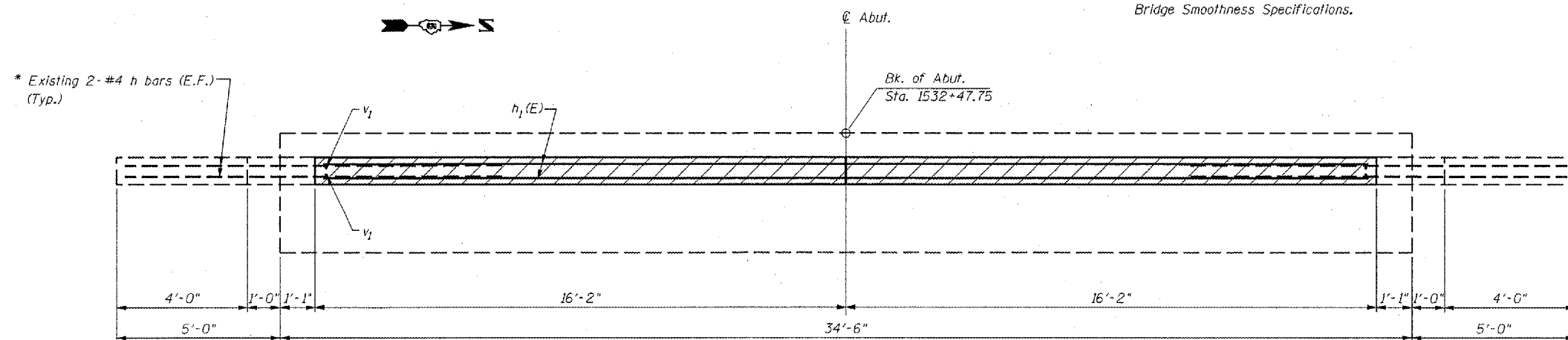
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(2)BR- 3)BR	McLean	23	18
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 7
7 SHEETS



* Existing Reinforcement extending into new construction shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.


**** Before Grinding according to Bridge Smoothness Specifications.**




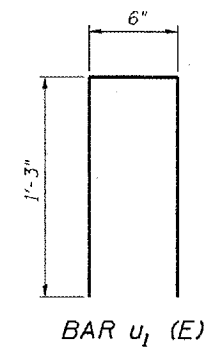
Note:

1. Hatched areas indicate Concrete Removal.
2. Burn or cut the existing dowel rods flush with existing bearing seat. Grind the existing dowel rods smooth and seal with epoxy. The cost of this work shall be included with "Removal of Existing Superstructures"

LEGEND

 Structural repair of Concrete
(Depth equal to or less than 5")

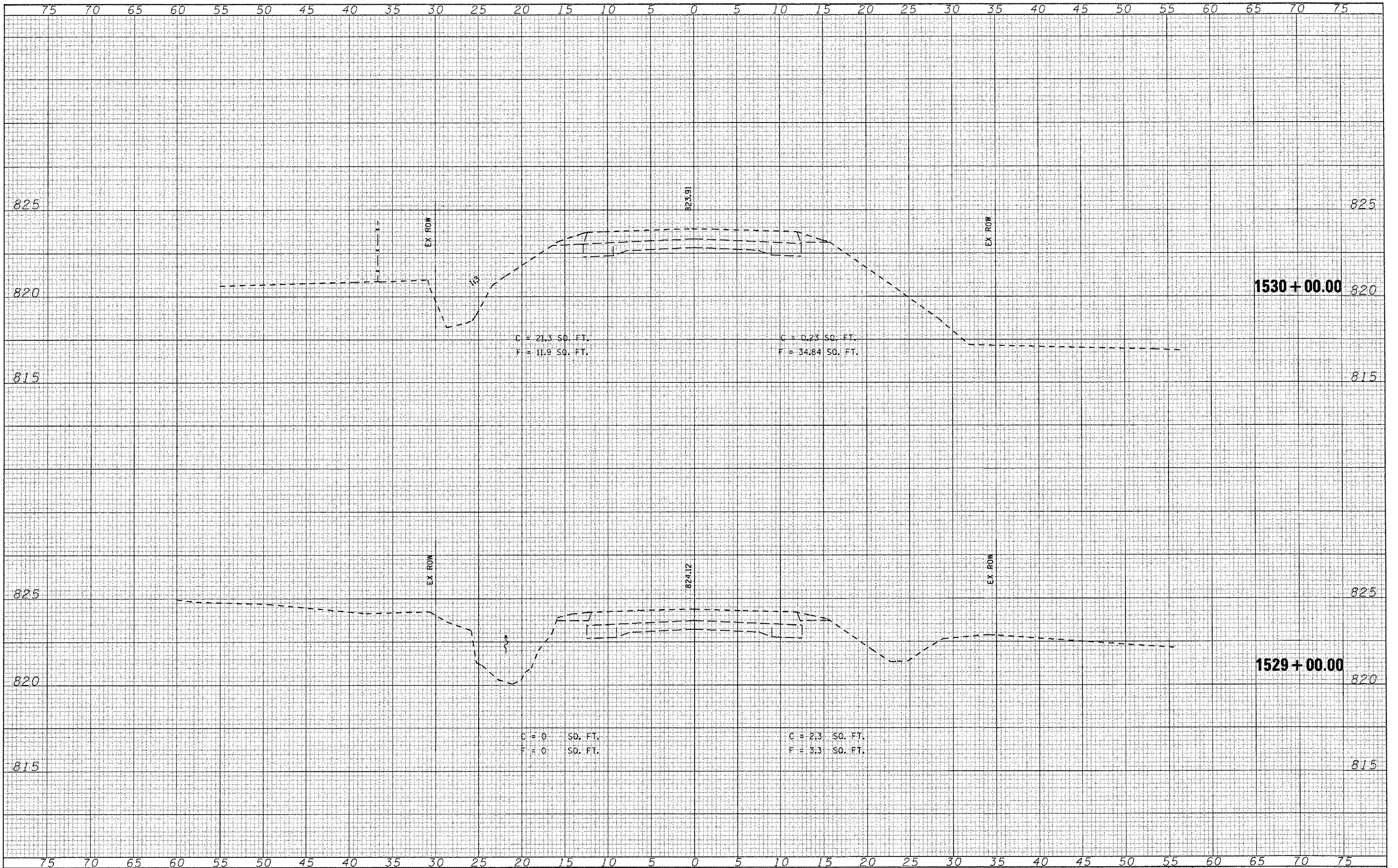
$\pm 5'$  Epoxy Crack Injection (Crack widths
shown are approx. $\frac{1}{16}"$ to $\frac{1}{8}"$ in width)



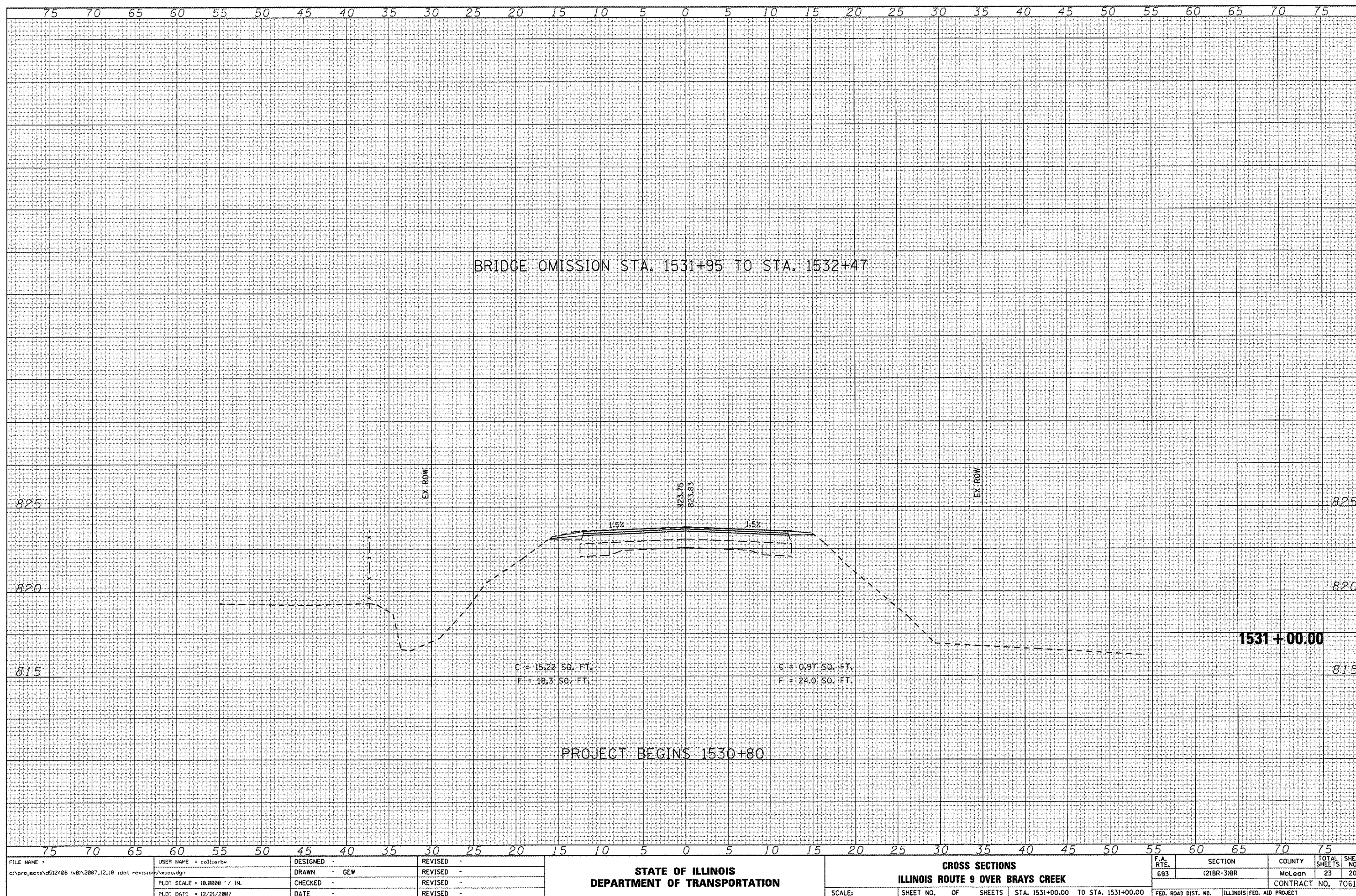
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION WEST ABUTMENT IL RTE. 9 OVER BRAYS CREEK FAP 693 SECTION (21BR-3)BR McLEAN COUNTY STA. 1532+21 STR. NO. 057-0191
NAME	DATE	
SCALE: VERT. _____		DRAWN BY RMH
DATE _____		CHECKED BY MJS

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	NO.

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	NO.

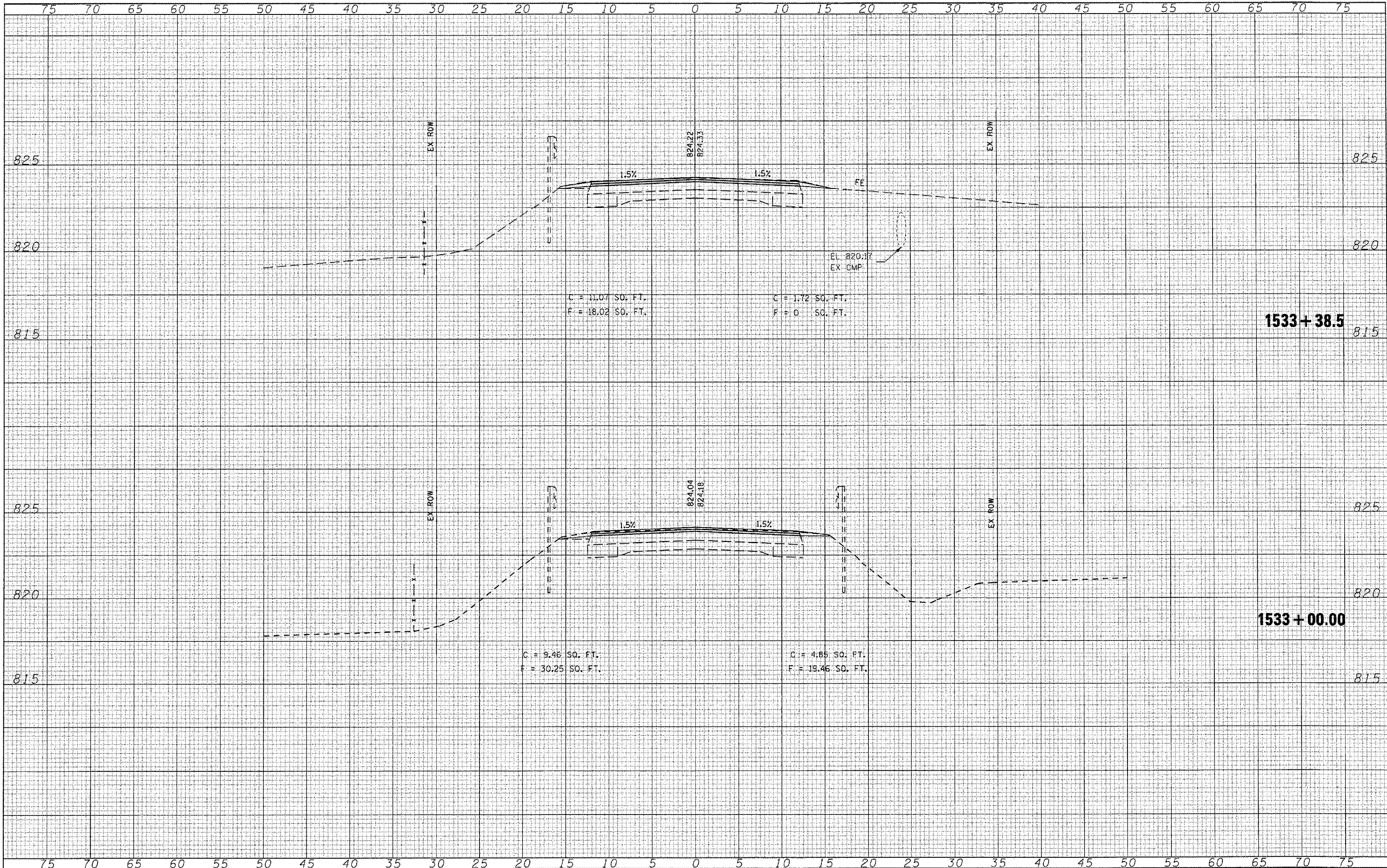


ORIGINAL SURVEY	SURVEYED _____	BY _____	DATE _____
NOTE BOOK	PLOTTED _____		
	TEMPLATE _____		
	AREAS _____		
	AREAS CHECKED _____		



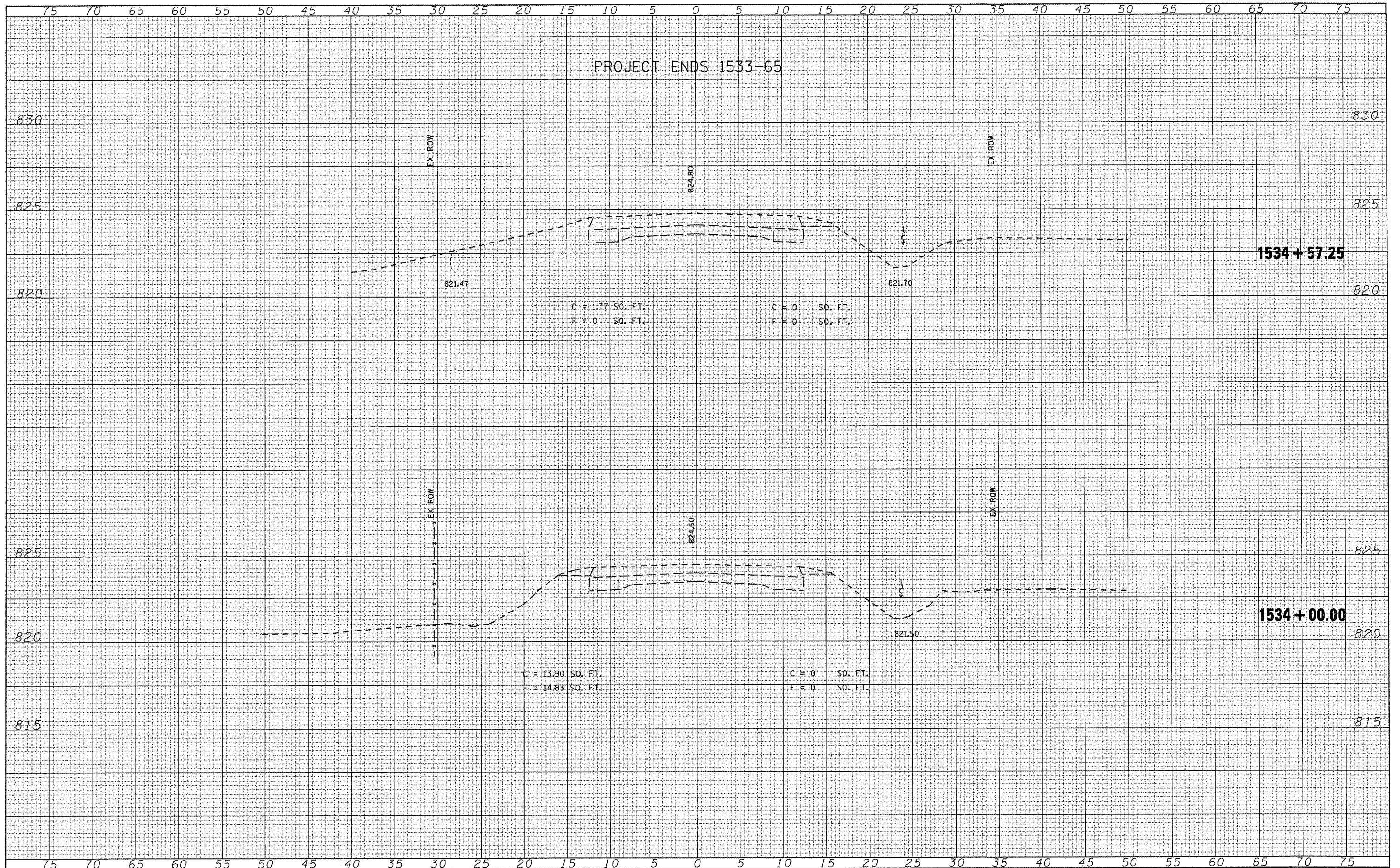
DATE	BY	SURVEYED	FLATTED	TEMPLATE	NO.

DATE	BY	SURVEYED	FLATTED	TEMPLATE	NO.



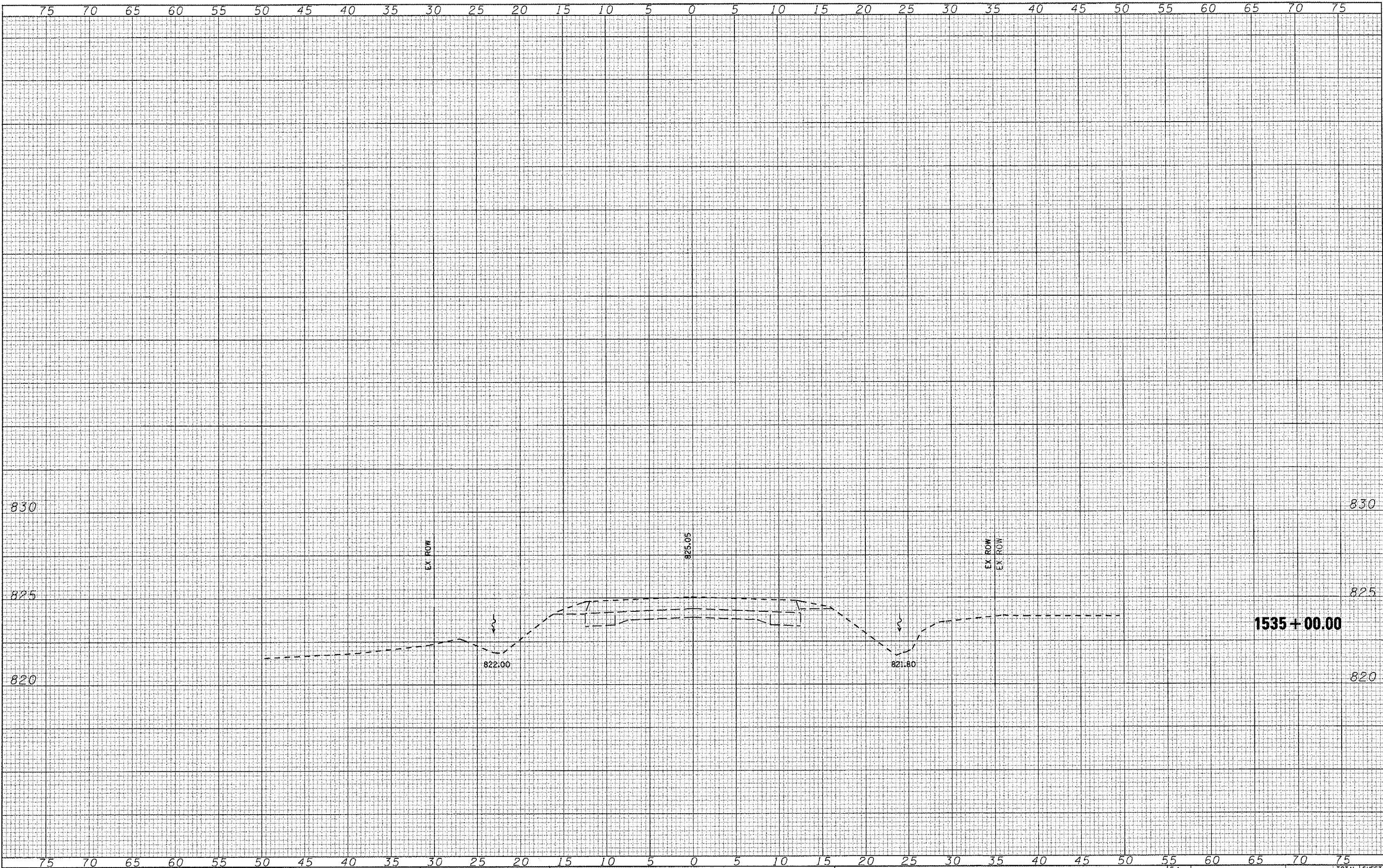
DATE	BY	SWAYED	PLOTTED	TEMPLATE	NO. BOOK	AREA CHECKED
FINAL						
SURVEY						
NOTE						
BOOK						
NO.						

DATE	BY	SWAYED	PLOTTED	TEMPLATE	NO. BOOK	AREA CHECKED
ORIGINAL						
SURVEY						
NOTE						
BOOK						
NO.						



DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED
FINAL					
SURVEY					
NOTE BOOK					
NO.					

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED
ORIGINAL					
SURVEY					
NOTE BOOK					
NO.					



FILE NAME =	USER NAME = collierbw	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr\proj\mats\d512406 (v8)\2007.12.18 \dot revisions\	xsec.dgn	DRAWN - GEW	REVISED -		ILLINOIS ROUTE 9 OVER BRAYS CREEK	693	(2)BR-3)BR	McLean	23	23	
PLOT SCALE = 10.0000' / IN.		CHECKED -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA. 1535+00.00 TO STA. 1535+00.00	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
PLOT DATE = 12/21/2007		DATE -	REVISED -							CONTRACT NO. 70610	