

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3A	05-00065-00-BR	BROWN	24	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 93509	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
AMERICAN RECOVERY & REINVESTMENT ACT

PROJECT ARA-1583(103)
SECTION 05-00065-00-BR
C.H. 3A /FAS 1583
BROWN COUNTY
EXISTING STRUCTURE NO. 005-3006
C-96-228-07

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES AND GENERAL NOTES
3.	TYPICAL SECTIONS
4.	PLAN AND PROFILE
5.-11.	STATION CROSS SECTIONS
12.-24.	BRIDGE PLANS

HIGHWAY STANDARDS:

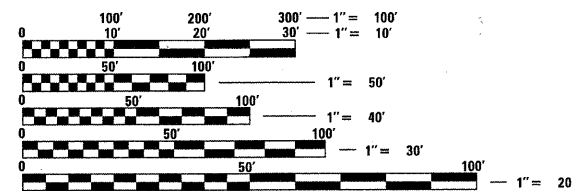
000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
515001-03	NAME PLATE FOR BRIDGES
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-06	TRAFFIC BARRIER TERMINAL, TYPE 2
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701901-01	TRAFFIC CONTROL DEVICES
BLR 21-8	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 23-3	TRAFFIC BARRIER TERMINAL, TYPE 1
BLR 26-2	STEEL PLATE BEAM GUARDRAIL, 27 1/2" HEIGHT
BLR 27-1	TRAFFIC BARRIER TERMINAL, TYPE 5A

UTILITIES

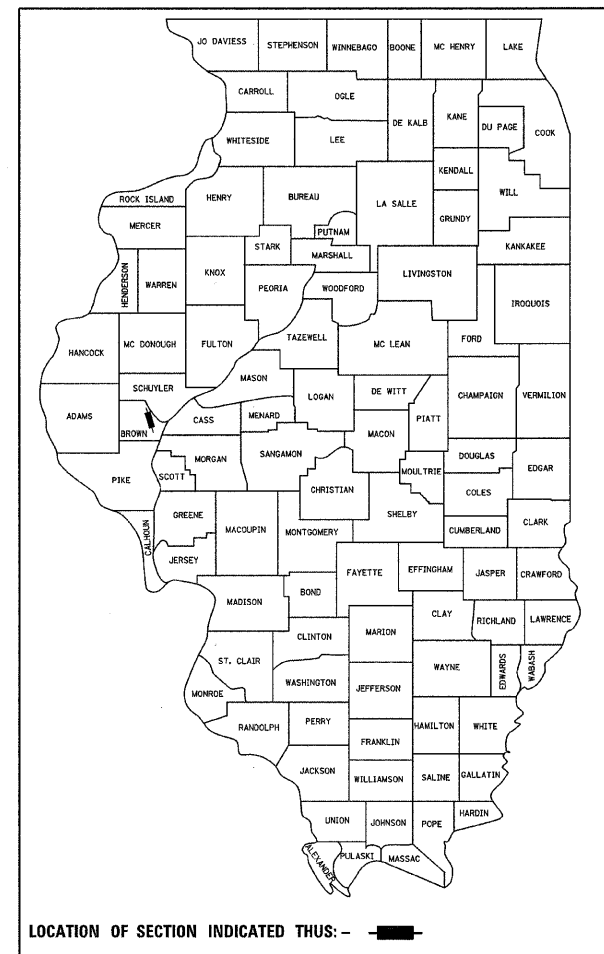
RIPLEY WATER SYSTEM

VERIZON, NORTH
110 EAST MONROE
PO BOX 2675
BLOOMINGTON, IL 61701-2675

ADAMS ELECTRIC COOP
US 24 EAST
CAMP POINT, IL 62320



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.



LOCATION OF SECTION INDICATED THUS: - ■ -

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)
DESIGN SPEED: 30 MPH
DESIGN TRAFFIC: 315 ADT (2029)

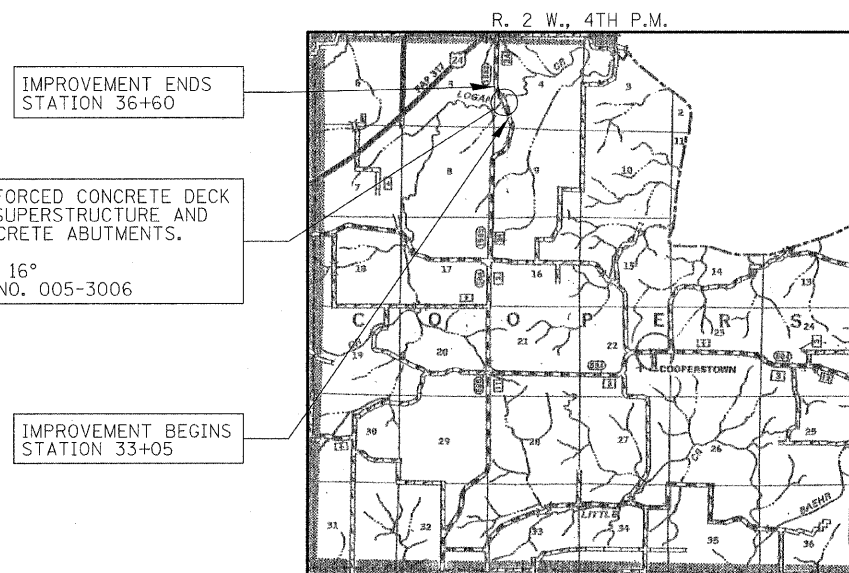
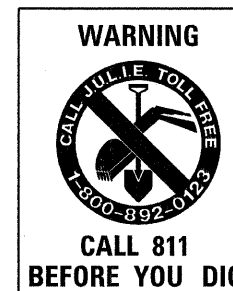
AGENCY RESPONSIBLE FOR LETTING

APPROVED 4-9-2010
Harold J. Timmons
COUNTY ENGINEER

PASSED April 13, 2010
Tamara H. Fountain
DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS

PASSED April 13, 2010
Ron Chamberlain
DISTRICT SIX ENGINEER OF CONSTRUCTION

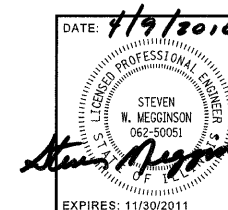
Releasing For Bid Based on Limited Review
April 13, 2010
Roger L. Driskell
DEPUTY DIRECTOR OF HIGHWAYS
REGION FOUR ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LOCATION MAP

APPROXIMATE SCALE: 0 1 MILE
NET LENGTH OF SECTION = 355.00 FEET = 0.067 MILES

CONTRACT NO. 93509



HAMPTON, LENZINI AND RENWICK, INC.
CIVIL ENGINEERS - STRUCTURAL ENGINEERS - LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
217.546.3400 www.hlrengineering.com

184.000959
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

EXPIRES: 11/30/2011

PROJECT NUMBER: 08.0204.130

DATE: 04/09/10

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	UNIT	TOTAL CONSTRUCTION TYPE CODE X071-2A
20200100	EARTH EXCAVATION	CU YD	137
20300100	CHANNEL EXCAVATION	CU YD	100
^ 20900310	POROUS GRANULAR BACKFILL	TON	70
^ 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.2
28000400	PERIMETER EROSION BARRIER	FOOT	600
^ 28101700	RIPRAP, SPECIAL	TON	100
35101400	AGGREGATE BASE COURSE, TYPE B	TON	280
48101200	AGGREGATE SHOULDERS, TYPE B	TON	105
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	3.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	67.8
50300300	PROTECTIVE COAT	SQ YD	272
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	1,860
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	13,250
* 50900205	STEEL RAILING, TYPE S1	FOOT	171
51500100	NAME PLATES	EACH	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	27
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	10
52100520	ANCHOR BOLTS, 1"	EACH	40
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	113
* ^ 63000135	STEEL PLATE BEAM GUARD RAIL, TYPE B (SPECIAL)	FOOT	13
* 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
* ^ 63100175	TRAFFIC BARRIER TERMINAL, TYPE 2 (SPECIAL)	EACH	1
63200310	GUARDRAIL REMOVAL	FOOT	160
67100100	MOBILIZATION	L SUM	1
^ 70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
* ^ 78200405	GUARDRAIL MARKERS	EACH	10
* ^ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
* LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	1

^ SEE SPECIAL PROVISIONS
* SPECIALTY ITEMS

SEEDING TABLE	
LOCATION	CLASS 2 (SPECIAL) ACRE
CH 3A	
STA 33+70.00 TO STA 36+60.00	0.20
TOTAL	0.20
USE	0.20

HORIZONTAL ALIGNMENT		
LOCATION	NORTHING	EASTING
P.O.B. STA 22+45.33	2119.7167	1487.3253
P.C. STA 26+88.67	1773.8555	1209.9629
P.I. STA 30+24.28	1512.0390	1000.0000
P.T. STA 33+34.13	1176.4316	1000.0000
P.O.T. STA 35+10.56	1000.0000	1000.0000
P.C. STA 35+81.28	929.2836	1000.0000
P.I. STA 37+25.60	784.9800	1000.0000
P.T. STA 38+66.99	649.3400	181.4889
P.O.T. STA 40+10.47	514.5091	901.5654

GENERAL NOTES

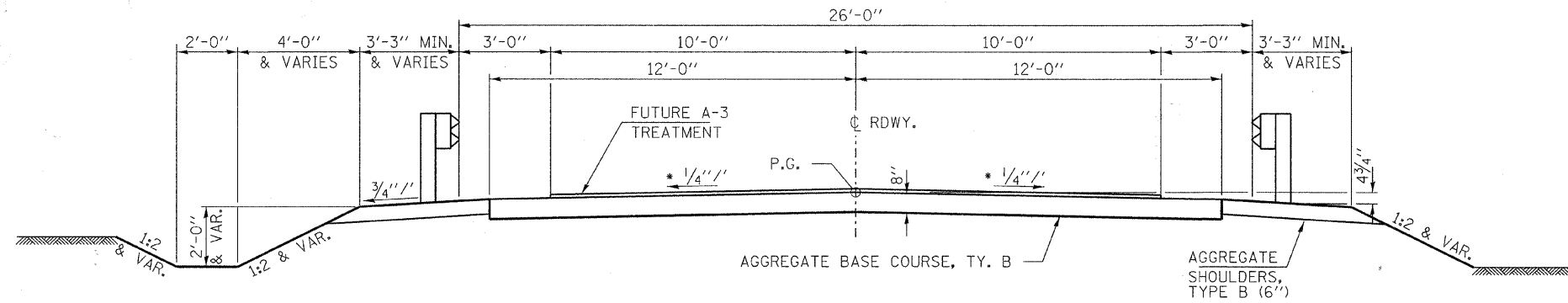
- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2007," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- ALL CLEARING AND GRUBBING, FENCE REMOVAL AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. THE REMOVAL OF THE EXISTING BITUMINOUS SURFACE WILL BE PAID FOR AS EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPER DISPOSAL OF BITUMINOUS MATERIAL SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE LOCATION OF EXISTING GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- 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 PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES.

AGGREGATE SURFACE COURSE	2.05 TON/CU YD
POROUS GRANULAR BACKFILL	2.00 TON/CU YD
STONE RIPRAP	1.75 TON/CU YD
- THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE R.O.W. AS DIRECTED BY THE ENGINEER.

EARTHWORK SCHEDULE							
LOCATION	EARTH EXCAVATION	CHANNEL EXCAVATION	SHRINKAGE FACTOR	PERCENT USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT REQUIRED	EARTHWORK BALANCE
	CU.YD.	CU.YD.			CU.YD.	CU.YD.	CU.YD.
CH 3A							
STA 33+70.00 TO STA 34+67.81	56		25.00%	100.00%	42	24	18
STA 35+55.31 TO STA 36+60.00	81		25.00%	100.00%	61	2	59
CHANNEL EXCAVATION		100	25.00%	100.00%	75		75
ENTRANCE						20	-20
TOTAL	137	100			178	46	132
TOTAL USE	137						132

WASTE = 132 CU YDS

GUARDRAIL TABULATION									
LOCATION	GUARDRAIL REMOVAL	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	TRAFFIC BARRIER TERMINAL TYPE 1	TRAFFIC BARRIER TERMINAL TYPE 2 (SPECIAL)	TRAFFIC BARRIER TERMINAL TYPE 5A	SPBGR TYA 6 FOOT POSTS	SPBGR TYB, SPL (12.5' RAD)	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL MARKERS
	FOOT	EACH	EACH	EACH	EACH	FOOT	FOOT	EACH	EACH
LT & RT STA 34+24.3 TO 34+71.7	80								
LT & RT STA 35+48.3 TO 35+95.7	80								
RT STA 33+58.5 TO RT STA 34+08.5		1						1	
RT STA 35+95.1 TO RT STA 36+45.1		1						1	
LT STA 34+13.5 TO 34+38.5			1					1	
LT STA 35+98.2 TO STA 36+00.2				1				1	
LT & RT STA 34+51.0 TO 34+71.7					2				
LT & RT STA 35+49.4 TO 35+70.1					2				
LT STA 34+38.5 TO LT STA 34+51.0						12.5			
RT STA 34+08.5 TO 34+58.5						50			
LT STA 35+62.6 TO LT STA 35+87.6						25			
RT STA 35+70.1 TO RT STA 36+95.1						25			
LT STA 35+87.6 TO LT STA 35+98.2							12.5		
TOTAL	160	2	1	1	4	112.5	12.5	4	10



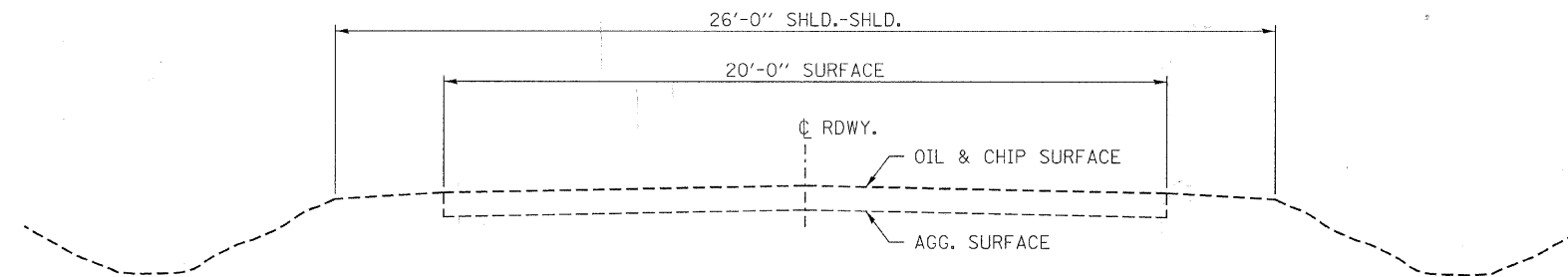
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CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

TYPICAL CROSS SECTION

STA. 33+70 TO 36+60

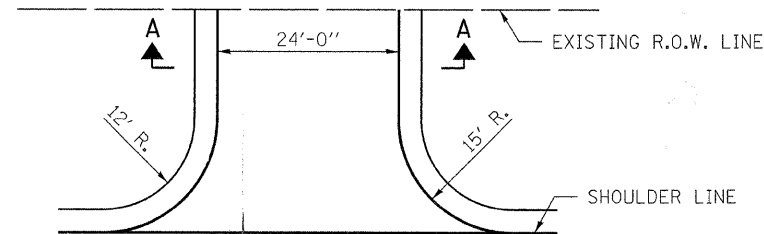
TRANSITION FROM THE PROPOSED ROADWAY TO THE EXISTING
ROADWAY IS TO BE CONSTRUCTED FROM STA. 33+70 TO 34+20 AND
STA. 36+10 TO 36+60. SEE SHEET 12 FOR TRANSITION AT BRIDGE.
* (S.E. TRANSITION STA. 35+60 TO STA. 36+50)

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

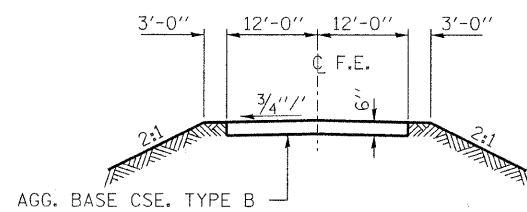


EXISTING CROSS SECTION

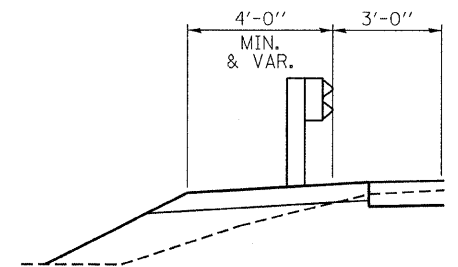
STA. 33+70 TO 36+60



FIELD ENTRANCE DETAIL



SECTION A-A



**SHOULDER WIDENING FOR
GUARDRAIL & T.B.T.**

SEE STD. 631301 FOR DETAILS.
RT. STA. 33+05 TO STA. 33+70

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080204-sht-typsections.dgn

USER NAME =
PLOT SCALE =
PLOT DATE = 4/9/2010

DESIGNED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.
DATE - 04/09/10

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
BROWN COUNTY HIGHWAY DEPARTMENT**

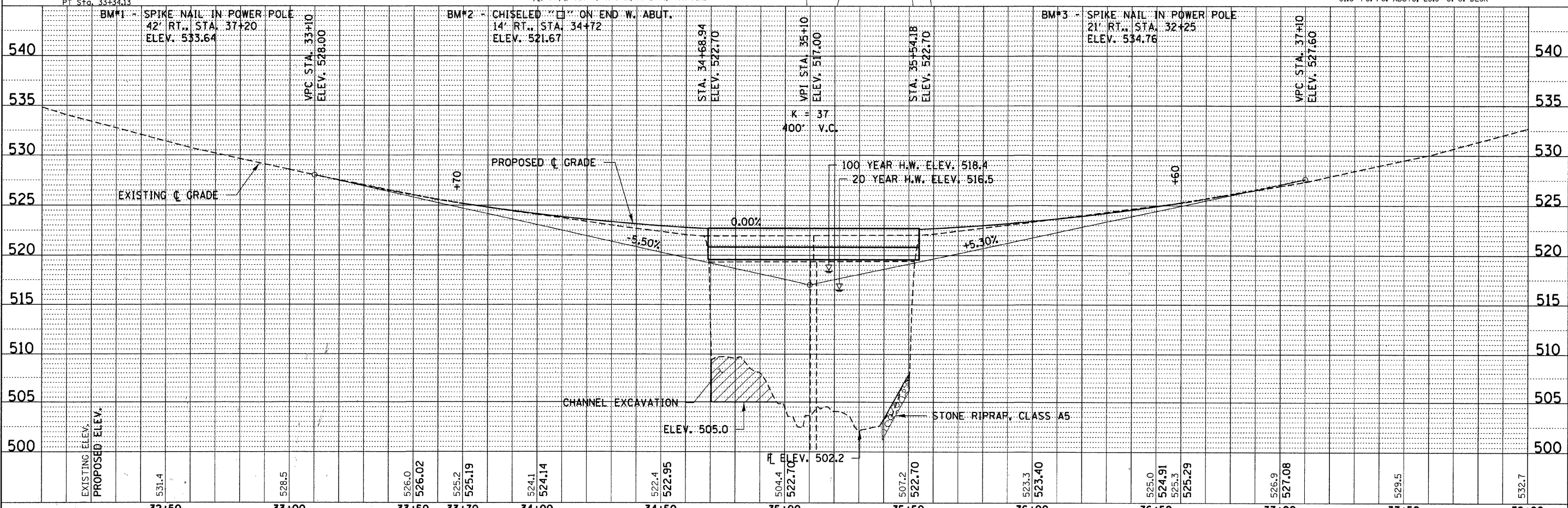
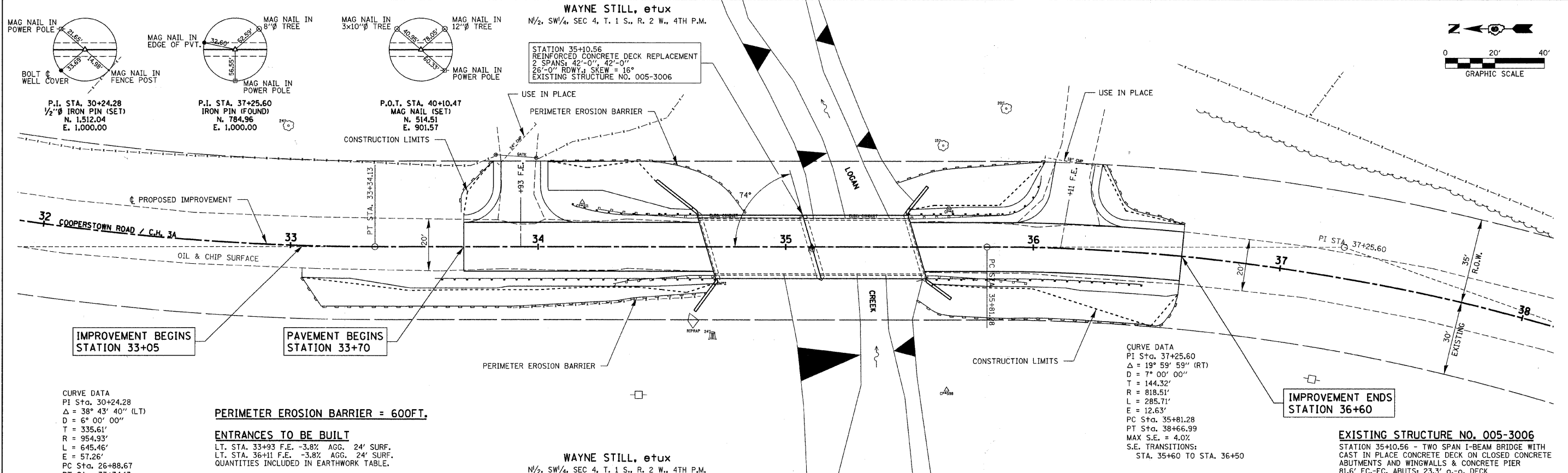


SCALE:

**TYPICAL CROSS SECTIONS
COUNTY HIGHWAY 3A**

SHEET NO. OF SHEETS STA. TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	05-00065-00-BR	BROWN	24	3
CONTRACT NO. 93509				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



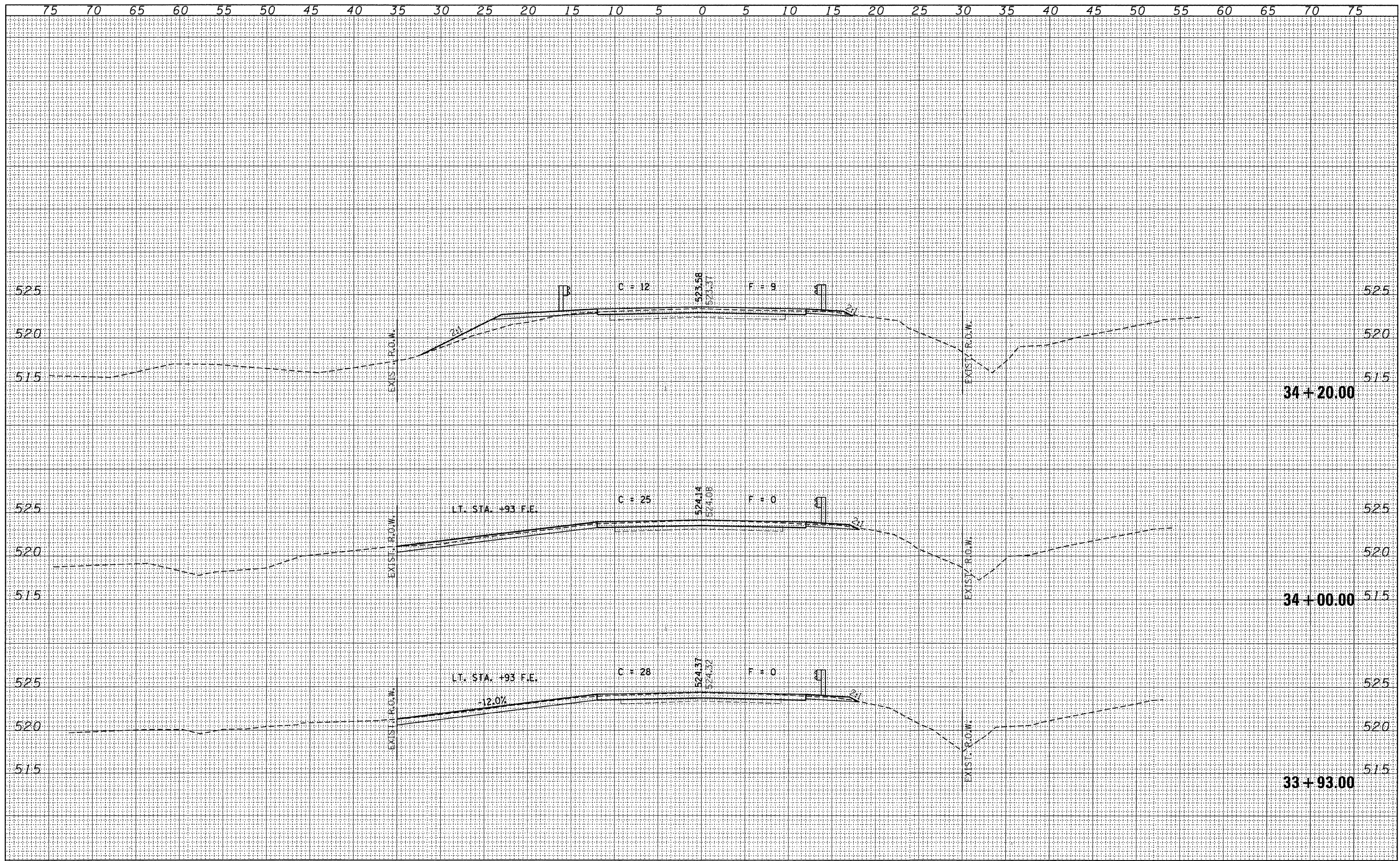
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	PLOTTED	BY
	CHECKED	
	NO. OF WAY CHECKED	
	CADD FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	CHECKED	
	NO. OF WAY CHECKED	
	STRUCTURE NOTATIONS CPWD	

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PLT DATE = 4/3/2010	DATE - 11/10/09	REVISED -	FED. ROAD DIST. NO.				ILLINOIS FED. AID PROJECT			
			SCALE: 20H:5V				SHEET NO. 1 OF 1 SHEETS	STA. 32+00 TO STA. 38+00		

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

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



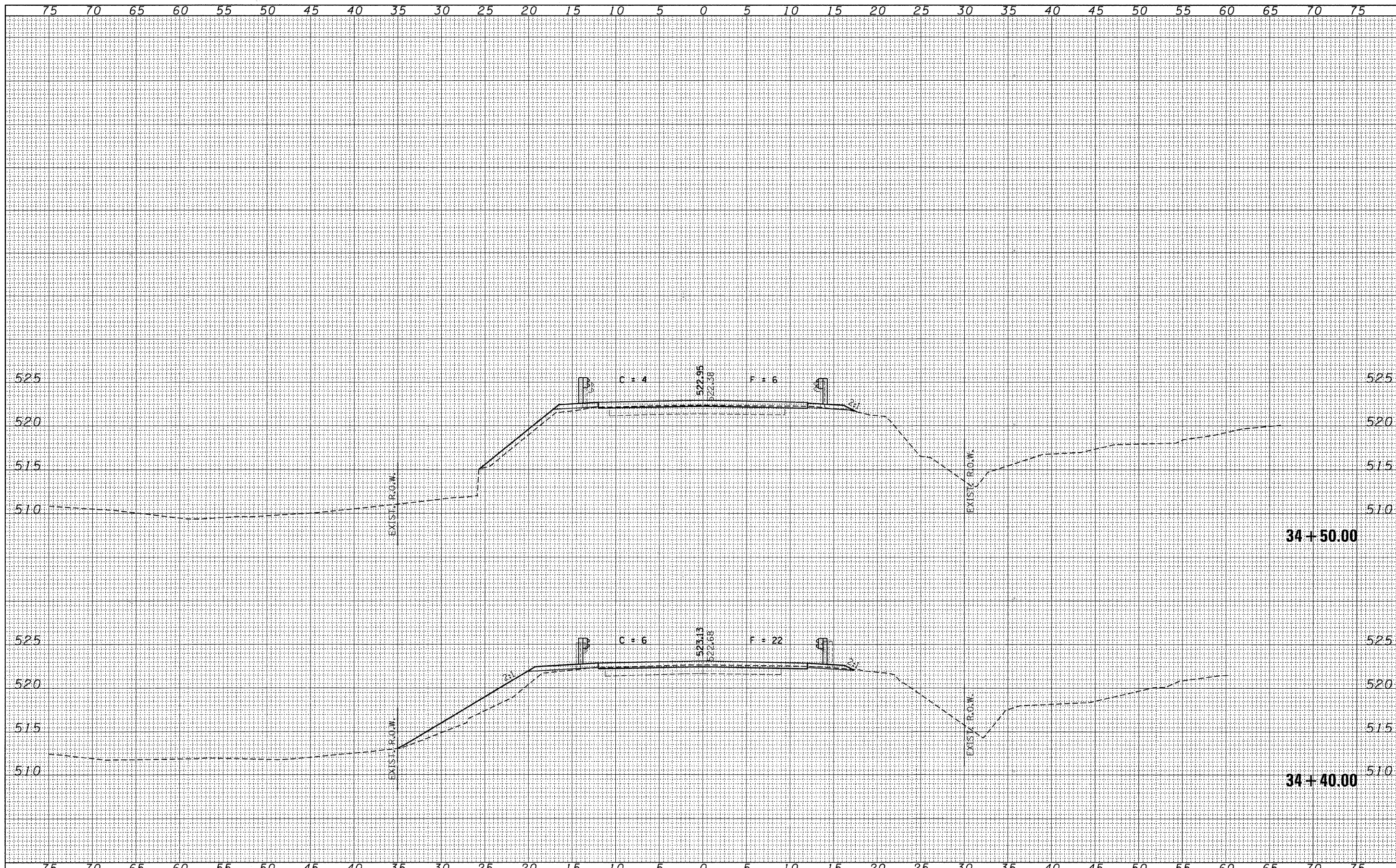
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 USER NAME =
 PLOT SCALE =
 PLOT DATE = 4/9/2010

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DRAWN - D.T.M.	REVISED -
CHECKED - S.W.M.	REVISED -
DATE - 11/10/09	REVISED -

STATE OF ILLINOIS
 BROWN COUNTY HIGHWAY DEPARTMENT

HLR
 SCALE: 5H:5V
 CROSS SECTIONS
 COOPERSTOWN ROAD
 SHEET NO. OF SHEETS | STA. 33+93.00 TO STA. 34+20.00

F.A.S. 1583	SECTION 05-00065-00-BR	COUNTY BROWN	TOTAL SHEETS 24	SHEET NO. 6
CONTRACT NO. 93509				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



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

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

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 USER NAME =
 PLOT SCALE =
 PLOT DATE = 4/9/2010

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DRAWN - D.T.M.	REVISED -
CHECKED - S.W.M.	REVISED -
DATE - 11/10/09	REVISED -

STATE OF ILLINOIS
 BROWN COUNTY HIGHWAY DEPARTMENT



SCALE: 5H:5V

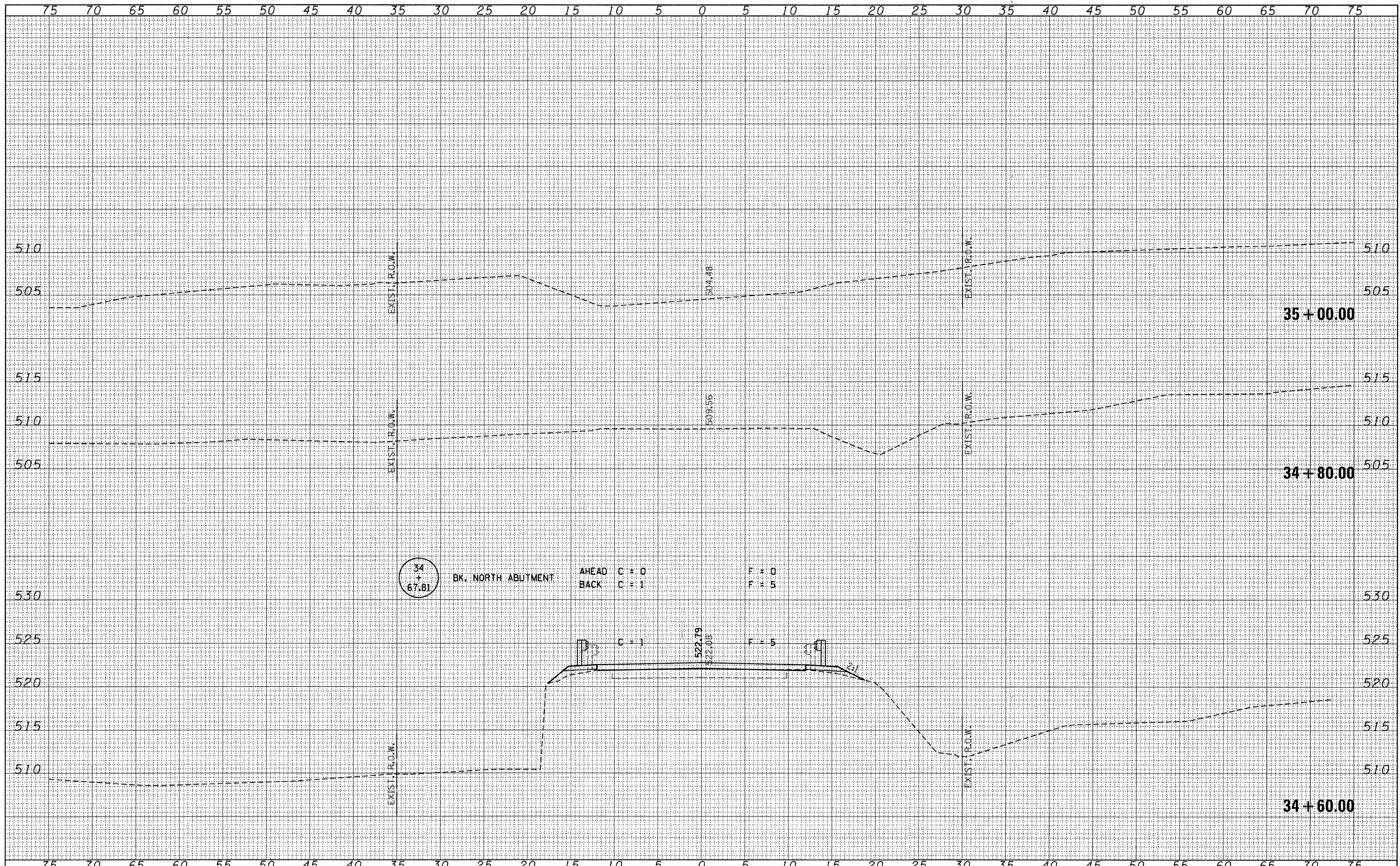
CROSS SECTIONS
 COOPERSTOWN ROAD

SHEET NO. OF SHEETS STA. 34+40.00 TO STA. 34+50.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	05-00065-00-BR	BROWN	24	7
FED. ROAD DIST. NO.				ILLINOIS FED. AID PROJECT
CONTRACT NO. 93509				

DATE	
BY	
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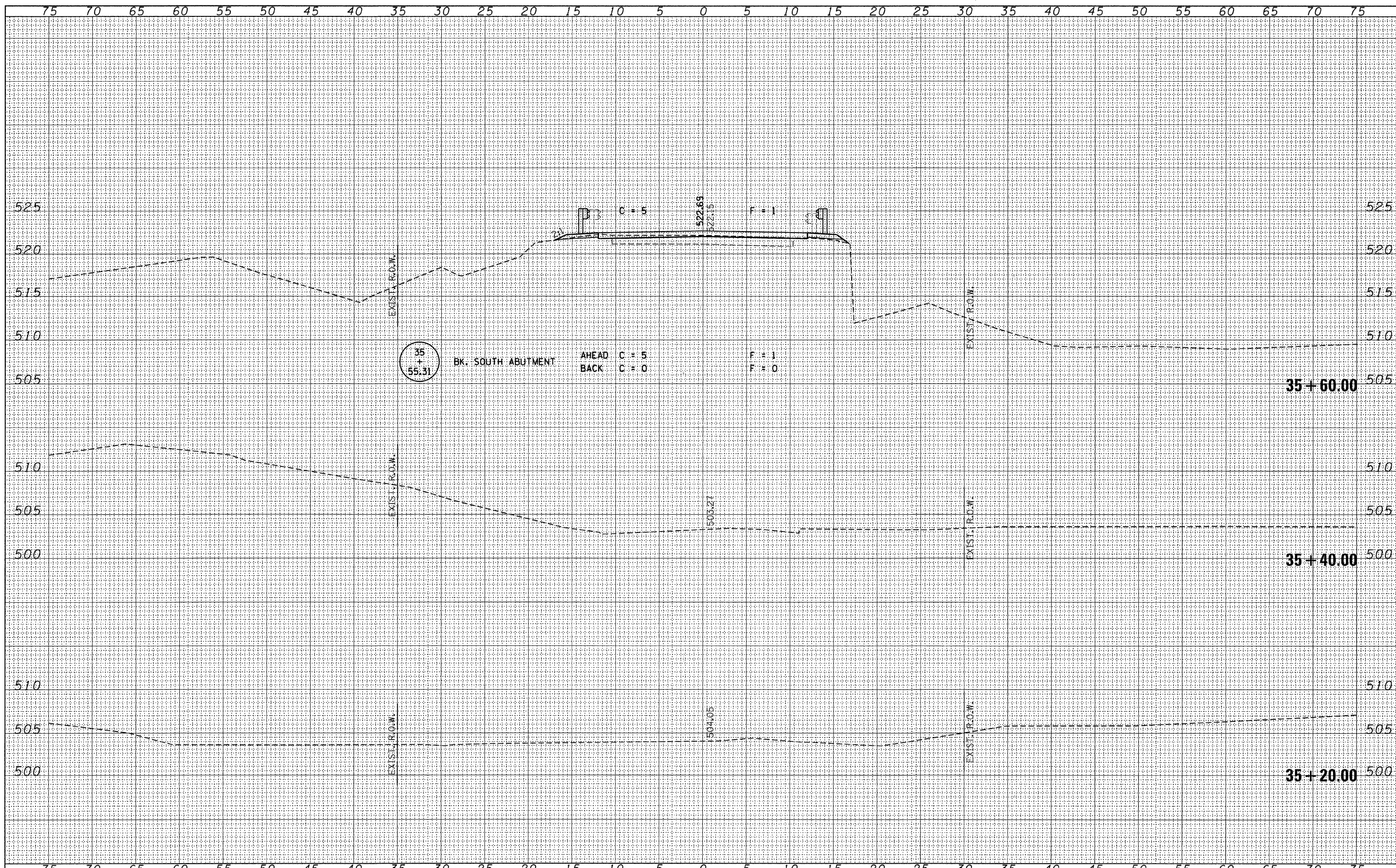
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NO.	TEMPLATE
	AREAS CHECKED



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PLOT SCALE =	DATE - 11/10/09	DRAWN - D.T.M.	REVISED -			1583	05-00065-00-BR	BROWN	24	8		
PLOT DATE = 4/9/2010	DATE - 11/10/09	CHECKED - S.W.M.	REVISED -			CONTRACT NO. 93509						
		DATE - 11/10/09	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

BY	DATE
SURVEYED	
PLOTTED	
NOTE BOOK	
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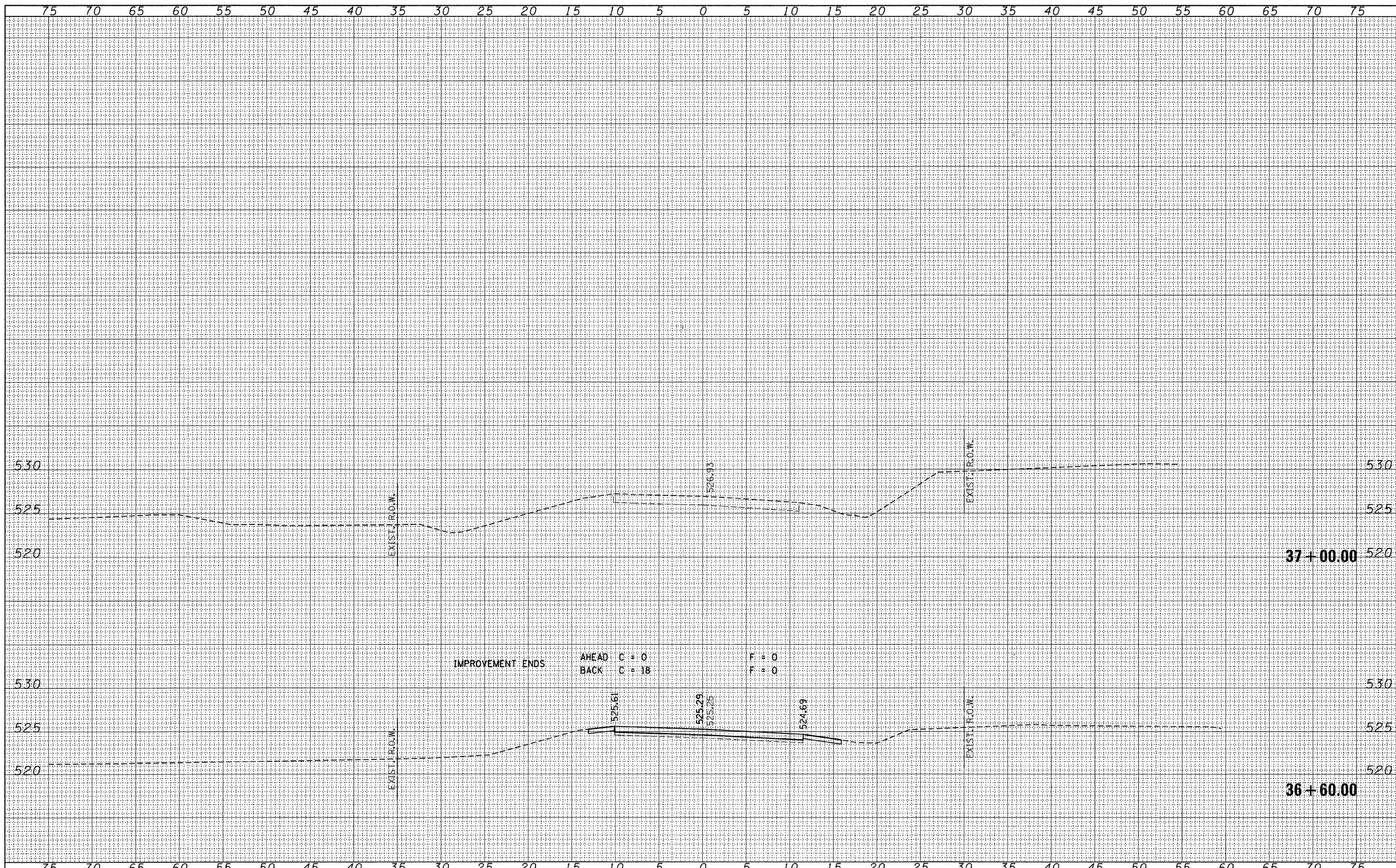
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PLOT SCALE =	CHECKED - S.W.M.	REVISED -	SCALE: 5H:5V			SHEET NO. OF SHEETS	STA. 35+20.00 TO STA. 35+60.00	CONTRACT NO. 93509					
PLOT DATE = 4/9/2010	DATE - 11/10/09	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT										

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

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



FILE NAME = 090204-sht-xxx.dgn

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 PLOT SCALE =
 PLOT DATE = 4/9/2010

DESIGNED - J.W.F.
 DRAWN - D.T.M.
 CHECKED - S.W.M.
 DATE - 11/10/09

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 BROWN COUNTY HIGHWAY DEPARTMENT



SCALE: 5H:5V
 SHEET NO. OF SHEETS STA. 36+60.00 TO STA. 37+00.00

CROSS SECTIONS
 COOPERSTOWN ROAD

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	05-00065-00-BR	BROWN	24	11
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 93509	

GENERAL NOTES

Plan dimensions and details relative to existing structure have been taken from field survey 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 bid for the work.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. The Contractor shall excavate behind the abutments to the elevations shown prior to the removal of the existing superstructure. The excavation shall be backfilled with Porous Granular Backfill after superstructure construction has been completed. The excavation required behind the abutments shall be included with Porous Granular Backfill.

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

The SSPC-QP1 Painting Contractor Certification will be required for this bridge.

Fasteners shall be high strength bolts. (AASHTO M164, Type 3 in unpainted areas and mechanically galvanized AASHTO M 164, Type 1 or 2 in painted areas). Bolts 1/2" φ, open holes 5/16" φ, unless otherwise noted.

All structural steel and exposed surfaces of bearings within a distance of 6 ft. each way from the deck joints shall be painted as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

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

All construction joints shall be bonded, except as noted.

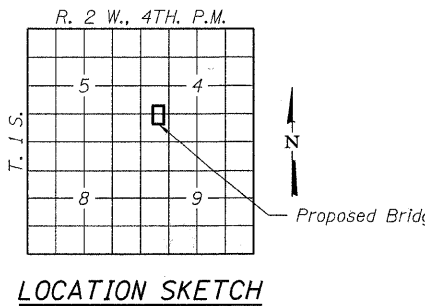
Protective Coat shall be applied to the bridge surface and fascia.

Field welding of construction accessories to beams will not be permitted.

All proposed construction activity shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

All structural steel shall be AASHTO M 270 Grade 50W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Calculated weight of structural steel = 40,309 pounds.

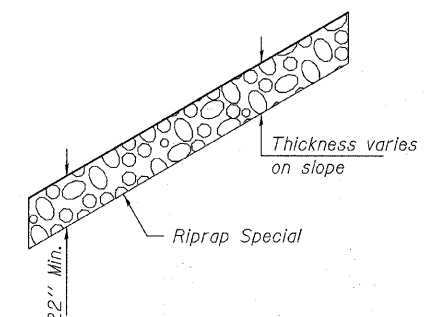


LOCATION SKETCH

LOGAN CREEK
BUILT 201 BY
BROWN COUNTY
SEC. 05-00065-00-BR
C.H. 3A / FAS 1583
STR. NO. 005-3006
LOADING HL-93

NAME PLATE

See Std. 515001



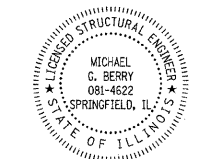
SECTION A-A

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			100
Porous Granular Backfill	Ton		70	70
Riprap Special	Ton			100
Removal of Existing Superstructure	Each	1		1
Concrete Structures	Cu. Yd.		3.0	3.0
Concrete Superstructure	Cu. Yd.	67.8		67.8
Protective Coat	Sq. Yd.	272		272
Furnishing and Erecting Structural Steel	L. Sum		1	1
Stud Shear Connectors	Each	1,860		1,860
Reinforcement Bars, Epoxy Coated	Pound	13,020	230	13,250
Steel Railing, Type S1	Foot	171		171
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	27		27
Elastomeric Bearing Assembly, Type 1	Each	10		10
Anchor Bolts, 1"	Each	40		40

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

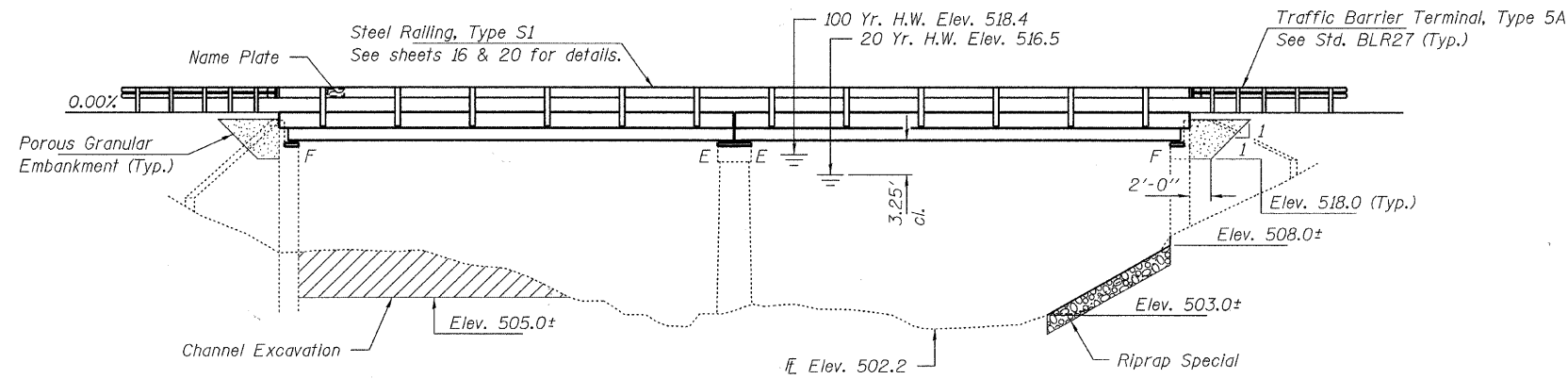
Michael S. Berry 4/09/10
ILLINOIS STRUCTURAL NO. 081-4622



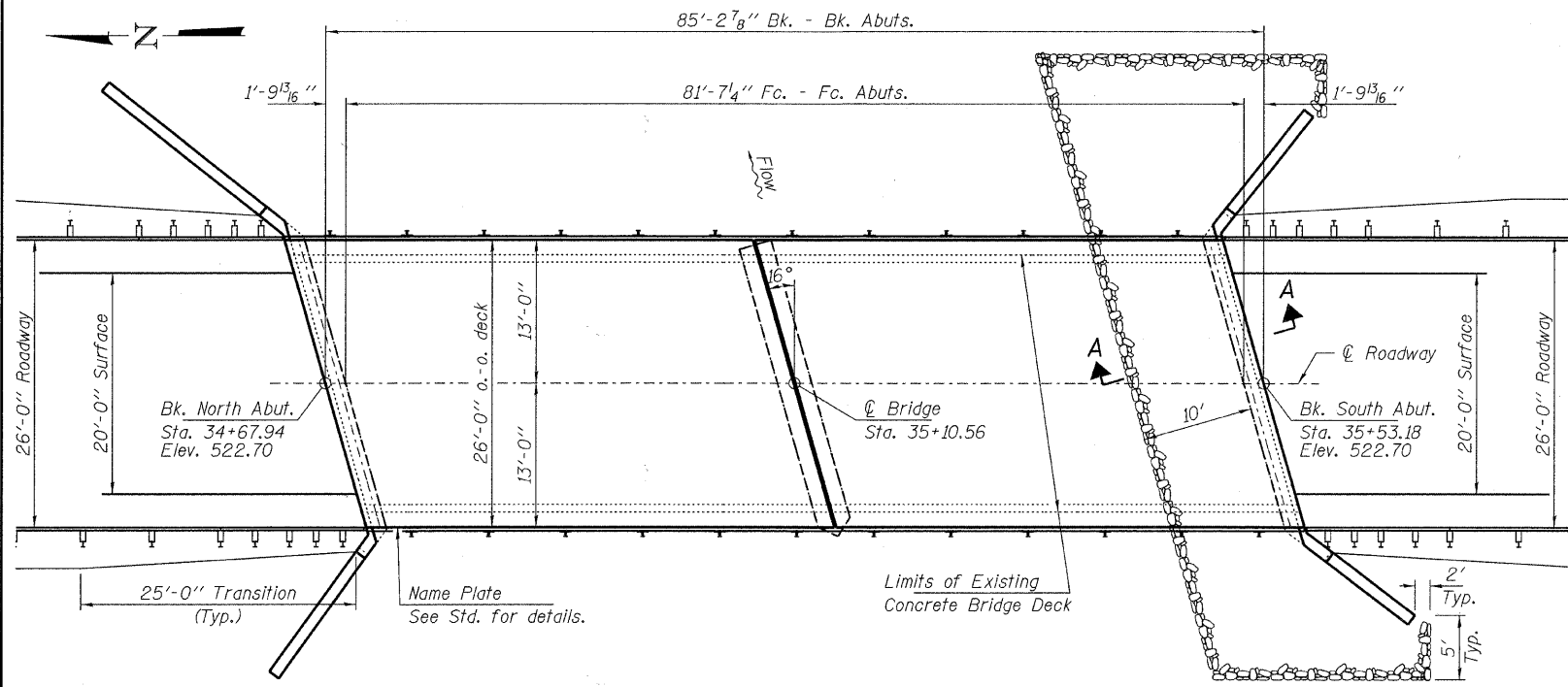
Expires 11-30-2010

**GENERAL PLAN AND ELEVATION
STRUCTURE NO. 005-3006**

PROJECT NUMBER	DATE	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
08.0204.130	04/09/10	3A	05-00065-00-BR	BROWN	24	12
					CONTRACT NO. 93509	
FED. ROAD DIST. NO.					ILLINOIS FED. AID PROJECT ARA 1583(103)	



ELEVATION



PLAN

DESIGN STRESSES

FIELD UNITS (SUPERSTRUCTURE)

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)
 $f_y = 50,000$ p.s.i. (Struct.)
 $n = 8$

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.053g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.129g
Soil Site Class = B

LOADING HL-93 (SLAB)

Design Specifications: 2007 AASHTO LRFD with all applicable Interims.
50#/Sq. Ft. Included in dead load for future wearing surface.

WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	10	2410	720	720	515.11	0.27	0.27	515.38	515.38
Base	20	3020	820	820	516.51	0.38	0.38	516.89	516.89
Max. Calc.	100	4500	970	970	518.37	0.60	0.60	518.97	518.97
	500	6080	1030	1030	519.71	0.41	0.41	520.12	520.12

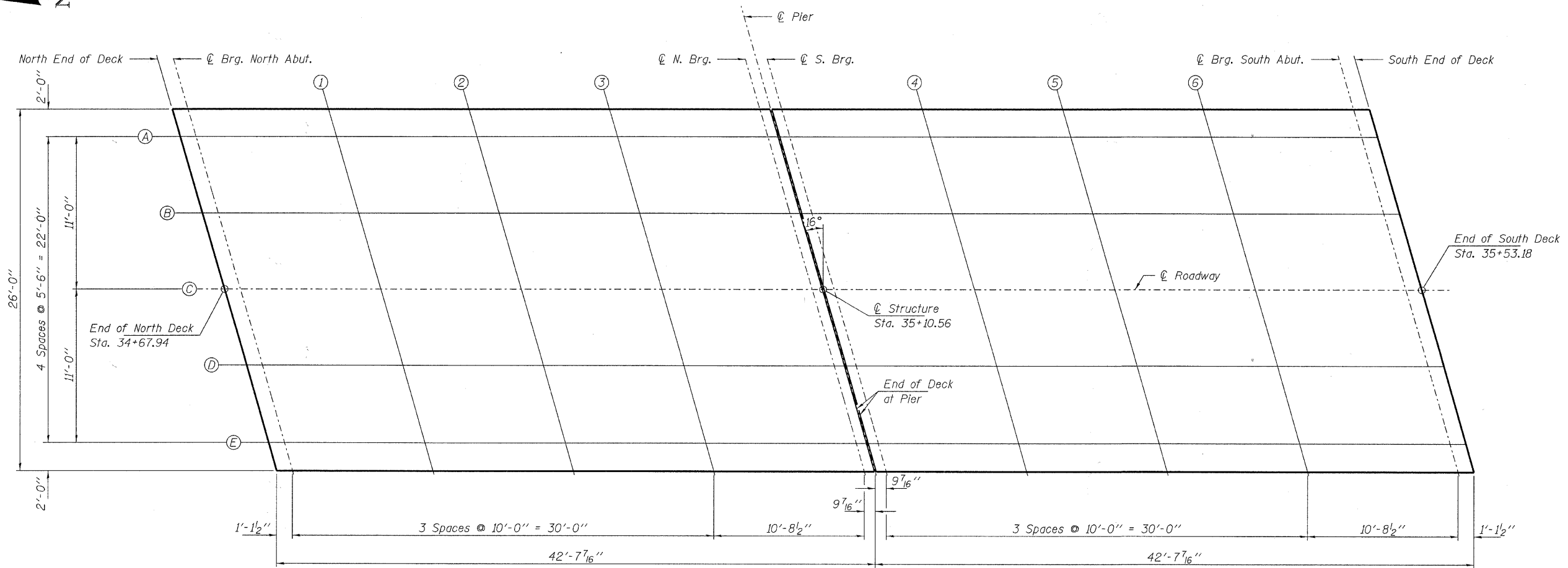
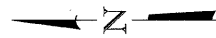
Drainage Area = 15.4 Sq. Mi. Existing Low Grade Elev. 522.0 @ Sta. 35+10.56
Proposed Low Grade Elev. 522.7 @ Sta. 35+10.56
10 Year Velocity through Existing Bridge = 3.3 fps 10 Year Velocity through Proposed Bridge = 3.3 fps

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

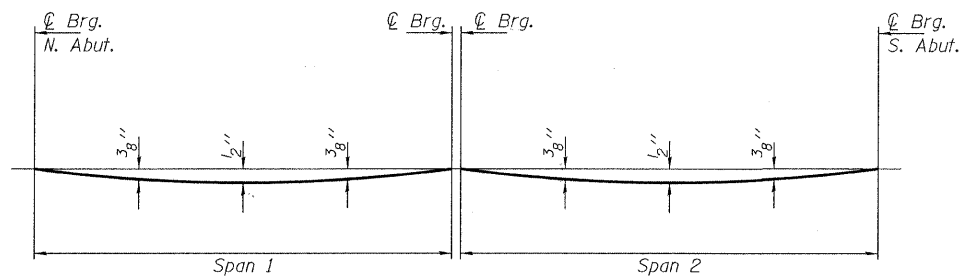
HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

PROJECT NUMBER: 08.0204.130 DATE: 04/09/10

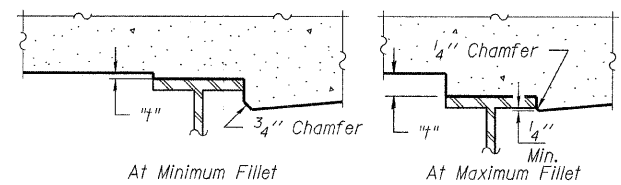


PLAN



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 14.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations, subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 14, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

**SLAB ELEVATIONS
STRUCTURE NO. 005-3006**

 HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	3A	05-00065-00-BR	BROWN	24	13
PROJECT NUMBER: 08-0204-130			DATE: 04/09/10		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)			
CONTRACT NO. 93509					

LINE A

	End of N. Deck	C. Brg. N. Abut.	Span 1			C. of N. Brg.	C. of S. Brg.	Span 2			C. Brg. S. Abut.	End of S. Deck
			1	2	3			4	5	6		
Theoretical Grade Elevation	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471
Theoretical Grade Elevation Adjusted for D.L. Deflection	522.471	522.471	522.502	522.514	522.503	522.471	522.471	522.503	522.514	522.502	522.471	522.471
Bottom of Slab Elevation	521.804	521.804	521.835	521.847	521.836	521.804	521.804	521.836	521.847	521.835	521.804	521.804
Top of Steel												
Fillet Height "t"												

LINE B

	End of N. Deck	C. Brg. N. Abut.	Span 1			C. of N. Brg.	C. of S. Brg.	Span 2			C. Brg. S. Abut.	End of S. Deck
			1	2	3			4	5	6		
Theoretical Grade Elevation	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585
Theoretical Grade Elevation Adjusted for D.L. Deflection	522.585	522.585	522.616	522.629	522.617	522.585	522.585	522.617	522.629	522.616	522.585	522.585
Bottom of Slab Elevation	521.919	521.919	521.950	521.962	521.950	521.919	521.919	521.950	521.962	521.950	521.919	521.919
Top of Steel												
Fillet Height "t"												

LINE C (C RDWY.)

	End of N. Deck	C. Brg. N. Abut.	Span 1			C. of N. Brg.	C. of S. Brg.	Span 2			C. Brg. S. Abut.	End of S. Deck
			1	2	3			4	5	6		
Theoretical Grade Elevation	522.700	522.700	522.700	522.700	522.700	522.700	522.700	522.700	522.700	522.700	522.700	522.700
Theoretical Grade Elevation Adjusted for D.L. Deflection	522.700	522.700	522.731	522.743	522.732	522.700	522.700	522.732	522.743	522.731	522.700	522.700
Bottom of Slab Elevation	522.033	522.033	522.064	522.077	522.065	522.033	522.033	522.065	522.077	522.064	522.033	522.033
Top of Steel												
Fillet Height "t"												

LINE D

	End of N. Deck	C. Brg. N. Abut.	Span 1			C. of N. Brg.	C. of S. Brg.	Span 2			C. Brg. S. Abut.	End of S. Deck
			1	2	3			4	5	6		
Theoretical Grade Elevation	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585	522.585
Theoretical Grade Elevation Adjusted for D.L. Deflection	522.585	522.585	522.616	522.629	522.617	522.585	522.585	522.617	522.629	522.616	522.585	522.585
Bottom of Slab Elevation	521.919	521.919	521.950	521.962	521.950	521.919	521.919	521.950	521.962	521.950	521.919	521.919
Top of Steel												
Fillet Height "t"												

LINE E

	End of N. Deck	C. Brg. N. Abut.	Span 1			C. of N. Brg.	C. of S. Brg.	Span 2			C. Brg. S. Abut.	End of S. Deck
			1	2	3			4	5	6		
Theoretical Grade Elevation	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471	522.471
Theoretical Grade Elevation Adjusted for D.L. Deflection	522.471	522.471	522.502	522.514	522.503	522.471	522.471	522.503	522.514	522.502	522.471	522.471
Bottom of Slab Elevation	521.804	521.804	521.835	521.847	521.836	521.804	521.804	521.836	521.847	521.835	521.804	521.804
Top of Steel												
Fillet Height "t"												

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

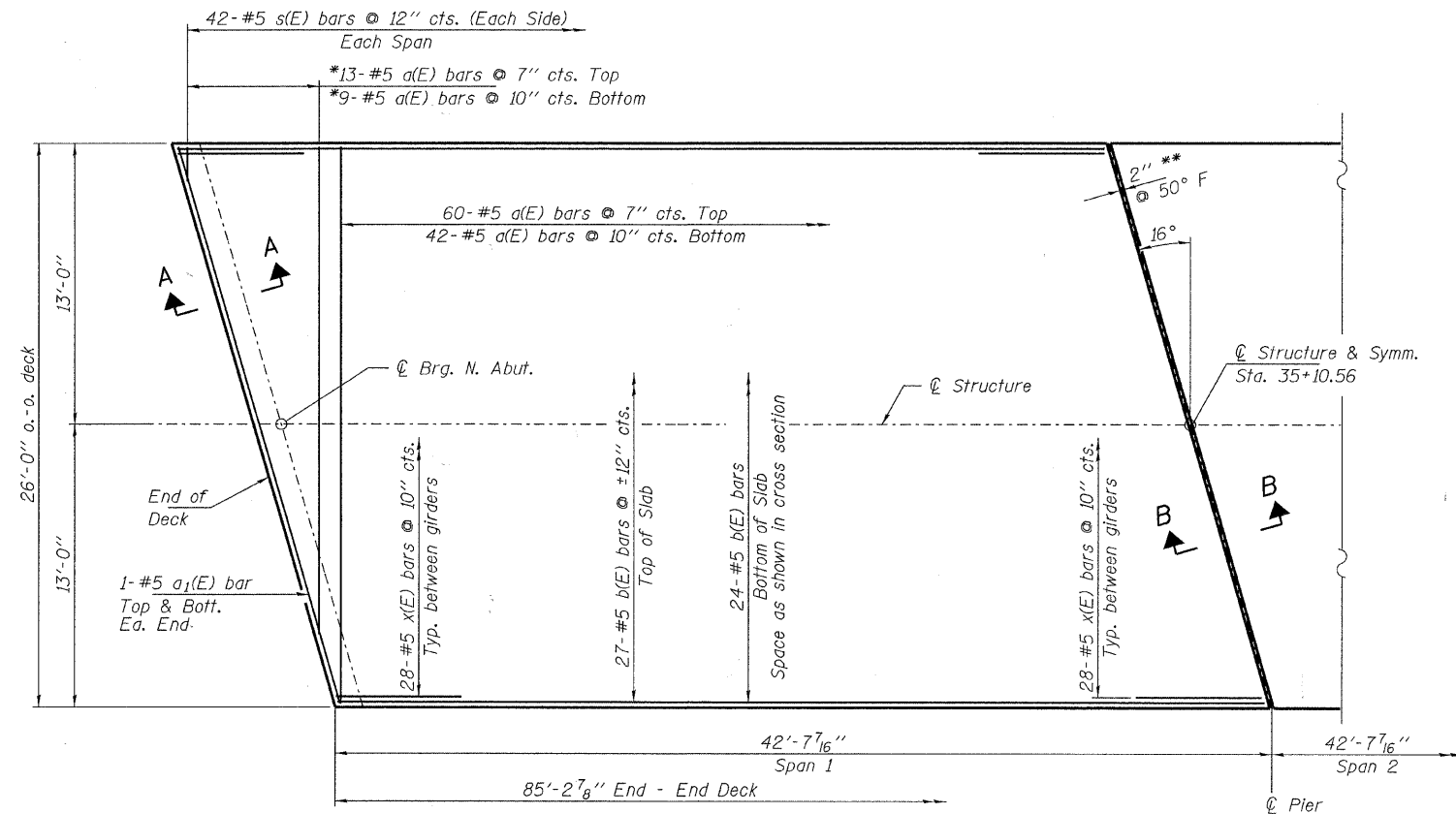
**SLAB ELEVATIONS
STRUCTURE NO. 005-3006**

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

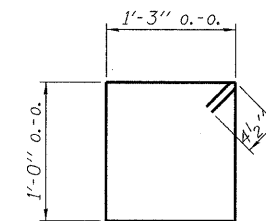
PROJECT NUMBER: 08.0204.130 DATE: 04/09/10

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3A	05-00065-00-BR	BROWN	24	14
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT ARA 1583(103)	
			CONTRACT NO. 93509	

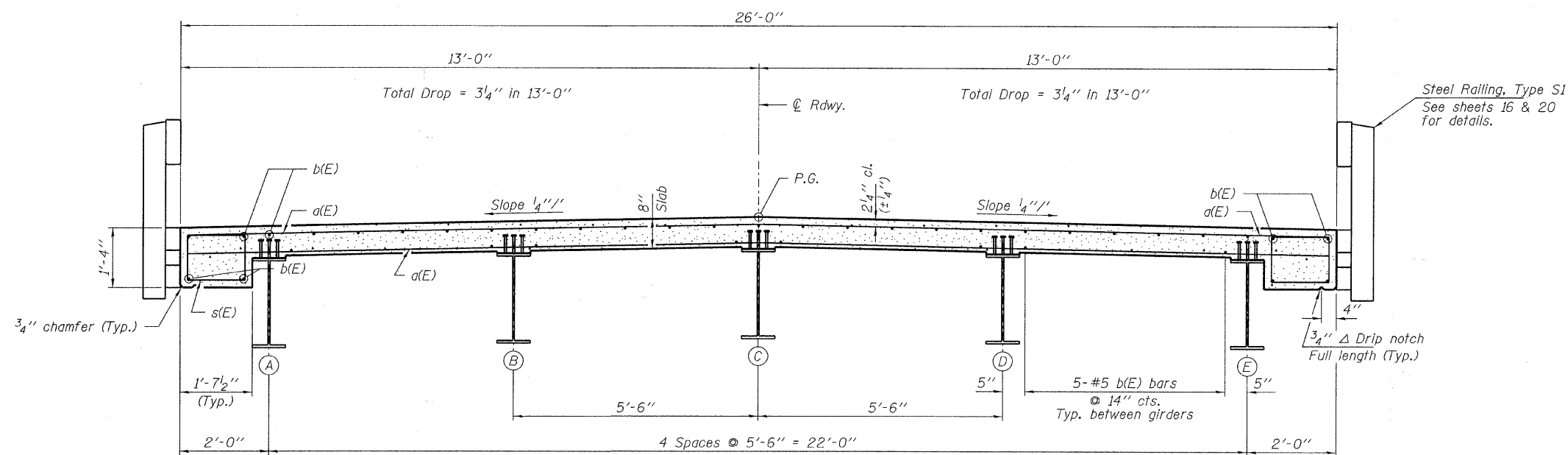


PLAN

* a(E) - Cut to length in skewed portion and use remainder in opposite end.
 ** Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Base Sheet E.J-SSJ.



BAR s(E)



CROSS SECTION
(Looking South)

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	248	#5	25'-8"	—
a ₁ (E)	8	#5	26'-9"	—
b(E)	102	#5	42'-2"	—
s(E)	168	#5	5'-3"	□
x(E)	112	#5	6'-5"	~
Concrete Superstructure			Cu. Yd.	67.8
Reinforcement Bars, Epoxy Coated			Pound	13,020
Protective Coat			Sq. Yd.	272
Stud Shear Connectors			Each	1,860
Name Plates			Each	1

Reinforcement bars designated (E) shall be epoxy coated. For Elevations, Sections A-A, and B-B see sheet 16.

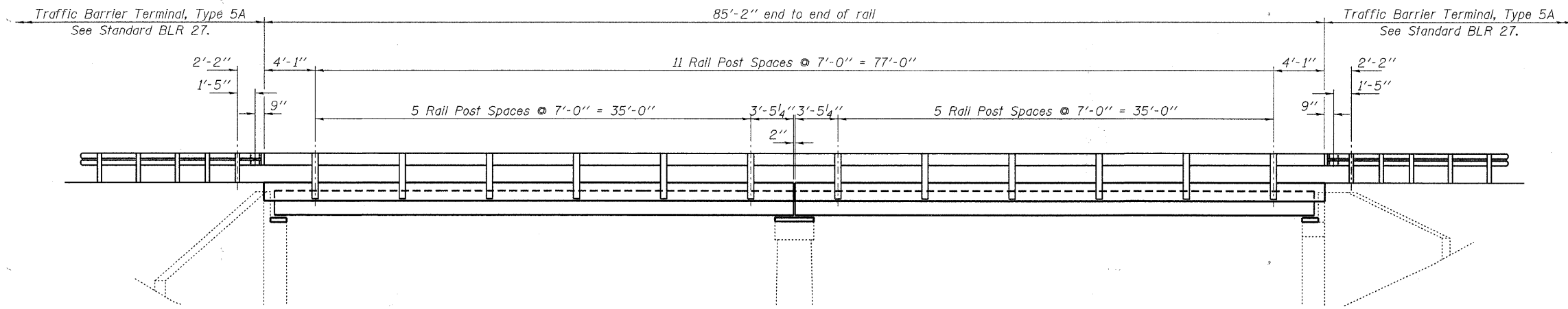
SUPERSTRUCTURE
STRUCTURE NO. 005-3006

DESIGNED -	A.S.L.
CHECKED -	S.W.M.
DRAWN -	D.A.B.
CHECKED -	S.W.M.

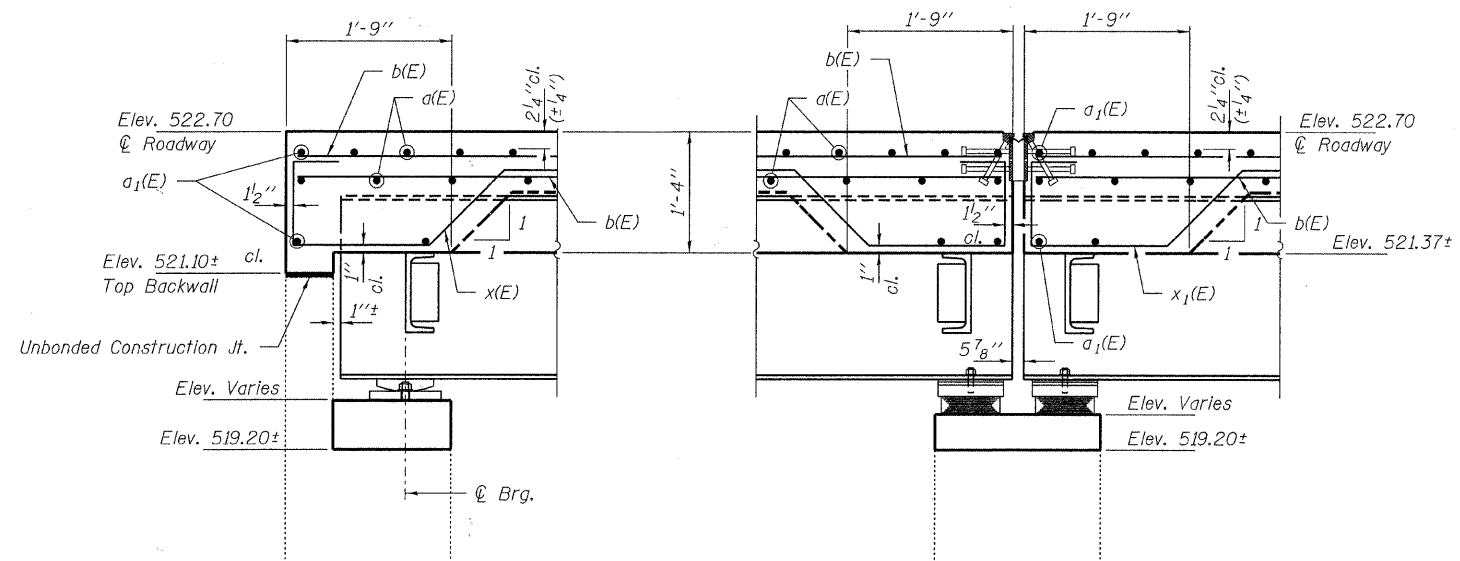
HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS
HLR 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3A	05-00065-00-BR	BROWN	24	15
CONTRACT NO. 93509				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT ARA 1583(103)			

PROJECT NUMBER: 08.0204.130 DATE: 04/09/10

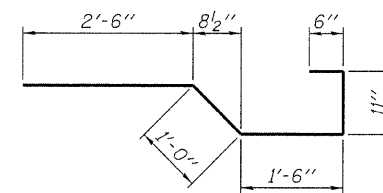


ELEVATION
 Showing Rail Post Spaces
 See sheet 20 for Railing Details.



SECTION A-A


SECTION B-B

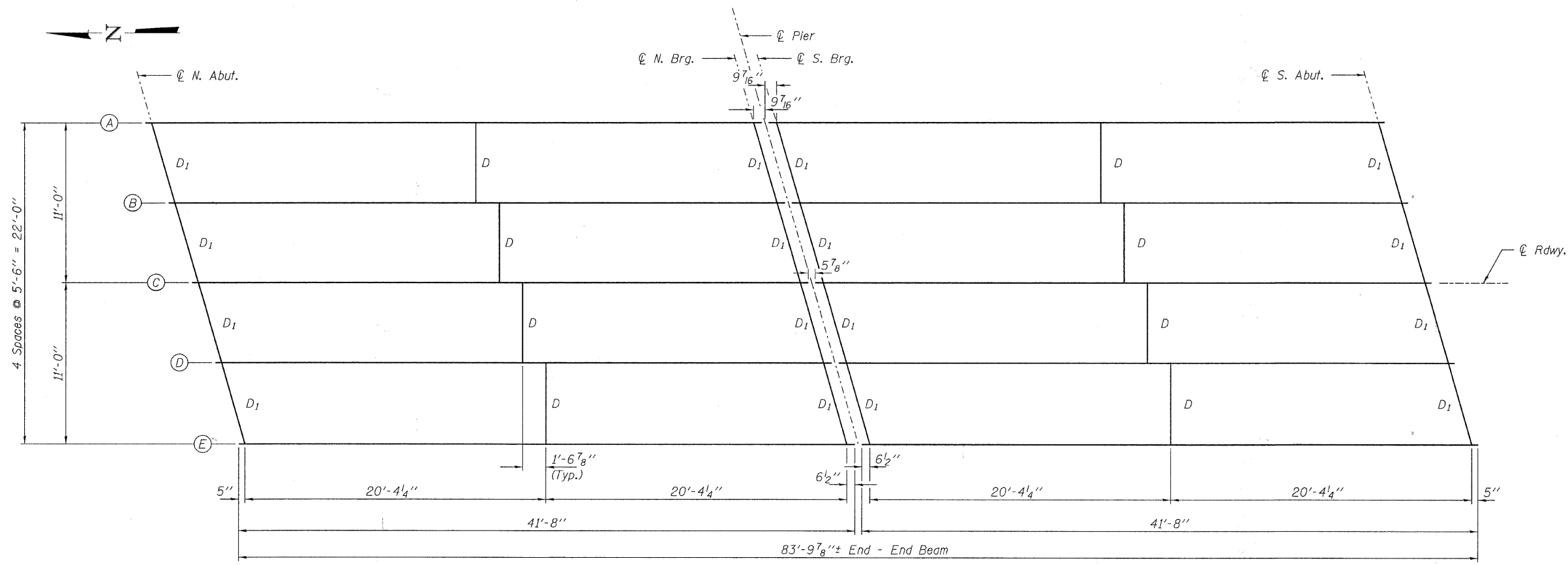


BAR x(E)

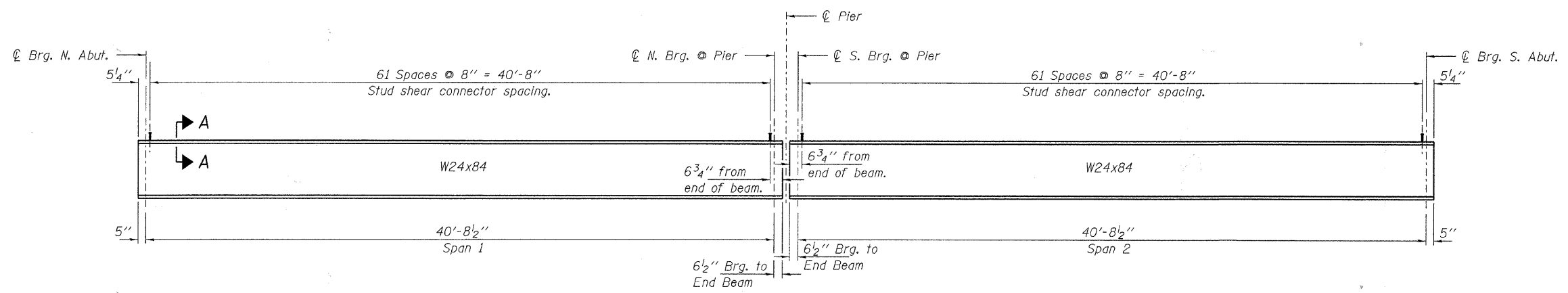
DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 005-3006

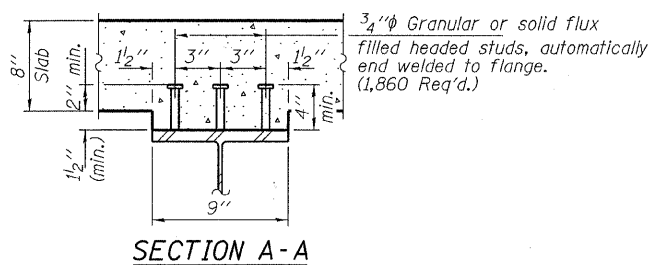
 HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	3A	05-00065-00-BR	BROWN	24	16
PROJECT NUMBER: 08.0204.130			DATE: 04/09/10		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)			
CONTRACT NO. 93509					



FRAMING PLAN



ELEVATION



SECTION A-A

Location	☉ Brg. N. Abut.	☉ Pier	☉ Brg. S. Abut.
BEAM A	521.76	521.76	521.76
BEAM B	521.88	521.88	521.88
BEAM C	521.99	521.99	521.99
BEAM D	521.88	521.88	521.88
BEAM E	521.76	521.76	521.76

TOP OF BEAM ELEVATIONS
(For fabrication only)
(Does not include Dead Load Deflections)

Notes:
N.T.R. indicates Notch Toughness Requirements, Zone 2.
All structural steel shall be M270 Grade 50 W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

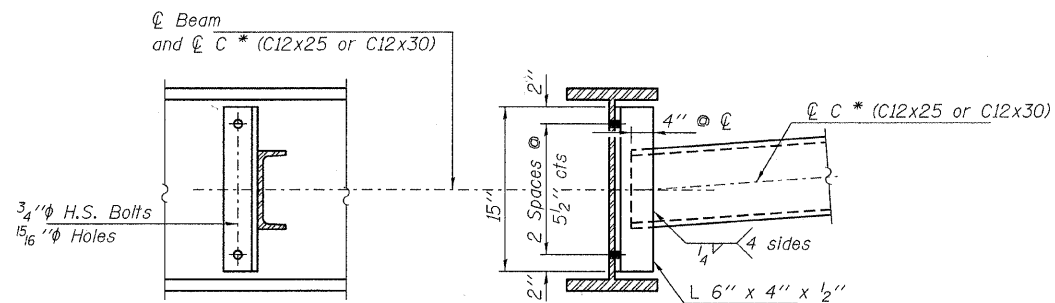
**STRUCTURAL STEEL
STRUCTURE NO. 005-3006**

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

PROJECT NUMBER: 08.0204.130 DATE: 04/09/10

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3A	05-00065-00-BR	BROWN	24	17
CONTRACT NO. 93509				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)		

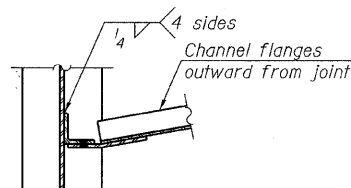


INTERIOR DIAPHRAGM (D)

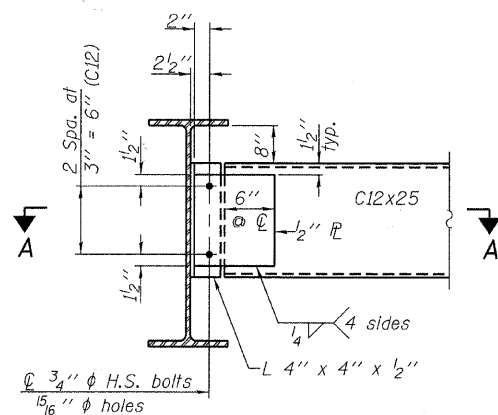
8 Required

Note:
Two hardened washers required for each set of oversized holes.

*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.



SECTION A-A



END DIAPHRAGM D1

Note:
Two hardened washers required for each set of oversized holes.

INTERIOR GIRDER MOMENT TABLE		
0.5 Sp. 1		
I_s	(in ⁴)	2370.0
$I_c(n)$	(in ⁴)	7627.0
$I_c(3n)$	(in ⁴)	5655.3
S_s	(in ³)	196.68
$S_c(n)$	(in ³)	317.02
$S_c(3n)$	(in ³)	285.58
DC1	(k/')	0.691
M_{DC1}	(k)	141.97
DC2	(k/')	0.030
M_{DC2}	(k)	6.16
DW	(k/')	0.275
M_{DW}	(k)	56.50
$M_{\xi} + IM$	(k)	421.63
M_u (Strength I)	(k)	1007.77
$\phi_f M_n$	(k)	1619.19
f_s DC1	(ksi)	8.66
f_s DC2	(ksi)	0.26
f_s DW	(ksi)	2.37
f_s 1.3($\xi + IM$)	(ksi)	20.75
f_s (Service II)	(ksi)	32.04
V_r	(k)	40.26

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R_{DC1}	(k)	14.01
R_{DC2}	(k)	0.61
R_{DW}	(k)	5.57
$R_{\xi} + IM$	(k)	58.08
R_{Total}	(k)	78.27

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in⁴ and in³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

$M_{\xi} + IM$: Un-factored live load moment plus dynamic load allowance (Impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).

$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{\xi} + IM$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).

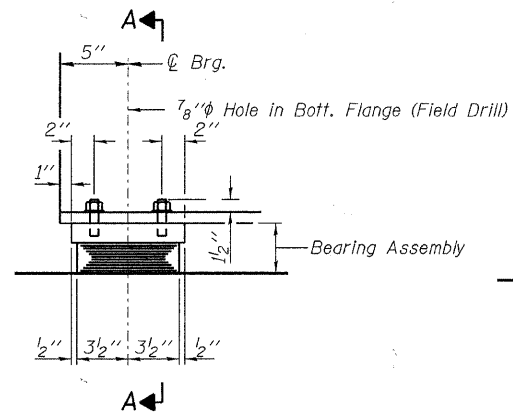
$M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_{\xi} + IM$

V_r : Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

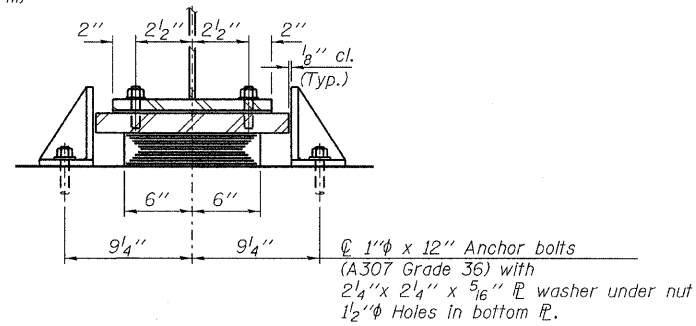
DESIGNED -	A.S.L.
CHECKED -	S.W.M.
DRAWN -	D.A.B.
CHECKED -	S.W.M.

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 005-3006

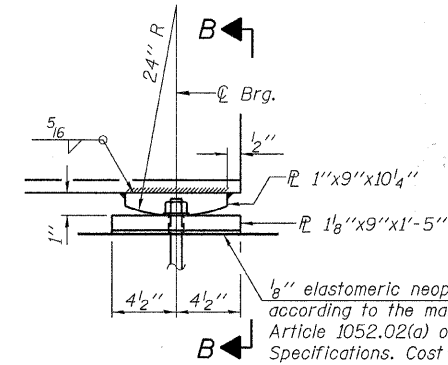
 HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	3A	05-00065-00-BR	BROWN	24	18
PROJECT NUMBER: 08.0204.130			DATE: 04/09/10		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)			
CONTRACT NO. 93509					



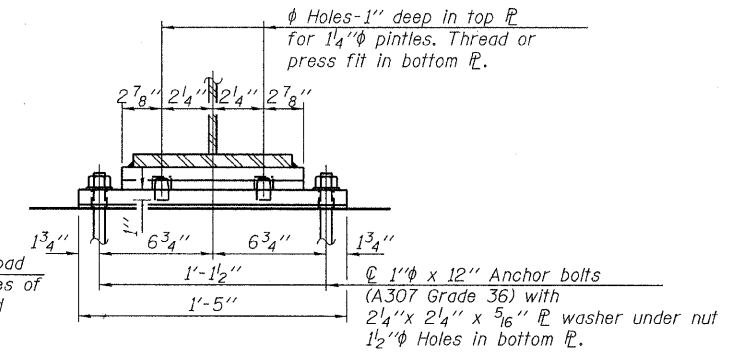
ELEVATION AT PIER



SECTION A-A



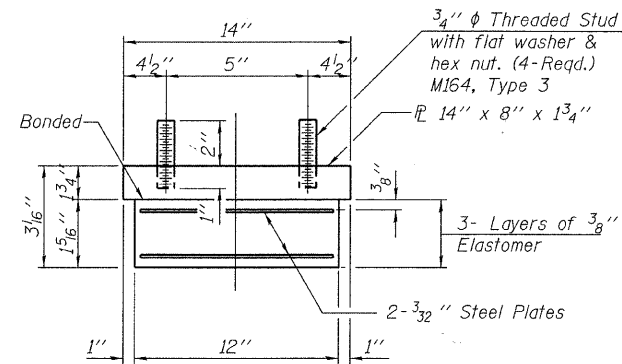
ELEVATION AT ABUT.



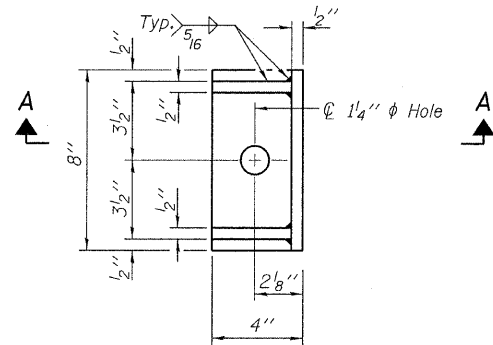
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.

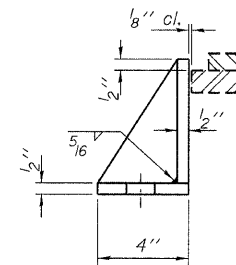
FIXED BEARING



BEARING ASSEMBLY



PLAN



SECTION A-A

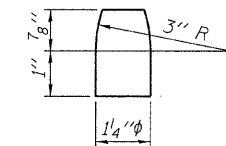
Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

All steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.



PINTLE

Note:
Shim plates shall not be placed under Bearing Assembly.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	10
Anchor Bolts, 1"	Each	40

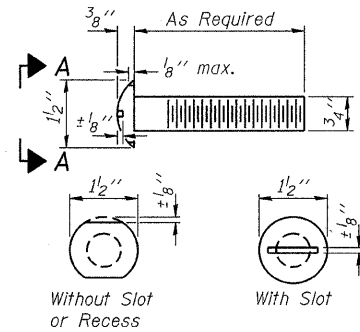
DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

I-2E-1

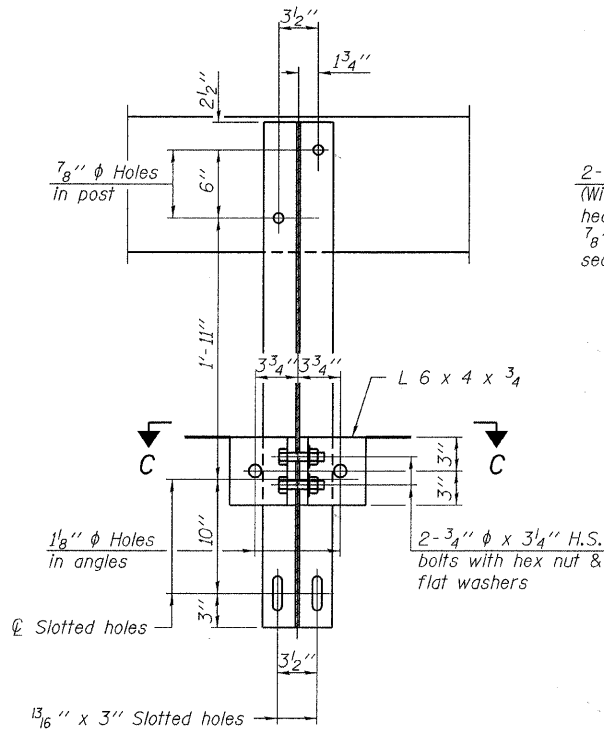
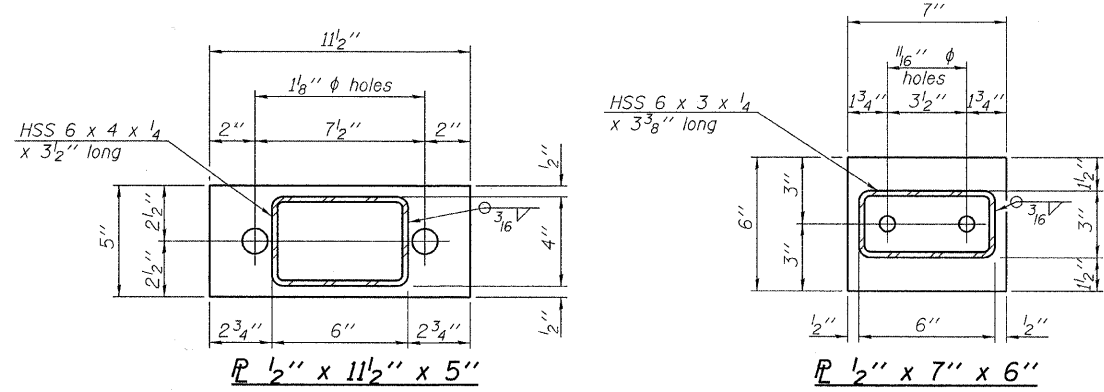
10-1-08

**BEARING DETAILS
STRUCTURE NO. 005-3006**

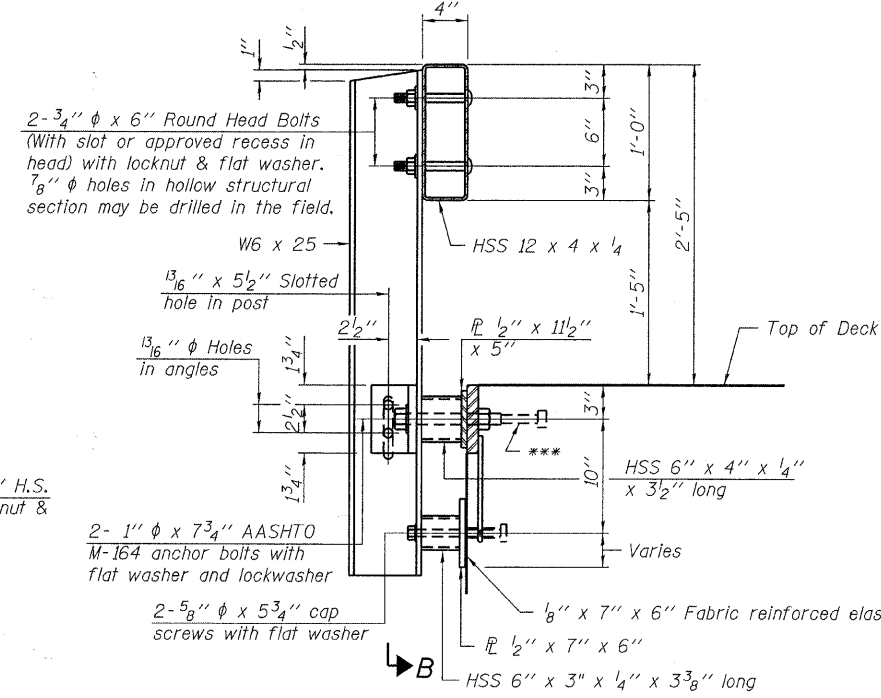
HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	3A	05-00065-00-BR	BROWN	24	19
PROJECT NUMBER: 08.0204.130			DATE: 04/09/10		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)			
CONTRACT NO. 93509					



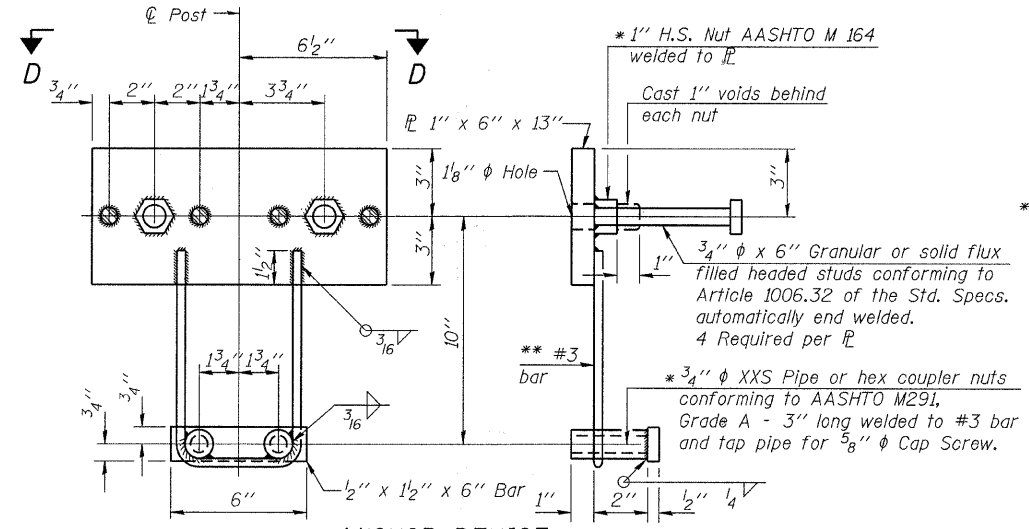
**VIEW A-A
ROUND HEAD BOLT**



SECTION B-B

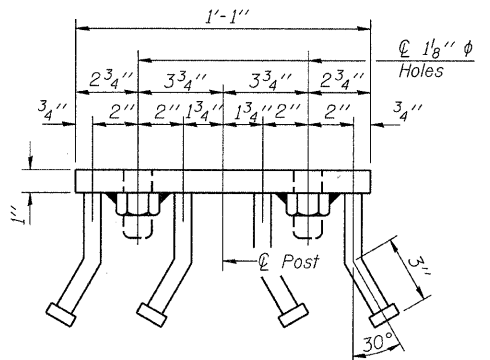


SECTION AT RAILING POST

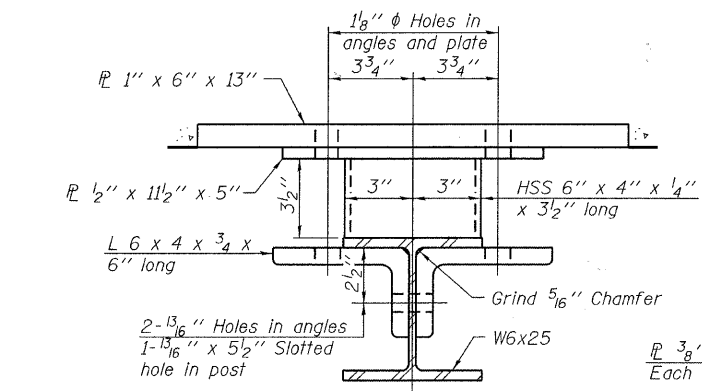


ANCHOR DEVICE

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 S-1.
All 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.

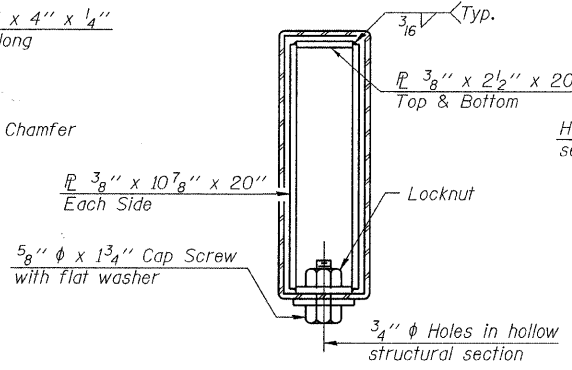


VIEW D-D

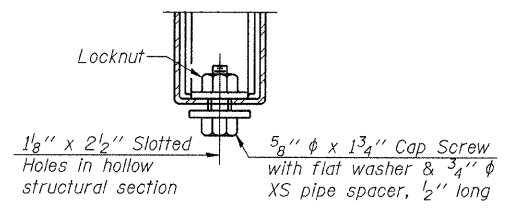


SECTION C-C

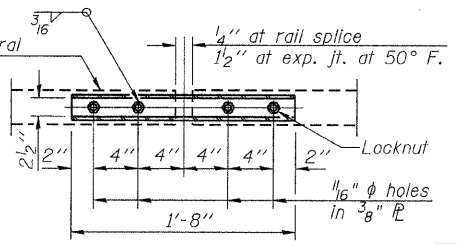
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



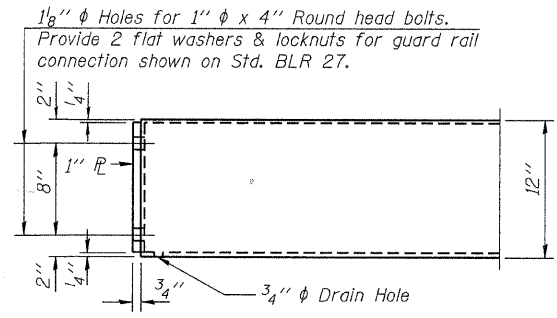
SECTIONS AT RAIL SPLICE



**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE P
TYPICAL**



END OF RAIL DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	171

**STEEL RAILING, TYPE S-1
STRUCTURE NO. 005-3006**

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

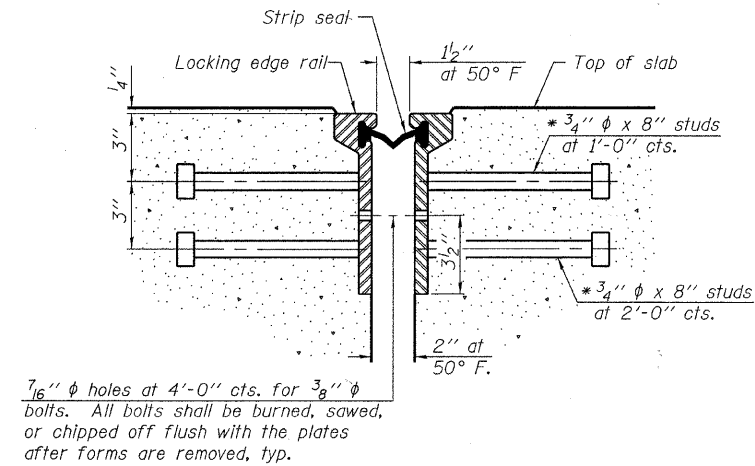
R-23A

10-1-08 (10'-9" Maximum Post Spacing)

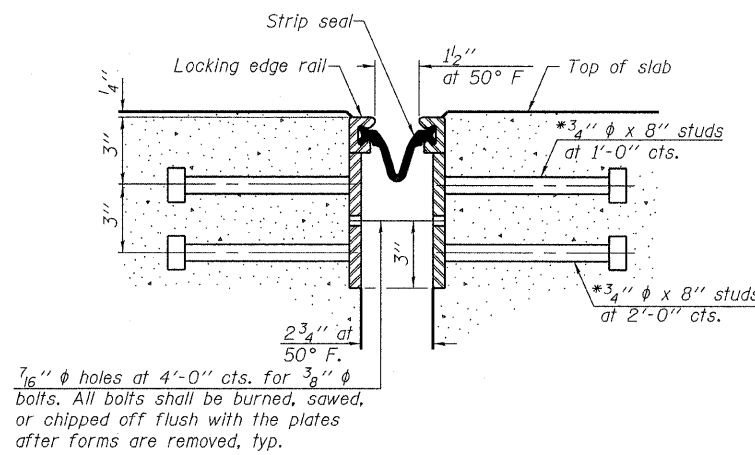
HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400
PROJECT NUMBER: 08.0204.130 DATE: 04/09/10

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3A	05-00065-00-BR	BROWN	24	20
CONTRACT NO. 93509				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)		

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

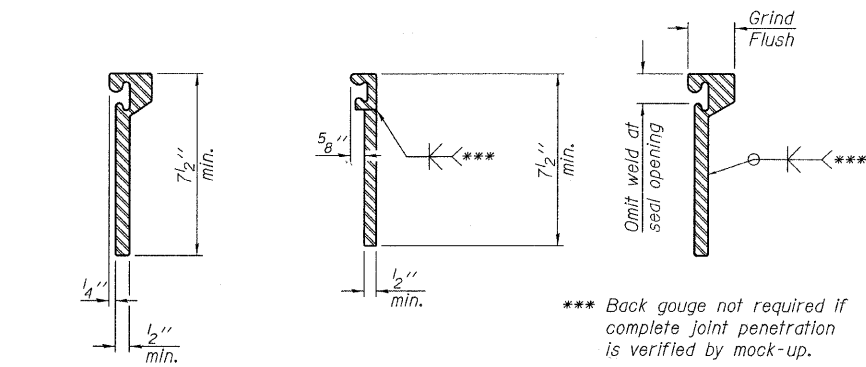
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.



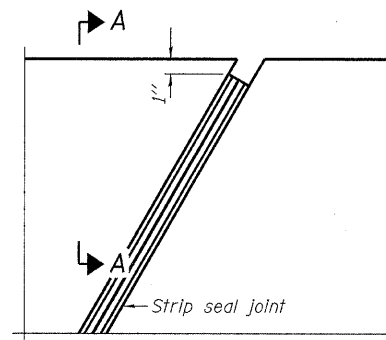
ROLLED EXTRUDED RAIL

WELDED RAIL

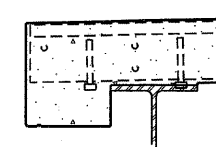
LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS



PLAN



SECTION A-A

POINT BLOCK DETAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	27

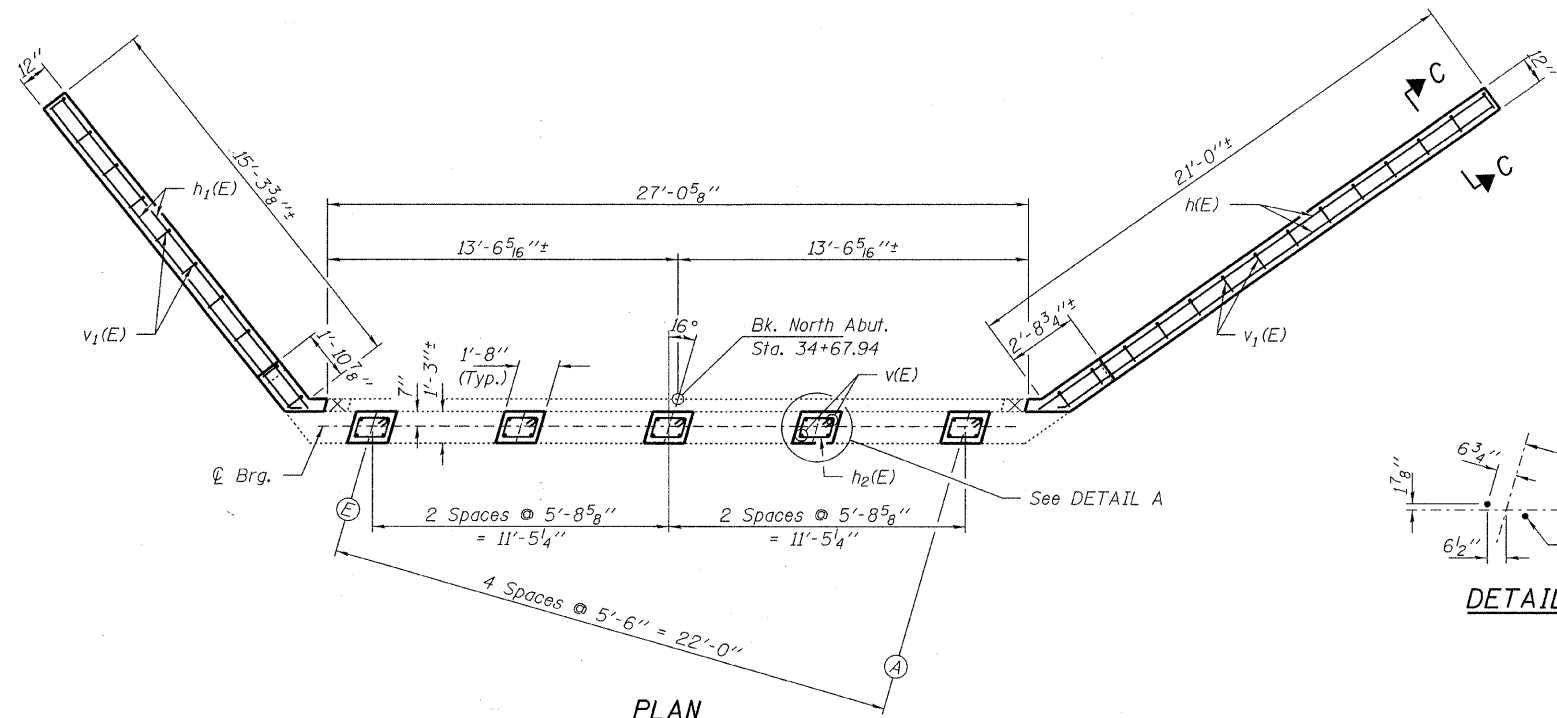
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CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

EJ-SSJ

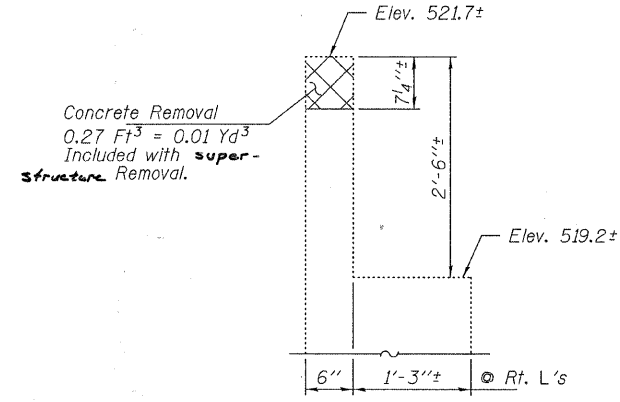
11-1-09

PREFORMED JOINT STRIP SEAL STRUCTURE NO. 005-3006

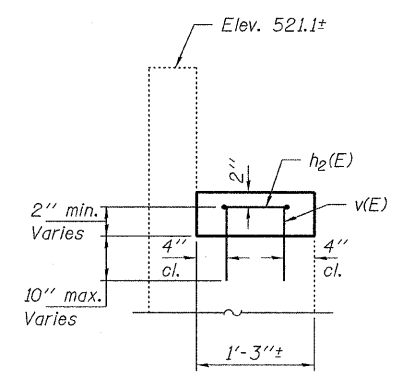
 HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	3A	05-00065-00-BR	BROWN	24	21
PROJECT NUMBER: 08.0204.130			DATE: 04/09/10		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)			
CONTRACT NO. 93509					



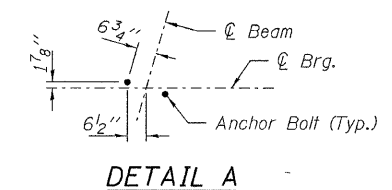
PLAN



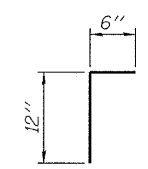
SECTION A-A



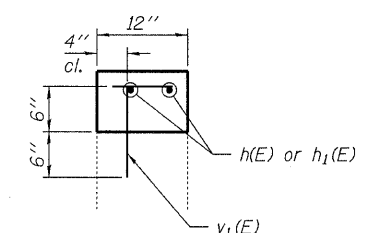
SECTION B-B



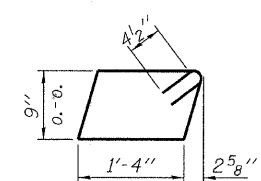
DETAIL A



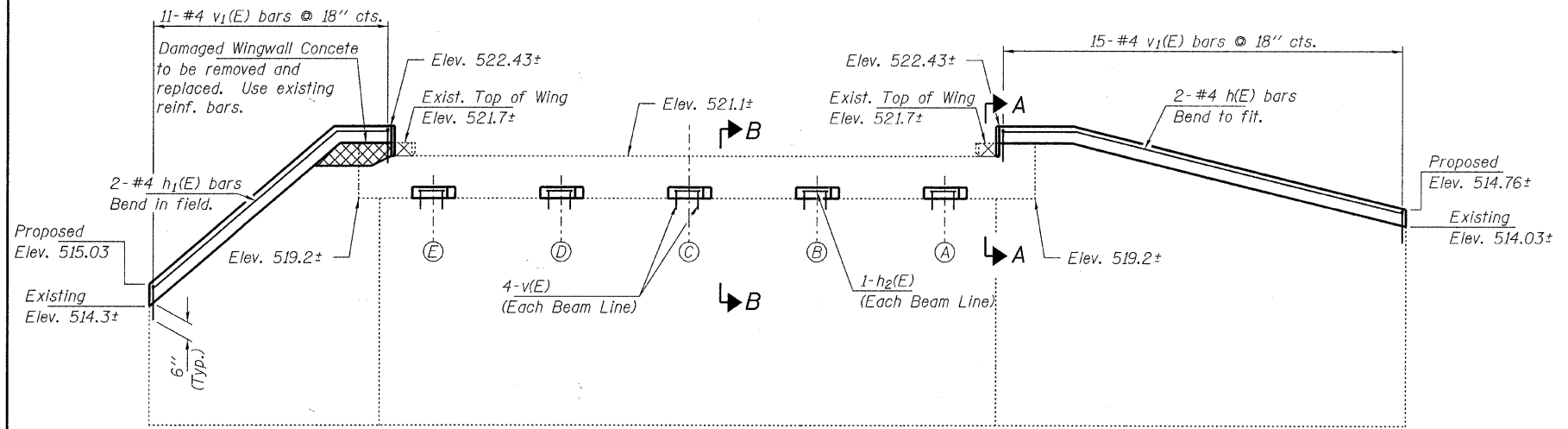
BAR v1(E)



SECTION C-C



BAR h2(E)



ELEVATION
(Looking North)

BEARING SEAT ELEVATIONS

LINE	ELEVATION
A	519.57
B	519.68
C	519.80
D	519.68
E	519.57

BILL OF MATERIAL - N. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	2	#4	21'-2"	—
h1(E)	2	#4	15'-4"	—
h2(E)	5	#4	4'-11"	□
v(E)	20	#4	1'-0"	—
v1(E)	26	#4	1'-6"	└
Concrete Structures			Cu. Yd.	1.5
Reinforcement Bars, Epoxy Coated			Pound	100

Reinforcement bars designated (E) shall be epoxy coated.

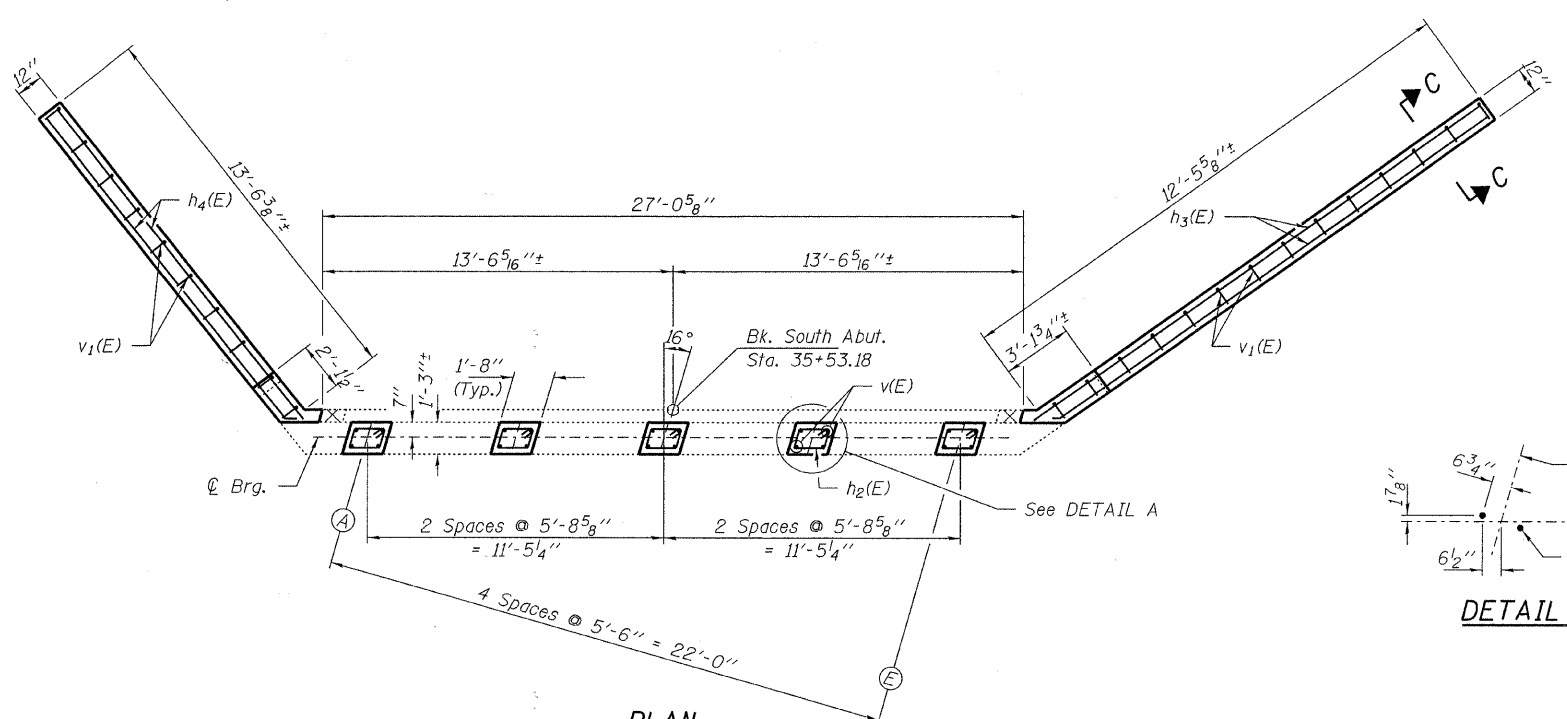
Hatched area indicates Concrete Removal. Cost included with Removal of Existing Concrete Deck.

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

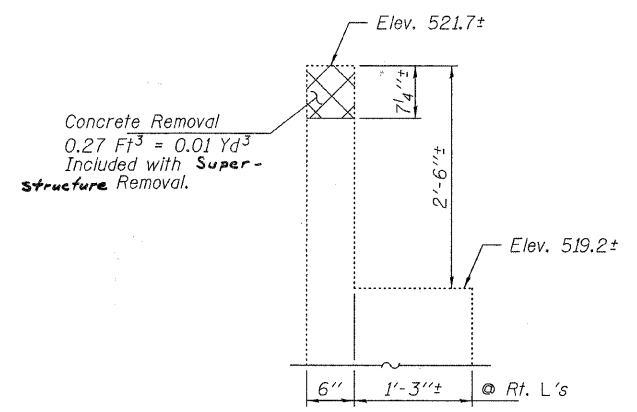
HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS
 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400
 PROJECT NUMBER: 09.0204.100 DATE: 04/09/10

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 93509				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)		

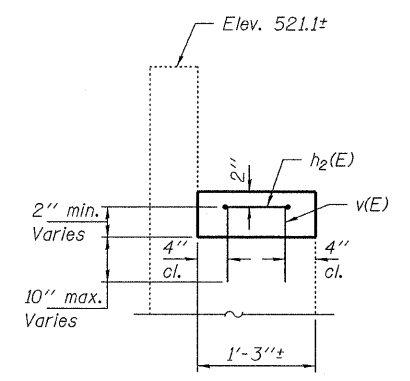
**NORTH ABUTMENT
STRUCTURE NO. 005-3006**



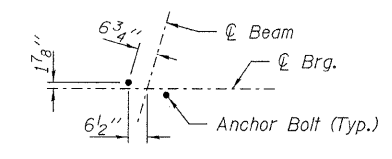
PLAN



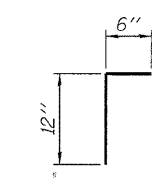
SECTION A-A



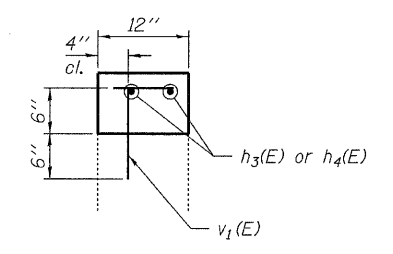
SECTION B-B



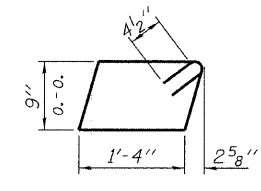
DETAIL A



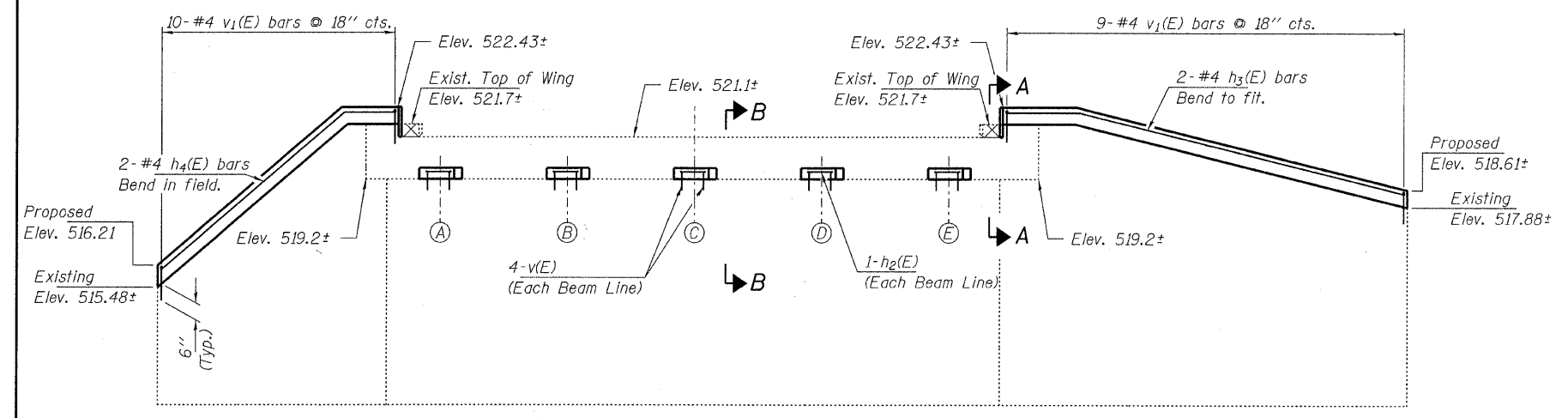
BAR v1(E)



SECTION C-C



BAR h2(E)



ELEVATION
(Looking South)

BEARING SEAT ELEVATIONS

LINE	ELEVATION
A	519.57
B	519.68
C	519.80
D	519.68
E	519.57

BILL OF MATERIAL - S. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
h2(E)	5	#4	4'-11"	□
h3(E)	2	#4	12'-8"	—
h4(E)	2	#4	13'-7"	—
v(E)	20	#4	1'-0"	—
v1(E)	19	#4	1'-6"	└
Concrete Structures			Cu. Yd.	1.0
Reinforcement Bars, Epoxy Coated			Pound	80

Reinforcement bars designated (E) shall be epoxy coated.

Hatched area indicates Concrete Removal. Cost included with Removal of Existing Concrete Deck.

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

HAMPTON, LENZINI & RENWICK, INC.
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 LAND SURVEYORS
HLR 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400
 PROJECT NUMBER: 08.0204.130 DATE: 04/09/10

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3A	05-00065-00-BR	BROWN	24	23
CONTRACT NO. 93509				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT ARA 1583(103)		

