

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
HIGHWAY BRIDGE PROGRAM**

**PROPOSED
HIGHWAY PLANS**

**SECTION 06-08117-00-BR
PROJECT NO. BROS-137 (028)
MORGAN COUNTY / ROAD DISTRICT #8
JOB NO. C-96-213-08**

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-195	06-08117-00-BR	MORGAN	14	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.		

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	GENERAL NOTES & HIGHWAY STANDARDS
3	SUMMARY & SCHEDULE OF QUANTITIES
4	TYPICAL SECTIONS
5	PLAN AND PROFILE
6-9	STRUCTURE PLANS
10-14	CROSS SECTIONS

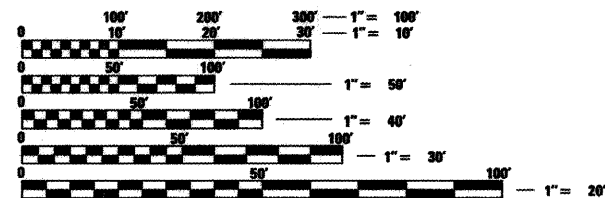
EXISTING STRUCTURE

STRUCTURE NO. 069-3172 IS A SINGLE SPAN CONCRETE DECK ON STEEL I-BEAMS, WITH CONCRETE ABUTMENTS AND TIMBER PILES. STRUCTURE TO BE REMOVED.
34.0' BACK TO BACK ABUTMENTS
BRIDGE WIDTH = 24.0' OUT TO OUT OF DECK

NO SALVAGE

PROPOSED STRUCTURE

SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAMS WITH REINFORCED CONCRETE OPEN ABUTMENTS ON METAL SHELL PILES.
67'-0" BACK TO BACK ABUTMENTS
27'-0" OUT-TO-OUT OF BRIDGE DECK
20° SKEW
PROPOSED STRUCTURE NO. 069-3264



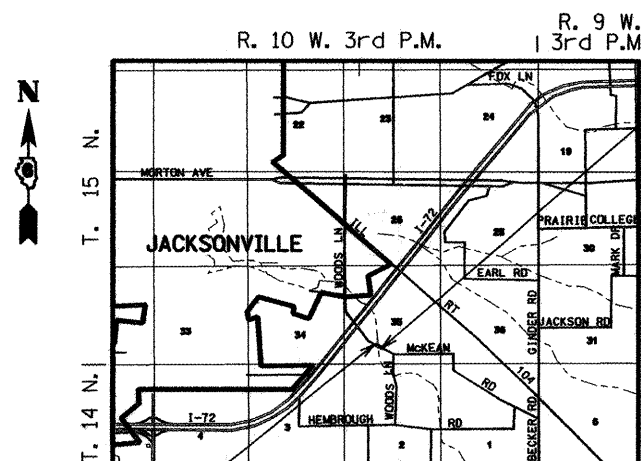
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

UTILITIES:

VERIZON NORTH, INC. - TELEPHONE
SMG WATER COOPERATIVE - WATER

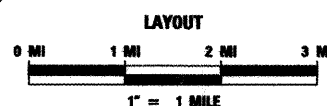
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

TR-195

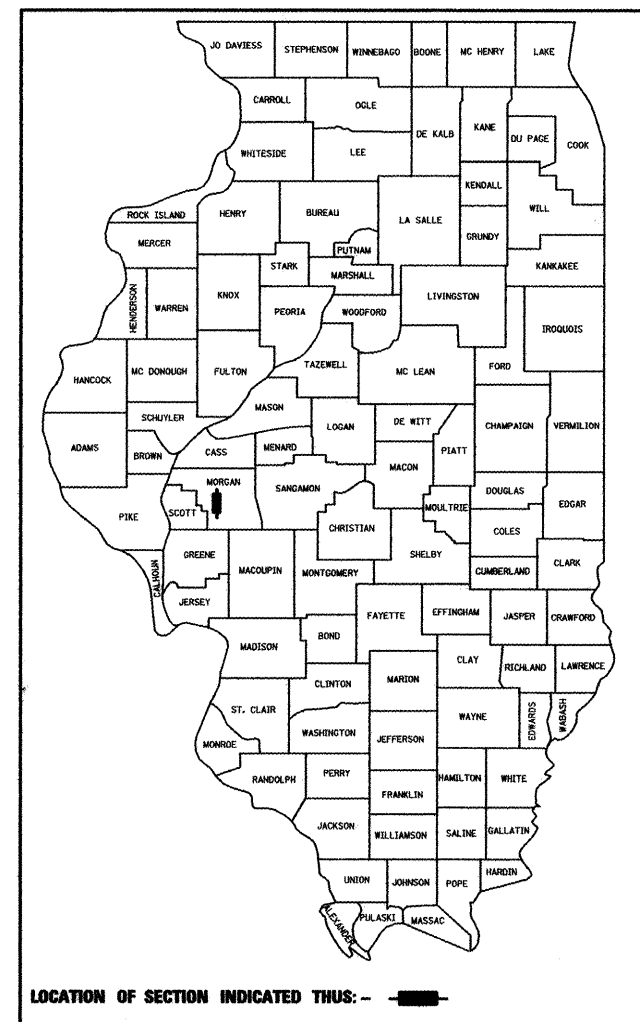


BEGIN IMPROVEMENTS
SECTION 06-08117-00-BR
STATION 99+00.00

END IMPROVEMENTS
SECTION 06-08117-00-BR
STATION 101+00.00



LENGTH OF PROJECT = 200.00 FEET = 0.038 MILES
NET LENGTH OF IMPROVEMENT = 200.00 FEET = 0.038 MILES
DESIGN CLASS: MINOR COLLECTOR - ADT 450
DESIGN SPEED: 40 MPH



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -



BY: *Reginald H. Benton*
DATE: 3/13/2008

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
APPROVED	3/13/2008 <i>William J. Critchfield</i> RD. DIST. #8 / HIGHWAY COMMISSIONER
APPROVED	3/13/2008 <i>Carl W. Harris</i> MORGAN COUNTY / COUNTY ENGINEER
PASSED	April 3, 2008 <i>[Signature]</i> DISTRICT 6 ENGINEER OF LOCAL ROADS & STREETS
PASSED	APRIL 4, 2008 <i>[Signature]</i> DISTRICT 6 CONSTRUCTION ENGINEER
Releasing For Bid Based on Limited Review APRIL 4, 2008 <i>Christine M. Reed</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION 4 ENGINEER	

CONTRACT NO. 93461

BENTON & ASSOCIATES, INC.
1970 W. Lafayette Ave., Jacksonville IL 62650
(217) 245-4146 (217) 245-4149 Fax
Kirksville Missouri
Macomb Illinois
St. Louis Missouri



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

PLOT DATE = 3/13/2008
 FILE NAME = F:\07\1785\Design\Plans\0811785_Cover_Sheet.dgn
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RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-195	06-08117-00-BR	MORGAN	14	2
CONTRACT NO.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

93461

GENERAL NOTES

- THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY AND THE INDICATED ADJUSTMENTS OR RECONSTRUCTION ARE CONSIDERED TO BE REASONABLY ACCURATE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS, AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLE 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:
ALL HOT-MIX ASPHALT..... 2.016 TONS/CU. YD.
AGGREGATE SURFACE COURSE..... 2.05 TON/CU. YD.
STONE DUMPED RIPRAP..... 1.5 TON/CU. YD.
- ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION AND THEIR TRUE LOCATIONS ARE NOT GUARANTEED TO BE AS SHOWN IN THE PLANS.
- SEEDING SHALL BE PLACED ON ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS. THE SEEDING SHALL BE DONE ACCORDING TO SECTION 250 OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL CONFINE HIS/HER OPERATIONS TO THE AREA LOCATED WITHIN THE CONSTRUCTION LIMITS, SHOWN ON THE PLANS. ANY AREA DISTURBED BEYOND THESE LIMITS SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- ALL ELEVATIONS SHOWN REFER TO THE U.S.G.S. DATUM AT MEAN SEA LEVEL.
- THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF THE EARTH EXCAVATION.
- DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL COMPLY WITH THE LEGAL LOADING LIMITS ESTABLISHED BY THE COUNTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY LUGS OR CLEATS ON TREADS OR WHEELS OR EQUIPMENT OR EXCESSIVE WEIGHTS AND LOADS.
- STOCKPILING OF MATERIALS MAY BE ALLOWED ON COUNTY PROPERTY AT MUTUALLY AGREEABLE LOCATIONS. NO STOCKPILING OF MATERIALS SHALL BE ALLOWED ON THE TRAVELED SURFACE OF EXISTING ROADS AND HIGHWAYS THAT ARE OPEN TO TRAFFIC.

- IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16, THE CONTRACTOR SHALL PROTECT THE SURFACE OF THE BRIDGE DECK IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT AS DEFINED IN ARTICLE 101.17 REGARDLESS IF TRACK MOUNTED OR WHEELED.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION WILL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER ACCORDING TO ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS. AFTER THE CONSTRUCTION IS COMPLETE, THE CONTRACTOR WILL RE-ERECT THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT AND NO COMPENSATION WILL BE ALLOWED.
- IN AREAS WHERE THE REMOVAL OF THE EXISTING ROADWAY SURFACE IS REQUIRED, THE CONTRACTOR MAY INCORPORATE THESE MATERIALS INTO THE PROPOSED EMBANKMENT. SURPLUS AND/OR UNSUITABLE MATERIAL SHALL BE DISPOSED OUTSIDE THE LIMITS OF THE RIGHT OF WAY IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- ANY UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR AND REPLACED WITH SUITABLE MATERIAL AS APPROVED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- ANY FACILITIES OR APPURTENANCES WHICH ARE THE PROPERTY OF ANY PUBLIC UTILITY LOCATED WITHIN THE LIMITS OF CONSTRUCTION SHALL BE RELOCATED OR ADJUSTED BY THEIR RESPECTIVE OWNERS. THE CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE OWNERS OF ANY FACILITY IN THEIR REMOVAL AND REARRANGEMENT OPERATIONS IN ORDER THAT THESE OPERATIONS AND THE CONSTRUCTION OF THIS PROJECT MAY PROGRESS IN A REASONABLE MANNER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE FOLLOWING AGENCIES MAY HAVE FACILITIES WITHIN THE LIMITS OF CONSTRUCTION:

TELEPHONE - VERIZON
WATER - SMG WATER COOPERATIVE

UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERETO, FIELD LOCATIONS OF UNDERGROUND FACILITIES MAY BE OBTAINED BY PROVIDING A MINIMUM OF 48 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 800-892-0123 OR BY DIRECT CONTACT WITH NON-MEMBERS OF J.U.L.I.E.

HIGHWAY STANDARDS

- 000001-05 - STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 280001-04 - TEMPORARY EROSION CONTROL SYSTEMS
- 515001-02 - NAME PLATE FOR BRIDGES
- 635006-02 - REFLECTOR AND TERMINAL MARKER PLACEMENT
- 701006-02 - OFF-RD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701901 - TRAFFIC CONTROL DEVICES
- BLR 21-7 - TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- BLR 23-2 - TRAFFIC BARRIER TERMINAL TYPE 1
- BLR 26 - STEEL PLATE BEAM GUARDRAIL 700mm (27 1/2") HEIGHT
- BLR 27 - TRAFFIC BARRIER TERMINAL TYPE 5A

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	PLOT SCALE = 100.0000 ' / IN.	CHECKED - RHB	REVISED -
	PLOT DATE = 3/13/2008	DATE - JAN. 24, 2008	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES AND LIST OF STANDARDS
WOODS LANE (TR-195)**

SCALE: SHEET NO. 2 OF 14 SHEETS STA. TO STA.

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-195	06-08117-00-BR	MORGAN	14	2
CONTRACT NO.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

93461

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	FUNDING PARTICIPATION
CODE NO.	ITEM	UNIT		X081-2A
20200100	EARTH EXCAVATION	CU YD	80	80
20300100	CHANNEL EXCAVATION	CU YD	588	588
* 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.2	0.2
* 28100809	STONE DUMPED RIPRAP, CLASS A5	TON	252	252
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	178	178
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	28	28
* 50100200	REMOVAL OF EXISTING STRUCTURES	L SUM	1	1
50200100	STRUCTURE EXCAVATION	CU YD	88	88
50300225	CONCRETE STRUCTURES	CU YD	23.8	23.8
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1764	1764
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3030	3030
50900205	STEEL RAILING, TYPE S1	FOOT	133	133
51201005	FURNISHING METAL SHELL PILES 12"	FOOT	410	410
51202305	DRIVING PILES	FOOT	410	410
51203200	TEST PILE METAL SHELLS	EACH	1	1
51500100	NAME PLATES	EACH	1	1
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	196	196
△ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2	2
67100100	MOBILIZATION	L SUM	1	1
* 70103700	TRAFFIC CONTROL COMPLETE	L SUM	1	1
△ * 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4
△ LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	2	2

* SEE SPECIAL PROVISIONS

△ SPECIALTY ITEMS

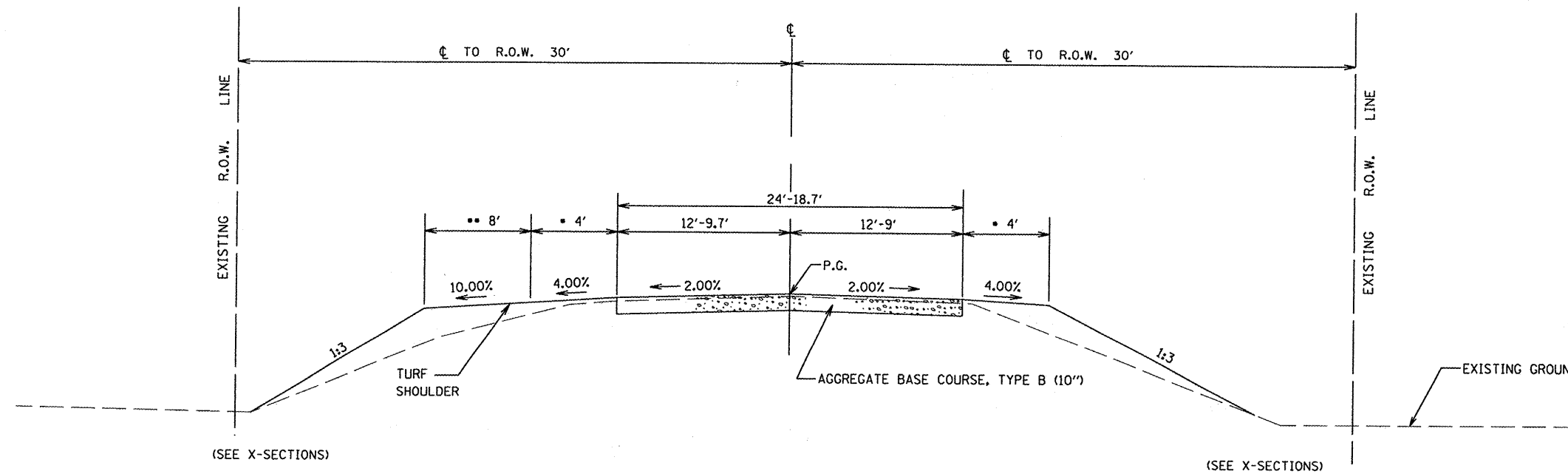
FOR INFORMATION ONLY - SCHEDULE OF EARTHWORK QUANTITIES

LOCATION	EARTH EXCAVATION CU YD	EMBANKMENT CU YD (1)	NEEDED BORROW (FOR INFO ONLY) CU YD (2)	CHANNEL EXCAVATION CU YD	WASTE (FOR INFO ONLY) CU YD
STA. 99+00.00 TO 99+66.50	42	62	36		
STA. 99+66.50 TO 100+33.50				588	480
STA. 100+33.50 TO 101+00.00	38	88	72		
TOTALS	80	150	108	588	480

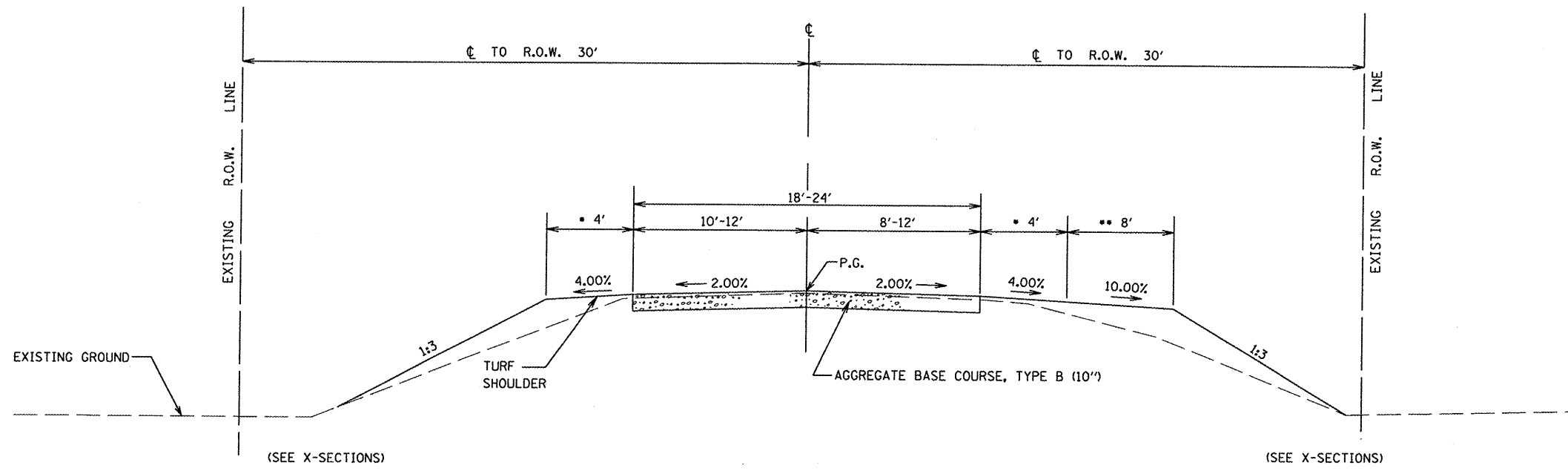
- 1 - NO SHRINKAGE FACTOR APPLIED TO THE EMBANKMENT QUANTITY
- 2 - A 25% EXPANSION FACTOR WAS USED IN COMPUTING BORROW QUANTITY
- 3 - EXCAVATION REQUIRED FOR AGG SURF COURSE IS MEASURED AND PAID FOR AS EARTH EXCAVATION

HOT-MIX ASPHALT MIXTURE REQUIREMENTS			
ITEM	AGGREGATE COMPOSITION	ASPHALT GRADE	DESIGN AIR VOIDS
HMA SURFACE CSE	IL-9.5 OR 12.5 MIX "C"	PG 64-22	4.0% @ N50

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-195	06-08117-00-BR	MORGAN	14	4
CONTRACT NO.				
93461				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PROPOSED TYPICAL SECTION - WOODS LANE (TR-195)
 NOT TO SCALE
 STA. 100+33.40 TO 101+00.00 TRANSITION BRIDGE TO EXISTING



PROPOSED TYPICAL SECTION - WOODS LANE (TR-195)
 NOT TO SCALE
 STA. 99+00.00 TO 99+66.50 TRANSITION EXISTING TO BRIDGE

NOTE:

- TRANSITION EARTH SHLD. FROM 0' WIDE TO 4' WIDE, STA. 99+00.00 TO 99+25.00, RT & LT SIDE
 TRANSITION EARTH SHLD. FROM 4' WIDE TO 0' WIDE, STA. 100+75.00 TO 101+00.00, RT & LT SIDE
- TRANSITION EARTH SHLD. WIDENING FROM 0' WIDE TO 8' WIDE, STA. 99+00.00 TO 99+20.92, RT SIDE
 TRANSITION EARTH SHLD. WIDENING FROM 8' WIDE TO 0' WIDE, STA. 99+45.92 TO 99+66.50, RT SIDE
 TRANSITION EARTH SHLD. WIDENING FROM 0' WIDE TO 8' WIDE, STA. 100+33.50 TO 100+54.09, LT SIDE
 TRANSITION EARTH SHLD. WIDENING FROM 8' WIDE TO 0' WIDE, STA. 100+79.09 TO 101+00.00, LT SIDE

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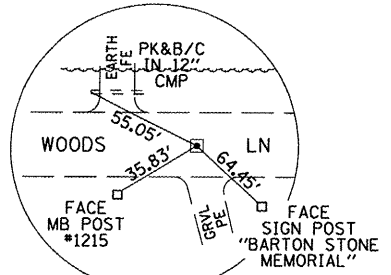
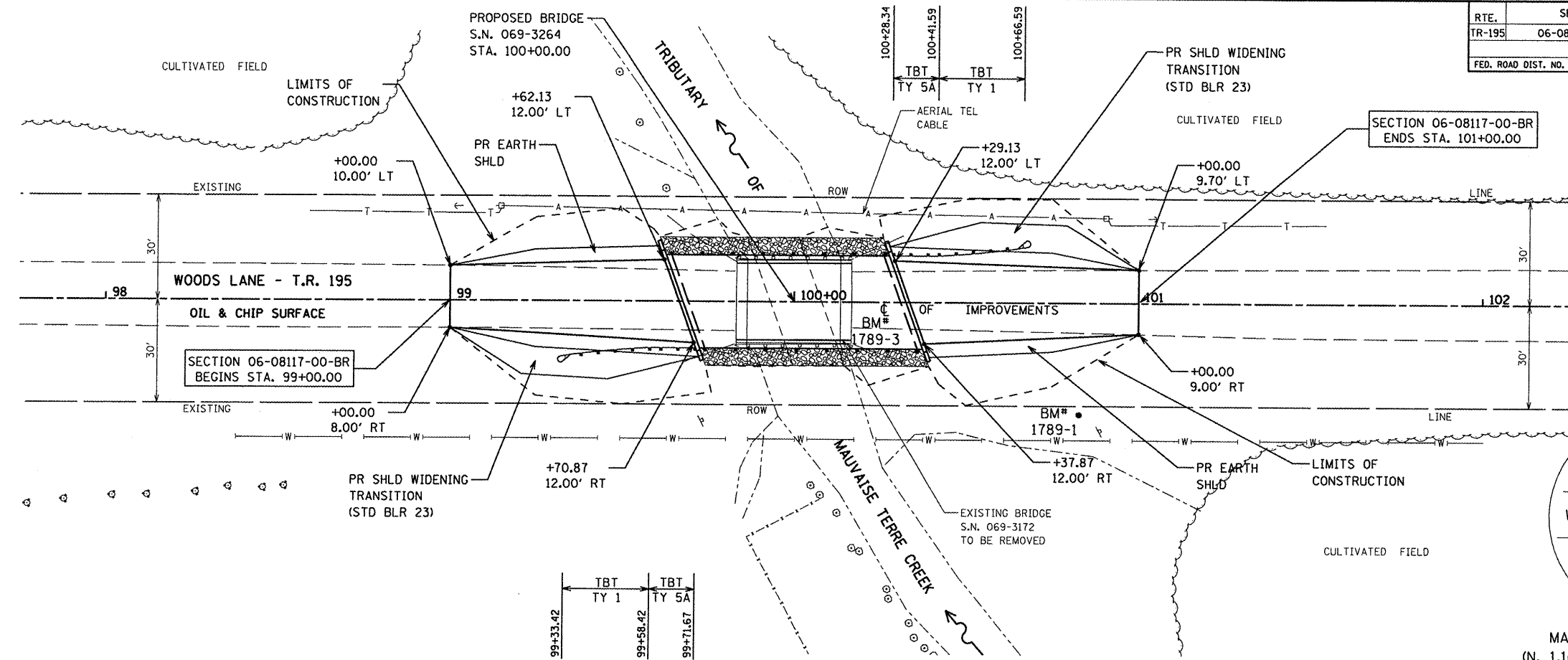
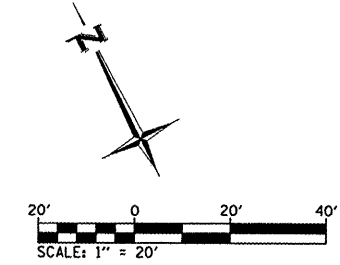
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS WOODS LANE (TR-195)	
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STA.	TO STA.

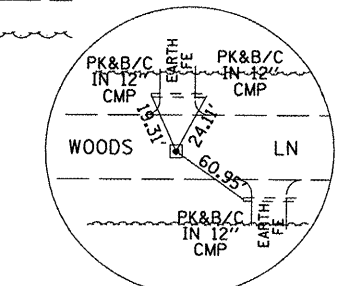
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TR-195	06-08117-00-BR	MORGAN	14	4
CONTRACT NO.				
93461				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-195	06-08117-00-BR	MORGAN	14	5
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	CONTRACT NO.	

93461



MAG NAIL, C STA. 97+00.00
(N. 1,104,428.0130 E. 2,291,227.4250)

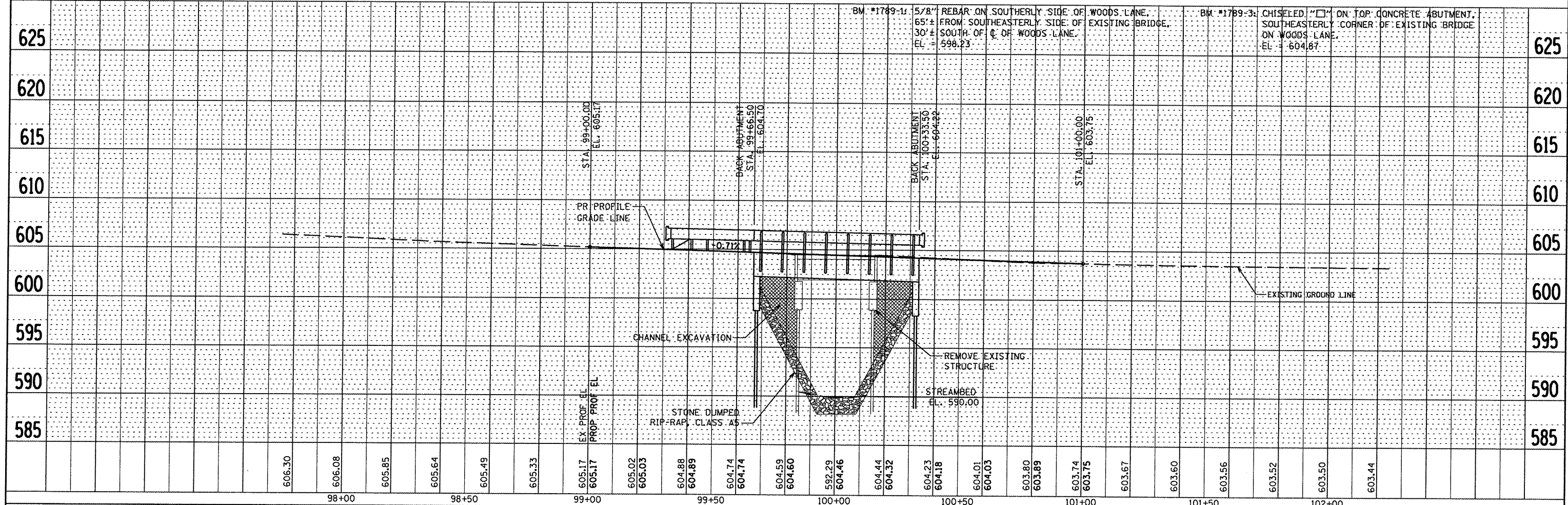


MAG NAIL, C STA. 103+00.00
(N. 1,104,153.5010 E. 2,291,760.9340)

PLAN	SURVEYED	BY	DATE
	NOTED		
	CHECKED		
	DATE		

PROFILE	SURVEYED	BY	DATE
	NOTED		
	CHECKED		
	DATE		

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PLOT DATE = 3/13/2008		DATE -	JAN. 24, 2008	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
WOODS LANE (TR-195)

SCALE: 1"=20' SHEET NO. 5 OF 14 SHEETS STA. 99+00.00 TO STA. 101+00.00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-195	06-08117-00-BR	MORGAN	14	5
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	CONTRACT NO.	

B.M. - Chisled "□" on top concrete abutment, southeasterly corner of existing bridge SN 069-3172, Elevation 604.87

Existing Structure - Single span concrete deck on steel I-Beams, with concrete abutments and timber piles. Structure to be removed.

Approximate quantities for removal: 40 cu yd of concrete, 90 ft of timber pile, 9.6 kips of structural steel, 68 ft of railing, 34.0' back to back abutments
 Bridge width = 24.0' out to out of deck

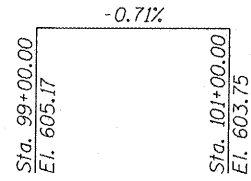
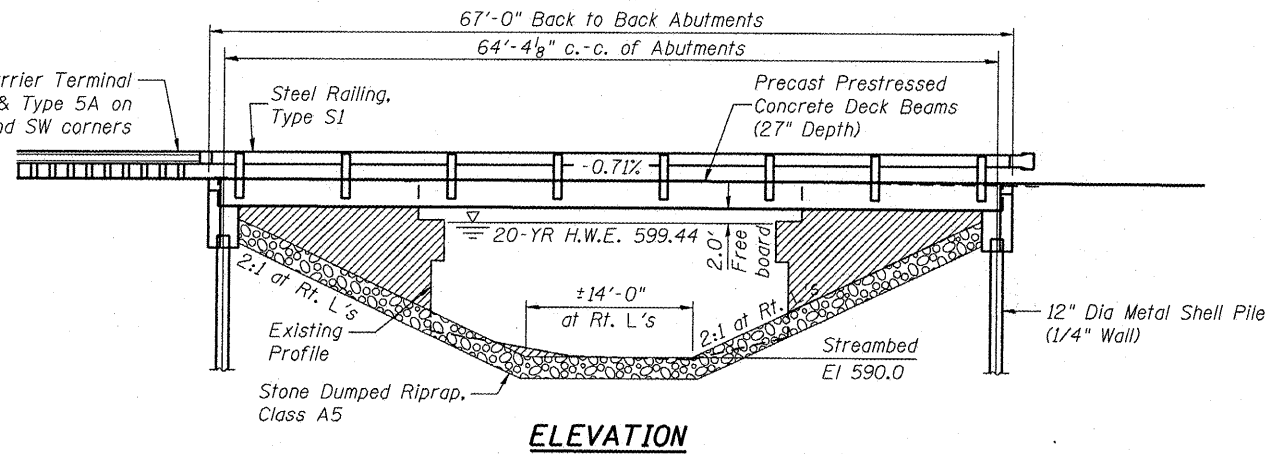
No Salvage

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-195	06-08117-00-BR	MORGAN	14	6
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.		

SHEET NO. 1
 4 SHEETS

93461



PROFILE GRADE

DESIGN SPECIFICATIONS

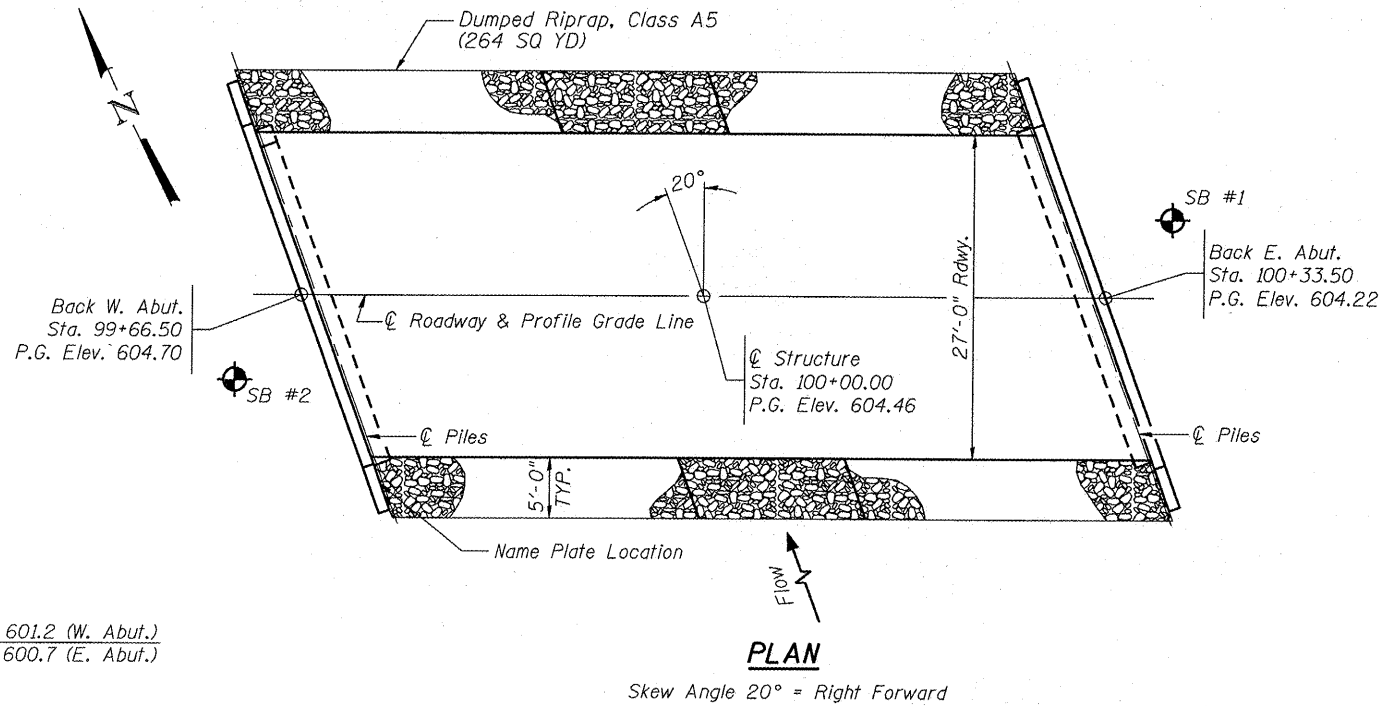
2002 AASHTO Standard Specifications - 17th ed.

LOADING HS20-44

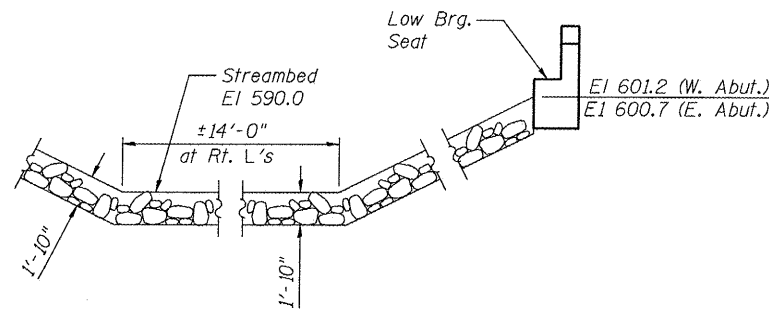
Allow 25#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 4.9



PLAN



STONE RIPRAP DETAIL

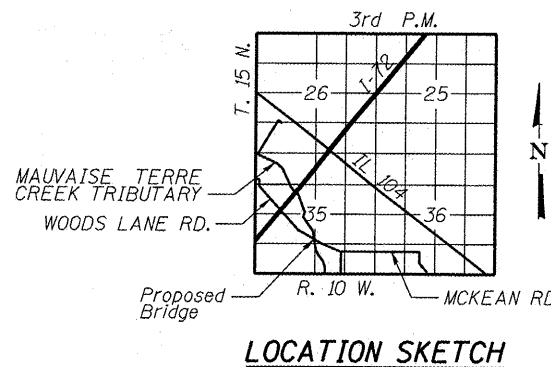
WATERWAY INFORMATION

Drainage Area = 7.2 Sq. Mi.		Low Grade Elev. = 603.4 @ Sta. 102+80.0								
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.	Exist.	Prop.	Exist.	Prop.
Design	20	1800	247	285	599.44	0.32	0.02	599.76	599.46	
Base	100	2700	274	304	601.32	0.74	-0.48	601.06	599.84	
Max. Calc.	500	3500	266	331	600.79	0.68	-0.41	601.47	600.38	

MAUVAISE TERRE CREEK TRIB
 BUILT 20__ BY
 ROAD DISTRICT NO. 8
 MORGAN COUNTY
 SECTION 06-08117-00-BR
 STATION 100+00.00
 STR. NO. 069-3264 LOADING HS20

LETTERING FOR NAME PLATE

Locate Name Plate
 in Southwest Wing.



LOCATION SKETCH

GENERAL NOTES

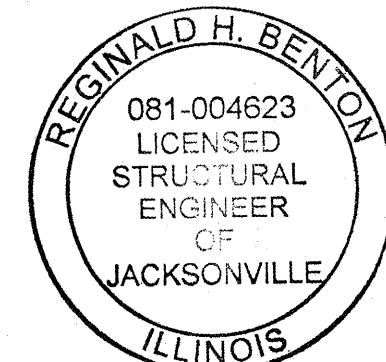
- The Contractor shall drive 1 test pile to 110% of the nominal required bearing, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
- See Special Provisions for boring logs.
- A Corrosion inhibitor, according to Article 1020.05(b)(12), shall be used in the concrete for precast prestressed concrete deck beams.

INDEX OF SHEETS

- General Plan & Elevation
- Superstructure Details
- Abutment Details
- Type S-1 Steel Railing

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abutts.	
Removal of Existing Structures	L. Sum				1
Hot-Mix Asphalt Surface Course, Mix "C", N50	Ton	28			28
Waterproofing Membrane System	Sq. Yd.	196			196
Concrete Structures	Cu. Yd.			23.8	23.8
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1764			1764
Steel Railing, Type S-1	Foot	133			133
Reinforcement Bars, Epoxy Coated	Pound			3030	3030
Furnishing Metal Shell Piles 12"	Foot			410	410
Driving Piles	Foot			410	410
Test Pile Metal Shells	Each			1	1
Name Plates	Each	1			1
Stone Dumped Riprap, Class A5	Ton			252	252
Structure Excavation	Cu. Yd.			88	88
Channel Excavation	Cu. Yd.			588	588



EXPIRES 11/30/2008
 BY *Reginald H. Benton*
 DATE 3/17/2008

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 the structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

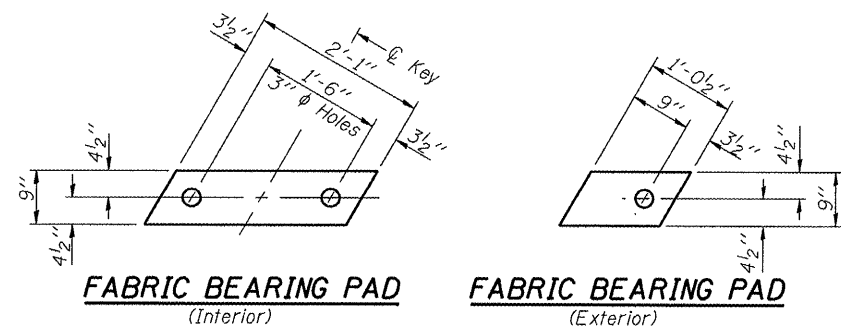
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CHECKED BY	NRF	S.N. 069-3264	
APPROVED BY	REG	BRIDGE TR-195 OVER	
DATE	JANUARY 2008	MAUVAISE TERRE CREEK TRIBUTARY	
REVISIONS		MORGAN COUNTY, ILLINOIS	
DATE	BY		
		BENTON & ASSOCIATES, INC.	
		Consulting Engineers / Land Surveyors	
		1970 West Lafayette Ave. Jacksonville, IL 62650	
		Phone: 217-245-4146 Fax: 217-245-4149	
		BENTON & ASSOCIATES INC IL Design Firm Registration No. 184-000852	
FIELD BOOK:	SCALE:	JOB NO. 07E1789	SHEET 6 OF 14

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

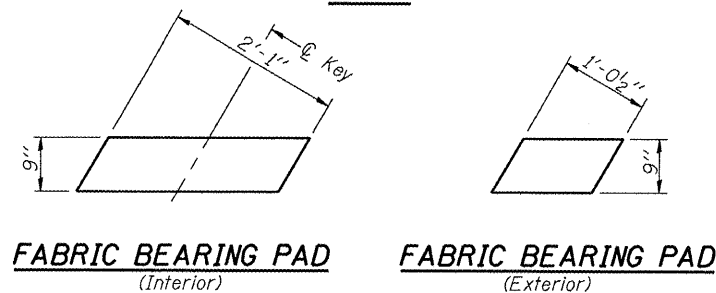
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FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	93461	

SHEET NO. 2

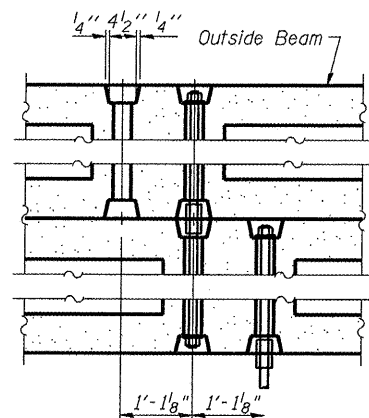
4 SHEETS



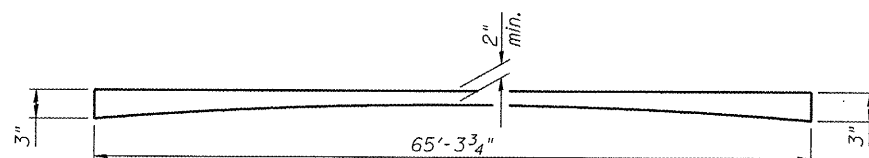
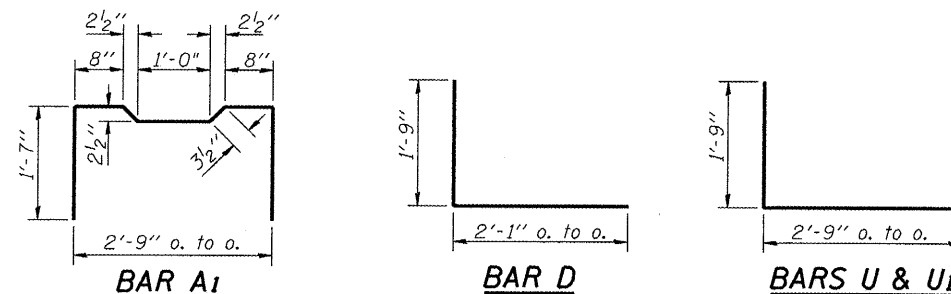
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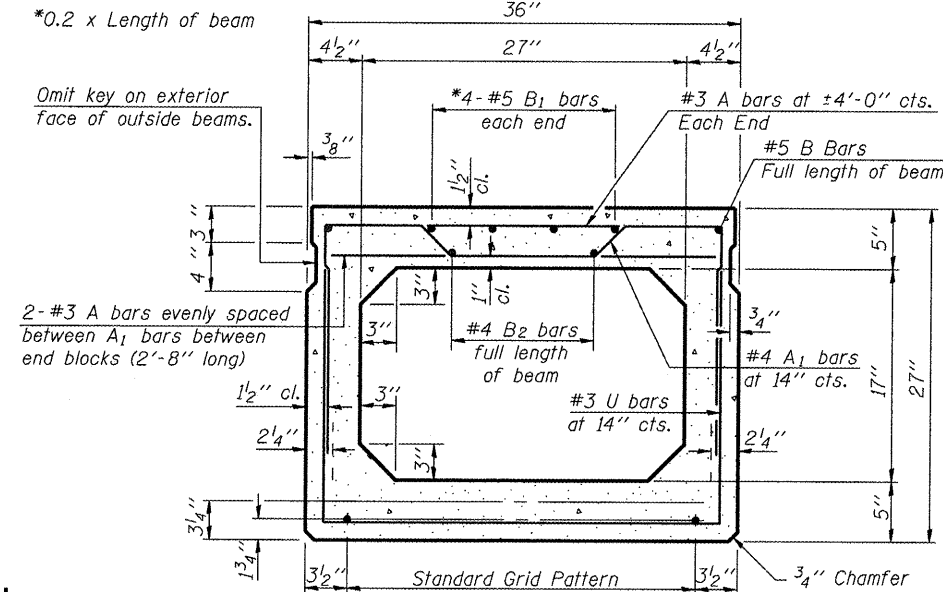
EXPANSION



TYPICAL TRANSVERSE TIE ASSEMBLY

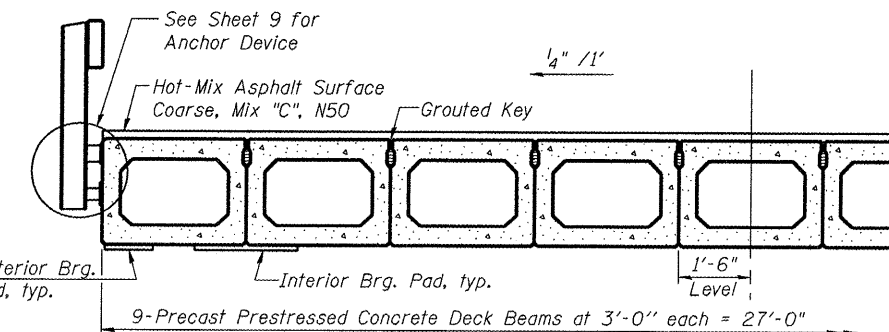


HOT-MIX ASPHALT SURFACE PROFILE

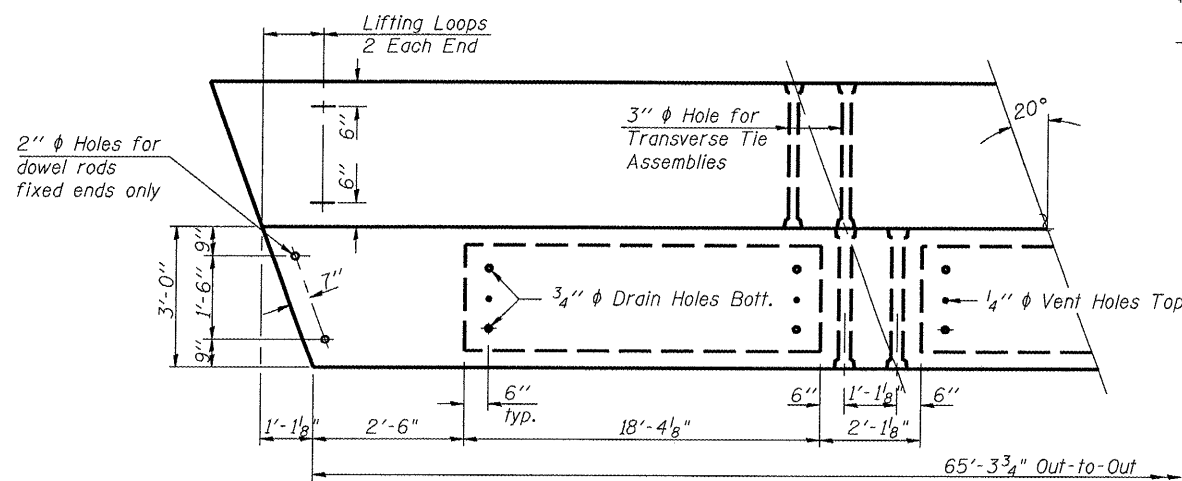


1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
9-Strands 1 3/4" up, 4-Strands 3/4" up,
2-Strands 7/2" up, 2-Strands 10 1/2" up

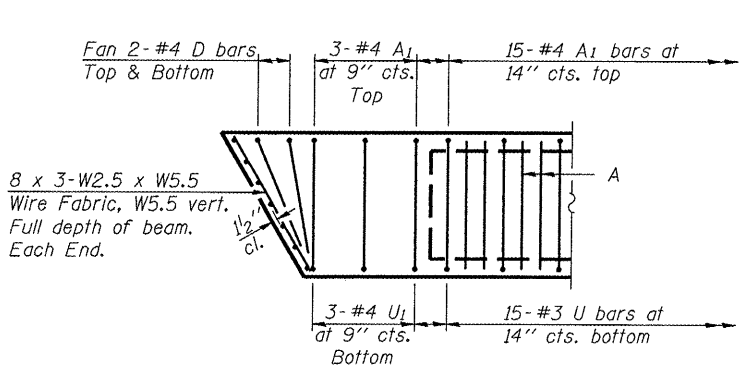
Note:
Place strands symmetrically about \bar{C} of beam.



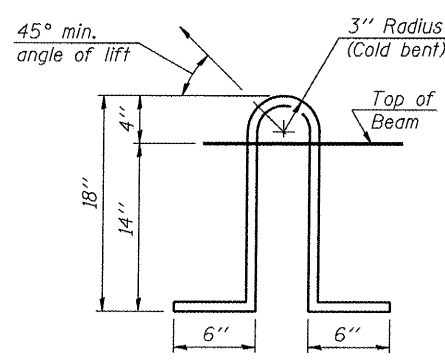
HALF CROSS SECTION



PLAN



END PLAN



LIFTING LOOP DETAIL

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, 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'ci, shall be 4000 p.s.i. Rail Post Anchor Devices to be cast into exterior face of outside beams as specified elsewhere.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms.	Sq. Ft.	1763.5
Hot-Mix Asphalt Surface Coarse, Mix "C", N50	Ton	28

DRAWN BY	JLL
CHECKED BY	MBH
APPROVED BY	REG
DATE	JANUARY 2008
REVISIONS	
DATE	BY
FIELD BOOK:	

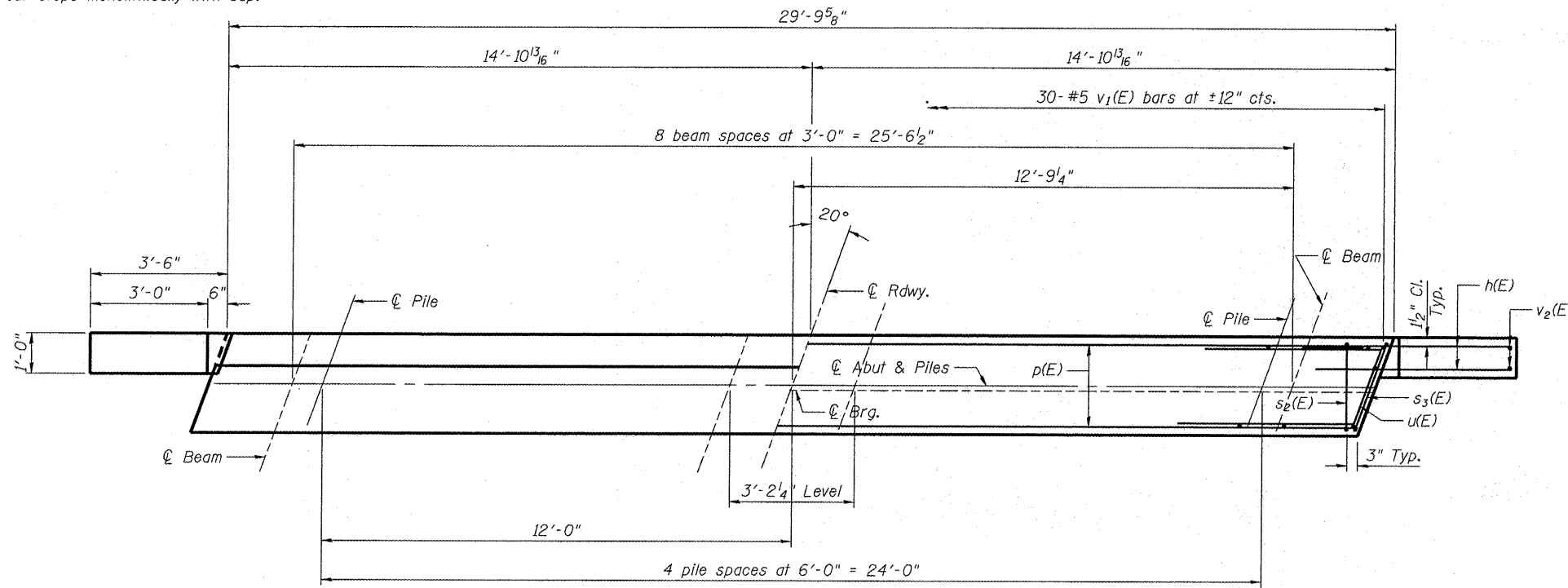
SUPERSTRUCTURE
S.N. 069-3264
BRIDGE TR-195 OVER MAUVAISE TERRE CREEK TRIBUTARY
MORGAN COUNTY, ILLINOIS

BENTON & ASSOCIATES, INC.
Consulting Engineers / Land Surveyors
1970 West Lafayette Ave. Jacksonville, IL 62650
Phone: 217-245-4146 Fax: 217-245-4149
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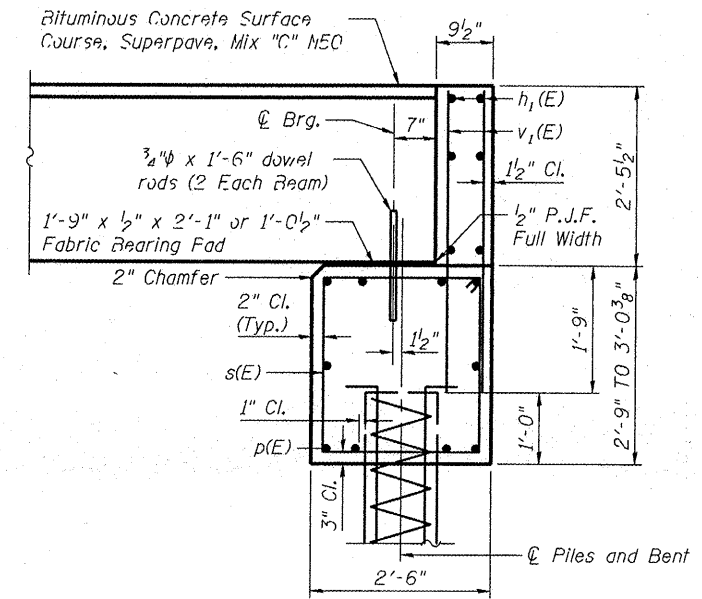
SCALE: JOB NO. 07E1789 SHEET 7 OF 14

Notes: Pour steps monolithically with cap.

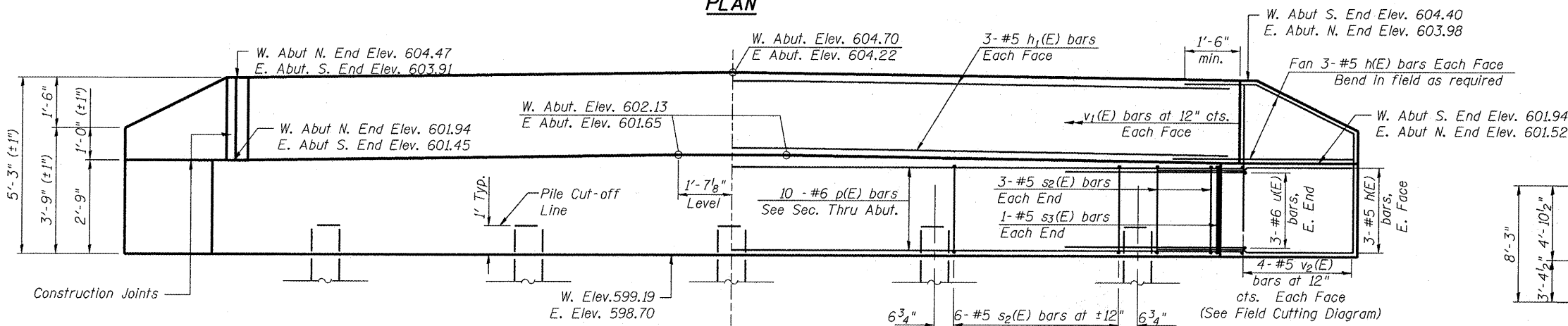
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FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	93461		



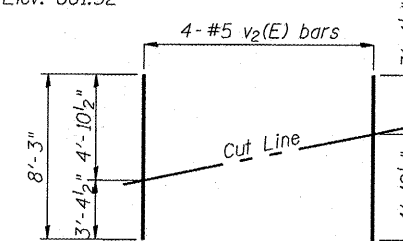
PLAN



SECTION THRU ABUTMENT



ELEVATION



FIELD CUTTING DIAGRAM

Order $v_2(E)$ full length. Cut as shown and use remainder of bars in opposite face.

BILL OF MATERIAL (2 ABUT.)

Bar	No.	Size	Length	Shape
$h_1(E)$	48	#5	5'-4"	—
$h_1(E)$	12	#5	29'-6"	—
$p(E)$	20	#6	29'-6"	—
$s_2(E)$	60	#5	9'-10"	□
$s_3(E)$	4	#5	10'-2"	□
$u(E)$	12	#6	9'-3"	┘
$v_1(E)$	120	#5	4'-4"	—
$v_2(E)$	16	#5	8'-3"	—

Structure Excavation	Cu. Yd.	88
Concrete Structures	Cu. Yd.	23.8
Reinforcement Bars, Epoxy Coated	Pound	3030
Furnishing - Metal Shell Piles 12"	Foot	410
Driving Piles	Foot	410
Test Pile Metal Shells	Each	1

All reinforcement designated (E) to be epoxy coated.

PILE DATA

Type	*Metal Shell 12" ϕ w/ 0.25" walls
Nominal Required Bearing	231.0 kips
Allowable Resistance Available	77.0 kips
Estimated Length	42 ft. at West Abutment, 50 ft. at East Abutment
No. Production Piles	9
No. Test Piles (East Abut.)	1

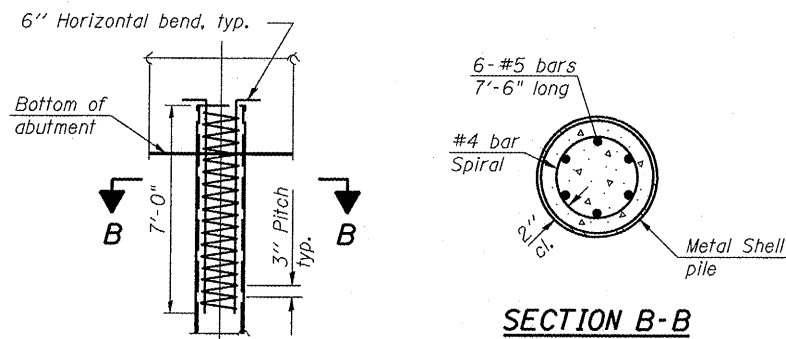
* Metal Shell Piles shall be in accordance with ASTM A252 Grade 3

NOTES

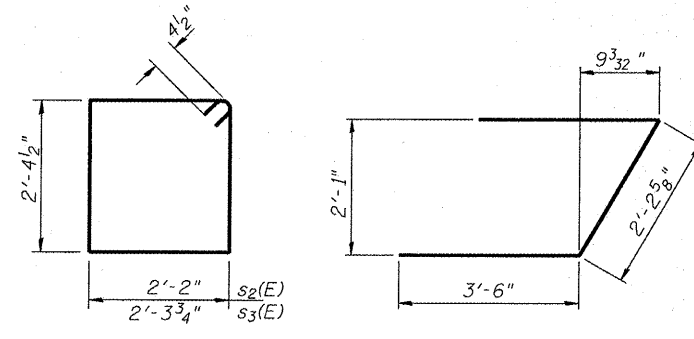
- The backwall and the portion of the wingwalls above the bonded construction joint shall be cast against the in place beam.
- Reinforcement bars shall conform to ASTM A706, Grade 60.

DESIGN STRESSES

$f'_c = 3500$ psi
 $f_y = 60000$ psi



SECTION B-B



BARS $s_2(E)$ & $s_3(E)$

BAR $u(E)$

ELEVATION METAL SHELL REINFORCEMENT AT ABUTMENTS

(Included in cost of Driving Piles)

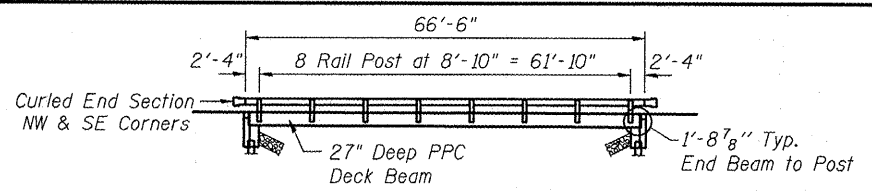
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APPROVED BY	REG
DATE	JANUARY 2008
REVISIONS	
DATE	BY
FIELD BOOK:	

ABUTMENT DETAILS
S.N. 069-3264
BRIDGE TR-195 OVER
MAUVAISE TERRE CREEK TRIBUTARY
MORGAN COUNTY, ILLINOIS

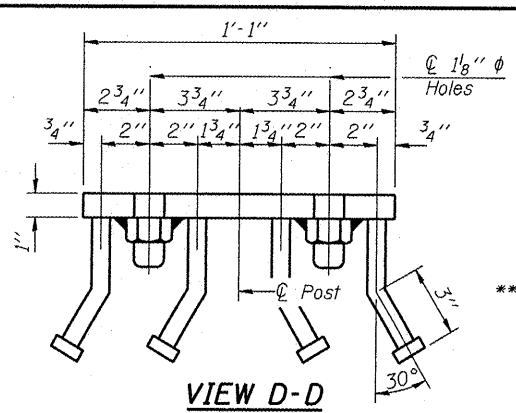


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SCALE:	JOB NO. 07E1789	SHEET 8 OF 14
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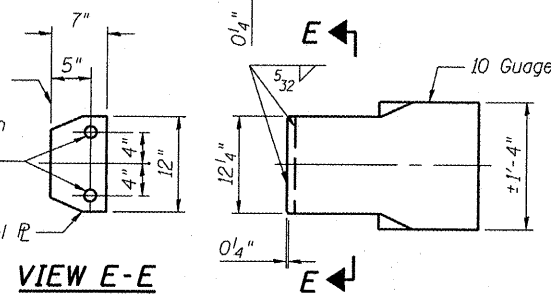
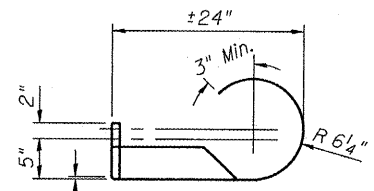


ELEVATION TYPE S-1 STEEL RAILING



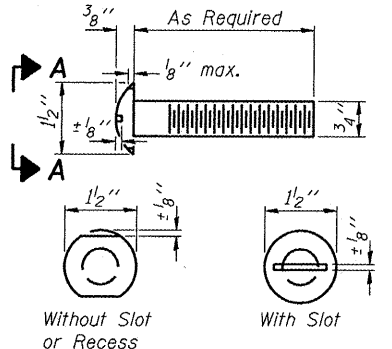
VIEW D-D

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.

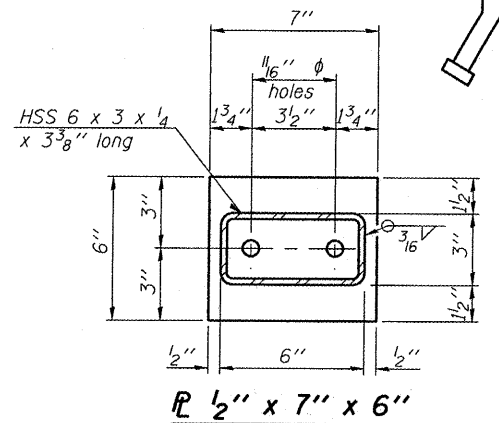
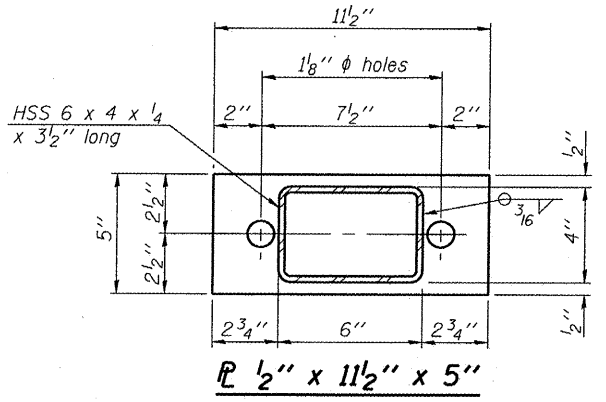


VIEW E-E

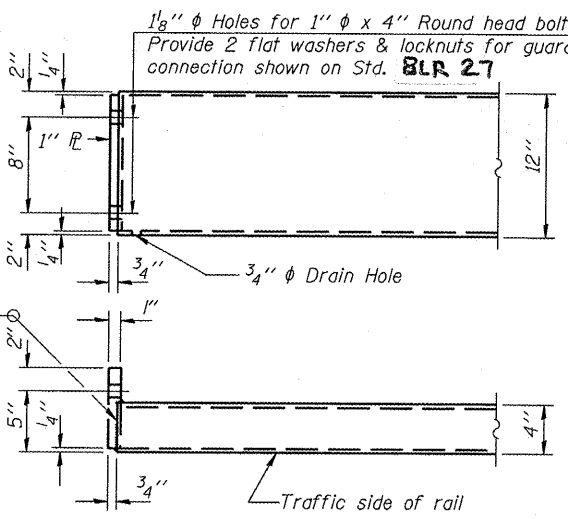
CURLED END SECTION DETAILS
(2 Required)



VIEW A-A ROUND HEAD BOLT



SECTION AT RAILING POST



END OF RAIL DETAILS

NOTES
 Hollow structural sections shall conform to the requirements of ASTM design A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.
 All other steel shapes and plates shall conform to the requirements of AASHTO M 270, Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50. Bolts, cap screws, and nuts shall conform to the requirements of ASTM design A 307 except for high strength bolts, nuts, and washers noted which shall conform to AASHTO M 164.
 All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.
 The lower portion of the post flange in contact with concrete shall receive 1/8" fabric bearing pad between the post and concrete.
 The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" phi cap screws in bottom of posts shall be tightened to a snug fit only.

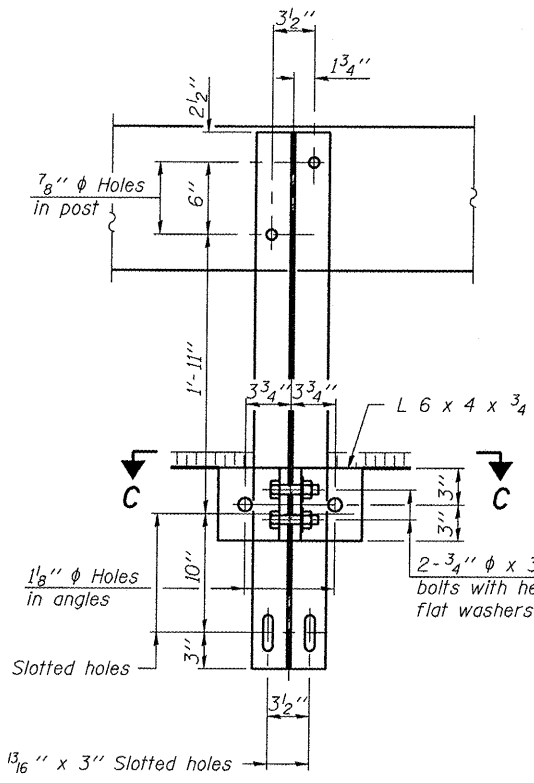
BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	133

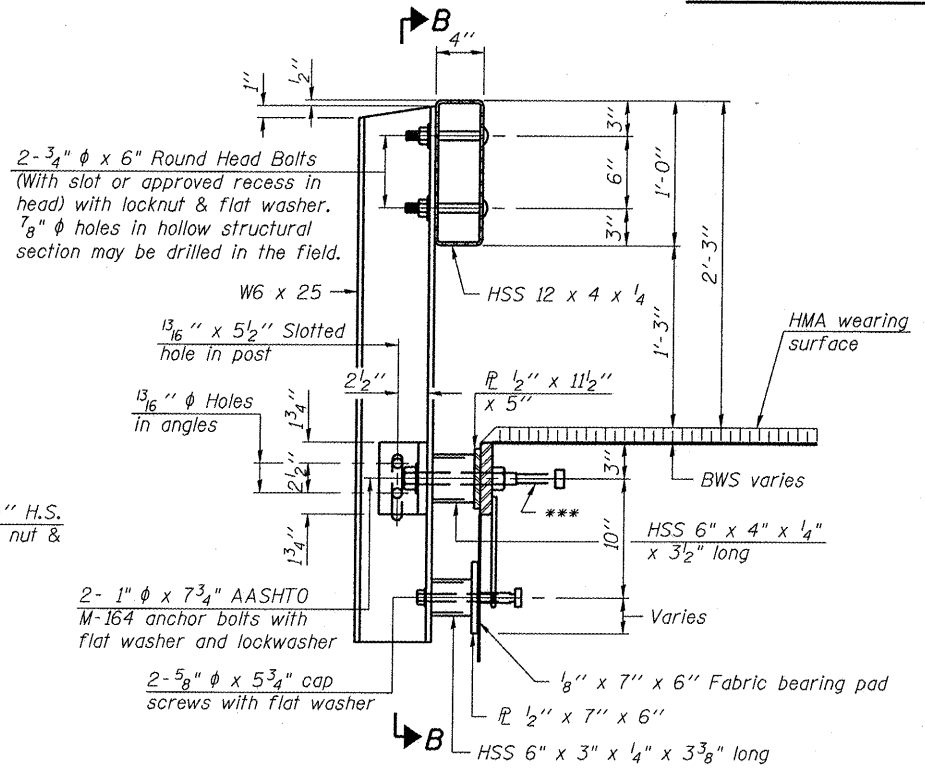
Curled End Sections shall be included in the cost of the Steel Railing.

STEEL RAILING, TYPE S-1
 S.N. 069-3264
BRIDGE TR-195 OVER MAUVAISE TERRE CREEK TRIBUTARY
 MORGAN COUNTY, ILLINOIS

BENTON & ASSOCIATES, INC.
 Consulting Engineers / Land Surveyors
 1970 West Lafayette Ave. Jacksonville, IL 62650
 Phone: 217-245-4146 Fax: 217-245-4149
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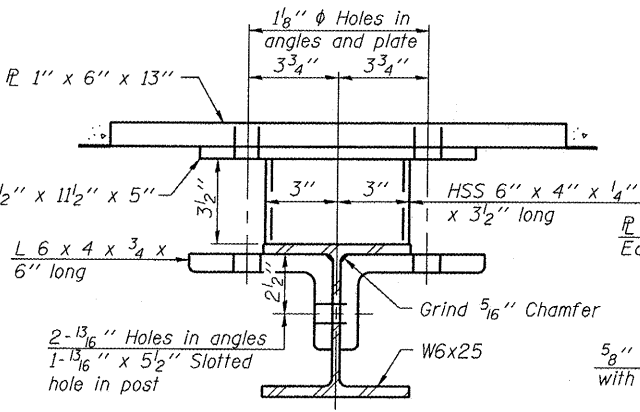


SECTION B-B

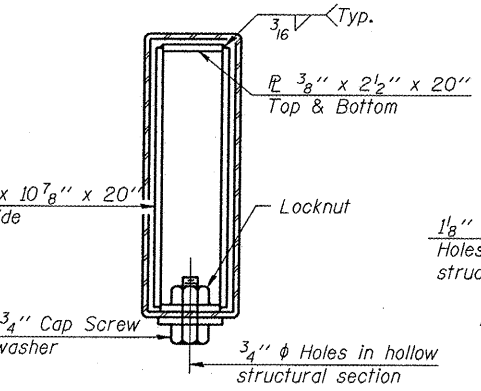


SECTION AT RAILING POST

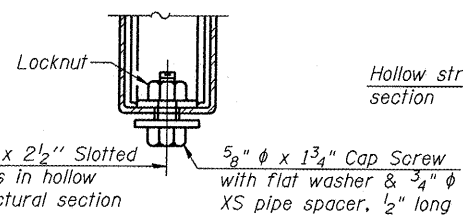
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



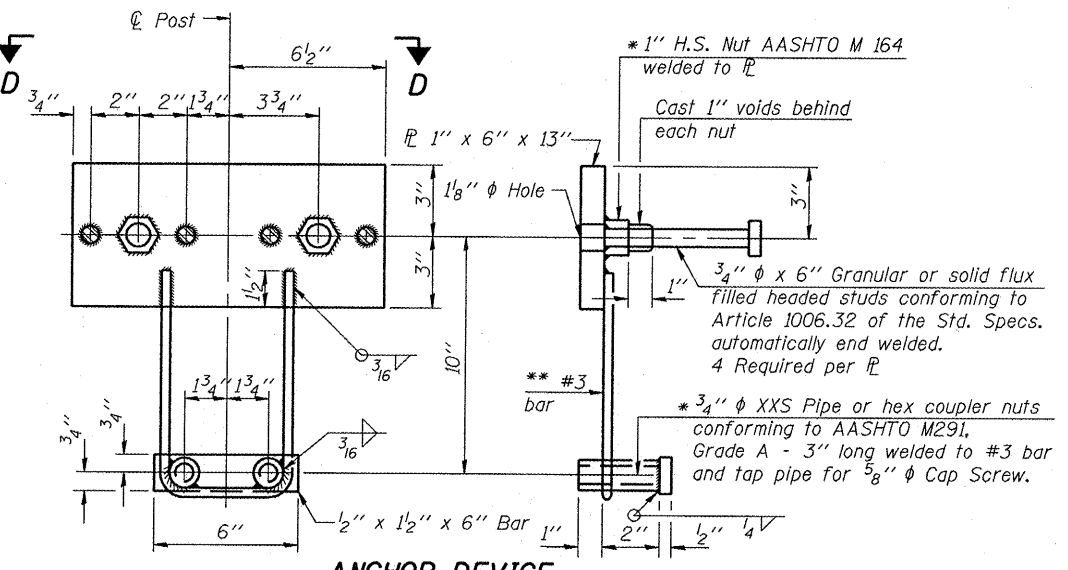
SECTION C-C



SECTIONS AT RAIL SPLICE

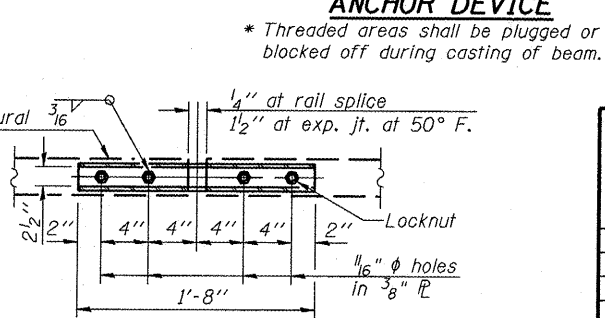


RAIL SPLICE CONNECTION AT EXPANSION JT.



ANCHOR DEVICE

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



PLAN-BOTT. SPLICE R TYPICAL

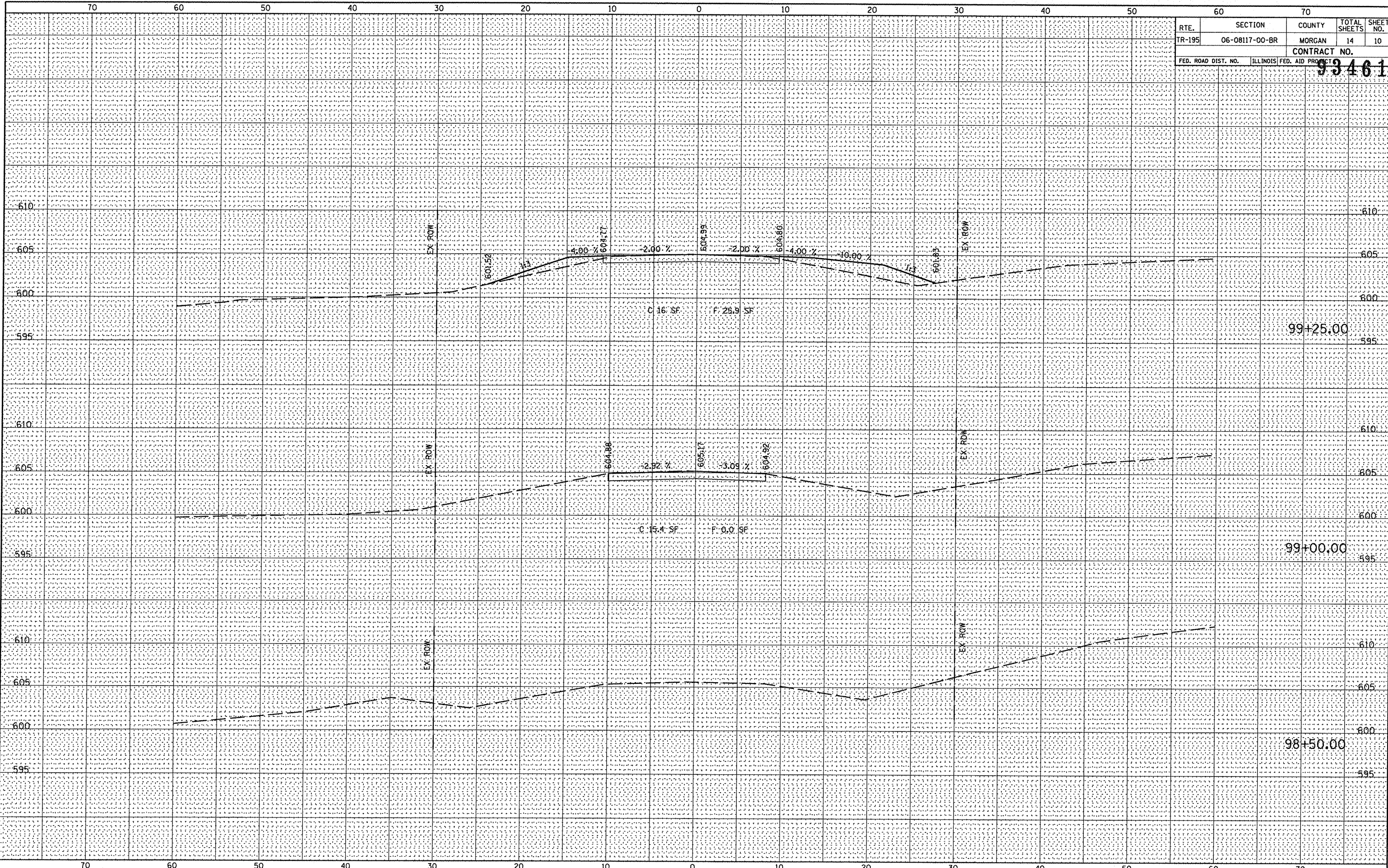
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APPROVED BY	REG
DATE	JANUARY 2007
REVISIONS	
DATE	BY
FIELD BOOK:	

SCALE:	JOB NO. 07E1789	SHEET 9 OF 14
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DATE	
BT	
FINL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

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

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.				
93461				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

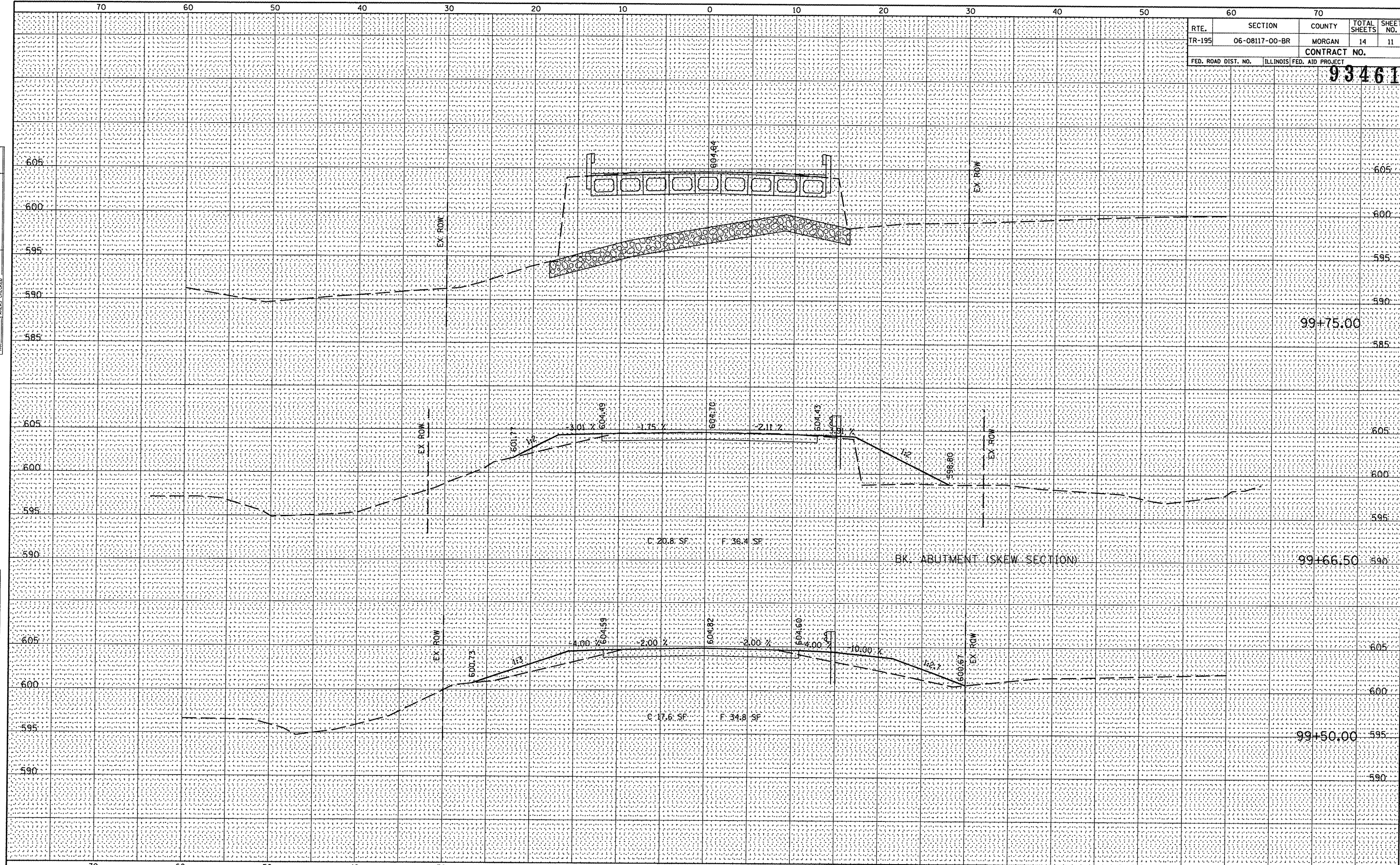


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RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																																			
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CONTRACT NO.																																							
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FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT																																						
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PLOT SCALE = 10.000 / IN.		CHECKED -	RHB	REVISED -																																			
PLOT DATE = 3/13/2008		DATE -	JAN. 24, 2008	REVISED -																																			

DATE
BY
SURVEYED
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NOTE BOOK
AREAS CHECKED

DATE
BY
SURVEYED
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NOTE BOOK
AREAS CHECKED

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

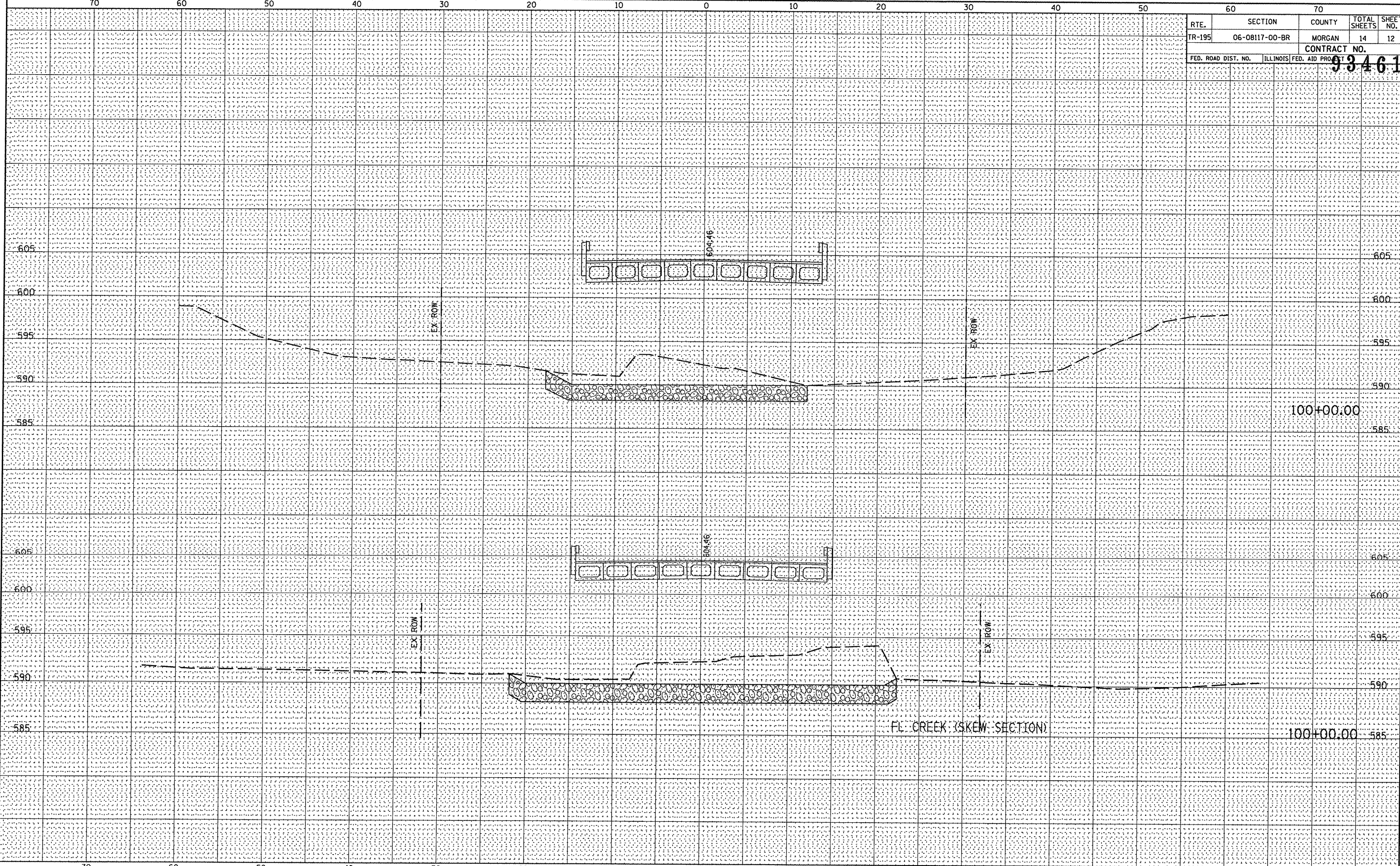


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SCALE: 5'HZ5'VT						SHEET NO. 11 OF 14 SHEETS		STA. 99+50.00 TO STA. 99+75.00		

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

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

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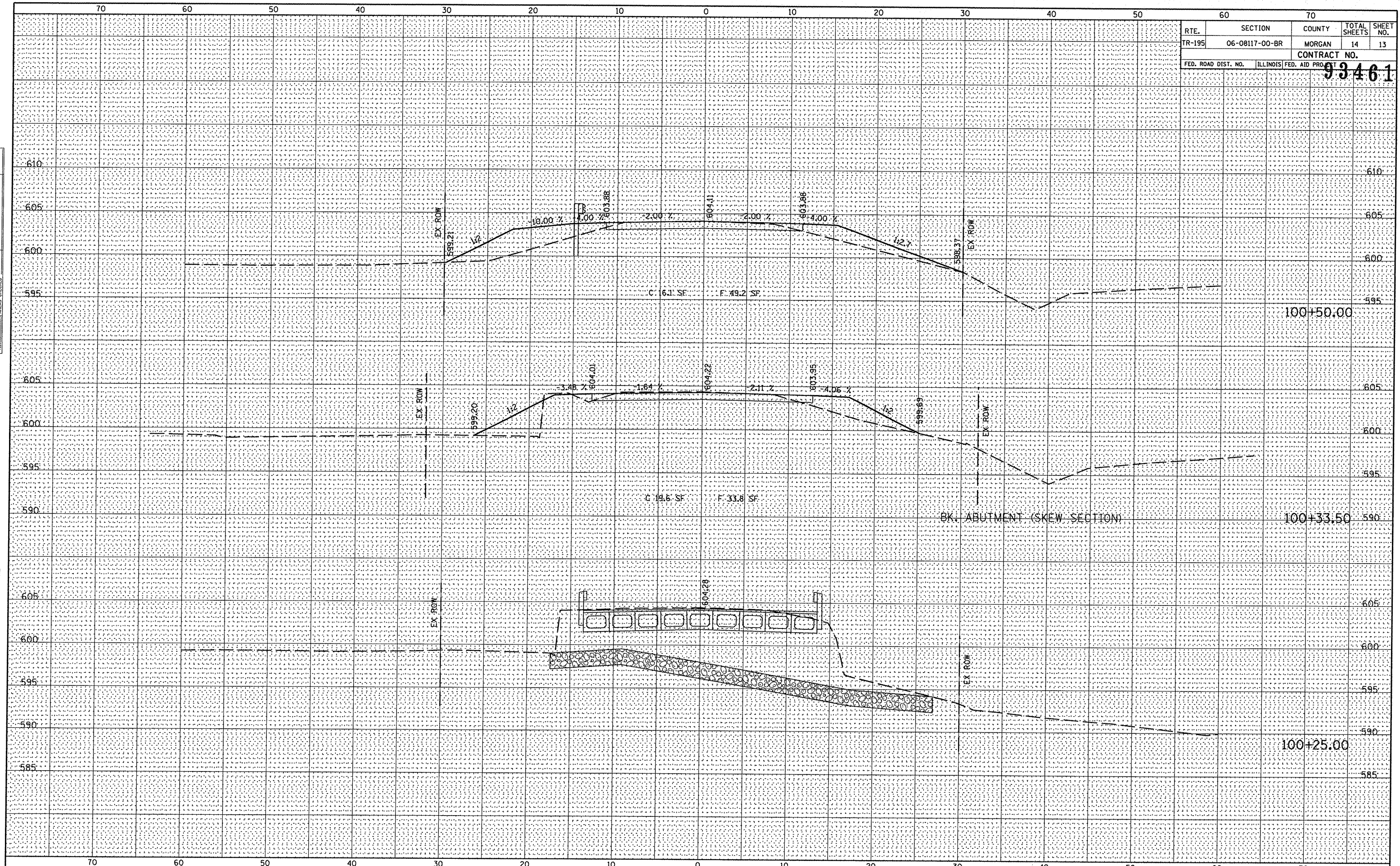


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PLOT DATE = 3/13/2008		DATE - JAN. 24, 2008	REVISED -	SHEET NO. 12 OF 14 SHEETS		93461				
						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
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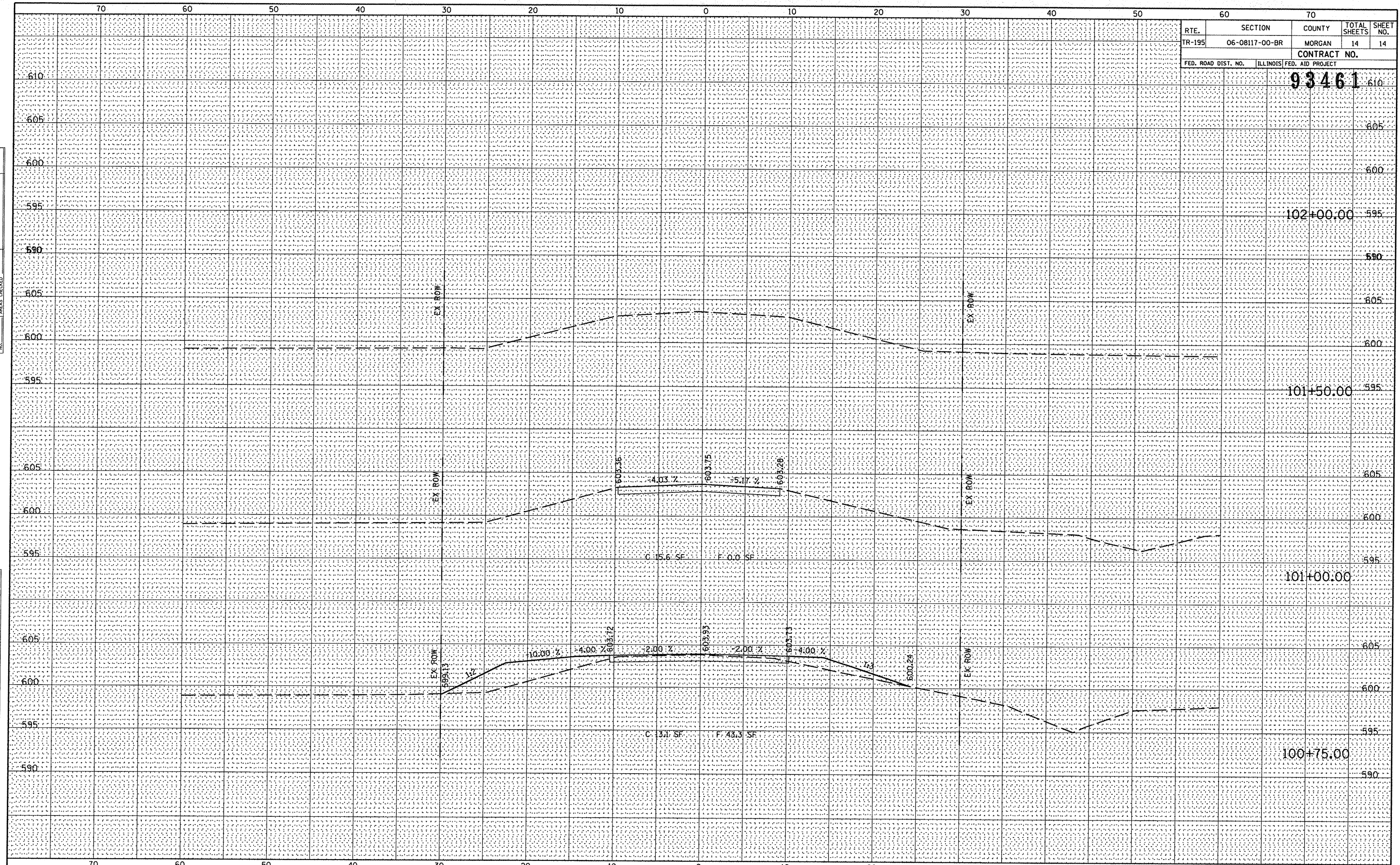
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CONTRACT NO.				
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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PLOT DATE = 3/13/2008		DATE - JAN. 24, 2008	REVISED -			93461				
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NOTE BOOK	PLOTTED
NO.	TEMPLATE
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	AREAS CHECKED



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93461				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FILE NAME =	USER NAME = *USER*	DESIGNED - MCM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS WOODS LANE (TR-195)	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\07a1789\Design\Plans\010-0141789 xsections sheets.dgn		DRAWN - MCM	REVISED -			TR-195	06-08117-00-BR	MORGAN	14	14
PLOT SCALE = 10.000' / IN.		CHECKED - RHB	REVISED -			CONTRACT NO.				
PLOT DATE = 3/13/2008		DATE - JAN. 24, 2008	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
SCALE: 5'HZ/5'VT						SHEET NO. 14 OF 14 SHEETS		STA. 100+75.00 TO STA. 102+00.00		