11-18-05 Letting, Item 062

84883

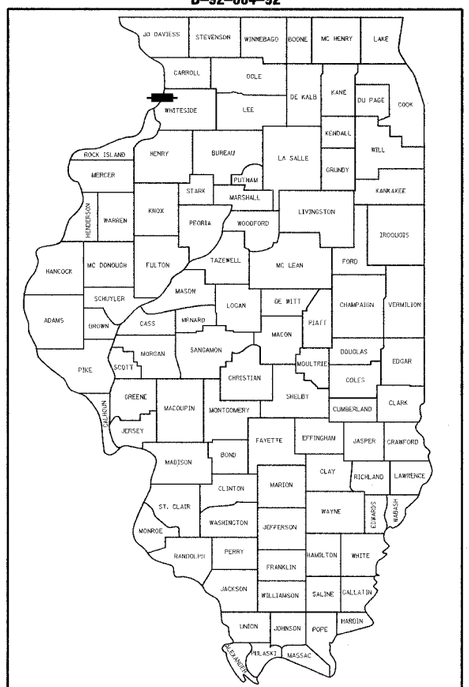
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	1
CONTRACT #84883			+2	
			=148 total sheets	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

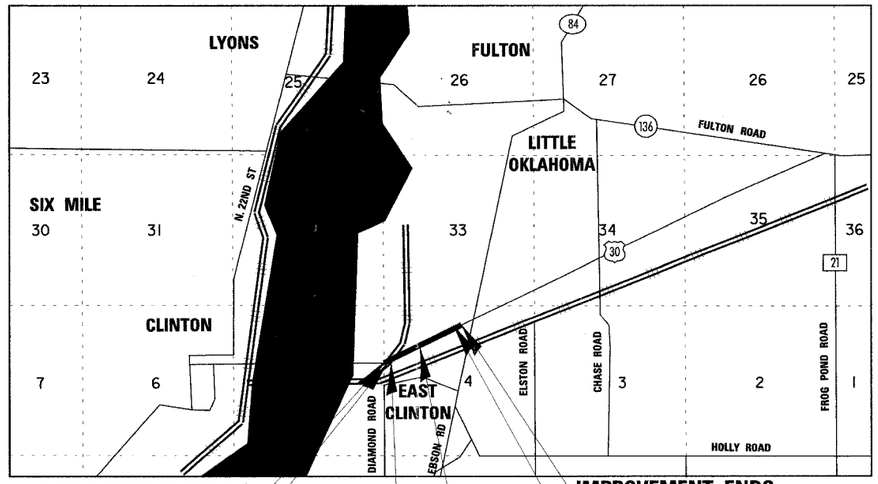
PROPOSED
HIGHWAY PLANS

FAP ROUTE 309 (US 30)
SECTION 7HBR–1 & 7VBR
PROJECT NO. ACBHF-ACF-0309(009)
WHITESIDE COUNTY
C–92–096–05

D–92–064–92



LOCATION OF SECTION INDICATED THUS: –



T21N

N

0 1/2 m 1 m

1" = 1 Mile

GARDEN PLAIN TOWNSHIP
SECTION 4

IMPROVEMENT BEGINS
STA 44+44.89
SECTION BEGINS
STA 44+94.89

STA 47+18.53
S.N. 098–6001
160' Structure over
C&NW RR

STA 51+17.83
S.N. 098–6000
200' Structure over
Dakin Rd.

IMPROVEMENT ENDS
STA. 70+95.00
SECTION ENDS
STA. 70+50.00

INDEX OF SHEETS
SEE SHEET 2

LIST OF STANDARDS
SEE SHEET 2

DESIGN DESIGNATION
1550(24) Rural Principal Arterial 5.51 (PCC–20)

FUNCTIONAL CLASSIFICATION	=	RURAL PRINCIPAL ARTERIAL
DESIGN SPEED	=	45 MPH
% TRUCKS	=	5.5
CURRENT ADT	=	11,500 (2004)

GROSS LENGTH OF SECTION = 2555.11 FEET = 0.484 MILES
NET LENGTH OF SECTION = 2555.11 FEET = 0.484 MILES

0 100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
CROSS SECTIONS — H: 1" = 10' V: 1" = 5'

0 50' 100'
REMOVALS — H: 1" = 50'
DRAINAGE — H: 1" = 50'
EROSION CONTROL — H: 1" = 50'
PLAN & PROFILE — H: 1" = 50' V: 1" = 5'

0 50' 100' — 1" = 40'

0 50' 100' — 1" = 30'

0 50' 100'
INTERSECTION DETAILS — H: 1" = 20'

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

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

CONTRACT NO. 84883

PLANS PREPARED BY:

WHKS & CO.
ENGINEERS — PLANNERS — LAND SURVEYORS
187 SINSINAWA AVENUE 815-747-5833 EAST DUBUQUE, IL 61025-1218

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 30 20 05
Gregory I. Tumbarello
DISTRICT ENGINEER
October 14, 2005
Mike Stine
ENGINEER OF DESIGN AND ENVIRONMENT
October 14, 20 05
Eric E. Harm
DEPUTY DIRECTOR, DIVISION OF HIGHWAYS

MICHAEL A. ZELINSKAS 062-046361 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly Registered Professional Engineer under the laws of the State of Illinois.
Michael A. Zelinskas
Michael A. Zelinskas Reg. No. 062-046361
Date: August 26, 2005
My registration expires November 30, 2005

Pages or sheets covered by this seal: ALL SHEETS EXCEPT BRIDGE, LIGHTING AND STANDARD SHEETS

District 2
Dixon, IL

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ROBERT J. WAGNER
PROJECT ENGINEER: 815–284–5358

SAMEER A. ABDULLAH
LIAISON: 815–284–5935

MICHEAL A. ZELINSKAS
WHKS & CO., 815–747–8833

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

SHEET NO. INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS AND STANDARDS
3-4	SUMMARY OF QUANTITIES
5-10	TYPICAL SECTIONS
11-13	HORIZONTAL AND VERTICAL CONTROLS
14-15	GENERAL NOTES AND COMMITMENTS
16-19	SCHEDULE OF QUANTITIES
20-22	PLAN AND PROFILE SHEETS
23	DRAINAGE PLAN
24-25	REMOVALS
26-27	EROSION CONTROL PLAN
28	INTERSECTION DETAILS
29	PAVEMENT ELEVATION PLAN
30	JOINTING PLAN
31	PAVEMENT MARKINGS
32	GUARDRAIL LAYOUT
33-37	LIGHTING PLAN
38-81A	BRIDGE PLAN AND BORING LOGS
82-90	EXISTING BRIDGE PLAN
91	DETOUR PLAN
92	STORM WATER POLLUTION PREVENTION PLAN EROSION CONTROL PLAN (DISTRICT STANDARD 2.1)
93	CONCRETE COLLARS FOR PIPE OR BOX CULVERT EXTENSION (DISTRICT STANDARD 33.1)
94	TRAFFIC CONTROL FOR ROAD CLOSURE (DISTRICT STANDARD 40.1)
95-96	TYPICAL PAVEMENT MARKINGS (DISTRICT STANDARD 41.1)
97	DETAILS OF PLANTING AND BRACING TREES (DISTRICT STANDARD 92.1)
98	EROSION CONTROL DETAILS FOR SILT FENCE (DISTRICT STANDARD 29.2)
98	BITUMINOUS SHOULDERS (DISTRICT STANDARD 23.4A)
98	PAVEMENT PATCHING FOR BOITUMINOUS SURFACED PAVEMENT (DISTRICT STANDARD 32.4)
99	DELINEATOR AND POST ORIENTATION (DISTRICT STANDARD 37.4)
99	WITNESS MARKER FOR PERMANENT SURVEY MARKERS TYPE II (DISTRICT STANDARD 38.4)
99	TREE REPLACEMENT SCHEDULE (DISTRICT STANDARD 90.4)
99	RUMBLE STRIP RESURFACING (DISTRICT STANDARD 91.4)
100	DRAIN FOR AGGREGATE BASE COURSE (DISTRICT STANDARD 96.4)
100	SUBGRADE REPLACEMENT (DISTRICT STANDARD 97.4)
101-139	CROSS SECTIONS - US 30
140-143	CROSS SECTIONS - NORTH RAMP
144-146	CROSS SECTIONS - SOUTH RAMP

STANDARDS

000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001	AREAS OF REINFORCEMENT BARS
280001-02	TEMPORARY EROSION CONTROL SYSTEMS
353001-02	PCC BASE COURSE WITH BITUMINOUS CONCRETE BINDER AND SURFACE COURSES
420001-06	PAVEMENT JOINTS
420101-03	24' JOINTED PCC PAVEMENT
420106-03	36' JOINTED PCC PAVEMENT
420401-05	BRIDGE APPROACH PAVEMENT
421001-01	BAR REINFORCEMENT FOR CRC PAVEMENT
421101-05	24' CRC PAVEMENT
482011-01	BIT. SHD. STIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
483001-02	PCC SHOULDER
515001-02	NAME PLATE FOR BRIDGES
542301	PRECAST REINFORCED CONCRETE FLARED END SECTION
542401	METAL END SECTION FOR PIPE CULVERTS
606001-02	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-02	PC CONCRETE ISLANDS AND MEDIANS
606306-01	CORRUGATED PC CONCRETE MEDIANS
609006-02	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
610001-02	SHOULDER INLET WITH CURB
630001-05	STEEL PLATE BEAM GUARDRAIL
630201-03	PCC/BITUMINOUS STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-03	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-05	TRAFFIC BARRIER TERMINAL, TYPE 6
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
667101	PERMANENT SURVEY MARKERS
701006-02	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701316-03	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS >= 45 MPH
702001-05	TRAFFIC CONTROL DEVICES
720011	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
814001	CONCRETE HANDHOLES
878001-03	CONCRETE FOUNDATION DETAILS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS AND STANDARDS

SCALE: VERT. HORIZ.

DATE 08/25/2005

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SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	80% Federal 20% State TOTAL QUANTITY	ACF ROADWAY QUANTITY 1000	← ACBHF → X271-2A SN 098-6000 QUANTITY X271-2A	← ACBHF → X171-2A SN 098-6001 QUANTITY X171-2A	ACF HIGHWAY LTG QUANTITY Y030-1E
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	8	8			
20200100	EARTH EXCAVATION	CU YD	2910	2910			
20400800	FURNISHED EXCAVATION	CU YD	3088	3088			
20700400	POROUS GRANULAR EMBANKMENT (SPECIAL)	CU YD	416.7		234.7	182	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	17025	17025			
25000210	SEEDING, CLASS 2A	ACRE	2.2	2.2			
25000310	SEEDING, CLASS 4	ACRE	1.6	1.6			
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	360	360			
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	360	360			
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	360	360			
Δ 25000750	MOWING	ACRE	2.2	2.2			
25000775	SELECTIVE MOWING STAKES	EACH	2	2			
25100115	MULCH, METHOD 2	ACRE	1.3	1.3			
25100630	EROSION CONTROL BLANKET	SQ YD	10939	10939			
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	760	760			
28000400	PERIMETER EROSION BARRIER	FOOT	5725	5725			
28000500	INLET AND PIPE PROTECTION	EACH	1	1			
28100105	STONE RIPRAP, CLASS A3	SQ YD	100	100			
28100107	STONE RIPRAP, CLASS A4	SQ YD	34	34			
28200200	FILTER FABRIC	SQ YD	1,188.5	34	662.5	492	
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	330	330			
31100100	SUB-BASE GRANULAR MATERIAL, TYPE A	TON	3817	3817			
31200100	STABILIZED SUB-BASE 4"	SQ YD	5585	5585			
35300300	PORTLAND CEMENT CONCRETE BASE COURSE 8"	SQ YD	2144	2144			
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	2.4	2.4			
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	75	75			
40601000	BITUNINOUS REPLACEMENT OVER PATCHES	TON	10	10			
42000411	PORTLAND CEMENT CONCRETE PAVEMENT, 9½" (JOINTED)	SQ YD	620	620			
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	542.8	542.8			
42001300	PROTECTIVE COAT	SQ YD	2753	2753			
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	1401	1401			
42100210	CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT, 9½"	SQ YD	189	189			
42100810	PAVEMENT REINFORCEMENT 9½"	SQ YD	189	189			
42101080	WIDE FLANGE BEAM TERMINAL JOINT COMPLETE (SPECIAL)	EACH	2	2			
44000100	PAVEMENT REMOVAL	SQ YD	4033	4033			
44000120	BITUMINOUS REMOVAL OVER PATCHES 5"	SQ YD	33	33			

ΔNON-PARTICIPATING

SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	80% Federal 20% State TOTAL QUANTITY	ACF ROADWAY QUANTITY 1000	← ACBHF → X271-2A SN 098-6000 QUANTITY X271-2A	← ACBHF → X171-2A SN 098-6001 QUANTITY X171-2A	ACF HIGHWAY LTG QUANTITY Y030-1E
44000400	GUTTER REMOVAL	FOOT	1383	1383			
44002805	ISLAND REMOVAL	SQ FT	3631	3631			
44003100	MEDIAN REMOVAL	SQ FT	1293	1293			
44004250	PAVED SHOULDER REMOVAL	SQ YD	217	217			
44200120	PAVEMENT PATCHING TYPE II, 10"	SQ YD	27	27			
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	646	646			
48101200	AGGREGATE SHOULDERS, TYPE B	TON	994	994			
48202310	BITUMINOUS SHOULDERS SUPERPAVE, 5½"	SQ YD	1284	1284			
48300410	PORTLAND CEMENT CONCRETE SHOULDERS 9½"	SQ YD	378	378			
50102400	CONCRETE REMOVAL	CU YD	144.8		72.8	72	
50104400	CONCRETE HEADWALL REMOVAL	EACH	2	2			
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	2		1	1	
50200100	STRUCTURE EXCAVATION	CU YD	827.5		493.5	334	
50300225	CONCRETE STRUCTURES	CU YD	319.4		174	145.4	
50300255	CONCRETE SUPERSTRUCTURES	CU YD	588.7		318.5	270.2	
50300260	BRIDGE DECK GROOVING	SQ YD	1564		863	701	
50300300	PROTECTIVE COAT	SQ YD	1965		1086	879	
50300310	ELASTOMERIC BEARING ASSEMBLY, TYPE 1	EACH	49		28	21	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		0.55	0.45	
50500505	STUD SHEAR CONNECTORS	EACH	7353		4224	3129	
50500715	JACK AND REMOVE EXISTING BEARING	EACH	35		20	15	
50501110	STRUCTURAL STEEL REMOVAL	POUND	60,185		32,875	27310	
50501130	STRUCTURAL STEEL REPAIR	POUND	2,100		1,040	1060	
* 50600600	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1		1		
* 50600700	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1			1	
* 50606401	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1		1		
* 50606402	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1			1	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	149,540		84,650	64,890	
51100100	SLOPEWALL 4"	SQ YD	138.2		72.2	66	
51100500	BITUMINOUS COATED AGGREGATE SLOPEWALL 6"	SQ YD	1,154.5		662.5	492	
51201600	FURNISHING STEEL PILES HP12x53	FOOT	2,190		1,338	852	
51202700	DRIVING STEEL PILES	FOOT	2,190		1,338	852	

• SPECIALTY ITEMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. HORIZ.
DATE 08/25/2005
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SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	80% Federal 20% State TOTAL QUANTITY	ACF ROADWAY QUANTITY I000	ACBHF SN 098-6000 QUANTITY X271-2A	ACBHF SN 098-6001 QUANTITY X171-2A	ACF HIGHWAY LTG QUANTITY Y030-1E
51500100	NAME PLATES	EACH	2		1	1	
542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24"	FOOT	6	6			
54213447	END SECTIONS 12"	EACH	6	6			
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	2	2			
54248515	CONCRETE COLLAR	EACH	2	2			
60100945	PIPE DRAINS 12"	FOOT	349	349			
60608600	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.06	FOOT	337	337			
60618300	CONCRETE MEDIAN SURFACE, 4 IN	SQ FT	2304	2304			
60622400	CONCRETE MEDIAN , TYPE SM-6.06	SQ FT	2400	2400			
60624600	CORRUGATED MEDIAN	SQFT	700	700			
60900330	TYPE D INLET BOX, STANDARD 609001	EACH	4	4			
60900515	CONCRETE THRUST BLOCKS	EACH	6	6			
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	2	2			
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	750	750			
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8	8			
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	1	1			
* 63100169	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)	EACH	1	1			
63200310	GUARDRAIL REMOVAL	FOOT	1024	1024			
63500105	DELINEATORS	EACH	4	4			
66700095	PERMANENT SURVEY MARKERS	EACH	2	2			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	10			
67100100	MOBILIZATION	L SUM	1	1			
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1	1			
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1			
70106700	TEMPORARY RUMBLE STRIP	EACH	6	6			
• 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	23118	23118			
• 78001140	PAINT PAVEMENT MARKING - LINE 8"	FOOT	1141	1141			
• 78001150	PAINT PAVEMENT MARKING - LINE 12"	FOOT	200	200			
• 78001180	PAINT PAVEMENT MARKING - LINE 24"	FOOT	120	120			
• 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	41	41			
• 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	9	9			
78200410	GUARDRAIL MARKER, TYPE A	EACH	10	10			
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	67	67			
• 80400100	ELECTRIC SERVICE INSTALLATION	EACH	1				1
• 81020500	CONDUIT PUSHED, 2" DIA., INTERMEDIATE METAL	FOOT	134				134

SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

CODE NUMBER	PAY ITEM	UNIT	80% Federal 20% State TOTAL QUANTITY	ACF ROADWAY QUANTITY I000	ACBHF SN 098-6000 QUANTITY X271-2A	ACBHF SN 098-6001 QUANTITY X171-2A	ACF HIGHWAY LTG QUANTITY Y030-1E
• 81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	471				471
• 81600215	UNIT DUCT 2#8 XLP, 1#8 XLP GROUND 3/4" POLYETHYLENE	FOOT	605				605
• 82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT 250 WATT	EACH	3				3
• 82500605	LIGHTING CONTROLLER PHOTOCELL RELAY	EACH	1				1
• 83008500	LIGHTPOLE, ALUMINUM, 45 FT. M.H., 12 FT. DAVIT ARM	EACH	3				3
• 83600355	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8"X6'	EACH	3				3
Ø 83800650	BREAKAWAY DEVICE, COUPLING, SS SCREEN	EACH	12				12
89502380	REMOVE EXISTING HANDHOLE	EACH	3				3
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	6				6
A2007814	TREE, TILIA AMERICANA (AMERICAN LINDEN/BASSWOOD), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	1	1			
X0321478	MAINTENANCE OF EXISTING LIGHTING SYSTEM COMPLETE	L SUM	1	1			
X4066414	BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX C, N 50	TON	183	183			
X4066426	BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX D, N 70	TON	601	601			
X4066770	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N 70	TON	405	405			
X5067501	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1	L SUM	1		1		
X5067502	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 2	L SUM	1			1	
X7013015	TRAFFIC CONTROL FOR ROAD CLOSURE	L SUM	1	1			
• XX220000	REMOVE EXISTING LIGHTING SYSTEM	EACH	1				1
Z0002600	BAR SPLICERS	EACH	160		80	80	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			
Z0028415	GEOTECHNICAL REINFORCEMENT	SQ YD	27	27			
Z0028700	GRANULAR SUBGRADE REPLACEMENT	CU YD	5	5			
Z0047300	PROTECTIVE SHIELD	SQ YD	386.5		175.5	211	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1			
Z0055100	RUMBLE RESURFACING	SQ YD	31	31			

• SPECIALTY ITEMS

ØSFTY-3C

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. HORIZ.

DATE 08/25/2005

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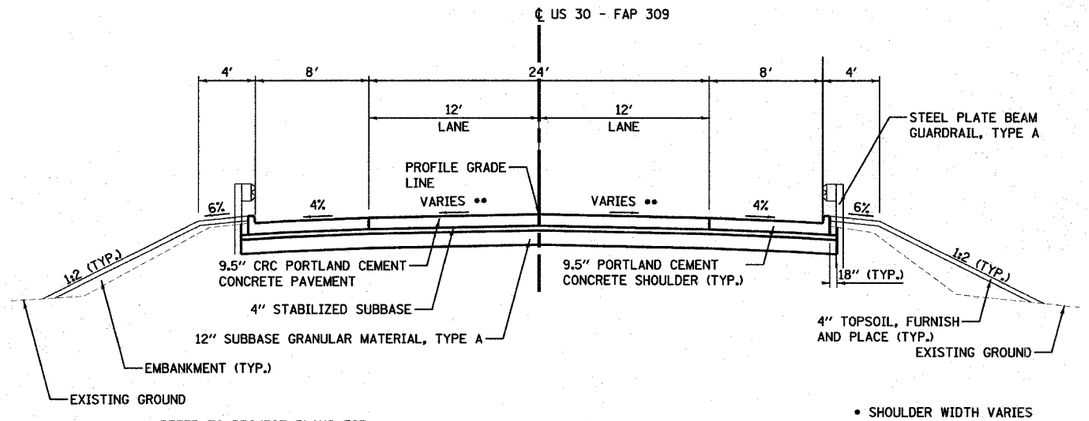
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR&7VBR	WHITESIDE	146	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				



•• REFER TO PROJECT PLANS FOR SUPERELEVATION DETAILS

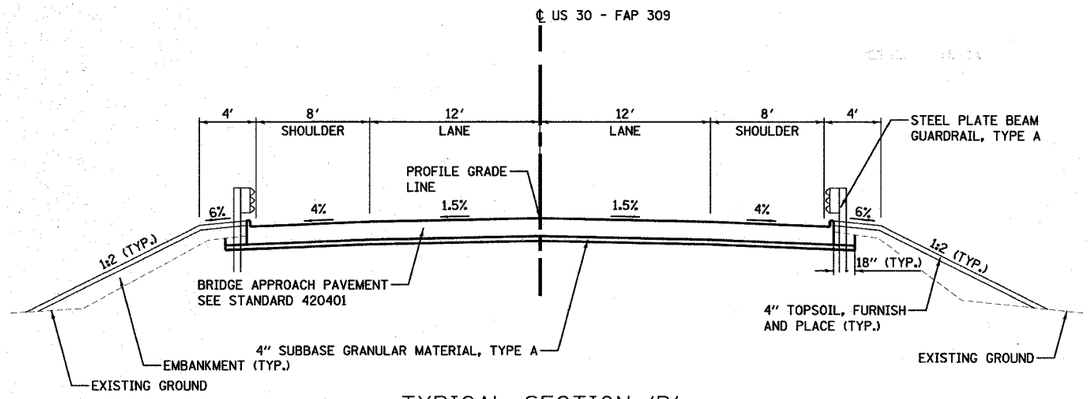
• SHOULDER WIDTH VARIES FROM EXISTING AT STA. 44+94.89 TO 6' AT STA. 45+00.00

TYPICAL SECTION 'A'

US 30 STA. 44+94.89 TO US 30 STA. 46+06.03
US 30 STA. 48+31.03 TO US 30 STA. 49+85.95

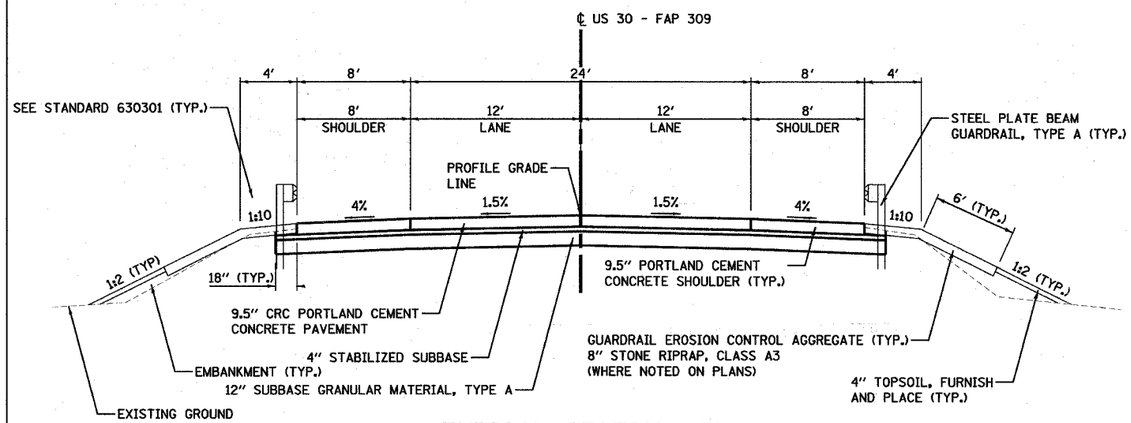
NOTE:

PAVEMENT FROM STA. 45+20.00 TO STA. 46+06.03 AND FROM STA. 48+31.03 TO STA. 49+85.95 IS BRIDGE APPROACH PAVEMENT CONNECTOR (PCC).



TYPICAL SECTION 'B'

US 30 STA. 46+06.03 TO US 30 STA. 46+36.03
US 30 STA. 48+01.03 TO US 30 STA. 48+31.03
US 30 STA. 49+85.95 TO US 30 STA. 50+15.95
US 30 STA. 52+19.71 TO US 30 STA. 52+49.71



TYPICAL SECTION 'C'

US 30 STA. 52+49.71 TO US 30 STA. 52+79.26

NOTE:

PAVEMENT FROM STA. 52+49.71 TO 52+79.26 IS BRIDGE APPROACH PAVEMENT CONNECTOR (PCC).

* NOTE: THE EXISTING PAVEMENT ON US 30 AND RAMPS CONSISTS OF APPROXIMATELY 10" PCC PAVEMENT AND 5" BITUMINOUS OVERLAY.

STRUCTURAL DESIGN INFORMATION (RIGID PAVEMENT)

STRUCTURAL DESIGN TRAFFIC: YEAR: **2005**

PV = **12755** SU = **135** MU = **610**

ROAD/STREET CLASSIFICATION: ***Rural Principal Arterial***

TRAFFIC IN DESIGN LANE:

P = **50%** S = **50%** M = **50%**

TRAFFIC FACTOR: TF = **5.51**

MINIMUM SOIL SUPPORT:

IBR= ***POOR*** STA. ***44+94*** TO STA. ***55+00***

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT. HORIZ.
DATE 08/25/2005

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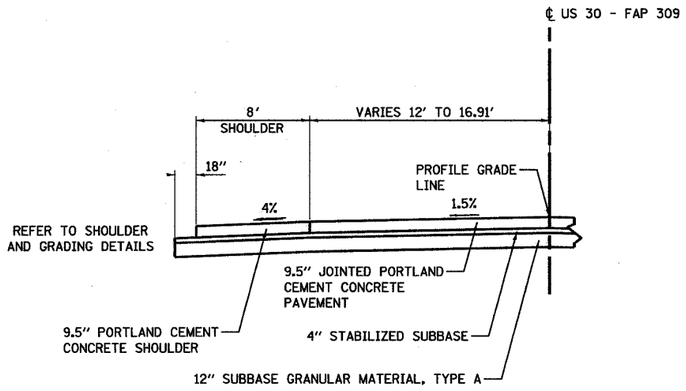
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR&7VBR	WHITESIDE	146	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

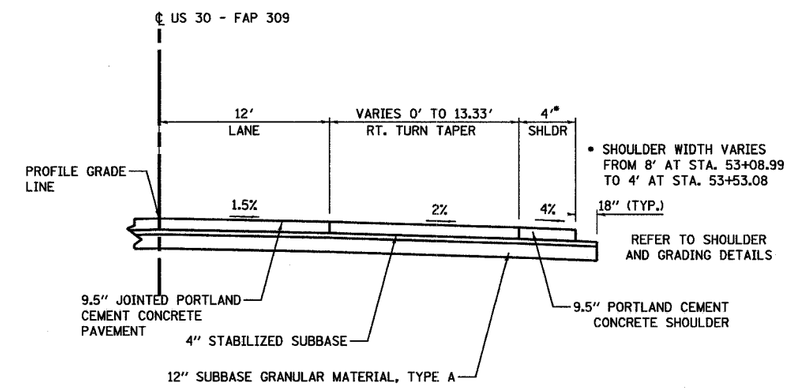


TYPICAL SECTION 'D' LEFT PAVEMENT SECTION

US 30 STA. 52+79.26 TO US 30 STA. 55+00.00

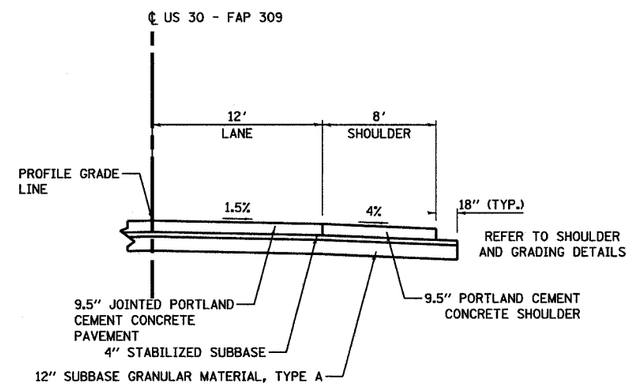
NOTE:

PAVEMENT FROM STA. 52+79.26 TO STA. 53+08.99 IS BRIDGE APPROACH PAVEMENT CONNECTOR (PCC).
PAVEMENT FROM STA. 53+08.99 TO STA. 53+49.71 IS CONTINUOUSLY REINFORCED PCC PAVEMENT.
PAVEMENT FROM STA. 53+49.71 TO 55+00.00 IS JOINTED PCC PAVEMENT.



TYPICAL SECTION 'F' RIGHT PAVEMENT SECTION

US 30 STA. 53+08.99 TO US 30 STA. 54+56.51

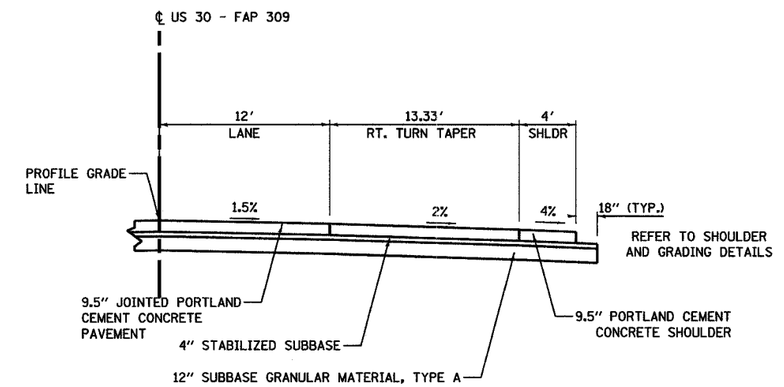


TYPICAL SECTION 'E' RIGHT PAVEMENT SECTION

US 30 STA. 52+79.26 TO US 30 STA. 53+08.99

NOTE:

PAVEMENT FROM STA. 52+79.26 TO STA. 53+08.99 IS BRIDGE APPROACH PAVEMENT CONNECTOR (PCC).
PAVEMENT FROM STA. 53+08.99 TO STA. 53+49.71 IS CONTINUOUSLY REINFORCED PCC PAVEMENT.
PAVEMENT FROM STA. 53+49.71 TO 55+00.00 IS JOINTED PCC PAVEMENT.



TYPICAL SECTION 'G' RIGHT PAVEMENT SECTION

US 30 STA. 54+56.51 TO US 30 STA. 55+00.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT. HORIZ.
DATE 08/25/2005
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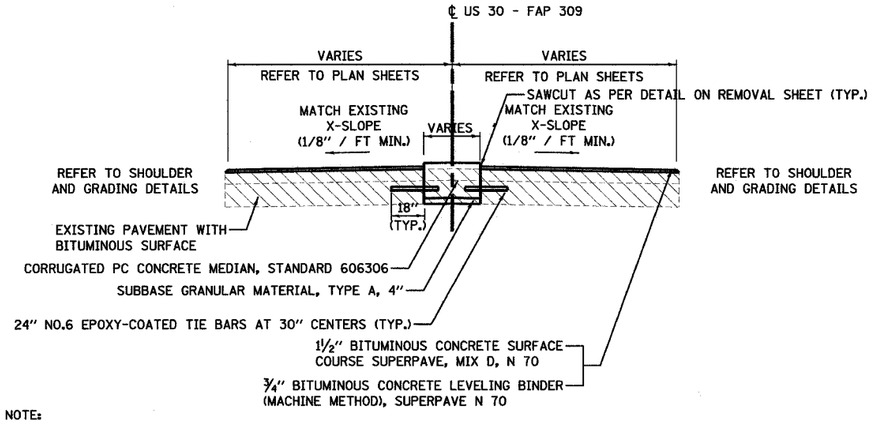
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR&7VBR	WHITESIDE	146	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

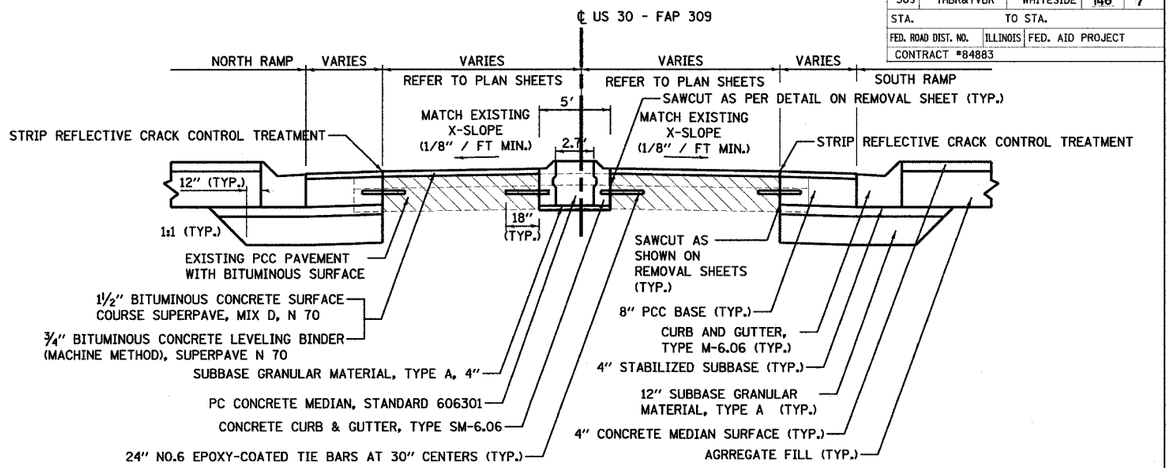


NOTE:

CORRUGATED MEDIAN LIMITS ARE:
US 30 STA. 55+00.00 TO STA. 55+52.00
US 30 STA. 60+32.00 TO STA. 61+32.00

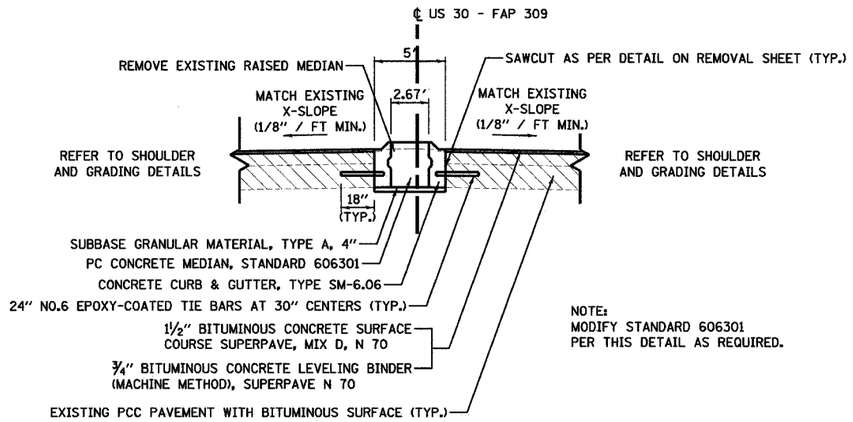
TYPICAL SECTION 'H'
FULL WIDTH OVERLAY

US 30 STA. 55+00.00 TO US 30 STA. 55+55.50
US 30 STA 60+28.50 TO US 30 STA. 70+50.00



TYPICAL SECTION 'J'
PARTIAL WIDTH OVERLAY
AT RAMP INTERSECTION w/ ISLAND

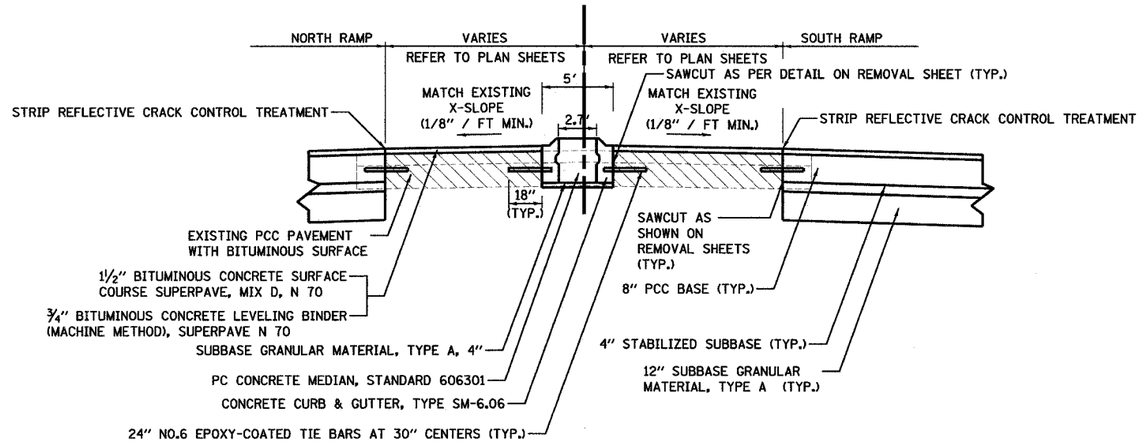
US 30 STA. 57+15.37 LT. TO US 30 STA. 57+63.89 LT.
US 30 STA. 56+76.16 RT. TO US 30 STA. 57+45.09 RT.



NOTE:
MODIFY STANDARD 606301
PER THIS DETAIL AS REQUIRED.

TYPICAL SECTION 'I'
OVERLAY w/ RAISED MEDIAN

US 30 STA. 55+55.50 RT. TO US 30 STA. 55+90.21 RT.
US 30 STA. 58+67.63 RT. TO US 30 STA. 60+28.50 RT.
US 30 STA. 55+55.50 LT. TO US 30 STA. 55+76.08 LT.
US 30 STA. 58+35.54 LT. TO US 30 STA. 60+28.50 LT.



TYPICAL SECTION 'K'
PARTIAL WIDTH OVERLAY
AT RAMP INTERSECTION

US 30 STA. 55+90.21 RT. TO US 30 STA. 56+76.16 RT.
US 30 STA. 57+45.09 RT. TO US 30 STA. 58+67.63 RT.
US 30 STA. 55+76.08 LT. TO US 30 STA. 57+15.37 LT.
US 30 STA. 57+63.89 LT. TO US 30 STA. 58+35.54 LT.

LEGEND

EXISTING PAVEMENT

NOTE: WEIGHT OF BITUMINOUS MATERIAL = 112 LBS/SQYD/IN

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT.
HORIZ.
DATE 08/25/2005

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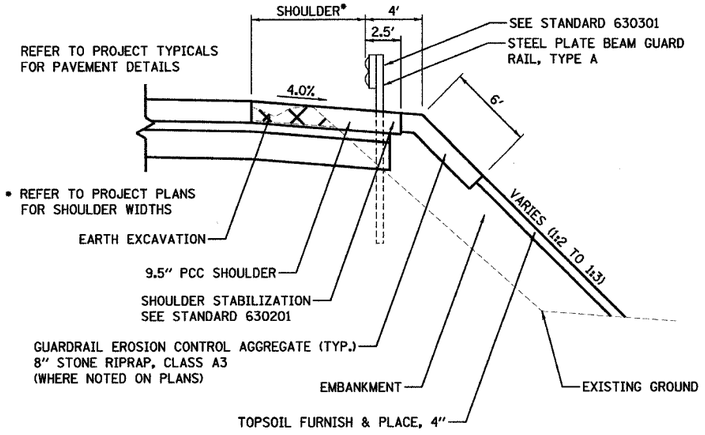
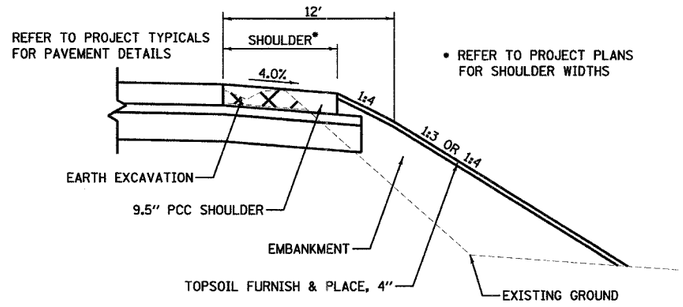
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR&7VBR	WHITESIDE	146	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				



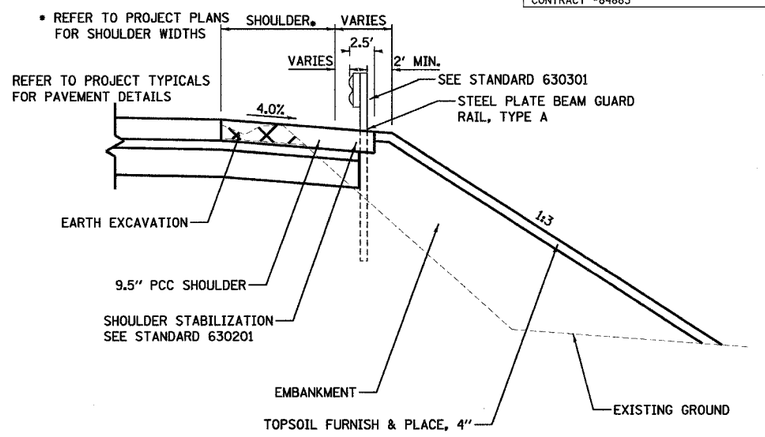
SHOULDER AND GRADING DETAIL

US 30 STA. 52+49.71 LT. TO US 30 STA. 54+23.38 LT.
US 30 STA. 52+49.71 RT. TO US 30 STA. 53+61.85 RT.



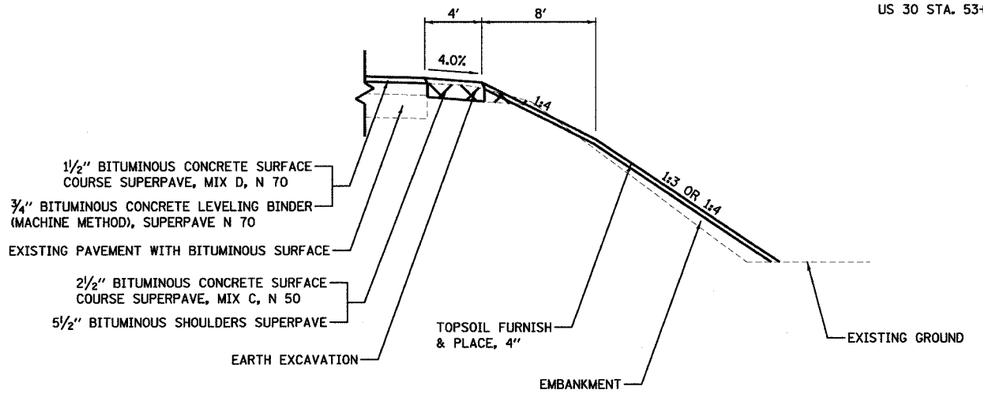
SHOULDER AND GRADING DETAIL

US 30 STA. 54+85.57 LT. TO US 30 STA. 55+00.00 LT.
US 30 STA. 53+86.78 RT. TO US 30 STA. 55+00.00 RT.



SHOULDER AND GRADING DETAIL

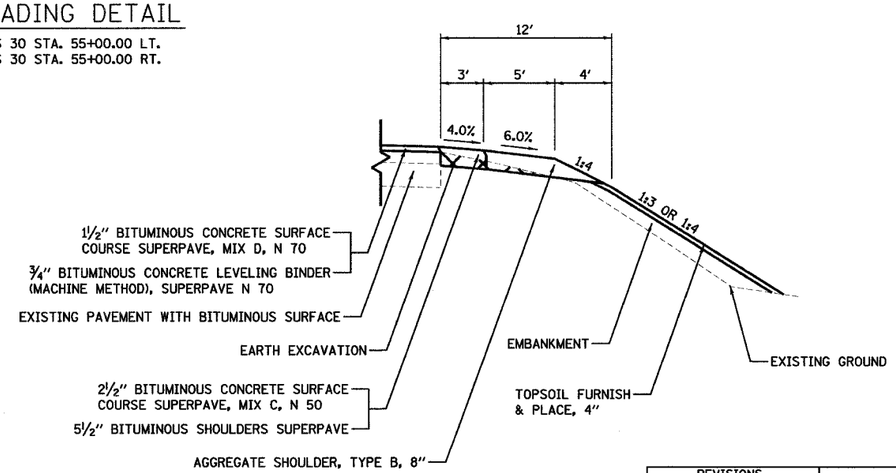
US 30 STA. 54+23.38 LT. TO US 30 STA. 54+85.57 LT.
US 30 STA. 53+61.85 RT. TO US 30 STA. 53+86.78 RT.



SHOULDER AND GRADING DETAIL

US 30 STA. 58+35.54 LT. TO US 30 STA. 61+01.28 LT.
US 30 STA. 55+00.00 RT. TO US 30 STA. 55+90.13 RT.
US 30 STA. 58+67.63 RT. TO US 30 STA. 59+07.43 RT.

NOTE: WEIGHT OF BITUMINOUS MATERIAL = 112 LBS/SQYD/IN



SHOULDER AND GRADING DETAIL

US 30 STA. 61+01.28 LT. TO US 30 STA. 70+50.00 LT.
US 30 STA. 59+07.43 RT. TO US 30 STA. 70+50.00 RT.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT.
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DATE 08/25/2005

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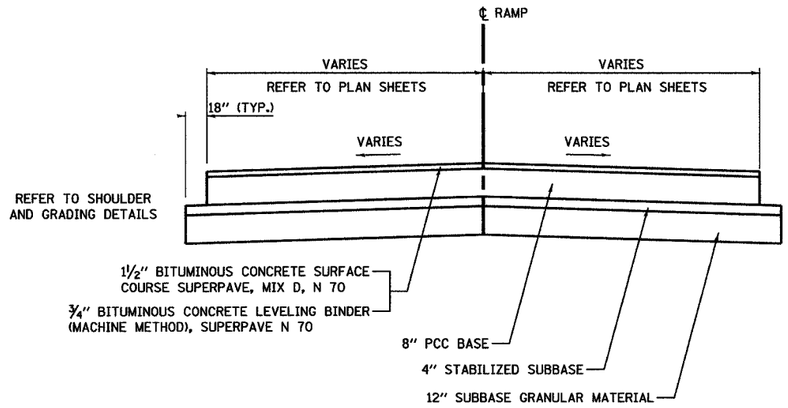
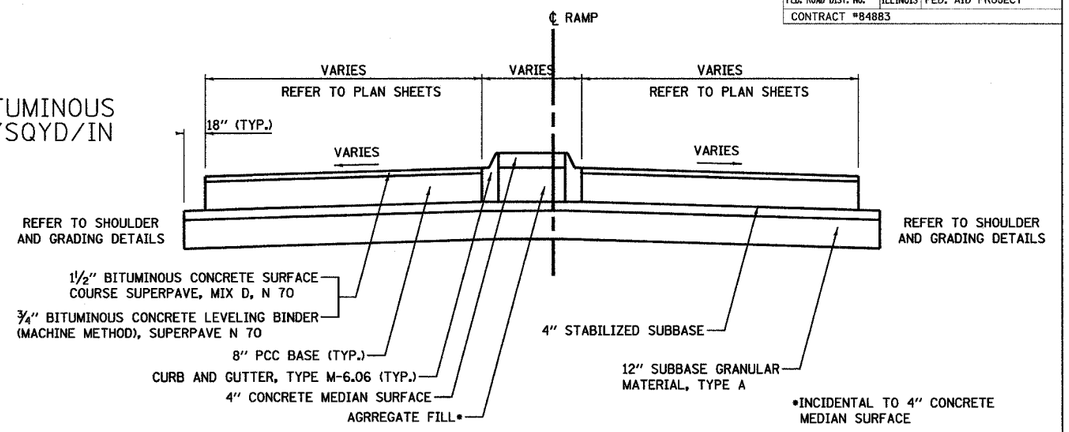
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR&7VBR	WHITESIDE	146	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

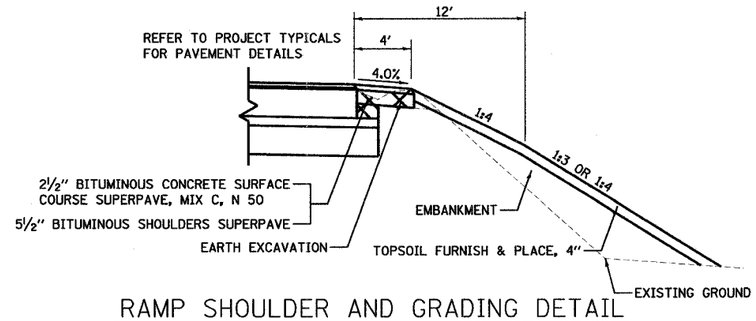


TYPICAL SECTION 'L'
RAMP PAVEMENT SECTION

NOTE: WEIGHT OF BITUMINOUS MATERIAL = 112 LBS/SQYD/IN

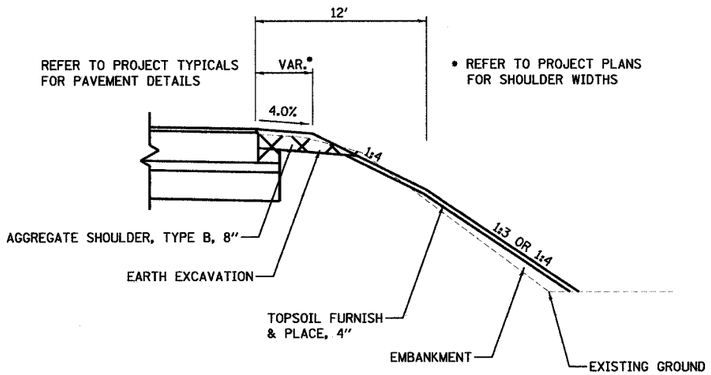


TYPICAL SECTION 'M'
RAMP PAVEMENT SECTION w/ ISLAND



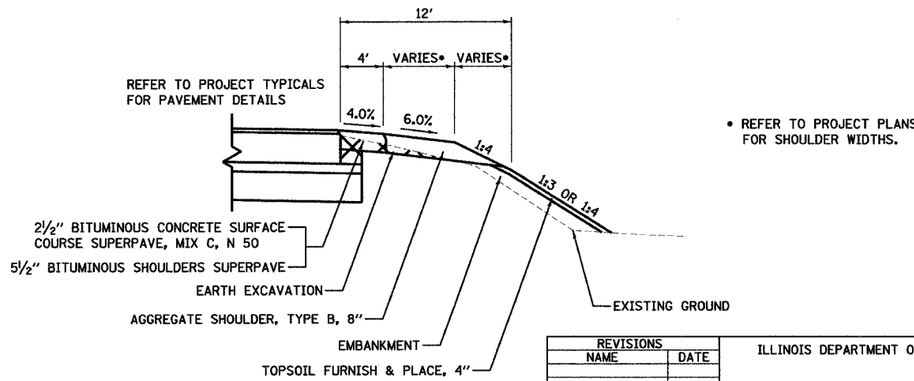
RAMP SHOULDER AND GRADING DETAIL

N. RAMP STA. 201+63.16 LT. TO US 30 STA. 58+35.54 LT.
US 30 STA. 55+90.13 RT. TO S. RAMP STA. 302+00.00 RT.
S. RAMP STA. 301+50.00 RT. TO US 30 STA. 58+67.63 RT.
US 30 STA.56+31.18 LT. TO N. RAMP STA. 201+13.39 LT.



RAMP SHOULDER AND GRADING DETAIL

N. RAMP STA. 201+13.39 LT. TO N. RAMP STA. 201+63.16 LT.
S. RAMP STA. 301+50.00 LT. TO S. RAMP STA. 302+00.00 LT.



RAMP SHOULDER AND GRADING DETAIL

US 30 STA. 55+00.00 LT. TO US 30 STA. 56+31.18 LT.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT.
HORIZ.
DATE 08/25/2005
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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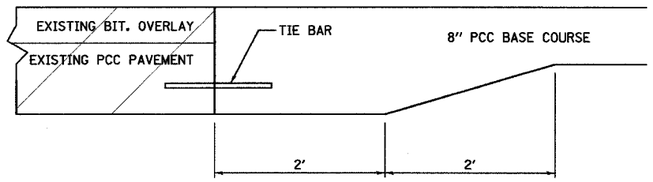
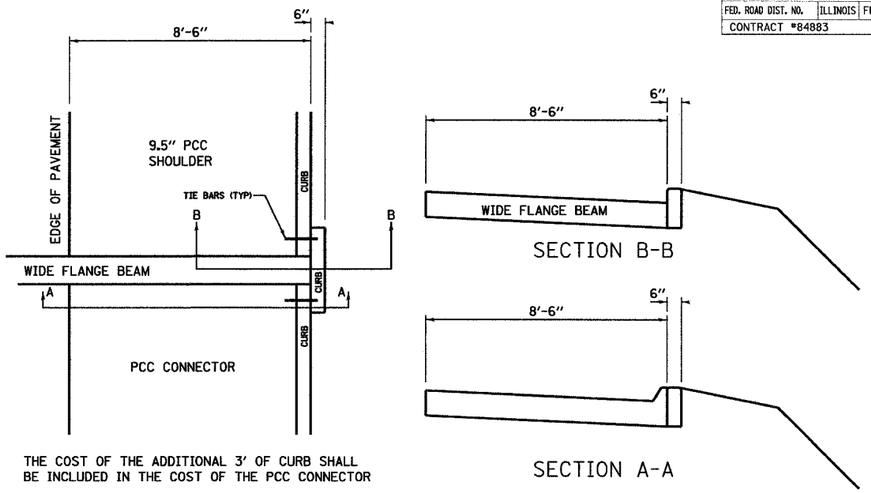
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT *84883				



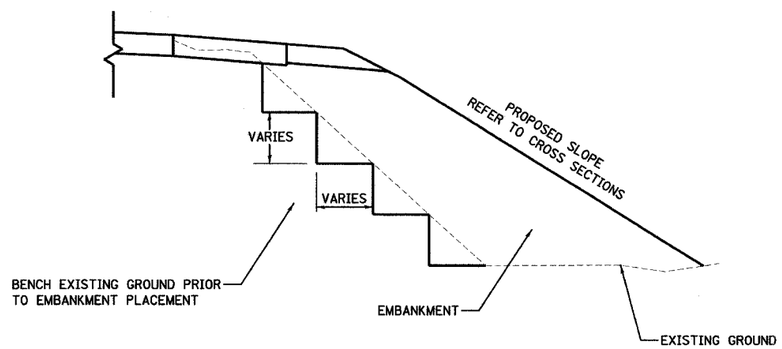
BASE COURSE THICKENED EDGE DETAIL

AT RAMPS, ADJACENT TO US 30

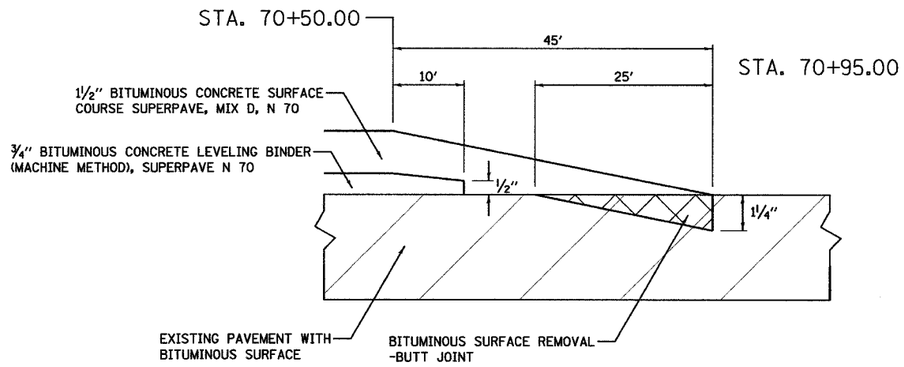


THE COST OF THE ADDITIONAL 3' OF CURB SHALL BE INCLUDED IN THE COST OF THE PCC CONNECTOR

CURB DETAIL AT WIDE FLANGE BEAM



BENCHING DETAIL



BITUMINOUS SURFACE REMOVAL BUTT JOINT DETAIL - NOT TO SCALE

US 30 STA. 70+50.00 TO US 30 STA. 70+95.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT. HORIZ.

DATE 08/25/2005

DRAWN BY SWEET

CHECKED BY ZELINSKAS

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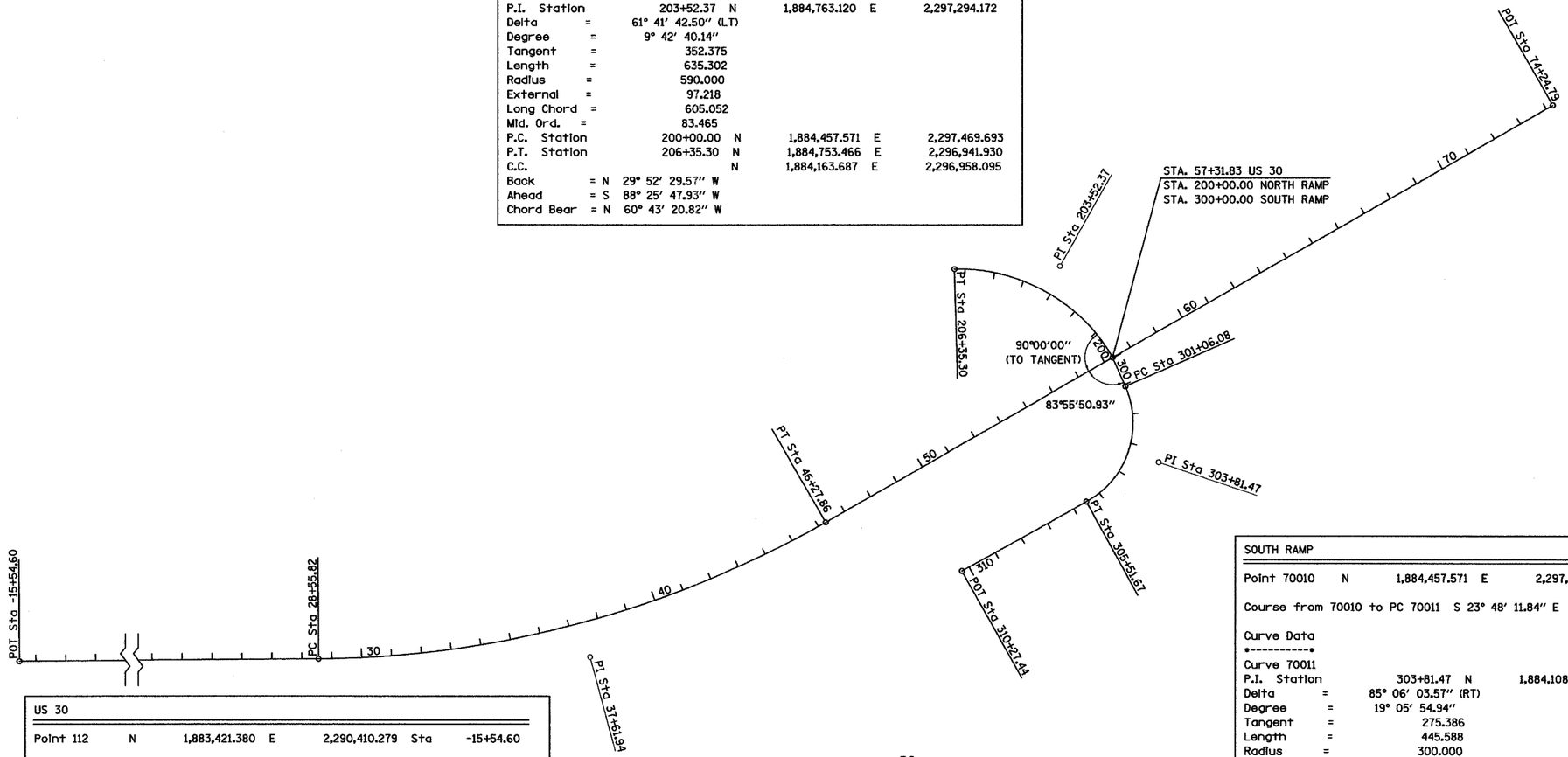
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7VBR-1&7HBR	WHITESIDE	146	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT *84883				

NORTH RAMP

Curve Data

Curve 70021

P.I. Station	203+52.37 N	1,884,763.120 E	2,297,294.172
Delta =	61° 41′ 42.50″ (LT)		
Degree =	9° 42′ 40.14″		
Tangent =	352.375		
Length =	635.302		
Radius =	590.000		
External =	97.218		
Long Chord =	605.052		
Mid. Ord. =	83.465		
P.C. Station	200+00.00 N	1,884,457.571 E	2,297,469.693
P.T. Station	206+35.30 N	1,884,753.466 E	2,296,941.930
C.C.	N	1,884,163.687 E	2,296,958.095
Back	= N 29° 52′ 29.57″ W		
Ahead	= S 88° 25′ 47.93″ W		
Chord Bear	= N 60° 43′ 20.82″ W		



US 30

Point 112 N 1,883,421.380 E 2,290,410.279 Sta -15+54.60

Course from 112 to PC 70000 N 89° 37′ 24.22″ E Dist 4,410.418

Curve Data

Curve 70000

P.I. Station	37+61.94 N	1,883,456.325 E	2,295,726.706
Delta =	29° 29′ 53.79″ (LT)		
Degree =	1° 39′ 52.74″		
Tangent =	906.124		
Length =	1,772.040		
Radius =	3,441.910		
External =	117.276		
Long Chord =	1,752.534		
Mid. Ord. =	113.412		
P.C. Station	28+55.82 N	1,883,450.369 E	2,294,820.602
P.T. Station	46+27.86 N	1,883,907.673 E	2,296,512.420
C.C.	N	1,886,892.205 E	2,294,797.979
Back	= N 89° 37′ 24.22″ E		
Ahead	= N 60° 07′ 30.43″ E		
Chord Bear	= N 74° 52′ 27.32″ E		

Course from PT 70000 to 115 N 60° 07′ 30.43″ E Dist 2,796.938

Point 115 N 1,885,300.849 E 2,298,937.688 Sta 74+24.79

SOUTH RAMP

Point 70010 N 1,884,457.571 E 2,297,469.693 Sta 300+00.00

Course from 70010 to PC 70011 S 23° 48′ 11.84″ E Dist 106.081

Curve Data

Curve 70011

P.I. Station	303+81.47 N	1,884,108.559 E	2,297,623.667
Delta =	85° 06′ 03.57″ (RT)		
Degree =	19° 05′ 54.94″		
Tangent =	275.386		
Length =	445.588		
Radius =	300.000		
External =	107.232		
Long Chord =	405.744		
Mid. Ord. =	78.996		
P.C. Station	301+06.08 N	1,884,360.513 E	2,297,512.507
P.T. Station	305+51.67 N	1,883,976.288 E	2,297,382.126
C.C.	N	1,884,239.418 E	2,297,238.033
Back	= S 23° 48′ 23.84″ E		
Ahead	= S 61° 17′ 39.73″ W		
Chord Bear	= S 18° 44′ 37.95″ W		

Course from PT 70011 to 3111 S 60° 42′ 57.91″ W Dist 475.768

Point 3111 N 1,883,743.572 E 2,296,967.158 Sta 310+27.44

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HORIZONTAL CONTROL

SCALE: VERT.
HORIZ.
DATE 08/25/2005

DRAWN BY SWEET
CHECKED BY ZELINSKAS

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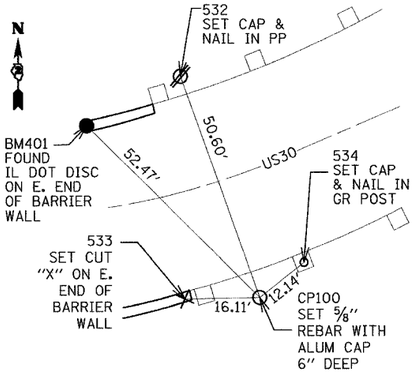
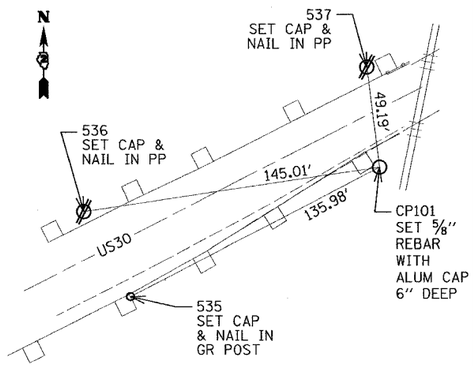
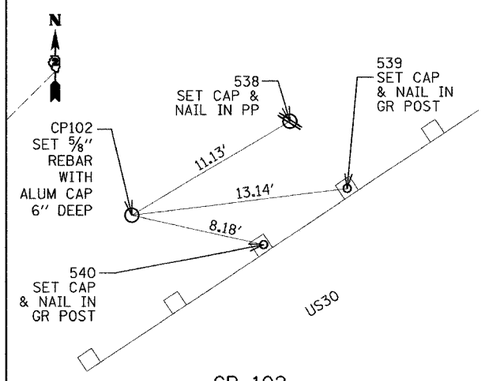


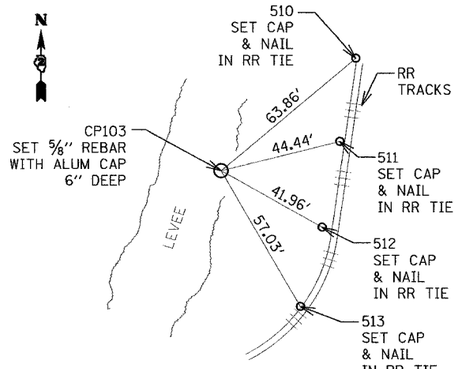
CP 100
Sta. 37+98.08, 24.84' Rt.
N 1883560.786 E 2295757.146
Placed 5/8" rebar w/ cap



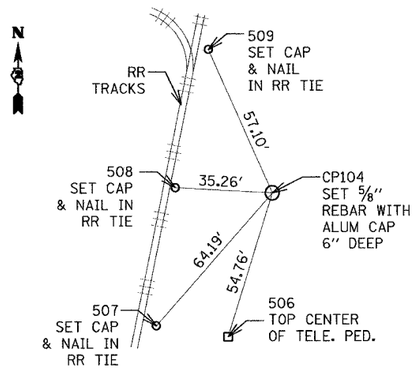
CP 101
Sta. 46+09.16, 22.59' Rt.
N 1883878.759 E 2296507.331
Placed 5/8" rebar w/ cap



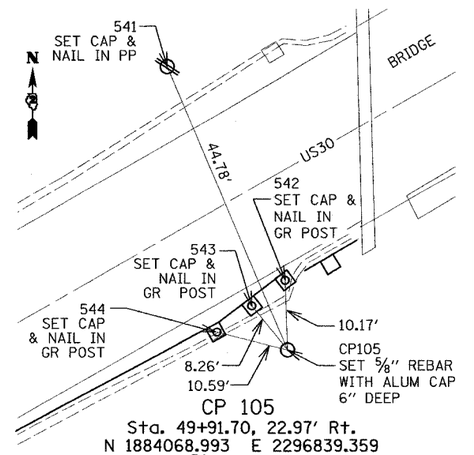
CP 102
Sta. 48+20.19, 20.43' Lt.
N 1884021.188 E 2296669.024
Placed 5/8" rebar w/ cap



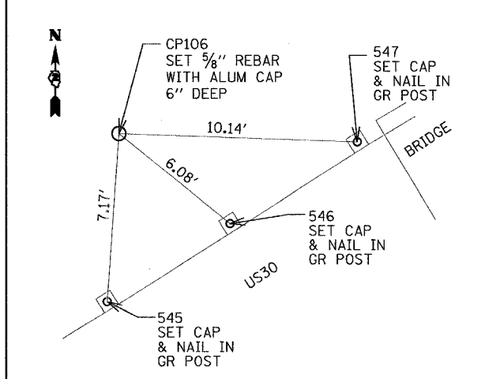
CP 103
Sta. 45+19.37, 173.71' Rt.
N 1883701.847 E 2296499.247
Placed 5/8" rebar w/ cap



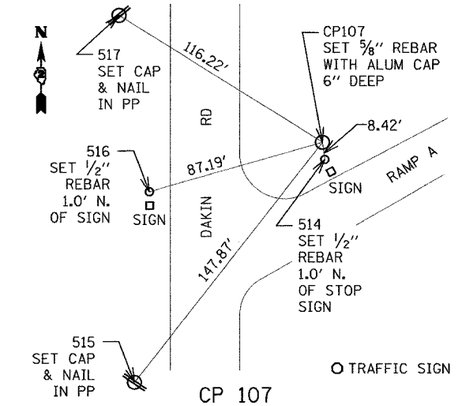
CP 104
Sta. 48+96.68, 174.78' Lt.
N 1884193.125 E 2296658.464
Placed 5/8" rebar w/ cap



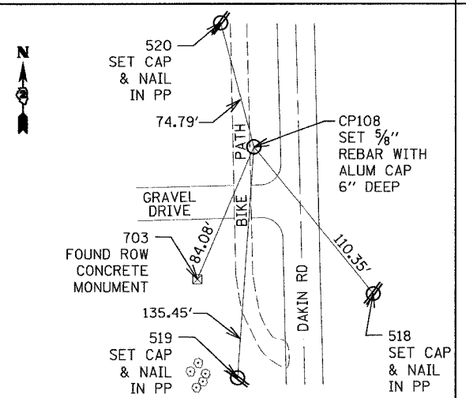
CP 105
Sta. 49+91.70, 22.97' Rt.
N 1884068.993 E 2296839.359
Placed 5/8" rebar w/ cap



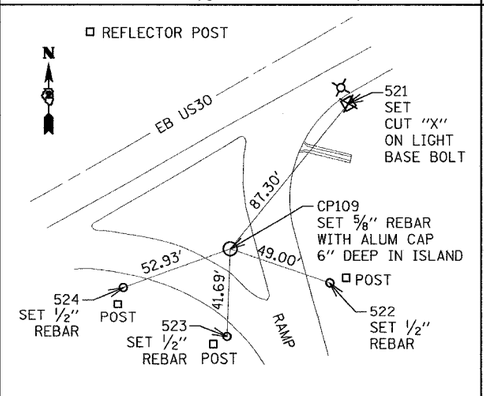
CP 106
Sta. 52+43.02, 20.46' Lt.
N 1884231.833 E 2297035.644
Placed 5/8" rebar w/ cap



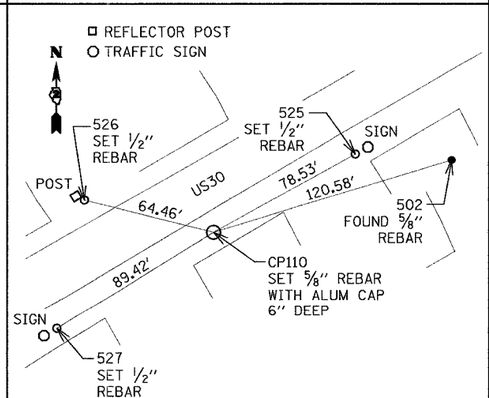
CP 107
Sta. 50+22.46, 341.80' Rt.
N 1883807.849 E 2297024.838
Placed 5/8" rebar w/ cap



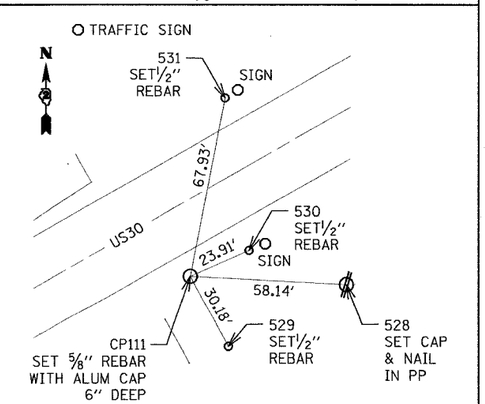
CP 108
Sta. 52+14.00, 191.24' Lt.
N 1884365.462 E 2296925.419
Placed 5/8" rebar w/ cap



CP 109
Sta. 57+14.03, 65.32' Rt.
N 1884392.065 E 2297486.797
Placed 5/8" rebar w/ cap



CP 110
Sta. 64+10.59, 22.74' Rt.
N 1884775.950 E 2298069.587
Placed 5/8" rebar w/ cap



CP 111
Sta. 71+09.79, 25.21' Rt.
N 1885122.083 E 2298677.101
Placed 5/8" rebar w/ cap

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	12
STA.		TO STA.		
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

BENCHMARKS

BM 401 FND. ILL DOT DISK ON E. END BARRIER WALL, N. SIDE US 30 OVER SUNFISH SLOUGH
EL. = 601.757

BM 402 FND. CUT "□" ON NW COR. ABUT. ON US30 BRIDGE OVER RR TRACKS
STA. 46+36.4, 19.9' LT.
EL. = 618.657

BM 403 SET CUT "□" ON SE COR. CONC. LIGHT BASE, N. SIDE US30
STA. 59+81.8, 31.9' LT.
EL. = 595.327

BM 404 SET CUT "□" ON TOP CTR. OF HEADWALL, S. SIDE US30
STA. 69+61.1, 29.2' RT.
EL. = 588.989

BM 406 FND. 60d SPIKE IN 1ST P.P. N. OF US30, W. SIDE DAKIN RD.
STA. 51+37.2, 79.8' LT.
EL. = 588.745

ILLINOIS DEPARTMENT OF TRANSPORTATION

REFERENCE TIES AND BENCH MARKS

DRAWN BY: D. UNSEN

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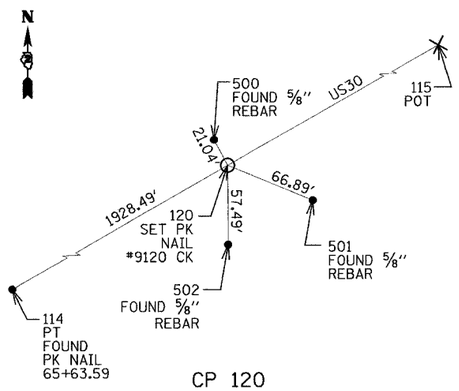
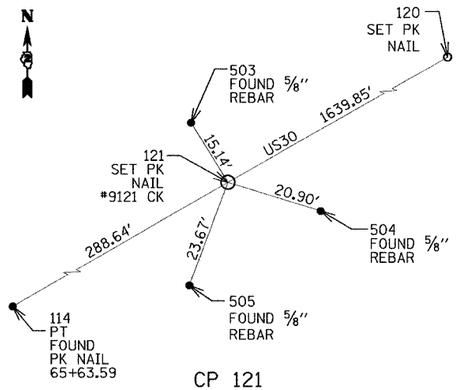


CP 120
P.O.T. Sta. 65+56.27
N 1884868.222 E 2298184.581
Set PK nail



CP 121
P.O.T. Sta. 49+16.42
N 1884051.409 E 2296762.637
Set PK nail

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	13
STA.		TO STA.		
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		
CONTRACT *84883				

ILLINOIS DEPARTMENT OF TRANSPORTATION

REFERENCE TIES AND BENCH MARKS

DRAWN BY: D. UNSEN

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GENERAL NOTES

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 309 (US 30)	7HBR-1 & 7VBR	Whiteside	146	14
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #84883				

See cross sections for special ditches and backslopes.

The removal of Bituminous Surfacing not on a rigid type base removed in conjunction with the base shall be removed as EARTH EXCAVATION. The removal of Bituminous Surfacing on a rigid type base removed in conjunction with the base shall be included in the contract unit price for PAVEMENT REMOVAL of the type specified.

It is estimated that ____ cubic meters (3,986 cubic yards) of earth will be hauled to the job from outside the project limits. A shrinkage factor of 25% has been used.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 2A shall be used.

Program #5 (Arch. Size) Enlarge 200% Enlarge 107%

Except for the top 75 mm (3"), all aggregate bases and subbases 300 mm (12") in thickness shall be constructed of aggregate gradation CA-2. If the specified thickness exceeds 300 mm (12"), the bases or subbases shall be constructed of topsize 150 mm (6") breaker-run crushed stone with 70% to 90% by weight, passing the 4" sieve and 15% to 40% by weight, passing the 50 mm (2") size sieve, except for the top 75 mm (3"). The breaker-run crushed stone shall be reasonably uniformly graded from coarse to fine and be taken from a quarry ledge capable of producing Class "D" quality aggregate. The top 75 mm (3") shall be gradation CA-6 or CA-10 regardless of thickness. The water necessary to achieve compaction in all but the top 75 mm (3") layer may be added after the subbase or base course is placed on the grade.

The existing pavement on US 30 and ramps consist of approximately 10" of concrete pavement overlayed with 5" of bituminous pavement.

The following Mixture Requirements are applicable for this project:

Mixture Uses(s):	Level Binder	Surface	Shoulder Base	Shoulder Surface	Bit. Repl. Over Patches Binder
PG:	PG 64-22	PG 64-22	PG 58-22	PG 58-22	64-22
RAP%: (Max)	15%	10%	50%	30%	15%
Design Air Voids	N70 @ 4.2%	N70 @ 4.2%	N50 @ 2.0%	N50 @ 3.0%	N70 @ 4.2
Mixture Composition (Gradation Mixture)	IL 9.5	IL 12.5 or 9.5	BAM	IL 12.5 or 9.5	IL 19
Friction Aggregate	N/A	D	N/A	C	N/A
20 Year ESAL	3.7	3.7	N/A	N/A	N/A

The Contractor will be required to furnish 140 mm (5 1/2") high brass stencils as approved by the Engineer and install stationing at 250' intervals. Stationing shall be placed on both lanes of 2-lane highways and on the outside lanes in both directions on 4-lane highways. The stations shall be placed 150 mm (6") inside the pavement marking edge so they can be read from the shoulder. This work will be included in the cost of the final pavement surface.

Reflective Crack Control shall be placed on the existing surface prior to any resurfacing, unless pavement is milled then it will be placed on the binder course.

Noses of curbed corner islands noted as 1 & 2 on Highway Standard 606301 shall be ramped unless the curb function is for the protection of pedestrians, signals, light standards or sign truss supports.

Use M-15.15 (M-6.06) or M-10.15 (M-4.06) curb and gutter on all sides of islands when island is offset shoulder width, but offset should not be greater than 2.4 m (8 feet) edge to face.

Use M-15 (M-6) curb on islands when located adjacent to a highway with speeds of 70 kmk/h (45 mph) or less.

The Contractor shall install a 450 mm (18") diameter formed opening in the Concrete Median Surface of the Island as directed by the Engineer. Also, a 75 mm (4") diameter formed opening shall be installed in each corner of the Island 300 mm (1 foot) behind the back of curb. All existing pavement surfaces of other existing obstructions beneath these openings shall be removed by the Contractor. After the median is in place the 450 mm (18") opening shall be cored down 1.2 m (4') and filled with dirt. All costs incurred shall be included in the contract unit price per Square Meter (Square Foot) for CONCRETE MEDIAN SURFACE, 100 mm (4 INCH).

The islands on this project are small islands as shown on the Detail of Island sheet in the plans.

The Contractor shall install 450 mm (18") diameter formed openings in the Concrete Median Surface, spaced at intervals no greater than 75 m (250 feet), and/or as directed by the Engineer. All existing pavement surfaces or other existing obstructions beneath these openings shall be removed by the Contractor. After the median is in place, core each opening down 1.2 m (4') and fill with dirt. All costs incurred shall be included in the contract unit price per Square Meter (Square Foot) for CONCRETE MEDIAN of the type specified.

Embankment quantities for the construction of the Traffic Barrier Terminals as shown in the plans are included in quantities for Furnished Excavation.

The Contractor shall supply the Resident Engineer with the manufacturer's installation requirements for the type of Steel Plate Beam Guardrail Terminal Type 1 Special (Tangent) or Steel Plate Beam Guardrail Terminal Type I Special (Flared).

One 16d galvanized nail shall be used to toe nail the wood block out to the wood post on all Traffic Barrier Terminal Type I Specials.

Pavement Marking shall be done according to Standard 780001, except as follows:

1. All words, such as ONLY, shall be 2.4 m (8 feet) high.
2. All non-freeway arrows shall be the large size.
3. The distance between yellow no-passing lines shall be 200 mm (8"), not 180 mm (7") as shown in the detail of Typical Lane and Edge Lines.

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

AT&T Communications, Inc.
Citizens/Frontier
Lightcore
Alliant Energy
Commonwealth Edison Co.
US Sprint

Following are the known utilities located within the project limits or immediately adjacent to the project construction limits which are not members of JULIE and should be notified individually by the contractor:

Mr. Dennis Schultz
IDOT – District 2
819 Depot Avenue
Dixon, IL 61021

GENERAL NOTES

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 309 (US 30)	7HBR-1 & 7VBR	Whiteside	146	15
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #84883				

Tie bars shall be installed to tie PCC appurtenance to adjacent existing concrete pavement.

Tie the following to the existing concrete pavement		Length, size, and spacing of Tie Bars
Gutter or Curb & Gutter	Std. 606001	600 mm (24") long No. 20 (No. 6) @ 600 mm (24") centers
PCC Base Course	Std. 353001	600 mm (24") long No. 20 (No. 6) @ 750 mm (30") centers
PCC Pavement	Std. 420101	600 mm (24") long No. 20 (No. 6) @ 750 mm (30") centers

Tie bars to be installed in accordance with the applicable portions of Article 420.10(b) of the Standard Specifications. See Highway Standard 420001 for detail on longitudinal construction joint grouted-in-place tie bar. The cost of the tie bars to be included in the cost of the PCC appurtenance adjacent to the existing pavement.

CADD data will be available to Contractors and Consultants working on this project. This information will be provided upon request as MicroStation CADD files and Geopak coordinate geometry files ONLY. If data is required in other formats it will be your responsibility to make these conversions. If any discrepancy or inconsistency arises between the electronic data and the information on the hard copy, the information on the hard copy should be used. Contact the District's Project Engineer to request these files.

Stock Piles of "Type A" older than 1 month will not be approved for use until a moisture check is run to verify moisture content. Materials shipped to project without being tested will not be accepted.

The contractor shall submit four copies of the required shop drawings for review and approval to the Bureau of Bridges and Structures, 2300 South Dirksen Parkway, Springfield, IL 62764. After approval of initial submittal, the contractor shall submit one set of shop drawings to Eric Harm, Engineer of Materials, 126 East Ash Street, Springfield, IL 62706, and eight (8) sets of shop drawings to be distributed to:

District 2 District Engineer (1)
Fabricator (1)
Contractor (2)
Resident Engineer (2)
District 2 Bureau of Materials (2)

The additional thickness of proposed pavement required to match the bridge approach pavement, shown in Standard 420401, shall be included in the cost of the proposed pavement and not paid for separately.

The curb is required on the bridge approach pavement as shown on Standard 420401.

Delineators shall be installed as shown in Standard 635001, except that the post shall be rotated 180° and only metal-backed delineators shall be permitted.

Delineators shall be placed at the ends of approach guardrail terminal sections, and at each headwall or end section of AR Culverts. This work will be paid for at the contract unit price each for DELINEATORS.

PERMANENT SURVEY MARKERS, TYPE II, shall be set at intervals of 1.6 Km (1 mile) or as directed by the Engineer. Bridge or culvert projects shall have one survey marker placed near the structure. Estimated: 2 Each.

Permanent Survey Markers, Type II shall be cast-in-place as shown on Highway Standard 667101.

The Contractor shall submit to the Engineer a description of location, elevation, and coordinates for each permanent survey marker. The Engineer shall submit this information to the Survey Crew.

Work on this project will be in progress at the same time as work on the structure carrying US 30 over the Mississippi River west of this project. Work on these projects shall be scheduled to keep interference between all the projects to a minimum. The contractors shall inform each other of progress of the projects and give fair warning to the other contractors when a problem might be encountered.

The pavement removal includes the removal of the bridge approach pavement on both structures.

The existing pavement on US 30 and ramps consist of approximately 10" PCC Base Course and 5" bituminous overlay.

Before signing the detour route on the Iowa side (US 67), the District 2 detour signing personnel shall contact Iowa DOT detour signing, Mr. Steve Wilson, at (319) 364-0235 two weeks before the detour is going to be used so that they can sign the detour on the Iowa side.

COMMITMENTS

1. The Iowa D.O.T. would like as much notice as possible regarding the timing of the detour so that they may assist the City of Clinton in their planning (see TMA, Figure 6).

2. The detour route should temporarily be marked as a Class II truck route for the duration of the detour (see TMA Approval, Figure 6).

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

SCHEDULE OF TREE REMOVAL

20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)

STATION	LOCATION	UNITS
49+63.1	78' RT.	8

SCHEDULE OF EARTHWORK

20200100 EARTH EXCAVATION
20400800 FURNISHED EXCAVATION

LOCATION	EARTH EXCAVATION	ADJUSTED EXCAVATION 25% SHRINK	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
44+44.89 TO 46+36.03	260	195	201	-6
48+01.03 TO 50+15.95	298	224	672	-448
52+19.71 TO 55+00.00	464	348	2878	-2530
55+00.00 TO 70+95.00	247	185	806	-621
NORTH RAMP	820	615	422	+193
SOUTH RAMP	821	616	292	+324
TOTAL	2910	2183	5271	-3088

SCHEDULE OF PAVEMENT REMOVAL

44000100 PAVEMENT REMOVAL
44000400 GUTTER REMOVAL
44002805 ISLAND REMOVAL
44003100 MEDIAN REMOVAL
44004250 PAVED SHOULDER REMOVAL

LOCATION			PAVEMENT REMOVAL	MEDIAN REMOVAL	GUTTER REMOVAL	ISLAND REMOVAL	PAVED SHOULDER REMOVAL	DESCRIPTION
STATION TO STATION		SIDE	SQ YD	SQ FT	FT	SQ FT	SQ YD	
44+94.88	46+36.03		377					
48+01.03	50+15.95		574					
52+19.74	55+00.00		1174					
55+00.00	55+52.00		24					
55+52.00	60+32.00		124	1293				
60+32.00	61+32.00		39					
NORTH RAMP			797			1000		
SOUTH RAMP			924			2631		
44+94.8	45+61.1	LT					43	
48+09.4	50+23.7	LT					52	
52+25.7	53+11.5	LT					17	
44+94.8	45+36.8	RT					28	
47+90.0	50+09.9	RT					50	
52+11.7	53+12.6	RT					27	
45+61.1	46+47.2	LT			86.1			
45+36.8	46+28.0	RT			91.2			
48+09.2	50+23.9	LT			214.7			
47+90.1	50+10.0	RT			219.9			
52+25.5	53+11.5	LT			86.0			
52+11.7	53+11.5	RT			99.8			
55+02.7	302+00.0	RT			325.0			
300+24.3	300+48.6	LT			32.0			
57+92.2	60+16.5	LT			228.0			
TOTAL			4033	1293	1382.7	3631	217	

SCHEDULE OF EROSION CONTROL

21101615 TOPSOIL FURNISH AND PLACE, 4"
25000210 SEEDING, CLASS 2A
25000310 SEEDING, CLASS 4
25000400 NITOGEN FERTILIZER NUTRIENT
25000500 PHOSPHORUS FERTILIZER NUTRIENT
25000600 POTASSIUM FERTILIZER NUTRIENT
25000750 MOWING
25000775 SELECTIVE MOWING STAKES
25100115 MULCH, METHOD 2
25100630 EROSION CONTROL BLANKET

LOCATION	F & P TOPSOIL 4"	SEEDING CLASS 2A	SEEDING CLASS 4	MULCH METHOD 2	EROSION CONTROL BLANKET	FERTILIZER NUTRIENTS			SELECT. MOWING STAKES	MOWING
						NITROGEN	PHOS-PHORUS	POTASS-IUM		
	SQ YD	ACRE	ACRE	ACRE	SQ YD	LB	LB	LB	EACH	ACRE
44+45 to 46+89 RT	742		0.2		742	18	18	18		
44+45 to 47+09 LT	1404		0.3		1404	27	27	27		
47+24 to 50+70 RT	1498		0.3		1498	36	36	36		
47+45 to 50+90 LT	1935		0.4		1935	36	36	36		
51+57 to 53+12 RT	987		0.2		987	27	27	27		
53+12 to 302+50 RT	1757	0.4		0.3	491	36	36	36		0.4
51+70 to 53+20 LT	828		0.2		828	18	18	18		
53+20 to 202+00 LT	2472	0.6		0.4	446	54	54	54		0.6
302+00 to 70+95 RT	2692	0.6		0.3	1306	54	54	54		0.6
202+00 to 70+95 LT	2710	0.6		0.3	1302	54	54	54		0.6
53+20 LT									1	
53+12 RT									1	
TOTAL	17,025	2.2	1.6	1.3	10,939	360	360	360	2	2.2

SCHEDULE OF TEMPORARY EROSION CONTROL

28000250 TEMPORARY EROSION CONTROL SEEDING
28000400 PERIMETER EROSION BARRIER
28000500 INLET AND PIPE PROTECTION

LOCATION	TEMP. EROSION CONTROL SEEDING	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION
	LB	FOOT	EACH
44+45 to 46+89 RT	40		
44+45 to 47+09 LT	60		
47+24 to 50+70 RT	60		
47+45 to 50+90 LT	80		
51+57 to 53+12 RT	40		
53+12 to 302+50 RT	80		
51+70 to 53+20 LT	40		
53+20 to 202+00 LT	120		
302+00 to 70+95 RT	120		
202+00 to 70+95 LT	120		
44+45 to 46+89 RT		275	
44+45 to 47+09 LT		307	
47+24 to 50+70 RT		443	
47+45 to 50+90 LT		429	
51+57 to 302+50 RT		709	
51+70 to 202+00 LT		645	
302+00 to 70+95 RT		1453	
202+00 to 70+95 LT		1464	
69+61			1
TOTAL	760	5725	1

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: VERT.
HORIZ.
DRAWN BY SWEET
DATE 08/25/2005
CHECKED BY ZELINSKAS

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	17
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

SCHEDULE OF PIPE CULVERT AND INLET QUANTITIES

50104400 CONCRETE HEADWALL REMOVAL
542A0229 PIPE CULVERTS, CLASS A, TYPE 1 24"
54213447 END SECTIONS 12"
54213669 PRECAST REIN. CONC. FLARED END SECTIONS, 24"
54248515 CONCRETE COLLAR
60100945 PIPE DRAINS 12"
60900330 TYPE D INLET BOX, STANDARD 609001
61000115 TYPE E INLET BOX, STANDARD 610001
60900515 CONCRETE THRUST BLOCK
28100107 STONE RIPRAP, CLASS A4
28200200 FILTER FABRIC

LOCATION	CONCRETE HEADWALL REMOVAL	PIPE CULVERT CLASS A TYPE 1, 24"	PRECAST REIN. CONC. FLARED END SECTION 24"	INLET BOX TYPE D	INLET BOX TYPE E	PIPE DRAINS 12"	END SECTIONS 12"	CONCRETE THRUST BLOCK	STONE RIP RAP CLASS 4A	FILTER FABRIC	CONCRETE COLLAR
	EACH	FOOT	EACH	EACH	EACH	FOOT	EACH	EACH	SQ YD	SQ YD	EACH
45+12.3					1	64.0	1	1	5.6	5.6	
45+14.1					1	44.0	1	1	5.6	5.6	
49+91.49				1		61.5	1	1	5.6	5.6	
50+13.49				1		61.5	1	1	5.6	5.6	
52+22.17				1		58.5	1	1	5.6	5.6	
52+44.17				1		59.5	1	1	5.6	5.6	
69+61.03	2	6	2								2
TOTAL	2	6	2	4	2	349.0	6	6	33.6	33.6	2

SCHEDULE OF GUARDRAIL REMOVAL

63200310 GUARDRAIL REMOVAL

LOCATION	FEET
44+94.9 TO 46+46.6, LT.	161
44+86.5 TO 46+26.8, RT.	141
48+10.8 TO 50+23.3, LT.	213
47+90.3 TO 50+08.7, RT.	219
52+26.9 TO 53+65.5, LT.	139
52+13.3 TO 53+63.3, RT.	151
TOTAL	1024

SCHEDULE OF PC CONCRETE PAVING QUANTITIES

35300300 PORTLAND CEMENT CONCRETE BASE COURSE 8"
42000411 PORTLAND CEMENT CONCRETE PAVEMENT, 9½" (JOINTED)
42001300 PROTECTIVE COAT
42001420 BRIDGE APPROACH CONNECTOR (PCC)
42100210 CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE, 9½"
42100810 PAVEMENT REINFORCEMENT 9½"

LOCATION	PCC BASE COURSE 8"	PCC PAV'T 9½" (JOINTED)	PROTECTIVE COAT	BRIDGE APPROACH CONNECTOR	CRC PCC PAVEMENT 9½"	PAVEMENT REINFORCEMENT 9½"
	SQ YD	SQ YD	SQ YD		SQ YD	SQ YD
NORTH RAMP	990					
SOUTH RAMP	1154					
44+94.88 TO 45+20.00			67		67	67
45+20.00 TO 46+06.03			392	391.9		
48+31.03 TO 49+85.95			706	705.7		
52+49.71 TO 53+08.99			303	303.4		
53+08.99 TO 53+49.71			122		122	122
53+49.71 TO 55+00.00		620	620			
TOTAL	2144	620	2210	1401	189	189

SCHEDULE OF CURB & GUTTER AND MEDIAN

60608600 COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.06
60618300 CONCRETE MEDIAN SURFACE, 4 IN
60622400 CONCRETE MEDIAN, TYPE SM-6.06

LOCATION	COMB. CONC. CURB AND GUTTER TYPE M-6.06	CONCRETE MEDIAN SURFACE, 4 IN	CONC. MEDIAN TYPE SM-6.06
	FOOT	SQ FT	SQ FT
NORTH RAMP	129	695	
SOUTH RAMP	208	1609	
55+52.0 TO 60+32.0			2400
TOTAL	337	2304	2400

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: VERT.
HORIZ.
DATE 08/25/2005

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	18
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

TABULATION OF RESURFACING QUANTITIES

40600980 BITUMINOUS SURFACE REMOVAL - BUTT JOINT
40600200 BITUMINOUS MATERIALS (PRIME COAT)
44300200 STRIP REFLECTIVE CRACK CONTROL TREATMENT
X4066426 BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX D, N 70
X4066770 LEVELING BINDER (MACHINE METHOD), SUPERPAVE, N 70

LOCATION	LENGTH	WIDTH	PAVEMENT AREA	BITUMINOUS SURFACE REMOVAL BUTT JOINT	BITUMINOUS MATERIALS (PRIME COAT)	STRIP REFLECTIVE CRACK CONTROL TREATMENT	BIT. CONC. SURFACE COURSE SUPERPAVE MIX D, N 70	LEVELING BINDER (MACHINE METHOD) SUPERPAVE N 70
	FT	FT	SQ FT	SY	TON	FOOT	TON	TON
70+70.00 TO 70+95.00	25	VARIES	675	75				
55+00 TO 70+95	1595	VARIES	44098		1.6	645.5	417	281
NORTH RAMP	VARIES	VARIES	8906		0.4		85	57
SOUTH RAMP	VARIES	VARIES	10385		0.4		99	67
TOTAL			64064	75	2.4	645.5	601	405

TABULATION OF PARTIAL DEPTH PATCHING

44200120 PAVEMENT PATCHING TYPE II, 10"
44000120 BITUMINOUS REMOVAL OVER PATCHES 5"
40601000 BITUMINOUS REPLACEMENT OVER PATCHES
Z0028700 GRANULAR SUBGRADE REPLACEMENT
Z0028415 GEOTECHNICAL REINFORCEMENT

LANE = 12'

STATION	LEFT LANE FT	RIGHT LANE FT	PAV'T PATCHING TYPE 2, 10"		BITUMINOUS REM. OVER PATCHES 5"		BITUMINOUS REPL. OVER PATCHES		GRANULAR SUBGRADE REPL.	GEOTECHNICAL REINFORCEMENT
			LEFT LANE SY	RIGHT LANE SY	LEFT LANE SY	RIGHT LANE SY	LEFT LANE TON	RIGHT LANE TON	CY	SY
61+60	5	5	6.7	6.7	8.1	8.1	2.3	2.3	2.2	13.4
66+66		5		6.7		8.1		2.3	1.1	6.7
66+94	5		6.7		8.1		2.3		1.1	6.7
TOTAL			13.4	13.4	16.2	16.2	4.6	4.6	4.4	26.8

SCHEDULE OF SUBBASE QUANTITIES

31100300 SUBBASE GRANULAR MATERIAL, TYPE A, 4"
31100100 SUBBASE GRANULAR MATERIAL, TYPE A
31200100 STABILIZED SUBBASE, 4"

LOCATION	GRANULAR SUBBASE TYPE A, 4"	GRANULAR SUBBASE TYPE A	STABILIZED SUBBASE 4"
	SQ YD	TON	SQ YD
55+00.00 TO 55+52.00	24		
55+52.00 TO 60+32.00	266.7		
60+32.00 TO 61+32.00	39		
44+94.88 TO 46+06.03		373.1	546
48+31.03 TO 49+85.95		520.0	761
52+49.71 TO 55+00.00		927.3	1357
NORTH RAMP		874.0	1279
SOUTH RAMP		1122.0	1642
TOTAL	329.7	3816.4	5585

SCHEDULE OF GUARDRAIL QUANTITIES

63000000 STEEL PLATE BEAM GUARD RAIL, TYPE A
63100085 TRAFFIC BARRIER TERMINAL, TYPE 6
63100167 TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)
63100169 TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)
78201000 TERMINAL MARKERS - DIRECT APPLIED
28100105 STONE RIPRAP, CLASS A3

LOCATON	SPBGR TYPE A	TRAFFIC BARRIER TERM TYPE 6	TRAFFIC BARRIER TERM TYPE 1 SPECIAL (TANGENT)	TRAFFIC BARRIER TERM TYPE 1 SPECIAL (FLARED)	TERMINAL MARKER DIR. APPLIED	STONE RIPRAP CLASS A3
	FEET	EACH	EACH	EACH	EACH	SY
44+94 TO 46+52 LT	137.5					
44+86 TO 46+21 RT	112.5					
48+16 TO 50+28 LT	162.5					
47+85 TO 50+06 RT	162.5					
SN 098-6000 WB APPROACH	112.5			1	1	
SN 098-6000 EB TRAILING	62.5		1		1	
SN 098-6000		4				
SN 098-6001		4				
52+27 TO 52+79 LT						44
52+12 TO 52+79 RT						56
	750.0	8	1	1	2	100

SCHEDULE OF BRIDGE APPROACH PAVEMENT

42001165 BRIDGE APPROACH PAVEMENT
42001300 PROTECTIVE COAT

LOCATION	THICKNESS	PAY LIMIT	WIDTH	BRIDGE APPROACH PAVEMENT	PROTECTIVE COAT
	INCHES	FT	FT	SY	SY
S.N. 098-6001, WEST APPROACH	15	30	41.33	137.8	137.8
S.N. 098-6001, EAST APPROACH	15	30	41.33	137.8	137.8
S.N. 098-6000, WEST APPROACH	15	30	41.33	133.6	133.6
S.N. 098-6000, EAST APPROACH	15	30	41.33	133.6	133.6
TOTAL				542.8	542.8

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: VERT.
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DATE 08/25/2005

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	19
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

63500105 DELINEATORS

LOCATION	EACH
53+51.9, RT; AT GUARDRAIL	1
54+23.7 LT; AT GUARDRAIL	1
69+61.03 RT; AT CULVERT END	1
69+61.03 LT; AT CULVERT END	1
TOTAL	4

Z0055100 RUMBLE RESURFACING

LOCATION	SY
62+87.0 TO 63+12.0	30.6
TOTAL	30.6

60624600 CORRUGATED MEDIAN

LOCATION	SQ FT
54+52.0 TO 55+52.0, 2' TO 5'	350
60+32.0 TO 61+32.0, 5' TO 2'	350
TOTAL	700

SCHEDULE OF SHOULDERS

48101200 AGGREGATE SHOULDERS, TYPE B
48202310 BITUMINOUS SHOULDERS SUPERPAVE, 5½"
48300410 PORTLAND CEMENT CONCRETE SHOULDERS, 9½"
X4066414 BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX C, N 50

LOCATION	AGGREGATE SHOULDERS TYPE B, 8"		BITUMINOUS SHOULDERS SUPERPAVE 5½"		PCC SHOULDERS 9½"	BIT. CONC. SURF. COURSE SUPERPAVE MIX C, N 50	
	WIDTH	TON	WIDTH	SQ YD	SQ YD	WIDTH	TON
55+00.0 TO 56+31.2 LT	4'	40					
201+13.4 TO 201+63.2 LT	4'	18					
60+53.7 TO 70+50 LT	5'	390					
70+50 TO 70+95.0 LT	8'	25					
301+50 TO 302+00 LT	4'	18					
58+31.1 TO 70+50 RT	5'	478					
70+50 TO 70+95.0 RT	8'	25					
55+00.0 TO 201+13.4 LT			4'	119		4'	17
201+63.2 TO 61+01.28 LT			4'	202		4'	29
61+01.28 TO 70+50.0 LT			3'	316		3'	45
55+00.0 TO 302+50.0 RT			4'	142		4'	20
301+50.0 TO 59+07.43 RT			4'	124		4'	18
59+07.43 TO 70+50.0 RT			3'	381		3'	54
44+94.88 TO 45+20.00 LT & RT					48		
53+08.99 TO 55+00.00 LT & RT					330		
TOTAL		994		1284	378		183

SCHEDULE OF PAVEMENT MARKING QUANTITIES

78001110 PAINT PAVEMENT MARKING - LINE 4"
78001140 PAINT PAVEMENT MARKING - LINE 8"
78001150 PAINT PAVEMENT MARKING - LINE 12"
78001180 PAINT PAVEMENT MARKING - LINE 24"
78100100 RAISED REFLECTIVE PAVEMENT MARKER
78100105 RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)
78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL

LOCATION	PAINT					RAISED		
	WHITE 4" CONT.	YELLOW 4" CONT.	WHITE 8" CONT.	WHITE 12" CONT.	WHITE 24" CONT.	REFLECTIVE PAVEMENT MARKER REMOVAL	REFLECTIVE PAVEMENT MARKER	REFLECTIVE PAVEMENT MARKER (BRIDGE)
	FEET	FEET	FEET	FEET	FEET	EACH	EACH	EACH
44+94 LT TO 201+63 LT	2646							
201+63 RT TO 70+95 LT	2910							
44+94 RT TO 302+00 RT	2656							
302+00 LT TO 70+95 RT	3012							
44+94 TO 70+95		10404				67	41	9
200+61 TO 201+63		408						
300+92 TO 302+00		432						
SOUTH RAMP		386	602	112	58			
NORTH RAMP		264	539	88	62			
TOTAL	11224	11894	1141	200	120	67	41	9

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

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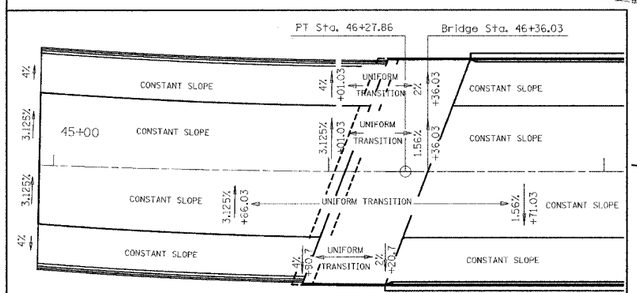
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	20
STA. 39+00.00	TO STA. 51+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

PLAN — SCANNED / PLOTTED / CHECKED / ALIGNMENT CHECKED / R.L. OF WAY CHECKED / CADD FILE NAME / NOTE BOOK / NO. / BY / DATE

PROFILE — SCANNED / PLOTTED / CHECKED / BEAM NOTES / STRUCTURE NOTATNS CHKD / NOTE BOOK / NO. / BY / DATE

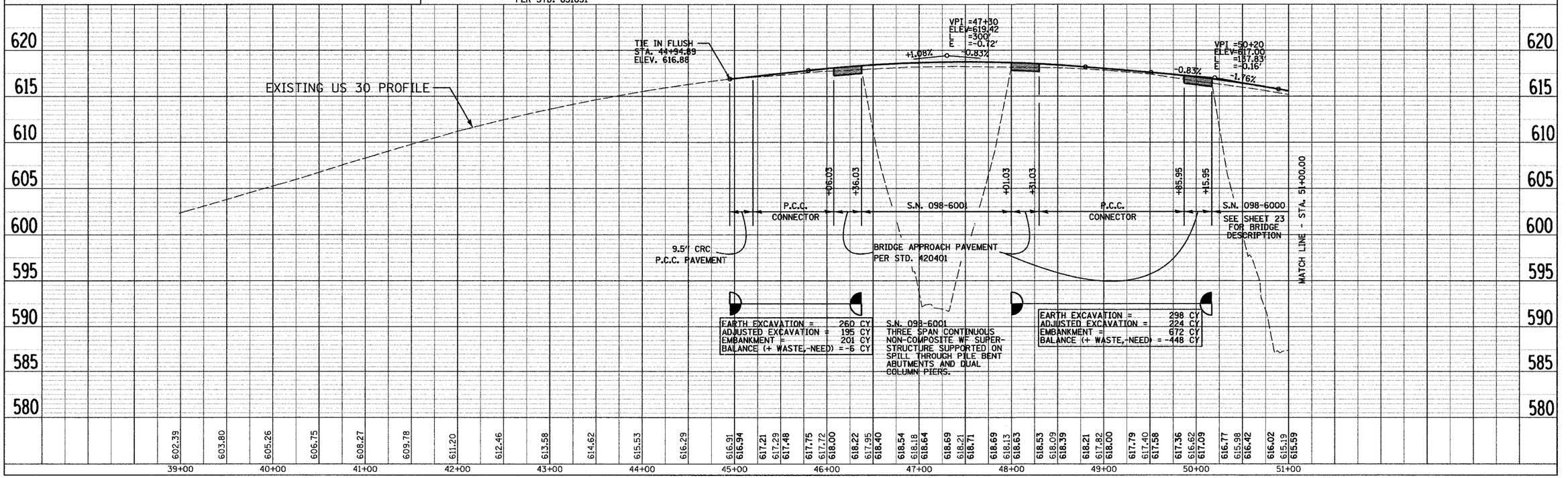
EXISTING CURVE DATA
PI STA. = 37+61.94
Δ = 29° 29′ 54″ (LT)
D = 1° 39′ 53″
R = 3,441.91′
T = 906.12′
L = 1,772.04′
E = 117.28′
e = 3.125%
T.R. = 39.37′
S.E. RUN = 164.04′
P.C. STA. = 28+55.82
P.T. STA. = 46+27.86
SEE DETAIL FOR PROPOSED SUPERELEVATION TRANSITION

PROP. TRAFFIC BARRIER TERMINAL TYPE 6 PER STD. 631031
PROPOSED SPBGR PER STD. 630001
PROPOSED P.C.C. CONNECTOR
PROPOSED 9.5″ P.C.C. SHOULDER
PROPOSED 9.5″ CRC P.C.C. PAVEMENT
CONNECT PROPOSED SPBGR TO EXISTING SPLICE STA. 44+94.89
TRANSITION FORESLOPE FROM EXISTING AT STA. 44+44.89 TO 1:2 AT STA. 44+94.89
IMPROVEMENT BEGINS STA. 44+44.89
TRANSITION FORESLOPE FROM EXISTING AT STA. 44+44.89 TO 1:2 AT STA. 44+94.89
SECTION BEGINS STA. 44+94.89
CONNECT PROPOSED SPBGR TO EXISTING SPLICE STA. 44+86.47
PROPOSED 9.5″ P.C.C. SHOULDER
PROPOSED SPBGR PER STD. 630001
PROP. TRAFFIC BARRIER TERMINAL TYPE 6 PER STD. 631031
PROPOSED BRIDGE APPROACH PAVEMENT PER STD. 420401
PROP. TRAFFIC BARRIER TERMINAL TYPE 6 PER STD. 631031
PROP. TRAFFIC BARRIER TERMINAL TYPE 6 PER STD. 631031
PROPOSED SPBGR PER STD. 630001
PROPOSED BRIDGE APPROACH PAVEMENT PER STD. 420401
PROPOSED P.C.C. CONNECTOR
PROP. SPBGR PER STD. 630001
PROP. TRAFFIC BARRIER TERMINAL TYPE 6 PER STD. 631031
APPROX. R.O.W. LINE
Sta 46+27.86
Union Pacific RR
US 30
GRAVEL ROADWAY
MATCH LINE - STA. 51+00.00
SCALE 0 25′ 50′ 100′



SUPERELEVATION TRANSITION DETAIL - NOT TO SCALE

CONTRACTOR TO MODIFY BRIDGE APPROACH STANDARD 420401 PER THIS DETAIL



EARTH EXCAVATION =	260 CY
ADJUSTED EXCAVATION =	195 CY
EMBANKMENT =	201 CY
BALANCE (+ WASTE,-NEED) =	-6 CY

S.N. 098-6001 THREE SPAN CONTINUOUS NON-COMPOSITE WF SUPER-STRUCTURE SUPPORTED ON SPILL THROUGH PILE BENT ABUTMENTS AND DUAL COLUMN PIERS.

EARTH EXCAVATION =	298 CY
ADJUSTED EXCAVATION =	224 CY
EMBANKMENT =	672 CY
BALANCE (+ WASTE,-NEED) =	-448 CY

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F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	21
STA. 51+00.00	TO STA. 63+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

PLAN — SURVEYED / PLOTTED / DRAWN / CHECKED / ALIGNMENT / R.O.W. / S.H. NOTED / CADD FILE NAME / NOTE BOOK / NO. / BY / DATE

PROPOSED SPBGR PER STD. 630001
PROPOSED P.C.C. CONNECTOR
BEGIN 45:1 TAPER STA. 52+79.26 12.00 LT.
PROP. STABILIZATION AT STEEL PLATE BEAM GUARDRAIL PER STD. 630201
PROP. TRAFFIC BARRIER TERMINAL TYPE 6 PER STD. 631031
PROPOSED BRIDGE APPROACH PAVEMENT PER STD. 420401
PROP. TRAFFIC BARRIER TERMINAL TYPE 6 PER STD. 631031
PROP. STABILIZATION AT STEEL PLATE BEAM GUARDRAIL PER STD. 630201
PROPOSED 8' P.C.C. SHOULDER
END 20:1 TAPER STA. 56+07.07, 20.84 LT.
END 45:1 TAPER BEGIN 20:1 TAPER STA. 55+76.08, 18.60 LT.
PROP. 9.5" CRC P.C.C. PAVEMENT
PROP. 9.5" P.C.C. PAVEMENT, JOINTED
PROPOSED TYPE 1 (SPECIAL) FLARED TRAFFIC BARRIER TERMINAL PER STD. 630301
END 8' PCC SHOULDER BEGIN 4' BIT SHOULDER & 4' AGG. SHOULDER STA. 55+00.00
BEGIN 4' PCC SHOULDER STA. 53+53.08
END TAPER STA. 54+56.51 25.33' RT.
PROPOSED TYPE 1 (SPECIAL) TANGENT TRAFFIC BARRIER TERMINAL PER STD. 630301
END 8' PCC SHOULDER BEGIN TRANSITION STA. 53+08.99
BEGIN TAPER STA. 53+08.99 12.00' RT.
PROPOSED SPBGR PER STD. 630001
END CONSTRUCTION STA. 201+63.16
PROP. 4' AGG. SHOULDER
END 4' BIT. SHOULDER STA. 201+13.39
END AGG. SHOULDER STA. 56+31.18
CORRUGATED MEDIAN
END 4' PCC SHLDR. BEGIN 4' BIT. SHLDR. STA. 55+00.00
P.C.C. ISLAND W/ COMB. CONC. CURB AND GUTTER (M-6.06 ALONG RAMPS) (M-6.24 ALONG US 30)
PROPOSED 4' BIT. SHOULDER
END CONSTRUCTION STA. 302+00.00
12" P.C.C. BASE COURSE
¾" BITUMINOUS CONCRETE LEVELING BINDER (MACHINE METHOD) SUPERPAVE N 70
1½" BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX D, N 70
PROPOSED 4' BIT. SHOULDER
N. RAMP
Sta. 57+31.83 US 30
= Sta. 200+00.00 N. Ramp
= Sta. 300+00.00 S. Ramp
PCC MEDIAN W/ SM 6.06 CURB AND GUTTER PER STD. 606301 TAPER ENDS OF MEDIAN
S. RAMP
PC-Sta 301+06.08
BEGIN 4' BIT. SHOULDER STA. 301+50.00
PROPOSED 4' AGG. SHOULDER
12" P.C.C. BASE COURSE
¾" BITUMINOUS CONCRETE LEVELING BINDER (MACHINE METHOD) SUPERPAVE N 70
1½" BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX D, N 70
BEGIN TAPER STA. 59+73.70 25.63 LT.
END TAPER STA. 60+93.91 11.29 LT.
APPROX. R.O.W. LINE
BIKEPATH
BEGIN 3' BIT. SHOULDER & 5' AGG. SHOULDER STA. 61+01.28
END 4' BIT. SHOULDER BEGIN 3' BIT. SHOULDER & 5' AGG. SHOULDER STA. 59+07.41 RT.
END TAPER STA. 59+07.43, 18.18' RT.
BEGIN TAPER STA. 58+42.86, 21.52' RT.
RUMBLE STRIP
¾" BITUMINOUS CONCRETE LEVELING BINDER (MACHINE METHOD), SUPERPAVE N 70
1½" BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX D, N70
CORRUGATED MEDIAN
APPROX. R.O.W. LINE
MATCHLINE STA. 51+00.00
MATCHLINE STA. 63+00.00
55+00
60+00
US 30
N
SCALE 0 25' 50' 100'

PROFILE — SURVEYED / PLOTTED / DRAWN / CHECKED / S.H. NOTED / STRUCTURE NOTATING GRAD / NOTE BOOK / NO. / BY / DATE

VPI =52+15
ELEV=613.56
L =135'
E =-0.14'
-1.76%
-2.57%
VPI =54+00
ELEV=608.80
L =135'
E =+0.04'
-2.57%
-2.31%
STA. 55+00.00
ELEV. 606.49
SEE NEXT SHEET FOR EARTHWORK
EXISTING US 30 PROFILE
+49.71
+49.71
+49.71
+00.00
S.N. 098-6000
P.C.C. CONNECTOR
9.5" P.C.C. JOINTED PAV'T
1½" BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX D, N 70
¾" BITUMINOUS CONCRETE LEVELING BINDER (MACHINE METHOD), SUPERPAVE, N 70
9.5" CRC P.C.C. PAVEMENT
BRIDGE APPROACH PAVEMENT PER STD. 420401
MATCHLINE STA. 51+00.00
MATCHLINE STA. 63+00.00

NORTH RAMP

EARTH EXCAVATION =	820 CY
ADJUSTED EXCAVATION =	615 CY
EMBANKMENT =	422 CY
BALANCE (+ WASTE,-NEED) =	193 CY

EARTH EXCAVATION =	464 CY
ADJUSTED EXCAVATION =	348 CY
EMBANKMENT =	2878 CY
BALANCE (+ WASTE,-NEED) =	-2530 CY

S.N. 098-6000
FOUR SPAN CONTINUOUS NON-COMPOSITE WF SUPER-STRUCTURE SUPPORTED ON SPILL THROUGH PILE BENT ABUTMENTS AND DUAL COLUMN PIERS.

SOUTH RAMP

EARTH EXCAVATION =	821 CY
ADJUSTED EXCAVATION =	616 CY
EMBANKMENT =	292 CY
BALANCE (+ WASTE,-NEED) =	324 CY

620 615 610 605 600 595 590 585 580

615.59 615.15 614.26 614.71 614.24 613.20 613.74 613.20 612.10 612.63 612.01 610.98 611.37 610.73 609.79 610.09 609.46 608.59 608.84 608.24 607.41 607.65 607.07 606.29 606.49 605.11 603.89 602.64 601.45 600.27 599.05 597.94 597.00 596.20 595.59 595.13 594.78 594.60 594.44 594.30 594.19

51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	22
STA. 63+00.00	TO STA. 70+95.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

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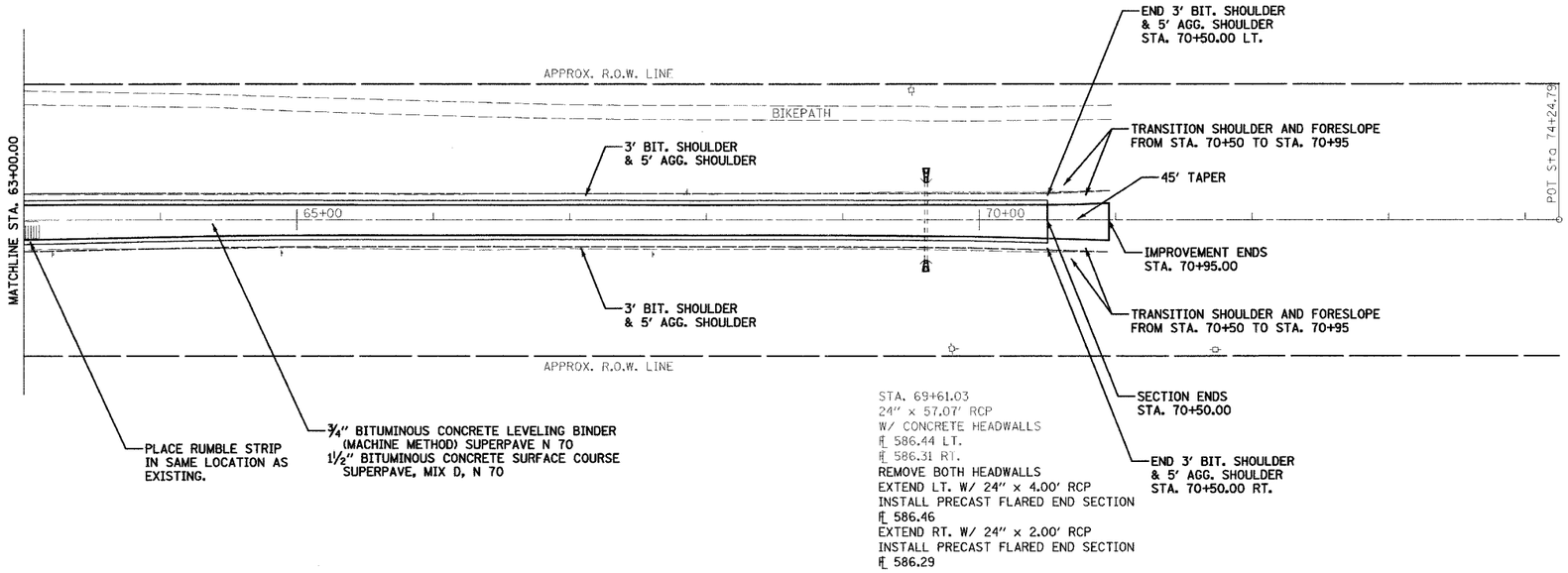
R.L. OR W.L. CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE



STA. 69+61.03
24" x 57.07' RCP
W/ CONCRETE HEADWALLS
℄ 586.44 LT.
℄ 586.31 RT.
REMOVE BOTH HEADWALLS
EXTEND LT. W/ 24" x 4.00' RCP
INSTALL PRECAST FLARED END SECTION
℄ 586.46
EXTEND RT. W/ 24" x 2.00' RCP
INSTALL PRECAST FLARED END SECTION
℄ 586.29

SCALE
0 25' 50' 100'

PROFILE
SURVEYED
PLOTTED
CHECKED
R.L. OR W.L. CHECKED
STRUCTURE NO.
NOTE BOOK
NO.
BY
DATE

EARTH EXCAVATION =	247 CY
ADJUSTED EXCAVATION =	185 CY
EMBANKMENT =	806 CY
BALANCE (+ WASTE,-NEED) =	-621 CY

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	23
STA. 39+00.00	TO STA. 58+50.000			
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

STA 45+12.3
PROPOSED TYPE E INLET BOX PER STD. 610001
GRATE EL. = 616.37
INVERT EL.= 613.70

PROPOSED 64.0' OF 12" PIPE DRAIN
WITH END SECTION AND THRUST BLOCK
INLET ℄ = 613.70
OUTLET ℄ = 588.4
OTHER ℄ = 613.5, 588.5

PROPOSED CLASS A4 STONE RIPRAP
WITH FILTER FABRIC FOR USE WITH RIPRAP
(10' x 5' NOMINAL AREA)

STA 50+13.49
PROPOSED TYPE D INLET BOX PER STD. 609001
GRATE EL. = 616.40
INVERT EL.= 614.40

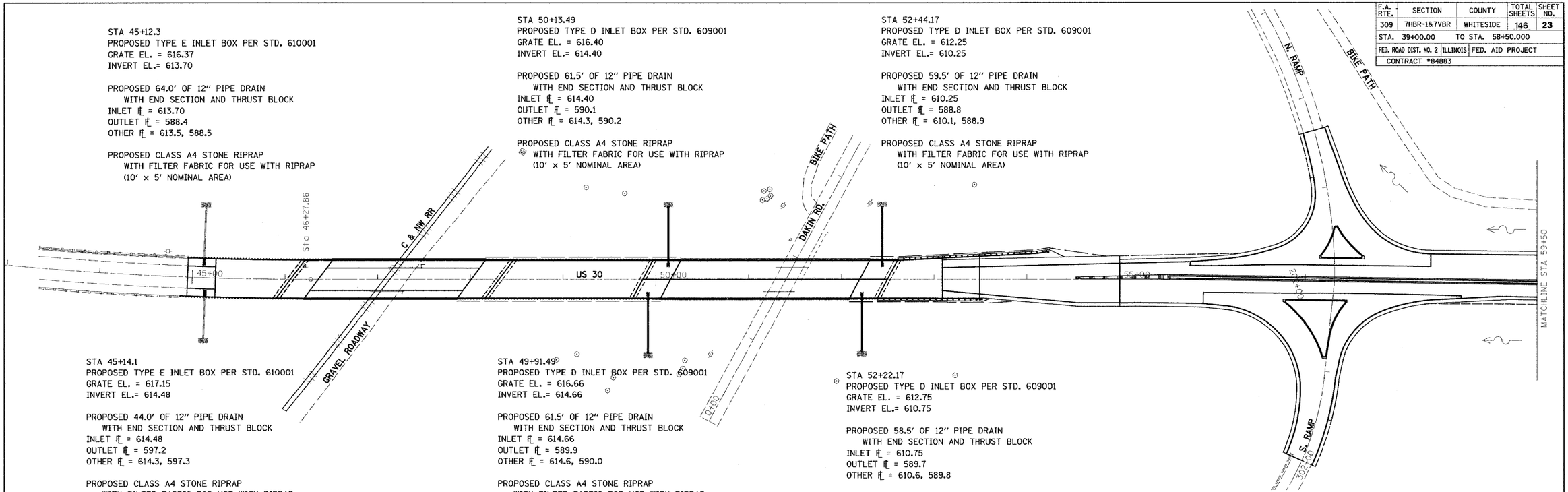
PROPOSED 61.5' OF 12" PIPE DRAIN
WITH END SECTION AND THRUST BLOCK
INLET ℄ = 614.40
OUTLET ℄ = 590.1
OTHER ℄ = 614.3, 590.2

PROPOSED CLASS A4 STONE RIPRAP
WITH FILTER FABRIC FOR USE WITH RIPRAP
(10' x 5' NOMINAL AREA)

STA 52+44.17
PROPOSED TYPE D INLET BOX PER STD. 609001
GRATE EL. = 612.25
INVERT EL.= 610.25

PROPOSED 59.5' OF 12" PIPE DRAIN
WITH END SECTION AND THRUST BLOCK
INLET ℄ = 610.25
OUTLET ℄ = 588.8
OTHER ℄ = 610.1, 588.9

PROPOSED CLASS A4 STONE RIPRAP
WITH FILTER FABRIC FOR USE WITH RIPRAP
(10' x 5' NOMINAL AREA)



STA 45+14.1
PROPOSED TYPE E INLET BOX PER STD. 610001
GRATE EL. = 617.15
INVERT EL.= 614.48

PROPOSED 44.0' OF 12" PIPE DRAIN
WITH END SECTION AND THRUST BLOCK
INLET ℄ = 614.48
OUTLET ℄ = 597.2
OTHER ℄ = 614.3, 597.3

PROPOSED CLASS A4 STONE RIPRAP
WITH FILTER FABRIC FOR USE WITH RIPRAP
(10' x 5' NOMINAL AREA)

STA 49+91.49
PROPOSED TYPE D INLET BOX PER STD. 609001
GRATE EL. = 616.66
INVERT EL.= 614.66

PROPOSED 61.5' OF 12" PIPE DRAIN
WITH END SECTION AND THRUST BLOCK
INLET ℄ = 614.66
OUTLET ℄ = 589.9
OTHER ℄ = 614.6, 590.0

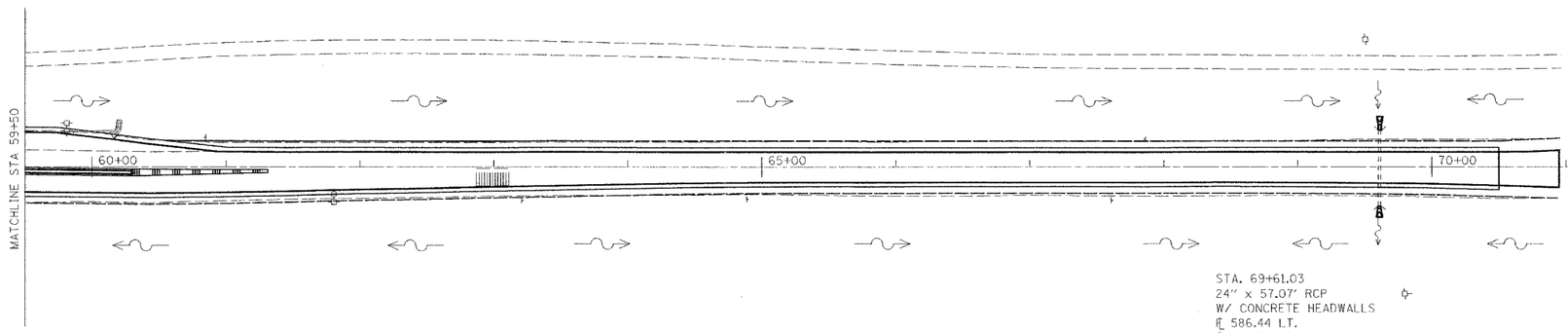
PROPOSED CLASS A4 STONE RIPRAP
WITH FILTER FABRIC FOR USE WITH RIPRAP
(10' x 5' NOMINAL AREA)

STA 52+22.17
PROPOSED TYPE D INLET BOX PER STD. 609001
GRATE EL. = 612.75
INVERT EL.= 610.75

PROPOSED 58.5' OF 12" PIPE DRAIN
WITH END SECTION AND THRUST BLOCK
INLET ℄ = 610.75
OUTLET ℄ = 589.7
OTHER ℄ = 610.6, 589.8

PROPOSED CLASS A4 STONE RIPRAP
WITH FILTER FABRIC FOR USE WITH RIPRAP
(10' x 5' NOMINAL AREA)

FOR ADDITIONAL INFORMATION
SEE CROSS SECTIONS



STA. 69+61.03
24" x 57.07' RCP
W/ CONCRETE HEADWALLS
℄ 586.44 LT.
℄ 586.31 RT.
REMOVE BOTH HEADWALLS
EXTEND LT. W/ 24" x 4.00' RCP
INSTALL PRECAST FLARED END SECTION
℄ 586.46
EXTEND RT. W/ 24" x 2.00' RCP
INSTALL PRECAST FLARED END SECTION
℄ 586.29

SCALE
0 50' 100'
0

ILLINOIS DEPARTMENT OF TRANSPORTATION

DRAINAGE PLAN

DRAWN BY SWEET

PLAN: DATE, BY, SURVEYED, PLOTTED, CROSS CHECKED, ALIGNMENT CHECKED, ST. OF RAY CHECKED, CADD FILE NAME, NOTE BOOK, NO.

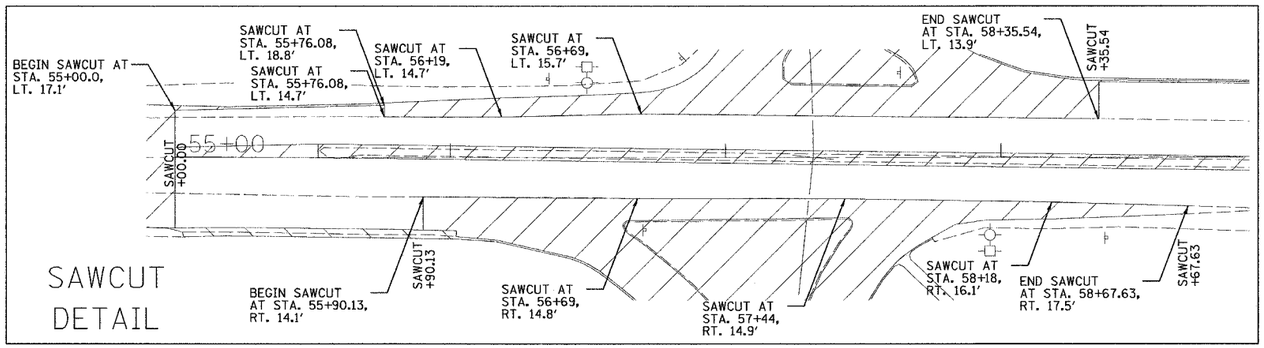
PROFILE: DATE, BY, SURVEYED, PLOTTED, CROSS CHECKED, DESIGN SECTION, STRUCTURE NOTATIONS CHKD, NOTE BOOK, NO.

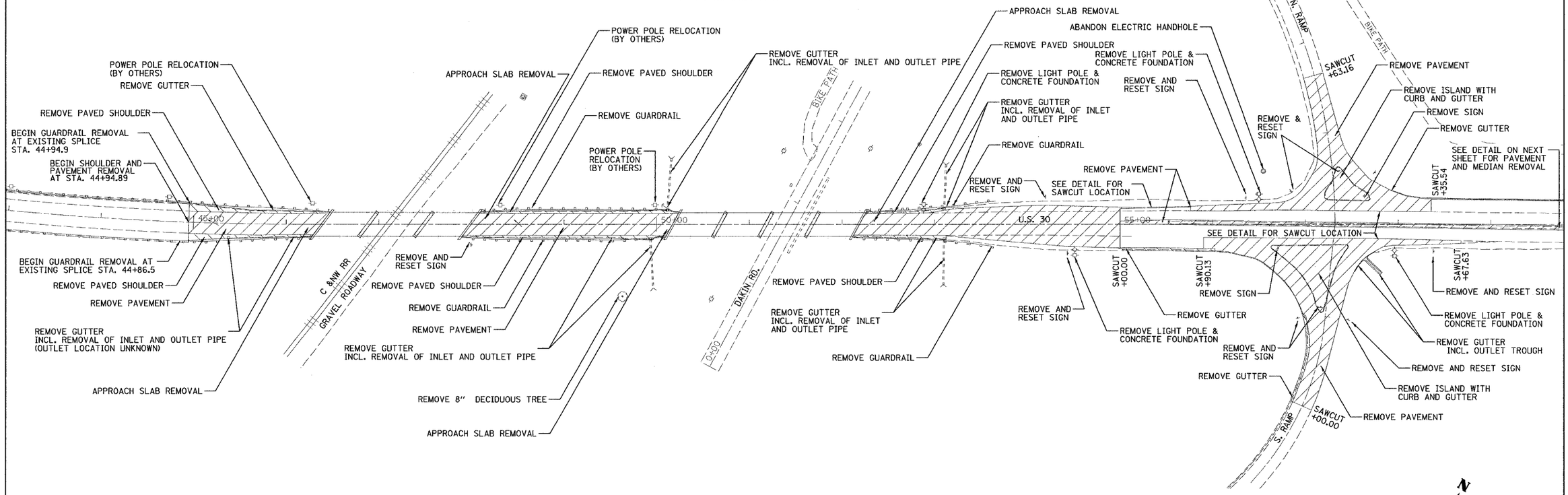
WHKS 08/25/2005 06:33:55 AM k:\6279\Design\Z06492DRN.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	~~146~~	24
STA.		TO STA.		
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

PLAN — DATE / BY / SURVEYED / PLOTTED / CHECKED / R/W CHECKED / R/W CHECKED / CADD FILE NAME / NOTE BOOK / NO.

PROFILE — DATE / BY / SURVEYED / PLOTTED / CHECKED / R.M. NOTED / STRUCTURE NOTATNS CHKD / NOTE BOOK / NO.





NOTE:
- SEE BRIDGE PLAN SHEETS FOR REMOVAL ITEMS
- REMOVE ALL EXISTING RAISED REFLECTIVE PAVEMENT MARKERS

LEGEND

AREA TO BE REMOVED

N

SCALE
0 50' 100'

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVALS

DRAWN BY SWEET

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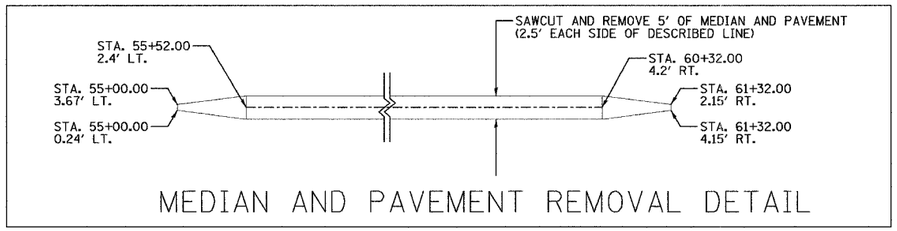
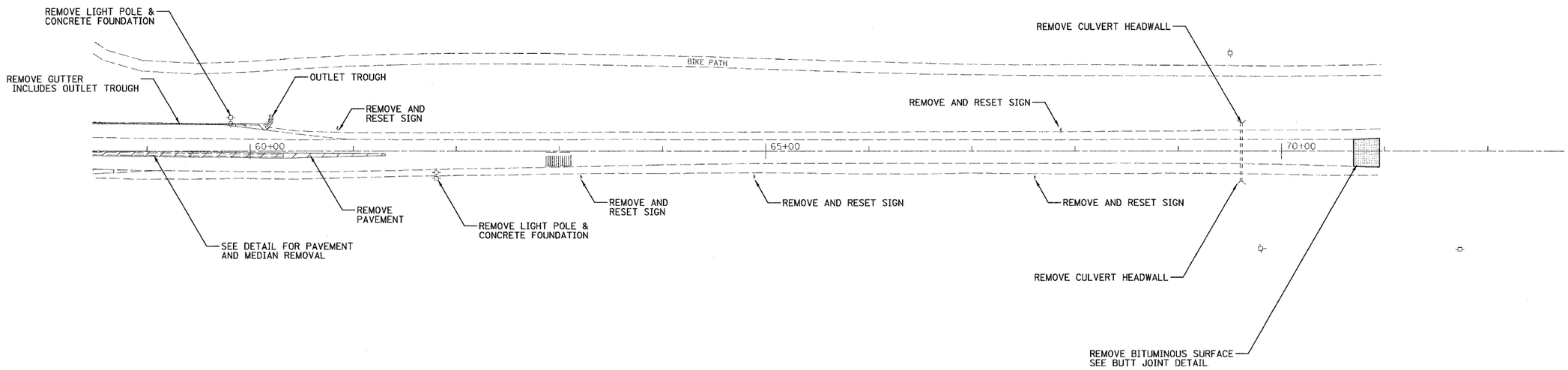
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	25
STA.	TO STA.			
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				



MEDIAN AND PAVEMENT REMOVAL DETAIL



NOTE:
- REMOVE ALL EXISTING RAISED REFLECTIVE PAVEMENT MARKERS

LEGEND

AREA TO BE REMOVED

N

SCALE
0 50' 100'
0

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVALS

DRAWN BY SWEET

PLAN
DATE
BY
SURVEYED
PLOTTED
PROJECT CHECKED
ALL R/W MONUMENTS SET
R.O.W. CHECKED
CADD FILE NAME
NOTE BOOK
NO.

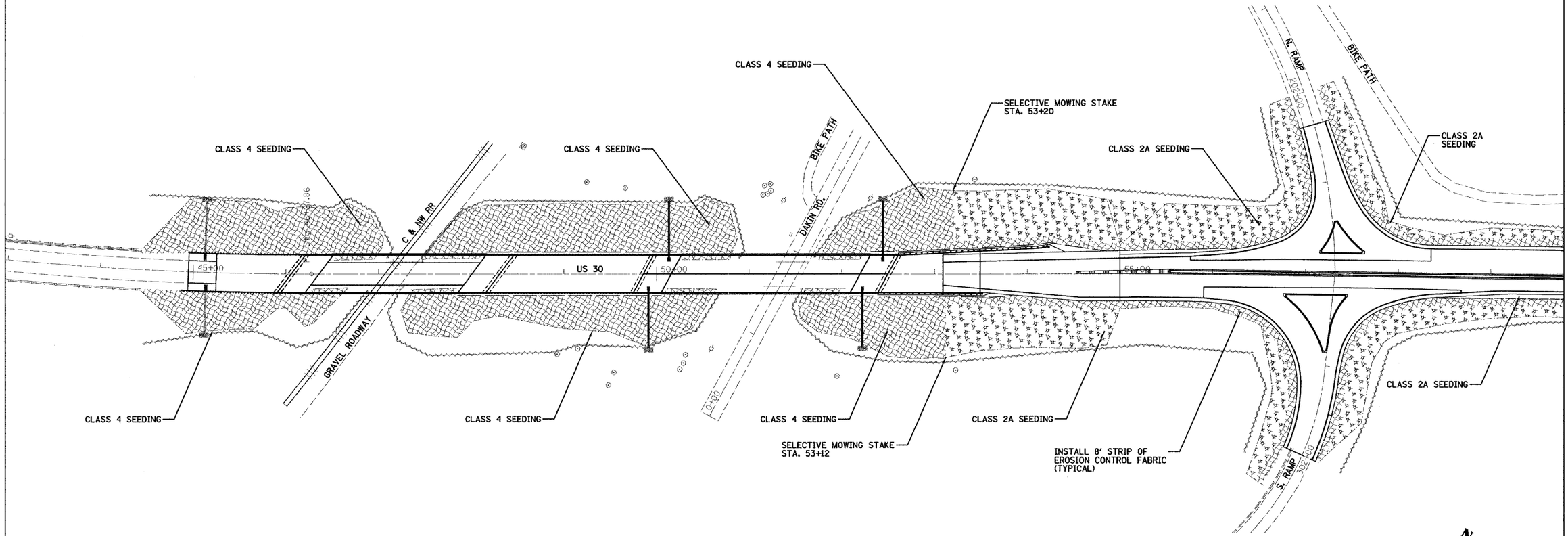
PROFILE
DATE
BY
SURVEYED
PLOTTED
PROJECT CHECKED
ALL NOTED STRUCTURE NOTATING CHKD
NOTE BOOK
NO.

WHKS 08/25/2005 08:33:10 AM k:\6279\Design\Z06492REM.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	26
STA. 39+00.00		TO STA. 58+50.000		
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

PLAN — SURVEYED / PLOTTED / ALIGNMENT CHECKED / ALL REVISIONS MADE / CADD FILE NAME / NOTE BOOK / NO. — BY / DATE

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / ALL REVISIONS MADE / STRUCTURE NO(S)/RNS CK'ED — BY / DATE



EROSION CONTROL LEGEND

- GRADING LIMITS
- PERIMETER EROSION BARRIER
- EROSION CONTROL FABRIC
- MULCH METHOD 2

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

DRAWN BY SWEET

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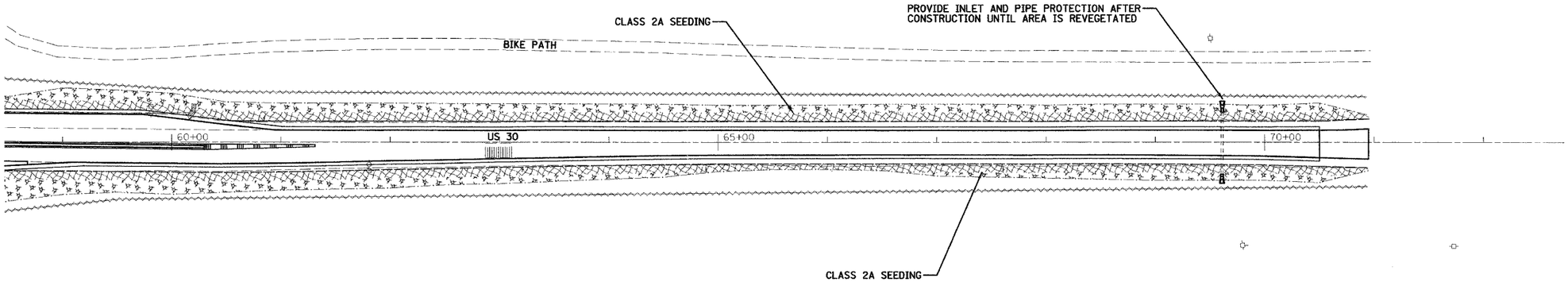
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	~~146~~	27
STA. 58+50.00		TO STA. 70+95.00		
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		
CONTRACT *84883				

PLAN
SURVEYED
PLOTTED
CHECKED
NOTE BOOK
NO.
DATE
BY
REV. OF WA* CHECKED
CADD FILE NAME

PROFILE
SURVEYED
PLOTTED
CHECKED
NOTE BOOK
NO.
DATE
BY
SKW. NOTED
STRUCTURE NO.&TYPE OVRD



EROSION CONTROL LEGEND

- GRADING LIMITS
- PERIMETER EROSION BARRIER
- EROSION CONTROL FABRIC
- MULCH METHOD 2

N

SCALE
0 50' 100'
0

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

DRAWN BY SWEET

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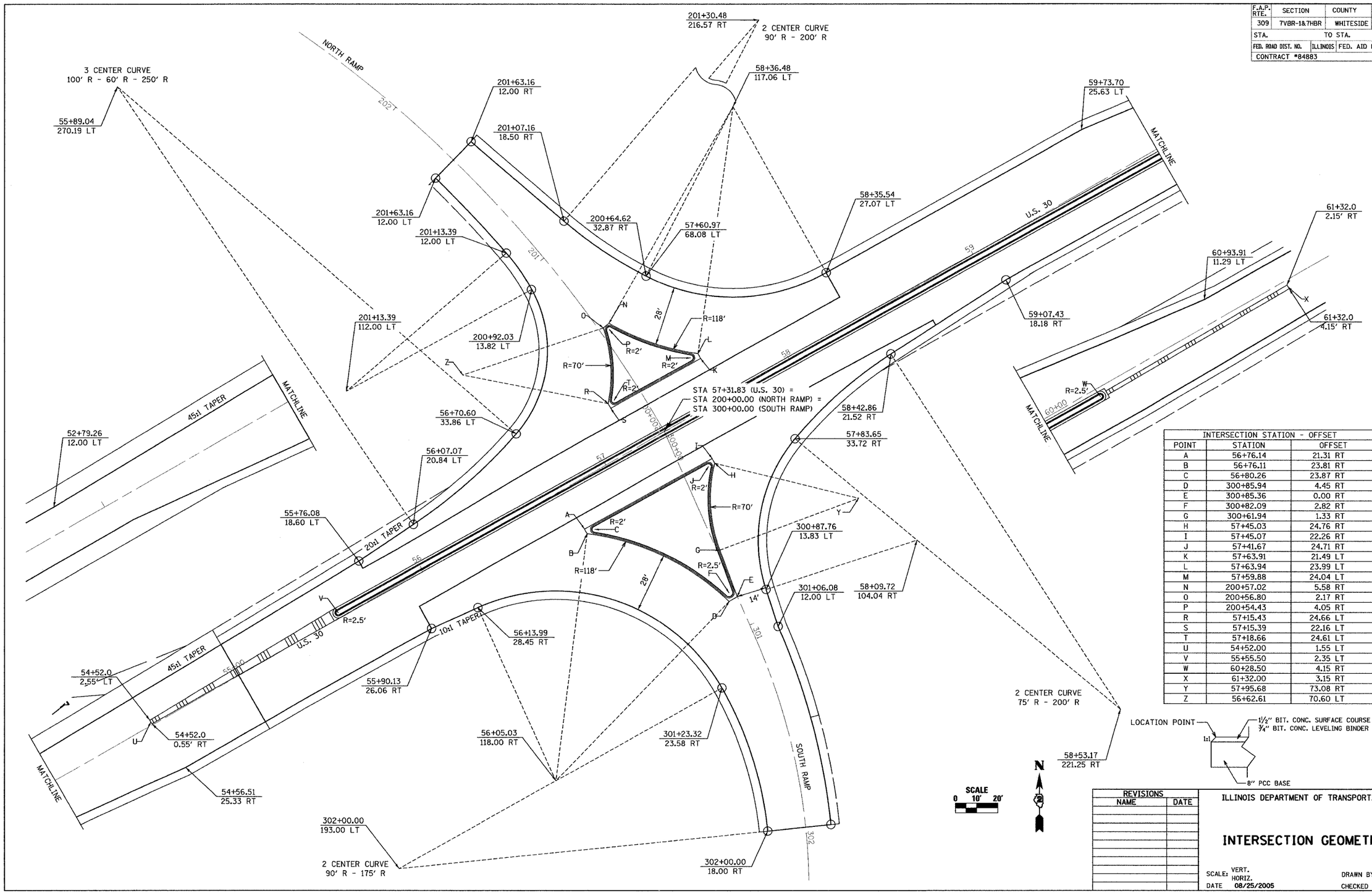
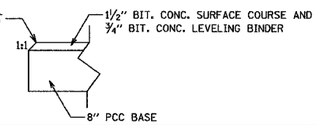
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7VBR-1&7HBR	WHITESIDE	146	28
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT *84883				



INTERSECTION STATION - OFFSET		
POINT	STATION	OFFSET
A	56+76.14	21.31 RT
B	56+76.11	23.81 RT
C	56+80.26	23.87 RT
D	300+85.94	4.45 RT
E	300+85.36	0.00 RT
F	300+82.09	2.82 RT
G	300+61.94	1.33 RT
H	57+45.03	24.76 RT
I	57+45.07	22.26 RT
J	57+41.67	24.71 RT
K	57+63.91	21.49 LT
L	57+63.94	23.99 RT
M	57+59.88	24.04 LT
N	200+57.02	5.58 RT
O	200+56.80	2.17 RT
P	200+54.43	4.05 RT
R	57+15.43	24.66 LT
S	57+15.39	22.16 LT
T	57+18.66	24.61 LT
U	54+52.00	1.55 LT
V	55+55.50	2.35 LT
W	60+28.50	4.15 RT
X	61+32.00	3.15 RT
Y	57+95.68	73.08 RT
Z	56+62.61	70.60 LT

LOCATION POINT



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERSECTION GEOMETRICS

SCALE: VERT.
HORIZ.
DATE 08/25/2005

DRAWN BY SWEET
CHECKED BY ZELINSKAS

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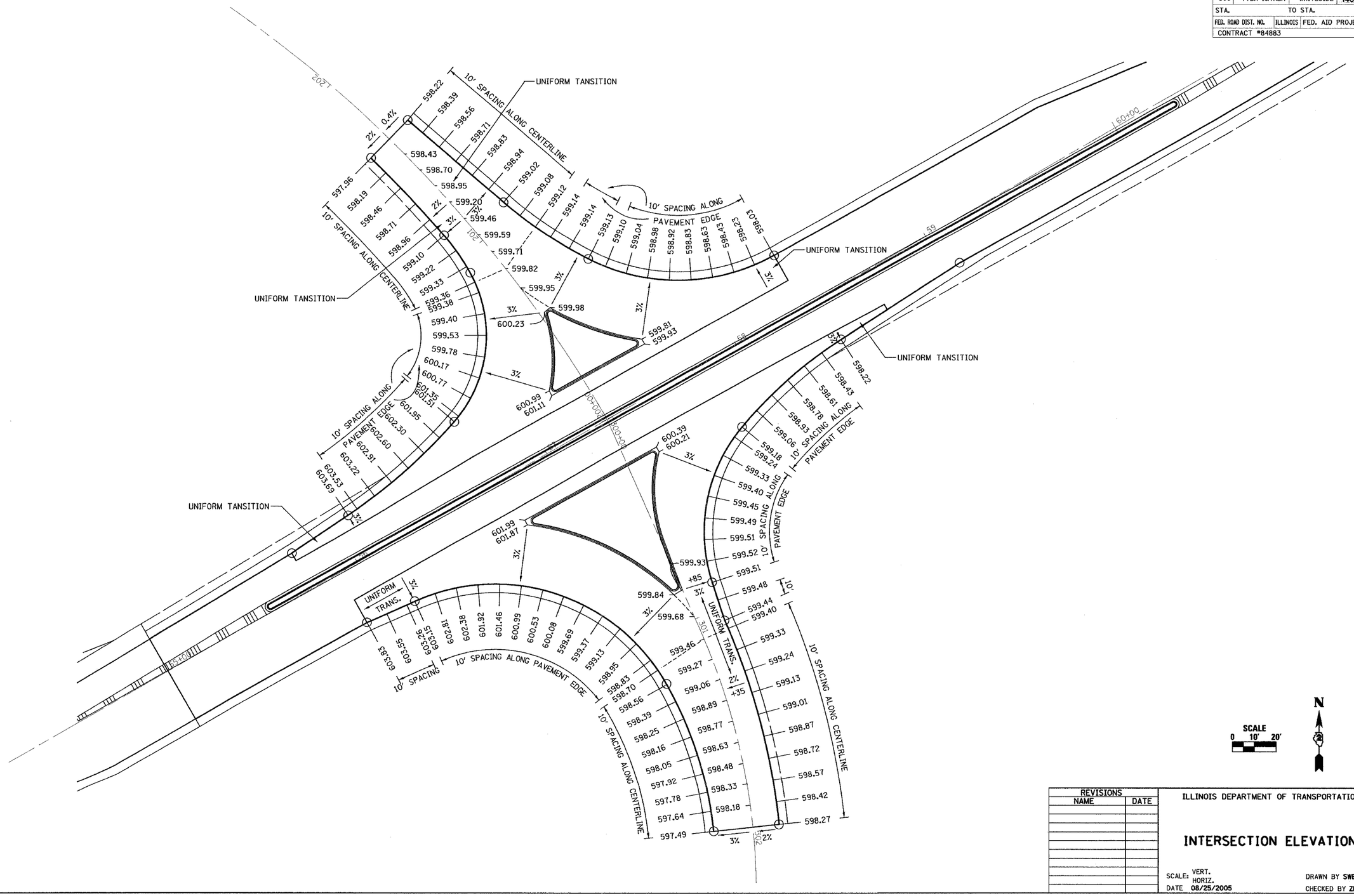
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7VBR-1&7HBR	WHITESIDE	146	29
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERSECTION ELEVATIONS

SCALE: VERT.
HORIZ.
DATE 08/25/2005

DRAWN BY SWEET
CHECKED BY ZELINSKAS

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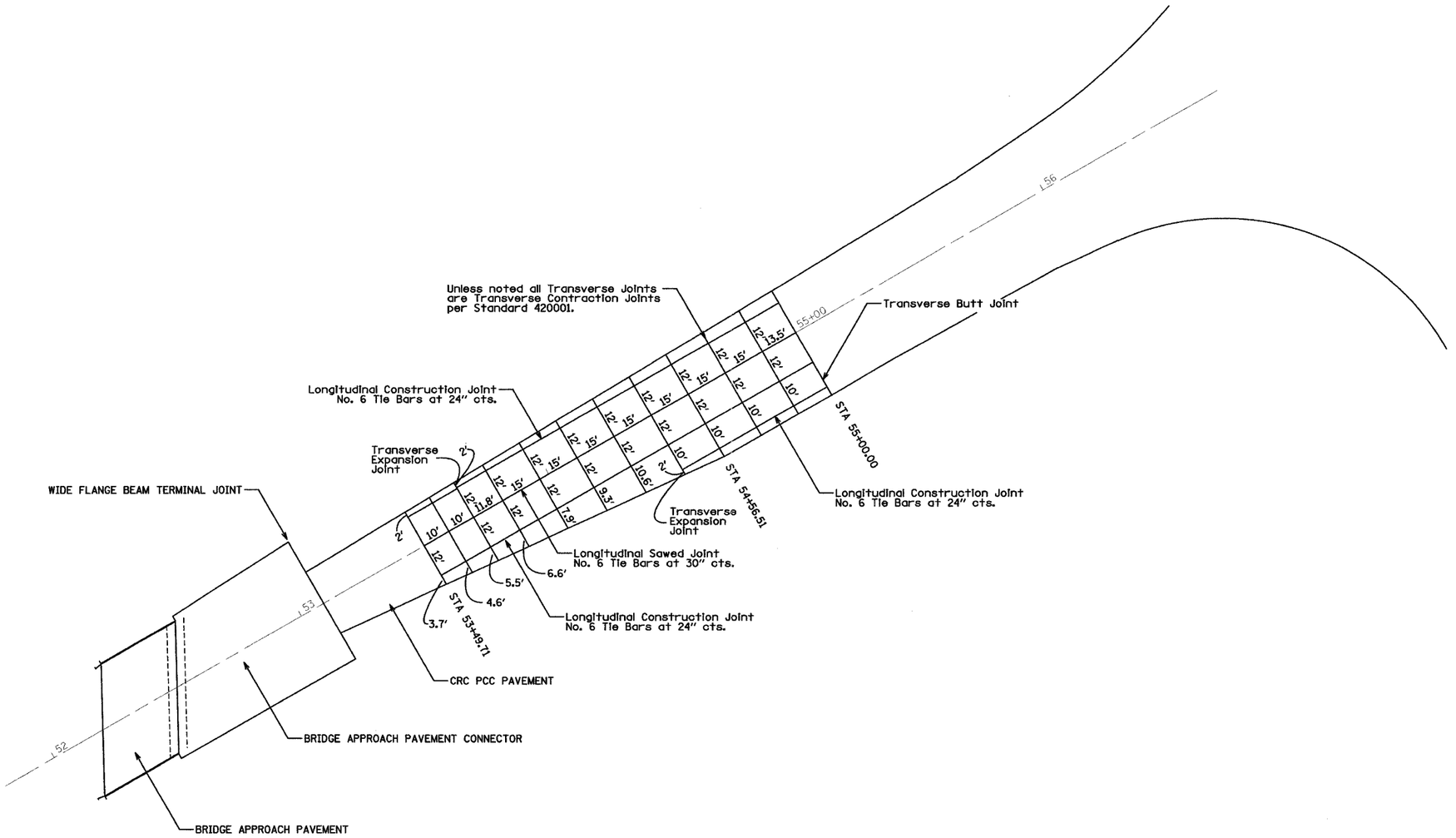
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7VBR-1&7HBR	WHITESIDE	146	30
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				



SCALE 0 10' 20'

N

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINTING PLAN

SCALE: VERT. HORIZ.

DATE 08/25/2005

DRAWN BY SWEET

CHECKED BY ZELINSKAS

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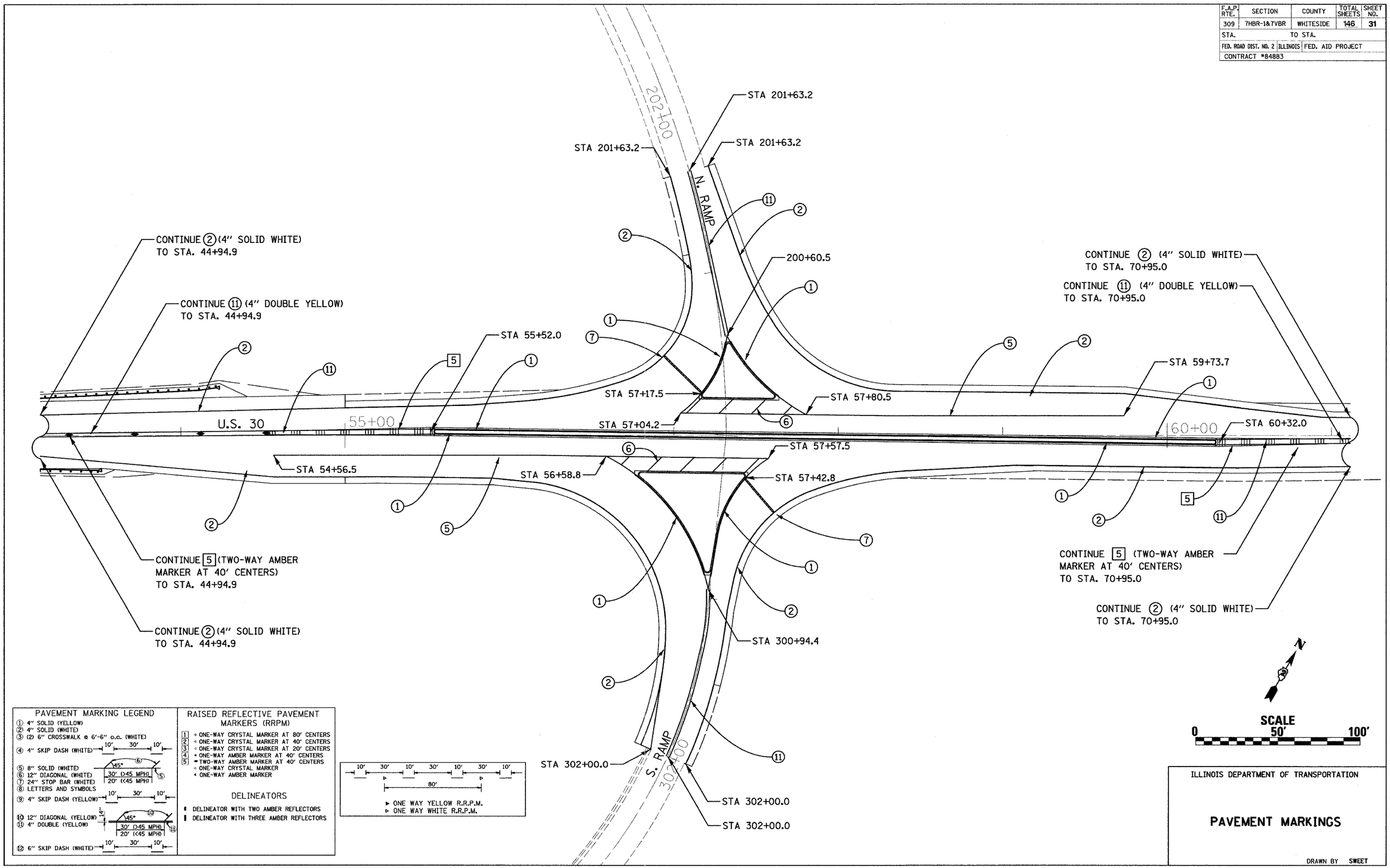
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	31
STA.		TO STA.		
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

PLAN — SURVEYED / PLOTTED / AREAS CHECKED / ALL OF R/W CHECKED / CADD FILE NAME / NOTE BOOK / NO. / BY / DATE

PROFILE — SURVEYED / PLOTTED / AREAS CHECKED / BM. NOTED / STRUCTURE NO.&PMS CHKD / NOTE BOOK / NO. / BY / DATE



PAVEMENT MARKING LEGEND

① 4" SOLID (YELLOW)
② 4" SOLID (WHITE)
③ (2) 6" CROSSWALK @ 6'-6" o.c. (WHITE)
④ 4" SKIP DASH (WHITE) — 10' 30' 10'
⑤ 8" SOLID (WHITE)
⑥ 12" DIAGONAL (WHITE) — 45° — 30' (>45 MPH) 20' (<45 MPH)
⑦ 24" STOP BAR (WHITE)
⑧ LETTERS AND SYMBOLS
⑨ 4" SKIP DASH (YELLOW) — 10' 30' 10'
⑩ 12" DIAGONAL (YELLOW) — 14" — 45° — 10
⑪ 4" DOUBLE (YELLOW) — 30' (>45 MPH) 20' (<45 MPH)
⑫ 6" SKIP DASH (WHITE) — 10' 30' 10'

RAISED REFLECTIVE PAVEMENT MARKERS (RRPM)

[1] ◁ ONE-WAY CRYSTAL MARKER AT 80' CENTERS
[2] ◁ ONE-WAY CRYSTAL MARKER AT 40' CENTERS
[3] ◁ ONE-WAY CRYSTAL MARKER AT 20' CENTERS
[4] ◂ ONE-WAY AMBER MARKER AT 40' CENTERS
[5] ◆ TWO-WAY AMBER MARKER AT 40' CENTERS
◁ ONE-WAY CRYSTAL MARKER
◂ ONE-WAY AMBER MARKER

DELINEATORS

▮ DELINEATOR WITH TWO AMBER REFLECTORS
▮ DELINEATOR WITH THREE AMBER REFLECTORS

10' 30' 10' 30' 10' 30' 10' — 80'
▶ ONE WAY YELLOW R.R.P.M.
▷ ONE WAY WHITE R.R.P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS

DRAWN BY SWEET

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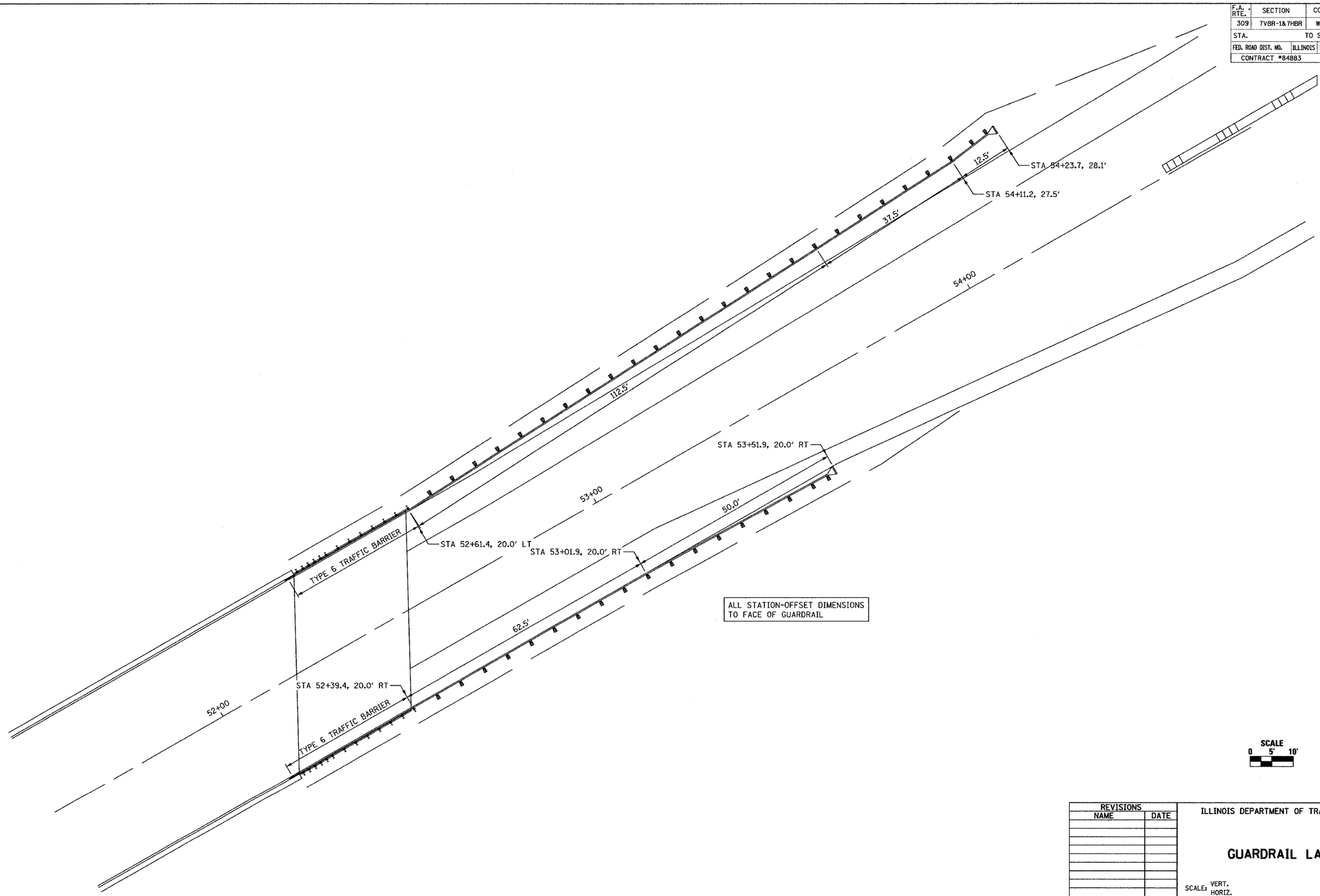
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7VBR-1&7HBR	WHITESIDE	146	32
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				



ALL STATION-OFFSET DIMENSIONS TO FACE OF GUARDRAIL

SCALE
0 5' 10'

N

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GUARDRAIL LAYOUT

SCALE: VERT.
HORIZ.
DATE

DRAWN BY SWEET
CHECKED BY

WHKS 08/25/2005 06:27:54 AM k:\6279\Design\Z06492det1.dgn

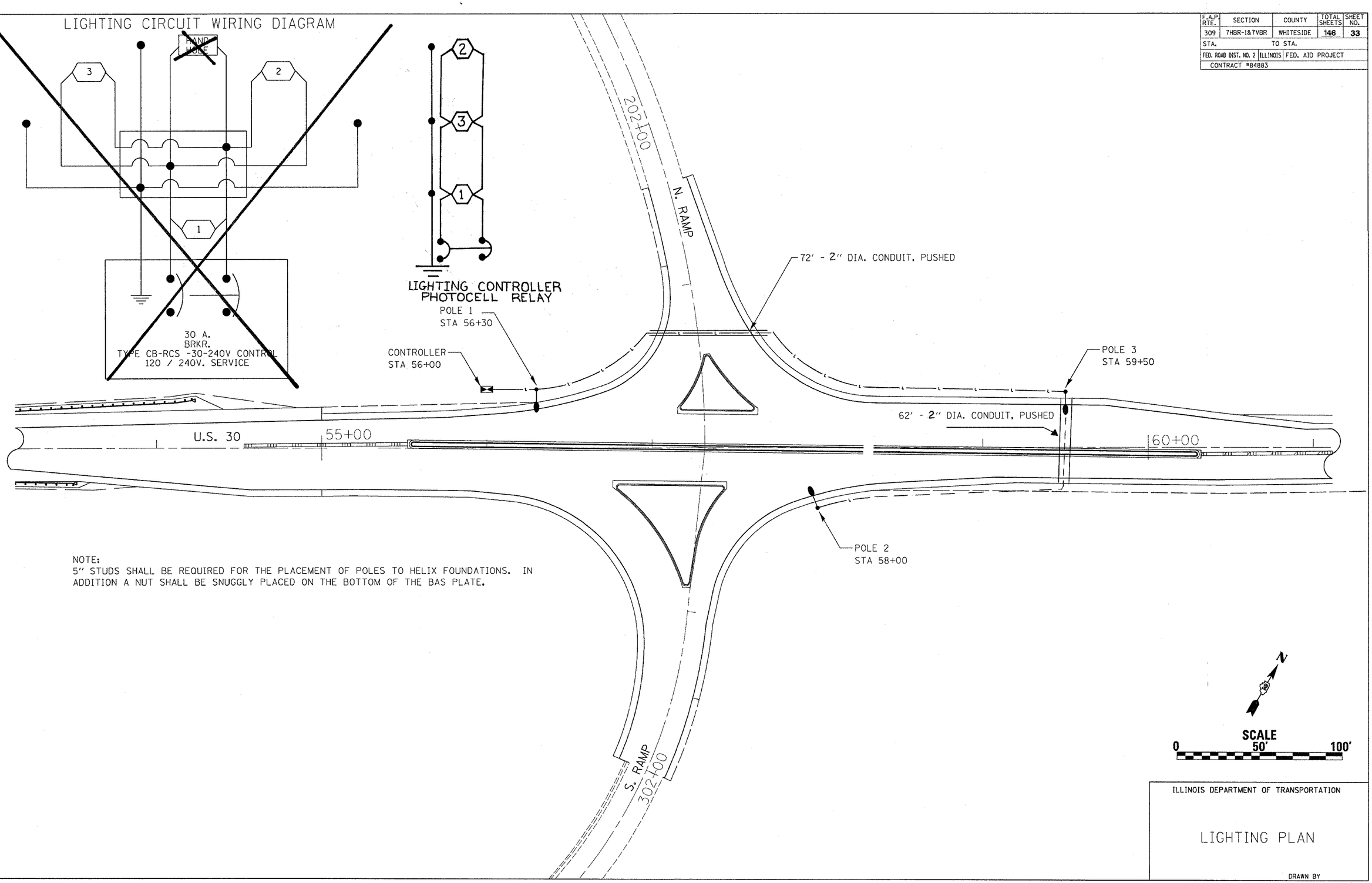
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-I&7VBR	WHITESIDE	146	33
STA.	TO STA.			
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		
CONTRACT #84883				

PLAN
SURVEYED
DRAWN
ALIGNMENT CHECKED
TIES OR MONUMENTS RECORD
NOTE BOOK
CADD FILE NAME
NO.
BY
DATE

PROFILE
SURVEYED
DRAWN
GRADES CHECKED
ELEVATIONS
NOTE BOOK
STRUCTURE NO(S)/ING CHKD
NO.
BY
DATE

LIGHTING CIRCUIT WIRING DIAGRAM

LIGHTING CONTROLLER
PHOTOCELL RELAY



NOTE:
5" STUDS SHALL BE REQUIRED FOR THE PLACEMENT OF POLES TO HELIX FOUNDATIONS. IN ADDITION A NUT SHALL BE SNUGGLY PLACED ON THE BOTTOM OF THE BAS PLATE.

N

SCALE
0 50' 100'

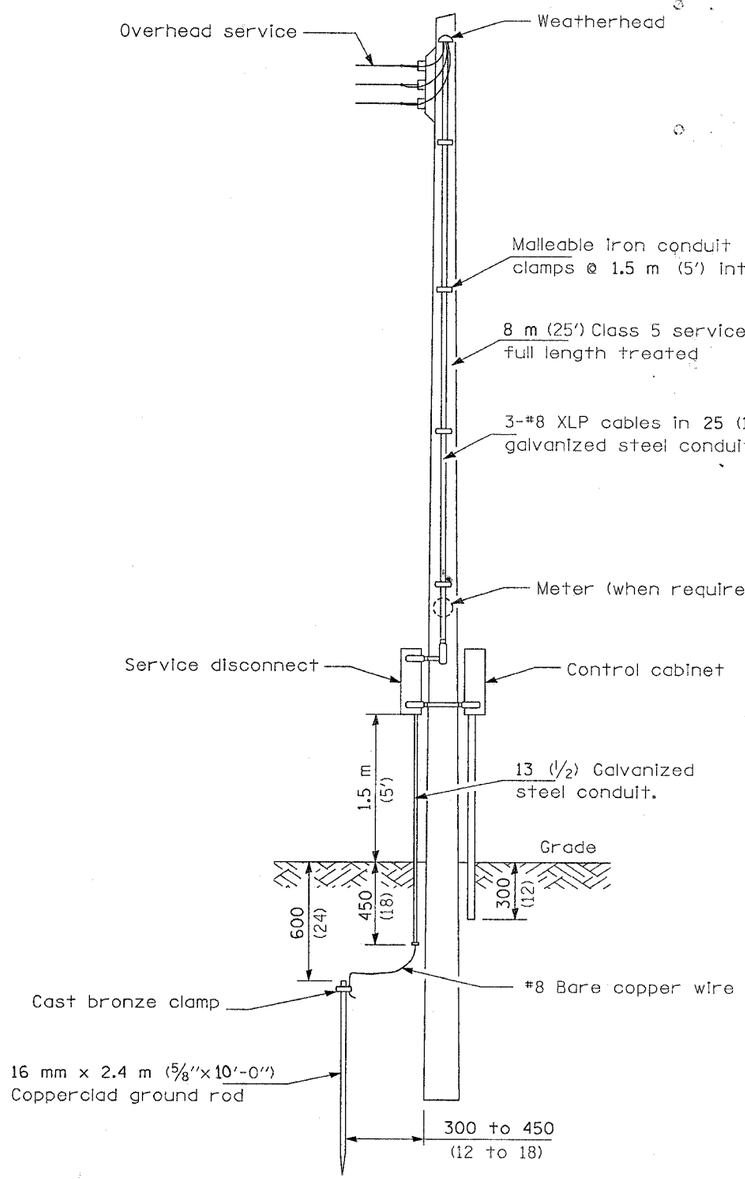
ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN

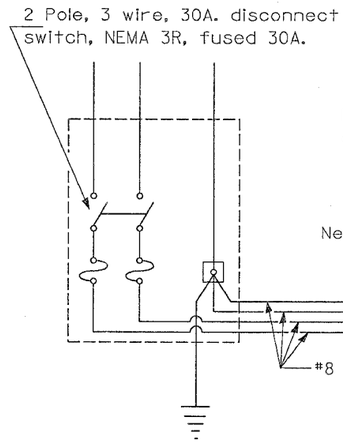
DRAWN BY

CONTRACT NO. 84883

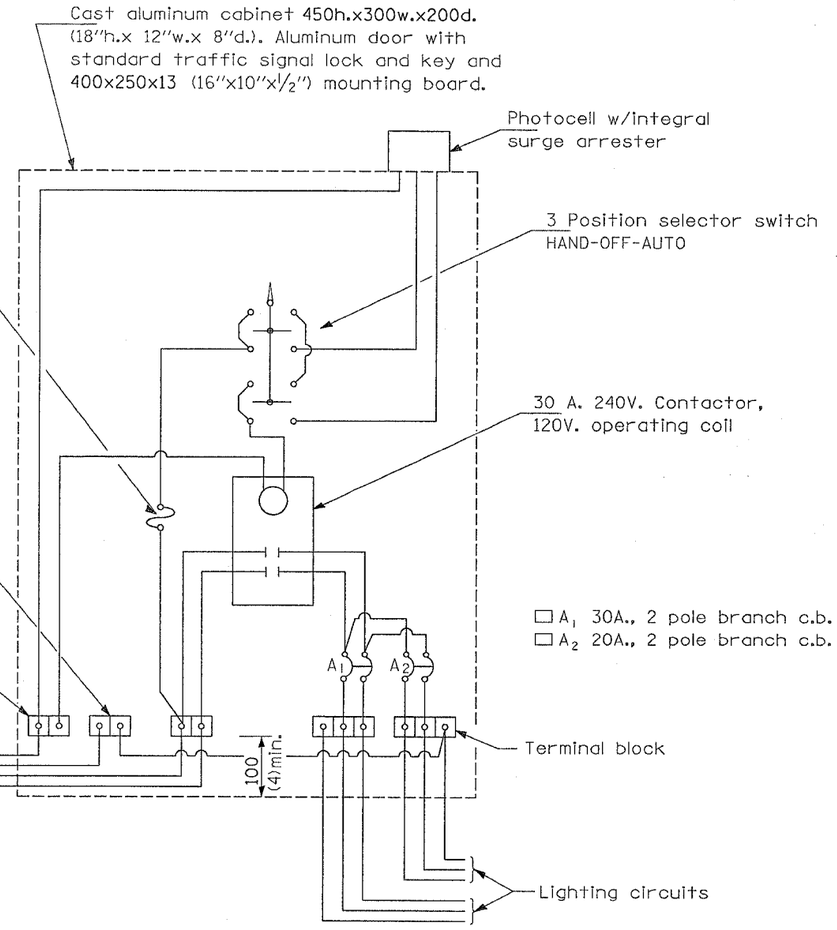
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	34
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SERVICE POLE



DISCONNECT SWITCH



□ A_1 30A., 2 pole branch c.b.
□ A_2 20A., 2 pole branch c.b.

PHOTOCELL RELAY

GENERAL NOTES

All equipment shall be U.L. Listed.

All dimensions are in millimeters unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 1997

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 1997

ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED

DATE	REVISIONS

CONTROL INSTALLATION SERVICE POLE MOUNTED

120/240V., 1 PHASE, 3 WIRE SERVICE

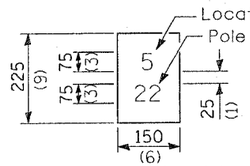
LGT003.M32

CONTRACT NO. 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	35
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

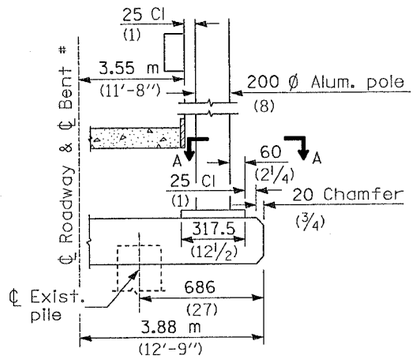
"Install and orient arm bracket over pole tenon and firmly hand tighten the two set screws. Use third hole in arm bracket as a guide to drill a 8.3 (21/64) diameter hole through tenon. Install and tighten self-tapping screw. Tighten set screws an additional (1/4 to 3/8) turn with hex key (not provided). Install locknuts on set screws if threaded projection allows."

Pole shall meet AASHTO Standard Specifications for 128.72 km (80 mph) wind loading and 40.82 kg (90 lb.), .37 m^2 (4.0 sq. ft.) E.P.A. luminaire.

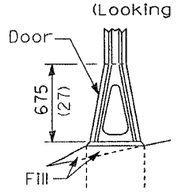


The contractor shall furnish and install a light pole identification of each new light pole, as shown above, incidental to the respective light pole pay item. The numerals shall be 75 (3) series "D", black, screened on silver-white type B pressure sensitive reflective sheeting conforming to the requirements of section T602.01 of the Standard Specifications for Traffic Control Items. The numerals shall conform to the FHWA "Standard Alphabets for Highway Signs".

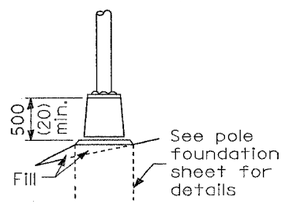
The light pole identification shall be applied to sign base material as specified in section 1085.05 of the Standard Specifications, approximatey 180 (7) above the adjacent pavement grade visible to approaching traffic in accordance with Highway Standard 2319.



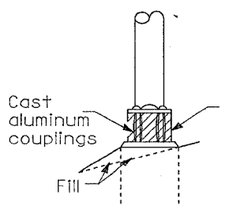
BENT # (Looking)



☐ STAINLESS STEEL FLAIR BASE

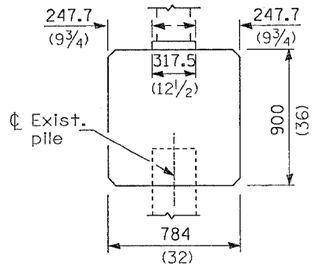


☐ TRANSFORMER BASE

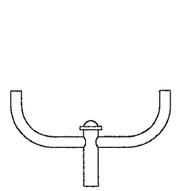


☒ BREAKAWAY COUPLING

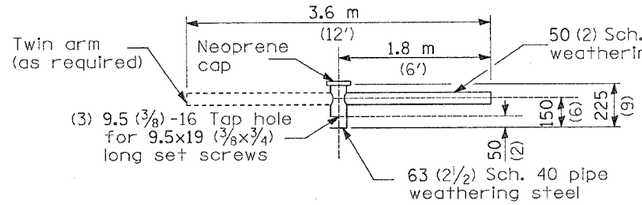
☐ FRANGIBLE



☐ BRIDGE PIER MOUNT

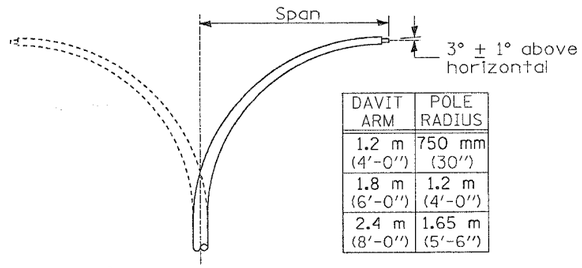


☐ TWIN TENON



☐ TENON MOUNT BRACKET ARM

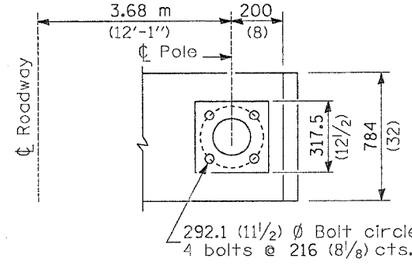
NOTE: Single or twin arm assembly shall be tilted 3° above horizontal.



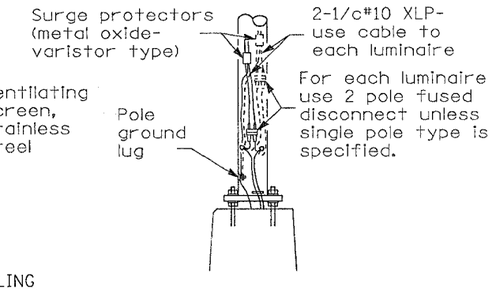
DAVIT ARM	POLE RADIUS
1.2 m (4'-0")	750 mm (30")
1.8 m (6'-0")	1.2 m (4'-0")
2.4 m (8'-0")	1.65 m (5'-6")

☒ DAVIT ARM (and or)

☐ DAVIT ARM-TWIN



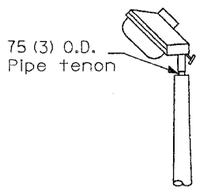
SECTION A-A



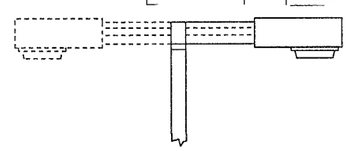
☐ ANCHOR

☒ METAL OR ☐ CONCRETE

Details for underground distribution if required

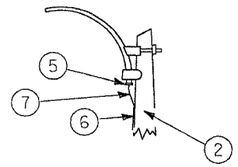


☐ TENON

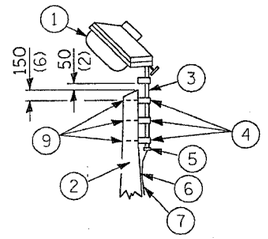


☐ SHORT BRACKET

☐ SHORT BRACKET - TWIN

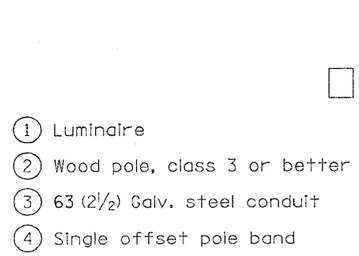


☐ MAST ARM

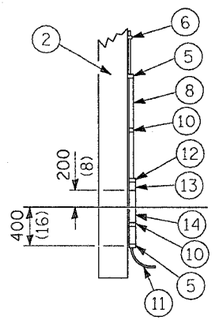


☐ TENON

(1) Luminaire
(2) Wood pole, class 3 or better
(3) 63 (2 1/2) Galv. steel conduit
(4) Single offset pole band
(5) Conduit bushing
(6) Cable clamps on 600 (24) centers
(7) 2/c #12 Type use cable
(8) 25 (1) Galv. steel conduit 3.0 m (10') in length
(9) 16 (5/8) Ø hot dipped galvanized bolt with flat washer & locknut (3 req'd)
(10) Conduit clamps on 900 (36) centers
(11) Unit duct
(12) Threaded reducer
(13) "C" Conduiet, threaded
(14) 40 (1 1/2) Galv. steel conduit for 1 unit duct or 75 (3) galv. steel conduit for 2 or 3 unit ducts.



☐ BUTT BASE



☐ POLE, WOOD

POLE LENGTH	DEPTH IN GROUND
19.8 m (65')	3.6 m (12')
18.0 m (60')	3.0 m (10')
16.8 m (55')	2.7 m (9')
16.0 m (50')	2.4 m (8')
13.7 m (45')	2.1 m (7')
12.0 m (40')	2.0 m (6.5')
10.7 m (35')	1.8 m (6')
9.0 m (30')	1.7 m (5.5')

All dimensions are in millimeters (inches) unless otherwise shown.

DATE	REVISIONS

POLE STANDARDS

LGT008.M32

CONTRACT NO. 84883

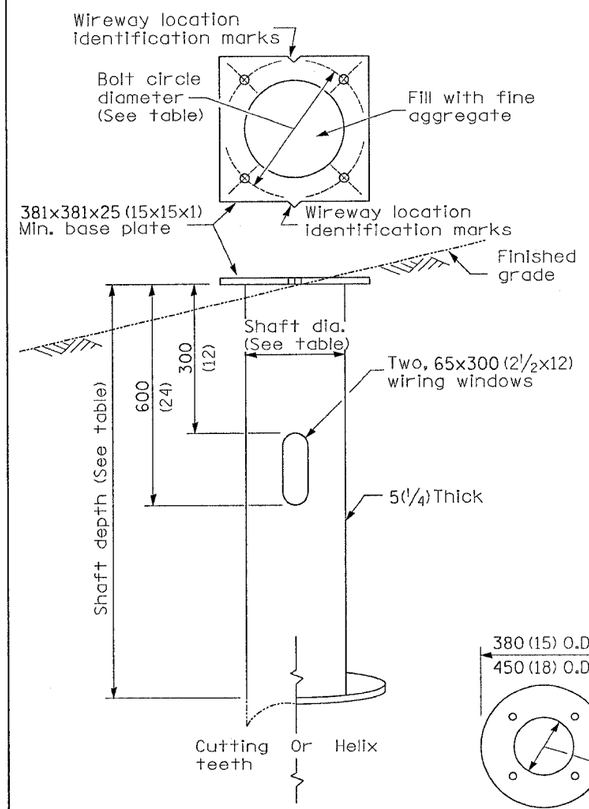
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	36
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LIGHT POLE HEIGHT	BOLT CIRCLE DIAMETER	STEEL FOUNDATION		CONCRETE FOUNDATION		
		SHAFT DIAMETER	SHAFT DEPTH	SHAFT DIAMETER	SHAFT DEPTH	ANCHOR ROD LENGTH *
≤9 m (30′)	292 mm (11½″)	220 mm (8⅝″)	1.83 m (6′-0″)	600 mm (24″)	1.52 m (5′-0″)	1.45 m (4′-9″)
9.4 m - 10.7 m (31′-35′)	292 mm (11½″)	220 mm (8⅝″)	1.83 m (6′-0″)	600 mm (24″)	1.67 m (5′-6″)	1.60 m (5′-3″)
11.9 m - 12.0 m (36′-40′)	381 mm (15″)	220 mm (8⅝″)	1.83 m ** (6′-0″)	600 mm (24″)	1.83 m (6′-0″)	1.75 m (5′-9″)
12.5 m - 13.7 m (41′-45′)	381 mm (15″)	220 mm (8⅝″)	1.83 m ** (6′-0″)	600 mm (24″)	1.98 m (6′-6″)	1.90 m (6′-3″)
14.0 m - 16.0 m (46′-50′)	381 mm (15″)	2220 mm (8⅝″)	2.44 m (8′-0″)	600 mm (24″)	2.13m (7′-0″)	2.00 m (6′-9″)

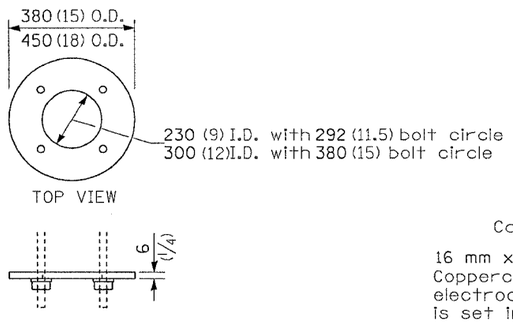
* Length does not include 100 (4) hook
** 220 mm x 2.44 m (8⅝″ x 8′-0″) for Twin luminaires

Notes:

All foundations are designed to be located on slopes not exceeding 2:1 where soils have an unconfined compressive strength of at least 1.0 TSF. The contractor shall verify the soil strength during drilling for concrete foundations or by monitoring installation resistance on steel foundations and notify the engineer if other conditions are encountered.

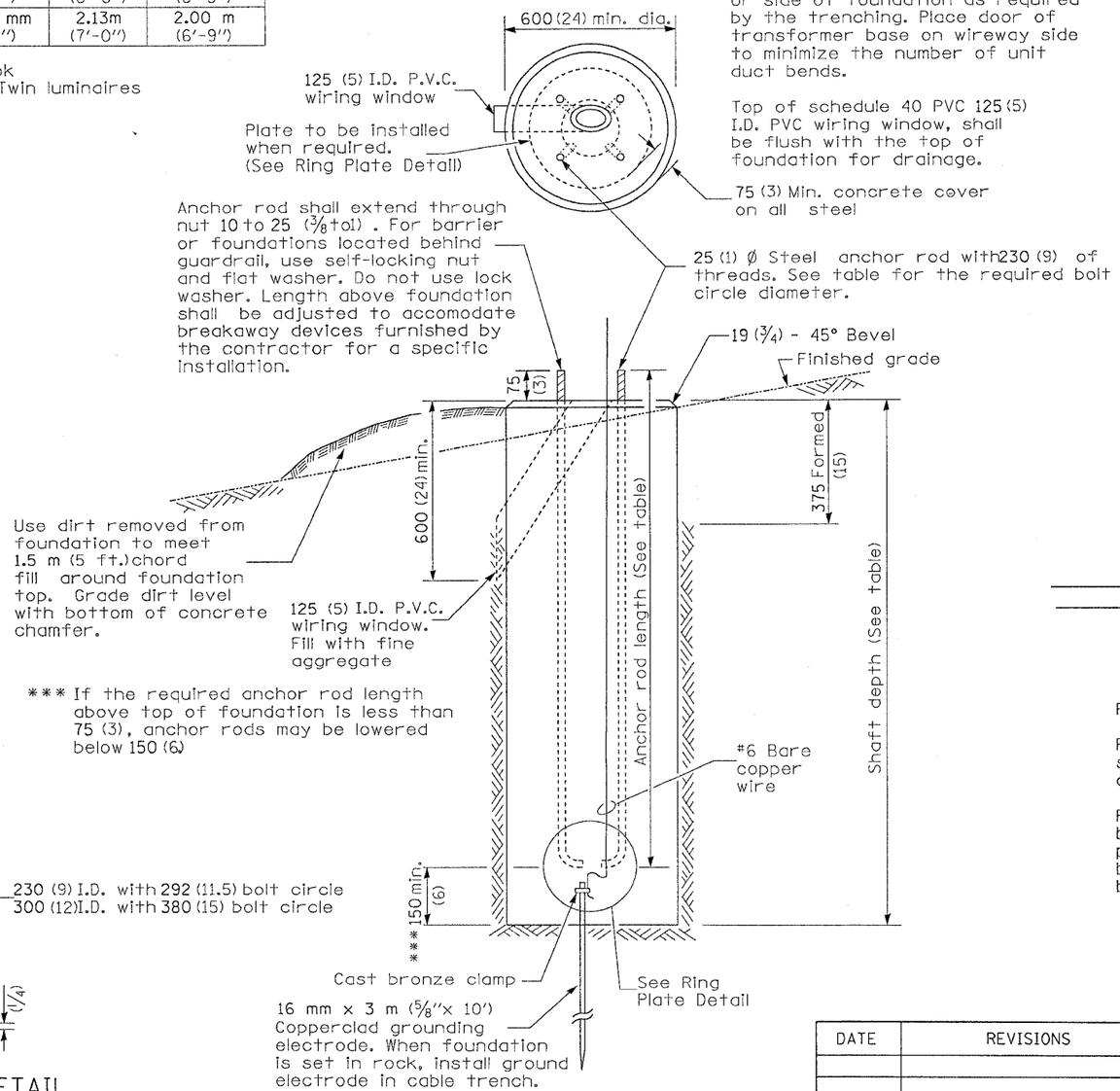


STEEL FOUNDATION



RING PLATE DETAIL

(When rock is encountered and foundation is shallower)



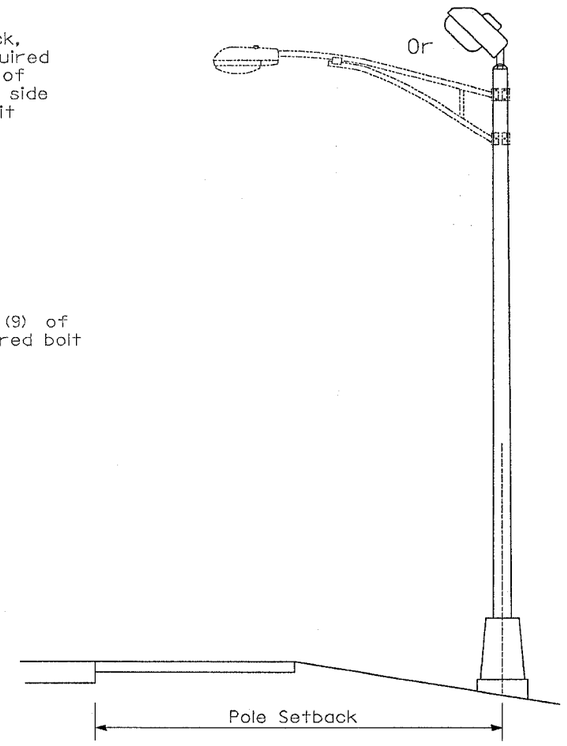
*** If the required anchor rod length above top of foundation is less than 75 (3), anchor rods may be lowered below 150 (6)

CONCRETE FOUNDATION

Notes:

Wireway may be on front, back, or side of foundation as required by the trenching. Place door of transformer base on wireway side to minimize the number of unit duct bends.

Top of schedule 40 PVC 125 (5) I.D. PVC wiring window, shall be flush with the top of foundation for drainage.



Pole Foundation Setback:

For horizontal mounted luminaires, setback shall be a minimum of 6.1 m (20′) from edge of pavement.

For vertical mount luminaires, setback shall be a minimum of 9 m (30′) from edge of pavement. Poles shall be located 1.5 m (5′) behind guardrail or other protective barriers, or as directed by the Engineer.

All dimensions are in millimeters (inches) unless otherwise shown.

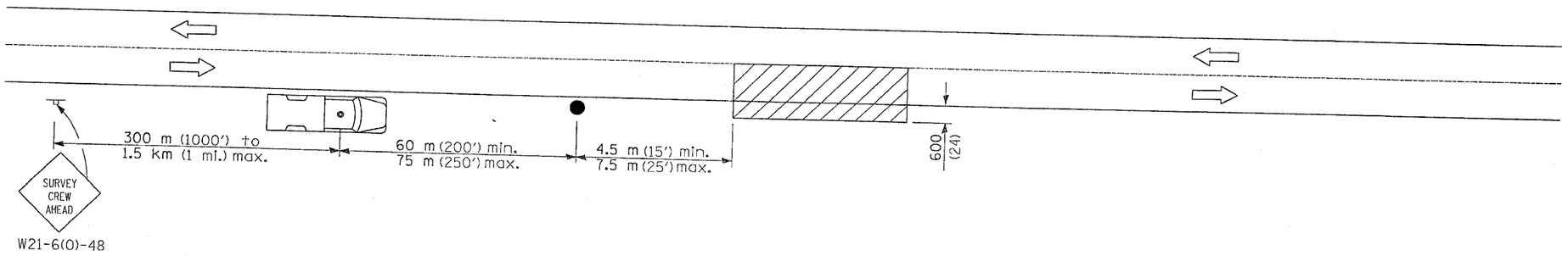
DATE	REVISIONS

LIGHT POLE FOUNDATION

LGT836

CONTRACT NO. 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	37
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL APPLICATIONS

Utility operations

SYMBOLS

Work area

Sign on portable or permanent support

Truck with flashing amber light and dual emergency flashers

Flagger with traffic control sign

All dimensions are in millimeters (inches) unless otherwise shown.

DATE	REVISIONS

DETAIL FOR NIGHTTIME LIGHTING INSPECTION

LGT017.M32

Bench Mark: Fnd. 60d spike in 1st. power pole N. of U.S. 30. W. side of Dakin Road Sta. 51+36.63 79.1' L.T.. Elev. 588.745.

Existing Structure: S.N. 098-6000 was built in 1954-56 under the City of Clinton Bridge Commission Contract No. 7, Illinois Federal Aid Route 7. The structure is a four span continuous non-composite WF superstructure supported on spill through pile bent abutments and dual column piers. The deck is to be removed and widened. Traffic will be detoured during construction.

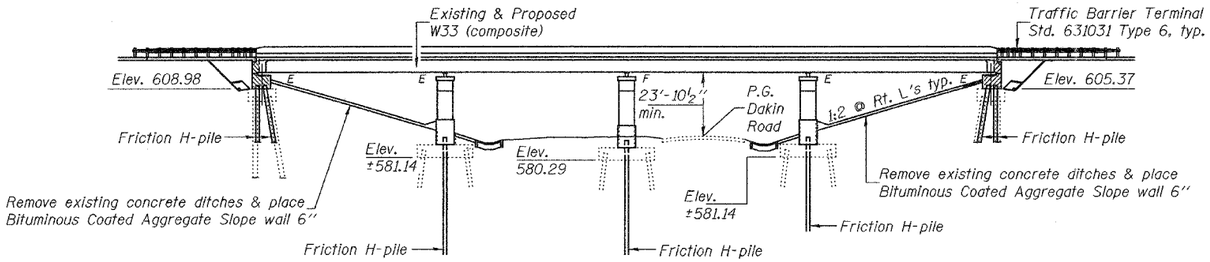
No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

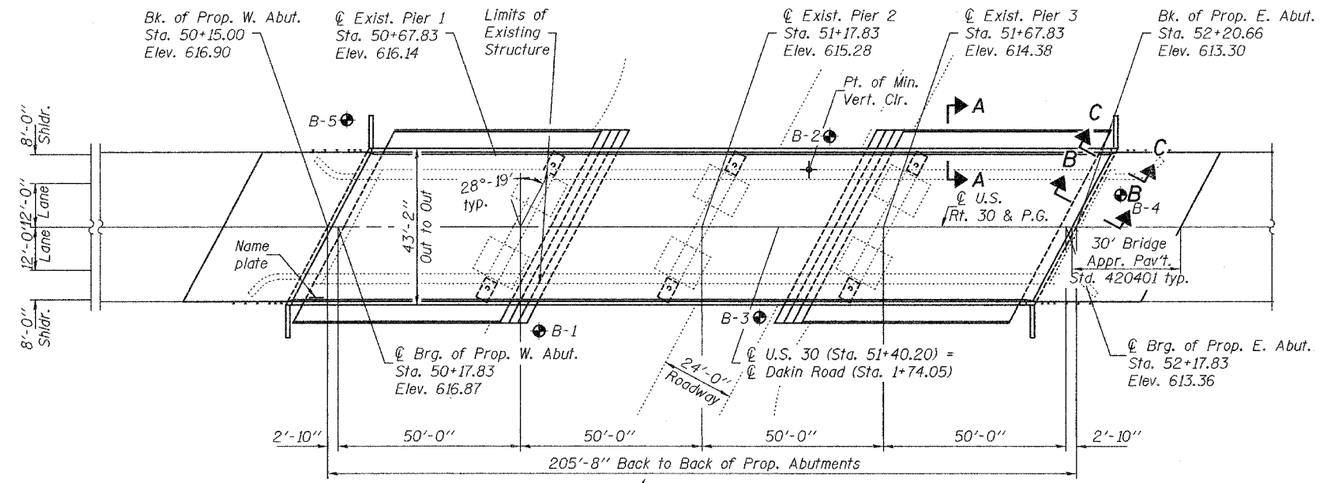
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
23 SHEETS

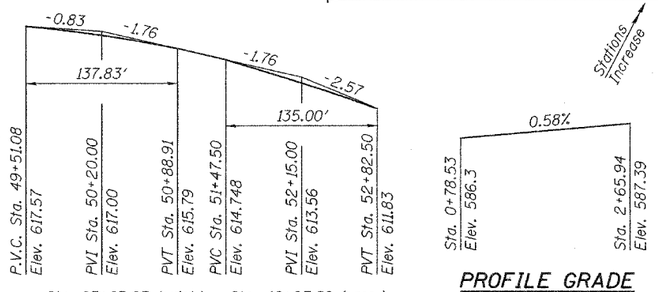
Contract #84883



ELEVATION



PLAN



Sta. 65+65.03 (exist.) = Sta. 46+27.86 (prop.)

PROFILE GRADE
(U.S. Rte. 30)

PROFILE GRADE
(Dakin Road)

Notes: The cost of Removing Existing Concrete Ditches shall be included with slope wall 4".

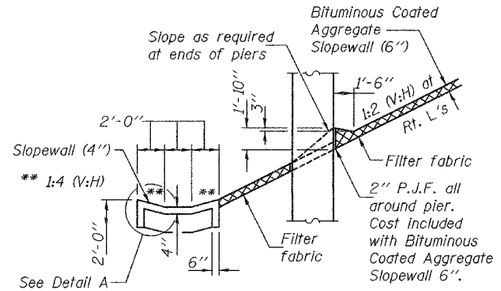
DESIGNED	Ridyadi
CHECKED	Dhruv P. Nanjebudu
DRAWN	h.t. duong
CHECKED	CCC/DPN

EXAMINED Thomas J. Domagalski — Oct. 11, 2005 — ENGINEER OF BRIDGE DESIGN

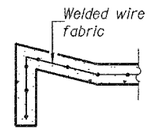
PASSED Ralph E. Anderson — ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS RALPH E. ANDERSON 081-004625 SPRINGFIELD LICENSED STRUCTURAL ENGINEER

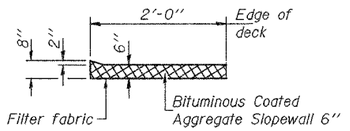
EXPIRES 11-30-2006



SECTION THRU SLOPEWALL (typ.)



DETAIL A



SECTION A-A

STATION 51+17.83
REBUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 309 SEC. 7HBR-1
LOADING HS20
STRUCTURE NO. 098-6000

NAME PLATE
See Std. 515001

Existing name plate shall be cleaned and placed next to new name plate. Cost included in Name Plates.

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD UNITS	NEW CONSTRUCTION
f'_c = 3,500 psi	f'_c = 3,500 psi
f_y = 40,000 psi (reinforcement)	f_y = 60,000 psi
f_y = 33,000 psi (structural steel) (1949 AASHTO Specifications)	f_y = 36,000 psi (structural steel) (M270 Gr. 36)

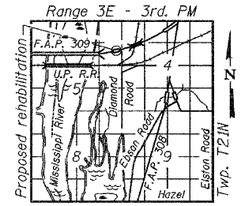
SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 3.2%g
Site Coefficient (S) = 1.0

INDEX OF SHEETS

1	General Plan
2	General Data
3-4	Top Slab of Elevations
5	Superstructure
6	Superstructure Details
7	Diaphragm Details
8	Structural Steel Removal
9	Structural Steel
10	Structural Steel Details
11-13	Bearing Details
14	Anchor Bolt Details
15	Abutment Concrete Removal Details
16	West Abutment
17	East Abutment
18-19	Piers
20	Bar Splicer Assembly Details
21-23	Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		234.7	234.7
Removal of Existing Concrete Deck	Each	1		1
Structure Excavation	Cu. Yd.		493.5	493.5
Protective Coat	Sq. Yd.	1086.0		1086.0
Concrete Structures	Cu. Yd.		174.0	174.0
Concrete Superstructure	Cu. Yd.	318.5		318.5
Furnishing and Erecting Structural Steel	L. Sum	0.55		0.55
Reinforcement Bars, Epoxy Coated	Pound	71360	13620	84980
Name Plates	Each	1		1
Bridge Deck Grooving	Sq. Yd.	863.0		863.0
Bar Splicers	Each	80		80
Furnishing Steel Piles HP12x53	Foot		1338.0	1338.0
Driving Steel Piles	Foot		1338.0	1338.0
Stud Shear Connectors	Each	4224		4224
Bituminous Coated Aggregate Slopewall 6"	Sq. Yd.		662.5	662.5
Elastomeric Bearing Assembly, Type I	Each		28	28
Concrete Removal	Cu. Yd.		72.8	72.8
Structural Steel Removal	Pound	32875		32875
Structural Steel Repair	Pound	1040.0		1040.0
Jack & Remove Existing Bearing	Each		20.0	20.0
Protective Shield	Sq. Yd.	175.5		175.5
Slopewall 4"	Sq. Yd.		72.2	72.2
Filter Fabric	Sq. Yd.		662.5	662.5
Cleaning and Painting Steel Bridge No. 1	L. Sum			1
Containment & Disposal of Lead Paint Cleaning Residues No. 1	L. Sum			1
Bridge Cleaning and Painting Warranty No. 1	L. Sum			1



LOCATION SKETCH

GENERAL PLAN
U.S. RTE. 30 OVER DAKIN RD.
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

\projects\str\d0002S\D986000.dgn 10/11/2005 8:40:39 AM

GENERAL NOTES

Fasteners shall be high strength bolts $\frac{7}{8}$" ϕ, open holes $\frac{15}{16}$" ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 67156 lbs. (M 270, Grade 36).

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

Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

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

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, two $\frac{1}{8}$" adjusting shims shall be provided for each bearing and placed as detailed.

Prior to pouring the new concrete deck, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.

All existing construction accessories welded to the top flange over the pier between the quarter points of the beams or girders shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any cracks that can not be removed by grinding approximately $\frac{1}{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be paid for according to Article 109.04.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

All Construction joints shall be bonded.

If the Contractor elects to use cantilever forming brackets on the exterior beams, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06 of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional brackets locations.

Contact surfaces of existing structural steel where new steel is to be installed shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Slopewall shall be reinforced with welded wire fabric 6"x 6"-W4xW4 weighing 58 lbs./100 ft^2.

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

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All existing steel shall be cleaned per Near White Blast Cleaning - SSPC-SP10. All existing steel shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Federal Color Standard 595a 20045.

The SSPC-QP1 and SSPC-QP2 Painting Contractor Certifications will not be required for this bridge.

The organic zinc rich primer/Epoxy Urethane Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Federal Color Standard 595a 20045. See special provision for "Cleaning and Painting New Metal Structures".

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

EXAMINED Thomas J. Domagalski — Oct. 11, 2005
ENGINEER OF BRIDGE DESIGN

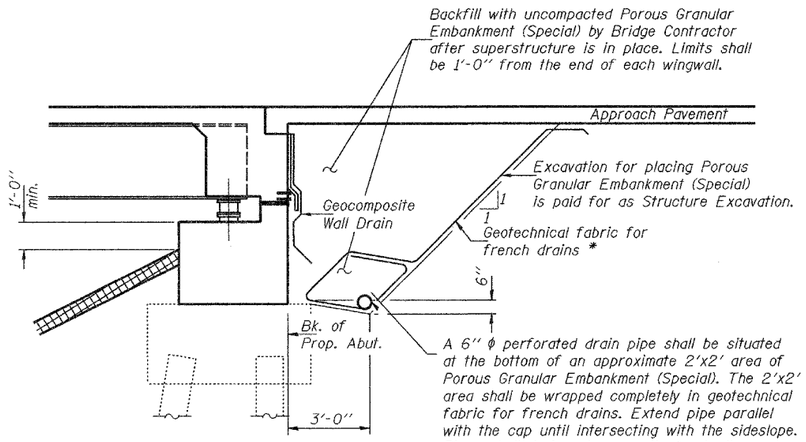
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	39
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

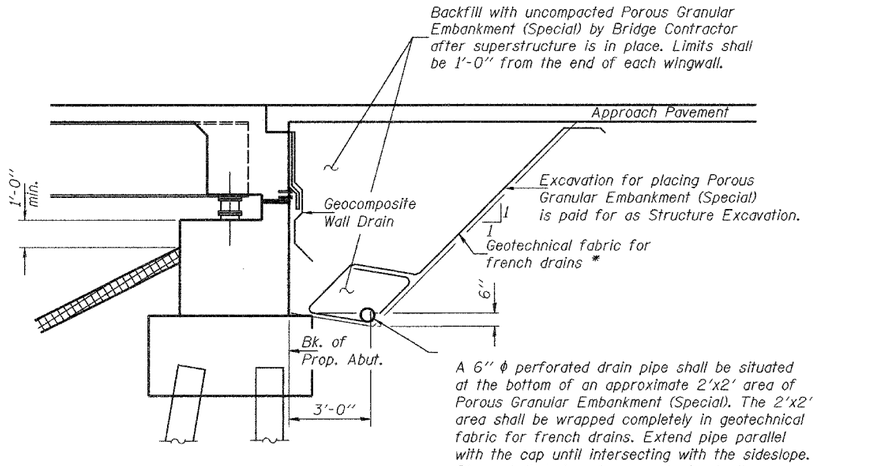
SHEET NO. 2
23 SHEETS

Contract #84883



* Included in the cost of Porous Granular Embankment (Special).

CROSS-SECTION B-B
(at Rt. L's)



* Included in the cost of Porous Granular Embankment (Special).

CROSS-SECTION C-C
(at Rt. L's)

GENERAL DATA
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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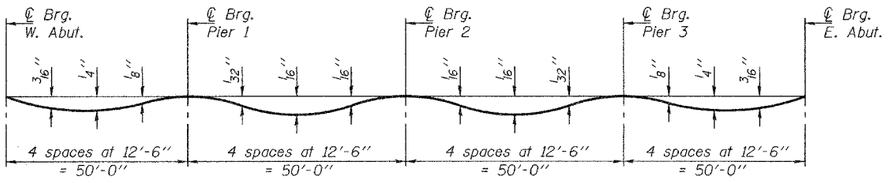
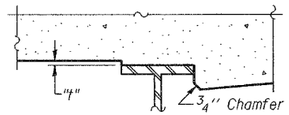


DEAD LOAD DEFLECTION DIAGRAM

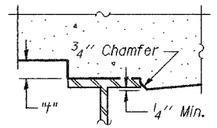
(Includes weight of concrete only.)

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 4 of 23.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



At Minimum Fillet



At Maximum Fillet

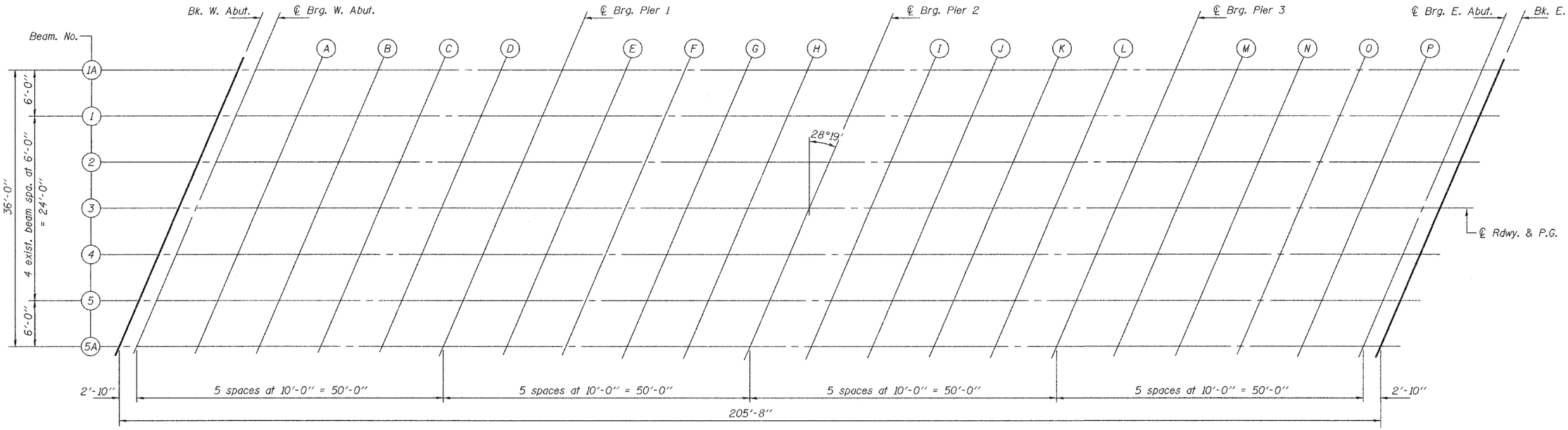
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
23 SHEETS

Contract #84883

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 4 of 23, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
23 SHEETS

Contract #84883

BEAM 1A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	5024.699	-18.000	616.466	616.466
CL. BRG. W. ABUT.	5027.532	-18.000	616.428	616.428
A	5037.532	-18.000	616.290	616.303
B	5047.532	-18.000	616.145	616.164
C	5057.532	-18.000	615.994	616.010
D	5067.532	-18.000	615.836	615.844
CL. BRG. PIER 1	5077.532	-18.000	615.671	615.671
E	5087.532	-18.000	615.499	615.501
F	5097.532	-18.000	615.323	615.328
G	5107.532	-18.000	615.147	615.152
H	5117.532	-18.000	614.971	614.974
CL. BRG. PIER 2	5127.532	-18.000	614.795	614.795
I	5137.532	-18.000	614.619	614.622
J	5147.532	-18.000	614.443	614.448
K	5157.532	-18.000	614.256	614.261
L	5167.532	-18.000	614.071	614.073
CL. BRG. PIER 3	5177.532	-18.000	613.880	613.880
M	5187.532	-18.000	613.683	613.692
N	5197.532	-18.000	613.480	613.496
O	5207.532	-18.000	613.271	613.290
P	5217.532	-18.000	613.056	613.069
CL. BRG. E. ABUT.	5227.532	-18.000	612.835	612.835
BK. E. ABUT.	5230.365	-18.000	612.771	612.771

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	5021.466	-12.000	616.633	616.633
CL. BRG. W. ABUT.	5024.299	-12.000	616.596	616.596
A	5034.299	-12.000	616.460	616.473
B	5044.299	-12.000	616.318	616.336
C	5054.299	-12.000	616.168	616.185
D	5064.299	-12.000	616.012	616.021
CL. BRG. PIER 1	5074.299	-12.000	615.850	615.850
E	5084.299	-12.000	615.680	615.682
F	5094.299	-12.000	615.505	615.509
G	5104.299	-12.000	615.329	615.334
H	5114.299	-12.000	615.153	615.156
CL. BRG. PIER 2	5124.299	-12.000	614.977	614.977
I	5134.299	-12.000	614.801	614.804
J	5144.299	-12.000	614.625	614.630
K	5154.299	-12.000	614.439	614.444
L	5164.299	-12.000	614.256	614.258
CL. BRG. PIER 3	5174.299	-12.000	614.067	614.067
M	5184.299	-12.000	613.872	613.881
N	5194.299	-12.000	613.671	613.687
O	5204.299	-12.000	613.464	613.483
P	5214.299	-12.000	613.251	613.264
CL. BRG. E. ABUT.	5224.299	-12.000	613.032	613.032
BK. E. ABUT.	5227.132	-12.000	612.969	612.969

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	5018.233	-6.000	616.769	616.769
CL. BRG. W. ABUT.	5021.066	-6.000	616.732	616.732
A	5031.066	-6.000	616.599	616.612
B	5041.066	-6.000	616.458	616.477
C	5051.066	-6.000	616.311	616.327
D	5061.066	-6.000	616.157	616.166
CL. BRG. PIER 1	5071.066	-6.000	615.997	615.997
E	5081.066	-6.000	615.829	615.831
F	5091.066	-6.000	615.655	615.660
G	5101.066	-6.000	615.479	615.485
H	5111.066	-6.000	615.303	615.307
CL. BRG. PIER 2	5121.066	-6.000	615.127	615.127
I	5131.066	-6.000	614.951	614.955
J	5141.066	-6.000	614.775	614.781
K	5151.066	-6.000	614.591	614.596
L	5161.066	-6.000	614.410	614.412
CL. BRG. PIER 3	5171.066	-6.000	614.223	614.223
M	5181.066	-6.000	614.030	614.038
N	5191.066	-6.000	613.831	613.847
O	5201.066	-6.000	613.625	613.644
P	5211.066	-6.000	613.414	613.428
CL. BRG. E. ABUT.	5221.066	-6.000	613.197	613.197
BK. E. ABUT.	5223.900	-6.000	613.135	613.135

BEAM 3, ℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	5015.000	0.000	616.904	616.904
CL. BRG. W. ABUT.	5017.833	0.000	616.868	616.868
A	5027.833	0.000	616.736	616.750
B	5037.833	0.000	616.598	616.617
C	5047.833	0.000	616.453	616.469
D	5057.833	0.000	616.301	616.310
CL. BRG. PIER 1	5067.833	0.000	616.143	616.143
E	5077.833	0.000	615.978	615.980
F	5087.833	0.000	615.806	615.811
G	5097.833	0.000	615.630	615.635
H	5107.833	0.000	615.454	615.457
CL. BRG. PIER 2	5117.833	0.000	615.278	615.278
I	5127.833	0.000	615.102	615.105
J	5137.833	0.000	614.926	614.931
K	5147.833	0.000	614.742	614.747
L	5157.833	0.000	614.563	614.565
CL. BRG. PIER 3	5167.833	0.000	614.378	614.378
M	5177.833	0.000	614.187	614.195
N	5187.833	0.000	613.989	614.006
O	5197.833	0.000	613.786	613.805
P	5207.833	0.000	613.577	613.590
CL. BRG. E. ABUT.	5217.833	0.000	613.362	613.362
BK. E. ABUT.	5220.667	0.000	613.300	613.300

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	5011.767	6.000	616.850	616.850
CL. BRG. W. ABUT.	5014.600	6.000	616.815	616.815
A	5024.600	6.000	616.686	616.699
B	5034.600	6.000	616.550	616.568
C	5044.600	6.000	616.407	616.423
D	5054.600	6.000	616.257	616.266
CL. BRG. PIER 1	5064.600	6.000	616.101	616.101
E	5074.600	6.000	615.938	615.940
F	5084.600	6.000	615.769	615.773
G	5094.600	6.000	615.593	615.598
H	5104.600	6.000	615.417	615.421
CL. BRG. PIER 2	5114.600	6.000	615.241	615.241
I	5124.600	6.000	615.065	615.069
J	5134.600	6.000	614.889	614.894
K	5144.600	6.000	614.705	614.710
L	5154.600	6.000	614.528	614.530
CL. BRG. PIER 3	5164.600	6.000	614.345	614.345
M	5174.600	6.000	614.155	614.164
N	5184.600	6.000	613.960	613.976
O	5194.600	6.000	613.759	613.777
P	5204.600	6.000	613.551	613.565
CL. BRG. E. ABUT.	5214.600	6.000	613.338	613.338
BK. E. ABUT.	5217.434	6.000	613.277	613.277

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	5008.534	12.000	616.796	616.796
CL. BRG. W. ABUT.	5011.367	12.000	616.761	616.761
A	5021.367	12.000	616.634	616.648
B	5031.367	12.000	616.501	616.519
C	5041.367	12.000	616.360	616.376
D	5051.367	12.000	616.213	616.221
CL. BRG. PIER 1	5061.367	12.000	616.059	616.059
E	5071.367	12.000	615.898	615.900
F	5081.367	12.000	615.730	615.735
G	5091.367	12.000	615.556	615.562
H	5101.367	12.000	615.380	615.384
CL. BRG. PIER 2	5111.367	12.000	615.204	615.204
I	5121.367	12.000	615.028	615.032
J	5131.367	12.000	614.852	614.858
K	5141.367	12.000	614.668	614.673
L	5151.367	12.000	614.492	614.494
CL. BRG. PIER 3	5161.367	12.000	614.311	614.311
M	5171.367	12.000	614.123	614.132
N	5181.367	12.000	613.930	613.946
O	5191.367	12.000	613.731	613.749
P	5201.367	12.000	613.525	613.539
CL. BRG. E. ABUT.	5211.367	12.000	613.314	613.314
BK. E. ABUT.	5214.201	12.000	613.253	613.253

BEAM 5A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	5005.301	18.000	616.710	616.710
CL. BRG. W. ABUT.	5008.135	18.000	616.676	616.676
A	5018.135	18.000	616.551	616.565
B	5028.135	18.000	616.420	616.438
C	5038.135	18.000	616.281	616.298
D	5048.135	18.000	616.136	616.145
CL. BRG. PIER 1	5058.135	18.000	615.984	615.984
E	5068.135	18.000	615.826	615.828
F	5078.135	18.000	615.661	615.665
G	5088.135	18.000	615.488	615.494
H	5098.135	18.000	615.312	615.316
CL. BRG. PIER 2	5108.135	18.000	615.136	615.136
I	5118.135	18.000	614.960	614.964
J	5128.135	18.000	614.784	614.790
K	5138.135	18.000	614.601	614.605
L	5148.135	18.000	614.425	614.427
CL. BRG. PIER 3	5158.135	18.000	614.245	614.245
M	5168.135	18.000	614.060	614.068
N	5178.135	18.000	613.868	613.885
O	5188.135	18.000	613.671	613.690
P	5198.135	18.000	613.468	613.481
CL. BRG. E. ABUT.	5208.135	18.000	613.258	613.258
BK. E. ABUT.	5210.968	18.000	613.198	613.198

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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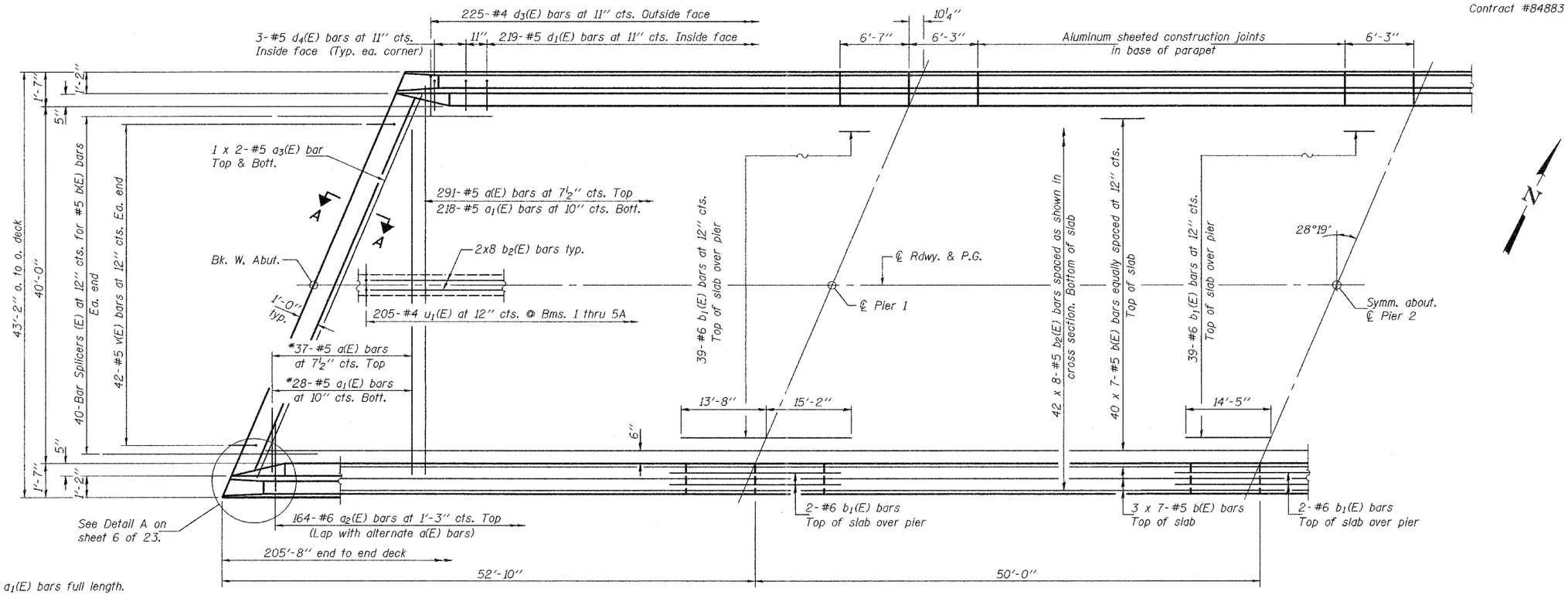
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
23 SHEETS

Contract #84883

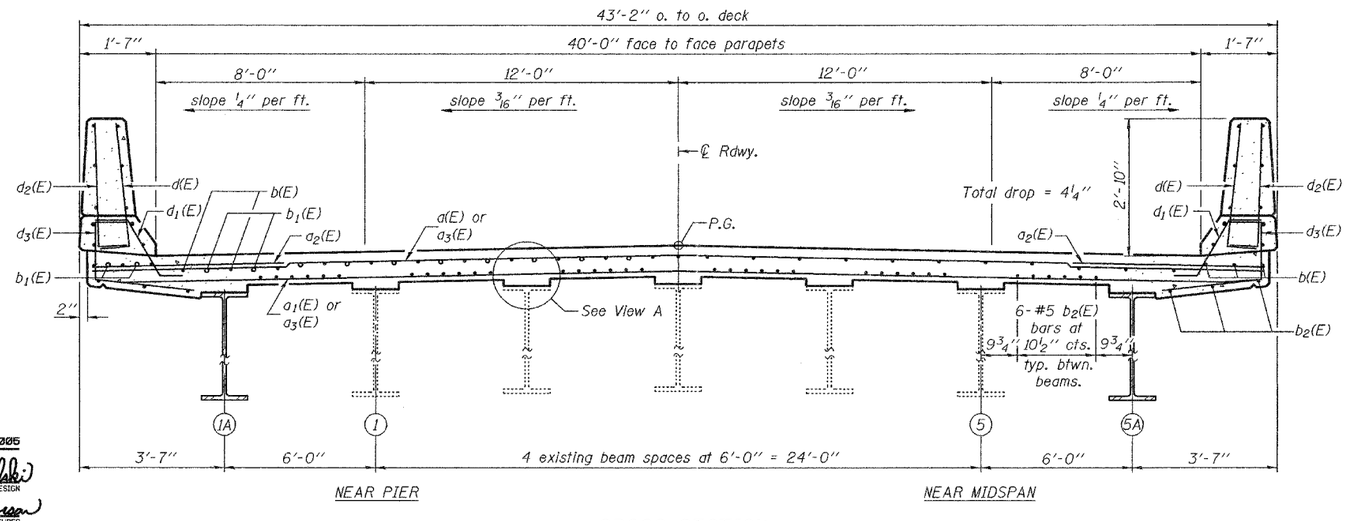


HALF PLAN

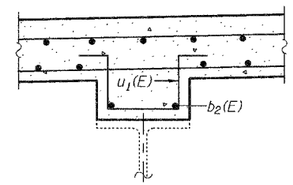
*Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

MIN. BAR LAP
#5 bars = 1'-8"

Notes:
See sheet 6 of 23 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet 6 of 23 for parapet reinforcement.
See sheet 7 of 23 for Section A-A.



CROSS SECTION
(Looking East)



FILLET FOR BEAMS 1 THRU 5A
VIEW A

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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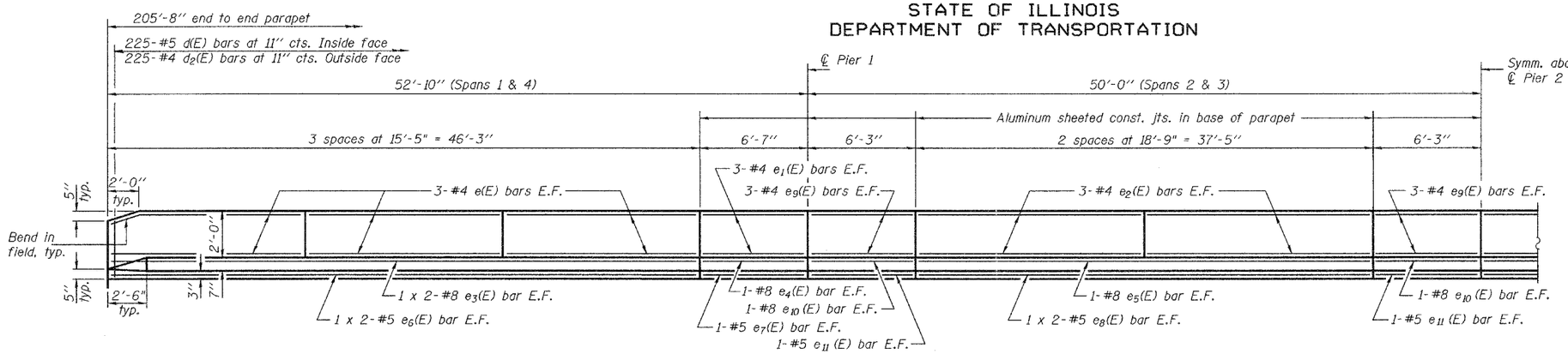
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

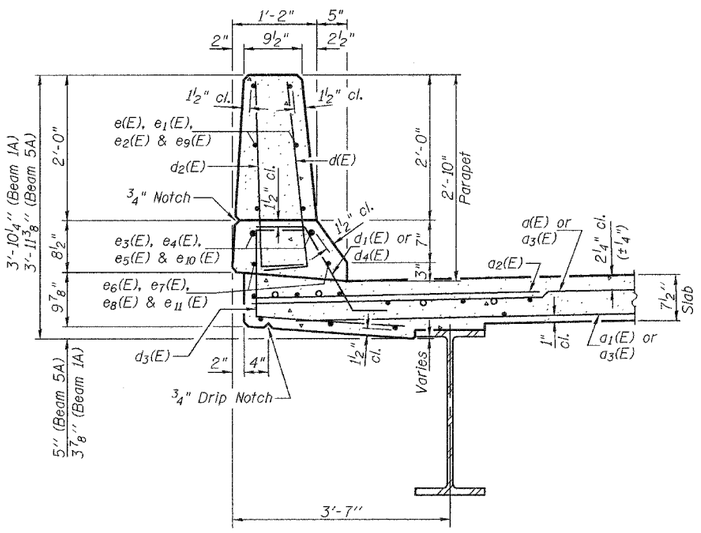
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
23 SHEETS

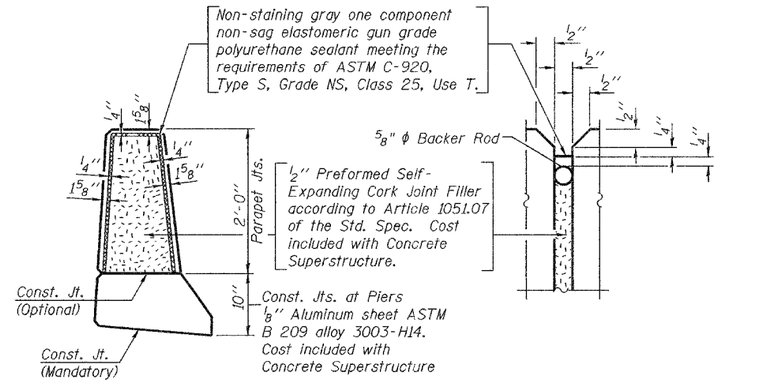
Contract #84883



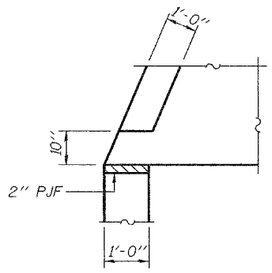
INSIDE ELEVATION OF PARAPET
(Looking North)



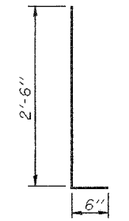
SECTION THRU PARAPET



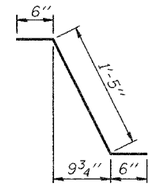
PARAPET JOINT DETAILS



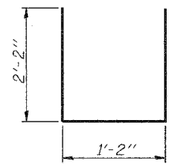
DETAIL A
Parapet and approach not shown.
Detail similar at all four corners.



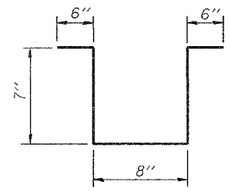
BARS d(E) & d2(E)



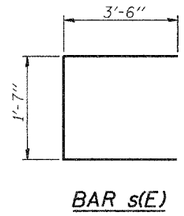
BAR d1(E)



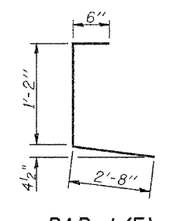
BAR u(E)



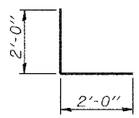
BAR u1(E)



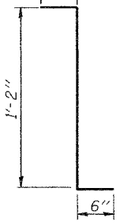
BAR s(E)



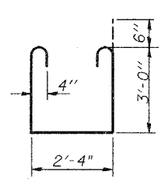
BAR d3(E)



BAR v(E)



BAR d4(E)



BAR s1(E)

MIN. BAR LAPS
#5 bars = 1'-8"
#8 bars = 3'-5"

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	328	#5	42'-6"	——
d1(E)	246	#5	41'-2"	——
d2(E)	328	#6	4'-6"	——
d3(E)	8	#5	25'-0"	——
b(E)	322	#5	30'-9"	——
b1(E)	129	#6	28'-10"	——
b2(E)	432	#5	27'-2"	——
d(E)	450	#5	3'-0"	⌐¬
d1(E)	438	#5	2'-5"	⌐
d2(E)	450	#4	3'-0"	⌐¬
d3(E)	450	#4	4'-4"	⊏
d4(E)	12	#5	2'-2"	⌐¬
e(E)	72	#4	15'-1"	——
e1(E)	24	#4	6'-3"	——
e2(E)	48	#4	18'-5"	——
e3(E)	16	#8	24'-4"	——
e4(E)	8	#8	6'-3"	——
e5(E)	8	#8	37'-1"	——
e6(E)	16	#5	24'-4"	——
e7(E)	8	#5	6'-3"	——
e8(E)	16	#5	19'-7"	——
e9(E)	48	#4	6'-0"	——
e10(E)	16	#8	6'-0"	——
e11(E)	16	#5	6'-0"	——
m(E)	32	#6	25'-9"	——
m1(E)	24	#6	6'-5"	——
m2(E)	8	#6	3'-8"	——
m3(E)	28	#6	9'-4"	——
s(E)	84	#5	8'-7"	▭
s1(E)	84	#4	9'-4"	⊔
u(E)	98	#4	5'-6"	⊔
u1(E)	1230	#4	2'-10"	⊔
v(E)	84	#5	4'-0"	⌐¬
Reinforcement Bars, Epoxy Coated		Pound	71360	
Concrete Superstructure		Cu. Yds.	318.5	

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE DETAILS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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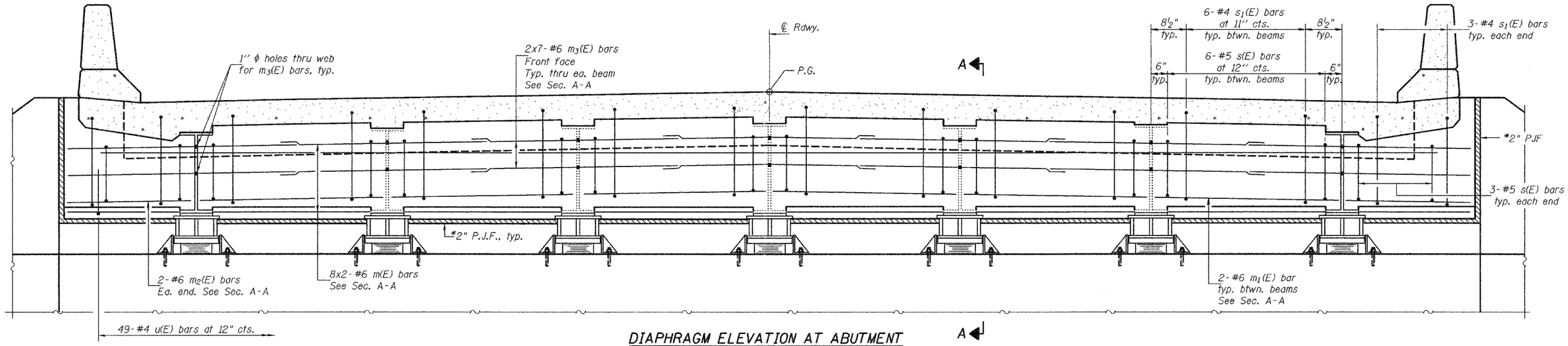
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
23 SHEETS

Contract #84883

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

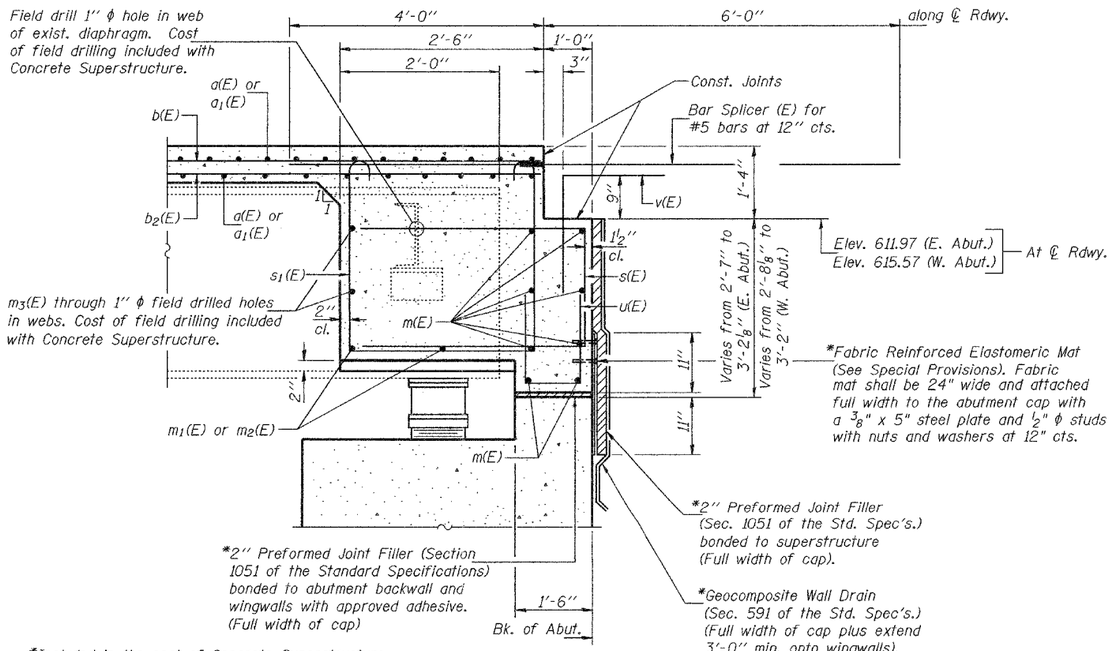


DIAPHRAGM ELEVATION AT ABUTMENT

(Dimensions are perpendicular to the ℄ Rdwy.)
(Existing & proposed steel end diaphragms not shown)

MIN. BAR LAP

#6 bar = 2'-9"



*Included in the cost of Concrete Superstructure.

SECTION A-A

(Dimensions at Rt. L's unless otherwise shown)

Notes: Reinforcement bars in diaphragm are billed with superstructure on sheet 6 of 23.

Concrete in diaphragm is included with Concrete Superstructure on sheet 6 of 23.

For details of bars s(E), $s_1(E)$, v(E) & u(E), see sheet 6 of 23.

The s(E) and $s_1(E)$ bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

For anchor bolt details see sheet 13 of 23.

See sheet 20 of 23 for bar splicer detail.

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

DIAPHRAGM DETAILS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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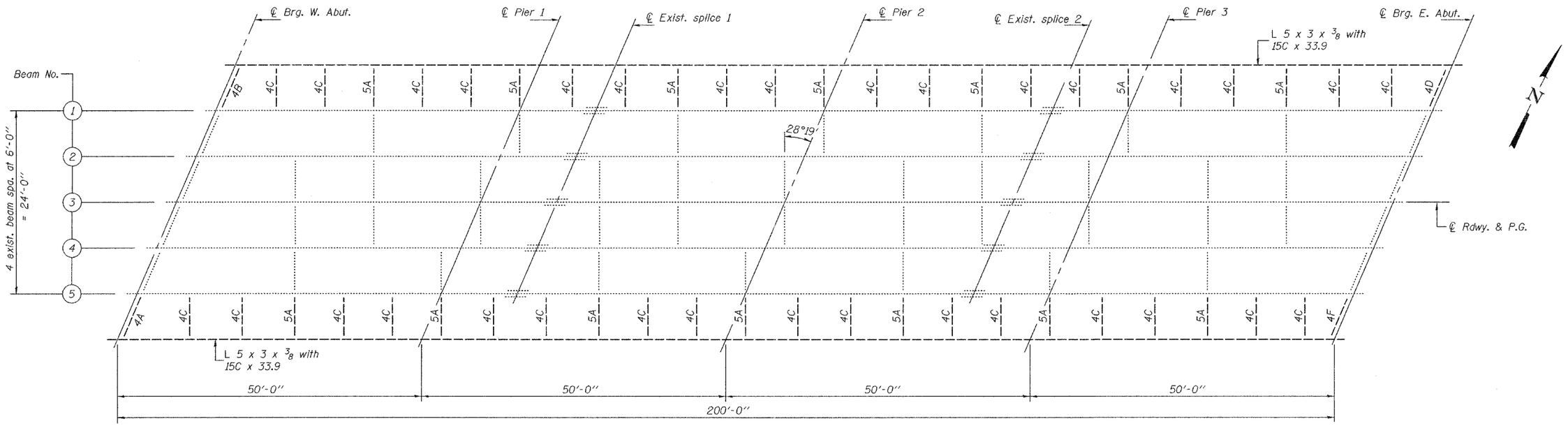
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

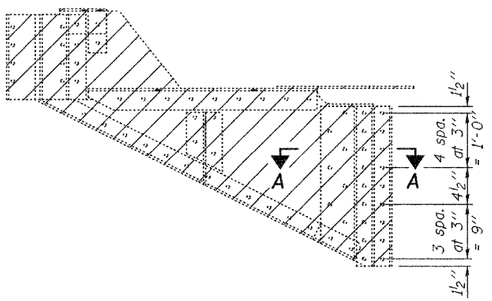
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	45
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
23 SHEETS

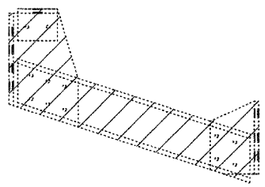
Contract #84883



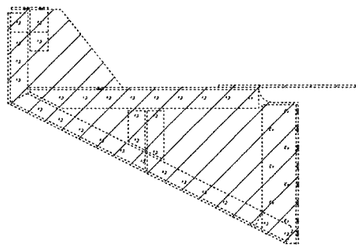
FRAMING PLAN



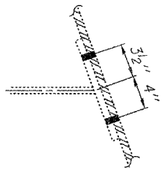
BRACKETS 4A, 4B, 4D & 4F
(1 Each - 4 Total)



BRACKET 4C
(26 total)



BRACKET 5A
(26 total)



SECTION A-A

Existing 7/8" ϕ rivets shall be removed by grinding the head off. Cost included with Structural Steel Removal.

Notes: Rivet that connect brackets 4C and 5A to existing beams 1 & 5 need not be removed. Brackets may be removed by flame cutting outstanding leg of brackets ½" from web of existing beams. Cost include with Structural Steel Removal.
For structural steel repair, see sheet 10 of 23.
Hatched area indicates removal of existing structural steel.

BILL OF MATERIAL

Item	Unit	Total
Structural Steel Removal	Pound	32875
Structural Steel Repair	Pound	1040

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL REMOVAL
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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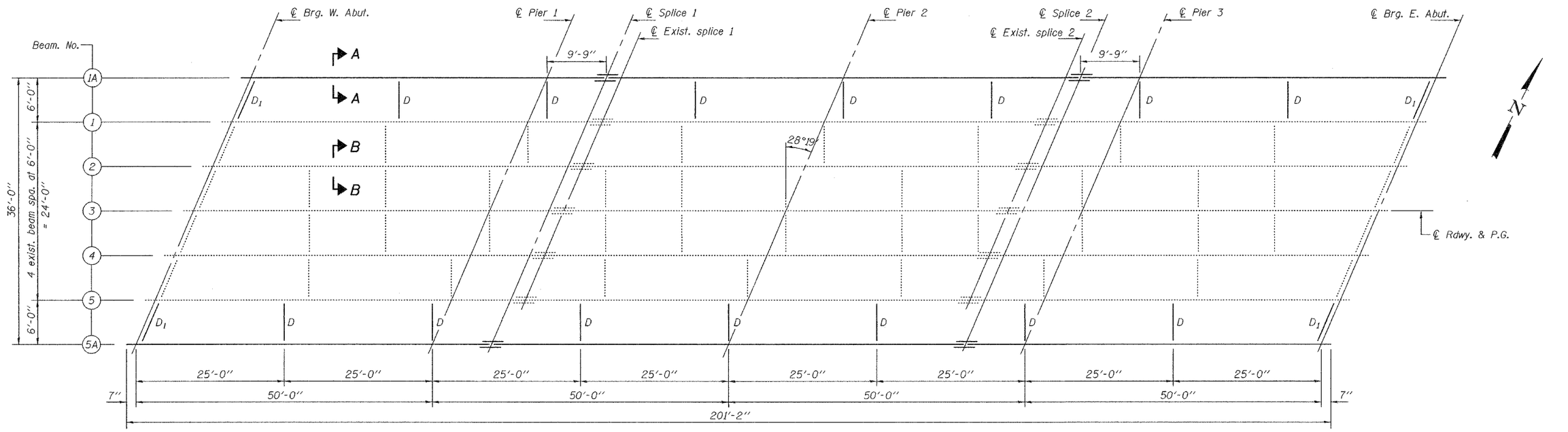
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
23 SHEETS

Contract #84883



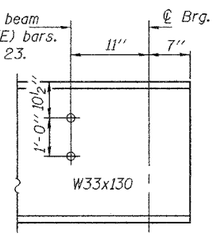
FRAMING PLAN

Beams 1A & 5A (W33x130) and splice plates shall be AASHTO M270, Grade 36 (NTR).

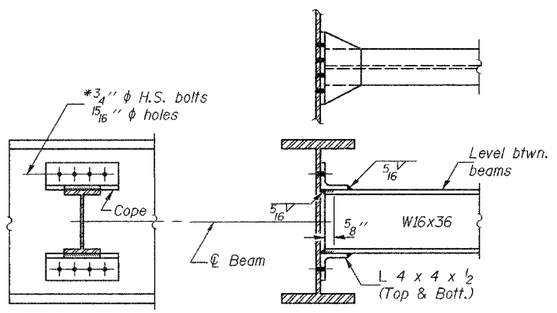
* For location where L 4x4x½ is to be attached to existing W33x130. Use holes vertically on L 4x4x½ as template to drill 15/16" ϕ holes in existing web of W33x130. Cost included with Furnishing and Erecting Structural Steel.

** For existing beams, field drill 1" ϕ holes in each end of beam. Cost included with Furnishing and Erecting Structural Steel.

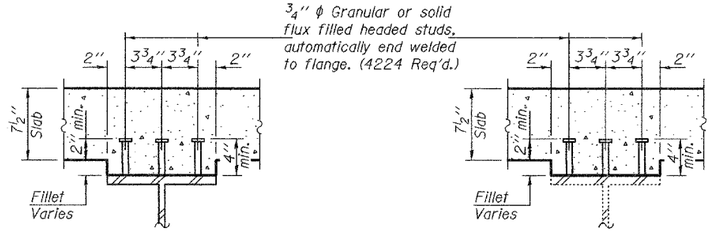
** ℄ 1" ϕ holes in beam ea. end for m (E) bars. See sheet 7 of 23.



TYP. END OF BEAM ELEVATION



DIAPHRAGM D
14 Required



SECTION A-A

SECTION B-B
(Except at existing splices)
See sheet 10 of 23 for stud shear connector spacings and Detail B at existing splices.

INTERIOR GIRDER MOMENT TABLE					
		0.4 Sp. 1 & 0.6 Sp. 4	Piers 1 & 3	0.5 Sp. 2 & Sp. 3	Pier 2
Is	(in⁴)	6710	6710	6710	6710
Ic (n)	(in⁴)	17105	———	17105	———
Ic (3n)	(in⁴)	12488	———	12488	———
Ss	(in³)	406	406	406	406
Sc (n)	(in³)	585	———	585	———
Sc (3n)	(in³)	527	———	527	———
℄	(k/ft.)	0.77	1.20	0.77	1.20
M℄	('k)	148.9	293.30	68.9	205.50
s℄	(k/ft.)	0.43	———	0.43	———
Ms℄	('k)	94.4	———	57.3	———
M℄	('k)	291.1	141.4	241.1	133.6
M (Imp)	('k)	83.3	40.5	68.9	38.2
5/3[M℄+M(Imp)]	('k)	624.0	303.2	516.7	286.3
Ma	('k)	1127.5	775.4	835.7	639.4
Mu	('k)	1652.6	1116.5	1900	1116.5
fs℄ non-comp	(k.s.i.)	4.40	8.7	2.04	6.1
fs℄ (comp)	(k.s.i.)	2.15	———	1.30	———
fs 5/3(℄+Imp)	(k.s.i.)	12.80	9.0	10.60	8.5
fs (Overload)	(k.s.i.)	19.35	17.7	13.94	14.6
fs (Total)	(k.s.i.)	———	———	———	———
VR	(k)	43.3	———	45.2	———

INTERIOR GIRDER REACTION TABLE				
		Abuts.	Piers 1 & 3	Pier 2
R℄	(k)	24.2	67.7	56.5
R℄	(k)	30.9	36.4	36.1
Imp.	(k)	8.8	10.4	10.3
R (Total)	(k)	63.9	114.5	102.9

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Ma (Applied Moment)=1.3[M℄ + Ms℄ + 5/3(M℄ + M(Imp))].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to M℄ + Ms℄ + 5/3(M℄ + M(Imp)).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[M℄ + Ms℄ + 5/3(M℄ + M(Imp))].

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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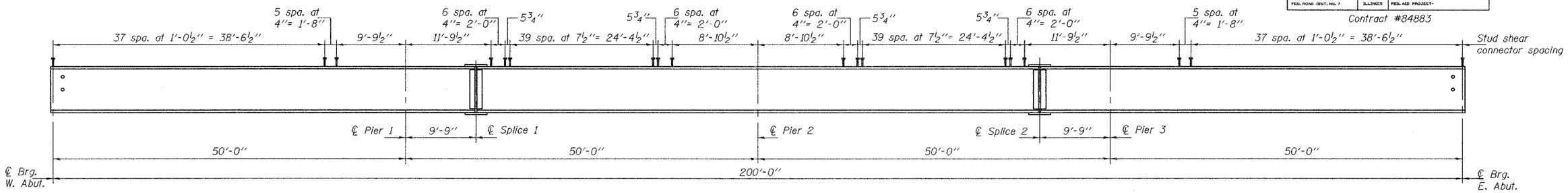
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	47
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 10
23 SHEETS

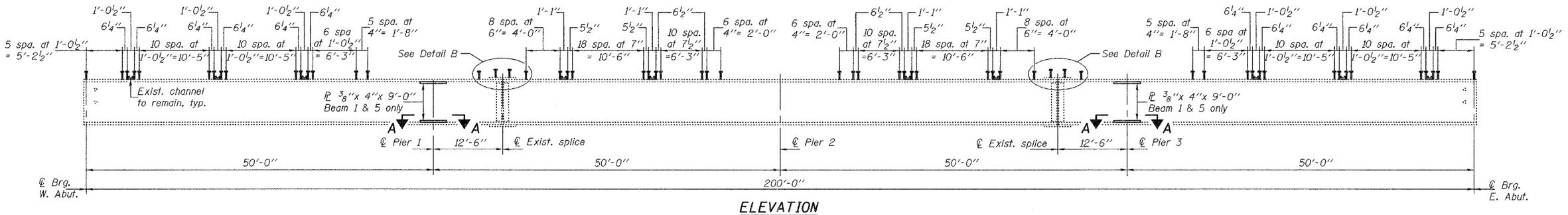
Contract #84883

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



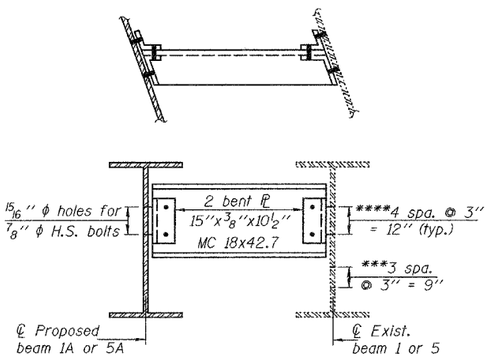
ELEVATION

Beams 1A & 5A W33x130 (NTR) and splice plates.



ELEVATION

Existing Beams 1 thru 5.



DIAPHRAGM D1

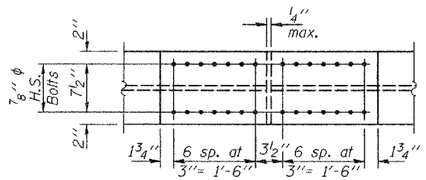
(4 Required)

*** Existing holes in existing beam 1 & 5 shall be filled with 7/8" ϕ H.S. bolts. Cost included with Furnishing and Erecting Structural Steel.

**** Use holes in web of existing W33x130 as template to drill 15/16" ϕ holes in bent ℄. Cost included with Furnishing and Erecting Structural Steel.

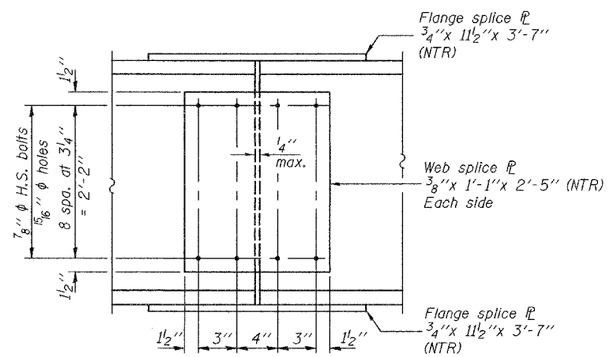
DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



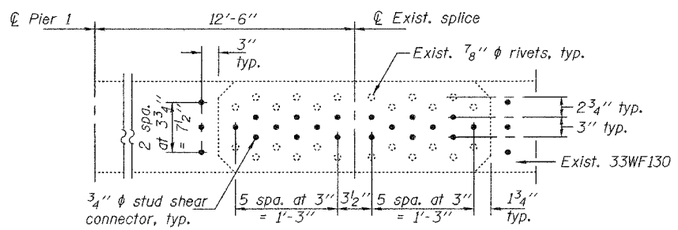
PLAN - SPLICES 1 & 2

(Top & Bott. flange)



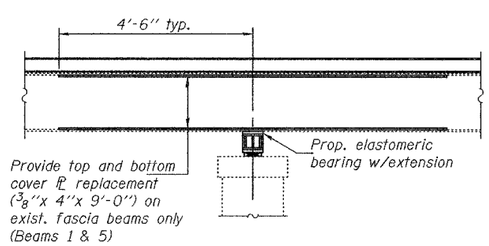
ELEVATION - SPLICES 1 & 2

4 Required

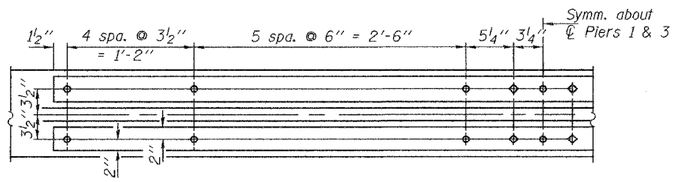


DETAIL B

(Exist. splice in span 2 shown; exist. splice in span 3 similar)



SECTION AT PIERS 1 & 3



VIEW A-A

(No. Required = 16 ℄ 3/8"x 4"x 9'-0")

Note 1: The Contractor shall remove the existing rivets and existing ℄ 3/8"x4"x9'-0" after the deck is removed. The Contractor shall then attach a new ℄ 3/8"x4" 9'-0" using HS bolts of the same diameter. See View A. Cost is included in Structural Steel Repair, Pound. See Special Provisions.

Notes: Beams 1A & 5A (W33x130) and all splice plates shall be AASHTO M270, Grade 36.
"NTR" denotes members to which Notch Toughness Requirements are applicable.
For cover plate details, see sheet 8 of 23.
For locations and dimensions of holes in beam ends, see End of Beam Elevation on sheet 9 of 23.

STRUCTURAL STEEL DETAILS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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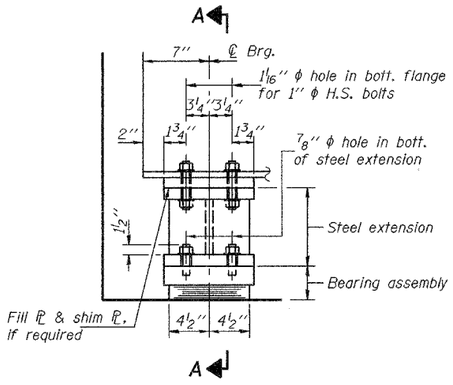
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

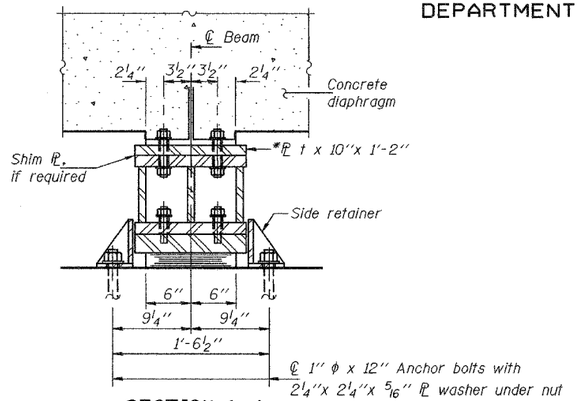
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 11
23 SHEETS

Contract #84883



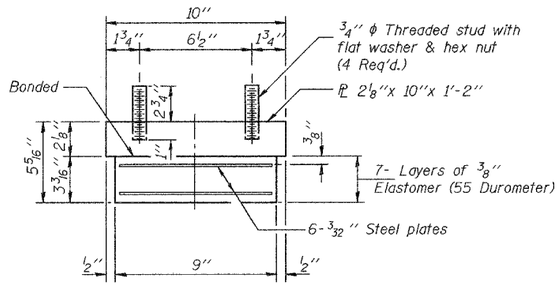
ELEVATION AT ABUTMENTS



SECTION A-A

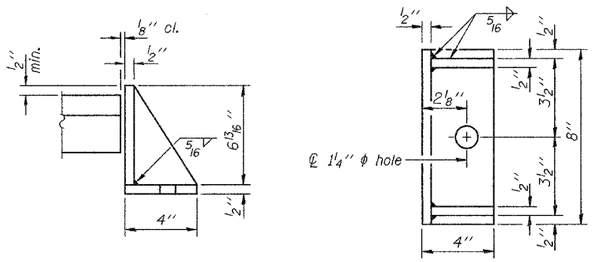
TYPE I ELASTOMERIC EXP. BRG.

Beams 1A & 5A shown, existing beams 1 thru 5 similar.



BEARING ASSEMBLY

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

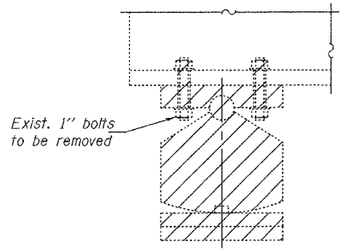


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

JACK AND REMOVE EXISTING BEARING PROCEDURE

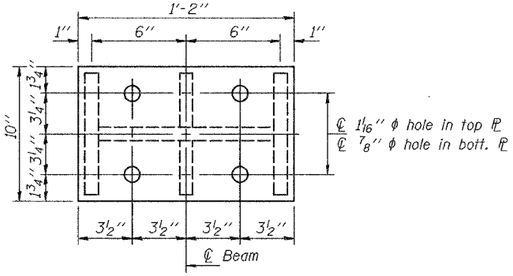
1. The Contractor shall submit for approval by the Engineer, plans for jacking prior to commencing any work at the bearings.
2. Jacking and removing existing bearings shall be done after existing deck removal is completed and before a new deck is poured. Cost included with Jack and Remove Existing Bearing.
3. Jacking shall be limited to a maximum of 1/8".
4. The maximum dead load reaction with deck removed (per bearing) at each abutment is 3.0 k, 8.6 k at Piers 1 & 3 and 7.0 k at Pier 2. Min. jack capacity at the abutments is 4.5 k and 12.9 k at the piers.
5. The new bearings and steel extensions shall be in place and the jacks shall be lowered before the new concrete deck is poured.



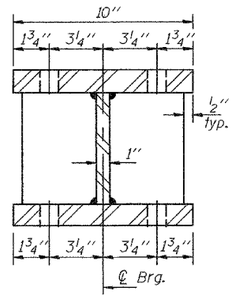
EXISTING BEARING REMOVAL

At Abutments

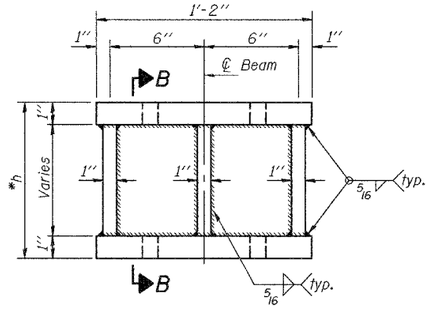
Notes: Hatched area indicates existing bearing to be removed. Cost included with Jack and Remove Existing Bearings.



PLAN-TOP & BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL

*h & t DIMENSIONS

West Abutment							
Dimension	Beam 1A	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 5A
h	6 15/16"	6 15/16"	6 15/16"	9 3/8"	9 3/8"	9 3/8"	9 3/8"
t	———	———	1 9/16"	———	3/16"	———	———

East Abutment							
Dimension	Beam 1A	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 5A
h	6 15/16"	6 15/16"	6 15/16"	9 3/8"	9 3/8"	9 3/8"	9 3/8"
t	———	———	1 15/16"	3/4"	1 5/16"	1 1/8"	1 1/8"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14
Jack and Remove Existing Bearings	Each	10

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

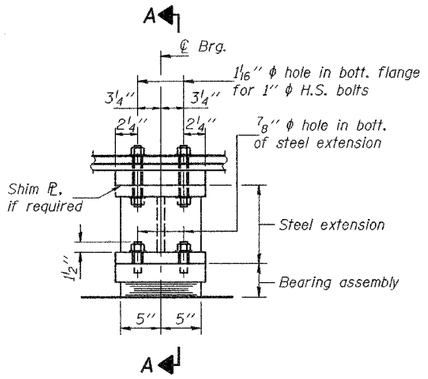
BEARING DETAILS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

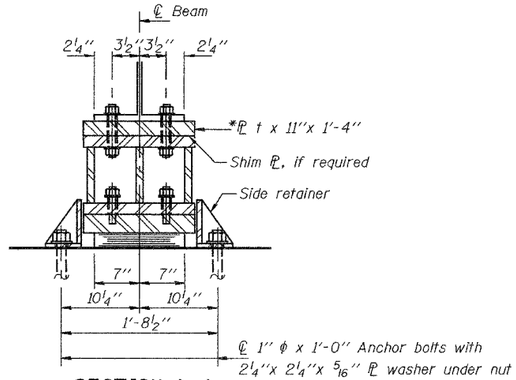
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 12
23 SHEETS

Contract #84883



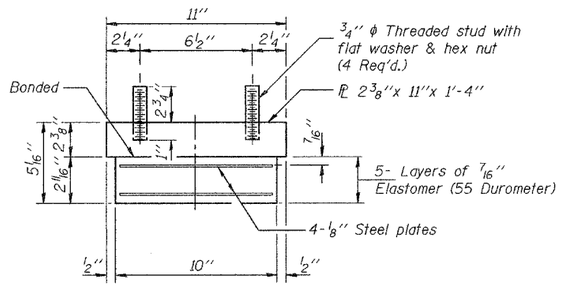
ELEVATION AT PIERS 1 & 3



SECTION A-A

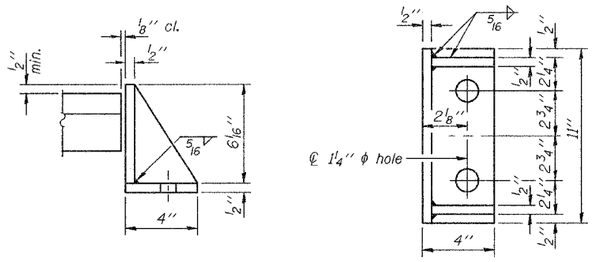
TYPE I ELASTOMERIC EXP. BRG.

Beams 1A & 5A shown, existing beams 1 thru 5 similar.



BEARING ASSEMBLY

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

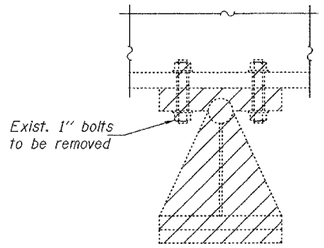


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



EXISTING BEARING REMOVAL

At Piers 1 & 3

Notes: Hatched area indicates existing bearing to be removed. Cost included with Jack and Remove Existing Bearings.

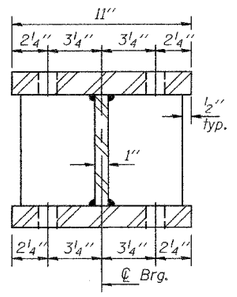
JACK AND REMOVE EXISTING BEARING PROCEDURE

1. The Contractor shall submit for approval by the Engineer, plans for jacking prior to commencing any work at the bearings.
2. Jacking and removing existing bearings shall be done after existing deck removal is completed and before a new deck is poured. Cost included with Jack and Remove Existing Bearing.
3. Jacking shall be limited to a maximum of 1/8".
4. The maximum dead load reaction with deck removed (per bearing) at each abutment is 3.0 k, 8.6 k at Piers 1 & 3 and 7.0 k at Pier 2. Min. jack capacity at the abutments is 4.5 k and 12.9 k at the piers.
5. The new bearings and steel extensions shall be in place and the jacks shall be lowered before the new concrete deck is poured.

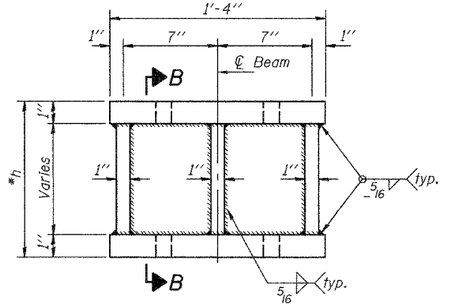
*h & t DIMENSIONS

Pier 1							
Dimension	Beam 1A	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 5A
h	7 3/16"	7 3/16"	7 3/16"	9 5/8"	9 5/8"	9 5/8"	9 5/8"
t	———	———	1 5/8"	3/16"	7/16"	———	———

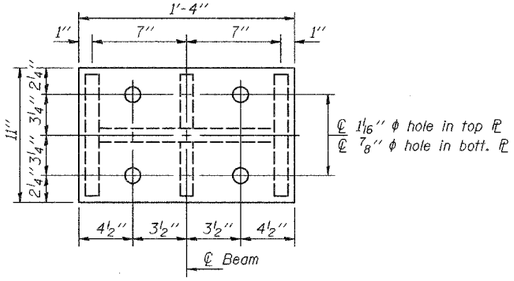
Pier 3							
Dimension	Beam 1A	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 5A
h	7 3/16"	7 3/16"	7 3/16"	9 5/8"	9 5/8"	9 5/8"	9 5/8"
t	———	———	1 13/16"	9/16"	1"	3/4"	3/4"



SECTION B-B



STEEL EXTENSION DETAIL



PLAN-TOP & BOTTOM PLATE

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14
Jack and Remove Existing Bearings	Each	10

BEARING DETAILS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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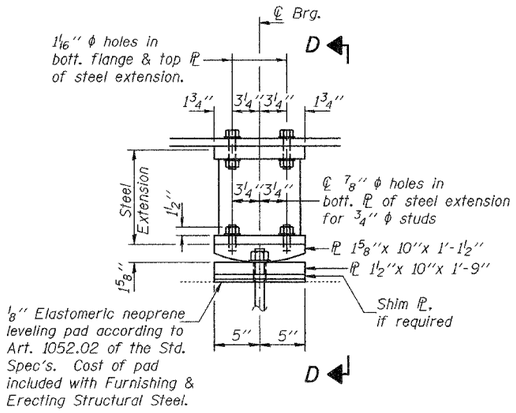
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

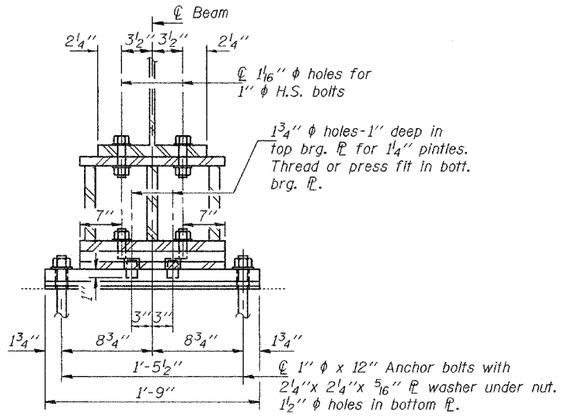
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	56
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13
23 SHEETS

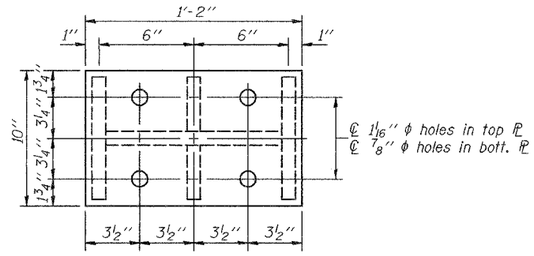
Contract #84883



ELEVATION AT PIER 2

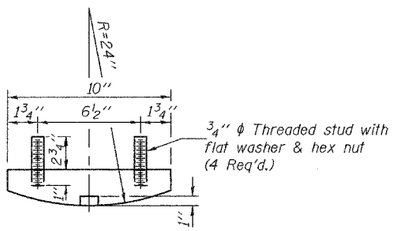


SECTION D-D

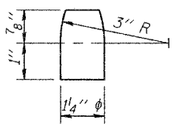


PLAN-TOP & BOTTOM PLATE

FIXED BEARING
(At Beams 1A & 5A - 2 total)



ℙ 1 5/8"x 10"x 1'-1 1/2" DETAIL



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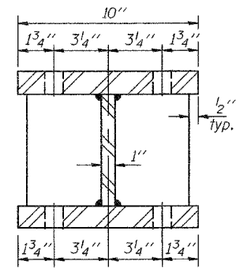
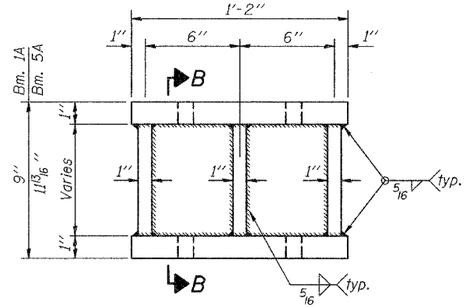


SECTION B-B



STEEL EXTENSION DETAIL

Notes: Anchor bolts of fixed bearing under new beams may be built into masonry.
For anchor bolt installation, see sheet 14 of 23.

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BEARING DETAILS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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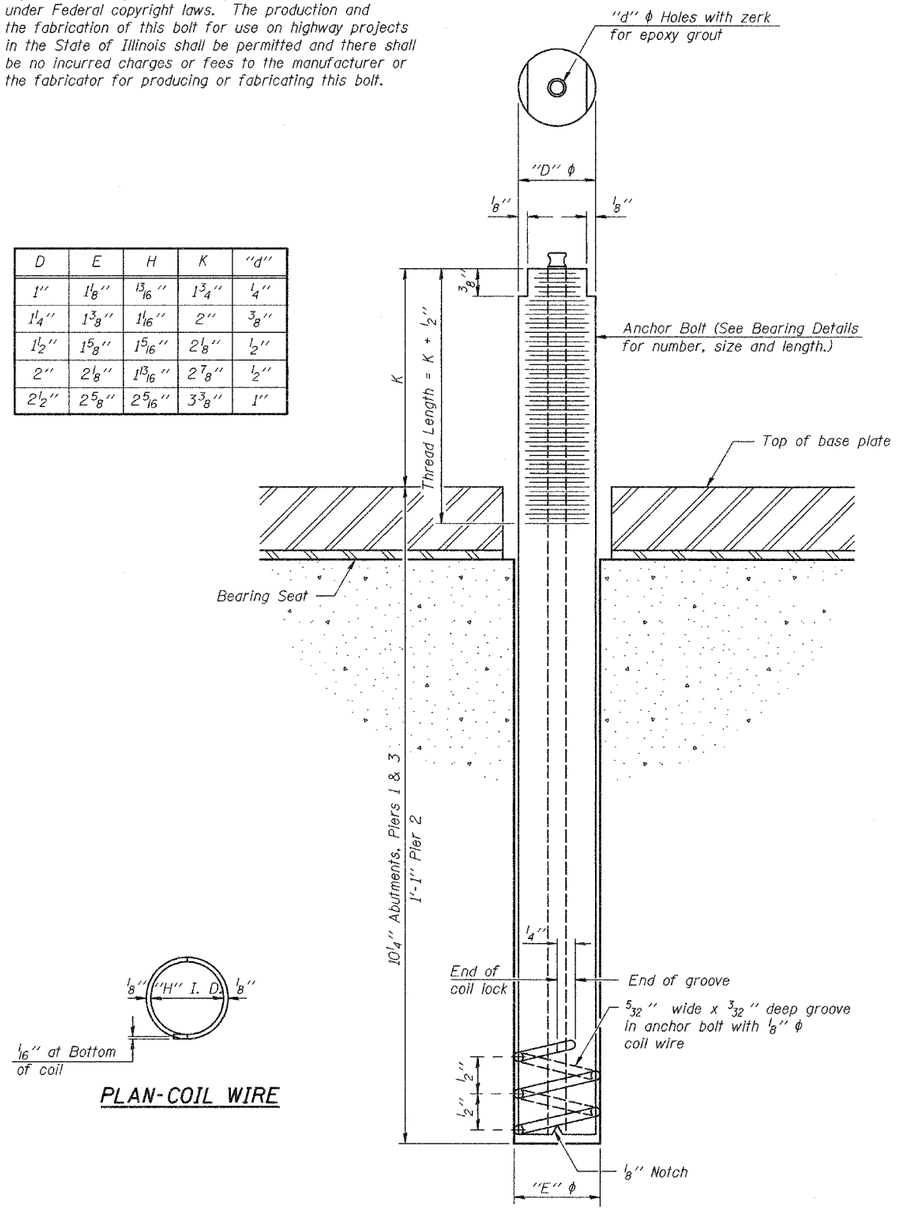
The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	51
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 14
23 SHEETS

Contract #84883



D	E	H	K	"d"
1"	1 1/8"	13/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"

PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
Abuts.	A307
Pier 1	A307
Pier 2	A307
Pier 3	A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

ABB-1 10-22-04

ANCHOR BOLT DETAILS FOR BEARINGS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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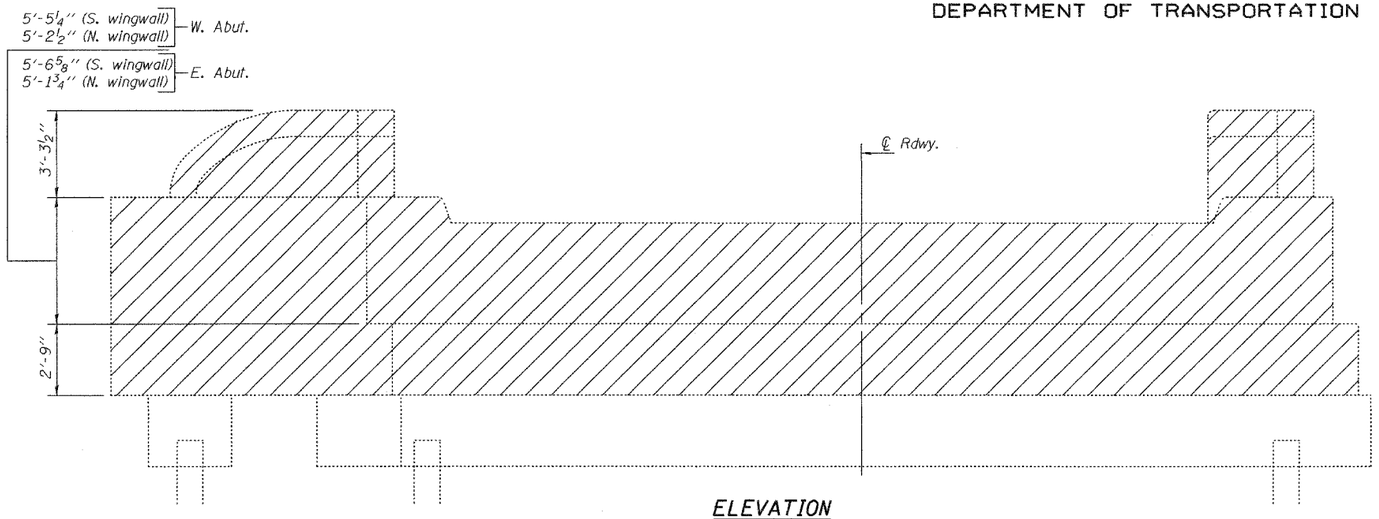
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

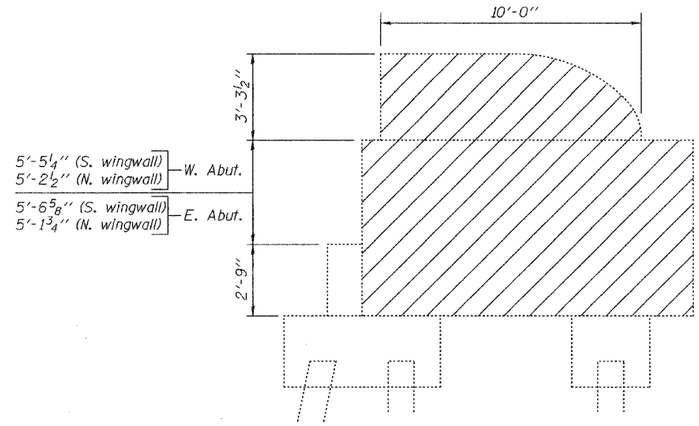
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	52
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 15
23 SHEETS

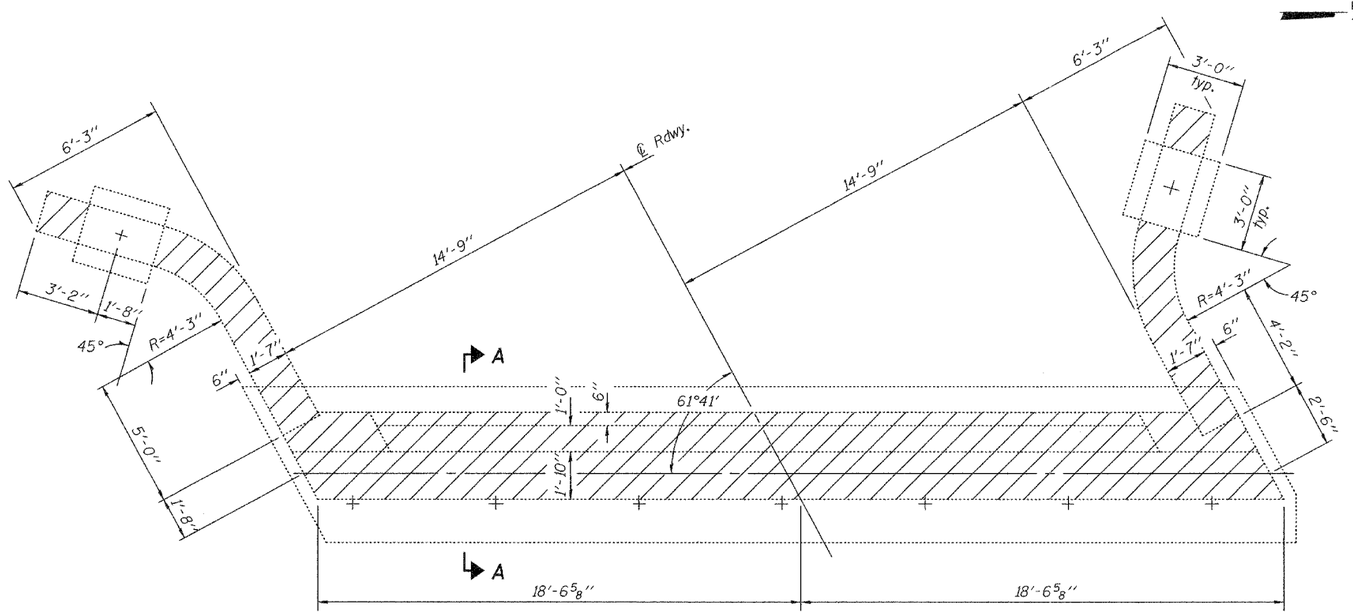
Contract #84883



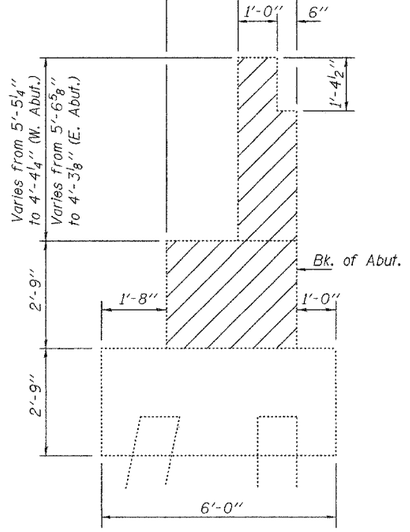
ELEVATION
(W. Abut. shown - E. Abut. similar)



WINGWALL ELEVATION



PLAN



SECTION A-A
At right L's.

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	72.8

Notes: Hatched areas indicate Concrete Removal.
Existing reinforcement not extending into the new construction shall be cut off flush and covered with a 2" layer of cement grout. Cost included with Concrete Removal.
Existing reinforcement bars extending into removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damage during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

ABUTMENT CONCRETE REMOVAL DETAILS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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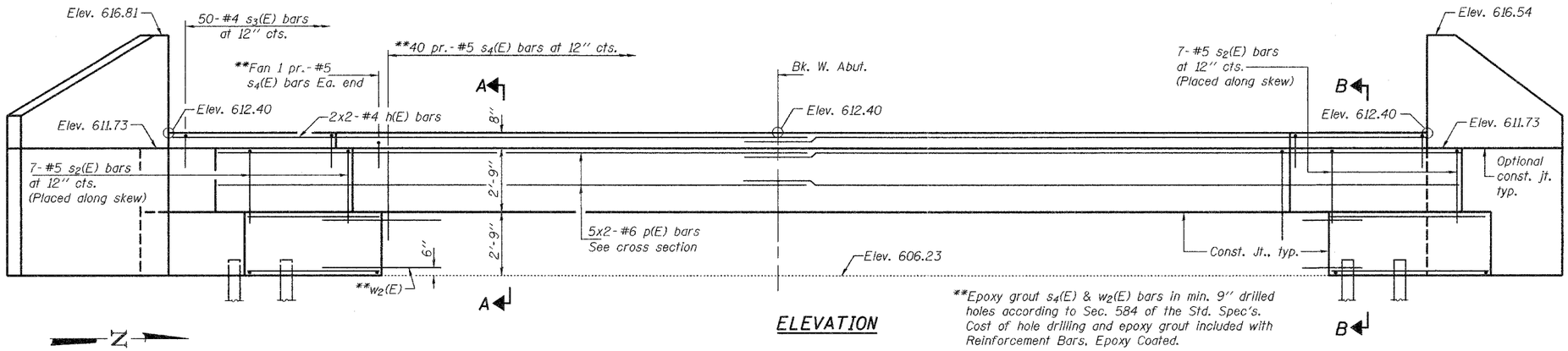
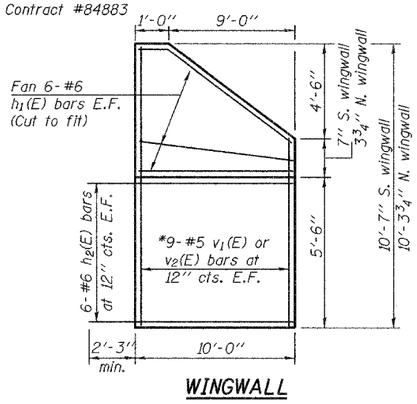
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	53
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

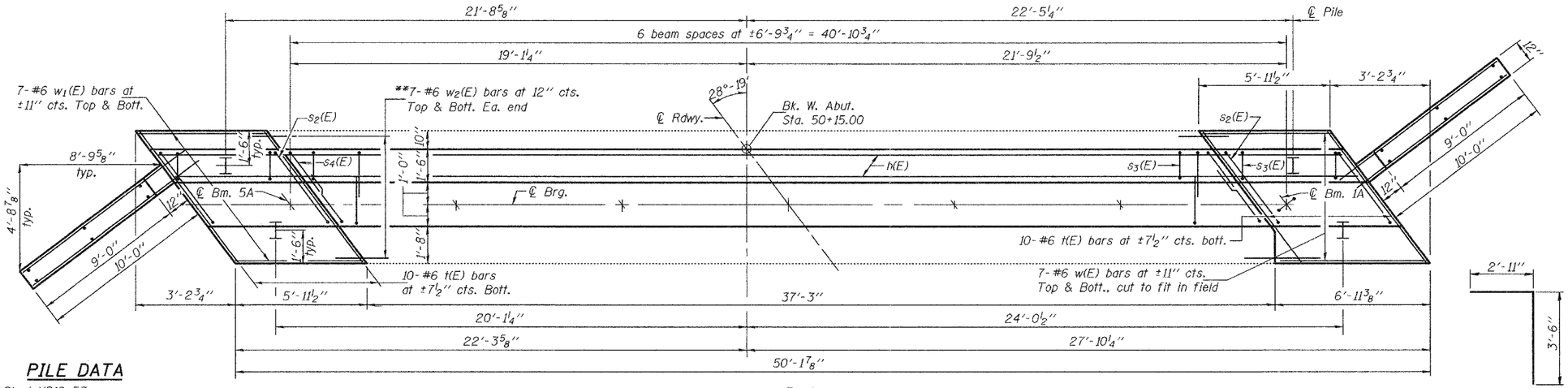
SHEET NO. 16
23 SHEETS

Contract #84883

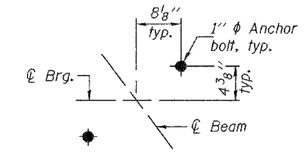




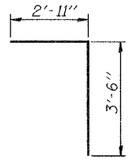
WINGWALL



PLAN



ANCHOR BOLT OFFSET



BAR s4(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#4	25'-9"	——
h1(E)	24	#6	10'-9"	——
h2(E)	24	#6	12'-3"	——
p(E)	10	#6	26'-4"	——
s2(E)	14	#5	11'-3"	⊓
s3(E)	50	#4	4'-6"	⊓
s4(E)	80	#5	6'-5"	⊓
t(E)	20	#6	6'-5"	——
v1(E)	9	#5	16'-0"	——
v2(E)	9	#5	15'-4"	——
w(E)	14	#6	6'-9"	——
w1(E)	14	#6	5'-9"	——
w2(E)	28	#6	3'-6"	——
Reinforcement Bars, Epoxy Coated			Pound	3040
Concrete Structures			Cu. Yds.	33.5
Structure Excavation			Cu. Yds.	189
Furnishing Steel Piles HP12x53			Foot	228.0

Reinforcement bars designated (E) shall be epoxy coated.

PILE DATA

Type: Steel HP12x53
Capacity: 45 Tons Driven to 67.5 Ton
Est. Length: 57'
No. Req'd.: 4

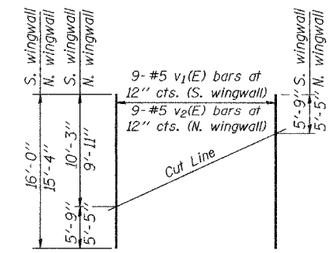
MIN. BAR LAPS

#4 bar = 1'-8"
#5 bar = 2'-2"
#6 bar = 2'-7"

Notes: Space reinforcement in cap to miss anchor bolts.
All edges shall have standard ¾" chamfers except as noted.
Pour steps monolithically with cap.
For anchor bolt installation details see sheet 14 of 23.
Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

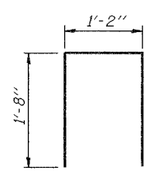
DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

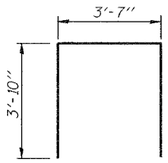


*FIELD CUTTING DIAGRAM

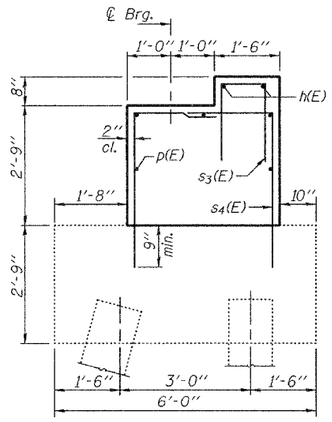
Order v1(E) & v2(E) full length. Cut as shown and use remainder of bars in opposite face.



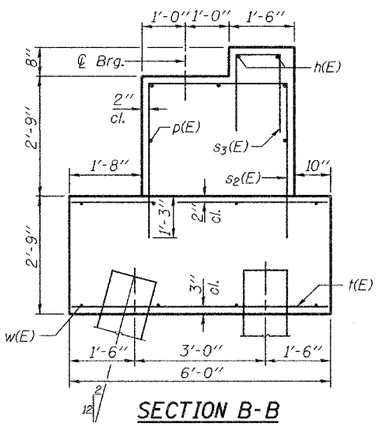
BAR s3(E)



BAR s2(E)



SECTION A-A



SECTION B-B

WEST ABUTMENT
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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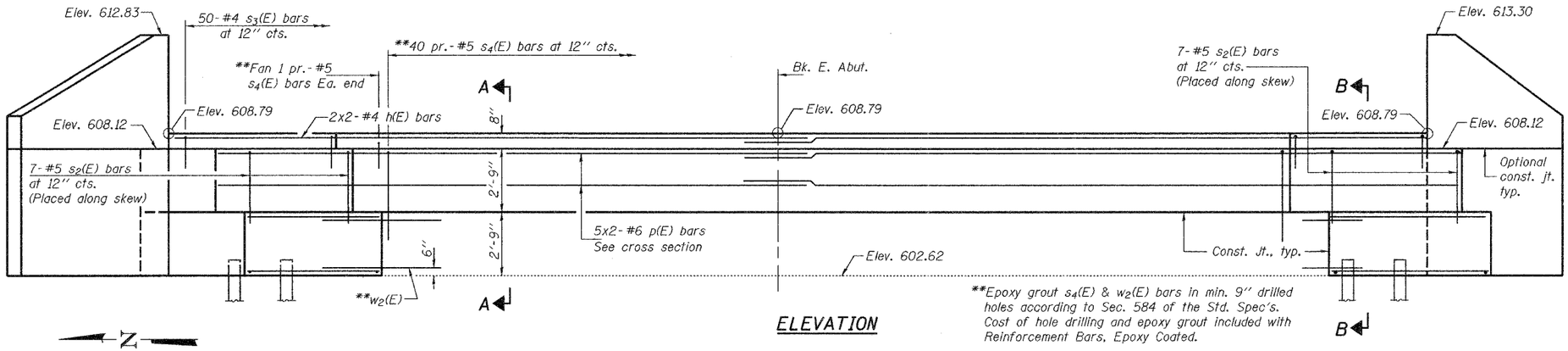
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	54
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

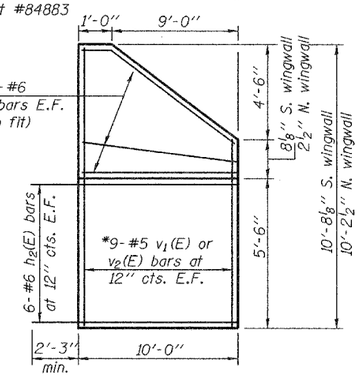
SHEET NO. 17
23 SHEETS

Contract #84883

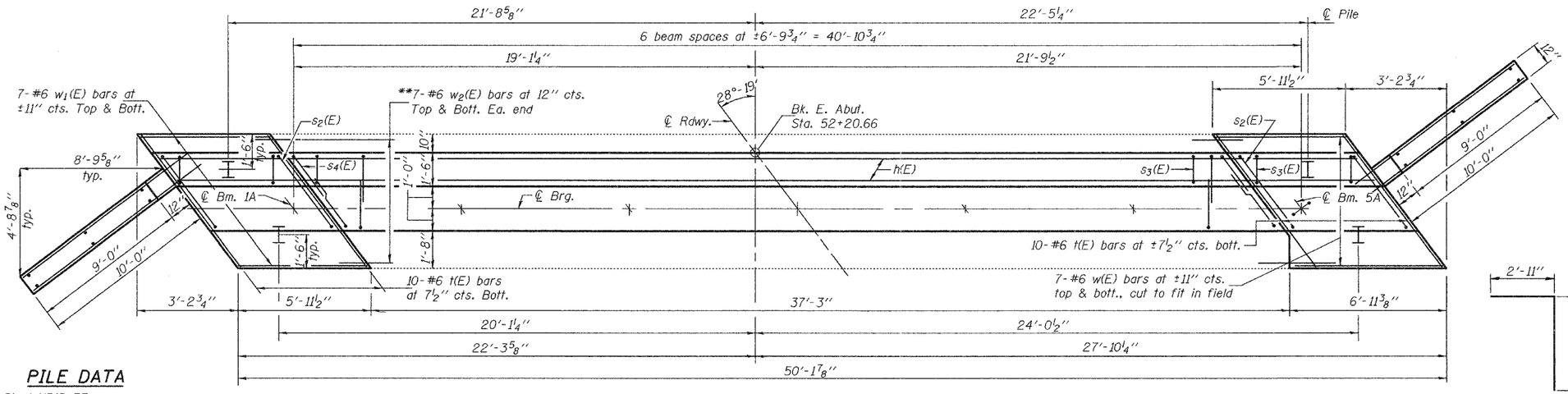


ELEVATION

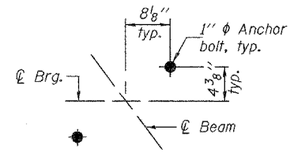
**Epoxy grout s4(E) & w2(E) bars in min. 9" drilled holes according to Sec. 584 of the Std. Spec's. Cost of hole drilling and epoxy grout included with Reinforcement Bars, Epoxy Coated.



WINGWALL



PLAN

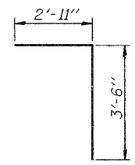


ANCHOR BOLT OFFSET

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#4	25'-9"	——
h1(E)	24	#6	10'-9"	——
h2(E)	24	#6	12'-3"	——
p(E)	10	#6	26'-4"	——
s2(E)	14	#5	11'-3"	⊓
s3(E)	50	#4	4'-6"	⊓
s4(E)	80	#5	6'-5"	⊓
t(E)	20	#6	6'-5"	——
v1(E)	9	#5	16'-0"	——
v2(E)	9	#5	15'-4"	——
w(E)	14	#6	6'-9"	——
w1(E)	14	#6	5'-9"	——
w2(E)	28	#6	3'-6"	——
Reinforcement Bars, Epoxy Coated			Pound	3040
Concrete Structures			Cu. Yds.	33.5
Structure Excavation			Cu. Yds.	189
Furnishing Steel Pile HP12x53			Foot	224.0

Reinforcement bars designated (E) shall be epoxy coated.



BAR s4(E)

PILE DATA

Type: Steel HP12x53
Capacity: 45 Tons Driven to 67.5 Ton
Est. Length: 56'
No. Req'd.: 4

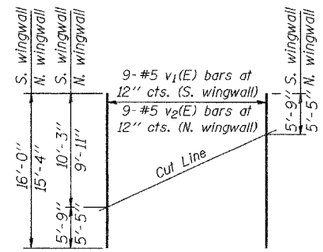
MIN. BAR LAPS

#4 bar = 1'-8"
#5 bar = 2'-2"
#6 bar = 2'-7"

Notes: Space reinforcement in cap to miss anchor bolts.
All edges shall have standard ¾" chamfers except as noted.
Pour steps monolithically with cap.
For anchor bolt installation details see sheet 14 of 23.
Bars indicate thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

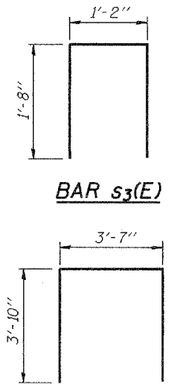
DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

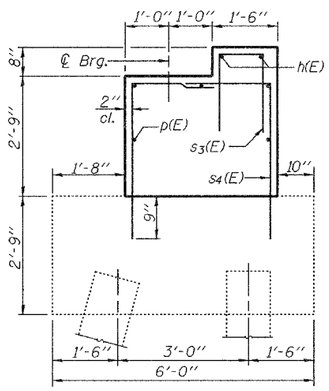
Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



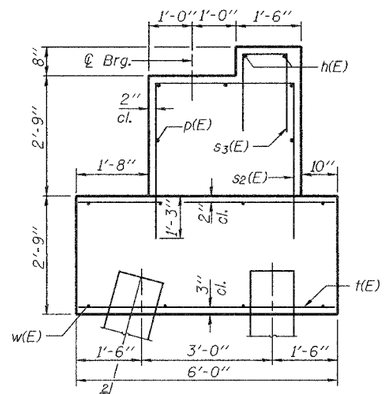
FIELD CUTTING DIAGRAM

*Order v1(E) & v2(E) full length. Cut as shown and use remainder of bars in opposite face.





SECTION A-A



SECTION B-B

EAST ABUTMENT
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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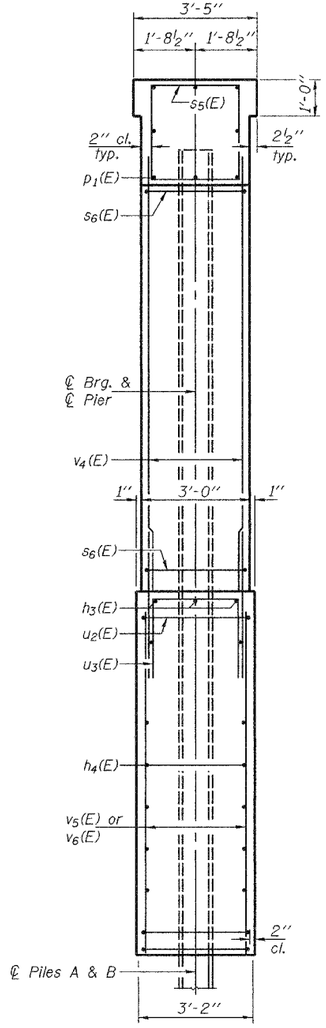
Notes: Space reinforcement in cap to miss anchor bolts.
All edges shall have standard $\frac{3}{4}$" chamfers except as noted.
For anchor bolt installation details see sheet 14 of 23.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

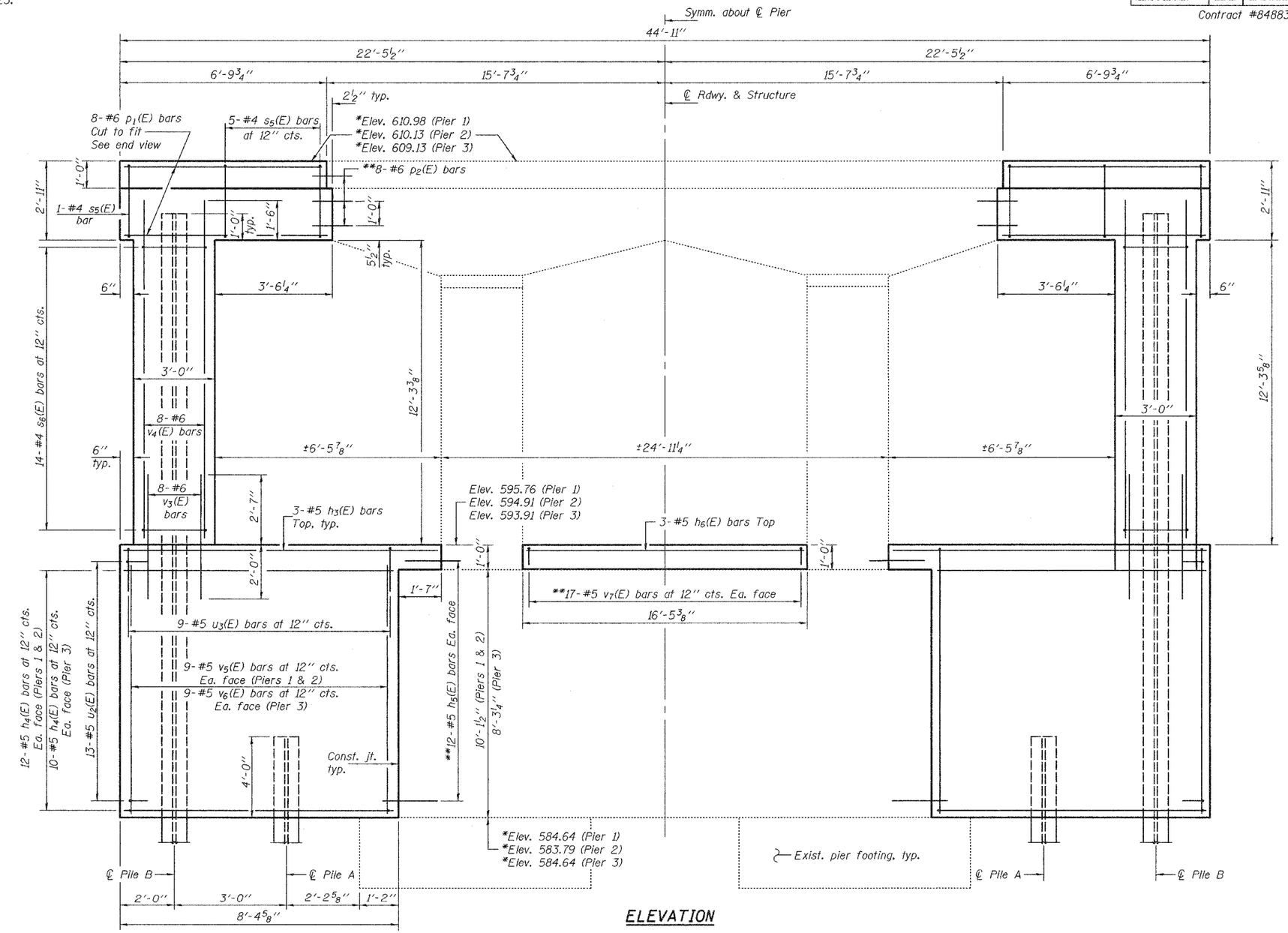
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	55
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 18
23 SHEETS

Contract #84883



END VIEW



ELEVATION

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

EXAMINED Thomas J. Domagalski — Oct. 11, 2005 — ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson — ENGINEER OF BRIDGES AND STRUCTURES

*These elevations are based on current survey.
**Epoxy grout $h_5(E)$, $p_2(E)$ & $v_7(E)$ bars in min. 9" drilled holes according to Sec. 584 of the Std. Spec's. Cost of hole drilling and epoxy grout included with Reinforcement Bars, Epoxy Coated.

PILE DATA

Type: Steel HP12x53
Capacity: 55 Tons Driven to 82.5 Ton
No. Req'd. 12
Est. Length (ft.):

Location	Pile A	Pile B
Pier 1	53	74
Pier 2	80	101
Pier 3	58	77

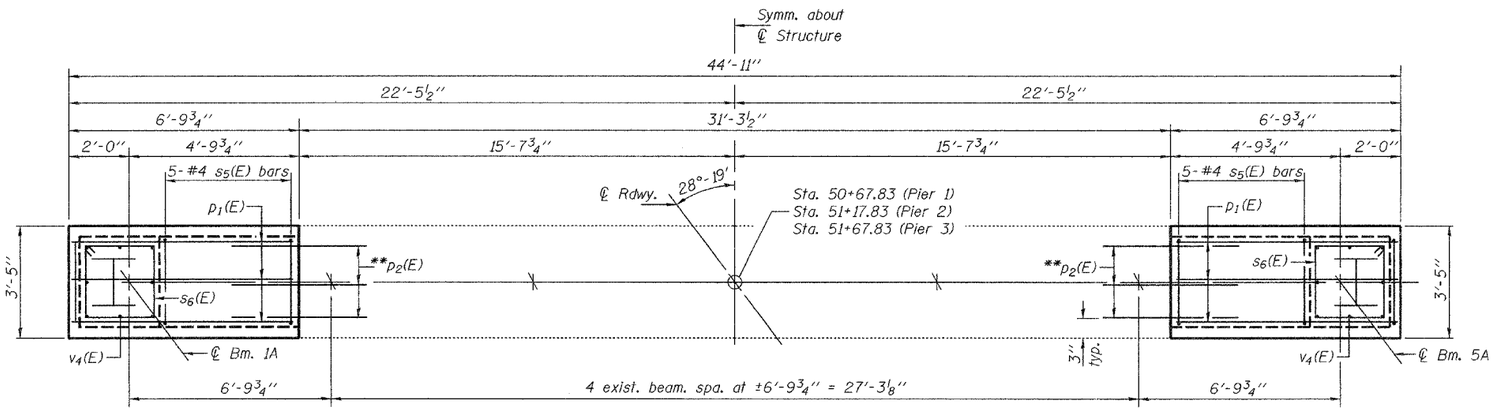
PIERS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

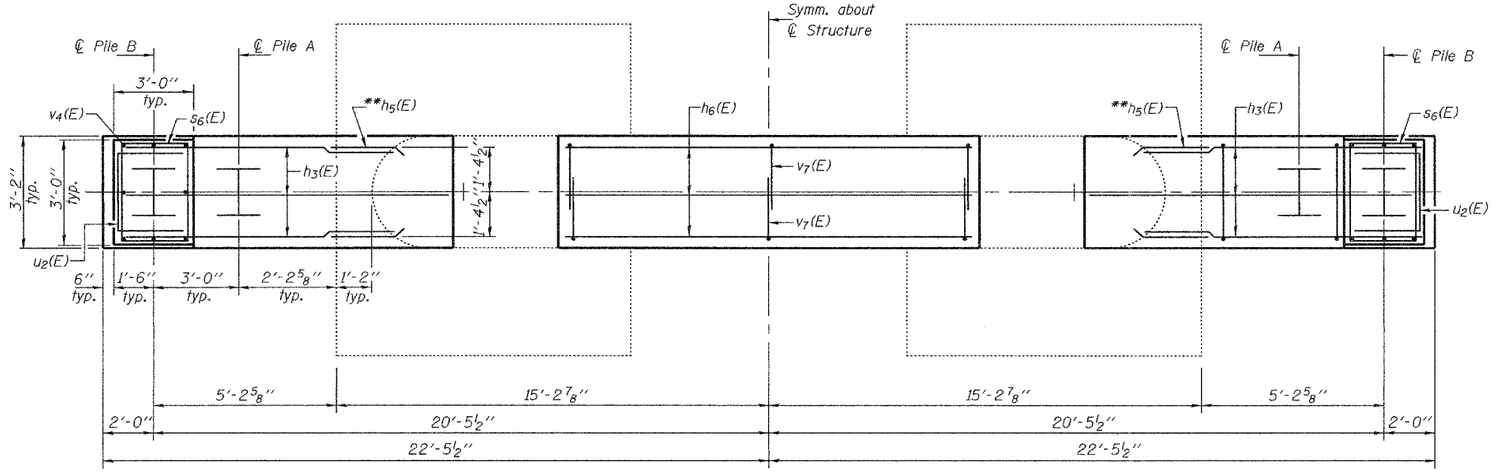
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	56
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 19
23 SHEETS

Contract #84883

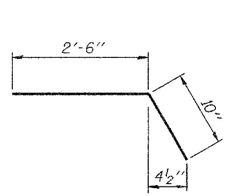


PIER CAP - PLAN

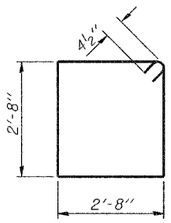


FOOTING - PLAN

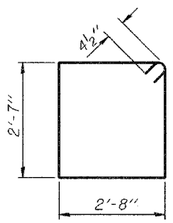
**Epoxy grout $p_2(E)$ and $h_5(E)$ bars in min. 9" drilled holes according to Sec. 584 of the Std. Spec's. Cost of hole drilling and epoxy grout included with Reinforcement Bars, Epoxy Coated.



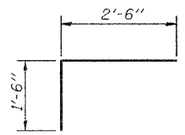
BAR $h_5(E)$



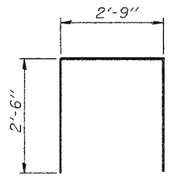
BAR $s_6(E)$



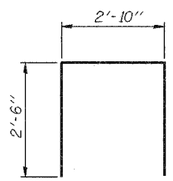
BAR $s_5(E)$



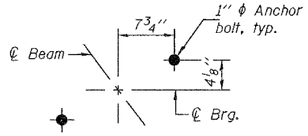
BAR $v_7(E)$



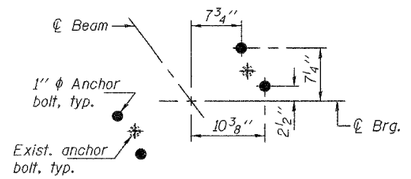
BAR $u_3(E)$



BAR $u_2(E)$



ANCHOR BOLT OFFSET
PIER 2
Beams 1A & 5A



ANCHOR BOLT OFFSET
PIERS 1 & 3

THREE PIERS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_3(E)$	18	#5	9'-8"	
$h_4(E)$	136	#5	8'-1"	
$h_5(E)$	144	#5	3'-4"	
$h_6(E)$	9	#5	16'-2"	
$p_1(E)$	48	#6	6'-8"	
$p_2(E)$	48	#6	3'-6"	
$s_5(E)$	36	#4	11'-3"	
$s_6(E)$	84	#4	11'-5"	
$u_2(E)$	78	#5	7'-10"	
$u_3(E)$	54	#5	7'-9"	
$v_3(E)$	48	#6	4'-7"	
$v_4(E)$	48	#6	13'-10"	
$v_5(E)$	72	#5	10'-8"	
$v_6(E)$	36	#5	7'-9"	
$v_7(E)$	102	#5	4'-0"	
Reinforcement Bars, Epoxy Coated		Pound	7540	
Concrete Structures		Cu. Yds.	107	
Structure Excavation		Cu. Yds.	115.5	
Furnishing Steel Piles HP12x53		Foot	886	

Reinforcement bars designated (E) shall be epoxy coated.

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

Notes: Space reinforcement in cap to miss anchor bolts.
All edges shall have standard ¾" chamfers except as noted.
For anchor bolt installation details see sheet 14 of 23.

MIN. BAR LAPS
#5 bar = 2'-2"
#6 bar = 2'-7"

PIERS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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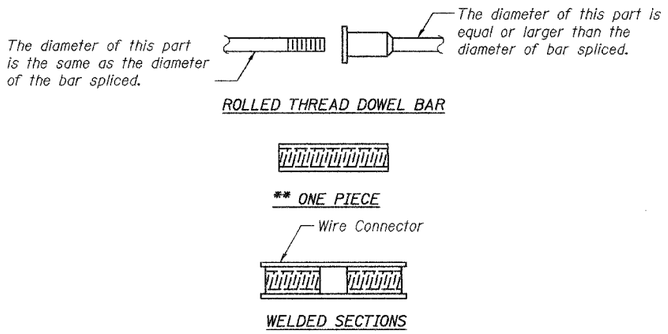
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	57
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

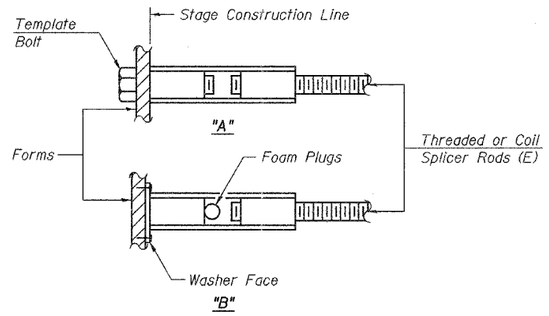
SHEET NO. 20
23 SHEETS

Contract #84883



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

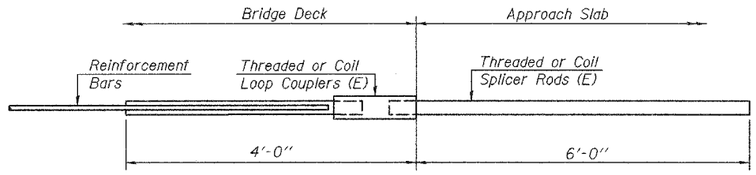
① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

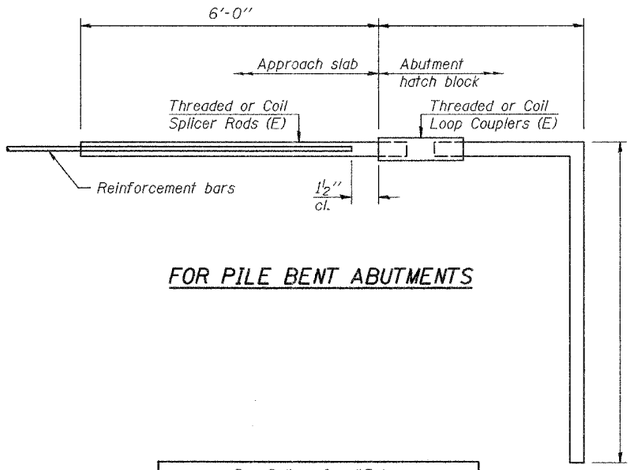
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0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

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



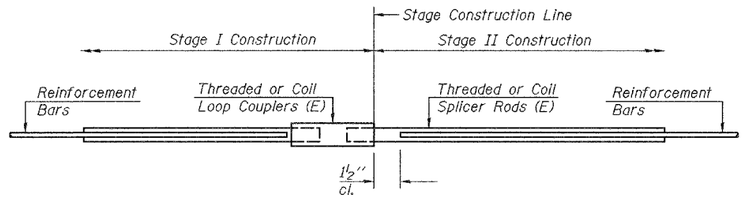
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 80



FOR PILE BENT ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location

DESIGNED	CCC
CHECKED	DPN
DRAWN	h.t. duong
CHECKED	CCC/DPN

Oct. 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 10-22-04

BAR SPLICER ASSEMBLY DETAILS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	58
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 21
23 SHEETS

Contract #84883

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 1 of 2
Date 2993

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins
SECTION 7BR-1 LOCATION Garden Plain Twp. NW 14, SEC. 4, TWP. 4-T21N, RNG. 3E, PM
COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79
BORING NO. B-3
Station 70+83
Offset 21.00ft Rt.
Ground Surface Elev. 587.0 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Medium, graybrown fine Sand
	4			
	6	0.7	25	Medium, tanrgray Silty Clay
	6	B		
-5	4			
	5	0.6	30	Medium, tanrgray Silty Loam wSand lenses
	6	S		
580.50				
	3			Loose, tanrgray fine Sand w/s Silty Loam lense
	4			
	5			
-10	5			Medium, tan fine Sand
	5			
	6			
				First Encounter
	2			Medium, tan fine to coarse Sand
	5			
	6			
-15	3			Same as above
	7			
	8			
	3			Same as above
	5			
	8			
-20				

DEPTH (ft)	BLOWS (6")	
	4	Medium, tan fine to coarse Sand
	5	
	7	
-25		
	11	Medium, tan Sand and Gravel
	13	
	15	
-30		
	10	Dense, tan coarse Sand wsome Gravel
	13	
	18	
-35		
	9	Medium, tan coarse Sand wsome Gravel
	11	
	13	
-40		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 2 of 2
Date 2993

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins
SECTION 7BR-1 LOCATION Garden Plain Twp. NW 14, SEC. 4, TWP. 4-T21N, RNG. 3E, PM
COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79
BORING NO. B-3
Station 70+83
Offset 21.00ft Rt.
Ground Surface Elev. 587.0 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
	11			Dense, tan Sand with some Gravel
	13			
	22			
-45				
	16			Dense, tan fine Sand
	21			
	27			
-50				
	16			Very Dense, tan fine Sand
	34			
533.50	20			
				End of Boring
-55				
-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 1 of 2
Date 2993

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins
SECTION 7BR-1 LOCATION Garden Plain Twp. NW 14, SEC. 4, TWP. 4-T21N, RNG. 3E, PM
COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79
BORING NO. B-4
Station 71+88
Offset 7.00ft Lt.
Ground Surface Elev. 612.1 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Medium, red fine Sand
	12			Medium, tan fine Sand
	14			
	12			
-5				
	12			Same as above
	12			
	16			
605.10				
	11			Very Stiff, brown Sandy Loam wSand lenses
	11	3.1	12	
	10	S		
602.60				
-10				
	14			Medium, tan fine Sand w/s Sandy Loam lense
	15			
	15			
	12			Same as above
	12			
	15			
-15				
	13			Dense, tan fine dirty Sand w/s Sandy Loam lense
	18			
	18			
	11			Medium tan fine Sand wSandy Loam lenses
	9			
	10			
-20				

DEPTH (ft)	BLOWS (6")	
	13	Dense, tan fine to medium Sand wSandy Loam lenses
	16	
	22	
	14	Dense, tan fine Sand w/s Silty Clay lense
	18	
	17	
587.60		
-25		
	8	Stiff, brown Silty Loam wSand lense
	9	1.2 14
	9	S
	7	Stiff, tanred Sandy Loam wSand lenses
	8	1.3 17
	11	S
582.60		
-30		
	7	Medium, tanred fine Sand
	9	
	12	
	11	Same as above
	10	
	9	
-35		
	9	Same as above
	9	
	10	
		First Encounter
	4	Medium, tan fine to medium Sand
	5	
	6	
-40		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 2 of 2
Date 2993

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins
SECTION 7BR-1 LOCATION Garden Plain Twp. NW 14, SEC. 4, TWP. 4-T21N, RNG. 3E, PM
COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79
BORING NO. B-4
Station 71+88
Offset 7.00ft Lt.
Ground Surface Elev. 612.1 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Loose, tan fine to medium Sand
	1			
	2			
	3			
-45				
				Begin Wash
	6			Medium, tan fine Sand
	7			
	8			
-50				
	8			Medium, tan Sand & Gravel
	10			
	13			
-55				
				Dense, tan fine to medium Sand
	12			
	17			
	19			
-60				

DEPTH (ft)	BLOWS (6")	
	12	Same as above
	16	
	18	
-65		
	22	Very Dense, tan fine to coarse Sand wsome Gravel
	38	
	46	
-70		
	6	Medium, tan Sand & Gravel w/Limestone fragments
	7	
	8	
-75		
	8	Same as above
	15	
533.10	10	
		End of Boring
-80		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

BORING LOGS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	59
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 22
23 SHEETS

Contract #84883

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 1 of 3

Date 3/193

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins

SECTION 7BR-1 LOCATION Garden Plain Twp. NW 14, SEC. 4, TWP. 4-T21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79

BORING NO. B-5
Station 69+22
Offset 8.50ft Rt.
Ground Surface Elev. 614.8 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Asphalt & Concrete				
Medium, brown fine to coarse Sand				
Dense, tan fine to medium Sand		19		
		18		
		16		
	-5			
Medium, tan fine to medium Sand w/a Sandy Clay lense		16		
		12		
		10		
Same as above		7		
		7		
		11		
	-10			
Same as above		9		
		12		
		13		
Medium, tanfred fine to medium grained Sand		8		
		12		
		18		
	-15			
Dense, tanfred Sand w/a Sandy Clay lense		11		
		16		
		18		
Same as above		10		
		14		
		16		
595.30				
	-20			

	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Very Stiff, brown/tan Silty Loam w/Sand lenses		11		
		9	2.8	21
		17	S	
Medium, tanfred Sand w/a Clay lense		8		
		12		
		14		
590.80				
Very Stiff, gray Silty Loam w/Sand lenses	-25	9		
		11	3.1	15
		17	S	
Very Stiff, gray Sandy Loam w/Sand lenses		7		
		9	2.1	15
		15	S	
585.80				
Medium, tan fine Sand	-30	7		
		7		
		8		
583.30				
Very Stiff, tan/gray Silty Loam w/Sand lenses		7		
		7	2.1	28
		9	S	
580.80				
Medium, tan fine Sand	-35	4		
		5		
		6		
Same as above		5		
		4		
		7		
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 2 of 3

Date 3/193

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins

SECTION 7BR-1 LOCATION Garden Plain Twp. NW 14, SEC. 4, TWP. 4-T21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79

BORING NO. B-5
Station 69+22
Offset 8.50ft Rt.
Ground Surface Elev. 614.8 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
First Encounter				
Loose, tan fine to medium Sand		2		
		2		
		2		
	-45			
Begin Wash				
Medium, tan fine Sand		7		
		9		
		10		
	-50			
Medium, tan fine to coarse Sand		7		
		12		
		16		
	-55			
Medium, tan fine to coarse grained Sand		12		
		12		
		18		
	-60			

	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Same as above		9		
		13		
		17		
	-65			
Same as above		6		
		8		
		12		
	-70			
Dense, tan fine to coarse grained Sand		10		
		15		
		21		
	-75			
Medium, tan fine to coarse grained Sand		9		
		10		
		17		
	-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 3 of 3

Date 3/193

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins

SECTION 7BR-1 LOCATION Garden Plain Twp. NW 14, SEC. 4, TWP. 4-T21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79

BORING NO. B-5
Station 69+22
Offset 8.50ft Rt.
Ground Surface Elev. 614.8 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Medium, tan Sand & Gravel		8		
		8		
		18		
	-85			
Same as above		4		
		7		
		14		
525.80				
End of Boring	-90			
	-95			
	-100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

BORING LOGS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7HBR-1	WHITESIDE	146	60
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 23
23 SHEETS

Contract #84883

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 1 of 2
Date 2/93

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins
SECTION 7BR-1 LOCATION Garden Plain Twp. NW 1/4, SEC. 4, TWP. 4-T21N, RNG. 3E, PM
COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79
BORING NO. B-1
Station 70+25
Offset 25.00ft Rt.
Ground Surface Elev. 587 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Medium, brown dirty, fine to medium grained Sand							
Soft, brown Sandy Loam	3			Medium, tan fine to medium Sand	6		
	3	0.4	16		7		
	4	S			10		
Medium, graybrown Silty Clay wSand lenses	2						
	3	0.7	33				
	4	B					
Medium, graytan Silty Loam wSand lenses	3			Medium, tan Sand & Pea Gravel	8		
	3	0.6	33		10		
	4	B			14		
578.00							
Medium, tan fine to medium Sand	2						
	5						
	7						
First Encounter							
Medium, tan fine to coarse Sand	4			Medium, tan Sand & Pea Gravel	12		
	5				13		
	6				13		
Same as above	2						
	4						
	7						
Begin Wash							
Medium, tan fine to coarse Sand	5			Dense, tan Sand & Pea Gravel	11		
	5				16		
	9				24		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 2 of 2
Date 2/93

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins
SECTION 7BR-1 LOCATION Garden Plain Twp. NW 1/4, SEC. 4, TWP. 4-T21N, RNG. 3E, PM
COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79
BORING NO. B-1
Station 70+25
Offset 25.00ft Rt.
Ground Surface Elev. 587 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Same as above	11		
	16		
	21		
Dense, tan Sand & Gravel	14		
	19		
	29		
Medium, tan Sand and Gravel	5		
	10		
532.50	15		
End of Boring			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 1 of 2
Date 2/2/93

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins
SECTION 7BR-1 LOCATION Garden Plain Twp. NW 1/4, SEC. 4, TWP. 4-T21N, RNG. 3E, PM
COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79
BORING NO. B-2
Station 70+76
Offset 24.00ft Lt.
Ground Surface Elev. 587.3 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Stiff, tanbrown Silty Clay		1.1 P	22				
Same as above	5			Medium, tan Sand & Gravel	11		
	7	1.1	24		11		
	8	B			12		
Medium, tanbrown Silty Loam with Sand lenses	4						
	7	0.6	32				
	8	B					
580.80							
Medium, tan, fine to medium Sand	4			Same as above	6		
	5				8		
	6				12		
First Encounter							
Same as above	5						
	5						
	8						
575.80							
Medium tan, fine to coarse Sand	3			Same as above	6		
	5				9		
	5				11		
Begin Wash							
Medium tan, fine to medium Sand	5			Medium tan, fine to coarse Sand	5		
	8				10		
	8				14		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 2 of 2
Date 2/2/93

ROUTE FA 309 DESCRIPTION Bridge over Dakin Road on US 30 LOGGED BY C. Jenkins
SECTION 7BR-1 LOCATION Garden Plain Twp. NW 1/4, SEC. 4, TWP. 4-T21N, RNG. 3E, PM
COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6000
Station 70+79
BORING NO. B-2
Station 70+76
Offset 24.00ft Lt.
Ground Surface Elev. 587.3 ft

Surface Water Elev. 0 ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Same as above	8		
	10		
	13		
Dense tan, fine to coarse Sand	12		
	17		
	20		
Medium tan, fine to coarse Sand w/some Gravel	10		
	16		
	12		
Medium tan, fine to medium Sand	3		
	5		
	8		
Medium tan, fine to medium Sand	3		
	4		
	8		
Loose tan, fine to medium Sand	3		
	4		
	4		
Medium, tan fine to medium Sand	5		
	8		
613.80	11		
End of Boring			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

BORING LOGS
F.A.P. RTE. 309 - SEC. 7HBR-1
WHITESIDE COUNTY
STATION 51+17.83
STRUCTURE NO. 098-6000

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Bench Mark: Cut "□" on N.W. corner abutment on U.S. 30 bridge over U.P.R.R. tracks, Sta. 46+35.03 Left 19.9′ Elevation 618.66.

Existing Structure: S.N. 098-6001 was built in 1954-56 under City of Clinton Bridge Commission, Contract No. 7, Illinois Federal Aid Route 7. The structure is a three span continuous non-composite WF superstructure supported on spill through pile bent abutments & dual column piers. The deck is to be removed and widened. Traffic will be detoured during construction.

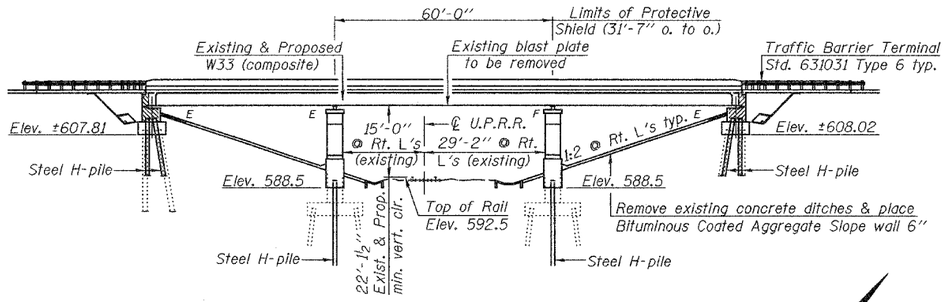
No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

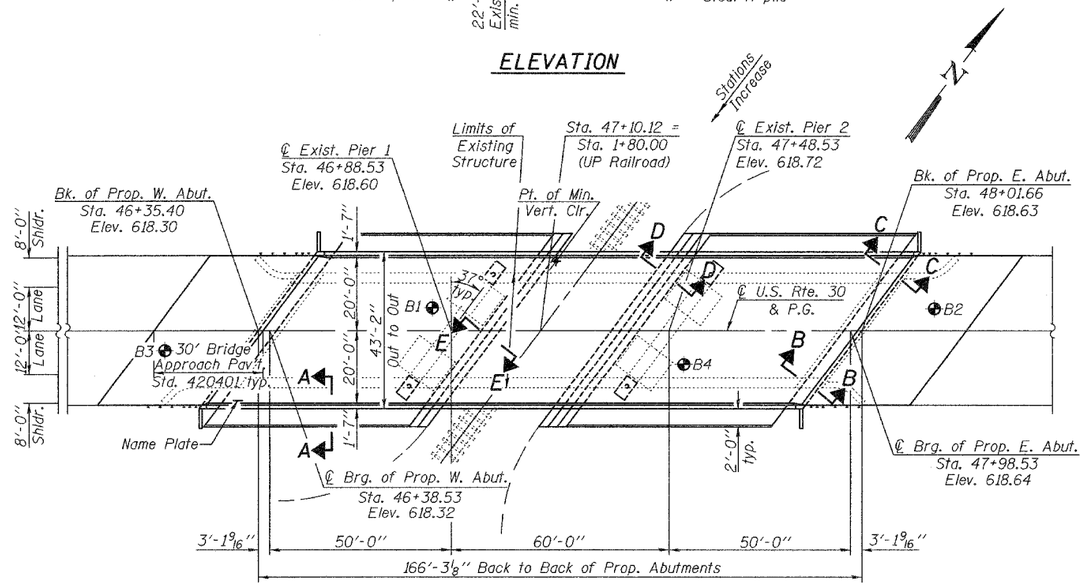
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	61
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
22 SHEETS

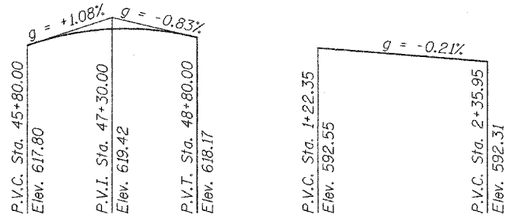
Contract #84883



ELEVATION



PLAN



LVC = 300 ft.

PROFILE GRADE U.S. 30 (along ℄ roadway)
(Exist. Sta. 65+65.03 = Prop. Sta. 46+27.86)

PROFILE GRADE U.P.P.R. (along ℄ tracks)

STATION 47+18.53
REBUILT 200 BY
STATE OF ILLINOIS
F.A.P. RTE. 309 SECTION 7VBR
LOADING HS20
STR. NO. 098-6001

NAME PLATE

See Std. 515001
Existing name plate shall be cleaned and placed next to new name plate. Cost included in Name Plates.

CURVE DATA

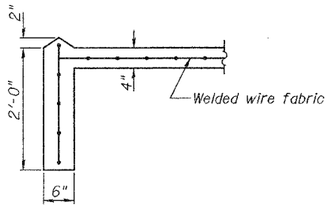
P.I. Sta. = 37+61.94
Δ = 29°29′54″ (LT)
D = 1°39′53″
R = 3,441.91′
T = 906.12′
L = 1,772.28′
e = 3.125%
TR = 35′
S.E. = Run Off = 70′
P.C. Sta. = 28+55.82
P.T. Sta. = 46+27.86
S.E. Transition Sta. 45+66.03 to Sta. 46+71.03

DESIGNED	Patrick M Stone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	PMP SMR

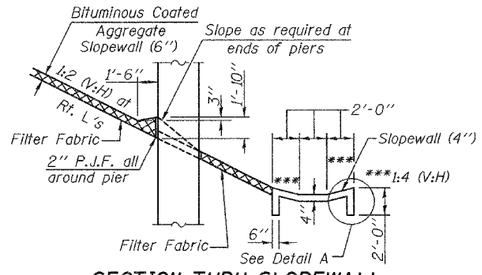
October 11, 2005
EXAMINED Thomas J. Domyslski ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS * RALPH E. ANDERSON * 081-004625 * SPRINGFIELD * LICENSED STRUCTURAL ENGINEER *

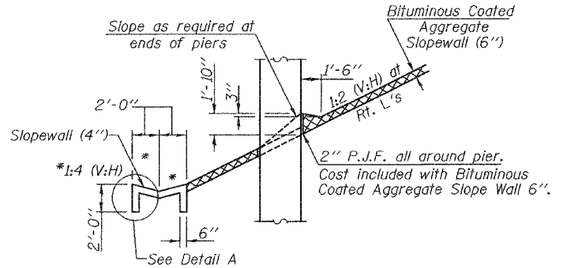
EXPIRES 11-30-2006



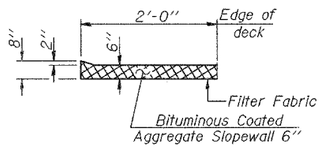
DETAIL A



SECTION THRU SLOPEWALL
SECTION D-D



SECTION THRU SLOPEWALL
SECTION E-E



SECTION A-A

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS	NEW CONSTRUCTION
f'_c = 3,500 psi	f'_c = 3,500 psi
f_y = 40,000 psi (reinforcement)	f_y = 60,000 psi
f_y = 33,000 psi (structural steel) (1949 AASHTO Specifications)	f_y = 36,000 psi (structural steel) (M270 Gr. 36)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 3.0%g
Site Coefficient (S) = 1.0

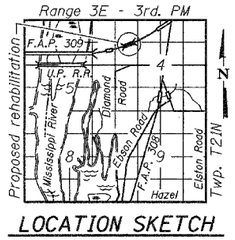
INDEX OF SHEETS

1. General Plan and Elevation
2. General Data
3.-4. Top of Slab Elevations
5.-6. Superstructure
7. Abutment Diaphragm Details
8.-9. Structural Steel Details
10-11. Bearings
12. Concrete Removal-Abutments
13.-14. Abutments
15.-16. Pier Details
17. Bar Splicers
18. Anchor Bolt Details
19 Structural Steel Removal
20.-22. Soil Boring Logs

Note: The Cost of Removing Existing Concrete Ditches Shall be included with Slope Wall 4″.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Concrete Deck	Each	1		1
Structure Excavation	Cu. Yd.		334	334
Protective Coat	Sq. Yd.	879		879
Concrete Structures	Cu. Yd.		145.4	145.4
Concrete Superstructure	Cu. Yd.	270.2		270.2
Furnishing and Erecting Structural Steel	L. Sum	0.45		0.45
Reinforcement Bars, Epoxy Coated	Pound	54370	10520	64890
Name Plates	Each	1		1
Bridge Deck Grooving	Sq. Yd.	701		701
Bar Splicers	Each	80		80
Furnishing Steel Piles HP 12 x 53	Foot		852	852
Driving Steel Piles	Foot		852	852
Stud Shear Connectors	Each	3129		3129
Bituminous Coated Aggregate Slope - Wall 6″	Sq. Yd.		492	492
Elastomeric Bearing Assembly Type 1	Each	21		21
Concrete Removal	Cu. Yd.		72.0	72.0
Structural Steel Removal	Pound	27310		27310
Structural Steel Repair	Pound	1060		1060
Jack and Remove Existing Bearings	Each	15		15
Protective Shield	Sq. Yd.	211		211
Slope Wall 4″	Sq. Yd.		66	66
Porous Granular Embankment Special	Cu. Yd.		182	182
Filter Fabric	Sq. Yd.		492	492
Cleaning & Painting Steel Bridge #2	L. Sum			1
Blasting Residue Containment & Disposal Bridge #2	L. Sum			1
Bridge Cleaning & Painting Warranty #2	L. Sum			1



LOCATION SKETCH

GENERAL PLAN
U.S. ROUTE 30 OVER UNION PACIFIC RAILROAD
F.A.P. ROUTE 309 SECTION 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE NO. 098-6001

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	62
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
22 SHEETS

Contract #84883

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{7}{8}$" ϕ, open holes $\frac{15}{16}$" ϕ, unless otherwise noted.

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

Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

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

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

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, two $\frac{1}{8}$" adjusting shims shall be provided for each bearing and placed as detailed.

The concrete for bridge floors finished according to Article 503.17 of the Standard Specifications, shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The finishing machine, when required, shall be set parallel to the skew for striking off and screeding the concrete.

Prior to pouring the new concrete deck, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.

All existing construction accessories welded to the top flange over the pier between the quarter points of the beams or girders shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any cracks that can not be removed by grinding approximately $\frac{1}{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be paid for according to Article 109.04.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

All Construction joints shall be bonded.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06 of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Contact surfaces of existing structural steel where new steel is to be installed shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contract Surface Areas of Existing Steel Structures".

All new structural Steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.

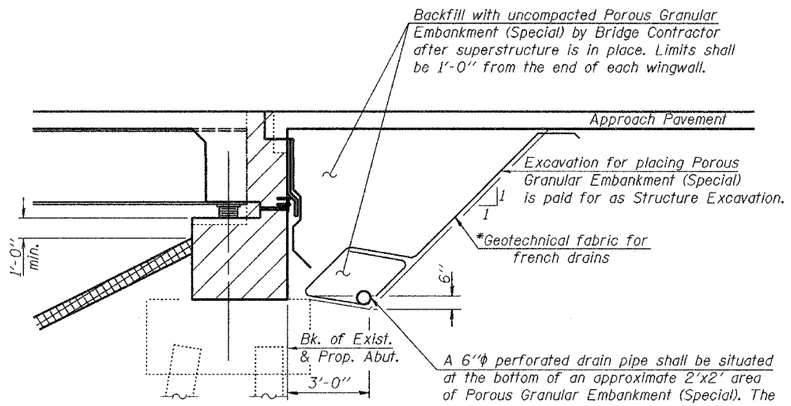
Calculated weight of Structural Steel = 55,140 pounds M270 Grade 36.

Slope wall shall be reinforced with welded wire fabric, 6" x 6"-W4.0 x W4.0. weighing 58 lbs. per 100 sq. ft.

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All existing steel shall be cleaned per Near White Blast Cleaning-SSPC-SP10. All existing steel shall be painted according to the requirements of Paint System 1-OZ/E/U. The color of the final finish coat for all interior steel surface shall be Gray, Munsell No 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown Federal Color Standard 595a 20045.

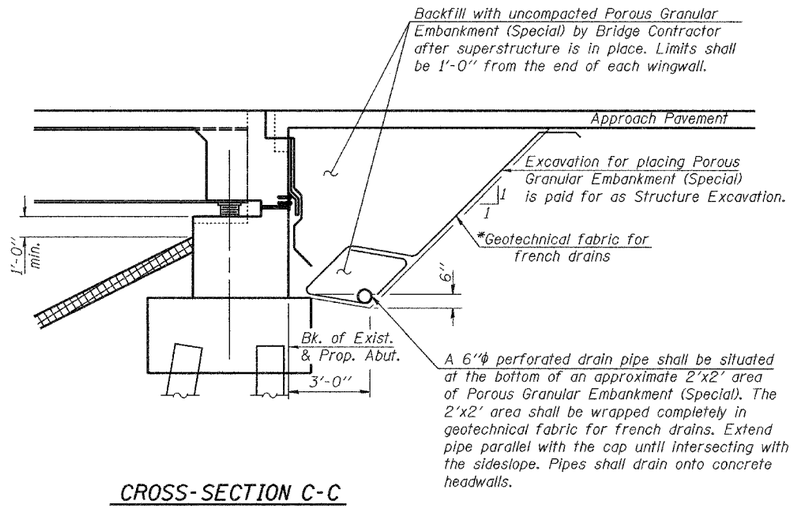
The SSPC-QP1 and SSPC-QP2 Painting Contractor Certifications will not be required for this bridge.

The organic zinc rich primer Epoxy Urethane Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown Federal Color Standard 595a 20045. See Specail Provision for "Cleaning and Painting New Metal Structures".



CROSS-SECTION B-B OVER EXISTING CAP
(℄ Rt. L's)

*Included in the cost of Porous Granular Embankment. (Special)



CROSS-SECTION C-C
(℄ Rt. L's)

*Included in the cost of Porous Granular Embankment.

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BUREAU DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL DATA
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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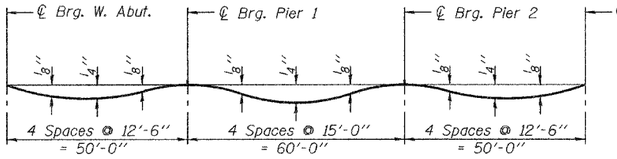
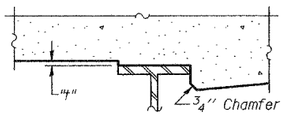


DEAD LOAD DEFLECTION DIAGRAM

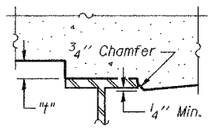
(Includes weight of concrete only.)

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 below.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



At Minimum Fillet



At Maximum Fillet

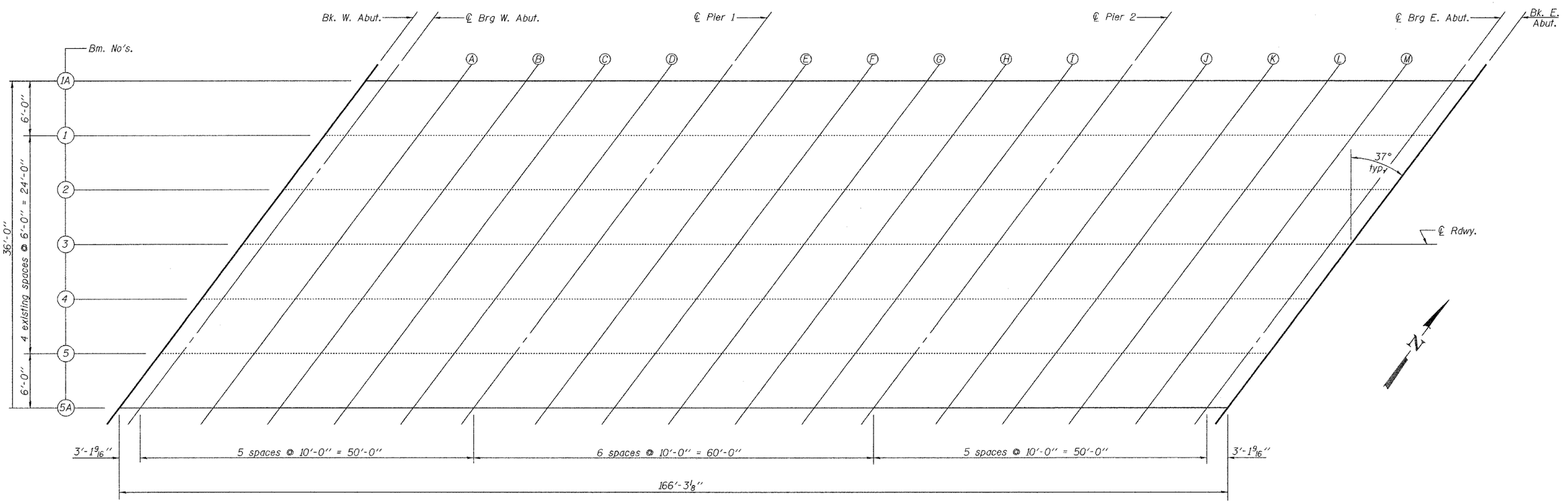
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	63
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
22 SHEETS

Contract #84883

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

FILLET HEIGHTS



PLAN

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	64
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
22 SHEETS

Contract #84883

℄ BEAM 1A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut	4648.964	-18.000	618.081	618.081
CL Brg W. Abut	4652.094	-18.000	618.101	618.101
A	4662.094	-18.000	618.160	618.172
B	4672.094	-18.000	618.212	618.230
C	4682.094	-18.000	618.259	618.274
D	4692.094	-18.000	618.298	618.306
CL Pier 1	4702.094	-18.000	618.332	618.332
E	4712.094	-18.000	618.359	618.367
F	4722.094	-18.000	618.380	618.394
G	4732.094	-18.000	618.394	618.415
H	4742.094	-18.000	618.402	618.417
I	4752.094	-18.000	618.404	618.411
CL Pier 2	4762.094	-18.000	618.399	618.399
J	4772.094	-18.000	618.388	618.396
K	4782.094	-18.000	618.370	618.386
L	4792.094	-18.000	618.346	618.364
M	4802.094	-18.000	618.316	618.329
CL Brg E. Abut	4812.094	-18.000	618.280	618.280
Back of E. Abut	4815.225	-18.000	618.267	618.267

℄ BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut	4644.443	-12.000	618.176	618.176
CL Brg W. Abut	4647.573	-12.000	618.197	618.197
A	4657.573	-12.000	618.259	618.271
B	4667.573	-12.000	618.314	618.332
C	4677.573	-12.000	618.363	618.379
D	4687.573	-12.000	618.406	618.414
CL Pier 1	4697.573	-12.000	618.442	618.442
E	4707.573	-12.000	618.472	618.480
F	4717.573	-12.000	618.496	618.511
G	4727.573	-12.000	618.513	618.534
H	4737.573	-12.000	618.524	618.539
I	4747.573	-12.000	618.528	618.536
CL Pier 2	4757.573	-12.000	618.527	618.527
J	4767.573	-12.000	618.518	618.526
K	4777.573	-12.000	618.504	618.519
L	4787.573	-12.000	618.483	618.501
M	4797.573	-12.000	618.455	618.468
CL Brg E. Abut	4807.573	-12.000	618.422	618.422
Back of E. Abut	4810.703	-12.000	618.410	618.410

℄ BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut	4639.921	-6.000	618.239	618.239
CL Brg W. Abut	4643.052	-6.000	618.261	618.261
A	4653.052	-6.000	618.325	618.338
B	4663.052	-6.000	618.384	618.401
C	4673.052	-6.000	618.436	618.451
D	4683.052	-6.000	618.481	618.489
CL Pier 1	4693.052	-6.000	618.520	618.520
E	4703.052	-6.000	618.553	618.561
F	4713.052	-6.000	618.580	618.594
G	4723.052	-6.000	618.600	618.621
H	4733.052	-6.000	618.614	618.628
I	4743.052	-6.000	618.621	618.629
CL Pier 2	4753.052	-6.000	618.622	618.622
J	4763.052	-6.000	618.617	618.625
K	4773.052	-6.000	618.605	618.620
L	4783.052	-6.000	618.587	618.605
M	4793.052	-6.000	618.562	618.575
CL Brg E. Abut	4803.052	-6.000	618.531	618.531
Back of E. Abut	4806.182	-6.000	618.520	618.520

℄ BEAM 3, ℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut	4635.400	0.000	618.301	618.301
CL Brg W. Abut	4638.530	0.000	618.323	618.323
A	4648.530	0.000	618.391	618.403
B	4658.530	0.000	618.452	618.470
C	4668.530	0.000	618.507	618.522
D	4678.530	0.000	618.555	618.563
CL Pier 1	4688.530	0.000	618.597	618.597
E	4698.530	0.000	618.633	618.641
F	4708.530	0.000	618.662	618.677
G	4718.530	0.000	618.685	618.706
H	4728.530	0.000	618.702	618.717
I	4738.530	0.000	618.712	618.720
CL Pier 2	4748.530	0.000	618.716	618.716
J	4758.530	0.000	618.714	618.722
K	4768.530	0.000	618.705	618.720
L	4778.530	0.000	618.689	618.707
M	4788.530	0.000	618.668	618.681
CL Brg E. Abut	4798.530	0.000	618.640	618.640
Back of E. Abut	4801.661	0.000	618.630	618.630

℄ BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut	4630.879	6.000	618.281	618.281
CL Brg W. Abut	4634.009	6.000	618.296	618.296
A	4644.009	6.000	618.340	618.353
B	4654.009	6.000	618.377	618.395
C	4664.009	6.000	618.409	618.424
D	4674.009	6.000	618.440	618.448
CL Pier 1	4684.009	6.000	618.485	618.485
E	4694.009	6.000	618.524	618.532
F	4704.009	6.000	618.556	618.571
G	4714.009	6.000	618.582	618.603
H	4724.009	6.000	618.601	618.616
I	4734.009	6.000	618.614	618.622
CL Pier 2	4744.009	6.000	618.621	618.621
J	4754.009	6.000	618.622	618.630
K	4764.009	6.000	618.616	618.631
L	4774.009	6.000	618.603	618.621
M	4784.009	6.000	618.585	618.597
CL Brg E. Abut	4794.009	6.000	618.560	618.560
Back of E. Abut	4797.139	6.000	618.550	618.550

℄ BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut	4626.357	12.000	618.284	618.284
CL Brg W. Abut	4629.488	12.000	618.291	618.291
A	4639.488	12.000	618.312	618.325
B	4649.488	12.000	618.324	618.342
C	4659.488	12.000	618.332	618.347
D	4669.488	12.000	618.332	618.340
CL Pier 1	4679.488	12.000	618.372	618.372
E	4689.488	12.000	618.413	618.421
F	4699.488	12.000	618.448	618.463
G	4709.488	12.000	618.477	618.498
H	4719.488	12.000	618.500	618.514
I	4729.488	12.000	618.516	618.523
CL Pier 2	4739.488	12.000	618.525	618.525
J	4749.488	12.000	618.529	618.537
K	4759.488	12.000	618.525	618.541
L	4769.488	12.000	618.516	618.534
M	4779.488	12.000	618.500	618.513
CL Brg E. Abut	4789.488	12.000	618.478	618.478
Back of E. Abut	4792.618	12.000	618.470	618.470

℄ BEAM 5A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Abut	4621.836	18.000	618.147	618.147
CL Brg W. Abut	4624.966	18.000	618.156	618.156
A	4634.966	18.000	618.178	618.191
B	4644.966	18.000	618.195	618.213
C	4654.966	18.000	618.205	618.221
D	4664.966	18.000	618.208	618.216
CL Pier 1	4674.966	18.000	618.226	618.226
E	4684.966	18.000	618.271	618.278
F	4694.966	18.000	618.309	618.323
G	4704.966	18.000	618.340	618.361
H	4714.966	18.000	618.365	618.380
I	4724.966	18.000	618.384	618.392
CL Pier 2	4734.966	18.000	618.397	618.397
J	4744.966	18.000	618.403	618.411
K	4754.966	18.000	618.403	618.418
L	4764.966	18.000	618.396	618.414
M	4774.966	18.000	618.383	618.396
CL Brg E. Abut	4784.966	18.000	618.364	618.364
Back of E. Abut	4788.097	18.000	618.357	618.357

DESIGNED Patrick M. Petrone
CHECKED Stephen M. Ryan
DRAWN R. Sommer
CHECKED P.M.P./S.M.R.

October 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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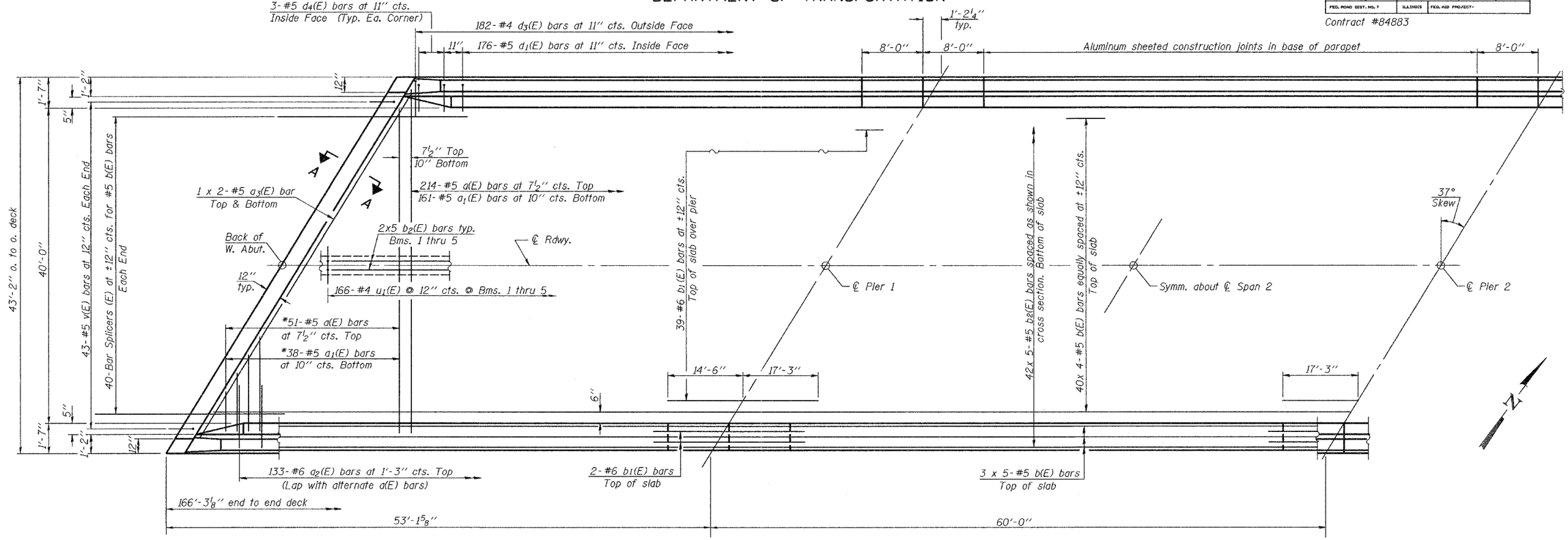
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	65
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 5
22 SHEETS

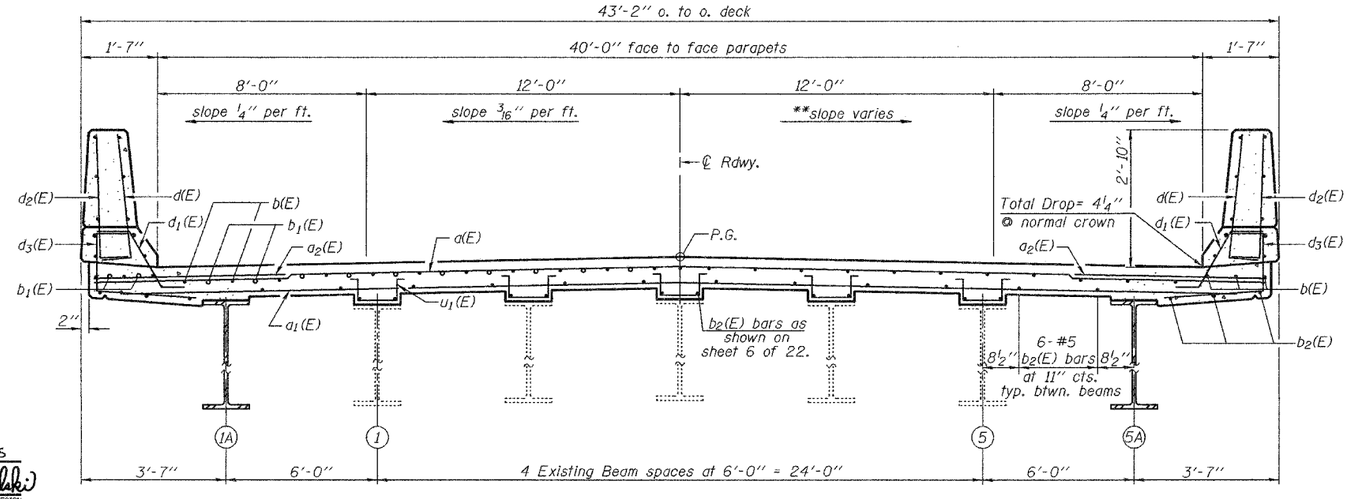
Contract #84883

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN

*Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



NEAR PIER — CROSS SECTION (Looking East) — NEAR MIDSPAN

MIN. BAR LAP

#5 bar = 1'-8"

Notes:

See Sheet 6 of 22 for superstructure details and Bill of Material.

Reinforcement bars designated (E) shall be epoxy coated.

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

See Sheet 6 of 22 for parapet reinforcement.

**Slope varies from 0"/ft. @ Sta. 46+36.10 to 3/16"/ft. @ Sta. 46+71.03.

See Sheet 7 of 22 for Section A-A.

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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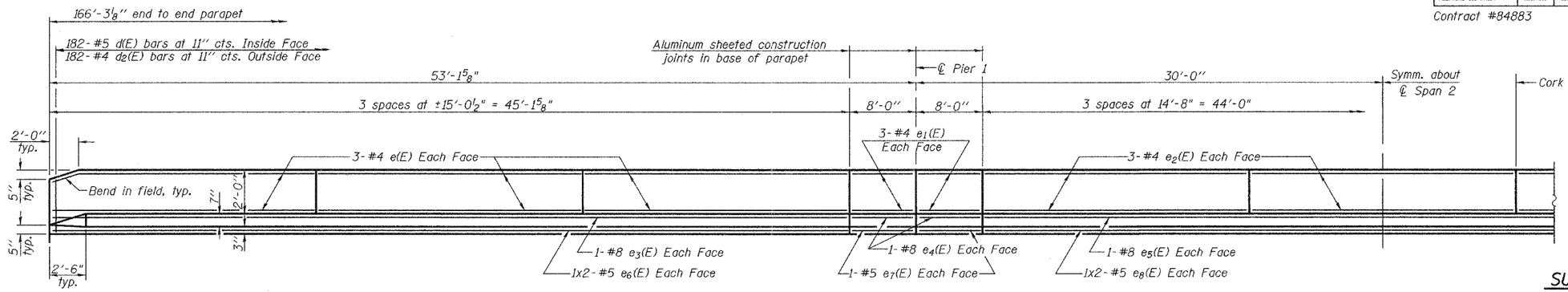
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	66
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 6
22 SHEETS

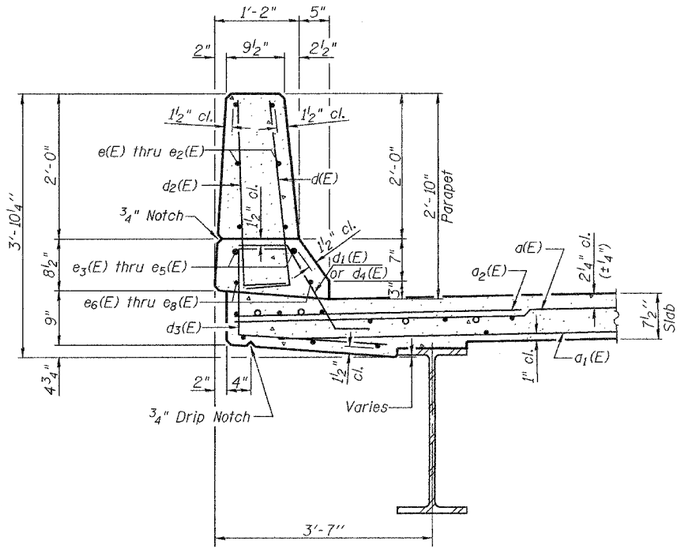
Contract #84883

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

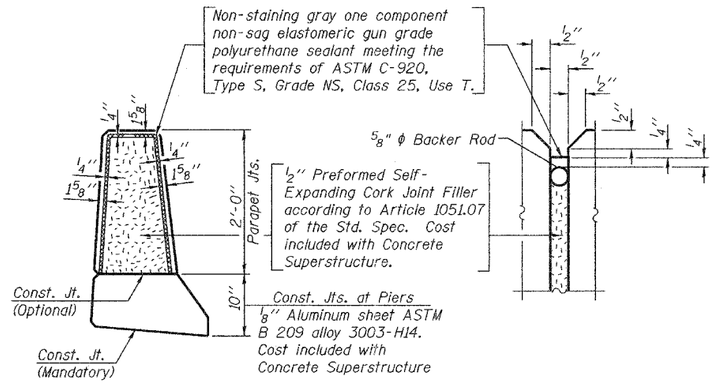


MIN. BAR LAP
#5 bar = 2'-2"

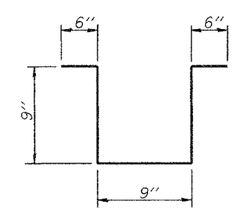
INSIDE ELEVATION OF PARAPET
(Looking North)



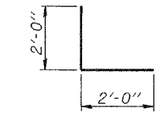
SECTION THRU PARAPET



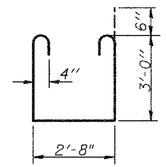
PARAPET JOINT DETAILS



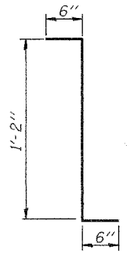
BAR u1(E)



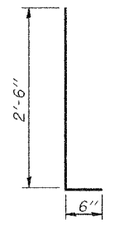
BAR v(E)



BAR s1(E)



BAR d4(E)



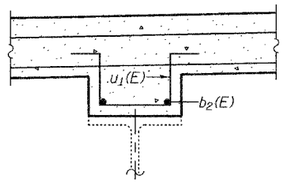
BARS d(E) & d2(E)

SUPERSTRUCTURE BILL OF MATERIAL

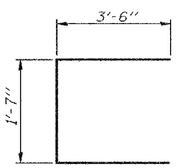
Bar	No.	Size	Length	Shape
a(E)	265	#5	42'-8"	——
a1(E)	199	#5	41'-4"	——
a2(E)	266	#6	4'-6"	——
a3(E)	8	#5	27'-3"	——
b(E)	184	#5	35'-0"	——
b1(E)	86	#6	31'-9"	——
b2(E)	260	#5	28'-4"	——
d(E)	364	#5	3'-0"	⌊
d1(E)	352	#5	2'-5"	⌊
d2(E)	364	#4	3'-0"	⌊
d3(E)	364	#4	4'-4"	⌊
d4(E)	12	#5	2'-2"	⌊
e(E)	72	#4	14'-9"	——
e1(E)	48	#4	7'-9"	——
e2(E)	36	#4	14'-5"	——
e3(E)	8	#8	44'-9"	——
e4(E)	16	#8	7'-9"	——
e5(E)	4	#8	43'-9"	——
e6(E)	16	#5	23'-6"	——
e7(E)	16	#5	7'-9"	——
e8(E)	8	#5	23'-0"	——
m(E)	32	#6	28'-2"	——
m1(E)	24	#6	7'-2"	——
m2(E)	8	#6	4'-1"	——
m3(E)	28	#6	8'-4"	——
s(E)	84	#5	8'-7"	▭
s1(E)	84	#4	9'-8"	⊔
u(E)	106	#4	5'-6"	⊔
u1(E)	830	#4	3'-3"	⊔
v(E)	86	#5	4'-0"	⌐
Reinforcement Bars, Epoxy Coated		Pound	54370	
Concrete Superstructure		Cu. Yds.	270.2	

Reinforcement bars designated (E) shall be epoxy coated.

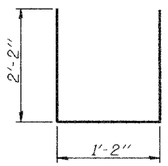
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.



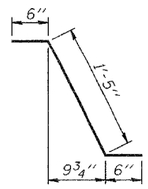
FILLET FOR BEAMS 1 THRU 5



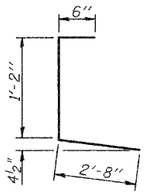
BAR s(E)



BAR u(E)



BAR d1(E)



BAR d3(E)

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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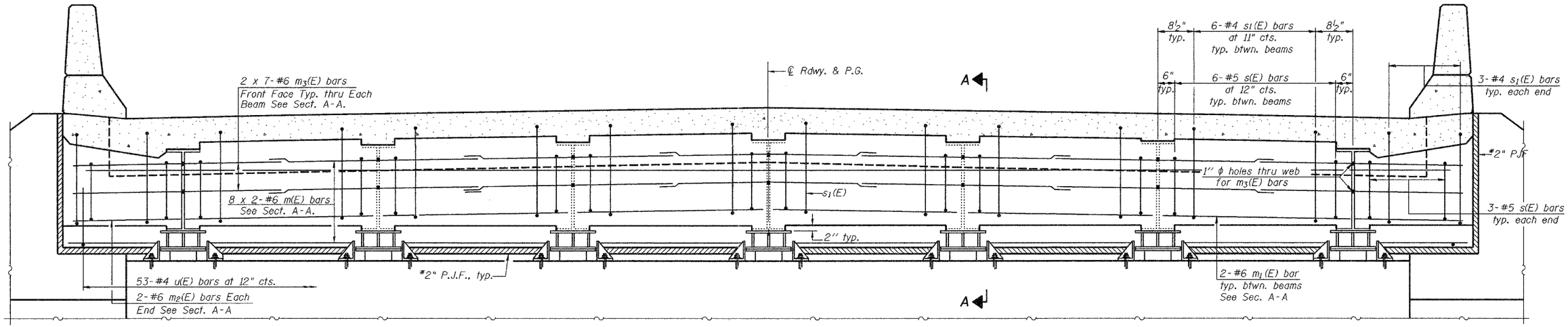
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	67
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
22 SHEETS

Contract #84883



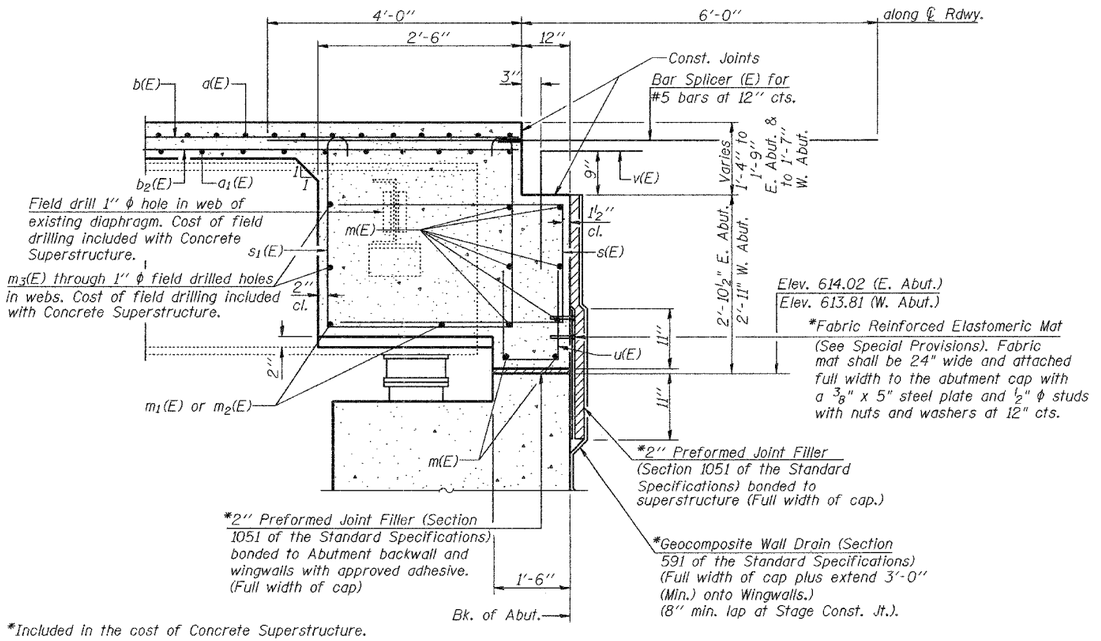
DIAPHRAGM AT ABUTMENTS

(Dimensions are perpendicular to the ℄ Rdwy.)
(Existing steel end diaphragms are not shown).

MIN. BAR LAP

#6 bar = 2'-9"

Notes: Reinforcement bars in diaphragm are billed with superstructure on sheet 6 of 22.
Concrete in diaphragm is included with Concrete Superstructure on sheet 6 of 22.
For details of bars s(E), s_1(E), v(E) & u(E) see sheet 6 of 22.
For anchor bolt details see sheet 18 of 22.
The s(E) and s_1(E) bars shall be placed parallel to the beams.
Spacing for these bars shall be at right angles to the beams.
See sheet 17 of 22 for Bar Splicer Detail.



*Included in the cost of Concrete Superstructure.

SECTION A-A

(Dimensions at Rt. L's unless otherwise shown)

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

DIAPHRAGM DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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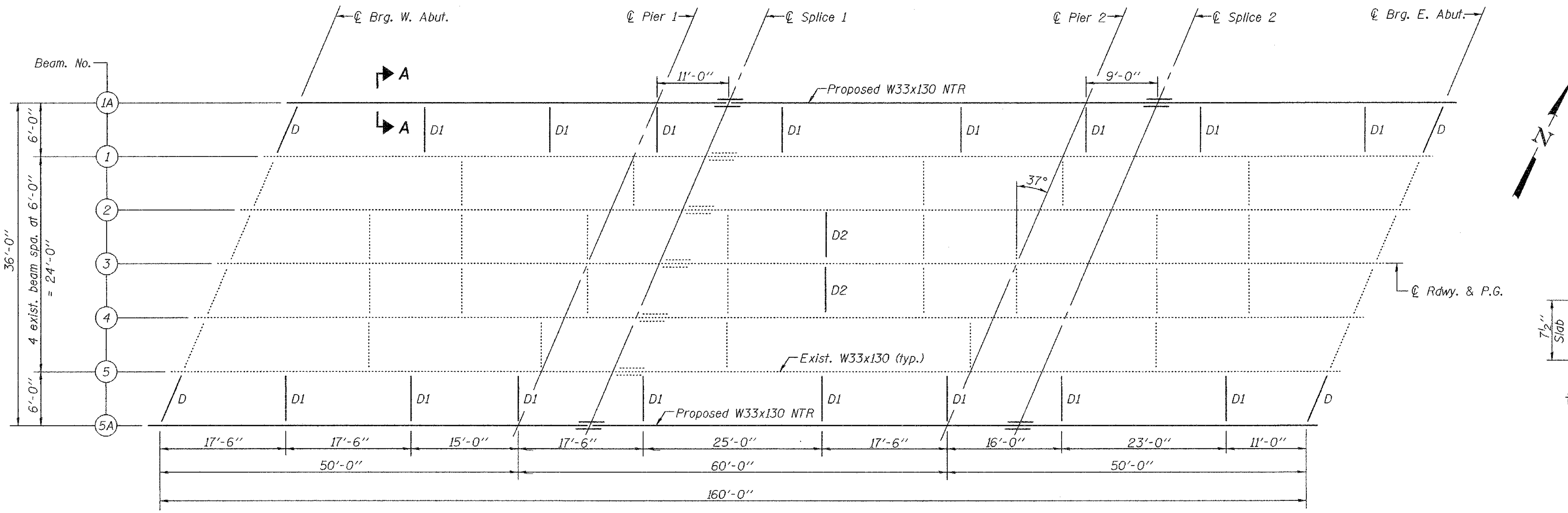
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	68
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

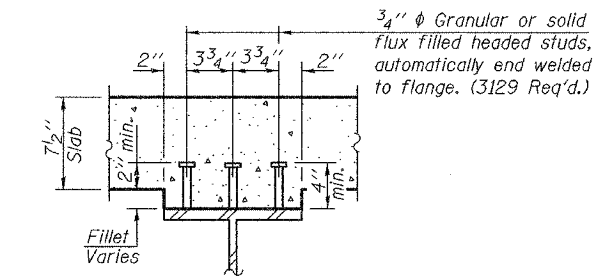
SHEET NO. 8
22 SHEETS

Contract #84883

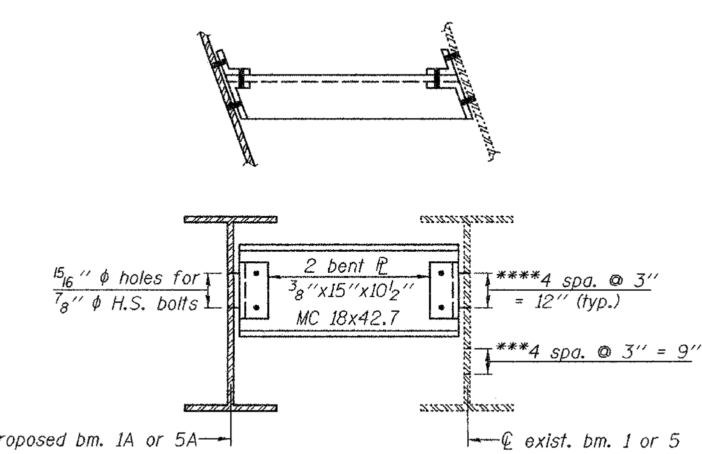


PLAN

For Structural Steel Removal, see sheet 19 of 22.



SECTION A-A



DIAPHRAGM D
(4 Required)

***Existing holes in existing beam 1 & 5 shall be filled with 7/8"ϕ H.S. bolts. Cost included with F&E Structural Steel.
****Use holes in web of existing W33x130 as template to drill 15/16" ϕ holes in bent ℄. Cost included with F&E Structural Steel.

INTERIOR GIRDER MOMENT TABLE

		0.4 Sp. 1 & 3	Piers 1 & 2	0.5 Sp. 2
Is	(in⁴)	6710	6710	6710
Ic (n)	(in⁴)	17116	——	17116
Ic (3n)	(in⁴)	12508	——	12508
Ss	(in³)	406	406	406
Sc (n)	(in³)	585	——	585
Sc (3n)	(in³)	527	——	527
℄	(k/ft.)	0.725	1.162	0.725
M℄	('k)	129.2	325.8	105.5
s℄	(k/ft.)	0.437	——	0.437
Ms℄	('k)	89.1	——	91.5
M℄	('k)	291.8	163.3	310.3
M (Imp)	('k)	83.4	45.4	83.8
5/3[M℄+M(Imp)]	('k)	625.5	347.9	656.9
Ma	('k)	1096.9	875.8	1110.2
* Mu	('k)	1536	——	1536
fs℄ non-comp	(k.s.i.)	3.8	9.6	3.1
fs℄ (comp)	(k.s.i.)	2.0	——	2.1
fs5/3(℄+Imp)	(k.s.i.)	12.8	10.3	13.5
fs (Overload)	(k.s.i.)	18.6	19.9	18.7
** fs (Total)	(k.s.i.)	——	25.8	——
VR	(k)	43.3	——	35.6

INTERIOR GIRDER REACTION TABLE

		Abuts.	Piers
R℄	(k)	22.5	44.3
R℄	(k)	30.9	36.9
Imp.	(k)	8.6	10.3
R (Total)	(k)	62.0	91.5

*Compact Section
**Unbraced section. Strength = 33ksi

Notes:
Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)
VR is the maximum Live Load + Impact shear range in span.
Ma (Applied Moment)=1.3[M℄ + Ms℄ + 5/3(M℄ + M(Imp))].
The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.
fs (Overload) is the sum of the stresses due to M℄ + Ms℄ + 5/3(M℄ + M(Imp)).
fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[M℄ + Ms℄ + 5/3(M℄ + M(Imp))].

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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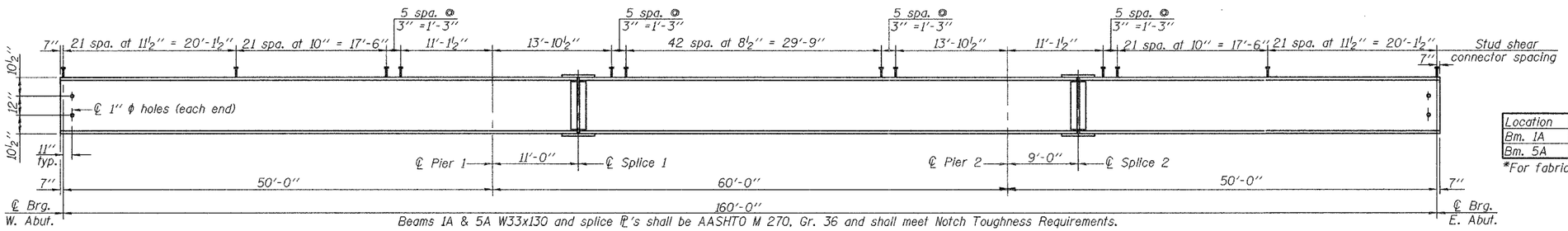
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	69
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
22 SHEETS

Contract #84883



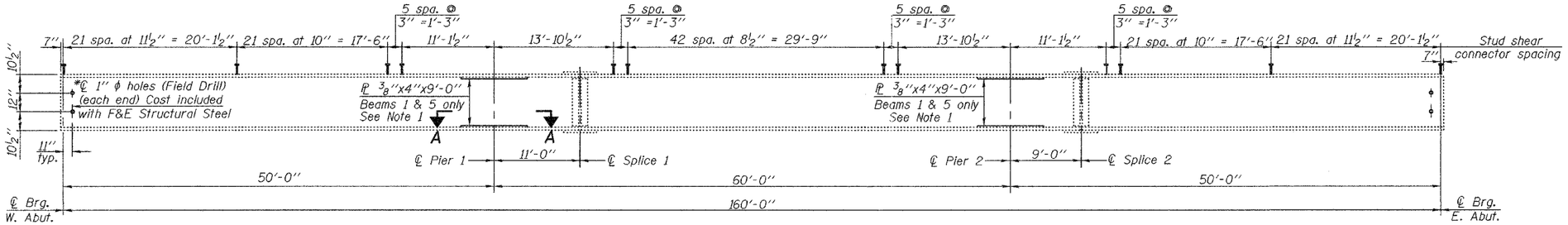
Beams 1A & 5A W33x130 and splice ℄'s shall be AASHTO M 270, Gr. 36 and shall meet Notch Toughness Requirements.

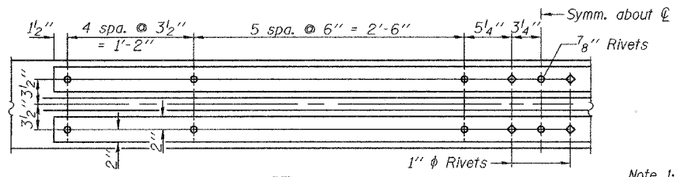
ELEVATION
(Beams 1A & 5A)

*TOP OF BEAM ELEVATION

Location	W. Abut.	Pier 1	Splice 1	Pier 2	Splice 2	E. Abut.
Bm. 1A	617.14	617.34	617.38	617.41	617.42	617.31
Bm. 5A	617.22	617.36	617.39	617.41	617.41	617.35

*For fabrication only.

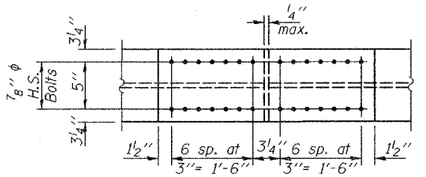




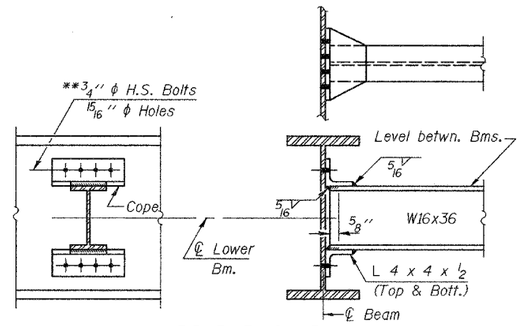
VIEW A-A
(No. Required = 16 ℄ 3/8"x4"x9'-0")

ELEVATION
(Beams 1 thru 5 except as shown)

Note 1: The Contractor shall remove the existing rivets and existing ℄ 3/8"x4"x9'-0" after the deck is removed. The Contractor shall then attach a new ℄ 3/8"x4" 9'-0" using HS bolts of the same diameter. See View A-A. Cost is included in "Structural Steel Repair", Pound. See Special Provisions.
⅞" ϕ bolts shall have 15/16" ϕ holes in plate.
1" ϕ bolts shall have 1 1/16" ϕ holes in plate.

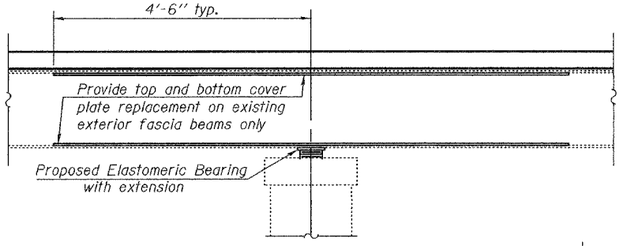


PLAN-SPLICE 1 & 2
(Top & Bott. flange)

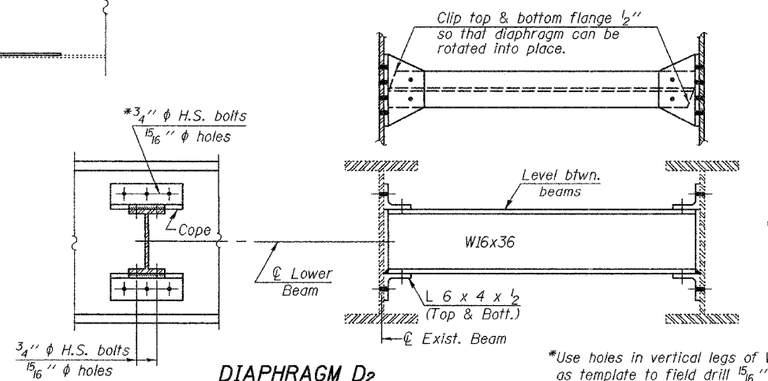


DIAPHRAGM D1
(16 Required)

**For locations where L6x4x½ is to be attached to existing W33x130, use holes in vertical leg of L4x4x½ as template to field drill 15/16" ϕ holes in existing web of W33x130. Cost included with F&E Structural Steel.

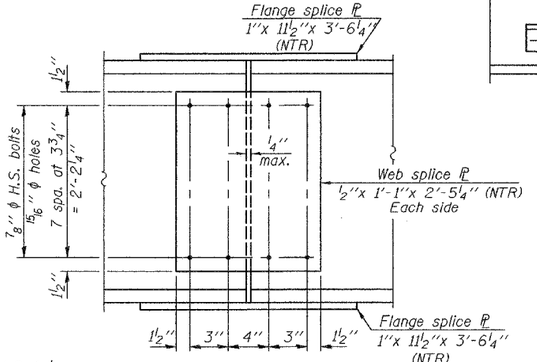


SECTION AT PIERS 1 & 2



DIAPHRAGM D2
(2 Required)

*Use holes in vertical legs of L6x4x½ as template to field drill 15/16" ϕ holes in existing web. Cost included with F&E Structural Steel.



ELEVATION-SPLICES 1 & 2
(4 Required)

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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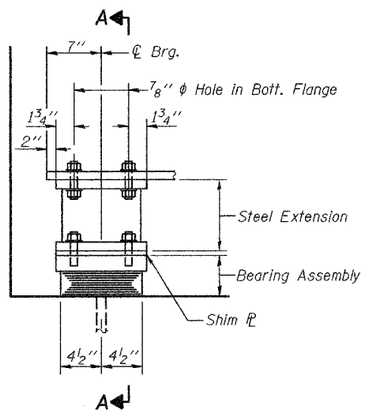
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

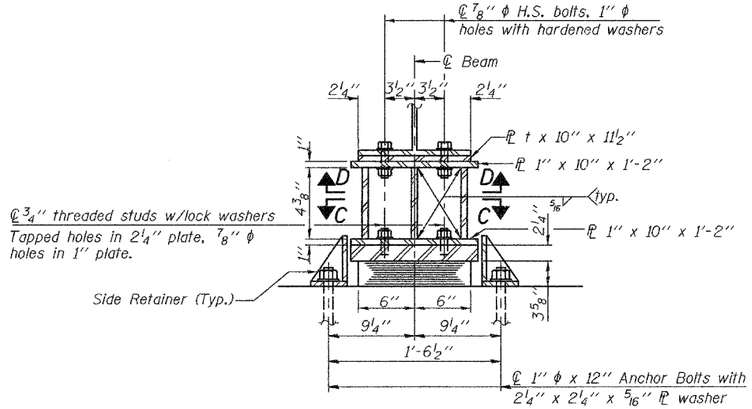
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	70
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 10
22 SHEETS

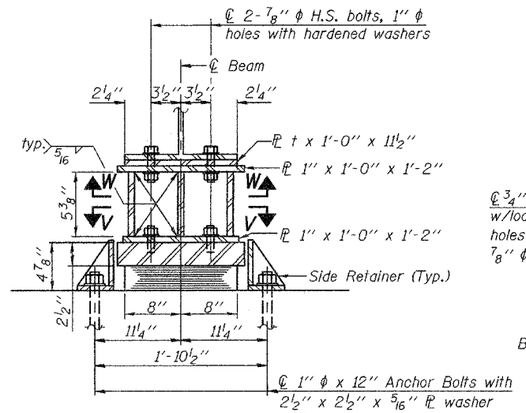
Contract #84883



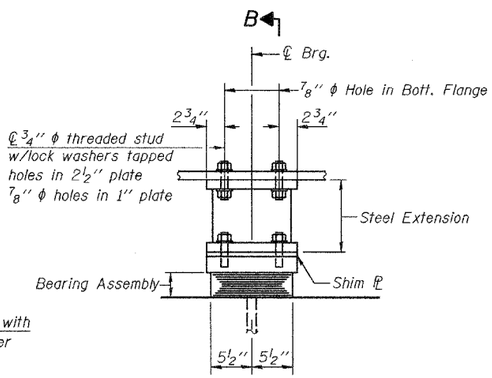
ELEVATION AT ABUTMENT



SECTION A-A
(No. Req'd. 14)



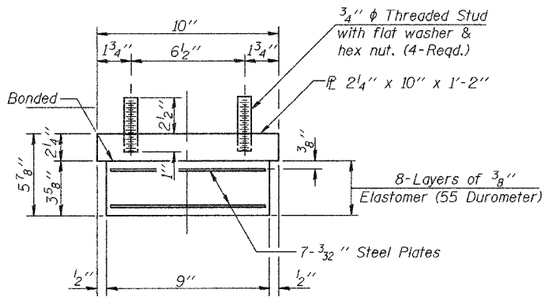
SECTION B-B
(No. Req'd. 7)



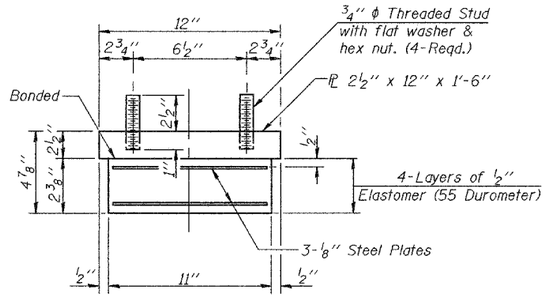
ELEVATION AT PIER 1
(No. Req'd. 7)

Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet 18 of 22 for Anchor Bolt Installation.

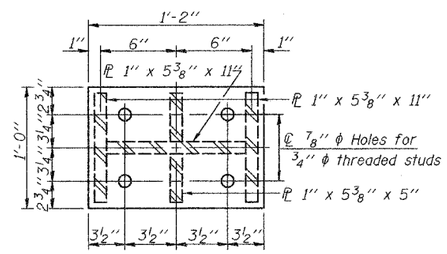
TYPE I ELASTOMERIC EXP. BRG.



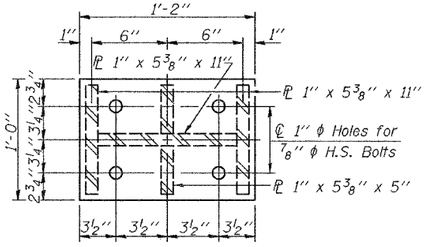
BEARING ASSEMBLY (ABUTMENTS)
Note: Shim plates shall not be placed under Bearing Assembly.



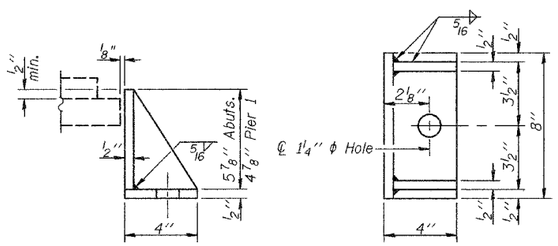
BEARING ASSEMBLY (PIER 1)
Note: Shim plates shall not be placed under Bearing Assembly.



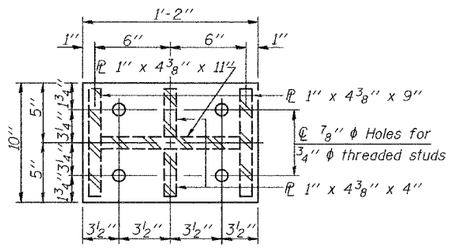
SECTION V-V



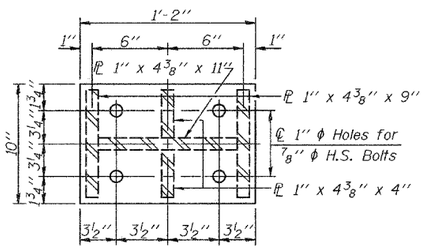
SECTION W-W



SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Furnishing and Erecting Structural Steel.



SECTION C-C



SECTION D-D

TABLE SHIM PL thickness t

Loc. — Bm. #	1A	1	2	3	4	5	5A
W. Abut.	0	0	¾"	¾"	⅞"	1"	1"
Pier 1	0	0	⅞"	1⅛"	½"	⅛"	⅛"
E. Abut.	0	0	1⅛"	1⅝"	1½"	½"	½"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	21
Jack & Remove Existing Bearings	Each	15

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

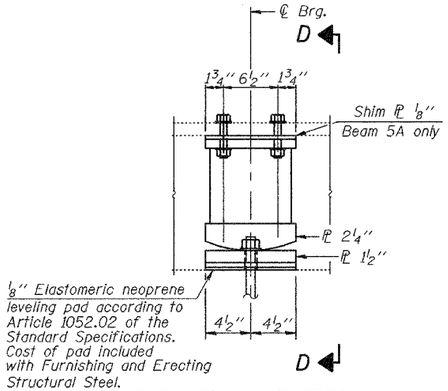
BEARING DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

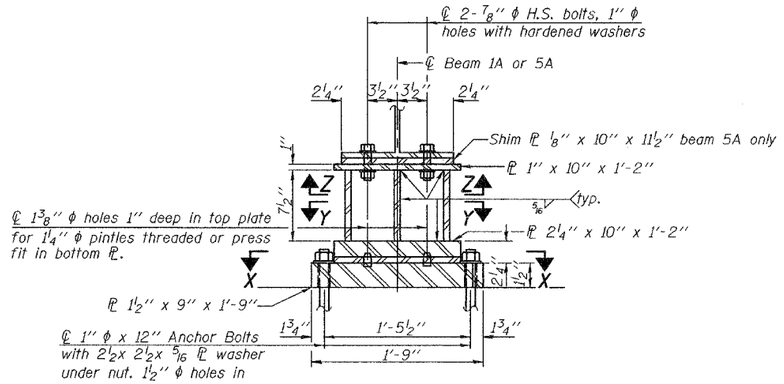
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	71
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 11
22 SHEETS

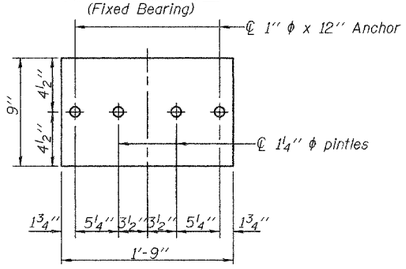
Contract #84883



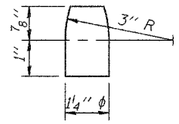
ELEVATION AT PIER 2



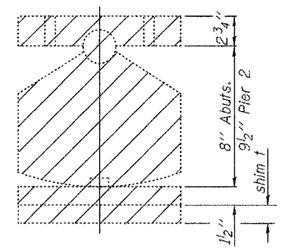
SECTION D-D
(Fixed Bearing)



SECTION X-X



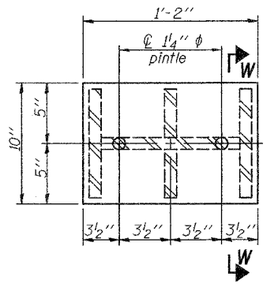
PINTLE



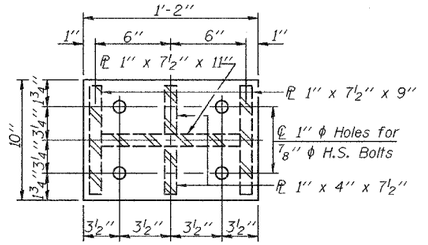
AT ABUTMENTS & PIER 1

EXISTING BEARING REMOVAL

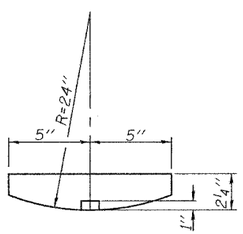
FIXED BEARINGS AT PIER 2
(No. Required 2 @ Beam 1A & 5A)



SECTION Y-Y



SECTION Z-Z



SECTION W-W

JACK AND REMOVE EXISTING BEARING PROCEDURE

1. The Contractor shall submit for approval by the Engineer plans for jacking prior to commencing any work at the bearings.
2. Jacking and removing existing bearings shall be done after existing deck removal is completed and before a new deck is poured. Cost included with "Jack and Remove Existing Bearings".
3. Jacking shall be limited to a maximum of ⅛".
4. The maximum dead load reaction with deck removed (per bearing) at each abutment is 2.9 k and 9.3 k at each pier. Min. jack Capacity at the abutments is 4.4 k and 14.0 k at the piers.
5. The new bearings and steel extensions shall be in place and the jacks shall be lowered before the new concrete deck is poured.

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BEARING DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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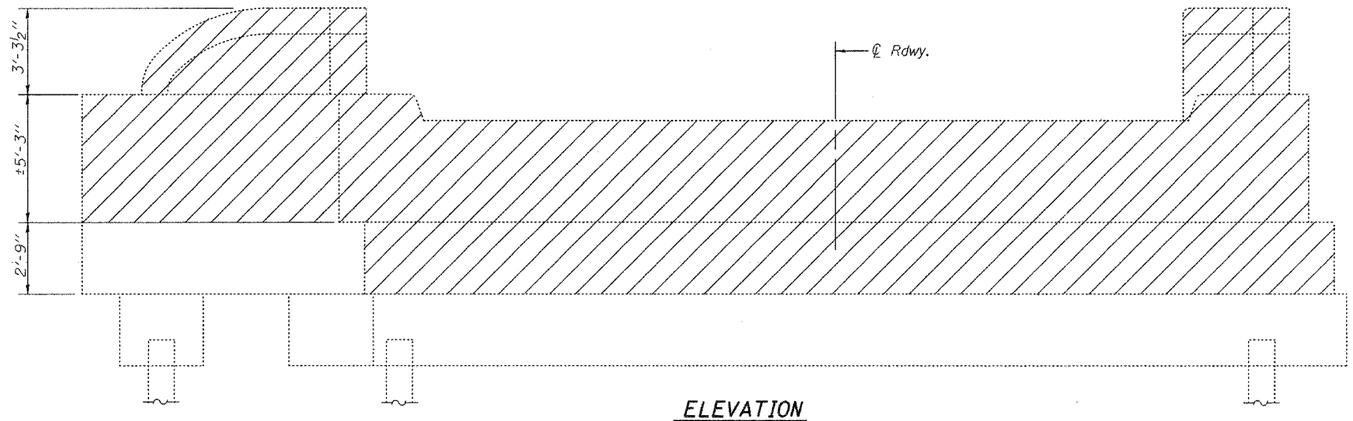
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

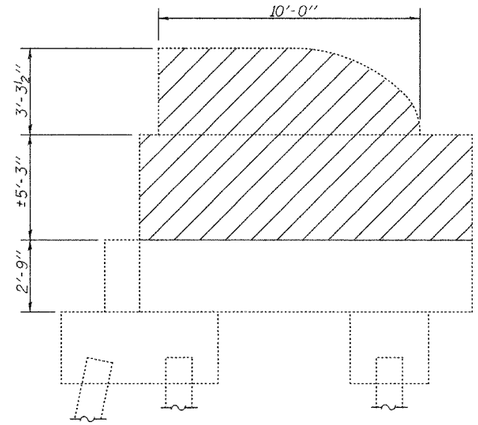
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	72
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 12
22 SHEETS

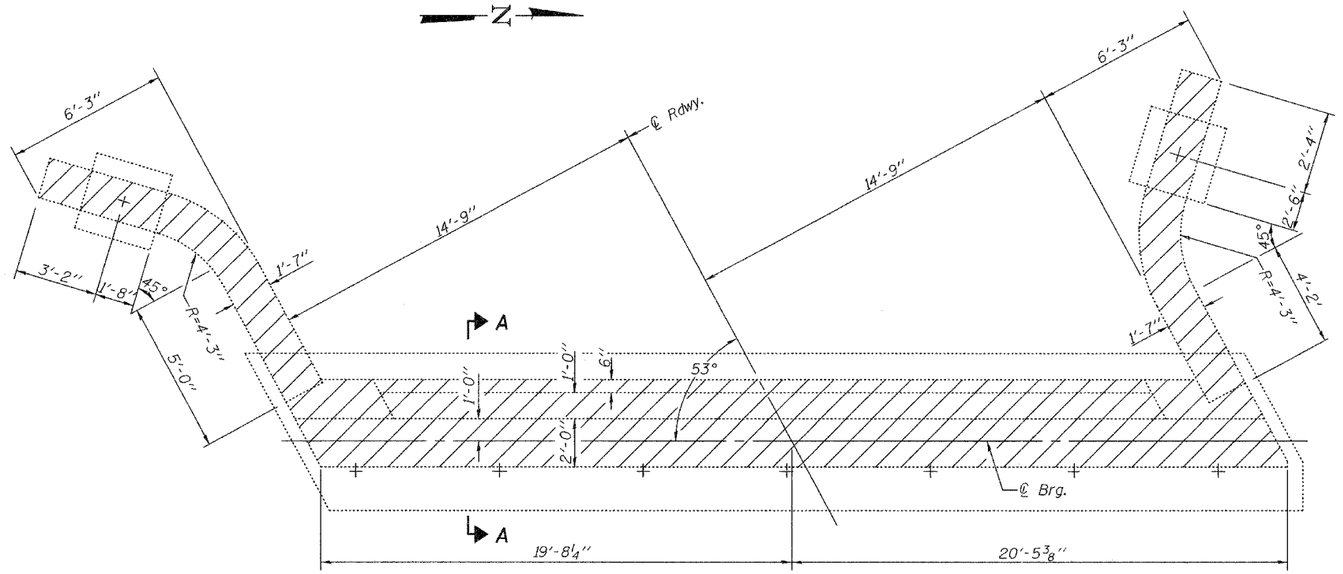
Contract #84883



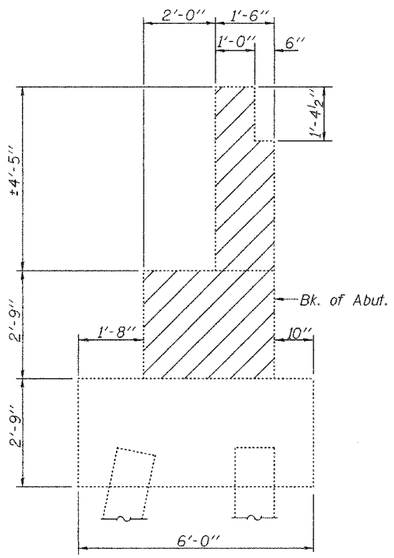
ELEVATION
(West Abut. shown
East similar)



WINGWALL ELEVATION



PLAN



SECTION A-A

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	72.0

Notes: Hatched areas indicate Concrete Removal.
Existing reinforcement not extending into the new construction shall be cut off flush and covered with a 2" layer of cement grout. Cost included with Concrete Removal.
Existing reinforcement bars extending into removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damage during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

CONCRETE REMOVAL - ABUTMENTS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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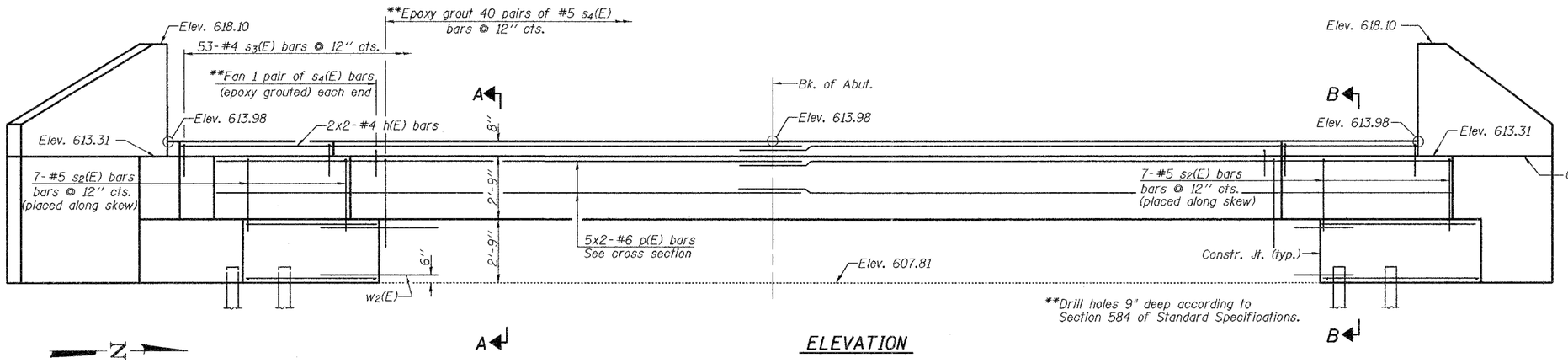
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

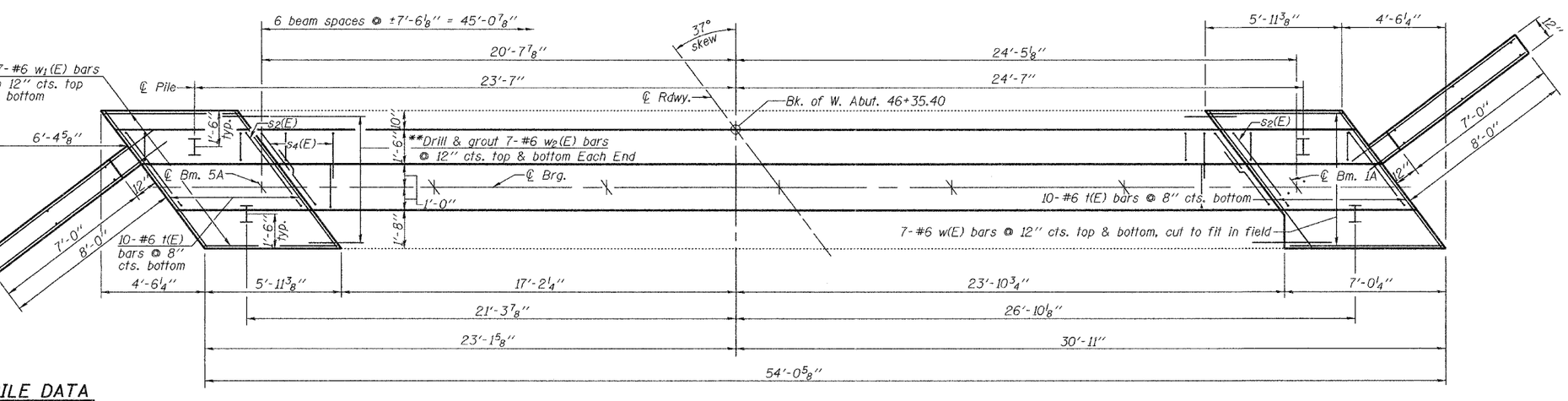
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	73
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 13
22 SHEETS

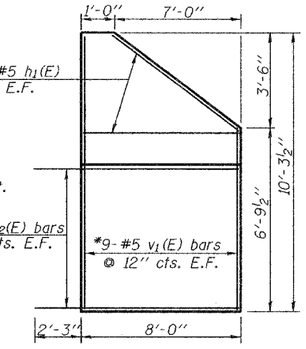
Contract #84883



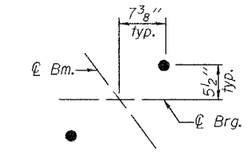
ELEVATION



PLAN



WINGWALL



ANCHOR BOLT OFFSET

PILE DATA

Type: Steel HP12x53
Capacity: 30 Tons Driven to 45 Ton
Est. Length: 50'
No. Req'd.: 4

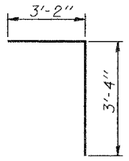
MIN. BAR LAPS

#4 bar = 1'-8"
#6 bar = 2'-7"

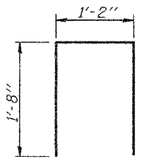
Notes: Space reinforcement in cap to miss anchor bolts.
All edges shall have standard 3/4" chamfers except as noted.
Pour steps monolithically with cap.
For anchor bolt installation details see sheet 18 of 22.
Bars indicate thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

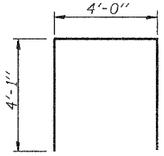
October 11 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF SYSTEMS DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



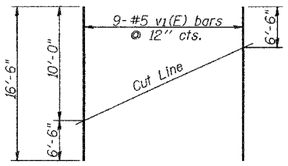
BAR s4(E)



BAR s3(E)

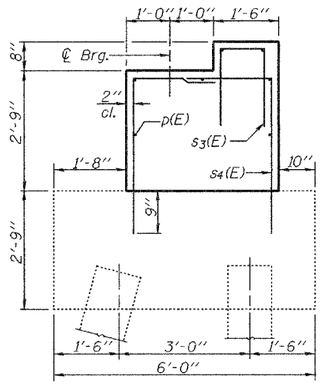


BAR s2(E)

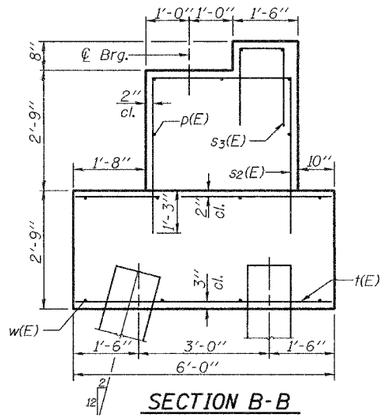


FIELD CUTTING DIAGRAM

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



SECTION A-A



SECTION B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#4	28'-0"	——
h1(E)	20	#4	7'-9"	——
h2(E)	36	#5	10'-1"	——
p(E)	10	#6	28'-4"	——
s2(E)	14	#5	12'-2"	⊓
s3(E)	53	#4	4'-6"	⊓
s4(E)	84	#5	6'-6"	⌐
t(E)	20	#6	7'-2"	——
v1(E)	18	#5	16'-6"	——
w(E)	14	#6	6'-9"	——
w1(E)	14	#6	5'-8"	——
w2(E)	28	#6	3'-0"	——
Reinforcement Bars, Epoxy Coated			Pound	2800
Concrete Structures			Cu. Yds.	33.8
Structure Excavation			Cu. Yds.	131
Furnishing Steel Piles HP 12x53			Foot	200

Reinforcement bars designated (E) shall be epoxy coated.

WEST ABUTMENT
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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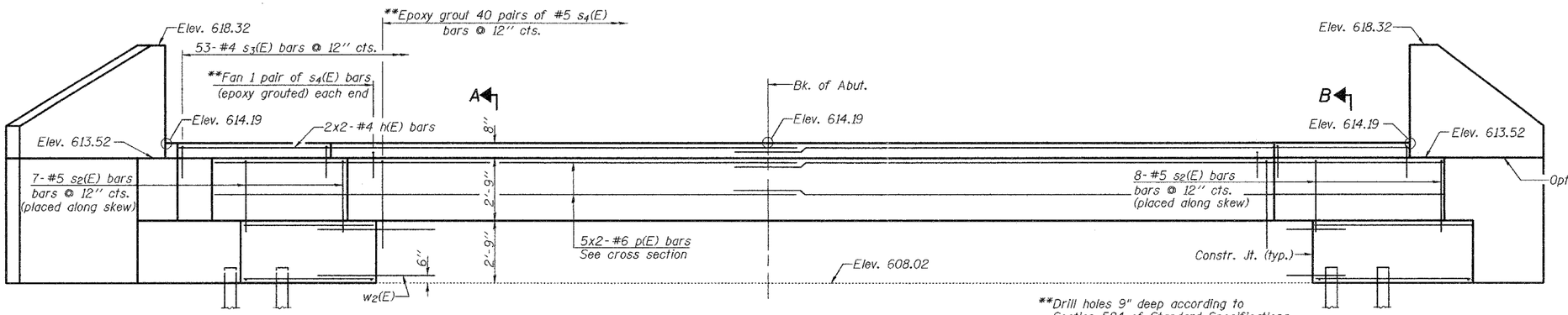
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

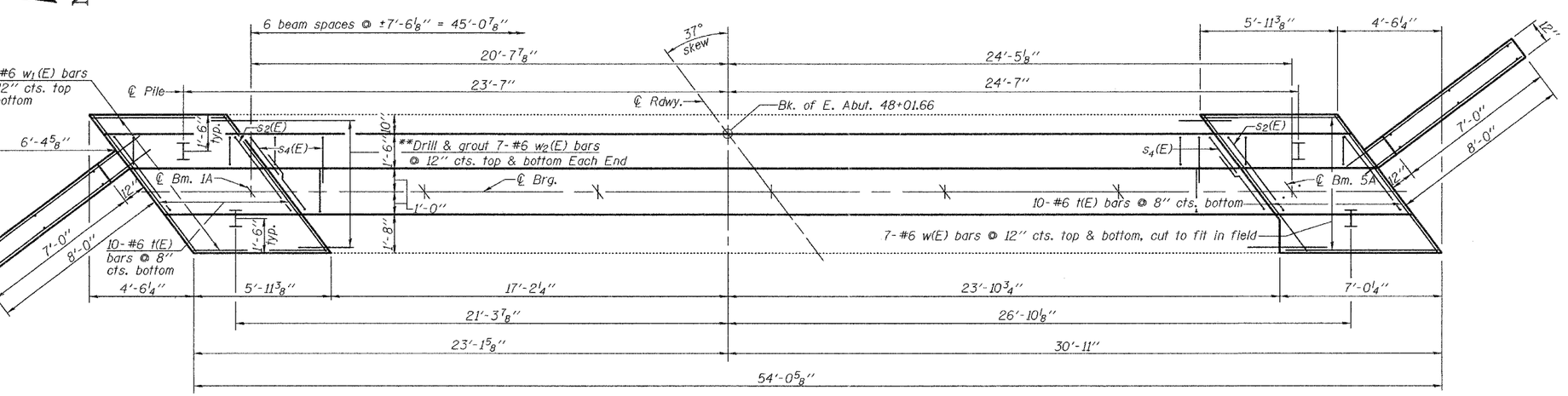
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	74
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

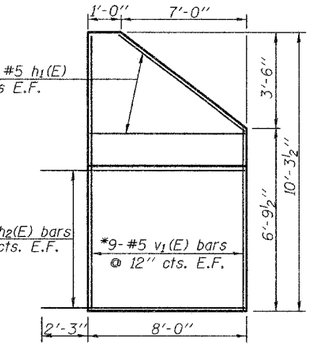
SHEET NO. 14
22 SHEETS

Contract #84883

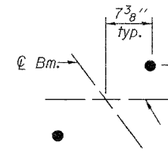


ELEVATION





WINGWALL



ANCHOR BOLT OFFSET

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#4	28'-0"	——
h1(E)	20	#4	7'-9"	——
h2(E)	36	#5	10'-1"	——
p(E)	10	#6	28'-4"	——
s2(E)	14	#5	12'-2"	⊓
s3(E)	53	#4	4'-6"	——
s4(E)	84	#5	6'-6"	⌐
t(E)	20	#6	7'-2"	——
v1(E)	18	#5	16'-6"	——
w(E)	14	#6	6'-9"	——
w1(E)	14	#6	5'-8"	——
w2(E)	28	#6	3'-0"	——
Reinforcement Bars, Epoxy Coated			Pound	2800
Concrete Structures			Cu. Yds.	33.8
Structure Excavation			Cu. Yds.	131
Furnishing Steel Piles HP 12x53			Foot	164

Reinforcement bars designated (E) shall be epoxy coated.

PILE DATA

Type: Steel HP12x53
Capacity: 30 Tons Driven to 45 Ton
Est. Length: 41'
No. Req'd.: 4

MIN. BAR LAPS

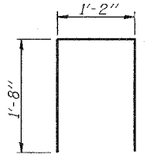
#4 bar = 1'-8"
#6 bar = 2'-7"

Notes: Space reinforcement in cap to miss anchor bolts.
All edges shall have standard 3/4" chamfers except as noted.
Pour steps monolithically with cap.
For anchor bolt installation details see sheet 18 of 22.
Bars indicate thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

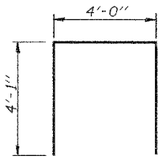
October 11 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PLAN

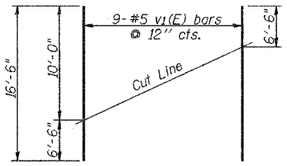


BAR s4(E)

BAR s3(E)

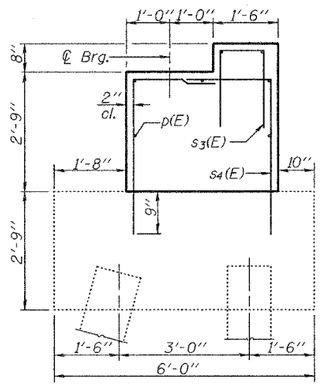


BAR s2(E)

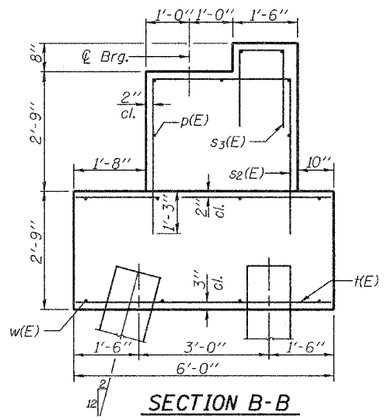


FIELD CUTTING DIAGRAM

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



SECTION A-A



SECTION B-B

EAST ABUTMENT
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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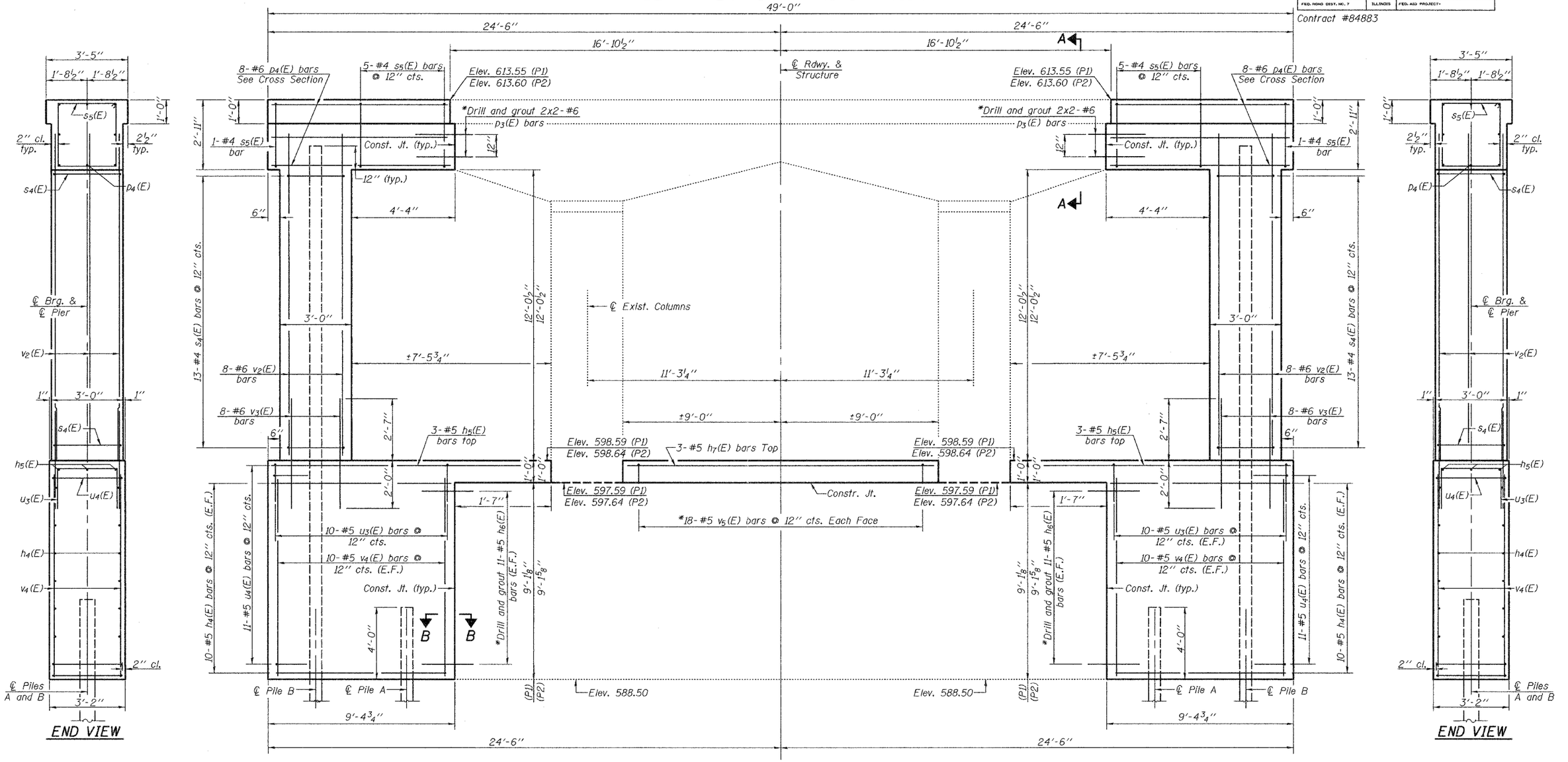
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	75
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 15
22 SHEETS

Contract #84883



ELEVATION

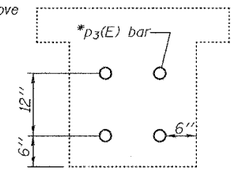
Note: No field splicing of HP12x53 piles are allowed above Elevation 577.5.

*Bars shall be grouted into 9" deep holes according to Section 584 of the Standard Specifications.

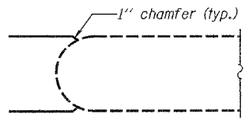
PILE DATA

Type: Steel HP12x53
Capacity: 55 Tons Driven to 82.5 Ton
No. Req'd.: 8
Est. Length:

Location	Pile A	Pile B
Pier 1	51'	70'
Pier 2	52'	71'



SECTION A-A



SECTION B-B

ELEVATION

Notes: Space reinforcement in cap to miss anchor bolts.
All edges shall have standard ¾" chamfers except as noted.
For anchor bolt installation details see sheet 18 of 22.

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PIER DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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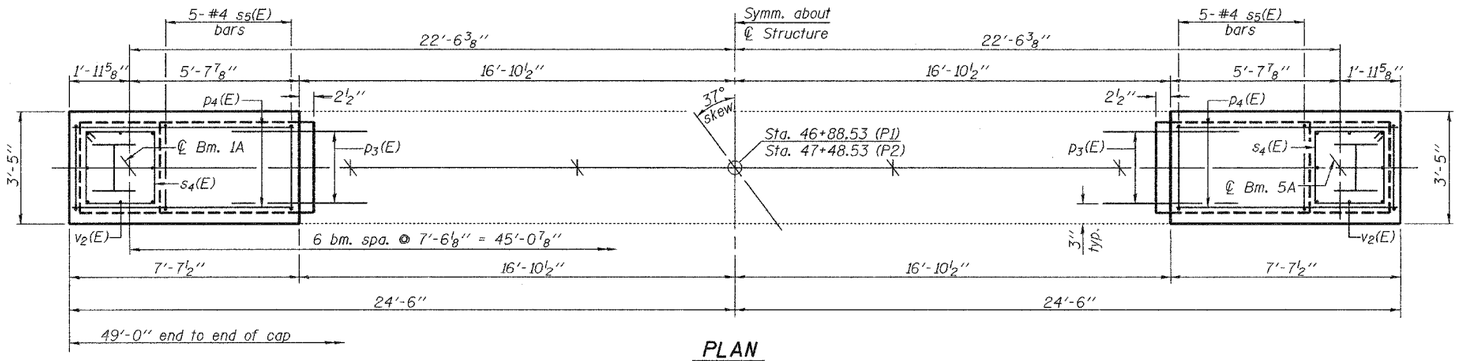
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

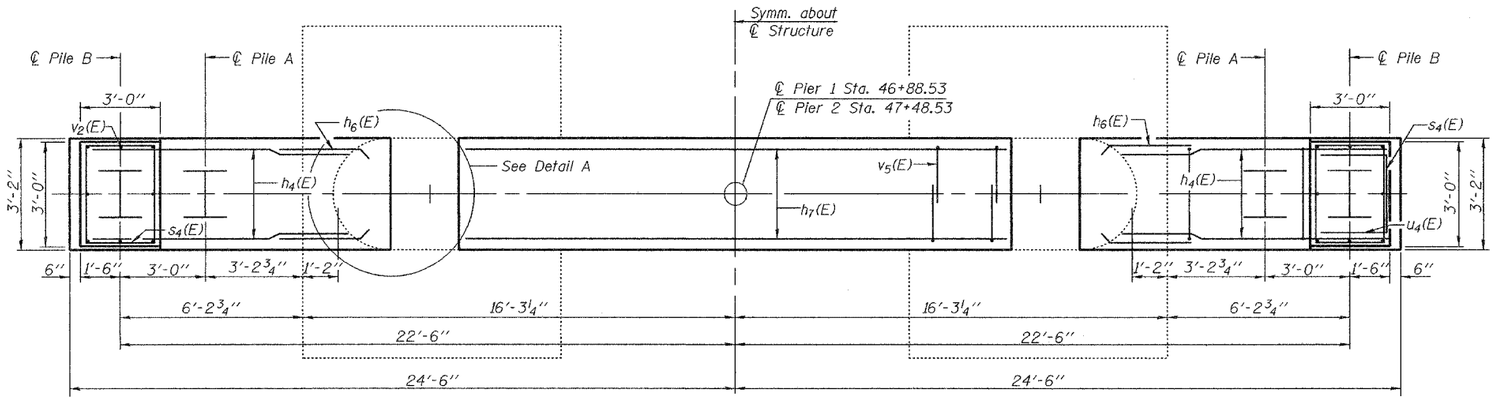
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	76
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 16
22 SHEETS

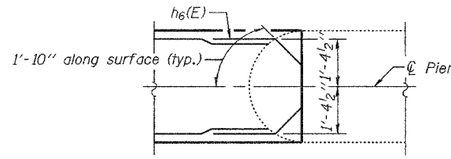
Contract #84883



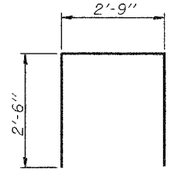
PLAN



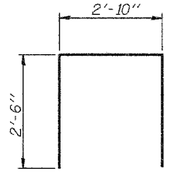
FOOTING



DETAIL A



BAR u3(E)

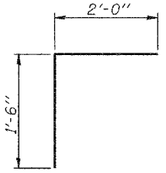


BAR u4(E)

TWO PIERS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h4(E)	80	#5	9'-0"	
h5(E)	12	#5	10'-7"	
h6(E)	88	#5	3'-3"	
h7(E)	6	#5	17'-9"	
p3(E)	8	#6	3'-3"	
p4(E)	32	#6	7'-4"	
s4(E)	52	#4	11'-5"	
s5(E)	24	#4	11'-3"	
u3(E)	40	#5	7'-9"	
u4(E)	44	#5	7'-10"	
v2(E)	32	#6	14'-0"	
v3(E)	32	#6	4'-7"	
v4(E)	80	#5	9'-9"	
v5(E)	72	#5	3'-6"	
Reinforcement Bars, Epoxy Coated			Pound	4920
Concrete Structures			Cu. Yds.	77.8
Structure Excavation			Cu. Yds.	72
Furnishing Steel Piles HP 12x53			Foot	488

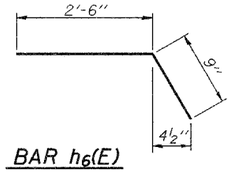
Reinforcement bars designated (E) shall be epoxy coated.



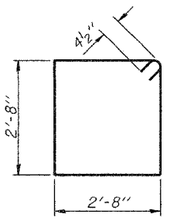
BAR v5(E)

*Bars shall be grouted into 9" deep holes according to Section 584 of the Standard Specifications.

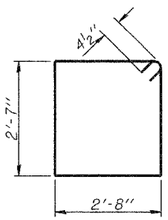
Notes: Space reinforcement in cap to miss anchor bolts.
All edges shall have standard 3/4" chamfers except as noted.
For anchor bolt installation details see sheet 18 of 22.



BAR h6(E)



BAR s4(E)



BAR s5(E)

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PIER DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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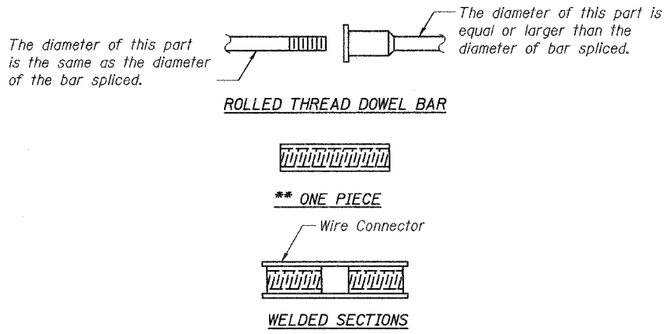
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	77
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

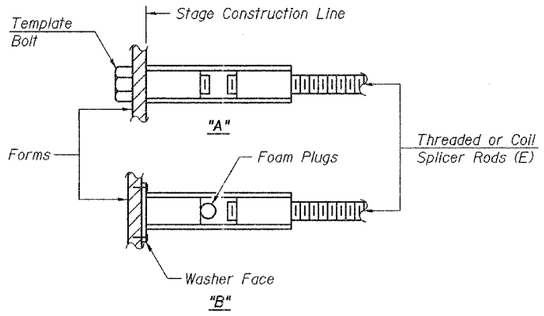
SHEET NO. 17
22 SHEETS

Contract #84883



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

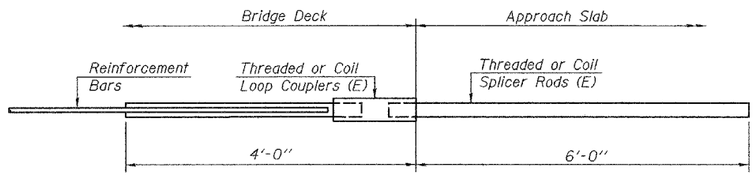
① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

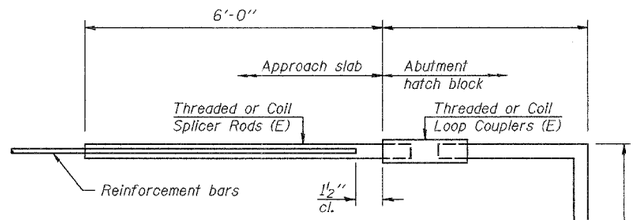
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0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

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

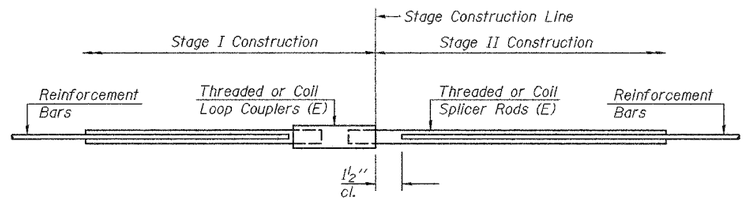


FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 80



FOR PILE BENT ABUTMENTS



STANDARD

Bar Size	No. Assemblies Required	Location

BAR SPLICER ASSEMBLY DETAILS
F.A.P. ROUTE 309 - SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE NO. 098-6001

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 10-22-04

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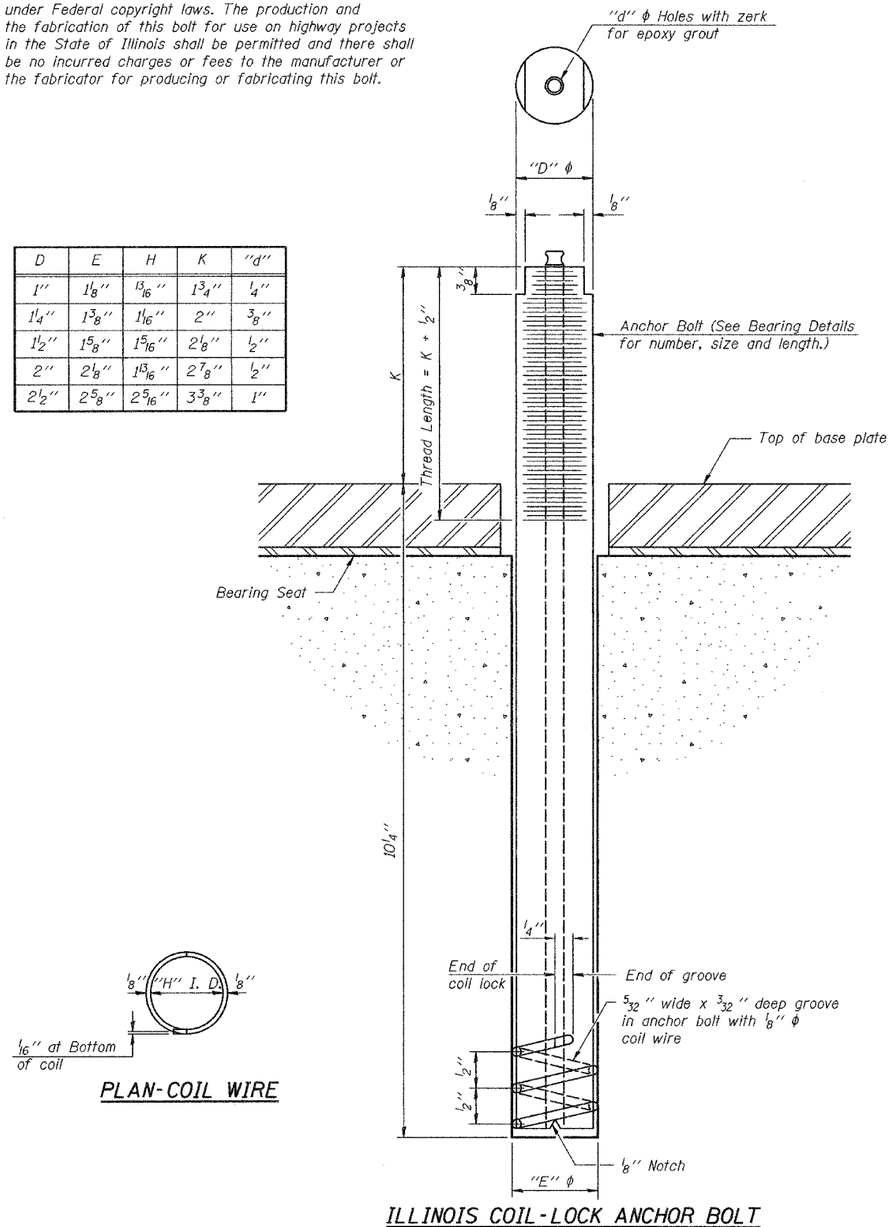
The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	78
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 18
22 SHEETS

Contract #84883



D	E	H	K	"d"
1"	1 1/8"	13/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"

PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade I and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
Abuts.	A307
Pier 1	A307
Pier 2	A325

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

ABB-1 10-22-04

ANCHOR BOLT DETAILS
FOR BEARINGS
F.A.P. ROUTE 309 - SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE NO. 098-6001

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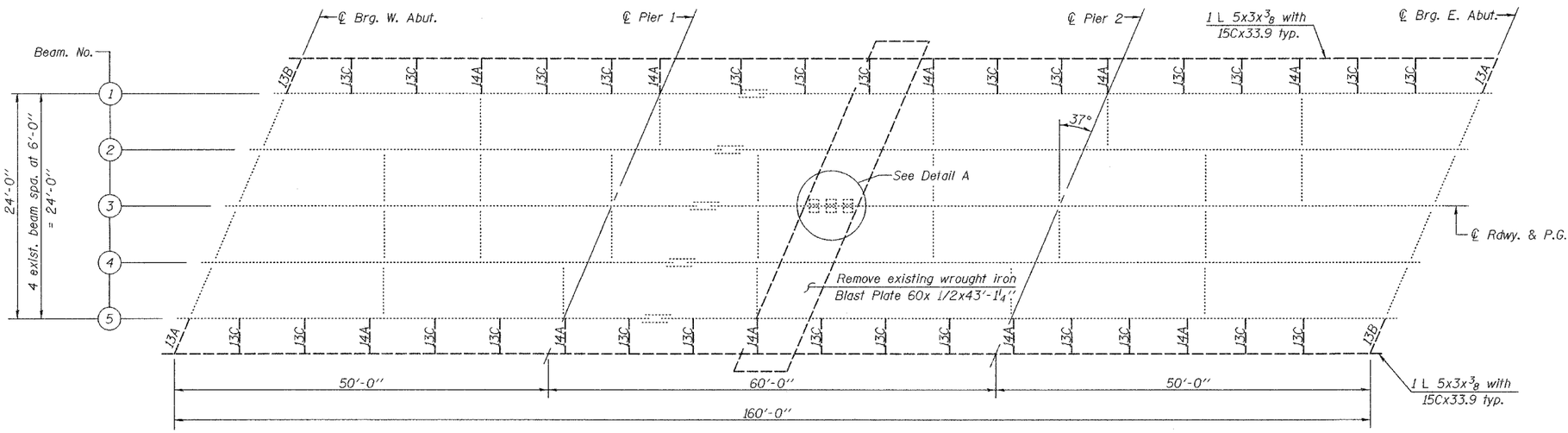
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

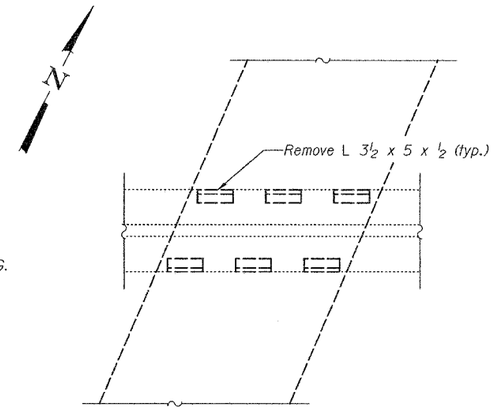
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	79
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 19
22 SHEETS

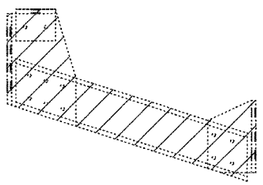
Contract #84883



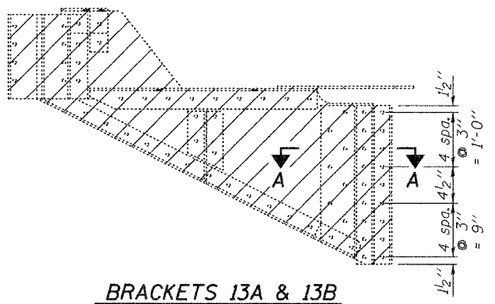
PLAN



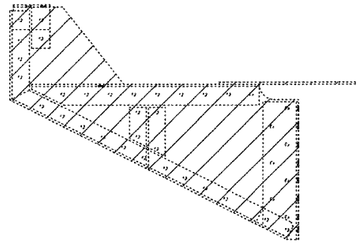
DETAIL A
(Typical for Bm. 1 thru 5)



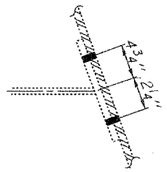
BRACKETS 13C
(26 Each)



BRACKETS 13A & 13B
(4 Each)



BRACKETS 14A
(10 Each)



SECTION A-A

Existing 7/8"ϕ rivets shall be removed by grinding the heads off. Cost included in Structural Steel Removal.

Notes: Rivet that connect brackets 13C and 14A to existing beams 1 & 5 need not be removed. Brackets may be removed by flame cutting out standing leg of brackets 1/2" from web of existing beams. Cost included in Structural Steel Removal, pound.

For Structural Steel Repair, see sheet 9 of 22.

All existing L 3 1/2 x 5 x 1/2 welded to the bottom flange of beam in Span 2 shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any cracks that can not be removed by grinding approximately 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be included with Structure Steel Removal.

BILL OF MATERIAL

Item	Unit	Total
Structural Steel Removal	Pound	27310
Structural Steel Repair	Pound	1060

DESIGNED	Patrick M. Petrone
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	P.M.P./S.M.R.

October 11, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL REMOVAL
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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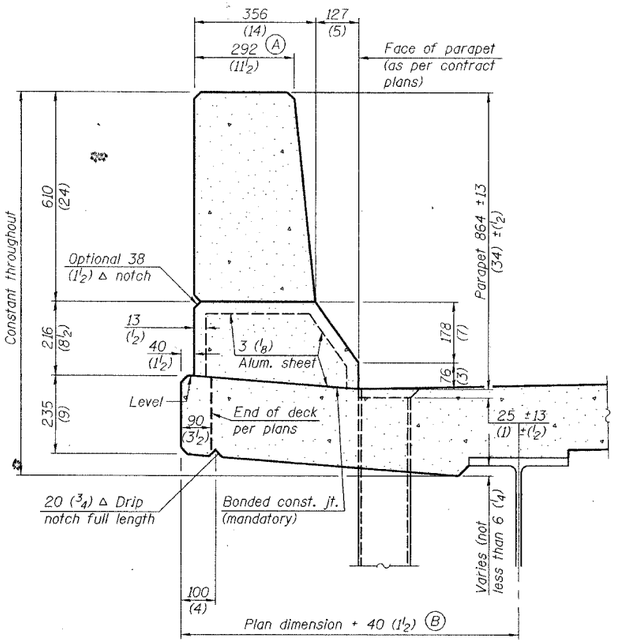
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

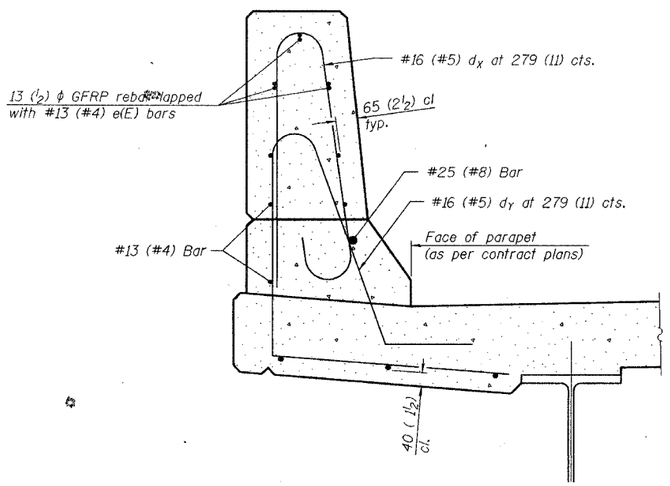
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 309	7VBR	WHITESIDE	146	79A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO.
SHEETS

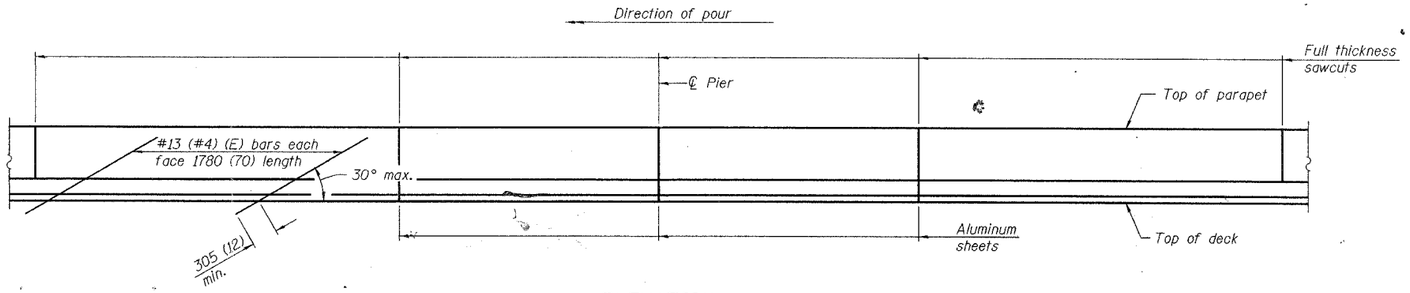
Contract # 84883



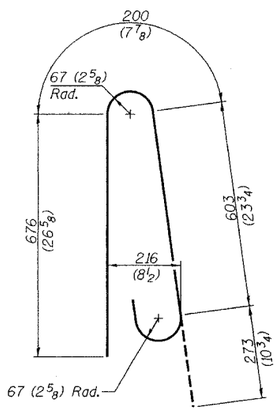
SECTION
(Showing dimensions)



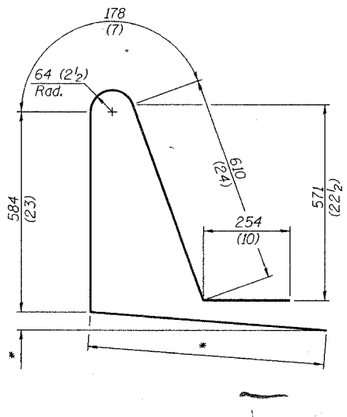
SECTION
(Showing required reinforcement)



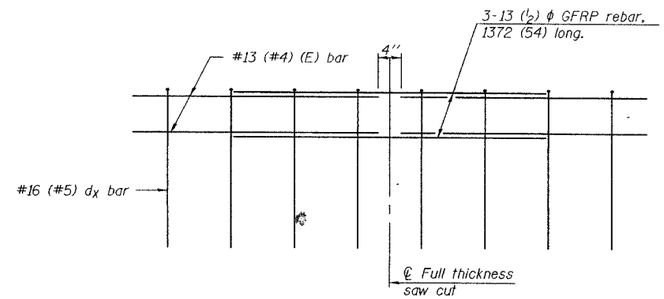
ELEVATION
(Showing parapet joints and typical stiffening reinforcement between joints)



BAR d_X(e)



BAR d_Y(e)
* Per contract plans



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section)

GENERAL NOTES

All dimensions shall remain the same as shown on contract plans, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B= 0.0422 m /m (.0165 cu. yds./ft.) of parapet.

Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all other locations. Adjust/add joint locations to maintain 3 to 6 meter (10 to 20 foot) spacing.

CONCRETE PARAPET SLIPFORMING OPTION

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	80
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 20
22 SHEETS

Contract #84883

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 1 of 2

Date 4/2093

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 1/4, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-1
Station 46+77
Offset 8.50ft Lt.
Ground Surface Elev. 619.1 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	Material	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
	Air through deck 18.2'			
		7		
	Medium, brown Sandy Loam	6	0.6	14
		5	S	
		2		
	Soft, brown Sandy Loam	2	0.4	18
		2	S	
-5				
-26	R.R. Track bed Elev. 73.8	1		
	Same as above	1	0.4	16
		1	S	
	Soft, brown Sandy Loam w/Sand lenses	2		
		1	0.3	22
		1	S	
-10				
-30	Very Soft, black Sandy Loam	1		
		0	0.1	19
		0	P	
	Soft, gray Sandy Loam	1		
		1	0.4	18
		2	S	
-15				
-35	Medium, brown Loam	3		
		5	0.6	24
		6	B	
600.10	Loose, brownish Sand	2		
		3		
	Stiff, brown Sandy Loam	3		
-20			1.3	15
	First Encounter		P	
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 2 of 2

Date 4/2093

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 1/4, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-1
Station 46+77
Offset 8.50ft Lt.
Ground Surface Elev. 618.1 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	Material	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
	Medium, tan fine to medium Sand	3		
		5		
	Begin Wash Same as above	6		
		4		
		5		
-45		5		
	Medium, brown fine to medium grained Sand	7		
		7		
		9		
-50				
	Same as above	6		
		9		
		12		
-55				
	Dense, tan Sand and Gravel	12		
		15		
		18		
-60				

DEPTH (ft)	Material	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
	Dense, tan fine to coarse Sand	13		
		17		
		20		
-65				
	Same as above	18		
		20		
		28		
-70				
	Very Dense, tan fine to medium Sand	15		
		23		
		29		
-75				
	Very Dense, tan Sand and Gravel	22		
		26		
		34		
	End of Boring			
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 1 of 2

Date 5/1393

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 1/4, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-2
Station 48+28
Offset 9.00ft Lt.
Ground Surface Elev. 618.0 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	Material	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
	Asphalt Concrete			
	Medium, brown medium Sand			
		7		
	Medium, brown Sand w/a Silty Clay lense	11		
		10		
-5				
	Medium, tan fine Sand	6		
		5		
		6		
	Stiff, brown Sandy Loam w/Sand lenses	6		
		7	1.7	18
		8	S	
-10				
	Medium, tanbrown fine to medium Sand	10		
		7		
		10		
	Medium, tan dirty fine to medium Sand	7		
		11		
		15		
-15				
	Medium, tanred fine to medium Sand	12		
		13		
		15		
	Dense, tanred medium Sand	16		
		20		
		20		
-20				

DEPTH (ft)	Material	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
	Dense, tanfgray fine Sand w/a Sandy Loam lense	12		
		14		
		20		
	Dense, tanred fine to medium Sand	16		
		20		
		16		
	R.R. Trackbed Elevation 73.8 Very Stiff, brown Sandy Loam w/Sand lenses	14		
		11	2.3	15
		14	S	
	Stiff, brown Sandy Loam w/Sand lenses	8		
		11	1.9	14
		18	S	
-30				
	Very Stiff, brown Sandy Loam w/Sand lenses	11		
		20	2.3	12
		16	P	
	Very Stiff, brown Silty Clay	4		
		7	2.3	18
		10	P	
-35				
	Loose, tan fine Sand	3		
		5		
		4		
	First Encounter Loose, tan fine Sand	2		
		3		
		4		
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 2 of 2

Date 5/1393

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 1/4, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-2
Station 48+28
Offset 9.00ft Lt.
Ground Surface Elev. 618.0 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	Material	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
	Medium, tanforange fine Sand	3		
		7		
		9		
-45				
	Begin Wash Medium, tan fine Sand	4		
		4		
		7		
-50				
	Dense, river Sand & Gravel	9		
		16		
		25		
	544.00			
-55				
	Same as above	11		
		15		
		21		
-80				

DEPTH (ft)	Material	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
	Very Dense, tan fine to coarse Sand	21		
		29		
		28		
-65				
	Dense, tan fine to medium Sand	17		
		21		
		24		
-70				
	Dense, tan fine to coarse Sand	19		
		24		
		26		
	End of Boring			
-75				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

BORING DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	81
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 21
22 SHEETS

Contract #84883

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 1 of 3

Date 5/1893

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 14, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-3
Station 45+93
Offset 9.00ft Rt.
Ground Surface Elev. 617.9 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
		0.7 P	15	Asphalt, Concrete Medium, brown Sandy Loam
	4			Same as above
	5 9	0.7 S	15	
-5	7			Medium, brown Sandy Loam w/Sand lenses
	6 9	0.8 S	25	
	7			Stiff, brown Sandy Loam w/Sand lenses
	10 15	1.4 S	16	
-10	5			Medium, tanred Sand w/s Sandy Loam lense
	10 18			
	12			Dense, tanred fine to medium Sand w/s Sandy Loam lense
	16 21			
-15	2			Medium, brown sandy Loam w/s Sand lense
	3 9	0.7 S	17	
	2			Medium, gray fine Sand w/s Silty Loam lense
	10 12			
-20				

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
	9 14 10			Medium, tan & gray fine to medium Sand
	10 19 10			Medium, tan & gray fine to medium Sand
-25	10			Stiff, gray Sandy Loam R.R. Trackbed Elev. 73.8
	11 9	1.4 S	11	
	7			Medium, black Sandy Loam
	10 12	0.9 S	14	
-30	4			Stiff, red Sandy Loam
	8 12	1.8 S	15	
	4 7 8			Medium, dirty gray & tan fine Sand
-35	5			Medium, gray fine Sand w/s Silty Clay lense
	6 9			
	2			Same as above
	4 11			
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 2 of 3

Date 5/1893

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 14, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-3
Station 45+93
Offset 9.00ft Rt.
Ground Surface Elev. 617.9 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				First Encounter Medium, tan fine Sand
	2			
	5 7			
-45				First Wash Medium, tan fine Sand
	6			
	6 10			
-50				Medium, tanbrown fine to medium Sand
	4			
	5 8			
-55				Same as above
	5			
	5 8			
-60				

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Dense, tan fine to coarse Sand
	11			
	15 16			
-65				Medium, tan fine to medium Sand
	8			
	11 15			
-70				Dense, tan medium to coarse Sand
	11			
	16 19			
-75				Dense, tan sand and Gravel
	11			
	15 18			
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2 Materials

SOIL BORING LOG

Page 3 of 3

Date 5/1893

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 14, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-3
Station 45+93
Offset 9.00ft Rt.
Ground Surface Elev. 617.9 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
	15			Same as above
	23 22			
-85				Same as above
	15			
	21 25			
528.90				End of Boring
-90				
-95				
-100				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

BORING DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 309	7VBR	WHITESIDE	146	81a
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 22
22 SHEETS

Contract #84883

Illinois Department of Transportation
Division of Highways
District 7 Materials

SOIL BORING LOG

Page 1 of 3

Date 5/1993

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 1/4, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-4
Station 47+46
Offset 8.00ft Rt.
Ground Surface Elev. 618.1 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Through deck
				Air
				18'
-5				
-10				
-15				
				602.10
				Loose, black Sand
				No Sample
				Very Loose, black/red dirty Sand
	2			
	1			
	2			
-20				

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
	1			Loose, tan/red fine Sand
	1			
	3			
	5			Medium, tan fine to medium Sand
	6			
	9			
-25				R.R. Trackbed Elev. 73.8
	9			Stiff, red/brown Sandy Loam w/Sand lenses
	10	1.3	16	
	10	P		
	9			Stiff, gray Sandy Loam w/k Coal & Sand lense
	19	1.5	13	
	28	S		
-30				Medium, gray/black dirty Sand
	4			
	5			
	6			
	1			Loose, tan fine Sand w/k Sandy Loam lense
	3			
	3			
-35				Loose, tan fine to medium Sand
	3			
	5			
	5			
	2			Same as above
	4			
	6			
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 7 Materials

SOIL BORING LOG

Page 2 of 3

Date 5/1993

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 1/4, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-4
Station 47+46
Offset 8.00ft Rt.
Ground Surface Elev. 618.1 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				First Encounter
				Medium, tan fine Sand
	2			
	5			
	6			
-45				
	4			Begin Wash
	6			Medium, tan fine to medium Sand
	9			
-60				
	5			Same as above
	7			
	10			
-55				
	11			Medium, tan fine to medium Sand
	12			
	10			
-60				

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
	10			Medium, tan sand & Gravel
	15			
	13			
-65				
	13			Dense, tan Sand & Gravel
	15			
	20			
-70				
	16			Medium, tan Sand & Gravel
	14			
	13			
-75				
	22			Very Dense, tan Sand & Gravel
	25			
	26			
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 7 Materials

SOIL BORING LOG

Page 3 of 3

Date 5/1993

ROUTE FA 309 DESCRIPTION Bridge on US 30 over C.N. R.R. by Fulton LOGGED BY C. Jenkins

SECTION 7BR-1 & 7VBR LOCATION Garden Plain Twp. – N.W. 1/4, SEC. 4, TWP. 21N, RNG. 3E, PM

COUNTY Whiteside DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 098-6001
Station 66+55.7

BORING NO. B-4
Station 47+46
Offset 8.00ft Rt.
Ground Surface Elev. 618.1 ft

Surface Water Elev. None ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion Wash ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
	20			Same as above
	28			
	24			
-80				End of Boring
-90				
-95				
-100				

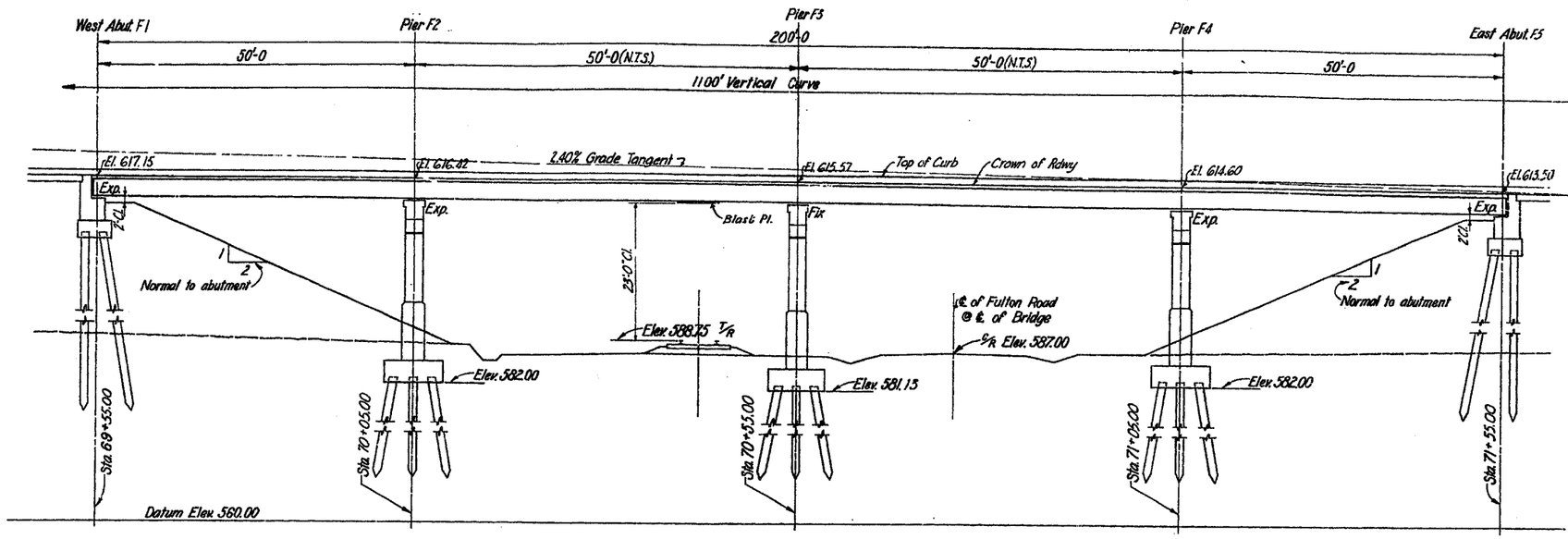
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

BORING DETAILS
F.A.P. RT. 309 SEC. 7VBR
WHITESIDE COUNTY
STATION 47+18.53
STRUCTURE No. 098-6001

\projects\prj\2005\098601.mgn 9/23/2005 8:37:58 PM

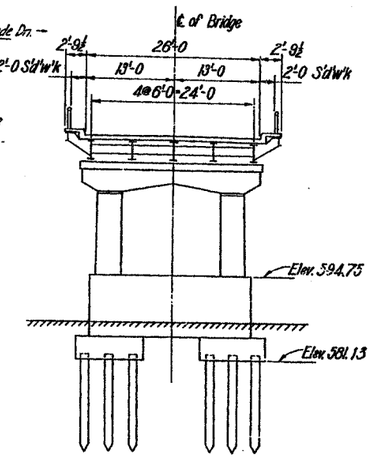
CONTRACT NO. 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	82
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

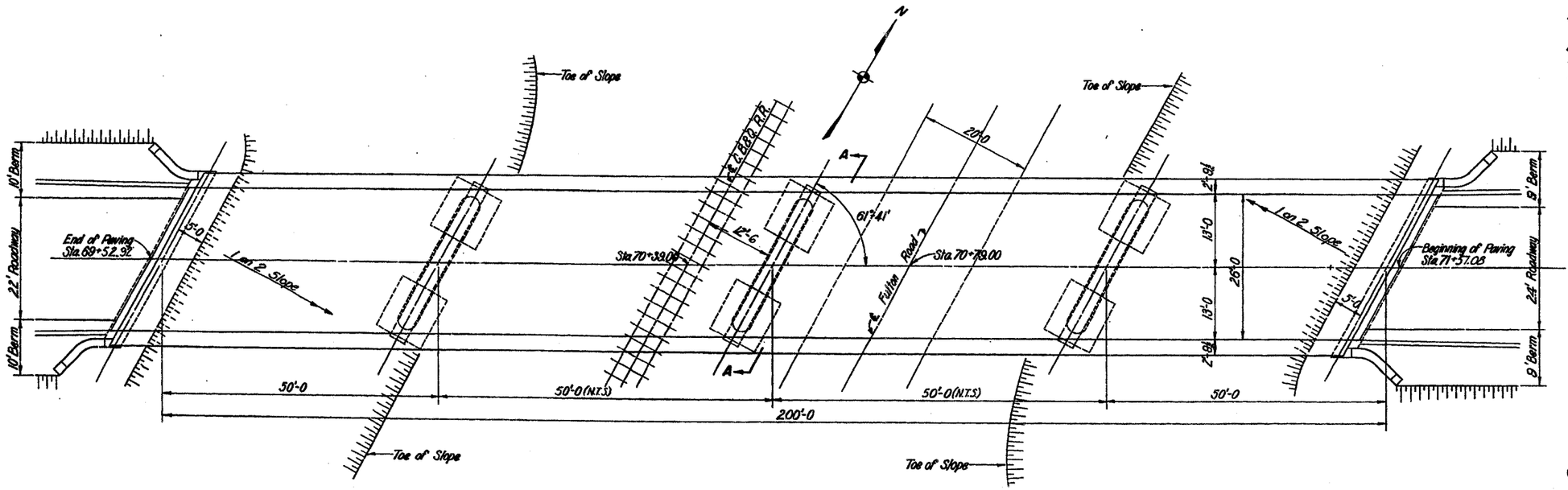


SECTION THROUGH BRIDGE ALONG CENTERLINE

With position of piles as viewed parallel to skewed ℄ of piers & abutments.



SECTION A-A



PLAN

NOTES:
There shall be a single vertical test pile driven in each pier and each abutment, and one of the pier vertical test piles shall carry a load test.

SN 098-6000

MISSISSIPPI RIVER BRIDGE
AT CLINTON, IOWA
CITY OF CLINTON BRIDGE COMMISSION
GENERAL PLAN & ELEVATION
FULTON ROAD BRIDGE

10' 5' 0 10'
SCALE

CONTRACT NO. 7 DRAWING NO. 2

MODJESKI & MASTERS, ENGINEERS
OCTOBER, 1951

APPROVED:
F. M. Masters
FOR MODJESKI & MASTERS

THIS DRWG. REVISED TO SHOW THE WORK AS CONSTRUCTED JAN. 1957

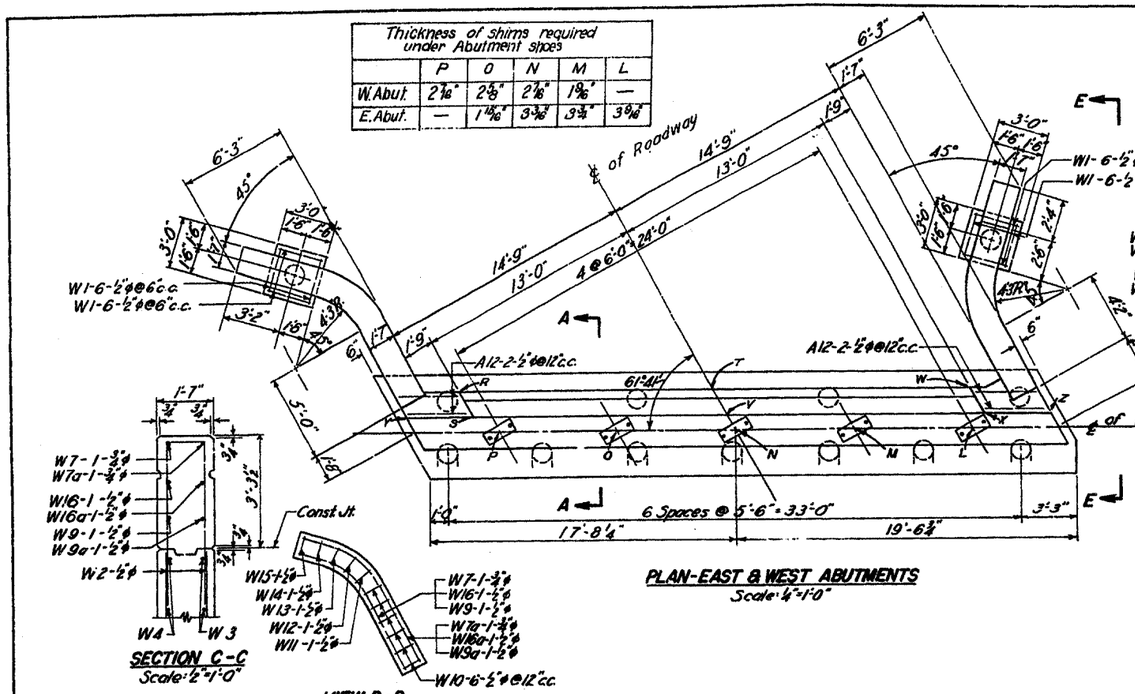
Revised: 5-18-51
Revised: 7-10-51

DR. R.W.C. | TR. N.D.P. | CK. T.A.K.

CONTRACT NO. 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	83
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Thickness of shims required under Abutment shoes					
	P	O	N	M	L
W. Abut.	2 1/16"	2 5/8"	2 13/16"	1 9/16"	—
E. Abut.	—	1 11/16"	3 3/16"	3 3/4"	3 9/16"

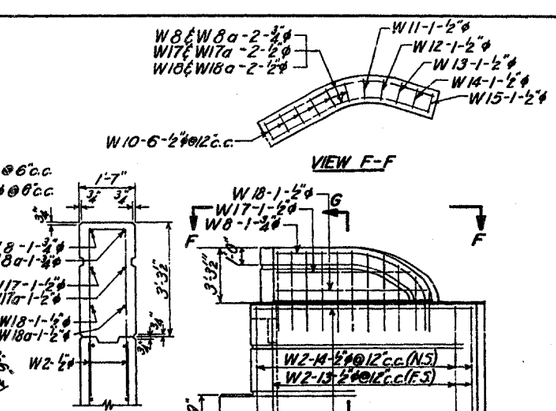


PLAN-EAST & WEST ABUTMENTS
Scale: ¼"=1'-0"

SECTION C-C
Scale: 2"=1'-0"

VIEW D-D

ELEVATION-EAST & WEST ABUTMENTS

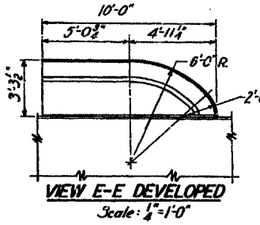


VIEW F-F

SECTION G-G
Scale: 2"=1'-0"

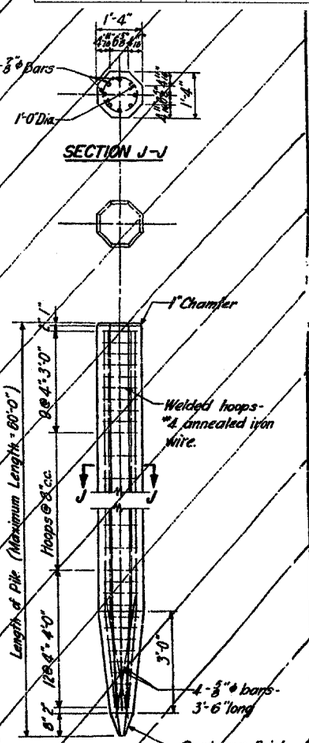
VIEW E-E
Scale: ¼"=1'-0"

SECTION H-H
Scale: 3"=1'-0"



VIEW E-E DEVELOPED
Scale: 1"=1'-0"

A-⅝" tapped holes 2" deep for ⅝"ϕ bars. Screw bars into point and bend as shown in concrete pile detail.

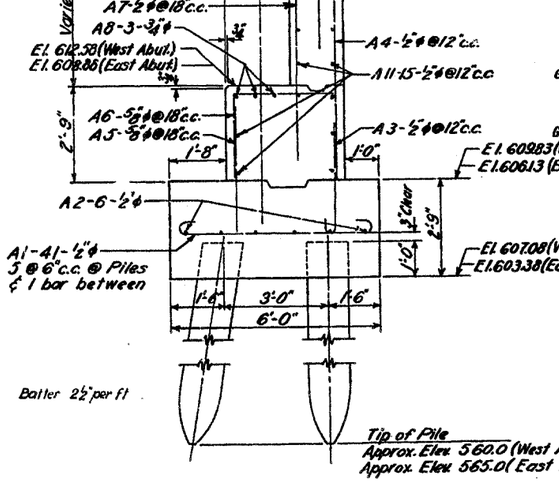


CAST IRON POINT
Scale: 1"=1'-0"

16" PRECAST CONCRETE PILE
Scale: ½"=1'-0"

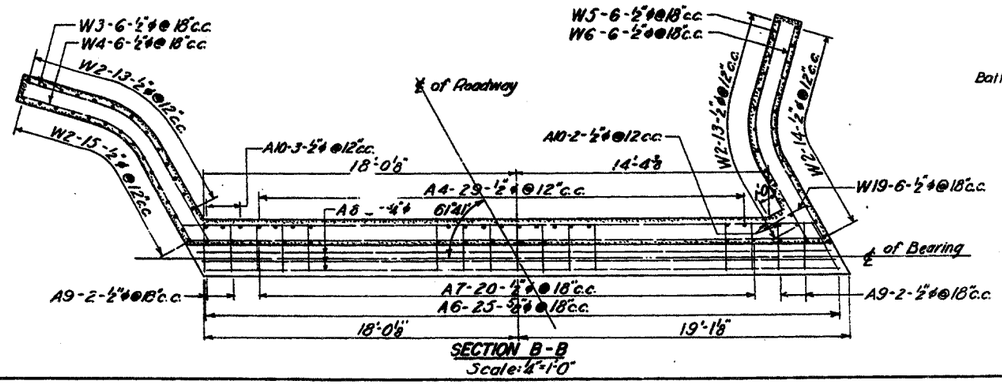
Piles are to be 16" Precast Octagonal as shown on [14" Raymond] Union Metal type YN or Armco Spiral Welded Steel shell piles shall have straight bars projecting 1'-0" above tops.

Used



SECTION A-A
Scale: ½"=1'-0"

	W. Abut.	E. Abut.
R	617.14	613.14
S	617.12	613.19
T	617.18	613.44
V	617.16	613.48
W	616.95	613.47
X	616.93	613.51
Y	618.02	614.03
Z	617.79	614.43



SECTION B-B
Scale: ¼"=1'-0"

For Notes, see Drawing No. 4
For Bar Schedules, see Drawing No. 4

MISSISSIPPI RIVER BRIDGE
AT CLINTON, IOWA
CITY OF CLINTON BRIDGE COMMISSION
DETAILS OF ABUTMENTS
FULTON ROAD BRIDGE
SCALES AS NOTED

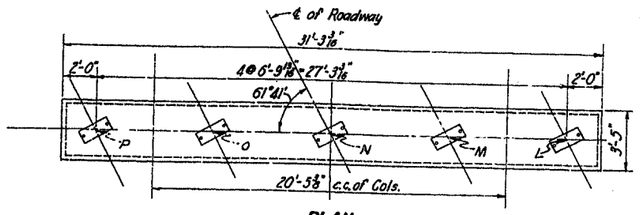
APPROVED:
F. M. Masters
FOR MODJESKI & MASTERS

CONTRACT NO. 7 DRAWING NO. 3
MODJESKI & MASTERS, ENGINEERS
OCTOBER, 1951

THIS DRWG. REVISED JAN 1957 TO SHOW THE WORK AS CONSTRUCTED | DR. RWC | TR. MCC. | CK. D.G.H.

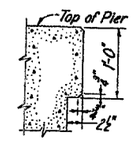
CONTRACT NO. 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	84
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

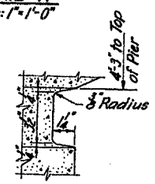


PLAN
Scale: 1/4"=1'-0"

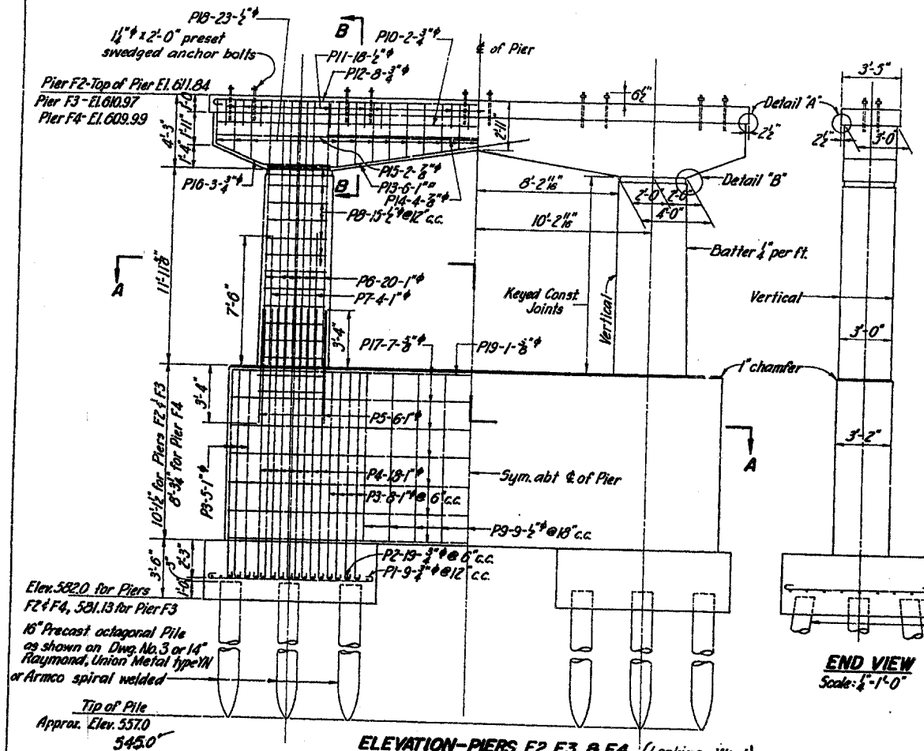
Thickness of shims required under Pier shoes					
	P	O	N	M	L
Pier F2	2 7/16"	2 2/8"	2 3/8"	1 3/8"	—
Pier F3	2 1/16"	3 1/8"	2 13/16"	1 3/8"	—
Pier F4	3 3/16"	3 7/16"	3"	1 13/16"	—



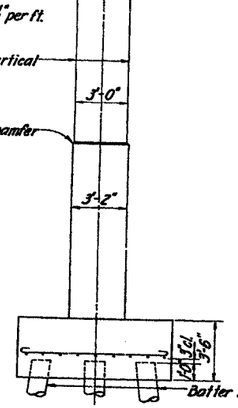
DETAIL "A"
Scale: 1"=1'-0"



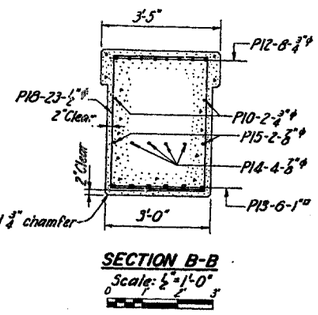
DETAIL "B"
Scale: 3"=1'-0"



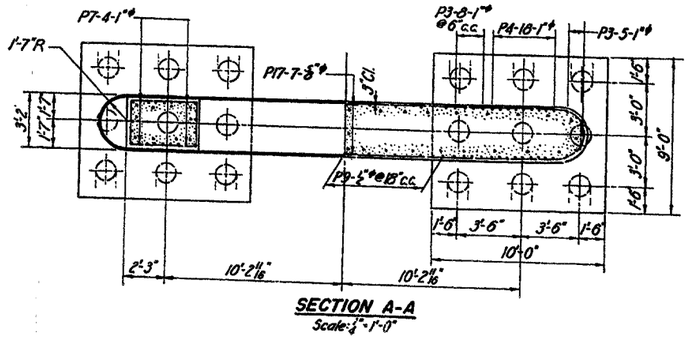
ELEVATION-PIERS F2, F3, & F4 (Looking West)
Scale: 1/4"=1'-0"



END VIEW
Scale: 1/4"=1'-0"



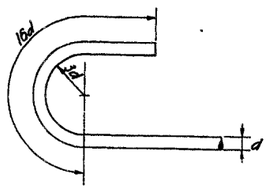
SECTION B-B
Scale: 1/2"=1'-0"



SECTION A-A
Scale: 1/4"=1'-0"

NOTES

Maximum dead plus live load per pile is 36 tons.
All bar dimensions are out to out and all radii are inside.
All reinforcement shall be of the deformed type A.S.T.M. A305-50T lapped 40 diameters at splices.
Concrete shall be Class B.
All exposed corners shall have 3/4" chamfers unless otherwise noted.
Steel shell piles shall have straight bars projecting 1'-0" above tops.



STANDARD HOOK DETAIL

BAR SCHEDULE FOR PIERS

Mark	Pier	No.	Stock	Bend
P1	Each	18	3/4"℄ x 11'-0"	9'-6"
P2	Each	30	3/4"℄ x 10'-0"	8'-6"
P3	F2	26	1"℄ x 13'-1 1/2"	12'-1 1/2"
	F3	26	1"℄ x 13'-1 1/2"	12'-1 1/2"
	F4	26	1"℄ x 11'-3"	10'-3"
P4	F2	36	1"℄ x 16'-8 1/2"	13'-8 1/2"
	F3	36	1"℄ x 16'-8 1/2"	13'-8 1/2"
	F4	36	1"℄ x 14'-10"	13'-10"
P5	Each	12	1"℄ x 6'-8"	Straight
P6	Each	40	1"℄ x 16'-0"	Straight
P7	Each	8	1"℄ x 7'-6"	Straight
P8	Each	30	1/2"℄ x 14'-7 1/2" Avg.	2'-0" F-8" Varies by 1 from 3'-8 to 3'-11"
P9	F2	9	1/2"℄ x 21'-10"	9'-7 1/2"
	F3	9	1/2"℄ x 21'-10"	9'-7 1/2"
	F4	9	1/2"℄ x 18'-1"	7'-9"
P10	Each	4	3/4"℄ x 16'-6"	Straight
P11	Each	18	1/2"℄ x 6'-8"	2'-8" 2'-0"
P12	Each	16	3/4"℄ x 17'-5"	30'-10"
P13	Each	12	1"℄ x 13'-3"	11'-6" 10" 3'-9"
P14	Each	4	3/8"℄ x 13'-0"	Straight
P15	Each	2	3/8"℄ x 30'-6"	Straight
P16	Each	6	3/4"℄ x 7'-6"	3'-6" 4'-0"
P17	Each	14	3/8"℄ x 31'-3"	14'-11"
P18	Each	23	1/2"℄ x 13'-6" Avg.	1'-6" 2'-7" to 3'-11" 2'-8"
P19	Each	1	3/8"℄ x 28'-10"	27'-7"

BAR SCHEDULE FOR ONE ABUTMENT (2 REQ'D)

Mark	No.	Stock	Bend
A1	41	1/2"℄ x 6'-6"	3'-6"
A2	12	1/2"℄ x 19'-9"	Straight
A3	34	1/2"℄ x 3'-10"	3'-4"
A4	29	1/2"℄ x 6'-8"	1'-4" 3'-7"
A5	25	3/8"℄ x 3'-7"	Straight
A6	25	3/8"℄ x 5'-5"	2'-2" 2'-10"
A7	20	1/2"℄ x 10'-2"	8" 3'-2" 6'-4"
A8	6	3/4"℄ x 19'-7"	Straight
A9	4	1/2"℄ x 8'-1"	1'-4" 7'-0"
A10	5	1/2"℄ x 8'-10"	1'-4" 7'-9"
A11	30	1/2"℄ x 19'-2"	Straight
A12	4	1/2"℄ x 5'-8"	2'-4" 3'-4" 2'-0"

WING WALLS BAR SCHEDULE, ONE ABUT. (2 REQ'D)

Mark	No.	Stock	Bend
W1	24	1/2"℄ x 2'-6"	Straight
W2	55	1/2"℄ x 7'6"	Straight
W3	6	1/2"℄ x 14'-11"	6'-0" 45° 1'-6" 45° 1'-6"
W4	6	1/2"℄ x 13'-8"	3'-6" 45° 1'-6" 45° 1'-6"
W5	6	1/2"℄ x 13'-5"	4'-6" 45° 1'-6" 45° 1'-6"
W6	6	1/2"℄ x 13'-2"	5'-0" 45° 1'-6" 45° 1'-6"
			PLAN / ELEV. a b c d e f R1 R2 R3
W7	1	3/4"℄ x 12'-11"	3'-10" 3'-5" 3'-0" 2'-7" 2'-2" 1'-9" 1'-4" 1'-0" 0'-7" 0'-3" 0'-0"
W7a	1	3/4"℄ x 13'-6"	4'-0" 3'-7" 3'-2" 2'-9" 2'-4" 1'-11" 1'-6" 1'-2" 0'-9" 0'-5" 0'-0"
W8	1	3/4"℄ x 12'-10"	3'-10" 3'-5" 3'-0" 2'-7" 2'-2" 1'-9" 1'-4" 1'-0" 0'-7" 0'-3" 0'-0"
W8a	1	3/4"℄ x 13'-3"	4'-0" 3'-7" 3'-2" 2'-9" 2'-4" 1'-11" 1'-6" 1'-2" 0'-9" 0'-5" 0'-0"
W9	1	1/2"℄ x 9'-7"	4'-10" 45° 1'-7" 45° 1'-7"
W9a	1	1/2"℄ x 10'-4"	4'-10" 45° 1'-7" 45° 1'-7"
W10	12	1/2"℄ x 10'-7"	4'-9 1/2" 1'-0 1/2"
W11	2	1/2"℄ x 10'-5"	4'-0 1/2" 1'-0 1/2"
W12	2	1/2"℄ x 9'-11"	4'-3 1/2" 1'-0 1/2"
W13	2	1/2"℄ x 9'-3"	4'-1 1/2" 1'-0 1/2"
W14	2	1/2"℄ x 8'-1"	3'-0 1/2" 1'-0 1/2"
W15	2	1/2"℄ x 5'-8"	2'-8" 1'-0 1/2"
W16	1	1/2"℄ x 8'-3"	4'-10" 3'-5" 4'-0 1/2" R
W16a	1	1/2"℄ x 8'-10"	4'-10" 4'-0" 3'-3 1/2" R
W17	1	1/2"℄ x 8'-3"	4'-0" 4'-3" 4'-6 1/2" R
W17a	1	1/2"℄ x 8'-10"	4'-0" 4'-10" 3'-3 1/2" R
W18	1	1/2"℄ x 9'-7"	4'-0" 45° 2'-0" 1'-0"
W18a	1	1/2"℄ x 10'-4"	4'-0" 45° 2'-0" 1'-0"
W19	12	1/2"℄ x 3'-0"	Straight

MISSISSIPPI RIVER BRIDGE
AT CLINTON, IOWA
CITY OF CLINTON BRIDGE COMMISSION
PIERS F2, F3, & F4
FULTON ROAD BRIDGE
SCALES AS NOTED

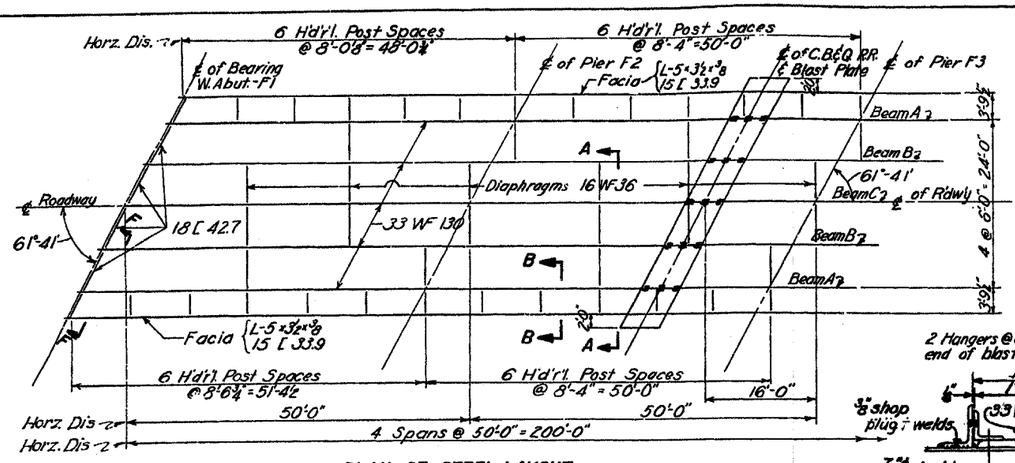
APPROVED: F. M. Masters
FOR MODJESKI & MASTERS

CONTRACT NO. 7 DRAWING NO. 4
MODJESKI & MASTERS, ENGINEERS
OCTOBER, 1951

THIS DRWG. REVISED JAN 1957 TO SHOW THE WORK AS CONSTRUCTED
DR. D.G.R. TR. N.D.P. CK. R.W.C.

CONTRACT NO. 84883

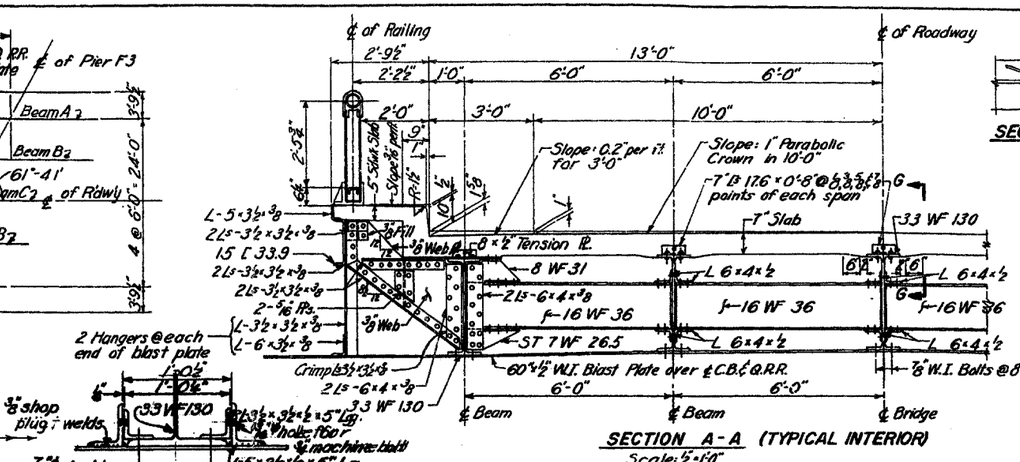
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7V8R	WHITESIDE	146	85
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



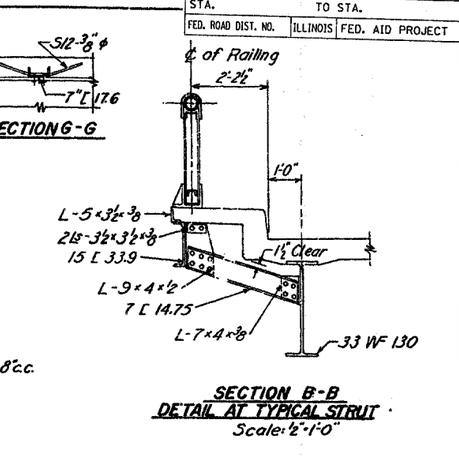
PLAN OF STEEL LAYOUT

Symmetrical By Rotation About ℄ Pier F3 (Except Blast ℄)

Scale: 1" = 10'-0"

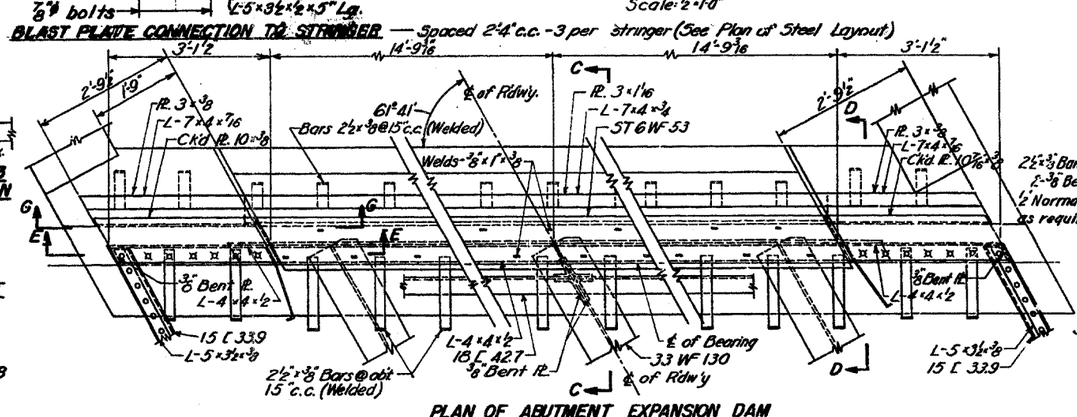


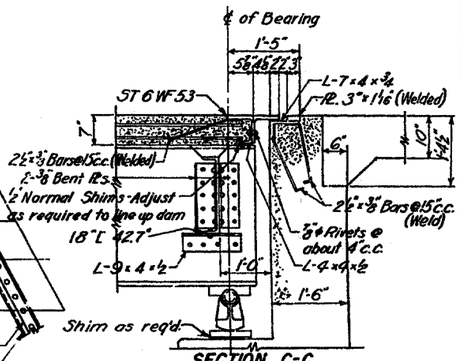
BLAST PLATE CONNECTION TO STRINGER — Spaced 2'-4" c.c. - 3 per stringer (See Plan of Steel Layout)



SECTION B-B DETAIL AT TYPICAL STRUT

Scale: ½" = 1'-0"



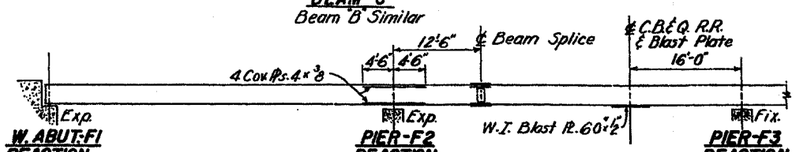


	W. ABUT-F1 REACTION	0.4L MOMENT	PIER-F2 REACTION	0.5L MOMENT	PIER-F3 REACTION	MOMENT
DL	14	+129	38	-179	+60	31	-119
LL	33	+297	41	-214	+235	40	-196
I	10	+ 85	12	-61	+67	11	-56
TOTAL	57	+511	91	-454	+362	82	-371
		SM_R=341		SM_R=303		SM_R=242	SM_R=248

Use 33 WF 130 - SM Furnished = 335 Net

BEAM "C"

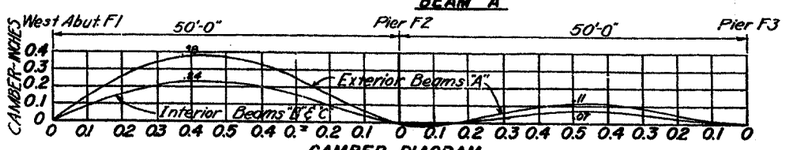
Beam "B" Similar



	W. ABUT-F1 REACTION	0.4L MOMENT	PIER-F2 REACTION	0.5L MOMENT	PIER-F3 REACTION	MOMENT
DL	22	+205	61	-285	+ 95	50	-190
LL	23	+206	28	-149	+163	28	-136
I	7	+ 59	8	-43	+47	8	-39
SW	4	+39	10	-48	+32	9	-43
TOTAL	56	+509	107	525	+337	95	-408
		SM_R=340		SM_R=350		SM_R=225	SM_R=272

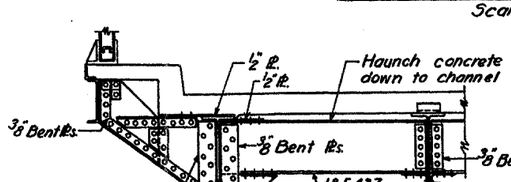
Use 33 WF 130 - SM Furnished = 335 Net
With 4 Cov Pls. 4"×⅜" SM Furnished = 400 Net

BEAM "A"



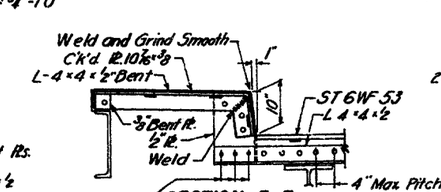
CAMBER DIAGRAM

Symmetrical about ℄ Pier F3



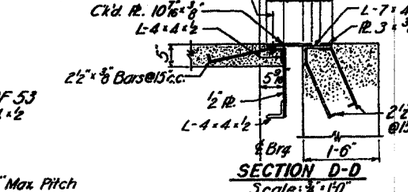
SECTION F-F

Scale: ½" = 1'-0"



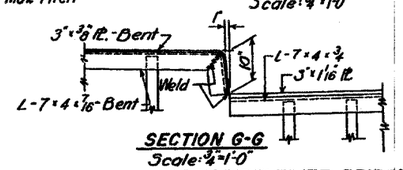
SECTION E-E

Scale: ¾" = 1'-0"



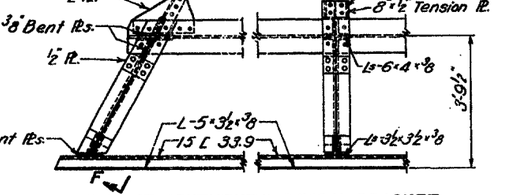
SECTION D-D

Scale: ¾" = 1'-0"



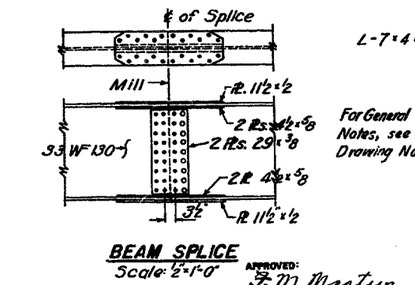
SECTION G-G

Scale: ¾" = 1'-0"



PLAN AT ABUTMENT & TYPICAL BRACKET

Scale: ½" = 1'-0"



BEAM SPLICE

Scale: ½" = 1'-0"

For General Notes, see Drawing No. 10

APPROVED:
F. M. Masters
FOR MODJESKI & MASTERS

MISSISSIPPI RIVER BRIDGE AT CLINTON, IOWA

CITY OF CLINTON BRIDGE COMMISSION

STRUCTURAL STEEL DETAILS FULTON ROAD BRIDGE

SCALES AS NOTED

CONTRACT NO. 7 DRAWING NO. 5

MODJESKI & MASTERS ENGINEERS

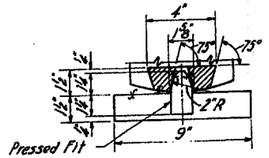
OCTOBER, 1951

NO. JAN 1957 AS CONSTRUCTED

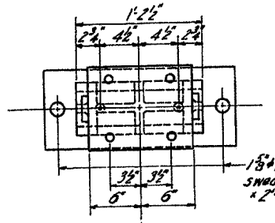
DR. A.W.C. TR. M.C.C. CK. D.G.H.

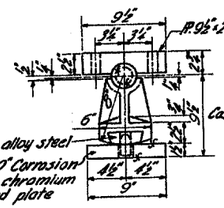
CONTRACT NO. 84883

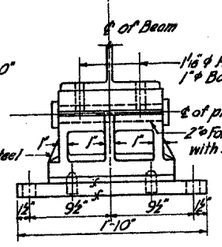
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	86
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



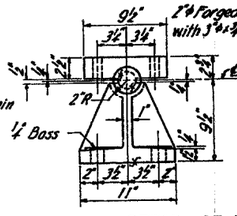
TOOTH BAR DETAIL
Scale: 3"=1'-0"

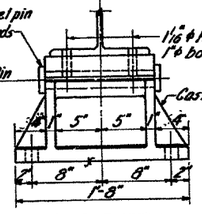




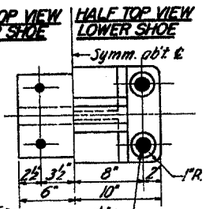


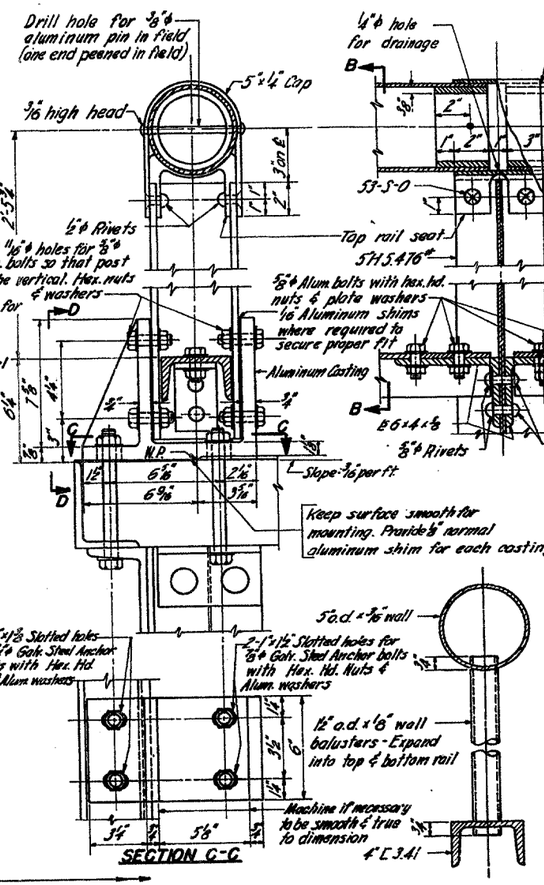
DETAILS OF EXPANSION BEARING & SHOE
Scale: 1½"=1'-0"





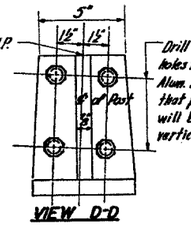
DETAIL OF FIXED BEARING & SHOE
Scale: 1½"=1'-0"



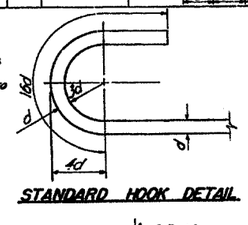


SECTION C-C

VIEW B-B
Scale: 3"=1'-0"

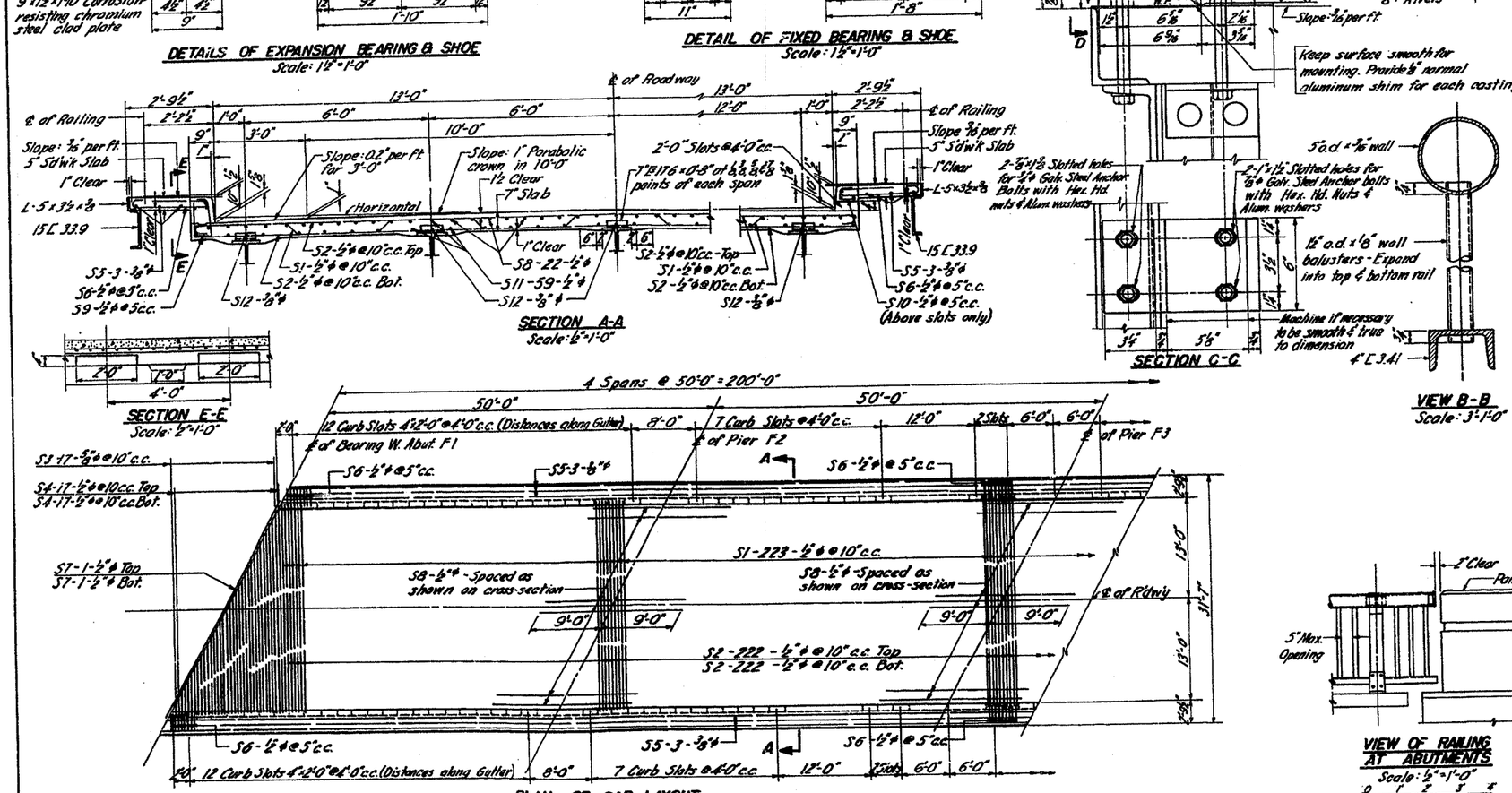


VIEW D-D



STANDARD HOOK DETAIL

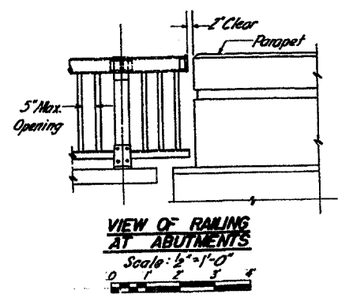
BAR SCHEDULE - ROADWAY SLAB			
Mark	No.	Stock	Bend
S1	223	½"ϕ x 29'-7"	See Special Detail
S2	444	½"ϕ x 27'-3"	Straight
S3	34	⅝"ϕ 45'-3⅝" Av.	See Special Detail
S4	68	½"ϕ x 14'-11" Av.	17 Bars - 2'-7" to 27'-3" vary by 1'-6½"
S5	36	⅝"ϕ x 34'-6"	Straight
S6	970	½"ϕ x 3'-5"	2'-5"
S7	4	½"ϕ x 30'-11"	Straight
S8	66	½"ϕ x 18'-0"	do.
S9	560	½"ϕ x 4'-7"	1'-10", 1½", 1'-2", 6"
S10	440	½"ϕ x 2'-8"	1'-10", ¾", 2"R, 6"
S11	354	½"ϕ x 34'-10"	Straight
S12	80	⅜"ϕ x 2'-8"	1'-0", 8", 1'-0"



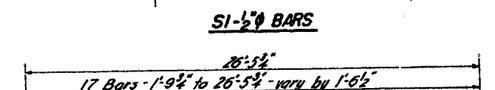
SECTION A-A
Scale: ½"=1'-0"

SECTION E-E
Scale: ½"=1'-0"

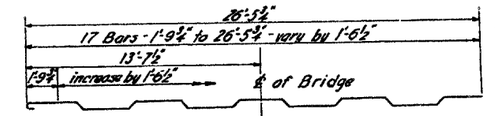
PLAN OF BAR LAYOUT
Symmetrical By Rotation About ℄ of Pier F3
Scale: ⅛"=1'-0"



VIEW OF RAILING AT ABUTMENTS
Scale: ½"=1'-0"



S1-1"ϕ BARS



Dimensions for bands same as Bar S1
S3-⅝"ϕ BARS

NOTES:
All reinforcing bars shall be deformed ASTM A305-50T and lapped 40 diameters at the splices.
All bar dimensions are out to out.
All material in railing shall be Aluminum Alloy 61S-T except as noted. Alum. bolts shall be Alum. Alloy 24-ST4 with No. 205 Aluminite finish.
Aluminum Casting shall be Cast Alloy 356-T6 or as approved by the Engineer.
All roadway concrete shall be Class "A."

MISSISSIPPI RIVER BRIDGE
AT CLINTON, IOWA
CITY OF CLINTON BRIDGE COMMISSION
ROADWAY SLAB & BEARING DETAILS
FULTON ROAD BRIDGE

SCALE: AS NOTED

CONTRACT NO. 7 DRAWING NO. 6

MODJESKI & MASTERS, ENGINEERS
OCTOBER, 1951

APPROVED: F. M. Masters
FOR MODJESKI & MASTERS

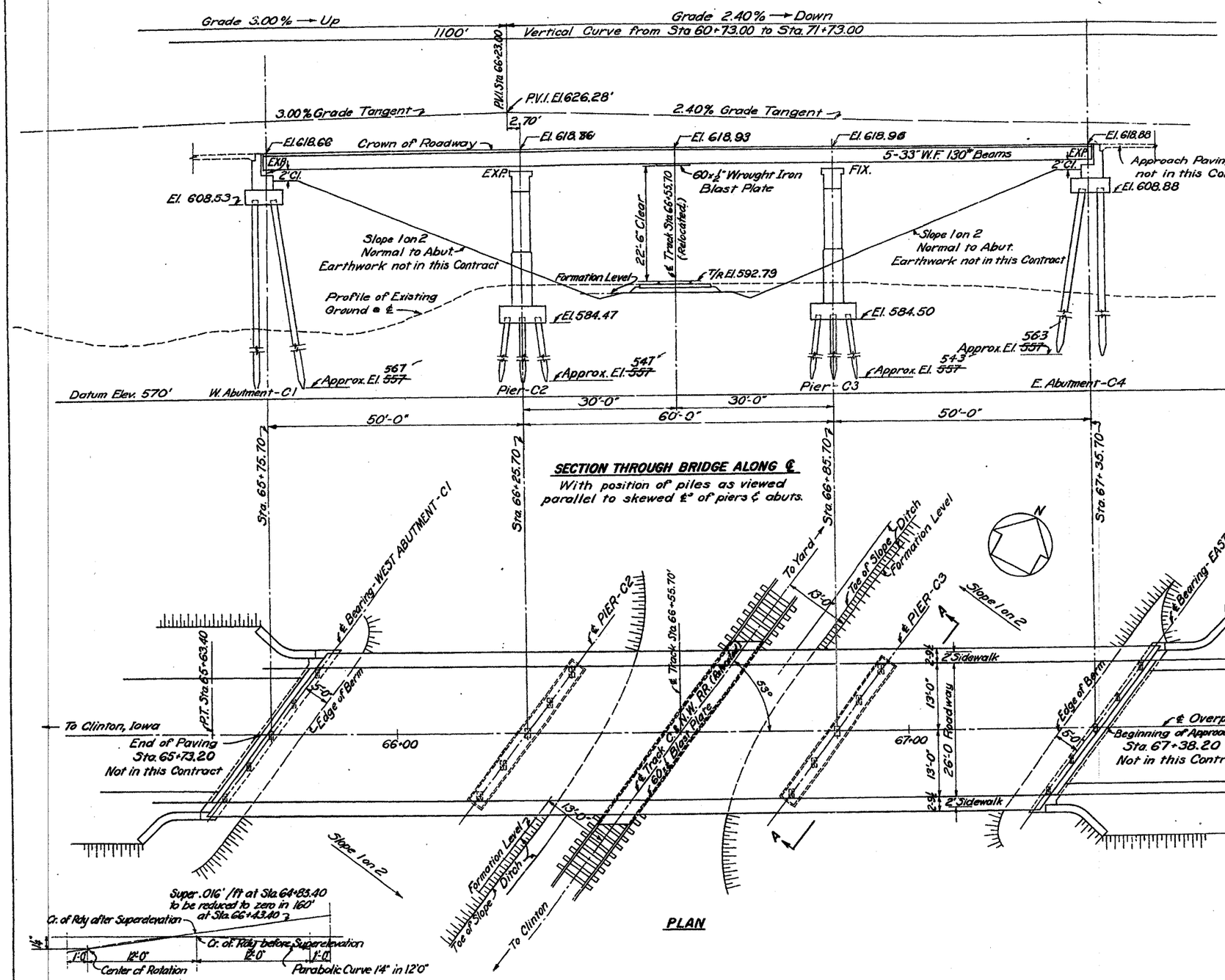
THIS DRWG. REVISED TO SHOW THE WORK AS CONSTRUCTED JAN 195[illegible]

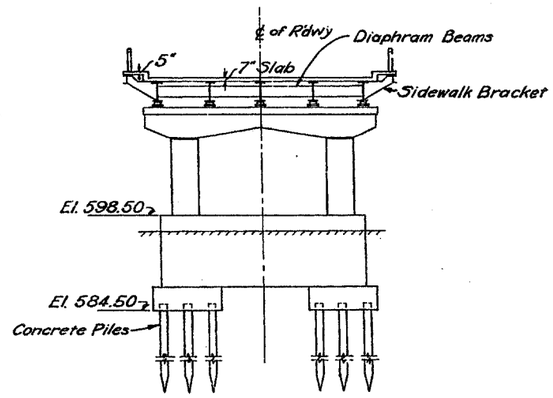
DR. A.W.C. TR. J.N.J. CK. D.G.H.

CONTRACT NO. 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	87
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SN 098-6001





SECTION A-A

SECTION THROUGH BRIDGE ALONG ℄

With position of piles as viewed parallel to skewed ℄s of piers ℄ abuts.

PLAN

DETAILS OF SUPERELEVATION

NOTES:
There shall be a single vertical test pile driven in each pier and each abutment, and one of the pier vertical test piles shall carry a load test. (Load Test Waived)

MISSISSIPPI RIVER BRIDGE
AT CLINTON, IOWA

CITY OF CLINTON BRIDGE COMMISSION

GENERAL PLAN & ELEVATION
C. & N.W. RR. OVERPASS

10 5' 0 10
SCALE

CONTRACT NO. 7 DRAWING NO. 7

MODJESKI & MASTERS ENGINEERS

OCTOBER, 1951

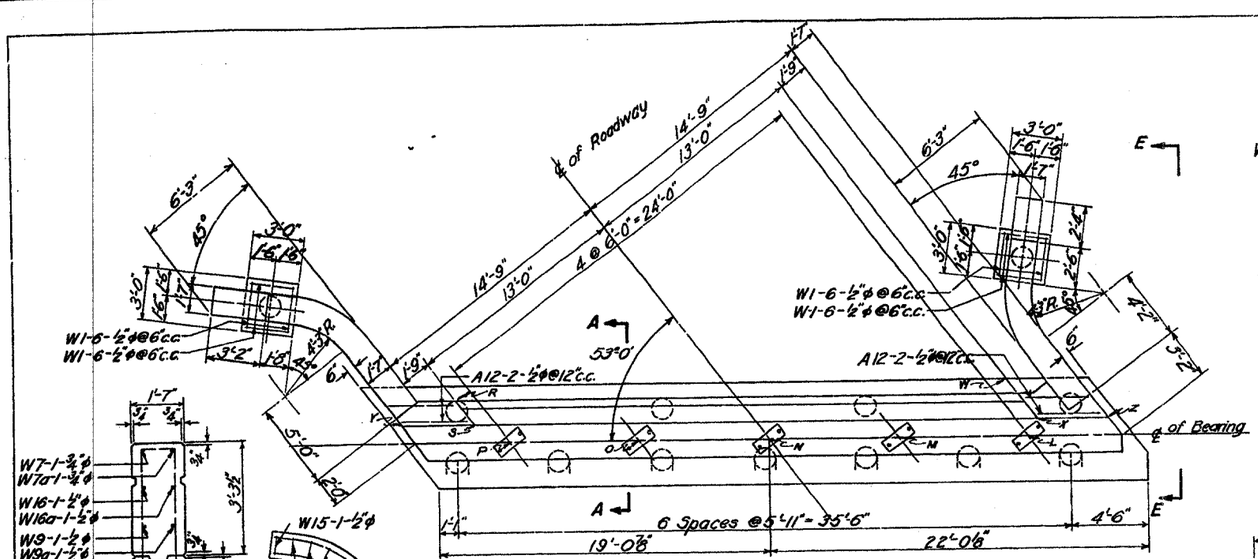
APPROVED: F. M. Masters
FOR MODJESKI & MASTERS

THIS DRWG. REVISED TO SHOW THE WORK AS CONSTRUCTED JAN. 1957

DR. TAK | TR. H.H.R. | CK. E.W.G.

CONTRACT NO. 84883

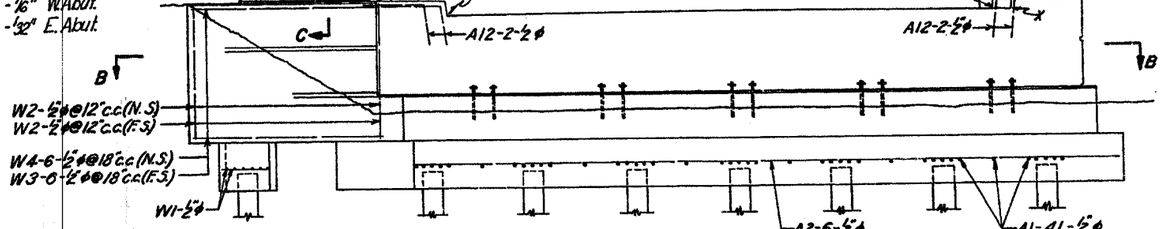
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	88
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



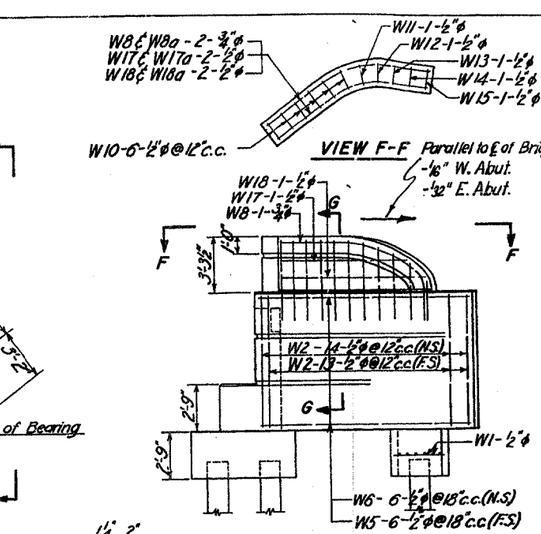
PLAN-EAST & WEST ABUTMENTS
Scale: ¼"=1'-0"

SECTION C-C
Scale: ½"=1'-0"

VIEW D-D

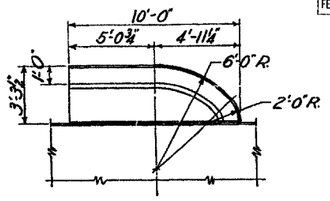


ELEVATION-EAST & WEST ABUTMENTS
Scale: ¼"=1'-0"



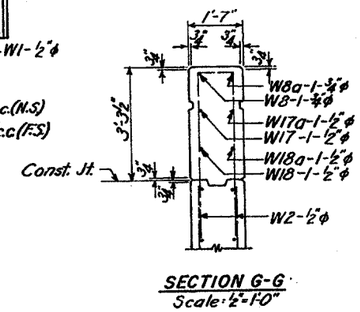
VIEW F-F Parallel to ℄ of Bridge
-1/16" W. Abut.
-1/32" E. Abut.

VIEW E-E
Scale: ¼"=1'-0"

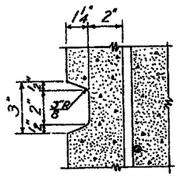


VIEW E-E DEVELOPED
Scale: ¼"=1'-0"

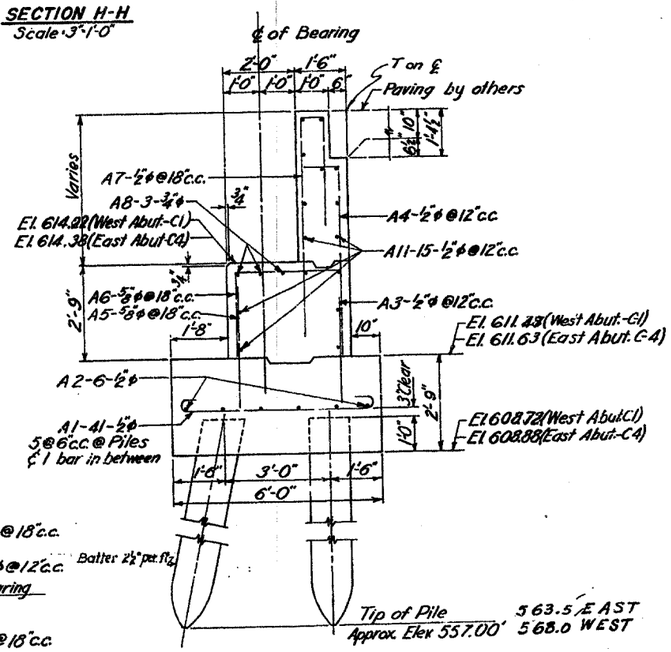
		V. Abut.	E. Abut.
Gutter	R	618.67	618.71
	S	618.68	618.72
	T	618.64	618.87
	V	618.65	618.88
Gutter	W	618.56	618.76
	X	618.51	618.77
	Y	619.55	619.59
	Z	619.46	619.66



SECTION G-G
Scale: ½"=1'-0"

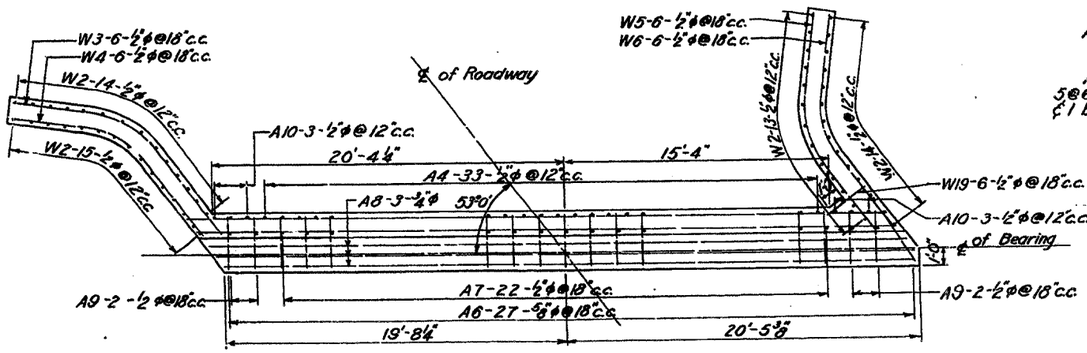


SECTION H-H
Scale: 3"=1'-0"



SECTION A-A
Scale: ½"=1'-0"

NOTES:
For Notes, see Drawing No.10
For Bar Schedules, see Drawing No. 9
For pile details, see Drawing No. 3



SECTION B-B
Scale: ¼"=1'-0"

MISSISSIPPI RIVER BRIDGE
AT CLINTON, IOWA
CITY OF CLINTON BRIDGE COMMISSION
DETAILS OF ABUTMENTS
C. & N.W. RAILROAD OVERPASS

SCALES AS NOTED
CONTRACT NO. 7 DRAWING NO. 8
MODJESKI & MASTERS ENGINEERS
OCTOBER, 1951

APPROVED: F. M. Masters
FOR MODJESKI & MASTERS

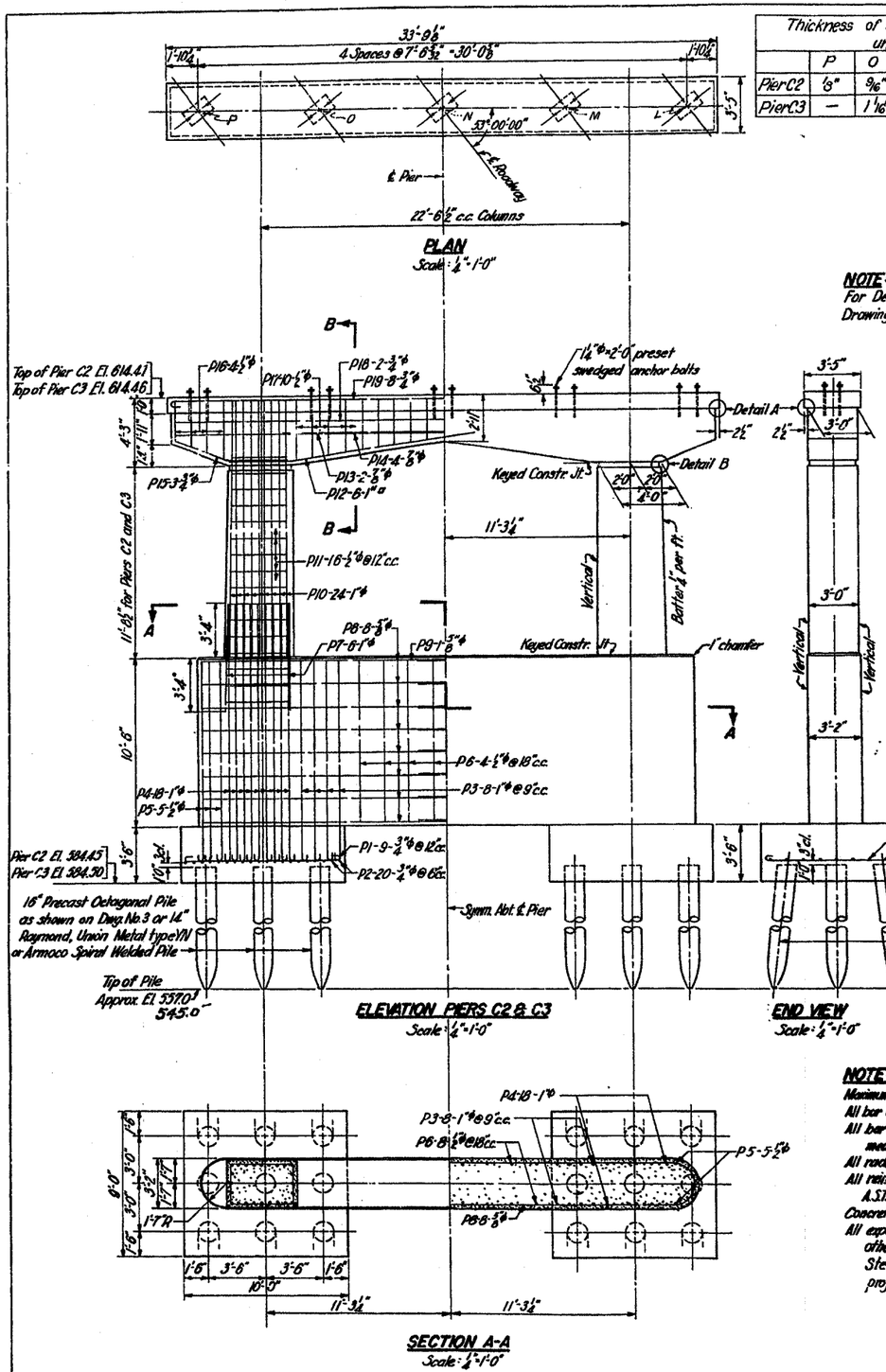
DR. R.W.G. | TR. M.C.G. | CK. R.W.C.

JAN. 1957

157

CONTRACT NO. 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	89
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Thickness of shims required under Pier shoes					
	P	O	N	M	L
PierC2	⅛"	9/16"	1⅛"	⅞"	—
PierC3	—	1 1/16"	1 7/16"	1 1/16"	—

NOTE:
For Details A & B, see Drawing No. 4.

NOTE:
Maximum dead plus live load is 36 tons per pile.
All bar dimensions are out to out.
All bar dimensions along hooks and bend are measured along ℄ of bar.
All radii are to inside of bar.
All reinforcement shall be of the deformed type. A.S.T.M. A305-50T and lapped 40 dia. at splices.
Concrete shall be Class B.
All exposed corners shall have ¾" chamfers unless otherwise noted.
Steel shell piles shall have straight bars projecting 1'-0 above tops.

BAR SCHEDULE FOR ONE ABUTMENT-2 REQD

Mark	No.	Stock	Bend
A1	41	½"ø × 6'-6"	3'-8"
A2	12	½"ø × 21'-8"	Straight
A3	39	½"ø × 3'-10"	3'-4"
A4	33	½"ø × 8'-8"	1'-7", 5'-7"
A5	27	⅜"ø × 3'-7"	Straight
A6	27	⅝"ø × 5'-7"	2'-7", 3'-0"
A7	22	½"ø × 10'-2"	8", 3'-2", 6'-4"
A8	6	¾"ø × 21'-6"	Straight
A9	4	½"ø × 8'-1"	1'-5", 7'-0"
A10	6	½"ø × 8'-10"	1'-5", 7'-9"
A11	30	½"ø × 21'-1"	Straight
A12	4	½"ø × 6'-0"	3'-8", 2'-3"

BAR SCHEDULE FOR WINGWALLS OF ONE ABUTMENT-2 REQD

Mark	No.	Stock	Bend
W1	24	½"ø × 2'-6	Straight
W2	56	½"ø × 7'-6"	Straight
W3	6	½"ø × 15'-1"	6'-2", 5'-3½" R., 4'-7", 45°
W4	6	½"ø × 13'-8"	5'-6", 4'-8½" R., 4'-7", 45°
W5	6	½"ø × 13'-5"	4'-6", 5'-3½" R., 4'-7", 45°
W6	6	½"ø × 13'-4"	5'-2", 4'-8½" R., 4'-7", 45°
			PLAN, ELEV. (a, b, c, d, e, f, R1, R2, R3)
W7	1	¾"ø × 12'-11"	10", 2'-3", 10", 5'-3", 10", 10", 1'-3", 1'-3", 1'-3"
W7a	1	¾"ø × 13'-6"	10", 2'-3", 10", 5'-3", 10", 10", 1'-3", 1'-3", 1'-3"
W8	1	¾"ø × 12'-10"	10", 2'-3", 10", 5'-3", 10", 10", 1'-3", 1'-3", 1'-3"
W8a	1	¾"ø × 13'-3"	10", 2'-3", 10", 5'-3", 10", 10", 1'-3", 1'-3", 1'-3"
W9	1	½"ø × 9'7"	4'-10", 4'-8½" R., 1'-2", 45°
W9a	1	½"ø × 10'-4"	4'-10", 5'-3½" R., 1'-2", 45°
W10	12	½"ø × 10'-7½"	1'-0½", 4'-8½"
W11	2	½"ø × 10'-5½"	1'-0½", 4'-8½"
W12	2	½"ø × 9'-11½"	1'-0½", 4'-5½"
W13	2	½"ø × 8'-3½"	1'-0½", 4'-1½"
W14	2	½"ø × 8'-1½"	1'-0½", 3'-6½"
W15	2	½"ø × 5'-8½"	1'-0½", 2'-4"
W16	1	½"ø × 8'-3"	4'-10", 3'-5", 4'-6¾" R.
W16a	1	½"ø × 8'-10"	4'-10", 4'-0", 5'-5¾" R.
W17	1	½"ø × 8'-3"	4'-0", 4'-3", 4'-8¾" R.
W17a	1	½"ø × 8'-10"	4'-0", 4'-10", 5'-5¾" R.
W18	1	½"ø × 9'-7"	4'-0", 2'-0", 45°
W18a	1	½"ø × 10'-4"	4'-0", 2'-0", 45°
W19	6	½"ø × 3'-0"	Straight

BAR SCHEDULE FOR ONE PIER-2 REQD

Mark	No.	Stock	Bend
P1	18	¾"ø × 11'-0"	9'-6"
P2	40	¾"ø × 10'-0"	8'-6"
P3	16	1"ø × 13'-6"	12'-6"
P4	36	1"ø × 16'-10"	15'-10"
P5	10	½"ø × 13'-0"	12'-6"
P6	8	½"ø × 25'-10"	10'-0", 3"
P7	12	1"ø × 6'-8"	Straight
P8	16	⅝"ø × 34'-1½"	16'-4½", 2'-8"
P9	1	⅝"ø × 31'-0⅜"	Straight
P10	48	1"ø × 15'-9½"	Straight
P11	32	½"ø × 13'-5"	2 ea. 3'-8" to 3'-11" by 1", 2'-8", 3"
P12	12	1⅛"ø × 16'-7"	11'-9½", 3'-9½", 12'-8½", 1'-9½"
P13	2	⅝"ø × 33'-0"	Straight
P14	4	⅝"ø × 19'-6"	Straight
P15	6	¾"ø × 7'-3"	5'-5½", 3'-9½", 3'-2⅜", 1'-5½"
P16	8	½"ø × 12'-3" avg.	2 ea. 2'-7" to 3'-10" by 5", 2'-8", 3"
P17	19	½"ø × 12'-4 11/16" avg.	2 ea. 2'-7" to 3'-10⅜" by 1⅛", 2'-5", 3"
P18	2	¾"ø × 33'-0"	Straight
P19	6	¾"ø × 34'-11"	33'-5"

NOTE
For hook detail, see drawing No. 4.

MISSISSIPPI RIVER BRIDGE
AT CLINTON, IOWA
CITY OF CLINTON BRIDGE COMMISSION
PIERS
C. & NW. RR. OVERPASS
SCALES AS NOTED

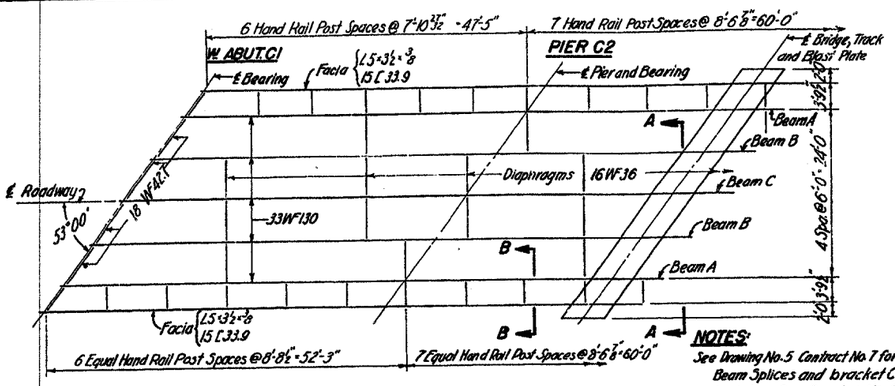
CONTRACT NO. 7 DRAWING NO. 9
MODJESKI & MASTERS, ENGINEERS
OCTOBER, 1951

APPROVED:
F. M. Masters
FOR MODJESKI & MASTERS

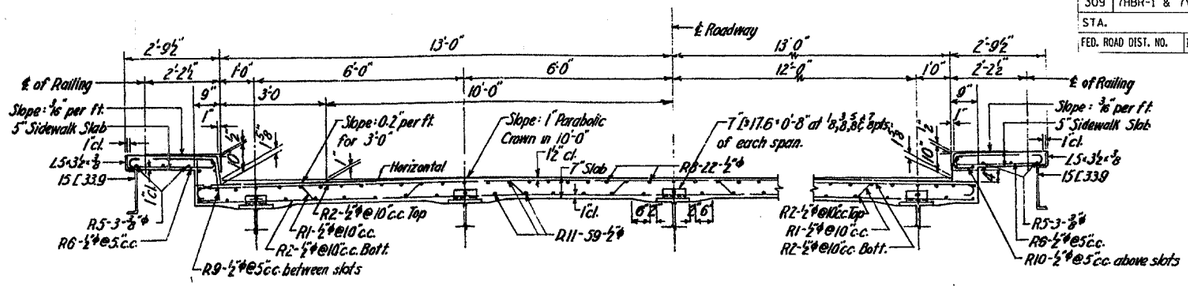
THIS DRWG. REVISED JAN 1957 TO SHOW THE WORK AS CONSTRUCTED
DR. J.F.K.C. TR. N.H.H. CK. T.A.K.

CONTRACT NO. 84883

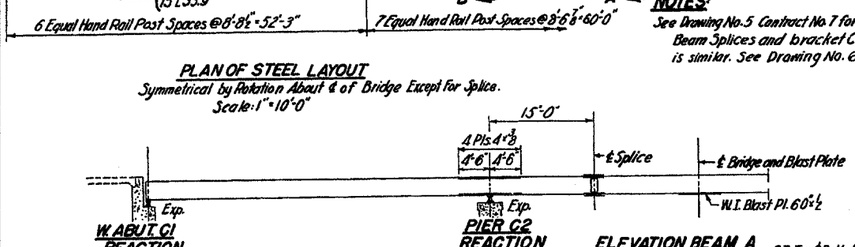
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	90
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:
See Drawing No. 5 Contract No. 7 for Sections A-A & B-B Beam Splices and bracket Connections. Expansion Dam is similar. See Drawing No. 6 for Railing & Bearing Details.



CROSS SECTION OF ROADWAY
Scale: ½" = 1'-0"



PLAN OF STEEL LAYOUT
Symmetrical by Rotation About ℄ of Bridge Except for Splice.
Scale: 1" = 10'-0"

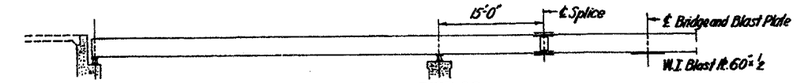
	W. ABUT. C1 REACTION	PIER C2 REACTION
DL	20	65
LL	23	28
I	7	8
SW	4	11
TOTAL	54	112

ELEVATION BEAM A

	0.4L MOMENT	MOMENT	0.5L MOMENT
DL	189	322	154
LL	210	166	207
I	60	46	56
SW	41	56	41
TOTAL	500	590	458

Use 33 WF 130 S.M. Furnished = 335
With 4 Pls. 4 x ⅜ S.M. Furnished = 400

R1-Top ℄ Bott: 1 ea. ½"

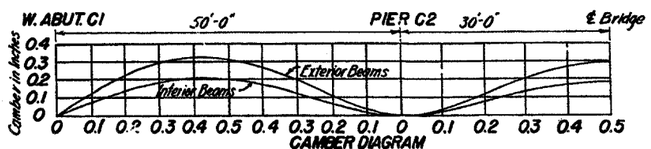


	W. ABUT. C1 REACTION	PIER C2 REACTION
DL	13	41
LL	33	40
I	9	11
TOTAL	55	92

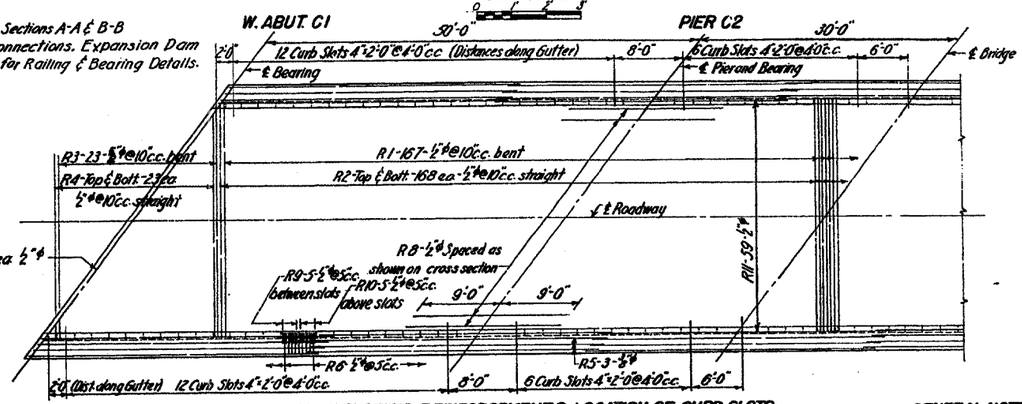
ELEVATION BEAMS B & C

	0.4L MOMENT	MOMENT	0.5L MOMENT
DL	120	204	97
LL	302	239	298
I	86	66	81
TOTAL	508	509	476

Use 33 WF 130 S.M. Furnished = 404

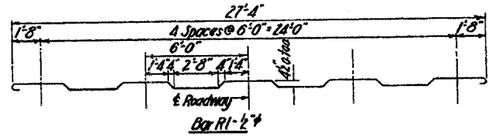


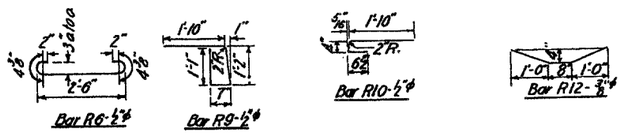
CAMBER DIAGRAM
Symmetrical About ℄ of Bridge



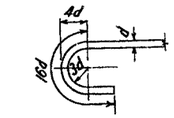
PLAN SHOWING REINFORCEMENT & LOCATION OF CURB SLOTS
Symmetrical by Rotation About ℄ Bridge
Scale: ⅛" = 1'-0"

BAR SCHEDULE - ROADWAY SLAB			
Mark	No.	Stock	Bend
R1	167	½"ϕ x 29'-8"	Bent - See Detail
R2	336	½"ϕ x 27'-4"	Straight
R3	46	⅝"ϕ x 15'-6½" av.	Bent - See Detail
R4	92	½"ϕ x 14'-1" av.	Straight - See Detail
R5	30	⅜"ϕ x 33'-10"	Straight
R6	780	½"ϕ x 3'-0½"	Bent - See Detail
R7	4	½"ϕ x 34'-0"	Straight
R8	44	½"ϕ x 18'-0"	Straight
R9	434	½"ϕ x 4'-8"	Bent - See Detail
R10	360	½"ϕ x 2'-8½"	Bent - See Detail
R11	295	½"ϕ x 33'-10"	Straight
R12	60	⅜"ϕ x 2'-8"	Bent - See Detail





BAR DETAILS



STANDARD HOOK DETAIL

GENERAL NOTES:
Live Load: H20-S16 applied in accordance with the 1949 A.A.S.H.O. Specifications.
Unit Stresses: In accordance with the 1949 A.A.S.H.O. Specifications, except as noted below.
Rivet Values: Shear 12,000 lbs. per sq. inch.
Bearing 24,000 lbs. per sq. inch.
Material: All material is medium carbon steel A.S.T.M. Designation A7-50T.
Camber: Beams shall be cambered for dead load in accordance with camber diagram.
Reactions are given in kips.
Moments are given in kip-feet.
Diaphragms and expansion dams are normal to grade.
Rivets are ⅞" ϕ except as noted.
Concrete in roadway shall be Class A.
All reinforcing bars shall be of deformed type A.S.T.M. A305-50T. Lapped 40 diameters at Splices.
1½" top coverage over roadway steel includes ½" integral wearing surface.
Blast plate is Wrought Iron

APPROVED:
F. M. Masters
FOR MODJESKI & MASTERS

MISSISSIPPI RIVER BRIDGE
AT CLINTON, IOWA
CITY OF CLINTON BRIDGE COMMISSION
SUPERSTRUCTURE
C.& N.W. R.R. OVERPASS
SCALES AS NOTED
CONTRACT NO. 7 DRAWING NO. 10
MODJESKI & MASTERS ENGINEERS
OCTOBER, 1951

THIS DRWG. REVISED JAN 1957 TO SHOW THE WORK AS CONSTRUCTED
DR. S. FEC. TR. ARC. CK. TAK.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	91
CONTRACT #84883				

IL Rte. 136

US Rte. 67

IL Rte. 84

Structure Locations

Project Begins

Project Ends

DETOUR ROUTE

SIGNING TO BE IN ACCORDENCE WITH STANDARD 40.1

TYPE III BARRICADE WITH FLASHING LIGHTS

RAMP CLOSED AHEAD

RAMP CLOSED AHEAD

PROJECT LOCATION & DETOUR MAP
FA Rte. 309 (US 30)
Sec.7HBR-1 & 7VBR
Whiteside County

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CONTRACT NO. 84883

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	92
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STORM WATER POLLUTION PREVENTION PLAN
EROSION CONTROL PLAN

THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE SILTATION WITHIN THE CONSTRUCTION ZONE AND TO ELIMINATE SEDIMENTS FROM ENTERING AND LEAVING THE CONSTRUCTION ZONE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN ITEMS, AS SHOWN IN THIS PLAN AND REFERENCED BY THE LEGEND, SHALL BE PLACED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION RESULTING FROM THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL PLACE PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A REASONABLE AMOUNT OF TIME: THEREFORE, REDUCING THE AMOUNT OF AREA BEING OPEN TO THE POSSIBILITY OF EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE RESIDENT ENGINEER WILL DETERMINE IF TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED, THE SIZE OF THE PROPOSED DITCH CHECKS, THE PROPER METHOD OF INSTALLATION, AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS SHALL BE ADDED WHICH ARE NOT INCLUDED IN THE PLANS. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

SITE DESCRIPTION
DESCRIPTION OF CONSTRUCTION ACTIVITY:

THIS PROJECT CONSISTS OF Widening and removing and replacing the superstructures carrying US 30 over UP R.R. and Lincoln/ Dakin RD. Intersection Improvements and resurfacing US 30.

DESCRIPTION OF INTENDED SEQUENCE OF ACTIVITIES:
THE SEQUENCE OF EVENTS ARE AS FOLLOW: CLEARING, EMBANKMENT, EXCAVATION, GRADING AND PAVING. THIS PROJECT WILL BE CONSTRUCTED IN SEGMENTS AS SHOWN IN THE "STAGING PLANS".

TOTAL CONSTRUCTION SITE (CONSTRUCTION LIMIT TO CONSTRUCTION LIMIT) 6.6 Acre ACRES

PROPOSED R.O.W (TOTAL PARCEL AREA) N/A ACRES

DISTURBED BY EXCAVATION (E.O.P TO CONSTRUCTION LIMIT) 3.8 Acre ACRES

SUPPORTING REPORTS AND PLANS
THE FOLLOWING ASSISTED IN DEVELOPING THE EROSION CONTROL PLAN AS REFERENCED DOCUMENTS:

SOIL PROFILE SHEETS, SOILS REPORTS, BORING LOGS
USGS DRAINAGE MAPS, PROJECT PLAN DOCUMENTS

DRAINAGE TRIBUTARIES RECEIVING WATER FROM CONSTRUCTION SITE

Sunfish Slough, a back water of the Mississippi River

EROSION CONTROLS AND SEDIMENT CONTROL PROCEDURES
STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:
PERIMETER EROSION CONTROL SHALL BE PLACED PRIOR TO BEGINNING EARTHWORK.

STABILIZATION PRACTICES DURING CONSTRUCTION:
AS EARTH EXCAVATION AND EMBANKMENT ARE BEING COMPLETED THE CONTRACTOR SHALL PLACE DITCH CHECKS, INLET AND PIPE PROTECTION, EROSION CONTROL BLANKET, AND SEEDING AS STAGES OF THE PROJECT ARE COMPLETED. PERIMETER EROSION BARRIER WILL BE INSTALLED AT ADDITIONAL LOCATIONS AS THE PROJECT PROGRESSES. SEEDING SHALL BE COMPLETED AS SPECIFIED IN THE EROSION CONTROL/ SEEDING MOBILIZATION AND TEMPORARY SEEDING SPECIAL PROVISION.

MAINTENANCE AFTER FINAL GRADING
TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED WITH THE PROPER STAND. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP AND DISTURBED TURF RESEEDED.

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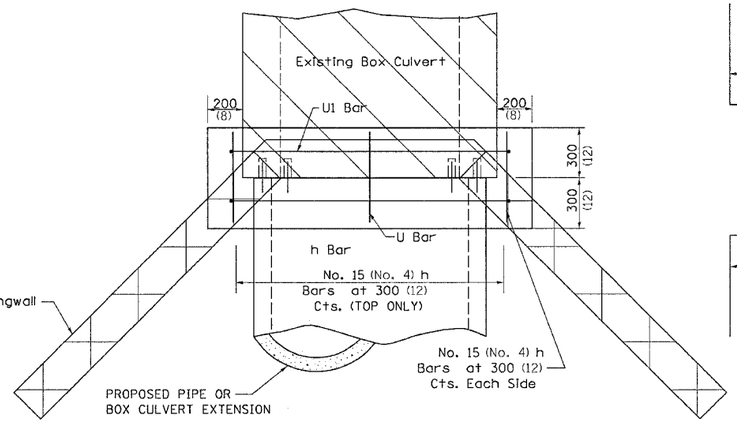
REVISED 5-12-04

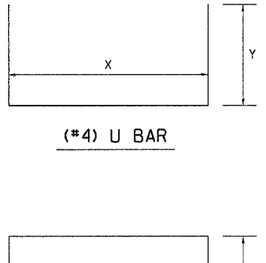
CONTRACT NO. 84883

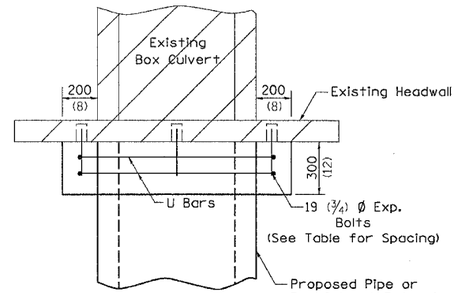
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	93
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONCRETE COLLARS FOR PIPE OR BOX CULVERT EXTENSIONS

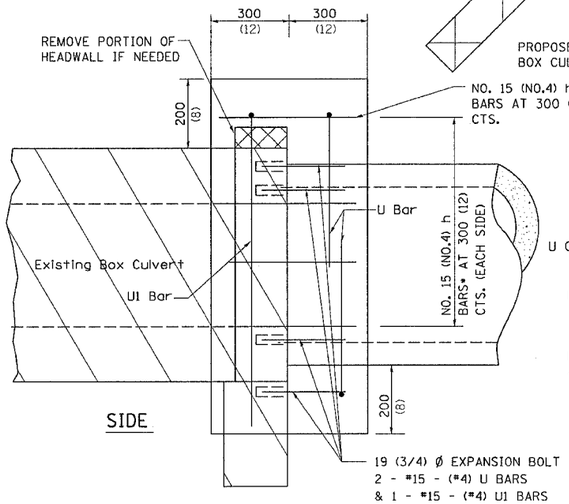


PLAN OF CULVERT WITH ANGLED WING WALLS

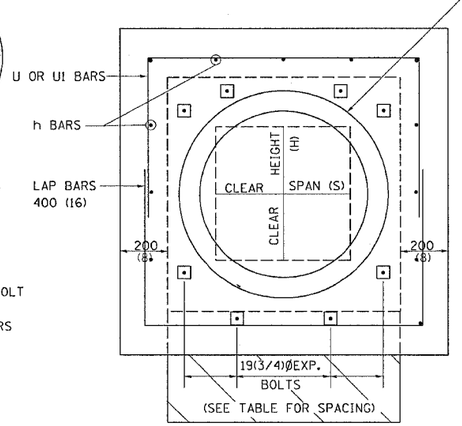




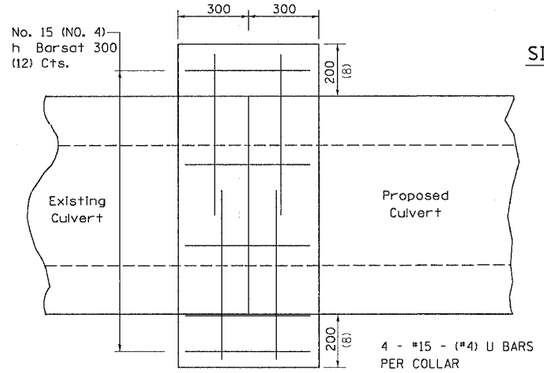
PLAN OF CULVERT WITH STRAIGHT HEADWALL



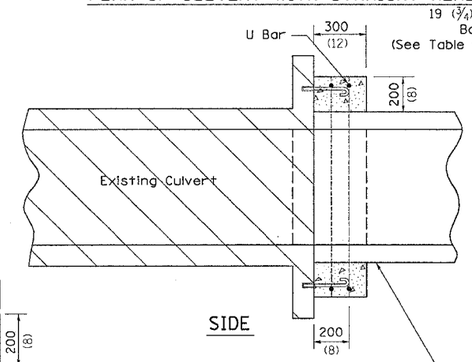
SIDE



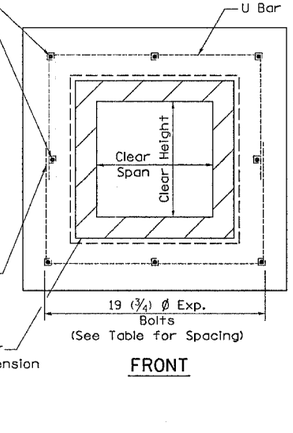
FRONT



CULVERT CONNECTION WITHOUT EXISTING HEADWALL



SIDE



FRONT

PLACEMENT DETAILS FOR EXPANSION BOLTS

H OR S	NUMBER OF EXPANSION BOLTS REQUIRED PER SIDE			
	EXTENSIONS < 4.57m (15')		EXTENSIONS > 4.57m (15')	
	NUMBER	SPACING	NUMBER	SPACING
600 (24)	*		*	
750 (30)	2	450 (18)	2	450 (18)
900 (36)	2	600 (24)	2	600 (24)
1200 (48)	3	450 (18)	3	450 (18)
1500 (60)	4	400 (16)	3	600 (24)
1800 (72)	5	375 (15)	4	500 (20)
2100 (84)	5	450 (18)	4	600 (24)
2400 (96)	6	375 (15)	5	525 (21)
2700 (108)	6	475 (19)	5	600 (24)
3000 (120)	7	450 (18)	6	525 (21)
3300 (132)	8	425 (17)	6	600 (24)
3600 (144)	8	475 (19)	7	550 (22)

* MINIMUM ONE PER SIDE

Bill of Materials

	DIMENSIONS		h Bar	U Bar		EXPANSION BOLTS	CONCRETE COLLAR	REINF. BARS
STATION	X	Y	No.	No.	Length	No.	Cu. m.	KG
					Total			

All h Bars 450 (18) Long

General Notes

Concrete Collars shall be constructed of Class SI Concrete in accordance with Section 503 of the Standard Specifications

Reinforcement bars shall conform to Section 508 of the Standard Specifications.

The concrete will be paid for at the contract unit price per cubic meter (cubic yard) for CONCRETE COLLAR. Reinforcement will be paid for at the contract unit price per kilogram (pound) for REINFORCEMENT BARS. Expansion Bolts, when required, will be paid for at the contract unit price each for EXPANSION BOLTS of the size indicated, which price shall include furnishing, drilling holes, and installing the expansion bolts complete in place. These bolts shall extend at least 200 (8 inches) into the new concrete.

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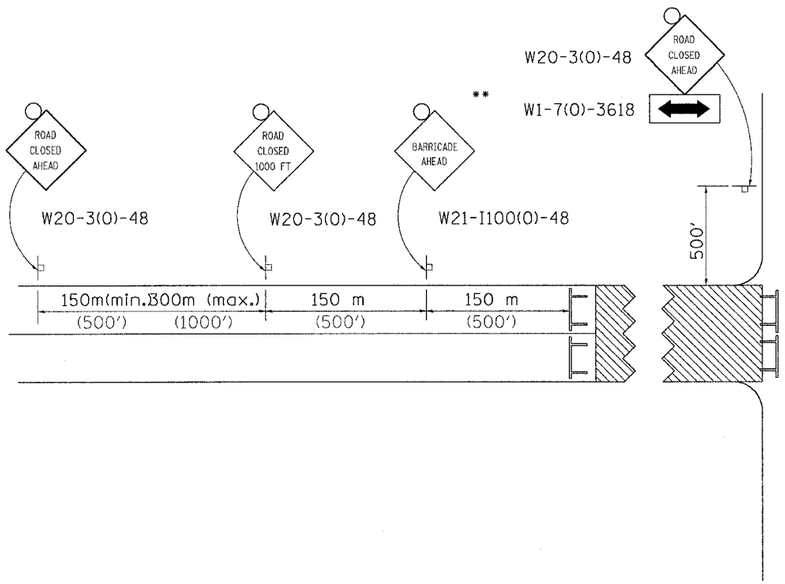
REVISED 10-15-04

CONTRACT NO. 84883

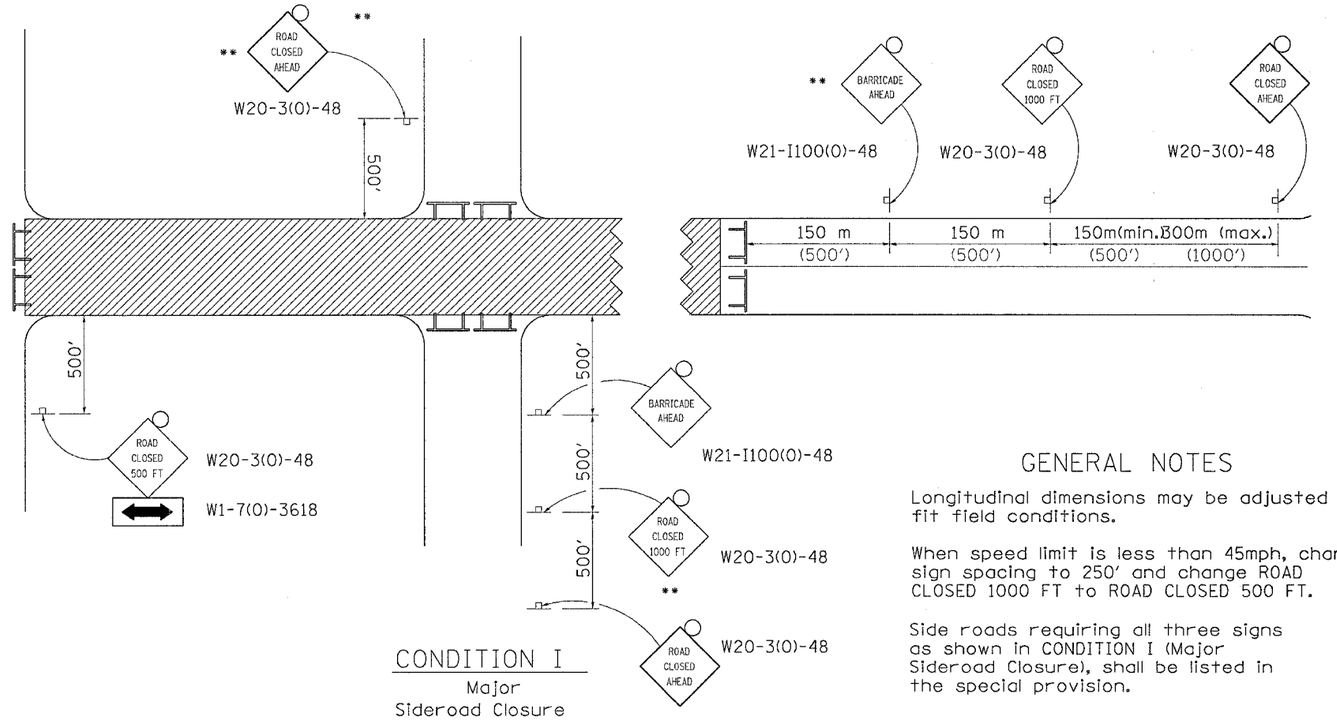
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	94
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL FOR ROAD CLOSURE



CONDITION II

Minor
Sideroad Closure



CONDITION I

Major
Sideroad Closure

GENERAL NOTES

Longitudinal dimensions may be adjusted to fit field conditions.

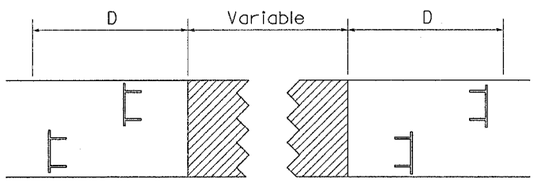
When speed limit is less than 45mph, change sign spacing to 250' and change ROAD CLOSED 1000 FT to ROAD CLOSED 500 FT.

Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.

** Where local access is to be maintained, barricades are to be set up as shown in Road Closed to thru traffic.

Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 702001.

ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To All Thru Traffic" detail on Highway Standard 702001. If the distance "D" exceeds 600 m (2000') an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.

SYMBOLS

Work area

Type III Barricade with Flashers

Sign with flashing light

All dimensions are in millimeters (inches) unless otherwise shown.

TYPICAL APPLICATION FOR ROAD CLOSURE

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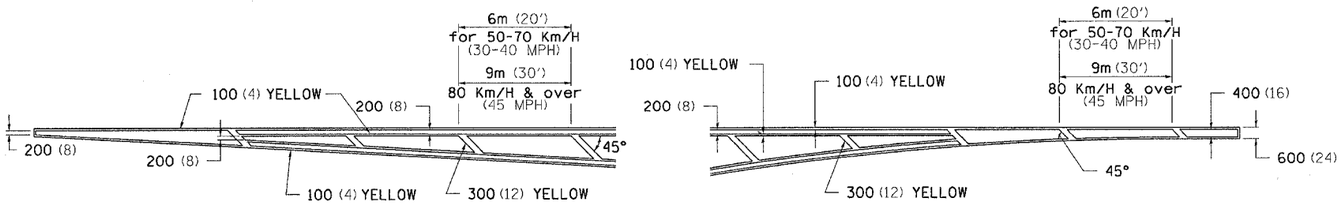
CONTRACT NO. 84883

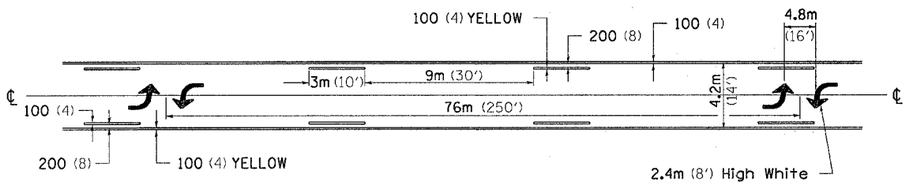
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	95
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

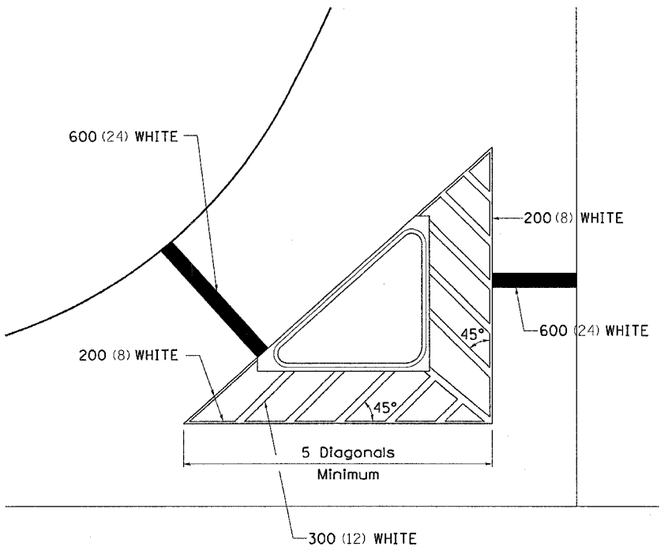
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



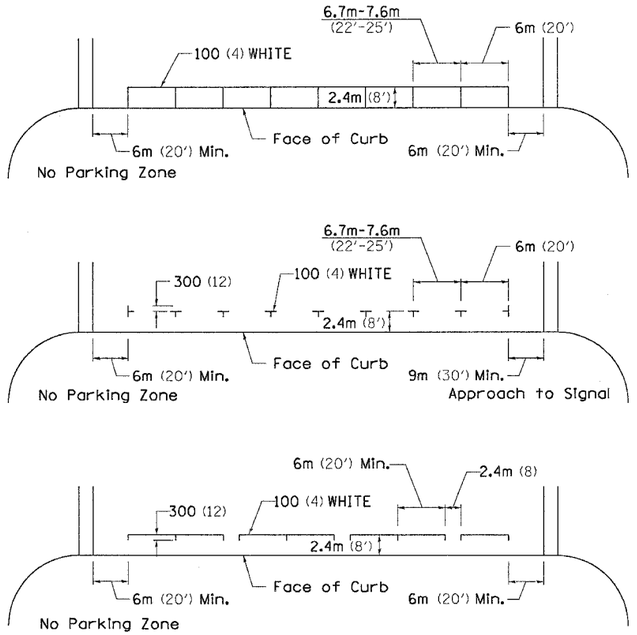
MEDIAN PAVEMENT MARKING



TYPICAL ISLAND OFFSET SHOULDER WIDTH



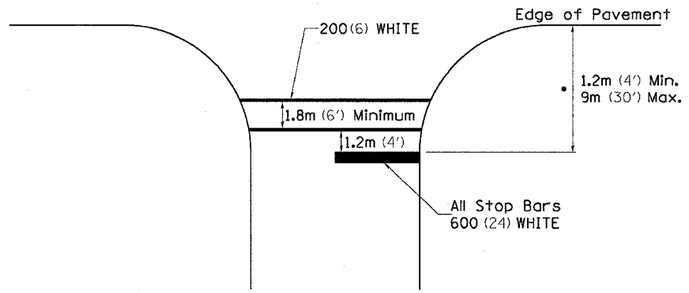
TYPICAL PARKING SPACING



** ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

STANDARD CROSSWALK MARKING

See Schedules for Locations



• Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

PLOT DATE = Wed Aug 17 11:59:44 2005
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REFERENCE = REF

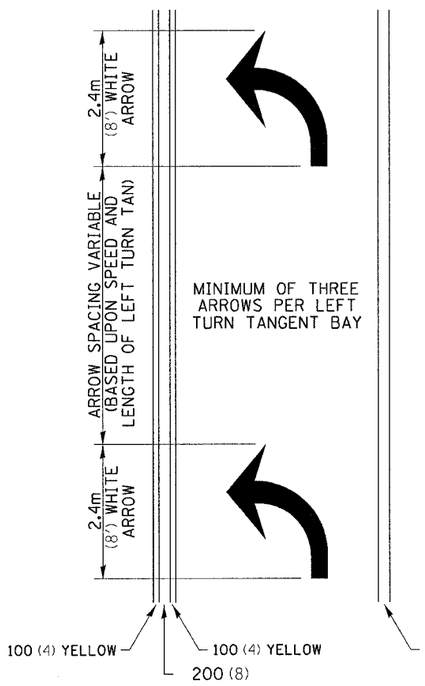
REVISED 2-7-05

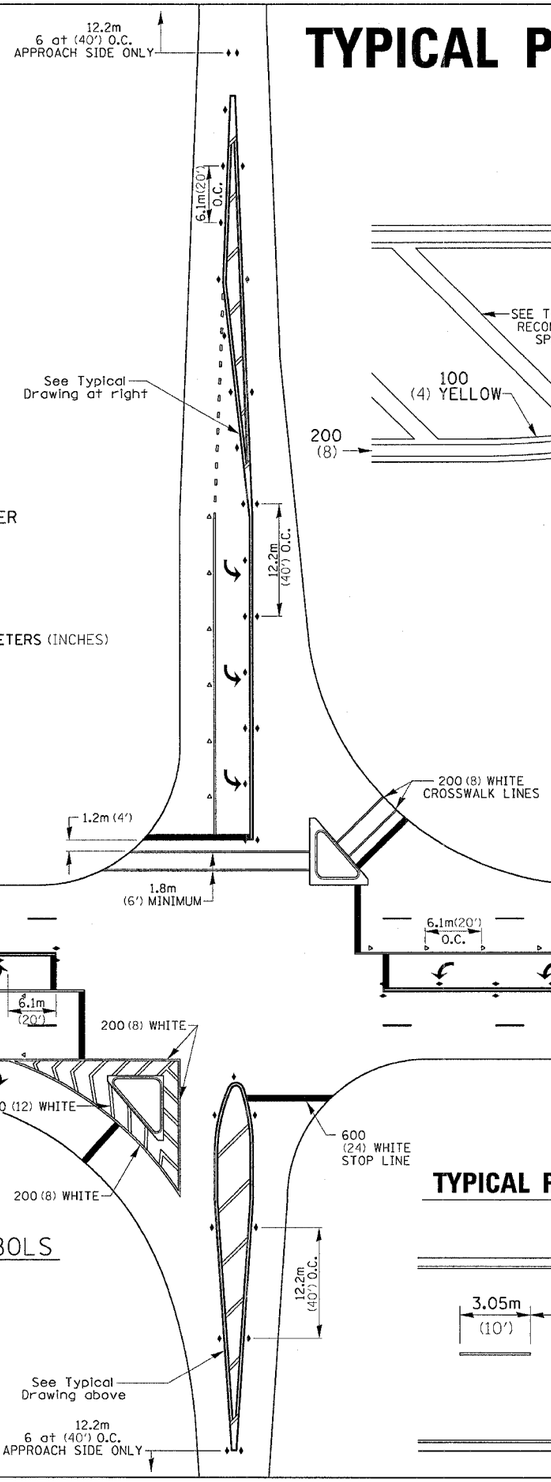
CONTRACT NO. 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	96
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

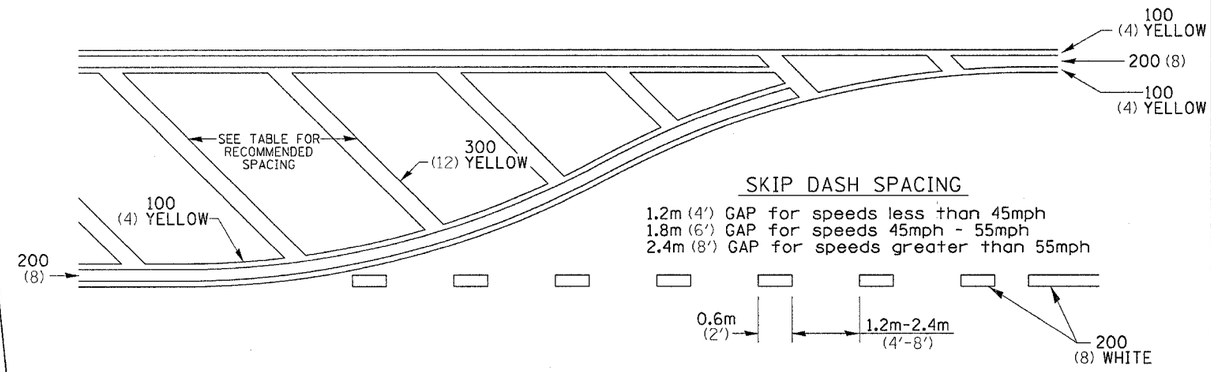
ARROW LAYOUT





ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

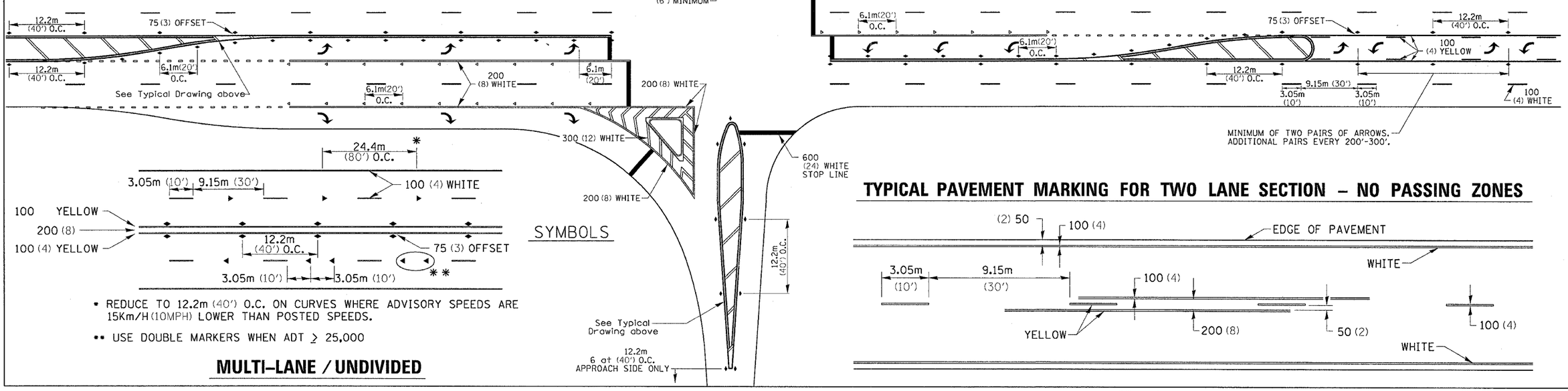
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 50Km/H (30MPH)	15.3m (50')	4.53m (15')	3.05m (10')
50-60Km/H (30-40MPH)	22.9m (75')	6.1m (20')	4.53m (15')
70Km/H (45MPH) & over	22.9m (75')	9.05m (30')	6.1m (20')

NOTE: if the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



* REDUCE TO 12.2m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 15Km/H (10MPH) LOWER THAN POSTED SPEEDS.

** USE DOUBLE MARKERS WHEN ADT ≥ 25,000

MULTI-LANE / UNDIVIDED

TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES

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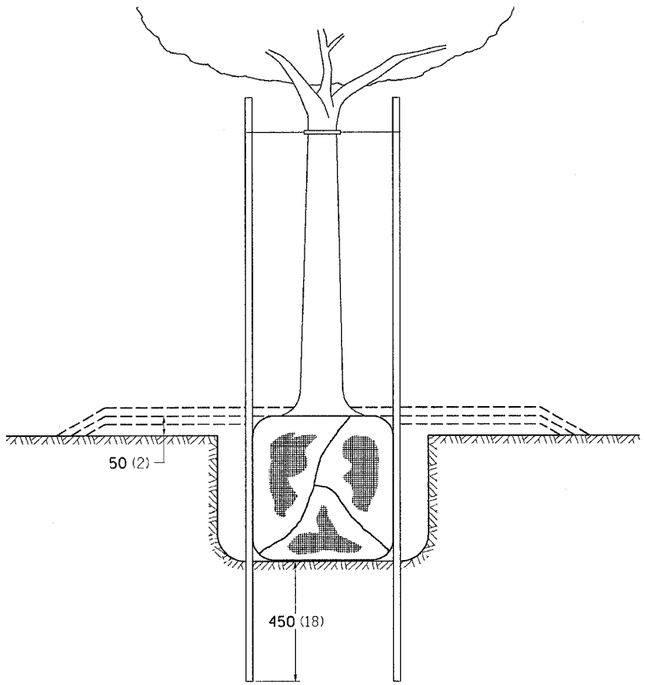
REVISED 10-15-04

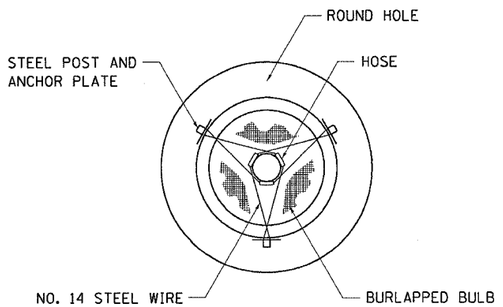
CONTRACT NO. 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1 & 7VBR	WHITESIDE	146	97
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DETAILS OF PLANTING AND BRACING TREES

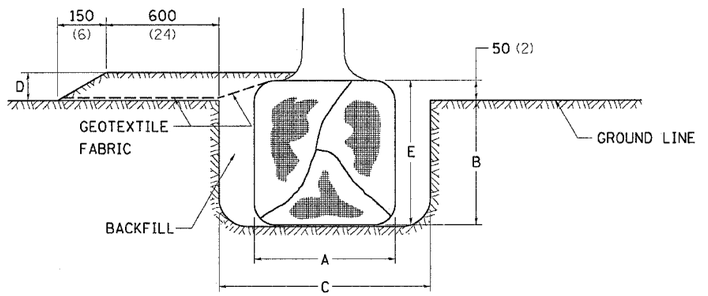


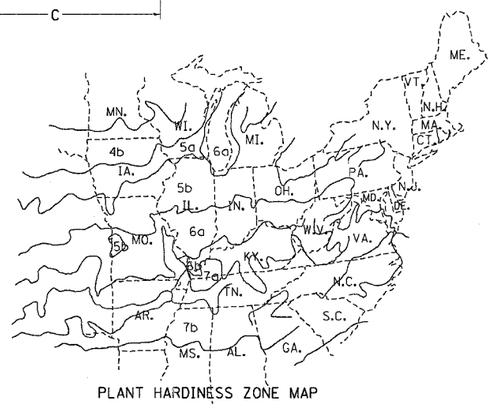
TREES SMALLER THAN 115 (4½) IN DIAMETER



SMALL TREE SIZE	A DIAMETER OF BALL OR ROOT SYS.	B DEPTH OF HOLE EXCAVATION	C WIDTH OF HOLE EXCAVATION	D THICKNESS OF MULCH COVER	E DEPTH OF BALL OR ROOT SYS.	F VOLUME OF MULCH COVER m^3 (CU. YDS.)
1.5-1.8m (5'-6')	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.5-1.8m (5'-6') BB	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.8-2.0m (6'-7') BB	450 (18)	300 (12)	750 (30)	100 (4)	350 (14)	0.41 (0.54)
2.0-2.4m (7'-8') BB	500 (20)	275 (11)	750 (30)	100 (4)	325 (13)	0.41 (0.54)
2.4-3.0m (8'-10') BB	600 (24)	350 (14)	900 (36)	100 (4)	400 (16)	0.47 (0.61)
3.0-3.6m (10'-12') BB	650 (26)	375 (15)	900 (36)	100 (4)	425 (17)	0.47 (0.61)

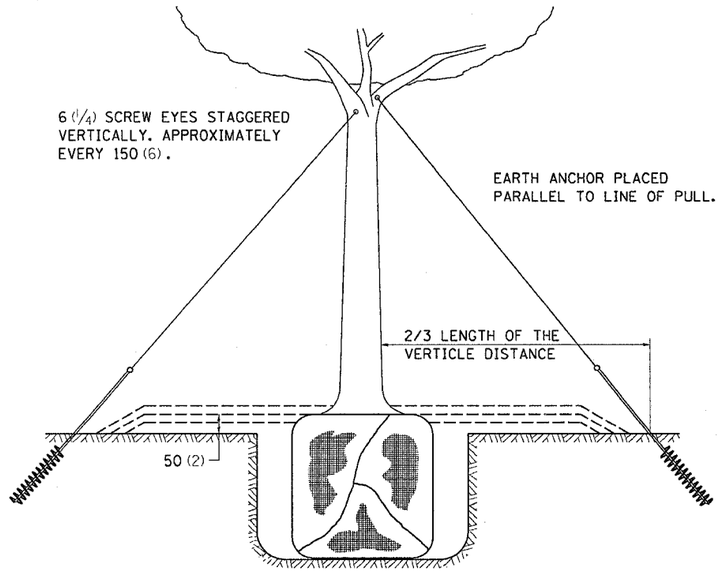
LARGE TREE SIZE	A DIAMETER OF BALL OR ROOT SYS.	B DEPTH OF HOLE EXCAVATION	C WIDTH OF HOLE EXCAVATION	D THICKNESS OF MULCH COVER	E DEPTH OF BALL OR ROOT SYS.	F VOLUME OF MULCH COVER m^3 (CU. YDS.)
0-50 (0-2)	500 (20)	275 (11)	900 (36)	100 (4)	325 (13)	0.47 (0.61)
50-65 (2-2½)BB	600 (24)	350 (14)	1200 (48)	100 (4)	400 (16)	0.60 (0.78)
65-75 (2½-3)BB	700 (28)	425 (17)	1200 (48)	100 (4)	475 (19)	0.60 (0.78)
75-90 (3-3½) BB	800 (32)	425 (17)	1500 (60)	100 (4)	475 (19)	0.73 (0.96)
90-100 (3½-4) BB	900 (36)	500 (20)	1500 (60)	100 (4)	550 (22)	0.73 (0.96)
100-115 (4-4½) BB	1000 (40)	550 (22)	1800 (72)	100 (4)	600 (24)	0.89 (1.16)
115-125 (4½-5) BB	1100 (44)	600 (24)	1800 (72)	100 (4)	650 (26)	0.89 (1.16)
125-140 (5-5½) BB	1200 (48)	675 (27)	2100 (84)	100 (4)	725 (29)	1.06 (1.38)



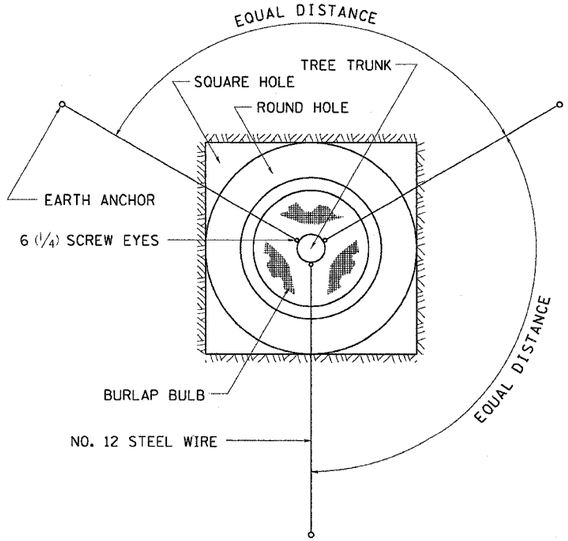


PLANT HARDINESS ZONE MAP

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
PUBLICATION NO. 814



TREES OVER 115 (4½) IN DIAMETER



ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

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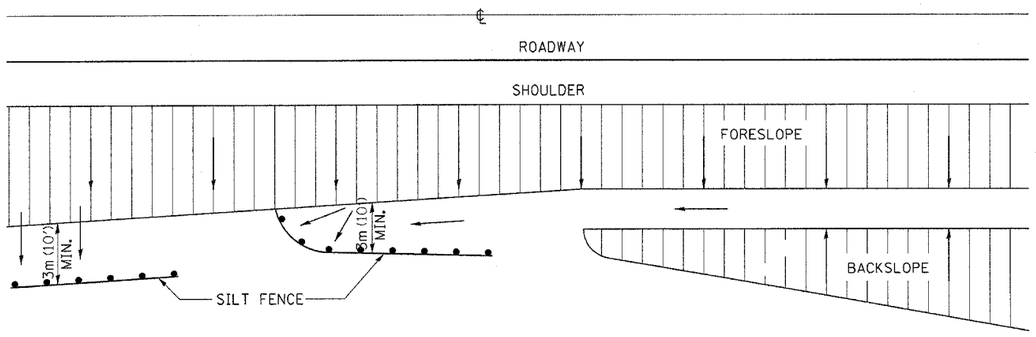
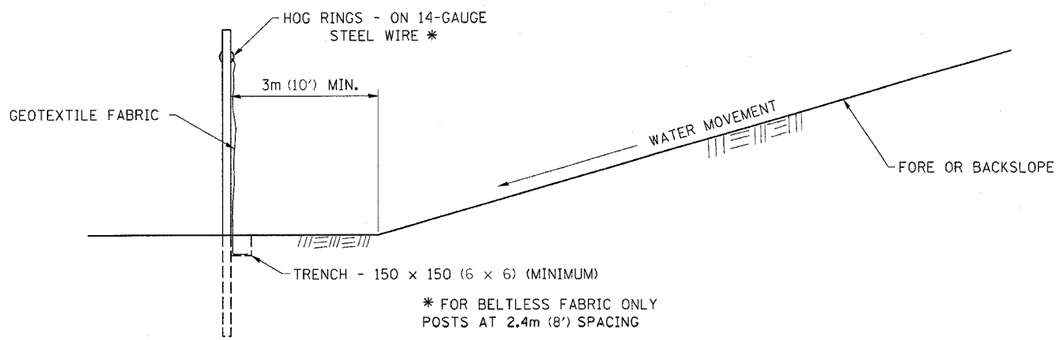
EROSION CONTROL DETAILS FOR SILT FENCE





DETAILS OF SILT FENCE

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

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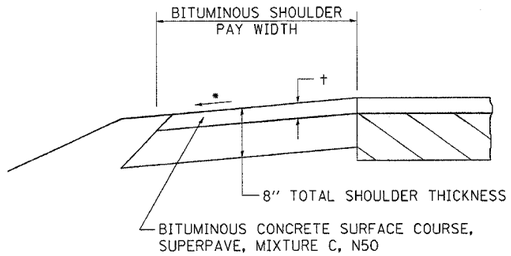
EROSION CONTROL DETAILS FOR SILT FENCE **29.2**

REVISED 10-22-01

BITUMINOUS SHOULDER

CONTRACT NO. 84883

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	Whiteside	146	98
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



† = SEE TYPICAL SECTIONS FOR THICKNESS

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

GENERAL NOTES

THE BITUMINOUS SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50, AND SQUARE YARD FOR BITUMINOUS SHOULDERS SUPERPAVE OF THE THICKNESS SPECIFIED.

USE BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50, WHEN RESURFACING EXISTING BITUMINOUS SHOULDERS. THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE C, N50.

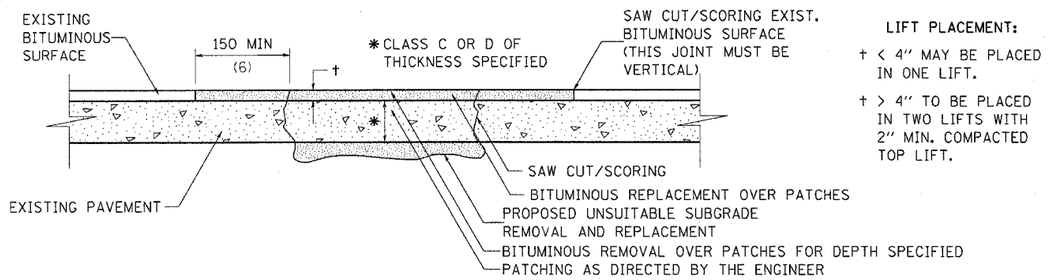
REMOVAL OF MATERIAL FOR PLACEMENT OF THE BITUMINOUS SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

BITUMINOUS SHOULDER **23.4a**

REVISED 5-30-03

PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT



LIFT PLACEMENT:

† < 4" MAY BE PLACED IN ONE LIFT.

† > 4" TO BE PLACED IN TWO LIFTS WITH 2" MIN. COMPACTED TOP LIFT.

SEQUENCE OF CONSTRUCTION:

1. REMOVE THE EXISTING BITUMINOUS SURFACE.
2. RESIDENT ENGINEER WILL DETERMINE IF LOCATION IS TO BE PATCHED OR TO ONLY REPLACE BITUMINOUS SURFACE.
3. REMOVE AND REPLACE FULL DEPTH PATCHES AT LOCATIONS DIRECTED BY THE ENGINEER.
4. REPLACE BITUMINOUS SURFACE OVER FULL DEPTH PATCHES AND AT LOCATIONS OF BITUMINOUS SURFACE REMOVAL.

GENERAL NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 300 (12) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR BASIS OF PAYMENT: SEE SPECIAL PROVISION "PATCHING WITH BITUMINOUS OVERLAY REMOVAL".

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

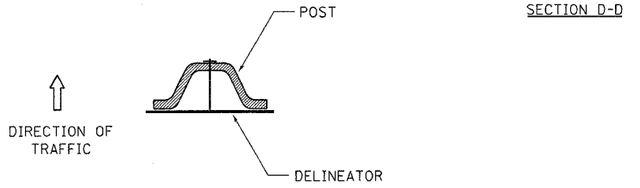
PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT **32.4**

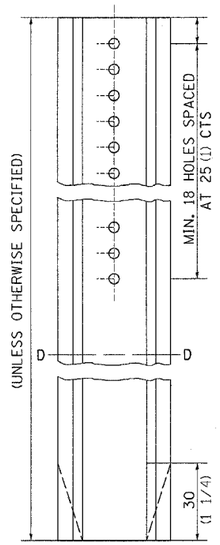
REVISED 6-21-01

CONTRACT NO. 84883

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	Whiteside	146	99
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DELINEATOR AND POST ORIENTATION





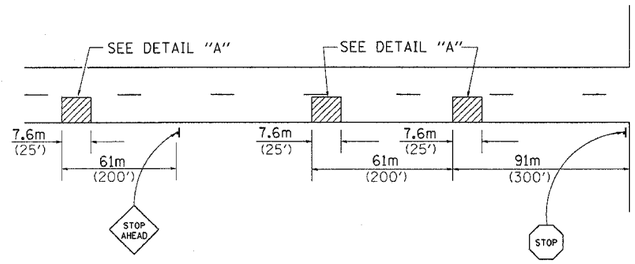
DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180° . THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

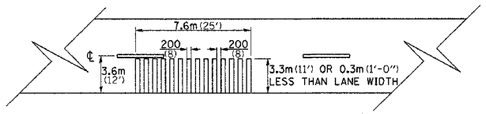
DELINEATOR AND POST ORIENTATION 37.4

REVISED 1-31-00

RUMBLE RESURFACING

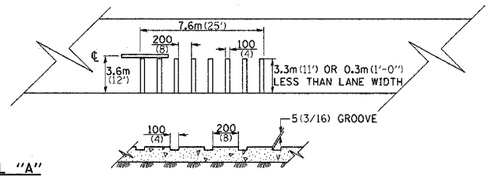


RAISED



NOTE: THE 7.6m (25') RUMBLE AREA HAS 200 (8) LENGTHS OF TREATED SURFACE STRETCHED ACROSS THE WIDTH OF APPROACH LANE, EACH SEPARATED BY 200 (8) OF EXISTING PAVEMENT.

GROOVED



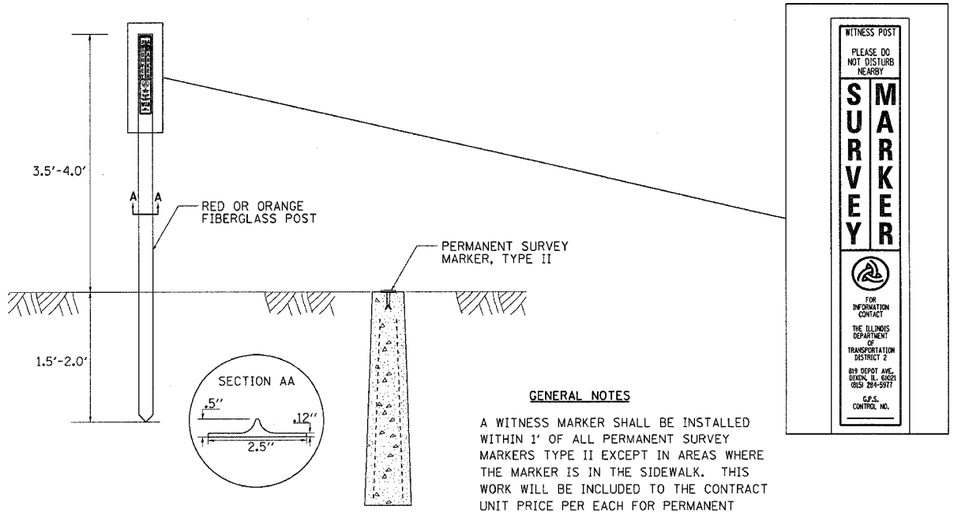
DETAIL "A"

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

RUMBLE RESURFACING 91.4

REVISED 2-16-88

WITNESS MARKER FOR PERMANENT SURVEY MARKERS TYPE II



GENERAL NOTES

A WITNESS MARKER SHALL BE INSTALLED WITHIN 1' OF ALL PERMANENT SURVEY MARKERS TYPE II EXCEPT IN AREAS WHERE THE MARKER IS IN THE SIDEWALK. THIS WORK WILL BE INCLUDED TO THE CONTRACT UNIT PRICE PER EACH FOR PERMANENT SURVEY MARKERS, TYPE II.

WITNESS MARKER FOR PERMANENT SURVEY MARKERS TYPE II 38.4

REVISED 1-31-00

TREE REPLACEMENT SCHEDULE

CODE NUMBER	SCIENTIFIC NAME	COMMON NAME	SIZE	UNIT	QUANTITY
A2007814	Tree Tilia Americana	American Linden Basswood	1-3/4"Caliper, Balled & Burlapped	EACH	1

Note: Layout shall be performed by the District Landscape Architect

Mulch shall be hardwood wood chips, 5 foot width, 4 inches thick with weed barrier fabric

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TREE REPLACEMENT SCHEDULE 90.4

REVISED 8-10-05

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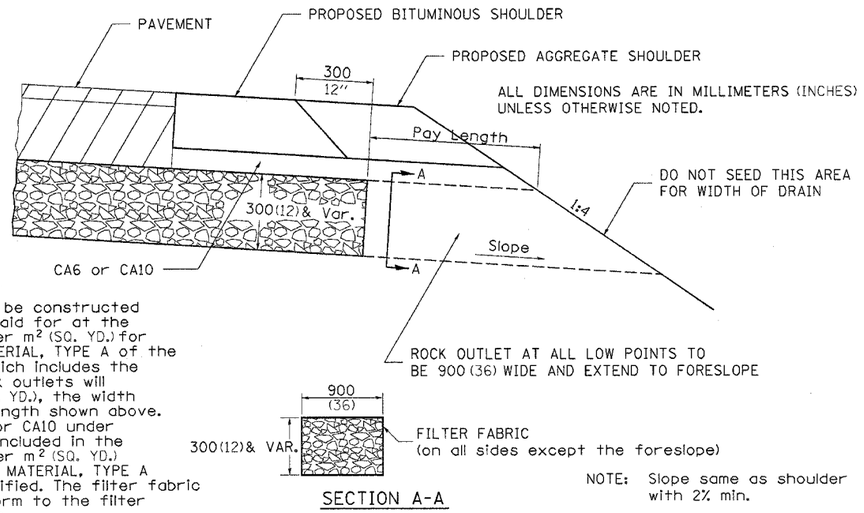
REFERENCE = REF

CONTRACT NO. 84883

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&TVBR	Whiteside	146	100
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DRAIN FOR AGGREGATE BASE COURSE



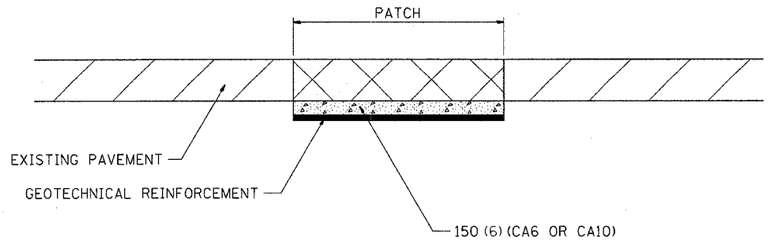
NOTES:

The rock outlets shall be constructed using CA7 and will be paid for at the contract unit price per m^2 (SQ. YD.) for SUB-BASE GRANULAR MATERIAL, TYPE A of the thickness specified which includes the filter fabric. The Rock outlets will be measured in m^2 (SQ. YD.), the width being 900 (36) by the length shown above. The cost of the CA6 or CA10 under the shoulder shall be included in the contract unit price per m^2 (SQ. YD.) for SUB-BASE GRANULAR MATERIAL, TYPE A of the thickness specified. The filter fabric to be used shall conform to the filter fabric used for Riprap.

DRAIN FOR AGGREGATE BASE COURSE 96.4

REVISED 7-13-95

SUBGRADE REPLACEMENT



NOTES:

The Engineer will determine which patches will require Subgrade Replacement, generally when the Qu of the Subgrade < 0.3TSF or if patch density is questionable.

UNSTABLE SUBGRADE MATERIAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

This work will be paid for at the contract unit price per m^3 (CU. YD.) for GRANULAR SUBGRADE REPLACEMENT and per m^2 (SQ. YD.) for GEOTECHNICAL REINFORCEMENT.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

SUBGRADE REPLACEMENT 97.4

REVISED 4-23-93

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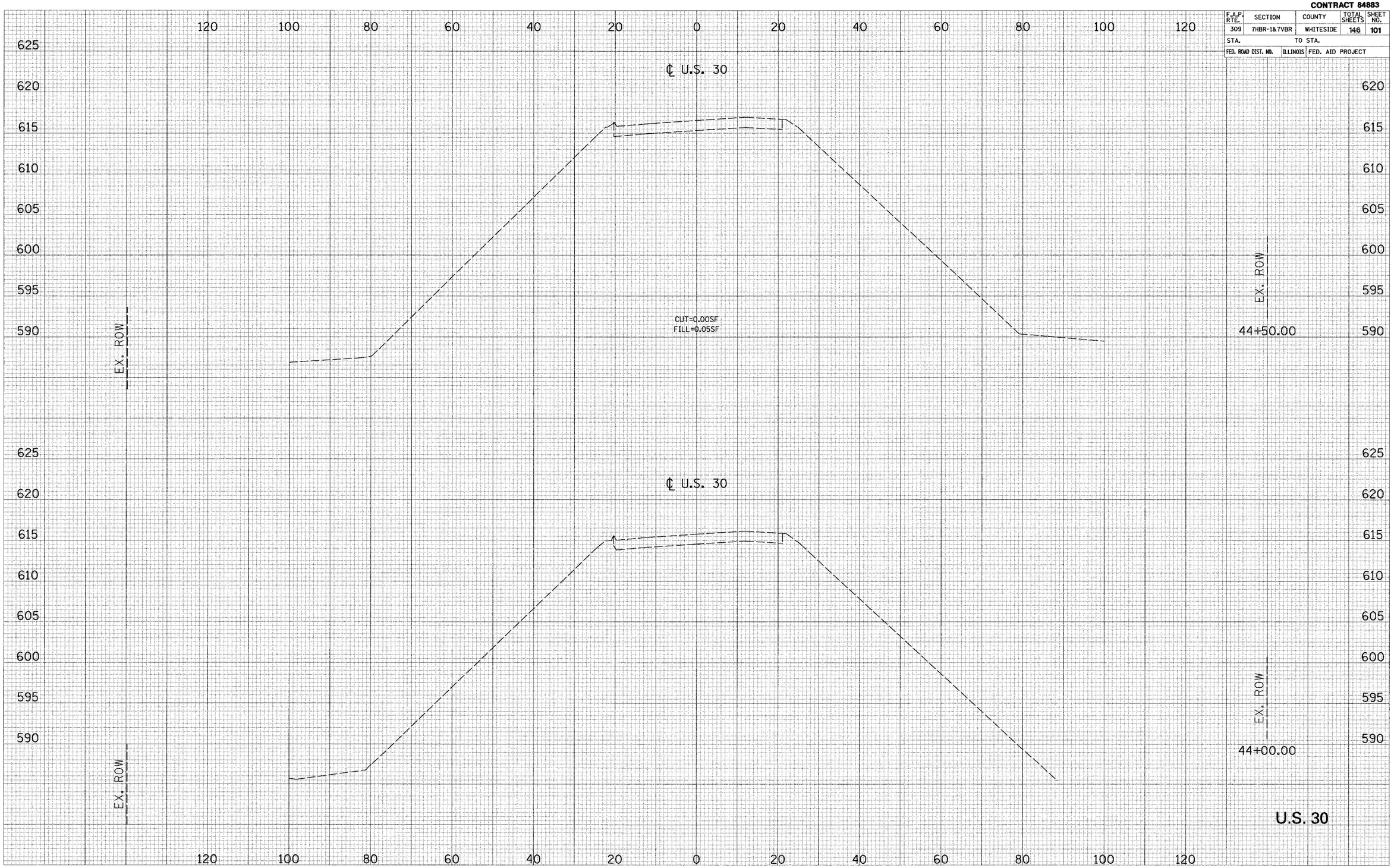
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	101
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



ORIGINAL SURVEY NOTE BOOK
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BY
DATE
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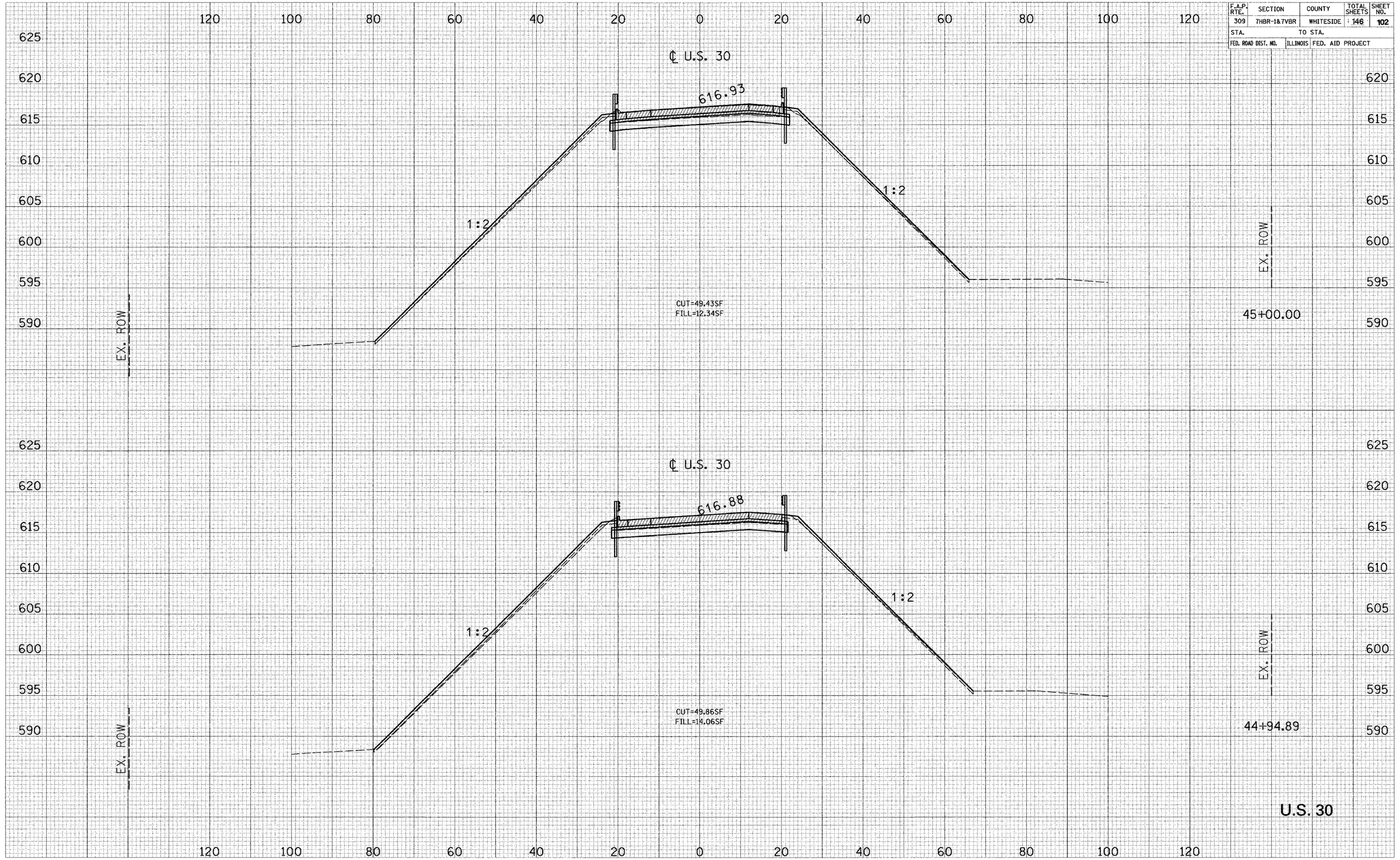
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	102
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

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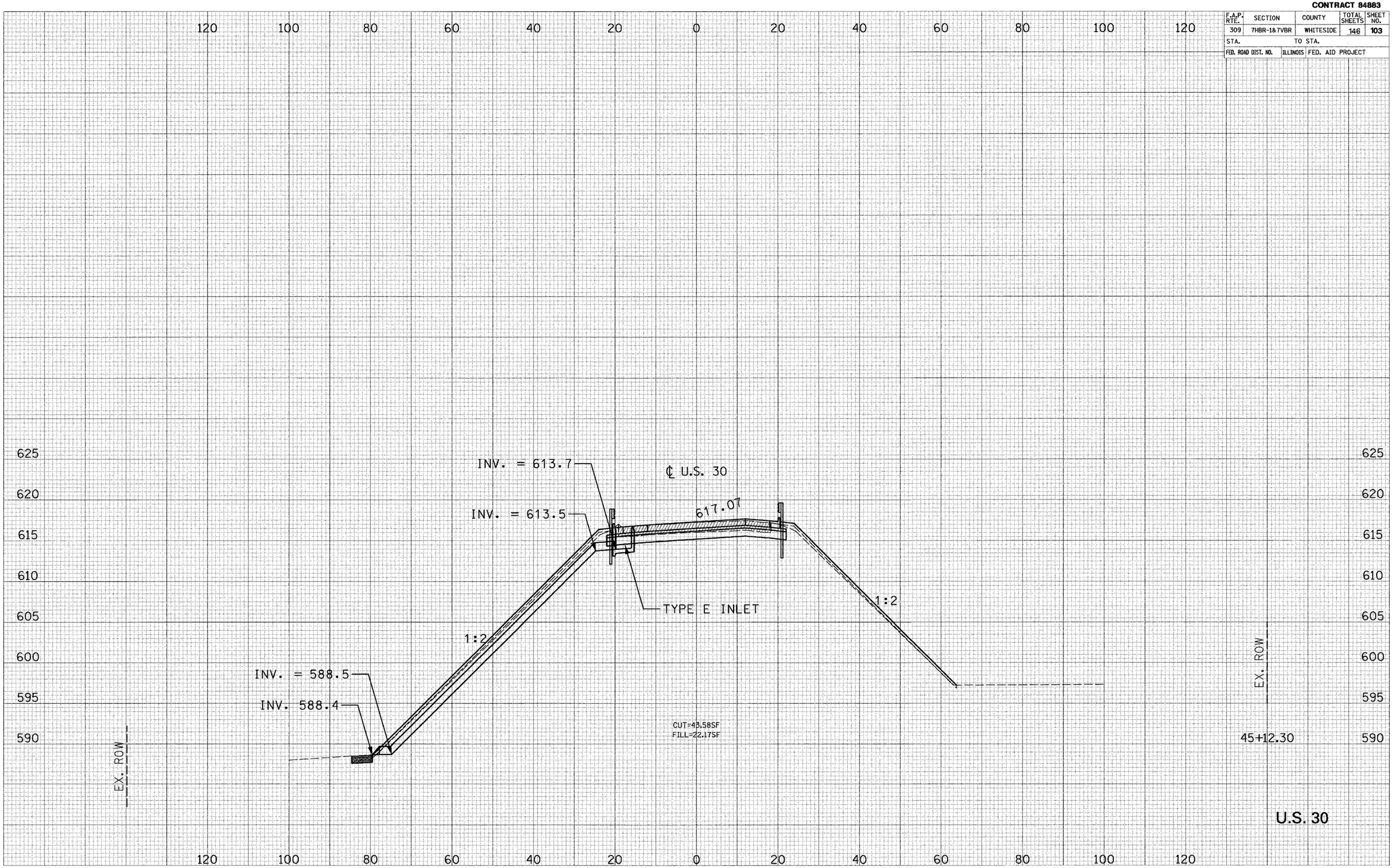
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	103
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

FINAL SURVEY — NOTE BOOK — AREAS — TEMPLATE — PLOTTED — SURVEYED — AREAS CHECKED — BY — DATE



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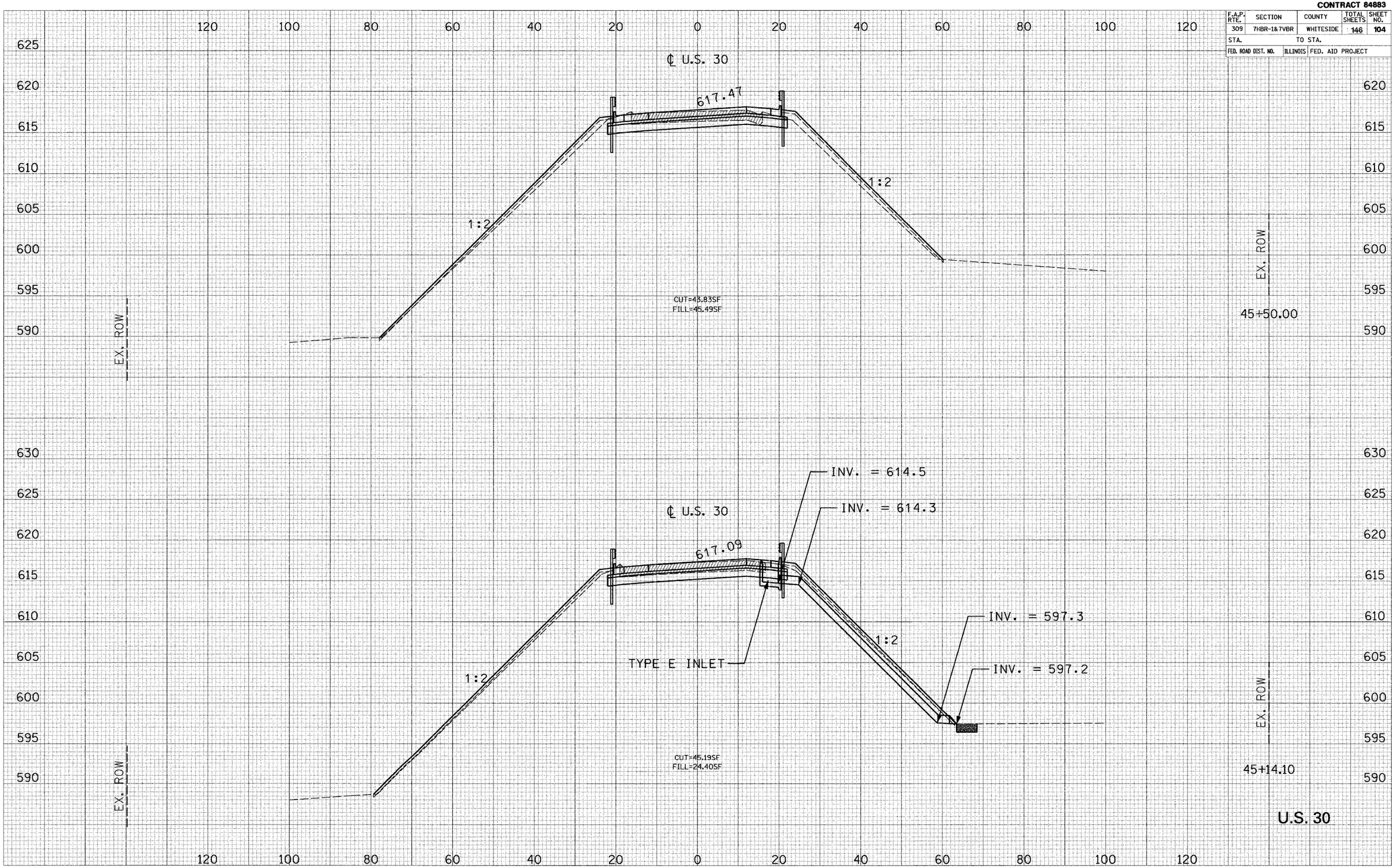
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	104
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

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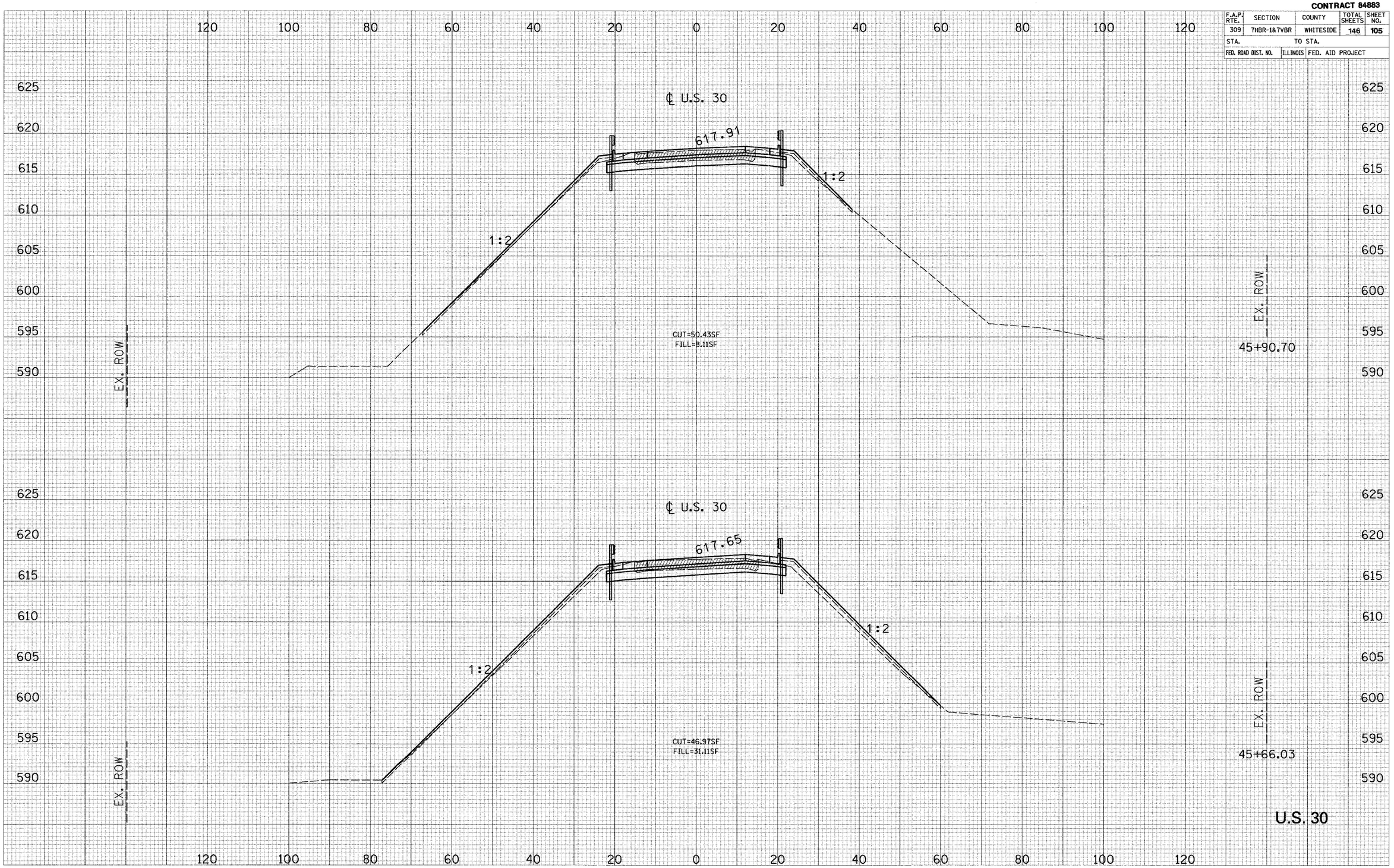
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	105
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

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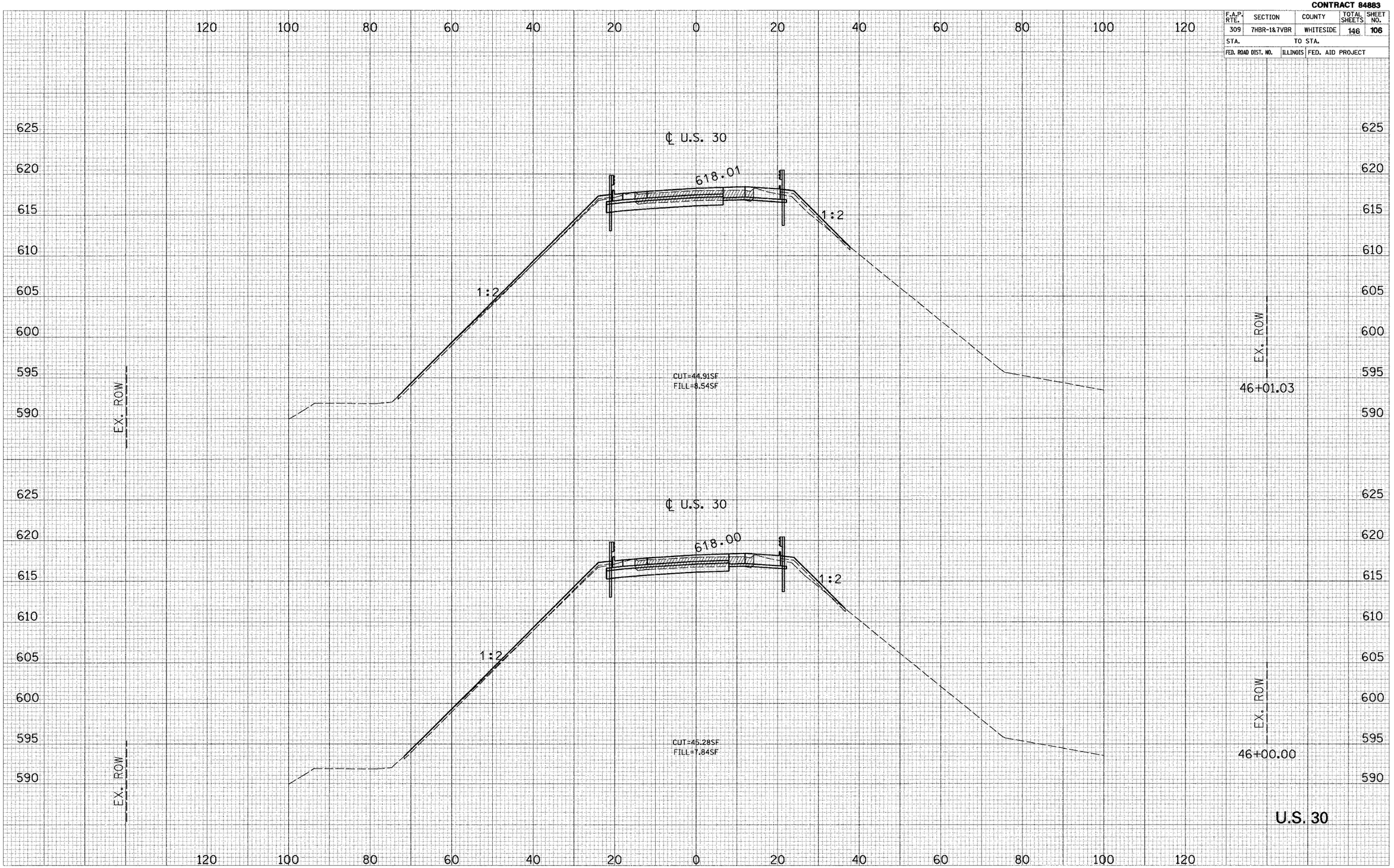
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	106
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

FINAL SURVEY
NOTE BOOK
NO.



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

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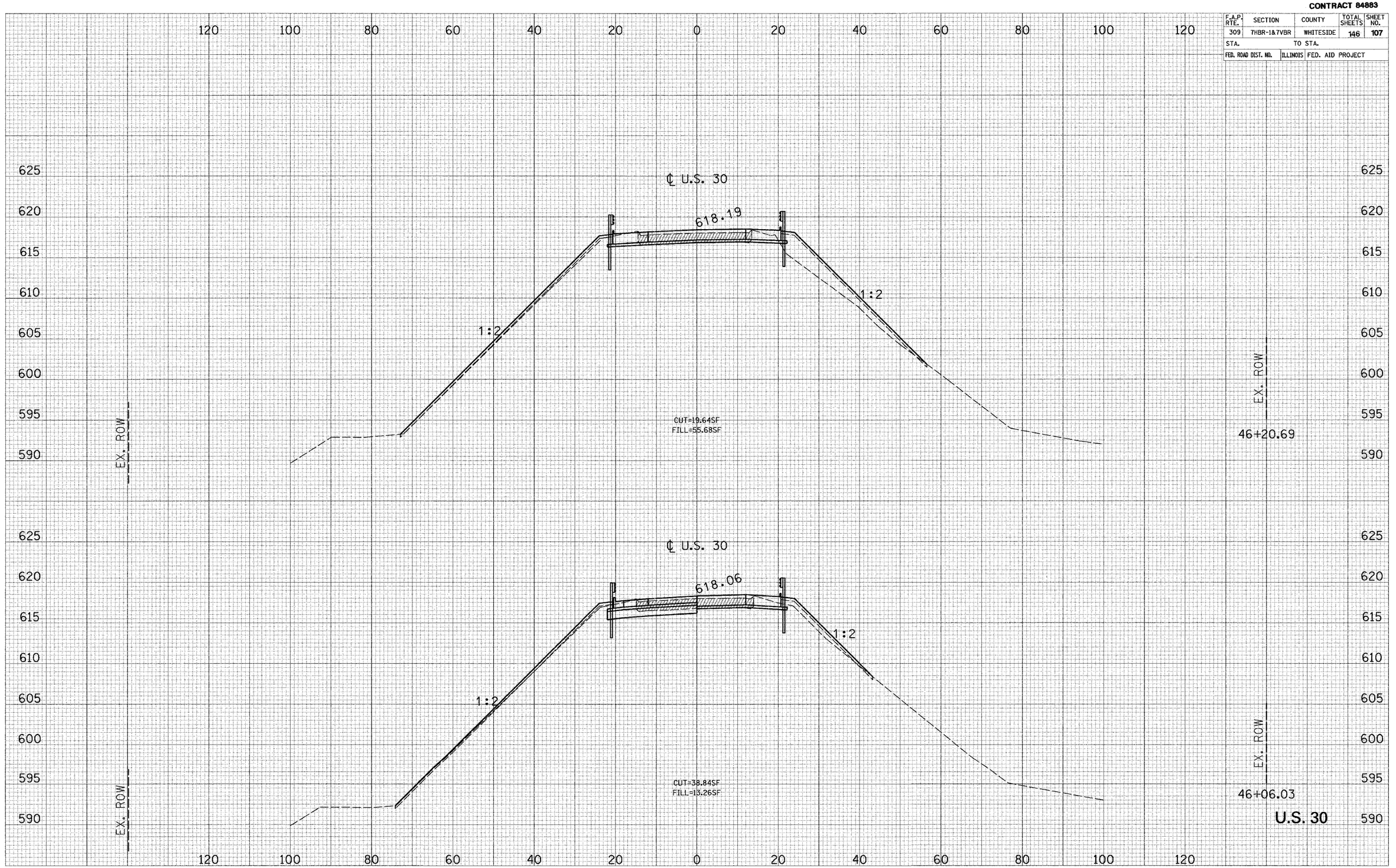
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	107
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

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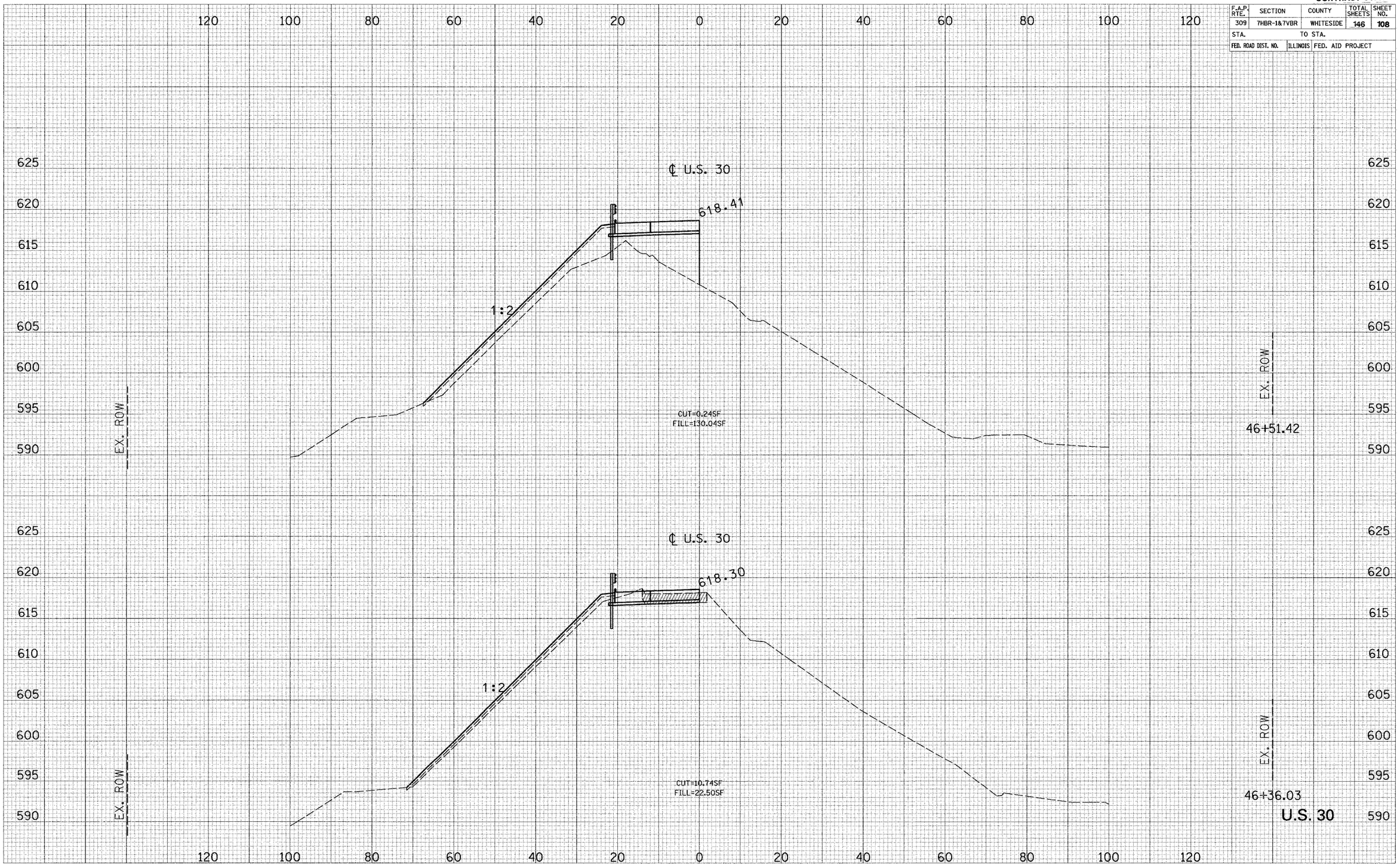
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	108
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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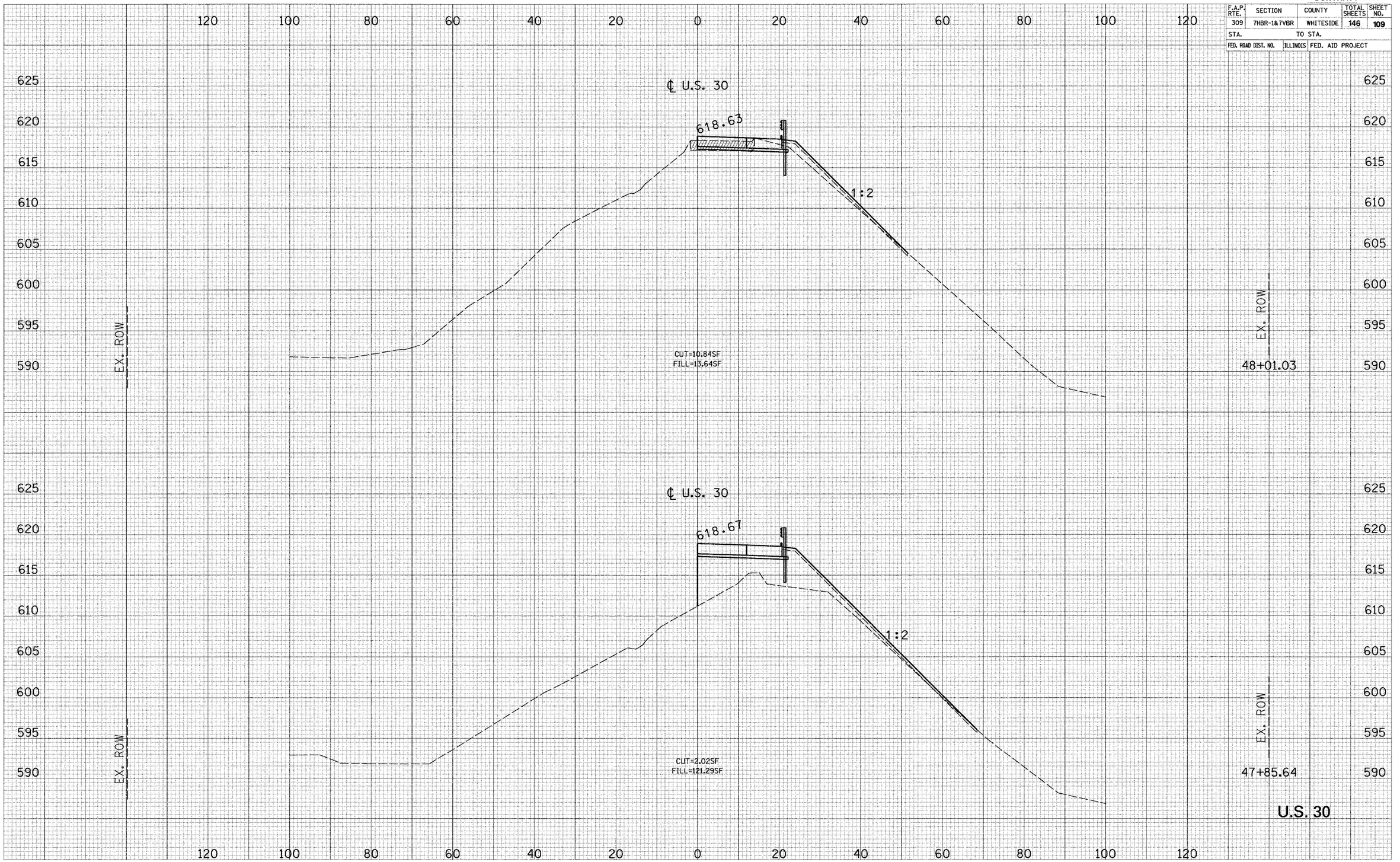
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	109
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

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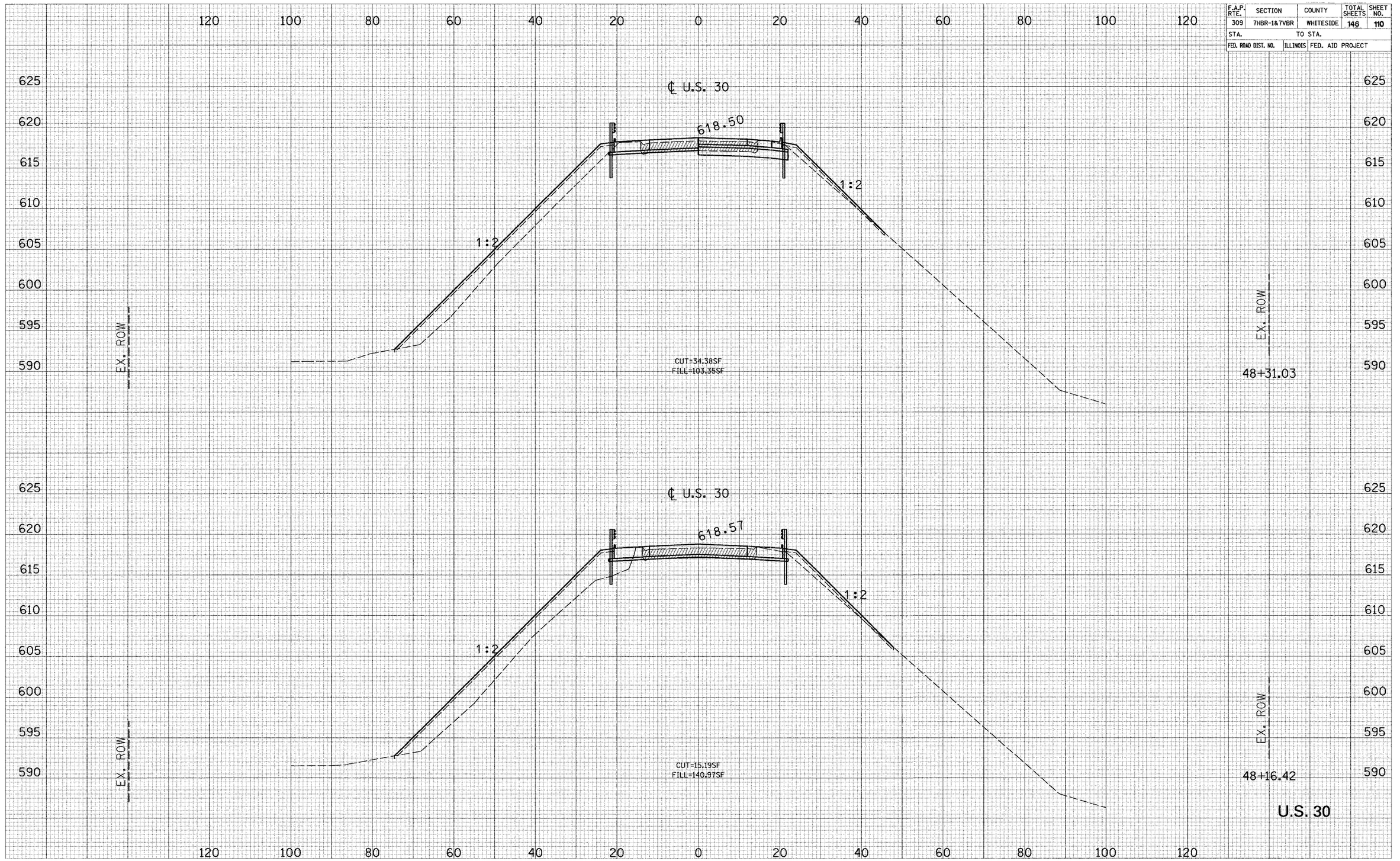
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	110
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

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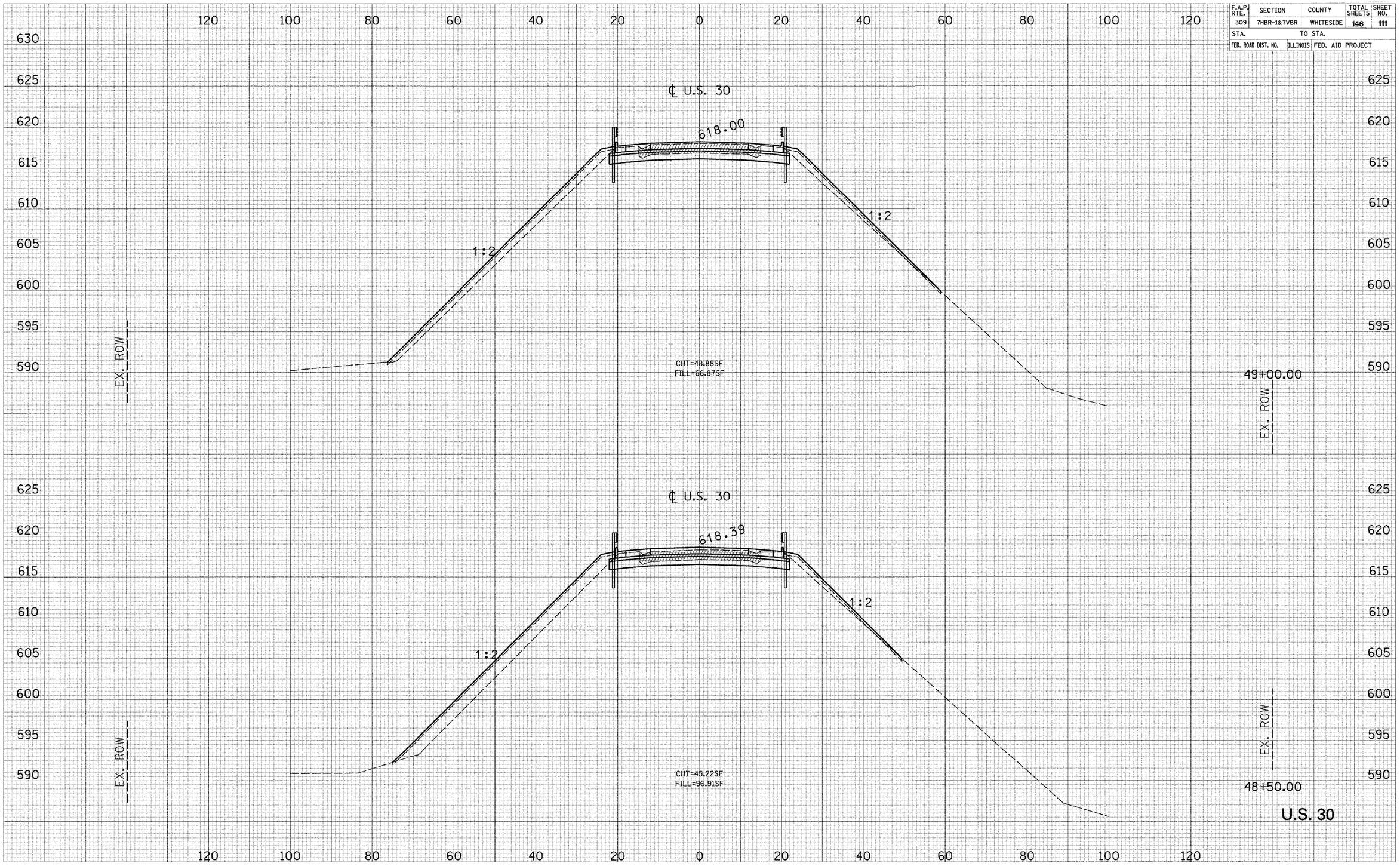
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	111
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&VBR	WHITESIDE	146	112
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

120 100 80 60 40 20 0 20 40 60 80 100 120

625 620 615 610 605 600 595 590

℄ U.S. 30

617.58

1:2

1:2

EX. ROW

EX. ROW

CUT=49.99SF
FILL=60.56SF

49+50.00

U.S. 30

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CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	113
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

120 100 80 60 40 20 0 20 40 60 80 100 120

635
630
625
620
615
610
605
600
595
590

℄ U.S. 30

617.24

1:2

1:2

EX. ROW

CUT=26.46SF
FILL=65.96SF

49+85.95
U.S. 30

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CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	114
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

120 100 80 60 40 20 0 20 40 60 80 100 120

630 625 620 615 610 605 600 595 590

INV. = 614.6
INV. = 614.5
℄ U.S. 30
617.18
TYPE D INLET
1:2
1:2
INV. = 590.0
INV. = 589.9
EX. ROW
CUT=14.66SF
FILL=64.86SF
49+91.49
U.S. 30

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CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	115
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

120 100 80 60 40 20 0 20 40 60 80 100 120

640 635 630 625 620 615 610 605 600 595 590

℄ U.S. 30

617.09

1:2

1:2

CUT=13.66SF
FILL=67.42SF

EX. ROW

50+00.00
U.S. 30

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CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	148	116
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	BY	DATE
ORIGINAL SURVEY		
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

120 100 80 60 40 20 0 20 40 60 80 100 120

640 635 630 625 620 615 610 605 600 595 590

℄ U.S. 30

617.03

1:2

1:2

CUT=11.54SF
FILL=91.59SF

EX. ROW

50+04.95
U.S. 30

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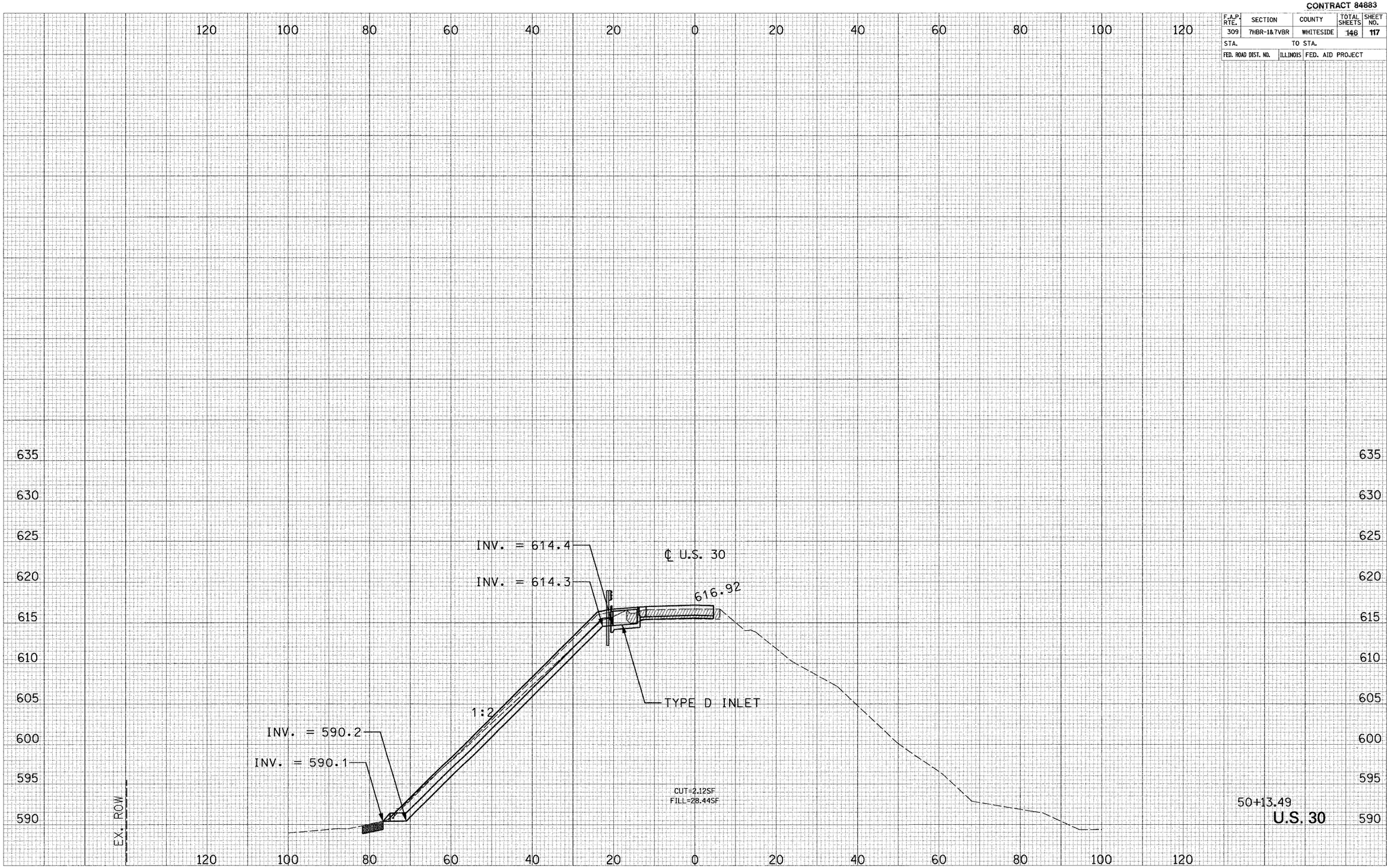
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	117
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY NOTE BOOK
SURVEYED BY
PLOTTED
TEMPLATE
AREAS CHECKED
BY DATE

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



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CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	118
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

120 100 80 60 40 20 0 20 40 60 80 100 120

635 630 625 620 615 610 605 600 595 590

℄ U.S. 30

616.89

1:2

EX. ROW

CUT=7.76SF
FILL=32.33SF

50+15.95
U.S. 30

CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	119
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

ORIGINAL SURVEY NOTE BOOK — SURVEYED, PLOTTED, TEMPLATE, AREAS CHECKED — BY — DATE

120 100 80 60 40 20 0 20 40 60 80 100 120

635 630 625 620 615 610 605 600 595 590

℄ U.S. 30

616.75

1:2

EX. ROW

CUT=1.12SF
FILL=107.09SF

50+26.95
U.S. 30

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CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	120
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

	DATE	BY
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY
NOTE BOOK
NO.

FINAL SURVEY
NOTE BOOK
NO.

120 100 80 60 40 20 0 20 40 60 80 100 120

635 630 625 620 615 610 605 600 595 590

℄ U.S. 30

613.56

1:2

CUT=0.13SF
FILL=160.46SF

52+08.71

U.S. 30

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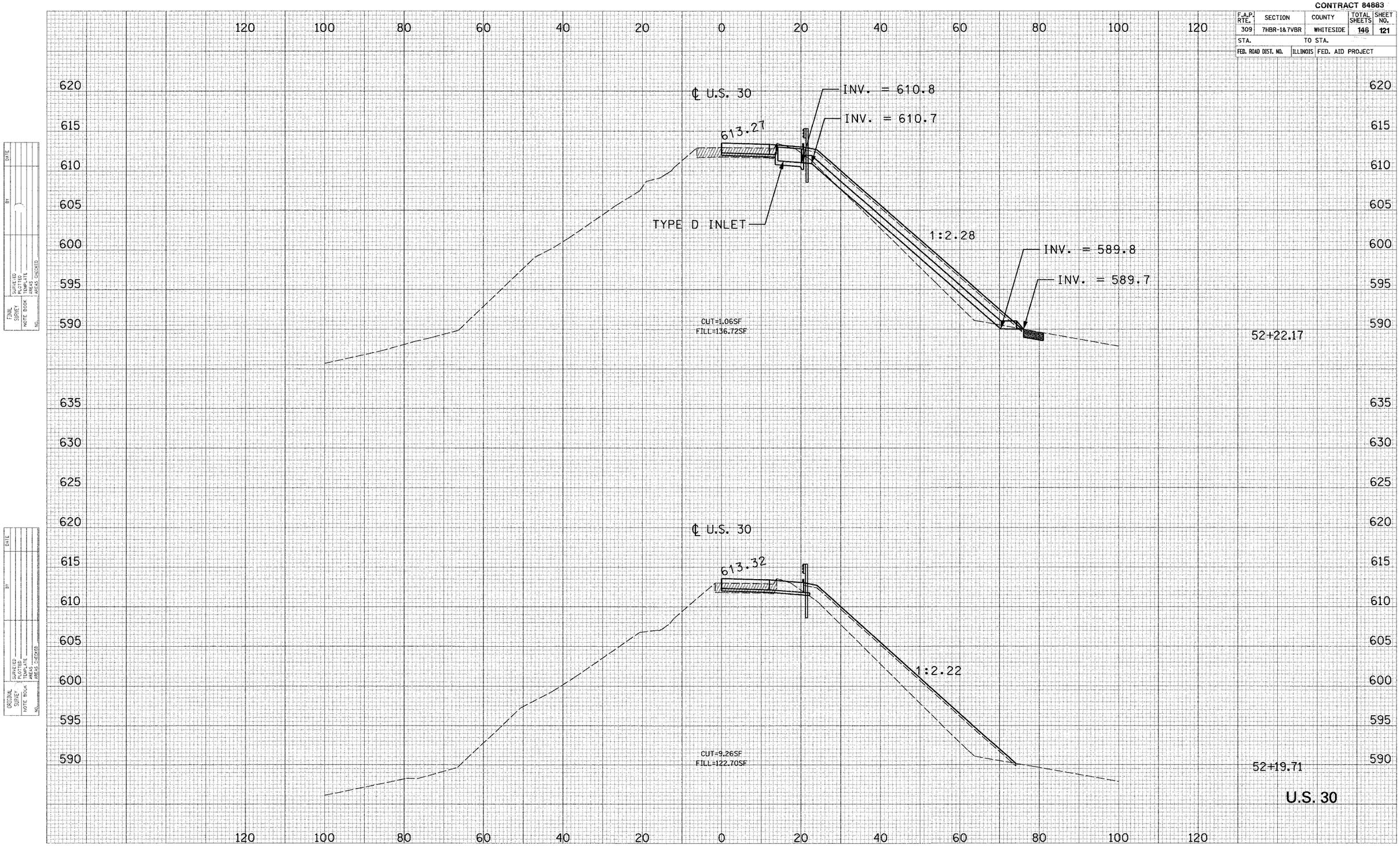
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	121
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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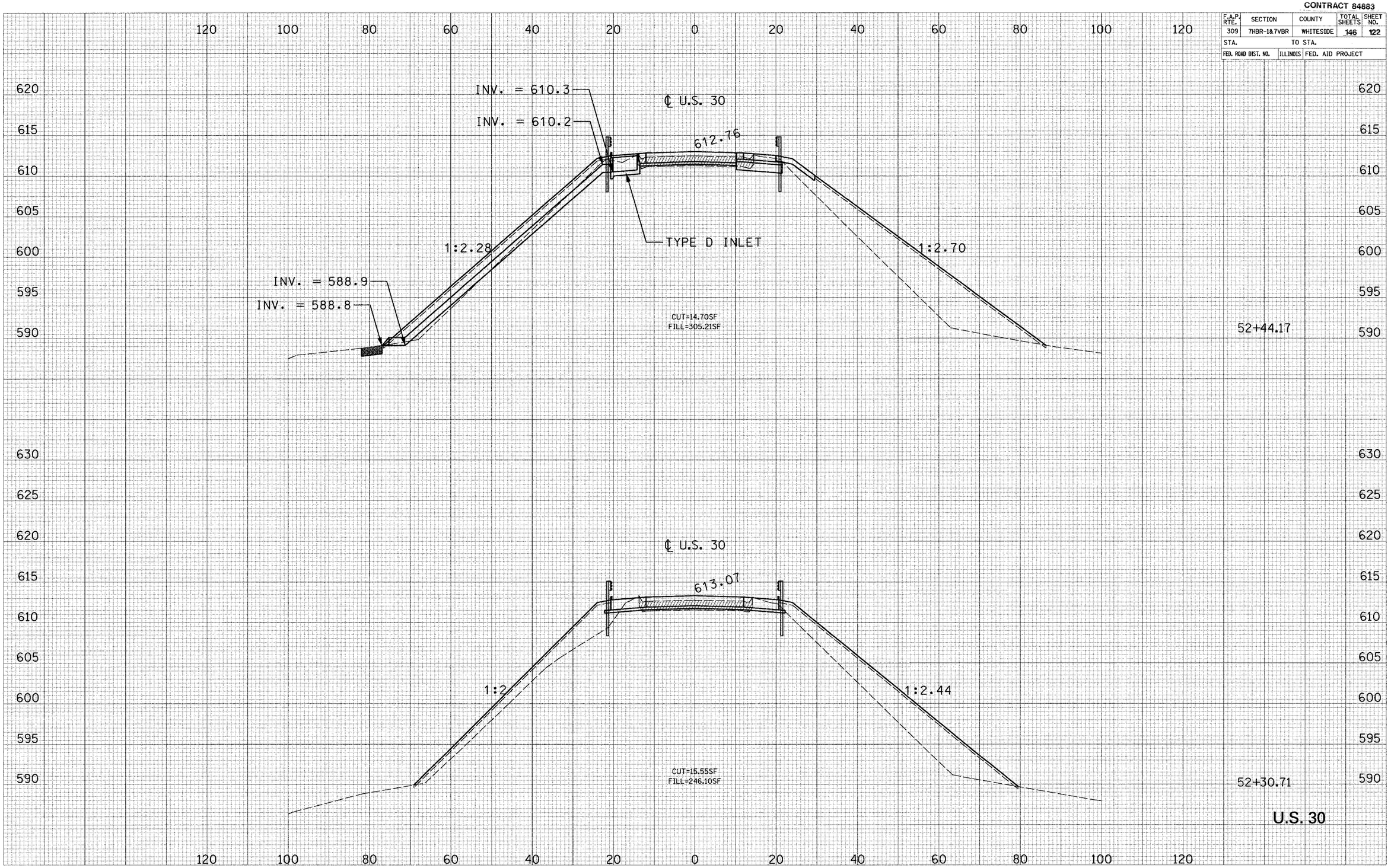
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	122
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

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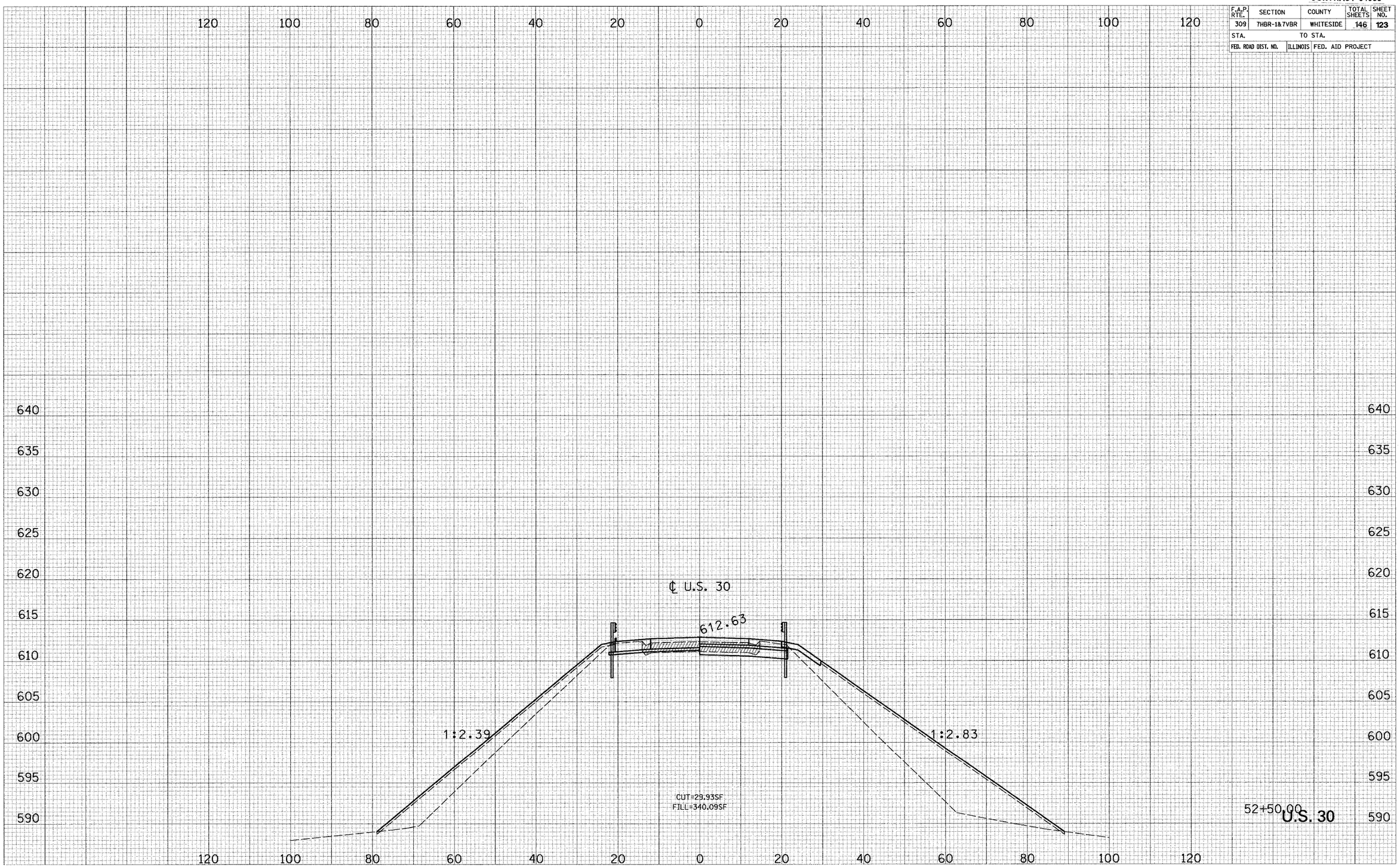
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	123
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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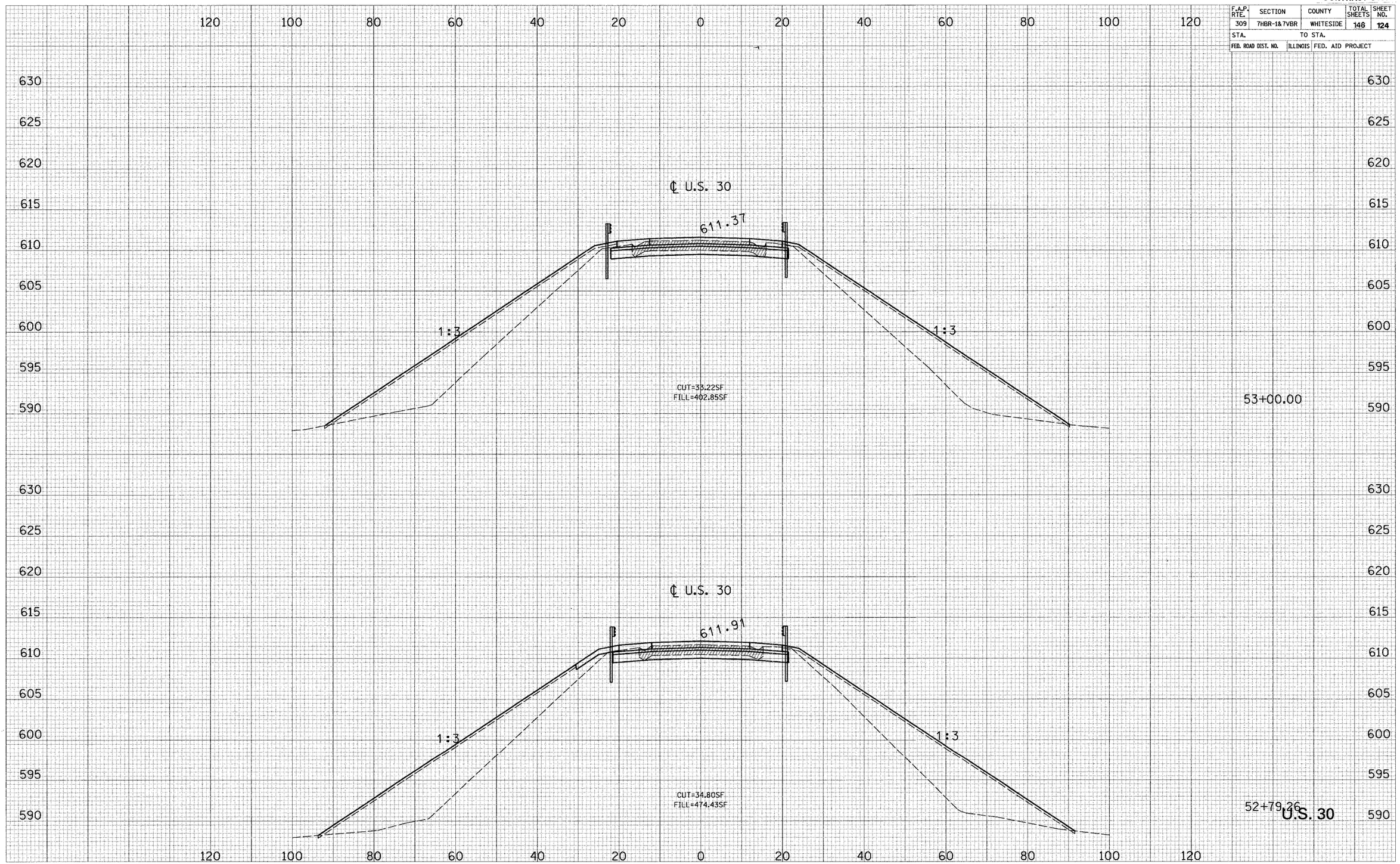
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	124
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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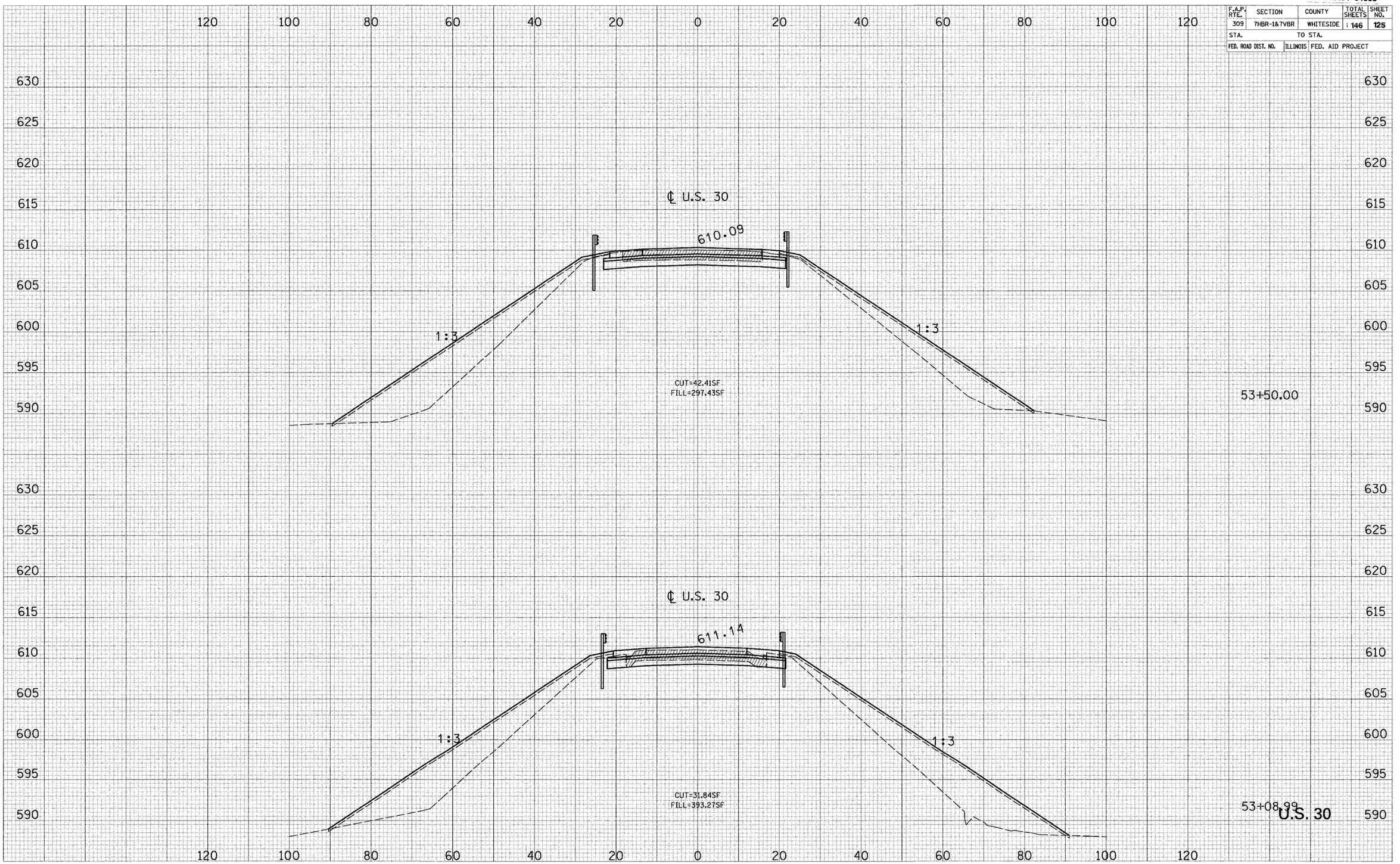
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	125
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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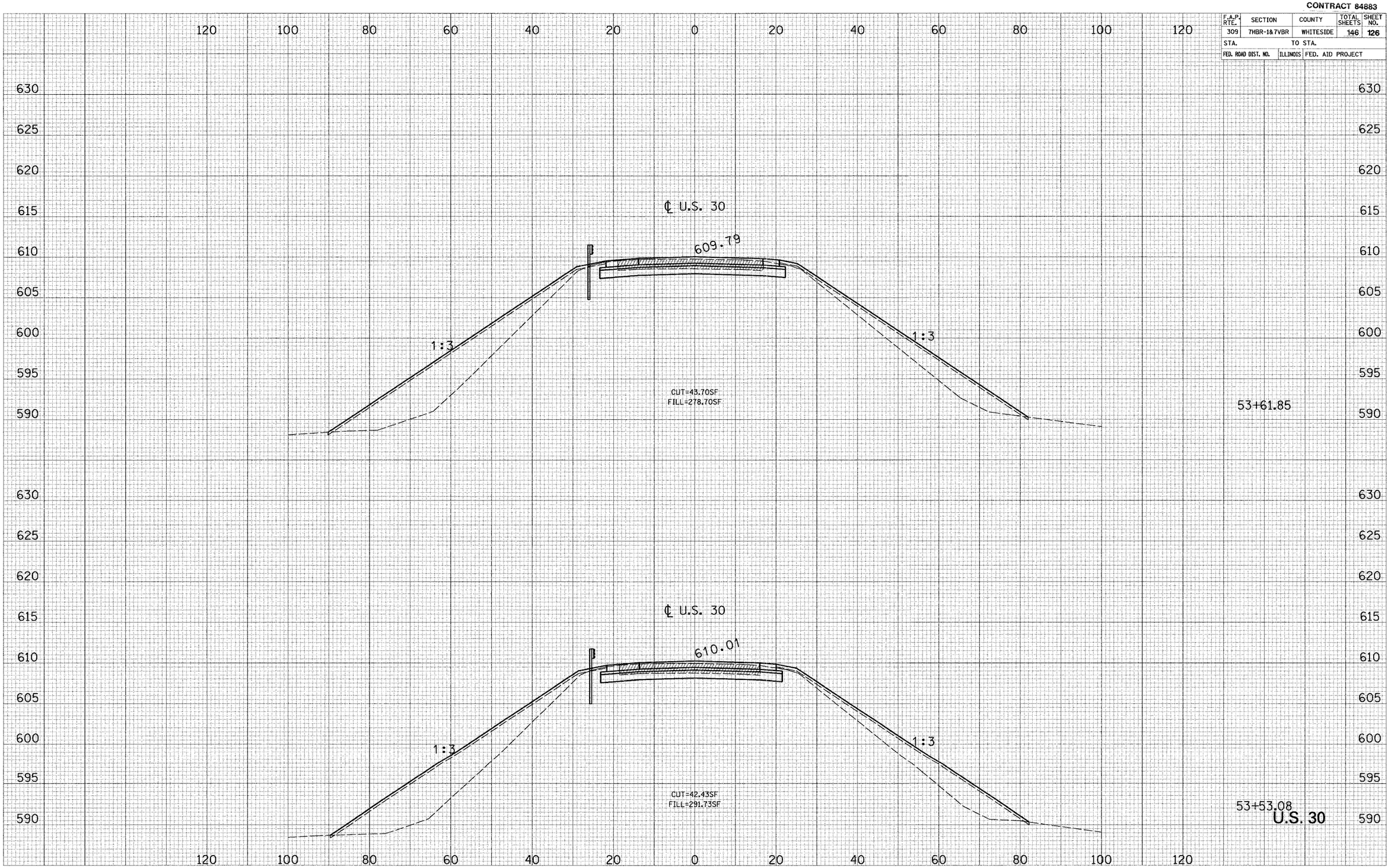
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	126
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

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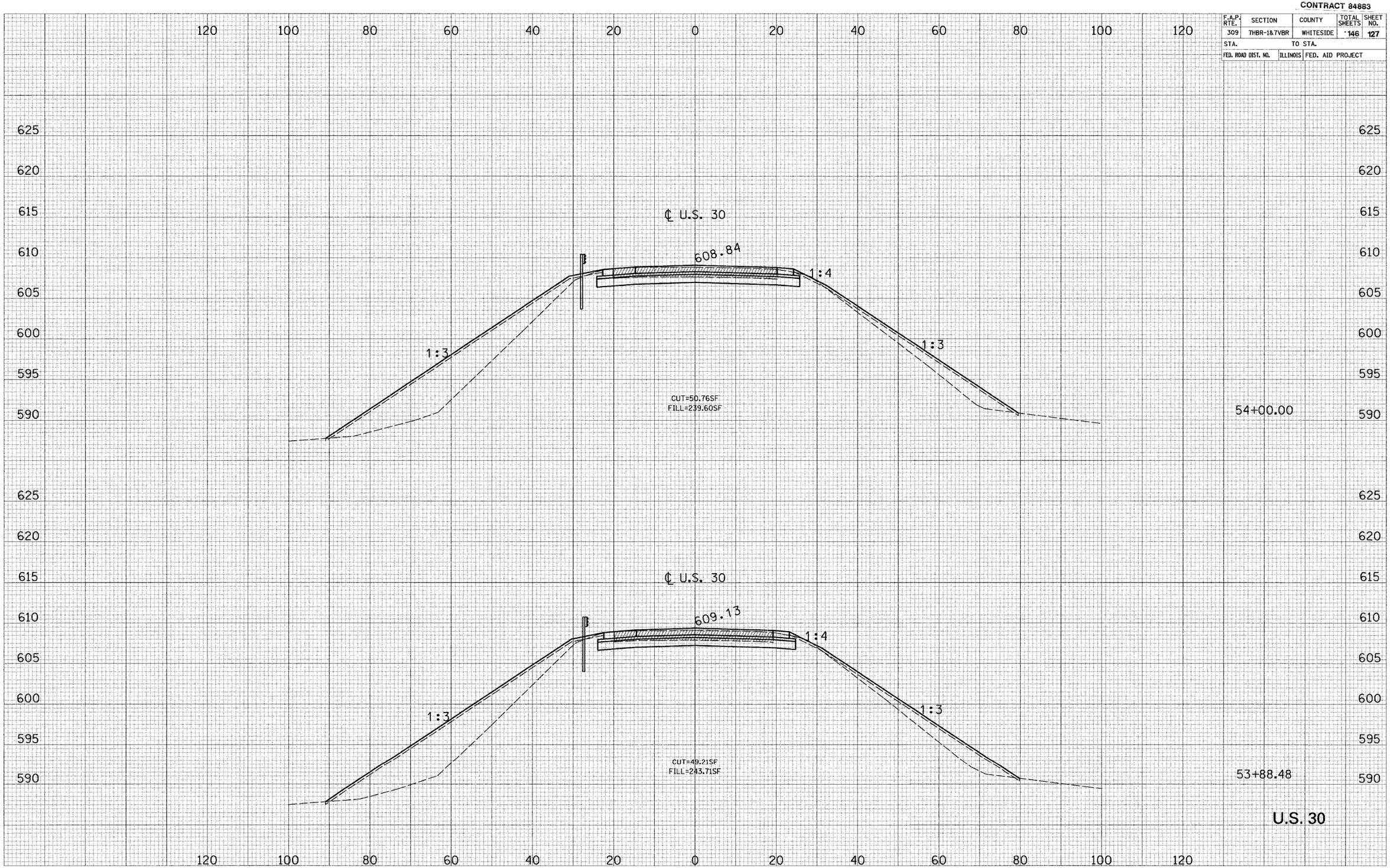
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	127
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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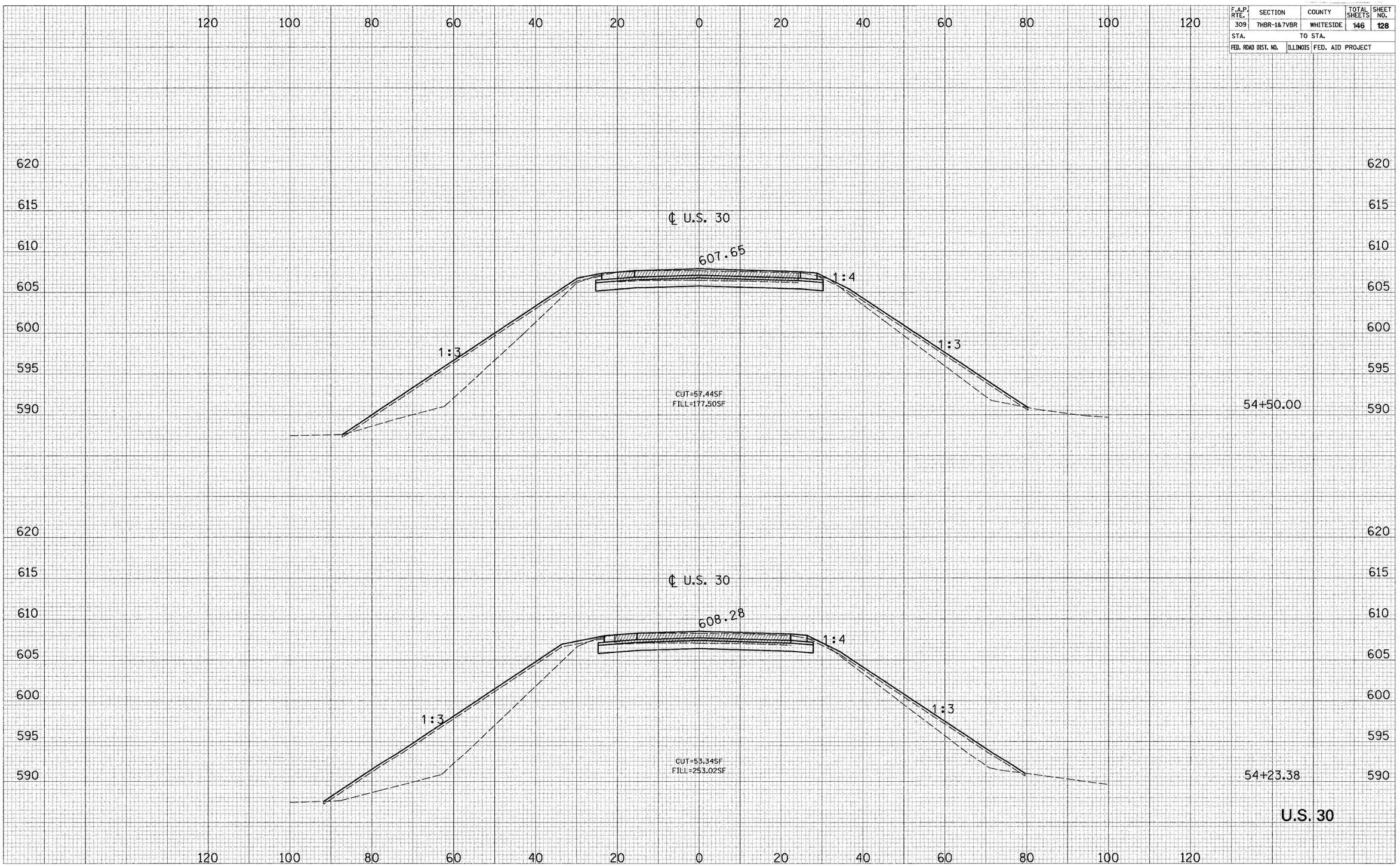
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	128
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

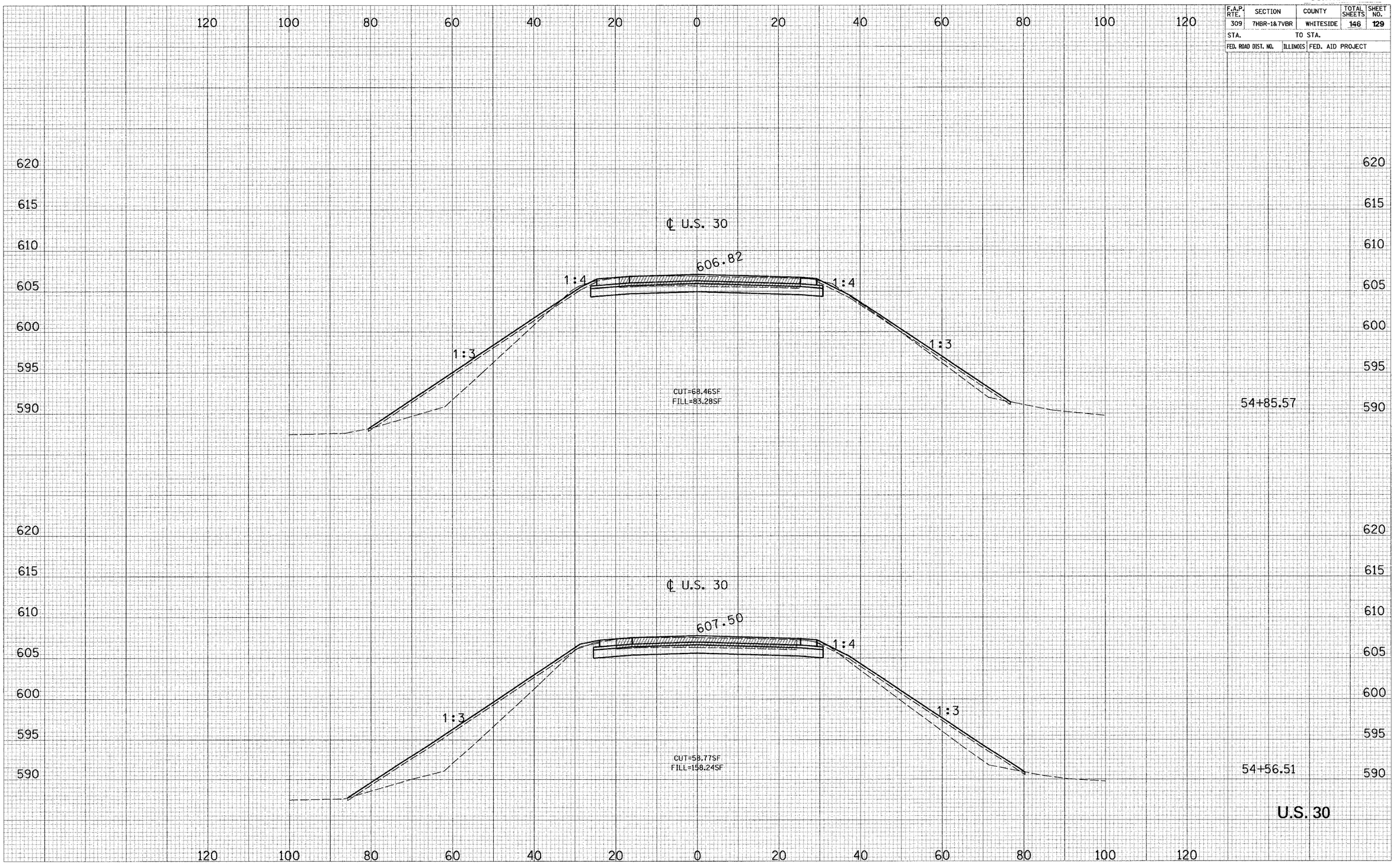
FINAL SURVEY	NOTE BOOK	NO.
SURVEYED	BY	DATE
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		



CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	129
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

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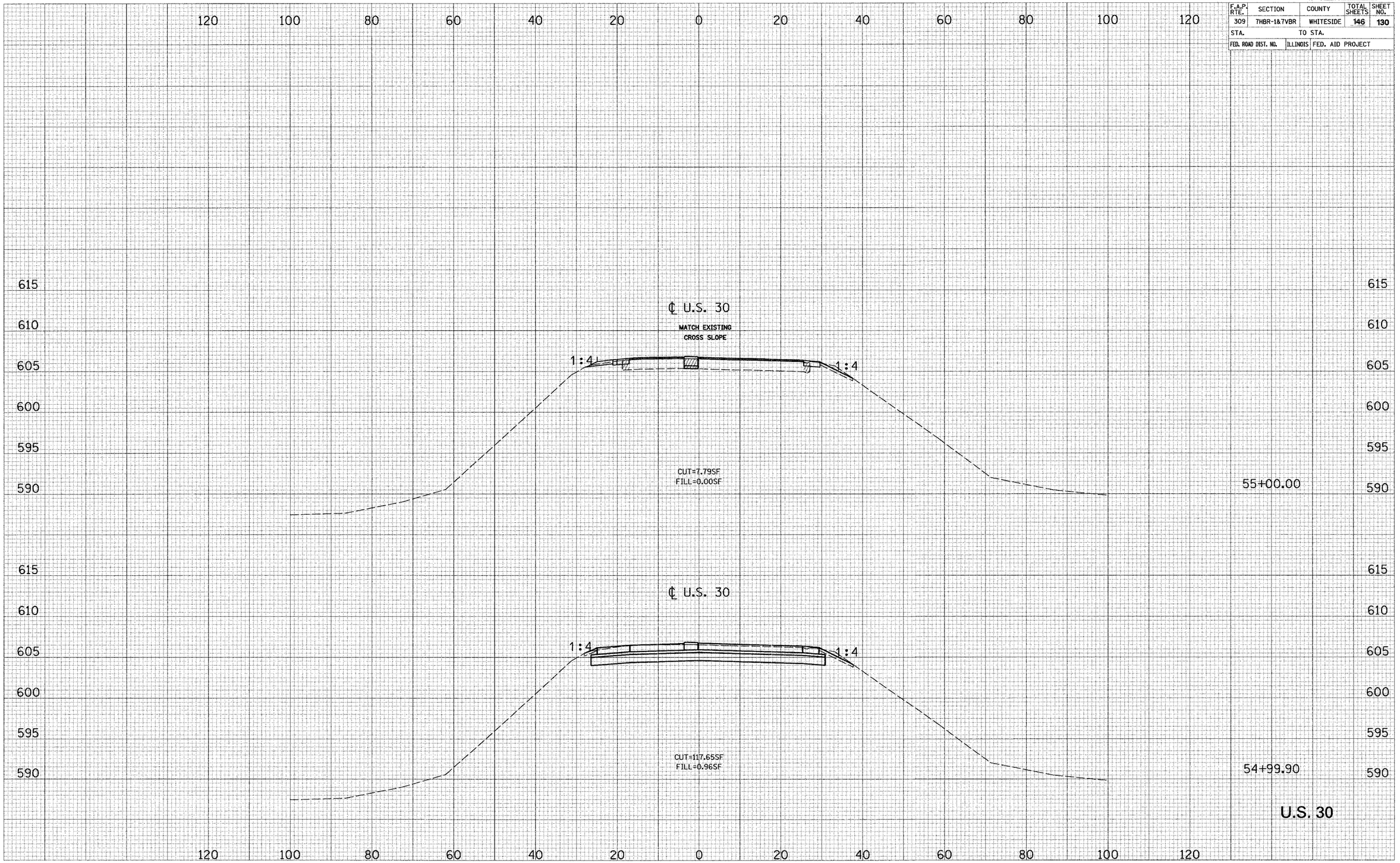
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	130
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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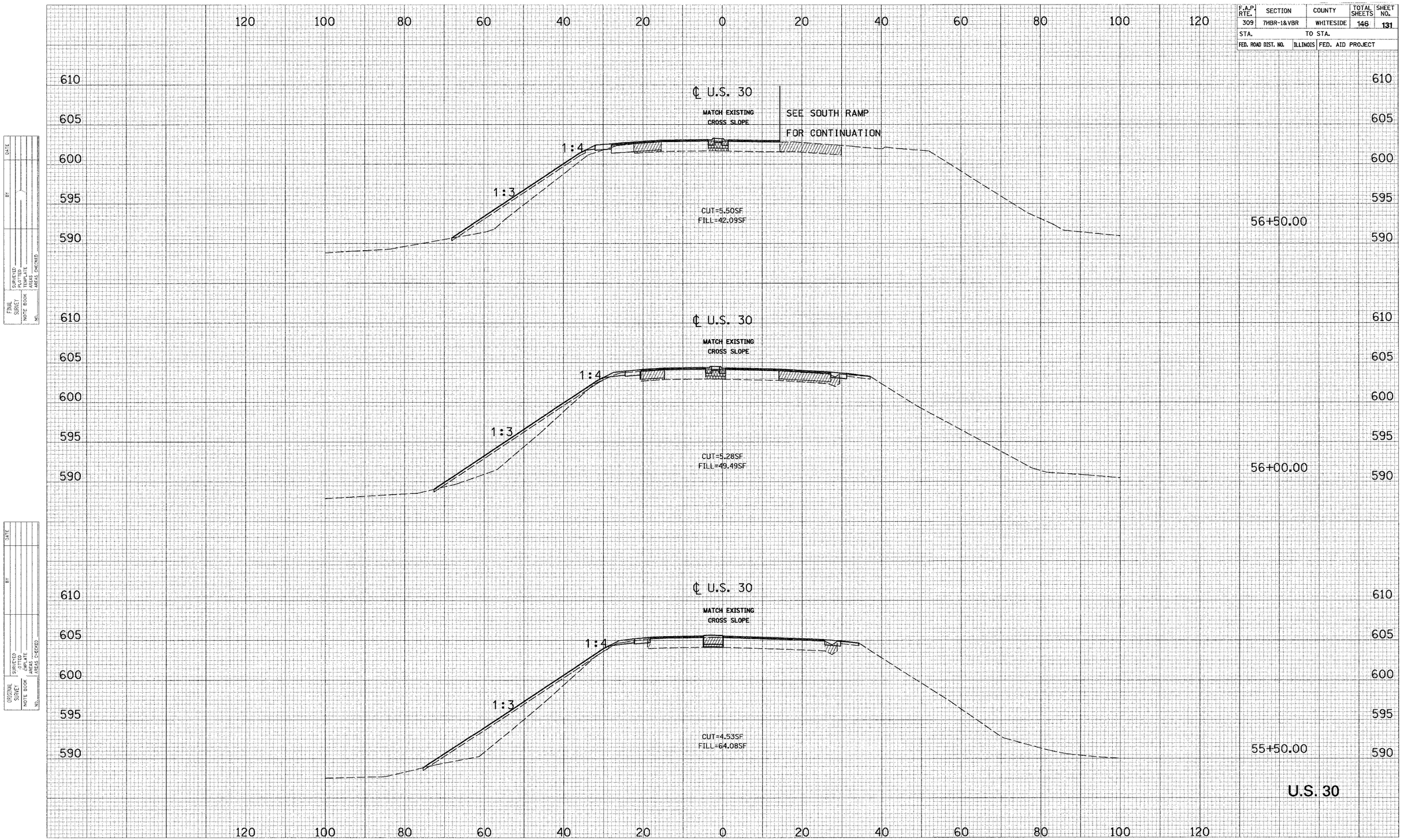
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&VBR	WHITESIDE	146	131
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — OTTID — COMPLETE — AREAS — AREAS CHECKED — BY — DATE

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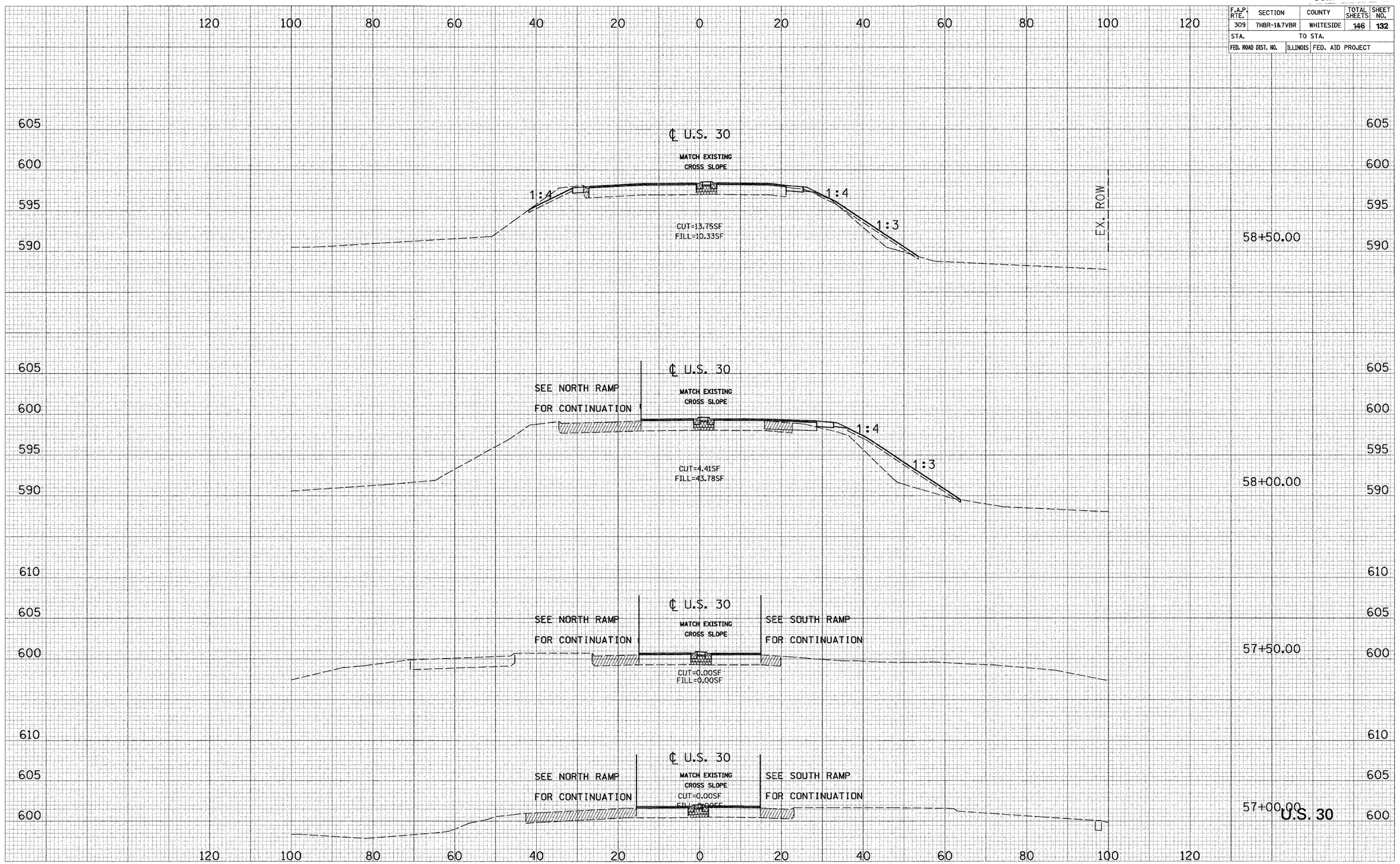
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	132
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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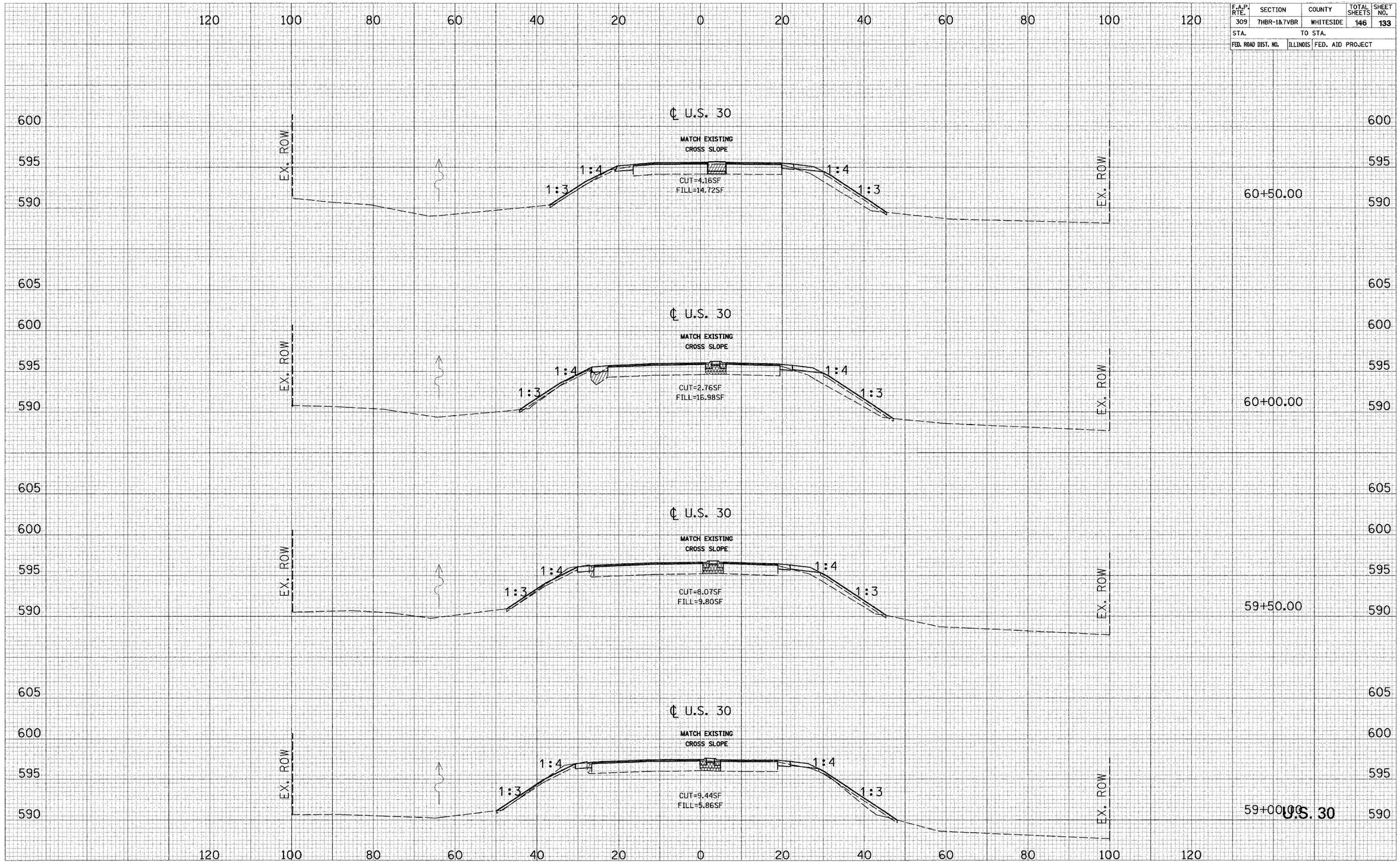
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	133
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — JMP-LATE — AREAS — AREAS CHECKED — BY — DATE



U.S. 30

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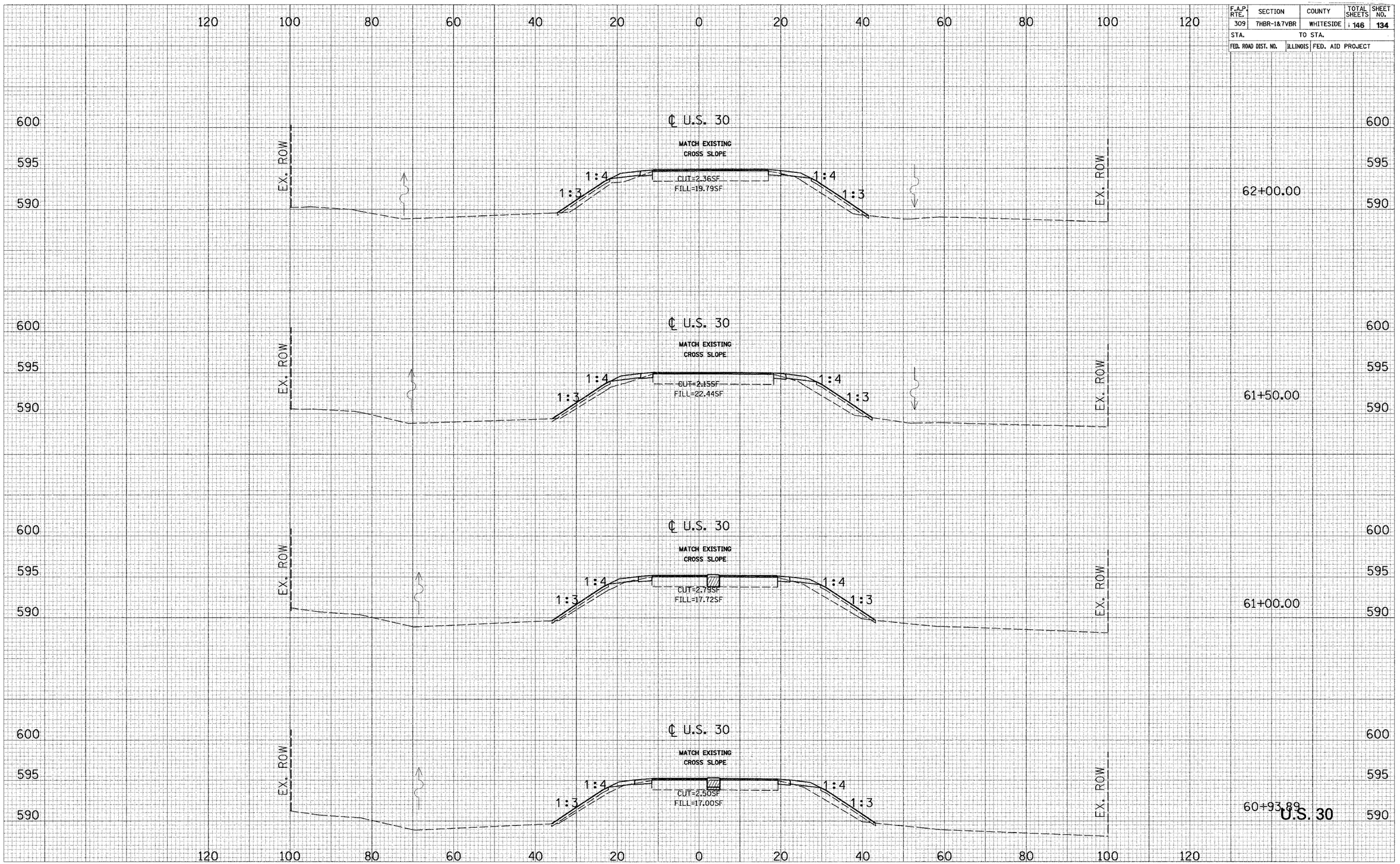
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	134
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	135
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — DITTED — COMPLETE — AREAS — AREAS CHECKED — BY — DATE

120 100 80 60 40 20 0 20 40 60 80 100 120

600 595 590

℄ U.S. 30

MATCH EXISTING CROSS SLOPE

CUT=2.73SF
FILL=6.89SF

1:4 1:3 1:4 1:3

EX. ROW EX. ROW

64+00.00

℄ U.S. 30

MATCH EXISTING CROSS SLOPE

CUT=2.71SF
FILL=11.84SF

1:4 1:3 1:4 1:3

EX. ROW EX. ROW

63+50.00

℄ U.S. 30

MATCH EXISTING CROSS SLOPE

CUT=2.36SF
FILL=15.48SF

1:4 1:3 1:4 1:3

EX. ROW EX. ROW

63+00.00

℄ U.S. 30

MATCH EXISTING CROSS SLOPE

CUT=2.01SF
FILL=14.92SF

1:4 1:3 1:4 1:3

EX. ROW EX. ROW

62+50.00

U.S. 30

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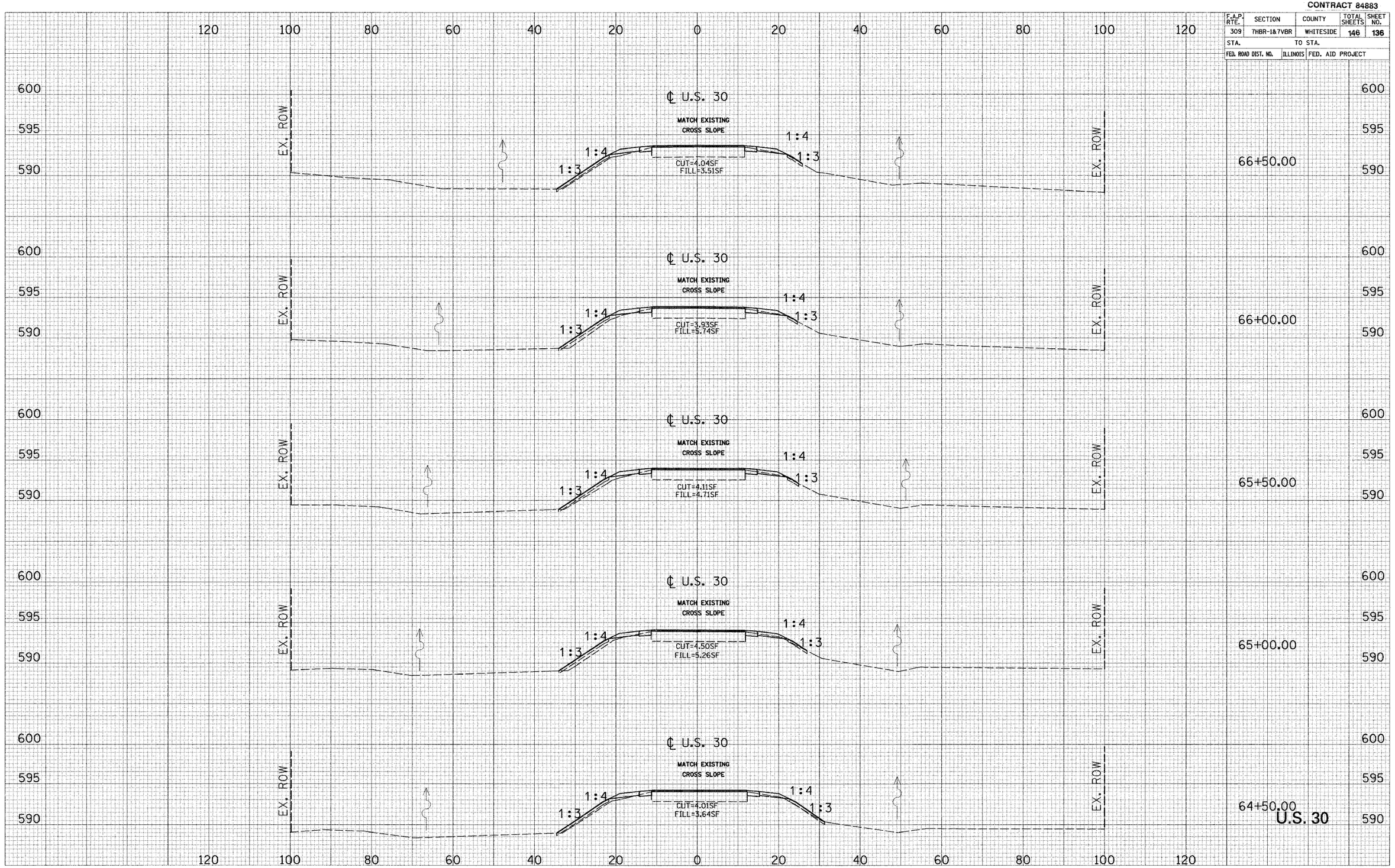
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	136
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	OTTED		
	EMPLATE		
	AREAS		
	AREAS CHECKED		



U.S. 30

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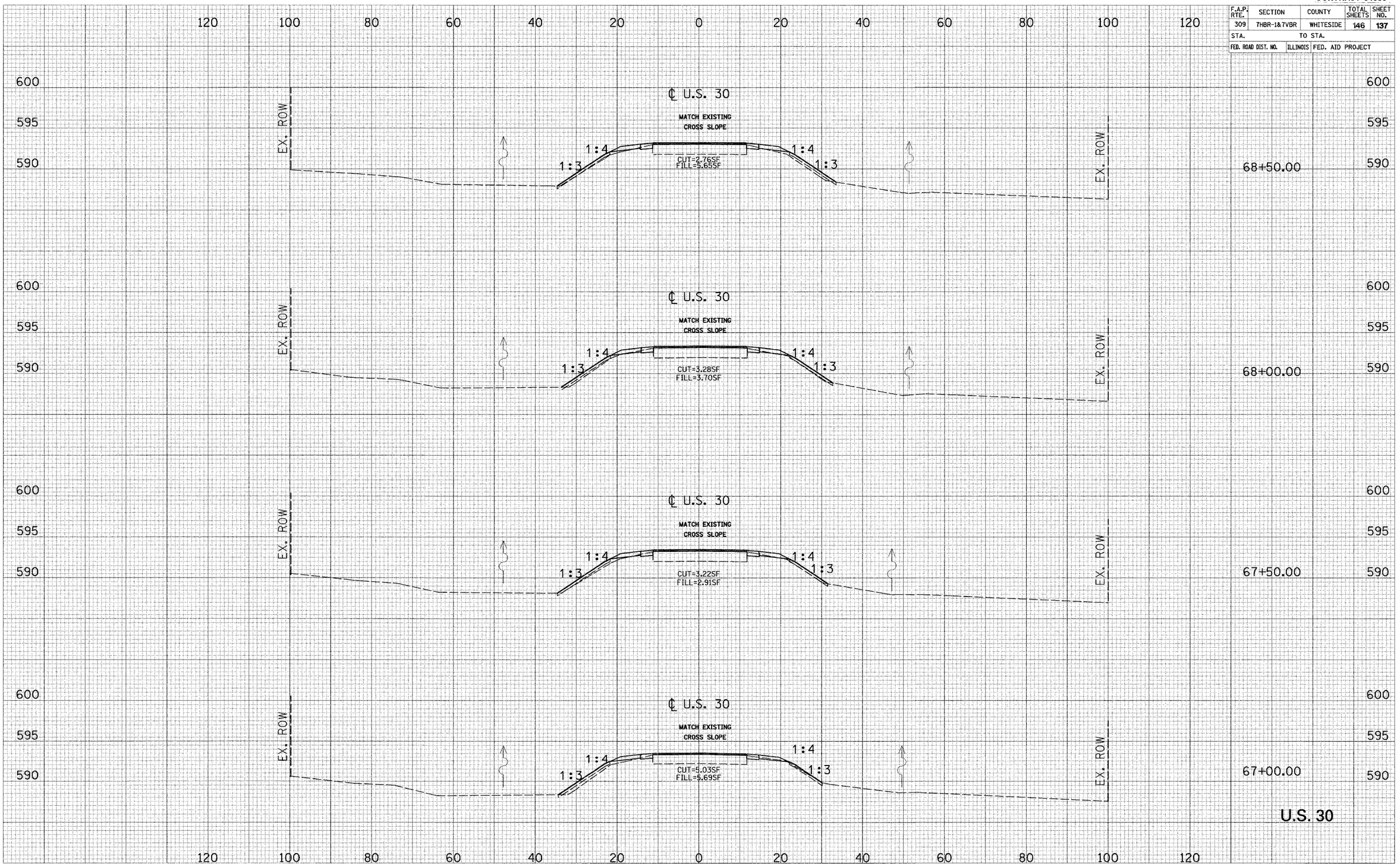
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	137
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

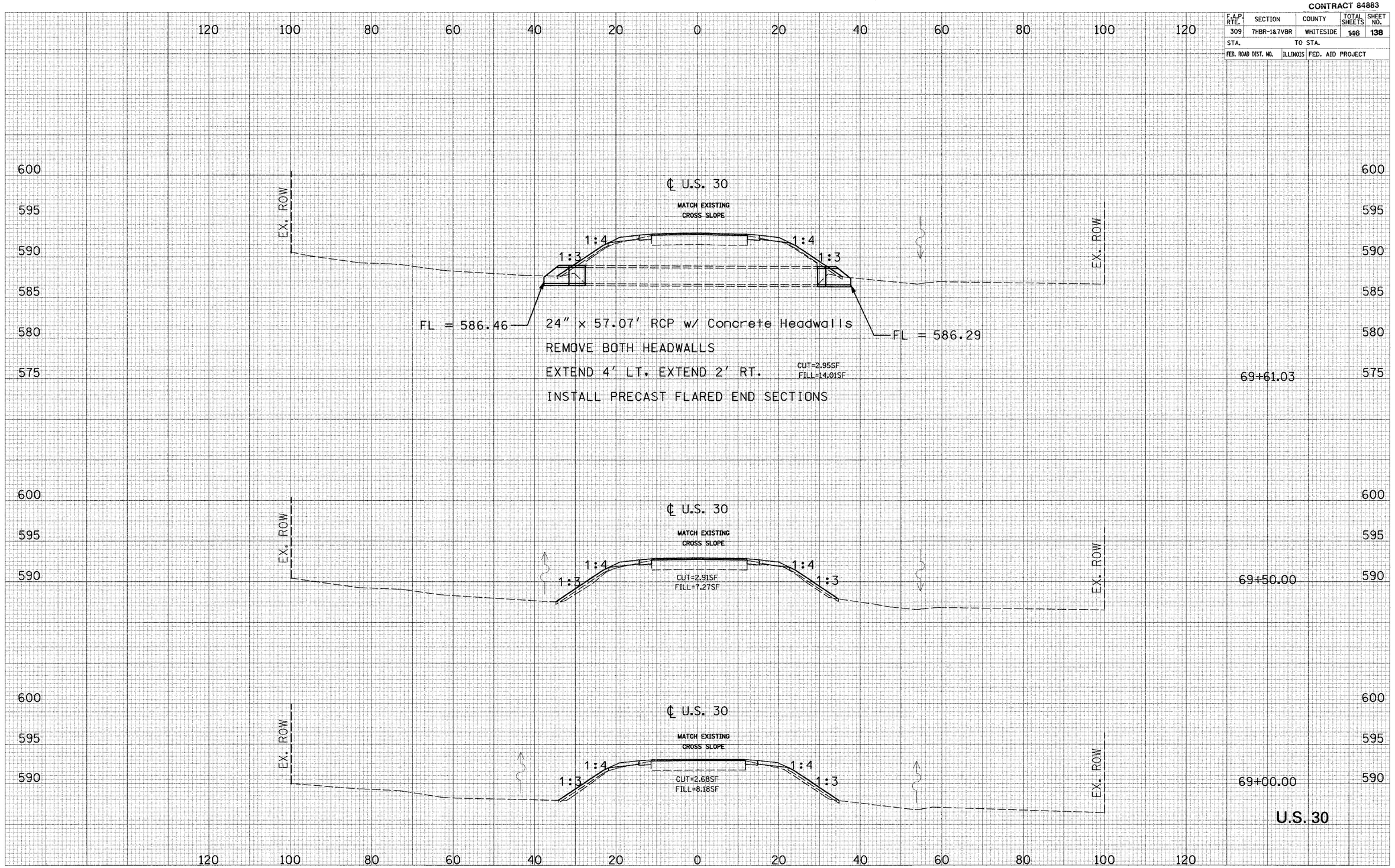
ORIGINAL SURVEY — NOTE BK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE



CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	138
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

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CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	139
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

120 100 80 60 40 20 0 20 40 60 80 100 120

600
595
590

EX. ROW

℄ U.S. 30

MATCH EXISTING
CROSS SLOPE

CUT=15.23SF
FILL=0.00SF

70+95.00

℄ U.S. 30

MATCH EXISTING
CROSS SLOPE

1:4
1:3
1:4
1:3

CUT=4.61SF
FILL=5.47SF

70+50.00

℄ U.S. 30

MATCH EXISTING
CROSS SLOPE

1:4
1:3
1:4
1:3

CUT=2.88SF
FILL=4.04SF

70+00.00

U.S. 30

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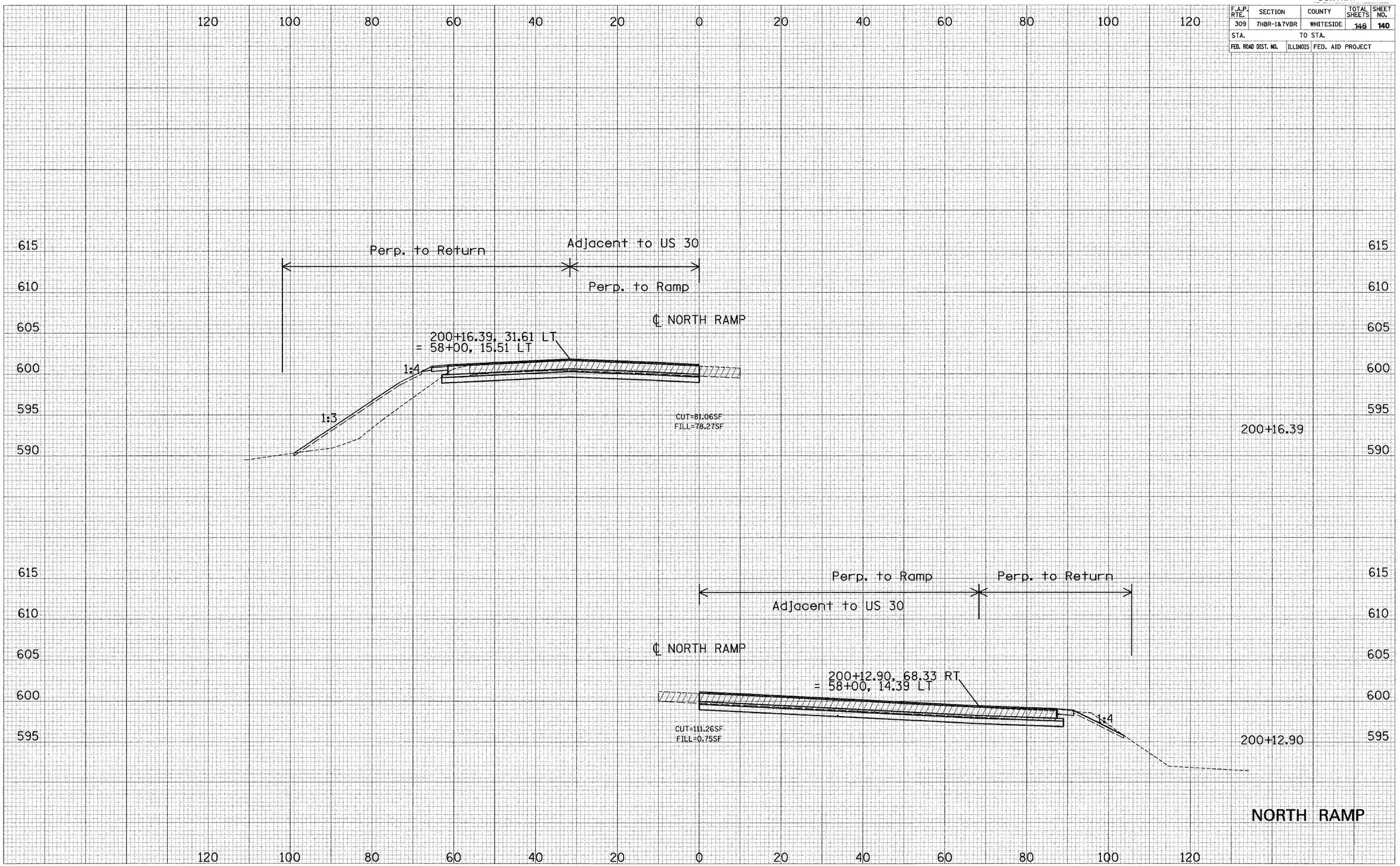
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	148	140
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

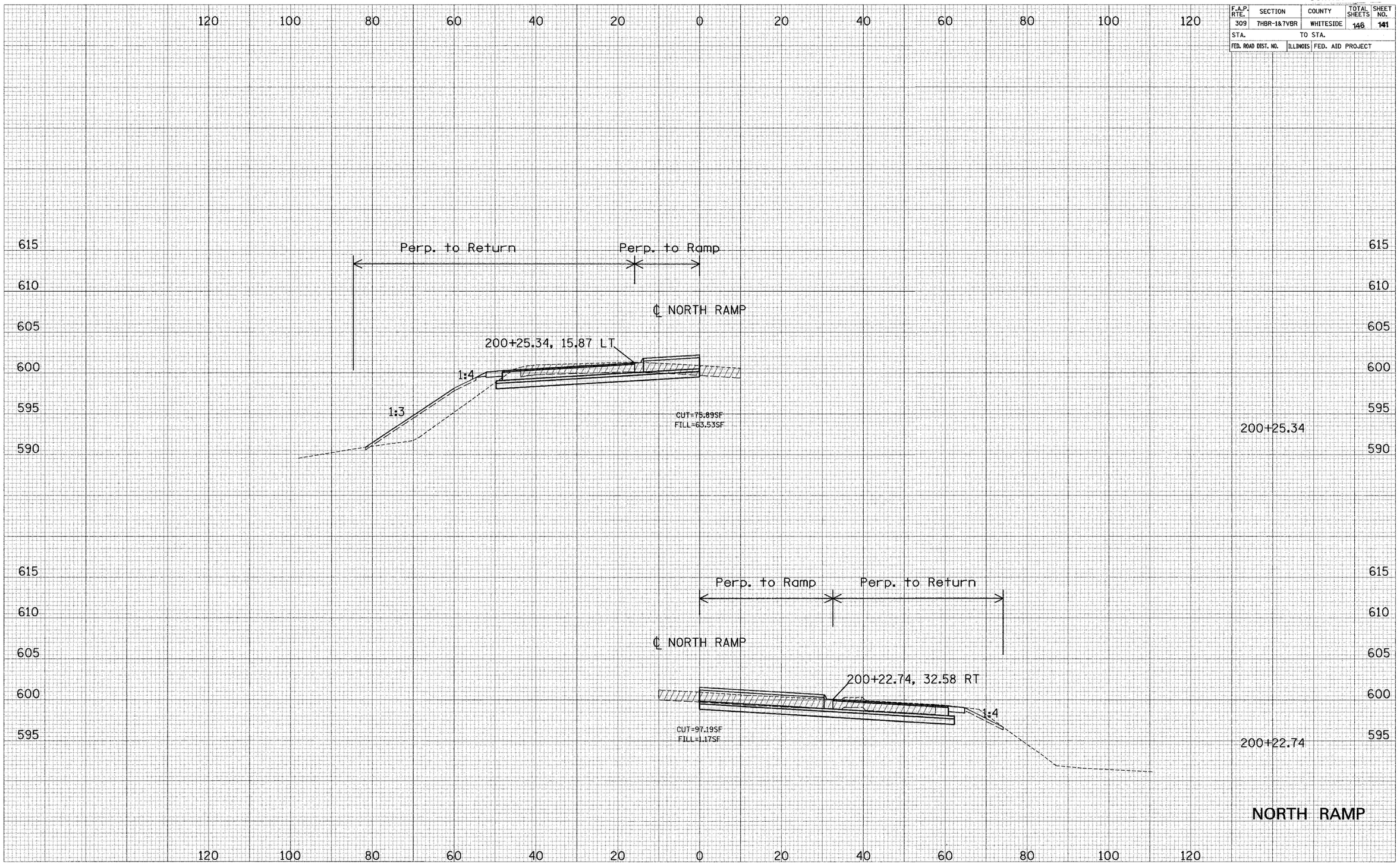


CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	141
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



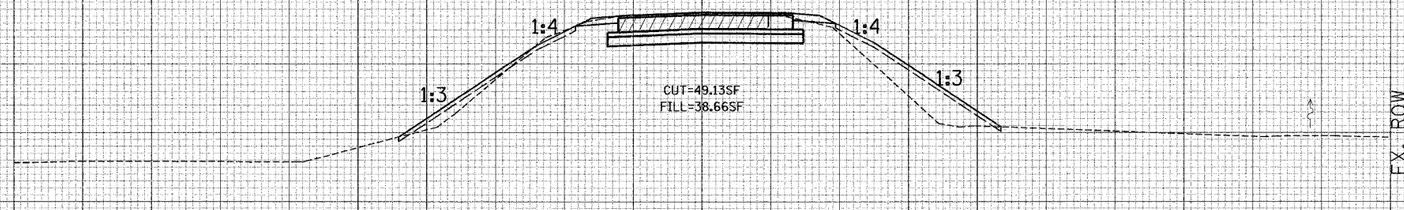
CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	142
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

120 100 80 60 40 20 0 20 40 60 80 100 120

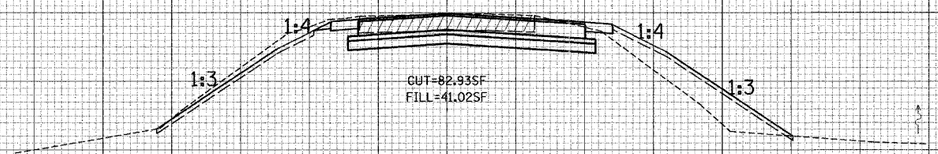
605 600 595 590

℄ NORTH RAMP



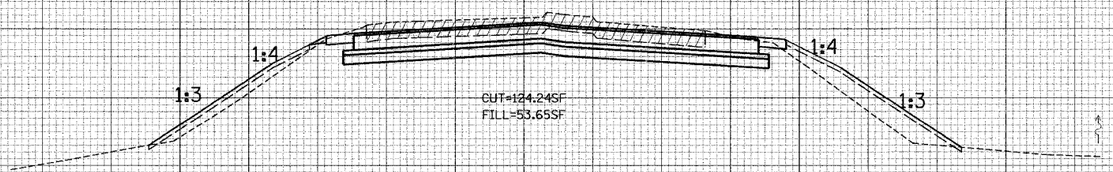
201+50.00

℄ NORTH RAMP



201+00.00

℄ NORTH RAMP



200+57.97

NORTH RAMP

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

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

CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	143
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

END GRADING
STA 202+00

℄ NORTH RAMP

CUT=12.91SF

EX. ROW

202+00.00

℄ NORTH RAMP

1:4

1:4

1:3

1:3

CUT=49.81SF
FILL=37.15SF

EX. ROW

201+63.16

NORTH RAMP

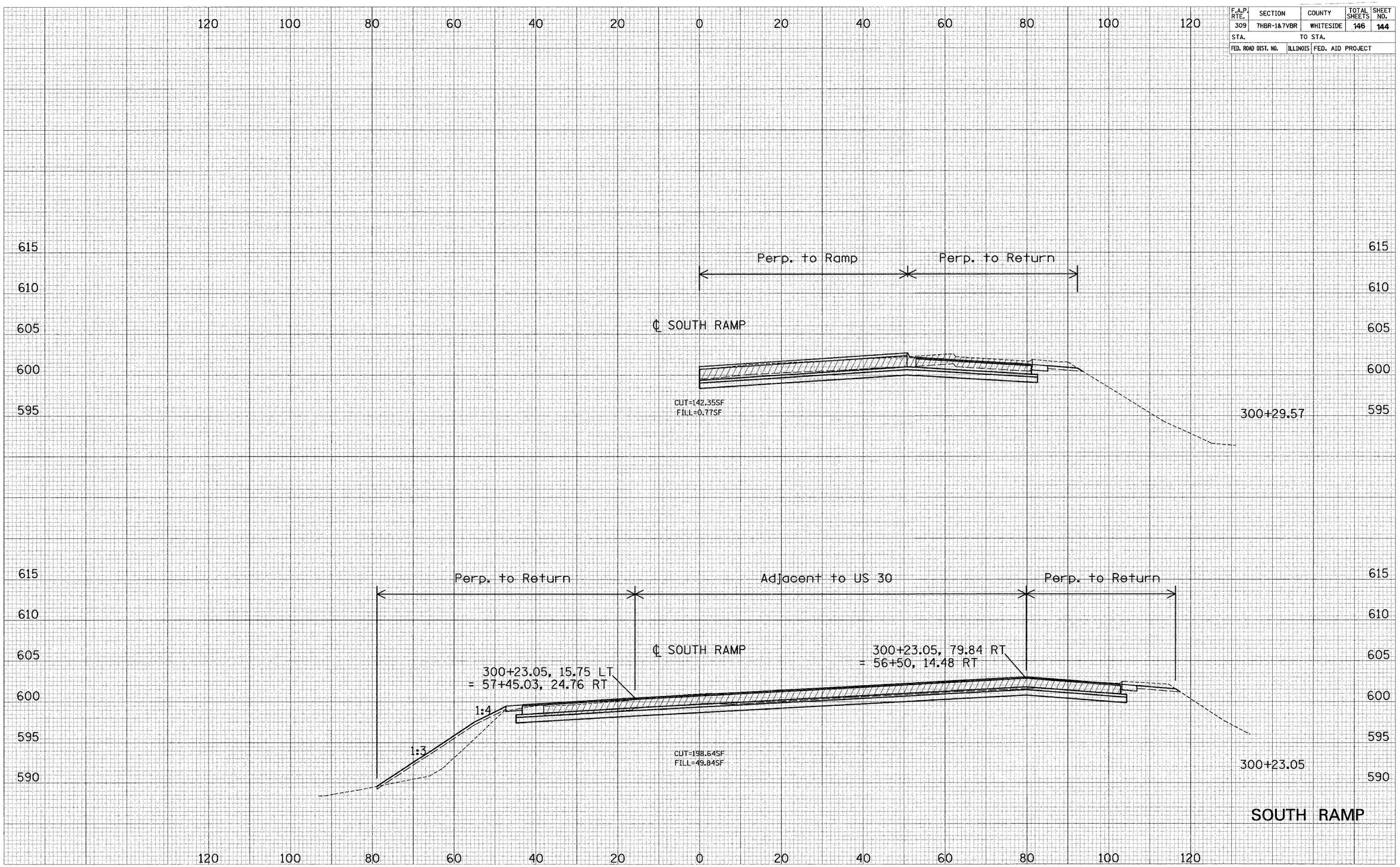
120 100 80 60 40 20 0 20 40 60 80 100 120

605 600 595 590

CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	144
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7H-BR-1&7VBR	WHITESIDE	146	145
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY — NOTE BOOK — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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

120 100 80 60 40 20 0 20 40 60 80 100 120

605 600 595 590 610

EX. ROW

℄ SOUTH RAMP

1:4 1:4 1:3 1:3

CUT=67.69SF
FILL=45.62SF

301+50.00

℄ SOUTH RAMP

1:4 1:4 1:3 1:3

CUT=77.10SF
FILL=23.06SF

301+35.00

Perp. to Return Perp. to Return

℄ SOUTH RAMP

1:4 1:4 1:3 1:3

CUT=139.52SF
FILL=0.81SF

300+85.36

SOUTH RAMP

CONTRACT 84883

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7HBR-1&7VBR	WHITESIDE	146	146
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

120 100 80 60 40 20 0 20 40 60 80 100 120

605
600
595
590
585

℄ SOUTH RAMP

END GRADING RT.
STA 302+50

CUT=7.86SF

302+50.00

EX. ROW

℄ SOUTH RAMP

END GRADING LT.
STA 302+00

1:4
1:4
1:3

CUT=55.62SF
FILL=34.07SF

302+00.00

SOUTH RAMP