

10F65

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR
PROPOSED LOCAL AGENCY IMPROVEMENT
MAJOR BRIDGE FUND & MFT PROJECT**

INDEX OF SHEETS

- 1 COVER SHEET
- 2 SUMMARY OF QUANTITIES
- 3-4 TYPICAL SECTIONS
- 5-7 SCHEDULES
- 8-10 PLAN AND PROFILES
- 11 INTERSECTION DETAILS
- 12-13 GUARDRAIL DETAILS
- 14 MODULAR BLOCK RETAINING WALL & PARKING LOT AREA DETAIL
- 15-17 STORM WATER POLLUTION PREVENTION PLAN
- 18-32 CROSS SECTIONS
- 33 FORCEMAIN LAYOUT SHEET
- 34 GENERAL PLAN AND ELEVATION
- 35 FOUNDATION LAYOUT
- 36 TRUSS FORCE AND CAMBER DIAGRAM
- 37-41 TRUSS AND WIND BRACING DETAILS
- 42 WIND BRACING LOAD TABLES
- 43-45 DECK DETAILS
- 46 COVERED BRIDGE GUARDRAIL
- 47 PARABOLIC ARCH DETAILS
- 48-49 ROOFING DETAILS
- 50 END PORTAL ROOFING DETAILS
- 51 SIDING DETAILS
- 52-53 WEST ABUTMENT DETAILS
- 54-55 EAST ABUTMENT DETAILS
- 56 ANCHOR BOLT DETAILS
- 57 PILING DETAILS
- 58 BORING LOGS
- 59 ELECTRICAL GENERAL NOTES
- 60 ONE LINE DIAGRAM
- 61 LIGHT POLE AND FOUNDATION DETAILS
- 62 FIRE ALARM PLAN
- 63 LIGHTING AND CAMERA PLAN
- 64 33.1-CONCRETE COLLARS FOR PIPE OR BOX CULVERT EXTENSIONS
- 65 93.4-TYPICAL MARKING FOR PAINTED ISLANDS

STANDARDS

- 280001-02 TEMPORARY EROSION CONTROL SYSTEMS
- 420001-06 PAVEMENT JOINTS
- 420101-03 7.2 m (24') JOINTED PCC PAVEMENT
- 420401-05 BRIDGE APPROACH PAVEMENT
- 515001-02 NAME PLATE FOR BRIDGES
- 542401 METAL END SECTION FOR PIPE CULVERT
- 606201 TYPE B GUTTER (INLET, OUTLET, & ENTRANCE)
- 609001-02 BRIDGE APPROACH SHOULDER PAVEMENT & DRAIN
- 630301-03 SHOULDER WIDENING FOR TYPE 1(SPECIAL) GUARDRAIL TERMINALS
- 631026-02 TRAFFIC BARRIER TERMINAL TYPE 5 & 5A
- 665001-01 WOVEN WIRE FENCE
- 666001 RIGHT OF WAY MARKERS
- 701001-01 OFF-ROAD OPERATIONS, 2L 2W, 4.5 m (15') MIN. AWAY, FOR SPEEDS ≥ 45 MPH
- 701006-02 OFF-ROAD OPERATIONS, 2L 2W, 4.5 m (15') TO PAVEMENT EDGE FOR SPEEDS ≥ 45 MPH
- 701301-02 LANE CLOSURE, 2L 2W, SHORT TIME OPERATIONS
- 701306-01 LANE CLOSURE, 2L 2W, SLOW MOVING DAY ONLY OPERATIONS, FOR SPEEDS ≥ 45 MPH
- 701311-02 LANE CLOSURE, 2L 2W, MOVING DAY ONLY OPERATIONS
- 702001-05 TRAFFIC CONTROL DEVICES
- 780001-01 TYPICAL PAVEMENT MARKINGS
- BLR 21-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- BLR 22-4 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (2 LANE 2 WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)

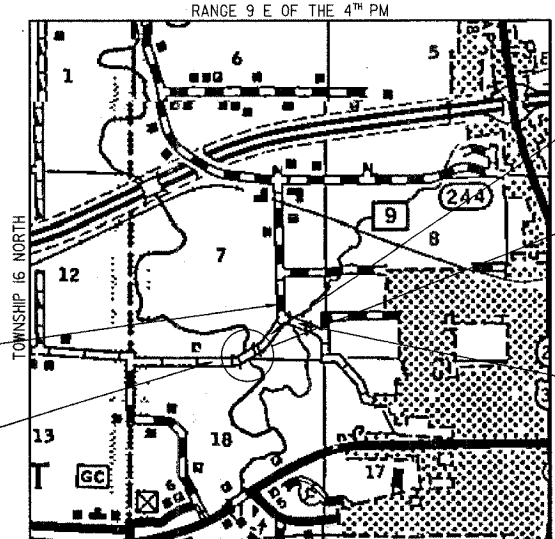
LOCATION MAP SCALE 0 1 2 MILES

PLAN & PROFILE HORIZONTAL 0 5 10 15 20 40 FT.
 VERTICAL 0 5 10 FT.
 CROSS SECTIONS HORIZONTAL 0 5 10 FT.
 VERTICAL 0 5 10 FT.

**SECTION 98-20101-00-BR
T.R. 245
BUREAU COUNTY
PRINCETON ROAD DISTRICT
PROJECT BR05-011(62)
JOB NO. C-92-091-02
CONTRACT NO. 85368
2006**

NAME AND ADDRESS OF UTILITIES	TYPE
PRINCETON MUNICIPAL UTILITIES 2 South Main Street Princeton, IL 61356 (815) 875-1213	ELECTRIC
PRINCETON MUNICIPAL UTILITIES 2 South Main Street Princeton, IL 61356 (815) 879-3961	SANITARY SEWER
NICOR GAS 300 West Terra Cotta A Crystal Lake, IL 60014 (800) 750-1172	GAS
VERIZON, INC. 112 West Elm Sycamore, IL 60178 (815) 895-1515	TELEPHONE
INSIGHT COMMUNICATIONS 680 West Peru Street Princeton, IL 61356	CABLE

NET LENGTH: 2929.2 FEET = 0.55 MILES



LOCATION MAP

SECTION 98-20101-00-BR
T.R. 245 ENDS AT STA. 29+94.20

SECTION 98-20101-00-BR
REMOVE EXISTING SINGLE SPAN (1@ 115') PRATT THRU TRUSS ON CLOSED CONCRETE ABUTMENTS, NO SALVAGE, AND REPLACE WITH A SINGLE SPAN (1@ 128') TIMBER COVERED BRIDGE ON CLOSED CONCRETE ABUTMENTS AT STATION 13+70.

SECTION 98-20101-00-BR
EPPERSON ROAD BEGINS AT STA. 102+00

SECTION 98-20101-00-BR
EPPERSON ROAD ENDS AT STA. 107+85

SECTION 98-20101-00-BR
T.R. 245 BEGINS AT STA. 6+50

APPROVED: [Signature] 10/17/05 20 05
COUNTY ENGINEER

APPROVED: [Signature] 10/17/05 20 05
TOWNSHIP COMMISSIONER

PASSED: [Signature] DEC 16 20 05
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

APPROVED FOR BIDDING: [Signature] DEC 16 20 05
DISTRICT ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RURAL GUIDELINES
CLEAR ZONE: 10' BEYOND THE SLOPE OR R.O.W. LINES IF LESS
DESIGN SPEED: 50 MPH

FUNCTIONAL CLASSIFICATION	HIGHWAY	ADT/YEAR	% TRUCKS
RURAL LOCAL ROAD	T.R. 245	690/2025	4%
RURAL LOCAL ROAD	EPPERSON ROAD	2250/2025	10%



[Signature]
DATE: 10/17/05
EXPIRES 11/30/05
ROADWAY SHEETS I-32



[Signature]
DATE: 10/17/05
EXPIRES 11/30/05
SANITARY SHEET 33



[Signature]
DATE: 10/17/05
EXPIRES 11/30/05
ELECTRICAL SHEETS 59-63

PREPARED BY
WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structural
Environmental - Architecture

809 E. Second Street
Dixon, Illinois 61021
Phone: 815-284-3381
Fax: 815-284-3385
Design Firm # 184-000918
WHA # 1104D04

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE:

ROUTE	SECTION	COUNTY	DATE	SHEET
245	98-20101-00-BR	BUREAU	65	2
FED. ROAD DIST. NO. 7		BUREAU	FED. AID PROJECT-BROS-016621	

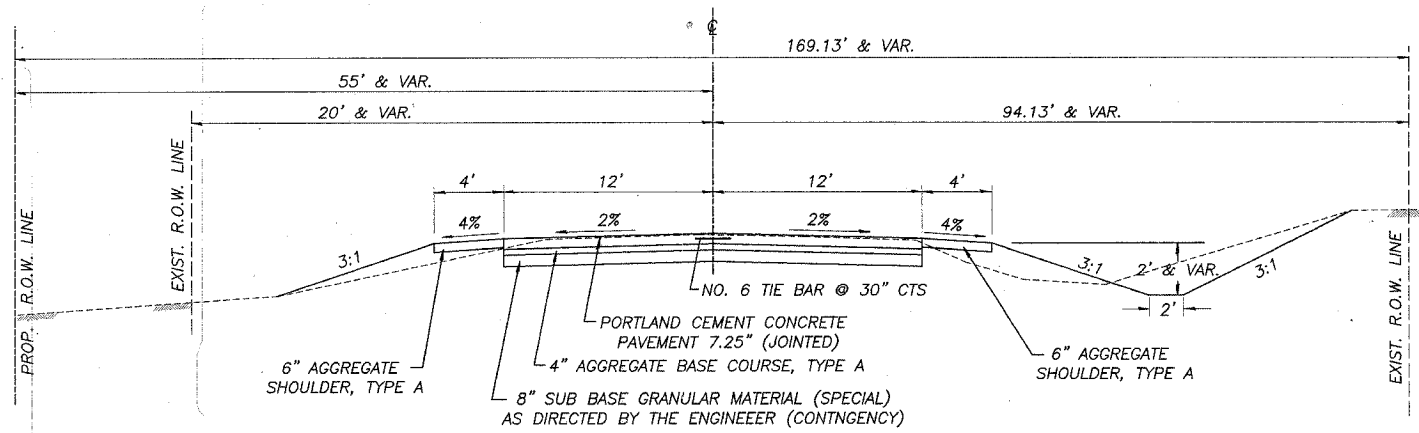
CODE NO.	ITEM	UNIT	X002-2A	Y080	NON-3000-2# PARTICIPATING	TOTAL QUANTITY
20200410*	EARTH EXCAVATION (SPECIAL)	CU YD	11,663		12,668	24,331
20201200*	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	532		268	800
20300100	CHANNEL EXCAVATION	CU YD	920			920
20900110*	POROUS GRANULAR BACKFILL	CU YD	2,118			2,118
25001000*	SEEDING, CLASS 2 (SPECIAL)	ACRE	3.17		1.47	4.64
25100630	EROSION CONTROL BLANKET	SO YD	972.45		263.65	1,236.1
28000300	TEMPORARY DITCH CHECKS	EACH	15		6	21
28000400	PERIMETER EROSION BARRIER	FOOT	1,201		1,088	2,289
31102800*	SUB-BASE GRANULAR MATERIAL, SPECIAL	TON	1,067.5		684.5	1,752
35100100*	AGGREGATE BASE COURSE, TYPE A	TON	1,323		887	2,210
40500300	BITUMINOUS MIXTURE COMPLETE	TON	6		6	12
40600100*	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	7		7	14
40600300*	AGGREGATE (PRIME COAT)	TON	0.1		0.1	0.2
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SO YD	24		24	48
42000206	PORTLAND CEMENT CONCRETE PAVEMENT 7 1/4" (JOINTED)	SO YD	4,451.55		3,265.35	7,716.9
42001400*	BRIDGE APPROACH PAVEMENT SPECIAL	SO YD	222			222
42001500	P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	SO YD	21.3			21.3
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6"	SO YD	176			176
42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7"	SO YD	577			577
48100100	AGGREGATE SHOULDERS, TYPE A	TON	619.5		68.5	688
48300205	PORTLAND CEMENT CONCRETE SHOULDERS, 7 1/4"	SO YD	100.8		904.1	1,005.2
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1			1
50200300	COFFERDAM EXCAVATION	CU YD	2,473			2,473
50200500	COFFERDAMS	EACH	2			2
50300225	CONCRETE STRUCTURES	CU YD	614			614
50500105*	FURNISHING & ERECTING STRUCTURAL STEEL	L SUM	1			1
50700105*	TREATED TIMBER	FBM	53,863			53,863
50700305*	HARDWARE	POUND	39,159			39,159
50800105	REINFORCEMENT BARS	POUND	6,500			6,500
50800205	REINFORCEMENT BARS (EPOXY COATED)	POUND	46,830			46,830
51201100	FURNISHING METAL PILE SHELLS 14"	FOOT	2,450			2,450
51202600	DRIVING AND FILLING SHELLS	FOOT	2,450			2,450
51203200	TEST PILE METAL SHELLS	EACH	2			2
51500100	NAME PLATES	EACH	1			1
54200223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	50		50	100
54200241	PIPE CULVERTS, CLASS D, TYPE 1 36"	FOOT			15	15
54215547	METAL END SECTIONS 12"	EACH	2			2
54215553	METAL END SECTIONS 18"	EACH	2		2	4
54248515*	CONCRETE COLLAR	FACH	1		1	2
58700100*	BRIDGE SEAT SEALER	L SUM	1			1
60103500	PIPE DRAINS, CORRUGATED STEEL 12"	FOOT	64			64
60257900*	MANHOLES TO BE RECONSTRUCTED:	EACH	2			2
60600095	CLASS S1 CONCRETE (OUTLET)	CU YD	1.35		4.05	5.4
60602800	CONCRETE GUTTER, TYPE B	FOOT	251.5		251.5	503
60900115	TYPE B INLET BOX, STANDARD 609001	EACH	2			2
60900515	CONCRETE THRUST BLOCKS	EACH	2			2
63004011*	WEATHERING STEEL TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	EACH	3			3
63100205*	TRAFFIC BARRIER TERMINAL, TYPE 5A (SPECIAL)	EACH	4			4
66503200*	BARBED WIRE FENCE, FIVE STRAND	FOOT	998.5		721.5	1,720
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	22.5		9.5	32
67100100	MOBILIZATION	L SUM	1			1
70101700*	TRAFFIC CONTROL AND PROTECTION	L SUM	0.665		0.335	1
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	6,148.5		3,318.5	9,467
78001140	PAINT PAVEMENT MARKING - LINE 8"	FOOT			110	110
78001150	PAINT PAVEMENT MARKING - LINE 12"	FOOT	22.5		141.5	164
78001180	PAINT PAVEMENT MARKING - LINE 24"	FOOT			34	34
78201000*	TERMINAL MARKER - DIRECT APPLIED	EACH	3			3
80400105*	ELECTRIC SERVICE INSTALLATION, SPECIAL	EACH	1			1
80700110	GROUND ROD, 3/4" DIA. X 10 FT.	EACH	3			3
81012300	CONDUIT IN TRENCH, 1" DIA. PVC	FOOT	496			496
81012500	CONDUIT IN TRENCH, 1 1/2" DIA. PVC	FOOT	480			480
81100300	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., GALVANIZED STEEL	FOOT	270			270
81100500	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., GALVANIZED STEEL	FOOT	450			450
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	450			450
81702100	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12	FOOT	450			450
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1,910			1,910
82500505*	LIGHTING CONTROLLER, SPECIAL	EACH	1			1
83600210*	LIGHT POLE FOUNDATION, 24" DIAMETER, SPECIAL	FOOT	29			29
AF30020y2	SEEDLING-ACER SACCHARINUM 2 YR OLD BARE ROOT	UNIT	6,975		0.465	7,44
AX8011010*	TELEPHONE SERVICE INSTALLATION	L SUM	1			1
XX000613*	MODULAR BLOCK RETAINING WALL	SO FT	1,150			1,150
XX001429*	FORM LINER TEXTURED SURFACE	SO YD	674			674
XX006057*	GUARDRAIL, SPECIAL	FOOT	668.8			668.8
Z0005400*	BREAKER-RUN CRUSHED STONE	TON	1,090.60		549.40	1,640
Z0075310*	TIE BARS 3/4"	EACH	883		1,361	2,244
Z0076600	TRAINEE	HOURS		500		500
Δ XX006479*	LUMINAIRE, METAL HALIDE, VERTICAL MOUNT, 250 WATT, SPOT TYPE DISTRIBUTION	EACH	2			2
Δ XX006480*	LUMINAIRE, METAL HALIDE, VERTICAL MOUNT, 250 WATT, NARROW HORIZONTAL SPOT TYPE DISTRIBUTION	EACH	2			2
Δ XX006481*	LUMINAIRE, METAL HALIDE, WALL PACK, 100 WATT	EACH	3			3
Δ XX006482*	LIGHT POLE, STEEL, 16 FT. M.H., TENON MOUNT	FACH	2			2
Δ XX006483*	LIGHT POLE, STEEL, 16 FT. M.H., TENON MOUNT, DOUBLE	EACH	1			1
Δ X0323608*	FIRE ALARM SYSTEM	L SUM	1			1
Δ X0322283*	VIDEO SURVEILLANCE SYSTEM, COMPLETE	EACH	1			1
Δ XX006484*	VIDEO/CONTROL/POWER CABLE, SPECIAL	FOOT	930			930
Δ XX006485*	SERVICE LATERAL, SPECIAL	FOOT	195			195
Δ XX006486*	TREATED GLUE LAMINATED TIMBER	FBM	93,677			93,677
XX006486*	BEARING ASSEMBLY (SPECIAL)	EACH	4			4
XX006487*	CEDAR SHAKE SHINGLES	SO FT	6,302			6,302
XX006488*	FIXED HINGE PIN ASSEMBLY	EACH	6			6
XX006489*	LETTERING	L SUM	1			1
Δ X0323607*	FIRE PROTECTION SYSTEM	L SUM	1			1
XX006491*	CLEAR DECK & WOOD SEAL	L SUM	1			1
XX006492*	GUARDRAIL, SPECIAL	FOOT	132.5			132.5
XX006493*	WEATHERING STEEL PLATE BEAM GUARD RAIL, SPECIAL	FOOT	17.5			17.5
XX006494*	BRICK EMBOSSED, SPECIAL	SO YD	244			244

* SEE SPECIAL PROVISIONS
 Δ SPECIALTY ITEMS

SUMMARY OF QUANTITIES
 SECTION 98-20101-00-BR
 T.R. 245 OVER BIG BUREAU CREEK
 STA. 13+70 (S.N. 006-4288)
 BUREAU COUNTY
 WHA # 1104004

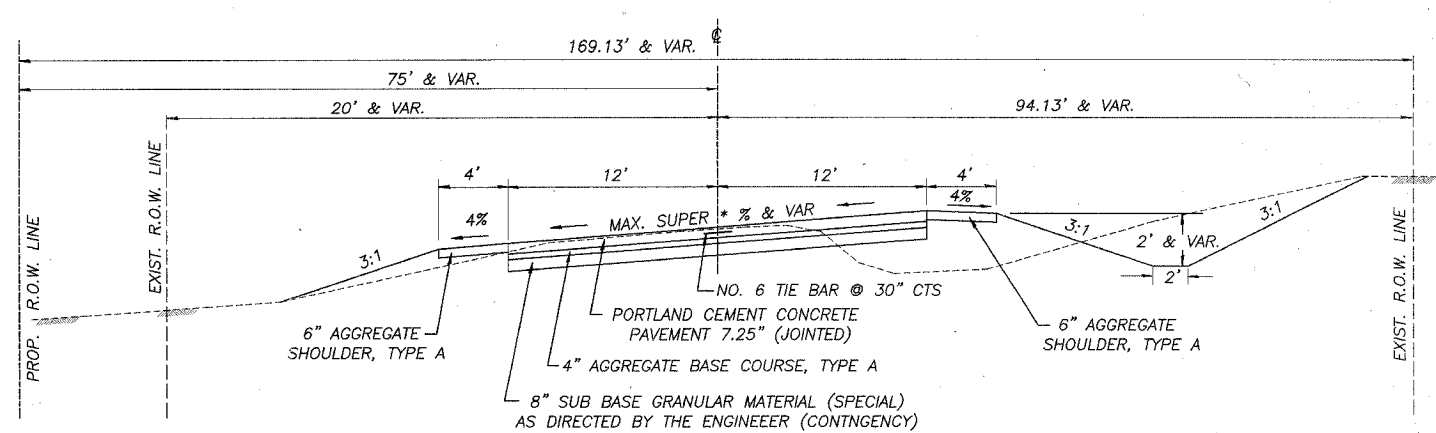
TR 245 TYPICAL SECTIONS

ROUTE	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
245	98-2010I-00-BR	BUREAU	65	3
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT- BR05-CH(62)	



TYPICAL SECTION
TR 245

- ① STA. 6+50 TO 7+07.19
- ⑤ STA. 19+87.41 TO 21+50.83

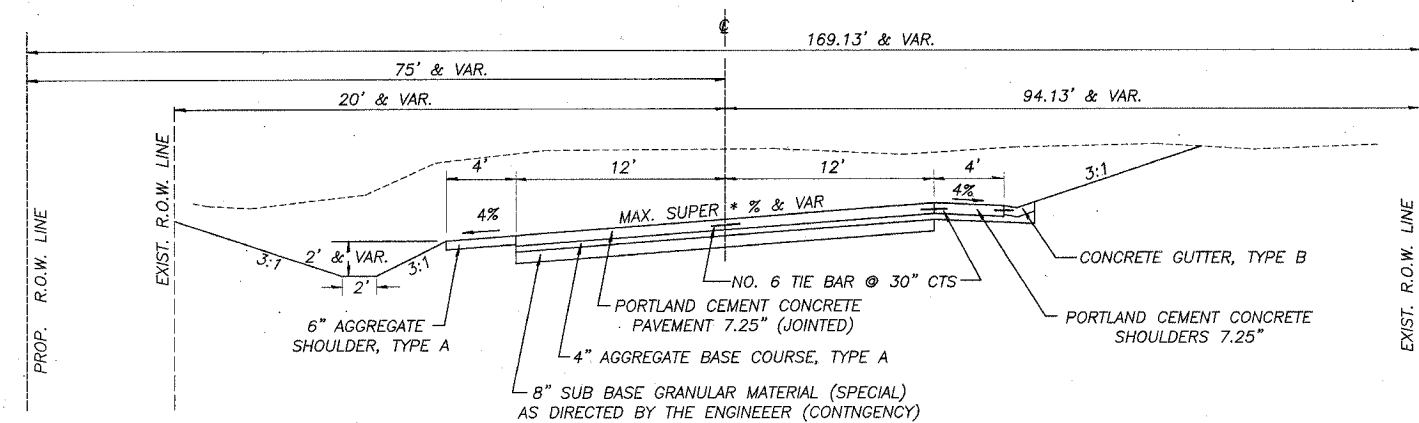


TYPICAL SECTION
TR 245

- ② STA. 7+07.19 TO 12+76.48
MSE = 6.0%
SUPER TRANSITION IN = 180' (2/3 & 1/3)
BS = 7+07.19
BMS = 8+87.19
SUPER TRANSITION OUT = 165' (1/2 & 1/2)
EMS = 11+12.56
ES = 12+76.48
ROLLOVER 10% MAX
- ④ STA. 14+64.48 TO 19+87.41
MSE = 6.0%
SUPER TRANSITION IN = 165' (1/2 & 1/2)
BS = 14+53
BMS = 16+18
SUPER TRANSITION OUT = 180' (2/3 & 1/3)
EMS = 18+07.41
ES = 19+87.41
ROLLOVER 10% MAX
- ⑥ STA. 21+50.83 TO 24+76.39
MSE = 4.0%
SUPER TRANSITION IN = 150' (2/3 & 1/3)
BS = 21+50.83
BMS = 23+00.83
SUPER TRANSITION OUT = 150' (2/3 & 1/3)
EMS = 25+07.04
ES = 26+57.04
ROLLOVER 10% MAX

* SEE SECTION D-D OF STANDARD 420401 FOR BRIDGE APPROACH DETAILS

- ③ * BRIDGE APPROACH 12+76.48 TO 13+06.48
- * BRIDGE OMISSION 13+06.48 TO 14+34.48
- * BRIDGE APPROACH 14+34.48 TO 14+64.48

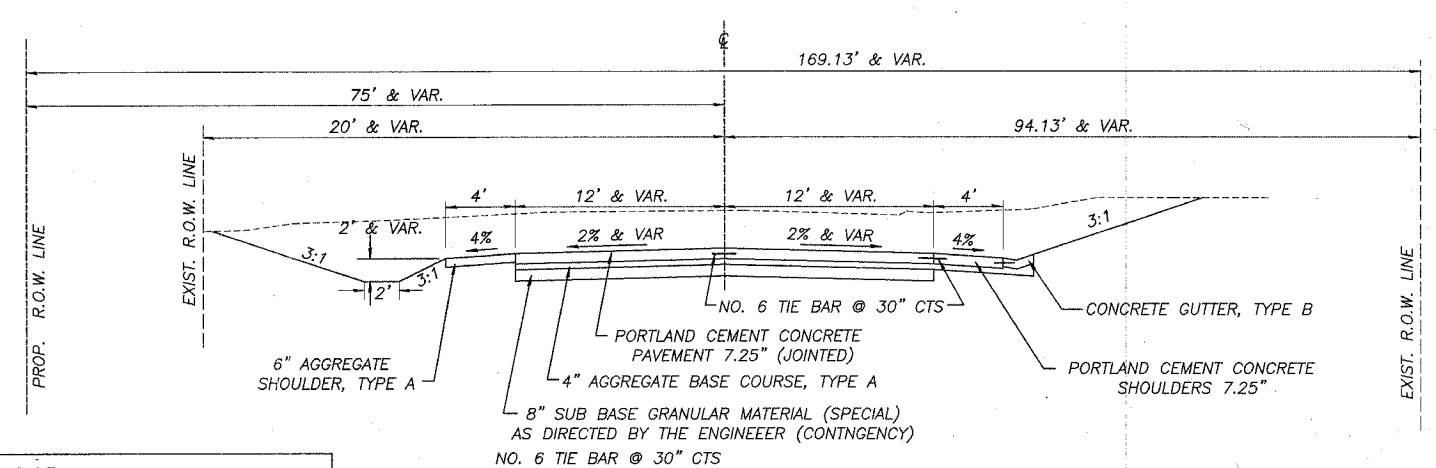


TYPICAL SECTION
TR 245

- ⑦ STA. 24+76.39 TO 26+57.04
MSE = 4.0%
SUPER TRANSITION IN = 150' (2/3 & 1/3)
BS = 21+50.83
BMS = 23+00.83
SUPER TRANSITION OUT = 150' (2/3 & 1/3)
EMS = 25+07.04
ES = 26+57.04
ROLLOVER 10% MAX

TR 245 PAVEMENT STRUCTURAL DESIGN

80,000 LB. DESIGN
STRUCTURAL DESIGN TRAFFIC (S.D.T.) = YEAR 2015 P.V. 450
S.U. 35 > 510 ADT
M.U. 25
CLASS III ROAD
RIGID PAVEMENT DESIGN FOR LOCAL AGENCIES.
SUBGRADE SUPPORT RATING (SSR) "POOR"
T. F. 0.19; NON-REINFORCED & AGGREGATE INTERLOCK FOR LOAD TRANSFER, 12.5' JOINT SPACING
PAVEMENT DESIGN PROCEDURES USED
BUREAU OF LOCAL ROADS AND STREETS MANUAL

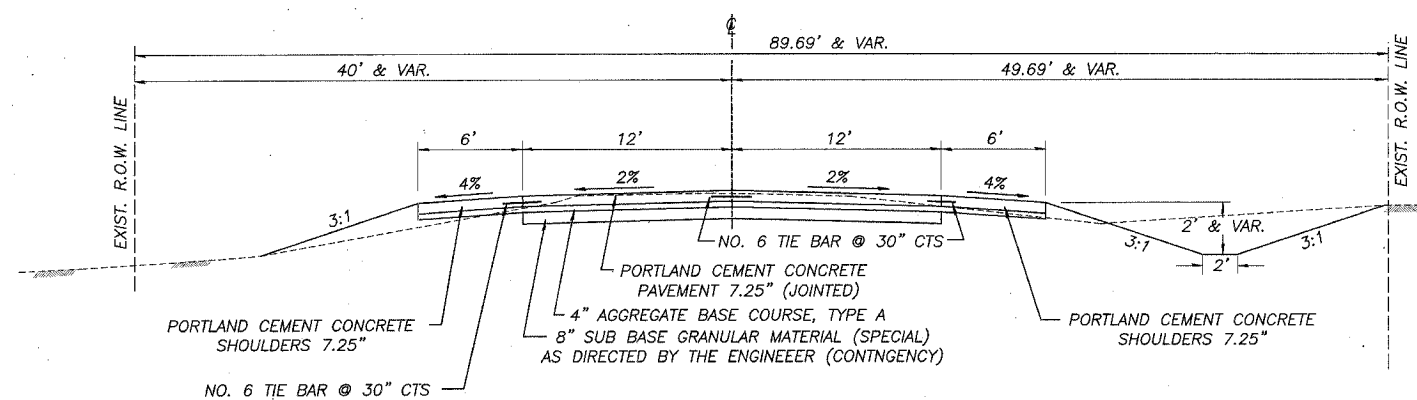


TYPICAL SECTION
TR 245

- ⑧ STA. 26+57.04 TO 29+23.94

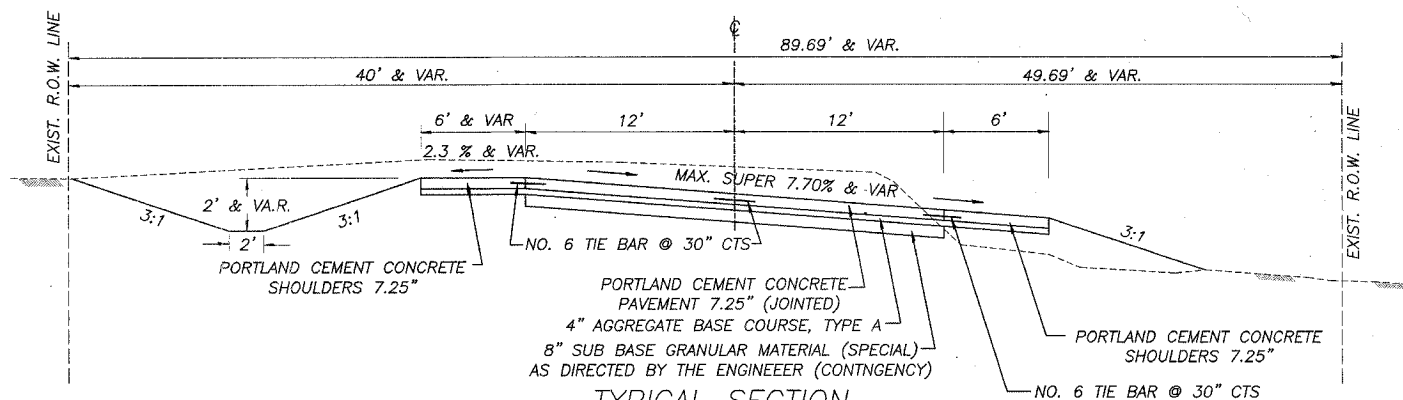
ROUTE	SECTION	COUNTY	DISTRICT	SHEET
P.A.L. 245	98-20101-00-BR	BUREAU	65	4
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:	BR05-011(62)	

EPPERSON ROAD TYPICAL SECTIONS



TYPICAL SECTION
EPPERSON ROAD

- ① STA. 102+00 TO 102+13.55
- ⑤ STA. 107+78.36 TO 107+85



TYPICAL SECTION
EPPERSON ROAD

- ② STA. 102+13.55 TO 103+44.58
- ④ STA. 103+68.20 TO 107+78.36

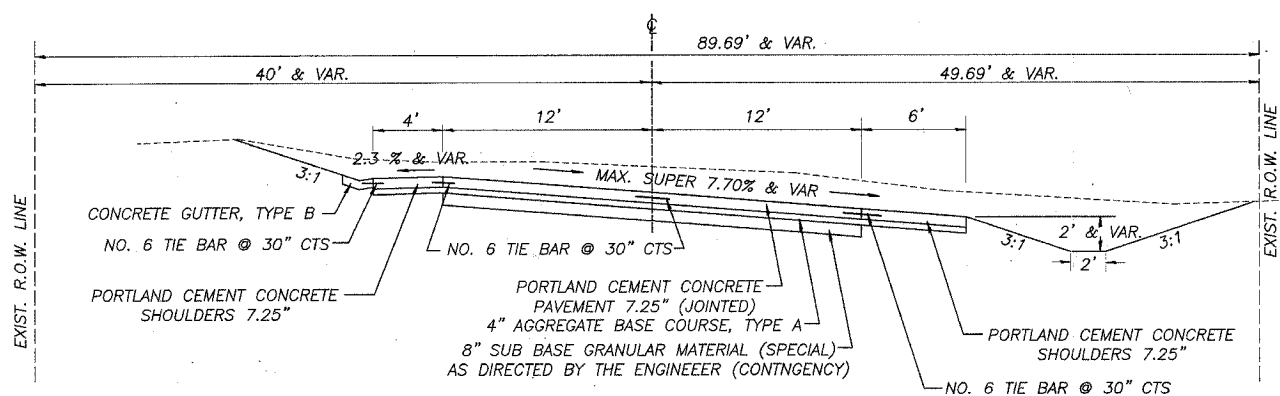
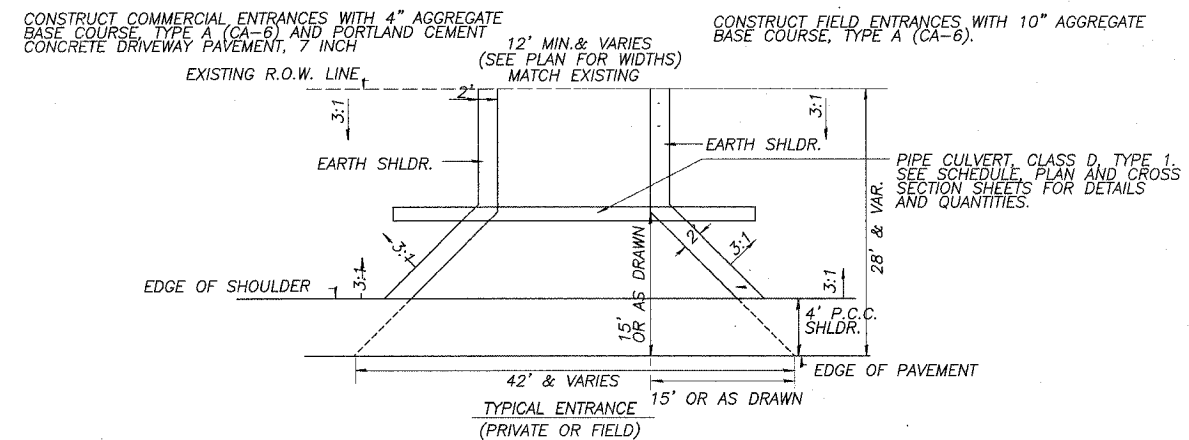
MSE = 7.70%
 SUPER TRANSITION IN = 140' (2/3 & 1/3)
 BS = 102+13.55
 BMS = 103+53.55
 SUPER TRANSITION OUT = 140' (2/3 & 1/3)
 EMS = 106+38.36
 ES = 107+78.36
 ROLLOVER 10% MAX

**EPPERSON ROAD
PAVEMENT STRUCTURAL DESIGN**

80,000 LB. DESIGN

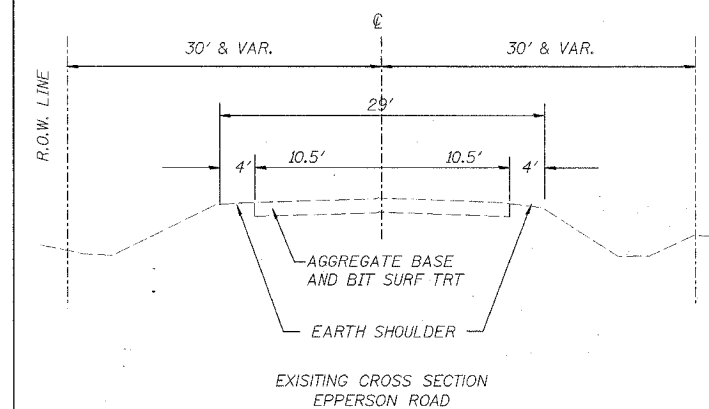
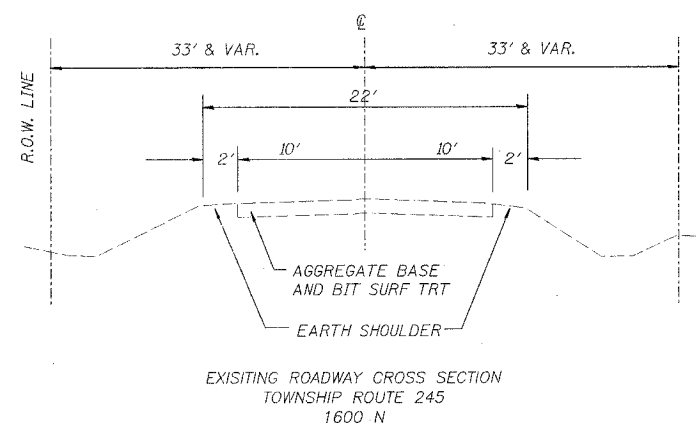
STRUCTURAL DESIGN TRAFFIC (S.D.T.) = YEAR 2015 P.V. 1627
 S.U. 130 1850 ADT
 M.U. 93

CLASS III ROAD
 RIGID PAVEMENT DESIGN FOR LOCAL AGENCIES.
 SUBGRADE SUPPORT RATING (SSR) "POOR"
 T. F. 0.69; NON-REINFORCED & AGGREGATE INTERLOCK FOR LOAD
 TRANSFER, 12.5' JOINT SPACING
 PAVEMENT DESIGN PROCEDURES USED
 BUREAU OF LOCAL ROADS AND STREETS MANUAL



TYPICAL SECTION
EPPERSON ROAD

- ③ STA. 103+44.58 TO 103+68.20
- MSE = 7.70%
 SUPER TRANSITION IN = 140' (2/3 & 1/3)
 BS = 102+13.55
 BMS = 103+53.55
 SUPER TRANSITION OUT = 140' (2/3 & 1/3)
 EMS = 106+38.36
 ES = 107+78.36
 ROLLOVER 10% MAX



PROJECT	SECTION	COUNTY	SHEETS	TOTAL
245	98-20101-00-BR	BUREAU	65	5
FED. ROAD DIST. NO. 7		BLDG. NO.	FED. AID PROJECT-BROS-011(62)	

GENERAL NOTES

THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS ENCOUNTERED, UNTIL AN OWNER OR AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ANY PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS, UNLESS REFERENCED, DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

ANY EXISTING FENCE AND/OR CULVERTS, REQUIRED TO BE REMOVED TO CONSTRUCT THE PROJECT TO THE DIMENSIONS AND LIMITS SHOWN ON THE PLANS, SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE INCIDENTAL TO THE CONTRACT. THESE ITEMS, WITH THE EXCEPTION OF ANY CULVERTS DEEMED SALVAGEABLE BY THE ENGINEER, WHICH SHALL BE CAREFULLY REMOVED AND PLACED ALONG THE RIGHT OF WAY FOR PICK-UP BY THE COUNTY, SHALL BECOME THE PROPERTY OF THE CONTRACTOR TO DISPOSE OF IN ACCORDANCE WITH STATE AND LOCAL LAWS.

ALL TELEPHONE AND ELECTRIC POLES, GAS DROPS, WATER MAIN, SEWERS, ETC. IN THE WAY OF THE IMPROVEMENT SHALL BE MOVED BY THE UTILITIES PRIOR TO CONSTRUCTION AND SHALL NOT BE INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE RESPECTIVE UTILITIES TO MAKE THE NECESSARY ADJUSTMENTS PRIOR TO HIS CONSTRUCTION.

THE LOCATION AND/OR ELEVATION OF THE VARIOUS UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR THEM TO PREVENT DAMAGE.

ALL TREES LESS THAN 6" DIAMETER WITHIN THE CONSTRUCTION LINES AND SHOWN ON THE PLANS ARE TO BE REMOVED AND WILL NOT BE PAID FOR UNDER THE BID ITEM OF TREE REMOVAL. THE COST OF REMOVING THESE TREES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL).

THE FINAL TOP 4" OF SOIL IN ANY AREA DISTURBED BY THE CONTRACTOR MUST BE ABLE TO SUPPORT VEGETATION.

EXISTING MAIL BOXES, STREET SIGNS AND TRAFFIC SIGNS THAT ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED AND RESET BY THE CONTRACTOR. COST OF REMOVING AND RESETTING TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER UNIT FOR EARTH EXCAVATING (SPECIAL).

WHERE THE PROPOSED CONSTRUCTION MEETS AN EXISTING BITUMINOUS SURFACE, OR WHERE SAWING IS STATED ON THE PLANS, THE EXISTING SURFACE SHALL BE SAWED IN A NEAT, STRAIGHT LINE. COST OF SAWING TO BE INCLUDED IN THE CONTRACT UNIT PRICE PER UNIT FOR EARTH EXCAVATION (SPECIAL).

EARTHWORK SCHEDULE - ROAD TR245 AND EPPERSON ROAD

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE 25%	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
TOWNSHIP ROUTE 245 (1600 N.) STA. 6+50 TO 29+94.20	22,765	17,074	16,425	649
EPPERSON ROAD STA. 102+00 TO 107+85	1566	1,175	308	867
TOTALS	24,331	18,248	16,733	1,516

SCHEDULES

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL		
STATION	CU YD	REMARKS
CONTINGENCY ITEM	800	AS DIRECTED BY THE ENGINEER
PROJECT TOTAL	800	

20201200

SEEDING, CLASS 2 (SPECIAL)		
STATION	ACRES	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L & R 6+50 - 22+50	2.44	
JOINT		
L & R 22+50 - 29+30	1.46	
CITY OF PRINCETON		
L & R 29+30 - 29+94.20	0.09	
EPPERSON ROAD		
CITY OF PRINCETON		
L & R 102+00 - 107+85	0.65	
PROJECT TOTAL	4.64	

25001000

EROSION CONTROL BLANKET		
STATION	SQ YD	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
R 12+21 - 13+21	66.7	6' WIDE
R 13+80 - 14+80	66.7	6' WIDE
L 14+06 - 15+06	66.7	6' WIDE
R 16+11 - 19+96	266.8	6' WIDE
L 18+87 - 22+50	242	6' WIDE
R 20+50 - 22+50	133.3	6' WIDE
JOINT		
L 22+50 - 26+05	236.7	6' WIDE
R 22+50 - 24+64	23.8	6' WIDE
EPPERSON ROAD		
CITY OF PRINCETON		
L 101+96 - 102+96	66.7	6' WIDE
R 101+96 - 102+96	66.7	6' WIDE
PROJECT TOTAL	1236.1	

25100630

TEMPORARY DITCH CHECK		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L & R 8+00	2	AS DIRECTED BY THE ENGINEER
L & R 10+00	2	AS DIRECTED BY THE ENGINEER
L & R 12+00	2	AS DIRECTED BY THE ENGINEER
L 15+00	1	AS DIRECTED BY THE ENGINEER
L & R 17+00	2	AS DIRECTED BY THE ENGINEER
L & R 19+00	2	AS DIRECTED BY THE ENGINEER
L & R 21+00	2	AS DIRECTED BY THE ENGINEER
JOINT		
L & R 23+00	2	AS DIRECTED BY THE ENGINEER
L 27+00	1	AS DIRECTED BY THE ENGINEER
L 29+00	1	AS DIRECTED BY THE ENGINEER
EPPERSON ROAD		
CITY OF PRINCETON		
L & R 102+50	2	AS DIRECTED BY THE ENGINEER
R 103+80	1	AS DIRECTED BY THE ENGINEER
L 105+20	1	AS DIRECTED BY THE ENGINEER
PROJECT TOTAL	21	

28000300

PERIMETER EROSION BARRIER		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 10+00 - 13+35	382	
R 12+75 - 13+20	127	
R 20+48 - 20+56	23	
L 13+95 - 16+00	240	
R 13+95 - 17+00	429	
EPPERSON ROAD		
CITY OF PRINCETON		
L 102+00 - 103+50	189	
R 102+00 - 107+85	863	
L 106+25 - 106+32.50	21	
L 107+85	15	
PROJECT TOTAL	2,289	

28000400

SUB-BASE GRANULAR MATERIAL, SPECIAL		
STATION	TONS	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
CONTINGENCY ITEM	857	AS DIRECTED BY THE ENGINEER
JOINT		
CONTINGENCY ITEM	421	AS DIRECTED BY THE ENGINEER
CITY OF PRINCETON		
CONTINGENCY ITEM	121	AS DIRECTED BY THE ENGINEER
EPPERSON ROAD		
CITY OF PRINCETON		
CONTINGENCY ITEM	353	AS DIRECTED BY THE ENGINEER
PROJECT TOTAL	1752	

31102800

AGGREGATE BASE COURSE, TYPE A		
STATION	TONS	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
6+50 - 13+06.48	399	4"
L 12+58.98 - L 12+76.48	2	4" (BRIDGE SHOULDER AREA)
R 12+58.98 - R 12+76.48	2	4" (BRIDGE SHOULDER AREA)
L 14+84.48 - L 14+73.98	1	4" (BRIDGE SHOULDER AREA)
R 14+84.48 - R 14+73.98	1	4" (BRIDGE SHOULDER AREA)
14+34.48 - 22+50	495	4"
R 15+31.48 - 16+34.04	131	4" (PARKING LOT AREA)
CER 20+22	40	4"
JOINT		
22+50 - 27+64.69	313	4"
R 24+76.39 - 29+30	61	4" (SHOULDER AND GUTTER AREA)
27+64.69 - 29+30	124	4" (TAPER)
CITY OF PRINCETON		
29+30 - 29+81.58	108	4" (INTERSECTION)
29+30 - 29+81.58	25	4" (SHOULDER AND GUTTER AREA)
EPPERSON ROAD		
CITY OF PRINCETON		
102+00 - 107+85	355	4"
102+00 - 107+85	100	4" (SHOULDER AREA)
FE L 106+00	47	10"
PROJECT TOTAL	2,210	

35100100

BITUMINOUS MIXTURE COMPLETE		
STATION	TONS	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
6+25 - 6+50	6	1.5" (TAPER AREA)
EPPERSON ROAD		
CITY OF PRINCETON		
107+85 - 108+10	6	1.5" (TAPER AREA)
PROJECT TOTAL	12	

40500300

SCHEDULES

PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BROS-011(62)		

BITUMINOUS MATERIALS (PRIME COAT)		
STATION	GAL	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
6+25 - 6+50	7	0.1 GAL/SY ON BIT. (TAPER AREA)
EPPERSON ROAD		
CITY OF PRINCETON		
107+85 - 108+10	7	0.1 GAL/SY ON BIT. (TAPER AREA)
PROJECT TOTAL	14	

AGGREGATE PRIME COAT		
STATION	TONS	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
6+50 - 12+76.48	0.1	3 LBS/SY
EPPERSON ROAD		
CITY OF PRINCETON		
102+00 - 107+45	0.1	3 LBS/SY
PROJECT TOTAL	0.2	

BITUMINOUS SURFACE REMOVAL - BUTT JOINT		
STATION	SQ YD	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
6+25	24	1.5" IN 10'
EPPERSON ROAD		
CITY OF PRINCETON		
107+85	24	1.5" IN 10'
PROJECT TOTAL	48	

PORTLAND CEMENT CONCRETE PAVEMENT 7 1/4" (JOINTED)		
STATION	SQ YD	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
6+50 - 12+76.48	1,670.8	
14+64.48 - 22+50	2,094.7	
JOINT		
22+50 - 27+64.69	1,372.5	
27+64.69 - 29+30		
CITY OF PRINCETON		
29+30 - 29+81.58	545.8	
	473.3	
EPPERSON ROAD		
CITY OF PRINCETON		
102+00 - 107+85	1,560.0	
PROJECT TOTAL	7,716.9	

BRIDGE APPROACH PAVEMENT SPL.		
STATION	SQ YD	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
12+76.48 - 13+06.48	111	
14+34.48 - 14+64.48	111	
PROJECT TOTAL	222	

P. C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT		
STATION	SQ YD	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 12+59.98 - L 12+76.48	6.80	
R 12+58.98 - R 12+76.48	6.80	
L 14+64.48 - L 14+73.98	3.85	
R 14+64.48 - R 14+73.98	3.85	
PROJECT TOTAL	21.30	

PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6"		
STATION	SQ YD	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
R 20+22	176	
PROJECT TOTAL	176	

PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7"		
STATION	SQ YD	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
R 15+31.48 - 16+34.04	577	4" (PARKING LOT AREA)
PROJECT TOTAL	577	

AGGREGATE SHOULDERS, TYPE A		
STATION	TON	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 6+05.44 - 6+50	7	4' & VAR. (TAPER) - 6"
R 6+03.64 - 6+50	7	4' & VAR. (TAPER) - 6"
L 6+50 - 10+30.14	58	4' - 6" DEPTH
L 10+30.14 - 12+58.98	70	8' & VAR. - 6" (BRIDGE APPROACH)
R 6+50 - 9+97.54	53	4' - 6" DEPTH
R 9+97.54 - 12+58.98	80	8' & VAR. - 6" (BRIDGE APPROACH)
L 14+73.98 - 17+49.16	84	8' & VAR. - 6" (BRIDGE APPROACH)
L 17+49.16 - 22+50	76	4' - 6"
R 14+73.98 - 15+25	16	8' & VAR. - 6" (BRIDGE APPROACH)
R 15+45 - 19+97	69	4' & VAR. - 6" (TAPER)
R 20+47 - 22+50	31	4' - 6"
JOINT		
L 22+50 - 29+26.95	103	4' - 6" DEPTH
R 22+50 - 24+76.39	34	4' - 6" DEPTH
PROJECT TOTAL	688	

PORTLAND CEMENT CONCRETE SHOULDERS, 7 1/4"		
STATION	SQ YD	REMARKS
TOWNSHIP ROUTE 245		
JOINT		
R 24+76.39 - 28+82.83	180.7	4' WIDE
R 28+82.88 - 29+30	20.9	4' WIDE
CITY OF PRINCETON		
R 29+30 - 29+62	33.3	4' WIDE
R 29+62 - 29+65	10.4	4' & VAR. WIDE
L 29+26.95 - 29+90	57.8	4' & VAR. WIDE
EPPERSON ROAD		
CITY OF PRINCETON		
L 102+00 - 103+44.58	144.6	6' WIDE
L 105+33.78 - 107+85	167.5	6' WIDE
R 102+00 - 107+85	390.0	6' WIDE
PROJECT TOTAL	1,005.2	

PIPE CULVERTS, CLASS D, TYPE 1 18"		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
CER 20+21.60	50	
EPPERSON ROAD		
CITY OF PRINCETON		
FEL 106+90	50	
PROJECT TOTAL	100	

PIPE CULVERTS, CLASS D, TYPE 1 36"		
STATION	FOOT	REMARKS
EPPERSON ROAD		
CITY OF PRINCETON		
L 107+95	15	
PROJECT TOTAL	15	

METAL END SECTIONS 12"		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 12+63.98	1	
R 12+63.98	1	
PROJECT TOTAL	2	

METAL END SECTIONS 18"		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
R 20+00	1	
R 20+50	1	
EPPERSON ROAD		
CITY OF PRINCETON		
L 105+75	1	
L 106+25	1	
PROJECT TOTAL	4	

CONCRETE COLLAR		
STATION	EACH	REMARKS
EPPERSON ROAD		
CITY OF PRINCETON		
L 107+95	1	
PROJECT TOTAL	1	

PIPE DRAINS, CORRUGATED STEEL 12"		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 12+63.98	30	
R 12+63.98	34	
PROJECT TOTAL	64	

MANHOLES TO BE RECONSTRUCTED		
STATION	EACH	REMARKS
TR 245		
CITY OF PRINCETON		
29+40 RT 22'	1	
EPPERSON ROAD		
CITY OF PRINCETON		
102+53 RT 15'	1	
PROJECT TOTAL	2	

CLASS SI CONCRETE (OUTLET)		
STATION	CU YD	REMARKS
TOWNSHIP ROUTE 245		
JOINT		
R 24+63.00 - 25+00	2.7	
EPPERSON ROAD		
CITY OF PRINCETON		
L 103+33.2 - 103+68.20	2.7	
PROJECT TOTAL	5.4	

CONCRETE GUTTER, TYPE B		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
JOINT		
25+00 - 26+82.88	383	
28+82.88 - 29+30	120	
PROJECT TOTAL	503	

TYPE B INLET BOX, STANDARD 609001		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 12+63.98	1	
R 12+63.98	1	
PROJECT TOTAL	2	

SCHEDULES

PROJECT	SECTION	COUNTY	SHEETS	SHEET
245	98-2001-00-BR	BUREAU	65	7
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - BR05-01(62)		

CONCRETE THRUST BLOCKS		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 12+63.98	1	
R 12+63.98	1	
PROJECT TOTAL	2	

60900515

WEATHERING STEEL TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
R 10+31.54 - 10+82.64	1	
L 10+84.14 - 11+16.98	1	
L 16+75.07 - 17+15.16	1	
PROJECT TOTAL	3	

63004011

TRAFFIC BARRIER TERMINAL, TYPE 5A (SPECIAL)		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 12+93.26 - 13+06.51	1	
R 12+93.26 - 13+06.51	1	
L 14+34.45 - 14+47.70	1	
R 14+34.45 - 14+47.70	1	
PROJECT TOTAL	4	

63100205

BARBED WIRE FENCE, FIVE STRAND		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 14+75.16 - 15+35.50	60	
L 15+35.50 - 17+00	77	
L 17+00 - 18+67.41	158	
L 18+67.41 - 21+00	232	
L 21+00 - 22+50.83	152	
JOINT		
L 22+50.83 - 24+00	137	
L 24+00 - 25+57.04	145	
L 25+57.04 - 29+14.40	357	
EPPERSON ROAD		
CITY OF PRINCETON		
L 104+98.75 - 108+40	387	
L 108+40 - 108+40	15	
PROJECT TOTAL	1,720	

66503200

WEATHERING STEEL PLATE BEAM GUARD RAIL, SPECIAL		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
15+16 RT - 15+20 RT	17.5	
PROJECT TOTAL	17.5	

FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
23.24' L 5+50	1	
35' L 6+50	1	
35' L 8+27.19	1	
35' L 9+00	1	
35' L 10+00	1	
45' L 11+00	1	
55' L 11+95.06	1	
55' L 15+35.50	1	
55' L 17+00	1	
55' L 18+67.41	1	
55' L 21+00	1	
20.13' R 5+50	1	
28' R 5+50	1	
40' R 6+50	1	
43' R 9+00	1	
85.84' R 11+71.06	1	
94.13' R 14+25.05	1	
68.55' R 16+38.08	1	
49' R 18+25	1	
JOINT		
75' L 22+50.83	1	
75' L 24+00	1	
75' L 25+57.04	1	
75' R 29+14.40	1	
60' R 24+83	1	
54.92' R 25+17.42	1	
54.92' R 29+17.42	1	
EPPERSON ROAD		
CITY OF PRINCETON		
20.26' L 101+75	1	
40' L 101+75	1	
52.43' L 103+89.54	1	
49.69' R 101+77.01	1	
42.08' R 103+77.62	1	
36.10' R 105+84.12	1	
PROJECT TOTAL	32	

66600105

PAINT PAVEMENT MARKING - LINE 4"		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
L 6+50 - 8+50	50	CL SKIP DASH YELLOW
R 6+50 - 12+76.48	626	CL SOLID YELLOW
L 6+50 - 12+76.48	626	EOP SOLID WHITE
R 6+50 - 12+76.48	626	EOP SOLID WHITE
L 8+50 - 12+76.48	426	CL SOLID YELLOW
L 14+64.48 - 22+50	786	CL SOLID YELLOW
R 14+64.48 - 15+50	86	CL SOLID YELLOW
L 14+64.48 - 22+50	786	EOP SOLID WHITE
R 14+64.48 - 22+50	786	EOP SOLID WHITE
R 15+50 - 22+50	176	CL SKIP DASH YELLOW
JOINT		
L 22+50 - 27+64.69	514	CL SOLID YELLOW
R 22+50 - 23+00	13	CL SKIP DASH YELLOW
L 22+50 - 29+30	680	EOP SOLID WHITE
R 22+50 - 29+30	680	EOP SOLID WHITE
R 23+00 - 27+64.69	464	CL SOLID YELLOW
CITY OF PRINCETON		
L 29+30 - 29+50	100	EOP SOLID WHITE
R 29+30 - 29+50	100	EOP SOLID WHITE
EPPERSON ROAD		
CITY OF PRINCETON		
L 102+00 - 104+07	207	CL SOLID YELLOW
R 102+00 - 104+07	207	CL SOLID YELLOW
L 105+11 - 107+85	274	CL SOLID YELLOW
R 105+11 - 107+85	274	CL SOLID YELLOW
L 102+00 - 103+45	145	EOP SOLID WHITE
L 105+34 - 107+85	251	EOP SOLID WHITE
R 102+00 - 107+85	585	EOP SOLID WHITE
PROJECT TOTAL	9,467	

78001110

PAINT PAVEMENT MARKING - LINE 8"		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
CITY OF PRINCETON		
R 29+46.93 - 29+78	110	ISLAND OUTLINE (YEL)
PROJECT TOTAL	110	

78001140

PAINT PAVEMENT MARKING - LINE 12"		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
JOINT		
27+64.69 - 29+30	45	DIAGONALS INSIDE MEDIAN (YEL)
CITY OF PRINCETON		
29+30 - 29+50	6	DIAGONALS INSIDE MEDIAN (YEL)
R 29+46.93 - 29+78	113	DIAGONALS INSIDE ISLAND (YEL)
PROJECT TOTAL	164	

78001150

PAINT PAVEMENT MARKING - LINE 24"		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
CITY OF PRINCETON		
R 29+54.50	12	STOP BAR
R 29+37.75 - 29+54.50	22	STOP BAR
PROJECT TOTAL	34	

78001180

TERMINAL MARKER - DIRECT APPLIED		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
R 10+31.53	1	
L 10+64.14	1	
L 17+15.16	1	
PROJECT TOTAL	3	

78201000

SEEDLING-ACER SACCHARINUM		
STATION	UNIT	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
6+50 - 22+50	6.51	SUGAR MAPLE, 2-YR OLD, BARE RT AS DIRECTED BY THE ENG
JOINT		
22+50 - 27+00	0.93	SUGAR MAPLE, 2-YR OLD, BARE RT AS DIRECTED BY THE ENG
PROJECT TOTAL	7.44	

F30020Y2

MODULAR BLOCK RETAINING WALL		
STATION	S.F.	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
R 15+06 - 16+35	1,150	
PROJECT TOTAL	1,150	

XX000613

GUARDRAIL, SPECIAL		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
R 10+82.64 - 12+93.26	212.5	
L 11+16.98 - 12+93.26	175	
R 14+47.70 - 15+16.45	68.8	
L 14+47.70 - 16+75.07	212.5	
PROJECT TOTAL	668.8	

XX006057

BREAKER-RUN CRUSHED STONE		
STATION	TONS	REMARKS
CONTINGENCY ITEM		
	1,640	AS DIRECTED BY THE ENGINEER
PROJECT TOTAL	1,640	

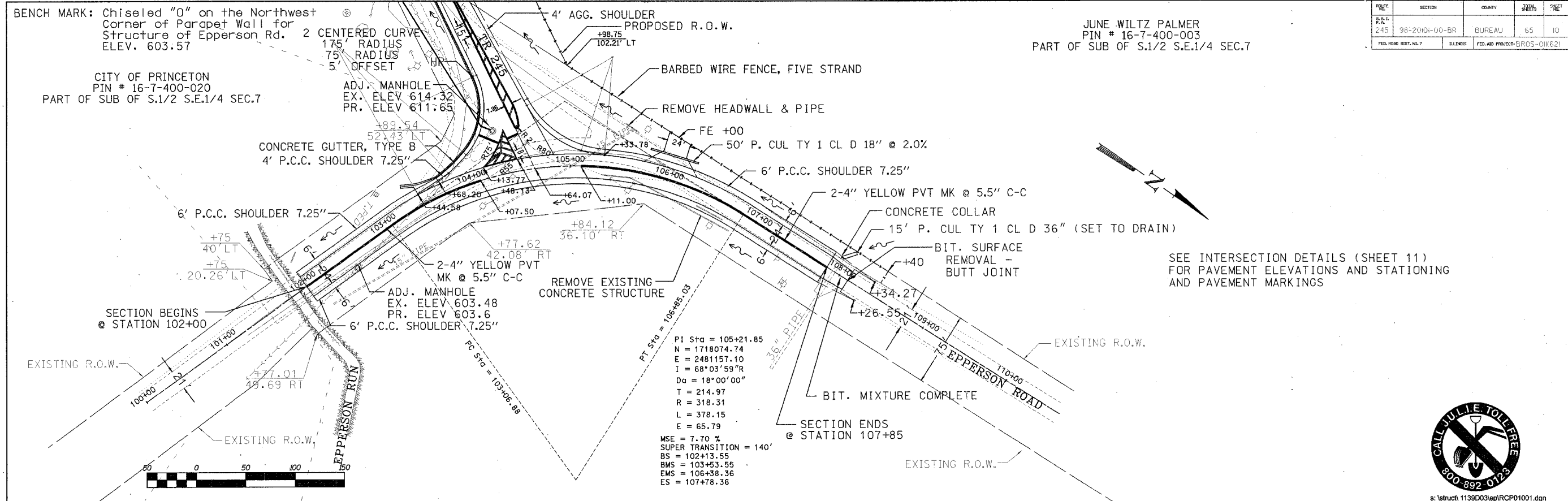
Z0005400

TIE BARS 3/4"		
STATION	EACH	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
6+50 - 12+76.48	251	CENTERLINE
14+64.48 - 22+50	314	CENTERLINE
JOINT		
22+50 - 29+30	272	CENTERLINE
R 24+76.39 - 29+30	362	PAVEMENT TO SHOULDER TO GUTTER
L 29+26.95 - 29+30	2	PAVEMENT TO SHOULDER
CITY OF PRINCETON		
29+30 - 29+82	21	CENTERLINE
R 29+30 - 29+50	160	PAVEMENT TO SHOULDER TO GUTTER
L 29+30 - 29+50	80	PAVEMENT TO SHOULDER
CONTINGENCY	80	INTERSECTION (CONST. JOINTS) AS DIRECTED BY THE ENGINEER
EPPERSON ROAD		
CITY OF PRINCETON		
102+00 - 107+85	234	CENTERLINE
R 102+00 - 107+85	234	PAVEMENT TO SHOULDER
L 102+00 - 103+68.20	67	PAVEMENT TO SHOULDER
L 103+68.20 - 105+33.76	66	PAVEMENT TO SHOULDER
L 105+33.76 - 107+85	101	PAVEMENT TO SHOULDER
PROJECT TOTAL	2244	

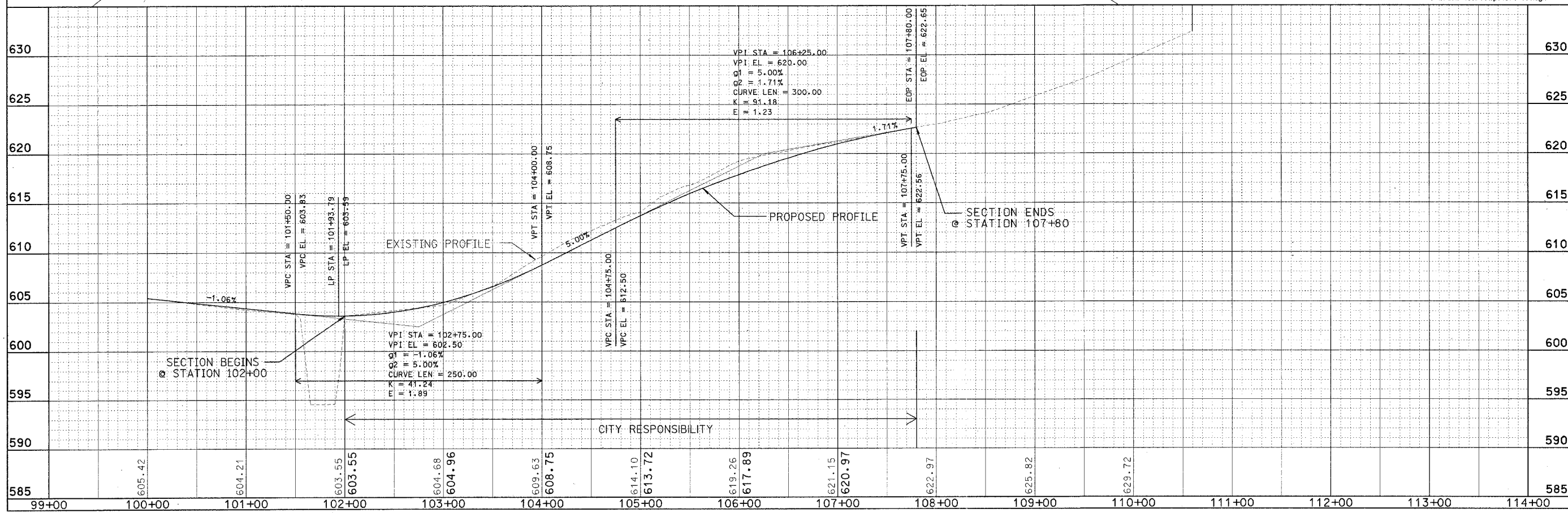
Z0075310

GUARDRAIL, SPECIAL 2		
STATION	FOOT	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
15+20 RT 63' - 16+36 RT 37'	132.5	
PROJECT TOTAL	132.5	

BRICK EMBOSSED, SPECIAL		
STATION	SQ YD	REMARKS
TOWNSHIP ROUTE 245		
TOWNSHIP		
12+58.98 - L 12+76.48	7	SHOULDER PAVEMENT
R 12+58.98 - R 12+76.48	7	SHOULDER PAVEMENT
L 14+64.48 - L 14+73.95	4	SHOULDER PAVEMENT
R 14+64.48 - R 14+73.95	4	SHOULDER PAVEMENT
12+76.48 - 13+06.48	111	APPROACH PAVEMENT
14+34.48 - 14+64.48	111	APPROACH PAVEMENT
PROJECT TOTAL	244	



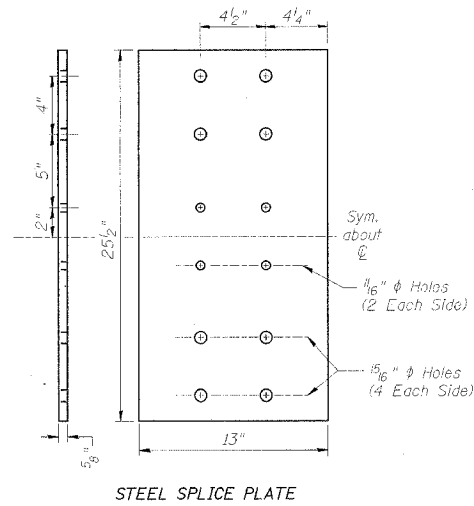
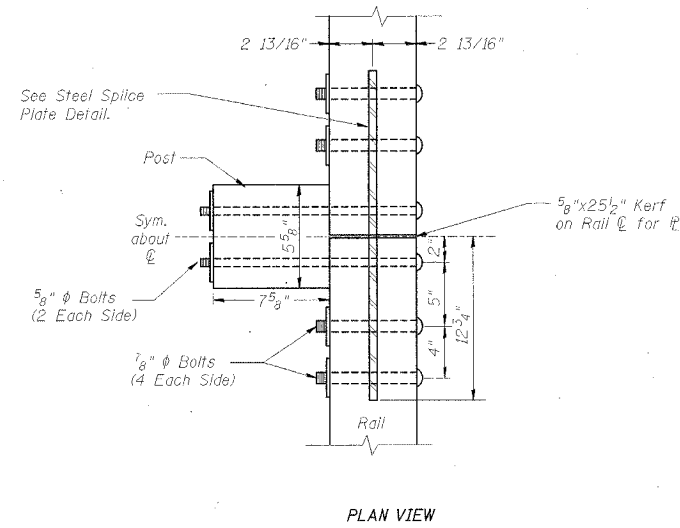
ROUTE	SECTION	COUNTY	SHEET	TOTAL
245	98-2010-00-BR	BUREAU	65	10
FED. ROAD DIST. NO. 7		ELIMIN.	FED. AID PROJECT-BROS-011621	



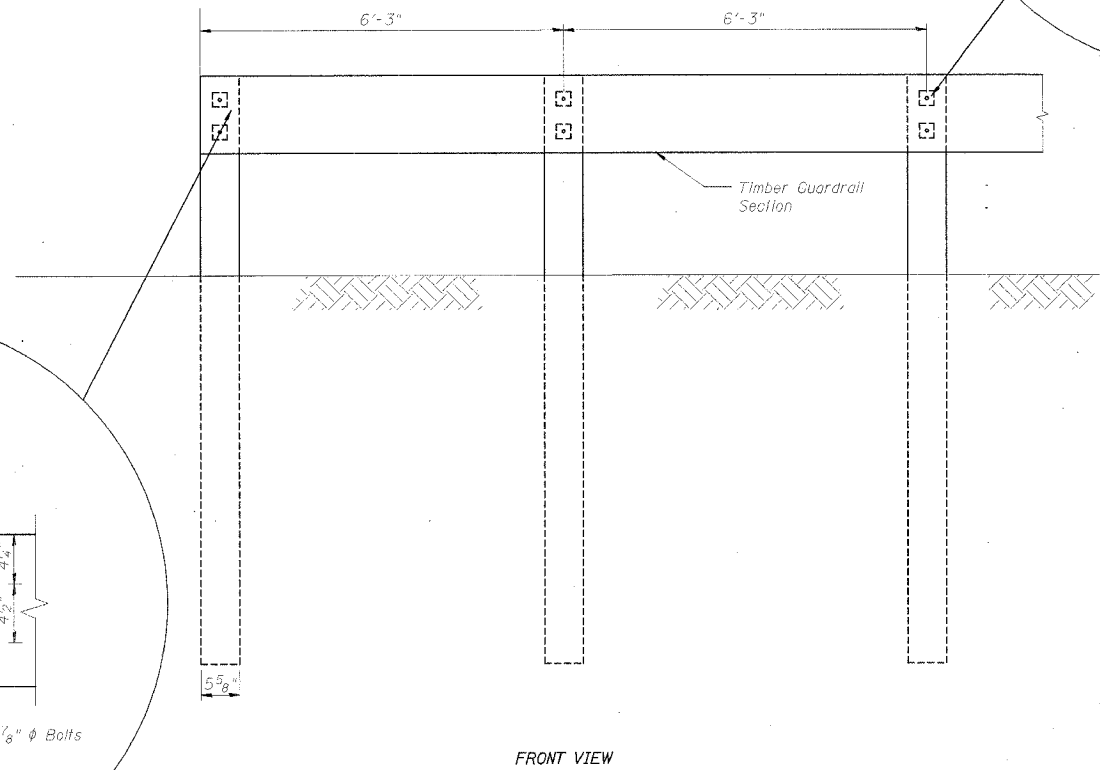
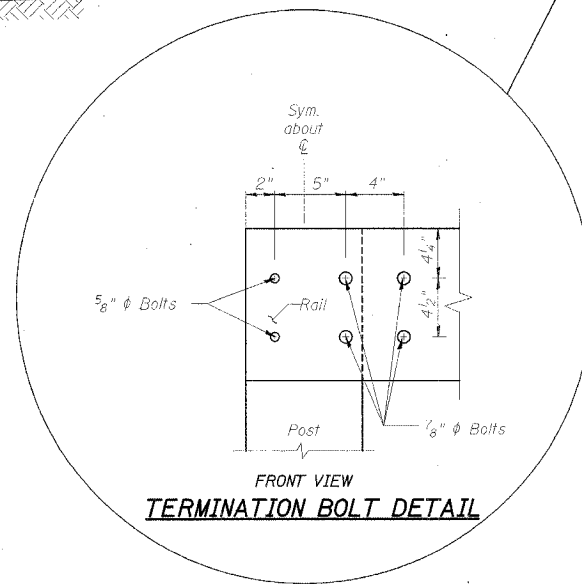
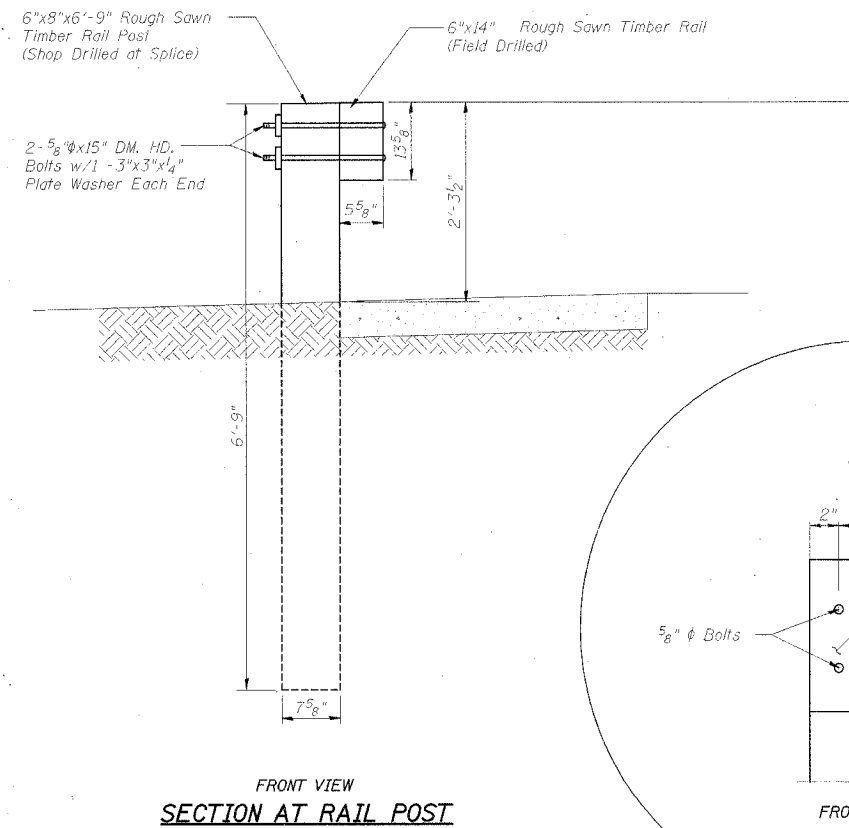
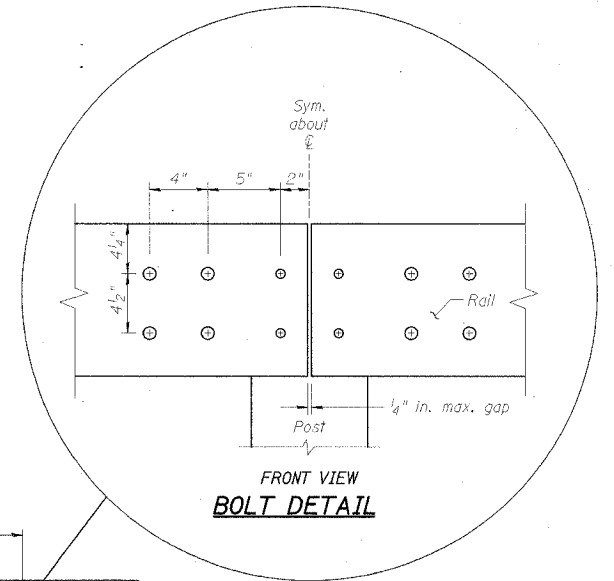
GUARDRAIL, SPECIAL 2

(LOCATED AT BACK OF PARKING AREA)

DATE	SECTION	COUNTY	BY	CHECK
2.45	98-20101-00-BR	BUREAU	65	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - BR05-011(62)		



SPLICE DETAILS



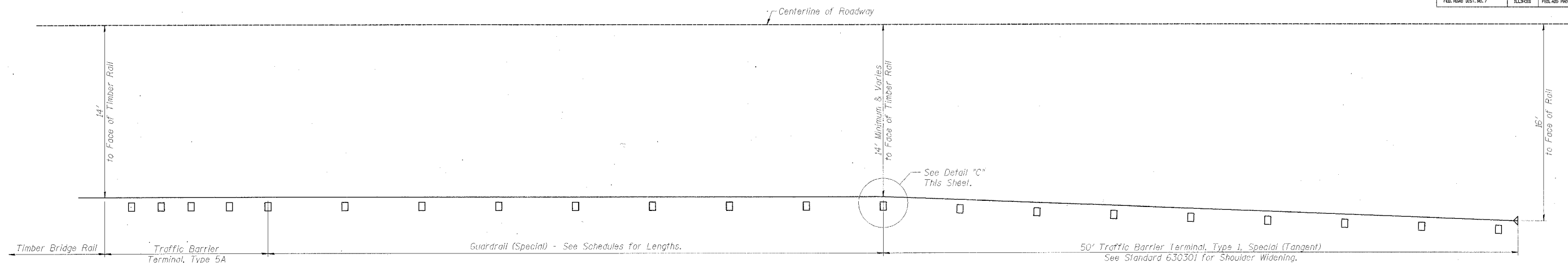
NOTES:
The Timber Guardrail & Post shall be Southern Pine - No. 1 or Better Treated with Pentachlorophenol (AIRC 109XLP-77)

GUARDRAIL, SPECIAL 2
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70, S.N. 006-4288
BUREAU COUNTY

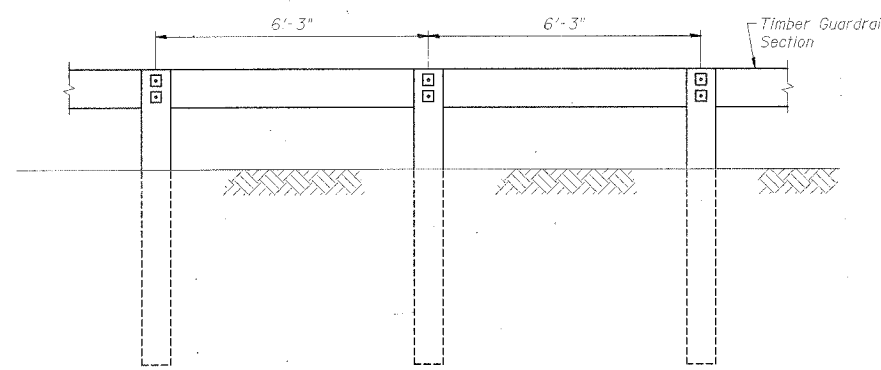
WHA # 1104D04
s:\struct\1104D04\Misc\1104guard.dgn

GUARDRAIL, DETAILS

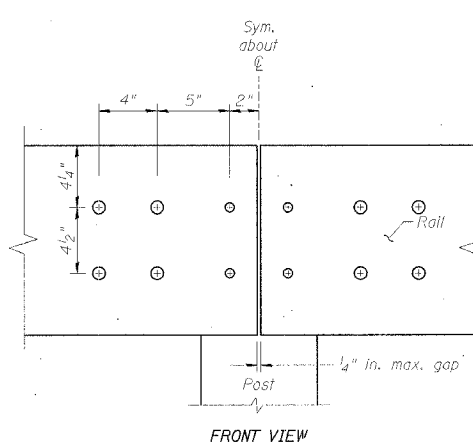
SECTION	COUNTY	SHEET	PROJECT
98-20101-00-BR	BUREAU	65	13
FED. ROAD DIST. NO. 7		BLDG. NO.	FED. AID PROJECT - BRD5-01162



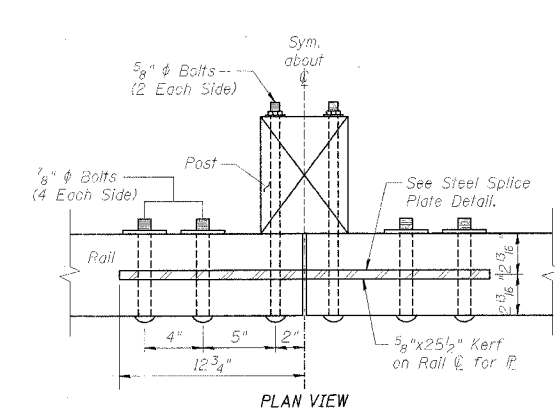
GUARDRAIL LAYOUT PLAN



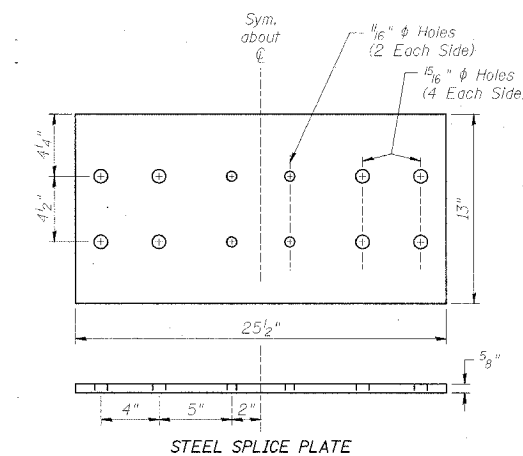
ELEVATION AT GUARDRAIL (SPECIAL)



FRONT VIEW

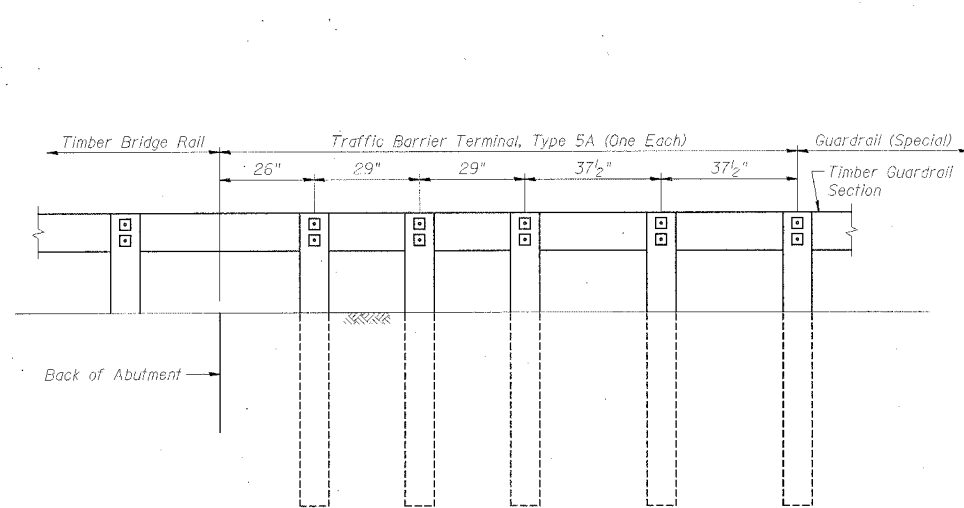


PLAN VIEW

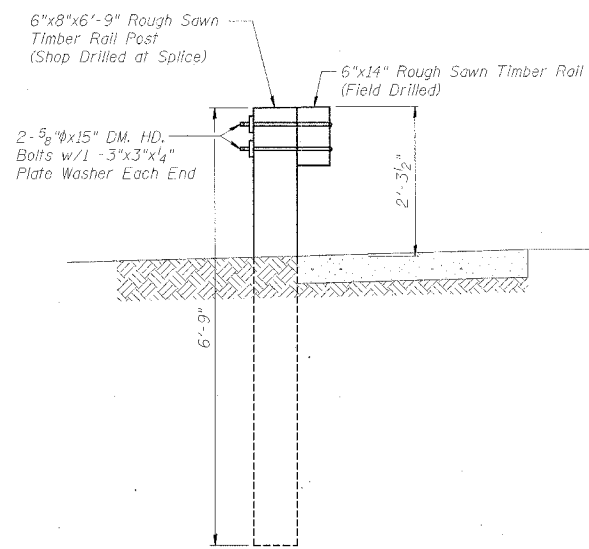


STEEL SPLICE PLATE

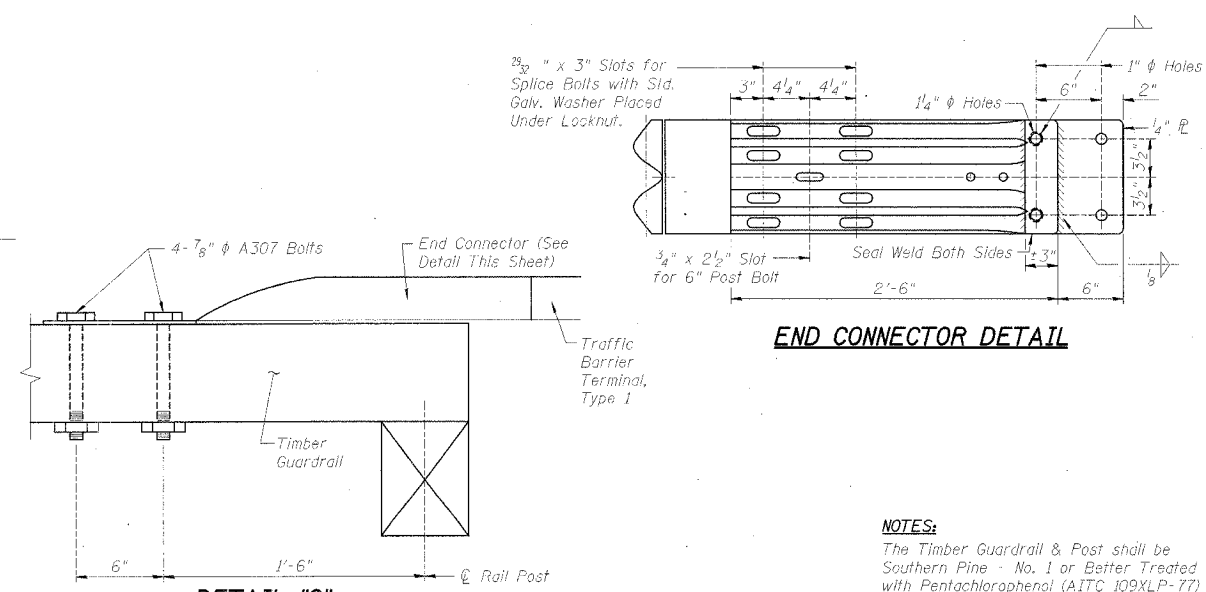
GUARDRAIL (SPECIAL) SPLICE DETAILS



ELEVATION AT TRAFFIC BARRIER TERMINAL, TYPE 5A (SPECIAL)



SECTION AT RAIL POST



DETAIL "C"

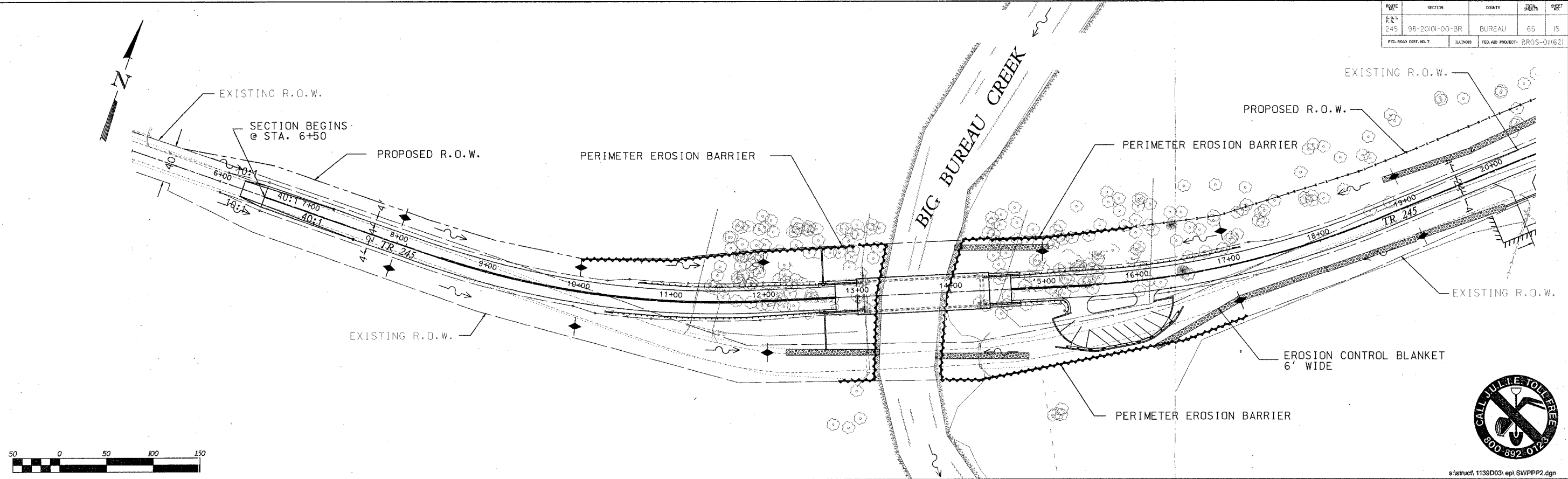
CONNECTION INCIDENTAL TO TRAFFIC BARRIER TERMINAL, TYPE 1

END CONNECTOR DETAIL

NOTES:
The Timber Guardrail & Post shall be Southern Pine - No. 1 or Better Treated with Pentachlorophenol (AIRC 109XLP-77)

GUARDRAIL DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70, S.N. 006-4288
BUREAU COUNTY

PROJECT	SECTION	COUNTY	SHEETS	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: BROS-011621		



s:\structl. 1139D031 epl SWPPP2.dgn

STORM WATER POLLUTION PREVENTION PLAN

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM SEWER WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE CONSTRUCTION SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIME FRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THIS PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

SECTION 280, TEMPORARY EROSION CONTROL, OF THE STANDARD SPECIFICATIONS ADDITIONALLY SUPPLEMENTS THIS PLAN.

SITE DESCRIPTION

DESCRIPTION OF CONSTRUCTION ACTIVITY:

1. THE PROJECT CONSISTS OF TOTAL RECONSTRUCTION OF TR 245 AND EPPERSON ROAD, AND REPLACEMENT OF A BRIDGE OVER BIG BUREAU CREEK.
2. CONSTRUCTION INCLUDES EARTH EXCAVATION, DRIVEWAYS, PIPE CULVERTS, VARIOUS PAVEMENT ITEMS, WOOD STRUCTURED BRIDGE AND OTHER MISCELLANEOUS ITEMS OF CONSTRUCTION.

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. INSTALL PERIMETER EROSION BARRIER AS DIRECTED BY THE ENGINEER.
2. EARTH EXCAVATION
3. CULVERT AND STORM SEWER INSTALLATION
4. AGGREGATE BASE, PCC SURFACE, BRIDGE, AND RELATED APPURTENANCES
5. PLACEMENT OF PERMANENT EROSION CONTROL IN DITCHES AND AROUND CULVERTS INCLUDING SEEDING, EROSION CONTROL MULCH, DITCH CHECKS, ETC.

AREA OF CONSTRUCTION SITE:

THE TOTAL AREA OF THE CONSTRUCTION IS ESTIMATED TO BE 7.21 ACRES OF WHICH 7.21 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING, AND OTHER ACTIVITIES.

OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM SEWER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

1. INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS THAT WERE UTILIZED FOR THE DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS.
2. PROJECT PLANS, DOCUMENTS, SPECIFICATIONS AND SPECIAL PROVISIONS, AND PLAN DRAWINGS INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER GRADING ACTIVITIES WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.

DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:

1. DITCH OUTLETS AND CULVERT FLOWS INTO THE BIG BUREAU CREEK AND EPPERSON RUN

LEGEND



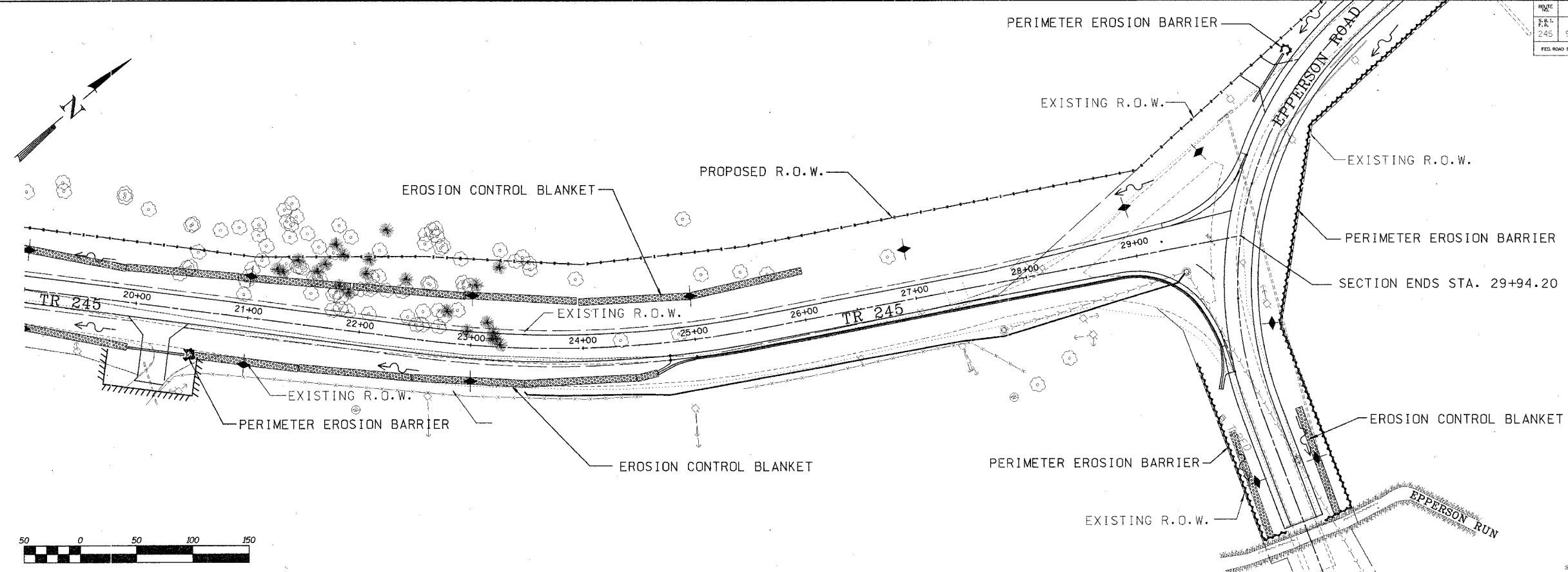
- TEMPORARY DITCH CHECK
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

STORM WATER POLLUTION PREVENTION PLAN
TR 245



PROJECT	SECTION	COUNTY	SHEETS	SHEET
245	98-20101-00-BR	BUREAU	65	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	BR03-01(62)	



s:\struct\1139D03\ep\SWPPP3.dgn

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROL
 DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION

1. THE DRAWINGS, SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, PERIMETER EROSION BARRIER, AND OTHER APPROPRIATE MEASURES AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
 - (a) AREAS OF EXISTING VEGETATION (WOOD AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED BY THE ENGINEER FOR PRESERVING AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.
 - (b) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, ALONG WITH REQUIRED TREE REMOVAL.
 - (c) AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS AND PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.
 - (d) BARE AND SPARSELY VEGETATED GROUND IN HIGH ERODABLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN DAYS.
 - (e) IMMEDIATELY AFTER TREE REMOVAL IS COMPLETED, AREAS WHICH ARE HIGHLY ERODABLE AS DETERMINED BY THE ENGINEER, SHALL BE TEMPORARILY SEEDED WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN DAYS.
 - (f) AT LOCATIONS WHERE A SIGNIFICANT AMOUNT OF WATER DRAINS INTO THE CONSTRUCTION ZONE FROM OUTSIDE AREAS (ADJACENT LANDOWNERS), TEMPORARY DITCH CHECKS WILL BE UTILIZED TO LOCALLY DIVERT WATER, REDUCE FLOW RATES, AND COLLECT OUTSIDE SILTATION INSIDE THAT RIGHT-OF-WAY LINE.
2. ESTABLISHMENT OF THESE TEMPORARY EROSION CONTROL MEASURES WILL HAVE ADDITIONAL BENEFITS TO THE PROJECT. DESIRABLE GRASS SEED WILL BECOME ESTABLISHED IN THESE AREAS AND WILL SPREAD SEEDS ONTO THE CONSTRUCTION SITE UNTIL PERMANENT SEEDING/MOWING AND OVERSEEDING CAN BE COMPLETED.

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

Jeff Penick
 COUNTY ENGINEER 10/17/05
 DATE

LEGEND

- TEMPORARY DITCH CHECK
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

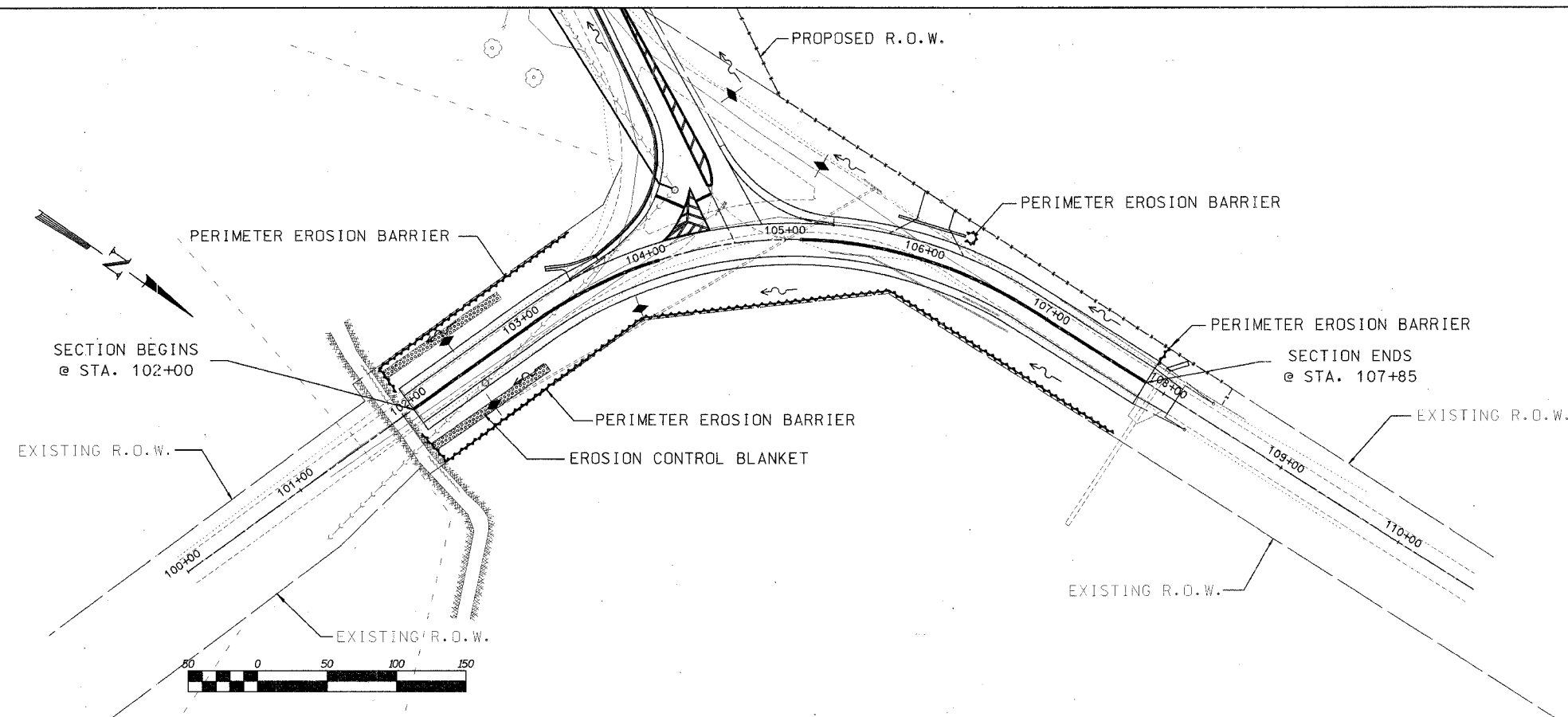
NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

STORM WATER POLLUTION PREVENTION PLAN

TR 245 AND EPPERSON ROAD



DATE	SECTION	COUNTY	SHEET	SHEET
2/45	98-20101-00-BR	BUREAU	65	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - BRCS-011(62)		



s:\struct\1139D03\ep\SWPPP1.dgn

DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

- I. DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING, PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES. (EXCEPT AS DESCRIBED ON THE PLANS OR AFTER RECEIVING PERMISSION FROM THE OWNER OR DIRECTED BY THE ENGINEER)
- (a) WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
- (b) EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
- (c) AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:
 - I. PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.
 - II. TEMPORARILY SEED ERODABLE BARE EARTH ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODABLE SURFACE AREA WITHIN THE CONTRACT LIMITS.
 - III. CONSTRUCT ROADSIDE DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.
 - IV. TEMPORARILY DIVERT WATER AROUND PROPOSED CULVERT LOCATIONS.
 - V. BUILD NECESSARY EMBANKMENT AT CULVERT LOCATIONS AND THEN EXCAVATE AND PLACE CULVERT.
 - VI. CONTINUE BUILDING UP THE EMBANKMENT TO THE PROPOSED GRADE WHILE AT THE SAME TIME, PLACING PERMANENT EROSION CONTROL SUCH AS RIPRAP DITCH LINING AND CONDUCTING FINAL SHAPING TO THE SLOPES.
- (d) EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR SEVEN DAYS.
- (e) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR OTHER POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
- (f) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2 INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.

- (g) SEDIMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR EARTH EXCAVATION FOR EROSION CONTROL.
- (h) THE TEMPORARY EROSION CONTROL SYSTEM SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

1. 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.
2. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEDED.

MAINTENANCE AFTER CONSTRUCTION:

1. CONSTRUCTION IS COMPLETE AFTER ACCEPTANCE BY I.D.O.T. FINAL INSPECTION. MAINTENANCE UP TO THIS DATE WILL BE BY THE CONTRACTOR.

MISCELLANEOUS:

1. TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY 15 FT. FALL/RISE IN DITCH GRADE
2. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS/ACRES.
3. STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER AND SILT FENCES WILL BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS MAY BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSIOR, URETHANE FOAM/GEOTEXTILE (SILT SEDGES), AND/OR ANY OTHER MATERIAL APPROVED BY THE EROSION AND SEDIMENT CONTROL COORDINATOR.
4. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION.
5. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

LEGEND

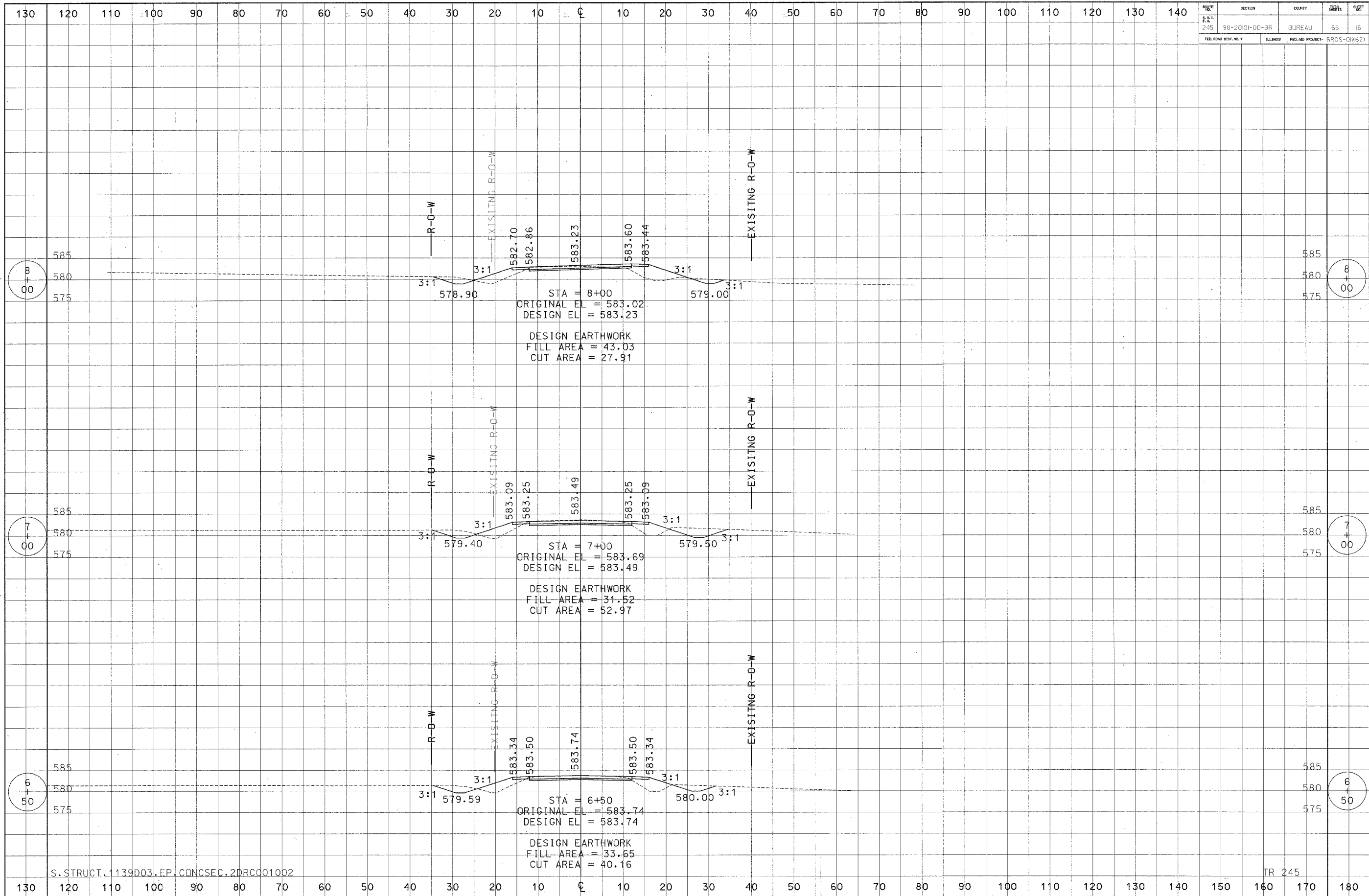
- TEMPORARY DITCH CHECK
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

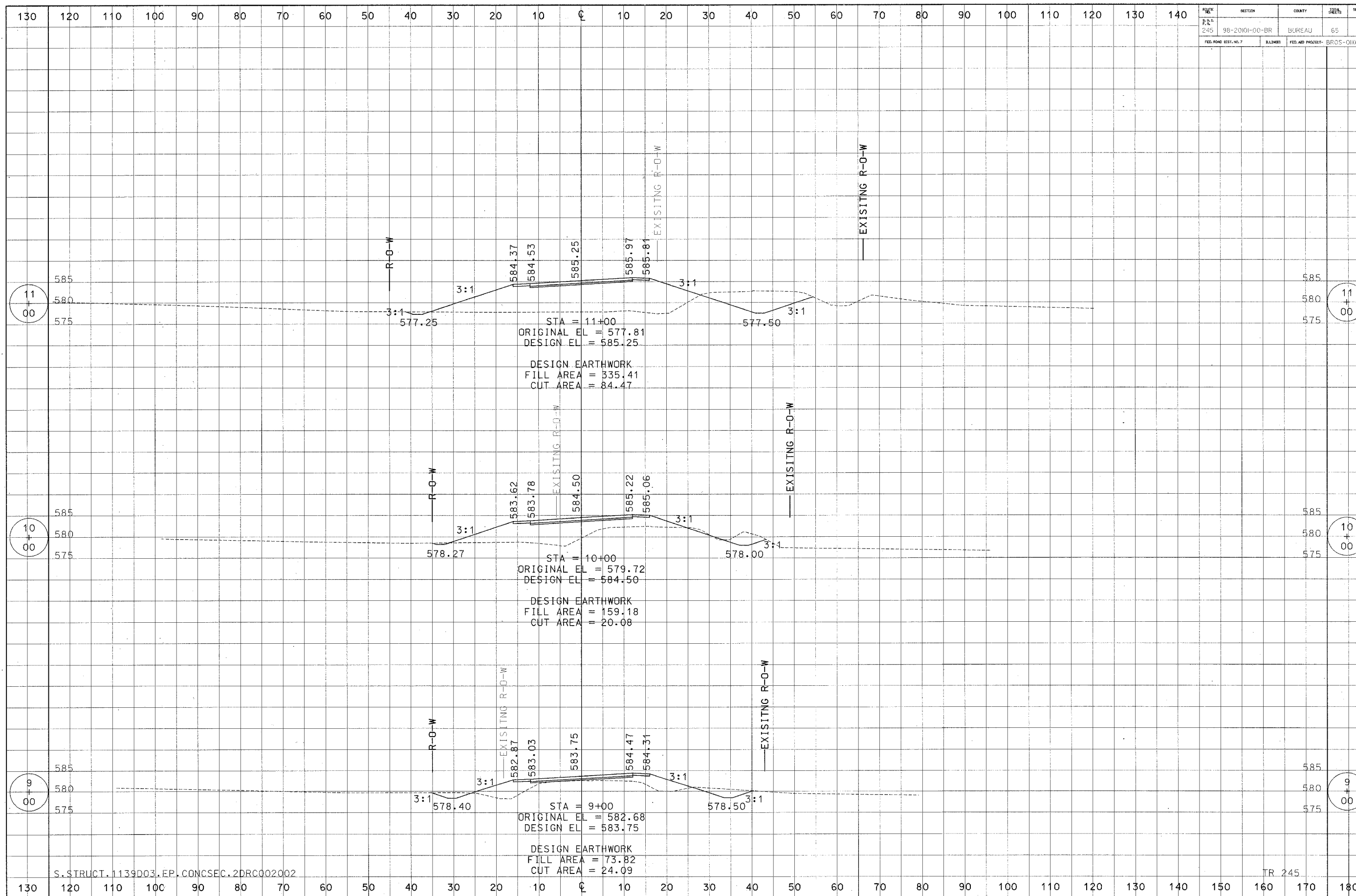
NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

STORM WATER POLLUTION PREVENTION PLAN

TR 245 AND EPPERSON ROAD



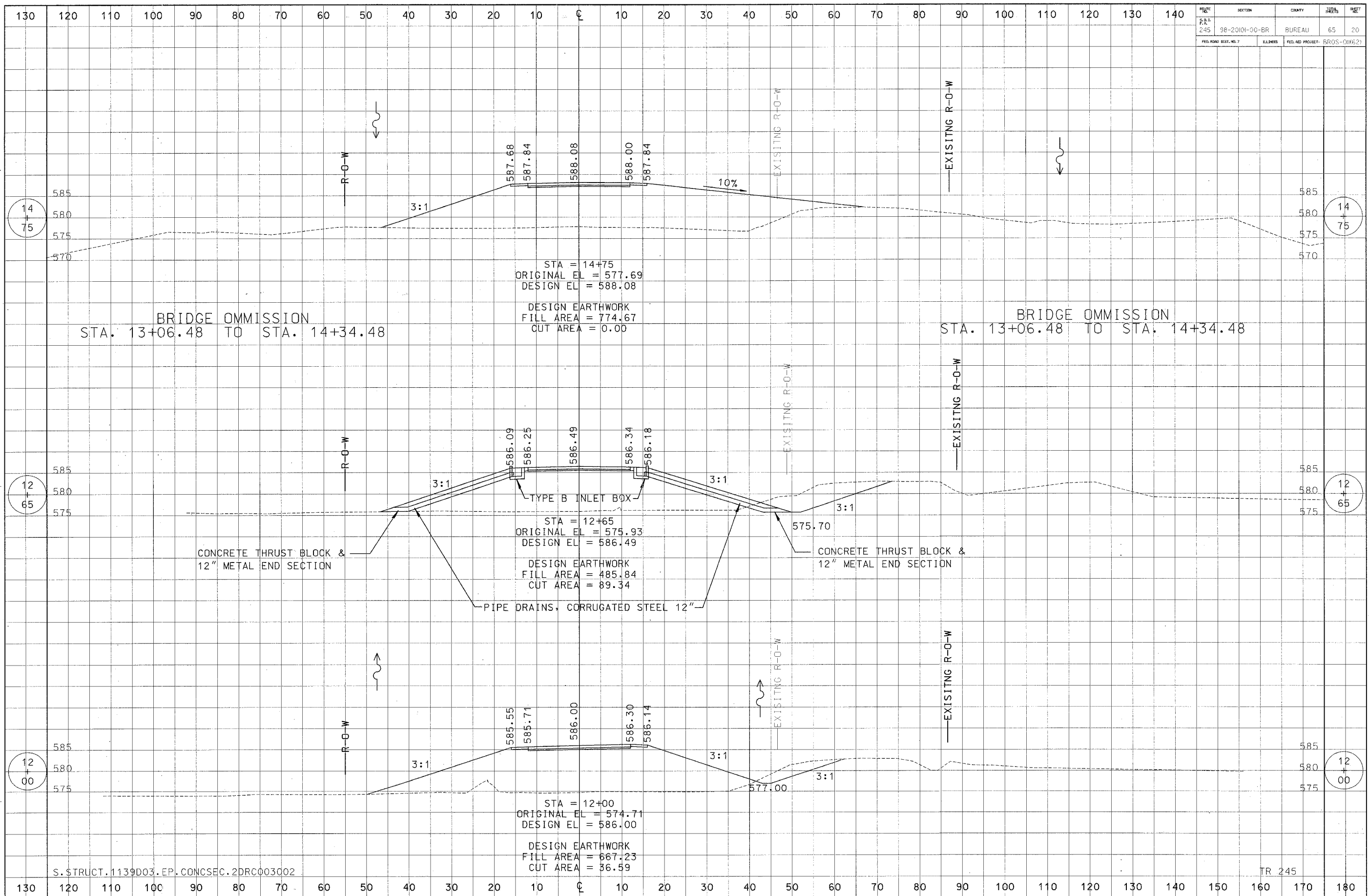




ROUTE	SECTION	COUNTY	SHEETS	TOTAL
245	98-20101-00-BR	BUREAU	65	19
FED. ROAD DIST. NO. 7	BLANKET	FED. AID PROJECT	BROS-OH(62)	

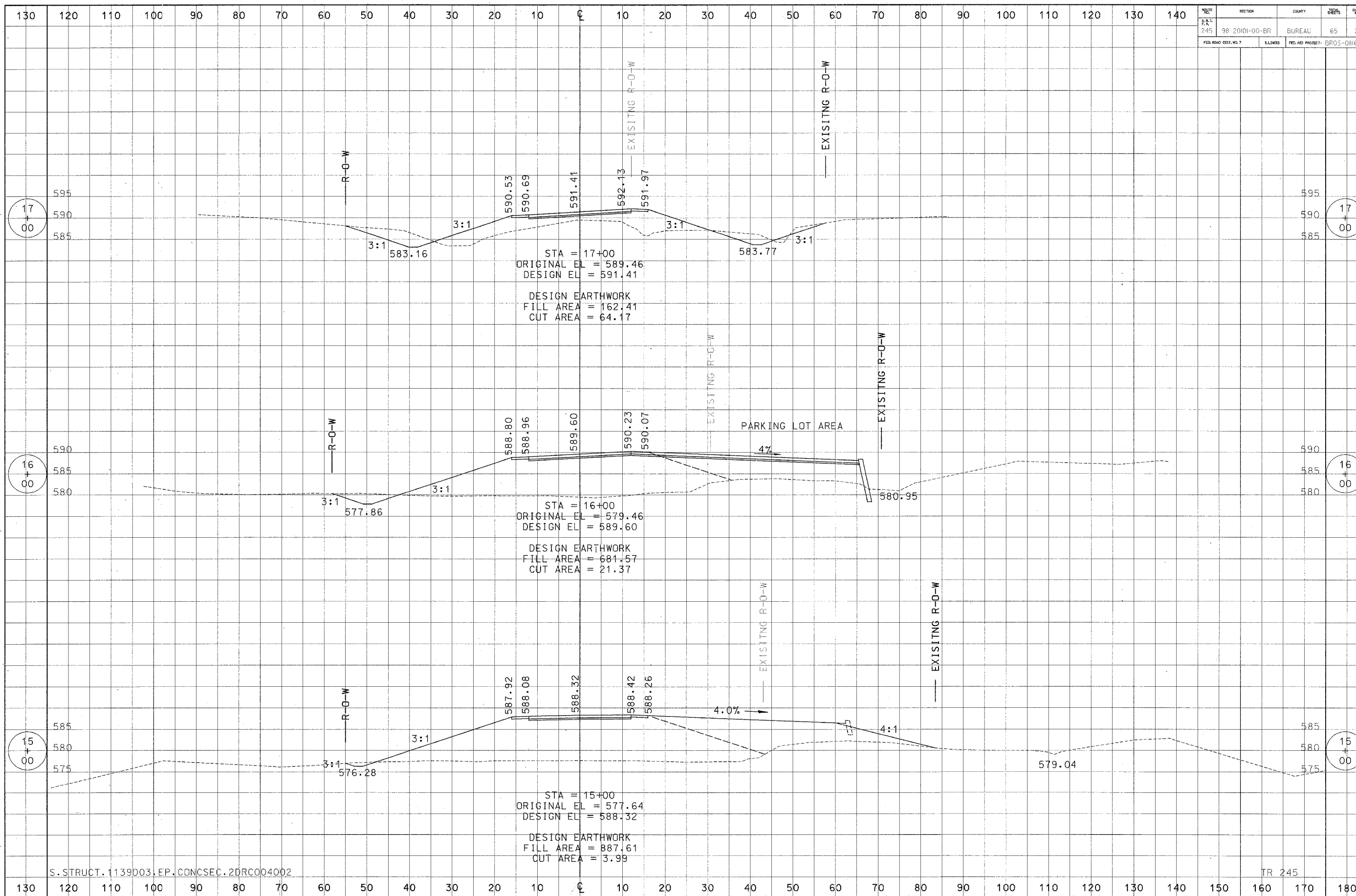
S. STRUCT. 1139D03.EP.CONCSEC.2DRC002002

TR 245

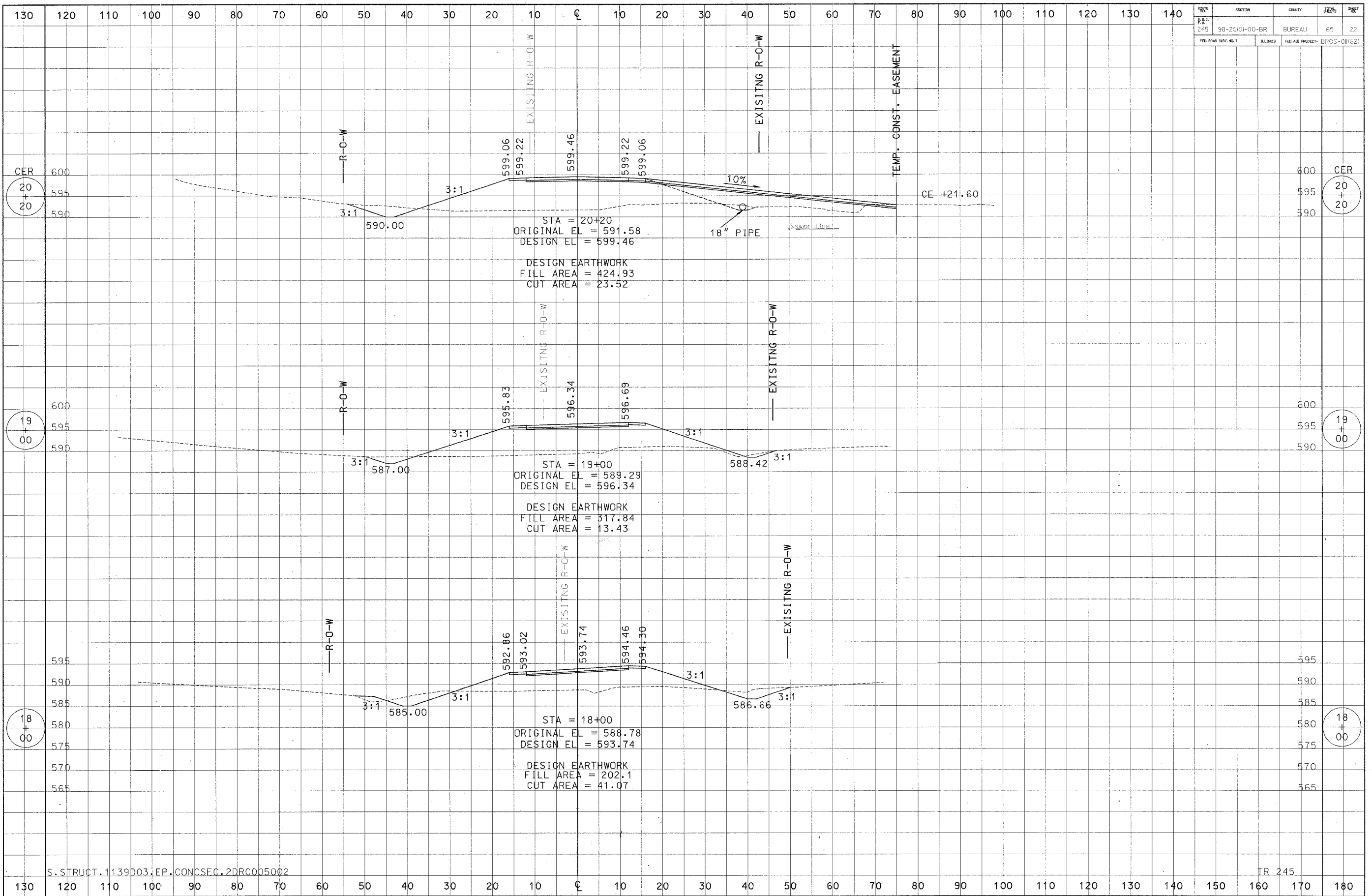


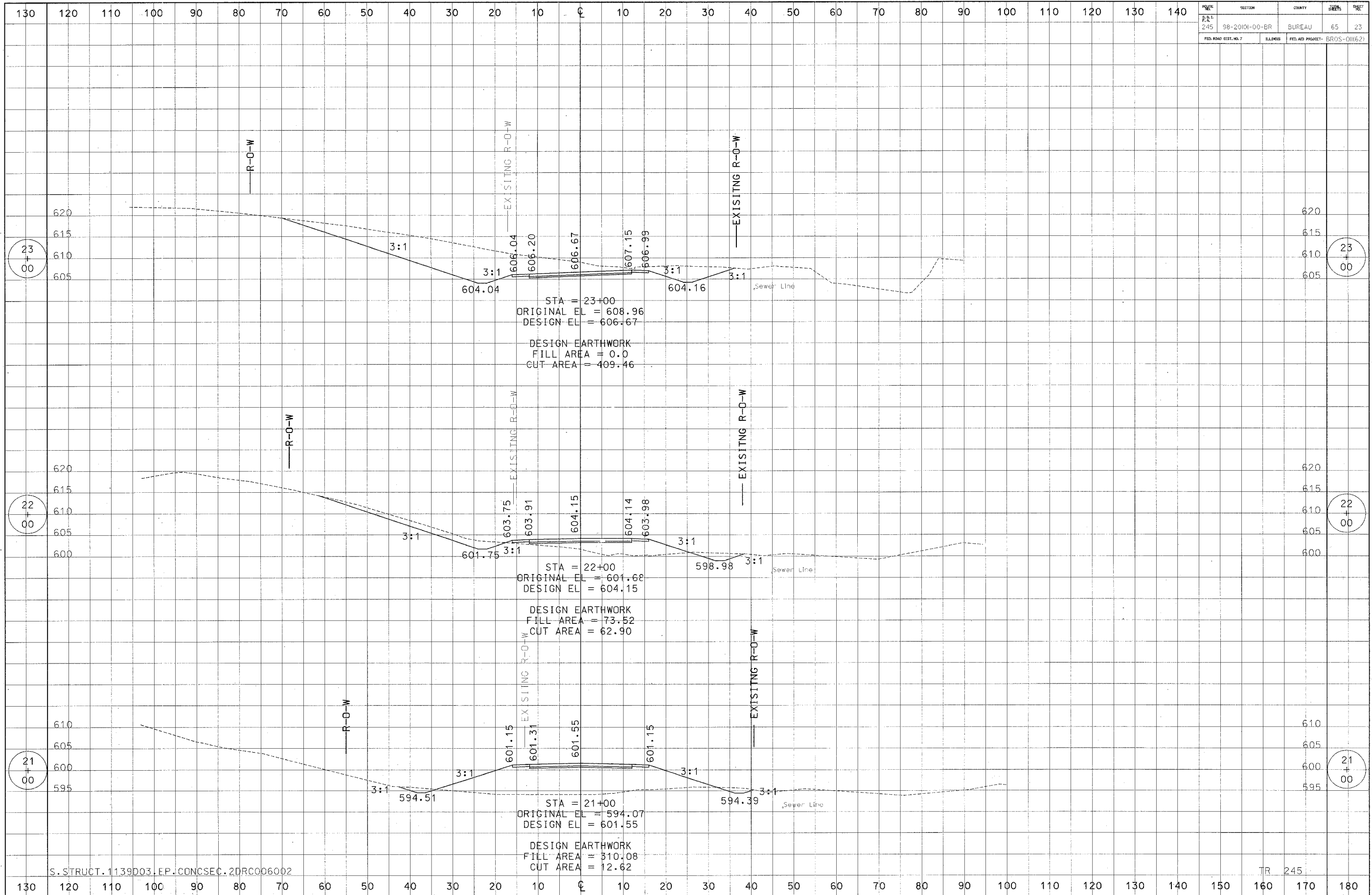
S. STRUCT. 1139D03.EP.CONCSEC.2DRC003002

TR 245



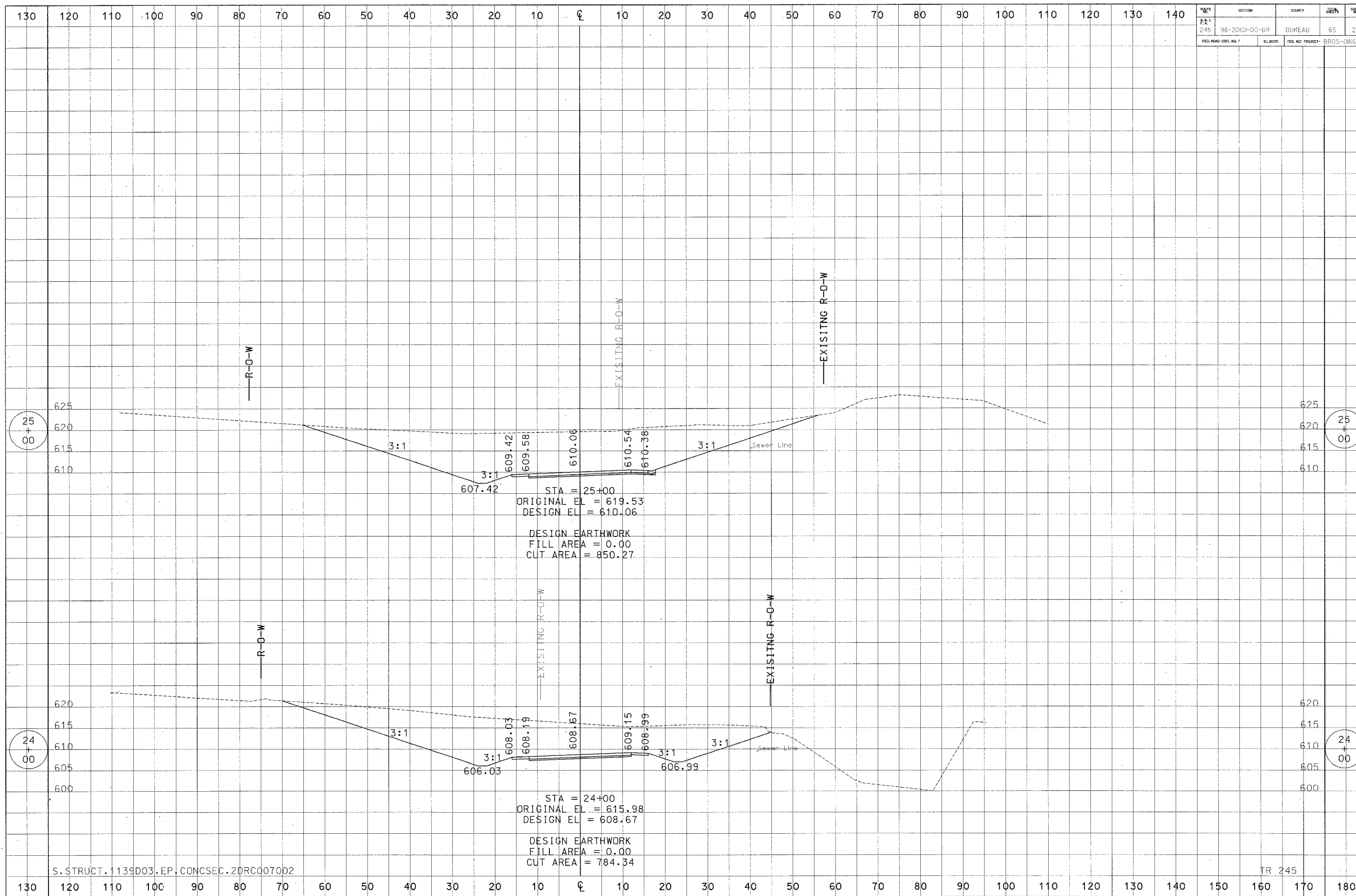
PROJECT	SECTION	COUNTY	SHEET	TOTAL SHEETS
245	98 2010I-00-BR	BUREAU	65	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	GROS-OH(62)	





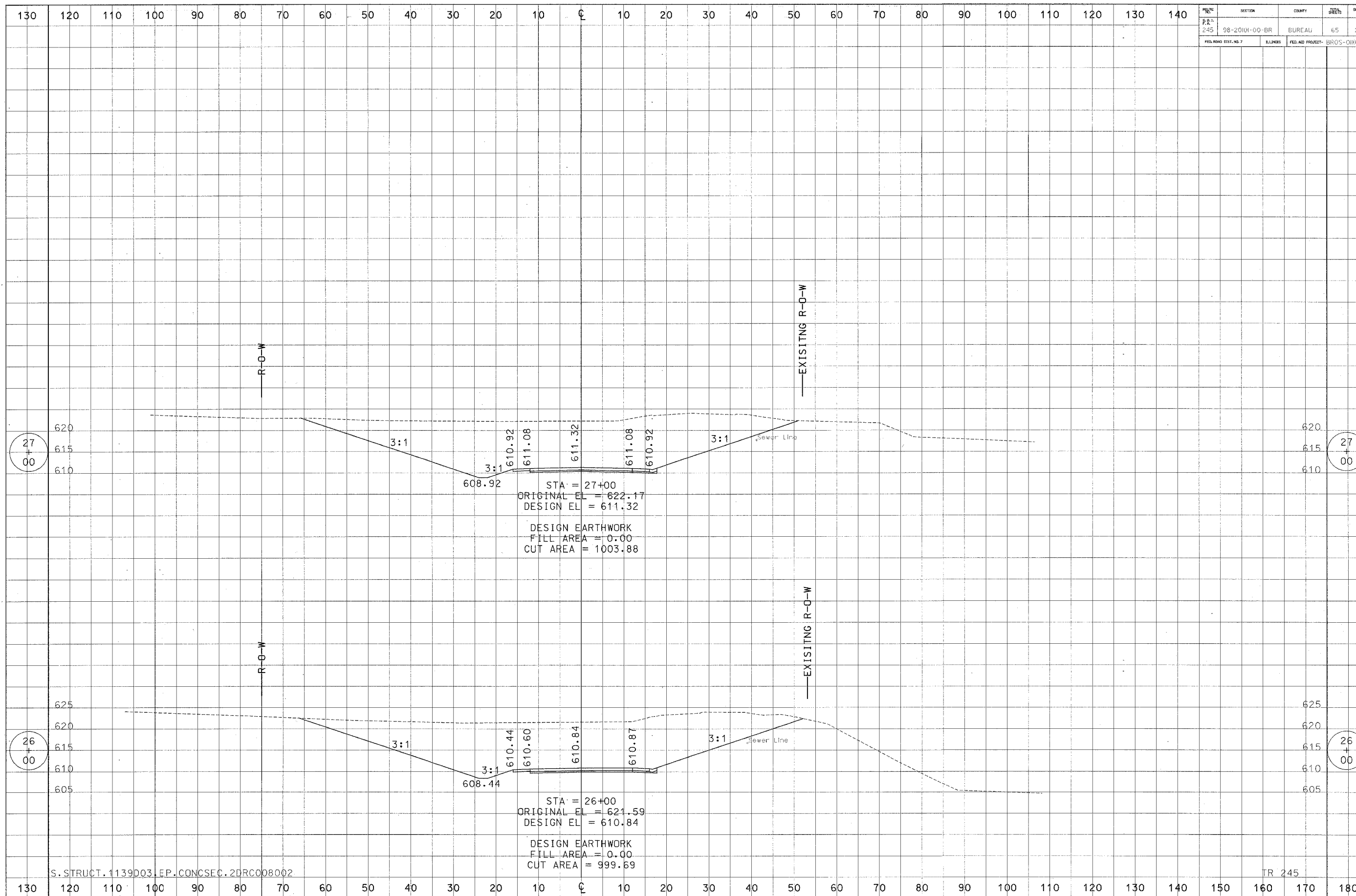
S. STRUCT. 1139D03.EP.CONCSEC.2DRC006002

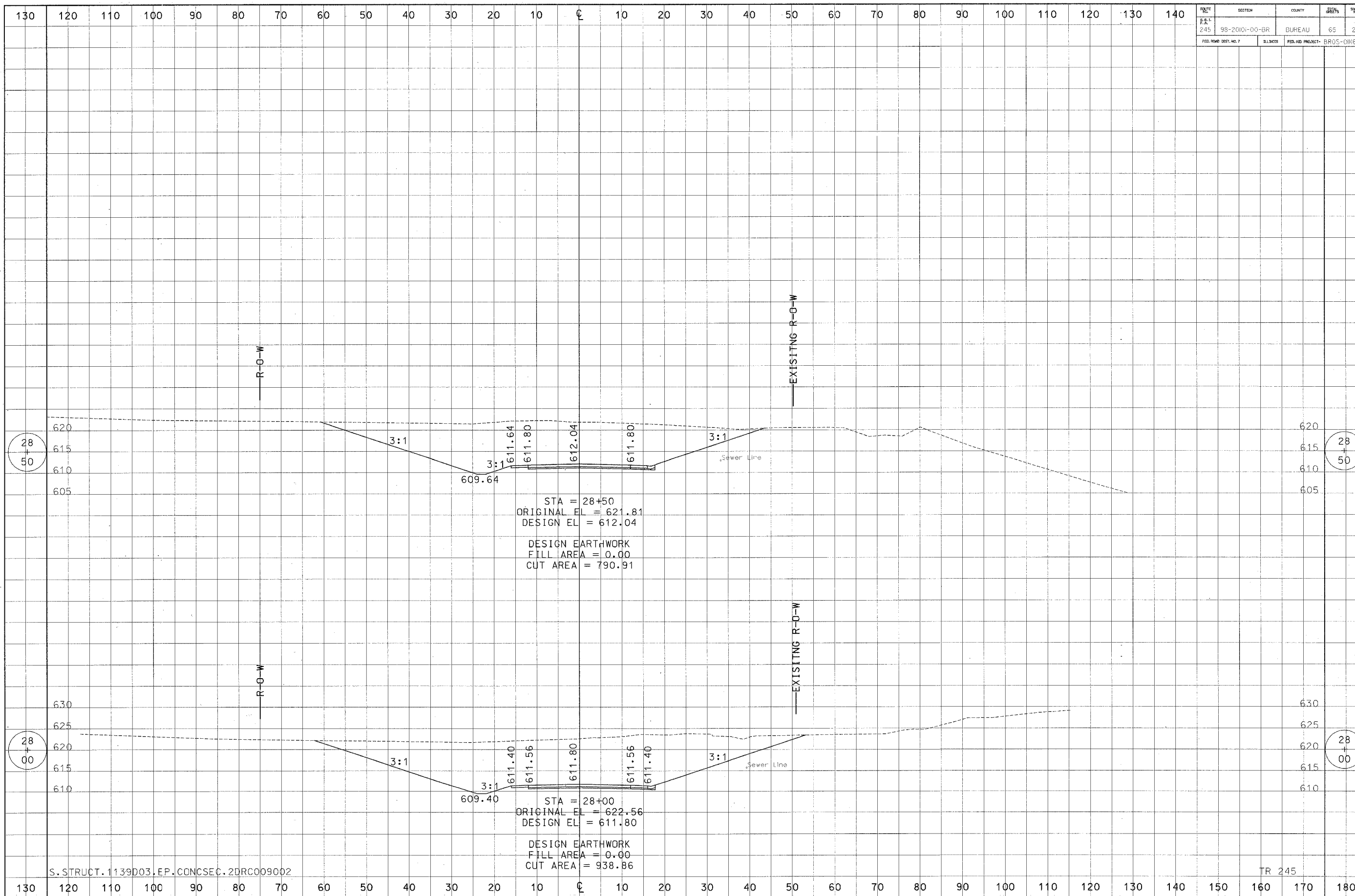
TR 245



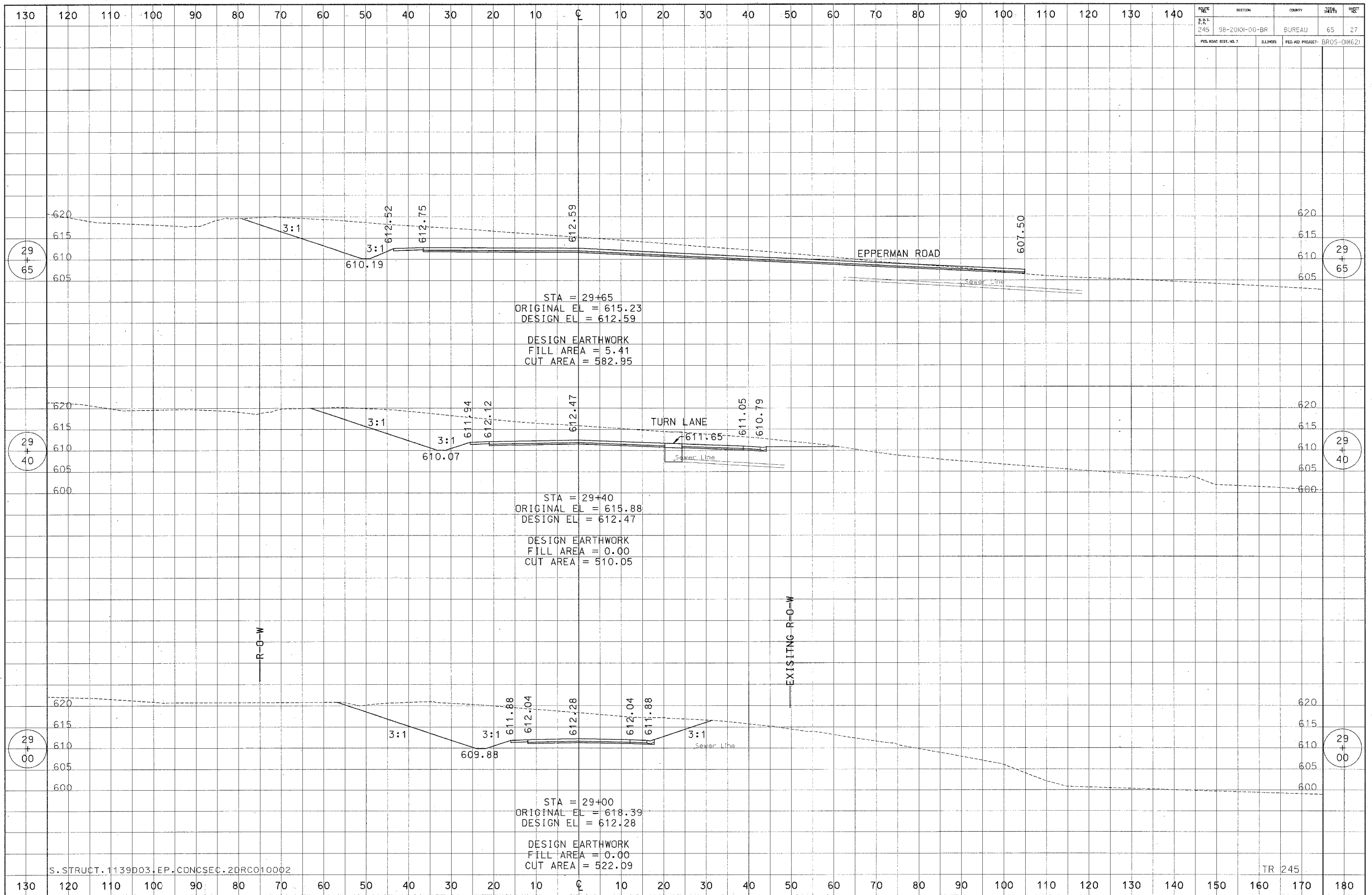
S. STRUCT. 1139D03.EP.CONCSEC.2DR007002

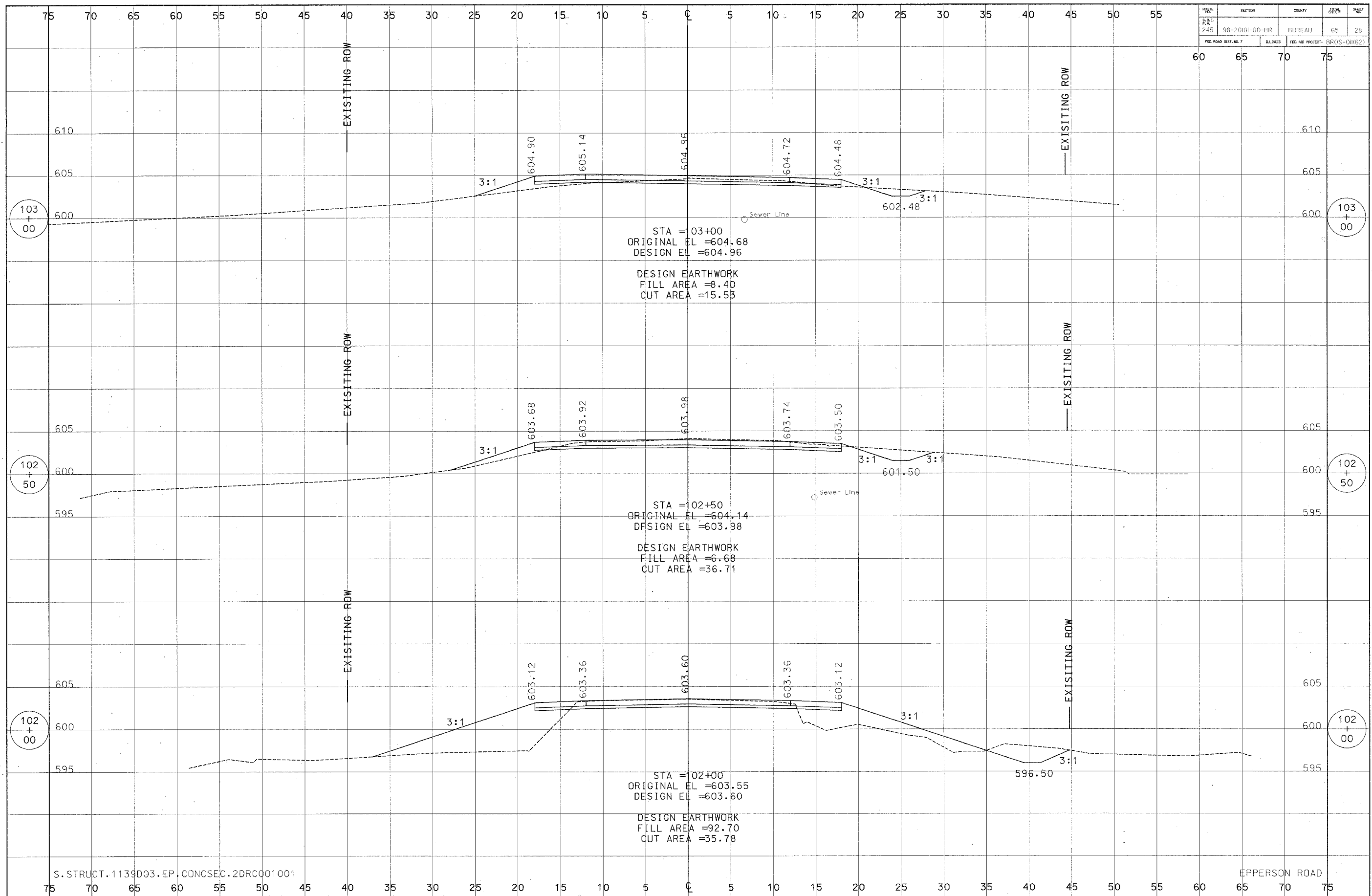
TR 245





ROUTE	SECTION	COUNTY	SHEET	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	26
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	BR05-01(62)	

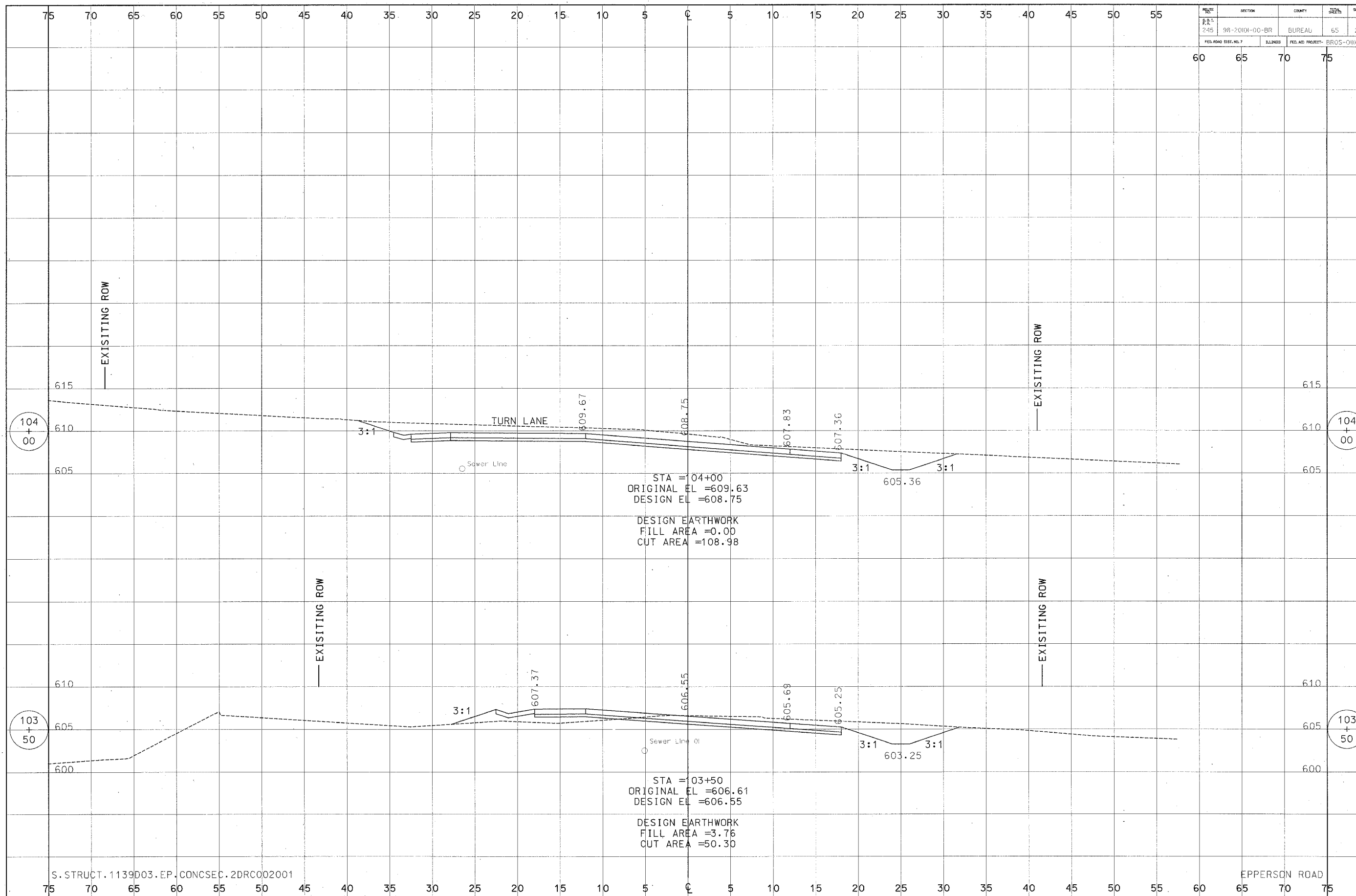




PLAT	SECTION	COUNTY	SHEETS	DATE
245	98-20101-00-BR	BUREAU	65	28
FED ROAD DIST. NO. 7		MILES		FED AID PROJECT: BR05-01(62)

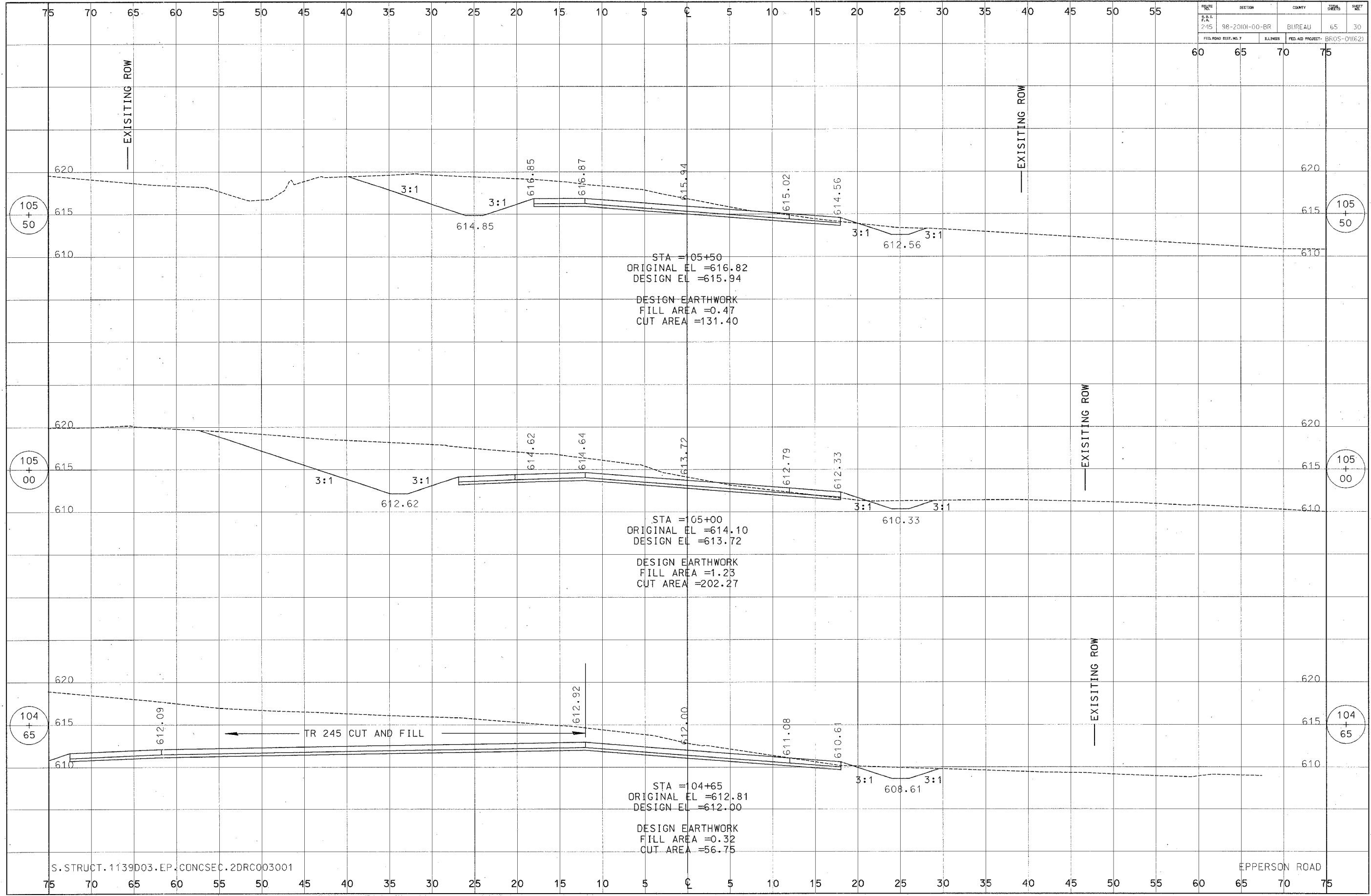
S. STRUCT. 1139D03.EP. CONCSEC. 2DRC001001

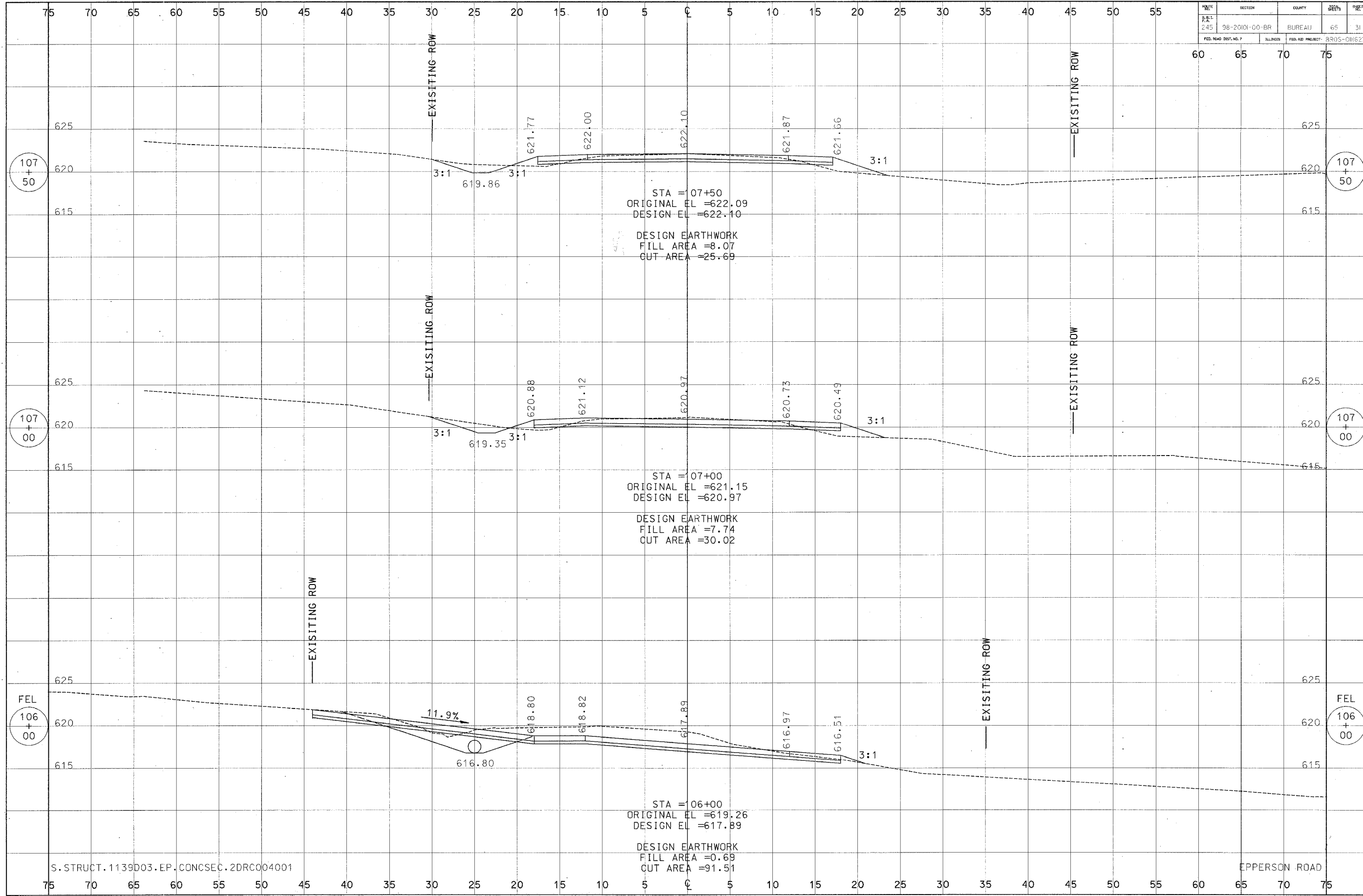
EPPERSON ROAD



PROJECT	SECTION	COUNTY	SHEET	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	BROS-01(62)	

PROJECT	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P.L. 245	98-20101-00-BR	BUREAU	65	30
FED. ROAD DIST. NO. 7	BLANKS	FED. AID PROJECT	BROS-OH162	



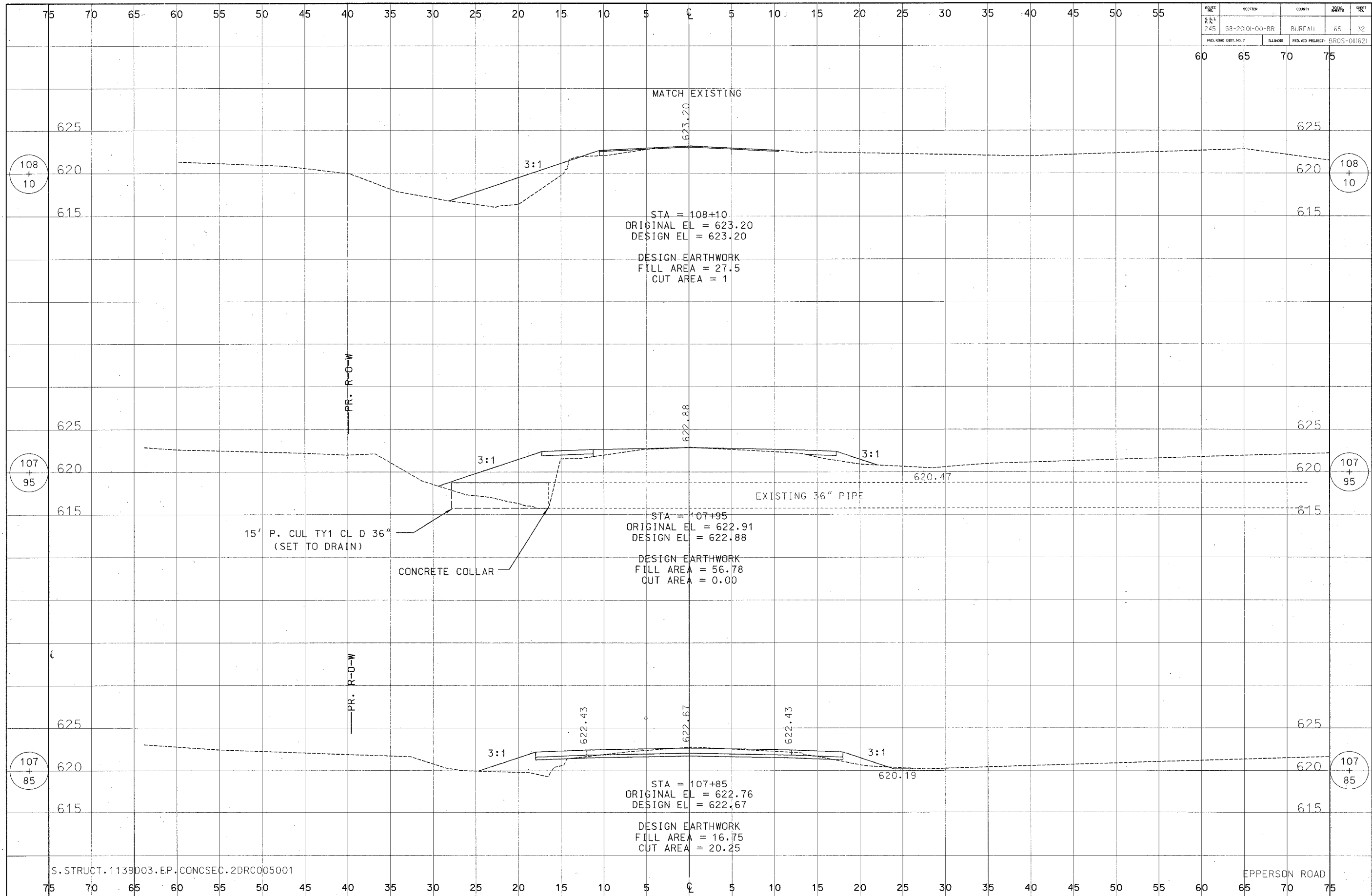


PROJECT NO.	SECTION	COUNTY	SHEETS	SHEET
245	98-20101-00-BR	BUREAU	65	31
FED. ROAD DIST. NO. 7	BILLINGS	FED. AID PROJECT	3R05-DW(62)	

S. STRUCT. 1139D03.EP.CONCSEC.2DR004001

EPPERSON ROAD

PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
245	98-2010I-00-BR	BUREAU	65	32
FED. ROAD DIST. NO. 7	BLINDS	FED. AID PROJECT	BROS-OH(62)	



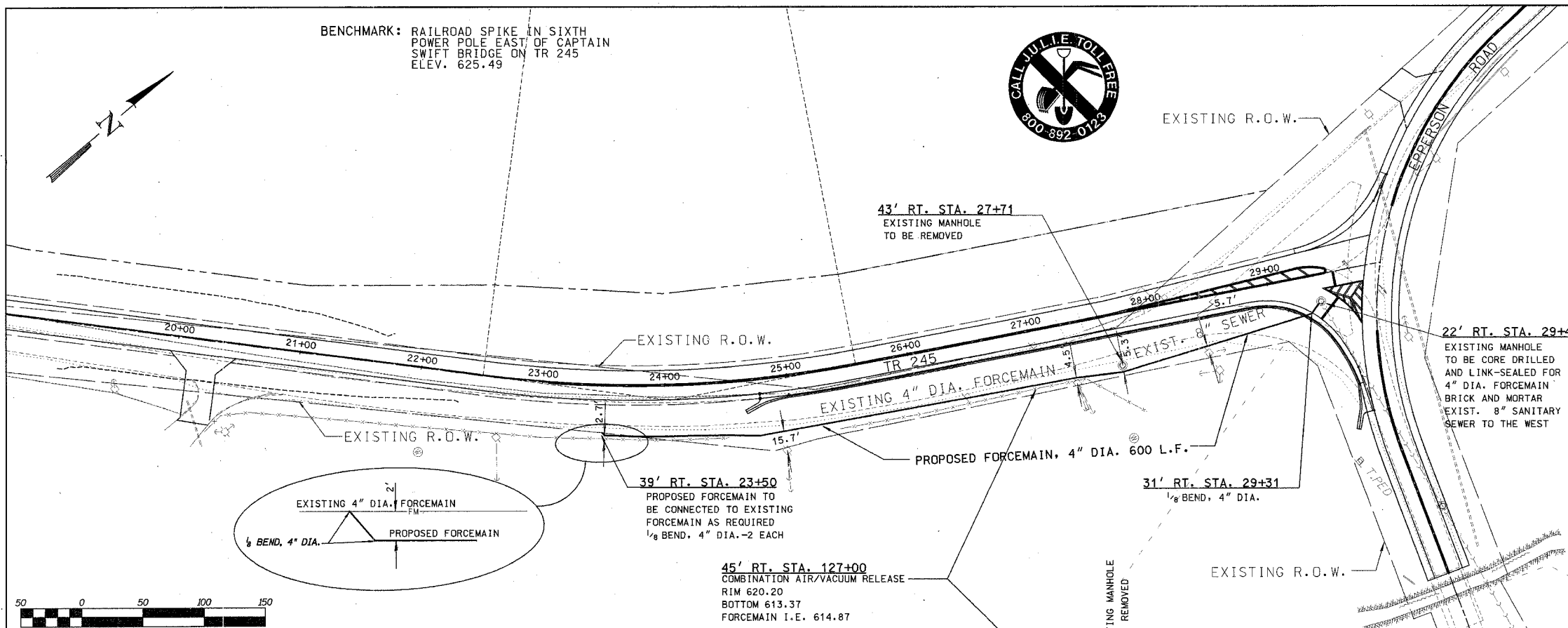
MATCH EXISTING
 STA = 108+10
 ORIGINAL EL = 623.20
 DESIGN EL = 623.20
 DESIGN EARTHWORK
 FILL AREA = 27.5
 CUT AREA = 1

PR. R-O-W
 15' P. CUL TY1 CL D 36"
 (SET TO DRAIN)
 CONCRETE COLLAR
 STA = 107+95
 ORIGINAL EL = 622.91
 DESIGN EL = 622.88
 DESIGN EARTHWORK
 FILL AREA = 56.78
 CUT AREA = 0.00

PR. R-O-W
 STA = 107+85
 ORIGINAL EL = 622.76
 DESIGN EL = 622.67
 DESIGN EARTHWORK
 FILL AREA = 16.75
 CUT AREA = 20.25

ROUTE	SECTION	COUNTY	DATE	SHEET
245	98-20101-00-BR	BUREAU	65	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - BR05-0K(62)		

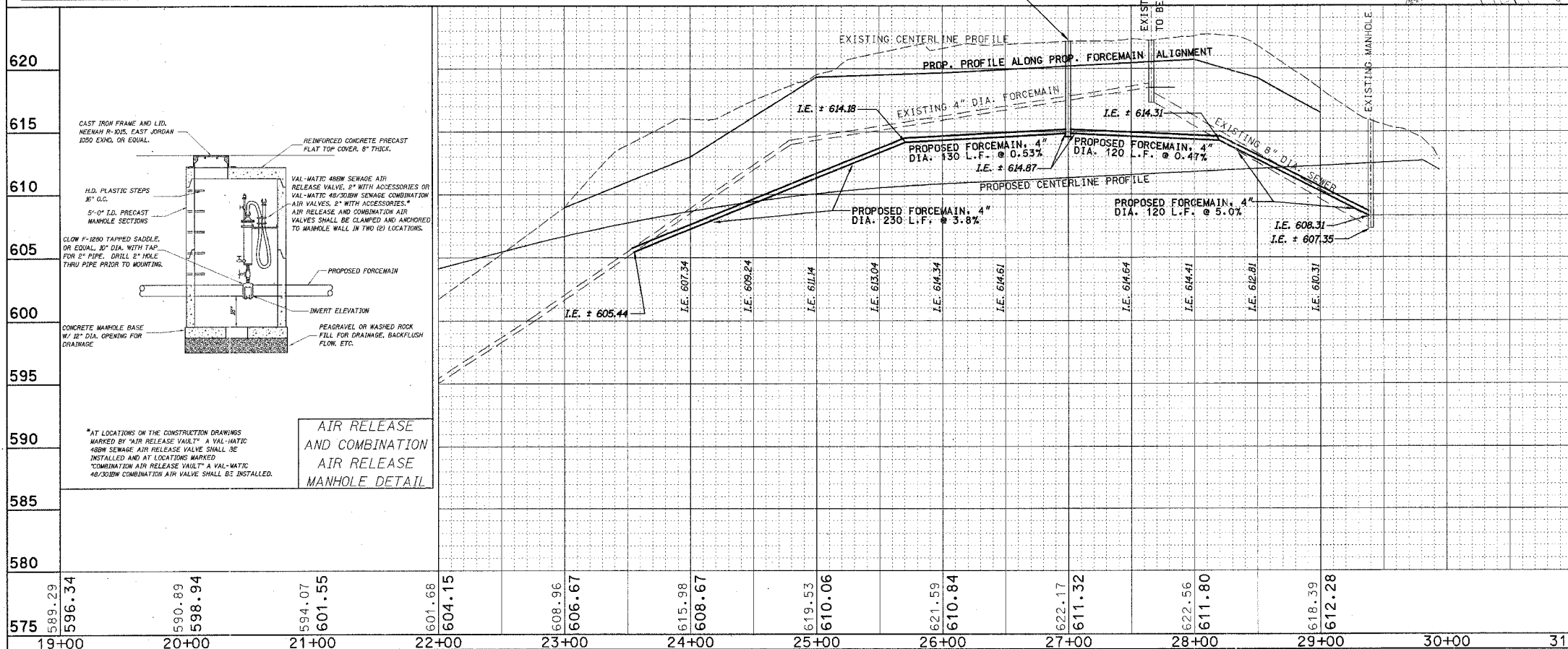
BENCHMARK: RAILROAD SPIKE IN SIXTH POWER POLE EAST OF CAPTAIN SWIFT BRIDGE ON TR 245 ELEV. 625.49



SCHEDULE OF QUANTITIES

FORCEMAIN, 4" DIA. - 600 L.F.
1/8 BEND, 4" DIA. - 3 EACH
COMBINATION AIR/VACUUM RELEASE - 1 EACH
GRANULAR CRADLE & INITIAL BACKFILL - 144 C.Y.
GRANULAR SELECT BACKFILL - 15.6 C.Y.

- NOTES**
- 1.) ALL WORK ASSOCIATED WITH THE FORCEMAIN WILL BE PERFORMED BY THE CITY OF PRINCETON AND ALL MATERIALS PURCHASED BY THE CITY. THIS WORK SHALL BE COORDINATED WITH THE CONTRACTOR.
 - 2.) ALL FORCEMAIN CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, FIFTH EDITION.
 - 3.) ACCEPTABLE MATERIAL FOR FORCEMAIN CONSTRUCTION IS HIGH DENSITY POLYETHYLENE PIPE (HDPE), SDR 11 WITH FUSION WELDED JOINTS.
 - 4.) EXISTING MANHOLE SHALL BE COMPLETELY REMOVED AND BACKFILLED WITH SAND. BOTH THE INLET AND OUTLET LINES SHALL BE PLUGGED SHUT WITH A NON-SHRINK GROUT.
 - 5.) DUCTILE IRON FITTINGS SHALL BE CAST IRON OR DUCTILE IRON CONFORMING TO AWWA C110 AND/OR AWWA C-153 AND SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA. ALL FITTINGS SHALL BE EQUIPPED WITH MEGA-LUG THRUST RESTRAINTS AND THRUST BLOCKING.
 - 6.) COMBINATION AIR/ VACUUM RELEASE



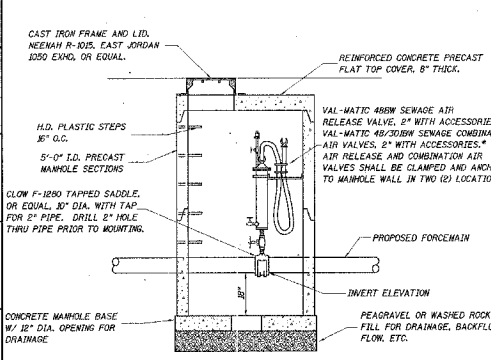
THE MANHOLE SHALL BE 5'-0" I.D. PRECAST MANHOLE COMPLETE WITH FRAME, LID, STEPS, ETC. THERE SHALL BE NO CONCRETE BASE FOR THE BOTTOM OF THE MANHOLE. PRECAST MANHOLE BARREL SECTIONS SHALL BE INSTALLED ON GRAVEL DRAINAGE FILL. GRAVEL SHALL BE CLEAN WASHED PEA GRAVEL OR CLASS X AGGREGATE.

CITY SHALL DRILL A 2" DIAMETER HOLE IN THE TOP OF THE FORCEMAIN AND FURNISH AND INSTALL A MALLEABLE IRON SERVICE SADDLE WITH A 2" THREADED OUTLET, FOR MOUNTING THE AIR RELEASE VALVE ASSEMBLY. SERVICE SADDLE SHALL BE CLOW F-11280 OR EQUAL.

AIR RELEASE ASSEMBLY SHALL BE DESIGNED TO OPERATE OVER A 0 - 75 PSI SERVICE RANGE AND SHALL BE COMPLETE WITH VALVES, QUICK DISCONNECT COUPLINGS, AND BACKFLUSHING HOSE. THE INLET VALVE SHALL BE 2" DIAMETER WITH A 1/2" DIA. OUTLET AND A 5/16" VENTING ORIFICE FOR A MAXIMUM WORKING PRESSURE OF 75 PSI. VALVE SHALL BE CONSTRUCTED OF CAST IRON BODY AND COVER, STAINLESS STEEL TRIM AND FLOAT, WITH AN ADJUSTABLE RESILIENT ORIFICE BUTTON TO INSURE POSITIVE SEATING.

THE BACK WASH ACCESSORIES SHALL BE FURNISHED AND ASSEMBLED TO THE VALVE, CONSISTING OF AN INLET SHUT-OFF VALVE, BLOW-OFF VALVE, CLEAR WATER INLET VALVE, RUBBER SUPPLY HOSE AND QUICK DISCONNECT COUPLINGS.

COMBINATION AIR/VACUUM RELEASE VALVE ASSEMBLY SHALL BE VALMATIC MODEL 48/301BW OR EQUAL.



AIR RELEASE AND COMBINATION AIR RELEASE MANHOLE DETAIL

*AT LOCATIONS ON THE CONSTRUCTION DRAWINGS MARKED BY "AIR RELEASE VAULT" A VAL-MATIC 48/301BW SEWAGE AIR RELEASE VALVE SHALL BE INSTALLED AND AT LOCATIONS MARKED "COMBINATION AIR RELEASE VAULT" A VAL-MATIC 48/301BW COMBINATION AIR VALVE SHALL BE INSTALLED.

FORCEMAIN LAYOUT SHEET
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

575	589.29	590.89	594.07	601.68	608.96	615.98	621.59	622.17	622.56	618.39	612.28									
	596.34	598.94	601.55	604.15	606.67	608.67	610.06	610.84	611.80	611.32	611.80	611.80	611.80	611.80	611.80	611.80	611.80	611.80	611.80	611.80
	19+00	20+00	21+00	22+00	23+00	24+00	25+00	26+00	27+00	28+00	29+00	30+00	31+00	32+00	33+00	34+00				

EXISTING STRUCTURE: S.N. 006-4285

A Single Span (1 @ 115') Pratt Through Truss on Closed Concrete Abutments, Skewed 0°, Located 70' Right of Sta. 13+70. To Be Removed, No Salvage.

PARABOLIC ARCH CURVE DATA

P.V.I. Station 13+70
P.V.I. Elev. = 630.65
Approach Grade = +87.36%
Departure Grade = -85.99%
Horizontal Length = 119'-6"
x = 25.89', @ Of Center Pin Elev. = 604.76

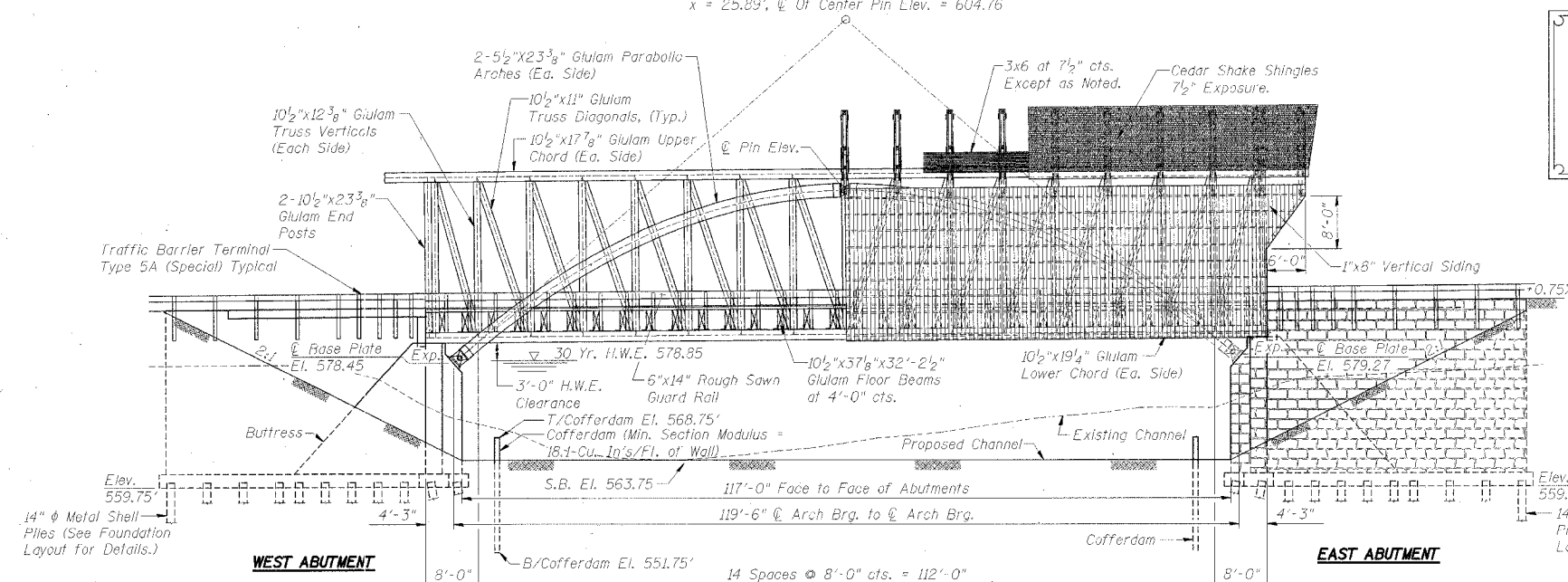
BENCH MARK: R.R. Spike in 3rd P.P. West of Existing Structure, Elev. 582.22

BENCH MARK: Chiseled "□" On The Southeast Wingwall of Existing Pratt Through Truss, Elev. 591.68

BENCH MARK: R.R. Spike in 3rd P.P. East of Existing Structure, Elev. 591.68

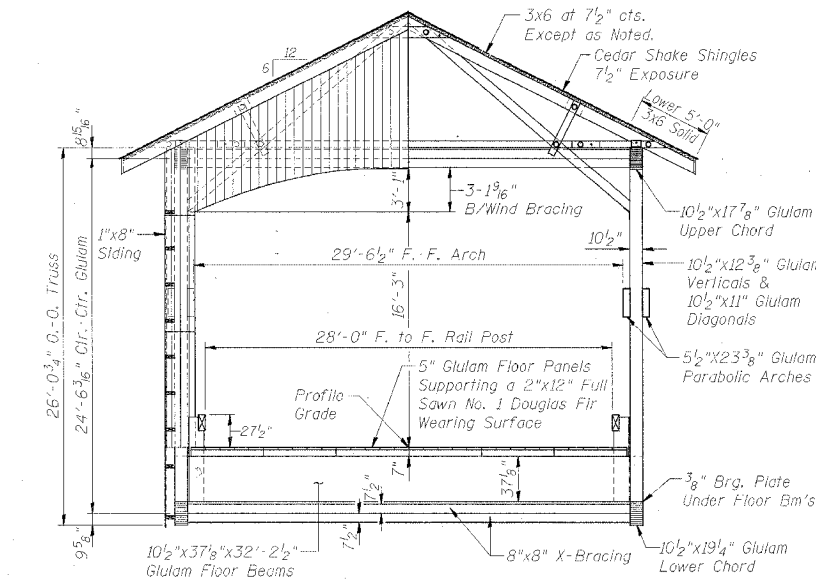
PROJECT	SECTION	COUNTY	SHEETS	DATE
245	98-20101-00-BR	BUREAU	65	34
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - BROS-011(62)	

STRUCTURAL SHEET 1 OF 25



BIG BUREAU CREEK
BUILT 2001 BY
PRINCETON TOWNSHIP
SECTION 98-20101-00-BR
T.R. 245 STA. 13+70
F.A. PROJ. BROS-011(62)
STR. NO. 006-4288 LOADING #S20

NAME PLATE LETTERING
REFER TO STA. 515001

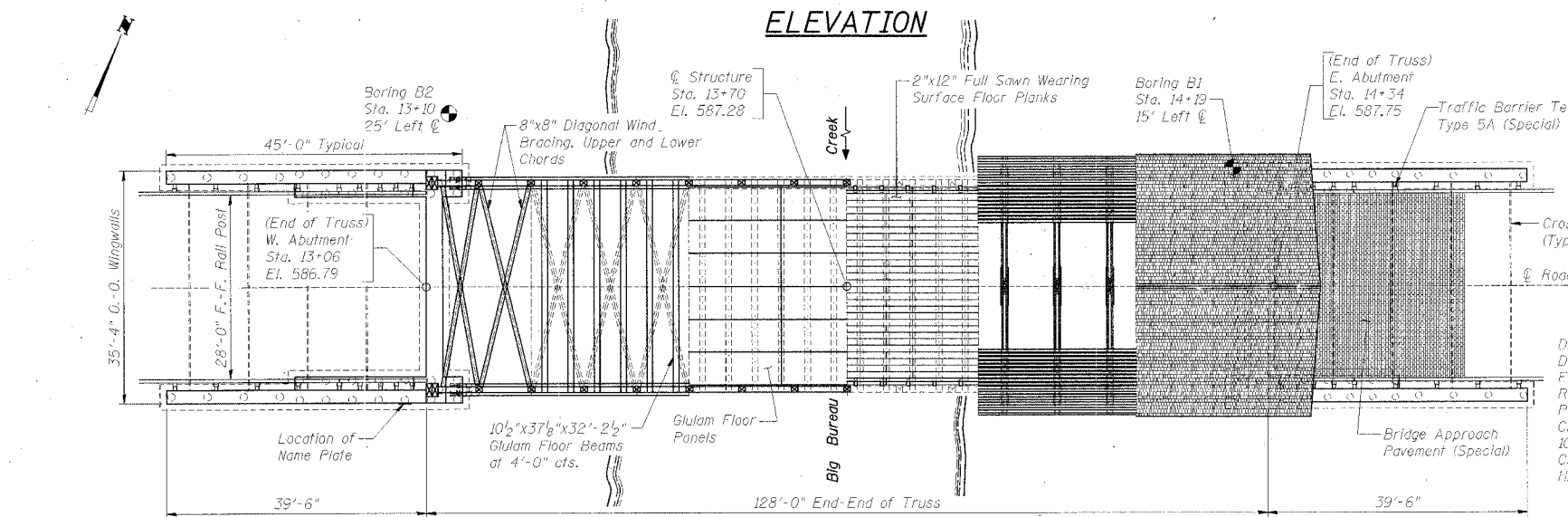


END ELEVATION CROSS SECTION

BILL OF MATERIALS - BRIDGE

ITEM	UNIT	SUB.	SUPER.	TOTAL
Channel Excavation	Cu. Yd.			920
Porous Granular Backfill	Cu. Yd.	2118		2118
Removal of Existing Structures	Each			1
Cofferdam Excavation	Cu. Yd.	2473		2473
Cofferdams	Each	2		2
Concrete Structures	Cu. Yd.	614		614
Furnishing & Erecting Structural Steel	L. Sum		1	1
Treated Timber	FBM		53863	53863
Hardware	Pound	10954	28205	39159
Reinforcement Bars	Pound	6500		6500
Reinforcement Bars (Epoxy Coated)	Pound	46830		46830
Furnishing Metal Shell Piles-14"	Foot	2450		2450
Driving & Filling Shells	Foot	2450		2450
Test Pile-14" Metal Shell	Each	2		2
Name Plates	Each		1	1
Bridge Seat Sealer	L. Sum		1	1
Form Liner Textured Surface	Sq. Yd.	674		674
Treated Glue Laminated Timber **	FBM		93677	93677
Bearing Assembly (Special)	Each		4	4
Cedar Shake Shingles	Sq. Ft.		6302	6302
Fixed Hinge Pin Assembly	Each		6	6
Clear Deck & Wood Seal	L. Sum		1	1
Fire Protection	L. Sum		1	1
Lettering	L. Sum		1	1

* See Special Provisions
** Specialty Item



PLAN

WATERWAY INFORMATION

Drainage Area	193 Sq. Mi.
Design Discharge (30 Yr.)	12343 C.F.S.
Existing Opening	1390 Sq. Ft.
Required Opening	1935 Sq. Ft.
Proposed Opening	1935 Sq. Ft.
Created Head (30 Yr.)	<0.5 Ft.
100 Yr. Discharge	15114 C.F.S.
Created Head (100 Yr.)	<1.0 Ft.
High Water Elev. (100 Yr.)	579.62 Ft.

HIGHWAY CLASSIFICATION

Township Road 245
Class: Local Rural Collector
ADT: (2004) 400
Design Speed: 50 m.p.h.
Posted Speed: 55 m.p.h.

DESIGN SPECIFICATIONS

Design in Accordance with
2002 AASHTO Specifications
f_c = 3,500 psi (Concrete)
f_y = 60,000 psi (Reinforcement)

LOADING HS20-44

Floor Beams - Truck Load
Arch & Truss - Governing Truck or Lane Load
Snow Load - 30 psf
Wind Load - 25 psf
Deflection Criteria - L/500 for Live Loads

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.037
Site Coefficient (S) = 1.2

MATERIAL SPECIFICATIONS

DIMENSION LUMBER AND TIMBERS
Interior Roof Truss, Roof Truss over Cantilever, & Wind Bracing: Treated with Pentachlorophenol (AITC 109XLP-77) Southern Pine - No. 1 or Better
Siding: ACZA Water Borne Treatment Douglas Fir Larch - No. 1 or Better
Roof Planks: Treated with Pentachlorophenol (AITC 109XLP-77) Southern Pine - No. 1 or Better
ROUGH SAWN LUMBER
Timber Guardrail: Treated with Pentachlorophenol (AITC 109XLP-77) Southern Pine - No. 1 or Better
FULL SAWN LUMBER
ACZA Water Borne Treatment 2"x12" Deck Planks Douglas Fir Larch - No. 1 or Better 2"x14" Eave Fascia Douglas Fir Larch - No. 1 or Better

GLULAM TIMBERS
Treated with Pentachlorophenol (AITC 109XLP-77) Southern Pine
Floor Panels: Combination Symbol-47
Arch, End Portal Column & Truss Members, Truss Chords, and Rail Post: Combination Symbol-50
Floor Beams shall be Combination Symbol 24F-V3
TRUSS HARDWARE
Gusset Plates and Connection Hardware AASHTO M270, Grade 36 Bolts, Nuts and Washers - ASTM A307
ARCH HARDWARE
Side Plates, End Plates, Pin Plates, Base Plates and Stiffener Plates - AASHTO M270, Grade 50
All plates shall conform to the Minimum Charpy V-Notch Toughness of 25 ft.-lbs. at 40° F.

FORM LINER
Concrete Form Liner Required at Abutments. See Special Provisions.



DATE: 10/18/05
EXPIRES: 11/30/06

Reviewed & Approved for Structural Adequacy Only.



DATE: 10/17/05
EXPIRES: 11/30/2006

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

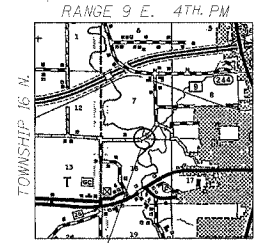
PROFILE GRADE

(Along @ Roadway)

+0.75%

GENERAL NOTES

Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 Or M-53 Grade 60. Calculated Weight of M270 Gr. 36 Structural Steel = 50,690 lbs. (For information Only)
The Contractor shall Drive One Test Pile In A Permanent Location At Each Abutment, As Directed By The Engineer, Before Ordering The Remainder Of Piles.
*** Dimensions for this Lumber are Nominal Dimensions.
Channel Excavation shall be Full Depth Under The Bridge Then Tapered To The Right Of Way.



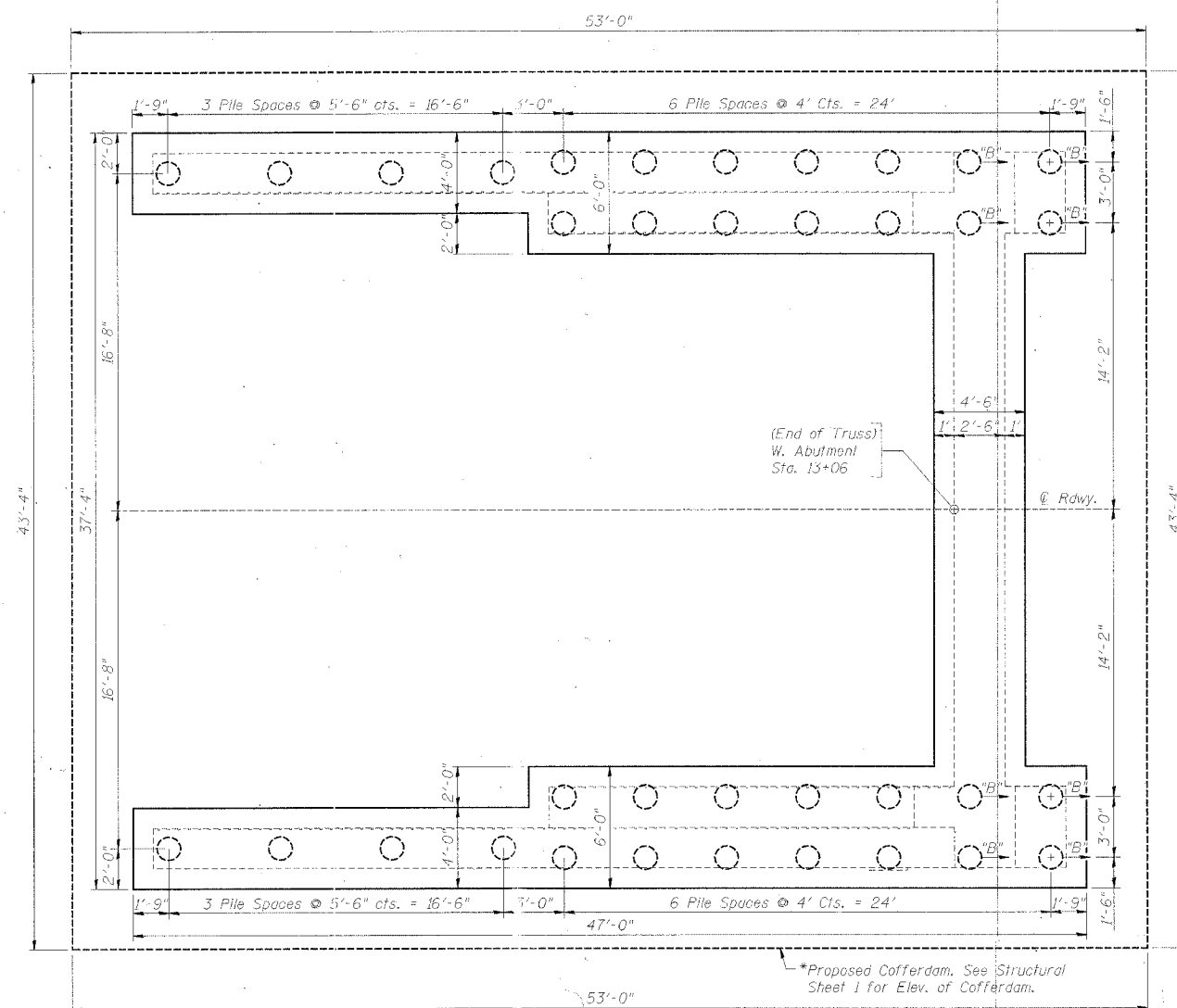
GENERAL PLAN & ELEVATION SECTION 98-20101-00-BR T.R. 245 OVER BIG BUREAU CREEK STA. 13+70 (S.N. 006-4288) BUREAU COUNTY

Designed By: B.K. Converse Date: July, 05
Checked By: W.R. Leslie Date: July, 05
Drawn By: F.D. Lachat Date: July, 05

WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structural
Environmental - Architecture
WHA # 1104D04

PROJECT	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	35
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-BROS-O11627	

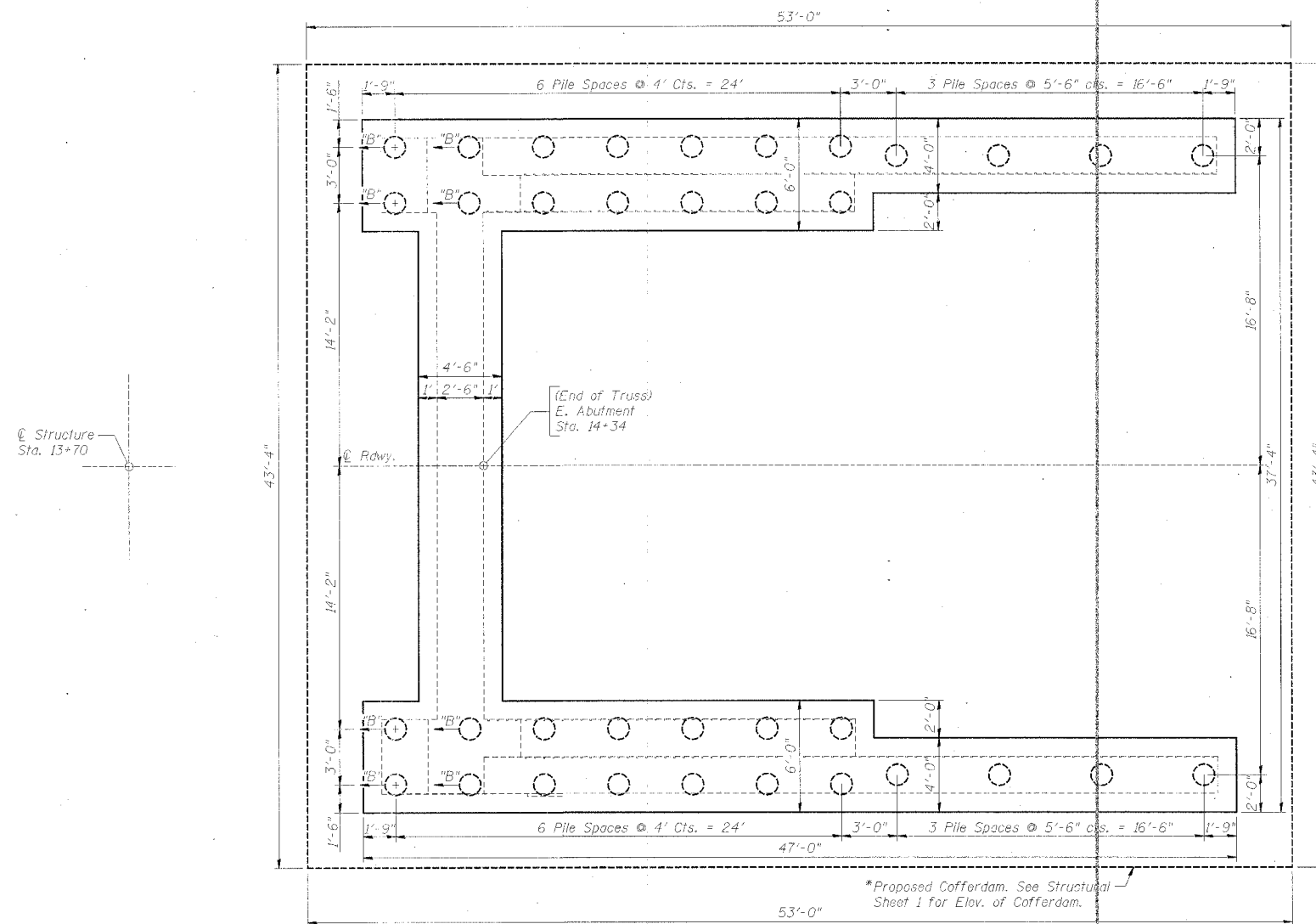
STRUCTURAL SHEET 2 OF 25



WEST ABUTMENT PLAN

Note: Extend Cofferdam 4'-0" Outside Limits of Proposed Wall.

Piles Denoted with \odot shall be Battered at a 2:12 Slope. See West Abutment Details.



EAST ABUTMENT PLAN

Note: Extend Cofferdam 4'-0" Outside Limits of Proposed Wall.

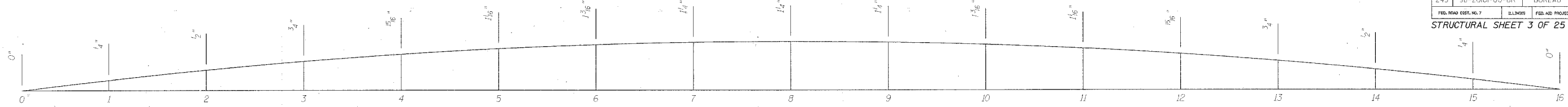
Piles Denoted with \odot shall be Battered at a 2:12 Slope. See East Abutment Details.

*If the Contractor Chooses to Deviate from the Cofferdam shown on these Plans then the Contractor shall Submit for Approval Drawings and Calculations Sealed by a Licensed Structural Engineer in the State of Illinois. No Additional Compensation will be Allowed.

FOUNDATION LAYOUT
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

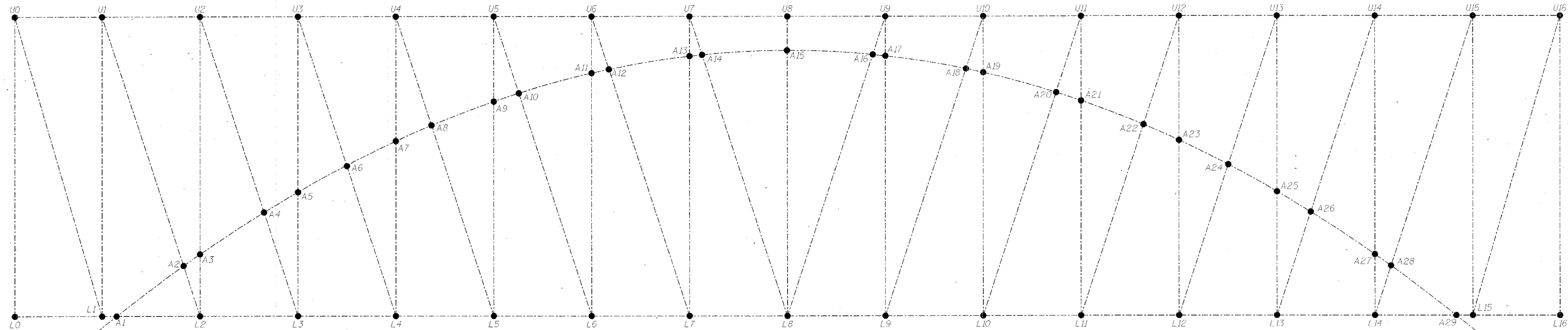
PROJECT	SECTION	COUNTY	SHEET	OF
245	98-20101-00-BR	BUREAU	65	36
FED. ROAD DIST. NO. 7		STATE	FED. AID PROJECT - (BROS-Q1162)	

STRUCTURAL SHEET 3 OF 25



DEAD LOAD CAMBER DIAGRAM

Deflections Shown Apply to Upper and Lower Truss Chords



MEMBER END FORCE DIAGRAM

Load Combination 1 (Dead Load + Live Load)
 (-) Axial Force at I Node Denotes Tension
 (+) Live Load = Snow + Roadway Traffic

LOAD TABLE

Member Location	I Node	J Node	I Node			J Node		
			Axial	Shear	Moment	Axial	Shear	Moment
Truss Chord	L0	L1	0.17	29.67	1.30	0.23	-27.29	13.67
Truss Chord	L1	L2	-20.80	26.42	13.98	-20.70	-28.08	23.03
Truss Chord	L2	L3	-33.59	28.20	23.03	-33.51	-26.40	15.31
Truss Chord	L3	L4	-42.81	27.04	15.20	-42.75	-27.53	17.90
Truss Chord	L4	L5	-50.13	27.37	17.82	-50.08	-27.14	17.41
Truss Chord	L5	L6	-55.01	27.25	17.33	-54.98	-27.23	17.99
Truss Chord	L6	L7	-57.82	27.27	17.91	-57.81	-27.21	17.95
Truss Chord	L7	L8	-59.54	26.88	17.82	-59.56	-27.54	20.80
Truss Chord	L8	L9	-59.56	27.55	20.81	-59.54	-26.88	17.75
Truss Chord	L9	L10	-57.80	27.19	17.89	-57.81	-27.29	17.99
Truss Chord	L10	L11	-54.98	27.24	18.06	-55.01	-27.24	17.32
Truss Chord	L11	L12	-50.08	27.14	17.40	-50.13	-27.37	17.82
Truss Chord	L12	L13	-42.75	27.53	17.90	-42.82	-27.04	15.20
Truss Chord	L13	L14	-33.51	26.40	15.31	-33.59	-28.19	23.00
Truss Chord	L14	L15	-20.70	28.08	23.03	-20.80	-26.42	13.98
Truss Chord	L15	L16	0.23	27.30	13.67	0.17	-29.66	1.30
Truss Chord	U0	U1	2.71	6.60	21.94	12.71	6.18	-17.70
Truss Chord	U1	U2	25.54	-1.86	-16.25	25.54	-2.33	-4.85
Truss Chord	U2	U3	36.62	1.25	-4.43	36.62	0.78	-7.40
Truss Chord	U3	U4	44.86	-0.44	-7.01	44.86	-0.91	-6.87
Truss Chord	U4	U5	49.46	-0.40	-6.67	49.46	-0.86	-6.80
Truss Chord	U5	U6	51.28	0.80	-6.78	51.28	-0.87	-6.96
Truss Chord	U6	U7	50.87	-1.05	-7.15	50.87	-1.52	4.95
Truss Chord	U7	U8	48.99	0.64	4.56	48.99	0.74	-4.98
Truss Chord	U8	U9	48.87	-0.74	-4.93	48.87	-0.64	4.60
Truss Chord	U9	U10	50.62	1.53	4.98	50.52	1.06	-7.22
Truss Chord	U10	U11	51.26	0.85	-7.03	51.26	-0.82	-6.71
Truss Chord	U11	U12	49.43	0.87	-6.73	49.43	0.41	-6.68
Truss Chord	U12	U13	44.84	0.91	-6.88	44.84	0.44	-7.01
Truss Chord	U13	U14	36.61	-0.78	-7.40	36.61	-1.25	-4.42
Truss Chord	U14	U15	25.54	2.33	-4.83	25.54	1.86	-15.26
Truss Chord	U15	U16	12.71	-6.18	-17.71	12.71	-6.60	27.94

LOAD TABLE

Member Location	I Node	J Node	I Node			J Node		
			Axial	Shear	Moment	Axial	Shear	Moment
Truss Vertical	L0	U0	97.67	-0.04	1.11	95.62	-0.04	1.26
Truss Vertical	L1	U1	53.20	0.00	-0.01	51.55	0.00	0.06
Truss Vertical	L2	U2	37.29	0.70	0.00	36.79	0.70	-3.95
Truss Vertical	A3	U2	59.44	-0.21	-3.87	58.29	-0.21	-0.69
Truss Vertical	L3	U3	28.99	-0.27	0.00	28.11	-0.27	2.83
Truss Vertical	A5	U3	50.27	-0.30	-2.99	49.50	-0.30	-1.02
Truss Vertical	L4	U4	18.01	0.17	0.00	19.24	0.17	-2.53
Truss Vertical	A7	U4	44.68	-0.30	-2.98	44.25	-0.30	-1.07
Truss Vertical	L5	U5	24.85	0.13	0.00	26.29	0.13	-2.37
Truss Vertical	A9	U5	40.06	-0.44	-2.93	39.85	-0.44	-1.56
Truss Vertical	L6	U6	30.73	-0.10	0.00	32.35	-0.11	2.10
Truss Vertical	A11	U6	33.66	-0.78	-2.87	33.63	-0.78	-2.83
Truss Vertical	L7	U7	33.50	0.07	0.00	35.15	0.07	-1.49
Truss Vertical	A13	U7	36.22	-0.73	-2.34	36.23	-0.73	-1.54
Truss Vertical	L8	U8	5.91	-0.03	0.00	7.57	-0.03	-0.57
Truss Vertical	A15	U8	8.37	0.37	1.04	8.39	0.37	-0.60
Truss Vertical	L9	U9	33.44	-0.07	0.00	35.10	-0.07	1.49
Truss Vertical	A17	U9	36.15	0.73	2.35	36.16	0.73	1.55
Truss Vertical	L10	U10	30.73	-0.11	0.00	32.35	-0.11	2.09
Truss Vertical	A19	U10	33.51	0.62	2.76	33.48	0.62	2.22
Truss Vertical	L11	U11	24.83	-0.13	0.00	26.27	-0.13	2.37
Truss Vertical	A21	U11	40.11	0.44	2.93	39.90	0.44	1.56
Truss Vertical	L12	U12	18.01	-0.17	0.00	19.24	-0.17	2.52
Truss Vertical	A23	U12	44.68	0.31	2.98	44.26	0.31	1.07
Truss Vertical	L13	U13	28.98	-0.27	0.00	28.10	-0.27	2.83
Truss Vertical	A25	U13	50.26	0.30	-2.99	49.49	0.30	-1.02
Truss Vertical	L14	U14	37.29	-0.70	0.00	36.79	-0.70	3.95
Truss Vertical	A27	U14	59.42	0.21	3.88	58.28	0.21	0.69
Truss Vertical	L15	U15	53.19	0.00	0.01	51.54	0.00	-0.06
Truss Vertical	L16	U16	97.67	0.04	1.41	95.62	0.04	1.26

LOAD TABLE

Member Location	I Node	J Node	I Node			J Node		
			Axial	Shear	Moment	Axial	Shear	Moment
Truss Diagonal	L1	U0	-75.52	0.13	0.00	-74.64	-0.13	0.00
Truss Diagonal	L2	A2	-55.73	-0.91	0.00	-55.89	-0.97	4.53
Truss Diagonal	A2	U1	-51.53	0.33	4.50	-52.24	0.19	0.00
Truss Diagonal	L3	A4	-44.46	-0.29	0.00	-44.78	-0.39	3.14
Truss Diagonal	A4	U2	-50.09	0.29	3.28	-50.65	0.11	0.00
Truss Diagonal	L4	A6	-41.38	-0.13	0.00	-41.83	-0.27	2.66
Truss Diagonal	A6	U3	-43.09	0.31	2.96	-43.52	0.17	0.00
Truss Diagonal	L5	A8	-37.18	-0.06	0.00	-37.75	-0.25	2.59
Truss Diagonal	A8	U4	-37.24	0.37	2.94	-37.56	0.27	0.00
Truss Diagonal	L6	A10	-34.35	-0.03	0.00	-35.01	-0.24	2.57
Truss Diagonal	A10	U5	32.75	0.50	2.99	32.98	0.43	0.00
Truss Diagonal	L7	A12	-32.50	0.02	0.00	-33.23	-0.23	2.41
Truss Diagonal	A12	U6	-26.77	0.69	2.98	-26.93	0.64	0.00
Truss Diagonal	L8	A14	-34.23	0.05	0.00	-35.00	-0.21	1.96
Truss Diagonal	A14	U7	28.39	0.81	2.61	28.28	0.78	0.00
Truss Diagonal	L9	A16	-34.12	0.05	0.00	-34.90	-0.21	1.97
Truss Diagonal	A16	U9	28.35	0.81	2.61	28.24	0.78	0.00
Truss Diagonal	L10	A18	-32.49	0.02	0.00	-33.22	-0.23	2.41
Truss Diagonal	A18	U10	-26.65	0.69	2.99	-26.81	0.64	0.00
Truss Diagonal	L11	A20	-34.42	-0.03	0.00	-35.08	-0.24	2.57
Truss Diagonal	A20	U11	-32.77	0.50	2.99	-32.99	0.43	0.00
Truss Diagonal	L12	A22	-37.19	-0.06	0.00	-37.76	-0.25	2.59
Truss Diagonal	A22	U12	-37.27	0.37	2.94	-37.58	0.27	0.00
Truss Diagonal	L13	A24	-41.58	-0.13	0.00	-41.83	-0.27	2.66
Truss Diagonal	A24	U13	43.07	0.31	2.96	43.50	0.17	0.00
Truss Diagonal	L14	A26	-44.45	-0.29	0.00	-44.77	-0.39	3.15
Truss Diagonal	A26	U14	-50.08	0.29	3.28	-50.64	0.11	0.00
Truss Diagonal	L15	A28	-55.72	-0.91	0.00	-55.89	-0.97	4.53
Truss Diagonal	A28	U15	-51.52	0.33	4.50	-52.24	0.19	0.00
Truss Diagonal	L16	U16	-74.64	0.13	0.00	-75.52	-0.13	0.00

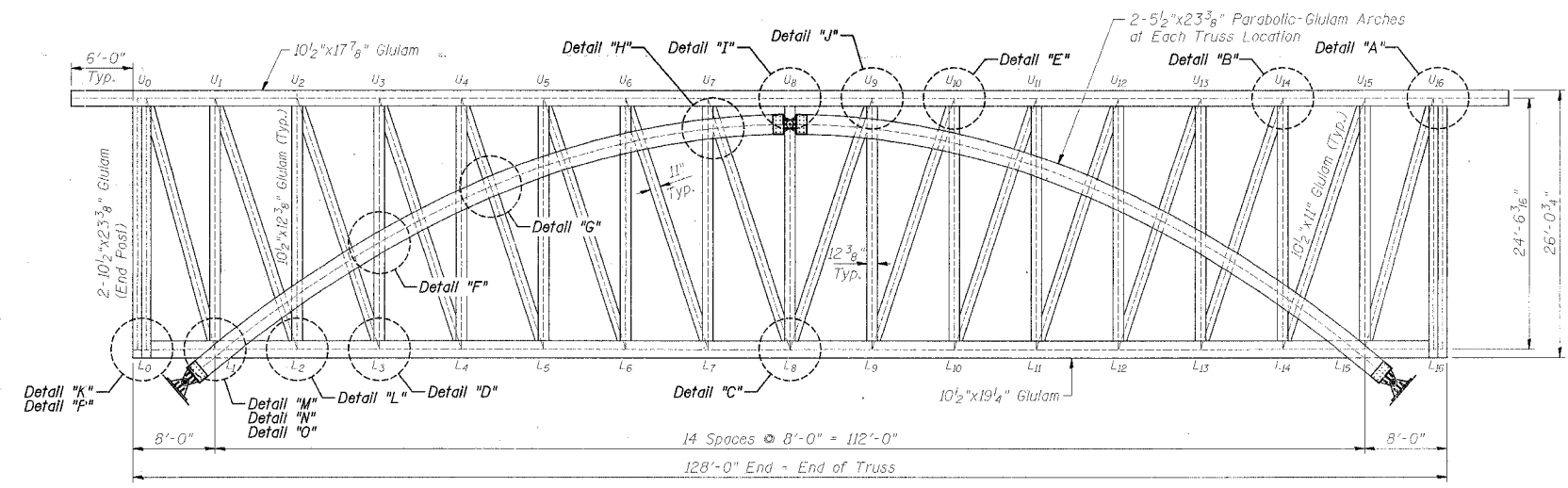
LOAD TABLE

Arch forces listed in this table are for each individual Arch.

Member Location	I Node	J Node	I Node			J Node		
			Axial	Shear	Moment	Axial	Shear	Moment
Arch	A0	A1	131.25	4.65	9.83	131.25	2.99	13.78
Arch	A1	A2	131.22	-2.96	14.63	131.10	-6.58	-13.65
Arch	A2	A3	128.90	-6.19	-18.32	128.85	-6.81	-22.71
Arch	A3	A4	120.10	7.05	-22.75	120.10	4.32	-6.07
Arch	A4	A5	120.53	-5.29	-6.30	120.45	-7.01	-15.70
Arch	A5	A6	115.12	6.66	-15.54	115.12	4.44	5.47
Arch	A6	A7	115.18	-4.03	5.51	115.11	-6.26	-15.13
Arch	A7	A8	110.53	7.23	-14.87	110.55	5.47	-6.12
Arch	A8	A9	110.37	-2.35	3.98	110.32	-5.78	-13.60
Arch	A9	A10	106.41	7.19	-15.35	106.45	5.88	-7.67
Arch	A10	A11	106.05	3.01	3.68	106.02	-5.62	-12.16
Arch	A11	A12	102.93	6.27	-11.82	102.96	5.31	-9.18
Arch	A12	A13	102.60	3.90	-5.65	102.58	-6.00	-11.44
Arch	A13	A14	100.79	10.26	-11.07	100.81	3.96	-9.44
Arch	A14	A15	101.67	5.83	-7.77	101.67	-3.92	6.69
Arch	A15	A16	101.60	3.93	6.74	101.59	-5.79	-7.73
Arch	A16	A17	100.79	-3.99	-9.42	100.76	-10.27	-11.06
Arch	A17	A18	102.58	5.98	-11.44	102.59	-3.91	-5.75
Arch	A18	A19	102.96	-5.33	-9.31	102.94	-6.29	-11.76
Arch	A19	A20	105.97	5.58	-12.11	105.99	-3.04	3.75
Arch	A20	A21	106.40	-5.88	-7.66	106.37	-7.19	13.34
Arch	A21	A22	110.29	5.78	-13.60	110.34	2.35	3.98
Arch	A22	A23	110.52	-5.46	-6.12	110.50	-7.23	-14.87
Arch	A23	A24	115.10	6.26	-15.11	115.16	4.03	5.51
Arch	A24	A25	115.11	-4.45	5.47	115.11	-6.66	-15.54
Arch	A25	A26	120.44	7.01	-15.69	120.52	5.29	-6.30
Arch	A26	A27	120.10	-4.32	-6.07	120.09	-7.05	-22.74
Arch	A27	A28	128.85	6.81	-22.71	128.90	6.19	-18.32
Arch	A28	A29	131.08	6.58	-13.65	131.21	2.96	14.63
Arch	A29	A30	131.24	-2.59	14.26	131.25	-4.66	9.83

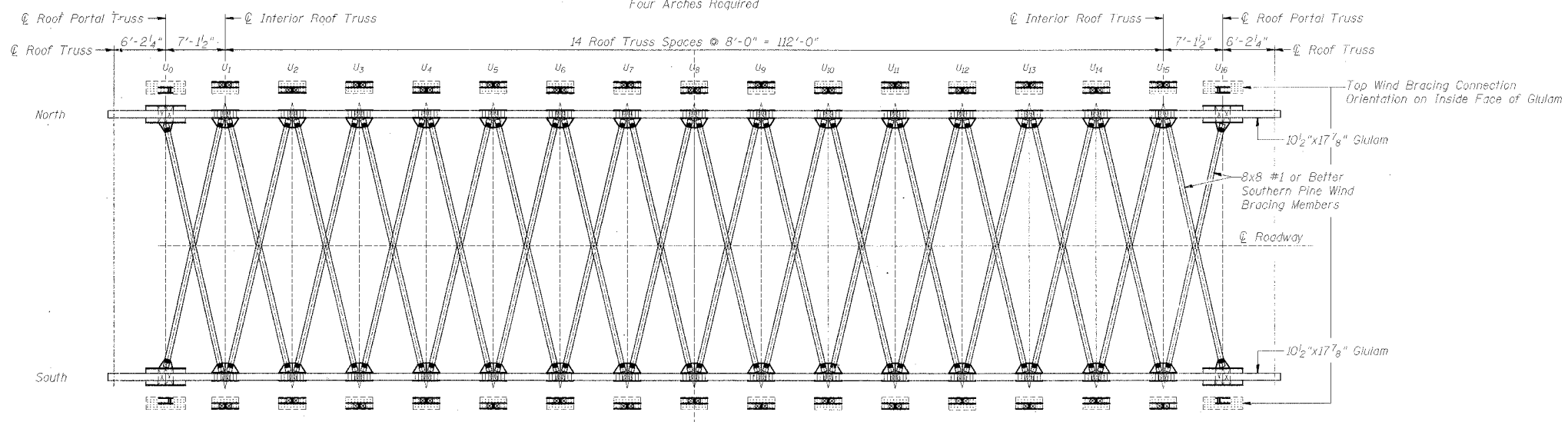
TRUSS FORCE AND CAMBER DIAGRAM
 SECTION 98-20101-00-BR
 T.R. 245 OVER BIG BUREAU CREEK
 STA. 13+70 (S.N. 006-4288)
 BUREAU COUNTY

PROJECT	SECTION	COUNTY	SHEET	SHEET
245	98-20101-00-BR	BUREAU	65	37
FED. ROAD DIST. NO. 7				
ILLINOIS				
FED. AID PROJECT: BR05-011(62)				
STRUCTURAL SHEET 4 OF 25				

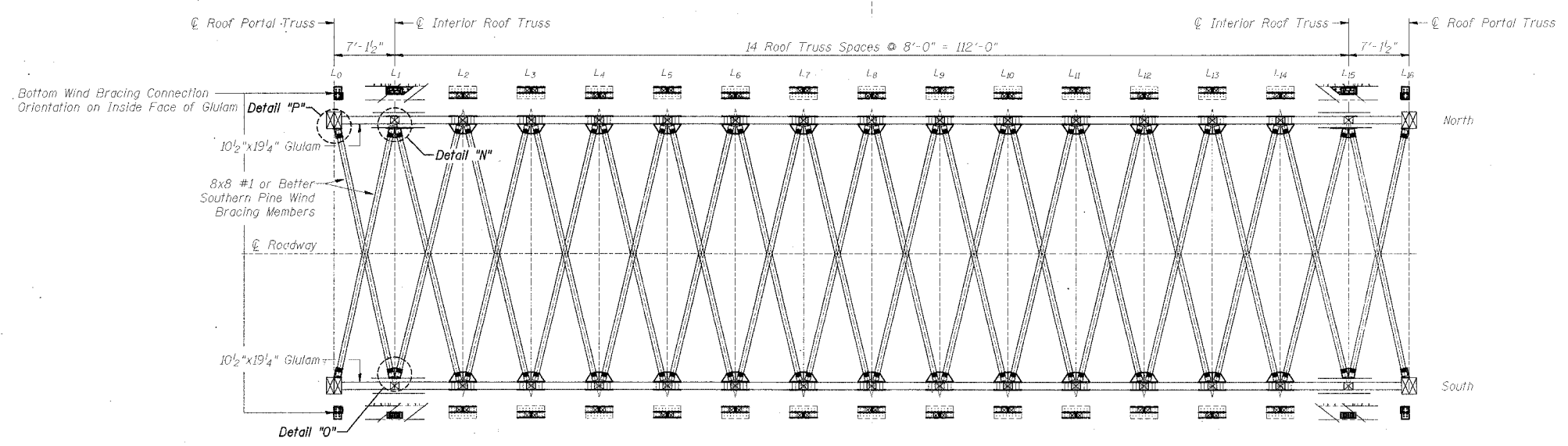


TRUSS & ARCH ELEVATION

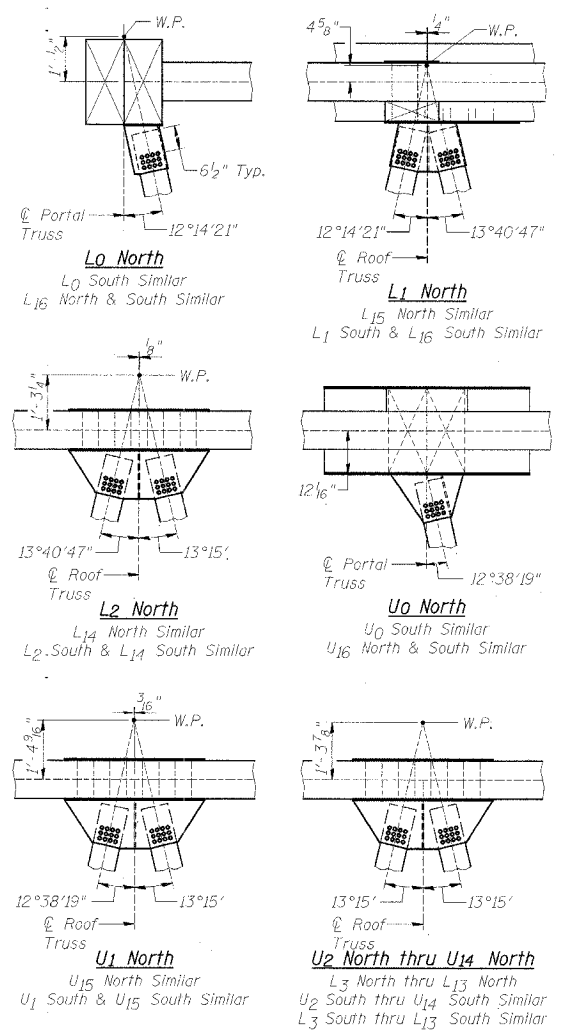
Two Trusses Required
Four Arches Required



UPPER WIND BRACING PLAN



LOWER WIND BRACING PLAN



WORKING POINT DETAILS

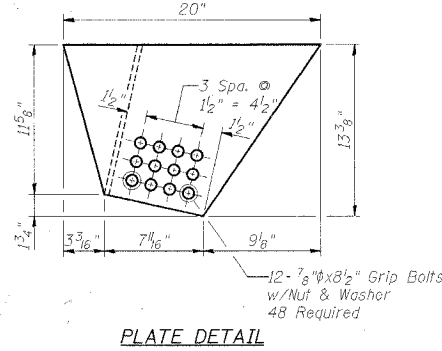
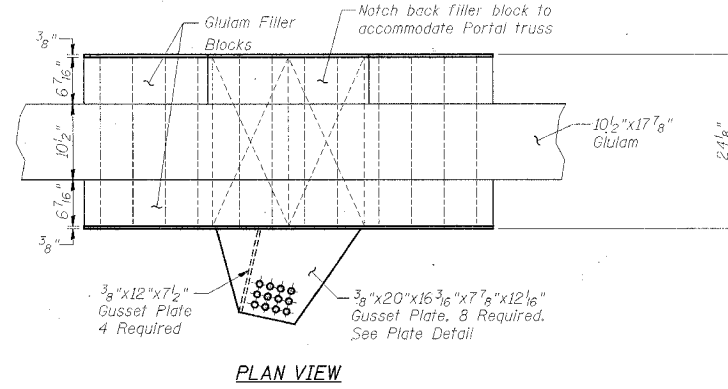
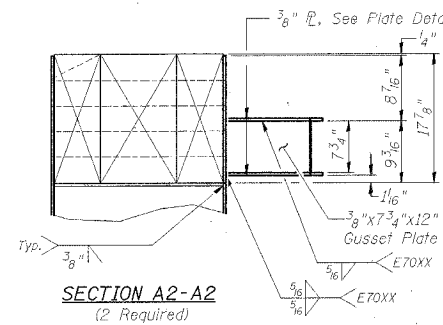
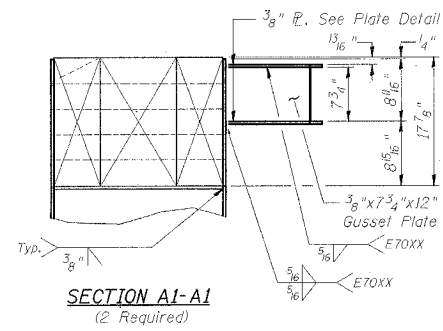
GENERAL NOTES

- Gusset Plates May Be Cut From A Single Plate Or Made Up Of Multiple Plates Welded Together To Form The Required Shape. Welding Shall Be In Accordance With The Requirements Of The Special Provisions.
- Fasteners Shall Be 7/8" A307 Bolts, (Open Holes 5/16") Unless Otherwise Noted.
- See Specifications For Required Finish For Steel Gusset Plates.
- All Reentrant Cuts Shall Be Filleted To A Radius of Not Less Than 3/4 Inch.
- Place all bolts with heads towards traffic lane.
- Splices to be located by fabricator. Subject to approval of the engineer. No Splice Shall be Allowed in Arch.
- All Split Rings Shall Meet SAE-1010 Specifications.

TRUSS AND WIND BRACING DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104004

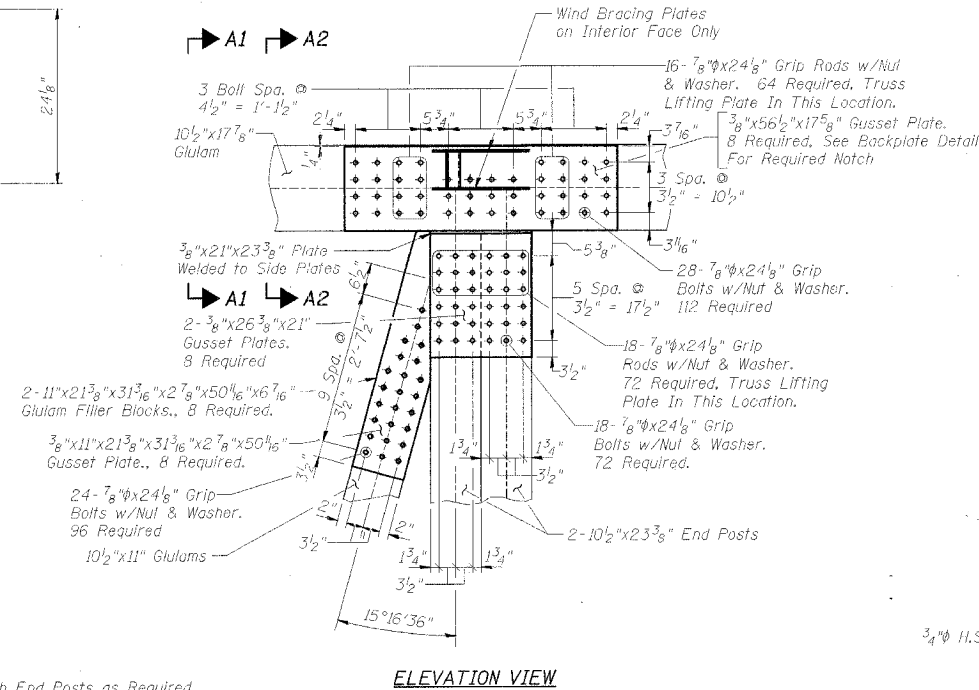
PROJECT	SECTION	COUNTY	SHEET	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	38
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - BR05-D11(62)	

STRUCTURAL SHEET 5 OF 25

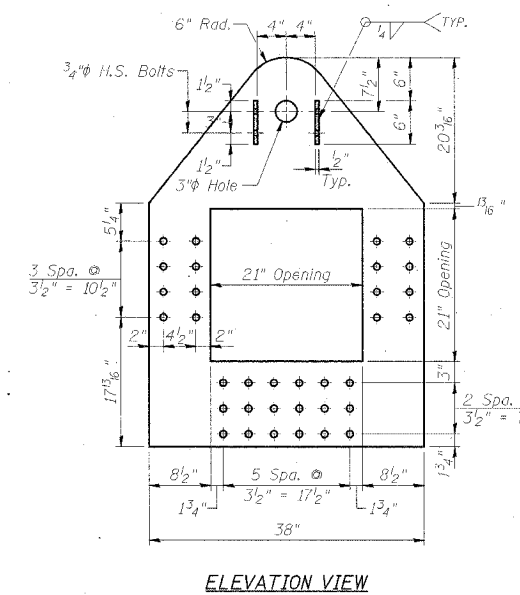
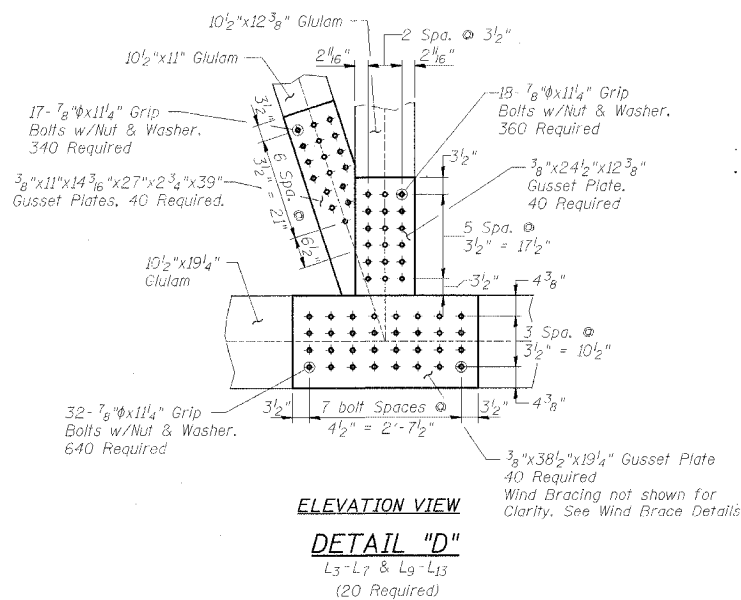
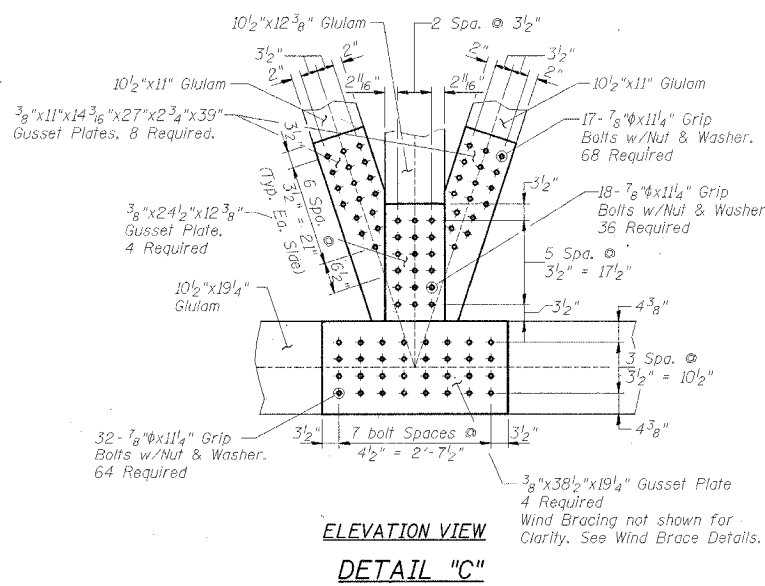
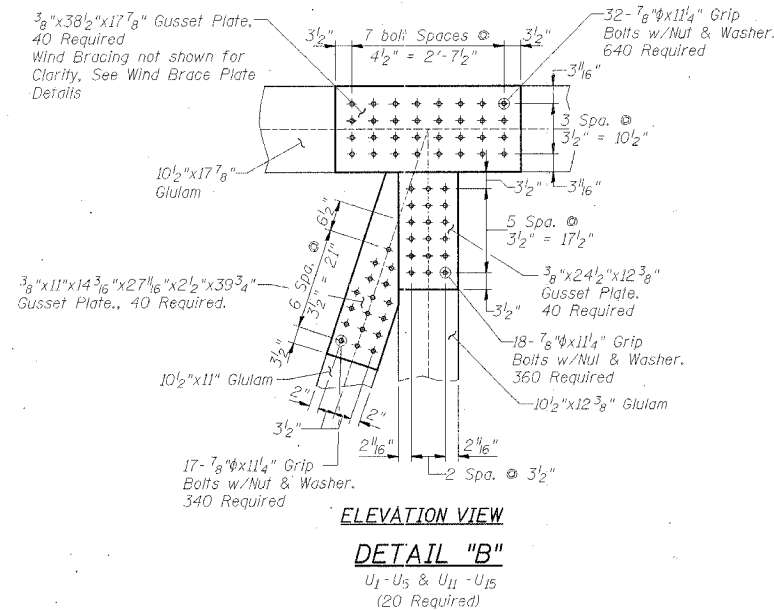
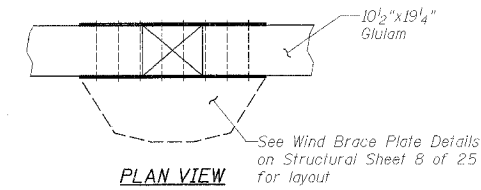
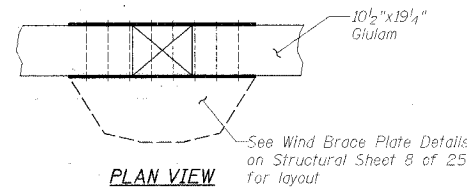
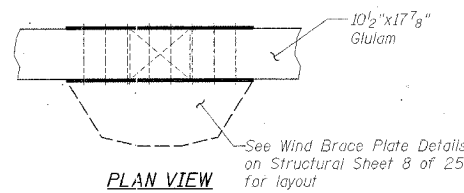
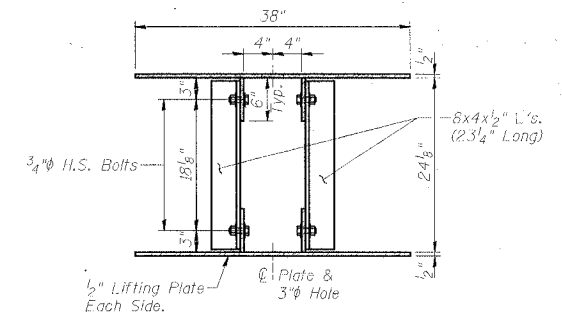
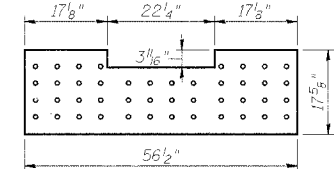


DETAIL "A"

U₁₆ Shown
U₀ Similar
(4 Required)
(See End Portal Roofing Details Sheet for Further Details)



*Notch End Posts as Required to Attach Cap Cover Plates.

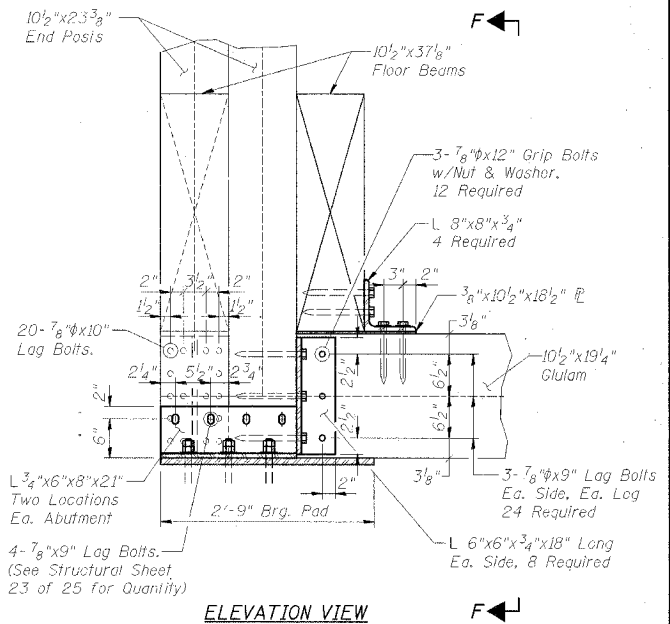
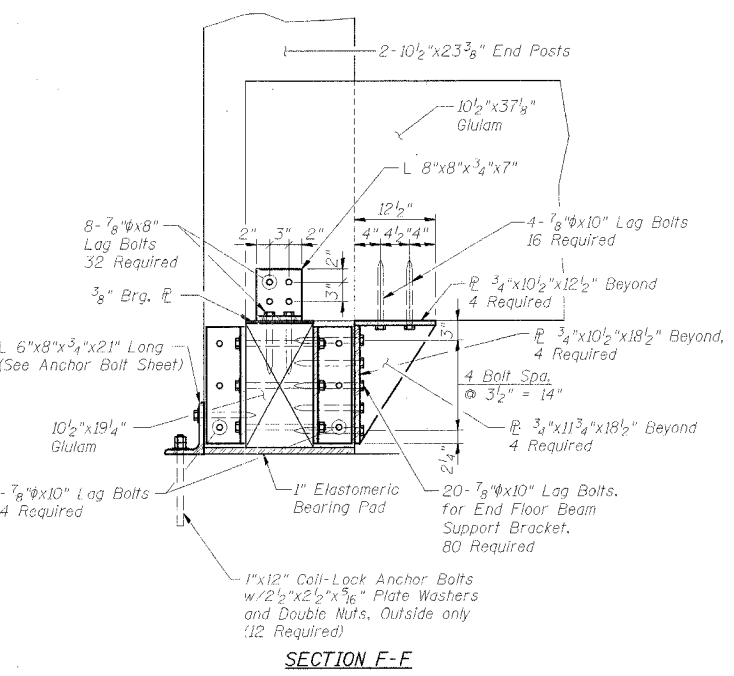
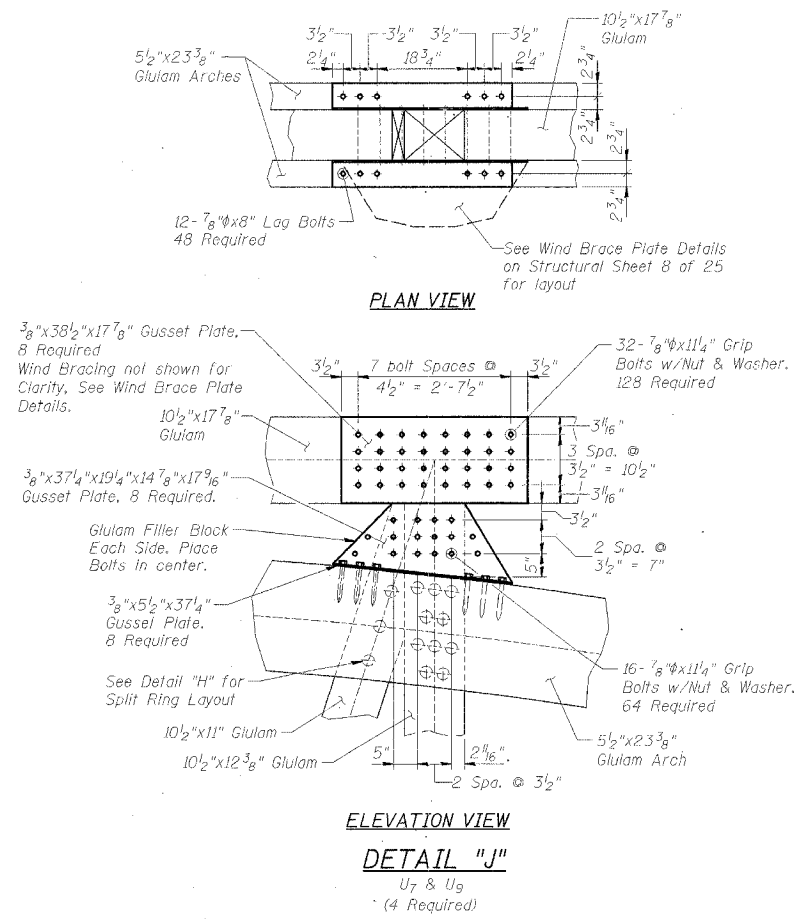
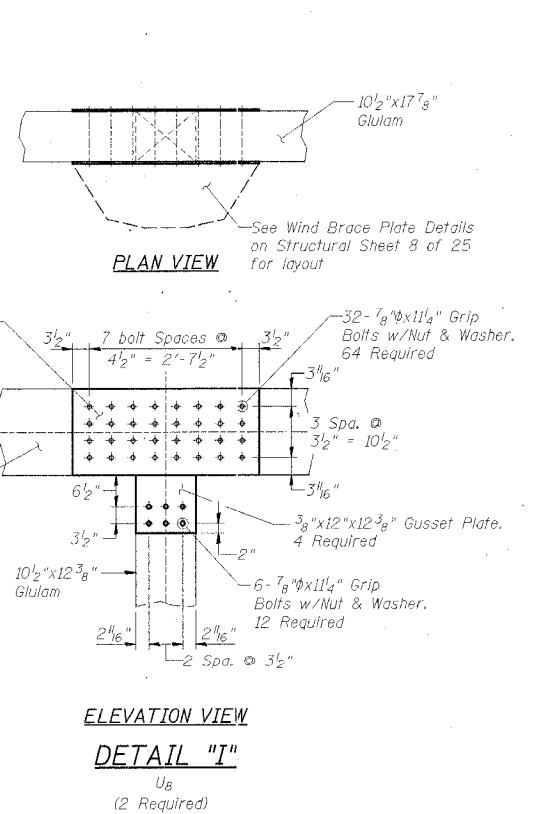
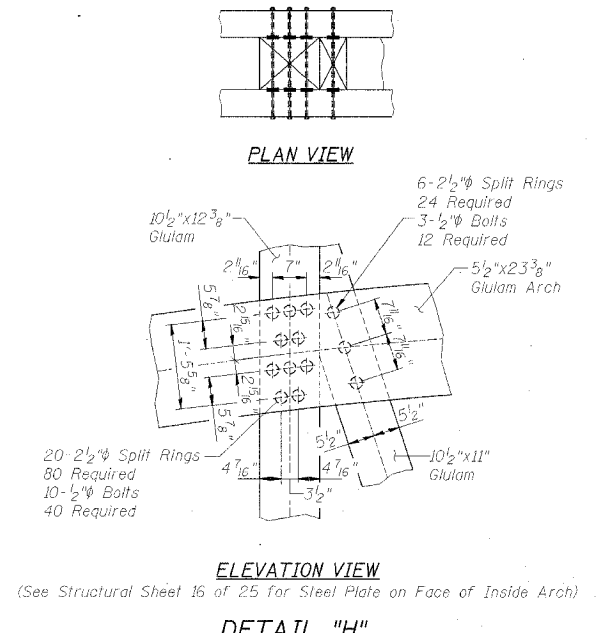
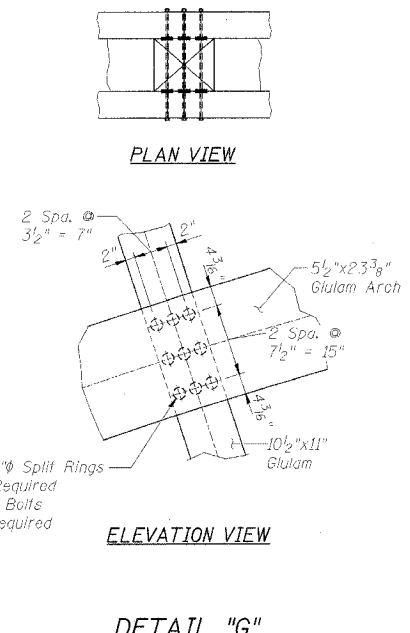
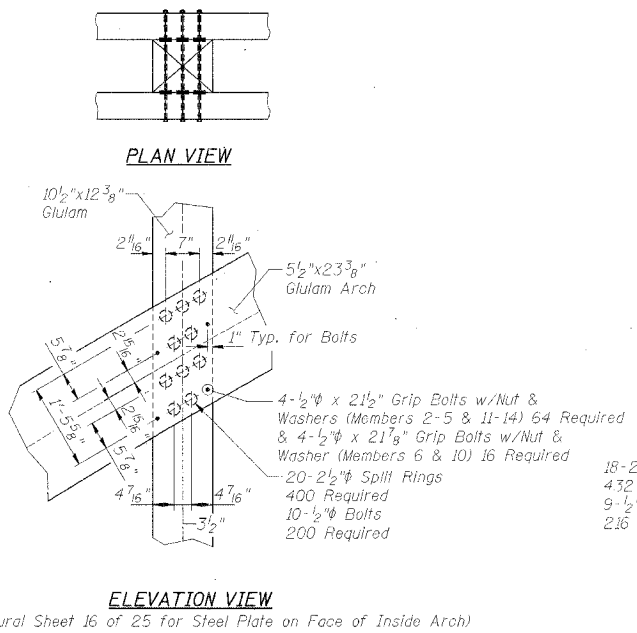
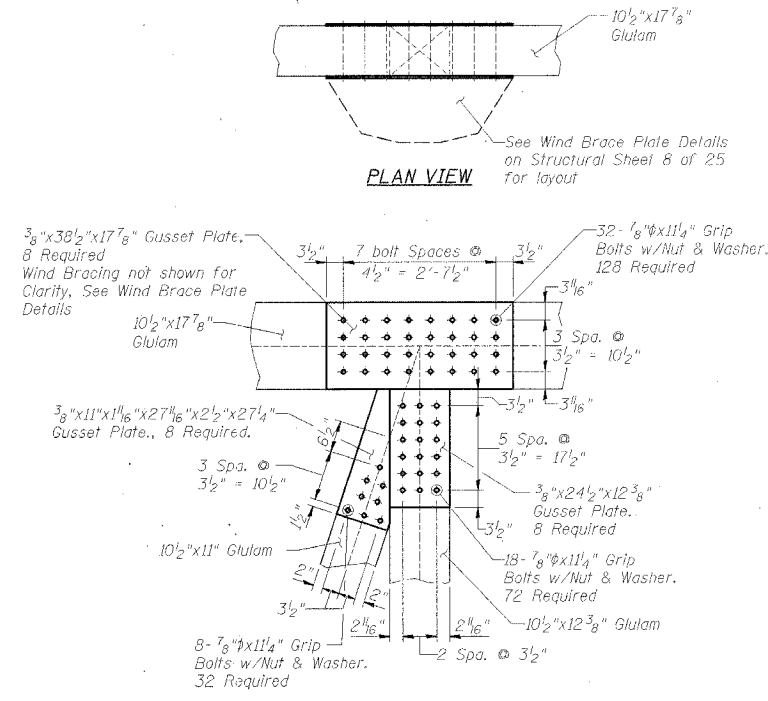


1/2" TRUSS LIFTING PLATE

(Top of End Post Locations - 4 Required)
(Included in Cost of Furnishing & Erecting Structural Steel)
(Total Main Truss Weight with Arches Using a Wood Density of 40#/FT³ & For One Truss = 67,000 lbs.)

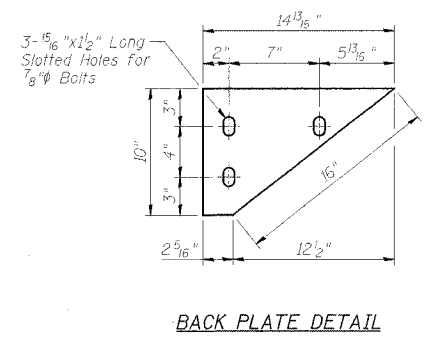
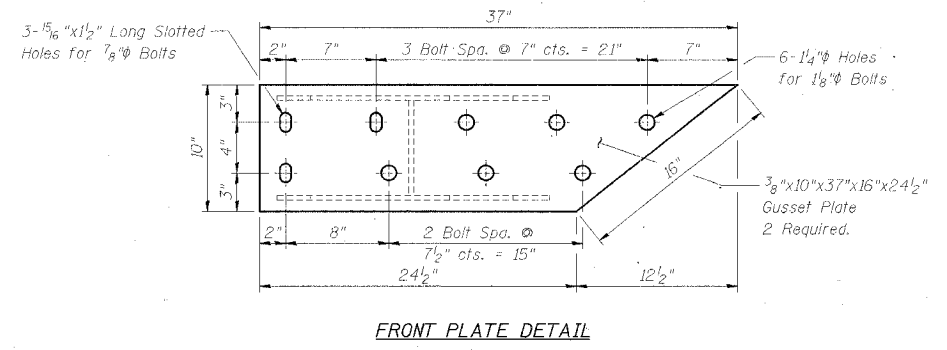
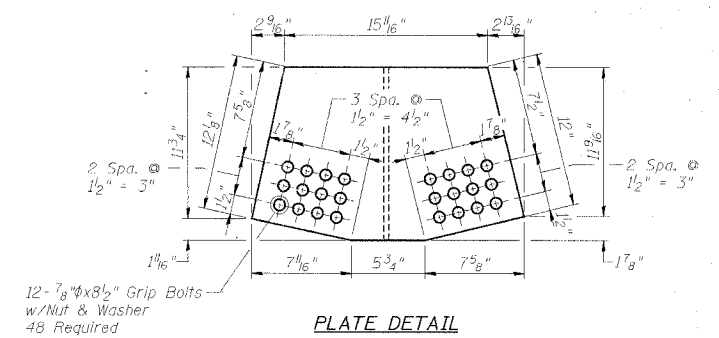
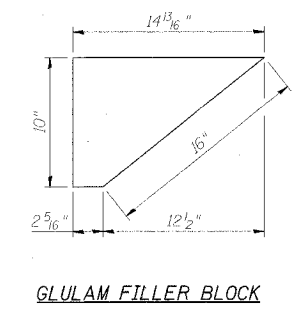
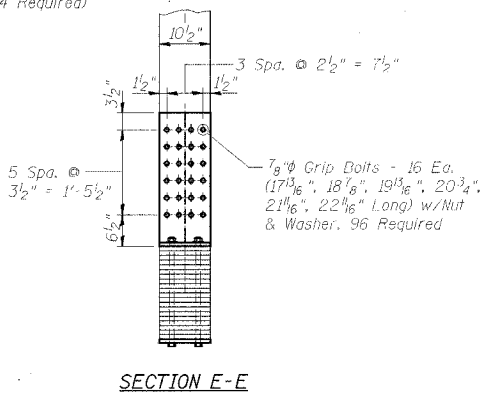
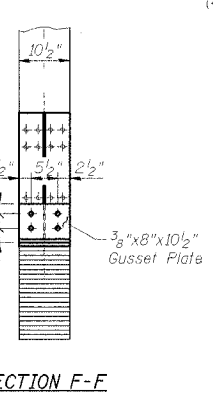
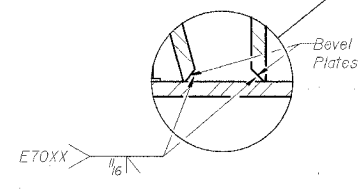
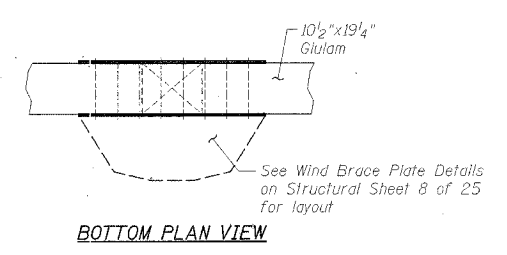
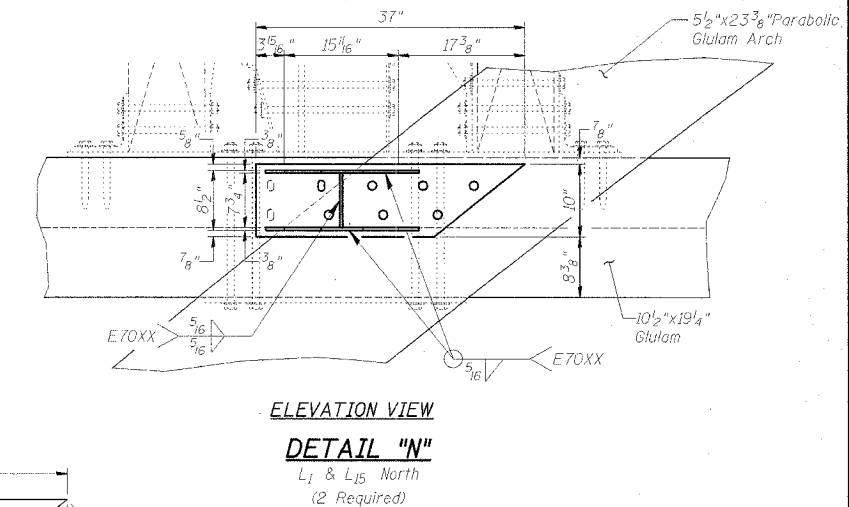
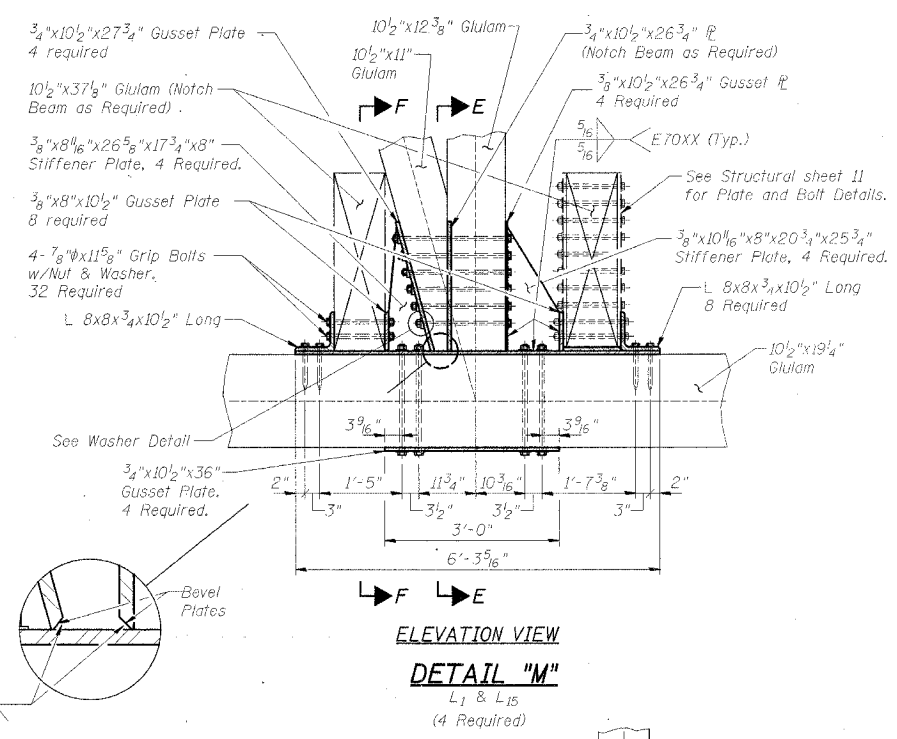
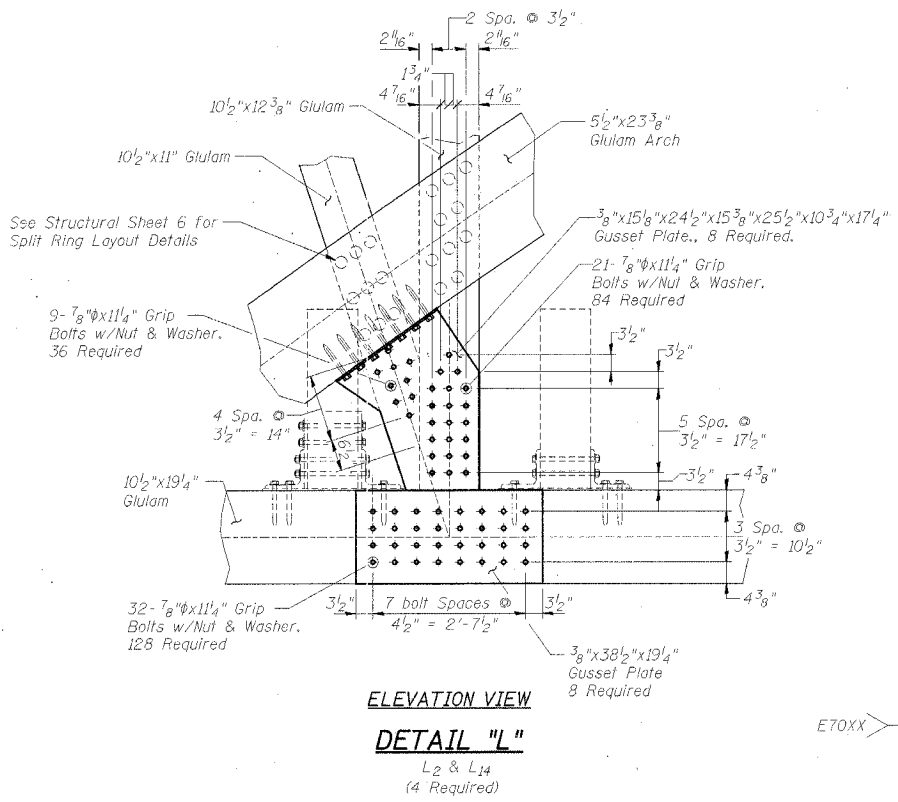
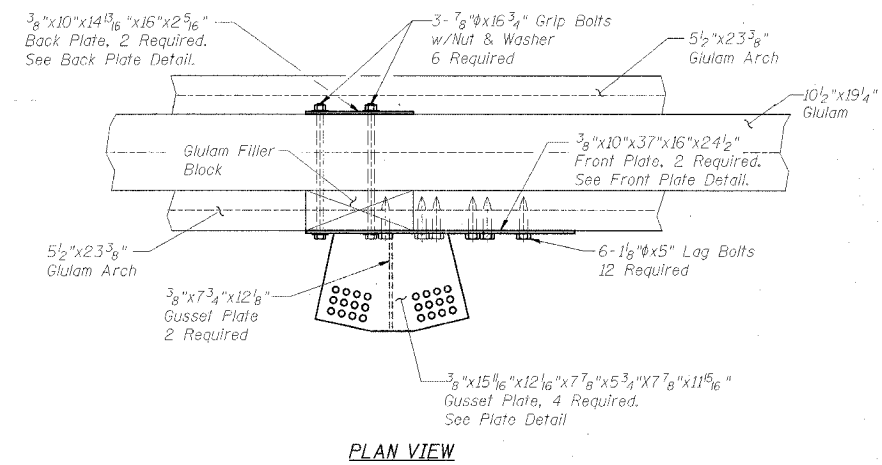
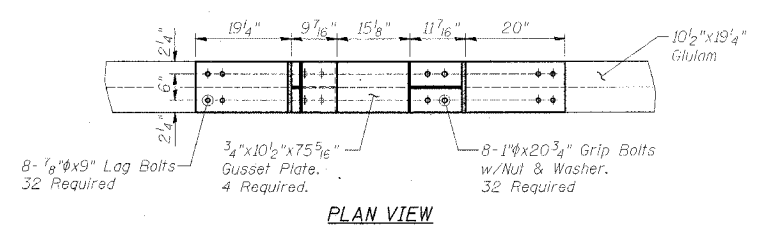
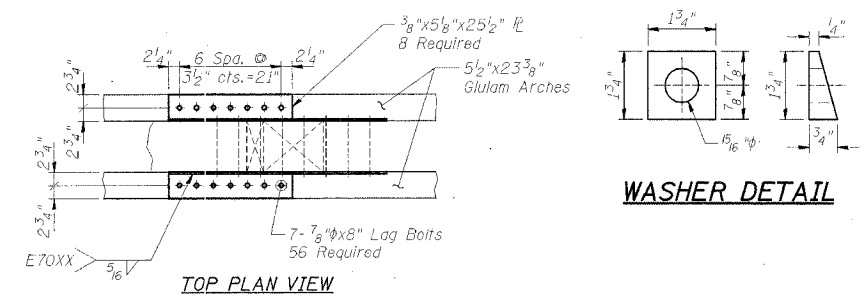
TRUSS AND WIND BRACING DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

DATE	SECTION	COUNTY	PROJECT	SHEET
245	98-20101-00-BR	BUPEAU	65	39
FED. ROAD DIST. NO. 7		BILLING	FED. AID PROJECT - BROS-01162	
STRUCTURAL SHEET 6 OF 25				



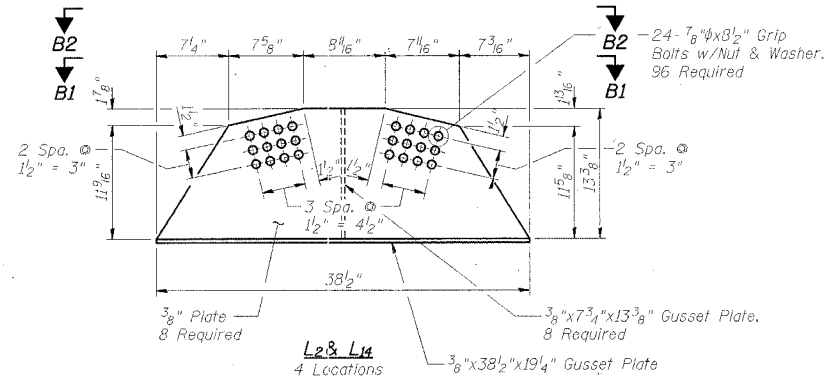
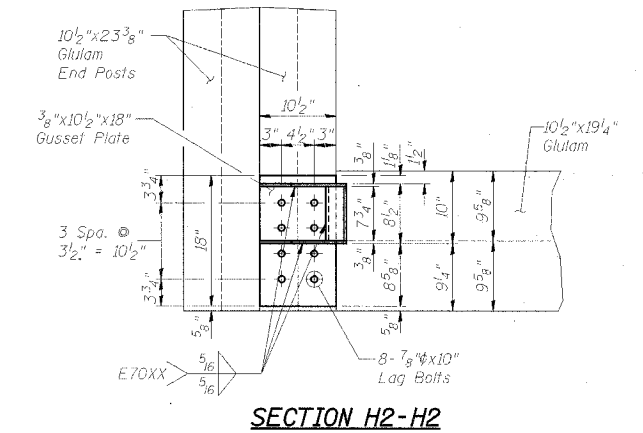
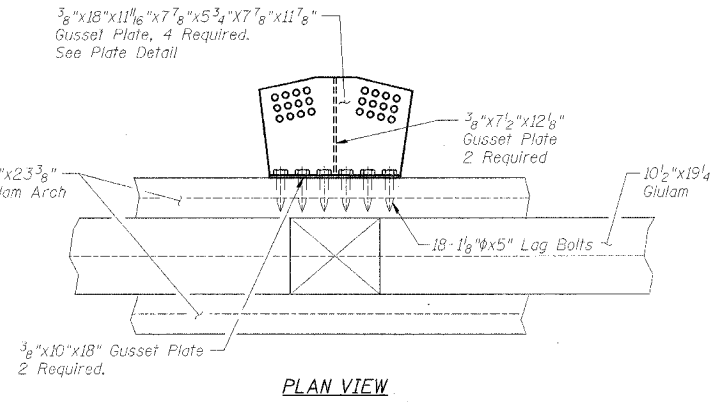
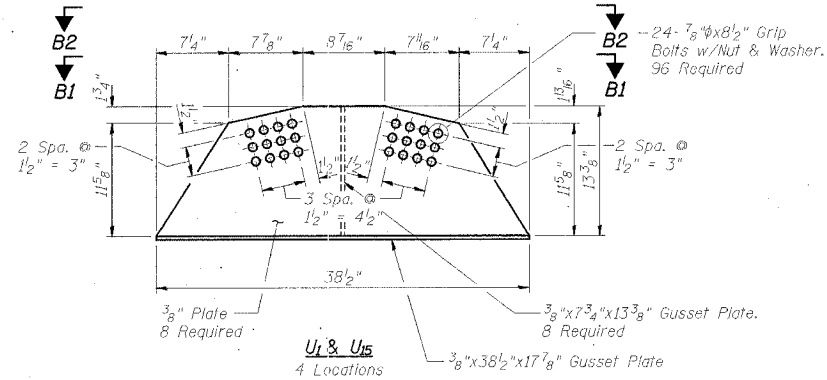
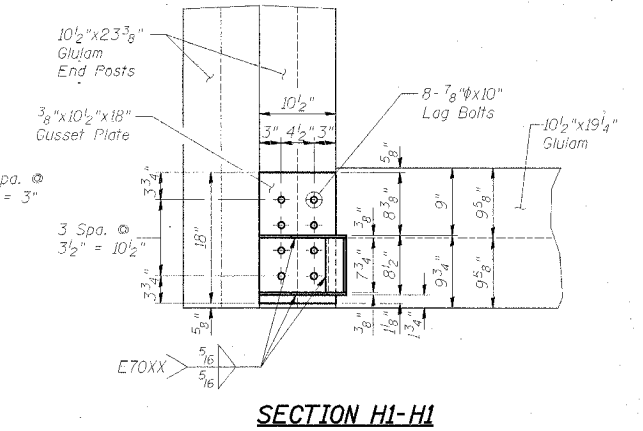
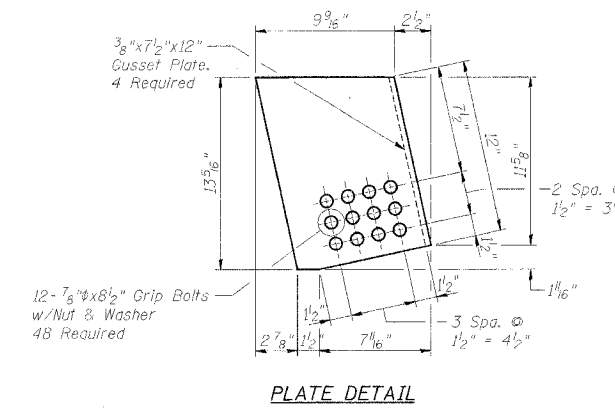
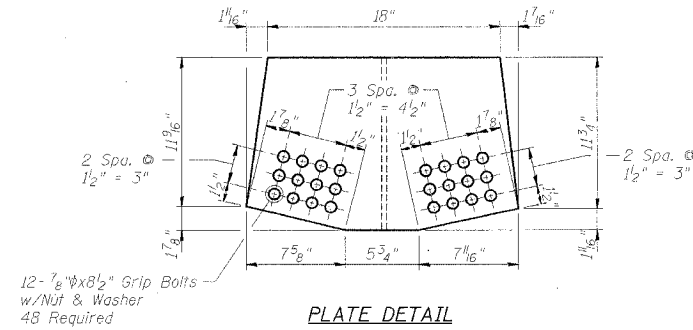
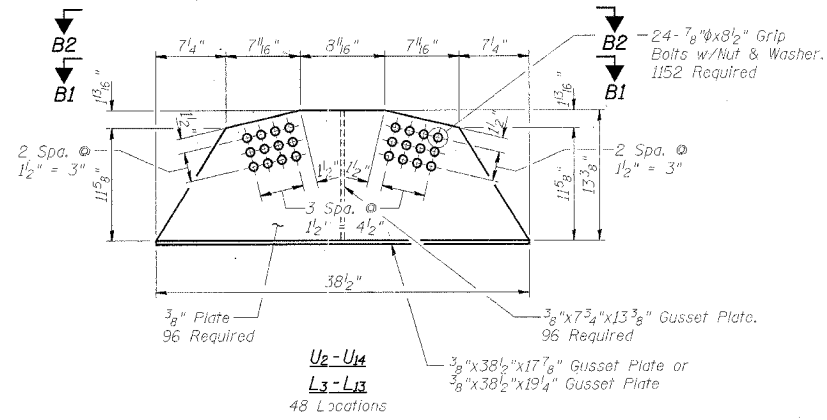
TRUSS AND WIND BRACING DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104004

DATE	SECTION	COUNTY	SHEET	TOTAL
2/45	98-20101-00-BR	BUREAU	65	40
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - BR05-011(62)	
STRUCTURAL SHEET 7 OF 25				

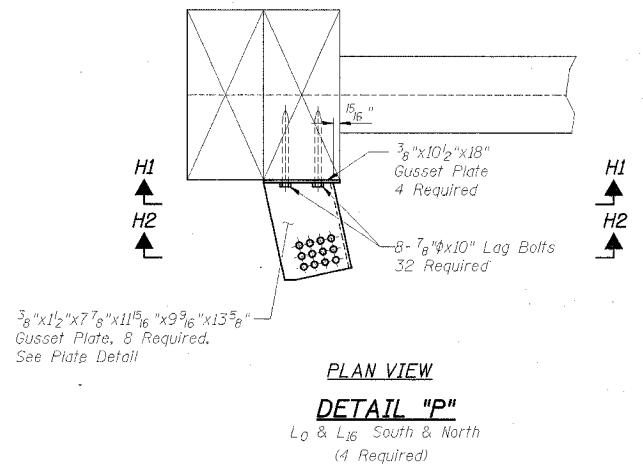
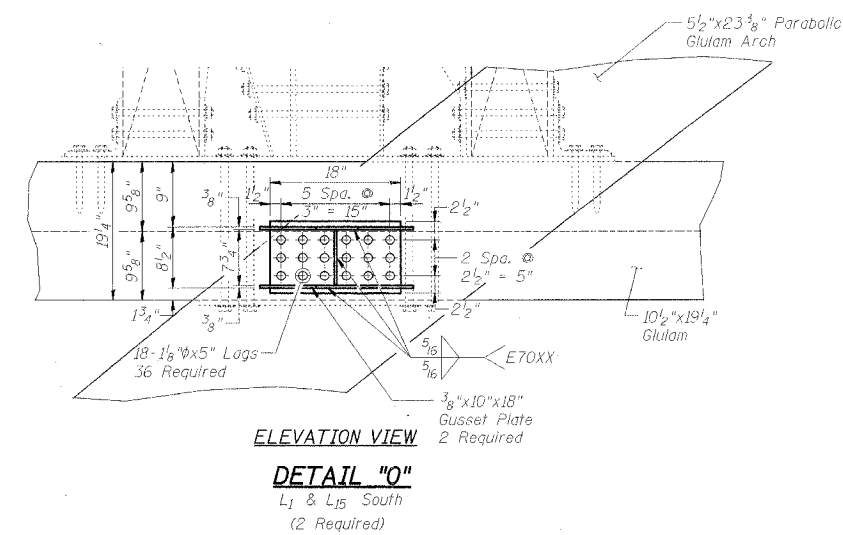
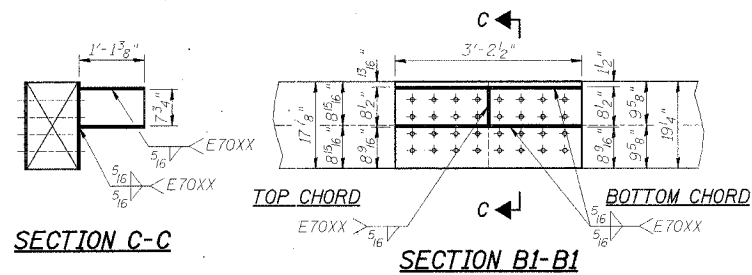


TRUSS AND WIND BRACING DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
 WHA # 1104004

PROJECT	SECTION	COUNTY	SHEET	DATE
245	98-20101-00-BR	BUREAU	65	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -	BROS-011(62)	
STRUCTURAL SHEET 8 OF 25				



WIND BRACE PLATE DETAILS



TRUSS AND WIND BRACING DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

LOAD TABLE TOP CHORD BRACING

Member Location	I Node	J Node	I Node			J Node		
			Axial k	Shear k	Moment ft-k	Axial k	Shear k	Moment ft-k
Truss Chord	A0	A1	1.51	2.22	9.70	1.51	1.80	-4.59
Truss Chord	A1	A2	8.70	-0.30	-4.35	8.70	-0.76	-0.11
Truss Chord	A2	A3	14.68	0.34	0.06	14.68	-0.13	-0.80
Truss Chord	A3	A4	19.23	0.20	-0.77	19.23	-0.27	-0.48
Truss Chord	A4	A5	23.00	0.22	-0.52	23.00	-0.25	-0.43
Truss Chord	A5	A6	26.12	0.23	-0.51	26.12	-0.24	-0.48
Truss Chord	A6	A7	28.39	0.14	-0.58	28.39	-0.33	0.20
Truss Chord	A7	A8	29.17	0.27	0.13	29.17	-0.20	-0.12
Truss Chord	A8	A9	29.19	0.21	-0.11	29.19	0.26	0.11
Truss Chord	A9	A10	28.44	0.34	0.19	28.44	-0.14	-0.61
Truss Chord	A10	A11	26.14	0.23	-0.51	26.14	-0.24	-0.49
Truss Chord	A11	A12	23.01	0.25	-0.40	23.01	-0.22	-0.52
Truss Chord	A12	A13	19.23	0.27	-0.48	19.23	-0.20	-0.77
Truss Chord	A13	A14	14.68	0.13	-0.80	14.68	-0.34	0.06
Truss Chord	A14	A15	8.70	0.77	-0.11	8.70	0.30	-4.35
Truss Chord	A15	A16	1.51	-1.80	-4.59	1.51	-2.22	9.71
Truss Chord	C0	C1	-0.82	3.84	18.81	-0.82	3.43	-7.08
Truss Chord	C1	C2	0.89	-0.59	-5.67	0.89	-1.06	0.91
Truss Chord	C2	C3	5.34	0.65	1.58	5.34	0.18	-1.70
Truss Chord	C3	C4	9.62	0.31	-0.97	9.62	-0.16	-1.55
Truss Chord	C4	C5	13.10	0.34	-0.95	13.10	-0.13	-1.76
Truss Chord	C5	C6	15.82	0.30	-1.30	15.82	-0.17	-1.78
Truss Chord	C6	C7	17.80	0.13	-1.50	17.80	-0.34	-0.70
Truss Chord	C7	C8	18.36	0.15	-0.59	18.36	-0.32	0.11
Truss Chord	C8	C9	18.25	0.32	0.10	18.25	-0.15	-0.57
Truss Chord	C9	C10	17.65	0.34	-0.69	17.65	-0.13	-1.56
Truss Chord	C10	C11	15.81	0.16	-1.84	15.81	-0.31	-1.24
Truss Chord	C11	C12	13.10	0.14	-1.70	13.10	-0.33	-0.96
Truss Chord	C12	C13	9.62	0.16	-1.55	9.62	-0.31	-0.97
Truss Chord	C13	C14	5.34	-0.18	-1.70	5.34	-0.65	1.58
Truss Chord	C14	C15	0.90	1.05	0.91	0.90	0.59	-5.67
Truss Chord	C15	C16	-0.82	-3.42	-7.08	-0.82	-3.84	18.81
Wind Brace	A0	B1	-6.47	0.28	0.00	-6.47	-0.01	-2.16
Wind Brace	B1	C1	-6.46	0.00	-2.28	-6.46	-0.28	0.00
Wind Brace	A1	B1	7.44	0.28	0.00	7.44	0.09	-2.21
Wind Brace	B1	C0	7.42	-0.01	-2.44	7.42	-0.29	0.00
Wind Brace	A1	B2	-4.10	0.28	0.00	-4.10	-0.01	-2.14
Wind Brace	B2	C2	-4.11	0.00	-2.33	-4.11	-0.29	0.00
Wind Brace	A2	B2	5.28	0.28	0.00	5.28	0.00	-2.27
Wind Brace	B2	C1	5.29	-0.01	-2.45	5.29	-0.29	0.00
Wind Brace	A2	B3	-2.77	0.28	0.00	-2.77	-0.01	-2.15
Wind Brace	B3	C3	-2.77	0.00	-2.31	-2.77	-0.28	0.00
Wind Brace	A3	B3	3.40	0.28	0.00	3.40	0.00	-2.28
Wind Brace	B3	C2	3.40	-0.01	-2.46	3.40	-0.29	0.00
Wind Brace	A3	B4	-2.55	0.28	0.00	-2.55	-0.01	-2.15
Wind Brace	B4	C4	-2.56	0.00	-2.32	-2.56	-0.29	0.00
Wind Brace	A4	B4	3.39	0.28	0.00	3.39	0.00	-2.28
Wind Brace	B4	C3	3.39	-0.01	-2.45	3.39	-0.29	0.00

LOAD TABLE TOP CHORD BRACING

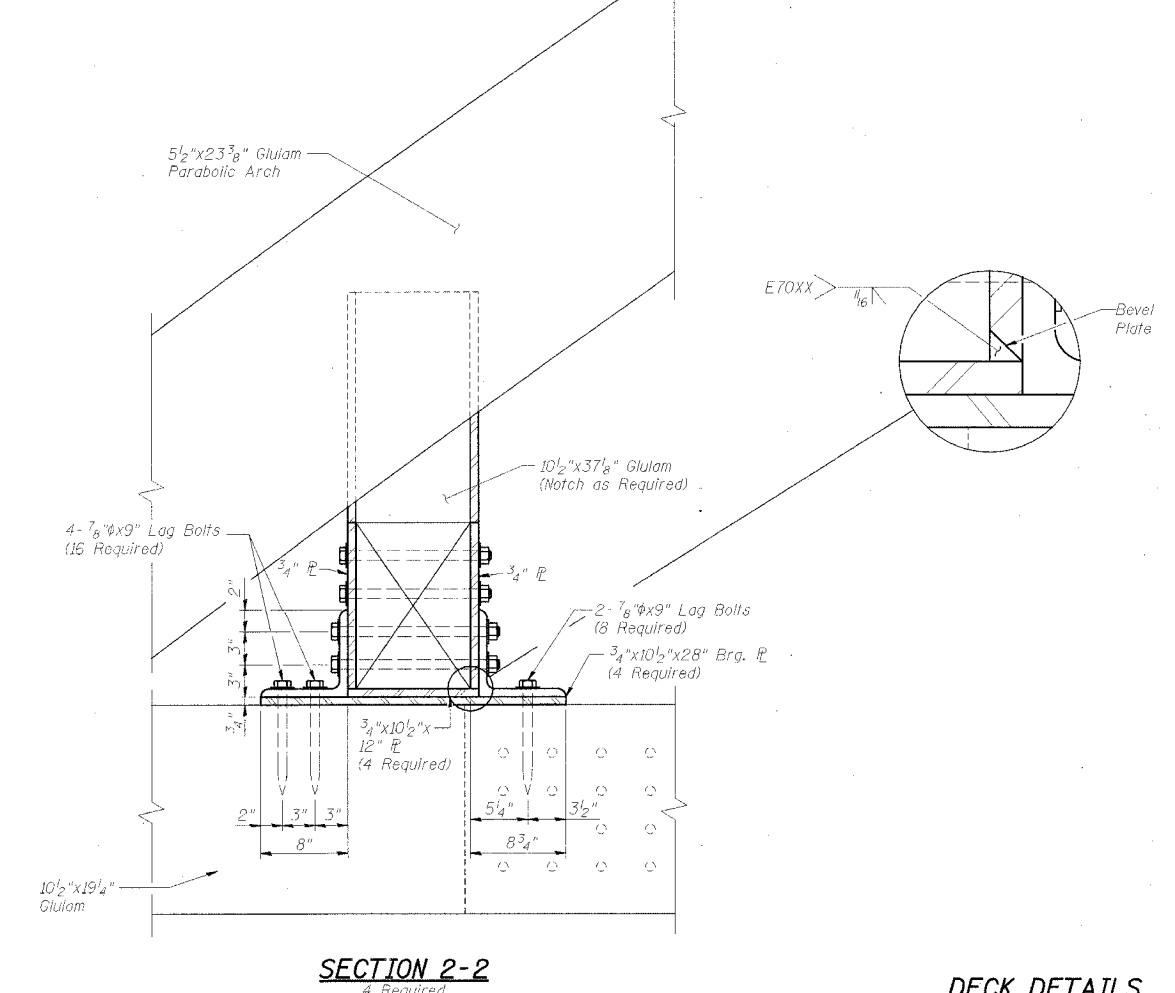
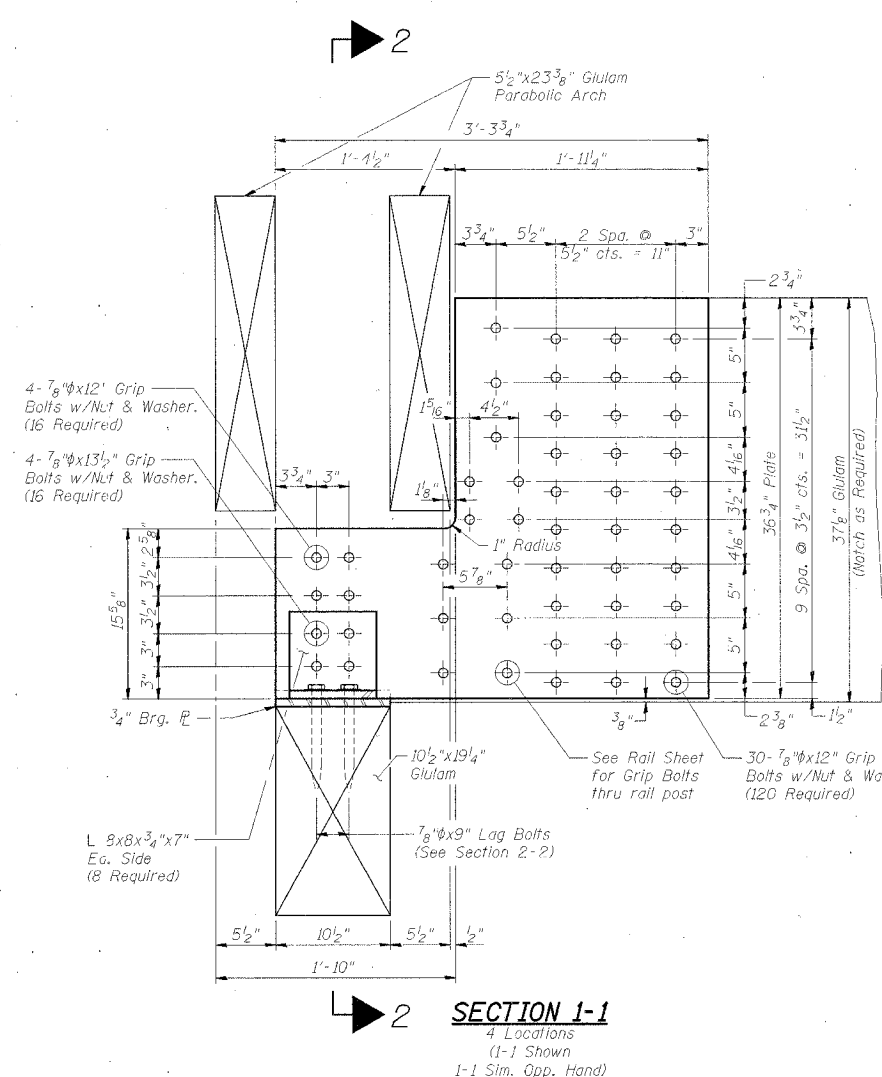
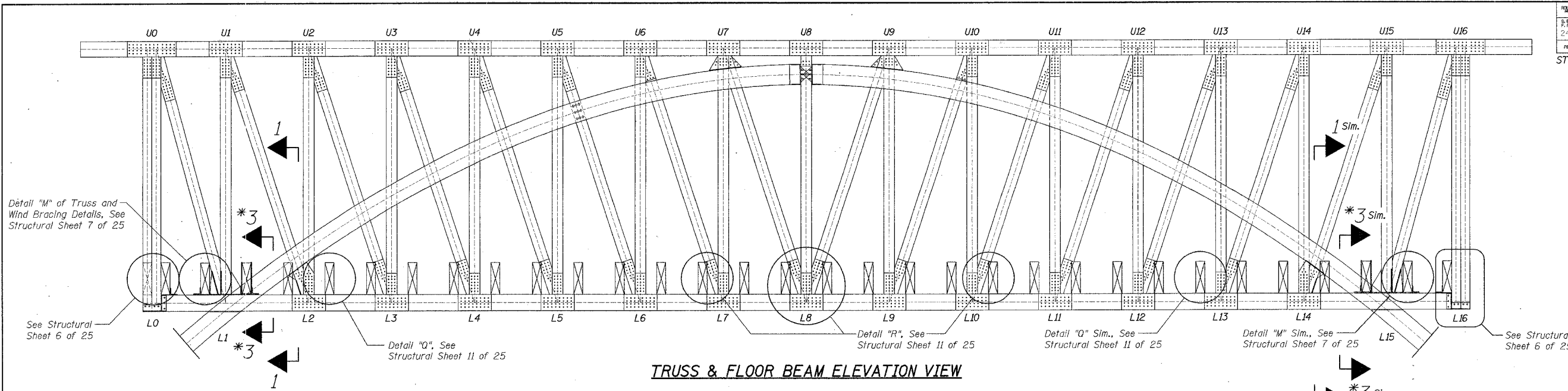
Member Location	I Node	J Node	I Node			J Node		
			Axial k	Shear k	Moment ft-k	Axial k	Shear k	Moment ft-k
Wind Brace	A4	B5	-2.55	0.28	0.00	-2.55	-0.01	-2.16
Wind Brace	B5	C5	-2.55	0.00	-2.33	-2.55	-0.29	0.00
Wind Brace	A5	B5	3.52	0.28	0.00	3.52	0.00	-2.26
Wind Brace	B5	C4	3.52	-0.01	-2.44	3.52	-0.29	0.00
Wind Brace	A5	B6	-2.33	0.28	0.00	-2.33	-0.01	-2.18
Wind Brace	B6	C6	-2.33	0.00	-2.35	-2.33	-0.29	0.00
Wind Brace	A6	B6	3.48	0.28	0.00	3.48	0.00	-2.25
Wind Brace	B6	C5	3.47	-0.01	-2.42	3.47	-0.29	0.00
Wind Brace	A6	B7	-1.56	0.28	0.00	-1.56	-0.01	-2.21
Wind Brace	B7	C7	-1.56	0.00	-2.37	-1.56	-0.29	0.00
Wind Brace	A7	B7	2.73	0.28	0.00	2.73	0.00	-2.23
Wind Brace	B7	C6	2.73	-0.01	-2.39	2.73	-0.29	0.00
Wind Brace	A7	B8	-0.02	0.28	0.00	-0.02	0.00	-2.23
Wind Brace	B8	C8	-0.02	0.00	-2.37	-0.02	-0.29	0.00
Wind Brace	A8	B8	1.14	0.28	0.00	1.14	0.00	-2.23
Wind Brace	B8	C7	1.14	-0.01	-2.37	1.14	-0.29	0.00
Wind Brace	A8	B9	0.92	0.28	0.00	0.92	0.00	-2.23
Wind Brace	B9	C9	0.92	-0.01	-2.37	0.92	-0.29	0.00
Wind Brace	A9	B9	0.22	0.28	0.00	0.22	0.00	-2.23
Wind Brace	B9	C8	0.22	0.00	-2.37	0.22	-0.29	0.00
Wind Brace	A9	B10	2.84	0.28	0.00	2.84	0.00	-2.23
Wind Brace	B10	C10	2.84	-0.01	-2.39	2.84	-0.29	0.00
Wind Brace	A10	B10	-1.66	0.28	0.00	-1.66	-0.01	-2.21
Wind Brace	B10	C9	-1.66	0.00	-2.37	-1.66	-0.29	0.00
Wind Brace	A10	B11	3.52	0.28	0.00	3.52	0.00	-2.25
Wind Brace	B11	C11	3.52	-0.01	-2.42	3.52	-0.29	0.00
Wind Brace	A11	B11	-2.38	0.28	0.00	-2.38	-0.01	-2.18
Wind Brace	B11	C10	-2.38	0.00	-2.35	-2.38	-0.29	0.00
Wind Brace	A11	B12	3.54	0.28	0.00	3.54	0.00	-2.26
Wind Brace	B12	C12	3.54	-0.01	-2.44	3.54	-0.29	0.00
Wind Brace	A12	B12	-2.57	0.28	0.00	-2.57	-0.01	-2.16
Wind Brace	B12	C11	-2.57	0.00	-2.35	-2.57	-0.29	0.00
Wind Brace	A12	B13	3.40	0.28	0.00	3.40	0.00	-2.28
Wind Brace	B13	C13	3.40	-0.01	-2.45	3.40	-0.29	0.00
Wind Brace	A13	B13	-2.56	0.28	0.00	-2.56	-0.01	-2.15
Wind Brace	B13	C12	-2.56	0.00	-2.32	-2.56	-0.29	0.00
Wind Brace	A13	B14	3.41	0.28	0.00	3.41	0.00	-2.28
Wind Brace	B14	C14	3.41	-0.01	-2.46	3.41	-0.29	0.00
Wind Brace	A14	B14	-2.77	0.28	0.00	-2.77	-0.01	-2.15
Wind Brace	B14	C13	-2.77	0.00	-2.31	-2.77	-0.28	0.00
Wind Brace	A14	B15	5.28	0.28	0.00	5.28	0.00	-2.27
Wind Brace	B15	C15	5.29	-0.01	-2.45	5.29	-0.29	0.00
Wind Brace	A15	B15	-4.10	0.28	0.00	-4.10	-0.01	-2.14
Wind Brace	B15	C14	-4.11	0.00	-2.33	-4.11	-0.29	0.00
Wind Brace	A15	B16	7.44	0.28	0.00	7.44	0.00	-2.21
Wind Brace	B16	C16	7.42	-0.01	-2.44	7.42	-0.29	0.00
Wind Brace	A16	B16	-6.47	0.28	0.00	-6.47	-0.01	-2.16
Wind Brace	B16	C15	-6.46	0.00	-2.28	-6.46	-0.28	0.00

LOAD TABLE BOTTOM CHORD BRACING

Member Location	I Node	J Node	I Node			J Node		
			Axial k	Shear k	Moment ft-k	Axial k	Shear k	Moment ft-k
Truss Chord	A0	A1	5.56	3.23	-1.22	5.69	-4.33	4.01
Truss Chord	A1	A2	10.10	3.37	3.85	10.12	-4.25	6.27
Truss Chord	A2	A3	13.36	3.91	6.17	13.39	-3.71	3.62
Truss Chord	A3	A4	16.60	3.46	3.50	16.62	-4.16	4.75
Truss Chord	A4	A5	19.40	3.66	4.64	19.42	-3.96	4.57
Truss Chord	A5	A6	21.63	3.69	4.48	21.64	-3.93	4.58
Truss Chord	A6	A7	23.05	3.75	4.53	23.06	-3.87	4.63
Truss Chord	A7	A8	23.57	3.70	4.62	23.57	-3.92	5.50
Truss Chord	A8	A9	23.56	3.92	5.50	23.56	-3.70	4.58
Truss Chord	A9	A10	23.05	3.86	4.59	23.04	-3.76	4.56
Truss Chord	A10	A11	21.63	3.93	4.51	21.62	-3.69	4.49
Truss Chord	A11	A12	19.42	3.96	4.57	19.40	-3.66	4.64
Truss Chord	A12	A13	16.62	4.16	4.75	16.60	-3.46	3.50
Truss Chord	A13	A14	13.36	3.71	3.63	13.36	-3.91	6.17
Truss Chord	A14	A15	10.12	4.25	6.27	10.10	-3.37	3.85
Truss Chord	A15	A16	5.69	4.33	4.01	5.66	-3.23	-1.22
Truss Chord	C0	C1	-5.75	4.67	1.27	-5.70	-2.89	-0.17
Truss Chord	C1	C2	-23.97	2.75	-0.04	-23.92	-4.87	9.52
Truss Chord	C2	C3	-36.35	4.93	9.61	-36.30	-2.68	2.35
Truss Chord	C3	C4	-47.16	3.80	2.49	-47.12	-3.82	4.13
Truss Chord	C4	C5	-57.45	4.07	4.23	-57.41	-3.54	3.40
Truss Chord	C5	C6	-65.76	3.93	3.48	-65.73	-3.68	3.35
Truss Chord	C6	C7	-71.76	3.86	3.39	-71.74	-3.75	3.34
Truss Chord	C7	C8	-75.24	3.44	3.34	-75.23	-4.17	6.23
Truss Chord	C8	C9	-75.23	4.18	6.23	-75.24	-3.44	3.30
Truss Chord	C9	C10	-71.74	3.74	3.29	-71.76	-3.87	3.44
Truss Chord	C10	C11	-65.72	3.69	3.39	-65.75	-3.93	3.48
Truss Chord	C11	C12	-57.40	3.54	3.39	-57.44	-4.08	4.23
Truss Chord	C12	C13	-47.11	3.82	4.13	-47.15	-3.80	2.49
Truss Chord	C13	C14	-36.30	2.68	2.35	-36.35	-4.93	9.52
Truss Chord	C14	C15	-23.91	4.87	9.52	-23.97	-2.75	-0.06
Truss Chord	C15	C16	-5.70	2.88	-0.19	-5.75	-4.68	1.27
Wind Brace	A0	B1	-25.68	0.27	0.00	-25.68	-0.01	-2.12
Wind Brace	B1	C1	-25.68	0.00	-2.27	-25.68	-0.28	0.00
Wind Brace	A1	B1	25.92	0.28	0.00	25.92	0.00	-2.27
Wind Brace	B1	C0	25.91	-0.01	-2.41	25.91	-0.29	0.00
Wind Brace	A1	B2	-23.11	0.28	0.00	-23.11	-0.01	-2.16
Wind Brace	B2	C2	-23.11	0.00	-2.35	-23.11	-0.29	0.00
Wind Brace	A2	B2	23.47	0.28	0.00	23.47	0.00	-2.26
Wind Brace	B2	C1	23.46	-0.01	-2.43	23.46	-0.29	0.00
Wind Brace	A2	B3	-16.19	0.27	0.00	-16.19	-0.01	-2.14
Wind Brace	B3	C3	-16.19	0.00	-2.31	-16.19	-0.28	0.00
Wind Brace	A3	B3	16.44	0.28	0.00	16.44	0.00	-2.28
Wind Brace	B3	C2	16.44	-0.01	-2.46	16.44	-0.30	0.00
Wind Brace	A3	B4	-14.33	0.27	0.00	-14.33	-0.01	-2.14
Wind Brace	B4	C4	-14.33	0.00	-2.32	-14.33	-	

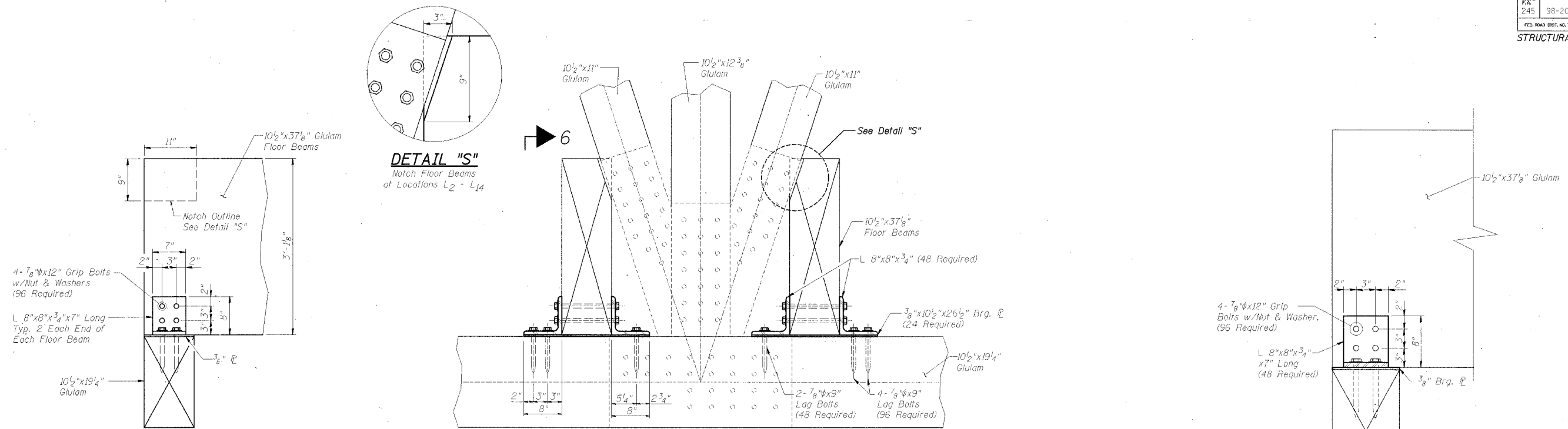
DATE	SECTION	COUNTY	NO. SHEETS	SHEET
245	98-20101-00-BR	BUREAU	65	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - BROS-04(62)		

STRUCTURAL SHEET 10 OF 25



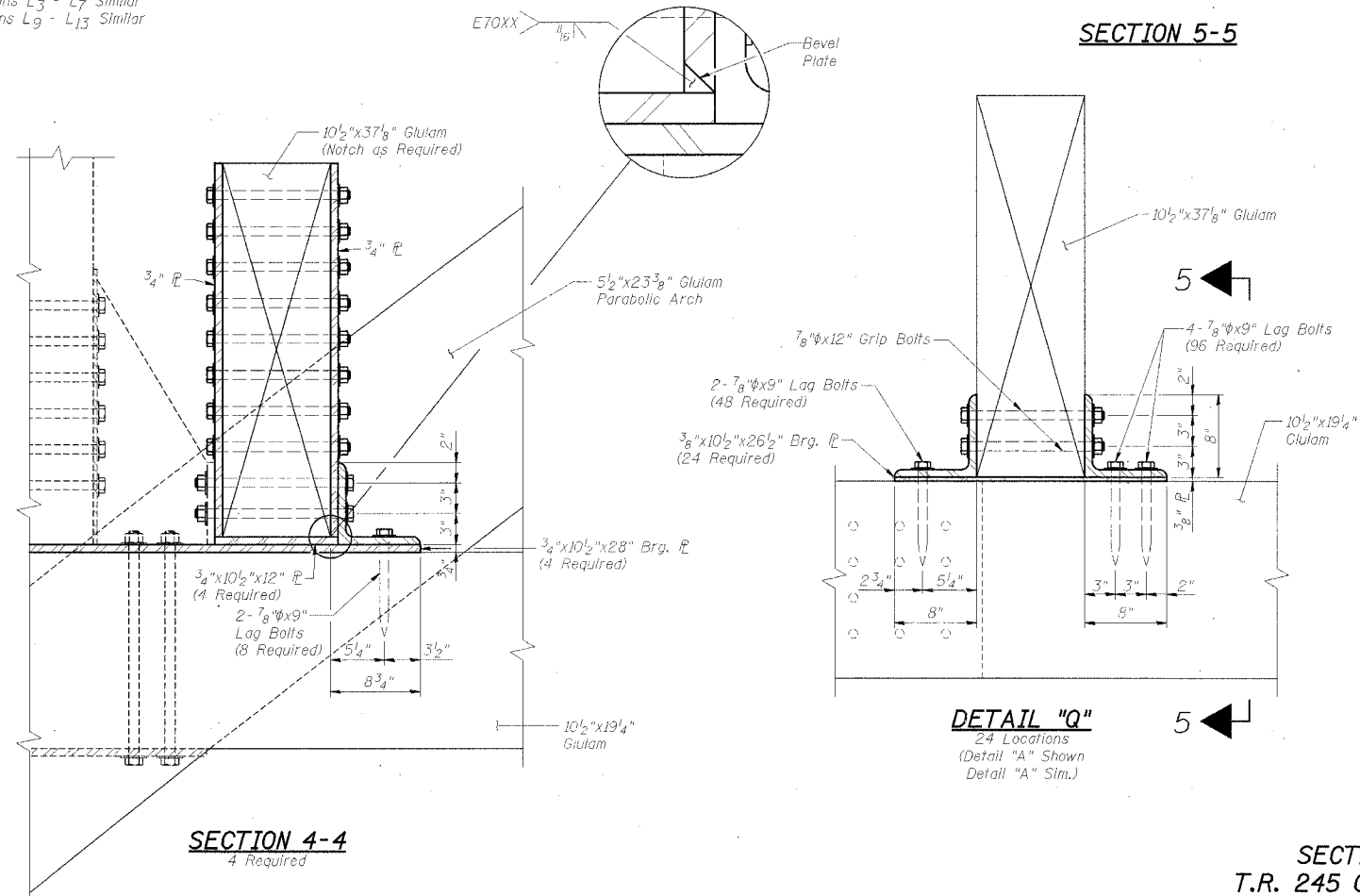
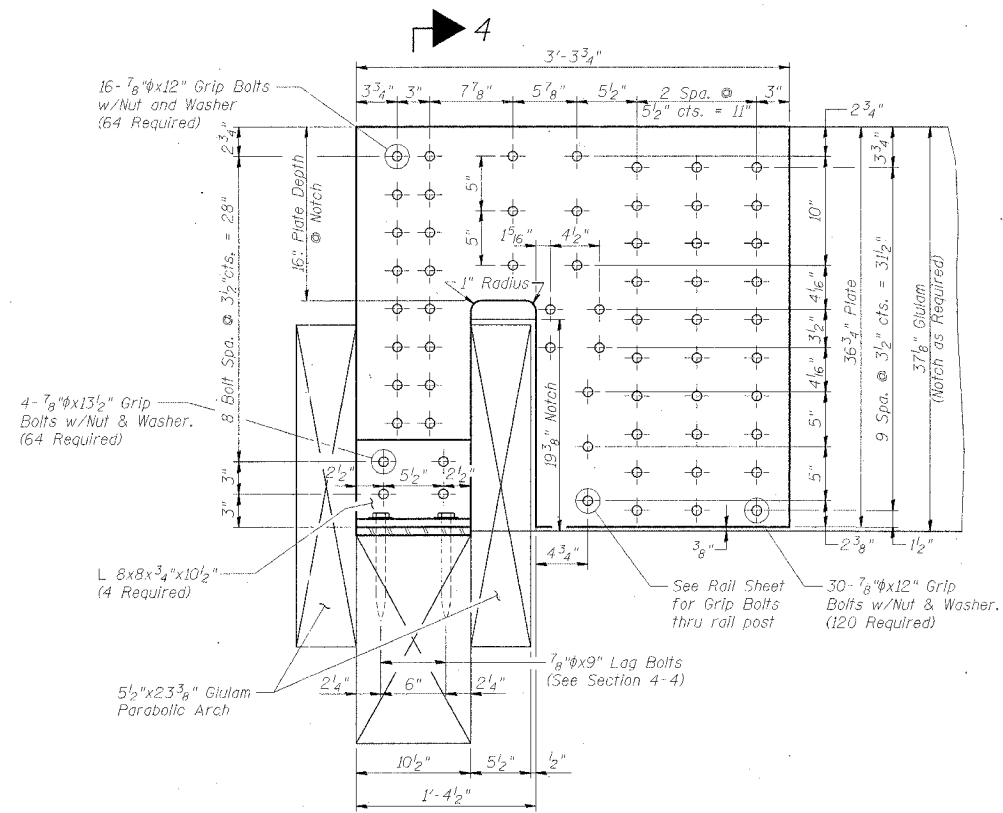
DECK DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

DATE	SECTION	COUNTY	SHEET	PROJECT
245	98-20101-00-BR	BUREAU	65	44
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-BROS-OH(62)
STRUCTURAL SHEET 11 OF 25				



SECTION 6-6

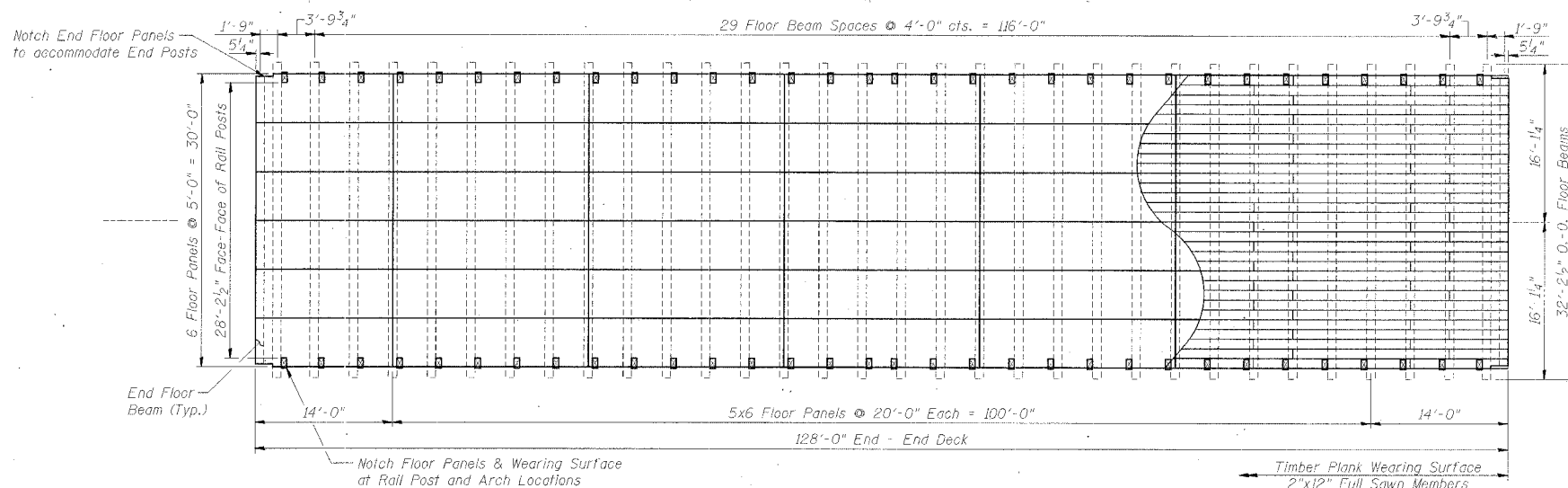
SECTION 5-5



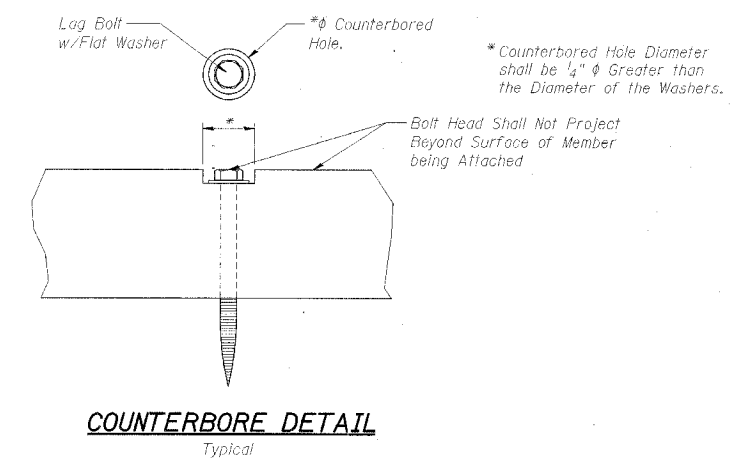
DECK DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

DATE	SECTION	COUNTY	SHEET	SHEET
245	98-20101-00-BR	BUREAU	65	45
FED. ROAD DIST. NO. 7		ALBANY	FED. ROAD PROJECT: BROS-OH(62)	

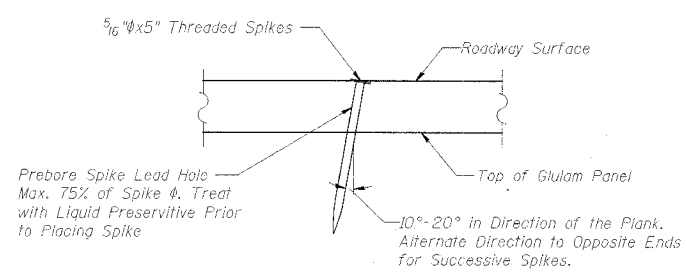
STRUCTURAL SHEET 12 OF 25



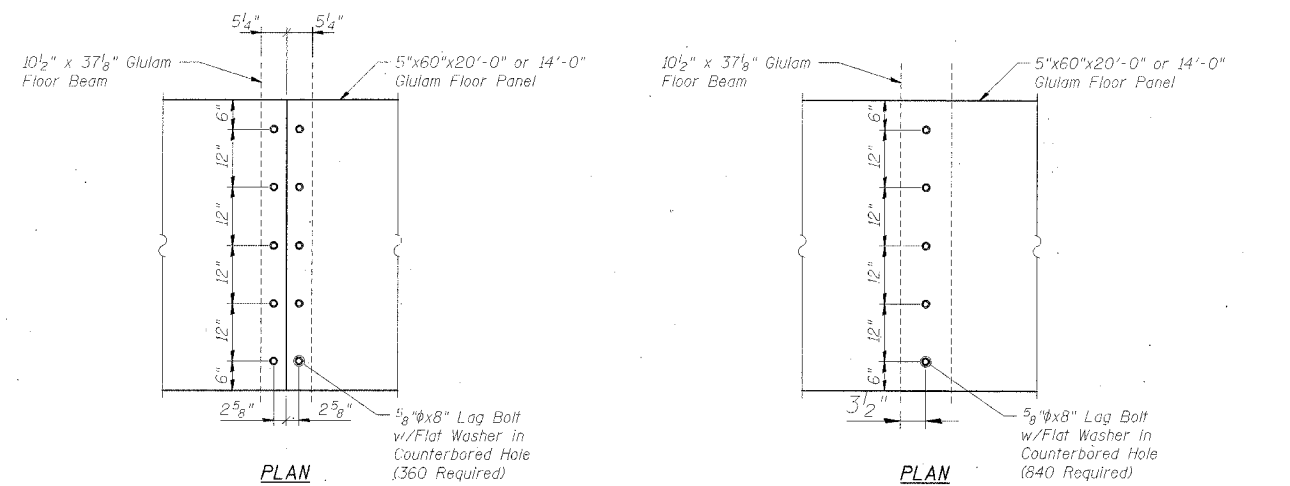
FLOOR BEAM, FLOOR PANEL, & DECK PLANK LAYOUT



COUNTERBORE DETAIL

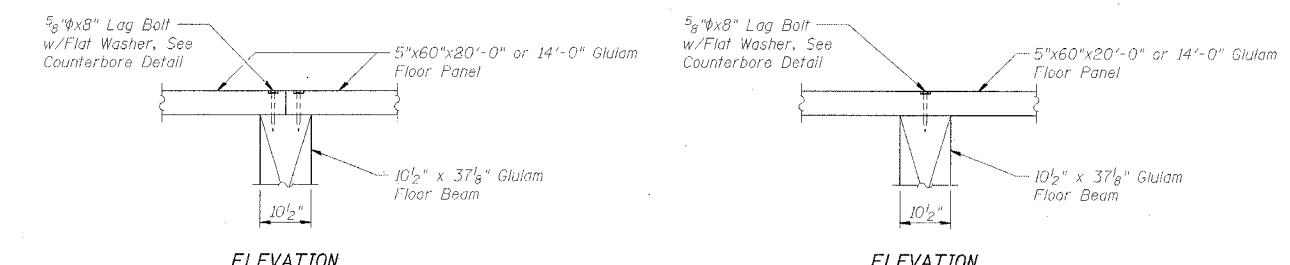


SPIKE ATTACHMENT



PLAN

PLAN

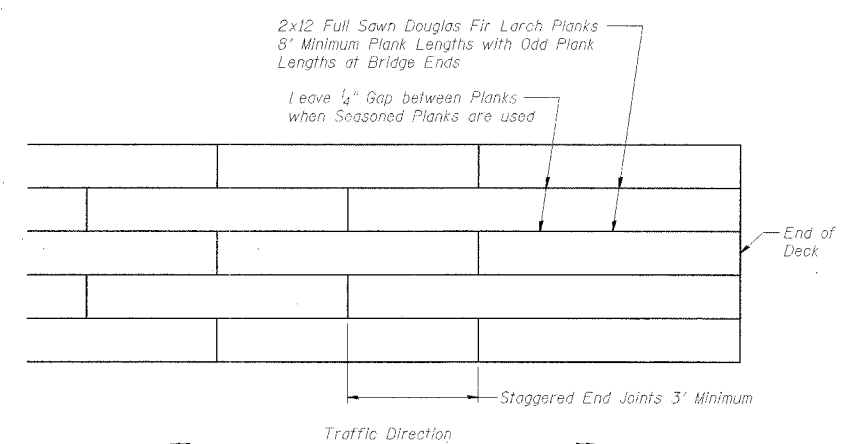


ELEVATION

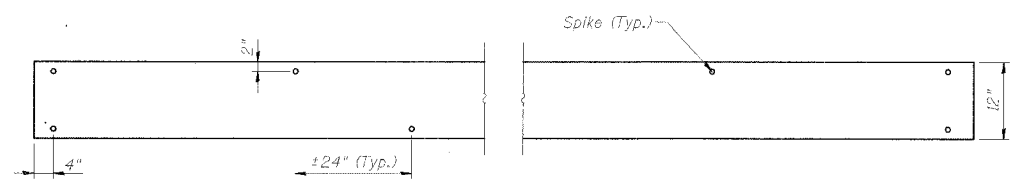
ELEVATION

FLOOR PANEL CONNECTION AT FLOOR PANEL JOINT
36 Required

FLOOR PANEL CONNECTION AT MID-PANEL
168 Required



TYPICAL PLANK LAYOUT FOR TIMBER WEARING SURFACE

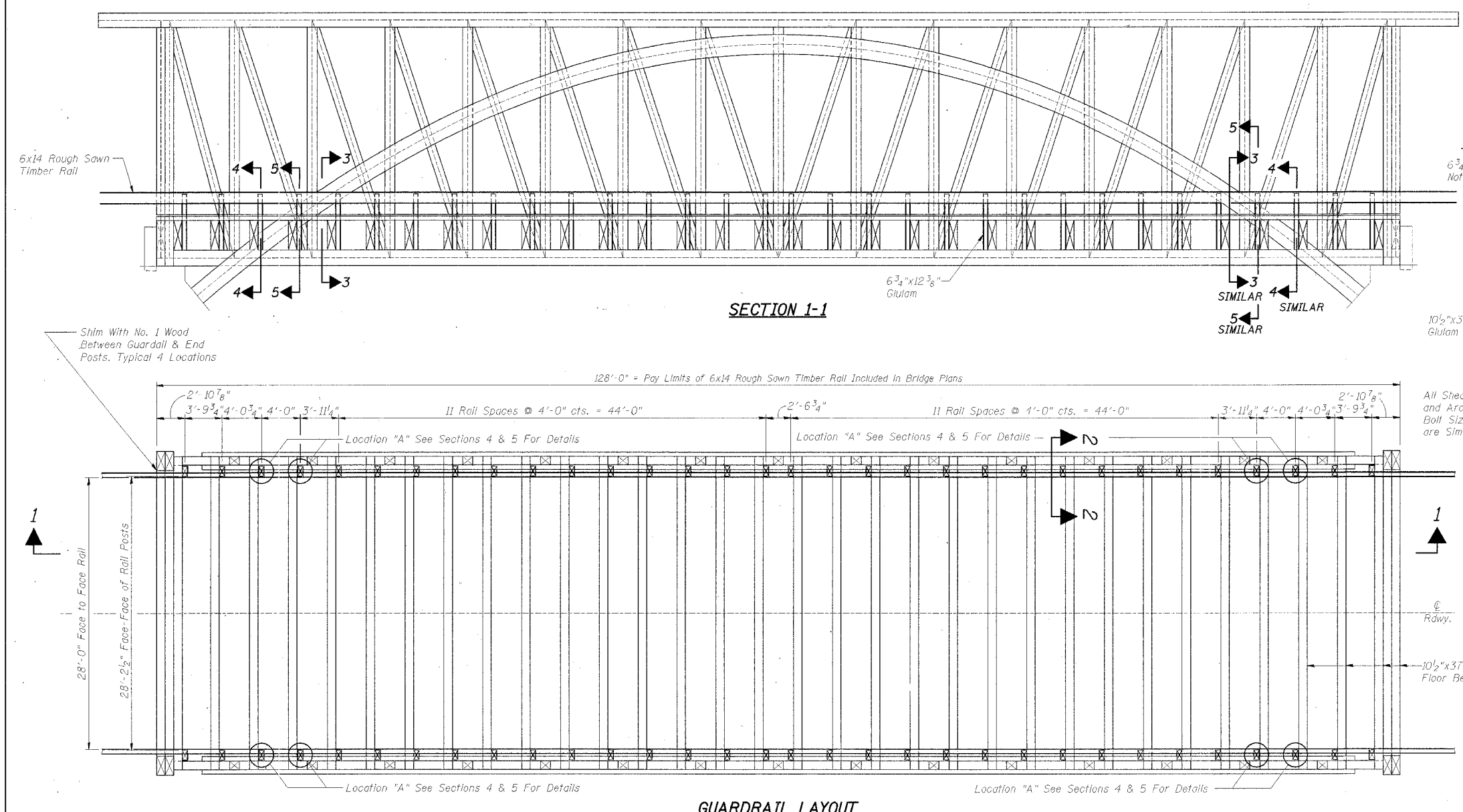


LUMBER WEARING SURFACE PLANKS ATTACHMENT PATTERN

DECK DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

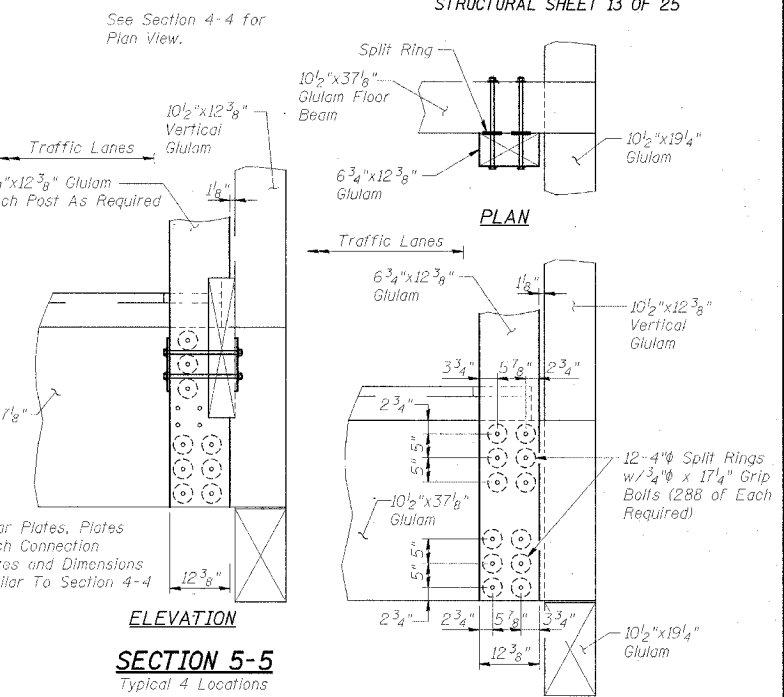
PROJECT	SECTION	COUNTY	SHEET	TOTAL
245	98-20101-00-BR	BUREAU	65	46
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-BROS-0116(2)	

STRUCTURAL SHEET 13 OF 25



SECTION 1-1

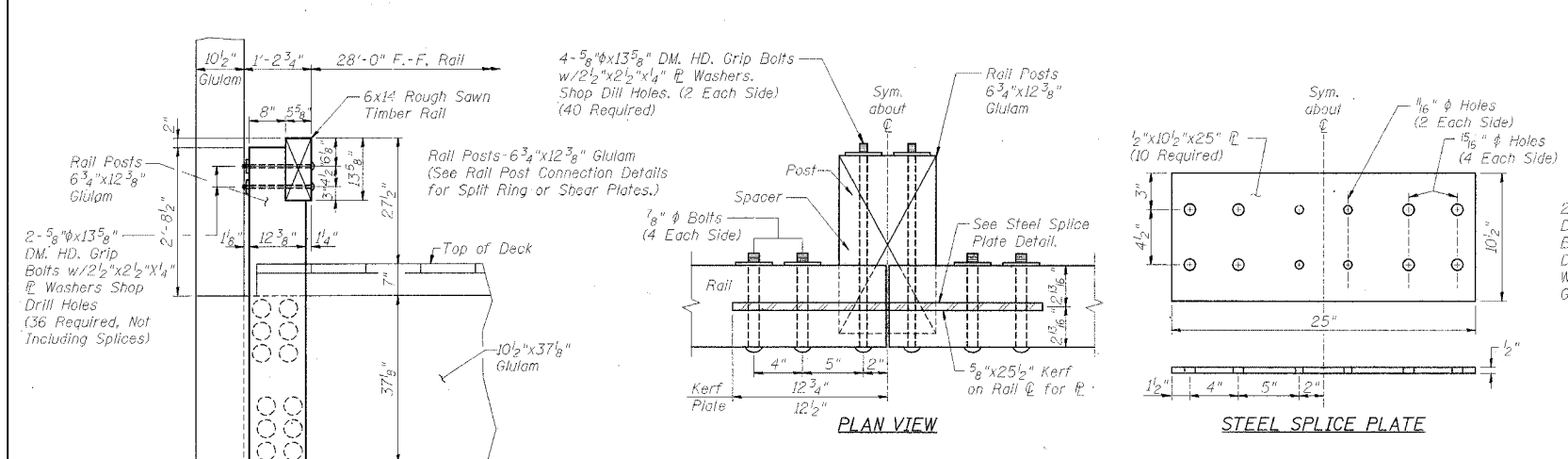
GUARDRAIL LAYOUT



SECTION 5-5
Typical 4 Locations

RAIL POST CONNECTION DETAIL

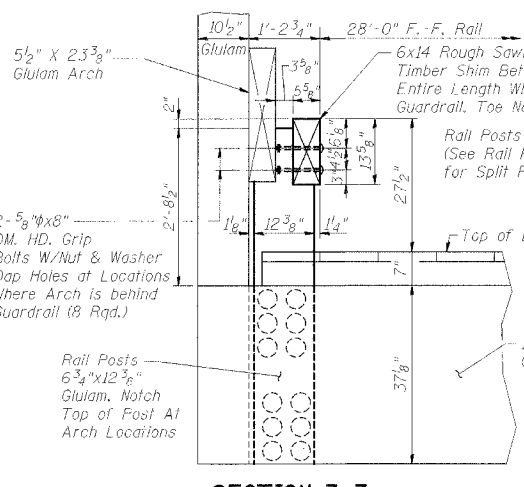
(24 Locations)
Typical Rail Post Connection Detail
Exclusive of Location "A"



SECTION 2-2
(18 Locations)

GUARDRAIL SPLICE DETAILS

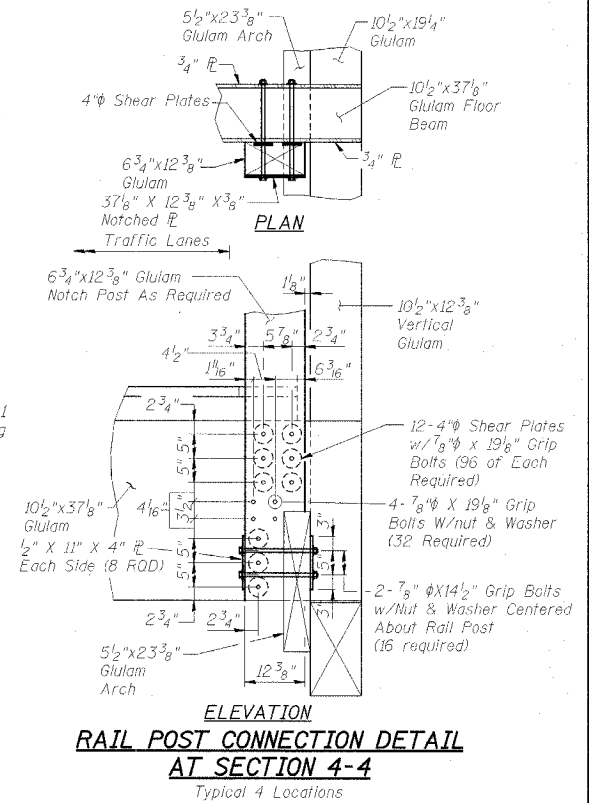
Ten Splices Included In Bridge Bill Of Material



SECTION 3-3
(4 Locations)

GENERAL NOTES

Split Rings Shall Be Hot Rolled Carbon Steel Meeting SAE 1010 Specifications
Shear Plates Shall Be Cast Malleable Iron Manufactured To Grade 32510 OF ASTM Standard A47.



RAIL POST CONNECTION DETAIL
AT SECTION 4-4

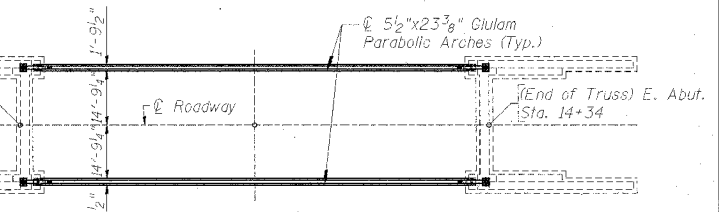
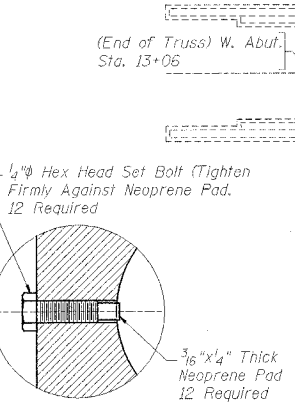
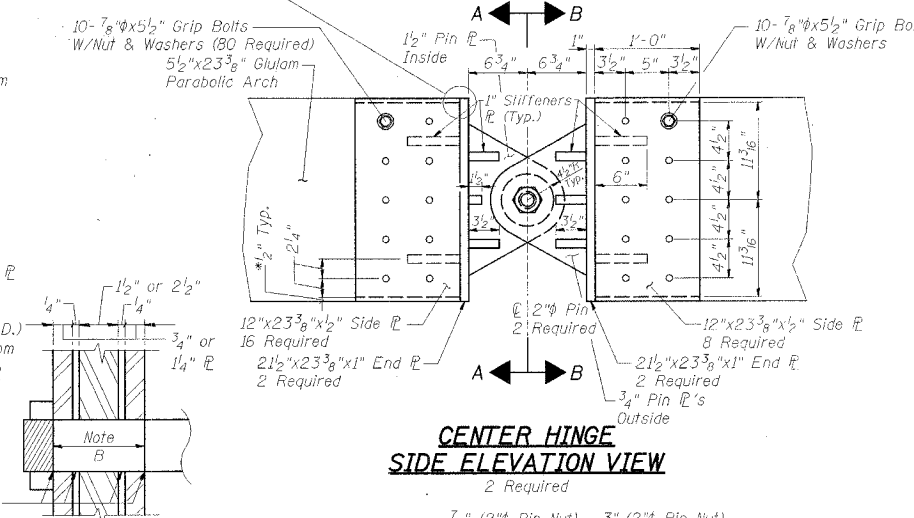
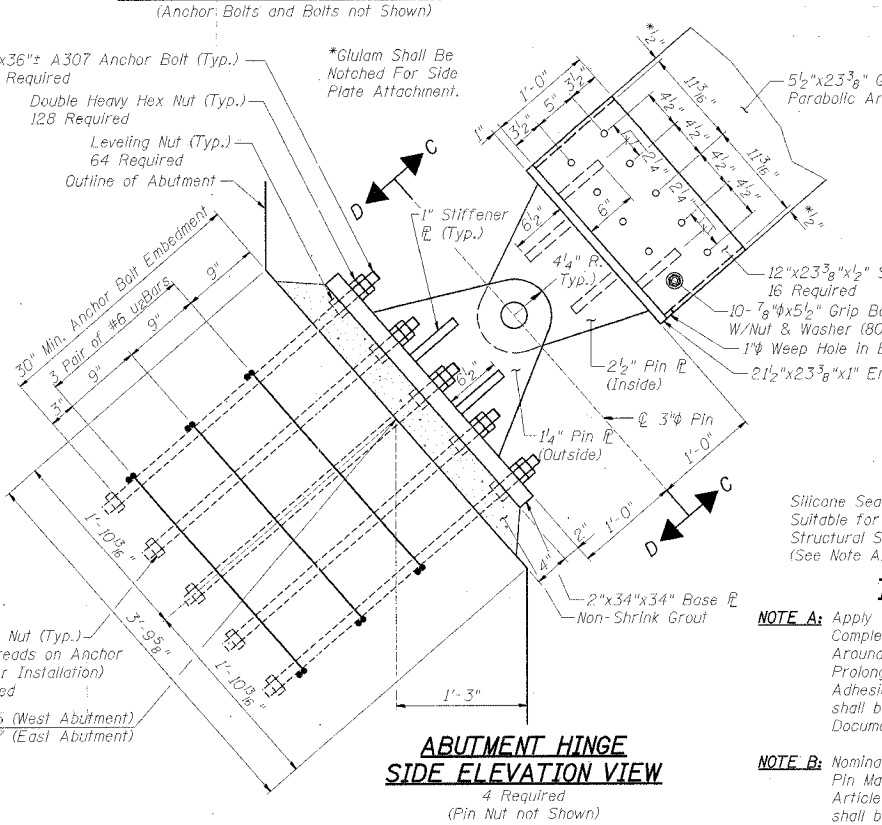
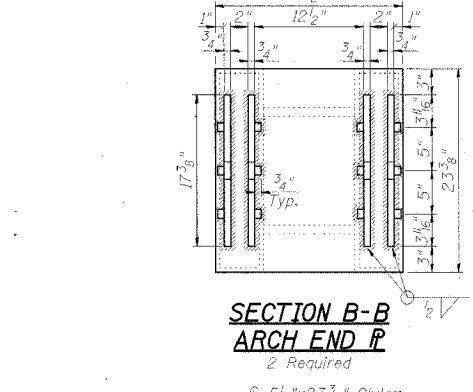
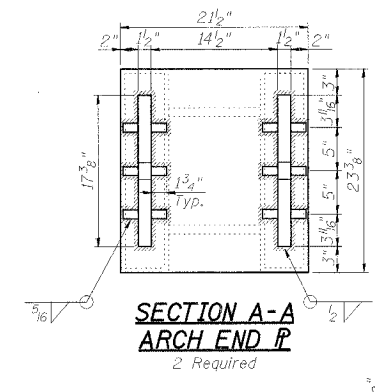
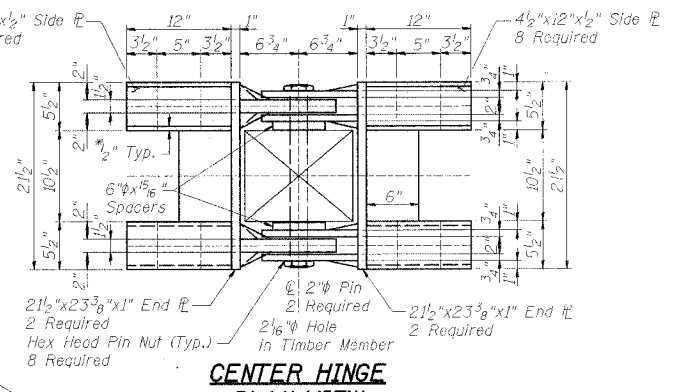
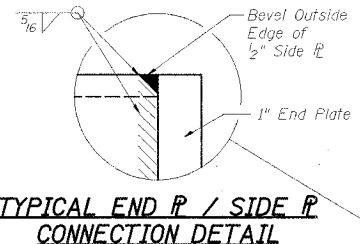
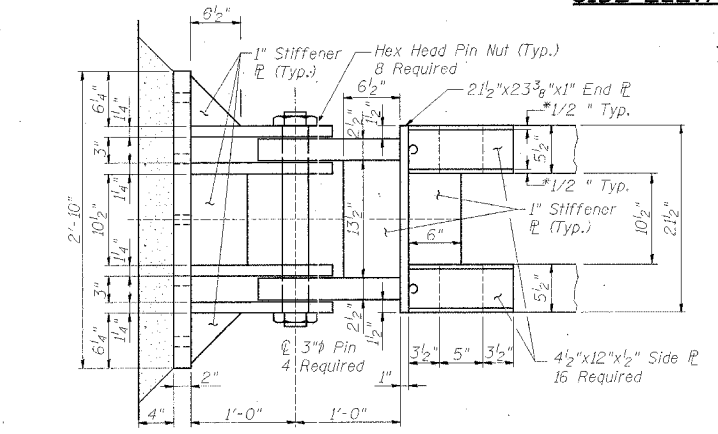
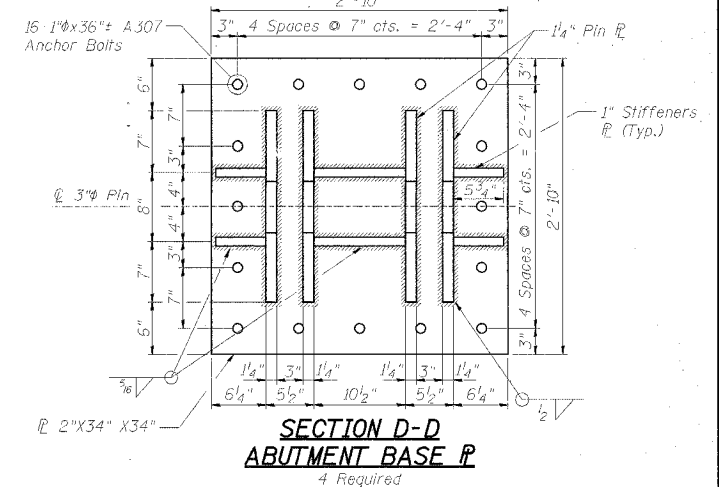
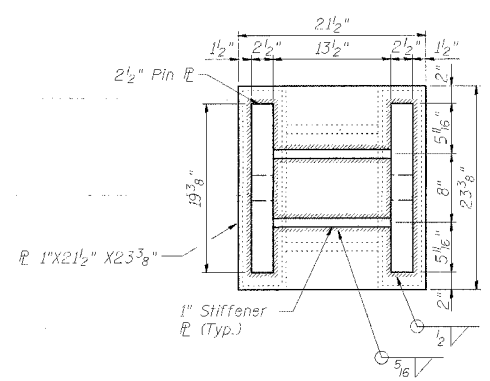
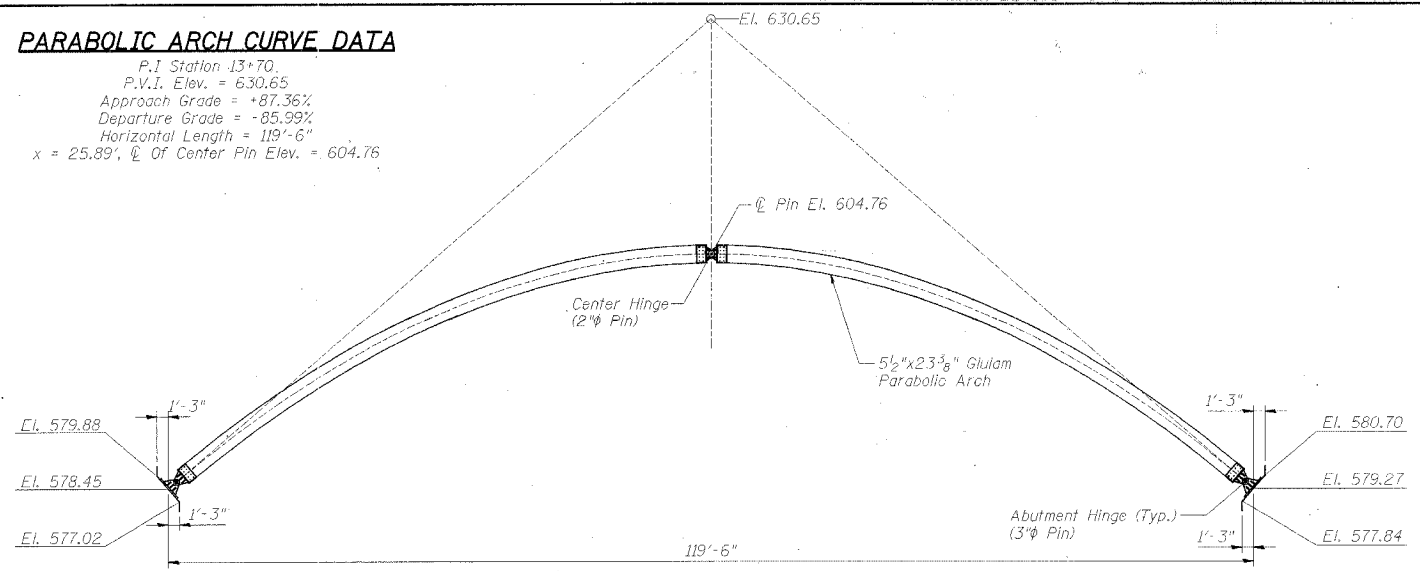
Typical 4 Locations

COVERED BRIDGE GUARDRAIL
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

DATE	SECTION	COUNTY	NO.	SHEET
245	98-20101-00-BR	BUREAU	65	47

STRUCTURAL SHEET 14 OF 25

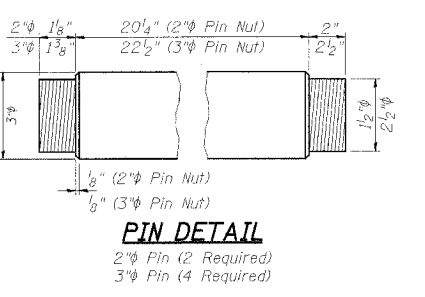
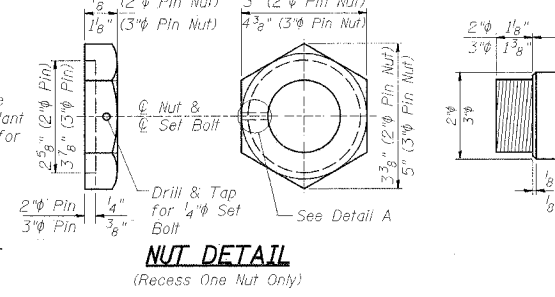
PARABOLIC ARCH CURVE DATA
 P.I Station 13+70.
 P.V.I. Elev. = 630.65
 Approach Grade = +87.36%
 Departure Grade = -85.99%
 Horizontal Length = 119'-6"
 x = 25.89', Δ Of Center Pin Elev. = 604.76



TYPICAL SECTION THRU HINGE PIN ASSEMBLY

NOTE A: Apply 3/8" Bead to Face of Pin Plates Immediately Before Completion of the Remaining Arch Installation. Place Sealant Around Nuts after Installation. Sealant shall be Suitable for Prolonged Exterior Exposure without Losing Flexibility or Adhesion to Painted Steel Surfaces. Proposed Products shall be Subject to Department's Acceptance Based on Documented Testing or Other Evidence.

NOTE B: Nominal Pin Diameter shall be as Shown on the Drawings. Pin Material shall be SAE 8620 in Accordance with Article 1006.04 of the Standard Specifications. Threads shall be 6 UN Class 2A/2B.



GENERAL NOTES

See Structural Sheet 19 and 21 for Abutment and Reinforcement Details in Addition to Those Shown on This Sheet.

Side Plates, End Plates, Pin Plates, Base Plates and Stiffener Plates shall be AASHTO M270, Grade 50. All Plates shall Conform to the Minimum Charpy V-Notch Toughness of 25-Ft.-Lbs. at 40° F.

The Glulam Parabolic Arch Manufacturer shall Shop Attach the Fabricated Hinge Pin Shoe Assembly to Each End of the Glulam Parabolic Arch to Assure Uniform Bearing Between the End of the Glulam Parabolic Arch and the Steel Hinge Pin Shoe End Plate.

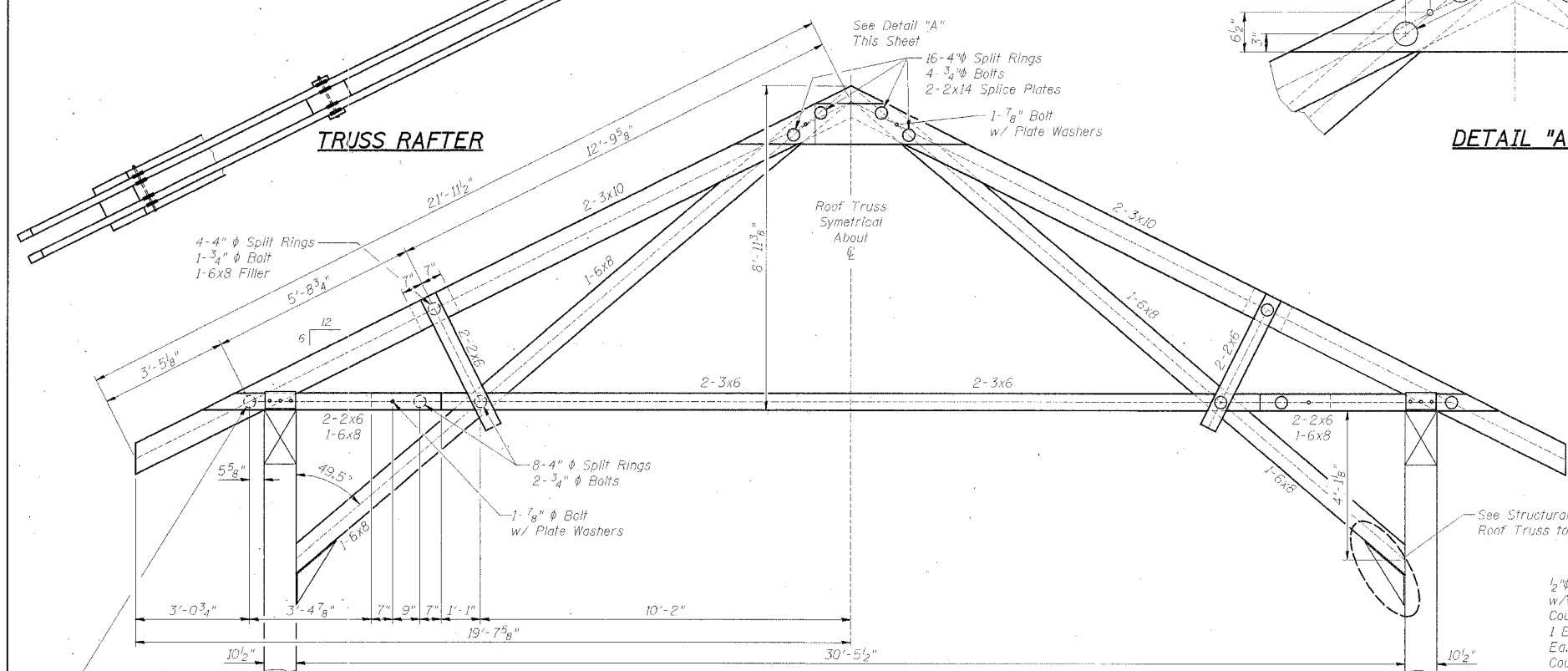
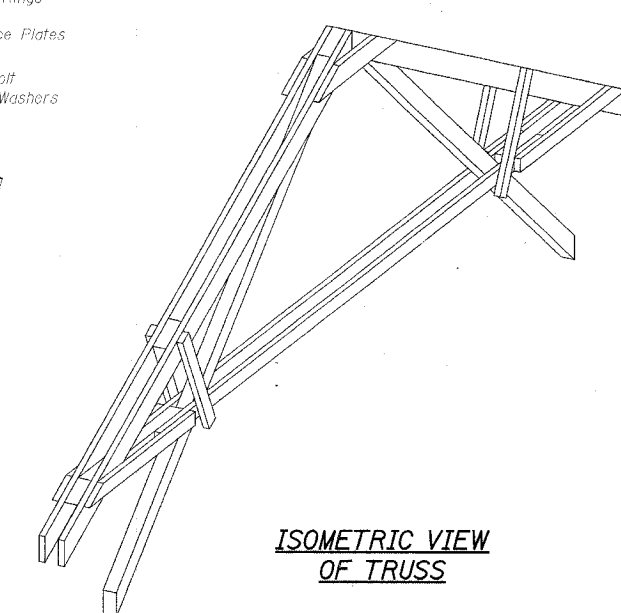
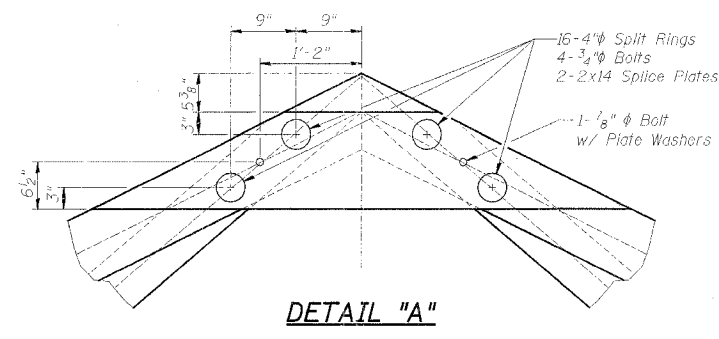
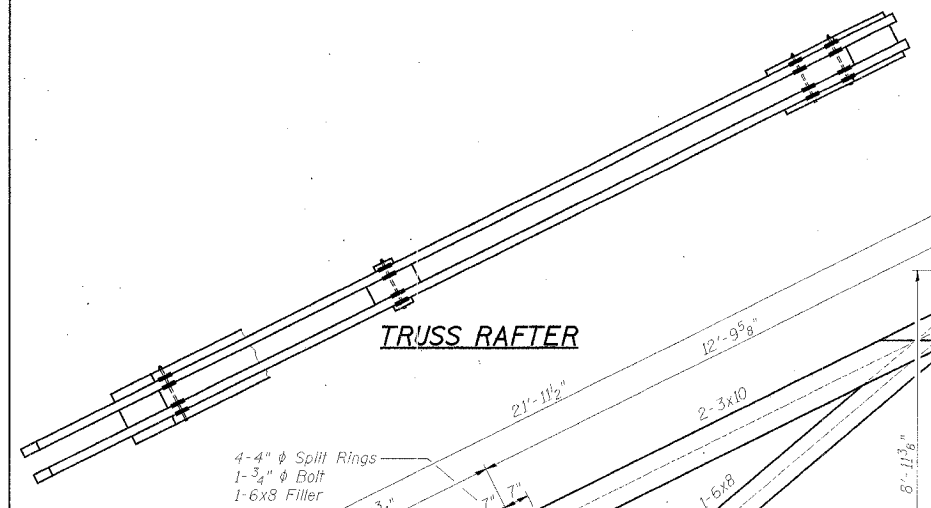
The Cost of the FIXED HINGE PIN ASSEMBLIES shall Include the Pins, Nuts, Side Plates, End Plates, Pin Plates, Base Plates, Stiffener Plates, and Silicone Sealant. All Other Fabrications shall be Included in the Cost for Furnishing and Erecting Structural Steel.

Holes for Pins shall be 1/50 of an Inch Larger than the Diameter of the Pin.

PARABOLIC ARCH DETAILS
 SECTION 98-20101-00-BR
 T.R. 245 OVER BIG BUREAU CREEK
 STA. 13+70 (S.N. 006-4288)
 BUREAU COUNTY
 WHA # 1104D04

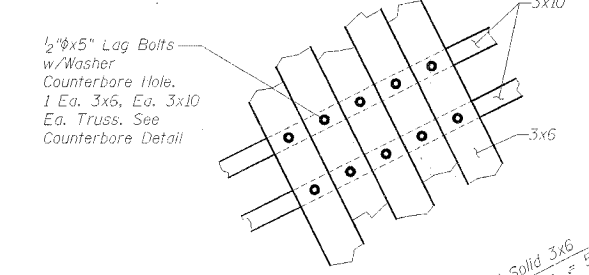
PROJECT	SECTION	COUNTY	SHEETS	SHEET
245	98-20101-00-BR	BUREAU	65	48
FED. ROAD DIST. NO. 7		BLDG. NO.	FED. AID PROJECT - BR05-011(62)	

STRUCTURAL SHEET 15 OF 25

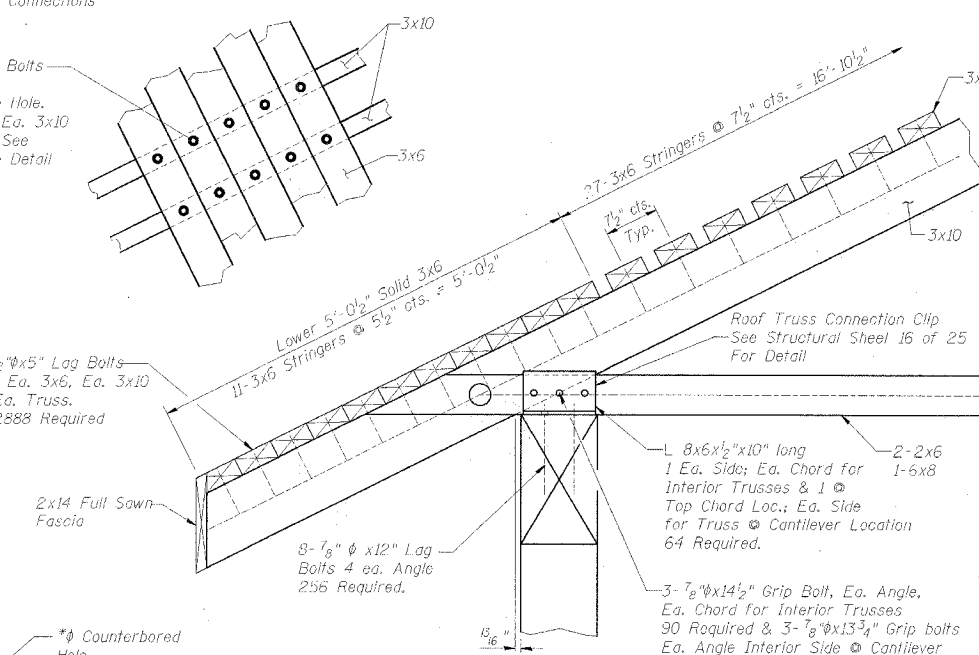


**ROOF TRUSS ELEVATION
INTERIOR TRUSSES**
17 Required

See Structural Sheet 16 of 25 for Roof Truss to Vertical Connections

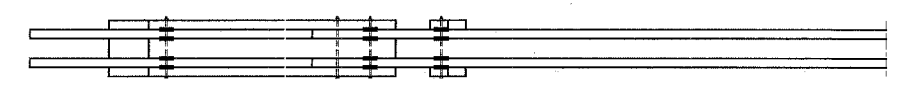


1/2" x 5" Lag Bolts w/Washer Counterbore Hole. 1 Ea. 3x6, Ea. 3x10 Ea. Truss. See Counterbore Detail

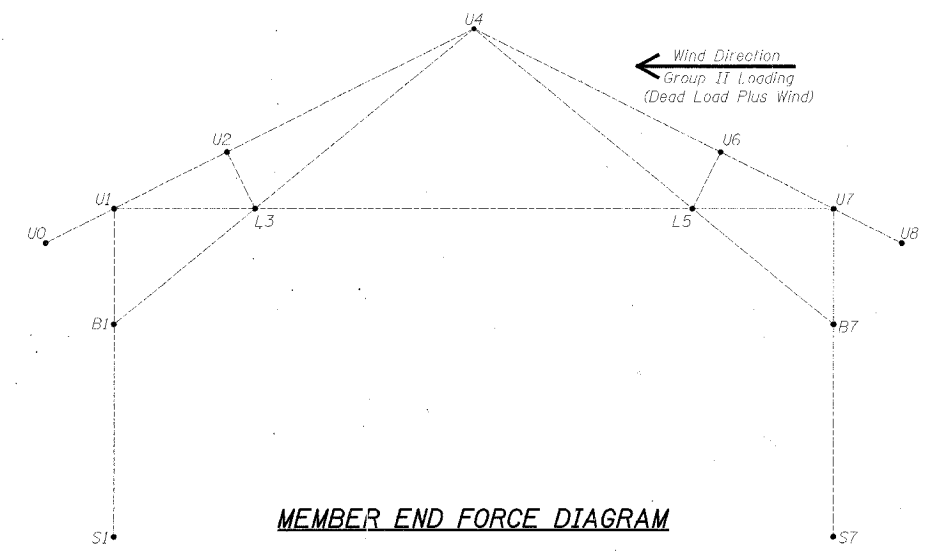


TRUSS CONNECTION DETAIL

ROOFING DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04



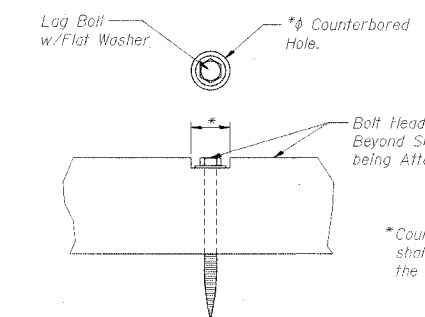
BOTTOM TRUSS CHORD



MEMBER END FORCE DIAGRAM

LOAD TABLE

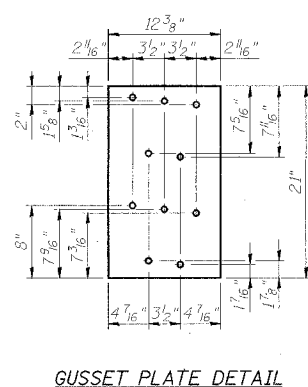
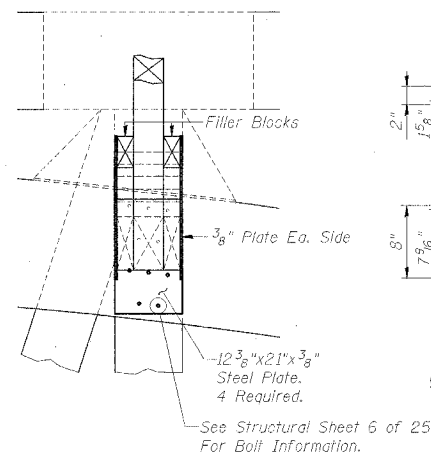
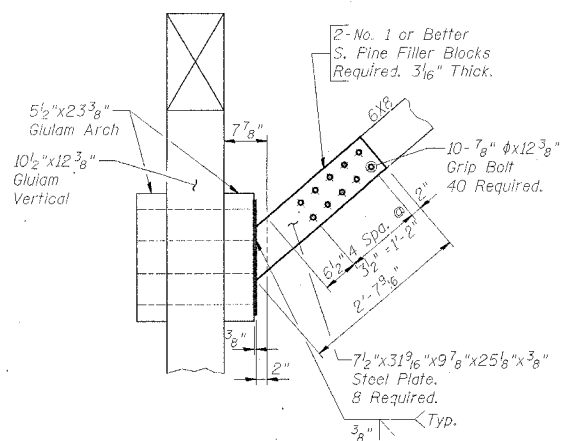
Member Location	I Node	J Node	I Node			J Node		
			Axial k	Shear k	Moment ft-k	Axial k	Shear k	Moment ft-k
Knee Brace	B1	L3	17.31	-0.03	0.00	17.27	-0.03	0.00
Knee Brace	L3	U4	14.39	-0.07	0.00	14.29	-0.07	0.00
Knee Brace	U4	L5	-14.03	-0.07	0.00	-13.93	-0.07	0.00
Knee Brace	L5	B7	-11.29	-0.03	0.00	-11.25	-0.03	0.00
Bottom Chord	U1	L3	-2.01	0.12	0.00	-2.01	0.16	0.70
Bottom Chord	L3	L5	1.60	-0.13	0.70	1.60	0.09	0.22
Bottom Chord	L5	U7	-3.58	-0.07	0.22	-3.58	0.05	0.00
Top Chord	U0	U1	-0.07	0.13	0.13	-0.15	0.30	0.61
Top Chord	U1	U2	-10.57	-0.60	2.38	-10.66	0.68	2.89
Top Chord	U2	U4	-10.97	-0.78	2.89	-11.23	0.39	-1.09
Top Chord	U4	U6	14.10	1.06	-3.31	13.28	-1.29	-3.31
Top Chord	U6	U7	12.34	0.85	1.82	12.08	0.50	-1.42
Top Chord	U7	U8	0.52	0.60	1.10	0.22	0.25	0.20
Strut	U2	L3	1.49	0.00	0.00	1.50	0.00	0.00
Strut	L5	U6	2.16	0.00	0.00	2.15	0.00	0.00
Vertical	S1	B1	22.3	4.3	0	22.3	4.3	33.8
Vertical	B1	U1	11.8	-9.21	33.8	11.8	-9.21	0
Vertical	S7	B7	9.1	3.5	0	9.1	3.5	27.2
Vertical	B7	U7	15.3	-7.2	27.4	15.3	-7.2	0



COUNTERBORE DETAIL
Typical

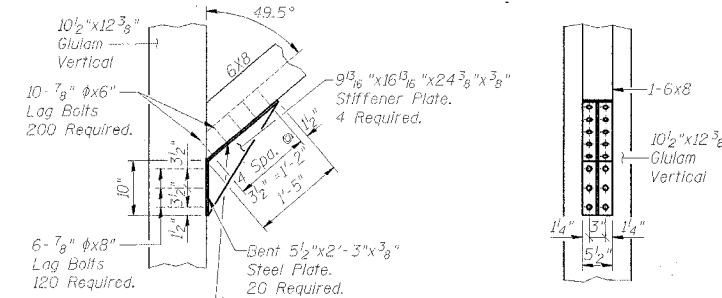
*Counterbored Hole Diameter shall be 1/4" Greater than the Diameter of the Washers.

FIG. NO.	SECTION	COUNTY	DATE	SHEET
245	98-20101-00-BR	BUREAU	65	49
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT - BR05-011(62)
STRUCTURAL SHEET 16 OF 25				



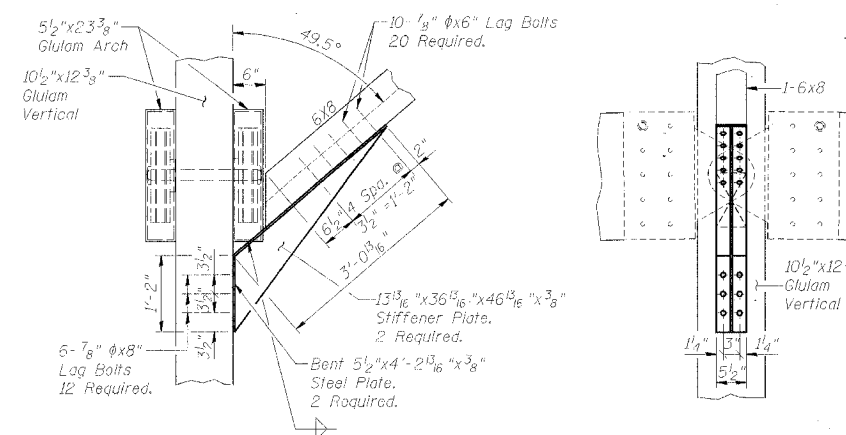
ROOF TRUSS TO VERTICAL CONNECTION

U₇ & U₉
(4 Required)



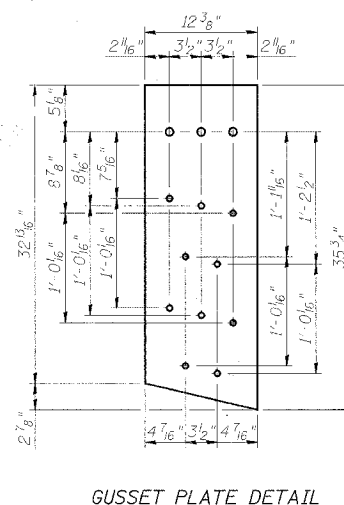
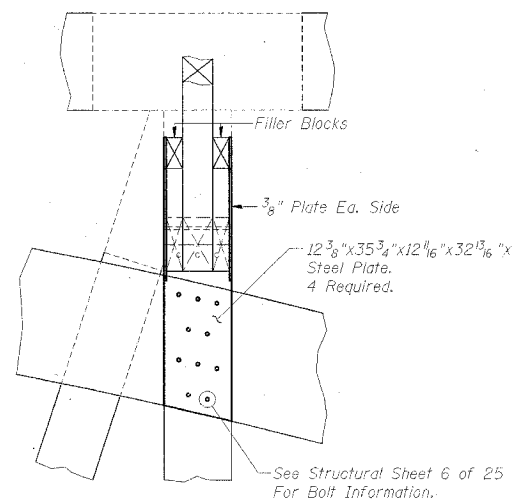
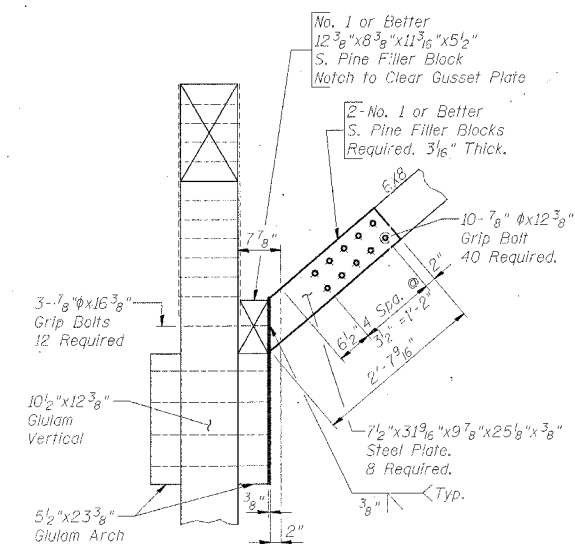
ROOF TRUSS TO VERTICAL CONNECTION

U₁ Thru U₅ & U₁₁ Thru U₁₅
(20 Required)



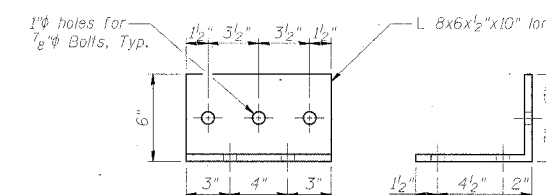
ROOF TRUSS TO VERTICAL CONNECTION

U₈
(2 Required)



ROOF TRUSS TO VERTICAL CONNECTION

U₆ & U₁₀
(4 Required)

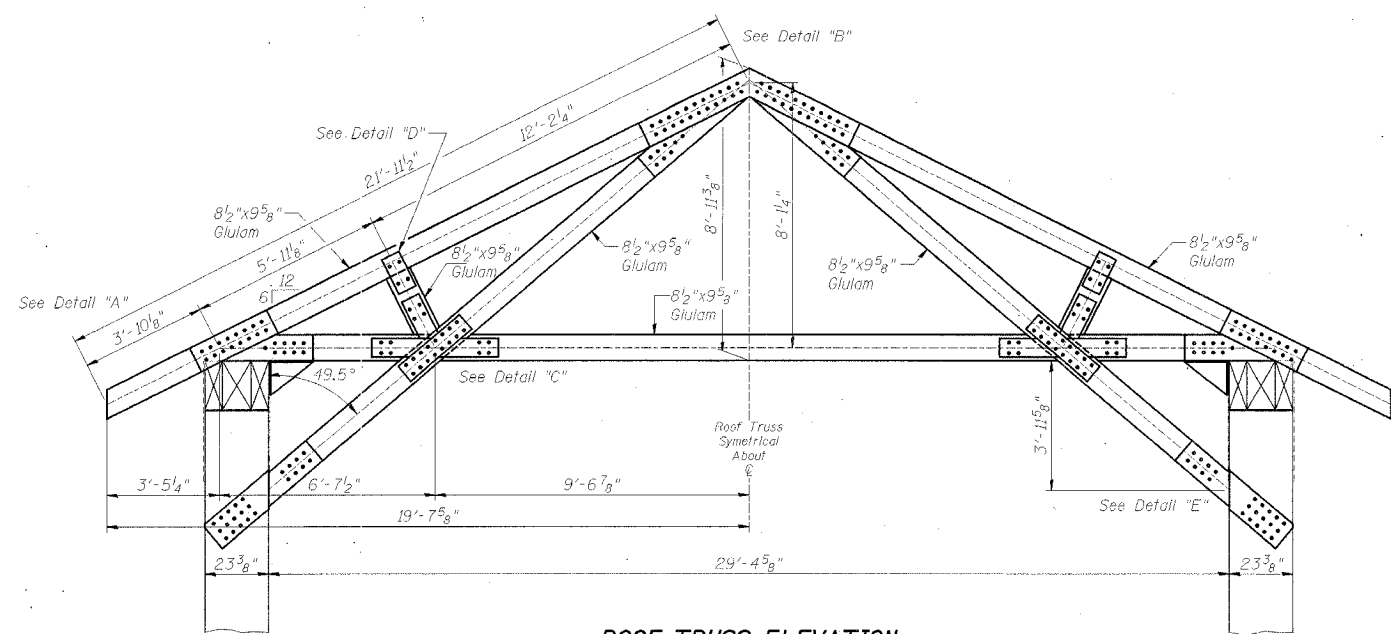


ROOF TRUSS CONNECTION CLIP

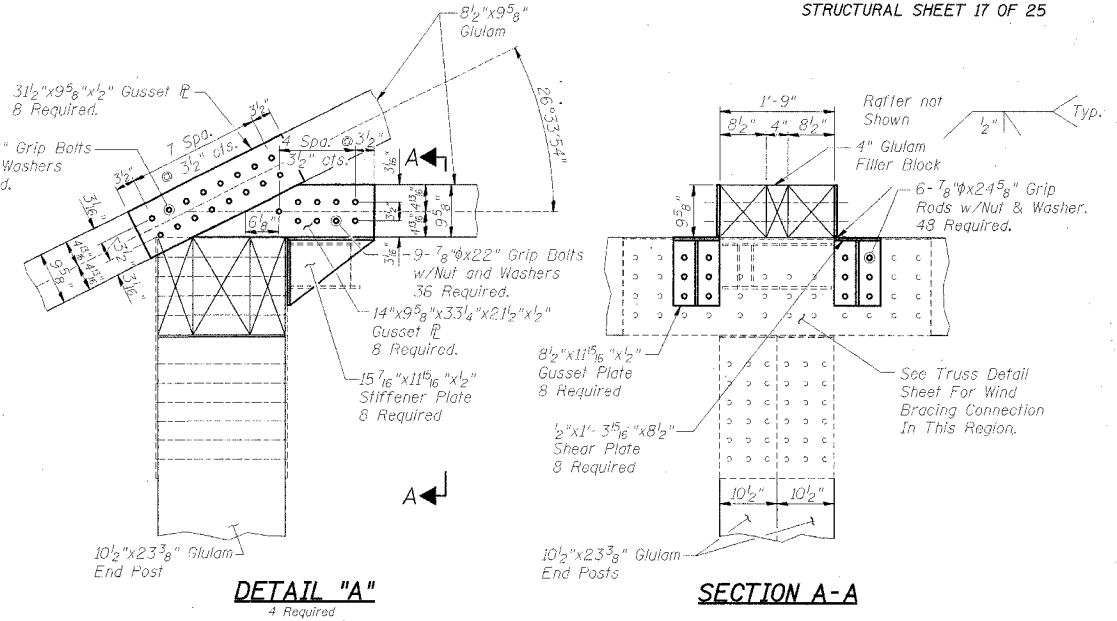
ROOFING DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY

DATE	SECTION	COUNTY	SHEET	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	50
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-BROS-011-(62)	

STRUCTURAL SHEET 17 OF 25

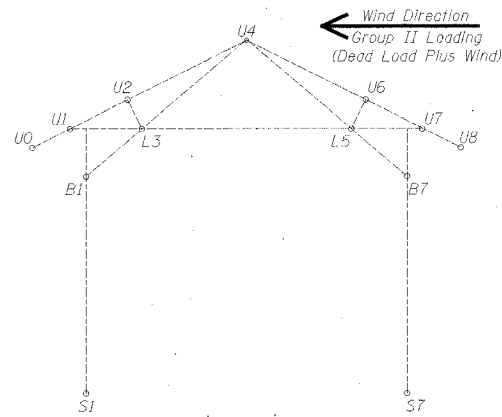


**ROOF TRUSS ELEVATION
PORTAL TRUSSES**
(4 Trusses Required)



DETAIL "A"
4 Required

SECTION A-A



MEMBER END FORCE DIAGRAM

LOAD TABLE

Member Location	I Node	J Node	I Node			J Node		
			Axial k	Shear k	Moment ft-k	Axial k	Shear k	Moment ft-k
Knee Brace	B1	L3	123.79	-0.26	0.00	123.41	-0.26	0.00
Knee Brace	L3	U4	81.06	-0.55	0.00	80.26	-0.55	0.00
Knee Brace	U4	L5	-87.84	0.55	0.00	-87.04	0.55	0.00
Knee Brace	L5	B7	-117.70	0.26	0.00	-117.32	0.26	0.00
Bottom Chord	U1	L3	-42.67	8.40	0.00	-42.67	8.91	43.40
Bottom Chord	L3	L5	-2.89	-5.02	43.40	-2.89	-2.84	-40.26
Bottom Chord	L5	U7	25.50	7.77	-40.26	25.50	8.29	0.00
Top Chord	U0	U1	-0.11	0.22	0.16	-0.26	0.53	0.94
Top Chord	U1	U2	-64.31	7.59	20.06	-64.47	7.90	34.48
Top Chord	U2	U4	-65.07	-3.57	33.63	-65.53	-2.80	17.56
Top Chord	U4	U6	83.09	4.27	-26.71	82.54	2.83	-36.24
Top Chord	U6	U7	81.95	-8.71	-35.42	81.80	-9.29	-18.48
Top Chord	U7	U8	0.44	0.81	1.49	0.21	0.33	0.28
Strut	U2	L3	11.52	-0.05	0.00	11.73	-0.05	0.00
Strut	L5	U6	-9.19	0.05	0.00	-9.40	-0.05	0.00
Column	S1	B1	61.95	15.0	0.00	59.90	15.0	311.9
Column	B1	U1	-13.64	-84.5	311.9	-13.97	-84.6	0.00
Column	S7	B7	14.69	15.3	0.00	12.65	15.3	304.4
Column	B7	U7	81.94	-81.2	304.4	81.61	-81.2	0.00

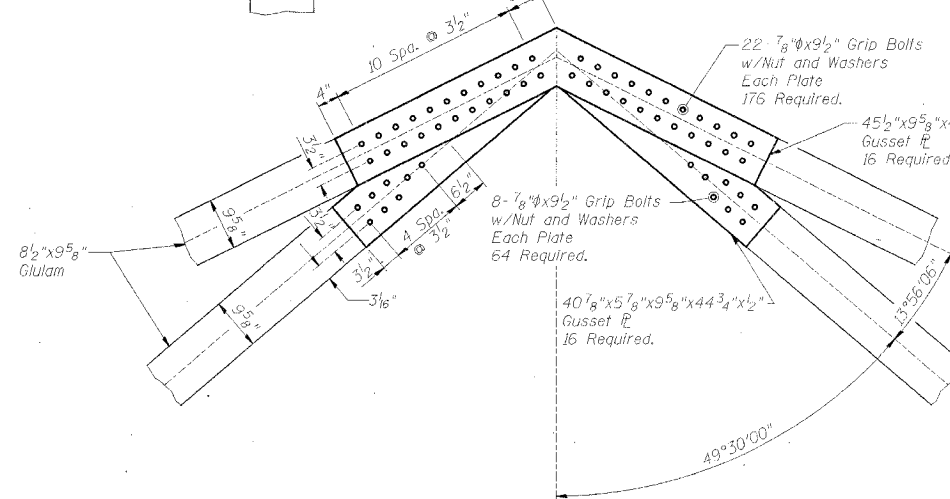
GENERAL NOTES

Gusset plates may be cut from a single plate or made up of multiple plates welded together to form the required shape. Welding shall be in accordance with the requirements of the special provisions.

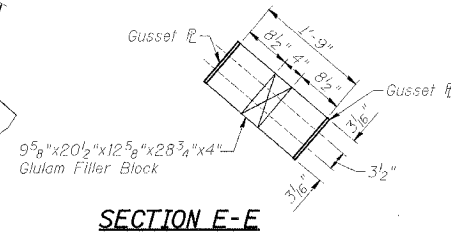
Fasteners shall be 7/8" φ A307 bolts, (open hole 5/16" φ) unless otherwise noted.

See specifications for required finish for steel gusset plates.

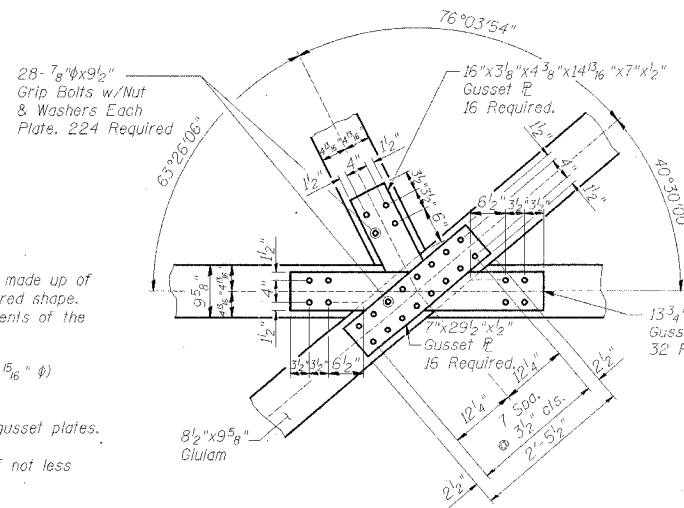
All reentrant cuts shall be filleted to a radius of not less than 3/4 inch.



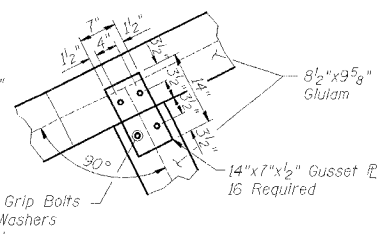
DETAIL "B"
4 Required



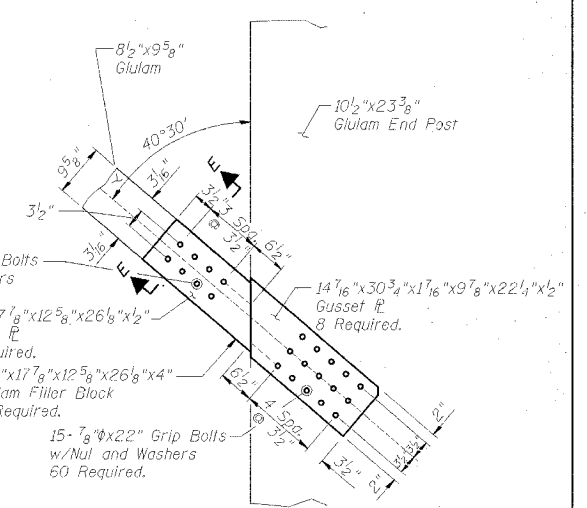
SECTION E-E



DETAIL "C"
8 Required



DETAIL D
8 Required

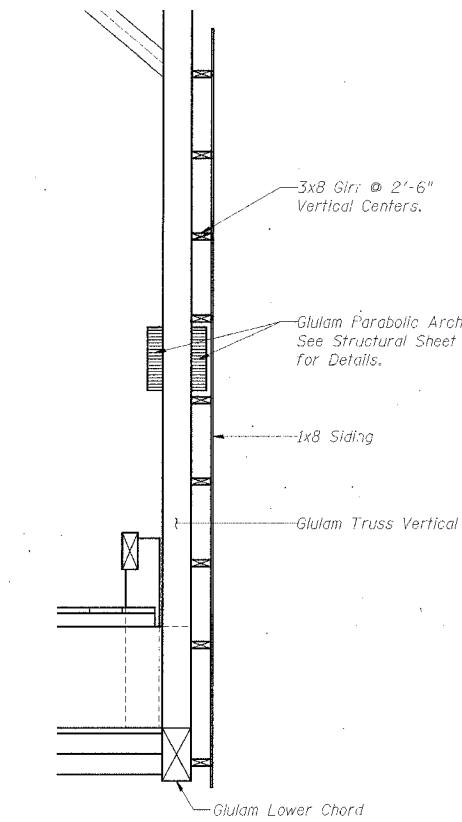


DETAIL "E"
4 Required

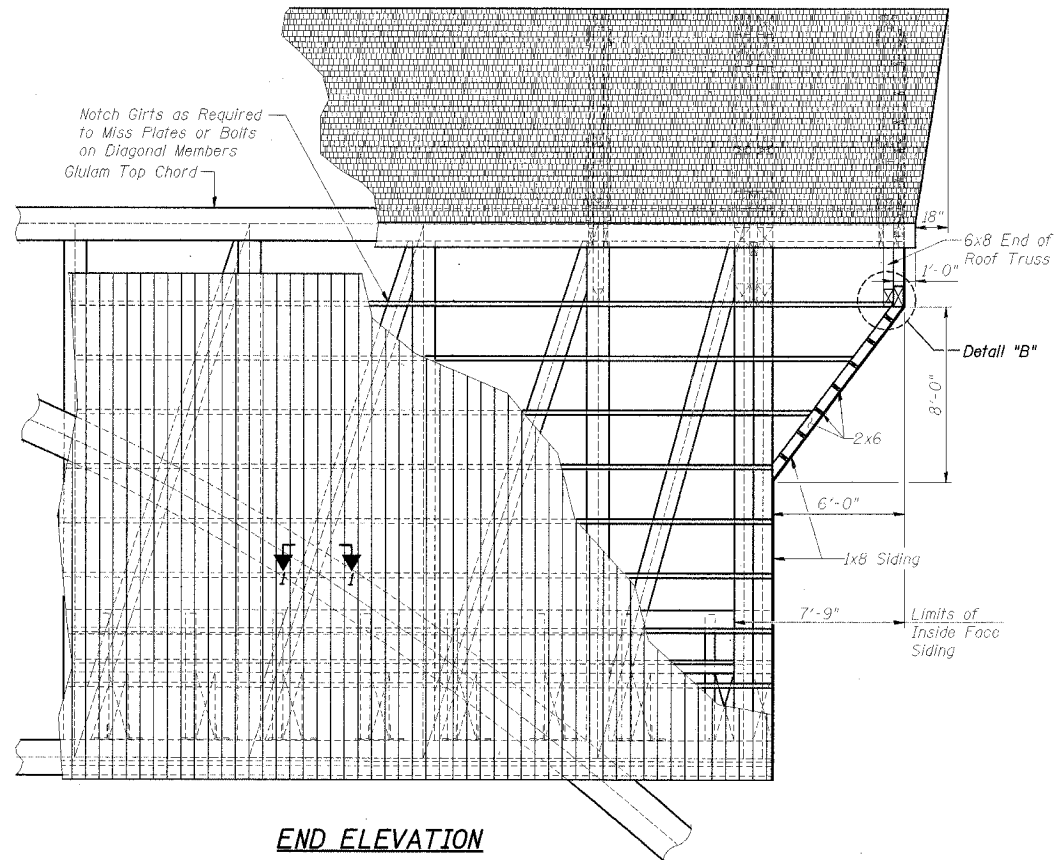
END PORTAL ROOFING DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

DATE	SECTION	COUNTY	SHEETS	SHEET
2-2-11	98-20101-00-BR	BUREAU	65	51
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT: BR05-011(62)	

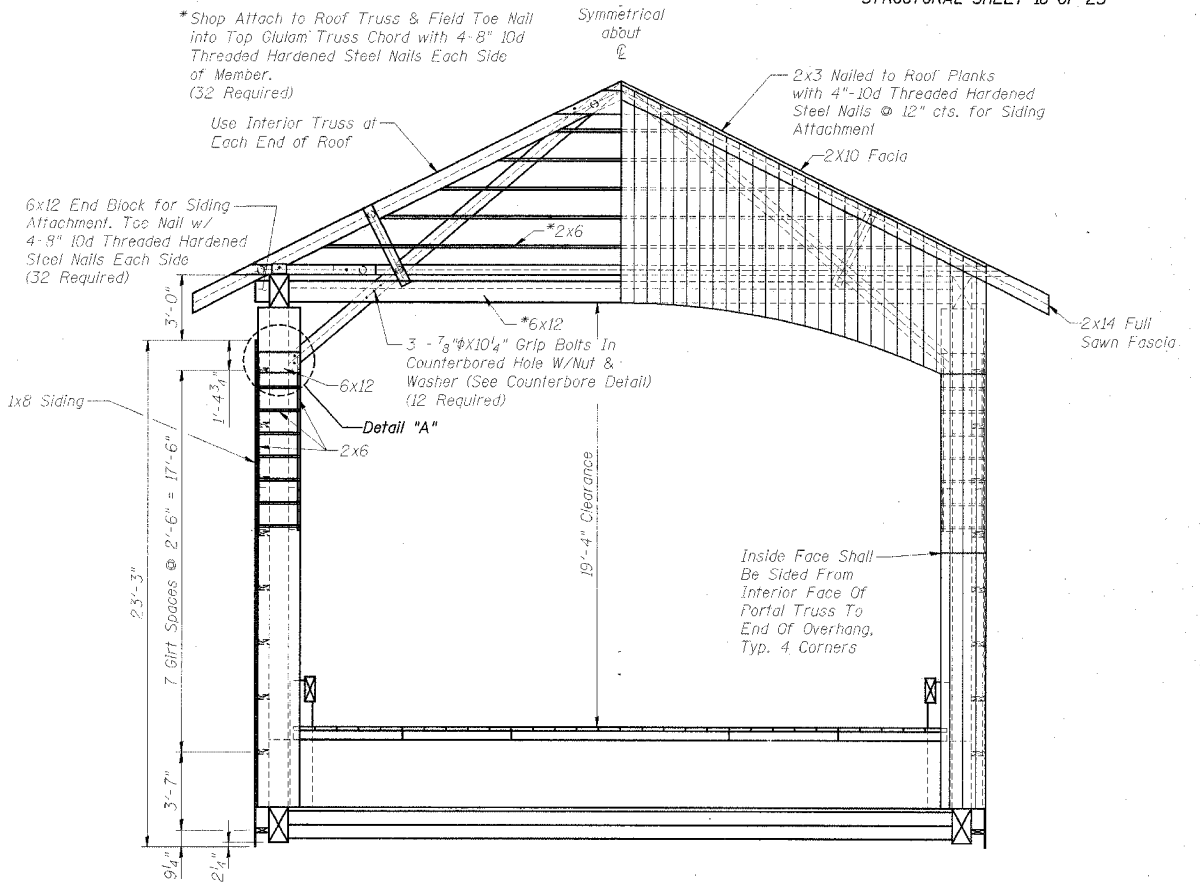
STRUCTURAL SHEET 18 OF 25



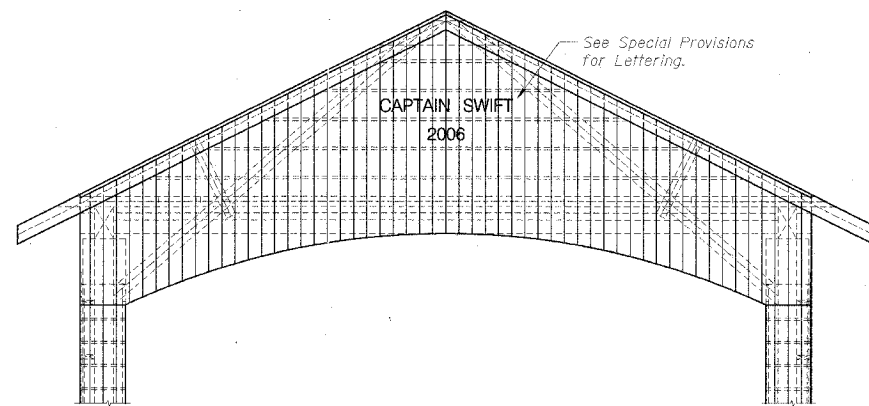
TYPICAL WALL SECTION



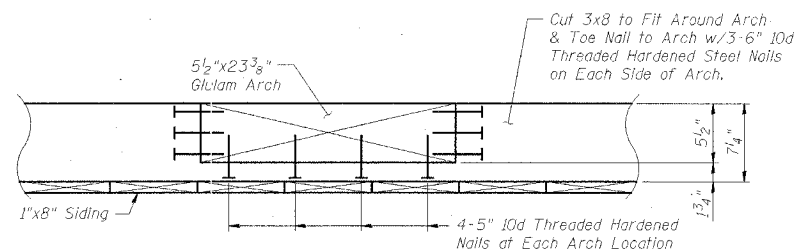
END ELEVATION



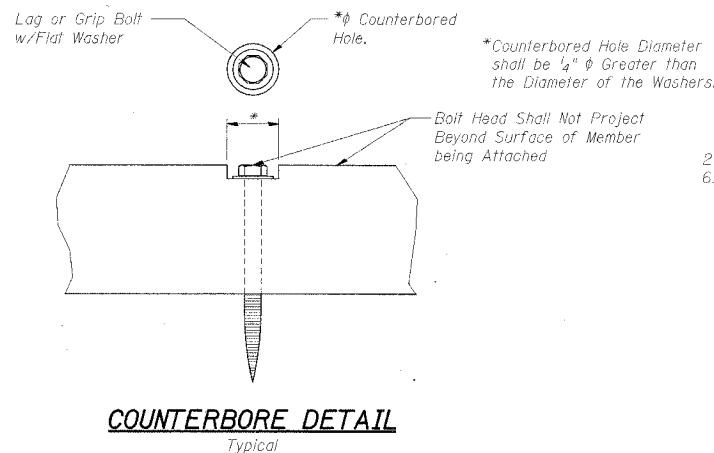
END VIEW



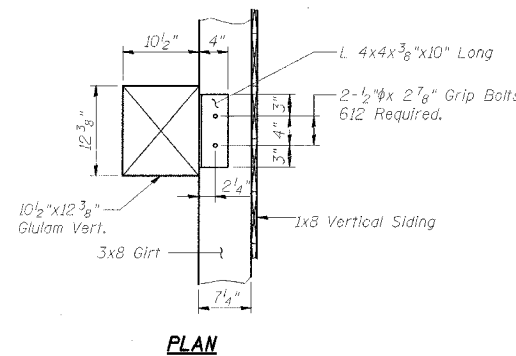
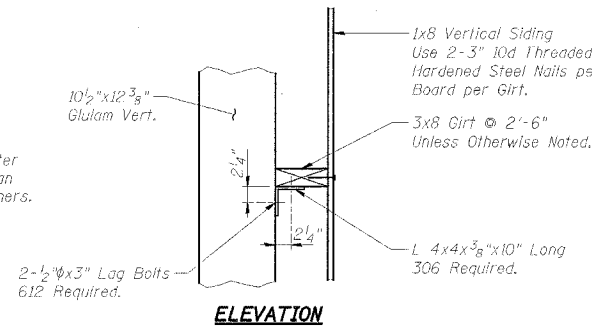
LETTERING DETAIL
(Two Required)



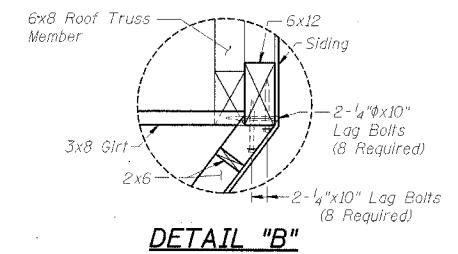
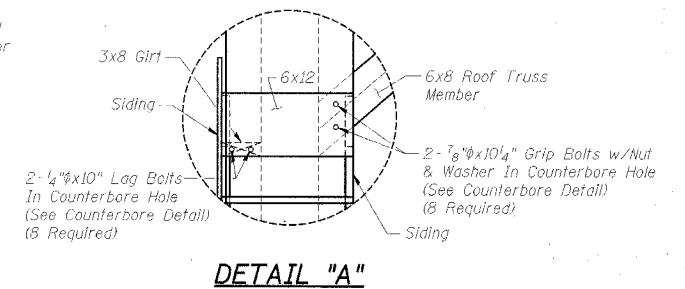
SECTION 1-1



COUNTERBORE DETAIL

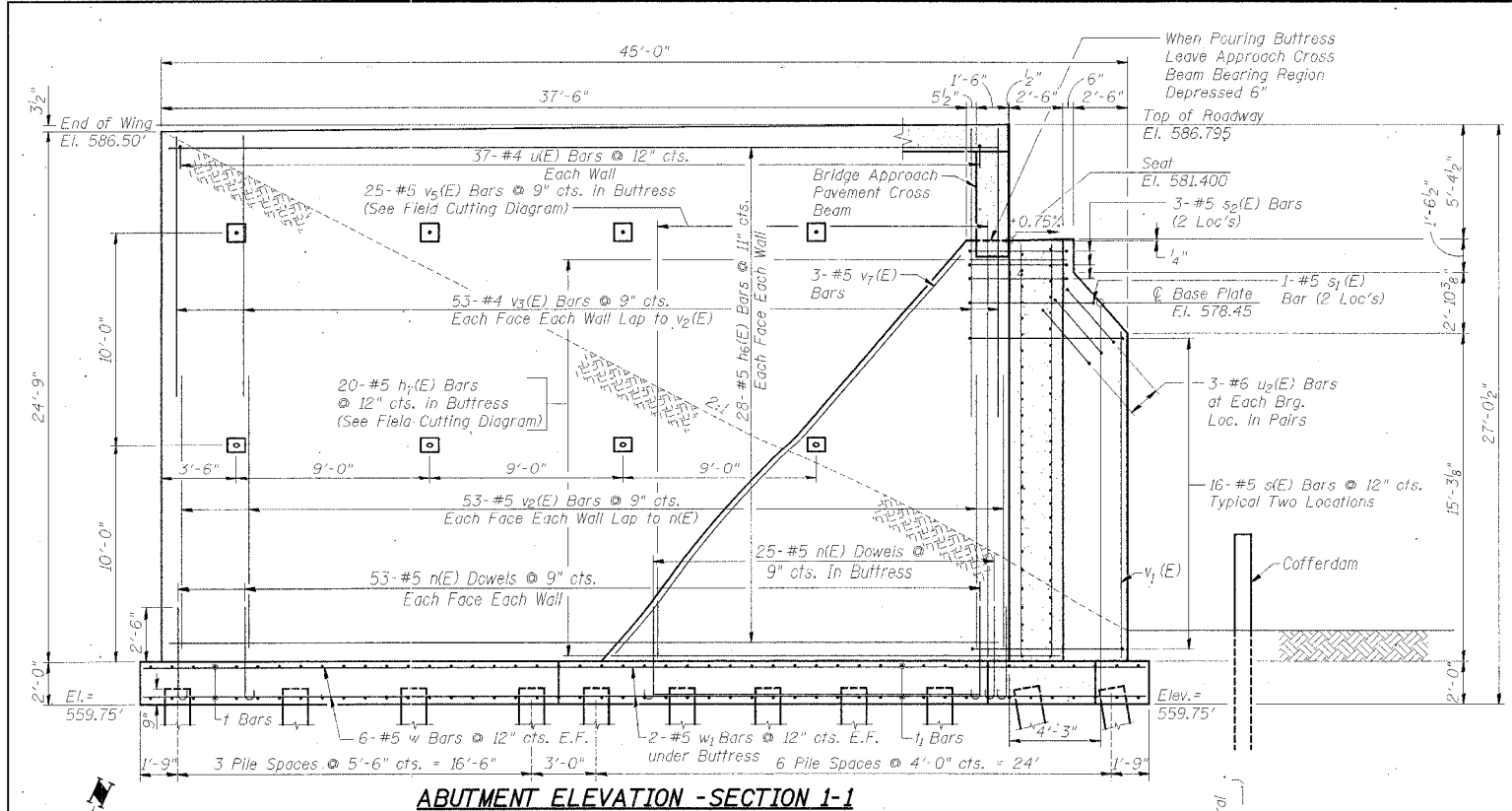


TYPICAL GIRT CONNECTION

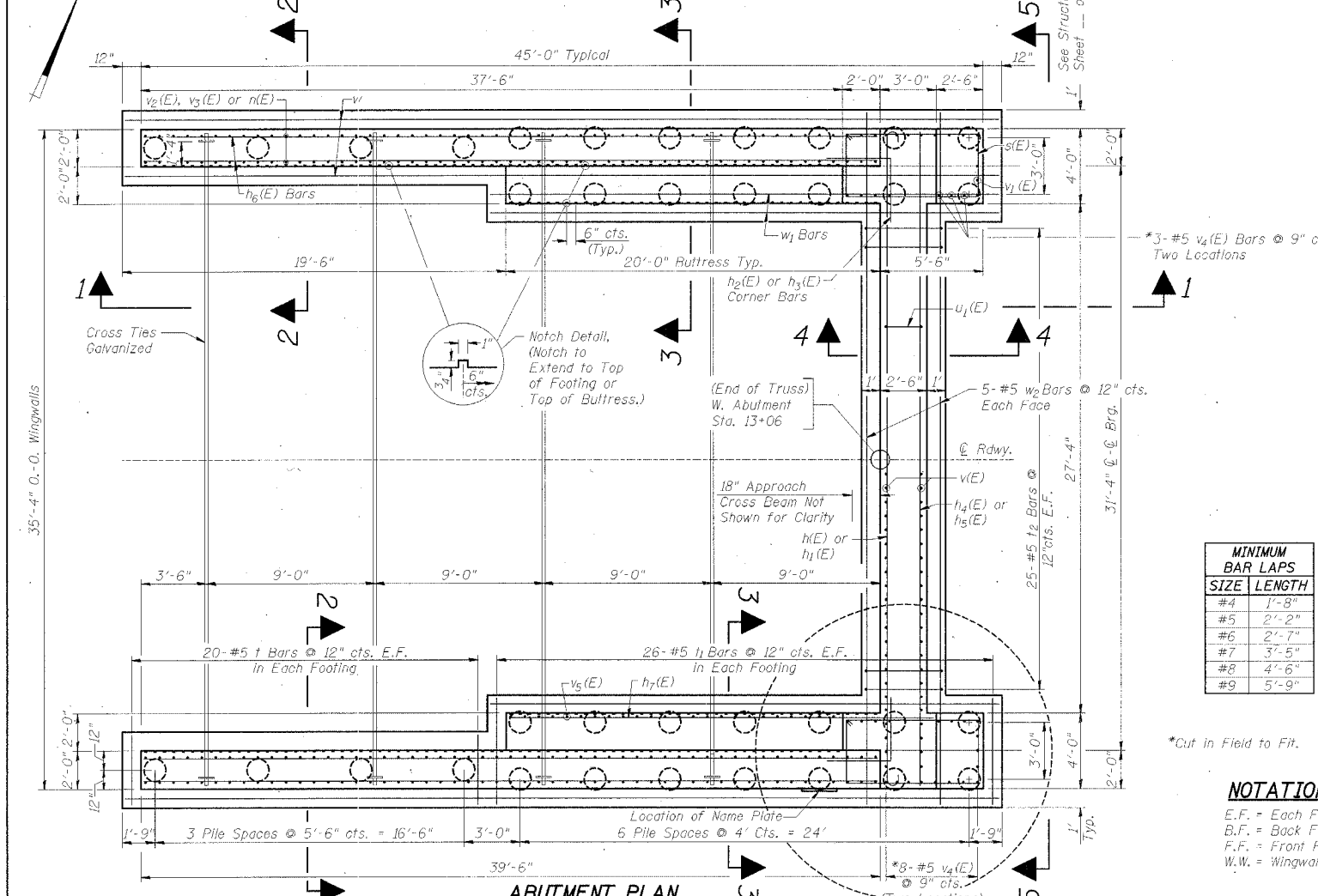


SIDING DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104D04

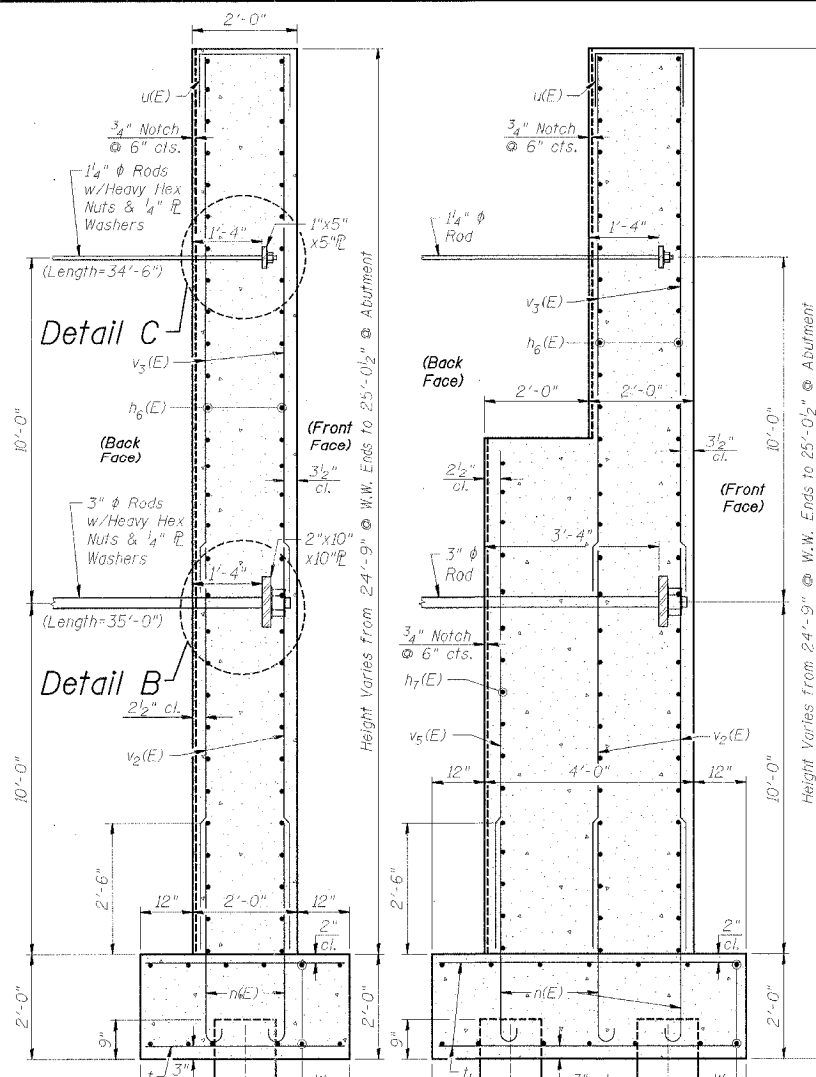
PROJECT	SECTION	COUNTY	SHEET	TOTAL
245	98-20101-00-BR	BUREAU	65	52
STRUCTURAL SHEET 19 OF 25				
FED. ROAD DIST. NO. 7				
ILLINOIS				
FED. ROAD PROJECT: BRCS-01(62)				



ABUTMENT ELEVATION - SECTION 1-1

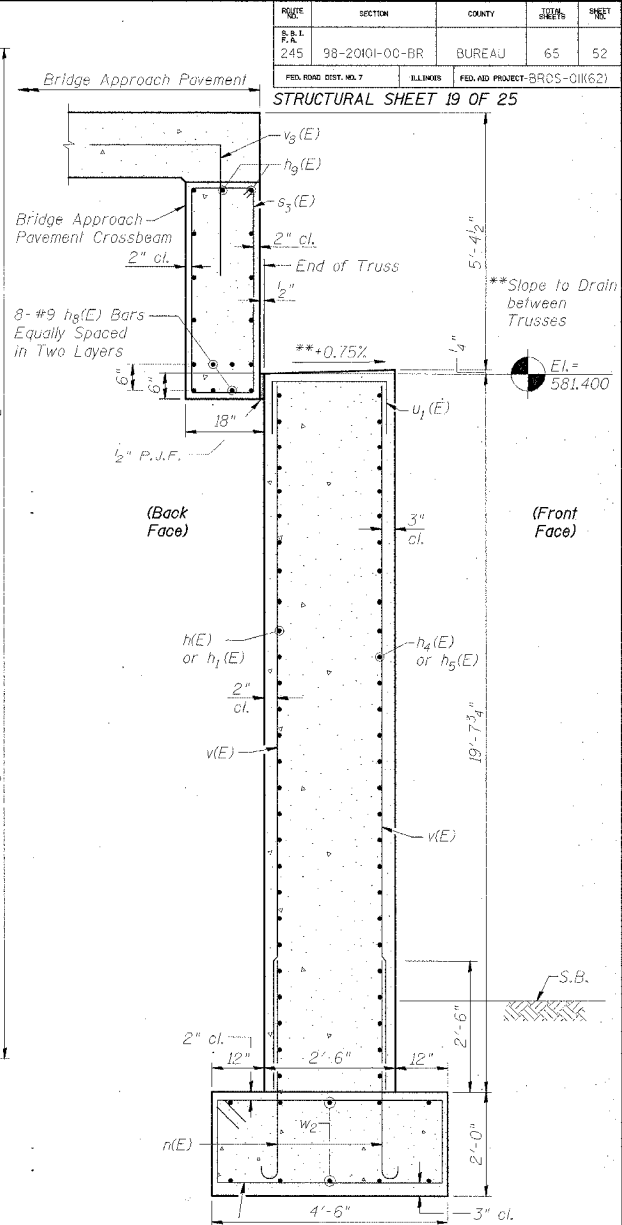


ABUTMENT PLAN



SECTION 2-2

SECTION 3-3



SECTION 4-4

PILE DATA

Type : 14" Metal Shell
 Capacity : 65 Ton
 Est. Length : 35'
 No. Required : 35 Plus 1 Test Pile

NOTES:

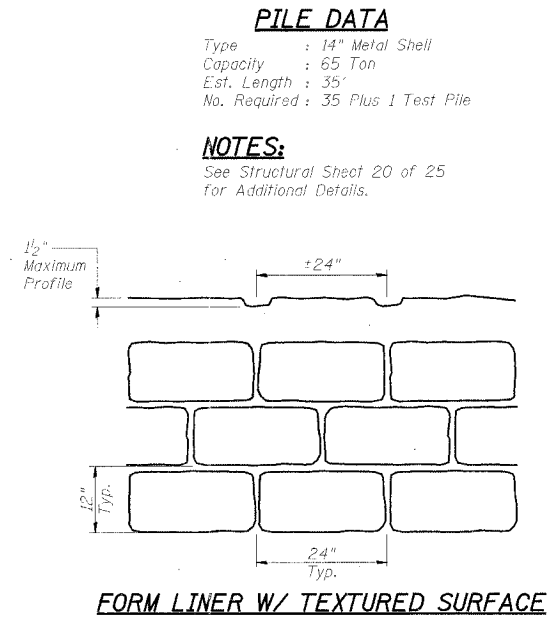
See Structural Sheet 20 of 25 for Additional Details.

SIZE	LENGTH
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"
#9	5'-9"

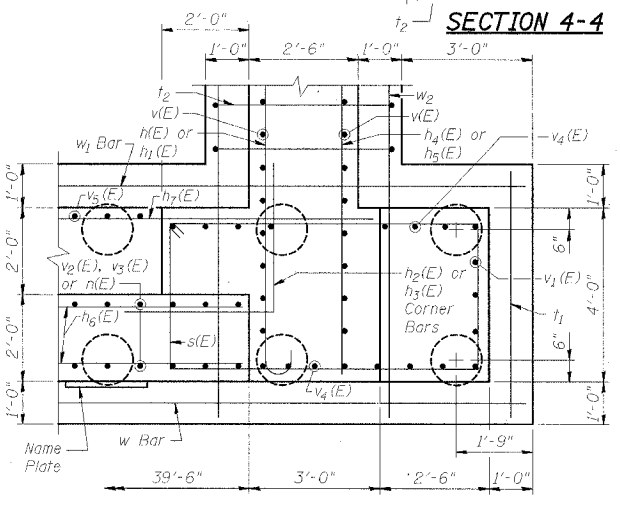
*Cut in Field to Fit.

NOTATIONS

E.F. = Each Face
 B.F. = Back Face
 F.F. = Front Face
 W.W. = Wingwall



FORM LINER W/ TEXTURED SURFACE



DETAIL A

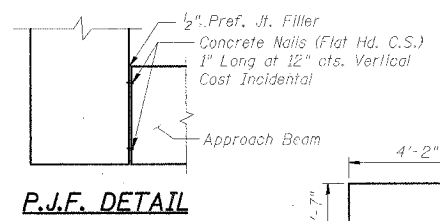
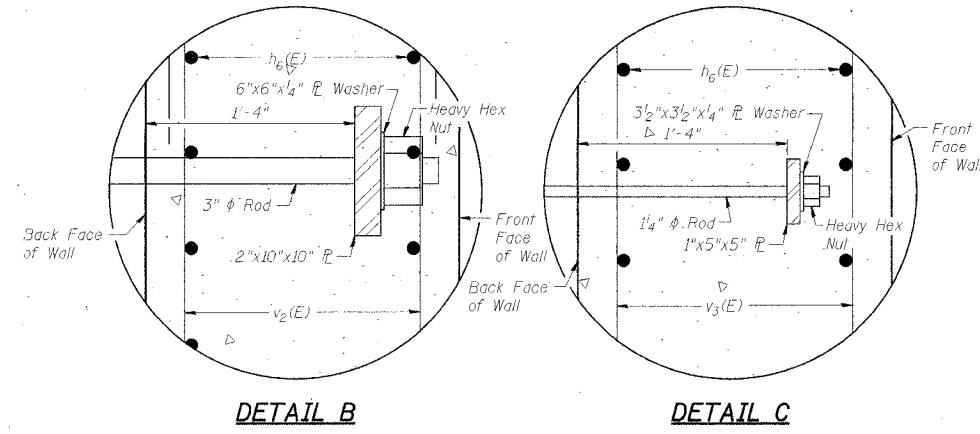
WEST ABUTMENT DETAILS
 SECTION 98-20101-00-BR
 STA. 13+70, S.N. 006-4288
 T.R. 245 OVER BIG BUREAU CREEK
 BUREAU COUNTY
 WPA # 1104D04

PROJECT	SECTION	COUNTY	SHEET	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	53

STRUCTURAL SHEET 20 OF 25
BILL OF MATERIAL - W. ABUT.

Bar	No.	Size	Length	Shape
h(E)	14	#9	37'-6"	U
h ₁ (E)	12	#7	36'-8"	U
h ₂ (E)	28	#9	11'-6"	J
h ₃ (E)	24	#7	6'-10"	J
h ₄ (E)	16	#6	35'-0"	—
h ₅ (E)	14	#5	35'-0"	—
h ₆ (E)	112	#5	39'-2"	—
h ₇ (E)	20	#5	26'-4"	—
h ₈ (E)	8	#9	33'-6"	U
h ₉ (E)	9	#6	31'-0"	—
n(E)	334	#5	4'-10"	U
s(E)	32	#5	21'-9"	J
s ₁ (E)	2	#5	19'-3"	J
s ₂ (E)	6	#5	16'-9"	J
s ₃ (E)	30	#4	11'-5"	J
t	80	#5	3'-8"	—
t ₁	104	#5	5'-8"	—
t ₂	50	#5	12'-3"	J
u(E)	74	#4	3'-5"	J
u ₁ (E)	28	#5	4'-0"	J
u ₂ (E)	12	#6	8'-6"	J
v(E)	72	#5	19'-6"	—
v ₁ (E)	10	#5	15'-1"	—
v ₂ (E)	212	#5	12'-0"	—
v ₃ (E)	212	#4	14'-5"	—
v ₄ (E)	22	#5	19'-6"	—
v ₅ (E)	25	#5	22'-0"	—
v ₆ (E)	20	#6	4'-0"	—
v ₇ (E)	6	#5	26'-4"	—
v ₈ (E)	32	#5	5'-0"	L
w	22	#5	46'-8"	—
w ₁	8	#5	27'-2"	—
w ₂	10	#5	37'-0"	—

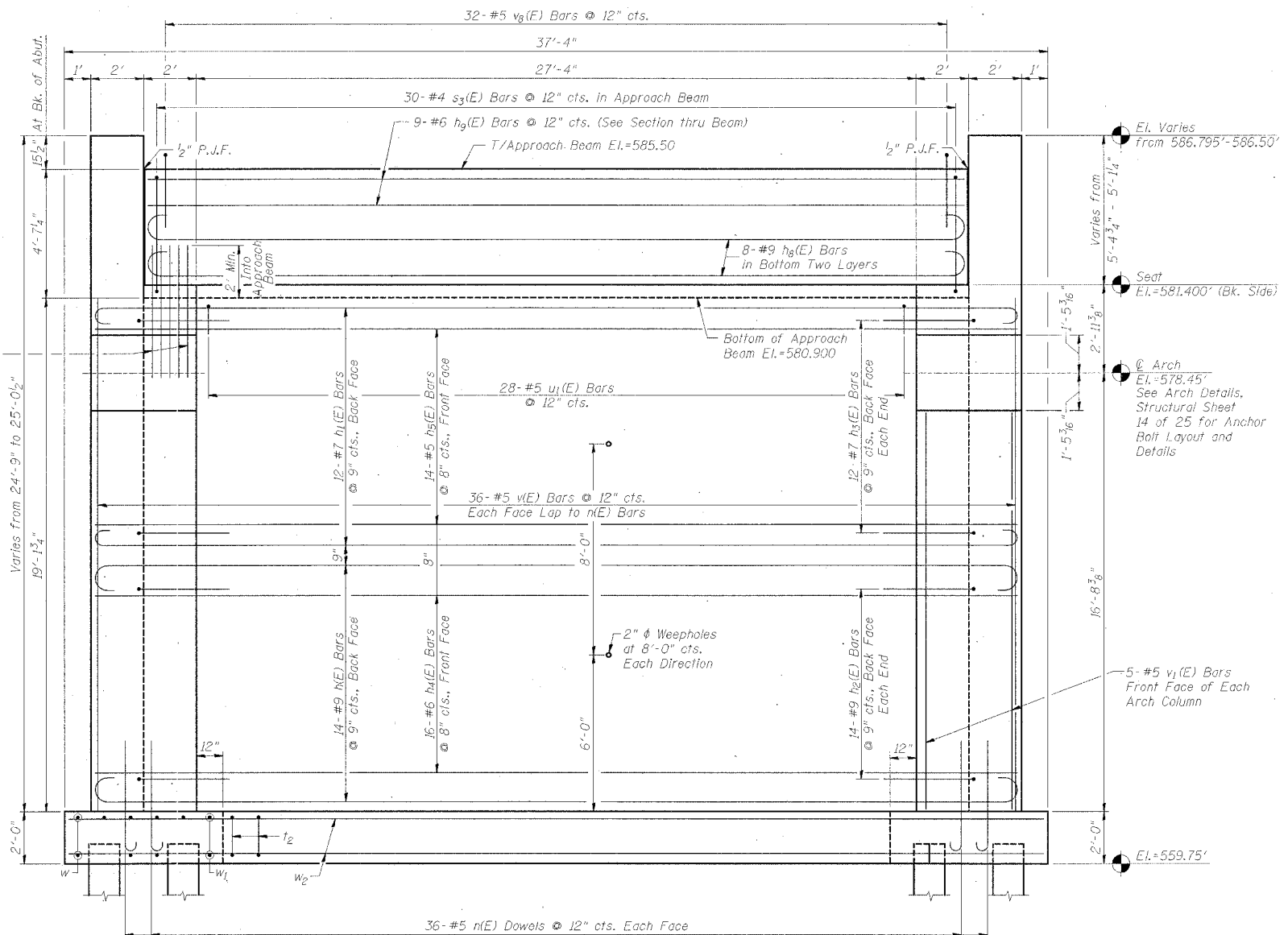
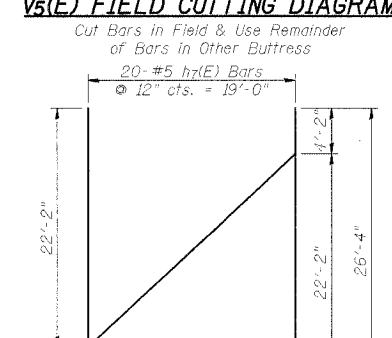
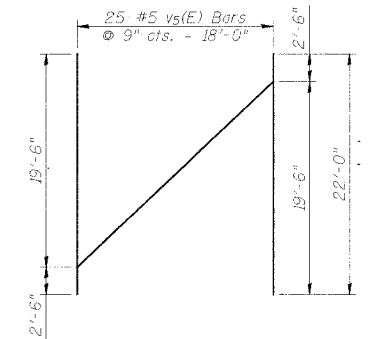
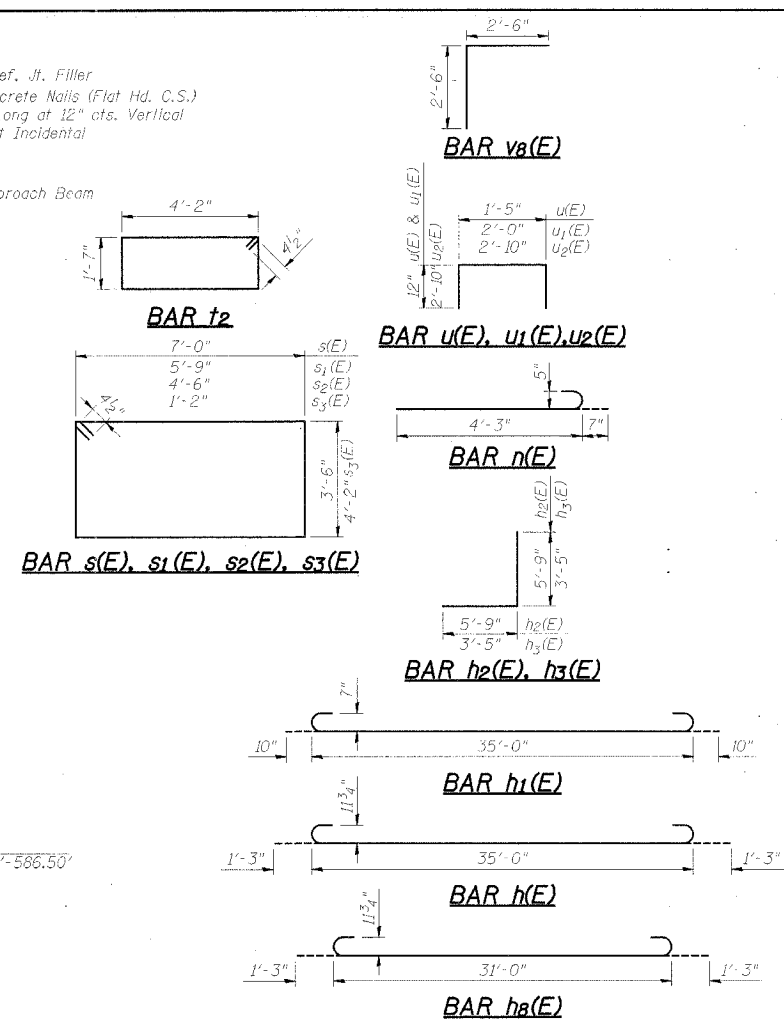
Item	Quantity	Unit	Price	Total
Porous Granular Backfill	1041	Cu. Yd.		
Concrete Structures	300.6	Cu. Yd.		
Furnishing & Erecting Structural Steel	1	L. Sum		
Reinforcement Bars	3250	Pound		
Reinforcement Bars, Epoxy Coated	22940	Pound		
Cofferdams	1	Each		
Hardware	5477	Pound		
Furnishing Metal Pile Shells-14"	1225	Foot		
Driving & Filling Shells	1225	Foot		
Test Pile-14" Metal Shell	1	Each		
Form Liner Textured Surface	329	Sq. Yd.		
Cofferdam Excavation	1211	Cu. Yd.		



MINIMUM BAR LAPS

SIZE	LENGTH
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"
#9	5'-9"

NOTATIONS
 E.F. = Each Face
 B.F. = Back Face
 F.F. = Front Face
 W.W. = Wingwall

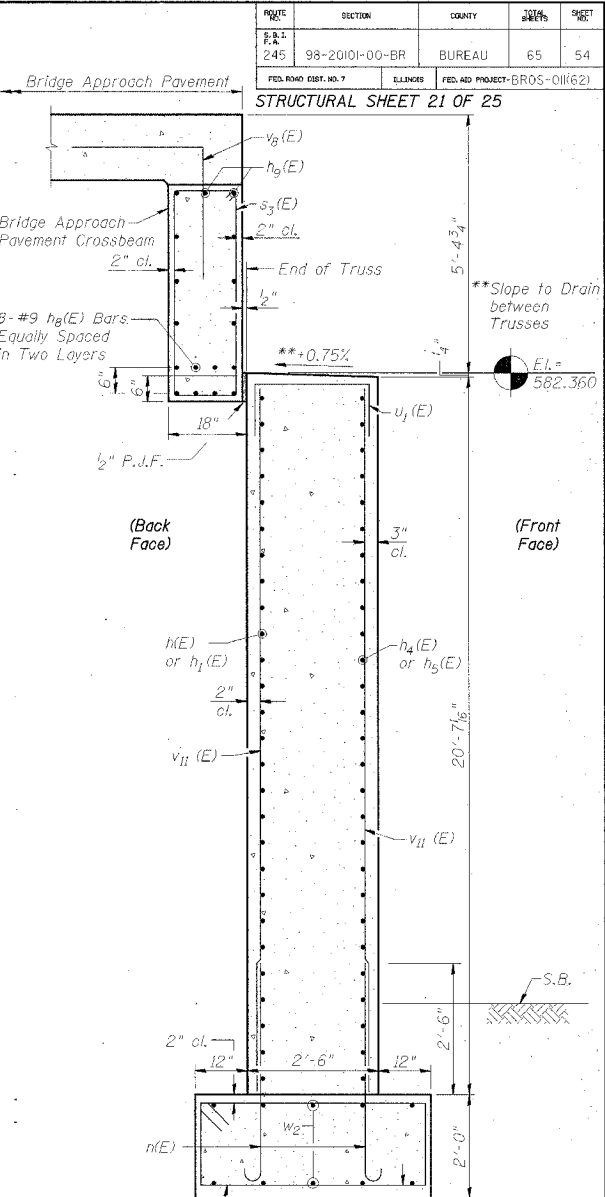
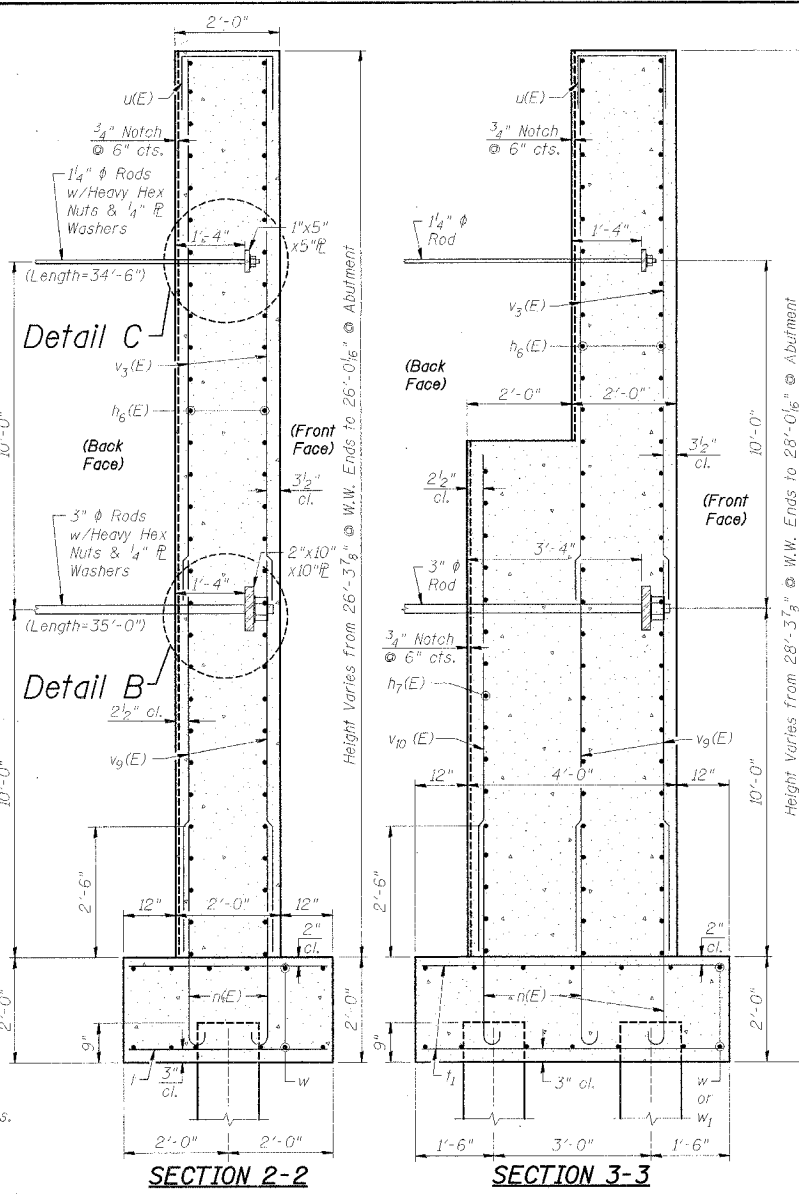
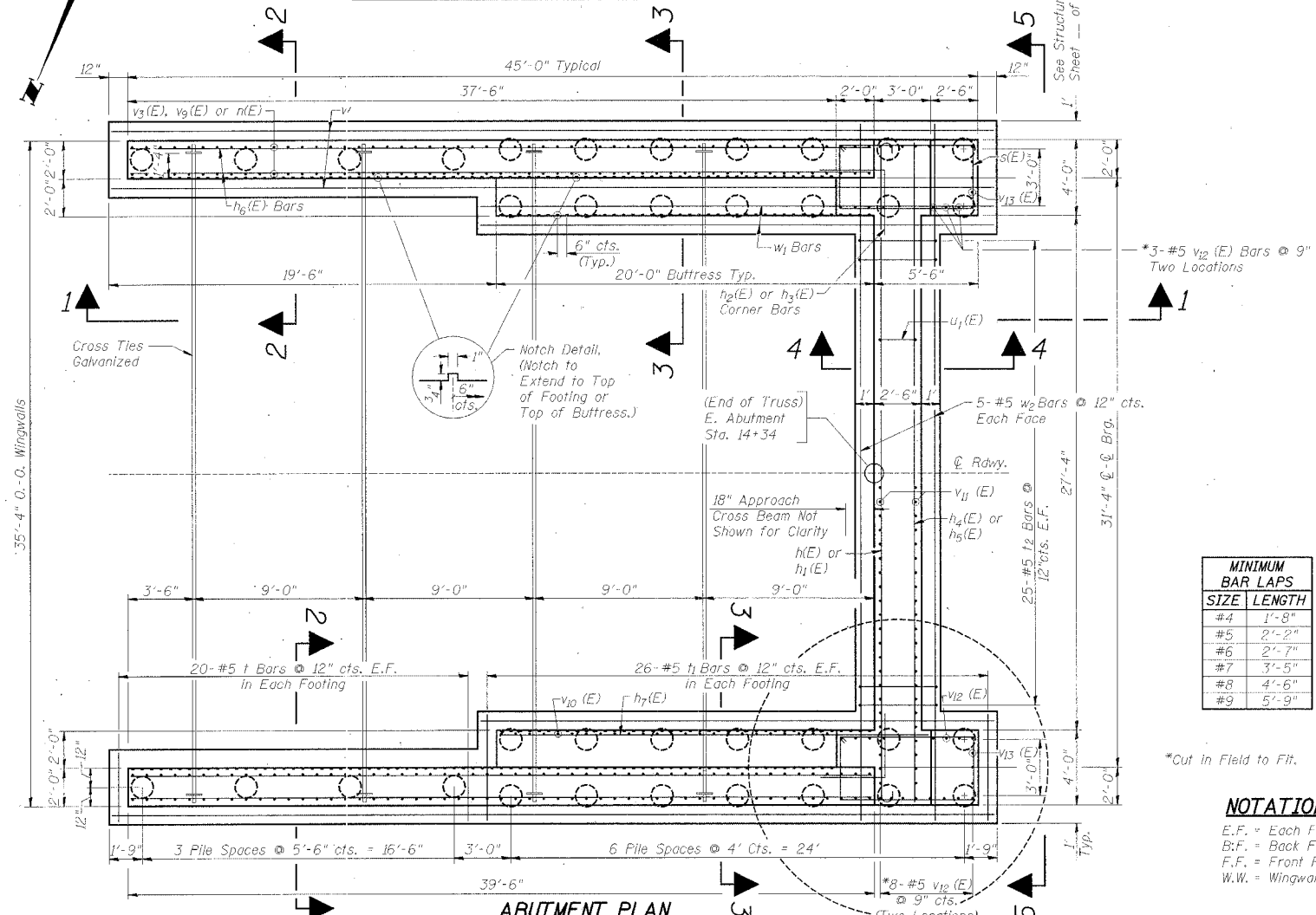
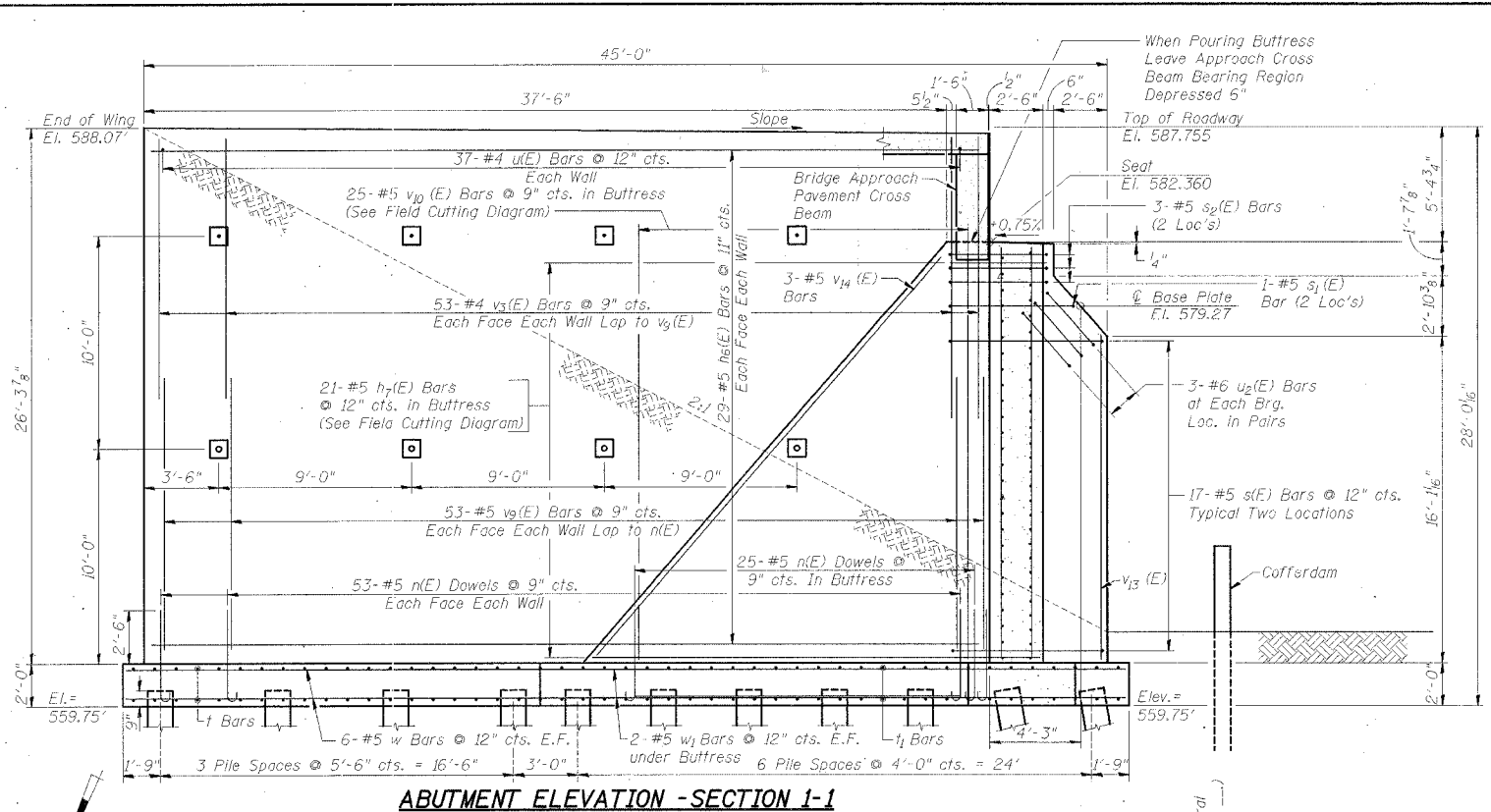


ABUTMENT ELEVATION - SECTION 5-5

NOTES:
 All Exposed Edges shall have 3/4" Chamfer.
 Reinforcement Bars Designated (E) shall be Epoxy Coated.
 Space Reinforcing to miss Anchor Bolts.
 All Hardware shall be Hot Dipped Galvanized in accordance with AASHTO M-232.
 Concrete Form Liner shall be placed on Front Face of All Abutment and Wingwall Regions except Approach Pavement Cross Beam. Concrete Form Liner shall also be Placed on Exposed Portions of the Back Face of All Wingwalls with Vertical Joint Locations Set to Match Front Face Form Liner. The Top of the Wingwalls shall have a Toled Joint Across Their Width to Create the Look of a Limestone Block Wall.
 Contractor shall pour the Approach Pavement Cross Beam after Timber Structure has been Erected to ensure 1/2" Gap is maintained between Timber Bridge Deck and Concrete Cross Beam.
 Abutment shall be Backfilled with Porous Granular Backfill. Pay Limits for Porous Granular Backfill shall be the Area Enclosed From the Top of Footing & End of Wingwall.
 Steel Plates in Substructure Shall be Hot Dipped Galvanized in accordance with AASHTO M-232 and Paid for at the Lump Sum Price for "Furnishing and Erecting Structural Steel"
 * See Special Provisions.

WEST ABUTMENT DETAILS
 SECTION 98-20101-00-BR
 STA. 13+70, S.N. 006-4288
 T.R. 245 OVER BIG BUREAU CREEK
 BUREAU COUNTY
 WPA # 1104D04

PROJECT	SECTION	COUNTY	SHEETS	SHEET
245	98-20101-00-BR	BUREAU	65	54
FED. ROAD EST. NO. 7		ILLINOIS		
STRUCTURAL SHEET 21 OF 25				
FED. AID PROJECT: BR05-01(62)				



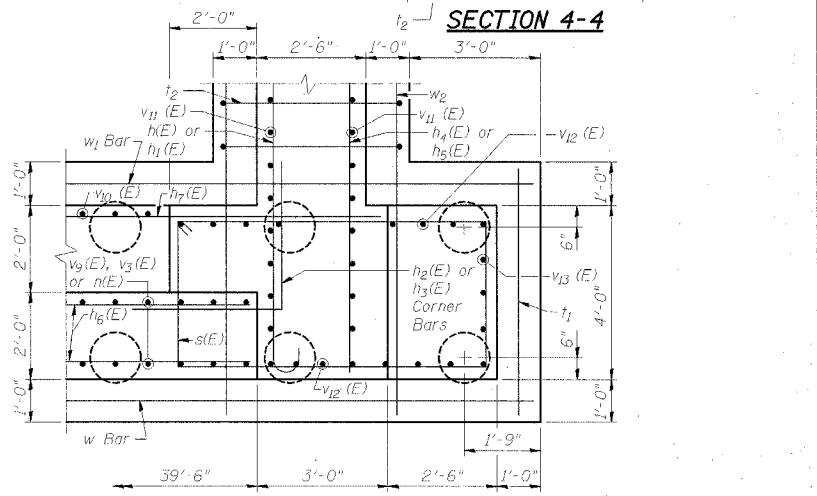
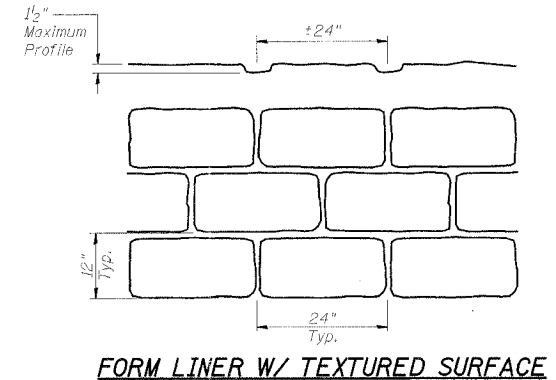
PILE DATA

Type : 14" Metal Shell
 Capacity : 65 Ton
 Est. Length : 35'
 No. Required : 35 Plus 1 Test Pile

NOTES:
 See Structural Sheet 22 of 25 for Additional Details.

SIZE	LENGTH
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"
#9	5'-9"

NOTATIONS
 E.F. = Each Face
 B.F. = Back Face
 F.F. = Front Face
 W.W. = Wingwall



EAST ABUTMENT DETAILS
 SECTION 98-20101-00-BR
 STA. 13+70, S.N. 006-4288
 T.R. 245 OVER BIG BUREAU CREEK
 BUREAU COUNTY
 WHA # 1104D04

PROJECT	SECTION	COUNTY	SHEET	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	55
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BROS-OII(G2)		

STRUCTURAL SHEET 22 OF 25
BILL OF MATERIAL - E. ABUT.

Bar	No.	Size	Length	Shape
h(E)	14	#9	37'-6"	↔
h1(E)	14	#7	36'-8"	↔
h2(E)	28	#9	11'-6"	↔
h3(E)	28	#7	6'-10"	↔
h4(E)	16	#6	35'-0"	↔
h5(E)	15	#5	35'-0"	↔
h6(E)	116	#5	39'-2"	↔
h7(E)	21	#5	26'-4"	↔
h8(E)	8	#9	33'-6"	↔
h9(E)	9	#6	31'-0"	↔
n(E)	334	#5	4'-10"	↔
s(E)	34	#5	21'-9"	↔
s1(E)	2	#6	19'-3"	↔
s2(E)	6	#5	16'-9"	↔
s3(E)	30	#4	11'-5"	↔
t	80	#5	3'-8"	↔
t1	104	#5	5'-8"	↔
t2	50	#6	12'-3"	↔
u(E)	74	#4	3'-5"	↔
u1(E)	28	#5	4'-0"	↔
u2(E)	12	#6	8'-6"	↔
v3(E)	212	#4	14'-5"	↔
v6(E)	20	#6	4'-0"	↔
v8(E)	32	#5	5'-0"	↔
v9(E)	212	#5	13'-7"	↔
v10(E)	25	#5	23'-0"	↔
v11(E)	72	#5	20'-5"	↔
v12(E)	22	#5	20'-5"	↔
v13(E)	10	#5	15'-11"	↔
v14(E)	6	#5	27'-1"	↔
w	22	#5	46'-8"	↔
w1	8	#5	27'-2"	↔
w2	10	#5	37'-0"	↔

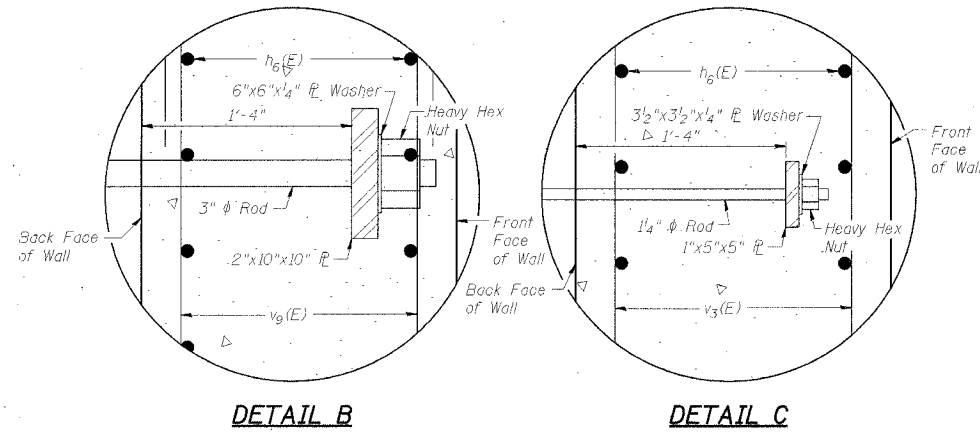
Item	Quantity	Unit	Price	Total
Porous Granular Backfill		Cu. Yd.	1077	
Concrete Structures		Cu. Yd.	313.4	
Furnishing & Erecting Structural Steel		L. Sum	1	
Reinforcement Bars		Pound	3250	
Reinforcement Bars, Epoxy Coated		Pound	23890	
Cofferdams		Each	1	
Hardware		Pound	5477	
Furnishing Metal Pile Sheils-14"		Foot	1225	
Driving & Filling Shells		Foot	1225	
Test Pile-14" Metal Shell		Each	1	
Form Liner Textured Surface		Sq. Yd.	345	
Cofferdam Excavation		Cu. Yd.	1262	

NOTES:

- All Exposed Edges shall have 3/4" Chamfer.
- Reinforcement Bars Designated (E) shall be Epoxy Coated.
- Space Reinforcing to miss Anchor Bolts.
- All Hardware shall be Hot Dipped Galvanized in accordance with AASHTO M-232.
- Concrete Form Liner shall be placed on Front Face of All Abutment and Wingwall Regions except Approach Pavement Cross Beam. Concrete Form Liner shall also be Placed on Exposed Portions of the Back Face of All Wingwalls with Vertical Joint Locations Set to Match Front Face Form Liner. The Top of the Wingwalls shall have a Toolled Joint Across Their Width to Create the Look of a Limestone Block Wall.
- Contractor shall pour the Approach Pavement Cross Beam after Timber Structure has been Erected to ensure 1/2" Gap is maintained between Timber Bridge Deck and Concrete Cross Beam.
- Abutment shall be Backfilled with Porous Granular Backfill. Pay Limits for Porous Granular Backfill shall be the Area Enclosed From the Top of Footing & End of Wingwall.
- Steel Plates in Substructure Shall be Hot Dipped Galvanized in Accordance with AASHTO M-232 and Paid for at the Lump Sum Price for "Furnishing and Erecting Structural Steel"

* See Special Provisions.

EAST ABUTMENT DETAILS
SECTION 98-20101-00-BR
STA. 13+70, S.N. 006-4288
T.R. 245 OVER BIG BUREAU CREEK
BUREAU COUNTY
WHA # 1104D04



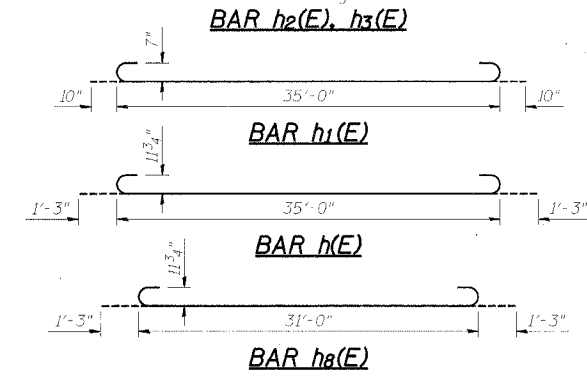
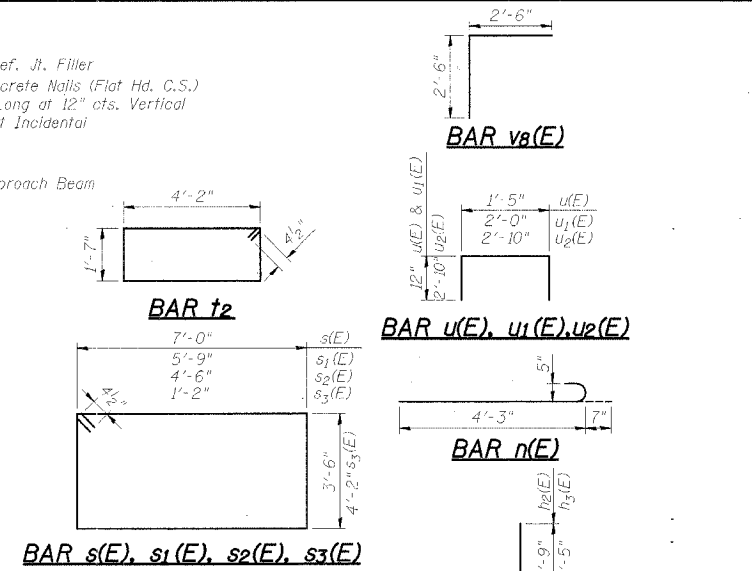
P.J.F. DETAIL

1/2" Pref. Jt. Filler
Concrete Nails (Flat Hd. C.S.)
1" Long at 12" cts. Vertical
Cost Incidental

SIZE	LENGTH
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"
#9	5'-9"

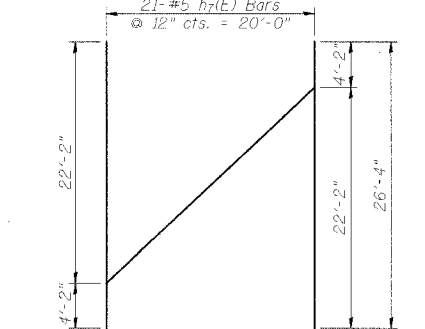
NOTATIONS

E.F. = Each Face
B.F. = Back Face
F.F. = Front Face
W.W. = Wingwall



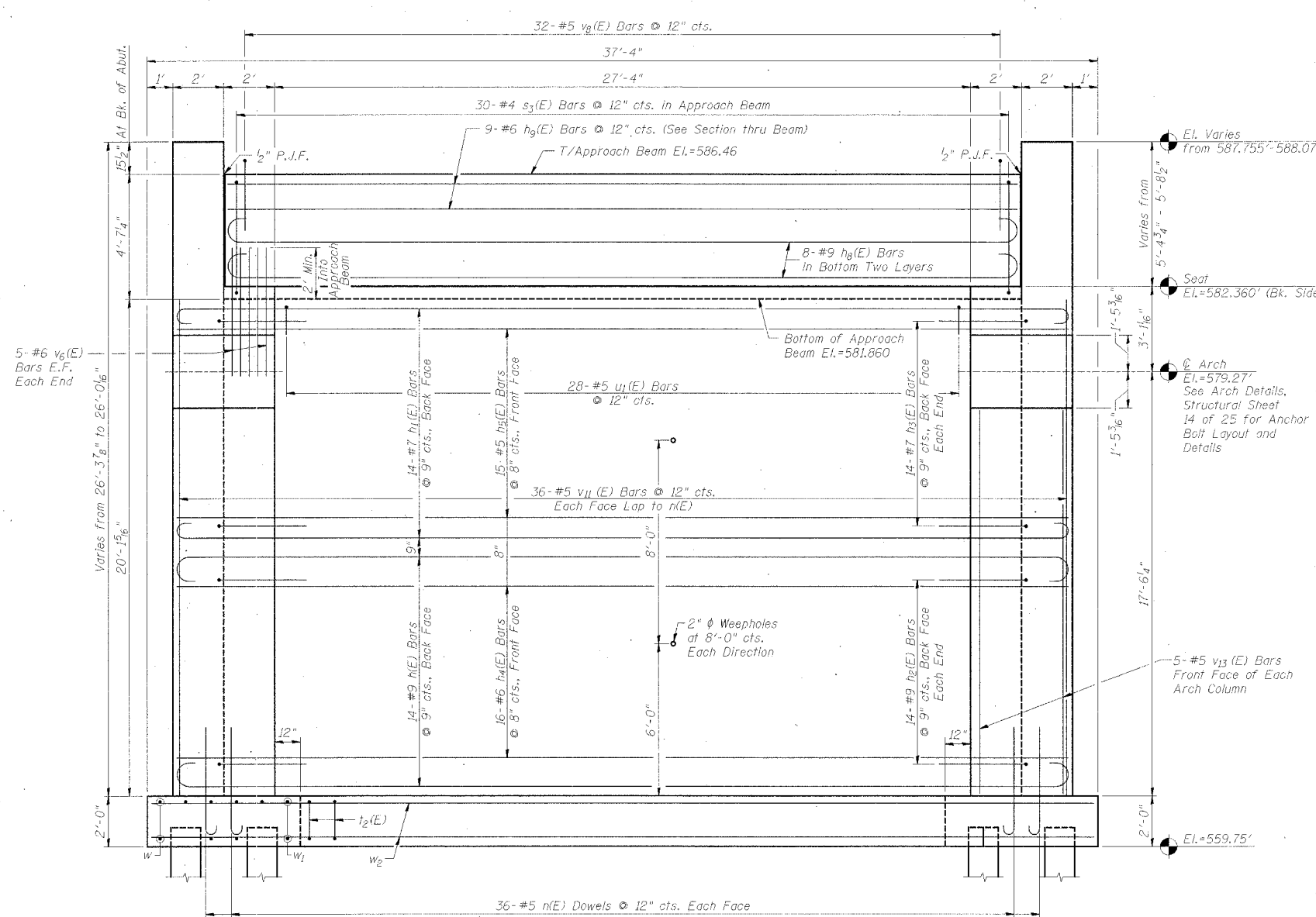
v10(E) FIELD CUTTING DIAGRAM

Cut Bars in Field & Use Remainder of Bars in Other Buttress



h7(E) FIELD CUTTING DIAGRAM

Cut Bars in Field & Use Remainder of Bars in Other Buttress



ABUTMENT ELEVATION - SECTION 5-5

5- #6 v6(E) Bars E.F. Each End

Varies From 26'-3 3/8" to 26'-0 1/8"
20'-15 1/8"
4'-7 1/4"
15 1/2" At Bk. of Abut.

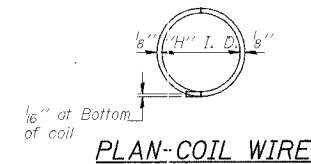
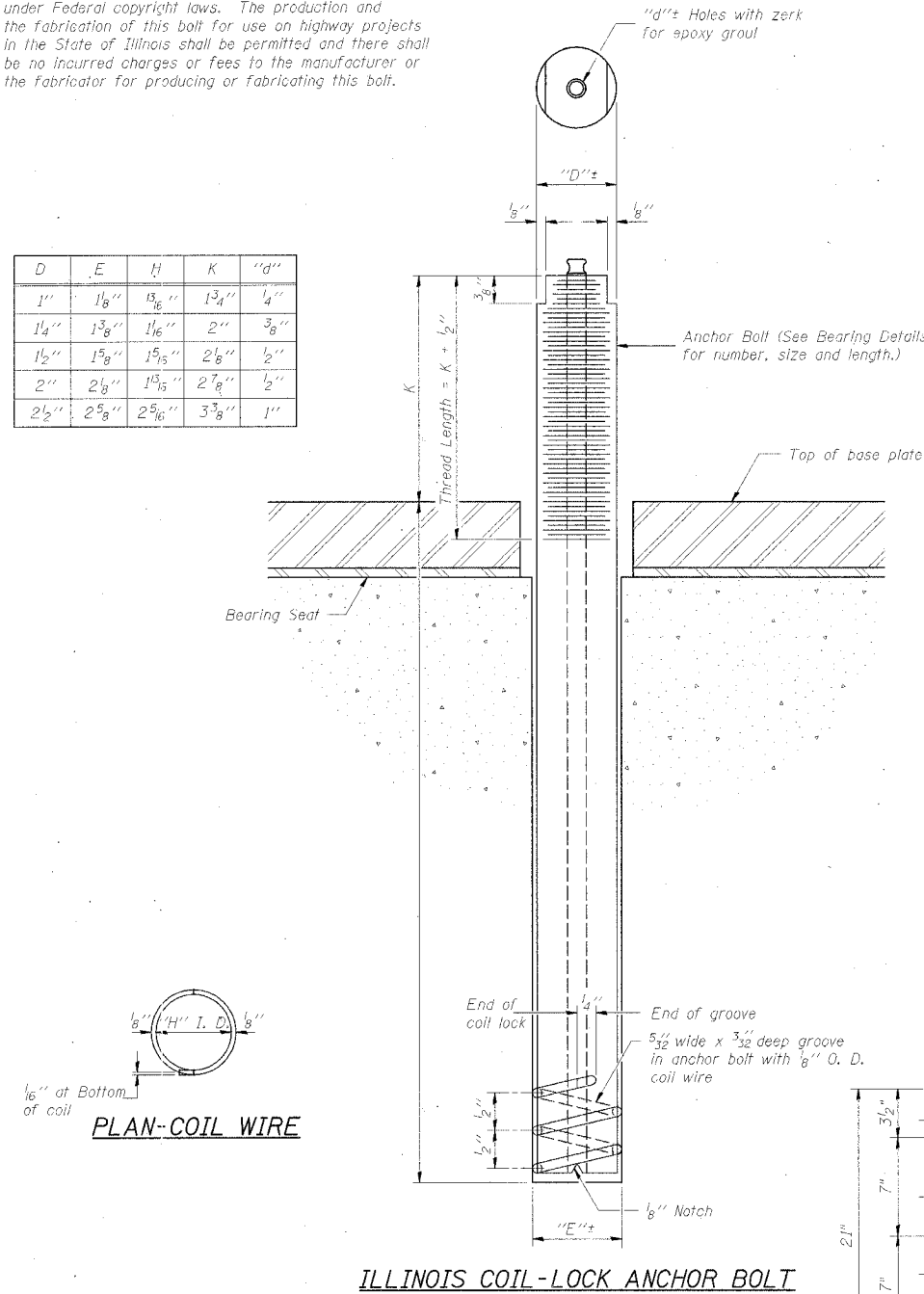
El. Varies from 587.755' - 588.07'
Varies from 5'-4 3/4" - 5'-0 1/2"
Seat El.=582.360' (Bk. Side)
Arch El.=579.27'
See Arch Details, Structural Sheet 14 of 25 for Anchor Bolt Layout and Details

5- #5 v13(E) Bars Front Face of Each Arch Column

DATE	SECTION	COUNTY	POSTS	SHEET
245	98-20101-00-BR	BUREAU	65	56
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-BROS-OH(62)	
STRUCTURAL SHEET 23 OF 25				

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.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/4"	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"



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 1, 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.

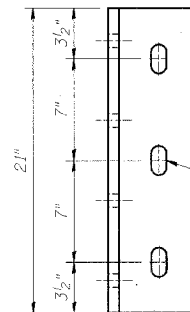
ALTERNATE ANCHOR BOLTS

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.

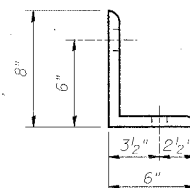
The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

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.

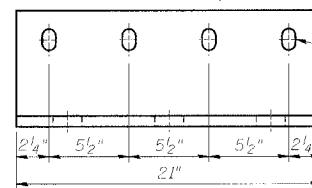
Location	Type
Abutment	1"φ



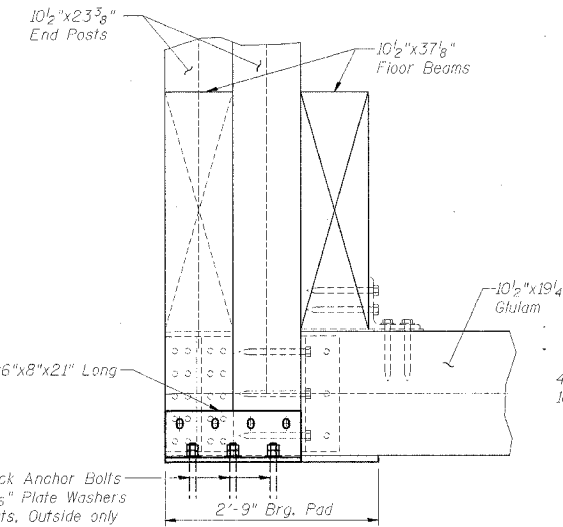
3-1 1/16" φ x 2" Long Slotted Holes for 1" φ x 12" Anchor Bolts with 2 1/2" x 2 1/2" x 5/16" Plate Washers



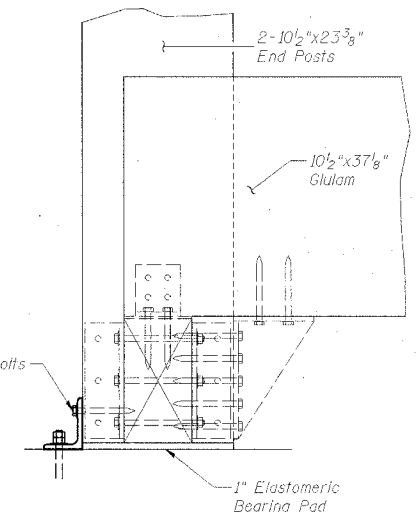
SIDE RETAINER
4 Required



4-1 1/8" x 1 1/2" Long Slotted Holes for 1/8" φ Bolts



ELEVATION AT ABUTMENT

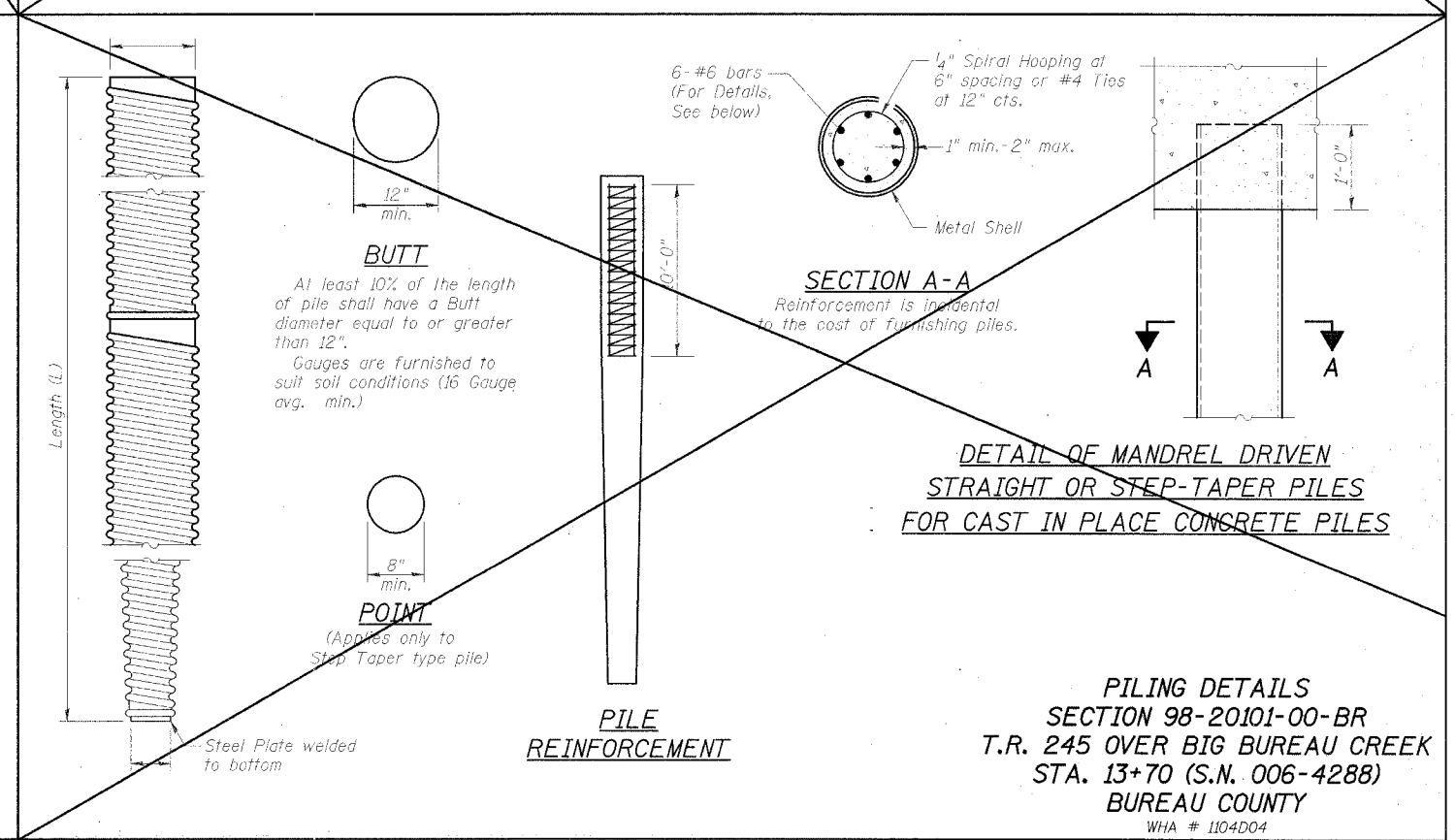
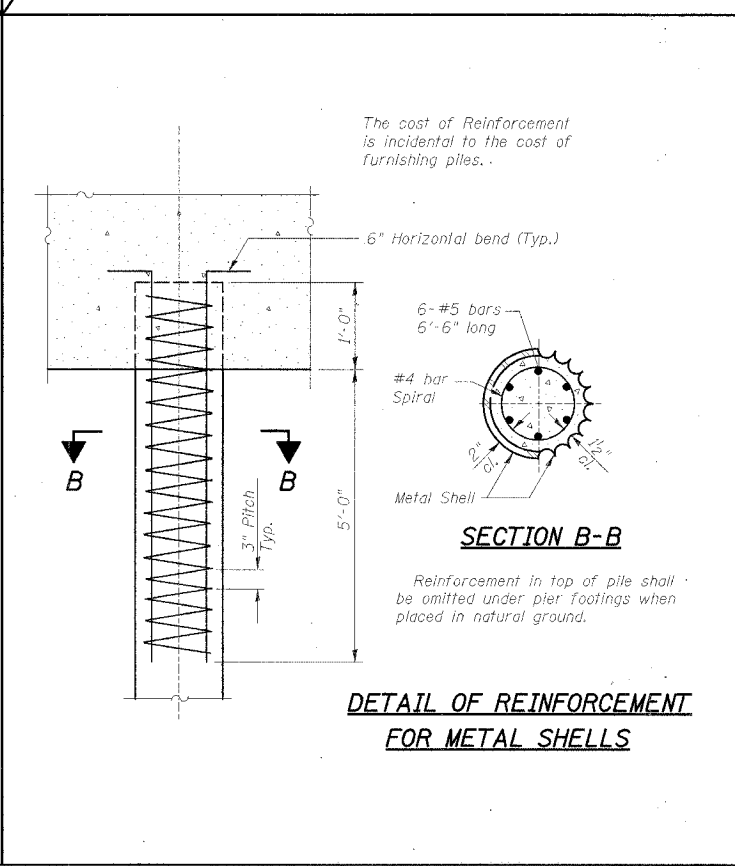
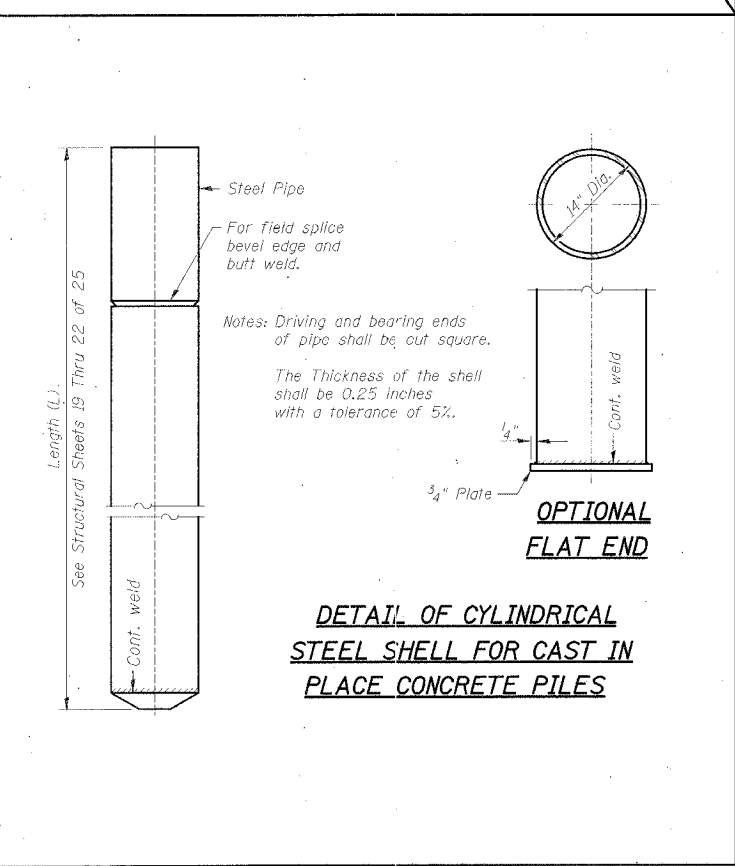
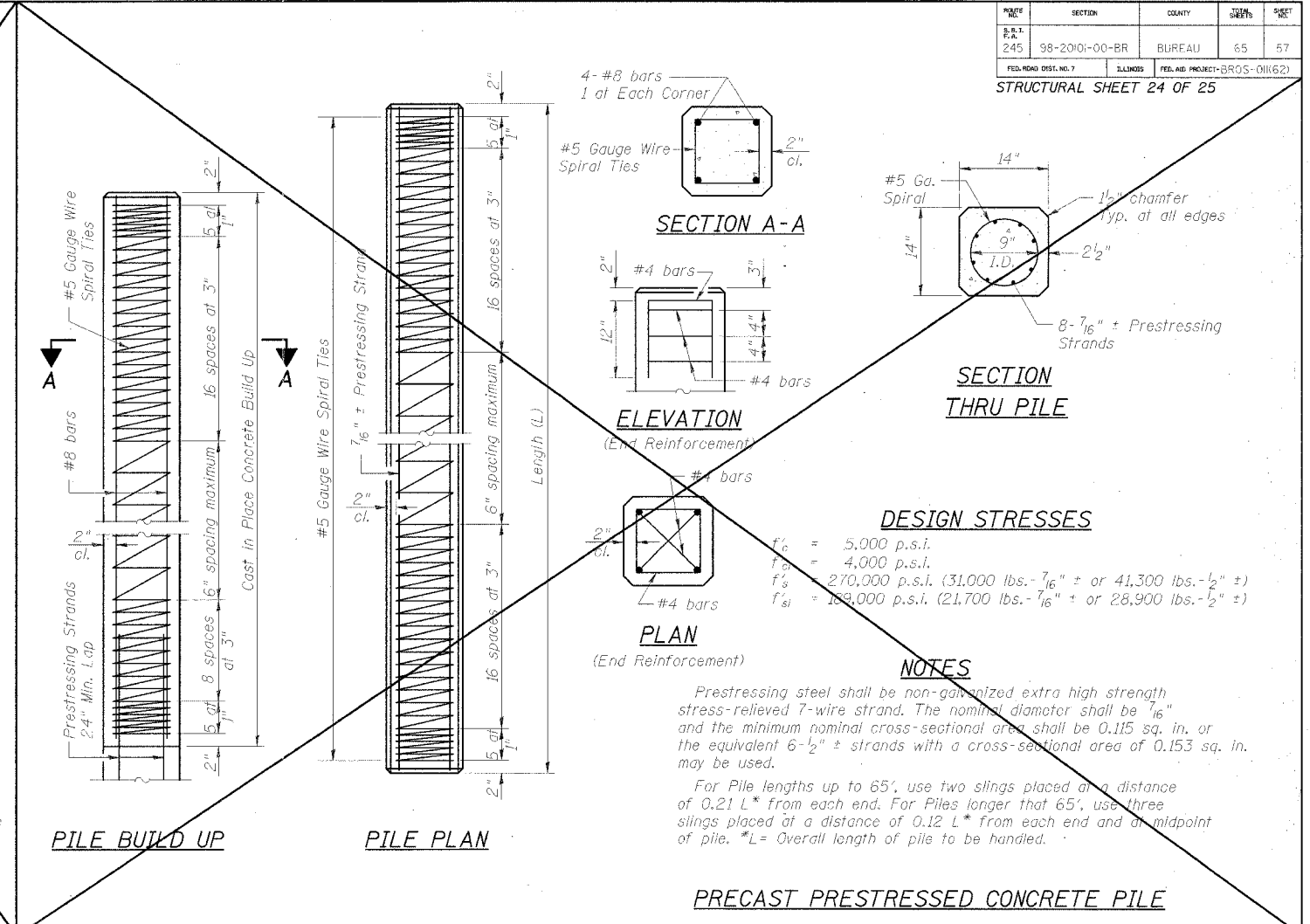
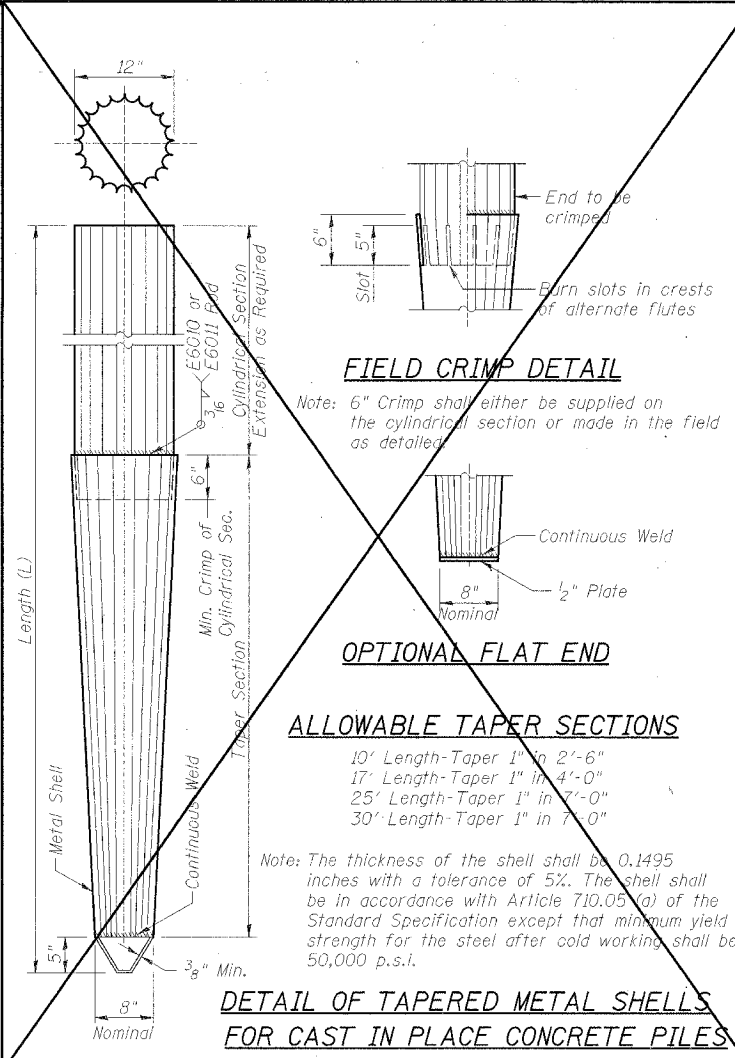
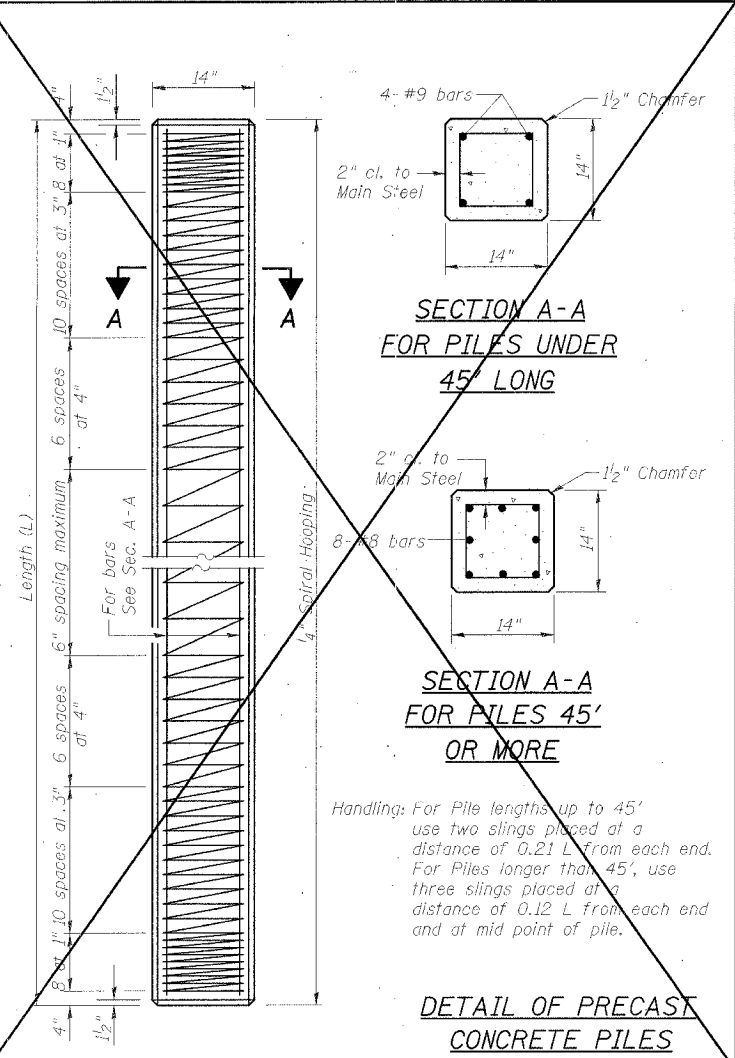


SECTION AT ABUTMENT

ANCHOR BOLT DETAILS
 SECTION 98-20101-00-BR
 T.R. 245 OVER BIG BUREAU CREEK
 STA. 13+70 (S.N. 006-4288)
 BUREAU COUNTY
 WHA # 1104D04

DATE	SECTION	COUNTY	SHEET	SHEET
245	98-20101-00-BR	BUREAU	65	57
FILE NO. DIST. NO. 7		PROJECT: BR05-011(62)		

STRUCTURAL SHEET 24 OF 25



PILING DETAILS
 SECTION 98-20101-00-BR
 T.R. 245 OVER BIG BUREAU CREEK
 STA. 13+70 (S.N. 006-4288)
 BUREAU COUNTY
 WHA # 1104D04

LOG OF BORING NO. **B1**
PROJECT: PROPOSED BRIDGE, SEC. 98-20101-00-BR, PRINCETON R.D. JOB NO. 4868.01
OWNER: BUREAU COUNTY HIGHWAY DEPT. / PRINCETON TOWNSHIP ORDER NO.
ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.
LOCATION: SE 1/4 OF SEC. 7, T16N, R9E OF THE 4TH P.M.; BUREAU COUNTY, ILLINOIS
BORING LOCATED 15' LEFT OF STATION 14+19

DATUM: B.M. = CHISELED SQUARE ON SE WINGWALL OF EXISTING STRUCTURE; ELEVATION = 582.17

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	DIS.	REC.	N	Q _u	w%
588.9	Loose to dense brown SAND and GRAVEL, wet at -4.5'	0.0	1	SS			7		
584.4	Hard pinkish gray SILTY CLAY, trace sand, trace gravel	4.5	2	SS			23	4.85	10.7
5		3	SS			20	7.18	11.1	
10		4	SS			17	5.77	10.4	
11.0		5	SS			18	8.45	9.6	
557.9	Hard pinkish gray CLAYEY SILT, trace sand, trace gravel	15	6	SS			28	5.02	8.8
18.5		7	SS			49	5.04	10.1	
550.4	Hard pinkish gray SILTY CLAY, trace sand, trace gravel	20	8	SS			16	5.24	10.1
25		9	SS			20	4.85	10.7	
30		10	SS			22	5.77	10.0	
530.4	Hard gray CLAYEY SILT, some sand, trace gravel	35	11	SS			47	4.5+ P	9.2
40									

Drilled By GROFF Checked JAC
Inspector _____
Boring Started 9/22/04
Boring Completed 9/22/04
Sheet 1 of 2 Sheets

WATER LEVELS
While Drilling -43.5' (525.4)
On Completion _____
After _____ Hours BACKFILLED

LOG OF BORING NO. **B2**
PROJECT: PROPOSED BRIDGE, SEC. 98-20101-00-BR, PRINCETON R.D. JOB NO. 4868.01
OWNER: BUREAU COUNTY HIGHWAY DEPT. / PRINCETON TOWNSHIP ORDER NO.
ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.
LOCATION: SE 1/4 OF SEC. 7, T16N, R9E OF THE 4TH P.M.; BUREAU COUNTY, ILLINOIS
BORING LOCATED 25' LEFT OF STATION 13+10

DATUM: B.M. = CHISELED SQUARE ON SE WINGWALL OF EXISTING STRUCTURE; ELEVATION = 582.17

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	DIS.	REC.	N	Q _u	w%
584.5	Brown SAND and GRAVEL	0.0							
583.5		1.0	1	SS			12	4.57	12.0
	Hard pinkish gray SILTY CLAY, trace sand, trace gravel	5	2	SS			19	6.17	11.0
		10	3	SS			20	5.24	11.2
		15	4	SS			23	5.36	11.0
		20	5	SS			22	5.04	10.3
		25	6	SS			23	5.02	9.1
		30	7	SS			20	5.15	10.0
		35	8	SS			24	5.98	10.7
		40	9	SS			32	6.38	10.7
530.0		Medium dense gray SANDY SILT, trace gravel (moist)	34.5	10	SS			24	5.77
35								0.87	16.5
526.0	Medium dense to very dense gray fine SAND (wet)	38.5	11	SS			18		23.2

Drilled By GROFF Checked JAC
Inspector _____
Boring Started 9/23/04
Boring Completed 9/23/04
Sheet 1 of 2 Sheets

WATER LEVELS
While Drilling -38.5' (526.0)
On Completion _____
After _____ Hours BACKFILLED

LOG OF BORING NO. **B3**
PROJECT: PROPOSED BRIDGE, SEC. 98-20101-00-BR, PRINCETON R.D. JOB NO. 4868.01
OWNER: BUREAU COUNTY HIGHWAY DEPT. / PRINCETON TOWNSHIP ORDER NO.
ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.
LOCATION: CITY BRUSH PIT SITE AT NE CORNER OF EPPERSON ROAD AND RAILROAD AVENUE
PRINCETON, ILLINOIS; BORING LOCATED 50' N & 120' W OF BRUSH PIT ENTRANCE

DATUM: NONE

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	DIS.	REC.	N	Q _u	w%
	Brown CLAYEY SILT	0.0							
583.5		0.5	1	SS			20	3.92	10.8
	Very stiff brown SILTY CLAY, trace sand, trace gravel	3.5	2	SS			17	4.65	10.0
		5	3	SS			17	5.24	10.5
		10	4	SS			16	4.07	11.1
	Hard pinkish gray SILTY CLAY, trace sand, trace gravel	15	5	SS			14	4.46	10.7
		20	6	SS			16	4.85	11.3
		25	7	SS			19	4.07	10.8
		30	8	SS			17	4.07	11.4
		35	9	SS			25	4.85	11.9
		40							

END OF BORING

Drilled By GROFF Checked JAC
Inspector _____
Boring Started 9/22/04
Boring Completed 9/22/04
Sheet 1 of 1 Sheets

WATER LEVELS
While Drilling NONE
On Completion NONE
After _____ Hours BACKFILLED

SECTION	COUNTY	SHEETS	SHEET
98-20101-00-BR	BUREAU	65	58
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BROS-011(62)	

STRUCTURAL SHEET 25 OF 25

LOG OF BORING NO. **B1**
PROJECT: PROPOSED BRIDGE, SEC. 98-20101-00-BR, PRINCETON R.D. JOB NO. 4868.01
OWNER: BUREAU COUNTY HIGHWAY DEPT. / PRINCETON TOWNSHIP ORDER NO.
ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.
LOCATION: SE 1/4 OF SEC. 7, T16N, R9E OF THE 4TH P.M.; BUREAU COUNTY, ILLINOIS
BORING LOCATED 15' LEFT OF STATION 14+19

DATUM: B.M. = CHISELED SQUARE ON SE WINGWALL OF EXISTING STRUCTURE; ELEVATION = 582.17

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	DIS.	REC.	N	Q _u	w%
525.4	Hard gray CLAYEY SILT, some sand, trace gravel	40							
43.5		12	SS			1*			
	Very dense to medium dense gray fine SAND (wet)	45	13	SS			88		
50		14	SS			50			
55		15	SS			16			
508.9	END OF BORING	60.0							

Drilled By GROFF Checked JAC
Inspector _____
Boring Started 9/22/04
Boring Completed 9/22/04
Sheet 2 of 2 Sheets

WATER LEVELS
While Drilling -43.5' (525.4)
On Completion _____
After _____ Hours BACKFILLED

LOG OF BORING NO. **B2**
PROJECT: PROPOSED BRIDGE, SEC. 98-20101-00-BR, PRINCETON R.D. JOB NO. 4868.01
OWNER: BUREAU COUNTY HIGHWAY DEPT. / PRINCETON TOWNSHIP ORDER NO.
ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.
LOCATION: SE 1/4 OF SEC. 7, T16N, R9E OF THE 4TH P.M.; BUREAU COUNTY, ILLINOIS
BORING LOCATED 25' LEFT OF STATION 13+10

DATUM: B.M. = CHISELED SQUARE ON SE WINGWALL OF EXISTING STRUCTURE; ELEVATION = 582.17

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	DIS.	REC.	N	Q _u	w%
	Medium dense to very dense gray fine SAND (wet)	40							
514.5		45	12	SS			56		
	END OF BORING	50.0	13	SS			52		

Drilled By GROFF Checked JAC
Inspector _____
Boring Started 9/23/04
Boring Completed 9/23/04
Sheet 2 of 2 Sheets

WATER LEVELS
While Drilling -38.5' (526.0)
On Completion _____
After _____ Hours BACKFILLED

LOG OF BORING NO. **B4**
PROJECT: PROPOSED BRIDGE, SEC. 98-20101-00-BR, PRINCETON R.D. JOB NO. 4868.01
OWNER: BUREAU COUNTY HIGHWAY DEPT. / PRINCETON TOWNSHIP ORDER NO.
ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.
LOCATION: CITY BRUSH PIT SITE AT NE CORNER OF EPPERSON ROAD AND RAILROAD AVENUE
PRINCETON, ILLINOIS; BORING LOCATED 60' N & 300' E OF BRUSH PIT ENTRANCE

DATUM: NONE

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	DIS.	REC.	N	Q _u	w%
	Medium dense to loose brown SILT, trace fine sand, trace clay, seam of saturated fine sand at -9.0' (wet below -4.5')	0.0	1	SS			16	1.75	19.6
		5	2	SS			8	1.31	23.7
		10	3	SS			6	0.97	23.9
	Stiff gray SILTY CLAY, seams of gray saturated silt	11.0	4	SS			11	1.0 P	21.6
		14.5	5	SS			5	1.55	23.6
	Medium dense gray SAND and GRAVEL, trace clay	15	6	SS			16		
		18.5	7	SS			17	5.43	11.4
	Hard to very stiff pinkish gray SILTY CLAY, trace sand, trace gravel	20	8	SS			23	4.85	11.7
		30.0	9	SS			21	2.33	12.3

END OF BORING

Drilled By GROFF Checked JAC
Inspector _____
Boring Started 9/22/04
Boring Completed 9/22/04
Sheet 1 of 1 Sheets

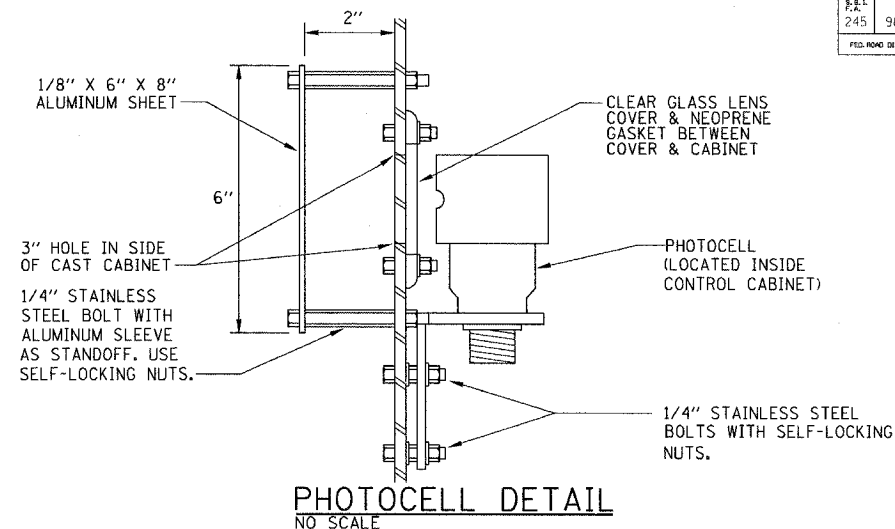
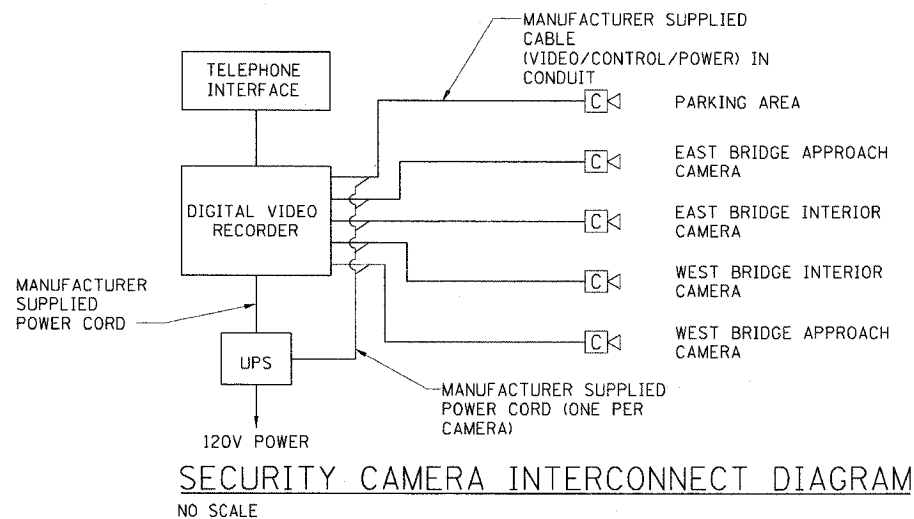
WATER LEVELS
While Drilling -4.5'
On Completion DCI -8.0'
After _____ Hours BACKFILLED

BORING LOGS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY
WHA # 1104004

PROJECT	SECTION	COUNTY	SHEETS	SHEET
245	98-20101-00-BR	BUREAU	65	59
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	BROS-011(62)	
ELECTRICAL SHEET 1 OF 5				

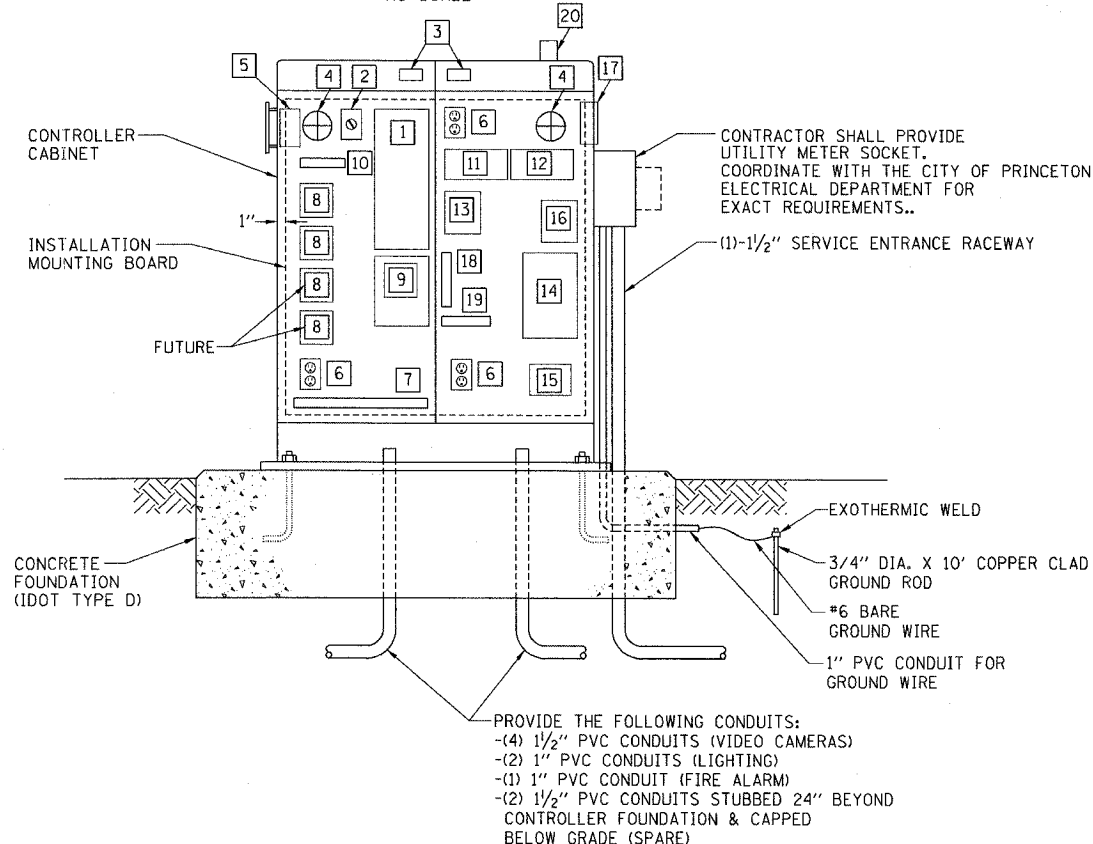
GENERAL NOTES

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE 2005 NATIONAL ELECTRICAL CODE, THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2002," THESE PLANS, AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- ALL CONDUIT AND EQUIPMENT MOUNTED ON BRIDGE SHALL BE CONCEALED WHEREVER POSSIBLE. WHERE NOT POSSIBLE, CONTRACTOR SHALL CONFIRM LOCATION WITH ENGINEER IN FIELD PRIOR TO INSTALLATION. ALL EXPOSED CONDUIT, JUNCTION BOXES, MOUNTING BRACKETS, ETC. SHALL BE PAINTED TO MATCH SURROUNDING SURFACE.
- ALL EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL. ALL UNDERGROUND CONDUITS SHALL BE PERMITTED TO BE PVC.
- CONTRACTOR SHALL CONFIRM FINAL AIMING AND ZOOM OF CAMERAS AND AIMING OF FLOODLIGHTS WITH ENGINEER IN FIELD. TURN OVER ALL SOFTWARE PROVIDED WITH VIDEO SURVEILLANCE SYSTEM.
- ALL CONDUITS SHALL BE PROVIDED WITH AN INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH THE 2002 NATIONAL ELECTRICAL CODE OR AS INDICATED ON THE DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR BONDING AND GROUNDING ALL CONDUITS AS REQUIRED BY THE 2005 NATIONAL ELECTRICAL CODE.
- CAMERAS SHALL BE GROUNDED PER MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH THE 2005 NATIONAL ELECTRICAL CODE.
- ALL CLEARING AND GRUBBING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE LOCATION OF EXISTING ELECTRIC POWER LINES, TELEPHONE LINES, AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION. IT IS THE CONTRACTORS RESPONSIBILITY TO REPAIR ANY UTILITIES DAMAGED DURING THE COURSE OF CONSTRUCTION AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS UNTIL THE OWNER, HIS AGENT, PROFESSIONAL LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- CONTRACTOR IS RESPONSIBLE FOR STABILITY OF THE SIDES OF THE EXCAVATION.



LIGHTING CONTROLLER BILL OF MATERIALS

QTY	ITEM	DESCRIPTION
1	1	100A, 120/240V, 1Ø, 20 CIRCUIT PANELBOARD (INTERIOR ONLY, NO PANEL TUB), QUANTITY OF BREAKERS AS SHOWN IN PANELBOARD SCHEDULE
1	2	HAND-OFF-AUTO SELECTOR SWITCH WITH LEGEND PLATE.
2	3	120 VAC, 20A, 1P PLUNGERTYPE SWITCH FOR CONTROLLER LIGHT, DOOR ACTIVATED
2	4	INCANDESCENT LIGHT FIXTURE WITH CLEAR GLOBE AND PROTECTIVE GUARD. PROVIDE 60WATT, 130VAC LAMP.
1	5	PHOTOCELL SWITCH WITH LOCKING TYPE RECEPTACLE AND INTEGRAL SURGE ARRESTORS. PHOTOCELL SHALL BE CABINET MOUNTED AND SHIELDED FROM SURROUNDING LIGHT SOURCES, WITH TIME DELAY RELAY TO PREVENT NUISANCE SWITCHING. (SEE PHOTOCELL DETAIL).
3	6	DUPLEX RECEPTACLE, 120VAC, 20A, GFCI TYPE.
1	7	TERMINAL STRIPS. QUANTITY AS REQUIRED FOR INCOMING WIRING PLUS 100% SPARE TERMINALS. PROVIDE SEPARATE TERMINAL STRIPS FOR POWER, NEUTRAL AND GROUND WIRING AS REQUIRED.
2	8	LIGHTING CONTACTOR, 30A, 240VAC, 2 POLE, 120VAC ELECTRICALLY HELD COIL. PROVIDE SPACE FOR ADDITIONAL CONTACTORS.
1	9	TRANSIENT VOLTAGE SURGE SUPPRESSOR
1	10	CONTROL WIRING TERMINAL BLOCK
1	11	1500W, 120/240V, UNINTERRUPTIBLE POWER SUPPLY FOR DIGITAL VIDEO RECORDER AND CAMERAS
1	12	DIGITAL VIDEO RECORDER (DVR)
1	13	DATA JACK TO CONNECT LAPTOP TO DVR FOR LOCAL VIEWING OF RECORDED IMAGES
1	14	FIRE ALARM CONTROL PANEL
1	15	AUTO DIALER
1	16	FIRE ALARM HORN
1	17	THERMOSTATICALLY CONTROLLED EXHAUST FAN
1	18	TELEPHONE PUNCHDOWN BLOCK
1	19	STRIP HEATER
1	20	WEATHERPROOF FIRE ALARM STROBE LIGHT



PAY ITEM CODE	DESCRIPTION	UNIT	QUANTITY
80400105	ELECTRIC SERVICE INSTALLATION, SPECIAL	EACH	1
80700110	GROUND ROD, 3/4" DIA. X 10 FT.	EACH	3
81012300	CONDUIT IN TRENCH, 1" DIA. PVC	FOOT	496
81012500	CONDUIT IN TRENCH, 1/2" DIA. PVC	FOOT	480
81100300	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., GALVANIZED STEEL	FOOT	270
81100500	CONDUIT ATTACHED TO STRUCTURE, 1/2" DIA., GALVANIZED STEEL	FOOT	450
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	450
81702100	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12	FOOT	450
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1910
92500505	LIGHTING CONTROLLER, SPECIAL	EACH	1
83600210	LIGHT POLE FOUNDATION, 24" DIAMETER, SPECIAL	FOOT	29
	LUMINAIRE, METAL HALIDE, VERTICAL MOUNT, 250 WATT, SPOT TYPE DISTRIBUTION	EACH	2
	LUMINAIRE, METAL HALIDE, VERTICAL MOUNT, 250 WATT, NARROW HORIZONTAL SPOT TYPE DISTRIBUTION	EACH	2
	LUMINAIRE, METAL HALIDE, WALL PACK, 100 WATT	EACH	3
	LIGHT POLE, STEEL 16 FT. M.H., TENON MOUNT	EACH	2
	LIGHT POLE, STEEL, 16 FT. M.H., TENON MOUNT, DOUBLE	EACH	1
	FIRE ALARM SYSTEM, COMPLETE	L.SUM	1
	VIDEO SURVEILLANCE SYSTEM, SPECIAL	L.SUM	1
	VIDEO/CONTROL/POWER CABLE, SPECIAL	FOOT	930
X8011010	TELEPHONE SERVICE INSTALLATION	L.SUM	1
	SERVICE LATERAL, SPECIAL	FOOT	195

ELECTRICAL GENERAL NOTES AND CONTROLLER DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY

WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structural
Environmental - Architecture

WHA # 1104004

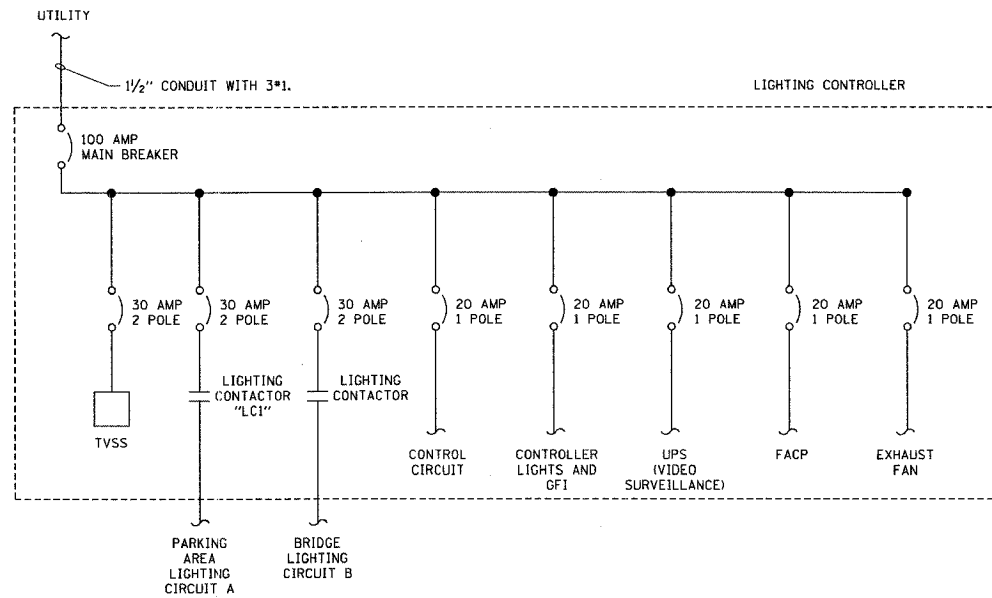
Designed By: J.J.F.
Date: August, 05
Checked By: C.E.C.
Date: August, 05
Drawn By: M.E.W.
Date: August, 05

PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
245	98-20101-00-BR	BUREAU	65	60
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: BROS-011621		

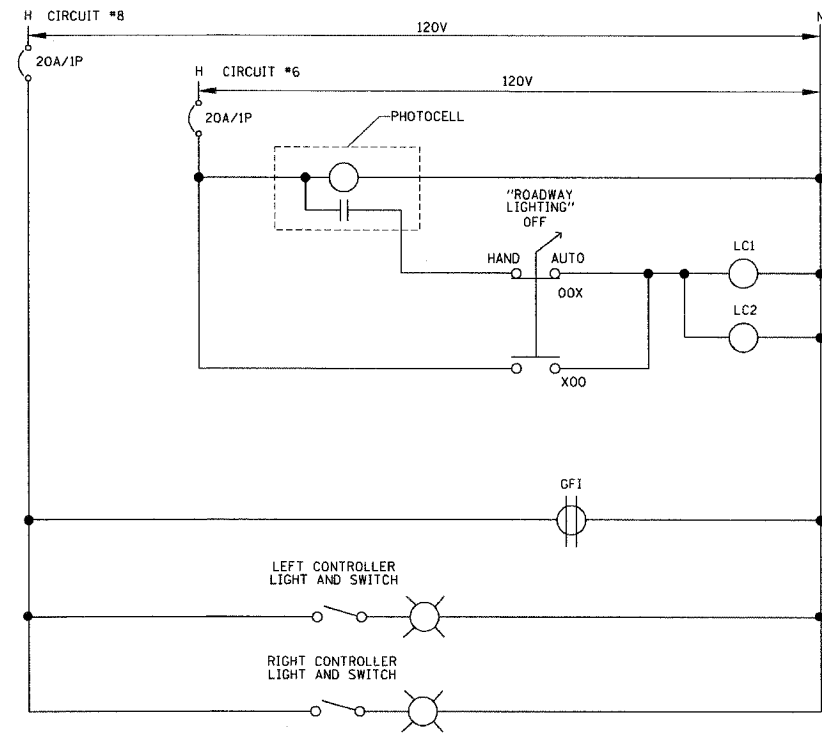
ELECTRICAL SHEET 2 OF 5

PANELBOARD LIGHTING		MAINS 100 AMPS							
VOLTAGE 120/240		BUS RATING 100 AMPS							
PHASE/WIRE 1PH/3W		MOUNTING INTERIOR ONLY							
DESCRIPTION	CKT. NO.	LOAD (VA) A B	AMPS/POLES	CKT. BKR.	CKT. BKR.	AMPS/POLES	LOAD (VA) A B	CKT. NO.	DESCRIPTION
TVSS	1	0	30/2			30/2	330	2	BRIDGE LIGHTING CIRCUIT B
	3	0					330	4	
PARKING AREA LIGHTING CIRCUIT A	5	450	30/2			20/1	500	6	CONTROL CIRCUIT
	7	450				20/1	400	8	CONTROLLER LIGHTS & GFI
SPACE	9	0				20/1	1500	10	UPS (VIDEO SURVEILLANCE)
SPACE	11	0				20/1	1000	12	FIRE ALARM CONTROL PANEL
SPACE	13	750				20/1	500	14	EXHAUST FAN
SPACE	15	750					0	16	SPACE
SPACE	17	600					0	18	SPACE
SPACE	19	600					0	20	SPACE
SUBTOTAL "A"		450					2830		
SUBTOTAL "B"		450					1730		
TOTAL VOLTAMPERES A & B:		5,460 VA							

PANELBOARD SCHEDULE
NO SCALE



ELECTRICAL ONE-LINE DIAGRAM
NO SCALE



NOTE:
GROUND WIRE NOT SHOWN FOR CLARITY. CONTRACTOR SHALL GROUND ALL EQUIPMENT IN THE LIGHTING CONTROL CABINET AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.

LIGHTING CONTROLLER CONTROL DIAGRAM
NO SCALE

ONE LINE DIAGRAM
AND CONTROL SCHEMATIC
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY

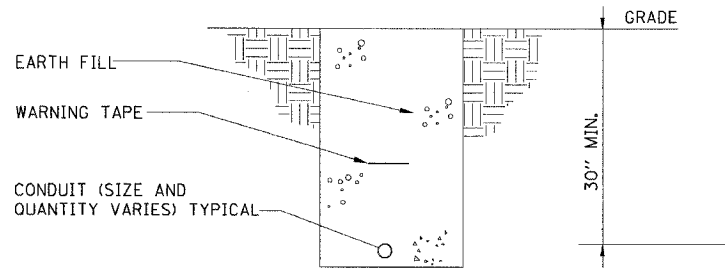


WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structures
Environmental - Architecture

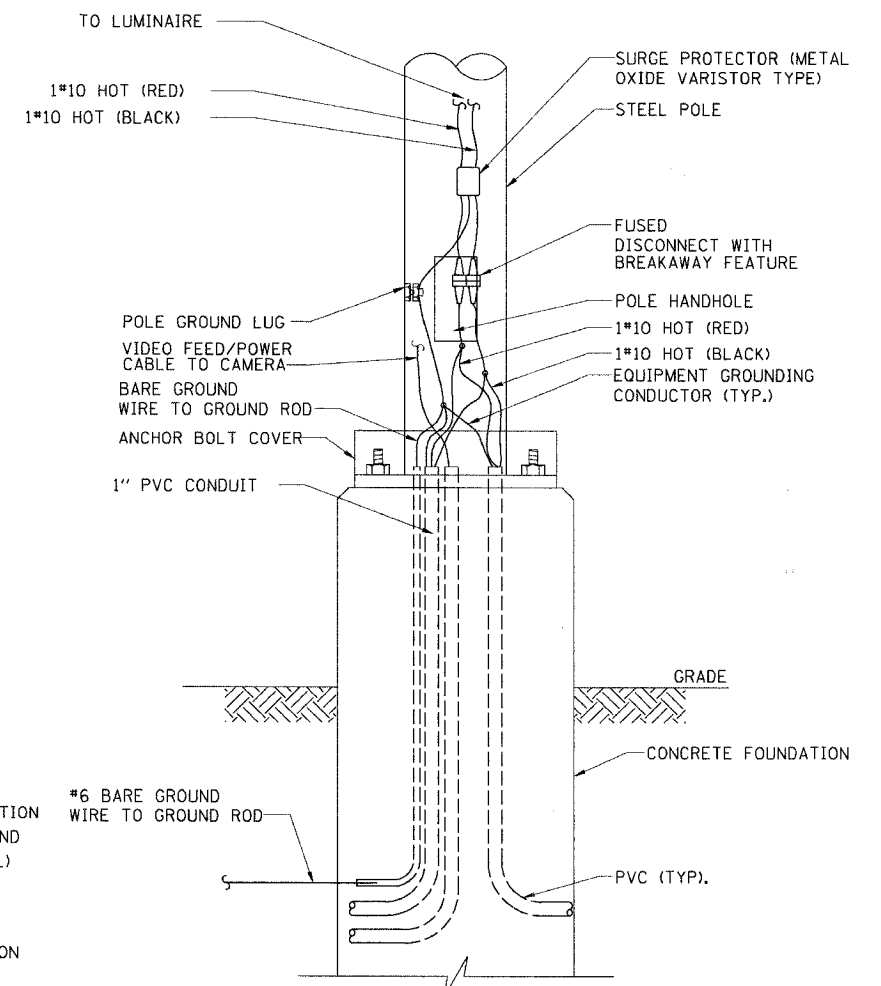
Designed By: J.J.F.
Date: August, 05
Checked By: C.E.C.
Date: August, 05
Drawn By: M.E.W.
Date: August, 05

DATE	SECTION	COUNTY	SHEET	TOTAL
245	98-20101-00-BR	BUREAU	65	61
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT: BROS-011621	
ELECTRICAL SHEET 3 OF 5				

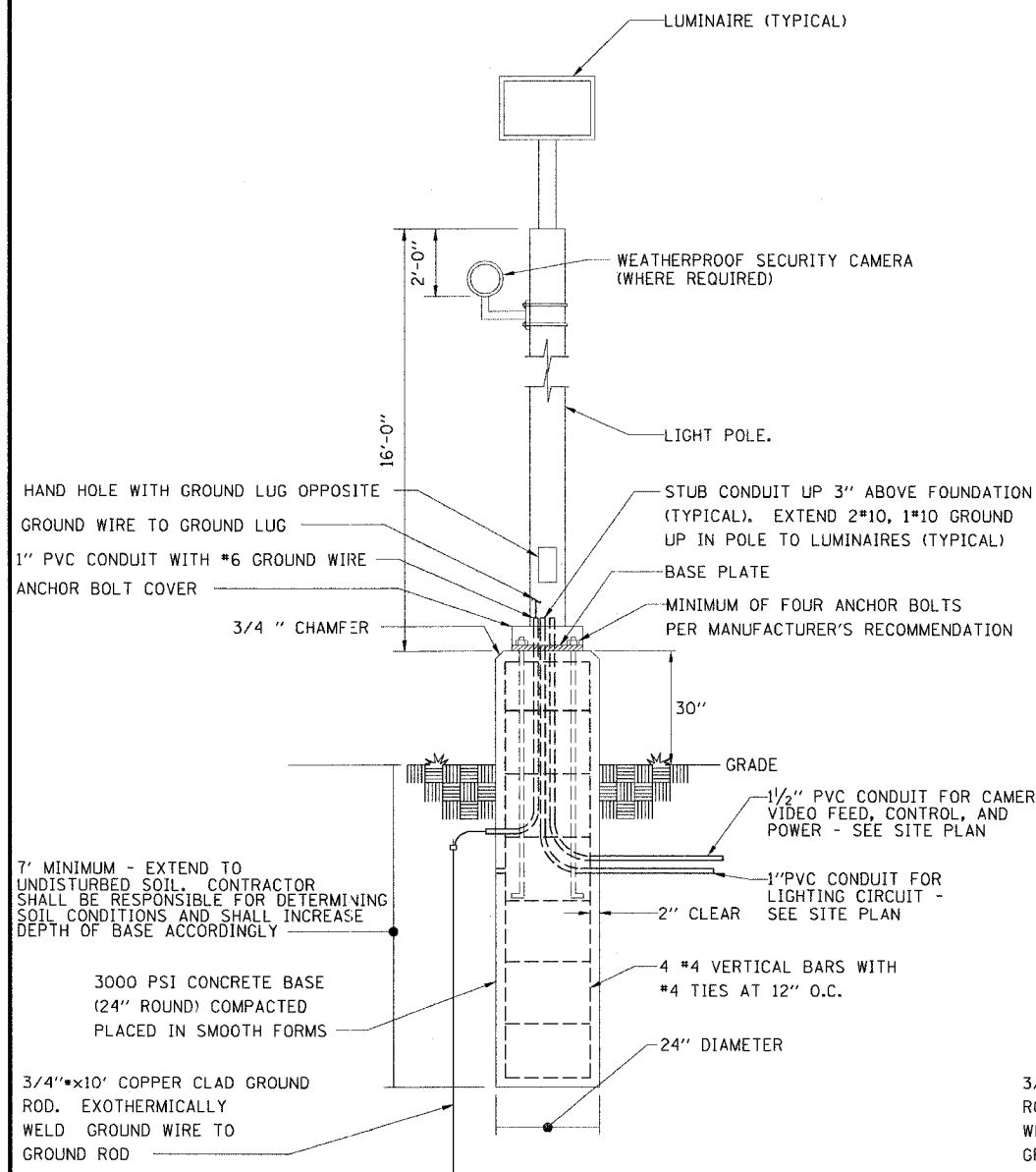
SOIL CONDITIONS	DESIGN DEPTH OF FOUNDATION
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0"
MEDIUM CLAY Qu = 0.75 TON/SQ. FT.	9'-6"
STIFF CLAY Qu = 1.5 TON/SQ. FT.	7'-0"
LOOSE SAND φ = 34°	9'-0"
MEDIUM SAND φ = 37.5°	8'-3"
DENSE SAND φ = 40°	7'-9"



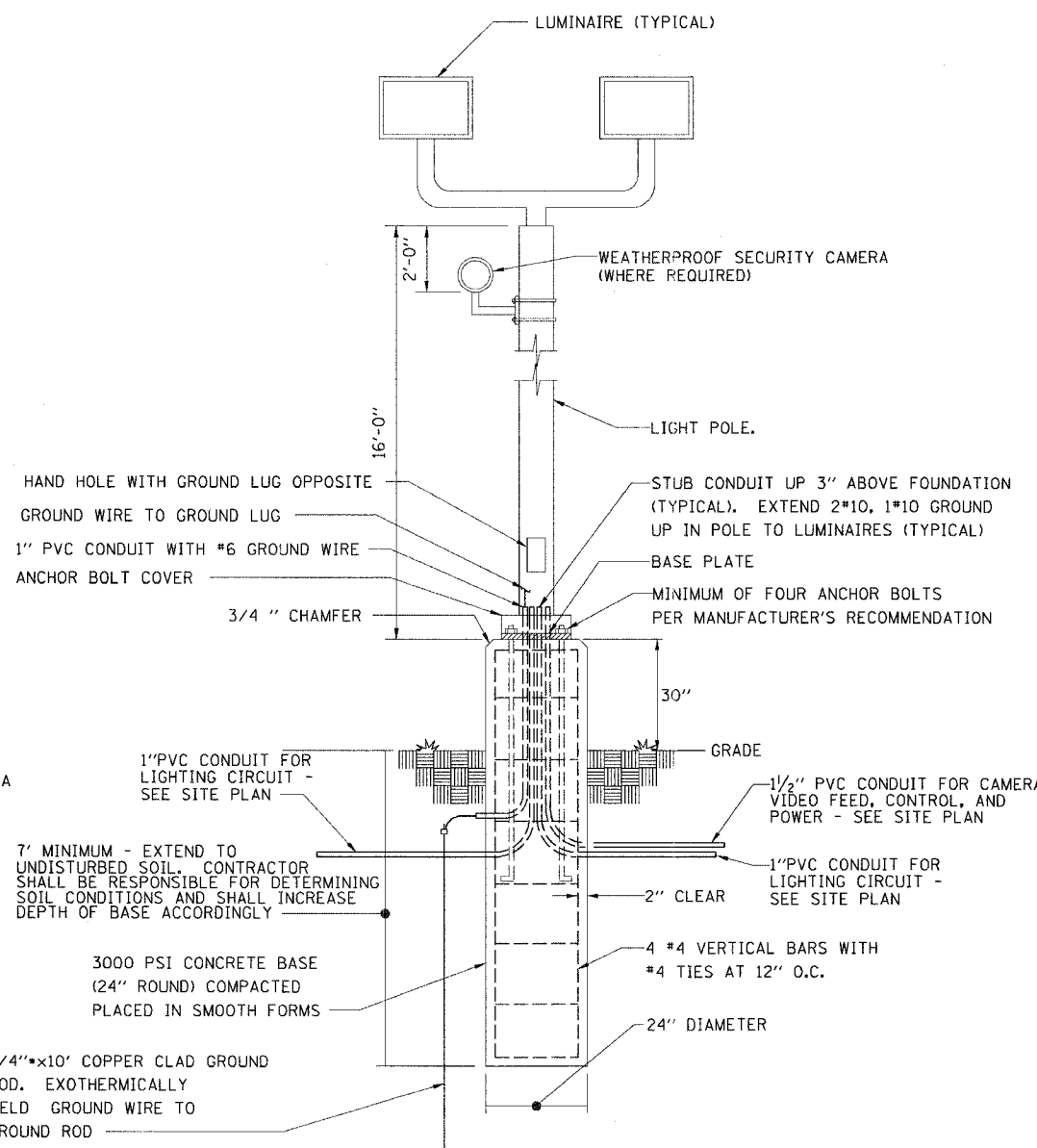
TRENCH DETAIL
NO SCALE



POLE BASE WIRING
NO SCALE



LIGHT POLE FOUNDATION DETAIL
SINGLE TENON
NO SCALE



LIGHT POLE FOUNDATION DETAIL
DOUBLE TENON
NO SCALE

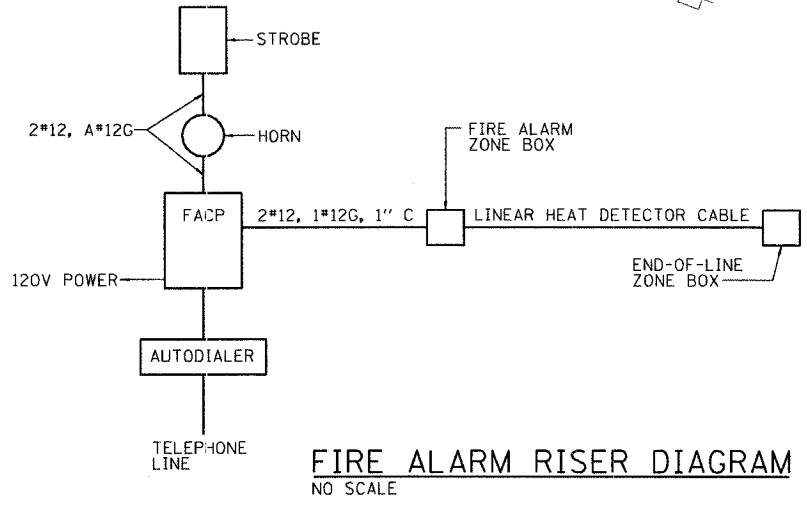
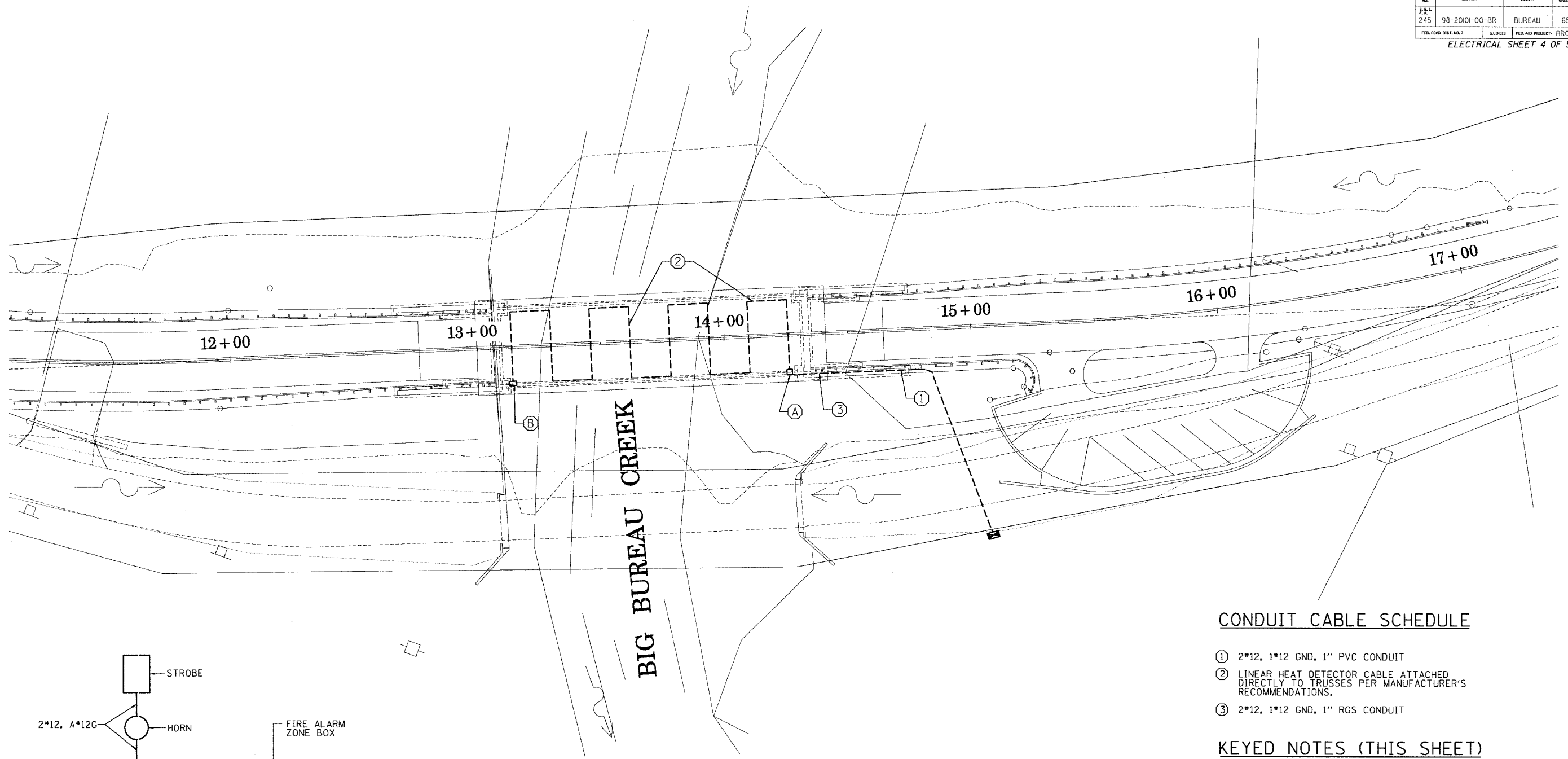
LIGHT POLE AND FOUNDATION DETAILS
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY

		WILLET, HOFMANN & ASSOCIATES, INC. CONSULTING ENGINEERS <small>Land Surveying - Transportation - Structural Environmental - Architecture</small>	Designed By: J.J.F. Date: August, 05
			Checked By: C.E.C. Date: August, 05
			Drawn By: M.E.W. Date: August, 05

WHA # 1104004

PROJECT	SECTION	COUNTY	SUBJECT	SHEET
245	98-20101-00-BR	BUREAU	65	62
FED. ROAD DIST. NO. 7	MILEAGE	FED. AID PROJECT - BROS-011(62)		

ELECTRICAL SHEET 4 OF 5



FIRE ALARM PLAN
SCALE: 1"=20'

CONDUIT CABLE SCHEDULE

- ① 2*12, 1*12 GND, 1" PVC CONDUIT
- ② LINEAR HEAT DETECTOR CABLE ATTACHED DIRECTLY TO TRUSSES PER MANUFACTURER'S RECOMMENDATIONS.
- ③ 2*12, 1*12 GND, 1" RGS CONDUIT

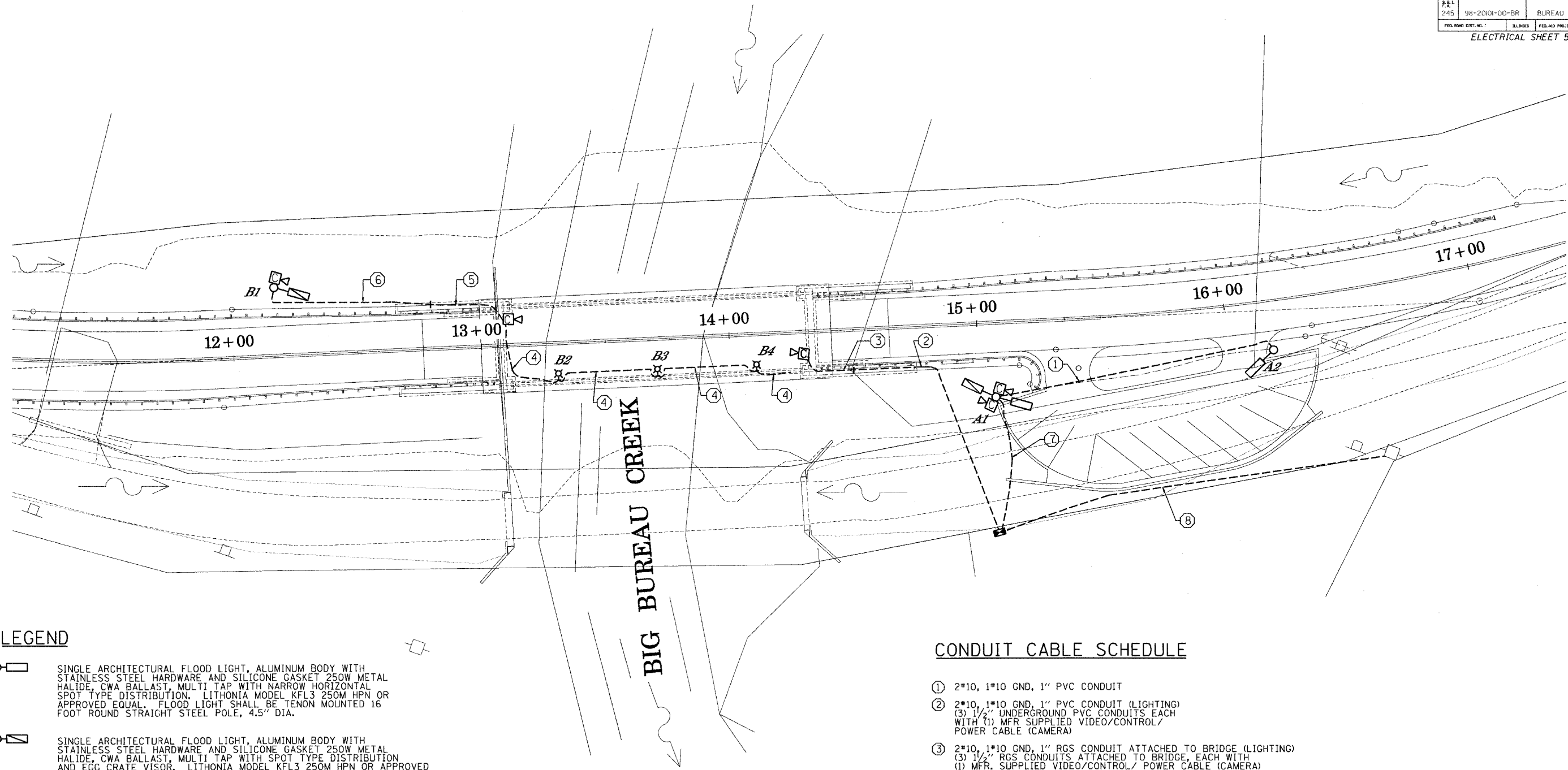
KEYED NOTES (THIS SHEET)

- (A) MANUFACTURER SUPPLIED ZONE BOX, SPLICE LINEAR HEAT DETECTOR CABLE TO 2*12 CONDUCTORS BACK TO CONTROLLER PER MANUFACTURER'S RECOMMENDATIONS.
- (B) END OF LINE ZONE BOX. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.







FIRE ALARM PLAN
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY

		Designed By: J.J.F.
		Date: August, 05
		Checked By: C.E.C.
		Date: August, 05
<small>Land Surveying - Transportation - Structural Environmental - Architecture</small>		Drawn By: M.E.W.
<small>WHA # 1104D04</small>		Date: August, 05

PROJECT	SECTION	COUNTY	SHEETS	SHEET
245	98-20101-00-BR	BUREAU	65	63
FED. ROAD DIST. NO.:		ILLINOIS	FED. AID PROJECT: BROS-0116(2)	
ELECTRICAL SHEET 5 OF 5				



LEGEND

-  SINGLE ARCHITECTURAL FLOOD LIGHT, ALUMINUM BODY WITH STAINLESS STEEL HARDWARE AND SILICONE GASKET 250W METAL HALIDE, CWA BALLAST, MULTI TAP WITH NARROW HORIZONTAL SPOT TYPE DISTRIBUTION. LITHONIA MODEL KFL3 250M HPN OR APPROVED EQUAL. FLOOD LIGHT SHALL BE TENON MOUNTED 16 FOOT ROUND STRAIGHT STEEL POLE, 4.5" DIA.
-  SINGLE ARCHITECTURAL FLOOD LIGHT, ALUMINUM BODY WITH STAINLESS STEEL HARDWARE AND SILICONE GASKET 250W METAL HALIDE, CWA BALLAST, MULTI TAP WITH SPOT TYPE DISTRIBUTION AND EGG CRATE VISOR. LITHONIA MODEL KFL3 250M HPN OR APPROVED EQUAL. FLOOD LIGHT SHALL BE TENON MOUNTED 16 FOOT ROUND STRAIGHT STEEL POLE, 4.5" DIA.
-  TWO ARCHITECTURAL FLOOD LIGHTS, ALUMINUM BODY WITH STAINLESS STEEL HARDWARE AND SILICONE GASKET, 250W METAL HALIDE, CWA, MULTI TAP BALLAST. ONE LUMINAIRE SHALL BE SPOT TYPE DISTRIBUTION WITH EGG CRATE VISOR AND THE OTHER SHALL BE NARROW HORIZONTAL SPOT TYPE DISTRIBUTION. FLOODLIGHTS SHALL BE TENON MOUNTED ON 16 FOOT ROUND STRAIGHT STEEL POLE, 4.5" DIAMETER.
-  100 WATT METAL HALIDE CUTOFF TYPE WALL PACK, ALUMINUM BODY, ONE PIECE GASKET. QUADTAP CWA BALLAST. PROVIDE LUMINAIRE WITH WIREGUARD. MOUNTING HEIGHT SHALL BE 16'-0" ABOVE BRIDGE DECK.
-  WEATHERPROOF, COLOR/MONOCHROMATIC VIDEO CAMERA
-  LIGHTING CONTROLLER WITH FIREALARM AND VIDEO EQUIPMENT.

LIGHTING AND CAMERA PLAN
SCALE: 1"=20'

CONDUIT CABLE SCHEDULE

- ① 2*10, 1*10 GND, 1" PVC CONDUIT
- ② 2*10, 1*10 GND, 1" PVC CONDUIT (LIGHTING)
(3) 1/2" UNDERGROUND PVC CONDUITS EACH WITH (1) MFR SUPPLIED VIDEO/CONTROL/POWER CABLE (CAMERA)
- ③ 2*10, 1*10 GND, 1" RGS CONDUIT ATTACHED TO BRIDGE (LIGHTING)
(3) 1/2" RGS CONDUITS ATTACHED TO BRIDGE, EACH WITH (1) MFR. SUPPLIED VIDEO/CONTROL/ POWER CABLE (CAMERA)
- ④ 2*10, 1*10 GND, 1" RGS CONDUIT ATTACHED TO BRIDGE (LIGHTING)
(2) 1/2" RGS CONDUITS ATTACHED TO BRIDGE, EACH WITH (1) MFR. SUPPLIED VIDEO/CONTROL/POWER CABLE (CAMERA)
- ⑤ 2*10, 1*10 GND, 1" RGS CONDUIT ATTACHED TO BRIDGE (LIGHTING)
(1) 1/2" RGS CONDUIT ATTACHED TO BRIDGE, WITH (1) MFR. SUPPLIED VIDEO/CONTROL/POWER CABLE (CAMERA)
- ⑥ 2*10, 1*10 GND, 1" PVC CONDUIT (LIGHTING)
(1) 1/2" UNDERGROUND PVC CONDUIT WITH (3) MFR SUPPLIED VIDEO/CONTROL/POWER CABLE (CAMERA)
- ⑦ 2*10, 1*10 GND, 1" PVC CONDUIT (LIGHTING)
(1) 1/2" PVC CONDUIT WITH (2) MFR. SUPPLIED VIDEO/CONTROL/POWER CABLE (CAMERAS)
- ⑧ 3*1, 1/2" UNDERGROUND PVC CONDUIT. ALL EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL. ALL ELBOWS SHALL BE LONG RADIUS, RGS TYPE. PROVIDE ENOUGH CONDUCTORS AND CONDUIT TO EXTEND UP POLE TO TRANSFORMER. FINAL CONNECTION TO TRANSFORMER AS WELL AS INSTALLATION OF CONDUIT AFTER THE FIRST TEN FEET ABOVE GROUND SHALL BE BY THE CITY OF PRINCETON ELECTRICAL DEPARTMENT.

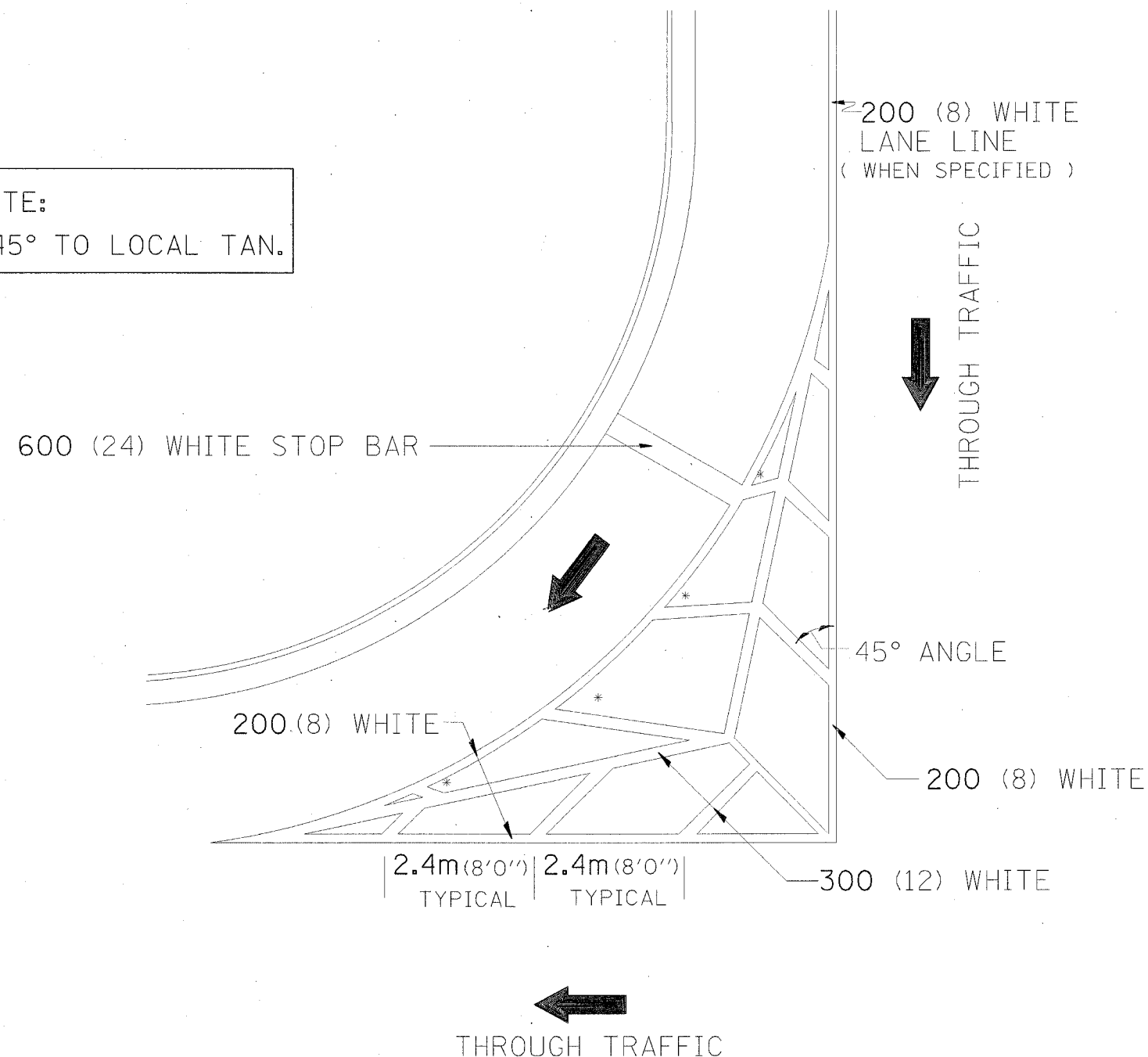
LIGHTING AND CAMERA PLAN
SECTION 98-20101-00-BR
T.R. 245 OVER BIG BUREAU CREEK
STA. 13+70 (S.N. 006-4288)
BUREAU COUNTY

		WILLETT, HOFMANN & ASSOCIATES, INC. CONSULTING ENGINEERS	Land Surveying - Transportation - Structural Environmental - Architecture	Designed By: J.J.F. Date: August, 05 Checked By: C.E.C. Date: August, 05 Drawn By: M.E.W. Date: August, 05
		WHA # 1104D04		

DATE	SECTION	COUNTY	SHEET	SHEET
245	98-20101-00-BR	BUREAU	65	65
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - BR05-01(62)	

TYPICAL MARKING FOR PAINTED ISLANDS

NOTE:
* 45° TO LOCAL TAN.



ALL DIMENSIONS ARE IN MILLIMETERS (INCHES)
UNLESS OTHERWISE NOTED.

93.4-TYPICAL MARKING FOR PAINTED ISLANDS
SECTION 98-20101-00-BR
STA. 13+70, S.N. 006-4288
T.R. 245 OVER BIG BUREAU CREEK
BUREAU COUNTY
WHA # 1104004