3-6-09 Letting, Item 124

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60 ✱	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 76886		

✱ 60+4=64

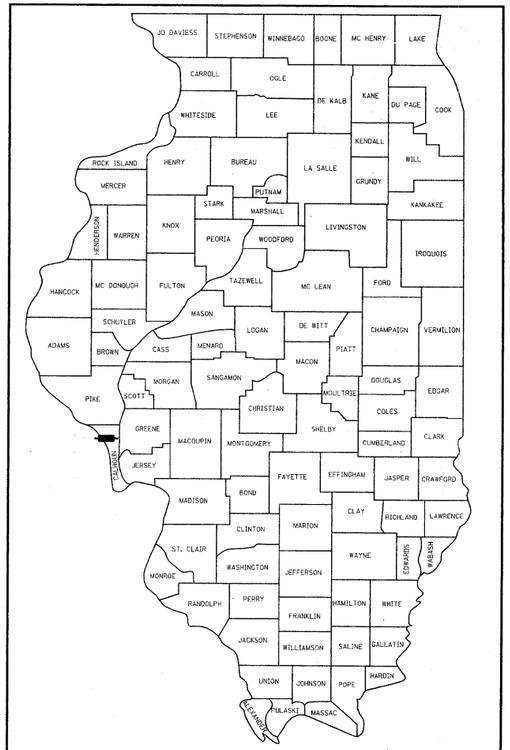
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 304 (IL 96)
SECTION 5A-BR
PROJECT: ACF-0304(037)
STRUCTURE REPLACEMENT
CALHOUN COUNTY
C-98-042-05

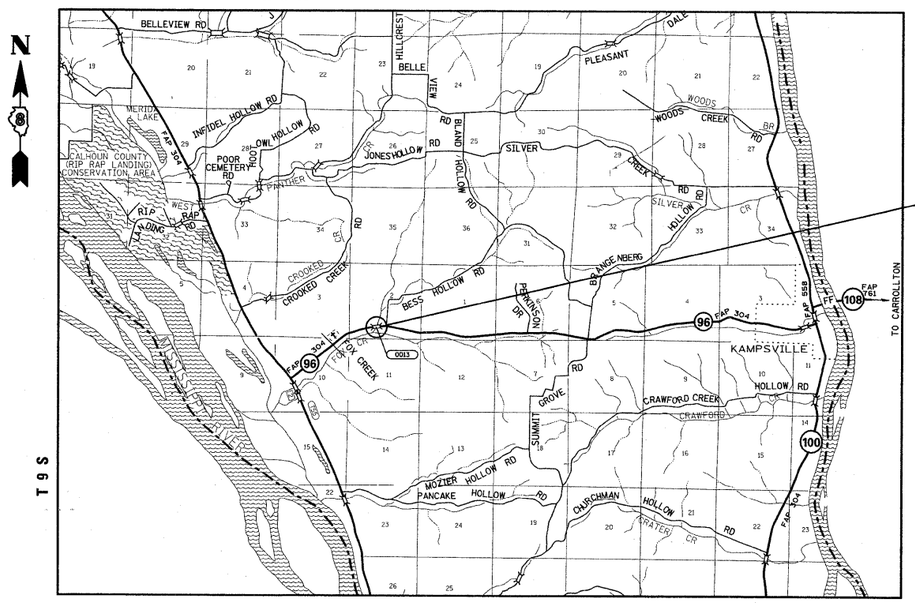
FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-98-023-05



LOCATION OF SECTION INDICATED THUS: –

R 3 W



THREE SPAN STEEL I-BEAM STRUCTURE TO BE REPLACED IN-KIND OVER FOX CREEK
SN 007-0013 (E)
SN 007-0028 (P)
STA 475+14.90
137' – 4" BK TO BK ABUTMENTS

0 100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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

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

ADT = 600 (2005)
ADT = 750 (2027)
SU = 8.3%
MU = 6.7%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 11 20 08
Mary C Adams
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

January 30, 20 09
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

January 30, 20 09
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: PATTI LeBEAU 618-346-3179
PROJECT MANAGER: ARTHUR MUEHLFELD 618-346-3209

CONTRACT NO. 76886

DESIGN DESIGNATION
N/A

LAYOUT
0 MI 1 MI 2 MI 3 MI
1" = 1 MILE

LATITUDE = 39.29486
LONGITUDE = 90.71864

GROSS LENGTH = 0.026 MI
NET LENGTH = 0.026 MI

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INDEX OF SHEETS

GENERAL NOTES:

1. THE STANDARDS AND REVISION NUMBERS SHALL APPLY TO THIS PROJECT.

2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

3. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
   - AMEREN CIPS (ELECTRIC)
   - CALHOUN COUNTY RURAL WATER DISTRICT (WATER)
   - FRONTIER COMMUNICATIONS COMPANY
   - ILLINOIS RURAL ELECTRIC COOP.

   MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY •. NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

4. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT EACH END OF THE PROJECT AND ALL INTERSECTING SIDE ROADS AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE, 48".

5. A QUANTITY OF 737.5 FEET OF "TEMPORARY PAVEMENT MARKING - LINE 6 INCHES" WHITE HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER.

6. IF THE CONTRACTOR, FOR HIS CONSTRUCTION ACTIVITY, REMOVES TREES WITHIN THE RIGHT-OF-WAY LIMITS WHICH ARE NOT DESIGNATED ON THE PLANS FOR REMOVAL, I.E. IN ORDER TO GAIN ACCESS TO THE PROJECT SITE; IT WILL BE HIS RESPONSIBILITY TO REPLACE THE TREES AT A 1:1 RATIO. THE TREES WILL BE REPLACED WITH A 1 GALLON NATIVE ILLINOIS TREE SPECIES AND SHALL BE APPROVED BY THE ENGINEER. THE TREE REMOVAL AND TREE REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

7. THE REMOVAL OF THE BRIDGE APPROACH PAVEMENT IS INCLUDED IN THE COST OF "PAVEMENT REMOVAL."

8. THE RESIDENT ENGINEER SHALL VERIFY THE EXISTENCE OF HIGHWAY LIGHTING AND/OR I.T.S. UTILITIES WITHIN THE PROJECT LIMITS. IF HIGHWAY LIGHTING AND/OR I.T.S. EXISTS WITHIN THE PROJECT LIMITS, AND IF THESE ITEMS REQUIRE LOCATING, THE CONTRACTOR SHALL BE DIRECTED TO DO SO ACCORDING TO SECTION 803 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

9. ALL EXISTING RIGHT-OF-WAY LINES AND PROPERTY LINES SHOWN ON THE PLAN SHEETS ARE GRAPHICAL REPRESENTATIONS AND SHALL NOT BE USED AS A MEANS TO ESTABLISH OWNERSHIP. IN ALL MATTERS RELATING TO RIGHT-OF-WAY, THE PLAT OF HIGHWAYS SHALL BE THE CONTROLLING DOCUMENT.

EROSION CONTROL NOTES

1. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO 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 RECOMMENDED INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

2. STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER, AND SILT FENCES WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSIOR, URETHANE FOAM/GEOTEXTILE (SILT WEDGES), EARTH MEDIAN AND/OR OTHER MATERIAL APPROVED BY THE EROSION AND SEDIMENT CONTROL COORDINATOR.

3. TEMPORARY DITCH CHECKS, AGGREGATE USES GRADING NO. 3 - REMOVE AT END OF CONSTRUCTION.

4. TEMPORARY SEEDING SHALL BE COMPLETED ON A WEEKLY BASIS ON EXPOSED GROUND AND SHALL BE PAID FOR AS "TEMPORARY EROSION CONTROL SEEDING" AND NO OTHER PAYMENT WILL BE PERMITTED. FOR CALCULATION PURPOSES, THREE APPLICATIONS OF TEMPORARY SEEDING WERE ASSUMED.

5. ALL AREAS DISTURBED FOR ANY REASON SHALL BE PERMANENTLY SEEDED AS DIRECTED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED AT THE CONTRACTOR'S EXPENSE

6. EROSION CONTROL BLANKET SHALL BE PLACED ON ALL SLOPES 2.5 TO 1 AND STEEPER.

7. EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.

8. CLASS 2 SEEDING AND EROSION CONTROL BLANKET IS TO BE PLACED AS SOON AS EARTHWORK IS COMPLETED.

HIGHWAY STANDARDS

000001-05	631031-07	701901-01
280001-04	635006-03	704001-05
515001-03	635011-02	720001-01
630001-08	701306-02	720006-02
630301-05	701311-03	780001-02
601101-01	701321-10	781001-03
	701326-03	

COMMITMENTS

NONE

PERTINENT INFORMATION

THE RESIDENT ENGINEER SHALL CONTACT JAMES EWEN AT 618-232-1162 PRIOR TO CONSTRUCTION. MR. EWEN HAS FENCE ATTACHED TO ALL FOUR QUADRANTS OF THE STRUCTURE. HE WILL NEED TO REMOVE THE FENCE PRIOR TO CONSTRUCTION OF THIS PROJECT.

FILE NAME = c:\pw_work\pwidot\owenbj\dms63281\pln02305a.dgn	USER NAME = owenbj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS				Rev.
		DRAWN -	REVISED -						
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	
	PLOT DATE = 12/10/2008	DATE -	REVISED -						

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	2
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			80% FEDERAL 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X071-2A		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	20	20		
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	52	52		
20200500	EARTH EXCAVATION (WIDENING)	CU YD	105	105		
20300100	CHANNEL EXCAVATION	CU YD	400	400		
20400800	FURNISHED EXCAVATION	CU YD	275	275		
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	148	148		
25000200	SEEDING, CLASS 2	ACRE	0.5	0.5		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45		
25100115	MULCH, METHOD 2	ACRE	0.5	0.5		
25100630	EROSION CONTROL BLANKET	SQ YD	200	200		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	150	150		
28000400	PERIMETER EROSION BARRIER	FOOT	1110	1110		
28100109	STONE RIPRAP, CLASS A5	SQ YD	1056	1056		
28200200	FILTER FABRIC	SQ YD	1056	1056		
35600712	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	SQ YD	430	430		
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.1	0.1		
40600300	AGGREGATE (PRIME COAT)	TON	1	1		
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	23	23		
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	231	231		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	46	46		
44000100	PAVEMENT REMOVAL	SQ YD	220	220		
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	270	270		
48100500	AGGREGATE SHOULDERS, TYPE A 6"	SQ YD	90	90		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1		
50200100	STRUCTURE EXCAVATION	CU YD	231	231		
50300225	CONCRETE STRUCTURES	CU YD	149	149		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	177.5	177.5		
50300260	BRIDGE DECK GROOVING	SQ YD	478	478		
50300280	CONCRETE ENCASEMENT	CU YD	8.4	8.4		
50300300	PROTECTIVE COAT	SQ YD	624	624		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1		

SUMMARY OF QUANTITIES				80% FEDERAL 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT			X071-2A		
50500505	STUD SHEAR CONNECTORS	EACH		2304	2304		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND		55380	55380		
50800515	BAR SPLICERS	EACH		567	567		
51201600	FURNISHING STEEL PILES HP12X53	FOOT		1200	1200		
51202305	DRIVING PILES	FOOT		1200	1200		
51203600	TEST PILE STEEL HP12X53	EACH		4	4		
51204650	PILE SHOES	EACH		24	24		
51205200	TEMPORARY SHEET PILING	SQ FT		507	507		
51500100	NAME PLATES	EACH		1	1		
52100520	ANCHOR BOLTS, 1"	EACH		48	48		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD		84	84		
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT		160	160		
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT		300	300		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH		4	4		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH		4	4		
63200310	GUARDRAIL REMOVAL	FOOT		470	470		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO		9	9		
67100100	MOBILIZATION	L SUM		1	1		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM		1	1		
70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH		1	1		
70106600	TEMPORARY BRIDGE TRAFFIC SIGNALS (STATE FURNISHED CONTROLLER)	EACH		1	1		
70106700	TEMPORARY RUMBLE STRIP	EACH		6	6		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT		124	124		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT		2652	2652		
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT		737.5	737.5		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT		925	925		
70400100	TEMPORARY CONCRETE BARRIER	FOOT		425	425		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT		312.5	312.5		
* 72000100	SIGN PANEL - TYPE 1	SQ FT		6	6		
* 73000100	WOOD SIGN SUPPORT	FOOT		10	10		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT		1990	1990		
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT		662	662		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH		1	1		

*SPECIALTY ITEMS

Rev.

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	PLOT DATE = 12/10/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	3
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			80% FEDERAL 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X071-2A		
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3	3		
* 78100300	REPLACEMENT REFLECTOR	EACH	6	6		
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8		
* 78200520	BARRIER WALL MARKERS, TYPE B	EACH	3	3		
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	3	3		
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	884	884		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	8	8		
X0321781	MECHANICAL SPLICE	EACH	36	36		
X0323830	DRAINAGE SCUPPERS, DS-11	EACH	1	1		
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1	1		
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1	1		
X7200200	WIDE LOAD SIGNING	L SUM	1	1		
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT				

*SPECIALTY ITEMS

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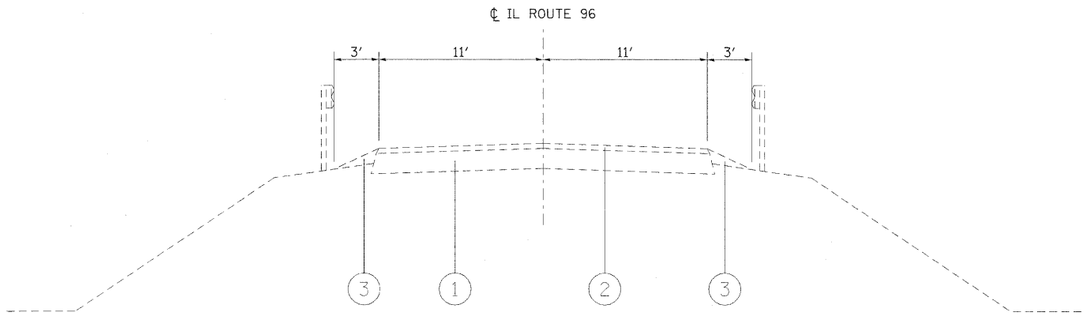
	PLOT DATE = 12/10/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

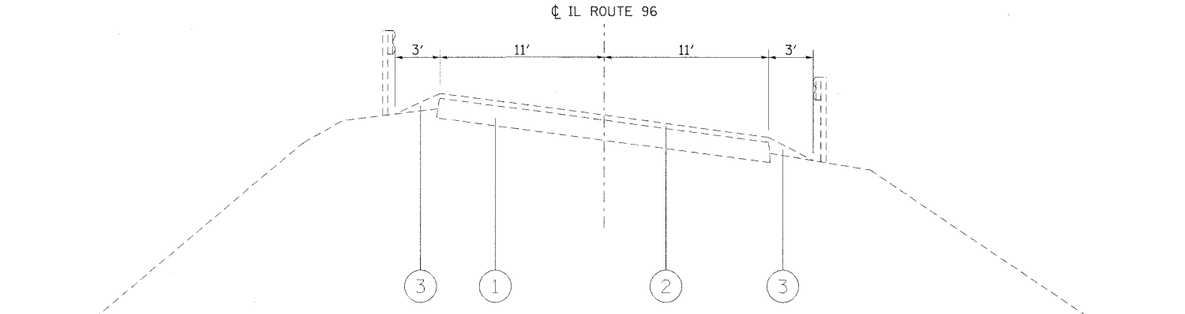
SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	4
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



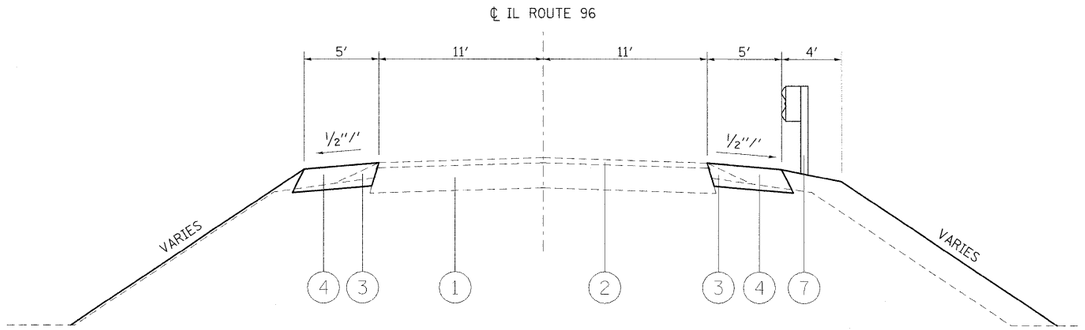
EXISTING TANGENT SECTION

STA. 471+50 TO STA. 473+49.27



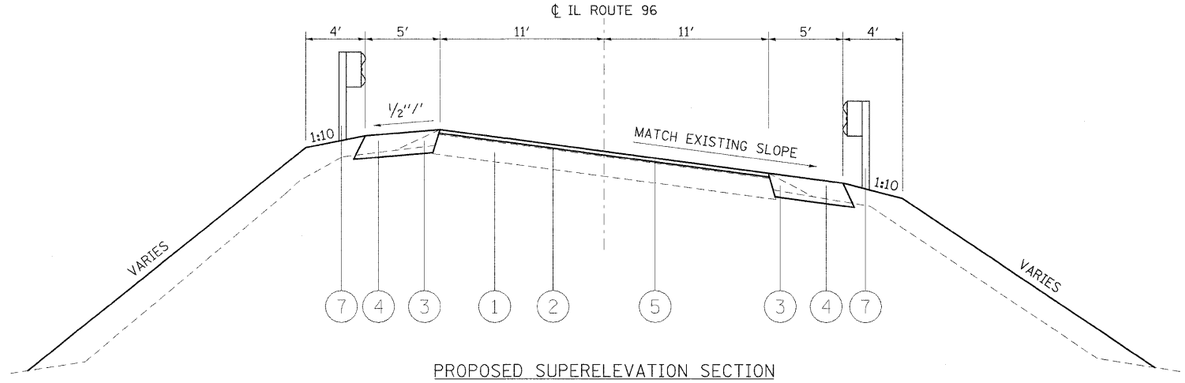
EXISTING SUPERELEVATION SECTION

STA. 473+49.27 TO STA. 479+00



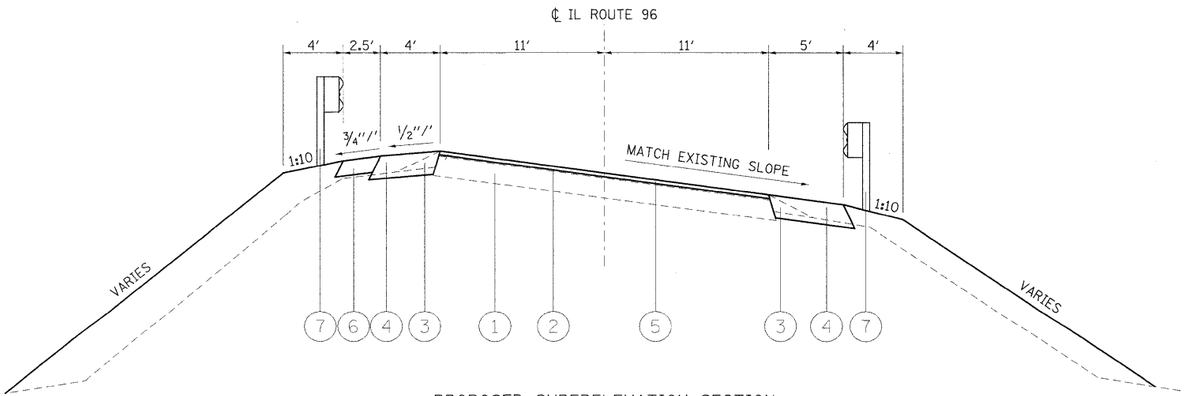
PROPOSED TANGENT SECTION

STA. 471+90(RT) / 472+50(LT) TO STA. 473+49.27



PROPOSED SUPERELEVATION SECTION

STA. 473+49.27 TO STA. 474+12.5



PROPOSED SUPERELEVATION SECTION

STA. 476+23 TO STA. 478+00

SURFACE FROM STA. 473+23 TO STA. 476+80

MIXTURE CHART

MIXTURE USE	SURFACE	BINDER / WIDENING
AC/PG	PG 64-22	PG 64-22
RAP % (MAX)	10%	15%
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION		
(GRADATION MIXTURE)	IL 12.5	IL 19.0
FRICTION AGG	MIXTURE "C"	MIXTURE "B"

PLAN QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN.

LEGEND

(1) EXISTING PAVEMENT
(2) EXISTING HMA OVERLAY
(3) EXISTING AGGREGATE SHOULDER
(4) PROPOSED HMA BASE COURSE WIDENING - 9"
(5) PROPOSED HMA SURFACE COURSE
(6) PROPOSED AGGREGATE SHOULDER - 6"
(7) PROPOSED GUARDRAIL

SEE PLAN SHEETS AND SCHEDULES FOR GUARDRAIL STATIONS

FILE NAME = c:\pw_work\pwidot\owenbj\dms63281\pln023305a.dgn	USER NAME = owenbj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 12/10/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	5
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE

LOCATION STATION TO STATION	EARTH EXCAVATION (WIDENING)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CUYD
STA 471+50.00 TO STA 472+00.00	1.6	1.2	3.9	-2.7
STA 472+00.00 TO STA 472+50.00	7.2	5.5	16.0	-10.6
STA 472+50.00 TO STA 473+00.00	14.2	10.8	20.8	-9.9
STA 473+00.00 TO STA 43+30.90	8.8	6.7	11.7	-5.0
STA 43+30.90 TO STA 473+50.00	5.5	4.1	6.9	-2.8
STA 473+50.00 TO STA 474+00.00	14.2	10.8	18.0	-7.1
STA 474+00.00 TO STA 474+30.00	3.7	2.8	29.1	-26.3
STA 474+30.00 TO STA 474+50.45	0.0	0.0	31.2	-31.2
STA 475+87.66 TO STA 476+00.00	0.0	0.0	14.7	-14.7
STA 476+00.00 TO STA 476+50.00	7.4	5.7	48.2	-42.5
STA 476+50.00 TO STA 477+00.00	14.2	10.8	47.3	-36.5
STA 477+00.00 TO STA 477+50.00	14.2	10.8	62.8	-52.1
STA 477+50.00 TO STA 478+00.00	14.2	10.8	38.9	-28.1
STA 478+00.00 TO STA 478+50.00	0.0	0.0	5.5	-5.5
SUBTOTAL	105	80	355	-275

CHANNEL EXCAVATION SCHEDULE

LOCATION STATION TO STATION	CHANNEL EXCAVATION	CHANNEL EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	CHANNEL EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CUYD
STA 0+00.00 TO STA 0+10.00	71.3	53.4	3.0	50.5
STA 0+10.00 TO STA 0+20.00	51.5	38.6	6.3	32.3
STA 0+20.00 TO STA 0+30.00	55.6	41.7	7.6	34.1
STA 0+30.00 TO STA 0+40.00	57.9	43.4	6.2	37.3
STA 0+40.00 TO STA 0+50.00	43.6	32.7	16.8	15.9
STA 0+50.00 TO STA 0+60.00	27.3	20.5	18.5	2.0
STA 0+60.00 TO STA 0+70.00	23.0	17.2	5.2	12.0
STA 0+70.00 TO STA 0+80.00	26.0	19.5	3.2	16.2
STA 0+80.00 TO STA 0+90.00	23.4	17.6	2.4	15.2
STA 0+90.00 TO STA 1+00.00	15.4	11.6	0.8	10.7
STA 1+00.00 TO STA 1+10.00	5.0	3.8	0.0	3.8
SUBTOTAL	400	300	70	230

EROSION CONTROL SCHEDULE

LOCATION STATION TO STATION	RIGHT OR LEFT	PERIMETER EROSION BARRIER	EROSION CONTROL BLANKET
		FOOT	SQ YD
STA 471+46 TO STA 474+24	RT	307	
STA 472+00 TO STA 473+16	LT	125	
STA 473+50 TO STA 478+42	LT	392	
STA 474+00 TO STA 474+50	RT		55
STA 475+82 TO STA 478+42	RT	286	
STA 475+88 TO STA 477+25	LT		145
TOTAL		1110	200

TREE REMOVAL SCHEDULE

LOCATION STATION	LOCATION OFFSET	RIGHT OR LEFT	TREE REMOVAL (6 TO 15 UNITS)	TREE REMOVAL (OVER 15 UNITS)
			UNITS	UNITS
474+27	41'	RT		28
475+61	40'	RT	10	
475+67	44'	RT	10	
475+87	39'	RT		24
TOTAL			20	52

RESURFACING SCHEDULE

LOCATION STATION TO STATION	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	HOT-MIX ASPHALT SURFACE COURSE	HOT-MIX ASPHALT SURFACE REMOVAL	AGGREGATE SHOULDERS, TYPE A 6"
	TON	TON	TON	SQ YDS	SQ YD
STA 473+60.0 TO STA 474+12.6	0.04	0.19	11	130	
STA 476+22.9 TO STA 476+80.0	0.04	0.21	12	140	90
TOTAL	0.08	0.40	23	270	90
ROUNDING	0.10	1			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	6
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING SCHEDULE

LOCATION			THERMOPLASTIC PAVEMENT MARKING				POLYUREA PAVEMENT MARKING				PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	REPLACEMENT REPLECTOR	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	SHORT TERM PAVEMENT MARKING	TEMPORARY PAVEMENT MARKING			
			SKIP-DASH CENTERLINE 4" YELLOW	SOLID CENTERLINE 4" YELLOW	EDGE LINE 4" WHITE		SKIP-DASH CENTERLINE 4" YELLOW	SOLID CENTERLINE 4" YELLOW	EDGE LINE 4" WHITE				2-WAY AMBER	2-WAY AMBER	2-WAY AMBER		SKIP-DASH CENTERLINE 4" YELLOW	SOLID CENTERLINE 4" YELLOW	EDGE LINE 4" WHITE	
STATION	TO	STATION	FOOT	FOOT	LT FOOT	RT FOOT	FOOT	FOOT	LT FOOT	RT FOOT	SQ FT	EACH	EACH	EACH	EACH	FOOT	FOOT	FOOT	LT FOOT	RT FOOT
STA 471+57.00	TO	STA 474+19.70	70	263	262.7	262.7					286	4	3			40	70	263	262.7	262.7
STA 474+19.70	TO	STA 475+87.60					40	168	168	168	181				3	29	40	168	168	168
STA 475+87.60	TO	STA 476+17.10						59	29.5	29.5	39					6		59	29.5	29.5
STA 476+17.10	TO	STA 479+00.00		566	282.8	282.8					377	4	3	1		49		566	282.8	282.8
SUB-TOTAL			70	829	545.5	545.5	40	227	197.5	197.5							110	1056	743	743
TOTAL			1990				662				884	8	6	1	3	124	2652			

STAGING SCHEDULE

LOCATION	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	PAVEMENT REMOVAL	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE)	IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE)	TEMPORARY PAVEMENT MARKING - LINE 6"
	SQ YD	SQ YD	FOOT	FOOT	EACH	EACH	FOOT
STAGE I	208	85	425		2		425
STAGE II	222	135		312.5		2	312.5
TOTAL	430	220	425	312.5	2	2	737.5

GUARDRAIL SCHEDULE

LOCATION	GUARDRAIL REMOVAL	STEEL PLATE BEAM GUARDRAIL, TYPE A	TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	BARRIER WALL MARKERS, TYPE C	TERMINAL MARKER - DIRECT APPLIED
	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH
NORTH SIDE					3	1	1	
SOUTH SIDE					5	2	2	
NW QUADRANT	40	0	1	1				1
NE QUADRANT	225	62.5	1	1				1
SW QUADRANT	115	137.5	1	1				1
SE QUADRANT	90	100	1	1				1
TOTAL	470	300	4	4	8	3	3	4

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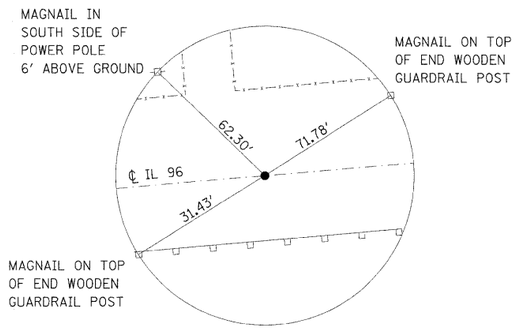
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

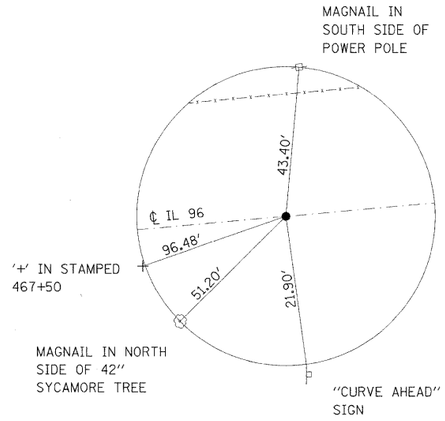
SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	7
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



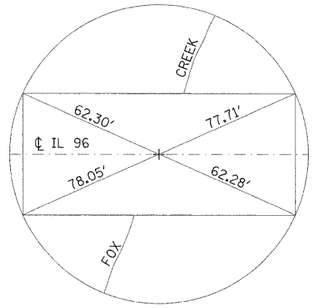
TIE POINT

MAGNAIL
P.C. STA 473+49.27



TIE POINT

MAGNAIL
STA 468+50



ALL TIES ARE TO THE INSIDE CORNER OF BRIDGE CURBS.
CENTER OF BRIDGE "x" IS 0.45' NORTH OF EXISTING/FOUND "x".

TIE POINT

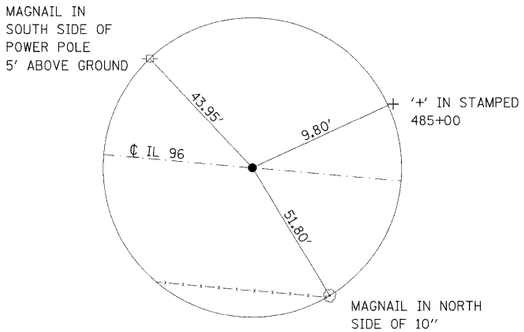
CENTER OF BRIDGE
CUT "x" IN CONCRETE PAVEMENT
STA 475+15.5

BENCHMARKS

BM 400 - RR SPIKE IN NORTH SIDE OF POWER POLE ON SOUTH SIDE IL 96, APPROX. 0.3 MILES EAST OF INTERSECTION OF IL 96 AND RIVER ROAD TO HAMBURG NEAR SOUTHEAST END OF MOZIER.
ELEV = 466.731

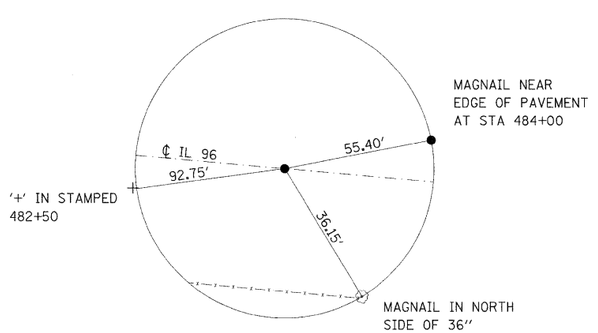
BM 401 - CHISELED SQUARE IN CENTER OF CONCRETE HEADWALL ON SOUTH SIDE OF IL 96, APPROX. 0.3 MILES WEST OF BRIDGE SN 007-0013 OVER FOX CREEK
ELEV = 490.829

BM 402 - CHISELED SQUARE ON TOP OF NE WINGWALL ON NORTH SIDE OF IL 96 AT BRIDGE SN 007-0013 OVER FOX CREEK.
STA. 475+50
OFFSET = 17' LT
ELEV = 512.992



TIE POINT

MAGNAIL
STA 485+00



TIE POINT

MAGNAIL
STA 483+45.88

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TIE POINTS AND BENCHMARKS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	8
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN
SURVEYED
PLOTTED
PLOTTED CHECKED
PIT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

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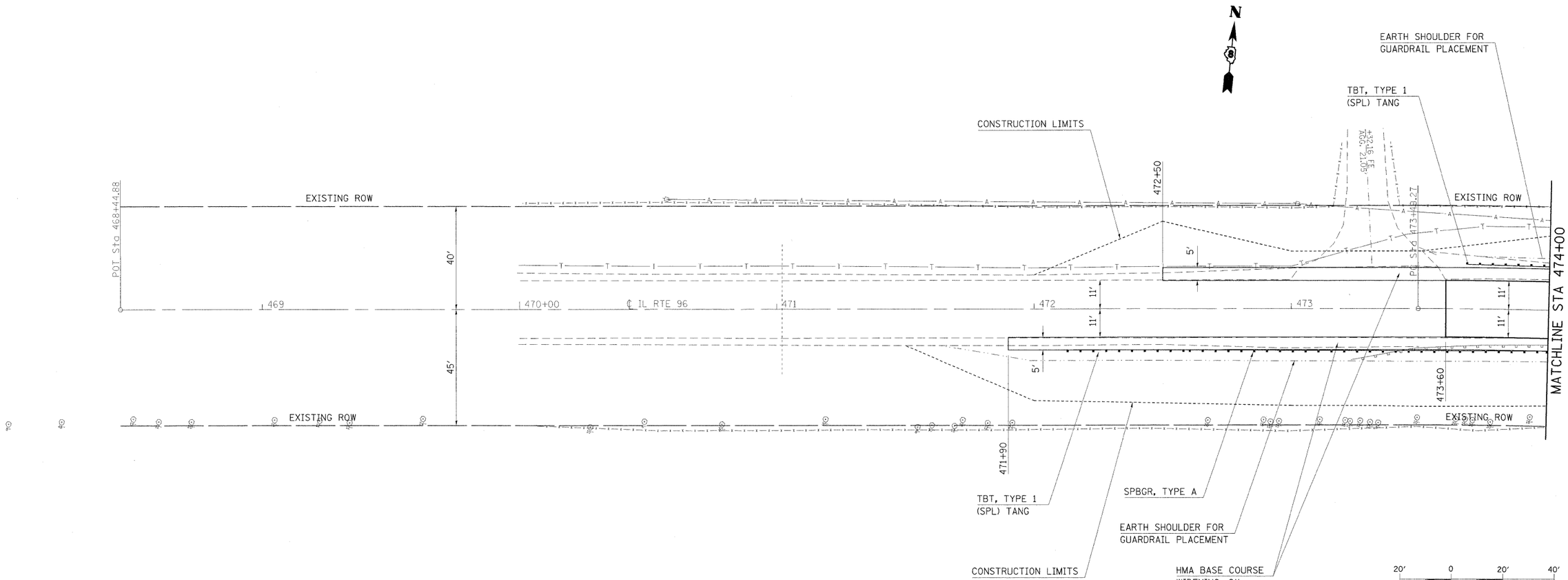
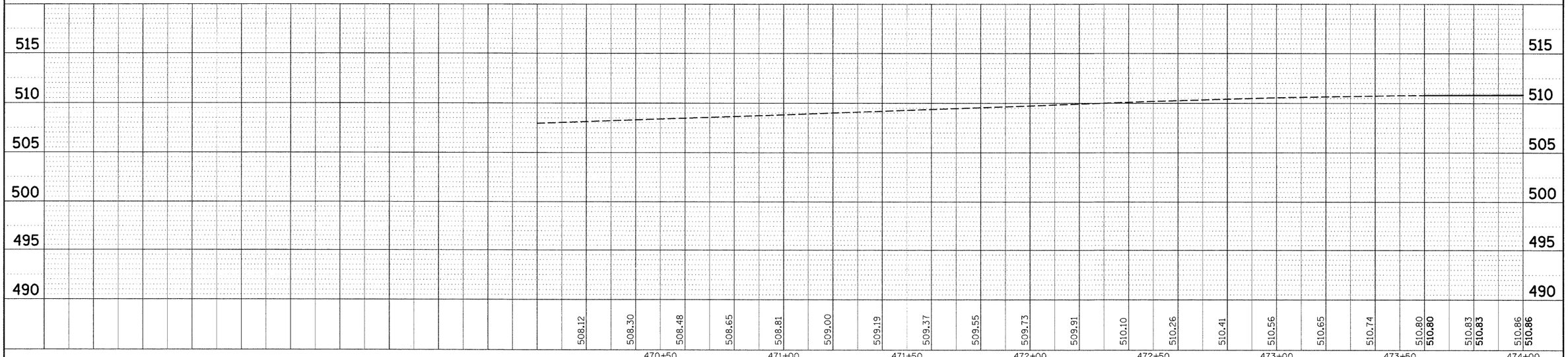
PLOTTED CHECKED
R.W. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE





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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE

SCALE: 20 | SHEET NO. 1 OF 2 SHEETS | STA. 468+00 TO STA. 474+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	9
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTH SHOULDER FOR GUARDRAIL PLACEMENT

TBT, TYPE 6

CONSTRUCTION LIMITS

SPBGR, TYPE A

EXISTING ROW

MATCHLINE STA 474+00

BRIDGE APPROACH PAVEMENT - 116 SQ YDS

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) - 23 SQ YDS

EARTH SHOULDER FOR GUARDRAIL PLACEMENT

TBT, TYPE 6

CONSTRUCTION LIMITS

TBT, TYPE 6

SPBGR, TYPE A

BRIDGE APPROACH PAVEMENT - 115 SQ YDS

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) - 23 SQ YDS

TBT, TYPE 6

EARTH SHOULDER FOR GUARDRAIL PLACEMENT

EARTH SHOULDER FOR GUARDRAIL PLACEMENT

TBT, TYPE 1 (SPL) TANG

SPBGR, TYPE A

HMA BASE COURSE WIDENING, 9"

TBT, TYPE 1 (SPL) TANG

EXISTING ROW

EXISTING ROW

℄ IL RTE 96

474+00

475+00

476+00

476+80

477

478

478+00

479

4'

2.5'

5'

11'

11'

40'

45'

+44.39 SIDE SL. BT. 20.28

EXIST. CURVE C1
PI STA. = 478+57.66
Δ = 27° 54' 07" (RT)
D = 2° 47' 59"
R = 2,046.50'
T = 508.39'
L = 996.61'
E = 62.20'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 473+49.27
P.T. STA. = 483+45.88

N

20' 0 20' 40'

SCALE: 1" = 20'

510.84 +0.81% 510.75 -0.84% 512.62 +0.81% 512.60 +0.84%

504.46 497.5 496.94 495.04 493.0 493.69 492.95 497.67 497.5 509.38

515 510 505 500 495 490

510.86 510.86 | 510.82 510.92 | 510.86 511.08 | 510.99 511.24 | 511.15 511.40 | 511.30 511.57 | 511.45 511.73 | 511.61 511.89 | 511.76 512.05 | 511.92 512.21 | 512.17 512.38 | 512.46 512.54 | 512.79 512.79 | 513.10 513.10 | 513.39 513.39 | 513.66 | 513.94 | 514.20 | 514.42 | 514.59 | 514.76 | 514.93 | 515.10 | 515.27 | 515.45 | 515.61 | 515.74 | 515.86 | 516.04 | 516.21 | 516.38

474+00 474+50 475+00 475+50 476+00 476+50 477+00 477+50 478+00 478+50 479+00 479+50 480+00

PLAN — SURVEYED — DRAWN — CHECKED — R.O.W. CHECKED — NOTE BOOK — NO. — BY — DATE

PROFILE — SURVEYED — PLOTTED — DRAWN — CHECKED — R.O.W. CHECKED — NOTE BOOK — NO. — BY — DATE — ALIGNMENT — STRUCTURE — NOTATING CHKD

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		CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

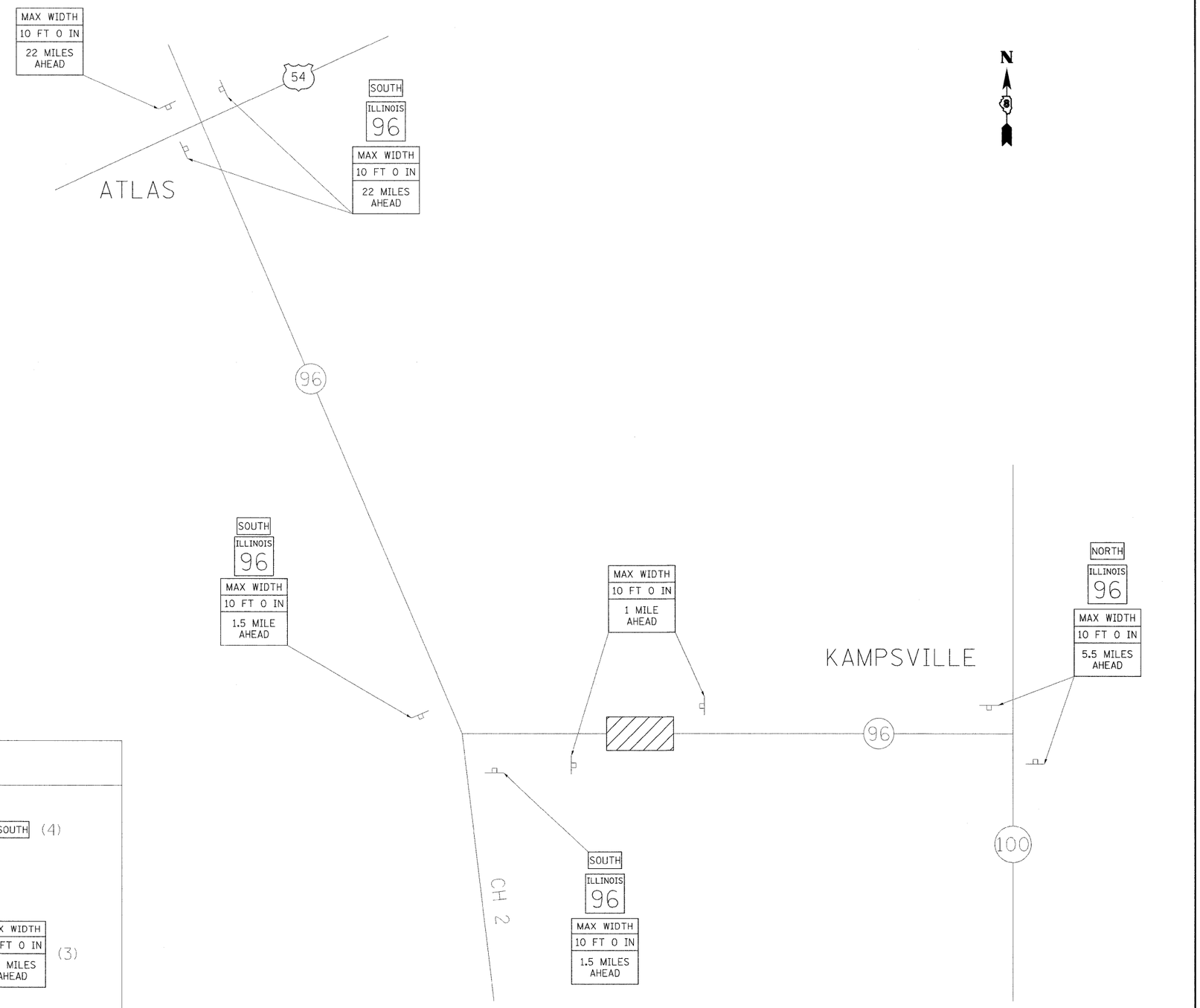
PLAN AND PROFILE

SCALE: 20 | SHEET NO. 2 OF 2 SHEETS | STA. 474+00 TO STA. 480+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	10
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES

1. ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE (618) 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR WIDE LOAD SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL BE NOT LESS THAN 6'.



SIGNS REQUIRED

ILLINOIS 96 (6)	NORTH (2)	SOUTH (4)	
MAX WIDTH 10 FT 0 IN, 1 MILE AHEAD (2)	MAX WIDTH 10 FT 0 IN, 1.5 MILES AHEAD (2)	MAX WIDTH 10 FT 0 IN, 5.5 MILES AHEAD (2)	MAX WIDTH 10 FT 0 IN, 22 MILES AHEAD (3)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDE LOAD SIGNING PLAN

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	11
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

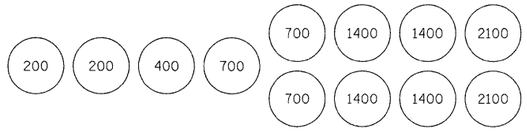
LEGEND

IMPACT ATTENUATOR

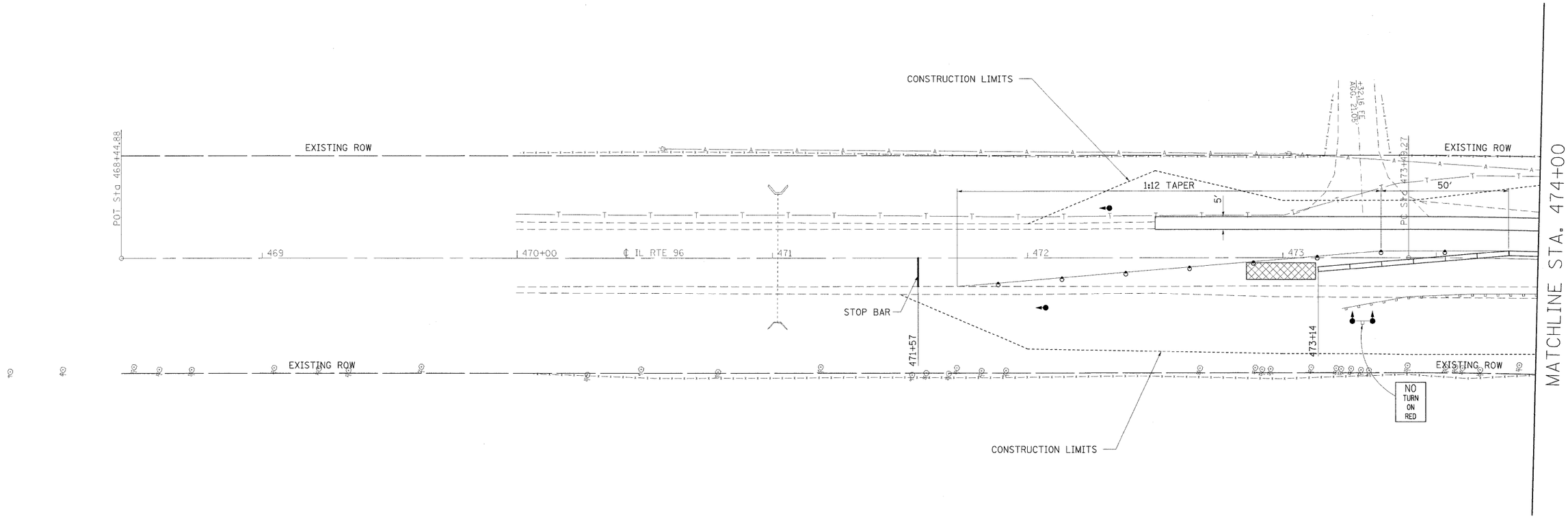
TEMPORARY CONCRETE BARRIER

BARRELS WITH STEADY BURNING LIGHT

TEMPORARY BRIDGE TRAFFIC SIGNALS



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)



SEQUENCE OF CONSTRUCTION - STAGE I:

PLACE "HMA BASE COURSE WIDENING - 9 INCHES" ON NORTH SIDE OF ROADWAY FOR STAGE I TRAFFIC AS A PRE-STAGE TO STAGE I.

PLACE STOP BARS AS SHOWN ON PLANS.

REMOVE SKIP-DASH AND CONFLICTING SOLID EDGE PAVEMENT MARKINGS BETWEEN STOP BARS.

PLACE 425 FT TEMPORARY CONCRETE BARRIER AND 2 EACH IMPACT ATTENUATORS, TEMPORARY.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.

PERFORM ALL NECESSARY BRIDGE WORK IN STAGE I WORK ZONE.

PLACE "HMA BASE COURSE WIDENING - 9 INCHES" ON SOUTH SIDE OF ROADWAY FOR STAGE II TRAFFIC AS A PRE-STAGE TO STAGE II.

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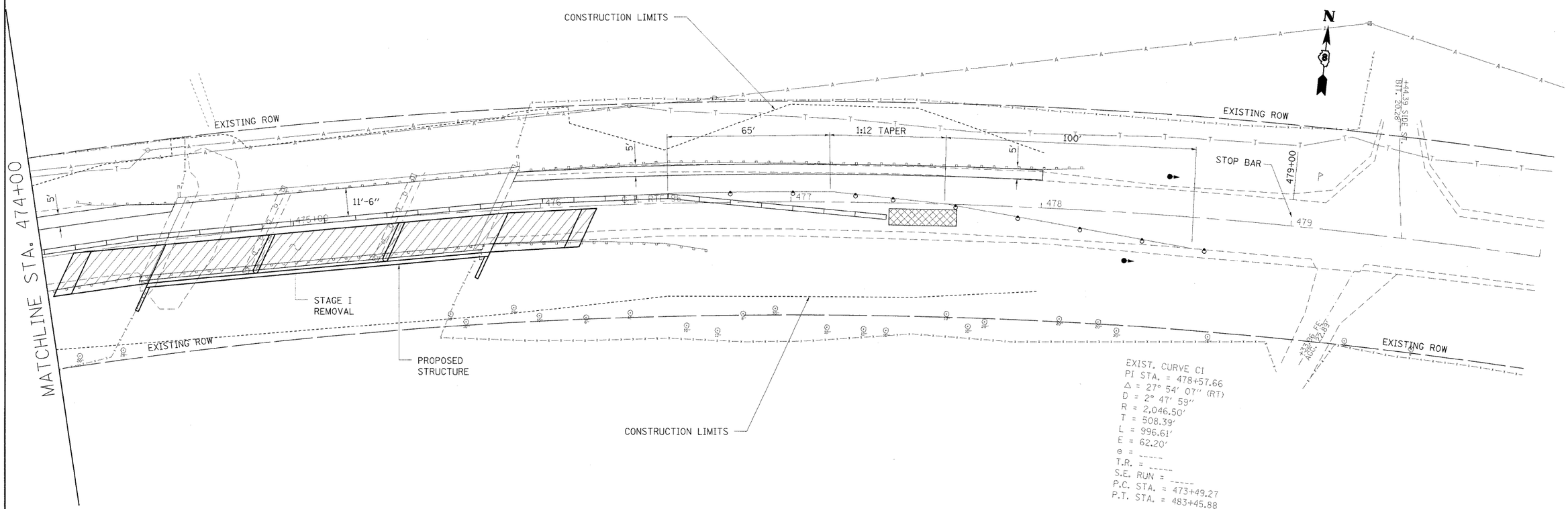
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. 468+00 TO STA. 474+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	12
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. 474+00 TO STA. 480+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	13
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

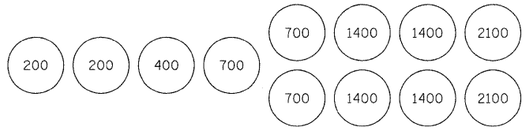
LEGEND

IMPACT ATTENUATOR

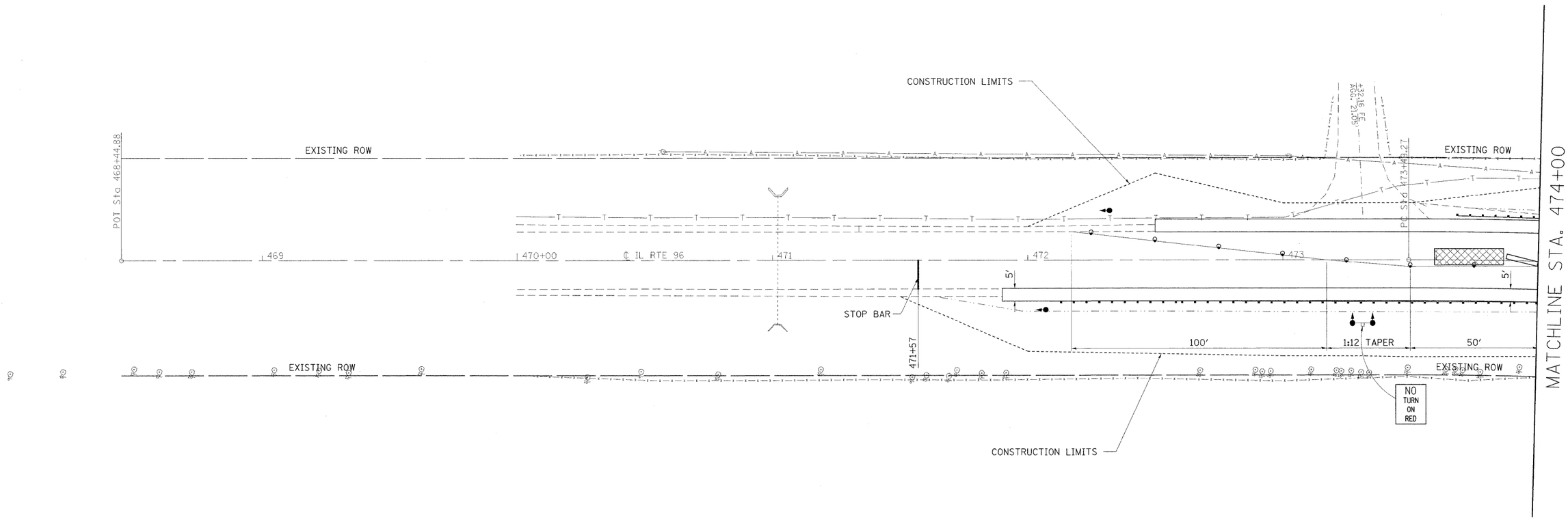
TEMPORARY CONCRETE BARRIER

BARRELS WITH STEADY BURNING LIGHT

TEMPORARY BRIDGE TRAFFIC SIGNALS



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)



SEQUENCE OF CONSTRUCTION - STAGE II:

RELOCATE 312.5 FT OF TEMPORARY CONCRETE BARRIER AND RELOCATE 2 EACH IMPACT ATTENUATORS.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.

20' 0 20' 40'
SCALE: 1" = 20'

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. 468+00 TO STA. 474+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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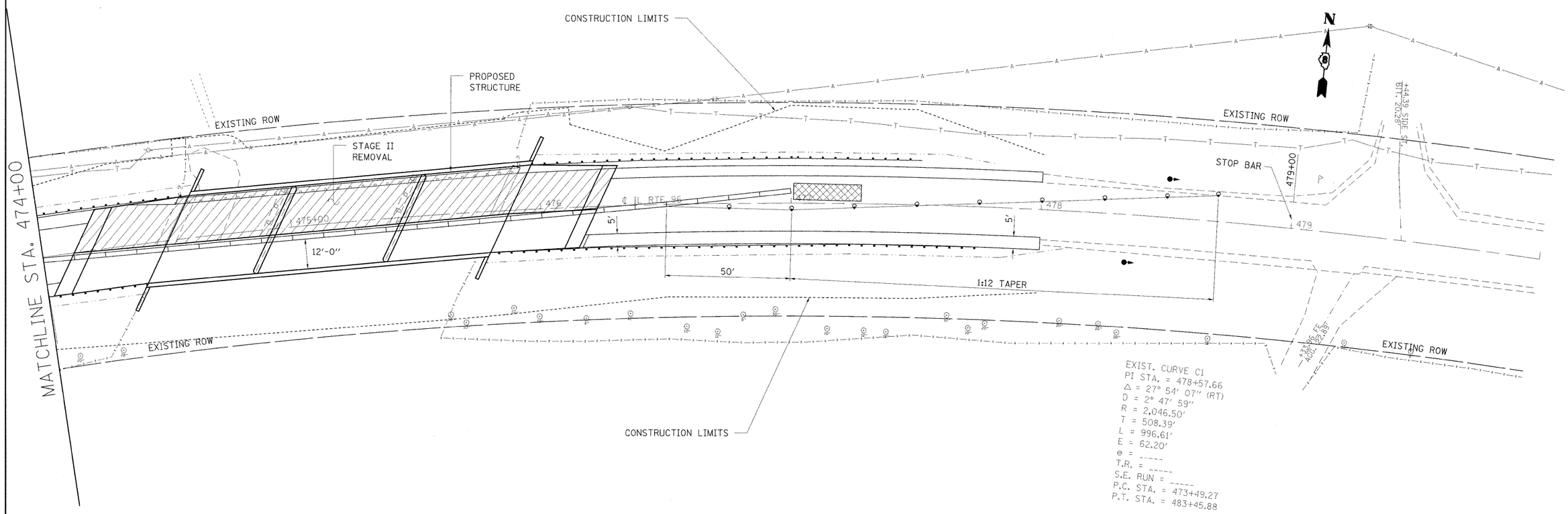
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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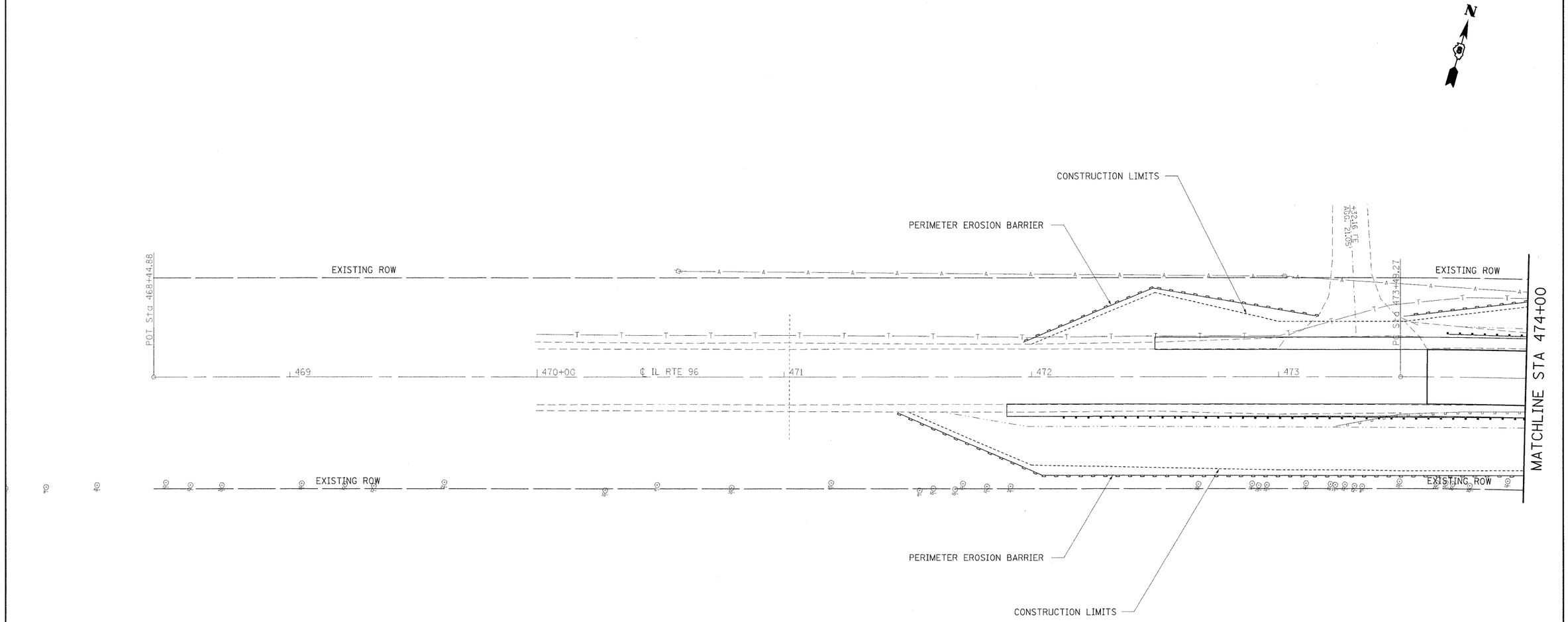
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. 474+00 TO STA. 480+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	15
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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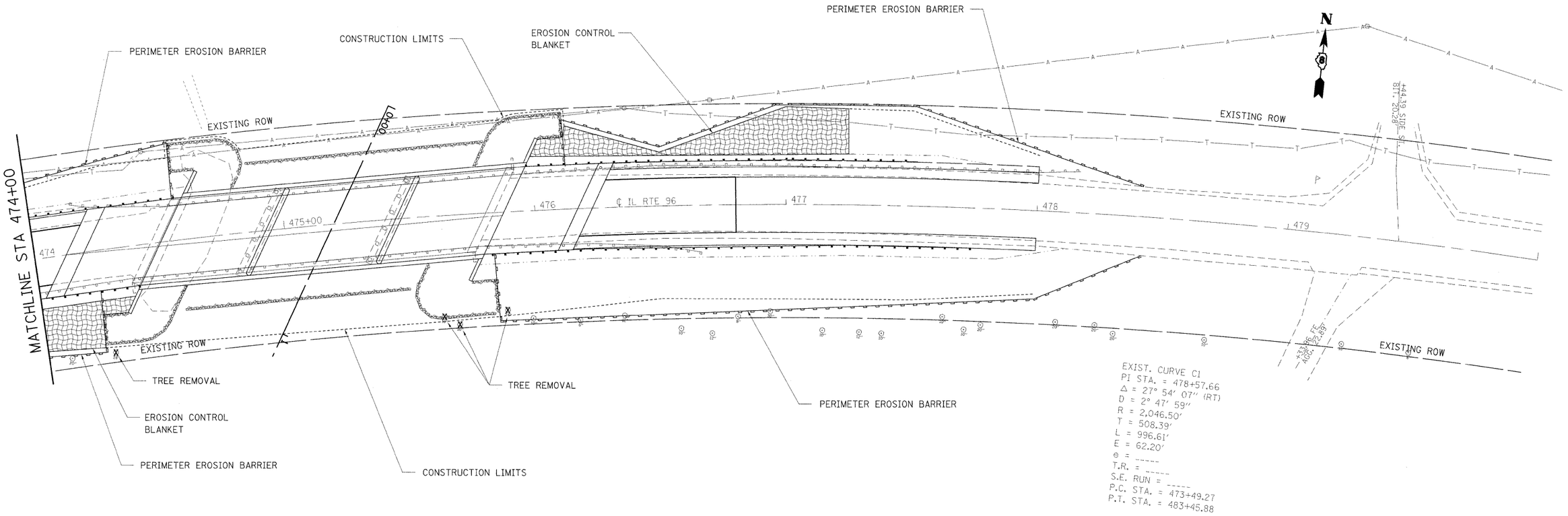
	PLOT DATE = 12/10/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. 468+00 TO STA. 474+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	16
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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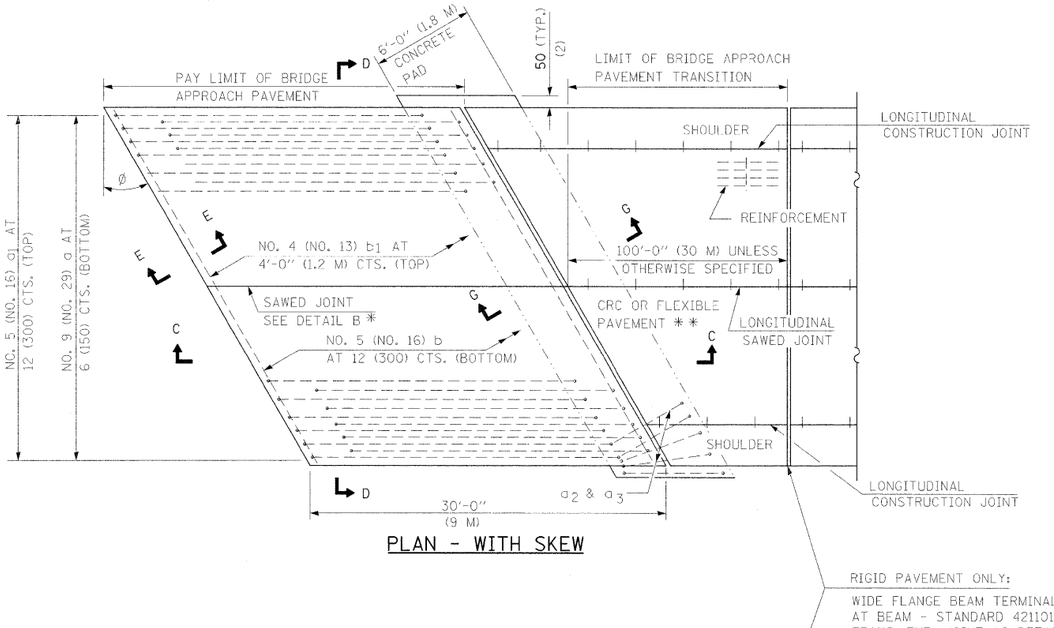
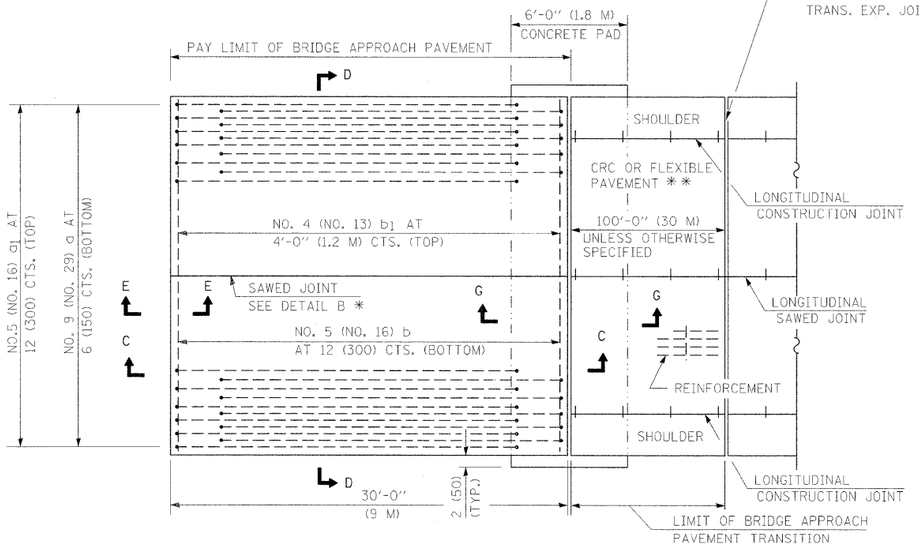
	PLOT SCALE = 20.0000 ' / IN.	DRAWN -	REVISED -		SCALE:	SHEET NO. 2 OF 2 SHEETS	STA. 474+00 TO STA. 480+00	
	PLOT DATE = 12/10/2008	CHECKED -	REVISED -					
		DATE -	REVISED -					

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	17
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NEW CONSTRUCTION

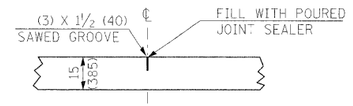


PLAN - WITH SKEW



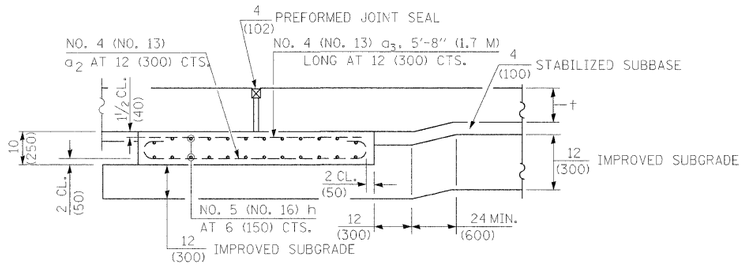
PLAN - WITHOUT SKEW

* SAW ℄ OR LANE EDGE IF POURED TWO OR MORE LANE WIDTHS AT A TIME.
** OMIT REINFORCEMENT, TIE BARS AND LONG. SAWED JT. FOR FLEXIBLE PAVEMENT.



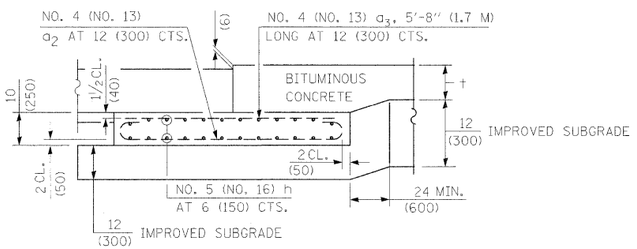
DETAIL B *

(REINFORCEMENT NOT SHOWN)



SECTION G-G - RIGID PAVEMENT

(SHOWING REINFORCEMENT)



SECTION G-G - FLEXIBLE PAVEMENT

(SHOWING REINFORCEMENT)

GENERAL NOTES

THICKNESS-"t"=THICKNESS OF PAVEMENT.

SEE STANDARD 421001 FOR REINFORCEMENT DETAILS NOT SHOWN.

SEE STANDARD 420001 FOR JOINT DETAILS NOT SHOWN.

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

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

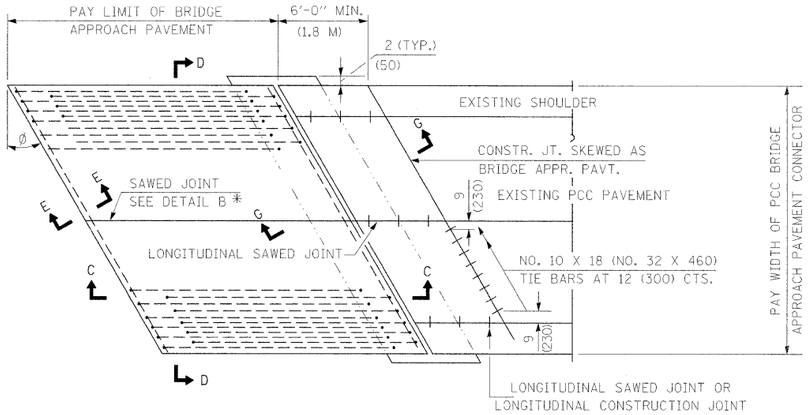
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH PAVEMENT DETAIL

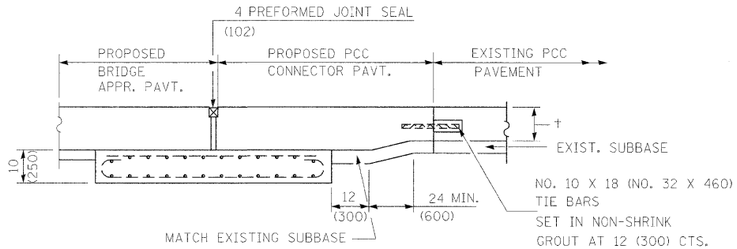
SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	18
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

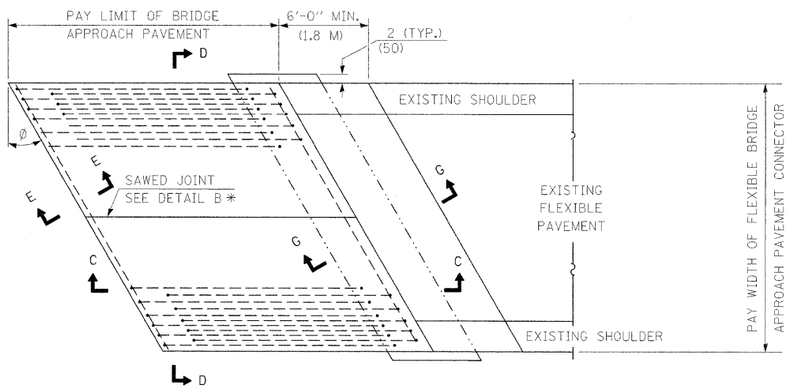
EXISTING CONSTRUCTION



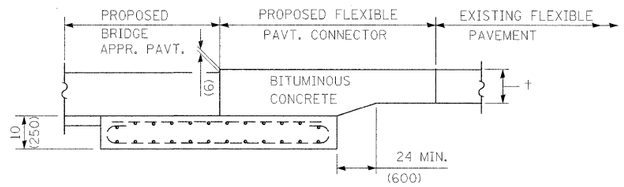
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



SECTION G-G - RIGID PAVEMENT



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



SECTION G-G - FLEXIBLE PAVEMENT

GENERAL NOTES

THICKNESS-"t"=THICKNESS OF PAVEMENT.

SEE STANDARD 421001 FOR REINFORCEMENT DETAILS NOT SHOWN.

SEE STANDARD 420001 FOR JOINT DETAILS NOT SHOWN.

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

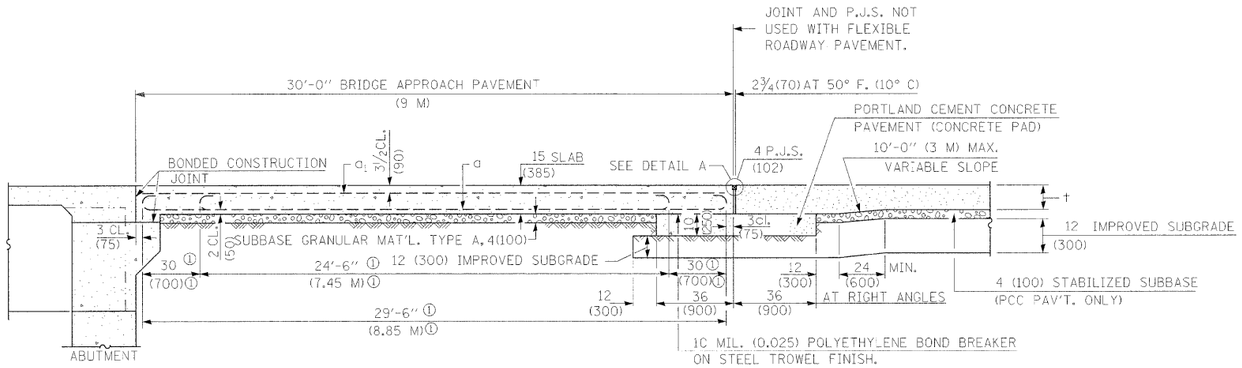
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH PAVEMENT DETAIL

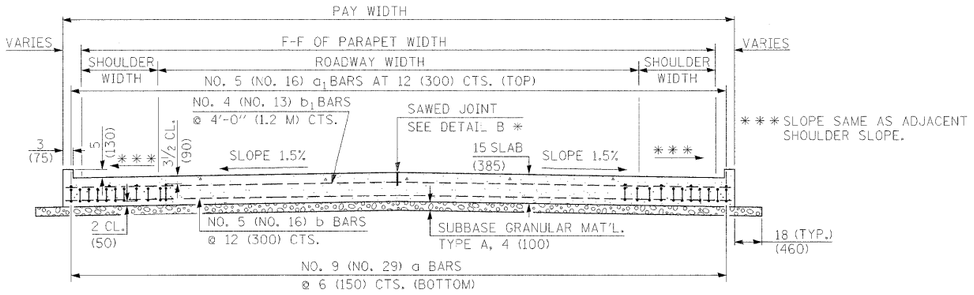
SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	19
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



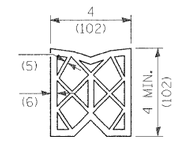
SECTION C-C

①STAGGER NO. 9 (NO. 29) A BARS AS SHOWN ON PLAN - FULL WIDTH

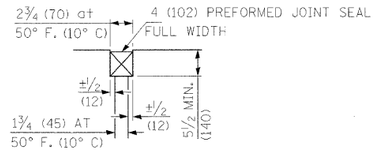


SECTION D-D

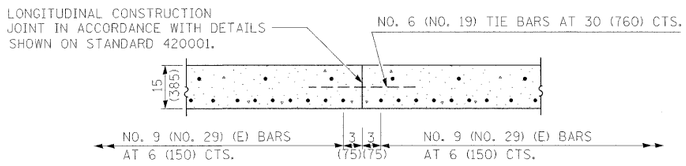
(SEE PLAN FOR DIMENSIONS NOT SHOWN)



PREFORMED JOINT SEAL

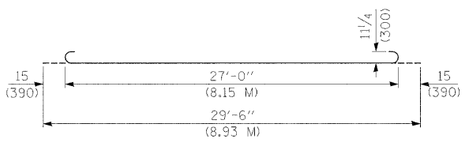


DETAIL A

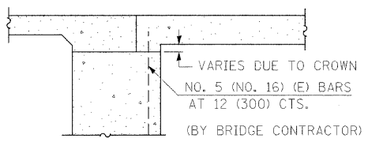


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

AS APPROVED BY THE ENGINEER, THE CONTRACTOR MAY ELECT TO REDUCE THE WIDTHS OF POUR BY USE OF THE OPTIONAL LONGITUDINAL CONSTRUCTION JOINT SHOWN. JOINTS SHALL BE LOCATED AT THE EDGE OF A TRAFFIC LANE.

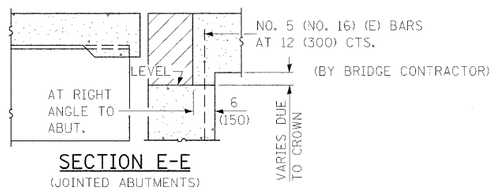


BAR a



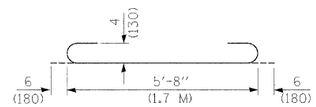
SECTION E-E

(INTEGRAL ABUTMENTS)



SECTION E-E

(JOINTED ABUTMENTS)



BAR a2

DESIGN STRESSES

fy = 60,000 P.S.I. (400 MPA)
f'c = 3,500 P.S.I. (24 MPA)
n = 8.5

GENERAL NOTES

THICKNESS-"t"=THICKNESS OF PAVEMENT.

SEE STANDARD 421001 FOR REINFORCEMENT DETAILS NOT SHOWN.

SEE STANDARD 420001 FOR JOINT DETAILS NOT SHOWN.

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

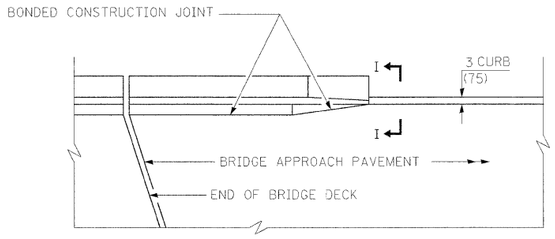
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

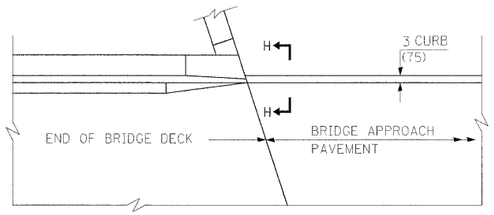
BRIDGE APPROACH PAVEMENT DETAIL

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

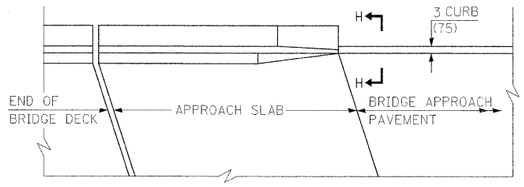
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	20
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



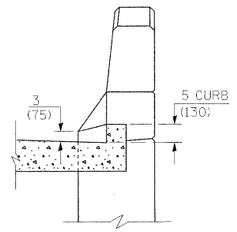
PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT



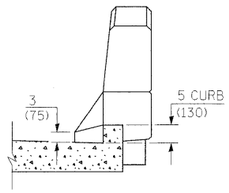
PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT



PARAPET TO CURB TRANSITION
VAULTED ABUTMENT



SECTION I - I



SECTION H - H

GENERAL NOTES

THICKNESS-"t"=THICKNESS OF PAVEMENT.

SEE STANDARD 421001 FOR REINFORCEMENT DETAILS NOT SHOWN.

SEE STANDARD 420001 FOR JOINT DETAILS NOT SHOWN.

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

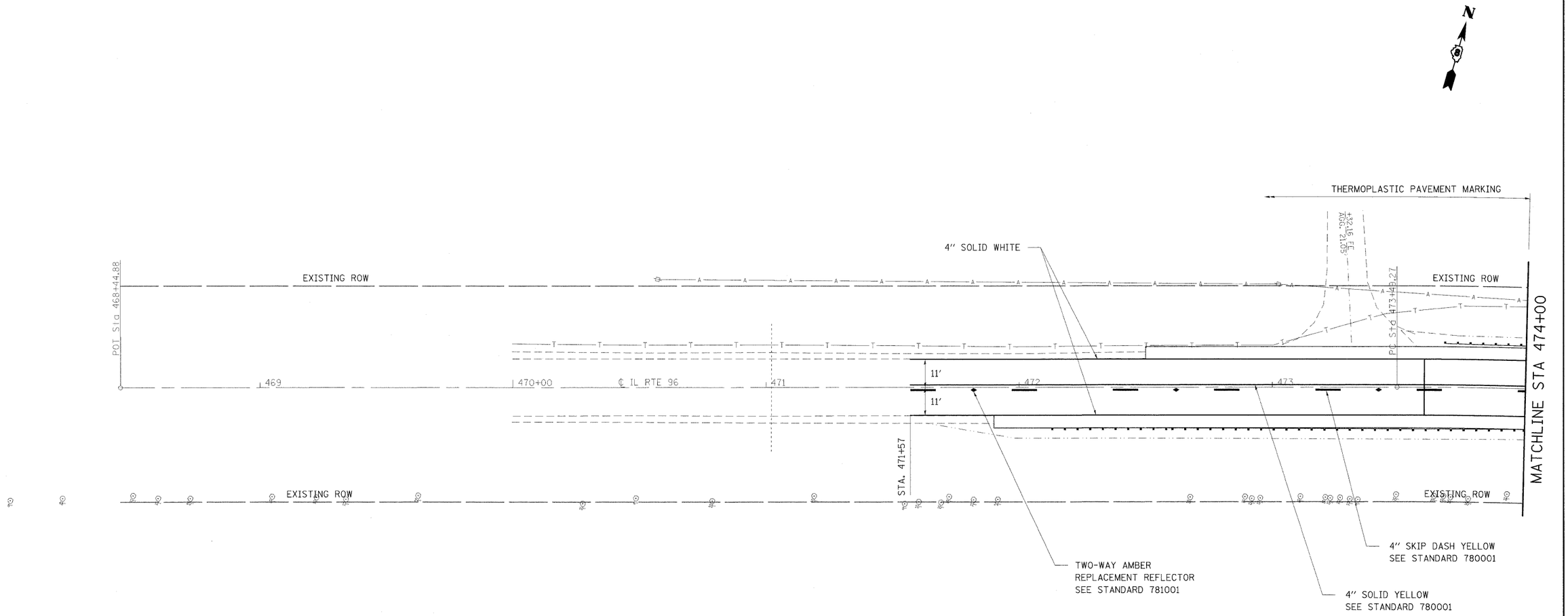
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH PAVEMENT DETAIL

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	21
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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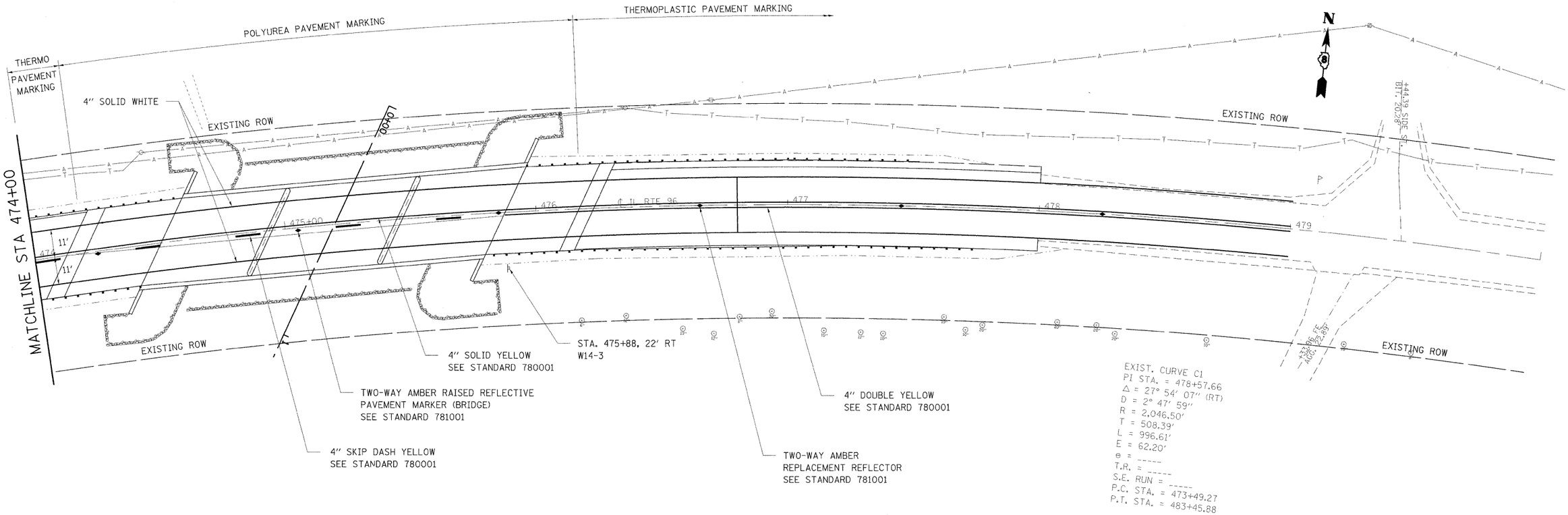
	PLOT DATE = 12/10/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. 468+00 TO STA. 474+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	22
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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	PLOT SCALE = 20.0000 ' / IN.	DRAWN -	REVISED -					304	5A-BR	CALHOUN	60	23
	PLOT DATE = 12/10/2008	CHECKED -	REVISED -							CONTRACT NO. 76886		
		DATE -	REVISED -		SCALE:	SHEET NO. 2 OF 2 SHEETS	STA. 474+00 TO STA. 480+00	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

B.M. #402: Chiseled square on top of northeast wingwall of S.N. 007-0013, Sta. 475+93, 17' Lt., Elev. 512.99.

EXISTING STRUCTURE: S.N. 007-0013, originally constructed in 1948 as FAS Route 753 Sec. 5A at Station 475+15.50, using 24" Steel I-beams with 6½" concrete deck, 3 spans, 137'-4½" back-back abutments, 31'-5" out-out width, open pile bent abutments on concrete piles, pile bent piers on concrete piles. In 1990, bearings, bridge rail and floor drains were replaced.

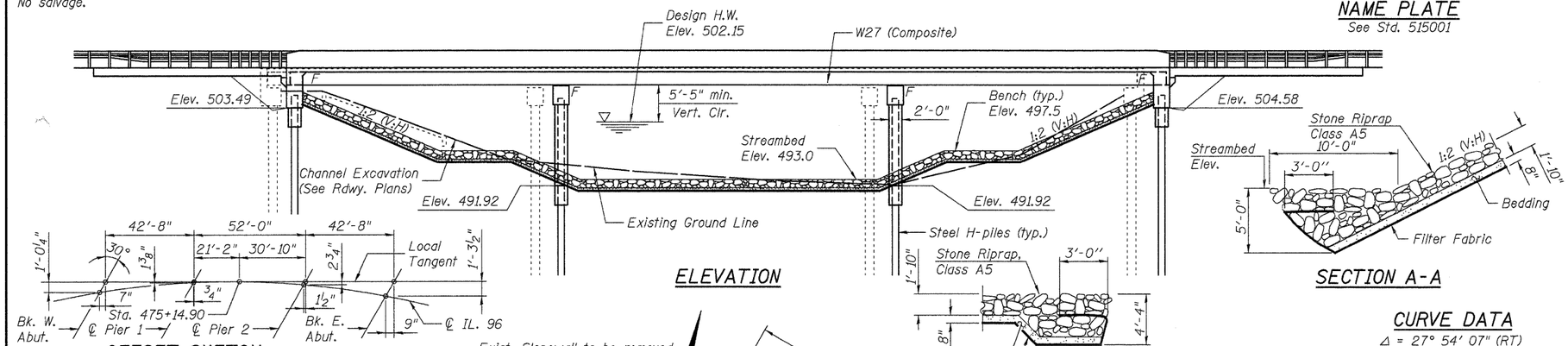
Existing structure shall be removed and replaced using staged construction to maintain one lane of traffic.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATION 475+19.62
BUILT ____ BY
STATE OF ILLINOIS
F.A.P. RTE. 304 SEC. 5A-BR
LOADING HL-93
STR. NO. 007-0028

NAME PLATE
See Std. 515001



ELEVATION

SECTION A-A

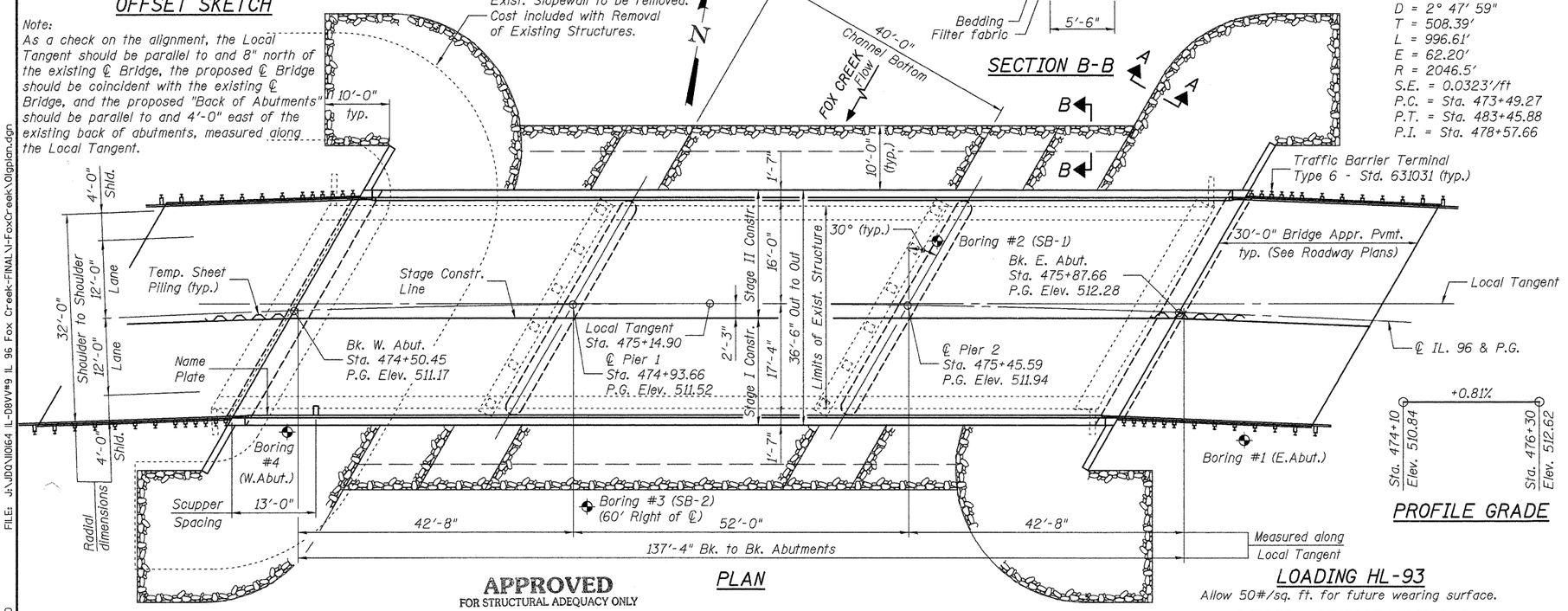
OFFSET SKETCH

Note:
As a check on the alignment, the Local Tangent should be parallel to and 8" north of the existing ℄ Bridge, the proposed ℄ Bridge should be coincident with the existing ℄ Bridge, and the proposed "Back of Abutments" should be parallel to and 4'-0" east of the existing back of abutments, measured along the Local Tangent.

CURVE DATA

Δ = 27° 54' 07" (RT)
D = 2° 47' 59"
T = 508.39'
L = 996.61'
E = 62.20'
R = 2046.5'
S.E. = 0.0323'/ft
P.C. = Sta. 473+49.27
P.T. = Sta. 483+45.88
P.I. = Sta. 478+57.66

SECTION B-B



PLAN

PROFILE GRADE

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts ⅞ in. ϕ, holes ¹⁵⁄₁₆ in. ϕ, unless otherwise noted.

All structural steel shall be AASHTO M 270 Grade 50W.

Calculated weight of Structural Steel = 77630 lbs.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

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

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of ⅛ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

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

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu Yd	--	148	148
Stone Riprap, Class A5	Sq Yd	--	1056	1056
Filter Fabric	Sq Yd	--	1056	1056
Removal Of Existing Structures	Each	1	--	1
Structure Excavation	Cu Yd	--	231	231
Concrete Structures	Cu Yd	--	149.0	149.0
Concrete Superstructure	Cu Yd	177.5	--	177.5
Bridge Deck Grooving	Sq Yd	478	--	478
Concrete Encasement	Cu Yd	--	8.4	8.4
Protective Coat	Sq Yd	624	--	624
Furnishing And Erecting Structural Steel	L Sum	1	--	1
Stud Shear Connectors	Each	2304	--	2304
Reinforcement Bars, Epoxy Coated	Pound	42060	13320	55380
Bar Splicers	Each	491	76	567
Furnishing Steel Piles HP 12x53	Foot	--	1200	1200
Driving Piles	Foot	--	1200	1200
Test Pile Steel HP12x53	Each	--	4	4
Pile Shoes	Each	--	24	24
Temporary Sheet Piling	Sq Ft	--	507	507
Name Plates	Each	1	--	1
Anchor Bolts, 1"	Each	--	48	48
Geocomposite Wall Drain	Sq Yd	--	84	84
Pipe Underdrains For Structures 4"	Foot	--	160	160
Mechanical Splice	Each	--	36	36
Drainage Scuppers, DS-11	Each	1	--	1
Underwater Struct. Excav. Protection - Loc. 1	Each	--	1	1
Underwater Struct. Excav. Protection - Loc. 2	Each	--	1	1

INDEX OF SHEETS

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	503.5	488.9	488.9	504.6

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E Anderson
ENGINEER OF BRIDGES AND STRUCTURES

WATERWAY INFORMATION

Existing Low Grade Elevation: 510.94 @ Sta. 474+50.03
Drainage Area = 5.35 sq. mi. Prop. Low Grade Elevation: 510.94 @ Sta. 474+50.03

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1836	372.19	392.81	500.24	0.14	0.13	500.38	500.37
Design	50	3086	533.08	551.96	502.15	0.19	0.18	502.34	502.33
Base	100	3680	600.67	619.34	502.91	0.19	0.18	503.10	503.09
Overtopping									
Max. Calc.	500	5154	752.81	772.61	504.55	0.14	0.14	504.69	504.69

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

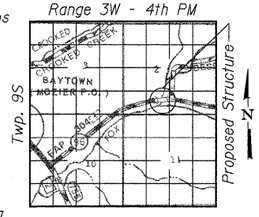
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Accel. at 1.0 sec. (SD1) = 0.16g
Design Spectral Accel. at 0.2 sec. (SDS) = 0.29g
Soil Site Class = D



LOCATION SKETCH

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

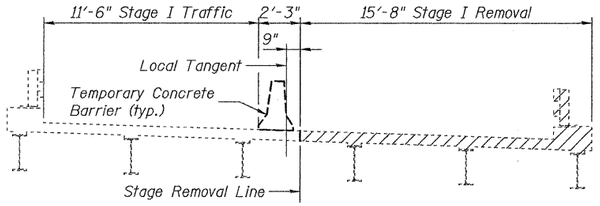
DESIGNED:	JDQ	DRAWN:	SJS/PTR
CHECKED:	DCD	CHECKED:	DCD

STATE OF ILLINOIS
DAVID C. DEPP
061-005117
LICENSED
STRUCTURAL ENGINEER
Signed: David Depp
Date: 11-26-2008
Lic. Expires: 11-30-2010

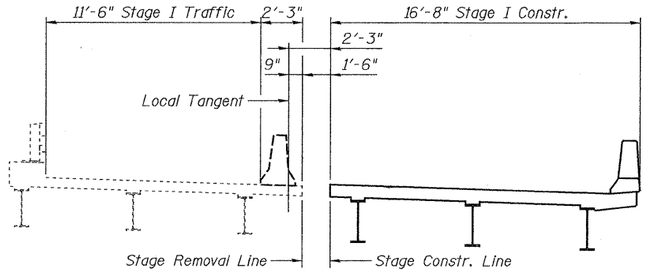
SHEET 1 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	24
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE: J:\JDQ\1106\4 IL-08VV#9 IL 96 Fox Creek-FINAL\I-FoxCreek\Olgplan.dgn
USER: DCD
DATE: 11/26/2008 13:48:00

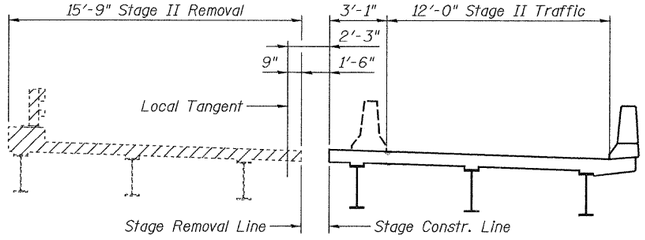
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



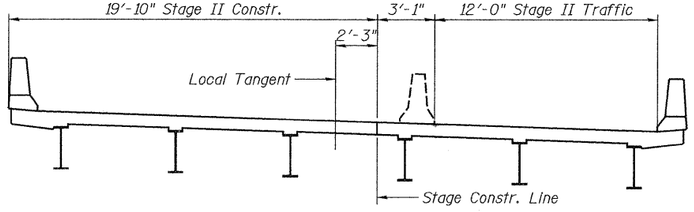
STAGE I REMOVAL
(Looking East)



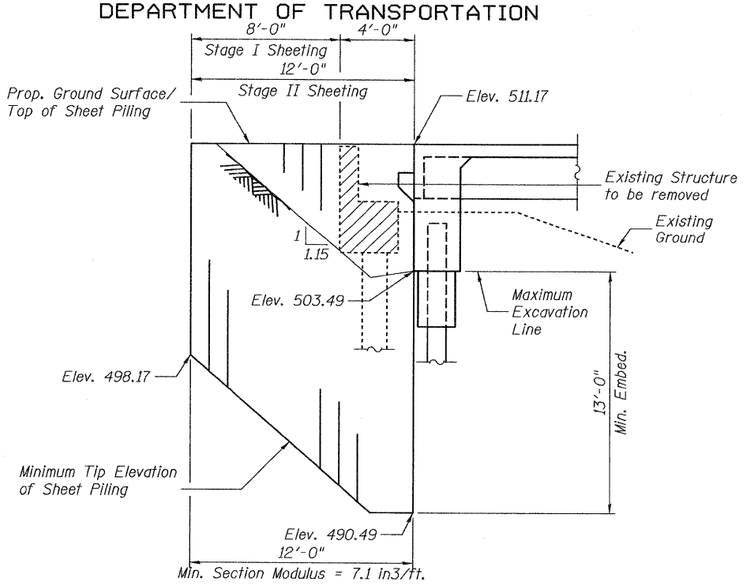
STAGE I CONSTRUCTION
(Looking East)



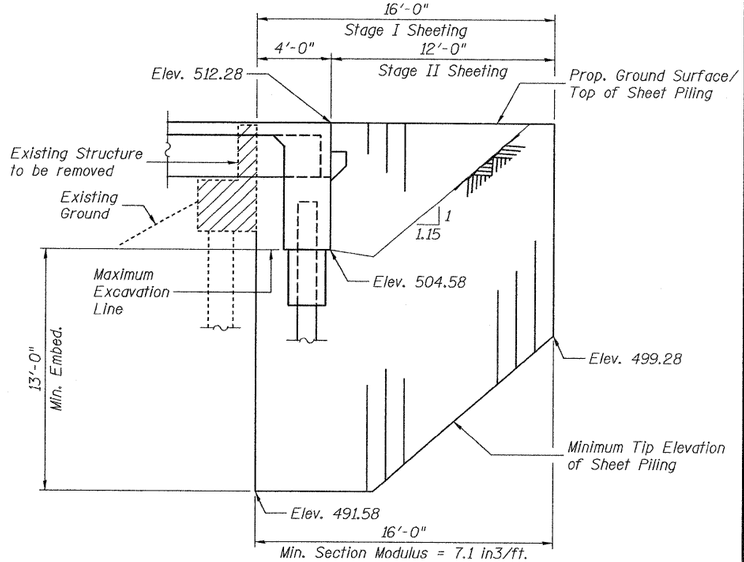
STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)



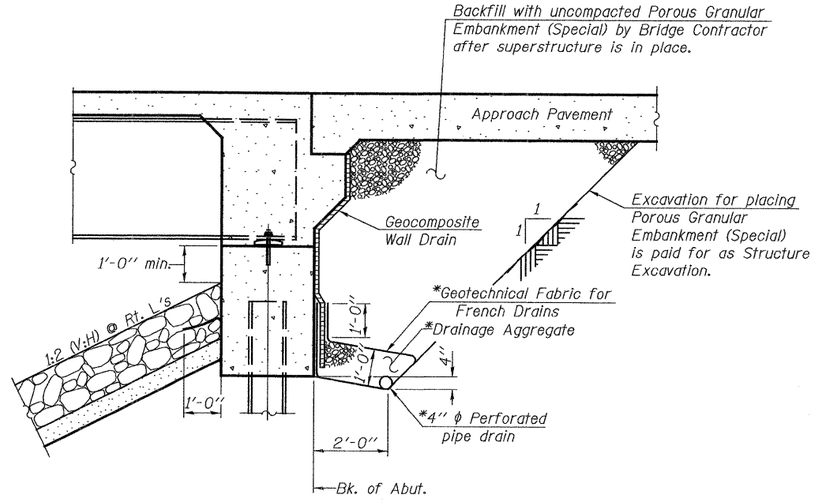
WEST ABUTMENT



EAST ABUTMENT

TEMPORARY SHEET PILING DETAILS
(Slopes and horizontal dimensions are measured parallel to ℄ roadway)

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois			
DESIGNED:	JDQ	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

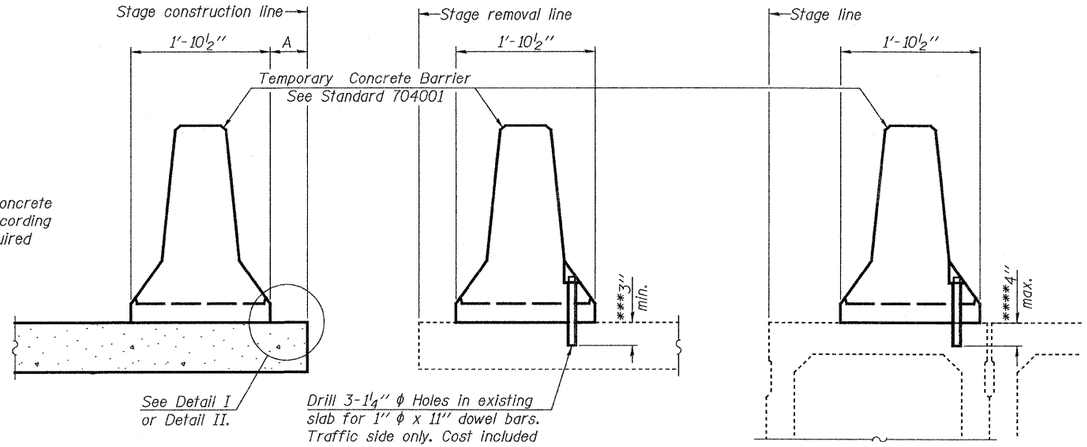
NOTES:
Hatched area indicates Removal of Existing Structures.
Removal of existing railing is included with Removal of Existing Structures.
For quantity and location of Temporary Concrete Barrier, see Roadway Plans.

STAGE CONSTRUCTION DETAILS
ILLINOIS 96 OVER
FOX CREEK
STRUCTURE NO. 007-0028

SHEET 2 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	25
	STA. 475+19.62		CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB | **EXISTING SLAB** | **EXISTING DECK BEAM**

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

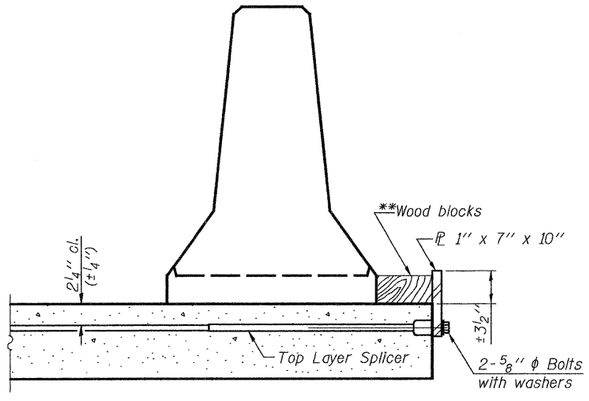
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

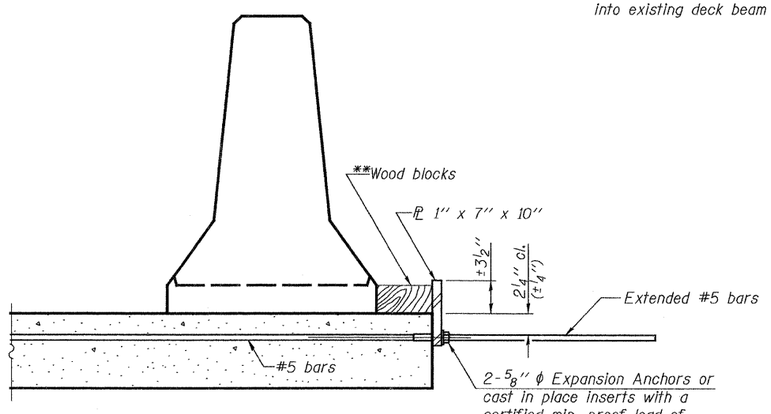
SECTIONS THRU SLAB OR DECK BEAM

***Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

****If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.

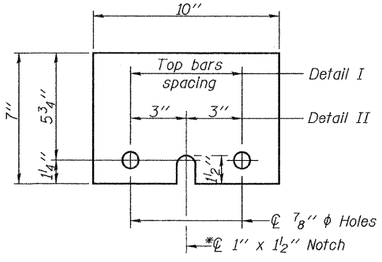


DETAIL I



DETAIL II

**Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.



STEEL RETAINER PL 1" x 7" x 10"

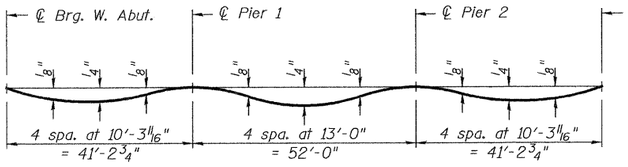
*Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
ILLINOIS 96 OVER
FOX CREEK
STRUCTURE NO. 007-0028

Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	
DESIGNED: JDQ	DRAWN: SJS
CHECKED: DCD	CHECKED: DCD

R-27 5-16-08

SHEET 3 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	26
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

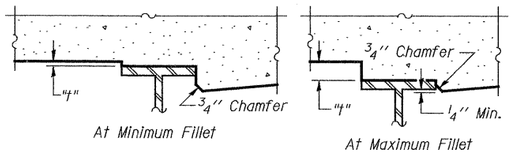


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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

FILLET HEIGHTS

NOTE: Expected fillet height "t" varies from 1/2" (at Abuts.) to 1 1/2" (at midspan 2).

BEAM 1

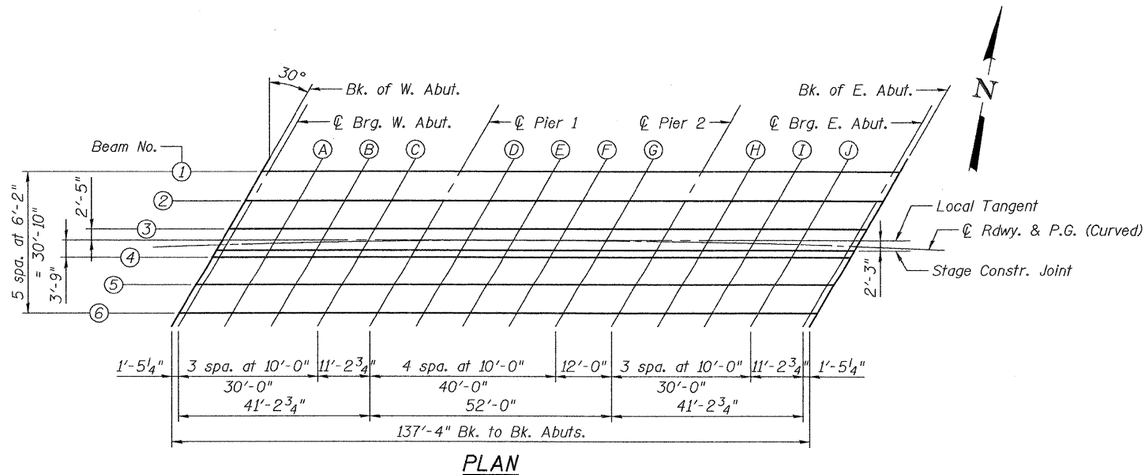
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	474+59.97	-15.50	511.74	511.74
℄ Brg. W. Abut.	474+61.40	-15.46	511.76	511.76
A	474+71.32	-15.22	511.83	511.84
B	474+81.25	-15.03	511.90	511.92
C	474+91.17	-14.89	511.98	511.99
℄ Pier 1	475+02.32	-14.79	512.06	512.06
D	475+12.25	-14.75	512.14	512.15
E	475+22.18	-14.76	512.22	512.25
F	475+32.11	-14.82	512.31	512.33
G	475+42.03	-14.93	512.39	512.40
℄ Pier 2	475+53.95	-15.12	512.49	512.49
H	475+63.87	-15.34	512.58	512.59
I	475+73.79	-15.60	512.67	512.69
J	475+83.71	-15.91	512.76	512.77
℄ Brg. E. Abut.	475+94.84	-16.32	512.86	512.86
Bk. E. Abut.	475+96.28	-16.38	512.88	512.88

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	474+56.27	-9.43	511.52	511.52
℄ Brg. W. Abut.	474+57.70	-9.39	511.53	511.53
A	474+67.65	-9.13	511.60	511.62
B	474+77.60	-8.93	511.68	511.69
C	474+87.56	-8.77	511.75	511.76
℄ Pier 1	474+98.74	-8.65	511.84	511.84
D	475+08.70	-8.59	511.92	511.93
E	475+18.66	-8.59	512.00	512.02
F	475+28.61	-8.63	512.08	512.10
G	475+38.57	-8.72	512.16	512.18
℄ Pier 2	475+50.52	-8.89	512.26	512.26
H	475+60.47	-9.09	512.35	512.36
I	475+70.42	-9.34	512.44	512.46
J	475+80.37	-9.63	512.53	512.55
℄ Brg. E. Abut.	475+91.54	-10.02	512.63	512.63
Bk. E. Abut.	475+92.98	-10.08	512.65	512.65

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	474+52.54	-3.37	511.29	511.29
℄ Brg. W. Abut.	474+53.97	-3.33	511.30	511.30
A	474+63.95	-3.05	511.38	511.39
B	474+73.93	-2.83	511.45	511.47
C	474+83.92	-2.65	511.52	511.53
℄ Pier 1	474+95.13	-2.51	511.61	511.61
D	475+05.12	-2.44	511.69	511.70
E	475+15.11	-2.42	511.77	511.79
F	475+25.10	-2.44	511.85	511.87
G	475+35.09	-2.52	511.93	511.95
℄ Pier 2	475+47.07	-2.67	512.04	512.04
H	475+57.05	-2.85	512.12	512.13
I	475+67.04	-3.08	512.21	512.23
J	475+77.02	-3.36	512.30	512.32
℄ Brg. E. Abut.	475+88.22	-3.73	512.40	512.40
Bk. E. Abut.	475+89.67	-3.78	512.42	512.42



PLAN

TOP OF SLAB ELEVATIONS
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	JDQ	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

E-S 5-16-08

SHEET 4 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	27
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	474+50.45	0.00	511.17	511.17
℄ Brg. W. Abut.	474+51.91	0.00	511.18	511.18
A	474+62.09	0.00	511.26	511.28
B	474+72.22	0.00	511.34	511.36
C	474+82.33	0.00	511.43	511.43
℄ Pier 1	474+93.65	0.00	511.52	511.52
D	475+03.69	0.00	511.60	511.61
E	475+13.71	0.00	511.68	511.70
F	475+23.70	0.00	511.76	511.78
G	475+33.67	0.00	511.84	511.85
℄ Pier 2	475+45.58	0.00	511.94	511.94
H	475+55.49	0.00	512.02	512.02
I	475+65.36	0.00	512.10	512.11
J	475+75.21	0.00	512.18	512.19
℄ Brg. E. Abut.	475+86.24	0.00	512.27	512.27
Bk. E. Abut.	475+87.66	0.00	512.28	512.28

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	474+49.70	1.21	511.12	511.12
℄ Brg. W. Abut.	474+51.14	1.25	511.13	511.13
A	474+61.14	1.54	511.20	511.22
B	474+71.15	1.78	511.28	511.29
C	474+81.15	1.97	511.35	511.36
℄ Pier 1	474+92.39	2.13	511.44	511.44
D	475+02.40	2.21	511.52	511.53
E	475+12.41	2.25	511.60	511.62
F	475+22.42	2.24	511.68	511.70
G	475+32.43	2.18	511.76	511.77
℄ Pier 2	475+44.45	2.04	511.86	511.86
H	475+54.45	1.87	511.95	511.96
I	475+64.46	1.65	512.04	512.05
J	475+74.46	1.39	512.13	512.14
℄ Brg. E. Abut.	475+85.69	1.03	512.23	512.23
Bk. E. Abut.	475+87.14	0.98	512.24	512.24

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	474+48.78	2.68	511.07	511.07
℄ Brg. W. Abut.	474+50.22	2.73	511.08	511.08
A	474+60.23	3.02	511.15	511.16
B	474+70.25	3.26	511.22	511.24
C	474+80.26	3.46	511.30	511.31
℄ Pier 1	474+91.51	3.62	511.38	511.38
D	475+01.53	3.71	511.46	511.47
E	475+11.54	3.75	511.54	511.56
F	475+21.56	3.74	511.62	511.65
G	475+31.58	3.68	511.70	511.72
℄ Pier 2	475+43.60	3.55	511.81	511.81
H	475+53.62	3.39	511.89	511.90
I	475+63.63	3.17	511.98	512.00
J	475+73.64	2.91	512.07	512.09
℄ Brg. E. Abut.	475+84.88	2.56	512.17	512.17
Bk. E. Abut.	475+86.33	2.51	512.19	512.19

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	474+45.01	8.73	510.84	510.84
℄ Brg. W. Abut.	474+46.45	8.77	510.85	510.85
A	474+56.49	9.08	510.92	510.94
B	474+66.53	9.35	511.00	511.01
C	474+76.58	9.56	511.07	511.08
℄ Pier 1	474+87.86	9.74	511.16	511.16
D	474+97.91	9.85	511.23	511.24
E	475+07.96	9.90	511.31	511.34
F	475+18.00	9.91	511.39	511.42
G	475+28.05	9.88	511.48	511.49
℄ Pier 2	475+40.11	9.76	511.58	511.58
H	475+50.16	9.62	511.66	511.67
I	475+60.20	9.42	511.75	511.77
J	475+70.24	9.17	511.84	511.86
℄ Brg. E. Abut.	475+81.52	8.84	511.94	511.94
Bk. E. Abut.	475+82.97	8.79	511.96	511.96

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	474+41.21	14.76	510.62	510.62
℄ Brg. W. Abut.	474+42.66	14.81	510.63	510.63
A	474+52.73	15.14	510.70	510.71
B	474+62.80	15.42	510.77	510.79
C	474+72.87	15.65	510.84	510.85
℄ Pier 1	474+84.19	15.85	510.93	510.93
D	474+94.27	15.98	511.01	511.02
E	475+04.35	16.06	511.08	511.11
F	475+14.42	16.08	511.17	511.19
G	475+24.50	16.06	511.25	511.26
℄ Pier 2	475+36.60	15.97	511.35	511.35
H	475+46.68	15.84	511.43	511.44
I	475+56.75	15.66	511.52	511.54
J	475+66.83	15.43	511.61	511.63
℄ Brg. E. Abut.	475+78.13	15.12	511.71	511.71
Bk. E. Abut.	475+79.59	15.07	511.73	511.73

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: JDQ	DRAWN: SJS
CHECKED: DCD	CHECKED: DCD

TOP OF SLAB ELEVATIONS
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

SHEET 5 OF 22

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	28
	STA. 475+19.62	CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LEFT CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	474+31.22	-16.98	511.56
A1	474+41.14	-16.99	511.64
B1	474+51.06	-17.04	511.72
Bk. W. Abut.	474+60.97	-17.14	511.81
Bk. E. Abut.	475+97.17	-18.09	512.94
A2	476+07.08	-18.08	513.02
B2	476+16.99	-18.13	513.10
End E. Appr. Pvmt.	476+26.91	-18.22	513.18

LEFT EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	474+28.06	-11.96	511.37
A1	474+38.00	-11.95	511.45
B1	474+47.94	-11.98	511.53
Bk. W. Abut.	474+57.88	-12.07	511.62
Bk. E. Abut.	475+93.97	-11.96	512.71
A2	476+03.91	-11.94	512.79
B2	476+13.86	-11.98	512.88
End E. Appr. Pvmt.	476+23.80	-12.05	512.96

℄ RDWY. & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	474+20.45	0.00	510.92
A1	474+30.48	0.00	511.01
B1	474+40.48	0.00	511.09
Bk. W. Abut.	474+50.45	0.00	511.17
Bk. E. Abut.	475+87.66	0.00	512.28
A2	475+97.69	0.00	512.36
B2	476+07.69	0.00	512.44
End E. Appr. Pvmt.	476+17.66	0.00	512.52

STAGE CONSTRUCTION JOINT

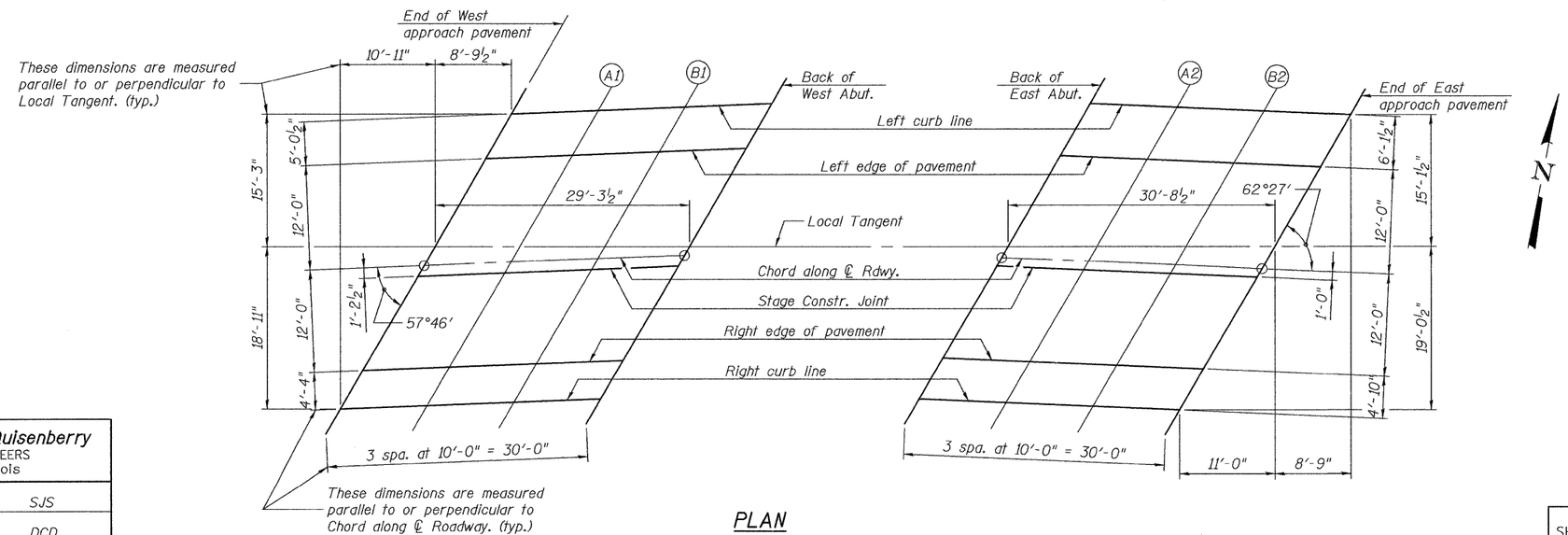
Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	474+19.68	1.20	510.88
A1	474+29.69	1.25	510.96
B1	474+39.69	1.25	511.04
Bk. W. Abut.	474+49.70	1.21	511.12
Bk. E. Abut.	475+87.14	0.98	512.24
A2	475+97.15	1.03	512.32
B2	476+07.15	1.03	512.40
End E. Appr. Pvmt.	476+17.16	0.99	512.48

RIGHT EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	474+12.75	11.93	510.48
A1	474+22.81	12.02	510.56
B1	474+32.87	12.05	510.64
Bk. W. Abut.	474+42.93	12.04	510.72
Bk. E. Abut.	475+81.28	11.94	511.84
A2	475+91.34	12.02	511.92
B2	476+01.40	12.06	512.00
End E. Appr. Pvmt.	476+11.46	12.04	512.08

RIGHT CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	474+09.94	16.24	510.31
A1	474+20.02	16.34	510.39
B1	474+30.10	16.39	510.47
Bk. W. Abut.	474+40.18	16.40	510.55
Bk. E. Abut.	475+78.68	16.77	511.66
A2	475+88.76	16.86	511.74
B2	475+98.84	16.90	511.82
End E. Appr. Pvmt.	476+08.93	16.90	511.90



PLAN

TOP OF APPROACH SLAB ELEVATIONS
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	JDQ	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

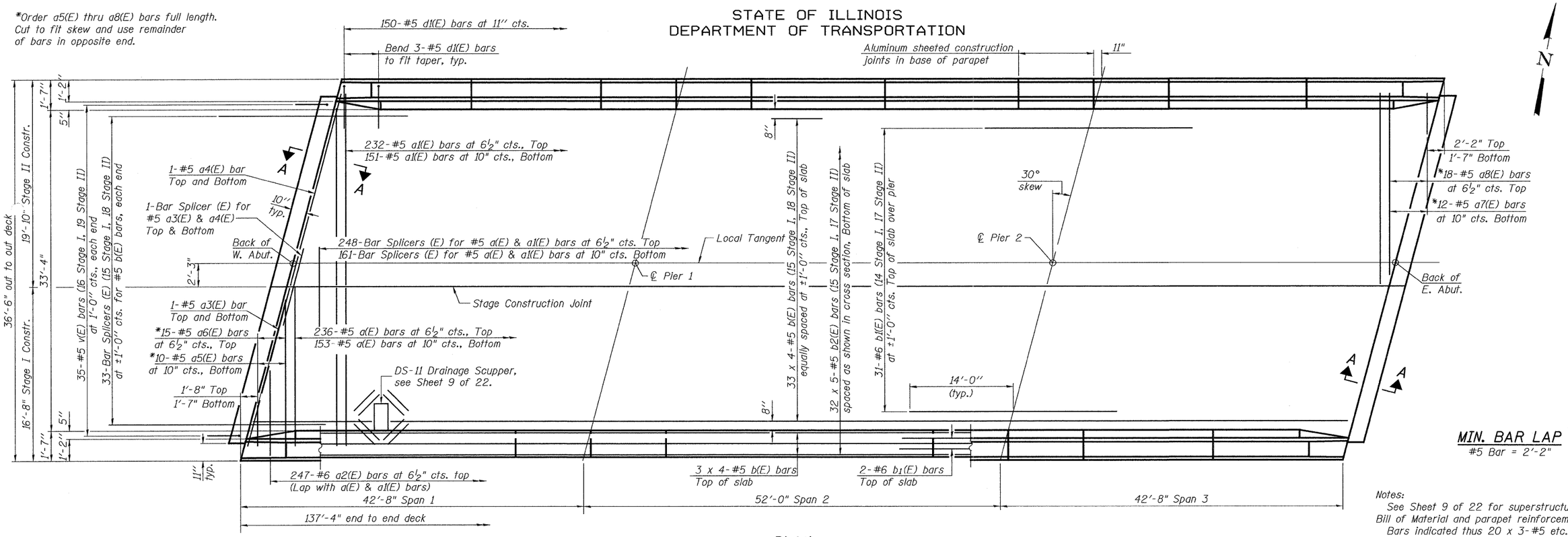
E-AS 5-16-08

SHEET 6 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	29
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DATE: 1/26/2008 10:40:33 USER: DCD FILE: J:\JOB\10164 IL-38W\#3 IL 96 Fox Creek-FINAL\Fox Creek\06gpslabelev.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

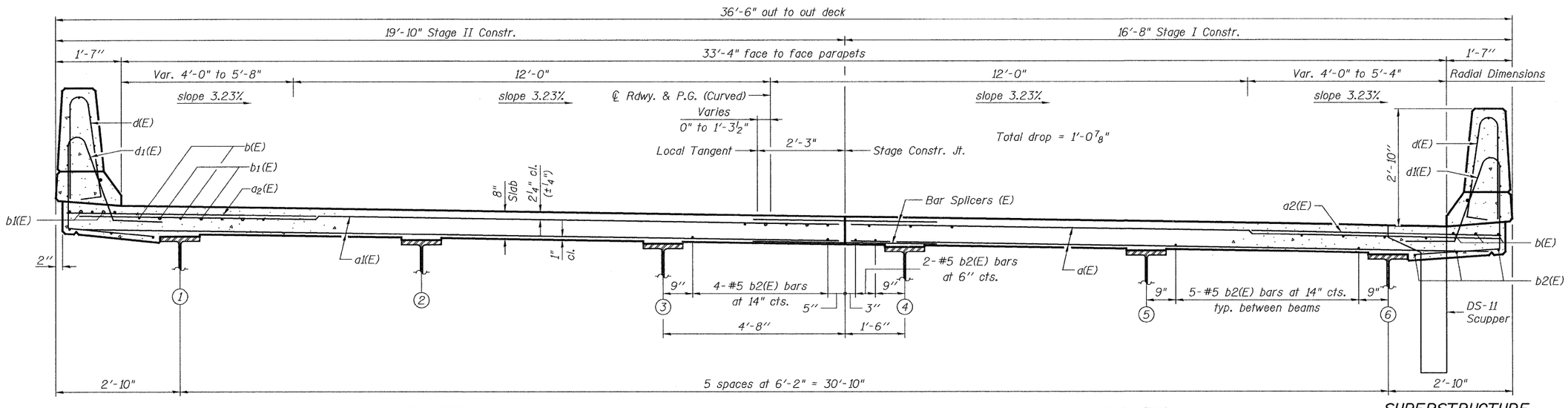
*Order a5(E) thru a8(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



PLAN

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

Notes:
See Sheet 9 of 22 for superstructure details, Bill of Material and parapet reinforcement.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



NEAR PIER — NEAR MIDSPAN

CROSS SECTION
(Looking East)

SUPERSTRUCTURE
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

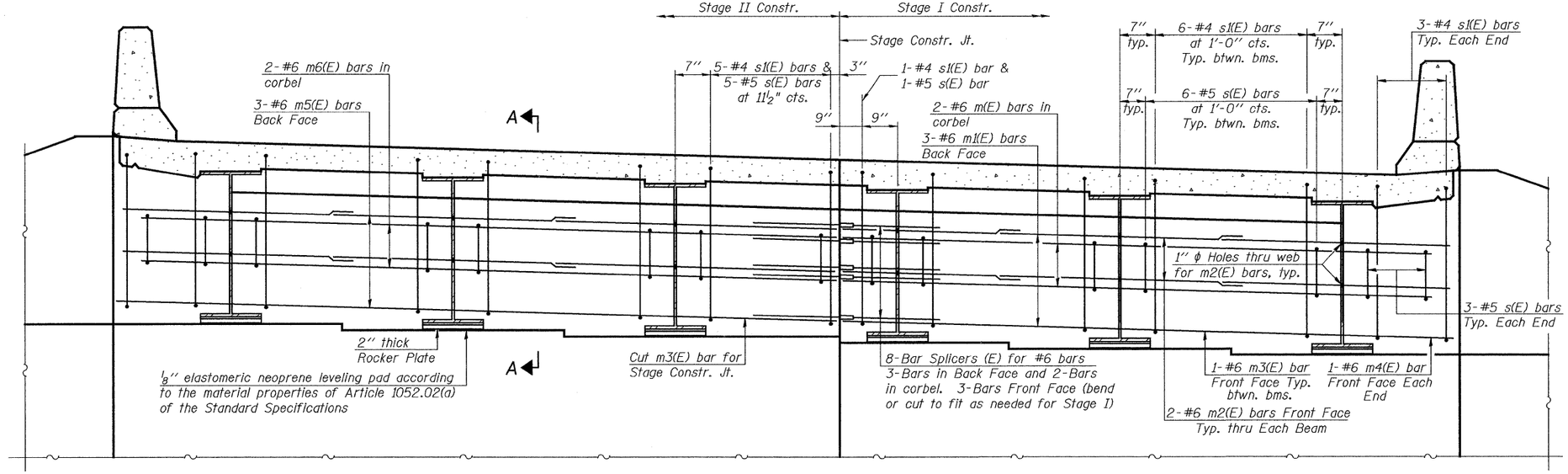
Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois			
DESIGNED: JDQ	DRAWN: PTR		
CHECKED: DCD	CHECKED: DCD		

SI-2-L 5-16-08

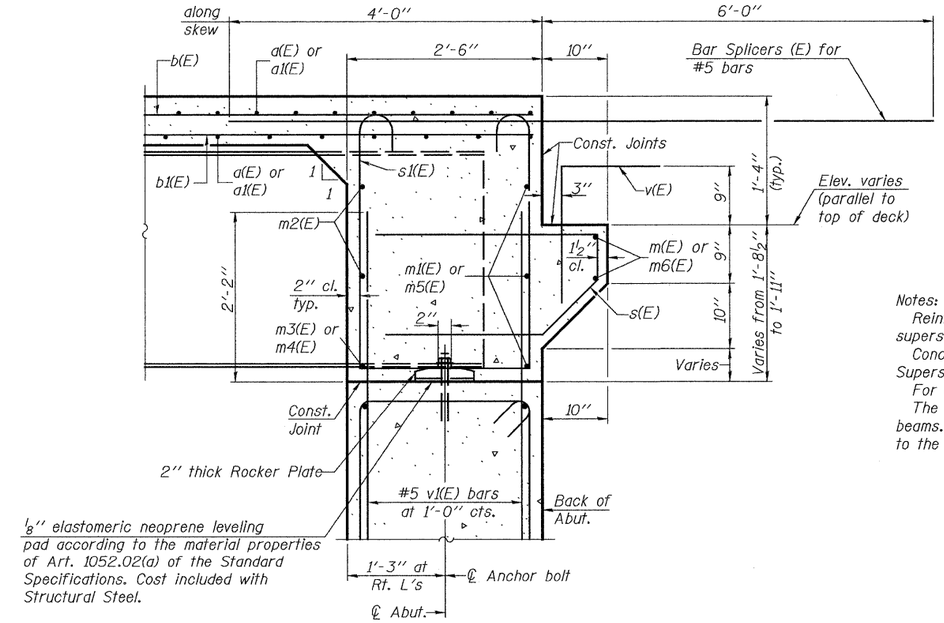
SHEET 7 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	30
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE: J:\JDQ\10164 IL-98VV#9 IL 96 Fox Creek-FINAL\FoxCreek\07superstr1.dgn
USER: DCD
DATE: 1/26/2008 10:40:35

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A

Dimensions at right angles to abutment, except as shown.

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 9 of 22.

Concrete in diaphragm is included with Concrete Superstructure on sheet 9 of 22.

For details of bars s(E) & s1(E) see sheet 9 of 22.

The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

MIN. BAR LAP

#6 bar = 2'-7"

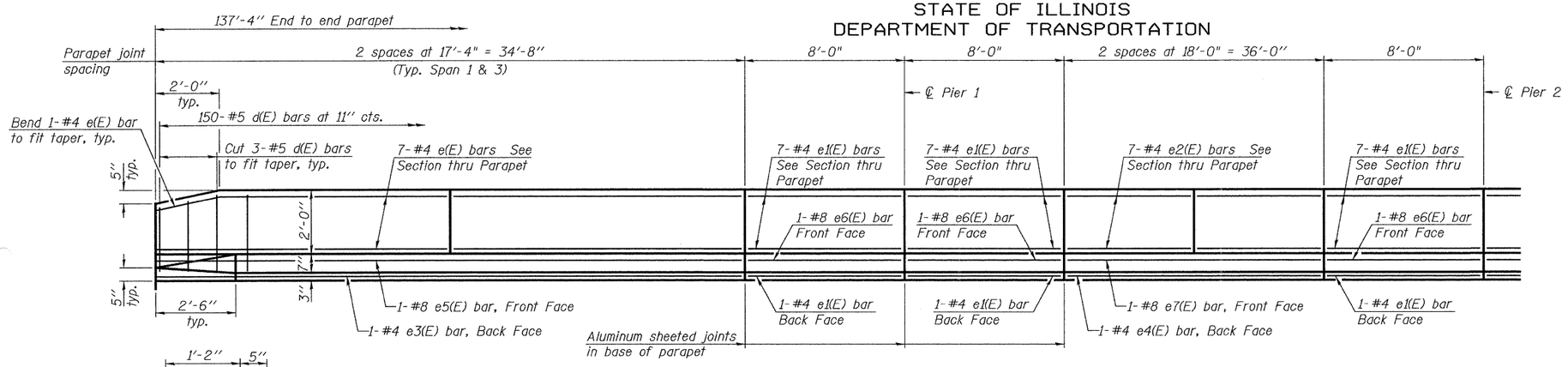
INTEGRAL ABUTMENT DIAPHRAGM DETAILS
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	
DESIGNED: JDQ	DRAWN: PTR
CHECKED: DCD	CHECKED: DCD

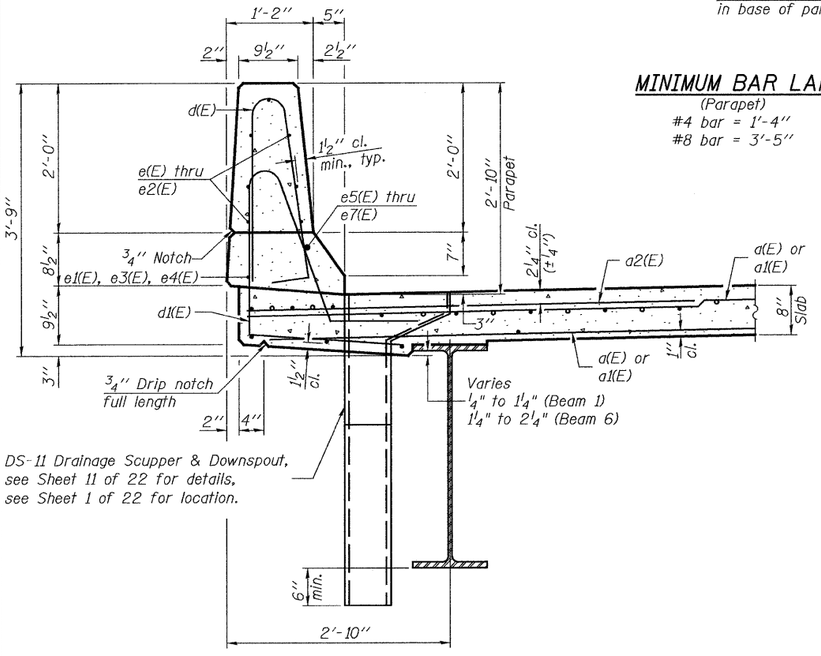
SI-DS1 5-16-08

SHEET 8 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	31
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



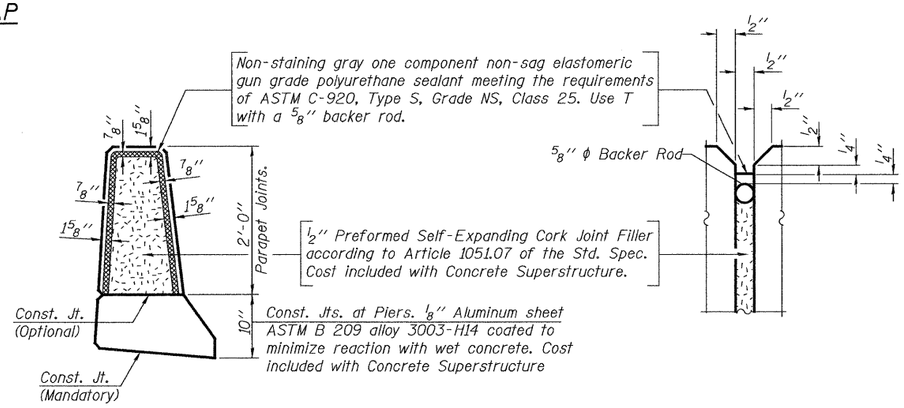
INSIDE ELEVATION OF PARAPET



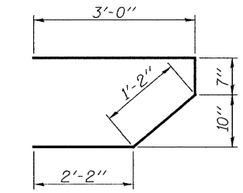
SECTION THRU PARAPET

MINIMUM BAR LAP

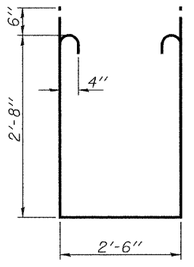
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



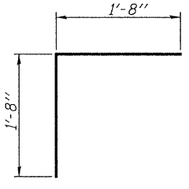
PARAPET JOINT DETAILS



BAR s(E)



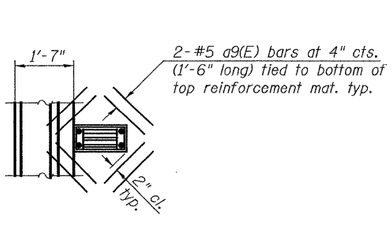
BAR s1(E)



BAR v(E)

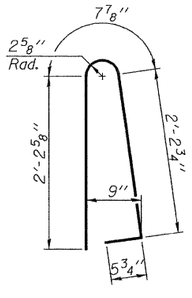
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	SIze	Length	Shape
d(E)	389	#5	16'-2"	——
d1(E)	383	#5	19'-4"	——
d2(E)	494	#6	6'-0"	——
d3(E)	4	#5	18'-8"	——
d4(E)	4	#5	22'-4"	——
d5(E)	10	#5	18'-0"	——
d6(E)	15	#5	17'-9"	——
d7(E)	12	#5	21'-3"	——
d8(E)	18	#5	22'-0"	——
d9(E)	8	#5	1'-6"	——
b(E)	156	#5	35'-11"	——
b1(E)	70	#6	28'-0"	——
b2(E)	160	#5	29'-2"	——
d(E)	300	#5	5'-7"	⌊
d1(E)	300	#5	7'-6"	⌊
e(E)	56	#4	17'-0"	——
e1(E)	64	#4	7'-8"	——
e2(E)	28	#4	17'-8"	——
e3(E)	4	#4	34'-4"	——
e4(E)	2	#4	35'-8"	——
e5(E)	4	#8	34'-4"	——
e6(E)	8	#8	7'-8"	——
e7(E)	2	#8	35'-8"	——
m(E)	4	#6	17'-10"	——
m1(E)	6	#6	18'-11"	——
m2(E)	12	#6	9'-9"	——
m3(E)	10	#6	6'-9"	——
m4(E)	4	#6	2'-10"	——
m5(E)	6	#6	22'-6"	——
m6(E)	4	#6	21'-6"	——
s(E)	72	#5	6'-11"	⊐
s1(E)	72	#4	8'-10"	⊔
v(E)	70	#5	3'-4"	⌐
Reinforcement Bars, Epoxy Coated		Pound	42060	
Concrete Superstructure		Cu. Yds.	177.5	

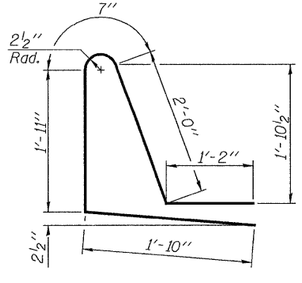


PLAN AT SCUPPER

Note:
Cut longitudinal reinforcement to clear drainage scuppers.



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE DETAILS
ILLINOIS 96 OVER
FOX CREEK
STRUCTURE NO. 007-0028

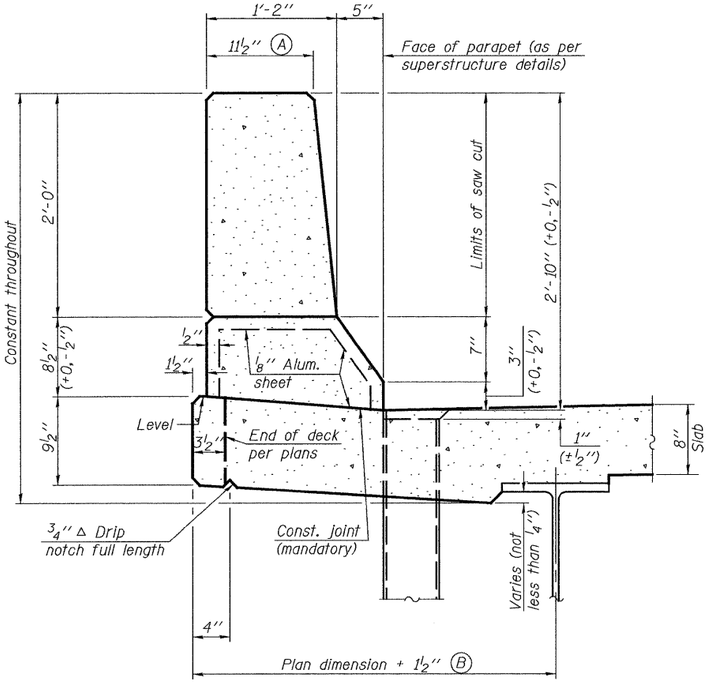
Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois			
DESIGNED: JDQ	DRAWN: PTR		
CHECKED: DCD	CHECKED: DCD		

S-I-D 5-16-08

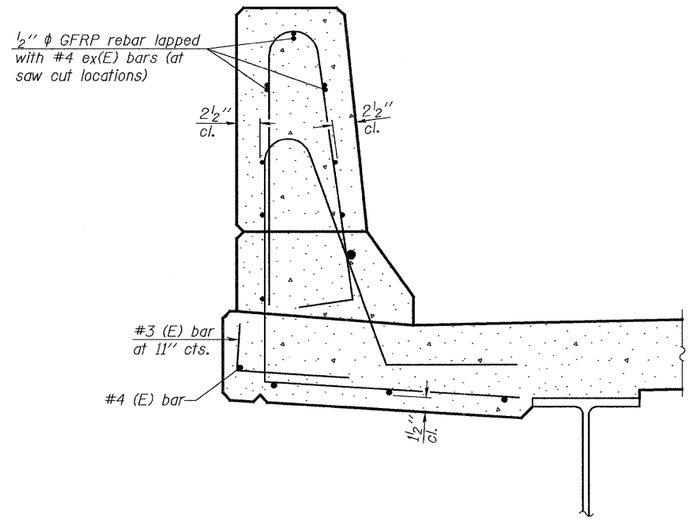
SHEET 9 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	32
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DATE: 1/26/2008 10:40:39 USER: DCD FILE: J:\JDQ\10164 IL-08VV#9 IL 96 Fox Creek-FINAL\I-FoxCreek\09superstr3.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION
(Showing dimensions)

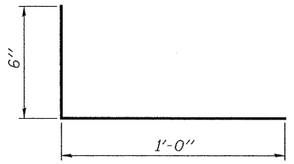


SECTION
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

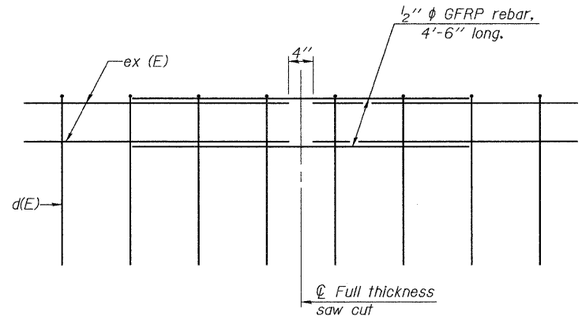
GENERAL NOTES

All dimensions shall remain the same as shown on contract plans, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B= 0.0165 cu. yds./ft. of parapet.

Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section at each parapet joint location.)

CONCRETE PARAPET SLIPFORMING OPTION
ILLINOIS 96 OVER
FOX CREEK
STRUCTURE NO. 007-0028

Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	
DESIGNED: JDQ	DRAWN: SJS
CHECKED: DCD	CHECKED: DCD

SFP-34 5-16-08

SHEET 10 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	33
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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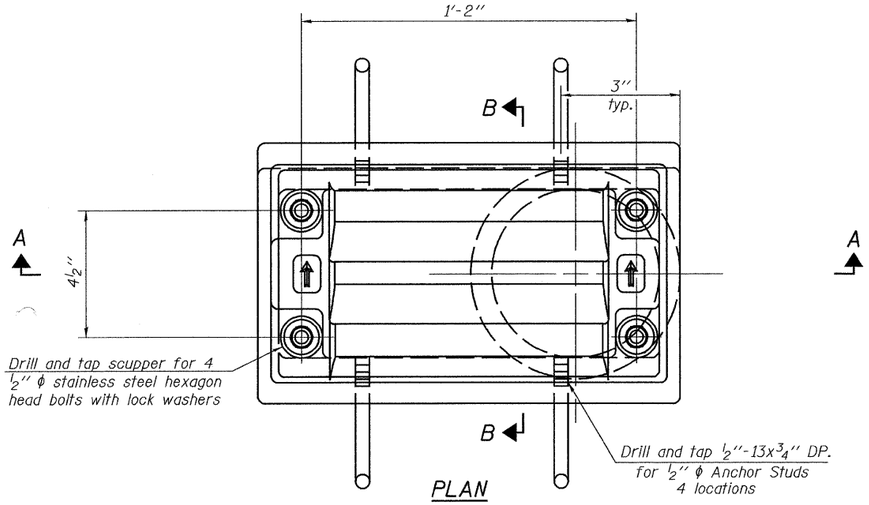
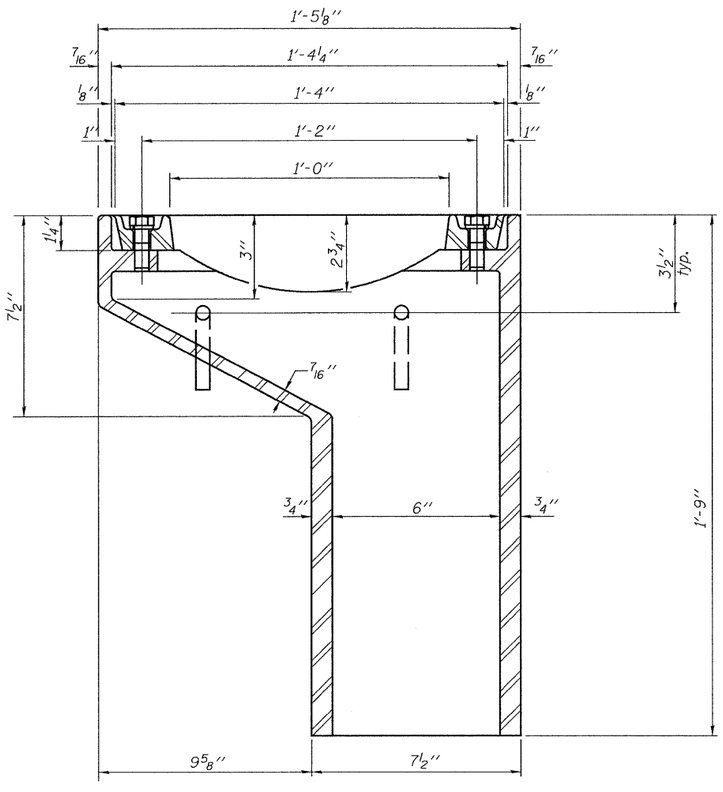
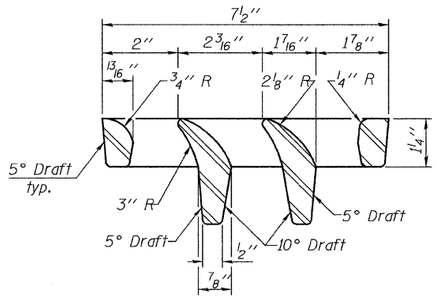
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



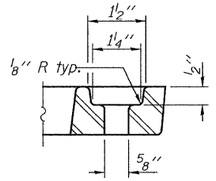
PLAN



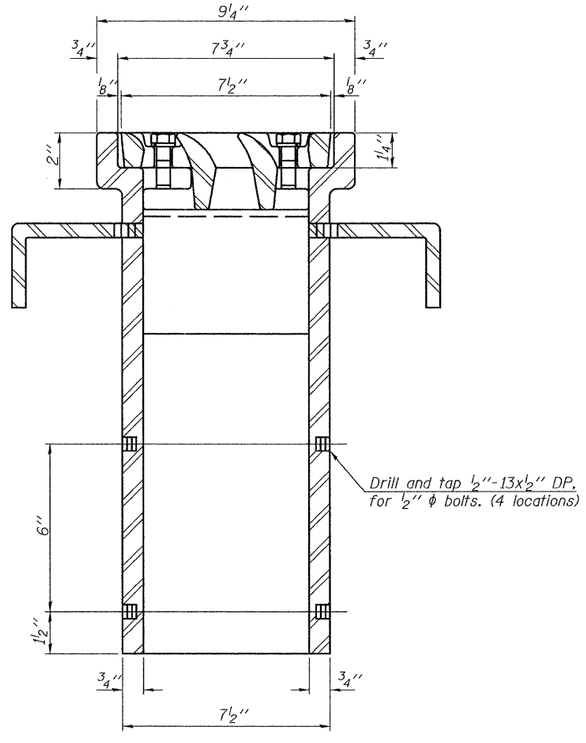
SECTION A-A
See sheet 9 of 22 for scupper location relative to parapet.



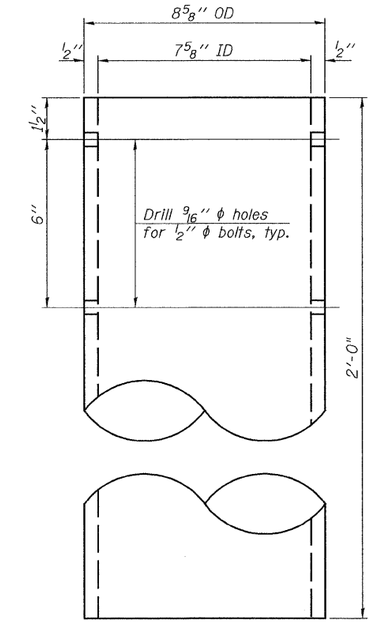
VANE GRATE DETAIL



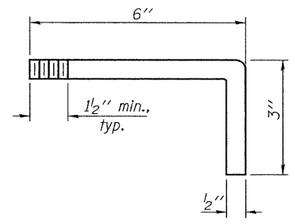
BOLT HOLE DETAIL



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	1

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	JDQ	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

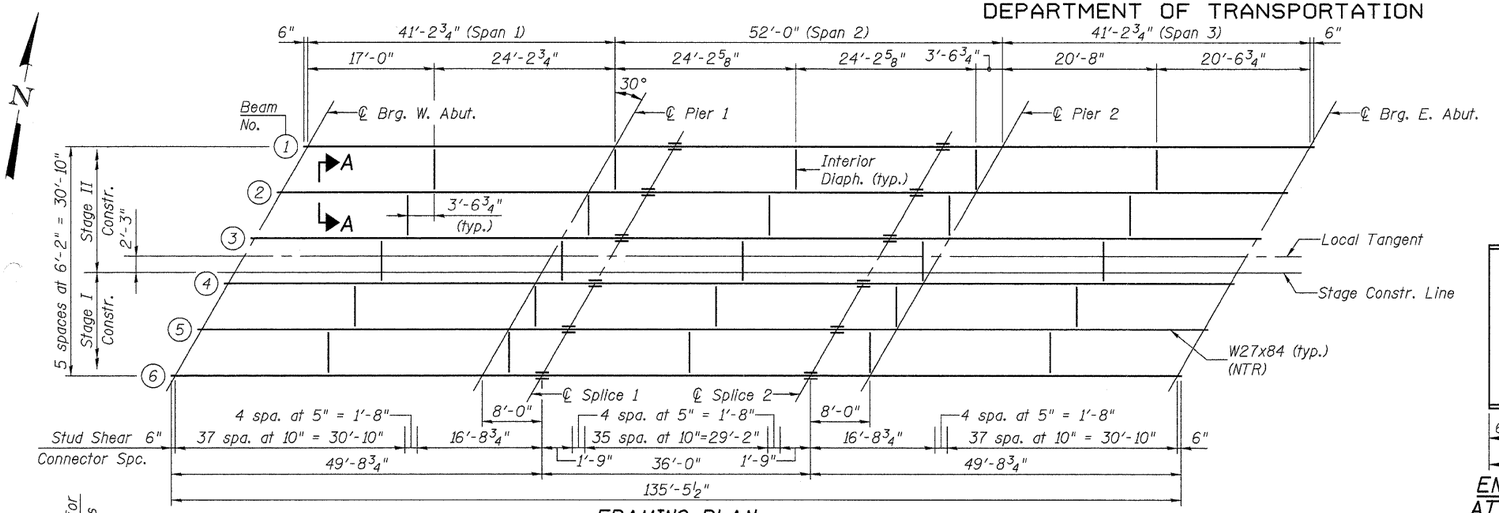
DS-11 5-16-08

DRAINAGE SCUPPER, DS-11
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

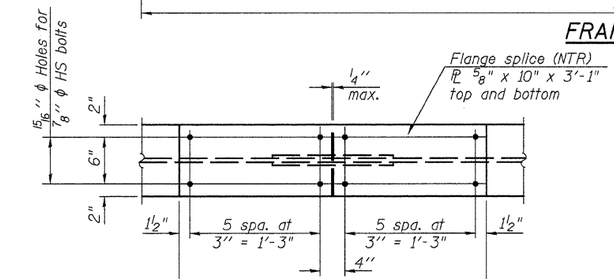
SHEET 11 OF 22

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	34
	STA. 475+19.62	CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

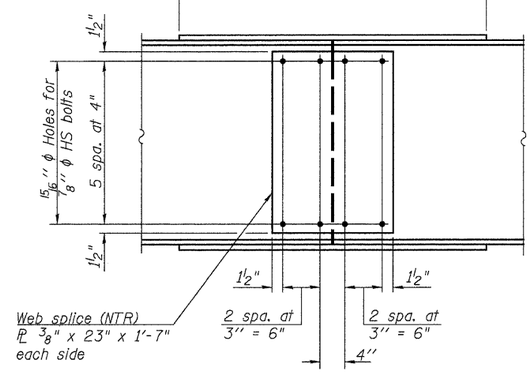
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN



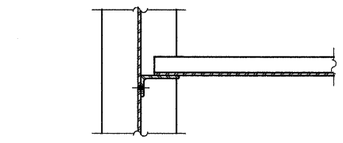
PLAN



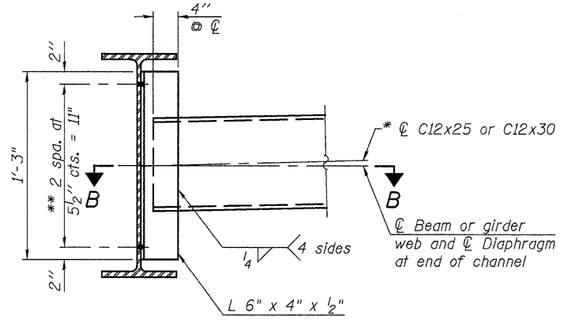
ELEVATION

SPLICE DETAIL

(12 Required)



SECTION B-B



INTERIOR DIAPHRAGM

(25 Required)

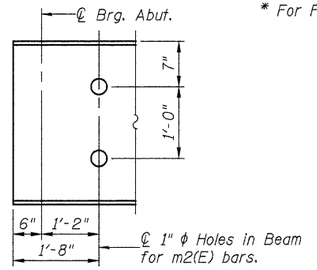
Note:
Two hardened washers required for each set of oversized holes.

* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
** 3/4" ϕ HS bolts, 15/16" ϕ holes

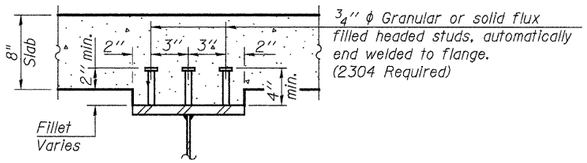
TOP OF BEAM ELEVATIONS*

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
℄ Brg. W. Abut.	511.02	510.80	510.57	510.34	510.12	509.89
℄ Pier 1	511.29	511.06	510.84	510.61	510.38	510.15
℄ Splice 1	511.34	511.11	510.89	510.66	510.43	510.20
℄ Splice 2	511.64	511.41	511.18	510.95	510.72	510.49
℄ Pier 2	511.72	511.49	511.26	511.03	510.80	510.57
℄ Brg. E. Abut.	512.13	511.90	511.67	511.44	511.21	510.98

* For Fabrication only. (Theoretical elevations before dead load deflection.)



END OF BEAM AT ABUTMENTS



SECTION A-A

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Span 2
I_s	(in^4)	2850	2850	2850
$I_c(n)$	(in^4)	8510	2850	8510
$I_c(3n)$	(in^4)	6391	2850	6391
S_s	(in^3)	213	213	213
$S_c(n)$	(in^3)	327	213	327
$S_c(3n)$	(in^3)	296	213	296
Z	(in^3)	---	---	---
$DC1$	(k/')	0.724	0.724	0.724
M_{DC1}	('k)	84	160	85
$DC2$	(k/')	0.150	0.150	0.150
M_{DC2}	('k)	21	25	26
DW	(k/')	0.278	0.278	0.278
M_{DW}	('k)	38	46	48
M_{L+IM}	('k)	408	234	452
M_u (Strength I)	('k)	902	710	1002
* $\phi_f M_n$, $\phi_f M_{nc}$	('k)	1773	796	1773
f_s DC1	(ksi)	4.7	9.0	4.8
f_s DC2	(ksi)	0.9	1.4	1.1
f_s DW	(ksi)	1.5	2.6	1.9
f_s 1.3(L+IM)	(ksi)	19.5	17.1	21.6
f_s (Service II)	(ksi)	26.6	30.1	29.4
** f_s (Total)(Strength I)	(ksi)	---	---	---
V_f	(k)	21.3	---	20.3

* Compact sections
** Non-Compact and slender sections

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
R_{DC1}	(k)	11.0	37.6
R_{DC2}	(k)	2.5	7.6
R_{DW}	(k)	4.6	14.1
R_{L+IM}	(k)	64.3	82.6
R_{Total}	(k)	82.4	141.9

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).
$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads ($in.^4$ and $in.^3$).
$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).
Z: Plastic Section Modulus of the steel section in non-composite areas. Omit line in Moment Table if not used in design calculations ($in.^3$).
$DC1$: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
$DC2$: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$
$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).
$\phi_f M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).
f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+IM}$
f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$
V_f: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

Notes:
All structural steel shall be AASHTO M270 Gr. 50W.
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

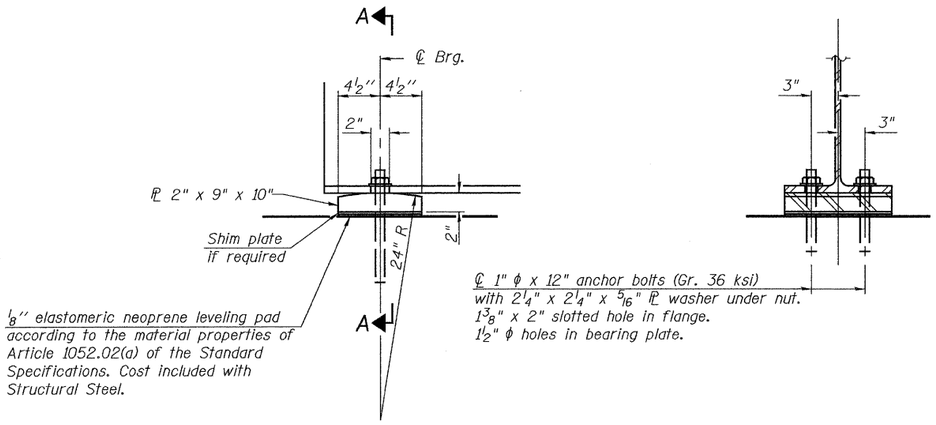
DESIGNED:	JDQ	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

STRUCTURAL STEEL & FRAMING PLAN
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

SHEET 12 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	35
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DATE: 11/26/2008 13:48:06 USER: DCD FILE: J:\JOB\10164 IL-98\Proj IL 96 Fox Creek-FINAL\1-FoxCreekV2Structsteel.dgn

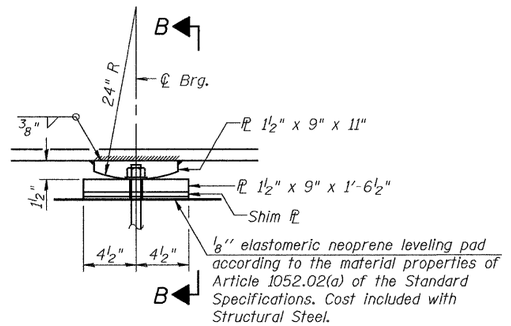
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



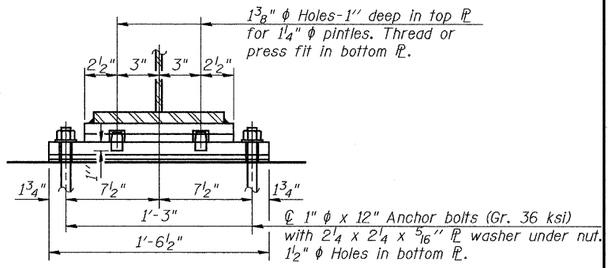
ELEVATION AT ABUTMENT

SECTION A-A

FIXED BEARING

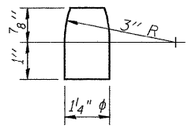


ELEVATION AT PIER



SECTION B-B

FIXED BEARING



PINTLE

Notes:

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

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

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

Structural Steel for bearings shall be AASHTO M270 Gr. 50W.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	48

BEARING DETAILS
ILLINOIS 96 OVER
FOX CREEK
STRUCTURE NO. 007-0028

	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET 13 OF 22	304	5A-BR	CALHOUN	60	36
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

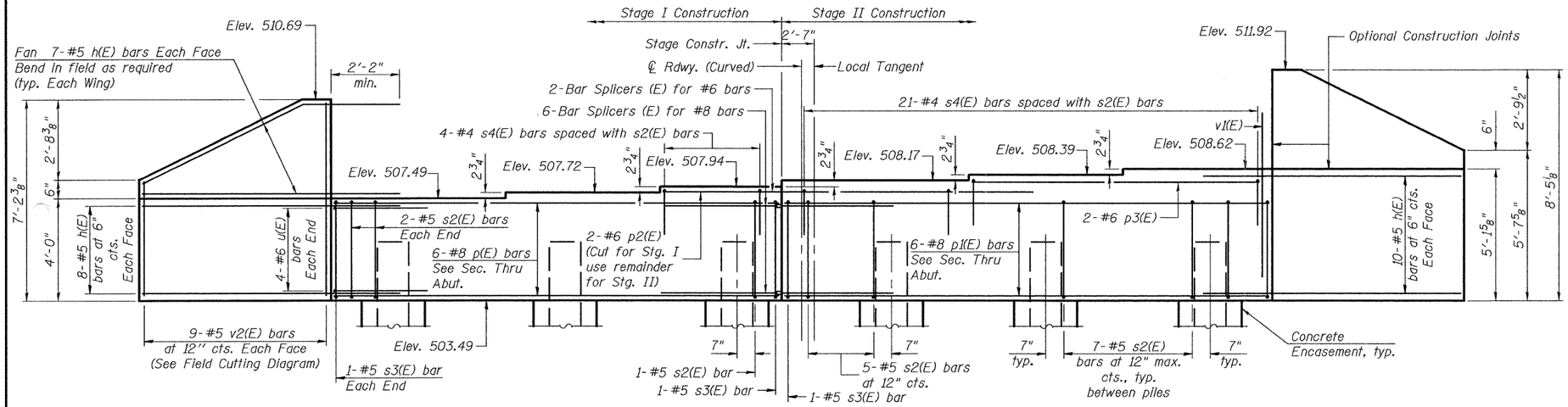
Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	JDQ	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

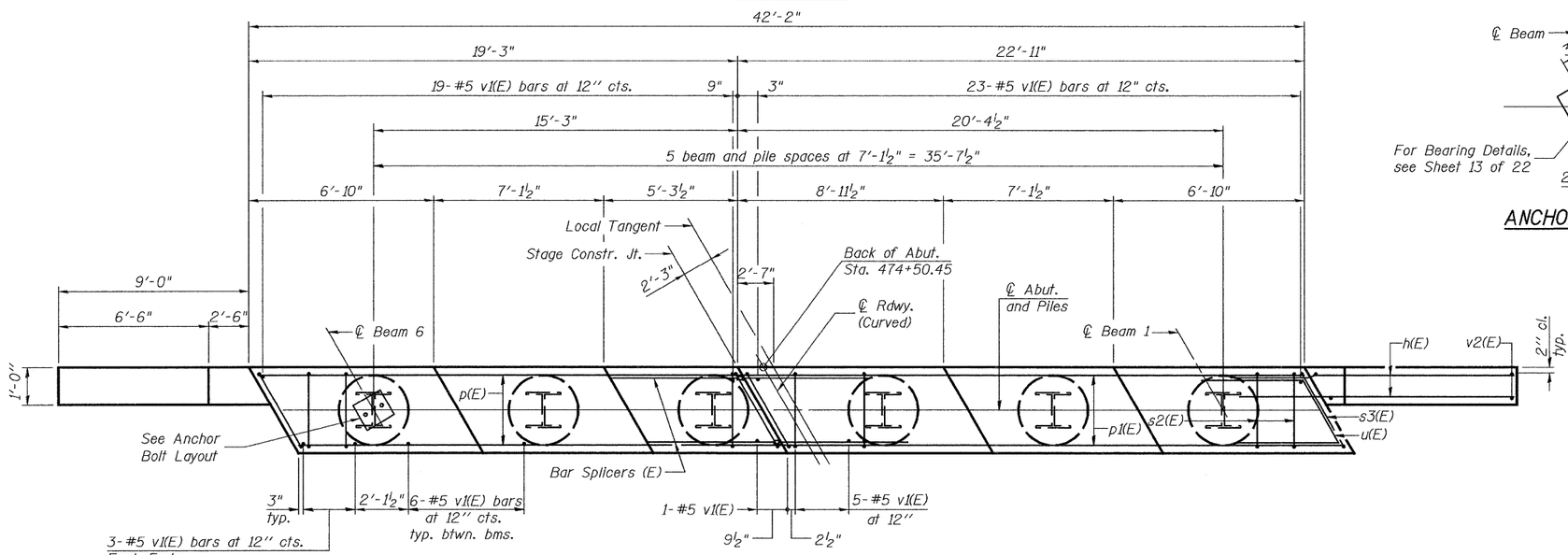
DATE: 11/26/2008 10:40:46 USER: DCD FILE: J:\JDQ\10164 IL-08VV#9 IL 96 Fox Creek-FINAL\1-FoxCreek\13bearings.dgn

Note: Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



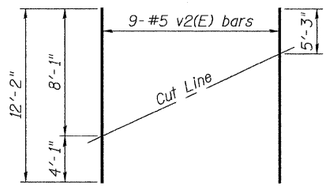
ELEVATION



PLAN

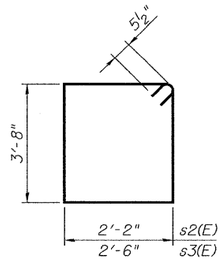
PILE DATA

Type: Steel-HP 12x53 with Pile Shoes
Nominal Required Bearing: 260 kips
Factored Resistance Available: 130 kips
Est. Length: 55'
No. Production Piles: 5
No. Test Piles: 1

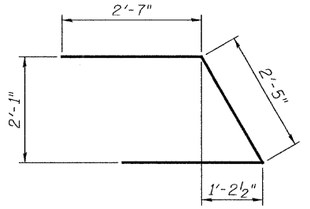


FIELD CUTTING DIAGRAM

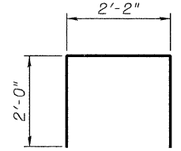
Order v2(E) full length. Cut as shown and use remainder of bars in opposite wing.



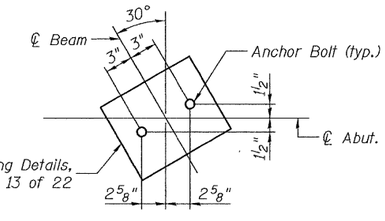
BARS s2(E) & s3(E)



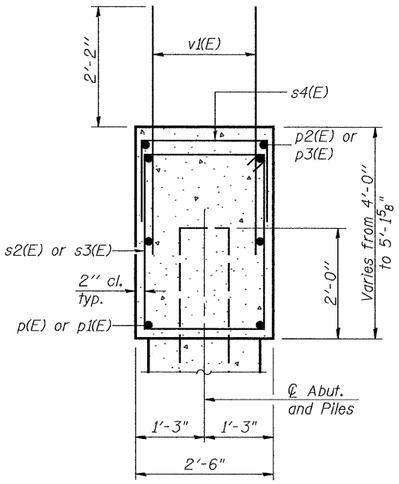
BAR u(E)



BAR s4(E)



ANCHOR BOLT LAYOUT



SEC. THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	64	#5	11'-0"	
p(E)	6	#8	18'-11"	
p1(E)	6	#8	22'-7"	
p2(E)	2	#6	15'-3"	
p3(E)	2	#6	13'-7"	
s2(E)	38	#5	12'-7"	
s3(E)	4	#5	13'-3"	
s4(E)	25	#4	6'-2"	
u(E)	8	#6	7'-7"	
v1(E)	78	#5	4'-4"	
v2(E)	18	#5	12'-2"	
Structure Excavation		Cu. Yd.	70	
Concrete Structures		Cu. Yd.	22.4	
Reinforcement Bars, Epoxy Coated		Pound	2820	
Furnishing Steel Piles HP12x53		Foot	275	
Driving Piles		Foot	275	
Test Pile Steel HP12x53		Each	1	
Pile Shoes		Each	6	
Concrete Encasement		Cu. Yd.	2.1	

For details of Bar Splicers, see sheet 18 of 22.
For details of piles and Concrete Encasement, see sheet 17 of 22.

WEST ABUTMENT
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	JDQ	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

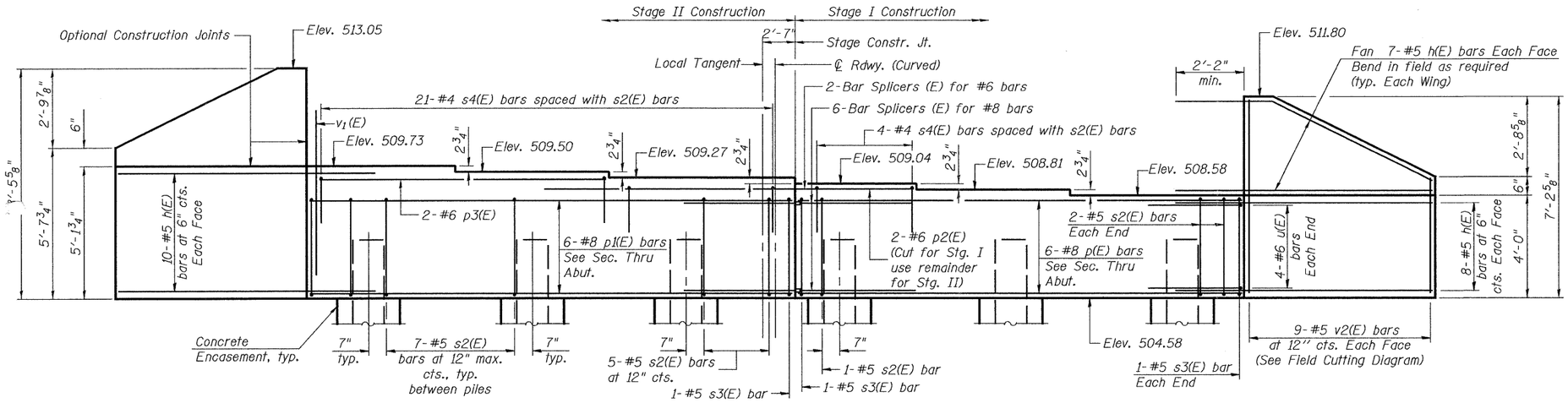
AI-L 5-16-08

SHEET 14 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	37
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

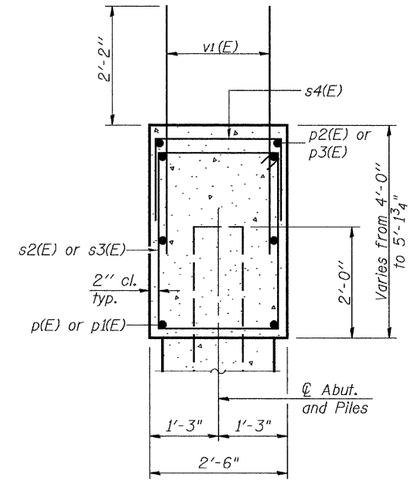
DATE: 11/26/2008 10:40:48 USER: DCD FILE: J:\JDQ\1016\4 IL-DEVV*9 IL 96 Fox Creek-FINAL\-FoxCreek\14dbutmentl1.dgn

Note: Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.

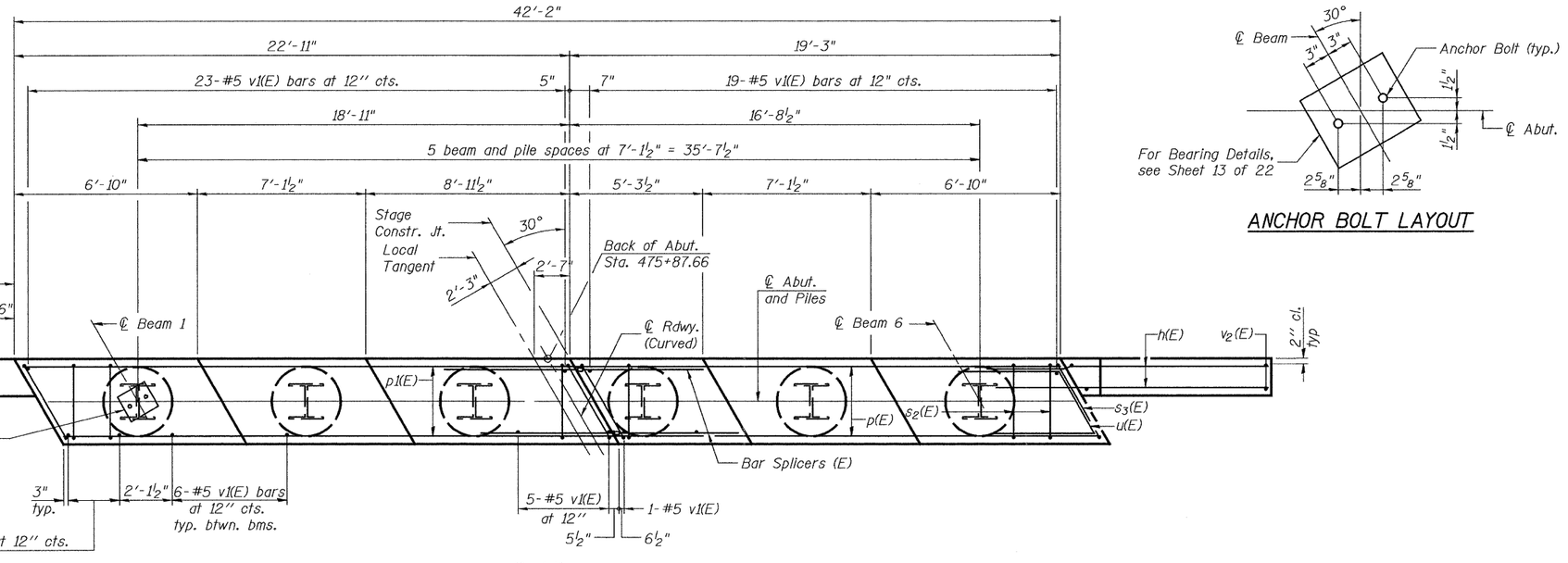
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



SEC. THRU ABUT.

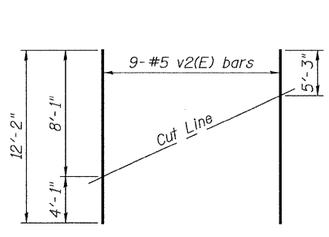


PLAN

ANCHOR BOLT LAYOUT

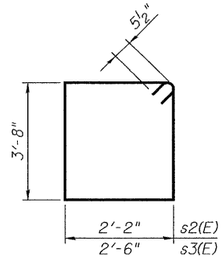
PILE DATA

Type: Steel-HP 12x53 with Pile Shoes
Nominal Required Bearing: 260 kips
Factored Resistance Available: 130 kips
Est. Length: 65'
No. Production Piles: 5
No. Test Piles: 1

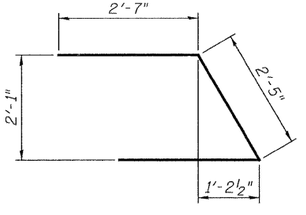


FIELD CUTTING DIAGRAM

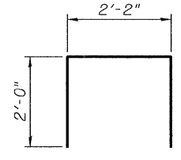
Order v2(E) full length. Cut as shown and use remainder of bars in opposite wing.



BARS s2(E) & s3(E)



BAR u(E)



BAR s4(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	64	#5	11'-0"	——
p(E)	6	#8	18'-11"	——
p1(E)	6	#8	22'-7"	——
p2(E)	2	#6	15'-3"	——
p3(E)	2	#6	13'-7"	——
s2(E)	38	#5	12'-7"	⌐
s3(E)	4	#5	13'-3"	⌐
s4(E)	25	#4	6'-2"	⊓
u(E)	8	#6	7'-7"	⌐
v1(E)	78	#5	4'-4"	——
v2(E)	18	#5	12'-2"	——
Structure Excavation		Cu. Yd.	161	
Concrete Structures		Cu. Yd.	22.4	
Reinforcement Bars, Epoxy Coated		Pound	2820	
Furnishing Steel Piles HP12x53		Foot	325	
Driving Piles		Foot	325	
Test Pile Steel HP12x53		Each	1	
Pile Shoes		Each	6	
Concrete Encasement		Cu. Yd.	2.1	

For details of Bar Splicers, see sheet 18 of 22.
For details of piles and Concrete Encasement, see sheet 17 of 22.

EAST ABUTMENT
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois			
DESIGNED: JDQ	DRAWN: SJS		
CHECKED: DCD	CHECKED: DCD		
AI-L	5-16-08		

SHEET 15 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	38
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

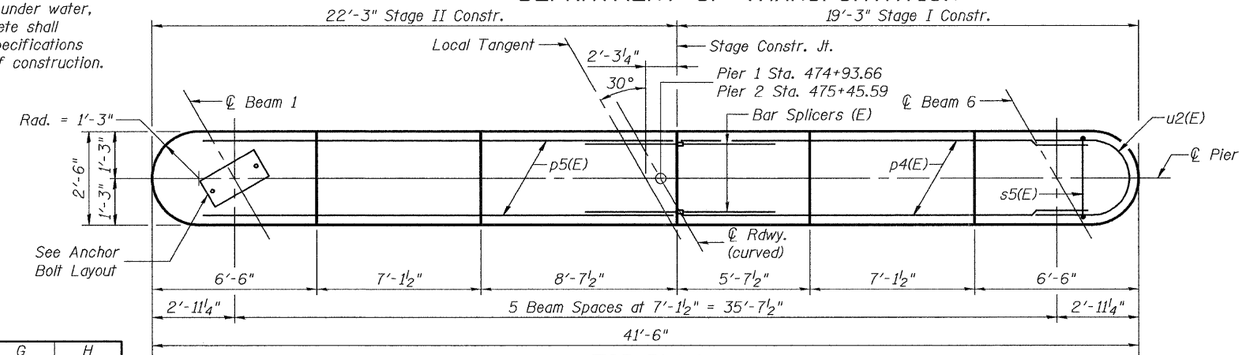
PILE DATA

Type: Steel-HP 12x53 with Pile Shoes
Nominal Required Bearing: 412 kips
Factored Resistance Available: 206 kips
Est. Length: 55' (Pier 1), 65' (Pier 2)
No. Production Piles: 5 (each Pier)
o. Test Piles: 1 (each Pier)

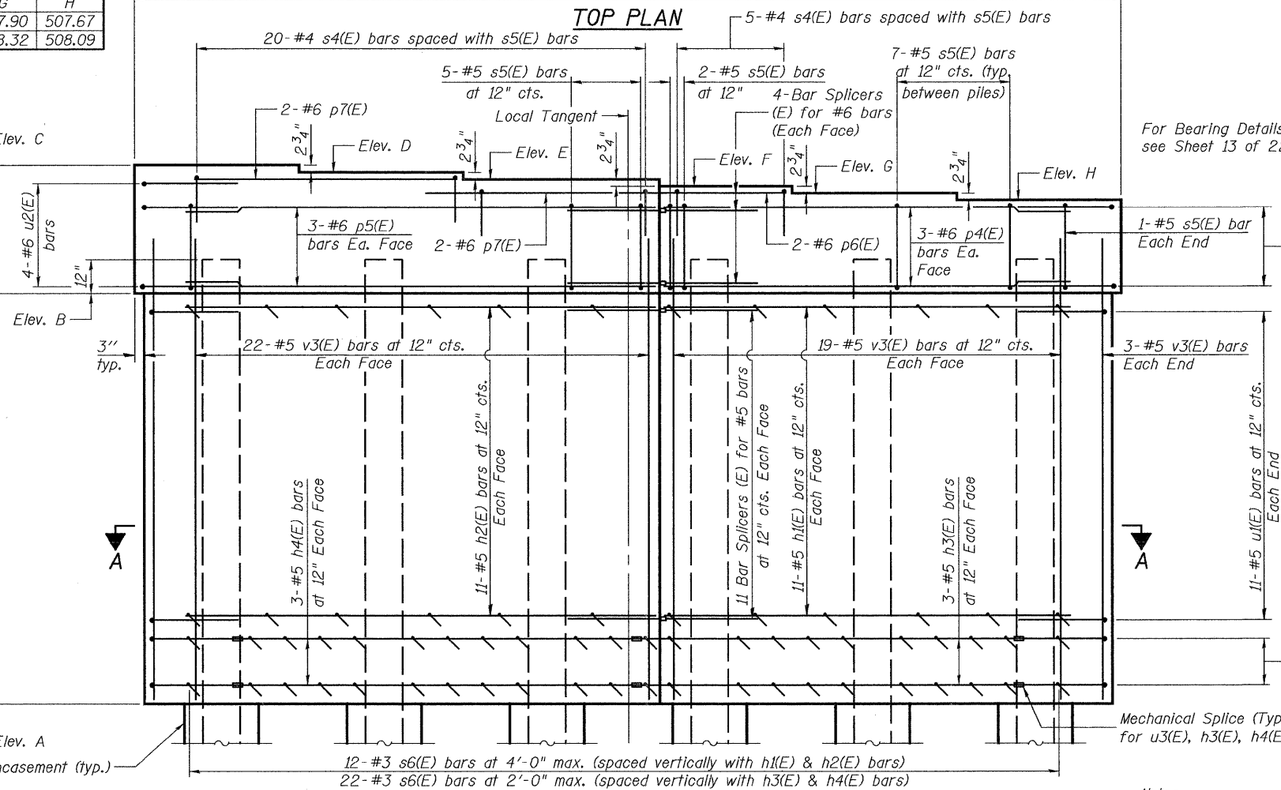
TABLE OF ELEVATIONS

Location	A	B	C	D	E	F	G	H
Pier 1	491.92	505.17	508.80	508.58	508.35	508.12	507.90	507.67
Pier 2	491.92	505.59	509.23	509.00	508.78	508.55	508.32	508.09

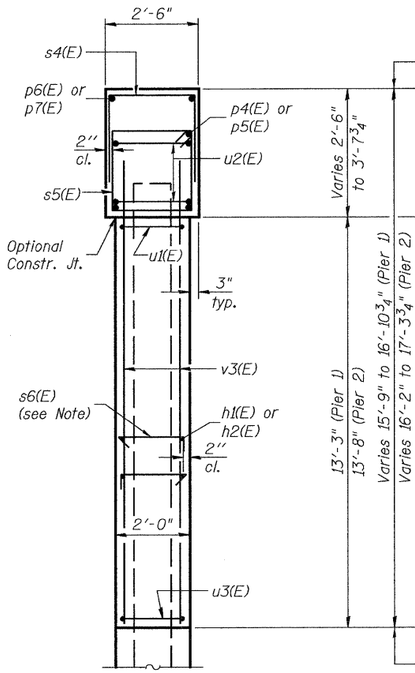
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TOP PLAN



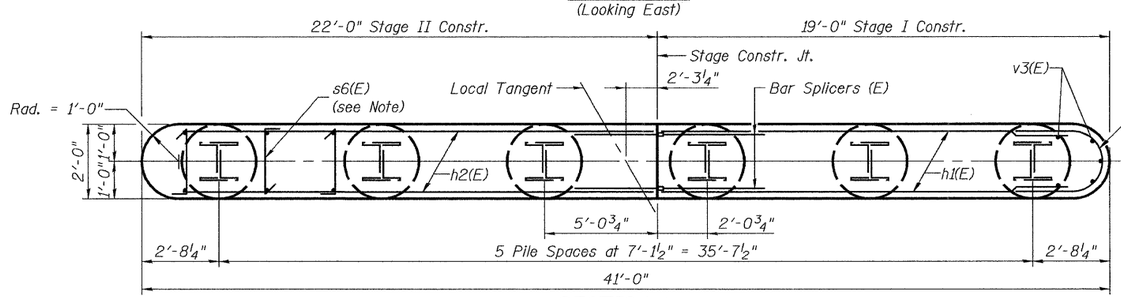
END VIEW



Note:
s6(E) bars shall enclose both the vertical and horizontal reinforcing bars. The position of the 90 and 135 degree hooked ends shall be alternated between adjacent bars as shown, both vertically and horizontally.

ELEVATION

(Looking East)

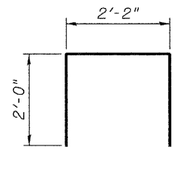


SECTION A-A

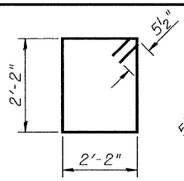
Notes:
Reinforcement Bar list is for one Pier only.
For details of Bar Splicers, see sheet 18 of 22.
For details of piles and Concrete Encasement, see sheet 17 of 22.

MIN. BAR LAP

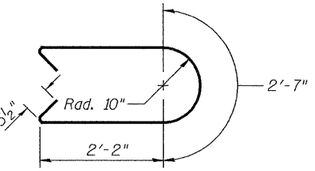
#5 Bar = 2'-2"
#6 bar = 2'-7"



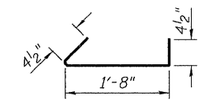
BAR s4(E)



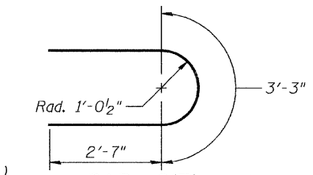
BAR s5(E)



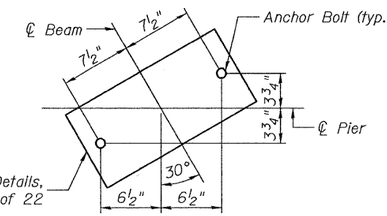
BAR u1(E)



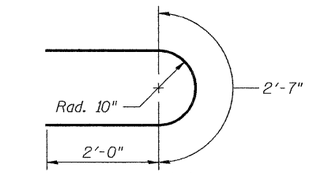
BAR s6(E)



BAR u2(E)



ANCHOR BOLT LAYOUT



BAR u3(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	22	#5	17'-10"	——
h2(E)	22	#5	20'-10"	——
h3(E)	6	#5	16'-6"	——
h4(E)	6	#5	18'-6"	——
p4(E)	6	#6	17'-10"	——
p5(E)	6	#6	20'-10"	——
p6(E)	2	#6	5'-3"	——
p7(E)	4	#6	12'-2"	——
s4(E)	25	#4	6'-2"	⊓
s5(E)	37	#5	9'-7"	⊓
s6(E)	198	#3	2'-5"	⊓
u1(E)	22	#5	7'-10"	⊃
u2(E)	7	#6	8'-5"	⊃
u3(E)	6	#5	6'-7"	⊃
v3(E)	88	#5	14'-6"	——

		Pier 1	Pier 2
Concrete Structures	Cu. Yd.	51.5	52.7
Reinforcement Bars, Epoxy Coated	Pound	3840	3840
Furnishing Steel Piles HP12x53	Foot	275	325
Driving Piles	Foot	275	325
Test Pile Steel HP12x53	Each	1	1
Pile Shoes	Each	6	6
Concrete Encasement	Cu. Yd.	2.1	2.1
Mechanical Splice	Each	18	18
Underwater Structure Excav. Prot.-Loc. 1	Each	1	-
Underwater Structure Excav. Prot.-Loc. 2	Each	-	1

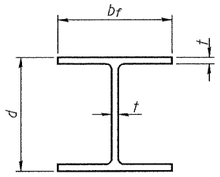
Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	JDQ	DRAWN:	PTR
CHECKED:	DCD	CHECKED:	DCD

PIERS 1 AND 2
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

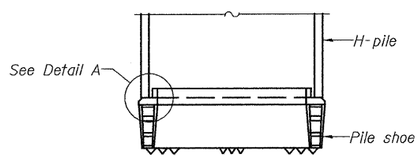
SHEET 16 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	39
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

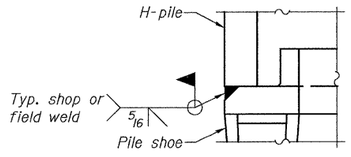


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

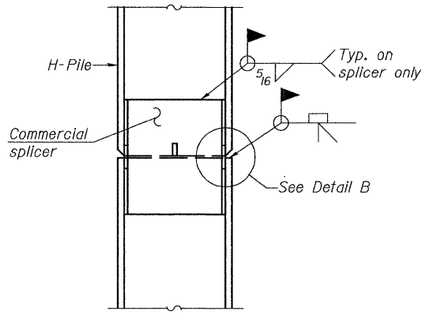


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



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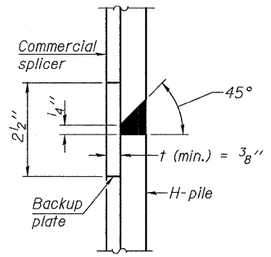
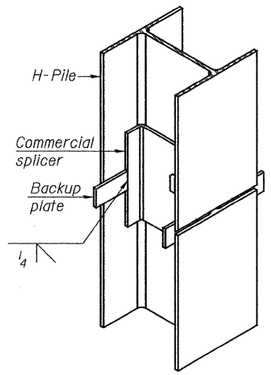
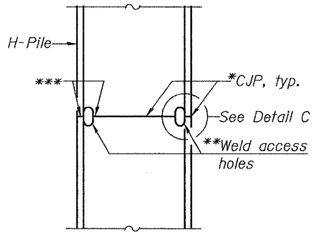


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



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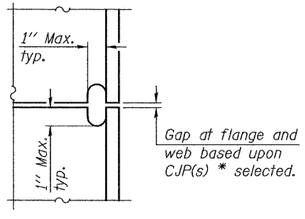


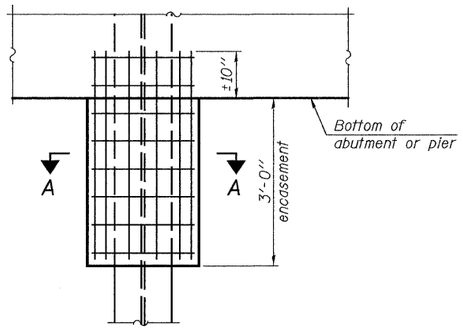
DETAIL C

COMPLETE PENETRATION WELD SPLICE

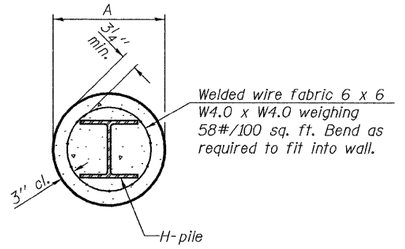
*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code-Steel.

**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code-Steel.

***Interrupt welds 1/4" from end of each pile.



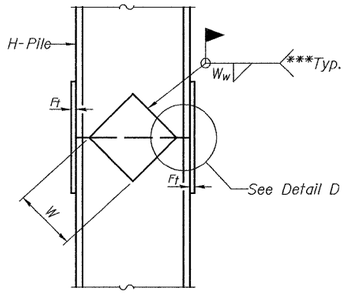
ELEVATION



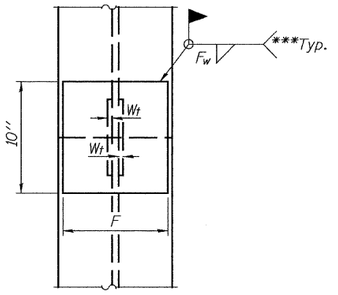
Note: Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

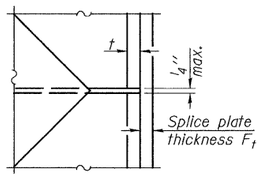
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

Note: The steel H-piles shall be according to AASHTO M270 Grade 50.

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

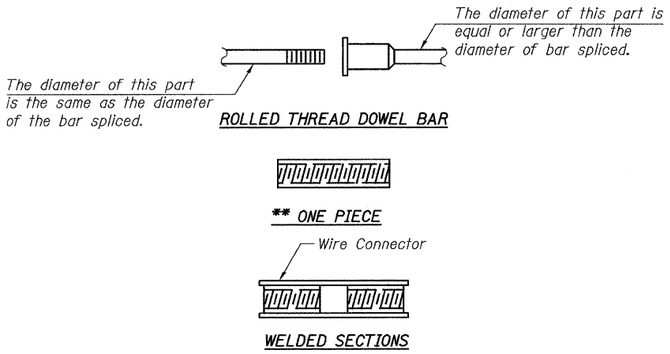
DESIGNED:	JDQ	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

F-HP 5-16-08

HP PILE DETAILS
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

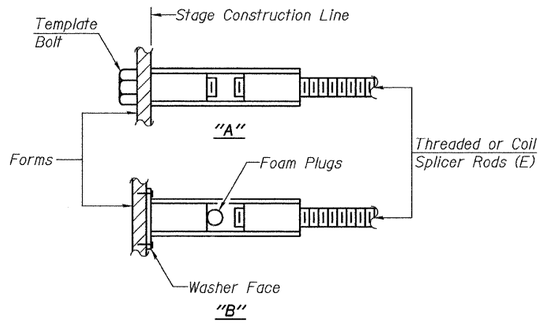
SHEET 17 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	40
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

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

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

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

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

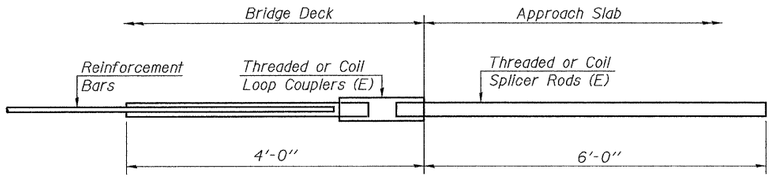
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = 1.25 x fy x A_t

② Minimum *Pull-out Strength (Tension in kips) = 0.66 x fy x A_t

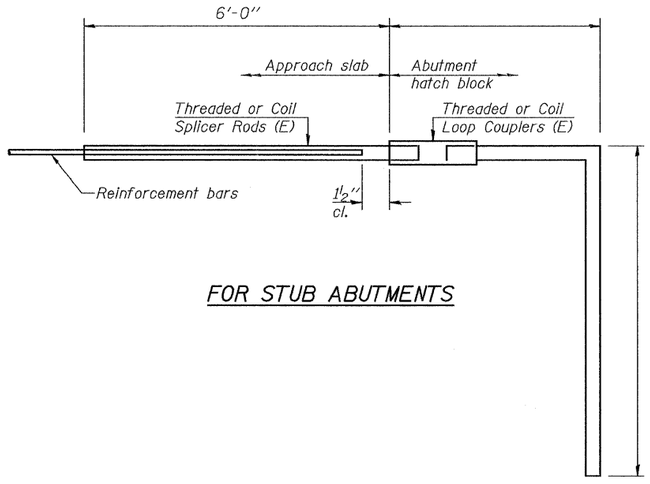
Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



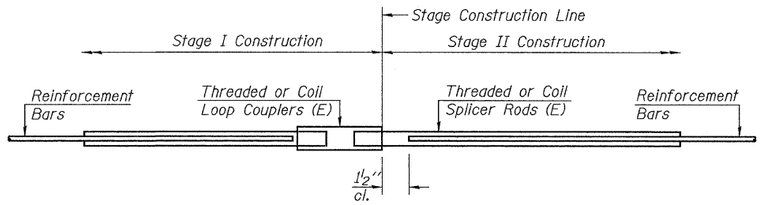
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 66



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#5	409	Deck
#6	16	Abut. Diaph.
#8	12	Abutments
#6	4	Abutments
#6	16	Piers
#5	44	Piers

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	JDQ	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

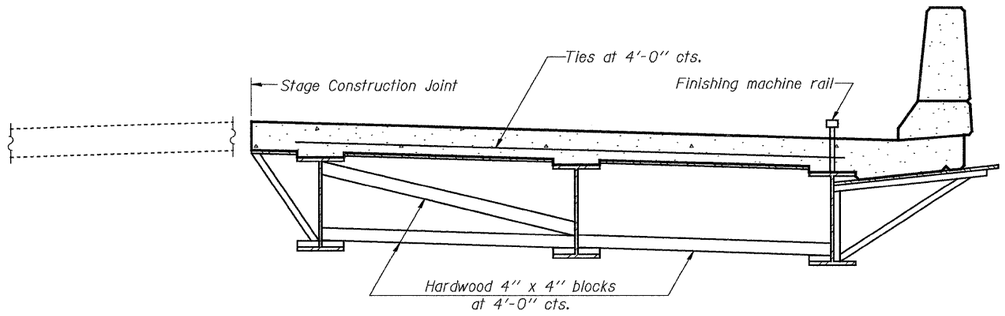
BSD-1 5-16-08

BAR SPLICER ASSEMBLY DETAILS
ILLINOIS 96 OVER FOX CREEK
STRUCTURE NO. 007-0028

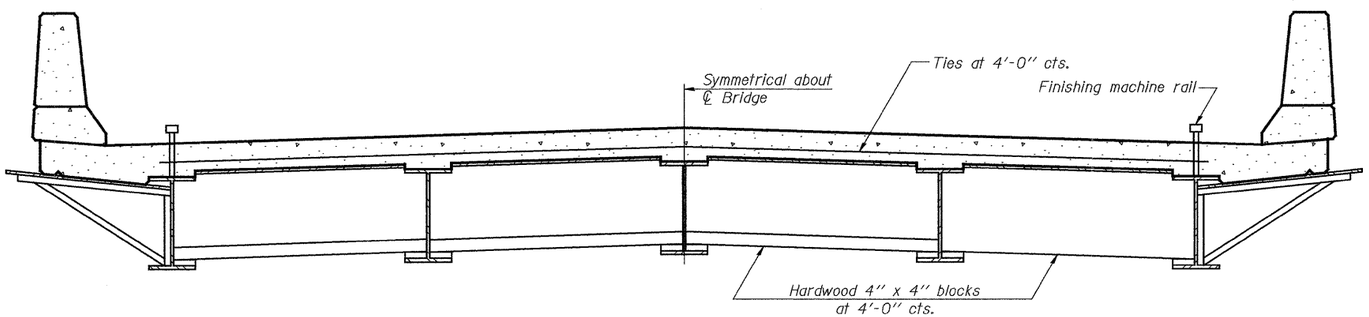
SHEET 18 OF 22

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	41
	STA. 475+19.62	CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FORM BRACES FOR STAGE CONSTRUCTION



FORM BRACES FOR STANDARD CONSTRUCTION

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	
DESIGNED: JDQ	DRAWN: SJS
CHECKED: DCD	CHECKED: DCD

SB-1 5-16-08

CANTILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH W27 BEAMS AND SMALLER

ILLINOIS 96 OVER
FOX CREEK
STRUCTURE NO. 007-0028

SHEET 19 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	304	5A-BR	CALHOUN	60	42
		STA. 475+19.62	CONTRACT NO. 76886		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/10/07

ROUTE FAP 304 DESCRIPTION IL 96 over Fox Creek LOGGED BY E. Stewart

SECTION 5A-BR LOCATION SW 1/4, SEC. 2, TWP. 9S, RNG. 3W, 4 PM

COUNTY Calhoun DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 007-0013 (E) / 007-0028 (P)
Station 475+15

BORING NO. E. Abut.
Station 476+00
Offset 19.50ft RT
Ground Surface Elev. 510.5 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 477.0 ft
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	7			
	9	0.62	16	Brown Silty CLAY
	7	B/20		
	3			
	2	0.36	8	
505.5 –5	4	S/20		
	9			
	14	0.41	31	Dark Brown and Gray Silty CLAY
	19	S/10		
503.0				
	5			
	4	0.12	23	Dark Brown Silty CLAY
	4	S/5		
500.5 –10				
	10			
	12	0.59	24	Dark Brown Clay LOAM
		B/20		
498.0				
	8			
	11		11	Gravelly SAND
	9	NC		See Gradation @ 12.5 ft
495.5 –15				
	13			
	21	0.62	14	Gravelly Clay TILL
	21	S/15		A-6(4)
493.0				See Classification @ 16 ft
	8			
	4	1.11	21	Light Brown Silty CLAY
	4	B/20		
–20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	5			Light Brown Silty CLAY (continued)
	7	1.63	24	
	7	B/20		
	2			
	2	1.20	24	
	4	B/20		
485.5 –25				
	6			
	5	1.87	26	Light Gray with Brown Speckled CLAY
	4	B/20		
	4			
	7	1.63	27	
	24	B/20		
–30				
477.0 ▼				
	9			
	15	2.93	19	Sandy LOAM with Gravel
–35	13	S/20		
472.5				
	4			Light Brown CLAY with Gravel
	5	1.76	27	
–40	7	B/20		

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

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/10/07

ROUTE FAP 304 DESCRIPTION IL 96 over Fox Creek LOGGED BY E. Stewart

SECTION 5A-BR LOCATION SW 1/4, SEC. 2, TWP. 9S, RNG. 3W, 4 PM

COUNTY Calhoun DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 007-0013 (E) / 007-0028 (P)
Station 475+15

BORING NO. E. Abut.
Station 476+00
Offset 19.50ft RT
Ground Surface Elev. 510.5 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 477.0 ft
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Light Brown CLAY with Gravel (continued)
467.0				
	5			
	9	2.57	17	Light Green Silty CLAY
–45	16	S/10		
	6			
	10	2.66	20	
–50	11	B/10		
456.5	6			
	6	0.59	45	Light Brown CLAY
–55	3	B/20		
453.0				
	50/2"			Weathered SHALE with Clay
	–		56	
–60	–			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Weathered SHALE with Clay (continued) 450.0
				END OF BORING
–65				
–70				
–75				
–80				

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

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	IDOT	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

SOIL BORINGS (1 OF 3)
ILLINOIS 96 OVER
FOX CREEK
STRUCTURE NO. 007-0028

SHEET 20 OF 22

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	43
	STA. 475+19.62	CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE: J:\JOQ\10164 IL-96W#9 IL 96 Fox Creek-FINAL\I-FoxCreek\20borings.dgn USER: DCD
DATE: 1/26/2008 10:41:04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/8/08

ROUTE FAP 304 DESCRIPTION IL 96 over Fox Creek LOGGED BY E. Stewart

SECTION 5A-BR LOCATION SW 1/4, SEC. 2, TWP. 9S, RNG. 3W, 4 PM

COUNTY Calhoun DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 007-0013 (E) / 007-0028 (P)
Station 475+15

BORING NO. SB 1
Station 475+50
Offset 10.00ft LT
Ground Surface Elev. 512.01 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter ____ ft
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Suspended Augers using Caissons – No Samples Taken
-5				
-10				
-15				
493.0				Ground Level
-20				
-25				
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8–99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/8/08

ROUTE FAP 304 DESCRIPTION IL 96 over Fox Creek LOGGED BY E. Stewart

SECTION 5A-BR LOCATION SW 1/4, SEC. 2, TWP. 9S, RNG. 3W, 4 PM

COUNTY Calhoun DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 007-0013 (E) / 007-0028 (P)
Station 475+15

BORING NO. SB 1
Station 475+50
Offset 10.00ft LT
Ground Surface Elev. 512.01 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter ____ ft
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Suspended Augers using Caissons – No Samples Taken (continued)
-45				
-50				
-55				
-60				
-65				
444.0				Borehole continued with rock coring.
-70				
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8–99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

ROCK BORING LOG

Date 1/8/08

ROUTE FAP 304 DESCRIPTION IL 96 over Fox Creek LOGGED BY E. Stewart

SECTION 5A-BR LOCATION SW 1/4, SEC. 2, TWP. 9S, RNG. 3W, 4 PM

COUNTY Calhoun CORING METHOD ____

STRUCT. NO. 007-0013 (E) / 007-0028 (P)
Station 475+15

CORING BARREL TYPE & SIZE NX

BORING NO. SB 1
Station 475+50
Offset 10.00ft LT
Ground Surface Elev. 512.01 ft

Core Diameter 2 in
Top of Rock Elev. 444.01 ft
Begin Core Elev. 444.01 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)	
444.01						
		64	35	9.58	585.576	Shaley LIMESTONE
					814.464	
-70		64	35	10.5		
					821.952	
		64	35	12.13	1116.36	
		64	35	5.63		
		64	35	8.33		
		64	35	10.52		
		64	35	8.63		
437.01 -75						END OF BORING AND ROCK CORE
-80						
-85						

Color pictures of the cores Yes
Cores will be stored for examination until ____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D–2938) BBS, form 138 (Rev. 8–99)

Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	
DESIGNED: IDOT	DRAWN: SJS
CHECKED: DCD	CHECKED: DCD

SOIL BORINGS (2 OF 3)
ILLINOIS 96 OVER
FOX CREEK
STRUCTURE NO. 007-0028

SHEET 21 OF 22

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	44
	STA. 475+19.62	CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE: J:\JDQ\10164 IL-DBV\#9 IL 96 Fox Creek-FINAL\I-FoxCreek\20borings.dgn USER: DCD DATE: 11/26/2008 10:41:09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 12/4/07

ROUTE FAP 304 DESCRIPTION IL 96 over Fox Creek LOGGED BY E. Stewart

SECTION 5A-BR LOCATION SW 1/4, SEC. 2, TWP. 9S, RNG. 3W, 4 PM

COUNTY Calhoun DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 007-0013 (E) / 007-0028 (P)
Station 475+15

BORING NO. SB 2
Station 475+00
Offset 60.00ft RT
Ground Surface Elev. 494.1 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 492.1 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Light Brown Loamy SAND with Aggregate See Gradation @ 2.5 ft
	6			
	12 15	1.04 B/20	21	
489.6				
–5	12			
	9		20	Light Brown Sandy GRAVEL See Gradation @ 5 ft
	8	NC		
487.1				
	2			
	9 13	1.63 B/20	26	Light Brown CLAY Speckled with Red Sand
484.6				
–10	5			
	6		20	Light Brown Sandy GRAVEL See Gradation @ 10 ft
	15	NC		
482.6				
	3			Light Brown Sandy LOAM with Aggregate
	4 5	1.79 B/20	20	
479.6				
–15	8			
	12 12	NC	19	Light Brown Gravelly Loamy SAND See Gradation @ 15 ft
	4			
476.1				
	12 15	1.50	19	
				Weathered SHALE with Aggregate
–20	8			
				Weathered SHALE with Aggregate (continued)
	11 12	3.01	17	
	9			
	9 9	4.00 P	20	
469.6				
–25	0			
	6 0	1.00 P	23	Soft Weathered SHALE
	0			
464.1				
–30	27			
	23 –		32	Weathered SHALE with Aggregate
	50/0.75"			
461.1	–		78	
				END OF BORING
–35				
–40				

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

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 11/9/07

ROUTE FAP 304 DESCRIPTION IL 96 over Fox Creek LOGGED BY E. Stewart

SECTION 5A-BR LOCATION SW 1/4, SEC. 2, TWP. 9S, RNG. 3W, 4 PM

COUNTY Calhoun DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 007-0013 (E) / 007-0028 (P)
Station 475+15

BORING NO. W. Abut.
Station 474+50
Offset 17.00ft RT
Ground Surface Elev. 503.6 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 466.6 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Light Brown CLAY
	2			
499.1				
–5	6			
	4 16	0.66 B/10	21	Light Gray Silty LOAM
	6 6	0.29 S/10	17	
	16			
494.1				
–10	6			
	8 6	0.70 S/10	15	Light Brown Clay LOAM
491.6				
	5			
	6 12	0.70 S/10	15	Medium Brown CLAY Speckled with Gravel
–15	3			
	3 6	0.29 B/20	22	
486.6				
	15			
	7 6	1.00 P	15	Light Brown Clay LOAM Speckled with Sand and Gravel See Gradation @ 17.5 ft
–20	5			
				Light Brown Clay LOAM Speckled with Sand and Gravel See Gradation @ 17.5 ft (continued)
	4			
	7 3	1.11 B/20	21	
–25	2			
	2 4	0.65 B/20	31	
473.6				
–30	14 25	2.80 S/15	19	
				Light Brown Sandy Clay LOAM with Gravel See Gradation @ 32.5 ft
	14			
	19 16	1.00 P	18	
–35				
466.6 ▼	12			
	19 31	1.14 B/20	20	Clay LOAM with Weathered Shale
–40				

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

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 2

Date 11/9/07

ROUTE FAP 304 DESCRIPTION IL 96 over Fox Creek LOGGED BY E. Stewart

SECTION 5A-BR LOCATION SW 1/4, SEC. 2, TWP. 9S, RNG. 3W, 4 PM

COUNTY Calhoun DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 007-0013 (E) / 007-0028 (P)
Station 475+15

BORING NO. W. Abut.
Station 474+50
Offset 17.00ft RT
Ground Surface Elev. 503.6 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 466.6 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Clay LOAM with Weathered Shale (continued)
461.1	50/0.5"	NC	24	
				END OF BORING
–45				
–50				
–55				
–60				

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

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

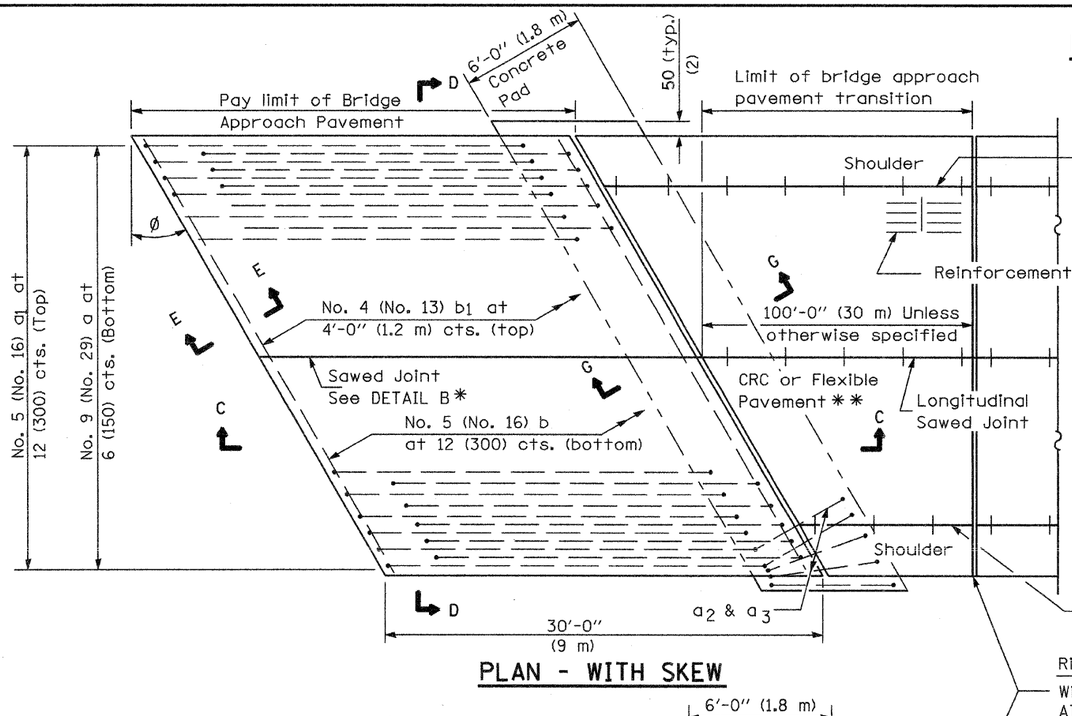
DESIGNED:	IDOT	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

SOIL BORINGS (3 OF 3)
ILLINOIS 96 OVER
FOX CREEK
STRUCTURE NO. 007-0028

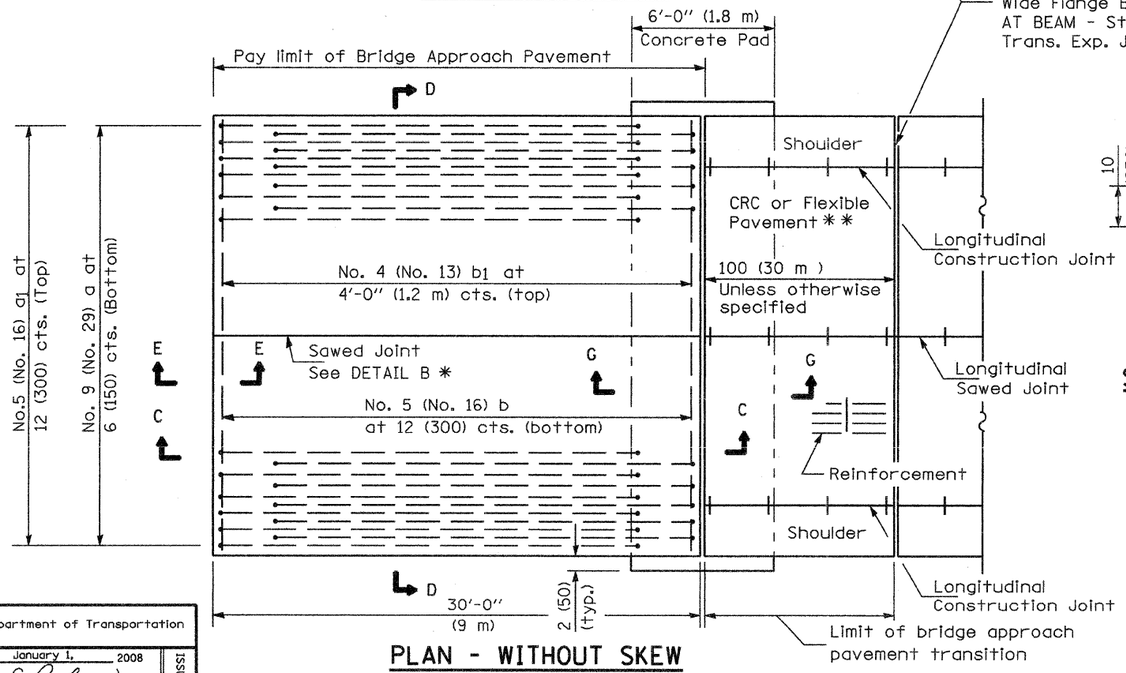
SHEET 22 OF 22

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	45
	STA. 475+19.62	CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NEW CONSTRUCTION



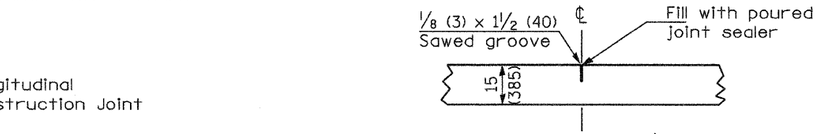
PLAN - WITH SKEW



PLAN - WITHOUT SKEW

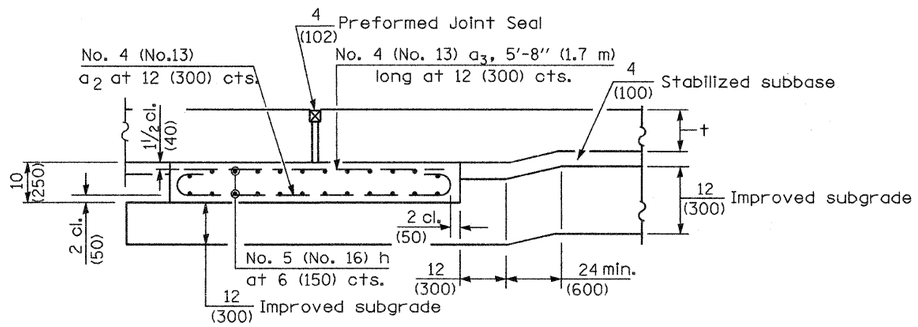
* Saw ℄ or lane edge if poured two or more lane widths at a time.

** Omit Reinforcement, tie bars and Long. sawed Jt. for Flexible Pavement.



DETAIL B*

(Reinforcement Not Shown)

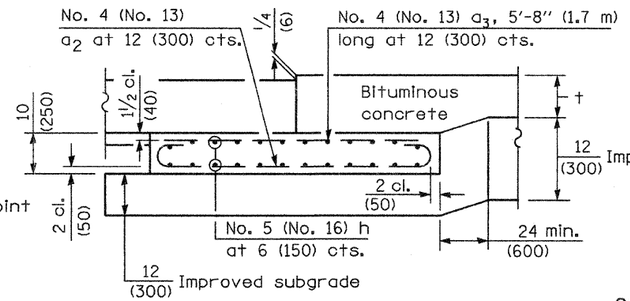


SECTION G-G - RIGID PAVEMENT

(Showing reinforcement)

Rigid Pavement only:

Wide Flange Beam Terminal Joint (See DETAIL AT BEAM - Standard 421101 or 421106) or 2 (50) Trans. Exp. Joint as detailed on Standard 420001.



SECTION G-G - FLEXIBLE PAVEMENT

(Showing reinforcement)

GENERAL NOTES

THICKNESS-"t"=Thickness of Pavement.

See Standard 421001 for reinforcement details not shown.

See Standard 420001 for joint details not shown.

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

Illinois Department of Transportation

APPROVED January 1, 2008
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2008
Gary E. Hamm
ENGINEER OF DESIGN AND ENVIRONMENT

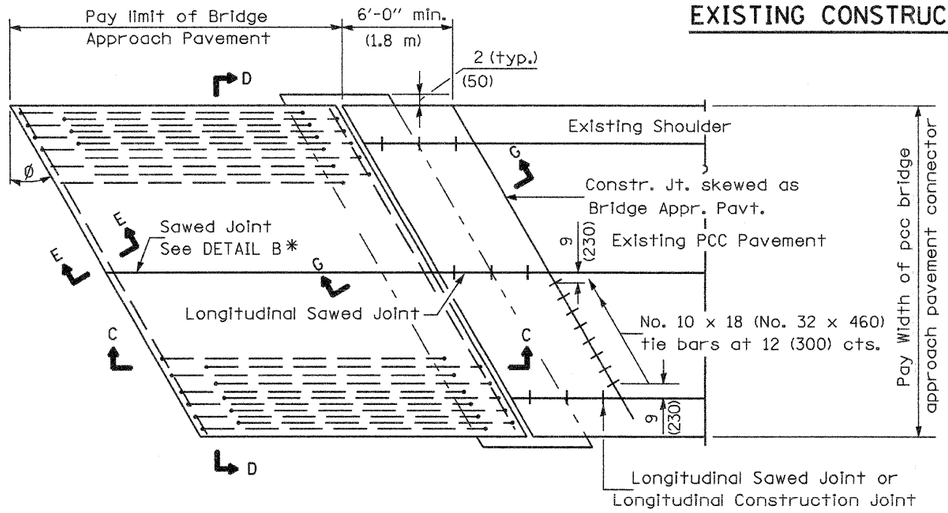
ISSUED 1-1-97

DATE	REVISIONS
1-1-08	Switched units to English
	(metric). Moved rebar epoxy
	coat note to Standard Spec.
1-1-04	Rev. size of Trans. Exp.
	Jt. and soft converted
	metric reinf.

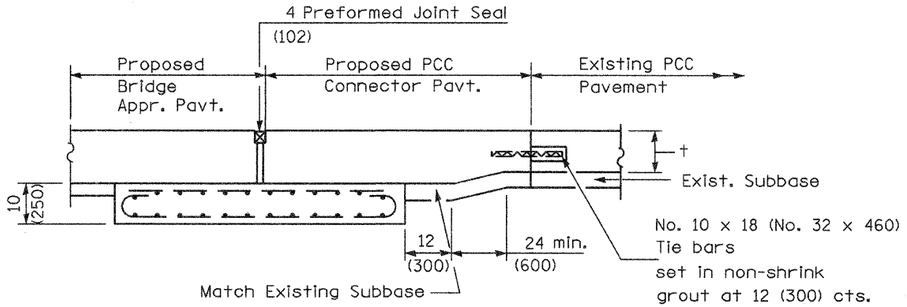
BRIDGE APPROACH PAVEMENT

(Sheet 1 of 4)

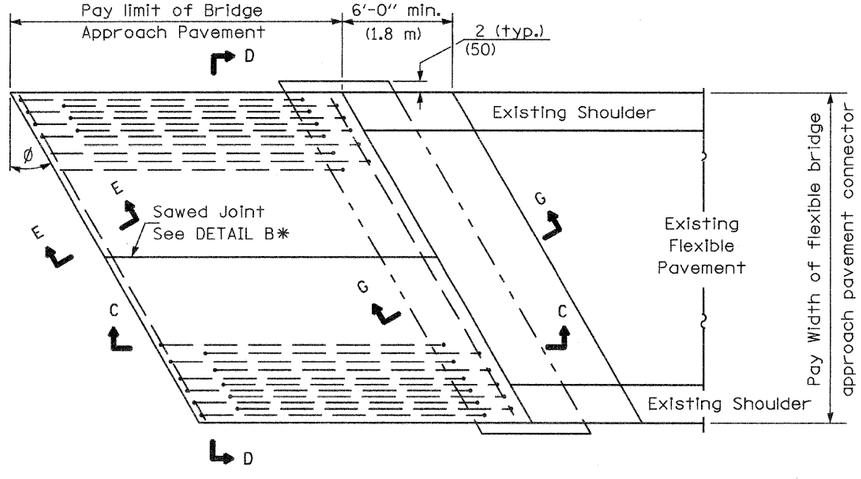
EXISTING CONSTRUCTION



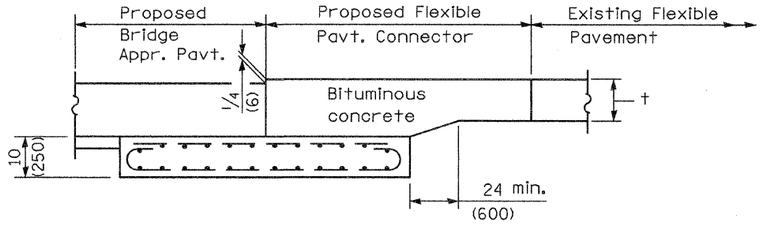
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



SECTION G-G - RIGID PAVEMENT



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



SECTION G-G - FLEXIBLE PAVEMENT

Illinois Department of Transportation

APPROVED January 1, 2008
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2008
Lee E. Han
ENGINEER OF DESIGN AND ENVIRONMENT

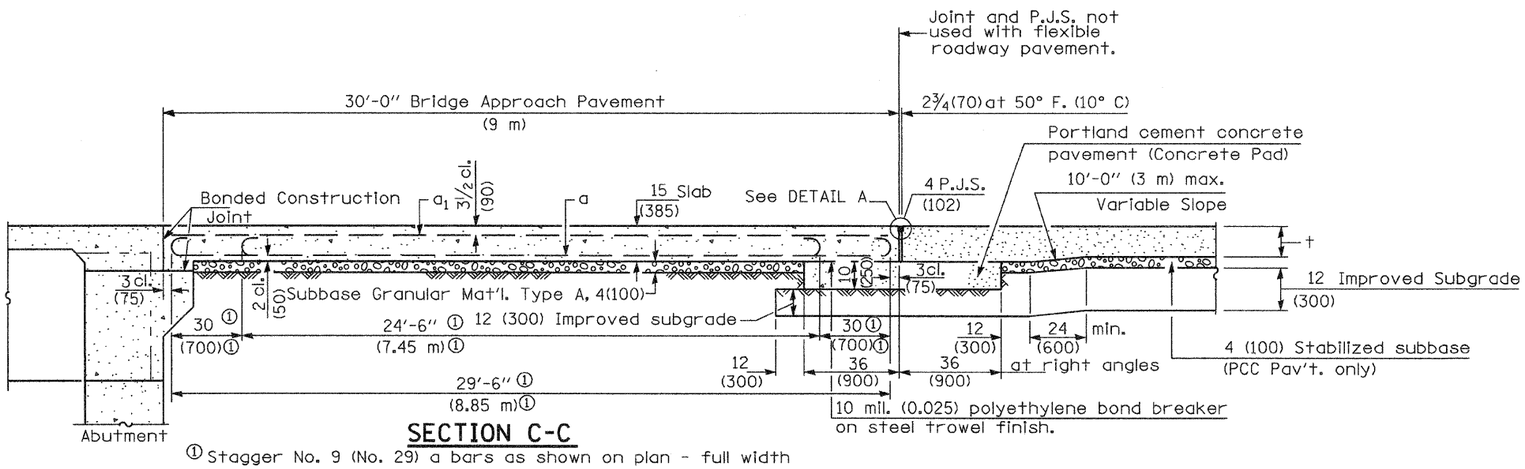
ISSUED 1-1-97

BRIDGE APPROACH PAVEMENT

(Sheet 2 of 4)

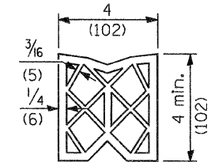
Contract 76886

Sheet 45 b.

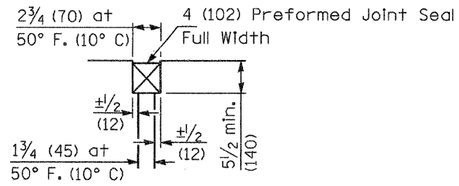


SECTION C-C

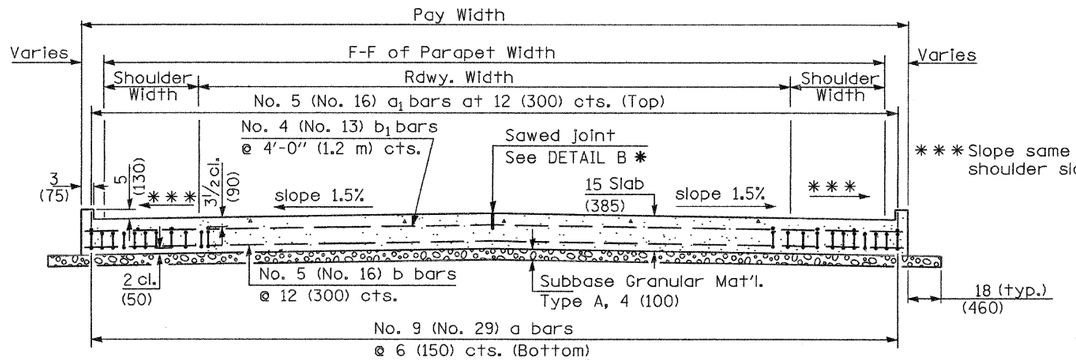
① Stagger No. 9 (No. 29) a bars as shown on plan - full width



PREFORMED JOINT SEAL



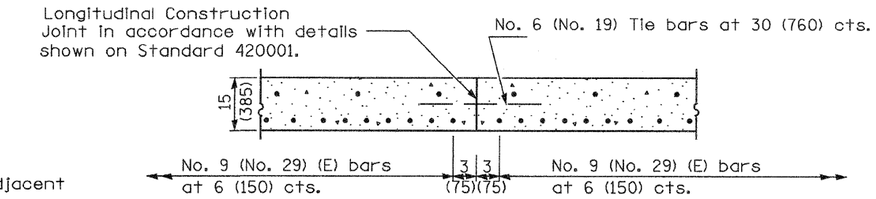
DETAIL A



✱✱✱ Slope same as adjacent shoulder slope.

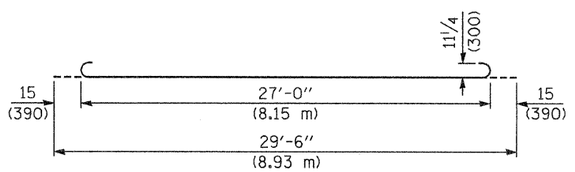
SECTION D-D

(See Plan for Dimensions not shown)

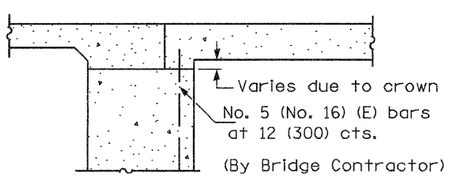


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.

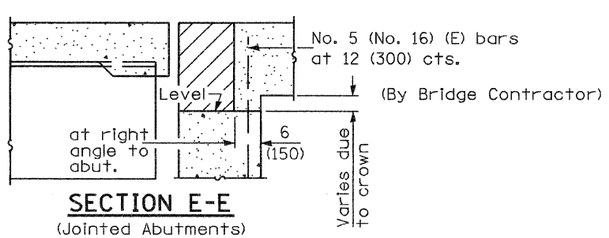


BAR a



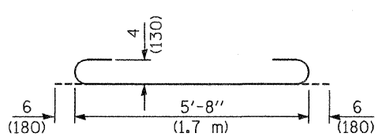
SECTION E-E

(Integral Abutments)



SECTION E-E

(Jointed Abutments)



BAR a2

DESIGN STRESSES

fy = 60,000 p.s.i. (400 MPa)
f'c = 3,500 p.s.i. (24 MPa)
n = 8.5

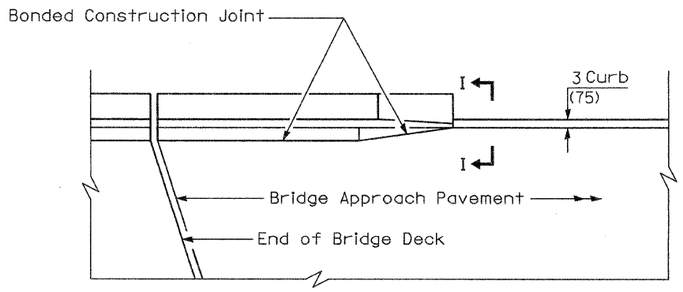
Illinois Department of Transportation

APPROVED January 1, 2008
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED January 1, 2008
Lee E. Han
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

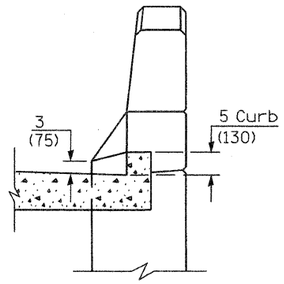
BRIDGE APPROACH PAVEMENT

(Sheet 3 of 4)

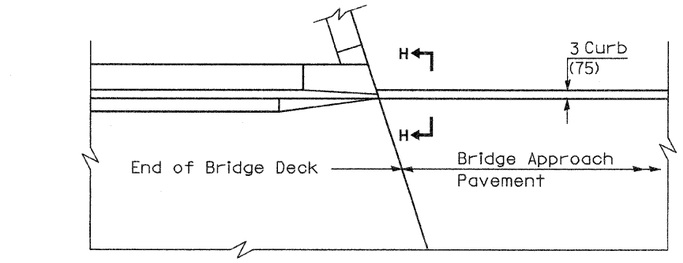
Contract 76886 Sheet 45c.



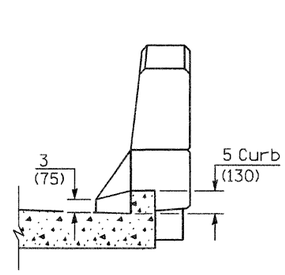
PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT



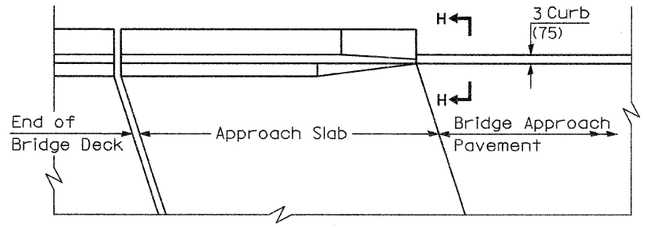
SECTION I - I



PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT



SECTION H - H



PARAPET TO CURB TRANSITION
VAULTED ABUTMENT

Illinois Department of Transportation

APPROVED January 1, 2008
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2008
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

BRIDGE APPROACH PAVEMENT

(Sheet 4 of 4)

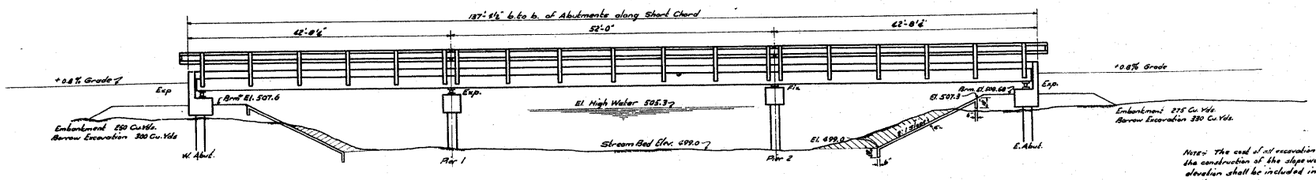
Contract 76886 Sheet 45 of.

BM= Nail fittcher in Root at 86' Oak 30' Right of Sta. 476+60 Elev. 506.87
No Existing Structure

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

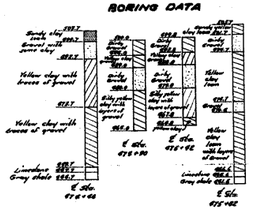
ROAD SYSTEM ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 763	5A	Calhoun	37	34
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 1
4 SHEETS



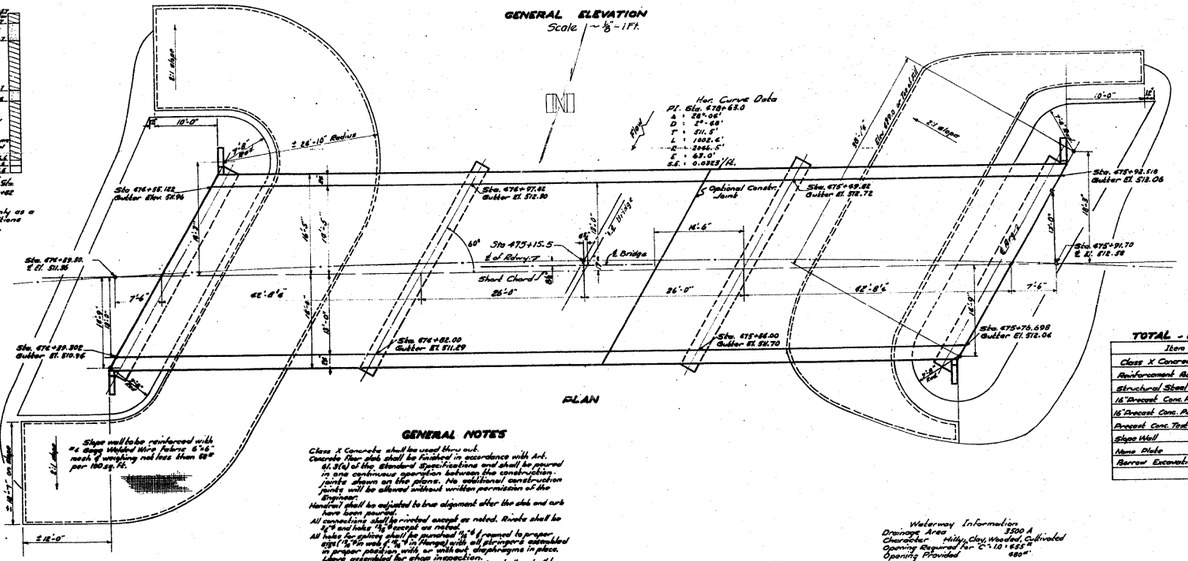
Note: The cost of all excavation necessary for the construction of the slope walls to the required elevation shall be included in the price for Slope Walls.

BORING DATA



Boring data are shown on the plans only as a guide to bidders in estimating soil conditions which may be encountered in the work.

GENERAL ELEVATION
Scale 1/8" = 1Ft.



PLAN

GENERAL NOTES

Class X Concrete shall be used throughout.
Concrete floor slab shall be finished in accordance with Art. 606.16 of the Standard Specifications and shall be poured in one continuous operation between the construction joints shown on the plans. No additional construction joints will be allowed without written permission of the Engineer.
Handrail shall be adjusted to true alignment after the slab and curb have been poured.
All connections shall be riveted except as noted. Rivets shall be ⅞"ϕ and holes 15/16 punched as noted.
All holes for bolting shall be punched 1⅛"ϕ if reamed to proper size, 15/16 wide, 1⅛" ϕ holes, with all plies securely bolted in proper position, with as small end diaphragms in place. Shop assembled for shop inspection.
All rollers, bearing plates, bed plates and anchor bolts shall be furnished, painted, and set in accordance with Art. 514.10 of the Standard Specifications, and are included for payment as Structural Steel. Estimated Weight 4510 lbs.
Structural steel shall receive one shop coat of red lead paint after inspection, and two field coats of aluminum paint. All paint to be furnished by Contractor.
Contractor shall drive two test piles as directed by the Engineer before starting the remainder of Pile Legth of abutment walls may be revised as necessary to conform to grade changes. After embankment has been completed to grade as directed by the Engineer.
Embankment to be constructed from Borrow Excavation in accordance with Sec. 15 of the Stan. Spec. Borrow is to be furnished by the State at Sta. 475+15 & 476+45
Anchor bolts to be set before riveting diaphragms over Abuts. & Piers.

Waterway Information
Drainage Area 3200 A
Character Hilly, Clay, Wooded Cultivated
Opening Required for Q=10 632 ft²
Opening Provided 680 ft².

Stresses
f_c 16,000 Structural
f_s 20,000 Reinforcement
R 1200
n 10

H-15-44 Loading

TOTAL - BILL OF MATERIAL

Item		Super	Sub	Total
Class X Concrete	Cu.Yds.	101.6	58.9	160.5
Reinforcement Bars	Lbs.	13981	8819	22800
Structural Steel	Lbs.	9380		9380
16"Precast Conc. Plks(12')@ Lin.Ft.			680	680
16"Precast Conc. Plks(10')@ Lin.Ft.			516	516
Precast Conc. Pad Piles	Each		2	2
Slope Wall	Sq. Yds.			625
Name Plate	Each	1		1
Borrow Excavation	Cu.Yds.		680	680

PROJECT S-76 (1)
FAS ROUTE 763 SEC 5A
FOX CREEK
CALHOUN COUNTY
STA 475+15.5

STANDARD	COMPUTED	Mac T. Meadows	
	CHECKED	M.J.P.	Asst. Engr.
	DRAWN		
	CHECKED	M.J.P.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 3-7-76 19-76
PASSED
APPROVED

FOR INFORMATION ONLY

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		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/11/2008	DATE	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLAN

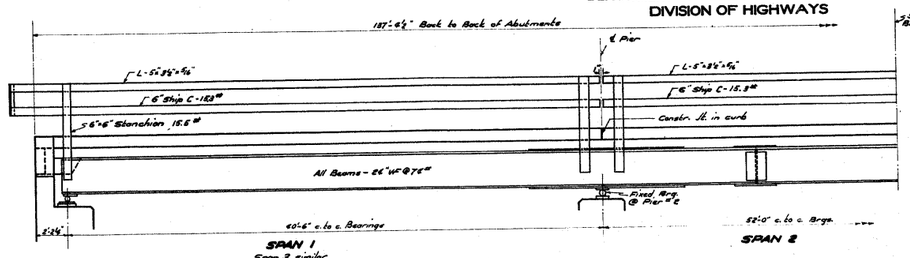
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	46
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

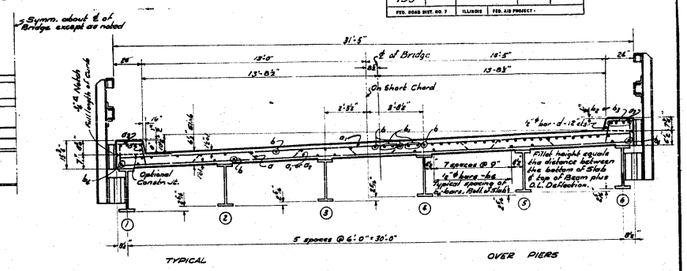
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DIST. & FED. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 6 753	5A	Calhoun	57	55
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

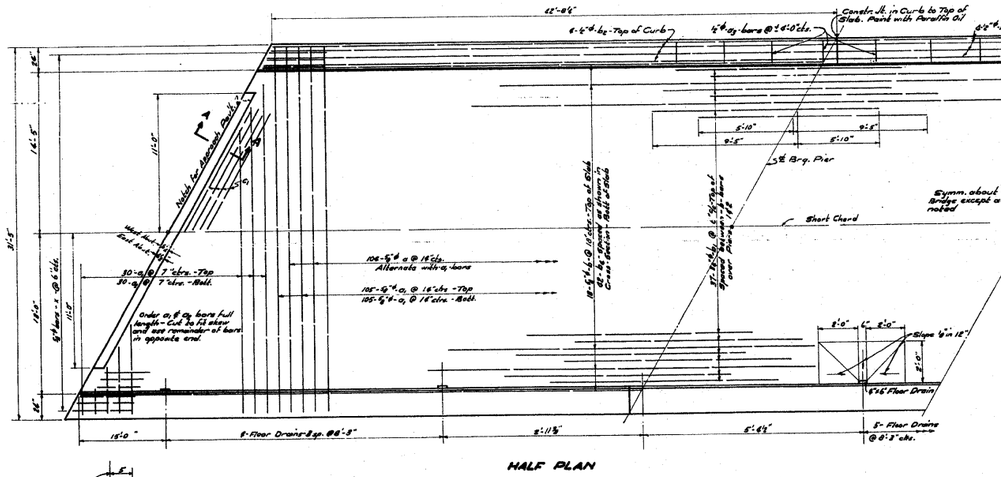
SHEET NO. 2
SHEETS



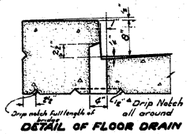
HALF ELEVATION



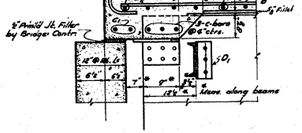
CROSS SECTION
at Rt. 15



HALF PLAN



DETAIL OF FLOOR DRAIN

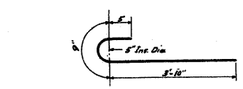


SECTION A-A

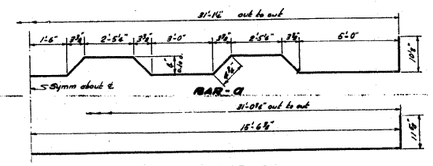
BILL OF MATERIAL SUPERSTRUCTURE

Bar	No.	Size	Length
a	108	5/8"ø	33'-9"
a1	260	5/8"ø	31'-0"
a2	30	5/8"ø	28'-0"
a3	60	5/8"ø	1'-9"
c	30	3/4"ø	6'-9"
c1	18	3/4"ø	38'-0"
b	90	3/4"ø	29'-0"
b1	74	3/4"ø	15'-3"
b2	32	3/4"ø	22'-6"
b3	16	3/4"ø	27'-0"
b4	210	3/4"ø	29'-0"
d	276	5/8"ø	1'-0"
x	126	5/8"ø	5'-0"
Class X Concrete		Cu.Yds.	101.6
Reinforcement Bars		Lbs.	23440
* Structural Steel		Lbs	9386
Name Plate		Each	one

* Weight of Railing, Bearing Rs, Level Rs and Anchor Bolts included as Structural Steel. Est. Weight 6510 Lbs.



BAR-X



BAR-a
BAR-a2

STANDARD	COMPUTED	Rud Nissler
	CHECKED	M.G. Soto
	DRAWN	Edwc
	CHECKED	M.G.P.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED
PASSED
APPROVED

PROJ.-5-76(1)
FAS ROUTE 753 SEC 5A
FOX CREEK
CALHOUN COUNTY.
STA. 675+18.5

FOR INFORMATION ONLY

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLAN

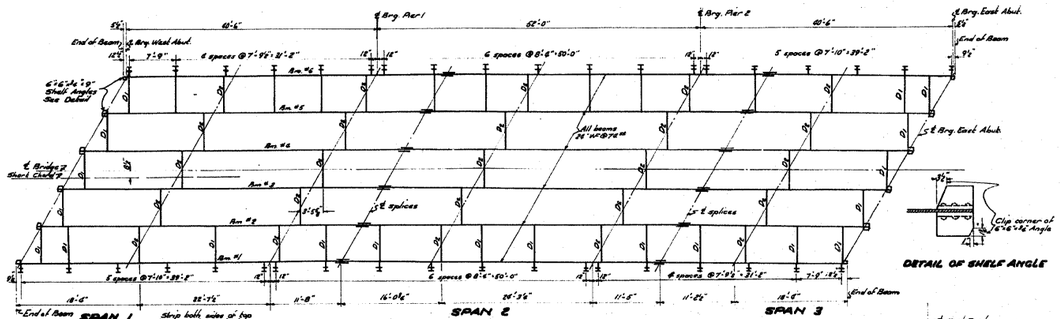
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	47
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

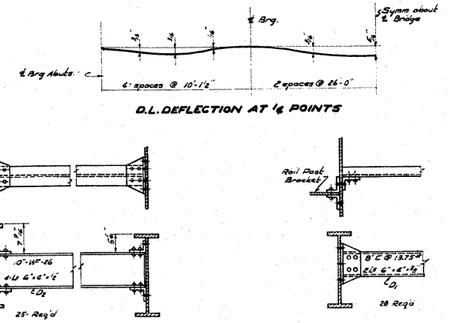
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 753	5A	Calhoun	57	56
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 3 OF 4 SHEETS

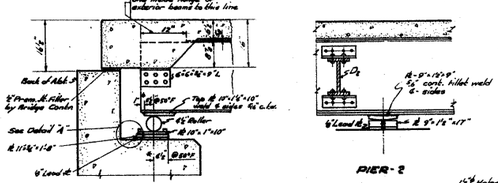


DETAIL OF SHELF ANGLE



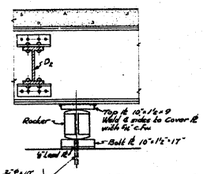
D.L. DEFLECTION AT ⅙ POINTS

DIAPHAAGM DETAILS

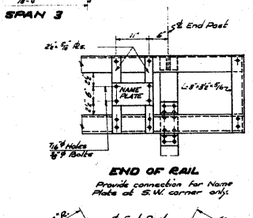


SECTION AT ABUTMENT

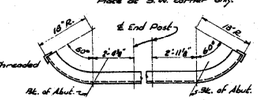
PIER-2



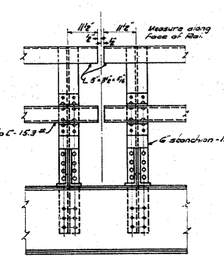
PIER-1



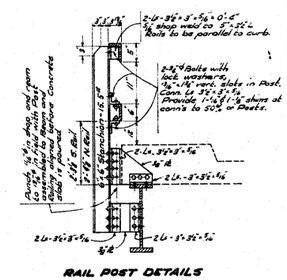
END OF RAIL
Provide connection for Name Plate at S.W. corner only.



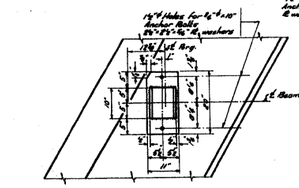
RAIL BEND

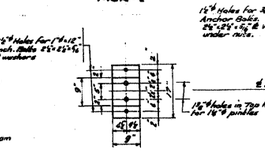


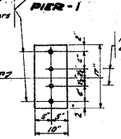
DETAIL OF RAIL AT PIERS

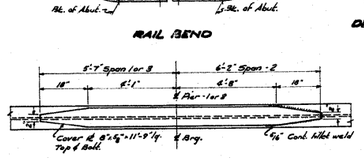


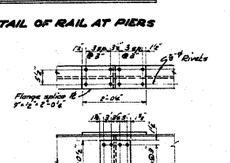
RAIL POST DETAILS

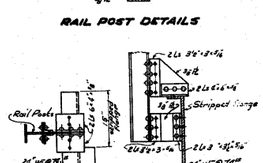


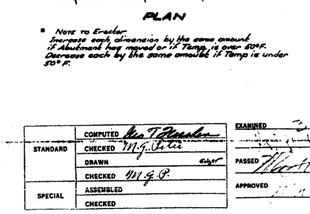






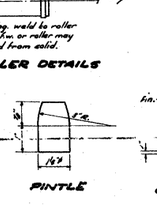


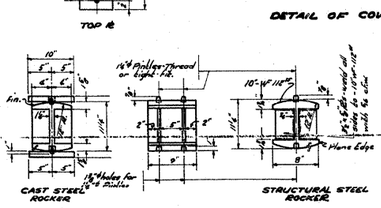


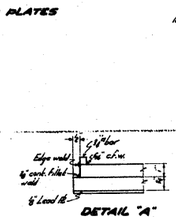


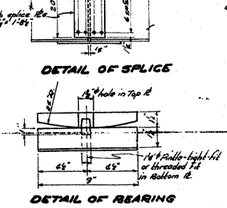
STANDARD	COMPUTED	Max T. Bowden
	CHECKED	M.J.S.Co.
	DRAWN	
	CHECKED	M.J.S.P.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED
PASSED
APPROVED









PROJ. S 76(1)
FAS ROUTE 753 SEC. 5-A
POX CREEK
CALHOUN COUNTY
STA. 675+15.5

FOR INFORMATION ONLY

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	PLOT DATE = 9/11/2008	DATE	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLAN

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	48
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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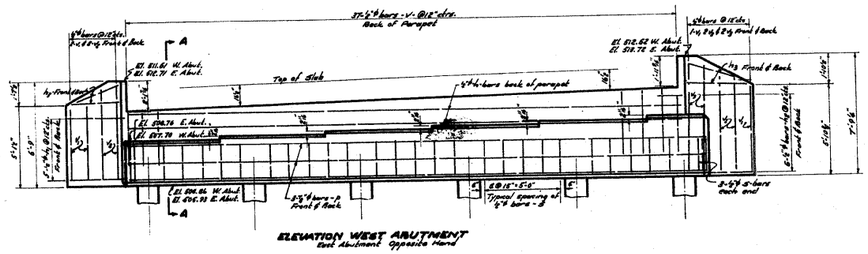
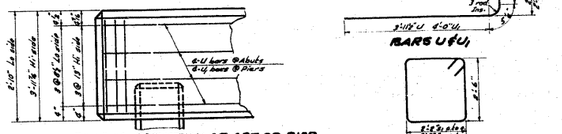
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

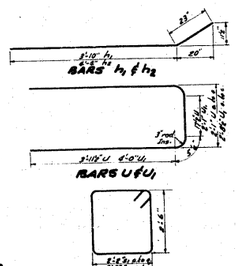
SHEET NO. 4
4 SHEETS

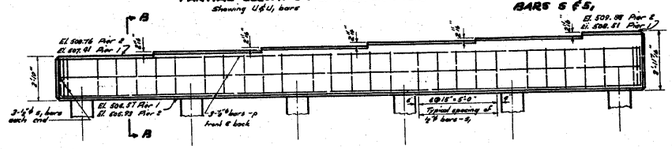


ELEVATION WEST ABUTMENT
East Abutment Opposite Hand



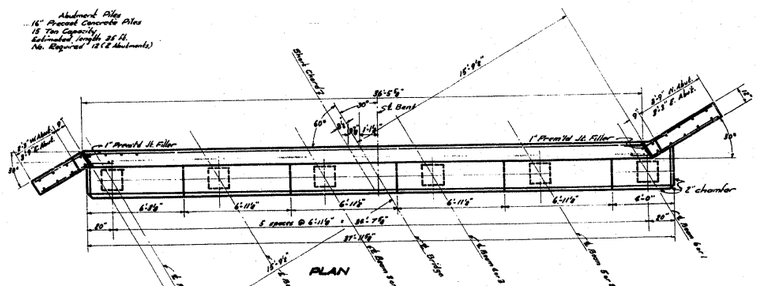
PARTIAL ELEVATION OF ABT. OR PIER
Showing U & U1 bars



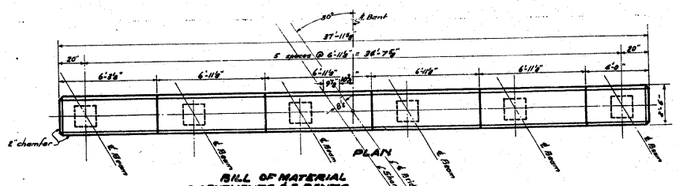


ELEVATION OF BENT

Abutment Piles
16" Precast Concrete Piles
15 Ton Capacity
Estimated Length 35'-0"
No. Required 12 (6 Abutments)

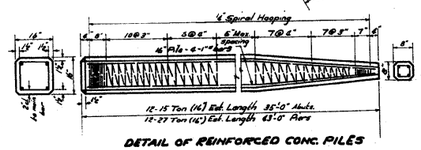


PLAN

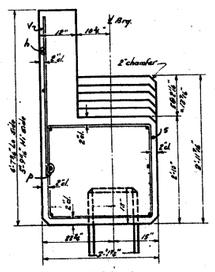


PLAN

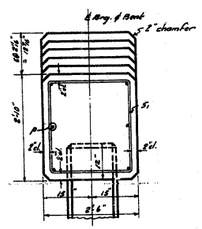
Bent Piles
16" Precast Concrete Piles
27 Ton Capacity
Estimated Length 45'-0"
No Required 12 (2 Bents)



DETAIL OF REINFORCED CONC. PILES



SEC. A-A



SEC. B-B

BILL OF MATERIAL
2 ABUTMENTS & 2 BENTS

Bar	No.	Size	Length	Shape
h	8	¾"	35'-0"	—
h1	20	¾"	5'-9"	—
h2	28	¾"	6'-3"	—
h3	16	¾"	3'-9"	—
p	28	¾"	37'-2"	—
s	62	¾"	11'-6"	⌐
s1	62	¾"	10'-8"	⌐
u	16	¾"	10'-8"	⊐
u1	16	¾"	11'-0"	⊐
v	76	¾"	3'-6"	—
v1	12	¾"	5'-0"	—
v2	16	¾"	6'-0"	—
v3	8	¾"	7'-6"	—

Class X Concrete	Cu.Yds.	58.3
Reinforcement Bars	Lbs.	2869
Precast Conc. Piles (85'/ø)	Lin.Ft.	520
Precast Conc. Piles (88'/ø)	Lin.Ft.	216
Precast Conc. Test Piles	Each	2

PROJ. S 76(1)
FAS ROUTE 753 SEC. 5-A
FOX CREEK
CALHOUN COUNTY
STA. 675+16.5

STANDARD	COMPUTED	Kurt Theodore	
	CHECKED	M. G. Peters	
	DRAWN	W-Lyer	
	CHECKED	M.J.P.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED
PASSED
APPROVED

FOR INFORMATION ONLY

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		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/11/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLAN

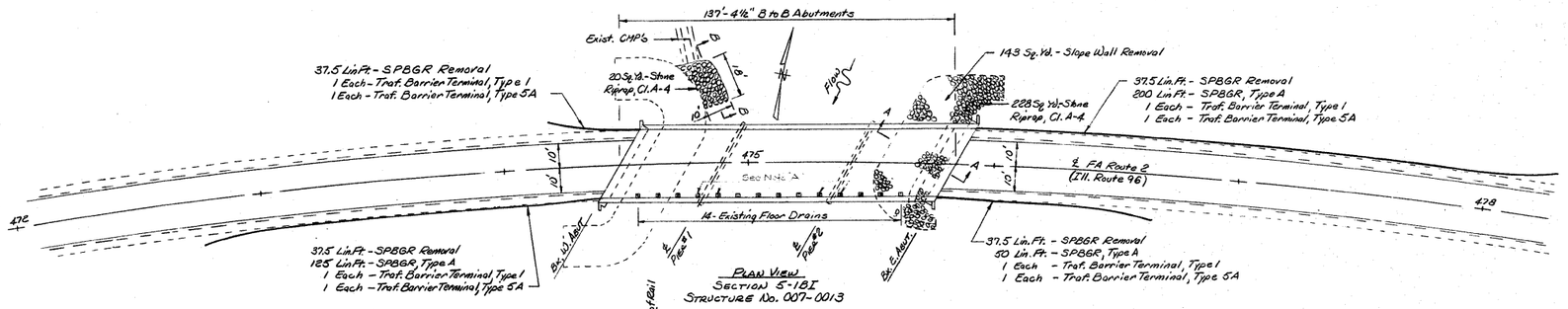
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	49
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

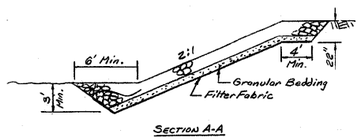
F.A. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	*	Calhoun	25	23

*ERS-3, 6RS-2, 5-181, 6B1-2

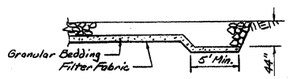
NOTE A: Existing floor drains located within 10' of the substructure units shall be eliminated.



PLAN VIEW
SECTION 5-18I
STRUCTURE No. 007-0013

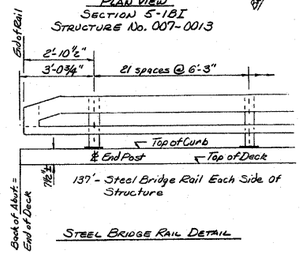


SECTION A-A

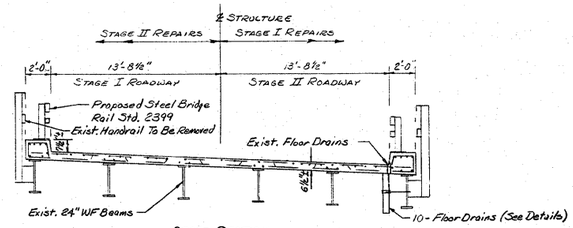


SECTION B-B

TOE AND FLANK RIPRAP DETAILS



STEEL BRIDGE RAIL DETAIL

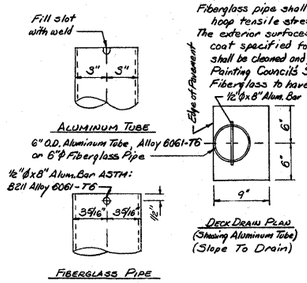


CROSS SECTION
SECTION 5-18I
STRUCTURE No. 007-0013

SCHEDULE OF QUANTITIES STRUCTURE NUMBER 007-0013

ITEM	QUANTITY
FLOOR DRAINS	10 EACH
ELASTOMERIC BEARING ASSEMBLY, TYPE 1	6 EACH
ELASTOMERIC BEARING ASSEMBLY, TYPE 2	6 EACH
CLASS X CONCRETE (SPECIAL)	1.1 CU.YD.
HANDRAIL REMOVAL	282 LIN. FT.
STEEL BRIDGE RAIL	274 LIN. FT.
CLEANING AND PAINTING STEEL BRIDGE NO. 1	1 L. SUM
RELOCATING NAME PLATES	1 EACH
STONE RIPRAP, CLASS A4	248 SQ YD
SLOPE WALL REMOVAL	213 SQ.YD.
STEEL PLATE BEAM GUARD RAIL, TYPE A	375 LIN. FT.
TRAFFIC BARRIER TERMINAL, TYPE 1	4 EACH
TRAFFIC BARRIER TERMINAL, TYPE 5A	4 EACH
STEEL PLATE BEAM GUARD RAIL REMOVAL	150 LIN FT
TRAFFIC CONTROL AND PROTECTION, STANDARD 2309	1 EACH
FURNISHING AND ERECTING STRUCTURAL STEEL	560 POUNDS

Floor Drain Notes:
The surface of the fiberglass pipe shall be free from bond inhibiting agents. Fiberglass pipe shall conform to ASTM : D2996, with short time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The exterior surfaces of the Floor Drains shall be painted with the vinyl enamel coat specified for structural steel. The exterior surfaces of the Aluminum tube shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC-SP1 & SSPC-Paint 27 prior to painting.
Fiberglass to have pre wash as per MIL-P-15328.



FLOOR DRAIN DETAILS

IMPROVEMENT DETAILS FOR STRUCTURE No. 007-0013

FA ROUTE 2
SECTION 5-18I
CALHOUN COUNTY

REV.

FOR INFORMATION ONLY

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	PLOT DATE = 9/11/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLAN

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	50
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

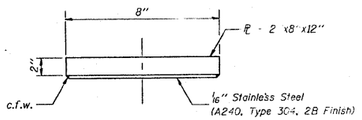
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 304	5A-BR	CALHOUN	60	24

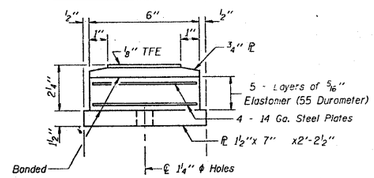
SHEET NO. 24
25 SHEETS

FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT:

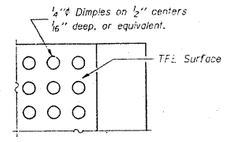
I SRD-2,SNDS,S-1151.031-E



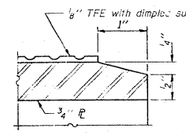
TOP BEARING ASSEMBLY



BOTTOM BEARING ASSEMBLY



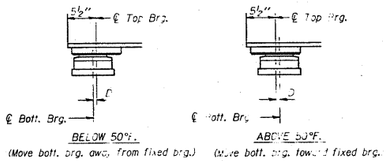
PLAN-TFE SURFACE



SECTION THRU TFE

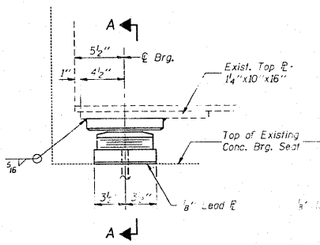
Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A 134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

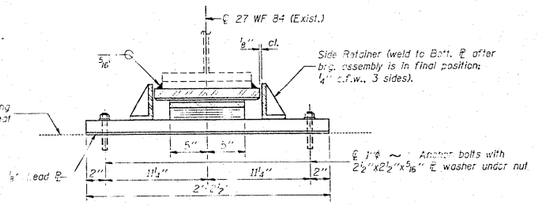


SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



ELEVATION AT ABUT.



SECTION A-A

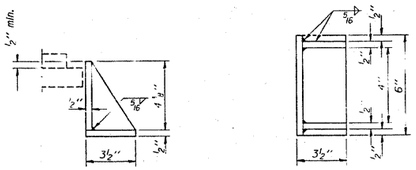
TYPE II TFE ELASTOMERIC EXP. BRG.

Notes: Burn off existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy.

Side retainers and 1"ϕ anchor bolts shall be included in "F.&E. Structural Steel".

BEAM REACTIONS

Live Load	28.4 kips
Dead Load	12.5 kips
Impact	8.5 kips



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	6
F.&E. Structural Steel	Lbs.	150

WEST ABUTMENT
ELASTOMERIC BEARINGS
F.A. RT. 2 OVER FOX CREEK
F.A. RT. 2 SEC. 5-1BI
CALHOUN COUNTY
STA. 475 + 15.5

(S.M. 007-0013)

DESIGNED	R. Brunette	EXAMINED 19
CHECKED	Kenneth P. Stultz	PASSED ENGINEER OF STRUCTURAL SERVICES
DRAWN	r.b. carbonell	APPROVED ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	R. Brunette	DIRECTOR OF HIGHWAYS

I-2-E2 12-1-83

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	PLOT DATE = 9/11/2008	DATE	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLAN

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	51
		CONTRACT NO. 76886		

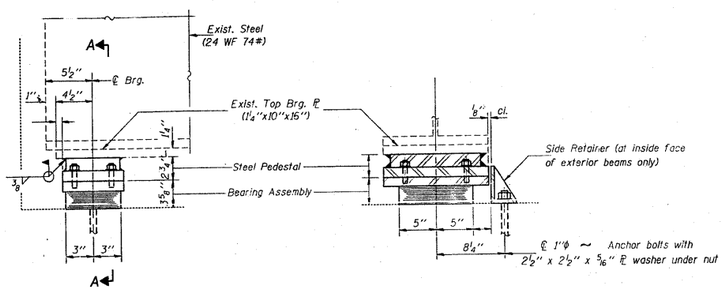
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 2	4	CALHOUN	43	23
FED. ROAD DIST. NO. 7		RAILROAD	FED. AID PROJECT:	

SHEET NO. 25
25 SHEETS

SRS-2, RD-4, 5.5" Rein.

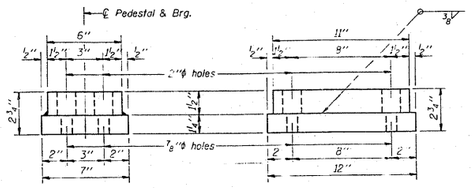


ELEVATION AT ABUT.

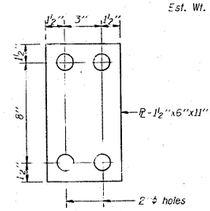
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

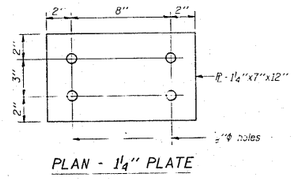
Note: Burn off exist. anchor bolts flush with exist. concrete surface. Grind smooth and seal with epoxy.



PEDESTAL ELEVATION
(No. Steel Pedestals Req'd. = 6)
Est. Wt. = 60 Lbs. (each)

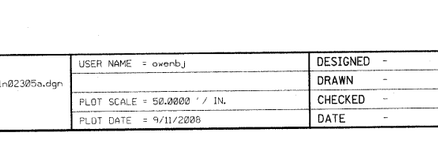


PLAN - 1½" PLATE



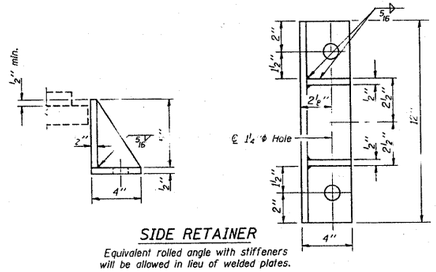
PLAN - 1¼" PLATE

Note: New Steel Pedestals, Side Retainers and 1"ϕ Anchor Bolts shall be paid for as "Furn. & Erect. Structural Steel".



BEARING ASSEMBLY

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



SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BEAM REACTIONS

Live Load	28.4 kips
Dead Load	12.5 kips
Impact	8.5 kips

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type 1	Each	6
Furnishing and Erecting Structural Steel	Lbs.	410

EAST ABUTMENT
ELASTOMERIC BRGS. & PEDESTAL DETAILS
F.A. RT. 2 OVER FOX CREEK
F.A. RT. 2 SEC. 5-1BI
CALHOUN COUNTY
STA. 475 + 15.5

I.S.N. 007-0019

DESIGNED	R. Brunette	
CHECKED	Kenneth P Stutte	
DRAWN	r. b. carbonell	
CHECKED	R. Brunette KPS	

19
EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

I-2-E1 12-1-83

FOR INFORMATION ONLY

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLAN

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	52
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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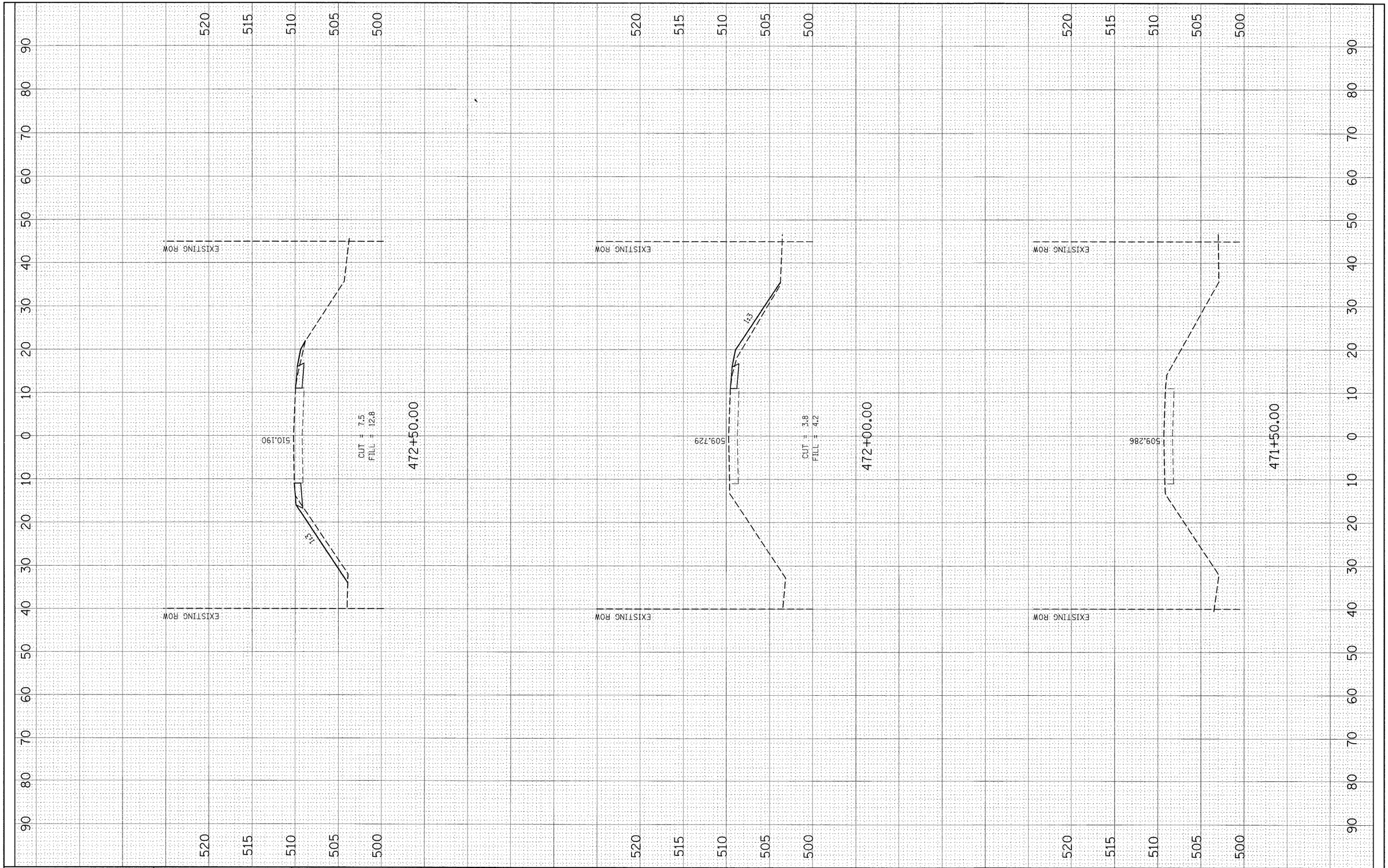
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTION SHEET

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. 471+50 TO STA. 472+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	53
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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	PLOTTED		
NOTE BOOK	PLOTTED		
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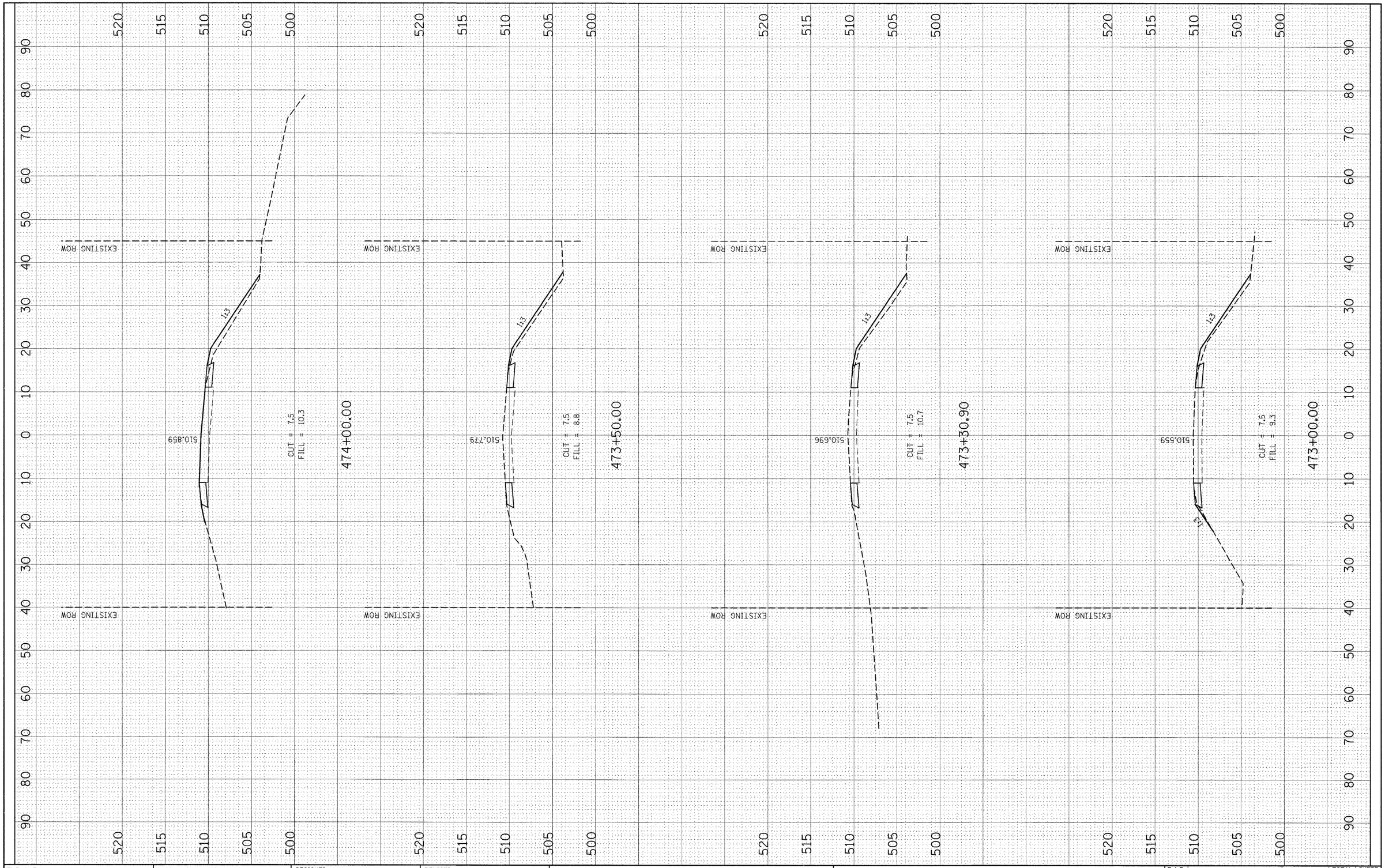
	AREAS		
NO.	AREAS CHECKED		



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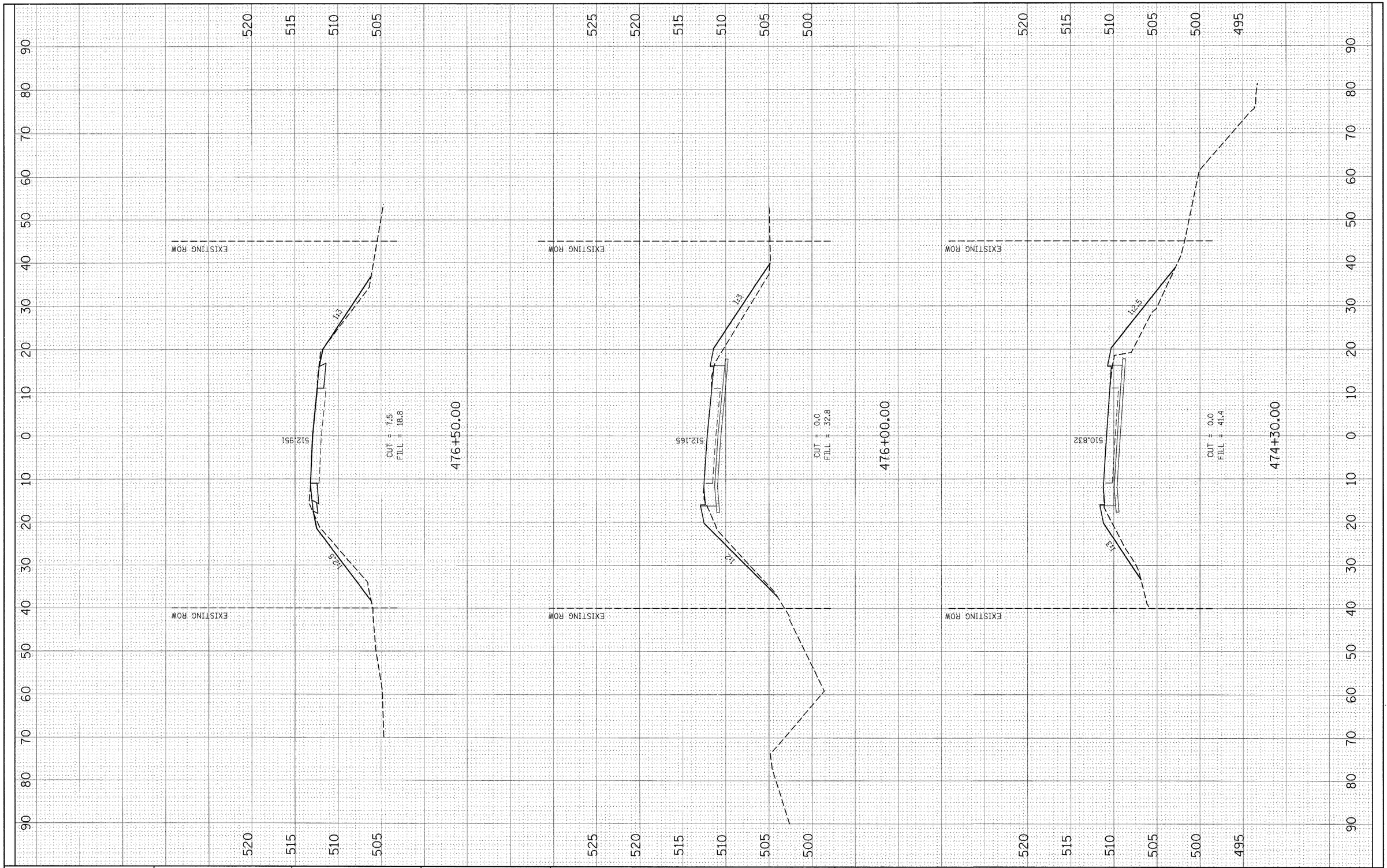
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTION SHEET

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. 473+00 TO STA. 474+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	54
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY CROSS SECTIONS

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. 474+30 TO STA. 476+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	55
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

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NOTE BOOK	SURVEYED		
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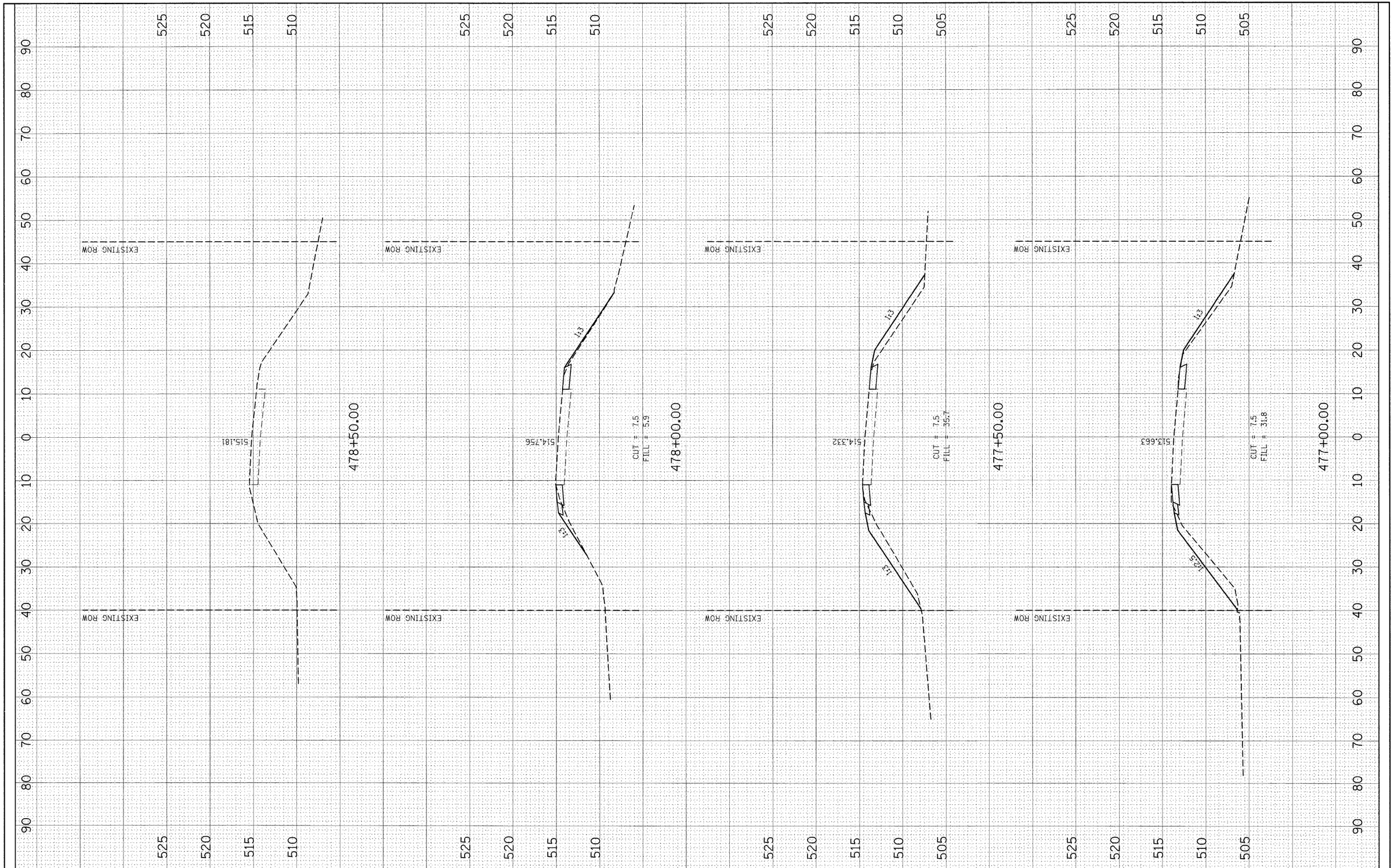
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

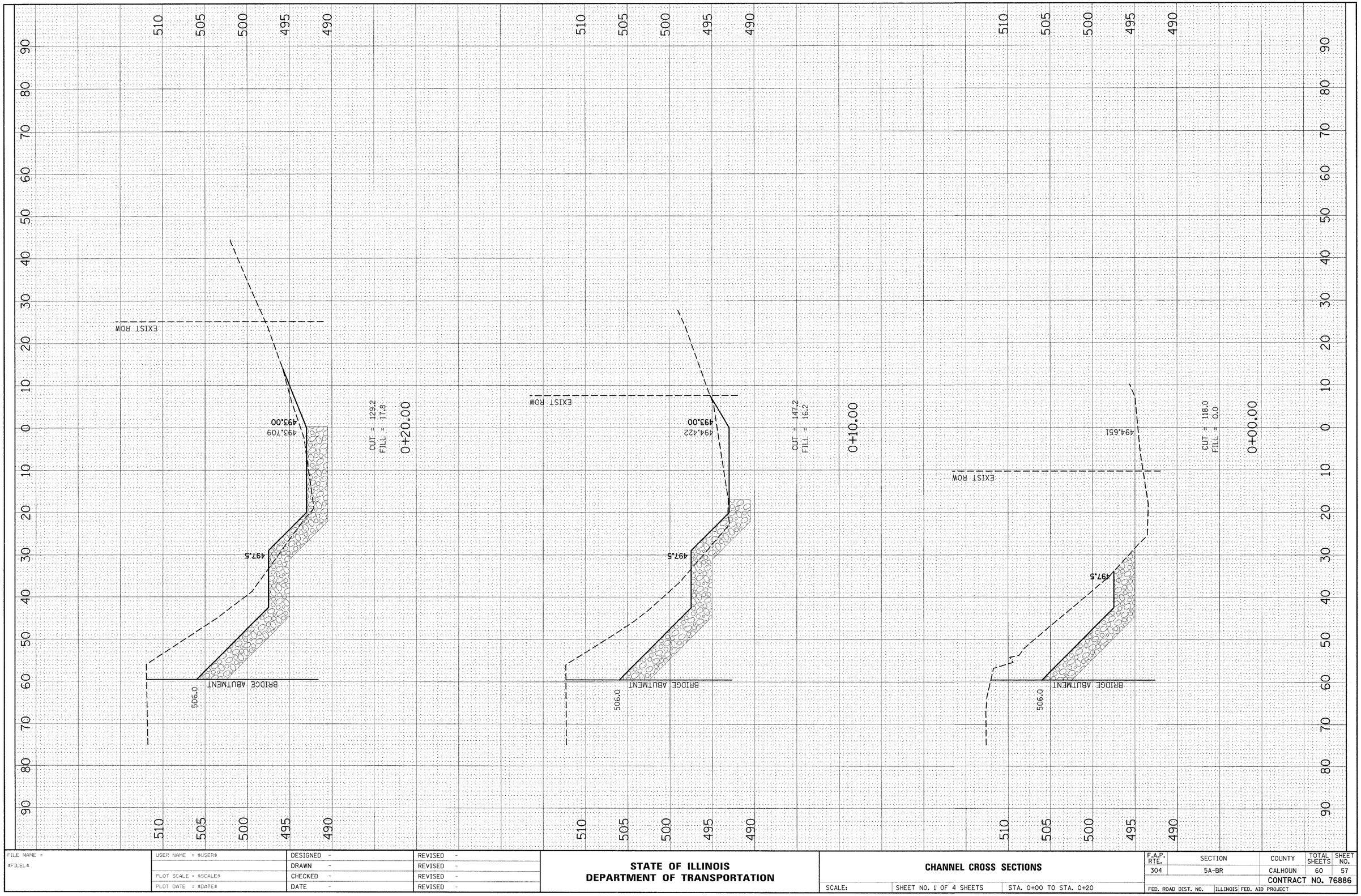
ROADWAY CROSS SECTIONS

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. 477+00 TO STA. 478+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	56
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHANNEL CROSS SECTIONS

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. 0+00 TO STA. 0+20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	57
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY		BY	DATE
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	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

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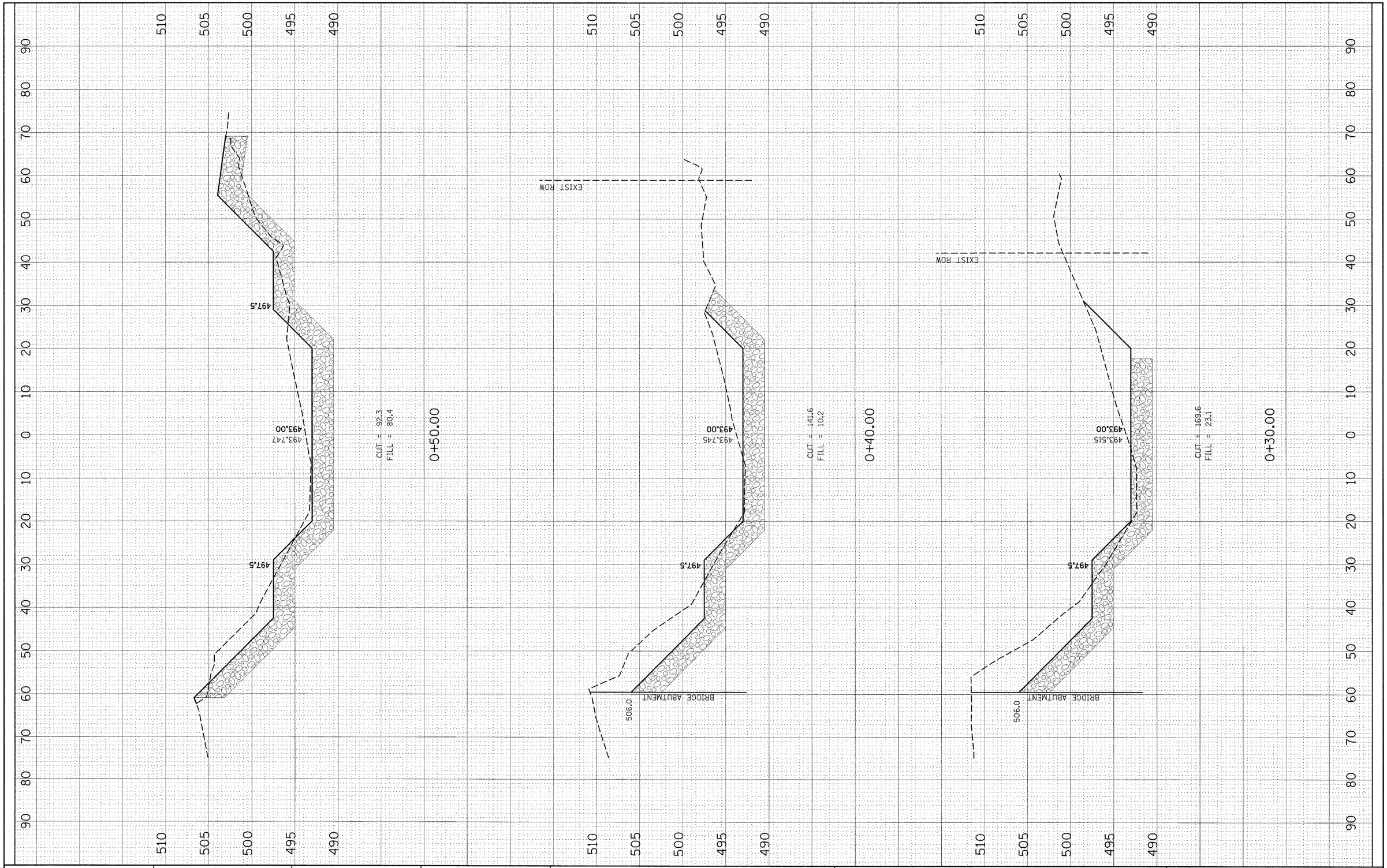
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHANNEL CROSS SECTIONS

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. 0+30 TO STA. 0+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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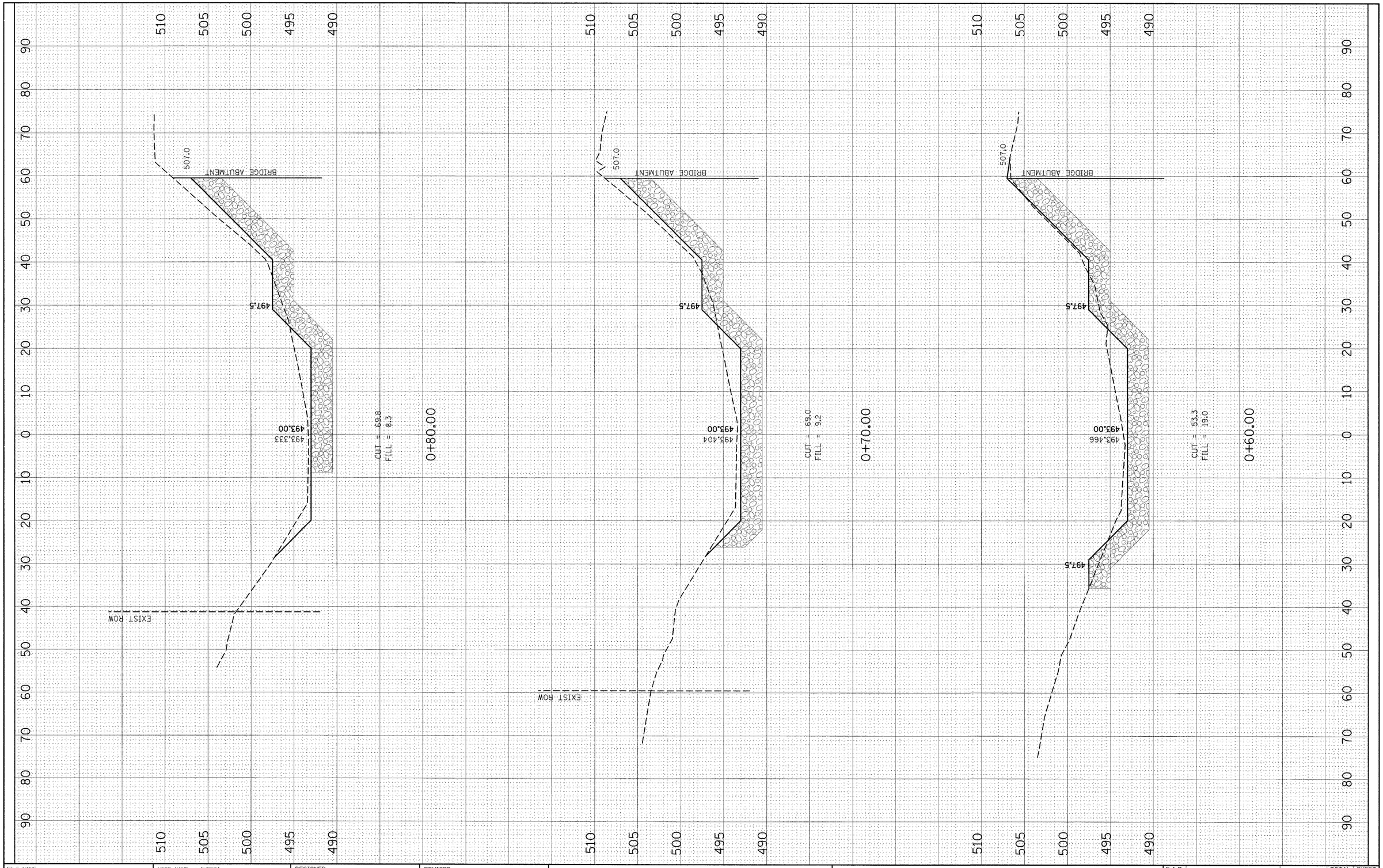
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY
NOTE BOOK
NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY
NOTE BOOK
NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

FILE NAME = #FILE1#	USER NAME = #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = #DATE#	DATE -	REVISED -

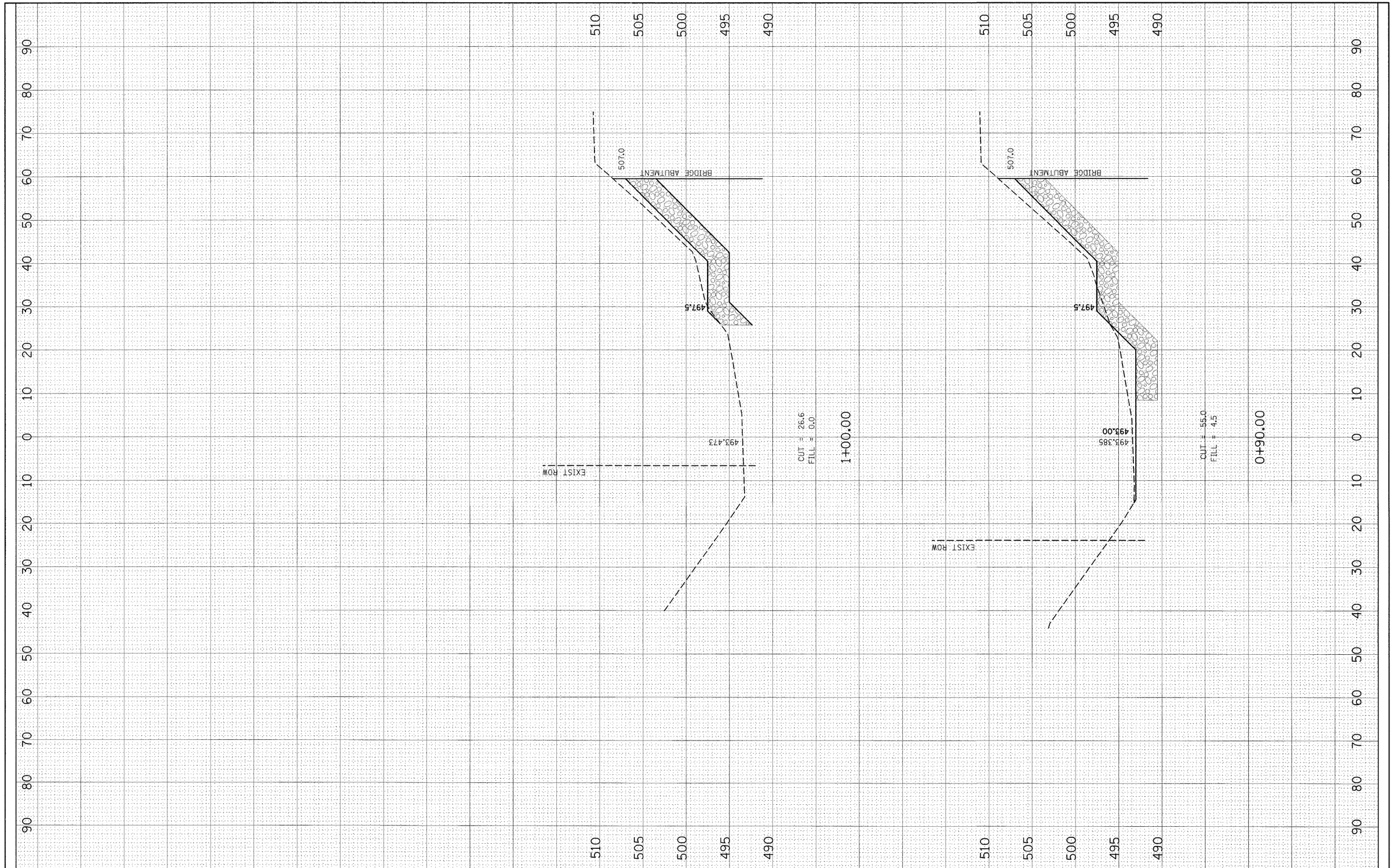
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHANNEL CROSS SECTIONS

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. 0+60 TO STA. 0+80

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	59
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHANNEL CROSS SECTIONS

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. 0+90 TO STA. 1+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	5A-BR	CALHOUN	60	60
		CONTRACT NO. 76886		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		