1-16-09 Letting, Item 021

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37★	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 76B58		

★37+13=50

FOR INDEX OF SHEETS SEE SHEET 2

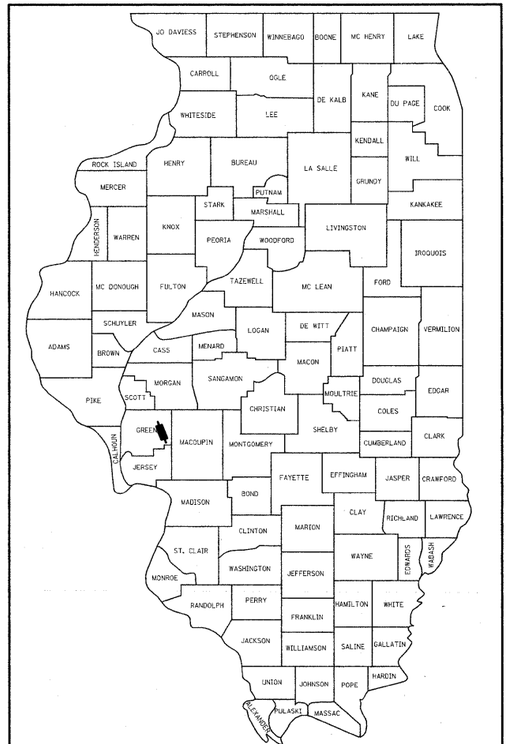
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAP ROUTE 10 (IL 267)
SECTION 410BR-1
PROJECT: BRF-0010(076)
GREENE COUNTY
REPLACEMENT OF THE STRUCTURE
CARRYING IL 267 OVER TAYLOR CREEK

C-98-024-08

D-98-030-08



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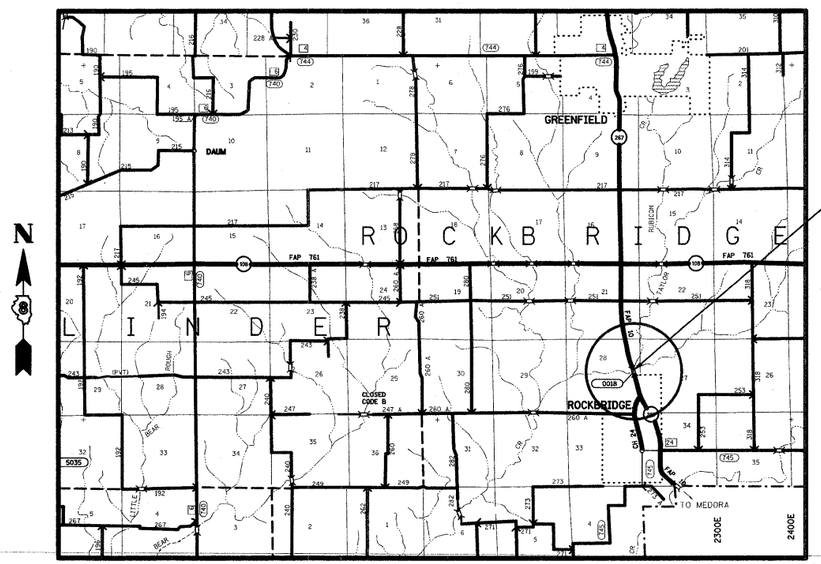

LAYOUT
0 MI 1 MI 2 MI 3 MI
1" = 1 MILE

LATITUDE: 39.11796
LONGITUDE: 90.20696

GROSS LENGTH: .029 MILES (ABUTMENT TO ABUTMENT)
NET LENGTH: .029 MILES (ABUTMENT TO ABUTMENT

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.

TRAFFIC DATA:

ADT: 2200 (2009)
2700 (2029)
SU: 5.8%
MU: 12.8%

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED October 16 20 08
Mary C Jamie
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER
December 5, 20 08
Eric E. Harm/JD
Interim ENGINEER OF DESIGN AND ENVIRONMENT
December 5, 20 08
Christine M. Reed/JD
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: PATTI LEBEAU (618) 346-3179
SQUAD CONTACT: ART MUEHLFELD (618) 346-3209

CONTRACT NO. 76B58

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

LIST OF HIGHWAY STANDARDS

000001-05	606201-02	635011-02	780001-02
001001-02	420401-07	701006-03	781001-03
001006	610001-04	701011-02	420001-07
406201-01	630001-08	701321-10	421001-02
420701-02	630301-05	701326-03	401101-01
515001-03	631031-07	701901-01	
542401-01	635006-03	704001-05	

GENERAL NOTES

1. THE STANDARDS AND REVISION NUMBERS STATED IN THE PLANS SHALL APPLY TO THIS CONTRACT.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND THE ORDERING OF 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 COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHING THE PROJECT AREA ARE AS FOLLOWS:

   • AMERENCIPS •FRONTIER COMMUNICATIONS COMPANY •VERIZON NORTH, INC.

   MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY AN •. NON- J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEDING, FERTILIZING, AND MULCHING ANY AREAS DISTURBED OUTSIDE THE LIMITS OF CONSTRUCTION. THIS WORK WILL NOT BE MEASURED FOR PAYMENT. THE SEEDING SHALL BE CLASS 1. THE APPLICATION OF THE SEEDING, FERTILIZER AND MULCH SHALL BE TO THE SATISFACTION OF THE ENGINEER, FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE.
5. IF THE CONTRACTOR REMOVES TREES WITHIN THE PROJECT RIGHT-OF-WAY LIMITS FOR HIS CONSTRUCTION ACTIVITY, 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 OTHER COMPENSATION WILL BE ALLOWED.
6. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND ENDING OF THE PROJECT AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE.
7. NO TRENCHES OR OPEN PITS WILL BE PERMITTED ADJACENT TO A TRAFFIC LANE DURING NONE WORKING HOURS. ALL WIDENING TRENCHES SHALL BE BACK FILLED DURING THE SAME WORKING DAY IT WAS EXCAVATED.
8. THE COST OF GRADING AND SHAPING ALONG THE PROPOSED BASE COURSE SHALL BE INCLUDED IN THE COST OF "EARTH EXCAVATION".
9. IT SHALL BE THE CONTRACTORS'S RESPONSIBILITY TO INSURE THAT ADJACENT PAVEMENT IS NOT DAMAGED DURING ANY OPERATION.
10. ALL TEMPORARY PAVEMENT MARKING SHALL BE PLACED IN SUCH A MANNER AS NOT TO INTERFERE WITH THE PLACEMENT OF PERMANENT PAVEMENT MARKING.
11. ALL WIDE LOAD SIGNING SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF THE CONTRACT.
12. EXCAVATIONS ADJACENT TO THE EDGE OF PAVEMENT SHALL BE PROTECTED WITH EXTENDED LEG BARRICADES AND APPROPRIATE FLASHING OR STEADY BURNING LIGHTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
13. THE THICKNESS OF THE BITUMINOUS MIXTURE SHOWN ON THE PLANS IS A NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO THE IRREGULARITY IN THE BASE ON WHICH THE MIXTURE IS PLACED.
14. WHEN SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THE LOCATION.
15. STANDARD 610001 HAS BEEN MODIFIED TO UTILIZE TYPE B INLET BOX, STANDARD 609006. SEE THE SPECIAL PROVISIONS "SHOULDER INLET WITH CURB, SPECIAL" AND THE DETAILS FOR MORE INFORMATION.
16. THE PAVEMENT REMOVAL QUANTITY INCLUDES 35 SQUARE YARDS OF BRIDGE APPROACH PAVEMENT.
17. ALL EXISTING AND PROPOSED 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.
18. THE EXISTING STEEL BEAM SHORING IN SPAN 3 SHALL BE SALVAGED.

COMMITMENTS

NONE

MIXTURE REQUIREMENT CHART	
ADT (CONSTRUCTION YR:	2200
MU%	12.8
SU%:	5.8
20 YR ESAL'S	
MIXTURE USE	BINDER/WIDENING
AC/PG	PG 64-22
RAP% (MAX)	15%
DESIGN AIR VOIDS	4.0% @ NDES = 70
MIX COMPOSITION	
(GRADATION MIXTURE)	
FRICTION AGG	MIXTURE "B"

Rev.

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		DRAWN -	REVISED -
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	PLOT DATE = 10/15/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS, STANDARDS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	2
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X071-2A FED 80% STATE 20%		
20200100	EARTH EXCAVATION	CU YD	305	305		
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	98	98		
25000200	SEEDING, CLASS 2	ACRE	0.25	0.25		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	25	25		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	25	25		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	25	25		
25100105	MULCH, METHOD 1	ACRE	0.25	0.25		
28100101	STONE RIPRAP, CLASS A1	SQ YD	10	10		
28100105	STONE RIPRAP, CLASS A3	SQ YD	10	10		
28100109	STONE RIPRAP, CLASS A5	SQ YD	1661	1661		
28200200	FILTER FABRIC	SQ YD	1671	1671		
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	294	294		
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	224	224		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	43	43		
44000100	PAVEMENT REMOVAL	SQ YD	226	226		
44004250	PAVED SHOULDER REMOVAL	SQ YD	84	84		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	57	57		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1		
50104650	SLOPE WALL REMOVAL	SQ YD	1080	1080		
50200100	STRUCTURE EXCAVATION	CU YD	224	224		
50300225	CONCRETE STRUCTURES	CU YD	175.2	175.2		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	191.9	191.9		
50300260	BRIDGE DECK GROOVING	SQ YD	530	530		
50300280	CONCRETE ENCASEMENT	CU YD	8.4	8.4		
50300300	PROTECTIVE COAT	SQ YD	694	694		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1		
50500505	STUD SHEAR CONNECTORS	EACH	2700	2700		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	58560	58560		
50800515	BAR SPLICERS	EACH	676	676		
51201600	FURNISHING STEEL PILES HP12X53	FOOT	1050	1050		
51201610	FURNISHING STEEL PILES HP12X63	FOOT	1050	1050		
51202305	DRIVING PILES	FOOT	2100	2100		
51203600	TEST PILE STEEL HP12X53	EACH	2	2		
51203610	TEST PILE STEEL HP12X63	EACH	2	2		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X071-2A 80% FED. 20% STATE		
51204650	PILE SHOES	EACH	24	24		
51205200	TEMPORARY SHEET PILING	SQ FT	299	299		
51500100	NAME PLATES	EACH	1	1		
52100520	ANCHOR BOLTS, 1"	EACH	48	48		
54215547	METAL END SECTIONS 12"	EACH	2	2		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	62	62		
60100945	PIPE DRAINS 12"	FOOT	78	78		
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	134	134		
60500060	REMOVING INLETS	EACH	3	3		
60900515	CONCRETE THRUST BLOCKS	EACH	2	2		
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	2	2		
*63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	538	538		
*63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
*63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	598	598		
63301000	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL	FOOT	100	100		
G3302700	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2		
66101150	HOT-MIX ASPHALT SHOULDER CURB	FOOT	30	30		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	9		
67100100	MOBILIZATION	L SUM	1	1		
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70106700	TEMPORARY RUMBLE STRIP	EACH	12	12		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	52	52		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	13	13		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	562.5	562.5		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	562.5	562.5		
*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	903	903		
*78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	696	696		
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4		
*78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3	3		

*Specialty Items

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	3
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X071-2A 80% FED. 20% STATE		
*78200200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	8	8		
*78200410	GUARDRAIL MARKERS, TYPE A	EACH	16	16		
*78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	400	400		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	7	7		
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		
©Z0076600	TRAINEES	HOUR	500	500		

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

©Y080 *Specialty Items

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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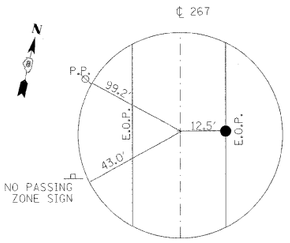
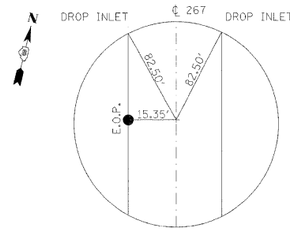
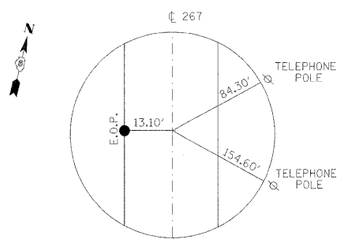
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



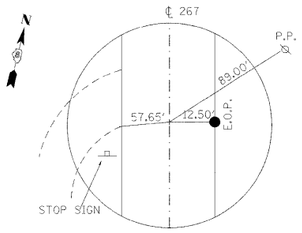
STA. 66+81.70



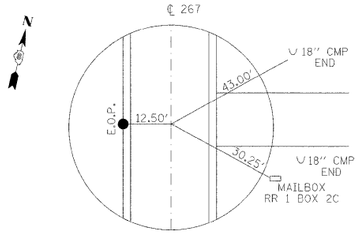
STA. 85+20.00



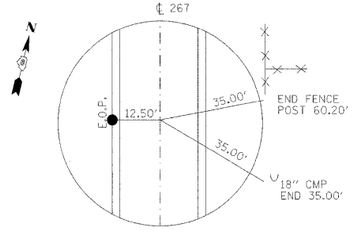
P.C. STA. 96+82.07



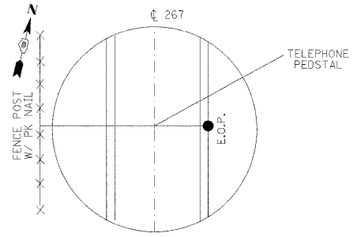
P.C.C. STA. 98+65.00



P.T. STA. 103+00.41



P.T. STA. 110+44.83



STA. 113+22.85

BENCH MARKS

STA. 85+92.00

S.N. 031-0018

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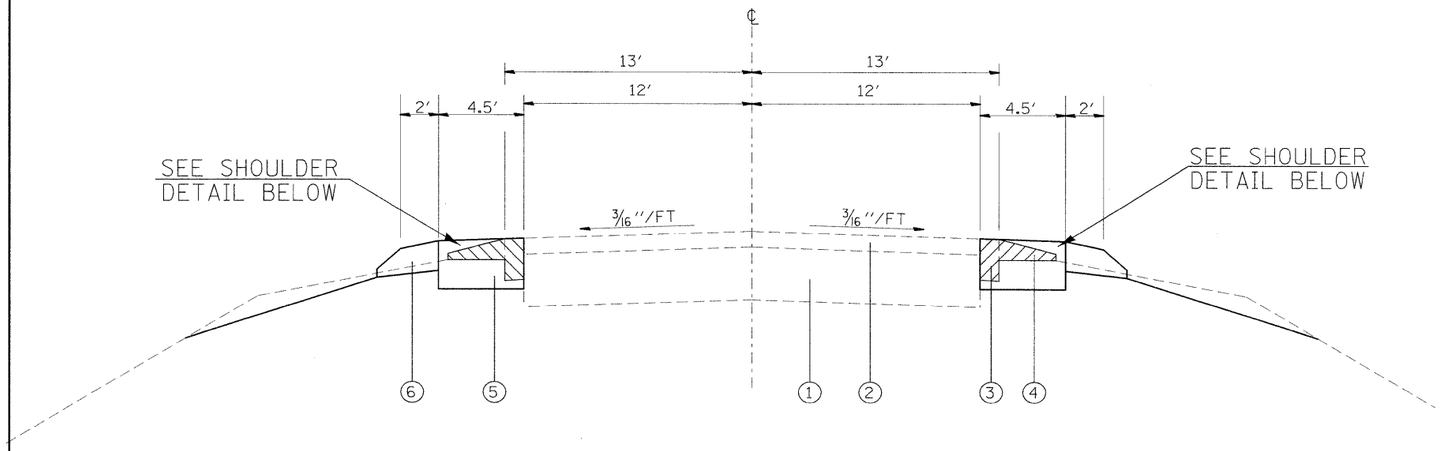
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TIE POINTS & BENCH MARKS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	5
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



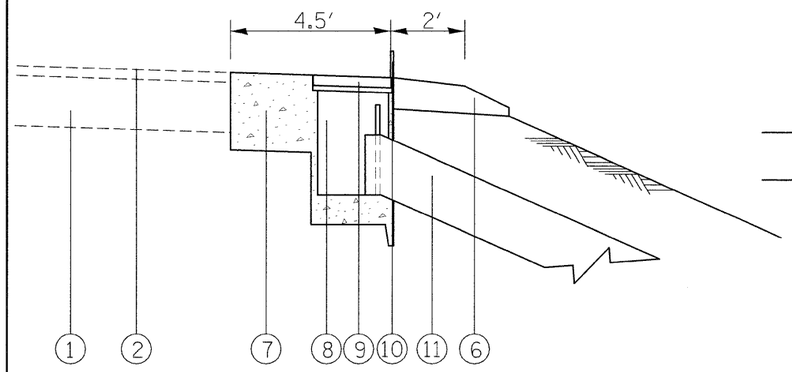
TYPICAL SECTION

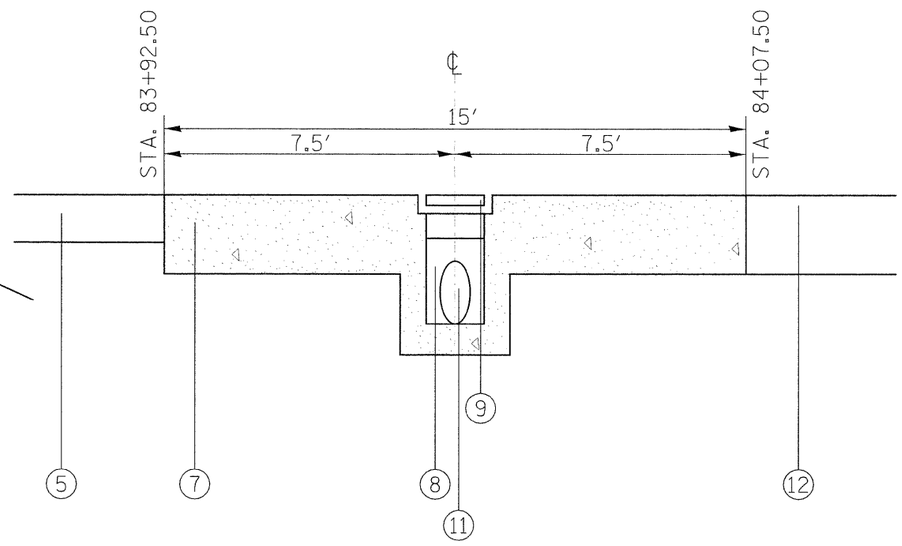
STA. 82+55.00 TO STA. 84+07.50
STA. 86+33.50 TO STA. 87+75.00

LEGEND

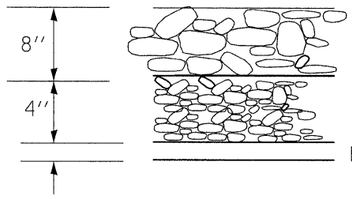
1. EXISTING PCC PAVEMENT-10″
2. EXISTING RESURFACING-3″
3. EXISTING BITUMINOUS SHOULDER-8″
4. EXISTING AGGREGATE SHOULDER WEDGE
5. PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING - 10″
6. PROPOSED AGGREGATE SHOULDER TYPE B- 6″
7. PROPOSED PCC SLAB (INCLUDED IN THE COST OF TY E INLET BOX, STD. 610001
8. PROPOSED TYPE E INLET BOX, STD. 610001
9. PROPOSED O-O GRATING FRAME
10. PROPOSED HOT-MIX ASPHALT SHOULDER CURB
11. PROPOSED PIPE DRAIN-12″
12. PROPOSED BRIDGE APPROACH PAVEMENT CONNECTOR

PROPOSED REMOVAL





SHOULDER DETAIL (SHOULDER INLET W/ CURB)
SEE STANDARDS 610001 FOR DIMENSIONS AND MORE DETAILS
STA. 83+92.50 TO STA. 84+07.50



DETAIL OF STONE RIPRAP FOR METAL END SECTIONS-12″

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	PLOT DATE = 10/16/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	6
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE

STATION	TO	STATION	UNADJUSTED EXCAVATION (CU YD)	EXCAVATION ADJUSTED FOR SHINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
82+50.00	TO	82+75.00	6.0	4.5	8.7	-4.2
82+75.00	TO	83+00.00	25.9	19.4	10.3	9.1
83+00.00	TO	83+50.00	66.7	50.0	5.8	44.2
83+50.00	TO	84+00.00	40.4	30.3	6.6	23.7
84+00.00	TO	84+25.00	21.5	16.1	5.4	10.7
84+25.00	TO	84+43.50	10.9	8.2	2.6	5.6
85+97.50	TO	86+00.00	1.6	1.2	0.1	1.1
86+00.00	TO	86+50.00	46.5	34.9	1.8	33.1
86+50.00	TO	87+00.00	28.3	21.2	0	21.2
87+00.00	TO	87+50.00	34.7	26.0	0	26.0
87+50.00	TO	88+00.00	20.4	15.3	0	15.3
		TOTAL =	302.9	227.1	41.3	185.8
		ROUNDED TOTAL =	305	225	40	185

SEEDING CLASS 2 SCHEDULE

STATION	TO	STATION	SEEDING CLASS 2 (ACRE)	MULCH METHOD 1 (ACRE)	NITROGEN FERTILIZER NUTRIENT (POUND)	PHOSPHOROUS FERTILIZER NUTRIENT (POUND)	POTASSIUM FERTILIZER NUTRIENT (POUND)
82+50.00	TO	82+75.00	0.01	0.01	0.87	0.87	0.87
82+75.00	TO	83+00.00	0.02	0.02	2.24	2.24	2.24
83+00.00	TO	83+50.00	0.05	0.05	4.71	4.71	4.71
83+50.00	TO	84+00.00	0.07	0.07	6.22	6.22	6.22
84+00.00	TO	84+25.00	0.03	0.03	2.40	2.40	2.40
84+25.00	TO	84+43.50	0.00	0.00	0.21	0.21	0.21
84+43.50	TO	85+97.50	0.00	0.00	0.00	0.00	0.00
85+97.50	TO	86+00.00	0.00	0.00	0.00	0.00	0.00
86+00.00	TO	86+50.00	0.01	0.01	1.15	1.15	1.15
86+50.00	TO	87+00.00	0.01	0.01	1.17	1.17	1.17
87+00.00	TO	87+50.00	0.02	0.02	1.99	1.99	1.99
87+50.00	TO	88+00.00	0.02	0.02	1.38	1.38	1.38
		TOTAL	0.25	0.25	22.4	22.4	22.4
		ROUNDED TOTAL	0.25	0.25	25	25	25

GUARDRAIL SCHEDULE

STATION	TO	STATION	LT/RT OFFSET	GUARDRAIL REMOVAL (FEET)	SPBGR TYPE A (FEET)	TBT TY 6 (EACH)	TBT TY 1 (SPECIAL (EACH)	GUARDRAIL MARKERS TYPE A (EACH)	TERMINAL MARKER DIRECT APPL. (EACH)
80+87.25	TO	81+37.25	RT				1	1	1
81+37.25	TO	83+99.75	RT	166.5	262.5			2	
83+99.75	TO	84+43.50	RT	53.5		1		1	
85+97.50	TO	86+41.25	RT			1		2	
86+41.25	TO	86+91.25	RT				1	2	1
82+90.00	TO	83+49.75	LT	53.4					
83+49.75	TO	83+99.75	LT	52.0			1	2	1
83+99.75	TO	84+43.50	LT	52.6		1		2	
85+97.50	TO	86+41.25	LT	53.5		1		1	
86+41.25	TO	89+16.25	LT	166.5	275.0			2	
89+16.25	TO	89+66.25	LT				1	1	1
TOTAL				598	538	4	4	16	4

PAVING SCHEDULE

STATION	TO	STATION	BITUMINOUS BASE CSE WIDENING - 10" (SQ YDS)	AGGREGATE SHOULDER, TYPE B (TON)	PCC SLAB *(NMFP) (SQ YDS)	BRIDGE APPR. PAVT. CONNECTOR FLEXIBLE (SQ YDS)	BRIDGE APPROACH PAVEMENT (SQ YDS)
82+55.00	TO	83+92.50	137.5	21.4			
83+92.50	TO	84+07.50	15.0	2.3	15.0		
84+07.50	TO	84+13.50		0.9		21.3	
84+13.50	TO	84+43.50		4.7			106.7
85+97.50	TO	86+27.50		4.7			106.7
86+27.50	TO	86+33.50		0.9		21.3	
86+33.50	TO	87+75.00	141.5	22.0			
		TOTAL	294.0	57.0	15.0	43.0	214.0

*NMFP= NOT MEASURED FOR PAYMENT, INCLUDED IN THE COST OF INLET TY B, STD 609006 (SEE INLET, TYPE B SCHEDULE)

INLET TYPE E, STANDARD 610001

STATION	OFFSET LT/RT (FEET)	INLET, TY B STANDARD 610001 (EACH)	PIPE DRAINS-12" (FEET)	METAL END SECTION - 24" (EACH)	CONCRETE THRUST BOX (EACH)	HMA SHOULDER CURB (FEET)	STONE RIPRAP CLASS A3-8" (SQ YDS)	*STONE RIPRAP CLASS A1-4" (SQ YDS)	FILTER FABRIC (SQ YDS)
84+00	16.5' TO 52.3' LT	1	43.0	1	1	15	6	6	6
84+00	16.5' TO 49.3' RT	1	35.0	1	1	15	4	4	4
TOTAL		2	78.0	2	2	30	10	10	10

*STONE RIPRAP CLASS A1 USED AS BEDDING MATERIAL FOR STONE RIPRAP CLASS A3 (SEE DETAIL)

REMOVAL SCHEDULE

STATION	TO	STATION	REMOVING INLETS (EACH)	PAVEMENT REMOVAL (SQ YDS)	BITUMINOUS SHOULDER REMOVAL (SQ YDS) LEFT	BITUMINOUS SHOULDER REMOVAL (SQ YDS) RIGHT
82+55.00	TO	83+92.50			15.3	15.3
83+92.50	TO	84+07.50		15.0	1.7	1.7
84+07.50	TO	84+46.50	3 @ STA. 84+39.98	104.0	4.3	4.3
85+93.50	TO	86+33.50		106.7	4.4	4.4
86+33.50	TO	87+75.00			15.7	15.7
		TOTAL	3	226.0	84.0	

PAVEMENT MARKING SCHEDULE

STATION	TO	STATION	THERMOPLASTIC PAVEMENT MARKING LINE - 4" (FOOT) SOLID WHITE	THERMOPLASTIC PAVEMENT MARKING LINE - 4" (FOOT) SKIP DASH YELLOW	THERMOPLASTIC PAVEMENT MARKING LINE - 4" (FOOT) SOLID YELLOW	POLYUREA PAVEMENT MARKING LINE - 4" (FOOT) SOLID WHITE	POLYUREA PAVEMENT MARKING LINE - 4" (FOOT) SKIP DASH YELLOW	POLYUREA PAVEMENT MARKING LINE - 4" (FOOT) SOLID YELLOW	SHORT PAVEMENT MARKING (FOOT)	RAISED RELECTIVE PAVEMENT MARKERS (EACH)	RAISED RELECTIVE PAVT. MRKS. (BRIDGE) (EACH)	RAISED RELECTIVE PAVT. MRK. REMOVAL (EACH)	PAVEMENT MARKING REMOVAL (SQ FT)	WORK ZONE PAVEMENT MARKING. REM. (SQ FT)
82+55.00	TO	83+47.00	184	23					9.2	1		1	52	2.3
83+47.00	TO	84+13.50	133	17	67				6.7	1		1	54	1.7
84+13.50	TO	86+27.50				428	54	214	21.4		3	1	174	5.4
86+27.50	TO	87+75.00	295	37	148				14.8	2		2	120	3.7
SUBTOTAL			612	77	214	428	54	214	52.0	4	3	5	400	13.0
TOTAL			903			696			52.0	4	3	5	400	13.0

GUARDRAIL REMOVAL AND RE-ERECTION SCHEDULE

STATION	TO	STATION	REMOVE & RE-ERECT TBT-TY 6 (EACH)	REMOVE & REERECT SPBGR (FT)
83+62.525	TO	84+12.525		50
84+12.525	TO	84+46.90	1	
85+92.50	TO	86+26.875	1	
86+26.875	TO	86+76.875		50
TOTAL			2	100

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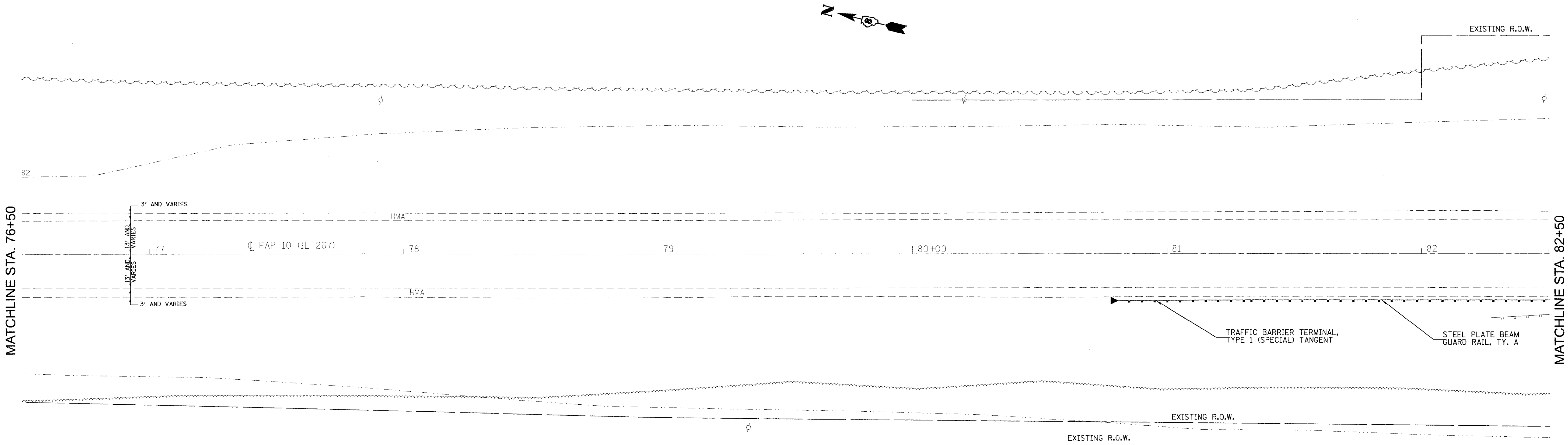
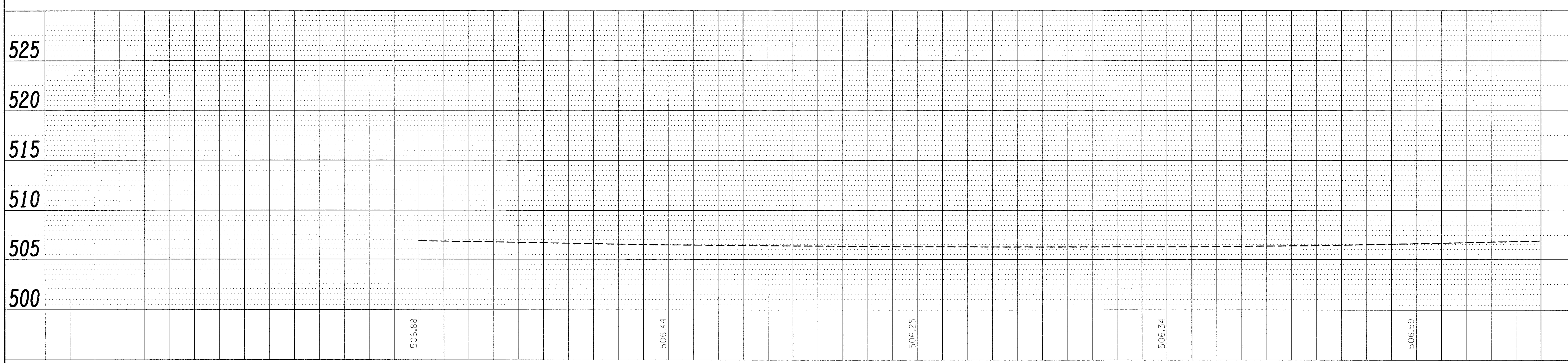
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	7
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





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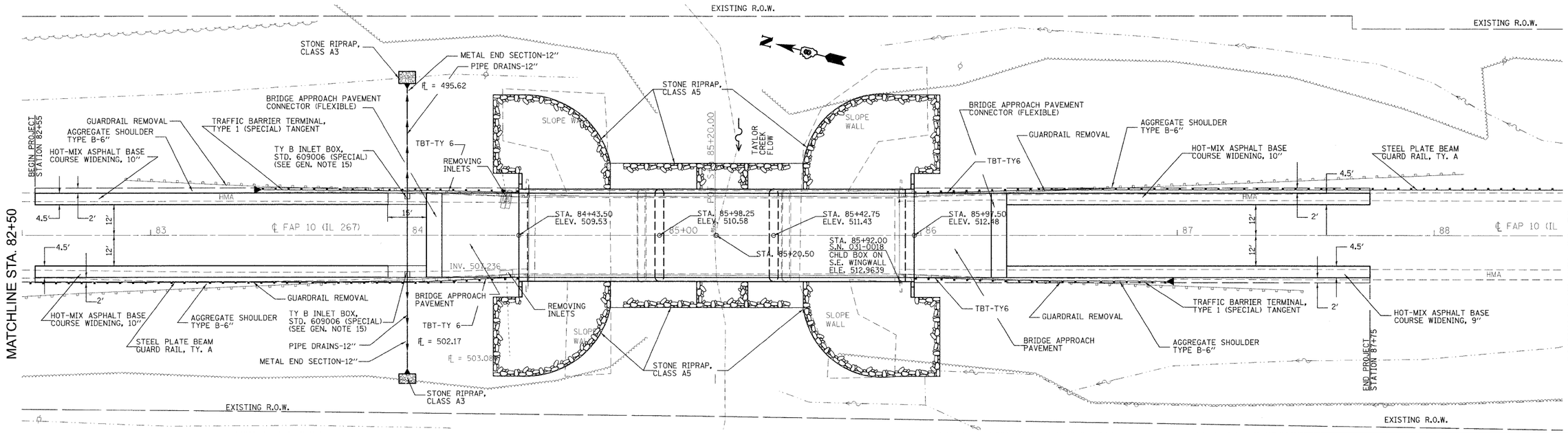
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

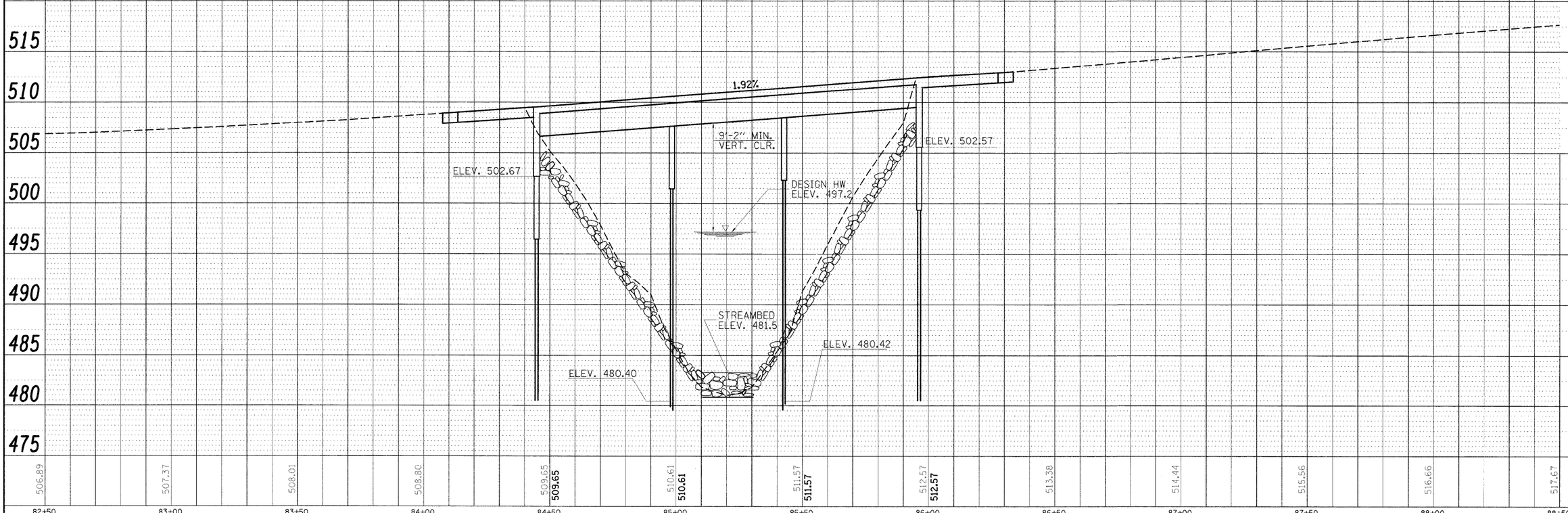
PLAN VIEW

SCALE: 20 = 1" SHEET NO. OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	8
		CONTRACT NO. 76B58		

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





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PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, ALIGNMENT CHECKED, STRUCTURE NO'S ATN'S CH'KD, NOTE BOOK, NO., BY, DATE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN VIEW

SCALE: 20 = 1" | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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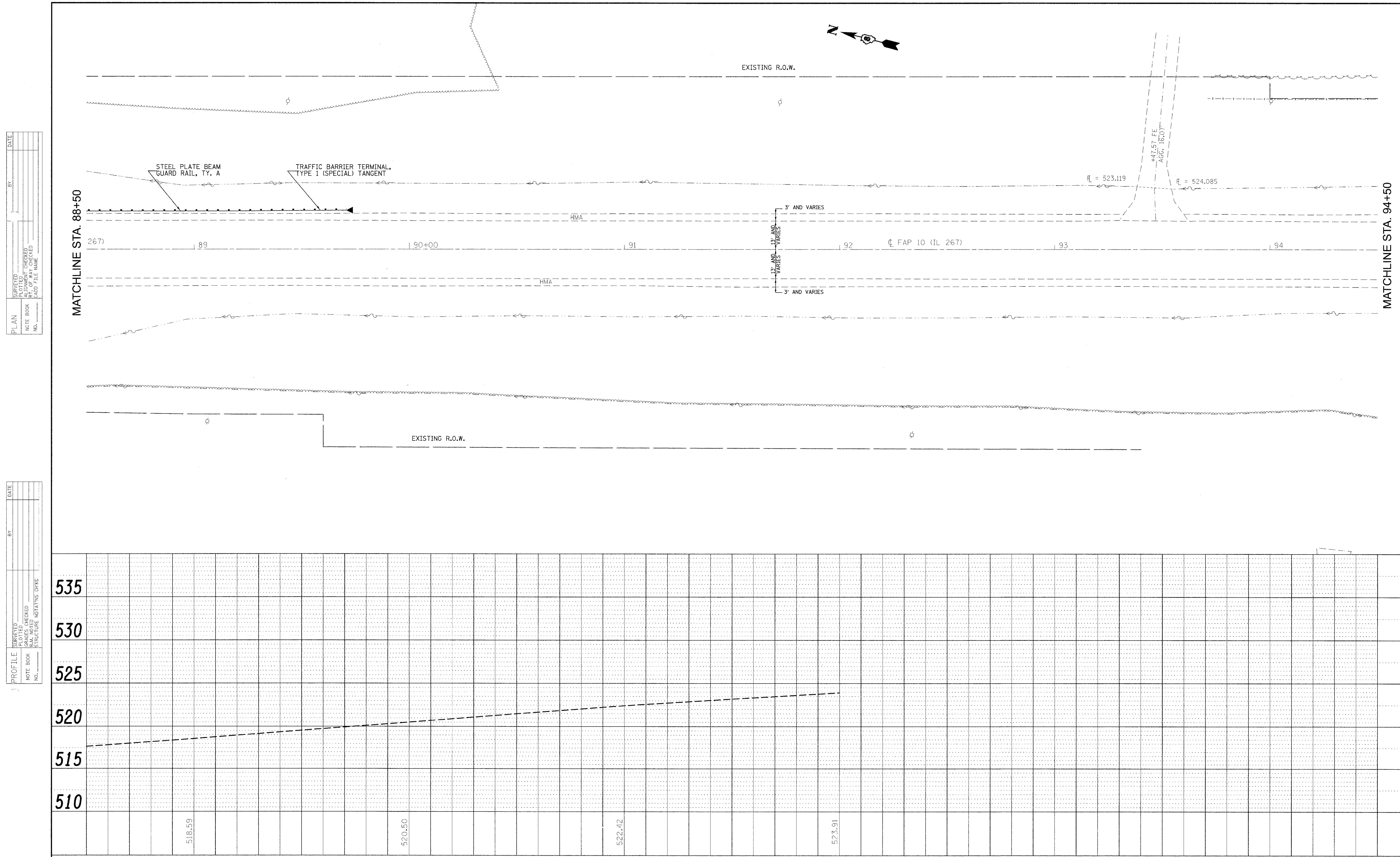
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN VIEW

SCALE: 20 = 1" | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	42	10

CONTRACT NO. 76B58

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

PRESTAGE CONSTRUCTION

1. PRESTAGE CONSTRUCTION SHALL CONSIST OF REMOVAL OF THE EXISTING 1′ BITUMINOUS SHOULDER AND 3′ AGGREGATE SHOULDER IN ACCORDANCE WITH SECTION 440 OF THE STANDARD SPECIFICATIONS, REMOVING AND REERECTING EXISTING GUARDRAIL NECESSARY FOR WIDENING ACCORDING TO THE SCHEDULE IN THE PLANS, AND CONSTRUCTION OF THE 4.5′ WIDENING ON THE EAST SIDE OF THE PAVEMENT FOR STAGE 1 TRAFFIC.
2. THE PROPOSED WIDENING SHALL INCLUDE PLACING EARTH EXCAVATION AGAINST WIDENING TO DRAIN. THE WIDENING SHALL CONSIST OF HOT-MIX ASPHALT BASE COURSE WIDENING-10″.
3. TRAFFIC CONTROL FOR THIS WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701326. ONE LANE OF TRAFFIC IN BOTH DIRECTIONS SHALL BE OPEN TO TRAFFIC AT ALL TIMES DURING THE PRESTAGE CONSTRUCTION.

STAGE 1 CONSTRUCTION

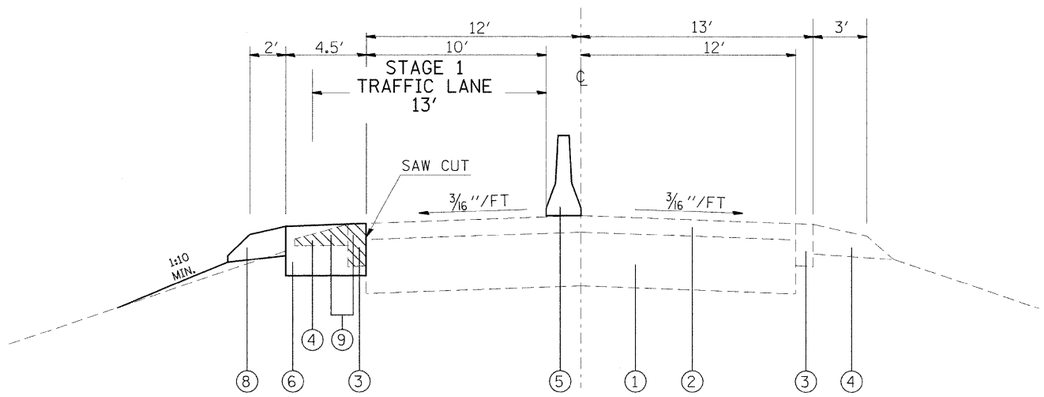
1. STAGE 1 CONSTRUCTION SHALL CONSIST OF REMOVING THE EXISTING 1′ BITUMINOUS SHOULDER AND 3′ AGGREGATE SHOULDER, AND CONSTRUCTION OF THE 4.5′ WIDENING ON THE WEST SIDE OF THE PAVEMENT FOR STAGE 2 TRAFFIC, REMOVAL OF THE EXISTING PAVEMENT NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED STRUCTURE, STAGE 1 REMOVAL OF THE EXISTING STRUCTURE, STAGE 1 CONSTRUCTION OF THE PROPOSED STRUCTURE AND PLACEMENT OF THE RIPRAP WEST OF THE STRUCTURE TO THE LIMITS SHOWN IN THE PLANS.
2. REMOVAL OF THE EXISTING BITUMINOUS AND AGGREGATE SHOULDERS SHALL BE DONE IN ACCORDANCE WITH SECTION 440 OF THE STANDARD SPECIFICATIONS.
3. THE PROPOSED WIDENING SHALL INCLUDE PLACING EARTH EXCAVATION AGAINST WIDENING TO DRAIN. THE WIDENING SHALL CONSISTS OF HOT-MIX ASPHALT BASE COURSE WIDENING-10″.
4. TRAFFIC CONTROL FOR STAGE 1 SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARD 701321. ANY ADDITIONAL SIGNING OR TRAFFIC CONTROL DEVICES SHOWN IN THE STAGE CONSTRUCTION PLANS SHALL BE CONSIDERED AS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION 701321.

STAGE 2 CONSTRUCTION

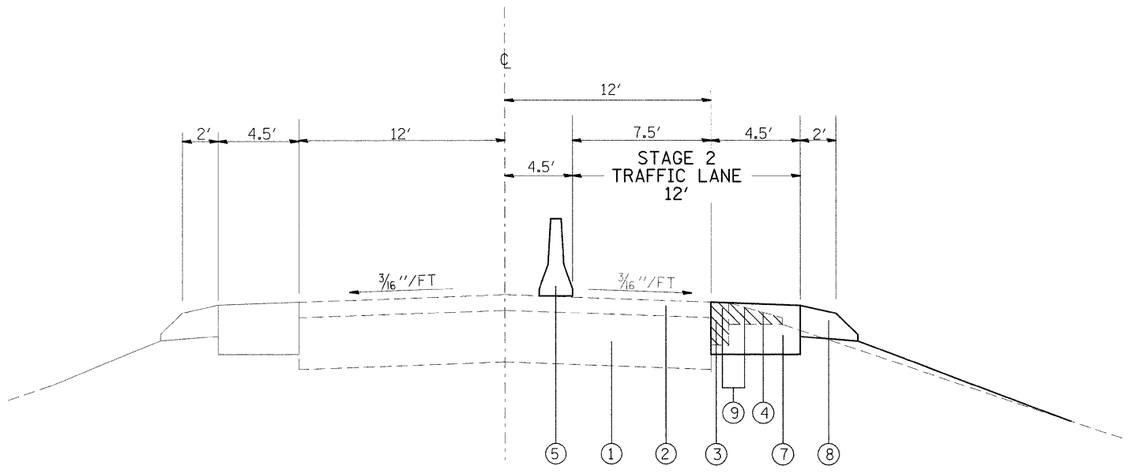
1. STAGE 2 CONSTRUCTION SHALL CONSIST OF REMOVAL OF THE EXISTING PAVEMENT NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED STRUCTURE. STAGE 2 REMOVAL OF THE EXISTING STRUCTURE, STAGE 2 CONSTRUCTION OF THE PROPOSED STRUCTURE AND PLACEMENT OF THE RIPRAP TO THE LIMITS SHOWN IN THE PLANS. STAGE 2 REMOVAL AND CONSTRUCTION OF THE STRUCTURE SHALL BE DONE ACCORDING TO THE STAGE CONSTRUCTION AS DETAILED IN THE PLANS.
2. THE PROPOSED WIDENING SHALL CONSIST OF HOT-MIX ASPHALT BASE COURSE WIDENING-10″.
3. TRAFFIC CONTROL FOR STAGE 2 SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARD 701321. ANY ADDITIONAL SIGNING OR TRAFFIC CONTROL DEVICES SHOWN IN THE STAGE CONSTRUCTION PLANS SHALL BE CONSIDERED AS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION 701321.

NOTES:

1. THE BOTTOM 6″ OF THE TEMPORARY CONCRETE BARRIER SHALL BE PAINTED WITH TEMPORARY PAVEMENT MARKING "YELLOW". THE COST FOR THIS SHALL BE CONSIDERED AS INCLUDED IN THE COST OF TEMPORARY CONCRETE BARRIER.
2. ALL CONFLICTING PAVEMENT MARKING SHALL BE REMOVED PRIOR TO PLACING PAVEMENT MARKING NECESSARY FOR STAGE CONSTRUCTION. THE COST FOR THIS SHALL BE INCLUDED IN THE APPLICABLE TRAFFIC CONTROL AND PROTECTION STANDARD.
3. THE TEMPORARY BRIDGE SIGNALS SHOWN ON THE PLANS SHALL BE CONSIDERED AS 1 EACH PER INSTALLATION.
4. IF THE CONTRACTOR CHOOSES THE OPTION OF SAND MODULE IMPACT ATTENUATORS THEN THE LAYOUT SHOWN BELOW SHOULD BE USED.
5. THIS PROJECT WILL REQUIRE TEMPORARY RUMBLE STRIP.



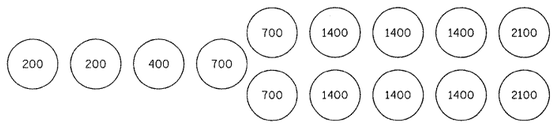
STAGE 1 TRAFFIC



STAGE 2 TRAFFIC

LEGEND

1. EXISTING PCC PAVEMENT
2. EXISTING RESURFACING
3. EXISTING BITUMINOUS SHOULDER
4. EXISTING AGGREGATE SHOULDER
5. TEMPORARY CONCRETE BARRIER
6. PROPOSED WIDENING - PRESTAGE 1 CONSTRUCTION- 10″
7. PROPOSED WIDENING - STAGE 1 CONSTRUCTION- 10″
8. PROPOSED AGGREGATE SHOULDER - 6″
9. PROPOSED BITUMINOUS AND AGGREGATE SHOULDER REMOVAL



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

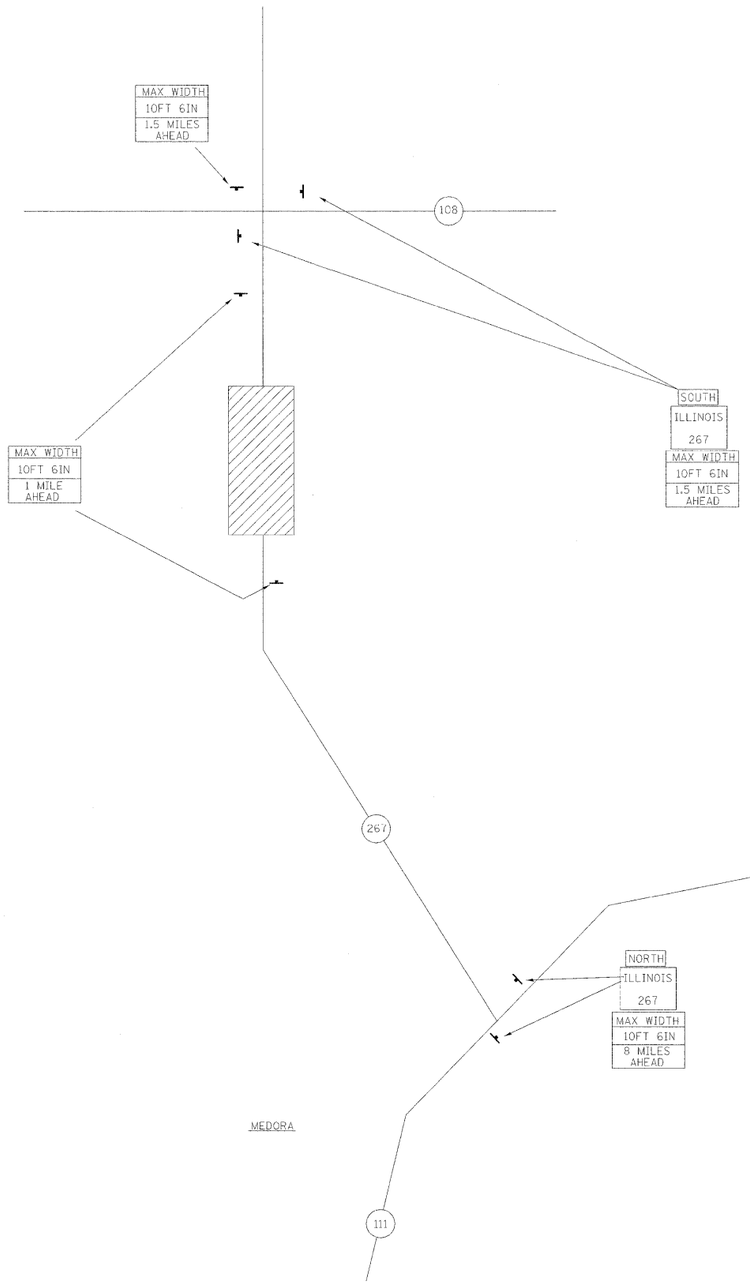
STAGE 1 CONCTRUCTION

SCALE: 20 = 1″ | SHEET NO. OF SHEETS | STA. 70+50 | TO STA. 76+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	11
		CONTRACT NO. 76B58		
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 LOCATION SHOWN ON THIS SHEET, AS DIRECTED BY THE RE/RT. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL THE GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS A TWO WEEK NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE TM 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 LOADING 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 NOT BE LESS THAN 6'.



SIGNS REQUIRED

MAX WIDTH 10FT 6IN 1 MILE AHEAD (2)	NORTH (2)
MAX WIDTH 10FT 6IN 1.5 MILES AHEAD (3)	SOUTH (2)
MAX WIDTH 10FT 6IN 8 MILES AHEAD (2)	ILLINOIS 267 (4)

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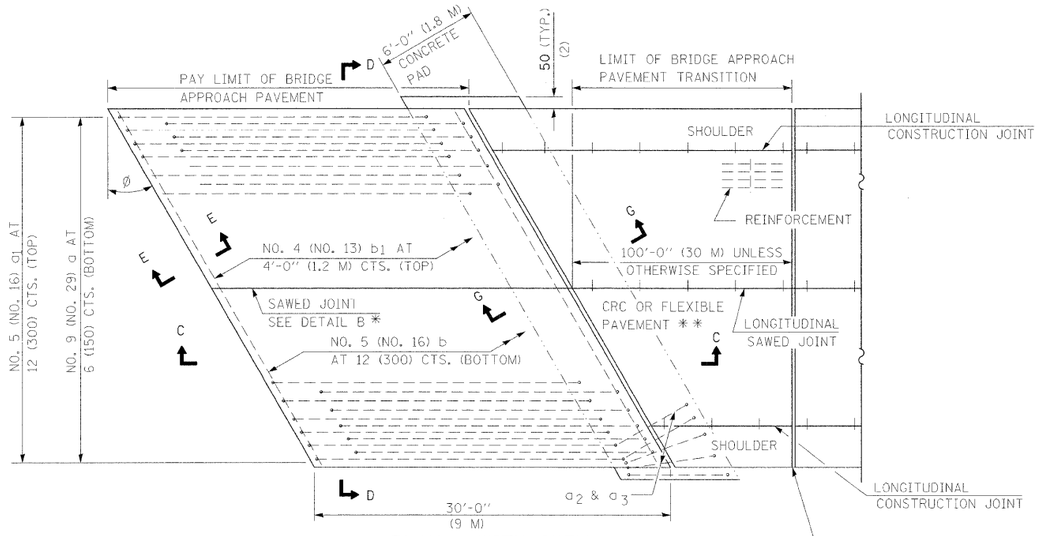
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDE LOAD SIGNING

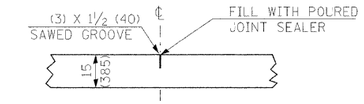
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	12
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NEW CONSTRUCTION

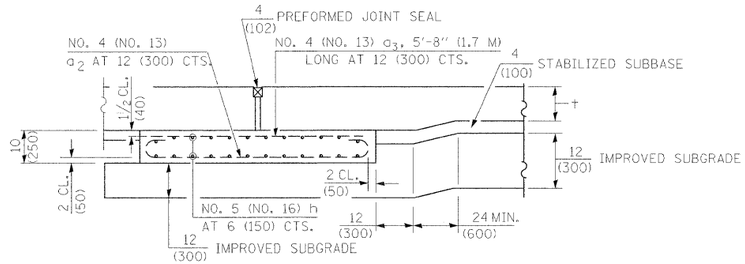


PLAN - WITH SKEW



DETAIL B *

(REINFORCEMENT NOT SHOWN)

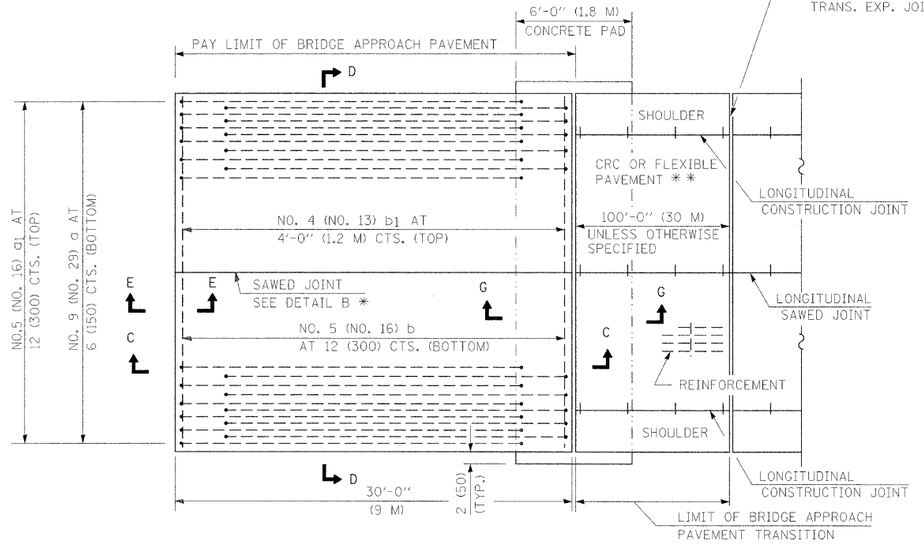


SECTION G-G - RIGID PAVEMENT

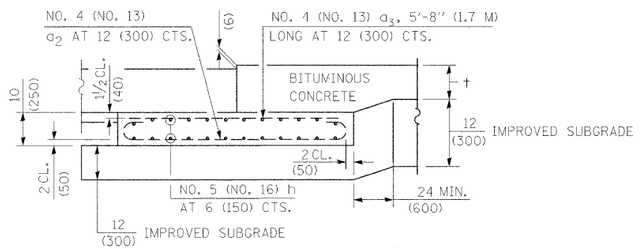
(SHOWING REINFORCEMENT)

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.



PLAN - WITHOUT SKEW



SECTION G-G - FLEXIBLE PAVEMENT

(SHOWING REINFORCEMENT)

* 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.

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.

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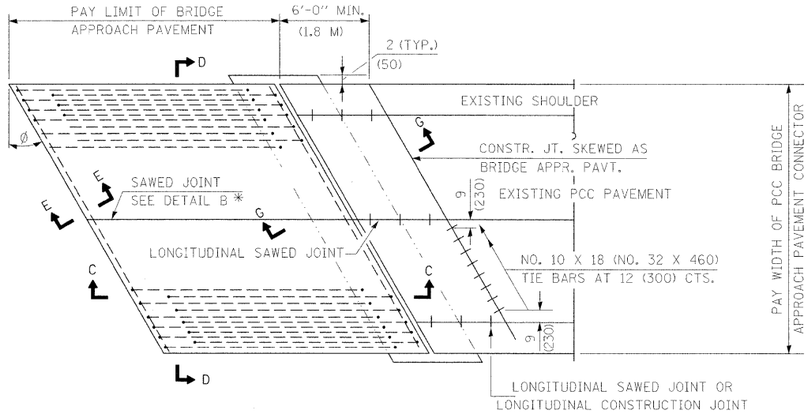
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH PAVEMENT DETAIL

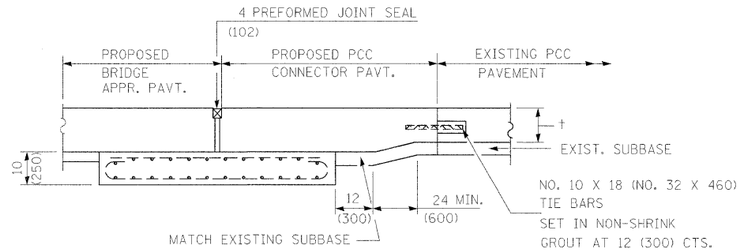
SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	12A
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

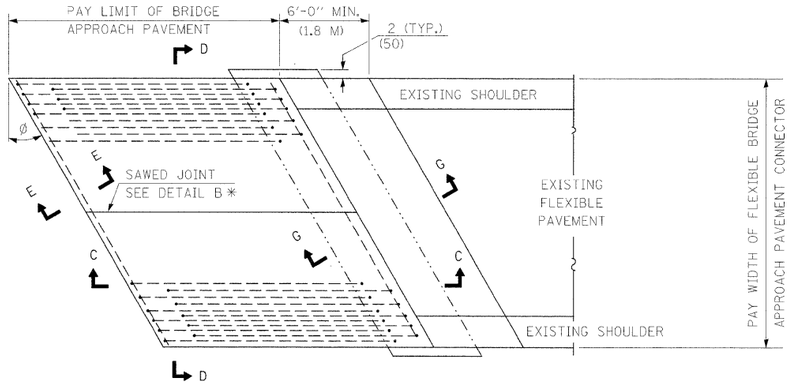
EXISTING CONSTRUCTION



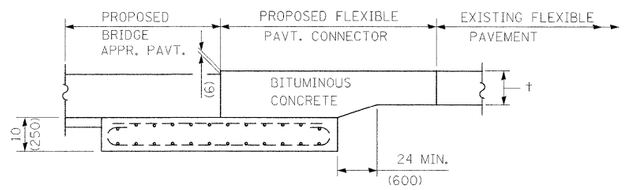
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



SECTION G-G - RIGID PAVEMENT



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



SECTION G-G - FLEXIBLE PAVEMENT

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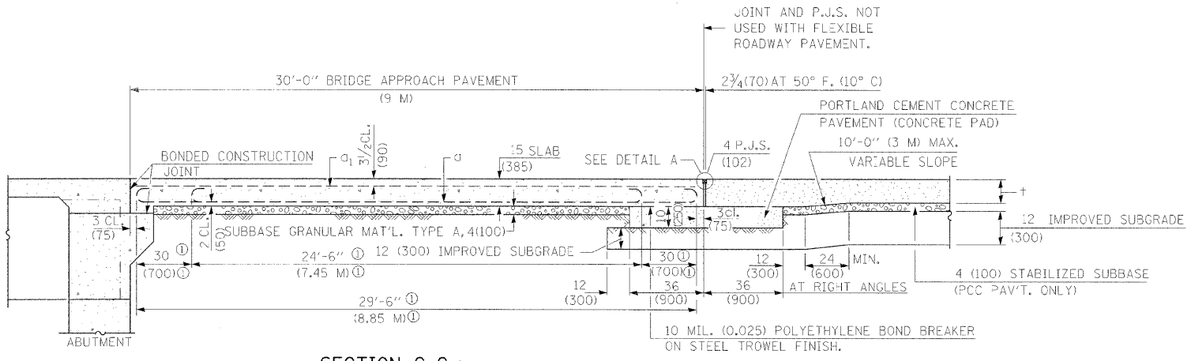
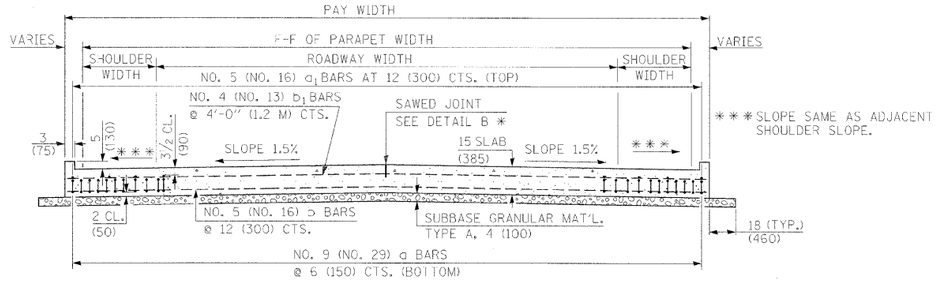
	PLOT SCALE = 20.0000 ' / IN.	DRAWN -	REVISED -			10	410BR-1	GREENE	37	12B
	PLOT DATE = 10/16/2008	CHECKED -	REVISED -					CONTRACT NO. 76B58		
		DATE -	REVISED -		SCALE: SHEET NO. 2 OF 4 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



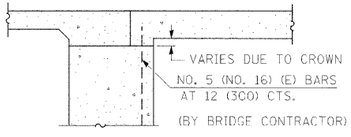
SECTION C-C

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



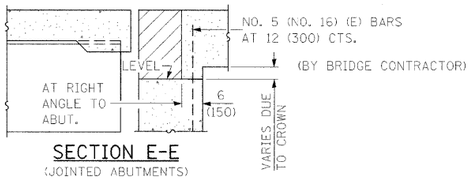
SECTION D-D

(SEE PLAN FOR DIMENSIONS NOT SHOWN)



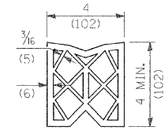
SECTION E-E

(INTEGRAL ABUTMENTS)

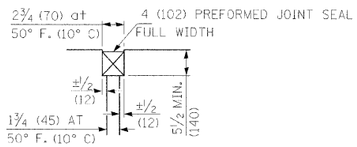


SECTION E-E

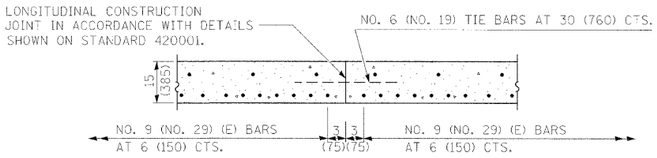
(JOINTED ABUTMENTS)



PREFORMED JOINT SEAL

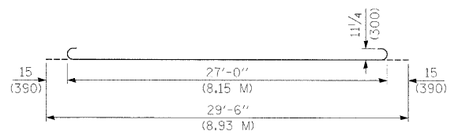


DETAIL A

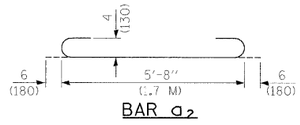


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

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



BAR a_2

DESIGN STRESSES

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

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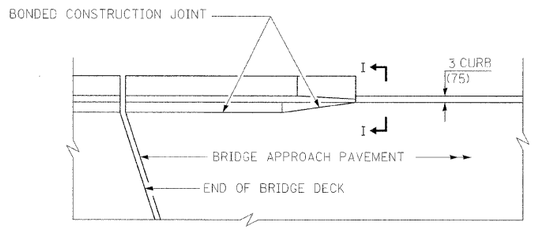
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

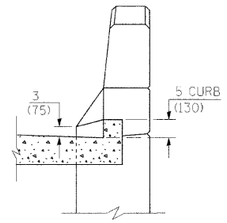
BRIDGE APPROACH PAVEMENT DETAIL

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

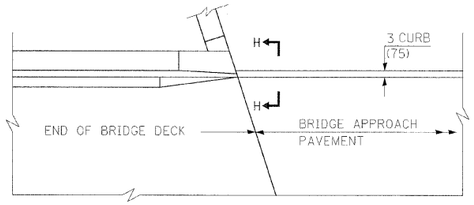
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	12C
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT



SECTION I - I



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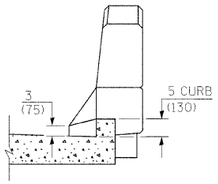
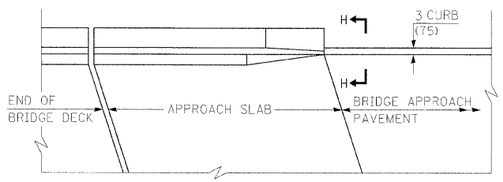
INTEGRAL ABUTMENT



SECTION H - H



PARAPET TO CURB TRANSITION
VAULTED ABUTMENT

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	PLOT DATE = 10/16/2008	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.
10	410BR-1	GREENE	37	12D
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DESIGN DETAIL BR-D-5

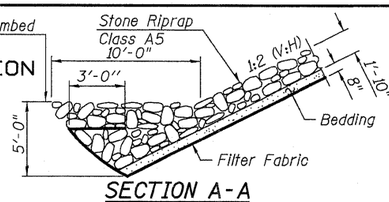
B.M. 151: Chiseled box on SE wingwall of SN 031-0018, Sta. 85+92, 18.2' Left, Elev. 512.96.

EXISTING STRUCTURE: S.N. 031-0018, originally constructed in 1952 as FA Route 164 Sec. 410-B at Station 85+20.00, using cast-in-place concrete deck beams with 7" concrete deck, 3 spans, 147'-0" back-back abutments, 35'-8" out-out width, open pile bent abutment on concrete piles, wall piers with footings on timber piles, open abutment with footing on timber piles. In 1988 the bridge was repaired, including a concrete deck overlay and new bridge railing.

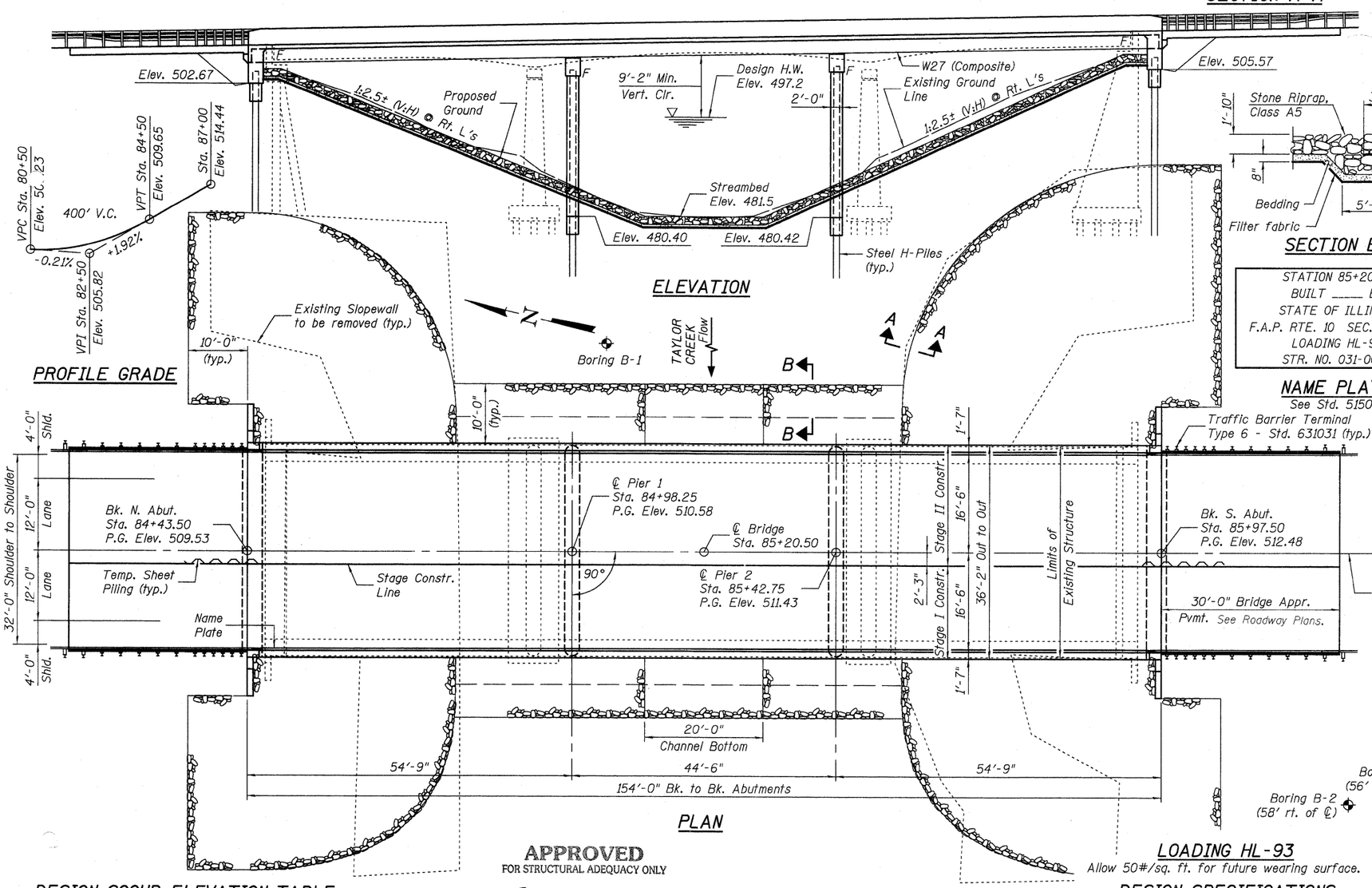
Existing structure shall be removed and replaced using staged construction to maintain one lane of traffic.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION A-A



ELEVATION

PROFILE GRADE

PLAN

SECTION B-B

STATION 85+20.50
BUILT ____ BY
STATE OF ILLINOIS
F.A.P. RTE. 10 SEC. 410BR-1
LOADING HL-93
STR. NO. 031-0043

NAME PLATE

See Std. 515001

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $\frac{7}{8}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.

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

Calculated weight of Structural Steel = 89040 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 $\frac{1}{8}$ 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	--	98	98
Stone Riprap, Class A5	Sq Yd	--	1661	1661
Filter Fabric	Sq Yd	--	1661	1661
Removal Of Existing Structures	Each	1	--	1
Slope Wall Removal	Sq Yd	--	1080	1080
Structure Excavation	Cu Yd	--	224	224
Concrete Structures	Cu Yd	--	175.2	175.2
Concrete Superstructure	Cu Yd	191.9	--	191.9
Bridge Deck Grooving	Sq Yd	530	--	530
Concrete Encasement	Cu Yd	--	8.4	8.4
Protective Coat	Sq Yd	694	--	694
Furnishing And Erecting Structural Steel	L Sum	1	--	1
Stud Shear Connectors	Each	2700	--	2700
Reinforcement Bars, Epoxy Coated	Pound	45480	13080	58560
Bar Splicers	Each	552	124	676
Furnishing Steel Piles HP 12x53	Foot	--	1050	1050
Furnishing Steel Piles HP 12x63	Foot	--	1050	1050
Driving Piles	Foot	--	2100	2100
Test Pile Steel HP12x53	Each	--	2	2
Test Pile Steel HP12x63	Each	--	2	2
Pile Shoes	Each	--	24	24
Temporary Sheet Piling	Sq Ft	--	299	299
Name Plates	Each	1	--	1
Anchor Bolts, 1"	Each	--	48	48
Geocomposite Wall Drain	Sq Yd	--	62	62
Pipe Underdrains For Structures 4"	Foot	--	134	134
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.)	N. Abut.	Pier 1	Pier 2	S. Abut.
	502.7	480.4	480.4	505.6

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

WATERWAY INFORMATION

Existing Low Grade Elevation: 506.23 @ Sta. 81+00

Drainage Area = 30.8 sq. mi. Prop. Low Grade Elevation: 506.23 @ Sta. 81+00

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.
Scour	10	4100	533.80	672.72	494.71	1.23	1.12	495.94	495.83
Design	50	6600	737.35	893.34	497.18	2.67	2.51	499.85	499.69
Base	100	7720	806.50	969.48	497.96	3.68	3.46	501.64	501.42
Overtopping									
Max. Calc.	500	10500	972.14	1153.75	499.73	5.54	5.33	505.27	505.06

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications

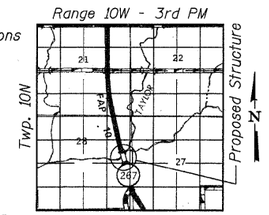
DESIGN STRESSES

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) = 1
Bedrock Acceleration Coefficient (A) = 0.060g
Site Coefficient (S) = 1.0



LOCATION SKETCH

GENERAL PLAN
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 1 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	13
		STA. 85+20.50	CONTRACT NO. 76B58		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: JDQ	DRAWN: P. Ray
CHECKED: DCD	CHECKED: DCD

STATE OF ILLINOIS
DAVID C. DEPP
081-005117
LICENSED
STRUCTURAL ENGINEER

Signed: David Depp
Date: 10-7-2008
Lic. Expires: 11-30-2008

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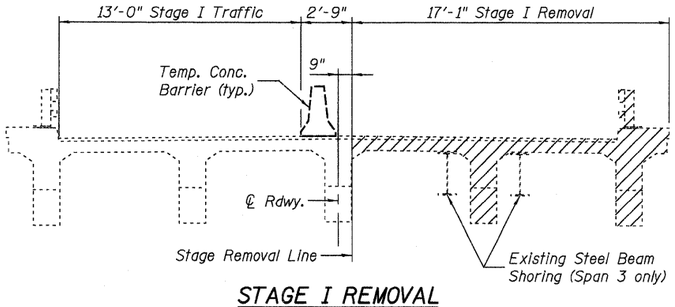
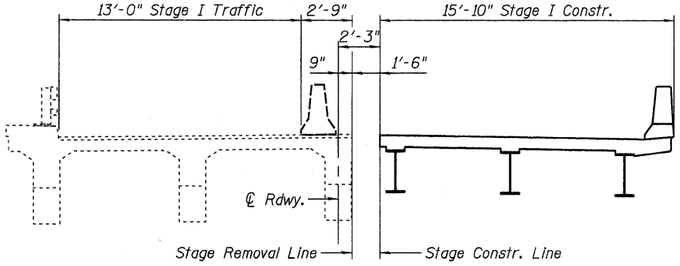
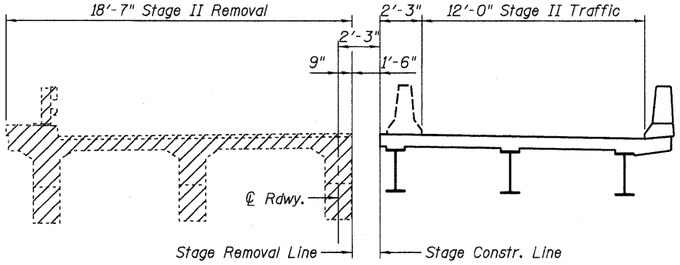
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



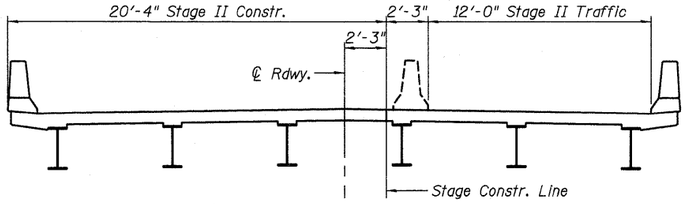
STAGE I REMOVAL
(Looking South)



STAGE I CONSTRUCTION
(Looking South)



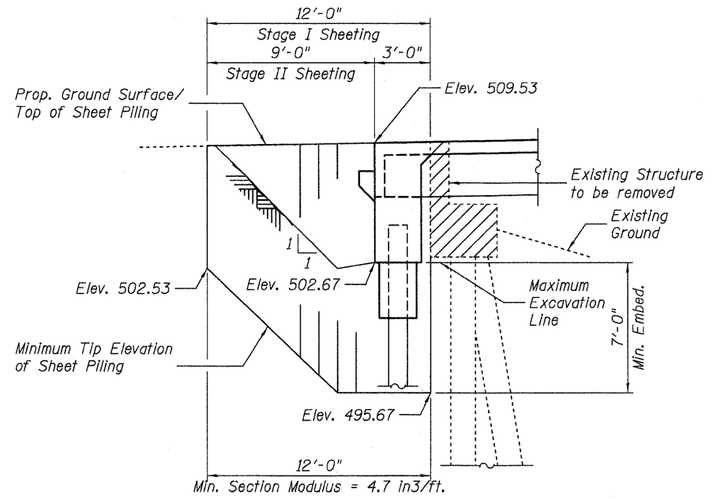
STAGE II REMOVAL
(Looking South)



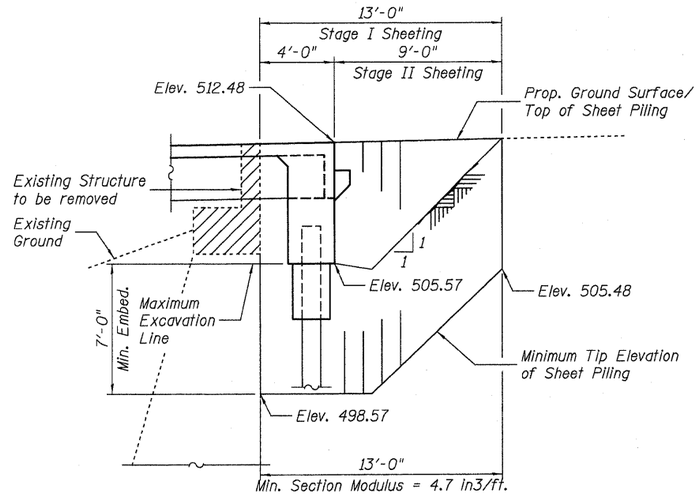
STAGE II CONSTRUCTION
(Looking South)

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.

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



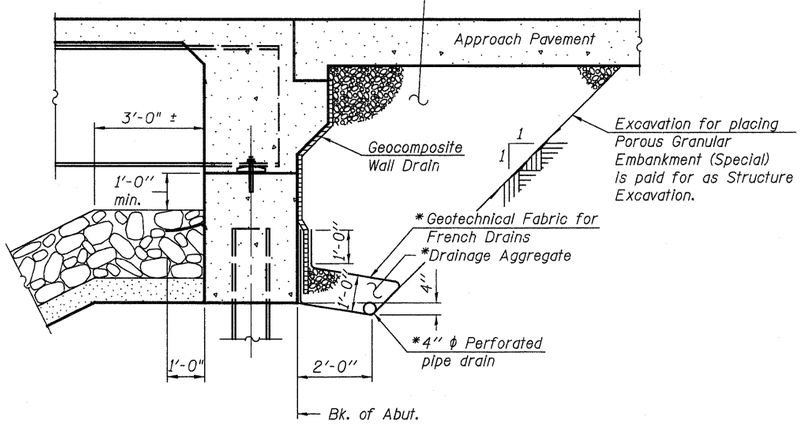
NORTH ABUTMENT



SOUTH ABUTMENT

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

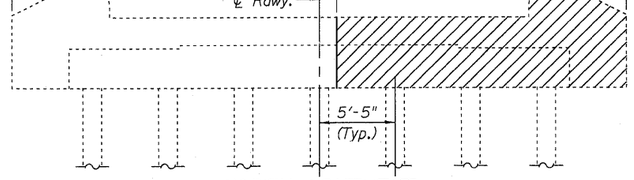
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.



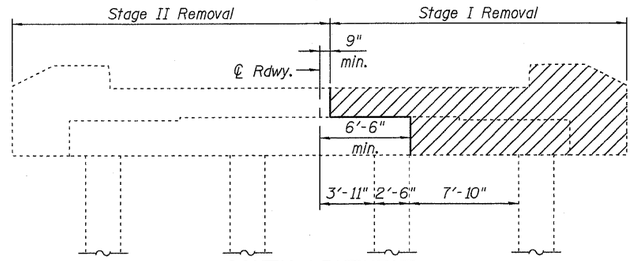
SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

* 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).



NORTH ABUTMENT
(Looking South)



SOUTH ABUTMENT
(Looking South)

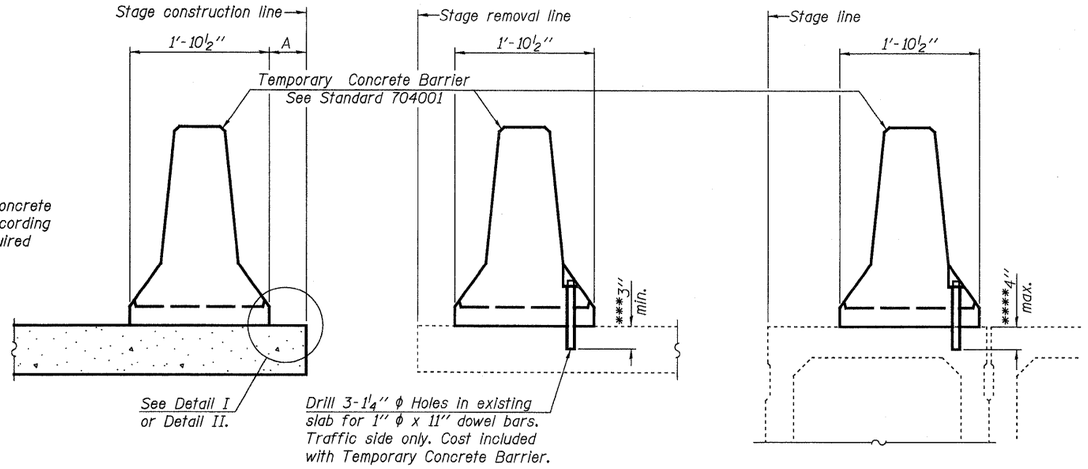
Note:
South Abutment cap must remain supported on 3 columns during Stage I.

STAGE CONSTRUCTION DETAILS
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 2 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	14
		STA. 85+20.50	CONTRACT NO. 76858		
	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 ℙ 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 ℙ 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.

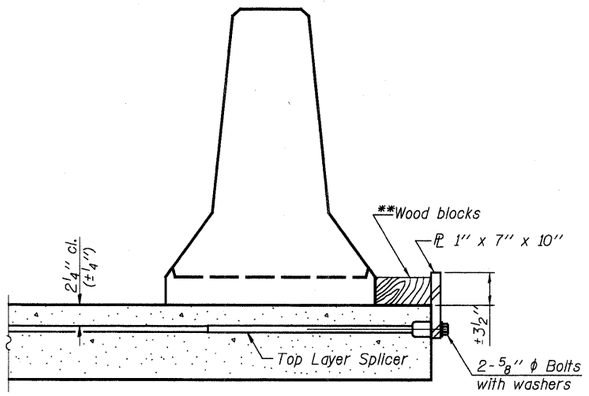
Cost of anchorage is included with Temporary Concrete Barrier.

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.

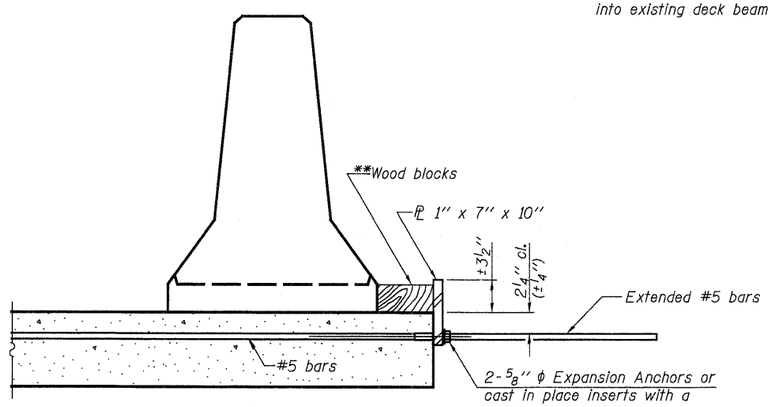
SECTIONS THRU SLAB OR DECK BEAM

***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.

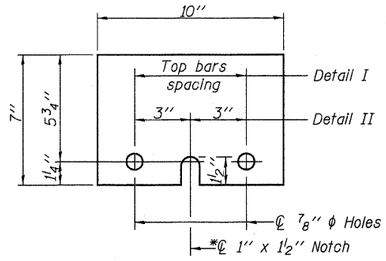


DETAIL I



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 ℙ 1" x 7" x 10"

*Required only with Detail II

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

ILLINOIS 267 OVER
TAYLOR CREEK
STRUCTURE NO. 031-0043

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

R-27 5-16-08

SHEET 3 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	15
		STA. 85+20.50	CONTRACT NO. 76858		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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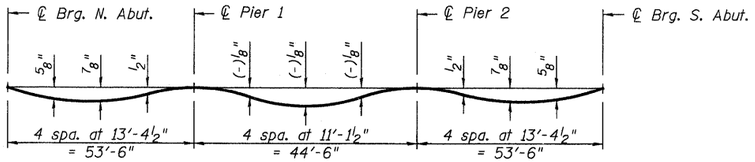
USER: DCD
DATE: 10/07/2008 15:05:54

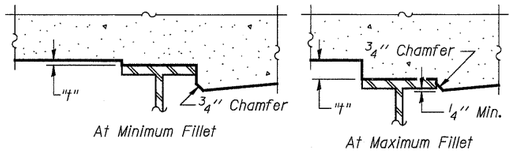


DEAD LOAD DEFLECTION DIAGRAM

(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 3/4" (at midspan 1 & 3).

BEAM 1

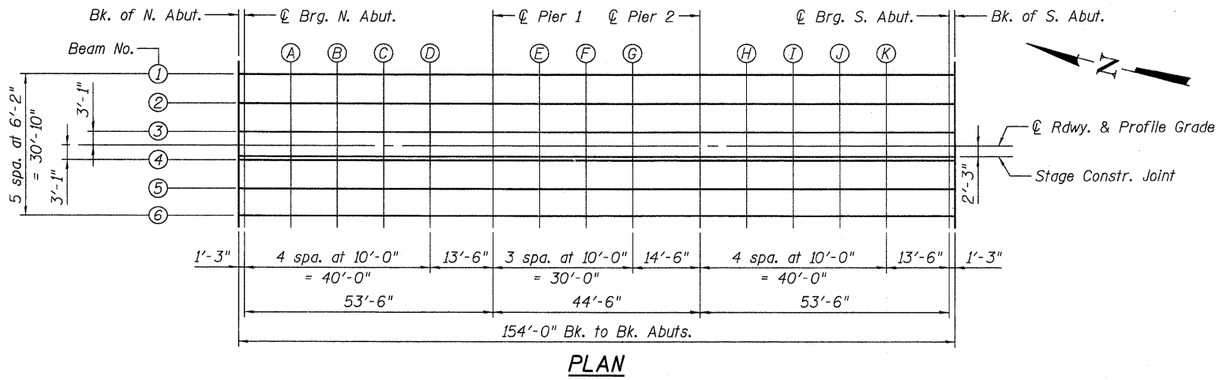
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	84+43.50	-15.42	509.28	509.28
℄ Brg. N. Abut.	84+44.75	-15.42	509.30	509.30
A	84+54.75	-15.42	509.49	509.54
B	84+64.75	-15.42	509.69	509.76
C	84+74.75	-15.42	509.88	509.95
D	84+84.75	-15.42	510.07	510.11
℄ Pier 1	84+98.25	-15.42	510.33	510.33
E	85+08.25	-15.42	510.52	510.51
F	85+18.25	-15.42	510.71	510.70
G	85+28.25	-15.42	510.90	510.89
℄ Pier 2	85+42.75	-15.42	511.18	511.18
H	85+52.75	-15.42	511.37	511.40
I	85+62.75	-15.42	511.56	511.63
J	85+72.75	-15.42	511.75	511.83
K	85+82.75	-15.42	511.95	512.00
℄ Brg. S. Abut.	85+96.25	-15.42	512.20	512.20
Bk. S. Abut.	85+97.50	-15.42	512.23	512.23

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	84+43.50	-9.25	509.39	509.39
℄ Brg. N. Abut.	84+44.75	-9.25	509.41	509.41
A	84+54.75	-9.25	509.60	509.65
B	84+64.75	-9.25	509.79	509.87
C	84+74.75	-9.25	509.99	510.06
D	84+84.75	-9.25	510.18	510.22
℄ Pier 1	84+98.25	-9.25	510.44	510.44
E	85+08.25	-9.25	510.63	510.62
F	85+18.25	-9.25	510.82	510.81
G	85+28.25	-9.25	511.01	511.00
℄ Pier 2	85+42.75	-9.25	511.29	511.29
H	85+52.75	-9.25	511.48	511.51
I	85+62.75	-9.25	511.67	511.74
J	85+72.75	-9.25	511.86	511.94
K	85+82.75	-9.25	512.06	512.11
℄ Brg. S. Abut.	85+96.25	-9.25	512.31	512.31
Bk. S. Abut.	85+97.50	-9.25	512.34	512.34

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	84+43.50	-3.08	509.48	509.48
℄ Brg. N. Abut.	84+44.75	-3.08	509.51	509.51
A	84+54.75	-3.08	509.70	509.74
B	84+64.75	-3.08	509.89	509.96
C	84+74.75	-3.08	510.08	510.15
D	84+84.75	-3.08	510.27	510.32
℄ Pier 1	84+98.25	-3.08	510.53	510.53
E	85+08.25	-3.08	510.72	510.71
F	85+18.25	-3.08	510.91	510.90
G	85+28.25	-3.08	511.10	511.09
℄ Pier 2	85+42.75	-3.08	511.38	511.38
H	85+52.75	-3.08	511.57	511.61
I	85+62.75	-3.08	511.76	511.83
J	85+72.75	-3.08	511.96	512.03
K	85+82.75	-3.08	512.15	512.20
℄ Brg. S. Abut.	85+96.25	-3.08	512.41	512.41
Bk. S. Abut.	85+97.50	-3.08	512.43	512.43



PLAN

TOP OF SLAB ELEVATIONS
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 4 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	41OBR-1	GREENE	37	16
		STA. 85+20.50	CONTRACT NO. 76B58		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

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

E-S 5-16-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

℄ RDWY. & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	84+43.50	0.00	509.53	509.53
℄ Brg. N. Abut.	84+44.75	0.00	509.55	509.55
A	84+54.75	0.00	509.74	509.79
B	84+64.75	0.00	509.93	510.00
C	84+74.75	0.00	510.13	510.19
D	84+84.75	0.00	510.32	510.36
℄ Pier 1	84+98.25	0.00	510.58	510.58
E	85+08.25	0.00	510.77	510.76
F	85+18.25	0.00	510.96	510.95
G	85+28.25	0.00	511.15	511.14
℄ Pier 2	85+42.75	0.00	511.43	511.43
H	85+52.75	0.00	511.62	511.65
I	85+62.75	0.00	511.81	511.87
J	85+72.75	0.00	512.00	512.08
K	85+82.75	0.00	512.19	512.25
℄ Brg. S. Abut.	85+96.25	0.00	512.45	512.45
Bk. S. Abut.	85+97.50	0.00	512.48	512.48

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	84+43.50	2.25	509.49	509.49
℄ Brg. N. Abut.	84+44.75	2.25	509.52	509.52
A	84+54.75	2.25	509.71	509.75
B	84+64.75	2.25	509.90	509.97
C	84+74.75	2.25	510.09	510.16
D	84+84.75	2.25	510.28	510.33
℄ Pier 1	84+98.25	2.25	510.54	510.54
E	85+08.25	2.25	510.73	510.72
F	85+18.25	2.25	510.92	510.91
G	85+28.25	2.25	511.12	511.10
℄ Pier 2	85+42.75	2.25	511.39	511.39
H	85+52.75	2.25	511.59	511.62
I	85+62.75	2.25	511.78	511.84
J	85+72.75	2.25	511.97	512.04
K	85+82.75	2.25	512.16	512.22
℄ Brg. S. Abut.	85+96.25	2.25	512.42	512.42
Bk. S. Abut.	85+97.50	2.25	512.44	512.44

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	84+43.50	3.08	509.48	509.48
℄ Brg. N. Abut.	84+44.75	3.08	509.51	509.51
A	84+54.75	3.08	509.70	509.74
B	84+64.75	3.08	509.89	509.96
C	84+74.75	3.08	510.08	510.15
D	84+84.75	3.08	510.27	510.32
℄ Pier 1	84+98.25	3.08	510.53	510.53
E	85+08.25	3.08	510.72	510.71
F	85+18.25	3.08	510.91	510.90
G	85+28.25	3.08	511.10	511.09
℄ Pier 2	85+42.75	3.08	511.38	511.38
H	85+52.75	3.08	511.57	511.61
I	85+62.75	3.08	511.76	511.83
J	85+72.75	3.08	511.96	512.03
K	85+82.75	3.08	512.15	512.20
℄ Brg. S. Abut.	85+96.25	3.08	512.41	512.41
Bk. S. Abut.	85+97.50	3.08	512.43	512.43

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	84+43.50	9.25	509.39	509.39
℄ Brg. N. Abut.	84+44.75	9.25	509.41	509.41
A	84+54.75	9.25	509.60	509.65
B	84+64.75	9.25	509.79	509.87
C	84+74.75	9.25	509.99	510.06
D	84+84.75	9.25	510.18	510.22
℄ Pier 1	84+98.25	9.25	510.44	510.44
E	85+08.25	9.25	510.63	510.62
F	85+18.25	9.25	510.82	510.81
G	85+28.25	9.25	511.01	511.00
℄ Pier 2	85+42.75	9.25	511.29	511.29
H	85+52.75	9.25	511.48	511.51
I	85+62.75	9.25	511.67	511.74
J	85+72.75	9.25	511.86	511.94
K	85+82.75	9.25	512.06	512.11
℄ Brg. S. Abut.	85+96.25	9.25	512.31	512.31
Bk. S. Abut.	85+97.50	9.25	512.34	512.34

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	84+43.50	15.42	509.28	509.28
℄ Brg. N. Abut.	84+44.75	15.42	509.30	509.30
A	84+54.75	15.42	509.49	509.54
B	84+64.75	15.42	509.69	509.76
C	84+74.75	15.42	509.88	509.95
D	84+84.75	15.42	510.07	510.11
℄ Pier 1	84+98.25	15.42	510.33	510.33
E	85+08.25	15.42	510.52	510.51
F	85+18.25	15.42	510.71	510.70
G	85+28.25	15.42	510.90	510.89
℄ Pier 2	85+42.75	15.42	511.18	511.18
H	85+52.75	15.42	511.37	511.40
I	85+62.75	15.42	511.56	511.63
J	85+72.75	15.42	511.75	511.83
K	85+82.75	15.42	511.95	512.00
℄ Brg. S. Abut.	85+96.25	15.42	512.20	512.20
Bk. S. Abut.	85+97.50	15.42	512.23	512.23

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

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

TOP OF SLAB ELEVATIONS
ILLINOIS 267 OVER
TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 5 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	17
	STA. 85+20.50		CONTRACT NO. 76B58		
	FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LEFT CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	84+13.50	-16.92	508.71
A1	84+23.50	-16.92	508.88
B1	84+33.50	-16.92	509.06
Bk. N. Abut.	84+43.50	-16.92	509.25
Bk. S. Abut.	85+97.50	-16.92	512.20
A2	86+07.50	-16.92	512.39
B2	86+17.50	-16.92	512.58
End S. Appr. Pvmt.	86+27.50	-16.92	512.77

LEFT EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	84+13.50	-12.00	508.81
A1	84+23.50	-12.00	508.98
B1	84+33.50	-12.00	509.16
Bk. N. Abut.	84+43.50	-12.00	509.35
Bk. S. Abut.	85+97.50	-12.00	512.30
A2	86+07.50	-12.00	512.49
B2	86+17.50	-12.00	512.68
End S. Appr. Pvmt.	86+27.50	-12.00	512.87

℄ RDWY. & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	84+13.50	0.00	508.99
A1	84+23.50	0.00	509.16
B1	84+33.50	0.00	509.34
Bk. N. Abut.	84+43.50	0.00	509.53
Bk. S. Abut.	85+97.50	0.00	512.48
A2	86+07.50	0.00	512.67
B2	86+17.50	0.00	512.86
End S. Appr. Pvmt.	86+27.50	0.00	513.05

STAGE CONSTRUCTION JOINT

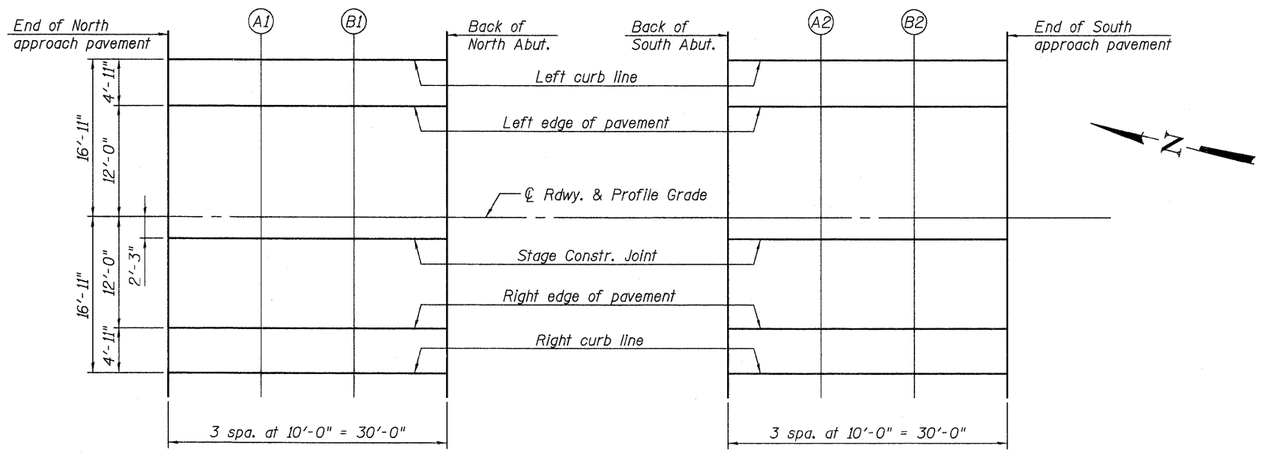
Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	84+13.50	2.25	508.95
A1	84+23.50	2.25	509.13
B1	84+33.50	2.25	509.31
Bk. N. Abut.	84+43.50	2.25	509.49
Bk. S. Abut.	85+97.50	2.25	512.44
A2	86+07.50	2.25	512.63
B2	86+17.50	2.25	512.83
End S. Appr. Pvmt.	86+27.50	2.25	513.02

RIGHT EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	84+13.50	12.00	508.81
A1	84+23.50	12.00	508.98
B1	84+33.50	12.00	509.16
Bk. N. Abut.	84+43.50	12.00	509.35
Bk. S. Abut.	85+97.50	12.00	512.30
A2	86+07.50	12.00	512.49
B2	86+17.50	12.00	512.68
End S. Appr. Pvmt.	86+27.50	12.00	512.87

RIGHT CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	84+13.50	16.92	508.71
A1	84+23.50	16.92	508.88
B1	84+33.50	16.92	509.06
Bk. N. Abut.	84+43.50	16.92	509.25
Bk. S. Abut.	85+97.50	16.92	512.20
A2	86+07.50	16.92	512.39
B2	86+17.50	16.92	512.58
End S. Appr. Pvmt.	86+27.50	16.92	512.77



PLAN

TOP OF APPROACH SLAB ELEVATIONS
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

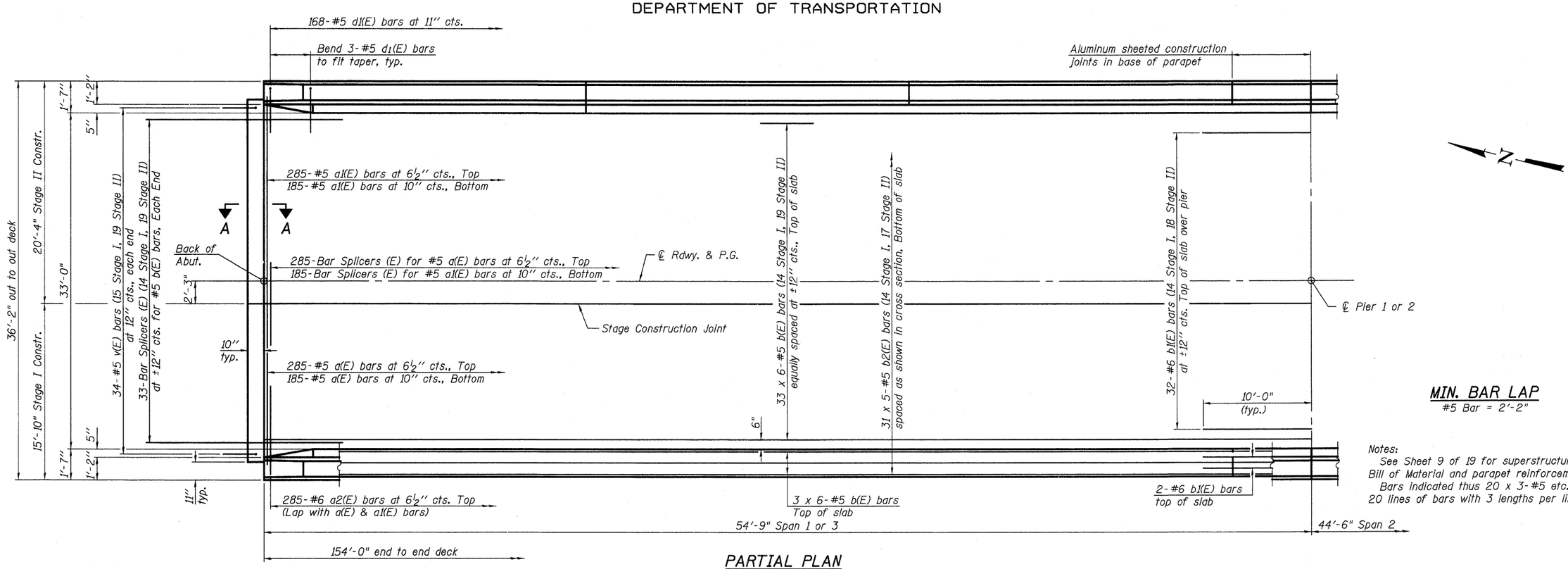
Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

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

E-AS 5-16-08

SHEET 6 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	18
		STA. 85+20.50	CONTRACT NO. 76B58		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

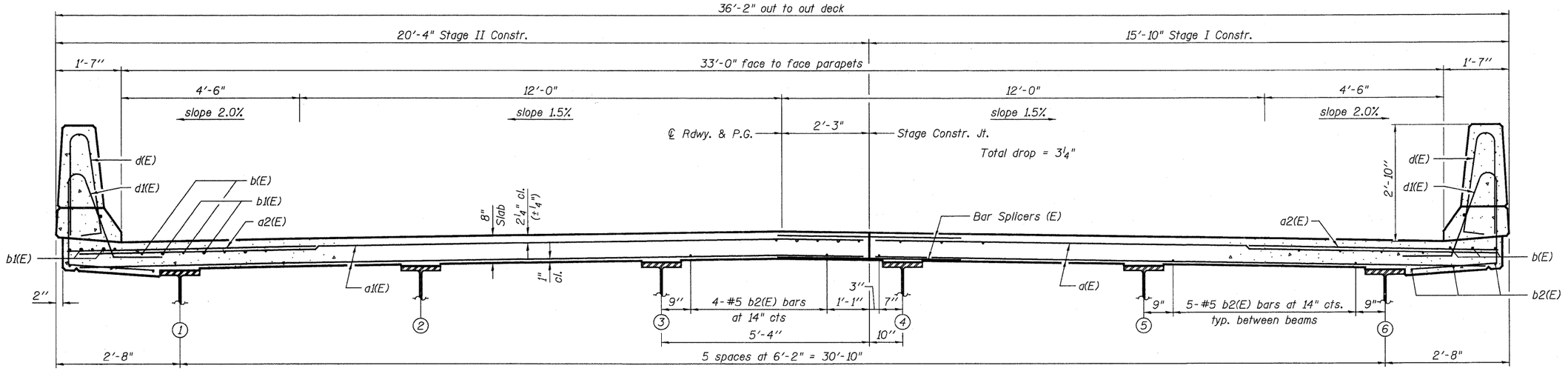
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PARTIAL PLAN

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

Notes:
See Sheet 9 of 19 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 South)

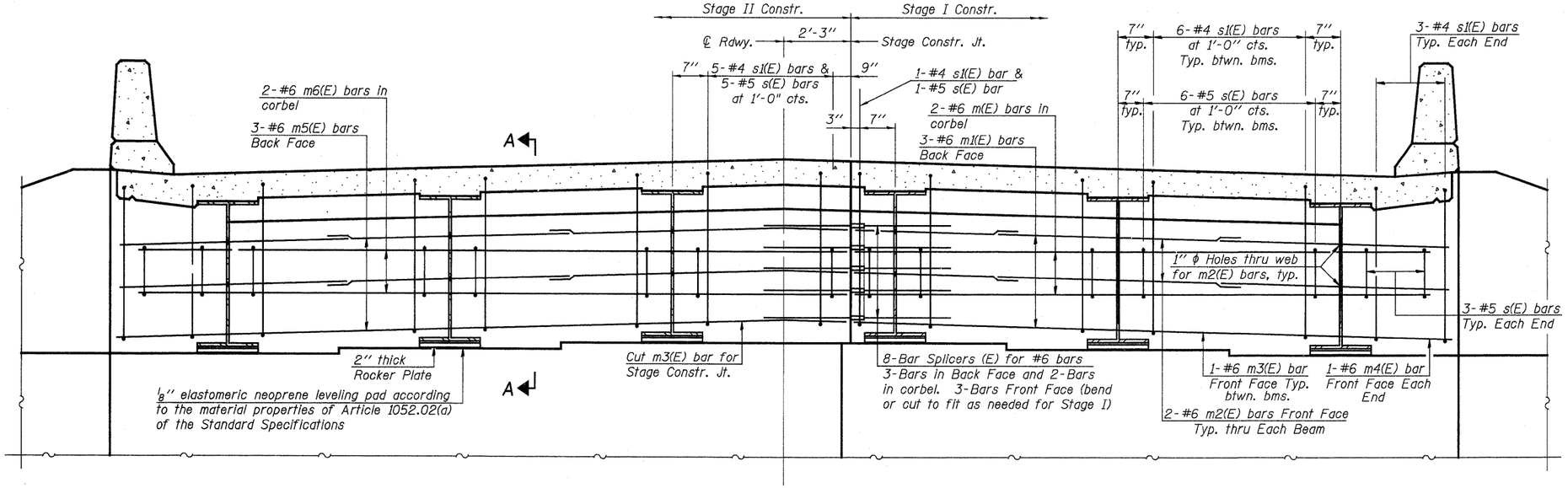
Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	
DESIGNED: JDQ	DRAWN: PTR
CHECKED: DCD	CHECKED: DCD

SI-2-0 5-16-08

SUPERSTRUCTURE
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 7 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	19
		STA. 85+20.50	CONTRACT NO. 76858		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DIAPHRAGM ELEVATION AT ABUTMENT

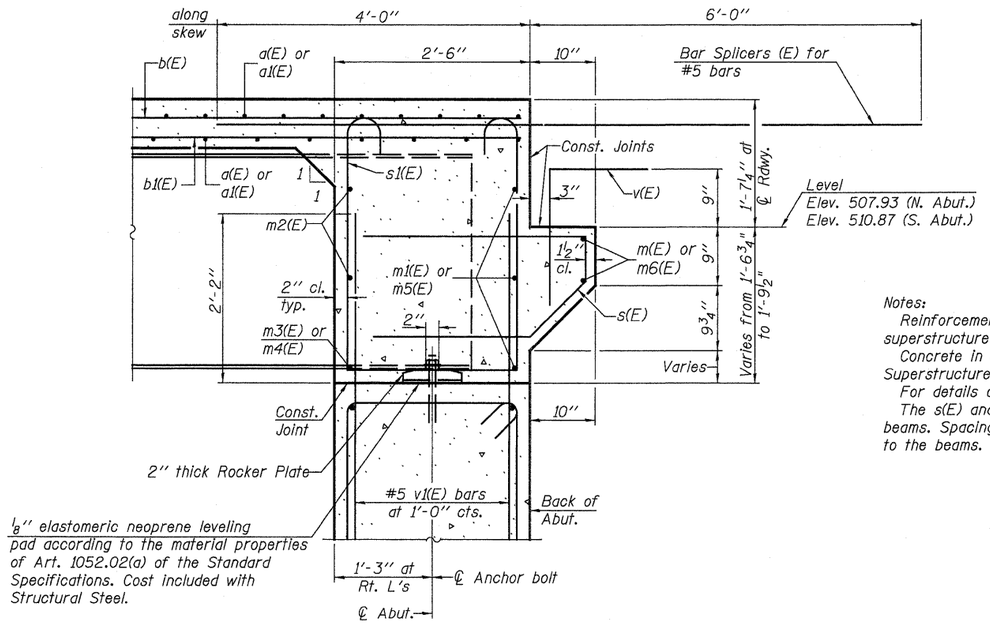
FORM BRACES FOR STAGE CONSTRUCTION

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.



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 19.

Concrete in diaphragm is included with Concrete Superstructure on sheet 9 of 19.

For details of bars s(E) & s1(E) see sheet 9 of 19.

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

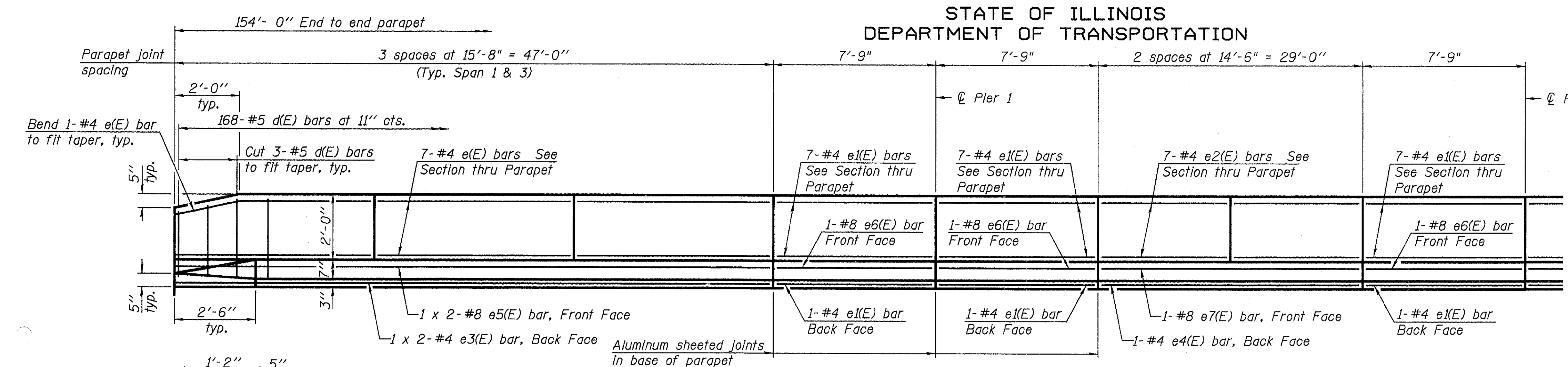
#6 bar = 2'-7"

INTEGRAL ABUTMENT DIAPHRAGM DETAILS
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

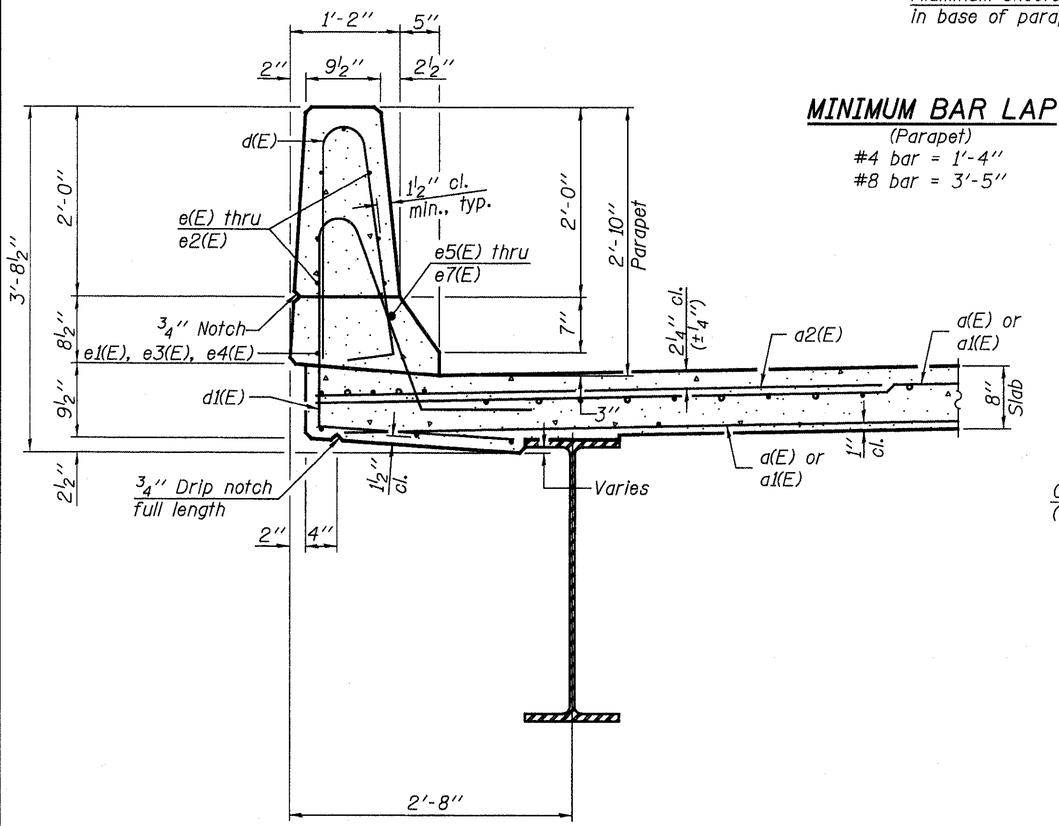
Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois			
DESIGNED: JDQ	DRAWN: PTR		
CHECKED: DCD	CHECKED: DCD		

SI-DS1 5-16-08

SHEET 8 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	20
		STA. 85+20.50	CONTRACT NO. 76858		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



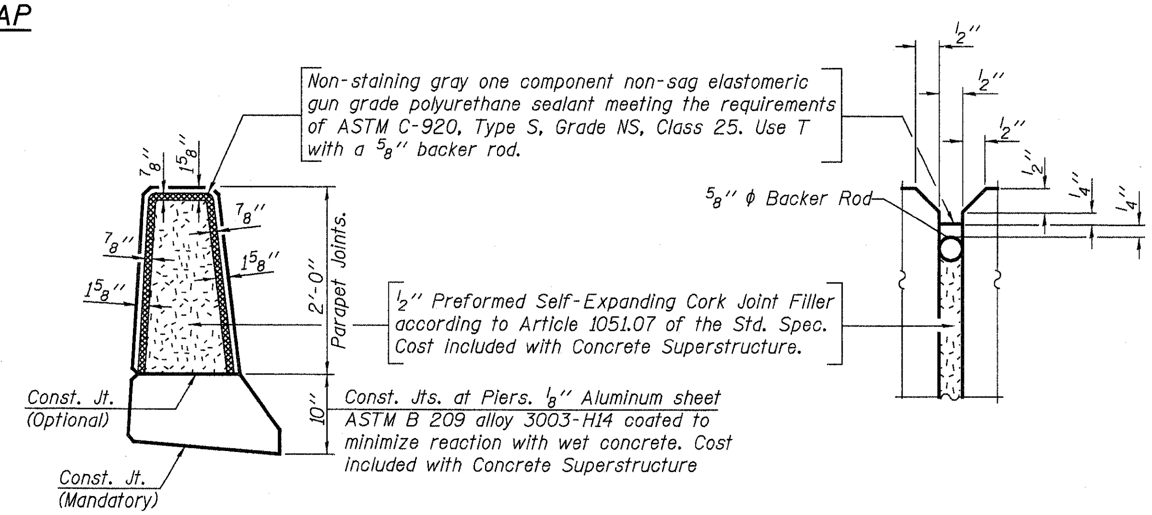
INSIDE ELEVATION OF PARAPET



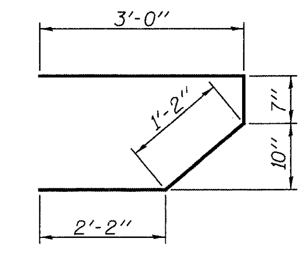
SECTION THRU PARAPET

MINIMUM BAR LAP

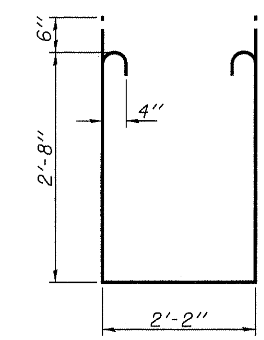
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



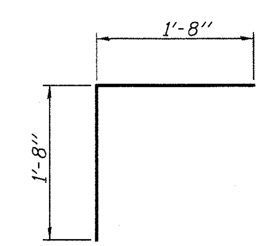
PARAPET JOINT DETAILS



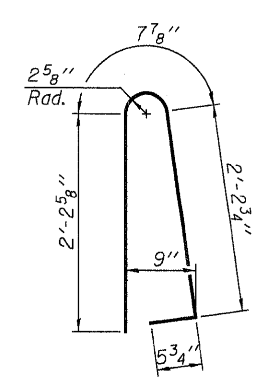
BAR s(E)



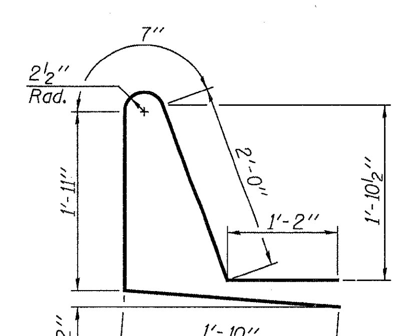
BAR s1(E)



BAR v(E)



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	470	#5	15'-4"	
a1(E)	470	#5	19'-10"	
a2(E)	570	#6	6'-0"	
b(E)	234	#5	27'-5"	
b1(E)	72	#6	20'-0"	
b2(E)	155	#5	32'-6"	
d(E)	336	#5	5'-7"	
d1(E)	336	#5	7'-6	
e(E)	84	#4	15'-4"	
e1(E)	64	#4	7'-5"	
e2(E)	28	#4	14'-2"	
e3(E)	8	#4	24'-0"	
e4(E)	2	#4	28'-8"	
e5(E)	8	#8	25'-1"	
e6(E)	8	#8	7'-5"	
e7(E)	2	#8	28'-8"	
m(E)	4	#6	14'-7"	
m1(E)	6	#6	15'-6"	
m2(E)	12	#6	8'-9"	
m3(E)	10	#6	5'-10"	
m4(E)	4	#6	2'-4"	
m5(E)	6	#6	20'-0"	
m6(E)	4	#6	19'-1"	
s(E)	72	#5	6'-11"	
s1(E)	72	#4	8'-6"	
v(E)	68	#5	3'-4"	
Reinforcement Bars, Epoxy Coated		Pound		45480
Concrete Superstructure		Cu. Yds.		191.9

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

SUPERSTRUCTURE DETAILS
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

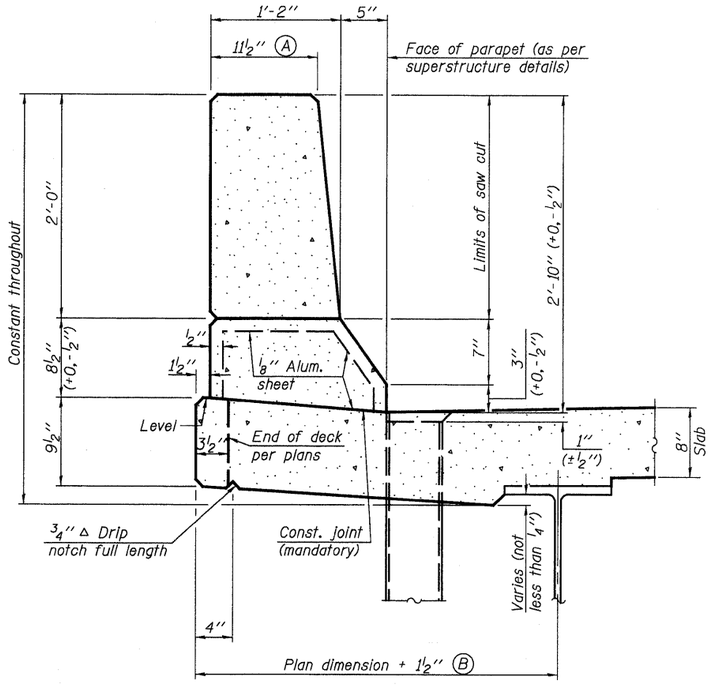
Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

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

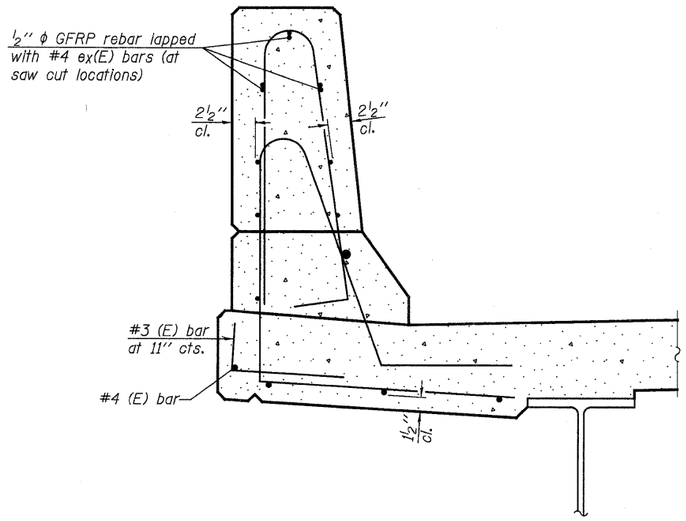
S-I-D 5-16-08

SHEET 9 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	21
		STA. 85+20.50	CONTRACT NO. 76B58		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION
(Showing dimensions)

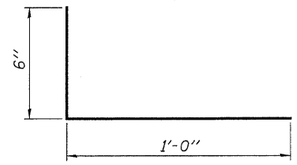


SECTION
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

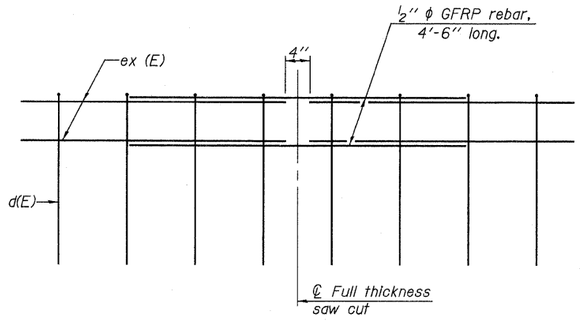
GENERAL NOTES

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 267 OVER
TAYLOR CREEK
STRUCTURE NO. 031-0043

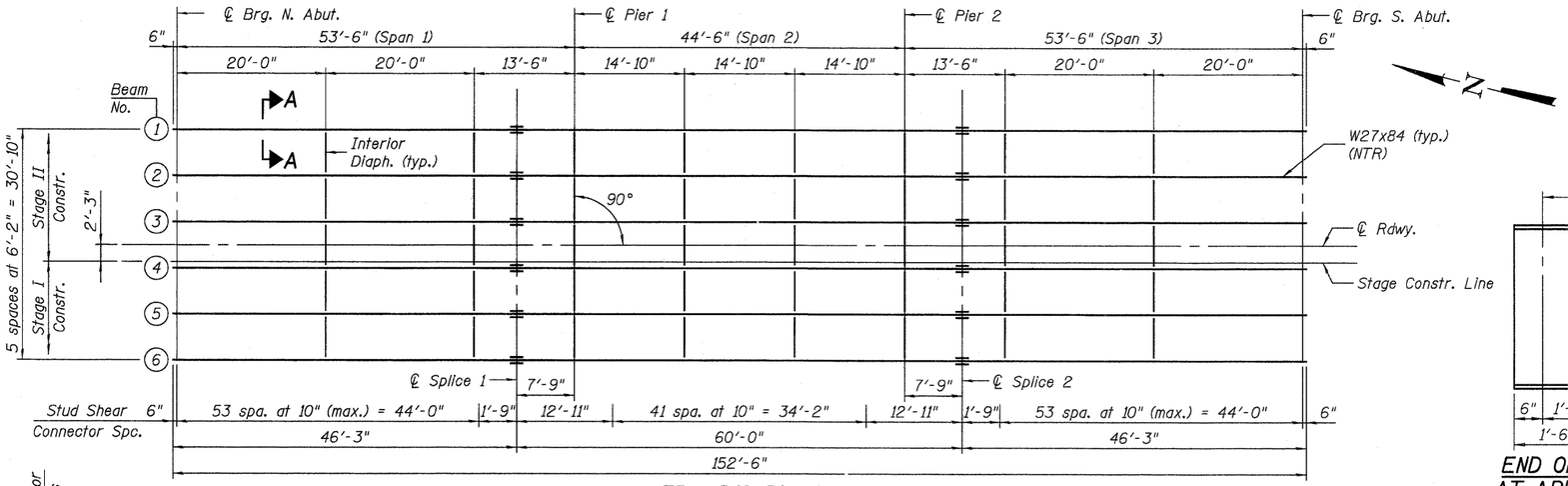
SHEET 10 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	41OBR-1	GREENE	37	22
	STA. 85+20.50		CONTRACT NO. 76858		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

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

SFP-34 5-16-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

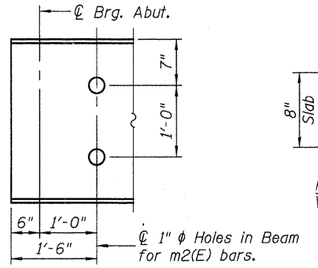


FRAMING PLAN

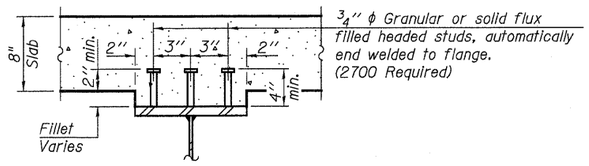
TOP OF BEAM ELEVATIONS*

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
℄ Brg. N. Abut.	508.59	508.70	508.80	508.80	508.70	508.59
℄ Splice 1	509.43	509.54	509.63	509.63	509.54	509.43
℄ Pier 1	509.58	509.69	509.78	509.78	509.69	509.58
℄ Pier 2	510.43	510.54	510.63	510.63	510.54	510.43
℄ Splice 2	510.58	510.69	510.78	510.78	510.69	510.58
℄ Brg. S. Abut.	511.50	511.61	511.70	511.70	511.61	511.50

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



END OF BEAM AT ABUTMENTS



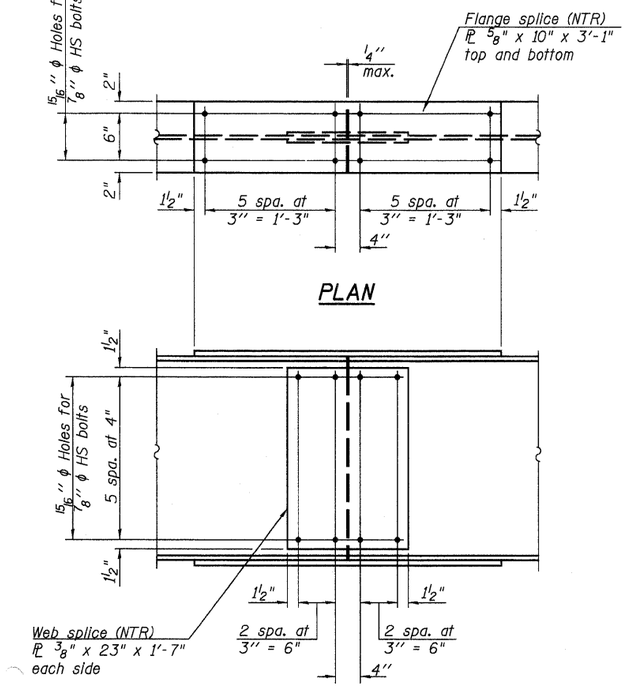
SECTION A-A

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)	176	182	-2
DC2	(k/')	0.150	0.150	0.150
M_{DC2}	('k)	41	28	10
DW	(k/')	0.275	0.275	0.275
M_{DW}	('k)	74	51	17
M_{L+IM}	('k)	566	274	391
M_u (Strength I)	('k)	1373	819	720
* $\phi_f M_n$, $\phi_f M_{nc}$	('k)	1773	973	1773
f_s DC1	(ksi)	9.9	10.3	-0.1
f_s DC2	(ksi)	1.7	1.6	0.4
f_s DW	(ksi)	3.0	2.9	0.7
f_s 1.3(L+IM)	(ksi)	27.0	20.1	18.7
f_s (Service II)	(ksi)	41.6	34.9	19.7
** f_s (Total)(Strength I)	(ksi)	---	---	---
V_f	(k)	23.4	---	20.6

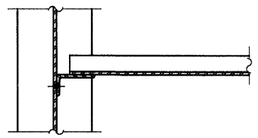
* Compact sections
** Non-Compact and slender sections

INTERIOR GIRDER REACTION TABLE		Abut.	Pier
R_{DC1}	(k)	16.0	38.8
R_{DC2}	(k)	3.5	7.9
R_{DW}	(k)	6.4	14.4
R_{L+IM}	(k)	63.0	85.5
R_{Total}	(k)	88.9	146.6

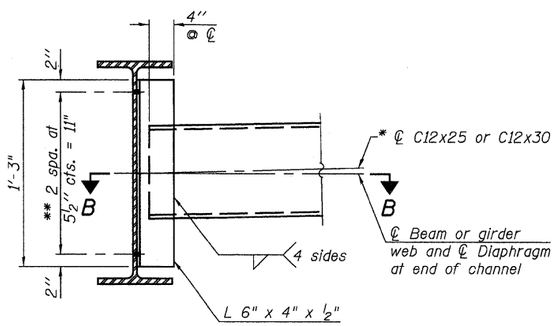
I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).
$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the 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.



SPLICE DETAIL
(12 Required)



SECTION B-B



INTERIOR DIAPHRAGM
(40 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.
** ¾" ϕ HS bolts, 15/16" ϕ holes

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

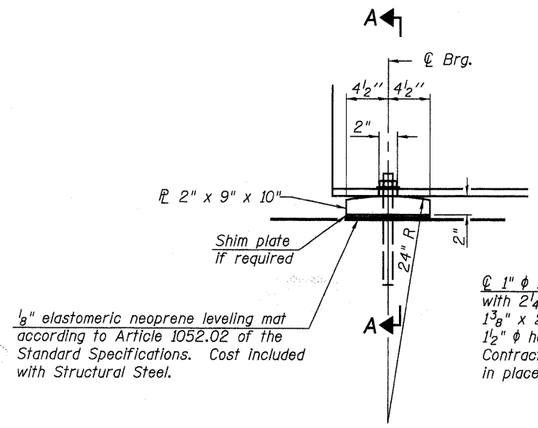
DESIGNED: JDQ	DRAWN: SJS
CHECKED: DCD	CHECKED: DCD

STRUCTURAL STEEL & FRAMING PLAN
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 11 OF 19

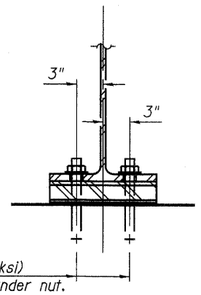
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	23
	STA. 85+20.50	CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

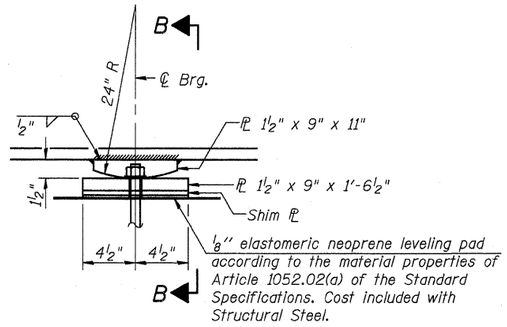


ELEVATION AT ABUTMENT

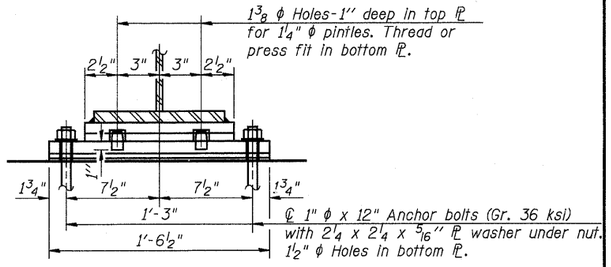
FIXED BEARING



SECTION A-A

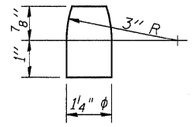


ELEVATION AT PIER



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

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

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

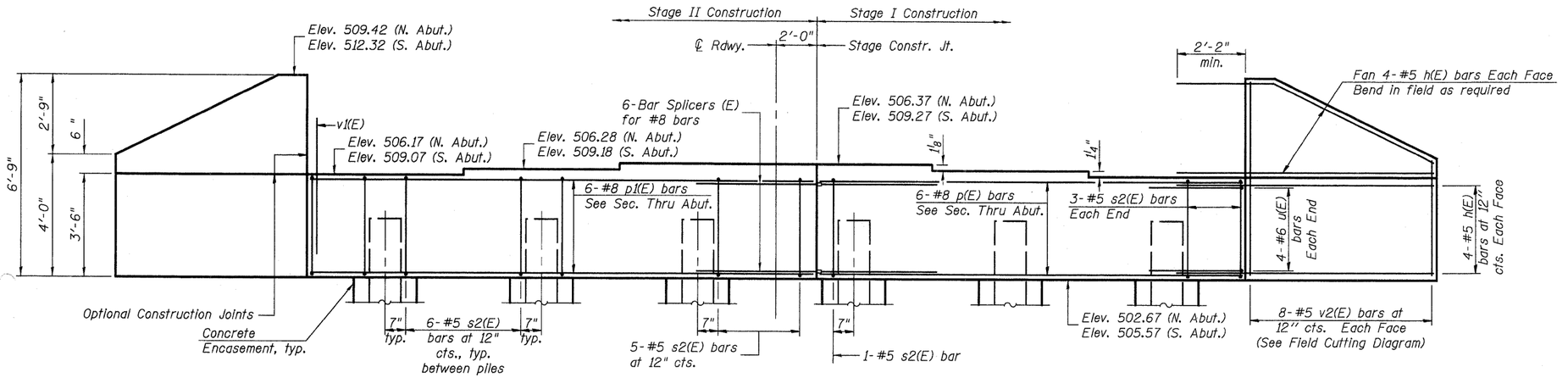
BEARING DETAILS
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 12 OF 19

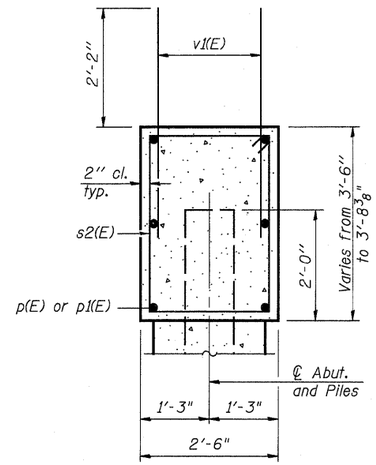
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	24
	STA. 85+20.50	CONTRACT NO. 76858		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Notes: Pour steps monolithically with cap.
Elevations are symmetrical.

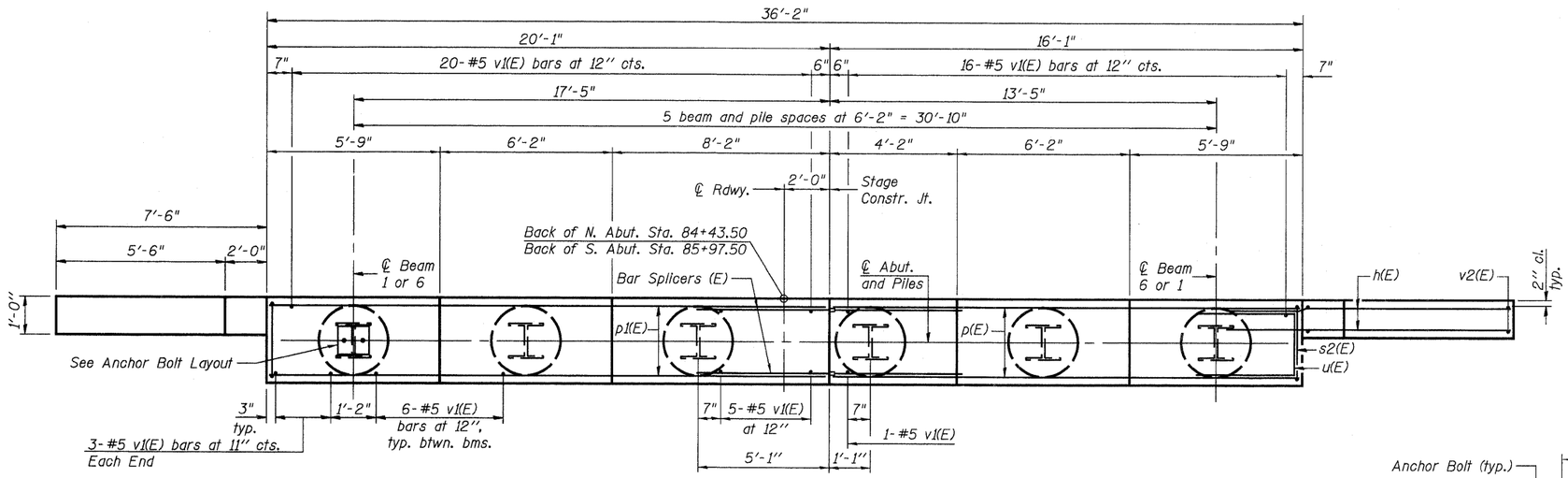
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION
(Looking South)



SEC. THRU ABUT.



PLAN AT SOUTH ABUTMENT
(North Abutment is mirror image)

BILL OF MATERIAL

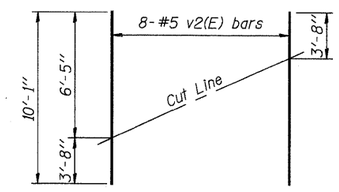
Bar	No.	Size	Length	Shape
h(E)	32	#5	9'-6"	——
p(E)	6	#8	15'-9"	——
p1(E)	6	#8	19'-9"	——
s2(E)	36	#5	11'-7"	⌐
u(E)	8	#6	7'-3"	⊐
v1(E)	72	#5	4'-4"	——
v2(E)	16	#5	10'-1"	——

		N. Abut.	S. Abut.
Structure Excavation	Cu. Yd.	106	118
Concrete Structures	Cu. Yd.	15.2	15.2
Reinforcement Bars, Epoxy Coated	Pound	1910	1910
Furnishing Steel Piles HP12x53	Foot	525	525
Driving Piles	Foot	525	525
Test Pile Steel HP12x53	Each	1	1
Pile Shoes	Each	6	6
Concrete Encasement	Cu. Yd.	2.1	2.1

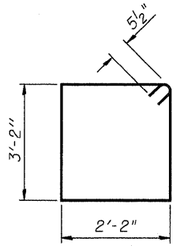
For details of Bar Splicers, see sheet 16 of 19.
For details of Piles and Concrete Encasement, see sheet 15 of 19.
Reinforcement Bar list is for one Abutment only.

PILE DATA

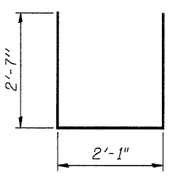
Type: Steel-HP 12x53 with Pile Shoes
Nominal Required Bearing: 270 kips
Factored Resistance Available: 135 kips
Est. Length: 105' (each Abut.)
No. Production Piles: 5 (each Abut.)
No. Test Piles: 1 (each Abut.)



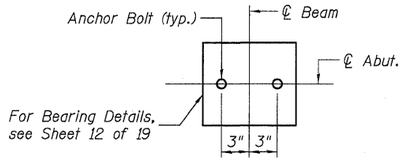
FIELD CUTTING DIAGRAM
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s2(E)



BAR u(E)



ANCHOR BOLT LAYOUT

NORTH AND SOUTH ABUTMENTS
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

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

AI-0 5-16-08

SHEET 13 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	25
		STA. 85+20.50	CONTRACT NO. 76858		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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Notes:
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.

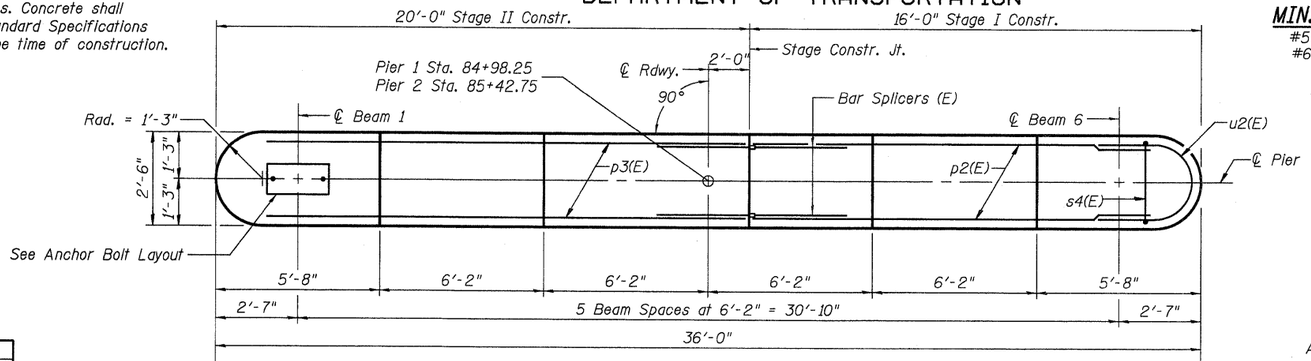
PILE DATA

Type: Steel-HP 12x63 with Pile Shoes
Nominal Required Bearing: 470 kips
Factored Resistance Available: 235 kips
Est. Length: 105' (each Pier)
No. Production Piles: 5 (each Pier)
No. Test Piles: 1 (each Pier)

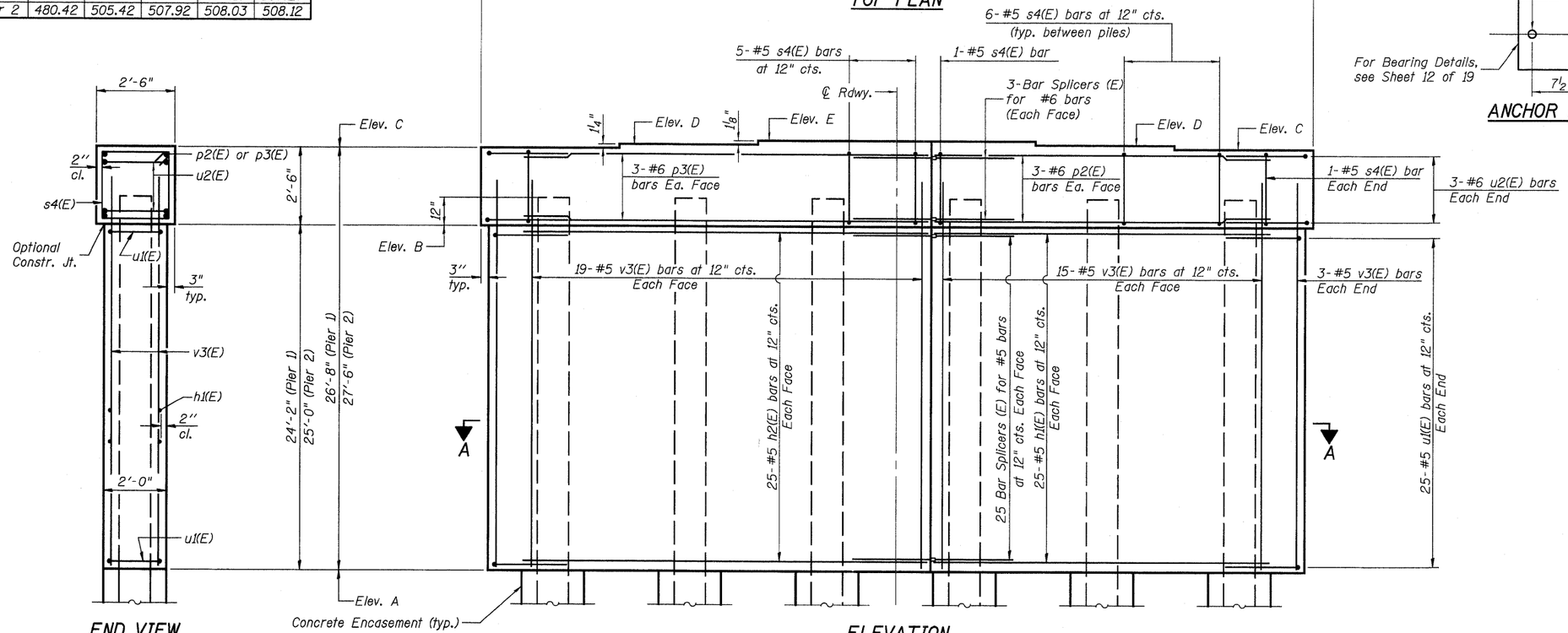
TABLE OF ELEVATIONS

Location	A	B	C	D	E
Pier 1	480.40	504.57	507.07	507.18	507.27
Pier 2	480.42	505.42	507.92	508.03	508.12

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



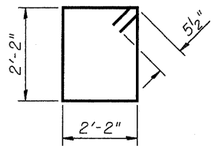
TOP PLAN



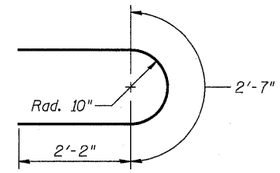
END VIEW

ELEVATION
(Looking South)

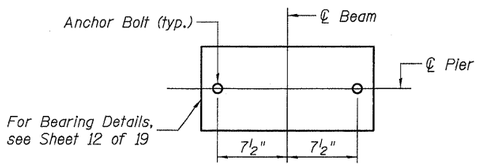
MIN. BAR LAP
#5 Bar = 2'-2"
#6 bar = 2'-7"



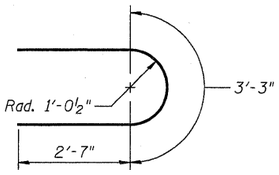
BAR s4(E)



BAR u1(E)



ANCHOR BOLT LAYOUT



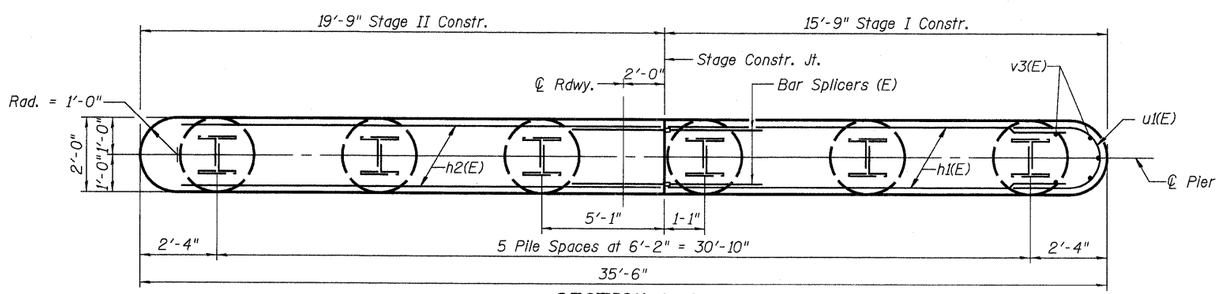
BAR u2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	50	#5	14'-7"	——
h2(E)	50	#5	18'-7"	——
p2(E)	6	#6	14'-7"	——
p3(E)	6	#6	18'-7"	——
s4(E)	32	#5	9'-7"	□
u1(E)	50	#5	6'-11"	⊃
u2(E)	6	#6	8'-5"	⊃
v3(E)	68	#5	26'-0"	——

		Pier 1	Pier 2
Concrete Structures	Cu. Yd.	71.3	73.5
Reinforcement Bars, Epoxy Coated	Pound	4630	4630
Furnishing Steel Piles HP12x63	Foot	525	525
Driving Piles	Foot	525	525
Test Pile Steel HP12x63	Each	1	1
Pile Shoes	Each	6	6
Concrete Encasement	Cu. Yd.	2.1	2.1

Reinforcement Bar list is for one Pier only.
For details of Bar Splicers, see sheet 16 of 19.
For details of piles and Concrete Encasement, see sheet 15 of 19.



SECTION A-A

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

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

PIERS 1 AND 2
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 14 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	41OBR-1	GREENE	37	26
		STA. 85+20.50	CONTRACT NO. 76858		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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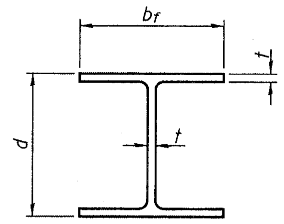
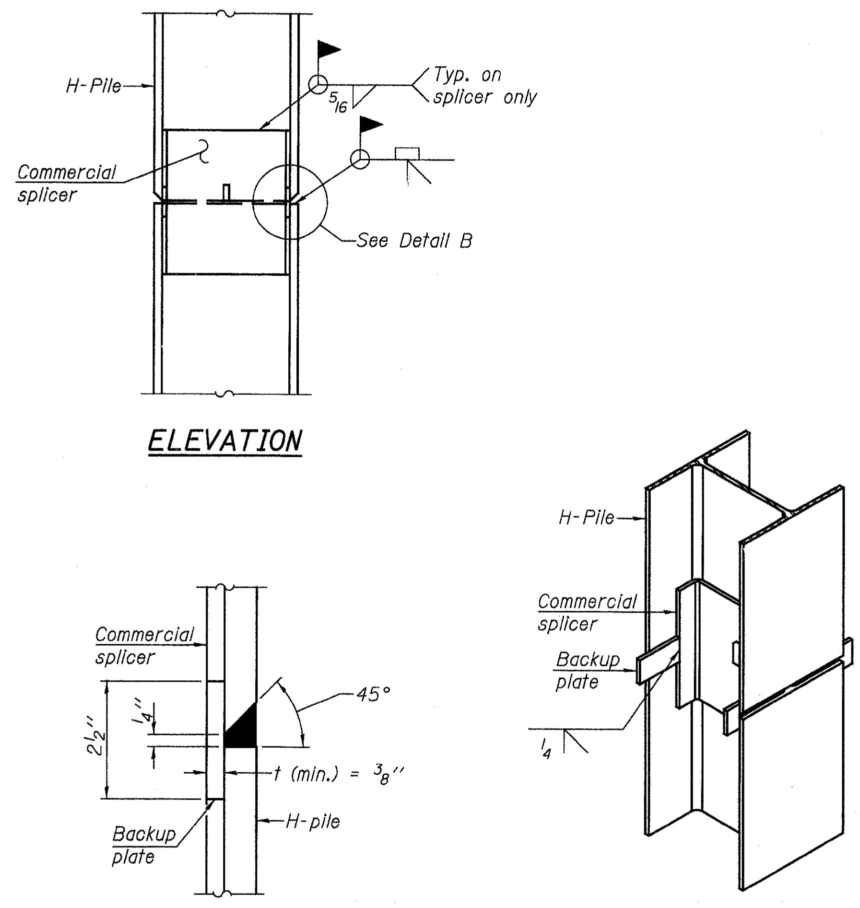
DATE: 10/07/2008 15:06:25

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

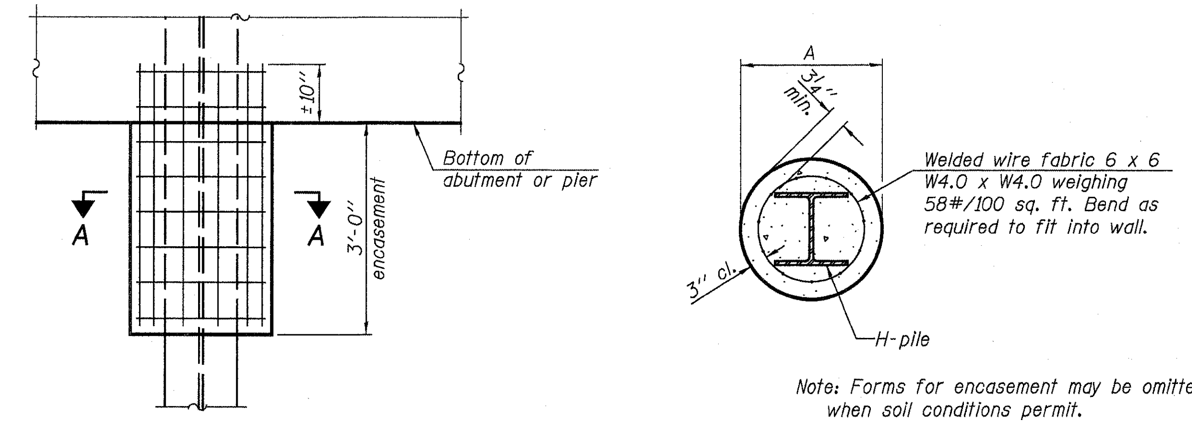


STEEL PILE TABLE

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″

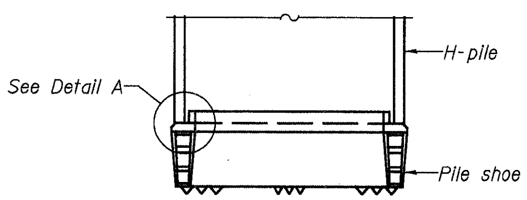


WELDED COMMERCIAL SPLICE

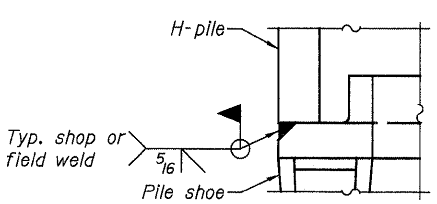


Note: Forms for encasement may be omitted when soil conditions permit.

PILE ENCASEMENT

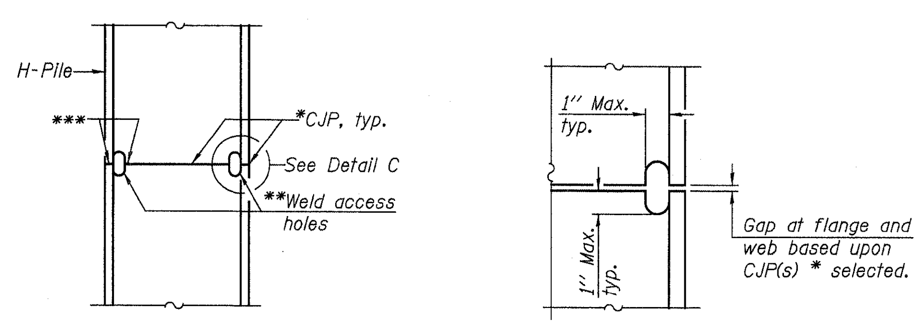


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT

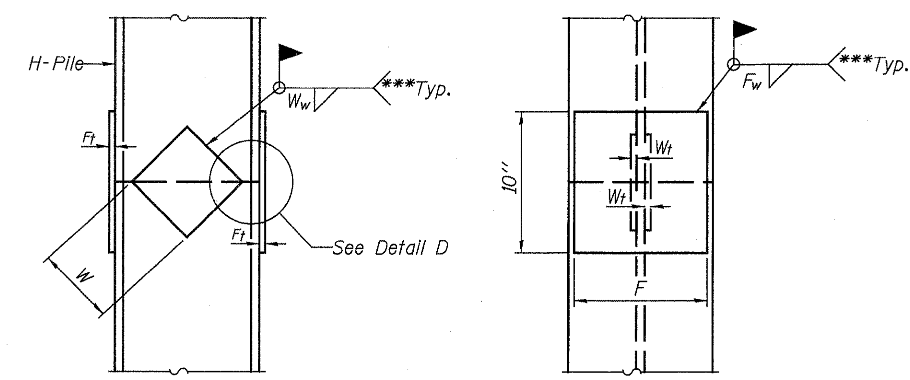


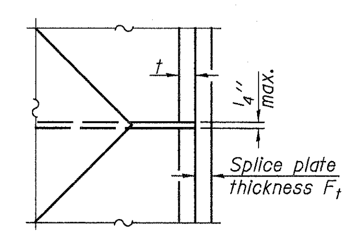
COMPLETE PENETRATION WELD SPLICE

*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.





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.

HP PILE DETAILS
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

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

F-HP 5-16-08

SHEET 15 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	27
	STA. 85+20.50		CONTRACT NO. 76B58		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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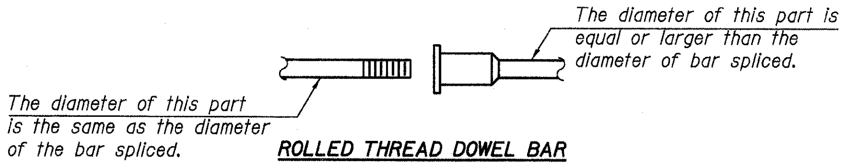
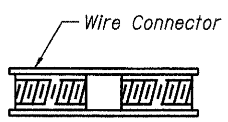


ROLLED THREAD DOWEL BAR

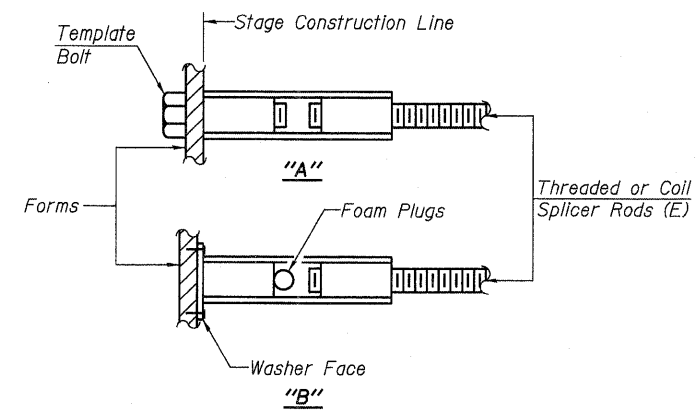
** ONE PIECE



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

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

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

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

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

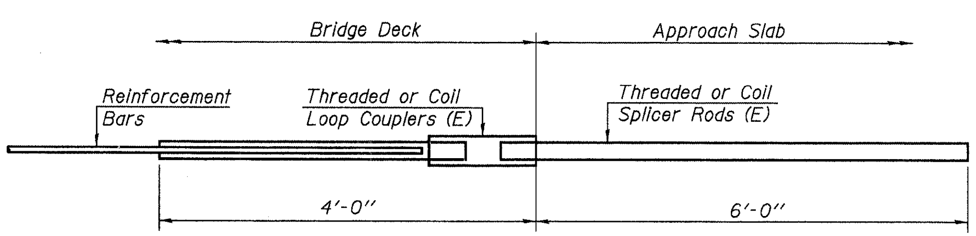
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

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

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

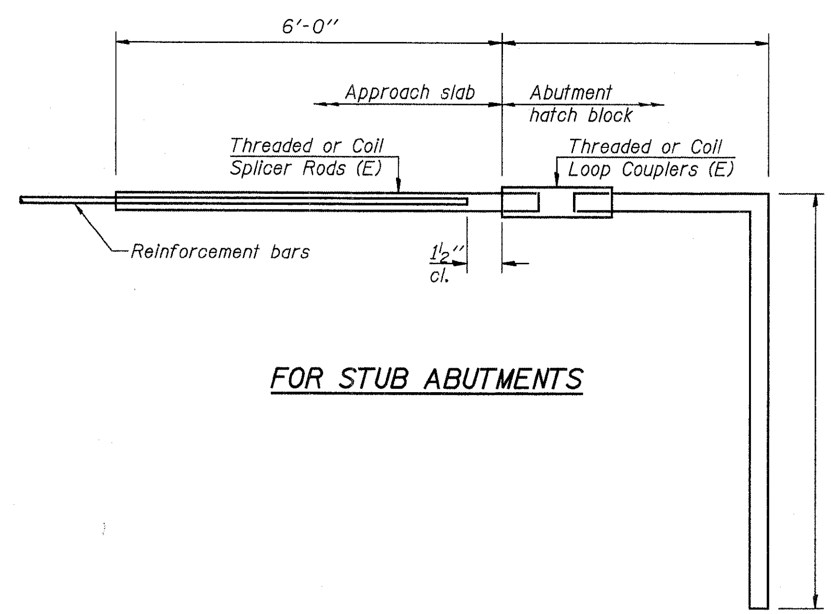
Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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'-0"	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



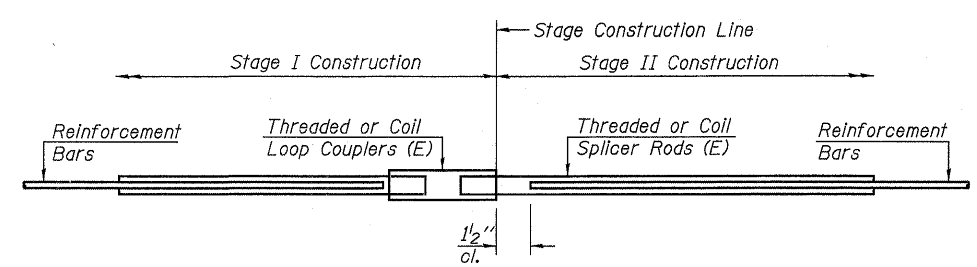
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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	470	Deck
#6	16	Abut. Diaph.
#8	12	Abutments
#6	12	Piers
#5	100	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 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 16 OF 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10	410BR-1	GREENE	37	28
	STA. 85+20.50		CONTRACT NO. 76B58		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 2/19, 27/2008

ROUTE FAP Route 10 DESCRIPTION IL Route 267 Bridge Replacement over Taylor Creek LOGGED BY Terra Drill/SCI

SECTION 410BR-1 LOCATION Rockbridge Township, SEC. 28, TWP. 10N, RNG. 10W

COUNTY Greene DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. Existing 031-0018
Station

BORING NO. B-1
Station 85+04
Offset 35 ft Lt.
Ground Surface Elev. 492.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 483.7 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
491.9 TOPSOIL - 4 Inches			
SILTY CLAY: Brown low plastic, some sand (A-6)	1 2 2	0.3 P	26
489.2 CLAYEY SILT: Brown, low plastic (A-4)	2 1 1	0.3 P	26
487.7 SAND: Brown, fine to medium (A-3)			
486.2 CLAY: Brown, high plastic (A-7)	1 3 3	0.6 B	32
484.2 CLAYEY SAND: Gray, fine to medium (A-2)	1 1 1	<0.25 P	28
481.7 CLAY: Gray, high plastic, trace organics (A-7)	0 3 8	<0.25 P	42
480.2 SAND: Gray, fine to coarse trace gravel (A-1) and CLAYEY SAND: Gray, fine to medium (A-2)			
479.2 CLAY: Brown, high plastic, some sand, trace gravel (A-7)	2 3 7	2.9 B	17
Becomes gray	3 4 4	1.3 B	18
	2 5 5	1.1 B	19

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY: Brown, high plastic, some sand, trace gravel (A-7) (continued)	2 5 8	1.5 P	20
	3 6 7	1.0 S/10	19
Grades to trace sand and gravel	3 4 6	1.5 S/10	20
	2 7 7	1.4 B	20
	3 6 5	0.7 B	25
	3 6 8	-	28

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 2/19, 27/2008

ROUTE FAP Route 10 DESCRIPTION IL Route 267 Bridge Replacement over Taylor Creek LOGGED BY Terra Drill/SCI

SECTION 410BR-1 LOCATION Rockbridge Township, SEC. 28, TWP. 10N, RNG. 10W

COUNTY Greene DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. Existing 031-0018
Station

BORING NO. B-1
Station 85+04
Offset 35 ft Lt.
Ground Surface Elev. 492.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 483.7 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY: Brown, high plastic, some sand, trace gravel (A-7) (continued)			
Grades to trace organics	3 10 12	-	31
Mud rotary mixture/water added to augers at 45 feet.			
445.2 SAND: Brown, fine to medium, trace gravel (A-3)	3 3 3	-	
	6 7 9	-	18
	6 6 8	-	29

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND: Brown, fine to medium, trace gravel (A-3) (continued)			
430.2 SILTY CLAY: Gray, low plastic, trace sand (A-6)	6 8 8	1.1 B	22
426.7 SAND: Brown, fine to medium, trace silt (A-3)	8 16 16	-	19
Grades to trace gravel	8 16 18	-	11
416.2 SAND: Brown, fine to medium, some silt, trace organics and coal (A-2)	10 6 6	-	20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 2/19, 27/2008

ROUTE FAP Route 10 DESCRIPTION IL Route 267 Bridge Replacement over Taylor Creek LOGGED BY Terra Drill/SCI

SECTION 410BR-1 LOCATION Rockbridge Township, SEC. 28, TWP. 10N, RNG. 10W

COUNTY Greene DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. Existing 031-0018
Station

BORING NO. B-1
Station 85+04
Offset 35 ft Lt.
Ground Surface Elev. 492.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 483.7 ft ▼
Upon Completion ft
After - Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND: Brown, fine to medium, some silt, trace organics and coal (A-2) (continued)			
410.2 SANDY CLAY: Brown, low plastic, some silt, gravel, and coal (A-4)	16 20 29	-	15
406.2 Borehole continued with rock coring.			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	K-E-G	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

SOIL BORINGS (1 OF 3)
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 17 OF 19

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	29
	STA. 85+20.50	CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE: J:\JDQ\10163 IL 267 Taylor Creek-FINAL\Taylor Creek\V8\borings.dgn USER: DCD DATE: 10/07/2008 15:06:32

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
SCI Engineering

ROCK CORE LOG

Date 2/19, 27/2008

ROUTE FAP Route 10 DESCRIPTION IL Route 267 Bridge Replacement over Taylor Creek LOGGED BY Terra Drill/SCI

SECTION 410BR-1 LOCATION Rockbridge Township, SEC. 28, TWP. 10N, RNG. 10W

COUNTY Greene CORING METHOD Rotary, surface set diamond bit

STRUCT. NO. Existing 031-0018 CORING BARREL TYPE & SIZE NW conv dbl bbl split inner
Station

BORING NO. B-1 Core Diameter 1.9 in
Station 85+04 Top of Rock Elev. 406.2 ft
Offset 35 ft Lt. Begin Core Elev. 406.2 ft
Ground Surface Elev. 492.2 ft

DEPTH (ft)	CORE (*)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
CLAYEY SHALE: Gray 406.2	1	90	45		
Moisture content - 10 percent Hand Penetrometer strength test - 4.5 tsf 403.3					
Boring terminated at 89 feet.					

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the unlaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 02/18/08

ROUTE FAP Route 10 DESCRIPTION IL Route 267 Bridge Replacement over Taylor Creek LOGGED BY Terra Drill/SCI

SECTION 410BR-1 LOCATION Rockbridge Township, SEC. 28, TWP. 10N, RNG. 10W

COUNTY Greene DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. Existing 031-0018
Station

BORING NO. B-2
Station 86+29
Offset 58 ft Rt.
Ground Surface Elev. 508.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 485.7 ft ▼
Upon Completion 493.2 ft ▽
After 24 Hrs. 507.7 ft ▽

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL - 6 Inches 507.7 ▽			
FILL: Brown high plastic clay, some sand (A-7)	0 2 4	1.8 P	18
505.2			
FILL: Brown, low plastic silty clay (A-6) and Brown, high plastic clay, some sand, trace brick (A-7)	1 1 2	<0.25 P	22
-5 502.7			
FILL: Brown, low plastic silty clay (A-7) and Brown, high plastic clay, some sand, trace gravel (A-7)	1 1 2	0.8 P	20
500.2			
CLAY: Brown, high plastic, trace sand and gravel (A-7)	1 1 2	0.8 P	20
-10 497.7			
SILTY CLAY: Brown, low plastic, some sand, trace gravel and organics (A-6)	1 2 4	1.5 P	18
495.2			
SANDY CLAY: Brown and gray, low plastic, trace gravel (A-6)	1 3 3	0.8 B	14
▽ -15 492.7			
CLAY: Brown, high plastic, some sand, trace gravel (A-7)	0 1 2	0.5 B	22
	2 3 4	3.3 B	14
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY: Brown, high plastic, some sand, trace gravel (A-7) (continued)			
▼	3 7 11	2.9 B	15
	3 6 9	2.2 B	17
-25			
	4 9 11	2.2 B	17
	5 7 12	2.7 B	16
-30			
	5 8 10	1.9 B	17
-35			
Becomes brownish gray	4 10 13	1.4 B	17
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Date 02/18/08

ROUTE FAP Route 10 DESCRIPTION IL Route 267 Bridge Replacement over Taylor Creek LOGGED BY Terra Drill/SCI

SECTION 410BR-1 LOCATION Rockbridge Township, SEC. 28, TWP. 10N, RNG. 10W

COUNTY Greene DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. Existing 031-0018
Station

BORING NO. B-2
Station 86+29
Offset 58 ft Rt.
Ground Surface Elev. 508.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 485.7 ft ▼
Upon Completion 493.2 ft ▽
After 24 Hrs. 507.7 ft ▽

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY: Brown, high plastic, some sand, trace gravel (A-7) (continued)			
Grades to trace sand and gravel	5 12 13	1.2 B	20
-45			
	6 11 10	1.2 B	19
-50			
	5 13 13	1.1 B	23
-55			
No recovery 449.7			
Boring terminated at 58.5 feet.	50/1"	-	
-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	K-E-G	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

SOIL BORINGS (2 OF 3)
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 18 OF 19

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	30
	STA. 85+20.50	CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Page 1 of 3

Date 02/29/08

ROUTE FAP Route 10 DESCRIPTION IL Route 267 Bridge Replacement over Taylor Creek LOGGED BY Terra Drill/SCI

SECTION 410BR-1 LOCATION Rockbridge Township, SEC. 28, TWP. 10N, RNG. 10W

COUNTY Greene DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. Existing 031-0018
Station

BORING NO. B-3
Station 86+44
Offset 56 ft Rt
Ground Surface Elev. 508.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 497.5 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu	MOIST (%)	Description
				FILL: Brown, high plastic clay, some gravel (A-7) and Crushed Rock
	3			
	18	0.4	25	
	42	B		
505.5				
				FILL: Brown, high plastic clay, some sand (A-7)
	2			
	2	1.4	19	
-5	3	B		
				Grades to trace organics
	2			
	2	<0.25	25	
	1	P		
				No recovery
	2			
	3	-		
-10	4			
▼				
	12			
	13	0.5	24	
	9	B		
495.5				
				SANDY CLAY: Brown, low plastic, trace gravel (A-6)
	3			
	6	4.0	15	
-15	10	B		
493.0				
				CLAY: Brown, high plastic, some sand, trace gravel (A-7)
	7			
	9	0.6	23	
	13	B		
490.5				
				SANDY CLAY: Brown, low plastic, trace gravel (A-6)
	4			
	9	3.1	19	
-20	13	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
488.0				CLAY: Brown, high plastic, some sand, trace gravel (A-7)
	0			
	5	1.9	20	
	8	B		
	4			
	9	4.0	19	
-25	12	B		
	5			
	7	2.8	18	
	9	B		
	9			
	10	1.8	16	
-30	11	P		
	7			
	9	0.3	19	
-35	14	P		
	6			Becomes grayish brown
	9	2.1	16	
-40	11	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Page 2 of 3

Date 02/29/08

ROUTE FAP Route 10 DESCRIPTION IL Route 267 Bridge Replacement over Taylor Creek LOGGED BY Terra Drill/SCI

SECTION 410BR-1 LOCATION Rockbridge Township, SEC. 28, TWP. 10N, RNG. 10W

COUNTY Greene DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. Existing 031-0018
Station

BORING NO. B-3
Station 86+44
Offset 56 ft Rt
Ground Surface Elev. 508.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 497.5 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu	MOIST (%)	Description
				CLAY: Brown, high plastic, some sand, trace gravel (A-7) (continued)
	7			
	8	2.3	20	
-45	9	B		
				Driller encountered broken rock at approximately 46 feet.
	4			
	6	2.1	21	
-50	6	B		
				Driller encountered broken rock at approximately 52 feet.
	9			
	11	-		
-55	12			
				Grades to trace sand and gravel
	10			
	12	-	22	
-60	15			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
447.5				SAND: Brown, fine to medium (A-3)
	0			
	0	-	18	
-65	0			
				Mud rotary mixture/water added to augers at 65 feet.
	7			
	9	-	23	
-70	11			
436.5				SILTY SAND: Brown, fine (A-2)
	10			
	18	-	22	
-75	21			
431.5				SILTY CLAY: Grayish brown, low plastic, trace sand (A-6)
	6			
	9	1.0	24	
-80	11	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Page 3 of 3

Date 02/29/08

ROUTE FAP Route 10 DESCRIPTION IL Route 267 Bridge Replacement over Taylor Creek LOGGED BY Terra Drill/SCI

SECTION 410BR-1 LOCATION Rockbridge Township, SEC. 28, TWP. 10N, RNG. 10W

COUNTY Greene DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. Existing 031-0018
Station

BORING NO. B-3
Station 86+44
Offset 56 ft Rt
Ground Surface Elev. 508.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 497.5 ft ▼
Upon Completion - ft
After - Hrs. - ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				SILTY CLAY: Grayish brown, low plastic, trace sand (A-6) (continued)
	7			
	10	2.8	21	
-85	13	B		
421.5				SAND: Brown, fine to medium (A-3)
	18			
	20	-	17	
-90	22			
	16			
	18	-	16	
-95	19			
411.5				SANDY CLAY: Brown, low plastic, some gravel (A-4)
	44			
	32	-	16	
-100	46			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
408.0				Refusal with tri-cone bit on shale at 100.5 feet.
-105				
-110				
-115				
-120				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	K-E-G	DRAWN:	SJS
CHECKED:	DCD	CHECKED:	DCD

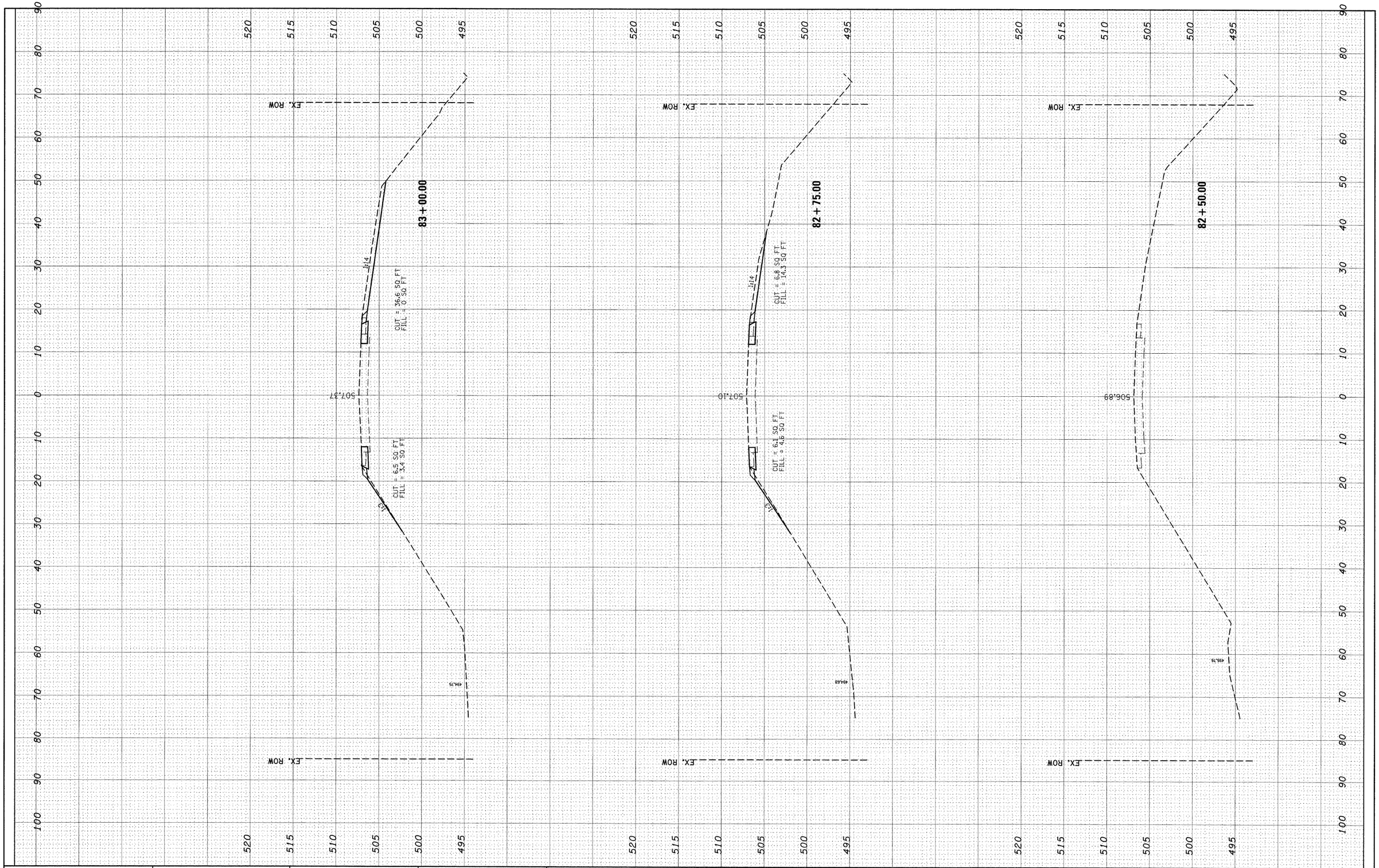
SOIL BORINGS (3 OF 3)
ILLINOIS 267 OVER TAYLOR CREEK
STRUCTURE NO. 031-0043

SHEET 19 OF 19

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	31
	STA. 85+20.50	CONTRACT NO. 76858		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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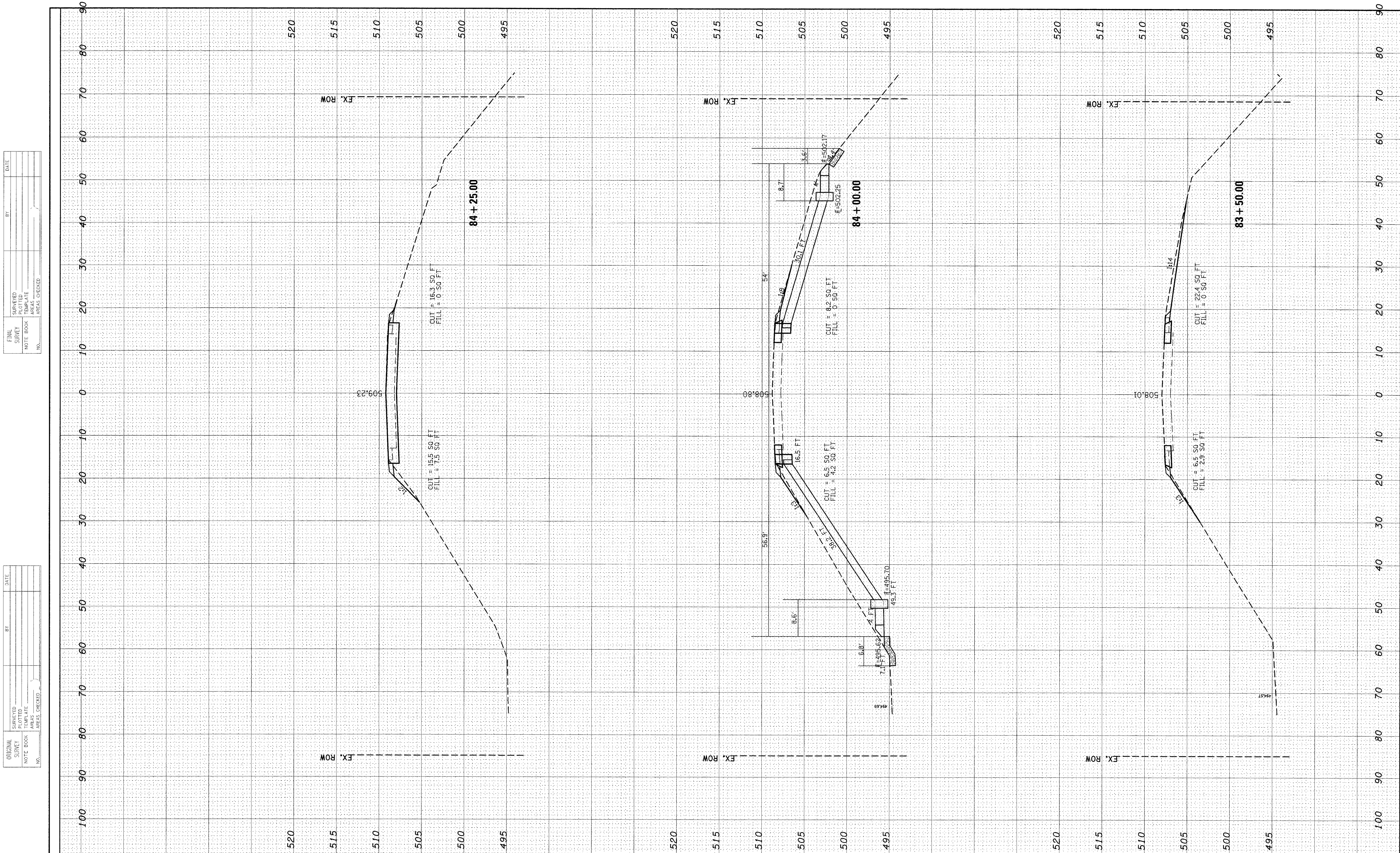
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. 82+50.00 | TO STA. 83+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	32
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. 83+50.00 TO STA. 84+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	33

CONTRACT NO. 76B58

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

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
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NO.	AREAS		
	AREAS CHECKED		

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	PLOTTED		
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. 86+00.00 | TO STA. 87+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	41OBR-1	GREENE	37	34
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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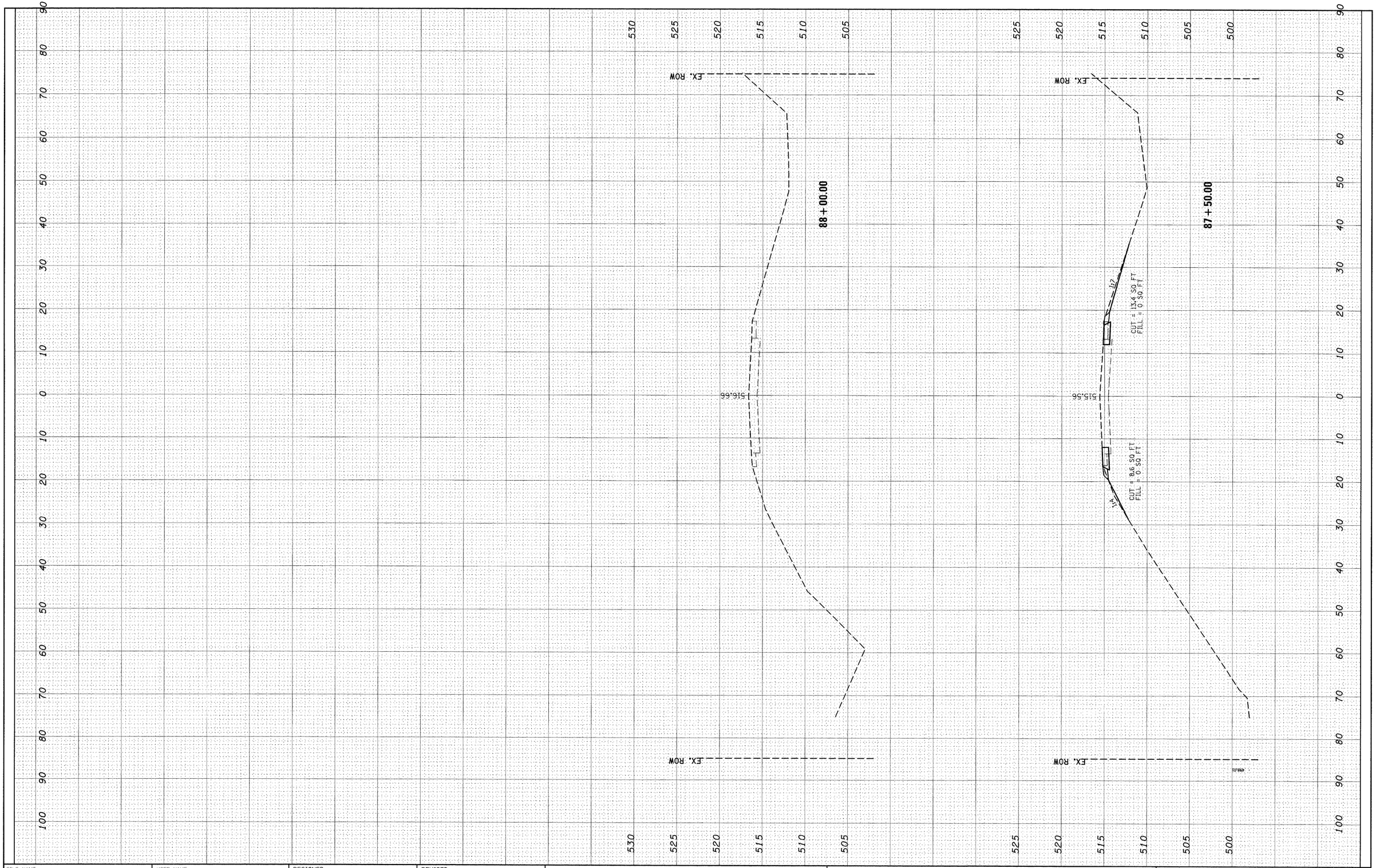

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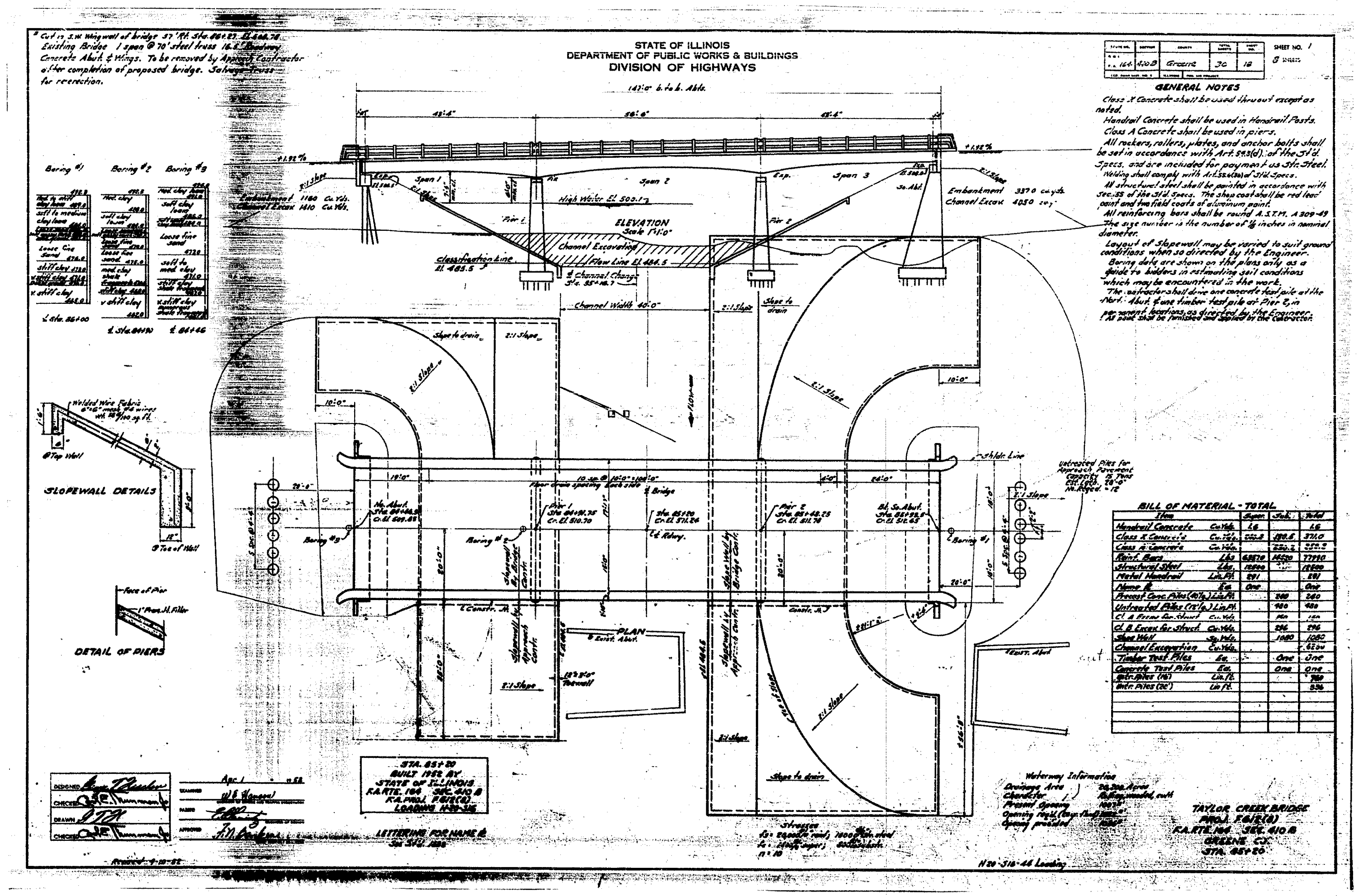
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. 87+50.00 | TO STA. 88+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	35
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		


Cut in S.W. Wingwall of bridge 57' Rt. Sta. 86+27
Existing Bridge 1 span @ 70' steel truss
Concrete Abut. & Wings. To be removed by Approach Contractor after completion of proposed bridge. Salvage truss for reerection.
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS
SHEET NO. 1
GENERAL NOTES
Class X Concrete shall be used thruout except as noted.
Handrail Concrete shall be used in Handrail Posts.
Class A Concrete shall be used in piers.
All rockers, rollers, plates, and anchor bolts shall be set in accordance with Art. 593(d). of the Std. Specs. and are included for payment as Str. Steel.
Welding shall comply with Art. 556(36) of Std. Specs.
All structural steel shall be painted in accordance with Sec. 55 of the Std. Specs. The shop coat shall be red lead paint and two field coats of aluminum paint.
All reinforcing bars shall be round A.S.T.M. A 309-49
The size number is the number of 1/8 inches in nominal diameter.
Layout of Slopewall may be varied to suit ground conditions when so directed by the Engineer.
Boring data are shown on the plans only as a guide to bidders in estimating soil conditions which may be encountered in the work.
The contractor shall drive one concrete test pile at the Nort. Abut. & one timber test pile at Pier 2, in permanent locations as directed by the Engineer.
All paint shall be furnished and applied by the Contractor.
ELEVATION
PLAN
SLOPEWALL DETAILS
DETAIL OF PIERS
BILL OF MATERIAL - TOTAL
Waterway Information
Drainage Area
Character
Present Opening
Opening req'd.
Opening provided
TAYLOR CREEK BRIDGE
F.A. RTE. 164 SEC. 410 B
GREENE CO.
STA. 85+20
H20-S16-44 Loading

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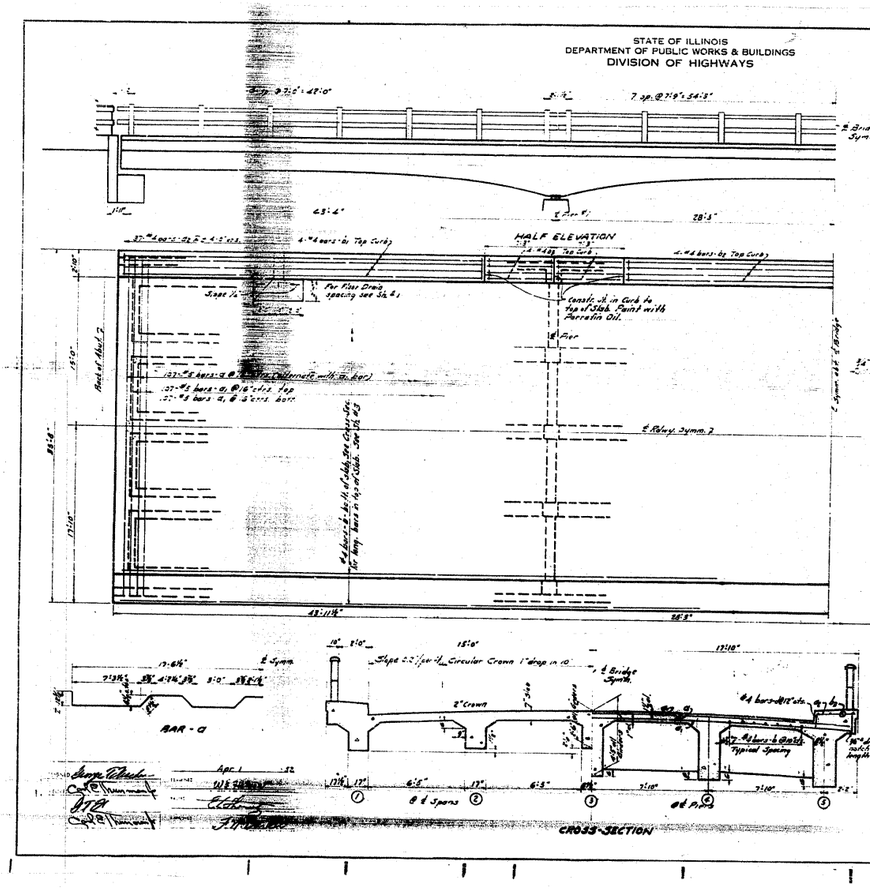
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLAN

SCALE: | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	36
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLAN

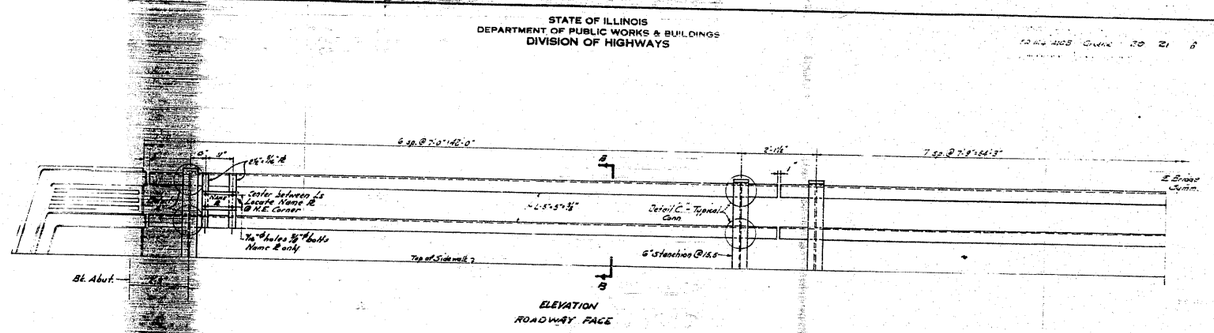
SCALE: | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

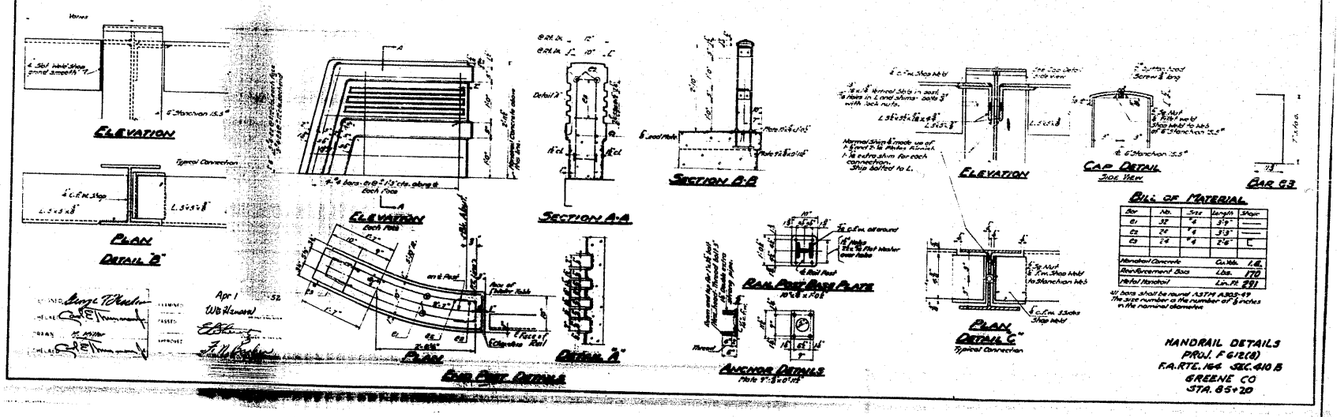
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	37

CONTRACT NO. 76B58

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

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





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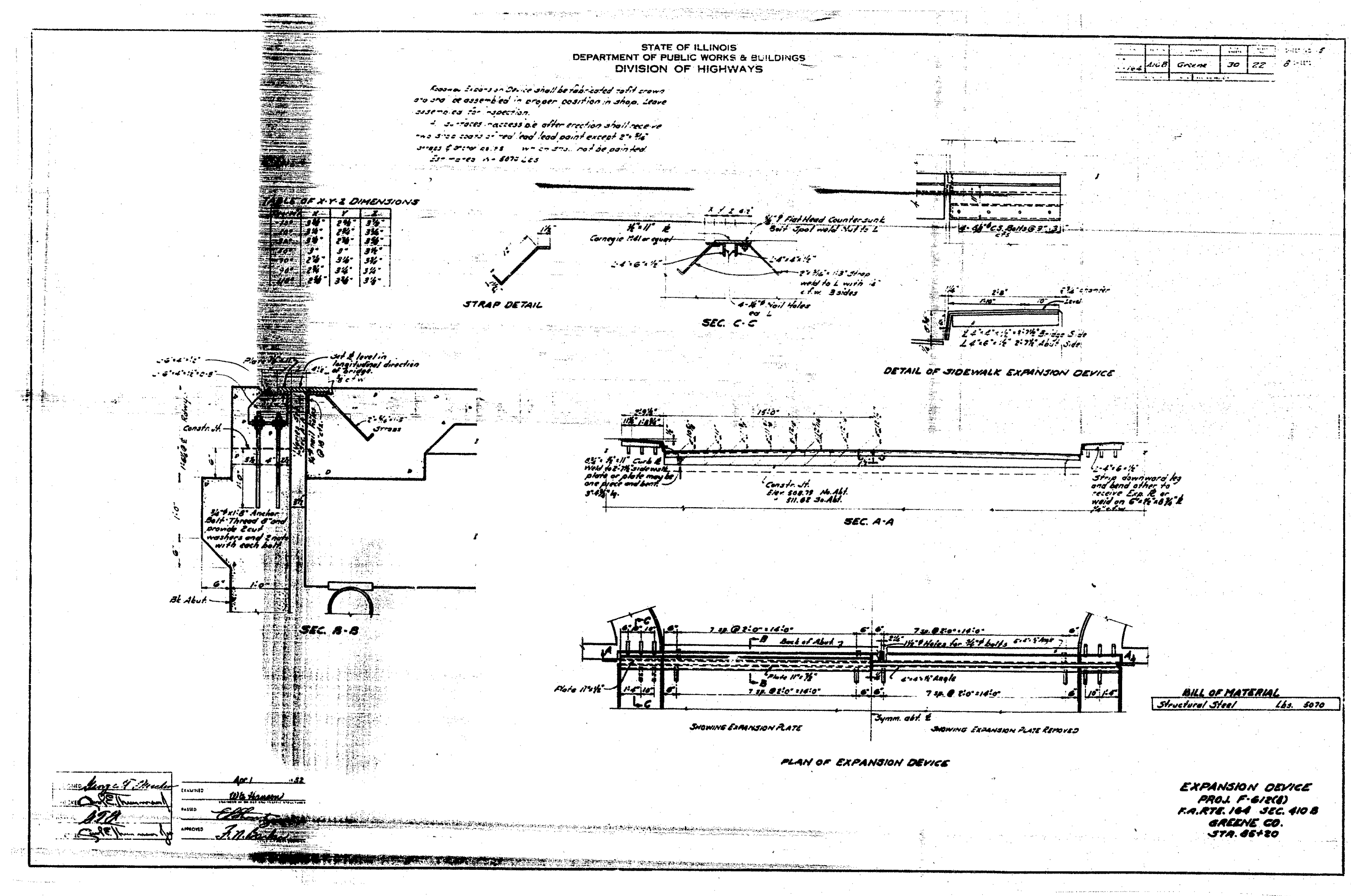
		DATE -	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	37A
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

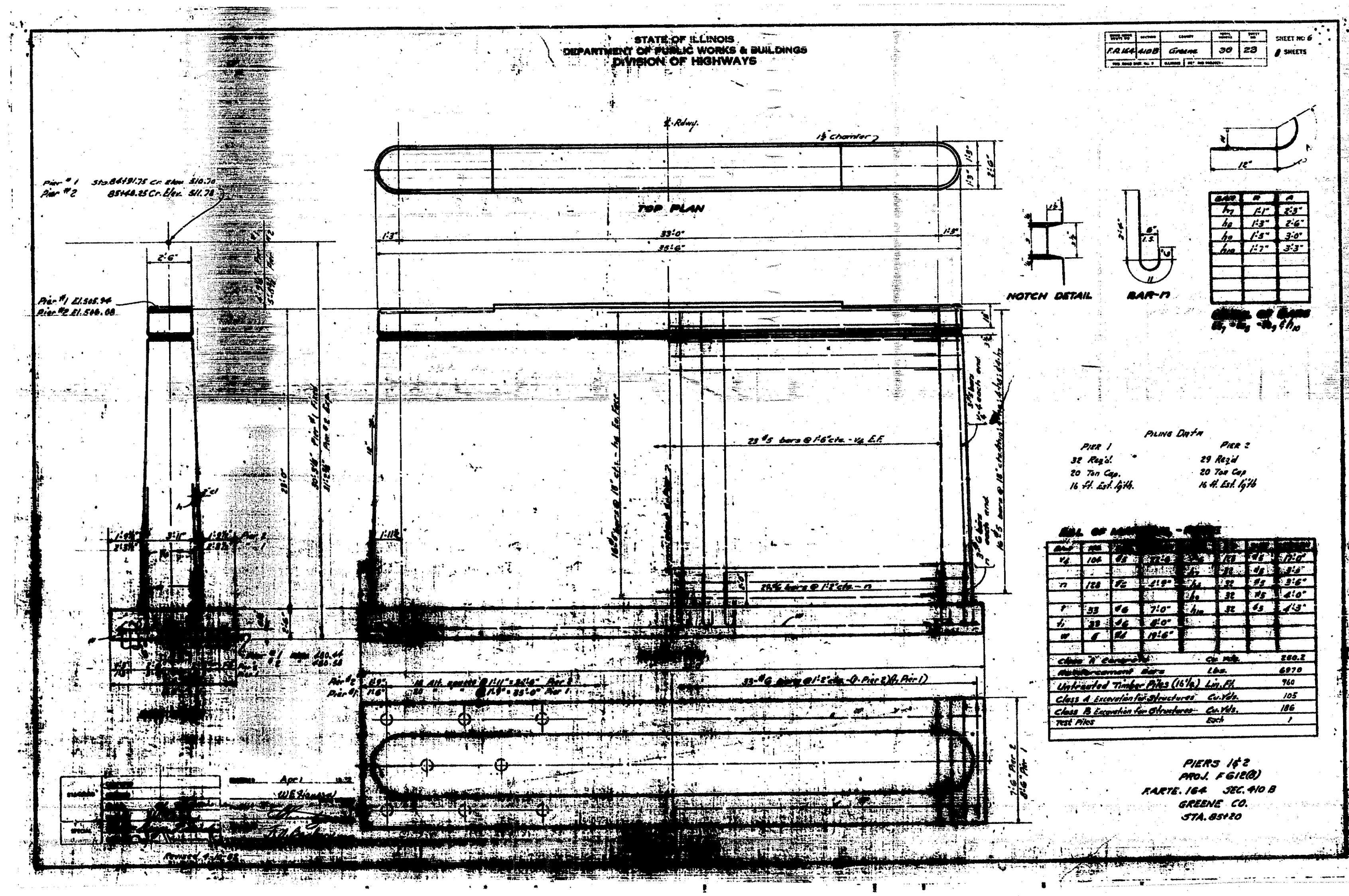
EXISTING BRIDGE PLAN

SCALE: | SHEET NO. 4 OF 7 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	37B

CONTRACT NO. 76B58

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



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	PLOT DATE = 10/15/2008	DATE -	REVISED -	

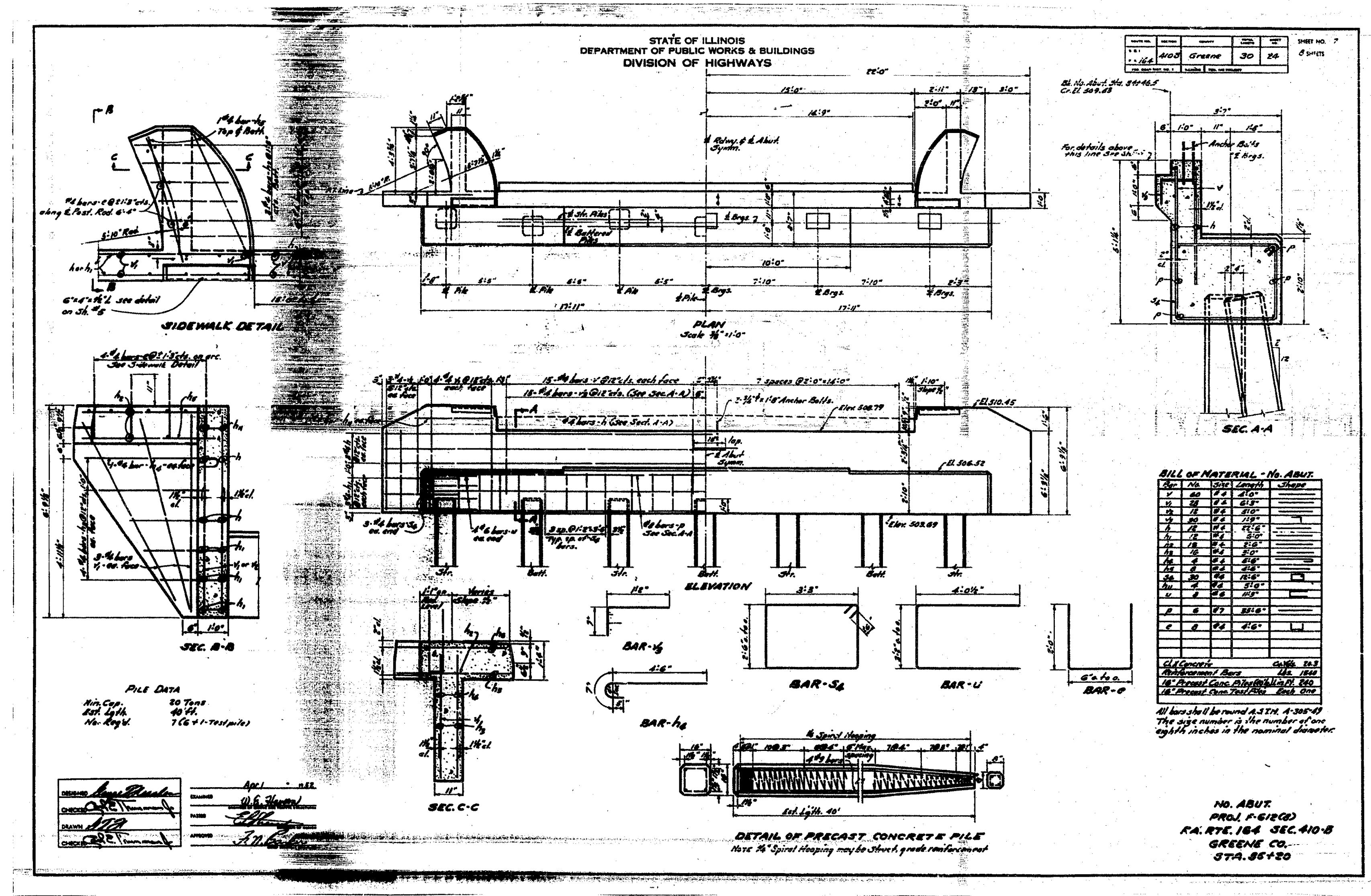
EXISTING BRIDGE PLAN

SCALE: | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	37C.

CONTRACT NO. 76B58

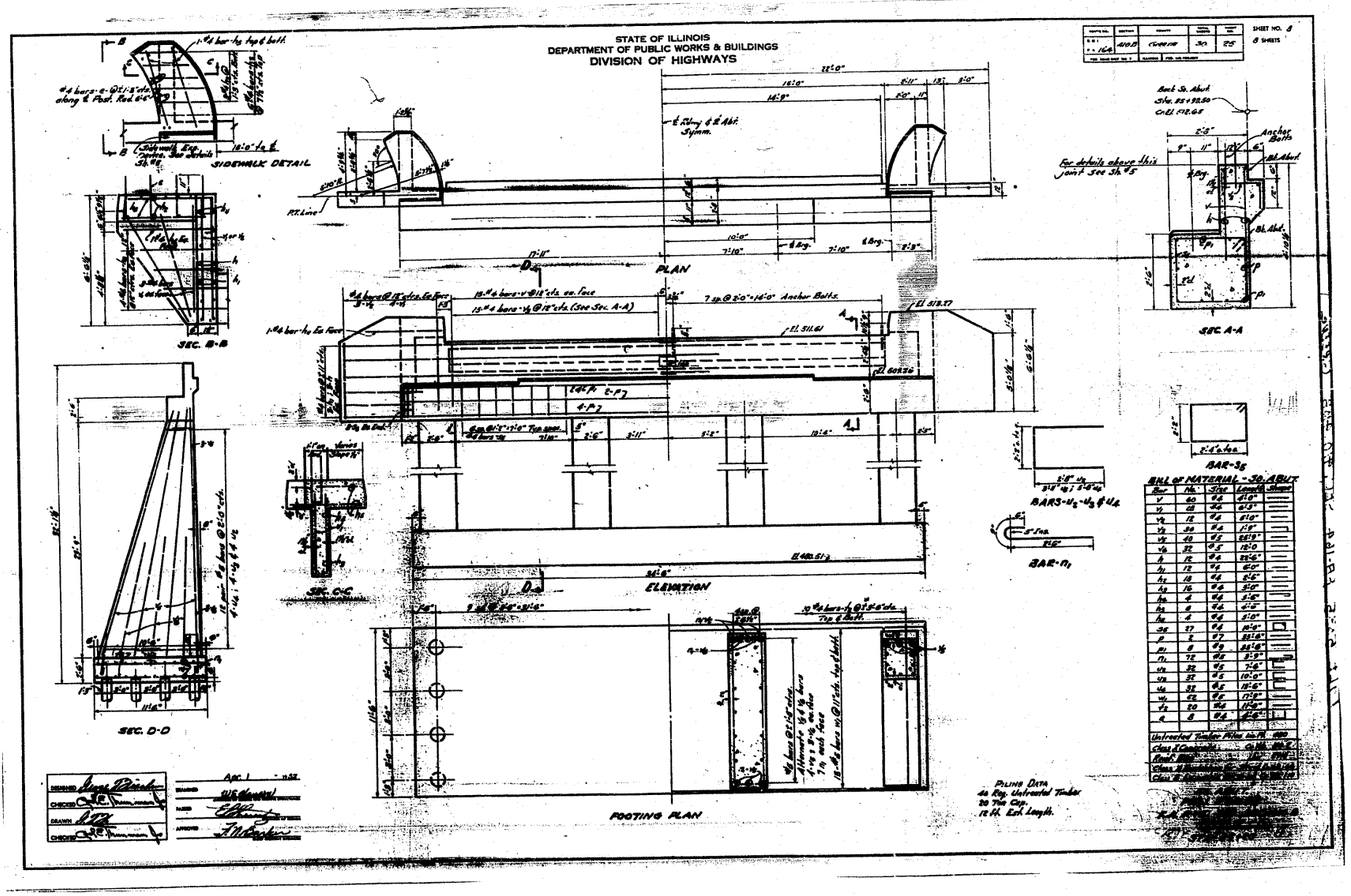
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS
SHEET NO. 7
8 SHEETS
164
410B
Greene
30
24
SIDEWALK DETAIL
PLAN
ELEVATION
SEC. A-A
SEC. B-B
SEC. C-C
PILE DATA
BAR-S4
BAR-U
BAR-e
BILL OF MATERIAL - No. ABUT.
All bars shall be round A.S.T.M. A-305-49
The size number is the number of one eighth inches in the nominal diameter.
DETAIL OF PRECAST CONCRETE PILE
NO. ABUT.
PROJ. F-612(8)
F.A. RTE. 164 SEC. 410-B
GREENE CO.
STA. 85+20

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

SHEET NO. 8
8 SHEETS



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		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 10/15/2008	DATE -	REVISED -

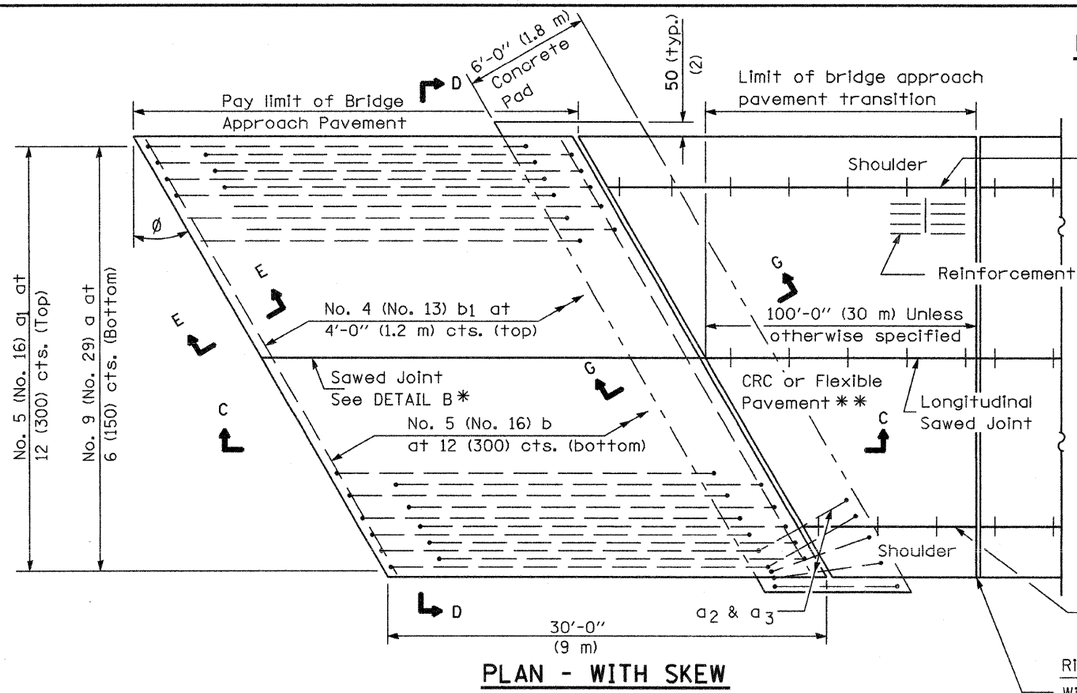
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLAN

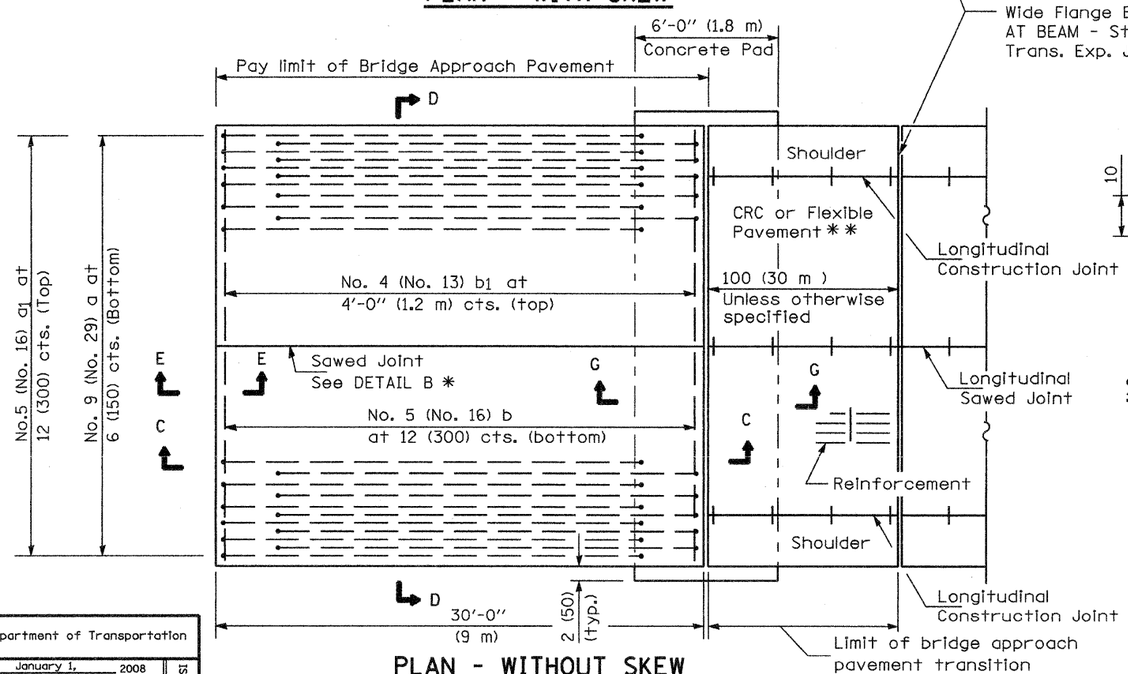
SCALE: | SHEET NO. 7 OF 7 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	410BR-1	GREENE	37	37E
		CONTRACT NO. 76B58		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NEW CONSTRUCTION

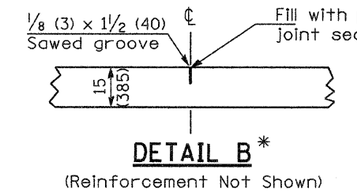


PLAN - WITH SKEW



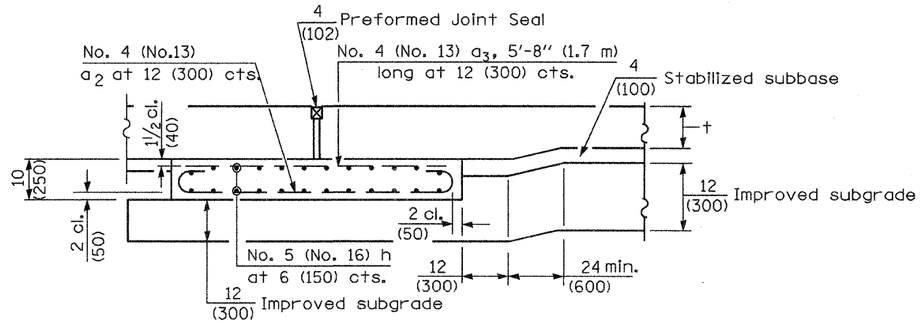
PLAN - WITHOUT SKEW

* 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)

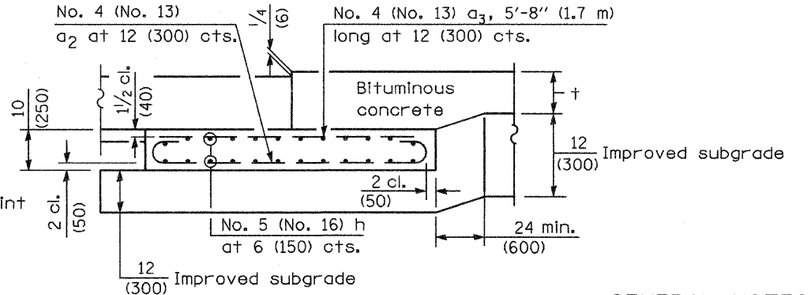


SECTION G-G - RIGID PAVEMENT

(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 L. Hoffman
ENGINEER OF DESIGN AND ENVIRONMENT

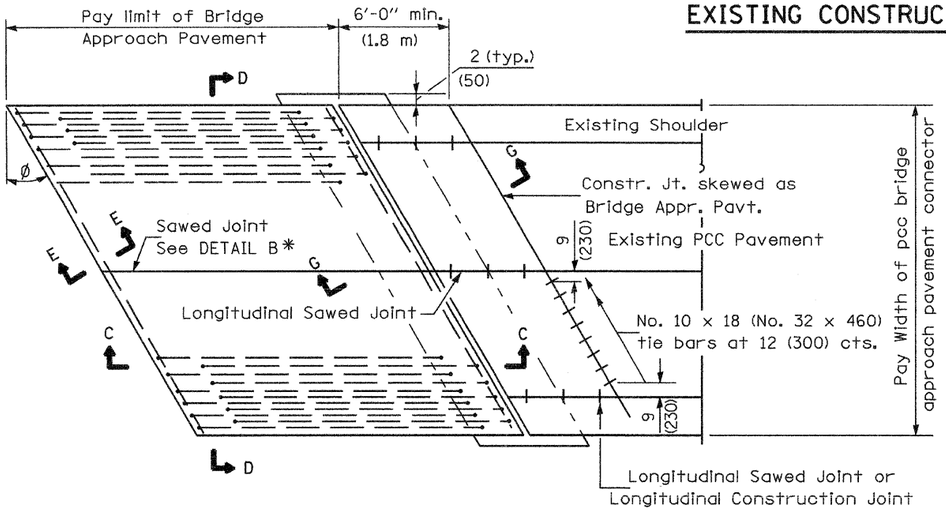
ISSUED 1-1-97

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.

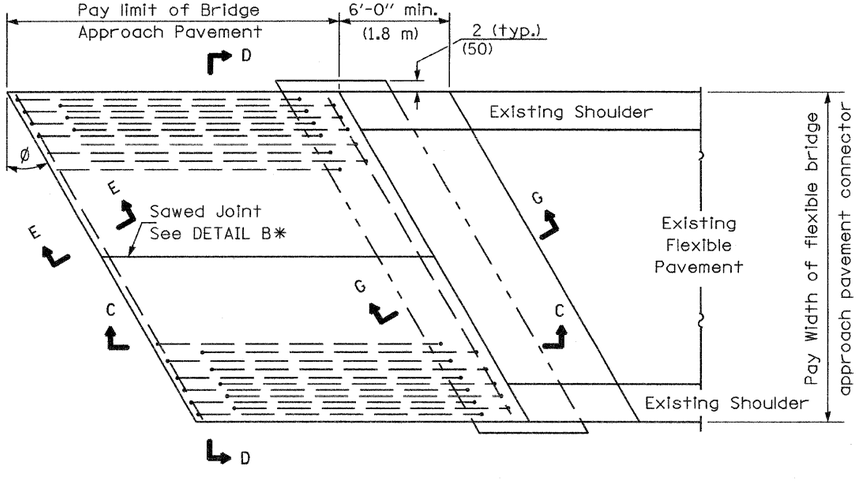
BRIDGE APPROACH PAVEMENT

(Sheet 1 of 4)

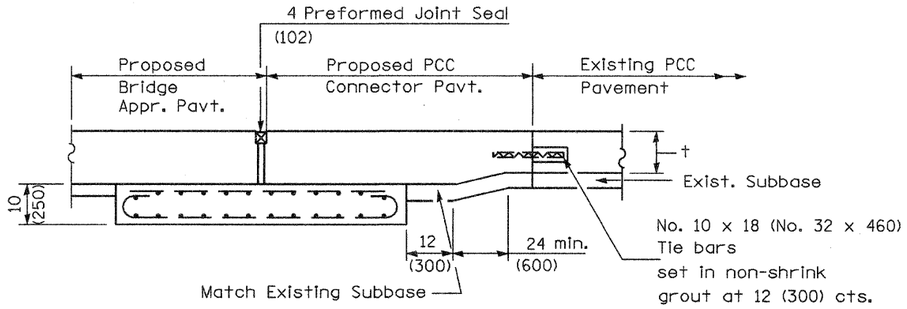
Contract 76858 Sheet 37F.



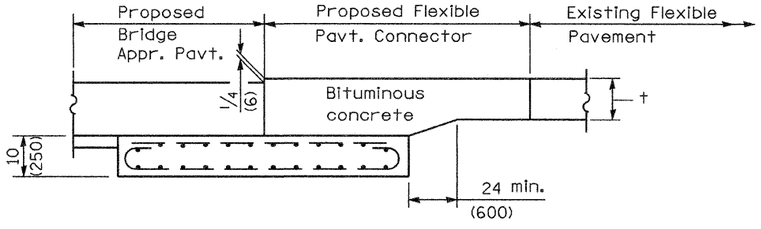
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



SECTION G-G - RIGID PAVEMENT



SECTION G-G - FLEXIBLE PAVEMENT

Illinois Department of Transportation

APPROVED January 1, 2008
ENGINEER OF BRIDGES AND STRUCTURES

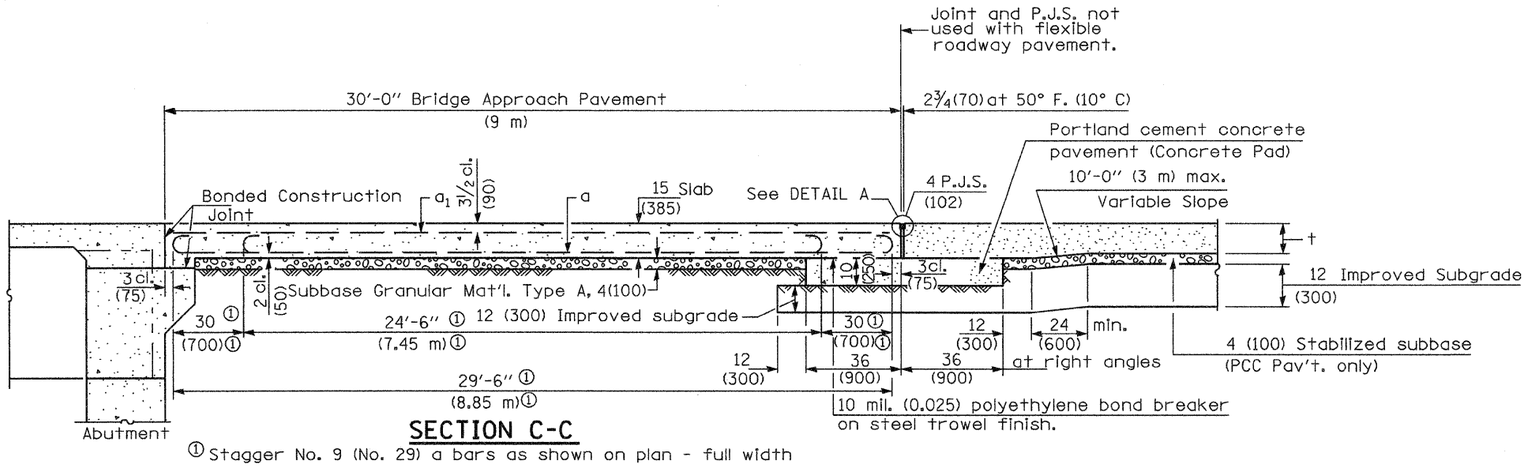
APPROVED January 1, 2008
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

BRIDGE APPROACH PAVEMENT

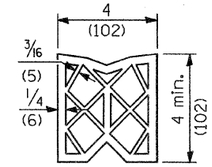
(Sheet 2 of 4)

Contract 76858 Sheet 376.

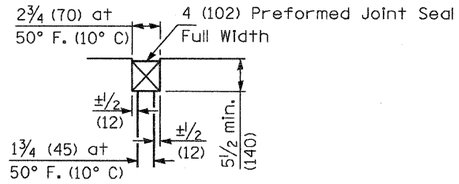


SECTION C-C

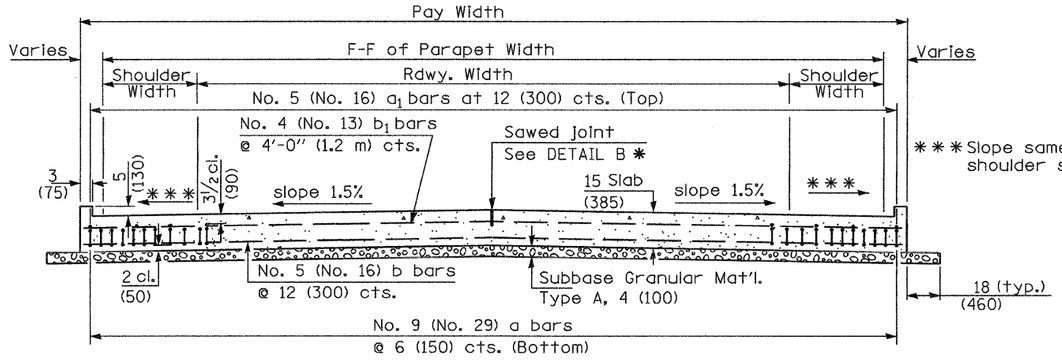
① Stagger No. 9 (No. 29) a bars as shown on plan - full width



PREFORMED JOINT SEAL

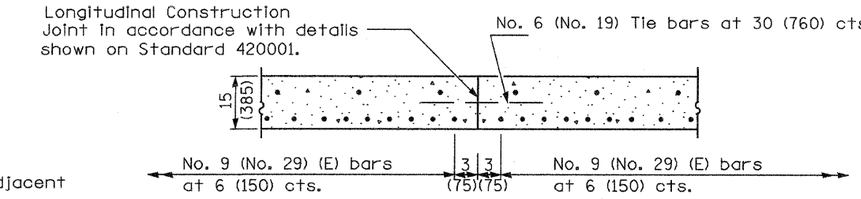


DETAIL A



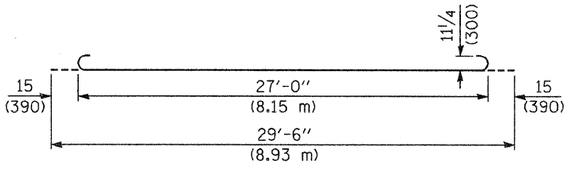
SECTION D-D

(See Plan for Dimensions not shown)

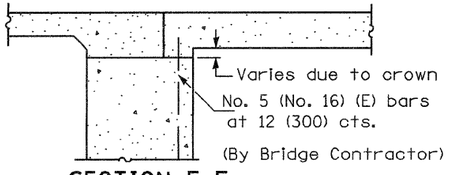


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

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.

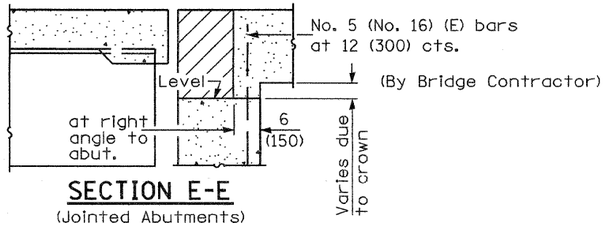


BAR a



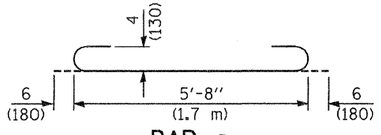
SECTION E-E

(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

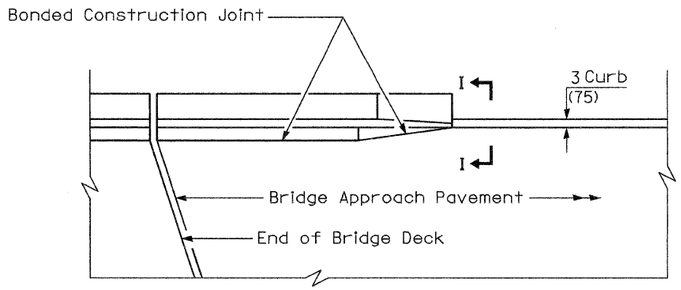
Illinois Department of Transportation

APPROVED January 1, 2008
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED January 1, 2008
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

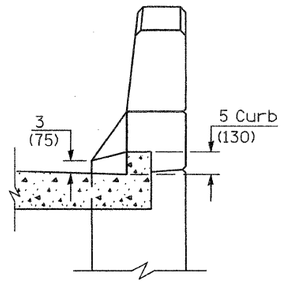
BRIDGE APPROACH PAVEMENT

(Sheet 3 of 4)

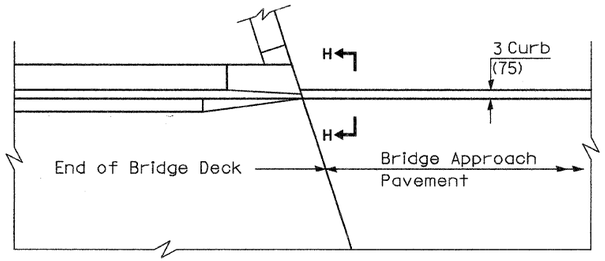
Contract 76858 Sheet 37H.



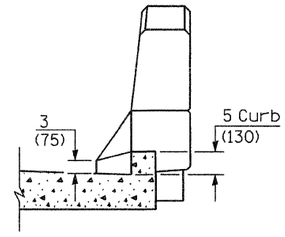
PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT



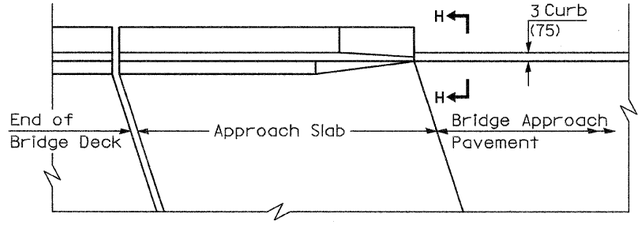
SECTION I - I



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
Gene E. Hou
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

BRIDGE APPROACH PAVEMENT

(Sheet 4 of 4)

Contract 76B58 Sheet 37I.