

66565

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

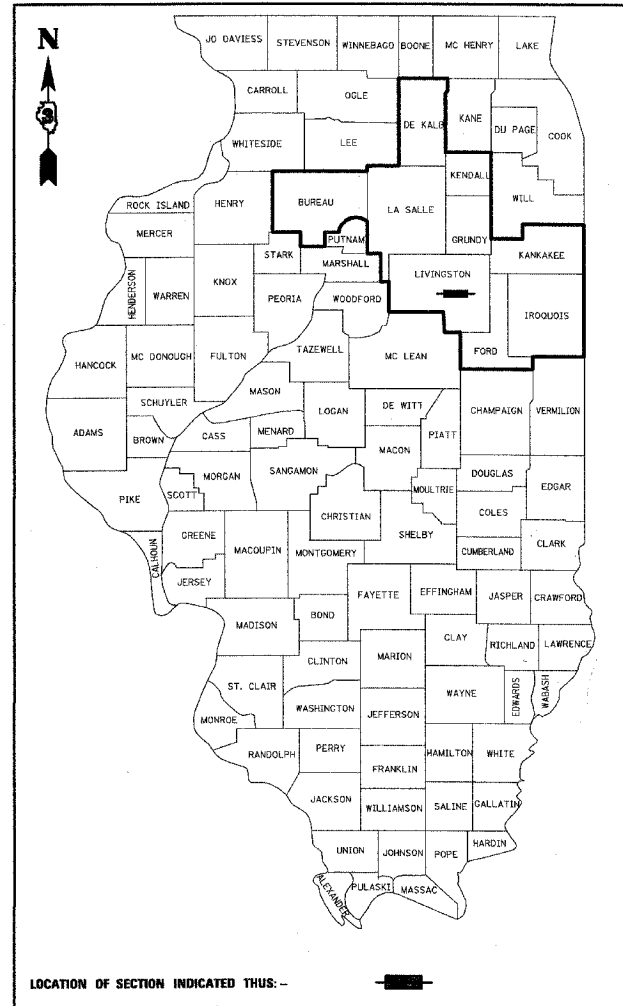
PROPOSED HIGHWAY IMPROVEMENT

F.A.P. 681 (IL116)
SECTION 113BR-2
LIVINGSTON COUNTY
C-93-071-05
PROJECT BHF-0681 (031)

BRIDGE SUPERSTRUCTURE REPLACEMENT
OVER FELKY SLOUGH 3 MILES WEST OF SAUNEMIN

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	1
F.H.W.A. REG.		ILLINOIS	PROJECT	

P-93-047-98
D-93-048-05



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

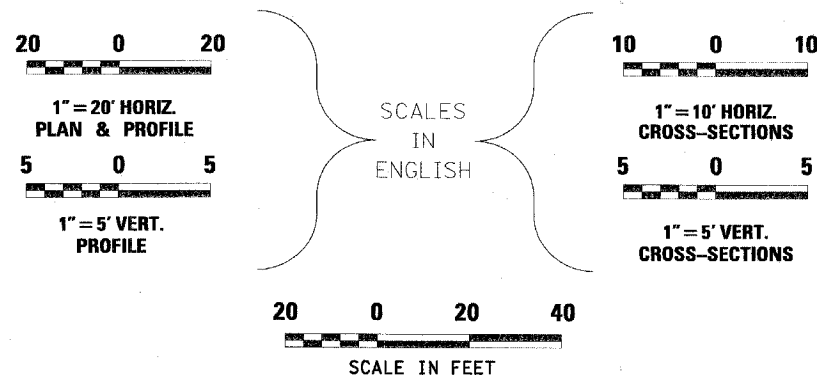
SUBMITTED 12-22 20 05

George C. M...
DEPUTY DIRECTOR OF HIGHWAYS,
REGION ENGINEER

February 3, 20 06
Mike N...
ENGINEER OF DESIGN AND ENVIRONMENT

February 3, 20 06
Milton P. S...
DIRECTOR, DIVISION OF HIGHWAYS

SEE SHEET NO. 2 FOR INDEX TO SHEETS AND STANDARDS



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.

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE ON THE FOLLOWING SHEETS _____

DESIGN DESIGNATION

SPEED LIMIT: 55 MPH
ADT = 2300 (2004) 2650 (2012)
% SU = 3.8%
% MU = 10%

HIGHWAY CLASSIFICATION

MINOR ARTERIAL (RURAL)

SURVEY BOOK NOS.

IDOT - BOOK FAP681-05-1
FARNSWORTH GROUP, INC. - BOOK 1892

JULIE 1-800-892-0123

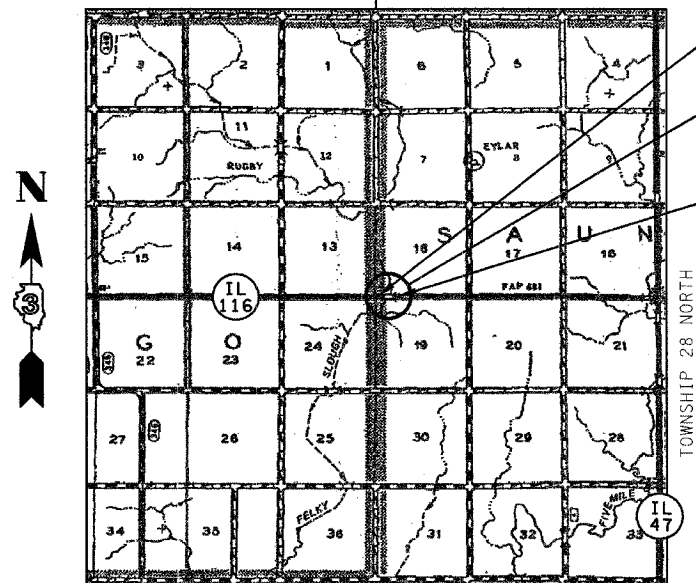
DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: DAVE BROVIAK
UNIT CHIEF: MARK JONES
TOWNSHIP: SAUNEMIN

CONTRACT NO. 66565

FARNSWORTH GROUP, INC.

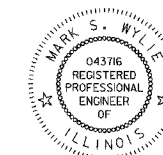
RANGE 6 EAST, 3RD. P.M. RANGE 7 EAST, 3RD. P.M.



LOCATION MAP



GROSS LENGTH OF IMPROVEMENT = 895 FEET = (0.170 MILES)
NET LENGTH OF IMPROVEMENT = 895 FEET = (0.170 MILES)



Mark S. Wylie Date 12/9/05
MARK S. WYLIE
ILLINOIS PROFESSIONAL ENGINEER
NO. 062-043716
EXPIRATION 11/30/07

Farnsworth GROUP
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

THE BITUMINOUS SURFACE OF ALL MAILBOX TURNOUTS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES, AND SIDE ROADS SHALL BE MADE NEATLY, IN WORKMANLIKE MANNER, AND SHALL ACCURATELY CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. IF REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SAW THE BITUMINOUS SURFACE TO CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. THIS WORK SHALL BE INCLUDED IN THE COST OF THE BITUMINOUS SURFACE.

THE BASE COURSE WIDENING SHALL BE CARRIED THROUGH ALL ENTRANCES, SIDE ROADS, AND MAILBOX TURNOUTS. EXCEPTIONS WILL BE SHOWN ON THE PLANS.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

AGGREGATE (PRIME COAT): FA 20 MAY BE USED IN ADDITION TO THE GRADATIONS LISTED IN THE 3RD PARAGRAPH OF ARTICLE 1003.03(c) OF THE STANDARD SPECIFICATIONS.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

SEEDING AND/OR SODDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION.

SHORT TERM PAVEMENT MARKING SHALL BE USED FOR EACH RESURFACING LIFT.

ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

NO WORK SHALL BE PERFORMED IN THE STREAM AND NO EQUIPMENT ALLOWED IN THE STREAM.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
BITUMINOUS MATERIALS	0.08	GAL / SQ YD OR
(PRIME COAT)	0.375	GAL / SQ YD
AGGREGATE (PRIME COAT)	0.002	TONS / SQ YD
BITUMINOUS RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVELING BINDER (HAND METHOD)	0.0005	TONS / SQ YD
SUPPLEMENTAL WATERING	3	GAL / SQ YD / APPLICATION
CALCIUM CHLORIDE	2	LB / SQ YD / APPLICATION
TEMPORARY DITCH CHECKS	9	BALES OR
	5	TONS AGGREGATE

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:
COMMONWEALTH EDISON - ELECTRIC
FRONTIER COMMUNICATIONS - FIBER OPTIC
MEDIACOM - CABLE

NON-MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:
NONE

COMMITMENTS

NONE

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS
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STANDARD NUMBERS

- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 280001-02 TEMPORARY EROSION CONTROL SYSTEMS
- 406201 MAILBOX TURNOUT
- 420401-05 BRIDGE APPROACH PAVEMENT
- 482011-01 BIT. SHOULDER STRIPS/SHOULDER STRIPS W/RESURFACING OR WIDENING AND RESURFACING PROJECTS
- 515001-02 NAME PLATE FOR BRIDGES
- 601101 CONCRETE HEADWALL FOR PIPE DRAIN
- 630001-05 STEEL PLATE BEAM GUARDRAIL
- 630201-03 PCC/BITUMINOUS STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
- 630301-03 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631032-01 TRAFFIC BARRIER TERMINAL, TYPE 6A
- 635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-01 REFLECTOR MARKER AND MOUNTING DETAILS
- 701001-01 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 4.5 m (15') AWAY
- 701006-02 OFF-RD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701011-01 OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701201-02 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
- 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701306-01 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
- 701311-02 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
- 701321-08 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701326-02 LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
- 702001-05 TRAFFIC CONTROL DEVICES
- 704001-02 TEMPORARY CONCRETE BARRIER
- 780001-01 TYPICAL PAVEMENT MARKINGS
- 781001-02 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

REVIEWED BY: *Red Powell*
DISTRICT STUDIES & PLANS ENGINEER

DATE: 12.21.2005

EXAMINED BY: *Robert G. Jones*
DISTRICT CONSTRUCTION ENGINEER

Edward R. Long
DISTRICT MATERIALS ENGINEER

James A. Huscher
DISTRICT OPERATIONS ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INDEX OF SHEETS, HIGHWAY STANDARDS,
GENERAL NOTES, & COMMITMENTS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY

DATE: 12/09/05
DRAWN BY: JJO
CHECKED BY: MSW

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CODE NUMBER	ITEM	UNIT	TOTAL	80% FEDERAL 20% STATE	
				ROADWAY X080-2A	STRUCTURE NO. 053-0075 X080-2A
20200100	EARTH EXCAVATION	CU YD	378	378	
20400800	FURNISHED EXCAVATION	CU YD	130	130	
20700400	POROUS GRANULAR EMBANKMENT (SPECIAL)	CU YD	63		63
25000200	SEEDING, CLASS 2	ACRE	0.4	0.4	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	36	36	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	36	36	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	36	36	
25100115	MULCH, METHOD 2	ACRE	0.4	0.4	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	650	650	
28000300	TEMPORARY DITCH CHECKS	EACH	3	3	
28100107	STONE RIPRAP, CLASS A4	SQ YD	50	50	
28200400	FILTER FABRIC	SQ YD	50	50	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	470	470	
40600300	AGGREGATE (PRIME COAT)	TON	12	12	
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	348	348	
40600990	TEMPORARY RAMP	SQ YD	185	185	
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	244	244	
42001300	PROTECTIVE COAT	SQ YD	250	250	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	48	48	
44000100	PAVEMENT REMOVAL	SQ YD	192	192	
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
50102400	CONCRETE REMOVAL	CU YD	5.4		5.4
50200100	STRUCTURE EXCAVATION	CU YD	70		70
50300225	CONCRETE STRUCTURES	CU YD	14.9		14.9
50300260	BRIDGE DECK GROOVING	SQ YD	663	230	433

• SPECIALTY ITEM

CODE NUMBER	ITEM	UNIT	TOTAL	80% FEDERAL 20% STATE	
				ROADWAY X080-2A	STRUCTURE NO. 053-0075 X080-2A
50300300	PROTECTIVE COAT	SQ YD	459		459
X5030305	CONCRETE WEARING SURFACE 5"	SQ YD	459		459
50301245	FORMED CONCRETE REPAIR (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	81.6		81.6
50301250	FORMED CONCRETE REPAIR (DEPTH GREATER THAN 5")	SQ FT	6.3		6.3
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	2386.5		2386.5
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1735.5		1735.5
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	7700		7700
50901005	STEEL BRIDGE RAIL, TYPE SM	FOOT	229		229
51205200	TEMPORARY SHEET PILING	SQ FT	292		292
51500100	NAME PLATES	EACH	1		1
59000100	EPOXY CRACK SEALING	FOOT	11		11
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	30		30
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	4	4	
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	140		140
63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	475	475	
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4	
63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	905	905	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4	
67100100	MOBILIZATION	L SUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	120	120	

• SPECIALTY ITEM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY

DATE: 12/09/05

DRAWN BY: JJO
CHECKED BY: MSW

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

80% FEDERAL
20% STATE

CODE NUMBER	ITEM	UNIT	TOTAL	ROADWAY X080-2A	STRUCTURE NO. 053-0075 X080-2A
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	720	720	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3580	3580	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	3580	3580	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	26	26	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1617	1617	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	482	482	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	430	430	
• 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1790	1790	
• 78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	240	240	
• 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	12	12	
78200405	GUARDRAIL MARKERS	EACH	16	16	
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	567	567	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	12	12	
• Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	72		72
Z0002600	BAR SPLICERS	EACH	131		131
Z0005215	BITUMINOUS STABILIZATION 6" AT STEEL PLATE BEAM GUARD RAIL	SQ YD	200	200	
Δ Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Δ Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
X3560130	BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9 INCH	SQ YD	832	832	
X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE "C", N50	TON	265	265	
X4066765	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N50	TON	188	188	
X4080020	INCIDENTAL BITUMINOUS SURFACING, SUPERPAVE, N50	TON	3	3	

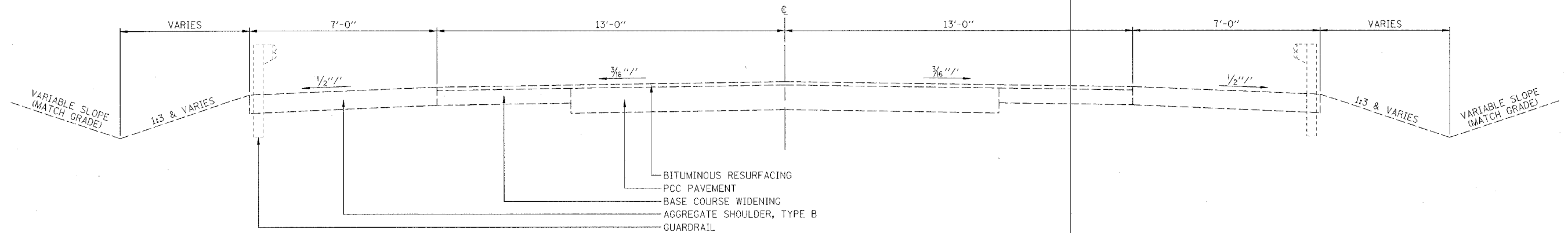
• SPECIALTY ITEM
Δ SAFETY PAY ITEM PAY CODE SFTY-3N

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY

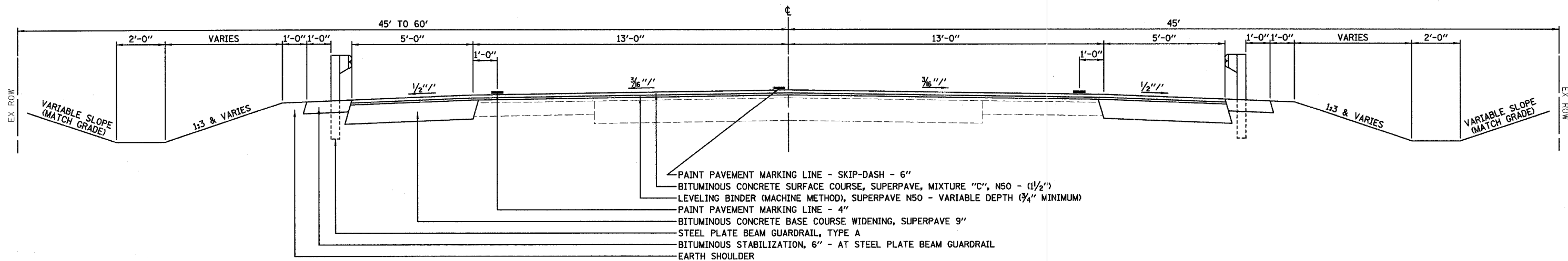
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL CROSS SECTION

F.A.P. 681 (IL116)



PROPOSED TYPICAL CROSS SECTION

F.A.P. 681 (IL116)
 • STA 432+20.00 RT & LT TO STA 435+87.67 RT & LT
 • STA 437+62.33 RT & LT TO STA 441+15.00 RT & LT

WEST BRIDGE APPROACH PAVEMENT
 STA 435+87.67 TO STA 436+17.67
 BRIDGE (BACK TO BACK OF ABUTMENT CAPS)
 STA 436+17.00 TO STA 437+33.00
 EAST BRIDGE APPROACH PAVEMENT
 STA 437+32.33 TO STA 437+62.33

	SUPERPAVE BINDER	SUPERPAVE STABILIZED SUB-BASE	SUPERPAVE SURFACE	SUPERPAVE BASE COURSE
PG GRADE	PG64-22	PG58-22	PG64-22	PG64-22
MAX % RAP ALLOWABLE**	25%	30%	15%	25%
DESIGN AIR VOIDS	4.0% @ N50	2.0% @ N30	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 19.0	BAM	IL 12.5 OR IL 9.5	IL 19.0
FRICTION AGGREGATE			MIXTURE C	
PLANT CONTROL LIMITS	CLASS I	NON-CLASS I	CLASS I	CLASS I
DENSITY TEST METHOD	CORES	•	CORES	•

- MATERIAL SHALL BE COMPACTED TO 93-97 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT THE BOTTOM LIFT SHALL BE COMPACTED TO A MINIMUM OF 91.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.
- ** IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TYPICAL SECTIONS
 F.A.P. 681 (IL116) OVER FELKY SLOUGH
 SECTION 113BR-2
 LIVINGSTON COUNTY

DATE: 12/09/05

DRAWN BY: JJO
 CHECKED BY: MSW

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK TABLE				
LOCATION	EARTH EXCAVATION (CU YD)	TOTAL EXCAV. ADJUSTED FOR 25% SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	BALANCE WASTE (+) SHORTAGE (-) (CU YD)
STA 432+20 TO STA 436+17	197	148	240	-92
STA 437+33 TO STA 441+15	181	136	174	-38
EARTH EXCAVATION = 378 CU YD FURNISHED EXCAVATION = 130 CU YD				

SEEDING						
LOCATION	SEEDING CLASS 2	MULCH METHOD 2	TEMPORARY EROSION CONTROL SEEDING	FERTILIZER NITROGEN	FERTILIZER PHOSPHORUS	FERTILIZER POSTASSIUM
	ACRE	ACRE	POUND	POUND	POUND	POUND
STA 432+20 LT TO STA 436+17 LT	0.10	0.10	162	9	9	9
STA 432+20 RT TO STA 436+17 RT	0.08	0.08	130	7	7	7
STA 437+33 LT TO STA 441+15 LT	0.11	0.11	179	10	10	10
STA 437+33 RT TO STA 441+15 RT	0.11	0.11	179	10	10	10
TOTAL	0.40	0.40	650	36	36	36

EROSION CONTROL	
LOCATION	TEMPORARY DITCH CHECKS EACH
STA 436+00 LT	1
STA 436+00 RT	1
STA 437+45 LT	1
TOTAL	3

STONE RIPRAP		
LOCATION	CLASS A4	FILTER FABRIC
	SQ. YD.	SQ. YD.
STA 437+55 LT TO STA 438+00 LT	50	50
TOTAL	50	50

BITUMINOUS MATERIALS								
LOCATION	BIT. MATLS. PRIME COAT	AGGR. PRIME COAT	BIT. SURFACE REMOVAL - BUTT JOINT	BIT. STBL. 6" @ SPBGR.	BIT. CONC. BASE CSE. WIDE. SUPERPAVE 9"	BIT. CONC. SURF. CSE. SUPERPAVE MIX C, N50	LEVELING BINDER (MM) SUPERPAVE N50	INCIDENTAL BIT. SURF. SUPERPAVE N50
	GAL	TON	SQ. YD.	SQ. YD.	SQ. YD.	TON	TON	TON
STA 432+20.00 TO STA 435+84.67	240	6				133	131	
STA 437+65.33 TO STA 441+15.00	230	6				132	57	
STA 432+20.00 TO STA 432+80.00			174					
STA 438+55.00 TO STA 441+15.00			174					
STA 432+20.00 RT TO STA 436+17.88 RT					214			
STA 432+20.00 LT TO STA 435+84.67 LT					203			
STA 437+32.13 RT TO STA 441+15.00 RT					206			
STA 437+65.33 LT TO STA 441+15.00 LT					194			
STA 432+84.21 RT (MAILBOX TURNOUT)					6			1
STA 433+18.00 LT (P.E.)					9			2
STA 433+73.12 RT TO STA 436+17.00 RT				61				
STA 434+60.60 LT TO STA 436+17.00 LT				39				
STA 437+33.00 RT TO STA 438+88.73 RT				39				
STA 437+33.00 LT TO STA 439+76.33 LT				61				
TOTAL	470	12	348	200	832	265	188	3

TEMPORARY RAMP	
LOCATION	SQ YD
STA 432+20.00	15
STA 435+84.67	85
STA 437+65.33	70
STA 441+15.00	15
TOTAL	185

BRIDGE APPROACH PAVEMENT, PROTECTIVE COAT, BRIDGE DECK GROOVING			
LOCATION	BRIDGE APPROACH	PROTECTIVE COAT	BRIDGE DECK GROOVING
	SQ YD	SQ YD	SQ YD
STA 435+87.67 TO STA 436+17.67	122	125	115
STA 437+32.33 TO STA 437+62.33	122	125	115
TOTAL	244	250	230

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	
LOCATION	SQ YD
STA 435+84.67 TO STA 435+90.67	24
STA 437+59.33 TO STA 437+65.33	24
TOTAL	48

PAVEMENT REMOVAL	
LOCATION	SQ YD
STA 435+84.67 LT TO STA 436+17.67 LT	50
STA 435+84.67 RT TO STA 436+17.67 RT	46
STA 437+32.33 LT TO STA 437+65.33 LT	50
STA 437+32.33 RT TO STA 437+65.33 RT	46
TOTAL	192

CONCRETE HEADWALL FOR PIPE DRAINS	
LOCATION	EACH
STA 436+14 LT	1
STA 436+14 RT	1
STA 437+36 LT	1
STA 437+36 RT	1
TOTAL	4

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY

DATE: 12/09/05

DRAWN BY: JJO
CHECKED BY: MSW

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

GUARDRAIL					
LOCATION	TRAFFIC BARRIER TERMINAL TY 1 SPECIAL (TANGENT)	SPBGR. TY A	TRAFFIC BARRIER TERMINAL TY 6A	GUARDRAIL MARKERS	TERMINAL MARKER-DIRECT APPLIED
	EACH	FOOT	EACH	EACH	EACH
	STA 433+73.12 RT TO STA 434+23.12 RT	1			1
STA 434+23.12 RT TO STA 435+85.62 RT		162.5		2	
STA 435+85.62 RT TO STA 436+18.77 RT			1	1	
STA 436+18.77 RT TO STA 437+30.58 RT				1	
STA 434+60.62 LT TO STA 435+10.62 LT	1			1	1
STA 435+10.62 LT TO STA 435+85.62 LT		75		1	
STA 435+85.62 LT TO STA 436+18.72 LT			1	1	
STA 436+18.72 LT TO STA 437+30.58 LT				1	
STA 437+30.58 RT TO STA 437+63.73 RT			1	1	
STA 437+63.73 RT TO STA 438+38.73 RT		75		1	
STA 438+38.73 RT TO STA 438+88.73 RT	1			1	1
STA 437+30.58 LT TO STA 437+63.73 LT			1	1	
STA 437+63.73 LT TO STA 439+26.23 LT		162.5		2	
STA 439+26.23 LT TO STA 439+76.23 LT	1			1	1
TOTAL	4	475	4	16	4

GUARDRAIL REMOVAL	
LOCATION	FOOT
STA 433+42 RT TO STA 436+18 RT	275
STA 434+42 LT TO STA 436+18 LT	176
STA 437+32 RT TO STA 439+09 RT	178
STA 437+32 LT TO STA 440+08 LT	276
TOTAL	905

ENGINEER'S FIELD OFFICE, TYPE A	
LOCATION	CAL MO
JOB SITE	4

MOBILIZATION	
LOCATION	L SUM
JOB SITE	1

TRAFFIC CONTROL - ALL STAGES		
ITEM	UNIT	TOTAL
TRAFFIC CONTROL AND PROTECTION, STD 701321	EACH	1
TRAFFIC CONTROL AND PROTECTION, STD 701306	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STD 701326	L SUM	1
TRAFFIC CONTROL SURVEILLANCE	CAL DA	120
TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
TEMPORARY CONCRETE BARRIER	FOOT	482
RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	430
SHORT-TERM PAVEMENT MARKING	FOOT	720
WORK ZONE PAVEMENT MARKING REMOVAL	FOOT	1617
PAVEMENT MARKING REMOVAL	SQ FT	567
TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3580
TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	3580
TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	26

PAINT PAVEMENT MARKING LINE		
LOCATION	4"	6"
	FOOT	FOOT
STA 432+20 RT TO STA 441+15 RT	895	
STA 432+20 LT TO STA 441+15 LT	895	
STA 432+20 C TO STA 441+15 C		240
TOTAL	1790	240

RAISED REFLECTIVE PAVEMENT MARKER		
LOCATION	REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER
	EACH	EACH
STA 432+20 TO STA 441+15	12	12
TOTAL	12	12

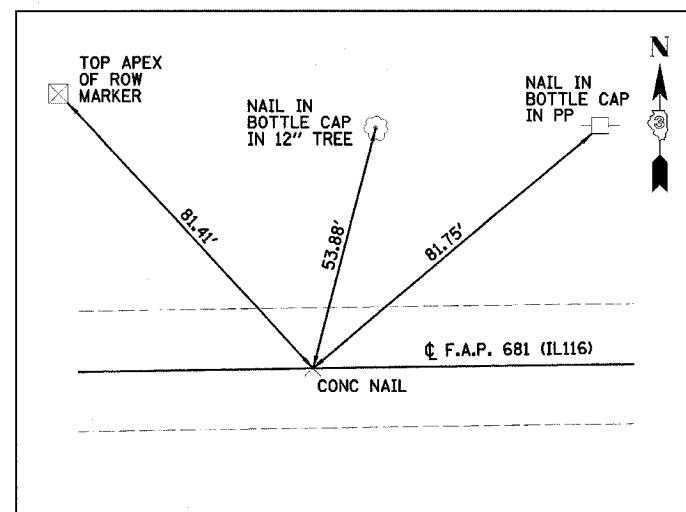
PAVEMENT MARKING REMOVAL	
LOCATION	SQ FT
STA 432+20 RT TO STA 435+85 RT	120
STA 432+20 LT TO STA 435+85 LT	120
STA 432+20 C TO STA 435+85 C	50
STA 437+65 RT TO STA 441+15 RT	116
STA 437+65 LT TO STA 441+15 LT	116
STA 437+65 C TO STA 441+15 C	45
TOTAL	567

REVISIONS	
NAME	DATE

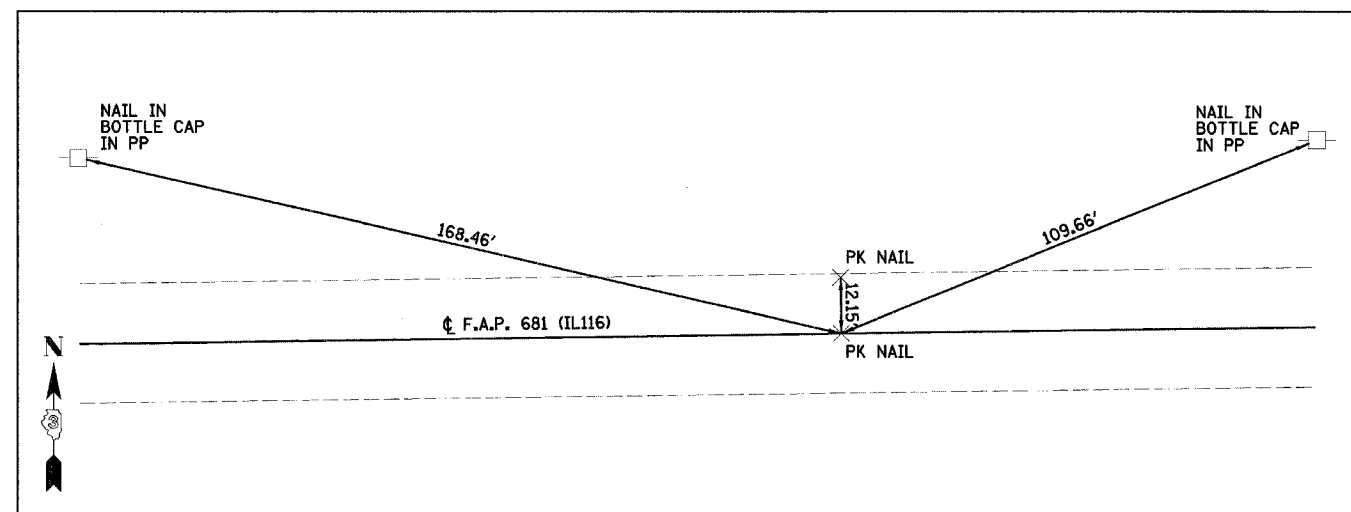
ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF QUANTITIES
 F.A.P. 681 (IL116) OVER FELKY SLOUGH
 SECTION 113BR-2
 LIVINGSTON COUNTY

DATE: 12/09/05
 DRAWN BY: JJO
 CHECKED BY: MSW

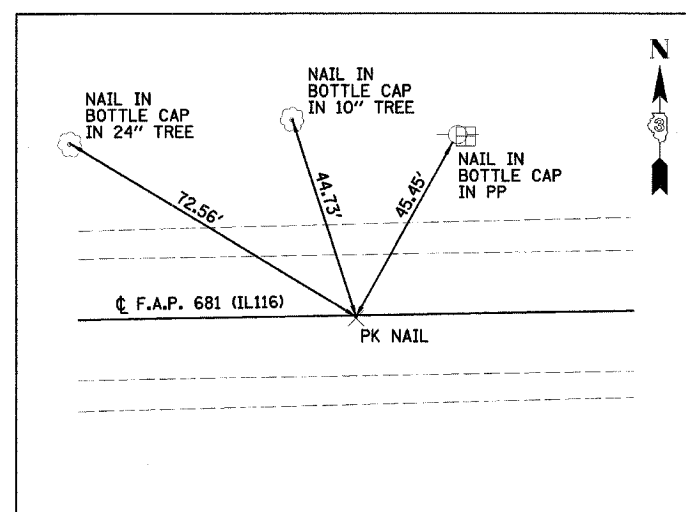
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



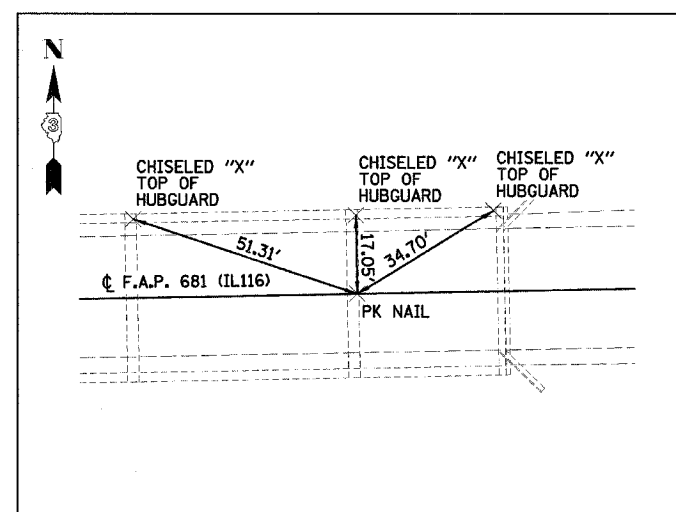
P.O.T. STA. 414+30.65, 0.00' LT



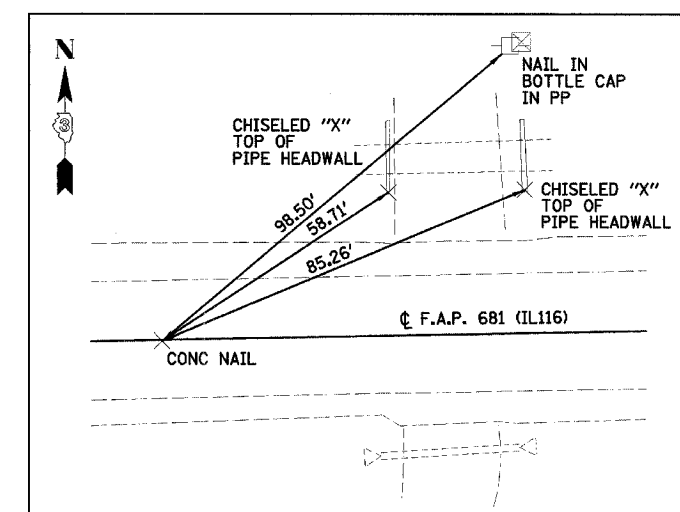
P.C. STA. 427+00.00, 0.00' LT



P.I. STA. 432+00.00, 0.62' LT



P.T. STA. 437+00.00, 0.00' LT



P.O.T. STA. 441+25.76, 0.00' LT

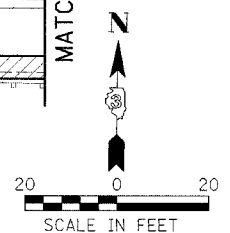
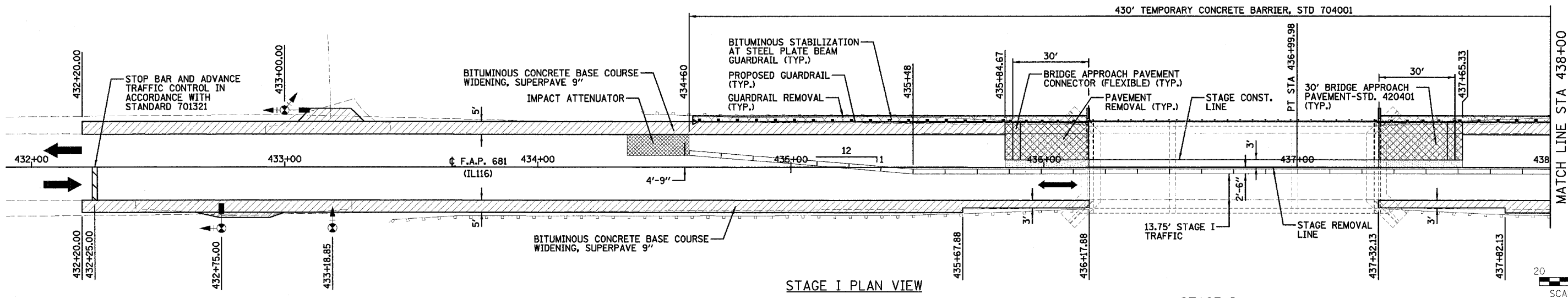
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 CENTERLINE SURVEY TIES
 F.A.P. 681 (IL116) OVER FELKY SLOUGH
 SECTION 113BR-2
 LIVINGSTON COUNTY

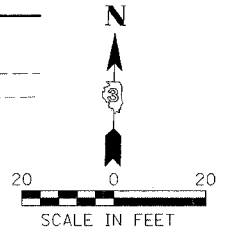
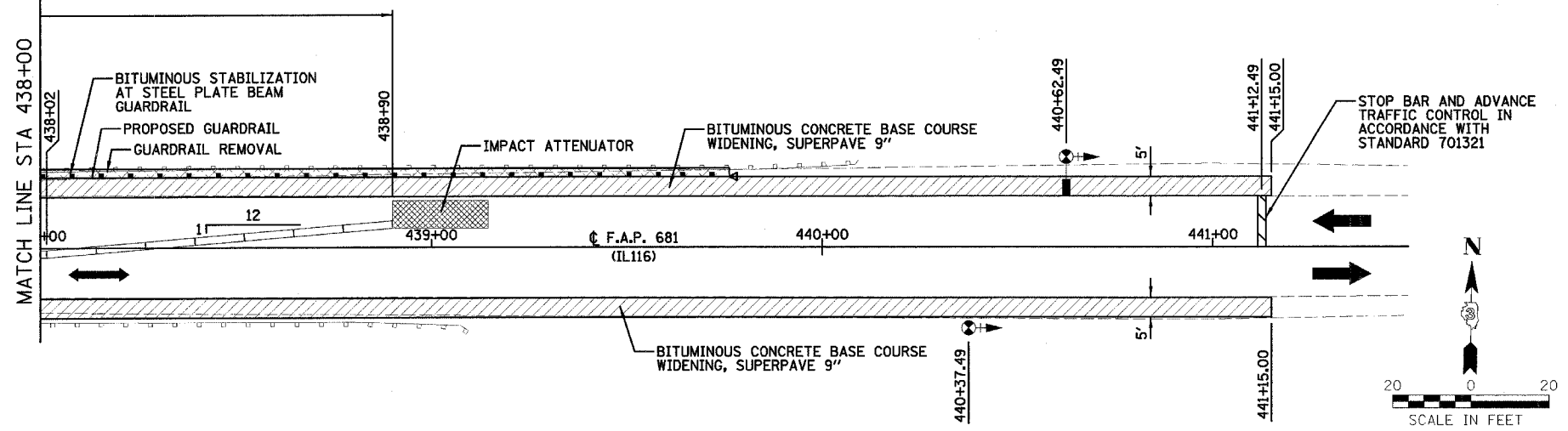
DATE: 12/09/05

DRAWN BY: JJO
 CHECKED BY: MSW

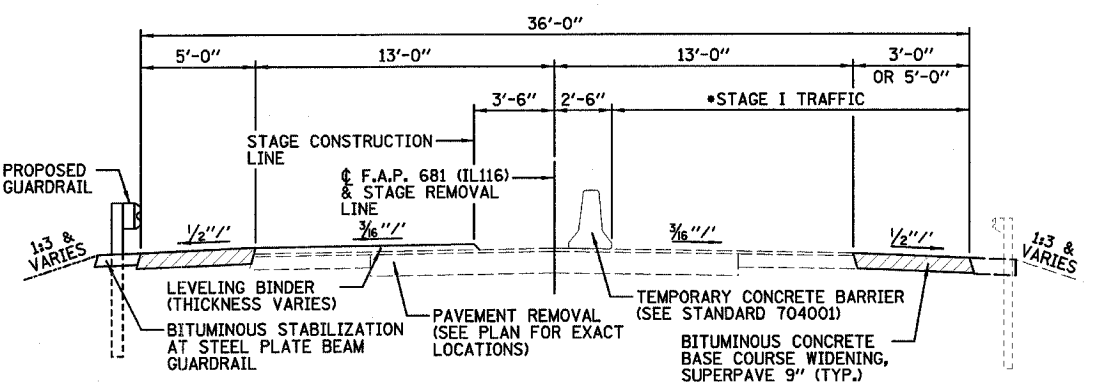
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	9
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



STAGE I PLAN VIEW

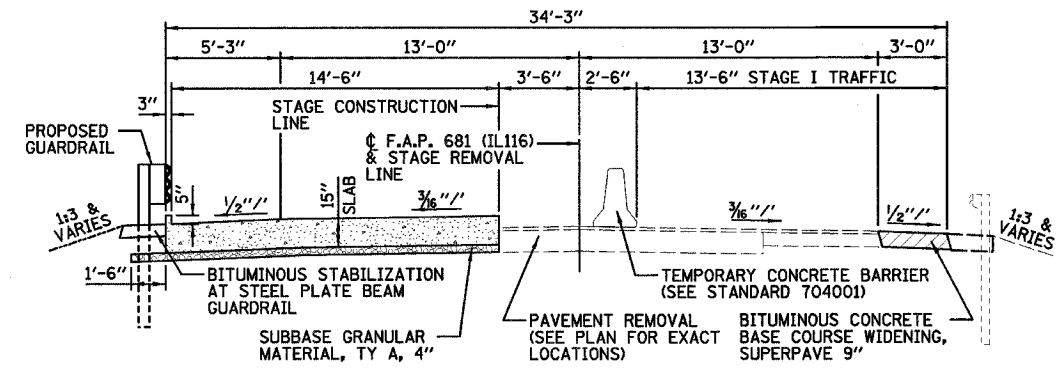


STAGE I PLAN VIEW



STAGE I ROADWAY TYPICAL SECTION - LOOKING EAST

*STAGE I TRAFFIC STA. 433+20.00 TO STA. 435+48.29 AND STA. 438+01.63 TO STA. 441+15.00 VARIES FROM 18' TO 13.5'. STAGE I TRAFFIC STA. 435+48.29 TO STA. 438+01.63 IS 13.5'.



STAGE I BRIDGE APPROACH PAVEMENT TYPICAL SECTION - LOOKING EAST

STA. 435+87.67 TO STA. 436+17.67
STA. 437+32.33 TO STA. 437+62.33

STAGE I

1. TRAFFIC CONTROL SHALL BE PROVIDED AS SHOWN HEREIN AND IN ACCORDANCE WITH "LANE CLOSURE 2L, 2W BRIDGE REPAIR WITH BARRIER" (STD. 701321). THE COST OF TYPE III BARRICADES AND DRUMS WITH STEADY BURNING LIGHTS SHALL BE INCLUDED WITH TRAFFIC CONTROL STANDARD 701321.
2. REMOVE RIGHT SHOULDER FROM STA. 432+20.00 TO STA. 436+17.88 AND STA. 437+32.13 TO STA. 441+15.00. REPLACE WITH BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9" AT STATIONS SHOWN ABOVE USING STANDARDS 701011 AND 701326.
3. PROVIDE TEMPORARY BRIDGE TRAFFIC SIGNALS.
4. WIDTH RESTRICTION SIGNING SHALL BE POSTED FOR A MAXIMUM WIDTH OF 10'-9" IN ACCORDANCE WITH THE DETAIL SHOWN ON SHEET 44. ACTUAL LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER. SIGNING TO REMAIN IN PLACE UNTIL STAGE II IS COMPLETE.
5. PROVIDE TEMPORARY CONCRETE BARRIER.
6. ACTIVATE TEMPORARY BRIDGE TRAFFIC SIGNALS AND DIVERT TRAFFIC TO THE STAGE I LANE.
7. REMOVE THE PORTION OF THE EXISTING BRIDGE LEFT OF STAGE REMOVAL LINE.
8. REMOVE THE PORTION OF THE EXISTING PAVEMENT REQUIRED TO CONSTRUCT THE BRIDGE, APPROACH PAVEMENTS, AND APPROACH PAVEMENT CONNECTORS.
9. CONSTRUCT THE PORTION OF BRIDGE LEFT OF STAGE CONSTRUCTION LINE.
10. CONSTRUCT THE PORTION OF BRIDGE APPROACH PAVEMENT AND CONNECTOR LEFT OF STAGE CONSTRUCTION LINE.
11. REMOVE LEFT SHOULDER FROM STA. 432+20.00 TO STA. 435+84.67 AND STA. 437+65.33 TO STA. 441+15.00. REPLACE WITH BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9" AT STATIONS SHOWN ABOVE USING STANDARDS 701011 AND 701326.
12. PROVIDE EMBANKMENT, EXCAVATION, BITUMINOUS STABILIZATION AND GUARDRAIL LEFT OF STAGE CONSTRUCTION LINE.
13. PROVIDE BITUMINOUS SURFACE REMOVAL WITHIN LIMITS INDICATED ON PLANS.
14. PLACE LEVELING BINDER AS SPECIFIED IN ARTICLE 406.18 AT THE ENDS OF NEW BRIDGE APPROACH PAVEMENT AND CONNECTORS PRIOR TO SWITCHING TO STAGE II.

LEGEND

- AGGREGATE SHOULDER REMOVAL (EARTH EXCAVATION) AND BIT. CONCRETE BASE COURSE WIDENING, SUPERPAVE 9"
- BITUMINOUS STABILIZATION
- PAVEMENT REMOVAL
- BRIDGE APPROACH PAVEMENT AND CONNECTOR
- TRAFFIC SIGNAL WITH SIGNAL DIRECTION INDICATED, BACK PLATE & TC-26 MICROWAVE DETECTOR
- TEMPORARY CONCRETE BARRIER

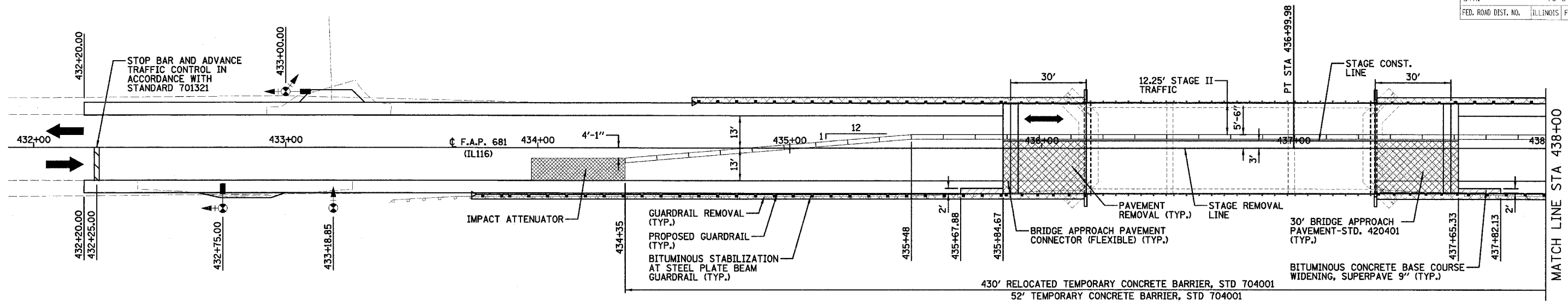
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE I CONSTRUCTION
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY

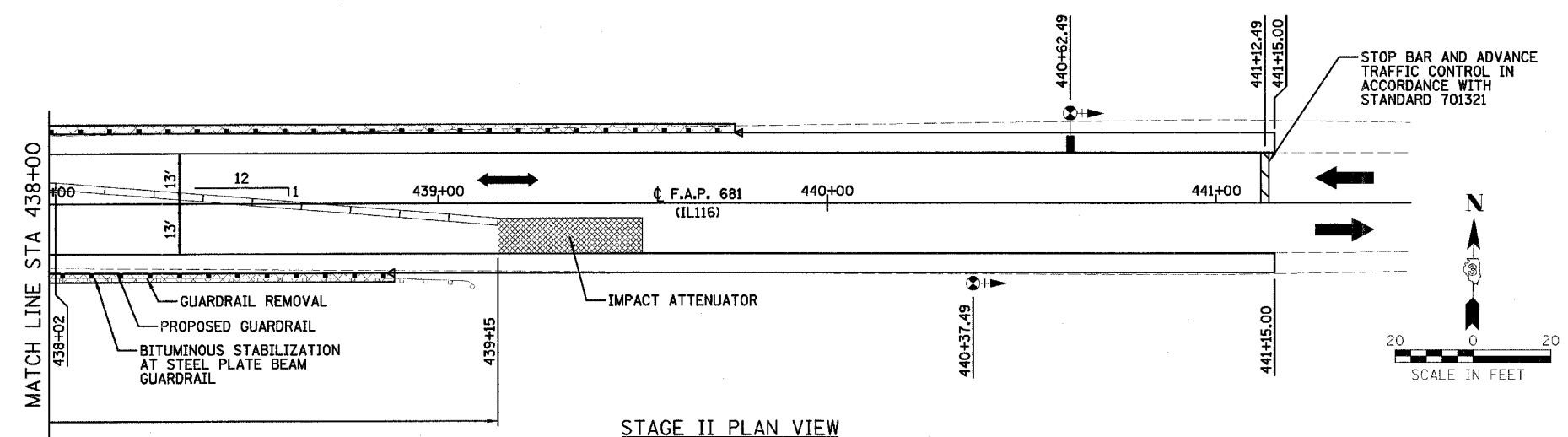
DATE: 12/09/05

DRAWN BY: JJO
CHECKED BY: MSW

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE II PLAN VIEW



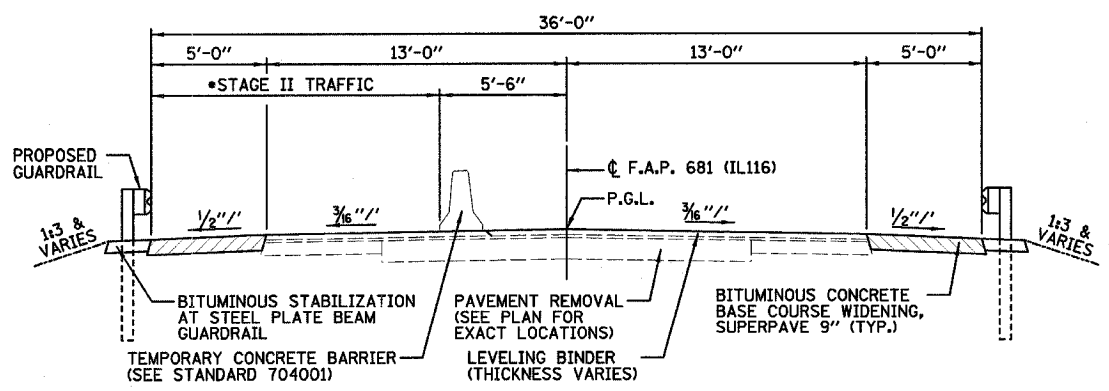
STAGE II PLAN VIEW

STAGE II

1. RELOCATE THE TEMPORARY CONCRETE BARRIER AND SAND MODULE IMPACT ATTENUATORS AND DIVERT TRAFFIC TO THE STAGE II LANE.
2. REMOVE THE PORTION OF THE EXISTING BRIDGE RIGHT OF THE STAGE REMOVAL LINE.
3. REMOVE THE PORTION OF THE EXISTING PAVEMENT AND SHOULDERS REQUIRED TO CONSTRUCT THE BRIDGE, BRIDGE APPROACH PAVEMENTS AND APPROACH PAVEMENT CONNECTORS.
4. CONSTRUCT THE PORTION OF BRIDGE RIGHT OF THE STAGE CONSTRUCTION LINE.
5. CONSTRUCT THE PORTION OF THE PROPOSED BRIDGE APPROACH PAVEMENT AND CONNECTOR RIGHT OF THE STAGE CONSTRUCTION LINE.
6. REMOVE RIGHT SHOULDER FROM STA. 435+67.88 TO STA. 435+84.67 AND STA. 437+65.33 TO STA. 437+82.13. REPLACE WITH BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9" AT STATIONS SHOWN ABOVE USING STANDARDS 701011 AND 701326.
7. PROVIDE EMBANKMENT, EXCAVATION, BITUMINOUS STABILIZATION AND GUARDRAIL RIGHT OF THE STAGE CONSTRUCTION LINE.
8. PLACE BITUMINOUS BINDER AND LEVELING BINDER AS SPECIFIED IN ARTICLE 406.18 AT THE ENDS OF NEW BRIDGE APPROACH PAVEMENT AND CONNECTORS.

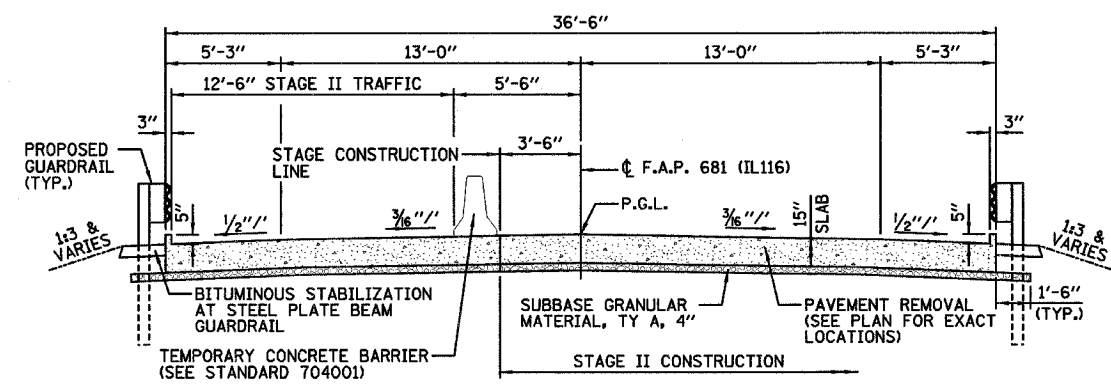
FINAL PHASE

1. REMOVE TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS.
2. PLACE BITUMINOUS BINDER COURSE.
3. PLACE BITUMINOUS SURFACE COURSE.
4. PROVIDE PAVEMENT MARKINGS.



STAGE II ROADWAY TYPICAL SECTION - LOOKING EAST

•STAGE II TRAFFIC STA. 433+20.00 TO STA. 435+48.33 AND STA. 438+01.67 TO STA. 441+15.00 VARIES FROM 18' TO 12.25'. STAGE II TRAFFIC STA. 435+48.33 TO STA. 438+01.67 IS 12.25'.



STAGE II BRIDGE APPROACH PAVEMENT TYPICAL SECTION - LOOKING EAST

STA. 435+87.67 TO STA. 436+17.67
STA. 437+32.33 TO STA. 437+62.33

LEGEND

- AGGREGATE SHOULDER REMOVAL (EARTH EXCAVATION) AND BIT. CONCRETE BASE COURSE WIDENING, SUPERPAVE 9"
- BITUMINOUS STABILIZATION
- PAVEMENT REMOVAL
- BRIDGE APPROACH PAVEMENT AND CONNECTOR
- TRAFFIC SIGNAL WITH SIGNAL DIRECTION INDICATED, BACK PLATE & TC-26 MICROWAVE DETECTOR
- TEMPORARY CONCRETE BARRIER

REVISIONS	
NAME	DATE

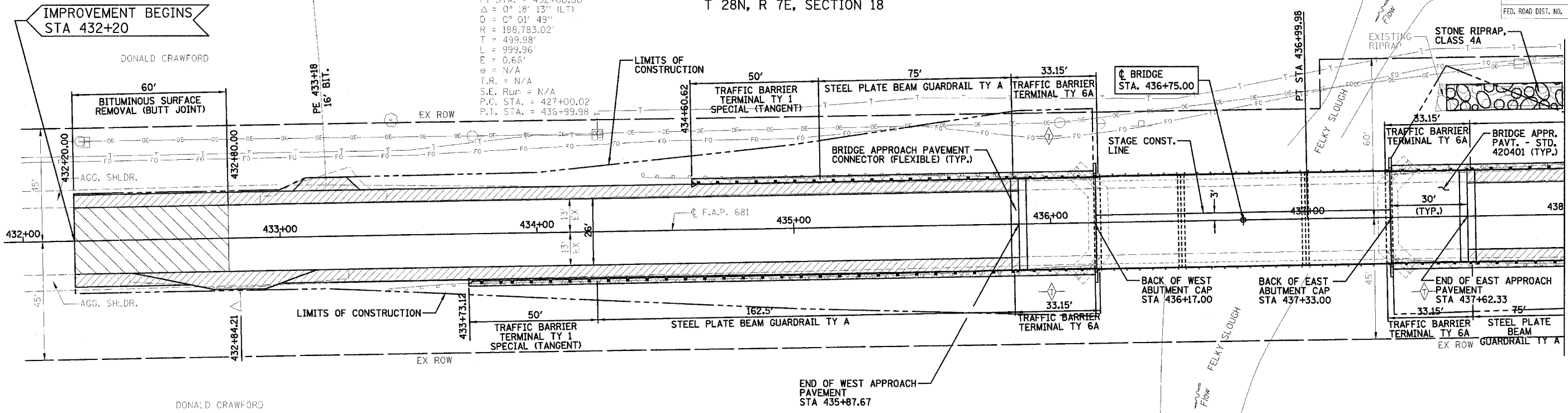
ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE II CONSTRUCTION
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY

DATE: 12/09/05
DRAWN BY: JJO
CHECKED BY: MSW

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

T 28N, R 7E, SECTION 18

EXIST. CURVE EXCL-1
 PI STA. = 432+00.00
 $\Delta = 0^\circ 38' 13''$ (LT)
 $D = 0^\circ 01' 49''$
 $R = 188,783.02'$
 $T = 499.98'$
 $L = 999.96'$
 $E = 0.66'$
 $\theta = N/A$
 $T.R. = N/A$
 $S.E. Run = N/A$
 $P.C. STA. = 427+00.02$
 $P.T. STA. = 436+99.98$



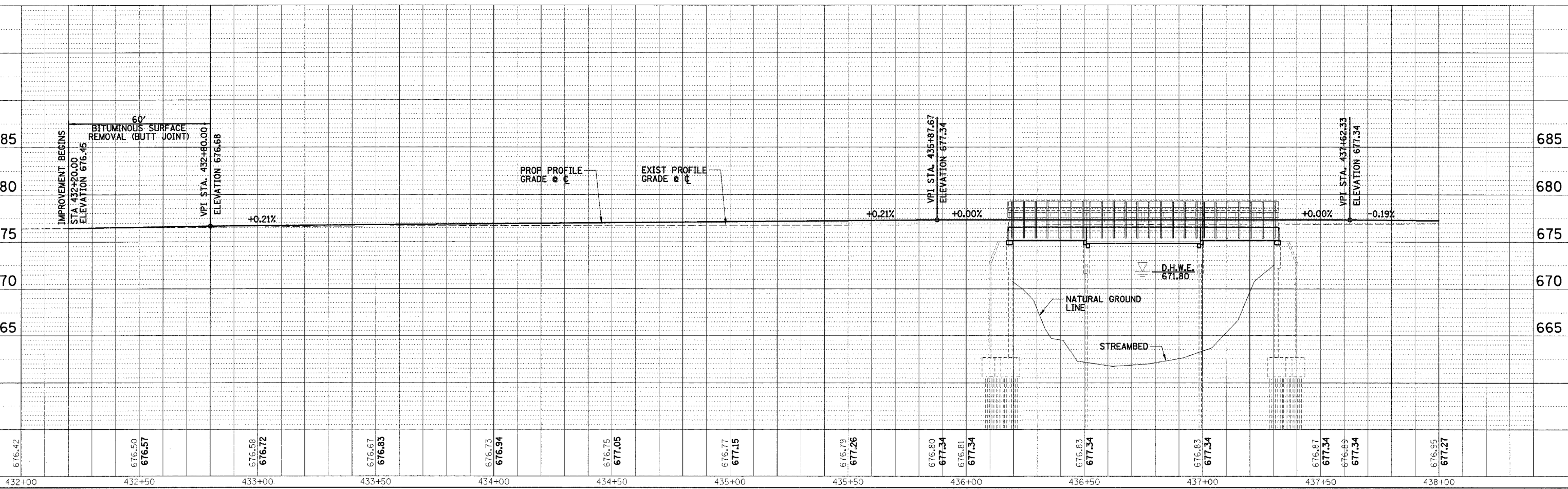
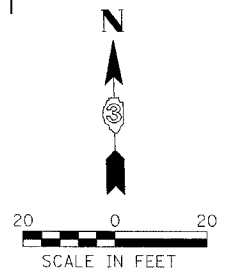
DONALD CRAWFORD

	BUTT JOINT
	BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9"
	BITUMINOUS STABILIZATION
	TEMPORARY DITCH CHECK

T 28N, R 7E, SECTION 19

- NOTES:**
- 1.) WORK THIS SHEET WITH SHEET 12.
 - 2.) SEE SHEET 8 FOR TYPICAL SECTIONS.
 - 3.) SEE SHEET 8 FOR SURVEY TIES.
 - 4.) SEE SHEETS 9 & 10 FOR STAGE CONSTRUCTION.
 - 5.) SEE SHEETS 13-43 FOR BRIDGE PLANS.

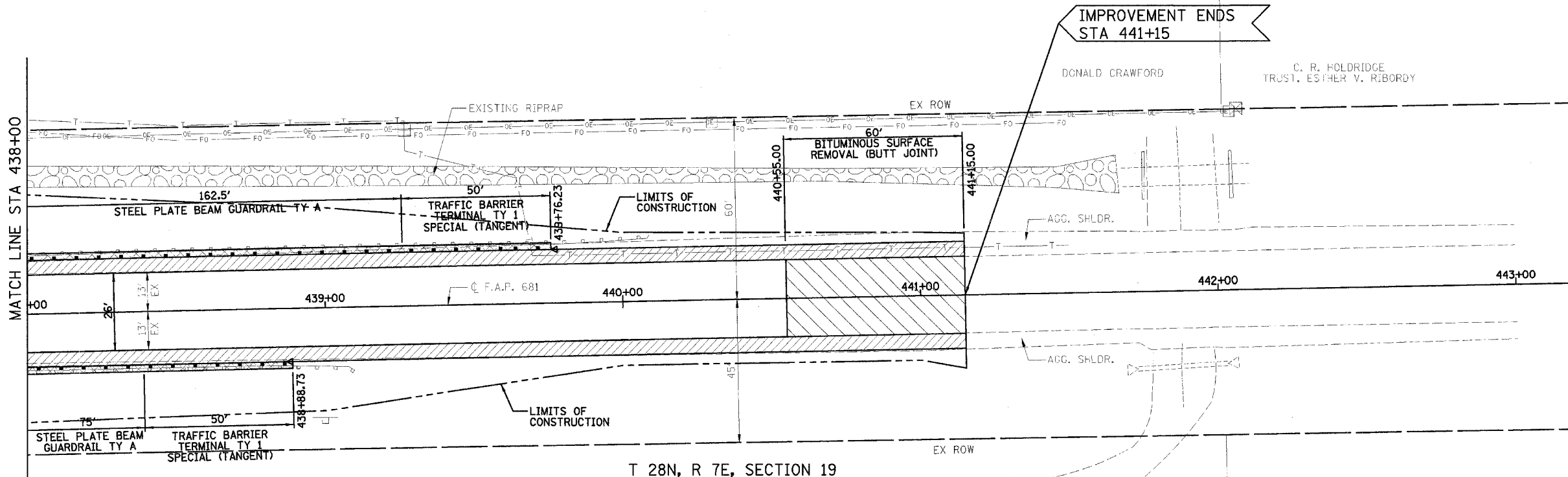
BENCHMARK
 STA 437+33.00, 16.0' RT
 ELEV=677.14
 CHISELED "I" TOP OF S.E. CORNER OF EAST ABUTMENT ON F.A.P. 681 (1116)



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	12
STA. 681		TO STA. 443+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

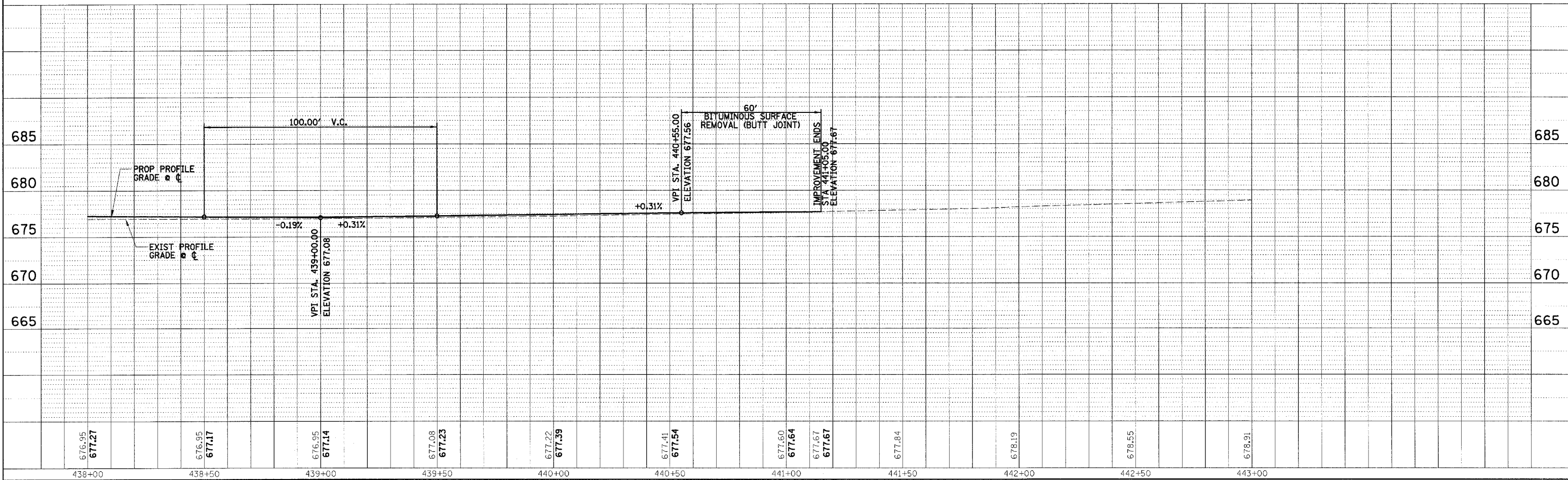
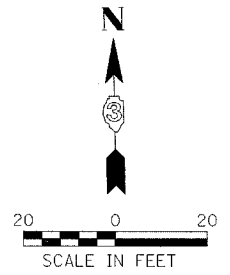
T 28N, R 7E, SECTION 18

T 28N, R 7E, SECTION 19



	BUTT JOINT
	BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9"
	BITUMINOUS STABILIZATION

- NOTES:**
- 1.) WORK THIS SHEET WITH SHEET 11.
 - 2.) SEE SHEET 5 FOR TYPICAL SECTIONS.
 - 3.) SEE SHEET 8 FOR SURVEY TIES.
 - 4.) SEE SHEETS 9 & 10 FOR STAGE CONSTRUCTION.
 - 5.) SEE SHEETS 13-43 FOR BRIDGE PLANS.



PLAN
DATE
BY
CHECKED
DATE
NO.
NO.

PROFILE
DATE
BY
CHECKED
DATE
NO.
NO.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

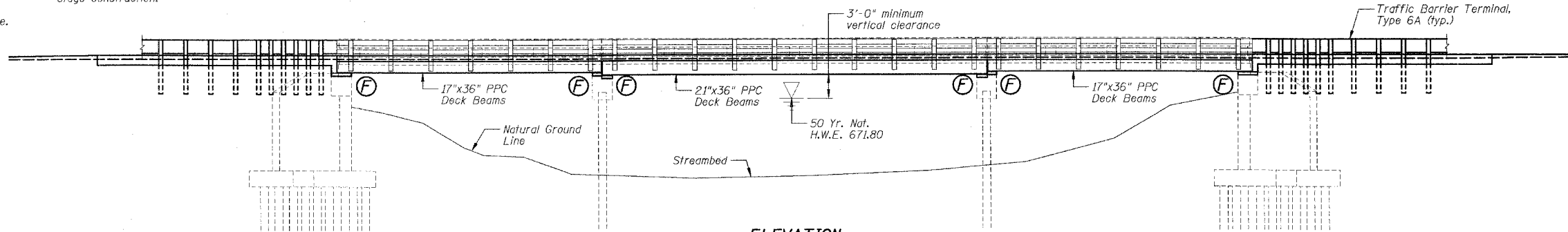
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	13
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B1
OF 31 SHEETS

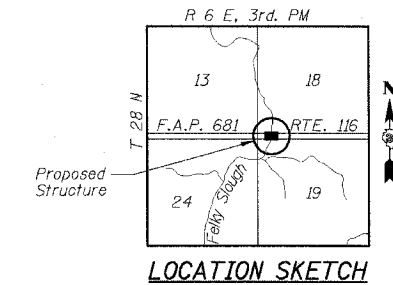
Benchmark: 1, "□" top of wingwall, Southeast corner of East Abutment, Elevation = 677.14/Sta. 437+33.16' RT.

Existing Structure: SN 053-0075 was built in 1927 under Section 113 and 113B. In 1965, the bridge was widened, the superstructure was replaced with 3 simple span PPC deck beams (12 PPC deck beams) and 2 new piers were added under Section 113B-1. In 1996 the existing pier piles were encased by IDOT under Section 113B-1. The substructure consists of closed abutments founded on timber piles and pile bent piers. The back-to-back of abutment caps dimension measures 116'-0" while the out-to-out width measures 36'-6". The existing superstructure shall be replaced with PPC deck beams and a 5" concrete wearing surface. The substructure will be repaired. Wingwalls (abutments) and a 5" concrete cap (all substructure units) will be added. The structure is to be upgraded using stage construction.

No Salvage.



ELEVATION



LOCATION SKETCH

DESIGN SPECIFICATIONS

AASHTO 2002

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 5,000 psi (Concrete Wearing Surface)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (1/2" ϕ low relaxation strands)
f'si = 201,960 psi (1/2" ϕ low relaxation strands)

LOADING HS20-44

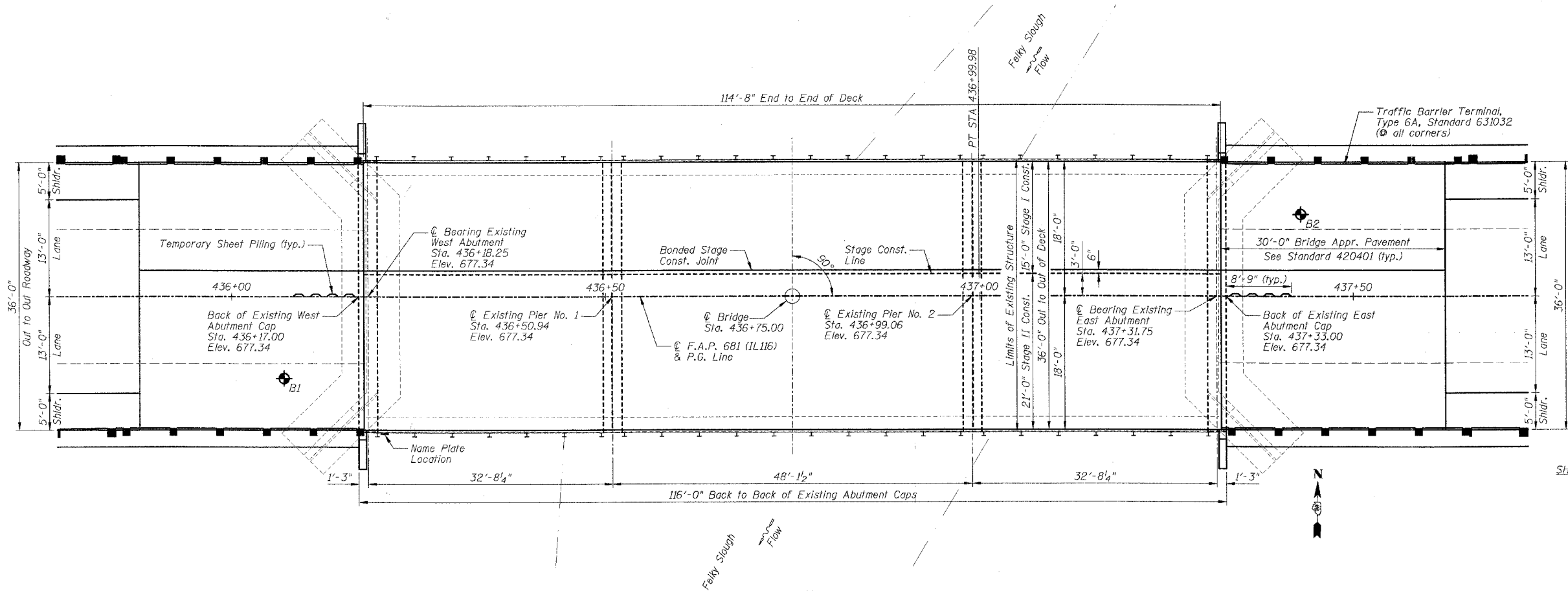
Future wearing surface is not allowed.

HORIZONTAL CURVE DATA

P.I. STA. = 432+00.00
Δ = 0°18'13" (LT)
D = 0°01'49"
R = 188,783.02'
T = 499.98'
L = 999.96'
E = 0.66'
P.C. STA. = 427+00.02
P.T. STA. = 436+99.98

INDEX TO SHEETS

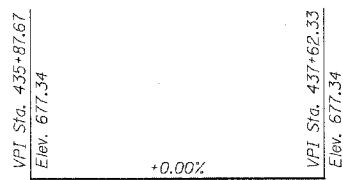
SHEET NO.	TITLE
B1	GENERAL PLAN AND ELEVATION
B2	GENERAL NOTES, BILL OF MATERIAL, SECTION AND DETAIL
B3	STAGE CONSTRUCTION
B4	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
B5	BAR SPLICER ASSEMBLY DETAILS
B6	TYPE SM STEEL BRIDGE RAIL SIDE MOUNTED WITH CONCRETE WEARING SURFACE
B7	SUPERSTRUCTURE
B8	SUPERSTRUCTURE CROSS SECTION AND DETAILS
B9	17"x36" DECK PPC BEAM DETAILS
B10	21"x36" DECK PPC BEAM DETAILS
B11	WEST ABUTMENT CONCRETE REMOVAL AND REPAIRS
B12-B13	WEST ABUTMENT
B14	EAST ABUTMENT CONCRETE REMOVAL AND REPAIRS
B15-B16	EAST ABUTMENT
B17	PIER NO. 1 CONCRETE REPAIRS
B18-B19	PIER NO. 1
B20	PIER NO. 2 CONCRETE REPAIRS
B21-B22	PIER NO. 2
B23-B24	SOIL BORING LOGS
B25-B31	EXISTING PLANS



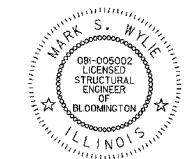
PLAN

STATION 436+75.00
REBUILT 200... BY
STATE OF ILLINOIS
F.A.P. RTE. 681 SECTION 113BR-2
LOADING HS20
STR. NO. 053-0075

NAME PLATE
See Standard 515001



PROFILE GRADE
(Along Centerline of Roadway)



Mark S. Wylie Date 12/19/05
MARK S. WYLIE
ILLINOIS STRUCTURAL ENGINEER
NO. 081-005002
Exp. Date 11/30/06

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN AND ELEVATION
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML DRAWN BY: DJM
DATE: 12/09/05 CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 66565

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	14
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

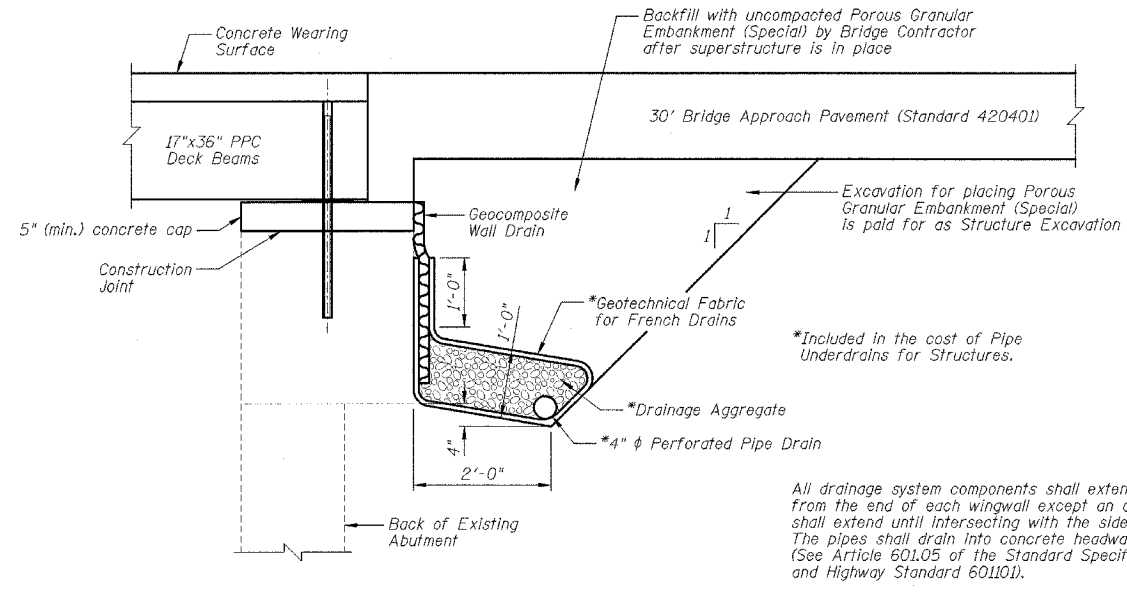
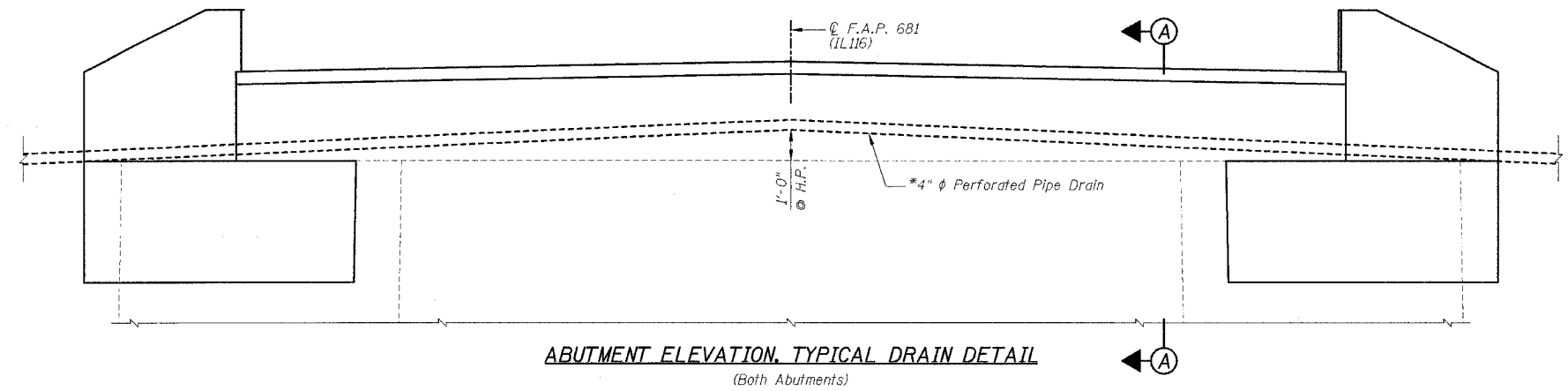
SHEET NO. B2
OF 31 SHEETS

GENERAL NOTES:

- 1.) Reinforcement Bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- 2.) Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- 3.) Existing Name Plate shall be cleaned and relocated adjacent to new Name Plate. Cost included with "Name Plates".
- 4.) All construction joints shall be bonded.
- 5.) Concrete Sealer shall be applied to exterior vertical face of each fascia beam.
- 6.) The asbestos bearing pads to be removed are at the following locations:
Pier #1 (West Seats) = 2 per beam
Pier #2 (West Seats) = 2 per beam
Pier #2 (East Seats) = 2 per beam
- 7.) After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
- 8.) The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.
- 9.) The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
- 10.) No instream work will be allowed on this project.
- 11.) Repair of the pier caps shall be completed prior to placement of the new deck beams.
- 12.) The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
- 13.) If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.

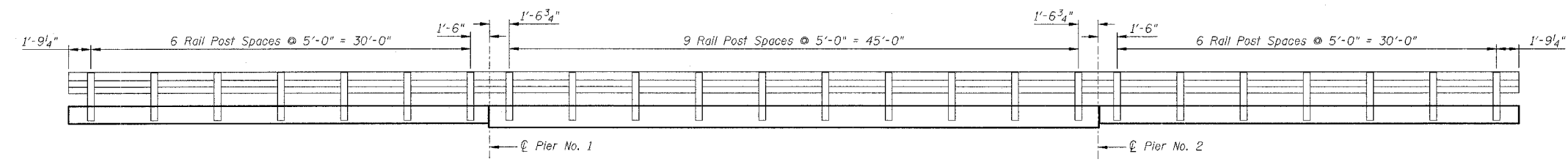
TOTAL BILL OF MATERIAL

ITEMS	UNITS	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu Yd		63	63
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu Yd		5.4	5.4
Structure Excavation	Cu Yd		70	70
Concrete Structures	Cu Yd		14.9	14.9
Bridge Deck Grooving	Sq Yd	433		433
Protective Coat	Sq Yd	459		459
Concrete Wearing Surface 5"	Sq Yd	459		459
Formed Concrete Repair (Depth Equal To Or Less Than 5")	Sq Ft		81.6	81.6
Formed Concrete Repair (Depth Greater Than 5")	Sq Ft		6.3	6.3
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq Ft	2386.5		2386.5
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq Ft	1735.5		1735.5
Reinforcement Bars, Epoxy Coated	Pound	5740	1960	7700
Steel Bridge Rail, Type SM	Foot	229		229
Temporary Sheet Piling	Sq Ft		292	292
Name Plates	Each	1		1
Epoxy Crack Sealing	Foot		11	11
Geocomposite Wall Drain	Sq Yd		30	30
Pipe Underdrains For Structures 4"	Foot		140	140
Asbestos Bearing Pad Removal	Each	72		72
Bar Splicers	Each	115	16	131



SECTION A-A THRU ABUTMENT

Approach pavement shall be poured after superstructure wearing surface has been placed.



RAIL POST SPACING DETAIL

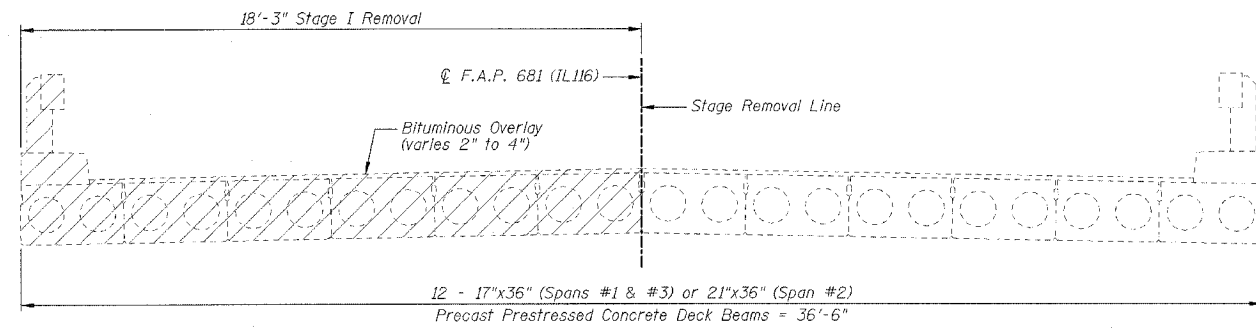
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL NOTES, BILL OF MATERIAL,
SECTION AND DETAIL
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DATE: 12/09/05
DRAWN BY: DJM
CHECKED BY: MSW

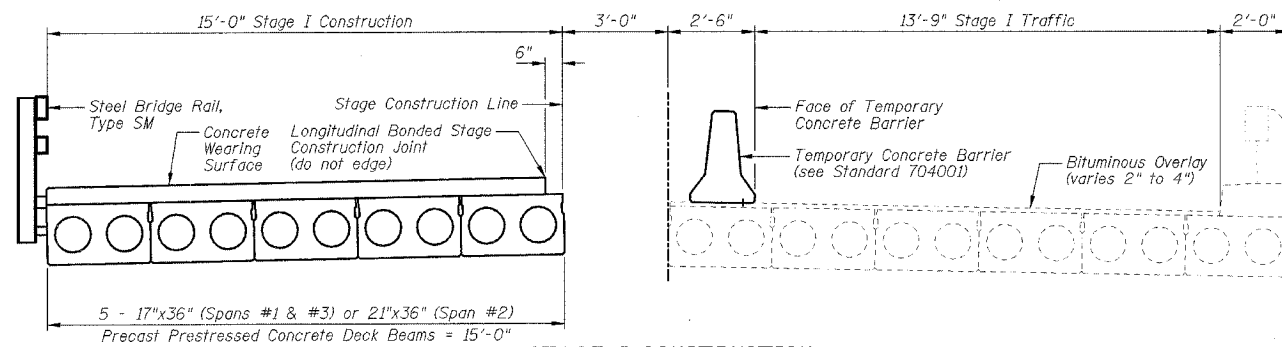
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	15
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

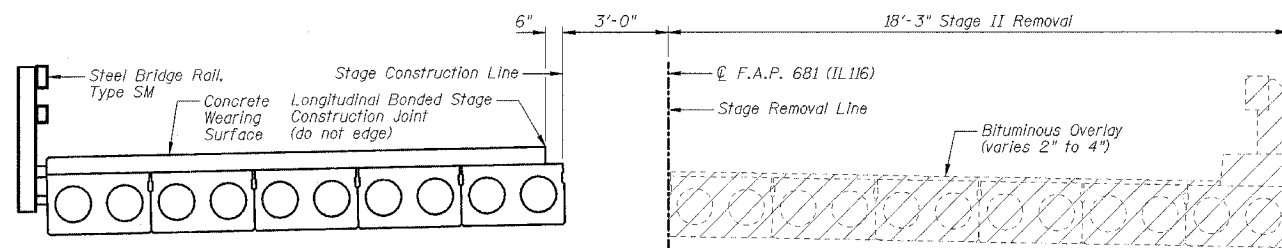
SHEET NO. B3
OF 31 SHEETS



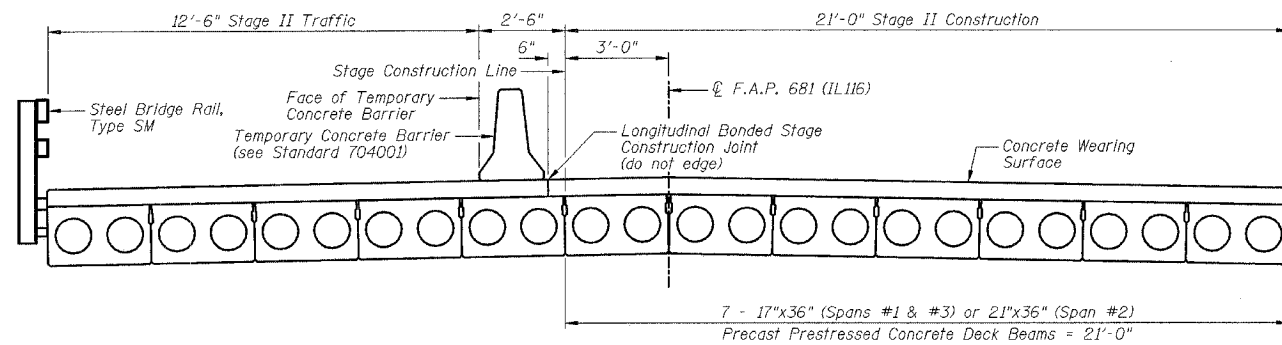
STAGE I REMOVAL
(Looking East)



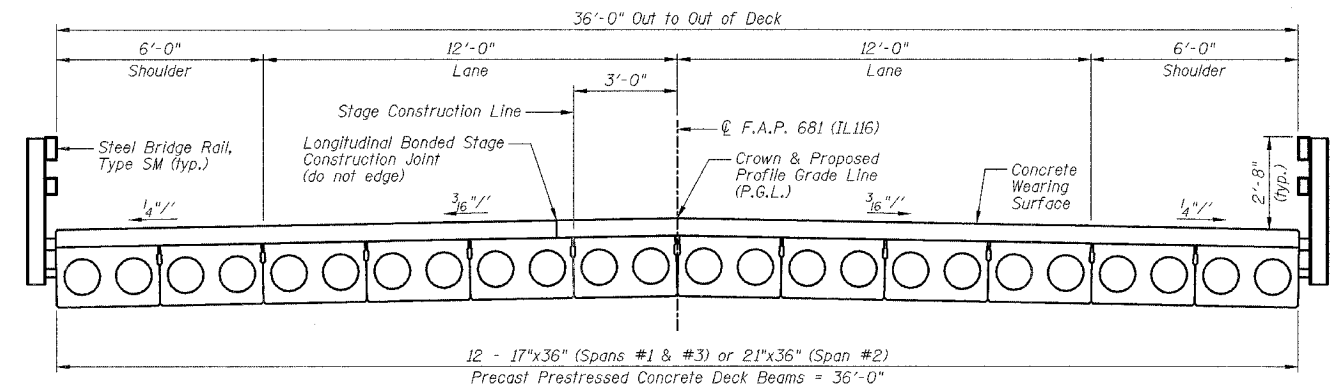
STAGE I CONSTRUCTION
(Looking East)



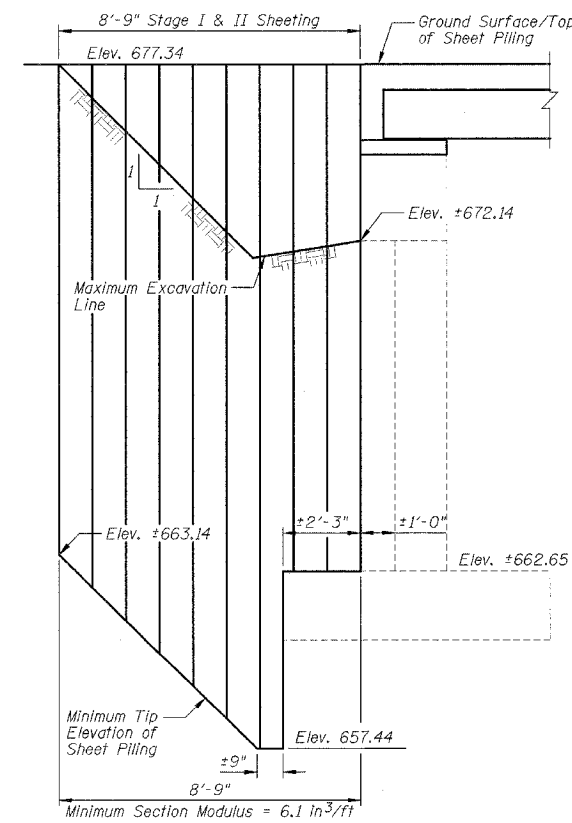
STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)



CROSS SECTION
(Looking East)



TEMPORARY SHEET PILING DETAIL

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Sheet Piling	Sq. Ft.	292

NOTES:

- 1.) Hatched area indicates "Removal of Existing Superstructures".
- 2.) For Temporary Concrete Barrier, see Sheet B4. See Roadway Plans for quantities.
- 3.) If the Contractor chooses to alter the temporary catclawed sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- 4.) The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for "Temporary Sheet Piling".
- 5.) Temporary Concrete Barrier shall be anchored into the existing bituminous surface and shall not be anchored into the proposed concrete wearing surface.

REVISIONS	
NAME	DATE

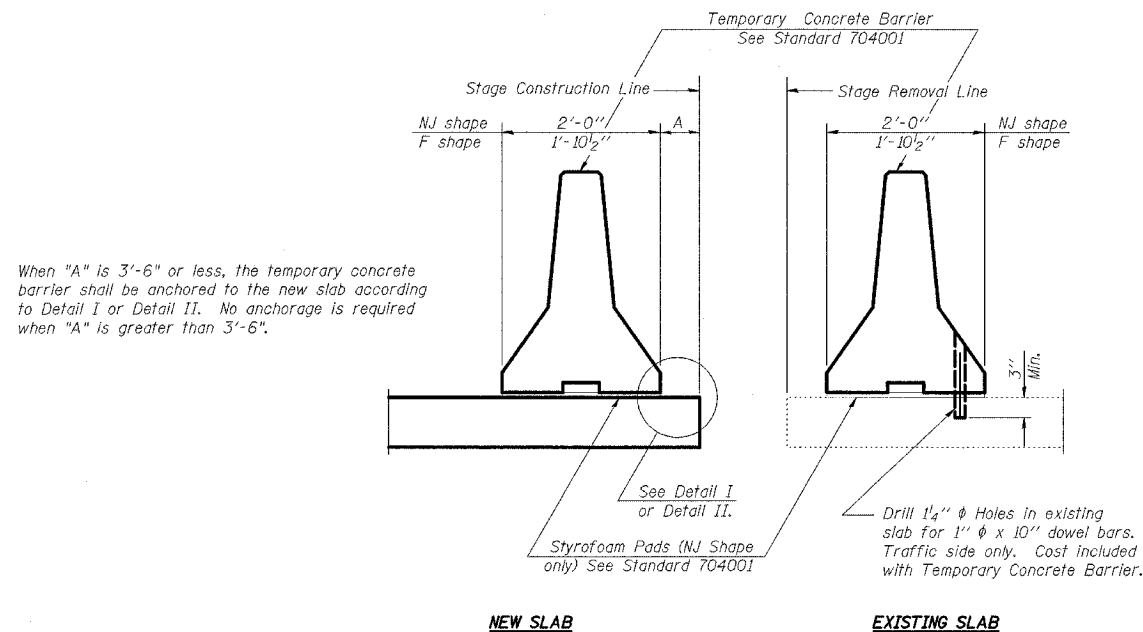
ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE CONSTRUCTION
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 12/09/05
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. B4

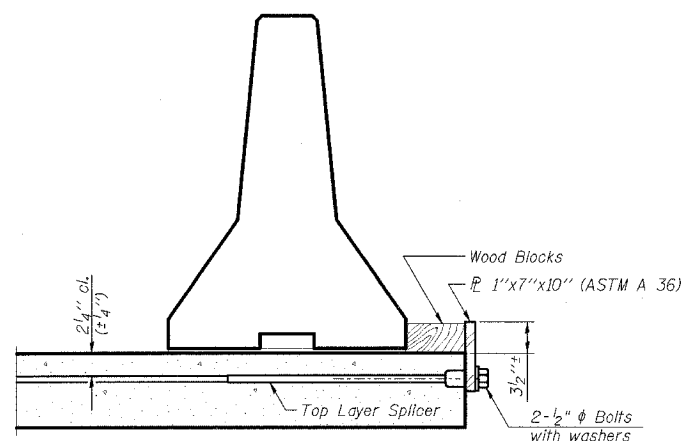
OF 31 SHEETS



SECTIONS THRU SLAB

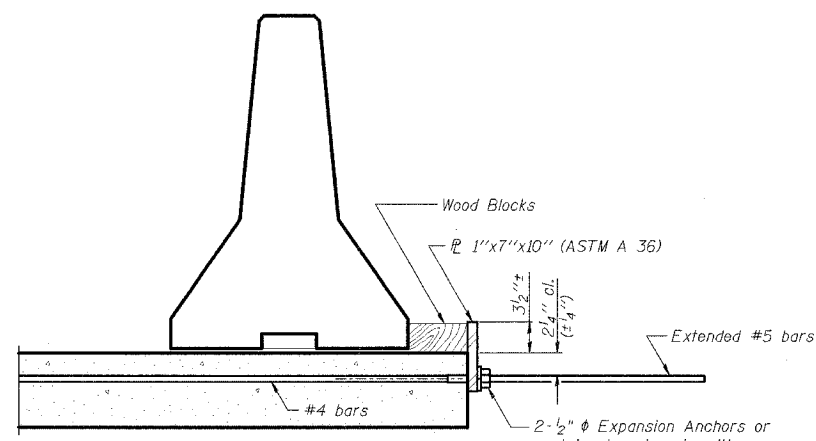
NOTES

- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-1/2" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab with 2-1/2" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
Cost of anchorage is included with Temporary Concrete Barrier.



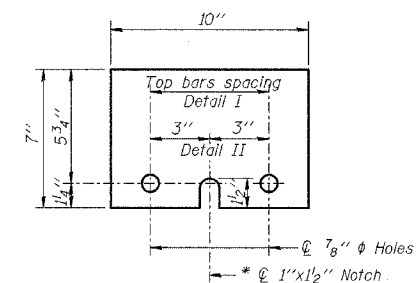
DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x7"x10" 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.



\bar{P} 1"x7"x10"

* Required only with Detail II

R-27

10-22-04

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 12/09/05
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	17
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B5
OF 31 SHEETS

The diameter of this part is the same as the diameter of the bar spliced.

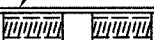
The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

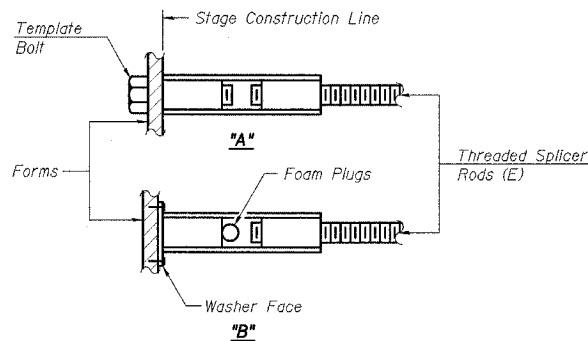
Wire Connector



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

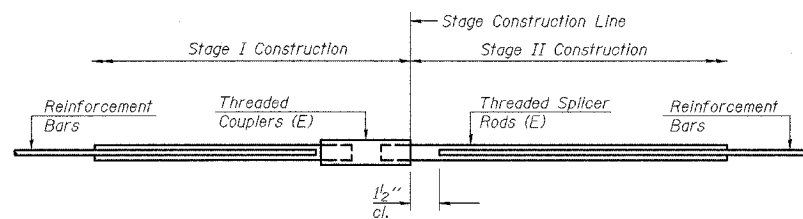
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded full length.
All reinforcement bars shall be lapped and tied to the splicer rods 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:

- Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
- Minimum Pull-out Strength = $1.25 \times f_{s_{allow}} \times A_t$
(Tension in kips)

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

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

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



STANDARD

Bar Size	No. Assemblies Required	Location
#4	115	Deck
#4	4	W. Abut.
#4	4	Pier #1
#4	4	Pier #2
#4	4	E. Abut.

BSD-1 10-22-04

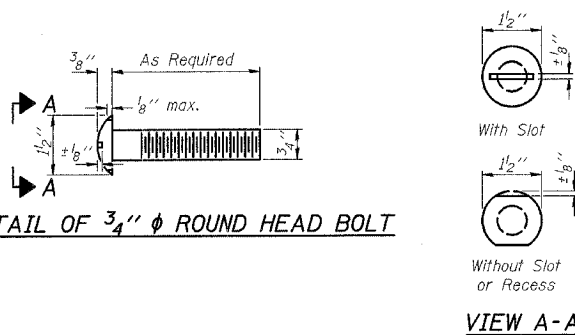
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BAR SPLICER ASSEMBLY DETAILS F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075
NAME	DATE	
		DESIGNED BY: JML
		DRAWN BY: DJM
		CHECKED BY: MSW
		DATE: 12/09/05

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	18
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

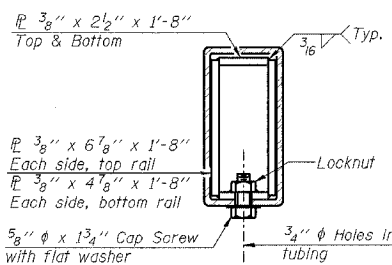
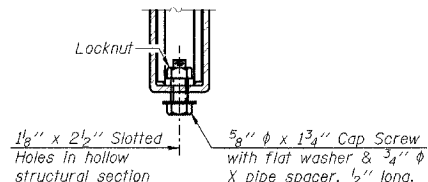
SHEET NO. B6
OF 31 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF 3/4" φ ROUND HEAD BOLT

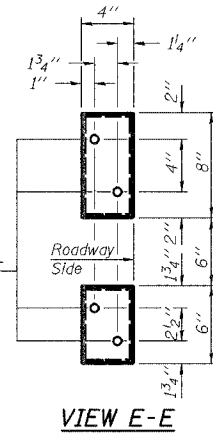


RAIL SPLICE CONNECTION
AT EXPANSION JT.

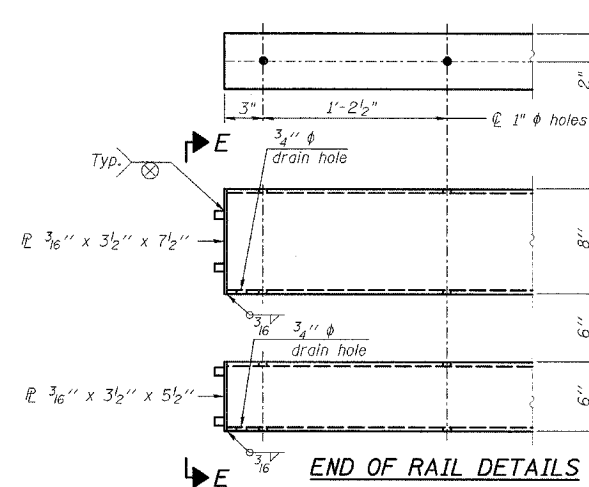


SECTION AT
RAIL SPLICE

4 - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



VIEW E-E



NOTES

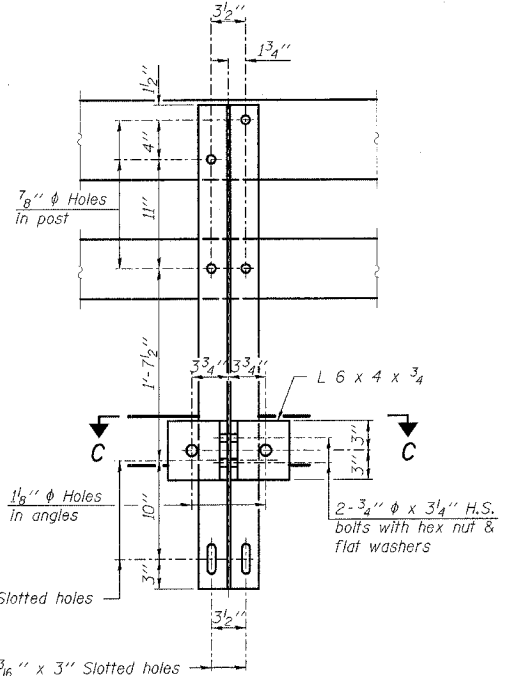
Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.
All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.
Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.
All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM.
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.
The 3/4" φ high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1" φ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/2 turn. The 5/8" φ cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

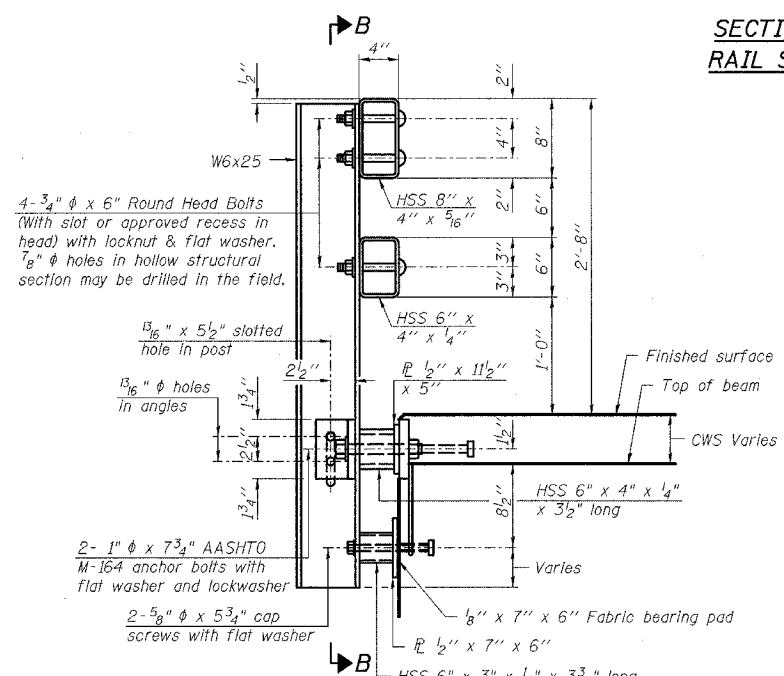
Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	229

REVISIONS	
NAME	DATE

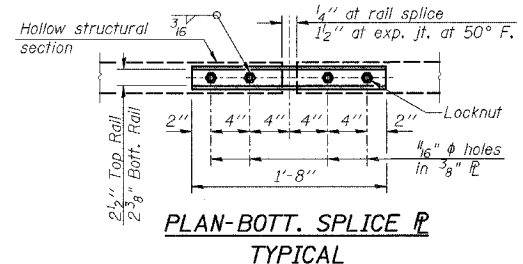
ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPE SM STEEL BRIDGE RAIL SIDE MOUNTED WITH CONCRETE WEARING SURFACE
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 12/09/05
CHECKED BY: MSW



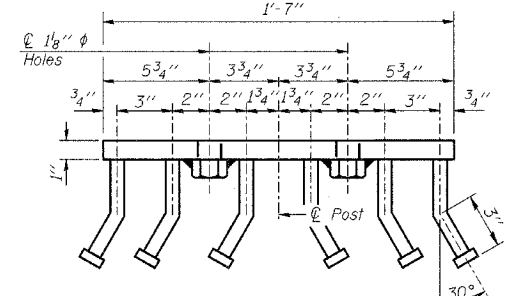
SECTION B-B



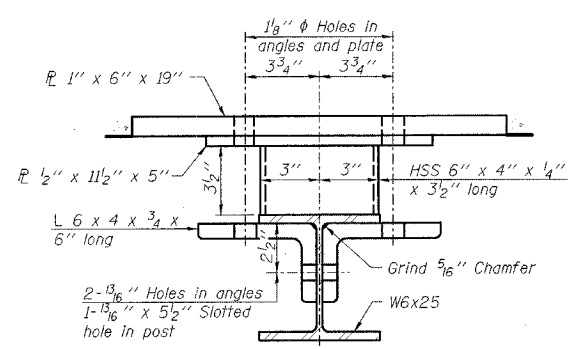
SECTION AT RAIL POST



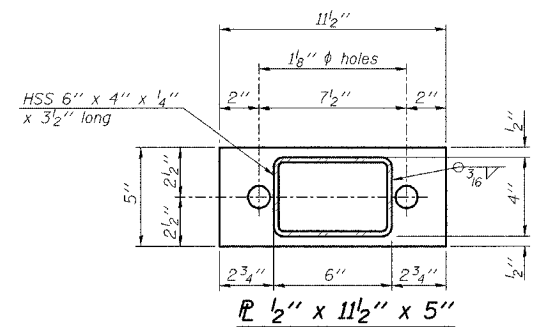
PLAN-BOTT. SPLICE
TYPICAL



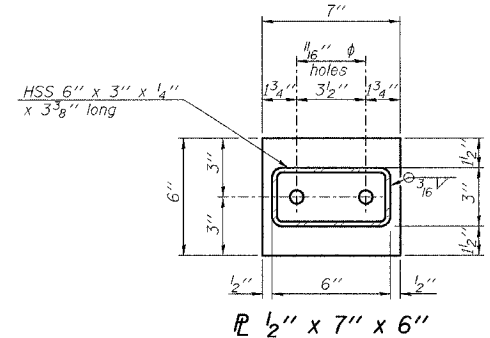
VIEW D-D



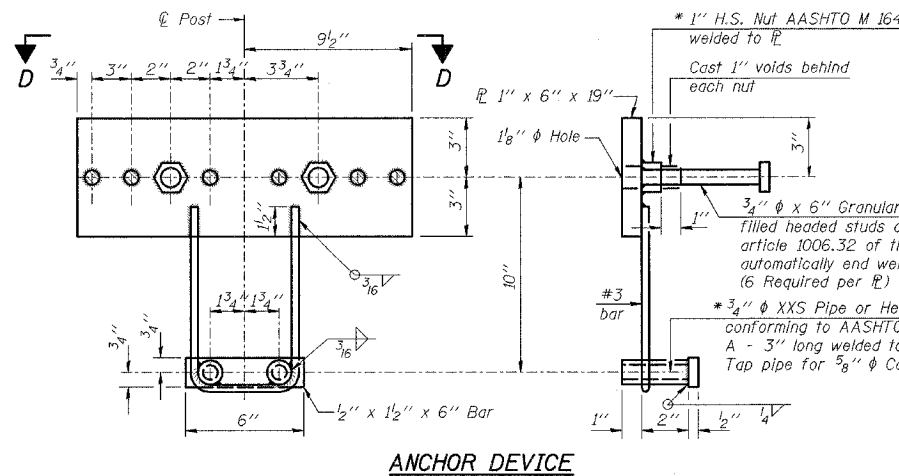
SECTION C-C



R 1/2" x 11 1/2" x 5"



R 1/2" x 7" x 6"



ANCHOR DEVICE

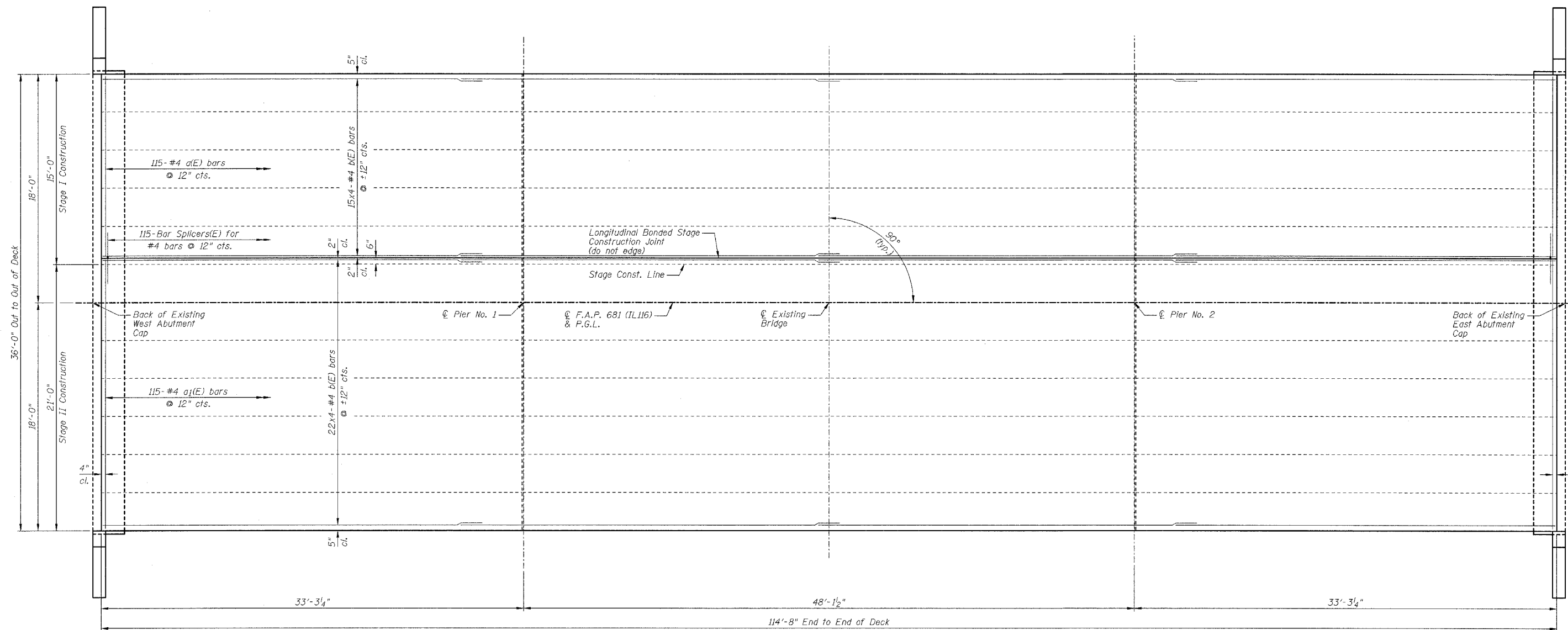
* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

R-34CWS 10-28-05 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. B7
OF 31 SHEETS



PLAN

MIN. BAR LAP
#4 bar = 1'-8"

NOTES:

- 1.) Work this sheet with Sheets B8 thru B10.
- 2.) Reinforcement bars designated (E) shall be epoxy coated.
- 3.) Bars indicated 22x4-#4 etc. indicates 22 lines of bars with 4 lengths per line.
- 4.) See Sheet B5 for Bar Splicer Details.

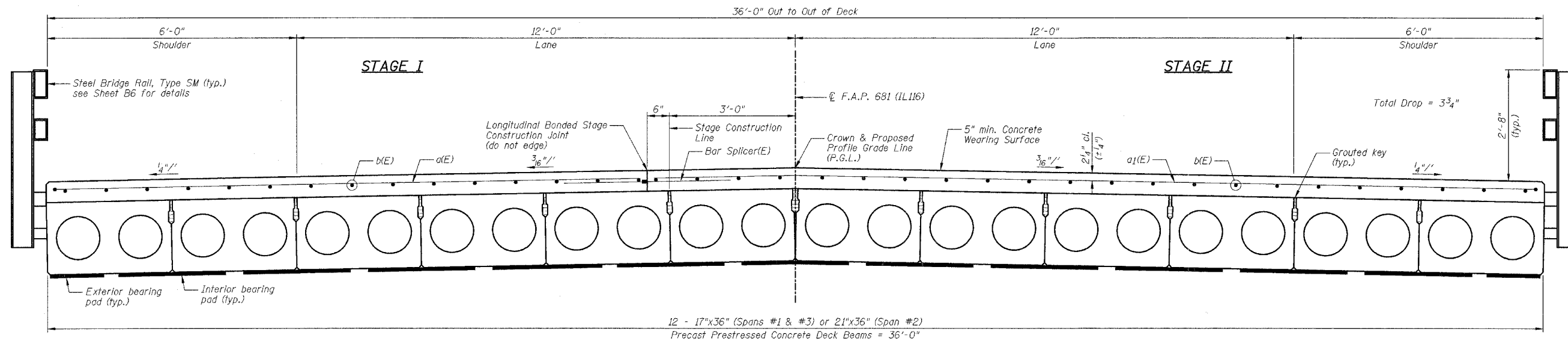
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DATE: 12/09/05
DRAWN BY: DJM
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	20
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

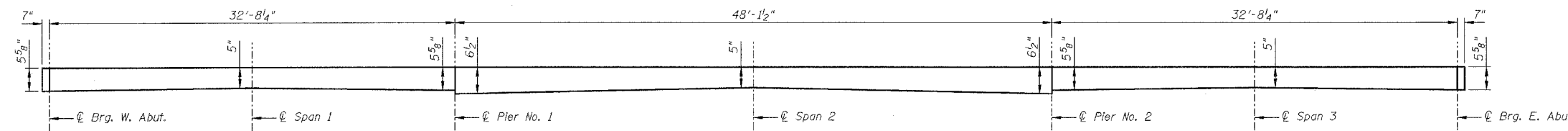
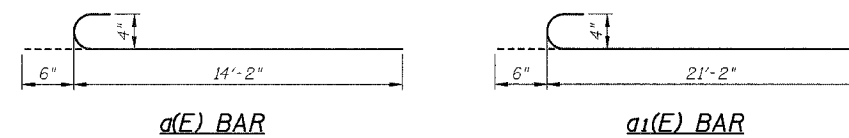
SHEET NO. 88
OF 31 SHEETS



CROSS SECTION
(Looking East)

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	115	#4	14'-8"	C
a1(E)	115	#4	21'-8"	C
b(E)	148	#4	29'-10"	
Item	Unit	Quantity		
Concrete Wearing Surface 5"	Sq Yd	459		
Reinforcement Bars, Epoxy Coated	Pound	5740		
Bar Splicers	Each	115		



REINFORCED CONCRETE WEARING SURFACE PROFILE
(Concrete Wearing Surface along ℓ of Roadway.)

NOTES:

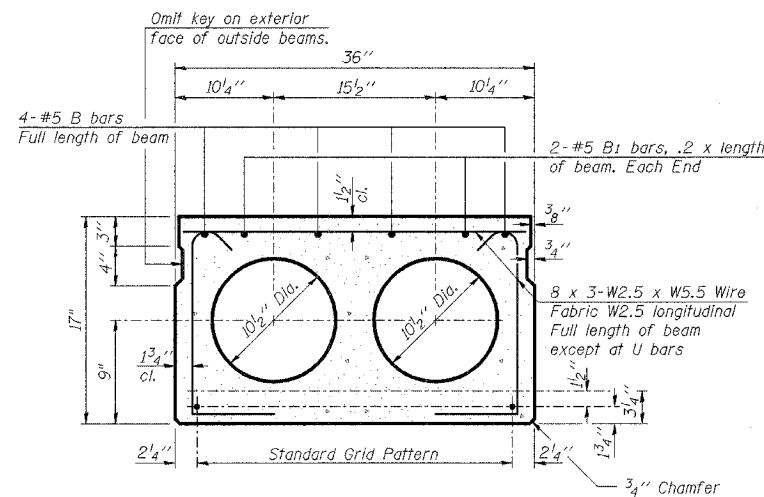
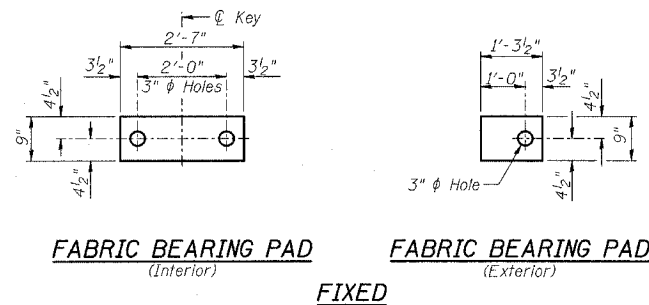
- 1.) Work this sheet with Sheet B7, B9 & B10.
- 2.) See Sheets B9 & B10 for bearing pad details.
- 3.) Concrete Wearing Surface to be poured after grouting the shear keys.
- 4.) Dowel rods drilled in cap are included in the cost of "Precast Prestressed Concrete Deck Beams (17" Depth or 21" Depth)".
- 5.) Reinforcement bars designated (E) shall be epoxy coated.
- 6.) See Sheet B5 for Bar Splicer Details.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SUPERSTRUCTURE CROSS SECTION AND DETAILS F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075
NAME	DATE	
		DESIGNED BY: JML DRAWN BY: DJM DATE: 12/09/05 CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	21
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

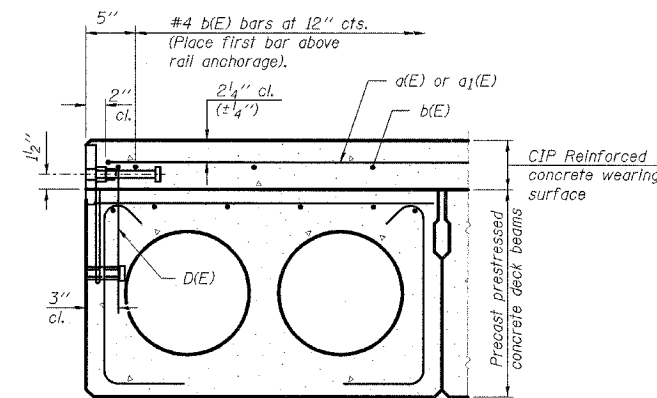
SHEET NO. B9
OF 31 SHEETS



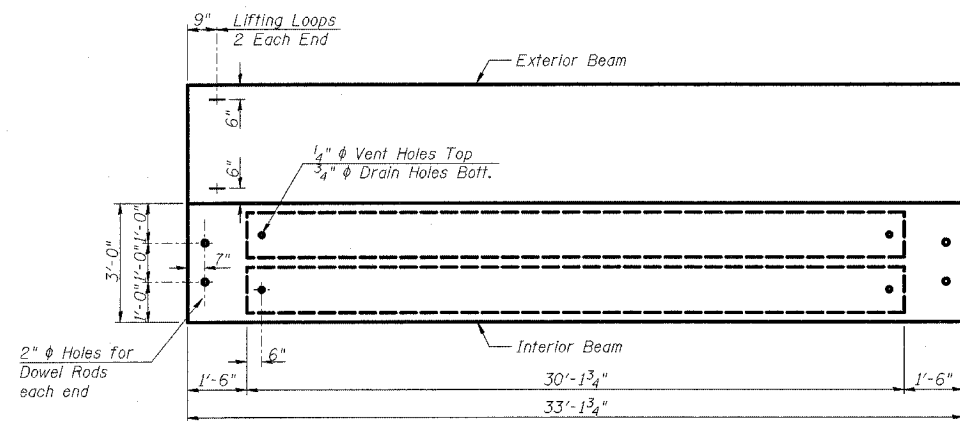
TYPICAL SECTION

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

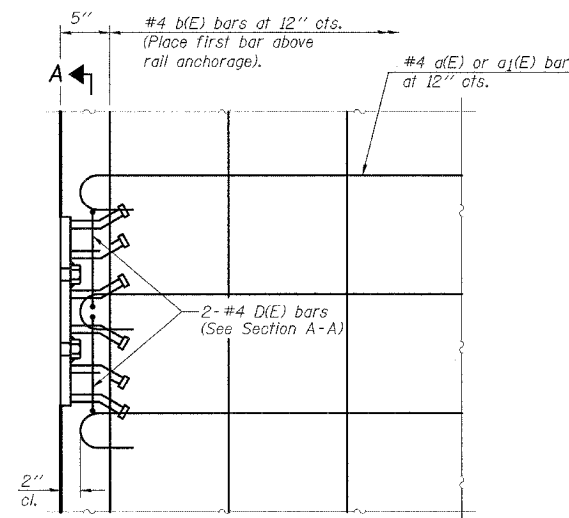
Note:
Place strands symmetrically about \bar{C} of beam.



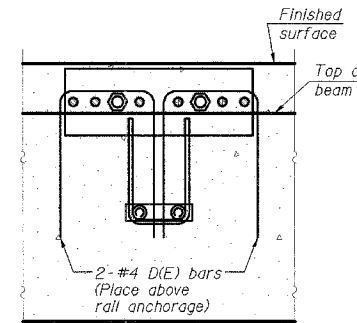
CROSS SECTION



PLAN



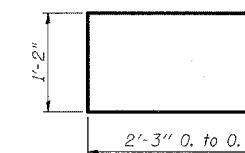
PLAN



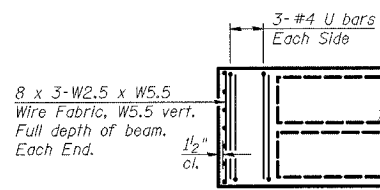
SECTION A-A



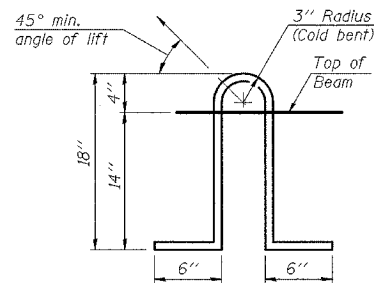
D(E) BAR



U BAR



END PLAN



LIFTING LOOP DETAIL

NOTES

The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2 - 1/2" ϕ -270 ksi strands, as shown. Non prestressing steel shall conform to AASHTO M31 or M322 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'cl, shall be 4000 p.s.i. See Sheet B2 for location of rail inserts. Bridge rail inserts shall be cast in precast beams and Concrete Wearing Surface.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17" Depth)	Sq. Ft.	2,386.5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
17"x36" PPC DECK BEAM DETAILS
SPANS 1 & 3
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DATE: 12/09/05
DRAWN BY: DJM
CHECKED BY: MSW

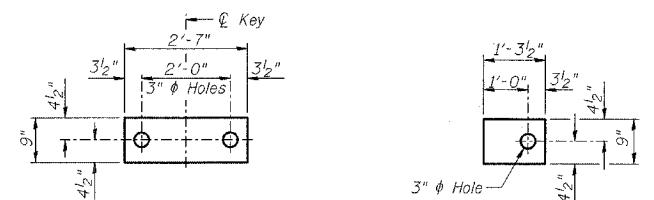
PD-3-SA

10-22-04

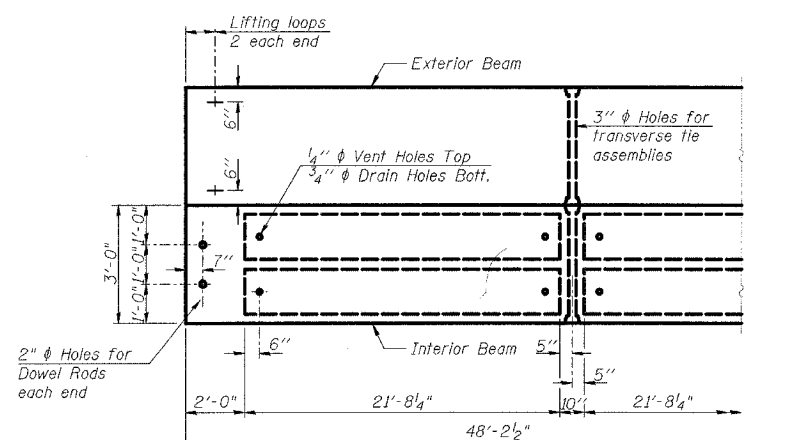
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	22
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B10
OF 31 SHEETS

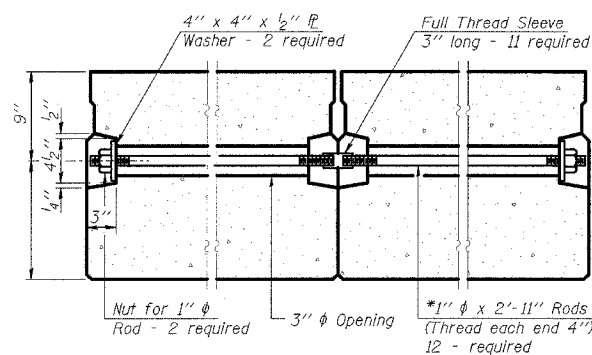
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FABRIC BEARING PAD
(Interior) **FABRIC BEARING PAD**
(Exterior)
FIXED

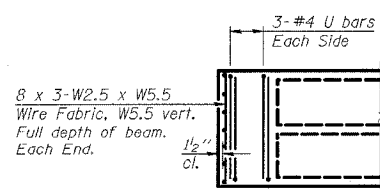


PLAN

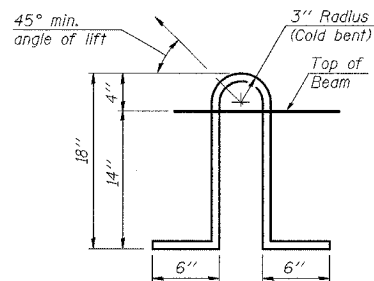


TYPICAL TRANSVERSE TIE ASSEMBLY

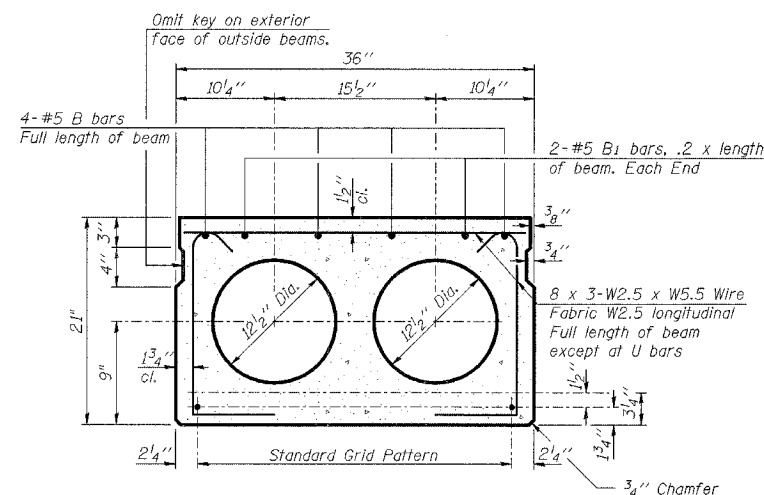
*Alternate approved transverse tie rods of increased segmental length are acceptable.



END PLAN



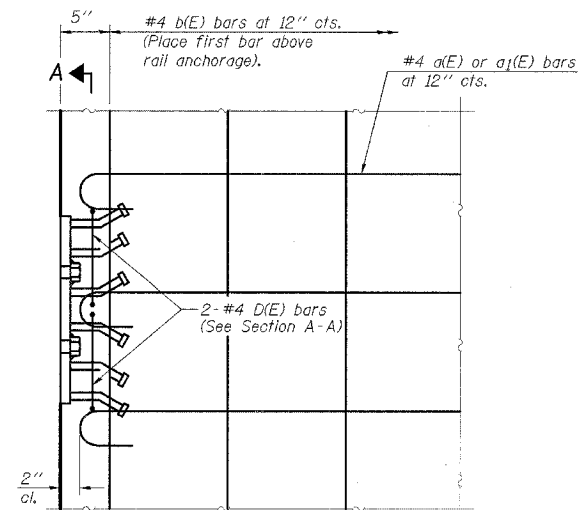
LIFTING LOOP DETAIL



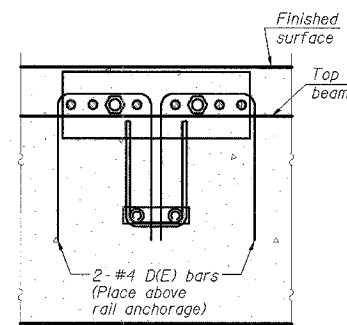
TYPICAL SECTION

1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6-Strands 1 3/4" up, 8-Strands 3 1/4" up & 2-Strands 12" up.

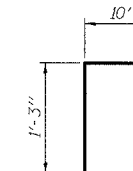
Note:
Place strands symmetrically about ϕ of beam.



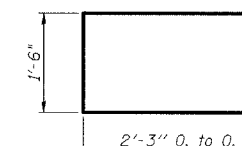
PLAN



SECTION A-A



D(E) BAR



U BAR

NOTES:
The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2 - 1/2" ϕ 270 ksi strands, as shown.
The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
Non prestressing steel shall conform to AASHTO M31 or M322 Grade 60.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
Required Release Strength, f'ci, shall be 4000 p.s.i.
See Sheet B2 for location of rail inserts.
Bridge rail inserts shall be cast in precast beams and Concrete Wearing Surface.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	1735.5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
21"x36" PPC DECK BEAM DETAILS
SPAN 2
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML DRAWN BY: DJM
DATE: 12/09/05 CHECKED BY: MSW

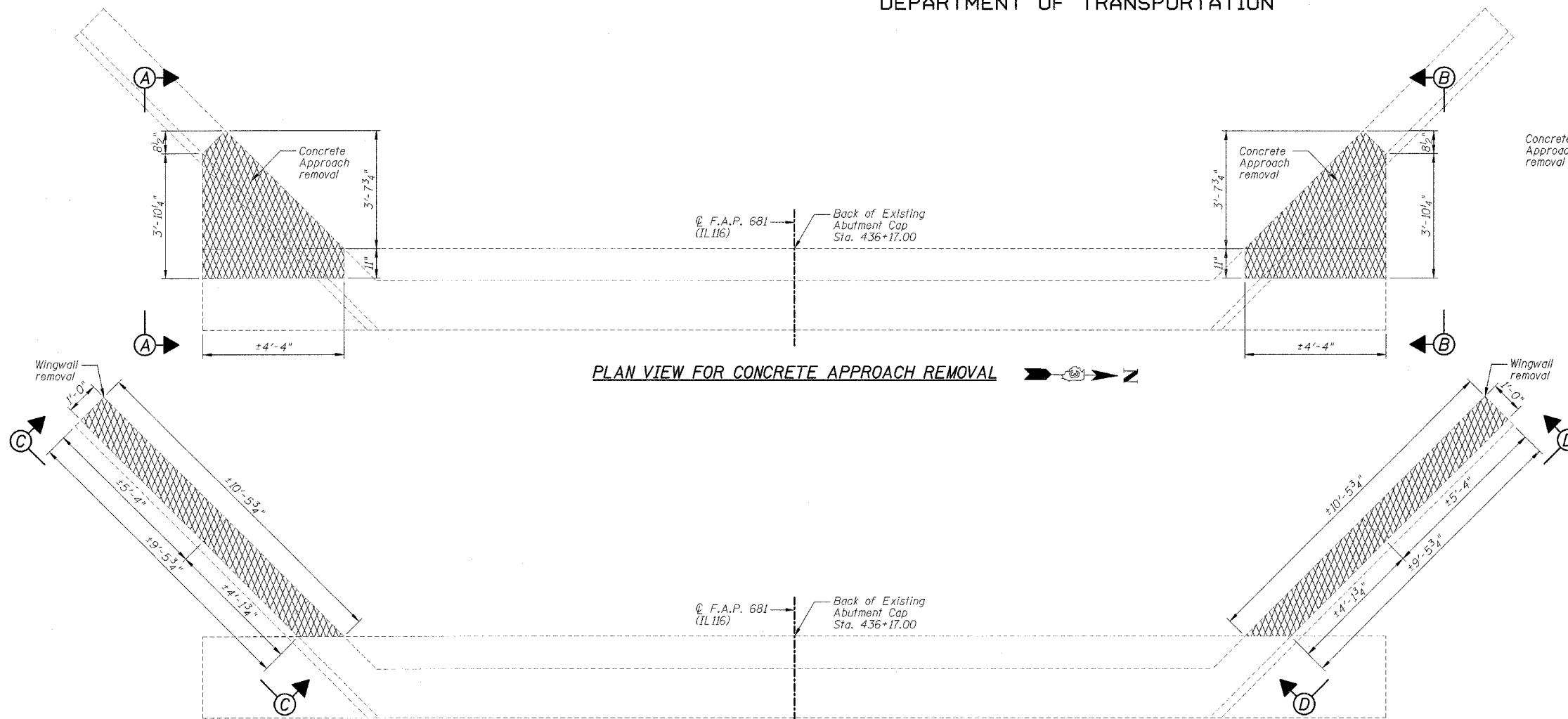
PD-3-S

10-22-04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

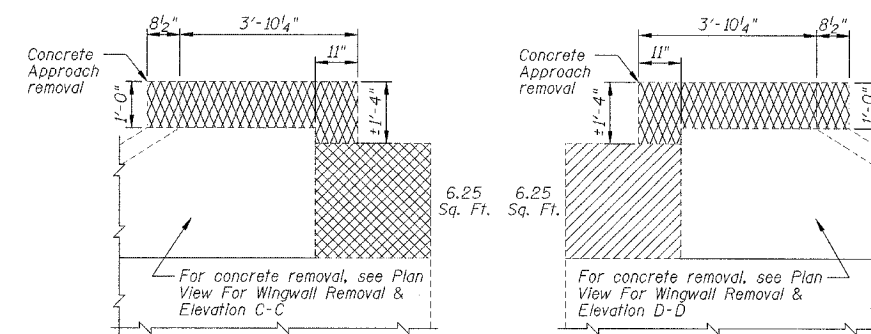
F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. B11
OF 31 SHEETS



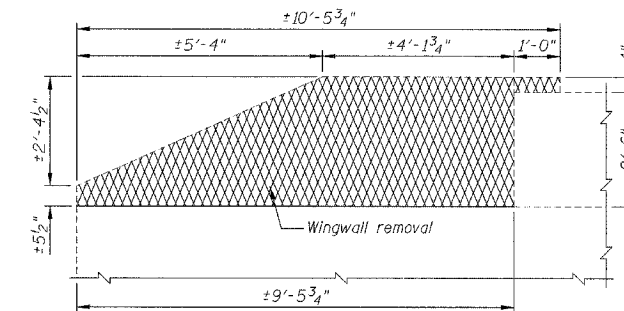
PLAN VIEW FOR CONCRETE APPROACH REMOVAL

PLAN VIEW FOR WINGWALL REMOVAL

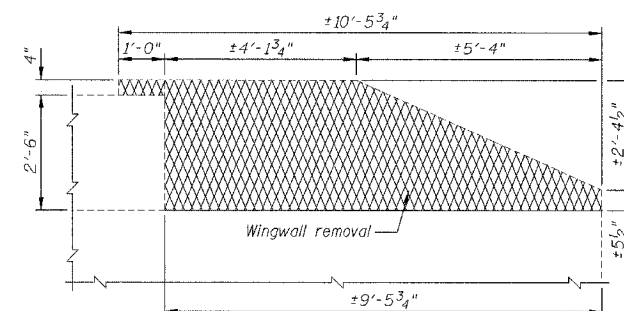


ELEVATION A-A

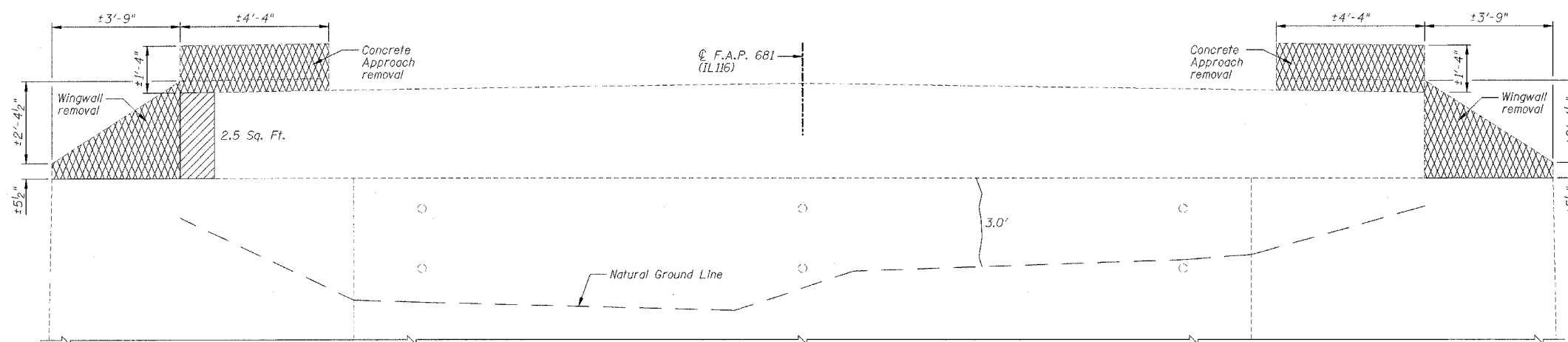
ELEVATION B-B



ELEVATION C-C



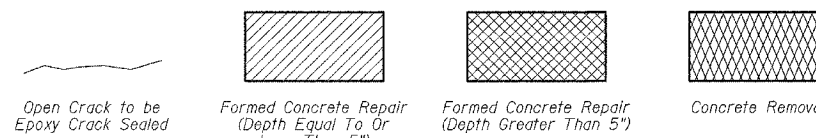
ELEVATION D-D



ELEVATION - LOOKING WEST

NOTES:

- 1) Work this sheet with Sheets B12 & B13.
- 2) The number next to the hatched areas is the square footage of each damaged area.
- 3) The number next to the cracks is the length of the crack.
- 4) Existing reinforcement not extending into new concrete shall be cut off flush and sealed with epoxy.

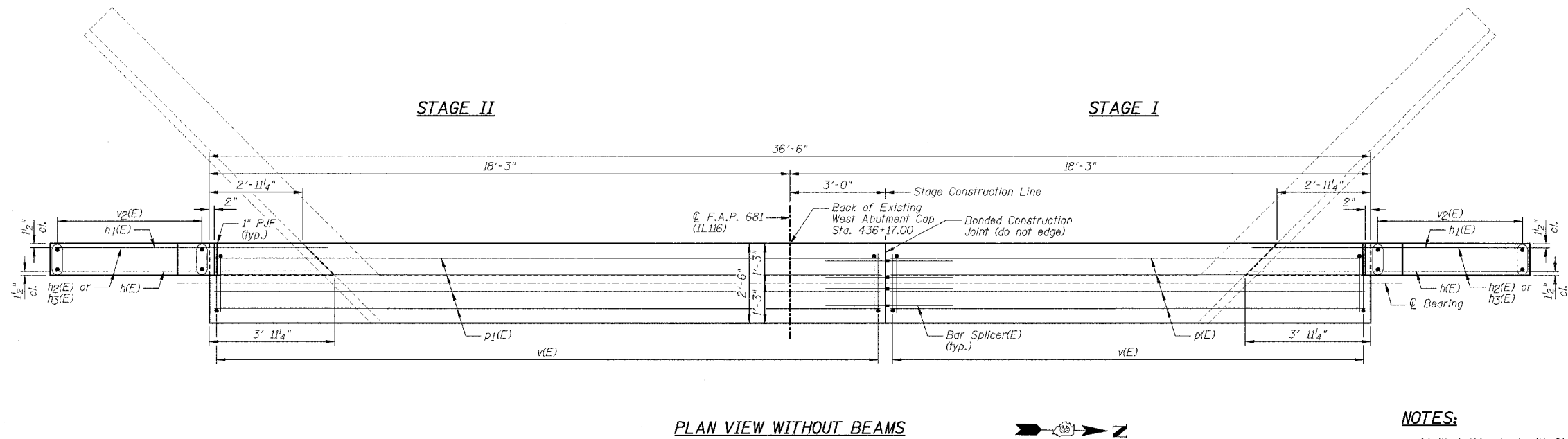
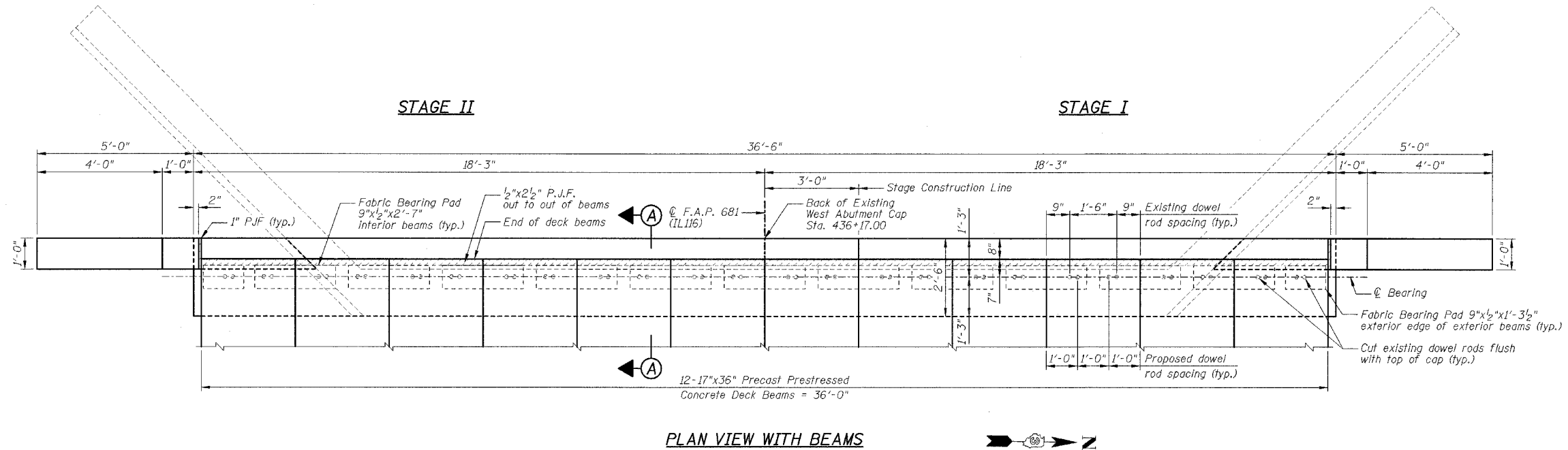


REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION WEST ABUTMENT CONCRETE REMOVAL AND REPAIRS F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075
NAME	DATE	
		DESIGNED BY: JML
		DRAWN BY: DJM
		DATE: 12/09/05
		CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. B12
OF 31 SHEETS



NOTES:

- 1.) Work this sheet with Sheets B11 & B13.
- 2.) See Sheet B5 for Bar Splicer Details.
- 3.) See Sheet B13 for Section A-A.
- 4.) Reinforcement bars designated (E) shall be epoxy coated.
- 5.) Drill & epoxy grout h(E) & h1(E) bar in 8" (min.) drilled holes and v(E) bars in 6" (min.) drilled holes according to Section 584 of the Standard Specifications.
- 6.) The type of epoxy grout shall be approved by the Engineer.
- 7.) Space reinforcement in cap to miss dowel anchor hole locations.

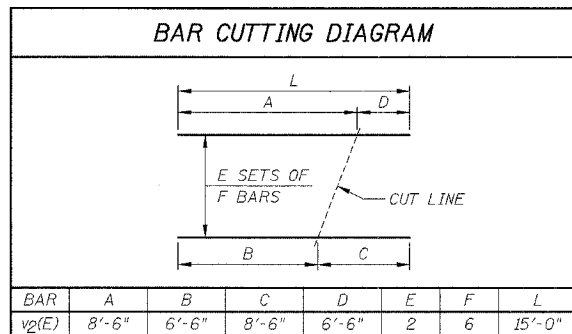
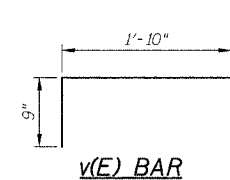
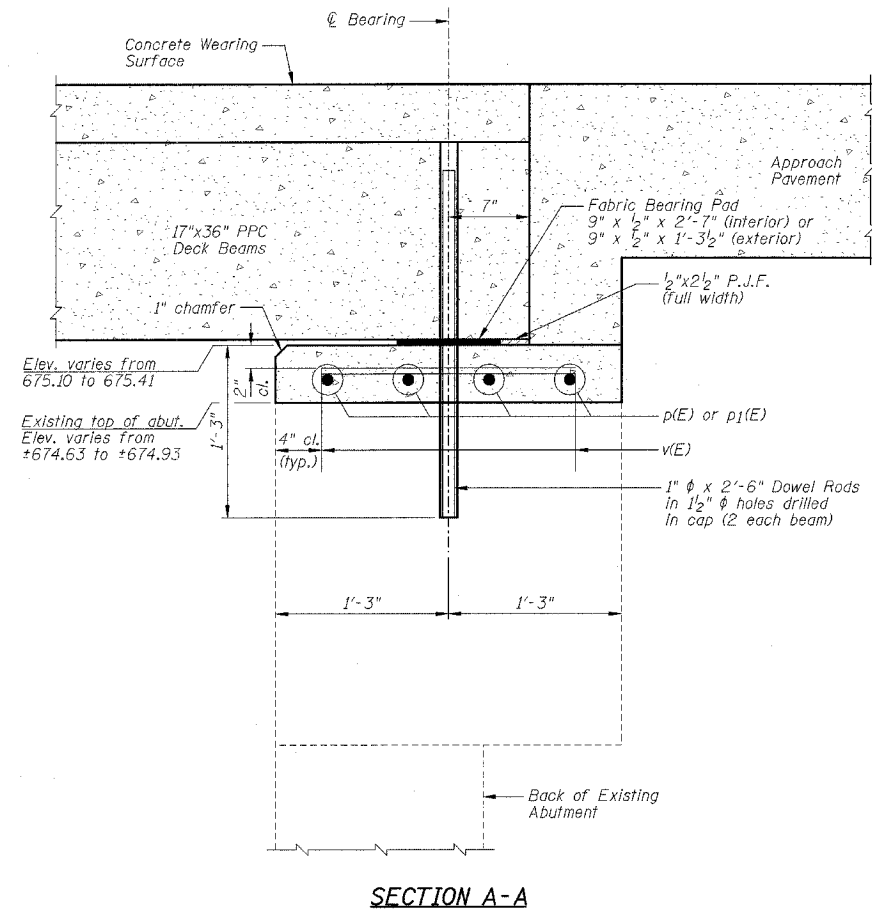
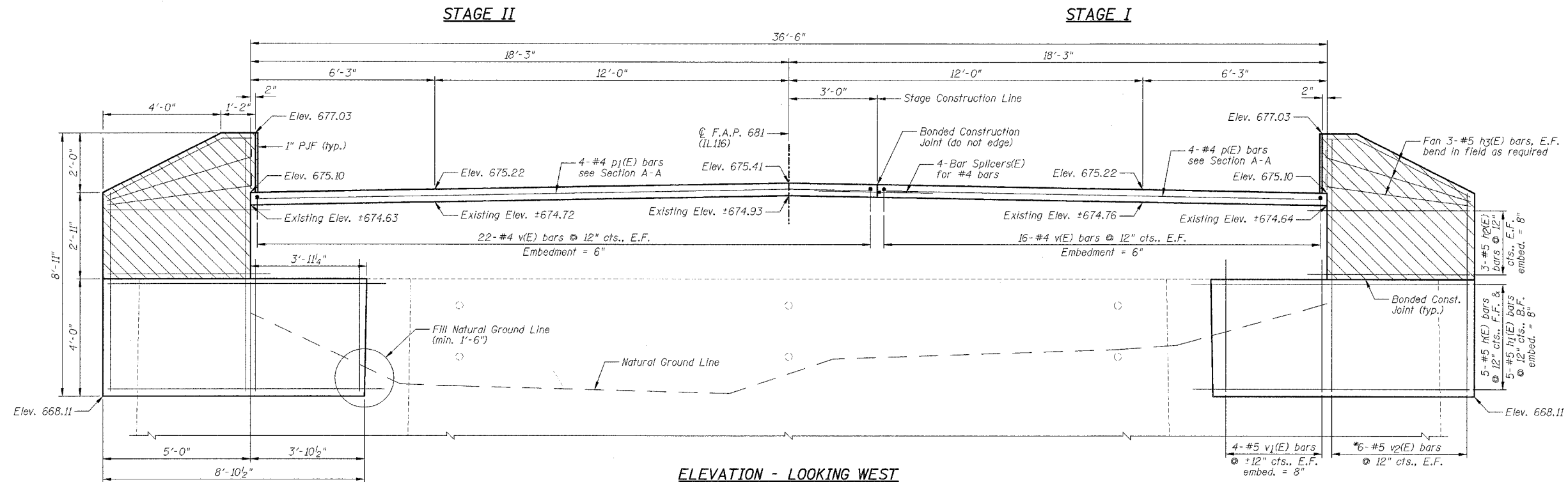
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION WEST ABUTMENT F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075
NAME	DATE	

DESIGNED BY: JML DRAWN BY: DJM
DATE: 12/09/05 CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	25
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. B13
OF 31 SHEETS



**WEST ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	10	#5	9'-5"	---
h1(E)	10	#5	8'-6"	---
h2(E)	12	#5	5'-6"	---
h3(E)	12	#5	4'-10"	---
p(E)	4	#4	14'-11"	---
p1(E)	4	#4	20'-11"	---
v(E)	76	#4	2'-7"	---
v1(E)	16	#5	4'-5"	---
v2(E)	12	#5	15'-0"	---

Item	Unit	Quantity
Concrete Removal	Cu Yd	2.7
Concrete Structures	Cu Yd	5.8
Formed Concrete Repair (Depth Equal To Or Less Than 5")	Sq Ft	8.8
Formed Concrete Repair (Depth Greater Than 5")	Sq Ft	6.3
Reinforcement Bars, Epoxy Coated	Pound	810
Epoxy Crack Sealing	Foot	3
Geocomposite Wall Drain	Sq Yd	15
Pipe Underdrains For Structures 4"	Foot	70
Bar Splicers	Each	4

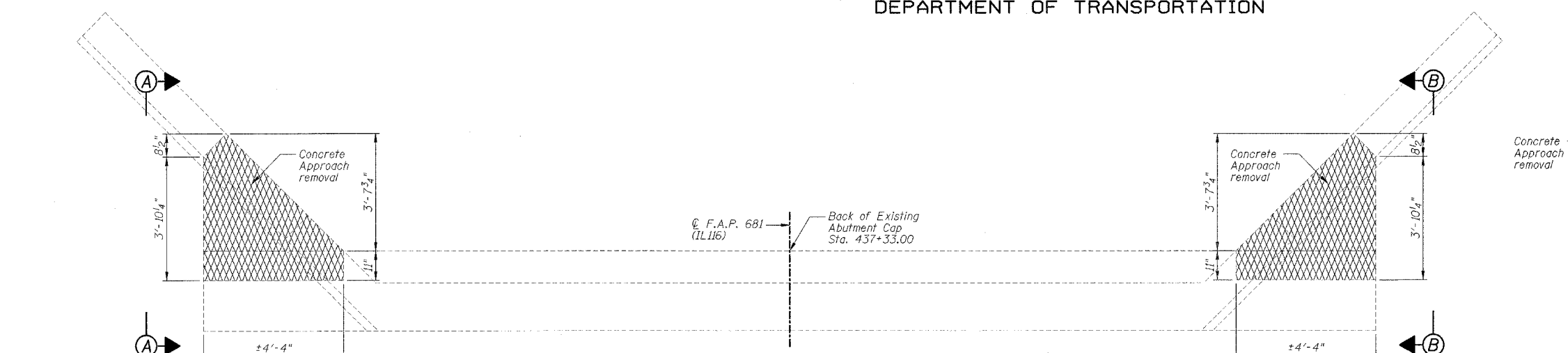
NOTES:

- 1.) Work this sheet with Sheets B11 & B12.
- 2.) See Sheet B12 for location of Section A-A.
- 3.) Hatched area to be poured after beams are in place.
- 4.) E.F. denotes Each Face, F.F. denotes Front Face & B.F. denotes Back Face.
- 5.) See Sheet B5 for Bar Splicer Details.
- 6.) Reinforcement bars designated (E) shall be epoxy coated.
- 7.) Drill & epoxy grout h(E), h1(E), h2(E) & v1(E) bars in 8" (min.) drilled holes and v(E) bars in 6" (min.) drilled holes according to Section 584 of the Standard Specifications.
- 8.) The type of epoxy grout shall be approved by the Engineer.
- 9.) Space reinforcement in cap to miss dowel anchor hole locations.

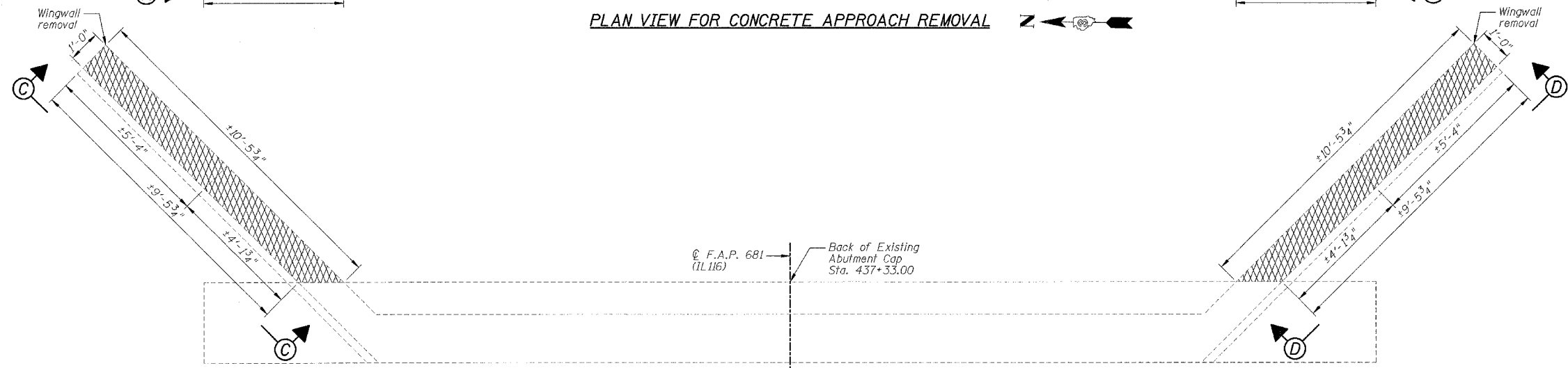
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION WEST ABUTMENT F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075
NAME	DATE	
		DESIGNED BY: JML DATE: 12/09/05
		DRAWN BY: DJM CHECKED BY: MSW

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	26
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

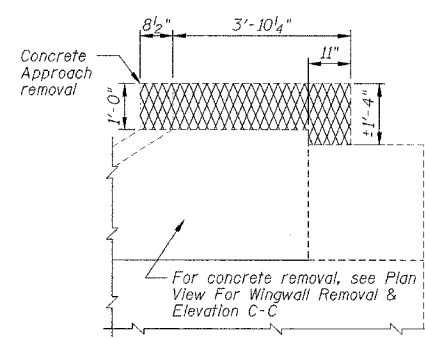
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



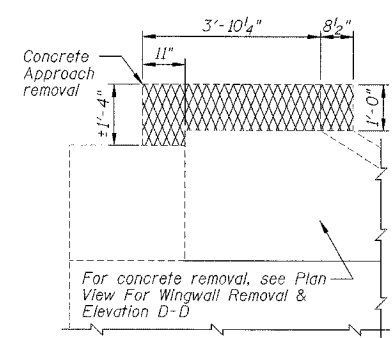
PLAN VIEW FOR CONCRETE APPROACH REMOVAL



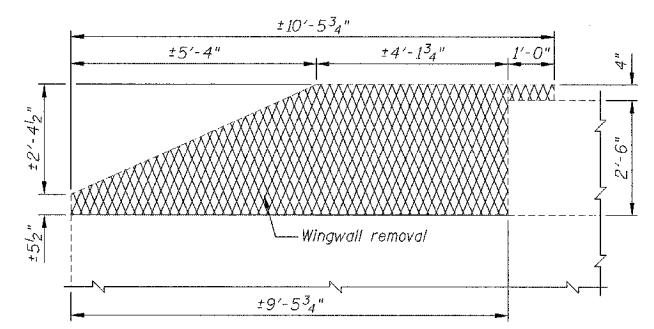
PLAN VIEW FOR WINGWALL REMOVAL



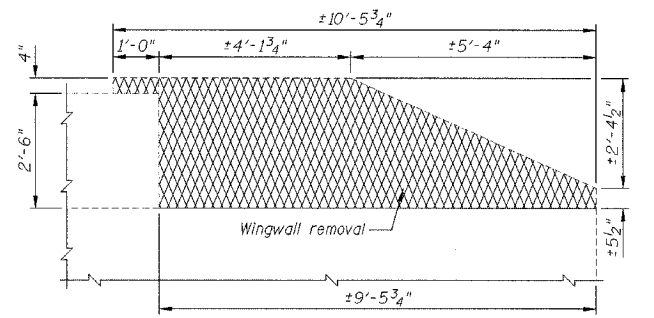
ELEVATION A-A



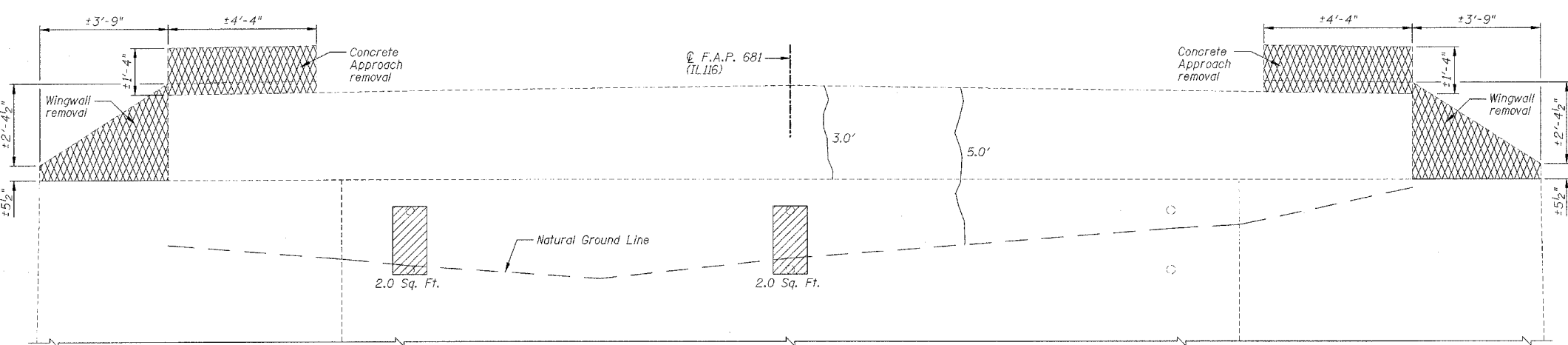
ELEVATION B-B



ELEVATION C-C

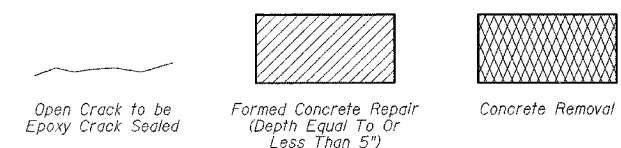


ELEVATION D-D



ELEVATION - LOOKING EAST

- NOTES:**
- 1) Work this sheet with Sheets B15 & B16.
 - 2) The number next to the hatched areas is the square footage of each damaged area.
 - 3) The number next to the cracks is the length of the crack.
 - 4) Existing reinforcement not extending into new concrete shall be cut off flush and sealed with epoxy.



REVISIONS	
NAME	DATE

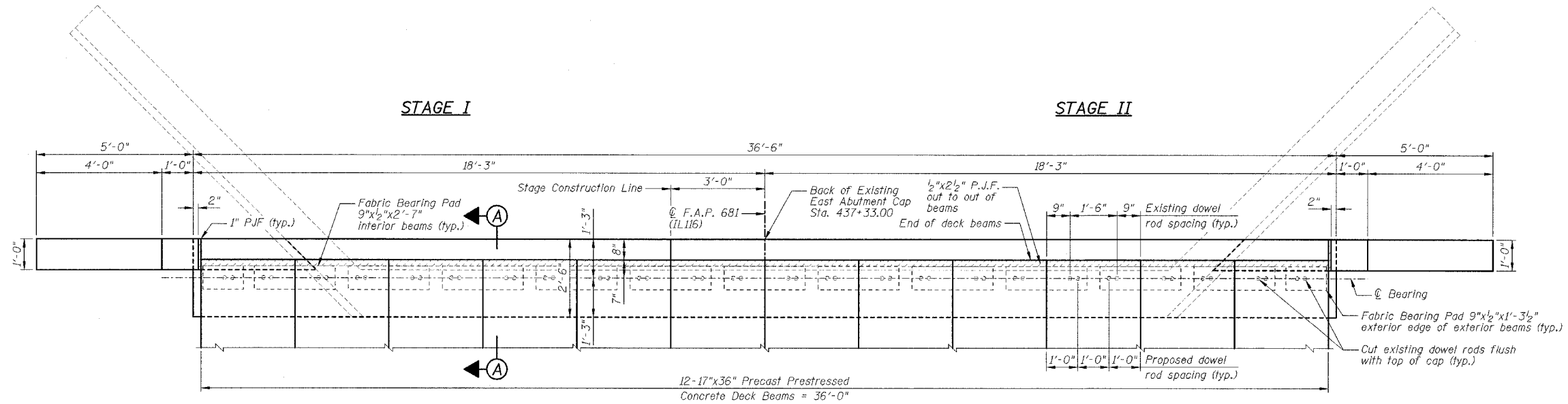
ILLINOIS DEPARTMENT OF TRANSPORTATION
EAST ABUTMENT
CONCRETE REMOVAL AND REPAIRS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 12/09/05
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

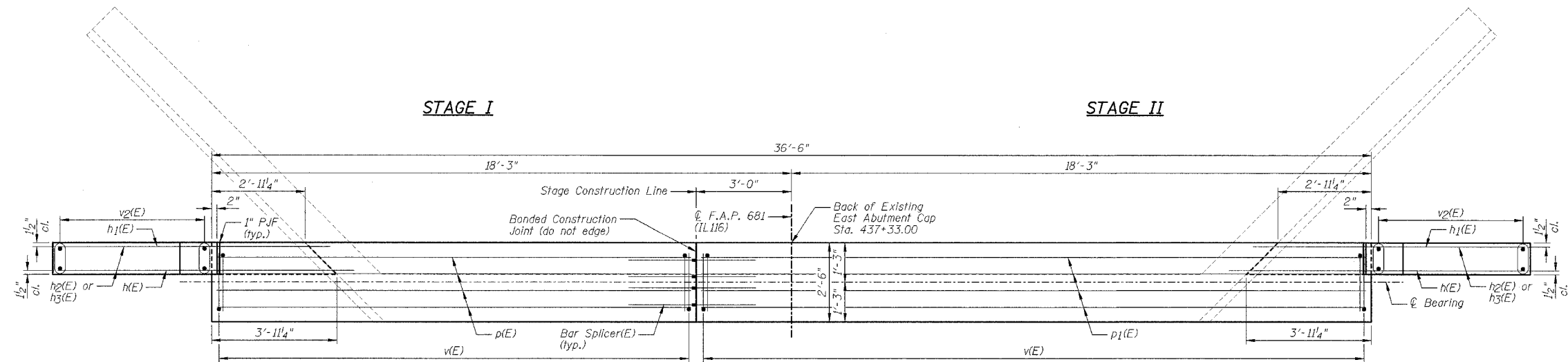
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	27
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B15

OF 31 SHEETS



PLAN VIEW WITH BEAMS



PLAN VIEW WITHOUT BEAMS

NOTES:

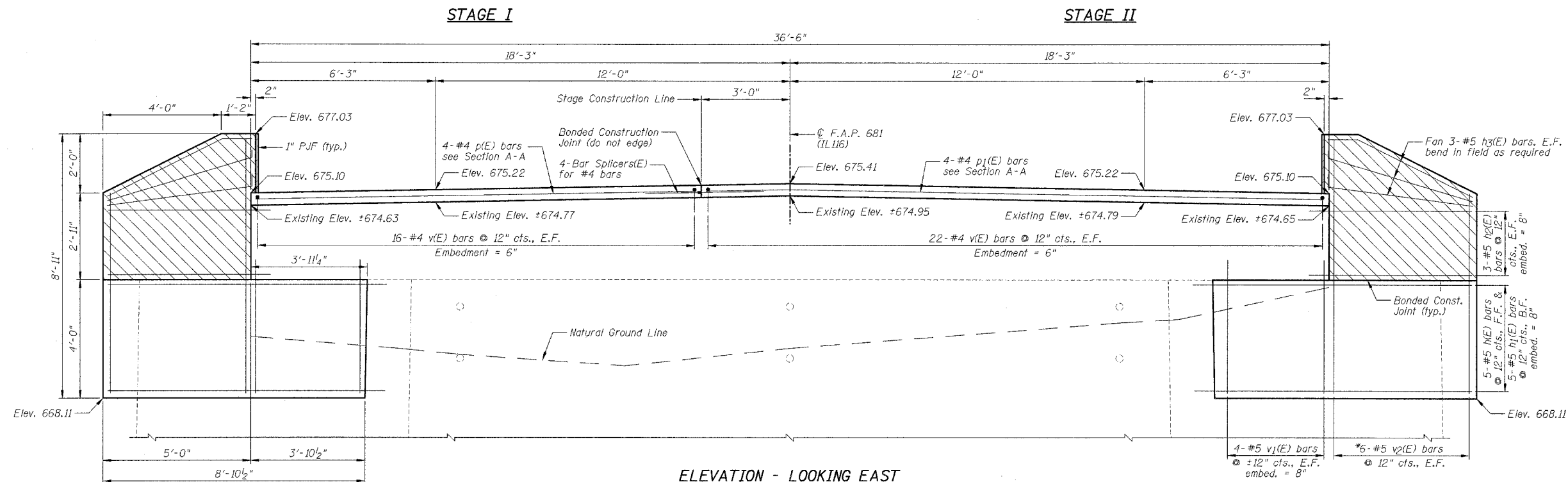
- 1.) Work this sheet with Sheets B14 & B16.
- 2.) See Sheet B5 for Bar Splicer Details.
- 3.) See Sheet B16 for Section A-A.
- 4.) Reinforcement bars designated (E) shall be epoxy coated.
- 5.) Drill & epoxy grout h(E), h1(E) & h2(E) bar in 8" (min.) drilled holes and v(E) bars in 6" (min.) drilled holes according to Section 584 of the Standard Specifications.
- 6.) The type of epoxy grout shall be approved by the Engineer.
- 7.) Space reinforcement in cap to miss dowel anchor hole locations.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EAST ABUTMENT F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075
NAME	DATE	
		DESIGNED BY: JML DRAWN BY: DJM DATE: 12/09/05 CHECKED BY: MSW

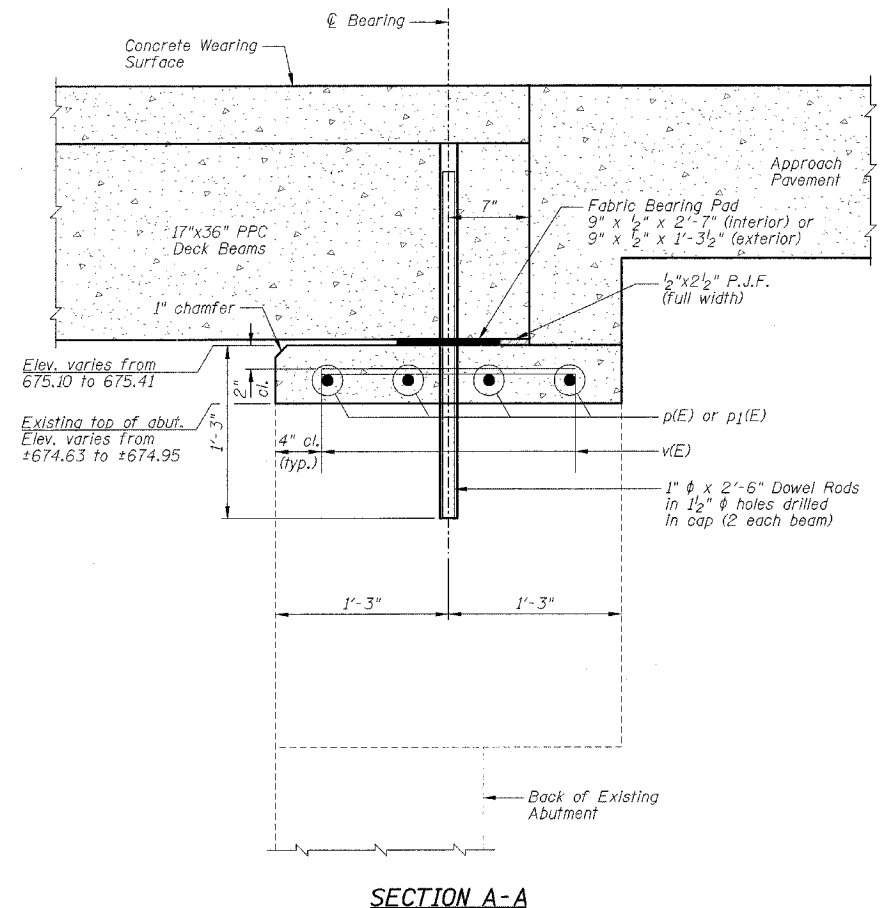
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	28
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

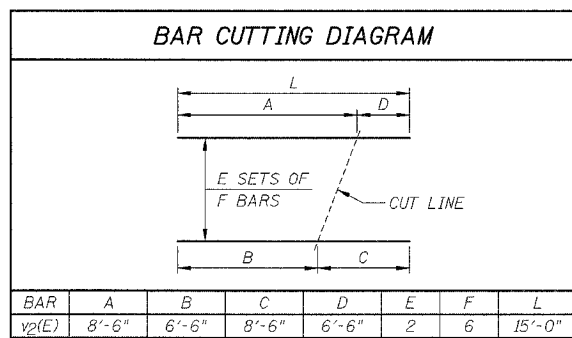
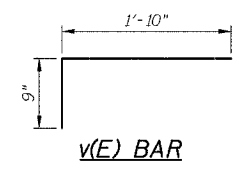
SHEET NO. B16
OF 31 SHEETS



ELEVATION - LOOKING EAST
*Order v2(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder in opposite face.



SECTION A-A



**EAST ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	10	#5	9'-5"	---
h1(E)	10	#5	8'-6"	---
h2(E)	12	#5	5'-6"	---
h3(E)	12	#5	4'-10"	---
p(E)	4	#4	14'-11"	---
p1(E)	4	#4	20'-11"	---
v(E)	76	#4	2'-7"	---
v1(E)	16	#5	4'-5"	---
v2(E)	12	#5	15'-0"	---

Item	Unit	Quantity
Concrete Removal	Cu Yd	2.7
Concrete Structures	Cu Yd	5.8
Formed Concrete Repair (Depth Equal To Or Less Than 5")	Sq Ft	4.0
Reinforcement Bars, Epoxy Coated	Pound	810
Epoxy Crack Sealing	Foot	8
Geocomposite Wall Drain	Sq Yd	15
Pipe Underdrains For Structures 4"	Foot	70
Bar Splicers	Each	4

NOTES:

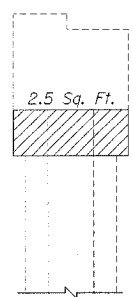
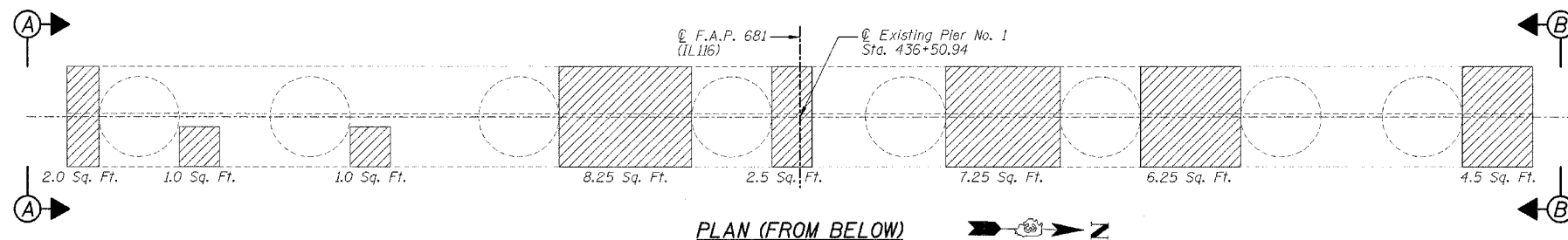
- 1.) Work this sheet with Sheets B14 & B15.
- 2.) See Sheet B15 for location of Section A-A.
- 3.) Hatched area to be poured after beams are in place.
- 4.) E.F. denotes Each Face, F.F. denotes Front Face & B.F. denotes Back Face.
- 5.) See Sheet B5 for Bar Splicer Details.
- 6.) Reinforcement bars designated (E) shall be epoxy coated.
- 7.) Drill & epoxy grout h(E), h1(E), h2(E) & v1(E) bars in 8" (min.) drilled holes and v(E) bars in 6" (min.) drilled holes according to Section 584 of the Standard Specifications.
- 8.) The type of epoxy grout shall be approved by the Engineer.
- 9.) Space reinforcement in cap to miss dowel anchor hole locations.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
		EAST ABUTMENT	
		F.A.P. 681 (IL116) OVER FELKY SLOUGH	
		SECTION 113BR-2	
		LIVINGSTON COUNTY	
		STATION 436+75.00	
		STRUCTURE NO. 053-0075	
		DESIGNED BY: JML	DRAWN BY: DJM
		DATE: 12/09/05	CHECKED BY: MSW

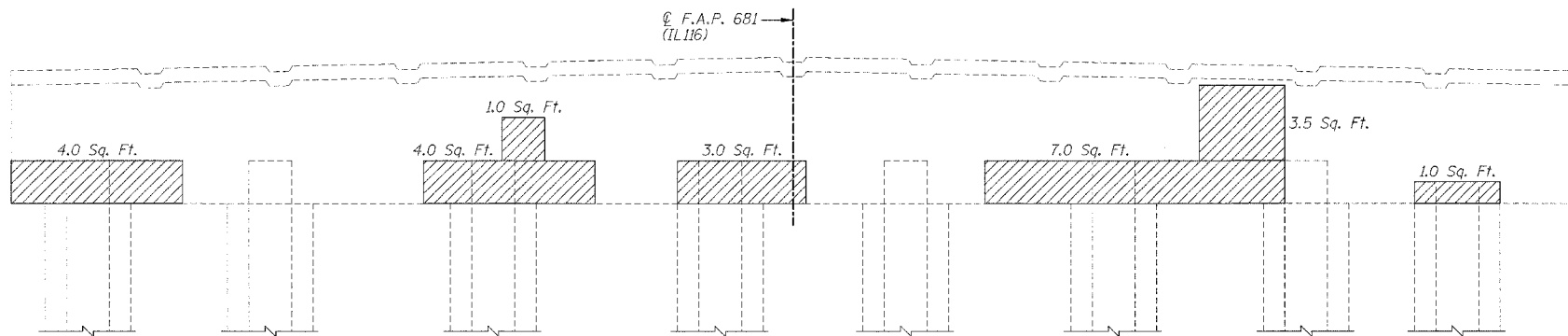
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	29
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B17
OF 31 SHEETS



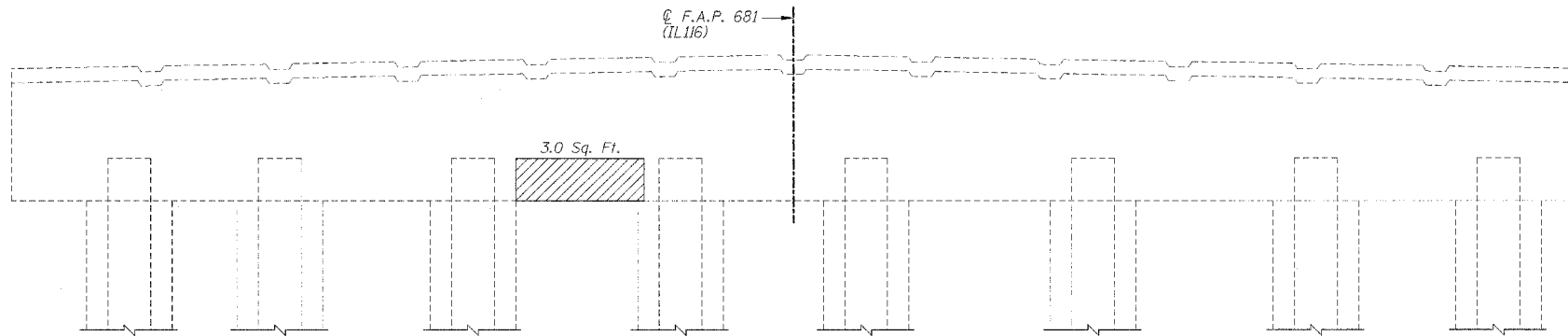
ELEVATION A-A



ELEVATION - LOOKING WEST



ELEVATION B-B



ELEVATION - LOOKING EAST

NOTES:

- 1.) Work this sheet with Sheets B18 & B19.
- 2.) The number next to the hatched areas is the square footage of each damaged area.



Formed Concrete Repair
(Depth Equal To Or Less Than 5")

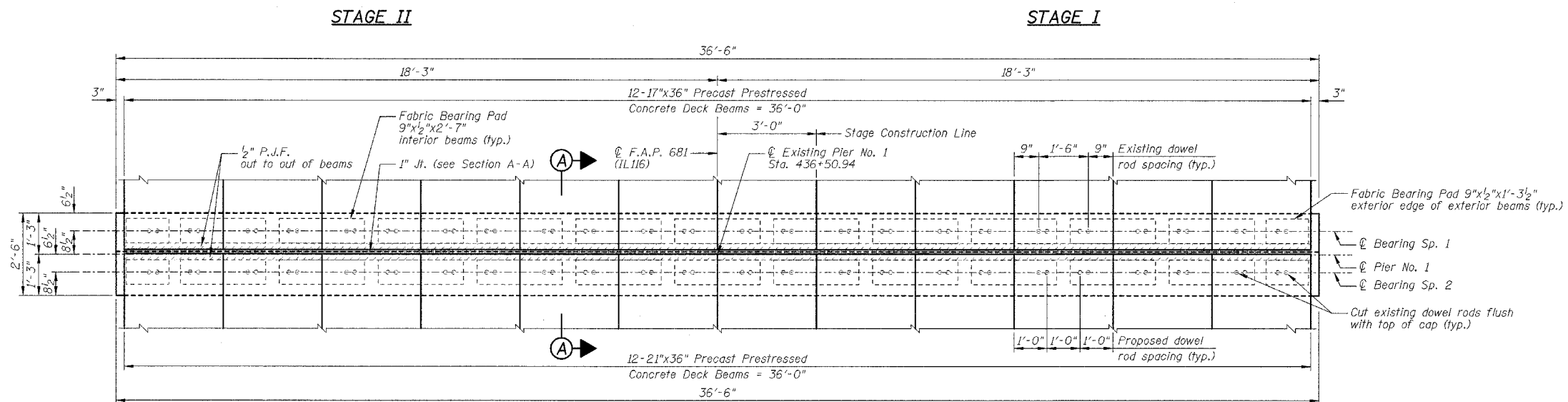
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PIER NO. 1 CONCRETE REPAIRS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 12/09/05
CHECKED BY: MSW

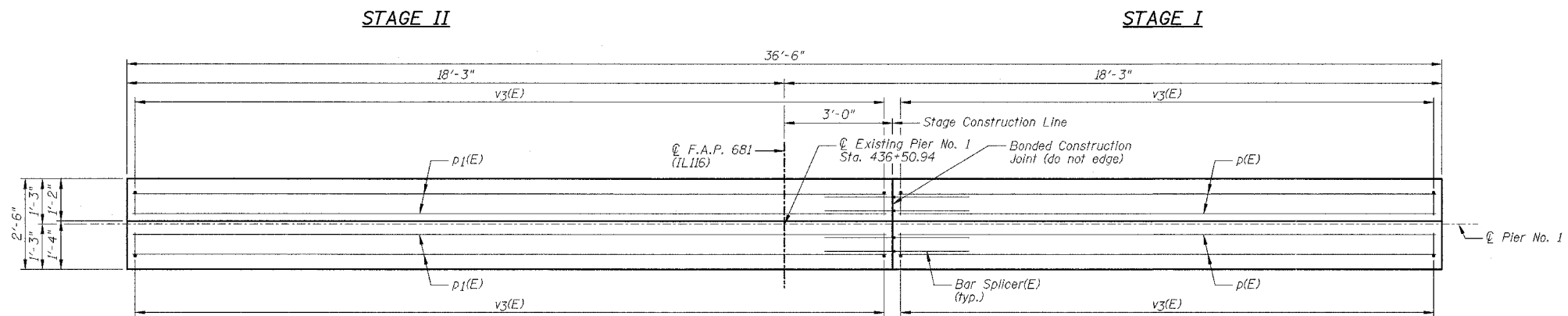
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	30
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SHEET NO. B18
OF 31 SHEETS



PLAN VIEW WITH BEAMS



PLAN VIEW WITHOUT BEAMS

NOTES:

- 1.) Work this sheet with Sheets B17 & B19.
- 2.) See Sheet B5 for Bar Splicer Details.
- 3.) See Sheet B19 for Section A-A.
- 4.) Reinforcement bars designated (E) shall be epoxy coated.
- 5.) Drill & epoxy grout v3(E) bars in 6" (min.) drilled holes according to Section 584 of the Standard Specifications.
- 6.) Dowel rods drilled in cap are included in the cost of "Concrete Structures".
- 7.) The type of epoxy grout shall be approved by the Engineer.
- 8.) Space reinforcement in cap to miss dowel anchor hole locations.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION PIER NO. 1 F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075
NAME	DATE	

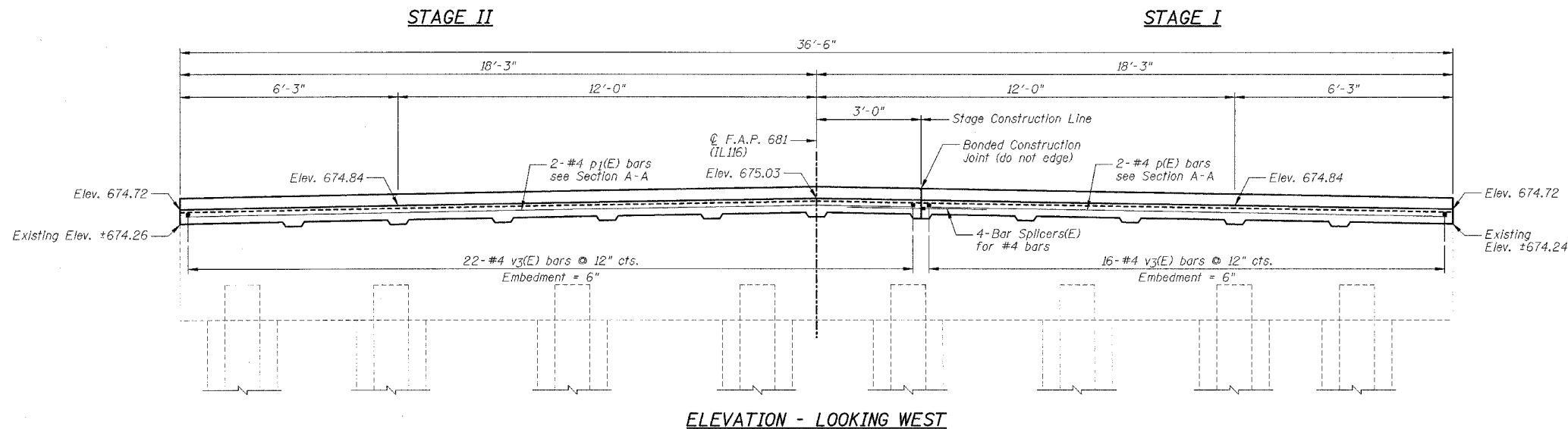
DESIGNED BY: JML
DATE: 12/09/05
DRAWN BY: DJM
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

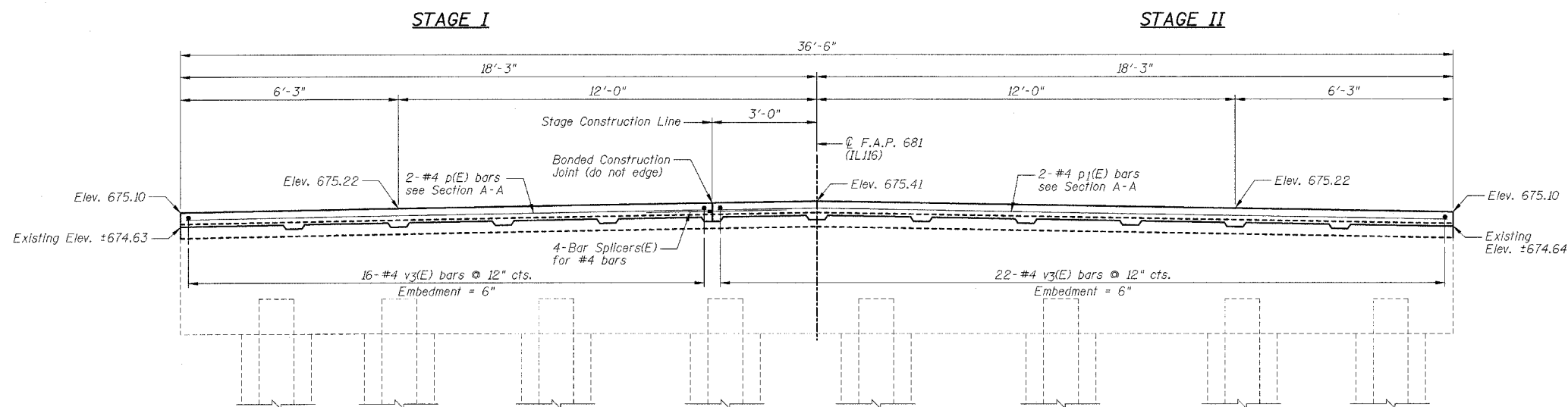
CONTRACT NO. 66565

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	31
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

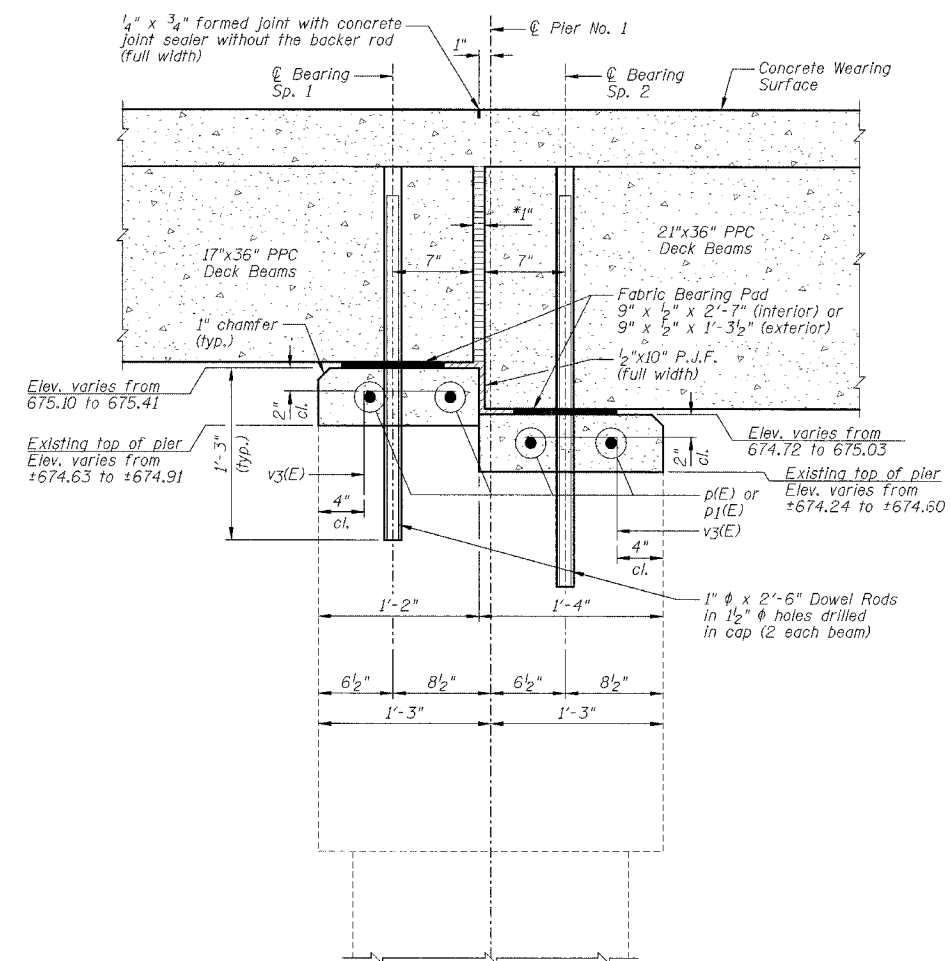
SHEET NO. B19
OF 31 SHEETS



ELEVATION - LOOKING WEST



ELEVATION - LOOKING EAST



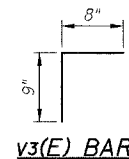
SECTION A-A

*1" jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

**PIER NO. 1
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p(E)	4	#4	14'-11"	—
p1(E)	4	#4	20'-11"	—
v3(E)	76	#4	1'-5"	—

Item	Unit	Quantity
Concrete Structures	Cu Yd	1.7
Formed Concrete	Sq Ft	61.8
Repair (Depth Equal To Or Less Than 5")		
Reinforcement Bars, Epoxy Coated	Pound	170
Bar Splicers	Each	4



NOTES:

- 1.) Work this sheet with Sheets B17 & B18.
- 2.) See Sheet B5 for Bar Splicer Details.
- 3.) See Sheet B18 for location of Section A-A.
- 4.) Reinforcement bars designated (E) shall be epoxy coated.
- 5.) Drill & epoxy grout v3(E) bars in 6" (min.) drilled holes according to Section 584 of the Standard Specifications.
- 6.) Dowel rods drilled in cap are included in the cost of "Concrete Structures".
- 7.) The type of epoxy grout shall be approved by the Engineer.
- 8.) Space reinforcement in cap to miss dowel anchor hole locations.

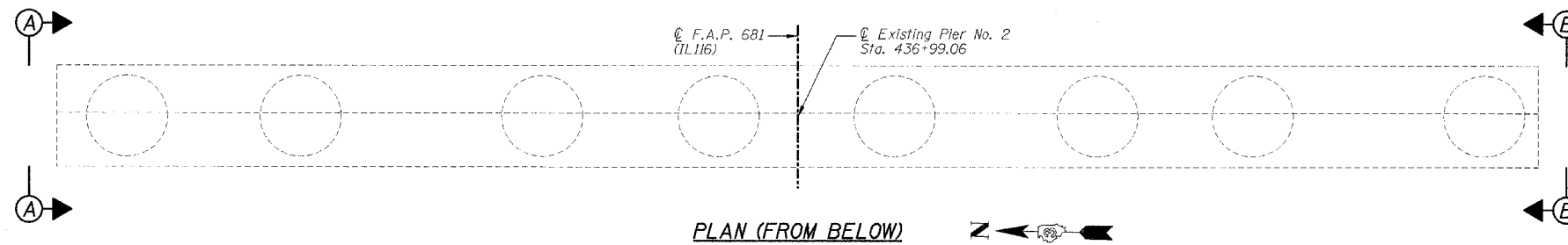
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION PIER NO. 1 F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075
NAME	DATE	
		DESIGNED BY: JML DRAWN BY: DJM DATE: 12/09/05 CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

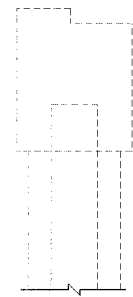
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	32
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

SHEET NO. B20

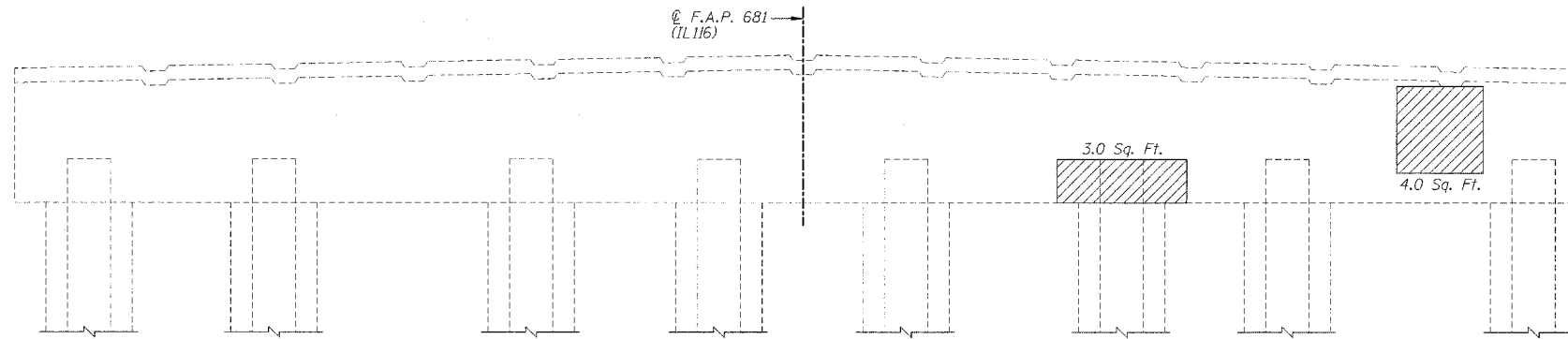
OF 31 SHEETS



PLAN (FROM BELOW)



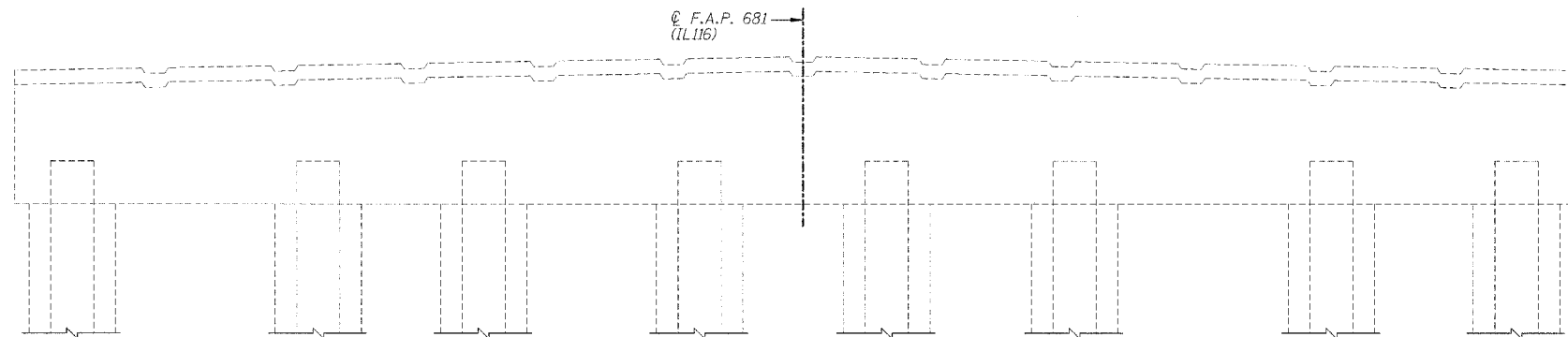
ELEVATION A-A



ELEVATION - LOOKING EAST



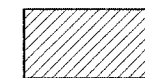
ELEVATION B-B



ELEVATION - LOOKING WEST

NOTES:

- 1.) Work this sheet with Sheets B21 & B22.
- 2.) The number next to the hatched areas is the square footage of each damaged area.



Formed Concrete Repair
(Depth Equal To Or
Less Than 5")

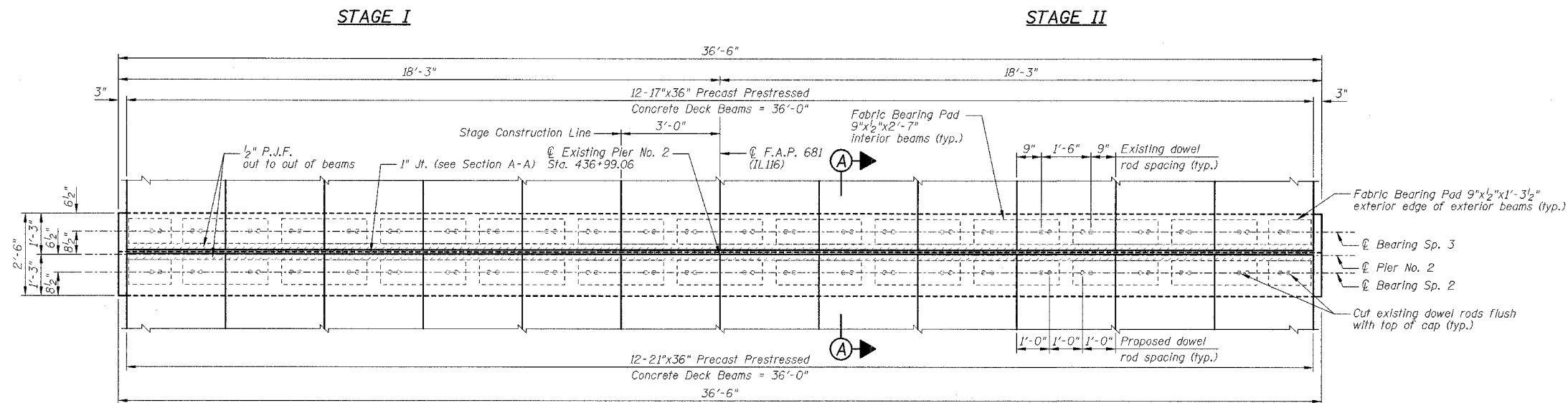
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PIER NO. 2 CONCRETE REPAIRS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DATE: 12/09/05
DRAWN BY: DJM
CHECKED BY: MSW

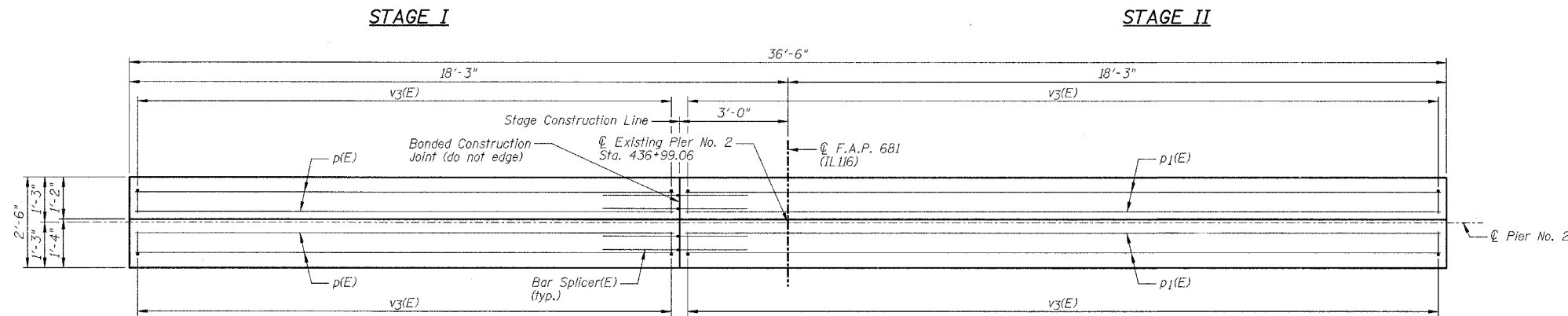
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	33
STA. TO STA.		ILLINOIS FED. AID PROJECT		

SHEET NO. B21
OF 31 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN VIEW WITH BEAMS



PLAN VIEW WITHOUT BEAMS

NOTES:

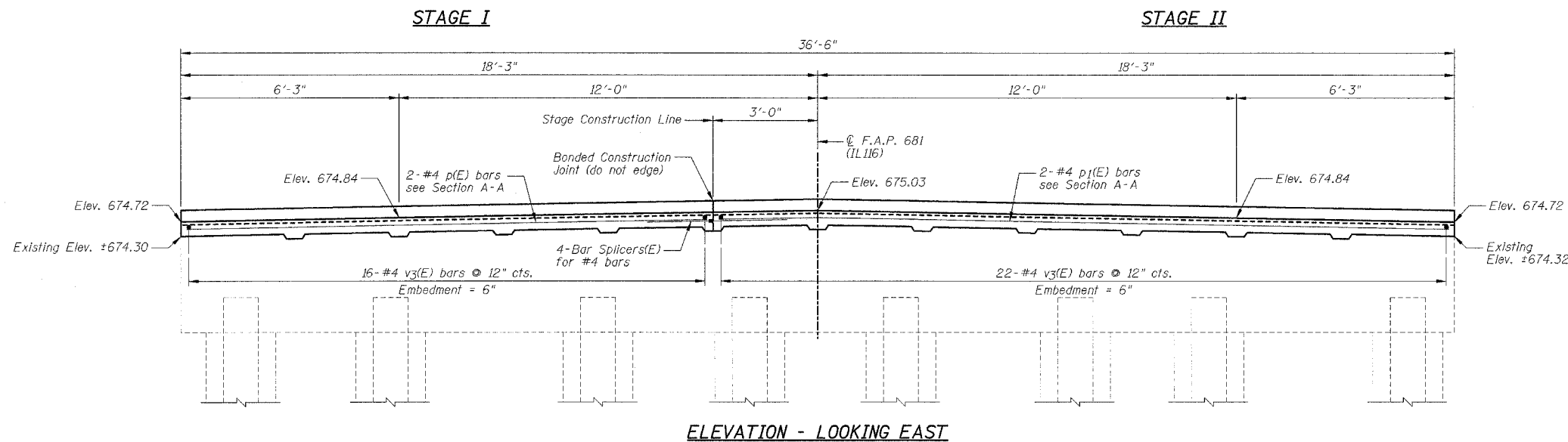
- 1.) Work this sheet with Sheets B20 & B22.
- 2.) See Sheet B5 for Bar Splicer Details.
- 3.) See Sheet B22 for Section A-A.
- 4.) Reinforcement bars designated (E) shall be epoxy coated.
- 5.) Drill & epoxy grout v3(E) bars in 6" (min.) drilled holes according to Section 584 of the Standard Specifications.
- 6.) Dowel rods drilled in cap are included in the cost of "Concrete Structures".
- 7.) The type of epoxy grout shall be approved by the Engineer.
- 8.) Space reinforcement in cap to miss dowel anchor hole locations.

REVISIONS	
NAME	DATE

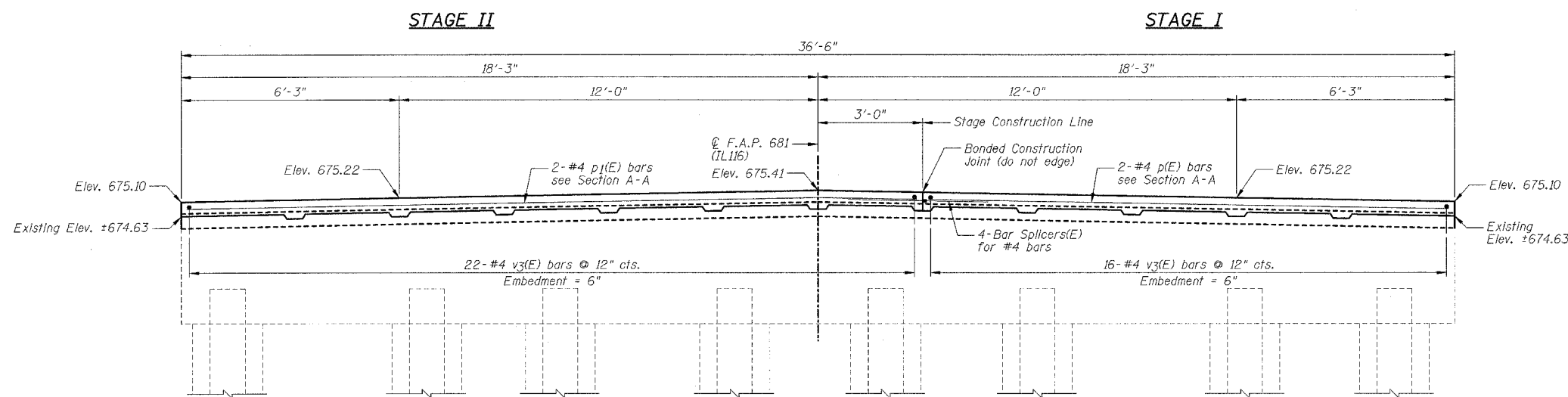
ILLINOIS DEPARTMENT OF TRANSPORTATION
PIER NO. 2
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML DRAWN BY: DJM
DATE: 12/09/05 CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

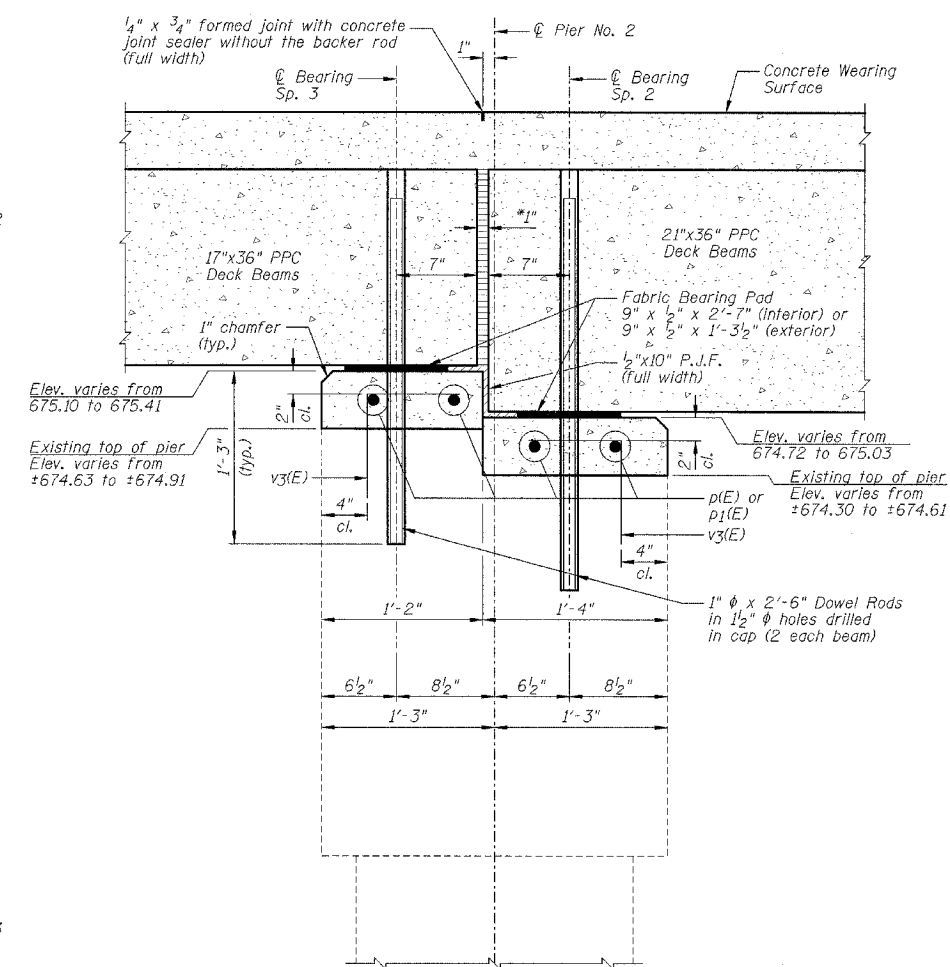
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	34
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION - LOOKING EAST



ELEVATION - LOOKING WEST



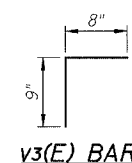
SECTION A-A

*1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

PIER NO. 2
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p(E)	4	#4	14'-11"	
p1(E)	4	#4	20'-11"	
v3(E)	76	#4	1'-5"	

Item	Unit	Quantity
Concrete Structures	Cu Yd	1.6
Formed Concrete	Sq Ft	7.0
Repair (Depth Equal To Or Less Than 5")		
Reinforcement Bars, Epoxy Coated	Pound	170
Bar Splicers	Each	4



NOTES:

- 1.) Work this sheet with Sheets B20 & B21.
- 2.) See Sheet B5 for Bar Splicer Details.
- 3.) See Sheet B21 for location of Section A-A.
- 4.) Reinforcement bars designated (E) shall be epoxy coated.
- 5.) Drill & epoxy grout v3(E) bars in 6" (min.) drilled holes according to Section 584 of the Standard Specifications.
- 6.) Dowel rods drilled in cap are included in the cost of "Concrete Structures".
- 7.) The type of epoxy grout shall be approved by the Engineer.
- 8.) Space reinforcement in cap to miss dowel anchor hole locations.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION PIER NO. 2 F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075
NAME	DATE	
		DESIGNED BY: JML
		DRAWN BY: DJM
		CHECKED BY: MSW
		DATE: 12/09/05

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	36
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. B24
OF 31 SHEETS



Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 1 of 2

Date 8/25/03

ROUTE FAP 68(IL116) DESCRIPTION ILLINOIS 116 OVER FELKY SLOUGH WEST OF SAUNAMIN LOGGED BY IDOT-LM
SECTION (113) BR-2 LOCATION NW 1/4, SEC. 19, TWP. 28N, RNG. 7E, 3rd PM
COUNTY LIVINGSTON DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. <u>053-0075 EXISTING</u> Station <u>436+75.00</u>	BORING NO. <u>02 EAST ABUT</u> Station <u>437+43</u> Offset <u>11.00R LT</u> Ground Surface Elev. <u>676.43</u> ft	D E P T H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev. <u>663.41</u> ft		D E P T H S		U C S Qu	M O I S T
						Stream Bed Elev. _____ ft		(ft)	(/6")		
						Groundwater Elev.:					
						First Encounter _____ ft					
						Upon Completion <u>WASHED</u> ft					
						After _____ Hrs. _____ ft					
CORED ASPHALT & CONCRETE PAVEMENT Over Brown SANDY CLAY LOAM (FILL) <u>674.43</u>											
Stiff Brown CLAY LOAM (FILL)						2					
						1	1.5	23.0			
						3	P				
						2					
						3	2.0	17.0			
						3	P				
						1					
						2	1.5	13.0			
						3	P				
Medium Brown LOAM <u>666.93</u>						1					
						2	1.0	16.0			
						1	P				
Medium Gray Loamy Fine SAND & Coarse GRAVEL <u>664.43</u>						5					
						8	-	10.0			
						9	-				
						5					
						9	-	9.0			
						8	-				
						5					
						7	-	8.0			
						9	-				
Medium Gray Loamy Fine SAND to Medium GRAVEL <u>648.43</u>						4					
						6	-	17.0			
						7	-				
Very Stiff Gray CLAY TILL <u>643.43</u>						2					
						5	2.2	22.0			
						8	S				
Medium Gray Loamy Fine SAND & Coarse GRAVEL <u>637.43</u>						7					
						4					

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



Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 2 of 2

Date 8/25/03

ROUTE FAP 68(IL116) DESCRIPTION ILLINOIS 116 OVER FELKY SLOUGH WEST OF SAUNAMIN LOGGED BY IDOT-LM
SECTION (113) BR-2 LOCATION NW 1/4, SEC. 19, TWP. 28N, RNG. 7E, 3rd PM
COUNTY LIVINGSTON DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. <u>053-0075 EXISTING</u> Station <u>436+75.00</u>	BORING NO. <u>02 EAST ABUT</u> Station <u>437+43</u> Offset <u>11.00R LT</u> Ground Surface Elev. <u>676.43</u> ft	D E P T H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev. <u>663.41</u> ft		D E P T H S		U C S Qu	M O I S T
						Stream Bed Elev. _____ ft		(ft)	(/6")		
						Groundwater Elev.:					
						First Encounter _____ ft					
						Upon Completion <u>WASHED</u> ft					
						After _____ Hrs. _____ ft					
Medium Gray Loamy Fine SAND to Medium GRAVEL <u>633.43</u>						8	-	12.0			
						9	-				
Very Stiff Gray CLAY						5					
						8	3.8	13.0			
						13	S				
Hard Gray SILTY CLAY LOAM TILL <u>629.43</u>						7					
						11	4.7	13.0			
						14	B				
Very Stiff Gray SILTY CLAY LOAM TILL <u>623.43</u>						5					
						12	3.1	13.0			
						12	B				
Stiff Gray SILTY CLAY LOAM TILL <u>619.43</u>						7					
						7					
						7					
						12	5.1	13.0			
						15	B				
						2					
						2	1.3	15.0			
						3	B				
						7					
						13	2.0	14.0			
						9	B				
End of Boring											

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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML DRAWN BY: DJM
DATE: 12/09/05 CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

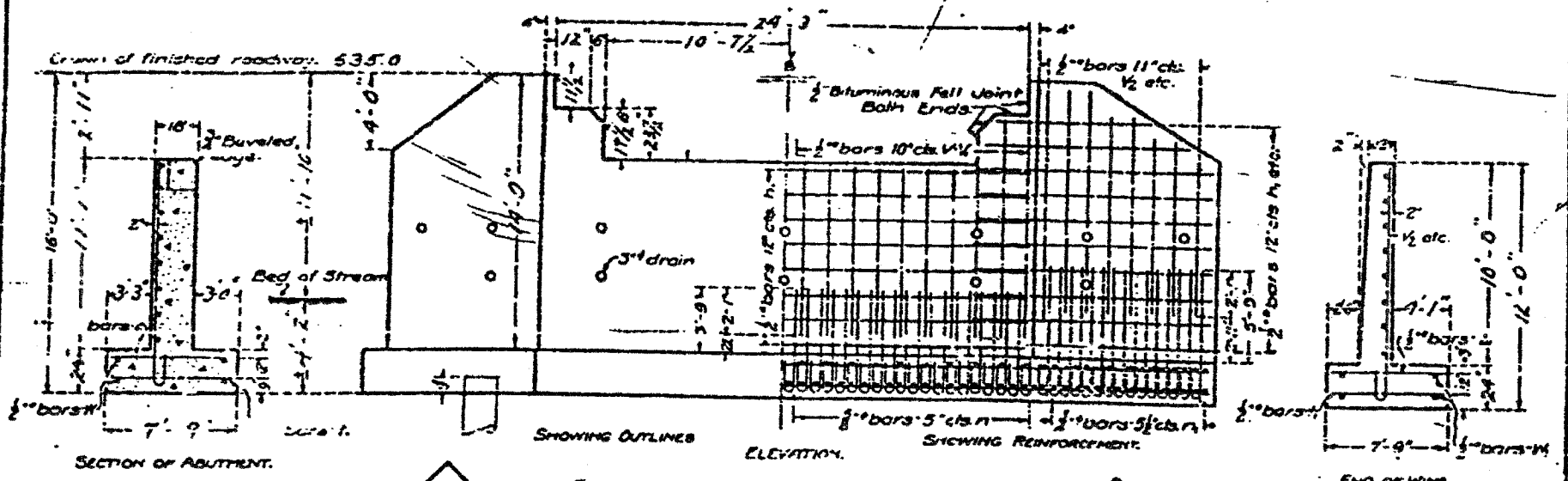
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	37
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 625
OF 31 SHEETS

Existing Structure, Steel, 100' span
16' dx to be removed by Bridge Contractor
B.M. #48 N & W in Root 2.8 Maple Lt.
Sta 434+46 21.55579

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
R. C. ABUTMENTS FOR DECK GIRDER BRIDGE
HEIGHT OVER ALL 16 FEET

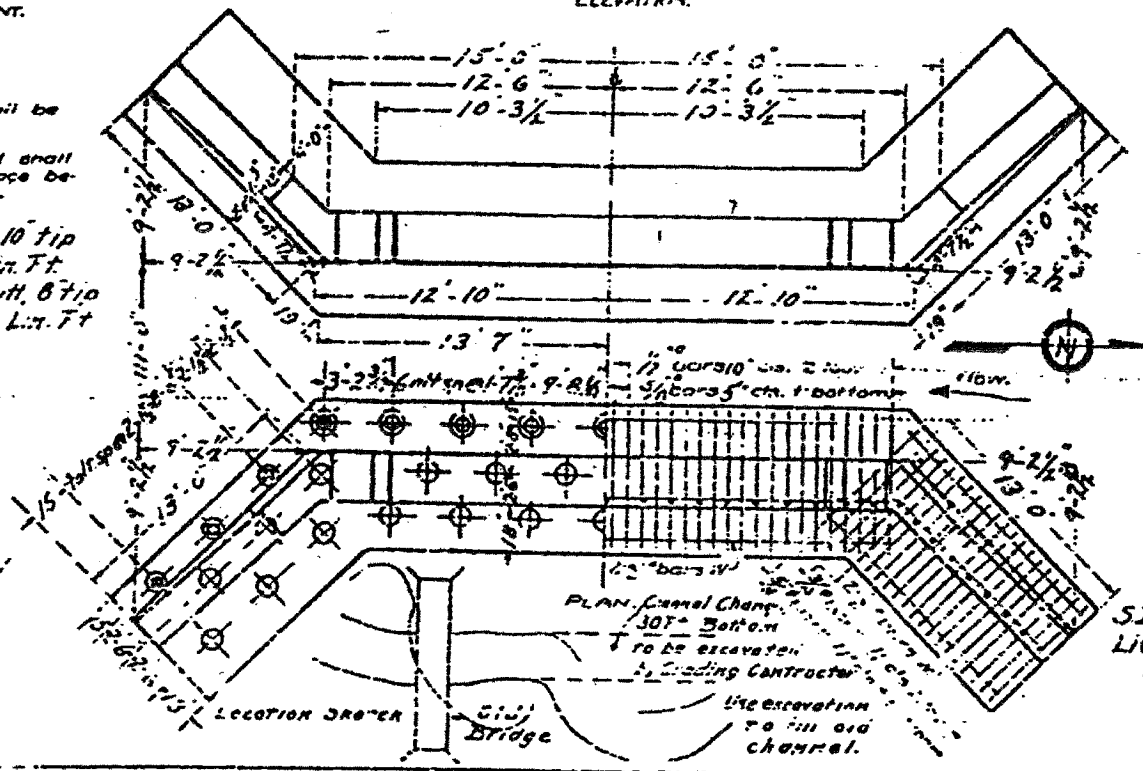
ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.	Sheet No. 4 4 Sheets.
116	Livingston	113	45	43	



Class A concrete shall be used throughout.
Exposures: 1:2:4.
All reinforcing steel shall be securely wired in place before concrete is poured.

12 Unt. Piles 12 butt. 10 tip
300# 600 Est. Lin. Ft.

10 Unt. Piles 10 butt. 8 tip
300# 750 Est. Lin. Ft.



BILL OF MATERIAL

Bars	No.	Size	Length
1	52	2 1/2"	9'-0"
2	8	2 1/2"	10'-6"
3	24	2 1/2"	13'-0"
4	16	2 1/2"	8'-6"
5	12	2 1/2"	7'-0"
6	22	2 1/2"	25'-0"
7	22	2 1/2"	19'-0"
8	8	2 1/2"	8'-6"
9	12	3 1/2"	6'-5"
10	104	3/4"	6'-0"
11	130	3/4"	7'-6"
12	26	3/4"	7'-6"
13	62	3/4"	12'-6"
14	52	3/4"	7'-6"
15	8	3/4"	19'-0"
16	16	3/4"	19'-6"

FOR INFORMATIONAL
USE ONLY
(1927 PLANS)

SD Rte. 116 Sect. 113-B
Livingston County
Station 436+75

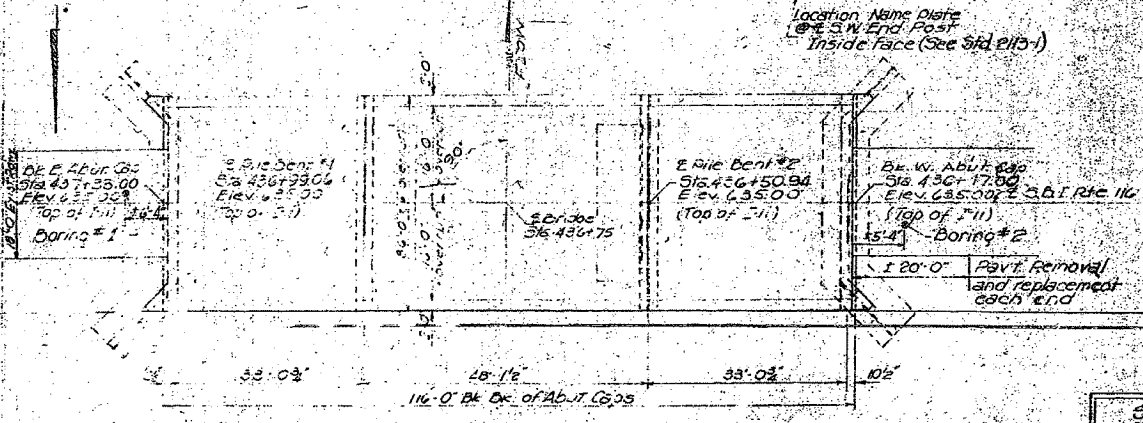
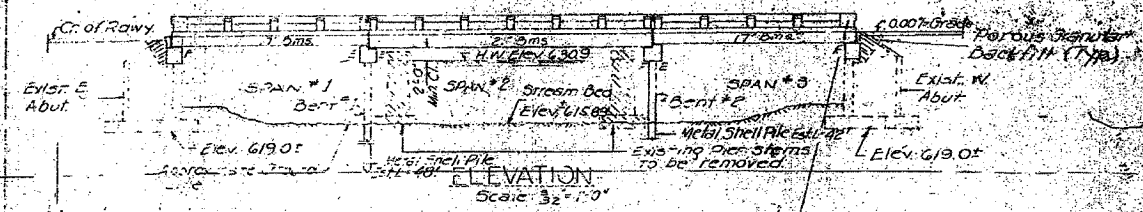
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EXISTING PLANS F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075 DESIGNED BY: JML DATE: 12/09/05
NAME	DATE	
		DRAWN BY: DJM CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	38
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B26
OF 31 SHEETS

0.11" Top of W. 10' wall, South East corner,
East Abut. Elev. 6350
Existing Structure Super portions of
Sub. to be removed No San. E



STA 436+75
PAV'T 196 BY
STATE OF ILLINOIS
S.D. 1116 SEC 116
LOADING HS20

NAME PLATE
See 1116-11

GENERAL NOTES

For Item Precast Prestressed Concrete Bridge Deck
Supplemental Specifications effective March 2, 1965
Strand used as prestressing tendon shall be
high strength, stress relieved strand.
The nominal diameter of the strand shall not exceed
and the nominal cross sectional area shall be 0.16
square inch.
Pockets that receive transverse tie bar on outside
beam shall be filled with grout after transverse tie assembly
is in place.
The tie rods in the transverse tie assembly shall be tightened
to a snug fit and the threads set.
The radial concrete in the rail post and railing shall be
poured in separate operations.
All reinforcement bars shall be lapped 80 diameters unless
otherwise shown.
The Contractor shall drive one additional pile in a permanent
location at Pile Bent #1 as directed by the Engineer before driving
remainder of piles.
The back of the Abut Caps (except carrier positions)
and exposed portions of the existing Abut. back wall shall
be waterproofed.
Steel for dowel rods and transverse tie rods shall be SAE 1030.
After fabrication the transverse tie assemblies (tie rods, nuts, washers
and sleeves) shall be hot dipped galvanized in accordance with
A.S.T.M. Designation A-153.
Tie rods shall be G/A class wire rope with fiber core.
The ultimate tensile strengths shall be 21400 lbs. for 1/2" diameter
and 34000 lbs. for 3/4" diameter rods.
Loss of prestress to be included in unit bid price. P.D. Concrete Bridge Deck
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
Formwork Erection	CY/HR	24	1.00	24.00
Continuous Concrete Surface	Sq Yds	35	1.00	35.00
Course Subclass F1 (12")	Tons	35	1.00	35.00
Concrete Removal	CY/HR	1346	1.00	1346.00
Precast Prestressed Concrete	CU YDS	274	2.00	548.00
Bridge Deck	CU YDS	1228	1.00	1228.00
Handrail Concrete	CU YDS	63	1.00	63.00
Class X Concrete	CU YDS	158	3.50	553.00
Reinforcement Bars	LLS	680	2.00	1360.00
Gasometer Piles Shear (12")	LINEAL FT	675	1.00	675.00
Gasometer Piles Shear (12")	LINEAL FT	675	1.00	675.00
Waste Piles	CU YDS	10	1.00	10.00
Protective Coat	SQ YDS	103	1.00	103.00
Bridge Deck	SQ YDS	416	1.00	416.00
Handrail Removal	SQ YDS	63	1.00	63.00
Base Coat Replacement	SQ YDS	63	1.00	63.00
Bridge Deck	SQ YDS	416	1.00	416.00
Class A Excavation for Structure	CU YDS	24	1.00	24.00
Structure	CU YDS	24	1.00	24.00
Structure	CU YDS	24	1.00	24.00

LVI CLASSIFICATION
CLASS 2
MRH 10

STRESSES

FIELD UNITS
1. 1400 psi (Stress)
2. 1000 psi (C/S)
3. 20,000 psi (Bent (A-34))
4. 75 psi (Figs)
5. 10

PRECAST PRESTRESSED UNITS

LOADING HS20-44
F = 5000 ps
R = 4000 ps
FS = 24000 psi (5 strands)
FS = 173,600 psi (5 strands)

DESIGNED BY: JML
DRAWN BY: DJM
CHECKED BY: MSW
DATE: 12/09/05

FOR INFORMATIONAL
USE ONLY
(1965 PLANS)

GENERAL PLAN
S.D. 1116 OVER FELKY SLOUGH
S.D. 1116 SEC 116
LIVINGSTON COUNTY
STA 436+75

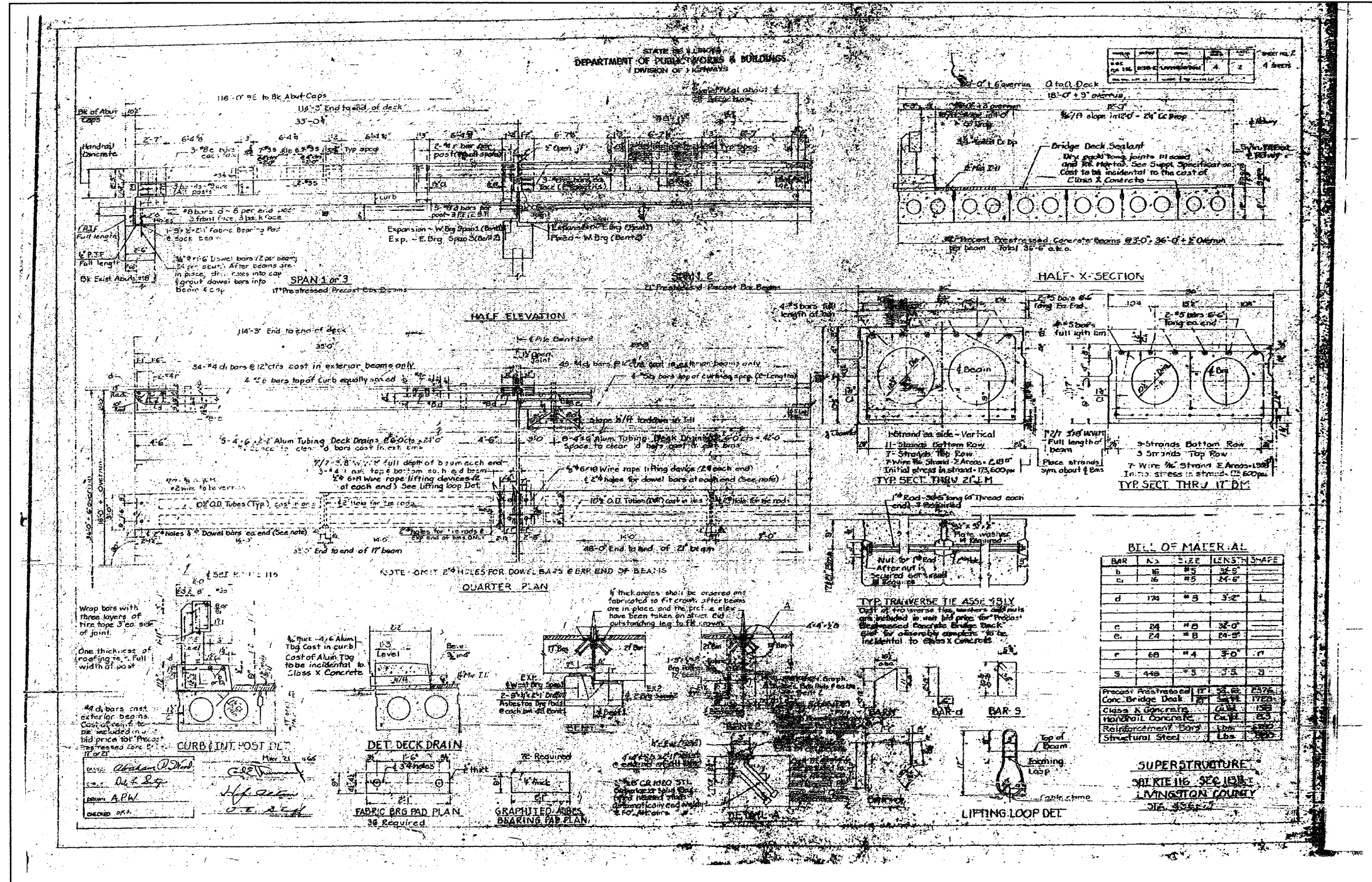
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING PLANS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 12/09/05
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	39
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B27
OF 31 SHEETS



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a	16	#5	32'-0"	
b	16	#5	24'-6"	
c	124	#8	3'-2"	L
d	24	#8	32'-0"	
e	24	#8	24'-0"	
f	68	#4	3'-0"	r
g	448	#5	3'-5"	3

Precast Prestressed Conc. Bridge Deck 17' 31.00' 2576
 Class X Concrete 24.50' 1720
 Reinforcement Bars 24.50' 63
 Structural Steel 1.00' 220

FOR INFORMATIONAL
USE ONLY
(1965 PLANS)

REVISIONS

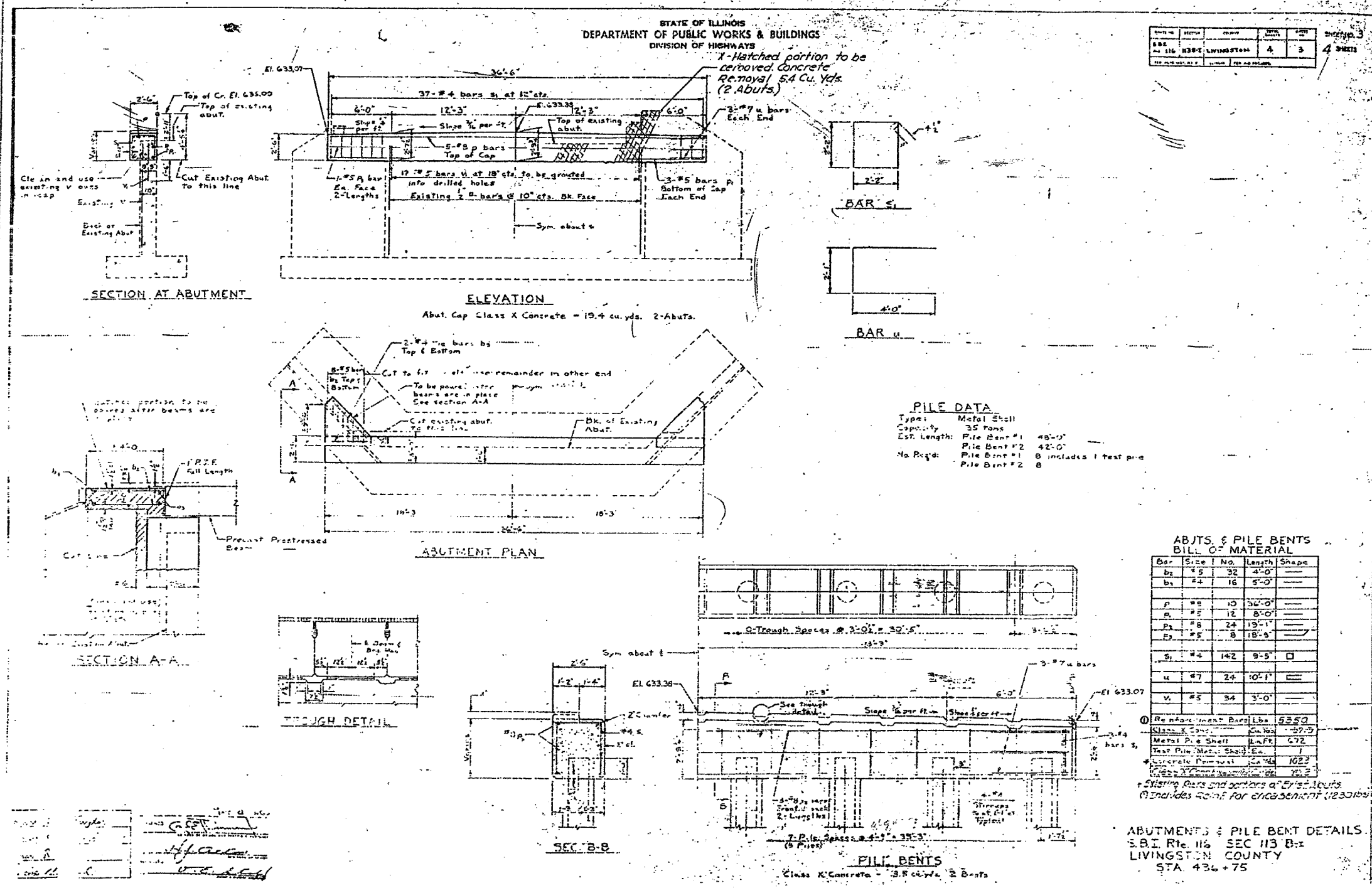
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING PLANS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 12/09/05
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	40
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B28
OF 31 SHEETS



NO.	SECTION	NO.	NO.	NO.
116	113BR-2	LIVINGSTON	4	3

PILE DATA

Type:	Metal Shell
Capacity:	35 Tons
Est. Length:	Pile Bent #1 48'-0"
	Pile Bent #2 42'-0"
No. Piles:	Pile Bent #1 8 (includes 1 test pile)
	Pile Bent #2 8

**ABUTS. & PILE BENTS
BILL OF MATERIAL**

Bar	Size	No.	Length	Shape
b2	#5	32	4'-0"	—
b1	#4	18	5'-0"	—
p	#8	10	36'-0"	—
a	#5	12	8'-0"	—
p2	#8	24	19'-1"	—
E3	#5	8	18'-5"	—
s	#2	142	9'-5"	□
u	#7	24	10'-1"	—
v	#5	34	3'-0"	—

ABUTMENTS & PILE BENT DETAILS

Reinforcement Bars	Lbs	5350
Class X Concrete	Cu. Yds	59.9
Metal Pile Shell	Lbs	672
Test Pile Metal Shell	Lbs	1
Concrete Formwork	Sq. Yds	1023

(Includes 20% for contingencies (1230 lbs))

FOR INFORMATIONAL
USE ONLY
(1965 PLANS)

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EXISTING PLANS F.A.P. 681 (IL116) OVER FELKY SLOUGH SECTION 113BR-2 LIVINGSTON COUNTY STATION 436+75.00 STRUCTURE NO. 053-0075 DESIGNED BY: JML DATE: 12/09/05
NAME	DATE	
		DRAWN BY: DJM CHECKED BY: MSW

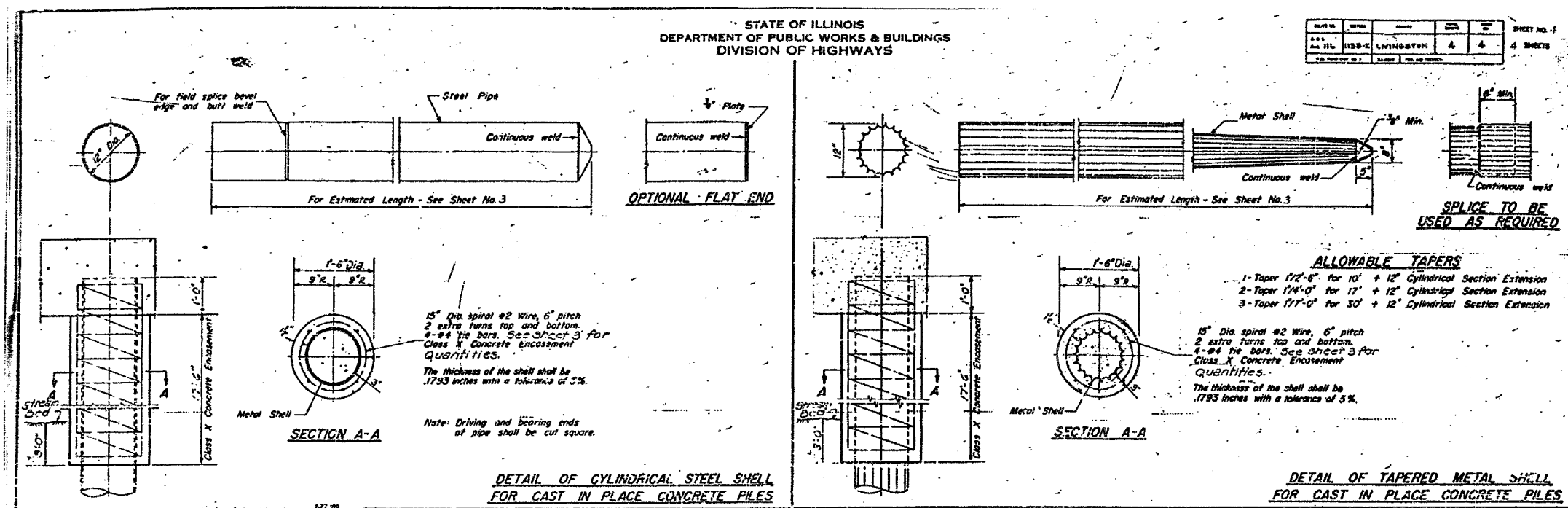
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	41
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. 629
OF 31 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113B-2	LIVINGSTON	47	41



Station	Soils	Depth (ft)	Soils	Depth (ft)	Soils	Depth (ft)	Soils	Depth (ft)
635.00	Very Stiff Gray CLAY (fill)	15	Medium Gray Angular & Sub-angular COARSE SAND & FINE GRAVEL	18	Very Stiff Gray CLAY (fill) to SILTY CLAY (lacustrine)	22	Hard Gray CLAY (fill)	25
635.00	Stiff to medium Brownish Black & Olive Gray SILTY CLAY & CLAY (lacustrine)	9	Medium Gray Angular & Sub-angular COARSE SAND & FINE GRAVEL	18	Very Stiff Gray CLAY (fill) to SILTY CLAY (lacustrine)	22	Hard Gray CLAY (fill)	25
635.00	Stiff to medium Brownish Black & Olive Gray SILTY CLAY & CLAY (lacustrine)	9	Medium Gray Angular & Sub-angular COARSE SAND & FINE GRAVEL	18	Very Stiff Gray CLAY (fill) to SILTY CLAY (lacustrine)	22	Hard Gray CLAY (fill)	25
635.00	Stiff to medium Brownish Black & Olive Gray SILTY CLAY & CLAY (lacustrine)	9	Medium Gray Angular & Sub-angular COARSE SAND & FINE GRAVEL	18	Very Stiff Gray CLAY (fill) to SILTY CLAY (lacustrine)	22	Hard Gray CLAY (fill)	25

FOR INFORMATIONAL
USE ONLY
(1965 PLANS)

FILE & BIDDING DETAILS
S.D. RITE INC. SEC. 113B-2
LIVINGSTON COUNTY
STA. 436+75

DESIGNED BY: JML
DRAWN BY: DJM
DATE: 12/09/05
CHECKED BY: MSW

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING PLANS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113B-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 12/09/05
CHECKED BY: MSW

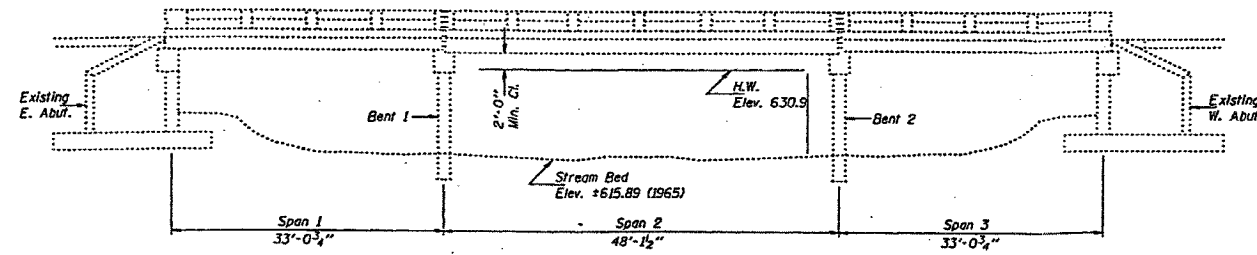
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	1138R-2	LIVINGSTON	47	42
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B30
OF 31 SHEETS

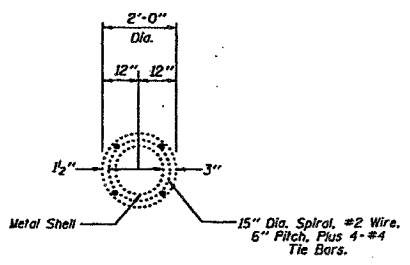
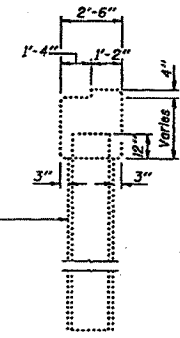
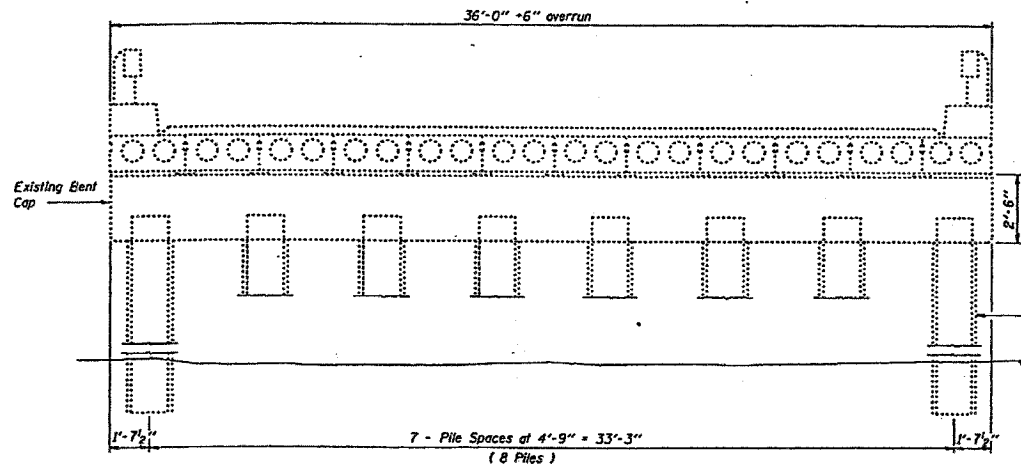
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 1138-1	LIVINGSTON		2	1



GENERAL NOTES

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



TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Polymer Modified Portland Cement Mortar	Cu. Ft.	2.4
Composite Fiber Wrap	Sq. Ft.	905

The Polymer Modified Portland Cement Mortar quantity has been estimated assuming a depth of 1 inch. The contractor will be paid for the actual cubic feet of epoxy mortar placed.

PILE BENT REPAIR
S.B.I. RTE. 116 SEC. 1138-1
LIVINGSTON COUNTY
STA. 436+75
STR. 053-0075

FOR INFORMATIONAL
USE ONLY
(1996 PLANS)

DESIGNED	C.H.M.	EXAMINED	April 24, 1996 <i>John E. Allen</i> ENGINEER OF STRUCTURES
CHECKED	M.D.C.	PASSED	
DRAWN	J. MARCH	APPROVED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	C.H.M. M.D.C.		DIRECTOR OF HIGHWAYS

Revised 07-22-97 V.H.V.

projects\jkm00016\0530075.dgn Jul. 22, 1997 08:35:56

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING PLANS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 1138R-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075
DESIGNED BY: JML
DATE: 12/09/05
DRAWN BY: DJM
CHECKED BY: MSW

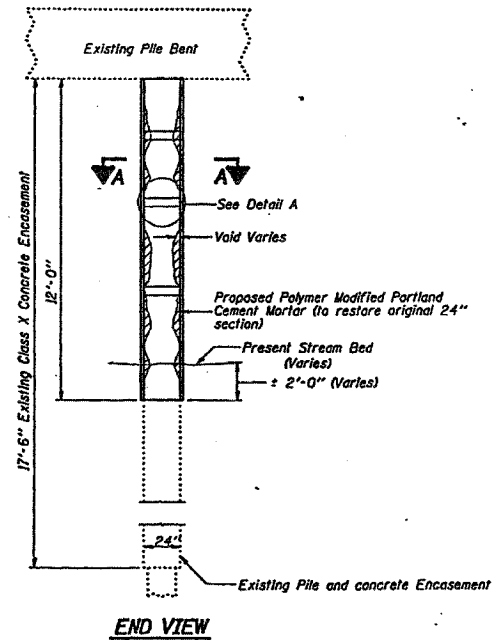
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	43
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

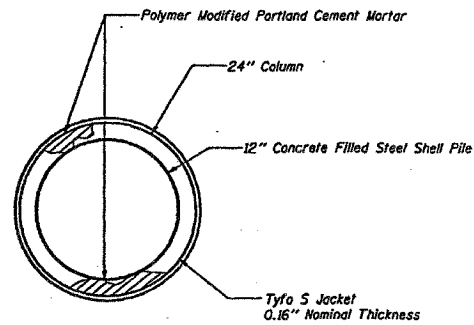
SHEET NO. B31
OF 31 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

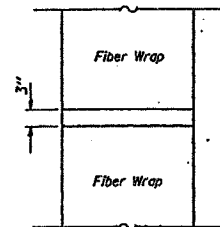
PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. 116	113B-1	LIVINGSTON	2	2
SHEET NO. 2 2 SHEETS				



PILE REPAIR DETAIL



SECTION A-A



DETAIL A

TYFO S INSTALLATION PROCEDURE

- Surfaces should be free from sharp edges and protrusions that will cause damage or leave voids behind the column casing.
- Broom clean excavated columns so that no free standing dirt or debris is present.
- Any spalls or voids larger than 144 sq. in. shall be patched with an approved grout or cement.
- Any patched area shall be primed with an application of the "TYFO S" epoxy.
- Place bond breakers (ex. duct tape) at the tops of footings.
- Pre-cut desired length of fiber material prior to application.
- Apply "TYFO S" epoxy to the fiber by mechanical or hand method.
- Wrap column with epoxy saturated fiber until specified number of layers have been obtained.
- Release entrapped air before epoxy sets.
- Repeat wrapping procedure until entire column has been covered with specified number of layers.
- Apply 6" wide fiber at the butt splice region between plastic hinge and shear zone (if applicable).
- Apply protective coat of TYFO S epoxy mixed with aerosil 202 to the exposed fiber surface area.
- After epoxy has cured, apply two component water based epoxy paint system to exterior of columns.
- Protective equipment is required. See material safety data sheets (MSDS).

Note: Columns to be wrapped to be determined by the Engineer.

PILE BENT REPAIR
S.B.I. RTE. 116 SEC. 113B-1
LIVINGSTON COUNTY
STA. 436+75
STR. 053-0075

FOR INFORMATIONAL
USE ONLY
(1996 PLANS)

DESIGNED	C.H.M.	EXAMINED	April 24, 1996
CHECKED	M.D.C.	PASSED	<i>[Signature]</i>
DRAWN	J. MARCH	APPROVED	<i>[Signature]</i>
CHECKED	C.H.M. M.D.C.		

Revised 07-22-97 V.H.V.

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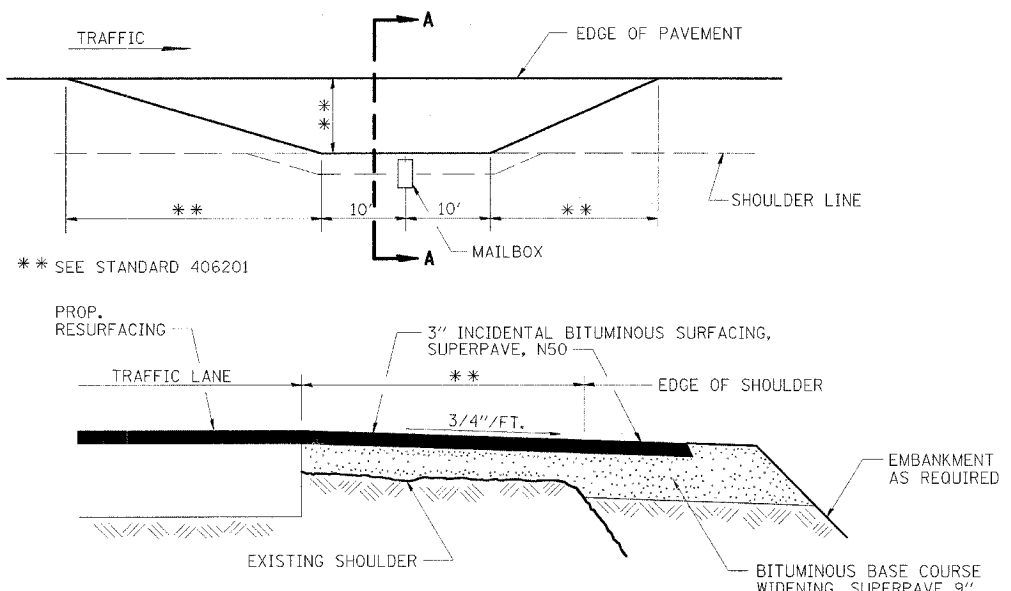
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING PLANS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY
STATION 436+75.00
STRUCTURE NO. 053-0075

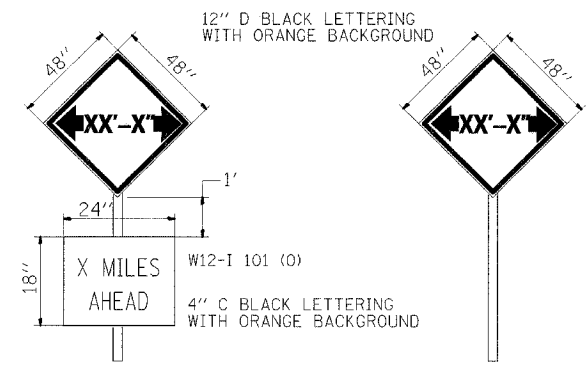
DESIGNED BY: JML
DATE: 12/09/05

DRAWN BY: DJM
CHECKED BY: MSW

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	44
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**SECTION A-A
MAILBOX TURNOUT DETAILS
406-1**

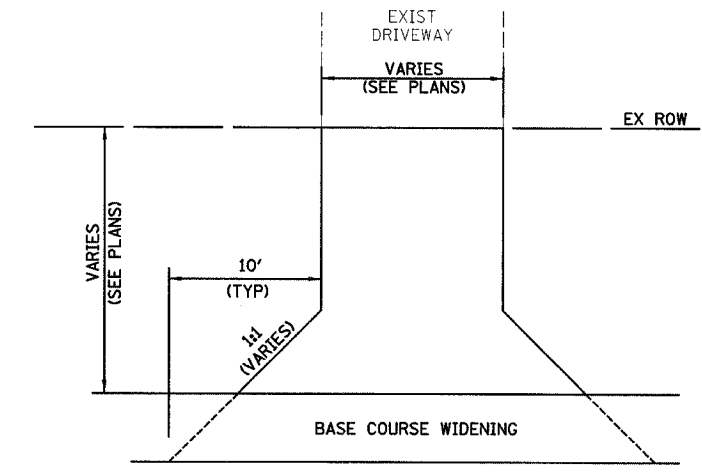


TO BE POST MOUNTED AS SHOWN ELSEWHERE IN THE PLANS.

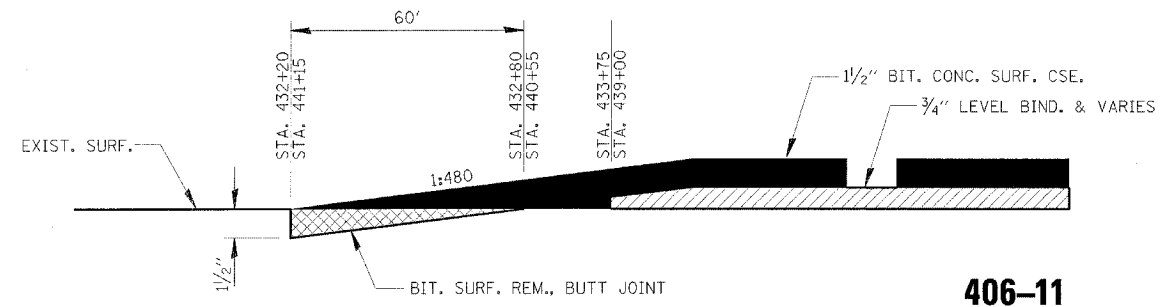
THE ENGINEER WILL NOTIFY DISTRICT 3 BUREAU OF OPERATIONS 14 CALENDAR DAYS PRIOR TO INSTALLING ANY TRAFFIC CONTROL DEVICES THAT WILL RESTRICT THE PAVEMENT WIDTH.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO MEET THIS REQUIREMENT.

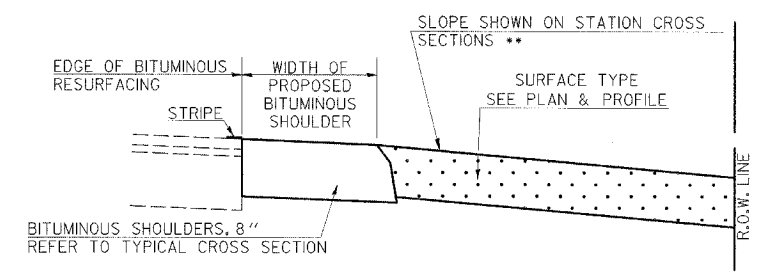
**WIDTH RESTRICTION SIGNING DETAILS
702-5**



**PLAN VIEW
PROPOSED BITUMINOUS
DRIVEWAY - 3\"/>**



**BITUMINOUS DETAIL AT BUTT JOINTS
406-11**

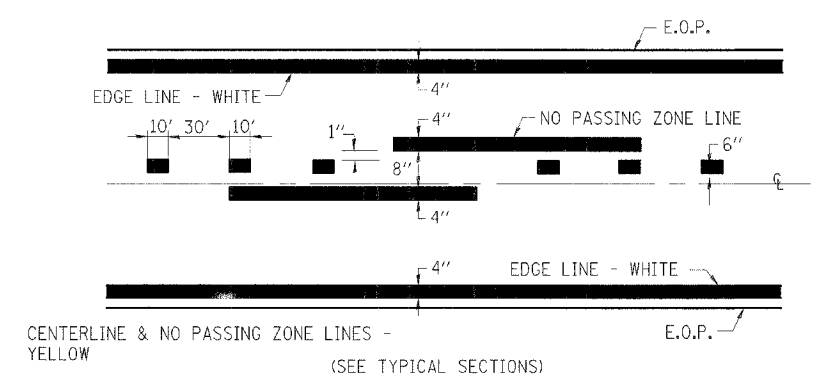


INCIDENTAL BITUMINOUS SURFACING, SUPERPAVE, N50 3"
BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9"

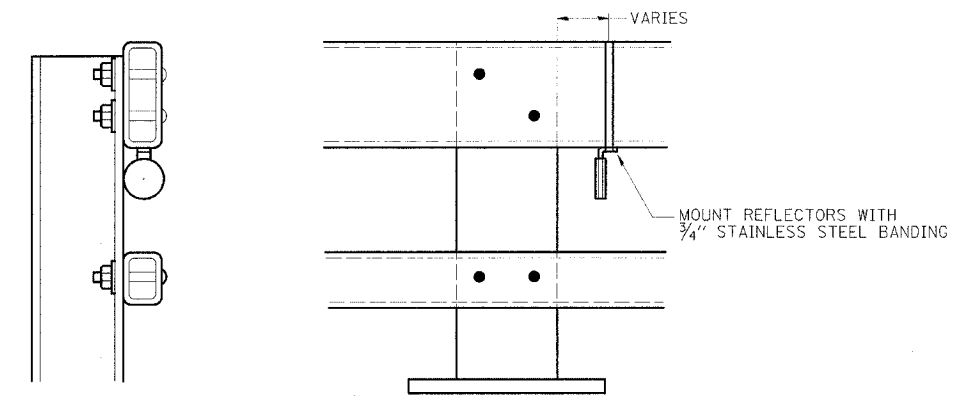
GENERAL NOTES

1. THE EXISTING SURFACE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 408 OF THE STANDARD SPECIFICATIONS.
2. ANY NECESSARY WORK BEHIND THE BITUMINOUS SHOULDER SHALL BE AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.
3. ENTRANCE SIDE SLOPES SHALL BE CONSTRUCTED TO 1:4 SLOPES, UNLESS OTHERWISE SHOWN.

** MIN. SLOPE = 1%
MAX. SLOPE = 12%



**PAVEMENT MARKING
780-8**



**REFLECTOR MOUNTING
DETAIL FOR STEEL RAIL
630-7**

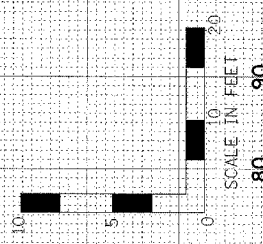
- NOTES:
1. REFLECTORS SHALL MEET THE REQUIREMENTS OF ARTICLE 1097.03 OF THE STANDARD SPECIFICATIONS.
 2. FURNISHING AND INSTALLING THE COMPLETE REFLECTOR UNIT WILL BE PAID AT THE CONTRACT UNIT PRICE EACH FOR GUARD RAIL MARKERS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT DETAILS AND
MISCELLANEOUS DETAILS
F.A.P. 681 (IL116) OVER FELKY SLOUGH
SECTION 113BR-2
LIVINGSTON COUNTY

DRAWN BY: JJO
CHECKED BY: MSW
DATE: 12/09/05

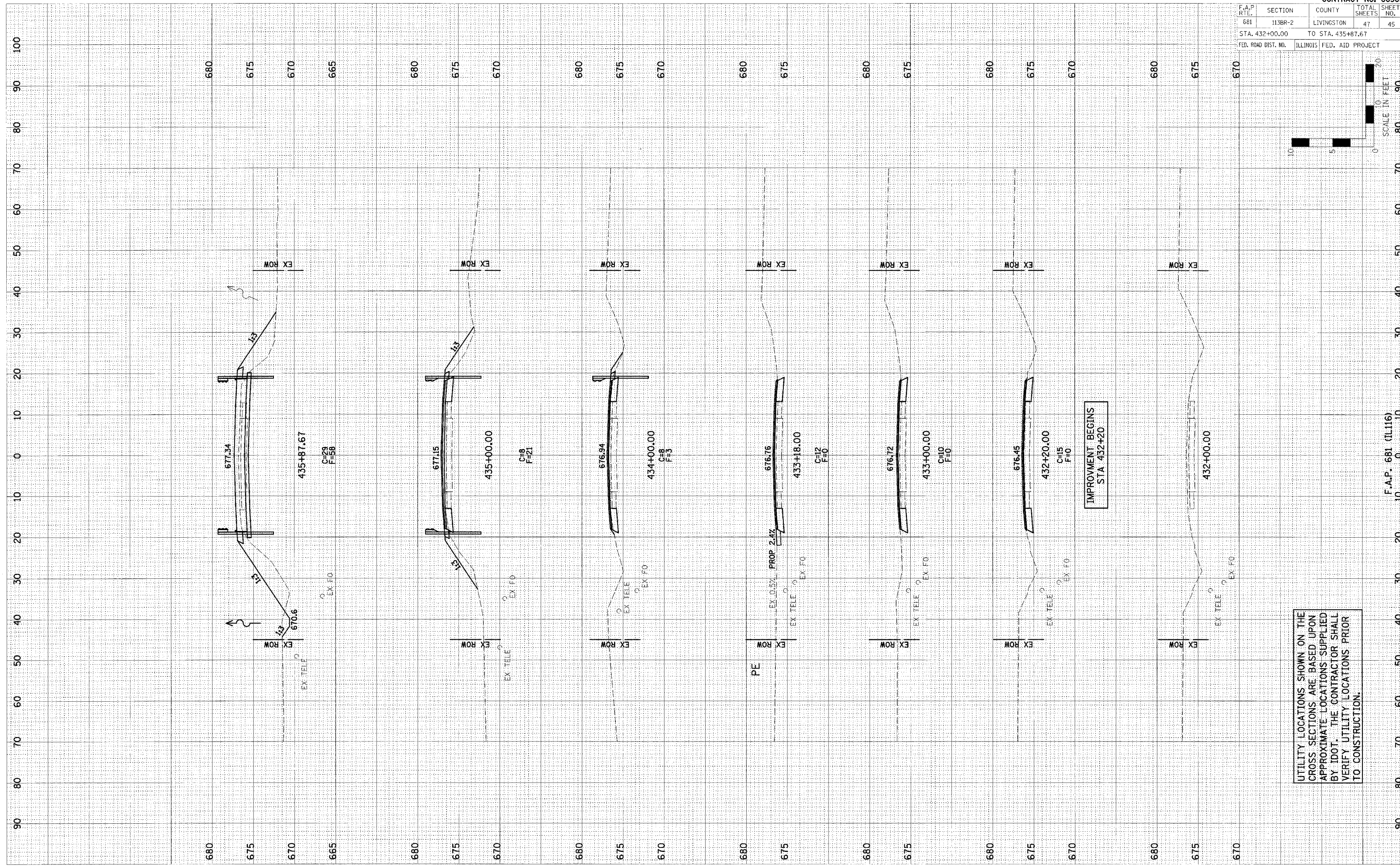
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	45
STA. 432+00.00		TO STA. 435+87.67		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



FINAL SURVEY	DATE
SUPPLEMENTED	BY
PLOTTED	
TEMPLATE	
AREAS	
MEAS. CHECKED	
NO.	

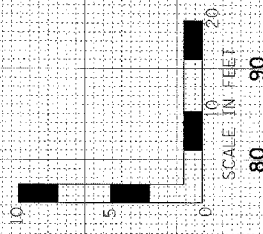
ORIGINAL SURVEY	DATE
PLOTTED	BY
TEMPLATE	
AREAS	
MEAS. CHECKED	
NO.	

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 PLOT SCALE = #SCALE#
 USER NAME = #USER#



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY IDOT. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

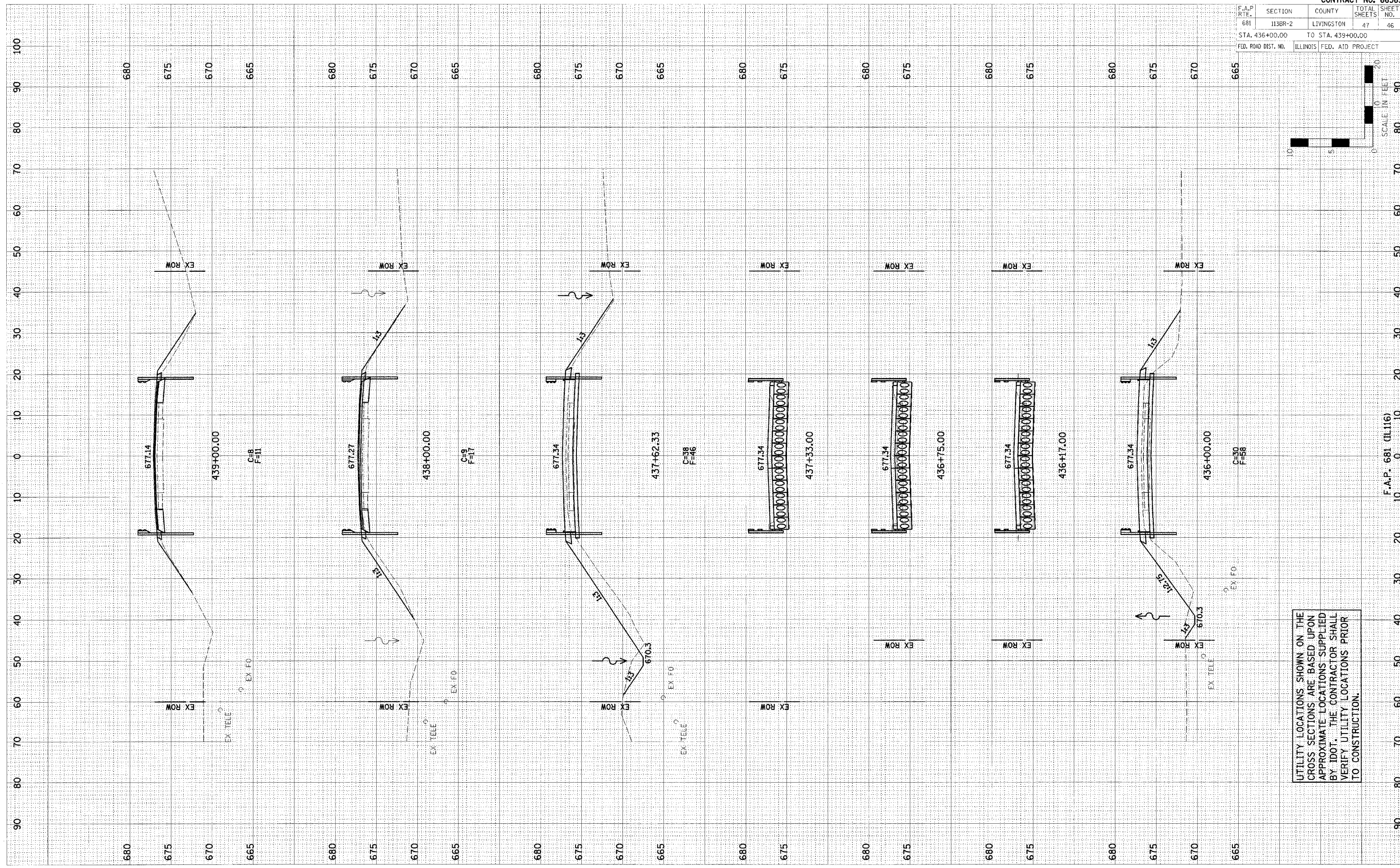
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	113BR-2	LIVINGSTON	47	46
STA. 436+00.00		TO STA. 439+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL	DATE
SURVEY	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

ORIGINAL	DATE
SURVEY	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

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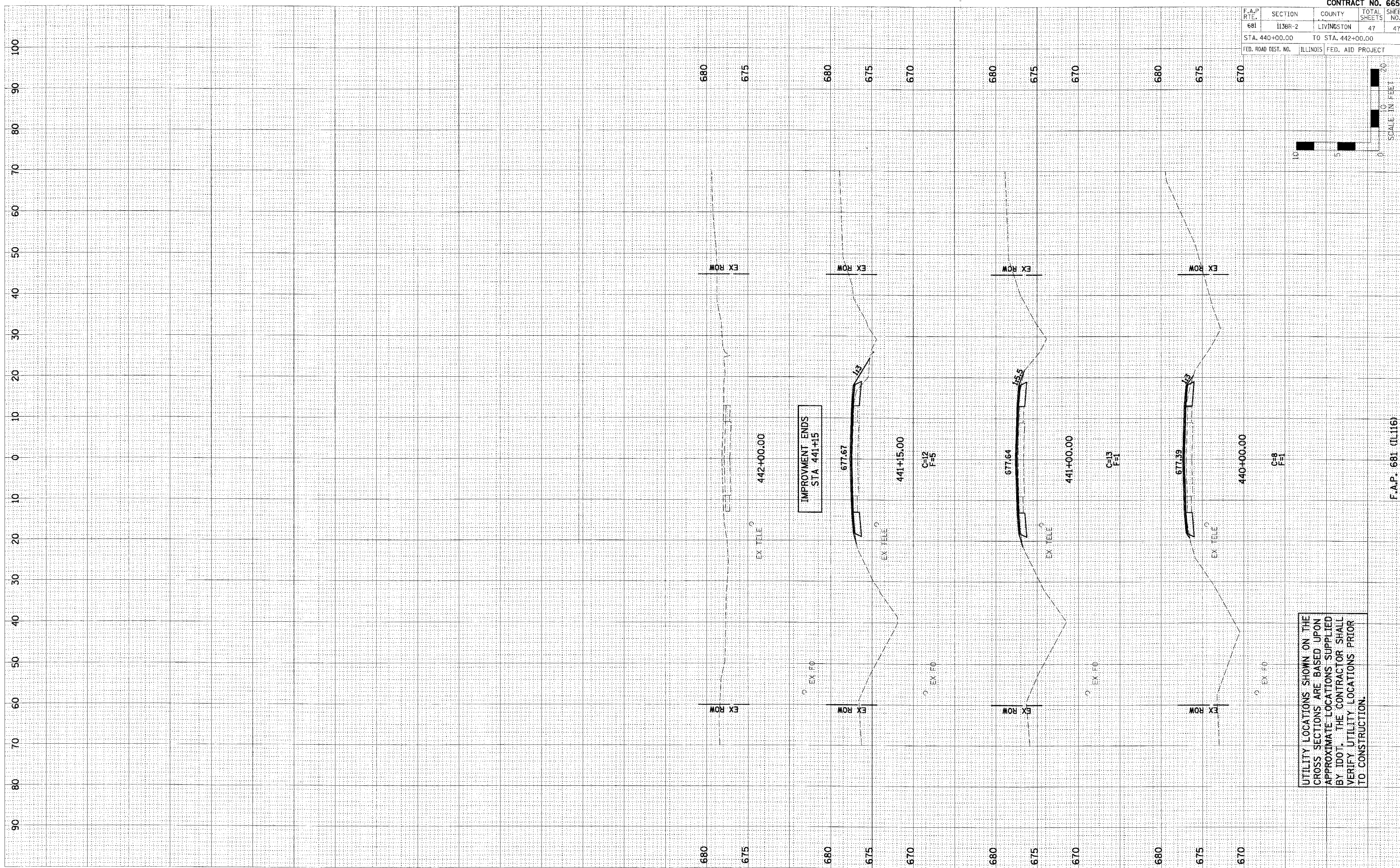
UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY IDOT. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	1138R-2	LIVINGSTON	47	47
STA. 440+00.00		TO STA. 442+00.00		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT

FINAL SURVEY	SURVEYER	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY	SKETCHED	DATE
NO. 150	PLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	

PLOT DATE = 8DATE
FILE NAME = 8FILE
USER NAME = 8USER



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY IDOT. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.