CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	1

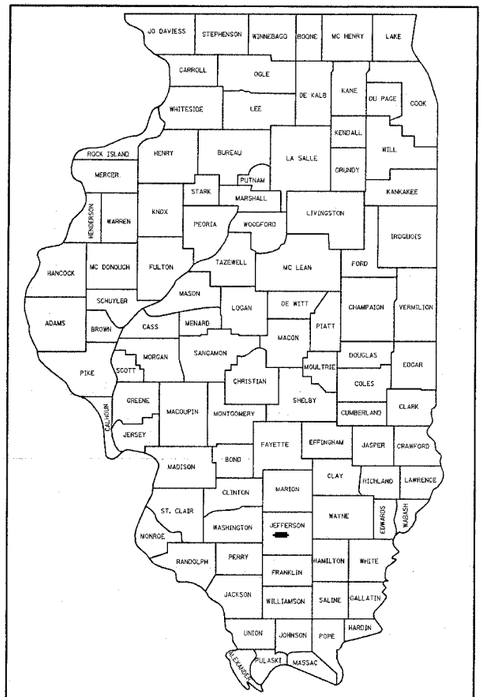
D-97-029-03

FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

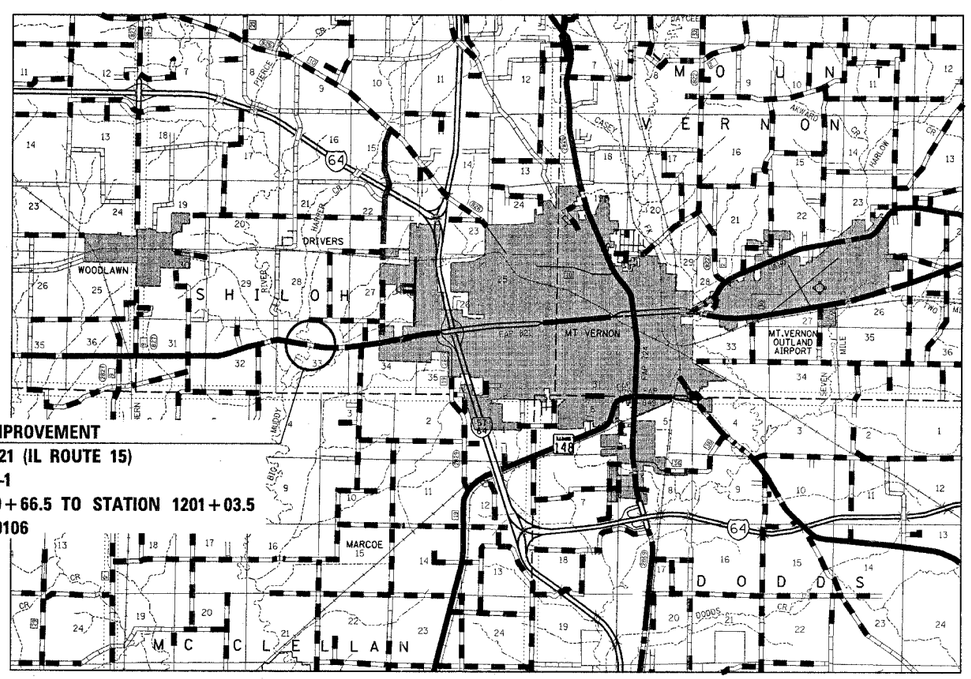
PROPOSED
HIGHWAY PLANS

FAP ROUTE 821 (IL ROUTE 15)
SECTION 13B-1
PROJECT-BRF-0821 (040)
JEFFERSON COUNTY
C-99-022-06



LOCATION OF SECTION INDICATED THUS: –

R. 2 E.



T. 2 S.

PROPOSED IMPROVEMENT
FAP ROUTE 821 (IL ROUTE 15)
SECTION 13B-1
STATION 1199+66.5 TO STATION 1201+03.5
STR. NO. 041-0106

2005 ADT = 5500

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

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

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

TOWNSHIP: SHILOH

CONTRACT NO. 98957

GROSS LENGTH OF IMPROVEMENT = 958 FEET = 0.17 MILE
NET LENGTH OF IMPROVEMENT = 958 FEET = 0.17 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug 24, 20 06
Christ. H Reed
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 13, 20 06
Mike Hine PE
ENGINEER OF DESIGN AND ENVIRONMENT
October 13, 20 06
Milton K. Shaw, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT ENGINEER : BILL STANLEY
SQUAD LEADER : MYRA OLTMAN
DESIGNER : MYRA OLTMAN
TELEPHONE : 217/342-3951 EX 314

CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2002; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED MARCH 1, 2005; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THE WORK INCLUDED IN SECTION 13B-1 CONSISTS OF THE COMPLETE REMOVAL AND REPLACEMENT OF THE EXISTING STRUCTURE, STRUCTURE # 041-0023 WITH STRUCTURE # 041-0106, EARTH EXCAVATION AND FURNISHED EXCAVATION, APPROACH PAVEMENT, BITUMINOUS CONCRETE BINDER AND SURFACE COURSE, BASE COURSE WIDENING, RIP RAP, GUARDRAIL, AGGREGATE ENTRANCES, RELOCATION OF THE EXISTING U.S.G.S. GAUGING STATION AND ANY OTHER WORK NECESSARY TO COMPLETE THIS SECTION. THE WORK SHALL BE DONE UTILIZING STAGE CONSTRUCTION AND TRAFFIC SIGNALS.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO THE CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE COST OF TEMPORARY PAVEMENT MARKING IS INCLUDED IN THE COST OF THE STANDARD 701321. NO ADDITIONAL COMPENSATION WILL BE ALLOWED AS STATED IN ARTICLE 703.07 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. AN ESTIMATED QUANTITIY OF 1916 FOOT FOR STAGE 1 AND 1916 FOOT FOR STAGE 2 HAS BEEN CALCULATED.

PAINT PAVEMENT MARKING LINE - 4" SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS, AS SHOWN ON THE TYPICAL SECTIONS, AND AS DETERMINED BY THE ENGINEER. A TOTAL QUANTITY CALCULATED CONSISTS OF 250 FEET OF YELLOW AND 2000 FEET OF WHITE.

TEMPORARY CONCRETE BARRIERS ARE LOCATED AT THE MCLEANSBORO I.D.O.T. MAINTENANCE YARD LOCATED 7 MILE WEST OF MCLEANSBORO ON ILLINOIS ROUTE 14. A MINIMUM OF 48 HOURS NOTICE WILL BE REQUIRED TO ARRANGE PICKUP AND RETURN OF THE BARRIERS. STATE MAINTENANCE FORCES WILL NOT LOAD OR UNLOAD THE BARRIERS.

THE BASE COURSE WIDENING SHALL, AT THE CONTRACTOR'S OPTION BE CONSTRUCTED OF EITHER PORTLAND CEMENT CONCRETE 8" THICK, OR BITUMINOUS CONCRETE, 10" THICK.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

LOCATION	BITUMINOUS SURFACE COURSE
MIXTURE USE	BITUMINOUS SURFACE COURSE, SUPERPAVE, MIXTURE D, N90
AC/PG	PG64-22
RAP% (MAX.)	10%
DESIGN AIR VOIDS	4.0%, 90 GYRATION SUPERPAVE DESIGN
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL-9.5 OR IL 12.5
FRICTION AGGREGATE	D SURFACE

LOCATION	BITUMINOUS BINDER COURSE AND BASE COURSE WIDENING
MIXTURE USE	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, N90, IL-19.0
AC/PG	PG64-22
RAP% (MAX.)	10%
DESIGN AIR VOIDS	4.0%, 90 GYRATION SUPERPAVE DESIGN
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL-19.0
FRICTION AGGREGATE	NONE

THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF FACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 48 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 800-892-0123.

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

AGGREGATE SURFACE COURSE	2.05	TONS/CU. YD.
AGGREGATE SHOULDERS	2.05	TONS/CU. YD.
BITUMINOUS MATERIALS (PRIME COAT)	0.10	GAL./SQ. YD.
AGGREGATE (PRIME COAT)	4	LBS./SQ. YD.
BITUMINOUS CONCRETE	112	LBS./SQ. YD./INCH

COMMITMENTS:

THE FIELD ENTRANCES LOCATED LEFT AND RIGHT AT STATION 1203+15 SHALL BE CONSTRUCTED IMMEDIATELY AT THE START OF THE CONTRACT. ACCESS TO THESE FIELD ENTRANCE SHALL BE MAINTAINED AT ALL TIMES DURING THE CONTRACT.

THE CONTRACTOR SHALL CONTACT THE U.S.G.S. PRIOR TO THE START OF THE PROJECT SO U.S.G.S MOVE THE WIRE WEIGHT GAGE AND THE 2" CSG OFF OF THE EXISTING STRUCTURE. THE CONSTRUCTION OF A 5'x5' CONCRETE PAD FOR THE U.S.G.S. MONITORING STATION AND RELOCATION OF THE EXISTING MONITORING STATION SHALL BE COMPLETED BEFORE ANY WORK IS STARTED ON THE STRUCTURE. THE USGS REPRESENTATIVE WILL BE PRESENT FOR THE CONSTRUCTION OF THE CONCRETE PAD. THE CONTACT PERSON FOR THE U.S.G.S. IS MICHAEL S. BARFIELD 314-331-8342. SEE SPECIAL PROVISIONS AND PLAN DETAILS.

INDEX OF SHEETS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED FOLLOWING SHEET NUMBER 39.

STD NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001	AREAS OF REINFORCEMENT BARS
280001-02	TEMPORARY EROSION CONTROL SYSTEMS
420401-05	BRIDGE APPROACH PAVEMENT
515001-02	NAME PLATE FOR BRIDGES
630001-05	STEEL PLATE BEAM GUARDRAIL
630301-03	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-05	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701001-01	OFF ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-02	OFF ROAD OPERATIONS, 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE
701301-02	LANE CLOSURE - SHORT TERM OPERATIONS
701306-01	LANE CLOSURE - 2L, 2W, SLOW MOVING OPERATIONS- DAY ONLY FOR SPEED > 45 MPH
701311-02	LANE CLOSURE - MOVING OPERATIONS - DAY ONLY
701321-08	LANE CLOSURE 2L, 2W BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE 2L, 2W PAVEMENT WIDENING, FOR SPEED > 45 MPH
702001-06	TRAFFIC CONTROL DEVICES
704001-02	TEMPORARY CONCRETE BARRIER
780001-01	TYPICAL PAVEMENT MARKINGS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & INDEX OF SHEETS

SCALE: VERT. HORIZ.

DATE

DRAWN BY

CHECKED BY

CONTRACT NO. 98957

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE X071-2A
	X0325568	RESET USGS GAGING STATION	EACH	1	1
	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	212	212
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	170	170
	20200100	EARTH EXCAVATION	CU YD	27	27
	20400100	BORROW EXCAVATION	CU YD	1345	1345
	20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	141	141
*	25000210	SEEDING, CLASS 2A	ACRE	0.6	0.6
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	56	56
*	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	56	56
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	56	56
*	25000700	AGRICULTURAL GROUND LIMESTONE	TON	1.2	1.2
*	25100115	MULCH, METHOD 2	ACRE	0.6	0.6
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	62	62
	28000300	TEMPORARY DITCH CHECKS	EACH	4	4
	28100107	STONE RIPRAP, CLASS A4	SQ YD	1767	1767
	28200200	FILTER FABRIC	SQ YD	1767	1767
	35650700	BASE COURSE WIDENING	SQ YD	602	602
	40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	161	161
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	123	123
	40600300	AGGREGATE (PRIME COAT)	TON	4.8	4.8
	40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	363	363
	42001165	BRIDGE APPROACH PAVEMENT	SQ YD	267	267
	42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	53	53
	44000100	PAVEMENT REMOVAL	SQ YD	220	220
	44004250	PAVED SHOULDER REMOVAL	SQ YD	290	290
	48101200	AGGREGATE SHOULDERS, TYPE B	TON	36	36
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
	50200100	STRUCTURE EXCAVATION	CU YD	203	203
	50300100	FLOOR DRAINS	EACH	14	14
	50300225	CONCRETE STRUCTURES	CU YD	76.2	76.2

SUMMARY OF QUANTITIES (Cont'd)

	CODE NO	ITEM	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE X071-2A
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	200.2	200.2
	50300260	BRIDGE DECK GROOVING	SQ YD	579	579
	50300300	PROTECTIVE COAT	SQ YD	724	724
	50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1
	50500505	STUD SHEAR CONNECTORS	EACH	2484	2484
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	57490	57490
	51201500	FURNISHING STEEL PILES HP10X57	FOOT	579	579
	51201700	FURNISHING STEEL PILES HP12X74	FOOT	291	291
	51202700	DRIVING STEEL PILES	FOOT	870	870
	51500100	NAME PLATES	EACH	1	1
	54200637	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 12"	FOOT	24	24
	54200640	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 15"	FOOT	24	24
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	75	75
	60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	161	161
*	63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	300	300
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4
*	63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4
	63200310	GUARDRAIL REMOVAL	FOOT	836	836
	67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	8	8
	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	4	4
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	120	120
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	96	96

*SPECIALTY ITEMS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. HORIZ.

DATE

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Rev.

CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES (Cont'd)

	CODE NO	ITEM	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE X071-2A
	70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	610	610
	70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	610	610
	70500100	TEMPORARY STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	37.5	37.5
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2250	2250
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	10	10
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4
	78300500	PAINT PAVEMENT MARKING REMOVAL	SQ FT	2044	2044
*	A2005316	TREE, LIQUIDAMBAR STYRACIFLUA (AMERICAN SWEETGUM), 2" CALIPER, BALLED AND BURLAPPED	EACH	5	5
*	A2005416	TREE, LIRIODENDRON TULIPIFERA (TULIP TREE), 2" CALIPER, BALLED AND BURLAPPED	EACH	5	5
*	A2005816	TREE, PLATANUS OCCIDENTALIS (SYCAMORE), 2" CALIPER, BALLED AND BURLAPPED	EACH	5	5
*	A2006514	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	5	5
*	A2016814	TREE, QUERCUS SHUMARDII (SHUMARD RED OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	5	5
	X0300136	BRIDGE APPROACH SHOULDER REMOVAL	SQ YD	67	67
	X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	444	444
	X4024000	TEMPORARY ACCESS (FIELD ENTRANCE)	EACH	2	2
	X4066428	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N90	TON	122	122
	X4066618	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N90	TON	222	222
	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1	1
	Z0002600	BAR SPLICERS	EACH	583	583
Δ	Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2
Δ	Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2

Δ SFTY-3N
* SPECIALTY ITEMS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

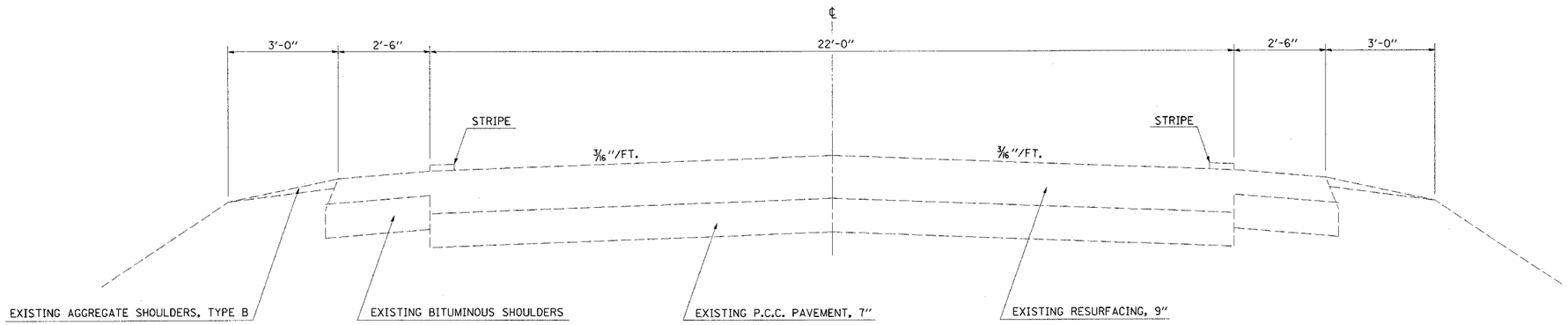
SUMMARY OF QUANTITIES (Cont'd)

SCALE: VERT. HORIZ. DRAWN BY

DATE CHECKED BY

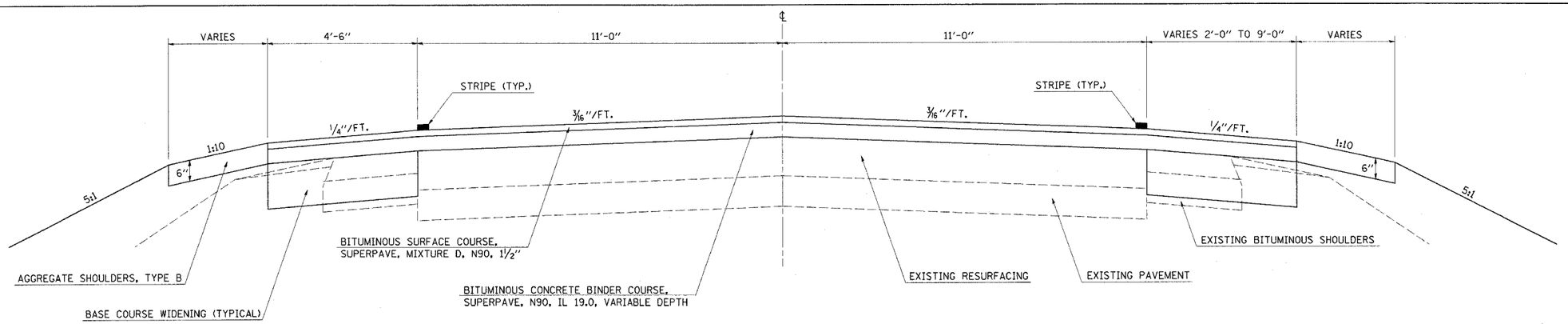
CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



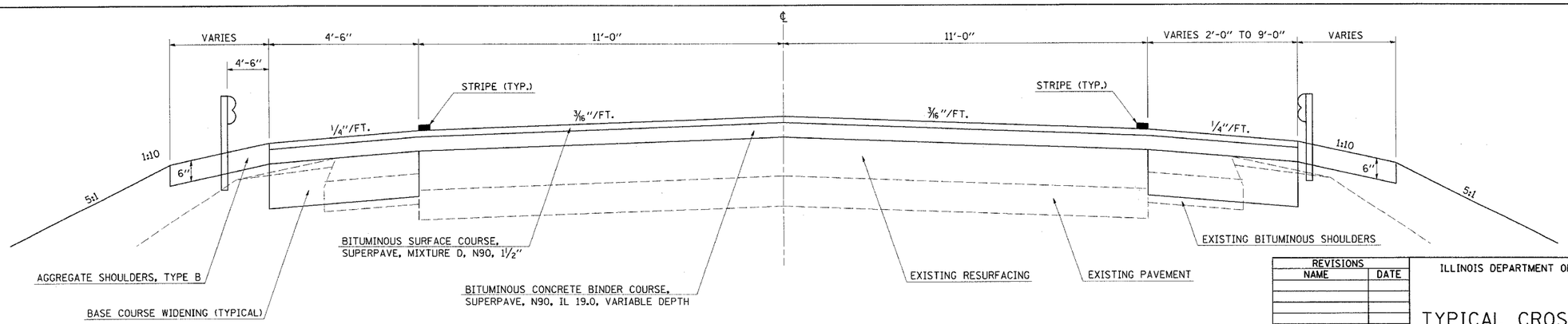
EXISTING TYPICAL CROSS SECTION

STA. 1044+49 TO STA. 1206+00



PROPOSED TYPICAL CROSS SECTION

STA. 1044+49 TO STA. 1206+00



PROPOSED TYPICAL CROSS SECTION

STA. 1044+49 TO STA. 1206+00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

SCALE: VERT.
HORIZ.
DATE

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USER NAME = district

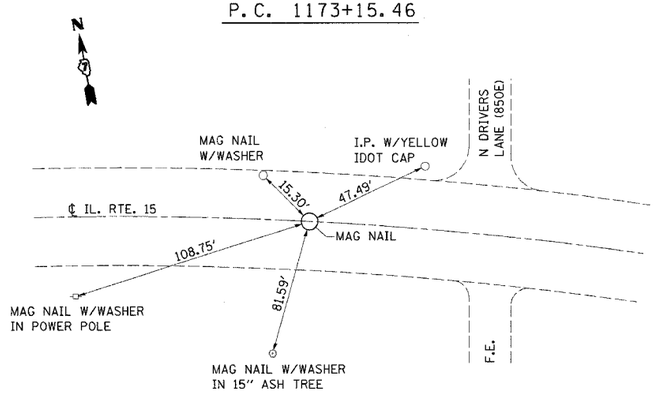
CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

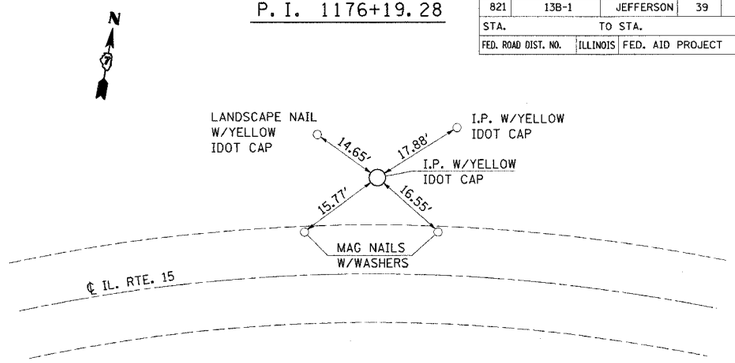
P. O. T. 1160+99.99

POINT WAS FOUND FROM TIES DONE IN 1999
FOR THE BIG MUDDY CREEK OVERFLOW BRIDGE.
THIS AREA WAS RECENTLY UNDER CONSTRUCTION
AND WAS DESTROYED DURING THE CONSTRUCTION
OF THE NEW BRIDGE.

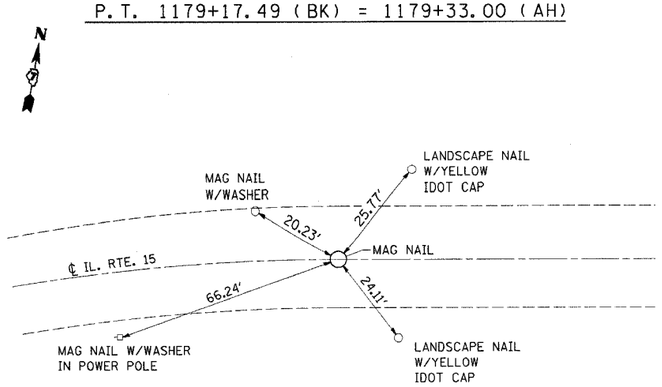
P. C. 1173+15.46



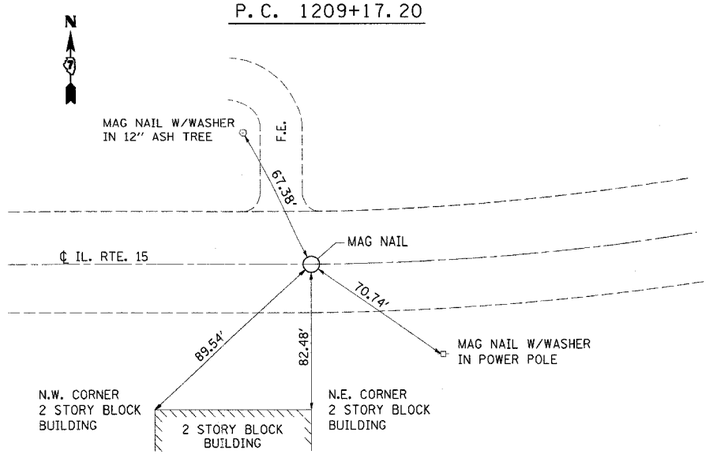
P. I. 1176+19.28



P. T. 1179+17.49 (BK) = 1179+33.00 (AH)



P. C. 1209+17.20



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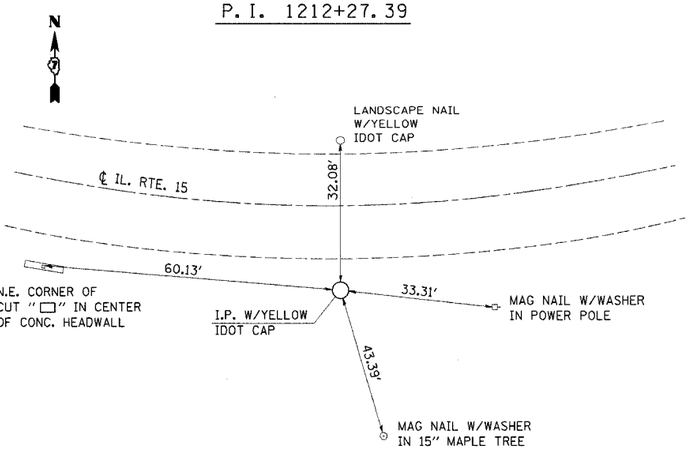
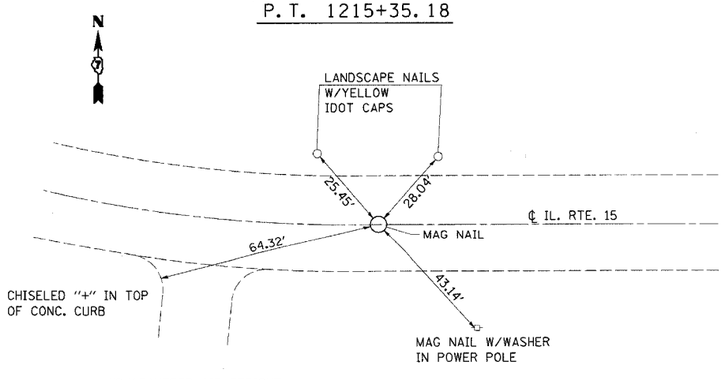
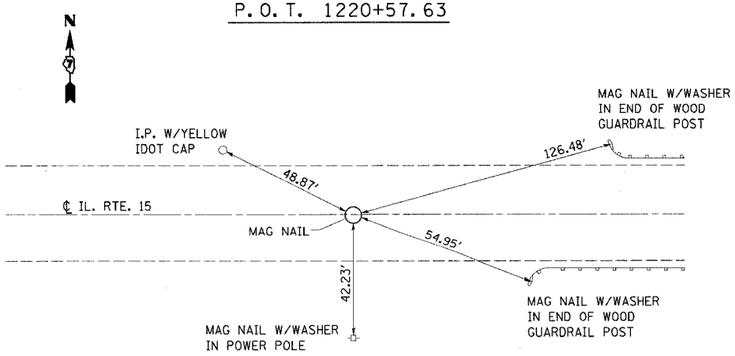


P. T. 1215+35.18



"GUARANTEED AIR FREIGHT
AND FORWARDING INC."

P. O. T. 1220+57.63



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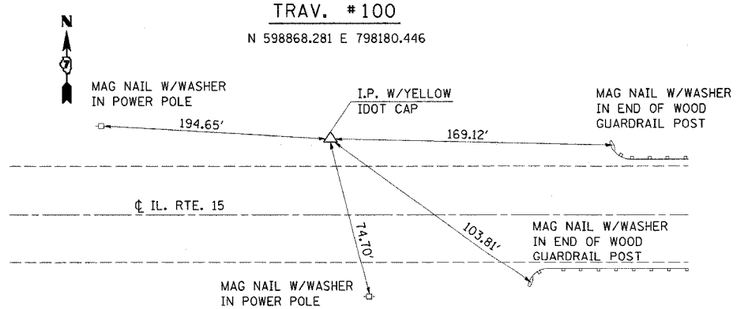

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TIE POINTS

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 8/23/2006
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PLOT SCALE = $SCALE$
USER NAME = district

CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BENCHMARKS

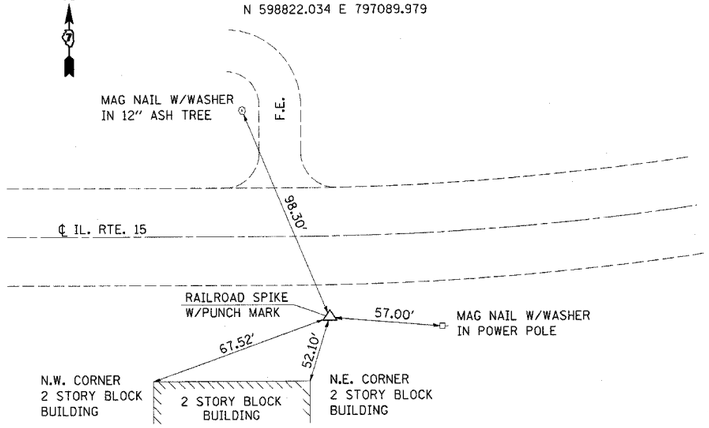
IL 15 BIG MUDDY CREEK WEST OF MT. VERNON

BM #	STATION	O/S	ELEV.	DESCRIPTION
200		25' EAST	434.665	BRASS STEM SET IN TOP OF CONC. POST.(FORMERLY PSM F252) 37' SOUTH OF A FARM DRIVE, 0.9 MI SOUTH OF IL 15 ON CR 800 E (N PRESLEY LN)
201	1159+53	145' R	434.417	"X" CHISLED IN NORTH BOLT ON TOP OF FIRE HYDRANT. 21' WEST OF CR 800 E (N PRESLEY LN) 145' SOUTH OF IL 15
202	1175+50	33.5'R	433.722	R.R. SPIKE IN SOUTH SIDE OF P.P. 33.5' SOUTH OF IL 15. +/-160' EAST OFCR 850E (N DRIVERS LN)
203	1188+50	32.5'R	435.442	R.R. SPIKE IN NORTH SIDE OF P.P. 32.5' SOUTH OF IL 15. +/- 1450' EAST OF CR 850E (N DRIVERS LN)
204	1201+10	33.5'R	439.556	"SQUARE" CHISLED IN SE CORNER OF 6' X 6' CONC. PAD FOR STREAMFLOW MONITORING STATION. 33.5' SOUTH OF IL 15.
205	1204+40	41.0'L	437.702	"SQUARE" CHISLED IN CENTER OF HEADWALL OF 4.0'x3.0' CONC. BOX CULVERT. 41.0' NORTH OF IL 15.
206	1211+50	19.0'R	437.197	"SQUARE" CHISLED IN CENTER OF HEADWALL OF 4.0' CONC. PIPE CULVERT. 19.0' SOUTH OF IL 15.
207	1219+65	42.0'R	436.542	R.R. SPIKE IN NORTH SIDE OF P.P. 42.0' SOUTH OF IL 15. 250' WEST OF BRIDGE STRUCTURE #041-0024
208	1145+85	48.0'L	442.539	R.R. SPIKE IN SOUTH SIDE OF P.P. 48.0' NORTH OF IL 15. IN NW QUADRANT OF IL 15 AND CR 750 E. 30' WEST OF CR 750E (N WAGNER LN)
209	1094+00	32.5'R	475.210	"X" CHISLED IN(N. BOLT) ON TOP OF FIRE HYDRANT IN SE QUADRANT OF IL 15 AND CR 675 E.(N ASHLAND LANE) 32.5' SOUTH OF IL 15, 47.0' EAST OF CR 675 E. (N. ASHLAND LANE).
210	1066+38	22.5'L	468.716	"SQUARE" CHISLED IN CENTER OF HEADWALL OF 10'x5' CONC. BOX CULVERT 22.5' NORTH OF IL 15.

••••• STATION STAMPS DO NOT MATCH THE BRIDGE STATIONING. USE BRIDGE STATIONING FOR BM 201 THRU 207. USE STATION STAMPS FOR BM 208 THRU 210.

TRAV. #101

N 598822.034 E 797089.979



TRAV. #102

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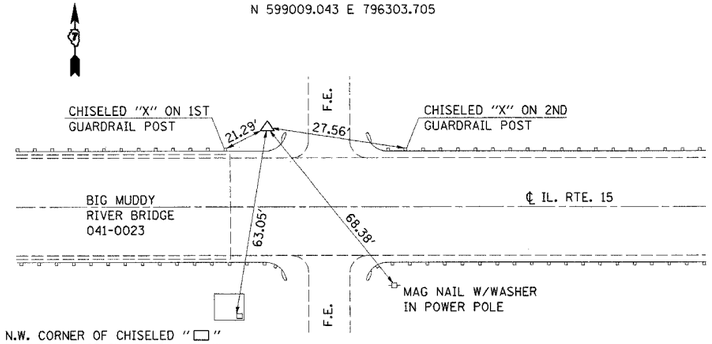

TRAV. #103

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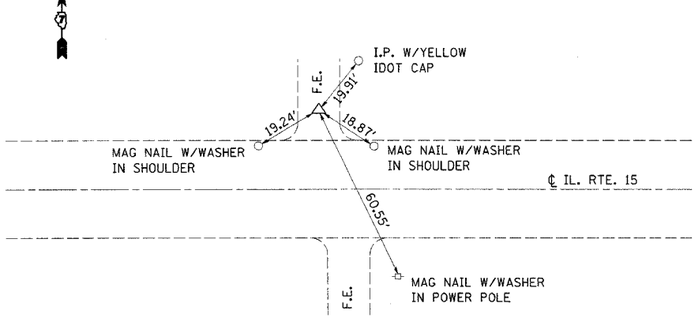

TRAV. #104

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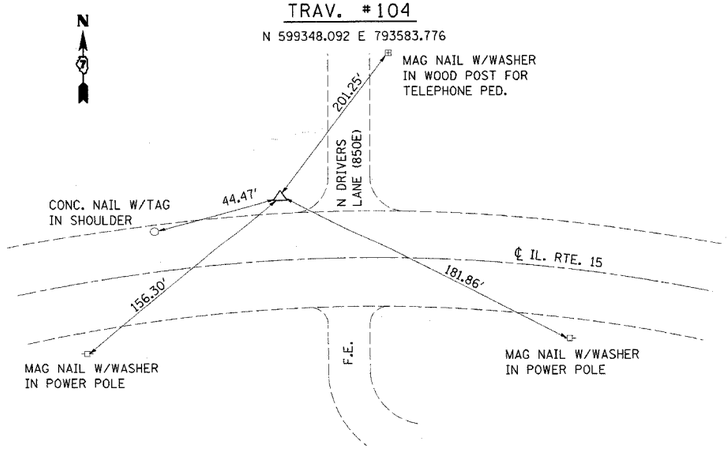
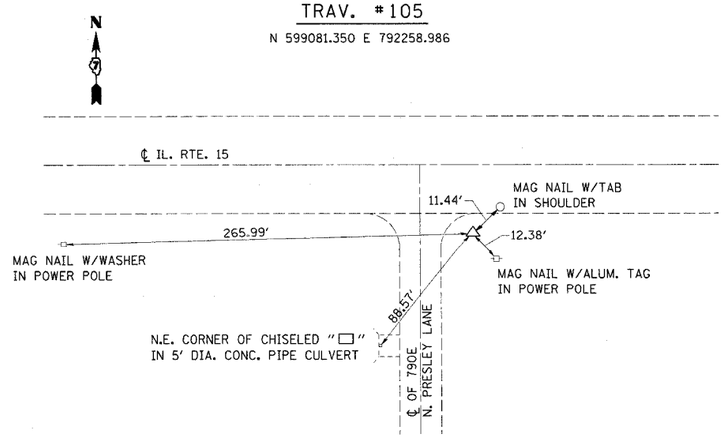


TRAV. #105

N 599081.350 E 792258.986



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TIE POINTS & BENCHMARKS

SCALE: VERT. HORIZ.

DATE

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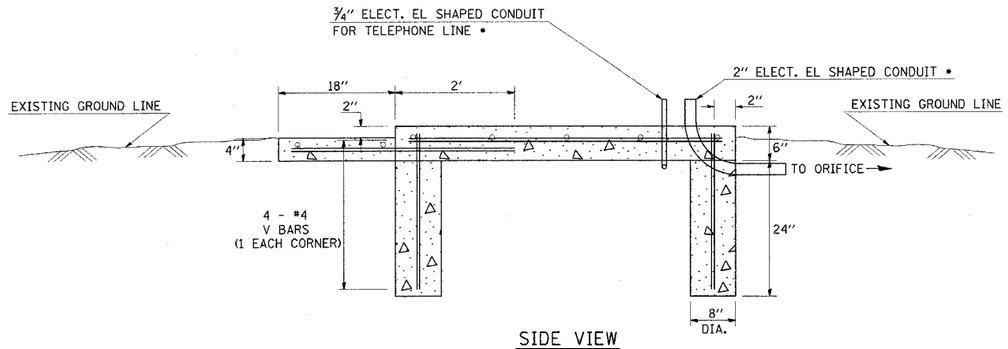
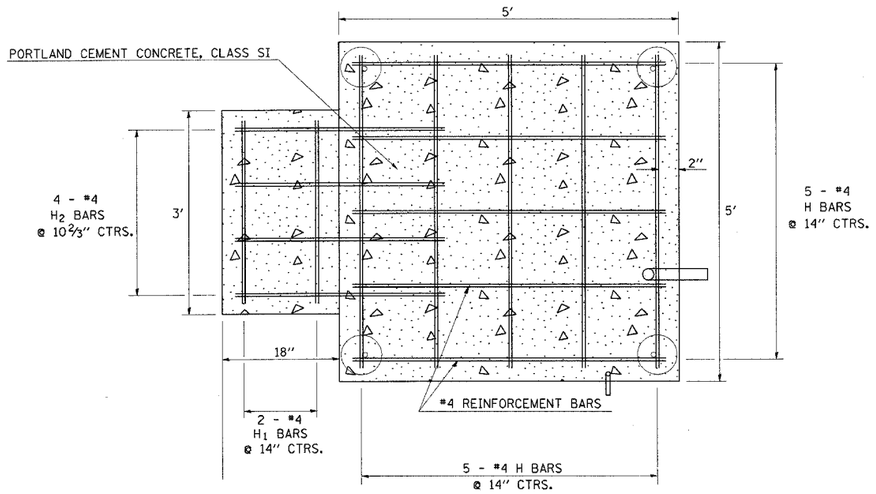
CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	138-1	JEFFERSON	39	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

USGS GAGING STATION CONCRETE PAD DETAIL



SIDE VIEW



TOP VIEW

• TO BE SUPPLIED BY USGS CONTACT

FOOTINGS ARE 8" DIAMETER x 24" DEEP CONCRETE COLUMNS ON FOUR SIDES

NOTE:
HOLD REBAR 2" FROM EDGE OF CONCRETE

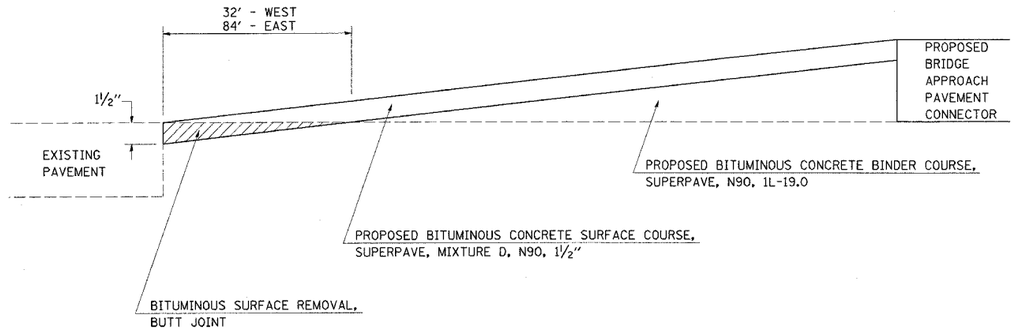
BILL OF MATERIALS

BAR	NO	SIZE	LENGTH	SHAPE
H	10	#4	4'-8"	———
H1	2	#4	2'-8"	———
H2	4	#4	3'-4"	———
V	4	#4	2'-2"	———
REINFORCEMENT BARS			POUND	49.4•
PCC CONCRETE CLASS SI			CU YD	1.87•

• FOR INFORMATION ONLY-NOT A PAY ITEM

BUTT JOINT DETAIL

STATION 1196+75 TO STATION 1197+59
STATION 1201+98 TO STATION 1202+50



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

USGS PAD, AND BUTT JOINT DETAILS

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DATE

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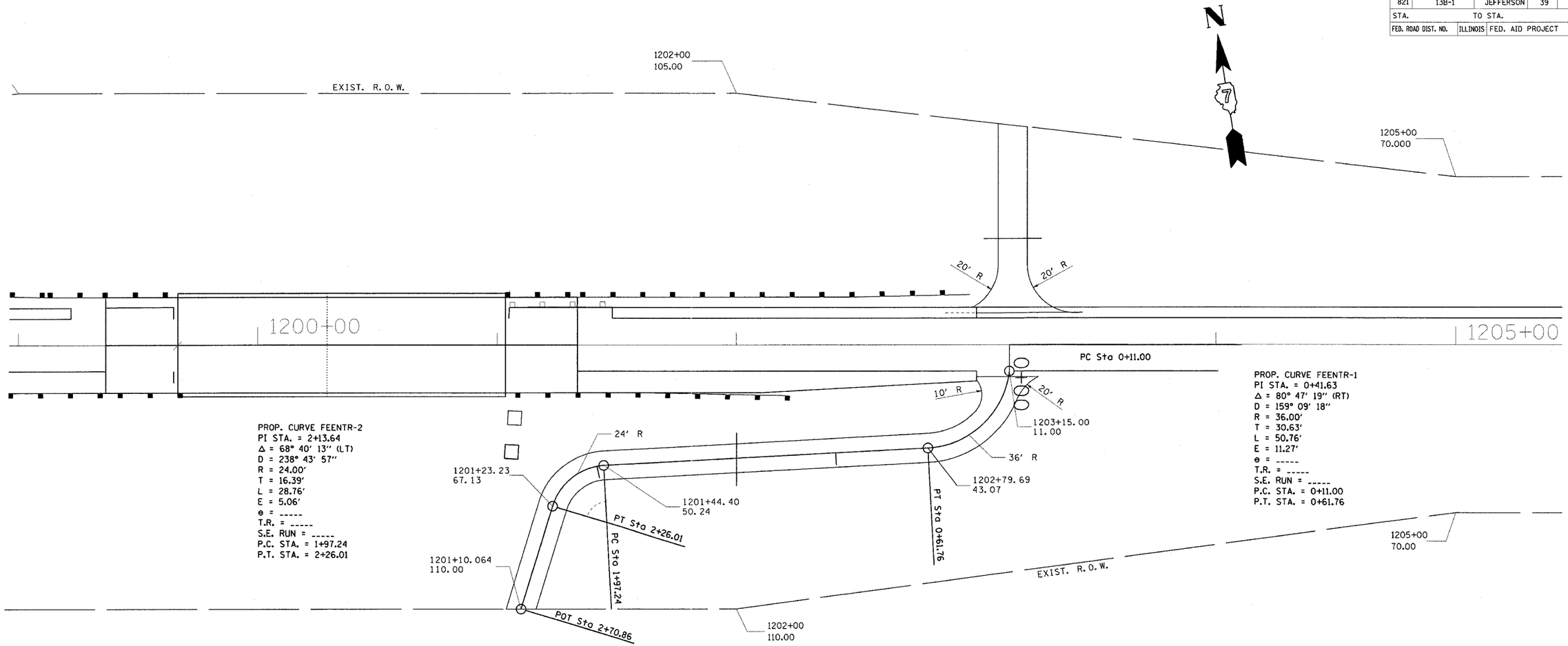
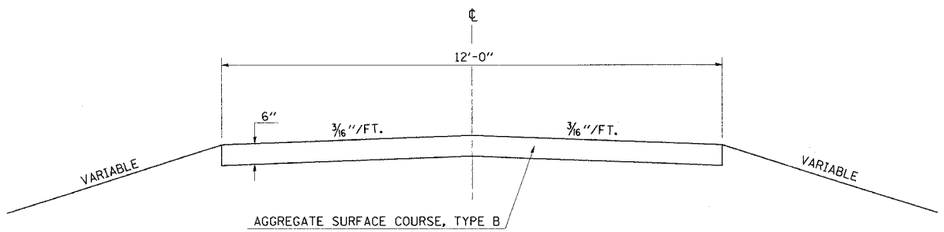
CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FIELD ENTRANCES

STATION 1203+15.00



PROFILE FIELD ENTRANCE RIGHT STATION 1203+15		
STATION	ELEVATION	GRADE
0+13.5	439.65	-0.827
0+25	439.55	-0.827
0+50	439.34	-0.827
0+75	439.14	-0.827
1+00	438.93	-0.827
1+25	438.73	-0.827
1+50	438.52	-0.827
1+75	438.31	-0.827
2+00	438.10	-0.827
2+10	438.02	-0.827
2+20	437.94	-0.827

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FIELD ENTRANCE DETAILS

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CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GUARDRAIL SCHEDULE

LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	GUARDRAIL MARKERS, TYPE A	TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL REMOVAL
	FOOT	EACH	EACH	FOOT	EACH	FOOT
STAGE I			5			425
NE CORNER				37.5		
SW CORNER	112.5	1			1	
SE CORNER	37.5	1			1	
OVER STRUCTURE						
STAGE II			5			411
NW CORNER	112.5	1			1	
NE CORNER	37.5	1			1	
OVER STRUCTURE						
TOTAL	300	4	10	37.5	4	836

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	FILL	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EARTHWORK BALANCE, WASTE (+) SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
1196+50 TO 1196+75	1.7	6.2	1.3	-4.9
1196+75 TO 1197+00	3.9	15.2	2.9	-12.3
1197+00 TO 1197+25	4.5	23.4	3.4	-20.0
1197+25 TO 1197+50	4.8	38.8	3.6	-35.2
1197+50 TO 1197+75	5.3	47.6	3.9	-43.6
1197+75 TO 1198+00	5.4	47.1	4.1	-43.1
1198+00 TO 1198+25	4.9	61.9	3.7	-58.2
1198+25 TO 1198+50	4.5	90.4	3.4	-87.1
1198+50 TO 1198+75	4.5	107.5	3.4	-104.1
1198+75 TO 1199+00	5.1	115.0	3.8	-111.2
1199+00 TO 1199+25	6.2	113.5	4.7	-108.8
1199+25 TO 1199+50	6.2	84.2	4.7	-79.6
1199+50 TO 1199+67	3.7	40.7	2.8	-37.9
1199+67 TO 1201+04				
1201+04 TO 1201+25	2.4	11.7	1.8	-9.9
1201+25 TO 1201+50	5.6	14.3	4.2	-10.1
1201+50 TO 1201+75	7.8	21.5	5.9	-15.7
1201+75 TO 1202+00	7.2	33.9	5.4	-28.5
1202+00 TO 1202+25	8.5	41.6	6.4	-35.3
1202+25 TO 1202+50	13.7	46.1	10.3	-35.8
1202+50 TO 1202+75	16.7	53.7	12.5	-41.2
1202+75 TO 1203+00	11.3	52.9	8.5	-44.4
1203+00 TO 1203+15	14.7	41.6	11.0	-30.6
1203+15 TO 1203+25	11.1	18.7	8.3	-10.4
1203+25 TO 1203+50	0.0	0.7	0.0	-0.7
SN 041-0106 TOTAL	160.0	1128.0	120.0	-1009.0
BORROW EXCAVATION = 1009 CU YD / (1-.25) = 1345 CU YD				

SEEDING SCHEDULE

SEEDING CLASS 2	0.6 ACRES
NITROGEN FERTILIZER	56 LBS
PHOSPHORUS FERTILIZER NUTRIENT	56 LBS
POTASSIUM FERTILIZER NUTRIENT	56 LBS
AGRICULTURAL GROUND LIMESTONE	1.2 TONS
MULCH METHOD 2	0.6 ACRES
TEMPORARY EROSION CONTROL SEEDING	62 POUND

TREE PLANTING SCHEDULE

STATION 1195+00 TO STATION 1205+00

TREE, LIQUIDAMBAR STYRACIFLUA (AMERICAN SWEETGUM), 2" CALIPER, BALLED & BURLAPPED	5 EACH
TREE, LIRIODENDRON TULIPIFERA (TULIP TREE), 2" CALIPER, BALLED & BURLAPPED	5 EACH
TREE, PLATANUS OCCIDENTALIS (SYCAMORE), 2" CALIPER, BALLED & BURLAPPED	5 EACH
TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED & BURLAPPED	5 EACH
TREE, QUERCUS SHUMARDII (SHUMARD RED OAK), 1-3/4" CALIPER, BALLED & BURLAPPED	5 EACH
TREE LOCATIONS TO BE STAKED BY THE DISTRICT LANDSCAPE ARCHITECT AND RESIDENT ENGINEER	

TREE REMOVAL SCHEDULE

TREE REMOVAL (6 TO 15 UNITS DIAMETER)

STATION	OFFSET		
1201+81 RT	61	6	UNIT
1201+88 RT	62	18	UNIT
1201+95 RT	62	12	UNIT
1202+51 RT	55	12	UNIT
1202+75 RT	56	6	UNIT
1202+86 RT	51	6	UNIT
1203+01 LT	58	12	UNIT
1203+02 LT	75	6	UNIT
1203+03 LT	90	12	UNIT
1203+07 LT	82	12	UNIT
1203+10 LT	89	6	UNIT
1203+12 LT	73	8	UNIT
1203+13 LT	83	8	UNIT
1203+14 LT	89	8	UNIT
1203+15 LT	57	7	UNIT
1203+21 LT	56	8	UNIT
1203+22 LT	80	9	UNIT
1203+23 LT	87	8	UNIT
1203+24 LT	68	7	UNIT
1203+26 LT	73	8	UNIT
1203+26 LT	59	6	UNIT
1203+28 LT	65	8	UNIT
1203+28 LT	85	7	UNIT
		212	UNIT

TREE REMOVAL SCHEDULE

TREE REMOVAL (OVER 15 UNITS DIAMETER)

STATION	OFFSET		
1201+02 RT	52	20	UNIT
1201+05 RT	60	18	UNIT
1201+10 RT	55	30	UNIT
1201+44 RT	85	24	UNIT
1201+81 RT	60	24	UNIT
1202+64 RT	71	24	UNIT
1202+97 RT	60	30	UNIT
		170	UNIT

TEMPORARY DITCH CHECKS

NW CORNER	1
NE CORNER	1
SW CORNER	1
SE CORNER	1
TOTAL	4 EACH

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: VERT.
HORIZ.
DATE

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PLOT DATE = 8/23/2006
FILE NAME = &FILE&
PLOT SCALE = &SCALE&
USER NAME = district

CONTRACT NO. 98957

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
DRAWN / CHECKED
BM. NOTED
R/W. OF WAY CHECKED
CADD FILE NAME
BY
DATE

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
DRAWN / CHECKED
BM. NOTED
STRUCTURE NOTATING DRWD
BY
DATE

EXIST. R.O.W.

1197 1198 1199 1200+00 1201 1202 1203

EXISTING USGS GAUGING STATION

RESET USGS GAUGING STATION

EXIST. R.O.W.

N

200.00' V.C.

300.00' V.C.

439.71

+0.13%

+0.64%

VPI STA. 1197+75.00
ELEVATION 439.80

VPI STA. 1200+25.00
ELEVATION 441.40

+0.64%

-0.56%

440.15

442 440 438 436 434 432 430 428 426

1197+00	1197+50	1198+00	1198+50	1199+00	1199+50	1200+00	1200+50	1201+00	1201+50	1202+00	1202+50	1203+00
439.70 / 439.71	439.72 / 439.75	439.73 / 439.81	439.75 / 439.87	439.77 / 439.95	439.79 / 440.03	439.79 / 440.13	439.80 / 440.23	439.81 / 440.35	439.82 / 440.47	439.83 / 440.59	439.86 / 440.69	439.89 / 440.77	439.90 / 440.84	440.02 / 440.89	440.15 / 440.93	440.15 / 440.96	440.15 / 440.95	440.13 / 440.94	440.14 / 440.91	440.11 / 440.87	440.18 / 440.81	440.24 / 440.74	440.26 / 440.65	440.29 / 440.54	440.32 / 440.43	440.25 / 440.32	440.18 / 440.21	440.11	440.04	439.98

PLOT DATE = 8/23/2006
FILE NAME = $FILE$
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CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	12
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TEMPORARY CONCRETE BARRIER

1196+75.0 TO 1202+85.0	610	FOOT

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2

1203+00.00	1	EACH
1196+56.00	1	EACH
	2	EACH

AGGREGATE SURFACE COURSE, TYPE B

LT	1203+15	42	TON
RT	1203+15	119	TON
		161	TON

PAVED SHOULDER REMOVAL

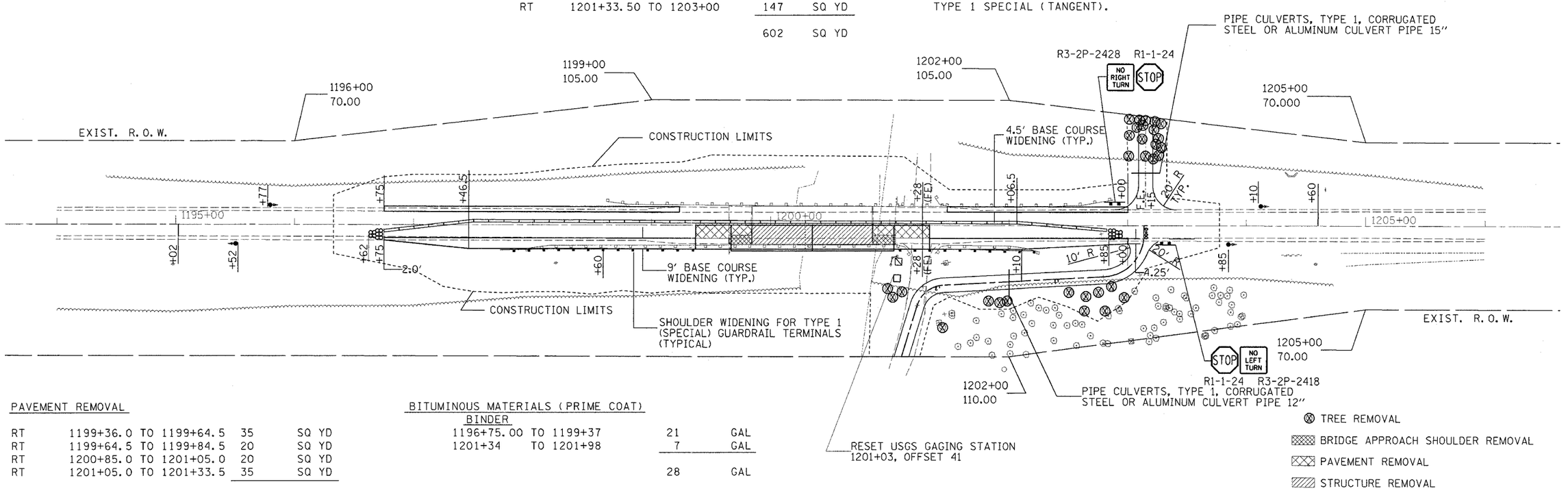
LT	1196+75 TO 1198+92	60	SQ YD
LT	1198+92 TO 1199+22	12	SQ YD
LT	1201+48 TO 1201+75	11	SQ YD
LT	1201+75 TO 1203+00	35	SQ YD
RT	1196+75 TO 1198+92	60	SQ YD
RT	1198+92 TO 1199+22	12	SQ YD
RT	1199+22 TO 1199+64	21	SQ YD
RT	1201+05 TO 1201+75	35	SQ YD
RT	1201+48 TO 1201+75	11	SQ YD
RT	1201+75 TO 1203+00	35	SQ YD
		290	SQ YD

BASE COURSE WIDENING

LT	1196+75	TO 1199+65	145	SQ YD
LT	1201+48	TO 1203+00	76	SQ YD
RT	1196+75	TO 1199+36.50	234	SQ YD
RT	1201+33.50	TO 1203+00	147	SQ YD
			602	SQ YD

STAGE I SEQUENCE OF OPERATIONS

1. CONSTRUCT BASE COURSE WIDENING ACCORDING TO TRAFFIC CONTROL STANDARD 701326, TEMPORARY GUARDRAIL, TREE REMOVAL AND CONSTRUCT FIELD ENTRANCES LOCATED LEFT AND RIGHT STATION 1203+15 AND FURNISHED EXCAVATION. TEMPORARY SEED ALL DISTURBED AREAS AND PLACE TEMPORARY DITCH CHECKS.
2. ERECT SIGNS, TRAFFIC SIGNALS, TEMPORARY BARRIERS, ETC. ACCORDING TO TRAFFIC CONTROL STANDARD 701321.
3. PLACE TEMPORARY PAVEMENT MARKING LINE TO ALLOW FOR A 12 FOOT TRAFFIC LANE.
4. REMOVE THE STAGE I PORTION OF THE EXISTING STRUCTURE, PAVEMENT, AND GUARDRAIL.
5. CONSTRUCT THE STAGE I PORTION OF THE PROPOSED STRUCTURE, APPROACH PAVEMENT, BASE COURSE WIDENING, BITUMINOUS BINDER COURSE, FURNISHED EXCAVATION, GUARDRAIL, AND TRAFFIC TERMINALS, TYPE 1 SPECIAL (TANGENT).



PAVEMENT REMOVAL

RT	1199+36.0 TO 1199+64.5	35	SQ YD
RT	1199+64.5 TO 1199+84.5	20	SQ YD
RT	1200+85.0 TO 1201+05.0	20	SQ YD
RT	1201+05.0 TO 1201+33.5	35	SQ YD
		110	SQ YD

BRIDGE APPROACH PAVEMENT

1199+36.5 TO	1199+66.5	66.7	SQ YD
1201+03.5 TO	1201+33.5	66.7	SQ YD
		133	SQ YD

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)

RT	1199+30.5 TO 1199+36.5	13.3	SQ YD
RT	1201+33.5 TO 1201+39.5	13.3	SQ YD
		26.7	SQ YD

BITUMINOUS MATERIALS (PRIME COAT)

BINDER

1196+75.00 TO 1199+37	21	GAL
1201+34 TO 1201+98	7	GAL
	28	GAL

AGGREGATE (PRIME COAT)

BINDER

1196+75 TO 1199+37	0.8	TON
1201+34 TO 1201+98	0.3	TON
	1.1	TON

BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, N90, IL-19.0

1197+59.0 TO 1199+36.5	86	TON
1201+33.5 TO 1201+98.0	22	TON
	114	TON

PAINT PAVEMENT MARKING REMOVAL

1195+02 TO 1204+60 1038 SQ FT

BRIDGE APPROACH SHOULDER REMOVAL

RT	1199+64 TO 1199+84	16.7	SQ YD
RT	1200+85 TO 1201+05	16.7	SQ YD
		33.3	SQ YD

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION

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CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	13
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

RELOCATE TEMPORARY CONCRETE BARRIER

1196+75 TO	1202+85	610	FOOT

IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2

1203+00	1 EACH
1196+56	1 EACH
	2 EACH

PAVEMENT REMOVAL

LT	1199+36 TO 1199+65	35	SQ YD
LT	1199+65 TO 1199+85	20	SQ YD
LT	1200+85 TO 1201+05	20	SQ YD
LT	1201+05 TO 1201+34	35	SQ YD
		110	SQ YD

BRIDGE APPROACH PAVEMENT

LT 1199+36.5 TO 1199+66.5	66.7	SQ YD
LT 1201+03.5 TO 1201+33.5	66.7	SQ YD
	133.3	SQ YD

BITUMINOUS SURFACE REMOVAL (BUTT JOINT)

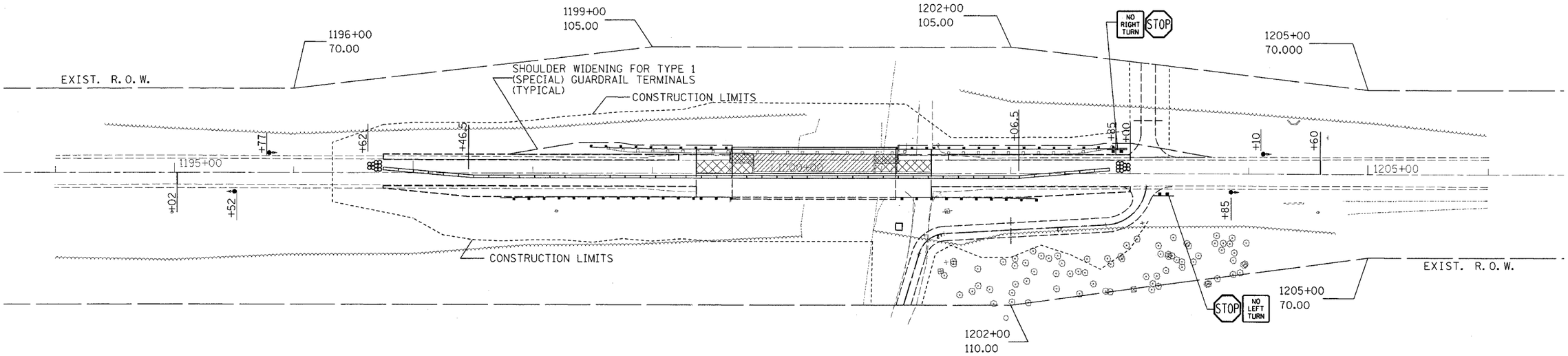
1196+75.0 TO 1197+59.0	224	SQ YD
1201+98.0 TO 1202+50.0	139	SQ YD
	363	SQ YD

BITUMINOUS MATERIALS (PRIME COAT)

BINDER		
1197+59.0 TO 1199+36.5	16	GAL
1201+33.5 TO 1201+98.0	6	GAL
SURFACE		
1196+75.0 TO 1199+36.5	50	GAL
1201+33.5 TO 1202+50.0	23	GAL
	95	GAL

STAGE II SEQUENCE OF OPERATIONS

1. RELOCATE TEMPORARY CONCRETE BARRIERS, SIGNS, ETC. ACCORDING TO TRAFFIC CONTROL STANDARD 701321 AND PLACE TEMPORARY PAVEMENT MARKING TO ALLOW A 12' TRAFFIC LANE.
2. REMOVE THE STAGE II PORTION OF THE EXISTING STRUCTURE, APPROACH PAVEMENT AND GUARDRAIL.
3. CONSTRUCT THE STAGE II PORTION OF THE NEW STRUCTURE, APPROACH PAVEMENT, BITUMINOUS BINDER COURSE, FURNISHED EXCAVATION, CONSTRUCT SEEDING, MULCH AND CONSTRUCT GUARDRAIL AND TRAFFIC TERMINAL, TYPE 1 SPECIAL (TANGENT) TEMPORARY DITCH CHECKS ON STAGE II TRAFFIC SIDE.
4. REMOVE THE TRAFFIC CONTROL STANDARD 701321. PLACE TRAFFIC CONTROL STANDARD 701306.
5. MILL BUTT JOINTS, PLACE BITUMINOUS SURFACE COURSE, AND AGGREGATE SHOULDERS ON SHOULDER WIDENING FOR GUARDRAIL.
6. PLACE TRAFFIC CONTROL STANDARD 701311 TO CONSTRUCT PAVEMENT MARKING.



AGGREGATE (PRIME COAT)

BINDER		
1197+59.0 TO 1199+36.5	0.6	TON
1201+33.5 TO 1201+98.0	0.2	TON
SURFACE		
1196+75.0 TO 1199+36.5	2.0	TON
1201+33.5 TO 1202+50.0	0.9	TON
	3.7	TON

BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, N90, IL-19.0

1197+59.0 TO 1199+36.5	86	TON
1201+33.5 TO 1201+98.0	22	TON
	108	TON

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)

RT	1199+30.5 TO 1199+36.5	13.3	SQ YD
RT	1201+33.5 TO 1201+39.5	13.3	SQ YD
		26.7	SQ YD

BITUMINOUS SURFACE COURSE, SUPERPAVE, MIXTURE D, N90

1196+75.0 TO 1199+36.5	83	TON
1201+33.5 TO 1202+50.0	39	TON
	122	TON

AGGREGATE SHOULDERS, TYPE B

RT 1197+28.0 TO 1199+66.5	7	TON
LT 1201+03.5 TO 1203+00.0	6	TON
LT 1201+03.5 TO 1203+00.0	6	TON
RT 1196+75.0 TO 1199+36.5	17	TON
	36	TON

BRIDGE APPROACH SHOULDER REMOVAL

LT	1199+64 TO 1199+84	16.7	SQ YD
LT	1200+85 TO 1201+05	16.7	SQ YD
		33.3	SQ YD

PAINT PAVEMENT MARKING REMOVAL

1195+02 TO 1204+60	1006 SQ FT

PAINT PAVEMENT MARKING LINE-4"

1195+00 TO 1205+00	2250 FOOT

SHORT TERM PAVEMENT MARKING

1195+02 TO 1204+60	120 FOOT

WORK ZONE PAVEMENT MARKING REMOVAL

1195+02 TO 1204+60	32 SQ FT

BRIDGE APPROACH SHOULDER REMOVAL
PAVEMENT REMOVAL
STRUCTURE REMOVAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 6/24/2006
FILE NAME = #FILE1#
PLOT SCALE = #SCALE#
USER NAME = district

Bench Mark: Chiseled square in S.E. corner of 6'x6' concrete pad for streamflow monitoring station, 33.5' south of Il. 15, Sta. 1201+10. Chiseled square in center of 4.0'x3.0' concrete box culvert, 41.0' north of Il.-15, Sta. 1204+40.

Existing Structure: S.N. 041-0023 Built in 1921 as S.B.I. Route 15, Sec. 13-4 at Station 1200+35 as a simple span thru-truss 103'-4" Bk.-Bk. abutment, suported on timber piles. Bridge widening, and superstructure replacement with PPC deck beams 2-span in 1971. Existing bridge to be removed and replaced. Traffic to be maintained utilizing stage construction.

No salvage

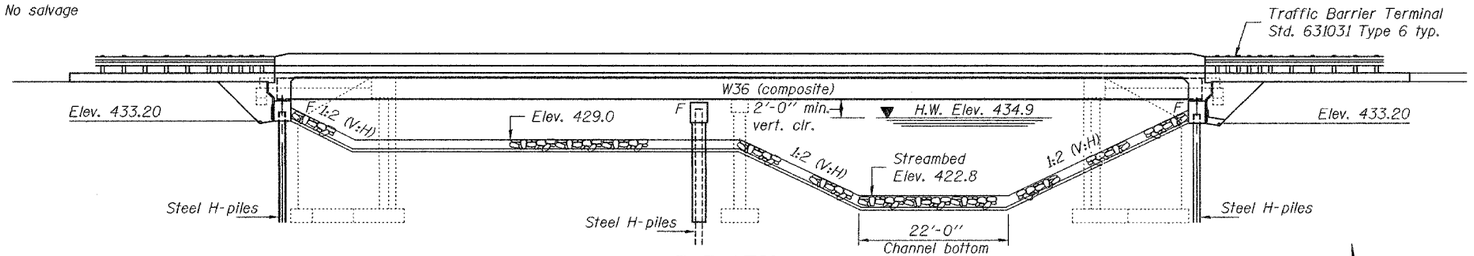
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	14
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

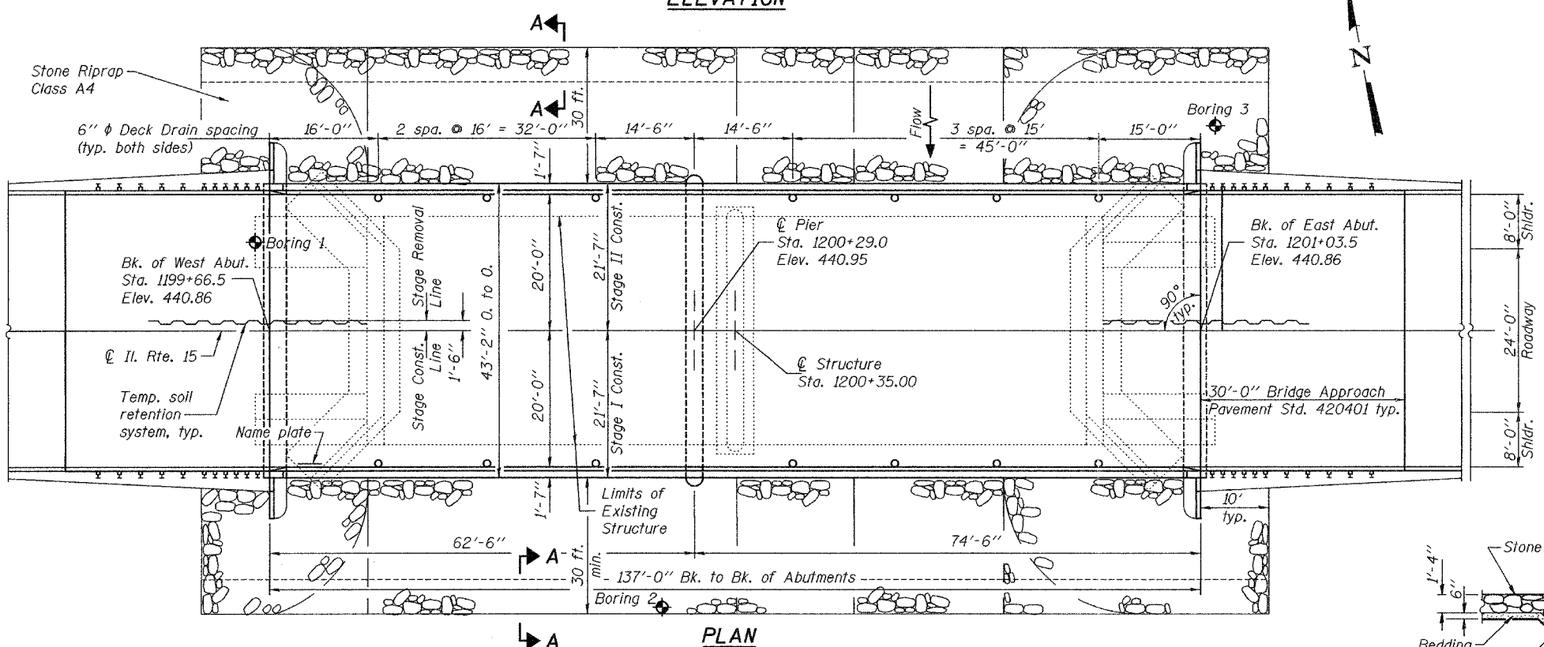
SHEET NO. 1
17 SHEETS

Contract #98957

INDEX OF SHEETS



ELEVATION



PLAN

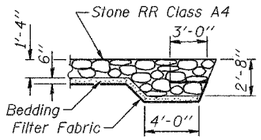
STATION 1200+35.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 821 SEC. 13B-1
LOADING HL-93
STRUCTURE NO. 041-0106

NAME PLATE

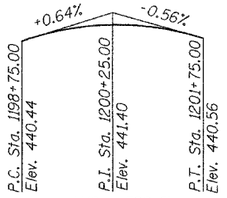
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		141	141
Stone Riprap, Class A4	Sq. Yd.		1767	1767
Filter Fabric	Sq. Yd.		1767	1767
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		203	203
Floor Drains	Each	14		14
Concrete Structures	Cu. Yd.		76.2	76.2
Concrete Superstructure	Cu. Yd.	200.2		200.2
Bridge Deck Grooving	Sq. Yd.	579		579
Protective Coat	Sq. Yd.	724		724
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	2484		2484
Reinforcement Bars, Epoxy Coated	Pound	48910	8580	57490
Furnishing Steel Piles HP12x74	Foot		291	291
Furnishing Steel Piles HP10x57	Foot		579	579
Driving Piles	Foot		870	870
Temporary Soil Retention System	Sq. Ft.		444	444
Name Plates	Each	1		1
Bar Splicers	Each	534	49	583
Underwater Structure Excavation Protection, Location 1	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		75	75
Pipe Underdrains for Structures, 4"	Foot		161	161



SECTION A-A



PROFILE GRADE

(along ℄ Rdwy.)

WATERWAY INFORMATION

Drainage Area = 79.0 sq. mi.
Exist. Low Grade Elev. 437.8 ft. @ Sta. 1219+00
Prop. Low Grade Elev. 438.2 ft. @ Sta. 1219+00

Bridge	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
041-0106	10	1892	587	638	434.6	0.8	0.8	435.4	435.4
041-0024	10	237	182	249				435.4	435.4
041-0104	10	2450	975	975				435.4	435.4
Total	10	4579	1744	1862				435.4	435.4
041-0106	50	2485	615	676	434.9	1.1	1.1	436.0	436.0
041-0024	50	328	191	266				436.0	436.0
041-0104	50	3629	1040	1040				436.0	436.0
Total	50	6442	1846	1982				436.0	436.0
041-0106	100	2742	624	689	435.0	1.2	1.2	436.2	436.2
041-0024	100	371	194	271				436.2	436.2
041-0104	100	4091	1060	1060				436.2	436.2
Total	100	7204	1878	2020				436.2	436.2
041-0106	500	3320	653	728	435.3	1.5	1.4	436.8	436.8
041-0024	500	572	203	288				436.8	436.7
041-0104	500	5062	1120	1120				436.8	436.7
Total	500	8954	1976	2136				436.8	436.7

10 yr. velocity through proposed bridge = 3.0 fps

LOADING HL-93

Allow 50 psf for future wearing surface

DESIGN SPECIFICATIONS

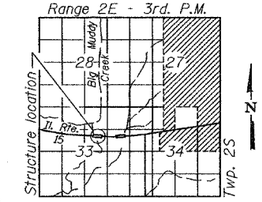
AASHTO LRFD Bridge Design Specification
U.S. 3rd. Edition w/2005 interims

DESIGN STRESSES

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel M270, GR 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Bedrock Acceleration Coefficient (A) = 9.75%
Site Coefficient (S) = 1.0



LOCATION SKETCH

DESIGNED	Ashen T. Thump
CHECKED	Ralph E. Anderson
DRAWN	h.t. duong
CHECKED	RET / RL

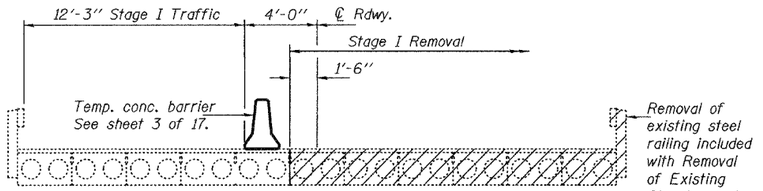
EXAMINED Thomas J. Domagalski Aug. 31, 2006
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

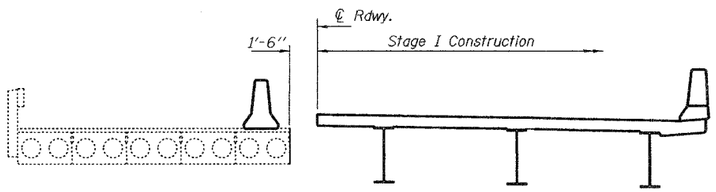
STATE OF ILLINOIS
RALPH E. ANDERSON
081-004625
SPRINGFIELD
LICENSED STRUCTURAL ENGINEER

EXPIRES 11-30-2006

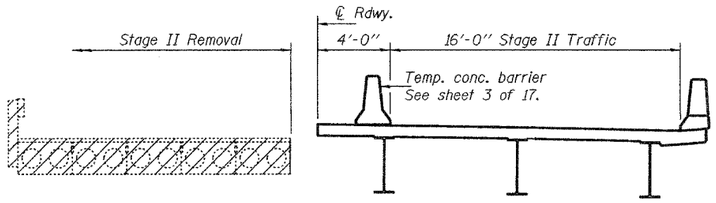
GENERAL PLAN
ILLINOIS ROUTE 15 OVER
BIG MUDDY CREEK
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106



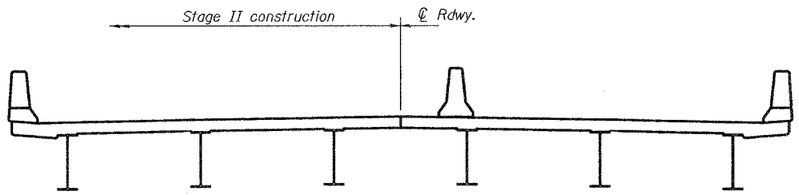
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

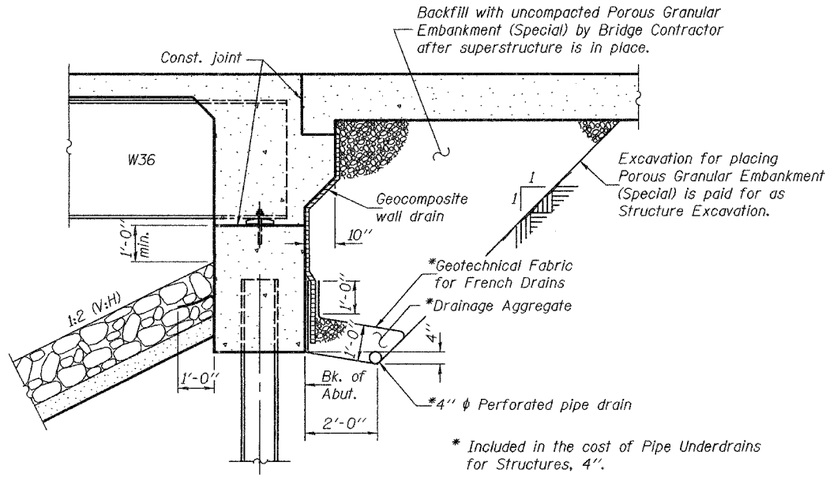
Notes: Hatched areas indicate removal of existing structures.
For quantity of temporary concrete barrier, see Roadway Plans.
All cross sections are looking east.

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

EXAMINED Aug. 31, 2006
Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

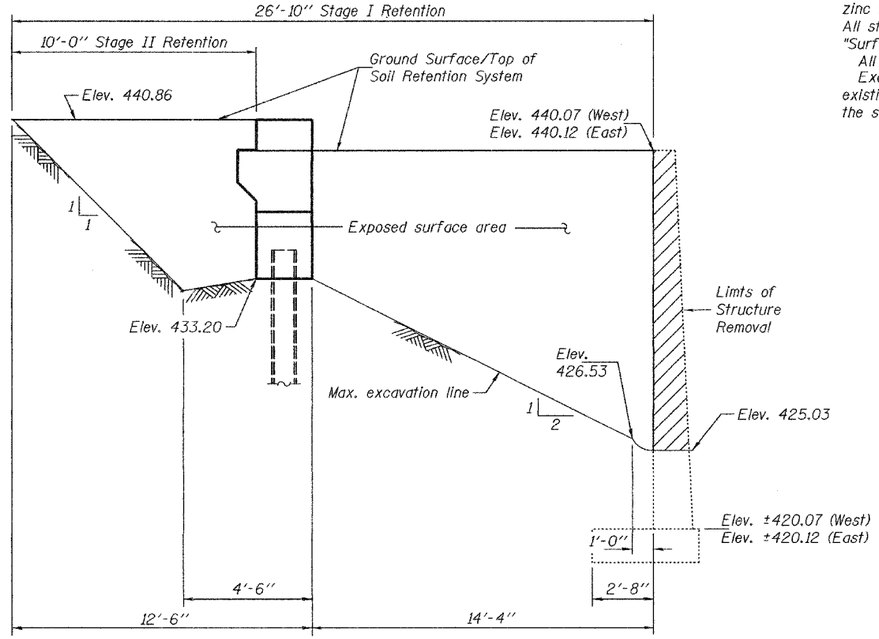
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION THRU INTEGRAL ABUTMENT

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



TEMPORARY SOIL RETENTION SYSTEM

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

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
17 SHEETS

Contract #98957

GENERAL NOTES

Fasteners shall be high strength bolts (AASHTO M 164, Type 3). Bolts $^{7}/_{8}$" ϕ, open holes $^{15}/_{16}$" ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 140,270 lbs.

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

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

Anchor bolts shall be set before bolting diaphragms over supports.

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

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

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

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $^{1}/_{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $^{1}/_{8}$" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

In addition to all other requirements of section 512 of the Standard Specifications, splices for HP10x57 and HP12x74 piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.

AASHTO M 270 Grade 50W structural steel shall only be painted, at the ends of the beams, for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with an inorganic zinc rich primer per AASHTO M 300, Type I. No field painting shall be required. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".

All construction joints shall be bonded.

Excavation behind existing abutment walls shall be done before removing the existing superstructure. The Contractor shall sawcut the existing abutments at the stage removal line before stage I removal.

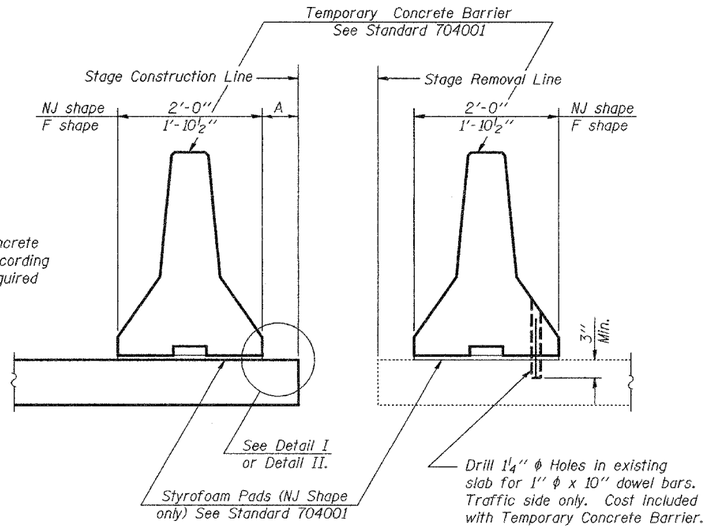
GENERAL DATA & STAGE CONSTRUCTION DETAILS F.A.P. RT. 821 - SECTION 13B-1 JEFFERSON COUNTY STATION 1200+35.00 STRUCTURE NO. 041-0106

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 3
17 SHEETS

Contract #98957



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

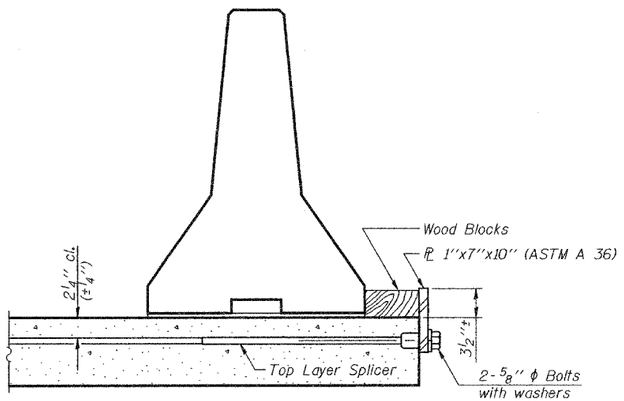
SECTIONS THRU SLAB

NOTES

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

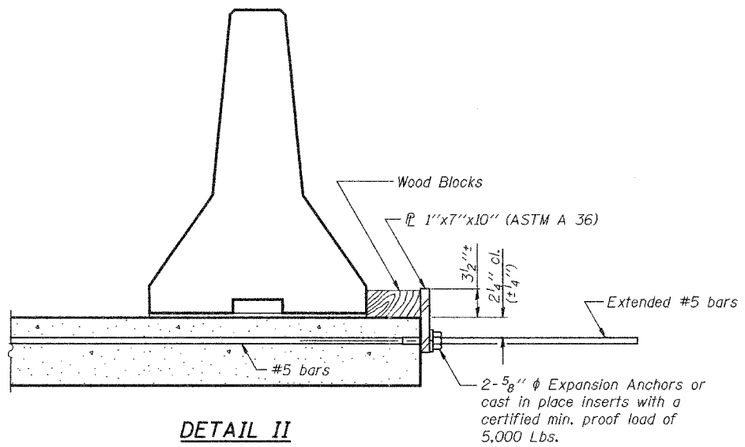
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℄ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.



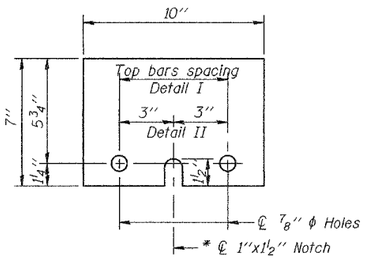
DETAIL I

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.



℄ 1"x7"x10"

* Required only with Detail II

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

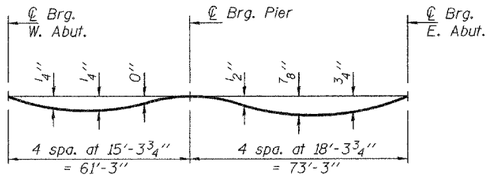
EXAMINED Thomas J. Domagalski Aug. 31, 2006
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

R-27

10-22-04

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION F.A.P. RT. 821 - SECTION 13B-1 JEFFERSON COUNTY STATION 1200+35.00 STRUCTURE NO. 041-0106

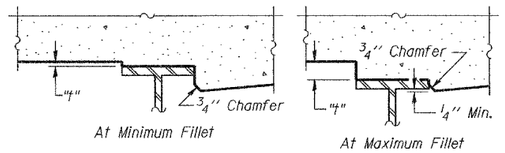


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 5 of 17.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



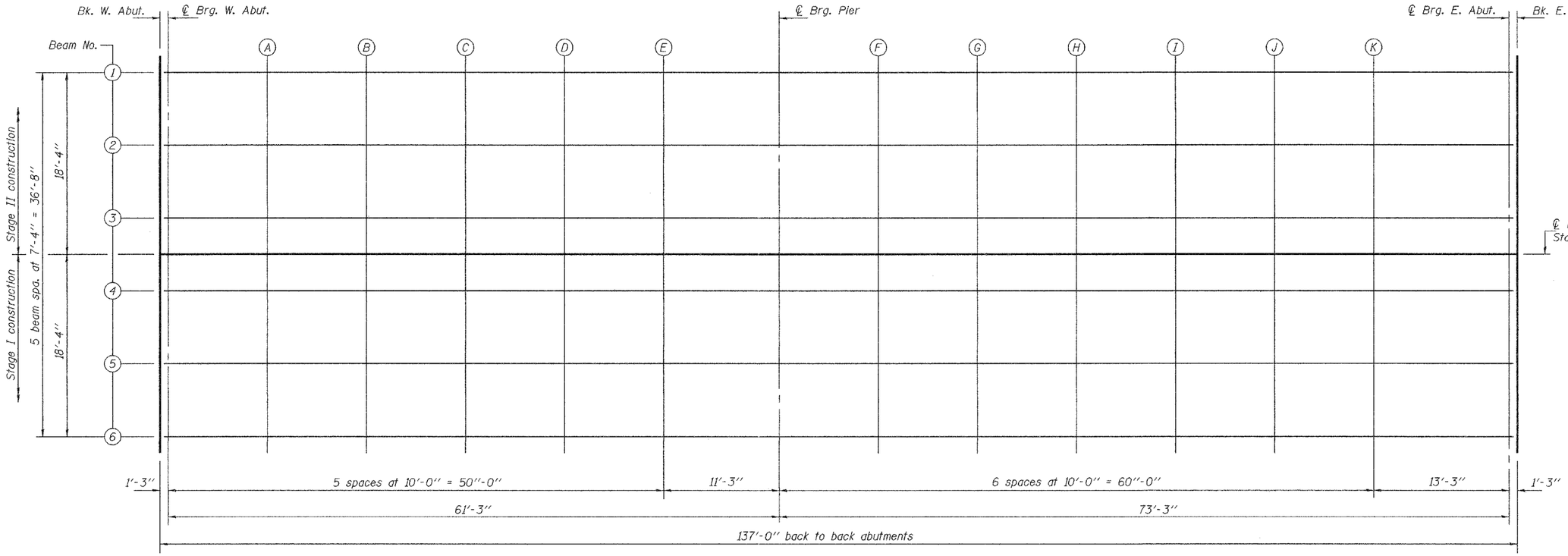
To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 5 of 17, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
17 SHEETS

Contract #98957



PLAN

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

Aug. 31, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
17 SHEETS

Contract #98957

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	119966.50	-18.33	440.54	440.54
℄ Brg. W. Abut	119967.75	-18.33	440.54	440.54
A	119977.75	-18.33	440.57	440.58
B	119987.75	-18.33	440.59	440.61
C	119997.75	-18.33	440.61	440.63
D	120007.75	-18.33	440.62	440.63
E	120017.75	-18.33	440.63	440.63
℄ Brg. Pier	120029.00	-18.33	440.63	440.63
F	120039.00	-18.33	440.63	440.65
G	120049.00	-18.33	440.63	440.67
H	120059.00	-18.33	440.62	440.68
I	120069.00	-18.33	440.61	440.68
J	120079.00	-18.33	440.59	440.66
K	120089.00	-18.33	440.57	440.62
℄ Brg. E. Abut	120102.25	-18.33	440.54	440.54
Bk. E. Abut	120103.50	-18.33	440.54	440.54

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	119966.50	-11.00	440.69	440.69
℄ Brg. W. Abut	119967.75	-11.00	440.69	440.69
A	119977.75	-11.00	440.71	440.73
B	119987.75	-11.00	440.74	440.76
C	119997.75	-11.00	440.75	440.77
D	120007.75	-11.00	440.77	440.78
E	120017.75	-11.00	440.77	440.78
℄ Brg. Pier	120029.00	-11.00	440.78	440.78
F	120039.00	-11.00	440.78	440.80
G	120049.00	-11.00	440.78	440.82
H	120059.00	-11.00	440.77	440.83
I	120069.00	-11.00	440.76	440.83
J	120079.00	-11.00	440.74	440.81
K	120089.00	-11.00	440.72	440.77
℄ Brg. E. Abut	120102.25	-11.00	440.69	440.69
Bk. E. Abut	120103.50	-11.00	440.69	440.69

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	119966.50	-3.67	440.80	440.80
℄ Brg. W. Abut	119967.75	-3.67	440.80	440.80
A	119977.75	-3.67	440.83	440.84
B	119987.75	-3.67	440.85	440.87
C	119997.75	-3.67	440.87	440.89
D	120007.75	-3.67	440.88	440.89
E	120017.75	-3.67	440.89	440.89
℄ Brg. Pier	120029.00	-3.67	440.89	440.89
F	120039.00	-3.67	440.89	440.92
G	120049.00	-3.67	440.89	440.93
H	120059.00	-3.67	440.88	440.95
I	120069.00	-3.67	440.87	440.95
J	120079.00	-3.67	440.86	440.92
K	120089.00	-3.67	440.84	440.88
℄ Brg. E. Abut	120102.25	-3.67	440.80	440.80
Bk. E. Abut	120103.50	-3.67	440.80	440.80

℄ ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	119966.50	0.00	440.86	440.86
℄ Brg. W. Abut	119967.75	0.00	440.86	440.86
A	119977.75	0.00	440.89	440.90
B	119987.75	0.00	440.91	440.93
C	119997.75	0.00	440.92	440.95
D	120007.75	0.00	440.94	440.95
E	120017.75	0.00	440.95	440.95
℄ Brg. Pier	120029.00	0.00	440.95	440.95
F	120039.00	0.00	440.95	440.97
G	120049.00	0.00	440.95	440.99
H	120059.00	0.00	440.94	441.00
I	120069.00	0.00	440.93	441.00
J	120079.00	0.00	440.91	440.98
K	120089.00	0.00	440.89	440.94
℄ Brg. E. Abut	120102.25	0.00	440.86	440.86
Bk. E. Abut	120103.50	0.00	440.86	440.86

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	119966.50	3.67	440.80	440.80
℄ Brg. W. Abut	119967.75	3.67	440.80	440.80
A	119977.75	3.67	440.83	440.84
B	119987.75	3.67	440.85	440.87
C	119997.75	3.67	440.87	440.89
D	120007.75	3.67	440.88	440.89
E	120017.75	3.67	440.89	440.89
℄ Brg. Pier	120029.00	3.67	440.89	440.89
F	120039.00	3.67	440.89	440.92
G	120049.00	3.67	440.89	440.93
H	120059.00	3.67	440.88	440.95
I	120069.00	3.67	440.87	440.95
J	120079.00	3.67	440.86	440.92
K	120089.00	3.67	440.84	440.88
℄ Brg. E. Abut	120102.25	3.67	440.80	440.80
Bk. E. Abut	120103.50	3.67	440.80	440.80

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	119966.50	11.00	440.69	440.69
℄ Brg. W. Abut	119967.75	11.00	440.69	440.69
A	119977.75	11.00	440.71	440.73
B	119987.75	11.00	440.74	440.76
C	119997.75	11.00	440.75	440.77
D	120007.75	11.00	440.77	440.78
E	120017.75	11.00	440.77	440.78
℄ Brg. Pier	120029.00	11.00	440.78	440.78
F	120039.00	11.00	440.78	440.80
G	120049.00	11.00	440.78	440.82
H	120059.00	11.00	440.77	440.83
I	120069.00	11.00	440.76	440.83
J	120079.00	11.00	440.74	440.81
K	120089.00	11.00	440.72	440.77
℄ Brg. E. Abut	120102.25	11.00	440.69	440.69
Bk. E. Abut	120103.50	11.00	440.69	440.69

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	119966.50	18.33	440.54	440.54
℄ Brg. W. Abut	119967.75	18.33	440.54	440.54
A	119977.75	18.33	440.57	440.58
B	119987.75	18.33	440.59	440.61
C	119997.75	18.33	440.61	440.63
D	120007.75	18.33	440.62	440.63
E	120017.75	18.33	440.63	440.63
℄ Brg. Pier	120029.00	18.33	440.63	440.63
F	120039.00	18.33	440.63	440.65
G	120049.00	18.33	440.63	440.67
H	120059.00	18.33	440.62	440.68
I	120069.00	18.33	440.61	440.68
J	120079.00	18.33	440.59	440.66
K	120089.00	18.33	440.57	440.62
℄ Brg. E. Abut	120102.25	18.33	440.54	440.54
Bk. E. Abut	120103.50	18.33	440.54	440.54

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

EXAMINED Aug. 31, 2006
ENGINEER OF BRIDGE DESIGN

PASSED
ENGINEER OF BRIDGES AND STRUCTURES

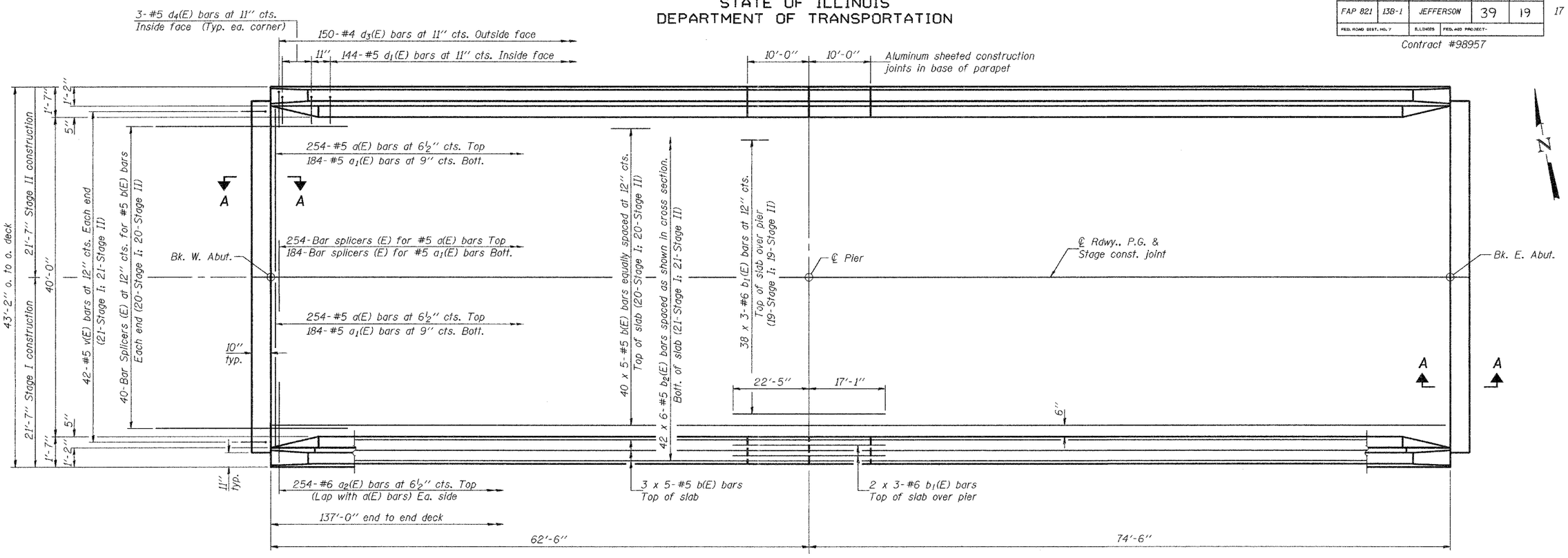
TOP OF SLAB ELEVATIONS
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
17 SHEETS

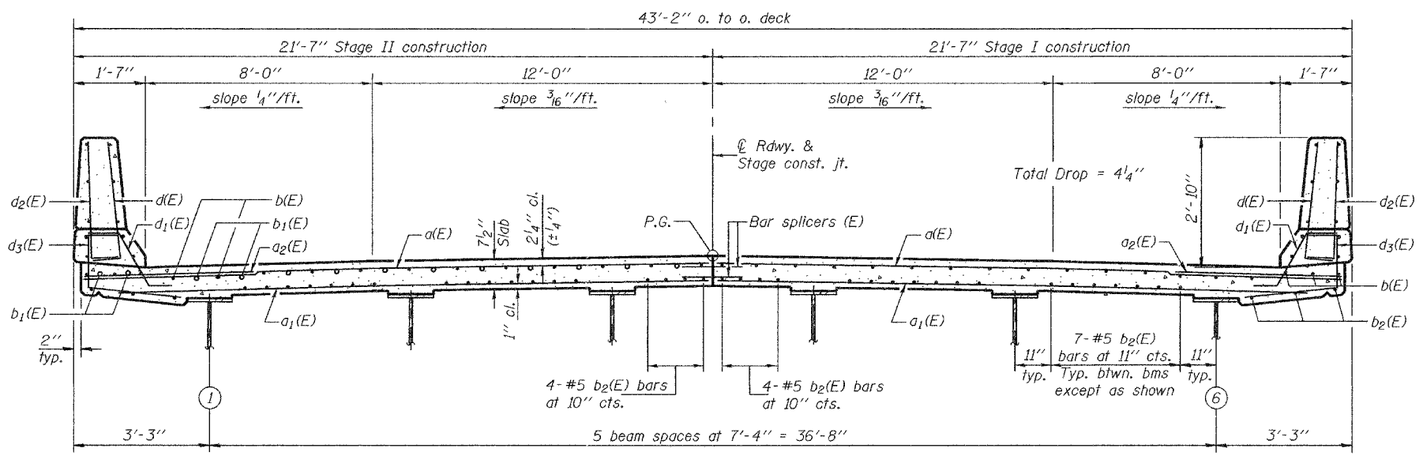
Contract #98957

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN

Notes: See sheet 7 of 17 for superstructure details, parapet reinforcement, and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 42 x 6-#5 etc. indicates 42 lines of bars with 6 lengths per line.
See sheet 7 of 17 for details of v(E) bars.
See sheet 8 of 17 for Section A-A and diaphragm details.
See sheet 15 of 17 for bar splicer details.



NEAR PIER NEAR MIDSPAN

CROSS SECTION
(Looking east)

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

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

Aug. 31, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

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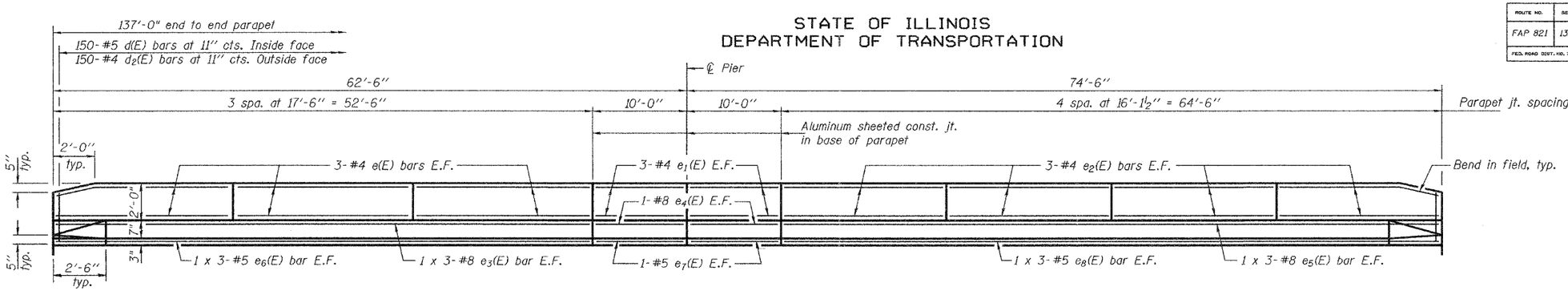
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
17 SHEETS

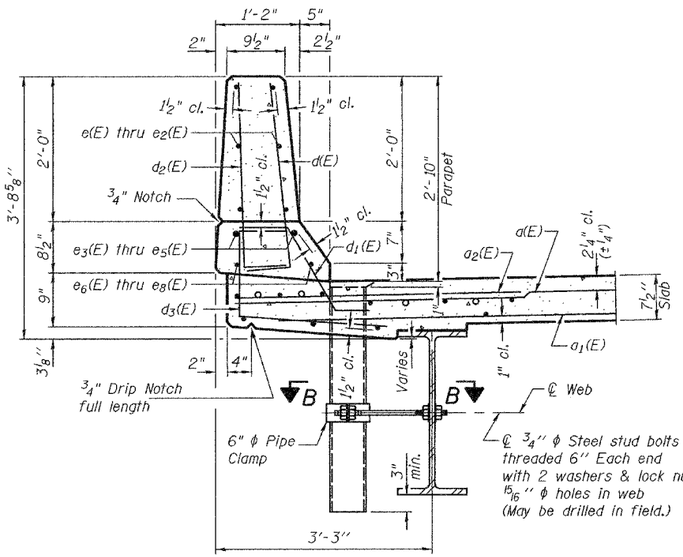
Contract #98957

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

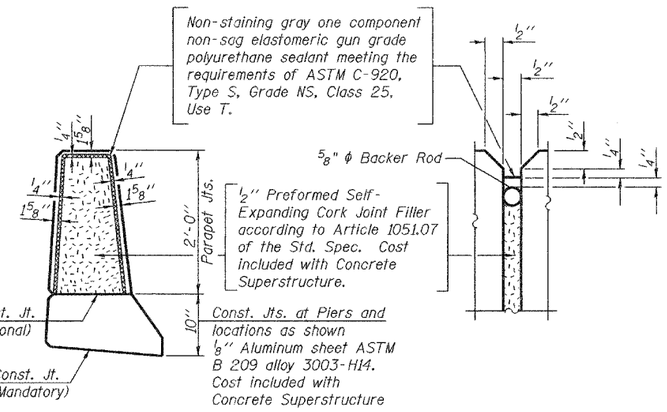


INSIDE ELEVATION OF PARAPET
(Looking north)

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

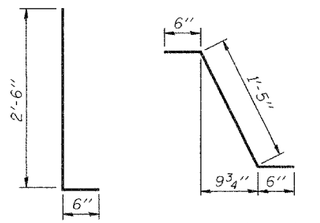


SECTION THRU PARAPET



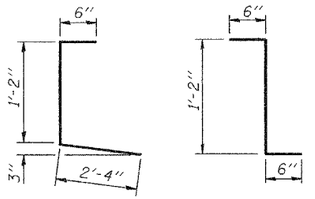
PARAPET JOINT DETAILS

Note:
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



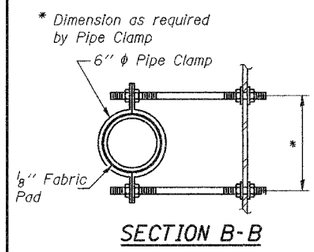
BARS d(E) & d2(E)

BAR d1(E)

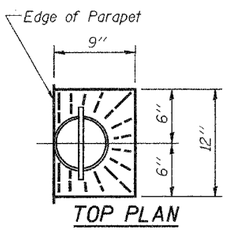


BAR d3(E)

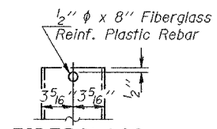
BAR d4(E)



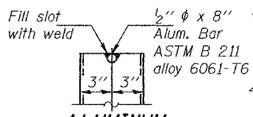
SECTION B-B



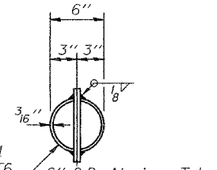
TOP PLAN



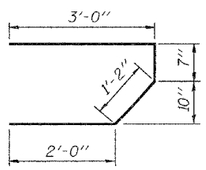
FIBERGLASS PIPE



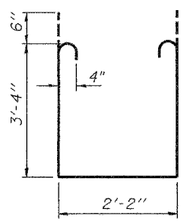
ALUMINUM TUBE



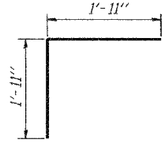
TOP PLAN
(Showing Aluminum Tube)



BAR s(E)



BAR s1(E)



BAR v(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	508	#5	21'-2"	——
a1(E)	368	#5	20'-3"	——
a2(E)	508	#6	6'-0"	——
b(E)	230	#5	29'-1"	——
b1(E)	126	#6	14'-11"	——
b2(E)	252	#5	24'-8"	——
d(E)	300	#5	3'-0"	⌐
d1(E)	288	#5	2'-5"	⌐
d2(E)	300	#4	3'-0"	⌐
d3(E)	300	#4	4'-0"	⌐
d4(E)	12	#5	2'-2"	⌐
e(E)	36	#4	17'-2"	——
e1(E)	24	#4	9'-8"	——
e2(E)	48	#4	15'-10"	——
e3(E)	12	#8	19'-8"	——
e4(E)	8	#8	9'-8"	——
e5(E)	12	#8	23'-8"	——
e6(E)	12	#5	18'-6"	——
e7(E)	8	#5	9'-8"	——
e8(E)	12	#5	22'-6"	——
m(E)	8	#6	20'-5"	——
m1(E)	12	#6	21'-4"	——
m2(E)	24	#6	10'-1"	——
m3(E)	8	#6	7'-0"	——
m4(E)	4	#6	2'-11"	——
m5(E)	4	#6	3'-4"	——
s(E)	96	#5	6'-9"	⊐
s1(E)	88	#4	9'-10"	⊓
v(E)	84	#5	3'-10"	⌐
Reinforcement Bars, Epoxy Coated			Pound	48910
Concrete Superstructure			Cu. Yds.	200.2

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

EXAMINED Aug. 31, 2006
Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

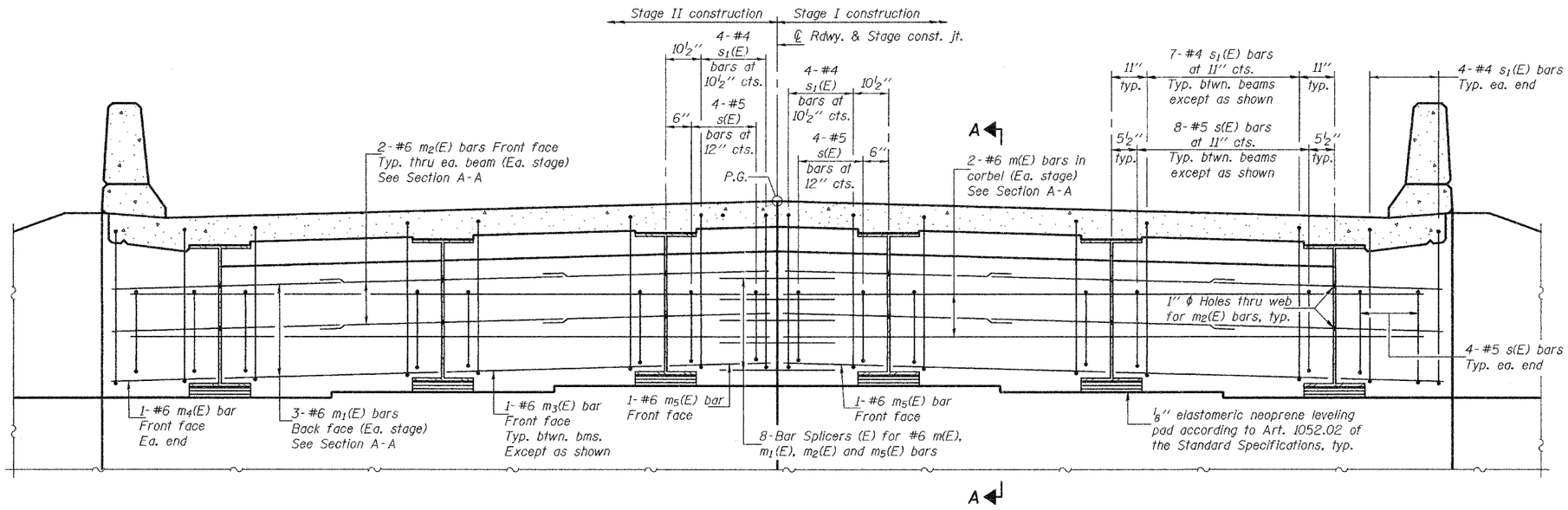
SUPERSTRUCTURE DETAILS
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	21
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 8
17 SHEETS

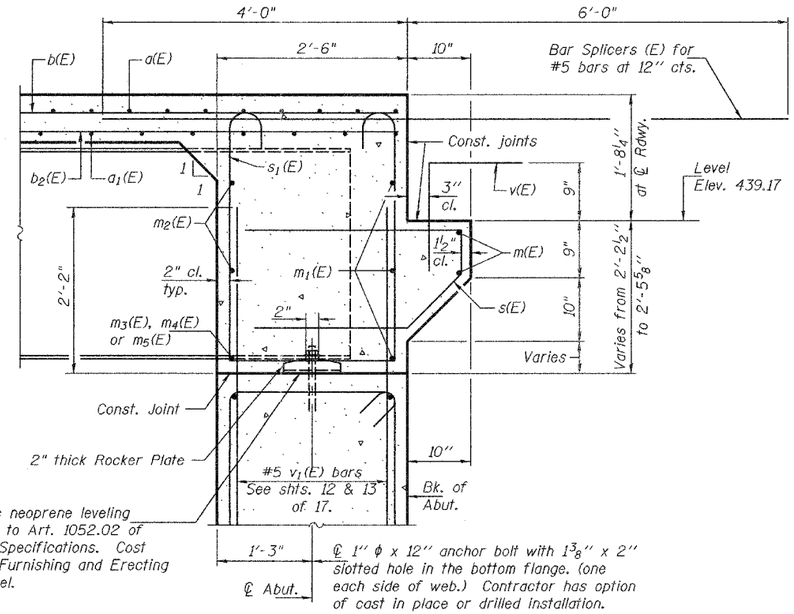
Contract #98957

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DIAPHRAGM ELEVATION AT ABUTMENT

(Looking east)



SECTION A-A

Notes: Reinforcement bars in diaphragm are billed with superstructure on sheet 7 of 17.
Concrete in diaphragm is included with Concrete Superstructure on sheet 7 of 17.
For details of bars s(E) & s_1(E) see sheet 7 of 17.
See sheet 9 of 17 for holes thru web for m_2(E) bars.
For anchor bolt details see sheet 11 of 17.
For bar splicer (E) details see sheet 15 of 17.

MIN. BAR LAP

#6 bar = 2'-9"

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

Aug. 31, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

DIAPHRAGM DETAILS
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

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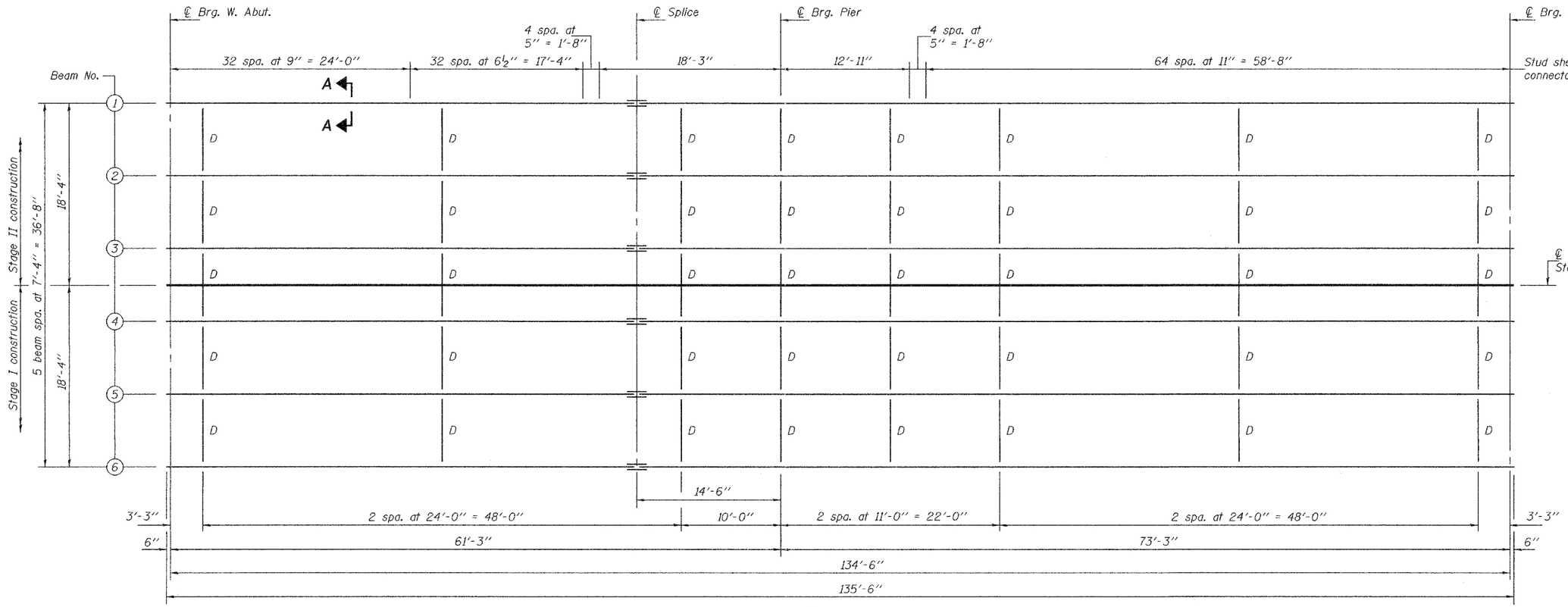
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
17 SHEETS

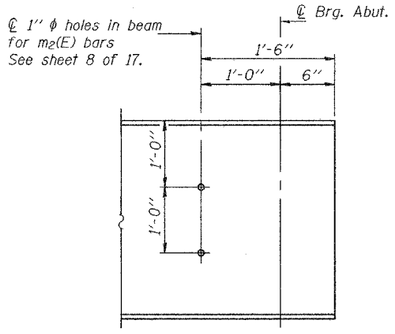
Contract #98957



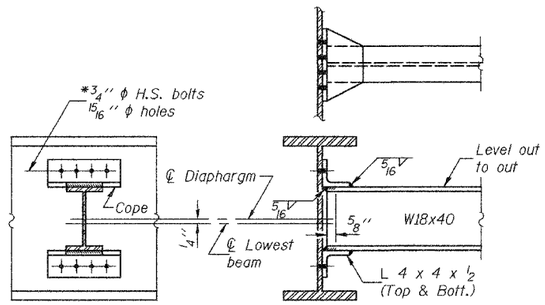
PLAN

All beams are W36x150 and NTR.

Notes: Two hardened washers shall be required for all $^{15}/_{16}$″ holes in diaphragms.
NTR denotes members to which Notch Toughness Requirements are applicable.



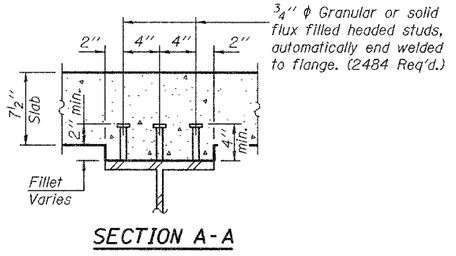
TYP. END OF BEAM ELEVATION



DIAPHRAGM D

(40 Required)

*Use $^{13}/_{16}$″x 1½″ verticle slotted holes in top and bottom angles at south side of Beam 3 only. Provide $^{5}/_{16}$″ plate washers for slotted holes. Bolts for slotted holes shall be finger-tightened prior to the deck pour for Stage II Construction, and then be fully tightened after completion of the deck pour for Stage II Construction.



SECTION A-A

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

EXAMINED Aug. 31, 2006
Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

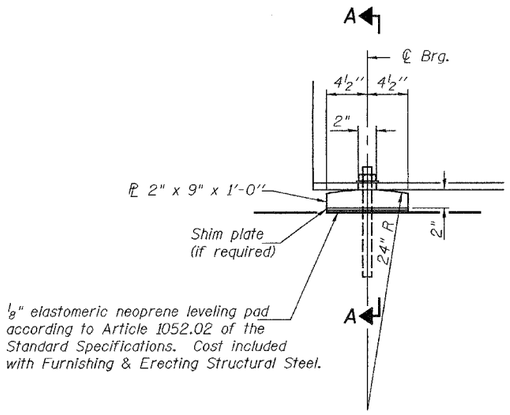
STRUCTURAL STEEL
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

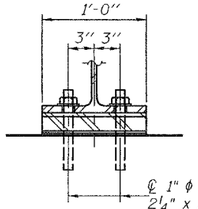
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	23
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 10
17 SHEETS

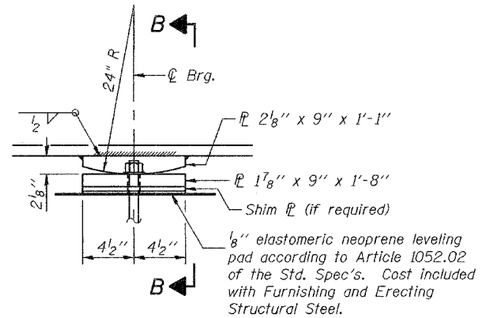
Contract #98957



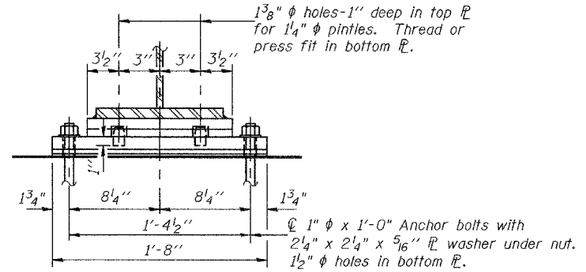
ELEVATION AT ABUTMENTS



SECTION A-A



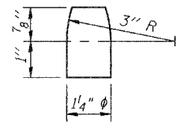
ELEVATION AT PIER



SECTION B-B

FIXED BEARING
(6 Required)

ABUTMENT BEARING
(12 required)



PINTLE

INTERIOR BEAM MOMENT TABLE - 2 SPAN				
		0.4 Sp. 1	Pier	0.6 Sp. 2
Is	(in⁴)	9040	9040	9040
Ic (n)	(in⁴)	22975	———	22975
Ic (3n)	(in⁴)	16912	———	16912
Ss	(in³)	504	504	504
Sc (n)	(in³)	722	———	722
Sc (3n)	(in³)	654	———	654
DC1	(k/ft.)	0.873	0.873	0.873
M DC1	('k)	191	505	360
DC2	(k/ft.)	0.150	0.150	0.150
M DC2	('k)	42	64	71
DW	(k/ft.)	0.367	0.367	0.367
M DW	('k)	103	156	174
M℄+Imp	('k)	745	552	919
Ma (Strength I)	('k)	1749	1911	2408
ϕf Mn	('k)	3610	———	3610
fs DC1	(k.s.i.)	4.5	12.0	8.6
fs DC2	(k.s.i.)	0.8	1.5	1.3
fs DW	(k.s.i.)	1.9	3.7	3.2
fs 1.3 (℄+I)	(k.s.i.)	16.1	17.1	19.9
fs (Service II)	(k.s.i.)	23.3	34.3	33.0
fs (Total)(Strength I)	(k.s.i.)	———	45.5	———
Vsr	(k)	24.8	———	25.6

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs due to non-composite loads.

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing fs due to short-term composite loads.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing fs due to long-term composite loads.

DC1 is the dead load acting on the non-composite section.

DC2 is the dead load acting on the long-term composite section.

DW is the dead load acting on the long-term composite section due to wearing surface.

Ma (Strength I)=1.25 M(DC1+DC2)+1.5M (DW)+1.75 M(℄+Imp).

ϕf Mn is the full plastic moment capacity computed in accordance with Appendix D6.1 and 6.10.7.

fs (Service II) is the sum of the stresses due to DC1+DC2+DW+1.3(℄+Imp).

fs (Total) (Strength I) (Non-compact section) is the sum of the stresses due to 1.25(DC1+DC2)+1.5DW+1.75(℄+Imp).

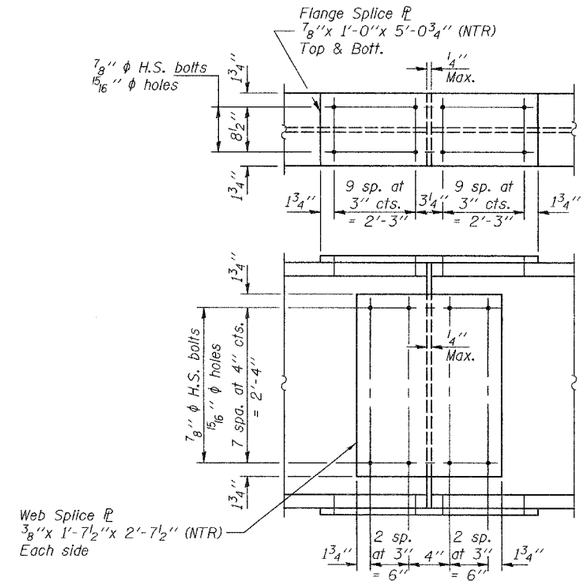
Vsr is the maximum shear range in the span (0.75 ℄+Imp).

INTERIOR BEAM REACTION TABLE - HL 93 LOADING				
		W. Abut.	Pier	E. Abut.
R DC1	(k)	18.5	73.9	25.1
R DC2+DW	(k)	12.3	41.4	15.9
R℄	(k)	59.2	92.6	63.4
R Imp.	(k)	15.0	17.6	15.5
R (Total)	(k)	105.0	225.5	119.9

*TOP OF BEAM ELEVATIONS

Location	℄ Brg. W. Abut.	℄ Splice	℄ Brg. Pier	℄ Brg. E. Abut.
Beams 1 & 6	439.87	439.88	439.88	439.87
Beams 2 & 4	440.02	440.03	440.03	440.02
Beams 3 & 5	440.13	440.15	440.15	440.13

*For fabrication use only.



SPLICE
(6 Required)

Notes: See sheet 11 of 17 for anchor bolt installation.
NTR denotes members to which Notch Toughness Requirements are applicable.
Contractor has the option of cast in place or drilled installation of anchor bolts.

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

Aug. 31, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph L. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

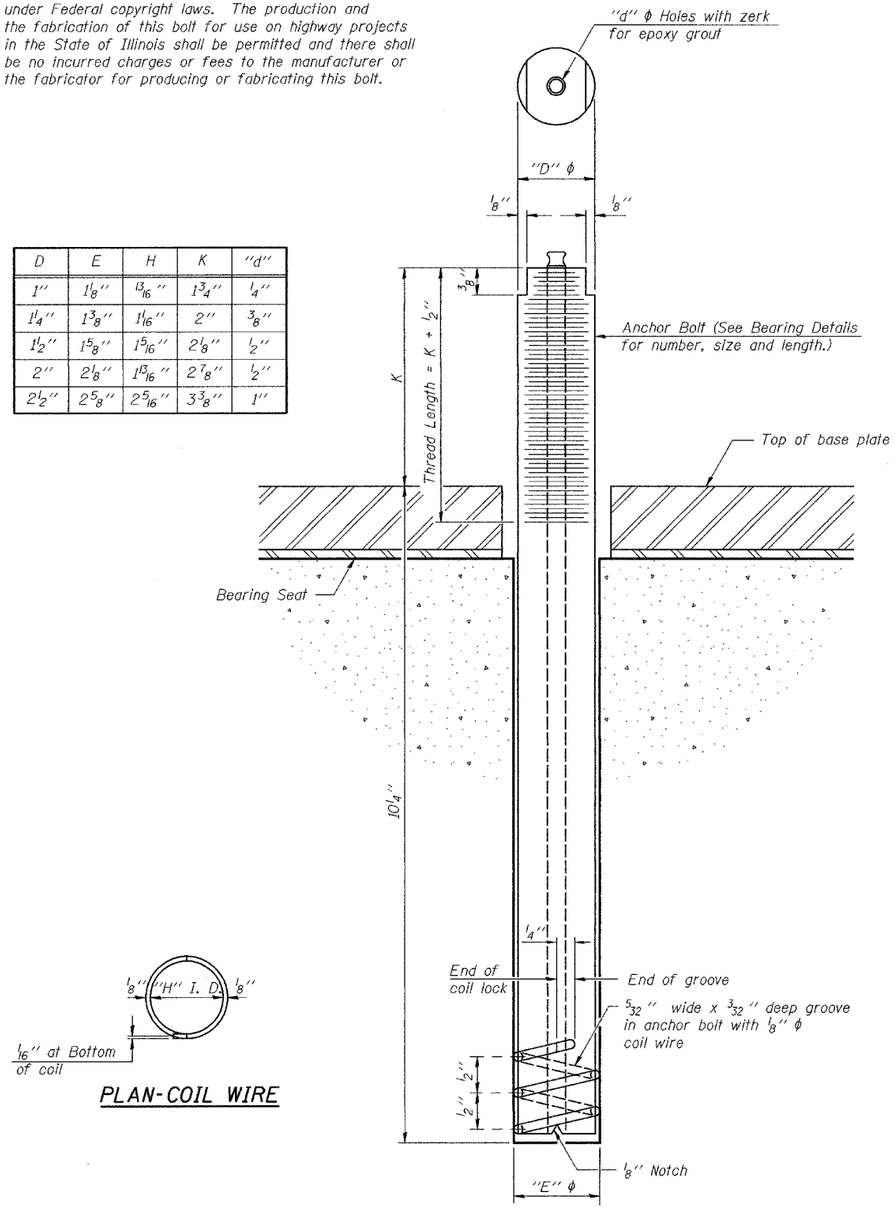
STRUCTURAL STEEL DETAILS
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 11
17 SHEETS

Contract #98957



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

PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

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

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

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

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

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

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

ALTERNATE ANCHOR BOLTS

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

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

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

Location	Type
Abuts.	A 325
Pier	A 325

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

GENERAL NOTES

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

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

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

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

Aug. 31, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

ABB-1 10-22-04

ANCHOR BOLT DETAILS FOR BEARINGS
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

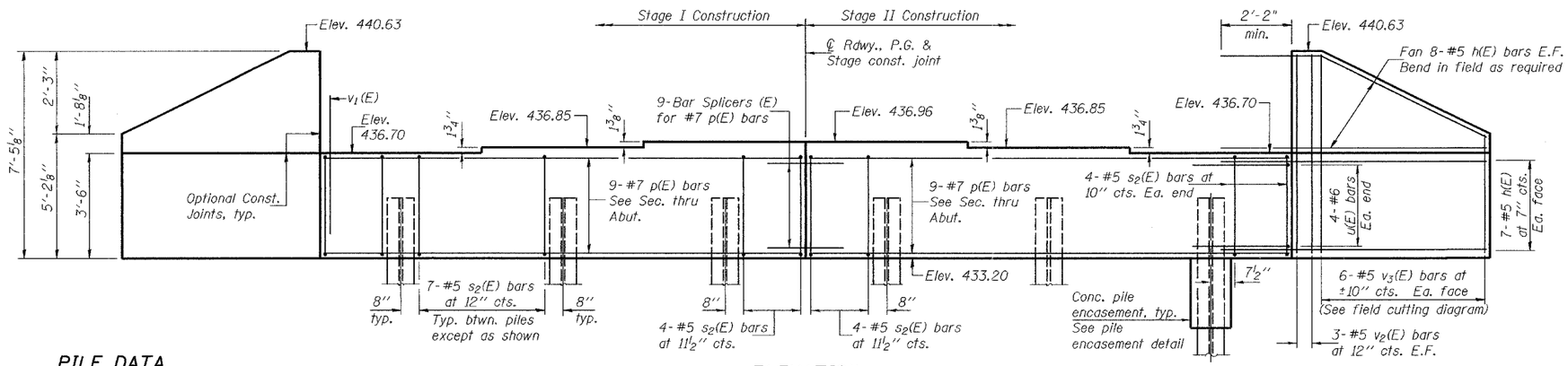
Notes: Pour steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
For anchor bolt installation details see sheet 11 of 17.
For bar splicer assembly details see sheet 15 of 17.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	25
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

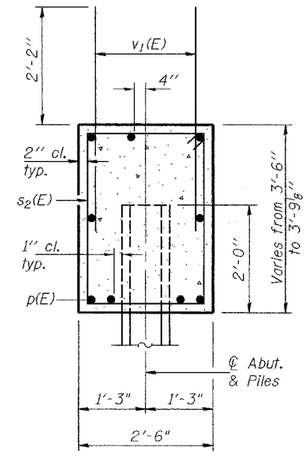
SHEET NO. 12
17 SHEETS

Contract #98957

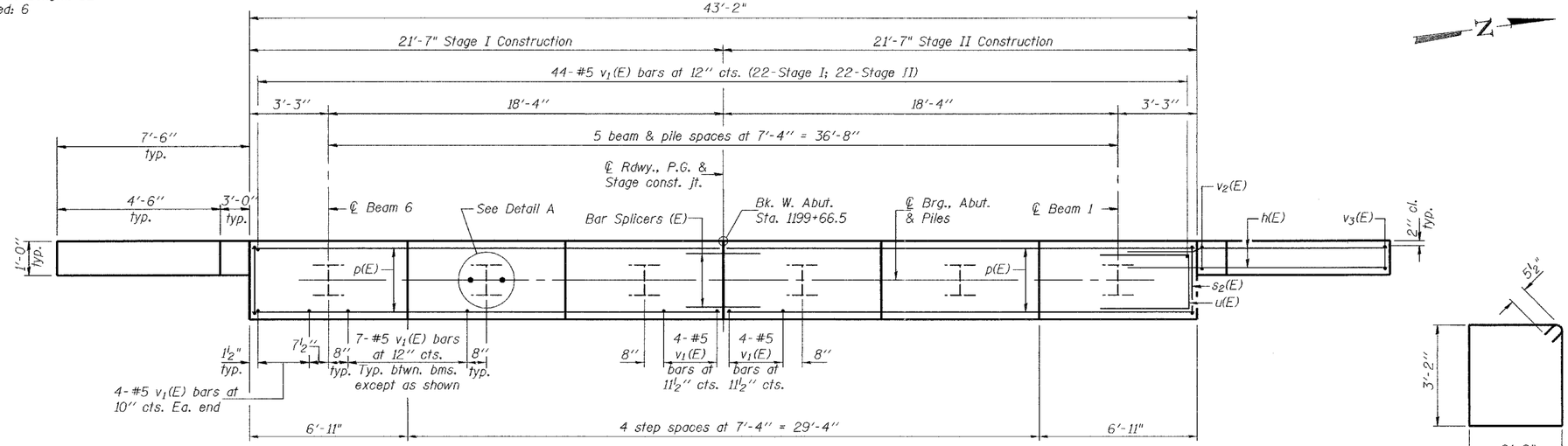


ELEVATION
(Looking west)

PILE DATA
Type: HP10x57
Nominal Required Bearing: 454 Kips
Factored Resistance Available: 227 Kips
Estimated Pile Length: 52'
No. Required: 6



SEC. THRU ABUT.

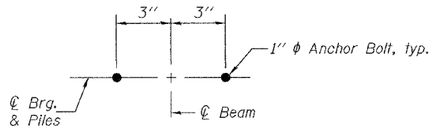


PLAN

BAR s2(E)

BILL OF MATERIAL

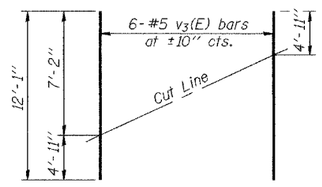
Bar	No.	Size	Length	Shape
h(E)	60	#5	10'-2"	——
p(E)	18	#7	21'-4"	——
s2(E)	44	#5	11'-7"	□
u(E)	8	#6	8'-1"	□
v1(E)	88	#5	4'-4"	——
v2(E)	12	#5	7'-2"	——
v3(E)	12	#5	12'-1"	——
Concrete Structures			Cu. Yd.	18.3
Reinforcement Bars, Epoxy Coated			Pound	2690
Structure Excavation			Cu. Yd.	86
Furnishing Steel Piles HP10x57			Foot	312
Driving Piles			Foot	312



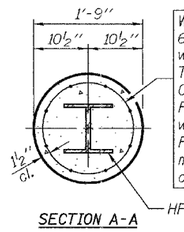
DETAIL A

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

Aug. 31, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

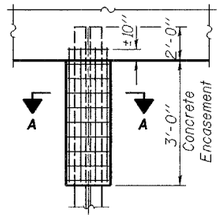


FIELD CUTTING DIAGRAM
Order v3(E) full length. Cut as shown and use remainder of bars in opposite face.

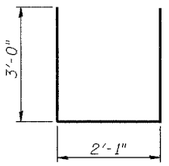


SECTION A-A

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for Encasement may be omitted when soil conditions permit.



PILE ENCASEMENT DETAIL



BAR u(E)

WEST ABUTMENT
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

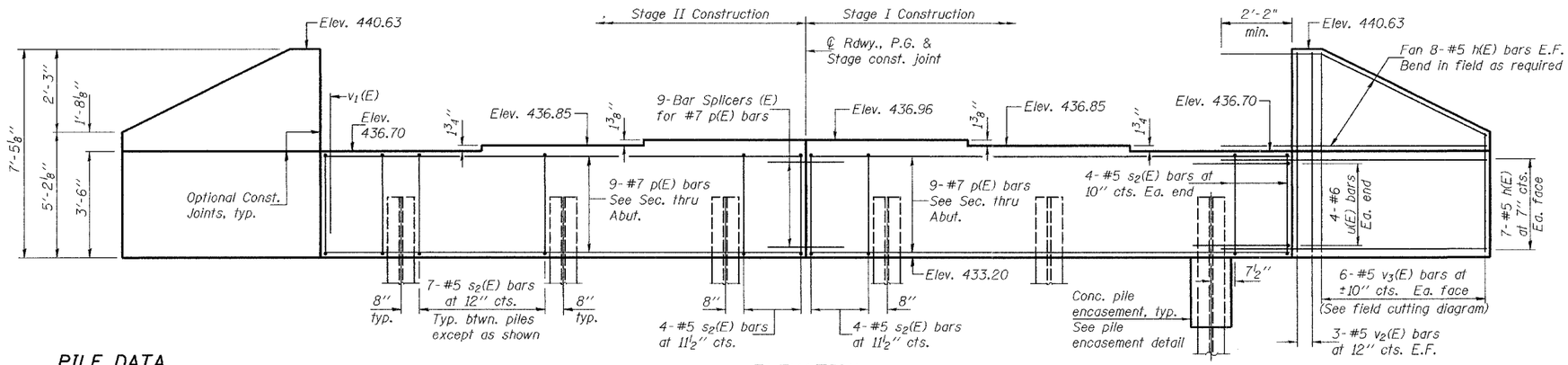
Notes: Pour steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
For anchor bolt installation details see sheet 11 of 17.
For bar splicer assembly details see sheet 15 of 17.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	26
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 13
17 SHEETS

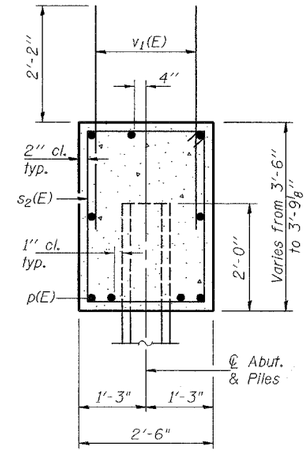
Contract #98957



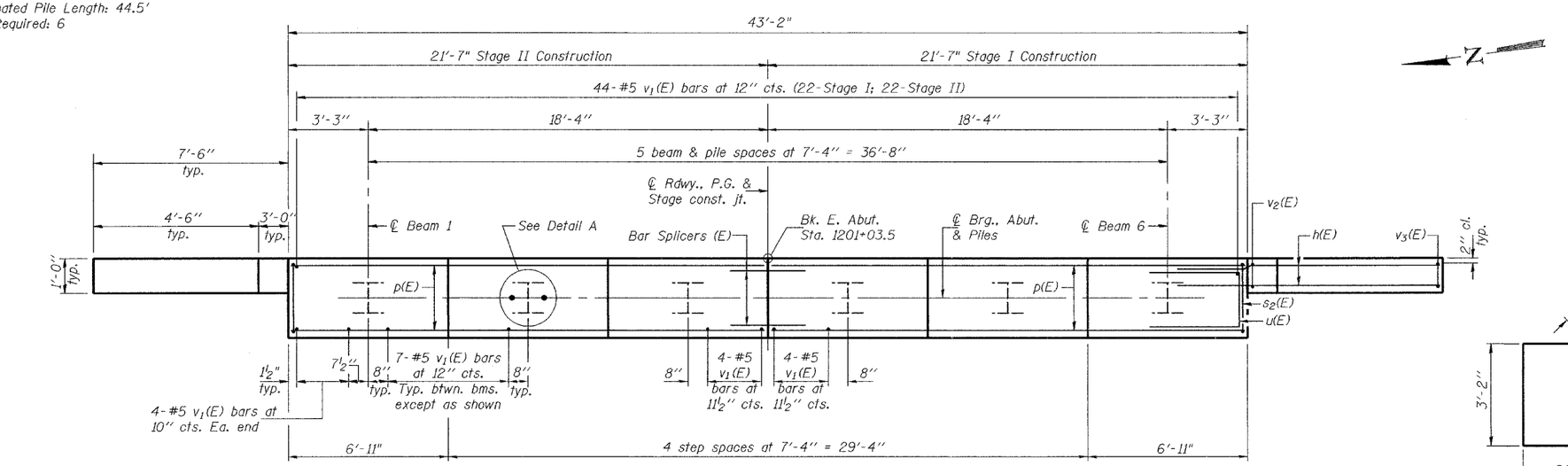
PILE DATA

Type: HP10x57
Nominal Required Bearing: 454 Kips
Factored Resistance Available: 227 Kips
Estimated Pile Length: 44.5'
No. Required: 6

ELEVATION
(Looking east)



SEC. THRU ABUT.

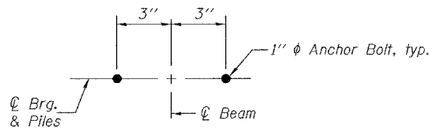


PLAN

BAR s2(E)

BILL OF MATERIAL

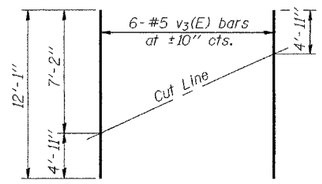
Bar	No.	Size	Length	Shape
h(E)	60	#5	10'-2"	——
p(E)	18	#7	21'-4"	——
s2(E)	44	#5	11'-7"	□
u(E)	8	#6	8'-1"	⊐
v1(E)	88	#5	4'-4"	——
v2(E)	12	#5	7'-2"	——
v3(E)	12	#5	12'-1"	——
Concrete Structures			Cu. Yd.	18.3
Reinforcement Bars, Epoxy Coated			Pound	2690
Structure Excavation			Cu. Yd.	86
Furnishing Steel Piles HP10x57			Foot	267
Driving Piles			Foot	267



DETAIL A

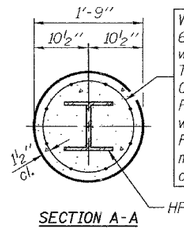
DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

Aug. 31, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



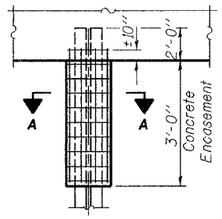
FIELD CUTTING DIAGRAM

Order v3(E) full length. Cut as shown and use remainder of bars in opposite face.

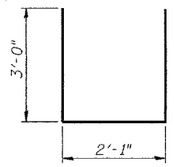


SECTION A-A

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for Encasement may be omitted when soil conditions permit.



PILE ENCASEMENT DETAIL



BAR u(E)

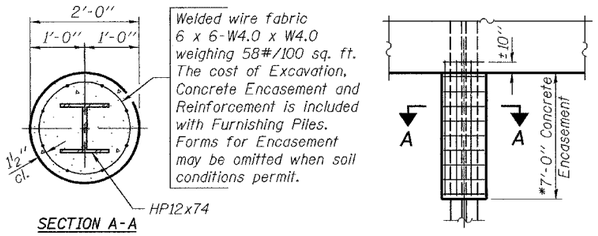
EAST ABUTMENT
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	27
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 14
17 SHEETS

Contract #98957

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



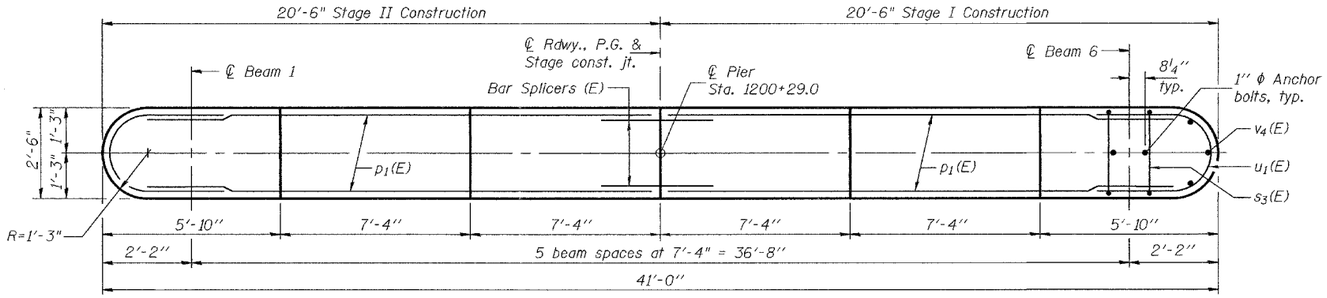
Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for Encasement may be omitted when soil conditions permit.

SECTION A-A

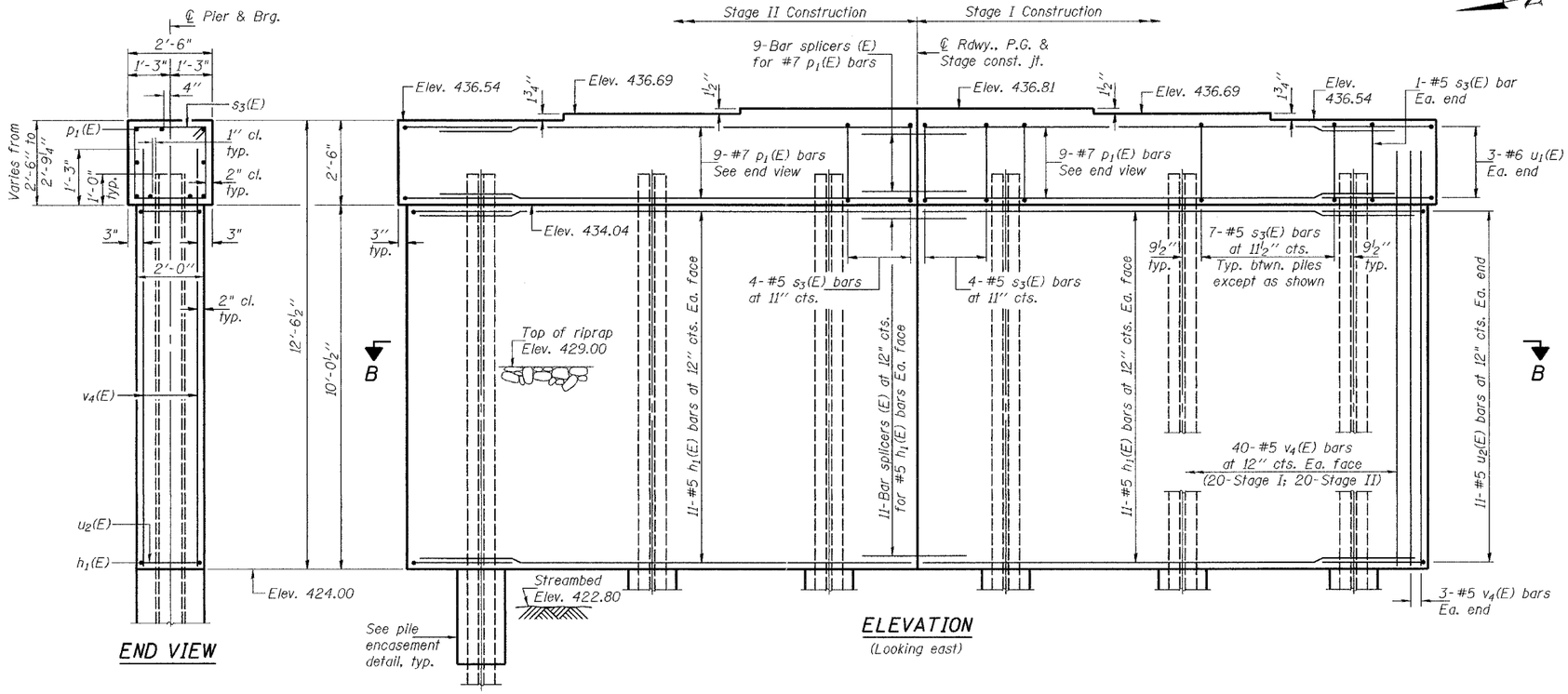
PILE ENCASEMENT DETAIL

PILE DATA

Type: HP12x74
Nominal Required Bearing: 589 Kips
Factored Resistance Available: 294 Kips
Estimated Pile Length: 48.5'
No. Required: 6



TOP PLAN

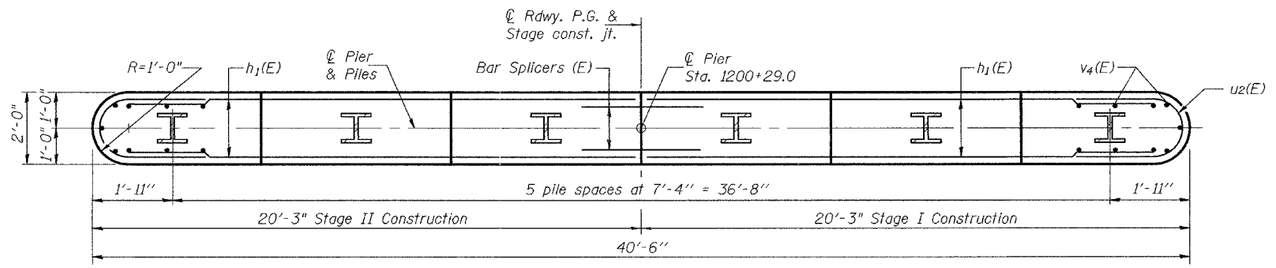


END VIEW

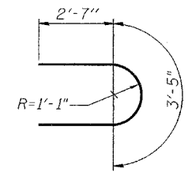
ELEVATION
(Looking east)

* Forms shall be placed below Elev. 424.00 after excavation for pier wall. Reinforcement and concrete encasement shall be poured underwater into forms. The cost of concrete encasement, reinforcement, form excavation, and furnishing and placing form is included with Furnishing Piles. If a portion of the pier wall is under water, concrete shall be tremied under water into forms according to Article 503.08 of the Standard Specifications. Concrete shall be tremied to an elevation 1'-0" above the water level at the time of construction.

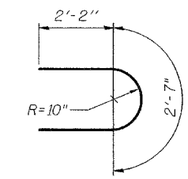
Notes: Pour steps monolithically with cap.
For bar splicer details, see sheet 15 of 17.
For anchor bolt installation details, see sheet 11 of 17.



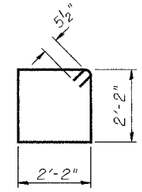
SECTION B-B



BAR $u_1(E)$



BAR $u_2(E)$



BAR $s_3(E)$

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_1(E)$	44	#5	19'-1"	——
$p_1(E)$	18	#7	19'-1"	——
$s_3(E)$	38	#5	9'-7"	□
$u_1(E)$	6	#6	8'-7"	⊃
$u_2(E)$	22	#5	6'-11"	⊃
$v_4(E)$	86	#5	11'-2"	——
Concrete Structures		Cu. Yd.	39.6	
Reinforcement Bars, Epoxy Coated		Pound	3200	
Structure Excavation		Cu. Yd.	31	
Furnishing Steel Piles HP12x74		Foot	291	
Driving Piles		Foot	291	
Underwater Structure Excavation Protection, Location 1		Each	1	

Reinforcement Bars designated (E) shall be epoxy coated.

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

Aug. 31, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

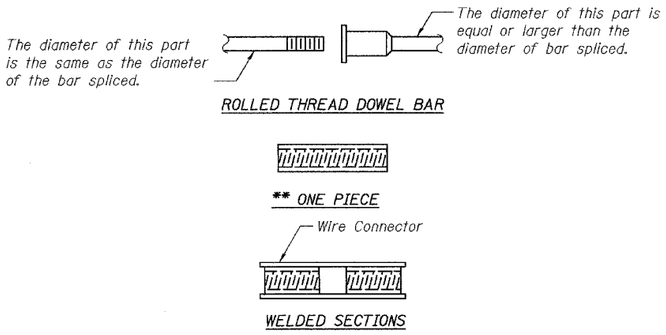
PIER
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

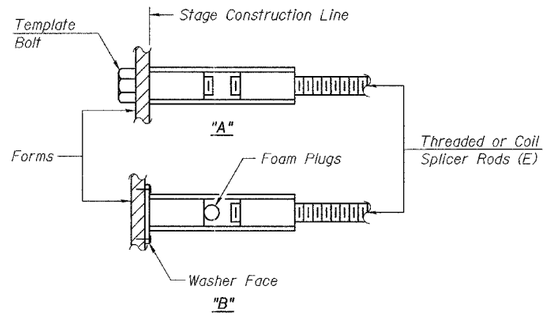
SHEET NO. 15
17 SHEETS

Contract #98957



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

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

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

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

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

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

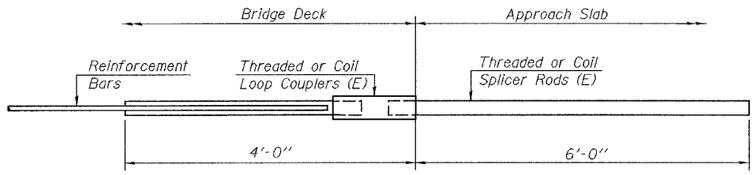
① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

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

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

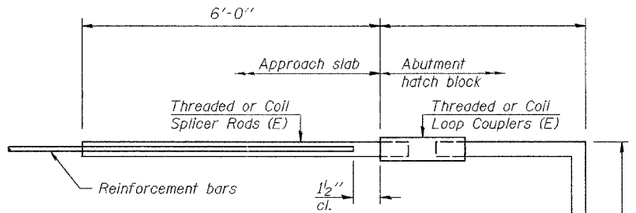
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0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

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



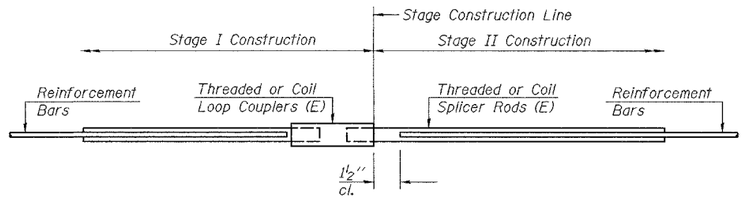
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR PILE BENT ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#5	438	Deck
#5	22	Pier wall
#6	16	Diaphragms
#7	9	W. Abut.
#7	9	E. Abut.
#7	9	Pier cap

DESIGNED	R.L. Tharp
CHECKED	P.R. Litchfield
DRAWN	h.t. duong
CHECKED	RLT/PRL

Aug. 31, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 10-22-04

BAR SPLICER ASSEMBLY DETAILS
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	29
FED. ROAD DIST. NO. ?	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 16
17 SHEETS

Contract #98957

Illinois Department of Transportation
Division of Highways
District 7 Materials

SOIL BORING LOG

Page 1 of 3

Date 10/4/04

ROUTE FAP 821 (IL 15) DESCRIPTION Big Muddy River LOGGED BY E. Sandschafer

SECTION 13B-1 LOCATION N 12, SEC. 33, TWP. 2 S, RNG. 2 E, 3 PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0023
Station 1200+35

BORING NO. 1 (W Abut)
Station 1199+63
Offset 9.50ft Lt
Ground Surface Elev. 439.71 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion Washed ft
After Hrs. samples ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Cored through existing pavement 4" asphalt, 4" CAM & 8" concrete. 438.41			
Soft, very damp, brown, SILTY LOAM.			
-5	1		
	1	0.3	25
	2	B	
	0		
	1	0.5	26
	1	B	
430.21			
-10	0		
Very soft, wet, brown, SILT to SILTY LOAM.	0	0.1	27
	0	B	
	0		
	0	0.1	30
	0	B	
-15	0		
	0	0.1	23
423.91	1	B	
Very soft, very damp, brown to gray, SANDY LOAM.			
	1		
	1	0.1	25
	1	B	
420.21			
-20	1		
Brown, fine grained, SAND. 13% passing #200 sieve. (continued) 419.21	6	1.5	13
	8	S	
Stiff, damp, brown mottled gray, SANDY CLAY LOAM. 417.71			
Gray, SILTY LOAM w/one 1" sand lense. 416.71	7		
	7	2.1	15
Very stiff, damp, gray, SANDY CLAY TILL.	7	B	
-25	7		
	11	3.5	13
	16	S	
412.71			
Very stiff to hard, damp, gray, SILTY LOAM w/two 1" sand lenses.	9		
	11	4.0	18
	15	S	
410.21			
-30	1		
Dense, damp, gray, medium grained, SAND. 3% passing #200 sieve.	14		23
	21		
405.21			
-35	23		
Very stiff, damp, gray, SANDY CLAY LOAM TILL w/few sandstone fragments.	33	3.8	14
	50/4"	S	
400.21			
-40	13		

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)

Illinois Department of Transportation
Division of Highways
District 7 Materials

SOIL BORING LOG

Page 2 of 3

Date 10/4/04

ROUTE FAP 821 (IL 15) DESCRIPTION Big Muddy River LOGGED BY E. Sandschafer

SECTION 13B-1 LOCATION N 12, SEC. 33, TWP. 2 S, RNG. 2 E, 3 PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0023
Station 1200+35

BORING NO. 1 (W Abut)
Station 1199+63
Offset 9.50ft Lt
Ground Surface Elev. 439.71 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion Washed ft
After Hrs. samples ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Hard, very moist, gray, CLAY LOAM TILL (continued)	21	5.5	12
	29	B	
395.21			
-45	21		
Very stiff, very moist, gray, SANDY LOAM TILL.	29	2.5	13
	50	S	
390.21			
-50	32		
Brown, SANDY LOAM. 389.41	50/5"		10
Very dense, moist, gray, CLAY SHALE. 389.01	50/2"		
Borehole continued with rock coring.			
-55			
-60			

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

Illinois Department of Transportation
Division of Highways
District 7 Materials

ROCK BORING LOG

Page 3 of 3

Date 10/4/04

ROUTE FAP 821 (IL 15) DESCRIPTION Big Muddy River LOGGED BY E. Sandschafer

SECTION 13B-1 LOCATION N 12, SEC. 33, TWP. 2 S, RNG. 2 E, 3 PM

COUNTY Jefferson CORING METHOD Rotary, surf set diamond bit NW, conv dbl bbl,

STRUCT. NO. 041-0023
Station 1200+35

CORING BARREL TYPE & SIZE split inner

BORING NO. 1 (W Abut)
Station 1199+63
Offset 9.50ft Lt
Ground Surface Elev. 439.71 ft

Core Diameter 2.06 in
Top of Rock Elev. 389.01 ft
Begin Core Elev. 389.01 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, moderately weathered, CLAY SHALE 389.01		100	67	1.4	
Brown, fractured, CHERT. 388.91					
Gray, moderately weathered, CLAY SHALE. 388.11					
-55					
		100	81	1.8	
380.41					
Brown, fractured, CHERT w/quartz. 380.21					
-60					
Gray, moderately weathered, CLAY SHALE. 379.01					
Extent of exploration.					
-65					
-70					

Benchmark: BM 204 Sta 1201+10, 33.5'ft, Elevation = 439.56'. "Square" Chiseled in SE corner of 6' X 6' Conc. pad for Streamflow Monitoring Station.

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

BORING LOGS
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 821	13B-1	JEFFERSON	39	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 17
17 SHEETS

Contract #98957

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, District 7 Materials

Page 1 of 2 — Date 10-5-04

ROUTE FAP 821 (IL 15) DESCRIPTION Big Muddy River LOGGED BY E. Sandschafer

SECTION 13B-1 LOCATION N 12, SEC. 33, TWP. 2 S, RNG. 2 E, 3 PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0023
Station 1200+35

BORING NO. 2 (W Pier)
Station 1200+16
Offset 59.00ft Rt
Ground Surface Elev. 433.59 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion 420.9 ft
After 24 Hrs. 427.1 ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Topsoil, very silty. 433.09
				Brown, SILTY LOAM w/hair roots.
	4			
				Sample pokerchipped, unable to test for Qu.
	4		19	
	6			
				429.09
-5	3			Medium, damp, brown, CLAY LOAM w/one 1/2" sand lense.
	4	0.8	19	
	4	B		
				426.59
	4			Loose to soft, damp, brown to gray, SILTY LOAM.
	5		17	
	6			
-10	0			
	0	0.4	31	
	1	B		
				421.59
	1			Stiff, damp, brown mottled gray, SANDY CLAY LOAM.
	5	1.5	16	
	13	BS		
				420.29
				Brown, SANDY LOAM.
				419.09
-16	11			Brown, fine grained, SAND. 27% passing #200 sieve. 418.59
	10	3.9	13	
	13	S		Very stiff, damp, gray, SANDY CLAY LOAM w/some pebbles.
				416.59
	7			Hard, damp, gray, SANDY CLAY TILL.
	11	4.4	11	
	14	B		
				414.09
-20	12			

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Stiff, damp, gray, SANDY LOAM TILL w/many 1/4" crushed aggregate. (continued)
	20	1.7	11	
	25	S		
				411.59
	16			Very stiff, damp, gray, SANDY CLAY TILL.
	23	3.9	12	
	32	S		
				409.09
-25	21			Very dense to stiff, damp, gray, SANDY LOAM TILL.
	41		13	
	50/4"			
				404.09
-30	24			Hard, very moist, gray, SANDY CLAY TILL.
	38	5.6	12	
	50	S		
				399.09
-35	15			Hard, very moist, gray, CLAY TILL w/sand.
	20	5.1	13	
	27	B		
-40	24			

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

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, District 7 Materials

Page 2 of 2 — Date 10-5-04

ROUTE FAP 821 (IL 15) DESCRIPTION Big Muddy River LOGGED BY E. Sandschafer

SECTION 13B-1 LOCATION N 12, SEC. 33, TWP. 2 S, RNG. 2 E, 3 PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0023
Station 1200+35

BORING NO. 2 (W Pier)
Station 1200+16
Offset 59.00ft Rt
Ground Surface Elev. 433.59 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion 420.9 ft
After 24 Hrs. 427.1 ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				393.09
	50/2"		18	
	50/2"			Very dense, water bearing, GRAVELLY SAND. 30% passing #200 sieve. Operator noted 12' of water in hole after sampling. 392.59
				Very dense, moist, gray, CLAY SHALE.
				388.49
-45	50/4"			Extent of exploration.
	50/1"		8	
	50/1"			

Benchmark: BM 204 Sta 1201+10, 33.5'R, Elevation = 439.56'. "Square" Chiseled in SE Corner of 6' X 6' Conc. pad for Streamflow Monitoring Station.

-50 -55 -60

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

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, District 7 Materials

Page 1 of 2 — Date 10-6-04

ROUTE FAP 821 (IL 15) DESCRIPTION Big Muddy River LOGGED BY E. Sandschafer

SECTION 13B-1 LOCATION N 12, SEC. 33, TWP. 2 S, RNG. 2 E, 3 PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0023
Station 1200+35

BORING NO. 3 (E Abut)
Station 1201+10
Offset 30.00ft Lt
Ground Surface Elev. 439.49 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion Washed ft
After 24 Hrs. 426.1 ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Topsoil 439.19
				Hard, very moist, brown mottled gray, CLAY LOAM.
	43			
	22	+4.5	10	
	18	PP		
				434.99
-5	4			Medium, damp, brownred, SANDY LOAM.
	6	0.9	13	
	6	S		
	4			
	7	0.9	13	
	11	S		
-10	7			
	9	0.5	13	
	12	S		
	4			
				426.69
	3		17	Loose to medium, very damp to wet, red, fine grained, SAND. 27% passing #200 sieve.
	7			
-15	6			
	7		21	11% passing #200 sieve.
	8			
	4			
	6	1.7	15	5% passing #200 sieve. 421.69
	10	S		Stiff, damp, gray, SANDY LOAM.
				419.99
-20	8			419.49

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
	18	4.5	11	Hard to very stiff, damp, gray, SANDY LOAM TILL /SANDY CLAY TILL.
	19	S		
	10			
	19	6.5	9	
	30	S		
-25	10			
	27	0.9	12	
	29	S		
	19			
	37	5.6	10	
	50	S		
-30	30			
	50	2.9	10	
	50/4"	S		
-35	28			
	43	3.2	11	
	50/4"	S		
				399.49
-40	10			Extremely hard drilling. Wood fragments and coal present in sample.

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)

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, District 7 Materials

Page 2 of 2 — Date 10-6-04

ROUTE FAP 821 (IL 15) DESCRIPTION Big Muddy River LOGGED BY E. Sandschafer

SECTION 13B-1 LOCATION N 12, SEC. 33, TWP. 2 S, RNG. 2 E, 3 PM

COUNTY Jefferson DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 041-0023
Station 1200+35

BORING NO. 3 (E Abut)
Station 1201+10
Offset 30.00ft Lt
Ground Surface Elev. 439.49 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion Washed ft
After 24 Hrs. 426.1 ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
	20	4.4	12	Hard to very stiff, very moist, gray, SANDY CLAY TILL /SANDY LOAM TILL.
	29	BS		
-45	31			
	48	2.1	13	
	50/2"	S		
				389.69
-50	40			
	50/2"	2.0	8	Stiff to very stiff, moist, gray, CLAY LOAM SHALE. 389.09
	50/2"	S		Extent of exploration.

Benchmark: BM 204 Sta 1201+10, 33.5'R, Elevation = 439.56'. "Square" Chiseled in SE Corner of 6' X 6' Conc. pad for Streamflow Monitoring Station.

-55 -60

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

BORING LOGS
F.A.P. RT. 821 - SECTION 13B-1
JEFFERSON COUNTY
STATION 1200+35.00
STRUCTURE NO. 041-0106

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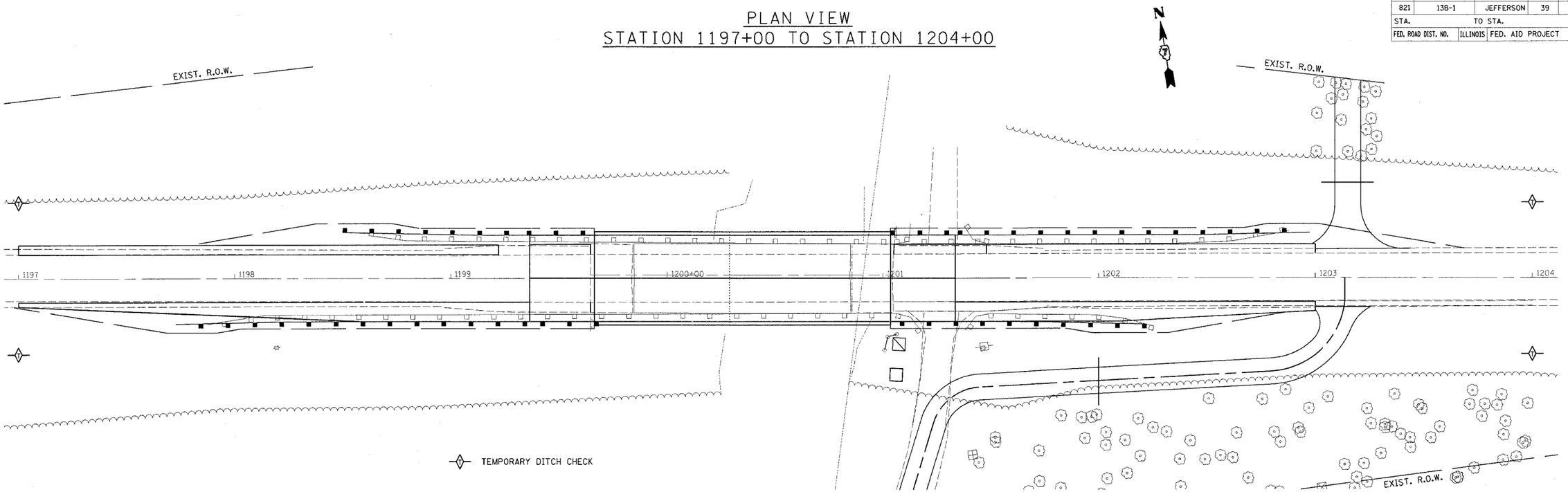
CONTRACT NO. 98957

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	138-1	JEFFERSON	39	31
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN VIEW
STATION 1197+00 TO STATION 1204+00



EROSION CONTROL GENERAL NOTES

EROSION CONTROL MEASURES AT THE START OF CONSTRUCTION:

1. THE AREAS OF EXCAVATION AND EMBANKMENT PLACEMENT SHALL BE MANAGED FOR THE PURPOSES OF CONTROLLING EROSION WITHIN THE IMPROVEMENT AREA, REDUCING WATER FLOW BY TEMPORARY DIVERSION, MINIMIZING SILTATION AT THE RIGHT-OF-WAY LINE, AND ESTABLISHING VEGETATIVE COVER WHICH WILL BECOME PERMANENT VEGETATION AND ACT AS AN EROSION CONTROL BARRIER. WORK AT THE START OF CONSTRUCTION SHALL CONSIST OF THE FOLLOWING:

   (a) AREAS OF EXISTING VEGETATION (WOODS AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED FOR PRESERVING AND SHALL BE PROTECTED FROM MOWING, BRUSH CUTTING, TREE REMOVAL, AND OTHER ACTIVITIES THAT WOULD BE DETRIMENTAL TO THEIR MAINTENANCE AND DEVELOPMENT.

   (b) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

   (c) BARE AND SPARSELY VEGETATED GROUND IN HIGHLY ERODIBLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE START OF CONSTRUCTION WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN CALENDAR DAYS.

EROSION CONTROL MEASURES DURING CONSTRUCTION:

1. DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED FROM DAMAGING EFFECTS OF CONSTRUCTION. THE CONTRACTOR SHALL NOT USE THIS AREA FOR PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.

   (a) WITHIN THE CONSTRUCTION ZONE, CRITICAL AREAS WHICH HAVE A HIGH FLOW OF WATER, AS DETERMINED BY THE ENGINEER, SHALL REMAIN UNDISTURBED UNTIL CONTINUOUS OPERATIONS CAN ENSURE TIMELY COMPLETION OF WORK IN THESE AREAS TO MINIMIZE SOIL EROSION.

   (b) EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN CALENDAR DAYS.

EROSION CONTROL MEASURES AFTER FINAL GRADING:

1. EXCAVATION AND EMBANKMENT AREAS SHALL BE PERMANENTLY SEEDED WHEN FINAL GRADE. EROSION CONTROL BLANKET SHALL BE PLACED ON ALL DISTURBED AREAS.

   (a) TEMPORARY EROSION CONTROL SYSTEMS SHALL REMAIN IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY WITH ALL PROPOSED TURF AREAS SEEDED AND A PROPER STAND ESTABLISHED.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL DETAIL

SCALE: VERT. HORIZ.

DATE

DRAWN BY

CHECKED BY

PLOT DATE = 8/23/2006
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = district

CONTRACT NO. 98957

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	32
STA. 1196+50		TO STA. 1197+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

EXISTING R.O.W.

434.30 439.71 432.67

5:1 5:1

C=5
F=19

1197+00

EXISTING R.O.W.

434.47

5:1

C=4
F=13

1196+75

EXISTING R.O.W.

1196+50

EXISTING R.O.W.

EXISTING R.O.W.

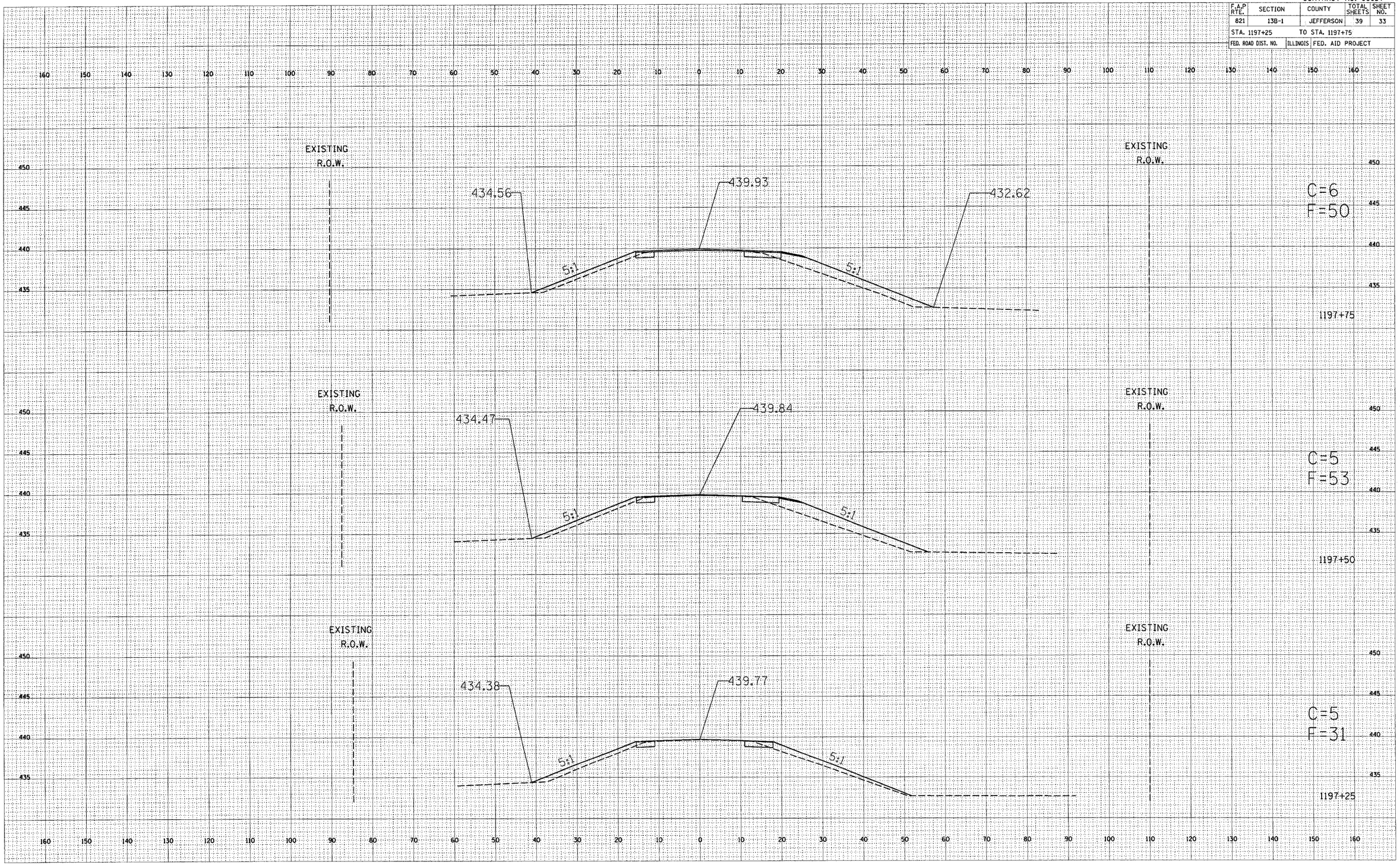
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

450 445 440 435

PLOT DATE = #DATE#
FILE NAME = #FILE1#
PLOT SCALE = #SCALE#
USER NAME = #USER#

CONTRACT NO. 98957

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	33
STA. 1197+25		TO STA. 1197+75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

CONTRACT NO. 98957

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	34
STA. 1198+00		TO STA. 1198+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

PLOT DATE = $DATE$
FILE NAME = $FILE1$
PLOT SCALE = $SCALE$
USER NAME = $USER#

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

450 445 440 435

EXISTING R.O.W.

434.29

440.29

5:1

5:1

C=5
F=113

1198+50

EXISTING R.O.W.

434.43

440.15

432.74

5:1

5:1

C=5
F=82

1198+25

EXISTING R.O.W.

434.61

440.03

432.95

5:1

5:1

C=5
F=52

1198+00

EXISTING R.O.W.

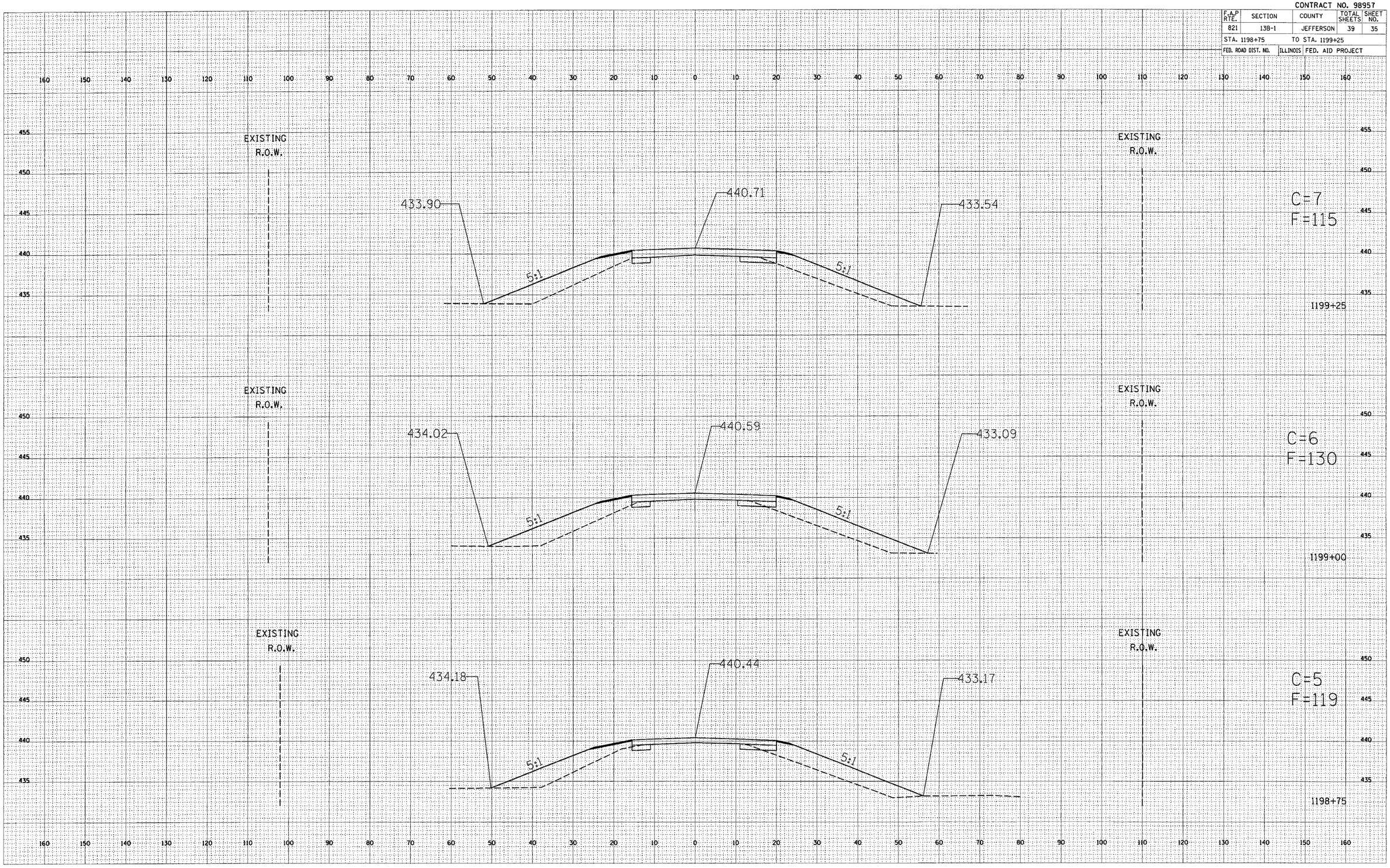
CONTRACT NO. 98957

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	35
STA. 1198+75		TO STA. 1199+25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

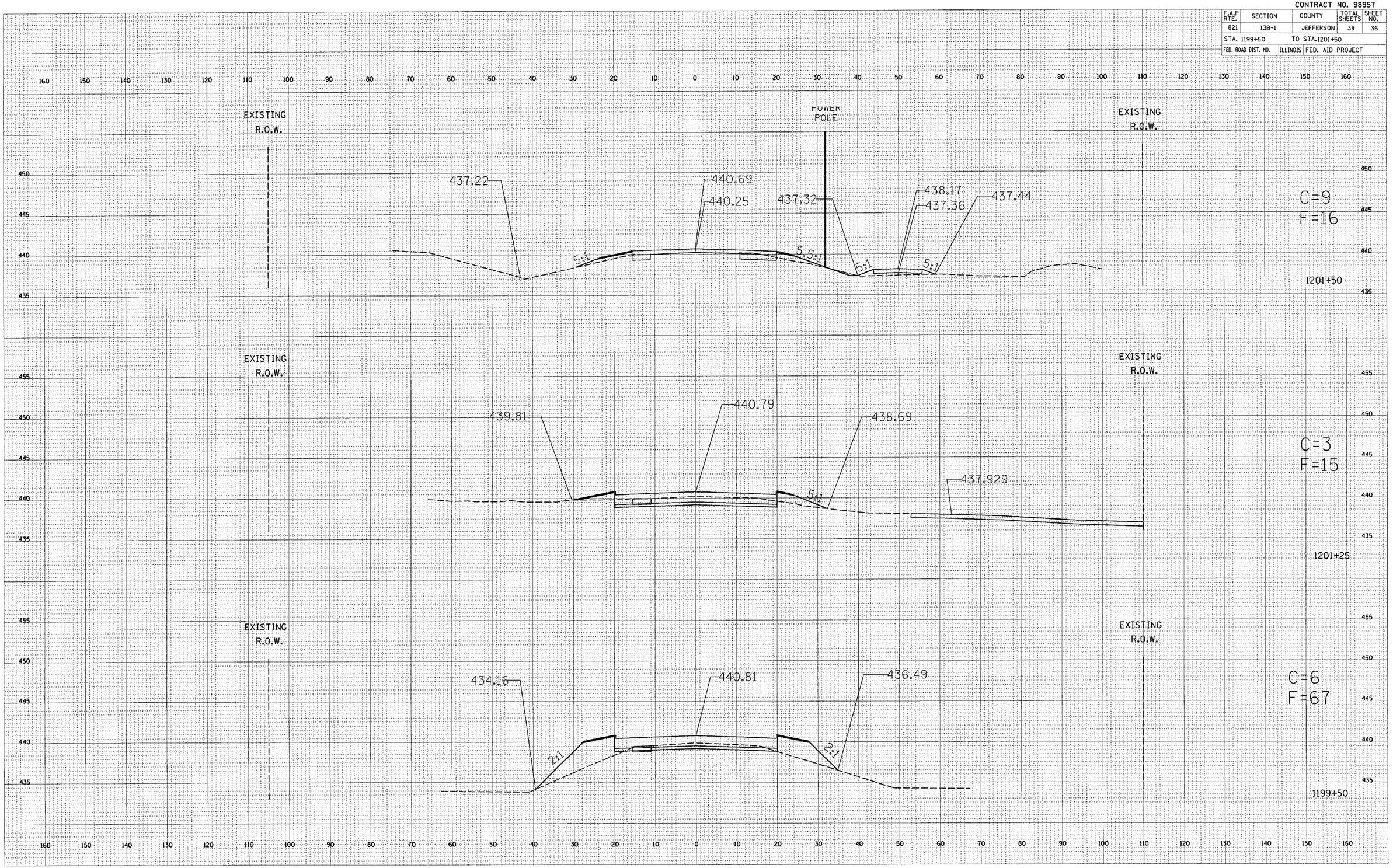
ORIGINAL SURVEY? NOTE BOOK NO.
SURVEYED PLOTTED TEMPLATE AREAS CROSS CHECKED
BY DATE

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#



CONTRACT NO. 98957

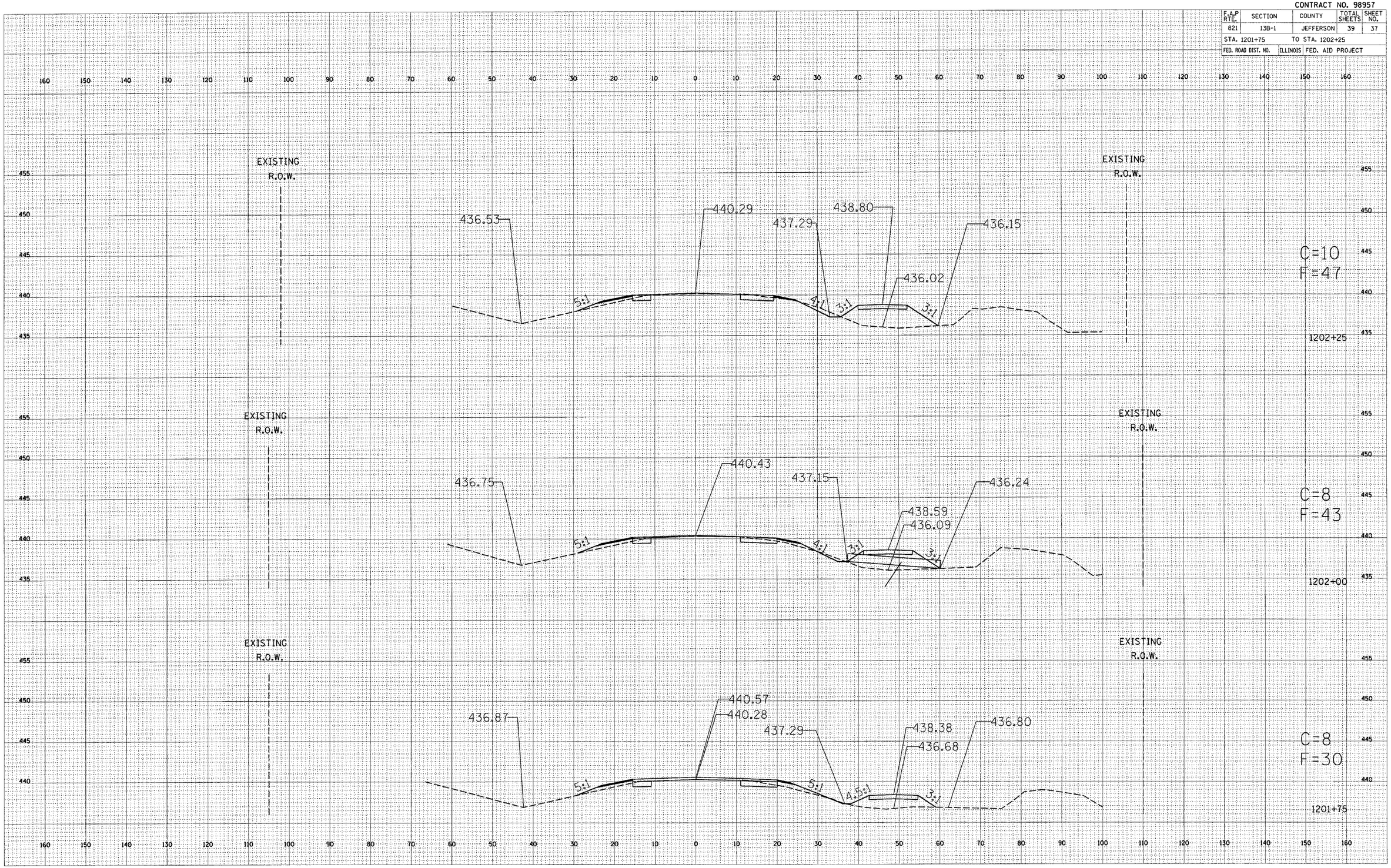
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	36
STA. 1199+50		TO STA.1201+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

CONTRACT NO. 98957

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	37
STA. 1201+75		TO STA. 1202+25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



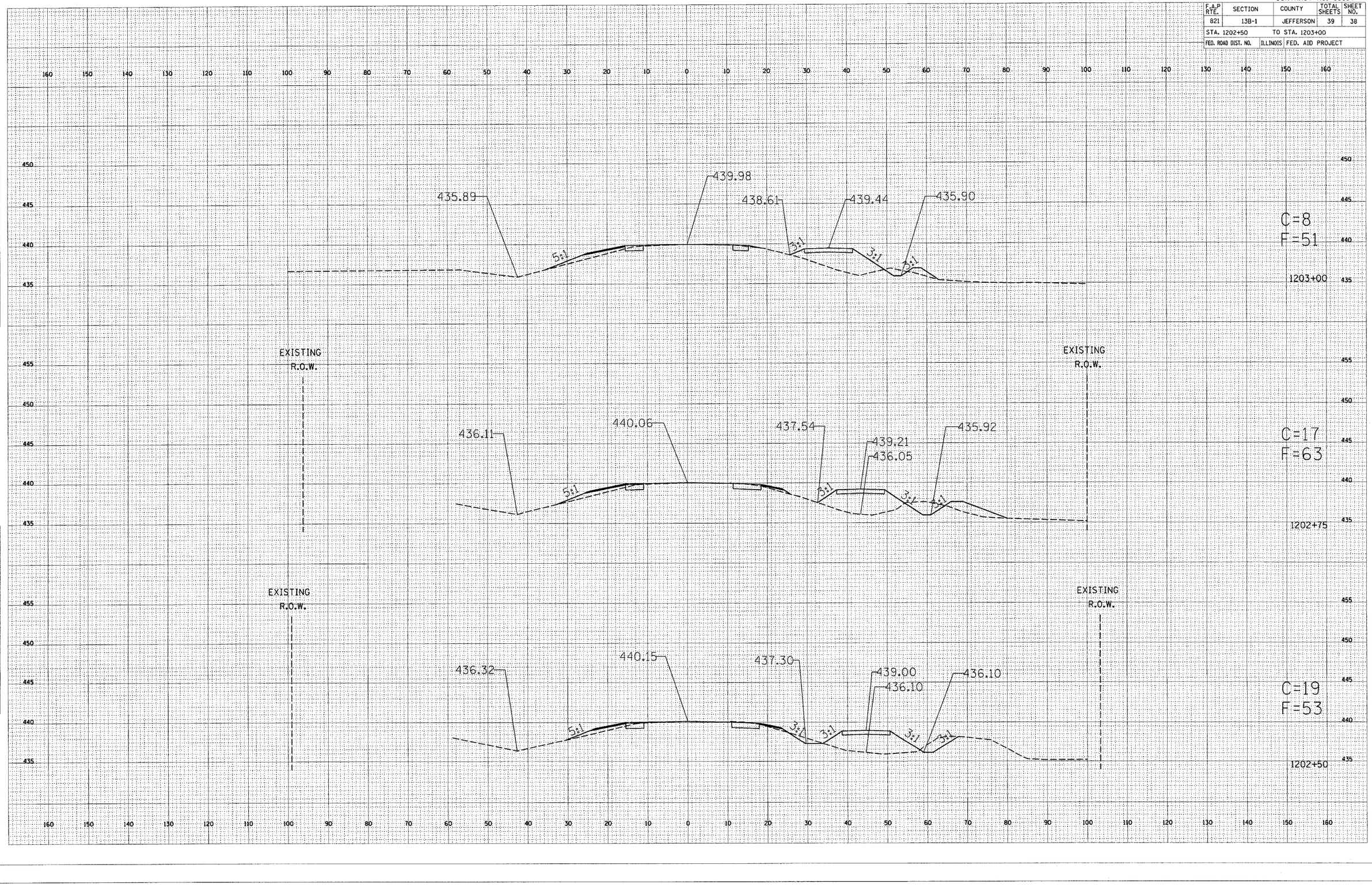
FINAL SURVEY	NOTE BOOK	NO.
ORIGINAL SURVEY	NOTE BOOK	NO.

SURVEYED	BY
PLOTTED	DATE
TEMPLATE	
AREAS	
AREAS	CHECKED

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER#

CONTRACT NO. 98957

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	38
STA. 1202+50		TO STA. 1203+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = #DATE#
FILE NAME = #FILE1#
FILE NAME = #FILE2#
USER NAME = #USER#

CONTRACT NO. 98957

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	13B-1	JEFFERSON	39	39
STA. 1203+15	TO STA. 1203+50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

EXISTING R.O.W.

EXISTING R.O.W.

1203+50

EXISTING R.O.W.

435.72

435.32

EXISTING R.O.W.

C=0
F=1

1203+25

EXISTING R.O.W.

435.79

435.57

6.0 %

15" PIPE CULVERT

C=2
F=3

1203+15