CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	1

INDEX OF SHEETS

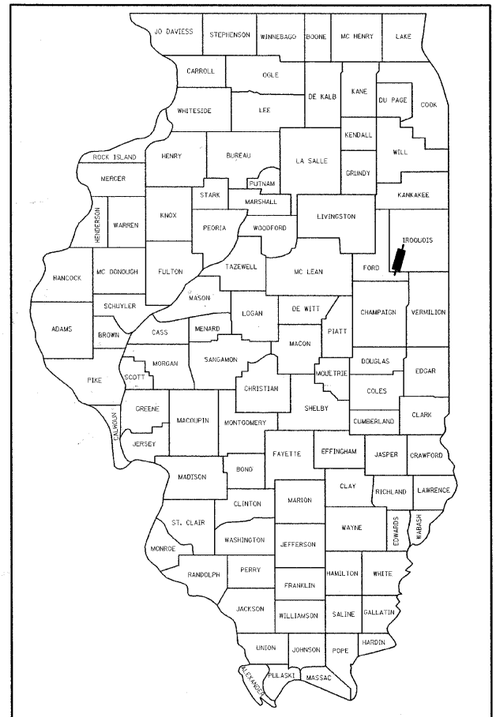
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

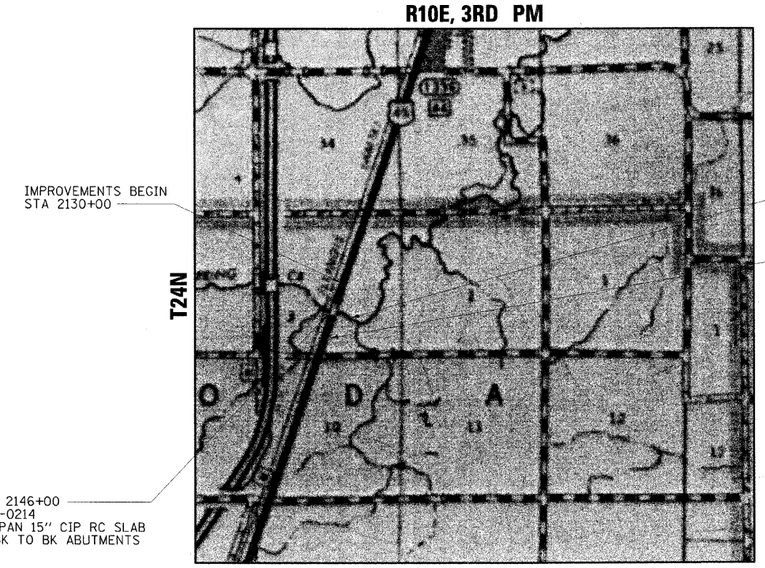
FAS ROUTE 338 (US 45)
SECTION 34BR
PROJECT ACRS-ACBRS-0338(106)
IROQUOIS COUNTY
C – 93 – 012 – 06

US ROUTE 45 OVER SPRING CREEK
STRUCTURE REPLACEMENT

P-93-055-00
D-93-011-06



LOCATION OF SECTION INDICATED THUS: –■–



LOCATION MAP

SCALE
0 1 2 3 MILES
0 5000 10000 15000 FEET

GROSS LENGTH = 2000 FT. = 0.38 MI.
NET LENGTH = 2000 FT. = 0.38 MI.

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR (NON URBAN)
DESIGN SPEED: 55 mph
POSTED SPEED: 55 mph
ADT: 2500 (2007)
PV: 83.3%
SU: 10.7%
MU: 6.0%

DESIGN DESIGNATION
N.A.

0 20 40 60
SCALE IN FEET – PLAN & PROFILE

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

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

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

DISTRICT 3 NO. (815) 434–6131

PROJECT ENGINEER: JOE KANNEL
UNIT CHIEF: PAT BRABOY
TOWNSHIP: LODA
CONTRACT NO.: 66610

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

RICHARD D. PAYNE 37421 LICENSED PROFESSIONAL ENGINEER OF STATE OF ILLINOIS

Richard D. Payne DATE: 04/14/06
ILLINOIS PROFESSIONAL LICENSE NO. 37421
(EXPIRATION DATE: 11–30–06)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED _____ 20 _____

George Ryman
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 3, 20 08
Eric E. Harm /D
Interim ENGINEER OF DESIGN AND ENVIRONMENT

October 3, 20 08
Christine M. Reed /D
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
420001-07	PAVEMENT JOINTS
420401-06	BRIDGE APPROACH PAVEMENT
420501-03	PCC PAVEMENT AND PCC BASE COURSE ADJACENT TO RR GRADE CROSSING
515001-02	NAME PLATE FOR BRIDGES
601101	CONCRETE HEADWALL FOR PIPE DRAINS
609001-03	BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN
609006-03	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-07	STEEL PLATE BEAM GUARDRAIL
630201-05	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701001-01	OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5 m (15') AWAY
701006-02	OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701011-01	OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-01	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-09	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901	TRAFFIC CONTROL DEVICES
704001-04	TEMPORARY CONCRETE BARRIER
720001	SIGN PANEL MOUNTING DETAILS
720006-01	SIGN PANEL ERECTION DETAILS
720011	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
729001	APPLICATIONS OF TYPE A AND B METAL POSTS (FOR SIGNS & MARKERS)
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

1. THE TOP 6" OF TOPSOIL SHALL BE STRIPPED FROM ALL AREAS WITHIN THE CONSTRUCTION LIMITS OUTSIDE OF THE PROPOSED ABUTMENTS. THIS MATERIAL SHALL BE STOCKPILED AT A LOCATION APPROVED BY THE ENGINEER AND REPLACED AFTER MAJOR GRADING OPERATIONS ARE COMPLETE. THIS WORK WILL BE PAID FOR AS TOPSOIL EXCAVATION AND PLACEMENT.
2. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.
3. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
4. ALL SAWCUTTING OF EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE MINIMUM SAW DEPTH IN THE PAVEMENT SHALL BE 1½" UNLESS OTHERWISE NOTED.
5. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
6. THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IN PLACED.
7. BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.
8. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
9. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05 TON/CU YD
BITUMINOUS MATERIALS PRIME COAT	0.08 GAL/SQ YD
AGGREGATE PRIME COAT	0.002 TONS/SQ YD
BITUMINOUS CONCRETE	112 LBS/SQ YD/INCH
SHORT TERM PAVEMENT MARKING	10 FT/100 FT OF APPLICATION

10. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
11. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED. CLASS 7 MODIFIED SHALL BE USED ON THE WEST SIDE OF US 45 AS SHOWN ON THE EROSION CONTROL AND DRAINAGE PLANS. SEEDING SHALL BE CLASS 2A IN ALL OTHER AREAS. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.
13. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.
14. ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS. REPLACEMENT TREES SHALL BE PLANTED ON THE EAST SIDE OF US 45 AT LOCATIONS DESIGNATED BY THE ENGINEER.
15. SKIP-DASH LINES FOR PAINT PAVEMENT MARKING AND TEMPORARY PAVEMENT MARKING SHALL BE 6" WIDE.
16. EXCELSIOR BLANKET SHALL BE USED AT ALL EROSION CONTROL BLANKET LOCATIONS.
17. THE CONCRETE PAD AND THE APPROACH PAVEMENT CONNECTOR SHOWN ON STANDARD 420401 SHALL NOT BE CONSTRUCTED. SEE THE DETAIL IN THE PLANS AND THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
18. BASE COURSE WIDENING ON THE WEST SIDE OF US 45 MAY BE SAWCUT AND PARTIALLY REMOVED TO LIMIT THE CORING DEPTH REQUIRED FOR THE PERMANENT GUARDRAIL INSTALLATION. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE GUARDRAIL OR TERMINAL ITEM INVOLVED.
19. LARGE AREAS OF TEMPORARY RAMP ARE REQUIRED DUE TO THE LARGE ELEVATION DIFFERENCE BETWEEN THE PROPOSED AND EXISTING PAVEMENTS. THE CONTRACTOR MAY CONSTRUCT A PORTION OF THE BITUMINOUS CONCRETE BINDER COURSE TO REDUCE THE QUANTITY OF TEMPORARY RAMP AS DIRECTED BY THE ENGINEER. RAMPS SHALL BE CONSTRUCTED ACCORDING TO SECTION 406 OF THE STANDARD SPECIFICATIONS AND HAVE A MINIMUM TAPER RATE OF 1:40 (V:H).

GENERAL NOTES (CONT.)

20. BASE COURSE WIDENING EXCEEDING 6' IN WIDTH WILL BE PAID FOR AS BASE COURSE WIDENING.
21. AGGREGATE (PRIME COAT): FA 20 MAY BE USED IN ADDITION TO THE GRADATIONS LISTED IN THE 2ND PARAGRAPH OF ARTICLE 1003.03(c).
22. ADDITIONAL QUANTITIES ARE PROVIDED TO DEAL WITH EXISTING FIELD TILE AND SHALL BE USED AS DIRECTED BY THE ENGINEER. SOME OR ALL OF THESE QUANTITIES MAY BE DELETED FROM THE CONTRACT.
23. THE HIGH VISIBILITY TEMPORARY FENCING SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE CONSTRUCTION LIMITS SO AS TO MINIMIZE IMPACTS TO PRAIRIE REMNANTS.

COMMITMENTS

THERE IS A PRAIRIE REMNANT 10' FROM THE EDGE OF PAVEMENT ALONG THE WEST SIDE OF THE ROAD. IN ORDER TO PROTECT THE PRAIRIE, NO PARKING OF VEHICLES OR STORAGE OF EQUIPMENT OR MATERIALS SHOULD OCCUR ON THE WEST SIDE OF US 45. THE WEST SIDE OF THE ROAD ALSO HAS THREE JURISDICTIONAL WETLANDS WITHIN THE PROJECT AREA. THIS AREA WILL BE FENCED OFF WITH TEMPORARY FENCE TO MINIMIZE ANY DISTURBANCES. AFTER CONSTRUCTION, THE DISTURBED AREA WILL BE SEEDED WITH TEMPORARY TURF COVER MIXTURE CLASS 7 MODIFIED (SUBSTITUTE PERENNIAL RYEGRASS WITH ANNUAL RYEGRASS) AND MULCH USING MULCH METHOD 2, PROCEDURE 2.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

REVIEWED BY: R. Powell
DISTRICT STUDIES & PLANS ENGINEER

DATE: 8-18-08

EXAMINED BY: Herb Jung
DISTRICT CONSTRUCTION ENGINEER

Bruce A. Hoch
DISTRICT OPERATIONS ENGINEER

Wayne Phillips
DISTRICT MATERIALS ENGINEER

ESCA CONSULTANTS, INC.

DESIGNED BY:	ELH	7/05
DRAWN BY:	JDK	7/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

EP 05200

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GENERAL NOTES,
STANDARDS, AND COMMITMENTS
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

80/20 FED/STATE

CODE NO.	ITEM	UNIT	CONSTRUCTION TYPE CODE ACBRS X020-2A	CONSTRUCTION TYPE CODE ACRS 1000	TOTAL
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT		24	24
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT		20	20
20200100	EARTH EXCAVATION	CU YD		1050	1050
20300100	CHANNEL EXCAVATION	CU YD		570	570
20400800	FURNISHED EXCAVATION	CU YD		1370	1,370
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	54		54
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD		1470	1470
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD		1130	1130
21301052	EXPLORATION TRENCH 52" DEPTH	FOOT		200	200
25000210	SEEDING, CLASS 2A	ACRE		1.6	1.6
25000400	NITROGEN FERTILIZER NUTRIENT	POUND		180	180
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND		180	180
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND		180	180
25001850	SEEDING, CLASS 7 (MODIFIED)	ACRE		0.4	0.4
25100115	MULCH, METHOD 2	ACRE		2.0	2.0
25100630	EROSION CONTROL BLANKET	SQ YD		370	370
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND		400	400
28000300	TEMPORARY DITCH CHECKS	EACH		4	4
28000400	PERIMETER EROSION BARRIER	FOOT		2460	2460
28000500	INLET AND PIPE PROTECTION	EACH		2	2
28100107	STONE RIPRAP, CLASS A4	SQ YD	500		500
35100100	AGGREGATE BASE COURSE, TYPE A	TON		100	100
35650500	BASE COURSE WIDENING 10"	SQ YD		502	502
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON		787	787
40600300	AGGREGATE (PRIME COAT)	TON		20	20
40600990	TEMPORARY RAMP	SQ YD		505	505
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON		16	16
42001300	PROTECTIVE COAT	SQ YD		228	228
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD		224	224
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD		369	369
44000100	PAVEMENT REMOVAL	SQ YD		170	170
48101200	AGGREGATE SHOULDERS, TYPE B	TON		325	325
48203100	HOT-MIX ASPHALT SHOULDERS	TON		452	452
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50104400	CONCRETE HEADWALL REMOVAL	EACH		4	4
50105220	PIPE CULVERT REMOVAL	FOOT		87	87
50200100	STRUCTURE EXCAVATION	CU YD	177		177
50300100	FLOOR DRAINS	EACH	8		8
50300225	CONCRETE STRUCTURES	CU YD	108.8		108.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	182.4		182.4

SUMMARY OF QUANTITIES

80/20 FED/STATE

CODE NO.	ITEM	UNIT	CONSTRUCTION TYPE CODE ACBRS X020-2A	CONSTRUCTION TYPE CODE ACRS 1000	TOTAL
50300260	BRIDGE DECK GROOVING	SQ YD	314		314
50300300	PROTECTIVE COAT	SQ YD	413		413
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	54980		54980
51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	1090		1090
51202305	DRIVING PILES	FOOT	1090		1,090
51203200	TEST PILE METAL SHELLS	EACH	4		4
51500100	NAME PLATES	EACH	1		1
54213447	END SECTIONS 12"	EACH		4	4
54213450	END SECTIONS 15"	EACH		2	2
54213453	END SECTIONS 18"	EACH		2	2
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT		34	34
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT		46	46
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	36		36
60100925	PIPE DRAINS 8"	FOOT		20	20
60100935	PIPE DRAINS 10"	FOOT		20	20
60100945	PIPE DRAINS 12"	FOOT		84	84
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	126		126
60900140	TYPE B INLET BOX, STANDARD 609006	EACH		4	4
60900515	CONCRETE THRUST BLOCKS	EACH		4	4
61100605	MISCELLANEOUS CONCRETE	CU YD		2	2
61101007	STORM SEWERS PROTECTED, CLASS A, 6"	FOOT		30	30
61101009	STORM SEWERS PROTECTED, CLASS A, 8"	FOOT		30	30
61101011	STORM SEWERS PROTECTED, CLASS A, 10"	FOOT		30	30
61101013	STORM SEWERS PROTECTED, CLASS A, 12"	FOOT		30	30
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH		4	4
61139900	STORM SEWERS, SPECIAL 6"	FOOT		30	30
61140000	STORM SEWERS, SPECIAL 8"	FOOT		30	30
61140100	STORM SEWERS, SPECIAL 10"	FOOT		30	30
61140200	STORM SEWERS, SPECIAL 12"	FOOT		30	30
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT		700	700
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH		4	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH		4	4
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO		6	6
67100100	MOBILIZATION	L SUM		1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH		1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM		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		20	20
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH		1	1

* SPECIALTY ITEM

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	11/05
DRAWN BY:	CJG	11/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

SUMMARY OF QUANTITIES
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

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EPSTOO

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

80%/20% FED/STATE

	CODE NO.	ITEM	UNIT	CONSTRUCTION TYPE CODE ACBRS X020-2A	CONSTRUCTION TYPE CODE ACRS 1000	TOTAL
	70106700	TEMPORARY RUMBLE STRIP	EACH		6	6
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT		780	780
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT		4000	4000
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT		500	500
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT		1844	1844
	70400100	TEMPORARY CONCRETE BARRIER	FOOT		540	540
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT		480	480
	70500100	TEMPORARY STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT		550	550
	70500685	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 10	EACH		2	2
	72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH		4	4
•	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT		4000	4000
•	78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT		500	500
•	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH		24	24
•	78100105	RAISED REFLECTIVE PAVEMENT MARKER(BRIDGE)	EACH		1	1
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH		26	26
*	78200520	BARRIER WALL MARKERS, TYPE B	EACH		2	2
•	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH		8	8
	78300100	PAVEMENT MARKING REMOVAL	SQ FT		340	340
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH		24	24
*	A2001720	TREE, ACER SACCHARUM (SUGAR MAPLE), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH		5	5
*	A2006920	TREE, QUERCUS PALUSTRIS (PIN OAK), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH		5	5
	X0321156	HIGH VISIBILITY TEMPORARY FENCING	FOOT		1765	1765
	X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	136		136
	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON		444	444
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON		2322	2,322
	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1
	X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1
•	X7050167	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH		4	4
	50800515	BAR SPLICERS	EACH	274		774
	Z0021700	EXPANSION JOINT REHABILITATION	FOOT		48	48
	28200200	FILTER FABRIC	SQ YD	500		500
•	Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH		2	2
•	Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH		2	2
*	X7200201	WIDTH RESTRICTION SIGNING	LSUM		1	1

* SPECIALTY ITEM

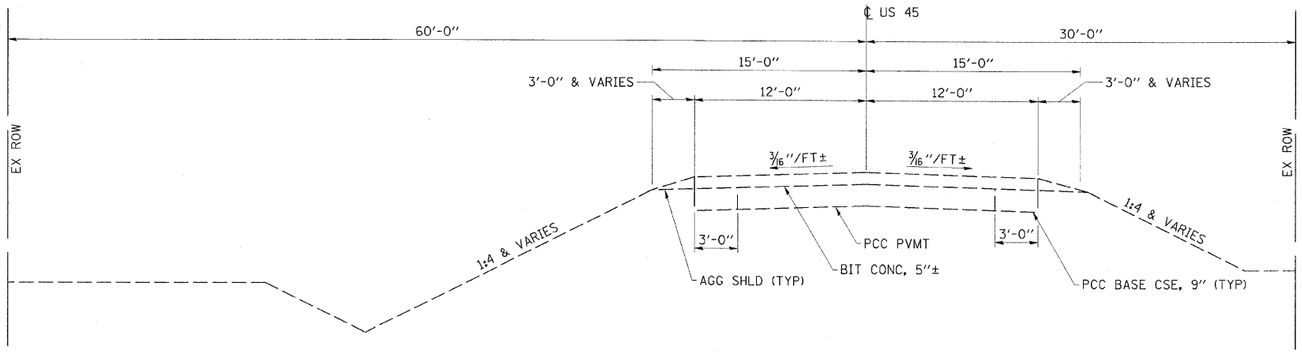
ESCA CONSULTANTS, INC.

DESIGNED BY:	ELH	11/05
DRAWN BY:	CJG	11/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

SUMMARY OF QUANTITIES
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL ROADWAY SECTION

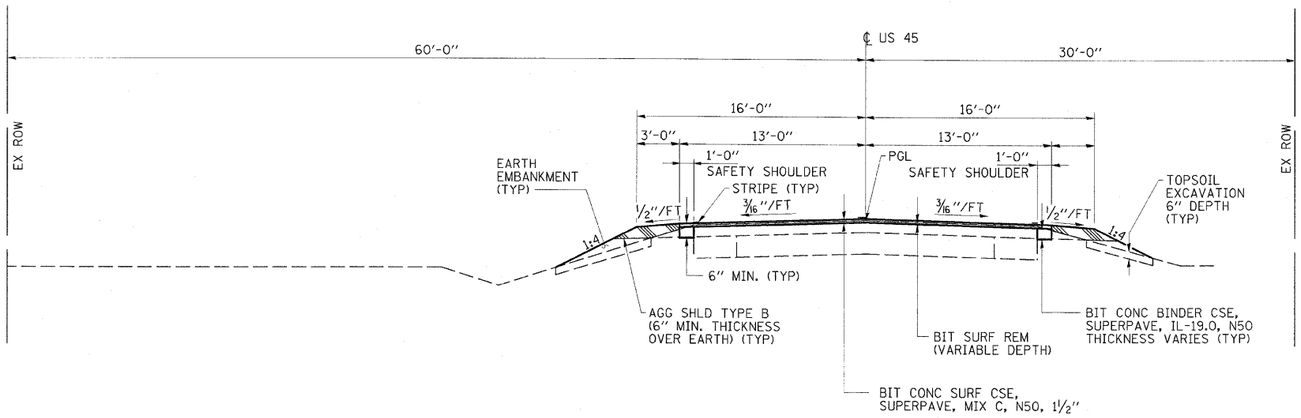
STA 2129+00 TO 2157+00
BRIDGE OMISSION STA 2145+69 TO 2146+31

BITUMINOUS MIXTURES REQUIREMENTS

	SUPERPAVE SURFACE	SUPERPAVE BINDER COURSE	SUPERPAVE BASE COURSE WIDENING (USE BINDER COURSE, N50)	SUPERPAVE SHOULDERS
PG GRADE	PG 64-22	PG 64-22	PG 64-22	PG 58-22
MAX % RAP ALLOWABLE **	15%	25%	25%	30%
DESIGN AIR VOIDS	4% @ N50	4% @ N50	4% @ N50	2% @ N30
MIXTURE COMPOSITION	IL 12.5 OR IL 9.5	IL 19.0	IL 19.0	BAM
FRICTION AGGREGATE	MIXTURE C	NA	NA	NA
PLANT CONTROL LIMITS	CLASS I	CLASS I	CLASS I	NON-CLASS I
DENSITY CONTROL LIMITS	CORES/NUCLEAR	CORES/NUCLEAR	CORES/NUCLEAR	*

* MATERIAL SHALL BE COMPACTED TO 93-97 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT THE BOTTOM LIFT SHALL BE COMPACTED TO A MINIMUM OF 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.

** IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.



PROPOSED TYPICAL ROADWAY SECTION

STA 2130+00 TO 2130+63
STA 2149+49 TO 2150+00

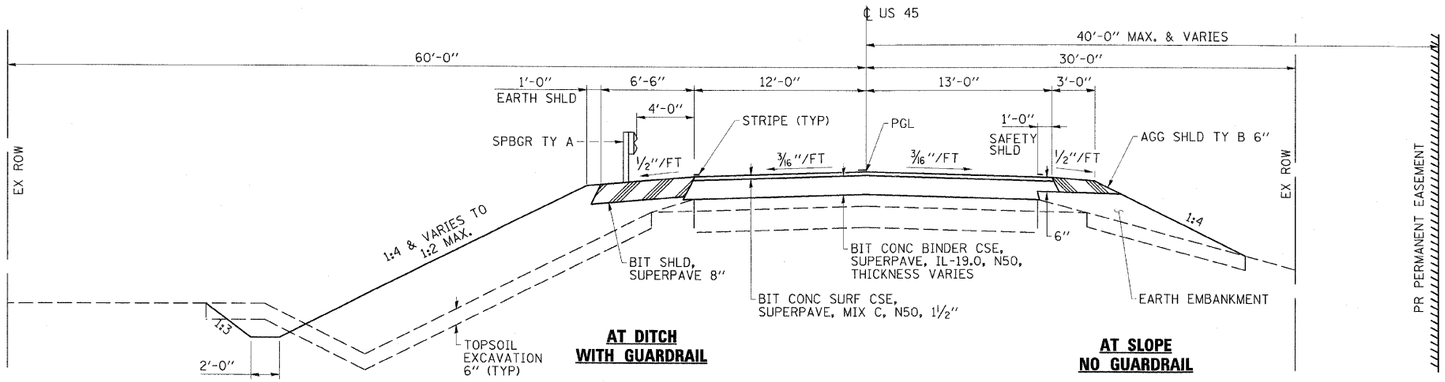
ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	8/05
DRAWN BY:	HAG	8/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

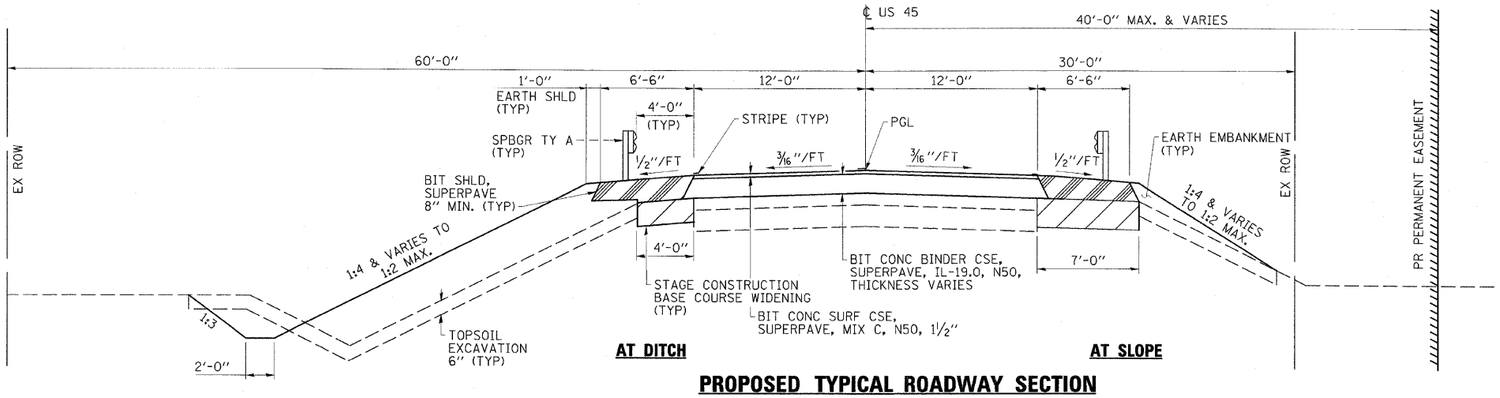
TYPICAL SECTIONS
FAS ROUTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

CONTRACT NO. 66610

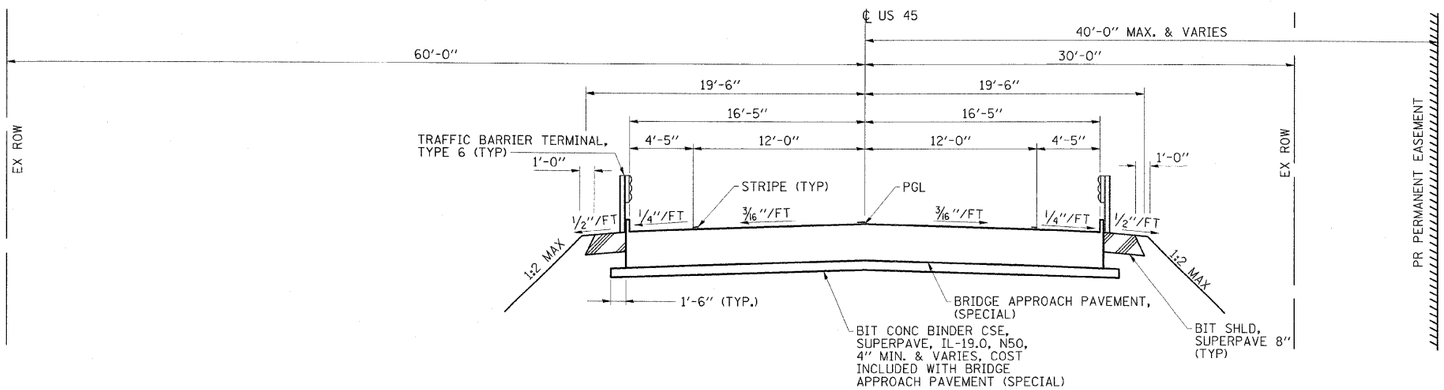
FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROPOSED TYPICAL ROADWAY SECTION
STA 2130+63 TO 2143+45
STA 2148+55 TO 2149+49



PROPOSED TYPICAL ROADWAY SECTION
STA 2143+45 TO 2145+23
STA 2146+77 TO 2148+55



AT BRIDGE APPROACH PAVEMENT

PROPOSED TYPICAL ROADWAY SECTION
STA 2145+23 TO 2146+77
BRIDGE OMISSION STA 2145+53 TO 2146+47

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	8/05
DRAWN BY:	HAG	8/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

TYPICAL SECTIONS
FAS ROUTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE

LOCATION	SUITABLE EARTH EXCAVATION	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
NW QUADRANT CUTS & FILLS	20	15			820	-805
SW QUADRANT CUTS & FILLS	40	30			20	+10
NE QUADRANT CUTS & FILLS	860	645			1280	-635
SE QUADRANT CUTS & FILLS	130	97			130	-33
STRUCTURE EXCAVATION			133	100		+100
CHANNEL EXCAVATION			0	0		0
TOTALS	1050	787	133	100	2250	-1363

NOTES:
1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)•0.75
2. TOPSOIL EXCAVATION AND PLACEMENT NOT INCLUDED IN THE ABOVE NUMBERS

EROSION CONTROL SCHEDULE

LOCATION	EROSION CONTROL BLANKET	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)	INLET & PIPE PROTECTION	TEMPORARY DITCH CHECKS
	SQ YD	FOOT	POUND	EACH	EACH
NW QUADRANT	66	1616	164		
SW QUADRANT	58	234	20		
NE QUADRANT	100	500	186		
SE QUADRANT	102	110	30		
15" CULVERT STA 2136+80	22			1	
18" CULVERT STA 2137+74	22			1	
STA 2141+50, LT					1
STA 2145+50, LT					1
STA 2146+40, LT					1
STA 2147+70, LT					1
TOTALS	370	2460	400	2	4

PAVING SCHEDULE

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX C, N50	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0 N50	BITUMINOUS SHOULDERS SUPERPAVE	AGGREGATE (PRIME COAT)	BASE COURSE WIDENING 10"	INCIDENTAL BITUMINOUS SURFACING
	GALLON	TON	TON	TON	TON	SQ YD	TON
STA 2130+00 TO STA 2145+23, MAINLINE	649	369	2041	109(LT), 143(RT)	16.5	171(RT), 80(LT)	
STA 2146+77 TO STA 2150+00, MAINLINE	124	75	281	105(LT), 95(RT)	3.1	171(RT), 80(LT)	
MB TURNOUT STA. 2136+62, RT	4				0.1		4.4
PE STA 2136+80, LT	3				0.1		3.5
FE STA 2137+74, LT	4				0.1		4.3
FE STA 2156+20, LT	3				0.1		3.8
TOTALS	787	444	2322	452	20	502	16

BIT SURF REMOVAL (VARIABLE DEPTH) SCHEDULE

LOCATION	SQ YD
STA 2130+00 TO STA 2130+63	168
STA 2146+55.3 TO STA 2146+77	75
STA 2149+53 TO STA 2150+00	126
TOTAL	369

TEMPORARY RAMP SCHEDULE

LOCATION	SQ YD
NORTH APPROACH PAVEMENT	262
SOUTH APPROACH PAVEMENT	215
STA 2130+00	14
STA 2150+00	14
TOTAL	505

SEEDING SCHEDULE

LOCATION	SEEDING, CLASS 2A	SEEDING, CLASS 7 MODIFIED	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2
	ACRE	ACRE	POUND	POUND	POUND	ACRE
NORTHWEST QUADRANT	0.45	0.37	74	74	74	0.82
NORTHEAST QUADRANT	0.93		84	84	84	0.93
SOUTHWEST QUADRANT	0.07	0.03	9	9	9	0.10
SOUTHEAST QUADRANT	0.15		13	13	13	0.15
TOTALS	1.6	0.4	180	180	180	2.0

AGGREGATE SHOULDERS, TYPE B SCHEDULE

LOCATION	TON
NORTHWEST QUADRANT	156.5
NORTHEAST QUADRANT	158
SOUTHWEST QUADRANT	9
SOUTHEAST QUADRANT	1.5
TOTAL	325

TREE REMOVAL SCHEDULE

LOCATION	TREE REMOVAL (6-15 UNITS DIA)	TREE REMOVAL (OVER 15 UNITS DIA)
	UNIT	UNIT
STA 2145+78, LT	6	
STA 2145+80, LT	-	20
STA 2145+87, LT	6	-
STA 2145+91, LT	6	
STA 2145+93, LT	6	
TOTALS	24	20

REMOVAL SCHEDULE

LOCATION	PAVEMENT REMOVAL	CONCRETE HEADWALL REMOVAL	PIPE CULVERT REMOVAL
	SQ YD	EACH	FOOT
STA 2145+44.7 TO BRIDGE	86		
BRIDGE TO STA 2146+55.3	84		
PE STA 2136+80, LT		2	32
FE STA 2137+74, LT		2	19
FE STA 2147+30, LT			36
TOTALS	170	4	87

ESCA
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DESIGNED BY:	ELH	01/06
DRAWN BY:	CJG	01/06
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

SCHEDULES OF QUANTITIES
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RTE	34BR	IROQUOIS	49	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKERS AND REMOVAL SCHEDULE

LOCATION	RRPM	RRPM (BRIDGE)	RRPM REMOVAL
	EACH	EACH	EACH
AT EXISTING LOCATIONS AS SHOWN ON PLAN VIEWS	24	1	24
TOTALS	24	1	24

PAVEMENT MARKING REMOVAL SCHEDULE

LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SQ FT	SQ FT
STA 2130+00 TO 2150+00	SHORT-TERM	260	
STA 2130+00 TO 2150+00	TEMPORARY	1584	
STAGE I	EXISTING EDGE LINE		170
STAGE II	EXISTING EDGE LINE		170
TOTALS		1844	340

BRIDGE APPROACH PAVEMENT SCHEDULE

LOCATION	BRIDGE APPROACH PAVEMENT (SPECIAL)	PROTECTIVE COAT
	SQ YD	SQ YD
STRUCTURE NO. 038-0214 - NORTH APPROACH	112	114
STRUCTURE NO. 038-0214 - SOUTH APPROACH	112	114
TOTALS	224	228

SIGN REMOVAL SCHEDULE

LOCATION	REMOVE SIGN PANEL ASSEMBLY TYPE A
	EACH
STA 2145+68, LT	1
STA 2145+68, RT	1
STA 2146+33, LT	1
STA 2146+69, LT	1
TOTAL	4

PAVEMENT MARKING SCHEDULE

LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING (3 APPLICATIONS)	PAINT PAVEMENT MARKING - LINE		TEMPORARY PAVEMENT MARKING - LINE	
			4"	6"	4"	6"
		FOOT	FOOT	FOOT	FOOT	FOOT
STA 2130+00 TO 2150+00	SOLID WHITE EDGE LINE	180	4000		4000	
STA 2130+00 TO 2150+00	SKIP-DASH YELLOW CENTERLINE	600		500		500
TOTALS		780	4000	500	4000	500

DRAINAGE SCHEDULE

LOCATION	CONCRETE HEADWALL FOR PIPE DRAINS	PIPE UNDERDRAINS FOR STRUCTURES 4"	TYPE B INLET BOX STD 609006	CONCRETE THRUST BLOCKS	PIPE DRAINS 12"	END SECTIONS 12"	END SECTIONS 15"	END SECTIONS 18"	PIPE CULV. CL D, TYPE 1 15"	PIPE CULV. CL D, TYPE 1 18"
	EACH	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
STRUCTURE NO. 038-0214 - NW CORNER	1	63	1	1	16	1				
STRUCTURE NO. 038-0214 - SW CORNER	1		1	1	16	1				
STRUCTURE NO. 038-0214 - NE CORNER	1	63	1	1	16	1				
STRUCTURE NO. 038-0214 - SE CORNER	1		1	1	16	1				
PE STA 2136+80, LT							2		34	
FE STA 2137+74, LT								2		46
TOTALS	4	126	4	4	64	4	2	2	34	46

GUARDRAIL SCHEDULE

LOCATION	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	SPBGR, TYPE A	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	TERMINAL MARKER-DIRECT APPLIED	TEMP. SPBGR, TYPE A	TEMP. TRAFFIC BARRIER TERMINAL, TYPE 10	TEMP. TBT TYPE 1, SPECIAL (TANGENT)
	EACH	FOOT	EACH	EACH	EACH	EACH	FOOT	EACH	EACH
STRUCTURE NO. 038-0214 - NORTHWEST	1	200	1	4		1			
STRUCTURE NO. 038-0214 - SOUTHWEST	1	150	1	3		1			
STRUCTURE NO. 038-0214 - NORTHEAST	1	150	1	3		1			
STRUCTURE NO. 038-0214 - SOUTHEAST	1	200	1	4		1			
STRUCTURE NO. 038-0214 - BRIDGE					2				
STAGE I				6		2	300	2	2
STAGE II				6		2	250		2
TOTALS	4	700	4	26	2	8	550	2	4

FIELD TILE DRAINAGE SCHEDULE

LOCATION	ITEM	UNIT	QUANTITY
TO BE USED IN THE FIELD AS DIRECTED BY THE ENGINEER	EXPLORATION TRENCH 52 INCH DEPTH	FOOT	200
	MISCELLANEOUS CONCRETE	CY	2
	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	4
	PIPE DRAINS 8"	FOOT	20
	PIPE DRAINS 10"	FOOT	20
	PIPE DRAINS 12"	FOOT	20
	STORM SEWERS PROTECTED, CLASS A, 6"	FOOT	30
	STORM SEWERS PROTECTED, CLASS A, 8"	FOOT	30
	STORM SEWERS PROTECTED, CLASS A, 10"	FOOT	30
	STORM SEWERS PROTECTED, CLASS A, 12"	FOOT	30
	STORM SEWERS, SPECIAL, 6"	FOOT	30
	STORM SEWERS, SPECIAL, 8"	FOOT	30
	STORM SEWERS, SPECIAL, 10"	FOOT	30
	STORM SEWERS, SPECIAL, 12"	FOOT	30

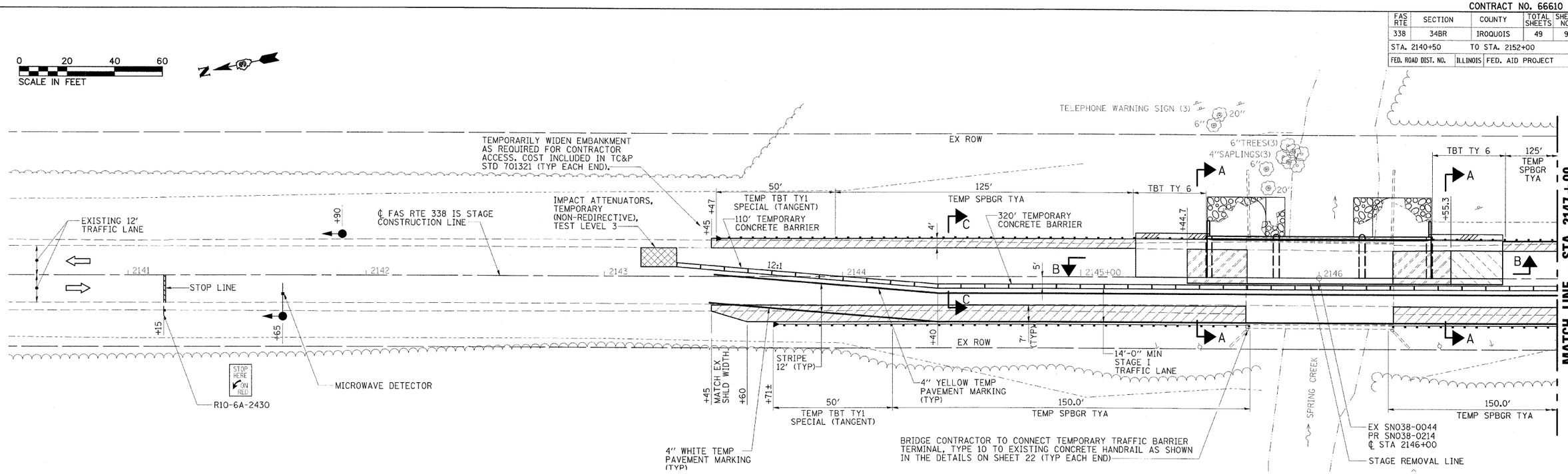
ESCA
CONSULTANTS, INC.

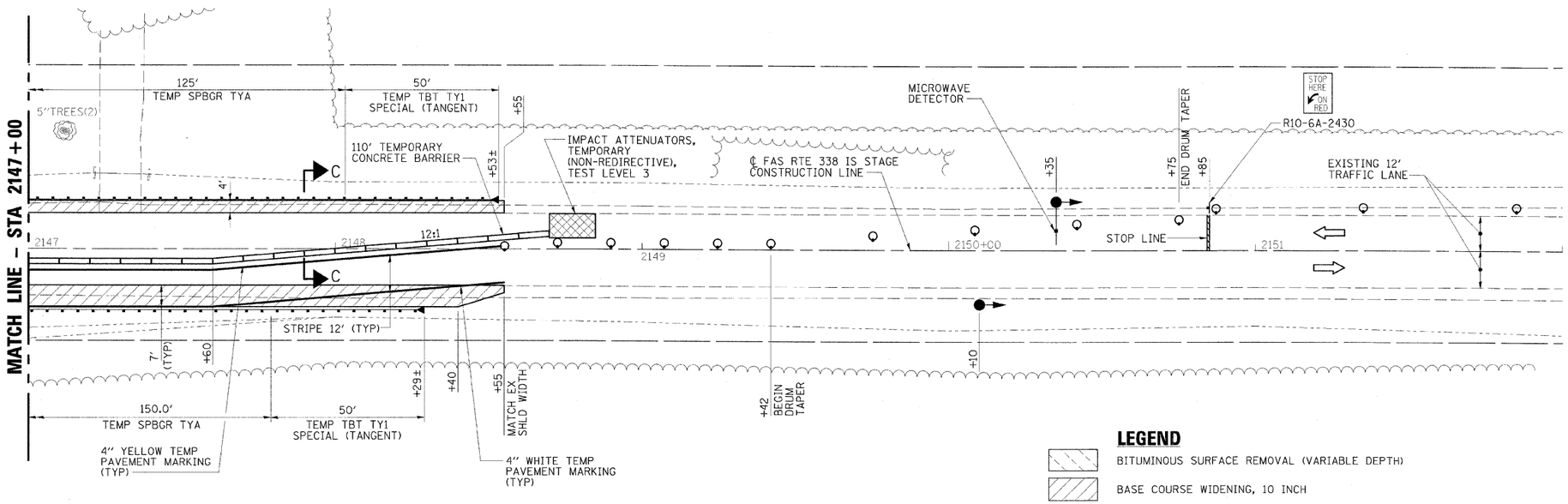
DESIGNED BY:	ELH	01/06
DRAWN BY:	CJG	01/06
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

SCHEDULES OF QUANTITIES
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	9
STA. 2140+50		TO STA. 2152+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321." SEE STANDARD FOR LOCATIONS OF VERTICAL PANELS AND REFLECTORS.
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. SEE SHEET 11 FOR SECTIONS.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.

SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	TOTAL FEET
2143+30		2148+70	540

TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH

TEMPORARY RUMBLE STRIPS - 6 EACH

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

LEGEND

- BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)
- BASE COURSE WIDENING, 10 INCH
- PAVEMENT REMOVAL
- BITUMINOUS SHOULDERS SUPERPAVE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL WITH SIGNAL DIRECTION INDICATED

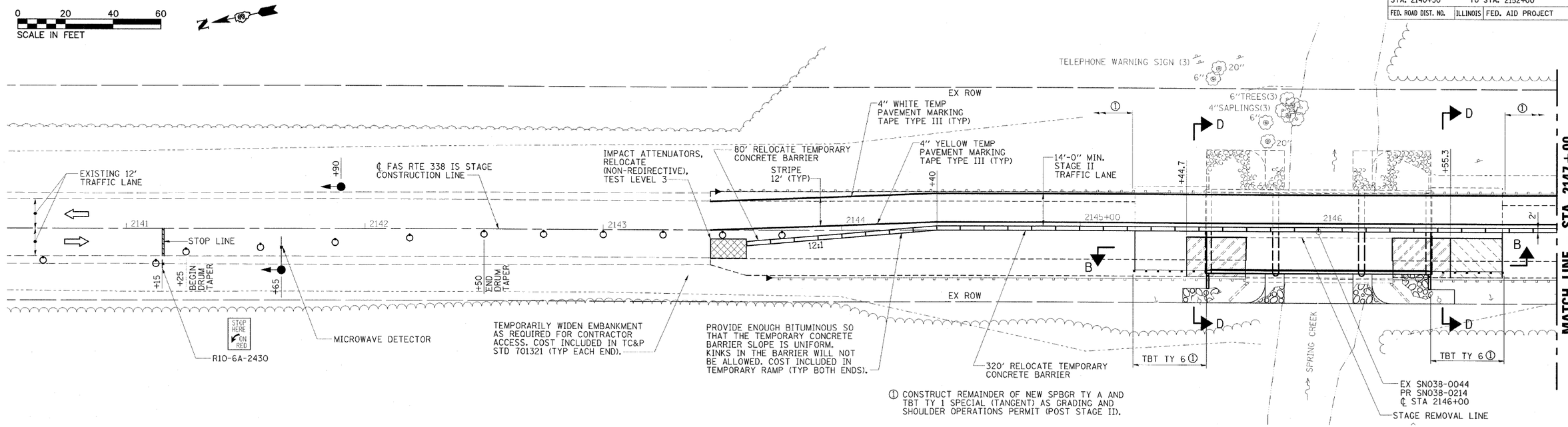
ESCA CONSULTANTS, INC.

DESIGNED BY:	ELH	8/05
DRAWN BY:	CJG	8/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

STAGE I CONSTRUCTION
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	10
STA. 2140+50		TO STA. 2152+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321." SEE STANDARD FOR LOCATIONS OF VERTICAL PANELS & REFLECTORS.
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. SEE SHEET 11 FOR SECTIONS.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.

SCHEDULE OF QUANTITIES

RELOCATE TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	TOTAL FEET
2143+60		2148+40	480

TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH

IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

LEGEND

- BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)
- BASE COURSE WIDENING, 10 INCH
- PAVEMENT REMOVAL
- BITUMINOUS SHOULDERS SUPERPAVE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL WITH SIGNAL DIRECTION INDICATED

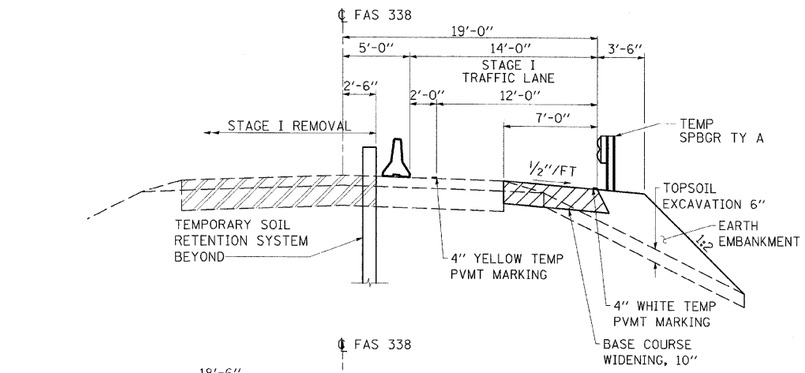
ESCA CONSULTANTS, INC.

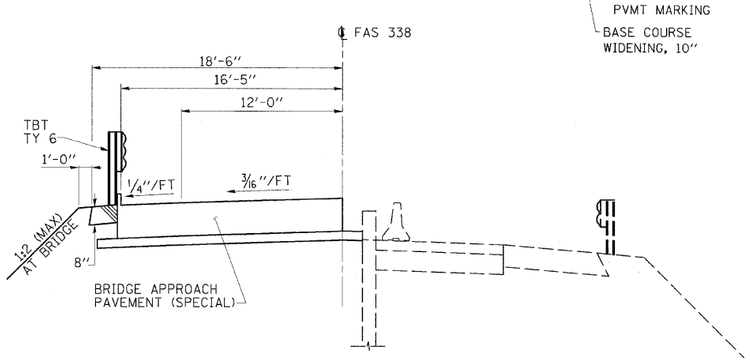
DESIGNED BY:	ELH	8/05
DRAWN BY:	CJG	8/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

STAGE II CONSTRUCTION
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

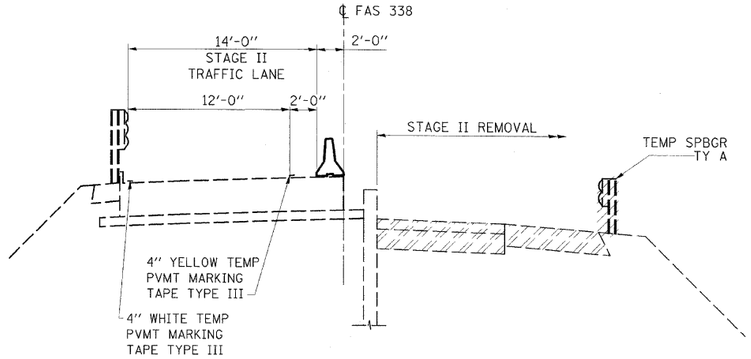
CONTRACT NO. 66610

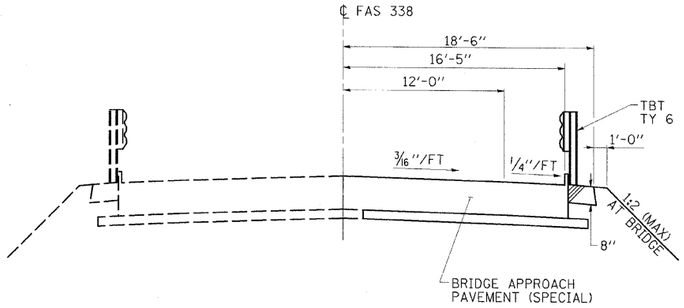
FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	11
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



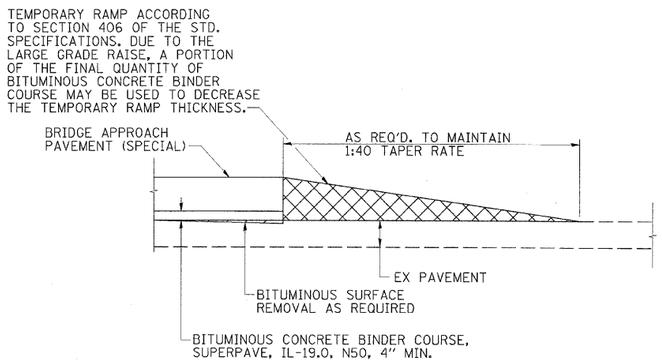


SECTION A-A

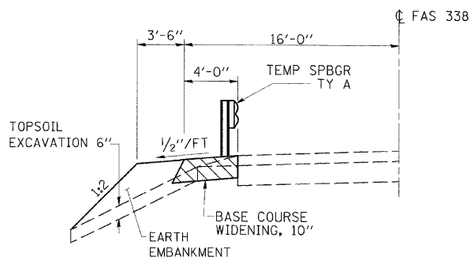




SECTION D-D



SECTION B



SECTION C-C

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	8/05
DRAWN BY:	JDK	8/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

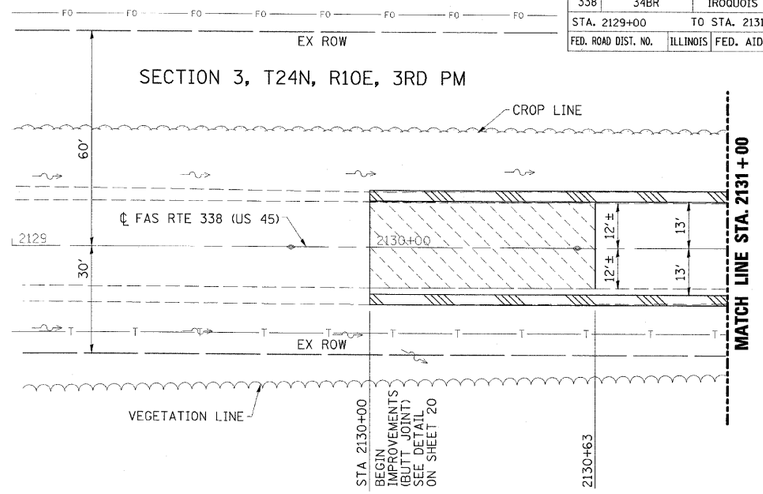
STAGE CONSTRUCTION DETAILS
FAS ROUTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	12
STA. 2129+00		TO STA. 2131+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
ALL DATA ACCEPTED
CARD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
ALL DATA ACCEPTED
STRUCTURE NO 047610 OVRD
NOTE BOOK
NO.
BY
DATE

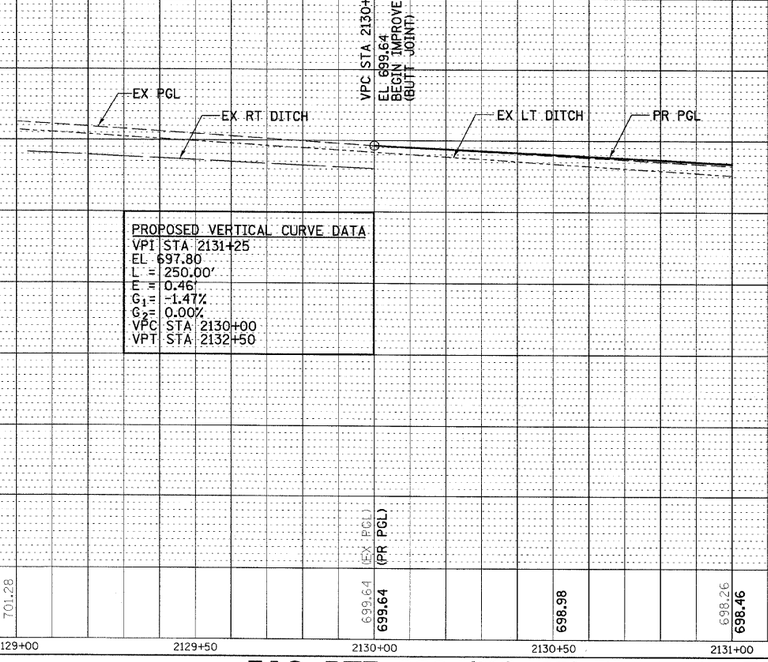


LEGEND

- PAVEMENT REMOVAL
- BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)
- BITUMINOUS SHOULDERS SUPERPAVE
- INCIDENTAL BITUMINOUS SURFACING
- AGGREGATE SHOULDERS TYPE B
- STONE RIPRAP CLASS A4
- — x — x — x — HIGH VISIBILITY TEMPORARY FENCING

0 20 40 60
SCALE IN FEET

ILLINOIS CENTRAL RAILROAD



PROPOSED VERTICAL CURVE DATA

VPI	STA 2131+25
EL	697.80
L	= 250.00'
E	= 0.46'
G_1	= -1.47%
G_2	= 0.00%
VPC	STA 2130+00
VPT	STA 2132+50

FAS RTE 338 (US 45) PLAN & PROFILE
STA 2129+00 TO STA 2131+00

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	13
STA. 2131+00		TO STA. 2137+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SECTION 3, T24N, R10E, 3RD PM

MATCH LINE STA. 2131+00

MATCH LINE STA. 2137+00

EX ROW

CROP LINE

℄ FAS RTE 338 (US 45)

NOTE: SEE ENTRANCE AND MB TURNOUT DETAILS ON SHEET 21

STA 2136+80 PE (A&G)

18'

15" CMP & CONC. HEADWALLS TO BE REMOVED

2131 2132 2133 2134 2135+00 2136

60' 13' 12'±

30' 13' 12'±

40'

+00 BEGIN HIGH VISIBILITY TEMPORARY FENCE

VEGETATION LINE

STA 2132+00 30' RT

STA 2133+00 40' RT

PR PERMANENT EASEMENT

STA 2136+62 MB TURNOUT

LEGEND

- PAVEMENT REMOVAL
- BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)
- BITUMINOUS SHOULDERS SUPERPAVE
- INCIDENTAL BITUMINOUS SURFACING
- AGGREGATE SHOULDERS TYPE B
- STONE RIPRAP CLASS A4
- — X — X — X — HIGH VISIBILITY TEMPORARY FENCING

0 20 40 60
SCALE IN FEET

ILLINOIS CENTRAL RAILROAD

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
R.R. CROSSING
STRUCTURE NO.
STA
BY
DATE

EX PGL

PR PGL

VPT STA 2132+50 EL 697.80

EX LT DITCH

+00, LT FL EL 693.20

PR LT DITCH @ -1.5%±

PR LT DITCH @ -0.30%±

DSFL, LT EL 692.21

USFL, LT EL 692.33

EX 15" CMP TO BE REMOVED, LT

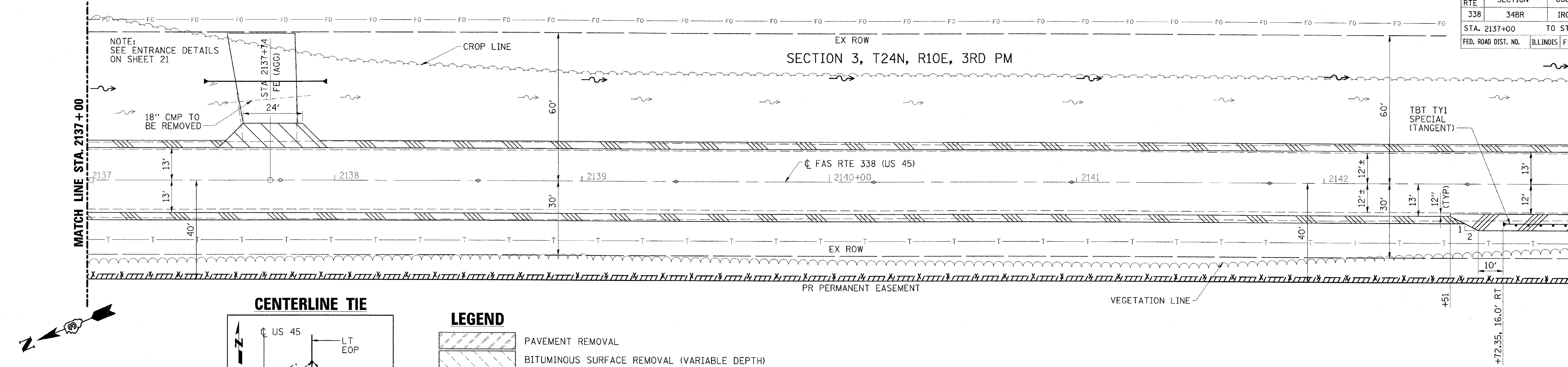
PR 15" DIA PIPE CULVERT, LT

	2131+00	2131+50	2132+00	2132+50	2133+00	2133+50	2134+00	2134+50	2135+00	2135+50	2136+00	2136+50	2137+00
(EX PGL)	698.26												
(PR PGL)	698.46	698.10	697.28	697.80	697.08	697.80	697.04	697.80	697.1	697.80	697.12	697.80	697.08
			697.88		697.80		697.80		697.80		697.80		697.80

FAS RTE 338 (US 45) PLAN & PROFILE
STA 2131+00 TO STA 2137+00

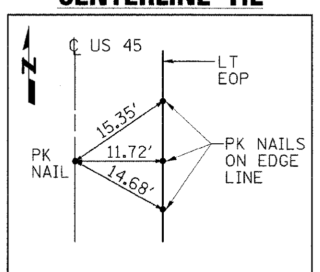
CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	14
STA. 2137+00		TO STA. 2143+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



0 20 40 60
SCALE IN FEET

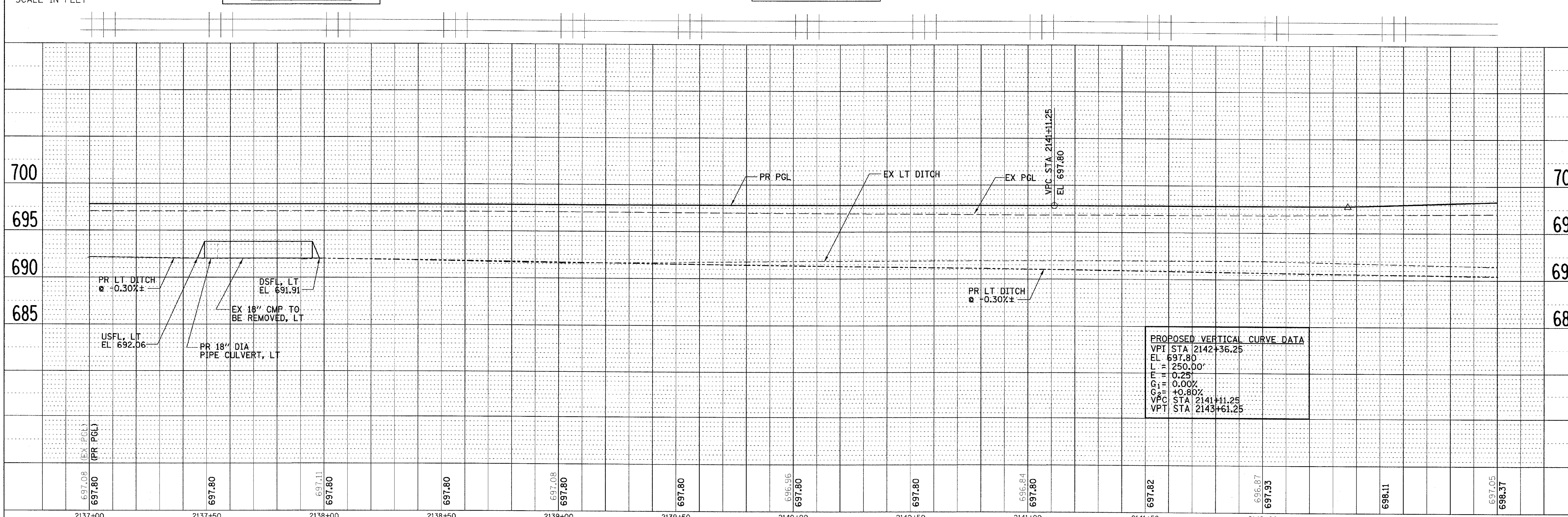
CENTERLINE TIE



POT STA 2137+01.49

LEGEND

- PAVEMENT REMOVAL
- BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)
- BITUMINOUS SHOULDERS SUPERPAVE
- INCIDENTAL BITUMINOUS SURFACING
- AGGREGATE SHOULDERS TYPE B
- STONE RIPRAP CLASS A4
- — X — X — X HIGH VISIBILITY TEMPORARY FENCING

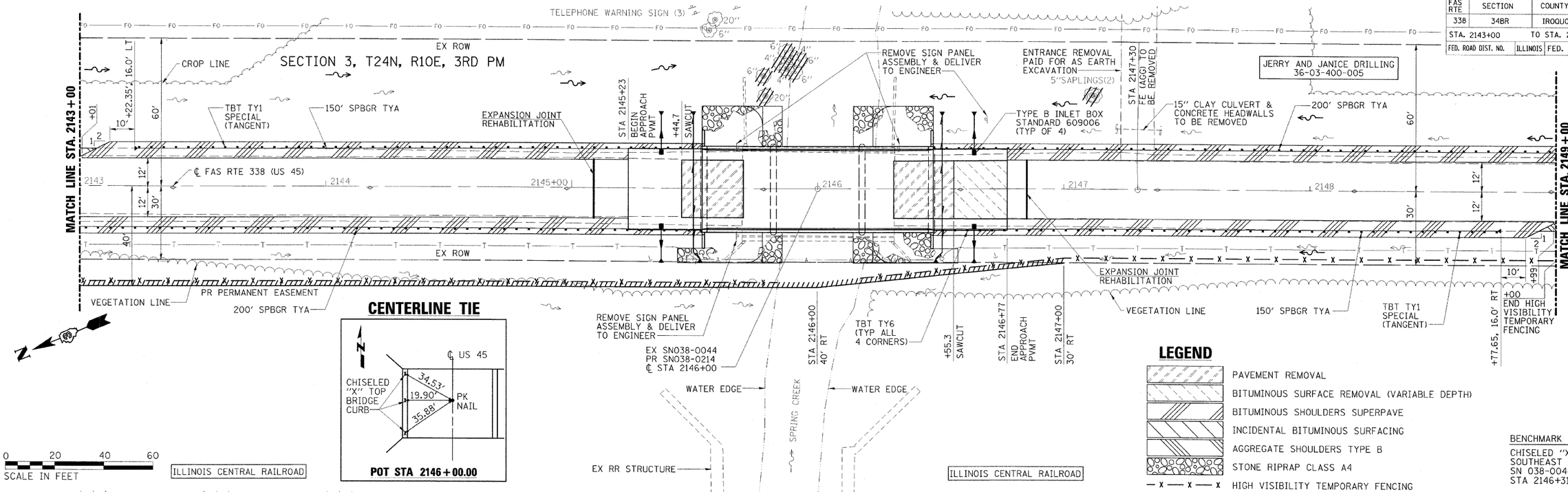


PROPOSED VERTICAL CURVE DATA
VPI STA 2142+36.25
EL 697.80
L = 250.00'
E = 0.25
G_1 = 0.00%
G_2 = +0.80%
VPC STA 2141+11.25
VPT STA 2143+61.25

FAS RTE 338 (US 45) PLAN & PROFILE
STA 2137+00 TO STA 2143+00

CONTRACT NO. 66610

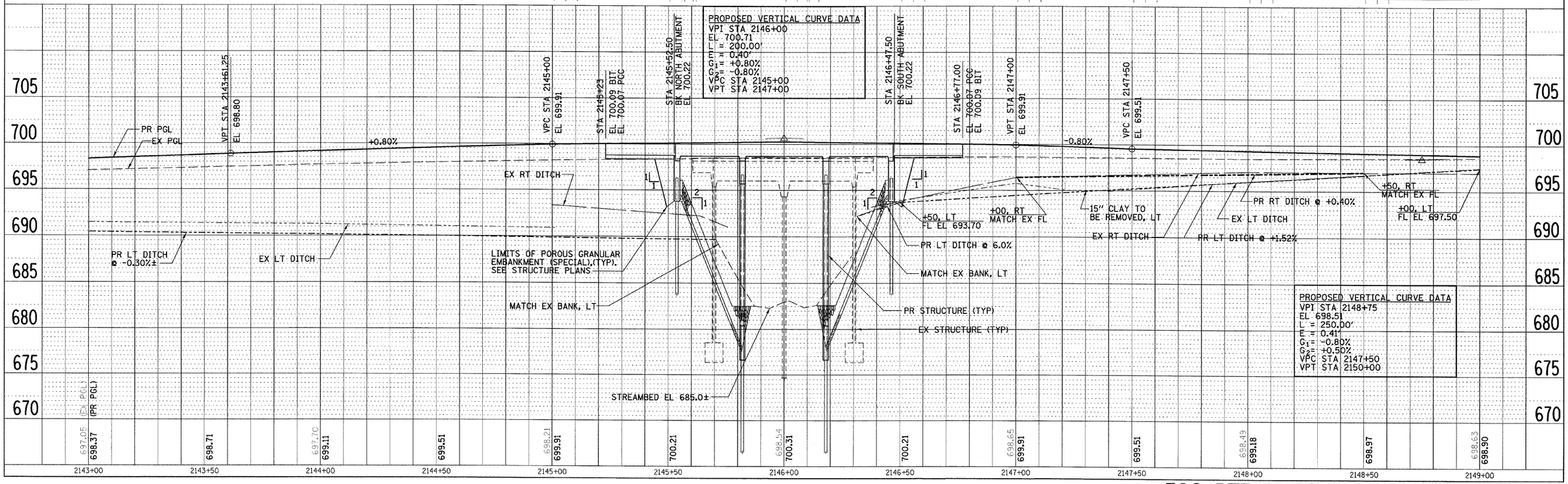
FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	15
STA. 2143+00		TO STA. 2149+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

- PAVEMENT REMOVAL
- BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)
- BITUMINOUS SHOULDERS SUPERPAVE
- INCIDENTAL BITUMINOUS SURFACING
- AGGREGATE SHOULDERS TYPE B
- STONE RIPRAP CLASS A4
- — X — X — X — HIGH VISIBILITY TEMPORARY FENCING

BENCHMARK EL 698.79
CHISELED "X" ON TOP OF SOUTHEAST WINGWALL, SN 038-0044
STA 2146+31, 17.5' LT



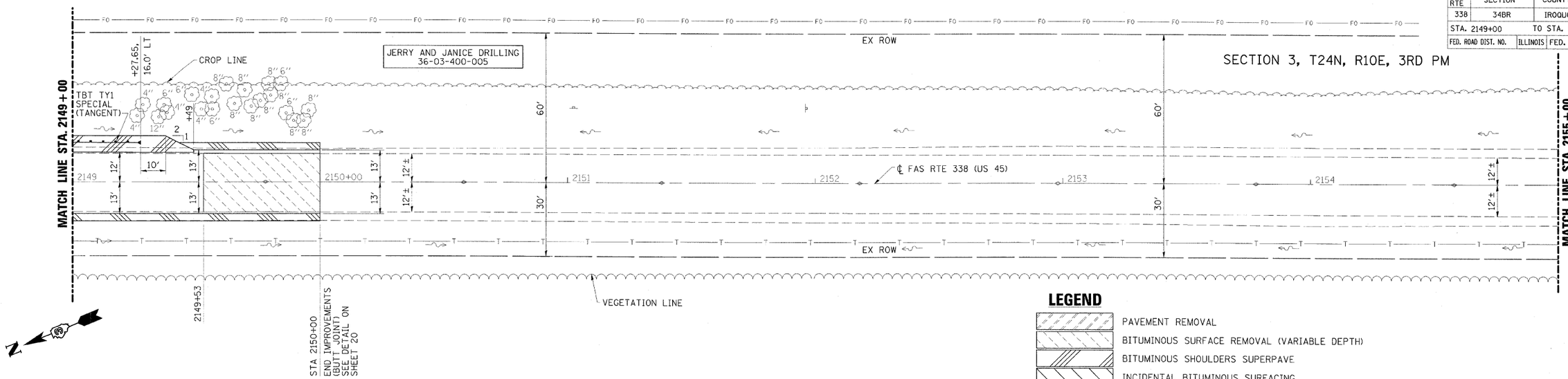
FAS RTE 338 (US 45) PLAN & PROFILE
STA 2143+00 TO STA 2149+00

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	16
STA. 2149+00		TO STA. 2155+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SURVEYED
PLOTTED
ALIGNMENT CHECKED
GRADES CHECKED
STRUCTURE NOTATIONS CK'ND
NOTE BOOK
NO.
BY
DATE

PLAN



LEGEND

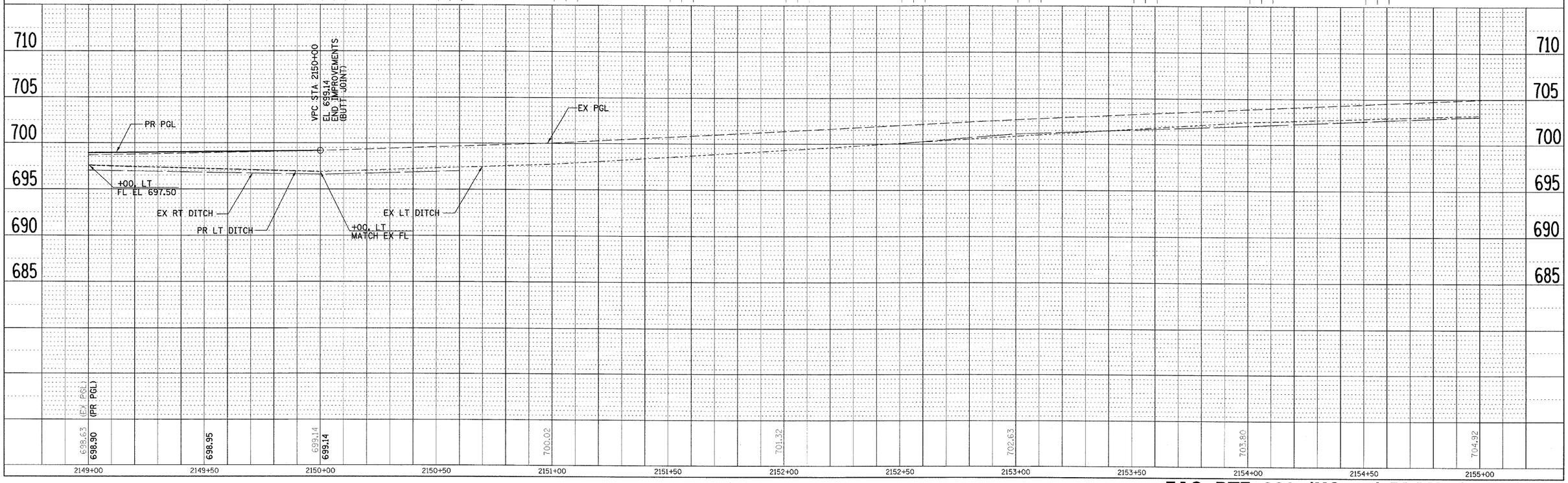
- PAVEMENT REMOVAL
- BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)
- BITUMINOUS SHOULDERS SUPERPAVE
- INCIDENTAL BITUMINOUS SURFACING
- AGGREGATE SHOULDERS TYPE B
- STONE RIPRAP CLASS A4
- — X — X — X HIGH VISIBILITY TEMPORARY FENCING

0 20 40 60
SCALE IN FEET

ILLINOIS CENTRAL RAILROAD

SURVEYED
PLOTTED
GRADES CHECKED
STRUCTURE NOTATIONS CK'ND
NOTE BOOK
NO.
BY
DATE

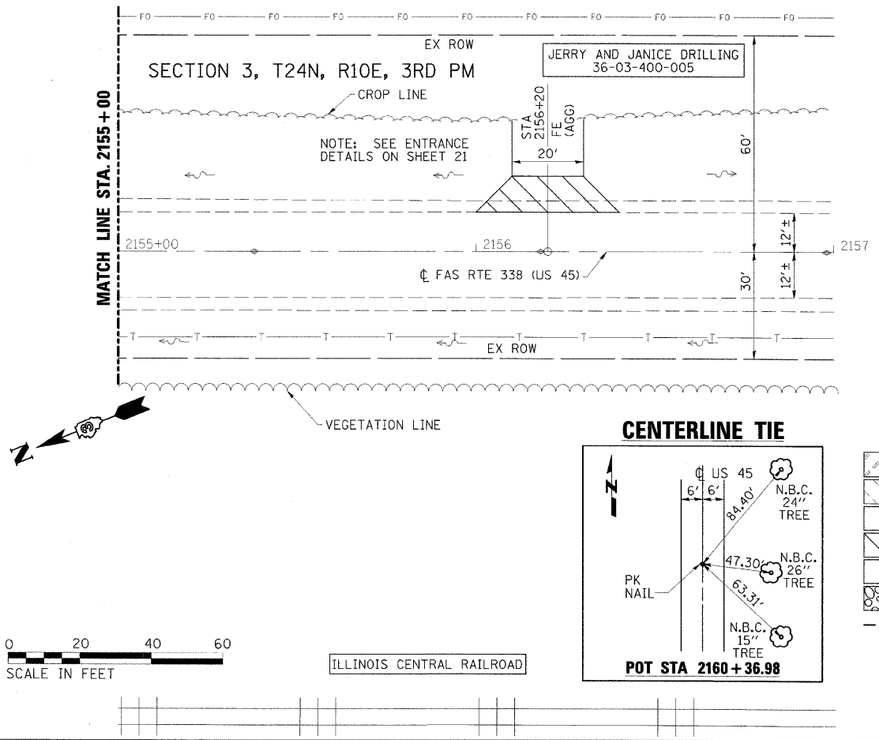
PROFILE



FAS RTE 338 (US 45) PLAN & PROFILE
STA 2149+00 TO STA 2155+00

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	17
STA. 2155+00		TO STA. 2157+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CENTERLINE TIE

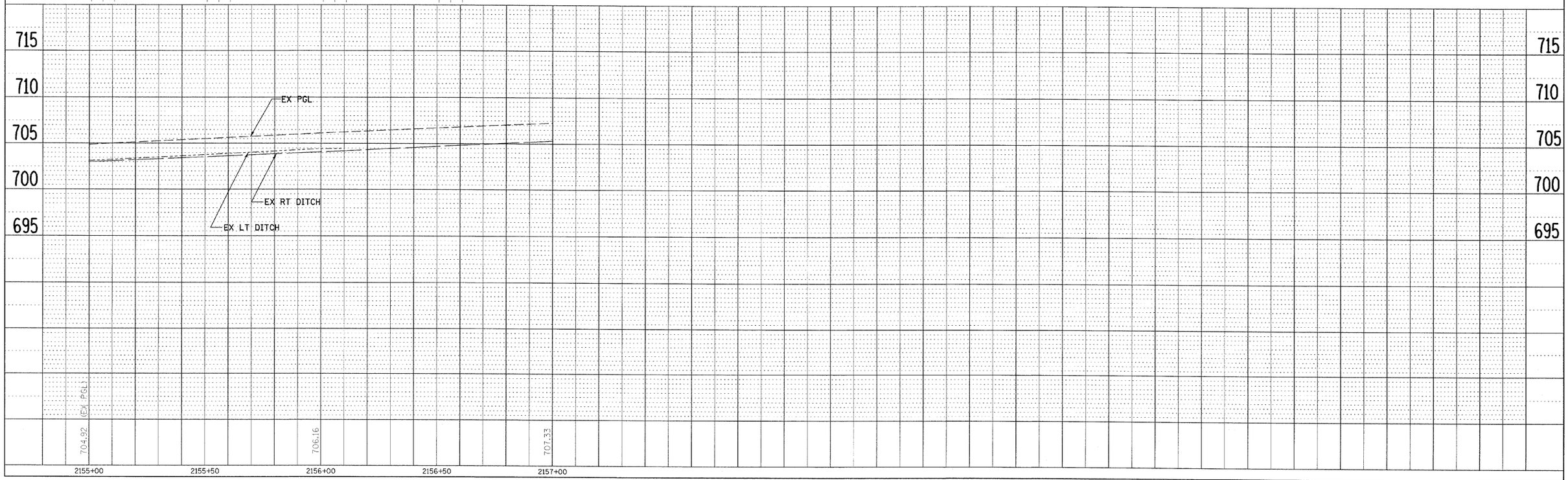
POT STA 2160+36.98

LEGEND

- PAVEMENT REMOVAL
- BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)
- BITUMINOUS SHOULDERS SUPERPAVE
- INCIDENTAL BITUMINOUS SURFACING
- AGGREGATE SHOULDERS TYPE B
- STONE RIPRAP CLASS A4
- — X — X — X HIGH VISIBILITY TEMPORARY FENCING

PLAN — SURVEYED ____ DATE ____ / DRAWN ____ BY ____ / ALIGNMENT CHECKED ____ / PLT. OF W.P.'S CHECKED ____ / ALL R.O.W. MARKS ____ / NOTE BOOK ____ / NO. ____

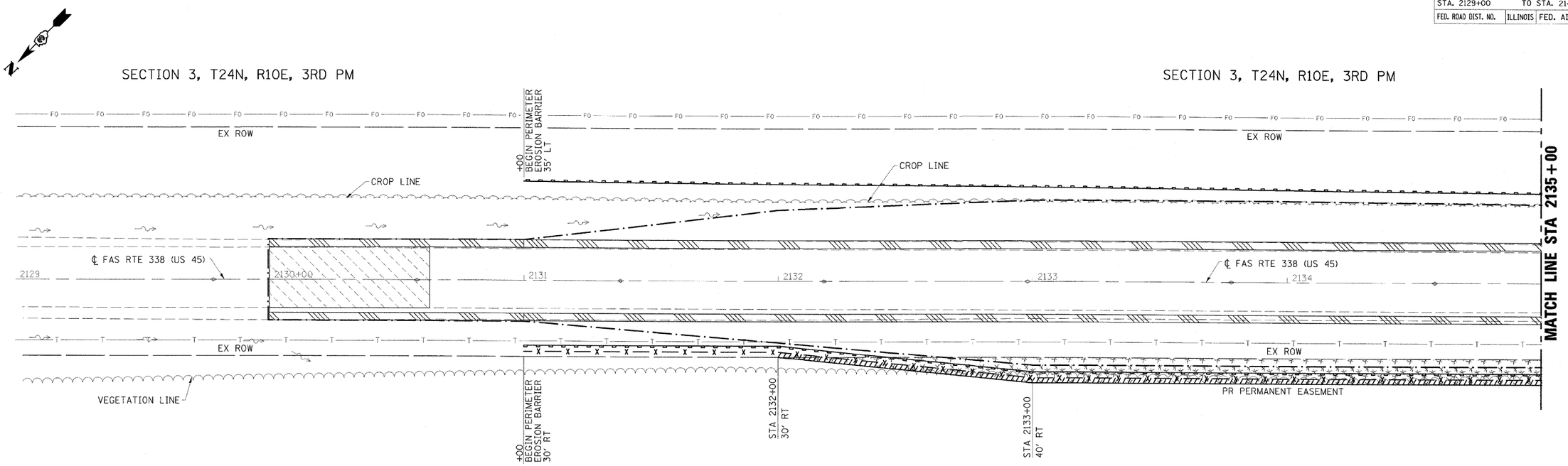
PROFILE — SURVEYED ____ DATE ____ / DRAWN ____ BY ____ / GRADES CHECKED ____ / FINAL NOTED ____ / STRUCTURE NOTATIONS CHKD ____ / NOTE BOOK ____ / NO. ____

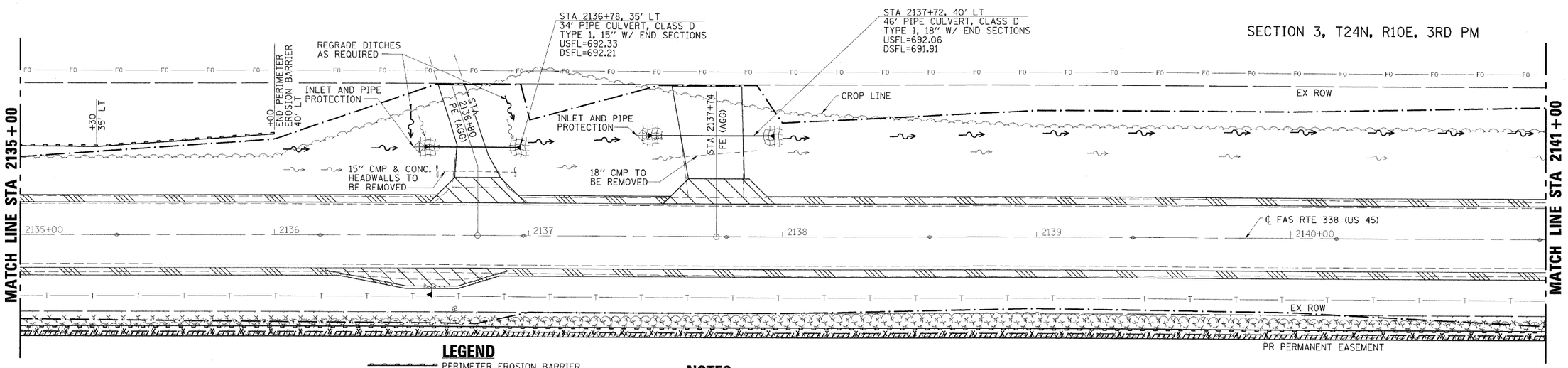


FAS RTE 338 (US 45) PLAN & PROFILE
STA 2155+00 TO STA 2157+00

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	18
STA. 2129+00		TO STA. 2141+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	





LEGEND

- PERIMETER EROSION BARRIER
- EROSION CONTROL BLANKET
- EXISTING DITCH FLOW
- PROPOSED DITCH FLOW
- CONSTRUCTION LIMITS
- TEMPORARY DITCH CHECK
- CLASS 7 MODIFIED SEEDING
- — X — X — HIGH VISIBILITY TEMPORARY FENCING

NOTES

1. CONTRACTOR MAY COMBINE THE HIGH VISIBILITY TEMPORARY FENCING WITH THE PERIMETER EROSION BARRIER WHERE BOTH ARE PRESENT.
2. LAYOUT OF THE EROSION CONTROL ITEMS MAY BE VARIED IN THE FIELD TO SUIT CONDITIONS AS DIRECTED BY THE ENGINEER.

ESCA
CONSULTANTS, INC.

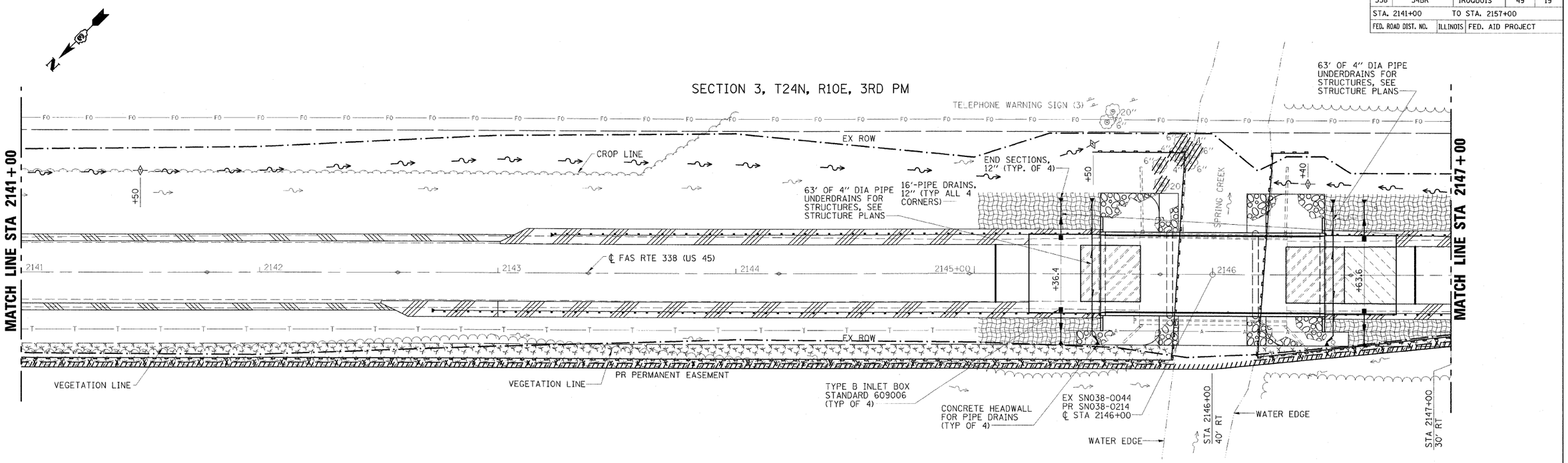
DESIGNED BY:	ELH	11/05
DRAWN BY:	CJG	12/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

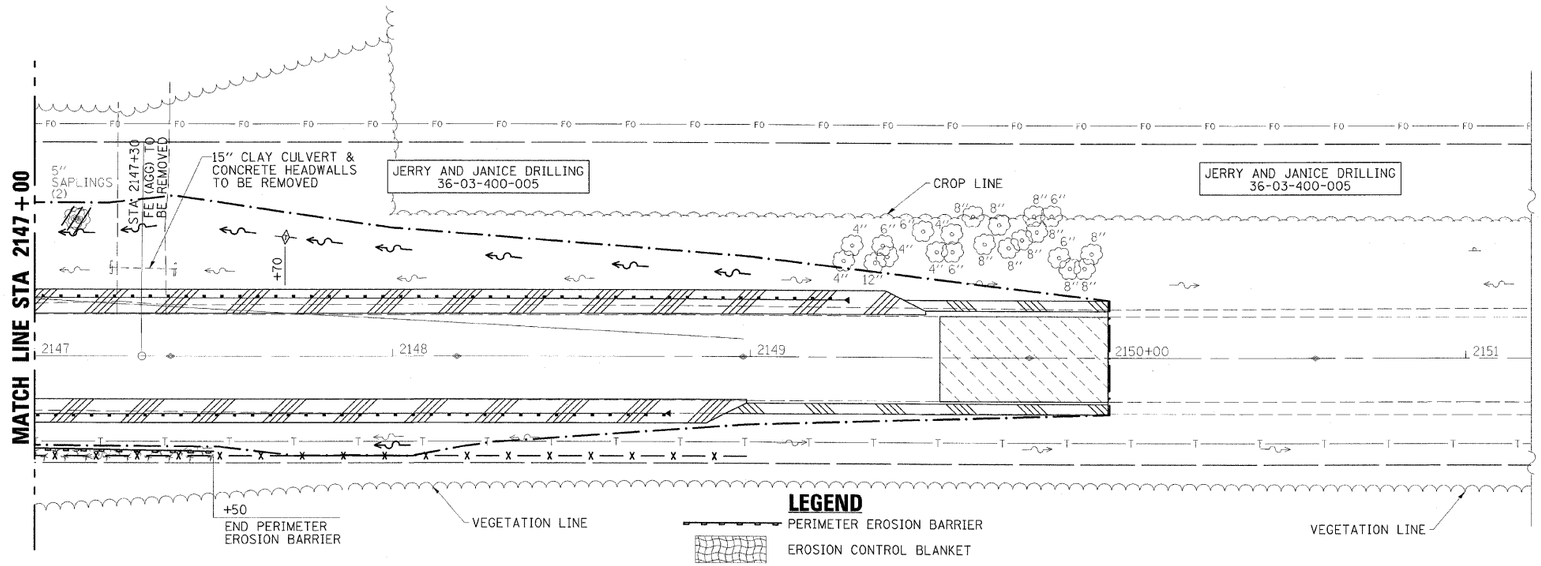
0 20 40 60
SCALE IN FEET

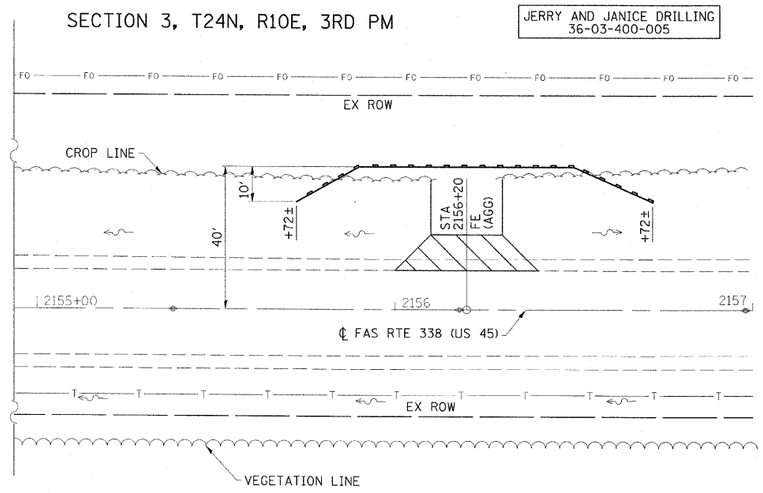
EROSION CONTROL AND DRAINAGE PLAN
FAS ROUTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	19
STA. 2141+00		TO STA. 2157+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		







LEGEND

- PERIMETER EROSION BARRIER
- EROSION CONTROL BLANKET
- EXISTING DITCH FLOW
- PROPOSED DITCH FLOW
- CONSTRUCTION LIMITS
- TEMPORARY DITCH CHECK
- CLASS 7 MODIFIED SEEDING
- HIGH VISIBILITY TEMPORARY FENCING

ESCA CONSULTANTS, INC.

DESIGNED BY:	ELH	11/05
DRAWN BY:	CJG	12/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

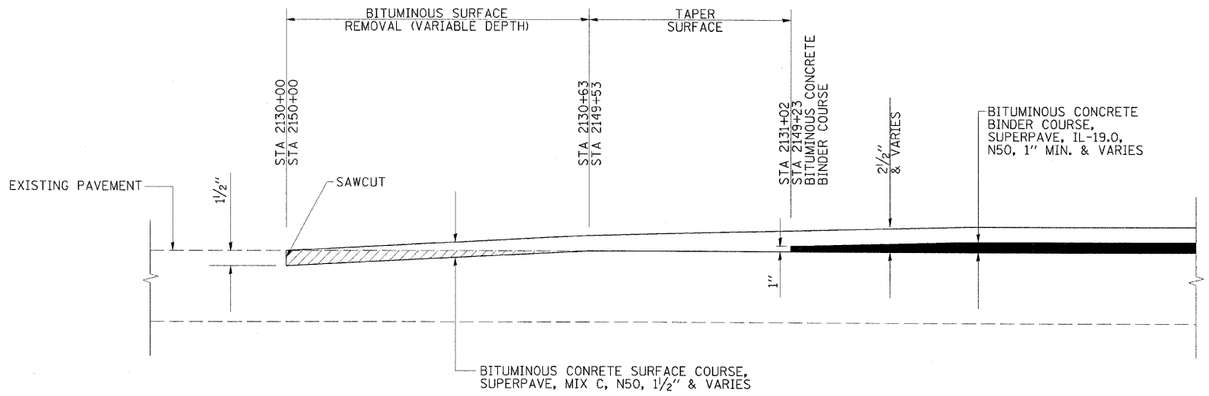
0 20 40 60

SCALE IN FEET

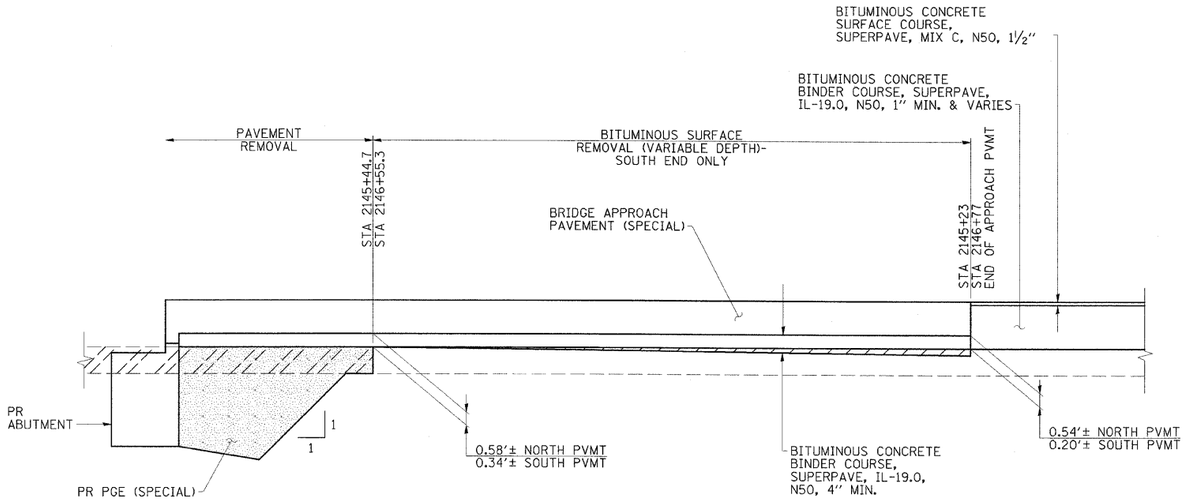
EROSION CONTROL AND DRAINAGE PLAN FAS ROUTE 338 (US 45) SECTION 34BR IROQUOIS COUNTY

CONTRACT NO. 66610

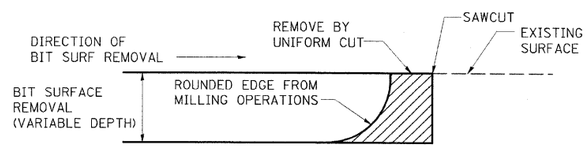
FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	20
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BUTT JOINT SECTION

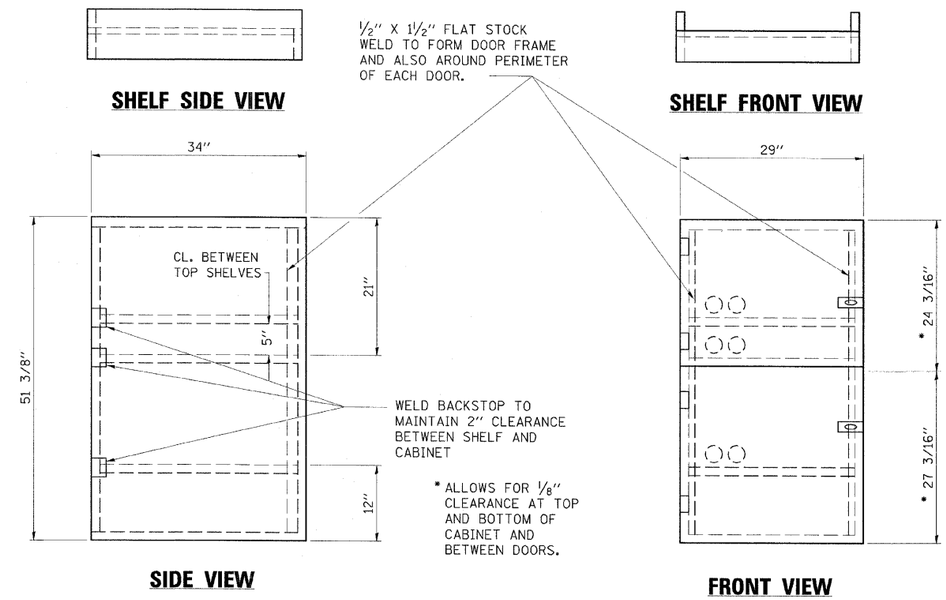


BRIDGE APPROACH PAVEMENT SECTION



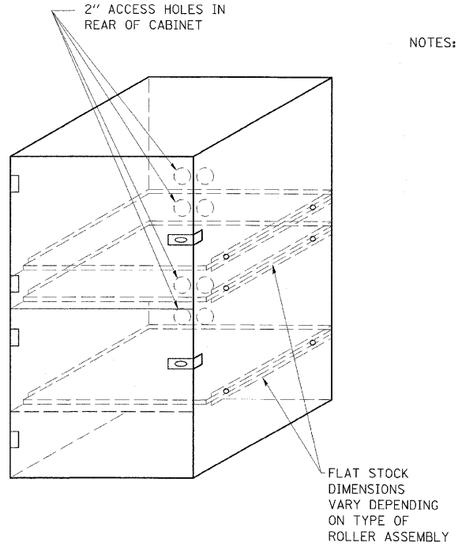
DETAIL AT BUTT JOINT

NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAWCUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE COST OF ALL WORK SHOWN IN THE DETAIL IS INCLUDED IN BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH). THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.



SIDE VIEW

FRONT VIEW



NOTES:
1. USE 16 GAUGE STEEL FOR CABINET.
2. THE TOP SHELF SHALL SLIDE IN OR OUT WITH THE TOP DOOR OPEN.
3. ALL HINGES AND HASPS WILL BE WELDED TO THE CABINET.
4. ALL EDGES SHALL BE GROUND SMOOTH.
5. TWO (2" DIA.) ACCESS HOLES WILL BE REQUIRED FOR EACH SHELF.
6. CABINET SHALL BE PAINTED WITH TWO COATS OF FLAT PAINT.
7. 2 EACH MATCHING KEY PADLOCKS, WITH 3 KEYS PROVIDED, MASTER MODEL 3 T OR EQUIVALENT.
8. 4 EACH PLAIN STEEL, NON-REMOVABLE PIN, NO HOLE 4"X4" SQUARE CORNER HINGES TO BE WELDED ON.
9. 2 EACH EXTRA HEAVY, PLAIN STEEL, FIXED STAPLE, NO HOLE, 7 1/4 " HASPS TO BE WELDED ON.

LOCKABLE COMPUTER CABINET

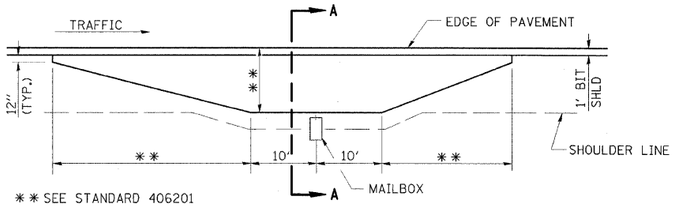
MISCELLANEOUS DETAILS
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

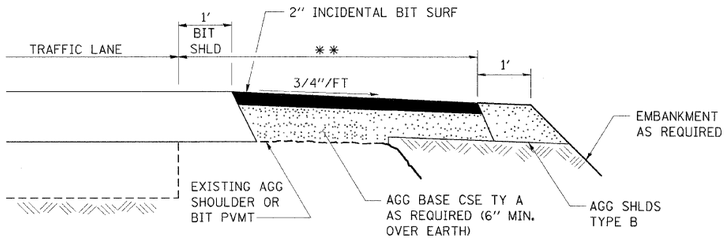
ESCA CONSULTANTS, INC.

DESIGNED BY:	ELH	07/05
DRAWN BY:	JDK	07/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

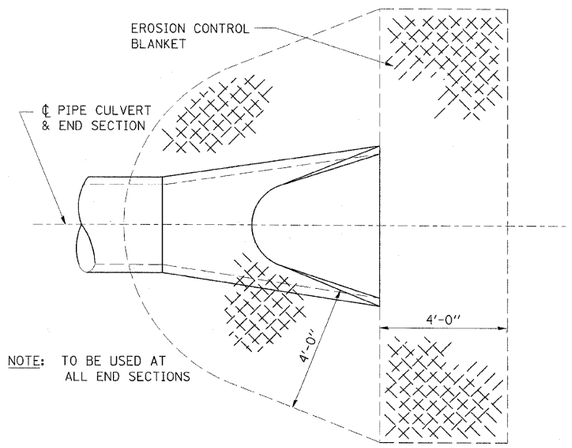
CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	21
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





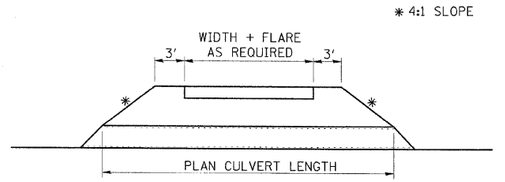
SECTION A–A
MAILBOX TURNOUT DETAILS



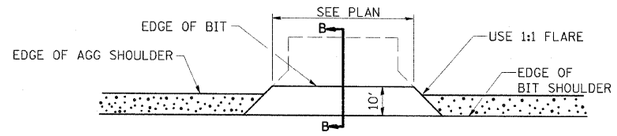
NOTE: TO BE USED AT ALL END SECTIONS

DETAIL OF EROSION CONTROL BLANKET LINING AROUND END SECTION

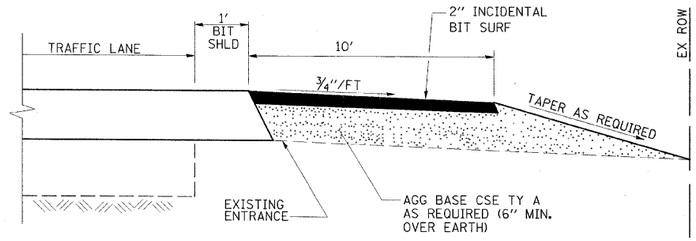
NOTE: PRC FLARED END SECTION SHOWN. TREATMENT SAME FOR OTHER END SECTIONS.



ELEVATION



PLAN
ENTRANCE DETAILS



SECTION B–B

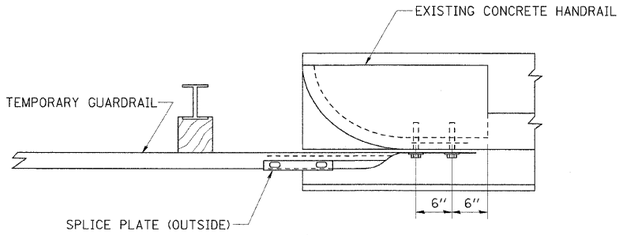
MISCELLANEOUS DETAILS
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

ESCA CONSULTANTS, INC.

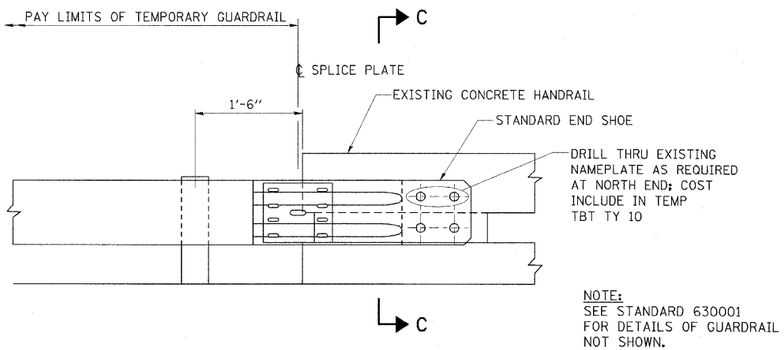
DESIGNED BY:	ELH	07/05
DRAWN BY:	JDK	07/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	22
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

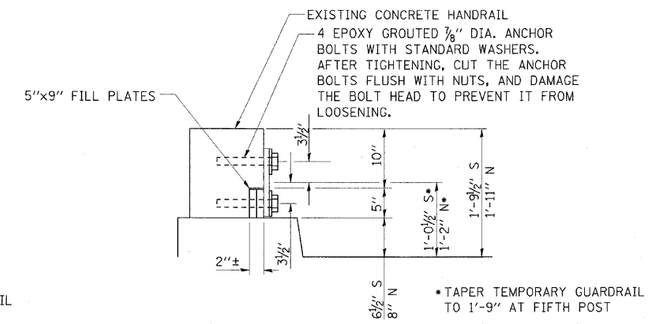


PLAN



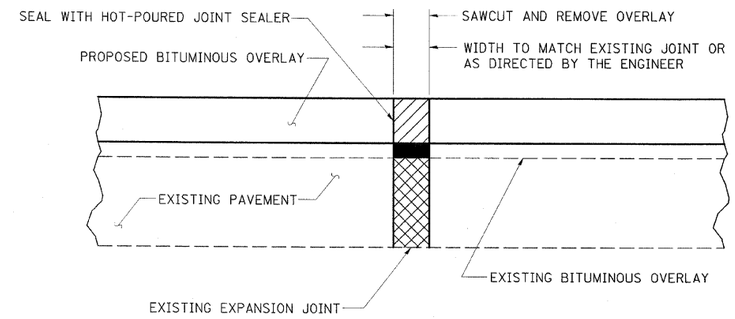
NOTE:
SEE STANDARD 630001 FOR DETAILS OF GUARDRAIL NOT SHOWN.

ELEVATION



SECTION C–C

TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 10 DETAILS



EXPANSION JOINT REHABILITATION DETAIL

STATION 2145+09±, STATION 2146+85±

NOTES:

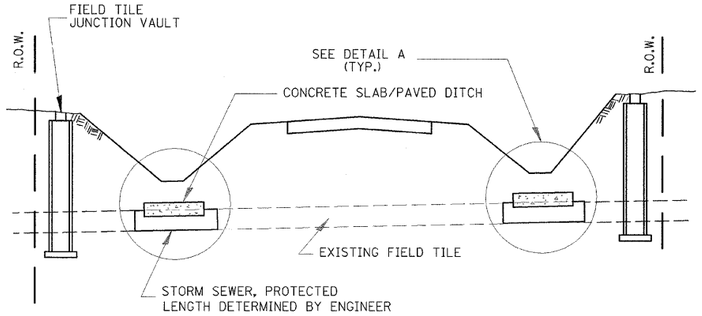
1. THE NEW BITUMINOUS OVERLAY SHALL BE SAWED, REMOVED, AND THE JOINT AREA CLEANED. PRIOR TO PLACING THE HOT-POURED JOINT SEALER THE JOINT SHALL BE BLOWN OUT WITH COMPRESSED AIR.
2. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR EXPANSION JOINT REHABILITATION.

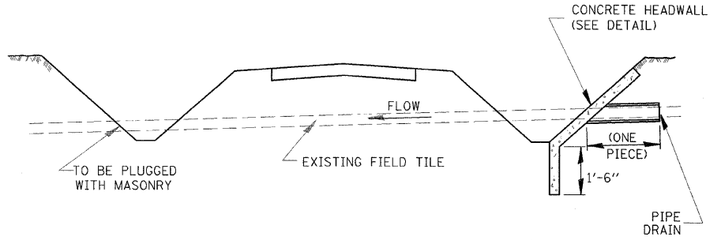
ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	11/05
DRAWN BY:	CJG	12/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

MISCELLANEOUS DETAILS
FAS ROUTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

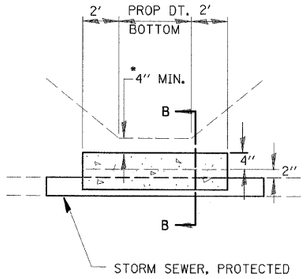
CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	23
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





FIELD TILE REPLACEMENT



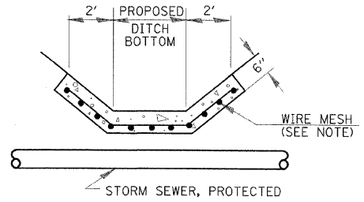
DETAIL A

NO SCALE

*IF A 4" COVER CAN NOT BE PROVIDED A PAVED DITCH SHALL BE CONSTRUCTED AS SHOWN IN DETAIL C.

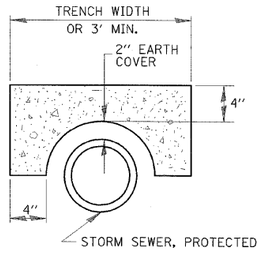
NOTES

1. WIDTH OF CONCRETE SLAB SHALL BE THE SAME AS THE TRENCH WIDTH IN ACCORDANCE WITH SECTION 550 OF THE STD. SPECIFICATIONS, OR 3' MIN.
2. CONCRETE FOR SLAB, HEADWALL AND PAVED DITCH SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE."
3. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.



DETAIL C

NO SCALE

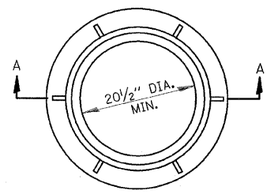


SECTION B–B

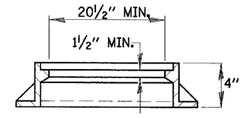
ALTERNATE MATERIALS FOR WALLS	T
PRECAST REINFORCED CONCRETE RISERS	4"
CONCRETE MASONRY UNIT	5"
MONOLITHIC CONCRETE	6"
BUILDING BRICK, GRADE SW FROM CLAY OR SHALE	8"
CONCRETE BUILDING BRICK, GRADE A	8"

NOTES

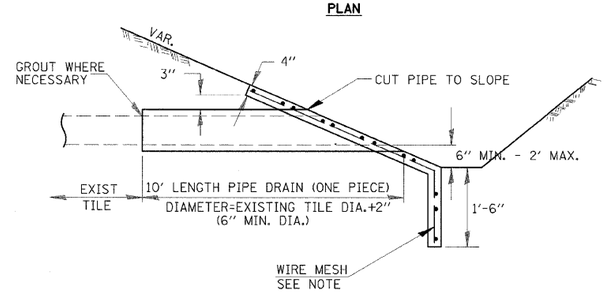
1. THE CONTRACT UNIT PRICE FOR FIELD TILE JUNCTION VAULT SHALL INCLUDE THE COST OF FURNISHING AND PLACING THE FRAME AND GRATE OR PRECAST CONCRETE LID AND WHEN REQUIRED, THE SAND CUSHION.
2. ALL FIELD TILE JUNCTION VAULTS SHALL BE 2'-0" IN DIAMETER UNLESS OTHERWISE NOTED ON THE PLANS.



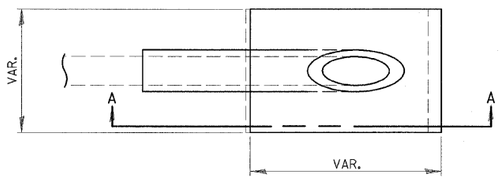
± 145°



SECTION A-A



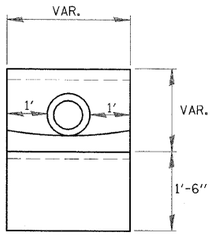
SECTION A-A



PLAN

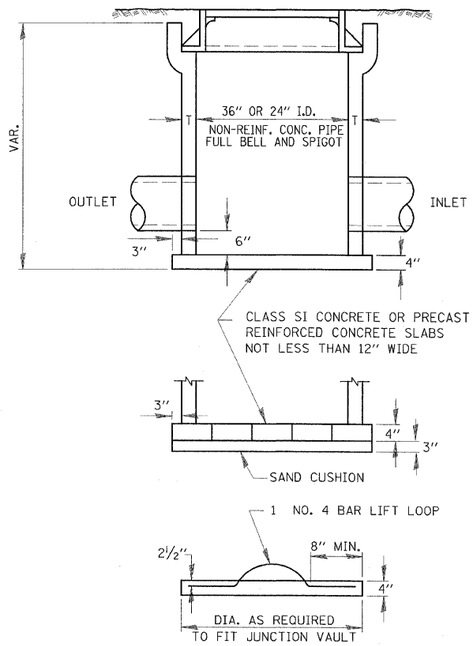
NOTES

1. ANY STORM SEWER OR FIELD TILE OUTLET INTO A DITCH SHALL HAVE A HEADWALL BUILT IN ACCORDANCE WITH THIS DETAIL.
2. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.



END VIEW

CLASS SI CONCRETE HEADWALLS



FIELD TILE JUNCTION VAULT

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	08/05
DRAWN BY:	HAG	08/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

FIELD TILE DETAILS
FAS RTE 338 (US 45)
SECTION 34BR
IROQUOIS COUNTY

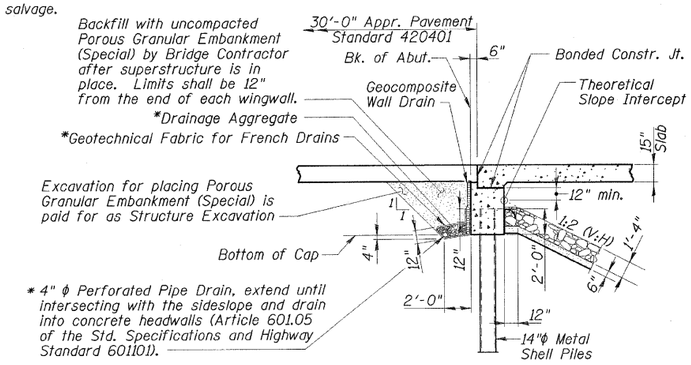
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	24
STA		TO STA		
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-		
		DWG. NO. 1 OF 13		

CONTRACT NO. 66610

BENCHMARK: Chiseled "X" on top of Southeast Wingwall, SN 038-0044: Elev. 698.79.

EXISTING STRUCTURE: SN 038-0044 was originally built in 1922 as SBI Rte. 25, Section 34. Superstructure replaced and substructure widened in 1952 as FA Rte 26 (SBI Rte 25) Section 34-B-Y. The structure consists of 2 spans of a continuous reinforced concrete slab on closed abutments and a center concrete open pile bent pier. The bridge is 61'-4" bk.-bk. abuts. and 38'-4" O.-O. deck Existing structure is to be removed and replaced. One lane of traffic will be maintained utilizing Stage Construction.

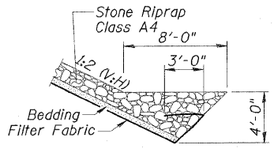
No salvage.



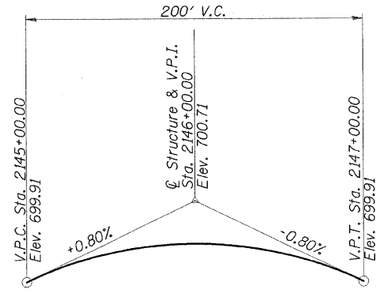
Note: Geocomposite Wall Drain, Geotechnical Fabric for French Drains, and Drainage Aggregate shall extend to 2'-0" from the end of each wingwall.

SECTION THRU INTEGRAL ABUTMENT

* Included in the cost of Pipe Underdrains for Structures.

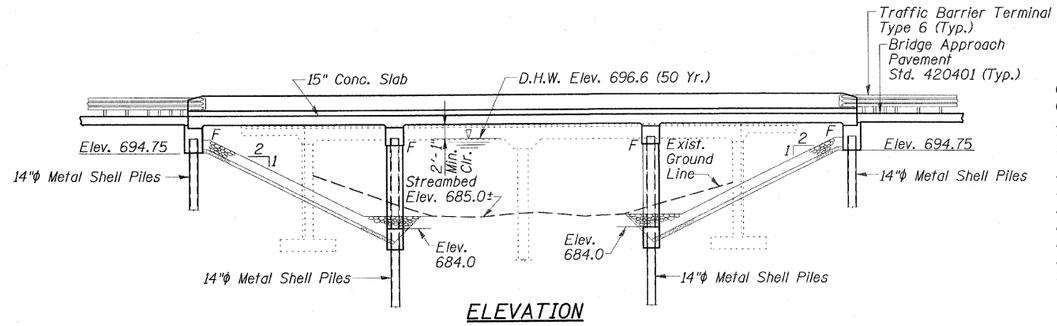


SECTION A-A

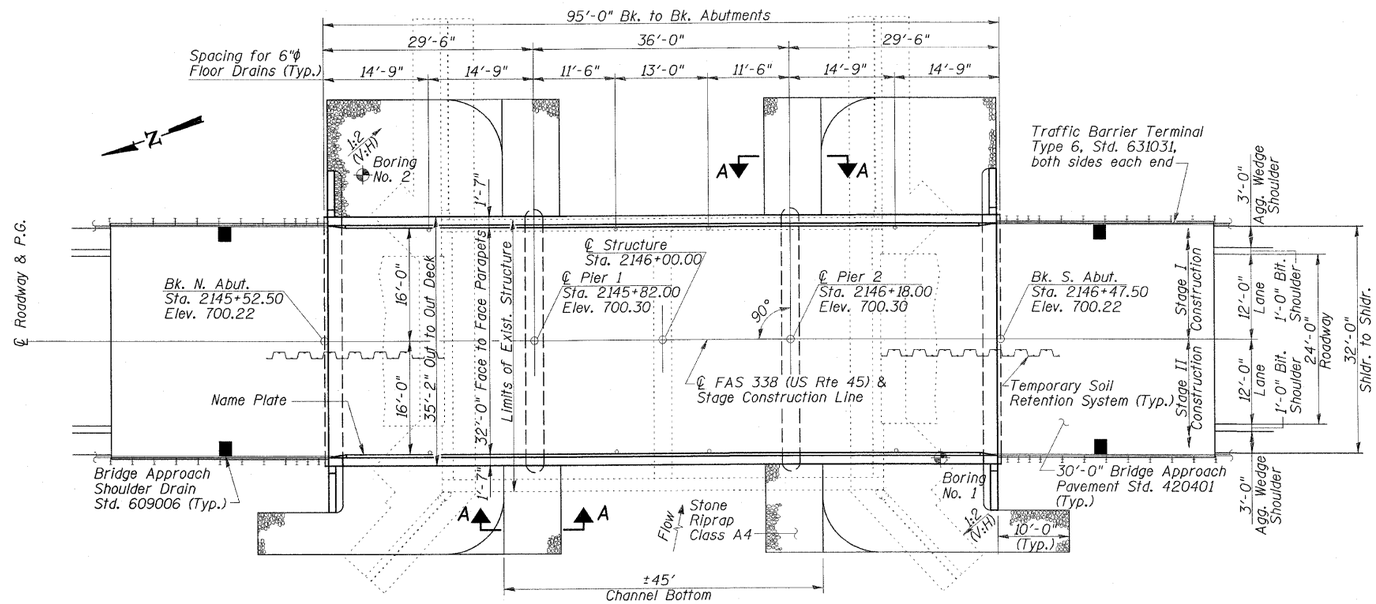


PROFILE GRADE

(Along ℄ Roadway)



ELEVATION



PLAN

STRUCTURE INDEX OF SHEETS

WATERWAY INFORMATION

Exist. Low Grade Elev. = 696.8 Ft. @ Sta. 2141+00
Drainage Area = 34.22 Sq. Mi. Prop. Low Grade Elev. = 697.8 Ft. @ Sta. 2132+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1810	506	565	695.7	0.9	0.9	696.6	696.6
Design	50	2636	554	637	696.6	1.5	1.3	698.1	697.9
Base	100	2962	555	654	696.8	1.7	1.5	698.5	698.3
Existing Overtopping	20	1900	511	-	695.8	1.0	-	696.8	-
Proposed Overtopping	50	2600	-	629	696.5	-	1.3	-	697.8

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

Allow 50 psf for future wearing surface.

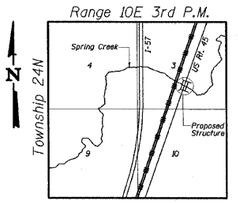
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.045g
Site Coefficient (S) = 1.2



LOCATION SKETCH

DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	09/08
APPROVED BY:	RDP	09/08

ESCA CONSULTANTS, INC.

STATE OF ILLINOIS
RICHARD D. PAYNE
No. 4647
LICENSED STRUCTURAL ENGINEER

EXPIRES 11-30-09

SIGNATURE

09-09-08
DATE

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E Anderson
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN
US ROUTE 45 OVER SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	25
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

DWG. NO. 2 OF 13

CONTRACT NO. 66610

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
2. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
3. The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.
4. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations specified or approved by the Engineer before ordering the remainder of the piles.
5. 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.
6. All construction joints shall be bonded.
7. The Contractor shall limit the pile hammer size selected considering the relatively high soil strengths indicated in the borings and avoid overdriving the piles beyond their required bearing to prevent pile damage during driving.
8. Slipforming of parapets is not allowed.

STATION 2146+00
BUILT 200_ BY
STATE OF ILLINOIS
FAS ROUTE 338-SECTION 34BR
LOADING HS20-44
STR. NO. 038-0214

NAME PLATE

See Std. 515001

STRUCTURE INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		54	54
Stone Riprap, Class A4	Sq. Yd.		500	500
Filter Fabric	Sq. Yd.		500	500
Removal of Existing Structures	Each	0.5	0.5	1
Structure Excavation	Cu. Yd.		177	177
Concrete Structures	Cu. Yd.		108.8	108.8
Concrete Superstructure	Cu. Yd.	182.4		182.4
Bridge Deck Grooving	Sq. Yd.	314		314
Protective Coat	Sq. Yd.	413		413
Reinforcement Bars, Epoxy Coated	Pound	44680	10300	54980
Furnishing Metal Shell Piles 14"x0.25"	Foot		1090	1090
Driving Piles	Foot		1090	1090
Test Pile Metal Shells	Each		4	4
Name Plates	Each	1		1
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1
Bar Splicers	Each	186	88	274
Floor Drains	Each	8		8
Temporary Soil Retention System	Sq. Ft.		136	136
Pipe Underdrains for Structures 4"	Foot		126	126
Geocomposite Wall Drain	Sq. Yd.		36	36

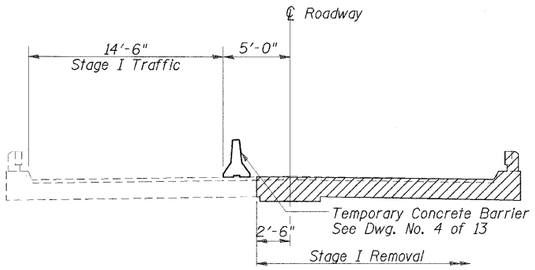
ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	09/08
APPROVED BY:	RDP	09/08

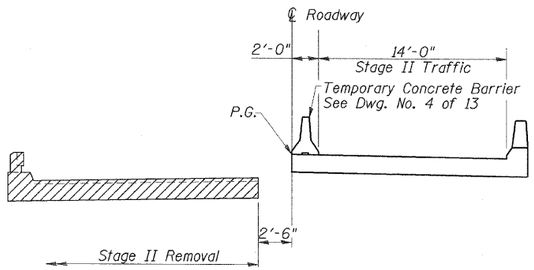
GENERAL DATA
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	26
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		
		DWG. NO. 3 OF 13		

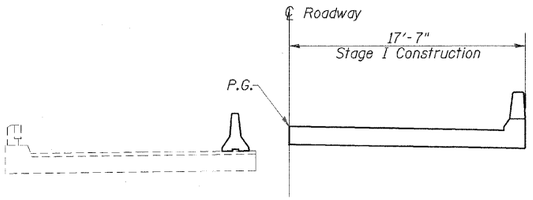
CONTRACT NO. 66610



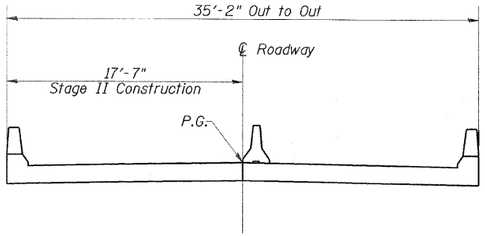
STAGE I REMOVAL



STAGE II REMOVAL



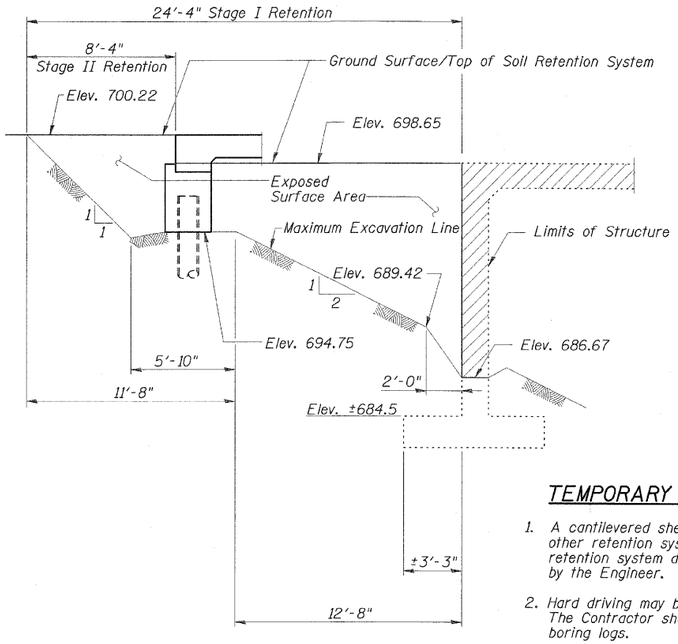
STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

STAGE CONSTRUCTION NOTES

1. Hatched areas indicate removal of existing concrete slab.
2. All staging sections are looking North.
3. For quantity of Temporary Concrete Barrier, see roadway plans.



TEMPORARY SOIL RETENTION SYSTEM

(North Abutment Shown; South Abutment Similar)

TEMPORARY SOIL RETENTION SYSTEM NOTES

1. 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.
2. Hard driving may be encountered during the Temporary Soil Retention System installation. The Contractor shall provide driving equipment for the soil conditions indicated on the boring logs.

STRUCTURE INDEX OF SHEETS

ESCA CONSULTANTS, INC.

DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

STAGE CONSTRUCTION DETAILS
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

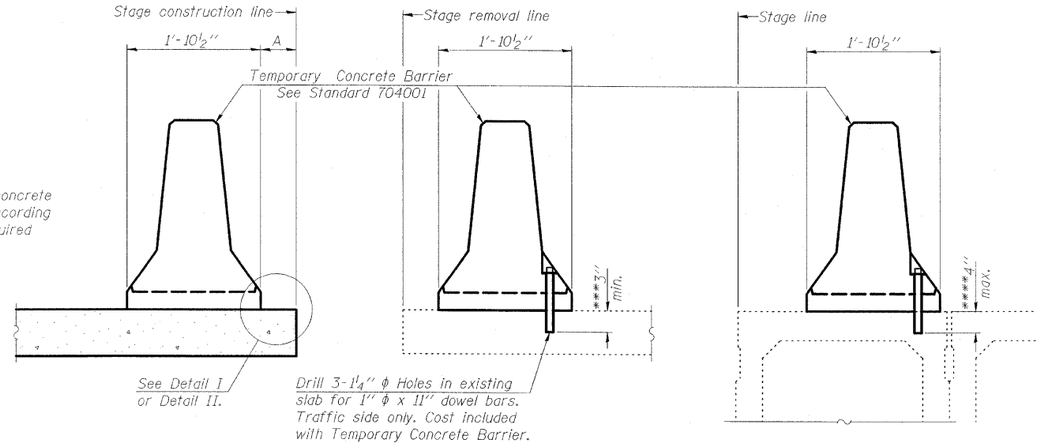
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	27
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

DWG. NO. 4 OF 13

CONTRACT NO. 66610

STRUCTURE INDEX OF SHEETS

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



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

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

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

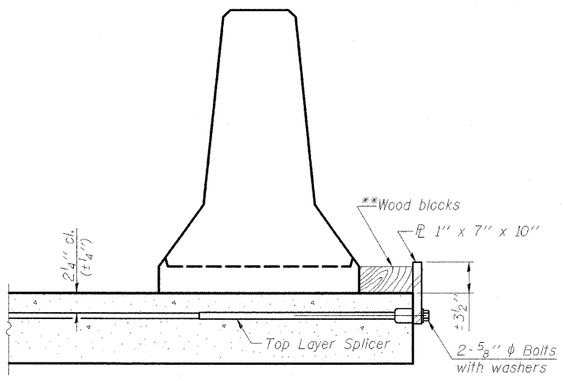
Cost of anchorage is included with Temporary Concrete Barrier.

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

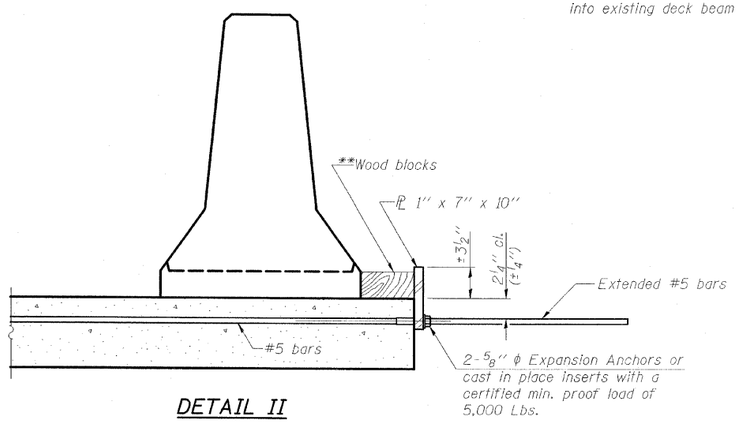
SECTIONS THRU SLAB OR DECK BEAM

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

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

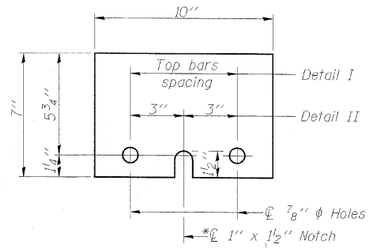


DETAIL I



DETAIL II

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



STEEL RETAINER ℙ 1" x 7" x 10"

*Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	09/08
APPROVED BY:	RDP	09/08

R-27

5-16-08

FACES OF EAST & WEST PARAPETS

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
N. End of Slab	214553.000	-16.417	699.942	699.942
CL N. Abut.	214553.750	-16.292	699.948	699.948
a	214563.750	-16.000	699.987	699.990
b	214573.750	-16.000	700.012	700.013
CL Pier 1	214582.000	-16.000	700.026	700.026
c	214592.000	-16.000	700.037	700.040
d	214602.000	-16.000	700.039	700.044
e	214612.000	-16.000	700.033	700.035
CL Pier 2	214618.000	-16.000	700.026	700.026
f	214628.000	-16.000	700.008	700.010
g	214638.000	-16.000	699.981	699.985
CL S. Abut.	214646.250	-16.292	699.948	699.948
S. End of Slab	214647.000	-16.417	699.942	699.942

EAST & WEST EDGES OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
N. End of Slab	214553.000	-12.000	700.034	700.034
CL N. Abut.	214553.750	-12.000	700.037	700.037
a	214563.750	-12.000	700.070	700.075
b	214573.750	-12.000	700.095	700.097
CL Pier 1	214582.000	-12.000	700.110	700.110
c	214592.000	-12.000	700.120	700.125
d	214602.000	-12.000	700.122	700.129
e	214612.000	-12.000	700.117	700.119
CL Pier 2	214618.000	-12.000	700.110	700.110
f	214628.000	-12.000	700.091	700.094
g	214638.000	-12.000	700.065	700.070
CL S. Abut.	214646.250	-12.000	700.037	700.037
S. End of Slab	214647.000	-12.000	700.034	700.034

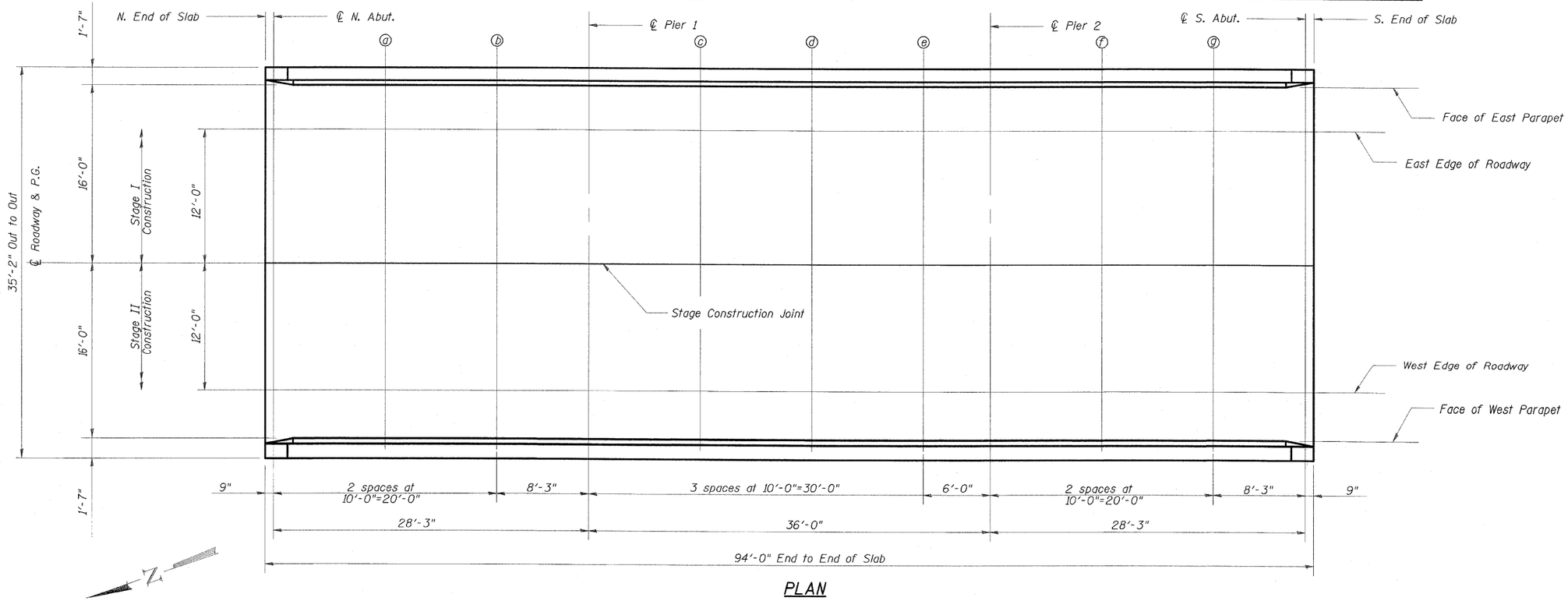
℄ OF ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
N. End of Slab	214553.000	0.000	700.222	700.222
CL N. Abut.	214553.750	0.000	700.224	700.224
a	214563.750	0.000	700.257	700.266
b	214573.750	0.000	700.282	700.287
CL Pier 1	214582.000	0.000	700.297	700.297
c	214592.000	0.000	700.307	700.316
d	214602.000	0.000	700.310	700.322
e	214612.000	0.000	700.304	700.308
CL Pier 2	214618.000	0.000	700.297	700.297
f	214628.000	0.000	700.279	700.284
g	214638.000	0.000	700.252	700.260
CL S. Abut.	214646.250	0.000	700.224	700.224
S. End of Slab	214647.000	0.000	700.222	700.222

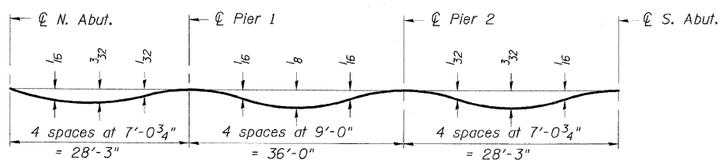
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	28
STA.		TO STA.		
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-		
		DWG. NO. 5 OF 13		

CONTRACT NO. 66610

STRUCTURE INDEX OF SHEETS



PLAN



DEAD LOAD DEFLECTION DIAGRAM

Note: (Includes weight of concrete only.)
The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflection as shown above.

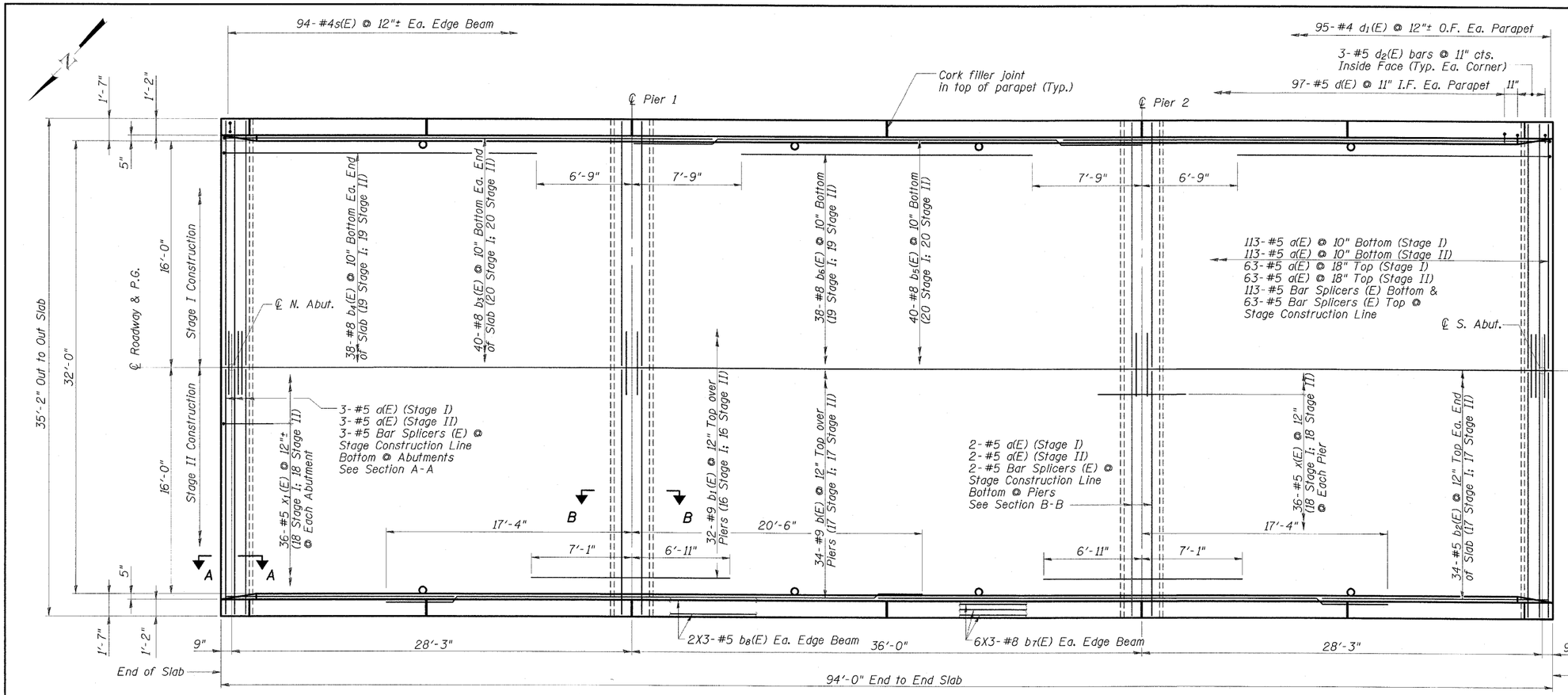
ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

TOP OF SLAB ELEVATIONS
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

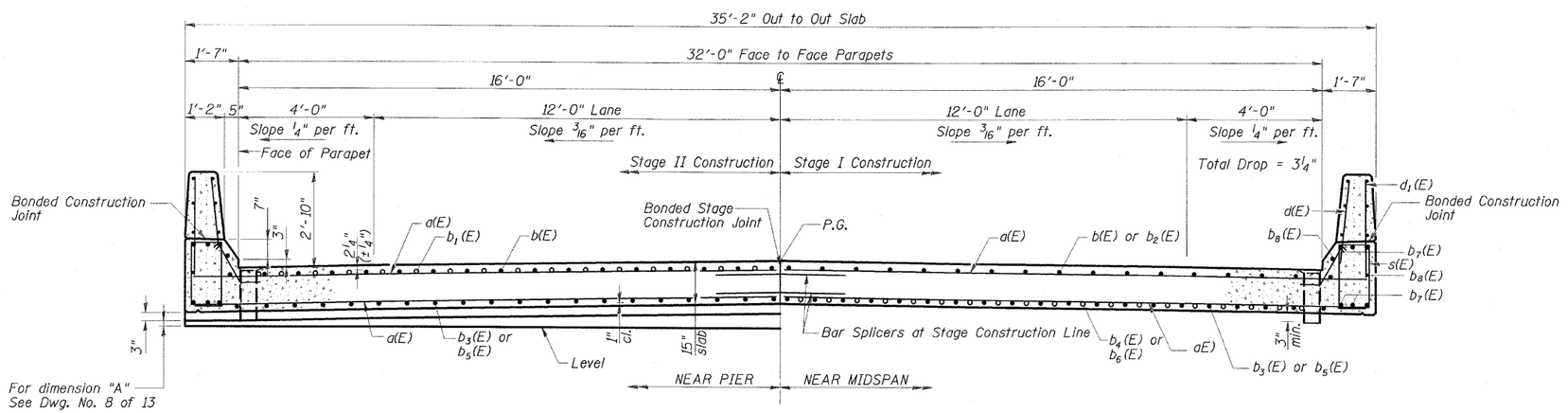
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	29
STA		TO STA		
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-		

DWG. NO. 6 OF 13

CONTRACT NO. 66610



PLAN



CROSS SECTION
(Looking North)

STRUCTURE INDEX OF SHEETS

NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Bars indicated thus: 32 x 4-#5 etc. indicates 32 lines of bars with 4 lengths per line.
3. See Dwg. Nos. 7 & 8 of 13 for Superstructure Details, Bill of Material, parapet reinforcement, and sections.

Min. Bar Lap

#4	1'-4"
#5	1'-10"
#8	3'-5"
#9	4'-11"

ESCA CONSULTANTS, INC.

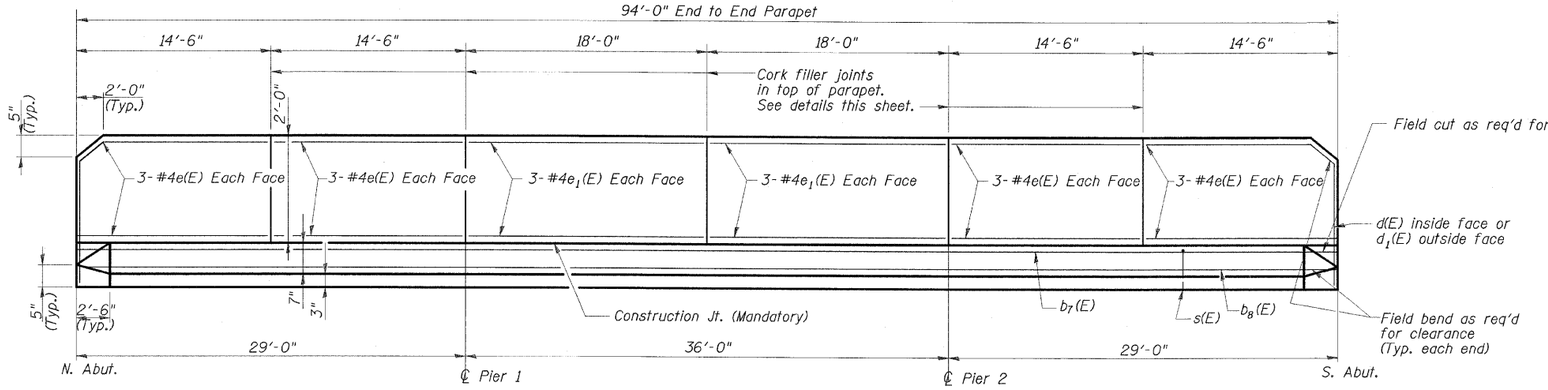
DESIGNED BY:	ELH	01/05
DRAWN BY:	HAG	01/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

SUPERSTRUCTURE
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	30
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

DWG. NO. 7 OF 13

CONTRACT NO. 66610



Note: See Dwg. No. 6 of 13 for slab and edge beam reinforcement.

STRUCTURE INDEX OF SHEETS

SUPERSTRUCTURE BILL OF MATERIAL

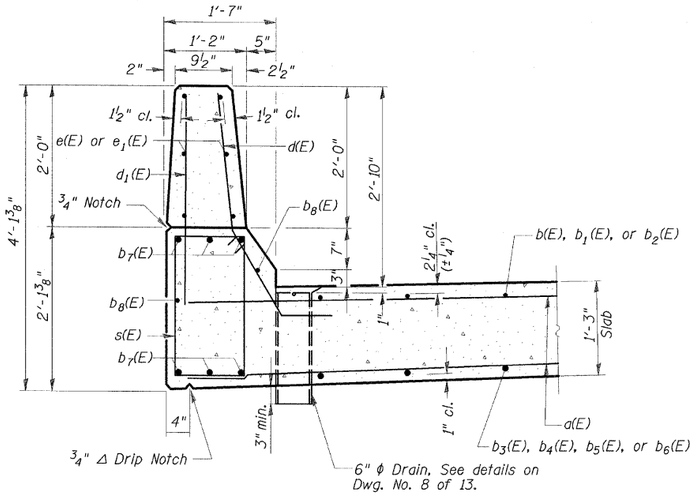
Bar	No.	Size	Length	Shape
a(E)	372	#5	17'-2"	——
b(E)	68	#9	37'-10"	——
b_1(E)	64	#9	14'-0"	——
b_2(E)	68	#5	16'-6"	——
b_3(E)	80	#8	33'-5"	⊔
b_4(E)	76	#8	23'-2"	⊔
b_5(E)	40	#8	36'-0"	——
b_6(E)	38	#8	20'-6"	——
b_7(E)	36	#8	33'-6"	——
b_8(E)	12	#5	32'-6"	——
d(E)	194	#5	3'-10"	⊔
d_1(E)	190	#4	3'-1"	—
d_2(E)	12	#5	3'-7"	⊔
e(E)	48	#4	14'-3"	——
e_1(E)	24	#4	17'-9"	——
s(E)	188	#4	6'-4"	□
x(E)	72	#5	7'-0"	⌇
x_1(E)	72	#5	5'-2"	⊔
Reinforcement Bars, Epoxy Coated		Pound	44,680	
Concrete Superstructure		Cu. Yds.	182.4	
Bar Splicers		Each	186	

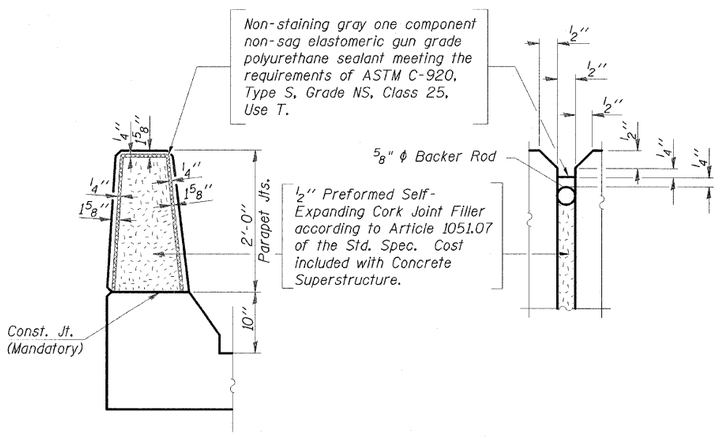
Reinforcement bars designated (E) shall be epoxy coated.

Name Plate to be mounted on inside face of parapet. See Dwg. Nos. 1 and 2 of 13.

INSIDE ELEVATION OF PARAPET

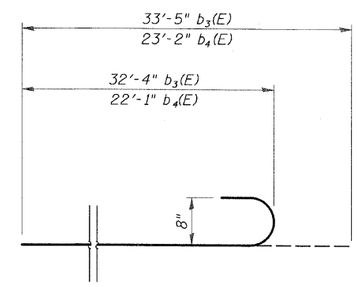
(East Parapet shown; West Parapet similar)



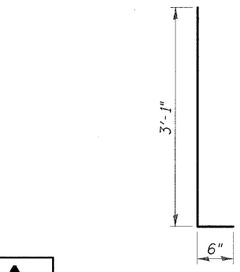


PARAPET JOINT DETAILS

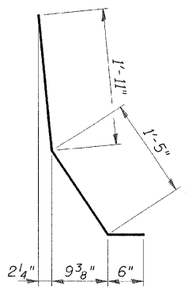
SECTION THRU PARAPET



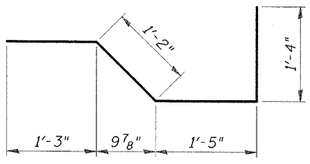
BARS b_3(E) & b_4(E)



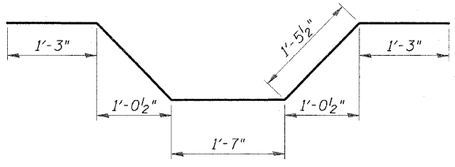
BAR d_2(E)



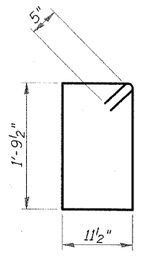
BAR d(E)



BAR x_1(E)



BAR x(E)



BAR s(E)

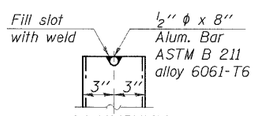
ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

SUPERSTRUCTURE DETAILS
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

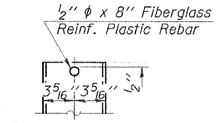
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	31
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		
		DWG. NO. 8 OF 13		

CONTRACT NO. 66610

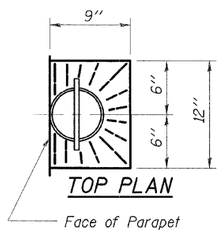
STRUCTURE INDEX OF SHEETS



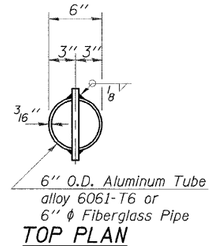
ALUMINUM TUBE



FIBERGLASS PIPE



TOP PLAN



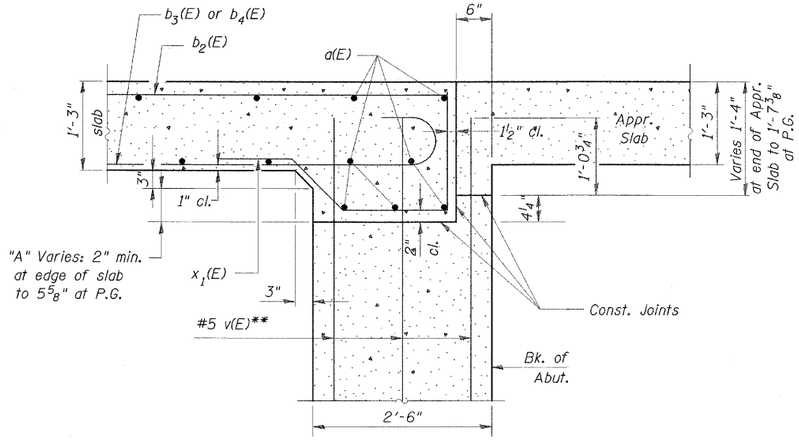
TOP PLAN
(Showing Aluminum Tube)

FLOOR DRAIN DETAILS

Notes:

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.

The exterior surfaces of the Fiberglass Floor Drains shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC-SPI & SSPC-Paint 27 prior to painting with a vinyl enamel coat. The color shall be light grey Munsell No. 10Y 7/1. Painting of the Fiberglass Floor Drains will not be required when the exterior surfaces of the furnished drains are coated by the manufacturer with a pigment that matches the color of the concrete slab.

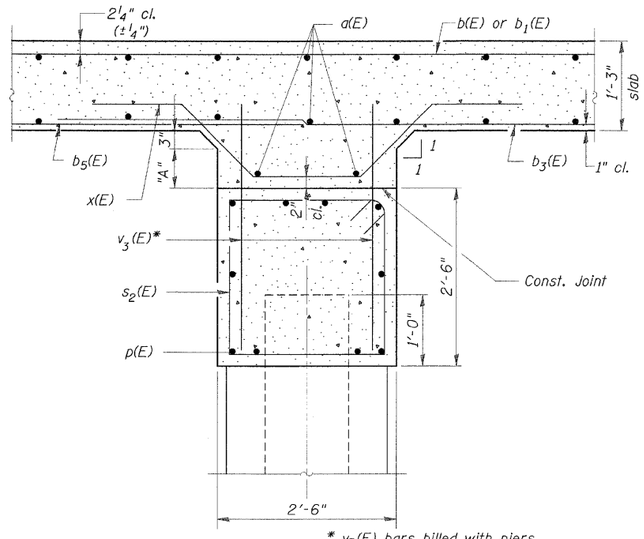


** v(E) bars billed with abutments
See Dwg. No. 9 of 13.

SECTION A-A

DIMENSION "A"

	Pier 1	Pier 2
West edge of superstructure	2"	2"
West edge of roadway	3 3/8"	3 3/8"
℄ Roadway & P.G.	5 5/8"	5 5/8"
East edge of roadway	3 3/8"	3 3/8"
East edge of superstructure	2"	2"



* v3(E) bars billed with piers
See Dwg. No. 10 of 13.

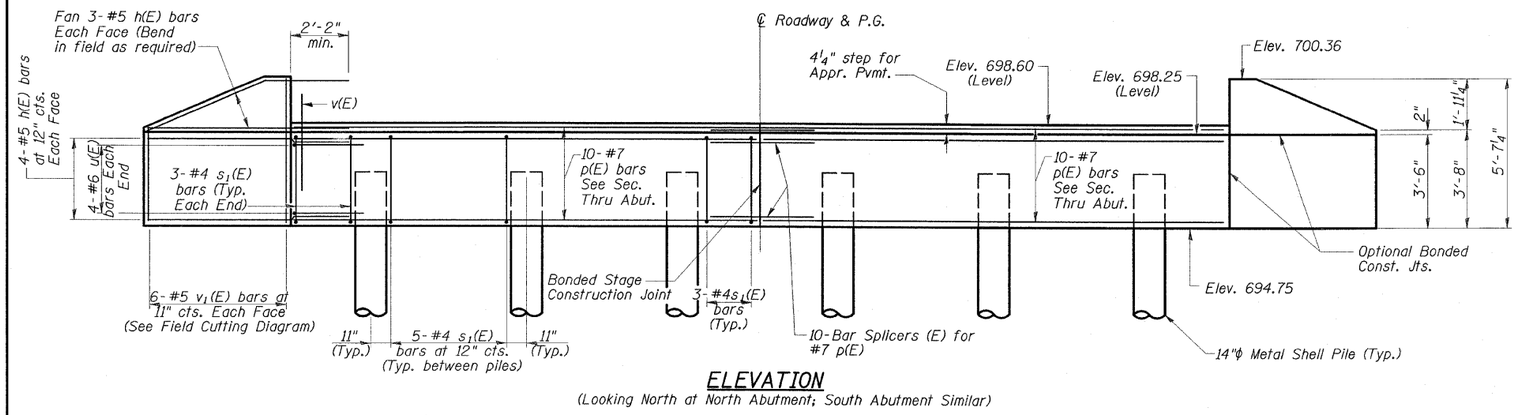
SECTION B-B

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

SUPERSTRUCTURE DETAILS
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

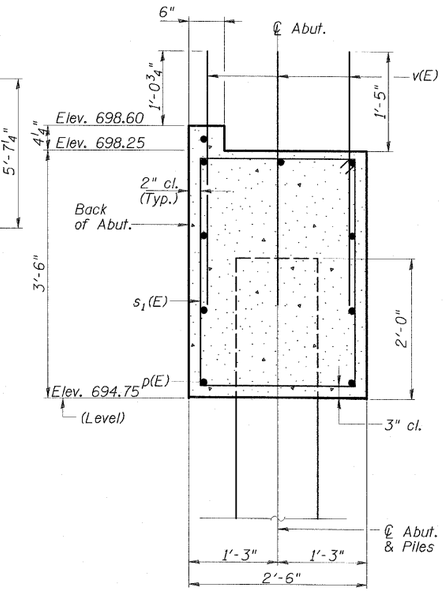
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	32
STA		TO STA		
FED. ROAD DIST. NO. 9		ILLINOIS	FED. AID PROJECT-	
		DWG. NO. 9 OF 13		

CONTRACT NO. 66610



ELEVATION

(Looking North at North Abutment; South Abutment Similar)

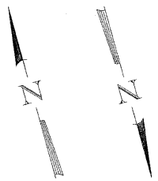


SECTION THRU ABUTMENT

STRUCTURE INDEX OF SHEETS

NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. See Dwg. No. 1 of 13 for backfill and drainage required for abutment construction.
3. See Dwg. No. 11 of 13 for Detail of Reinforcement for Metal Shells at Abutments.



PLAN

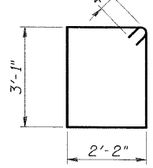
(North Abutment Shown; South Abutment Similar)

ABUTMENT BILL OF MATERIAL

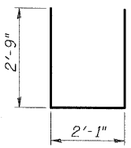
(FOR ONE ABUTMENT UNLESS NOTED OTHERWISE)

Bar	No.	Size	Length	Shape
h(E)	28	#5	7'-0"	
p(E)	20	#7	17'-3"	
s1(E)	32	#4	11'-3"	
u(E)	8	#6	7'-7"	
v(E)	102	#5	3'-7"	
v1(E)	12	#5	8'-6"	

		N. Abut.	S. Abut.
Concrete Structures	Cu. Yd.	13.0	13.0
Reinforcement Bars, Epoxy Coated	Pound	1740	1740
Structure Excavation	Cu. Yd.	56	56
Test Pile Metal Shells	Each	1	1
Furnishing Metal Shell Piles 14"x0.25"	Lin. Ft.	245	280
Driving Piles	Lin. Ft.	245	280
Bar Splicers	Each	10	10
Geocomposite Wall Drain	Sq. Yd.	18	18
Pipe Underdrains for Structures 4"	Foot	63	63

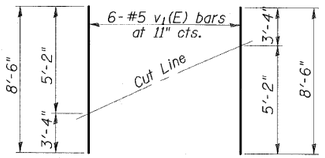


BAR s_1(E)



BAR u(E)

BAR BENDING DETAILS



BAR v_1(E)

FIELD CUTTING DIAGRAM

Order v_1(E) full length. Cut as shown and use remainder of bars in oppposite face.

PILE DATA

Type & Size: Metal Shell - 14 in. dia. x 0.25 in. walls
Nominal Required Bearing: 240 kips
Allowable Resistance Available: 80 kips
Estimated Length: 49' (N. Abut.)
56' (S. Abut.)
No. Required: 5+1 test pile each abutment; 12 total

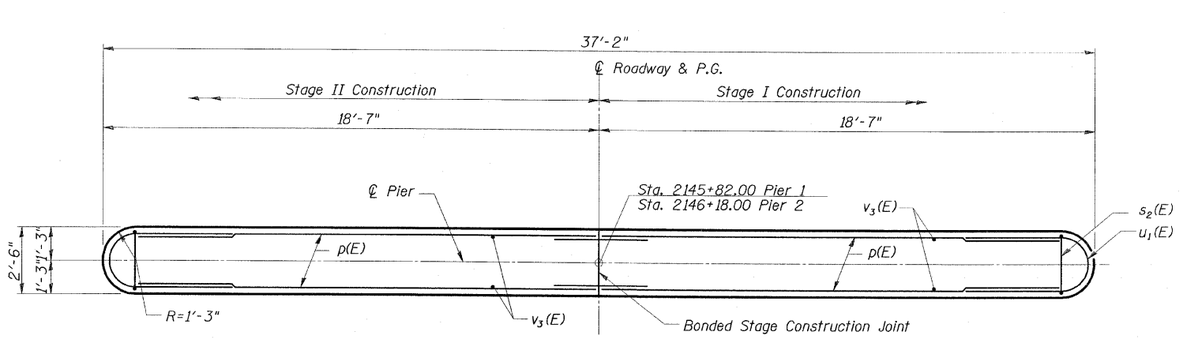
ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	01/05
DRAWN BY:	HAG	01/05
CHECKED BY:	ELH	09/08
APPROVED BY:	RDP	09/08

ABUTMENTS
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

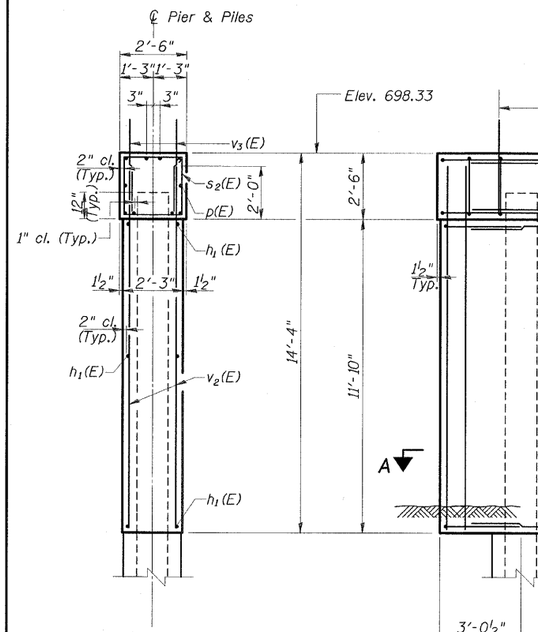
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	33
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

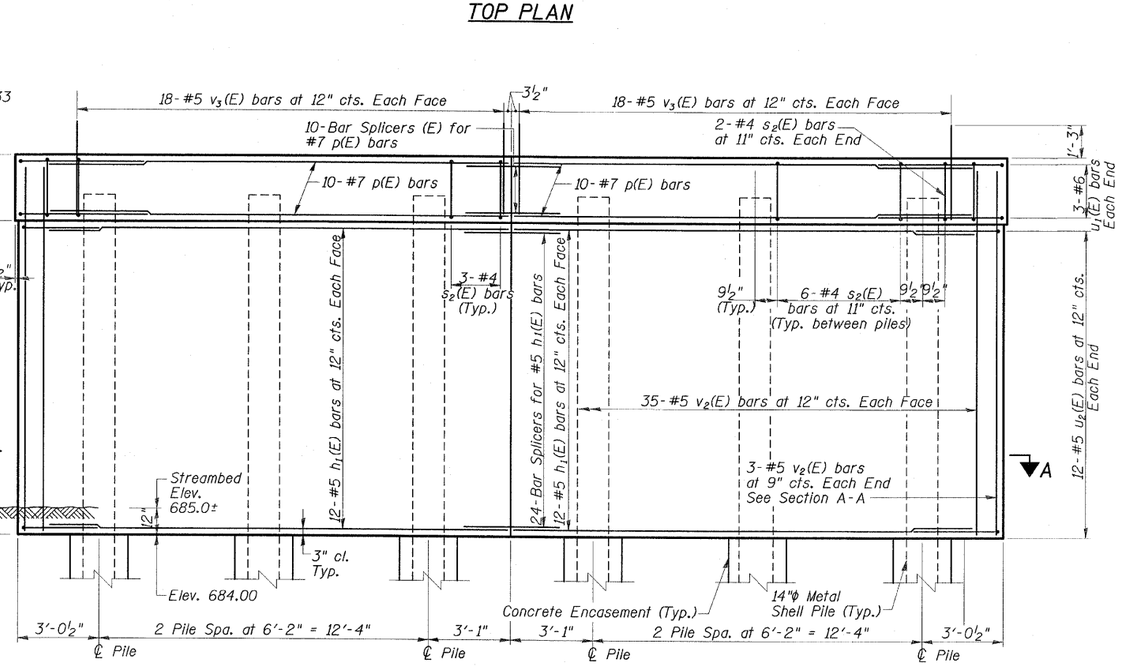
DWG. NO. 10 OF 13

CONTRACT NO. 66610



TOP PLAN



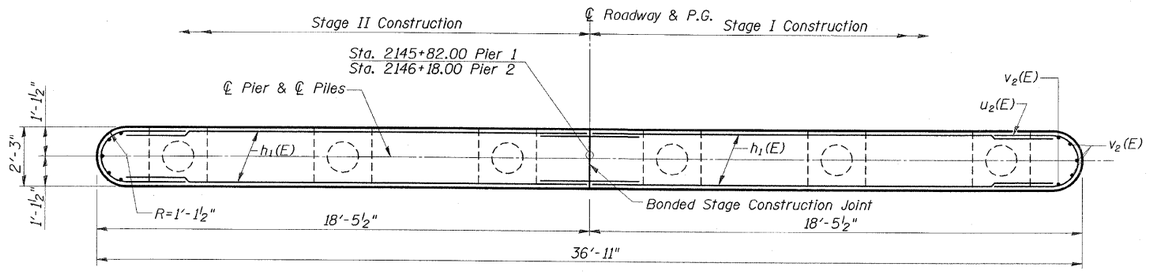


END VIEW

ELEVATION
(Looking North)

PILE DATA

Type & Size: Metal Shell - 14 in. dia. x 0.25 in. walls
Nominal Required Bearing: 360 kips
Allowable Resistance Available: 120 kips
Estimated Length: 51' (Pier 1)
62' (Pier 2)
No. Required: 5+1 test pile each pier; 12 total



SECTION A-A

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	09/08
APPROVED BY:	RDP	09/08

STRUCTURE INDEX OF SHEETS

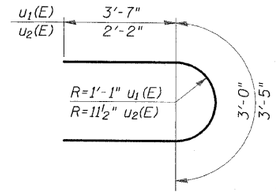
NOTES

1. Bars designated (E) shall be epoxy coated.
2. For concrete encasement details see Dwg. No. 11 of 13.

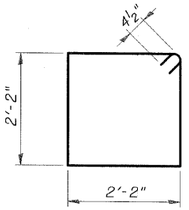
BILL OF MATERIAL
(FOR ONE PIER UNLESS NOTED OTHERWISE)

Bar	No.	Size	Length	Shape
h_1(E)	48	#5	17'-3"	
p(E)	20	#7	17'-3"	
s_2(E)	34	#4	9'-5"	
u_1(E)	6	#6	10'-7"	
u_2(E)	24	#5	7'-4"	
v_2(E)	76	#5	13'-7"	
v_3(E)	72	#5	3'-6"	

		Pier 1	Pier 2
Concrete Structures	Cu. Yd.	41.4	41.4
Reinforcement Bars, Epoxy Coated	Pound	3410	3410
Structure Excavation	Cu. Yd.	35	30
Furnishing Metal Shell Piles 14"x0.25"	Lin. Ft.	255	310
Driving Piles	Lin. Ft.	255	310
Bar Splicers	Each	34	34
Underwater Structure Excavation Protection-Location 1	Each	1	
Underwater Structure Excavation Protection-Location 2	Each		1
Test Pile Metal Shells	Each	1	1



BARS u_1(E) & u_2(E)



BAR s_2(E)

BAR BENDING DETAILS

PIERS
US ROUTE 45 OVER SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

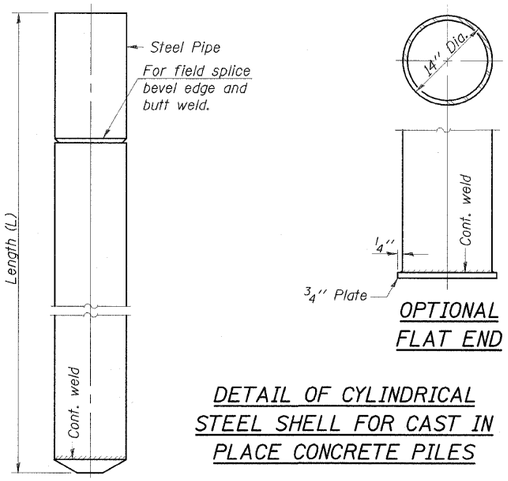
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	34
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

DWG. NO. 11 OF 13

CONTRACT NO. 66610

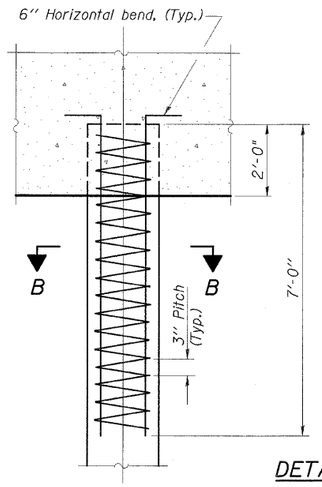
STRUCTURE INDEX OF SHEETS

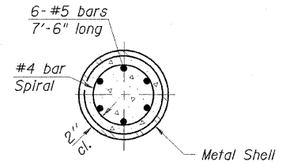
Notes:
Driving and bearing ends of pipe shall be cut square. The thickness of the shell shall be 0.250 inches with a tolerance of 5% .
The shell shall be according to Article 1006.05(a) of the Standard Specifications.



OPTIONAL FLAT END

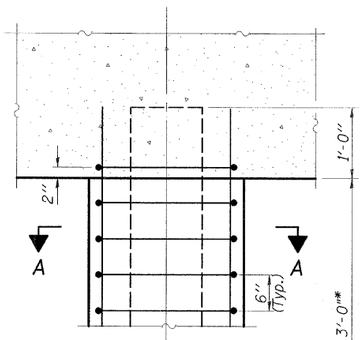
DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



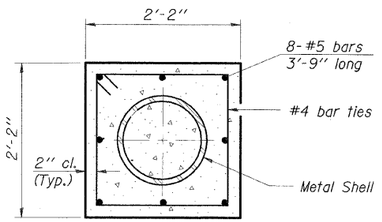


SECTION B-B

DETAIL OF REINFORCEMENT FOR METAL SHELLS AT ABUTMENTS



* If a portion of the pile encasement is under water, Concrete Encasement shall be tremmied under water into forms as necessary.



SECTION A-A

The cost of reinforcement, concrete encasement, and excavation is included with furnishing piles and test piles. Forms for encasement may be omitted when soil conditions will permit.

DETAIL OF PROTECTION FOR METAL SHELLS AT PIERS

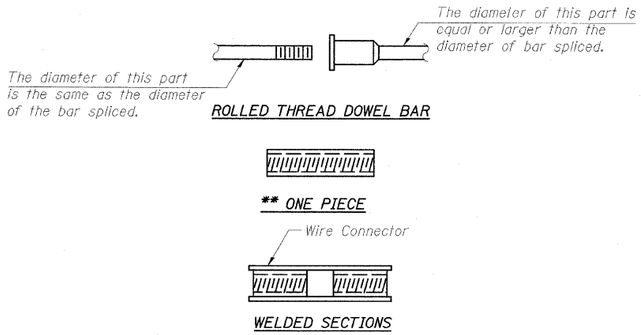
ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

METAL SHELL PILE DETAILS
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	35
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

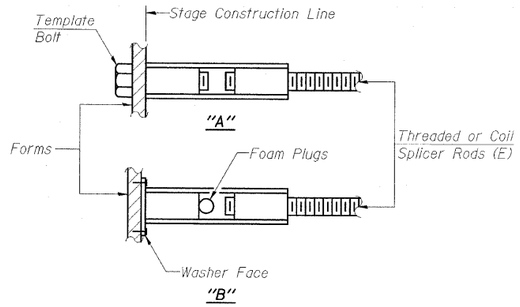
DWG. NO. 12 OF 13

CONTRACT NO. 66610



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:

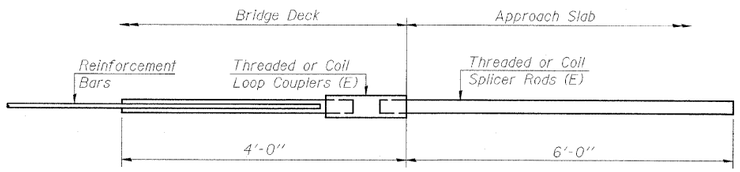
① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

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

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

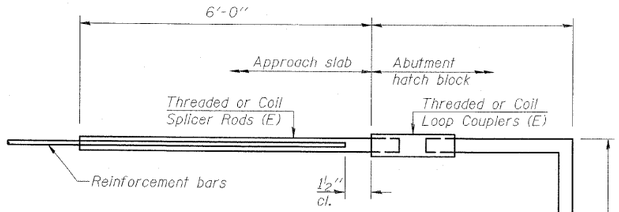
STRUCTURE INDEX OF SHEETS

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



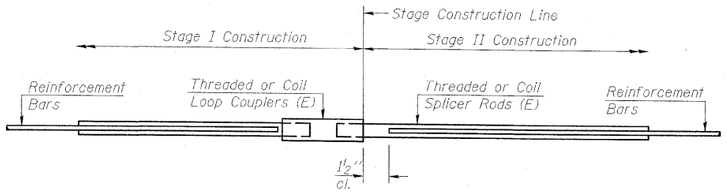
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



STANDARD

Bar Size	No. Assemblies Required	Location
#5	186	Superstructure
#7	10	N. Abutment
#7	10	S. Abutment
#5	24	Pier 1
#7	10	Pier 1
#5	24	Pier 2
#7	10	Pier 2

BAR SPLICER ASSEMBLY DETAILS
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

ESCA CONSULTANTS, INC.

DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	09/08
APPROVED BY:	RDP	09/08

BSD-1 5-16-08

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	36
STA		TO STA		
FED. ROAD DIST. NO. *	ILLINOIS	FED. AID PROJECT-		

DWG. NO. 13 OF 13

CONTRACT NO. 66610

STRUCTURE INDEX OF SHEETS

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

SOIL BORING LOG

Page 1 of 2

ROUTE FA 28(US45) DESCRIPTION US ROUTE 45 OVER SPRING CREEK SOUTH OF BUCKLEY Date 8/20/03

SECTION 34 BR LOCATION SW 1/4, SEC. 3, TWP. 24N, RNG. 10E, 3rd PM LOGGED BY IDOT-LM

COUNTY IROQUOIS DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 038-0044 EXISTING
Station 2146+00

BORING NO. 02 NORTH ABUT
Station ~~4146+42~~ 2146+58
Offset 23.50ft ~~RT~~ LT
Ground Surface Elev. 696.89 ft

Surface Water Elev. 686.70 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion 689.9 ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
AUGERED Brown SANDY CLAY LOAM TILL (FILL)			
695.39			
Stiff Brown SANDY CLAY LOAM (FILL)			
	2		
	3	1.0	20.0
	2	P	
	2		
-5	2	1.3	23.0
	3	B	
	1		
▽			
	3	1.6	18.0
688.89	3	B	
Soft Gray CLAY LOAM			
	2		
-10	1	0.4	28.0
	2	B	
685.89			
Hard Brown SANDY CLAY LOAM TILL			
	3		
	6	7.5	18.0
	11	S	
683.39			
Hard Gray CLAY LOAM TILL			
	4		
-15	8	4.9	17.0
	9	B	
680.89			
Stiff Gray CLAY TILL			
	2		
	3	1.3	23.0
	5	B	
	1		
-20	3	2.0	22.0

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff Gray CLAY TILL (continued)			
	8	B	
	1		
	3	1.3	25.0
	3	S	
	1		
-35	3	1.3	26.0
	4	B	
	WOH		
-40	1	1.0	26.0
	4	S	
663.89			
Stiff Brown Layers of SILT, CLAY & Fine SAND			
	1		
-45	3	1.1	21.0
	4	B	
	10		
-50	10	-	-

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

BBS, from 137 (Rev. 8-99)

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

SOIL BORING LOG

Page 2 of 2

ROUTE FA 28(US45) DESCRIPTION US ROUTE 45 OVER SPRING CREEK SOUTH OF BUCKLEY Date 8/20/03

SECTION 34 BR LOCATION SW 1/4, SEC. 3, TWP. 24N, RNG. 10E, 3rd PM LOGGED BY IDOT-LM

COUNTY IROQUOIS DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 038-0044 EXISTING
Station 2146+00

BORING NO. 02 NORTH ABUT
Station ~~4146+42~~ 2146+58
Offset 23.50ft ~~RT~~ LT
Ground Surface Elev. 696.89 ft

Surface Water Elev. 686.70 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion 689.9 ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff Brown Layers of SILT, CLAY & Fine SAND (continued)			
655.89			
Very Stiff Brown CLAY LOAM TILL			
	10	-	
	4		
-45	6	2.9	14.0
	8	B	
	11		
-50	13	-	-
	105	-	
647.39			
Dense Brown Fine to Coarse GRAVEL			
643.89			
Medium Gray SANDY LOAM TILL			
	2		
-55	5	0.9	9.0
	4	B	
638.89			
Dense Brown Fine SAND to Coarse GRAVEL to COBBLE SIZE			
	9		
-60	26	-	6.0

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
End of Boring 638.39	22		

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

BBS, from 137 (Rev. 8-99)

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

SOIL BORING LOG

Page 1 of 2

ROUTE FA 28(US45) DESCRIPTION US ROUTE 45 OVER SPRING CREEK SOUTH OF BUCKLEY Date 8/19/03

SECTION 34 BR LOCATION SW 1/4, SEC. 3, TWP. 24N, RNG. 10E, 3rd PM LOGGED BY IDOT-LM

COUNTY IROQUOIS DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 038-0044 EXISTING
Station 2146+00

BORING NO. 01 SOUTH ABUT
Station ~~2146+81~~ 2146+39
Offset 17.00ft ~~LT~~ RT
Ground Surface Elev. 697.54 ft

Surface Water Elev. 686.70 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 643.5 ft ▽
Upon Completion ft
After 24 Hrs. 685.0 ft ▽

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
AUGERED SHOULDER STONE Over Brown SANDY CLAY LOAM			
696.04			
	2		
Very Stiff Brown SANDY CLAY LOAM (FILL)			
	2	2.2	20.0
	3	S	
694.04			
Stiff Brown & Gray SANDY CLAY LOAM (FILL)			
	2		
-5	2	1.0	19.0
	2	B	
691.54			
Soft Black CLAY LOAM			
	1		
	1	0.3	25.0
	3	B	
	1		
-12	2	0.4	33.0
	3	B	
	WOH		
▽	WOH	0.3	28.0
	WOH	B	
	WOH		
-15	7		
682.54	-	-	38.0
GROUT & CONCRETE			
681.54			
Stiff Gray CLAY TILL			
	2		
	4	-	-
	5	-	
-20	3	2.0	18.0

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff Gray CLAY TILL (continued)			
	5	B	
	2		
	2	1.5	25.0
	4	B	
	WOH		
-25	2	1.2	26.0
	3	B	
	1		
	2	1.8	26.0
	4	B	
	WOH		
-30	2	1.1	25.0
	4	B	
	WOH		
	2	1.4	28.0
	3	B	
663.54			
Very Stiff Gray CLAY LOAM TILL			
	1		
-35	3	2.2	17.0
	4	B	
-40	5	3.3	19.0

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

BBS, from 137 (Rev. 8-99)

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

SOIL BORING LOG

Page 2 of 2

ROUTE FA 28(US45) DESCRIPTION US ROUTE 45 OVER SPRING CREEK SOUTH OF BUCKLEY Date 8/19/03

SECTION 34 BR LOCATION SW 1/4, SEC. 3, TWP. 24N, RNG. 10E, 3rd PM LOGGED BY IDOT-LM

COUNTY IROQUOIS DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 038-0044 EXISTING
Station 2146+00

BORING NO. 01 SOUTH ABUT
Station ~~2145+81~~ 2146+39
Offset 17.00ft ~~LT~~ RT
Ground Surface Elev. 697.54 ft

Surface Water Elev. 686.70 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 643.5 ft ▽
Upon Completion ft
After 24 Hrs. 685.0 ft ▽

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very Stiff Gray CLAY LOAM TILL (continued)			
	10	8	
	2		
-45	4	2.9	13.0
	6	B	
649.54			
Very Stiff Brown SANDY LOAM TILL			
	7		
	13	3.3	10.0
647.54	13		
Loose Brown Fine SAND			
644.54			
Soft Gray SANDY LOAM TILL			
▽	WOH		
-55	5	0.3	12.0
	8	B	
640.54			
Dense Gray Fine SAND, Slightly LOAMY Coarse GRAVEL (COBBLE SIZE GRAVEL FELT WHILE DRILLING)			
	11		
-60	21	-	9.0

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	20		
	50		
-65	55	-	8.0
	43		
632.04			
End of Boring			
-70			
-75			
-80			

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

BBS, from 137 (Rev. 8-99)

ESCA CONSULTANTS, INC.

DESIGNED BY:	ELH	12/04
DRAWN BY:	RJT	01/05
CHECKED BY:	ELH	04/06
APPROVED BY:	RDP	04/06

SOIL BORINGS
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338-SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	37
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 66610

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY DEPARTMENT

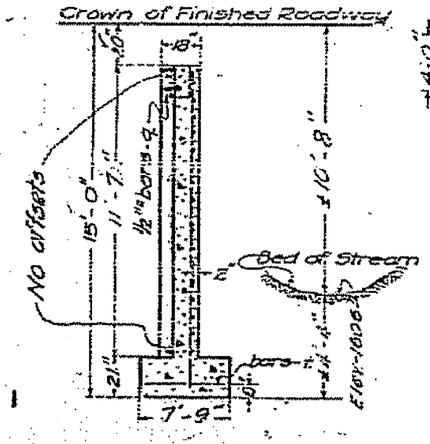
ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
25	IROQUOIS	34	31	28

Sheet No. 2
2 sheets

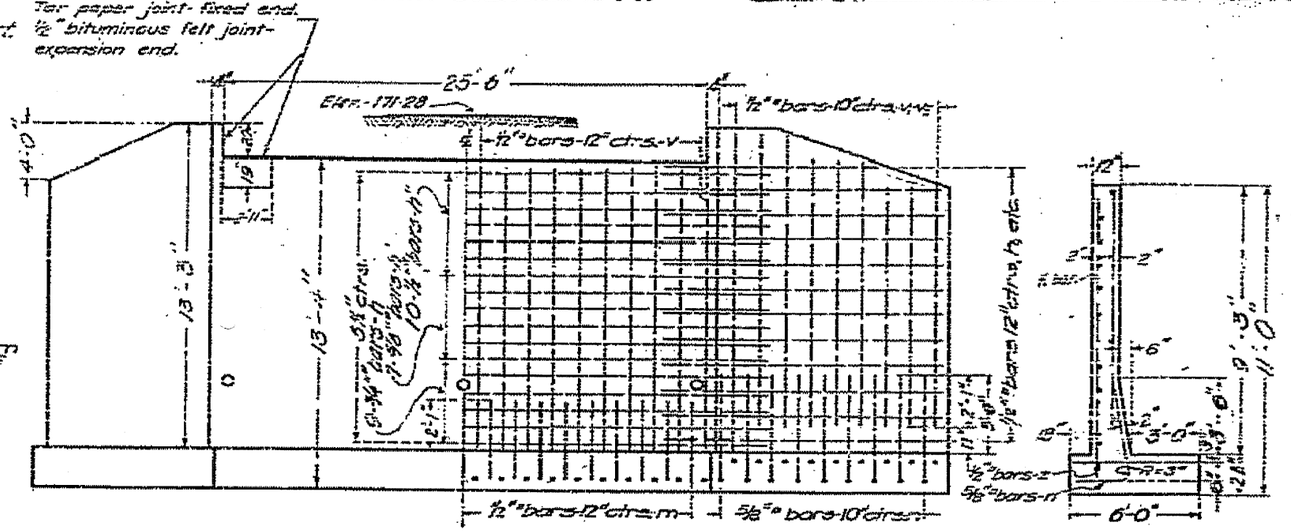
R. C. ABUTMENTS FOR GIRDER BRIDGE
HEIGHT OVER ALL 15 FT.

B.M.-N.& W.T.P. R.R. Sta-2154+80
Elev.-180.69

Note:- Removal of existing structure is included in contract.



SECTION OF ABUTMENT

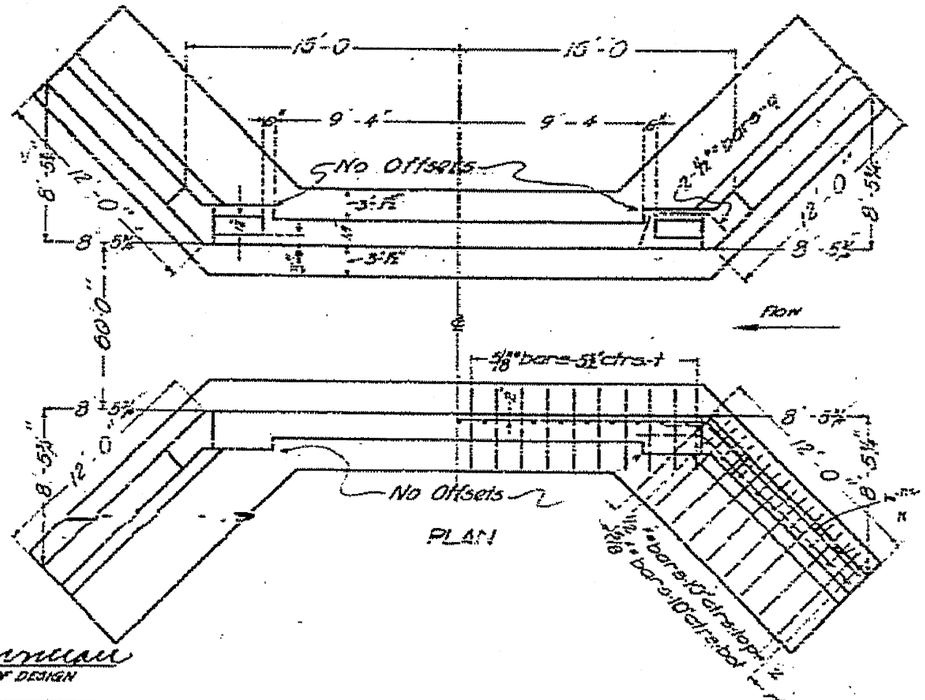


FRONT ELEVATION
SHOWING OUTLINES SHOWING REINFORCEMENT

END OF WING

HORIZONTAL STEEL-MAIN WALL

Bars		Length of Bridge Seat 15'-0"	20'-0"	11'-6"	11'-2"	13'-0"	14'-6"	15'-0"	16'-0"
h	No.	6	7	7	6	5	6	6	7
	Size	1"	1"	1"	1"	1"	1"	1"	1"
	C'rs.	8½	7½	7½	9½	9½	8½	8	7½
h'	No.	5	5	6	4	5	5	5	5
	Size	⅝"	⅝"	⅝"	⅝"	⅝"	⅝"	⅝"	⅝"
	C'rs.	6½	7½	7	10½	9½	8½	8	7½
h''	No.	6	7	7	5	5	6	7	7
	Size	½"	½"	½"	½"	½"	½"	½"	½"
	C'rs.	6½	7½	7	10½	9½	8½	8	7½
Thickness of Wall		12"	12"	12"	18"	18"	18"	18"	18"



BILL OF MATERIAL

Bars	No.	Size	Length
v	52	½"ø	11'-6"
v1	24	½"ø	11'-6"
v2	16	½"ø	10'-0"
v3	12	½"ø	8'-3"
n	18	¾"ø	32'-8"
m	13	5/8"ø	31'-6"
n'	20	½"ø	25'-6"
h	48	½"ø	1'-0"
½ø		½"ø	
x	2	½"ø	10'-8"
m	52	½"ø	3'-0"
n	52	5/8"ø	3'-0"
t	114	3/8"ø	7'-6"
z	52	½"ø	6'-9"
q	2	½"ø	6'-0"
Reinforcing Steel-lbs.			5840
Concrete-cu. yds.			180

Class A concrete to be used throughout. Proportions 1:2½:4.

STATION 2146+00
STATE BOND ISSUE-ROUTE-25
SECTION 34-IROQUOIS COUNTY

710

STANDARD	COMPUTED	W.S. Dow
	CHECKED	Reynolds
	DRAWN	
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

CHECKED W.S. Dow BRIDGE ENGINEER

APPROVED March 25, 1927
STATE HIGHWAY ENGINEER

PASSED
ENGINEER OF DESIGN

FOR INFORMATION ONLY

EXISTING BRIDGE PLANS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	38
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 66610

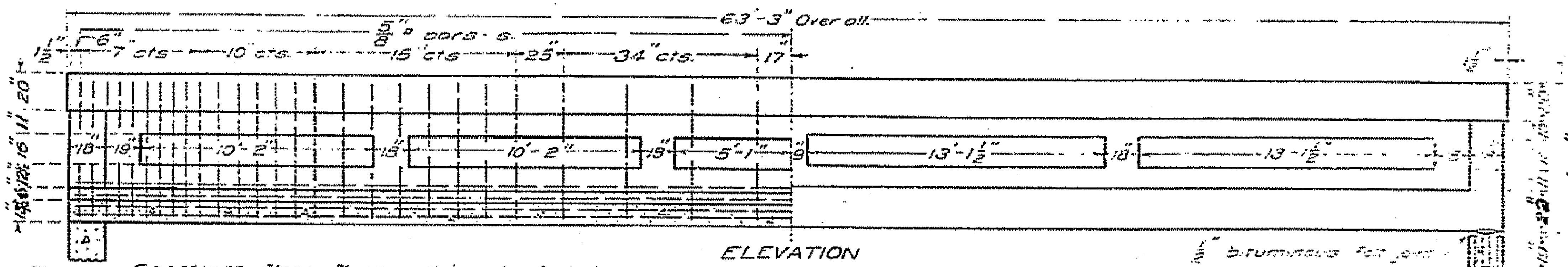
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT

BOND ISSUE ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
25	IROQUOIS	34	31	28

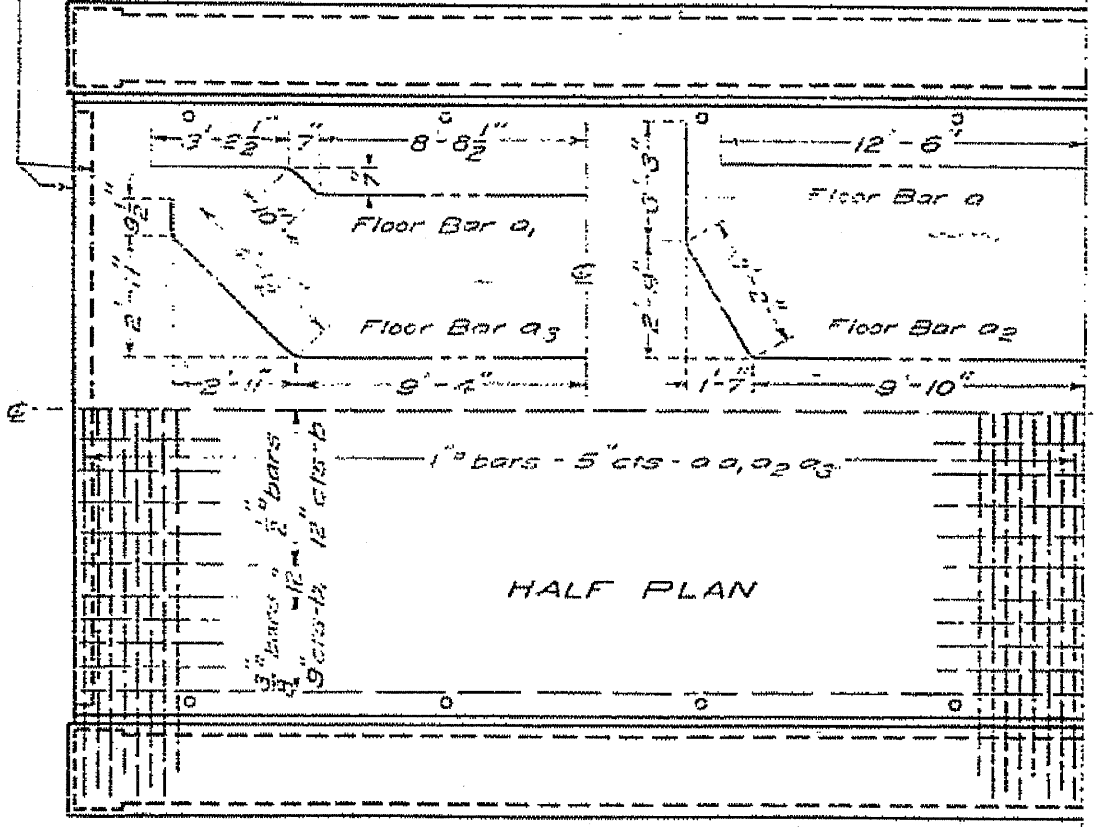
SHEET NO.1
2 sheets

REINFORCED CONCRETE GIRDER
SPAN 60 FT. ROADWAY 20 FT.

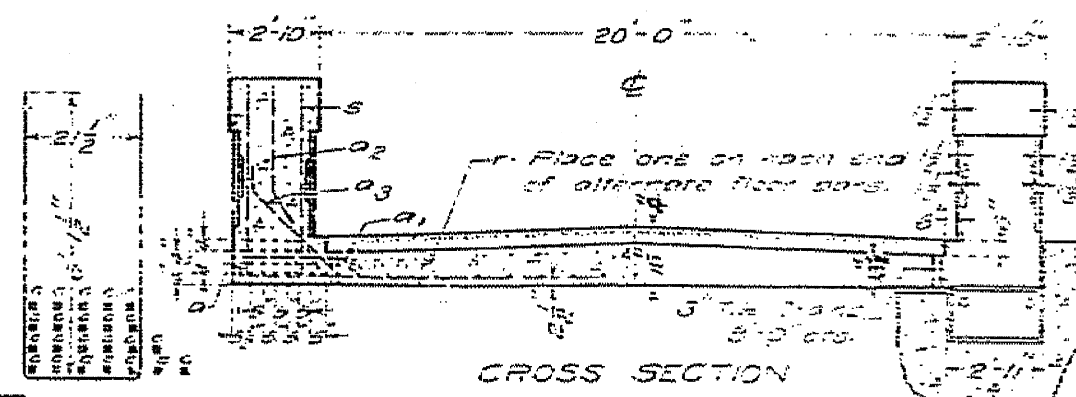


ELEVATION

Construct floor flush with back of abutment wall as shown either by dotted or full lines.



HALF PLAN



Stirrup Bars - s.

CROSS SECTION

Class A concrete to be used throughout. Proportions - 1:2½:4.

BILL OF MATERIAL

Bars	No.	Size	Length
a	36	1" ⌀	25'-0"
a1	36	1" ⌀	25'-6"
a2	37	1" ⌀	32'-6"
a3	37	1" ⌀	28'-6"
b	22	½" ⌀	32'-6"
b1	28	3/8" ⌀	32'-6"
c	46	1¼" ⌀	62'-6"
r	150	3/8" ⌀	8'-0"
s	106	5/8" ⌀	14'-0"
Steel - Lbs.			33100.
Concrete - Cu. Yds.			136.5
Weight of 2 Rockers Lbs. 928.			
Weight of 4 Plates Lbs. 375.			

STATION 2146+00

STATE BOND ISSUE - ROUTE 25

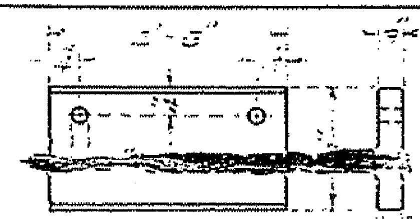
SECTION 34 - IROQUOIS CO.

PASSED
[signature]
ENGINEER OF DESIGN

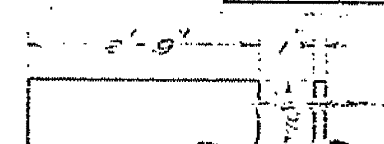
STANDARD	COMPUTED	
	CHECKED	
	DRAWN	
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED [signature] BRIDGE ENGINEER

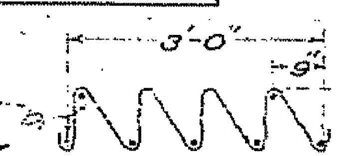
APPROVED March 23 '22
[signature]
STATE HIGHWAY ENGINEER



Detail of Cast Iron Rocker. Make 2. Standard Rocker No 5.



Detail of Steel Plates. Make 4. Surface adjacent to rocker to be planed. Standard Plate No. 5.



Shear Bar - r

655

FOR INFORMATION ONLY

EXISTING BRIDGE PLANS

S.B.I. Twp. Nat. Hwy. Elev. 1799.
Existing Structure: R.C. Thru Girder 1 Span @ 59'-0"
Rdwy. 19.5' R.C. Closed abuts. Superstructure to be removed by Contractor. Abutments to be left intact so they can be extended.
114.6 cu. Yds. Concrete in Exist. Super.

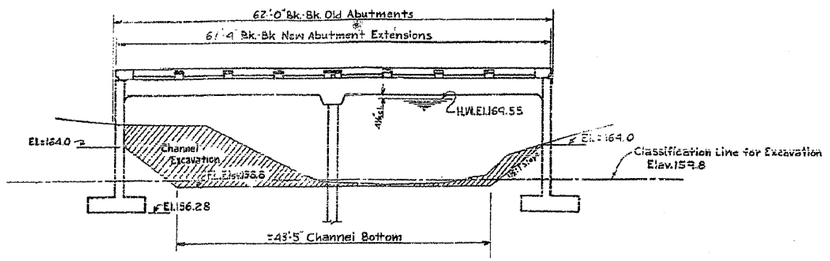
STATE OF ILLINOIS
STATE OF DEPARTMENT OF TRANSPORTATION
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25	Iroquois	24	15

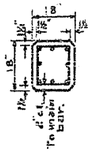
SHEET NO. ____ OF ____ SHEETS

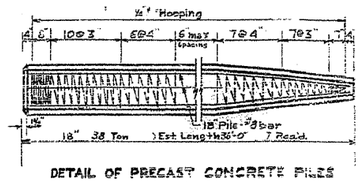
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	39
STA.		TO STA.		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 66610



ELEVATION



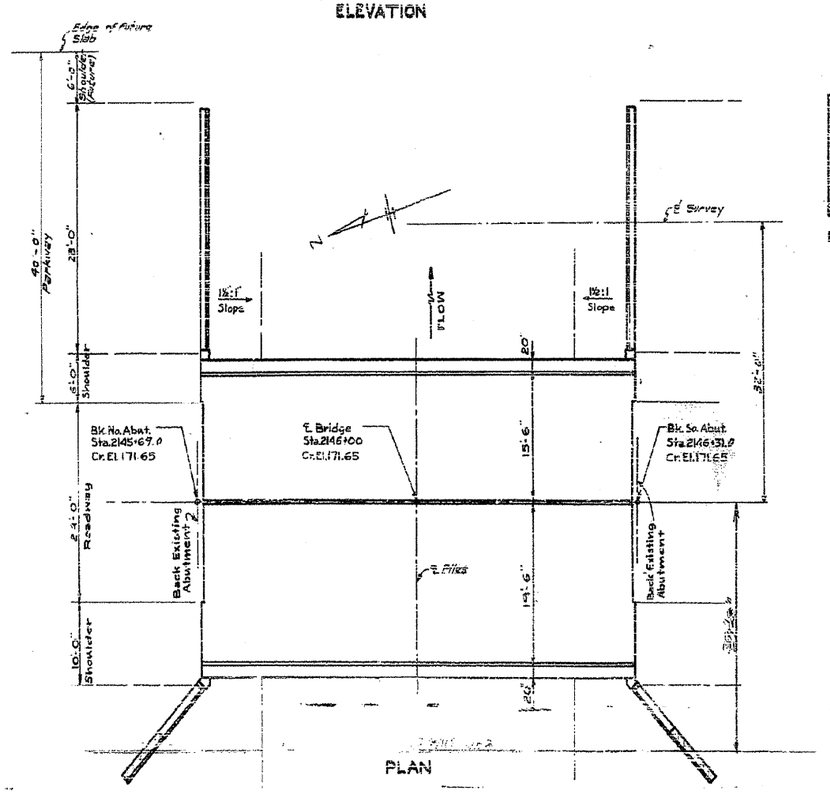


DETAIL OF PRECAST CONCRETE PILES

Note: Spiral Hooping May Be Struct. Grade Steel.

GENERAL NOTES

Class X Concrete shall be used thruout, except as noted.
Concrete floor slab shall be finished in accordance with Art. 604.02 of the Standard Specs. and shall be poured in one continuous operation on either side of the center joint.
The falsework on one side of the center joint shall not be removed until after the slab is poured on the other side of the center joint.
Handrail concrete shall be used in rail and posts.
Handrail shall not be poured until falsework has been removed.
One test pile shall be driven in permanent pile location as directed by the Engineer, before casting piles.
The contract unit price each for "Expansion Bolts" shall include furnishing, drilling holes and setting Expansion Bolts.
Contractor shall excavate channel to the cross section shown for a distance of 50' upstream and 50' downstream of ℄ of Roadway.
For Waterproofing, see Special Provisions.



PLAN

STA. 2146+00
BUILT 1952 BY
STATE OF ILLINOIS
S.B.I. RT. 25 SEC. 34-B-Y
FA. PROJ. F.I. 29-(12)
LOADING H20-S16

LETTERING FOR NAME ℄
See Std 1881

WATERWAY INFORMATION

Drainage Area	21100 Acres
Character	Level, Cultivated
Opening Reqd (Co. 2 Talbott)	343 Sq. Ft.
Present Opening	392 Sq. Ft.
Proposed Opening	577 Sq. Ft.

TOTAL BILL OF MATERIAL

ITEM		SUPER	SUBSTR.	TOTAL
Class X Concrete	Cu. Yds.	124.9	(17.0)	141.9
Handrail Concrete	Cu. Yds.	2.7		2.7
Reinforcement Bars	Lbs.	28990	5740	34730
Concrete Removal	Cu. Yds.			5
10 B.P. Piles (36' Lgth.)	Lin. Ft.		216	216
Expansion Bolts	Ea.		74	74
Channel Excavation	Cu. Yds.			629
Class A Excav. for Str.	Cu. Yds.			116
Class B Excav. for Str.	Cu. Yds.			90
Test Piles	Ea.			One
Removal of Exist. Superstr.	Ea.			One
Name Plate	Ea.			One

Bit. Conc. Surface Course, Fill	Tons	20
Temporary Bridge Complete	Each	1
Removal of Temp. Bridge	Each	1
Transporting Temp. Bridge	Lump Sum	

STRESSES

f_s = 20000 #/in² Reinf.
f_c = 1400 #/in² Top Flange
f_c = 1400 #/in² Neo. Mem.
n = 10

H20-S16-44 Loading

DESIGNED	M.E. Zimmerman	Nov. 16 19 51
CHECKED	W.C. Hansen	
DRAWN	W.C.H. Stone	
CHECKED	H.E.V.	
EXAMINED	W.C. Hansen	BRIDGE ENG. ASST.
PASSED	E.A.H.	ENGINEER OF DESIGN
APPROVED	F.N. Barker	CHIEF HIGHWAY ENGINEER

GENERAL PLAN & ELEVATION
PROJ. F.I. 29 (12)
FA. RTE. 25 (S.B.I. RTE. 25) SEC. 34-B-Y
IROQUOIS COUNTY
STA. 2146+00

FOR INFORMATION ONLY

EXISTING BRIDGE PLANS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	40
STA		TO STA		
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-		

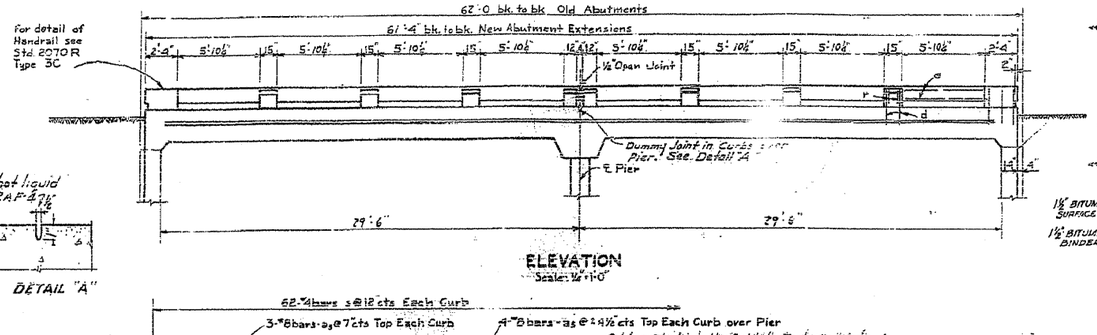
CONTRACT NO. 66610

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

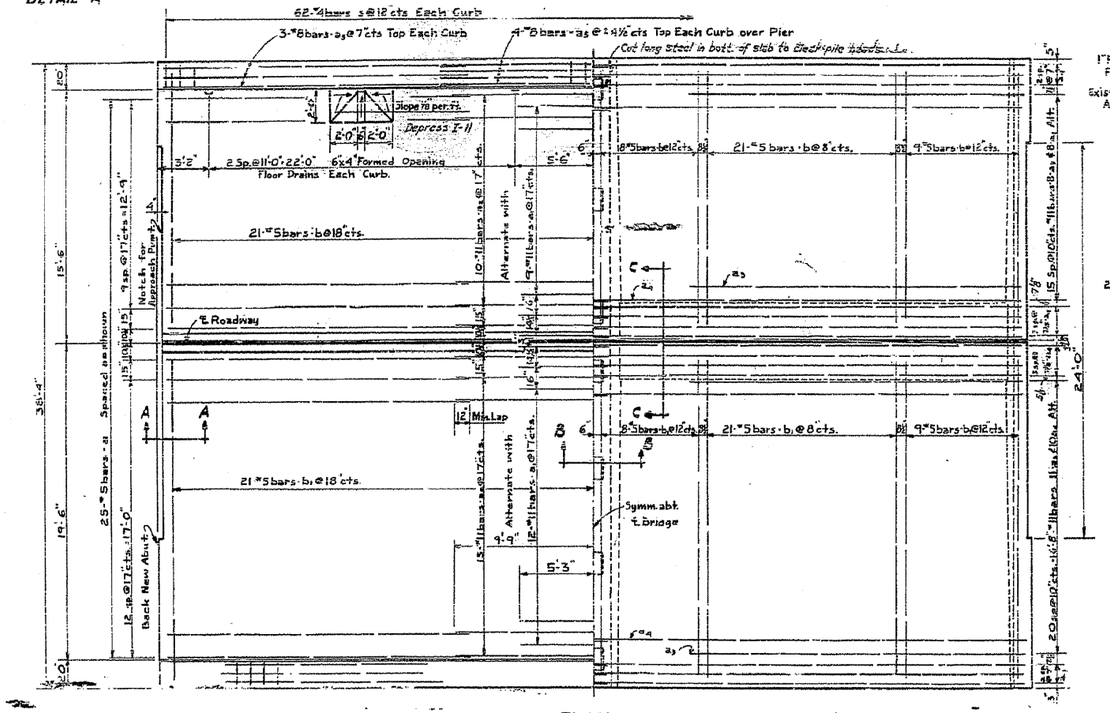
BARS SHEET NOS.	METRIC	COUNTY	TOTAL SHEETS	SHEET NO.
25	25-26-27-28-29	Iroquois	34	16

SHEET INDEX
4 SHEETS

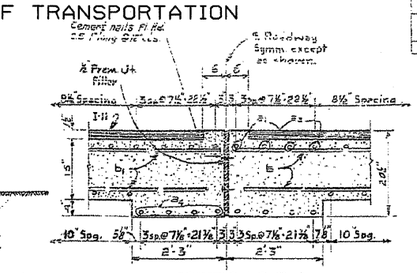
STA. TOTAL DIST. NO. 7	PLANNED	FED. AID PROJECT



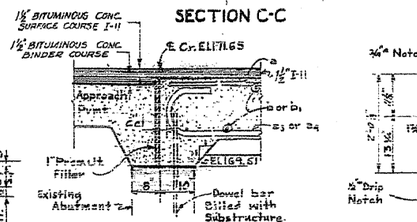
ELEVATION
Scale: 1/8"=1'-0"



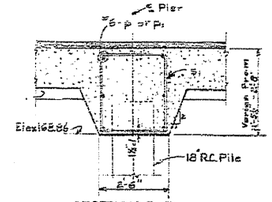
PLAN



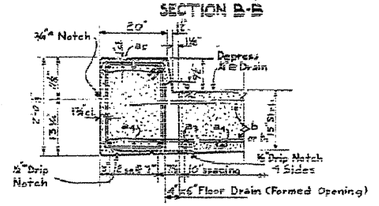
SECTION C-C



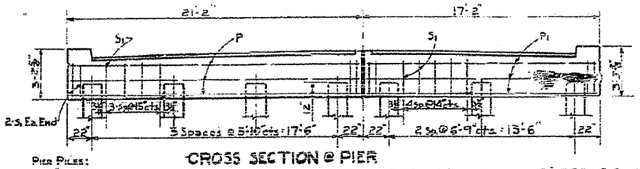
SECTION A-A



SECTION B-B

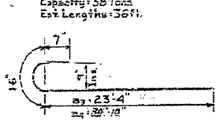


FLOOR DRAIN

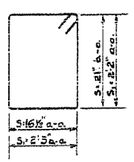


CROSS SECTION @ PIER

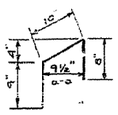
Pier Piles:
18" RC. Piles
7 Req'd.
Capacity = 38 Tons
Est. Lengths = 36 ft.



BARS a_3 & a_4



BARS S & S1



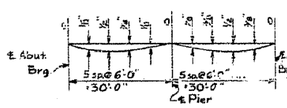
BAR r

BILL OF MATERIAL - SUPERSTRUCTURE

BAR	No.	SIZE	LENGTH	SHAPE
a	50	#5	21'-9"	
a1	25	#11	19'-9"	
a2	25	#11	19'-6"	
a3	38	#11	25'-3"	C
a4	24	#11	22'-9"	C
a5	20	#8	21'-9"	
b	117	#5	16'-3"	
b1	117	#5	20'-3"	
d	84	#5	3'-5"	
r	40	#4	2'-3"	
e	16	#5	29'-6"	
s	124	#4	7'-3"	
s1	30	#4	9'-9"	
p	6	#6	20'-6"	
p1	6	#6	16'-6"	
Class Y Concrete		Cu Yds	1748	
Reinforcement Bars		Lbs.	28990	
Handrail Concrete		Cu Yds	27	

No. All bars shall be round A.S.T.M. A305-49
The size number is the number of ⅛ inches in the nominal diameter.

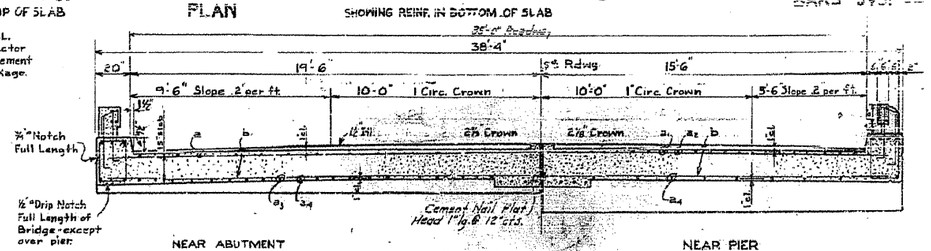
SUPERSTRUCTURE
PROJECT FI-29(12)
F.A.R.T. 26 (S.B.I.R.T. 25) SEC. 34-B-Y
IROQUOIS COUNTY
STA. 2146+00



SHOWING REINF. IN TOP OF SLAB

Note: In addition to D.L. Deflection, the Contractor ℄ Ab. Shall allow for settlement Brg. of forms and Shrinkage.

D.L. DEFLECTION DIAGRAM



DESIGNED	H.E. Bullington	Nov 16 1951
CHECKED	Wayne Yeomans	EXAMINED W.E. Hanson, Bridge Engineer
DRAWN	H.E.B. Stone.	PASSED E.L. Hunt, Engineer of Design
CHECKED	HBH	APPROVED F.H. Baker, Director of Highways

FOR INFORMATION ONLY

EXISTING BRIDGE PLANS

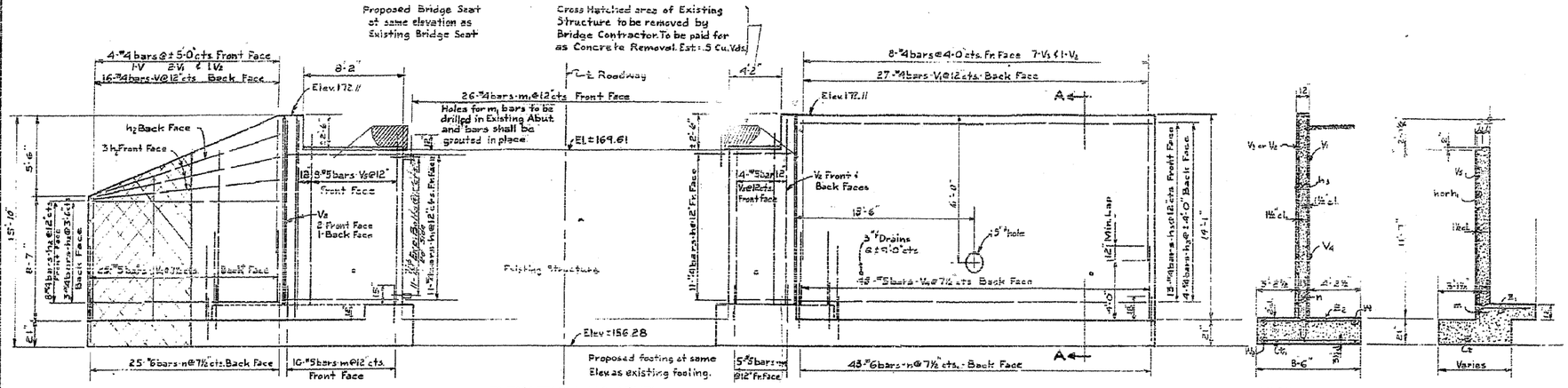
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	41
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

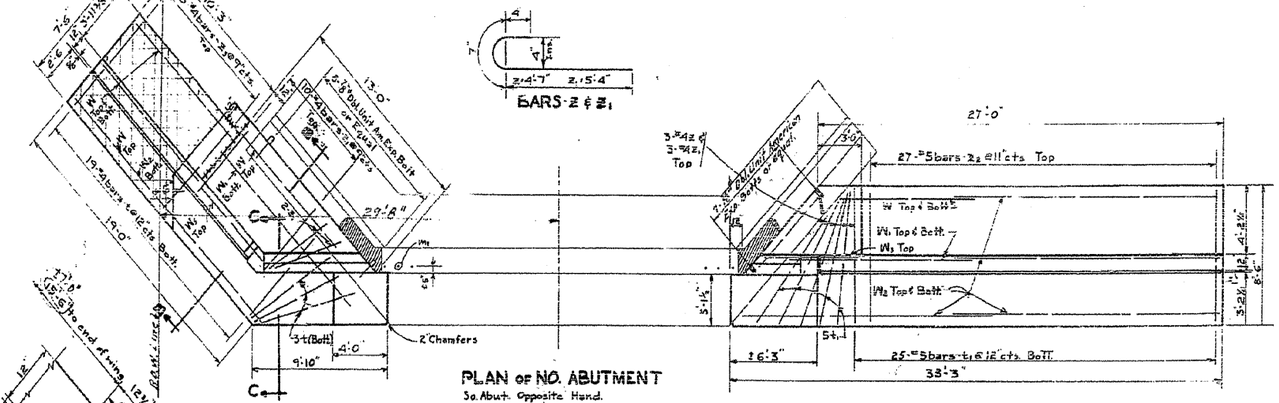
CONTRACT NO. 66610

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

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25	33-BR 34-BR 35-BR	Iroquois	24	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEETS

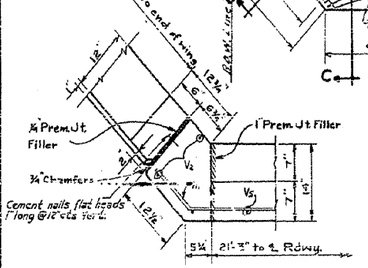


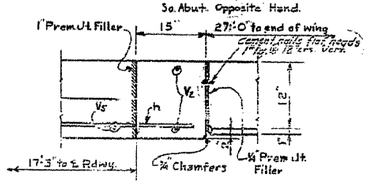


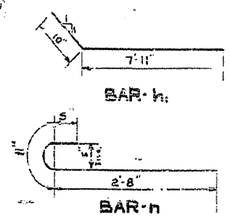
BILL OF MATERIAL-2 ABUTMENTS

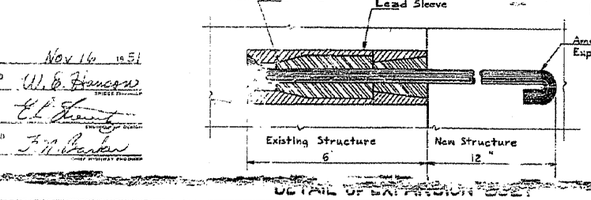
BAR	NO.	SIZE	LENGTH	SHAPE
V	34	#4	8'-6"	
V1	58	#4	9'-9"	
V2	14	#4	12'-9"	
V3	14	#4	13'-9"	
V4	136	#5	5'-0"	
V5	24	#5	11'-6"	
h	22	#4	4'-3"	
h1	22	#4	8'-9"	
h2	30	#4	15'-0"	
h3	34	#4	28'-8"	
n	136	#6	4'-0"	
m	30	#5	2'-6"	
m1	52	#4	2'-0"	
t	44	#4	7'-0"	
t1	60	#5	8'-0"	
z	6	#4	5'-6"	
z1	30	#4	6'-5"	
z2	54	#5	8'-0"	
z3	26	#4	6'-9"	
W	18	#4	9'-6"	
W1	6	#4	13'-0"	
W2	18	#4	17'-0"	
W3	4	#4	6'-6"	

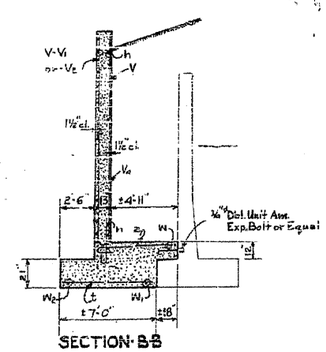
Class X Concrete	Cu. Yds. (117.8)	142.7
Reinforcement, Bars	Lbs.	5740
Concrete Removal	Cu. Yds.	.5
Expansion Bolts	Ea.	72











DESIGNED	W.E. Bonnaud	EXAMINED	Nov 16 1951
CHECKED	[illegible]	PASSED	W. E. Bonnaud
DRAWN	W.E.B. Steve	APPROVED	[illegible]
CHECKED	J.E.Y.		

ABUTMENTS
PROJECT FI-29(12)
FA. RTE. 26 (S.B.I. RT 25) SEC. 34-B-Y
IROQUOIS COUNTY
STA. 2146+00

FOR INFORMATION ONLY

EXISTING BRIDGE PLANS

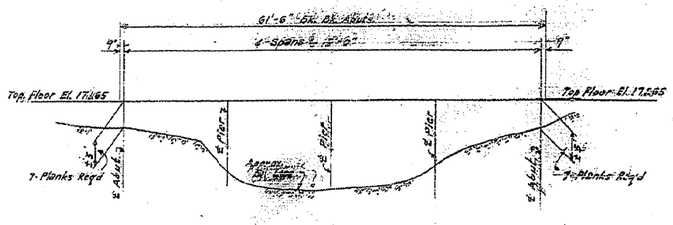
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	42
STA		TO STA		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 66610

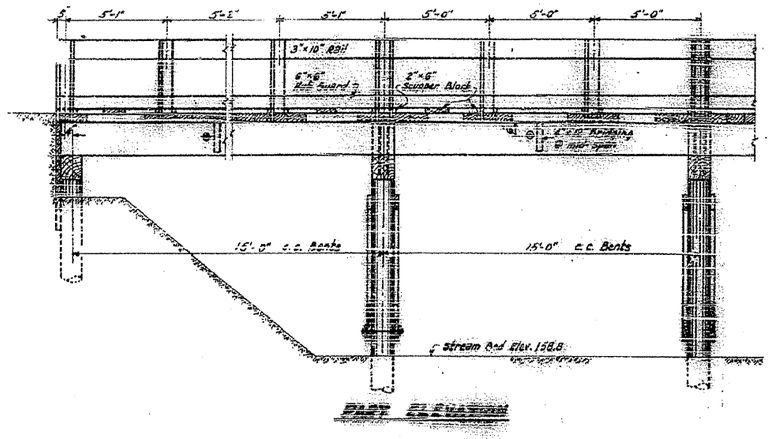
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25	34-3BR 34-4BR 34-5BR	Iroquois	24	18
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

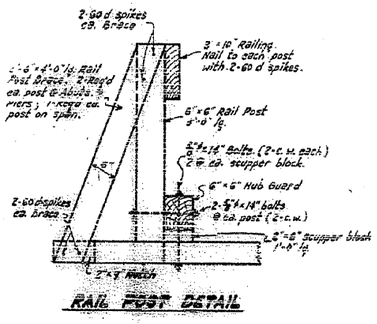
SHEET NO. 4 OF 4 SHEETS



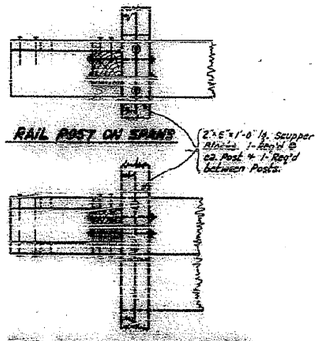
LINE DIAGRAM OF TEMP. BRIDGE AT STA. 2146+00



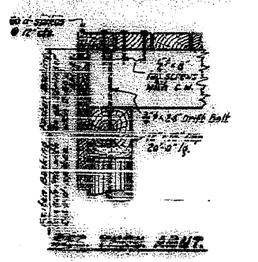
PART ELEVATION



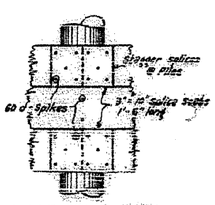
RAIL POST DETAIL



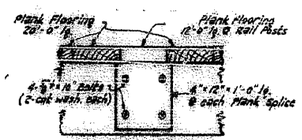
RAIL POST ON SPANS



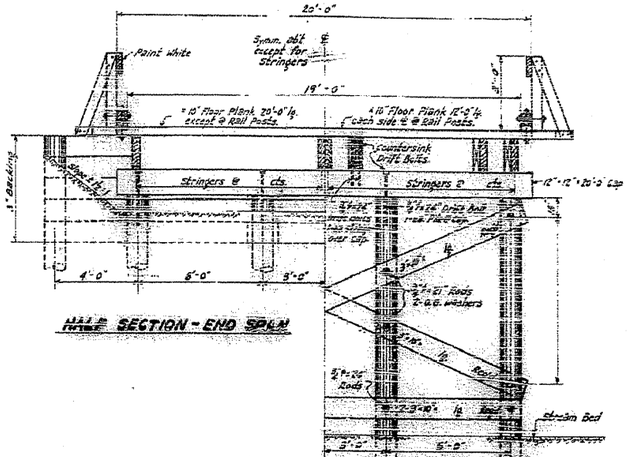
END FLOOR ABUT.



BACKING SPLICE



SECTION A-A

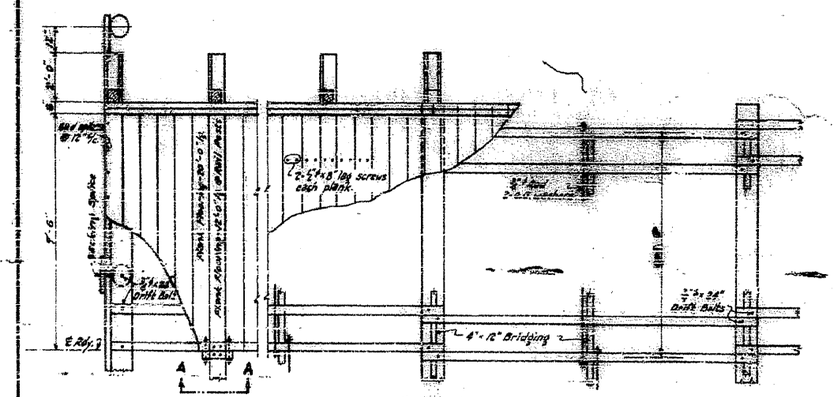


HALF SECTION - END SPAN

HALF SECTION - INT. SPAN

BEAM MARK THICKNESS	STRINGER SPACING	LENGTH 17'-0"	19'-0"	20'-0"	21'-0"
3"	18 spcs @ 12"	5'-11"	6'-11"	6'-11"	6'-11"
4"	14 spcs @ 12"	6'-11"	6'-11"	6'-11"	6'-11"
5"	11 spcs @ 12"	6'-11"	6'-11"	6'-11"	6'-11"
3"	18 spcs @ 12"	—	6'-12"	6'-12"	—
4"	14 spcs @ 12"	6'-12"	6'-12"	—	—
5"	11 spcs @ 12"	5'-0"	—	—	—

STRINGER SCHEDULE



PART PLAN

GENERAL NOTES

Lumber may be native ... grade ... or ... new or used ... to ... of best kind of material.
All ... shall be ... & well cut, and shall have ... or malleable iron washers under nuts.
All bolts shall have cut washers under heads and nuts.
... to be nailed to stringers with 2-60d spikes
... "Plank Flooring shall be fastened to every third stringer (beginning from a stringer) with 2-20 ... a 3/4" x 3" plate washer or cut washer under each head. The screws shall be turned into place ... Care shall be ... not to split.
... a minimum capacity of 10 Tons, and shall be driven to a minimum penetration of 8 feet below undisturbed earth, or ... of stone.
... by the Engineer before ...
... of white lead paint.

DESIGNED W. G. Sandoval
CHECKED M. J. Yates
DRAWN J. S. Matecki
EXAMINED Nov. 16 1951
PASSED W. E. Hanson
APPROVED E. C. Hunt
Director of Public Works & Buildings

TEMPORARY BRIDGE
PROJ. F.I-29(12)
F.A. RTE. 26 (S.B.I. RT. 25) SEC. 34 B-Y
IROQUOIS CO.
STATE OF ILLINOIS

Loaded H15-44

FOR INFORMATION ONLY

EXISTING BRIDGE PLANS

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

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

℄ FAS RTE 338 (US 45)

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

EX ROW

PR PERMANENT EASEMENT

HIGH VISIBILITY TEMPORARY FENCE

FO

TEL

PGL

1:4

2135+00.00

PGL 697.80

LEFT
TOPSOIL CUT = 7.1
OTHER CUT = 0.0
TOPSOIL FILL = 6.3
OTHER FILL = 14.5

RIGHT
TOPSOIL CUT = 9.7
OTHER CUT = 0.0
TOPSOIL FILL = 7.8
OTHER FILL = 21.4

2134+00.00

PGL 697.80

LEFT
TOPSOIL CUT = 8.1
OTHER CUT = 0.0
TOPSOIL FILL = 7.5
OTHER FILL = 18.3

RIGHT
TOPSOIL CUT = 9.4
OTHER CUT = 0.0
TOPSOIL FILL = 7.5
OTHER FILL = 21.2

2133+00.00

PGL 697.80

LEFT
TOPSOIL CUT = 8.4
OTHER CUT = 0.0
TOPSOIL FILL = 7.3
OTHER FILL = 20.9

RIGHT
TOPSOIL CUT = 9.5
OTHER CUT = 0.0
TOPSOIL FILL = 7.6
OTHER FILL = 20.0

2132+00.00

PGL 697.88

LEFT
TOPSOIL CUT = 6.9
OTHER CUT = 0.0
TOPSOIL FILL = 5.5
OTHER FILL = 11.0

RIGHT
TOPSOIL CUT = 7.1
OTHER CUT = 0.0
TOPSOIL FILL = 5.5
OTHER FILL = 10.6

2131+00.00

PGL 698.46

LEFT
TOPSOIL CUT = 0.0
OTHER CUT = 0.3
TOPSOIL FILL = 0.0
OTHER FILL = 0.0

RIGHT
TOPSOIL CUT = 0.0
OTHER CUT = 0.5
TOPSOIL FILL = 0.0
OTHER FILL = 0.0

2130+00.00

PGL 699.64

LEFT
TOPSOIL CUT = 0.0
OTHER CUT = 0.3
TOPSOIL FILL =0.0
OTHER FILL = 0.0

RIGHT
TOPSOIL CUT = 0.0
OTHER CUT = 0.6
TOPSOIL FILL = 0.0
OTHER FILL = 0.0

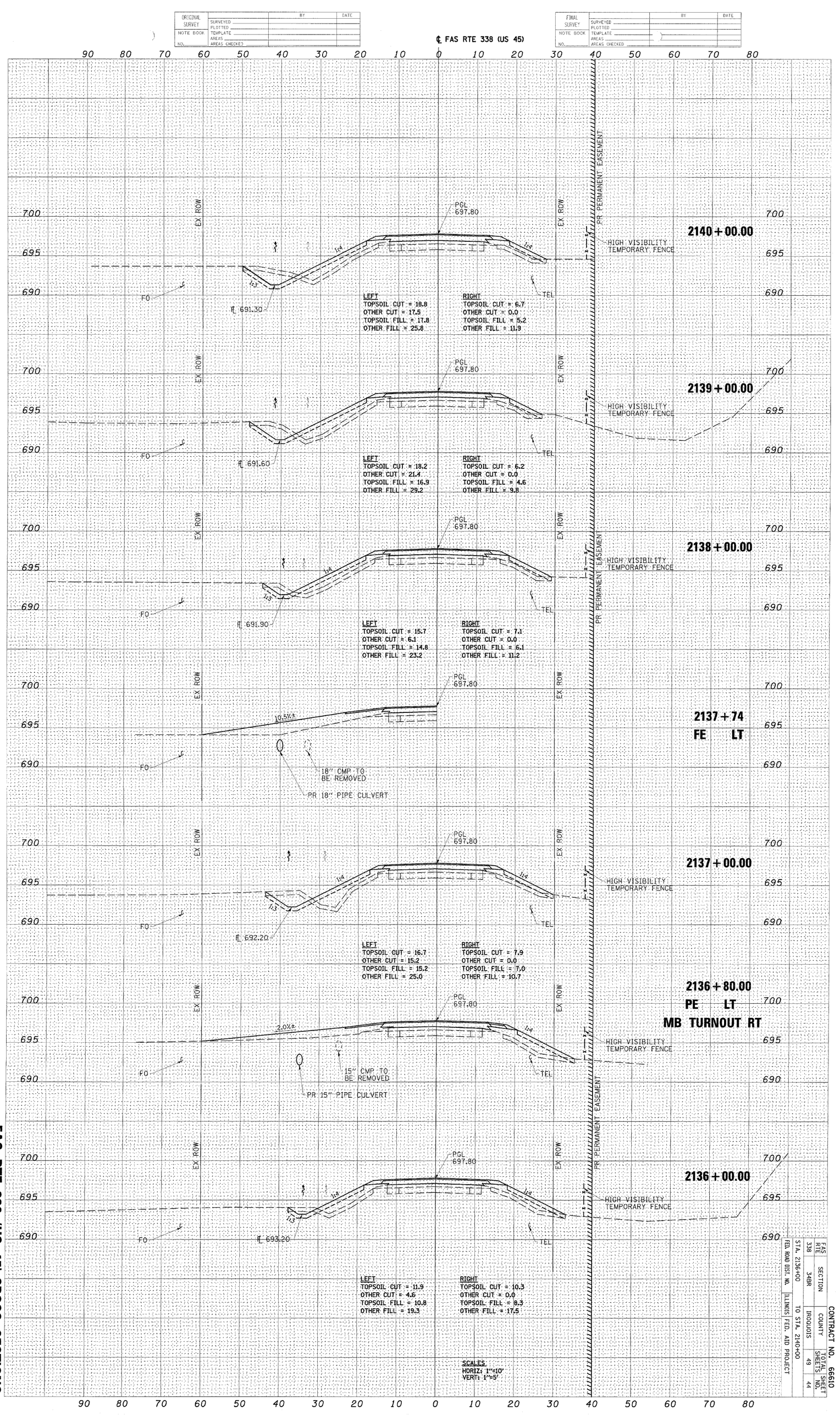
2129+00.00

SCALES
HORIZ: 1"=10'
VERT: 1"=5'

FAS RTE 338 (US 45) CROSS SECTIONS
STA 2129+00 TO STA 2135+00

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	43
STA. 2129+00		TO STA. 2135+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FAS RTE 338 (US 45) CROSS SECTIONS
STA 2136+00 TO STA 2140+00

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	44

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

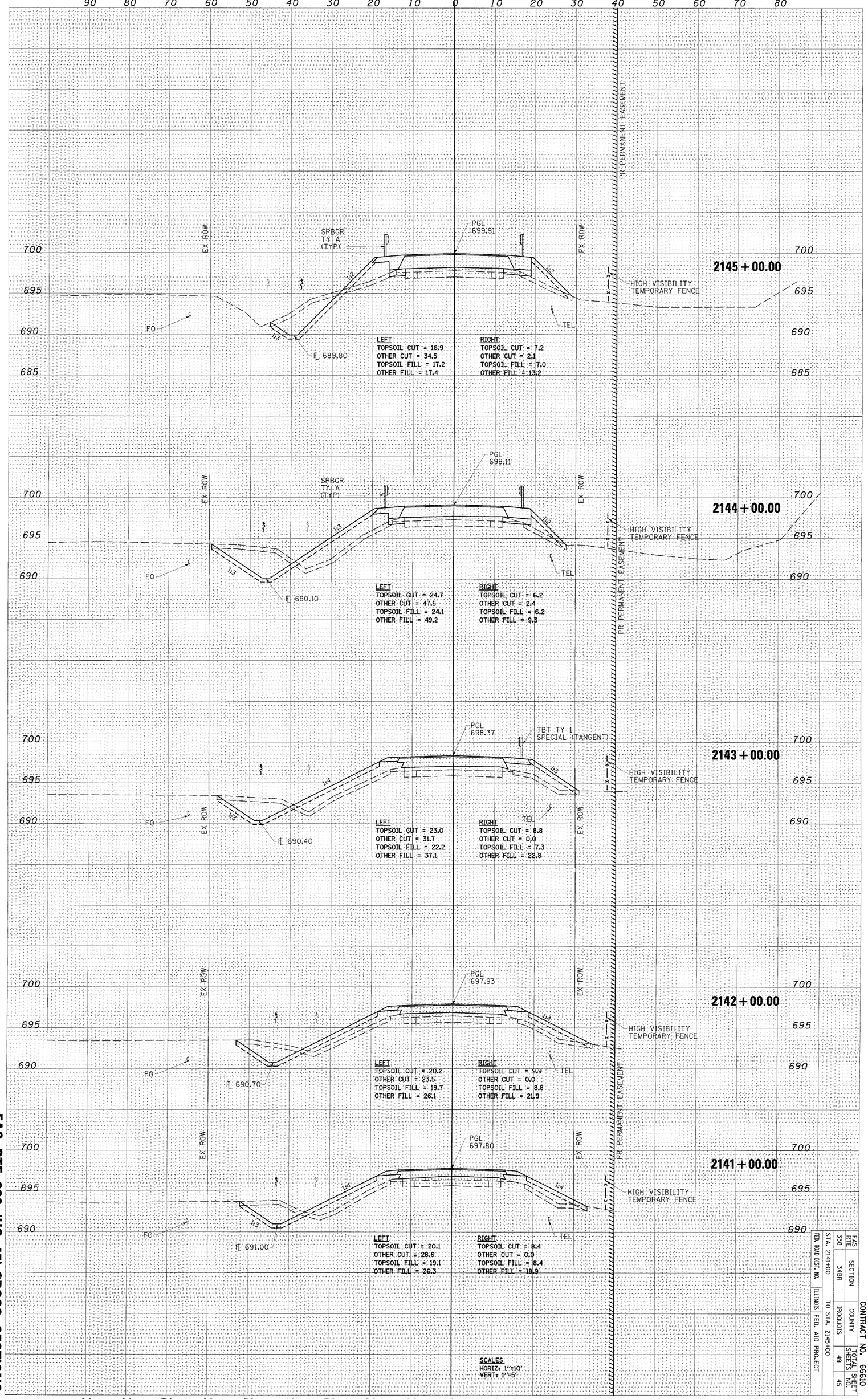
STA. 2136+00 TO STA. 2140+00

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

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

℄ FAS RTE 338 (US 45)

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80



FAS RTE 338 (US 45) CROSS SECTIONS
STA 2141+00 TO STA 2145+00

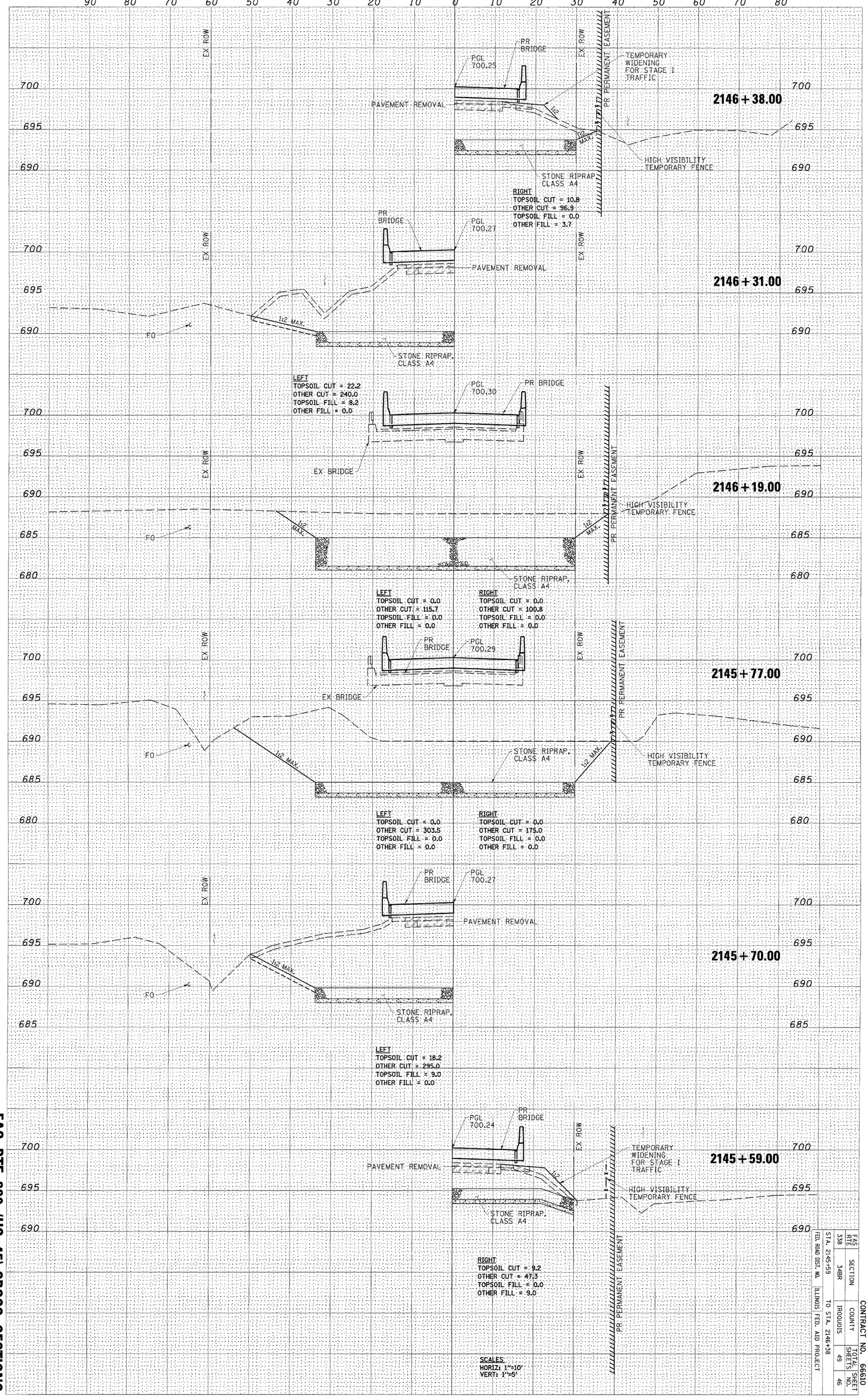
CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	45
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
STA. 2141+00		TO STA. 2145+00		

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

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

℄ FAS RTE 338 (US 45)



FAS RTE 338 (US 45) CROSS SECTIONS
STA 2145+59 TO STA 2146+38

CONTRACT NO. 66610					
FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	46
STA. 2145+59		TO STA. 2146+38		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

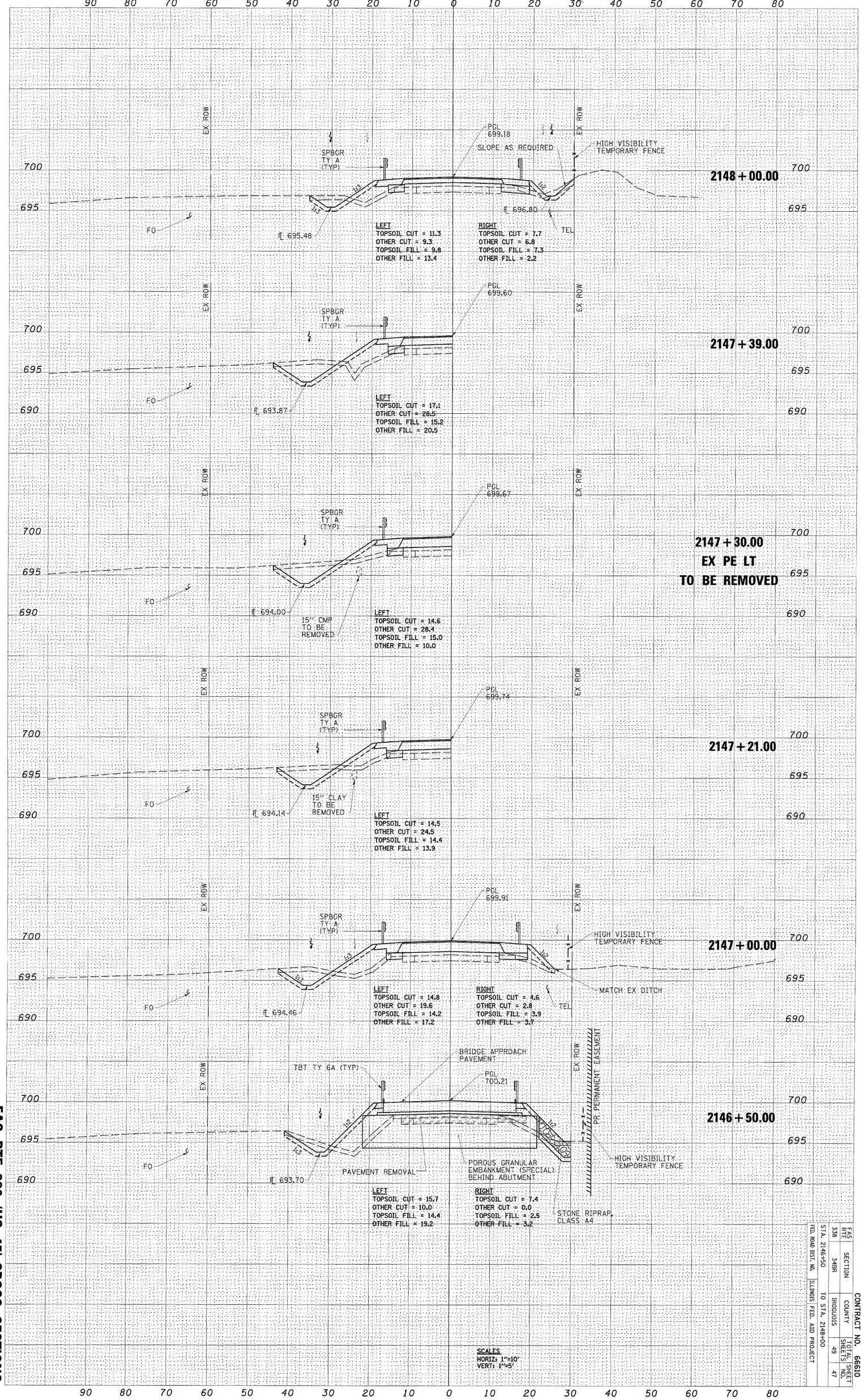
ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

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

FAS RTE 338 (US 45) CROSS SECTIONS
STA 2146+50 TO STA 2148+00

℄ FAS RTE 338 (US 45)

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80



SCALES
HORIZ: 1"=10'
VERT: 1"=5'

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	47

STA. 2146+50 TO STA. 2148+00

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

CONTRACT NO. 66610

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	48
STA. 2149+00		TO STA. 2155+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

℄ FAS RTE 338 (US 45)

2155+00.00 2154+00.00 2153+00.00 2152+00.00 2151+00.00 2150+00.00 2149+00.00

EX ROW

TEL

F0

PGL 699.14

PGL 698.90

MATCH EX DITCH

TBT (TY 1 SPECIAL (TANGENT))

FF 697.50

RIGHT
TOPSOIL CUT = 3.0
OTHER CUT = 0.6
TOPSOIL FILL = 0.0
OTHER FILL = 0.0

LEFT
TOPSOIL CUT = 6.7
OTHER CUT = 1.0
TOPSOIL FILL = 4.2
OTHER FILL = 0.0

SCALES:
HORIZ: 1"=10'
VERT: 1"=5'

FAS RTE 338 (US 45) CROSS SECTION
STA 2149+00 TO STA 2155+

CONTRACT NO. 66610

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	34BR	IROQUOIS	49	49
STA. 2156+00		TO STA. 2157+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

℄ FAS RTE 338 (US 45)

2157+00.00

2156+20.00 FE LT

2156+00.00

EX ROW

TEL

FO

MATCH EX. CROPLINE

4.8%

710
705
700

SCALES
VERTI: 1"=10'
HORIZ: 1"=5'

FAS RTE 338 (US 45) CROSS SECTIONS

STA 2156+00 TO STA 2157+00