11-21-14 LETTING ITEM 055

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	1
	ILLINOIS	CONTRACT NO. 66B92		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

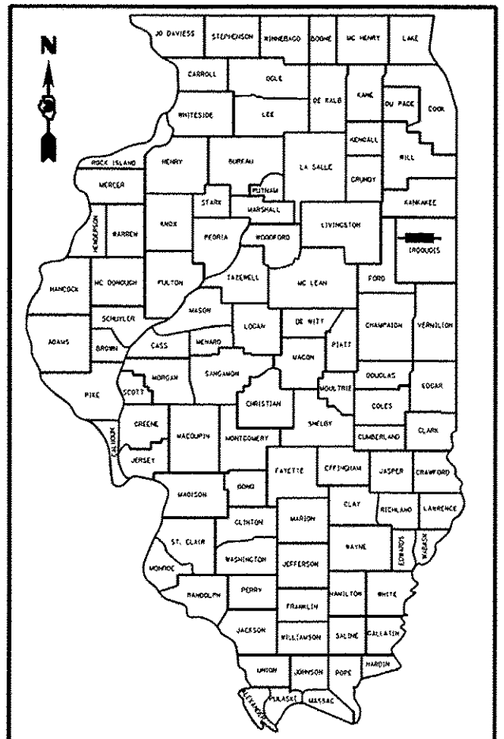
PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 840 (IL 49)
SECTION 137–BR
PROJECT : ACF-0840(068)
BRIDGE REPLACEMENT (S.N. 038–0119)
IROQUOIS COUNTY

INDEX

1	COVER SHEET
2	GENERAL NOTES & STANDARDS
3-7	SUMMARY OF QUANTITIES
8	TYPICAL SECTIONS
9	ALIGNMENT SHEET
10	RIGHT OF WAY PLAN
11	SCHEDULE OF QUANTITIES
12	PLAN & PROFILE
13	DETOUR PLAN
14-17	CULVERT AND WINGWALL PLANS
18	BORING LOG SHEET
19-20	CADD DETAILS
21-24	CROSS-SECTION SHEETS

D–93–018–13



LOCATION OF SECTION INDICATED THUS:–

FUNCTIONAL CLASSIFICATION
RURAL MINOR ARTERIAL
(CLASS II TRUCK ROUTE)

2013 ADT = 1750
P.V. = 92.7% S.U. = 2.4% M.U. = 4.9%

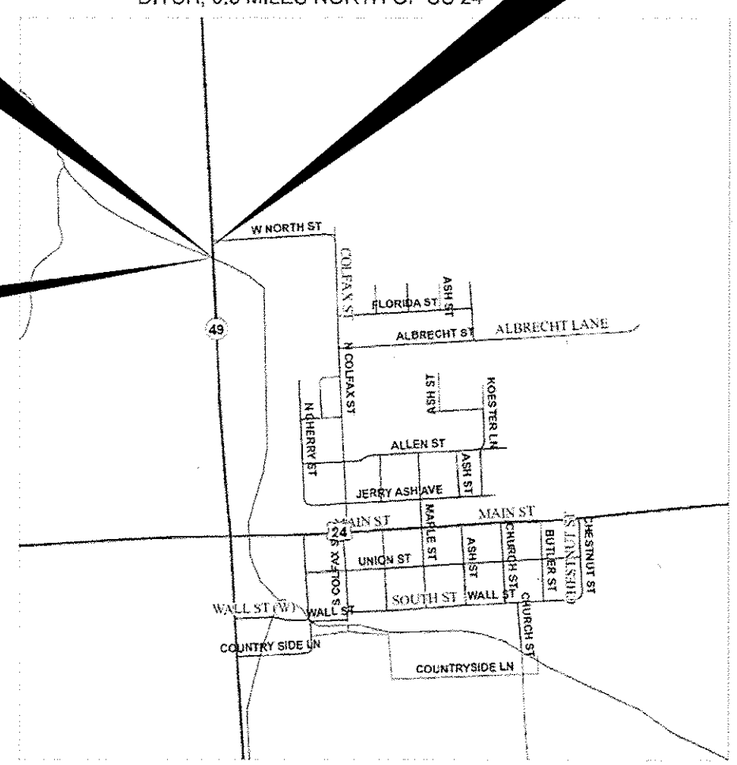
STATION 1224 + 00
S.N. 038–2026 (PR.)/038–0119 (EX.)
30'–0" LONG DOUBLE 12' X 10' CULVERT
CARRYING IL 49 OVER DITCH
(STRUCTURE REPLACEMENT)

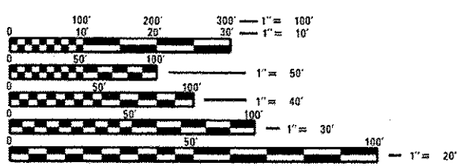
C–93–017–13

DITCH, 0.5 MILES NORTH OF US 24

BEGIN PROJECT
STATION 1222 + 00

END PROJECT
STATION 1226 + 00





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

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

PROJECT ENGINEER: JOE KANNEL, P.E.
UNIT CHIEF: SCOTT FERGUSON, P.E.

CONTRACT NO. 66B92

GROSS LENGTH = 400 FT. = 0.76
NET LENGTH = 400 FT. = 0.76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 15 2014
Paul Loete
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 17 2014
John D. Baranzelli, P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

Oct 17 2014
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

GENERAL NOTES

THE THICKNESS OF HMA 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 HMA IS PLACED.

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

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

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

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

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES (100 MILLIMETERS) IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF SEEDING, CLASS 2A

SHORT TERM PAVEMENT MARKING SHALL BE USED TO OUTLINE EXIT AND ENTRANCE RAMPS FOR THE PRIME COAT APPLICATION AND EACH RESURFACING LIFT.

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

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

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

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

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD

COMMITMENTS

THE TEMPORARY STEEL BEAMS UNDER THE EXISTING CONCRETE BEAMS SHALL BE SALVAGED AND DELIVERED TO A DISTRICT 3 MAINTENANCE YARD. CONTACT MR. KIP RUTLEDGE OF WATSEKA MAINTENANCE YARD (815) 432-2350 FOR ADDITIONAL INFORMATION OR TO SET UP A DELIVERARY DATE. THE COST OF REMOVING THE BEAMS AND DELIVERING THEM TO THE MAINTENANCE YARD SHALL BE INCLUDED IN THE COST OF REMOVAL OF EXISTING STRUCTURES.

HIGHWAY STANDARDS

Revision No.		
06 -	000001	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
02 -	001001	AREAS OF REINFORCEMENT BARS
	001006	DECIMAL OF AN INCH AND OF A FOOT
07 -	280001	TEMPORARY EROSION CONTROL SYSTEMS
02 -	482001	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
03 -	482011	HMA SHOULDER STRIPS/SHOULDERS WITH RS OR WIDENING & RS PROJECT
03 -	515001	NAME PLATE FOR BRIDGES
04 -	542001	CONCRETE END SECTIONS FOR PIPE CULVERTS 15" THRU 84" DIA.
03 -	542301	PRECAST REINFORCED CONCRETE FLARED END SECTION
01 -	542401	METAL END SECTIONS FOR PIPE CULVERTS
05 -	609006	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
10 -	630001	STEEL PLATE BEAM GUARDRAIL
09 -	630101	GUARDRAIL MOUNTED ON EXISTING CULVERTS
06 -	630201	PCC/HMA STABILZATION AT STEEL PLATE BEAM GUARDRAIL
06 -	630301	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
01 -	635001	DELINEATORS
03 -	635006	REFLECTOR AND TERMINAL MARKER PLACEMENT
02 -	635011	REFLECTOR MARKER AND MOUNTING DETAILS
02 -	701001	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5M) AWAY
05 -	701006	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24" (600 MM) FROM PAVEMENT EDGE
03 -	701306	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
03 -	701311	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
03 -	701901	TRAFFIC CONTROL DEVICES
01 -	720011	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
04 -	780001	TYPICAL PAVEMENT MARKINGS
03 -	781001	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PREPARED BY: Tom Brown
DISTRICT STUDIES & PLANS ENGINEER

DATE: August 15, 2014

EXAMINED BY:
DISTRICT CONSTRUCTION ENGINEER

DISTRICT MATERIALS ENGINEER

Bruce A. Wheelan
DISTRICT OPERATIONS ENGINEER

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	2
		CONTRACT NO. 66892		
		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	CONSTRUCTION TYPE CODE 80% FED, 20% STATE TOTAL QUANTITY	RDWY 0004 RURAL	038-0119 (EX.) 038-2026 (PR.) BRIDGE 0011 RURAL
20200100	EARTH EXCAVATION	CU YD	278	278	
20400800	FURNISHED EXCAVATION	CU YD	309	309	
20700110	POROUS GRANULAR EMBANKMENT	TON	855		855
25000210	SEEDING, CLASS 2A	ACRE	0.42	0.42	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	37	37	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	37	37	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	37	37	
25100115	MULCH, METHOD 2	ACRE	0.42	0.42	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	166	166	
28000305	TEMPORARY DITCH CHECKS	FOOT	134	134	
28000500	INLET AND PIPE PROTECTION	EACH	4	4	
28100107	STONE RIPRAP, CLASS A4	SQ YD	246		246
28200200	FILTER FABRIC	SQ YD	246		246
31100910	SUBBASE GRANULAR MATERIAL, TYPE A 12"	SQ YD	267	267	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	3

CONTRACT NO. 66892

ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	CONSTRUCTION TYPE CODE: 80% FED, 20% STATE TOTAL QUANTITY	RDWY 0004 RURAL	038-0119 (EX.) 038-2026 (PR.) BRIDGE 0011 RURAL
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	120	120	
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	774	774	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	0.5	0.5	
40600527	LEVELING BINDER (HAND METHOD), IL-9.5FG, N50	TON	0.6	0.6	
40600627	LEVELING BINDER (MACHINE METHOD), IL-9.5FG, N50	TON	48	48	
40600990	TEMPORARY RAMP	SQ YD	40	40	
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	96	96	
40701886	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10 1/4"	SQ YD	126	126	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	159	159	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	146	146	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50105220	PIPE CULVERT REMOVAL	FOOT	42	42	
~~50800105~~	~~REINFORCEMENT BARS~~	~~POUND~~	~~1700~~		~~1700~~
~~50800515~~	~~BAR SPLICERS~~	~~EACH~~	~~20~~		~~20~~

Rev.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	4

CONTRACT NO. 66892

ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	CONSTRUCTION TYPE CODE: 80% FED, 20% STATE TOTAL QUANTITY	RDWY 0004 RURAL	038-0119 (EX.) 038-2026 (PR.) BRIDGE 0011 RURAL
	51500100	NAME PLATES	EACH	1		1
	54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2		2
	~~54003000~~	~~CONCRETE BOX CULVERTS~~	~~CU YD~~	~~18.2~~		~~18.2~~
	54011210	PRECAST CONCRETE BOX CULVERTS 12' X 10'	FOOT	120		120
	54213450	END SECTIONS 15"	EACH	4	4	
	5400220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	100	100	
*	63000001	STEEL PLATE BEAM, GUARDRAIL TYPE A, 6 FOOT POSTS	FOOT	287.5	287.5	
*	63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	50	50	
*	63100169	TRAFFIC BARRIER TERMIMAL, TYPE 1 (SPECIAL) FLARED	EACH	4	4	
	63200310	GUARDRAIL REMOVAL	FOOT	558	558	
	63500105	DELINEATORS	EACH	4	4	
	66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	8	8	
	67100100	MOBILIZATION	LSUM	1	1	
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	LSUM	1	1	

*Specialty Items

Rev.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	5
		CONTRACT NO. 66892		
		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	CONSTRUCTION TYPE CODE: 80% FED, 20% STATE TOTAL QUANTITY	ROWY 0004 RURAL	038-0119 (EX.) 038-2026 (PR.) BRIDGE 0011 RURAL
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	20	20	
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	86	86	
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	29	29	
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1720	1720	
*	78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	220	220	
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	10	10	
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	20	20	
*	78201000	TERMINAL MARKERS - DIRECT APPLIED	EACH	4	4	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10	
	X0323265	REMOVE EXISTING RIP RAP	SQ YD	246	246	
	X0327726	MEMBRANE WATERPROOFING FOR CULVERTS	SQ YD	208.2		208.2
	X3550015	HOT-MIX ASPHALT BASE COURSE, (VARIABLE DEPTH)	TON	75	75	
	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	1275	1275	
	~~X5121800~~	~~PERMANENT STEEL SHEET PILING~~	~~SQ FT~~	~~1912~~		~~1912~~

*Specialty Items

Rev.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	6

CONTRACT NO. 66B92

ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	CONSTRUCTION TYPE CODE: 80% FED, 20% STATE TOTAL QUANTITY	RDWY 0004 RURAL	038-0119 (EX.) 038-2026 (PR.) BRIDGE 0011 RURAL
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1	1	
Z0005216	HOT-MIX ASPHALT STABILIZATION 6" AT STEEL PLATE BEAM GUARDRAIL	SQ YD	163	163	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	42	42	

3

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

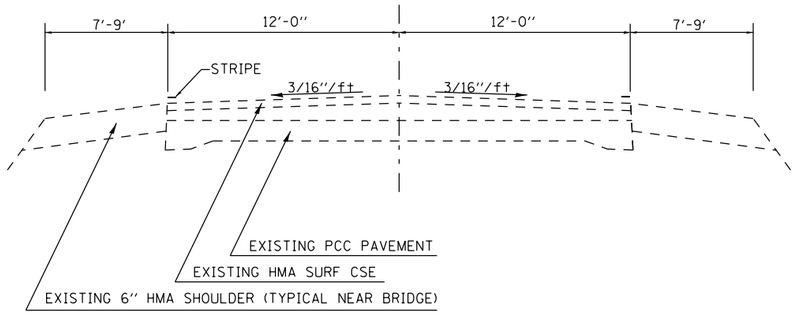
SUMMARY OF QUANTITIES

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

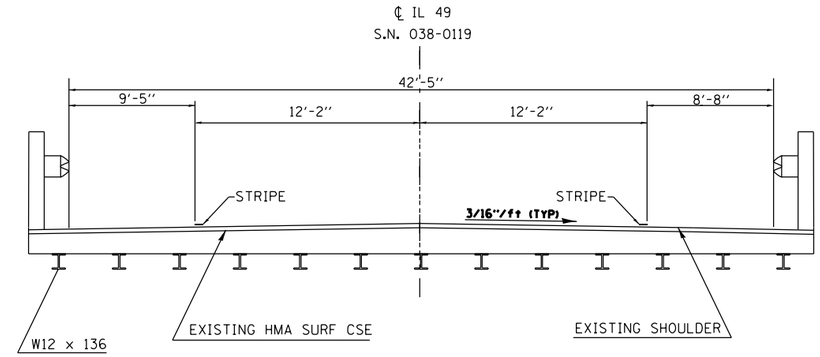
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	7

CONTRACT NO. 66892

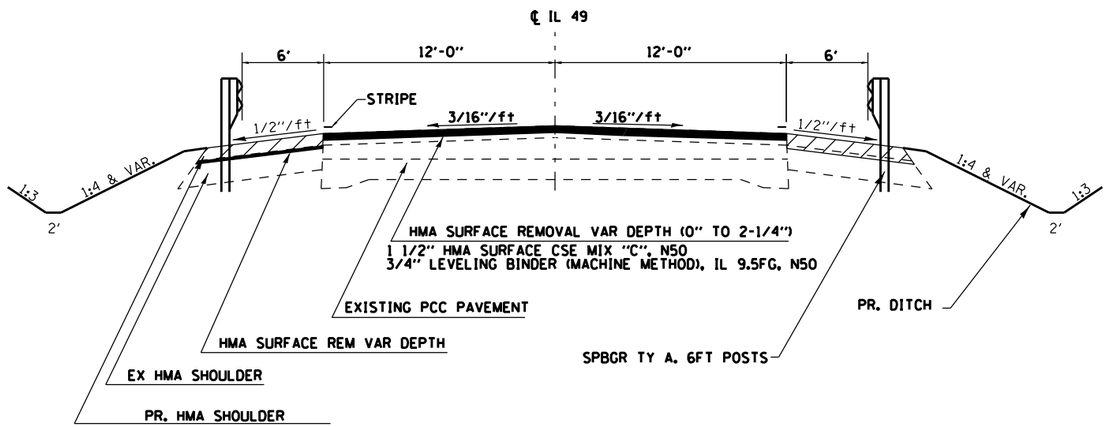
ILLINOIS FED. AID PROJECT



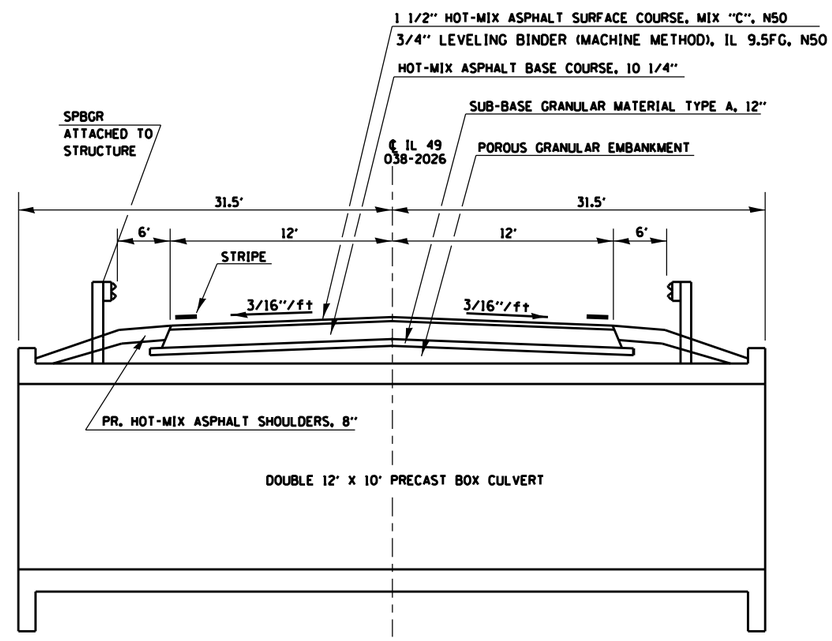
EXISTING ROADWAY TYPICAL SECTION



EXISTING BRIDGE TYPICAL SECTION



PROPOSED ROADWAY TYPICAL SECTION



PROPOSED BRIDGE TYPICAL SECTION

MIXTURES TABLE					
	HMA BASE COURSE	HMA LEVEL BINDER	HMA SURFACE	HMA GUARDRAIL STABILIZATION	HMA SHOULDERS
PG GRADE••	PG-64-22	PG-64-22	PG-64-22	PG-64-22	PG-64-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 19.0FG	IL 9.5FG	IL 9.5	IL 19.0FG	IL 19.0FG
FRICTION AGGREGATE			MIXTURE C		
DENSITY TEST METHOD	CORES•	CORES	CORES	SATISFACTION OF ENGINEER	CORES•

•MATERIAL SHALL BE COMPACTED TO 93.0-97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE THE MINIMUM PERCENT COMPACTION SHALL BE 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.

••WHEN RAP/RAS ABR EXCEEDS 20 PERCENT, THE HIGH AND LOW VIRGIN ASPHALT BINDER GRADES SHALL EACH BE REDUCED BY ONE GRADE (I.E. 25% ABR WOULD REQUIRE VIRGIN ASPHALT BINDER GRADE OF PG64-22 TO BE REDUCED TO PG58-22).

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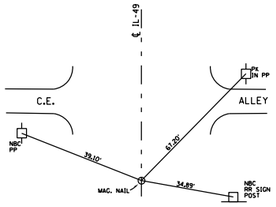
		DATE -	REVISED -							



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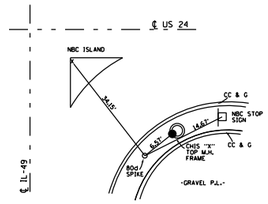
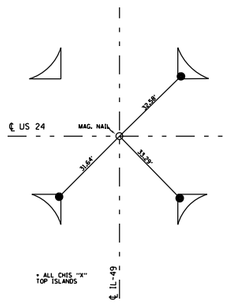


CP 49501 1251+14.25 35.63' LT



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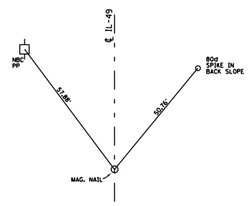
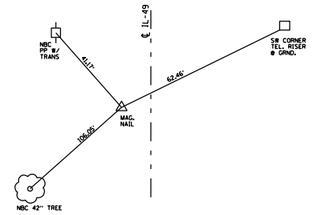
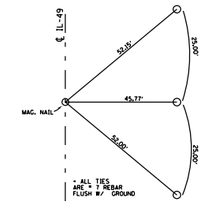


P.C. 1245+99.86 BK=
1246+00.01 AH



P.I. 1241+00.00
5.13' RT



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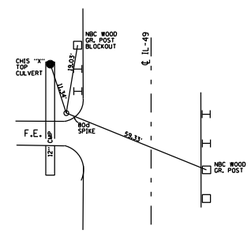
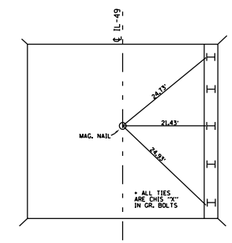
1236+00.00 AH



CP 49500
1225+19.27 24.32' RT



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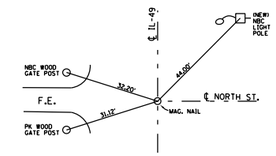
1224+00.00



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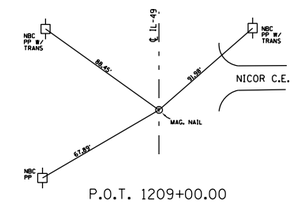
10+00.00
NORTH ST.



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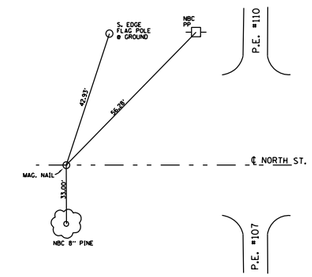

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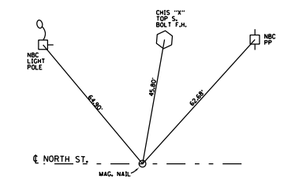

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCH MARKS AND TIE POINTS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	9

CONTRACT NO. 66B92

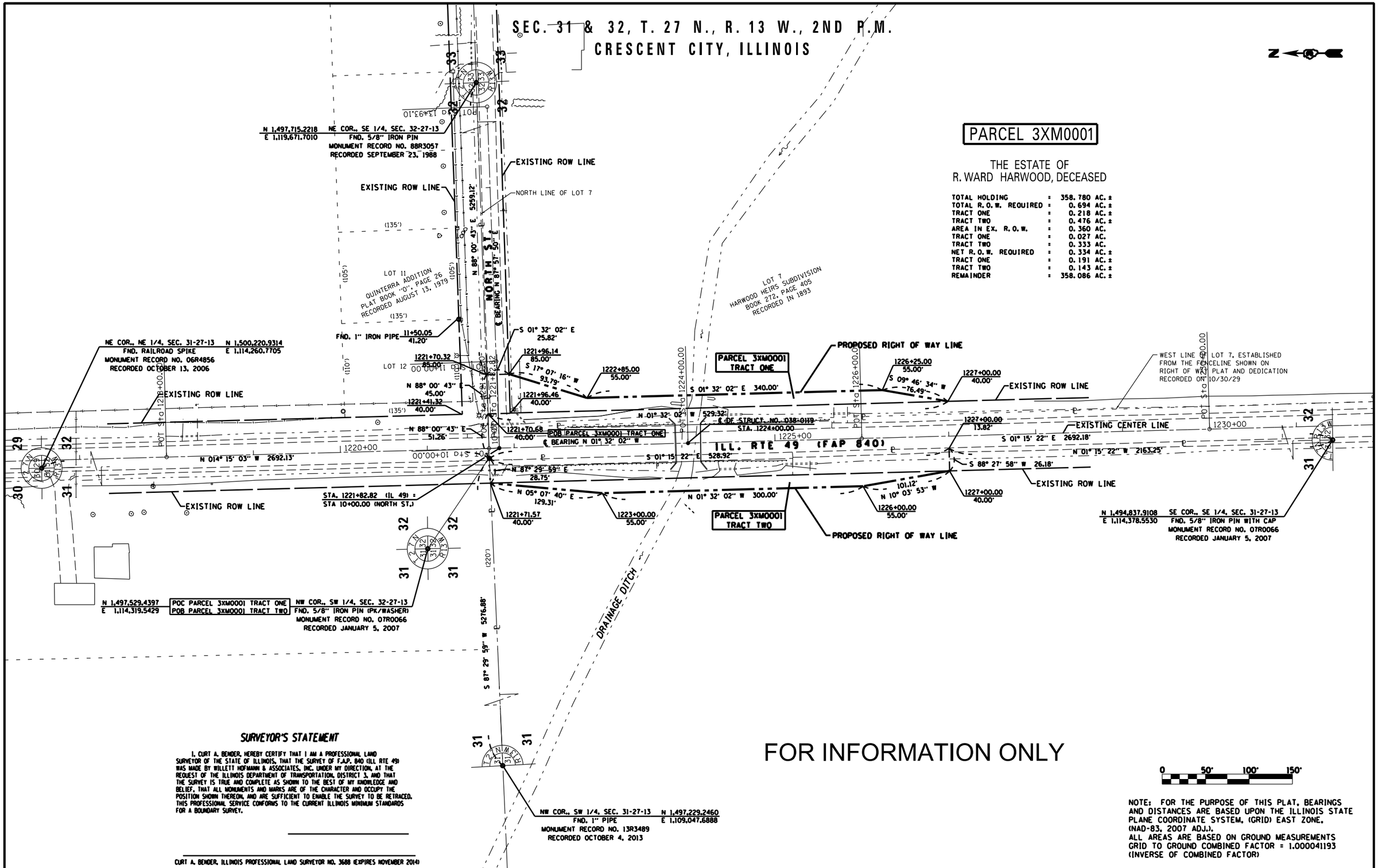
ILLINOIS FED. AID PROJECT

SEC. 31 & 32, T. 27 N., R. 13 W., 2ND P.M.
CRESCENT CITY, ILLINOIS

PARCEL 3XM0001

THE ESTATE OF
R. WARD HARWOOD, DECEASED

TOTAL HOLDING	:	358.780 AC. ±
TOTAL R.O.W. REQUIRED	:	0.694 AC. ±
TRACT ONE	:	0.218 AC. ±
TRACT TWO	:	0.476 AC. ±
AREA IN EX. R.O.W.	:	0.360 AC.
TRACT ONE	:	0.027 AC.
TRACT TWO	:	0.333 AC.
NET R.O.W. REQUIRED	:	0.334 AC. ±
TRACT ONE	:	0.191 AC. ±
TRACT TWO	:	0.143 AC. ±
REMAINDER	:	358.086 AC. ±



SURVEYOR'S STATEMENT

I, CURT A. BENDER, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF F.A.P. 840 (ILL RTE 49) WAS MADE BY WILLETT HOFMANN & ASSOCIATES, INC. UNDER MY DIRECTION, AT THE REQUEST OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT ALL MONUMENTS AND MARKS ARE OF THE CHARACTER AND OCCUPY THE POSITION SHOWN THEREON, AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

CURT A. BENDER, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3688 (EXPIRES NOVEMBER 2014)

FOR INFORMATION ONLY

0 50' 100' 150'

NOTE: FOR THE PURPOSE OF THIS PLAT, BEARINGS AND DISTANCES ARE BASED UPON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, (GRID) EAST ZONE, (NAD-83, 2007 ADJ.).
ALL AREAS ARE BASED ON GROUND MEASUREMENTS
GRID TO GROUND COMBINED FACTOR = 1.000041193
(INVERSE OF COMBINED FACTOR)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	10

CONTRACT NO. 66B92

ILLINOIS FED. AID PROJECT

MAINLINE SCHEDULE

LOCATION IL 49	NOTES	LENGTH	PVMT WIDTH	SHLD WIDTH	HMA SURF. REM. VAR. DEPTH	BIT MAT PRIME COAT	LEVEL BINDER (MM), N50	LEVEL BINDER (HM), N50	HMA SURF CSE. MIX "C" N50	MIX FOR JOINTS, CRACKS, & FLANGWAYS	HMA BSE CSE VAR. DEPTH	HMA PVT FULL DEPTH 10 1/4"	SUBBASE GR MAT TY. A 12"	TEMP RAMP	HMA SHLD 8"	HMA SHLD	HMA PVT FULL DEPTH 10 1/4"	AGG SHLD TY. B	AGG SURF CSE. TY. B
STA. TO STA.		FOOT	FOOT	FOOT	SQ YD	POUND	TON	TON	TON	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD	TON	SQ YD	TON	TON
STA. 1222+00 TO STA. 1223+86.5	BEGIN PROJECT	187	24	9	545	335.7	20.9	0.25	42	0.15	22	37	67	20	33	69		4	
STA. 1223+86.5 TO STA. 1224+13.5	S.N. 038-2506	27	24	10	60	48.6	3	0.04	6	0.02		72	132		54		126		
STA. 1224+13.5 TO STA. 1226+30.0	END PROJECT	217	24	10	670	389.7	24.2	0.29	49	0.17	53	37	67	20	72	77		7	120
TOTAL					1275	774	48	0.6	96	0.34	75	147	267	40	159	146	126	11	120

PAVEMENT MARKING SCHEDULE

LOCATION IL 49	NOTES	LENGTH	PAINT PVMT MK 4" WHITE	PAINT PVMT MK 6" YELLOW	RAISED REF PVMT MARK REMOVAL	RAISED REFLECT PVMT MARK	SHORT TERM	WORK ZONE PVT MRK REMOVAL
STA. TO STA.		FOOT	FOOT	FOOT	EACH	EACH	FOOT	SQ FT
STA. 1222+00 TO STA. 1223+72.5	BEGIN PROJECT	172.5	690	90	4	4	35	12
STA. 1223+72.5 TO STA. 1224+13.5	S.N. 038-2506	41	164	20	1	1	8	3
STA. 1224+13.5 TO STA. 1226+30.0	END PROJECT	216.5	866	110	5	5	43	14
TOTAL			1720	220	10	10	86	29

GUARDRAIL SCHEDULE

LOCATION IL 49	LENGTH	NOTES	GUARDRAIL REMOVAL	TBT TY 1 SP TANG.	SPBGR ATTACHED TO STRUCT.	SPBGR TY. A 6' POSTS	GUARDRAIL MARKER TY. A	HMA STABILIZATION 6"
			FT	EACH	FOOT	FOOT	EACH	SQ YD
IROQUOIS COUNTY								
STA. 1222+00 TO STA. 1223+86.5	186.5	BEGIN PROJECT	308	2		163		88
STA. 1223+86.5 TO STA. 1224+13.5	27.0	S.N. 038-2506	50		50		6	
STA. 1224+13.5 TO STA. 1226+30.0	216.5	END PROJECT	200	2		125	7	75
TOTAL			558	4	50	287.5	13	163

DELINATOR SCHEDULE

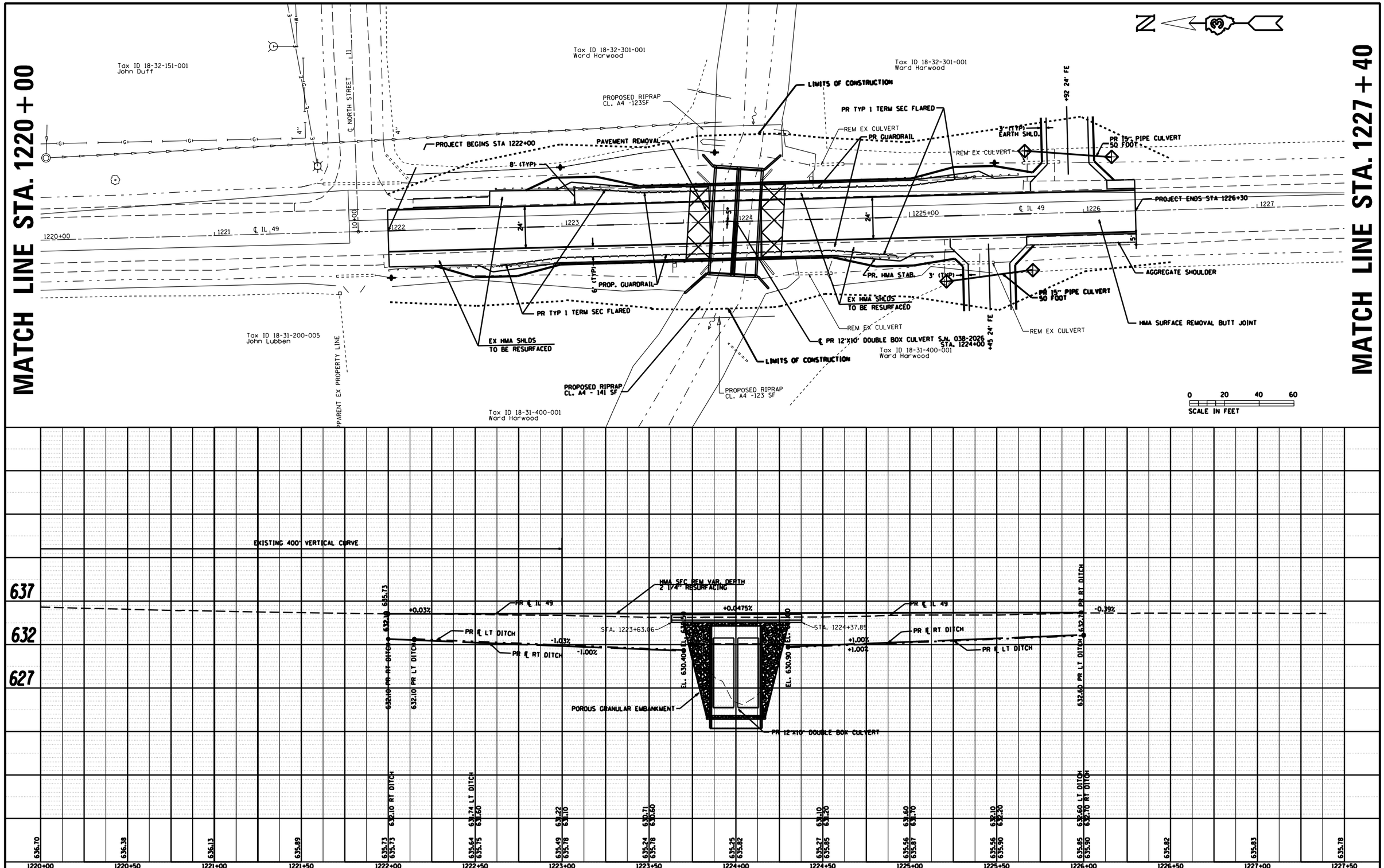
STATION	EACH
1225+20.22 RT	1
1225+67.04 LT	1
1225+69.94 RT	1
1226+16.95 LT	1
TOTAL	4

SEEDING AND EROSION CONTROL

LOCATION	NOTES	LENGTH	SEEDING CLASS 2A	MULCH METHOD 2	TEMP EROSION CONTROL SEEDING	NITROGEN FERTILIZER	PHOSPHORUS FERTILIZER	POTASSIUM FERTLIZER	TEMPORARY DITCH CHECK	INLET AND PIPE PROTECTION
IL 49		FOOT	ACRE	ACRE	POUNDS	POUNDS	POUNDS	POUNDS	FOOT	EACH
STA. 1222+00 TO STA. 1223+72.5	BEGIN PROJECT	173	0.18	0.18	71	16	16	16	54	
STA. 1223+72.5 TO STA. 1224+13.5	S.N. 038-2026	41							13	
STA. 1224+13.5 TO STA. 1226+30.0	END PROJECT	217	0.24	0.24	95	21	21	21	68	4
TOTAL			0.42	0.42	166	37	37	37	134	4

EARTH EXCAVATION

LOCATION	EARTH EXCAVATION (CUTS)	EARTH EXCAVATION ADJ FOR SHRINKAGE 25%	EMBANKMENT (FILLS)	(FURNISHED EX.) EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
STA. TO STA.	CU YD	CU YD	CU YD	CU YD
STA. 1222+00 TO STA. 1226+30	277.8	208.3	517	-308.7
TOTALS	278			-309



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

PROFILE		BY	DATE
SURVEYED			
PLOTTED			
PLANS CHECKED			
BM. NOTED			
STRUCTURE NOTATNS CHKD			
NOTE BOOK NO.			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

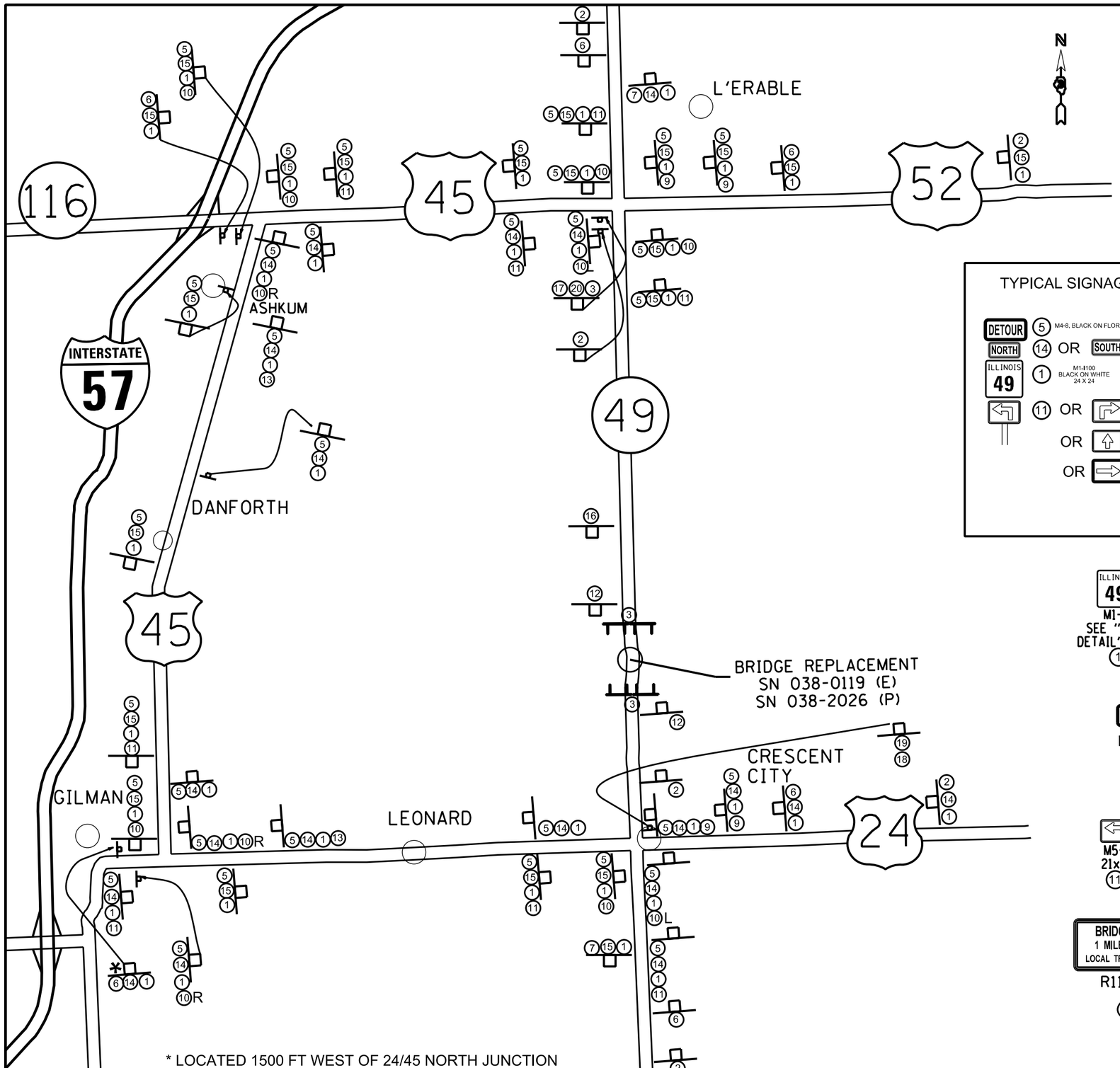
PLAN & PROFILE

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	12

CONTRACT NO. 66B92

ILLINOIS FED. AID PROJECT



GENERAL NOTES:

1.) ONLY SIGNS THAT ARE TO BE ADDED ARE SHOWN ON THIS MAP.

2.) ALL SIGNS TO BE POST MOUNTED.

3.) CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SIGNAGE AT ALL TIMES.

4.) ROAD CLOSURE DETAILS SHALL BE DONE IN ACCORDANCE WITH BLR-21.

5.) DETOUR SIGNS SHALL BE COVERED WHEN NOT IN USE.

6.) ALL SIGNS WILL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.

7.) SIGNS SHALL HAVE TYPE A FLASHING LIGHT. ABOVE FIRST TWO SIGNS

8.) DETOUR CONFIRMATION SIGNING SHALL BE WITHIN 1000 FT. OF THE INTERSECTION.

9.) COVER ALL CONFLICTING ROUTE MARKER SIGNS AND DIRECTIONAL SIGNS (DO NOT DRILL HOLES INTO SIGN FACE OR USE TAPE).

TYPICAL SIGNAGE STRUCTURE

DETOUR (5) M4-8, BLACK ON FLORESCENT ORANGE (24 X 12)

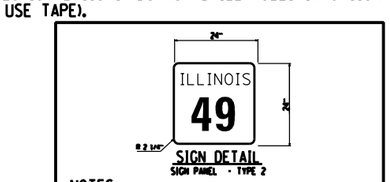
NORTH (14) OR SOUTH (15) M3-3 BLACK ON WHITE (24 X 12)

ILLINOIS 49 (1) M1-1100 BLACK ON WHITE 24 X 24

(11) OR (13)

OR (9)

OR (10)



NOTES:

1.) AREA = 4.0 SQ. FT.
2.) TOTAL AREA REQUIRED (38 SIGNS) = 152.0 SQ. FT.
4.) LEGEND: BLACK
5.) BACKGROUND = WHITE

ILLINOIS 49 — M1-5 SEE "SIGN DETAIL" TY. 2 (1)

ROAD CLOSED AHEAD — W20-3 (2)*

ROAD CLOSED — R11-2 (3)

DETOUR — M4-8 (5)*

DETOUR AHEAD — W20-2a (6)*

END DETOUR — M4-8a 24x18 (7)*

M6-3 (9)*

M6-1 (10)* R or L

M5-1 21x15 (11)*

ROAD CLOSED 500 FT — W20-3 (12)*

M5-1 21x15 (13)*

NORTH — M3-1 (14)

SOUTH — M3-3 (15)

BRIDGE OUT 1 MILE AHEAD LOCAL TRAFFIC ONLY — R11-3b (16)

ROAD CLOSED 7.5 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3a (17)

ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3a (18)

DETOUR — M4-10L (19)*

DETOUR — M4-10R (20)*

* BLACK ON FLOURESCENT ORANGE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR PLAN

SCALE: | SHEET OF SHEETS | STA. TO STA.

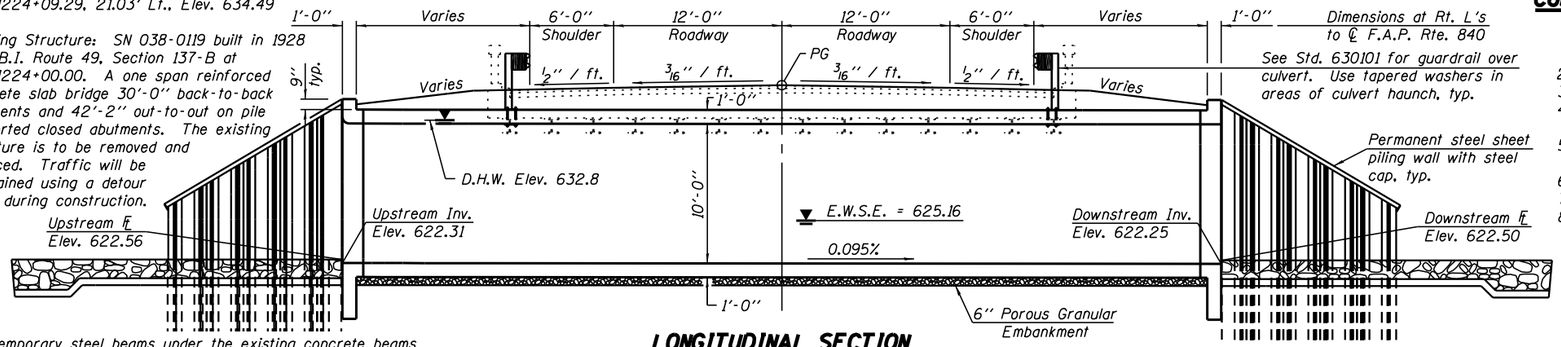
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	13

CONTRACT NO. 66B92

ILLINOIS FED. AID PROJECT

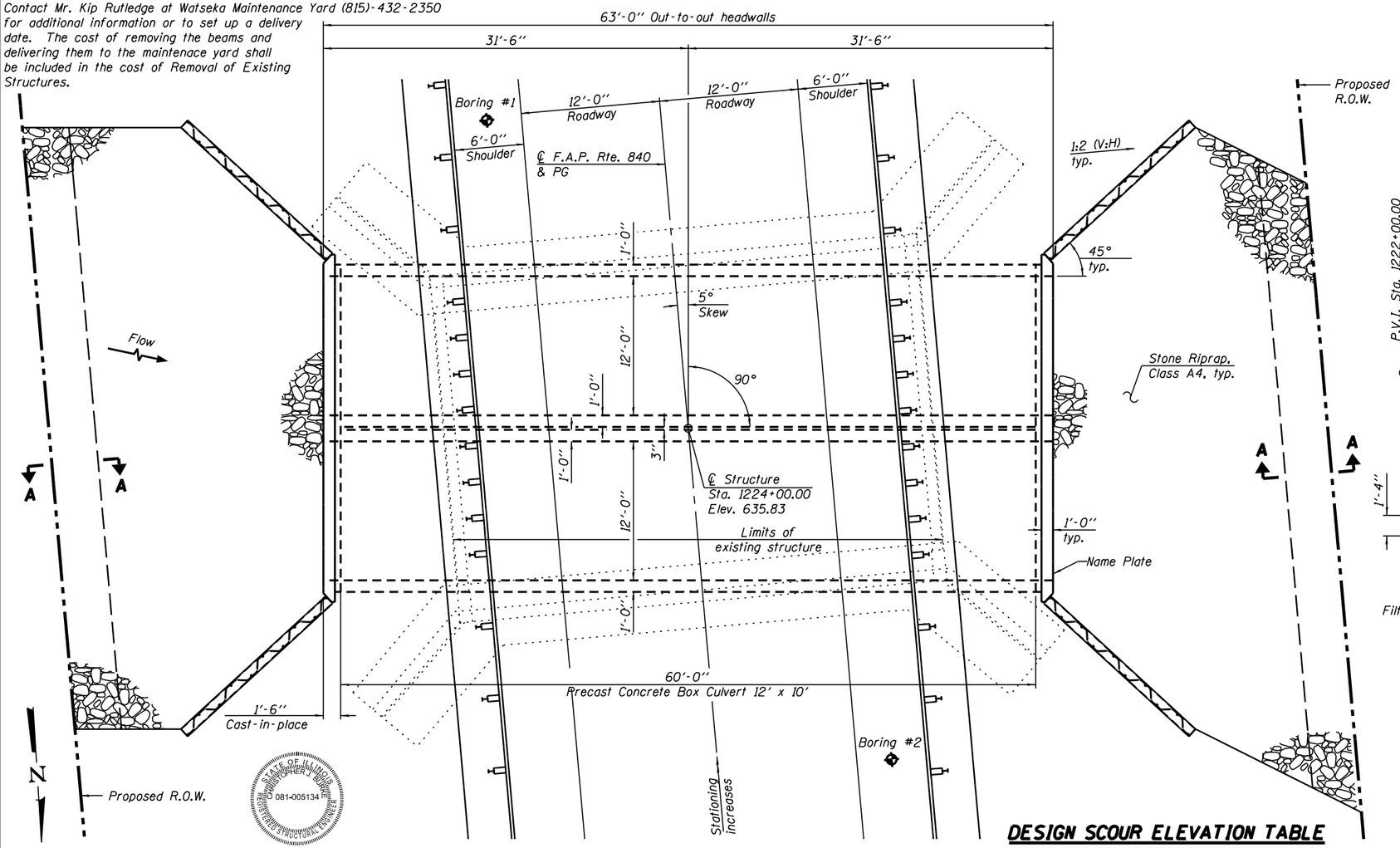
Benchmark: BM #119 - Chiseled "□" on SE wingwall: Sta. 1224+09.29, 21.03' Lt., Elev. 634.49

Existing Structure: SN 038-0119 built in 1928 as S.B.I. Route 49, Section 137-B at Sta. 1224+00.00. A one span reinforced concrete slab bridge 30'-0" back-to-back abutments and 42'-2" out-to-out on pile supported closed abutments. The existing structure is to be removed and replaced. Traffic will be maintained using a detour route during construction.



LONGITUDINAL SECTION

The temporary steel beams under the existing concrete beams shall be salvaged and delivered to a District 3 maintenance yard. Contact Mr. Kip Rutledge at Watseka Maintenance Yard (815)-432-2350 for additional information or to set up a delivery date. The cost of removing the beams and delivering them to the maintenace yard shall be included in the cost of Removal of Existing Structures.



PLAN

Christopher J. Burke
Exp. 11-30-2014
Date: 10-6-2014

CULVERT CONSTRUCTION SEQUENCE

1. Remove existing structure
2. Build cutoff wall
3. Prepare bed
4. Place precast box culvert sections.
5. Form and place concrete in end section
6. Drive sheeting
7. Backfill culvert and wings
8. Install sheet pile cap

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Name Plates	Each	1
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culvert 12' x 10'	Foot	120.0
Stone Riprap, Class A4	Sq. yd.	246
Filter Fabric	Sq. yd.	246
Membrane Waterproofing for Culverts	Sq. yd.	208.2

WATERWAY INFORMATION

Drainage Area = 5.75 sq. mi.
Existing Low Grade Elev. 635.25 @ Sta. 1224+00
Proposed Low Grade Elev. 635.25 @ Sta. 1224+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	448	167	200	630.9	0.0	0.0	630.9	630.9
Design	50	718	219	240	632.8	0.1	0.1	632.9	632.9
Base	100	839	219	240	633.4	0.2	0.2	633.6	633.6
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1136	219	240	634.2	0.4	0.4	634.6	634.6

Existing 10-year velocity = 2.5 ft./sec.
Proposed 10-year velocity = 2.2 ft./sec.

STATION 1224+00.00
BUILT 201 BY
STATE OF ILLINOIS
F.A.P. RTE. 840 SEC. 137-BR
LOADING HL-93
STRUCTURE NO. 038-2026

NAME PLATE

See Std. 515001

INDEX OF SHEETS

1 - General Plan & Elevation
2-3 - Box Culvert End Section Details
4 - Bar Splicer Assembly Details and Waterproofing Limits
5 - Soil Boring Logs

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition
ASTM C1577

DESIGN STRESSES

FIELD UNITS

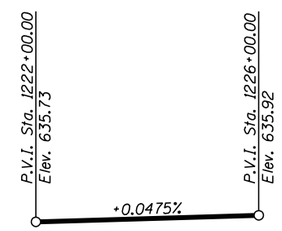
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Permanent sheet piling)
fy = 50,000 psi (AASHTO M270, Grade 50W)

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (Welded wire fabric)

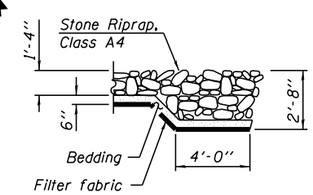
LOADING HL-93

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

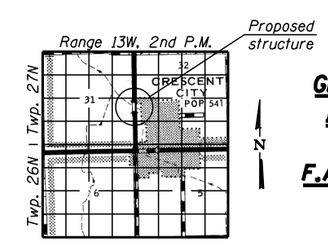


PROFILE GRADE

(Along ℄ F.A.P. Rte. 840)



SECTION A-A



LOCATION SKETCH

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	619.31	619.25

GENERAL PLAN & ELEVATION
IL. RTE. 49 OVER UNNAMED DRAINAGE DITCH
F.A.P. RTE. 840 - SEC. 137-BR
IROQUOIS COUNTY
STATION 1224+00.00
STRUCTURE NO. 038-2026

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		CHECKED - CCF	REVISED ___
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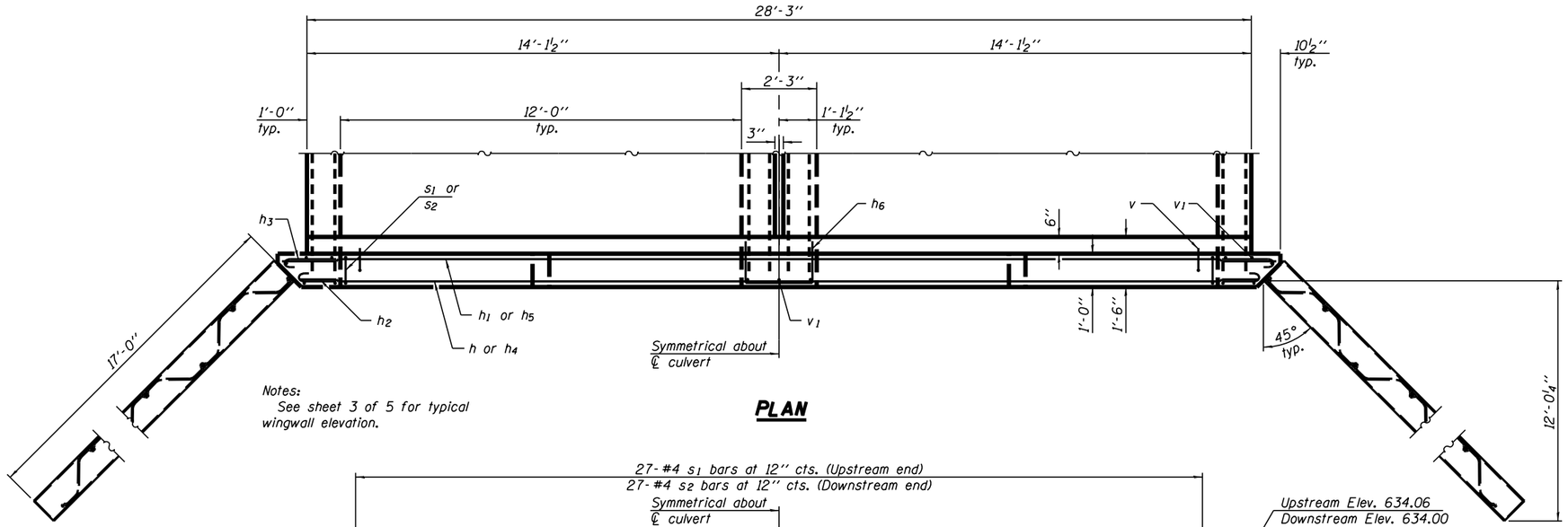
	PLOT DATE =	CHECKED - CJB	REVISED ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 5 SHEETS

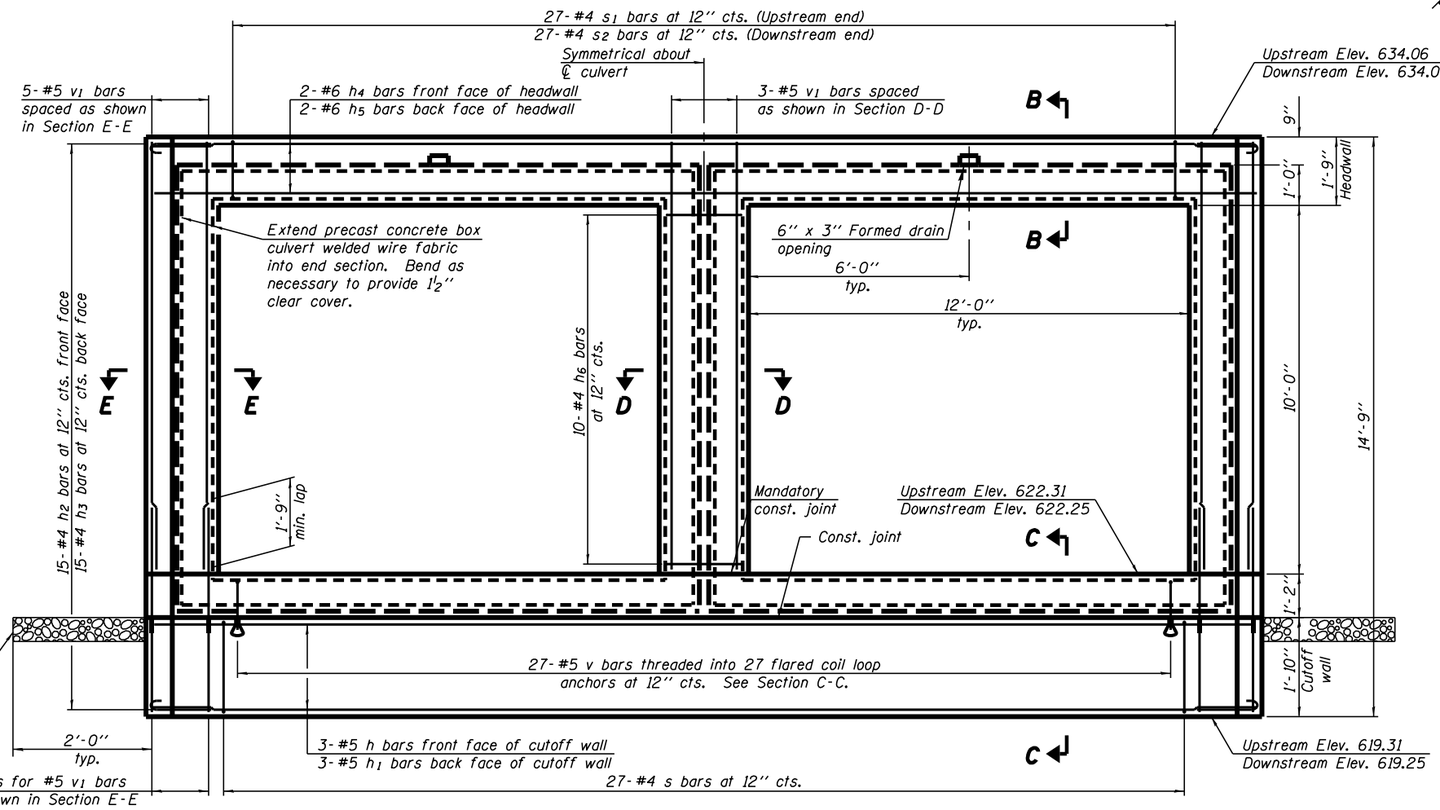
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	14

CONTRACT NO. 66B92
ILLINOIS FED. AID PROJECT



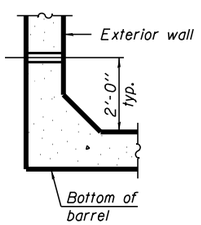
Notes:
See sheet 3 of 5 for typical wingwall elevation.

PLAN



END ELEVATION

Wingwalls omitted in this view for clarity.
See sheet 3 of 5 for additional wingwall details.



DRAIN DETAIL

Provide 3" ϕ drain holes in exterior walls at ±8' cts. See Article 503.11 of the Standard Specifications.

GENERAL NOTES

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

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.

The design fill height for this structure is maximum 2.55 feet and minimum 2.08 feet at edge of shoulder.

The precast concrete box culvert sections shall conform to the requirements of ASTM C1577.

The minimum effective section modulus of the permanent sheet pile wall shall be 29.8 in.^{3}/ft.

The sheet pile cap shall be AASHTO M270 Grade 50W.

Fasteners shall be ASTM A325 Type 3. Bolts ½" ϕ, holes ⅝" ϕ.

The box culvert end section shall be built in the field and a precast option is not allowed except the cutoff wall may be precast. If the Contractor elects to use a precast cutoff wall, shop drawings and a proposed construction sequence shall be submitted to the Engineer for approval.

Areas of the precast box culvert in contact with cast-in-place concrete shall be sandblasted, cleaned, and wetted prior to placing concrete in the field according to Article 503.09(b).

The ends of the precast box sections adjacent to the end section shall be formed without the male and female shapes specified in Article 8.1 of ASTM C1577.

The joints between precast box sections shall be sealed, all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.

Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

Due to low fill, provide waterproof membrane system over the top of the culvert.

See sheet 1 of 5 for culvert construction sequence.
See sheet 3 of 5 for Section B-B, C-C D-D, and E-E.
See sheet 3 of 5 for additional wing wall details.

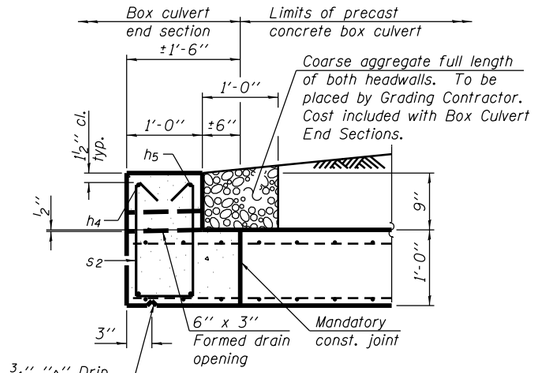
BILL OF MATERIAL

Item	Unit	Total
Culvert End Sectons, Culvert No. 1	Each	2

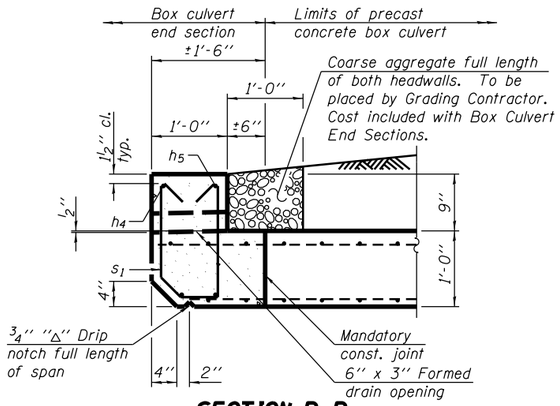
FILE NAME =	USER NAME =	DESIGNED - CJB	REVISED ___	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - CCF	REVISED ___	
	PLOT SCALE =	DRAWN - CCF	REVISED ___	
	PLOT DATE =	CHECKED - CJB	REVISED ___	

BOX CULVERT END SECTION DETAILS
STRUCTURE NO. 038-2026
SHEET NO. 2 OF 5 SHEETS

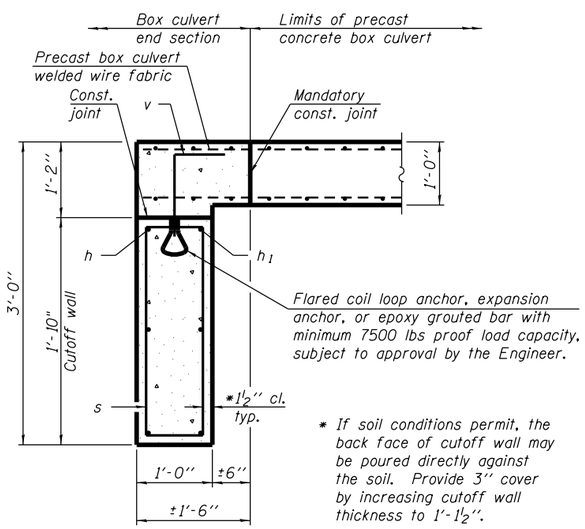
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	15
		CONTRACT NO. 66B92		
		ILLINOIS FED. AID PROJECT		



SECTION B-B
(Downstream end)

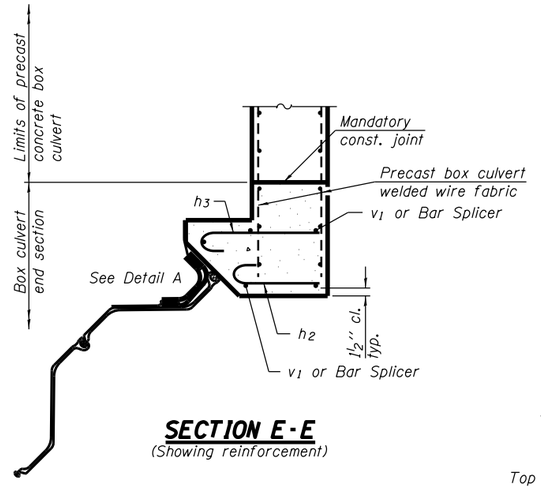


SECTION B-B
(Upstream end)

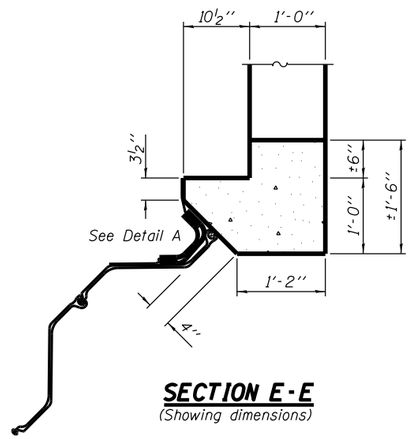


* If soil conditions permit, the back face of cutoff wall may be poured directly against the soil. Provide 3" cover by increasing cutoff wall thickness to 1'-1½".

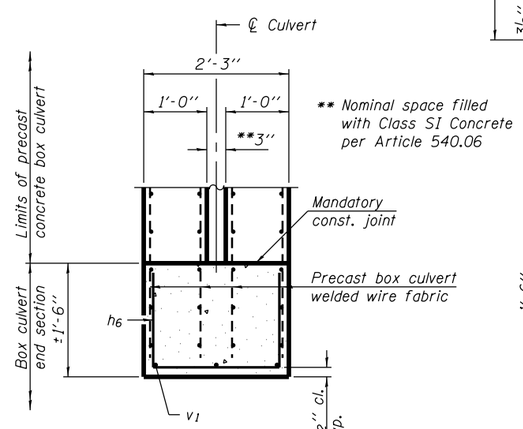
SECTION C-C



SECTION E-E
(Showing reinforcement)

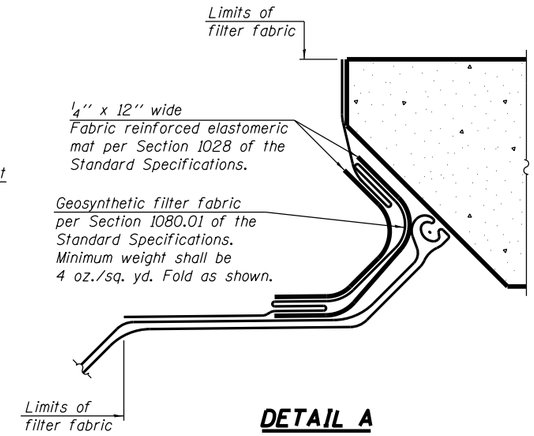


SECTION E-E
(Showing dimensions)

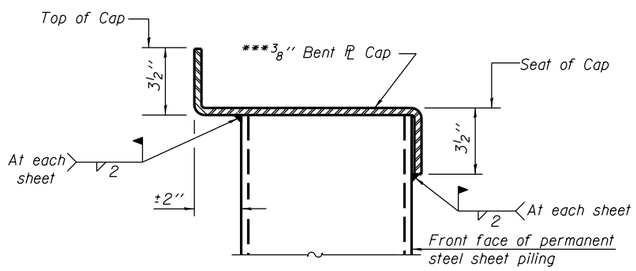


** Nominal space filled with Class SI Concrete per Article 540.06

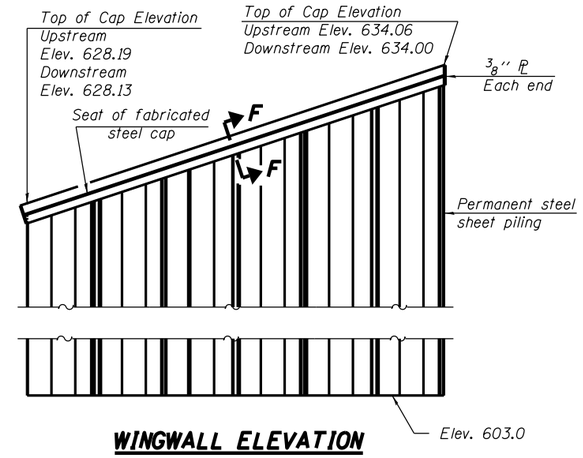
SECTION D-D



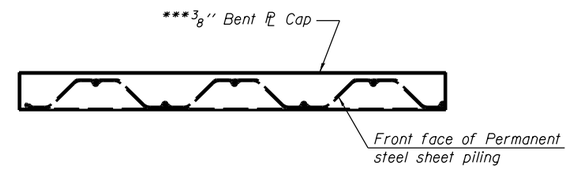
DETAIL A



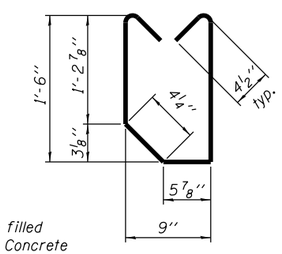
SECTION F-F
***AASHTO M270 Grade 50W



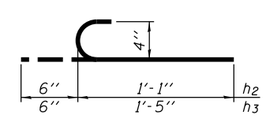
WINGWALL ELEVATION



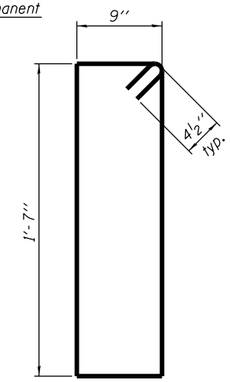
WINGWALL PLAN



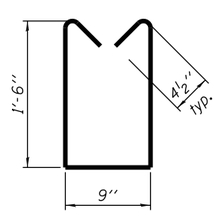
BAR s1



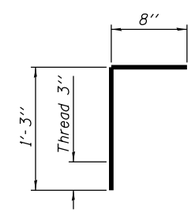
BARS h2 and h3



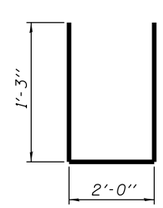
BAR s



BAR s2



BAR v



BAR h6

ONE END SECTION BILL OF MATERIAL
(For information only)

	Bar	No.	Size	Length	Shape
	h	3	#5	28'-4"	
	h_1	3	#5	29'-9"	
	h_2	30	#4	1'-7"	
	h_3	30	#4	1'-11"	
	h_4	2	#6	28'-4"	
	h_5	2	#6	29'-9"	
	h_6	10	#4	4'-6"	
	s	27	#4	5'-5"	
****	s_1	27	#4	4'-4"	
****	s_2	27	#4	4'-6"	
	v	27	#5	1'-11"	
	v_1	13	#5	11'-6"	
	Concrete Box Culverts			Cu. Yd.	9.1
	Reinforcement Bars			Pound	850
	Bar Splicers			Each	10
	Permanent Steel Sheet Piling			Sq. Ft.	956

The cost of the fabricated steel cap, bolts, washers, geosynthetic filter fabric, and elastomeric mat shall be included in the cost of Box Culvert End Sections, Culvert No. 1.

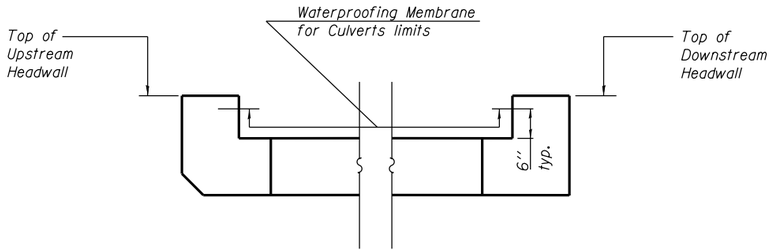
**** s_1 bar is to be placed on upstream end only. s_2 bar is to be placed on downstream end only.

FILE NAME =	USER NAME =	DESIGNED - CJB	REVISED ___
		CHECKED - CCF	REVISED ___
	PLOT SCALE =	DRAWN - CCF	REVISED ___
	PLOT DATE =	CHECKED - CJB	REVISED ___

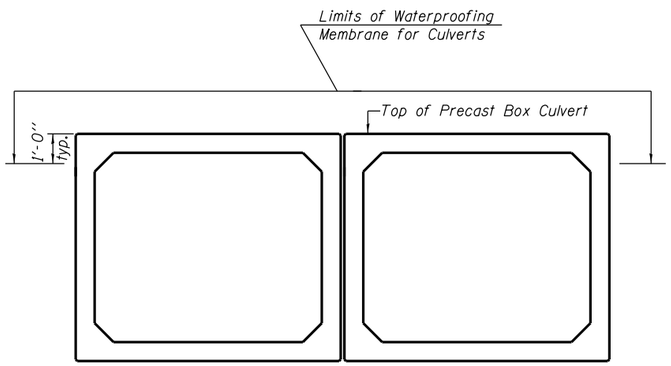
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION DETAILS
STRUCTURE NO. 038-2026
SHEET NO. 3 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	16
		CONTRACT NO. 66B92		
		ILLINOIS FED. AID PROJECT		



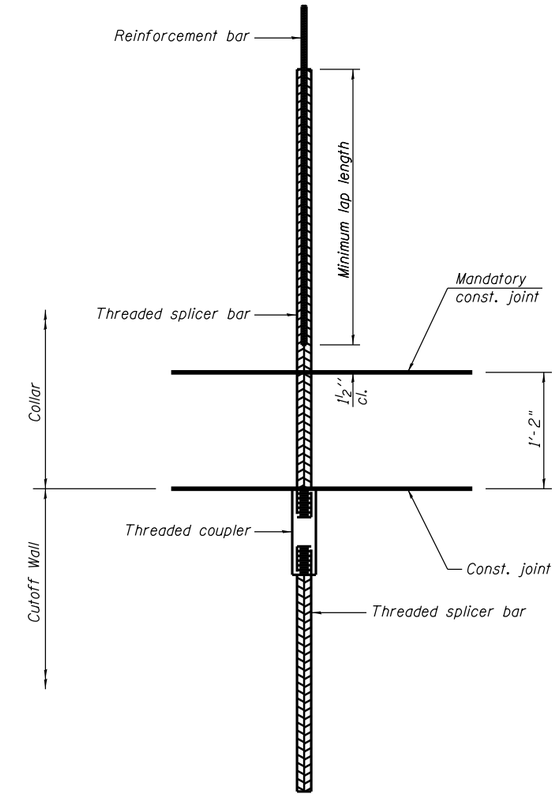
(Looking at Headwalls)



(Looking at Box Sections)

LIMITS OF WATERPROOFING MEMBRANE FOR CULVERTS

Note: Waterproofing Membrane for Culverts shall cover top of the top slab, top one foot of side walls, and 6 inches up inside face of the headwalls.



BAR SPLICER ASSEMBLY FOR BOX CULVERT END SECTIONS

Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5''	1'-11''	2'-1''	2'-4''	2'-7''	2'-11''
5	1'-9''	2'-5''	2'-7''	2'-11''	3'-3''	3'-8''
6	2'-1''	2'-11''	3'-1''	3'-6''	3'-10''	4'-5''
7	2'-9''	3'-10''	4'-2''	4'-8''	5'-2''	5'-10''
8	3'-8''	5'-1''	5'-5''	6'-2''	6'-9''	7'-8''
9	4'-7''	6'-5''	6'-10''	7'-9''	8'-7''	9'-8''

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½'' + thread length

Location	Bar size	No. assemblies required	Table for minimum lap length
* Cutoff Wall	5	10	1

* For one end section

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

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

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

FILE NAME =	USER NAME =	DESIGNED - CJB	REVISED ___
		CHECKED - CCF	REVISED ___
	PLOT SCALE =	DRAWN - CCF	REVISED ___
	PLOT DATE =	CHECKED - CJB	REVISED ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS AND WATERPROOFING LIMITS
STRUCTURE NO. 038-2026

SHEET NO. 4 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	17

CONTRACT NO. 66B92

ILLINOIS FED. AID PROJECT

Illinois Department of Transportation
Division of Highways
Illinois dot

SOIL BORING LOG

Page 1 of 1

Date 12/11/12

ROUTE FAP 840 (IL 49) DESCRIPTION IL 49 over a drainage ditch, 0.48 miles north of US 24 at Crescent City LOGGED BY Larry Myers

SECTION 137-BR LOCATION SW 1/4, SEC. 32, TWP. 27N, RNG. 13W, 3rd PM

COUNTY Iroquois DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 038-0119 (Exist)
Station 1224+00

BORING NO. 1 (SE Quad)
Station 1224+28
Offset 15.00ft Lt.
Ground Surface Elev. 634.91 ft

Surface Water Elev. 623.23 ft
Stream Bed Elev. 622.73 ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion Dry ft
After ___ Hrs. ___ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Augered Hot Mix Asphalt Shoulder, Black and Brown Silty Clay Loam Fill.	632.41				
Very Stiff to Stiff, Brown and Gray Silty Clay Loam Fill and Black Silty Clay Fill.	625.91	-5	3		
			3	3.5	25.2
			4	P	
			2		
			2	2.0	22.5
			3	P	
			2		
			2	2.0	28.1
			3	P	
Very Stiff Gray and Brown Silty Clay.	622.91	-10	3		
			3	3.1	25.9
			4	S	
			4		
Very Stiff to Hard Gray Clay with Traces of Silt and Silty Clay Layers.	617.91	-15	5	4.1	25.5
			7	S	
			4		
			5	3.7	27.4
			6	S	
Very Stiff to Hard Gray Silty Clay / Silty Clay Loam with Silt Pockets.	615.41		4		
			5	3.5	19.4
			7	S	
Hard to Very Stiff Gray Clay Till.		-20			

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Hard to Very Stiff Gray Clay Till. *(continued)*			5		
			7	4.8	19.9
			9	S	
			4		
			4	4.0	23.8
			5	B	
		-25	4		
			4	4.0	23.6
			5	B	
			4		
			4	4.0	23.8
			5	B	
		-30	4		
			4	3.7	23.8
			4	B	
		-35	4		
			5	3.9	23.2
			5	B	
End of Boring	598.41	-40			

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

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois dot

SOIL BORING LOG

Page 1 of 1

Date 12/11/12

ROUTE FAP 840 (IL 49) DESCRIPTION IL 49 over a drainage ditch, 0.48 miles north of US 24 at Crescent City LOGGED BY Larry Myers

SECTION 137-BR LOCATION SE 1/4, SEC. 31, TWP. 27N, RNG. 13W, 3rd PM

COUNTY Iroquois DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 038-0119 (Exist)
Station 1224+00

BORING NO. 2 (NW Quad)
Station 1223+70
Offset 15.00ft Rt.
Ground Surface Elev. 634.98 ft

Surface Water Elev. 623.23 ft
Stream Bed Elev. 622.63 ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion Dry ft
After ___ Hrs. ___ ft

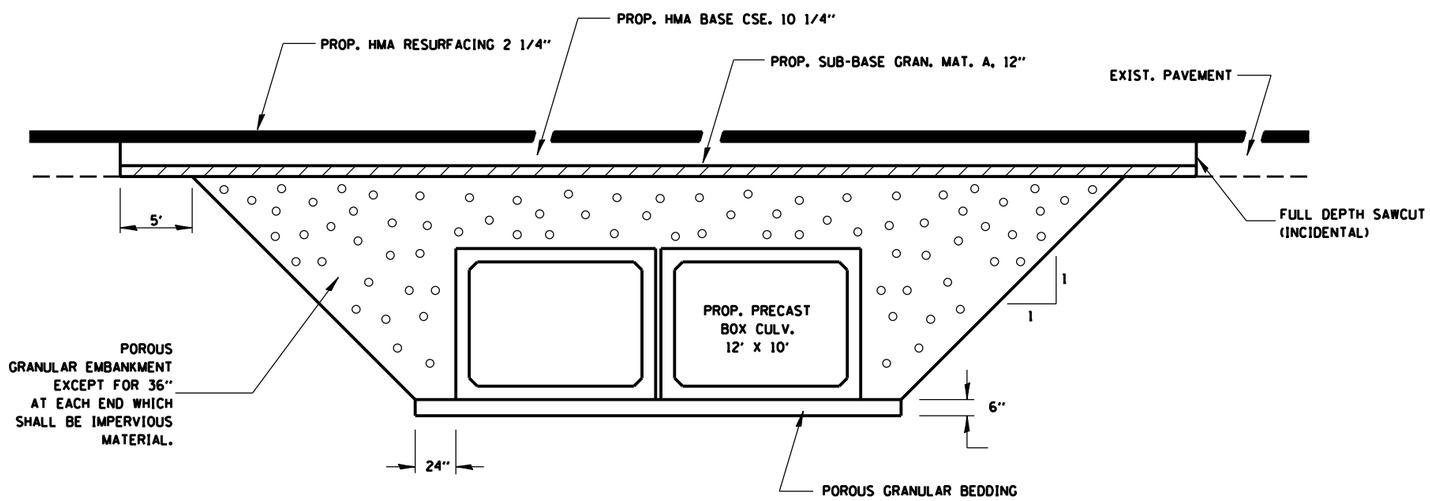
Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Augered Hot Mix Asphalt Shoulder, Brown and Black Silty Clay Loam Fill.	632.48				
Very Stiff Black Silty Clay Loam Topsoil.	630.48		4		
			3	2.5	26.1
			3	P	
Very Stiff Brown and Gray Silty Clay Loess.	627.98	-5	3		
			3	2.0	22.4
			3	P	
Very Stiff to Hard Brown and Gray Silty Clay.	622.98		2		
			3	3.1	26.6
			4	B	
		-10	4		
			5	4.7	23.6
			7	S	
Very Stiff to Hard Gray Clay with Minor Silt.	617.98		3		
			4	4.1	25.5
			6	S	
		-15	3		
			3	3.9	27.2
			5	S	
Hard Gray Silty Clay Till.			5		
			6	5.1	22.8
			8	S	
		-20			

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Hard Gray Silty Clay Till. *(continued)*			7		
			9	6.1	18.4
			11	S	
			4		
			4	4.1	20.3
			6	B	
		-25	4		
			5	4.4	20.9
			7	B	
			4		
			6	4.4	20.6
			8	B	
		-30	4		
			5	4.0	20.7
			6	B	
		-35	4		
			5	4.1	19.2
			7	B	
End of Boring	598.48	-40			

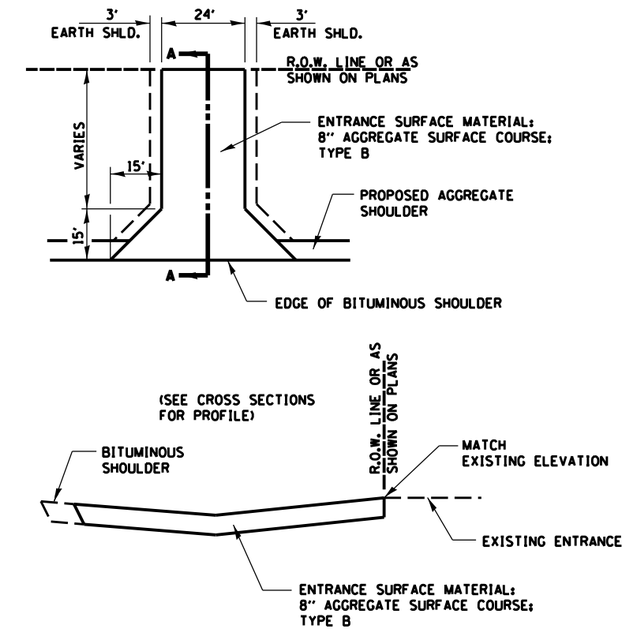
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

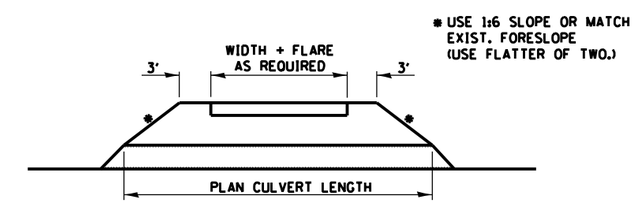
FILE NAME =	USER NAME =	DESIGNED - CJB	REVISED ___	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 038-2026	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - CCF	REVISED ___			840	137-BR	IROQUOIS	24	18
	PLOT SCALE =	DRAWN - CCF	REVISED ___					CONTRACT NO. 66B92		
	PLOT DATE =	CHECKED - CJB	REVISED ___		SHEET NO. 5 OF 5 SHEETS		ILLINOIS FED. AID PROJECT			



SECTION THROUGH PRECAST BOX CULVERT



SECTION A–A



FIELD ENTRANCE DETAIL

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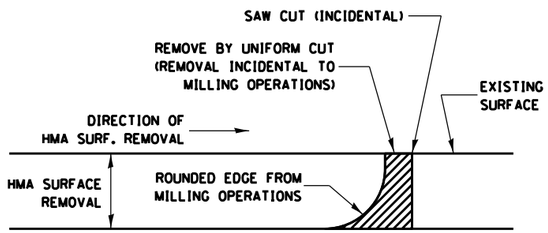
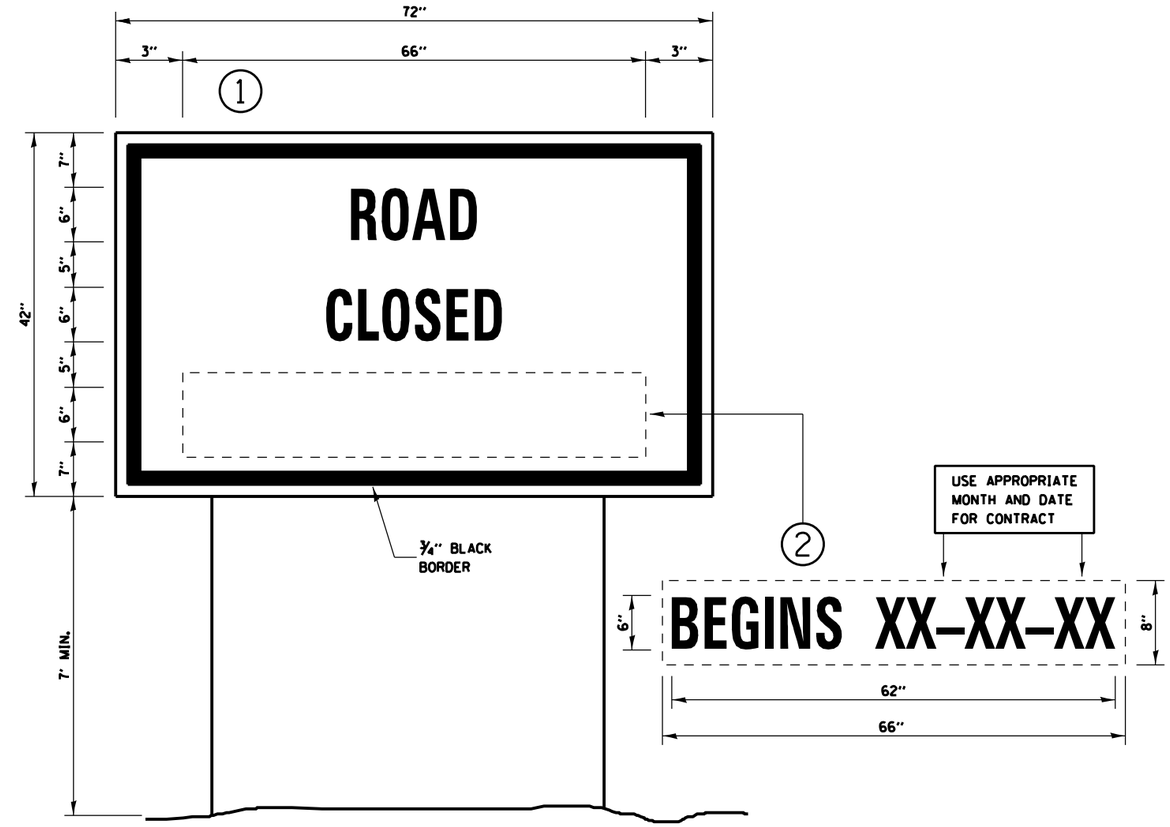
		DRAWN -	REVISED -			840	137-BR	IROQUOIS	24	19
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 66B92		
	PLOT DATE = 8/12/2014	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT			

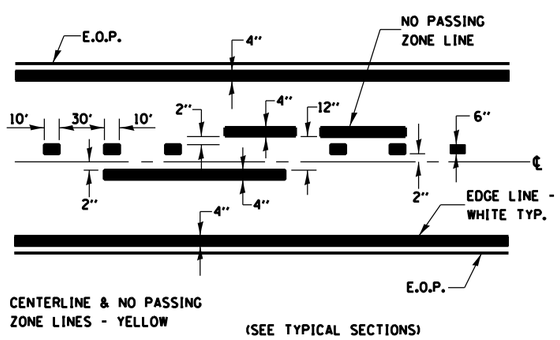


NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

HMA DETAIL AT BUTT JOINTS



TEMPORARY INFORMATION SIGNING



PAVEMENT MARKING

NOTES:

1. USE 6" D BLACK LETTERING ON FLOURESENT ORANGE BACKGROUND.
2. ERECT SIGNS AT LOCATIONS IN ADVANCE OF THE "ROAD CONSTRUCTION AHEAD" SIGNS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN 1 WITH INSTALLED PANEL 2 A MINIMUM OF ONE WEEK PRIOR TO THE START OF THE ROAD CLOSURE.
4. REMOVE PANEL 2 ON THAT DATE.
5. SEE SPECIAL PROVISION "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. WILL BE PAID FOR PER SQ FT AS "TEMPORARY INFORMATION SIGNING". EACH SIGN = 21 SQ FT AND THE DATE PANEL 2 WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.

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		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/12/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS

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

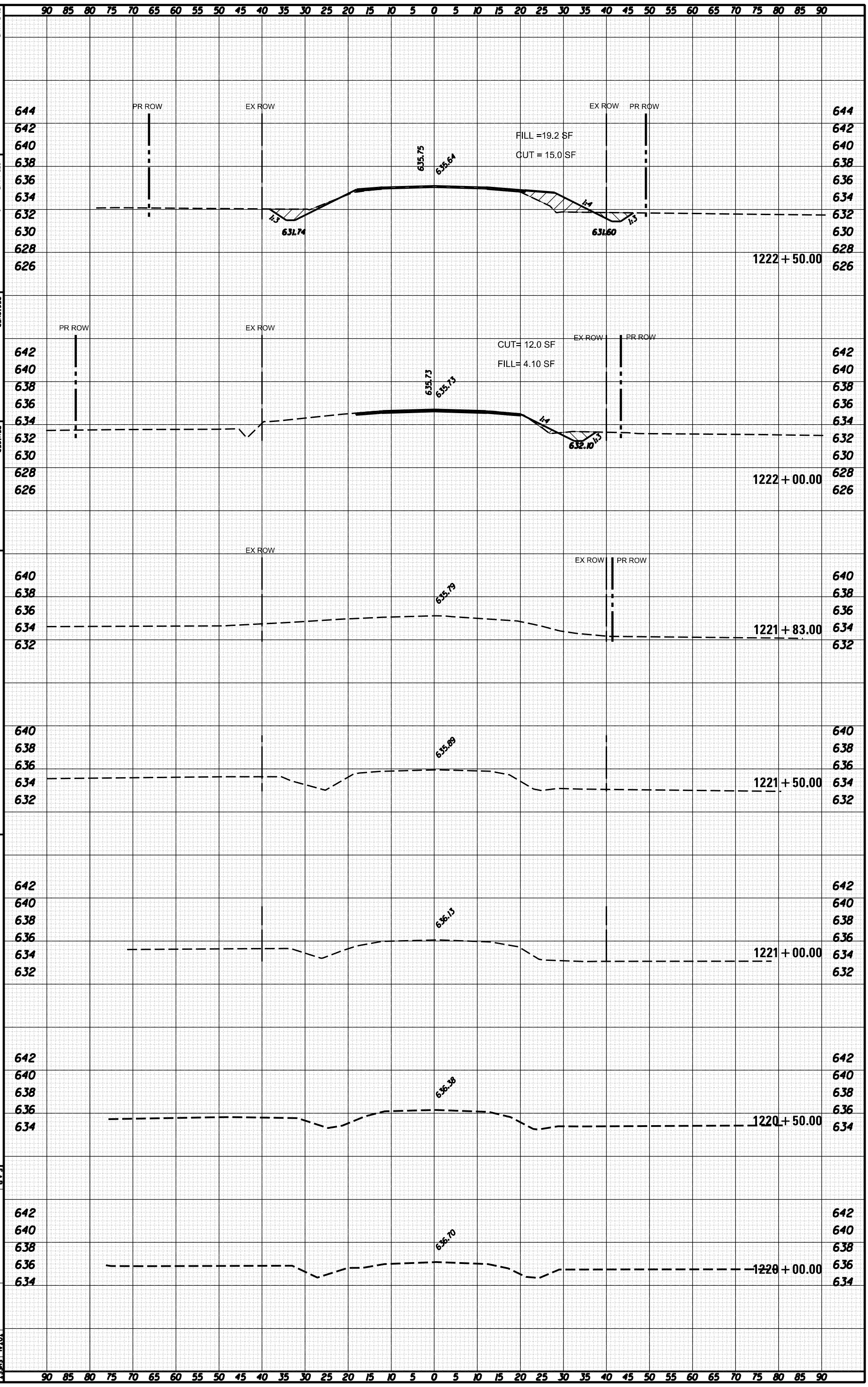
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	20

CONTRACT NO. 66B92

ILLINOIS FED. AID PROJECT

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

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



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PLOT DATE = 8/5/2014
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DESIGNED -
DRAWN -
CHECKED -
DATE -
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

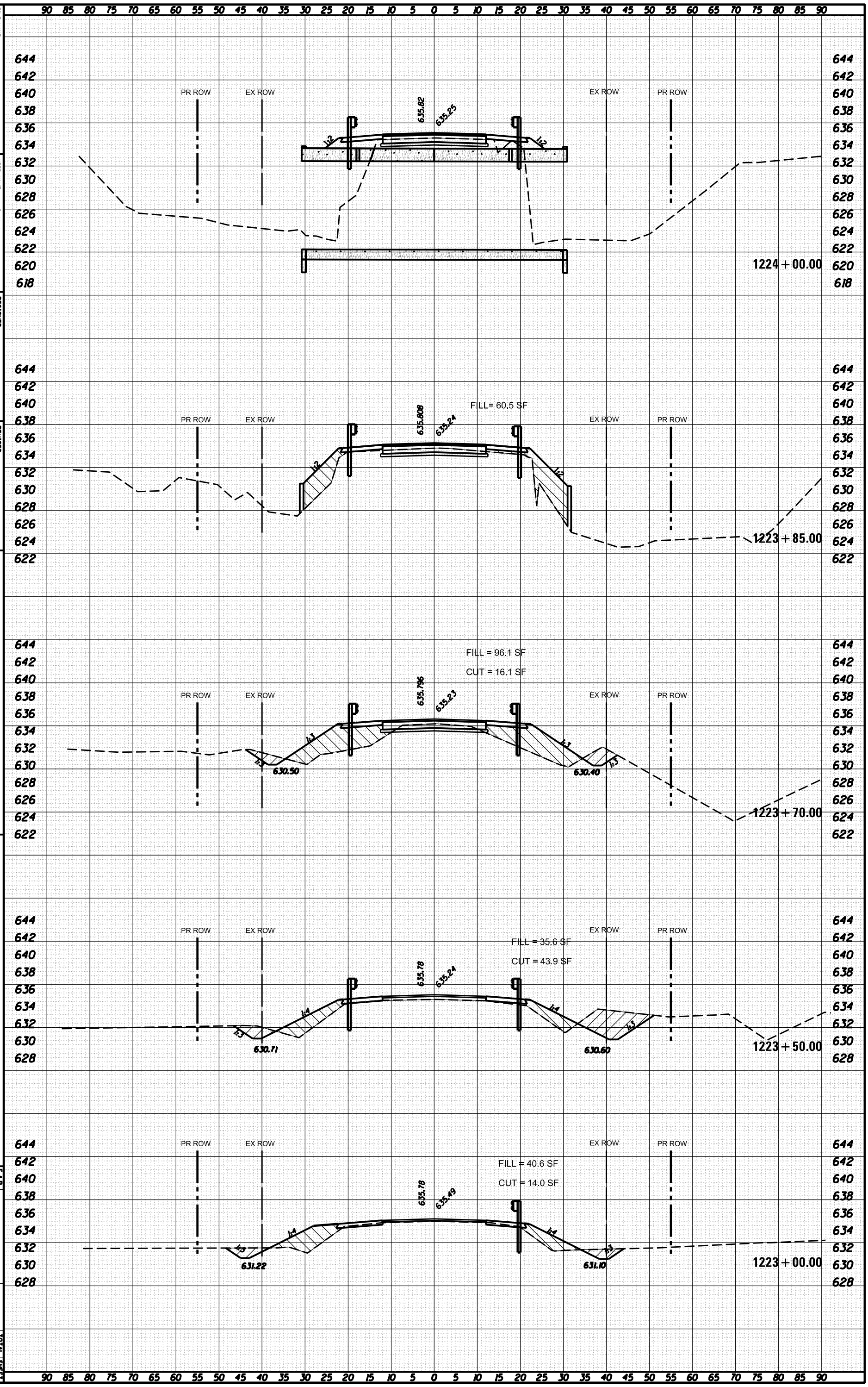
SCALE:
SHEET OF SHEETS
STA. 1220+00.00 TO STA. 1222+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	21

ILLINOIS FED. AID PROJECT
CONTRACT NO. 66892

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

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



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DESIGNED	-	REVISED	-
DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

SHEET OF SHEETS STA. 1223+00.00 TO STA. 1224+00.00

CROSS SECTIONS

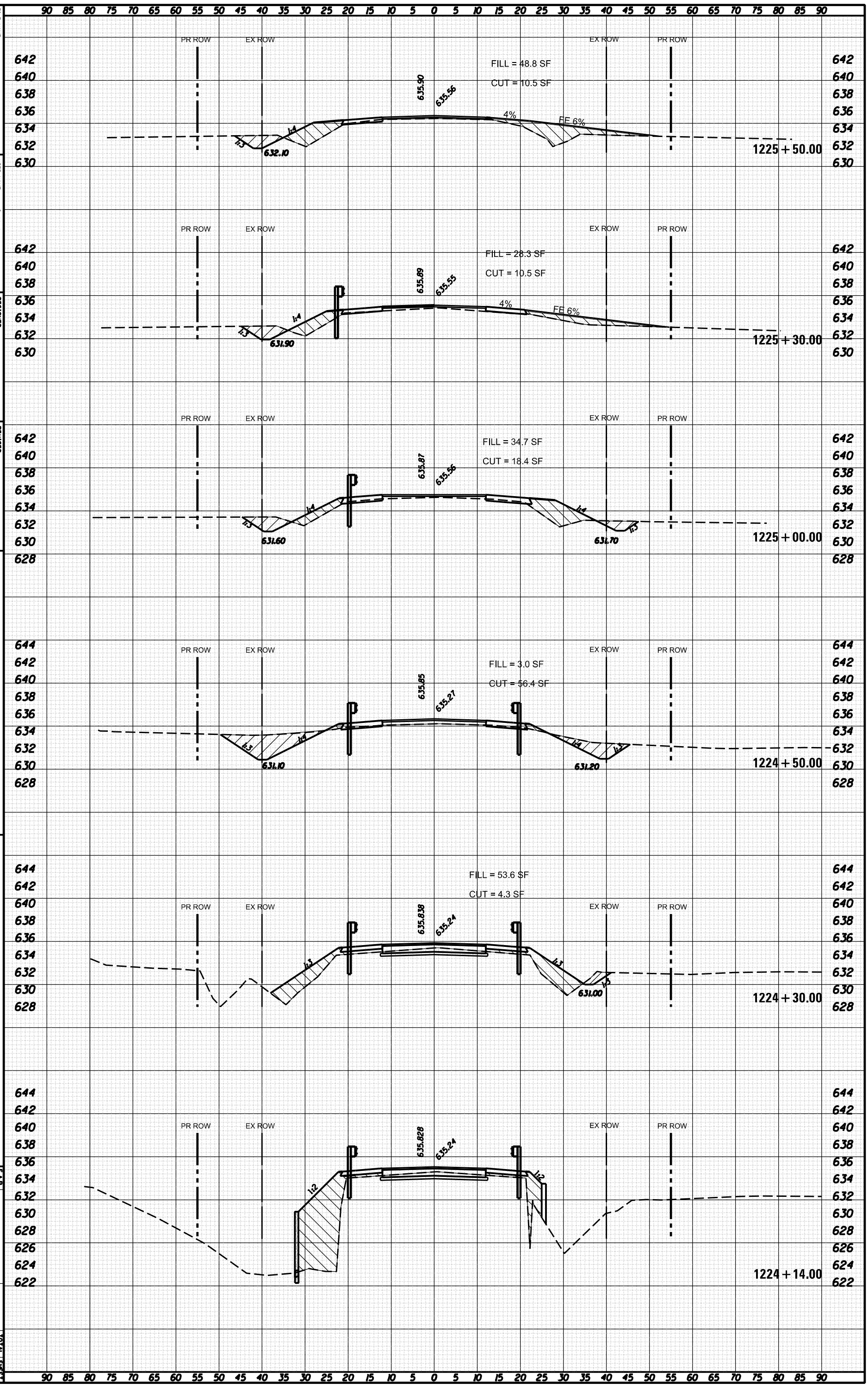
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	22

ILLINOIS FED. AID PROJECT

CONTRACT NO. 66892

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

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



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PLOT DATE = 8/5/2014

DESIGNED -

DRAWN -

CHECKED -

DATE -

REVISED -

REVISED -

REVISED -

REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

STA. 1224+14.00 TO STA. 1225+50.00

SCALE:

SHEET OF SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	23

ILLINOIS FED. AID PROJECT

CONTRACT NO. 66892

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

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
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PLOT DATE = 8/5/2014

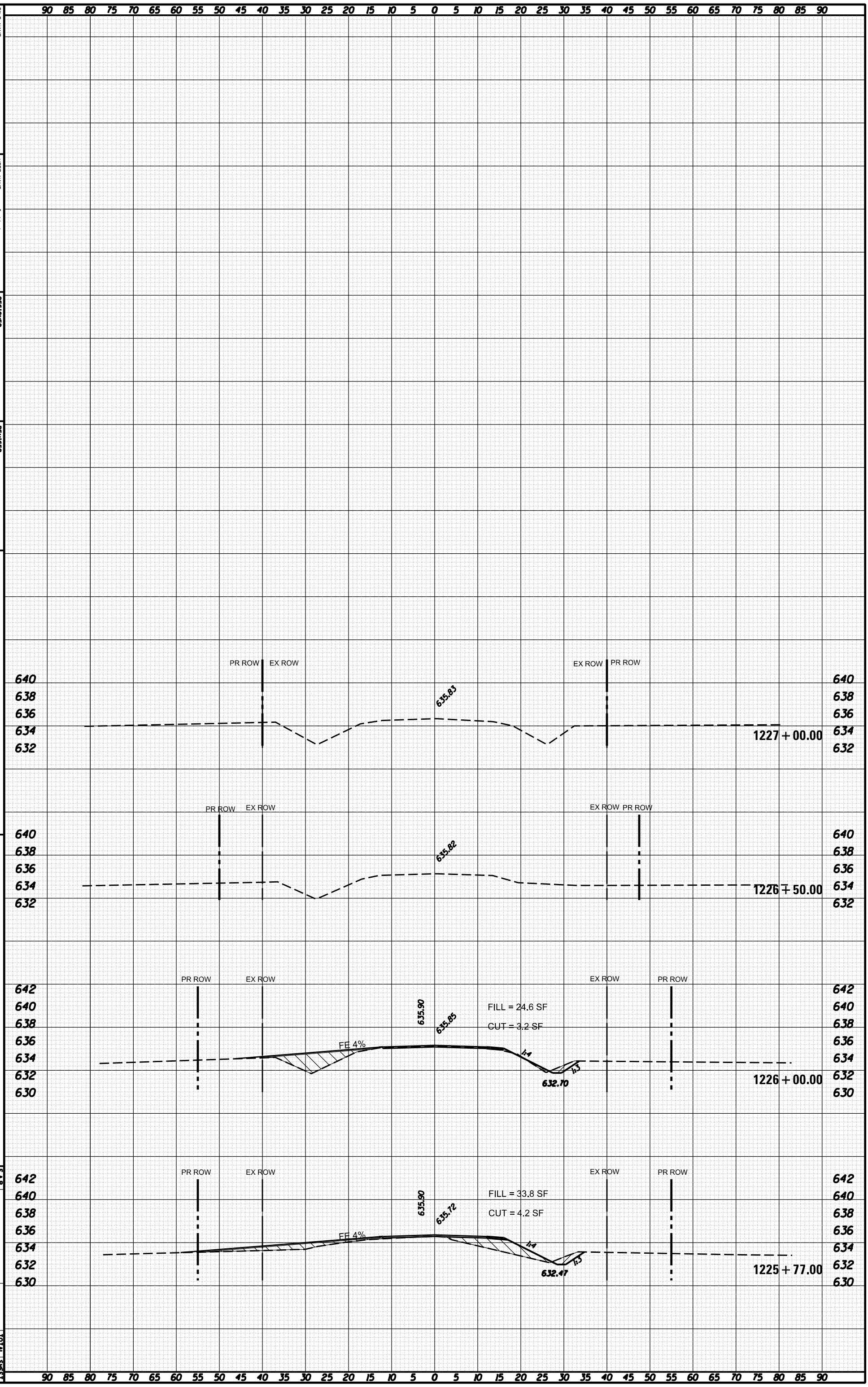
DESIGNED	-
DRAWN	-
CHECKED	-
DATE	-
REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE:

SHEET OF SHEETS STA. 1225+77.00 TO STA. 1227+00.00



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	24

ILLINOIS FED. AID PROJECT

CONTRACT NO. 66892