

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	1
		ILLINOIS	CONTRACT NO. 61A22	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE PROJECT IS LOCATED IN SENECA TOWNSHIP IN UNINCORPORATED MCHENRY COUNTY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PLANS FOR PROPOSED FEDERAL AID HIGHWAY**

FAS ROUTE 0033 (FRANKLINVILLE ROAD)  
OVER KISHWAUKEE RIVER  
BRIDGE REPLACEMENT  
SECTION 10-00379-00-BR  
PROJECT BRS-0033 (105)  
MCHENRY COUNTY

C-91-746-10



MCHENRY COUNTY DIVISION OF TRANSPORTATION: WALTER DITTRICH (815) 334-4980  
SCHAUMBURG, IL  
FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL (847) 705-4021

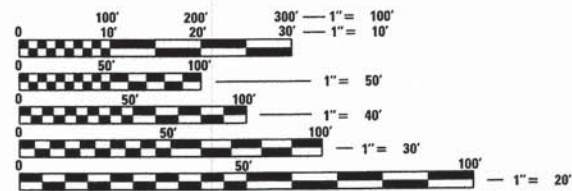


COLLINS ENGINEERS, INC.  
MATTHEW G. REMPFER  
NO. 062-054553  
EXPIRES 11-30-2015



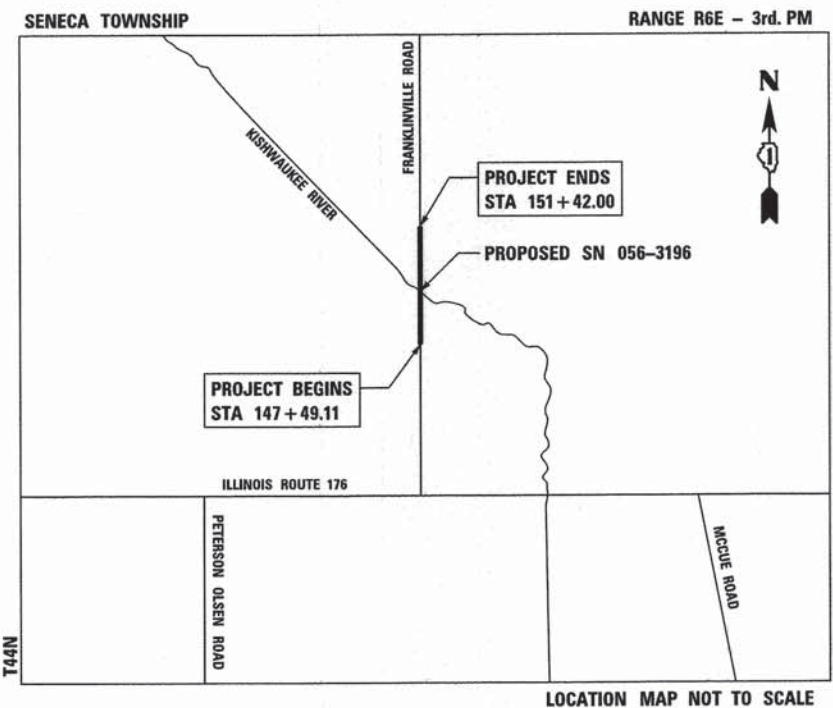
COLLINS ENGINEERS, INC.  
EWA MROCZEK, P.E., S.E.  
NO. 081-006067  
EXP.: 11/30/2014

**DESIGN DESIGNATION**  
DESIGN SPEED = 60 MPH  
POSTED SPEED = 55 MPH  
FUNCTIONAL CLASSIFICATION = RURAL MAJOR COLLECTOR  
EXISTING ADT = 1520 (2009)  
DESIGN ADT = 2000 (2040)



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



THE PROJECT CONSISTS OF THE REPLACEMENT OF SN: 056-3017 WITH SN: 056-3196 OVER KISHWAUKEE RIVER

LOCATION MAP NOT TO SCALE

GROSS LENGTH = 392.89 FT (0.07 MILE)  
NET LENGTH = 392.89 FT (0.07 MILE)

**COLLINS ENGINEERS INC.**  
123 N. WACKER DR., SUITE 900  
CHICAGO, IL 60606  
(312) 704-9300  
ILLINOIS PROFESSIONAL DESIGN FIRM  
LICENSE NO. 184-000993

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

APPROVED January 29, 2014  
*Joseph R. Korpalski Jr.*  
MCHENRY COUNTY ENGINEER

PASSED FEBRUARY 11, 2014  
*C. H. Holt*  
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID LIMITED REVIEW February 13, 2014  
*John Ford*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

**PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS**

CONTRACT NO. 61A22

**INDEX OF SHEETS**

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**IDOT HIGHWAY STANDARDS**

STANDARD DESCRIPTION

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-10	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
602011-02	CATCH BASIN TYPE C
602401-03	MANHOLE TYPE A
602601-03	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
602701-02	MANHOLE STEPS
604091-02	FRAME AND GRATE TYPE 24
606001-05	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-10	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-12	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
642006	SHOULDER RUMBLE STRIPS, 8 in.
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >= 45 MPH
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
701901-03	TRAFFIC CONTROL DEVICES

**DISTRICT ONE DETAILS**

DETAIL DESCRIPTION

BD32	BUTT JOINT AND HMA TAPER DETAILS
BD34	DETAILS FOR STEEL PLATE BEAM GUARDRAIL ADJACENT TO CURB AND GUTTER, STABILIZATION AT TBT TY 1 SPL.
BD51	BENCHING DETAIL FOR EMBANKMENT WIDENING
TC13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC21	DETOUR SIGNING FOR CLOSING STATE HIGHWAYS

FILE NAME = #FILES



USER NAME = mpe11  
 PLOT SCALE = 2.0000' / in.  
 PLOT DATE = 1/31/2014

DESIGNED -  
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS AND HIGHWAY STANDARDS

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	2
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**ROADWAY GENERAL NOTES**

- UTILITY LOCATIONS SHOWN ON THESE PLANS ARE BASED ON RECORD INFORMATION. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE RESPECTIVE UTILITIES. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION) AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES (48 HOUR NOTIFICATION IS REQUIRED).
- 36 FOOT TRANSITION LENGTHS SHALL BE USED TO TRANSITION FROM A 2% SHOULDER CROSS SLOPE AT THE BRIDGE APPROACH SLAB TO A STANDARD 4% SHOULDER CROSS SLOPE. BASED UPON AASHTO MAX RELATIVE SLOPE FOR A DESIGN SPEED = 60MPH.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON PUBLIC PROPERTY WITHOUT WRITTEN PERMISSION OF THE ENGINEER.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS TO PROTECT AND PROVIDE ACCESS TO ADJUTING PROPERTY AND UTILITIES.
- 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 PROPERTY MARKS AND MONUMENTS. THE ENGINEER OR AN AUTHORIZED SURVEYOR AGENT WILL WITNESS OR OTHERWISE REFERENCE AND RESET MONUMENTS AS NECESSARY. ALL PROPERTY CORNERS EXCEPT THOSE WITHIN AREAS WHERE THE SCHEDULE, IF PROVIDED, SHOWS PLACEMENT OF R.O.W. MARKERS SHALL REMAIN UNDISTURBED.
- ALL ELEVATIONS SHOWN ARE BASED ON THE NAVD 88.
- THE QUANTITY FOR BITUMINOUS MATERIALS (PRIME COAT) WAS DETERMINED USING AN APPLICATION RATE OF 0.50 GAL/SQ YD.
- THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE COURSES IS 112 LB / SQ YD / IN.
- SAW CUTTING OF PAVEMENTS, SHOULDERS, ETC. SHALL BE FULL DEPTH AND SHALL RESULT IN A CLEAN, STRAIGHT EDGE ON THE PORTION REMAINING. ALL SAW CUTTING SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEM BEING REMOVED.
- THE LOCATIONS OF THE CLASS D PATCHES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- THE CONTRACTOR SHALL COORDINATE WITH THE MARENGO POST OFFICE AT (815) 568-7449. TO DETERMINE THE TEMPORARY AND PERMANENT LOCATIONS OF THE MAILBOX.
- ALL SIGNS TO BE REMOVED SHALL BE COORDINATED WITH THE MCHENRY COUNTY DIVISION OF TRANSPORTATION.
- AGGREGATE SUBGRADE IMPROVEMENT HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSUITABLE OR UNSTABLE. THE ACTUAL NEED FOR THE REMOVAL AND REPLACEMENT WITH AGGREGATE SUBGRADE IMPROVEMENT WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 AND THE IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE MATERIAL IS ENCOUNTERED, THE SOIL SHALL BE REMOVED AND REPLACED WITH AGGREGATE SUBGRADE IMPROVEMENT OR EMBANKMENT AS DETERMINED BY THE GEOTECHNICAL ENGINEER. IF UNSTABLE AND/OR UNSUITABLE MATERIAL IS NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

**TRAFFIC CONTROL DETOUR GENERAL NOTES**

- THE CONTRACTOR MUST COORDINATE THE ROAD CLOSURE WITH THE ENGINEER.
- TRAFFIC CONTROL AND ALL TRAFFIC CONTROL DEVICES AND SIGNAGE REQUIRED IN ACCORDANCE WITH APPLICABLE IDOT DISTRICT 1 STANDARDS, IDOT HIGHWAY STANDARDS, AND THE CONTRACT DRAWINGS IS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND WILL NOT BE PAID FOR SEPARATELY.
- SIGNING AND BARRICADE PLACEMENT SHALL BE IN ACCORDANCE WITH THE INCLUDED IDOT STANDARD DRAWINGS AND IDOT DISTRICT 1 STANDARD DETAILS.
- ANY EXISTING SIGNS DENOTED WITHIN THE PLAN SET THAT DO NOT APPLY TO THE DETOUR SHALL BE REMOVED OR COVERED, AS DIRECTED BY THE ENGINEER. THE COVERING OR REMOVAL OF GROUND MOUNTED SIGNS SHALL BE NON-DESTRUCTIVE IN NATURE AND WILL NOT BE MEASURED FOR PAYMENT BUT IS CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).
- ALL SIGNS TO BE REMOVED SHALL BE COORDINATED WITH MCDOT PRIOR TO REMOVAL.

**LANDSCAPING GENERAL NOTES**

- THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS WHICH WILL NOT BE REMOVED. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF EXISTING PLANT MATERIAL FOR WHICH THE CONTRACT DOES NOT PROVIDE REMOVAL. THE PROTECTION OF EXISTING PLANT MATERIAL AND THE REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL DAMAGED BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 201 OF THE STANDARD SPECIFICATIONS.
- THE SEEDING DATES FOR BARE EARTH SEEDING OF MIXTURE CLASSES 4A SHALL BE FROM MAY 15 TO JUNE 30 AND FROM OCTOBER 15 TO DECEMBER 1. ALL SEEDING NOT SOWN ACCORDING TO THE SPECIFIED SEASONAL DATE SHALL REQUIRE PRIOR APPROVAL FROM THE ENGINEER. FAILURE TO SECURE SUCH APPROVAL SHALL RESULT IN THE REJECTION OF THE SEEDING AND REPLACEMENT BY THE CONTRACTOR AS HIS/HER EXPENSE.
- LAYOUT OF LANDSCAPED AREAS WILL REQUIRE APPROVAL OF THE ENGINEER PRIOR TO COMPOST PLACEMENT AND SEEDING.

**EROSION CONTROL GENERAL NOTES**

- EROSION CONTROL ITEMS ARE CONSIDERED TO BE HIGH PRIORITY ITEMS ON THIS CONTRACT. THE CONTRACTOR WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY WAY. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES, WHICH MAY POTENTIALLY CREATE CONDITIONS THAT ARE LIKELY TO ERODE.
- THE EROSION CONTROL MEASURES SHOWN ARE BUT A GRAPHICAL REPRESENTATION OF SUGGESTED MEASURES. DEVIATIONS FROM THIS PLAN ARE TO BE EXPECTED PENDING A JOB SITE INSPECTION BETWEEN THE CONTRACTOR AND THE COUNTY.
- THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN SEDIMENT CONTROL MEASURES PRIOR TO DISTURBING EXISTING GROUND.
- THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS WHICH WILL NOT BE REMOVED. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF EXISTING PLANT MATERIAL THAT THE CONTRACT DOES NOT PROVIDE REMOVAL. THE PROTECTION OF EXISTING PLANT MATERIAL, AND THE REPAIR OR REPLACEMENT OF THE EXISTING PLANT MATERIAL DAMAGED BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 201 OF THE STANDARD SPECIFICATIONS.
- QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED. STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL.
- IN-STREAM OR SIDE-STREAM CONSTRUCTION OPERATIONS SHALL COMMENCE FROM A WORKING PLATFORM LOCATED ON THE EXISTING ROADWAY.
- WETLANDS ARE LOCATED WITHIN THE PROJECT LIMITS. FOR WETLAND AREAS NEAR THE CONSTRUCTION LIMITS, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT NO DAMAGE IS DONE TO THE WETLANDS. ANY DAMAGE DONE TO THE WETLANDS BY THE CONTRACTOR SHALL BE REPAIRED TO THE ORIGINAL OR BEYOND THE ORIGINAL WETLAND CONDITION AT THE CONTRACTOR'S OWN EXPENSE.
- PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED BY THE PERMIT HOLDER FOR REVIEW BY THE MCHENRY-LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT (MLCSWCD).
- TEMPORARY EROSION CONTROL SEEDING WILL BE UTILIZED ON ALL SLOPES AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
- THIS PROJECT REQUIRES A US ARMY CORPS OF ENGINEERS 404 PERMIT. THE PERMIT ISSUED TO THE MCHENRY COUNTY DIVISION OF TRANSPORTATION DOES NOT COVER THE IN-STREAM WORK BY THE CONTRACTOR. THEREFORE, AFTER AWARD, THE CONTRACTOR WILL NEED TO SUBMIT THE WORK PLAN TO THE CORPS. THE CORPS WILL NOT BE PROVIDING AN APPROVAL UNLESS STATED OTHERWISE IN THE PERMIT AND IN STREAM WORK CAN COMMENCE AT THE CONTRACTOR'S DISCRETION. GUIDELINES ON ACCEPTABLE IN STREAM TECHNIQUES CAN BE FOUND ON THE CORP'S WEBSITE: [HTTP://LRC.USACE.ARMY.MIL/](http://LRC.USACE.ARMY.MIL/)
- WORK IN THE WATERWAY SHOULD BE TIMED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS. LOW FLOW CONDITIONS ARE FLOW AT OR BELOW THE NORMAL WATER ELEVATION.
- IF BYPASS PUMPING IS NECESSARY, THE INTAKE HOSE SHALL BE PLACED ON A STABLE SURFACE OR FLOATED TO PREVENT SEDIMENT FROM ENTERING THE HOSE. THE BYPASS DISCHARGE SHALL BE PLACED ON A NON-ERODIBLE, ENERGY DISSIPATING SURFACE PRIOR TO REJOINING THE STREAM FLOW AND SHALL NOT CAUSE EROSION. FILTERING OF BYPASS WATER IS NOT NECESSARY UNLESS THE BYPASS WATER HAS BECOME SEDIMENT-LADEN AS A RESULT OF THE CURRENT CONSTRUCTION ACTIVITIES.
- DURING DEWATERING OF THE COFFERED WORK AREA, ALL SEDIMENT-LADEN WATER MUST BE FILTERED TO REMOVE SEDIMENT. POSSIBLE OPTIONS FOR SEDIMENT REMOVAL INCLUDE BAFFLE SYSTEMS, ANIONIC POLYMERS SYSTEMS, DEWATERING BAGS, OR OTHER APPROPRIATE METHODS. WATER SHALL HAVE SEDIMENT REMOVED PRIOR TO BEING RE INTRODUCED TO THE DOWNSTREAM WATERWAY. A STABILIZED CONVEYANCE FROM THE DEWATERING DEVICE TO THE WATERWAY MUST BE IDENTIFIED IN THE PLAN. DISCHARGE WATER IS CONSIDERED CLEAN IF IT DOES NOT RESULT IN A VISUALLY IDENTIFIABLE DEGRADATION OF WATER CLARITY.
- THE AREA FROM THE TOE TO THE TOP OF THE SIDE SLOPE SHALL BE TEMPORARILY STABILIZED DURING CONSTRUCTION TO REDUCE THE POTENTIAL FOR EROSION. ALL AREAS DISTURBED DUE TO CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO PROPOSED CONDITIONS AND FULLY STABILIZED PRIOR TO ACCEPTING FLOWS.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	3
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE NAME = 8FILES

**COLLINS ENGINEERS INC.**

USER NAME = mpell  
PLOT SCALE = 2.0000' / in.  
PLOT DATE = 2/18/2014

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

REVISED -  
REVISED -  
REVISED -  
REVISED -

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	CONSTR. CODE
				ROADWAY	BRIDGE
				0005	0011
				S.N. 056-3196	
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	38	38	
20101000	TEMPORARY FENCE	FOOT	57	57	
20200100	EARTH EXCAVATION	CU YD	235	235	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	365	365	
20400800	FURNISHED EXCAVATION	CU YD	575	575	
20800150	TRENCH BACKFILL	CU YD	35	35	
21101805	COMPOST FURNISH AND PLACE, 2"	SQ YD	1161	1161	
21400100	GRADING AND SHAPING DITCHES	FOOT	100	100	
25000312	SEEDING, CLASS 4A	ACRE	0.25	0.25	
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	1161	1161	
28000200	EARTH EXCAVATION FOR EROSION CONTROL	CU YD	70	70	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	75	75	
28000400	PERIMETER EROSION BARRIER	FOOT	319	319	
28000500	INLET AND PIPE PROTECTION	EACH	3	3	
28000510	INLET FILTERS	EACH	2	2	

\* - DENOTES SPECIALTY ITEM

FILE NAME = BFILE8

**COLLINS ENGINEERS**

USER NAME = mpell  
 PLOT SCALE = 2.0000" / 1"  
 PLOT DATE = 2/19/2014

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

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	4
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	CONSTR. CODE
				ROADWAY	BRIDGE
				0005	0011
					S.N. 056-3196
28001000	AGGREGATE (EROSION CONTROL)	TON	30	30	
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	3483	3483	
28100105	STONE RIPRAP, CLASS A3	SQ YD	15	15	
28100107	STONE RIPRAP, CLASS A4	SQ YD	228		228
28200200	FILTER FABRIC	SQ YD	264		264
28400100	GABIONS	CU YD	13		13
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	137	137	
31101200	SUBBASE GRANULAR MATERIAL, TYPE B, 4"	SQ YD	411	411	
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	66	66	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	24	24	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	60	60	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N70	TON	40	40	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	54	54	
44000100	PAVEMENT REMOVAL	SQ YD	220	220	

\* - DENOTES SPECIALTY ITEM

FILE NAME = \$FILES

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**STATE OF ILLINOIS  
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**SUMMARY OF QUANTITIES**

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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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				ROADWAY	BRIDGE
				0005	0011
					S.N. 056-3196
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	71	71	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	564	564	
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
50102400	CONCRETE REMOVAL	CU YD	33.1		33.1
50105220	PIPE CULVERT REMOVAL	FOOT	78	78	
50200100	STRUCTURE EXCAVATION	CU YD	538		538
50300225	CONCRETE STRUCTURES	CU YD	88.0		88.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	257.9		257.9
50300260	BRIDGE DECK GROOVING	SQ YD	547		547
50300300	PROTECTIVE COAT	SQ YD	691		691
50400905	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 42 IN.	FOOT	343		343
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	55100		55100
51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	848		848
51202305	DRIVING PILES	FOOT	816		816

\* - DENOTES SPECIALTY ITEM

FILE NAME = \$FILES

**COLLINS ENGINEERS**

USER NAME = mpell  
 PLOT SCALE = 2.0000' / 1" =  
 PLOT DATE = 2/19/2014

DESIGNED -  
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STATE OF ILLINOIS  
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SUMMARY OF QUANTITIES

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0033	10-00379-00-BR	MCHENRY	56	6
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	CONSTR. CODE
				ROADWAY	BRIDGE
				0005	0011
					S.N. 056-3196
51203200	TEST PILE METAL SHELLS	EACH	2		2
51500100	NAME PLATES	EACH	1		1
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	2	2	
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	6	6	
542A0220	PIPE CULVERTS, CLASS A, TYPE 1 15"	FOOT	72	72	
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	168	168	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	119		119
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4	
60201340	CATCH BASINS, TYPE C, TYPE 24 FRAME AND GRATE	EACH	2	2	
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2	
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	58	58	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	251	251	

\* - DENOTES SPECIALTY ITEM

FILE NAME = 871518

**COLLINS ENGINEERS**

USER NAME = mpell  
 PLOT SCALE = 2.0000" / in.  
 PLOT DATE = 2/20/2014

DESIGNED -  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	7
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	CONSTR. CODE
				ROADWAY	BRIDGE
				0005	0011
				S.N. 056-3196	
* 66500105	WOVEN WIRE FENCE, 4'	FOOT	204	204	
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	9	9	
67100100	MOBILIZATION	L SUM	1	1	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	12	
72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	2	2	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	614	614	
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	172	172	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	16	16	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
XX007107	SILT CURTAIN	FOOT	282	282	
X2800302	TEMPORARY DITCH CHECKS (SPECIAL)	EACH	4	4	
X4060110	BITUMINOUS MATERIALS (PRIME COAT)	POUND	3367	3367	
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	649	649	
X5120003	PRE-CORING	FOOT	12		12

\* - DENOTES SPECIALTY ITEM

FILE NAME = BFILES

**COLLINS ENGINEERS**

USER NAME = mpell  
 PLOT SCALE = 2.0000' / 1" =  
 PLOT DATE = 2/19/2014

DESIGNED -  
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 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	8
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	CONSTR. CODE
				ROADWAY 0005	BRIDGE 0011 S.N. 056-3196
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	293		293
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
*Z0007124	STEEL RAILING (SPECIAL)	FOOT	183		183
Z0004552	APPROACH SLAB REMOVAL	SQ YD	220	220	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0022800	FENCE REMOVAL	FOOT	287	287	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	54.6	54.6	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	232		232
Z0066400	STABILIZED DRIVEWAYS 6"	SQ YD	34	34	
△ Z0076600	TRAINEES	HOUR	500	500	
△ Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500	

△ 0042

\* - DENOTES SPECIALTY ITEM

FILE NAME = #FILES

**COLLINS ENGINEERS INC.**

USER NAME = mpell  
 PLOT SCALE = 2.0000' / in.  
 PLOT DATE = 2/19/2014

DESIGNED -  
 DRAWN -  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

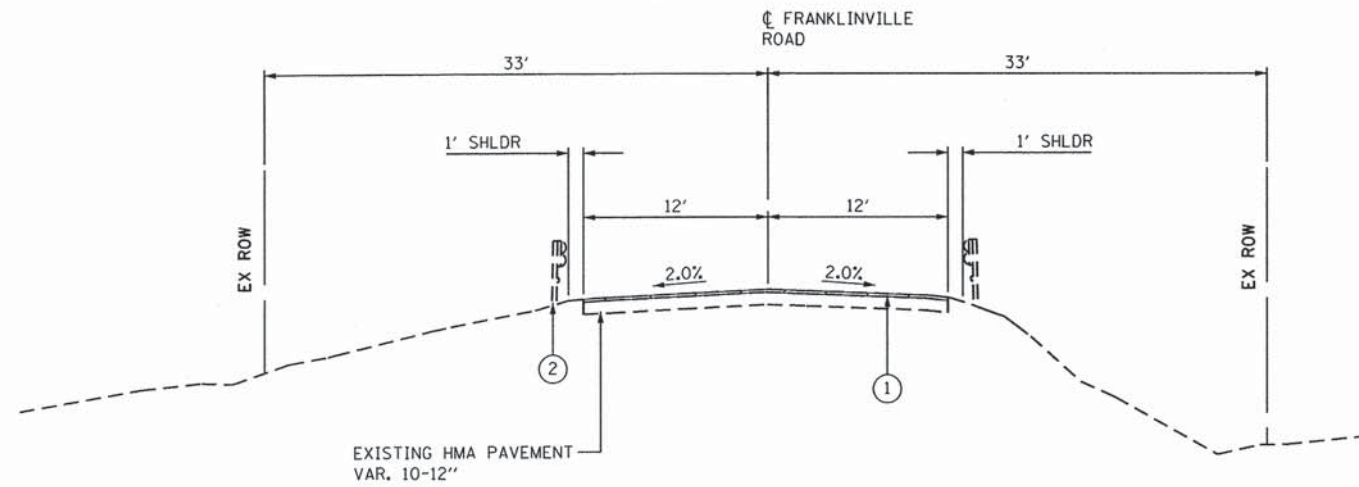
**SUMMARY OF QUANTITIES**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	9
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**LEGEND:**

- ① HMA SURFACE REMOVAL, VARIABLE DEPTH
- ② GUARDRAIL REMOVAL
- ③ HMA SURFACE COURSE, MIX "D", N70 1 1/2"
- ④ HMA BINDER COURSE, IL-19, N70 2 1/2"
- ⑤ HMA SHOULDERS, 8"
- ⑥ SUBBASE GRANULAR MATERIAL, TYPE B, 4"
- ⑦ AGGREGATE SUBGRADE IMPROVEMENT
- ⑧ PROPOSED GUARDRAIL
- ⑨ COMPOST FURNISH AND PLACE, 2"  
SEEDING CLASS 4A  
HEAVY DUTY EROSION CONTROL BLANKET



**EXISTING TYPICAL SECTION  
STA 147+49.11 TO STA 151+42, FRANKLINVILLE ROAD**

**HMA MIXTURE TABLE:**

MIXTURE TYPE	PERCENT AIR Voids @ Ndes
<b>PAVEMENT RESURFACING</b>	
HMA SURFACE COURSE, MIX "D", N70 1 1/2"	4% @ 70 Gyr.
HMA BINDER COURSE, IL-19, N70	4% @ 70 Gyr.
<b>SHOULDER RECONSTRUCTION</b>	
HMA SURFACE COURSE, MIX "D", N70 1 1/2"	4% @ 70 Gyr.
HMA SHOULDER (HMA BINDER, IL-19mm), 6 1/2" (2 LIFTS)	4% @ 50 Gyr.
<b>DRIVEWAY RECONSTRUCTION</b>	
HMA SURFACE COURSE, MIX "D", N50 (IL 9.5mm) 2"	4% @ 50 Gyr.
HMA BASE COURSE (HMA BINDER IL-19 mm), 4"	4% @ 50 Gyr.
<b>PATCHING</b>	
CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 50 Gyr.

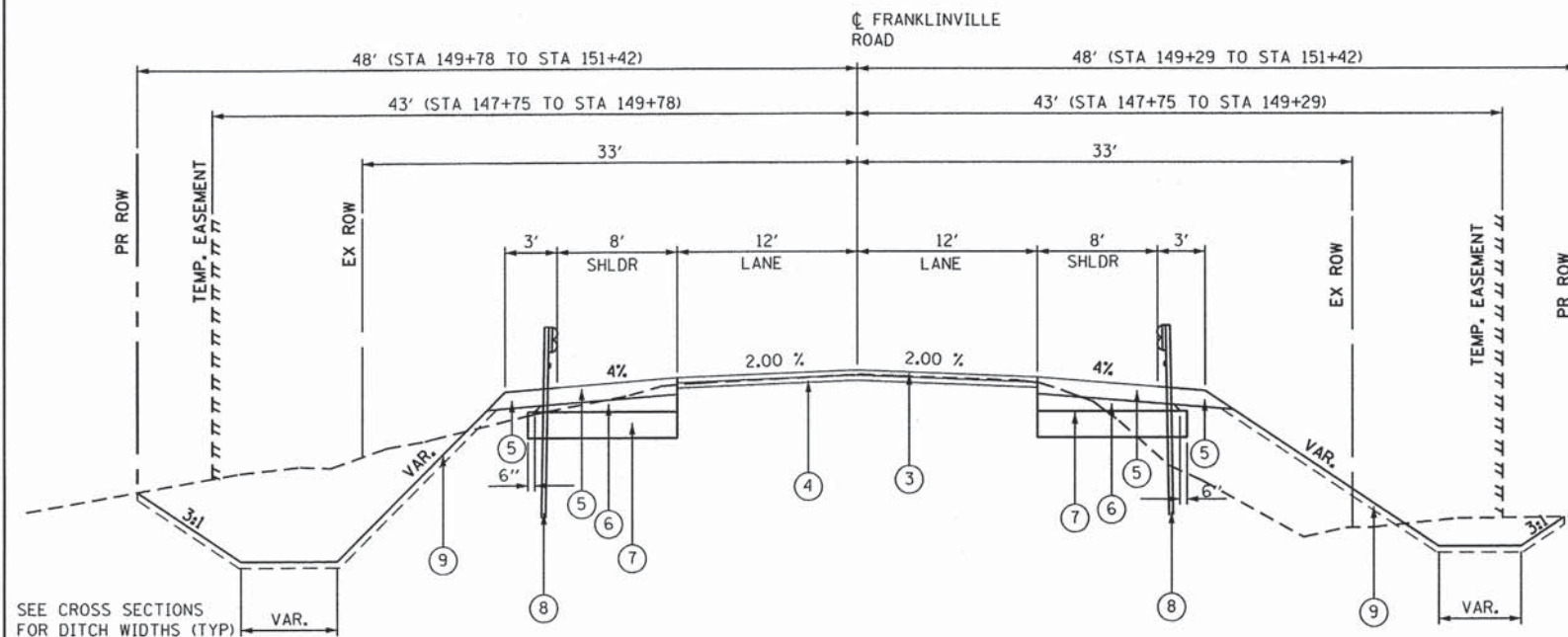
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -28" UNLESS MODIFIED BY DISTRICT ON SPECIAL PROVISIONS.

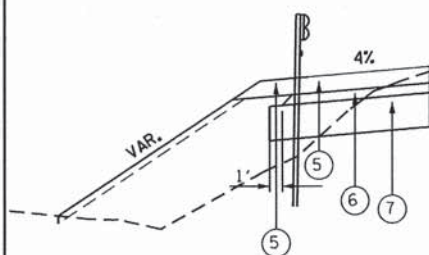
FOR USE OF RECYCLED MATERIALS, SEE SPECIAL PROVISIONS.

**NOTES:**

1. FOR GUARDRAIL DIMENSIONS, SEE STANDARD 630001.
2. FOR HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL DETAILS, SEE STANDARD 630201.
3. SEE GENERAL NOTES FOR USE OF AGGREGATE SUBGRADE IMPROVEMENT.

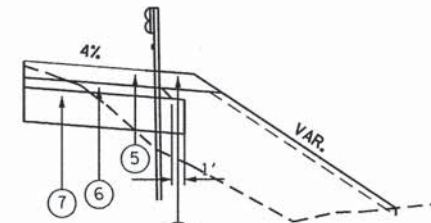


**PROPOSED TYPICAL SECTION  
STA 147+49.11 TO STA 151+42, FRANKLINVILLE ROAD**



**DETAIL A**

STA 147+75.28 TO STA 149+42.04



**DETAIL B**

STA 147+49.11 TO STA 149+18.82

FILE NAME = \$FILES

**COLLINS ENGINEERS INC**

USER NAME = mpoll  
PLOT SCALE = 10,0000' / 1" / 1"  
PLOT DATE = 2/20/2014

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING AND PROPOSED TYPICAL SECTIONS**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	10
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	UNSUITABLE OR UNSTABLE MATERIAL	EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE (15%)	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD
STA 147+49.11 TO STA 151+42.00	235	365	176	749	-575
TOTAL	235	365	176	749	-575

TREE REMOVAL SCHEDULE

LOCATION	LT/RT	DIA. (IN)
STA 147+80	RT	6
STA 147+81	RT	6
STA148+50	RT	6
STA148+51	RT	8
STA148+52	RT	6
STA 149+95	RT	6
TOTAL		38

FILE NAME = #FILES

**COLLINS ENGINEERS INC.**

USER NAME = mpell  
 PLOT SCALE = 2.0000" / 1"  
 PLOT DATE = 2/19/2014

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 DATE - \_\_\_

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

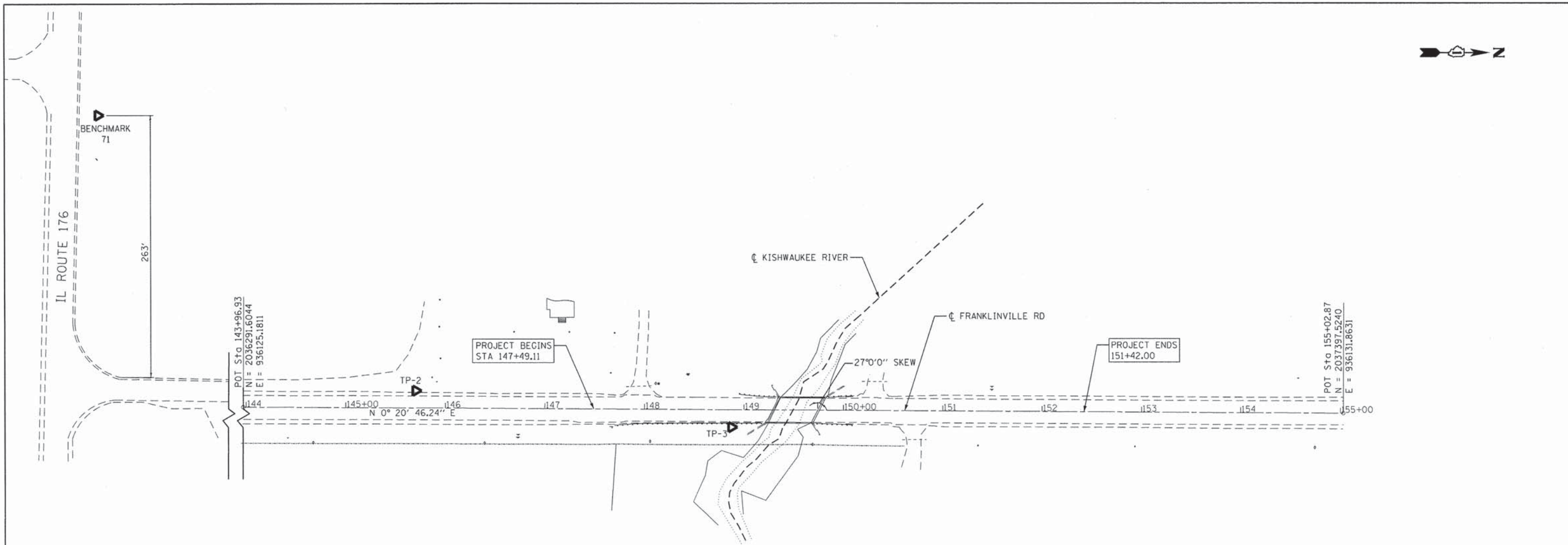
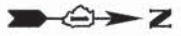
SCHEDULE OF QUANTITIES

SCALE: \_\_\_\_\_ SHEET NO. \_\_\_ OF \_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	11

CONTRACT NO. 61A22

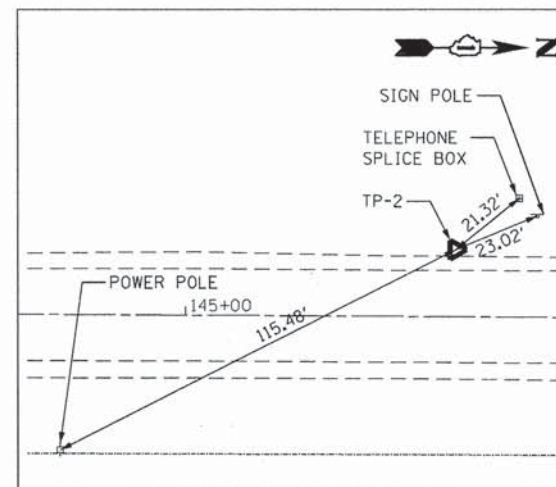
FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT



**BENCHMARK 71**

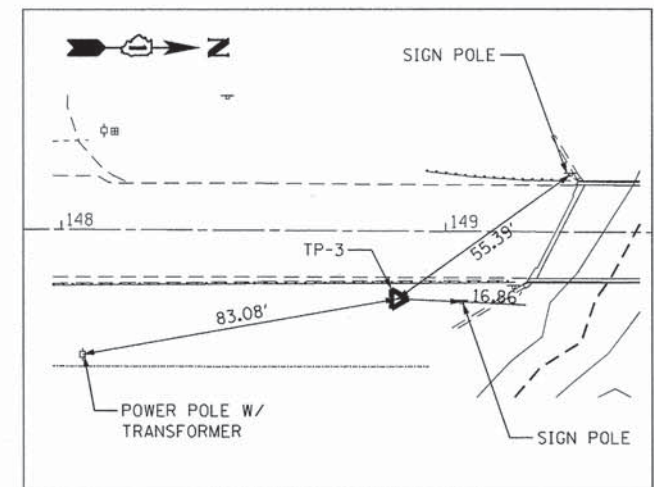
ELEV. 836.151  
 N 2035649.87  
 E 935828.776  
 MONUMENT FOUND  
 NORTH SIDE OF RT. 176  
 WEST OF FRANKLINVILLE RD.  
 DISK IN CONCRETE (SENECA 1954)

NOTE:  
 ALL ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).



**CONTROL POINT TP-2**

ELEV. 834.743  
 N 2036465.0280  
 E 936108.8320  
 STA. 145+70.26  
 IRON ROD SET  
 WEST SIDE OF  
 FRANKLINVILLE RD.



**CONTROL POINT TP-3**

ELEV. 833.885  
 N 2036782.0350  
 E 936145.7530  
 STA. 148+87.48  
 IRON ROD SET  
 EAST SIDE OF  
 FRANKLINVILLE RD.

FILE NAME = 8FILES

**COLLINS ENGINEERS**

USER NAME = mpell  
 PLOT SCALE = 100.0000' / in.  
 PLOT DATE = 1/31/2014

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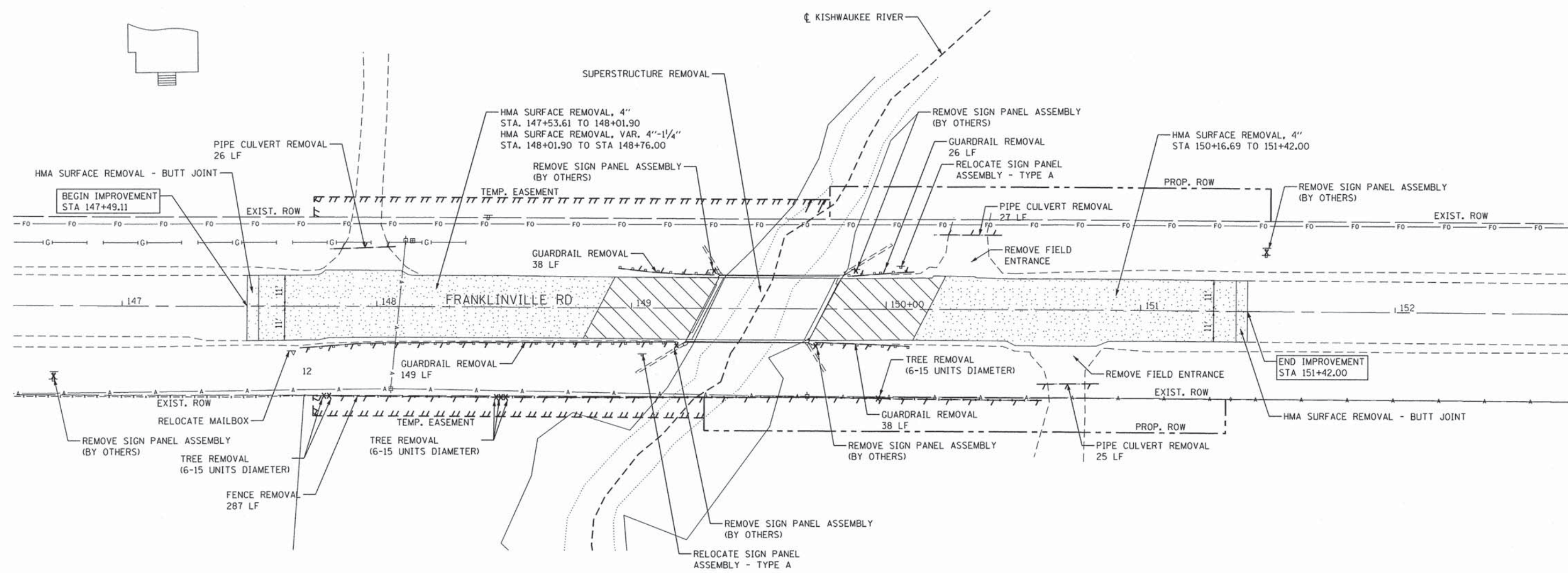
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT, CONTROL POINTS AND BENCHMARKS**

SCALE: 1" = 50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	12
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**REMOVAL LEGEND:**

- LINEAR REMOVAL
- REMOVAL ITEM
- HMA SURFACE REMOVAL
- PAVEMENT REMOVAL/APPROACH SLAB REMOVAL

**NOTES:**

1. REMOVAL OF EXISTING FIELD ENTRANCES AND AGGREGATE DRIVEWAY TO BE PAID FOR AS EARTH EXCAVATION.
2. SEE SHEET 25 FOR HMA MILLING DETAILS.

FILE NAME = #FILES

**COLLINS ENGINEERS**

USER NAME = mpe11  
 PLOT SCALE = 40,0000' / in.  
 PLOT DATE = 2/20/2014

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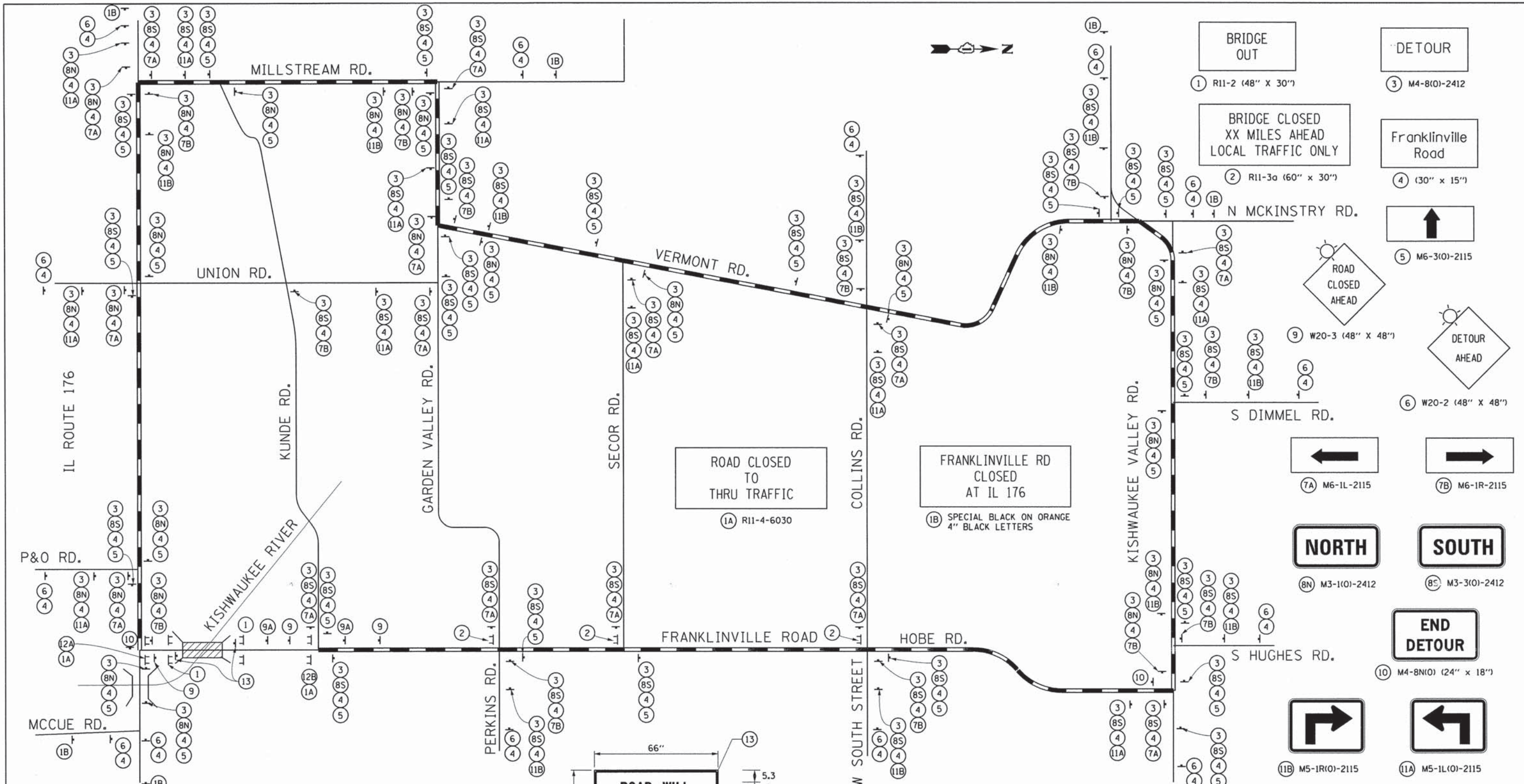
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**REMOVAL PLAN**

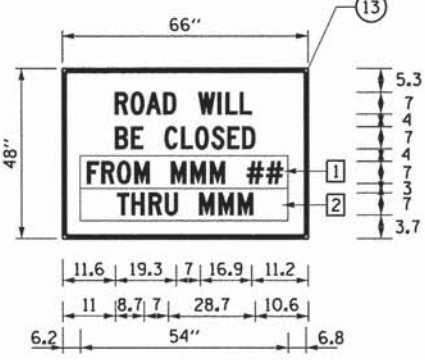
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	13
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				





- NOTES:**
1. TRAFFIC CONTROL AND PROTECTION SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 701 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
  2. ADVANCED SIGNING AND TYPE III BARRICADES SHALL BE PLACED IN ACCORDANCE WITH IDOT STANDARD 701901 AND DISTRICT ONE DETAIL TC-21.
  3. THE COST OF SUPPLYING, ERECTING AND MAINTAINING BARRICADES, WARNING LIGHTS AND SIGNS SHALL BE INCLUDED IN THE CONTRACT COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
  4. ACCESS TO ALL PRIVATE ENTRANCES SHALL BE MAINTAINED.
  5. CHANGEABLE MESSAGE SIGN SHALL BE PLACED AT EACH END OF FRANKLINVILLE ROAD FOR THE DURATION OF THE PROJECT. LOCATIONS TO BE DETERMINED BY THE ENGINEER.
  6. ALL DETOUR SIGNS SHALL HAVE AN ORANGE BACKGROUND WITH BLACK LETTERS.



ARTERIAL ROAD INFORMATION SIGN FOR ROADS TO BE FULLY CLOSED AND DETOURED  
6'R, 1.3" BORDER, BLACK ON ORANGE

- ARTERIAL ROAD INFORMATION SIGN NOTES:**
1. SIGN SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING. ONE SIGN ASSEMBLY EQUALS 27.3 SQ FT.
  2. OVERLAY PANELS SHALL BE "HIGHWAY C" FONT
  3. OVERLAY PANEL 1 TO CONTAIN STARTING DATE OF FULL CLOSURE AND DETOUR IMPLEMENTATION
  4. OVERLAY PANEL 2 TO CONTAIN ENDING MONTH OF FULL CLOSURE AND DETOUR. OMIT THE DATE ON PANEL; MONTH ONLY.
  5. ERECT SIGN ASSEMBLY (POST-MOUNTED) WITH PANELS 1 AND 2 IN PLACE ON ROAD TO BE CLOSED IN EACH DIRECTION NEAR POINT OF CLOSURE OR WITHIN SECTION TO BE FULLY CLOSED TWO (2) WEEKS PRIOR TO START DATE OF FULL CLOSURE. REMOVE ASSEMBLY AFTER CLOSURE.

- LEGEND:**
- DETOUR ROUTE
  - CONSTRUCTION ZONE
  - TYPE III BARRICADE
  - AMBER FLASHING LIGHT
  - DETOUR
  - ROAD CLOSED 500 FT

**COLLINS ENGINEERS**

USER NAME = mpell  
PLOT SCALE = 100.00' / in.  
PLOT DATE = 1/31/2014

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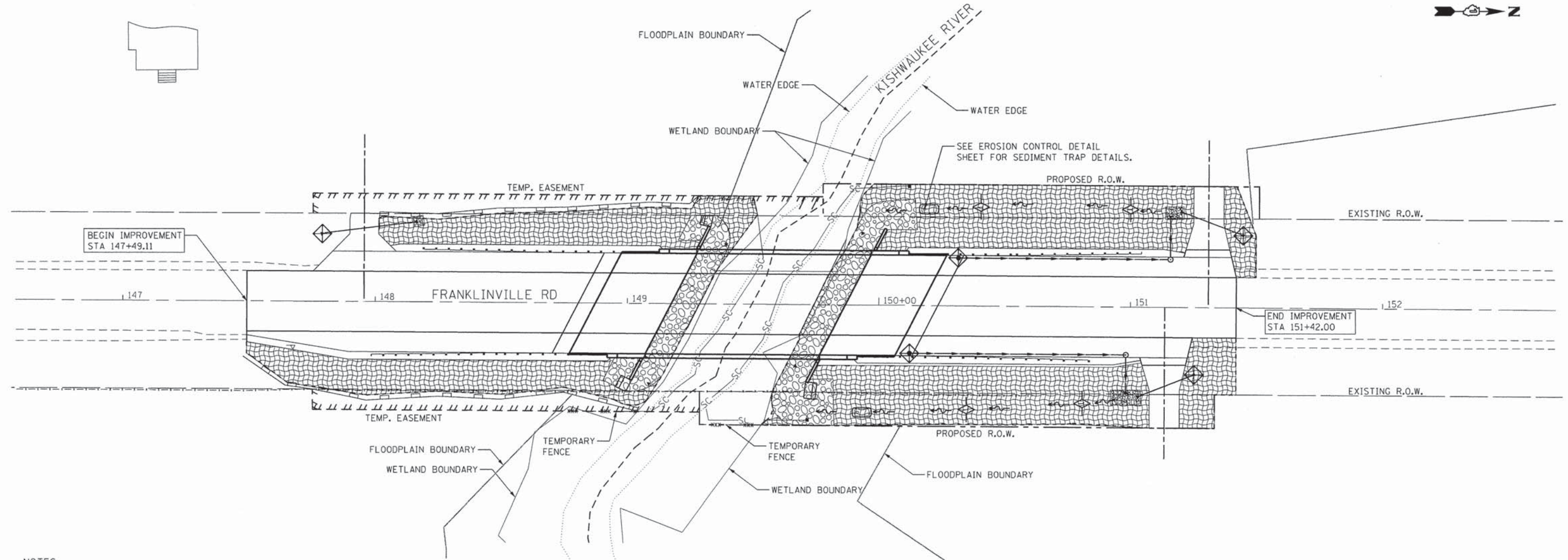
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL DETOUR  
SIGNING PLAN**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	15
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**NOTES:**

1. PERIMETER EROSION BARRIER SHALL BE PLACED AT THE TOE OF THE PROPOSED SLOPES.
2. SEE BRIDGE PLANS FOR RIPRAP DETAILS.
3. EROSION CONTROL BLANKET SHALL ONLY BE USED FOR TEMPORARY SEEDING CONDITIONS.
4. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. AREAS OF THE DEVELOPMENT SITE THAT ARE NOT TO BE GRADED SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC OR OTHER DISTURBANCE UNTIL FINAL SEEDING IS PERFORMED.
5. PROPERTIES AND CHANNELS ADJOINING THE DEVELOPMENT SITE SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION.
6. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
7. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE.
8. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (E.G., SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURES).
9. ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
10. THE CONTRACTOR SHALL PROVIDE ADEQUATE RECEPTACLES FOR THE DISPOSITION OF ALL CONSTRUCTION MATERIAL DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS. THE CONTRACTOR SHALL NOT CAUSE OR PERMIT THE DUMPING, DEPOSITING, DROPPING, THROWING, DISCARDING OR LEAVING OF CONSTRUCTION MATERIAL DEBRIS UPON OR INTO ANY DEVELOPMENT SITE CHANNEL, WATERS OF THE U.S. OR ISOLATED WATERS OF MCHENRY COUNTY. THE CONTRACTOR SHALL MAINTAIN THE DEVELOPMENT SITE FREE OF CONSTRUCTION MATERIAL DEBRIS.

**NOTES (CONT):**

11. ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
12. A STABILIZED MAT OF AGGREGATE UNDERLAIN WITH FILTER CLOTH (OR OTHER APPROPRIATE MEASURES) SHALL BE LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION-SITE OF A MAJOR DEVELOPMENT TO OR FROM A PUBLIC RIGHT-OF-WAY OR ROADWAY. ANY SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA. ANY SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
13. SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD-PRONE AREA OR A DESIGNATED BUFFER PROTECTING WATERS OF THE UNITED STATES OR ISOLATED WATERS OF MCHENRY COUNTY.
14. ALL TEMPORARY AND PERMANENT AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN AN EFFECTIVE WORKING CONDITION.
15. WHERE STREAM DISTURBANCE IS NECESSARY, THE STREAM, INCLUDING BED AND BANKS, SHALL BE RE-STABILIZED WITHIN FORTY-EIGHT (48) HOURS AFTER DISTURBANCE IS COMPLETED OR INTERRUPTED. WHERE STREAM CONSTRUCTION CROSSINGS ARE NECESSARY, TEMPORARY CROSSING SHALL BE CONSTRUCTED OF NON-EROSIVE MATERIAL.
16. FOR TEMPORARY DITCH CHECK DETAILS, REFER TO SHEET 26.

**LEGEND:**

- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION / INLET FILTERS
- SILT CURTAIN
- TEMPORARY EROSION CONTROL SEEDING
- TEMPORARY EROSION CONTROL BLANKET
- RIPRAP
- SEDIMENT TRAP
- TEMPORARY FENCE

FILE NAME = #FILES

**COLLINS ENGINEERS**

USER NAME = mpell  
 PLOT SCALE = 40,0000' / in.  
 PLOT DATE = 1/31/2014

DESIGNED -  
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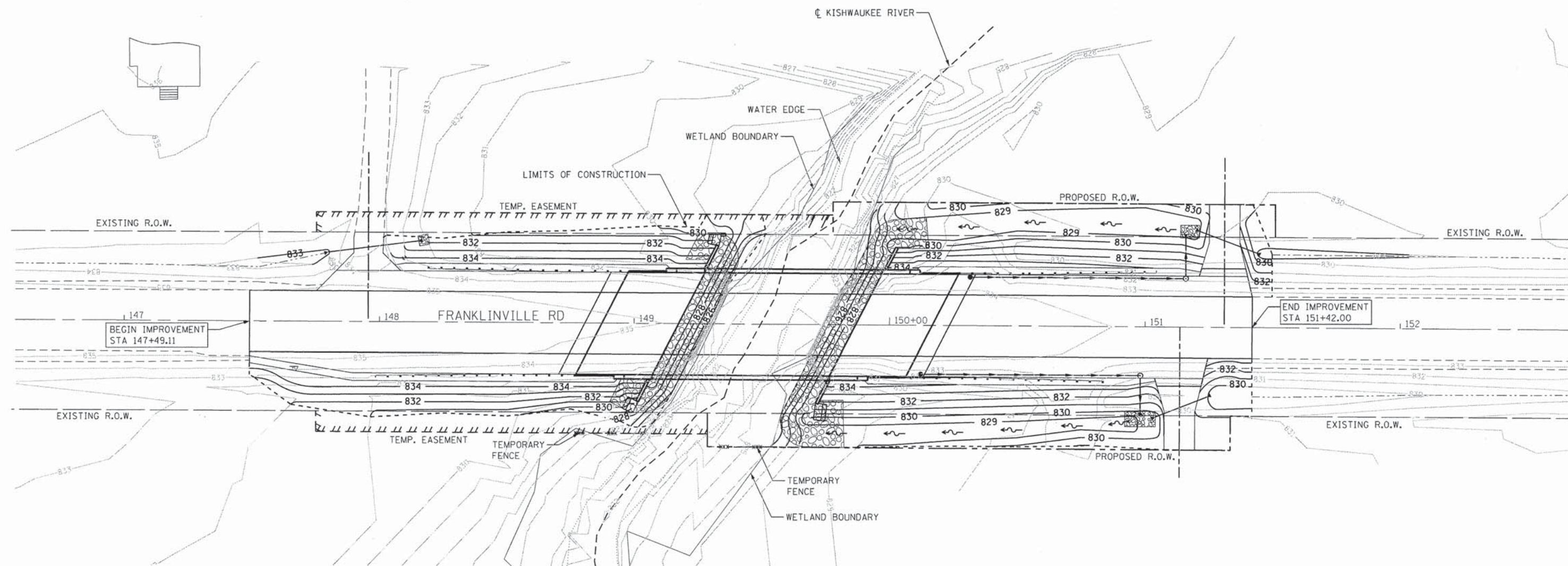
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SOIL EROSION AND SEDIMENT CONTROL PLAN**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	16
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





- NOTES:
1. ACTUAL GRADING LIMITS TO BE DETERMINED BY ENGINEER.
  2. SEE CROSS SECTION SHEETS FOR EXCAVATION AND FILL AREAS.
  3. SEE DRAINAGE PLANS FOR DRAINAGE STRUCTURE DETAILS.
  4. SEE STRUCTURAL PLANS FOR WINGWALL, ABUTMENT AND RIPRAP DETAILS.

FILE NAME = #FILES

**COLLINS ENGINEERS INC.**

USER NAME = mpell  
 PLOT SCALE = 40.0000' / in.  
 PLOT DATE = 1/31/2014

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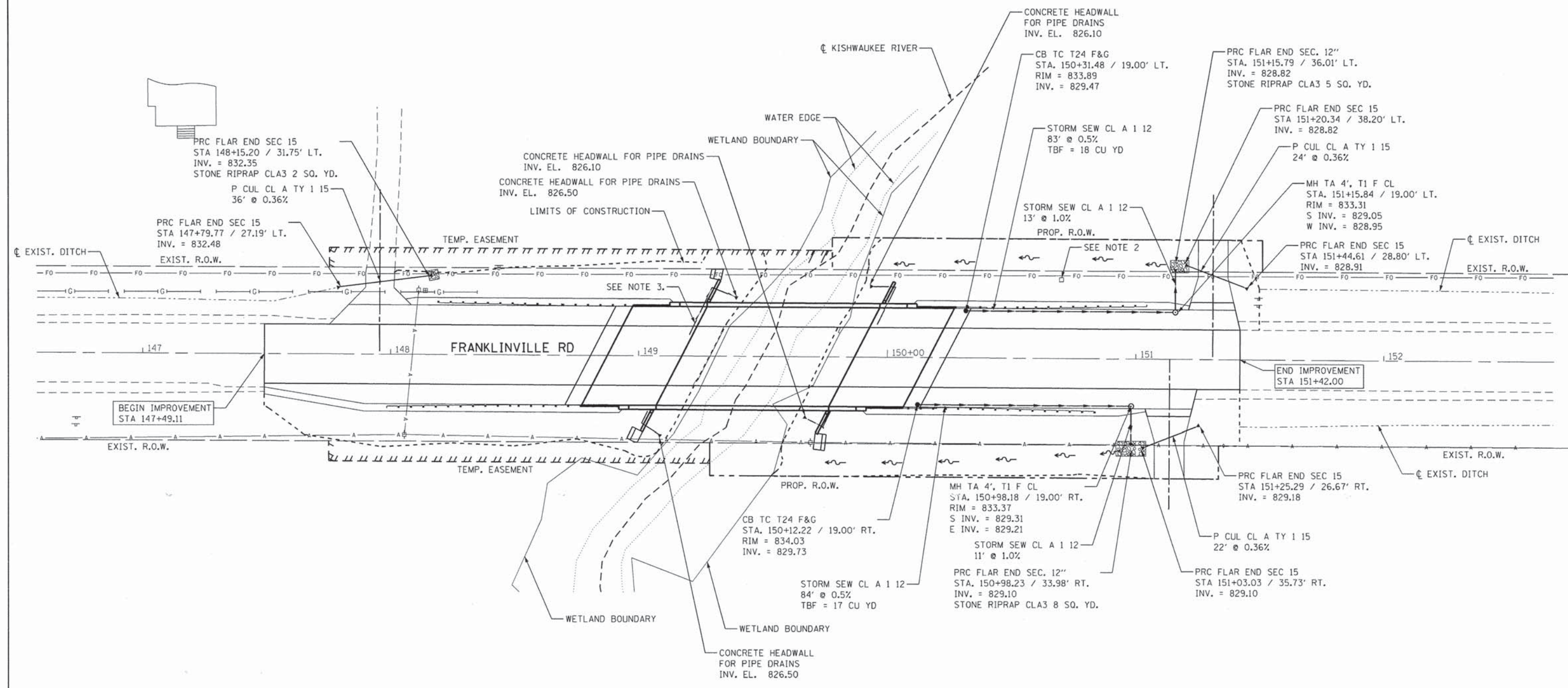
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED GRADING PLAN**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	17
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



- NOTE:
1. DRAINAGE STRUCTURE OFFSETS AND ELEVATIONS TAKEN FROM THE CENTER OF THE FRAME AND GRATE.
  2. CONTRACTOR SHALL PROTECT EXISTING FIBER OPTIC MARKER DURING CONSTRUCTION.
  3. SEE STRUCTURAL PLANS FOR LOCATION OF PIPE UNDERDRAIN.

FILE NAME = #FILES

**COLLINS ENGINEERS INC.**

USER NAME = mpell  
 PLOT SCALE = 40,0000' / in.  
 PLOT DATE = 1/31/2014

DESIGNED -  
 DRAWN -  
 CHECKED -  
 DATE -

REVISED -  
 REVISED -  
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 REVISED -

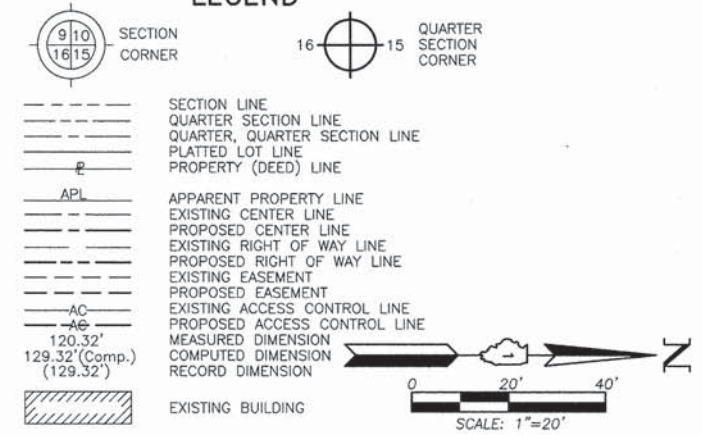
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DRAINAGE & UTILITIES PLAN**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	18
CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LEGEND



Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2007) East Zone.

- O IRON PIPE OR ROD FOUND      ⊕ "MAG" NAIL SET
- + CUT CROSS FOUND OR SET      ● 5/8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS }  
 COUNTY OF LAKE }SS

THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON BETWEEN SECTION 26, TOWNSHIP 44N., RANGE 6E., AND SECTION 27, TOWNSHIP 44N., RANGE 6E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT LAKE VILLA, ILLINOIS THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_ A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797  
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2014  
 THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.  
 Note: Surface Coordinates are Shown

COORDINATE TABLE				
STATION	OFFSET	NORTH	EAST	
145+79.58	34.88' Lt.	2,036,474.494	936,091.405	
145+79.71	4.41' Rt.	2,036,474.389	936,130.694	
147+75.15	43.00' Lt.	2,036,670.108	936,084.467	
147+75.18	35.08' Lt.	2,036,670.084	936,092.400	
147+75.25	34.93' Rt.	2,036,669.733	936,162.399	
147+75.25	43.00' Rt.	2,036,669.684	936,170.466	
149+28.68	3.24' Rt.	2,036,823.355	936,131.631	

JORGENSEN & ASSOCIATES, INC.  
 120 PARK AVENUE  
 LAKE VILLA, ILLINOIS 60046  
 (847) 356-3371  
 CONTRACT NO: 61A22

**PLAT OF HIGHWAYS**  
 STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 F.A.S. 0033 (FRANKLINVILLE ROAD)  
 LIMITS: OVER KISHWAUKEE RIVER COUNTY: McHENRY  
 SECTION: 10-00379-00-BR JOB NO.: R-55-001-97  
 STATION 143+96.90 TO STATION 150+00  
 SCALE: 1"=20' SHEET 19 OF 56

BUREAU OF LAND ACQUISITION  
 201 WEST CENTER COURT  
 SCHAMBURG, ILLINOIS 60196

Parcel	Document No.	Date Recorded
0001	150684	November 1, 1940
0002	150685	November 1, 1940
----	150684	November 1, 1940
----	150685	November 1, 1940

See Sheet 4  
 for Total Holdings  
 Parcel 0001

See Sheet 5  
 for Total Holdings  
 Parcel 0002 & 0002T.E.

Schedule of Ties		
Point Number	Tie to point	Tie Distance (feet)
1	T1	20.20
	T2	29.41
	T3	38.96
2	T1	18.18
	T2	12.59
	T3	18.28

COORDINATE TABLE				
STATION	OFFSET	NORTH	EAST	
149+28.79	34.79' Rt.	2,036,823.271	936,163.181	
149+28.81	43.00' Rt.	2,036,823.246	936,171.394	
149+28.83	48.00' Rt.	2,036,823.232	936,176.394	
149+30.49	48.00' Rt.	2,036,824.890	936,176.404	
149+36.83	34.78' Rt.	2,036,831.311	936,163.222	
149+51.99	3.16' Rt.	2,036,846.668	936,131.694	
149+60.44	35.24' Lt.	2,036,855.345	936,093.343	
149+60.56	35.81' Lt.	2,036,855.473	936,092.778	
149+68.10	43.00' Lt.	2,036,863.050	936,085.633	

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT PURPOSE	PERMANENT INDEX NUMBER
0001T.E.	4.993	N/A	N/A	4.993	0.034	Construction Purposes	12-27-400-005
0002 0002T.E.	18.042*	0.013	0.011	18.029	0.029	Construction Purposes	12-26-300-003

\* Riparian Boundary Area Subject to Change.

REVISION DATE

REVISION

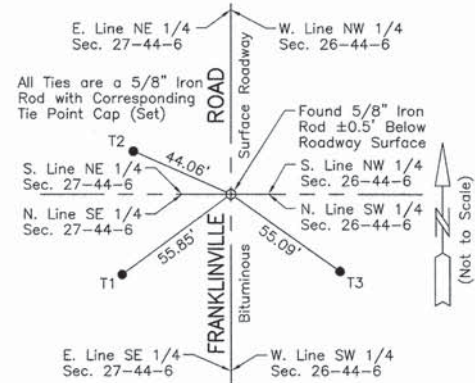
MADE BY

PART OF THE SW 1/4 OF SEC. 26 AND PART OF THE SE 1/4 OF SEC. 27, TWP. 44 N., R. 6 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.

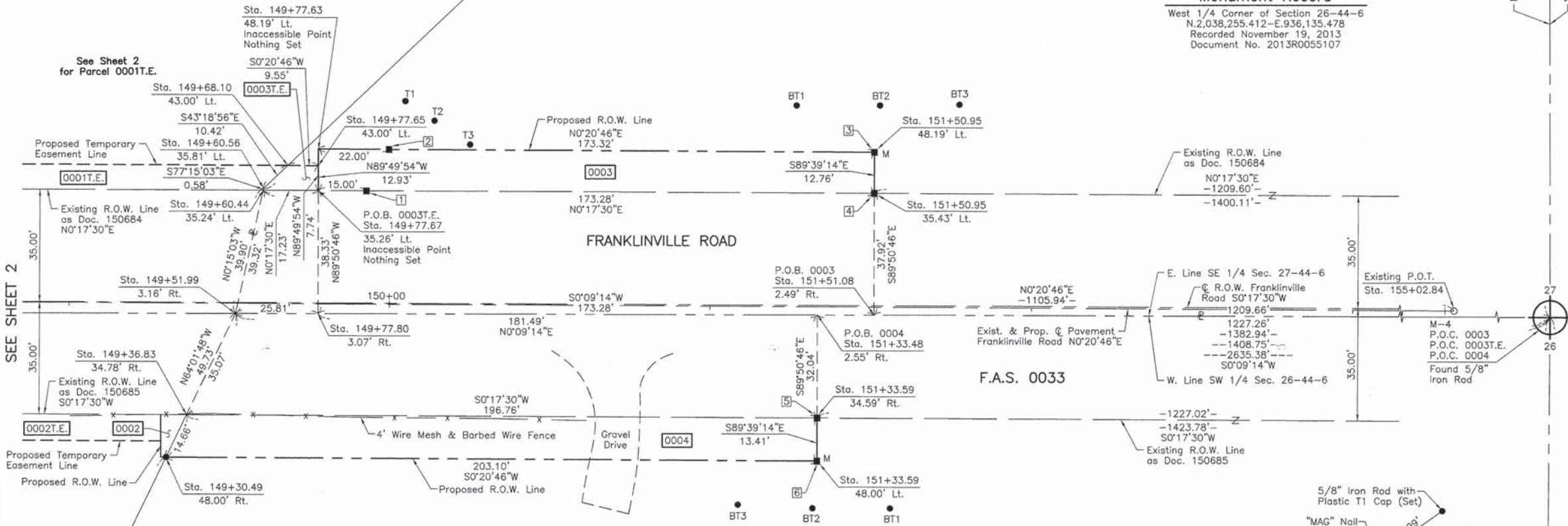
Schedule of Ties		
Point Number	Tie to point	Tie Distance (feet)
1	T1	30.47
	T2	30.46
	T3	35.37
2	T1	15.91
	T2	16.80
	T3	25.33
3	BT1	28.22
	BT2	14.68
	BT3	30.29
4	BT1	36.44
	BT2	27.40
	BT3	38.24
5	BT1	36.09
	BT2	28.12
	BT3	36.58
6	BT1	27.04
	BT2	14.74
	BT3	27.45

EXISTING R.O.W. RECORDED INFORMATION		
Parcel	Document No.	Date Recorded
0003	150684	November 1, 1940
0004	150685	November 1, 1940
-----	150684	November 1, 1940
-----	150685	November 1, 1940

See Sheet 4  
for Total Holdings  
Parcel 0003 & 0003T.E.



**M-4**  
"Monument Record"  
West 1/4 Corner of Section 26-44-6  
N.2,038,255.412-E.936,135.478  
Recorded November 19, 2013  
Document No. 2013R0055107



SEE SHEET 2

See Sheet 2  
for Parcel 0002  
& 0002T.E.

See Sheet 5  
for Total Holdings  
Parcel 0004

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER
0003 0003T.E.	62.105	0.203	0.152	61.902	0.002	105	Construction Purposes
0004	221.888*	0.199	0.138	221.689	N/A	N/A	12-26-300-002

\* Riparian Boundary Area Subject to Change

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
149+77.65	43.00' Lt.	2,036,872.598	936,085.691
149+77.67	35.26' Lt.	2,036,872.576	936,093.431
149+77.80	3.07' Rt.	2,036,872.473	936,131.763
151+33.48	2.55' Rt.	2,037,028.154	936,132.182
151+33.59	34.59' Rt.	2,037,028.068	936,164.223
151+33.59	48.00' Rt.	2,037,027.987	936,177.631
151+50.95	35.43' Lt.	2,037,045.857	936,094.312
151+50.95	48.19' Lt.	2,037,045.934	936,081.549
151+51.08	2.49' Rt.	2,037,045.756	936,132.229

REVISION DATE

REVISION

MADE BY

**LEGEND**

- SECTION CORNER
- QUARTER SECTION CORNER
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINE
- PROPERTY (DEED) LINE
- APL
- APPARENT PROPERTY LINE
- EXISTING CENTER LINE
- PROPOSED CENTER LINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING ACCESS CONTROL LINE
- PROPOSED ACCESS CONTROL LINE
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORD DIMENSION
- EXISTING BUILDING
- BEARINGS AND COORDINATES ARE REFERENCED TO THE ILLINOIS COORDINATE SYSTEM NAD 83(2007) EAST ZONE.
- IRON PIPE OR ROD FOUND
- "MAG" NAIL SET
- CUT CROSS FOUND OR SET
- 5/8" REBAR SET
- THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
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- PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS }  
COUNTY OF LAKE }SS  
THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON BETWEEN SECTION 26, TOWNSHIP 44N., RANGE 6E., AND SECTION 27, TOWNSHIP 44N., RANGE 6E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.  
DATED AT LAKE VILLA, ILLINOIS THIS \_\_\_\_ DAY OF \_\_\_\_ 20\_\_ A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797  
LICENSE EXPIRATION DATE: NOVEMBER 30, 2014  
THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.  
Note: Surface Coordinates are Shown

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
149+30.49	48.00' Rt.	2,036,824.890	936,176.404
149+36.83	34.78' Rt.	2,036,831.311	936,163.222
149+51.99	3.16' Rt.	2,036,846.668	936,131.694
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149+68.10	43.00' Lt.	2,036,863.050	936,085.633
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JORGENSEN & ASSOCIATES, INC.  
120 PARK AVENUE  
LAKE VILLA, ILLINOIS 60046  
(847) 356-3371  
CONTRACT NO: 61A22

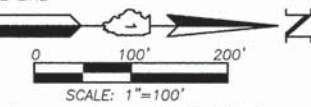
**PLAT OF HIGHWAYS**  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
F.A.S. 0033 (FRANKLINVILLE ROAD)  
LIMITS: OVER KISHWAUKEE RIVER COUNTY: McHENRY  
SECTION: 10-00379-00-BR JOB NO.: R-55-001-97  
STATION 149+00 TO STATION 155+02.84  
SCALE: 1"=20'  
SHEET 20 OF 56

**BUREAU OF LAND ACQUISITION**  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196

PART OF THE WEST 1/2 OF SEC. 26 AND PART OF THE EAST 1/2 OF SEC. 27, TWP. 44 N., R. 6 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.

LEGEND

- SECTION LINE
  - QUARTER SECTION LINE
  - QUARTER SECTION LINE
  - PLATTED LOT LINE
  - PROPERTY (DEED) LINE
  - APL
  - APPARENT PROPERTY LINE
  - EXISTING CENTER LINE
  - PROPOSED CENTER LINE
  - EXISTING RIGHT OF WAY LINE
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  - MEASURED DIMENSION
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  - EXISTING BUILDING
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- O IRON PIPE OR ROD FOUND
  - + CUT CROSS FOUND OR SET
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  - BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
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  - PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
  - RIGHT OF WAY STAKING PROPOSED TO BE SET.



STATE OF ILLINOIS }  
 COUNTY OF LAKE }SS

THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, TOWNSHIP 44N., RANGE 6E., AND SECTION 27, TOWNSHIP 44N., RANGE 6E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

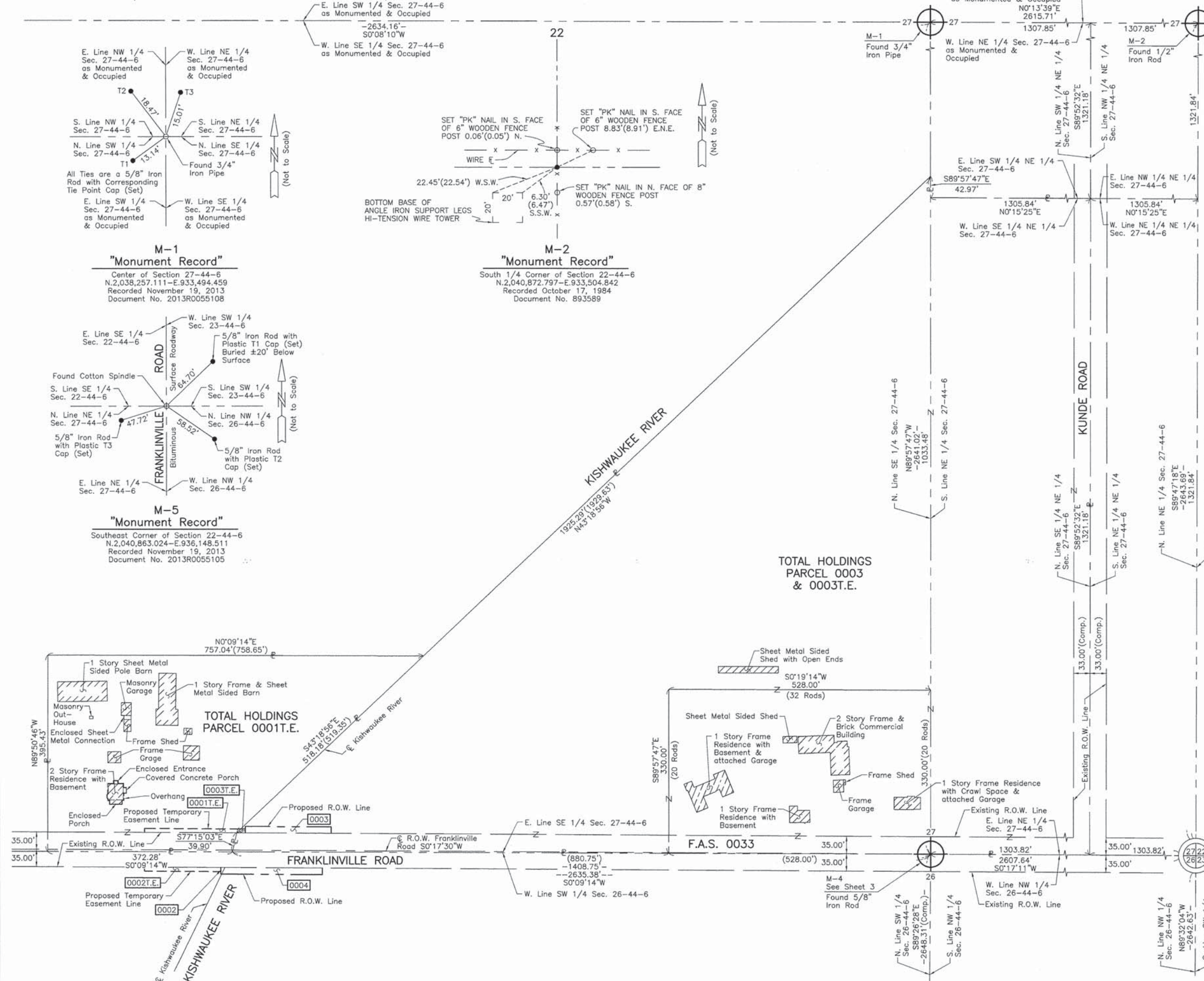
DATED AT LAKE VILLA, ILLINOIS THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_ A.D.

\_\_\_\_\_  
 PRESIDENT  
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797  
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2014  
 THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.  
 Note: Surface Coordinates are Shown

JORGENSEN & ASSOCIATES, INC.  
 120 PARK AVENUE  
 LAKE VILLA, ILLINOIS 60046  
 (847) 356-3371  
 CONTRACT NO: 61A22

**PLAT OF HIGHWAYS**  
 STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 F.A.S. 0033 (FRANKLINVILLE ROAD)  
 LIMITS: OVER KISHAWAUKEE RIVER COUNTY: McHENRY  
 SECTION: 10-00379-00-BR JOB NO.: R-55-001-97  
 STATION NONE TO STATION  
 SCALE: 1"=100'  
 SHEET 21 OF 56

BUREAU OF LAND ACQUISITION  
 201 WEST CENTER COURT  
 SCHAUMBURG, ILLINOIS 60196

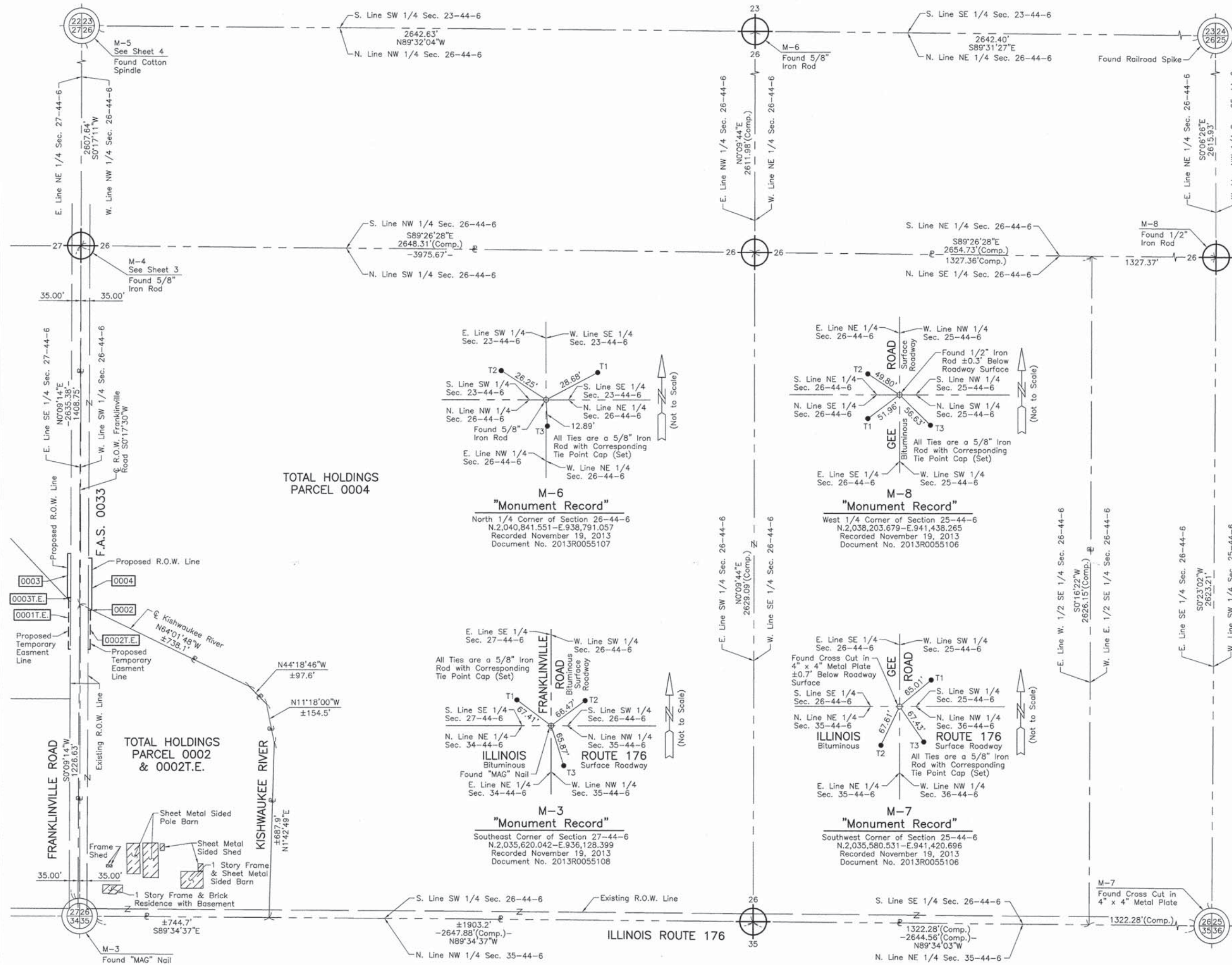


REVISION DATE

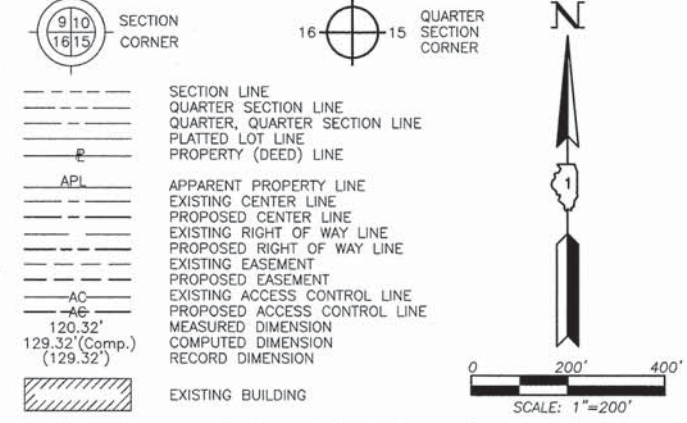
REVISION

MADE BY

PART OF THE SOUTH 1/2 OF SEC. 26 AND PART OF THE NORTH 1/2 OF SEC. 26, TWP. 44 N., R. 6 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.



**LEGEND**



- Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2007) East Zone.
- IRON PIPE OR ROD FOUND
  - ⊕ "MAG" NAIL SET
  - + CUT CROSS FOUND OR SET
  - 5/8" REBAR SET
  - T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
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  - T3
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STATE OF ILLINOIS }  
 COUNTY OF LAKE }SS

THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 26, TOWNSHIP 44N., RANGE 6E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT LAKE VILLA, ILLINOIS THIS \_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_ A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797  
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2014

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.  
 Note: Surface Coordinates are Shown

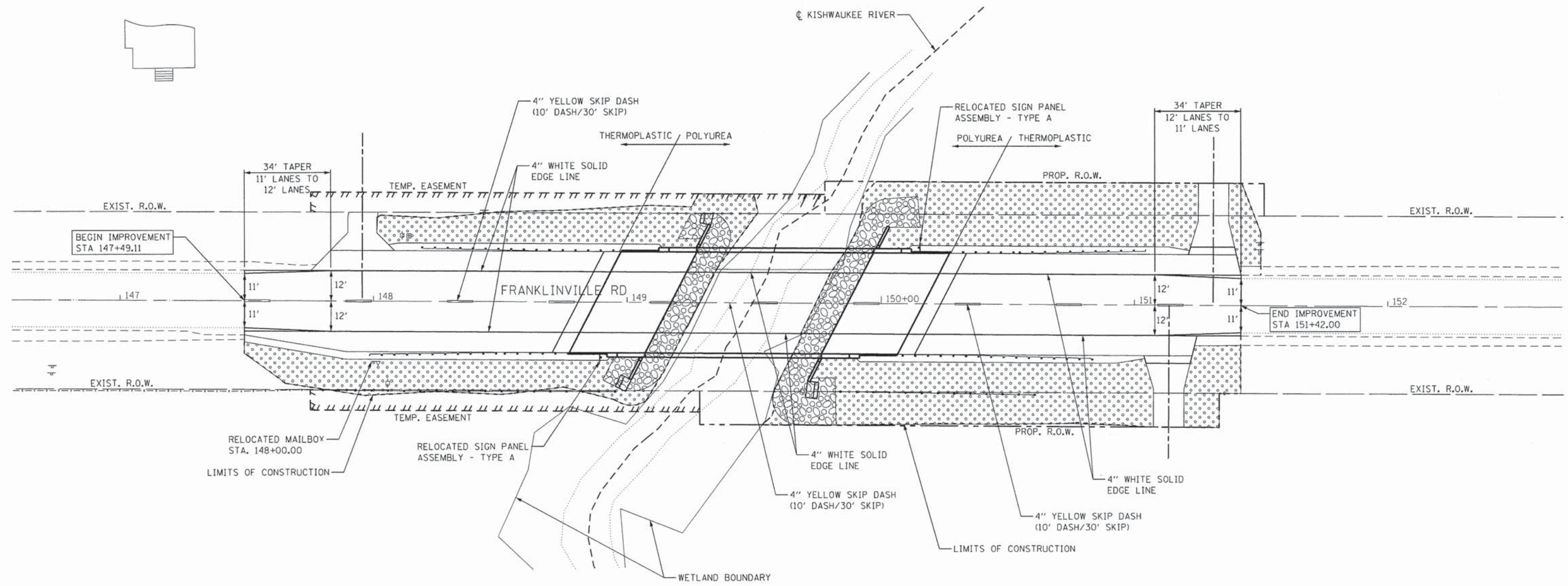
JORGENSEN & ASSOCIATES, INC.  
 120 PARK AVENUE  
 LAKE VILLA, ILLINOIS 60046  
 (847) 356-3371

CONTRACT NO: 61A22

**PLAT OF HIGHWAYS**  
 STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 F.A.S. 0033 (FRANKLINVILLE ROAD)  
 LIMITS: OVER KISHAWAUKEE RIVER COUNTY: McHENRY  
 SECTION: 10-00379-00-BR JOB NO.: R-55-001-97  
 STATION NONE TO STATION  
 SCALE: 1"=200' SHEET 22 OF 56

BUREAU OF LAND ACQUISITION  
 201 WEST CENTER COURT  
 SCHAMBURG, ILLINOIS 60196

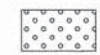

REVISION DATE REVISION MADE BY



**NOTES:**

1. PAVEMENT MARKINGS ON CONCRETE SHALL BE POLYUREA. ALL OTHER PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
2. SEE PLAN AND PROFILE SHEETS FOR ROADWAY CALLOUTS.
3. HEAVY DUTY EROSION CONTROL BLANKET SHALL BE USED ON ALL AREAS OF PERMANENT SEEDING.
4. SEE BRIDGE PLANS FOR RIPRAP DETAILS.

**LEGEND:**

-  COMPOST FURNISH AND PLACE, 2" SEEDING CLASS 4A HEAVY DUTY EROSION CONTROL BLANKET
-  RIPRAP

FILE NAME = \$FILES

**COLLINS ENGINEERS**

USER NAME = mpell  
 PLOT SCALE = 40,0000' / 1" =  
 PLOT DATE = 1/31/2014

DESIGNED -  
 DRAWN -  
 CHECKED -  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

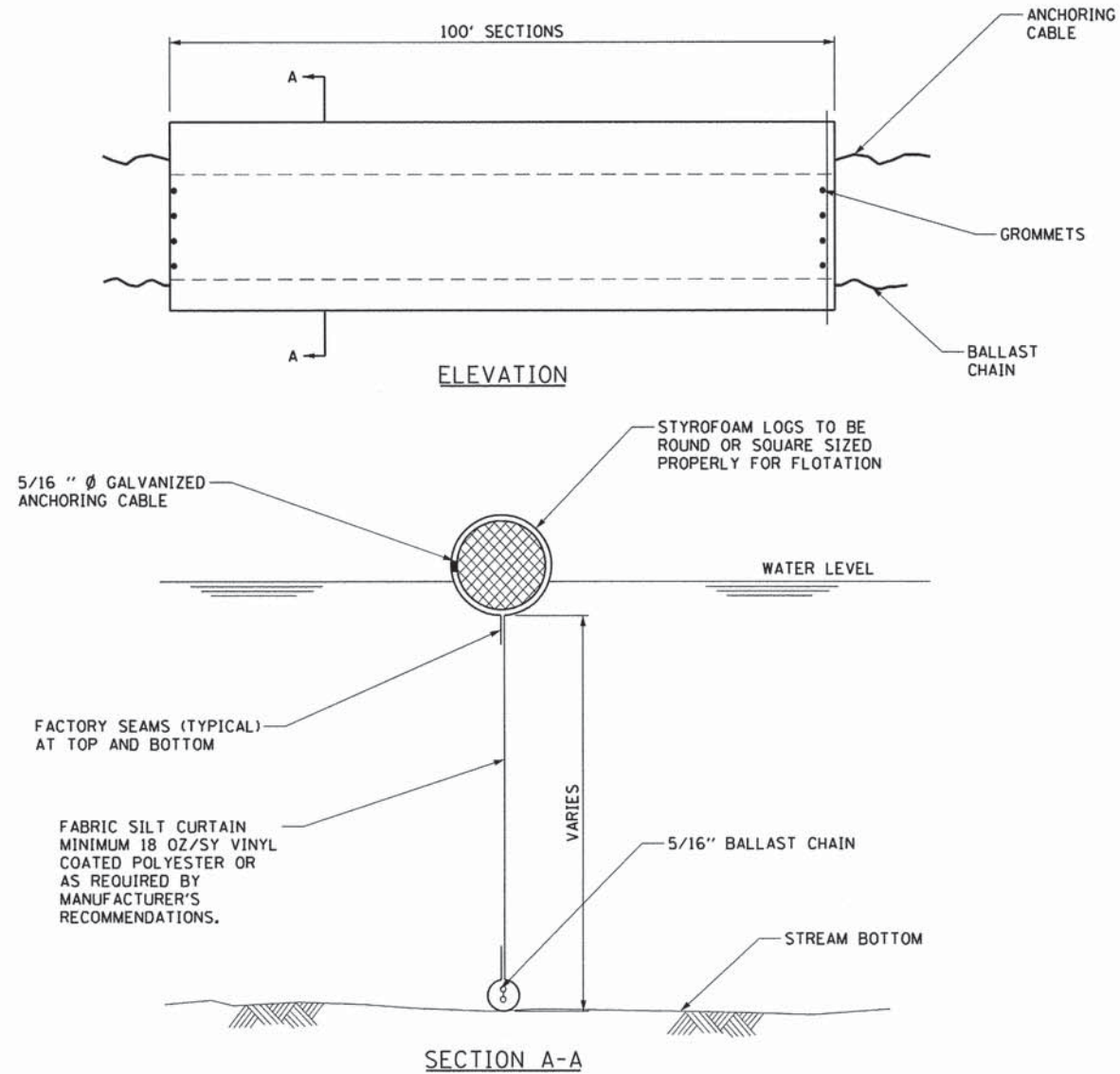
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING, SIGNING, AND LANDSCAPING PLAN**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	23
CONTRACT NO. 61A22				

FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT



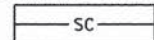
**NOTES:**

1. SILT CURTAIN SHALL BE ANCHORED TO PREVENT DRIFT SHOREWARD OR DOWNSTREAM. ANCHORAGES SHALL BE INSTALLED ON BOTH SHORE AND STREAM SIDE. CURTAINS ARE NOT TO BE INSTALLED ACROSS FLOWING BODY OF WATER.
2. SHORE ANCHORS SHALL CONSIST OF A POST WITH DEADMAN OR APPROVED EQUAL. STREAM ANCHORS SHALL BE OF SUFFICIENT SIZE TO STABILIZE THE CURTAIN WITH NUMBER AND SPACING DEPENDENT ON WATERWAY VELOCITIES.
3. FABRIC SECTIONS SHALL BE CONNECTED END TO END WITH MINIMUM 5/8" DIAMETER POLYPROPYLENE ROPE.
4. DESIGN OF CURTAIN, SPLICING, AND ANCHORAGE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. BOTTOM OF CURTAIN SHALL REACH BOTTOM OF WATERWAY USING ONE OR TWO VERTICAL SECTIONS AS REQUIRED.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED. CONTRACTOR SHALL REMOVE THE CURTAIN AT COMPLETION OF WORK IN A MANNER THAT WILL PREVENT SILTATION OF THE WATERWAY.

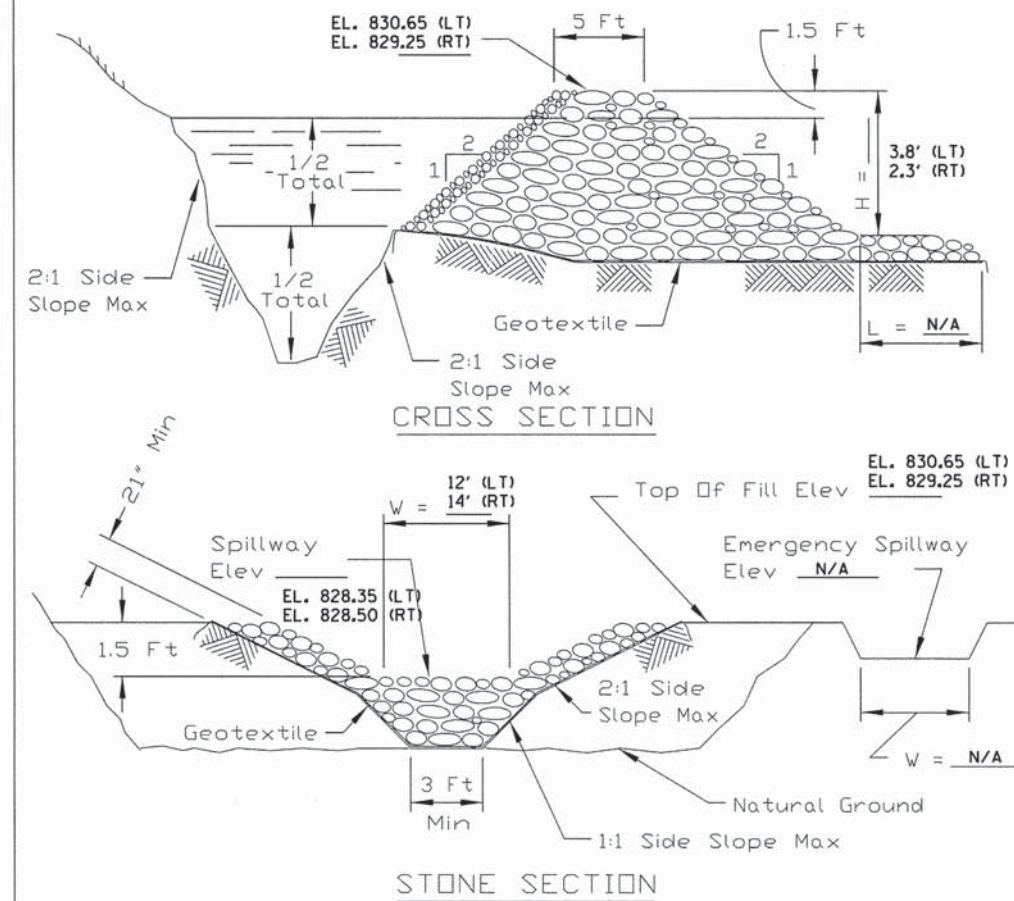
APPLICATION: SILT CURTAINS TO BE USED TO CONTROL SILT AND DEBRIS WHEN WORKING IN WATERWAYS.

**SILT CURTAIN**

STANDARD SYMBOL



**TEMPORARY SEDIMENT TRAP**



**NOTES:**

1. If the sediment pool is formed or enlarged the side slope will be 2:1 or flatter.
2. The fill shall be constructed using IDOT RR-4 stone size. A 1' layer of IDOT CA-2 should be placed on the inside face to reduce the flow rate.
3. The rock will be placed according to construction specification 25 ROCKFILL. Placement will be by Method 1 and compaction will be class III.
4. The geotextile shall meet the requirements in material specification 592 GEOTEXTILE table 1 or 2, class I, II or IV.

REFERENCE Project _____	<p><b>NRCS</b> Natural Resources Conservation Service</p>	STANDARD DWG. NO. IL-660
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 11-20-01
Approved _____ Date _____		

**NOTES:**

1. THE SEDIMENT TRAP IN THE WEST DITCH SHALL BE 20 LF WITH THE SPILLWAY CENTERED AT STA 150+25.
2. THE SEDIMENT TRAP IN THE EAST DITCH SHALL BE 45 LF WITH THE SPILLWAY CENTERED AT STA 150+00.
3. THE SEDIMENT TRAP SHALL BE INSPECTED AFTER EACH SIGNIFICANT RAINFALL. THE CONTRACTOR SHALL PUMP DOWN THE WATER LEVEL TO THE PERMANENT POOL ELEVATION. ALL PUMPING OF SEDIMENT LADEN WATER SHALL UTILIZE SEDIMENT FILTER BAGS. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
4. REMOVE THE SEDIMENT AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE PERMANENT POOL.
5. REMOVAL OF THE SEDIMENT TRAP SHALL OCCUR AFTER ALL SEDIMENT PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROADWAY DETAILS - TEMPORARY EROSION CONTROL

SCALE: NTS SHEET NO. 1 OF 1 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

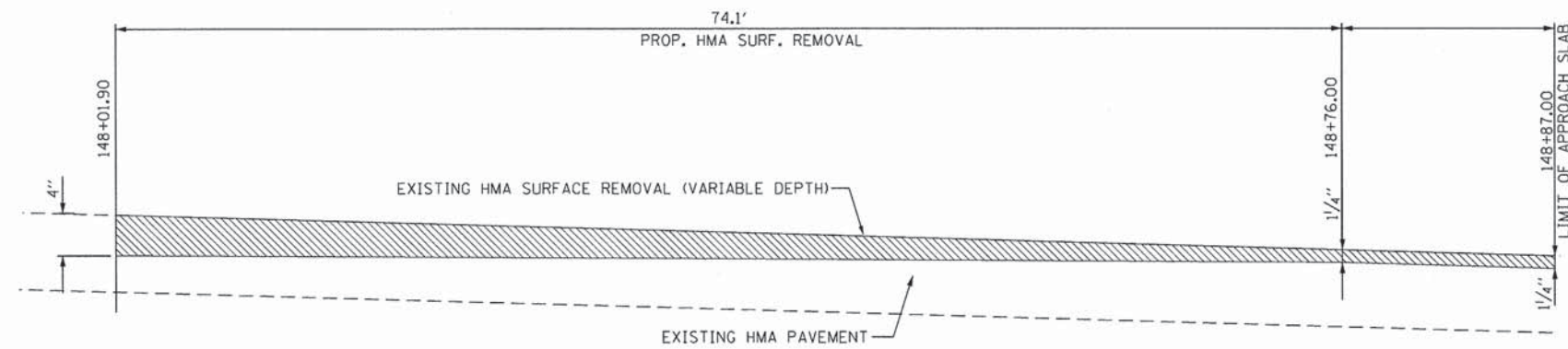
COLLINS ENGINEERS INC

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PLOT DATE = 1/31/2014

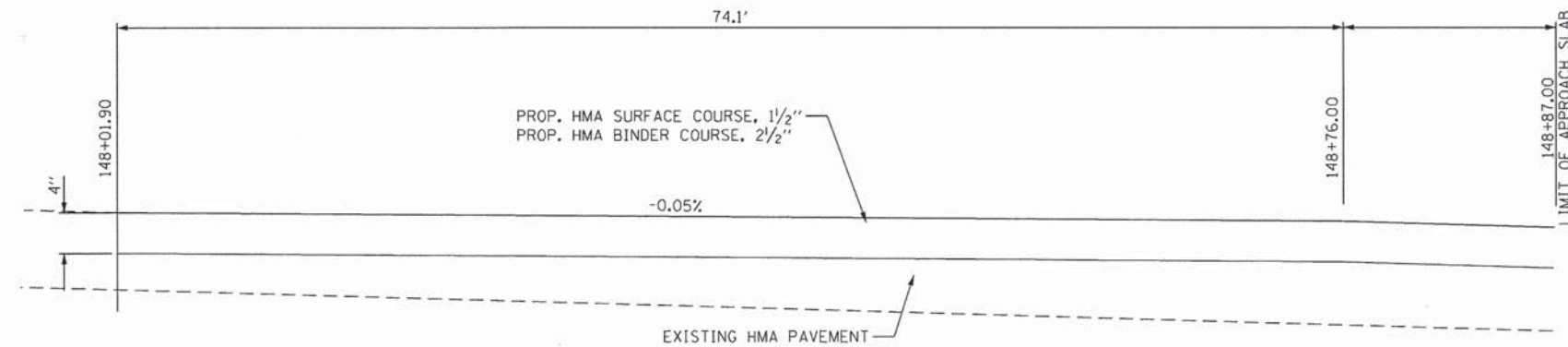
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DRAWN -  
CHECKED -  
DATE -

REVISED -  
REVISED -  
REVISED -  
REVISED -



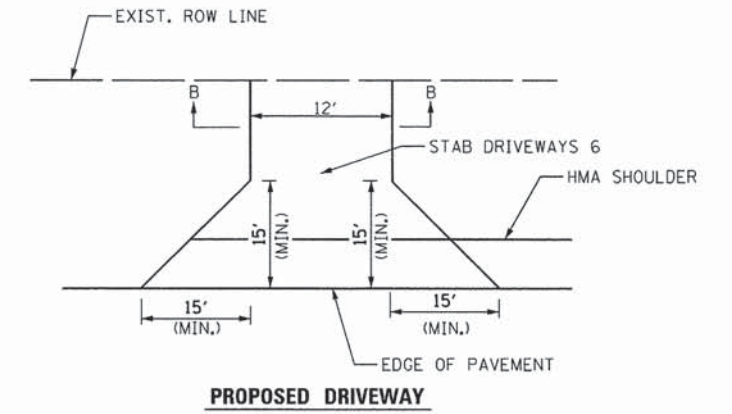


**EXISTING ROADWAY SECTION  
FRANKLINVILLE ROAD**  
STA. 148+01.90 TO STA. 148+87.00

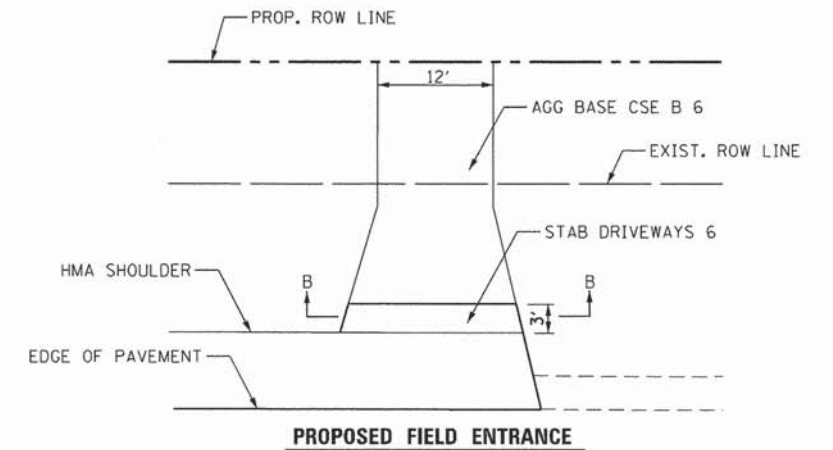


**PROPOSED ROADWAY SECTION  
FRANKLINVILLE ROAD**  
STA. 148+01.90 TO STA. 148+87.00

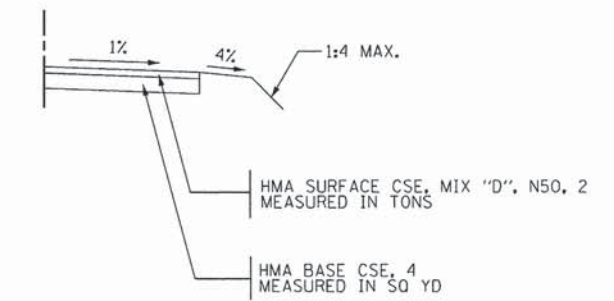
NOTE: SEE DETAIL BD-32 FOR ADDITIONAL DETAILS.



**PROPOSED DRIVEWAY**



**PROPOSED FIELD ENTRANCE**



**SECTION B-B**

**DRIVEWAY NOTES:**

1. DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS".
2. FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

**DRIVEWAY /FIELD ENTRANCE DETAIL**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROADWAY DETAILS - HMA TAPER AND BUTT JOINT

SCALE: NTS SHEET NO. 1 OF 1 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 61A22				
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

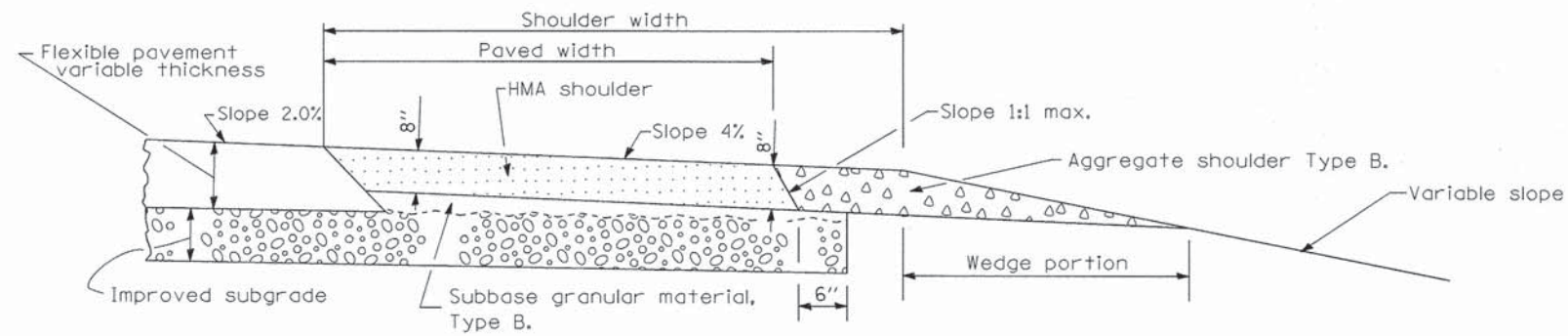
FILE NAME: 112FILES

**COLLINS ENGINEERS INC.**

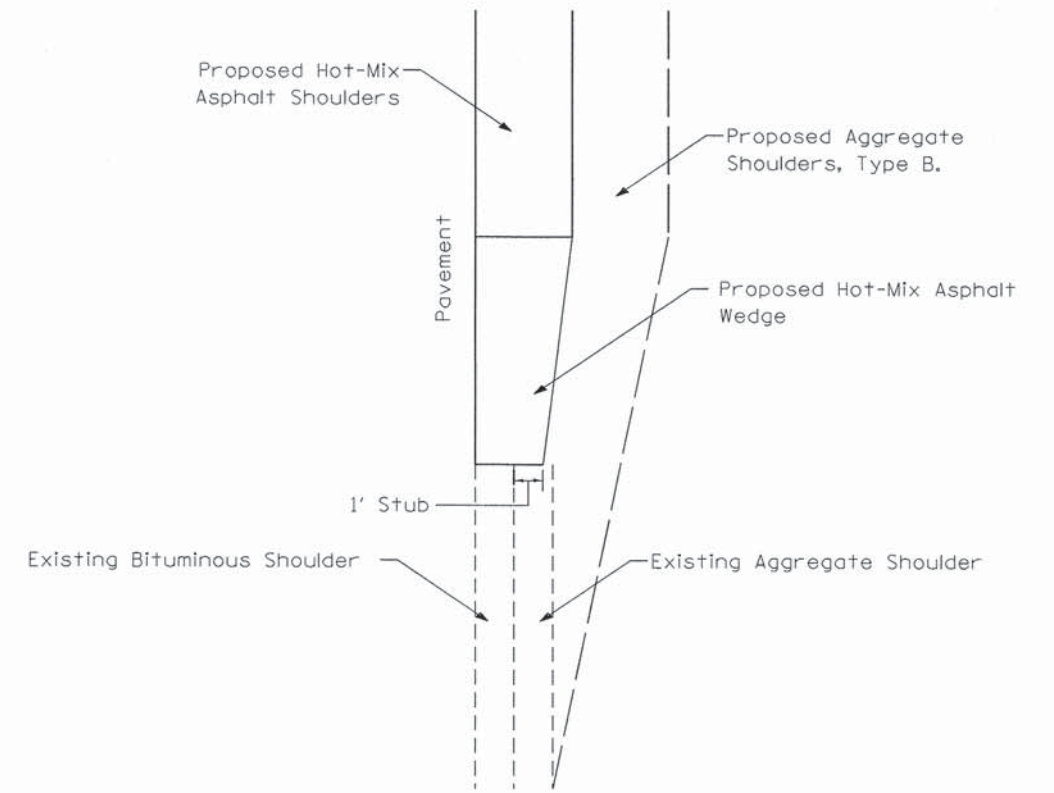
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PLOT SCALE = 2,000' / in.  
PLOT DATE = 1/31/2014

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

REVISED -  
REVISED -  
REVISED -

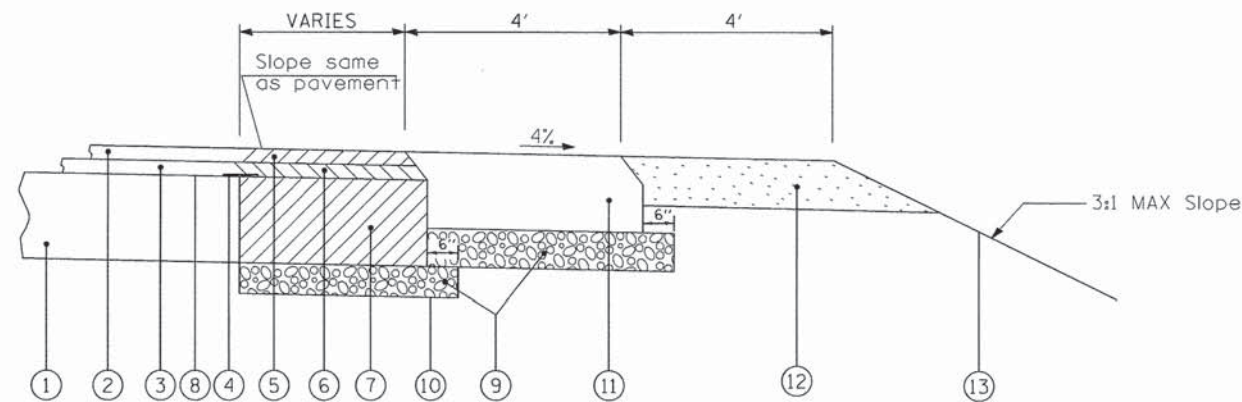


**SHOULDER FOR TANGENT PAVEMENT W/ WEDGE**

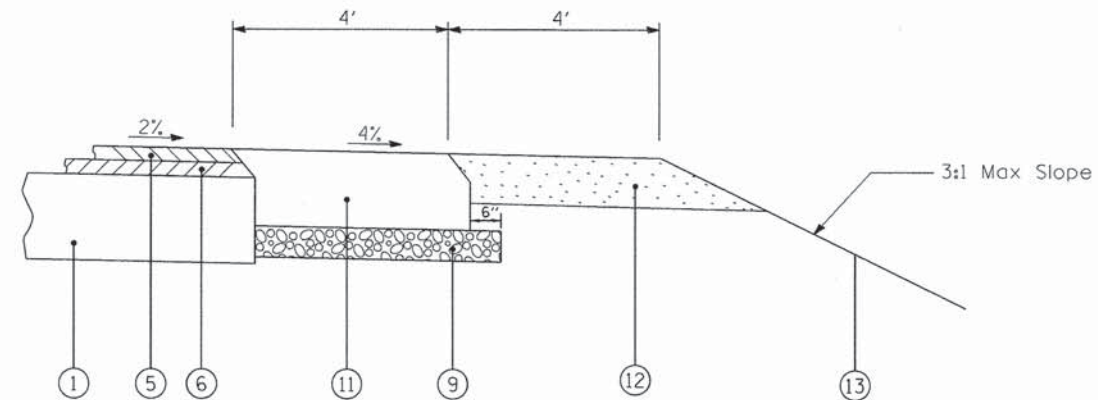


**SHOULDER TAPER DETAIL  
PLAN VIEW**

NOTE:  
TAPER THE HOT-MIX ASPHALT SHOULDER DOWN TO THE EXISTING AGGREGATE SHOULDER WITH 1' STUB.  
(TAPER RATE SHALL BE 1:5 SPEED OR AS APPROVED BY THE ENGINEER)



**HMA AND AGGREGATE  
SHOULDERS WITH WIDENING & RESURFACING**

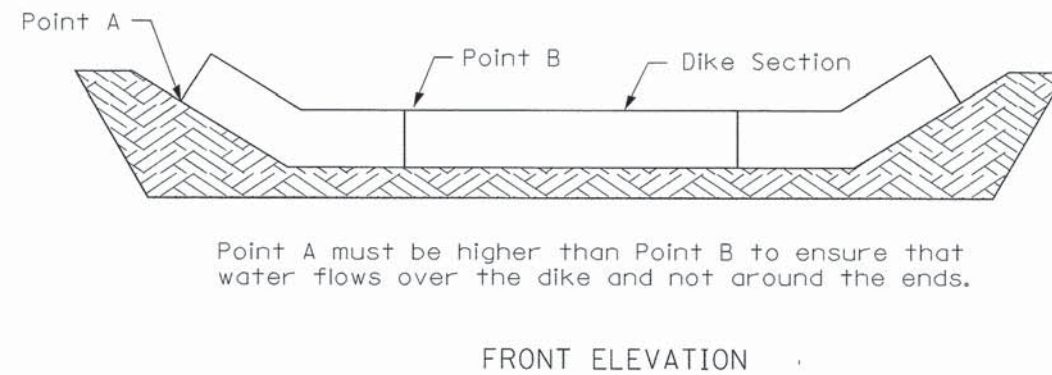
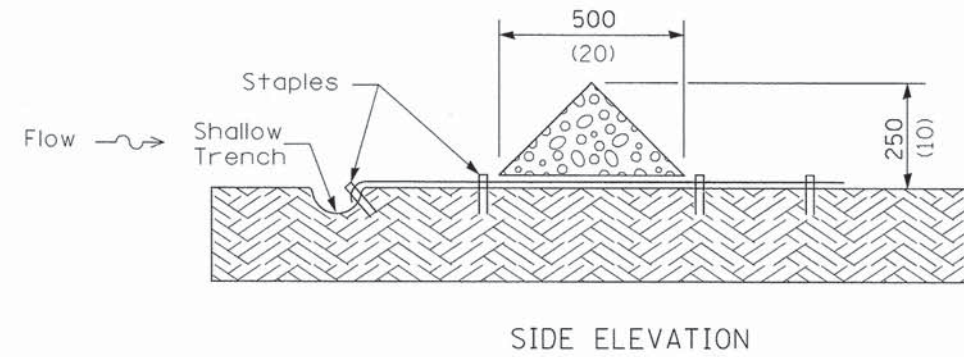
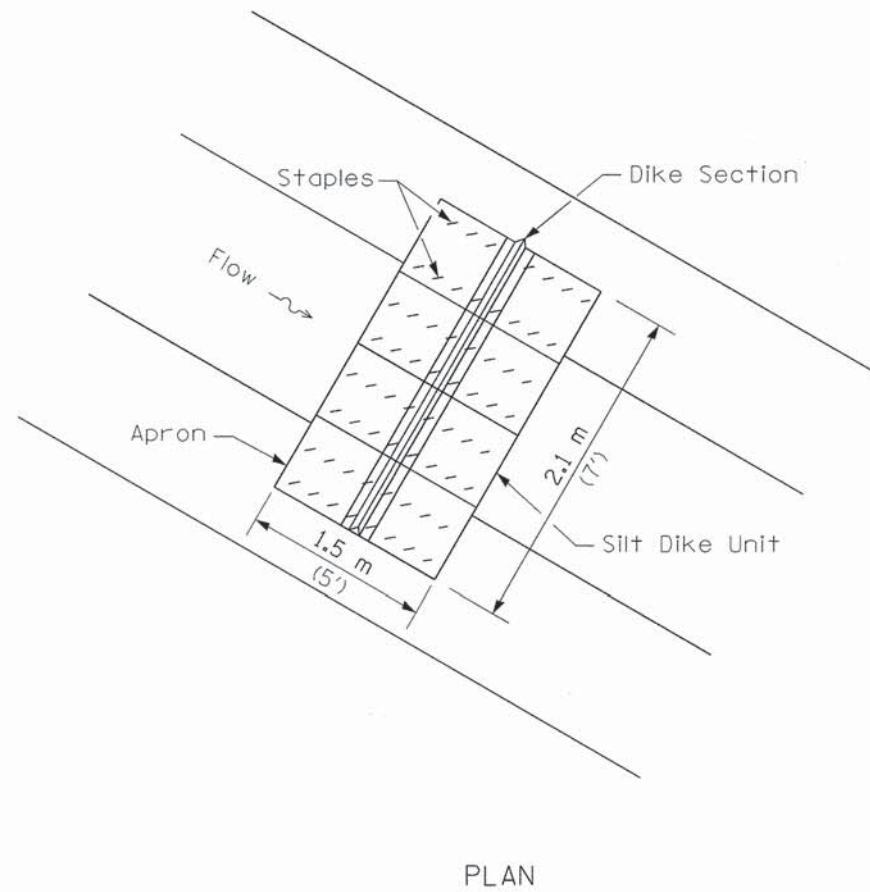


**HMA AND AGGREGATE SHOULDERS  
WITH RESURFACING**

**LEGEND**

- ① EXISTING PAVEMENT
- ② EXISTING HMA SURFACE COURSE
- ③ EXISTING HMA BINDER COURSE
- ④ SAWCUT EXISTING PAVEMENT & INSTALL 24" WIDE STRIP REFLECTIVE CRACK CONTROL TREATMENT, TYPE A
- ⑤ PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2"
- ⑥ PROPOSED HMA BINDER COURSE, IL-19, N70, 2 1/2"
- ⑦ PROPOSED HMA BASE COURSE, 9"
- ⑧ PRIME COAT
- ⑨ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 6"
- ⑩ PROPOSED AGGREGATE SUBGRADE
- ⑪ PROPOSED HMA SHOULDERS, 8"
- ⑫ PROPOSED AGGREGATE SHOULDERS, TYPE B, 6"
- ⑬ PROPOSED TOPSOIL, SEEDING, CL 2A & EROSION CONTROL BLANKET

FILE NAME =	USER NAME = oxlee	DESIGNED -	REVISED - 11-10-2010	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>McHENRY COUNTY - DIVISION OF TRANSPORTATION SHOULDER DETAIL</b>			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Y:\Design\Standards & Details\MCDOT\Shoulder Details.dgn		DRAWN -	REVISED - 5-13-2013					0033	10-00379-00-BR	McHENRY	56	25A
PLOT SCALE = 100.0000' / 1 in.		CHECKED -	REVISED -		SCALE: NTS			SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 61A22	
PLOT DATE = 5/24/2013		DATE - 5-28-2010	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



Point A must be higher than Point B to ensure that water flows over the dike and not around the ends.

URETHANE FOAM/GEOTEXTILE DITCH CHECK

**NOTES**

All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>McHENRY COUNTY - DIVISION OF TRANSPORTATION URETHANE FOAM/GEOTEXTILE DITCH CHECK DETAIL</b>	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT DATE = #DATE#	CHECKED -	REVISED -			CONTRACT NO. 61A22					
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
				SCALE: NTS		SHEET NO. OF SHEETS STA.		TO STA.			

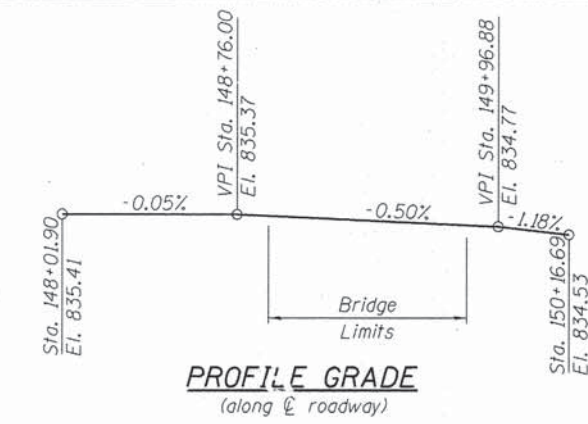
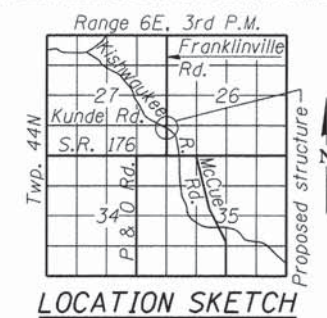
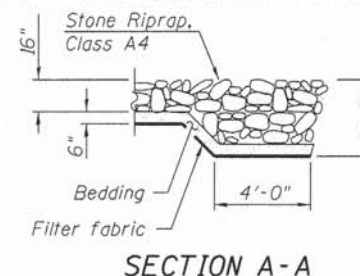
Benchmark: Disk in concrete (Seneca 1954) north side of Route 176 and west of Franklinville Road, Station 137+55.00, Offset 292.5', Elevation 836.151.

Existing Structure: SN 056-3017 built in 1953 as Section 19-B-2. Superstructure consists of a single span of 27" WF steel beams with a 6 1/2" reinforced concrete deck (non-composite) and an overlay. The closed concrete abutments are supported on Untreated Timber Piles and are at a 26.69° skew angle with respect to the centerline of the roadway. The bridge is 47'-0" long (center to center of bearings) with a clear bridge width of 24'-0". Structure to be removed and replaced. Road will be closed and traffic detoured during construction.

No salvage.

**WATERWAY INFORMATION**

Drainage Area = 26.8 mi <sup>2</sup>		Low Grade Elev. 833.74 @ Sta. 151+42.00							
Flood	Freq. Yr.	0 C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.			
	10	565.5	201	828.22	0.10	828.32	828.31		
Design	30	732.5	233	829.03	0.11	829.14	829.13		
Base	100	935.2	265	829.86	0.14	830.00	829.98		
Overtopping	>500								
Max. Calc.	500	1162.7	292	830.55	0.18	830.73	830.72		



**NAME PLATE**  
See Std. 515001

KISHWAUKEE RIVER  
BUILT 2011 BY McHENRY COUNTY  
DIVISION OF TRANSPORTATION  
SEC. 10-00379-00-BR  
F.A.S. RT. 0033 STA. 149+52.00  
STR. NO. 056-3196 LOADING HL-93

**DESIGN SPECIFICATIONS**  
2012 AASHTO LRFD Bridge  
Design Specifications, 6th Edition  
with 2013 Interim Revisions

**DESIGN STRESSES**  
FIELD UNITS

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (M270 Grade 50)

**PRECAST PRESTRESSED UNITS**  
f'c = 7,000 psi  
f'ci = 6,000 psi  
fy = 60,000 psi  
fpu = 27,000 psi (1/2" Low Lax Strands)  
fpbt = 202,500 psi (1/2" Low Lax Strands)

**LOADING HL-93**

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

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. (S<sub>D1</sub>) = 0.078g  
Design Spectral Acceleration at 0.2 sec. (S<sub>D5</sub>) = 0.136g  
Soil Site Class = D

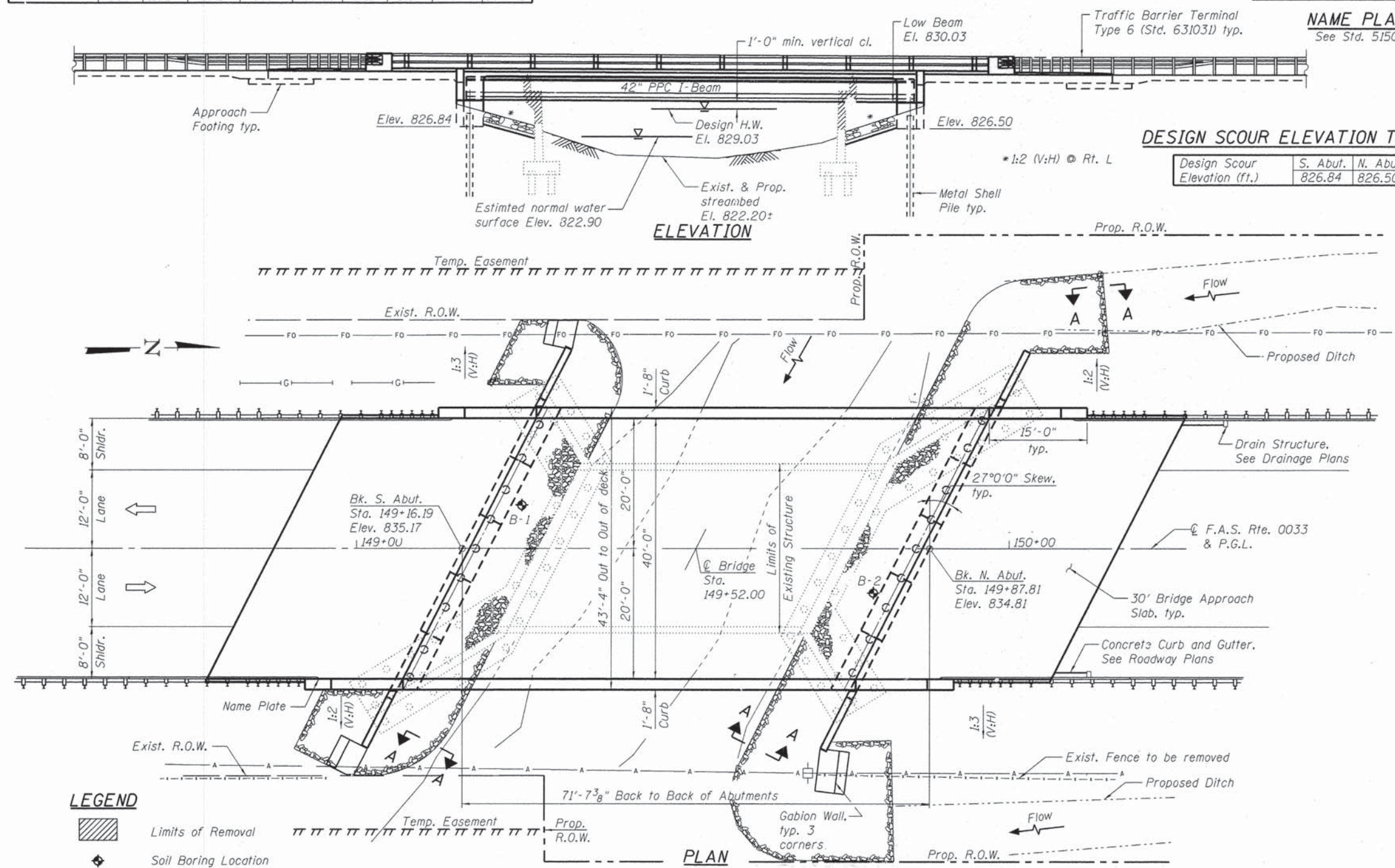


**COLLINS ENGINEERS, INC.**  
EWA MROCEK, P.E., S.E.  
NO. 081-006067  
EXP.: 11/30/2014

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design complies with requirements of the current AASHTO LRFD Bridge Design Specifications.

**GENERAL PLAN AND ELEVATION**  
**FRANKLINVILLE ROAD OVER**  
**KISHWAUKEE RIVER**

F.A.S. RTE. 0033 - SEC. 10-00379-00-BR  
McHENRY COUNTY  
STATION 149+52.00  
STRUCTURE NO. 056-3196



**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	S. Abut.	N. Abut.
	826.84	826.50

**LEGEND**

- Limits of Removal
- Soil Boring Location

FILE NAME: J:\B176 Franklinville over Kishwaukee\CADD\Structure\1\CA00 Sheets\0563196-001-DPE.dgn

**COLLINS ENGINEERS**  
123 N. Rogers Dr.  
Suite 900  
Chicago, IL 60606  
Tel: (312) 104-9300  
Fax: (312) 104-9320  
www.collinsengr.com  
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

USER NAME =	DESIGNED - EKM	REVISED -
PLOT SCALE =	CHECKED - PRH	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION  
STRUCTURE NUMBER 056-3196  
SHEET NO. 51 OF 522 SHEETS

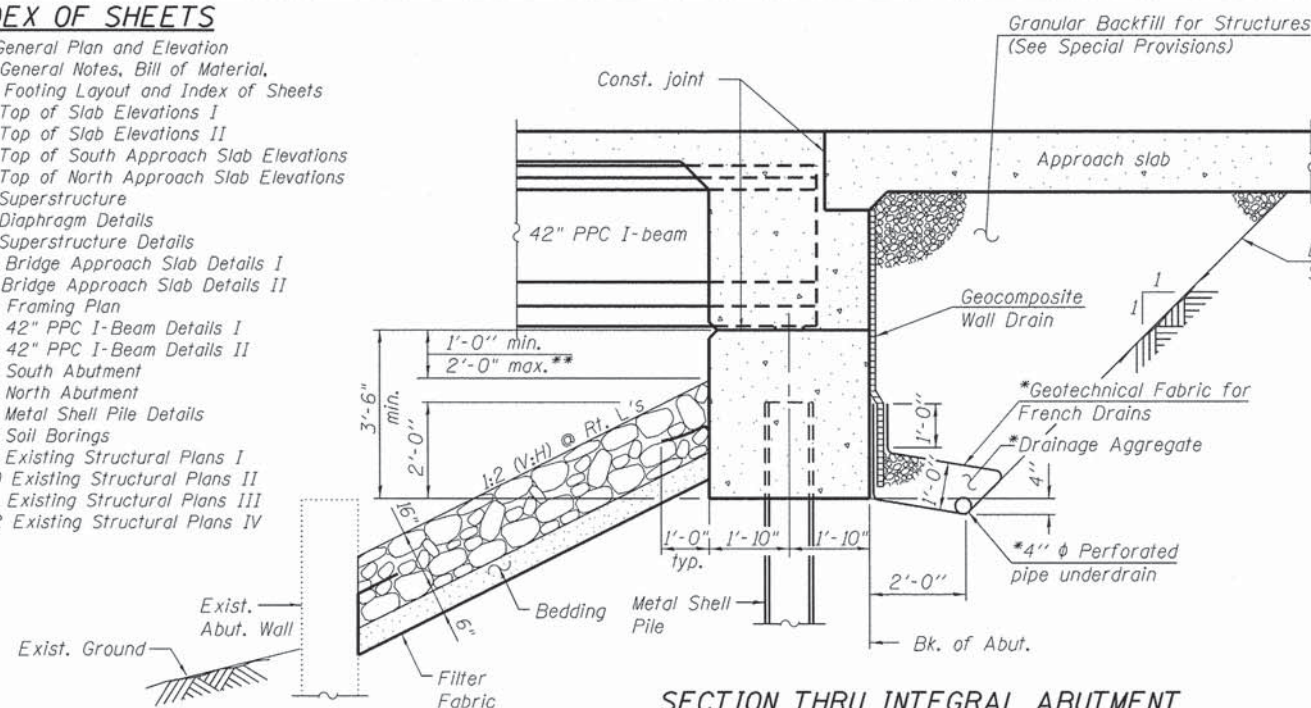
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	McHENRY	56	27
				CONTRACT NO. 61A22
				ILLINOIS FED. AID PROJECT BR5-00331061

**GENERAL NOTES**

- Reinforcement bars designated (E) shall be epoxy coated.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The embankment configuration for roadway widening shall be the minimum that must be placed and compacted prior to construction of the abutments.
- The Contractor shall take extreme caution during all phases of construction to prevent the deposition of any material into the Kishwaukee River. Demolition and construction activities within the floodplain shall be limited to the grading limits shown on the grading plans.
- The Contractor is advised that the existing structure contains members that are in deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedure for removal.
- The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.
- The Illinois Department of Transportation is not the owner of record for this bridge. Those seeking historic, as-built or other existing documents and plans must contact the owner of record to make arrangements for access to this information.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. Removal and disposal shall be in accordance with all applicable State and Federal laws and regulations and all requirements of Section 202.3 of the Standard Specifications. Cost included in the pay item Removal of Existing Superstructures.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment to ensure the remaining portion will not be prematurely damaged.
- The Contractor is advised about overhead electric line on the east side of the bridge as shown on sheet S1.

**INDEX OF SHEETS**

- S-1 General Plan and Elevation
- S-2 General Notes, Bill of Material, Footing Layout and Index of Sheets
- S-3 Top of Slab Elevations I
- S-4 Top of Slab Elevations II
- S-5 Top of South Approach Slab Elevations
- S-6 Top of North Approach Slab Elevations
- S-7 Superstructure
- S-8 Diaphragm Details
- S-9 Superstructure Details
- S-10 Bridge Approach Slab Details I
- S-11 Bridge Approach Slab Details II
- S-12 Framing Plan
- S-13 42" PPC I-Beam Details I
- S-14 42" PPC I-Beam Details II
- S-15 South Abutment
- S-16 North Abutment
- S-17 Metal Shell Pile Details
- S-18 Soil Borings
- S-19 Existing Structural Plans I
- S-20 Existing Structural Plans II
- S-21 Existing Structural Plans III
- S-22 Existing Structural Plans IV



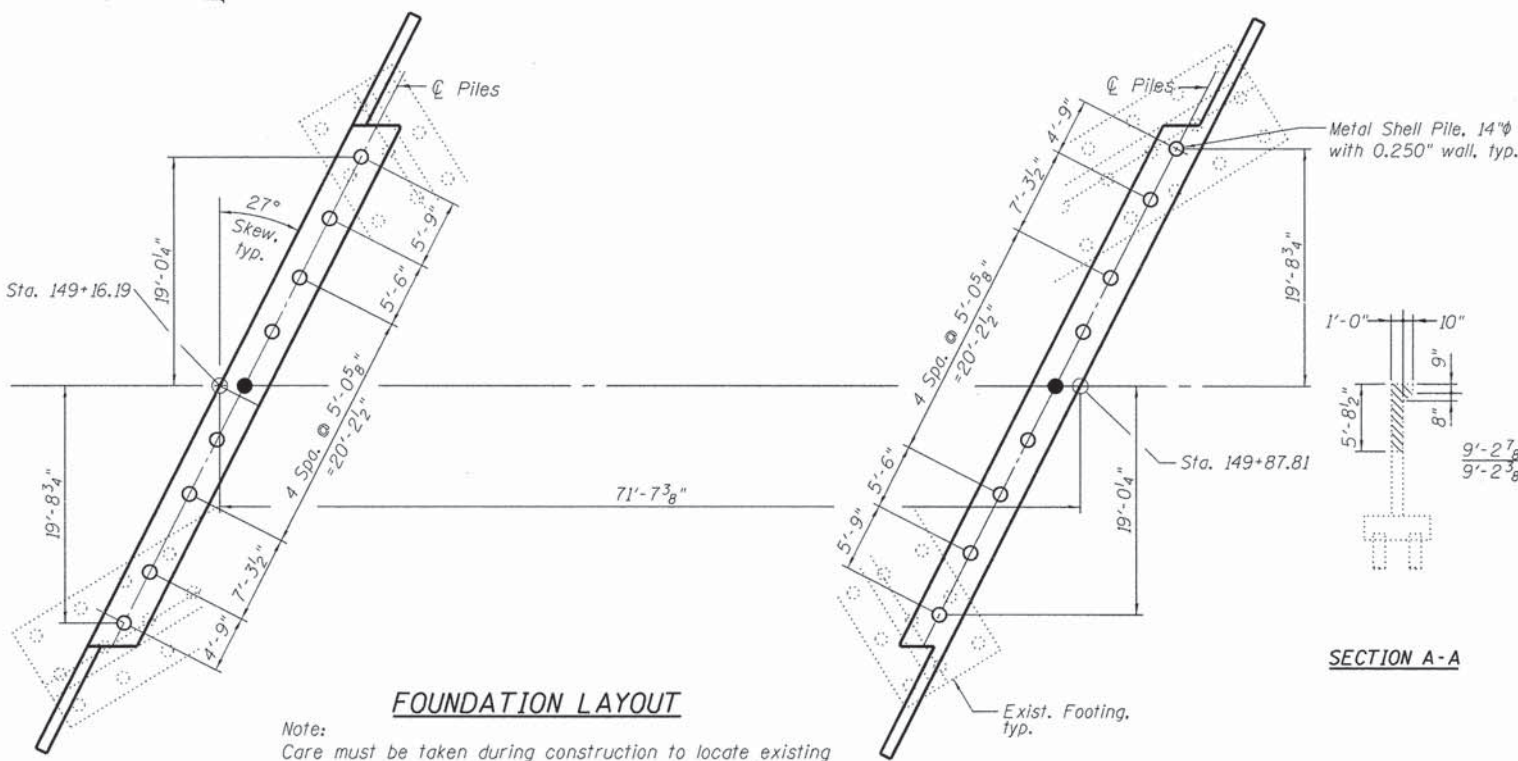
**SECTION THRU INTEGRAL ABUTMENT**  
(Horiz. dim. @ Rt. L's)

\*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)  
\*\*At low bearing seat

Note:  
All drainage system components shall extend to 2'-0" from the end of each wingwall or gabion wall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).  
See sheets S8, S15 and S16 for diaphragm and abutment details.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A1	Sq. Yd.		228	228
Filter Fabric	Sq. Yd.		264	264
Gabions	Cu. Yd.		13	13
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		33.1	33.1
Structure Excavation	Cu. Yd.		538	538
Concrete Structures	Cu. Yd.		88.0	88.0
Concrete Superstructure	Cu. Yd.	257.9		257.9
Bridge Deck Grooving	Sq. Yd.	547		547
Protective Coat	Sq. Yd.	691		691
Furnishing and Erecting Precast Prestressed Concrete I Beams, 42"	Foot	343		343
Reinforcement Bars, Epoxy Coated	Pound	39,240	15,860	55,100
Furnishing Metal Pile Shells 14"x0.250"	Foot		848	848
Driving Piles	Foot		816	816
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		119	119
Pipe Underdrains for Structures, 4"	Foot		232	232
Granular Backfill for Structures	Cu. Yd.		293	293
Steel Railing (Special)	Foot	183		183
Pre-coring	Foot		12	12

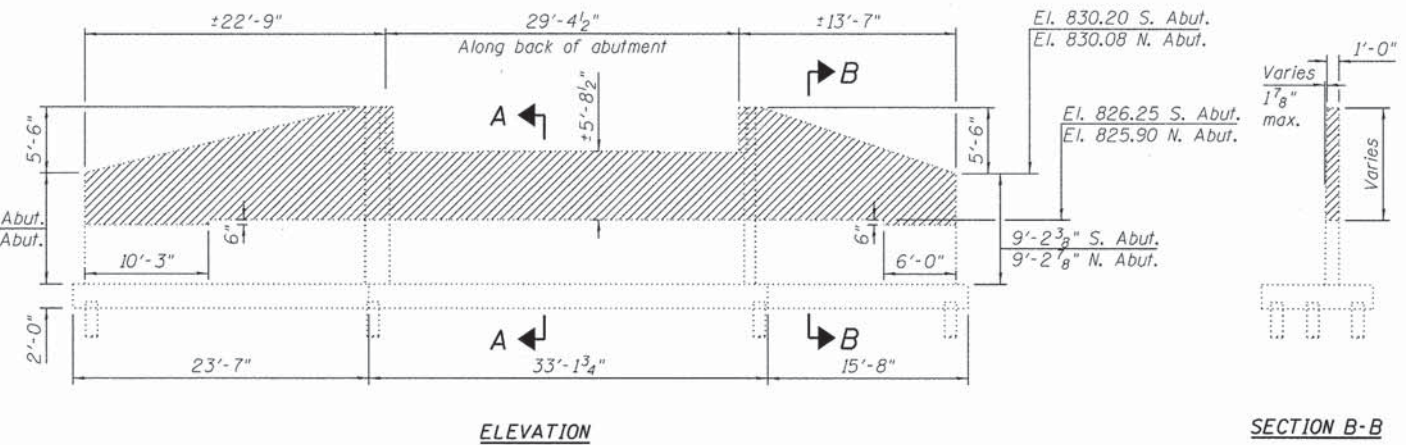


**FOUNDATION LAYOUT**

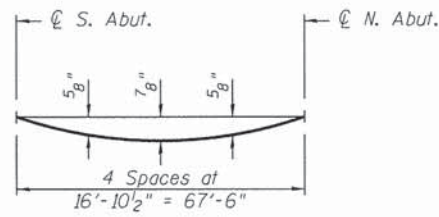
**LEGEND**

- Concrete Removal (hatched area)
- Existing Pile (circle with dot)
- Proposed pile (circle)
- Test pile (solid black circle)

**SECTION A-A**



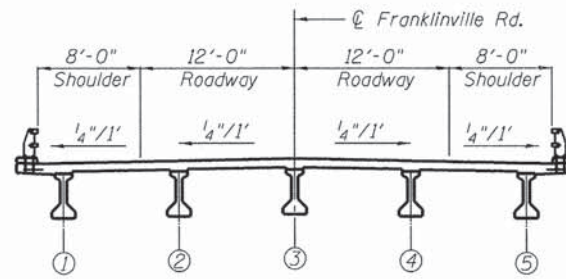
**EXISTING ABUTMENT REMOVAL**



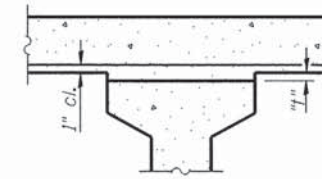
**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

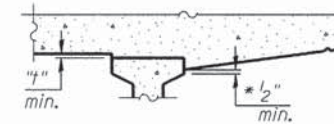
Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



**CROSS SECTION**  
(Looking North)

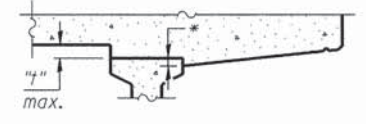


**INTERIOR BEAMS**



**At Minimum Fillet**

\*Variable (not less than 1/2")

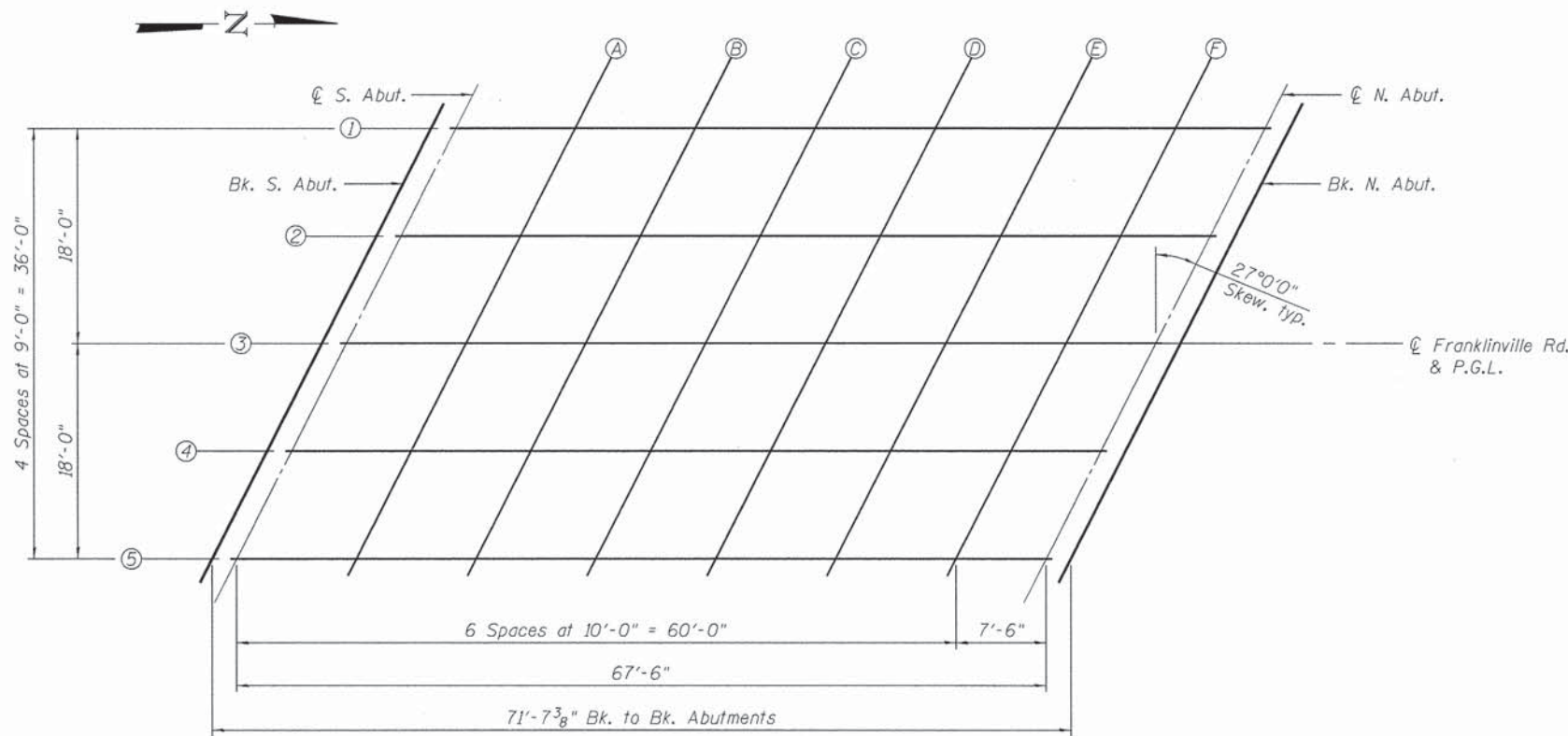


**At Maximum Fillet**

**EXTERIOR BEAMS**

**METHOD OF DETERMINING FILLET HEIGHTS "T"**

After all beams have been erected, elevations of the top of flanges of the beams shall be taken at the intervals shown on the plans. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on the plans, minus slab thickness equals the fillet heights "t" above top of flange beams.



**FRAMING PLAN**

Note:  
Work this sheet with sheet S4.

FILE NAME: I:\8176 Franklinville over Kishwaukee\CADD\Structural\CADD Sheets\9563196-003-105 Elev. I.dgn

**COLLINS ENGINEERS**  
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www.collinsengr.com  
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

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**DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS I**  
**STRUCTURE NO. 056-3196**

SHEET NO. S3 OF S22 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	29
CONTRACT NO. 61A22			ILLINOIS FED. AID PROJECT BR5-0033104	

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	149+25.36	18.00 Lt.	834.75	834.75
☉ S. Abut.	149+27.42	18.00 Lt.	834.74	834.74
A	149+37.42	18.00 Lt.	834.69	834.72
B	149+47.42	18.00 Lt.	834.64	834.70
C	149+57.42	18.00 Lt.	834.59	834.66
D	149+67.42	18.00 Lt.	834.54	834.61
E	149+77.42	18.00 Lt.	834.49	834.54
F	149+87.42	18.00 Lt.	834.44	834.46
☉ N. Abut.	149+94.92	18.00 Lt.	834.40	834.40
Bk. N. Abut.	149+96.98	18.00 Lt.	834.39	834.39

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	149+20.78	9.00 Lt.	834.96	834.96
☉ S. Abut.	149+22.84	9.00 Lt.	834.95	834.95
A	149+32.84	9.00 Lt.	834.90	834.93
B	149+42.84	9.00 Lt.	834.85	834.91
C	149+52.84	9.00 Lt.	834.80	834.87
D	149+62.84	9.00 Lt.	834.75	834.82
E	149+72.84	9.00 Lt.	834.70	834.75
F	149+82.84	9.00 Lt.	834.65	834.67
☉ N. Abut.	149+90.34	9.00 Lt.	834.61	834.61
Bk. N. Abut.	149+92.39	9.00 Lt.	834.60	834.60

**BEAM 3 AND ☉ OF ROADWAY**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	149+16.19	0.00	835.17	835.17
☉ S. Abut.	149+18.25	0.00	835.16	835.16
A	149+28.25	0.00	835.11	835.14
B	149+38.25	0.00	835.06	835.12
C	149+48.25	0.00	835.01	835.08
D	149+58.25	0.00	834.96	835.03
E	149+68.25	0.00	834.91	834.97
F	149+78.25	0.00	834.86	834.88
☉ N. Abut.	149+85.75	0.00	834.82	834.82
Bk. N. Abut.	149+87.81	0.00	834.81	834.81

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	149+11.61	9.00 Rt.	835.00	835.00
☉ S. Abut.	149+13.66	9.00 Rt.	834.99	834.99
A	149+23.66	9.00 Rt.	834.94	834.98
B	149+33.66	9.00 Rt.	834.89	834.95
C	149+43.66	9.00 Rt.	834.84	834.92
D	149+53.66	9.00 Rt.	834.79	834.86
E	149+63.66	9.00 Rt.	834.74	834.80
F	149+73.66	9.00 Rt.	834.69	834.72
☉ N. Abut.	149+81.16	9.00 Rt.	834.66	834.66
Bk. N. Abut.	149+83.22	9.00 Rt.	834.65	834.65

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	149+07.02	18.00 Rt.	834.84	834.84
☉ S. Abut.	149+09.08	18.00 Rt.	834.83	834.83
A	149+19.08	18.00 Rt.	834.78	834.81
B	149+29.08	18.00 Rt.	834.73	834.79
C	149+39.08	18.00 Rt.	834.68	834.75
D	149+49.08	18.00 Rt.	834.63	834.70
E	149+59.08	18.00 Rt.	834.58	834.64
F	149+69.08	18.00 Rt.	834.53	834.55
☉ N. Abut.	149+76.58	18.00 Rt.	834.49	834.49
Bk. N. Abut.	149+78.64	18.00 Rt.	834.48	834.48

Note:  
Work this sheet with sheet S3.

FILE NAME = I:\8176 Franklinville over Kipwaukee\CADD\Structural\CADD\_Sheets\9563196-004-105 Elev\_2.dgn

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II  
STRUCTURE NO. 056-3196

SHEET NO. S4 OF S22 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	30
ILLINOIS			FED. AID PROJECT BRS-00331051	

CONTRACT NO. 61A22

WEST EDGE OF SHOULDER

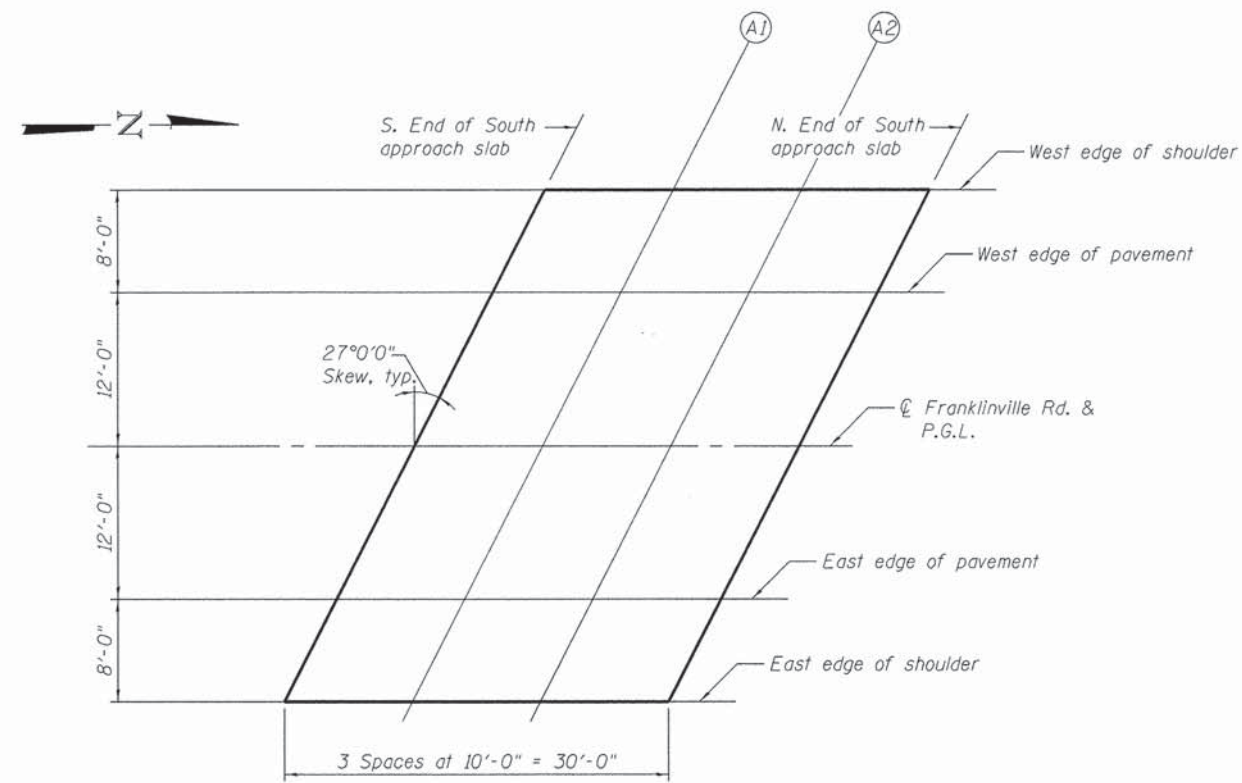
Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	148+97.51	20.00 Lt.	834.85
A1	149+07.51	20.00 Lt.	834.80
A2	149+17.51	20.00 Lt.	834.75
N. End of South Appr. Slab	149+27.51	20.00 Lt.	834.70

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	148+93.43	12.00 Lt.	835.03
A1	149+03.43	12.00 Lt.	834.98
A2	149+13.43	12.00 Lt.	834.93
N. End of South Appr. Slab	149+23.43	12.00 Lt.	834.88

CL ROADWAY AND PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	148+87.31	0.00	835.31
A1	148+97.31	0.00	835.26
A2	149+07.31	0.00	835.21
N. End of South Appr. Slab	149+17.31	0.00	835.16



**PLAN**  
South Approach

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	148+81.20	12.00 Rt.	835.09
A1	148+91.20	12.00 Rt.	835.04
A2	149+01.20	12.00 Rt.	834.99
N. End of South Appr. Slab	149+11.20	12.00 Rt.	834.94

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	148+77.12	20.00 Rt.	834.95
A1	148+87.12	20.00 Rt.	834.90
A2	148+97.12	20.00 Rt.	834.85
N. End of South Appr. Slab	149+07.12	20.00 Rt.	834.80

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SOUTH APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 056-3196**

F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 31
[ILLINOIS]			FED. AID PROJECT BRS-0033-11051	

SHEET NO. 55 OF 522 SHEETS



WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	149+96.88	20.00 Lt.	834.35
A3	150+06.88	20.00 Lt.	834.30
A4	150+16.88	20.00 Lt.	834.11
N. End of North Appr. Slab	150+26.88	20.00 Lt.	833.92

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	149+92.80	12.00 Lt.	834.54
A3	150+02.80	12.00 Lt.	834.49
A4	150+12.80	12.00 Lt.	834.33
N. End of North Appr. Slab	150+22.80	12.00 Lt.	834.14

☉ ROADWAY AND PROFILE GRADE

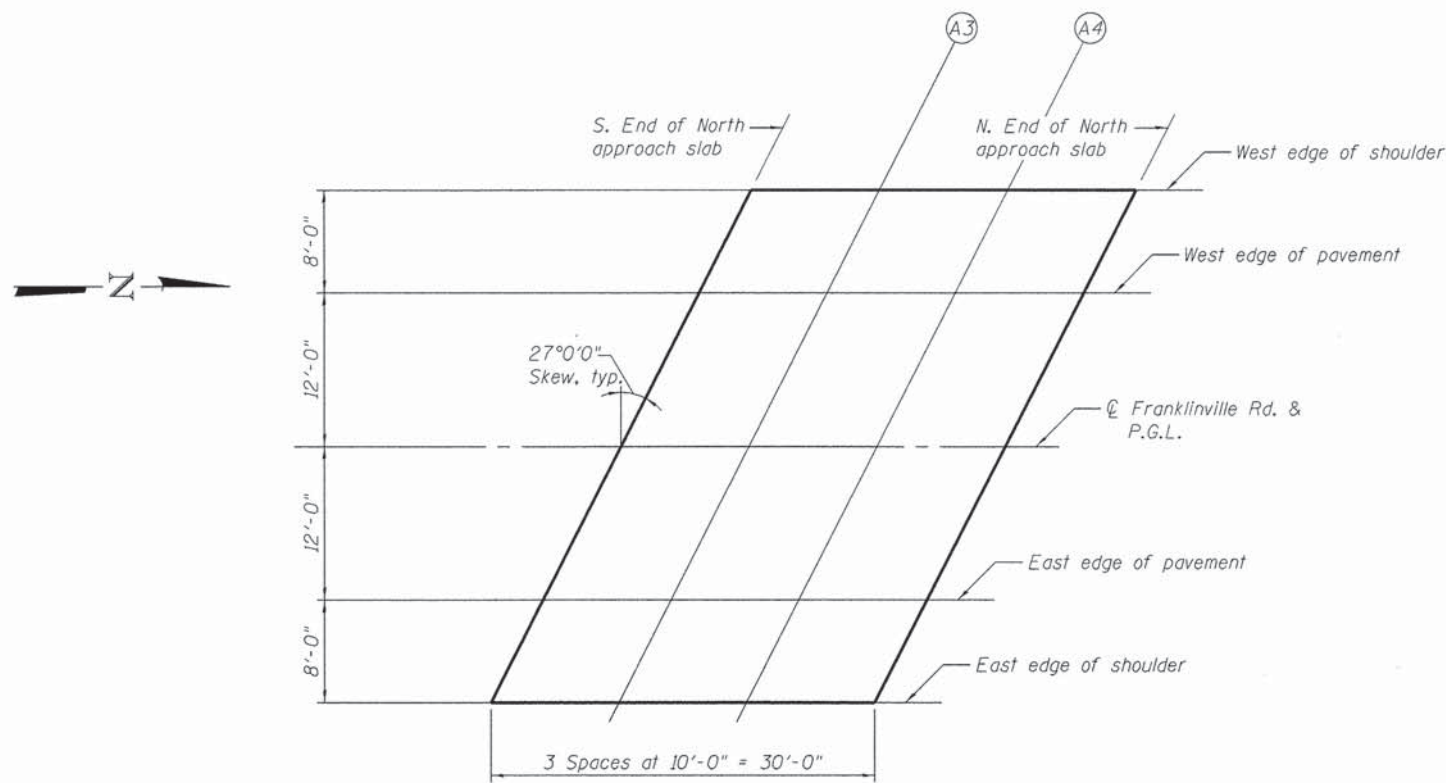
Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	149+86.69	0.00	834.82
A3	149+96.69	0.00	834.77
A4	150+06.69	0.00	834.65
N. End of North Appr. Slab	150+16.69	0.00	834.46

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	149+80.57	12.00 Rt.	834.60
A3	149+90.57	12.00 Rt.	834.55
A4	150+00.57	12.00 Rt.	834.47
N. End of North Appr. Slab	150+10.57	12.00 Rt.	834.28

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	149+76.49	20.00 Rt.	834.45
A3	149+86.49	20.00 Rt.	834.40
A4	149+96.49	20.00 Rt.	834.35
N. End of North Appr. Slab	150+06.49	20.00 Rt.	834.17



**PLAN**  
North Approach

FILE NAME: I:\8176 Franklinville over Kishwaukee\CADD\Structural\CADD Sheets\963196-005-TOS Elev North Appr.dgn

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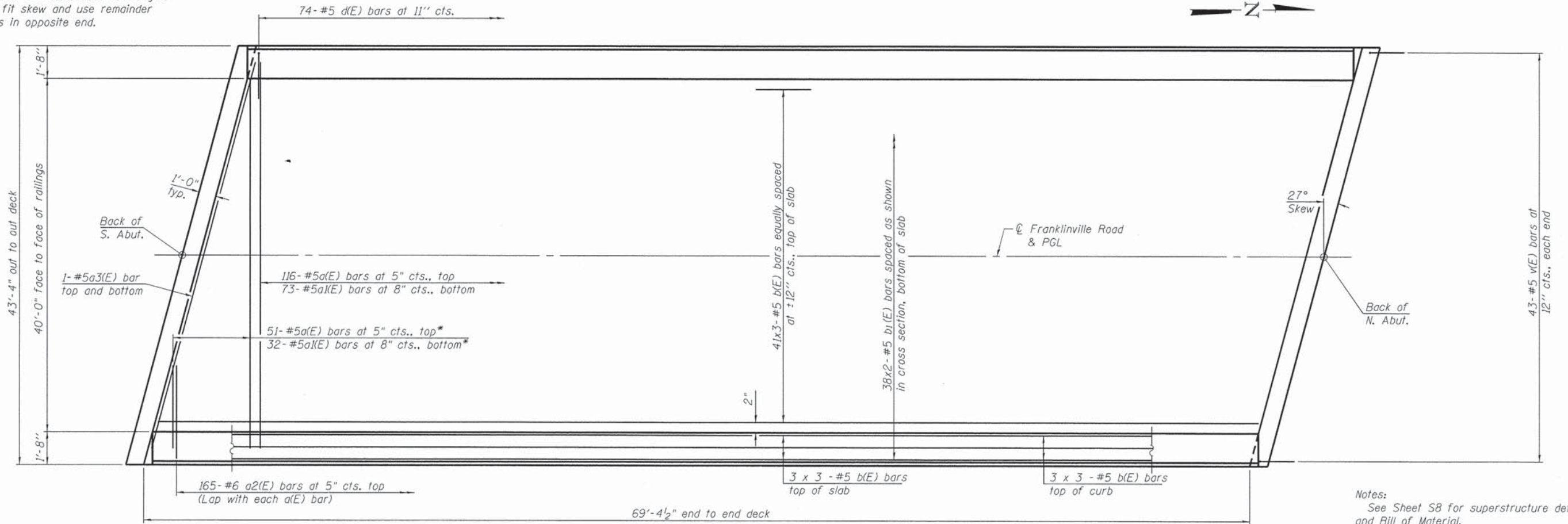
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**DEPARTMENT OF TRANSPORTATION**

**TOP OF NORTH APPROACH SLAB ELEVATIONS**  
**STRUCTURE NO. 056-3196**

SHEET NO. 56 OF 522 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	32
CONTRACT NO. 61A22			ILLINOIS FED. AID PROJECT BRS-0033109	

\* Order a(E) and a1(E) bars full length.  
Cut to fit skew and use remainder  
of bars in opposite end.

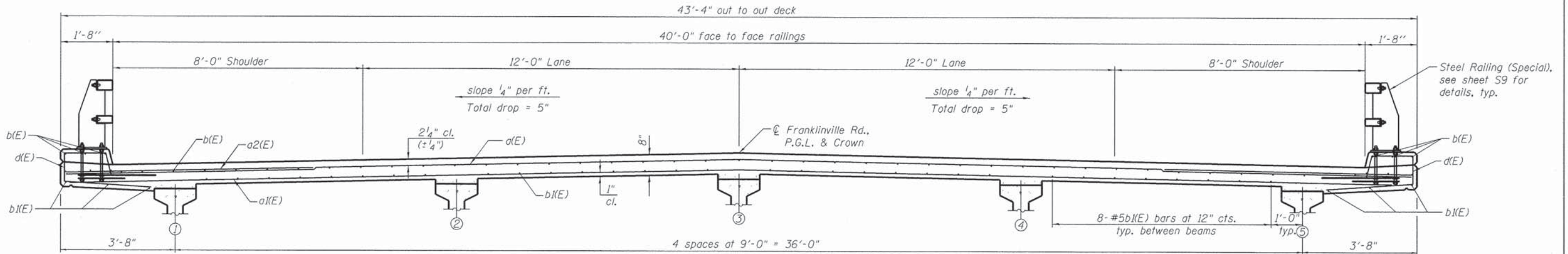


Notes:  
See Sheet S8 for superstructure details  
and Bill of Material.  
Bars indicated thus 20 x 3-#5 etc. indicates  
20 lines of bars with 3 lengths per line.  
See sheet S8 for curb reinforcement.

**MINIMUM BAR LAP**

#5 bar = 2'-7"

**PLAN**



**CROSS SECTION**  
(Looking North)

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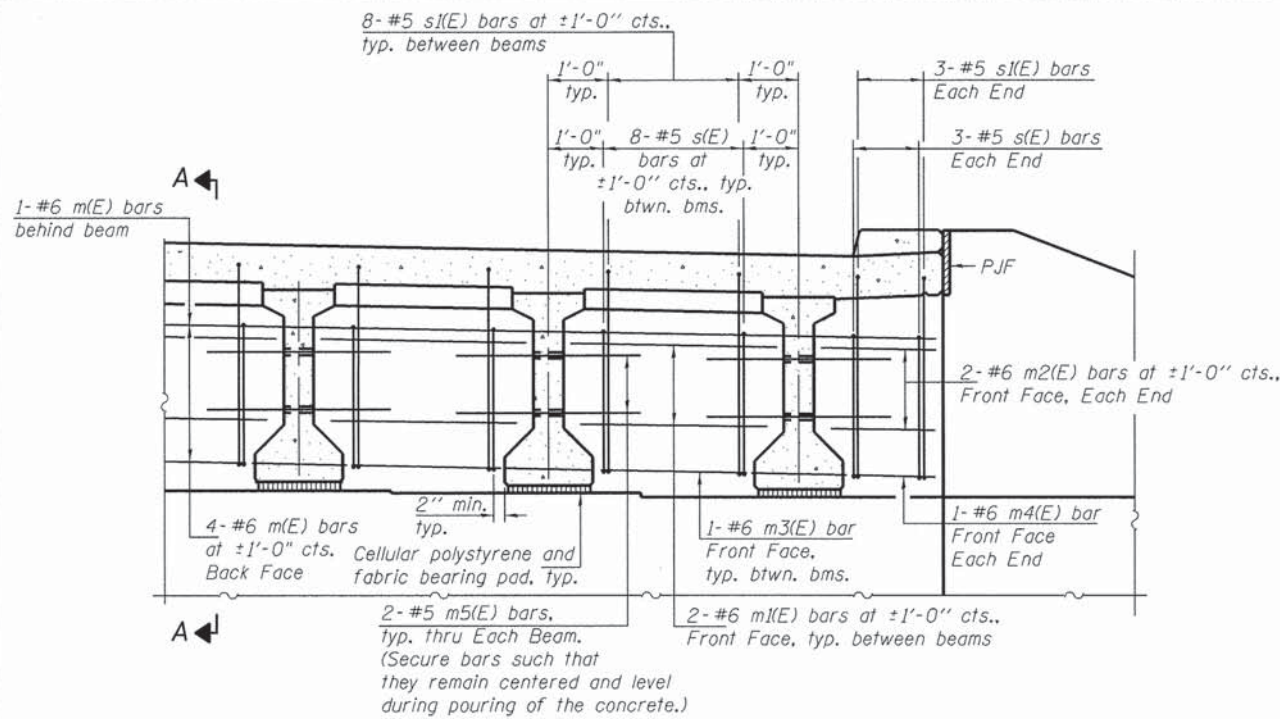
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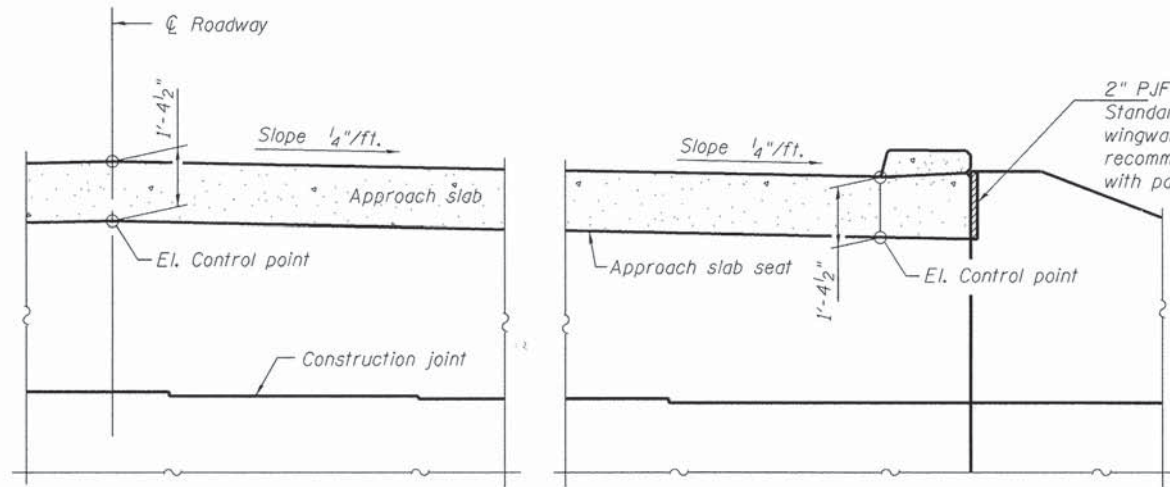
**SUPERSTRUCTURE**  
**STRUCTURE NO. 056-3196**

SHEET NO. 57 OF 522 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	33
CONTRACT NO. 61A22				
ILLINOIS FED. AID PROJECT BR5-0033(105)				



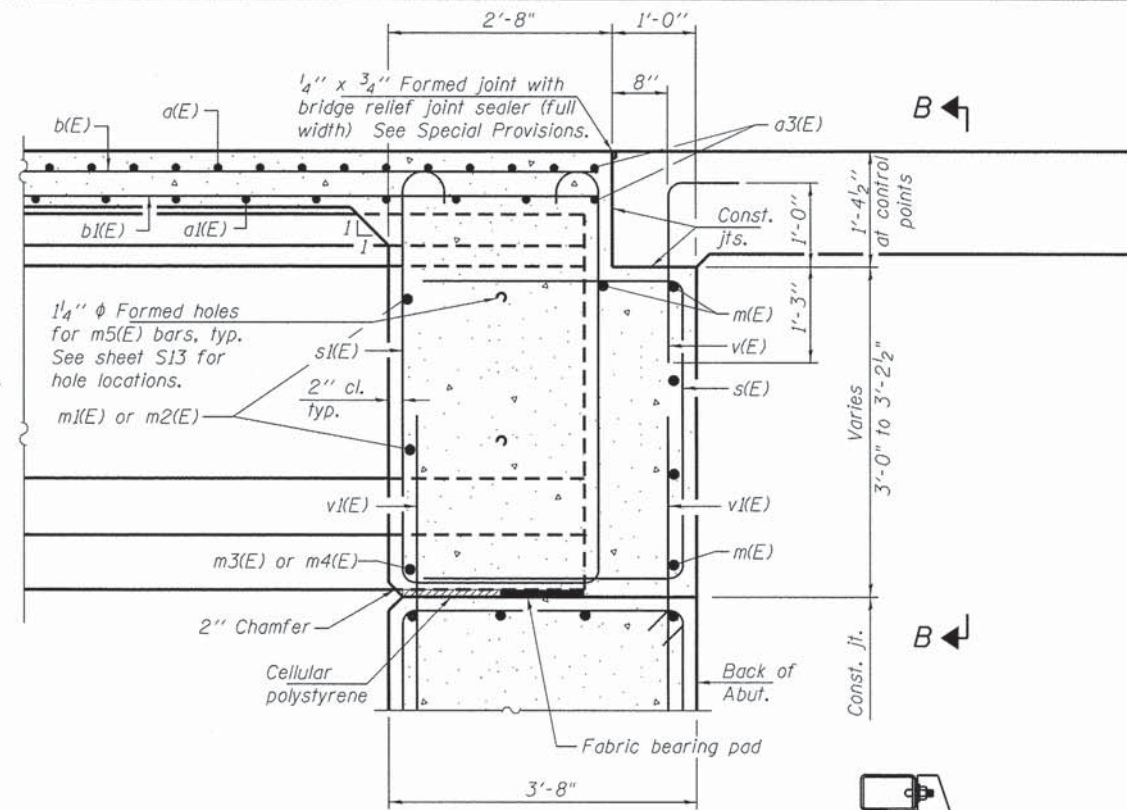
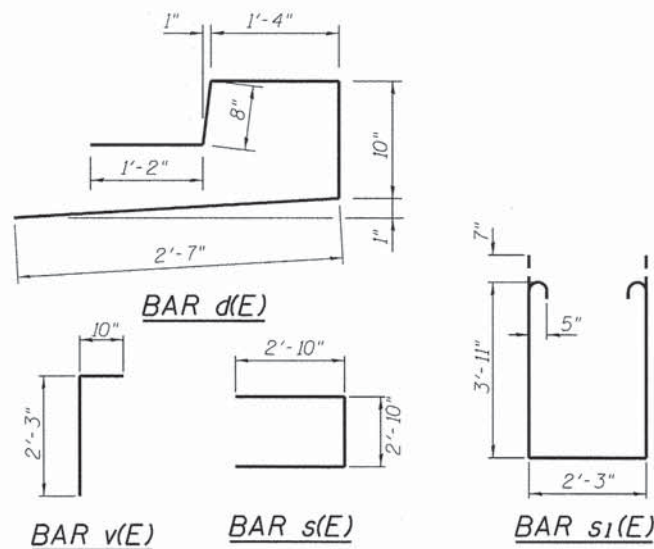
**DIAPHRAGM ELEVATION AT ABUTMENT**



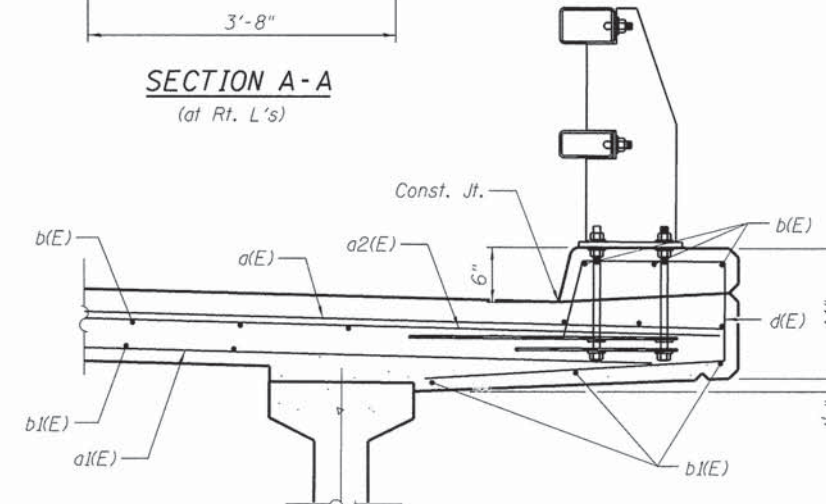
**SECTION B-B**

**ELEVATION CONTROL POINTS**

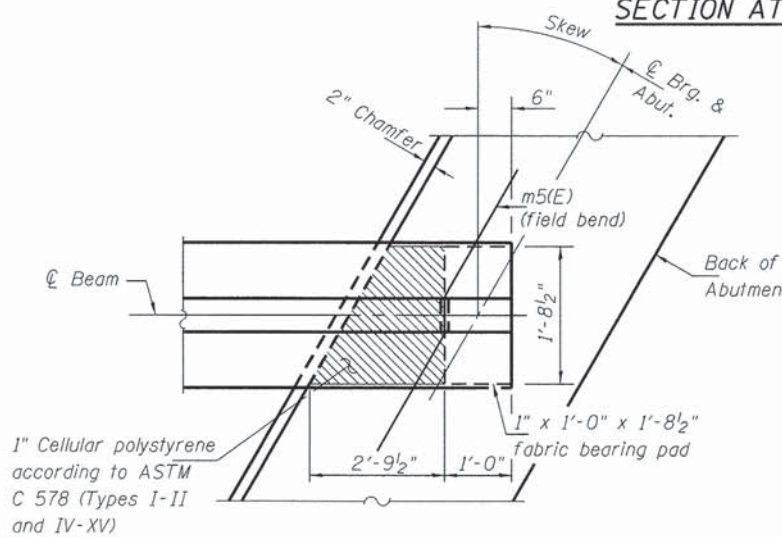
Location	Elev.
S. Abut. at West Curb	833.34
S. Abut. at $\odot$ Rdwy.	833.79
S. Abut. at East Curb	833.44
N. Abut. at West Curb	833.00
N. Abut. at $\odot$ Rdwy.	833.45
N. Abut. at East Curb	833.10



**SECTION A-A**  
(at Rt. L's)



**SECTION AT CURB**



**PARTIAL PLAN AT ABUTMENT**  
(Showing bottom flange of beam)

**SUPERSTRUCTURE**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	167	#5	43'-0"	—
a1(E)	105	#5	43'-0"	—
a2(E)	165	#6	6'-6"	—
a3(E)	4	#5	48'-4"	—
b(E)	159	#5	25'-2"	—
b1(E)	76	#5	37'-9"	—
d(E)	148	#5	6'-7"	⌋
m(E)	10	#6	48'-4"	—
m1(E)	16	#6	9'-4"	—
m2(E)	8	#6	3'-5"	—
m3(E)	8	#6	4'-3"	—
m4(E)	4	#6	1'-1"	—
m5(E)	20	#5	4'-0"	—
s(E)	76	#5	8'-7"	⌋
s1(E)	76	#5	19'-1"	⌋
v(E)	86	#5	3'-1"	⌋
Reinforcement Bars, Epoxy Coated		Lbs.	25,840	
Concrete Superstructure		Cu. Yds.	134.9	
Bridge Deck Grooving		Sq. Yds.	293	
Protective Coat		Sq. Yds.	365	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

**Notes:**

- Concrete in diaphragm is included with Concrete Superstructure. For details of v(E) bar see sheets S15 and S16.
- The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
- The approach slab seat shall have a constant slope determined from the control points shown.
- Cost of cellular polystyrene is included with Concrete Superstructure.

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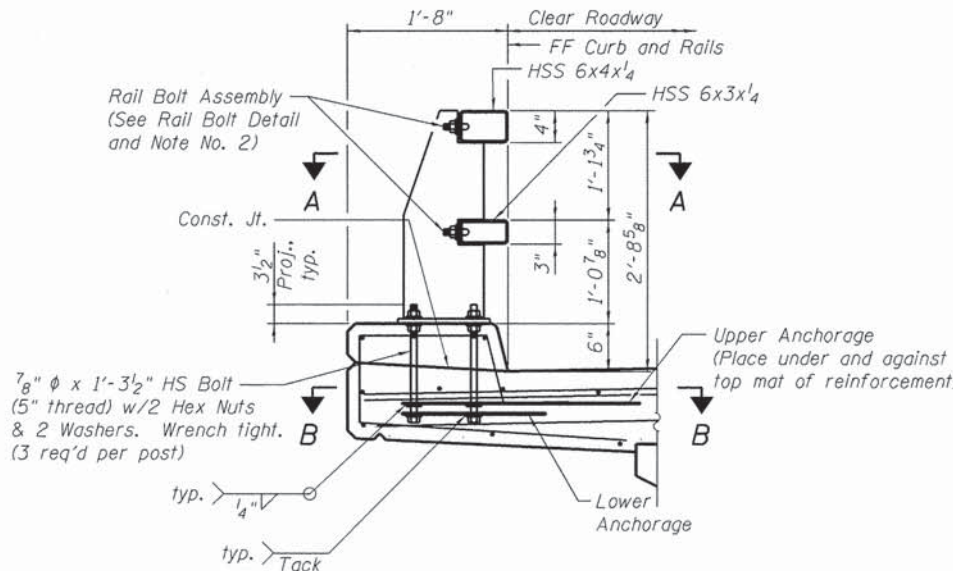
**DIAPHRAGM DETAILS**  
**STRUCTURE NO. 056-3196**

SHEET NO. 58 OF 522 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	34

CONTRACT NO. 61A22

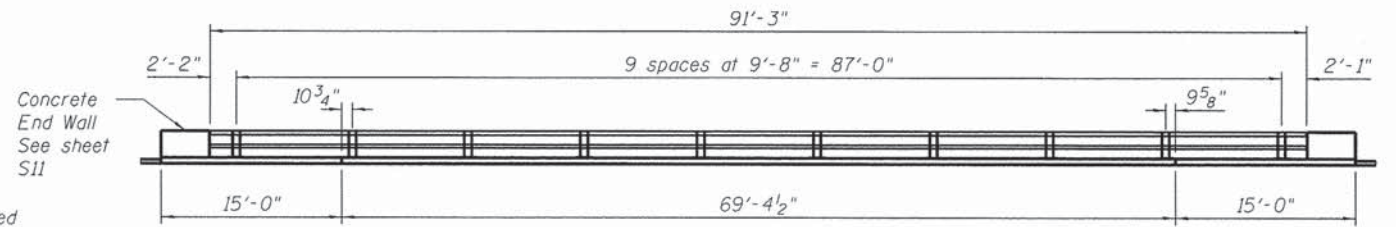
ILLINOIS FED. AID PROJECT BRS-0033105



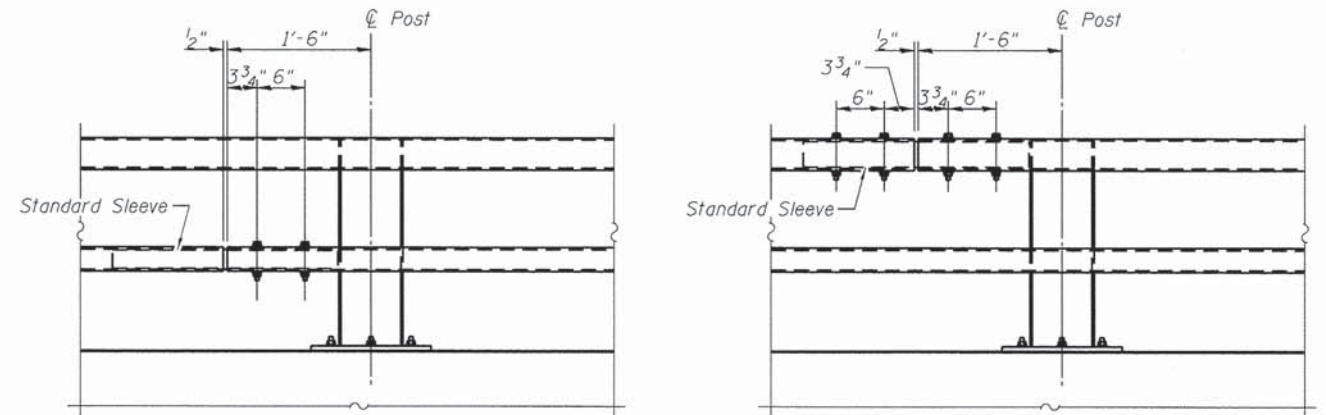
**ASSEMBLY DETAIL**

(Shown near Post)  
(Bridge Slab shown, approach slab similar)

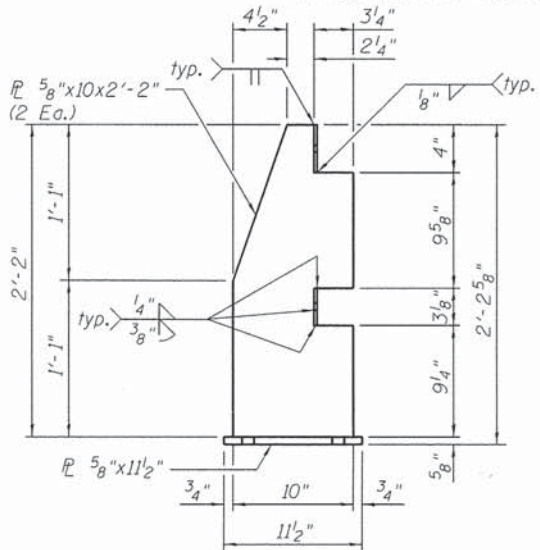
- Notes:
1. Anchor bolts may be tack welded to lower anchorage (Shop or field).
  2. At post locations, drill two 1 1/16"  $\phi$  holes in the rails to receive rail bolts (Shop or field). See Post Details for hole spacing.
  3. Before installing rails, paint all cut, drilled, or otherwise damaged surface areas of the railing components with two coats of an approved zinc rich paint.
  4. After installing the rails, paint all exposed bolt threads with two coats of zinc rich paint.
  5. Splices may be located on either side of post.
  6. Not more than one splice is permitted per side of post.
  7. Do not shop splice rails.
  8. Slots may be omitted in standard sleeves where bolts are required on one side of splice only.
  9. All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
  10. 9'-9" maximum spacing center to center of posts



**BRIDGE RAILING ELEVATION**

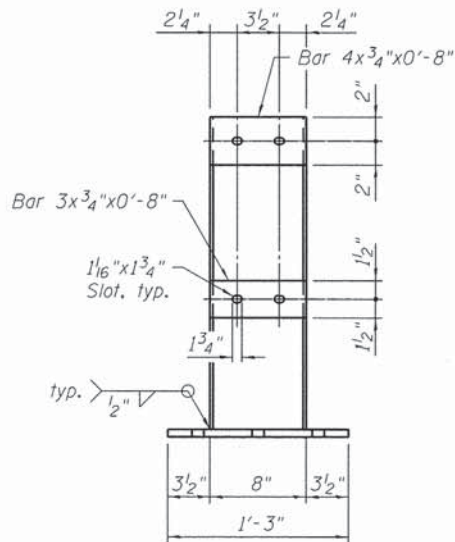


**SPlice DETAILS**

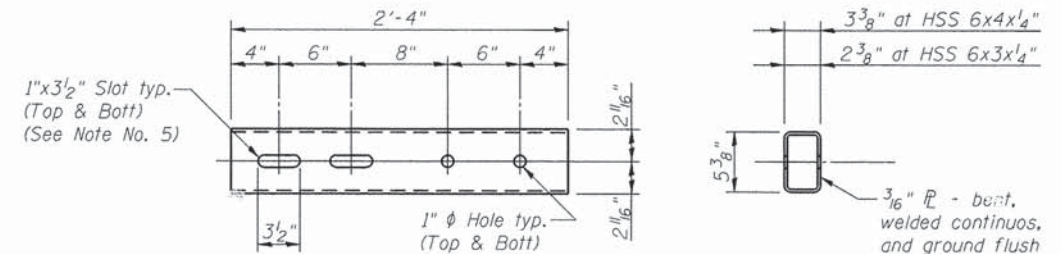


**POST DETAILS**

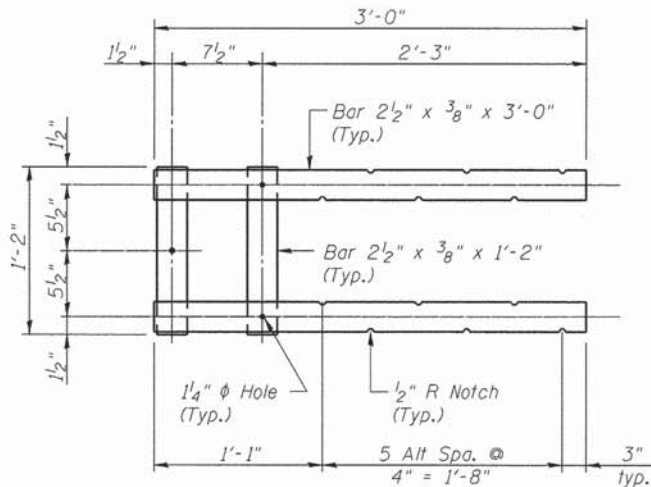
(See View A-A for Anchor Bolt Hole Spacing)



**RAIL BOLT DETAIL**

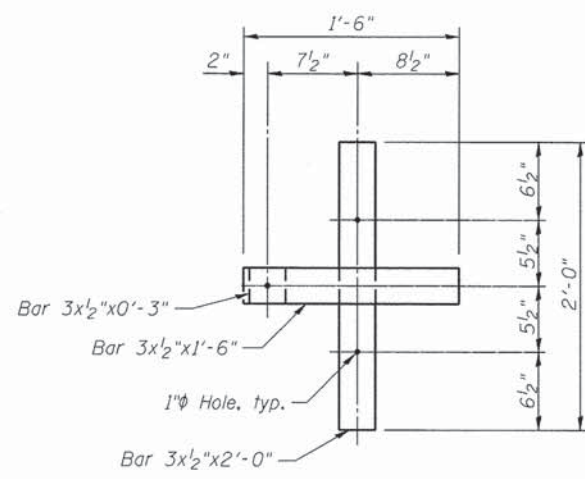


**STANDARD SLEEVE DETAILS**



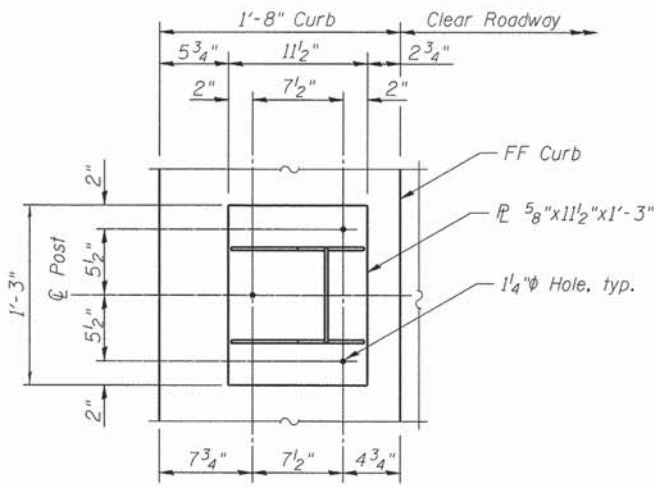
**SECTION B-B**

(Showing upper anchorage)  
(Anchor bolts and slab not shown)



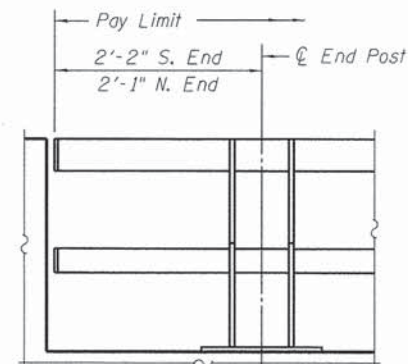
**SECTION B-B**

(Showing lower anchorage)  
(Anchor bolts and slab not shown)



**VIEW A-A**

(Anchor bolts, rails, and rail bolts not shown)



**ELEVATION AT TERMINAL**

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, (Special)	Foot	183

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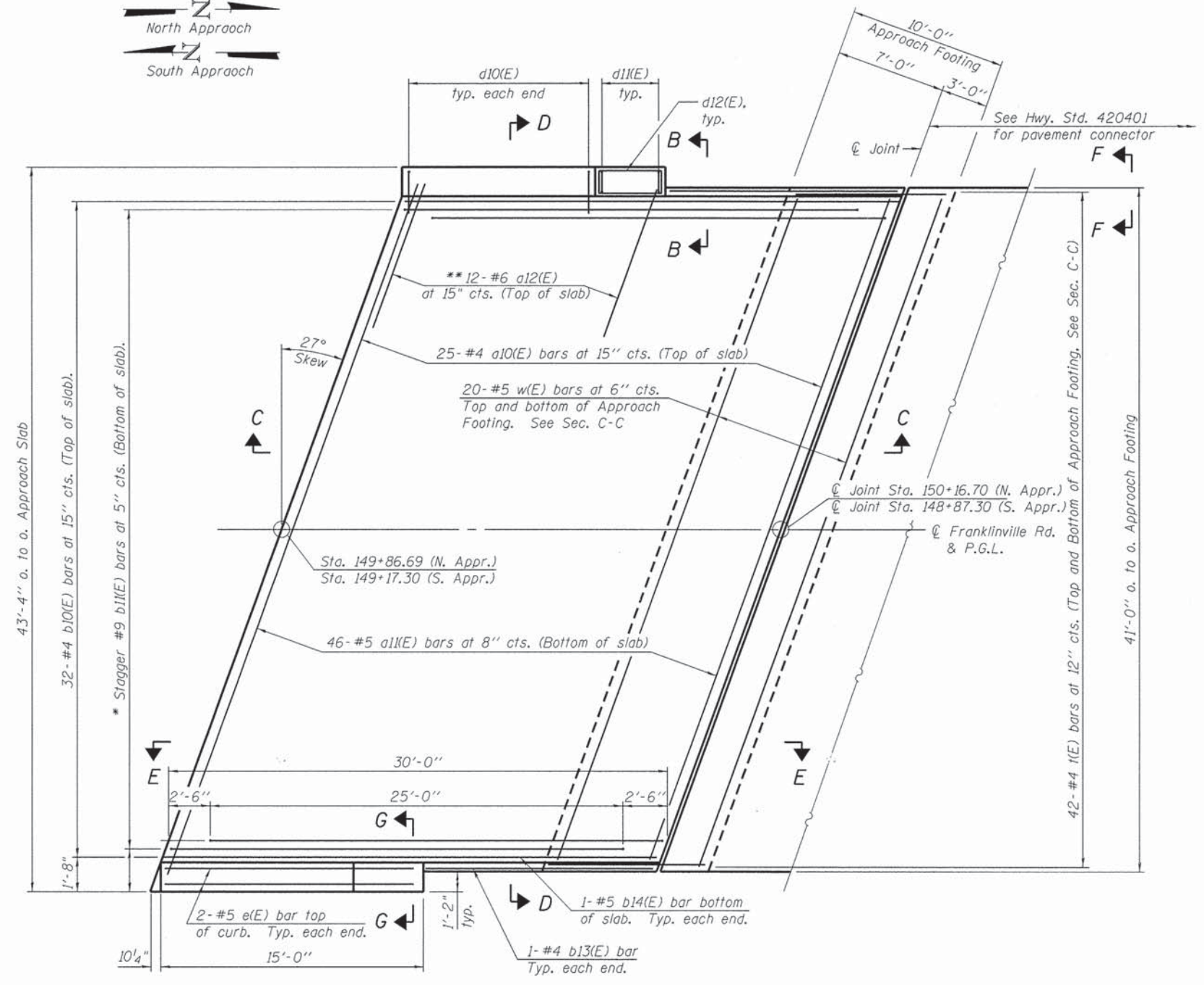
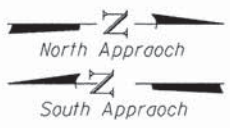
**STATE OF ILLINOIS  
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**SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 056-3196**

SHEET NO. 59 OF 52 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	35

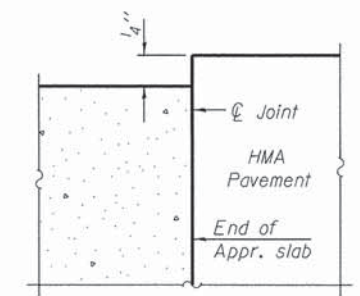
CONTRACT NO. 61A22  
ILLINOIS FED. AID PROJECT BRS-0033105



PLAN

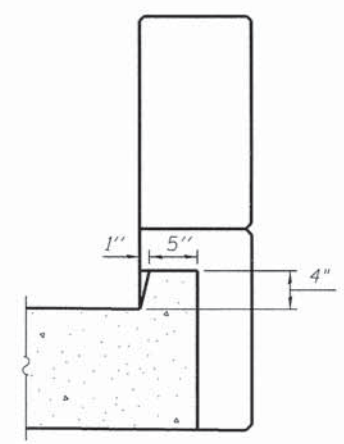
\* Tilt #9 b11(E) bars as required to maintain clearance.  
 \*\* Space between a10(E) bars, typical each side.

Notes:  
 See sheet S11 for Sections C-C, D-D & G-G and View E-E.  
 a1(E) and a1(E) bar spacings measured along C Rdwy.  
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1/2" for installation purposes.



FLEXIBLE PAVEMENT

DETAIL A  
See sheet S11



VIEW B-B

FILE NAME = I:\B176 Franklinville over Kishwaukee.CADD\Structural\CADD Sheets\9863196-018-Bridge Appr. Slab Data Ldgn

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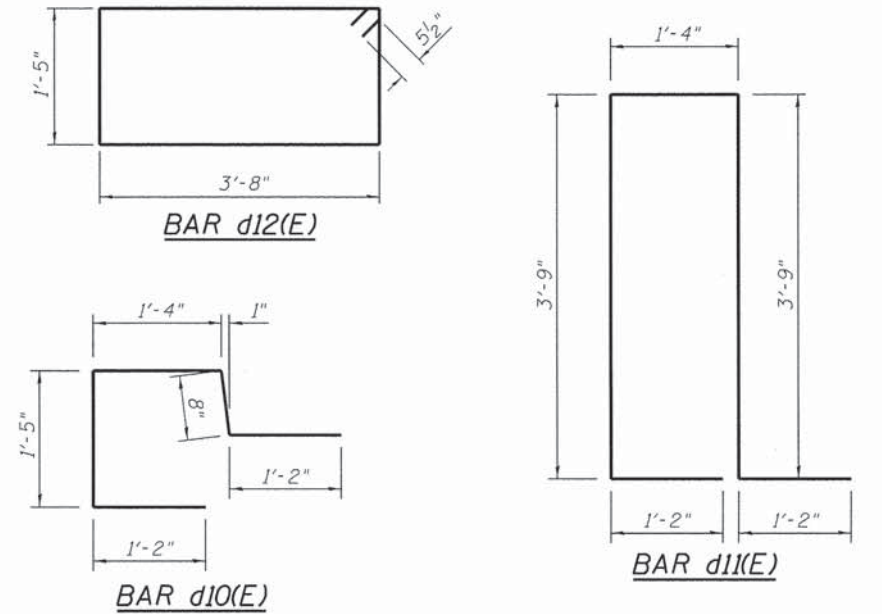
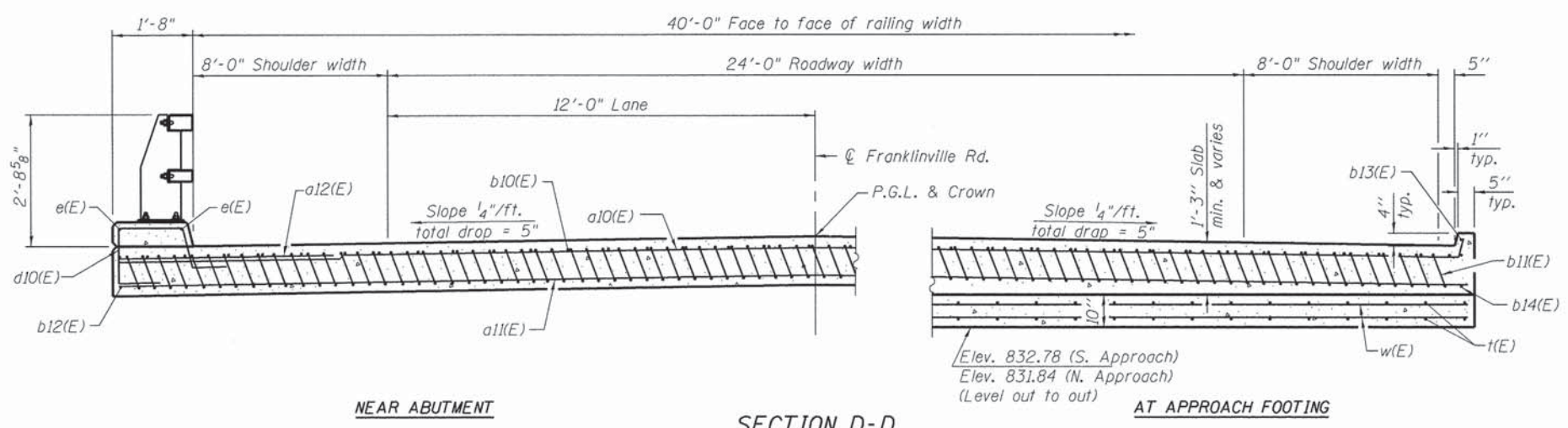
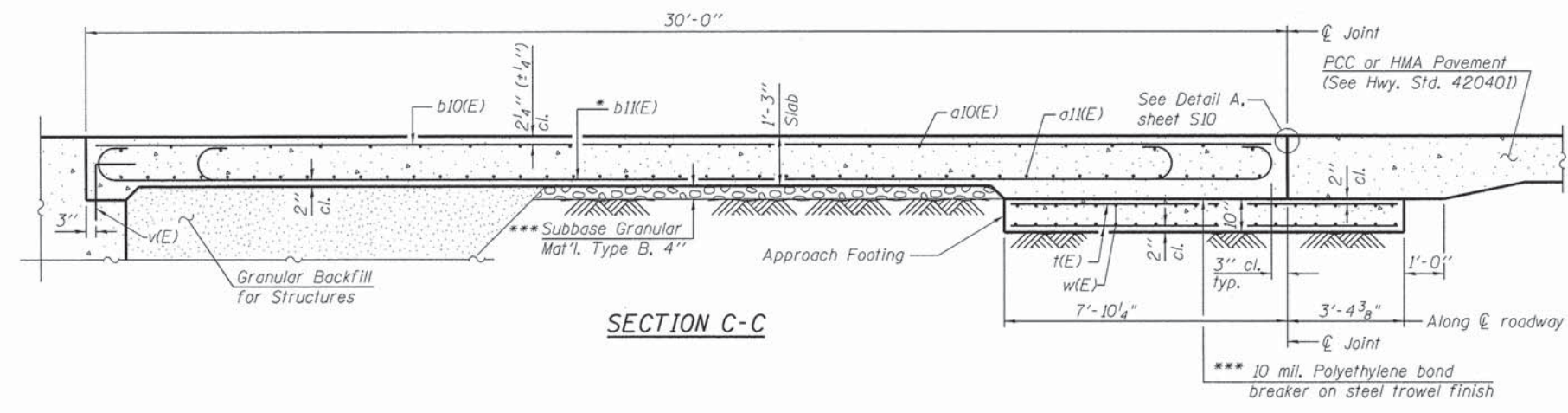
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BRIDGE APPROACH SLAB DETAILS I  
 STRUCTURE NO. 056-3196

SHEET NO. S10 OF S22 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	36
ILLINOIS			CONTRACT NO. 61A22	
FED. AID PROJECT BRS-0033(105)				

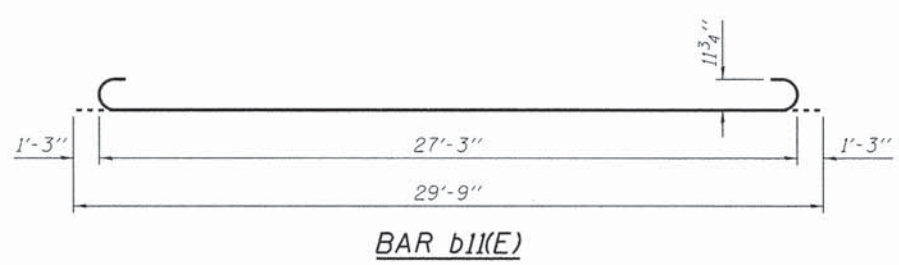
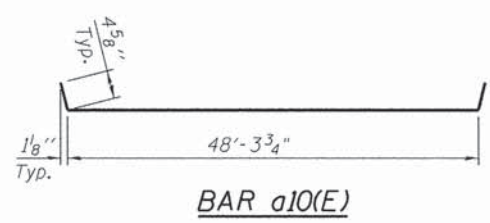
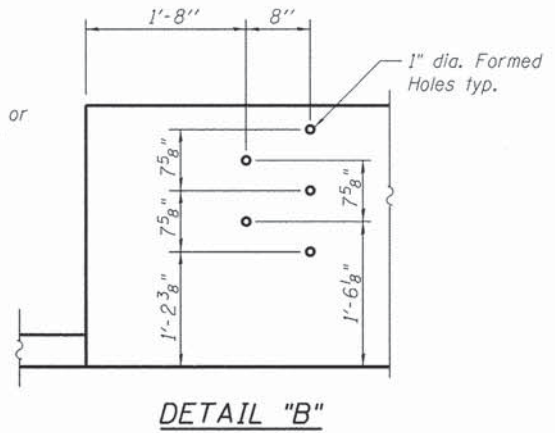
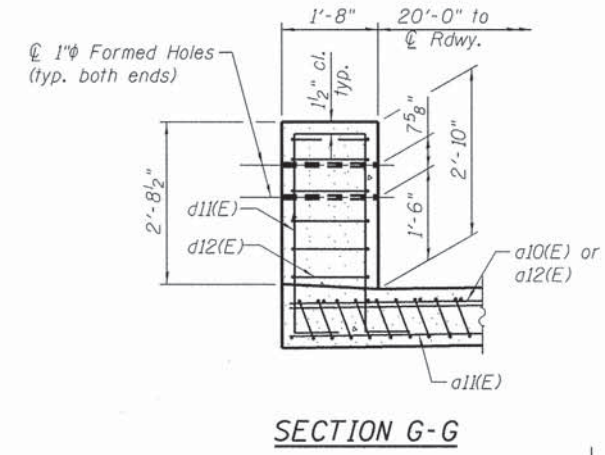
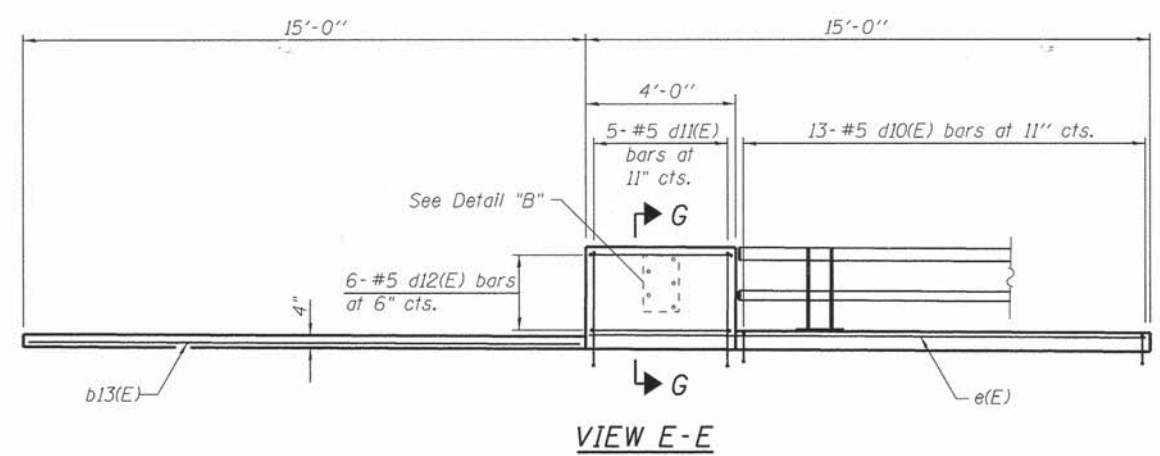
Notes:  
 See sheet S10 for Detail A and View B-B.  
 Approach slab and curb concrete shall be paid for as Concrete Superstructure.  
 Approach footing concrete shall be paid for as Concrete Structures.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 For v(E) bar details, see sheet S8.  
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Granular Backfill for Structures and drainage treatment details, see sheet S2.  
 For additional railing details, see sheet S9.



\* Tilt #9 b11(E) bars as required to maintain clearance.  
 \*\*\* Cost included with Concrete Superstructure.

**TWO APPROACHES  
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a10(E)	50	#4	49'-1"	┌───┐
a11(E)	92	#5	48'-4"	┌───┐
a12(E)	48	#6	6'-6"	┌───┐
b10(E)	64	#4	29'-8"	┌───┐
b11(E)	194	#9	29'-9"	┌───┐
b12(E)	4	#4	14'-8"	┌───┐
b13(E)	4	#4	14'-8"	┌───┐
b14(E)	4	#5	29'-8"	┌───┐
d10(E)	57	#5	5'-9"	┌───┐
d11(E)	10	#5	11'-2"	┌───┐
d12(E)	12	#5	11'-1"	┌───┐
e(E)	8	#5	14'-8"	┌───┐
t(E)	168	#4	10'-11"	┌───┐
w(E)	80	#5	48'-4"	┌───┐
Concrete Superstructure			Cu. Yd.	123.0
Concrete Structures			Cu. Yd.	28.4
Reinforcement Bars, Epoxy Coated			Pound	18,660



FILE NAME = I:\8176 Franklinville over Kishwaukee\CADD\Structural\CADD Sheets\0563196-01-Br-Bridge Appr Slab Detl 2.dgn

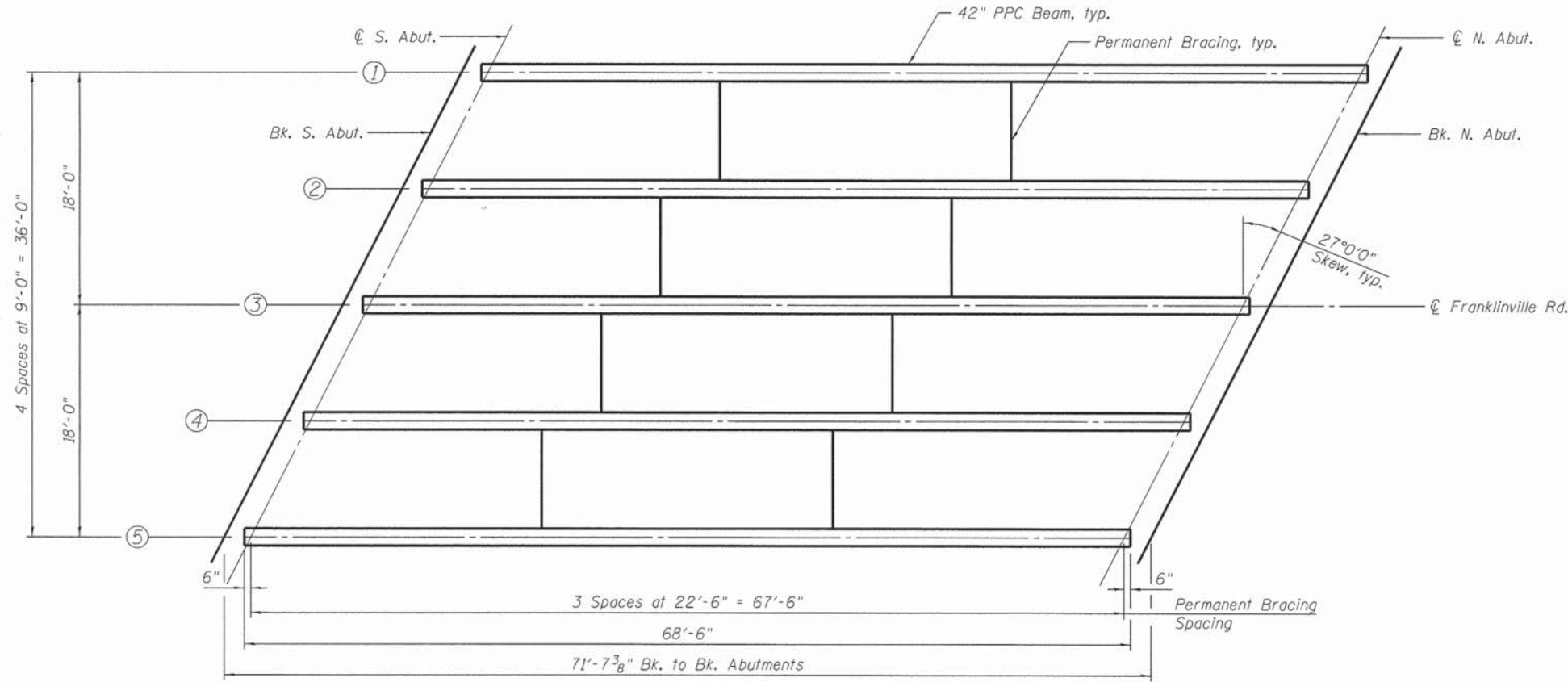
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BRIDGE APPROACH SLAB DETAILS II  
 STRUCTURE NO. 056-3196  
 SHEET NO. S11 OF S22 SHEETS

F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 37
CONTRACT NO. 61A22			ILLINOIS FED. AID PROJECT BRD-0033106	

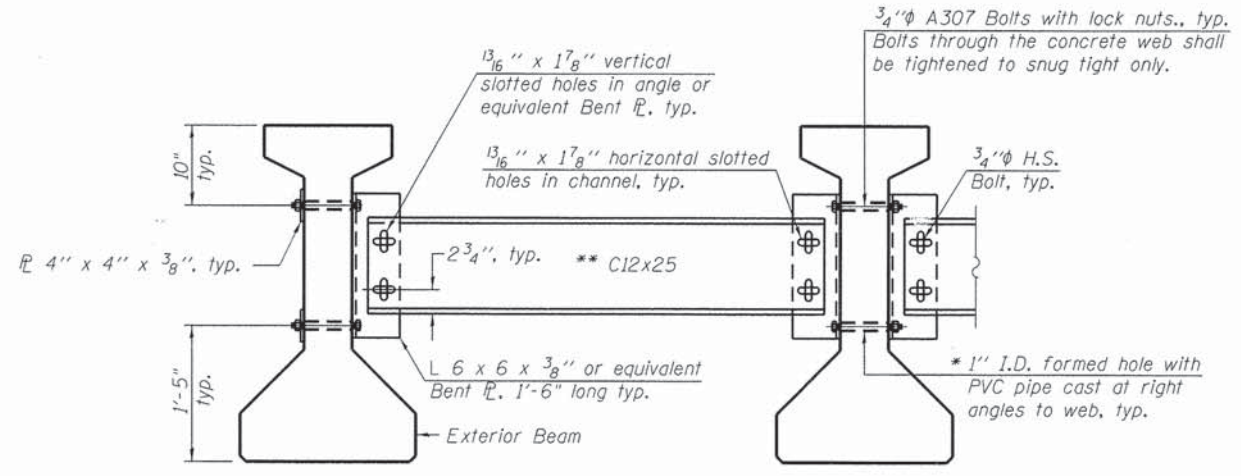


**FRAMING PLAN**

INTERIOR BEAM MOMENT TABLE		
		0.5 Span
$I$	(in <sup>4</sup> )	90,956
$I'$	(in <sup>4</sup> )	306,297
$S_b$	(in <sup>3</sup> )	5,153
$S_b'$	(in <sup>3</sup> )	9,074
$S_t$	(in <sup>3</sup> )	3,736
$S_t'$	(in <sup>3</sup> )	37,150
$DC1$	(k/ft)	1.410
$M_{DC1}$	(k)	803
$DC2$	(k/ft)	0.068
$M_{DC2}$	(k)	39
$DW$	(k/ft)	0.450
$M_{DW}$	(k)	256
$M_L + IM$	(k)	1,271

INTERIOR BEAM REACTION TABLE		
		Abut.
$R_{DC1}$	(k)	47.6
$R_{DC2}$	(k)	2.3
$R_{DW}$	(k)	15.2
$R_L + IM$	(k)	101.4
$R_{Total}$	(k)	166.5

$I$ : Non-composite moment of inertia of beam section (in<sup>4</sup>).  
 $I'$ : Composite moment of inertia of beam section (in<sup>4</sup>).  
 $S_b$ : Non-composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).  
 $S_b'$ : Composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).  
 $S_t$ : Non-composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).  
 $S_t'$ : Composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).  
 $DC1$ : Un-factored non-composite dead load (kips/ft.).  
 $M_{DC1}$ : Un-factored moment due to non-composite dead load (kip-ft.).  
 $DC2$ : Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).  
 $M_{DC2}$ : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).  
 $DW$ : Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).  
 $M_{DW}$ : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).  
 $M_L + IM$ : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).



**Notes:**  
 All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted. Two hardened washers are required for each set of oversized holes.  
 All holes shall be 1/16" φ unless otherwise noted. 3/16" x 3" x 3" plate washers are required over all slotted holes.  
 All bolts shall be galvanized according to AASHTO M232. Bracing shall be installed as beams are erected and tightened as soon as possible during erection. Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete I-Beams.  
 \* Fabricator shall locate to miss strands within permissible tolerances.  
 \*\* Alternate C12x30 channels are permitted to facilitate material acquisition.

**PERMANENT BRACING DETAILS**

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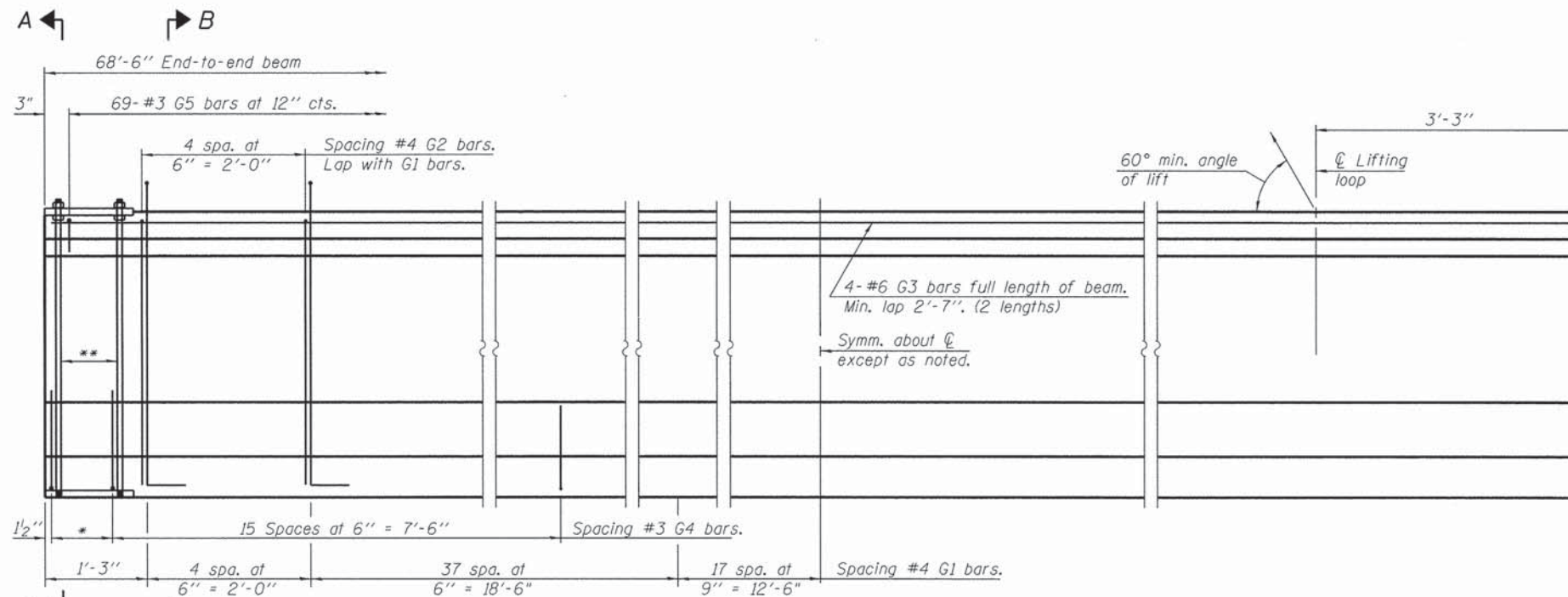
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**FRAMING PLAN  
 STRUCTURE NO. 056-3196**  
 SHEET NO. S12 OF S22 SHEETS

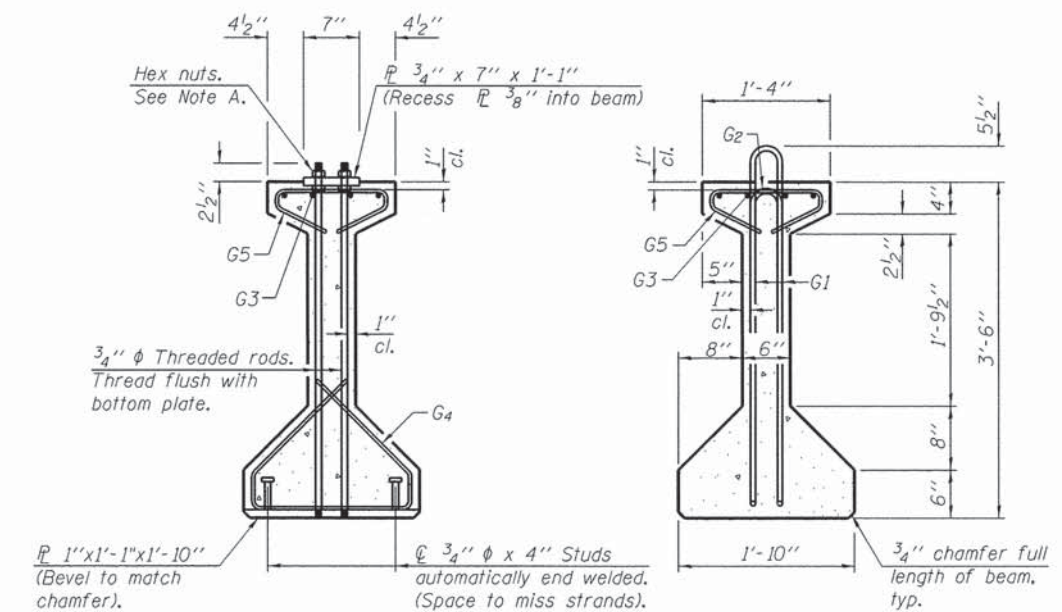
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0033	10-00379-00-BR	MCHENRY	56	38
ILLINOIS				FED. AID PROJECT BRS-00331057



**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)

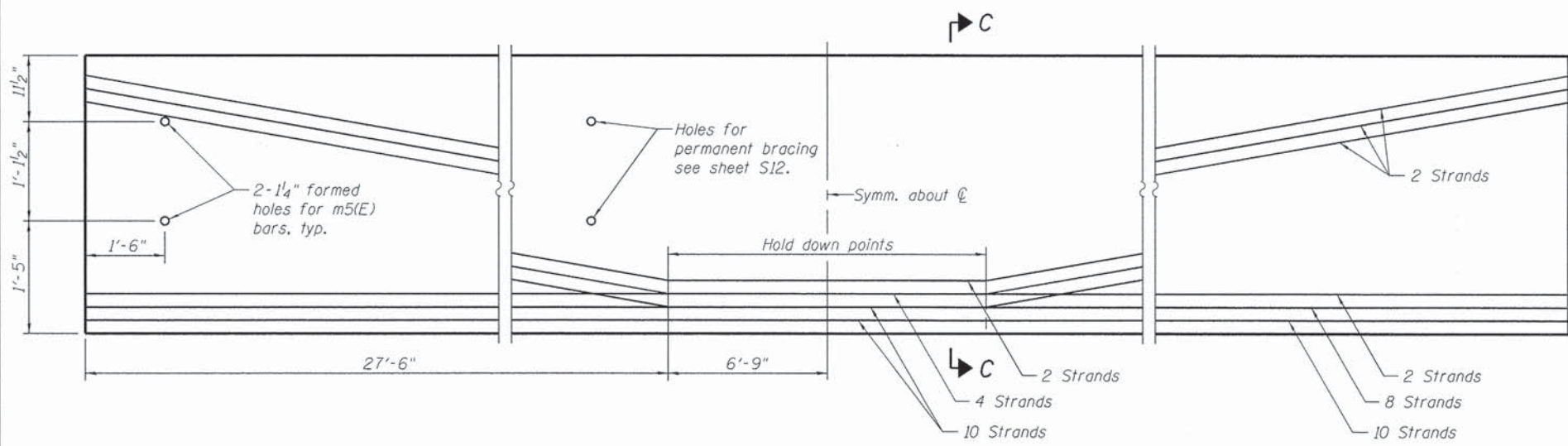
\*3 spaces at 3" = 9"  
\*\*4-3/4" φ threaded dowel rods at 3" cts., Each Face.

Note A:  
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



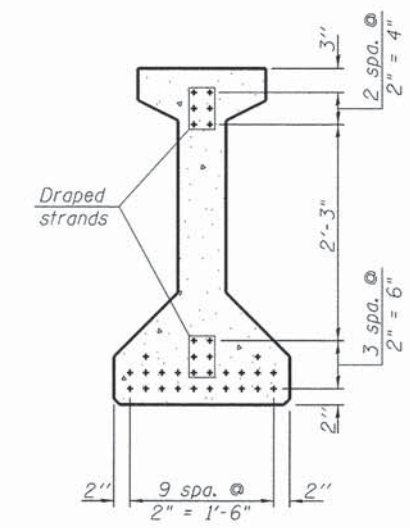
**SECTION A-A**

**SECTION B-B**



**ELEVATION OF BEAM**  
(Showing prestressing steel)

For details at m5(E) bars see sheet S8.



**SECTION C-C**

**\*\*\*BAR LIST  
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G1	118	#4	8'-7"	∩
G2	10	#4	6'-8"	∩
G3	8	#6	35'-4"	—
G4	38	#3	4'-11"	∩
G5	69	#3	2'-6"	∩

\*\*\*For information only

Notes:  
See sheet S14 for additional details and Bill of Material.  
Required release strength, f'ci, shall be 6,000 psi.

FILE NAME: J:\8176 Franklinville over Kishwaukee\CADD\Structural\CADD Sheets\9563196-813-42 in PPC I-Beam Data Log.dgn

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42" PPC I-BEAM DETAILS I  
STRUCTURE NO. 056-3196  
SHEET NO. S13 OF S22 SHEETS

F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 39
CONTRACT NO. 61A22			ILLINOIS FED. AID PROJECT BR5-0033105	



**NOTES**

Inserts for  $\frac{3}{4}$ "  $\phi$  threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be  $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

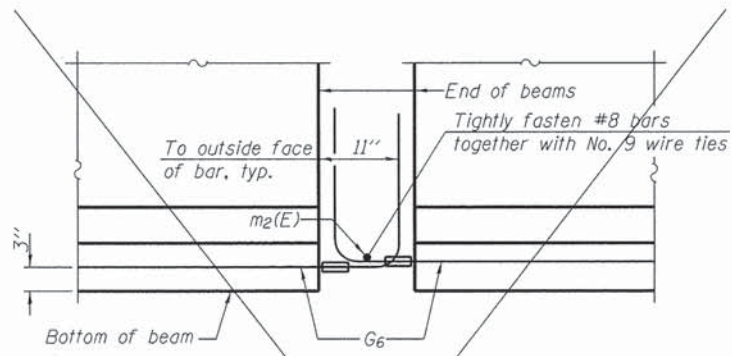
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions): A minimum  $2\frac{1}{2}$ "  $\phi$  lifting pin shall be used to engage the lifting loops during handling. Tilt  $G_6$  bars when necessary to maintain  $1\frac{1}{2}$ " clearance.

The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized.

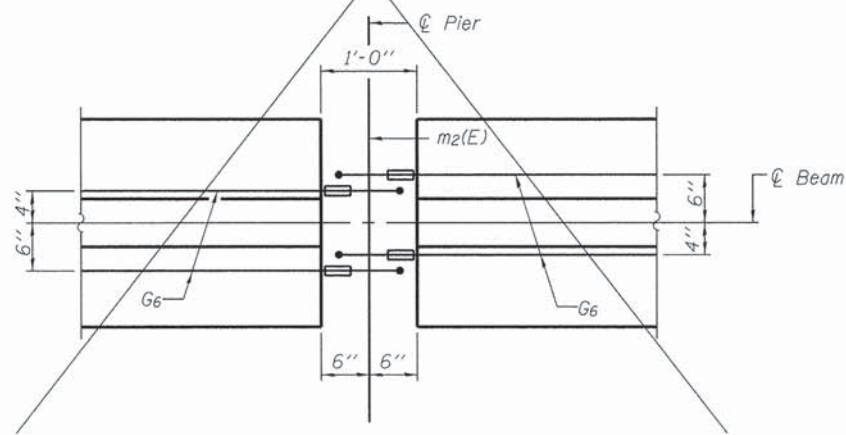
Threaded rods shall be ASTM F 1554 Grade 55.

The  $G_6$  bar assembly shall be capable of developing 125 percent of the yield strength of the grade 60 reinforcement bar components. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

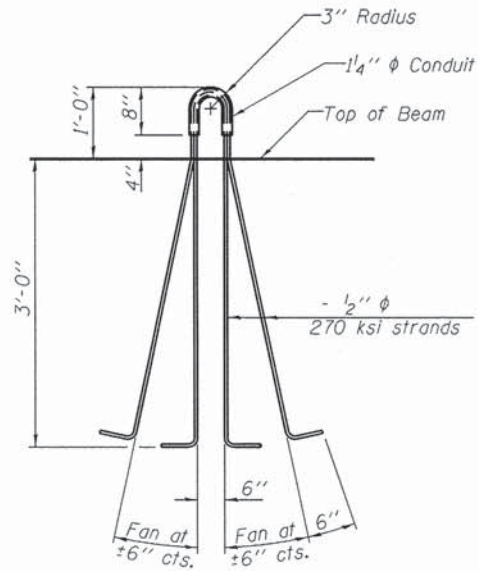
Beams requiring  $G_6$  bar assemblies shall not be released from the fabricator until they have attained 45 days of age or older.



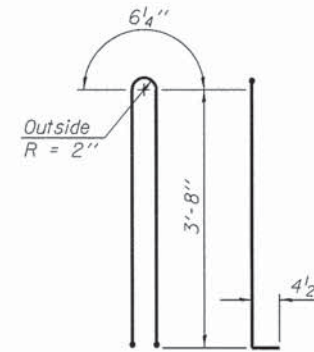
**ELEVATION OF BEAM AT PIER**



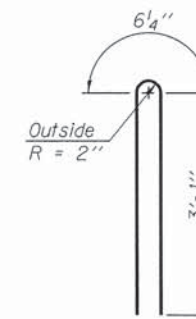
**PLAN OF BEAM AT PIER**



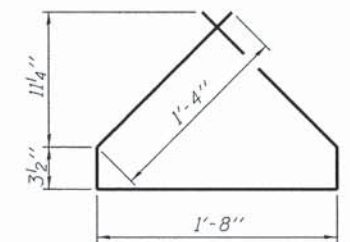
**LIFTING LOOP DETAIL**



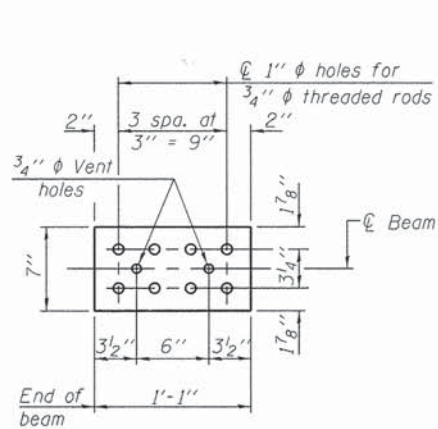
**BAR G1**



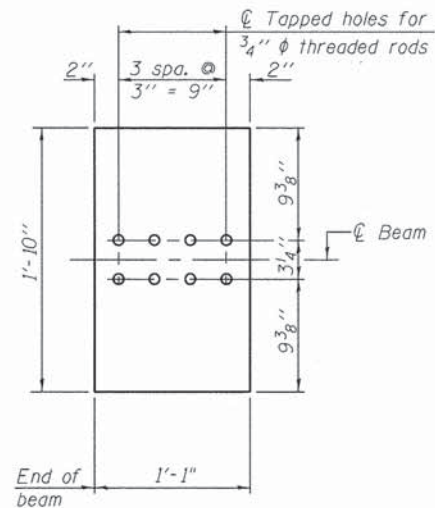
**BAR G2**



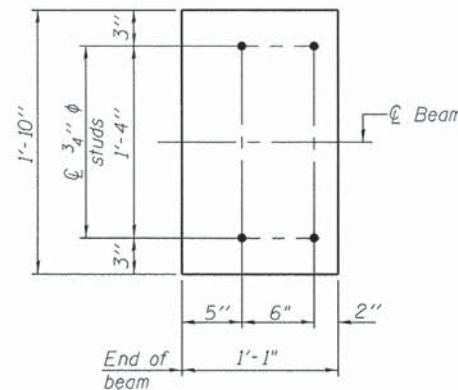
**BAR G4**



**TOP PLATE**

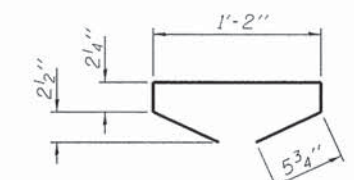


**BOTTOM PLATE (Showing threaded rods)**



**BOTTOM PLATE (Showing studs)**

See bearing details for pintle hole locations when required.



**BAR G5**

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	343

FILE NAME = J:\8176 Franklinville over Kishwaukee\CADD\Structural\CADD Sheets\9563196-014-42 in PPC I-Beam Deta 2.dgn

PI-4-42D

11-16-12

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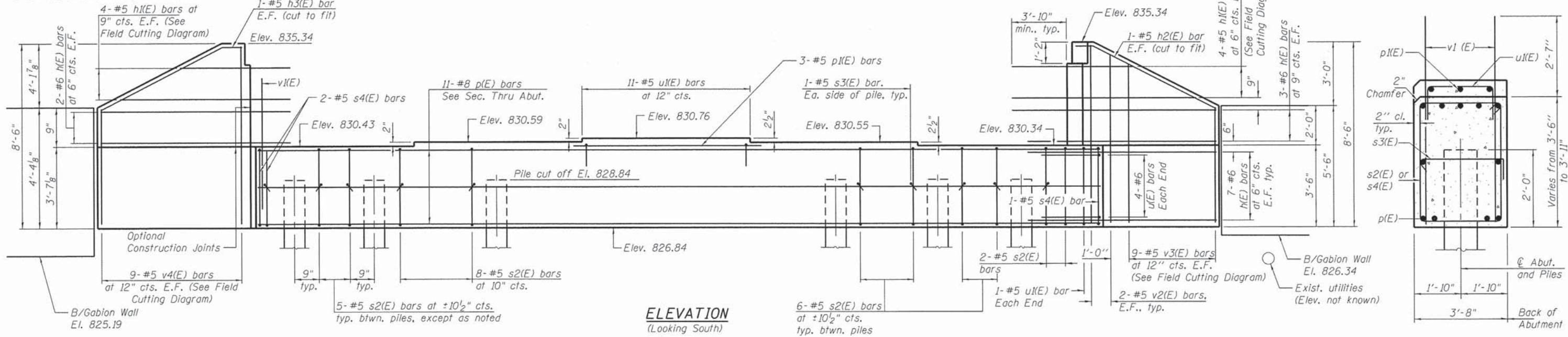
**STATE OF ILLINOIS  
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**42" PPC I-BEAM DETAILS II  
STRUCTURE NO. 056-3196**

SHEET NO. 514 OF 522 SHEETS

F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 40
ILLINOIS			FED. AID PROJECT BR5-0033(105)	

Notes:  
Pour steps monolithically with cap.



**SEC. THRU ABUT.**

Dimensions at right angles to abutment.

**BILL OF MATERIAL**

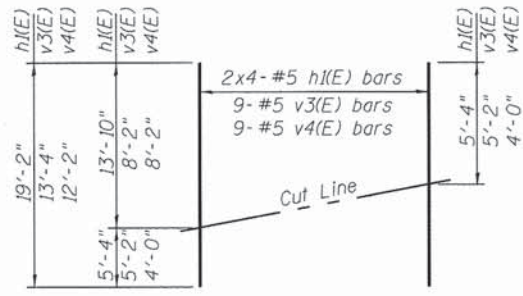
Bar	No.	Size	Length	Shape
h1(E)	38	#6	13'-10"	—
h2(E)	8	#5	19'-2"	—
h3(E)	2	#5	10'-2"	—
h3(E)	2	#5	10'-8"	—
p(E)	11	#8	48'-4"	—
p1(E)	3	#5	15'-0"	—
s2(E)	47	#5	13'-11"	□
s3(E)	18	#5	4'-3 1/2"	□
s4(E)	3	#5	14'-9"	□
u(E)	8	#6	11'-3 1/2"	—
u1(E)	13	#5	9'-8"	—
v1(E)	93	#8	5'-11"	—
v2(E)	8	#5	8'-2"	—
v3(E)	9	#5	13'-4"	—
v4(E)	9	#5	12'-2"	—
Structure Excavation		Cu. Yd.	245	
Concrete Structures		Cu. Yd.	29.8	
Reinforcement Bars, Epoxy Coated		Pound	5,300	
Furnishing - Metal Shell Piles, 14"x0.25"		Foot	416	
Driving Piles		Foot	400	
Test Pile, Metal Shells		Each	1	
Gabions		Cu. Yd.	8	
Pre-coring		Foot	6	

For details of piles see sheet S17.  
For details of abutment drainage system see sheet S2.  
For Section A-A see sheet S16.  
All reinforcement shall have 2" min. concrete cover.

**PILE DATA**

Type: Metal Shell 14" dia. x 0.25" wall  
Nominal Required Bearing: 365 k  
Factored Resistance Available: 200 k  
Est. Length: 52 ft.  
No. Production Piles: 8  
No. Test Piles: 1 (See sheet S2)

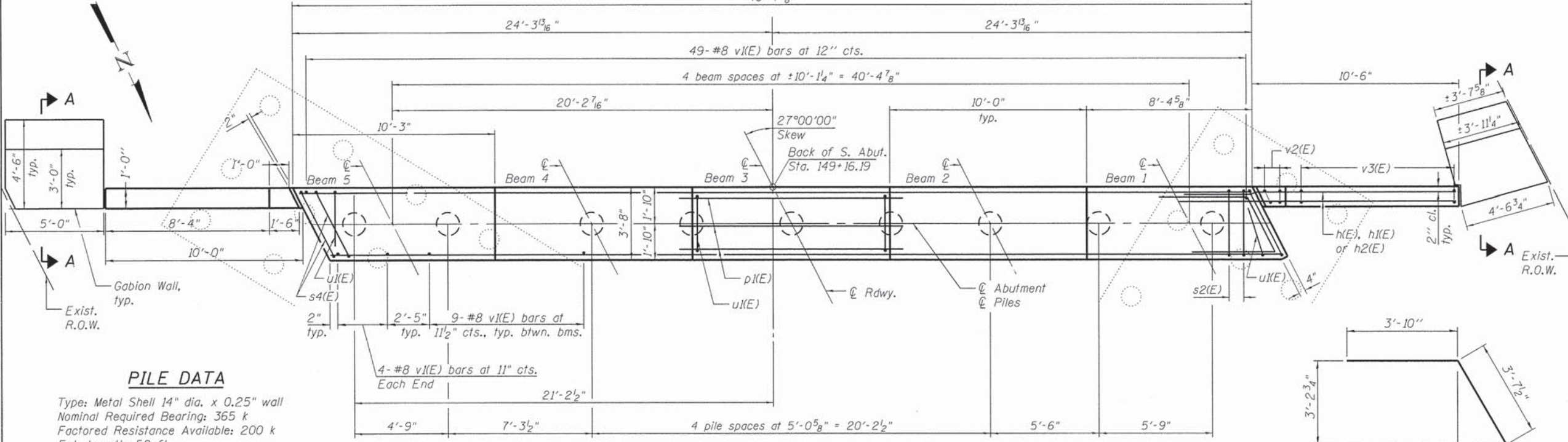
Note:  
Contractor shall record the pile driving information in the table included with Special Provisions and submit it to the Engineer for approval.



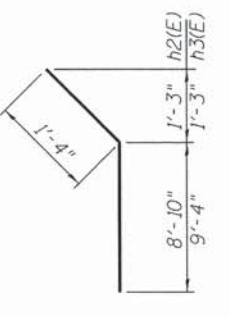
**FIELD CUTTING DIAGRAM**

Order h1(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.

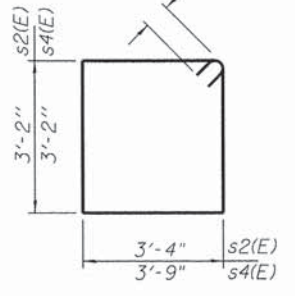
**PLAN**



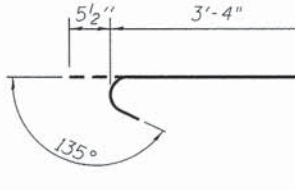
**BARS h2(E) & h3(E)**



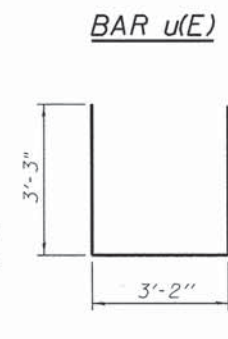
**BAR s2(E) & s4(E)**



**BAR s3(E)**



**BAR u1(E)**



AI-40-L

8-31-12

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PRH	PRH	2

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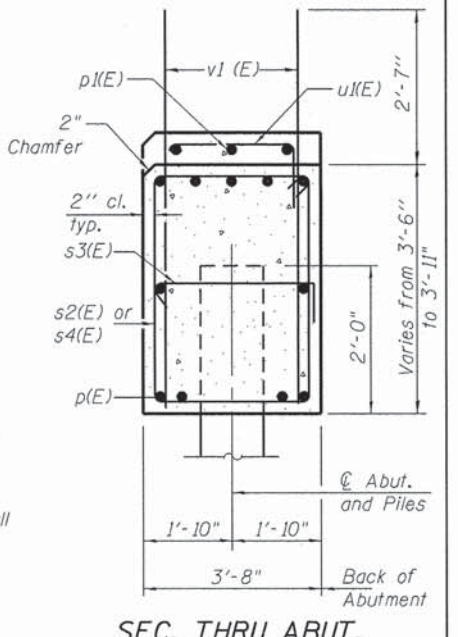
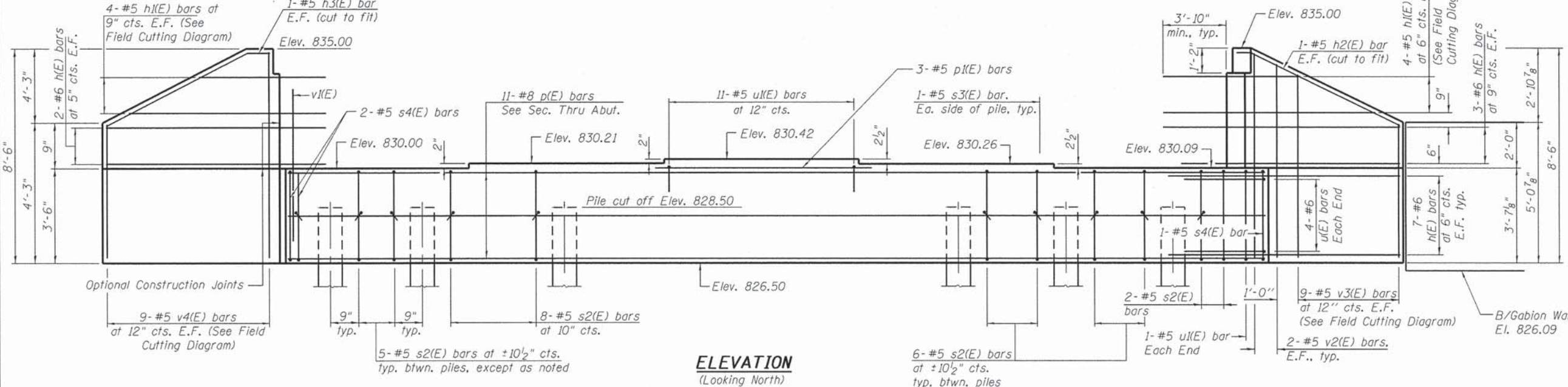
SOUTH ABUTMENT  
STRUCTURE NO. 056-3196  
SHEET NO. S15 OF S22 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	41

CONTRACT NO. 61A22  
ILLINOIS FED. AID PROJECT BRS-0033105

**Notes:**

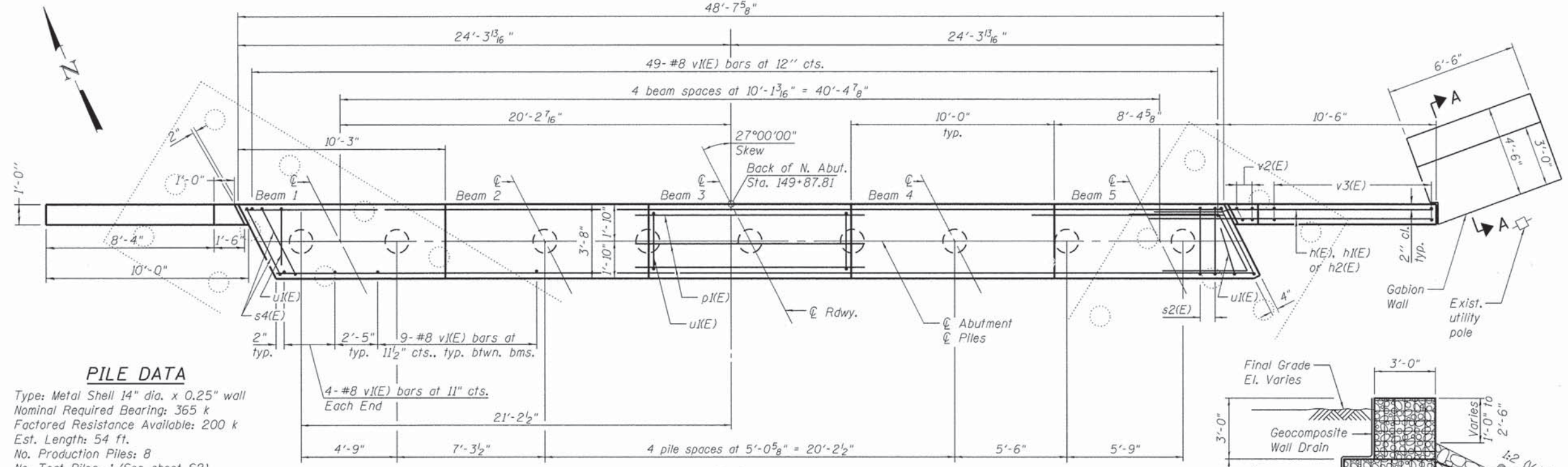
Pour steps monolithically with cap.



**ELEVATION**  
(Looking North)

**SEC. THRU ABUT.**

Dimensions at right angles to abutment.

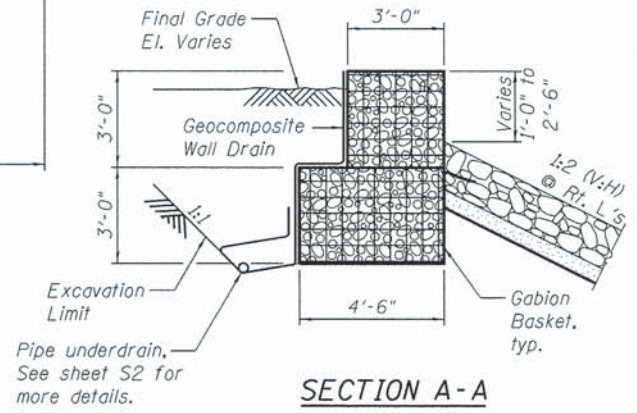


**PLAN**

**PILE DATA**

Type: Metal Shell 14" dia. x 0.25" wall  
Nominal Required Bearing: 365 k  
Factored Resistance Available: 200 k  
Est. Length: 54 ft.  
No. Production Piles: 8  
No. Test Piles: 1 (See sheet S2)

Note:  
Contractor shall record the pile driving information in the table included with Special Provisions and submit it to the Engineer for approval.



**SECTION A-A**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h1(E)	38	#6	13'-10"	▬▬▬
h2(E)	8	#5	19'-2"	▬▬▬
h3(E)	2	#5	10'-2"	▬▬▬
h3(E)	2	#5	10'-8"	▬▬▬
p1(E)	11	#8	48'-4"	▬▬▬
p1(E)	3	#5	15'-0"	▬▬▬
s2(E)	47	#5	13'-11"	▬▬▬
s3(E)	18	#5	4'-3 1/2"	▬▬▬
s4(E)	3	#5	14'-9"	▬▬▬
u1(E)	8	#6	11'-3 1/2"	▬▬▬
u1(E)	13	#5	9'-8"	▬▬▬
v1(E)	93	#8	5'-11"	▬▬▬
v2(E)	8	#5	8'-2"	▬▬▬
v3(E)	9	#5	13'-4"	▬▬▬
v4(E)	9	#5	12'-2"	▬▬▬
Structure Excavation		Cu. Yd.	245	
Concrete Structures		Cu. Yd.	29.8	
Reinforcement Bars, Epoxy Coated		Pound	5,300	
Furnishing - Metal Shell Piles, 14"x0.25"		Foot	432	
Driving Piles		Foot	416	
Test Pile, Metal Shells		Each	1	
Gabions		Cu. Yd.	5	
Pre-coring		Foot	6	

For details of piles see sheet S17.  
For details of abutment drainage system see sheet S2.  
For details of bars h1(E) thru h3(E), s2(E) thru s4(E), u1(E) & u1(E) see sheet S15.  
All reinforcement shall have 2" min. concrete cover.

AI->40-L

8-31-12

USER NAME	DESIGNED -	REVIS	STATE OF ILLINOIS	NORTH ABUTMENT	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	EKM		DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 056-3196	0033	10-00379-00-BR	MCHENRY	56	42
PLOT SCALE	CHECKED -	REVIS							
	PRH								
PLOT DATE	CHECKED -	REVIS							

SHEET NO. S16 OF S22 SHEETS

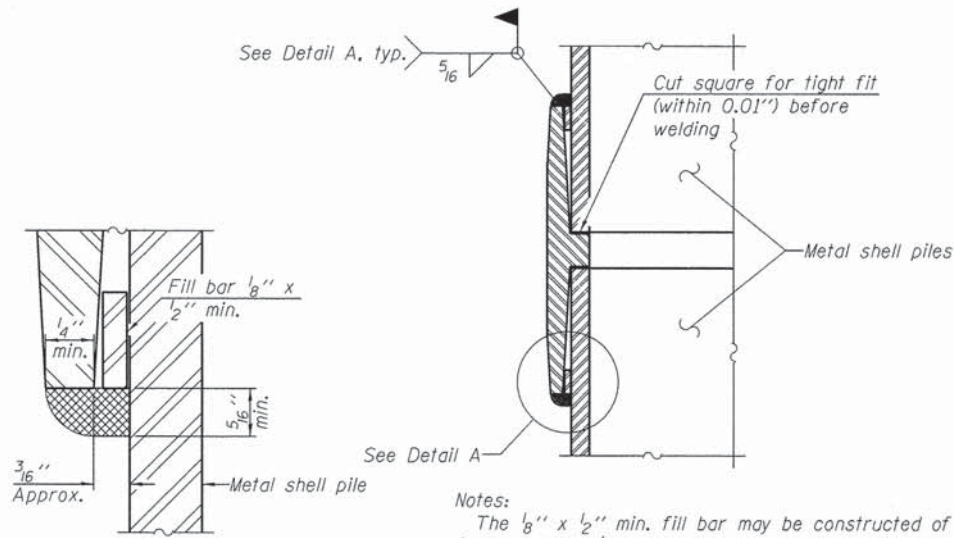
CONTRACT NO. 61A22

ILLINOIS FED. AID PROJECT BRS-0033105



**METAL SHELL PILE TABLE**

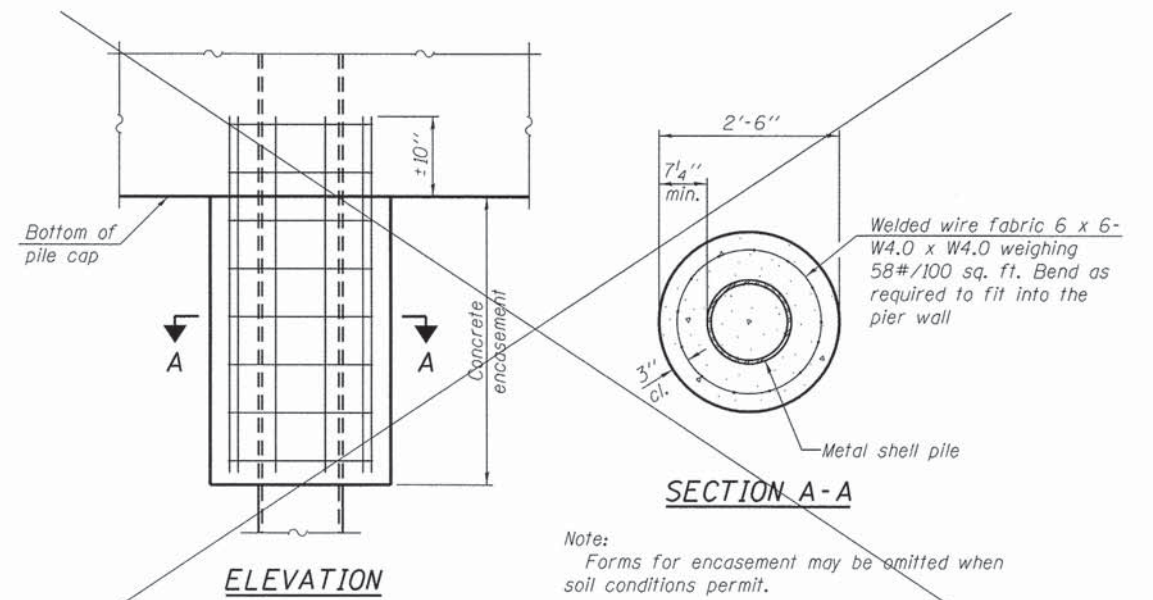
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



**DETAIL A**

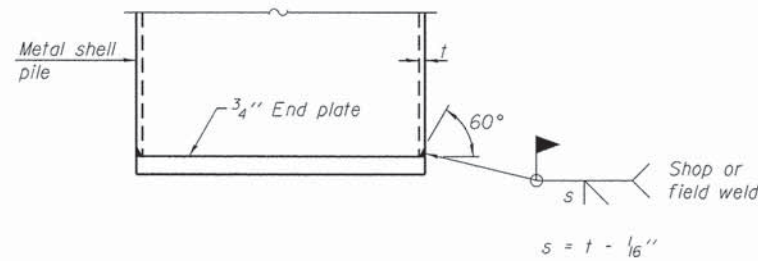
Notes:  
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
 Pile segments shall be driven to solid contact with splicer before welding.

**WELDED COMMERCIAL SPLICE**



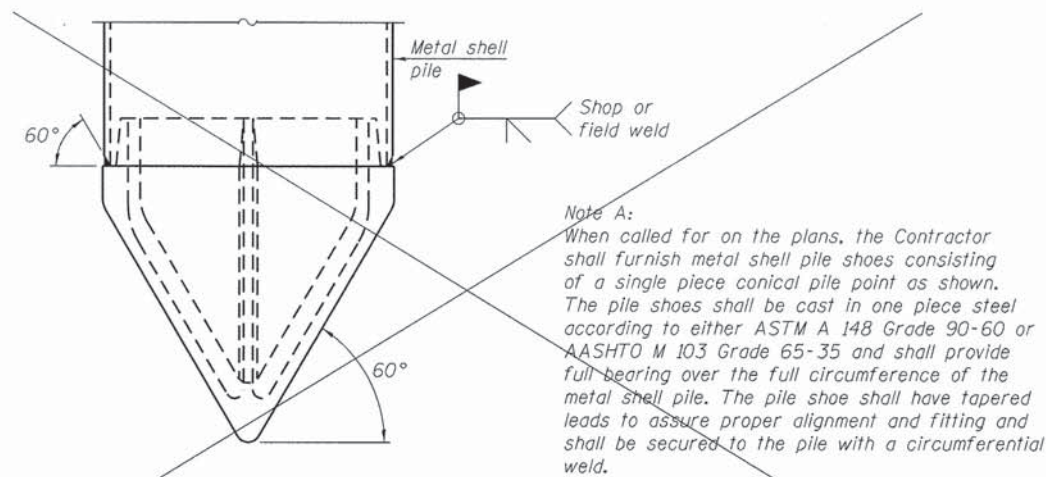
**CONCRETE ENCASEMENT AT PIERS**

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



**END PLATE ATTACHMENT**

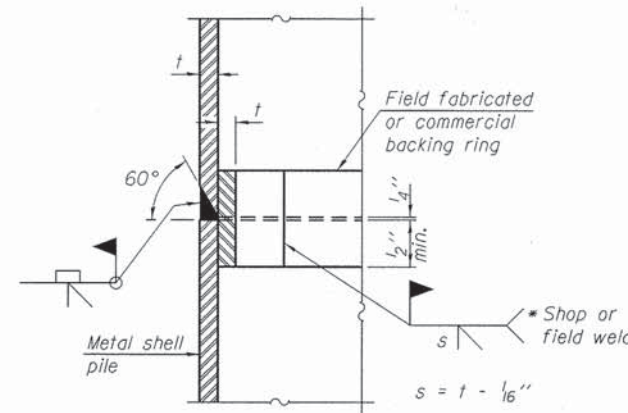
$s = t - 1/16"$



**METAL SHELL PILE SHOE ATTACHMENT**

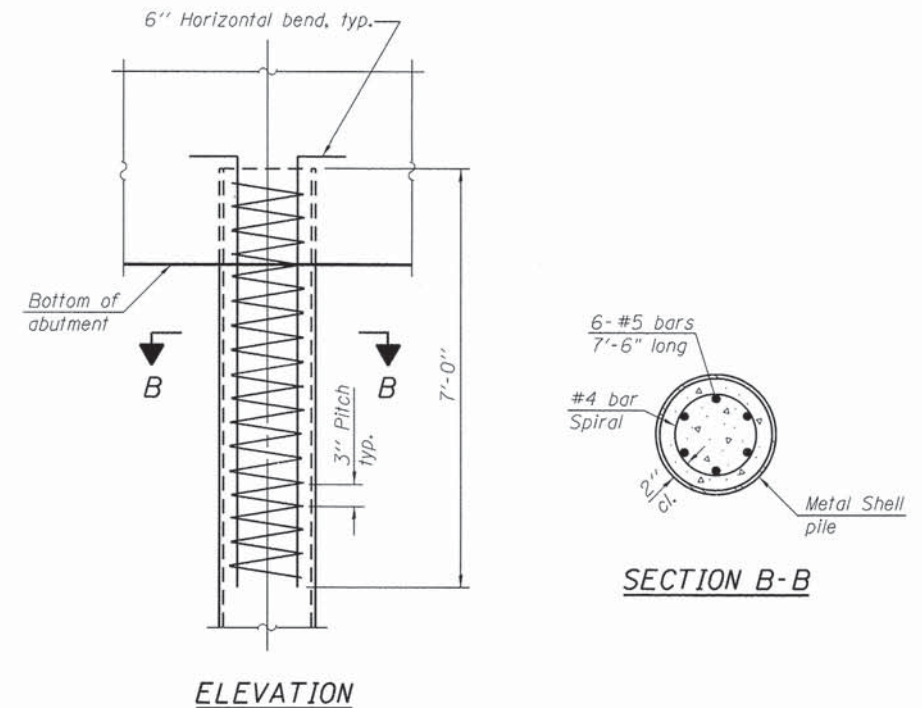
(See Note A)

Note A:  
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



**COMPLETE PENETRATION WELD SPLICE**

\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



**METAL SHELL REINFORCEMENT AT ABUTMENTS**

Note:  
 The metal shell piles shall be according to ASTM A 252 Grade 3.

FILE NAME = I:\8176 Franklinville over Kishwaukee\CADD\Structure\CADD Sheets\95601956-017-Steel Shell Pile Dets.dgn

F-MS 1-27-12

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 Suite 305  
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PLOT SCALE =	CHECKED - PRH	REVISED -
PLOT DATE =	DRAWN - PRH	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**METAL SHELL PILE DETAILS  
 STRUCTURE NO. 056-3196**

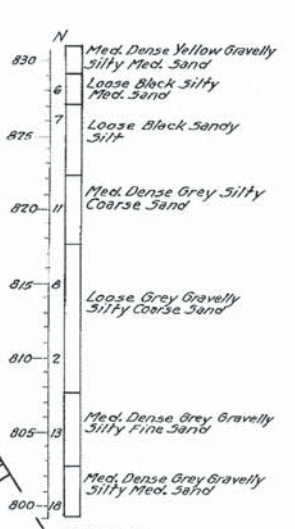
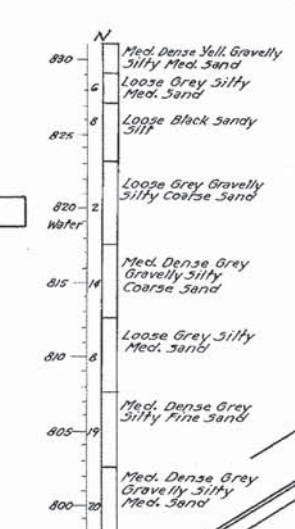
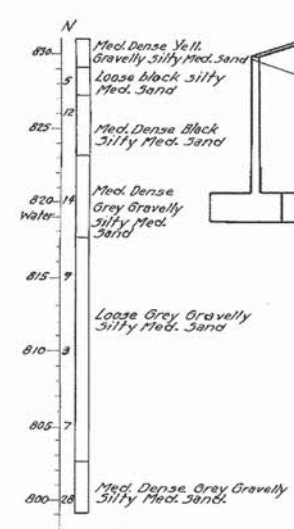
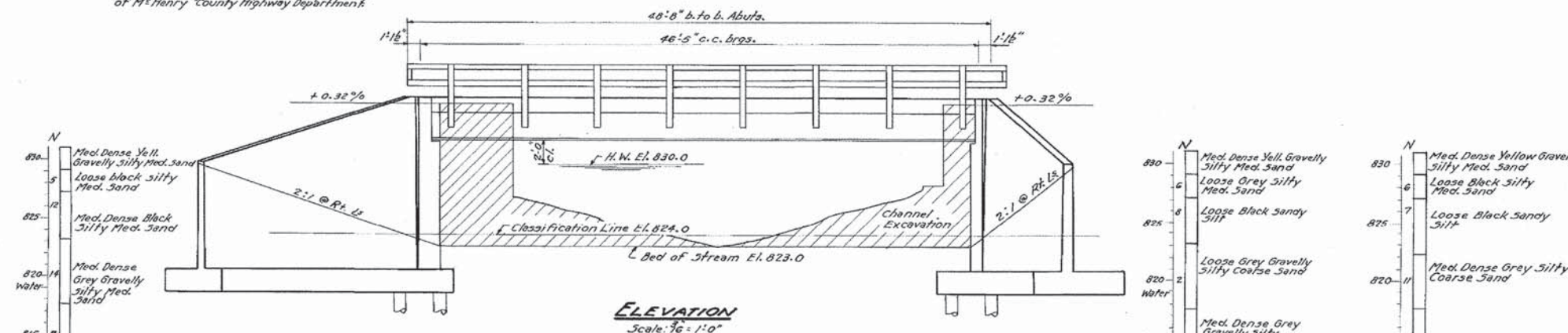
SHEET NO. 517 OF 522 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	43
				CONTRACT NO. 61A22
				ILLINOIS FED. AID PROJECT BRS-00331105



B.M. Bridge Seat N.W. Corner of existing bridge. El. 833.95.  
 Existing Structure: Steel truss @ 33' 15" Down Conc. Abuts.  
 Contractor shall remove before constructing new bridge.  
 Trusses, joists, beams and piling around abuts.  
 shall be salvaged and become the property  
 of McHenry County Highway Department.

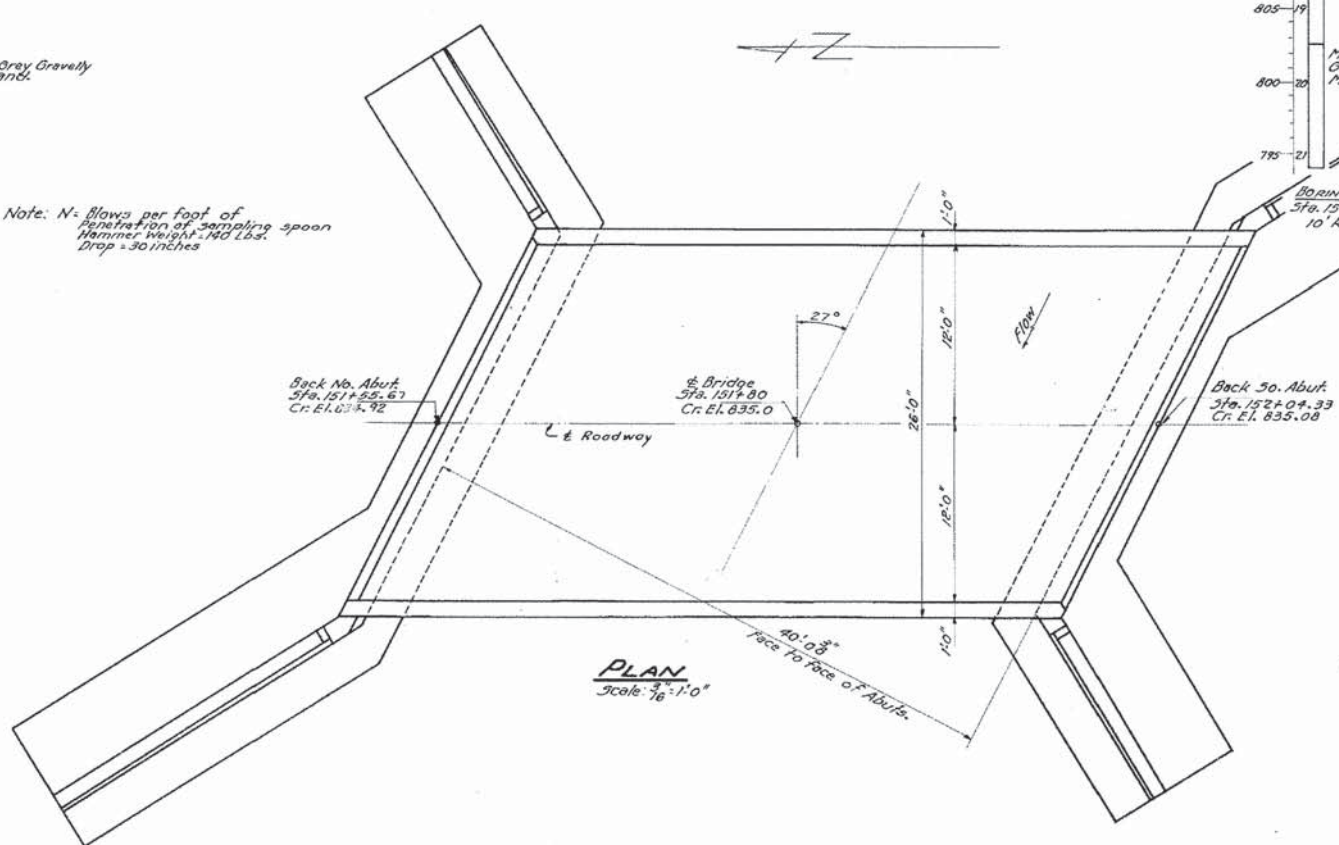
33	19-B-2	McHenry	7	2
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Note: N = Blows per foot of penetration of sampling spoon  
 Hammer Weight = 140 Lbs.  
 Drop = 30 inches

**WATERWAY INFORMATION**

Drainage	15.46 Acres
Character	Level wooded cultivated
Present Bridge	210 Sq. Ft.
Proposed Bridge	280 Sq. Ft.



STATION 151+80  
 BUILT 19  
 F.A.S. RT. 33 - SECTION 19-B-2  
 PROJ. 3-380(2)  
 LOADING H-15

LETTERING FOR NAME PLATE  
 See Standard 213

**STRESSES**

fs	-	18,000 #/sq. In.	Struct.
fs	-	20,000 #/sq. In.	Reinf.
fc	-	14,000 #/sq. In.	Super.
fc	-	8,000 #/sq. In.	Sub.
n	-	10	

Loading H15-44

**TOTAL BILL OF MATERIAL**

ITEM	SUPER.	SUBSTR.	TOTAL
Class-X Concrete	Cu. Yds. 34.8	139.0	173.8
Structural Steel	Lbs. 33170		33170
Reinforcement Bars	Lbs. 5960	5600	15560
Untreated Timber Piles (22' lg.)	Lin. Ft. 1738		1738
Test Piles	Each 1		1
Class-A Excav. for Structures	Cu. Yds. 380		380
Class-B Excav. for Structures	Cu. Yds. 310		310
Channel Excavation	Cu. Yds. 350		350
Name Plates	Each 1		1
Removal of Existing Structure	Each 1		1

\* Contractor to excavate channel 40' wide @ El. 823.0 with 2:1 slope, within limits of R.O.W.

**GENERAL PLAN & ELEVATION**  
**BEILKE BRIDGE**  
**PROJ. 3-380(2)**  
**F.A.S. RT. 33 (S.A. RT. 14) SECTION 19-B-2**  
**MCHEERY COUNTY**  
**STATION 151+80**

FOR INFORMATION ONLY

FILE NAME = I:\8176 Franklinville over Kishwaukee\CADD\Structural\CADD Sheets\9803196-d19-1-Exist. Struct. Ldgn

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 123 N. Rocker Dr.  
 Suite 200  
 Chicago, IL 60606  
 Tel: (312) 704-5300  
 Fax: (312) 704-5320  
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 ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

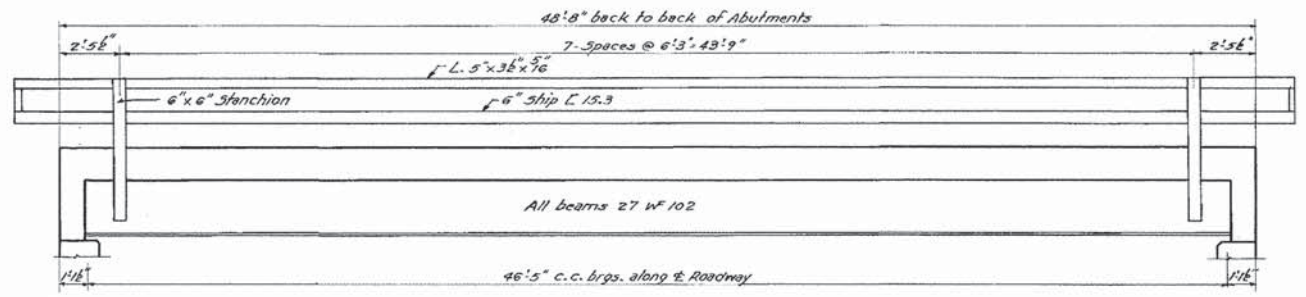
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PLOT SCALE =	CHECKED - PRH	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

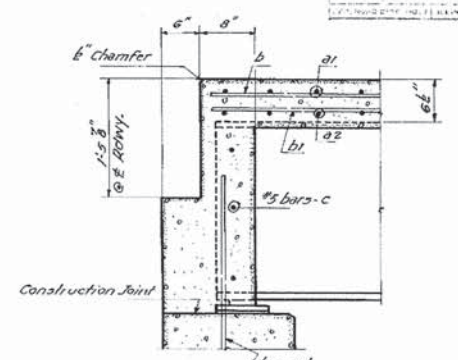
EXISTING STRUCTURAL PLANS I  
 STRUCTURE NO. 056-3196  
 SHEET NO. S19 OF S22 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 61A22	
			ILLINOIS FED. AID PROJECT BRS-0033105	

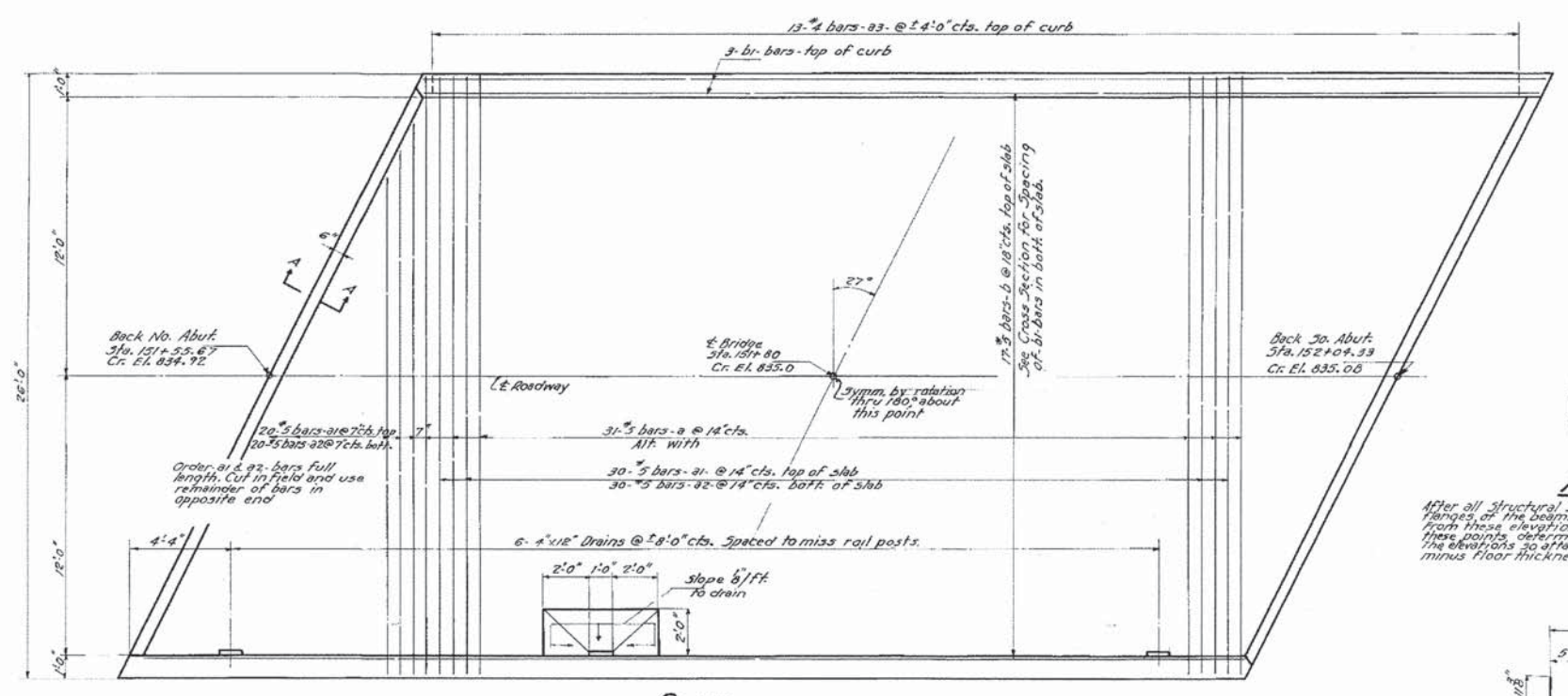
33	19-B-2	M'Henry	7	3
5-380(2)				



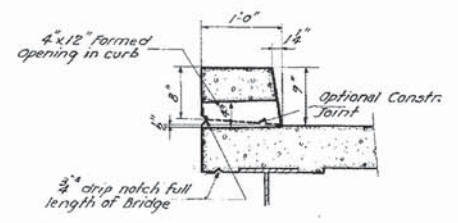
**ELEVATION**



**SECTION A-A**



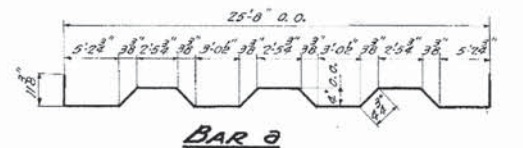
**PLAN**



**SECTION THRU CURB**

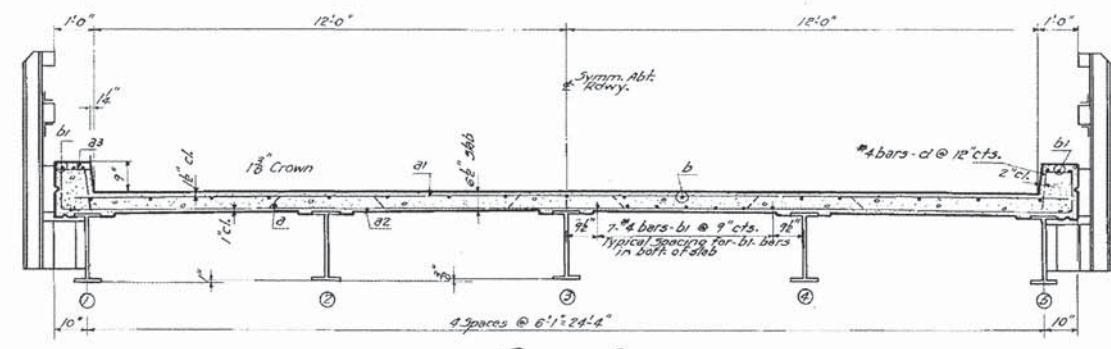
**FILLET DETAIL**

After all structural steel has been erected elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 ft. From these elevations subtract the increment of deflection for these points, determined from the Dead Load Deflection diagram. The elevations so obtained subtracted from the theoretical grade elevations, minus floor thickness, equals the fillet heights, above the top of beam.

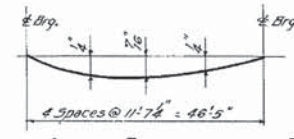


**BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
a	31	#5	28'-3"	
a1	30	#5	25'-6"	
a2	30	#5	27'-9"	
a3	26	#4	0'-4"	
b	34	#5	24'-9"	
b1	68	#4	24'-9"	
c	6	#5	28'-9"	
d	98	#4	1'-1"	
Class-x Concrete				Cu.Yds. 34.8
Reinforcement Bars				Lbs. 5960
Structural Steel				Lbs. 33170



**CROSS SECTION**



**DEAD LOAD DEFLECTION DIAGRAM**

**SUPERSTRUCTURE**

**BEILKE BRIDGE**  
**PROJ. 5-380(2)**  
**F.A.S. RT. 33 (S.A. RT. 14) - SECTION 19-B-2**  
**M'HENRY COUNTY**  
**STATION 151+80**

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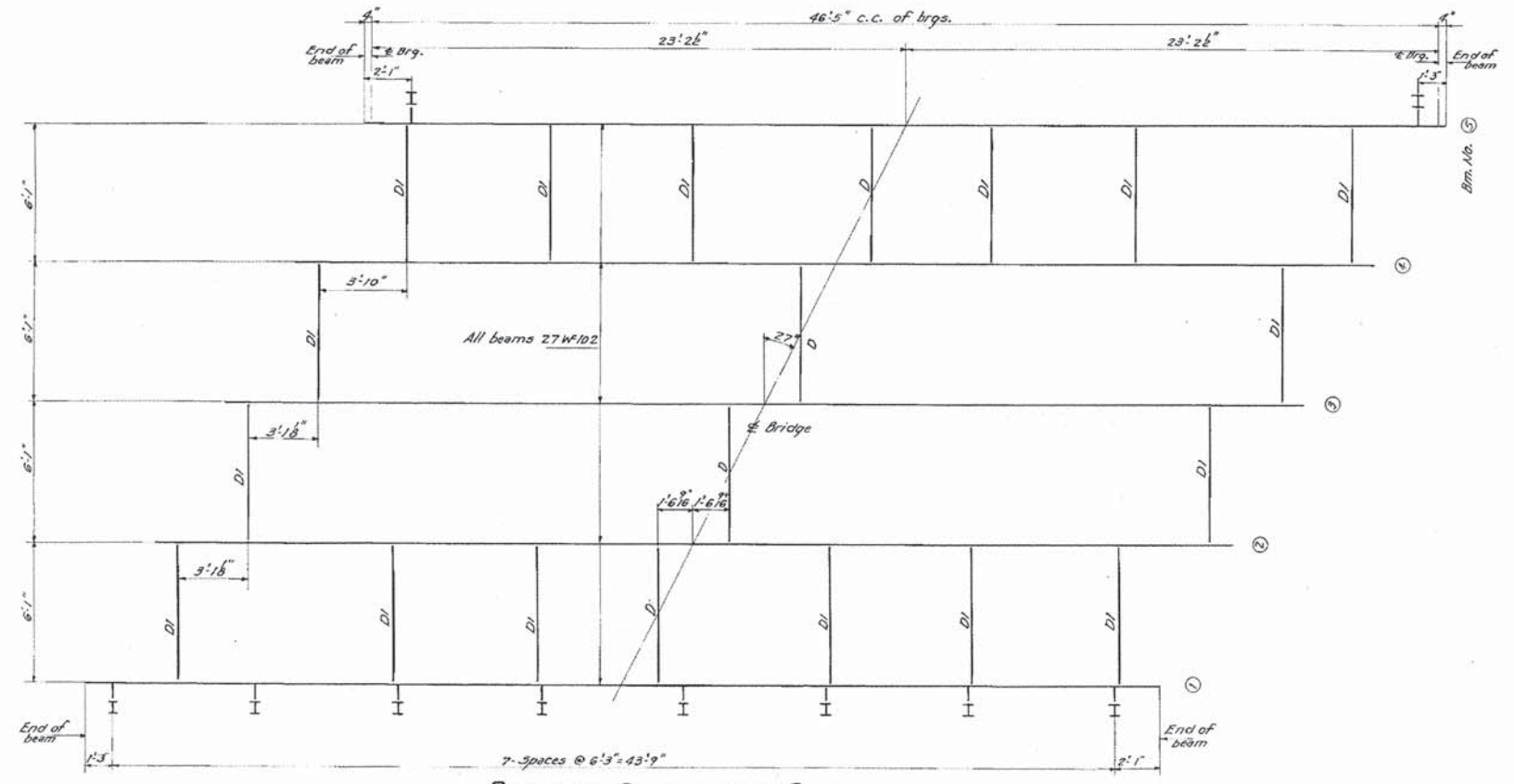
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PLOT SCALE =	CHECKED - PRH	REVISED -
PLOT DATE =	DRAWN - PRH	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

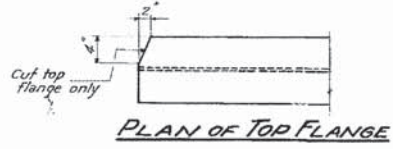
**EXISTING STRUCTURAL PLANS II**  
**STRUCTURE NO. 056-3196**  
 SHEET NO. 520 OF 522 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	M'HENRY	56	46
				CONTRACT NO. 61A22
				ILLINOIS FED. AID PROJECT BRS-00331057

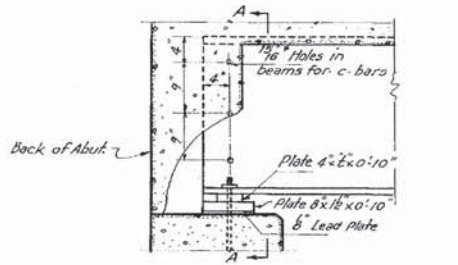
PROJECT NO.	33	13-B-2	M <sup>o</sup> Henry	7	4
REVISED					
DATE					
BY					
CHECKED					
APPROVED					
DESIGNED					
DRAWN					
SCALE					
DATE					



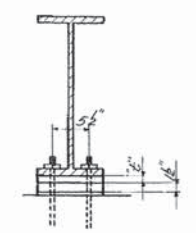
**PLAN OF STRUCTURAL STEEL**



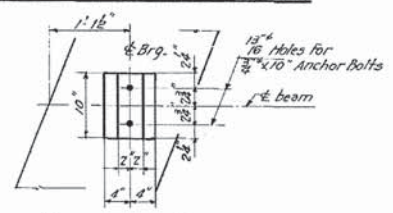
**PLAN OF TOP FLANGE**



**SECTION AT ABUTMENT**



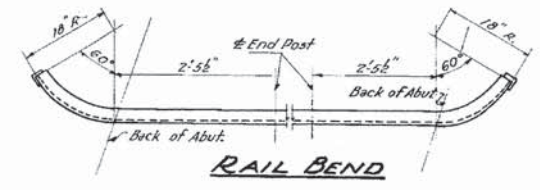
**SECTION A-A**



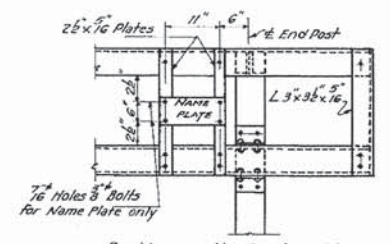
**PLAN OF PLATES**

**TABLE OF 1/8" DIMENSIONS**

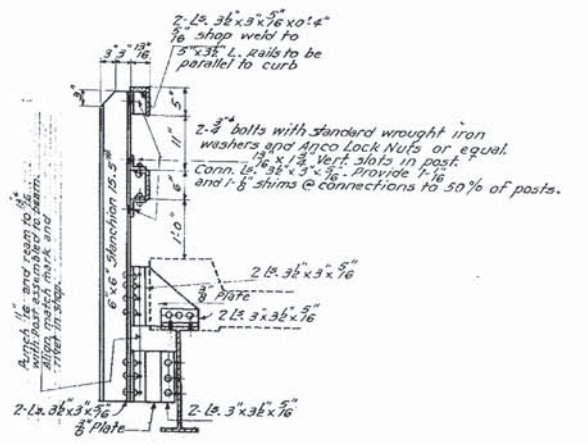
Beam No.	1	2	3	4	5
No. Abut.	3"	3"	1 1/2"	1"	1 1/2"
No. Abut.	3"	3"	1 1/2"	1"	1 1/2"



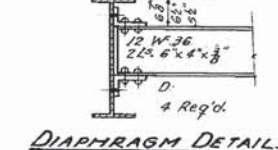
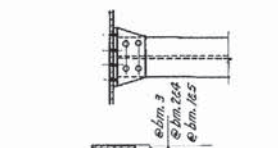
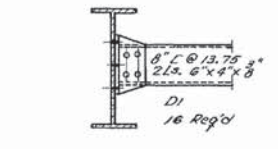
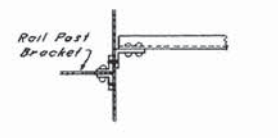
**RAIL BEND**



**NAME PLATE DETAIL**



**RAIL DETAILS**



**DIAPHRAGM DETAILS**

**STRUCTURAL STEEL**  
**BELKE BRIDGE**  
**PROJ. 5-380(2)**  
**F.A.S.R.T. 33 (S.A.R.T. 14) - SECTION 19-B-2**  
**M<sup>o</sup> HENRY COUNTY**  
**STATION 151+80**

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PLOT SCALE =	CHECKED - PRH	REVISED -
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

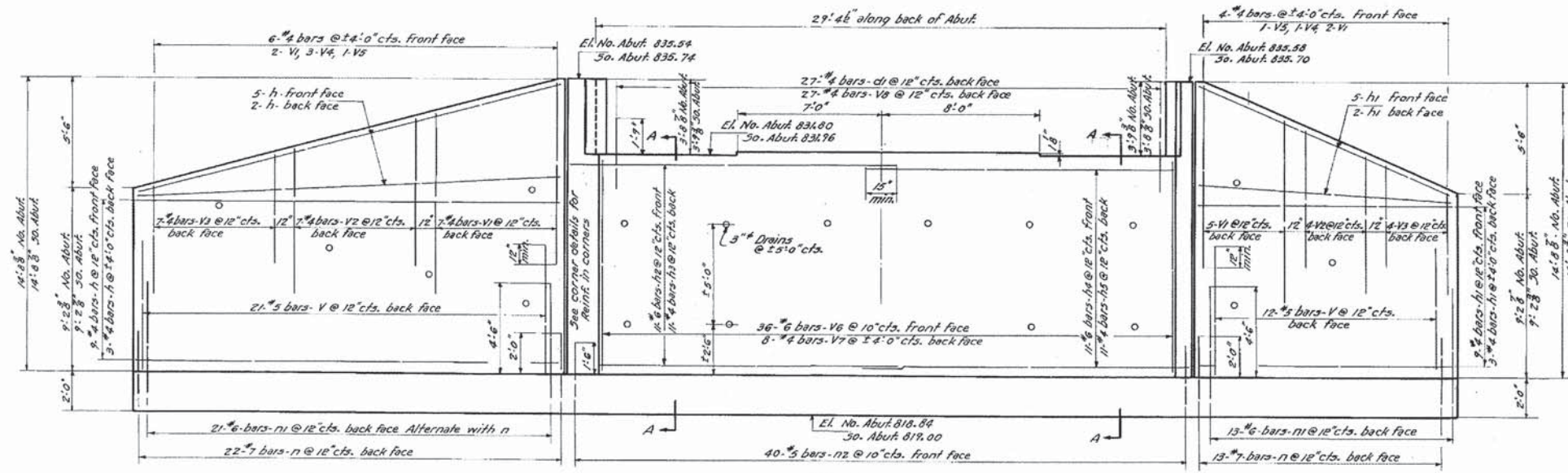
**EXISTING STRUCTURAL PLANS III**  
**STRUCTURE NO. 056-3196**  
 SHEET NO. S21 OF S22 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	47
ILLINOIS			FED. AID PROJECT BRS-003105	

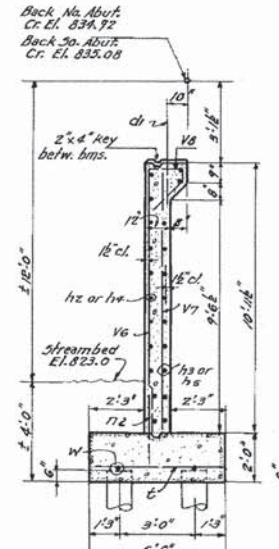
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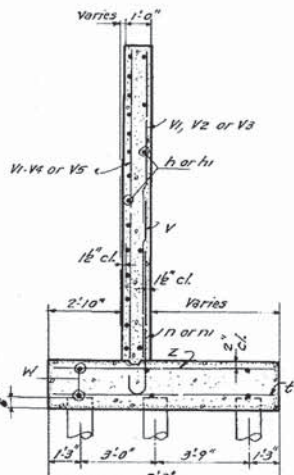
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
33	19-B2	MCHENRY	7	5
FED. ROAD DIST. NO. 1 (BRIDGE) PROJECT: 5-380(2)				



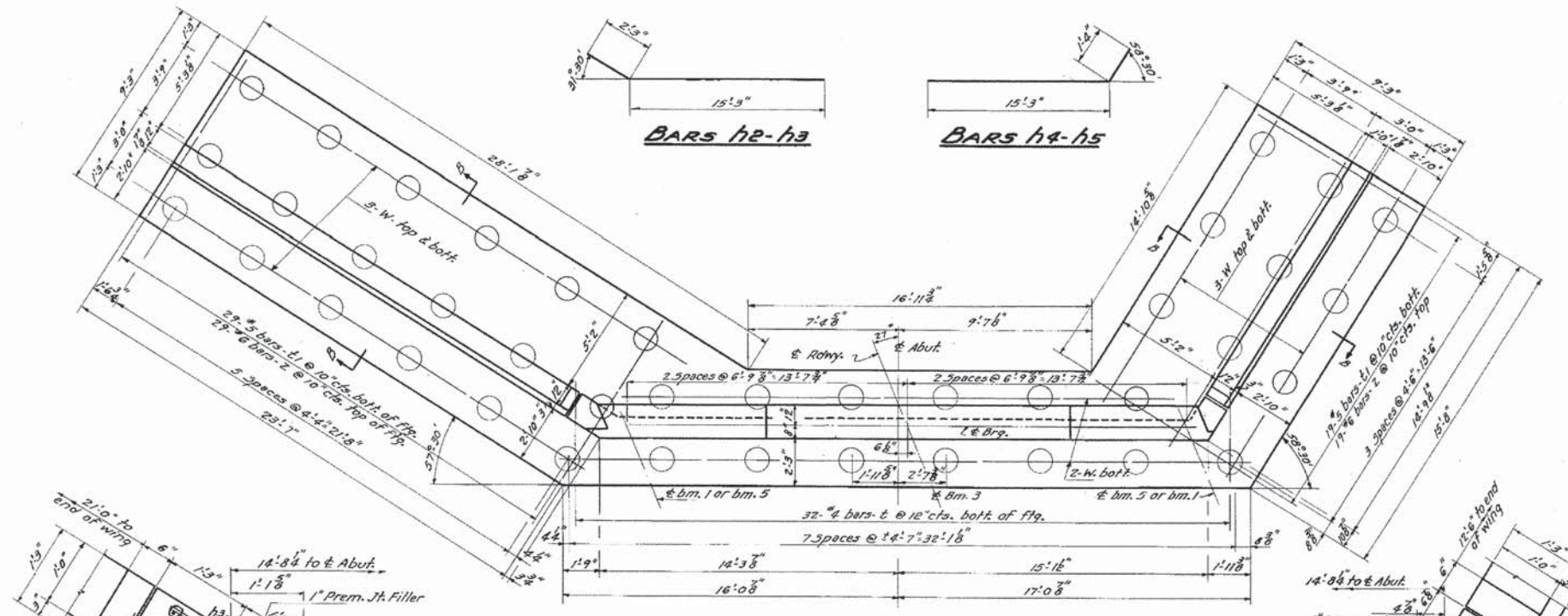
**ELEVATION**



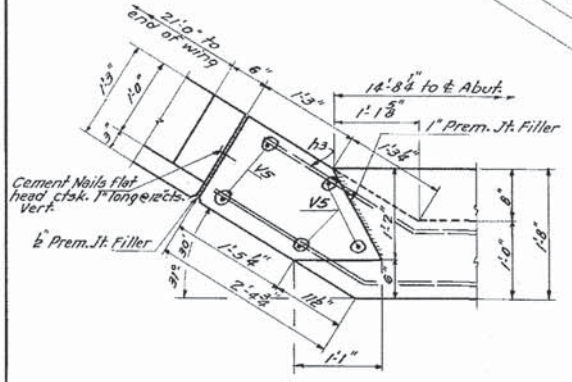
**SECTION A-A**



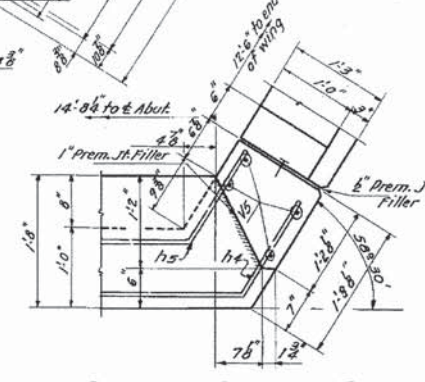
**SECTION B-B**



**PLAN**



**CORNER DETAILS - LONG WING**



**CORNER DETAILS - SHORT WING**

**BILL OF MATERIAL - 2 ABUTS.**

BAR	NO	SIZE	LENGTH	SHAPE
V	66	#5	6'-6"	
V1	32	#4	9'-0"	
V2	22	#4	7'-3"	
V3	22	#4	5'-6"	
V4	8	#4	11'-6"	
V5	22	#4	14'-7"	
V6	72	#6	10'-9"	
V7	16	#4	10'-9"	
V8	54	#4	3'-9"	
h	38	#4	2'-3"	
h1	38	#4	12'-9"	
h2	22	#6	17'-6"	
h3	22	#4	17'-6"	
h4	22	#6	16'-7"	
h5	22	#4	16'-7"	
di	54	#4	3'-6"	
n	70	#7	4'-4"	
n1	68	#6	6'-8"	
n2	80	#5	3'-0"	
l	64	#4	5'-3"	
l1	96	#5	9'-0"	
z	96	#6	9'-0"	
w	44	#4	16'-0"	
Class-X Concrete				Cu. Yds. 139.0
Reinforcement Bars				Lbs. 9600
Untreated Timber Piles (22')				Lin. Ft. 1738
Test Piles				Each 1

**ABUTMENTS**  
**BEILKE BRIDGE**  
**PROJ. 5-380(2)**  
**F.A.S. RT. 33 (S.A. RT. 14) SECTION 19-B-2**  
**MCHENRY COUNTY**  
**STATION 151+80**

**FOR INFORMATION ONLY**

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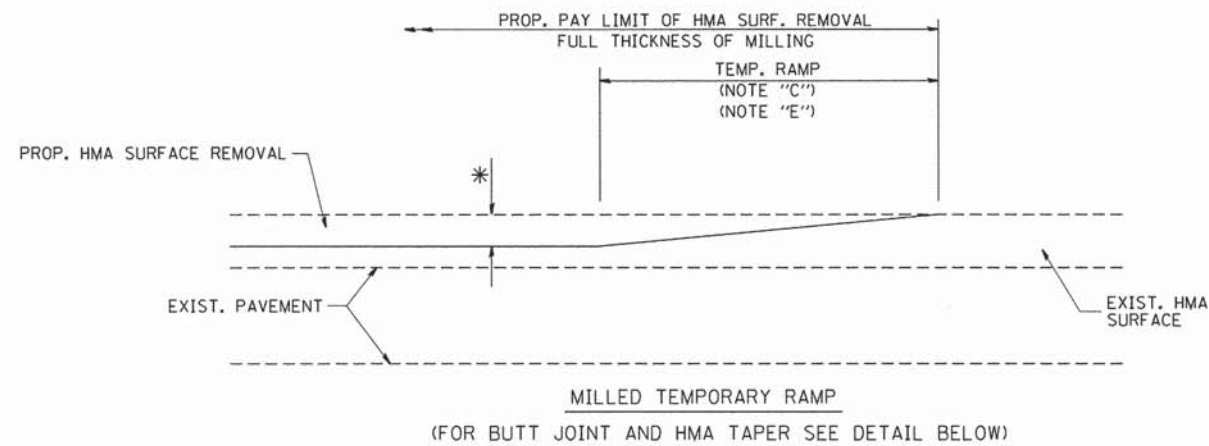
**COLLINS ENGINEERS**  
 123 N. Maple Dr.  
 Suite 200  
 Chicago, IL 60608  
 Tel: (312) 101-1300  
 Fax: (312) 104-9320  
 www.collinseng.com  
 ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

USER NAME	DESIGNED - EKM	REVISOR	
PLOT SCALE	CHECKED - PRH	REVISION	
PLOT DATE	CHECKED -	REVISION	

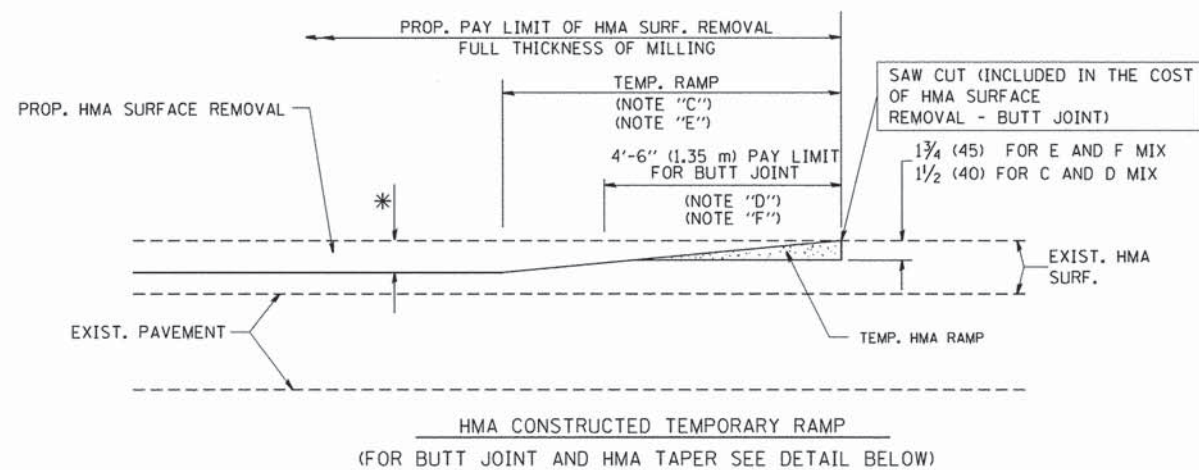
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EXISTING STRUCTURAL PLANS IV**  
**STRUCTURE NO. 056-3196**  
 SHEET NO. 522 OF 522 SHEETS

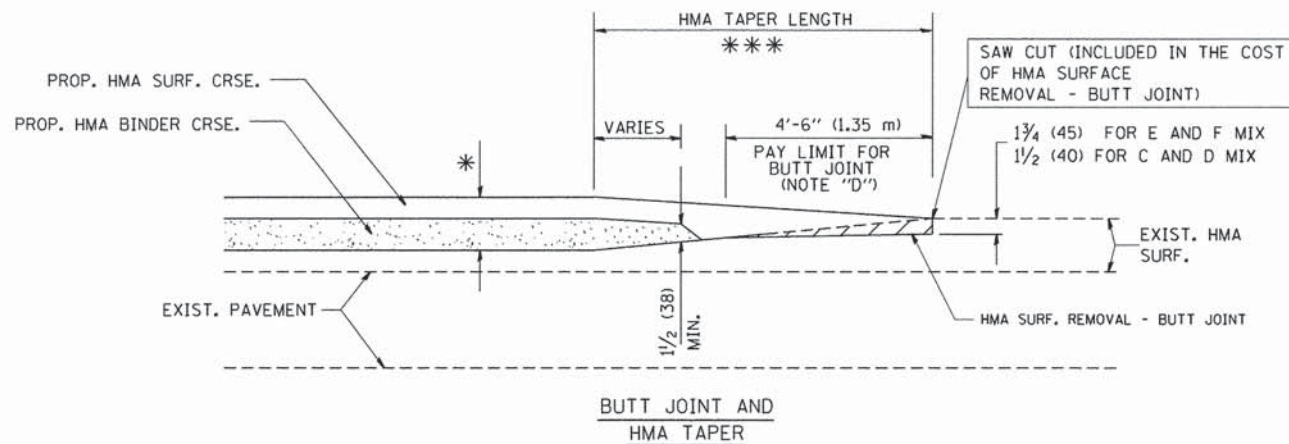
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	48
				CONTRACT NO. 61A22
				ILLINOIS FED. AID PROJECT BRS-0033102



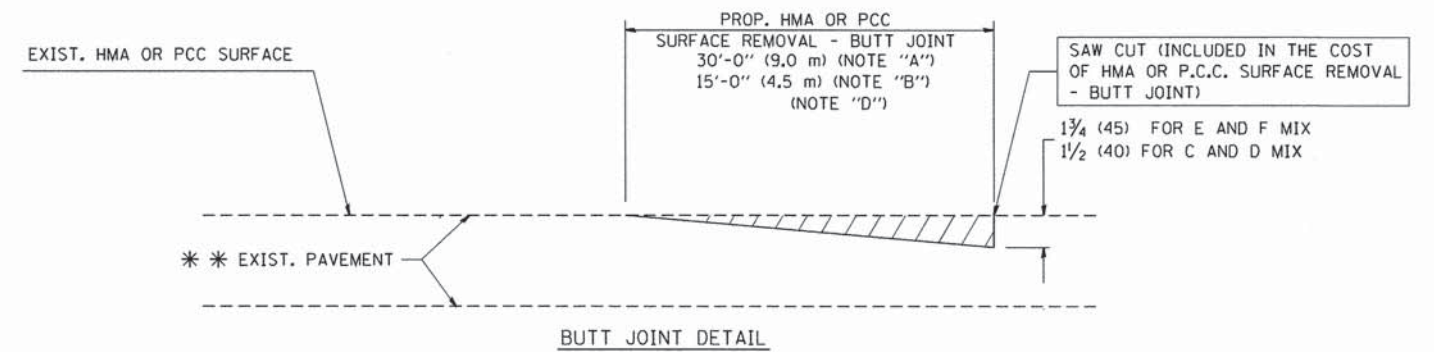
**OPTION 1**



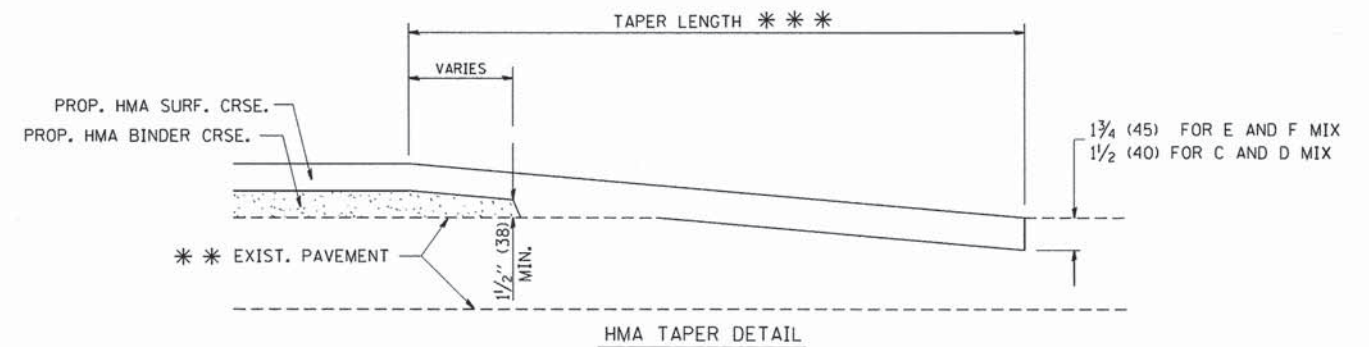
**OPTION 2  
TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING**



**BUTT JOINT DETAIL**



**TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\distsd\22-34\bd32.dgn

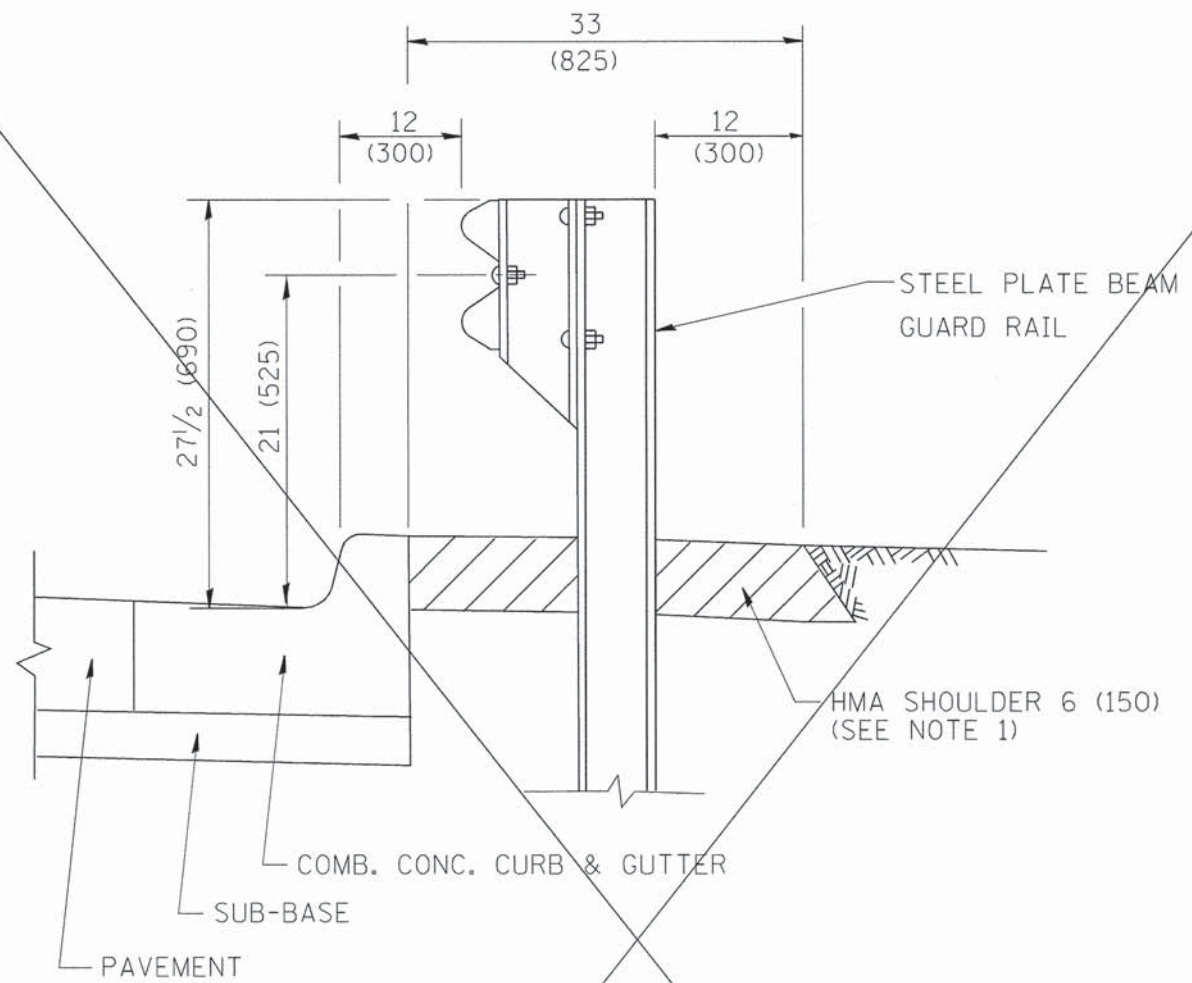
USER NAME = geglienobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97
PLOT DATE = 1/4/2008	CHECKED -	REVISED - M. GOMEZ 04-06-01
	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 49
BD400-05 BD32			CONTRACT NO. 61A22	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

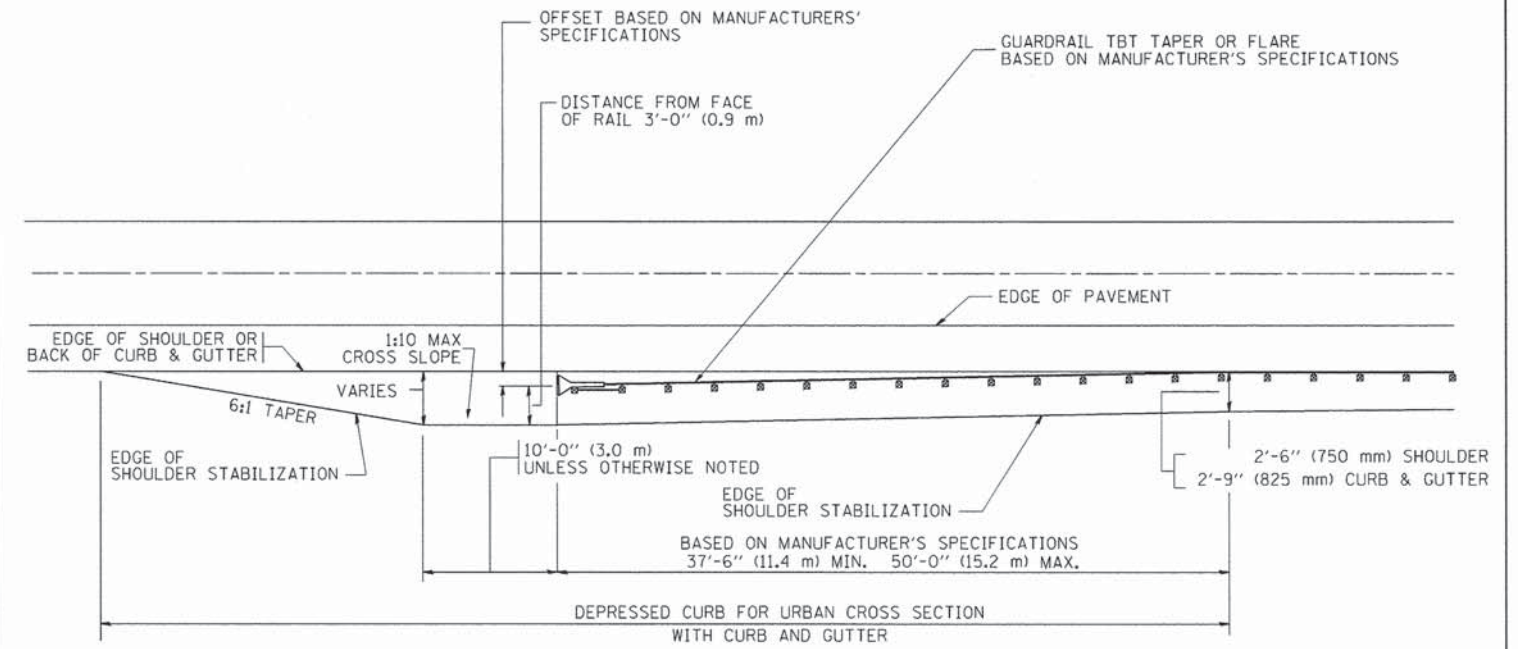


- NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

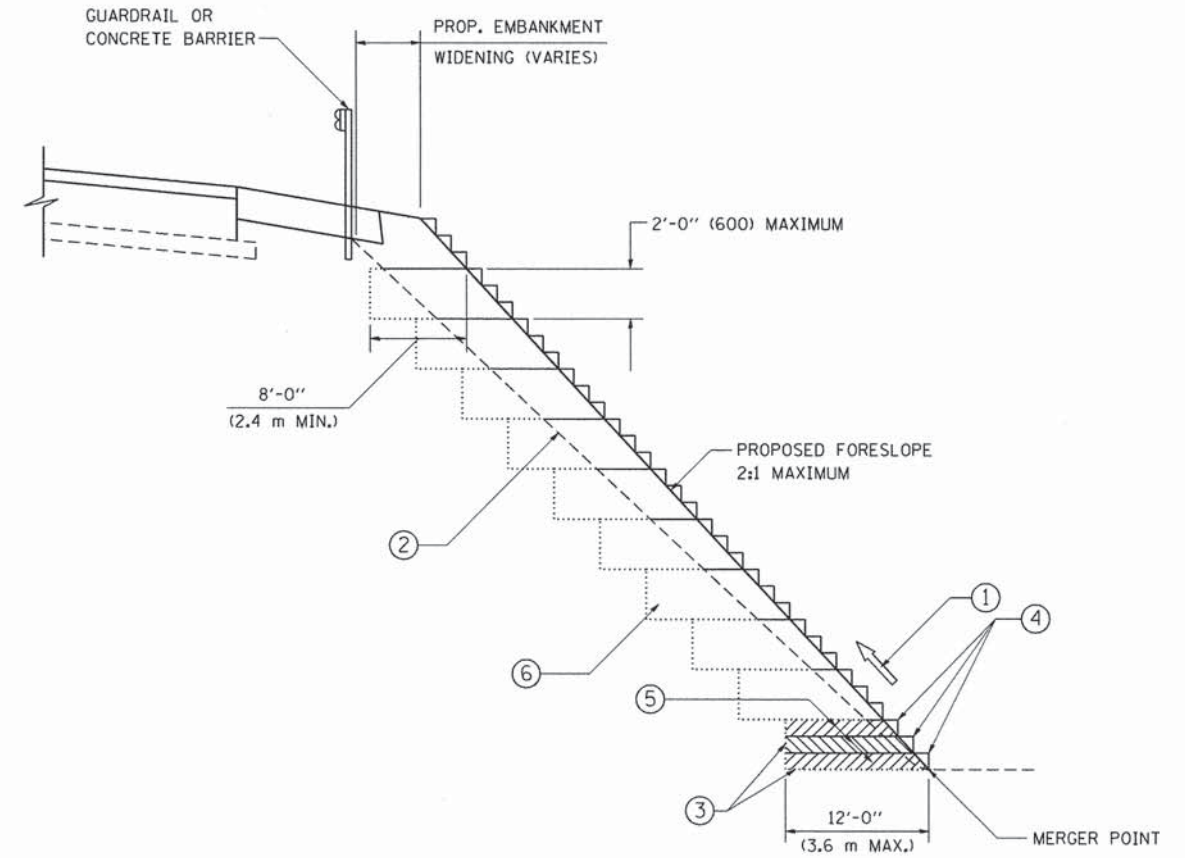
**DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER**  
 [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



**STABILIZATION AT TBT TY. 1 SPL.**

TBT = TRAFFIC BARRIER TERMINAL  
 ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = C:\Projects\22x34\Original\bd34.dgn	USER NAME = goglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 02-23-95	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER STABILIZATION AT TBT TY 1 SPL.</b>	F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 50		
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - A. ABBAS 03-21-97	REVISED - E. GOMEZ 08-28-00			<b>BD600-10 (BD 34)</b>		CONTRACT NO. 61A22				
PLOT DATE = 12/17/2008	DATE - 09-22-90	REVISED - R. BORO 01-01-07				FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT						
						SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		



**TYPICAL BENCHING DETAIL  
FOR EMBANKMENT**

**NOTES:**

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

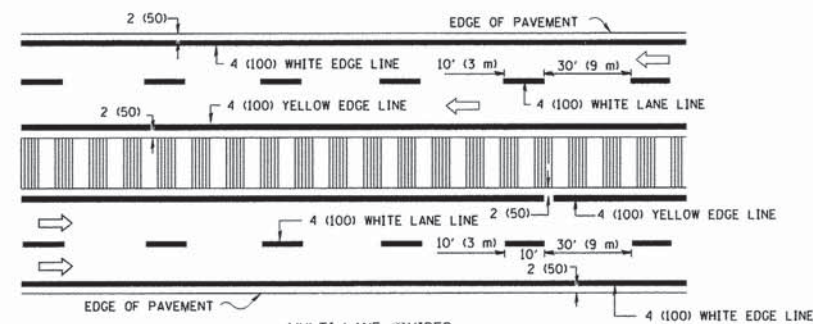
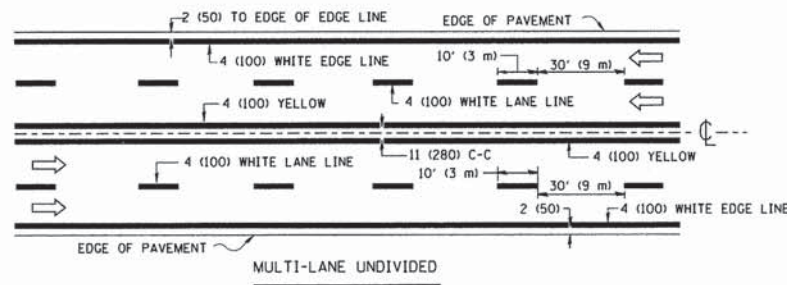
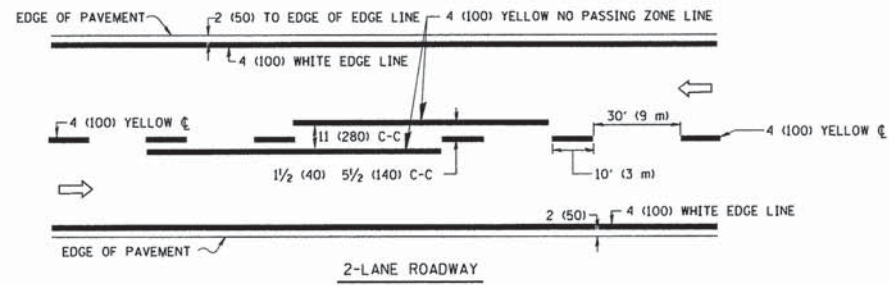
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

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		DRAWN - CADD	REVISED -
		CHECKED - S.E.B.	REVISED -
		DATE - 06-16-04	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

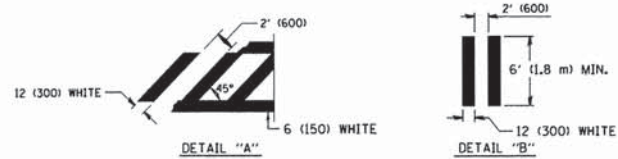
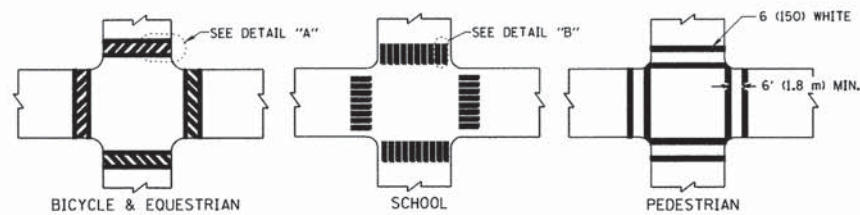
<b>BENCHING DETAIL FOR EMBANKMENT WIDENING</b>		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.

F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 51
<b>BD-51</b>		<b>CONTRACT NO. 61A22</b>		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

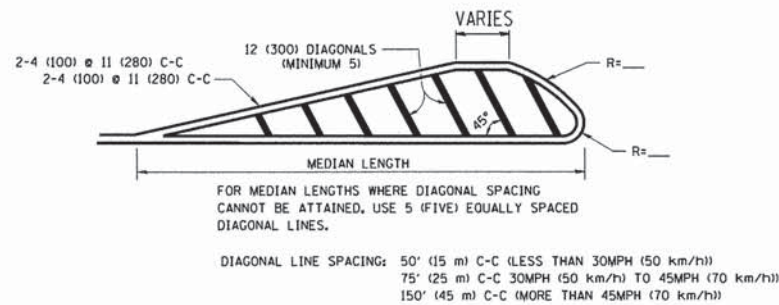
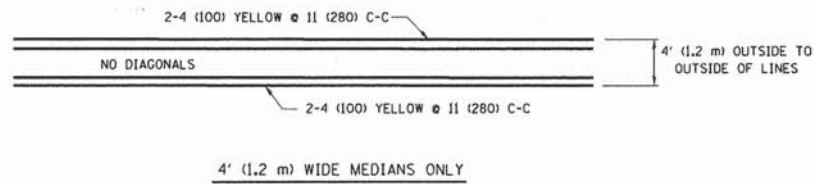


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

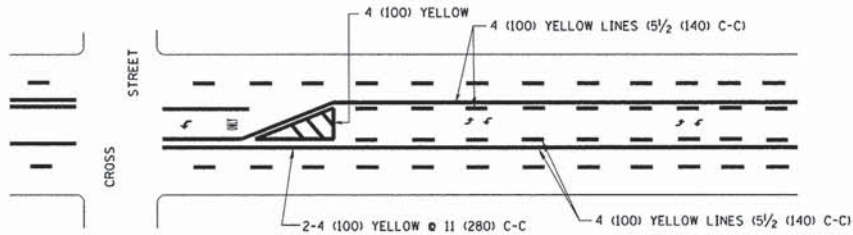
### TYPICAL LANE AND EDGE LINE MARKING



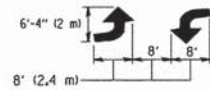
### TYPICAL CROSSWALK MARKING



### MEDIANS OVER 4' (1.2 m) WIDE

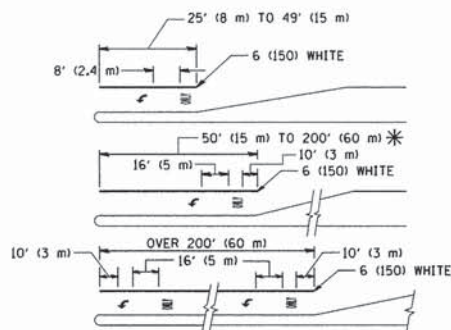


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



### MEDIAN WITH TWO-WAY LEFT TURN LANE

### TYPICAL PAINTED MEDIAN MARKING

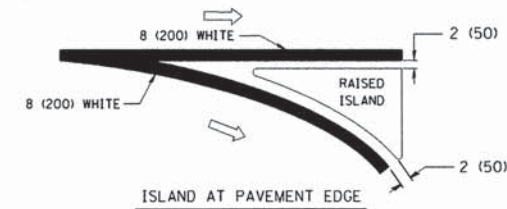
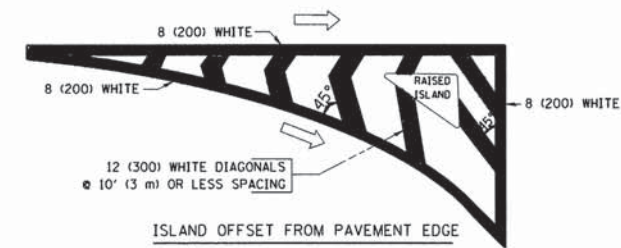


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SO. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SO. FT. (1.9 m<sup>2</sup>)

\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

### TYPICAL LEFT (OR RIGHT) TURN LANE

### TYPICAL TURN LANE MARKING



### TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS 18' (2.4m)	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS			
	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SO. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SO. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.


FILE NAME = W:\distsd\22\34\to13.dgn	USER NAME = gaglienobt	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED -A. HOUSEH 10-09-96
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -A. HOUSEH 10-17-96
		DATE - 03-19-90	REVISED -T. RAMMACHER 01-06-00

## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		0033	10-00379-00-BR	MCHENRY	56	52
SCALE: NONE		TC-13		CONTRACT NO. 61A22		
SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT		






**ROUTE MARKERS**

 FOR U.S. ROUTES  
M1-40-2424






 FOR ILLINOIS ROUTES  
M1-50-2424

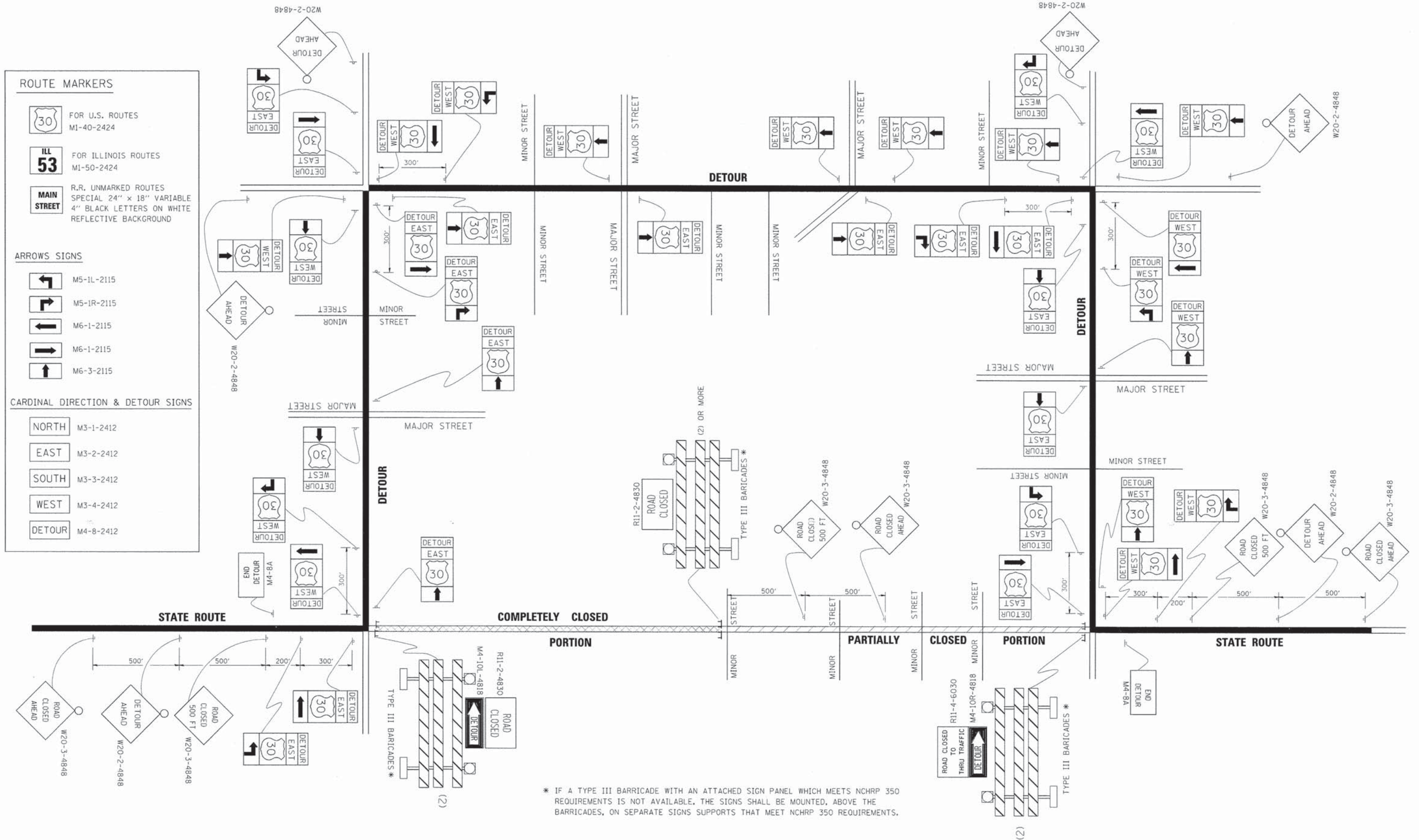
**MAIN STREET**  
R.R. UNMARKED ROUTES  
SPECIAL 24" x 18" VARIABLE  
4" BLACK LETTERS ON WHITE  
REFLECTIVE BACKGROUND

**ARROWS SIGNS**

-  M5-1L-2115
-  M5-1R-2115
-  M6-1-2115
-  M6-1-2115
-  M6-3-2115

**CARDINAL DIRECTION & DETOUR SIGNS**

-  NORTH M3-1-2412
-  EAST M3-2-2412
-  SOUTH M3-3-2412
-  WEST M3-4-2412
-  DETOUR M4-8-2412



\* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME =	USER NAME = drlvakosgn	DESIGNED -	REVISED - 10-18-02
21.dgn		DRAWN -	REVISED - R. BORO 09-14-09
		CHECKED -	REVISED -
		DATE -	REVISED -

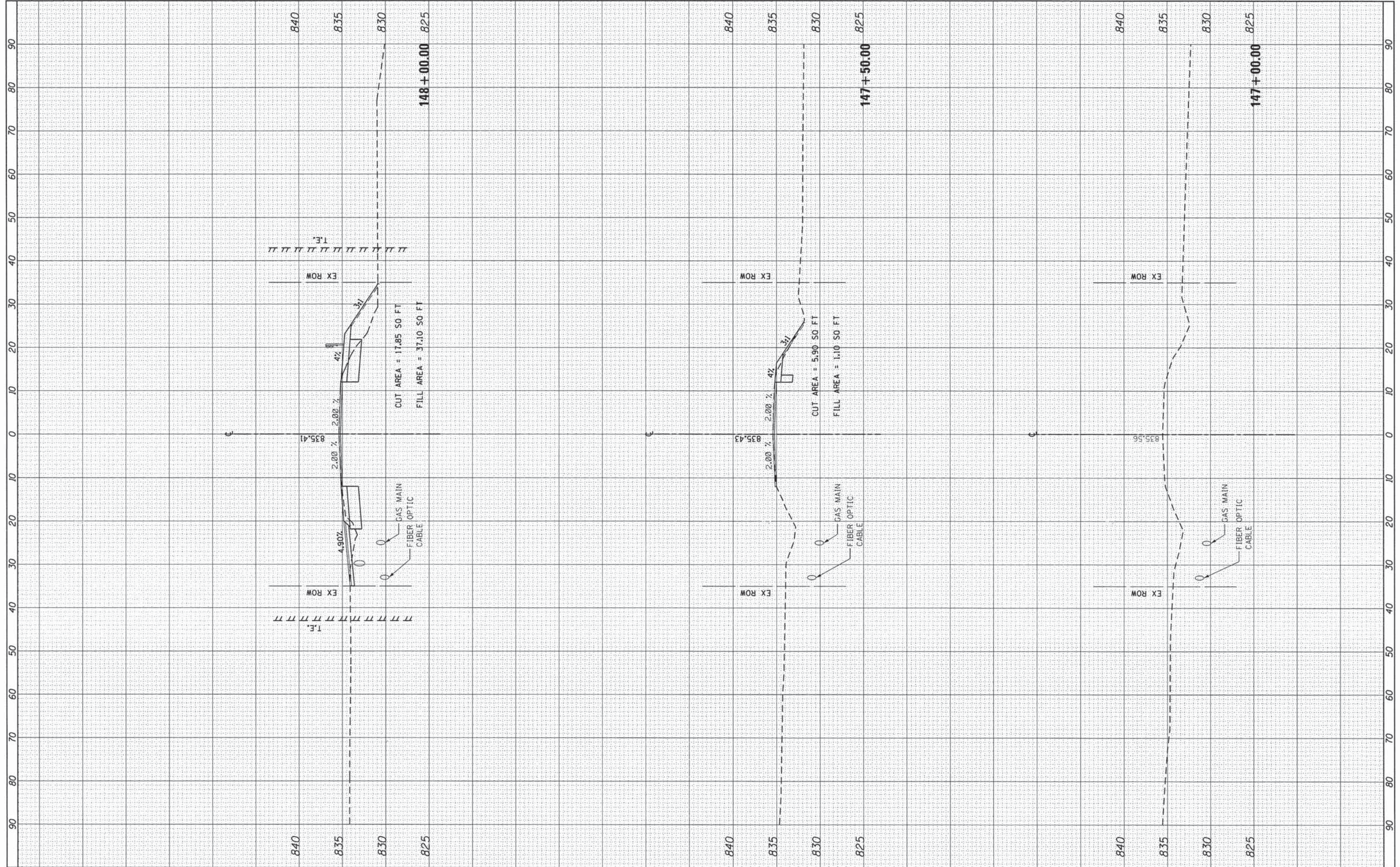
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETOUR SIGNING FOR CLOSING STATE HIGHWAYS</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0033	10-00379-00-BR	MCHENRY	56	53
TC-21		CONTRACT NO. 61A22		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



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	PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/31/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

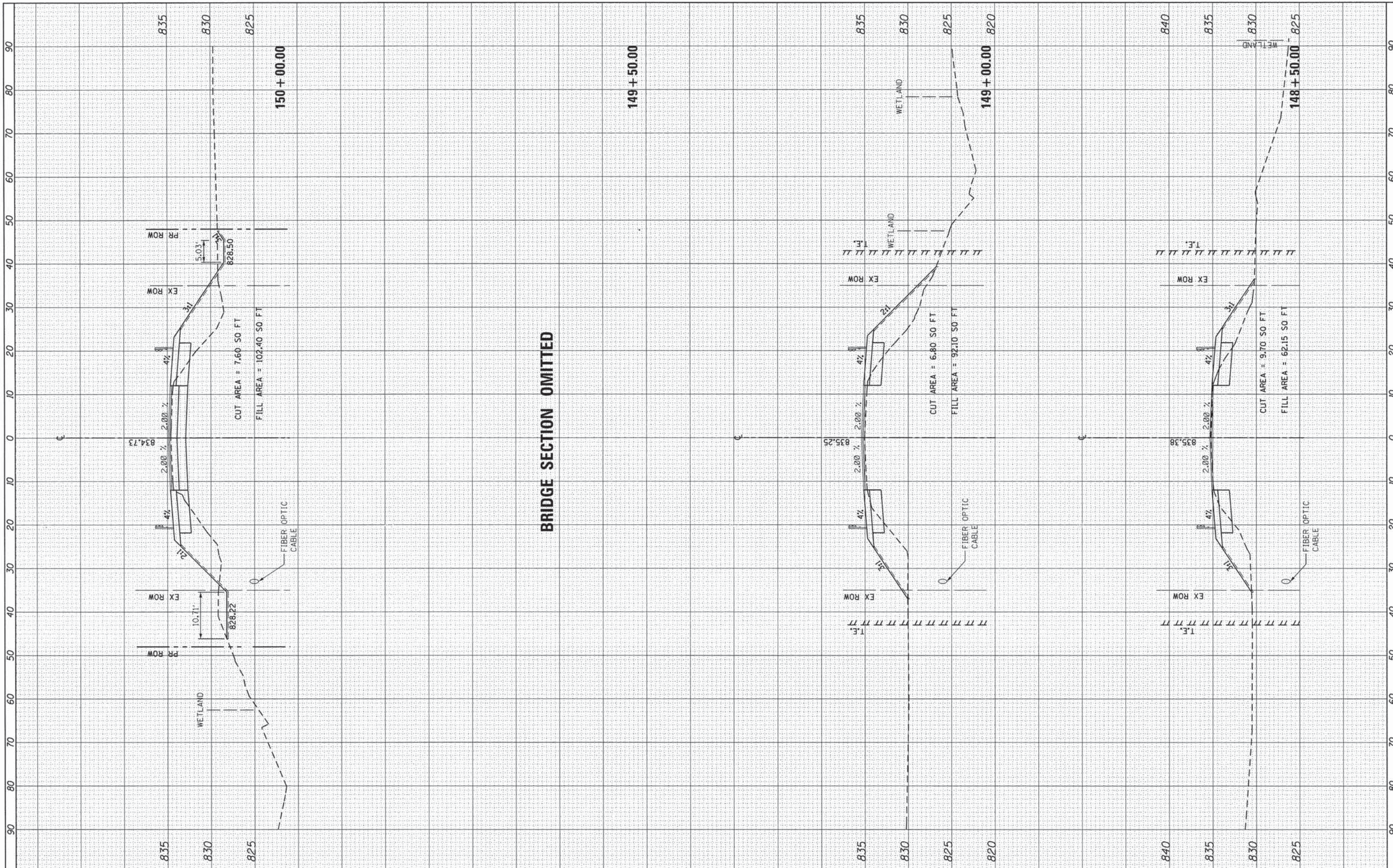
**PROPOSED CROSS SECTIONS**

SCALE: 1" = 10' SHEET 1 OF 3 SHEETS STA. 148+00.00 TO STA. 149+00.00

F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 54
CONTRACT NO. 61A22				
ILLINOIS FED. AID PROJECT				

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

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



**BRIDGE SECTION OMITTED**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS

FILE NAME = I:\8176 Franklinville over Kishwaukee\CADD\Civil

USER NAME = mpoll  
CADD Sheets\DI\XXXXX-ght-xsshLdgn  
PLOT SCALE = 20.0000' / 1" / in.  
PLOT DATE = 1/31/2014

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

REVISED -  
REVISED -  
REVISED -  
REVISED -

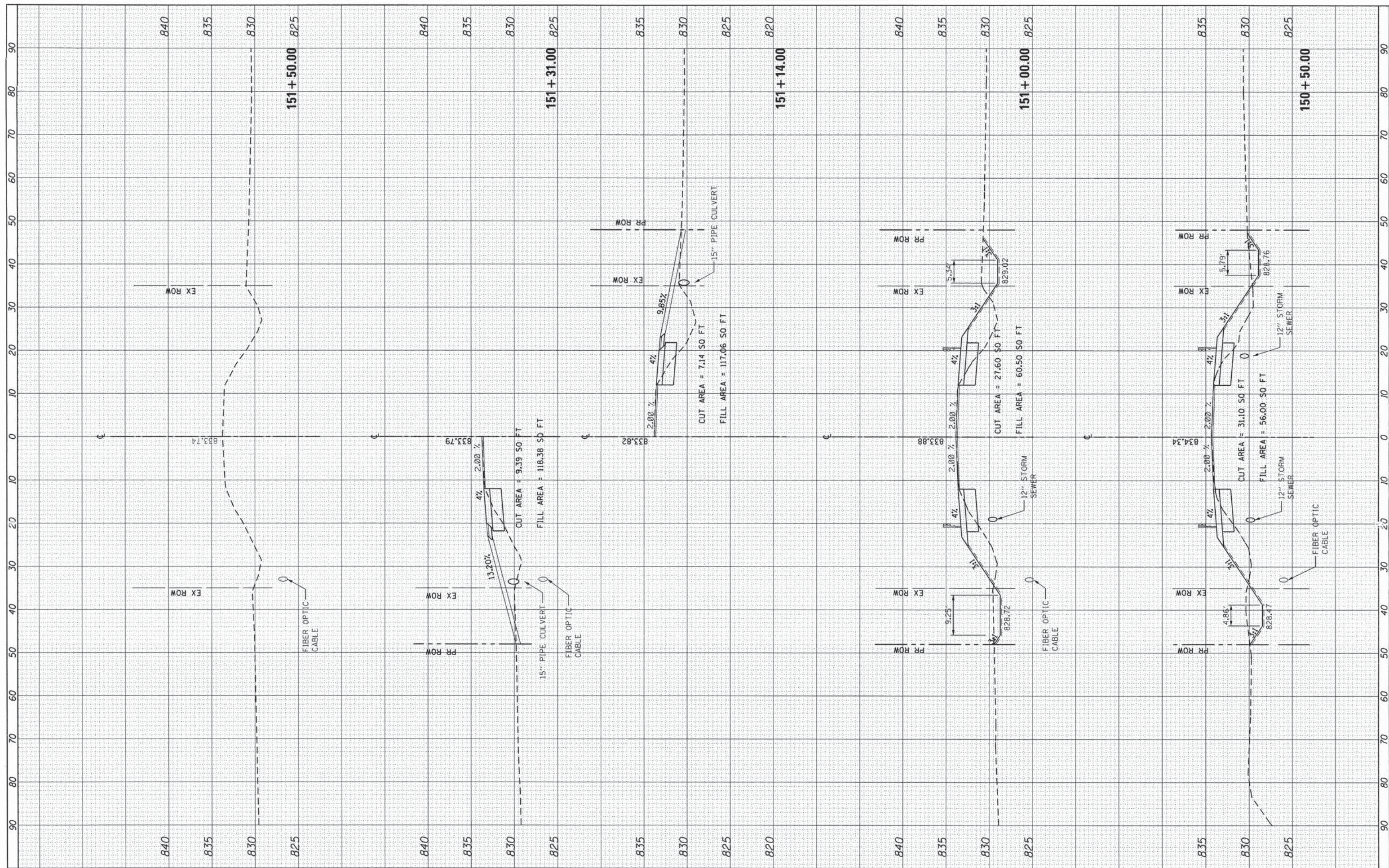
SCALE: 1" = 10' SHEET 2 OF 3 SHEETS STA. 149+25.00 TO STA. 150+25.00

F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 55
				CONTRACT NO. 61A22
ILLINOIS FED. AID PROJECT				



FINAL SURVEY	DATE
PLOTTED	BY
NOTE BOOK	
AREAS	
CHECKED	
NO.	

ORIGINAL SURVEY	DATE
PLOTTED	BY
NOTE BOOK	
AREAS	
CHECKED	
NO.	



FILE NAME = I:\8176 Franklinville over Kishwaukee\CADD\Civil

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 PLOT DATE = 1/31/2014

DESIGNED -  
 DRAWN -  
 CHECKED -  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS

SCALE: 1" = 10' SHEET 3 OF 3 SHEETS STA. 150+50.00 TO STA. 151+31.00

F.A.S. RTE. 0033	SECTION 10-00379-00-BR	COUNTY MCHENRY	TOTAL SHEETS 56	SHEET NO. 56
ILLINOIS FED. AID PROJECT			CONTRACT NO. 61A22	