

# PLANS FOR PROPOSED FEDERAL AID PROJECT HIGHWAY BRIDGE PROGRAM

## FAS ROUTE 63 (N KENT ROAD) SECTION 10-00177-00-BR PROJECT BRS-0063 (106) STRUCTURE REPLACEMENT STEPHENSON COUNTY

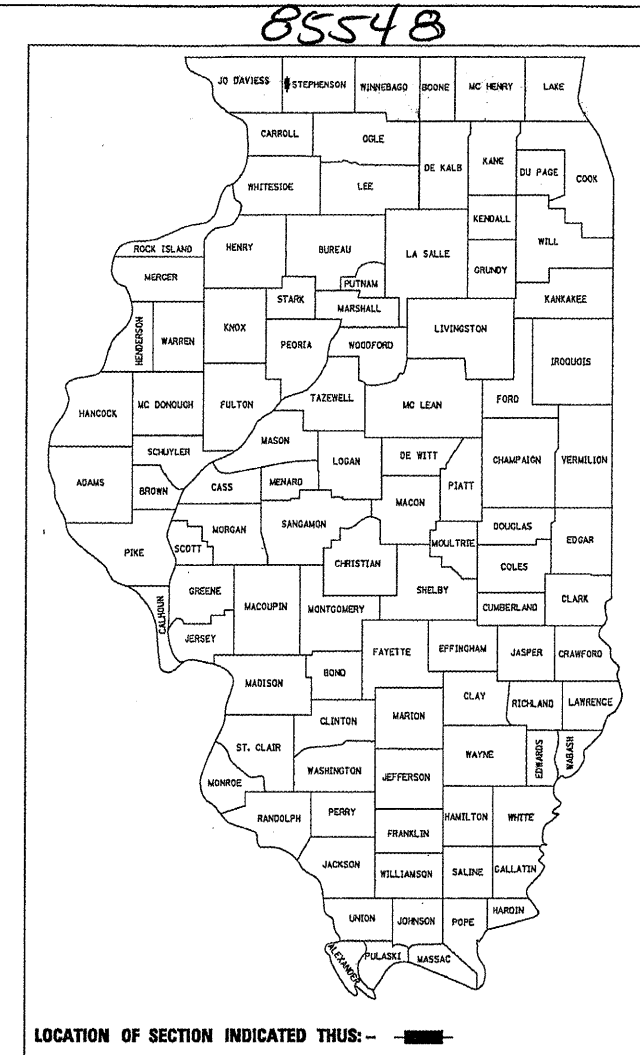
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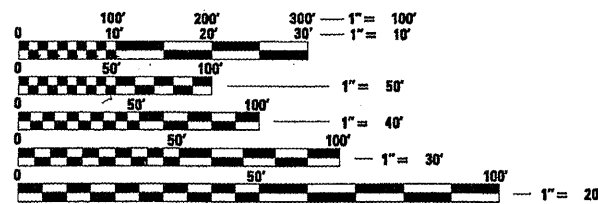


LOCATION OF SECTION INDICATED THIS: — ■ —

### UTILITIES:

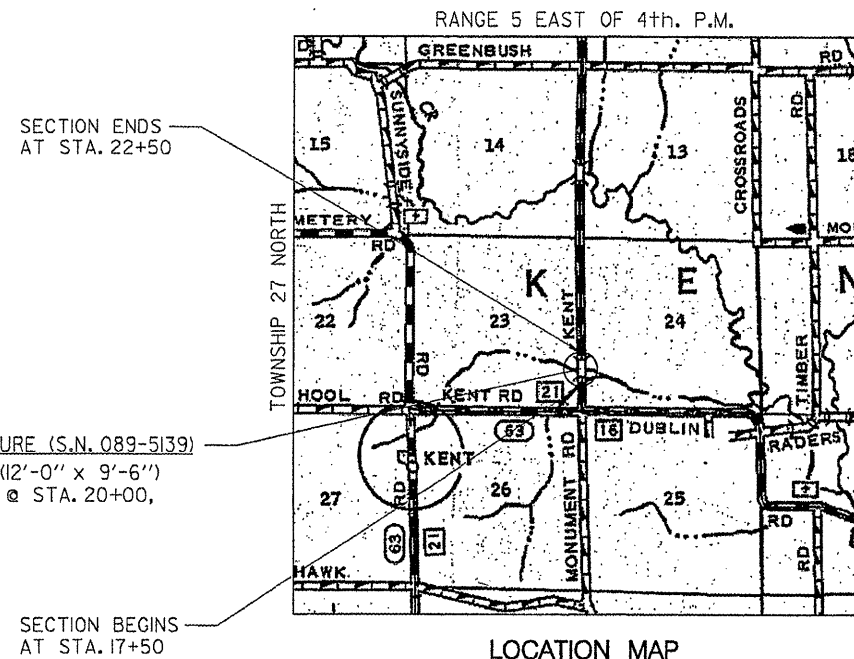
VERIZON (FRONTIER COM.)  
112 ELM STREET  
SYCAMORE, IL 60178  
PH: 815-895-1538  
ATTN: GARRETT BURT

COM ED  
1910 S. BRIGGS ST.  
JOLIET, IL 60433-9599  
PH: 630-437-3313  
ATTN: CRAIG WEBER



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.

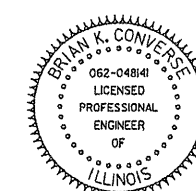
J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811



GROSS LENGTH = 500 FT. = 0.095 MILES  
NET LENGTH = 500 FT. = 0.095 MILES

HIGHWAY CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)  
DESIGN SPEED: 40 M.P.H.  
ADT = 332; 2% Trucks  
POLICY: NEW CONSTRUCTION/RECONSTRUCTION

CONTRACT NO. 85548



Brian K. Converse  
DATE: 11-2-2011  
EXPIRES 11/30/13

STEPHENSON COUNTY HIGHWAY DEPARTMENT	
APPROVED	10-31 <i>Chris F. [Signature]</i> STEPHENSON COUNTY ENGINEER
PASSED	Nov. 7 2011 <i>[Signature]</i> DISTRICT 2 ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	Nov. 7 2011 <i>[Signature]</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

**WILLETT HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918  
WHA #1119D10

85548

### SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE: 0011

ITEM NO.	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
1	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNITS	299
2	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNITS	51
3	20700220	POROUS GRANULAR EMBANKMENT	CU YD	230
4	25100630	EROSION CONTROL BLANKET	SQ YD	2,936
5	28000250	* TEMPORARY EROSION CONTROL SEEDING	POUND	60
6	28000305	TEMPORARY DITCH CHECKS	FOOT	45
7	28000400	PERIMETER EROSION BARRIER	FOOT	153
8	28100107	STONE RIPRAP, CLASS A4	SQ YD	270
9	28200200	FILTER FABRIC	SQ YD	270
10	35101400	* AGGREGATE BASE COURSE, TYPE B	TON	607
11	40600100	* BITUMINOUS MATERIALS (PRIME COAT)	GALLON	611
12	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	158
13	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	105
14	48101200	* AGGREGATE SHOULDERS, TYPE B	TON	50
15	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
16	50800105	REINFORCEMENT BARS	POUND	34,650
17	51500100	NAME PLATES	EACH	1
18	54003000	* CONCRETE BOX CULVERTS	CU YD	215.9
19	63200310	GUARDRAIL REMOVAL	FOOT	281
20	67100100	MOBILIZATION	L SUM	1
21	▲ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,125
22	X2020410	* EARTH EXCAVATION (SPECIAL)	CU YD	1,109
23	X2501000	* SEEDING, CLASS 2 (SPECIAL)	ACRE	0.6
24	X6650200	* WOVEN WIRE FENCE (SPECIAL)	FOOT	798
25	X7010216	* TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

\* INDICATES SPECIAL PROVISION, GENERAL NOTE OR DETAIL

▲ SPECIALTY ITEMS

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<b>REVISION</b>	<b>DATE</b>	<b>BY</b>	<b>REMARKS</b>	<b>DRAWN</b> J.M.K.	<b>FAS 63 (NORTH KENT ROAD) OVER BRANCH OF YELLOW CREEK STATION 20 + 00</b>	 <b>WILLET HOFMANN &amp; ASSOCIATES INC</b> <small>ENGINEERING ARCHITECTURE LAND SURVEYING 309 EAST 2ND STREET, DIXON, IL 61021-0367 T: 815-294-3381 DESIGN FIRM: #184-000918</small>	<b>STEPHENSON COUNTY</b>	<b>SUMMARY OF QUANTITIES STRUCTURE NO. 089-5139 STA. 17 + 50.00 - STA. 22 + 50.00</b>	<b>F.A.S. RTE.</b>	<b>SECTION</b>	<b>COUNTY</b>	<b>TOTAL SHEETS</b>	<b>SHEET NO.</b>
				<b>CHECKED</b> J.R.R.					63	10-00177-00-BR	STEPHENSON	15	2
				<b>APPROVED</b> B.K.C.					WHA# 1119D10		CONTRACT NO. 85548		<small>FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-00631061</small>

**GENERAL NOTES**

Existing structures (including foundations, walls, cisterns, wells, or other underground structures) within the right of way shall be removed in accordance with Article 501.04 and 501.05 of the Standard Specifications, without additional compensation, unless otherwise noted in the Plans or Special Provisions.

The Contractor shall seed all disturbed areas within the project limits.

The final top four inches of soil in any right of way area disturbed by the Contractor must be a cohesive soil capable of supporting vegetation and approved by the Engineer.

No overhaul has been computed and none shall be paid for from any source.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications.

All telephone and electric poles, gas pipes, etc. in the way of the improvements shall be moved by the utilities prior to construction and shall not be included in the contract. The Contractor shall notify the respective utilities to make the necessary adjustments prior to this construction.

The location and elevation of the various underground utilities as shown on the plans are not to be taken as exact. The Contractor shall use special care when conducting construction operations near them to prevent damage.

The utilities located within the project limits or immediately adjacent to the project construction limits include:

ComEd	Verizon (Frontier Com.)
Attn: Craig Weber	Attn: Garrett Burt
1910 S. Briggs St.	112 Elm Street
Joliet, IL 60433-9599	Sycamore, IL 60178
Ph: 630-437-3313	Ph: 815-895-1538

A minimum of 48 hours advance notice is required for non-emergency work.

A Nationwide 404 Permit has been issued for this project and the conditions of that Permit must be adhered to.

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 markers, monuments, and right of way pins until the Owner, an Authorized Surveyor, or Agent has witnessed or otherwise referenced their location. Any property markers, section or subsection monuments unless referenced, damaged by the Contractor shall be replaced at the expense of the Contractor.

Where the proposed construction meets an existing bituminous surface, or where sawing is stated on the plans, the existing shall be sawed in a neat, straight line. Cost of sawing to be included in the contract unit price bid per Cubic Yard for Earth Excavation (Special).

TREE REMOVAL (6 TO 15 UNITS DIAMETER)		
STATION	UNITS	REMARKS
Lt Sta 19+01	10	53' Offset
Lt Sta 19+10	14	52' Offset
Lt Sta 19+12	12	58' Offset
Lt Sta 19+29	10	65' Offset
Lt Sta 19+44	14	70' Offset
Lt Sta 19+58	8	61' Offset
Lt Sta 19+63	14	59' Offset
Lt Sta 19+74	10	56' Offset
Lt Sta 19+81	12	63' Offset
Lt Sta 19+82	8	68' Offset
Lt Sta 19+89	7	68' Offset
Lt Sta 19+89	14	73' Offset
Lt Sta 19+90	7	70' Offset
Lt Sta 20+29	6	43' Offset
Lt Sta 20+30	6	46' Offset
Lt Sta 20+35	6	45' Offset
Lt Sta 20+39	6	52' Offset
Lt Sta 20+43	6	48' Offset
Lt Sta 20+45	8	43' Offset
Lt Sta 20+48	8	44' Offset
Lt Sta 20+55	8	57' Offset
Lt Sta 20+58	8	58' Offset
Lt Sta 20+65	14	46' Offset
Lt Sta 20+69	10	43' Offset
Lt Sta 20+70	7	40' Offset
Lt Sta 20+73	10	40' Offset
Lt Sta 20+74	12	49' Offset
Lt Sta 20+77	8	40' Offset
Lt Sta 20+87	8	43' Offset
Lt Sta 20+88	8	47' Offset
Lt Sta 20+88	8	47' Offset
Lt Sta 21+09	12	53' Offset
<b>PROJECT TOTAL</b>	<b>299</b>	

20100110

TREE REMOVAL (OVER 15 UNITS DIAMETER)		
STATION	UNITS	REMARKS
Lt Sta 19+34	27	52' Offset
Lt Sta 20+21	24	61' Offset
<b>PROJECT TOTAL</b>	<b>51</b>	

20100210

EROSION CONTROL BLANKET		
STATION	SQ YD	REMARKS
Lt Sta 17+50 To 22+50	1,328	
Rt Sta 17+50 To 22+50	1,608	
<b>PROJECT TOTAL</b>	<b>2,936</b>	

25100630

85548

TEMPORARY EROSION CONTROL SEEDING		
STATION	POUND	REMARKS
Lt Sta 17+50 To 22+50	27	CALCULATION BASED ON 100 LB PER ACRE
Rt Sta 17+50 To 22+50	33	CALCULATION BASED ON 100 LB PER ACRE
<b>PROJECT TOTAL</b>	<b>60</b>	

28000250\*

TEMPORARY DITCH CHECKS		
STATION	FOOT	REMARKS
Rt Sta 19+50	9	
Rt Sta 20+50	9	
Lt Sta 20+30	9	
Lt Sta 20+90	9	
Lt Sta 21+45	9	
<b>PROJECT TOTAL</b>	<b>45</b>	

28000305

PERIMETER EROSION BARRIER		
STATION	FOOT	REMARKS
Lt Sta 17+50 To 19+00	153	
<b>PROJECT TOTAL</b>	<b>153</b>	

28000400

AGGREGATE BASE COURSE, TYPE B		
STATION	TON	REMARKS
Sta 17+50 To 22+50	607	
<b>PROJECT TOTAL</b>	<b>607</b>	

35101400\*

BITUMINOUS MATERIALS (PRIME COAT)		
STATION	GALLON	REMARKS
Sta 17+50 To 22+50	489	Over Aggregate Base
Sta 17+50 To 22+50	122	Over Binder Course
<b>PROJECT TOTAL</b>	<b>611</b>	

40600100\*

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REVISION	DATE	BY	REMARKS

DRAWN J.M.K.	<b>FAS 63 (NORTH KENT ROAD) OVER BRANCH OF YELLOW CREEK STATION 20+00</b>
CHECKED J.P.R.	
APPROVED B.K.C.	

**FAS 63 (NORTH KENT ROAD) OVER  
BRANCH OF YELLOW CREEK  
STATION 20+00**



**STEPHENSON COUNTY**

**GENERAL NOTES AND SCHEDULES OF QUANTITIES  
STRUCTURE NO. 089-5139  
STA. 17+50.00 - STA. 22+50.00**

F.A.S. RTE. 63	SECTION 10-00177-00-BR	COUNTY STEPHENSON	TOTAL SHEETS 15	SHEET NO. 3
WHA# 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-00631061				

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HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50		
STATION	TON	REMARKS
Sta 17+50 To 22+50	158	2 1/4"; CALCULATION BASED ON 115 LB/SY/IN
<b>PROJECT TOTAL</b>	<b>158</b>	

40603080

SEEDING, CLASS 2 (SPECIAL)		
STATION	ACRE	REMARKS
Lt Sta 17+50 To 22+50	0.3	
Rt Sta 17+50 To 22+50	0.3	
<b>PROJECT TOTAL</b>	<b>0.6</b>	

X2501000\*

HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50		
STATION	TON	REMARKS
Sta 17+50 To 22+50	105	1 1/2"; CALCULATION BASED ON 115 LB/SY/IN
<b>PROJECT TOTAL</b>	<b>105</b>	

40603310

WOVEN WIRE FENCE (SPECIAL)		
STATION	FOOT	REMARKS
Lt Sta 17+50 To 22+50	329	
Rt Sta 17+50 To 22+50	469	
<b>PROJECT TOTAL</b>	<b>798</b>	

X6650200\*

AGGREGATE SHOULDERS, TYPE B		
STATION	TON	REMARKS
Lt Sta 17+50 To 22+50	25	
Rt Sta 17+50 To 22+50	25	
<b>PROJECT TOTAL</b>	<b>50</b>	

48101200\*

GUARDRAIL REMOVAL		
STATION	FOOT	REMARKS
Lt. Sta 18+83 To 20+61	178	
Rt Sta 19+45 To 20+48	103	
<b>PROJECT TOTAL</b>	<b>281</b>	

63200310

PAINT PAVEMENT MARKING - LINE 4"		
STATION	FOOT	REMARKS
Sta 17+50 To 22+50	125	Yellow 10-30 Skip Dash Centerline
Lt & Rt Sta 17+50 To 22+50	1,000	Solid White Edgelines
<b>PROJECT TOTAL</b>	<b>1,125</b>	

78001110

EARTH EXCAVATION (SPECIAL)		
STATION	CU YD	REMARKS
Sta 17+50 To 22+50	1,109	
<b>PROJECT TOTAL</b>	<b>1,109</b>	

X2020410\*

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REVISION	DATE	BY	REMARKS	DRAWN
				J.M.K.
				CHECKED J.R.R.
				APPROVED B.K.C.

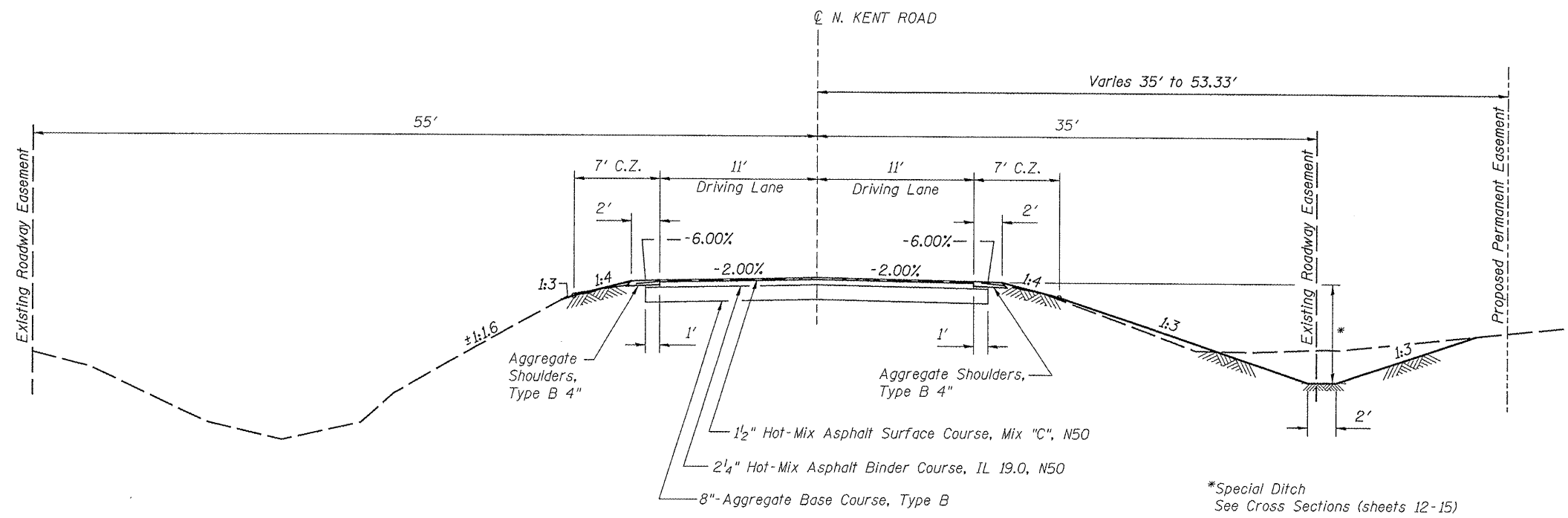
FAS 63 (NORTH KENT ROAD) OVER  
BRANCH OF YELLOW CREEK  
STATION 20 + 00



STEPHENSON COUNTY

GENERAL NOTES AND SCHEDULES OF QUANTITIES  
STRUCTURE NO. 089-5139  
STA. 17 + 50.00 - STA. 22 + 50.00

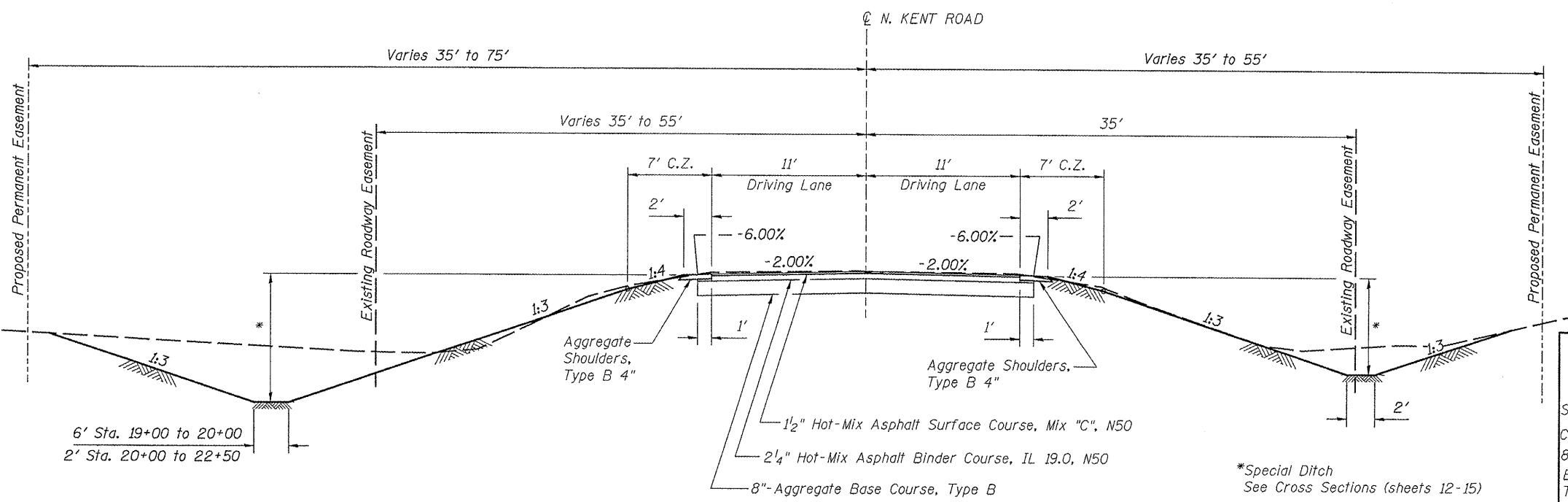
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	4
WHA# 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-0063106J				



**PROPOSED ROADWAY TYPICAL SECTION**  
Station 17+50 to 19+00

**PAVEMENT MIXTURE REQUIREMENTS**

	Binder	Surface
PG:	PG 64-22	PG 64-22
Design Air Voids	4.0 @ N50	4.0 @ N50
Mixture Composition (Gradation Mixture)	IL 19.0	IL 12.5 or 9.5
Friction Aggregate	—	C
ESALS	0.2	0.2



**PROPOSED ROADWAY TYPICAL SECTION**  
Station 19+00 to 22+50

**PAVEMENT STRUCTURAL DESIGN**  
**N. KENT ROAD**

Structural Design Traffic (S.D.T.) = Year 2022 (New Construction/Reconstruction Guidelines)  
 Class III Street P.V. 410  
 80,000# Truck Design S.U. 33 } 466 ADT  
 E<sub>RI</sub> : (Assumed) 2 ksi M.U. 23  
 TF = 0.125  
 HMA Mix Temp. 72°F  
 HMA E<sub>AC</sub> = 770 ksi  
 HMA Design Strain 270 microstrain

**USE:**

1 1/2" Hot-Mix Asphalt Surface Course, Mix "C", N50  
 2 1/4" Hot-Mix Asphalt Binder Course, IL-19.0, N50  
 8" Aggregate Base Course, Type B

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REVISION	DATE	BY	REMARKS

DRAWN  
R.D.A.  
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B.S.K.  
APPROVED  
B.K.C.

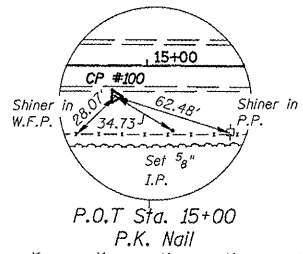
**FAS 63 (NORTH KENT ROAD) OVER  
BRANCH OF YELLOW CREEK  
STATION 20+00**



**STEPHENSON COUNTY**

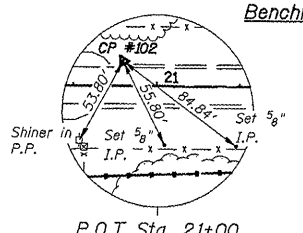
**TYPICAL SECTIONS  
STRUCTURE NO. 089-5139  
STA. 17+50.00 - STA. 22+50.00**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	5
WHA# 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-00631067				



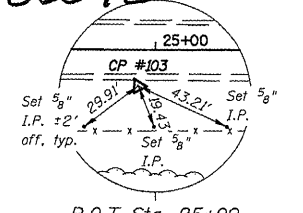
Benchmark: Rail Road Spike in 3rd Power Pole South of Structure; 33.7' Rt. of Sta. 15+43, El. 842.59

Benchmark: Chiseled "□" on the S/E Corner of Existing Culvert; 20.3' Rt. of Sta. 19+88, El. 840.96

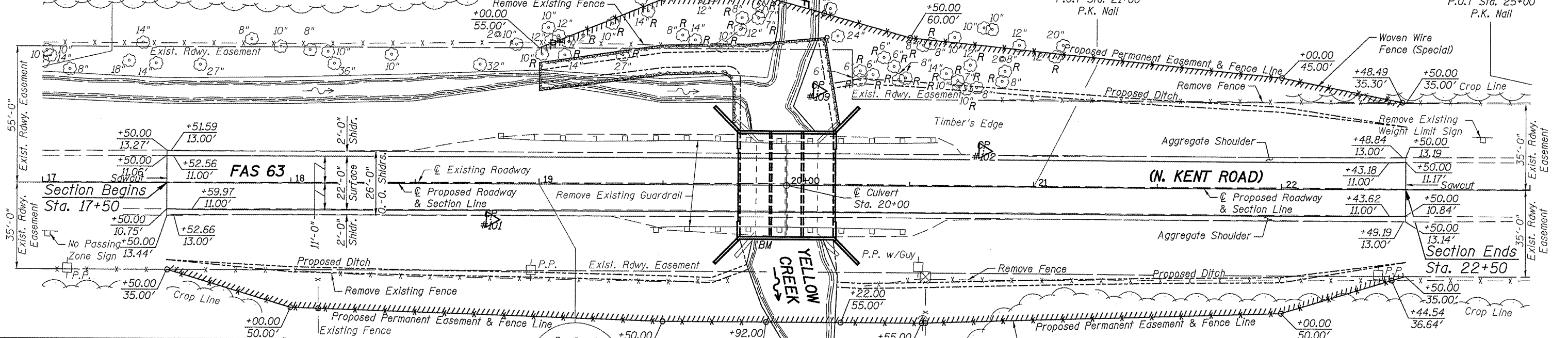


Benchmark: Rail Road Spike in 3rd Power Pole North of Existing Structure; 34.3' Rt. of Sta. 24+16, El. 843.81

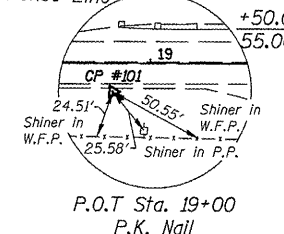
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P.O.T. Sta. 25+00 P.K. Nail



F.A.S. 63 (NORTH KENT ROAD) - HORIZONTAL CONTROL POINTS					
PT #	STA.	N	E	EL.	DESCRIPTION
100	15.7' RT 14+83.6	2057575.88	2373312.29	845.40	IP
101	14.6' RT 18+80.6	2057972.72	2373300.38	843.31	IP
102	14.6' LT 20+79.8	2058171.02	2373265.67	843.25	IP
103	15.8' RT 24+92.6	2058584.53	2373284.84	845.92	IP
104	13.9' RT 16+92.5	2057784.68	2373304.78	843.77	IP
109	38.3' LT 20+12.6	2058103.21	2373243.88	835.32	IP

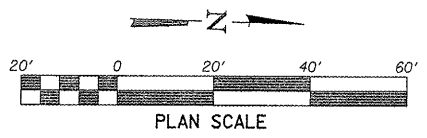


P.O.T. Sta. 19+00 P.K. Nail

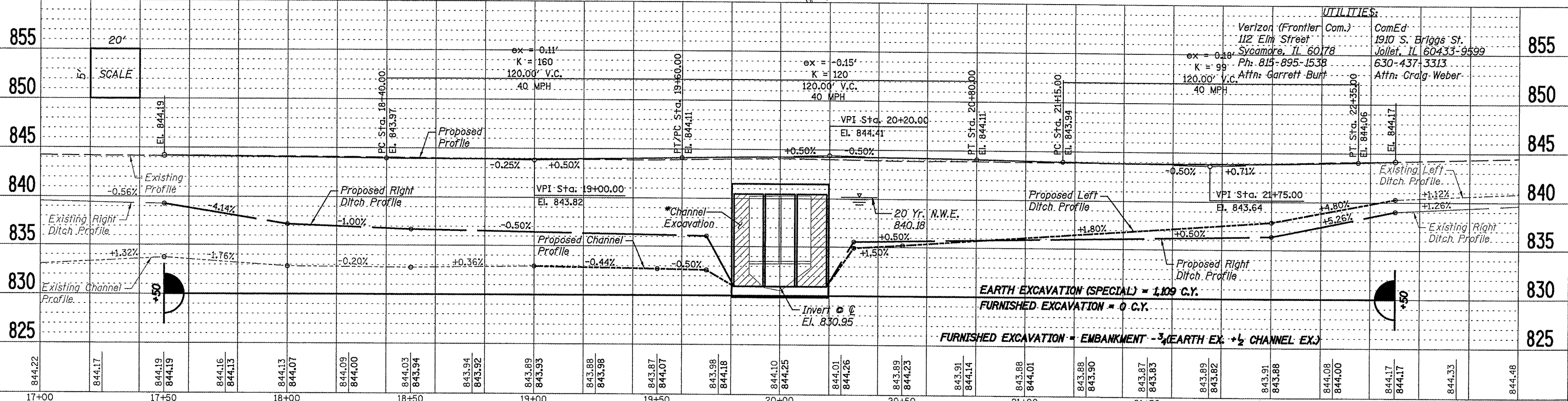
Existing Structure: S.N. 089-5011  
A double barrel (12'-0"x7'-0") reinforced concrete box culvert at Sta. 20+00.  
Skewed 0°.

\*Channel Excavation shall be included in the price for Concrete Box Culverts. (See Special Provisions)

Proposed Structure: S.N. 089-5139  
A triple barrel (12'-0"x9'-6") reinforced concrete box culvert at Sta. 20+00.  
Skewed 0°.



Call Before You Dig  
**JULIE**  
ILLINOIS ONE-CALL SYSTEM  
1-800-892-0123



EARTH EXCAVATION (SPECIAL) = 1109 C.Y.  
FURNISHED EXCAVATION = 0 C.Y.  
FURNISHED EXCAVATION = EMBANKMENT - 3/4 (EARTH EX. + 1/2 CHANNEL EX.)

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REVISION	DATE	BY	REMARKS

**FAS 63 (NORTH KENT ROAD) OVER BRANCH OF YELLOW CREEK STATION 20+00**

**WILLET HOFMANN ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-00918

**STEPHENSON COUNTY**

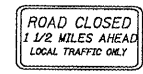




**PLAN & PROFILE**  
**STRUCTURE NO. 089-5139**  
**STA. 17+50.00 - STA. 22+50.00**

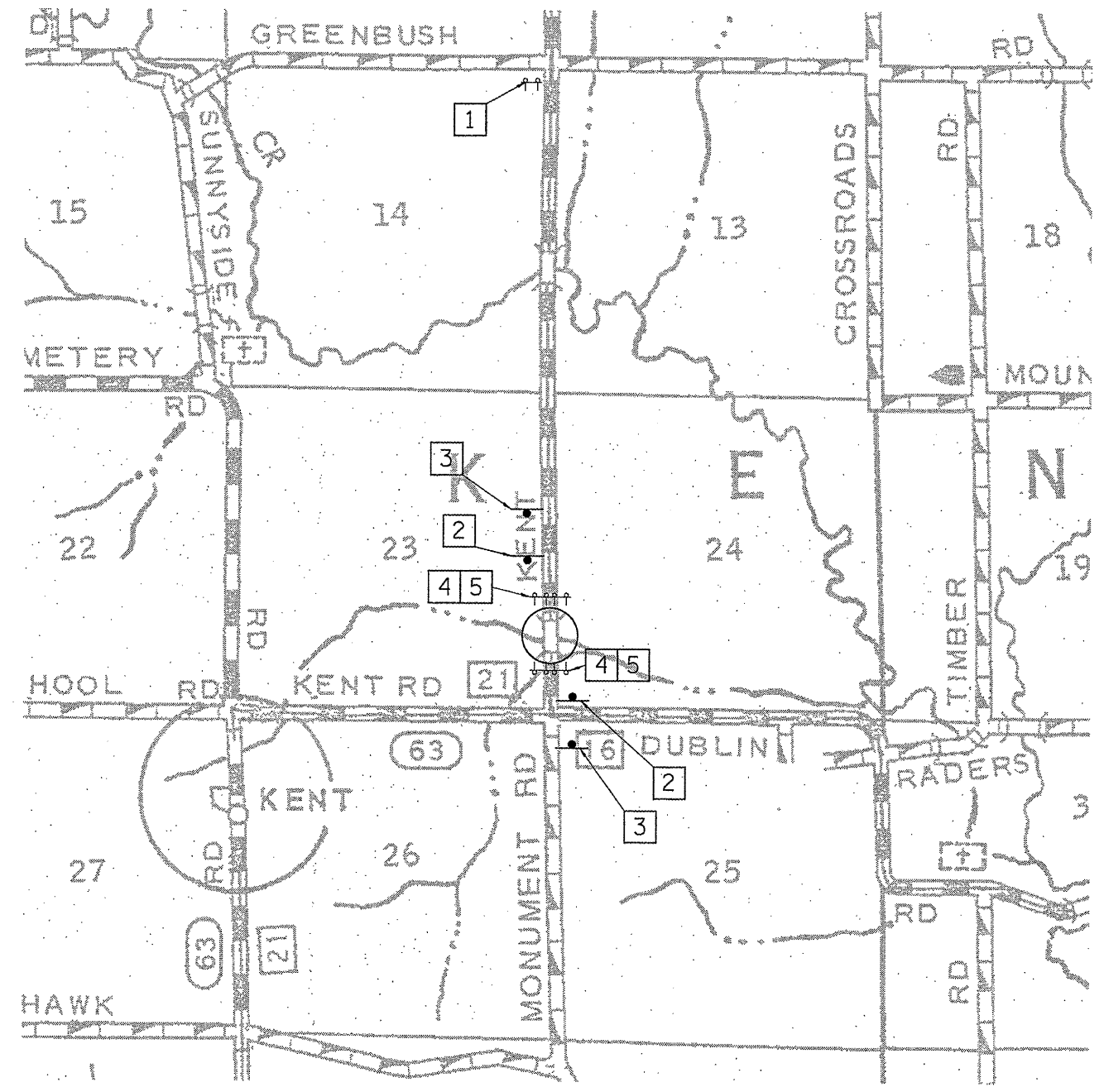
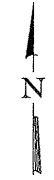
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	6

WHA# 1119D10 CONTRACT NO. 85548  
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-00631061

85548

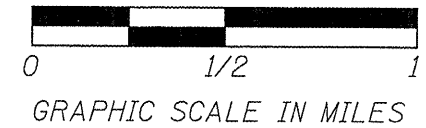
SIGN LEGEND

- ①  R11-3a, 60" X 30"  
(1 REQ'D)
- ②  W20-3, 48" X 48" \*\*  
(2 REQ'D)
- ③  W20-3, 48" X 48" \*\*  
(2 REQ'D)
- ④  R11-2, 48" X 30"  
(2 REQ'D)
- ⑤  TYPE III BARRICADES WITH TWO FLASHING LIGHTS EACH, HIGHWAY STANDARD 701901 (PLACED AFTER LAST ENTRANCE)



NOTES:

See the applicable standards for use of flags and flashing lights.



FILE = S:\PROJECTS\2010\1119010\_Stephenson\_Co\_N\_Kent\_Rd\DESIGN\STRUCT\TrafficControlPlan.dgn

REVISION	DATE	BY	REMARKS	DRAWN
				J.R.R.
				CHECKED B.S.K.
				APPROVED B.K.C.

FAS 63 (NORTH KENT ROAD) OVER  
BRANCH OF YELLOW CREEK  
STATION 20 + 00

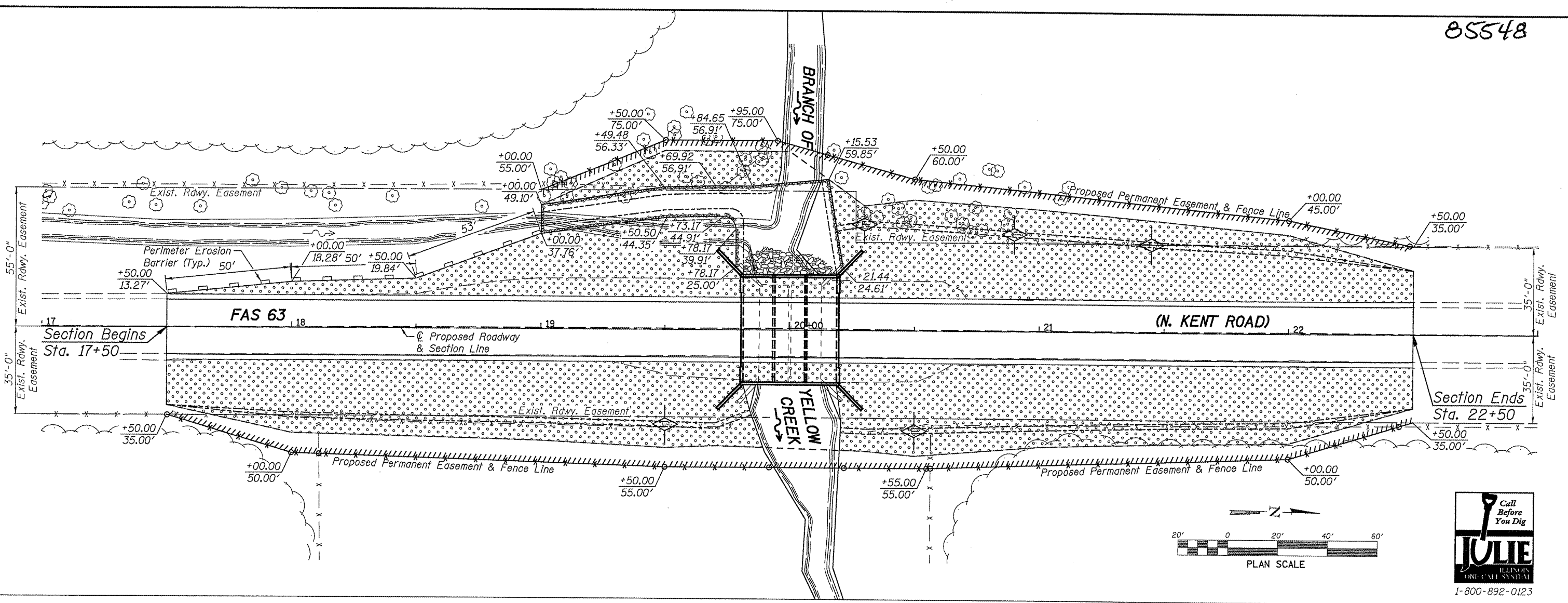


**WILLET HOFMANN ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

STEPHENSON COUNTY

TRAFFIC CONTROL PLAN  
STRUCTURE NO. 089-5139  
STA. 17+50.00 - STA. 22+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	7
WHA# 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-0063106				



**EROSION CONTROL NOTES**

The Soil Erosion And Sediment Control Practices Will Be Inspected Weekly And After 1/2" Of Rain Or More By The Individual On Site In Charge Of Soil Erosion And Sediment Control During The Construction Of The Project.

Perimeter Erosion Barrier Shall Comply With Section 280 Of The Standard Specifications And Shall Be Placed As Shown On The Erosion Control Plan And In Accordance With Stations Shown On The Schedule Of Quantities Sheet Or As Directed By The Engineer.

Silt Fence Shall Be Installed Following The Completion And Stabilization Of All Areas Adjacent To The On-Site Drainages. The Silt Fence Will Remain In Place Until The Contributing Area Is Stabilized.

For Seeding, Class 2 (Special) See Special Provisions.

Erosion Control Blanket Shall Be Placed In Ditches And To All Disturbed Areas As Shown On This Erosion Control Plan Sheet And In Accordance With Section 251 Of The Standard Specifications For Road And Bridge Construction. The Use Of Green Dye In The Erosion Control Blanket Is Not Acceptable.

The Use Of Asphalt As A Binder Is Not Acceptable.

Temporary Ditch Checks Shall Comply With Section 280 Of The Standard Specifications For Road And Bridge Construction And Standard 280001 Located In The Plans.

Temporary Ditch Checks Shall Be Placed At Stations Called Out In The Schedule Of Quantities Or As Directed By The Engineer.

Stockpiles Of Soil And Other Building Materials To Remain In Place More Than Three (3) Days Shall Be Furnished With Erosion And Sediment Control Measures (I.E. Perimeter Silt Fence). Stockpiles To Remain In Place For 14 Days Or More Shall Receive Temporary Seeding.

All Adjacent Streets Must Be Kept Clear Of Debris. Inspected Daily And Cleaned When Necessary.

**BILL OF MATERIAL**

Item	Unit	Quantity
Erosion Control Blanket	Sq. Yd.	2,936
Temporary Erosion Control Seeding	Pound	60
Temporary Ditch Checks	Foot	45
Perimeter Erosion Barrier	Foot	153
Stone Riprap, Class A4	Sq Yd	270
Filter Fabric	Sq Yd	270
Seeding, Class 2 (Special)	Acre	0.6

**LEGEND**

- PERIMETER EROSION BARRIER
- DRAINAGE FLOW
- TEMPORARY DITCH CHECK
- SEEDING, CLASS 2 & EROSION CONTROL BLANKET
- STONE RIPRAP, CLASS A4

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REVISION	DATE	BY	REMARKS	DRAWN
				J.M.K.
				CHECKED J.R.R.
				APPROVED B.K.C.

**FAS 63 (NORTH KENT ROAD) OVER  
BRANCH OF YELLOW CREEK  
STATION 20+00**



**STEPHENSON COUNTY**

**EROSION CONTROL PLAN  
STRUCTURE NO. 089-5139  
STA. 17+50.00 - STA. 22+50.00**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	8
WHA# 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-0063(06)				



85548

# STORM WATER POLLUTION PREVENTION PLAN EROSION CONTROL PLAN

THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE SILTATION WITHIN THE CONSTRUCTION ZONE AND TO ELIMINATE SEDIMENTS FROM ENTERING AND LEAVING THE CONSTRUCTION ZONE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN ITEMS, AS SHOWN IN THIS PLAN AND REFERENCED BY THE LEGEND, SHALL BE PLACED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION RESULTING FROM THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL PLACE PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A REASONABLE AMOUNT OF TIME; THEREFORE, REDUCING THE AMOUNT OF AREA BEING OPEN TO THE POSSIBILITY OF EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE RESIDENT ENGINEER WILL DETERMINE IF TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED, THE PROPER METHOD OF INSTALLATION, AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS SHALL BE ADDED WHICH ARE NOT INCLUDED IN THE PLANS. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

### SITE DESCRIPTION

THE PROJECT IS LOCATED IN THE SOUTHEAST QUARTER OF SECTION 32, TOWNSHIP 27 NORTH, RANGE 5 EAST OF THE 4TH PRINCIPAL MERIDIAN, STEPHENSON COUNTY, ILLINOIS, 4 MILES NORTHWEST OF PEARL CITY.

THIS PROJECT CONSISTS OF REMOVAL OF THE EXISTING BOX CULVERT AND REPLACEMENT WITH A TRIPLE BARREL (12' X 9'-6") REINFORCED CONCRETE BOX CULVERT WITH COMPLETE RECONSTRUCTION OF 500 FEET OF APPROACH ROADWAY.

### DESCRIPTION OF INTENDED SEQUENCE OF ACTIVITIES:

EARTH EXCAVATION, BOX CULVERT, AGGREGATE BASE, BITUMINOUS SURFACE, DITCH SHAPING, AND PERMANENT SEEDING.

TOTAL CONSTRUCTION SITE (CONSTRUCTION LIMIT TO CONSTRUCTION LIMIT) 0.99 ACRES  
SEED AREA 0.60 ACRES

### SUPPORTING REPORTS AND PLANS

THE FOLLOWING ASSISTED IN DEVELOPING THE EROSION CONTROL PLAN AS REFERENCED DOCUMENTS:

USGS DRAINAGE MAPS, PROJECT PLAN DOCUMENTS

DRAINAGE TRIBUTARIES RECEIVING WATER FROM CONSTRUCTION SITE:  
YELLOW CREEK

EROSION CONTROLS AND SEDIMENT CONTROL PROCEDURES  
STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:  
N/A

### STABILIZATION PRACTICES DURING CONSTRUCTION:

- (a) WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
- (b) EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
- (c) AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:
  - I. PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.
  - II. TEMPORARILY SEED ERODABLE BARE EARTH ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODABLE SURFACE AREA WITHIN THE CONTRACT LIMITS.
- (d) EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR SEVEN DAYS.
- (e) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR OTHER POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
- (f) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2 INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.
- (g) SEDIMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR EARTH EXCAVATION (SPECIAL).
- (h) THE TEMPORARY EROSION CONTROL SYSTEM SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

### MAINTENANCE AFTER FINAL GRADING

TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED WITH THE PROPER STAND.

FILE = SA\PROJECTS\2010\1119010\_Stephenson\_Co., IL\Ken.C. Rd\DESIGN\STRUCT\swppk\ken.c.dgn

REVISION	DATE	BY	REMARKS

DRAWN	J.R.R.
CHECKED	B.S.K.
APPROVED	B.K.C.

FAS 63 (NORTH KENT ROAD) OVER  
BRANCH OF YELLOW CREEK  
STATION 20+00

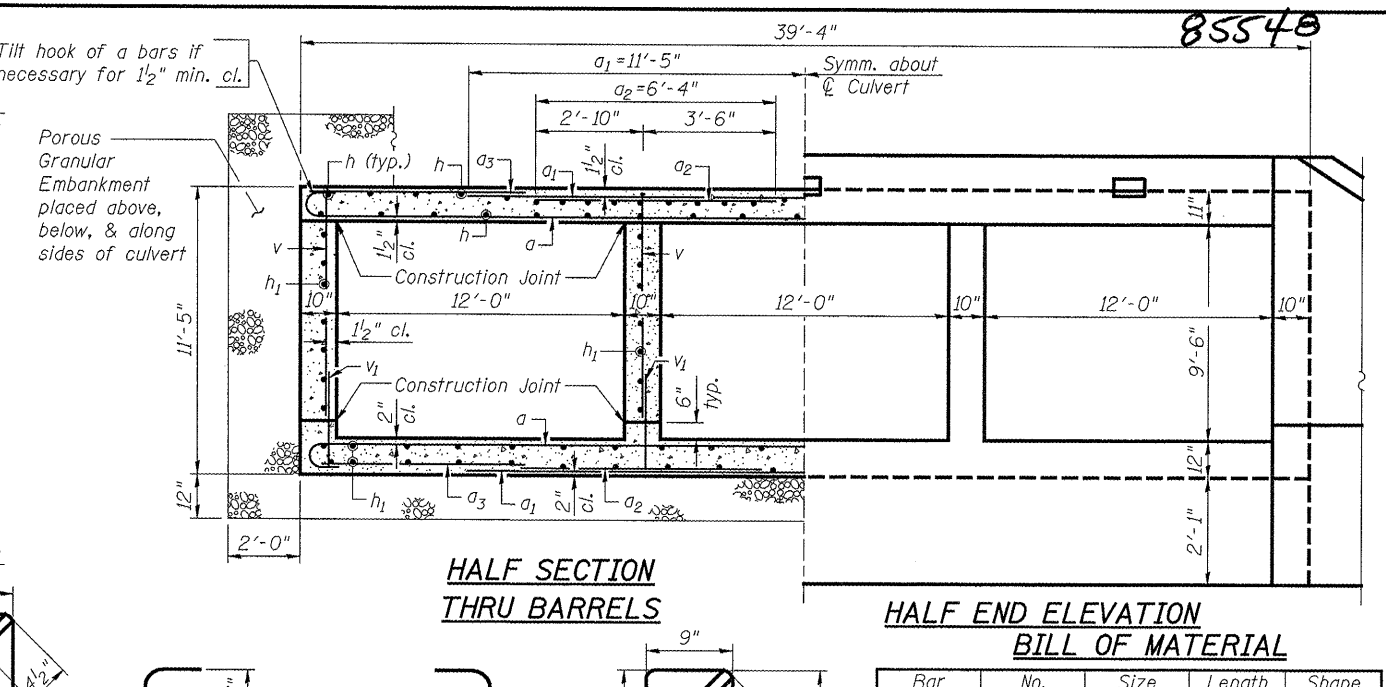
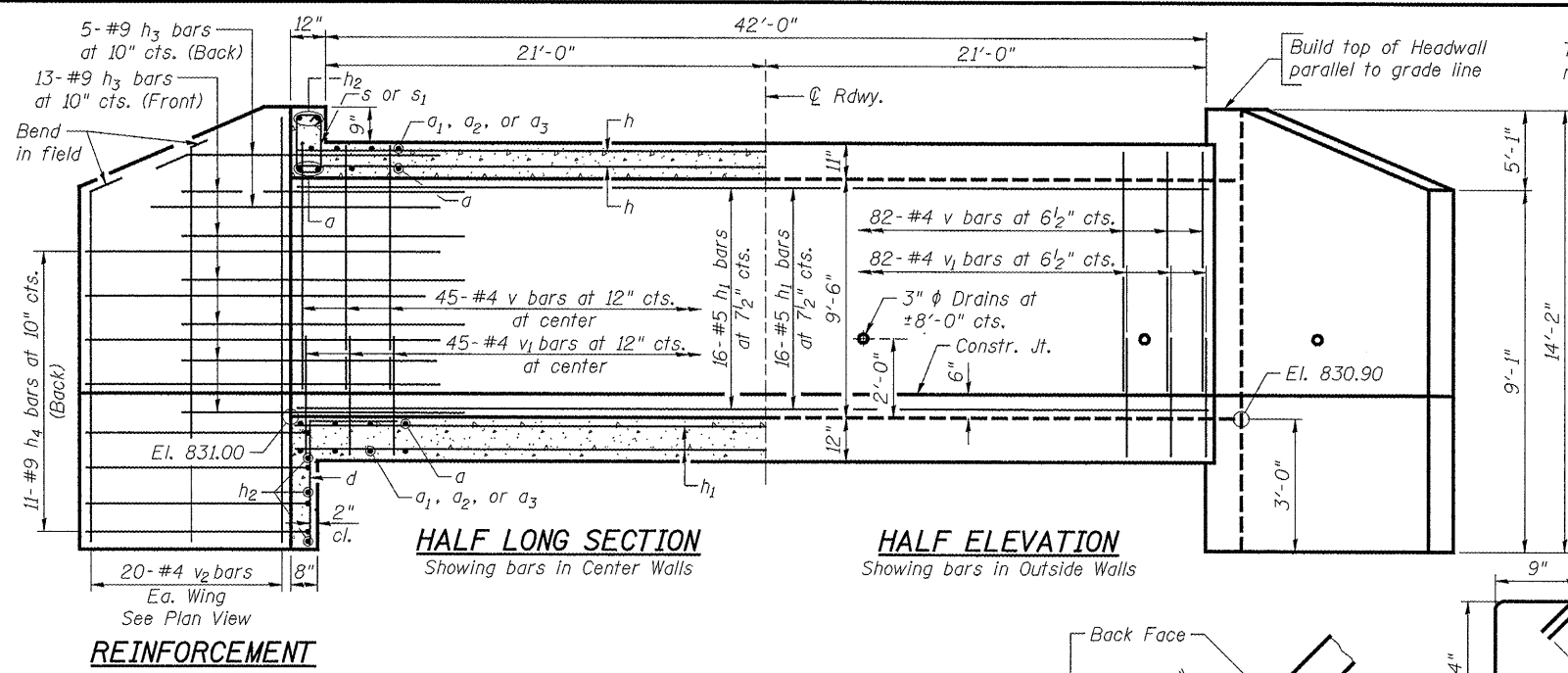


STEPHENSON COUNTY

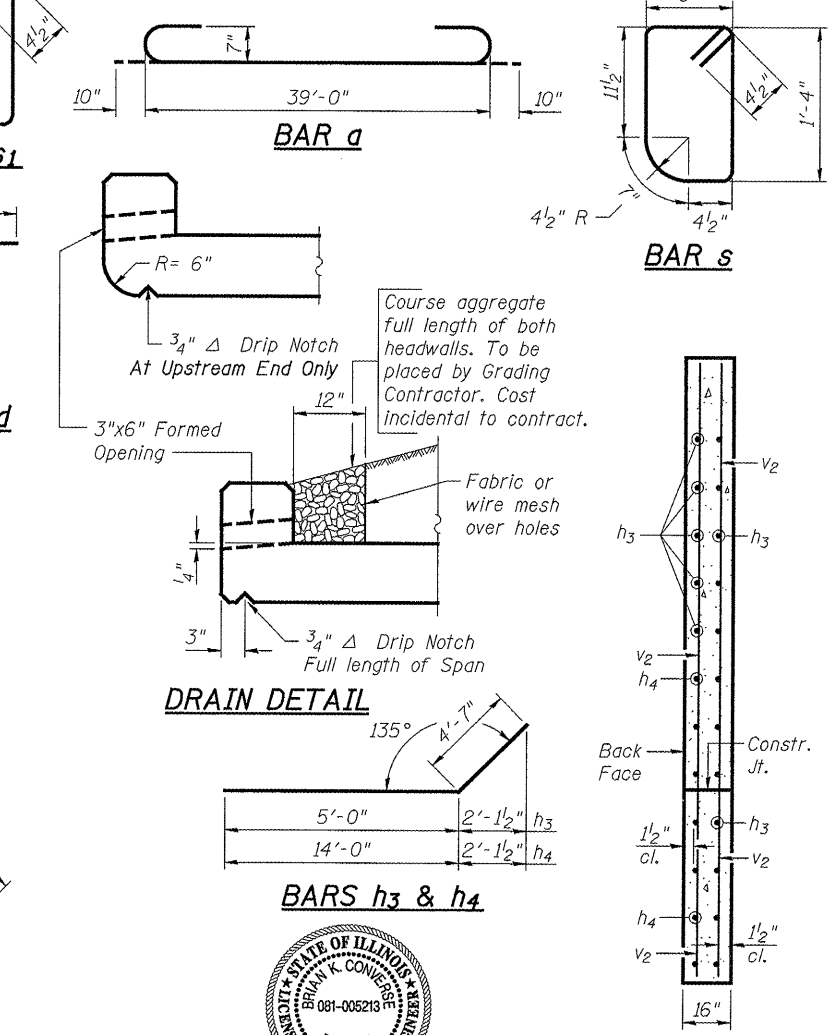
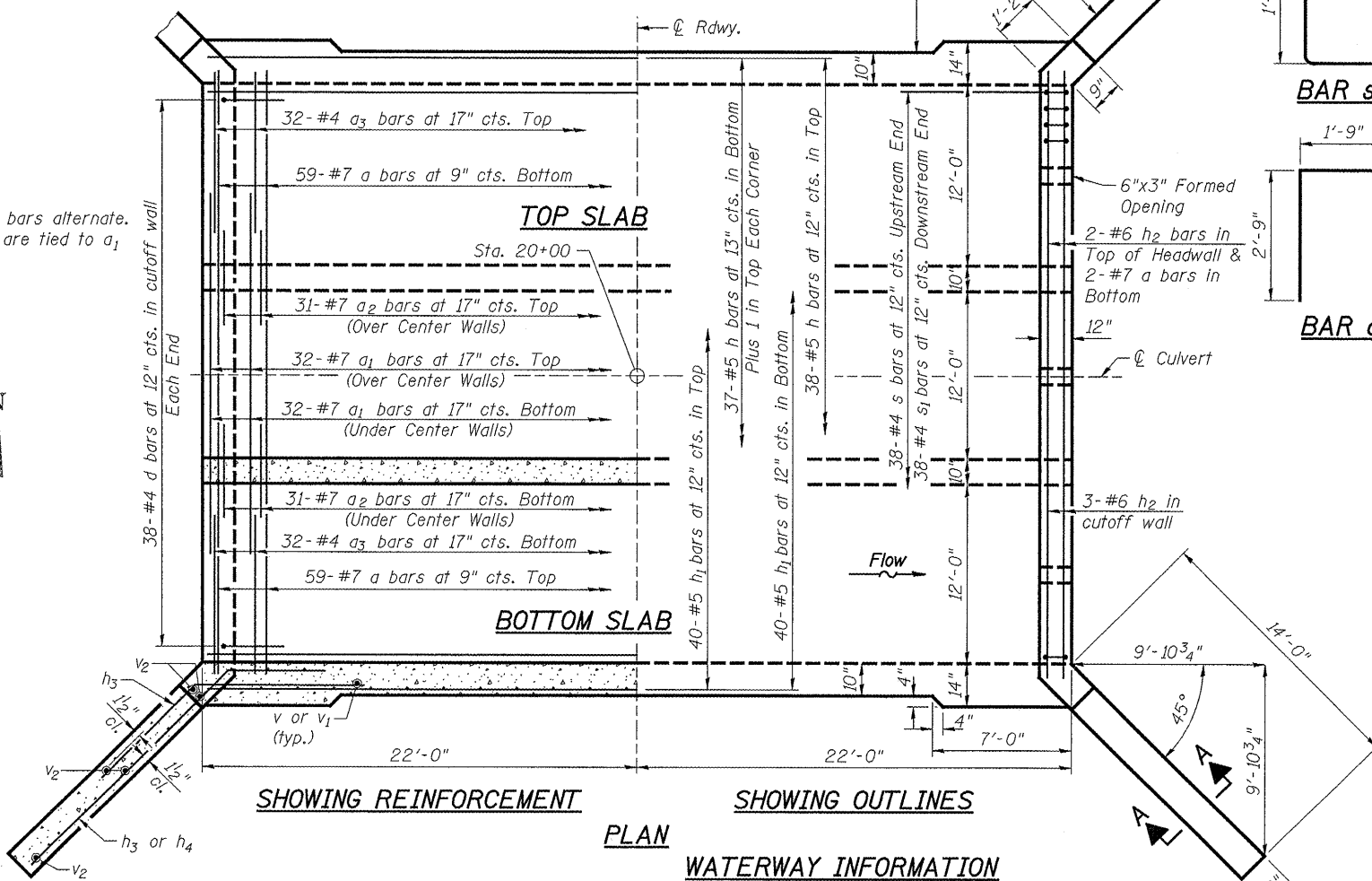
STORM WATER POLLUTION PREVENTION PLAN  
STRUCTURE NO. 089-5139

STA. 17+50.00 - STA. 22+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	9
WHA# 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-00631061				



**REINFORCEMENT**



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a	122	#7	40'-8"	U
a1	64	#7	22'-10"	—
a2	124	#7	6'-4"	—
a3	128	#4	9'-7"	—
d	76	#4	4'-6"	T
h	77	#5	43'-8"	—
h1	144	#5	43'-8"	—
h2	10	#6	38'-0"	—
h3	72	#9	9'-7"	—
h4	44	#9	18'-7"	—
v	254	#4	9'-9"	—
v1	254	#4	2'-9"	—
v2	80	#4	13'-10"	—
s	38	#4	4'-9"	□
s1	38	#4	4'-11"	□
Concrete Box Culverts			Cu. Yds.	215.9
Reinforcement Bars			Lbs.	34,650
Name Plate			Each	1
Porous Granular Embankment			Cu. Yds.	230
Removal of Existing Structures			Each	1

**NOTES:**  
 Class SI Concrete shall be used throughout. Exposed edges shall be beveled 3/4".  
 For backfill and embankment, see Standard Specifications.  
 Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42, or M-53 Grade 60.  
 A min. of 7'-0" of barrel shall be poured monolithically with wings.  
 It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction area free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included in the Unit bid price of "Concrete Box Culverts".  
**PRECAST OPTION NOT ALLOWED.**

**MINIMUM BAR LAP**

Size	Lap
#4	1'-5"
#5	1'-9"
#6	2'-1"
#7	2'-9"

**NAME PLATE LETTERING**  
 Refer to Std. 515001

BRANCH OF YELLOW CREEK  
 BUILT 2012 BY  
 STEPHENSON COUNTY  
 SECTION 10-00177-00-BR  
 STATION 20+00  
 STR. NO. 089-5139 LOADING HS20

**WATERWAY INFORMATION**

DRAINAGE AREA ..... 2.56 Sq. Mi.  
 DESIGN DISCHARGE (20 YR.) ..... 1,210 C.F.S.  
 EXISTING OPENING ..... 166 Sq. Ft.  
 REQUIRED OPENING ..... 332 Sq. Ft.  
 PROPOSED OPENING ..... 332 Sq. Ft.  
 100 YR. DISCHARGE ..... 1,892 C.F.S.

**DESIGN SPECIFICATIONS**  
 Design in accordance with AASHTO Specifications dated 2002 17th Edition.

**LOADING**  
 HS20-44

**DESIGN STRESSES**  
 fy = 60,000 p.s.i.  
 f'c = 3,500 p.s.i.

"I Certify That To The Best Of My Knowledge, Information And Belief, This Bridge Design Is Structurally Adequate For The Design Loading Shown On The Plans. The Design Is An Economical One Complies With Requirements Of The Current "AASHTO Standard Specifications For Highway Bridges."



**Brian K. Conover**  
 DATE: 11-2-2011  
 EXPIRES 11/30/12

**STATION 20+00**  
**TRIPLE BARREL 12'-0" x 9'-6" R.C. BOX CULVERT**  
**NORTH KENT ROAD OVER BRANCH OF YELLOW CREEK**  
**SECTION 10-00177-00-BR**  
**STEPHENSON COUNTY**

FILE # SA-PROJECTS-2010-11-19-10-STEPHENSON-CO.-N.-KENT-RD-DESIGN-STRUCTURE-VOLUME-11-19-10-08-CULVERT-LDRN

REVISION	DATE	BY	REMARKS

**FAS 63 (NORTH KENT ROAD) OVER BRANCH OF YELLOW CREEK STATION 20+00**

**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000916

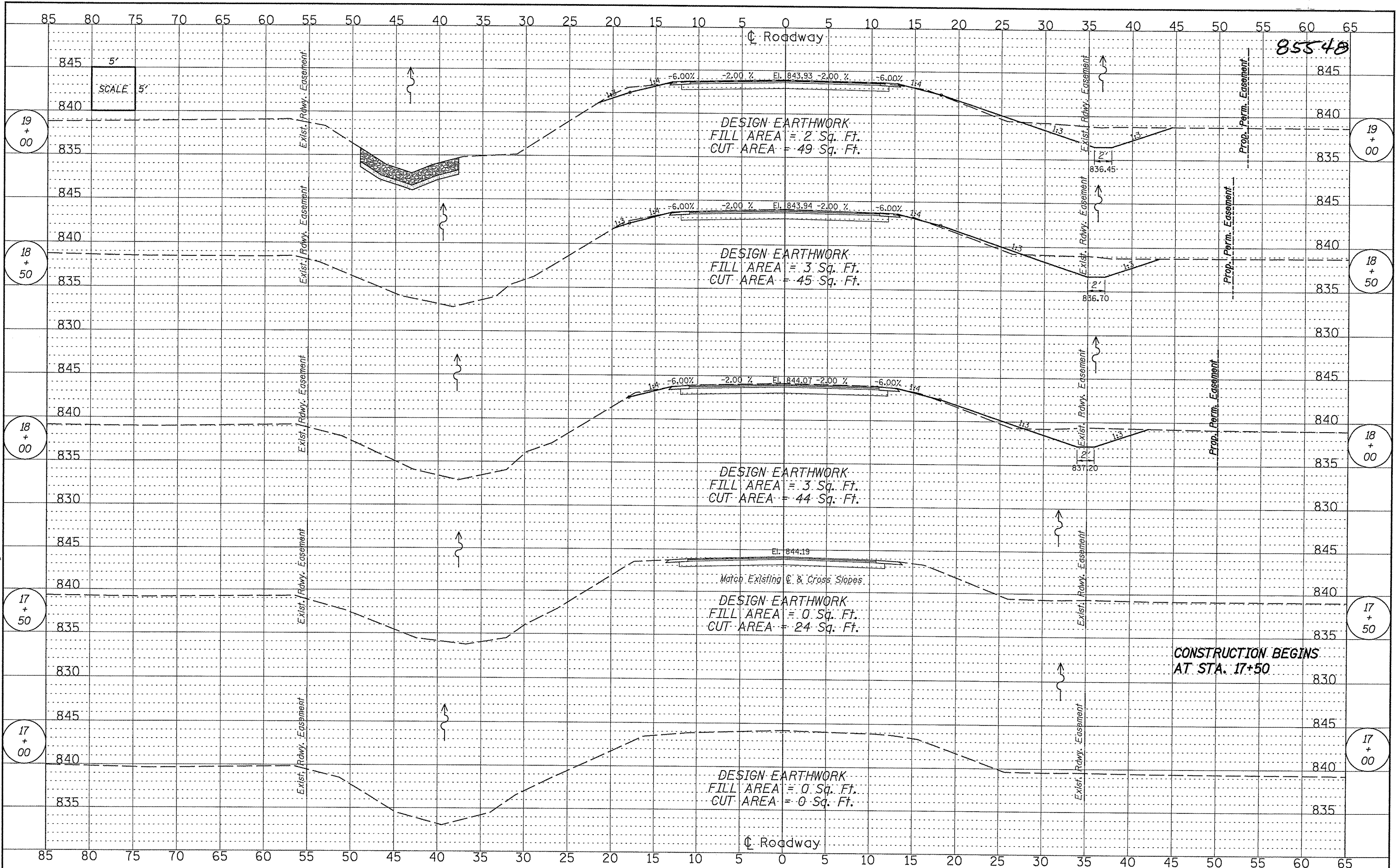
**STEPHENSON COUNTY**

**TRIPLE BARREL BOX CULVERT DETAILS**  
**STRUCTURE NO. 089-5139**  
**STRUCTURAL SHEET 1 OF 1**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	10
WHA# 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00631061				



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REVISION	DATE	BY	REMARKS

DRAWN	R.D.A.
CHECKED	B.S.K.
APPROVED	B.K.C.

FAS 63 (NORTH KENT ROAD) OVER  
BRANCH OF YELLOW CREEK  
STATION 20+00

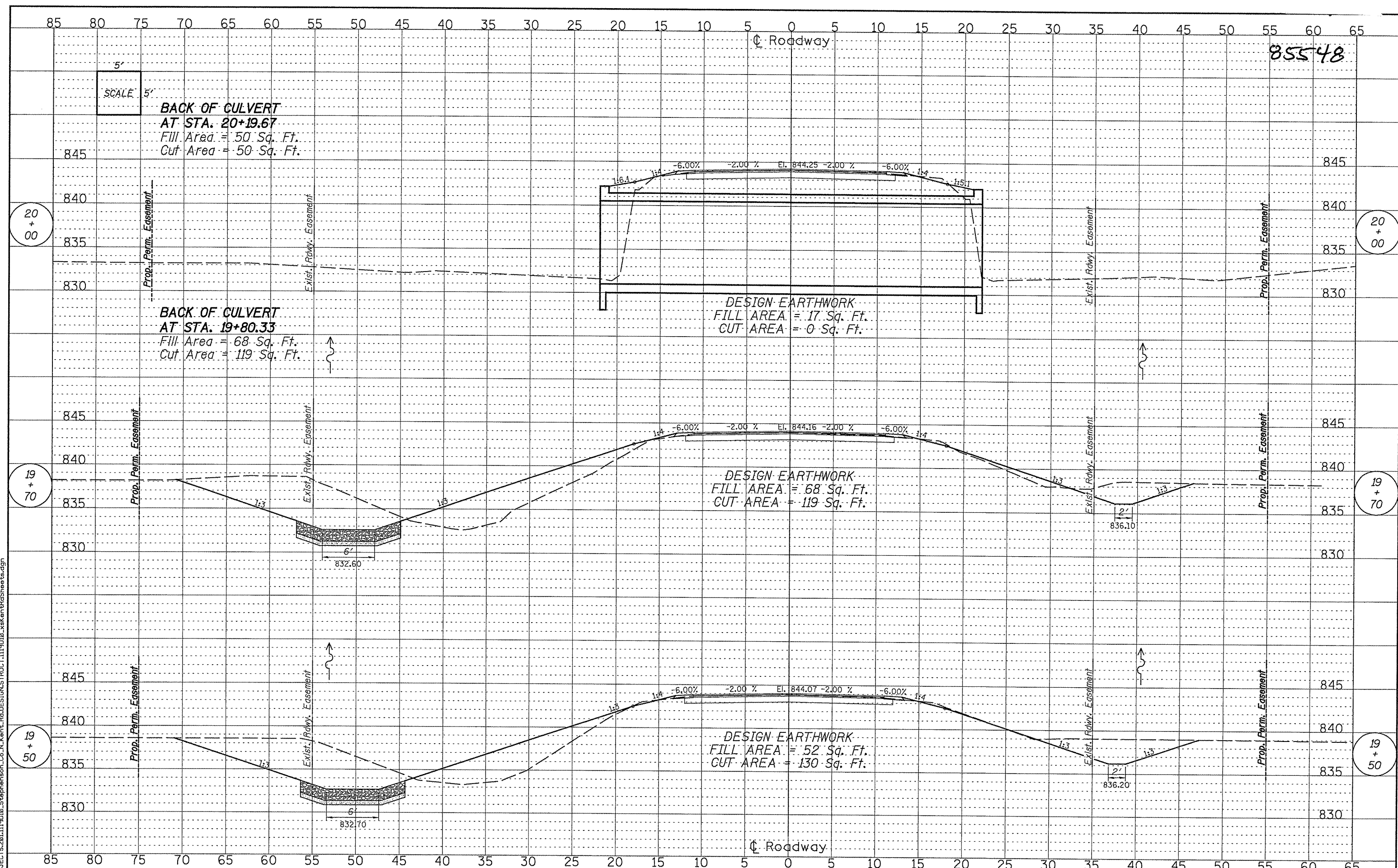


STEPHENSON COUNTY

CROSS SECTIONS  
STRUCTURE NO. 089-5139  
STA. 17+00.00 - STA. 19+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	12
WHA* 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-00631063				

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85548

SCALE 5'  
**BACK OF CULVERT**  
**AT STA. 20+19.67**  
 Fill Area = 50 Sq. Ft.  
 Cut Area = 50 Sq. Ft.

**BACK OF CULVERT**  
**AT STA. 19+80.33**  
 Fill Area = 68 Sq. Ft.  
 Cut Area = 119 Sq. Ft.

DESIGN EARTHWORK  
 FILL AREA = 17 Sq. Ft.  
 CUT AREA = 0 Sq. Ft.

DESIGN EARTHWORK  
 FILL AREA = 68 Sq. Ft.  
 CUT AREA = 119 Sq. Ft.

DESIGN EARTHWORK  
 FILL AREA = 52 Sq. Ft.  
 CUT AREA = 130 Sq. Ft.

REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
 CHECKED S.S.K.  
 APPROVED B.K.C.

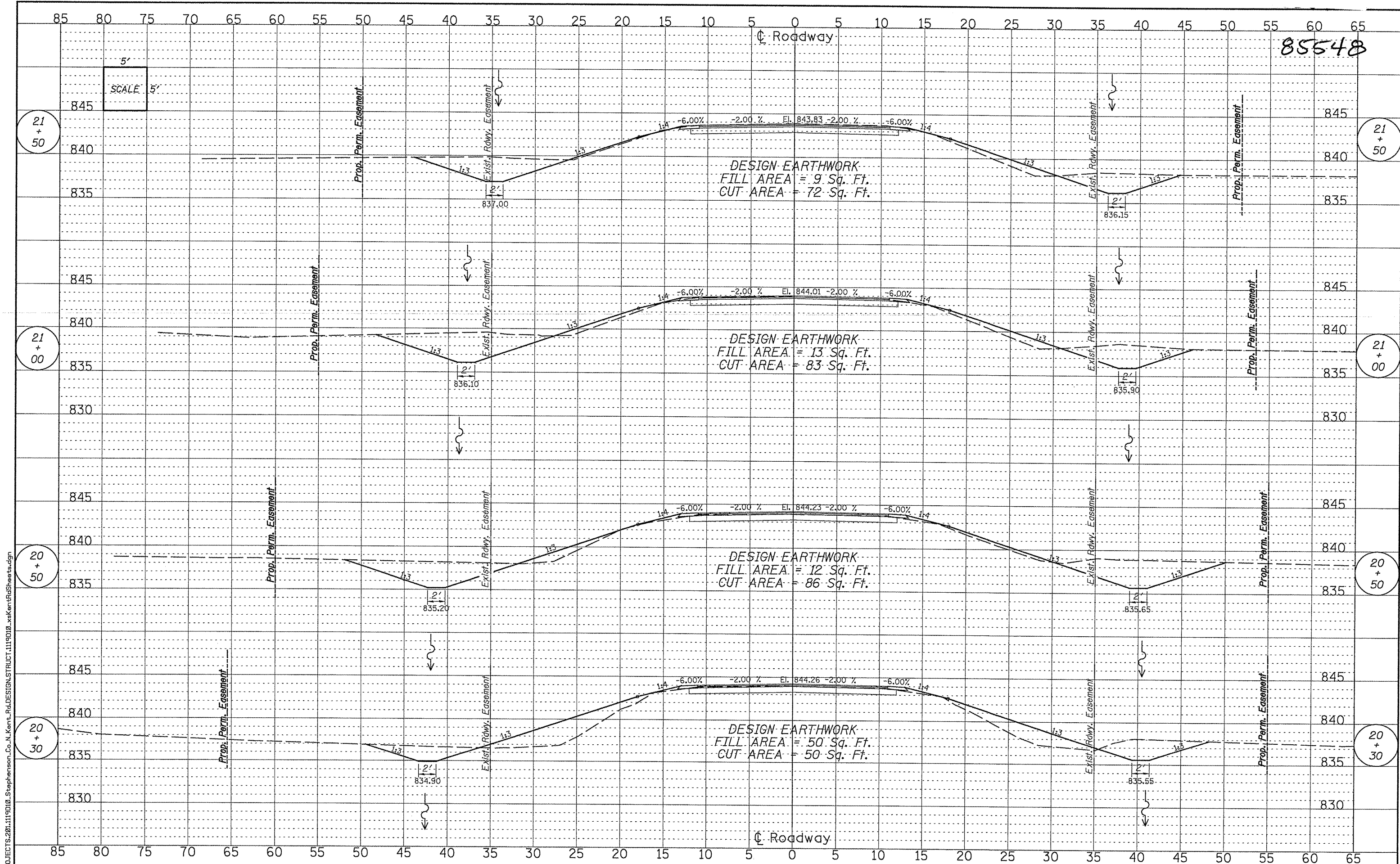
**FAS 63 (NORTH KENT ROAD) OVER  
 BRANCH OF YELLOW CREEK  
 STATION 20+00**



**STEPHENSON COUNTY**

**CROSS SECTIONS**  
**STRUCTURE NO. 089-5139**  
**STA. 19+50.00 - STA. 20+00.00**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	13
WHA# 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRG-00631061				



85548

REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
CHECKED B.S.K.  
APPROVED B.K.C.

**FAS 63 (NORTH KENT ROAD) OVER  
BRANCH OF YELLOW CREEK  
STATION 20+00**



**STEPHENSON COUNTY**

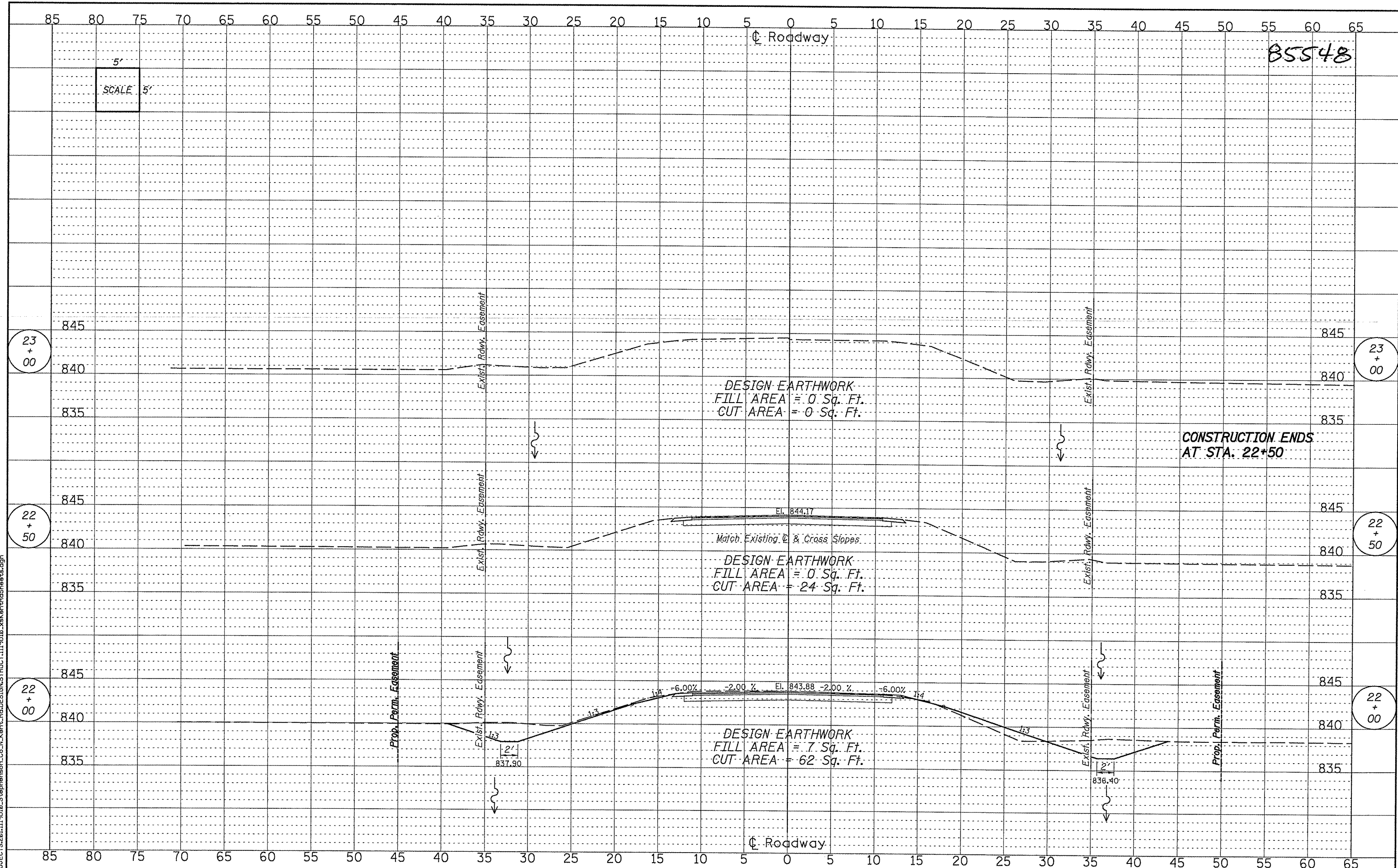
**CROSS SECTIONS  
STRUCTURE NO. 089-5139**

STA. 20+30.00 - STA. 21+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	14
WHA* 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-00631063				

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85548

REVISION	DATE	BY	REMARKS

DRAWN	R.D.A.
CHECKED	B.S.K.
APPROVED	B.K.C.

**FAS 63 (NORTH KENT ROAD) OVER  
 BRANCH OF YELLOW CREEK  
 STATION 20+00**



**STEPHENSON COUNTY**

**CROSS SECTIONS  
 STRUCTURE NO. 089-5139  
 STA. 22+00.00 - STA. 23+00.00**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	10-00177-00-BR	STEPHENSON	15	15
WHA# 1119D10		CONTRACT NO. 85548		
FED. ROAD DIST. NO. 7 ILLINOIS/FED. AID PROJECT BRS-0063106				