

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	1

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

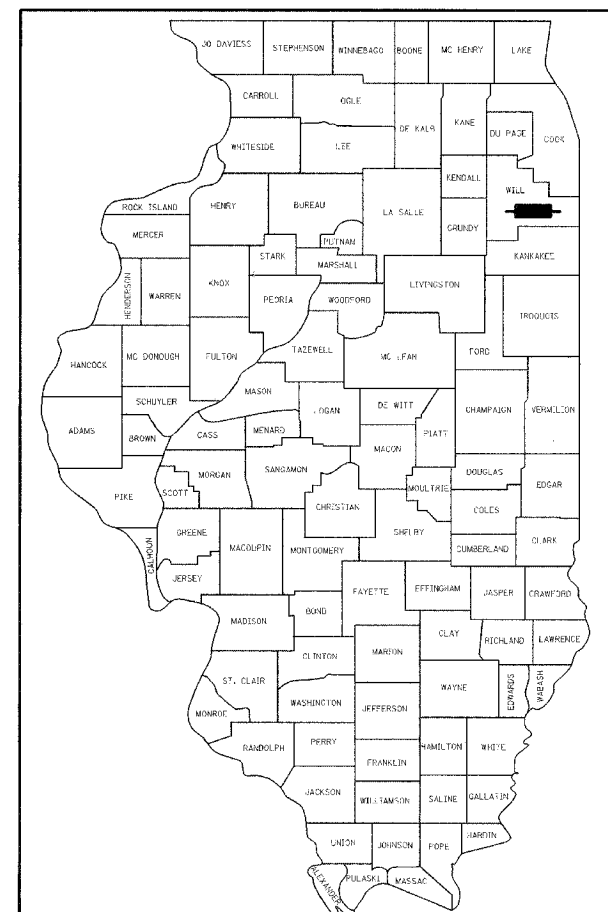
**PLANS FOR PROPOSED FEDERAL AID  
LOCAL AGENCY IMPROVEMENT**

**ENGINEER:**  
SMITH ENGINEERING CONSULTANTS  
A DIVISION OF SEC GROUP, INC.  
4500 PRIME PARKWAY  
MCHENRY, ILLINOIS 60050-2136  
(815) 385-1778  
CONTACT:  
BOB DAVIES, S.E., P.E. - STRUCTURAL ENGINEER  
DAVID C. JOHANSON, P.E. - PROJECT MANAGER

**INDEX OF SHEETS**

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33-36	CROSS SECTIONS - OLD MONEE ROAD
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**FAU ROUTE 2830  
OLD MONEE ROAD (C.H. 48)  
OVER THORN CREEK  
BRIDGE REPLACEMENT  
PROJECT NO. BRM-8003(040)  
SECTION 01-00133-08-BR  
WILL COUNTY, ILLINOIS  
C-91-147-01**

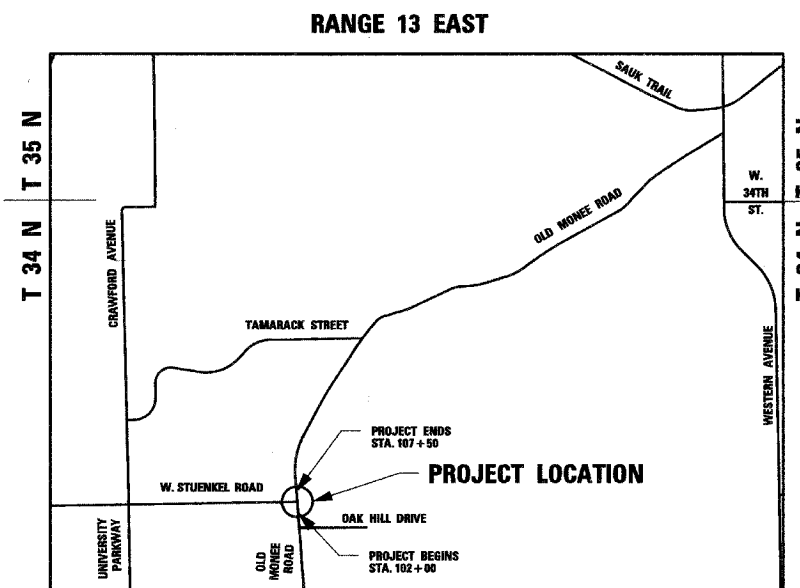


LOCATION OF SECTION INDICATED THUS: - [highlighted area] -

**STRUCTURE INFORMATION:**

EXISTING SN: 099-3065:  
3-SPAN STRUCTURE CONSISTS OF PRECAST, PRESTRESSED CONCRETE DECK BEAMS WITH AN OUT-TO-OUT WIDTH OF 40'-4" AND A TOTAL LENGTH OF 79'-8" BK. TO BK. ABUTMENTS WITH A 30 DEGREE AHEAD RIGHT SKEW. THE SUBSTRUCTURE CONSIST OF OPEN PILE-BENT SPILL-THRU ABUTMENTS AND SOLID WALL CONCRETE PILE BENT PIERS. STRUCTURE TO BE REMOVED AS SHOWN WITH NO SLAVAGE.

PROPOSED SN: 099-3379:  
SINGLE SPAN STRUCTURE CONSISTS OF A CAST IN PLACE CONCRETE DECK ON STEEL WIDE FLANGE BEAMS WITH AN OUT-TO-OUT WIDTH OF 43'-2" AND A TOTAL SPAN LENGTH OF 79'-8" BK. TO BK. ABUTMENTS WITH A 30 DEGREE RIGHT AHEAD SKEW. THE SUBSTRUCTURE CONSISTS OF INTEGRAL ABUTMENTS.



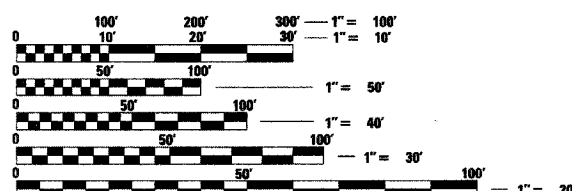
NOT TO SCALE  
MONEE TOWNSHIP  
GROSS LENGTH OF IMPROVEMENT = 550 FT. = 0.10 MILES  
NET LENGTH OF IMPROVEMENT = 550 FT. = 0.10 MILES

**FUNCTIONAL CLASSIFICATION**  
MINOR ARTERIAL (URBAN)

**DESIGN SPEED**  
OLD MONEE ROAD: 45 MPH  
STUENKEL ROAD: 45 MPH

**SPEED LIMIT**  
OLD MONEE ROAD: 40 MPH  
STUENKEL ROAD: 40 MPH

**2004 TRAFFIC DATA:**  
OLD MONEE ROAD: ADT=2,181

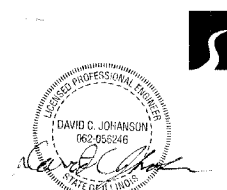


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

**PROFESSIONAL ENGINEER'S SIGN & SEAL**

*David C. Johanson*  
DAVID C. JOHANSON, P.E.  
11-26-07  
DATE  
November 30, 2009  
EXPIRES



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

WILL COUNTY DEPARTMENT OF HIGHWAYS

APPROVED Nov. 20, 2007 (DATE)  
*Sheldon C. Holt*  
COUNTY ENGINEER

PASSED NOVEMBER 30, 2007 (DATE)  
*Sheldon C. Holt*  
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID  
BASED ON LIMITED  
REVIEW November 30 2007 (DATE)  
*Diane O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER



**GENERAL NOTES**

1. THE CONTRACTOR WILL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH BARRICADE USED. (TYPE I OR TYPE II (ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.) ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR (4) SANDBAGS PER BARRICADE.
2. FORTY EIGHT HOURS BEFORE STARTING EXCAVATION THE CONTRACTOR WILL CALL J.U.L.L.E. (1-800-892-0123) TO HAVE THE LOCATION OF EXISTING UTILITIES STAKED.
3. THE CONTRACTOR SHALL CONTACT THE WILL COUNTY DEPARTMENT OF HIGHWAYS AND I.D.O.T. BUREAU OF TRAFFIC AT LEAST 72 HOURS IN ADVANCE OF BEGINNING ANY WORK ON OLD MONEE ROAD OR STUENKEL ROAD.
4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON COUNTY PROPERTY WITHOUT WRITTEN PERMISSION FROM THE WILL COUNTY DEPARTMENT OF HIGHWAYS.
5. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE ENGINEER'S LINE AND GRADE STAKES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO THE ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTIONS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
6. A SOILS REPORT HAS BEEN COMPLETED FOR THIS PROJECT AND IS AVAILABLE FOR CONTRACTOR REVIEW AT THE WILL COUNTY DEPARTMENT OF HIGHWAYS.
7. THE LENGTH OF "GUARDRAIL REMOVAL" INCLUDES THE LENGTH OF THE TRAFFIC BARRIER TERMINALS.
8. EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE MAINTAINED IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL."
9. IF EXISTING TREES OR STUMPS OVER 6" CALIPER ARE ENCOUNTERED THAT CONFLICT WITH CONSTRUCTION OPERATIONS, THEY SHALL BE REMOVED IN ACCORDANCE WITH SECTION 201 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL."
10. PLACING EMBANKMENT SHALL BE IN ACCORDANCE WITH THE "TYPICAL BENCHING DETAIL FOR EMBANKMENT WIDENING" AND THE STANDARD SPECIFICATIONS. EXCAVATION OF THE BENCH CUTS WITHIN EXISTING EMBANKMENT WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM "EARTH EXCAVATION."
11. THE WORK UNDER THIS CONTRACT SHALL CONFORM TO ALL REGULATIONS GIVEN IN THE REGIONAL PERMIT ISSUED FOR THE PROJECT AND THE IDNR/OWR PERMIT ISSUED FOR THE PROJECT.
12. THIS PROJECT MAY REQUIRE UP TO THREE CHANGEABLE MESSAGE SIGNS.
13. REMOVAL AND RELOCATION OF EXISTING TRAFFIC CONTROL SIGNS WILL NOT BE PAID SEPARATELY BUT WILL BE INCLUDED IN THE UNIT COST OF THE PAY ITEMS PERSUANT TO ARTICLE 107 OF THE "STANDARD SPECIFICATIONS"
14. REMOVAL AND RELOCATION OF MAIL BOXES WILL NOT BE PAID SEPARATELY BUT WILL BE INCLUDED IN THE UNIT COST OF THE PAY ITEMS PERSUANT TO ARTICLE 107 OF THE "STANDARD SPECIFICATIONS"

**UTILITY CONTACTS**

AT&T	TIM GERDES	(708) 396-7611
COMED	FRANCISCO PEREZ	(708) 235-2694
NICOR	CONSTANCE LANE	(630) 983-8676
VILLAGE OF PARK FOREST (WATERMAIN)	EDWARD RYCZAJ	(708) 503-7702

**STATE STANDARDS**

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-04	TEMPORARY EROSION CONTROL SYSTEM
420401-06	BRIDGE APPROACH PAVEMENT
515001-02	NAME PLATE FOR BRIDGES
630001-07	STEEL PLATE BEAM GUARDRAIL
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631006-05	TRAFFIC BARRIER TERMINAL, TYPE 1B
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701901	TRAFFIC CONTROL DEVICES
720001	SIGN PANEL MOUNTING DETAILS
720006-01	SIGN PANEL ERECTION DETAILS
720011	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
780001-01	TYPICAL PAVEMENT MARKINGS
BLR22-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO LANE TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)
BLR24-1	MAILBOX TURNOUT FOR LOCAL ROADS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 83989				

**SYMBOL LEGEND**

	EXISTING	PROPOSED
SANITARY MANHOLE	⊙	⊙
STORM MANHOLE	⊙	⊙
STORM CATCH BASIN	○	●
INLET	□	■
FLARED END SECTION	▷	▷
VALVE VAULT	⊙	⊙
FIRE HYDRANT	▽	▽
LIGHT POLE	✱	✱
STREET SIGN	+	+
REGULATORY SIGN	+	+
UTILITY POLE	⊙	⊙
UTILITY BOX	⊙	⊙
MAILBOX	⊙	⊙
WELL	⊙	⊙
SANITARY SEWER	—	—
STORM SEWER	—	—
CULVERT	—	—
WATER MAIN	—	—
WATER MAIN ENCASEMENT	—	—
STORM UNDERDRAIN	—	—
ELECTRIC LINE	—	—
TELEPHONE LINE	—	—
GAS LINE	—	—
CABLE TV LINE	—	—
TREELINE	☁	☁
TREE	☀	☀
FENCE	—	—
EROSION CONTROL FENCE	—	—
DITCH CHECK	—	—
DRAINAGE ARROW	→	→
100 YEAR OVERFLOW	→	→

**STANDARD ABBREVIATIONS**

- B-B - BACK TO BACK OF CURB
- B.C. - BACK OF CURB
- B.O.C. - BACK OF CURB
- B.S.L. - BUILDING SETBACK LINE
- C.B. - STORM CATCH BASIN
- C.E. - COMMONWEALTH EDISON CO.
- D.E. - DRAINAGE EASEMENT
- E-E - EDGE TO EDGE OF PAVEMENT
- E.O.P. - EDGE OF PAVEMENT
- E.O.S. - EDGE OF SHOULDER
- E.P. - EDGE OF PAVEMENT
- E.S. - EDGE OF SHOULDER
- F.E.S. - FLARED END SECTION
- I.B.T. - ILLINOIS BELL TELEPHONE CO.
- L.E. - LANDSCAPE EASEMENT
- M.H. - MANHOLE (TYPE SPECIFIED ON PLANS)
- R.O.W. - RIGHT OF WAY
- T.B.F. - TRENCH BACKFILL
- T.C. - TOP OF CURB
- T.C.E. - TEMPORARY CONSTRUCTION EASEMENT
- T.O.B. - TOP OF BERM
- T.O.C. - TOP OF CURB
- U.E. - UTILITY EASEMENT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, SPECIFICATIONS & STATE STANDARDS  
OLD MONEE ROAD  
OVER THORN CREEK

SCALE: VERT. N/A  
DATE: 11/26/07  
DRAWN BY: MDJ  
CHECKED BY: DCJ

**SEC GROUP, INC.**  
Illinois Professional Design Firm # 184-000108  
Smith Engineering Consultants • SEC Automation • SEC Planning  
4600 Penn Parkway, McKinney, IL 60050  
t: 815.385.1778 f: 815.385.1781  
www.secgroupinc.com engineering@secgroupinc.com

PLOT DATE = 11/21/2007  
 PLOT SCALE = 1" = 100'  
 PLOT USER = whood  
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 11/21/2007 11:18:05 AM

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83989				

CODE NUMBER	PAY ITEMS	UNIT	SUMMARY OF QUANTITIES		
			TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
				ROADWAY	BRIDGE
			1000-2A	X071-2A	
20100110	TREE REMOVAL 16 TO 15 UNITS DIAMETER)	UNIT	52	52	---
20101100	TREE TRUNK PROTECTION	EACH	3	3	---
20200100	EARTH EXCAVATION	CU YD	1,520	1,520	---
20201200	REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL	CU YD	552	552	---
20400800	FURNISHED EXCAVATION	CU YD	340	340	---
Δ 20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	160	---	160
Δ 20700420	POROUS GRANULAR EMBANKMENT SUBGRADE	CU YD	185	185	---
20800150	TRENCH BACKFILL	CU YD	62	62	---
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	160	160	---
* 21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	2,530	2,530	---
* 25000110	SEEDING, CLASS 1A	ACRE	0.5	0.5	---
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	50	50	---
* 25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	50	50	---
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	50	50	---
* 25100630	EROSION CONTROL BLANKET	SQ YD	2,530	2,530	---
* 25200200	SUPPLEMENTAL WATERING	UNIT	26	26	---
* 25301500	TREES	EACH	5	5	---
* 28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	52	52	---
28000300	TEMPORARY DITCH CHECKS	EACH	6	6	---
28000400	PERIMETER EROSION BARRIER	FOOT	1,315	1,315	---
28100107	STONE RIPRAP, CLASS A4	SQ YD	325	---	325
28200200	FILTER FABRIC	SQ YD	325	---	325
31101800	SUB-BASE GRANULAR MATERIAL, TYPE B, 10"	SQ YD	1,640	1,640	---
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	400	400	---
40600300	AGGREGATE (PRIME COAT)	TON	3	3	---
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	67	67	---
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	362	362	---
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	194	194	---
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	160	160	---
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	32	32	---
Δ 44000100	PAVEMENT REMOVAL	SQ YD	1,640	1,640	---
48101600	AGGREGATE SHOULDERS, TYPE B, 8"	SQ YD	865	865	---
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	77	77	---
Δ 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	---	1
50105220	PIPE CULVERT REMOVAL	FOOT	142	142	---
50200100	STRUCTURE EXCAVATION	CU YD	290	---	290
50300100	FLOOR DRAINS	EACH	10	---	10
50300225	CONCRETE STRUCTURES	CU YD	73	---	73
50300255	CONCRETE SUPERSTRUCTURE	CU YD	152	---	152
50300260	BRIDGE DECK GROOVING	SQ YD	336	---	336
50300300	PROTECTIVE COAT	SQ YD	457	---	457
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	---	1
50500505	STUD SHEAR CONNECTORS	EACH	1,926	---	1,926
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	36,990	---	36,990
50800515	BAR SPLICERS	EACH	48	---	48
51201105	FURNISHING METAL SHELL PILES 14"	FOOT	931	---	931
51201600	FURNISHING STEEL PILES HP 12X53	FOOT	225	---	225
51202305	DRIVING PILES	FOOT	1156	---	1156
51203200	TEST PILE METAL SHELLS	EACH	2	---	2

CODE NUMBER	PAY ITEMS	UNIT	SUMMARY OF QUANTITIES		
			TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
				ROADWAY	BRIDGE
			1000-2A	X071-2A	
51500100	NAME PLATES	EACH	1	---	1
52100520	ANCHOR BOLTS, 1"	EACH	24	---	24
542A1060	PIPE CULVERTS, CLASS A, TYPE 2 15"	FOOT	88	88	---
542A1063	PIPE CULVERTS, CLASS A, TYPE 2 18"	FOOT	72	72	---
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	4	4	---
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	2	2	---
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	78	---	78
Δ 60109580	PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT	136	---	136
* 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	137.5	137.5	---
* 63100041	TRAFFIC BARRIER TERMINAL, TYPE 1B	EACH	1	1	---
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	---
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	3	3	---
Δ 63200310	GUARDRAIL REMOVAL	FOOT	357	357	---
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	---
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	18	18	---
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1,295	1,295	---
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	1,295	1,295	---
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	20	20	---
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4	---	4
* Δ 78200420	GUARDRAIL MARKERS, TYPE B	EACH	9	9	---
* Δ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	3	3	---
Δ X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	77	77	---
Δ X4021000	AGGREGATE FOR TEMPORARY ACCESS	EACH	2	2	---
Δ X7011005	TRAFFIC CONTROL & PROTECTION FOR TEMPORARY DETOUR	L SUM	1	1	---
Δ XX006806	HOT-MIX ASPHALT DRIVEWAY PAVEMENT	SQ YD	194	194	---
Δ Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	---

\* DENOTES SPECIALTY ITEM  
Δ DENOTES SPECIAL PROVISION

### EARTHWORK SCHEDULE

EARTHWORK SCHEDULE - OLD MONEE ROAD				
LOCATION	EARTH EXCAVATION (CU YD)	EMBANKMENT (CU YD)	UNSUITABLE MATERIAL (CU YD)	STATION BALANCE +/- (CU YD)
102+00	0.0	0.0	0.0	0.0
102+50	36.7	22.9	4.1	-13.8
102+91	58.6	58.7	14.0	0.1
103+00	18.4	16.5	6.1	-1.9
103+50	126.6	144.8	55.6	18.2
104+00	127.9	211.9	61.4	84.0
104+50	208.4	175.2	52.3	-33.2
105+50	633.0	0.0	0.0	-633.0
105+85	39.7	172.0	22.1	132.3
106+00	11.5	51.6	5.9	40.1
106+50	49.2	135.8	28.6	86.6
107+00	57.5	100.5	34.9	43.0
107+50	46.1	30.5	20.6	-15.6

EARTHWORK SCHEDULE - STUENKEL ROAD				
LOCATION	EARTH EXCAVATION (CU YD)	EMBANKMENT (CU YD)	UNSUITABLE MATERIAL (CU YD)	STATION BALANCE +/- (CU YD)
201+00	0.0	0.0	0.0	0.0
201+50	22.6	48.7	13.6	26.1
202+00	45.2	219.2	24.4	174.0
202+23.15	37.8	244.1	23.4	206.3
GRAND TOTALS	1519.2	1632.4	367.0	113.2

NOTE: 1. THE EARTHWORK SCHEDULE PROVIDES A RECORD OF CROSS SECTION BANK CALCULATIONS. THE EARTHWORK TOTALS PROVIDED IN THE SUMMARY OF QUANTITIES HAVE BEEN ADJUSTED TO ACCOUNT FOR A 15% SHRINKAGE FACTOR.  
2. AN ADDITIONAL ALLOWANCE HAS BEEN ADDED TO REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR USE IF UNSUITABLE MATERIAL IS ENCOUNTERED IN THE FIELD.

PLOT DATE = 1/11/2008  
FILE NAME = N:\Jobs\Sm\h\2084\49159 WILL Old Monee Road\cad\Trana\cover-etc\08108-aun.dgn  
PLOT SCALE = 1:200  
USER NAME = wood



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		SUMMARY OF QUANTITIES OLD MONEE ROAD OVER THORN CREEK  SCALE: VERT. N/A HORIZ. N/A DATE: 1-11-2008 DRAWN BY: MDJ CHECKED BY: DCJ

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 83989				

**TYPICAL SECTION LEGEND**

- ① EXISTING PAVEMENT
- ② EXIST. SHOULDER (REMOVAL - PAID AS EARTH EXCAVATION)
- ③ PAVEMENT REMOVAL
- ④ PROP. HOT-MIX ASPHALT SURFACE COURSE MIX "D" N50 2"
- ⑤ PROP. HOT-MIX ASPHALT BINDER COURSE IL - 19.0, N50 4"
- ⑥ PROP. SUBBASE GRANULAR MATERIAL, TYPE B 10"
- ⑦ PROP. SHOULDER, SEE NOTE BELOW
- ⑧ PROP. TOPSOIL FURNISH & PLACE 4" WITH SEEDING CLASS 1A
- ⑨ PROP. POROUS GRANULAR EMBANKMENT, SUBGRADE
- ⑩ GUARDRAIL REMOVAL
- ⑪ PROP. STEEL PLATE BEAM GUARDRAIL, TYPE A

INDICATES ITEMS TO BE REMOVED

- NOTE:
- 1) PROPOSED HOT MIX ASPHALT SHOULDER, 8" STA. 104+00 TO 104+58, OFF. 12' LEFT STA. 104+42 TO 104+72, OFF. 12' RIGHT STA. 105+52 TO 105+82, OFF. 12' RIGHT
  - 2) PROPOSED AGGREGATE SHOULDERS, TYPE B, 8" AT ALL OTHER LOCATIONS.
  - 3) LOCATIONS OF GUARDRAIL REMOVAL STA. 103+57 TO 104+58, OFF. 20' LEFT STA. 105+36 TO 105+65, OFF. VARIES LEFT STA. 103+80 TO 104+80, OFF. 20' RIGHT STA. 105+59 TO 106+61, OFF. 20' RIGHT
  - 4) LOCATION OF PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A STA. 102+94 TO 104+03, OFF. 20' LEFT STA. 105+31 TO 105+71, OFF. VARIES LEFT STA. 103+04 TO 104+48, OFF. 20' RIGHT STA. 105+54 TO 105+62, OFF. 20' RIGHT

"POROUS GRANULAR EMBANKMENT, SUBGRADE (PGES) AND GEOTECHNICAL FABRIC FOR GROUND STABILIZATION HAS BEEN PROVIDED FOR USE AT LOCATIONS WHERE SOILS TEND TO BE UNSUITABLE OR UNSTABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH PGES OVER GEOTECHNICAL FABRIC FOR GROUND STABILIZATION WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH STATIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.03 AND THE UNDERCUT GUIDELINES IN THE IDOT SUBGRADE STABILITY MANUAL. IF UNSUITABLE AND/OR UNSTABLE MATERIAL IS NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO COMPENSATION WILL BE DUE THE CONTRACTOR."

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AC TYPE	AIR VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	PG 64-22	4% @ 50 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	PG 64-22 •	4% @ 50 Gyr
HOT-MIX ASPHALT DRIVEWAY	PG 64-22	4% @ 50 Gyr
HOT-MIX ASPHALT SHOULDERS	PG 64-22	4% @ 50 Gyr

• WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN

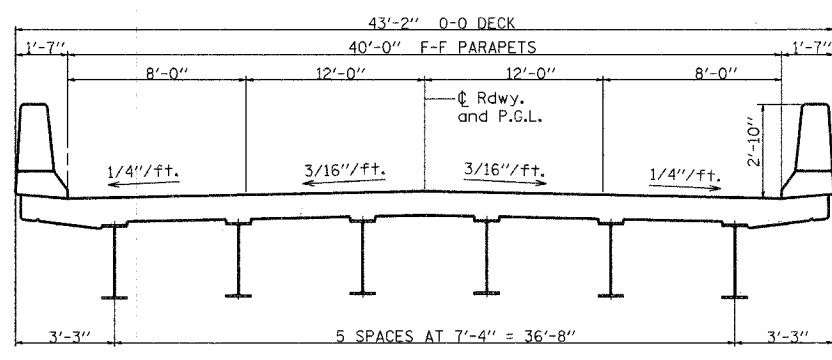
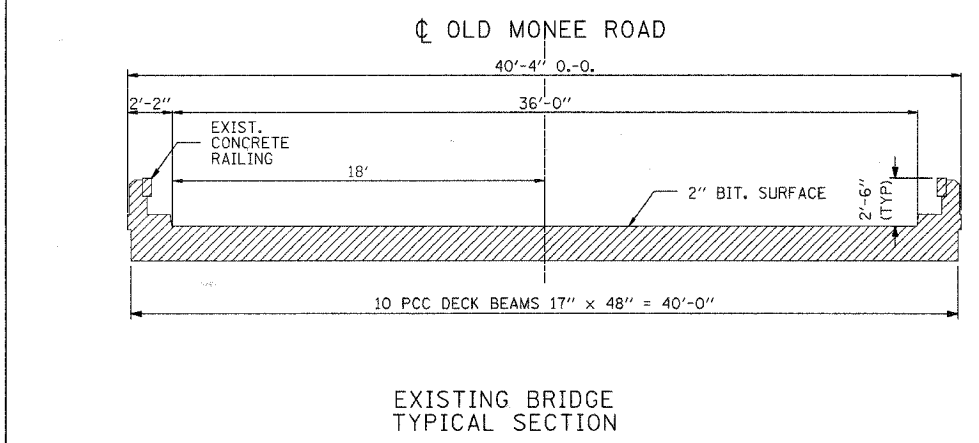
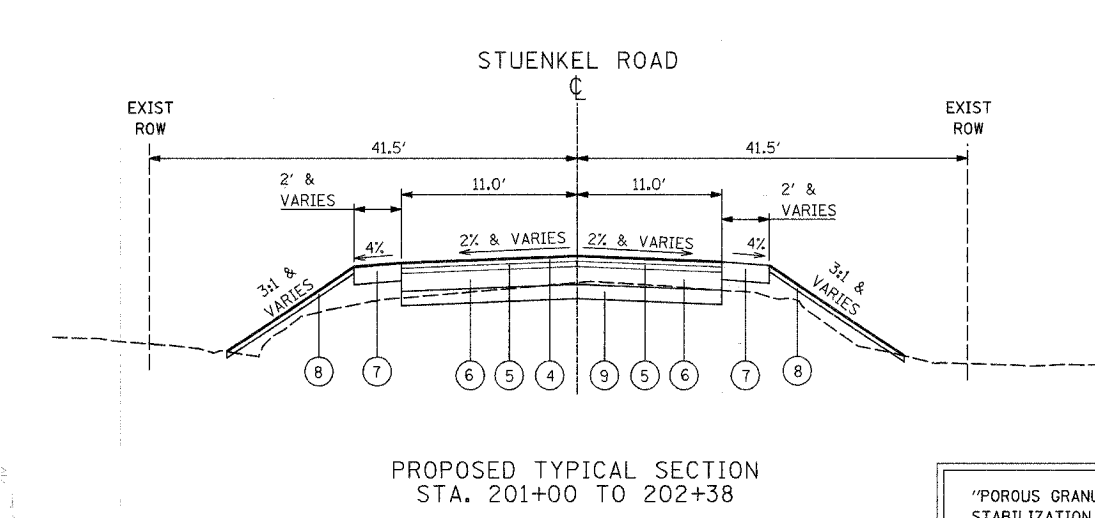
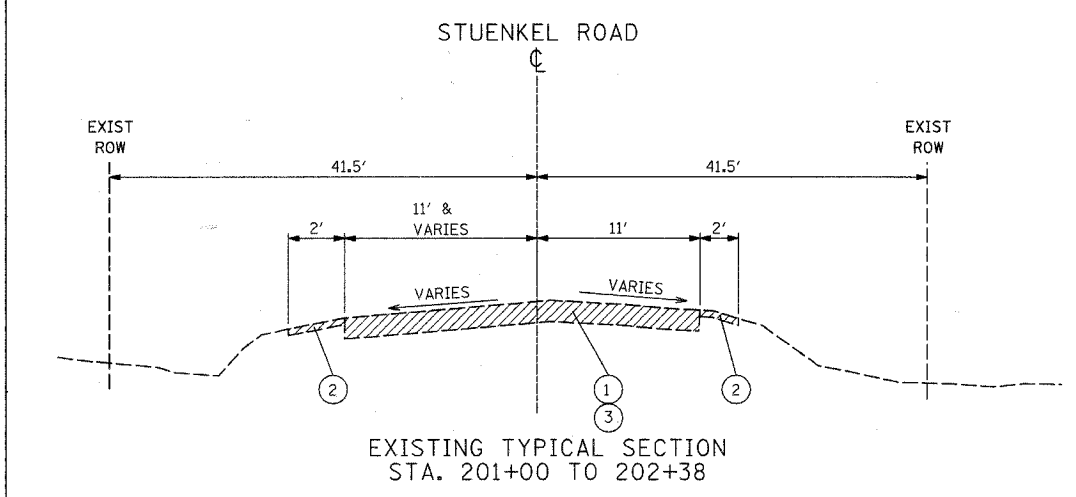
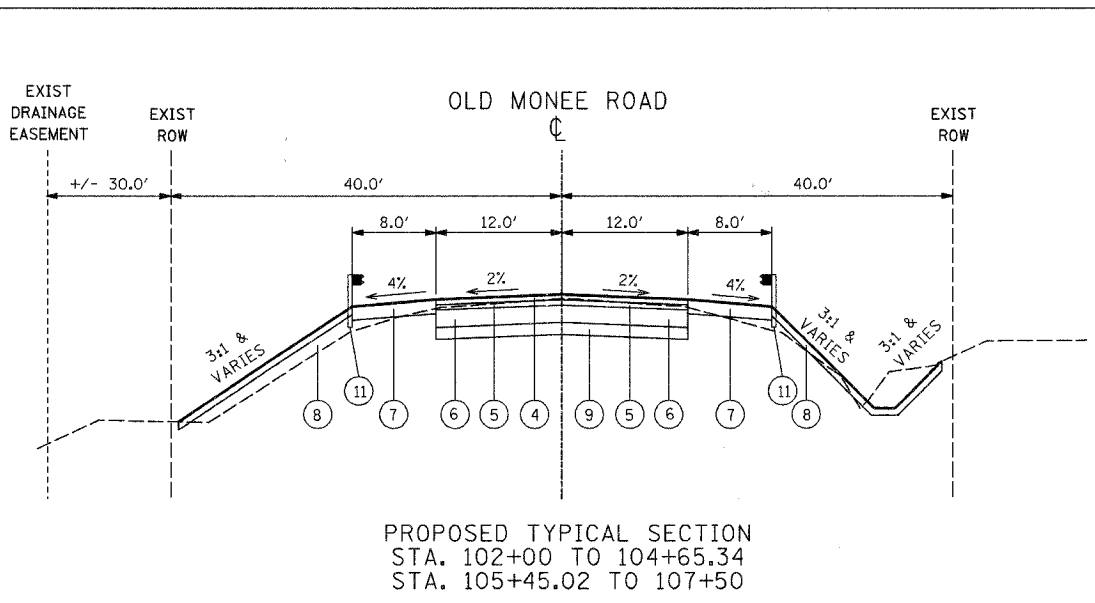
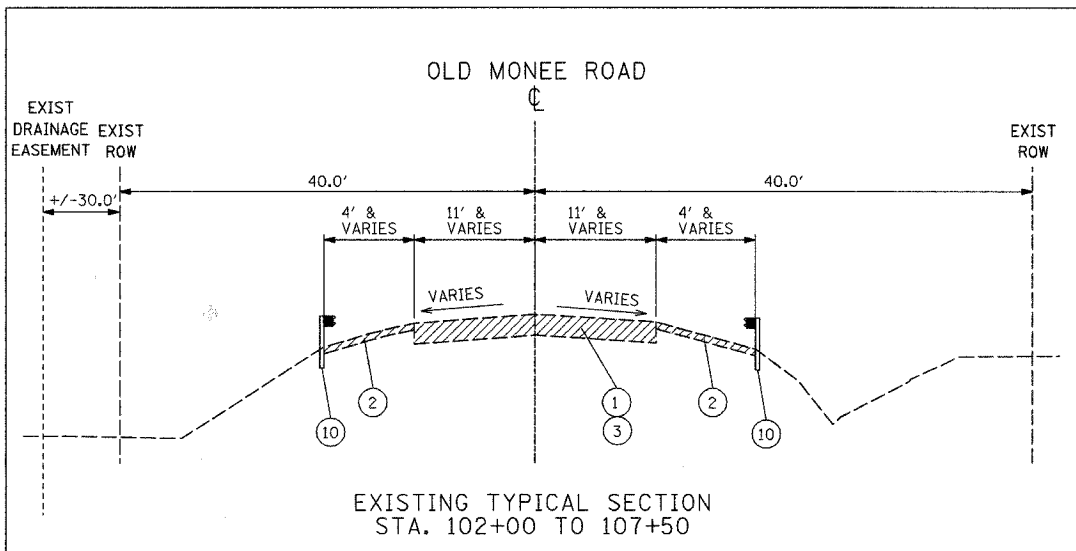
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TYPICAL SECTIONS  
OLD MONEE ROAD  
OVER THORN CREEK**

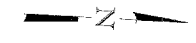
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HORIZ. N/A  
DATE: 11/26/07

DRAWN BY: MDJ  
CHECKED BY: CT



PLOT DATE = 11/27/07  
 DATE = 11/26/07  
 PLOT SCALE = 1/8" = 1'-0"  
 USER NAME = wood

F.A. RTEL.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 83989				



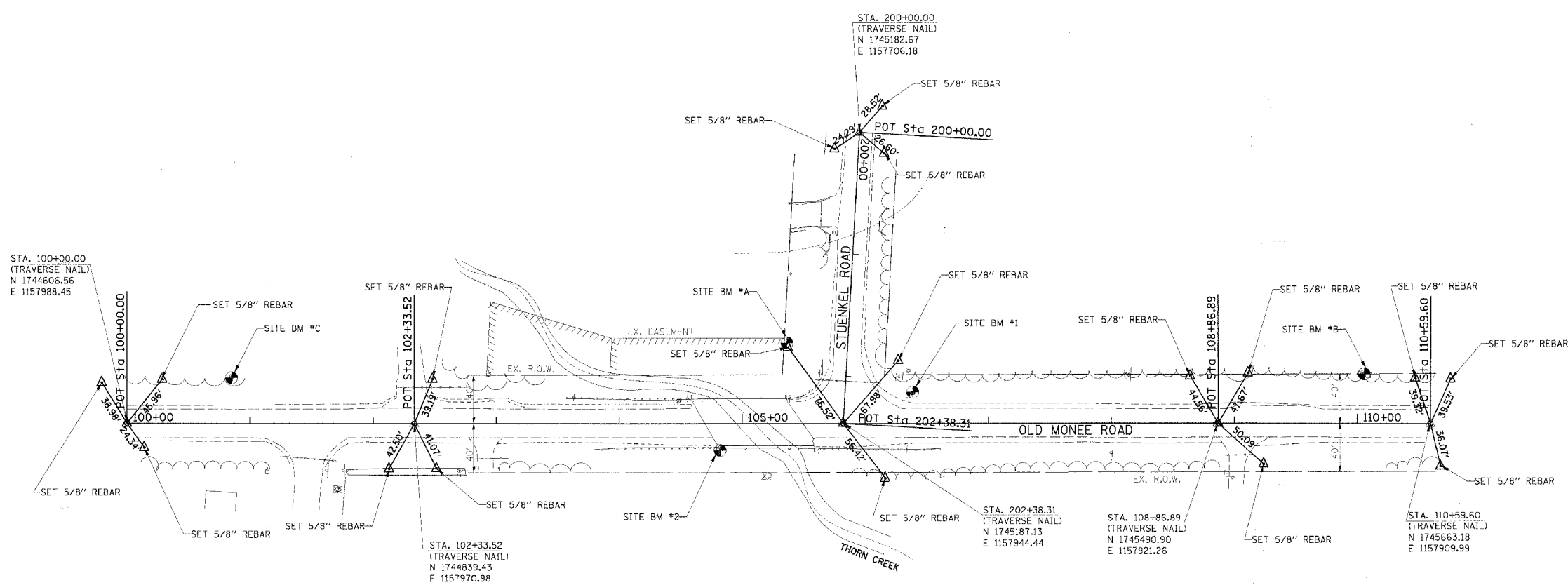
SITE BM #1  
TOP OF FIRE HYDRANT AT NORTHWEST CORNER OF STEUNKEL ROAD AND OLD MONEE ROAD INTERSECTION. ELEVATION = 719.04

SITE BM #2  
SQUARE CUT LOCATED ON SOUTHWEST CORNER OF SOUTHEAST WINGWALL OF OLD MONEE ROAD BRIDGE OVER THORN CREEK. ELEVATION = 718.03

SITE BM #A  
RAILROAD SPIKE SET IN EAST FACE OF POWER POLE AT SOUTHWEST CORNER OF STEUNKEL ROAD AND OLD MONEE ROAD INTERSECTION. ELEVATION = 716.16

SITE BM #B  
RAILROAD SPIKE SET IN EAST FACE OF POWER POLE ON WEST SIDE OF OLD MONEE ROAD, APPROXIMATELY +/- 420', NORTH OF STEUNKEL ROAD. ELEVATION = 725.17

SITE BM #C  
RAILROAD SPIKE SET IN EAST FACE OF POWER POLE ON WEST SIDE OF OLD MONEE ROAD, APPROXIMATELY +/- 66', SOUTH OF OAK HILL DRIVE. ELEVATION = 722.87



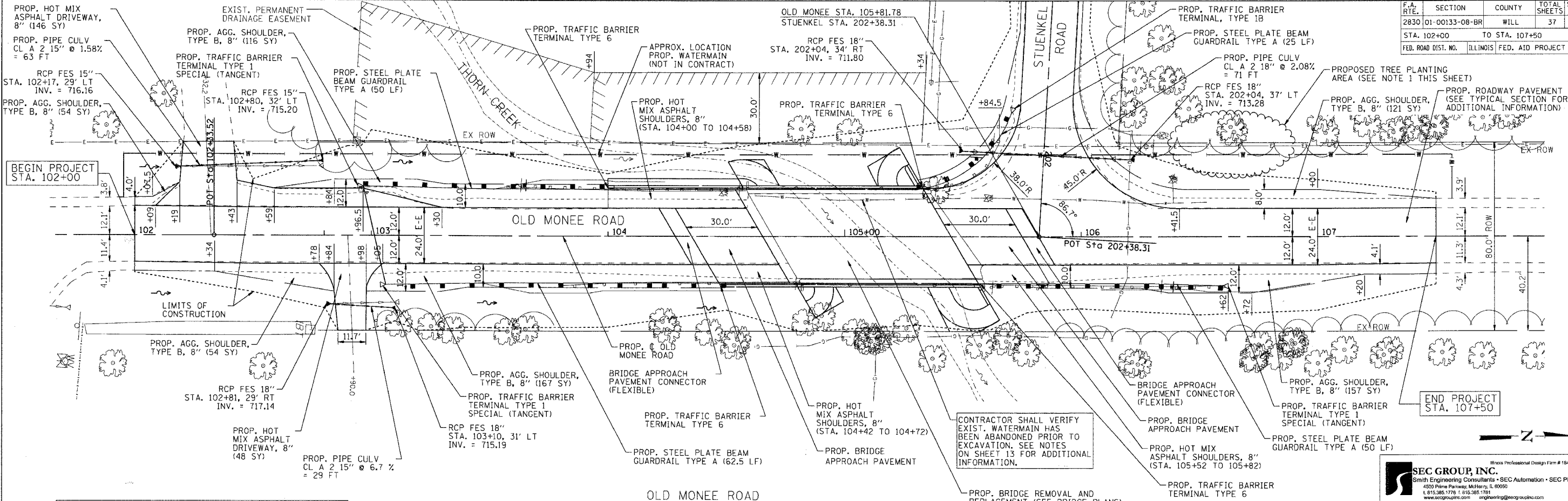
PLOT DATE = 11/21/2007  
 PLOT TIME = 11:33:32 AM  
 PLOT SCALE = 1:50  
 USER NAME = mwood

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
		ALIGNMENT, TIES AND BENCHMARKS OLD MONEE ROAD OVER THORN CREEK	
SCALE: VERT. N/A		DRAWN BY:	
DATE: 11/26/07		CHECKED BY: DCJ	

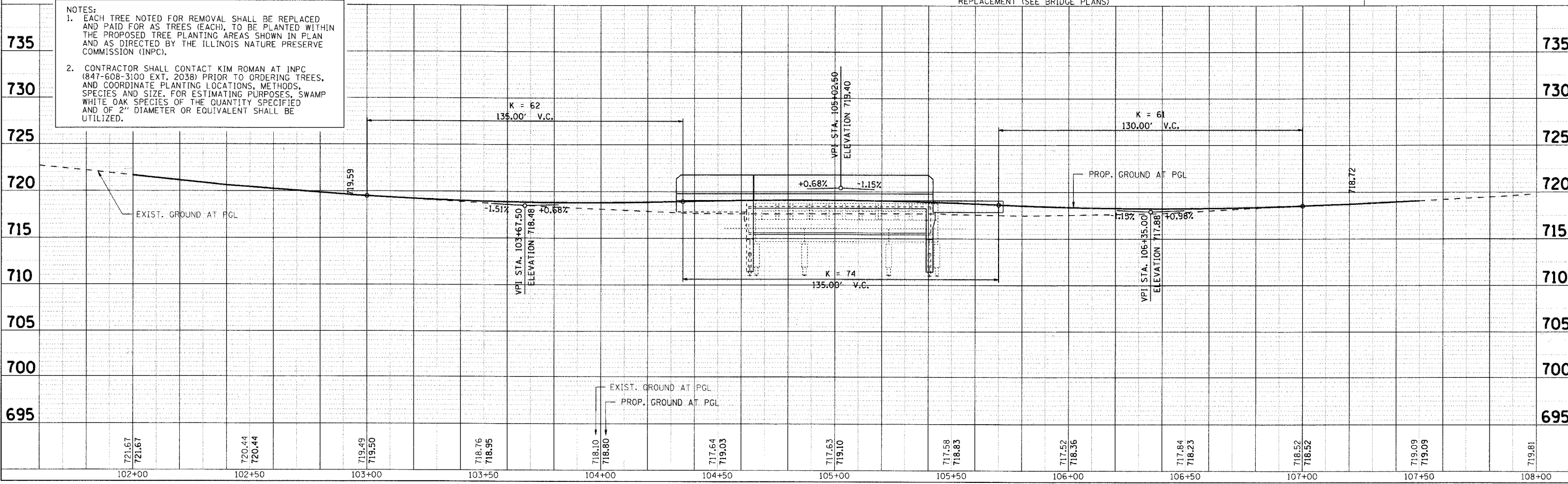




F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	7
STA. 102+00		TO STA. 107+50		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- NOTES:**
- EACH TREE NOTED FOR REMOVAL SHALL BE REPLACED AND PAID FOR AS TREES (EACH), TO BE PLANTED WITHIN THE PROPOSED TREE PLANTING AREAS SHOWN IN PLAN AND AS DIRECTED BY THE ILLINOIS NATURE PRESERVE COMMISSION (INPC).
  - CONTRACTOR SHALL CONTACT KIM ROMAN AT INPC (847-608-3100 EXT. 2038) PRIOR TO ORDERING TREES, AND COORDINATE PLANTING LOCATIONS, METHODS, SPECIES AND SIZE, FOR ESTIMATING PURPOSES. SWAMP WHITE OAK SPECIES OF THE QUANTITY SPECIFIED AND OF 2" DIAMETER OR EQUIVALENT SHALL BE UTILIZED.



PLAN AND PROFILE - OLD MONEE ROAD

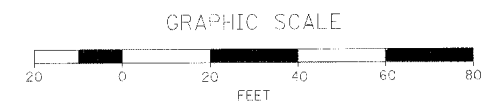
DATE	BY	REVISION
		1. SURVEYED
		2. GRADES CHECKED
		3. ALIGNED CHECKED
		4. RT. OF WAY CHECKED
		5. ROAD FILE NAME

DATE	BY	REVISION
		1. SURVEYED
		2. GRADES CHECKED
		3. ALIGNED CHECKED
		4. RT. OF WAY CHECKED
		5. ROAD FILE NAME

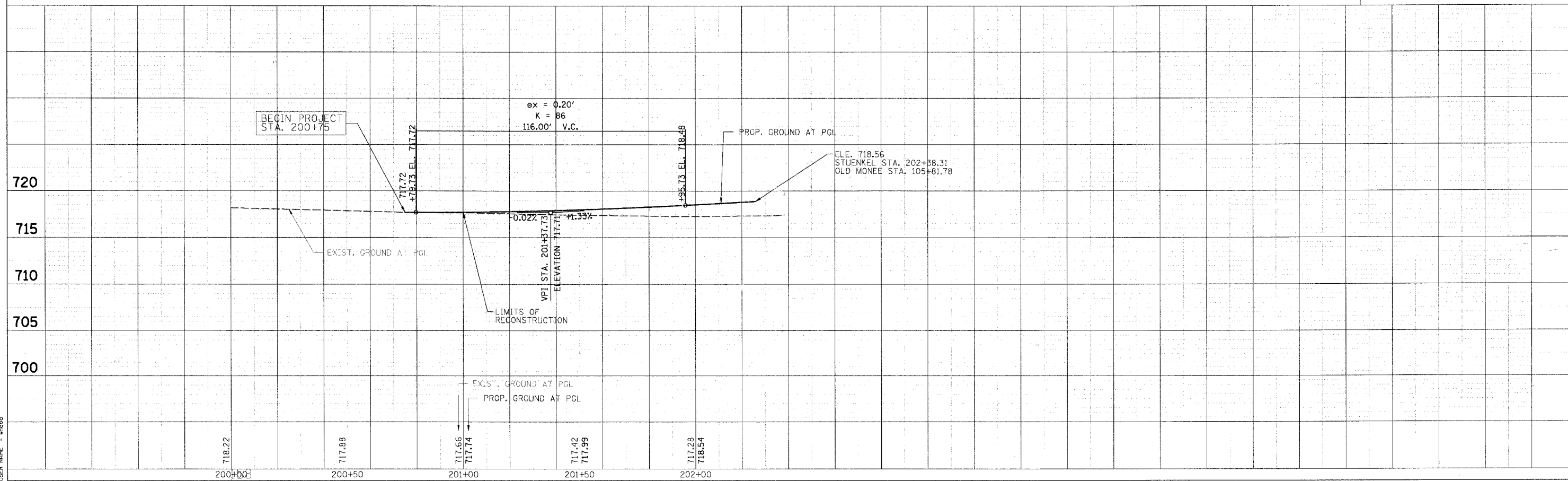
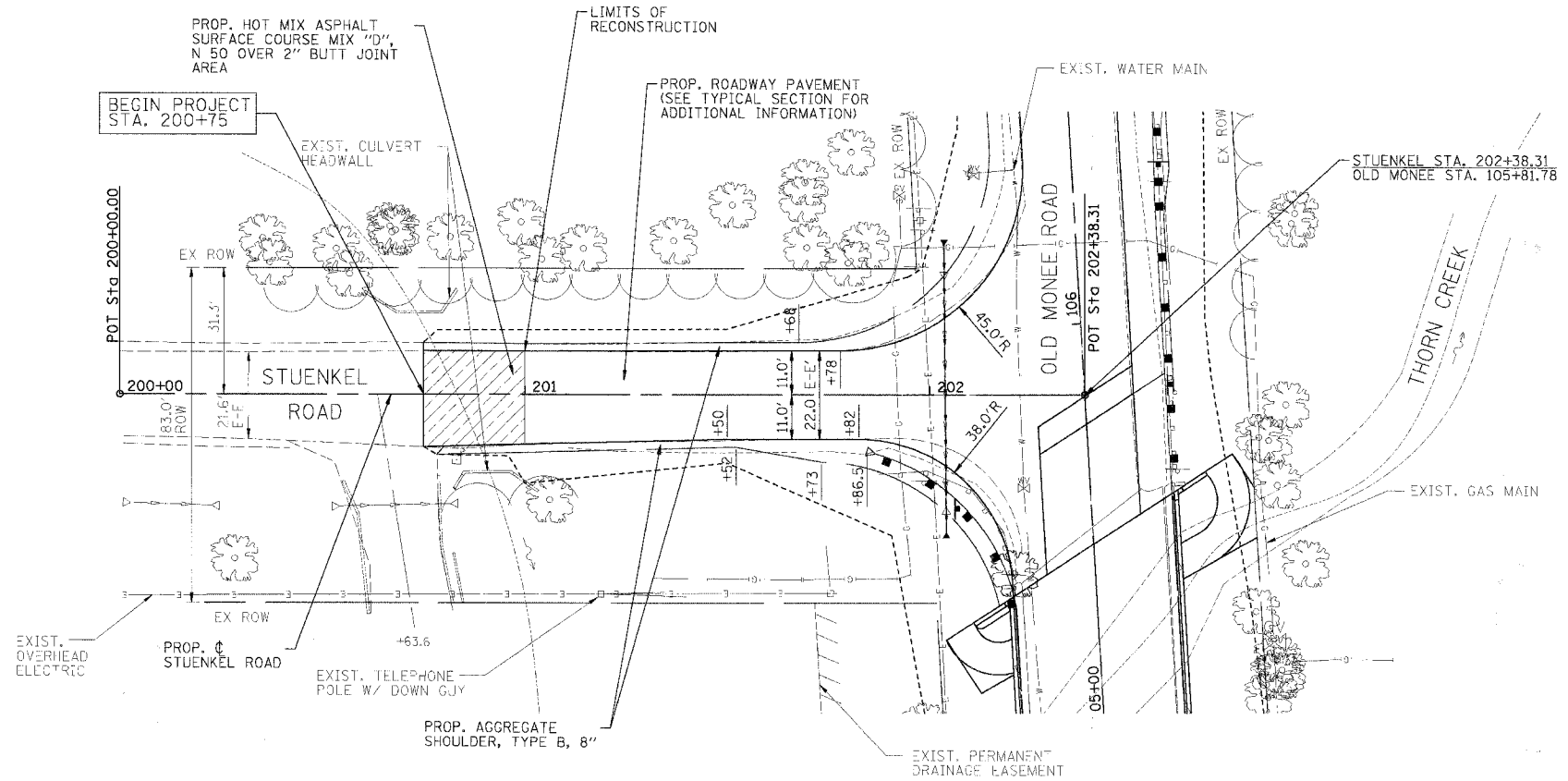
PLOT DATE = 1/11/2008  
 FILE NAME = N:\Jobs\2830\101\10158 WILL Old Monee Road\Road\Trans\Profile.dwg  
 USER NAME = jpross

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 4500 Prima Parkway, Midland, TX 79709  
 817.385.1778 • 817.385.1781  
 www.secgroupinc.com • engineering@secgroupinc.com

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	8
STA. 200+00		TO STA. 202+38.31		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



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 www.secgroupinc.com engineering@secgroupinc.com



PLAN

REVISIONS	DATE
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

PLANNING CHECKED: \_\_\_\_\_

DESIGN CHECKED: \_\_\_\_\_

CONSTRUCTION CHECKED: \_\_\_\_\_

NOTE BOOK NO. \_\_\_\_\_

DATE FILE NAME: \_\_\_\_\_

PROFILE

REVISIONS	DATE
1	
2	
3	
4	
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6	
7	
8	
9	
10	

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

PLANNING CHECKED: \_\_\_\_\_

DESIGN CHECKED: \_\_\_\_\_

CONSTRUCTION CHECKED: \_\_\_\_\_

NOTE BOOK NO. \_\_\_\_\_

DATE FILE NAME: \_\_\_\_\_

PLOT DATE = 11/21/2007  
 PLOT SCALE = 1"=40'  
 USER NAME = shood

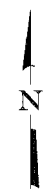
PLAN AND PROFILE - STUENKEL ROAD



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83989				

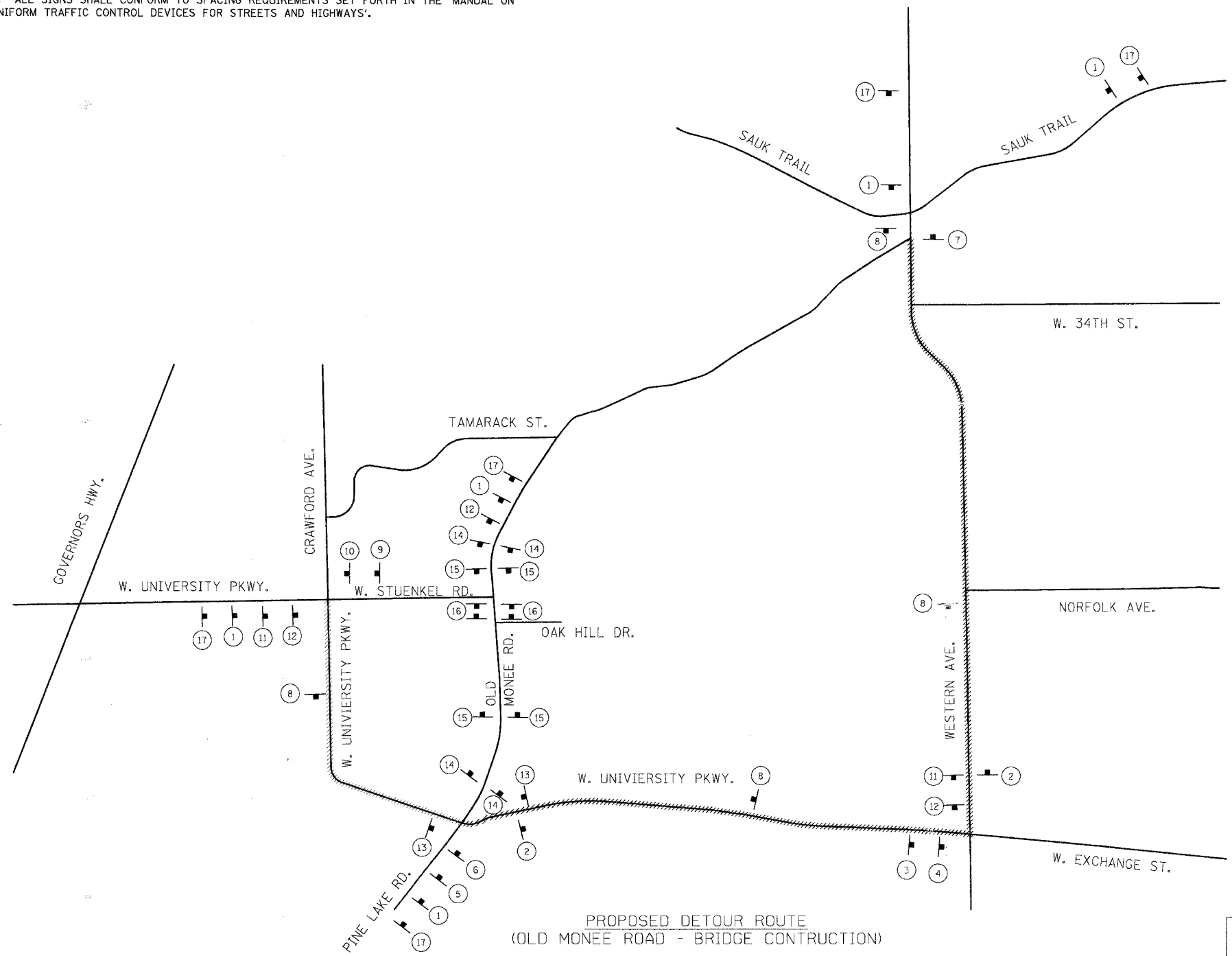
**ROAD CLOSURE GENERAL NOTES:**

1. THE CONTRACTOR WILL BE ALLOWED TO CLOSE OLD MONEE ROAD, BETWEEN WEST EXCHANGE STREET (WEST UNIVERSITY PARKWAY) AND STUENKEL ROAD FOR THE DURATION OF THE BRIDGE CONSTRUCTION.
2. THE DETOUR ROUTE SHALL BE POSTED PRIOR TO CLOSING THE ROAD.
3. ALL TRAFFIC CONTROL WORK ASSOCIATED WITH THE ROAD CLOSURE, SIGNING, TEMPORARY FENCING, TEMPORARY CONCRETE BARRIER AND BARRICADING SHALL BE INCLUDED IN THE PAY ITEM FOR 'TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR'.
4. THE CONTRATOR SHALL GIVE THE ENGINEER AND THE COUNTY A 72 HOUR NOTICE PRIOR TO PLACING THE ADVANCE NOTICE SIGNS.
5. ADVANCE NOTICE SIGNS, (17) & (25), SHALL BE PLACED TWO WEEKS PRIOR TO CLOSING THE ROADWAY.
6. ALL SIGNS SHALL CONFORM TO SPACING REQUIREMENTS SET FORTH IN THE 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS'.



**SIGN LEGEND**

- |   |   |
|---|---|
| <p>1  W20-3 (48"x48") WITH STREET SIGN AND DETOUR AHEAD</p> <p>2  M4-9 (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> <p>3  M4-9La (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> <p>4  M4-9L (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> <p>5  M4-9Ra (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> <p>6  M4-9R (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> <p>7  M4-8a (24"x18") WITH STREET SIGN AND INFORMATION SIGN</p> <p>8  M4-9 (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> | <p>9  M4-9La (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> <p>10  M4-9L (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> <p>11  M4-9Ra (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> <p>12  M4-9R (30"x21") WITH STREET SIGN AND DIRECTION OF TRAFFIC</p> <p>13  M4-8a (24"x18") WITH STREET SIGN AND INFORMATION SIGN</p> <p>14  R11-3a (60"x30") ROAD CLOSED MILES AHEAD LOCAL TRAFFIC ONLY</p> <p>15  W20-2 (48"x48") WITH FLASHING AMBER LIGHT</p> <p>16  R11-2 (48"x30") WITH 2 FLASHING AMBER LIGHTS</p> <p>17  INFO (60"x30")</p> |
|---|---|



PROPOSED DETOUR ROUTE  
(OLD MONEE ROAD - BRIDGE CONSTRUCTION)

PLOT DATE = 11/27/2007  
 USER = hshad  
 SCALE = 1" = 1000'  
 USER NAME = hshad

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 www.secgroupinc.com • engineering@secgroupinc.com

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**DETOUR PLAN  
OLD MONEE ROAD  
OVER THORN CREEK**

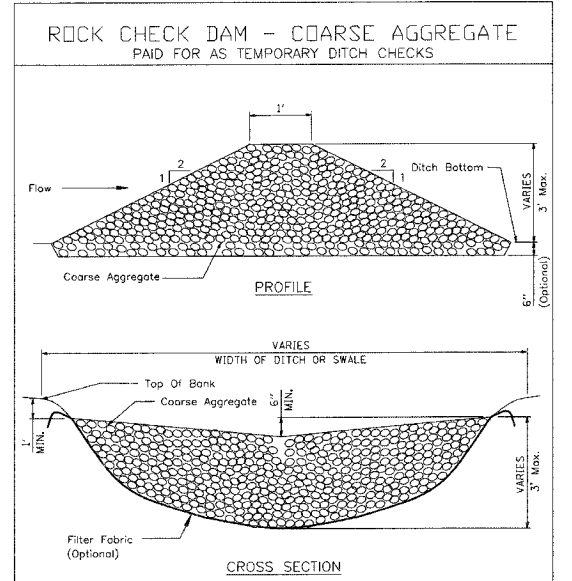
SCALE: VERT. N/A  
 HORIZ. 1" = 1000'  
 DATE: 11/26/07

DRAWN BY: MDJ  
 CHECKED BY: CT

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83989				

**EROSION CONTROL NOTES**

- THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES IMMEDIATELY AFTER STRIPPING OF EXISTING VEGETATION.
- NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE SITE OTHER THAN THROUGH SEDIMENTATION/STILLING BASINS. THE CONTRACTOR WILL ADJUST HIS OPERATIONS AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.
- THE QUANTITIES SHOWN FOR TEMPORARY DITCH CHECKS ARE MEASURED AS EACH, REGARDLESS OF TYPE OR CONFIGURATION USED. HAY OR STRAW BALES ARE NOT TO BE USED.
- 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 30 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.
- ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM STORM WATER PERMIT.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT POLLUTION OF STORM WATER AND SHALL FOLLOW IEPA & IDOT CONSTRUCTION MEMORANDUM NO. 95-60.
- STABILIZATION MEASURES SHALL BE INITIATED WITHIN 3 DAYS OF CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASING IN AREAS WHERE IT WILL NOT OCCUR FOR A PERIOD OF 21 OR MORE CALENDAR DAYS.
- THE CONTRACTOR SHALL APPLY TEMPORARY EROSION CONTROL SEEDING TO ALL ERODIBLE BARE EARTH AREAS WITHIN THE CONTRACT LIMITS EACH WEEK, REGARDLESS OF WEATHER CONDITIONS OR PROGRESS OF THE WORK, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ERODIBLE EMBANKMENT AND EXCAVATION AREAS WHERE WORK IS IN PROGRESS SHALL BE INCLUDED ON THE AREAS TO BE SEED. SEE SPECIAL PROVISION FOR TEMPORARY EROSION CONTROL SEEDING.
- THE SOIL AND WATER CONSERVATION DISTRICT IS RESPONSIBLE FOR CONDUCTING SITE VISITS AND VERIFYING THAT THE PRACTICES ARE WORKING PROPERLY AND DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL. IF ADDITIONAL PRACTICES ARE DEEMED NECESSARY BY THE SWCD THE CONTRACTOR WILL IMPLEMENT THE PRACTICES IN A TIMELY MANNER.
- THE WILL/SOUTH COOK SOIL AND WATER CONSERVATION DISTRICT MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO FINAL INSPECTION.
- THE SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER 1/2 INCH OF RAIN OR MORE BY THE INDIVIDUAL ON SITE IN CHARGE OF SOIL EROSION AND SEDIMENT CONTROL DURING THE CONSTRUCTION OF THE PROJECT.
- EROSION CONTROL BLANKET SHALL BE INSTALLED TO ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 5H:1V AND IN CRITICAL AREAS (I.E. DETENTION BASIN PERIMETERS, STREAMBANKS, BERMS, ETC.) IMMEDIATELY UPON FINAL GRADING.
- SILT FENCE SHALL BE INSTALLED FOLLOWING THE COMPLETION AND STABILIZATION OF THE STORMWATER FACILITIES WILL REMAIN IN PLACE UNTIL THE CONTRIBUTING AREA IS STABILIZED.
- ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS. INSPECTED DAILY AND CLEANED WHEN NECESSARY.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE REFERENCED FROM THE ILLINOIS URBAN MANUAL.
- A STAMPED AND SIGNED COPY OF THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES AND BE PRESENTED WHEN REQUESTED BY WILL/SOUTH COOK SWCD, U.S. ARMY CORP OF ENGINEERS OR ANY OTHER AUTHORIZED AGENCY.
- SEEDING MIXTURE SHALL BE CLASS TYPE 2A AS DETAILED IN SECTION 250 OF THE STANDARD SPECIFICATIONS. PLANTING TIMES ARE LIMITED TO APRIL 1 THROUGH JUNE 15 AND AUGUST 1 TO NOVEMBER 1.

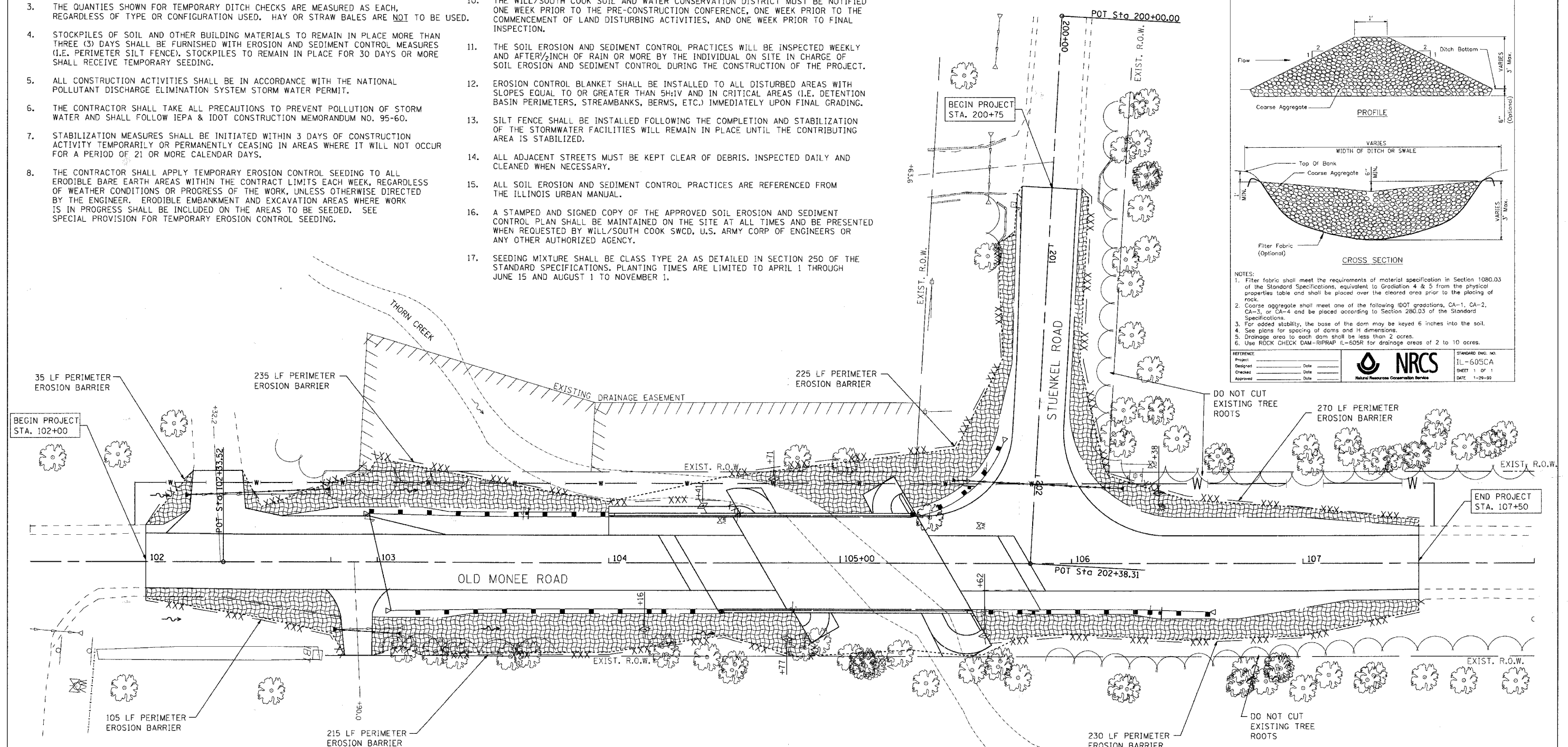


**NOTES:**

- Filter fabric shall meet the requirements of material specification in Section 1080.03 of the Standard Specifications, equivalent to Gradation 4 & 5 from the physical properties table and shall be placed over the cleared area prior to the placing of rock.
- Coarse aggregate shall meet one of the following IDOT gradations, CA-1, CA-2, CA-3, or CA-4 and be placed according to Section 280.03 of the Standard Specifications.
- For added stability, the base of the dam may be keyed 6 inches into the soil.
- See plans for spacing of dams and H dimensions.
- Drainage area to each dam shall be less than 2 acres.
- Use ROCK CHECK DAM-RIPRAP IL-605R for drainage areas of 2 to 10 acres.

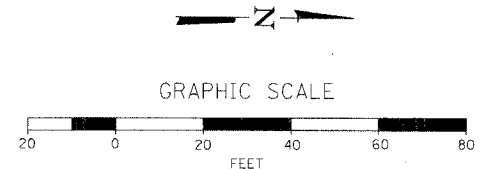
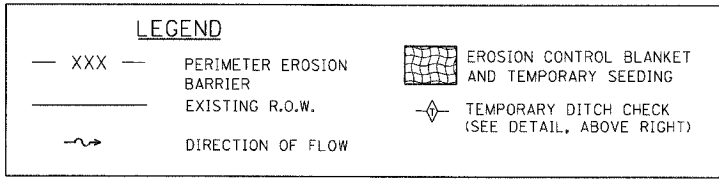
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 Designed: \_\_\_\_\_ Date: \_\_\_\_\_  
 Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved: \_\_\_\_\_ Date: \_\_\_\_\_

STANDARD SPEC. NO. IL-605CA  
 SHEET 1 OF 1  
 DATE 1-28-00



**TEMPORARY EROSION CONTROL SEQUENCE OF CONSTRUCTION**

- ESTABLISH TEMPORARY EROSION CONTROL MEASURES AND ERECT PERIMETER EROSION BARRIER ALONG SITE BOUNDARIES PRIOR TO EARTHWORK.
- INSTALL DITCH CHECKS IMMEDIATELY AFTER DITCH GRADING IS COMPLETED.
- INSTALL TEMPORARY EROSION CONTROL SEEDING.



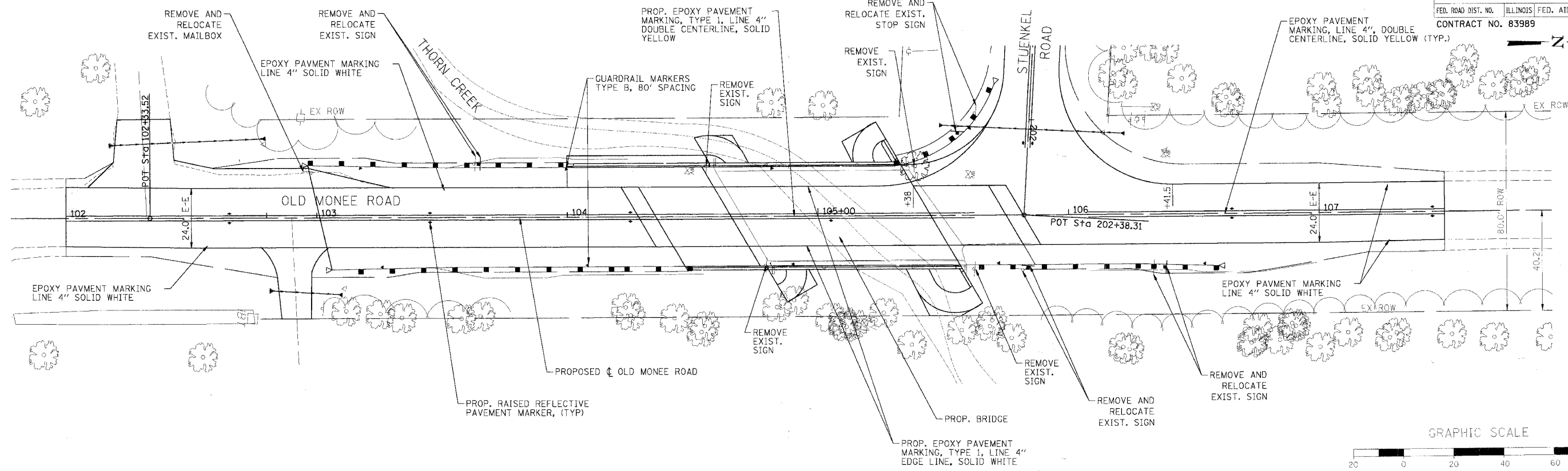
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>SOIL EROSION AND SEDIMENT CONTROL PLAN            OLD MONEE ROAD OVER THORN CREEK</b>  SCALE: VERT. N/A HORIZ. 1" = 20' DATE: 1-11-2008 DRAWN BY: MDJ CHECKED BY: DCJ

PLOT DATE: 1/11/2008  
 FILE NAME: N:\Jobs\Smith\2808\1940185 WILL Old Monee Road\cead\Trans\eroston\848188-erodp  
 PLOT SCALE: 1:120  
 USER NAME: jwood

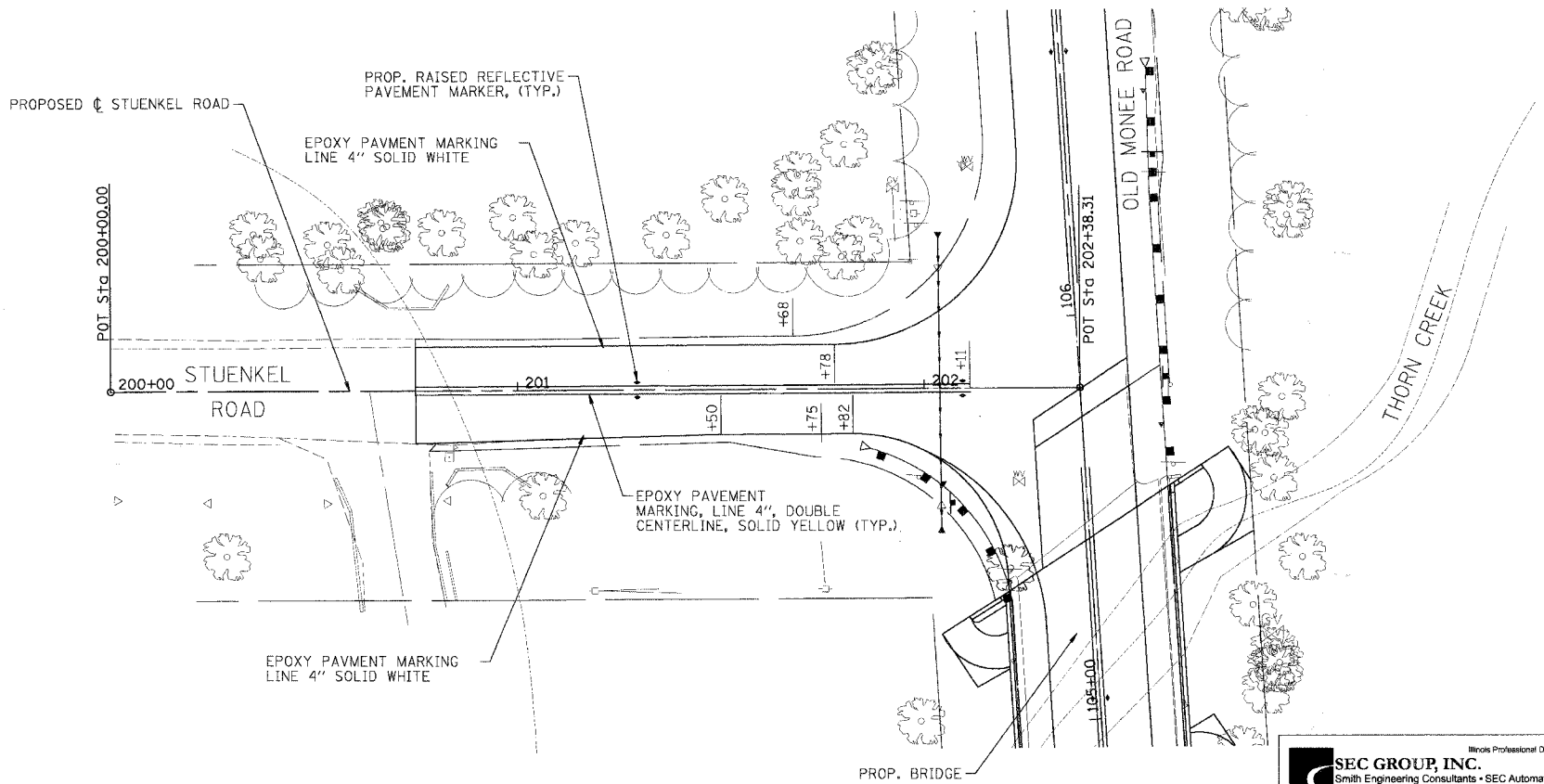
**SEC GROUP INC.**  
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 4500 Prime Parkway, Maitland, IL 60050  
 T. 815.385.1778 F. 815.385.1781  
 www.secgroupinc.com engineering@secgroupinc.com

CONTRACT NO.

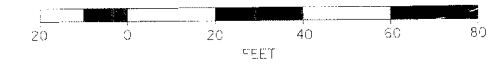
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 83989				



GRAPHIC SCALE



GRAPHIC SCALE



- NOTES:
- PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE DISTRICT ONE TYPICAL PAVEMENT MARKINGS DETAIL SHEET.
  - RPW'S SHALL BE IN ACCORDANCE WITH THE DISTRICT ONE TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTENT).
  - ALL DISTURBED AREAS WILL BE RESTORED WITH SEEDING, CLASS 1A AS SOON AS PRACTICABLE.
  - RMP'S PLACED ON STRUCTURE WILL BE PAID AS RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE).

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	SIGNING, PAVEMENT MARKING & RESTORATION PLAN OLD MONEE ROAD OVER THORN CREEK	
		SCALE: VERT. N/A	DRAWN BY MDJ
		SCALE: HORIZ. 1"=20'	CHECKED BY DCJ
		DATE: 11/26/07	

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 1.815.385.1778 • 815.385.1781  
 www.secgroupinc.com • engineering@secgroupinc.com

PLOT DATE = 11/21/2007  
 PLOT SCALE = 1"=20'  
 REFERENCE = REF

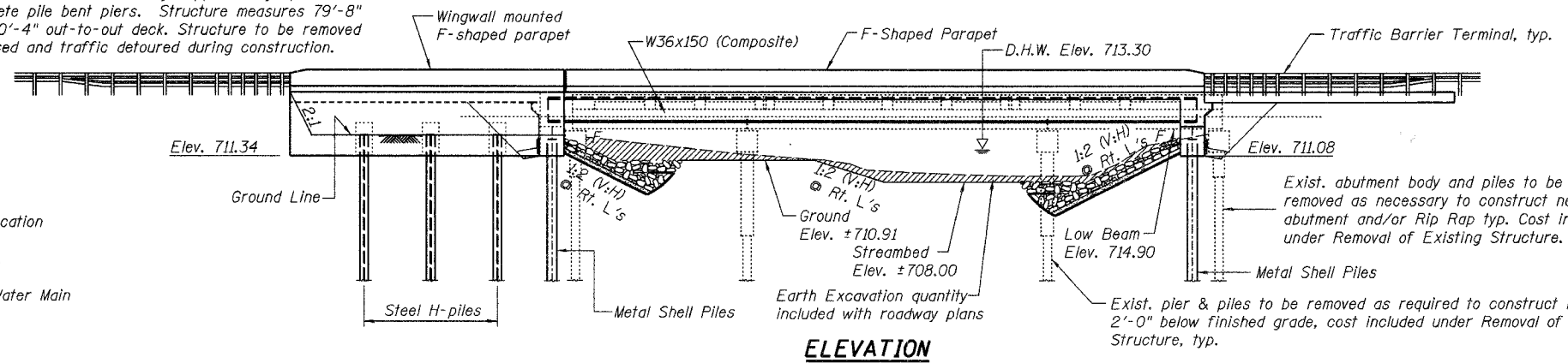
Benchmark: Cut  $\square$  on top of the Southeast wingwall of the existing bridge.  
 Elev. = 718.03  
 Existing Structure: S.N. 099-3065 built 1964 as F.A.S. Route 1414, Sec. 133B. Structure consists of three span precast prestressed concrete deck beams with variable thickness bituminous overlay supported by spill-thru abutments and solid wall concrete pile bent piers. Structure measures 79'-8" back-to-back abutments and 40'-4" out-to-out deck. Structure to be removed and replaced. Road to be closed and traffic detoured during construction.

No salvage.

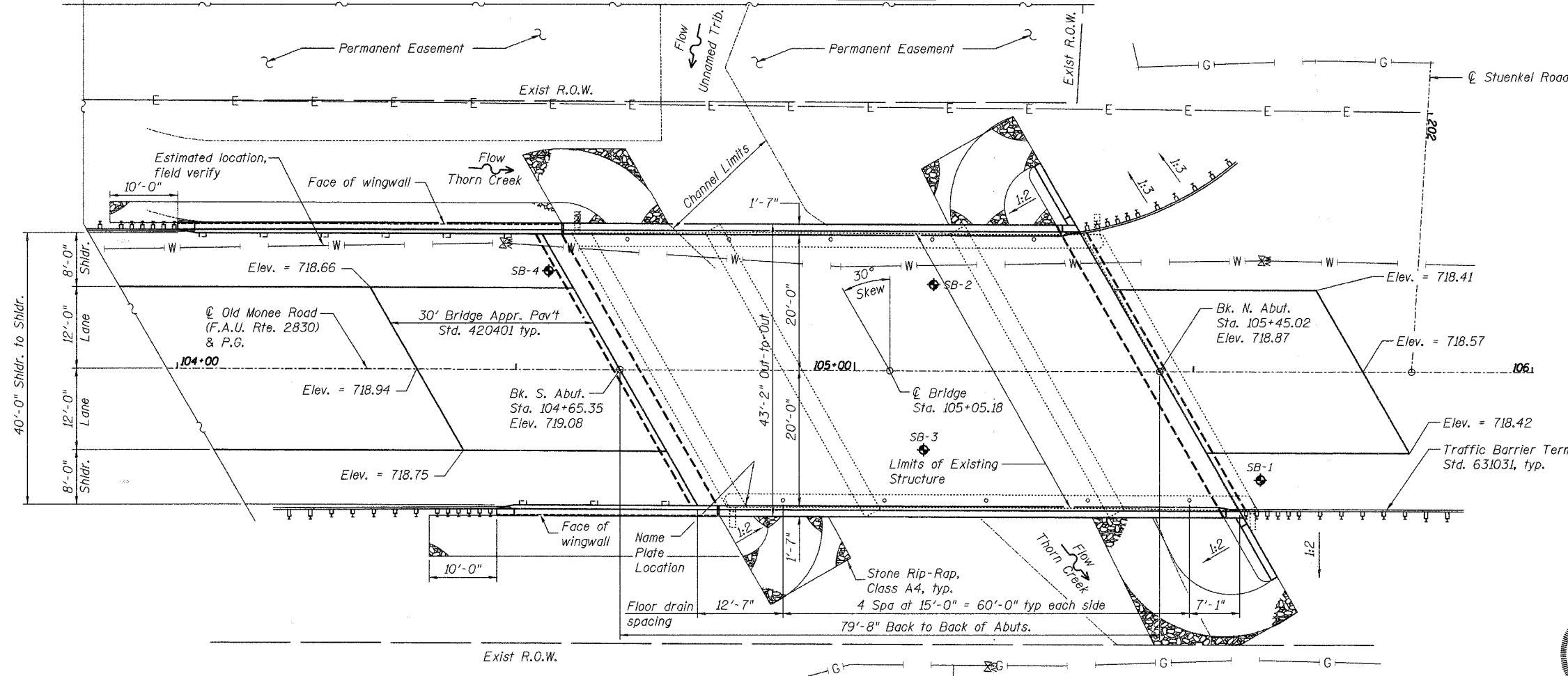
ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.
FAU 2830	01-00133-08-BR	WILL	37	12
SHEETS S-19				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		
1		#83989		

**LEGEND**

- $\blacklozenge$  Soil Boring Location
- E — Overhead Elec.
- W — Underground Water Main
- G — Gas Line



**ELEVATION**



**PLAN**

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

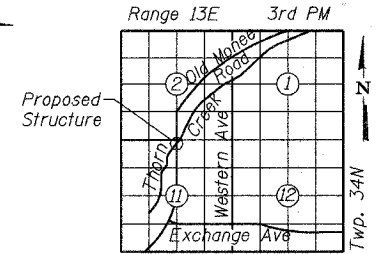
**WATERWAY INFORMATION**

Drainage Area = 4.0 sq. mi. Low Grade Elev. 718.22 @ Sta. 106+40.32

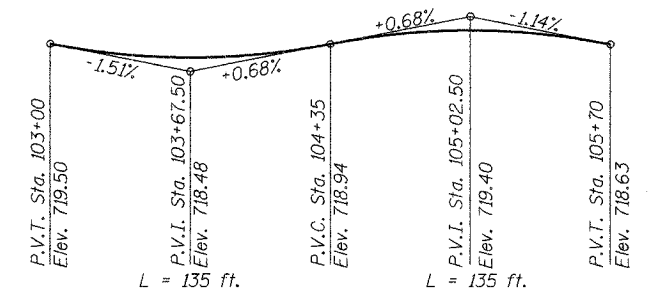
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	375	175	249	713.30	0.7	0.6	714.00	713.90
Base	100	441	196	271	713.60	0.5	0.5	714.10	714.10
Overtopping									
Max. Calc.	500	800	255	331	714.40	0.6	0.6	715.00	715.00

THORN CREEK  
 BUILT 200 BY  
 WILL COUNTY  
 SEC 01-00133-08-BR  
 F.A.U. 2830 STA. 105+05.18  
 STR. NO. 099-3379 LOADING HS20

**NAME PLATE**  
 See Std. 515001



**LOCATION SKETCH**



**PROFILE GRADE**  
 (along Roadway)

**LOADING HS20-44**

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

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications - 17th Ed.

**DESIGN STRESSES**

**FIELD UNITS**

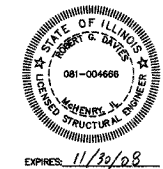
- $f'_c$  = 3,500 psi
- $f_y$  = 60,000 psi (Reinforcement)
- $f_y$  = 50,000 psi (M270 Grade 50)

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 4%  
 Site Coefficient (S) = 1.0

**INDEX OF SHEETS**

- S-1 General Plan & Elevation
- S-2 General Data
- S-3 Top of Slab Elevations
- S-4 Top of Slab Elevations Superstructure
- S-5 Superstructure Details
- S-6 Superstructure Details
- S-7 Diaphragm Details
- S-8 Structural Steel
- S-9 Steel Framing Details
- S-10 North Abutment
- S-11 South Abutment
- S-12 Southeast Wingwall Details
- S-13 Southwest Wingwall Details
- S-14 Pile Details - Metal Shell
- S-15 Pile Details - H-Piles
- S-16 Bar Splicer Assembly Details
- S-17 Soil Boring Logs
- S-18 Soil Boring Logs
- S-19 Soil Boring Logs



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 for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

Robert G. Davies 11/24/07

Robert G. Davies Date  
 Licensed Structural Engineer  
 License Expires November 30, 2008

**ILLINOIS DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION  
 OLD MONEE ROAD (COUNTY HIGHWAY 48)  
 OVER THORN CREEK  
 WILL COUNTY  
 SECTION NO. 01-00133-08-BR  
 STRUCTURE NO. 099-3379**

DATE: 11-26-2007



ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
FAU 2830	01-00133-08-BR	WILL	37	13
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
1				

SHEET NO. S-2

S-19 SHEETS

Contract #83989

### GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts  $\frac{7}{8}$  in.  $\phi$ , holes  $\frac{15}{16}$  in.  $\phi$ , unless otherwise noted.

Calculated weight of Structural Steel = 79,830 lbs.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be gray, Munsell 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".

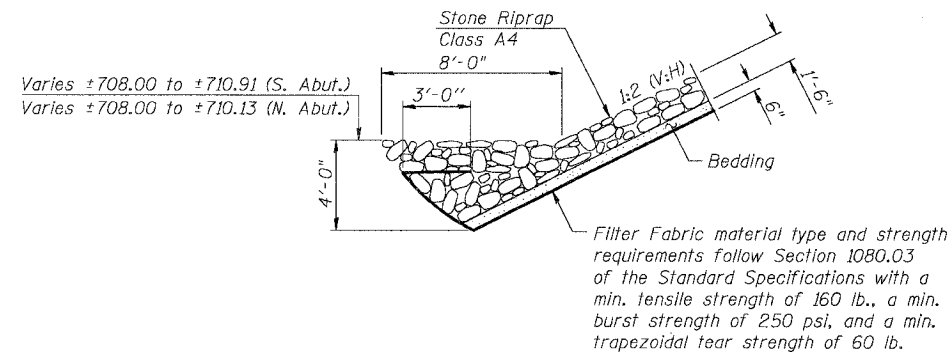
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

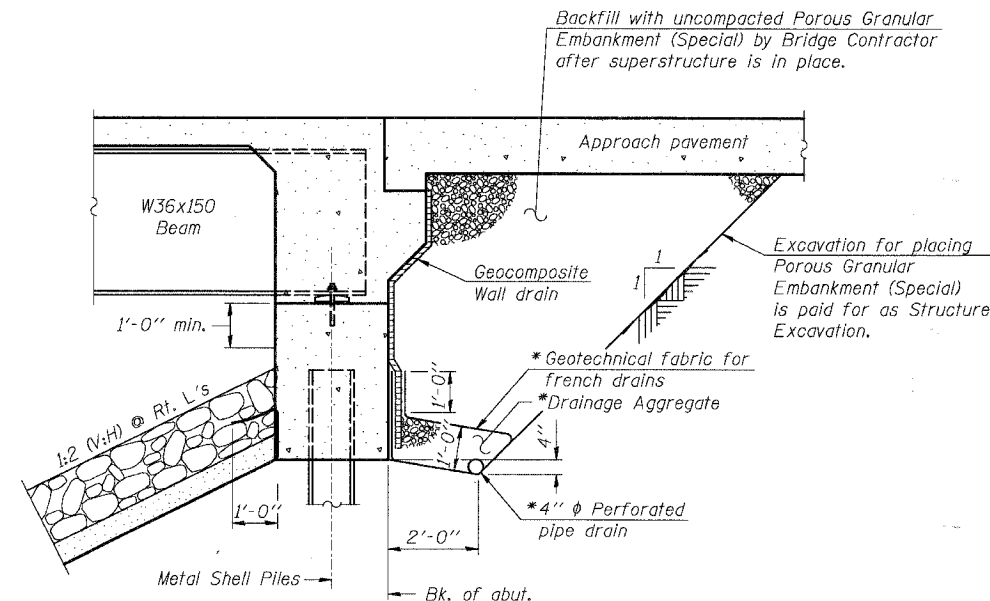
The information shown in these plans concerning the type and location of utilities is not guaranteed to be accurate or all-inclusive. The Contractor is responsible for making his own determination as to the existence of type, size and location of all underground and overhead utilities as may be necessary to avoid conflict with construction operations and/or damage to the utility.

Existing water main shall be field located prior to drilling piling. Contractor shall verify that existing water main within limits of Bridge Construction has been abandoned prior to excavation. Coordination with this work (by others), if required shall be included under Mobilization. The cost of removal of existing water main where in conflict with the proposed structures shall be included in the Lump Sum unit price for Removal of Existing Structures.

Cost of filling metal shell piles with concrete is included in Driving Piles.



### STONE RIPRAP ANCHOR DETAIL



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

\* Included in the cost of Pipe Underdrains for Structures.

Note:  
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 60110I).

### TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		160	160
Stone Riprap, Class A4	Sq. Yd.		325	325
Filter Fabric	Sq. Yd.		325	325
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		290	290
Floor Drains	Each	10		10
Concrete Structures	Cu. Yd.		73	73
Concrete Superstructure	Cu. Yd.	152		152
Bridge Deck Grooving	Sq. Yd.	336		336
Protective Coat	Sq. Yd.	457		457
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1,926		1,926
Bar Splicers	Each	48		48
Reinforcement Bars, Epoxy Coated	Pound	26,330	10,660	36,990
Furnishing Metal Shell Piles 14"	Foot		931	931
Furnishing Steel Piles HP 12x53	Foot		225	225
Driving Piles	Foot		1156	1156
Test Pile Metal Shells	Each		2	2
Anchor Bolts, 1"	Each	24		24
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		78	78
Pipe Underdrains for Structures, 4"	Foot		136	136

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

Illinois Professional Design Firm # 184-000108  
**SEC GROUP, INC.**  
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ILLINOIS DEPARTMENT OF TRANSPORTATION

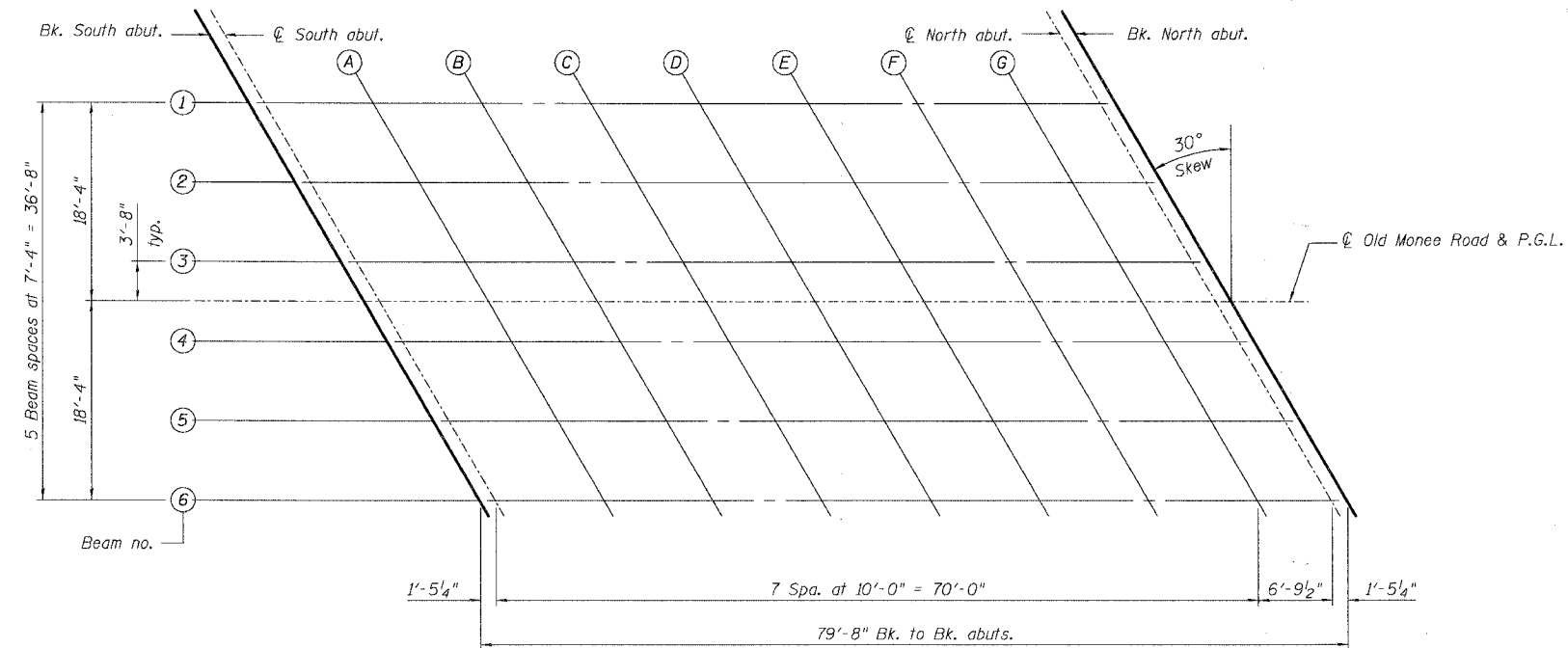
GENERAL DATA  
 OLD MONEE ROAD (COUNTY HIGHWAY 48)  
 OVER THORN CREEK  
 WILL COUNTY  
 SECTION NO. 01-00133-08-BR  
 STRUCTURE NO. 099-3379

DATE: 1-11-2008

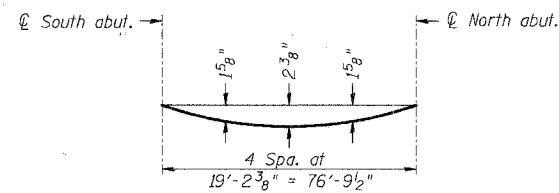
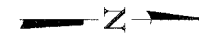
ROUTE NO.	SECTION	COUNTY	JOB SHEETS	SHEET NO.
FAU 2830	01-00133-08-BR	WILL	37	14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
1				

SHEET NO. S-3  
S-19 SHEETS

Contract #83989



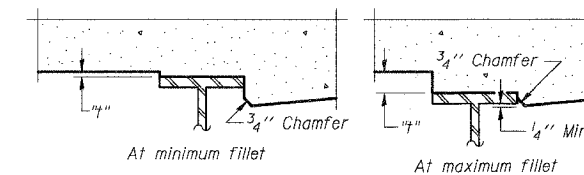
PLAN



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet S-4.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet S-4, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU



ILLINOIS DEPARTMENT OF TRANSPORTATION  
TOP OF SLAB ELEVATIONS  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379  
DATE: 11-26-2007



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2830	01-00133-08-BR	WILL	37	15
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		
1				

SHEET NO. S-4  
S-19 SHEETS

Contract #83989

PROFILE GRADE LINE, CROWN & CENTERLINE

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	104+54.77	-18.333	718.73	718.73
☉ S. Abut.	104+56.20	-18.333	718.73	718.73
A	104+66.20	-18.333	718.77	718.85
B	104+76.20	-18.333	718.79	718.93
C	104+86.20	-18.333	718.79	718.98
D	104+96.20	-18.333	718.78	718.98
E	105+06.20	-18.333	718.76	718.94
F	105+16.20	-18.333	718.73	718.85
G	105+26.20	-18.333	718.68	718.73
☉ N. Abut.	105+33.00	-18.333	718.64	718.64
Bk. N. Abut.	105+34.43	-18.333	718.63	718.63

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	104+59.00	-11.000	718.89	718.89
☉ S. Abut.	104+60.44	-11.000	718.90	718.90
A	104+70.44	-11.000	718.92	719.01
B	104+80.44	-11.000	718.94	719.08
C	104+90.44	-11.000	718.94	719.13
D	105+00.44	-11.000	718.93	719.12
E	105+10.44	-11.000	718.90	719.08
F	105+20.44	-11.000	718.86	718.98
G	105+30.44	-11.000	718.80	718.86
☉ N. Abut.	105+37.23	-11.000	718.76	718.76
Bk. N. Abut.	105+38.67	-11.000	718.75	718.75

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	104+63.23	-3.667	719.02	719.02
☉ S. Abut.	104+64.67	-3.667	719.03	719.03
A	104+74.67	-3.667	719.05	719.13
B	104+84.67	-3.667	719.05	719.20
C	104+94.67	-3.667	719.05	719.24
D	105+04.67	-3.667	719.03	719.23
E	105+14.67	-3.667	719.00	719.17
F	105+24.67	-3.667	718.95	719.08
G	105+34.67	-3.667	718.89	718.94
☉ N. Abut.	105+41.46	-3.667	718.84	718.84
Bk. N. Abut.	105+42.90	-3.667	718.83	718.83

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	104+65.35	0.000	719.08	719.08
☉ S. Abut.	104+66.79	0.000	719.09	719.09
A	104+76.79	0.000	719.11	719.19
B	104+86.79	0.000	719.11	719.26
C	104+96.79	0.000	719.10	719.29
D	105+06.79	0.000	719.08	719.28
E	105+16.79	0.000	719.05	719.22
F	105+26.79	0.000	719.00	719.12
G	105+36.79	0.000	718.93	718.99
☉ N. Abut.	105+43.58	0.000	718.88	718.88
Bk. N. Abut.	105+45.02	0.000	718.87	718.87

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	104+67.47	3.667	719.03	719.03
☉ S. Abut.	104+68.90	3.667	719.04	719.04
A	104+78.90	3.667	719.05	719.14
B	104+88.90	3.667	719.05	719.20
C	104+98.90	3.667	719.04	719.23
D	105+08.90	3.667	719.02	719.22
E	105+18.90	3.667	718.98	719.16
F	105+28.90	3.667	718.93	719.05
G	105+38.90	3.667	718.86	718.91
☉ N. Abut.	105+45.70	3.667	718.81	718.81
Bk. N. Abut.	105+47.13	3.667	718.80	718.80

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	104+71.70	11.000	718.93	718.93
☉ S. Abut.	104+73.14	11.000	718.93	718.93
A	104+83.14	11.000	718.94	719.02
B	104+93.14	11.000	718.94	719.08
C	105+03.14	11.000	718.92	719.11
D	105+13.14	11.000	718.89	719.09
E	105+23.14	11.000	718.84	719.02
F	105+33.14	11.000	718.79	718.91
G	105+43.14	11.000	718.72	718.77
☉ N. Abut.	105+49.93	11.000	718.66	718.66
Bk. N. Abut.	105+51.37	11.000	718.65	718.65

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	104+75.93	18.333	718.79	718.79
☉ S. Abut.	104+77.37	18.333	718.79	718.79
A	104+87.37	18.333	718.79	718.88
B	104+97.37	18.333	718.78	718.93
C	105+07.37	18.333	718.76	718.95
D	105+17.37	18.333	718.72	718.92
E	105+27.37	18.333	718.67	718.85
F	105+37.37	18.333	718.61	718.74
G	105+47.37	18.333	718.53	718.59
☉ N. Abut.	105+54.16	18.333	718.47	718.47
Bk. N. Abut.	105+55.60	18.333	718.46	718.46

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU



ILLINOIS DEPARTMENT OF TRANSPORTATION

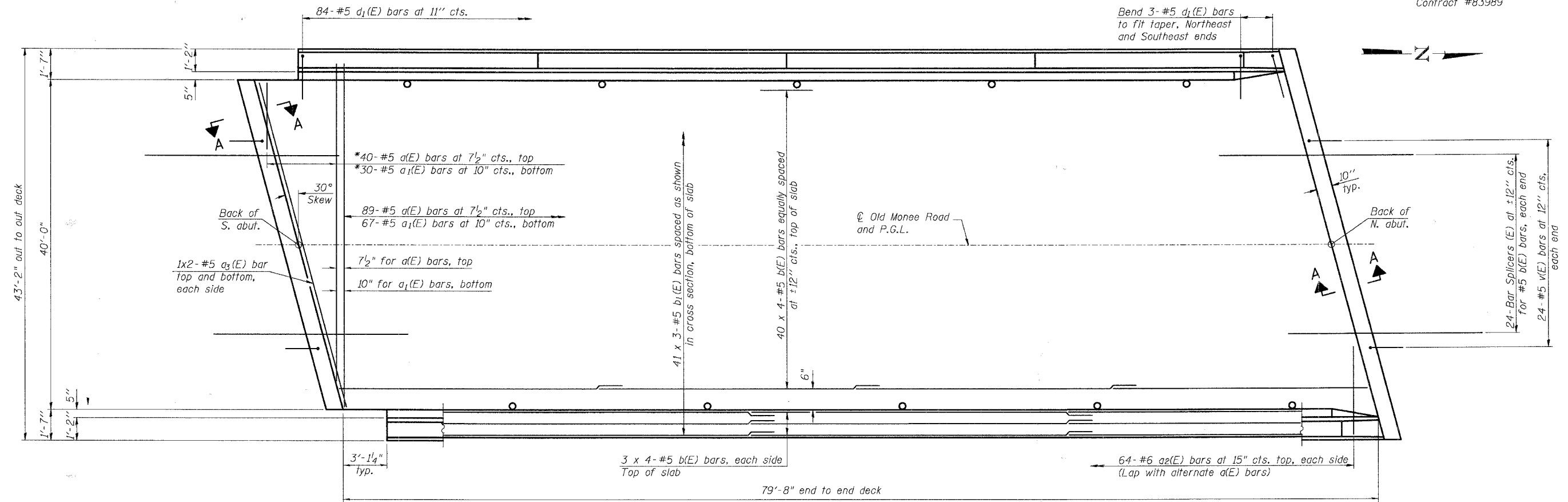
TOP OF SLAB ELEVATIONS  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379

DATE: 11-26-2007

ROUTE NO.	SECTION	COUNTY	SHEET	NO.
FAU 2630	01-00133-08-BR	WILL	37	16
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. S-5  
S-19 SHEETS

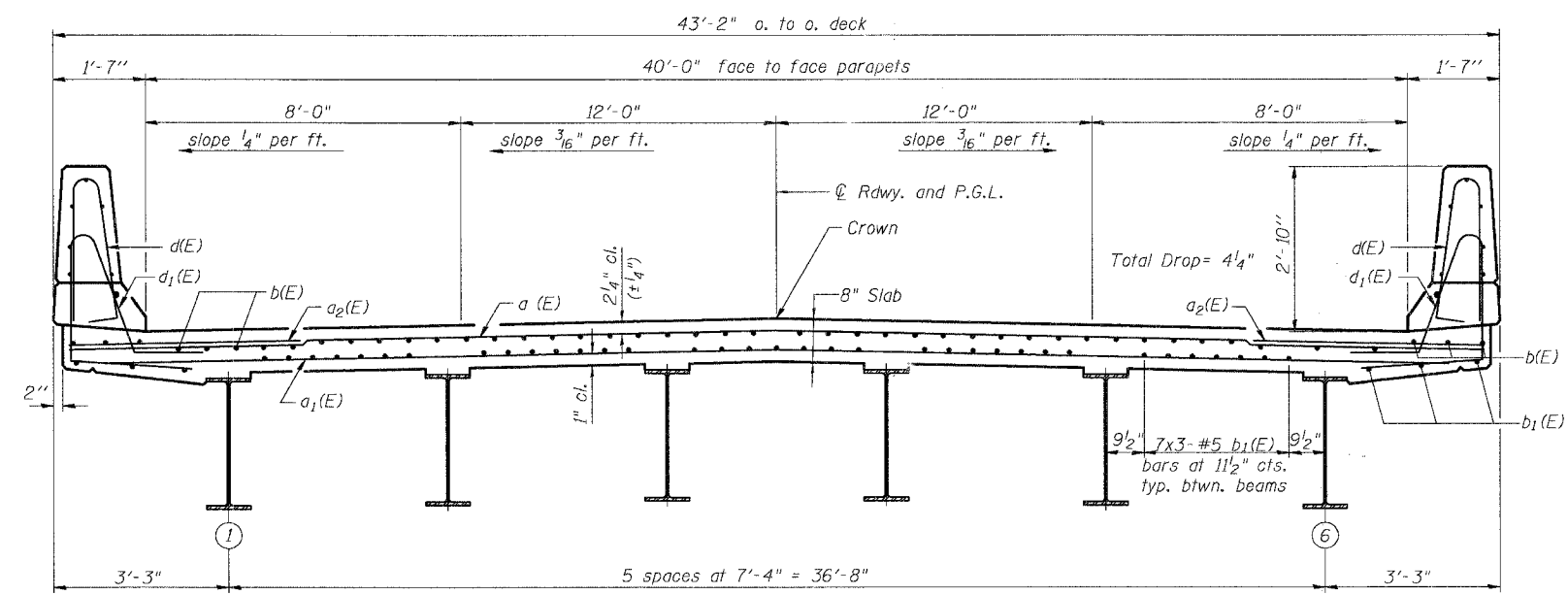
Contract #83989



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

**PLAN**

**MIN. BAR LAP**  
#5 bar = 2'-2"



Notes:  
See sheet S-6 for superstructure details and Bill of Material.  
See sheet S-8 for Section A-A and diaphragm details.  
See sheet S-16 for Bar Splicer Assembly details.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

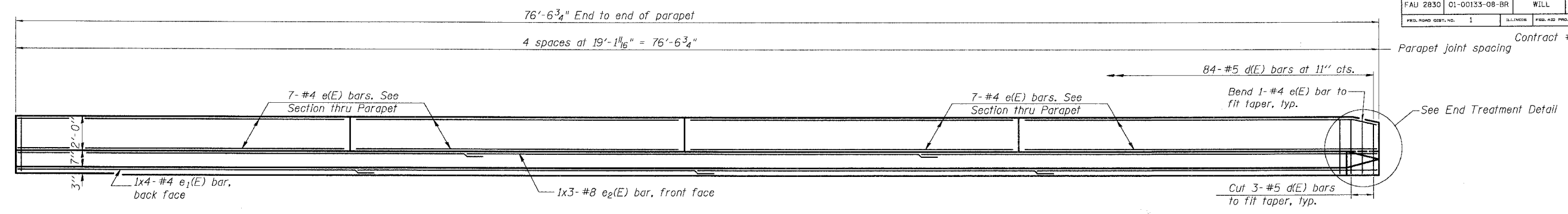
DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

**CROSS SECTION**  
(Looking North)

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Illinois Professional Design Firm # 184-000106  
Smith Engineering Consultants • SEC Automation • SEC Planning  
4500 Prime Parkway, McHenry, IL 60050  
T. 815.385.1778 F. 815.385.1791  
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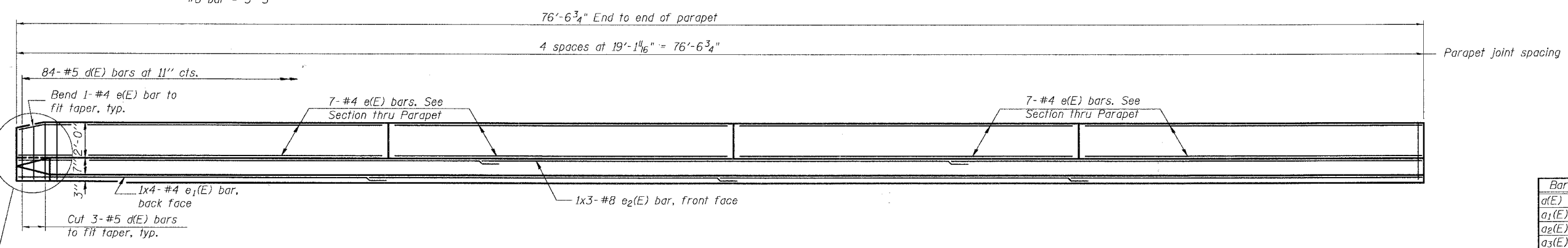
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUPERSTRUCTURE  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY**  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379  
DATE: 11-26-2007

Contract #83989  
Parapet joint spacing



**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 1'-4"  
#8 bar = 3'-5"

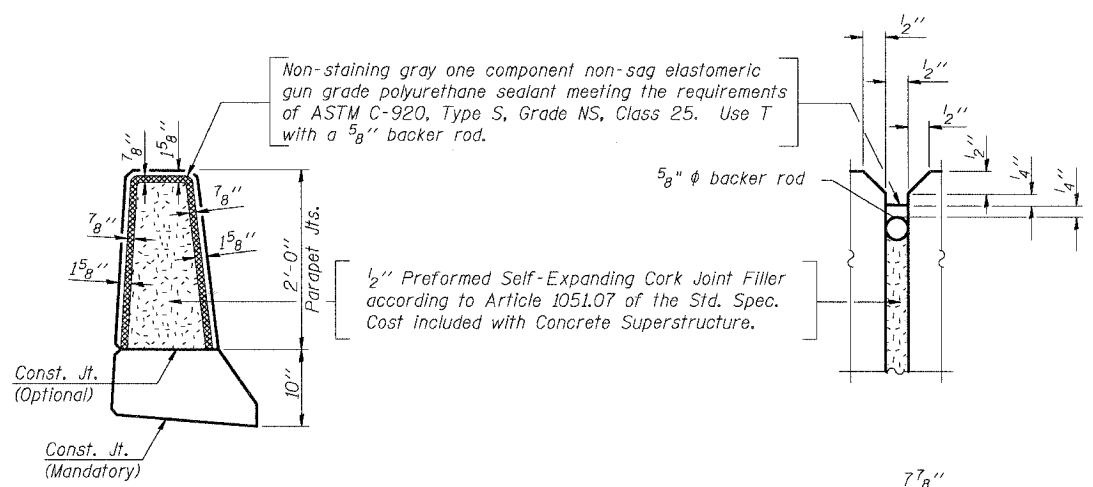
**INSIDE ELEVATION OF WEST PARAPET**



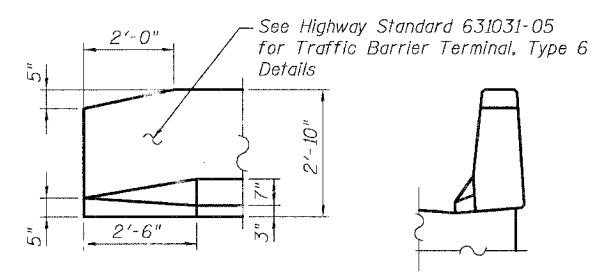
**INSIDE ELEVATION OF EAST PARAPET**

**SUPERSTRUCTURE BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	129	#5	42'-6"	—
a1(E)	97	#5	40'-1"	—
a2(E)	128	#6	6'-0"	—
a3(E)	8	#5	26'-0"	—
b(E)	184	#5	21'-6"	—
b1(E)	123	#5	27'-11"	—
d(E)	168	#5	5'-7"	┌
d1(E)	168	#5	8'-1"	┌
e(E)	56	#4	18'-9"	—
e1(E)	8	#4	20'-2"	—
e2(E)	6	#8	27'-9"	—
m(E)	2	#6	45'-10"	—
m1(E)	3	#6	45'-10"	—
m2(E)	20	#6	11'-3"	—
m3(E)	10	#6	8'-1"	—
m4(E)	2	#6	1'-9"	—
m5(E)	2	#6	49'-6"	—
m6(E)	3	#6	49'-6"	—
m7(E)	4	#6	9'-0"	—
m8(E)	2	#6	3'-5"	—
s(E)	88	#5	6'-5"	┌
s1(E)	78	#4	10'-6"	┌
v(E)	48	#5	3'-4"	┌
Reinforcement Bars, Epoxy Coated			Pound	25,040
Concrete Superstructure			Cu. Yds.	141.7

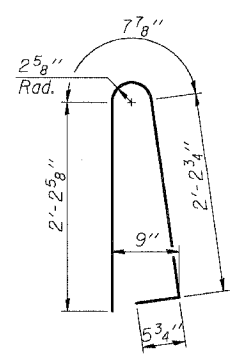


**PARAPET JOINT DETAILS**

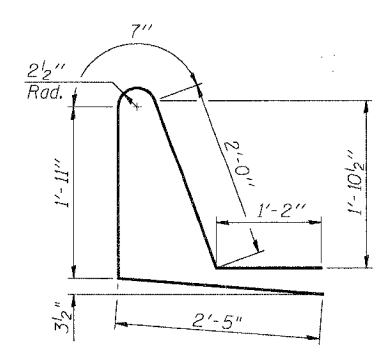


**ELEVATION**      **END VIEW**

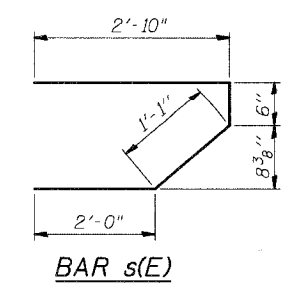
**END TREATMENT DETAIL**  
(Northwest and Northeast corners)



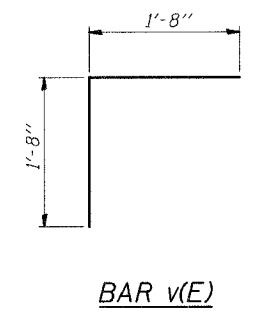
**BAR d(E)**



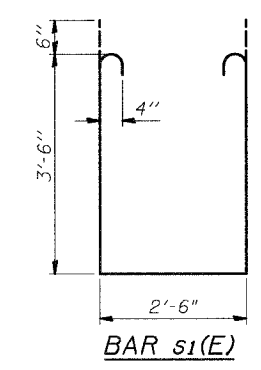
**BAR d1(E)**



**BAR s(E)**



**BAR v(E)**



**BAR s1(E)**

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

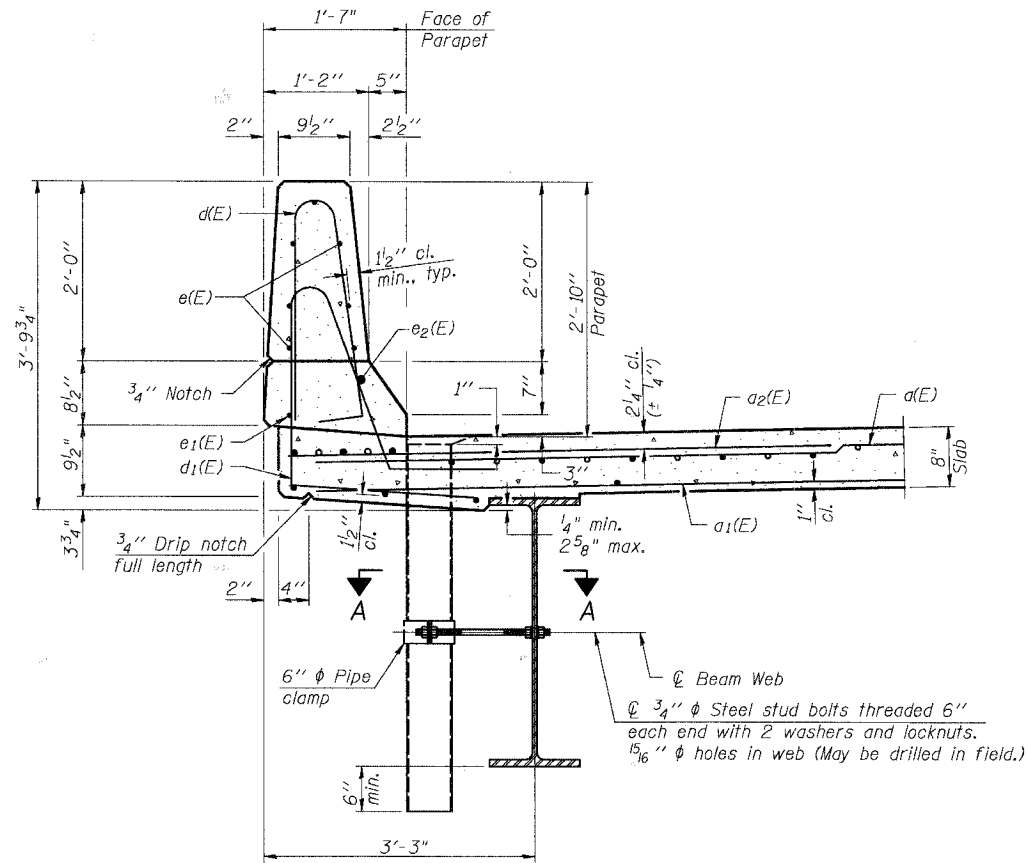
Illinois Professional Design Firm # 184-000108  
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L 815.385.1778 • F 815.385.1781  
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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUPERSTRUCTURE DETAILS**  
**OLD MONEE ROAD (COUNTY HIGHWAY 48)**  
**OVER THORN CREEK**  
**WILL COUNTY**  
**SECTION NO. 01-00133-08-BR**  
**STRUCTURE NO. 099-3379**  
DATE: 11-26-2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2830	01-00133-08-BR	WILL	37	16
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
1				

SHEET NO. S-7  
S-19 SHEETS

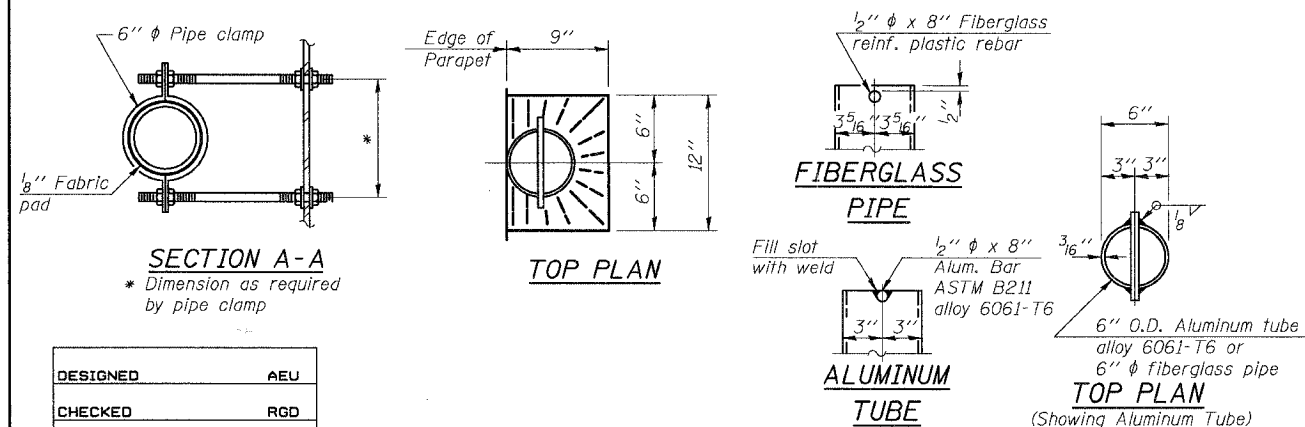
Contract #83989



SECTION THRU PARAPET

Notes:

The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SPI prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379

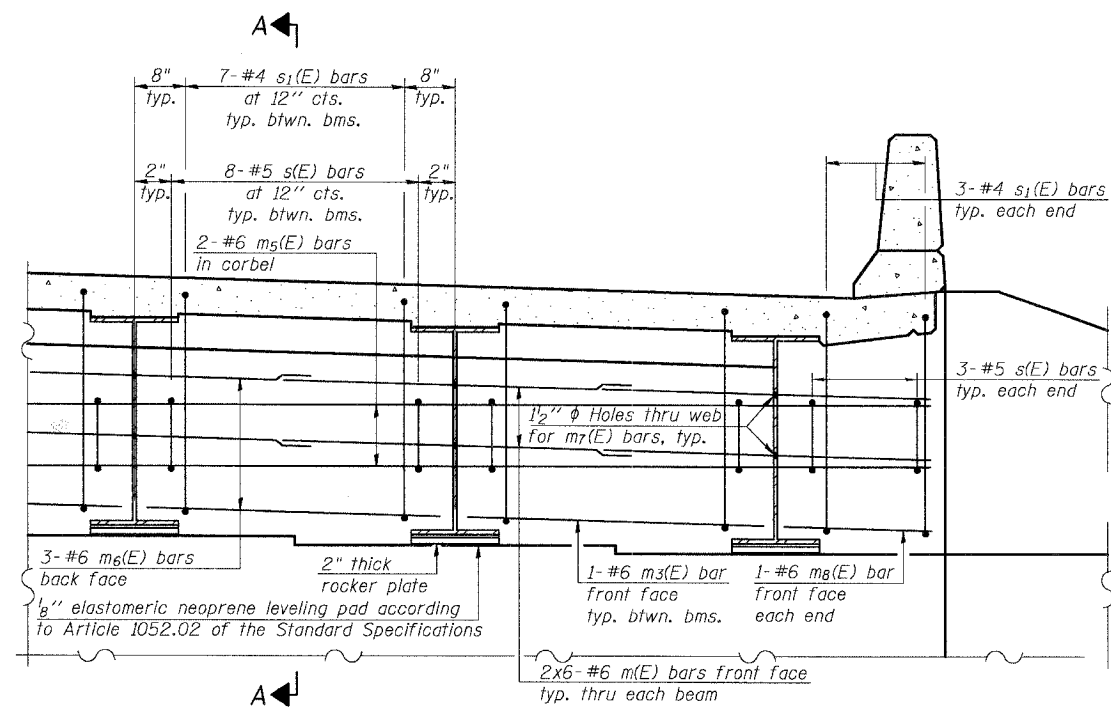
DATE: 11-26-2007



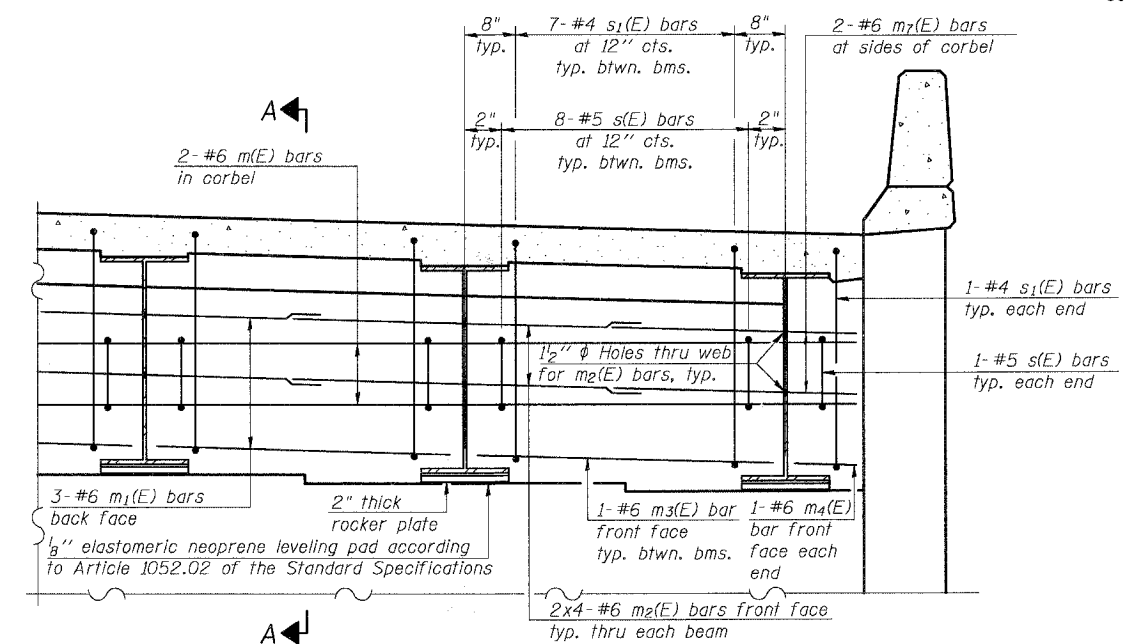
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	"SET"
FAU 2830	01-00133-08-BR	WILL	37	19
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. S-8  
S-19 SHEETS

Contract #83989



DIAPHRAGM ELEVATION AT NORTH ABUTMENT

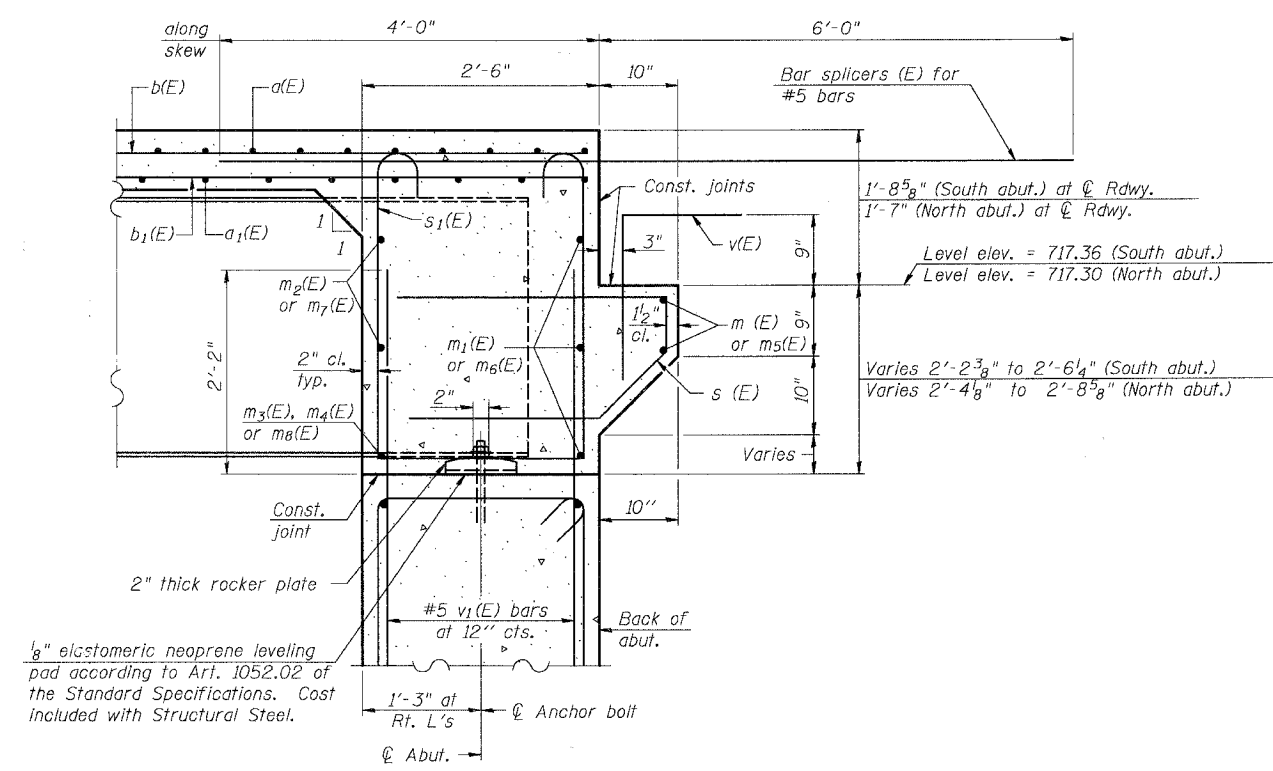


DIAPHRAGM ELEVATION AT SOUTH ABUTMENT

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet S-6.  
Concrete in diaphragm is included with Concrete Superstructure on sheet S-6.  
For details of bars s(E) and s1(E) see sheet S-6.  
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.

**MIN. BAR LAP**  
#6 bar = 2'-9"



SECTION A-A

Dimensions at right angles to abutment, except as shown.

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

ILLINOIS PROFESSIONAL DESIGN FIRM # 184-000108  
**SEC GROUP, INC.**  
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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DIAPHRAGM DETAILS**  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379  
DATE: 11-26-2007

Contract #83989

		0.5 Span
$I_s$	(in <sup>4</sup> )	9,040
$I_c(n)$	(in <sup>4</sup> )	22,370
$I_c(3n)$	(in <sup>4</sup> )	16,565
$S_s$	(in <sup>3</sup> )	504
$S_c(n)$	(in <sup>3</sup> )	710
$S_c(3n)$	(in <sup>3</sup> )	645
$Z$	(in <sup>3</sup> )	---
$DL$	(k/ft.)	0.865
$M_{DL}$	(k)	6.38
$s_{DL}$	(k/ft.)	0.483
$M_{s_{DL}}$	(k)	3.56
$M_{LL}$	(k)	7.36
$M_{(Imp)}$	(k)	1.83
$5/3 [M_{LL} + M_{(Imp)}]$	(k)	1,532
$M_a$	(k)	3,283
$M_u$	(k)	3,580
$f_s DL (non-comp)$	(k.s.i.)	15.2
$f_s DL (comp)$	(k.s.i.)	6.6
$f_s 5/3 (LL + Imp)$	(k.s.i.)	25.9
$f_s (Overload)$	(k.s.i.)	47.7
$f_s (Total)$	(k.s.i.)	---
$VR$	(k)	64.6

		Abut.
$R_{DL}$	(k)	51.7
$R_{LL}$	(k)	51.8
$Imp.$	(k)	12.8
$R (Total)$	(k)	116.3

$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Total & Overload).

$I_c(n)$  and  $S_c(n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.

$I_c(3n)$  and  $S_c(3n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (See AASHTO 10.3B)

$VR$  is the maximum Live Load + Impact shear range in span.

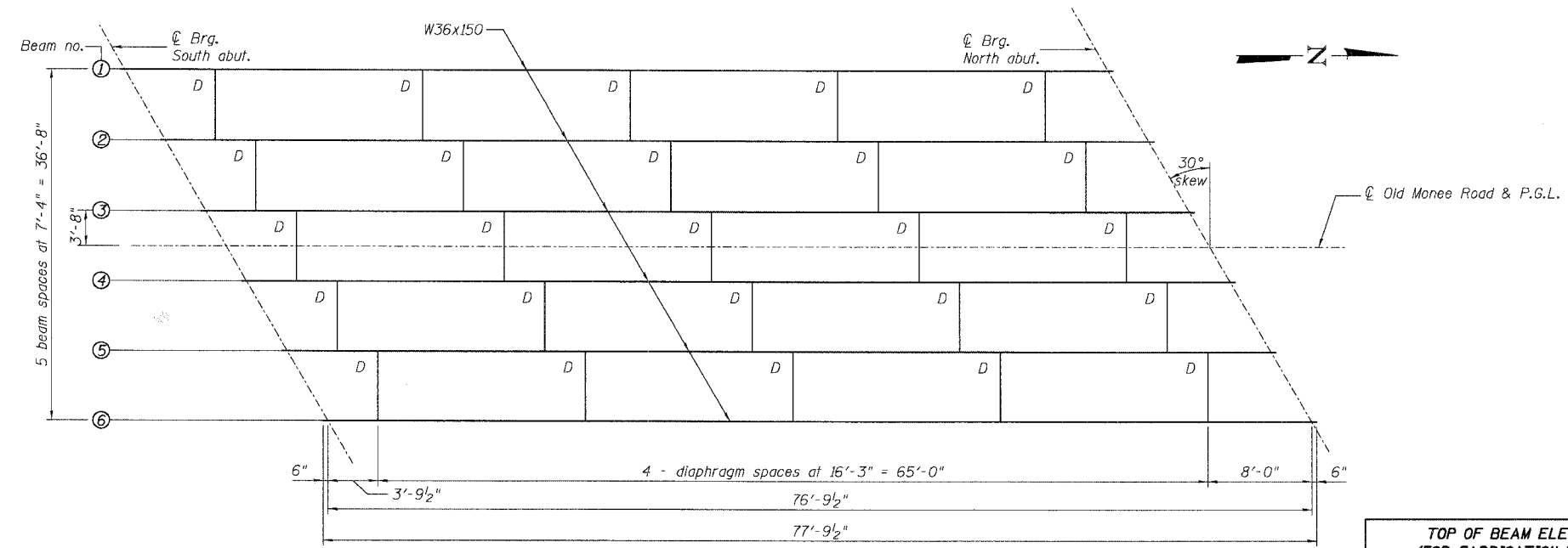
$Z$  is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

$M_a$  (Applied Moment) =  $1.3[MDL + MsDL + 5/3(MLL + M(Imp))]$

The Plastic Moment capacity ( $M_u$ ) is computed according to AASHTO 10.48.1 and 10.50.1.1

$f_s$  (Overload) is the sum of the stresses due to  $MDL + MsDL + 5/3(MLL + M(Imp))$

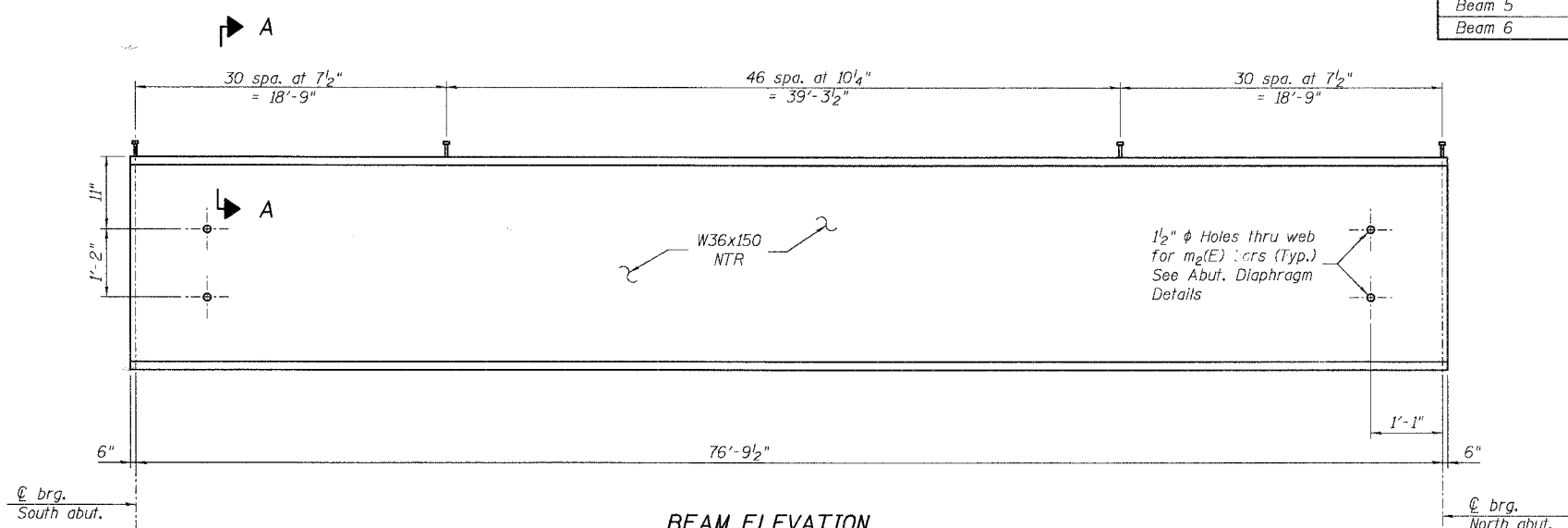
$f_s$  (Total) (Non-compact section) is the sum of the stresses due to  $1.3[MDL + MsDL + 5/3(MLL + M(Imp))]$



**FRAMING PLAN**

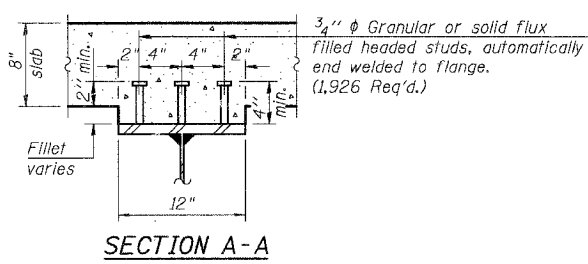
D is Interior Diaphragm. See Sheet S-10

BEAM NO.	℄ S. ABUT.	℄ N. ABUT.
Beam 1	718.02	717.92
Beam 2	718.18	718.04
Beam 3	718.31	718.13
Beam 4	718.32	718.09
Beam 5	718.21	717.94
Beam 6	718.07	717.76



**BEAM ELEVATION**

"NTR" denotes plates to which Notch Toughness Requirements are applicable



**SECTION A-A**

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

**NOTES:**

All structural steel shall be AASHTO M270 Grade 50.  
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.  
All diaphragms ("D" on plans) shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.  
Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.  
For diaphragm and bearing details, see sheet S-10.

Illinois Professional Design Firm # 184-000108

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ILLINOIS DEPARTMENT OF TRANSPORTATION

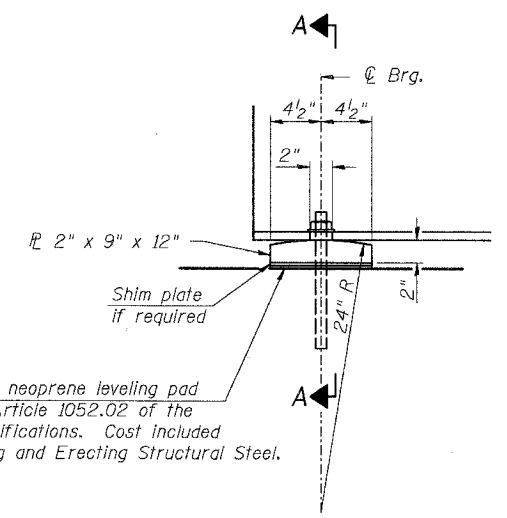
**STRUCTURAL STEEL**  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379  
DATE: 11-26-2007



ROUTE NO.	SECTION	COUNTY	SHEET	SHEET
FAU 2830	01-00133-08-BR	WILL	37	21
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		
1				

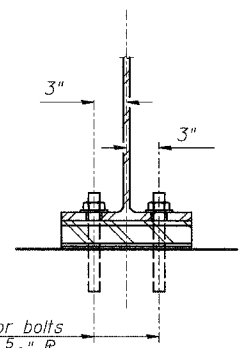
SHEET NO. S-10  
S-19 SHEETS

Contract #83989



$\frac{1}{8}$ " elastomeric neoprene leveling pad according to Article 1052.02 of the Standard Specifications. Cost included with Furnishing and Erecting Structural Steel.

ELEVATION AT ABUTMENTS

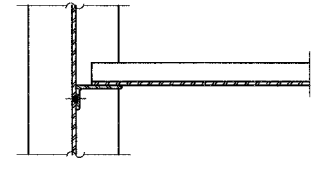


$\phi$  1"  $\phi$  x 12" anchor bolts with  $2\frac{1}{4}$ " x  $2\frac{1}{4}$ " x  $\frac{5}{16}$ " PL washer under nut.  $1\frac{3}{8}$ " x 2" slotted hole in bottom flange. Provide  $1\frac{1}{2}$ "  $\phi$  holes in bearing plate.

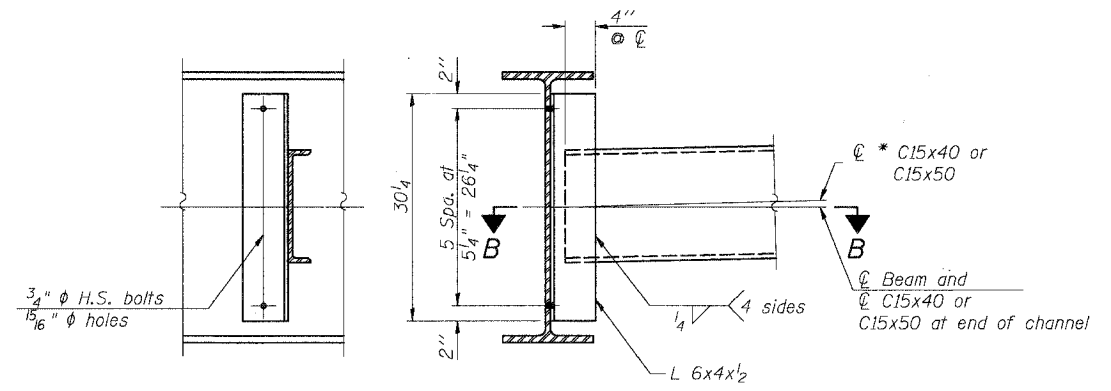
SECTION A-A

**FIXED BEARING AT ABUTMENTS**  
(12 Required)

Notes:  
Anchor bolts at fixed bearings may be built into the masonry.



SECTION B-B



INTERIOR DIAPHRAGM D

Note:  
Two hardened washers required for each set of oversized holes.

\* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

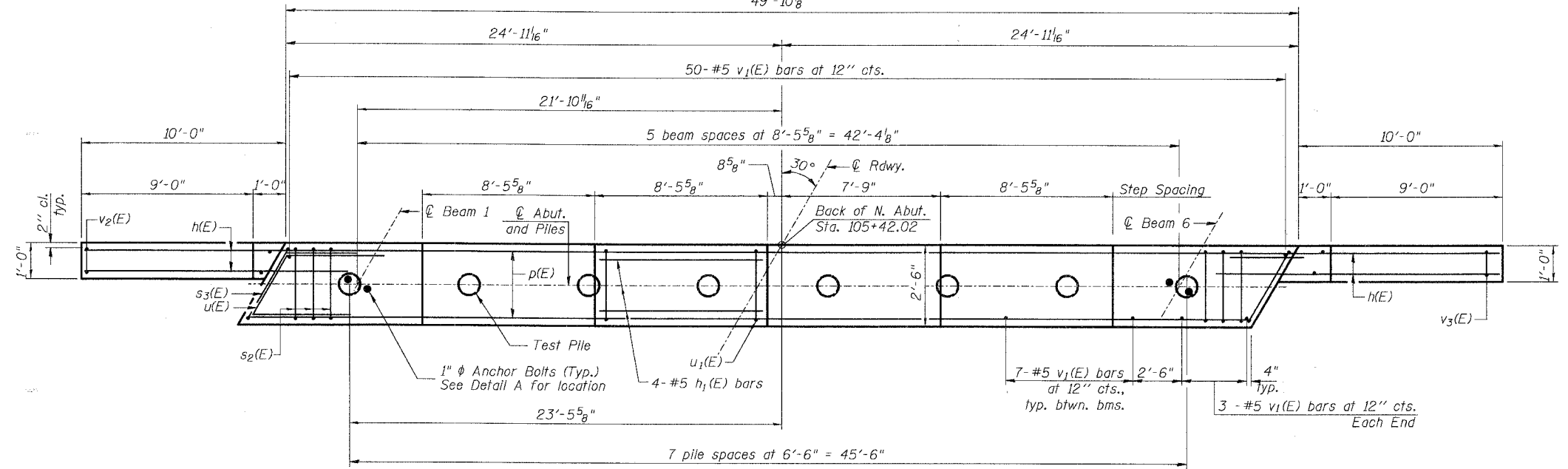
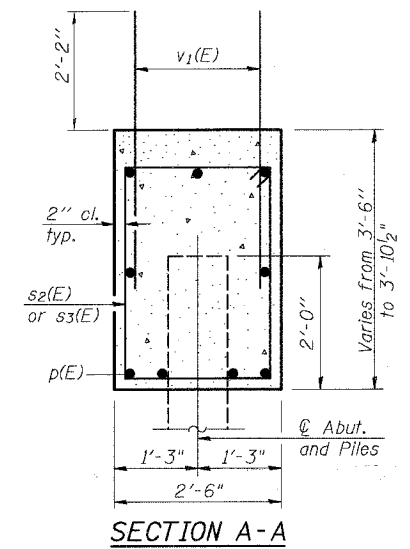
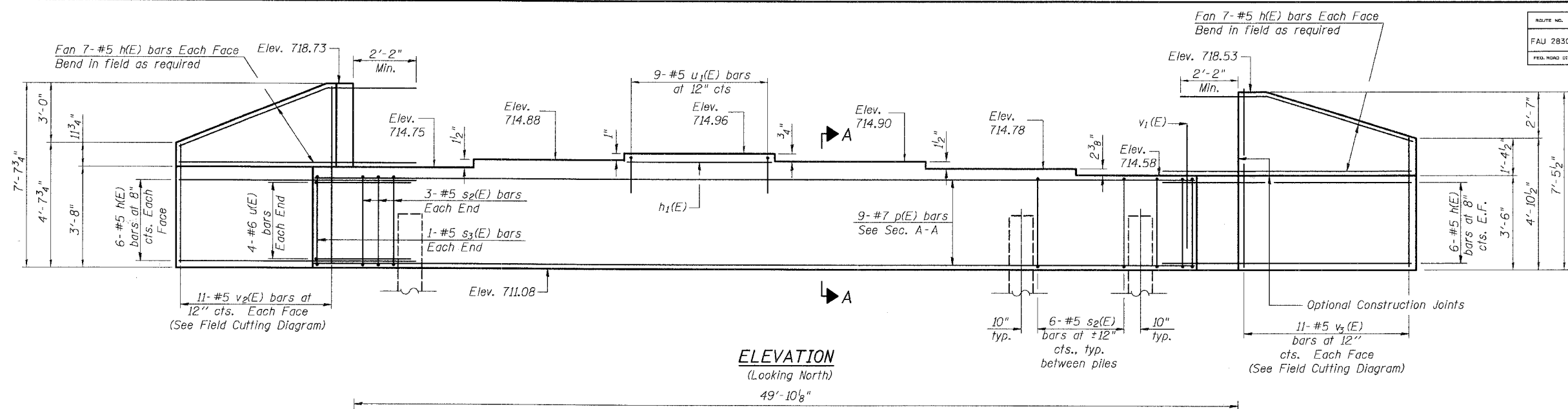
Illinois Professional Design Firm # 184-000108  
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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STEEL FRAMING DETAILS**  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379  
DATE: 11-26-2007

ROUTE NO.	SECTION	COUNTY	SHEET	PROJECT
FAU 2850	01-00133-08-BR	WILL	37	22
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
1				

SHEET NO. S-11  
S-19 SHEETS

Contract #83989

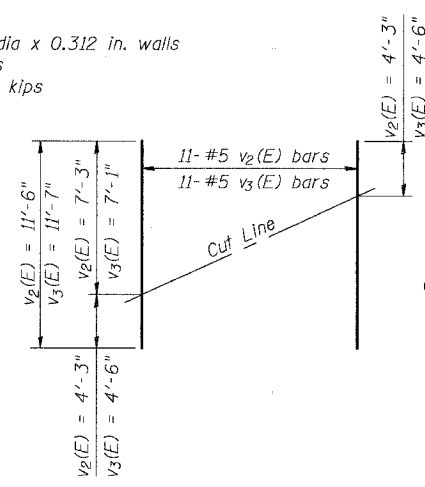


**BILL OF MATERIAL**

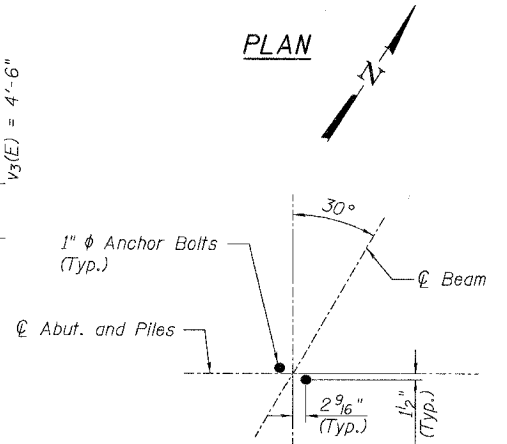
Bar	No.	Size	Length	Shape
h(E)	52	#5	12'-0"	—
h1(E)	4	#5	8'-1"	—
p(E)	9	#7	49'-6"	—
s2(E)	48	#5	11'-7"	□
s3(E)	2	#5	12'-3"	□
u(E)	8	#6	9'-6"	┘
u1(E)	9	#5	5'-2"	┘
v1(E)	91	#5	4'-4"	—
v2(E)	11	#5	11'-6"	—
v3(E)	11	#5	11'-7"	—
Concrete Structures			Cu. Yd.	22.2
Reinforcement Bars, Epoxy Coated			Pound	3,040
Structure Excavation			Cu. Yd.	102
Furnishing Metal Shell Piles 14"			Foot	497
Driving Piles			Foot	497
Test Pile Metal Shells			Each	1

**PILE DATA**

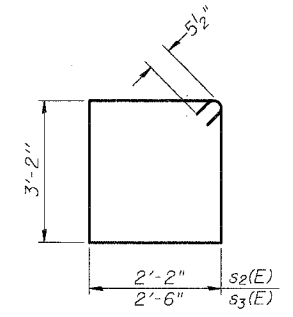
Type & Size: Metal Shell - 14 in. dia x 0.312 in. walls  
 Nominal Required Bearing: 390 kips  
 Allowable Resistance Available: 130 kips  
 Est. Length: 71 ft.  
 No. Production Piles: 7  
 No. Test Piles: 1



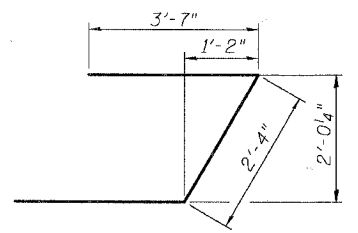
**PLAN**



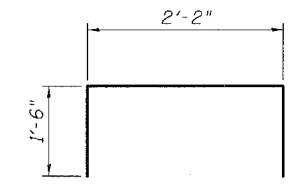
**BARS s2(E) & s3(E)**



**BAR u(E)**



**BAR u1(E)**



Notes: Four steps monolithically with cap.  
 The test piles shall be driven to 110% of the Nominal Required Bearing indicated in the pile data information.

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

**FIELD CUTTING DIAGRAM**  
 Order v2(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.

**DETAIL A**

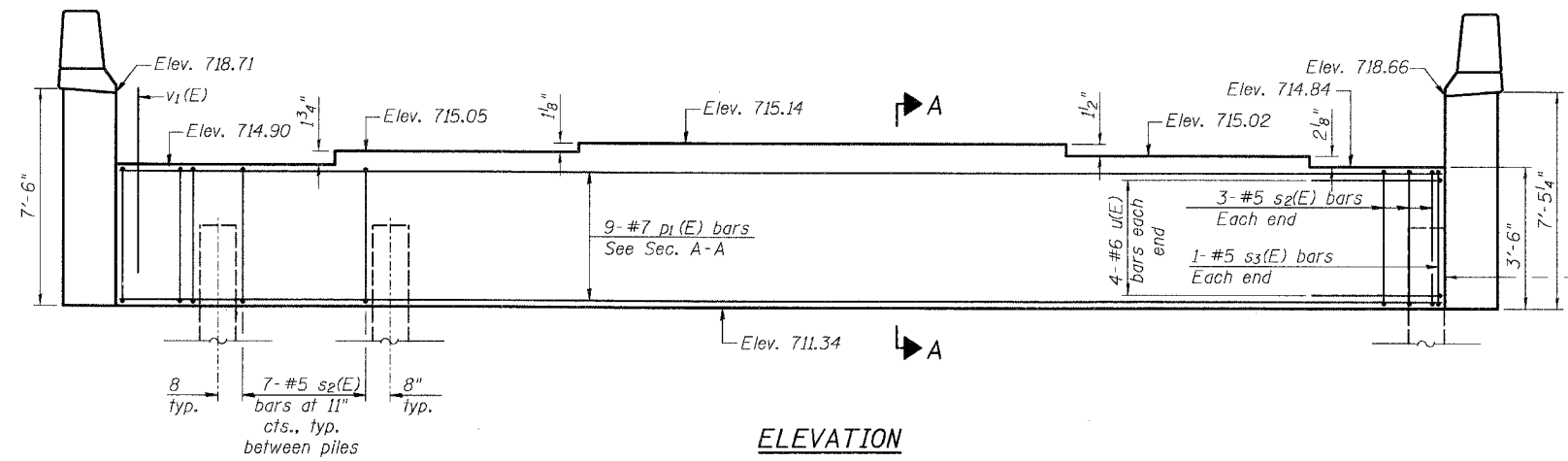
**SEC GROUP, INC.**  
 Illinois Professional Design Firm # 184-000108  
 Smith Engineering Consultants - SEC Automation - SEC Planning  
 4500 Prima Parkway, Mt. Henry, IL 60056  
 t: 615.385.1778 f: 615.385.1781  
 www.secgroupinc.com

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**NORTH ABUTMENT**  
 OLD MONEE ROAD (COUNTY HIGHWAY 48)  
 OVER THORN CREEK  
 WILL COUNTY  
 SECTION NO. 01-00133-08-BR  
 STRUCTURE NO. 099-3379  
 DATE: 1-11-2008

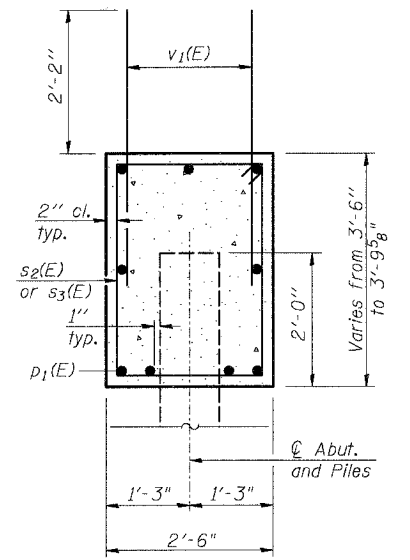
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET
FAU 2830	01-00133-08-BR	WILL	37	23
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
1				

SHEET NO. S-12  
S-19 SHEETS

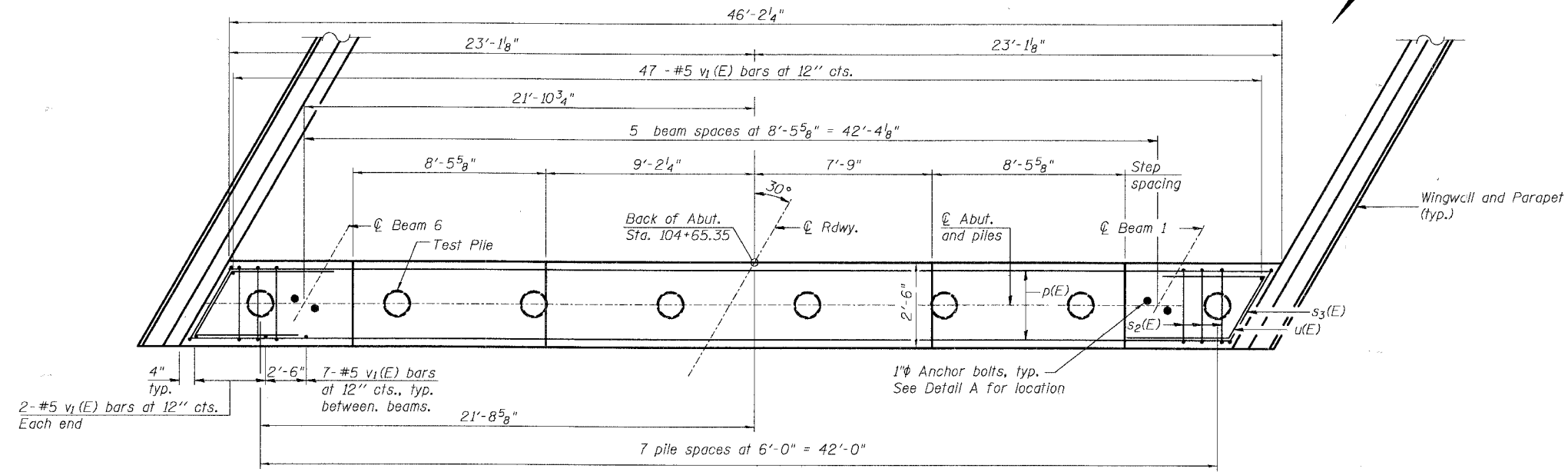
Contract #83989



ELEVATION



SEC. THRU A-A



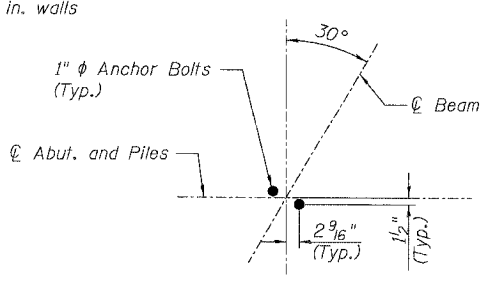
PLAN

BILL OF MATERIAL

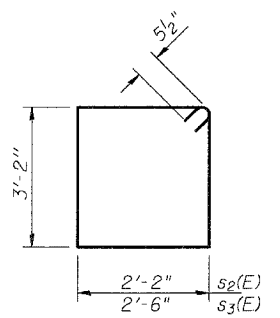
Bar	No.	Size	Length	Shape
p1(E)	9	#7	45'-10"	—
s2(E)	48	#5	11'-7"	□
s3(E)	2	#5	12'-3"	□
u(E)	8	#6	9'-6"	⌋
v1(E)	86	#5	4'-4"	—
Concrete Structures			Cu. Yd.	15.8
Reinforcement Bars, Epoxy Coated			Pound	1,950
Structure Excavation			Cu. Yd.	70
Furnishing Metal Shell Piles 14"			Foot	434
Driving Piles			Foot	434
Test Pile Metal Shells			Each	1

PILE DATA

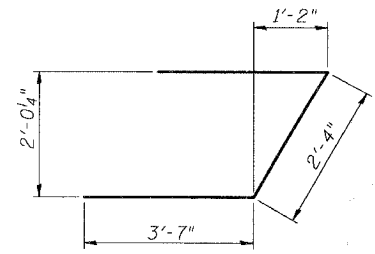
Type & Size: Metal Shell - 14 in. dia x 0.312 in. walls  
 Nominal Required Bearing: 390 kips  
 Allowable Resistance Available: 130 kips  
 Est. Length: 62 ft.  
 No. Production Piles: 7  
 No. Test Piles: 1



DETAIL A



BARS s2(E) & s3(E)



BAR u(E)

Notes: Pour steps monolithically with cap.  
 For details of piles see sheet S-15.  
 The test piles shall be driven to 110% of the Nominal Required Bearing indicated in the pile data information.  
 The Metal Shell piles shall be according to ASTM A252 Grade 3.

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

Illinois Professional Design Firm # 184-00108  
**SEC GROUP, INC.**  
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 4500 Prime Parkway, Maitland, IL 60050  
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 www.secgroupinc.com

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SOUTH ABUTMENT  
 OLD MONEE ROAD (COUNTY HIGHWAY 48)  
 OVER THORN CREEK  
 WILL COUNTY  
 SECTION NO. 01-00133-08-BR  
 STRUCTURE NO. 099-3379  
 DATE: 1-11-2008

ROUTE NO.	SECTION	COUNTY	SHEETS	DATE
FAU 2830	01-00133-08-BR	WILL	37	24
FED. ROAD DIST. NO.	1	SUBDIVISION	FED. AID PROJECT-	

SHEET NO. S-13  
S-19 SHEETS

Contract #83989

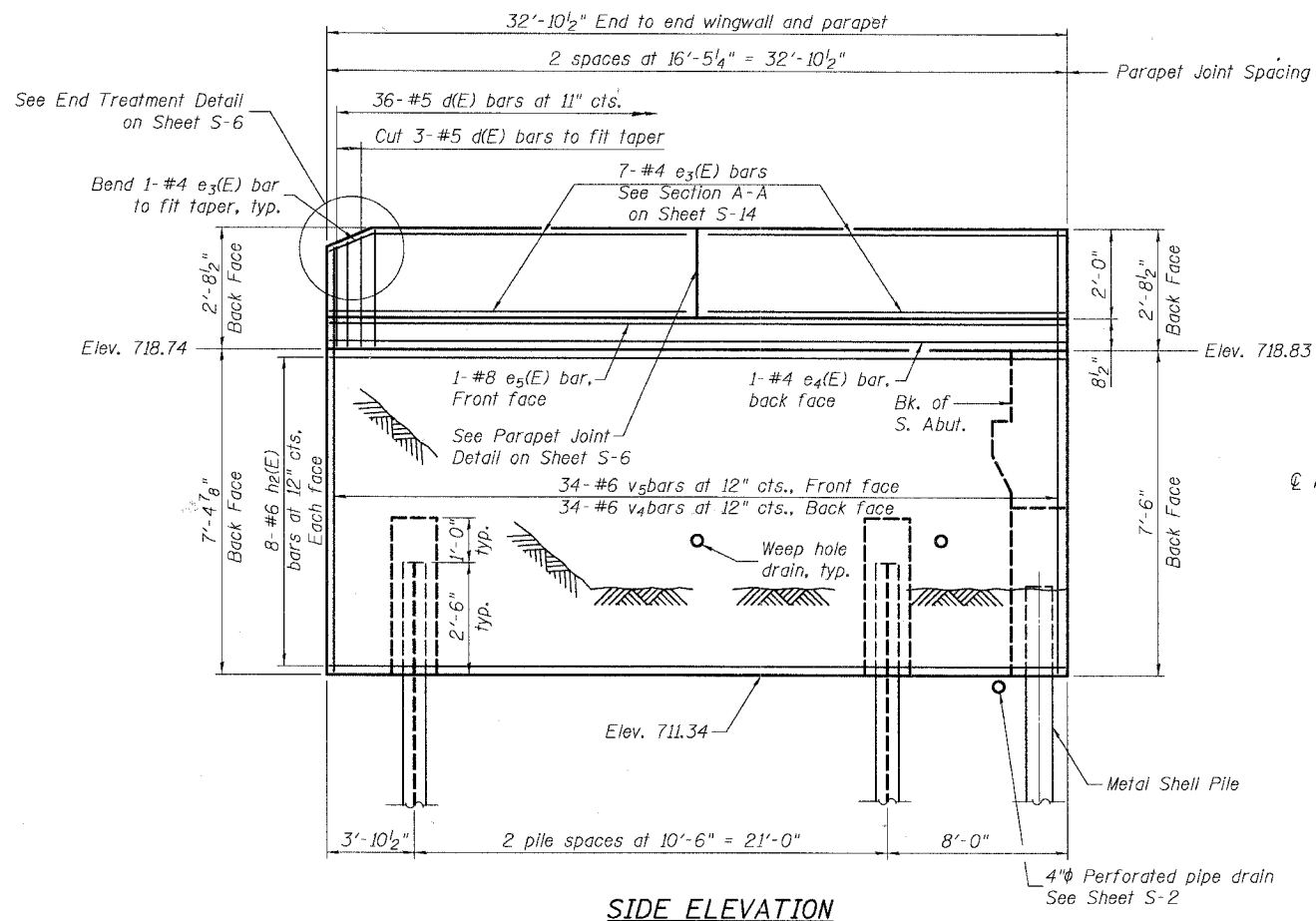
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
d(E)	36	#5	5'-7"	□	
e <sub>3</sub> (E)	14	#4	16'-1"	—	
e <sub>4</sub> (E)	1	#4	32'-6"	—	
e <sub>5</sub> (E)	1	#8	32'-6"	—	
h <sub>2</sub> (E)	16	#6	32'-6"	—	
h <sub>3</sub> (E)	15	#5	2'-6"	—	
h <sub>4</sub> (E)	15	#5	5'-2"	—	
s <sub>4</sub> (E)	15	#5	7'-7"	□	
v <sub>4</sub> (E)	34	#6	10'-2"	—	
v <sub>5</sub> (E)	34	#6	9'-3"	—	
v <sub>6</sub> (E)	12	#5	3'-2"	—	
Concrete Superstructures				Cu. Yd.	3.8
Concrete Structures				Cu. Yd.	13.3
Reinforcement Bars, Epoxy Coated				Pound	2,520
Structure Excavation				Cu. Yd.	43
Furnishing Steel Piles, HP 12x53				Foot	75
Driving Piles				Foot	75

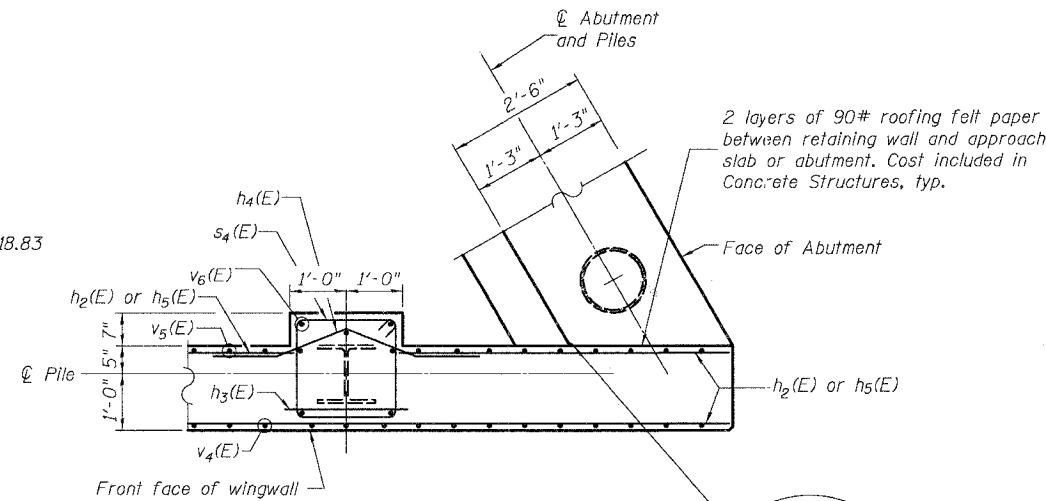
Notes:  
See Sheet S-14 for Section A-A.  
For details of piles see Sheet S-16.  
Cut v(E) bars in field to maintain clear cover from edge of concrete.  
Steel HP Piling shall be driven to the Nominal Required Bearing Capacity indicated but not less than a minimum embedment length of 25 feet.  
The Steel H-piles shall be according to AASHTO M270 Grade 50

**PILE DATA**

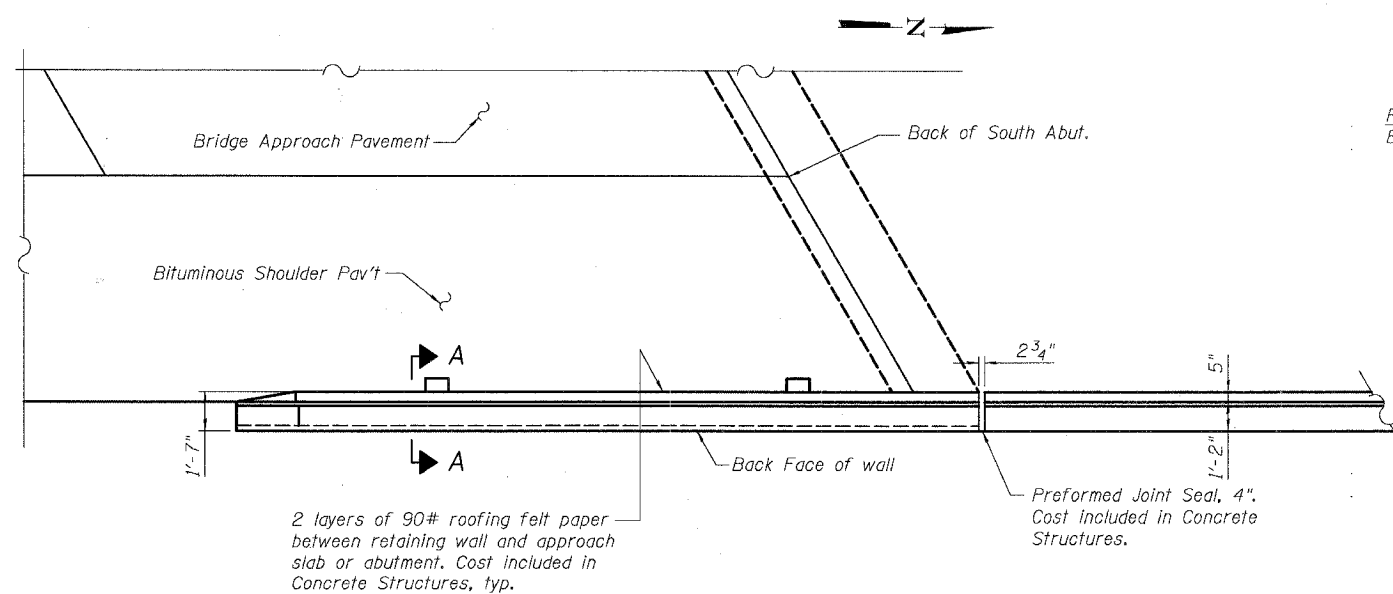
Type: Steel HP 12x53  
Nominal Required Bearing: 96 kips  
Allowable Resistance Available: 32 kips  
Est. Minimum Length: 25'  
No. Production Piles: 3  
No. Test Piles: 0



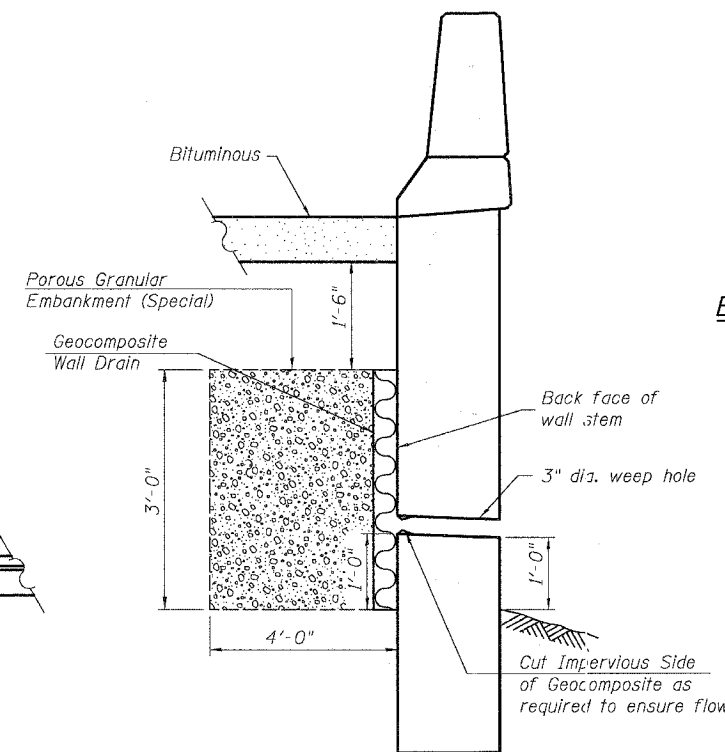
**SIDE ELEVATION**



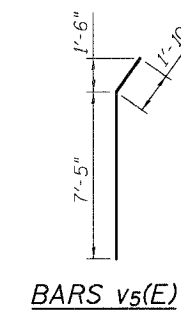
**INTEGRAL ABUTMENT CORNER DETAIL**



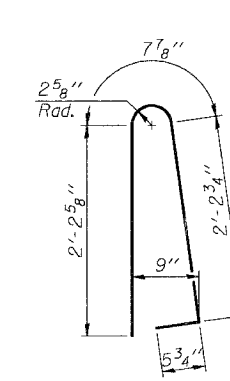
**PLAN**



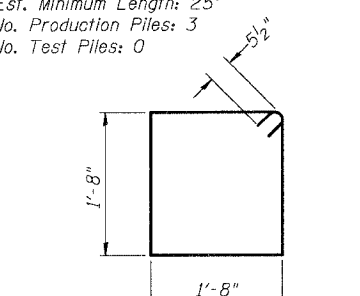
**WEEP HOLE DRAIN DETAIL**



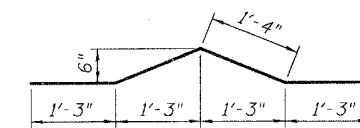
**BARS v5(E)**



**BAR d(E)**



**BARS s4(E)**



**BARS h4(E)**

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

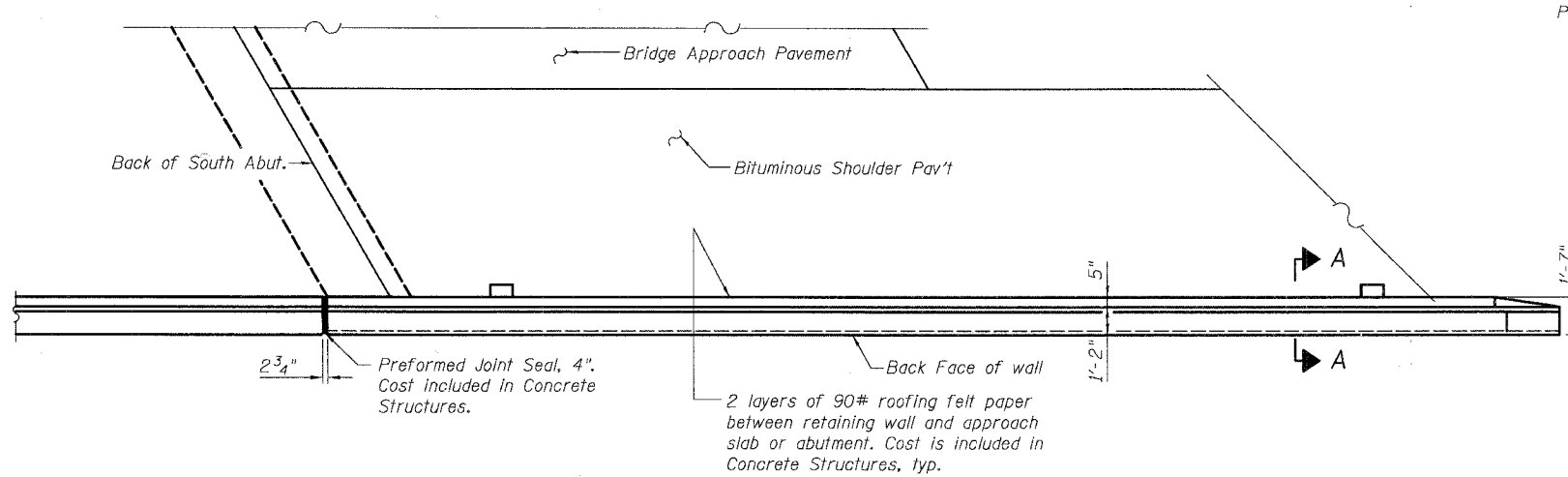
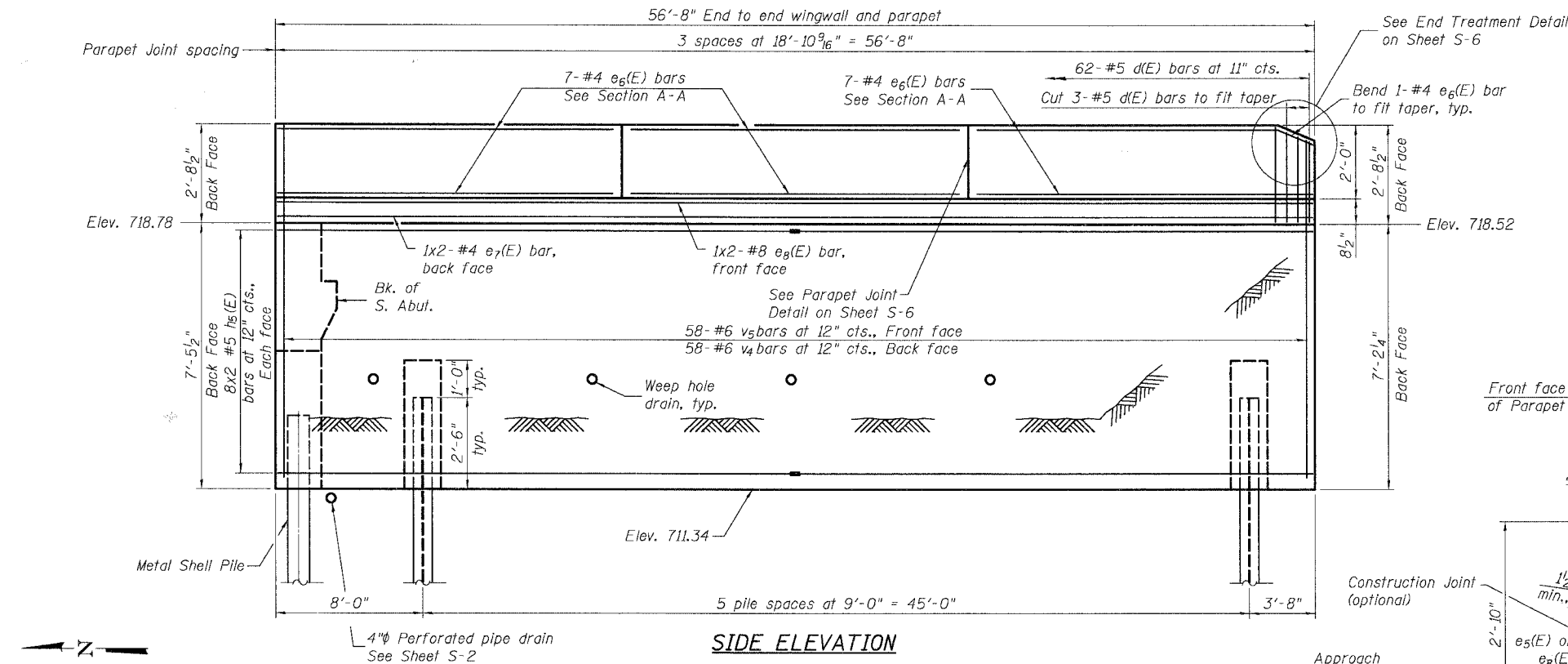
Illinois Professional Design Firm # 164-000108  
**SEC GROUP, INC.**  
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4500 Prime Parkway, Mokena, IL 60050  
T. 815.385.1778 F. 815.385.1781  
www.secgroupinc.com

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SOUTHEAST WINGWALL DETAILS**  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379  
DATE: 11-26-2007

ROUTE NO.	SECTION	COUNTY	JOB SHEETS	SHEET NO.
FALU 2830	01-00133-08-BR	WILL	37	25
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
1				

SHEET NO. S-14  
S-19 SHEETS

Contract #83989

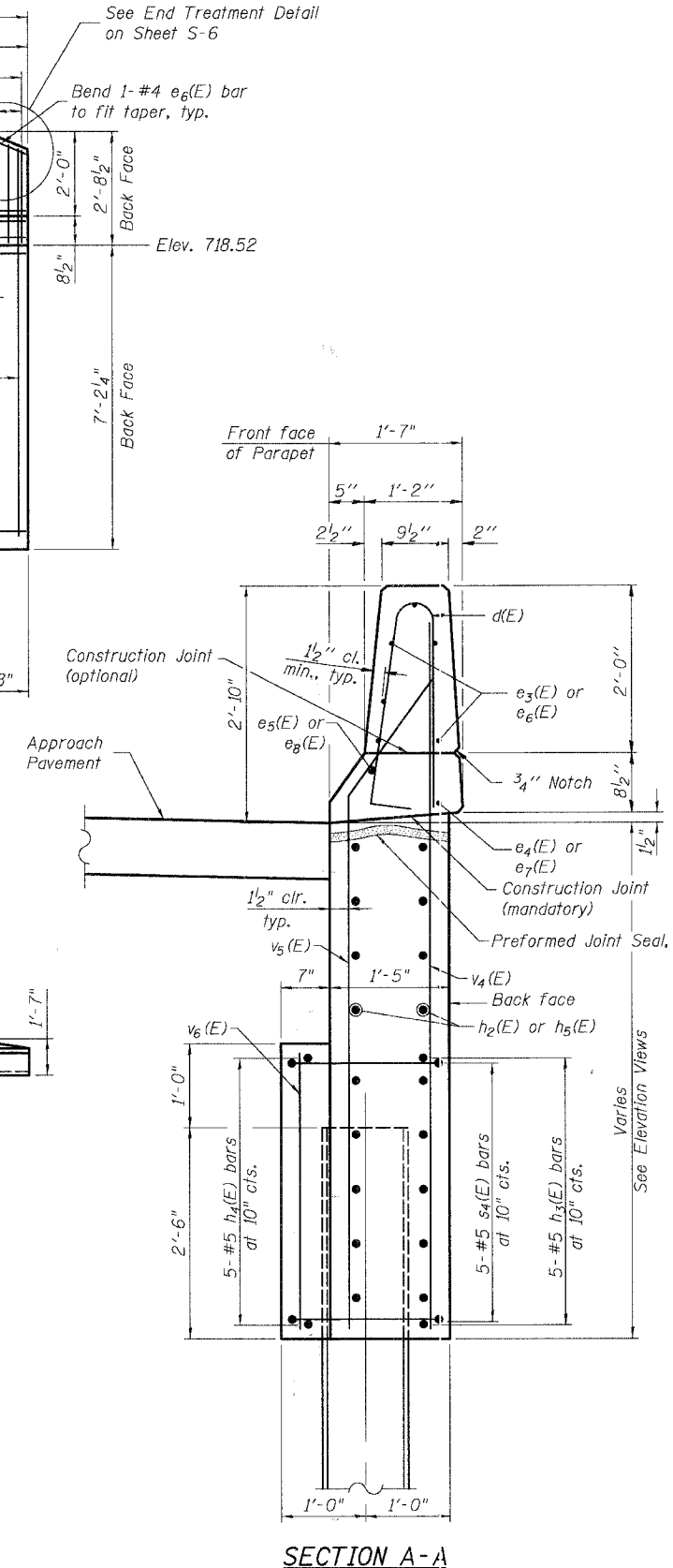


**PLAN**

**MIN. BAR LAP**

- #4 bar = 1'-4"
- #5 bar = 2'-2"
- #8 bar = 3'-5"

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU



**SECTION A-A**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	62	#5	5'-7"	U
e6(E)	21	#4	18'-7"	—
e7(E)	2	#4	28'-10"	—
e8(E)	2	#8	29'-11"	—
h3(E)	30	#5	2'-6"	—
h4(E)	30	#5	5'-2"	—
h5(E)	32	#6	29'-3"	—
s4(E)	30	#5	7'-7"	□
v4(E)	58	#6	9'-9"	—
v5(E)	58	#6	9'-3"	—
v6(E)	24	#5	3'-2"	—
Concrete Superstructures			Cu. Yd.	6.5
Concrete Structures			Cu. Yd.	21.7
Reinforcement Bars, Epoxy Coated			Pound	4,440
Structure Excavation			Cu. Yd.	75
Furnishing Steel Piles, HP 12x53			Foot	150
Driving Piles			Foot	150

Notes:  
Cut v(E) bars in field to maintain clear cover from edge of concrete.  
Steel HP Piling shall be driven to the Nominal Required Bearing Capacity indicated but not less than a minimum embedment length of 25 feet.  
The Steel H-piles shall be according to AASHTO M270 Grade 50.

**PILE DATA**

Type: Steel HP 12x53  
Nominal Required Bearing: 96 kips  
Allowable Resistance Available: 32 kips  
Est. Minimum Length: 25'  
No. Production Piles: 6  
No. Test Piles: 0

ILLINOIS DEPARTMENT OF TRANSPORTATION

SOUTHWEST WINGWALL DETAILS  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379

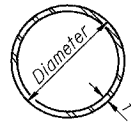
DATE: 11-26-2007



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
FAU 2830	01-00133-08-BR	WILL	37	26
FED. ROAD DIST. NO.	ILL. MOOR	FED. AID PROJECT-		
1				

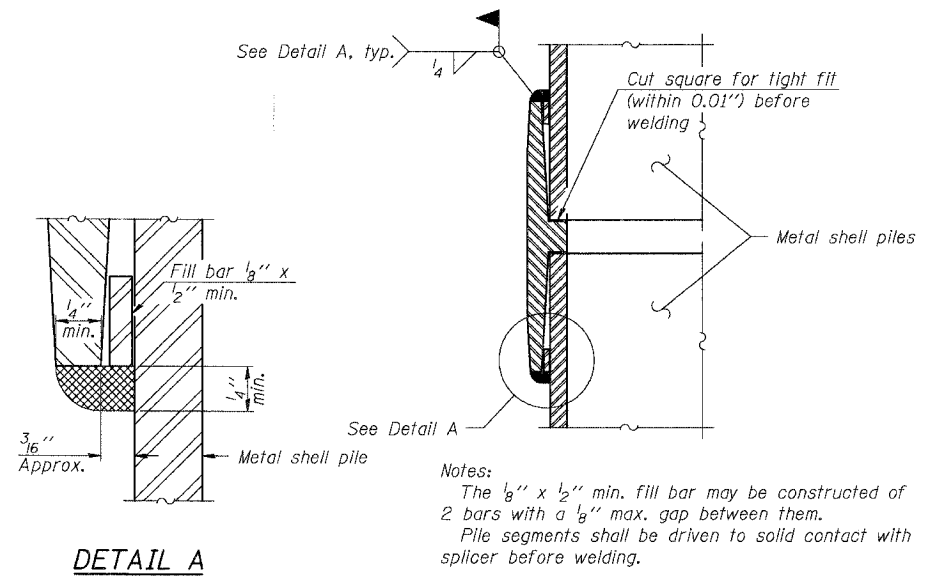
SHEET NO. S-15  
S-19 SHEETS

Contract #83989

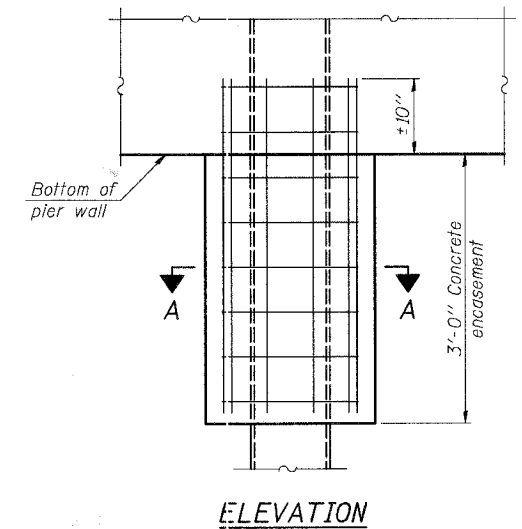


**METAL SHELL PILE TABLE**

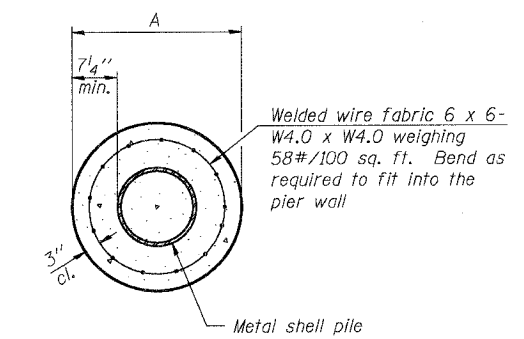
Designation	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)	Encasement diameter A
PP12	0.179"	22.60	0.0274	30"
PP12	0.250"	31.37	0.0267	30"
PP14	0.250"	36.71	0.0368	30"
PP14	0.312"	45.61	0.0361	30"



**WELDED COMMERCIAL SPLICE**



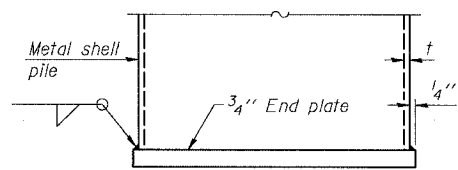
**ELEVATION**



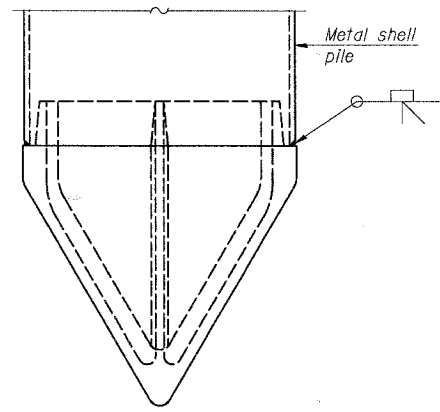
**SECTION A-A**

Notes:  
See Metal Shell Pile Table for dimension "A".  
Forms for encasement may be omitted when soil conditions permit.

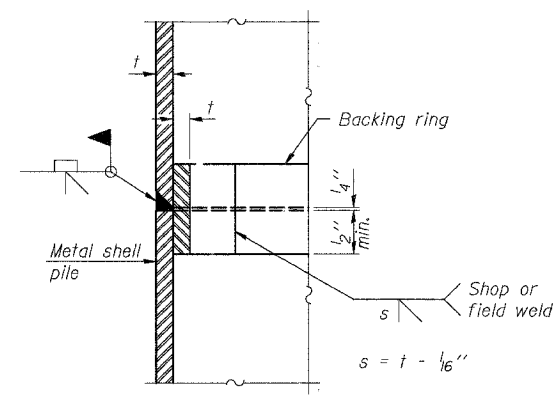
**CONCRETE ENCASEMENT AT PIERS**



**END PLATE ATTACHMENT**

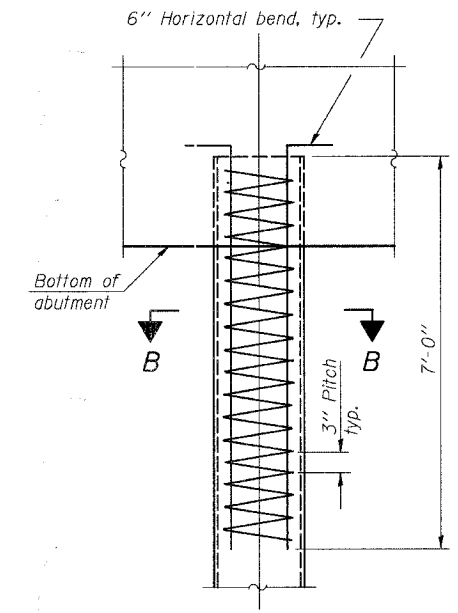


**METAL SHELL PILE SHOE ATTACHMENT**



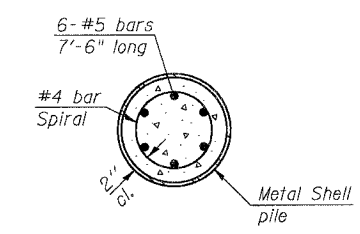
**COMPLETE PENETRATION WELD SPLICE**

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



**ELEVATION**

**METAL SHELL REINFORCEMENT AT ABUTMENTS**



**SECTION B-B**

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

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

**SEC GROUP, INC.**  
Illinois Professional Design Firm # 184-000108  
Smith Engineering Consultants • SEC Automation • SEC Planning  
4500 Prime Parkway, Mokena, IL 60050  
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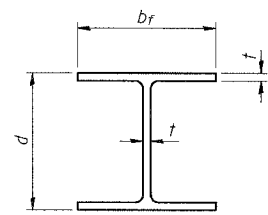
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PILE DETAILS - METAL SHELL  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379  
DATE: 11-26-2007**



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2850	01-00133-08-BR	WILL	37	27
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

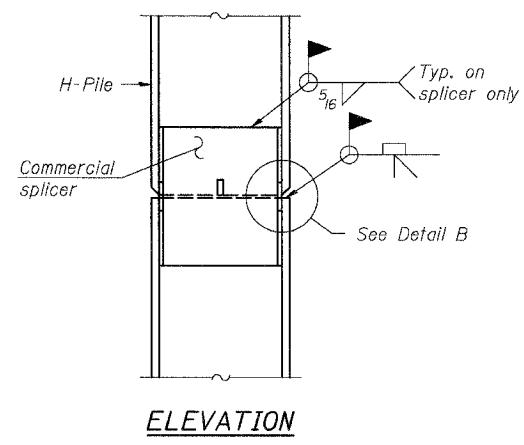
SHEET NO. S-16  
S-19 SHEETS

Contract #83989

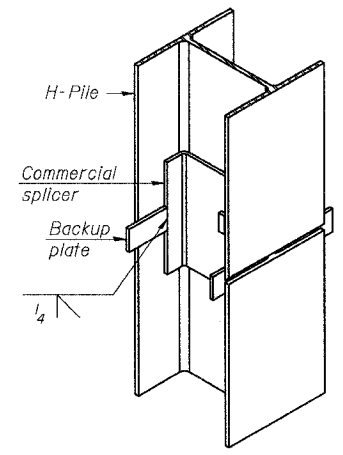


STEEL PILE TABLE

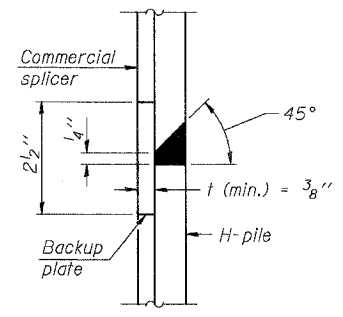
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

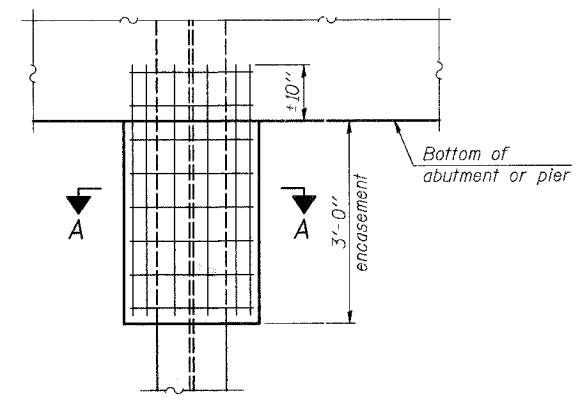


ISOMETRIC VIEW



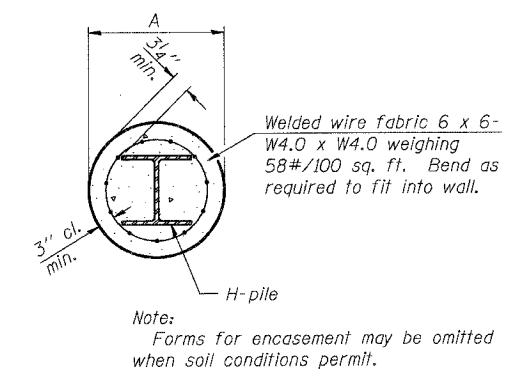
DETAIL "B"

WELDED COMMERCIAL SPLICE



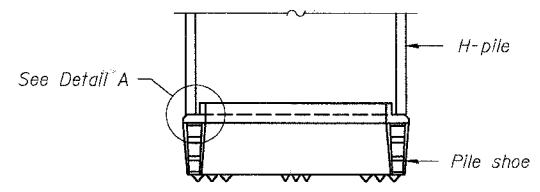
ELEVATION

PILE ENCASEMENT



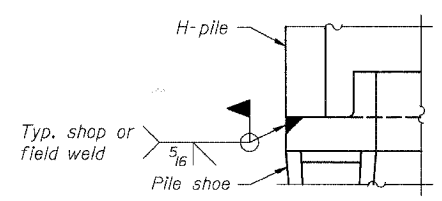
SECTION A-A

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

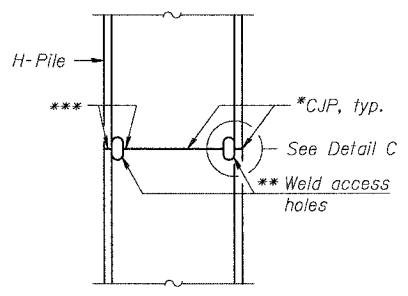


ELEVATION

H-PILE SHOE ATTACHMENT

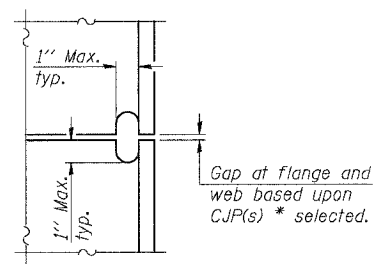


DETAIL A

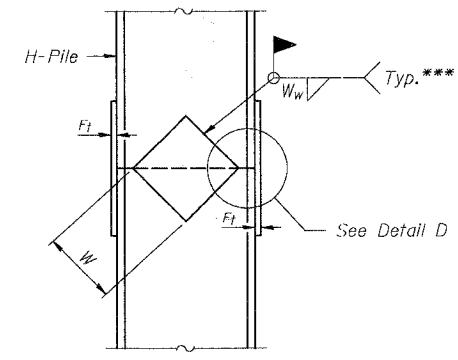


ELEVATION

COMPLETE PENETRATION WELD SPLICE



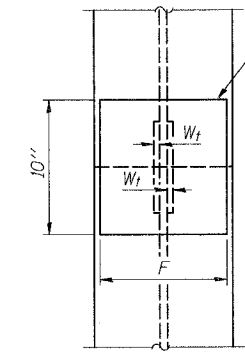
DETAIL C



ELEVATION

WELDED PLATE FIELD SPLICE

Note:  
The steel H-piles shall be according to AASHTO M270 Grade 50.



END VIEW

Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>t</sub>	W <sub>w</sub>
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

- \* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- \*\* Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- \*\*\* Interrupt welds 1/4" from end of each pile.

Illinois Professional Design Firm # 184-000108  
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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PILE DETAILS - H-PILE**  
**OLD MONEE ROAD (COUNTY HIGHWAY 48)**  
**OVER THORN CREEK**  
**WILL COUNTY**  
**SECTION NO. 01-00133-08-BR**  
**STRUCTURE NO. 099-3379**  
 DATE: 11-26-2007

Contract #83989

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) =  $1.25 \times f_y \times A_t$
- ② Minimum \*Pull-out Strength (Tension in kips) =  $1.25 \times f_{s,allow} \times A_t$

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $f_{s,allow}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)  
 $A_t$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day concrete

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

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

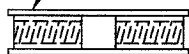
The diameter of this part is the same as the diameter of the bar spliced.

**ROLLED THREAD DOWEL BAR**



\*\* ONE PIECE

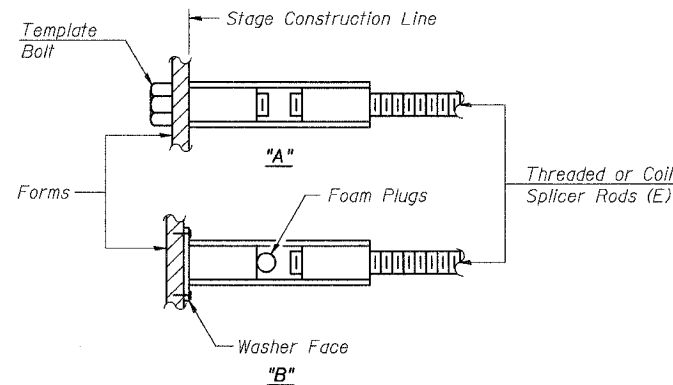
Wire Connector



WELDED SECTIONS

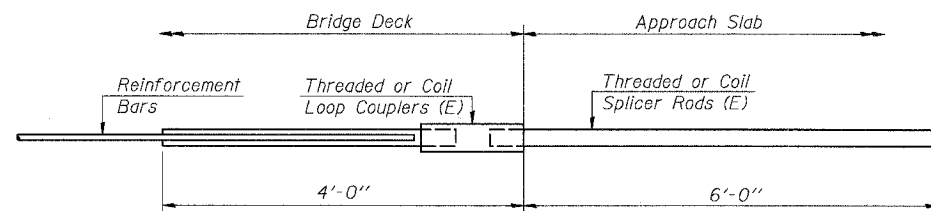
**BAR SPLICER ASSEMBLY ALTERNATIVES**

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



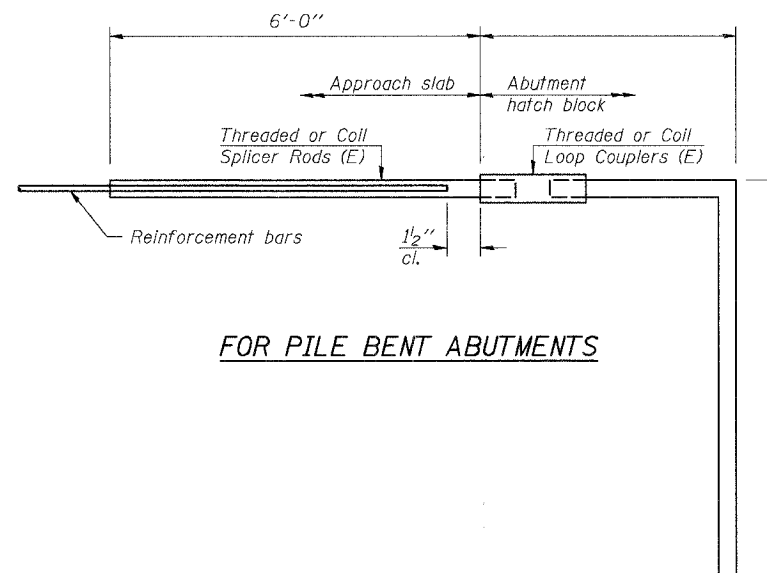
**INSTALLATION AND SETTING METHODS**

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



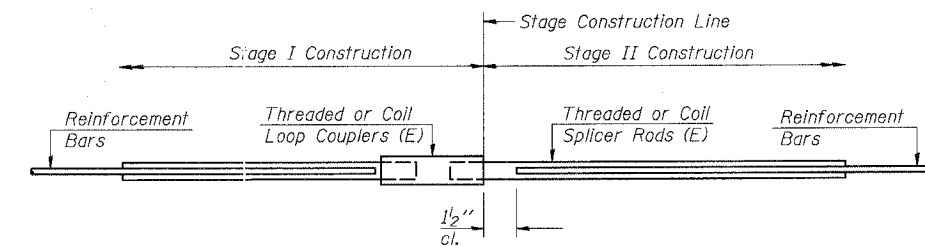
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	9.2 kips - tension
No. Required =	48



**FOR PILE BENT ABUTMENTS**

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



**STANDARD**

Bar Size	No. Assemblies Required	Location

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

Illinois Professional Design Firm # 184-000108  
**SEC GROUP, INC.**  
Smith Engineering Consultants - SEC Automation - SEC Planning  
4500 Prime Parkway, McHenry, IL 60050  
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www.secgroupinc.com

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**BAR SPLICER ASSEMBLY DETAILS**  
**OLD MONEE ROAD (COUNTY HIGHWAY 48)**  
**OVER THORN CREEK**  
**WILL COUNTY**  
**SECTION NO. 01-00133-08-BR**  
**STRUCTURE NO. 099-3379**  
DATE: 11-26-2007

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** • CONSULTING ENGINEERS

**BRIDGE FOUNDATION BORING LOG**

SHEET 1 OF 2

PROJECT OLD MONEE ROAD OVER THORN CREEK DATE 4/2/03  
 ROUTE STEGER-MONEE ROAD BORED BY SFE  
 SECTION STATION 48+51 CHECKED BY WJW

ROTARY DRILLING				WATER SURFACE			
IN CREEK 709.5				IN CREEK 709.5			
Depth	N/6"	tsf	%	Depth	N/6"	tsf	%
GROUND SURFACE EL. 717.0				M (Ft)			
Grey Crushed Shoulder Gravel, A-1				M (Ft)			
1	2	4	1.5	11	WCH	0.32	27
	4	4	P		B		
	1	3	0.70	4	WCH	0.29	30
	3	8	B		B		
2	3	1		23	WCH	0.19	35
	2	2			B		
Grey Silty CLAY to CLAY, A-6				wood pieces 29.0' to 29.5'			
3	6	2	0.25	23			
	4	4	2.72	24			
	4		B				
Grey Silt LOAM, A-4, wet				Grey Silt LOAM, stiff, A-6			
4	WCH	0.29	32				
		B					
Brown-Grey Silty CLAY, very stiff, A-6				Brown-Grey Silty Clay LOAM, very stiff, A-8			
5	WCH	5.27	35				
		B					
Grey CLAY, soft to very soft, A-7-6				Brown Sandy LOAM, medium dense, A-2			
6	WCH	0.39	24				
		B					
Grey and Black Organic CLAY, very soft, A-8				Grey Silt LOAM, medium dense, A-6 to A-4			
7	WCH	0.27	28				
		B					

N-Standard Penetration Test-Blows per foot to drive 2 inch  
 O.D. Split Spoon Sampler 12 inches with 140 lbs. hammer falling 30 inches  
 Qu-Unconfined Compressive Strength (tsf)  
 W-Water Content-percentage of oven dry weight (%)  
 Type failure: 6-Bulge Failure  
 S-Shear Failure  
 E-Estimated Value  
 P-Penetrometer

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** • CONSULTING ENGINEERS

**BRIDGE FOUNDATION BORING LOG**

SHEET 1 OF 2

PROJECT OLD MONEE ROAD OVER THORN CREEK DATE 3/31/03, 4/1/03  
 ROUTE STEGER-MONEE ROAD BORED BY SFE  
 SECTION STATION 48+51 CHECKED BY WJW

ROTARY DRILLING				WATER SURFACE			
IN CREEK 709.5				IN CREEK 709.5			
Depth	N/6"	tsf	%	Depth	N/6"	tsf	%
GROUND SURFACE EL. 717.4				M (Ft)			
Bridge Deck = 18" 2 1/4" AC, 17" Concrete				M (Ft)			
Air Space				Dark Grey and Black Organic CLAY, very soft, A-8			
1				WCH	0.22	29	
					B		
				WCH	0.39	26	
					B		
2	0	1	1.13	25			
	2						
Dark Brown and Black Silty Clay LOAM, A-6 and A-8, trace roots misc. slope wash				Brown-Grey Silty CLAY, stiff, A-6			
3	2	1	0.5	23			
	1						
				WCH	0.27	41	
					B		
Grey Silty CLAY, firm, A-7-6				Dark Grey and Black Organic CLAY, very soft, A-8			
4	WCH	0.18	47				
	WCH	0.39	28				
5	WCH	0.29	34				

N-Standard Penetration Test-Blows per foot to drive 2 inch  
 O.D. Split Spoon Sampler 12 inches with 140 lbs. hammer falling 30 inches  
 Qu-Unconfined Compressive Strength (tsf)  
 W-Water Content-percentage of oven dry weight (%)  
 Type failure: 6-Bulge Failure  
 S-Shear Failure  
 E-Estimated Value  
 P-Penetrometer

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** • CONSULTING ENGINEERS

**BRIDGE FOUNDATION BORING LOG**

SHEET 2 OF 2

BORING SB-1

ROTARY DRILLING				WATER SURFACE			
IN CREEK 709.5				IN CREEK 709.5			
Depth	N/6"	tsf	%	Depth	N/6"	tsf	%
CONTINUED				M (Ft)			
Grey Silt LOAM, medium dense, A-6 to A-4				Grey SAND and GRAVEL, medium dense, A-1			
13				20			
				WCH	0.32	27	
					B		
				WCH	0.29	30	
					B		
				WCH	0.19	35	
					B		
				WCH	1.99	22	
					B		
				WCH	3.10	18	
					B		
				WCH	4.04	16	
					B		
				WCH	4.0	20	
					B		
				WCH	3.57	22	
					B		

N-Standard Penetration Test-Blows per foot to drive 2 inch  
 O.D. Split Spoon Sampler 12 inches with 140 lbs. hammer falling 30 inches  
 Qu-Unconfined Compressive Strength (tsf)  
 W-Water Content-percentage of oven dry weight (%)  
 Type failure: 6-Bulge Failure  
 S-Shear Failure  
 E-Estimated Value  
 P-Penetrometer

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** • CONSULTING ENGINEERS

**BRIDGE FOUNDATION BORING LOG**

SHEET 2 OF 2

BORING SB-2

ROTARY DRILLING				WATER SURFACE			
IN CREEK 709.5				IN CREEK 709.5			
Depth	N/6"	tsf	%	Depth	N/6"	tsf	%
CONTINUED				M (Ft)			
Grey Silty Clay LOAM, A-6				Grey Silty CLAY, hard, A-6			
13				20			
				WCH	0.22	29	
					B		
				WCH	0.39	26	
					B		
				WCH	1.13	25	
					B		
				WCH	3.57	19	
					B		
				WCH	4.42	13	
					B		
				WCH	5.01	21	
					B		
				WCH	4.73	14	
					B		

N-Standard Penetration Test-Blows per foot to drive 2 inch  
 O.D. Split Spoon Sampler 12 inches with 140 lbs. hammer falling 30 inches  
 Qu-Unconfined Compressive Strength (tsf)  
 W-Water Content-percentage of oven dry weight (%)  
 Type failure: 6-Bulge Failure  
 S-Shear Failure  
 E-Estimated Value  
 P-Penetrometer

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET
FAU 2830	01-00133-08-BR	WILL	37	29
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. S-18  
S-19 SHEETS

Contract #83989



ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SOIL BORING LOGS**  
 OLD MONEE ROAD (COUNTY HIGHWAY 48)  
 OVER THORN CREEK  
 WILL COUNTY  
 SECTION NO. 01-00133-08-BR  
 STRUCTURE NO. 099-3379  
 DATE: 11-26-2007

**SCHLEEDE-HAMPTON ASSOCIATES, INC.**

CONSULTING ENGINEERS

BRIDGE FOUNDATION BORING LOG

SHEET 1 OF 2

PROJECT OLD MONEE ROAD OVER THORN CREEK

DATE 4/1/03

ROUTE STEGER-MONEE ROAD

BORED BY SPE

SECTION STATION 48+51

CHECKED BY WJW

DEPTH (ft)	QU (tsf)	W (%)	ROTARY DRILLING		DEPTH (ft)	QU (tsf)	W (%)
			IN CREEK	WATER SURFACE			
				709.5			
1			14" E of CL		1	0.35	25
2					2	0.19	25
3	0.39	27			3	0.5	19
4	0.41	29			4	3.22	18
5	0.27	30			5	3.86	19
6	<0.25	32			6	2.56	22

N-Standard Penetration Test  
Blows per foot to drive 2 inch  
O.D. Split Spoon Sampler 12 inches  
with 140 lbs. hammer falling 30 inches

QU-Unconfined Compressive Strength (tsf)  
W-Water Content-percentage of oven dry weight (%)

Type failure:  
B-Bulge Failure  
S-Shear Failure  
E-Estimated Value  
P-Penetrometer

**SCHLEEDE-HAMPTON ASSOCIATES, INC.**

CONSULTING ENGINEERS

BRIDGE FOUNDATION BORING LOG

SHEET 2 OF 2

BORING SB-3

DEPTH (ft)	QU (tsf)	W (%)	DEPTH (ft)	QU (tsf)	W (%)
7	3.45	16	12	13	18
8	1.0	B	13	14	
9	2.99	20	14	4	7
10	1.6	13	15	7	15
11			16	5	18
12			17	10	16
13			18	8	21
14			19	6	16
15			20	7	18
16			21		
17			22		
18			23		
19			24		
20			25		
21			26		
22			27		

Grey SAND and GRAVEL, medium dense, A-2  
Grey Silt LOAM, medium dense, A-1  
Grey Silty CLAY, very stiff, A-6  
Grey SAND A-2  
Grey Silty CLAY

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET
FAU 2830	01-00133-08-BR	WILL	37	30
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. S-19  
S-19 SHEETS

Contract #83989

**SCHLEEDE-HAMPTON ASSOCIATES, INC.**

CONSULTING ENGINEERS

BRIDGE FOUNDATION BORING LOG

SHEET 1 OF 2

PROJECT OLD MONEE ROAD OVER THORN CREEK

DATE 3/31/03

ROUTE STEGER-MONEE ROAD

BORED BY SPE

SECTION STATION 48+51

CHECKED BY WJW

DEPTH (ft)	QU (tsf)	W (%)	ROTARY DRILLING		DEPTH (ft)	QU (tsf)	W (%)
			IN CREEK	WATER SURFACE			
			14" W of CL	709.5			
1	1.25	20			1	0.86	21
2	3.25	18			2	3.25	19
3	2.25	22			3	5.95	19
4	0.25	33			4	4.27	18
5	<0.25	59			5	3.30	18
6	0.29	30			6	8.15	19
7	0.19	34			7	13	

N-Standard Penetration Test  
Blows per foot to drive 2 inch  
O.D. Split Spoon Sampler 12 inches  
with 140 lbs. hammer falling 30 inches

QU-Unconfined Compressive Strength (tsf)  
W-Water Content-percentage of oven dry weight (%)

Type failure:  
B-Bulge Failure  
S-Shear Failure  
E-Estimated Value  
P-Penetrometer

**SCHLEEDE-HAMPTON ASSOCIATES, INC.**

CONSULTING ENGINEERS

BRIDGE FOUNDATION BORING LOG

SHEET 2 OF 2

BORING SB-4

DEPTH (ft)	QU (tsf)	W (%)	DEPTH (ft)	QU (tsf)	W (%)
13	2.83	21	21	10	4.27
14	1.1	17	22	7	12
15	1.2	13	23		
16	4.73	21	24		
17	3.13	19	25		
18	3.13	19	26		
19	4.19	27	27		

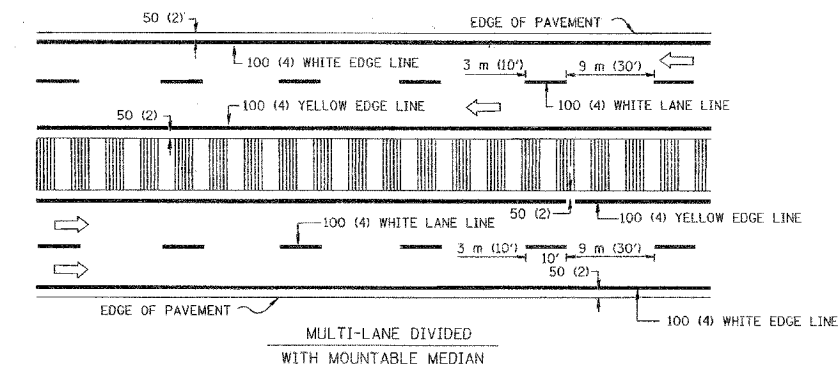
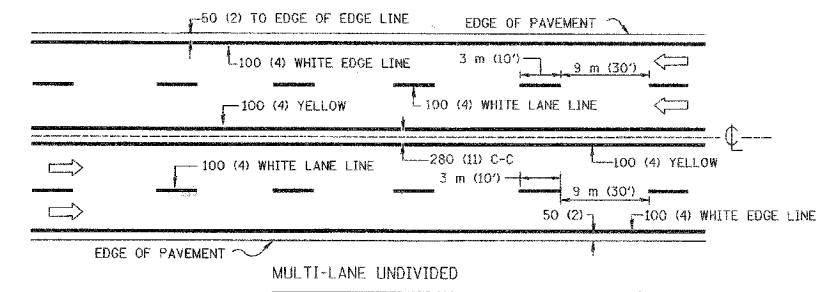
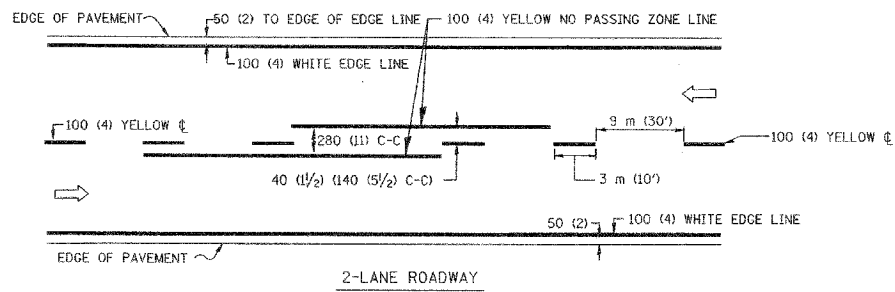
Grey Silty CLAY, very stiff, A-6  
Sand seams throughout  
Grey SAND (f-c) and GRAVEL, medium dense, A-1  
Grey Silty CLAY, hard, A-6  
Dark Grey Silty Clay LOAM, very stiff to hard, A-6  
occasional thin Sand or Silt seams, A-3 and A-4 throughout

DESIGNED	AEU
CHECKED	RGD
DRAWN	WJH
CHECKED	AEU

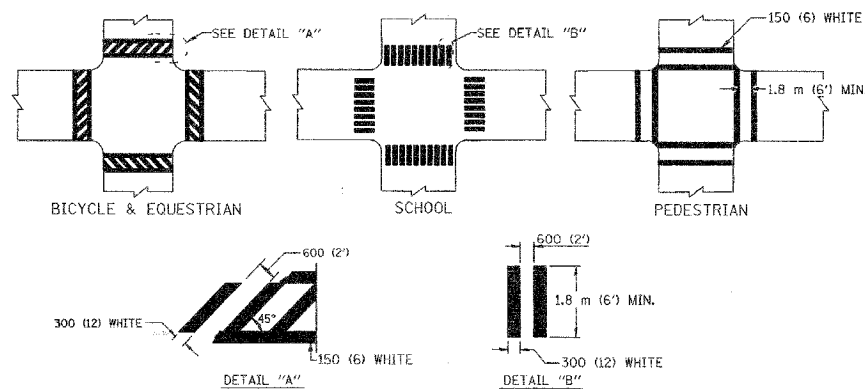
ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS  
OLD MONEE ROAD (COUNTY HIGHWAY 48)  
OVER THORN CREEK  
WILL COUNTY  
SECTION NO. 01-00133-08-BR  
STRUCTURE NO. 099-3379  
DATE: 11-26-2007

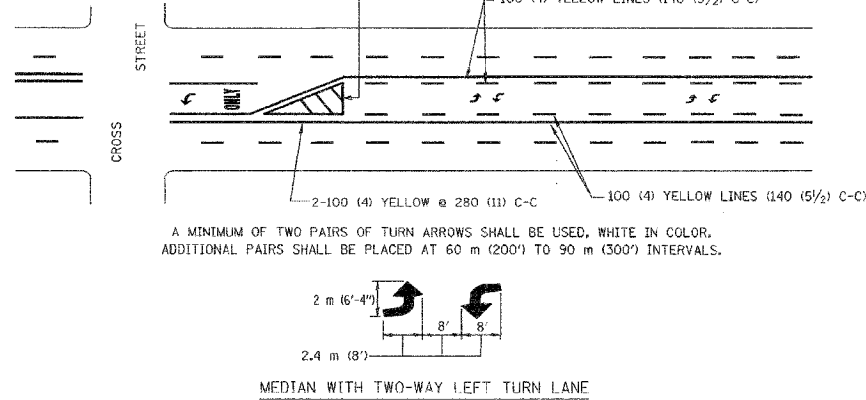
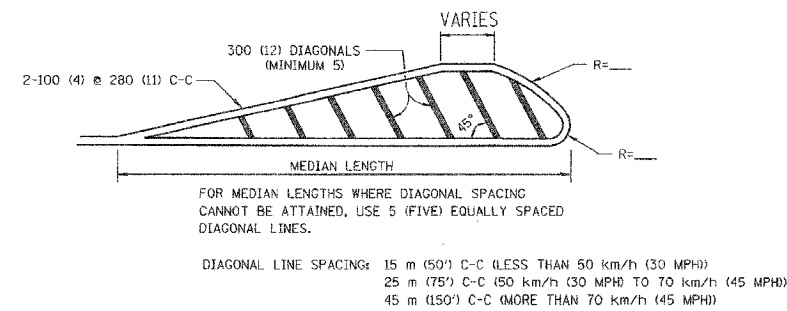
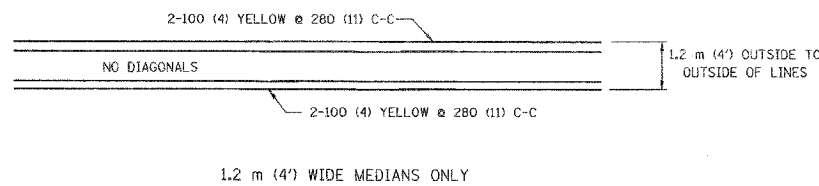




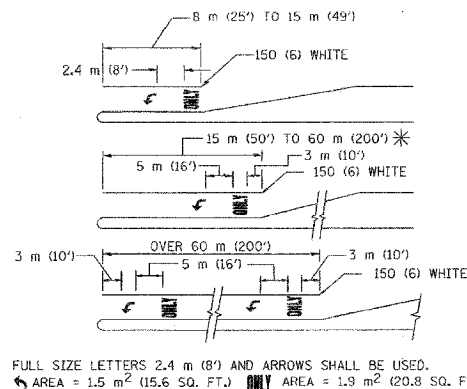
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

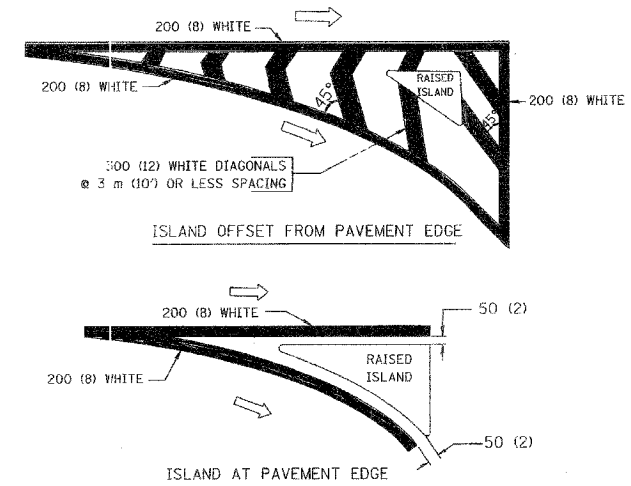


TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

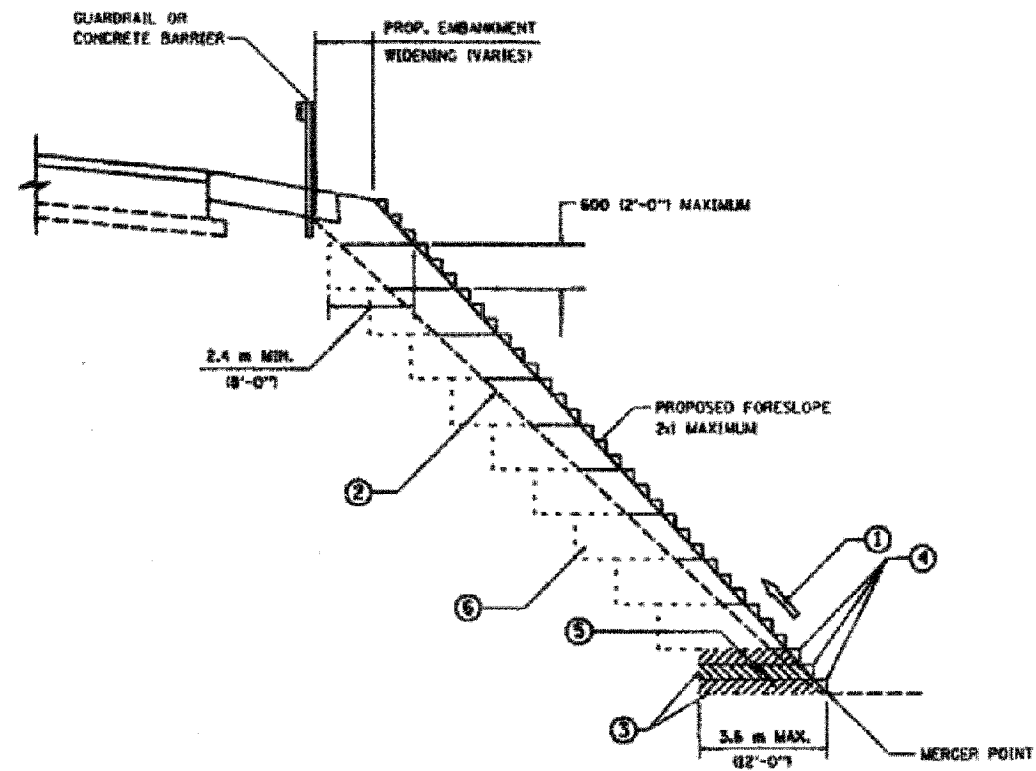


TYPICAL ISLAND MARKING

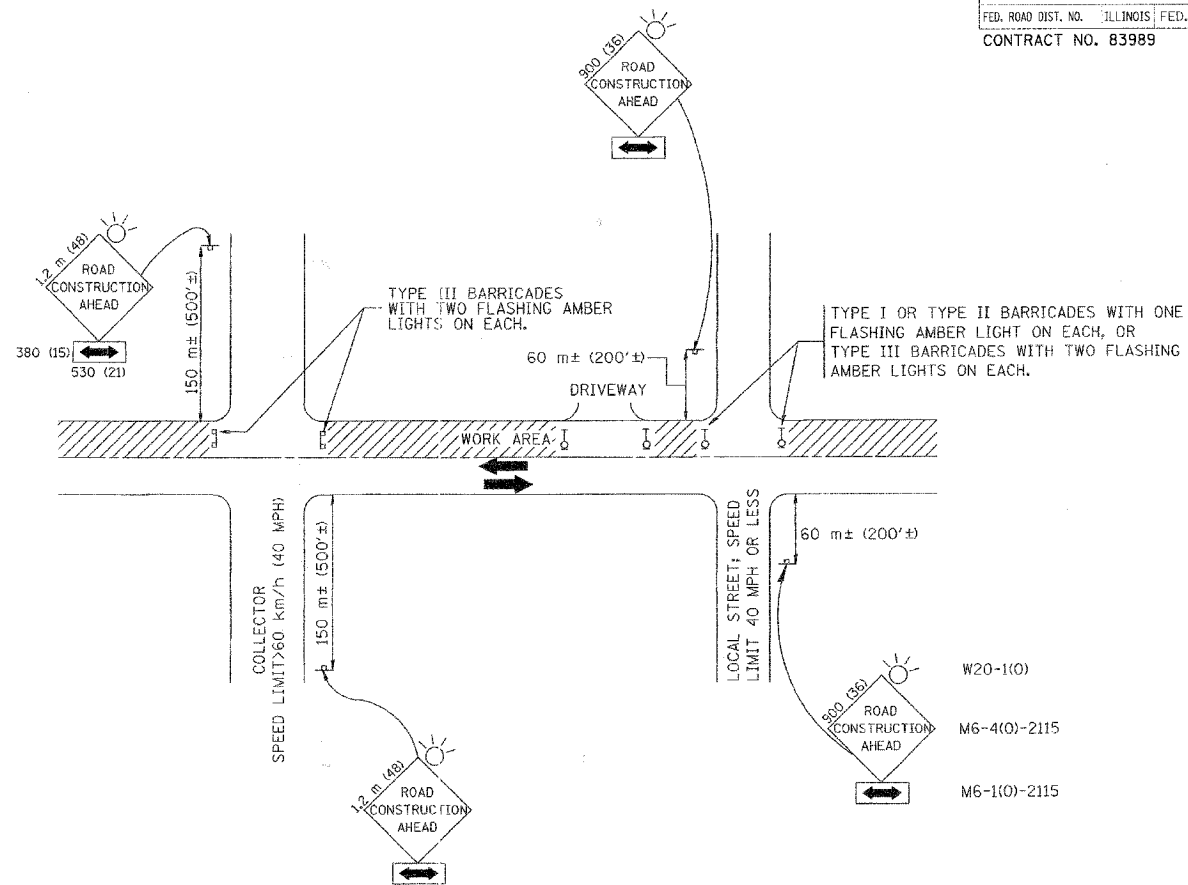
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	100 (4)	SKIP-DASH	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 100 (4)	SOLID	YELLOW	280 (11) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	100 (4) 2 @ 100 (4)	SOLID SOLID	YELLOW YELLOW	140 (5 1/2) C-C FROM SKIP-DASH CENTERLINE 280 (11) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	100 (4) 125 (5) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	3 m (10') LINE WITH 9 m (30') SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	600 (2') LINE WITH 1.8 m (6') SPACE
EDGE LINES	100 (4)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	150 (6) LINE; FULL SIZE LETTERS & SYMBOLS (2.4 m (8'))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 100 (4) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE FOR SKIP-DASH; 140 (5 1/2) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	2.4 m (8') 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 @ 150 (6) 300 (12) @ 45° 300 (12) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 1.8 m (6') APART 600 (2') APART 600 (2') APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	600 (24)	SOLID	WHITE	PLACE 1.2 m (4') IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT; PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 100 (4) WITH 300 (12) DIAGONALS @ 45°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	280 (11) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	200 (8) WITH 300 (12) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 4.5 m (15') C-C (LESS THAN 50 km/h (30 MPH)) 6 m (20') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 9 m (30') C-C (OVER 70 km/h (45 MPH))
RAILROAD CROSSING	600 (24) TRANSVERSE LINES; "RR" IS 1.8 m (6') LETTERS; 400 (16) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=0.33m <sup>2</sup> (3.6 SQ. FT.) EACH "X"=5.0 m <sup>2</sup> (54.0 SQ. FT.)
SHOULDER DIAGONALS	300 (12) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	15 m (50') C-C (LESS THAN 50 km/h (30 MPH)) 25 m (75') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 45 m (150') C-C (OVER 70 km/h (45 MPH))

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

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p>DISTRICT ONE TYPICAL PAVEMENT MARKINGS OLD MONEE ROAD OVER THORN CREEK</p> <p>SCALE: VERT. N/A HORIZ. N/A DATE: 11/26/07</p> <p>DRAWN BY: MDJ CHECKED BY: DCJ</p>



**TYPICAL BENCHING DETAIL  
FOR EMBANKMENT**



**TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

**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 205.04 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 200 (8-INCH) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.06 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 (SPECIAL)". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

**NOTES:**

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS:
  1. SIDE ROAD WITH A SPEED LIMIT OF 60 km/h (40 MPH) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 900x900 (36x36) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 60 m (200') IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 1.2 m x 1.2 m (48x48) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 150 m (500') IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
  3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
		TRAFFIC CONTROL AND PROTECTION FOR SIDE INTERSECTIONS AND DRIVEWAYS AND BENCHING DETAIL FOR EMBANKMENT WIDENING OLD MONEE ROAD OVER THORN CREEK	
		SCALE: VERT. N/A	DRAWN BY: MDJ
		HORIZ. N/A	CHECKED BY: DCJ
		DATE: 11/26/07	

**SEC GROUP, INC.**  
 Illinois Professional Design Firm # 184 000108  
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 4500 Prime Parkway, Mokena, IL 60450  
 1-815-345-1775 • 1-815-345-1781  
 www.secgroupinc.com • engineering@secgroupinc.com

PLOT DATE = 11/21/2007  
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 USER NAME = phod

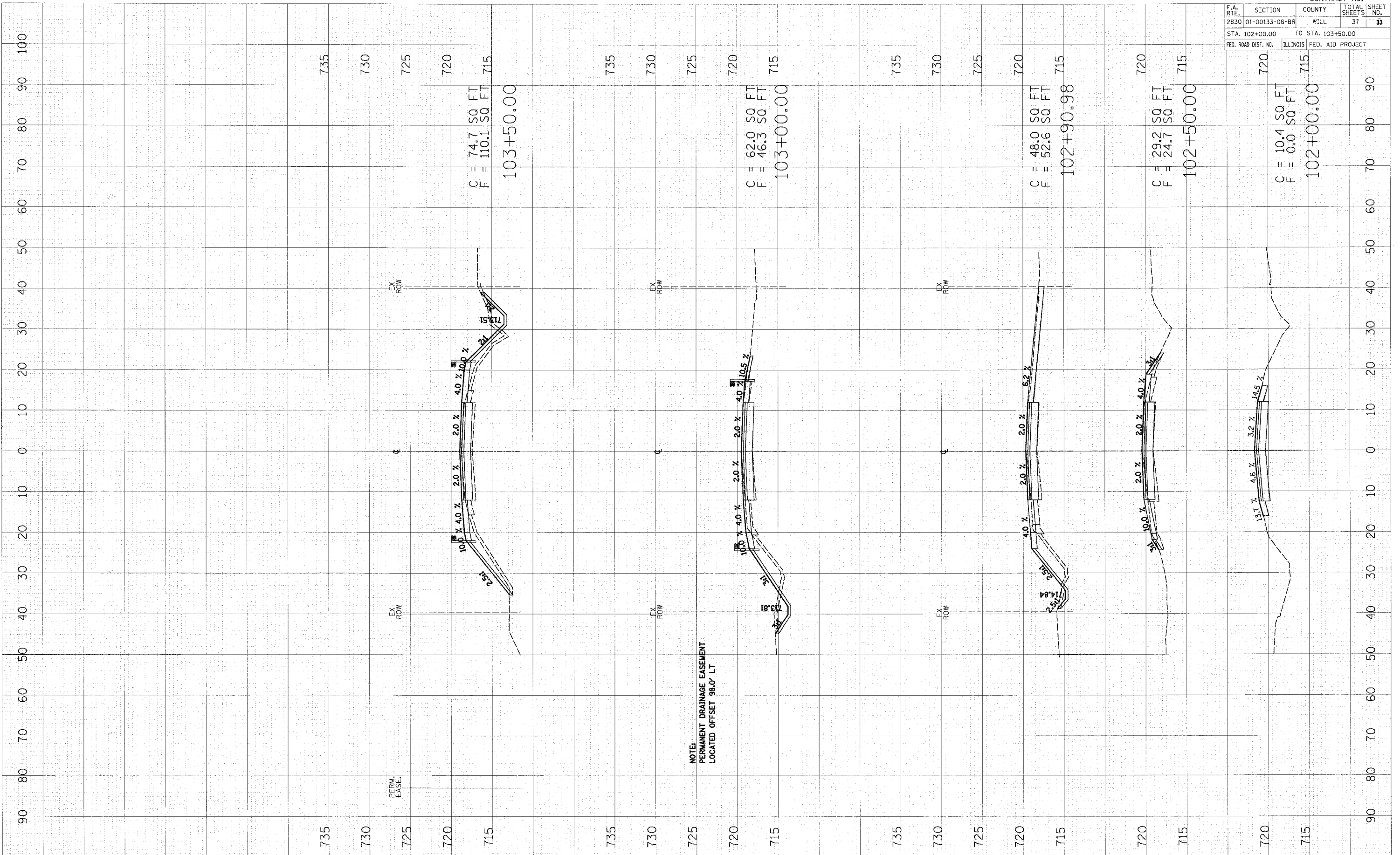


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	33
STA. 102+00.00		TO STA. 103+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

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

PLOT DATE = 11/07/2007  
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 PLOT SCALE = 1/8" = 1'00"  
 USER NAME = mhood



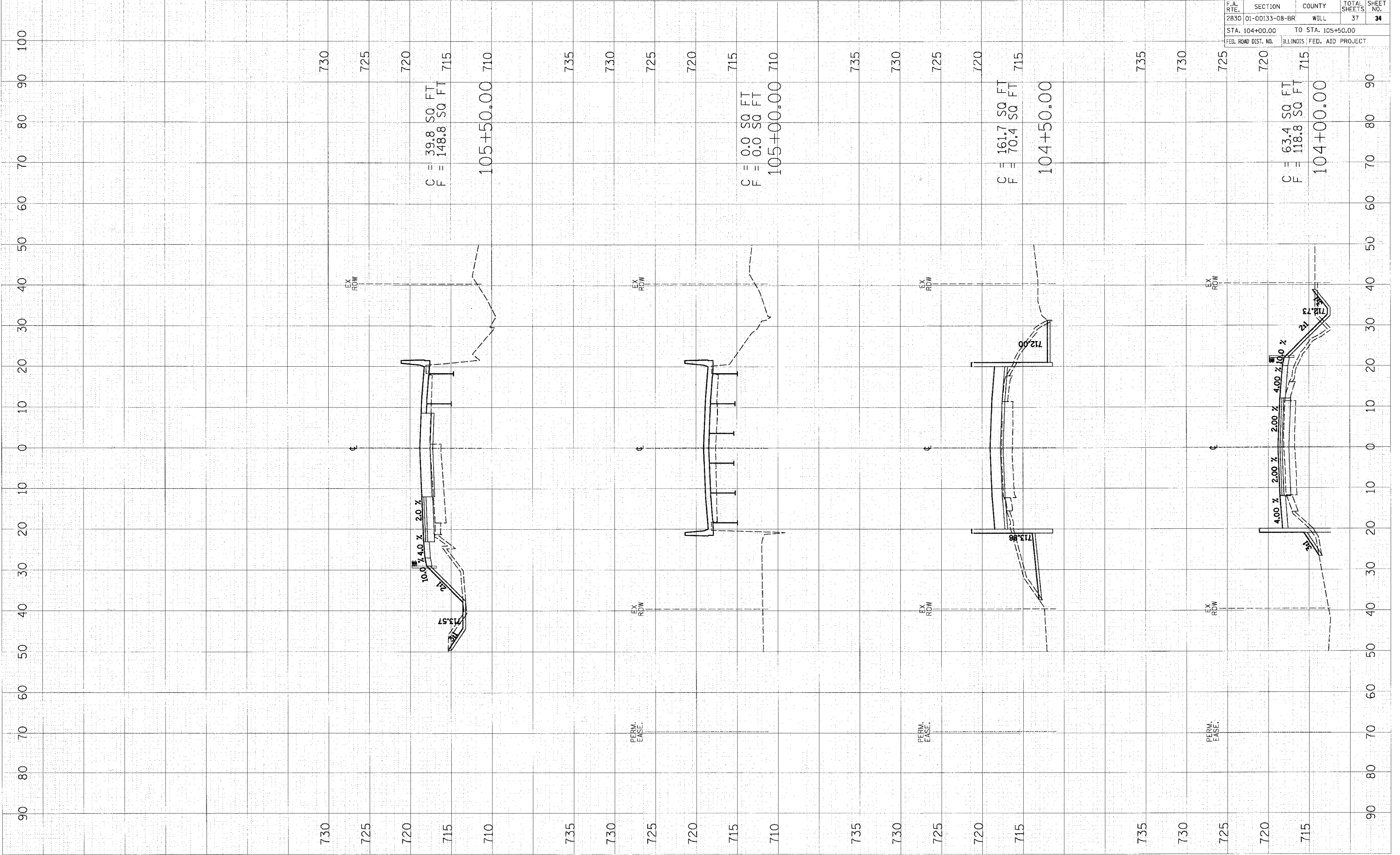
CROSS SECTIONS - OLD MONEE ROAD

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	34
STA. 104+00.00		TO STA. 105+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

NO.	AREAS CHECKED	BY	DATE

NO.	AREAS CHECKED	BY	DATE

PLOT DATE = 11/27/2007  
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 PLOT SCALE = 1:10  
 USER NAME = whood



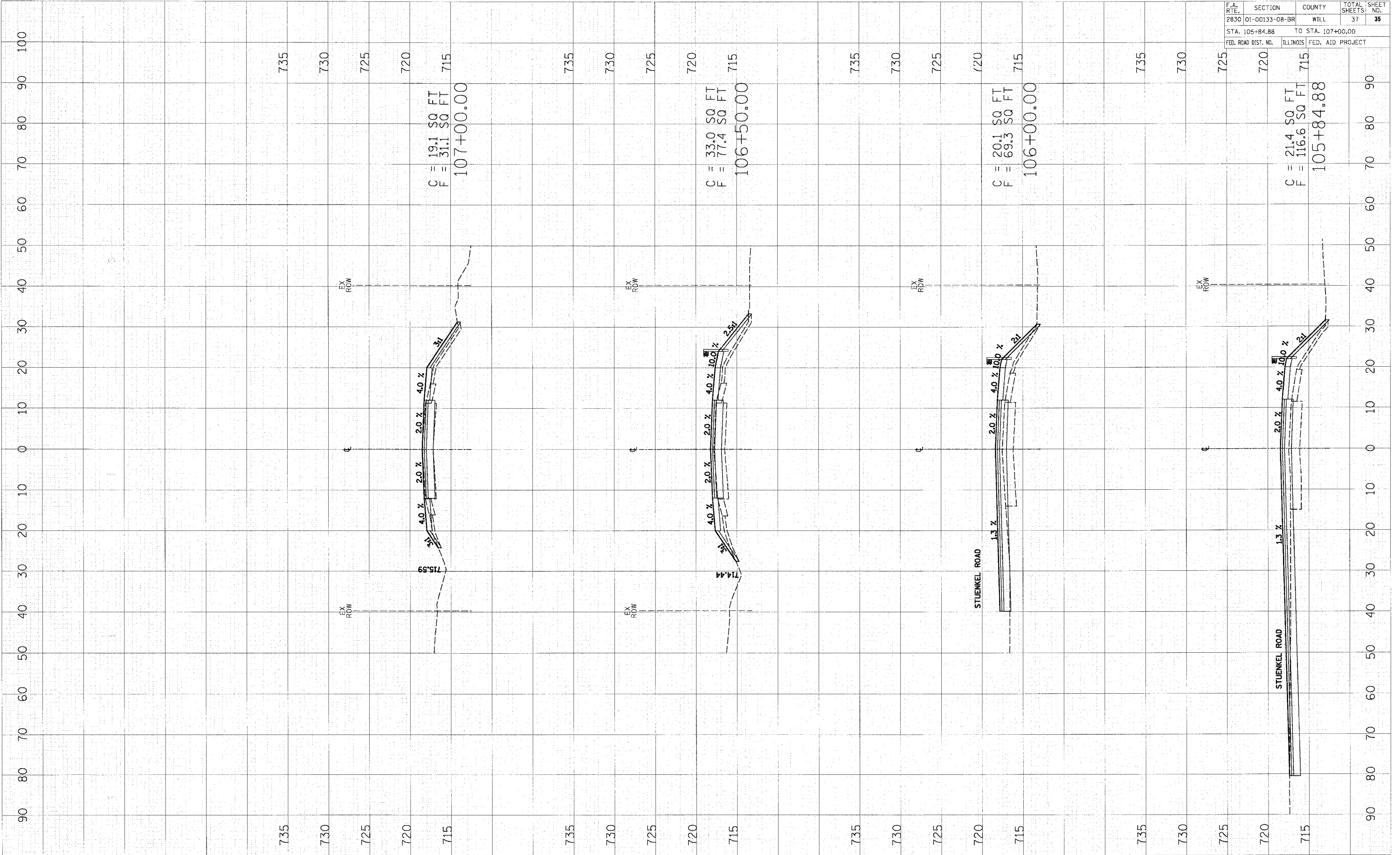
CONTRACT NO. 83989

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	35
STA. 105+84.88		TO STA. 107+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

PLOT DATE = 11/27/2007  
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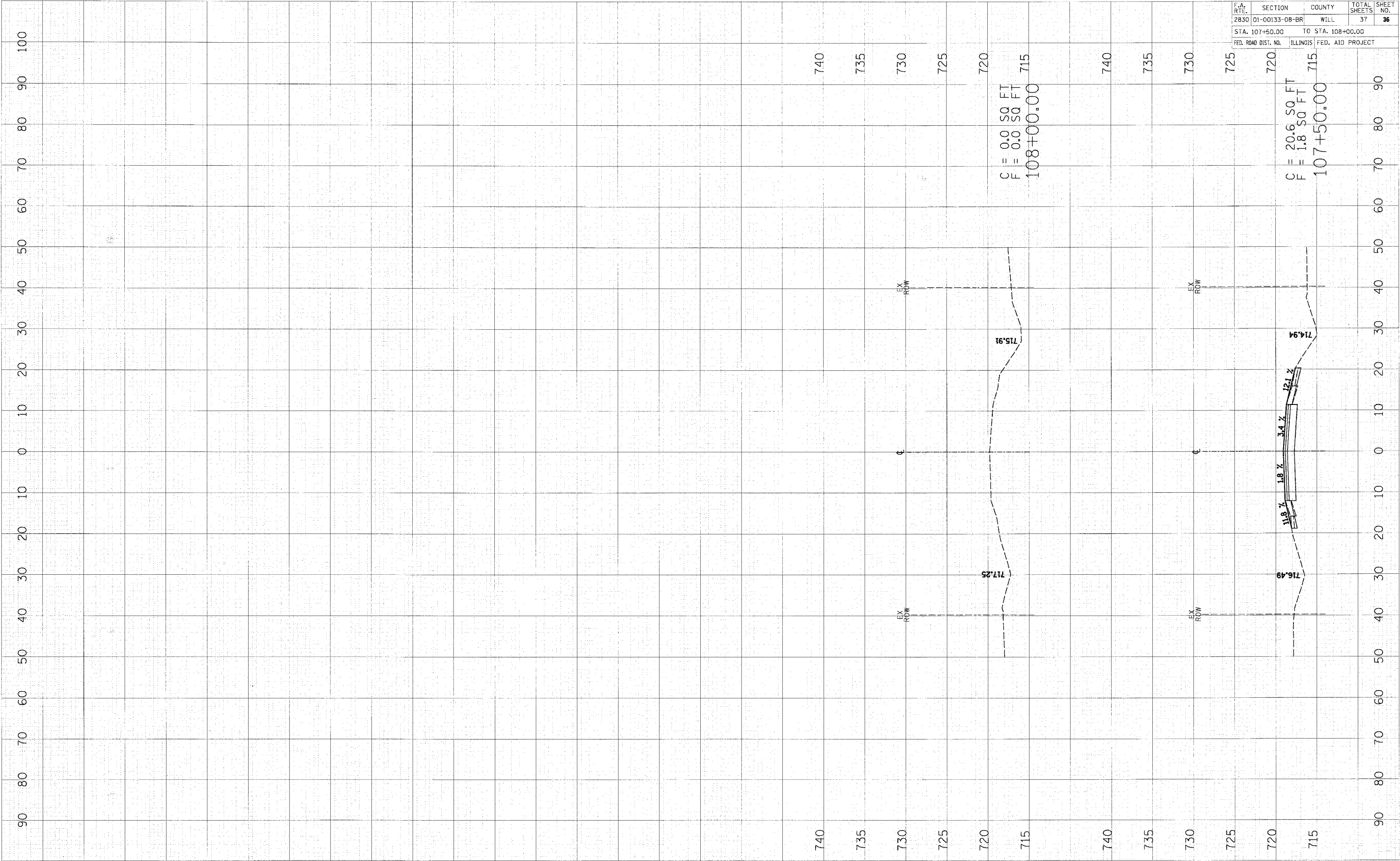


CROSS SECTIONS - OLD MONEE ROAD

PLOT DATE = 11/27/2007  
 USER NAME = mhood

OPTIONAL SURVEYED PLOTTED  
 SURVEY BY DATE  
 PLOTTED BY DATE  
 NO. AREAS CHECKED

OPTIONAL SURVEYED PLOTTED  
 SURVEY BY DATE  
 PLOTTED BY DATE  
 NO. AREAS CHECKED



C = 0.0 SQ FT  
 F = 0.0 SQ FT  
 108+00.00

C = 20.6 SQ FT  
 F = 1.8 SQ FT  
 107+50.00

CONTRACT NO. 63989

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2830	01-00133-08-BR	WILL	37	36

STA. 107+50.00 TO STA. 108+00.00

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

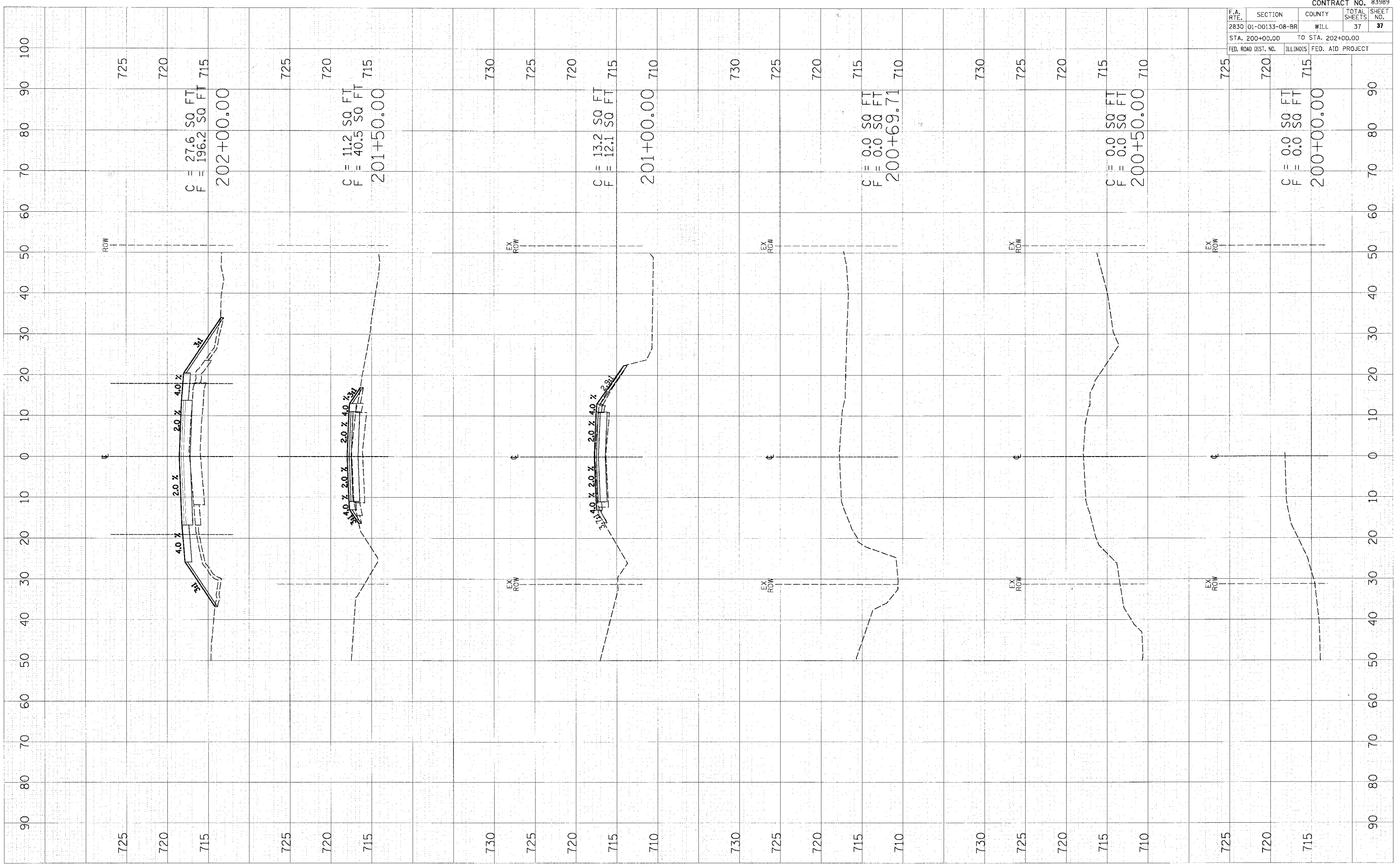
CROSS SECTIONS - OLD MONEY ROAD

ORIGINAL SURVEYED BY DATE  
 SURVEYED BY DATE  
 PLOTTED BY DATE  
 NOTE BOOK NO.  
 REVISIONS CHECKED

FINAL SURVEYED BY DATE  
 SURVEYED BY DATE  
 PLOTTED BY DATE  
 NOTE BOOK NO.  
 REVISIONS CHECKED

PLOT DATE = 11/21/2007  
 PLOT SCALE = 1" = 40'  
 USER NAME = phrad

CONTRACT NO. 83989	
F.A. RTE. 2830	SECTION 01-00133-08-BR
COUNTY WILL	TOTAL SHEETS 37
STA. 200+00.00	TO STA. 202+00.00
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT



CROSS SECTIONS - STUENKEL ROAD