

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	1

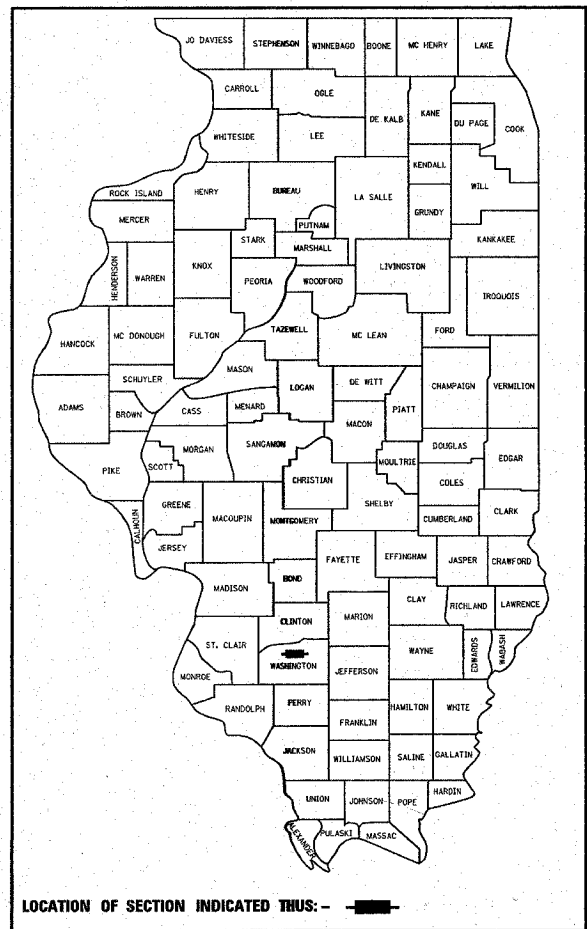
FL 98

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

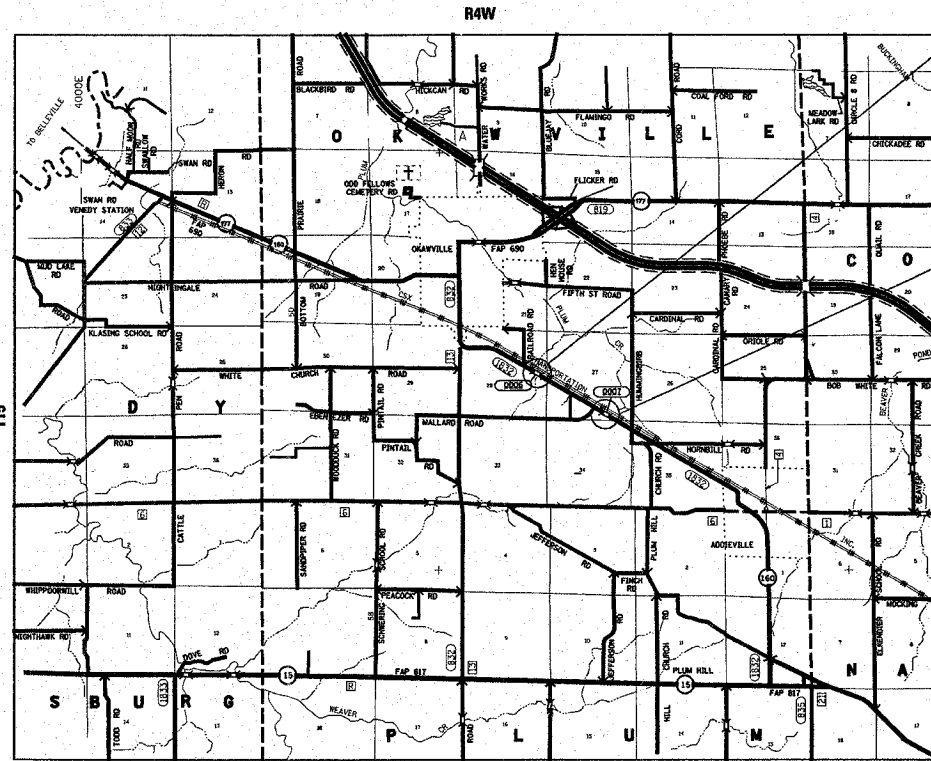
FAS ROUTE 1832 (IL 160)  
SECTION 5BR-2  
PROJECT NO. RS-BRS1832 (101)  
STRUCTURE REPLACEMENT OVER PLUM CREEK  
& PLUM CREEK BRANCH  
WASHINGTON COUNTY

D-98-091-05



LOCATION OF SECTION INDICATED THUS: -

C-98-116-05



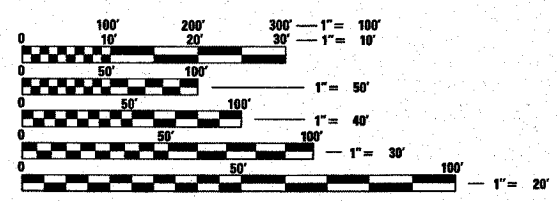
PROJECT LOCATION  
IL 160 OVER PLUM CREEK  
SN 095-0006(E) 0077(P)  
STA 1453 + 15.00

PROJECT LOCATION  
IL 160 OVER PLUM CREEK BRANCH  
SN 095-0007(E) 0078(P)  
STA 1515 + 00.00



FOR INDEX OF SHEETS, SEE SHEET NO. 2

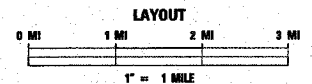
MICROFILMED \_\_\_\_\_  
REEL NUMBER \_\_\_\_\_  
AWARDED \_\_\_\_\_  
RESIDENT ENGINEER \_\_\_\_\_  
AS BUILT CHANGES WERE MADE  
ON THE FOLLOWING SHEETS



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

TRAFFIC DATA:  
ADT: 1200 (2008)  
1600 (2028)  
SU: 3.5%  
MU: 2.6%



GROSS LENGTH: SN 095-0077 = 64 FT (ABUT. TO ABUT.)  
SN 095-0078 = 35 FT (OUT TO OUT OF HEADWALL)

SN 095-0077    LATITUDE: 38.41394    LONGITUDE: 89.53311  
SN 095-0078    LATITUDE: 38.40683    LONGITUDE: 89.51794

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Dec 12 20 07  
May Adams  
DEPUTY DIRECTOR OF HIGHWAYS  
REGION FIVE ENGINEER

February 1, 20 08  
Eric E. Harshbarger  
ENGINEER OF DESIGN AND ENVIRONMENT

February 1, 20 08  
Christine M. Reed  
DIRECTOR, DIVISION OF HIGHWAYS

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

PROJECT ENGINEER: PATTI LeBEAU (618) 346-3179  
SQUAD CONTACT: ART MUEHLFELD (618) 346-3209

CONTRACT NO. 76949

F.A.S. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5BR-2	WASHINGTON	97	2
STA.	TO STA.			
Rd. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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7. WIDE LOAD SIGNING
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### SN 095-0006(E) 0077(P)

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### SN 095-0007(E) 0078(P)

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65. EROSION CONTROL PLAN
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- 83 - 89. EXISTING STRUCTURE PLANS
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## HIGHWAY STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH OF A FOOT
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
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
631031-06	TRAFFIC CONTROL BARRIER TERMINAL, TYPE 6
631032-03	TRAFFIC CONTROL BARRIER TERMINAL, TYPE 6A
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
666001	RIGHT OF WAY MARKERS
701006-02	OFF-ROAD OPERATIONS, 2L, 2W, 4.5m (15') TO 600m (24') FROM PAVEMENT EDGE
701011-01	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-09	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH
701901	TRAFFIC CONTROL DEVICES
704001-04	TEMPORARY CONCRETE BARRIER
728001	TYPICAL PAVEMENT MARKINGS
780001-01	TELESCOPING STEEL SIGN SUPPORT
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

## GENERAL NOTES

1. THE STANDARDS AND REVISION NUMBERS SHALL APPLY TO THIS PROJECT.
  2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
  3. THE THICKNESS OF THE HMA MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
  4. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING BY CALLING J.U.L.I.E. AND BY NOTIFYING NON-J.U.L.I.E. MEMBERS INDIVIDUALLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
    - AMEREN IP (ELECTRICAL)
    - AMEREN IP (GAS)
    - CHARTER COMMUNICATIONS, INC.
    - FRONTIER COMMUNICATIONS CO. (COMMUNICATIONS)
    - VERIZON NORTH, INC. (COMMUNICATIONS)
    - WASHINGTON COUNTY WATER CO.
- MEMBERS OF J.U.L.I.E (800) 892-0123 ARE INDICATED BY \*. NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEDING, FERTILIZING, AND MULCHING ANY AREAS DISTURBED OUTSIDE THE LIMITS OF CONSTRUCTION. THIS WORK WILL NOT BE MEASURED FOR PAYMENT. THE SEEDING SHALL BE CLASS 1 & 2. THE APPLICATION OF THE SEEDING, FERTILIZER, AND MULCH SHALL BE TO THE SATISFACTION OF THE ENGINEER. FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE.
  6. IF THE CONTRACTOR REMOVES TREES WITHIN THE RIGHT-OF-WAY LIMITS FOR HIS CONSTRUCTION ACTIVITY, I.E. IN ORDER TO GAIN ACCESS TO THE PROJECT SITE, IT WILL BE HIS RESPONSIBILITY TO REPLACE THE TREES AT A 1:1 RATIO. THE TREES WILL BE REPLACED WITH A 1 GALLON NATIVE ILLINOIS TREE SPECIES AND SHALL BE APPROVED BY THE ENGINEER. THE TREE REMOVAL AND TREE REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
  7. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND ENDING OF THE PROJECT AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLOURESCENT ORANGE.
  8. NO TRENCHES OR OPEN PITS WILL BE PERMITTED ADJACENT TO A TRAFFIC LANE DURING NON-WORKING HOURS. ALL WIDENING TRENCHES SHALL BE BACKFILLED DURING THE SAME WORKING DAY IT WAS EXCAVATED.
  9. THE COST OF GRADING AND SHAPING ALONG THE PROPOSED BASE COURSE SHALL BE INCLUDED IN THE COST OF "EARTH EXCAVATION".
  10. RIGHT OF WAY MARKERS SHALL BE SET SO THE BACK OF THE POST IS TWELVE (12") INCHES INSIDE THE RIGHT OF WAY BOUNDARY. RIGHT OF WAY PROPERTY CORNERS ARE MARKED BY A 3/8" IRON ROD WITH IDOT ALUMINUM CAP AND SHALL NOT BE REMOVED OR DAMAGED WHEN SETTING THE RIGHT OF WAY MARKERS.

## COMMITMENTS

1. PROPERTY OWNER BRAD BARKAU SHALL BE GIVEN A MINIMUM OF 48 HOURS NOTICE PRIOR TO WORK COMMENCING ON HIS ENTRANCE LOCATED AT STATION 1455+97.90. MR BARKAU CAN BE REACHED AT (618) 407-6639.
2. NO VEHICLES ARE TO BE PARKED IN THE THREE (3) PRAIRIE REMNANTS LOCATED WITHIN THE PROJECT LIMITS. THE CONTRACTOR AND RESIDENT ENGINEER SHALL DESIGNATE AN AREA FOR PARKING, SO THERE IS NO MISUNDERSTANDING AS TO PRAIRIE LOCATION.

PLOT DATE = 11/30/2007  
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 REFERENCE = #REF#

REVISIONS		DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION INDEX OF SHEETS/HIGHWAY STANDARDS GENERAL NOTES/COMMITMENTS
NAME			

FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 HORIZ. \_\_\_\_\_ DATE \_\_\_\_\_ CHECKED BY \_\_\_\_\_

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

ILLINOIS DEPARTMENT OF TRANSPORTATION

# SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE			
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 095-0077		SN 095-0078	
				1000-2A FED 80% STATE 20%	X071-2A FED 80% STATE 20%	1000-2A FED 80% STATE 20%	X080-2A FED 80% STATE 20%
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	378	356		22	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	580	540		40	
20200100	EARTH EXCAVATION	CU YD	1145	600		545	
20200500	EARTH EXCAVATION (WIDENING)	CU YD	120	65		55	
20300100	CHANNEL EXCAVATION	CU YD	635				635
20400800	FURNISHED EXCAVATION	CU YD	750	655		95	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	86		86		
25000100	SEEDING, CLASS 1	ACRE	0.25	0.25			
25000200	SEEDING, CLASS 2	ACRE	0.75	0.5		0.25	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	66	43.5		22.5	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	66	43.5		22.5	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	66	43.5		22.5	
25100105	MULCH, METHOD 1	ACRE	2.5	1.5		1	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	123	71.5		51.5	
28000300	TEMPORARY DITCH CHECKS	EACH	22	15		7	
28000400	PERIMETER EROSION BARRIER	FOOT	730	450		280	
28000500	INLET AND PIPE PROTECTION	EACH	1	1			
28100107	STONE RIPRAP, CLASS A4	SQ YD	525		525		
28100109	STONE RIPRAP, CLASS A5	SQ YD	340				340
28200200	FILTER FABRIC	SQ YD	865		525		340
31100910	SUB-BASE GRANULAR MATERIAL, TYPE A 12"	SQ YD	51			51	
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	46	46			
35600712	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	SQ YD	454	254		200	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	1.1	0.6		0.5	
40600300	AGGREGATE (PRIME COAT)	TON	6	3		3	
40600990	TEMPORARY RAMP	SQ YD	54	27		27	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	1294	652		642	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	291	157.5		133.5	
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	6	6			
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	220		220		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	44		44		
44000100	PAVEMENT REMOVAL	SQ YD	777	509		268	
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	948	374		574	
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	865	468		397	

PLOT DATE = 11/08/2007  
 PLOT NAME = 54.00000 / IN.  
 PLOT SCALE = 54.00000 / IN.  
 REFERENCE = #REF#

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	SBR-2	WASHINGTON	97	4
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION

# SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE			
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 095-0077		SN 095-0078	
				I000-2A FED 80% STATE 20%	X071-2A FED 80% STATE 20%	I000-2A FED 80% STATE 20%	X080-2A FED 80% STATE 20%
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	865	468		397	
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1		1		
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1				1
50105220	PIPE CULVERT REMOVAL	FOOT	25.5	25.5			
50200100	STRUCTURE EXCAVATION	CU YD	505		140		365
50300100	FLOOR DRAINS	EACH	8		8		
50300225	CONCRETE STRUCTURES	CU YD	173.8		28.8		145
50300255	CONCRETE SUPERSTRUCTURE	CU YD	88.1		88.1		
50300260	BRIDGE DECK GROOVING	SQ YD	213		213		
50300280	CONCRETE ENCASEMENT	CU YD	4.2		4.2		
50300300	PROTECTIVE COAT	SQ YD	281		281		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1		
50500505	STUD SHEAR CONNECTORS	EACH	1134		1134		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	28550		21960		6590
50800515	BAR SPLICERS	EACH	313		285		28
50900200	STEEL RAILING, TYPE 2399	FOOT	64				64
58700300	CONCRETE SEALER	SQ FT	144				144
51201600	FURNISHING STEEL PILES HP12X53	FOOT	245		245		
51202305	DRIVING PILES	FOOT	245		245		
51203600	TEST PILE STEEL HP12X53	EACH	1		1		
51500100	NAME PLATES	EACH	2		1		1
52100520	ANCHOR BOLTS, 1"	EACH	24		24		
54213453	END SECTIONS 18"	EACH	2	2			
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	25.5	25.5			
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	51		51		
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	138		138		
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	750	375		375	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4			
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4			4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	8	4		4	
63200310	GUARDRAIL REMOVAL	FOOT	1152	559		593	
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	25	12		13	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	4.5		4.5	
67100100	MOBILIZATION	L SUM	1	0.5		0.5	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5		0.5	

\*SPECIALTY ITEMS

PLOT DATE = 11/28/2007  
 PLOT SCALE = 50.0000 / IN.  
 REFERENCE = BREF



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	SBR-2	WASHINGTON	97	5
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION

# SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE			
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 095-0077		SN 095-0078	
				I000-2A FED 80% STATE 20%	X071-2A FED 80% STATE 20%	I000-2A FED 80% STATE 20%	X080-2A FED 80% STATE 20%
70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	2	1		1	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1		1	
70106700	TEMPORARY RUMBLE STRIP	EACH	12	6		6	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	9	4.5		4.5	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	10286	5276		5010	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	3520	1820		1700	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	154	60		94	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	3737	1879		1858	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1840		910		930
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1680		910		770
* 72000100	SIGN PANEL - TYPE 1	SQ FT	20	10		10	
* 72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	48	24		24	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	5825	2694		3131	
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	38			38	
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	279		279		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	31	15		16	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2		2		
78200200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	4		2		2
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	18	9		9	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	8	4		4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1939	990		949	
X0321100	GEOTEXTILE RETAINING WALL	SQ FT		171.9			171.9
X0323330	PRECAST CONCRETE SUBSTRUCTURE	L SUM	1				1
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	808.4		364.3		444.1
X7200200	WIDE LOAD SIGNING	L SUM	1	0.5		0.5	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4		2		2
Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	3		2		1
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	3		2		1
X0325916	THREE-SIDED PRECAST CONCRETE STRUCTURE 28' X 9'	FOOT	37.25				37.25
* E0007600	TRAINEES	HOURL	500	500			

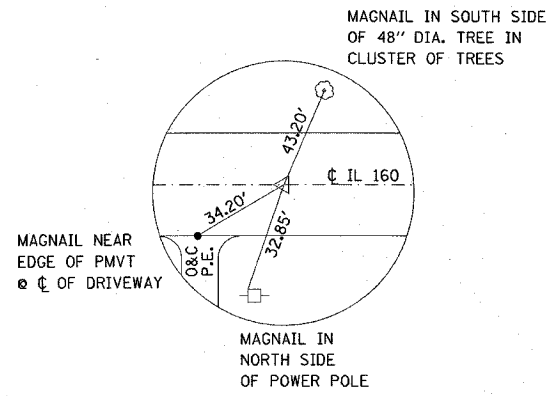
©Y080 \* SPECIALTY ITEMS

Rev. 2-19-08

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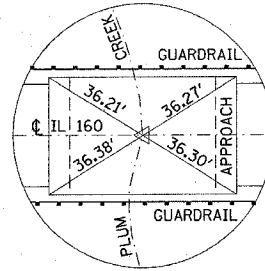
SN 095-0006(E) 0077(P)

NOTE: ALL TIES ARE DIRECT / SLOPE TAPED MEASUREMENTS



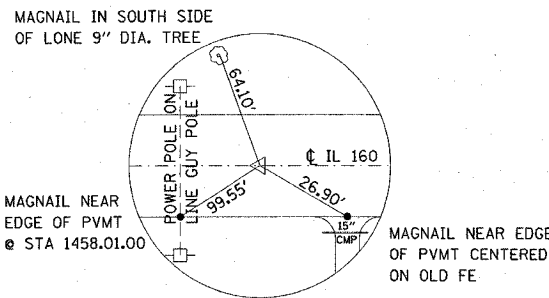
**TIE POINT**

MAGNAIL 580' TO  $\phi$  OF BRIDGE SN 095-006 OVER PLUM CREEK STA 1447+34.76



**TIE POINT**

MAGNAIL  $\phi$  BRIDGE  $\phi$  STA 1453+15.00



**TIE POINT**

MAGNAIL 585' FROM CENTER OF BRIDGE OVER PLUM CREEK STA 1459+00.00

**BENCHMARKS**

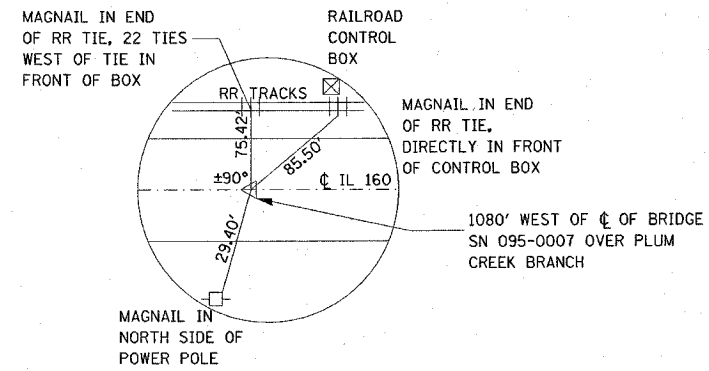
BM 1 - RR SPIKE IN POWER POLE, (MIDDLE POLE OF 3)  $\phi$  SE CORNER OF IL 160 & GOLDFINCH RD/RAILROAD RD STA 1445+90, 30' RT ELEVATION = 447.09

BM 2 - RR SPIKE IN POWER POLE  $\phi$  THE SOUTH SIDE OF IL 160,  $\pm$  400' EAST OF THE CENTER OF SN 095-0006 STA 1458+02, 32' RT ELEVATION = 444.48

SN 095-0007(E) 0078(P)

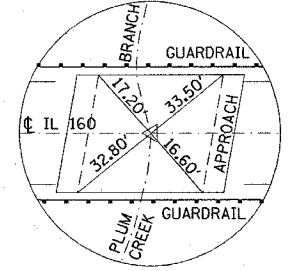
NOTE: ALL TIES ARE DIRECT / SLOPE TAPED MEASUREMENTS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	6
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS	FED. AID PROJECT	



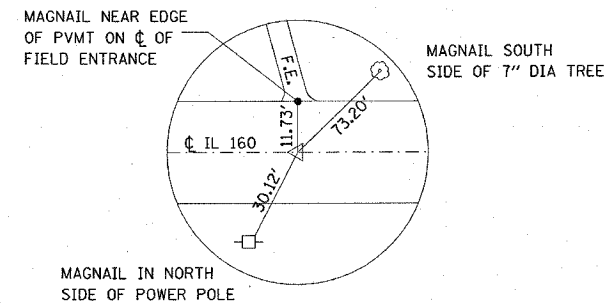
**TIE POINT**

MAGNAIL  $\phi$  STATION EQUATION 1500+07.63 BACK TO SN 095-0006 = 1500+00.00 FORWARD TO SN 095-0007



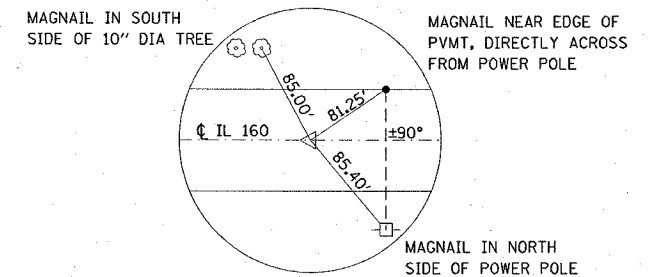
**TIE POINT**

MAGNAIL  $\phi$  BRIDGE  $\phi$  STA 1510.80.00



**TIE POINT**

MAGNAIL 580' FROM CENTER OF BRIDGE SN 095-0007 OVER PLUM CREEK BRANCH STA 1505+00.00



**TIE POINT**

MAGNAIL 610.5' EAST OF CENTER OF BRIDGE SN 095-0007 OVER PLUM CREEK BRANCH STA 1516+90.54

**BENCHMARKS**

BM 4 - RR SPIKE IN POWER POLE, (NEAR SE CORNER OF CULTIVATED FIELD),  $\pm$  250' WEST OF NS 095-0007,  $\pm$  175' SOUTH OF IL 160 STA 1506+77.8, 30' RT ELEVATION = 451.13

BM 6 - RR SPIKE IN POWER POLE,  $\phi$  SW CORNER OF IL 160 & PLUM HILL CHURCH RD / HUMMINGBIRD RD STA 1520+20, 30' RT ELEVATION = 453.68

BM 5 - CHISELED " " ON BRIDGE ABUTMENT  $\phi$  NW CORNER OF SN 095-0007 STA 1510+84.7, 18.4' LT ELEVATION = 445.50

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TIES & BENCHMARKS**  
FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY

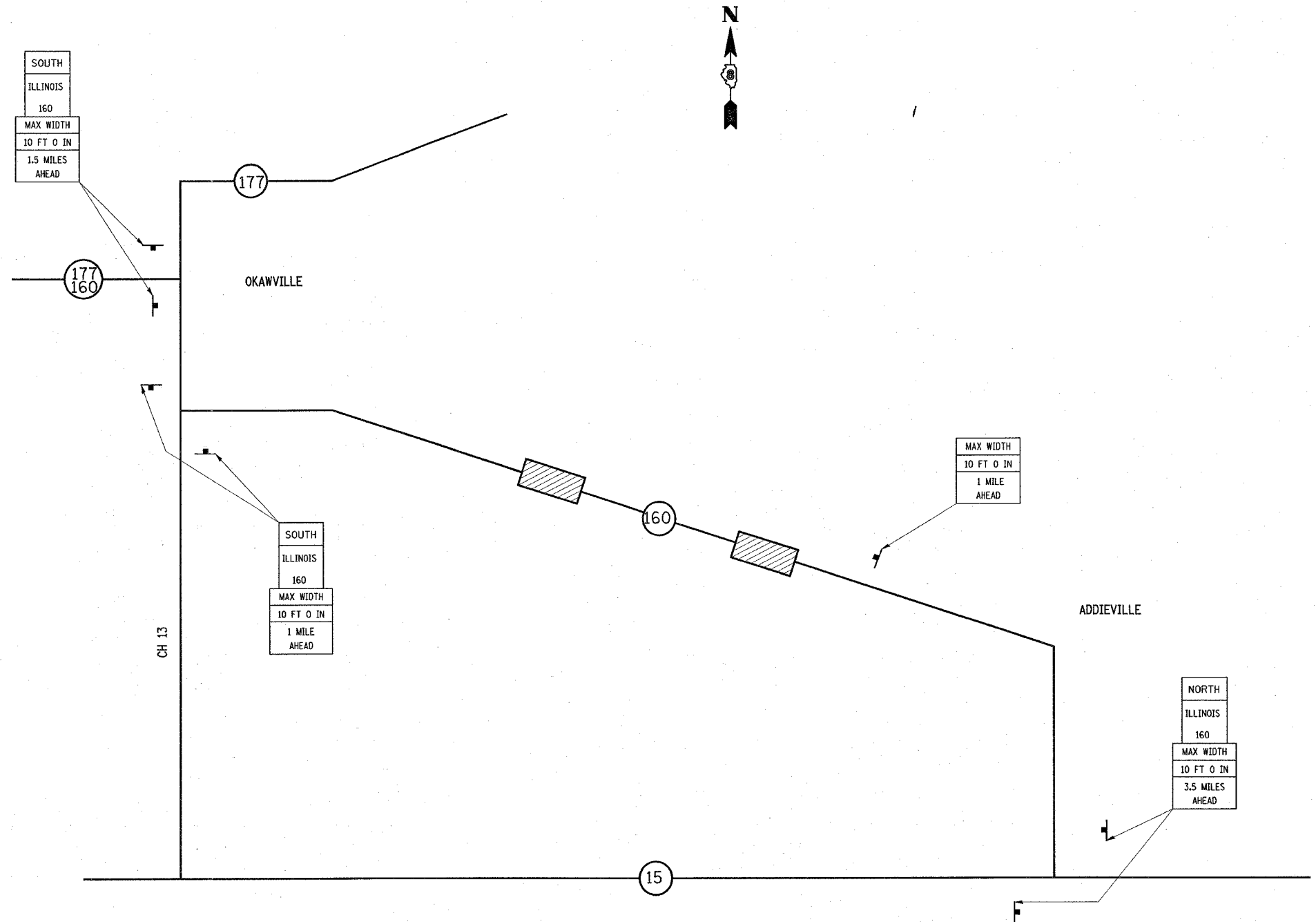
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HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
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PLOT DATE = 12/7/2007  
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 PLOT SCALE = 50,00000 / 1 IN.  
 REFERENCE = #REF#

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	7
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

**NOTES**

1. ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RE/RT. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE @ (618) 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR WIDE LOAD SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.



SIGNS REQUIRED			
MAX WIDTH 10 FT 0 IN 1 MILE AHEAD	(3)	NORTH	(2)
		SOUTH	(4)
MAX WIDTH 10 FT 0 IN 1.5 MILES AHEAD	(2)	ILLINOIS 160	(6)
MAX WIDTH 10 FT 0 IN 3.5 MILES AHEAD	(2)		

PLOT DATE = 12/7/2007  
 PLOT SCALE = 5/8" = 1' IN.  
 REFERENCE = #REF#

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**WIDE LOAD SIGNING**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY  
 SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	8
STA. _____		TO STA. _____		
EXISTING CONDITIONS: _____				

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ON MAY 30, 2003 FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES. THIS PLAN HAS ALSO BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF NPDES PERMIT NUMBER ILR40 FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS IF CHECKED BELOW.

NPDES PERMITS ASSOCIATED WITH THIS PROJECT:  
 □ ILR10  
 ILR40 PERMIT NO. 0493

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

MARY C. LAMIE  
 PRINT NAME  
 DEPUTY DIRECTOR OF HIGHWAYS  
 REGION FIVE ENGINEER  
 TITLE  
 IL DEPT. OF TRANSPORTATION  
 AGENCY

*Mary C. Lamie*  
 SIGNATURE  
 Dec 12, 2007  
 DATE

I. SEE THE EROSION CONTROL PLANS AND/OR DRAINAGE PLANS FOR THIS CONTRACT FOR INFORMATION REGARDING DRAINAGE PATTERNS, APPROXIMATE SLOPES ANTICIPATED BEFORE AND AFTER MAJOR GRADING ACTIVITIES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AND CONTROLS TO PREVENT OFF SITE SEDIMENT TRACKING (TO BE ADDED AFTER CONTRACTOR IDENTIFIES LOCATIONS), AREAS OF SOIL DISTURBANCE, THE LOCATION OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS IDENTIFIED IN THE PLAN, THE LOCATION OF AREAS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR, SURFACE WATERS (INCLUDING WETLANDS) AND LOCATIONS WHERE STORM WATER IS DISCHARGED TO SURFACE WATER INCLUDING WETLANDS.

J. THE FOLLOWING IS A LIST OF RECEIVING WATER(S) AND THE ULTIMATE RECEIVING WATER(S), AND AREAL EXTENT OF WETLAND ACREAGE AT THE SITE. THE LOCATION OF THE RECEIVING WATERS CAN BE FOUND ON THE EROSION AND SEDIMENT CONTROL PLANS:  
 PLUM CREEK (SN 095-0077) AND PLUM CREEK BRANCH (SN 095-0078)

K. THE FOLLOWING POLLUTANTS OF CONCERN WILL BE ASSOCIATED WITH THIS CONSTRUCTION PROJECT: (CHECK ALL THAT APPLY)

<input checked="" type="checkbox"/> SOIL SEDIMENT	<input checked="" type="checkbox"/> PETROLEUM (GAS, DIESEL, OIL, KEROSENE, HYDRAULIC OIL / FLUIDS)
<input checked="" type="checkbox"/> CONCRETE	<input checked="" type="checkbox"/> ANTIFREEZE / COOLANTS
<input checked="" type="checkbox"/> CONCRETE TRUCK WASTE	<input checked="" type="checkbox"/> WASTE WATER FROM CLEANING CONSTRUCTION EQUIPMENT
<input checked="" type="checkbox"/> CONCRETE CURING COMPOUNDS	<input type="checkbox"/> OTHER (SPECIFY) _____
<input checked="" type="checkbox"/> SOLID WASTE DEBRIS	<input type="checkbox"/> OTHER (SPECIFY) _____
<input type="checkbox"/> PAINTS	<input type="checkbox"/> OTHER (SPECIFY) _____
<input type="checkbox"/> SOLVENTS	<input type="checkbox"/> OTHER (SPECIFY) _____
<input type="checkbox"/> FERTILIZERS / PESTICIDES	<input type="checkbox"/> OTHER (SPECIFY) _____

2. STRUCTURAL PRACTICES: PROVIDED BELOW IS A DESCRIPTION OF STRUCTURAL PRACTICES THAT WILL BE IMPLEMENTED, TO THE DEGREE ATTAINABLE, TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SUCH PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: PERIMETER EROSION BARRIER, EARTH DIKES, DRAINAGE SWALES, SEDIMENT TRAPS, DITCH CHECKS, SUBSURFACE DRAINS, PIPE SLOPE DRAINS, LEVEL SPREADERS, STORM DRAIN INLET PROTECTION, ROCK OUTLET PROTECTION, REINFORCED SOIL RETAINING SYSTEMS, GABIONS, AND TEMPORARY OR PERMANENT SEDIMENT BASINS. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

THE FOLLOWING STRUCTURAL PRACTICES WILL BE USED FOR THIS PROJECT (CHECK ALL THAT APPLY)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> PERIMETER EROSION BARRIER    | <input type="checkbox"/> ROCK OUTLET PROTECTION  |
| <input checked="" type="checkbox"/> TEMPORARY DITCH CHECK        | <input checked="" type="checkbox"/> RIPRAP       |
| <input checked="" type="checkbox"/> STORM DRAIN INLET PROTECTION | <input type="checkbox"/> GABIONS                 |
| <input type="checkbox"/> SEDIMENT TRAP                           | <input type="checkbox"/> SLOPE MATTRESS          |
| <input type="checkbox"/> TEMPORARY PIPE SLOPE DRAIN              | <input type="checkbox"/> RETAINING WALLS         |
| <input type="checkbox"/> TEMPORARY SEDIMENT BASIN                | <input type="checkbox"/> SLOPE WALLS             |
| <input type="checkbox"/> TEMPORARY STREAM CROSSING               | <input type="checkbox"/> CONCRETE REVETMENT MATS |
| <input type="checkbox"/> STABILIZED CONSTRUCTION EXITS           | <input type="checkbox"/> LEVEL SPREADERS         |
| <input type="checkbox"/> TURF REINFORCEMENT MATS                 | <input type="checkbox"/> OTHER (SPECIFY) _____   |
| <input type="checkbox"/> PERMANENT CHECK DAMS                    | <input type="checkbox"/> OTHER (SPECIFY) _____   |
| <input type="checkbox"/> PERMANENT SEDIMENT BASIN                | <input type="checkbox"/> OTHER (SPECIFY) _____   |
| <input type="checkbox"/> AGGREGATE DITCH                         | <input type="checkbox"/> OTHER (SPECIFY) _____   |
| <input type="checkbox"/> PAVED DITCH                             | <input type="checkbox"/> OTHER (SPECIFY) _____   |

DESCRIBE HOW THE STRUCTURAL PRACTICES LISTED ABOVE WILL BE UTILIZED:

- PERIMETER EROSION BARRIER - SILT FENCES WILL BE PLACED ALONG THE BANKS OF PLUM CREEK IN AN EFFORT TO CONTAIN SILT AND RUNOFF FROM LEAVING THE SITE.  
 CONSTRUCT AT BEGINNING OF CONSTRUCTION. REMOVE AT END OF CONSTRUCTION.
- STORM DRAIN INLET PROTECTION - INLET AND PIPE PROTECTION WILL BE PROVIDED FOR CULVERTS AND WILL BE CLEANED ON A REGULAR BASIS.
- TEMPORARY DITCH CHECKS - DITCH CHECKS WILL BE PLACED IN SWALES WHERE RUNOFF VELOCITY IS HIGH. ALL STRUCTURAL PRACTICES ARE SHOWN IN DETAIL ON THE EROSION CONTROL PLANS.  
 TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY 1.5 FT. FALL/RISE IN DITCH GRADE.  
 TEMPORARY DITCH CHECKS, AGGREGATE USES GRADING NO. 3- REMOVE AT END OF CONSTRUCTION.  
 STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER AND SILT FENCE WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE (IF SPECIFIED), ENVIROBERM, TRIANGULAR SILT DIKES, GEORIDGE AND ROLLED EXCELSDOR.
- RIPRAP - THE BRIDGE OPENING WILL BE PROTECTED WITH RR-5 RIPRAP FROM ABUTMENT TO ABUTMENT TO PREVENT EROSION AND SCOURING.  
 AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS, INLET AND PIPE PROTECTION, AND PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.  
 ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

II. CONTROLS

THIS SECTION OF THE PLAN ADDRESSES THE CONTROLS THAT WILL BE IMPLEMENTED FOR EACH OF THE MAJOR CONSTRUCTION ACTIVITIES DESCRIBED IN I.C. ABOVE AND FOR ALL USE AREAS, BORROW SITES, AND WASTE SITES. FOR EACH MEASURE DISCUSSED, THE CONTRACTOR WILL BE RESPONSIBLE FOR ITS IMPLEMENTATION AS INDICATED. THE CONTRACTOR SHALL PROVIDE TO THE RESIDENT ENGINEER A PLAN FOR THE IMPLEMENTATION OF THE MEASURES INDICATED. THE CONTRACTOR, AND SUBCONTRACTORS, WILL NOTIFY THE RESIDENT ENGINEER OF ANY PROPOSED CHANGES, MAINTENANCE, OR MODIFICATIONS TO KEEP CONSTRUCTION ACTIVITIES COMPLIANT WITH THE PERMIT. EACH SUCH CONTRACTOR HAS SIGNED THE REQUIRED CERTIFICATION ON FORMS WHICH WILL BE PROVIDED AT THE PRE-CONSTRUCTION CONFERENCE, AND ARE A PART OF, THIS PLAN:

A. EROSION AND SEDIMENT CONTROL

1. STABILIZED PRACTICES: PROVIDED BELOW IS A DESCRIPTION OF INTERIM AND PERMANENT STABILIZATION PRACTICES, INCLUDING SITE SPECIFIC SCHEDULING OF THE IMPLEMENTATION OF THE PRACTICES. SITE PLANS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, GEOTEXTILES, SODDING, VEGETATIVE BUFFER STRIPS, PROTECTION OF TREES, PRESERVATION OF MATURE VEGETATION, AND OTHER APPROPRIATE MEASURES. EXCEPT AS PROVIDED BELOW IN II(A)(1)(G) AND II(A)(3), STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED ON ALL DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION WILL NOT OCCUR FOR A PERIOD OF 21 OR MORE CALENDAR DAYS.

2. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE THEREAFTER.

THE FOLLOWING STABILIZATION PRACTICES WILL BE USED FOR THIS PROJECT: (CHECK ALL THAT APPLY)

- |   |  |
|---|--|
| <input type="checkbox"/> PRESERVATION OF MATURE VEGETATION            | <input checked="" type="checkbox"/> EROSION CONTROL BLANKET / MULCHING |
| <input type="checkbox"/> VEGETATED BUFFER STRIPS                      | <input type="checkbox"/> SODDING                                       |
| <input type="checkbox"/> PROTECTION OF TREES                          | <input type="checkbox"/> GEOTEXTILES                                   |
| <input checked="" type="checkbox"/> TEMPORARY EROSION CONTROL SEEDING | <input type="checkbox"/> OTHER (SPECIFY) _____                         |
| <input type="checkbox"/> TEMPORARY TURF (SEEDING, CLASS 7)            | <input type="checkbox"/> OTHER (SPECIFY) _____                         |
| <input checked="" type="checkbox"/> TEMPORARY MULCHING                | <input type="checkbox"/> OTHER (SPECIFY) _____                         |
| <input checked="" type="checkbox"/> PERMANENT SEEDING                 | <input type="checkbox"/> OTHER (SPECIFY) _____                         |

DESCRIBE HOW THE STABILIZATION PRACTICES LISTED ABOVE WILL BE UTILIZED

- TEMPORARY EROSION CONTROL SEEDING - THIS ITEM WILL BE APPLIED TO ALL BARE AREAS EVERY SEVEN DAYS TO MINIMIZE THE AMOUNT OF EXPOSED SURFACE AREAS.  
 EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN 14 DAYS.  
 WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.  
 BARE AND SPARSELY VEGETATED GROUND IN HIGHLY ERODIBLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN 7 DAYS.
- PERMANENT SEEDING - SEEDING, CLASS 1 & 2 WILL BE INSTALLED PER IDOT SPECIFICATIONS.
- EROSION CONTROL BLANKETS/MULCHING - EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES AND IN HIGH VELOCITY AREAS (I.E. DITCHES) THAT HAVE BEEN BROUGHT TO FINAL GRADE AND SEEDED TO PROTECT SLOPES FROM EROSION AND ALLOW SEEDS TO GERMINATE. MULCH, METHOD 2 WILL BE APPLIED IN RELATIVELY FLAT AREAS TO PROTECT THE DISTURBED AREAS AND PREVENT FURTHER EROSION.

MULCH AS APPLIED TO TEMPORARY EROSION CONTROL SEEDING SHALL BE BY THE METHOD SPECIFIED IN THE CONTRACT AND AT THE DIRECTION OF THE ENGINEER. MULCH WILL BE PAID SEPARATELY AND SHALL CONFORM TO SECTION 251 OF THE STANDARD SPECIFICATIONS.

PERMANENT STABILIZATION - ALL AREAS DISTURBED BY CONSTRUCTION WILL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING THE FINISHED GRADING. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND ALLOW SEED TO GERMINATE PROPERLY. MULCH, METHOD 2 WILL BE USED ON RELATIVELY FLAT AREAS.

I. SITE DESCRIPTION:

A. THE FOLLOWING IS A DESCRIPTION OF THE PROJECT LOCATION:  
 THE PROJECT IS LOCATED ON IL 160 OVER PLUM CREEK 2.7 MILES WEST OF ADDEVILLE

B. THE FOLLOWING IS A DESCRIPTION OF THE CONSTRUCTION ACTIVITY WHICH IS THE SUBJECT OF THIS PLAN:  
 CONSTRUCTION WILL INCLUDE THE REMOVAL AND REPLACEMENT OF THE IL RTE 160 STRUCTURE OVER PLUM CREEK, SCOUR MITIGATION, PAVING, GRADING, CULVERT, LANDSCAPING, AND ALL INCIDENTAL WORK NECESSARY TO COMPLETE THE PROPOSED STRUCTURE AND ROADWAY AS SHOWN IN THE PLANS.

C. THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE, SUCH AS GRUBBING, EXCAVATION AND GRADING:  
DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:  
 PLUM CREEK (SN 095-0077) AND PLUM CREEK BRANCH (SN 095-0078)

PRE-STAGE 1: CONSTRUCTION OF THE 3' TEMPORARY PAVEMENT WIDENING ON THE NORTHEAST AND NORTHWEST CORNERS OF THE STRUCTURE.

STAGE 1: BEGIN STAGE 1 REMOVAL OF THE EXISTING STRUCTURE, AND STAGE 1 CONSTRUCTION OF THE REPLACEMENT STRUCTURE, EROSION CONTROL, GRADING, PAVING THE RIGHT SIDE PAVEMENT EAST AND WEST OF THE STRUCTURE, CONSTRUCTION OF PROPOSED BITUMINOUS AND AGGREGATE SHOULDERS, GUARDRAIL, RIPRAP, ETC.

STAGE 2: BEGIN STAGE 2 REMOVAL OF THE EXISTING STRUCTURE AND STAGE 2 CONSTRUCTION OF THE REPLACEMENT STRUCTURE, REMOVE TEMPORARY WIDENING, GRADING, PAVING THE LEFT SIDE PAVEMENT EAST AND WEST OF THE STRUCTURE, CONSTRUCTION OF THE PROPOSED BITUMINOUS AND AGGREGATE SHOULDERS, GUARDRAIL, RIPRAP, ETC.

D. THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 2.61 ACRES.  
 THE TOTAL AREA OF THE SITE THAT IS ESTIMATED WILL BE DISTURBED BY EXCAVATION, GRADING OR OTHER ACTIVITIES IS 1.35 ACRES.

E. THE FOLLOWING IS A WEIGHTED AVERAGE OF THE RUNOFF COEFFICIENT FOR THIS PROJECT AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED: C= 0.50

F. THE FOLLOWING IS A DESCRIPTION OF THE SOIL TYPES FOUND AT THE PROJECT SITE FOLLOWED BY INFORMATION REGARDING THEIR EROSION:  
 ORION SILT LOAM (3415) - A SOMEWHAT POORLY DRAINED SOIL WITH MODERATE PERMEABILITY. THIS SOIL IS FREQUENTLY FLOODED WITH 0 TO 2 PERCENT SLOPES. THIS SOIL HAS A SLIGHT SUSCEPTIBILITY TO WATER AND WIND EROSION.

G. THE FOLLOWING IS A DESCRIPTION OF POTENTIALLY EROSION AREAS ASSOCIATED WITH THIS PROJECT:  
 THERE IS ONLY ONE TYPE OF SOIL WITHIN THE PROJECT LIMITS, ORION SILT LOAM (3415).

H. THE FOLLOWING IS A DESCRIPTION OF SOIL DISTURBING ACTIVITIES, THEIR LOCATIONS, AND THEIR EROSION FACTORS (E.G. STEEPNESS OF SLOPES, LENGTH OF SLOPES, ETC):

THE NATURE AND PURPOSE OF LAND DISTURBING ACTIVITIES ON THIS PROJECT IS TO REMOVE AND REPLACE THE IL ROUTE 160 BRIDGE OVER PLUM CREEK (PROPOSED STRUCTURE NO. 095-0006, EXISTING STRUCTURE 095-0077). PROPOSED RIGHT-OF-WAY WILL BE REQUIRED TO ACCOMMODATE RECONSTRUCTION OF THE BRIDGE AND THE ROADWAY APPROACHES. THERE ARE NO SCHEDULED NEIGHBORING ACTIVITIES THAT WILL AFFECT THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND NO OFF-SITE LAND DISTURBING ACTIVITIES.

ORION SILT LOAM (3415) HAS EROSION CHARACTERISTICS. GRADING ON BOTH SIDES OF THE STRUCTURE, SLOPE STEEPNESS AND LENGTH VARY FROM 1:2.5 TO 1:3 AND 4' TO 35' RESPECTIVELY.

PLAN	DATE
BY	
CHECKED	
NOTED	
FILED	

12/7/2007  
 12:17:2007  
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STORM WATER POLLUTION PREVENTION PLAN**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

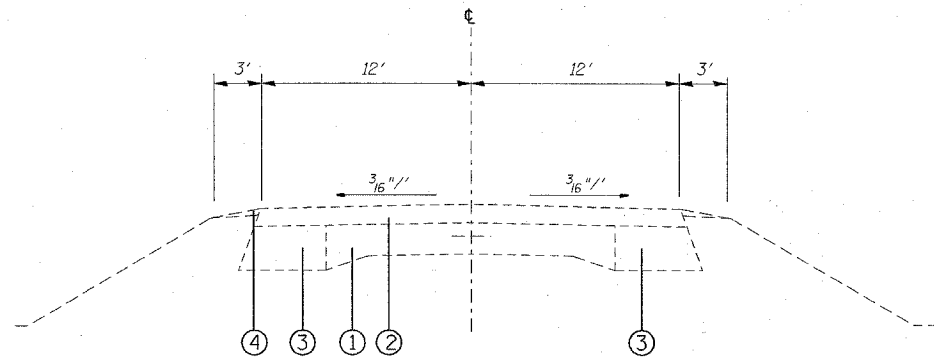
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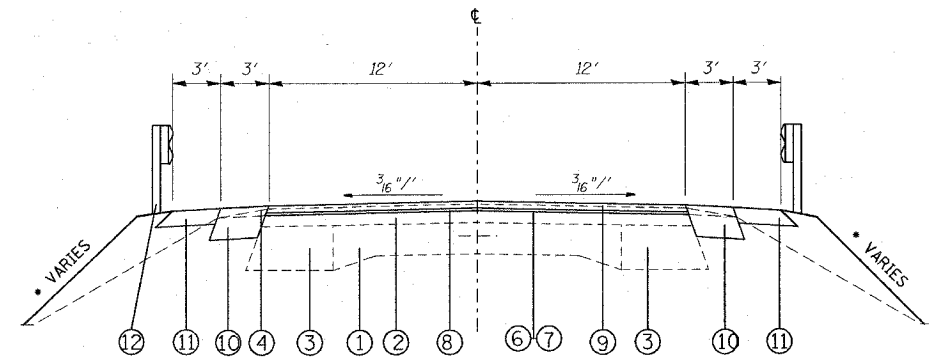
PLOT DATE: 12/7/2007



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	10
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

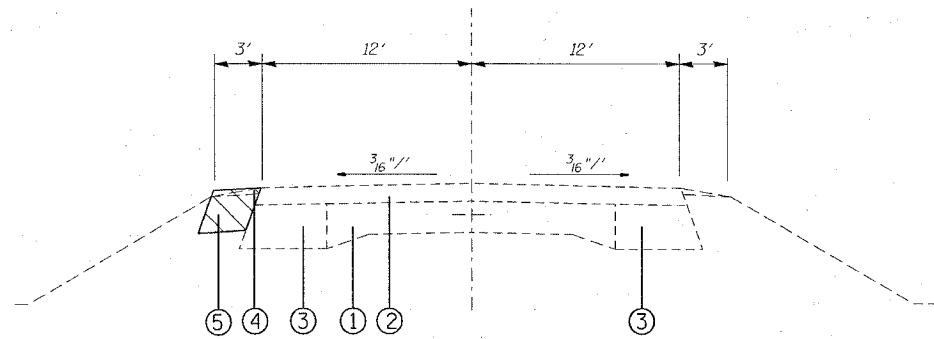


**EXISTING TYPICAL SECTION**  
STA. 1449+25.00 TO STA. 1457+50.00



**PROPOSED TYPICAL SECTION**  
STA. 1449+25.00 TO STA. 1457+50.00

• SEE CROSS SECTIONS



**PROPOSED TYPICAL SECTION**  
STA. 1449+25.00 TO STA. 1457+50.00 - LT



REMOVAL

**LEGEND**

- ① EXISTING P.C.C. PAVEMENT 9-6-9
- ② EXISTING BITUMINOUS OVERLAY 6" (±)
- ③ EXISTING BASE COURSE WIDENING 8"
- ④ EXISTING AGGREGATE SHOULDERS
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 9"
- ⑥ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑦ PROPOSED AGGREGATE (PRIME COAT)
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 3/4" TO 16")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, 1 1/2"
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDER, 8 "
- ⑪ PROPOSED AGGREGATE SHOULDER, TYPE B 6"
- ⑫ PROPOSED GUARDRAIL

**MIXTURE REQUIREMENTS**

MIXTURE USE	SURFACE	BINDER	WIDENING COURSE	INCIDENTAL SURF	SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 58-22
RAP % (MAX)	10%	15%	15%	10%	30%
DESIGN AIR VOIDS	4.0% @ Ndes= 70	4.0% @ Ndes= 70	4.0% @ Ndes= 70	4.0% @ Ndes=70	2.0% @ Ndes=30
MIX COMPOSITION (GRADATION MIXTURE)					
FRICTION AGG	MIXTURE "D"	MIXTURE "B"	MIXTURE "B"	MIXTURE "C"	BAM

PLAN QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN (59.8 KG/SQ M/25 MM THICKNESS).

S.N. 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TYPICAL SECTIONS**  
**MIXTURE REQUIREMENT**

FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	11
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				

RESURFACING SCHEDULE

STATION	RT/LT	HOT-MIX ASPHALT BS WIDENING 9" (SQ YD)	AGG. PRIME COAT (TON)	BIT. MAT'L PRIME COAT (TON)	HMA CONC BINDER SUPER, MIX "B" (TON)	HMA CONC SURF CSE., SUPER, MIX "C", N70 (TON)	INCIDENTAL HMA SURF. (TON)	HMA SHOULDERS 8" (SQ YD)	AGG. SHLD TYPE B 6" (SQ YD)	AGG. BASE COURSE TYPE B 6" (SQ YD)
1449+25.00 TO 1450+32.00	RT/LT				11.98					
1449+25.00 TO 1452+49.50	RT									
1449+25.00 TO 1452+83.00	LT	119.33								
1449+25.00 TO 1452+49.50	RT/LT		1.30	0.27		72.69		216.33	216.33	
1450+32.00 TO 1452+49.50	RT/LT				292.32					
1453+47.00 TO 1457+50.00	LT	134.33								
1453+73.50 TO 1457+00.00	RT/LT				341.30					
1453+73.50 TO 1457+50.00	RT									
1453+73.50 TO 1457+50.00	RT/LT		1.51	0.31		84.34		251.00	251.00	
1455+97.90	PE RT						5.08			45.33
1457+00.00 TO 1457+50.00	RT/LT				5.60					
TOTAL		253.67	2.80	0.58	651.21	157.03	5.08	467.33	467.33	45.33

GUARDRAIL SCHEDULE

STATION	RT/LT	SPBGR (FT)	TBT - T1 (SPECIAL) (EA)	TBT - T6 (EA)	GUARDRAIL MRKS TY-A (EA)	BI-DIREC PRISM BARR REFLEC (EA)
1450+50.50 TO 1452+81.75	RT	137.5	1	1	3	
1451+38.00 TO 1452+81.75	LT	50	1	1	2	
1452+79.50 TO 1453+43.50	RT/LT					2
1453+42.50 TO 1455+73.75	LT	137.5	1	1	3	
1453+42.50 TO 1454+86.25	RT	50	1	1	2	
TOTAL		375	4	4	9	2

TEMPORARY PAVEMENT MARKING SCHEDULE

STATION	RT/LT	STOP BARS	PAVEMENT MARKING			WORK ZONE PVMT REMOVAL (SQ FT)	PVMT MRKG REMOVAL (SQ FT)
			LINE 4" PAVEMENT (FT)	LINE 6" (TEMP. BARR.) (FT)	LINE 24" PAVEMENT (FT)		
1446+78.00	RT	STOP BARS			24	48.0	
1446+78.00 TO 1459+97.00	RT/LT	STAGE 1 & 2	5276.00			1758.7	
1446+78.00 TO 1459+97.00	RT/LT						879.3
1446+78.00 TO 1459+97.00	CL						109.9
1448+48.00 TO 1458+27.00	RT/LT	STAGE 1 & 2		1820			
1455+97.90	ENTRANCE LT	STOP BARS			12.0	24.0	
1459+97.00	LT	STOP BARS			24.0	48.0	
SUB-TOTAL							
TOTAL			5276.0	1820.0	60.0	1878.7	989.3

PIPE CULVERT SCHEDULE

LOCATION					DSFL	USFL	CLASS D TYPE 1 18 INCH (FT)	END SECT. 18 INCH (FT)
FROM	OFFSET	TO	OFFSET	RT/LT				
1456+00.20	29	1456+25.70	29	RT	436.44	436.63	25.5	2
TOTAL							25.5	2

REMOVAL SCHEDULE

LOCATION					PVMT REMOVAL		HMA SURF REMOVAL VAR. DEPTH (SQ YD)	SPBGR (FT)	PIPE CULVERT 18 INCH (FT)
FROM	OFFSET	TO	OFFSET	RT/LT	MAINLINE REMOVAL (SQ YD)	WIDENING REMOVAL (SQ YD)			
1449+25.00		1450+32.00		RT/LT			285.33		
1449+25.00		1452+83.00		LT		119.33			
1451+05.00		1452+82.00		RT				177.00	
1451+80.00		1452+82.00		LT				102.00	
1452+49.50		1453+00.50		RT/LT	136.00				
1453+29.00		1453+73.50		RT/LT	118.67				
1453+47.00		1454+49.00		RT				102.00	
1453+47.00		1455+25.00		LT				178.00	
1453+47.00		1457+50.00		LT		134.33			
1456+00.00	25.5	1456+25.40	24.3	RT					25.50
1457+17.00		1457+50.00		RT/LT			88.00		
TOTAL					254.67	253.66	373.33	559.00	25.50
						508.33			

PAVEMENT MARKING SCHEDULE

STATION	RT/LT	PAVEMENT - THERMOPLASTIC			BRIDGE - POLYUREA T-1		
		4" WHITE LINE (FT)	YELLOW SKIP DASH LINE 4" (FT)	DBL AMBER RSD REFL PMK (EA)	4" WHITE LINE (FT)	YELLOW SKIP DASH LINE 4" (FT)	DBL AMBER RSD REFL PMK (EA)
1446+77.00 TO 1452+49.50	CL		143.125	7			
1446+77.00 TO 1452+49.50	RT/LT	1145					
1452+49.50 TO 1453+73.50	CL					31	2
1452+49.50 TO 1453+73.50	RT/LT				248.00		
1453+73.50 TO 1459+98.00	RT/LT	1249					
1453+73.50 TO 1459+98.00	CL		156.125	8			
SUB-TOTAL		2394.00	299.25	15	248.00	31.00	2
TOTAL			2693.25	15	279		2

S.N. 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	12
STA. _____ TO STA. _____		ILLINOIS FED. AID PROJECT		

TREE REMOVAL SCHEDULE

STATION	OFFSET	RT/LT	6 TO 15 UNITS					OVER 15 UNITS						
1450+57.90	32.5	LT				12								
1450+63.50	30.4	LT			10									
1450+63.50	30.3	LT				12								
1450+63.70	28.7	LT			10									
1450+65.90	32.9	LT	6											
1450+82.69	31.2	LT						20						
1450+98.04	31.3	LT				12								
1451+05.00	32.5	LT			10									
1451+08.90	32.8	LT	6											
1451+12.00	28.1	LT				15								
1451+13.30	28.0	LT				15								
1451+29.70	30.1	LT			10									
1451+38.80	34.2	LT				15								
1451+39.67	42.4	LT							36					
1451+40.50	34.8	LT					24							
1451+51.60	46.3	LT						30						
1451+53.20	31.5	LT			10									
1451+53.77	44.1	LT		8										
1451+54.67	31.9	LT					24							
1451+62.24	41.5	LT						30						
1451+63.48	34.5	LT					24							
1451+68.40	33.1	LT	6											
1451+71.60	33.8	LT			10									
1451+73.03	42.3	LT					18							
1451+80.05	34.9	LT	6											
1451+80.90	33.0	LT	6											
1451+84.40	37.0	LT							36					
1451+85.70	28.6	LT					18							
1452+01.20	41.0	LT		8										
1452+03.85	45.4	LT		8										
1452+16.90	38.9	LT							36					
1452+18.40	30.1	LT					18							
1452+19.17	31.3	LT					18							
1452+19.86	30.8	LT						24						
1452+20.50	46.5	LT	6											
1452+22.70	44.7	LT		8										
1452+27.89	46.4	LT		8										
1452+35.77	40.0	LT				15								
1452+36.50	42.2	LT						24						
1452+40.80	44.0	LT	6											
1452+48.92	39.5	LT	6											
1452+51.23	42.0	LT		8										
1452+53.86	40.2	LT		8										
1452+55.64	36.1	LT						24						
1452+62.53	49.4	LT	6											
1452+66.71	47.5	LT	6											
1452+75.03	31.4	LT			10									
1452+75.60	32.5	LT	6											
1452+81.28	46.7	LT			10									
1452+98.54	26.3	LT		8										
1452+99.00	26.2	LT	6											
1454+04.19	33.3	LT										44		
1454+04.64	30.8	LT				15								
1454+06.74	32.6	LT						24						
1454+13.04	31.0	LT	6											
1454+19.94	33.3	LT					18							
1456+85.80	33.0	LT				15								
1457+23.60	30.3	LT											50	
1457+43.90	34.1	LT		8										
SUB-TOTAL			78	72	80	36	90	90	20	168	60	108	44	50
TOTAL			356					540						

SEEDING SCHEDULE

STA	STA	AREA (SQ FT)	SEEDING CLASS 2 (ACRE)	SEEDING CLASS 1 (ACRE)	NITROGEN FERT. NUTR (POUND)	PHOSPHORUS FERT. NUTR (POUND)	POTASSIUM FERT. NUTR (POUND)	MULCH METHOD 1 (ACRE)
1449+25.00 TO 1457+50.00	LT	6370	0.15		13.16	13.16	13.16	0.15
1449+25.00 TO 1452+79.50	RT	2952		0.1	6.10	6.10	6.10	0.07
1455+92.00 TO 1458+00.00	RT	2113		0.1	4.37	4.37	4.37	0.05
1449+25.00 TO 1457+50.00	RT	9568	0.22		19.77	19.77	19.77	0.22
TOTAL			0.37	0.20	43.40	43.40	43.40	0.49

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 1449+25.00 TO STA. 1452+79.50	197.3	147.9	668.1	-520.2
STA. 1453+43.50 TO STA. 1457+50.00	401.3	301.0	435.0	-134.1
TOTAL	598.6	448.9	1103.1	-654.3

EARTHWORK SCHEDULE (WIDENING)

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 1449+25.00 TO STA. 1452+83.00	30.5	22.9	0.0	22.9
STA. 1453+47.00 TO STA. 1457+50.00	34.3	25.7	0.0	25.7
TOTAL	64.8	48.6	0.0	48.6

ROW MARKERS SCHEDULE

STATION	LOCATION		ROW MARKERS (EA)
	SIDE	OFFSET	
1449+00.00	29.11	L+	1
1449+00.00	30.89	R+	1
1449+50.00	50.89	R+	1
1450+00.00	39.11	L+	1
1451+00.00	39.12	L+	1
1451+50.00	54.13	L+	1
1453+00.00	54.14	L+	1
1453+50.00	39.14	L+	1
1457+50.00	50.83	R+	1
1458+00.00	30.83	R+	1
1458+00.00	39.17	L+	1
1458+00.00	29.17	L+	1
TOTAL			12

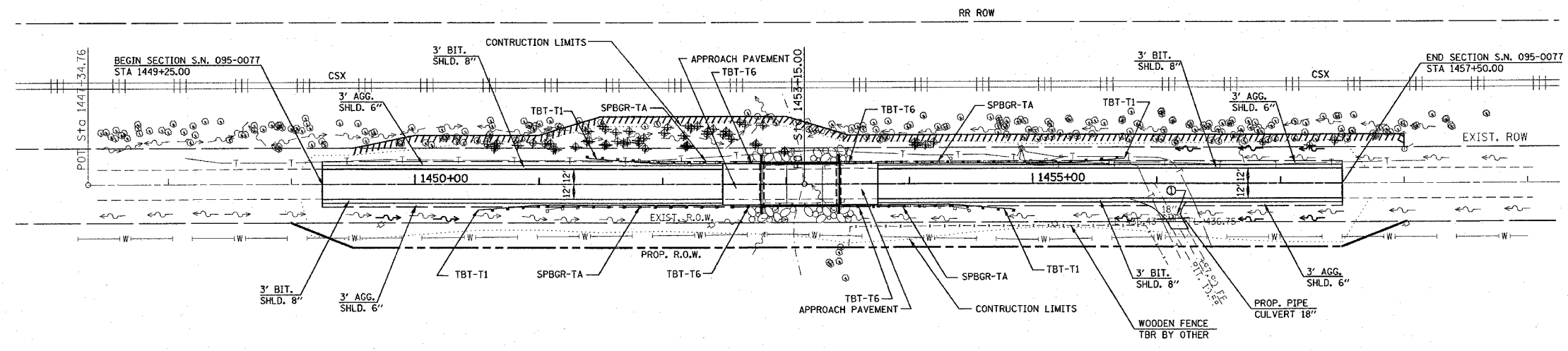
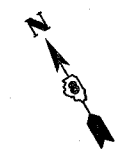
S.N. 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

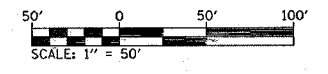
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 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	13
STA. 1448+00.00		TO STA. 1459+00.00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		



NOTE: PRAIRIE REMNANT IS LOCATED ON THE NORTH SIDE OF THE PROJECT AND EXTENDS FROM THE EDGE OF SHOULDER TO THE EVANSVILLE WESTERN RAILWAY RAILROAD TRACKS. NO VEHICLES ARE TO BE PARKED ON THE NORTH SIDE OF THE PROJECT.

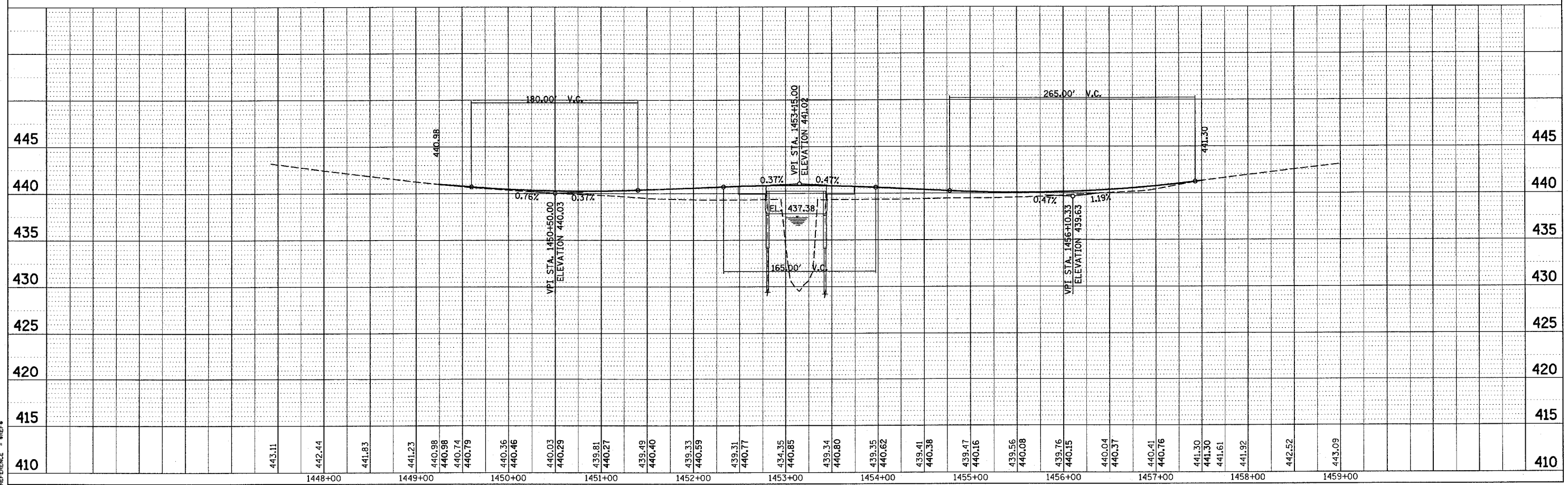
LEGEND  
 ○ - 18" CMP TO BE REMOVED  
 ⊕ TREE REMOVAL



PLAN	BY	DATE
REVISIONS		
ALIGNED CHECKED		
NOTE BOOK NO.		
DATE FILED		
NO.		

PROFILE	BY	DATE
REVISIONS		
GRADES CHECKED		
NOTE BOOK NO.		
DATE FILED		
NO.		

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S.N. 095-0077

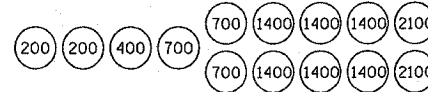
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	14
STA. 1444+00.00		TO STA. 1450+00.00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

**PRE-STAGE I CONSTRUCTION:**

- PRE-STAGE I CONSTRUCTION SHALL CONSIST OF THE CONSTRUCTION OF THE 3' PAVEMENT WIDENING ON THE NORTHEAST AND NORTHWEST CORNERS OF THE STRUCTURE. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION, STANDARD 701326.

**STAGE I CONSTRUCTION:**

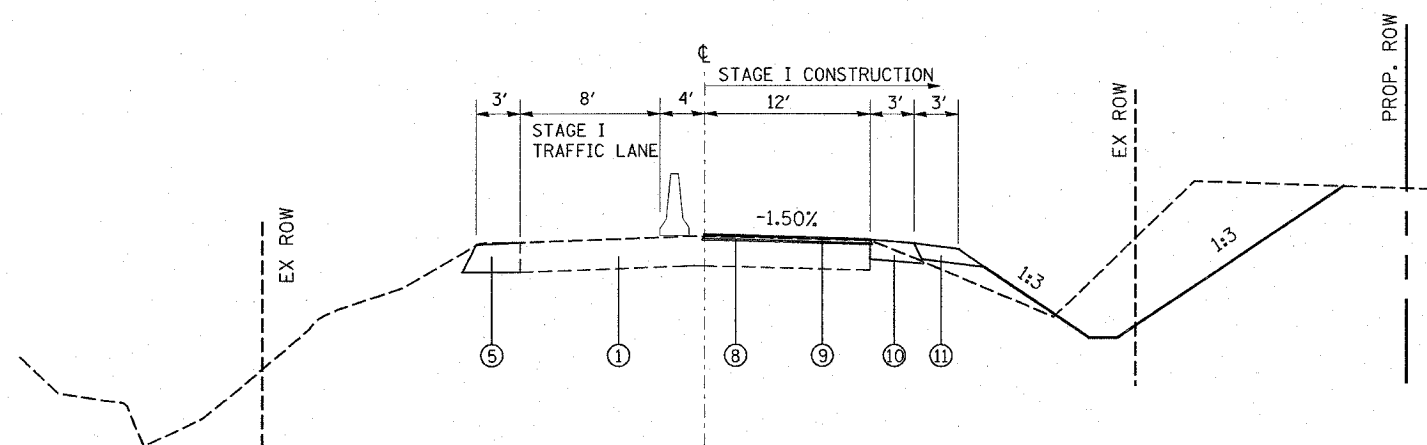
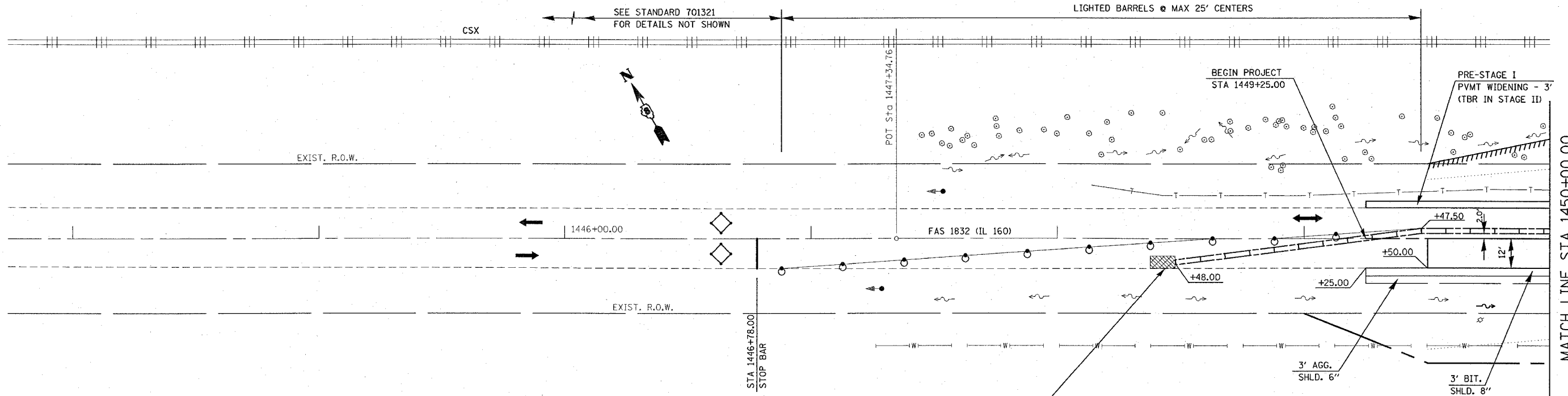
- STAGE I CONSTRUCTION SHALL CONSIST OF STAGE I REMOVAL OF THE EXISTING STRUCTURE, AND STAGE I CONSTRUCTION OF THE REPLACEMENT STRUCTURE, PAVEMENT REMOVAL, PAVEMENT WIDENING ON THE LEFT, GRADING, RESURFACING THE EAST AND WEST SIDES OF THE STRUCTURE, GUARDRAIL, RIPRAP, ETC. STAGE I CONSTRUCTION SHALL BE DONE ACCORDING TO STAGE CONSTRUCTION AS DETAILED IN THE BRIDGE PLANS. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARD 701321 AND AS DETAILED IN THE STAGE CONSTRUCTION PLANS. THIS TRAFFIC CONTROL SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION 701321 (SPECIAL).



SAND MODULE IMPACT ATTENUATOR LAYOUT (IF OPTION USED)

**NOTES:**

- THE CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE AND FIELD ENTRANCES LOCATED WITHIN THE LIMITS OF THE PROJECT.
- TRAFFIC CONTROL & PROTECTION, STANDARD 701321 (SPECIAL) INCLUDES BOTH STAGE I & II AND ANY ADDITIONAL SIGNING OR TRAFFIC CONTROL DEVICES SHOWN ON THE STAGE CONSTRUCTION PLANS.
- ALL ADDITIONAL TRAFFIC SIGNAL HEADS, LOOP DETECTORS AND ASSOCIATED EQUIPMENT REQUIRED TO MAINTAIN ACCESS AT THE FIELD AND DRIVEWAY ENTRANCES SHALL BE INCLUDED IN THE COST OF "TEMPORARY BRIDGE TRAFFIC SIGNALS"
- THE COST OF "BARRICADES, TYPE III" SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
- ALL SIDEROADS AND ENTRANCES WITHIN TRAFFIC CONTROL SHALL HAVE "NO RIGHT ON RED" AND "STOP HERE ON RED" SIGNS. THE COST SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".



STAGE I TYPICAL SECTION  
STA. 1449+25.0 TO STA. 1450+50.0  
(NTS)

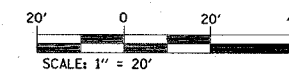
**LEGEND**

- ① EXISTING PAVEMENT
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- ⑪ PROPOSED AGGREGATE SHOULDER 6"

**LEGEND:**

- [Hatched Box] STRUCTURE REMOVAL
- [Diagonal Lines Box] PAVEMENT REMOVAL
- [Dashed Line] TEMPORARY CONCRETE BARRIER
- [Cross-hatched Box] IMPACT ATTENUATOR
- [Diamond] INDUCTION LOOP DETECTOR
- [Drum with Light] DRUM WITH STEADY BURNING LIGHT
- [Arrow] SIGNALIZED TWO-WAY TRAFFIC LANE
- [Signal Head] TEMPORARY BRIDGE TRAFFIC SIGNAL
- [Barricade] TYPE III BARRICADE

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 1 EACH



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUGGESTED STAGE I CONSTRUCTION**  
S.N. 095-0077  
FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY

SCALE: VERT. DATE  
HORIZ. DATE  
DRAWN BY  
CHECKED BY

SN 095-0077

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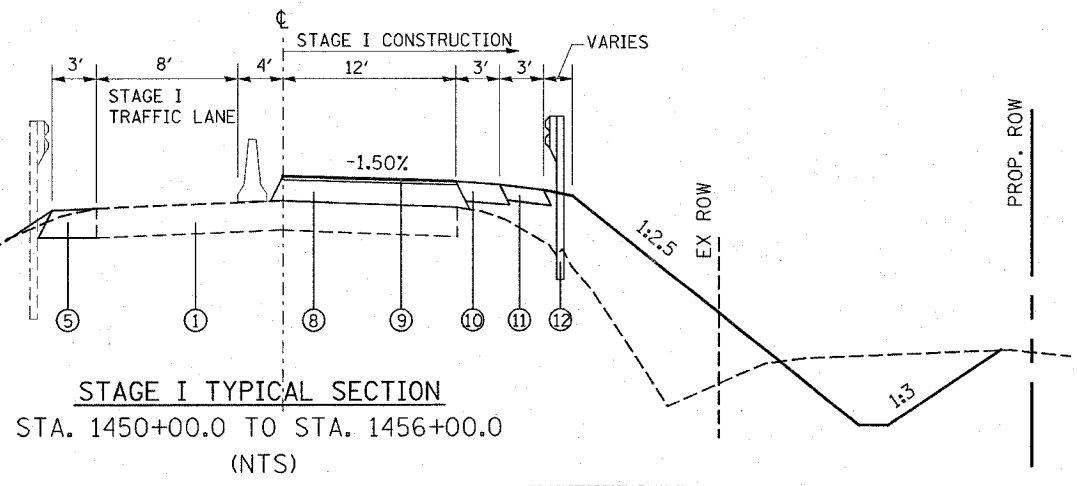
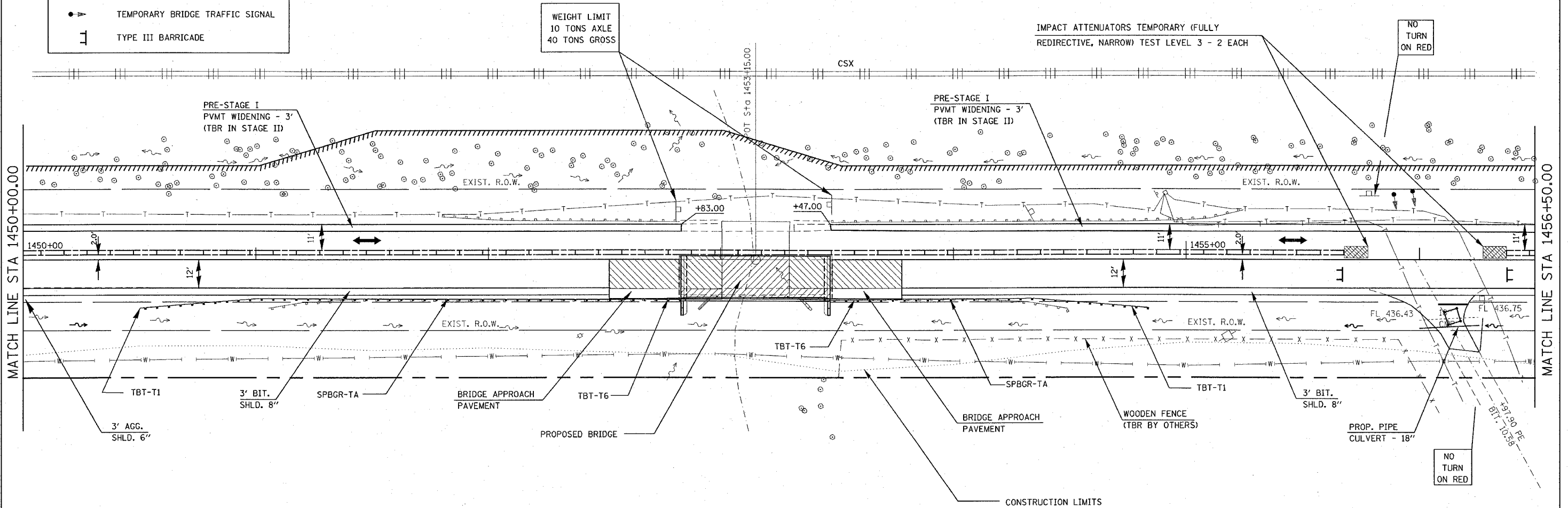
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	15
STA. 1450+00.00		TO STA. 1456+50.00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

**LEGEND:**

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

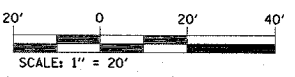
**NOTES:**

1. THE COST OF "WEIGH LIMIT 10 TONS AXLE 40 TONS GROSS" SIGN SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL).
2. THE CONTRACTOR SHALL PLACE 1 SIGN EACH SIDE OF BRIDGE, DURING STAGE I ONLY



**LEGEND**

- ① EXISTING PAVEMENT
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- ⑪ PROPOSED AGGREGATE SHOULDER 6"
- ⑫ PROPOSED GUARDRAIL
- 



REVISIONS	
NAME	DATE

SN 095-0077

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SUGGESTED STAGE I CONSTRUCTION**

FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_

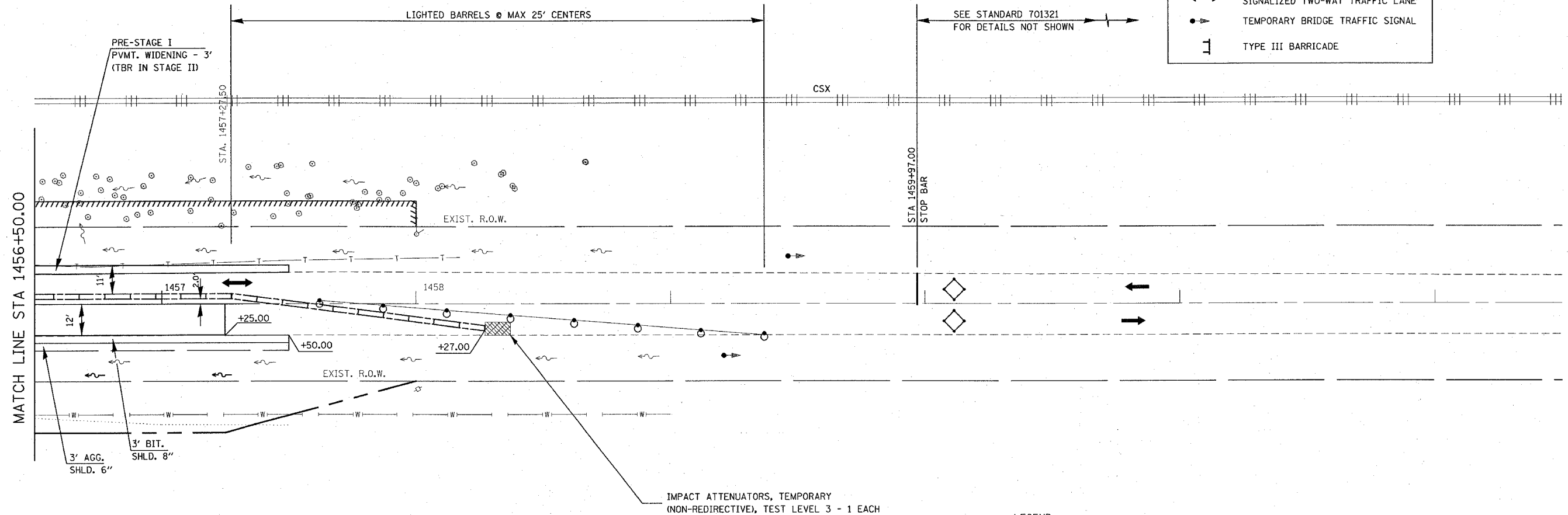
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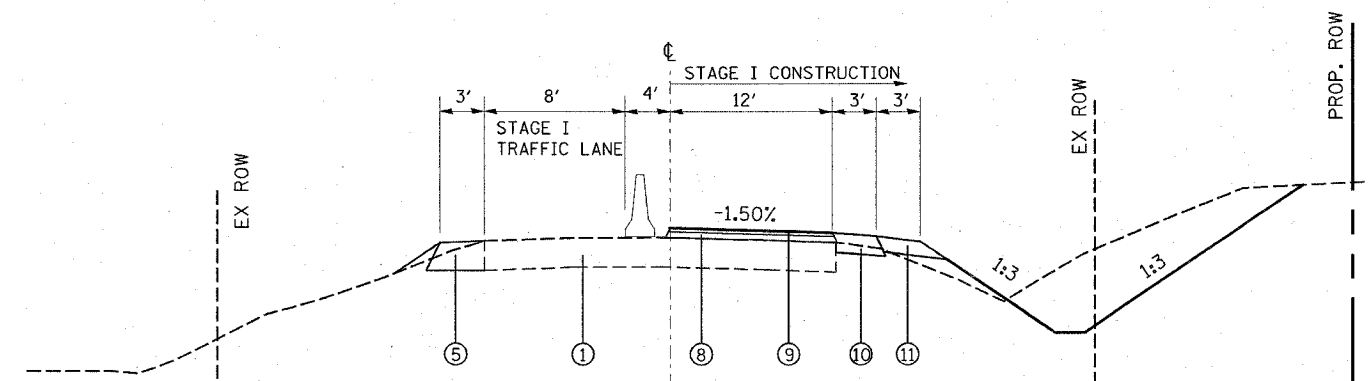
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1832	5BR-2	WASHINGTON	97	16
STA. 1456+50.00		TO STA. 1462+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**LEGEND:**

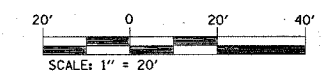
- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE



- LEGEND**
- ① EXISTING PAVEMENT
  - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
  - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
  - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
  - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
  - ⑪ PROPOSED AGGREGATE SHOULDER 6"



**STAGE I TYPICAL SECTION**  
 STA. 1456+50.0 TO STA. 1457+50.0  
 (NTS)



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SUGGESTED STAGE I CONSTRUCTION**

FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_

DATE \_\_\_\_\_

DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

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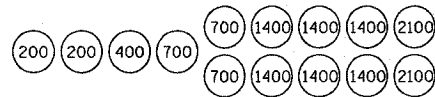
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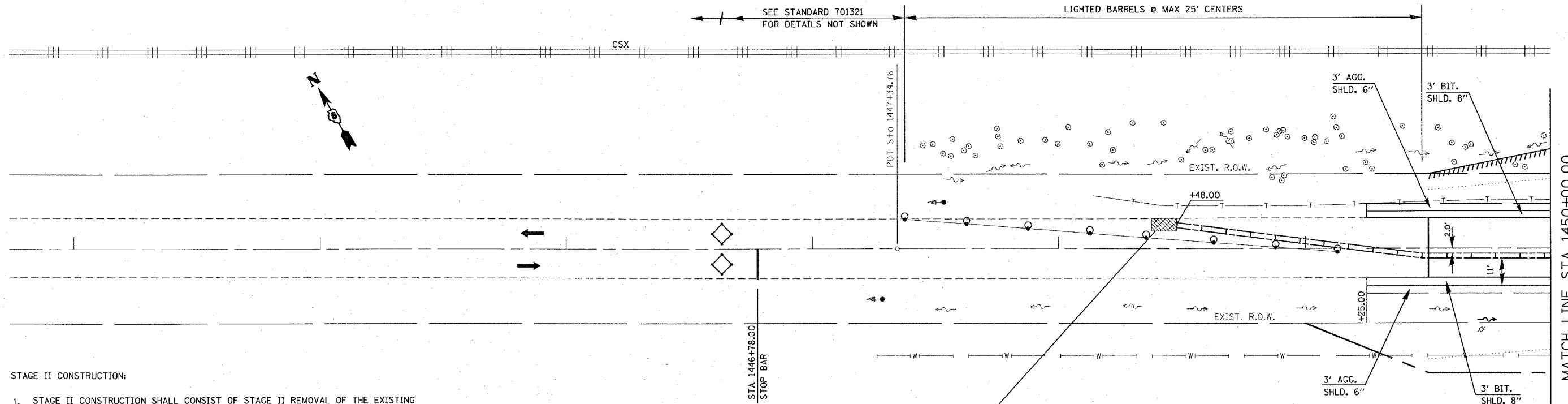
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1832	5BR-2	WASHINGTON	97	17
STA. 1444+00.00		TO STA. 1450+00.00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE AND FIELD ENTRANCES LOCATED WITHIN THE LIMITS OF THE PROJECT.
2. TRAFFIC CONTROL & PROTECTION, STANDARD 701321 (SPECIAL) INCLUDES BOTH STAGE I & II AND ANY ADDITIONAL SIGNING OR TRAFFIC CONTROL DEVICES SHOWN ON THE STAGE CONSTRUCTION PLANS.
3. ALL ADDITIONAL TRAFFIC SIGNAL HEADS, LOOP DETECTORS AND ASSOCIATED EQUIPMENT REQUIRED TO MAINTAIN ACCESS AT THE FIELD AND DRIVEWAY ENTRANCES SHALL BE INCLUDED IN THE COST OF "TEMPORARY BRIDGE TRAFFIC SIGNALS"
4. THE COST OF "BARRICADES, TYPE III" SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
5. ALL SIDEROADS AND ENTRANCES WITHIN TRAFFIC CONTROL SHALL HAVE "NO TURN ON RED" AND "STOP HERE ON RED" SIGNS. THE COST SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".



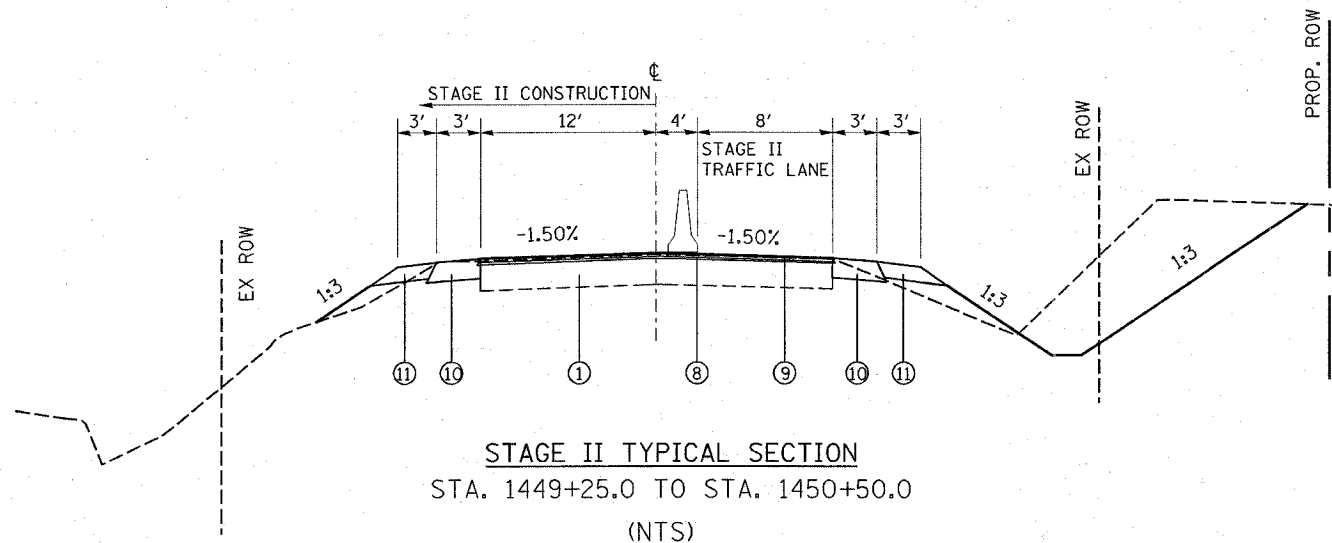
SAND MODULE IMPACT ATTENUATOR LAYOUT  
(IF OPTION USED)



STAGE II CONSTRUCTION:

1. STAGE II CONSTRUCTION SHALL CONSIST OF STAGE II REMOVAL OF THE EXISTING STRUCTURE, AND STAGE II CONSTRUCTION OF THE REPLACEMENT STRUCTURE, REMOVE PRE-STAGE I PAVEMENT WIDENING, PAVEMENT REMOVAL, GRADING, RESURFACING THE LEFT SIDE PAVEMENT EAST AND WEST OF THE STRUCTURE, GUARDRAIL, RIPRAP, ETC. STAGE I & II. CONSTRUCTION SHALL BE DONE ACCORDING TO STAGE CONSTRUCTION AS DETAILED IN THE BRIDGE PLANS. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARD 701321 AND AS DETAILED IN THE STAGE CONSTRUCTION PLANS. THIS TRAFFIC CONTROL SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION 701321 (SPECIAL).

IMPACT ATTENUATORS, TEMPORARY  
(NON-REDIRECTIVE), TEST LEVEL 3 - 1 EACH



STAGE II TYPICAL SECTION  
STA. 1449+25.0 TO STA. 1450+50.0  
(NTS)

LEGEND

- ① EXISTING PAVEMENT
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- ⑪ PROPOSED AGGREGATE SHOULDER 6"

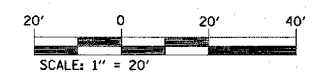
LEGEND:

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

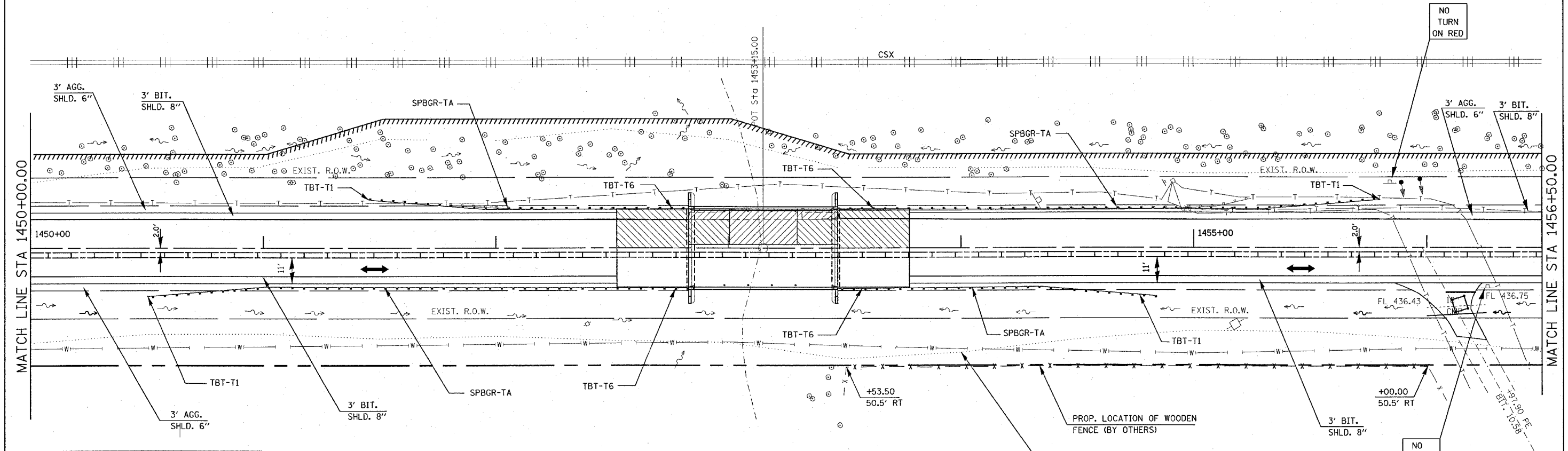
SN 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUGGESTED STAGE II CONSTRUCTION**  
FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY  
SCALE: VERT. / HORIZ.  
DATE  
DRAWN BY  
CHECKED BY



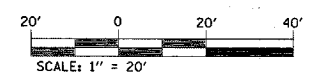
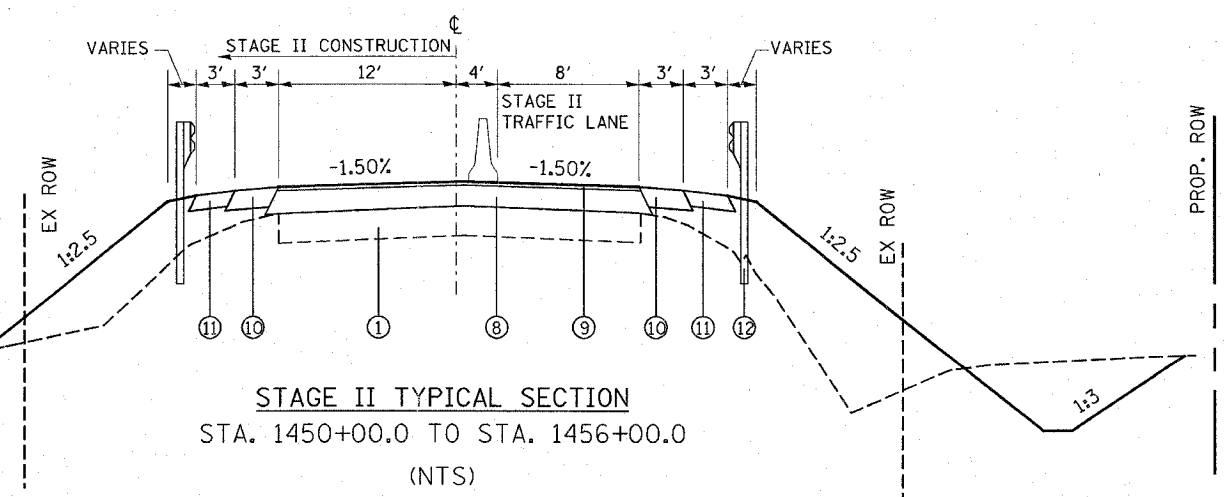
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FILE NAME = c:\prow\mca\prow\1832\plan\stage09105.dgn  
PLOT SCALE = 20,0000' / IN.  
USER NAME = galish



**LEGEND:**

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

- LEGEND**
- ① EXISTING PAVEMENT
  - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
  - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
  - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
  - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
  - ⑪ PROPOSED AGGREGATE SHOULDER 6"
  - ⑫ PROPOSED GUARDRAIL



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUGGESTED STAGE II CONSTRUCTION**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

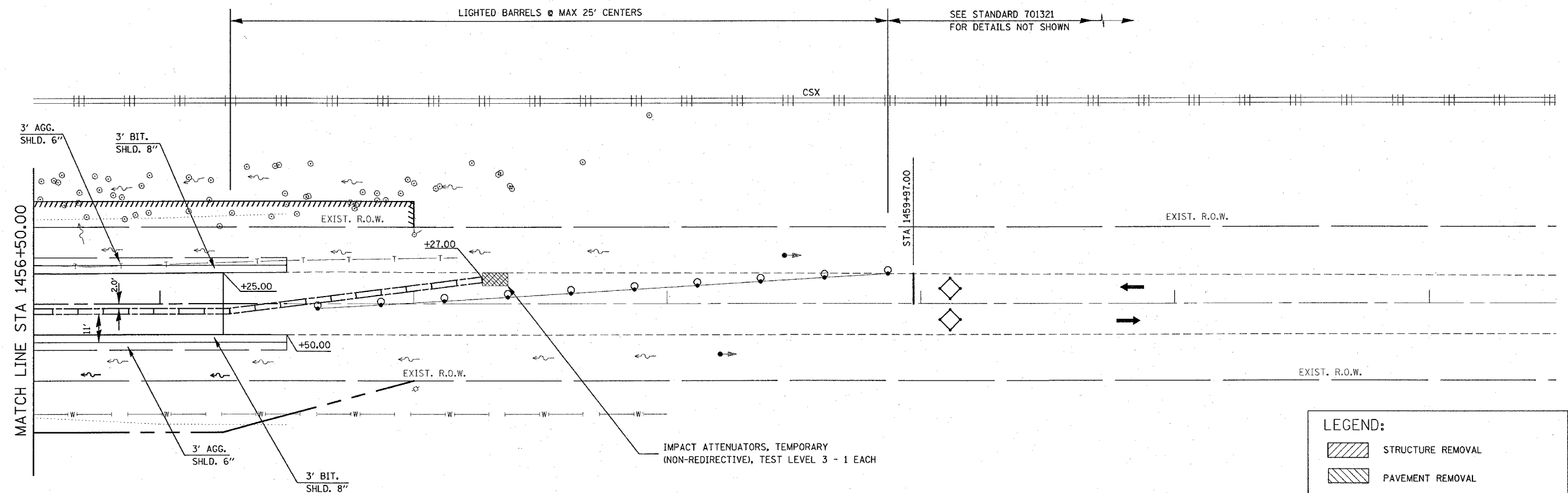
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 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_

DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

PLOT DATE = 12/7/2007  
 PLOT SCALE = 20.0000 / IN.  
 USER NAME = gcljnh

SN 095-0077

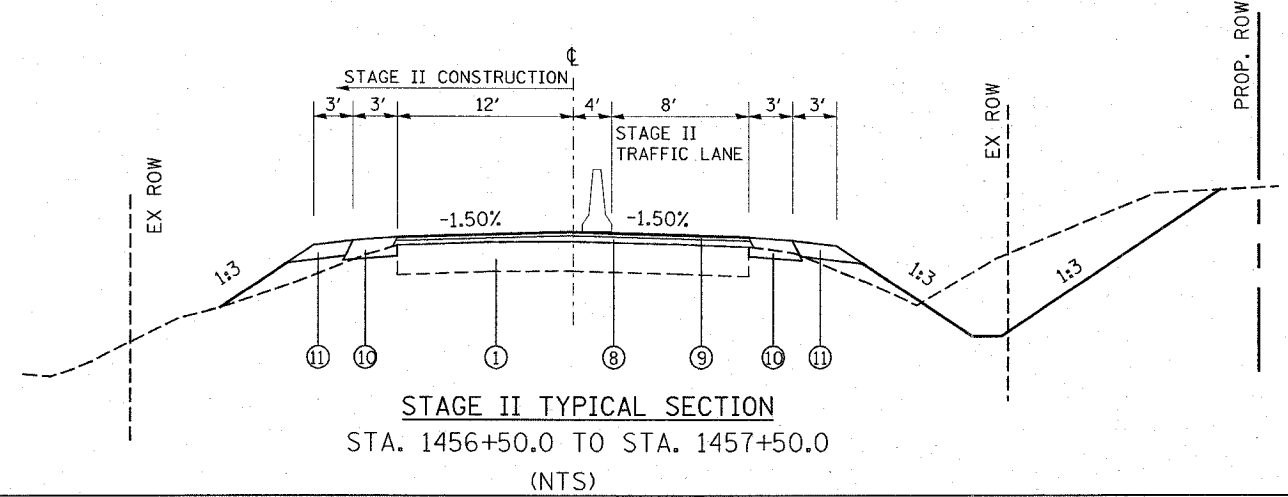
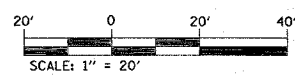
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	19
STA. 1456+50.00		TO STA. 1462+00.00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		



**LEGEND:**

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

- LEGEND**
- ① EXISTING PAVEMENT
  - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
  - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15')
  - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
  - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
  - ⑪ PROPOSED AGGREGATE SHOULDER 6"

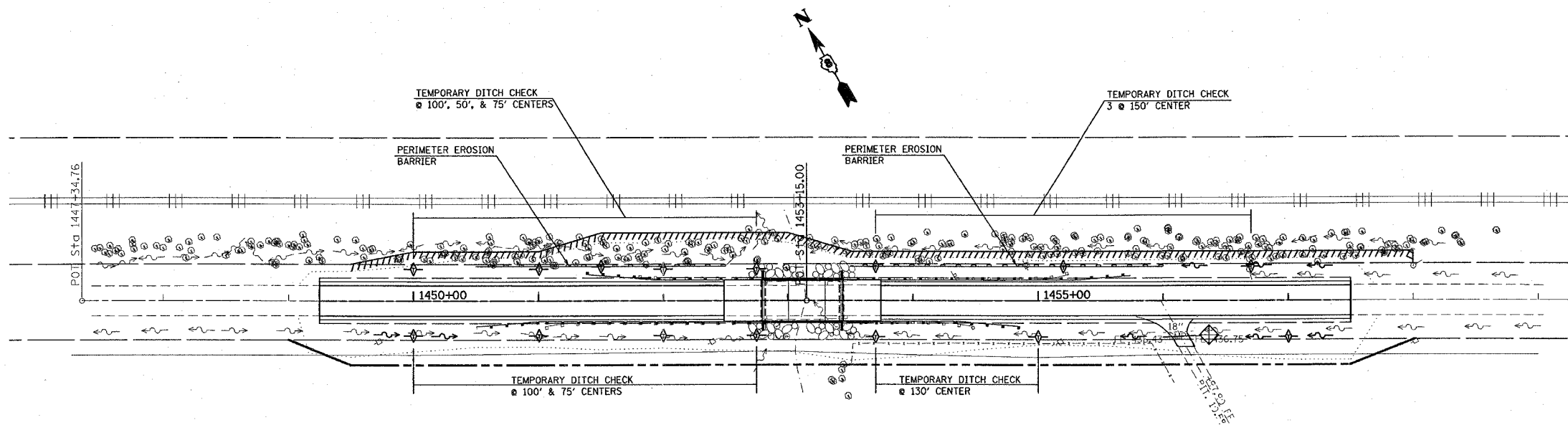


REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p><b>SUGGESTED STAGE II CONSTRUCTION</b></p> <p>FAS ROUTE 1832 SECTION 5BR-2 WASHINGTON COUNTY</p> <p>SCALE: VERT. _____ HORIZ. _____</p> <p>DATE _____ DRAWN BY _____ CHECKED BY _____</p>

SN 095-0077

PLOT DATE = 12/7/2007  
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	20
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				

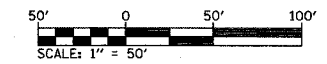


LEGEND

- INLET AND PIPE PROTECTION - STRAW BALES, FILTER FABRIC, AGGREGATES, TREE REMOVAL
- TEMPORARY DITCH CHECK - ROLLED EXCELSIOR, SILT WEDGES/PANELS
- PERIMETER EROSION BARRIER- SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

TEMPORARY EROSION CONTROL SCHEDULE

LOCATION	RT/LT	TEMP. EROSION CONTROL SEEDING (POUND)	MULCH METHOD 1 (ACRE)	PERIMETER EROSION BARRIER (FOOT)	TEMP. DITCH CHECK (EACH)	INLET AND PIPE PROTECTION (EACH)
1449+25.00 TO 1457+50.00	LT	31.50	0.35			
1449+25.00 TO 1457+50.00	RT	39.60	0.44			
1450+00.00 TO 1452+75.00	LT				5	
1450+00.00 TO 1452+75.00	RT				4	
1450+50.00 TO 1452+50.00	LT			200		
1453+50.00 TO 1456+00.00	LT			250		
1453+70.00 TO 1456+70.00	LT				3	
1453+70.00 TO 1457+00.00	RT				3	
1455+97.00	PE					1
TOTAL		71.10	0.79	450	15	1



S.N. 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**EROSION CONTROL PLAN**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY  
 SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

PLOT DATE = 12/7/2007  
 FILE NAME = c:\proje\5br\1832\plan\er091183a.dgn  
 PLOT SCALE = 1/8" = 1' / IN.  
 REFERENCE = #1832

PART OF THE EAST HALF OF SECTION 28, T.1S., R.4W., OF THE 3RD PM, WASHINGTON COUNTY, ILLINOIS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5BR-2	WASHINGTON	97	21

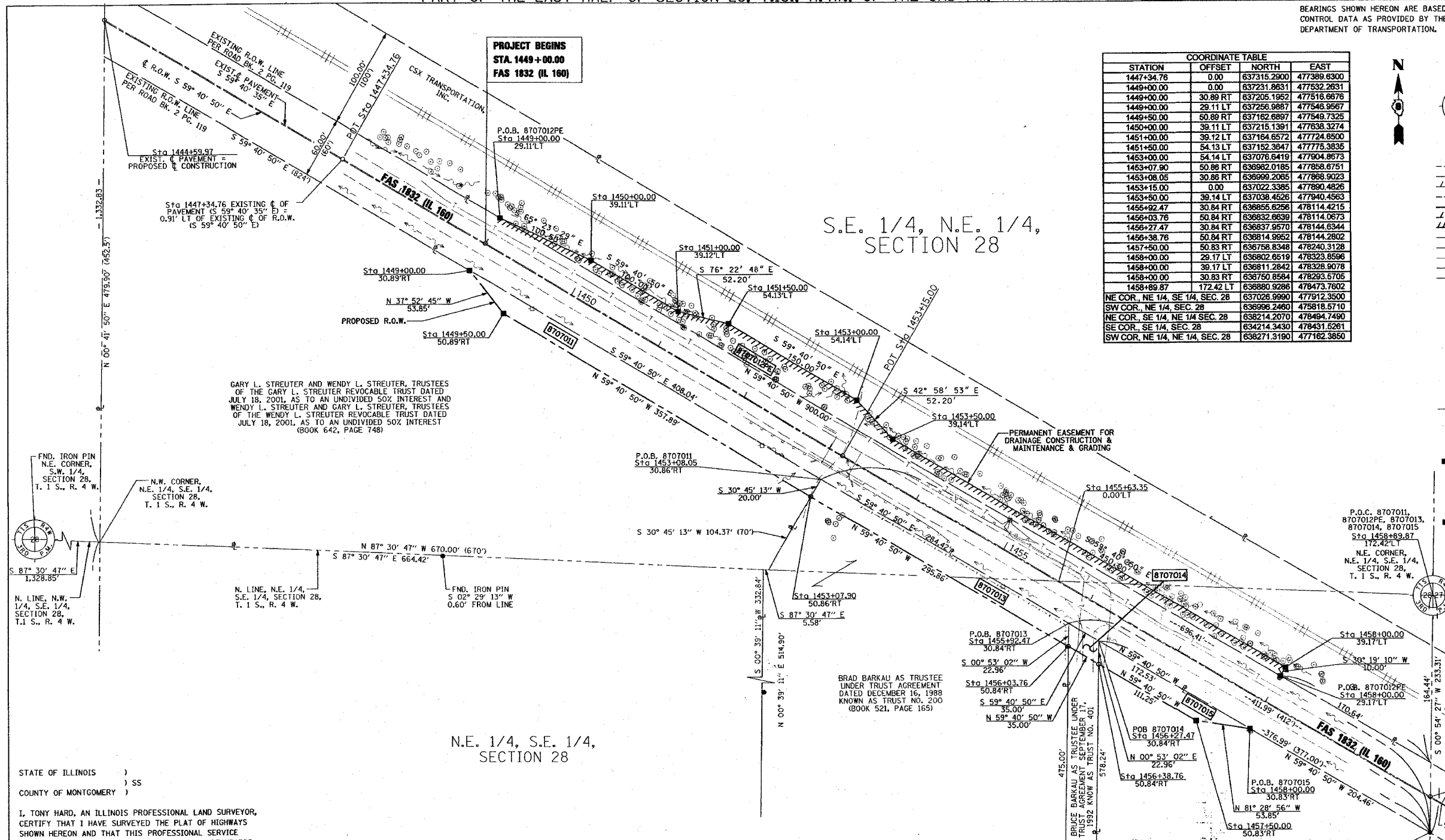
CONTRACT NO.: STA. 1449+00.00 TO STA. 1458+00.00

STATION	OFFSET	NORTH	EAST
1447+34.76	0.00	637315.2900	477389.6300
1449+00.00	0.00	637231.8631	477532.2631
1449+00.00	30.89 RT	637205.1952	477518.6678
1449+00.00	29.11 LT	637256.9887	477546.9567
1449+50.00	50.89 RT	637162.6897	477549.7325
1450+00.00	39.11 LT	637215.1391	477638.3274
1451+00.00	39.12 LT	637164.6572	477724.8500
1451+50.00	54.13 LT	637152.3847	477775.3835
1453+00.00	54.14 LT	637076.6419	477904.8673
1453+07.90	50.86 RT	636982.0185	477858.6751
1453+08.05	30.86 RT	636999.2065	477868.9023
1453+15.00	0.00	637022.3385	477890.4826
1453+50.00	39.14 LT	637038.4526	477940.4563
1456+92.47	30.84 RT	636855.6256	478114.4215
1456+03.76	50.84 RT	636832.6639	478114.0673
1456+27.47	30.84 RT	636837.9570	478144.6344
1456+38.76	50.84 RT	636814.9652	478144.2802
1457+50.00	50.83 RT	636758.8348	478240.3128
1458+00.00	29.17 LT	636802.6519	478323.8598
1458+00.00	39.17 LT	636811.2842	478328.9078
1458+00.00	30.83 RT	636760.8584	478293.5705
1458+89.87	172.42 LT	636880.9286	478473.7602
NE COR., NE 1/4, SE 1/4, SEC. 28		637026.9990	477912.3500
SW COR., NE 1/4, SEC. 28		636998.2460	475818.5710
NE COR., SE 1/4, NE 1/4 SEC. 28		638214.2070	478494.7490
SE COR., SE 1/4, SEC. 28		634214.3430	478431.5261
SW COR., NE 1/4, NE 1/4, SEC. 28		638271.3190	477162.3850

**LEGEND**

- PR PROPOSED
- EX EXISTING
- P.O.L. POINT ON LINE
- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- PROPOSED CENTERLINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED TEMPORARY EASEMENT LINE
- PROPOSED PERMANENT EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORDED DIMENSION
- FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- SET 5/8" IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS)
- CUT CROSS FOUND OR SET
- SAME OWNERSHIP
- EXISTING BUILDING

S.E. 1/4, N.E. 1/4, SECTION 28



NO.	DATE	DESCRIPTION	BY

STATE OF ILLINOIS )  
 COUNTY OF MONTGOMERY ) SS

I, TONY HARD, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCELS TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.



DATED \_\_\_\_\_

TONY HARD, PLS NO. 2953  
 LICENSE EXPIRATION DATE: 11/30/2008

PARCEL NO.	OWNER	TOTAL HOLDING ACRES	GROSS		PREVIOUSLY DEDICATED		NET		REMAINDER ACRES	EASEMENTS		PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
			ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.		FE = PERMANENT	TE = TEMPORARY		
8707011	GARY L. STREUTER AND WENDY L. STREUTER, TRUSTEES OF THE GARY L. STREUTER REVOCABLE TRUST DATED JULY 18, 2001, AS TO AN UNDIVIDED 50% INTEREST AND WENDY L. STREUTER AND GARY L. STREUTER, TRUSTEES OF THE WENDY L. STREUTER REVOCABLE TRUST DATED JULY 18, 2001, AS TO AN UNDIVIDED 50% INTEREST (BOOK 642, PAGE 748)	4.6838	0.1758	7,659					4.5080			12-06-28-200-005	
8707012	CSX TRANSPORTATION, INC.									0.2640	11,500	12-06-28-502-003 12-06-28-502-002	
8707013	BRAD BARKAU AS TRUSTEE UNDER TRUST AGREEMENT DATED DECEMBER 16, 1988 KNOWN AS TRUST NO. 200	3.7993	0.1332	5,803					3.6661			12-06-28-400-008	
8707014	BRUCE BARKAU AS TRUSTEE UNDER TRUST AGREEMENT DATED SEPTEMBER 11, 1992 KNOWN AS TRUST #401	11.8128	0.0161	700					11.7967			12-06-28-400-007	
8707015	BRAD BARKAU AND DEBORAH L. BARKAU, HUSBAND AND WIFE, AS JOINT TENANTS	3.6822	0.0651	2,838					3.6171				

SEE SHEET #4 FOR TOTAL HOLDINGS AND TIES

**McDonough-Whitlow, P.C.**  
 Consulting Engineers & Land Surveyors  
 188 East Wood Street  
 Morrisboro, IL 62049  
 Phone: 217.532.9233  
 Fax: 217.532.6300  
 PROFESSIONAL DESIGN NO. 184-002754

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PLAT OF HIGHWAYS**  
 FAS 1832 (IL 160)  
 SECTION 5BR-2  
 WASHINGTON COUNTY  
 JOB NO. R-98-007-07

STATION 1449+00.00 TO STATION 1458+00.00

SCALE: 1" = 50'

COMPLETION DATE OF FIELD WORK PERFORMED: LAND SURVEY: 3/29/07  
 RIGHT OF WAY STAKING: \_\_\_\_\_

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS/DISTRICT 8  
 1102 EASTPORT PLAZA DRIVE  
 COLLINSVILLE, ILLINOIS 62234-6198

SHEET 1 IS A COVER SHEET

PART OF THE N.E. 1/4 OF THE N.E. 1/4 OF SECTION 34 AND PART OF THE S.E. 1/4 OF SECTION 27, T. 1 S., R. 4 W., OF THE 3RD PM, WASHINGTON COUNTY, ILLINOIS

S.E. 1/4,  
SECTION 27

BEARINGS SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

PG. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	22
STA. 1506+37.55 TO STA. 1514+50.00				
CONTRACT NO.:				

STATION	OFFSET	NORTH	EAST
1506+37.55	29.54 LT	634358.7132	482506.3447
1506+37.56	30.46 RT	634100.1718	482826.1685
1507+50.00	29.54 LT	634299.9478	482803.4118
1508+50.00	44.55 LT	634262.4143	482697.3066
1509+55.29	78.21 RT	634103.2859	482726.2169
1510+02.39	78.21 RT	634079.5082	482766.8760
1510+43.14	30.43 RT	634100.1718	482826.1685
1510+49.50	78.20 RT	634055.7305	482807.5351
1510+80.00	44.57 LT	634146.3060	482895.8485
1510+80.00	0.00	634107.8304	482873.3525
1512+00.00	45.42 RT	634008.0375	482954.0018
1512+11.66	35.60 LT	634072.0902	483004.9725
1513+00.00	29.59 LT	634022.2976	483078.1858
1514+00.00	45.41 RT	633907.0738	483126.6469
1514+50.00	0.00	633921.0257	483192.7284
1514+50.00	30.40 RT	633894.7812	483177.3805
1514+50.00	29.60 LT	633946.5748	483207.6696
1516+90.54	0.00	633799.5817	483400.3583
SE COR, SEC. 27		634050.6010	483694.7200
SW COR, SE 1/4, SEC. 27		634132.4720	481063.1230
SW COR, SE 1/4, SEC. 27		636964.5940	477841.0780



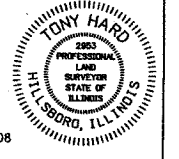
LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- PROPOSED POINT ON LINE
- EXISTING POINT ON LINE
- PROPOSED CENTERLINE
- EXISTING CENTERLINE
- PROPOSED RIGHT OF WAY LINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED EASEMENT LINE
- EXISTING EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORDED DIMENSION
- FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- SET 5/8 INCH IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS)
- CUT CROSS FOUND OR SET
- SAME OWNERSHIP
- EXISTING BUILDING

- STAKING OF PROPOSED RIGHT OF WAY. SET 3/4 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 3/4 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

STATE OF ILLINOIS )  
COUNTY OF MONTGOMERY )

I, TONY HARD, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SURVEY CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PROJECTS TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.



DATED \_\_\_\_\_  
TONY HARD, PLS NO. 2953  
LICENSE EXPIRATION DATE: 11/30/2008

**McDonough-Whitlow, P.C.**  
Consulting Engineers & Land Surveyors  
138 East Wood Street  
Hillsboro, IL 62049  
Phone: 217.532.9233  
Fax: 217.532.6300  
PROFESSIONAL DESIGN NO. 184-002754

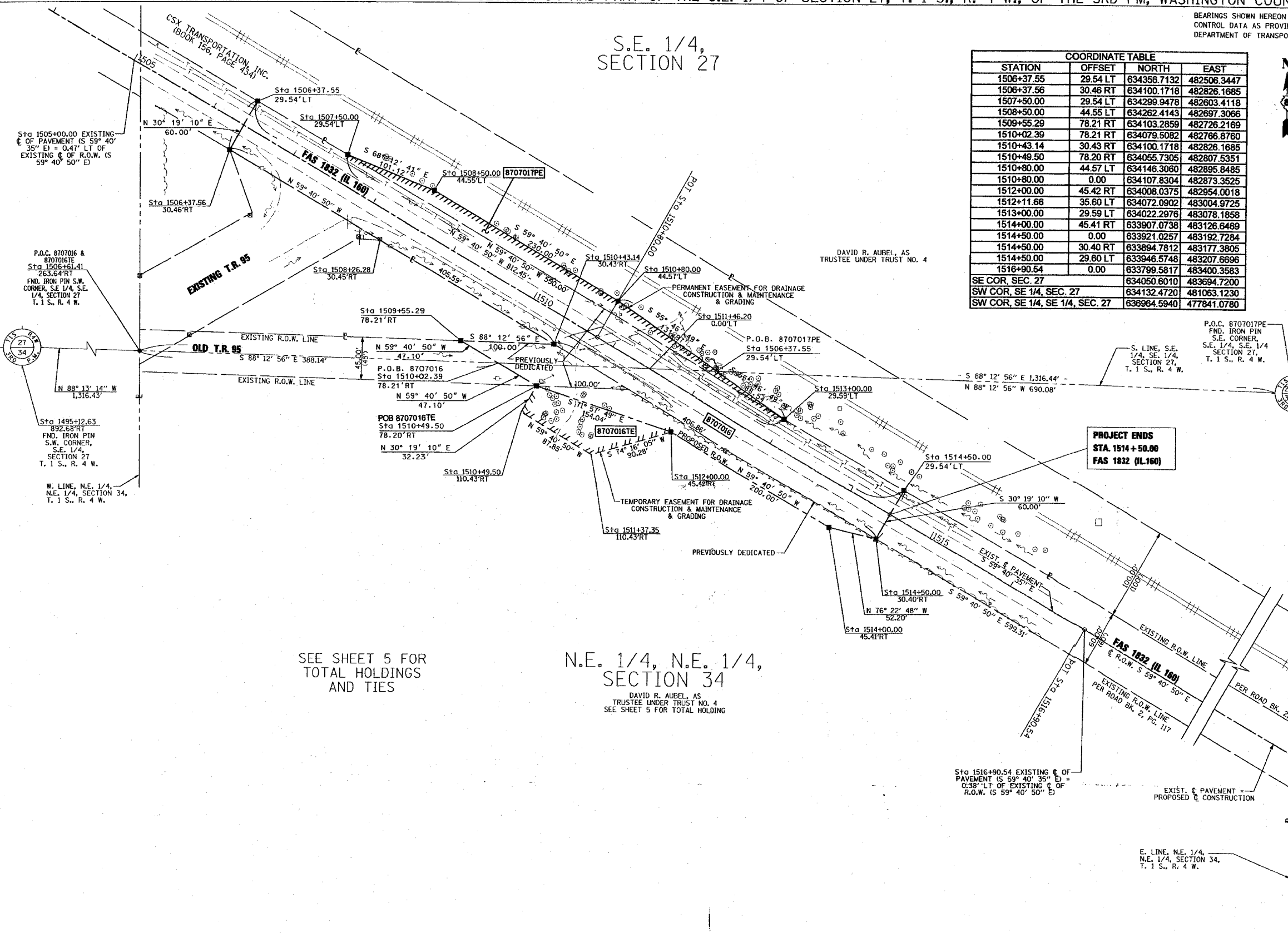
ILLINOIS DEPARTMENT OF TRANSPORTATION  
PLAT OF HIGHWAYS  
FAS RTE 1832 (IL 160)  
SECTION 5BR-2  
WASHINGTON COUNTY  
JOB NO. R-98-007

STATION 1506+37.55 TO STA. 1514+50.00

SCALE: 1" = 50'

COMPLETION DATE OF FIELD WORK PERFORMED \_\_\_\_\_  
LAND SURVEY: 3/29/07  
RIGHT OF WAY STAKING: \_\_\_\_\_

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS/DISTRICT 8  
1102 EASTPORT PLAZA DRIVE  
COLLINGSVILLE, ILLINOIS 62234-6198



SEE SHEET 5 FOR  
TOTAL HOLDINGS  
AND TIES

N.E. 1/4, N.E. 1/4,  
SECTION 34  
DAVID R. AUBEL, AS  
TRUSTEE UNDER TRUST NO. 4  
SEE SHEET 5 FOR TOTAL HOLDING

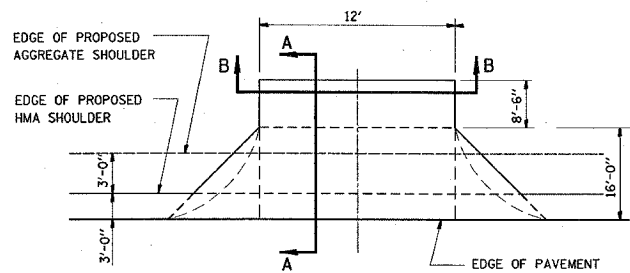
PARCEL NO.	OWNER	TOTAL HOLDING ACRES	FEE SIMPLE ACQUISITION						REMAINDER ACRES	EASEMENTS		PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
			GROSS		PREVIOUSLY DEDICATED		NET			PE = PERMANENT	TE = TEMPORARY		
			ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	ACRES	SQ. FT.		
8707016	DAVID R. AUBEL, AS TRUSTEE UNDER TRUST NO. 4	35.2542	1.3601	59,247	1.2224	53,246	0.1377	6,000	33.8941	0.1212	5,281	12-06-34-200-002	
8707017	CSX TRANSPORTATION, INC.									0.1343	5,850	12-06-27-502-002 12-06-34-502-001	



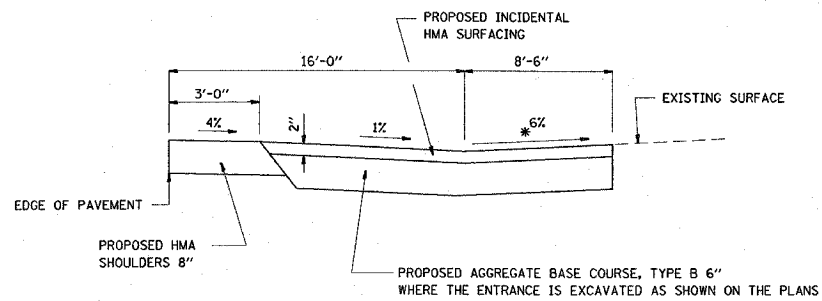
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	23
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT _____		

**DETAIL OF HMA ENTRANCES**

P.E. AT STA. 1455+97.90

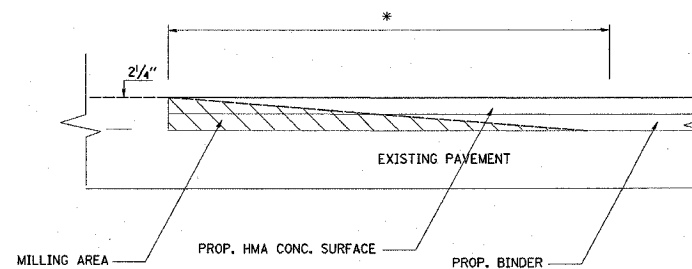


**PLAN**

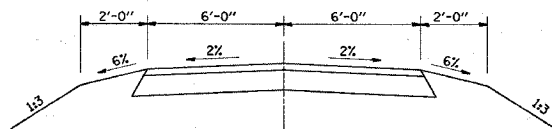


**SECTION A-A WITH POSITIVE GRADE**

\* SEE CROSS SECTIONS FOR SLOPES



**HMA SURFACE REMOVAL DETAIL**  
 \* BEGINNING STA. 1449+25.0 TO STA. 1450+31.88  
 ENDING STA. 1457+19.35 TO STA. 1457+00.00  
 S.N. 095-0077



**SECTION B-B**

PLOT DATE = 10/27/2007  
 FILE NAME = c:\p1\1455+97.90\1455+97.90.dgn  
 PLOT SCALE = 5/8" = 1'-0"  
 REFERENCE = #REF\*

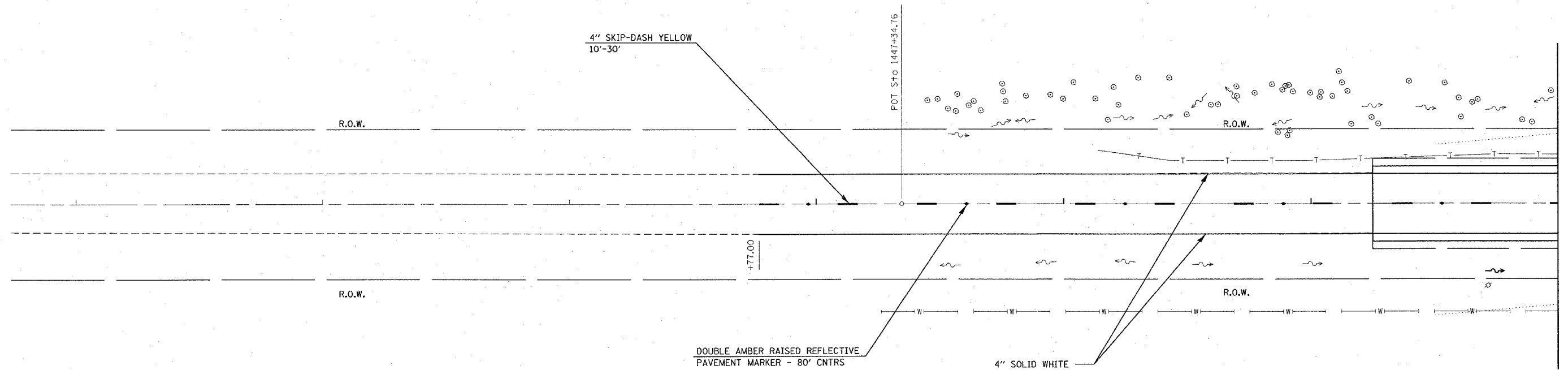
S.N. 095-0077

REVISIONS	
NAME	DATE

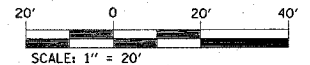
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ENTRANCE DETAILS**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY  
 SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

DRAWING NOT TO SCALE

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	24
STA. 1444+00.00		TO STA. 1450+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



PLOT DATE = 12/7/2007  
 PLOT SCALE = 20.00000 / IN.  
 USER NAME = gclnh



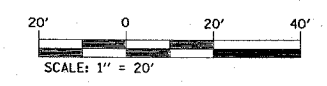
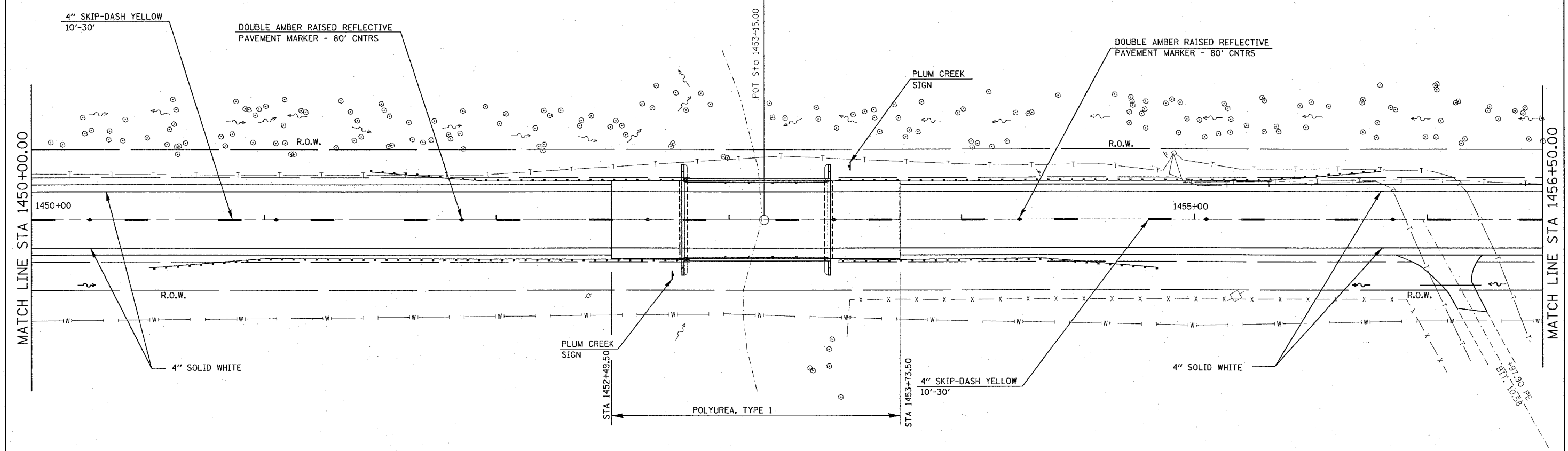
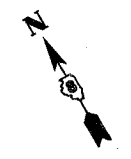
SN 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING PLANS**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. HORIZ.  
 DATE  
 DRAWN BY  
 CHECKED BY

CONTRACT NO. 76949				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	25
STA. 1450+00.00		TO STA. 1456+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SN 095-0077

REVISIONS	
NAME	DATE

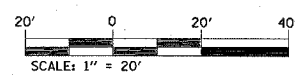
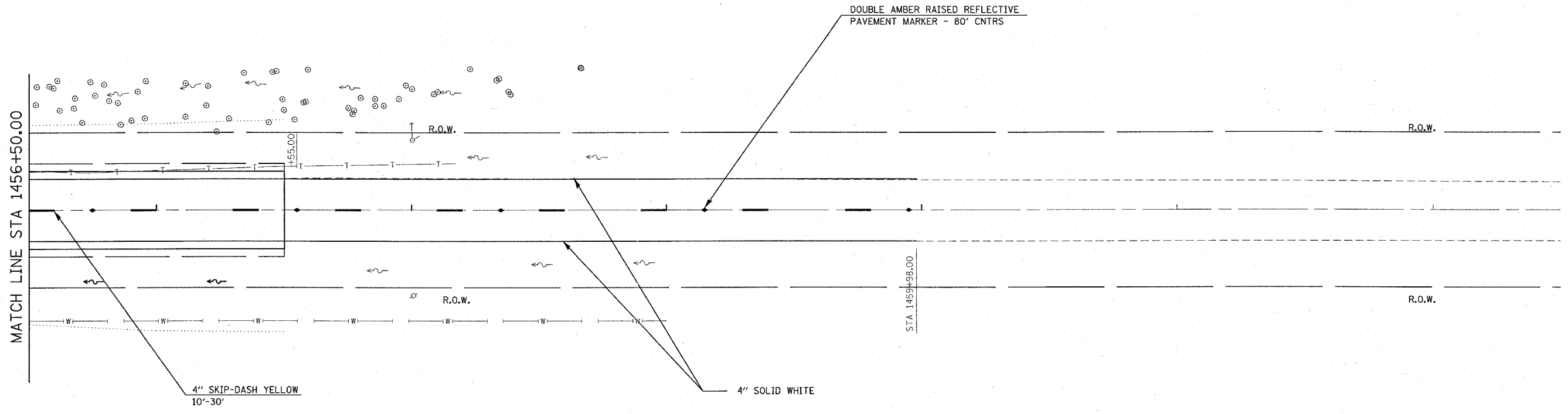
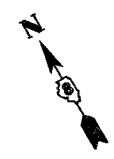
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING PLANS**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_

DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

PLOT DATE = 12/7/2007  
 PLOT SCALE = 1" = 20'  
 USER NAME = gcalish

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	26
STA. 1456+50.00		TO STA. 1462+00.00		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT	



SN 095-0077

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING PLANS**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_

DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

PLT DATE = 12/7/2007  
 FILE NAME = c:\pwork\va\wd\9105\plan\stage6\9105.dgn  
 USER NAME = galrh

Bench Mark: R.R. spike in power pole on the south side of IL. 160, ±440' east of the center of structure 095-0006; Station 1458+02, 32' Rt. Elevation 444.48.

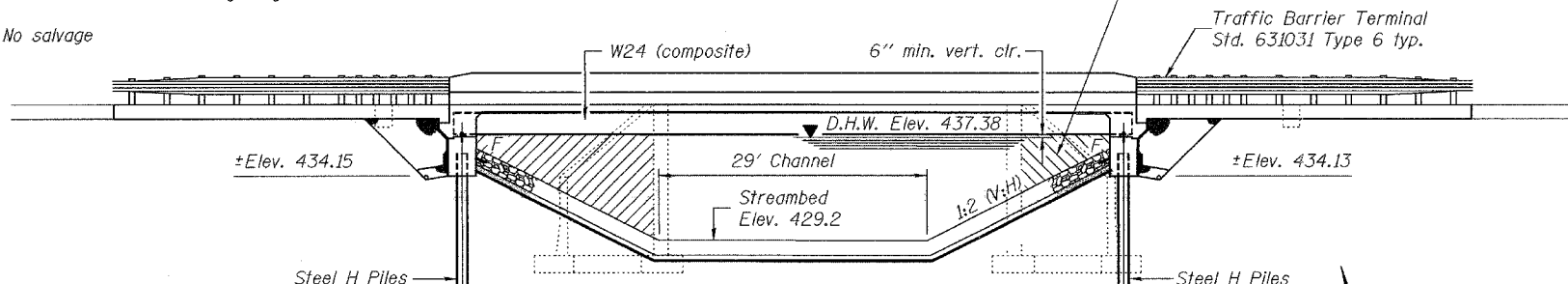
Existing Structure: S.N. 095-0006 Built 1921 as F.A. Route 16, Section 5BR-1 at Station 1453+15.0. A reinforced concrete slab bridge, 33'-0" bk.-to-bk. abutments supported on spread footing. Superstructure replacement & widening in 1971 with PPC deck beams and bituminous wearing surface. Existing bridge to be removed and replaced. Traffic maintained utilizing stage construction.

No salvage

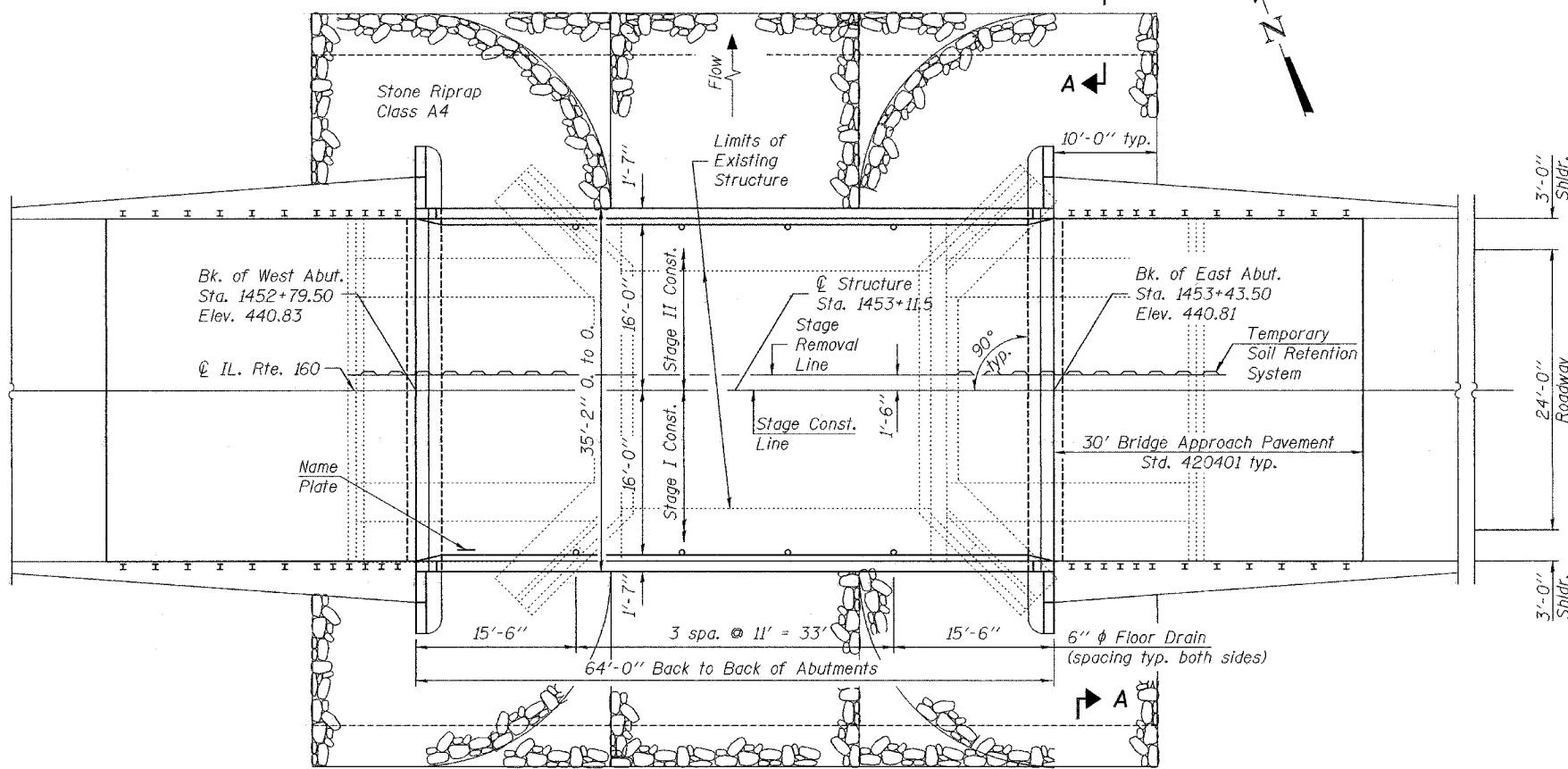
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
F.A.P. 1832	5BR-2	WASHINGTON	97	27	18 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

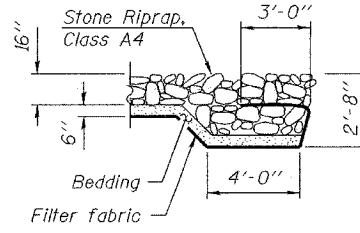
Contract #76949



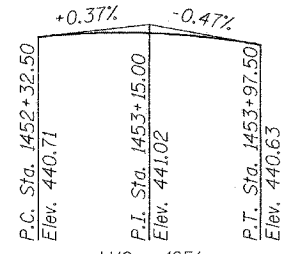
ELEVATION



PLAN



SECTION A-A



PROFILE GRADE  
(F.A.S. Rte. 1832)

DESIGNED	[Signature]
CHECKED	[Signature]
DRAWN	[Signature]
CHECKED	[Signature]

EXAMINED	[Signature]	January 29, 2007
PASSED	[Signature]	



EXPIRES 11-30-2008

DESIGN SCOUR TABLE

Design Scour Elevation	W. Abut.	E. Abut.
	434.15	434.13

WATERWAY INFORMATION

Drainage Area = 1.68 sq. mi. Low Grade Elev. 439.98\* @ Sta. 1455+50\*

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	50	993	189.37	330.47	437.38	0.52	0.46	437.90	437.84
Base	100	1,148	189.37	330.47	437.64	1.08	0.68	438.72	438.32
Exist. Overtop.	185**	1,300	189.37	N/A	437.89	1.41	N/A	439.30	
Max. Calc.	500	1,523	N/A	330.47	437.96	N/A	1.30		439.26
Scour	10	632	168.35	289.84	436.60	0.03	-0.04	436.63	436.56

\*Proposed Condition (Existing Low Grade Elevation: 439.30 ft. @ Sta. 1453+44.76)  
\*\*The Proposed Condition Yielded No Overtopping through the 500-Year Frequency

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 Stage Construction Details
- 3 Temporary Concrete Barrier
- 4-7 Top of Slab Elevations
- 8 Superstructure
- 9 Superstructure Details
- 10 Diaphragm Details
- 11 Structural Steel
- 12 Structural Steel Details
- 13 West Abutment
- 14 East Abutment
- 15 Pile Data
- 16 Cantilever Forming Brackets
- 17 Bar Splicer Details
- 18 Soil Boring Logs

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 3/4 in. φ, holes 15/16 in. φ, unless otherwise noted. Calculated weight of Structural Steel = 59280 lb. 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 No. 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 embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments. Slip forming of the parapets is not allowed. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		86	86
Stone Riprap, Class A4	Sq. Yd.			525
Filter Fabric	Sq. Yd.			525
Removal of Existing Structures No. 1	Each			1
Structure Excavation	Cu. Yd.		140	140
Concrete Structures	Cu. Yd.		28.8	28.8
Concrete Superstructure	Cu. Yd.	88.1		88.1
Bridge Deck Grooving	Sq. Yd.	213		213
Protective Coat	Sq. Yd.	281		281
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1134		1134
Reinforcement Bars, Epoxy Coated	Pound	18200	3760	21960
Bar Splicers	Each	267	18	285
Driving Piles	Foot		245	245
Test Pile Steel, HPI2x53	Each		1	1
Furnishing Steel Piles, HPI2x53	Foot		245	245
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		51	51
Pipe Underdrains for Structures 4"	Foot		138	138
Floor Drains	Each	8		8
Temporary Soil Retention System	Sq. Ft.			364.3
Concrete Encasement	Cu. Yd.		4.2	4.2

STATION BUILT 20 BY STATE OF ILLINOIS F.A.S. RT. 1832 SEC.5BR-2 LOADING HL93 STRUCTURE NO. 095-0077

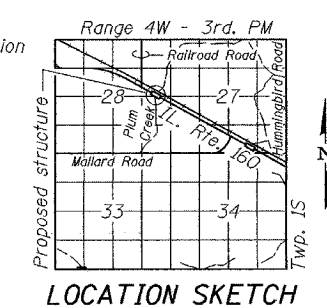
NAME PLATE See Std. 515001

LOADING HL-93 Allow 50#/#sq. ft. for future wearing surface. DESIGN SPECIFICATIONS 2007 LRFD Bridge Design Specifications 4th Edition

DESIGN STRESSES

FIELD UNITS  
f<sub>c</sub>' = 3,500 psi  
f<sub>y</sub> = 50,000 psi (structural steel)  
f<sub>y</sub> = 60,000 psi (reinforcement)

SEISMIC DATA  
Seismic Performance Category (SPC) = 2  
Bedrock Acceleration Coefficient (A) = .11g  
Site Coefficient (S) = 1.5

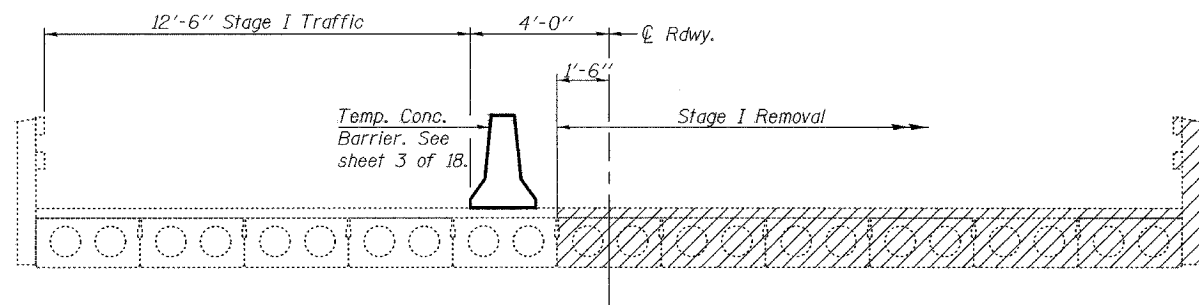


GENERAL PLAN  
IL. RTE. 160 OVER PLUM CREEK  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON CO.  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

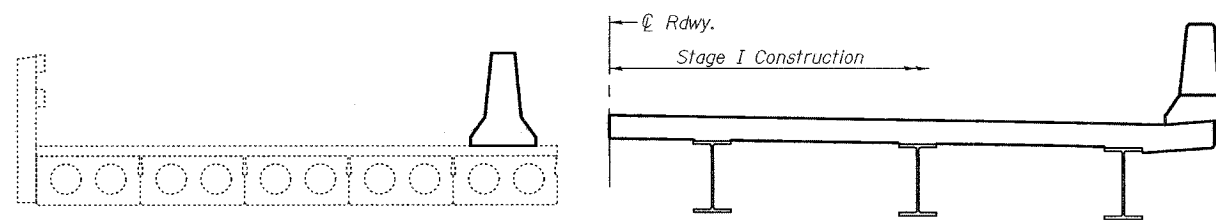
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

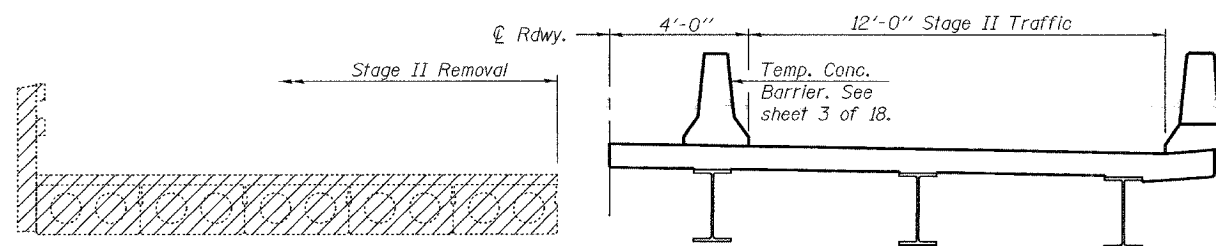
Contract #76949



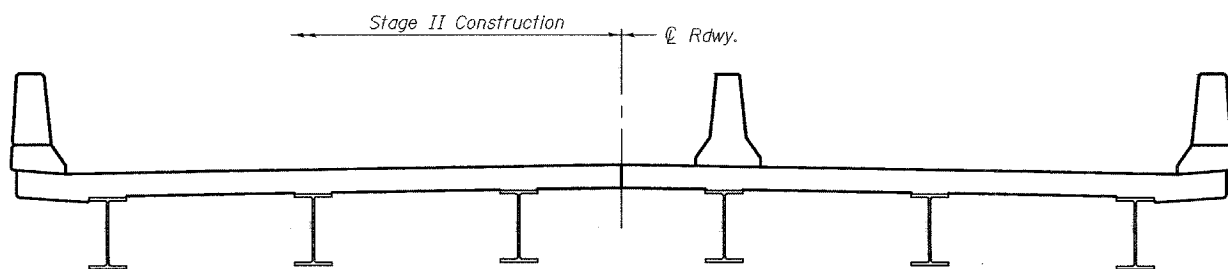
STAGE I REMOVAL



STAGE I CONSTRUCTION

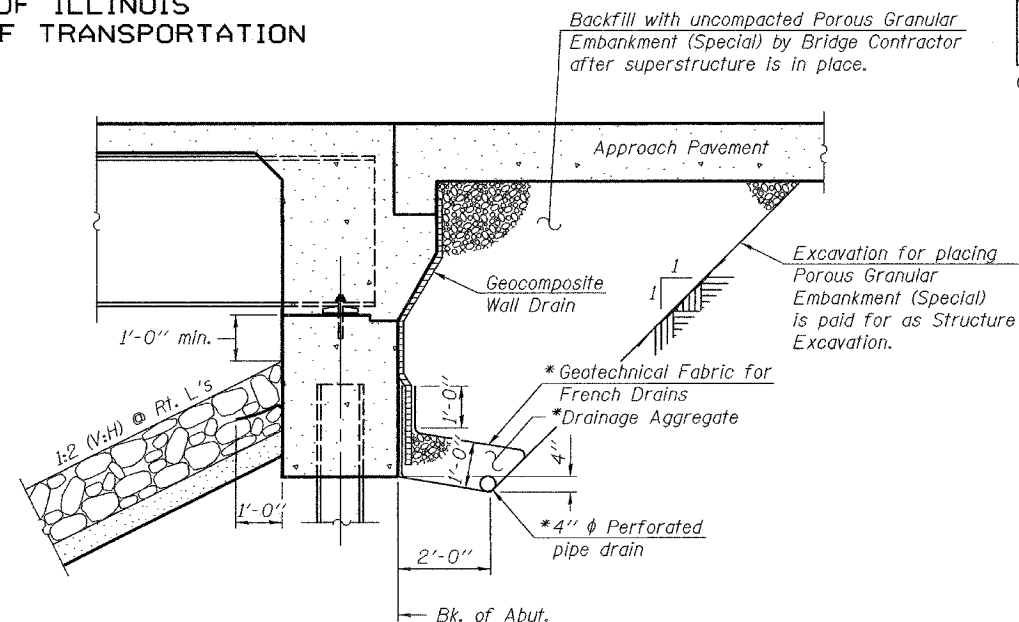


STAGE II REMOVAL



STAGE II CONSTRUCTION

Notes: All staging sections are looking East.  
For quantity of Temporary Concrete Barrier, see Roadway Plans.  
Hatched areas indicate removal of existing structure.



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

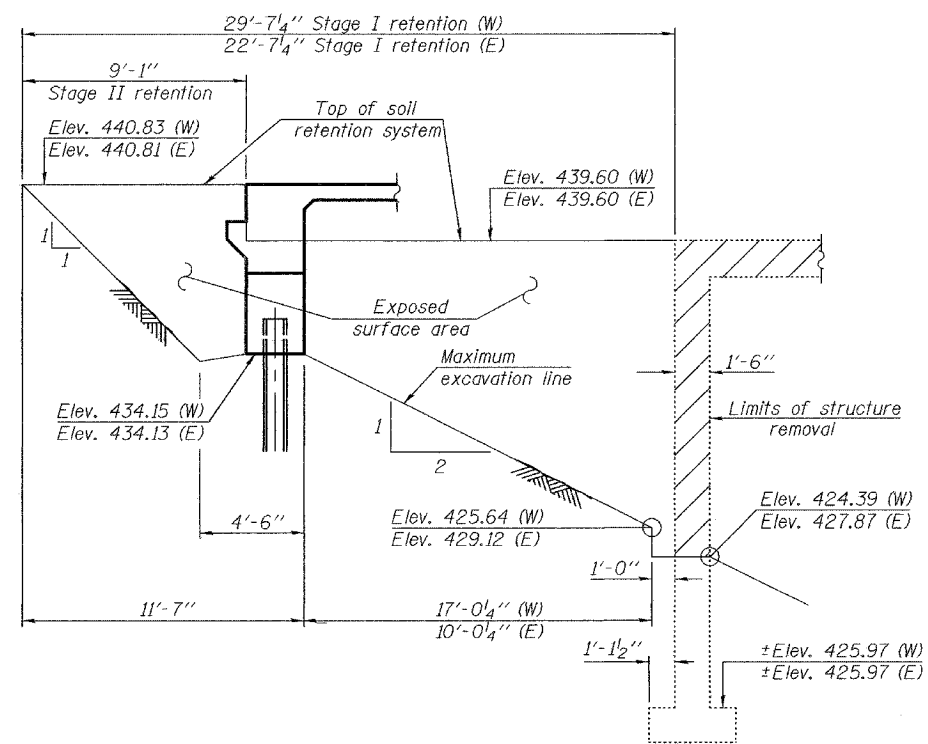
\* Included in the cost of Pipe Underdrains for Structures.

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 601101).

Note:

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



TEMPORARY SOIL RETENTION  
FOR STAGE CONSTRUCTION

STAGE CONSTRUCTION DETAILS  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

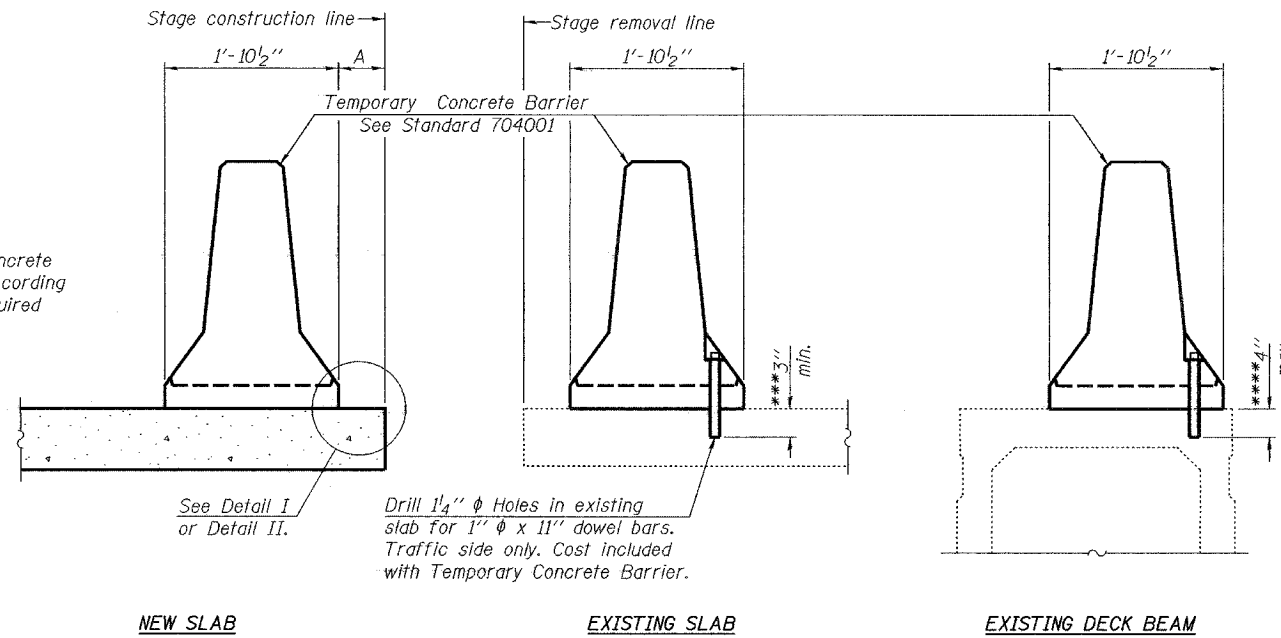
EXAMINED	Thomas J. Domagala	January 28, 2008
PASSED	Ralph E. Anderson	



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3  
18 SHEETS  
Contract #76949



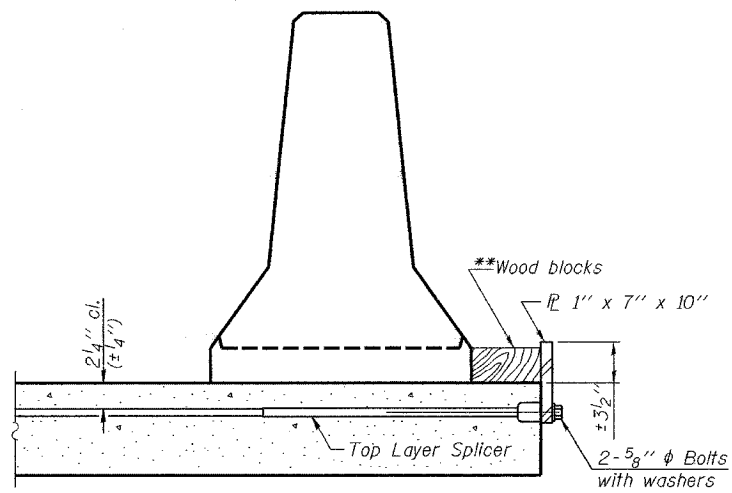
When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

**NOTES**

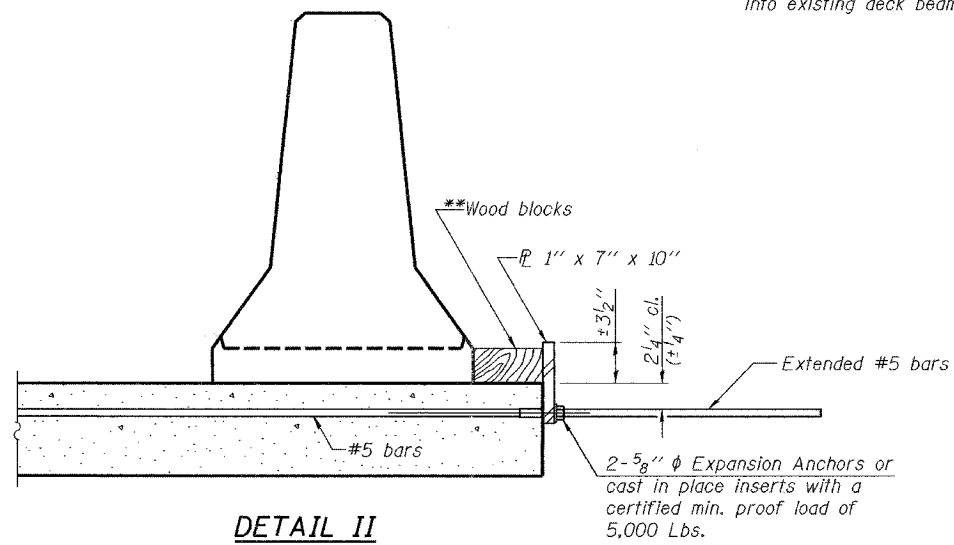
- Detail I - With Bar Splicer or Couplers:**  
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.
- Detail II - With Extended Reinforcement Bars:**  
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

**SECTIONS THRU SLAB OR DECK BEAM**

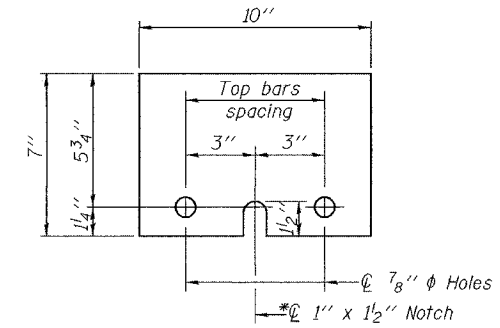
- \*\*\*Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- \*\*\*If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**DETAIL I**



**DETAIL II**



**STEEL RETAINER PL 1" x 7" x 10"**

\* Required only with Detail II

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

DESIGNED Phillip R. Litchfield	EXAMINED Thomas J. Domagala ENGINEER OF BRIDGE DESIGN
CHECKED Nicholas R. Barnett	PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES
DRAWN Gregory D. Farmer	
CHECKED PRL/NRB	

R-27

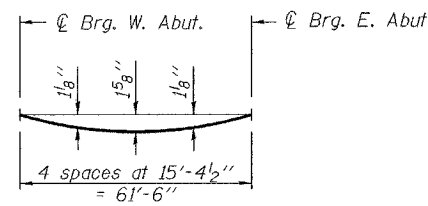
9-3-07

**TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

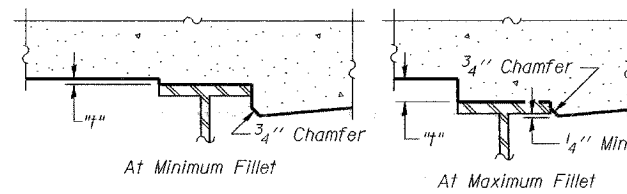
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4 18 SHEETS
F.A.S. 1832	5BR-2	WASHINGTON	97	30	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949



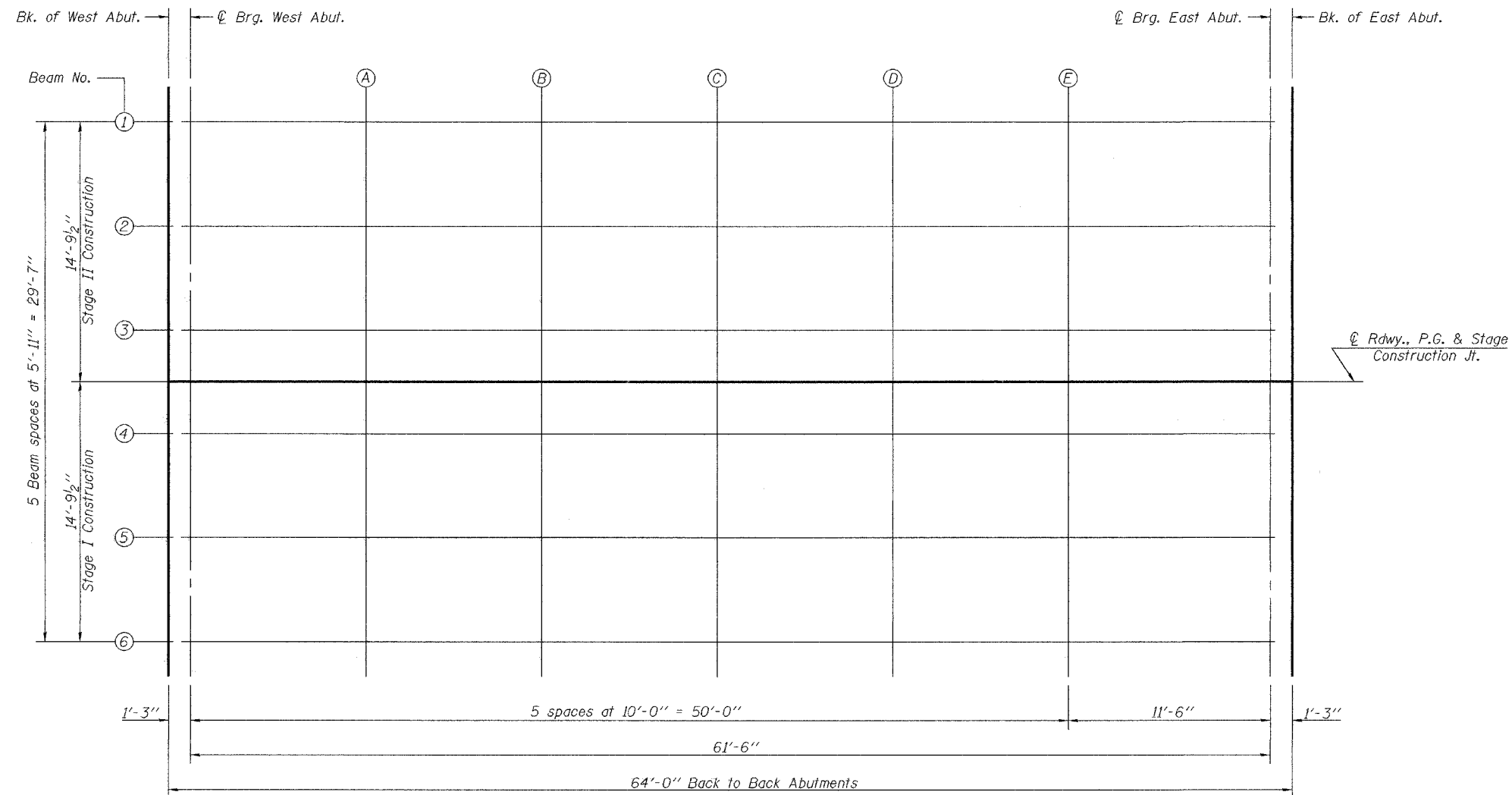
**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete only.)

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 page 5 of 18.



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

**FILLET HEIGHTS**



**PLAN**

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

January 28, 2008  
EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**TOP OF SLAB ELEVATIONS**  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 5  
18 SHEETS

Contract #76949

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	-14.79	440.59	440.59
⊕ Brg. W. Abut.	145280.75	-14.79	440.59	440.59
A	145290.75	-14.79	440.60	440.66
B	145300.75	-14.79	440.60	440.71
C	145310.75	-14.79	440.60	440.73
D	145320.75	-14.79	440.60	440.71
E	145330.75	-14.79	440.59	440.66
⊕ Brg. E. Abut.	145342.25	-14.79	440.57	440.57
Bk. E. Abut.	145343.50	-14.79	440.57	440.57

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	-8.87	440.69	440.69
⊕ Brg. W. Abut.	145280.75	-8.87	440.70	440.70
A	145290.75	-8.87	440.71	440.77
B	145300.75	-8.87	440.71	440.82
C	145310.75	-8.87	440.71	440.84
D	145320.75	-8.87	440.70	440.81
E	145330.75	-8.87	440.69	440.76
⊕ Brg. E. Abut.	145342.25	-8.87	440.68	440.68
Bk. E. Abut.	145343.50	-8.87	440.67	440.67

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	-2.96	440.79	440.79
⊕ Brg. W. Abut.	145280.75	-2.96	440.79	440.79
A	145290.75	-2.96	440.80	440.86
B	145300.75	-2.96	440.80	440.91
C	145310.75	-2.96	440.80	440.93
D	145320.75	-2.96	440.80	440.91
E	145330.75	-2.96	440.79	440.86
⊕ Brg. E. Abut.	145342.25	-2.96	440.77	440.77
Bk. E. Abut.	145343.50	-2.96	440.77	440.77

**⊕ RDWY. P.G. & STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	0.00	440.83	440.83
⊕ Brg. W. Abut.	145280.75	0.00	440.83	440.83
A	145290.75	0.00	440.84	440.91
B	145300.75	0.00	440.85	440.95
C	145310.75	0.00	440.85	440.98
D	145320.75	0.00	440.84	440.95
E	145330.75	0.00	440.83	440.90
⊕ Brg. E. Abut.	145342.25	0.00	440.81	440.81
Bk. E. Abut.	145343.50	0.00	440.81	440.81

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	2.96	440.79	440.79
⊕ Brg. W. Abut.	145280.75	2.96	440.79	440.79
A	145290.75	2.96	440.80	440.86
B	145300.75	2.96	440.80	440.91
C	145310.75	2.96	440.80	440.93
D	145320.75	2.96	440.80	440.91
E	145330.75	2.96	440.79	440.86
⊕ Brg. E. Abut.	145342.25	2.96	440.77	440.77
Bk. E. Abut.	145343.50	2.96	440.77	440.77

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	8.88	440.69	440.69
⊕ Brg. W. Abut.	145280.75	8.88	440.70	440.70
A	145290.75	8.88	440.71	440.77
B	145300.75	8.88	440.71	440.82
C	145310.75	8.88	440.71	440.84
D	145320.75	8.88	440.70	440.81
E	145330.75	8.88	440.69	440.76
⊕ Brg. E. Abut.	145342.25	8.88	440.68	440.68
Bk. E. Abut.	145343.50	8.88	440.67	440.67

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	145279.50	14.79	440.59	440.59
⊕ Brg. W. Abut.	145280.75	14.79	440.59	440.59
A	145290.75	14.79	440.60	440.66
B	145300.75	14.79	440.60	440.71
C	145310.75	14.79	440.60	440.73
D	145320.75	14.79	440.60	440.71
E	145330.75	14.79	440.59	440.66
⊕ Brg. E. Abut.	145342.25	14.79	440.57	440.57
Bk. E. Abut.	145343.50	14.79	440.57	440.57

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

January 28, 2008  
 EXAMINED *Thomas J. Domagala*  
 ENGINEER OF BRIDGE DESIGN  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

**TOP OF SLAB ELEVATIONS**  
**F.A.S. RTE. 1832 - SEC. 5BR-2**  
**WASHINGTON CO.**  
**STATION 1453+11.50**  
**STRUCTURE NO. 095-0077**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 1832	SECTION 5BR-2	COUNTY WASHINGTON	SHEET NO. 97	SHEET NO. 32	SHEET NO. 6 18 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract #76949

NORTH CURB LINE

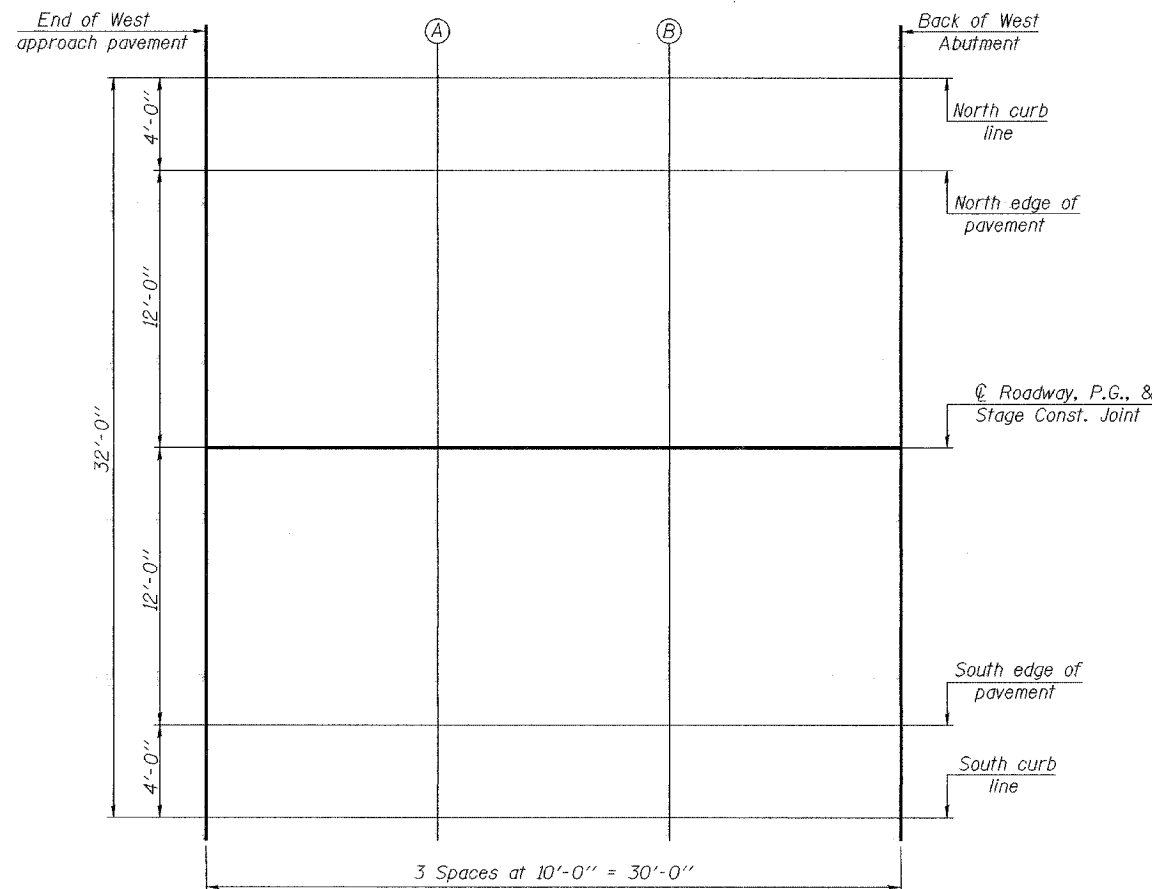
Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	-16.00	440.50
A	145259.50	-16.00	440.53
B	145269.50	-16.00	440.55
Back of W. Abutment	145279.50	-16.00	440.56

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	-12.00	440.58
A	145259.50	-12.00	440.61
B	145269.50	-12.00	440.63
Back of W. Abutment	145279.50	-12.00	440.64

☉ ROADWAY, P.G. & STAGE CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	0.00	440.77
A	145259.50	0.00	440.80
B	145269.50	0.00	440.82
Back of W. Abutment	145279.50	0.00	440.83



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	12.00	440.58
A	145259.50	12.00	440.61
B	145269.50	12.00	440.63
Back of W. Abutment	145279.50	12.00	440.64

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pavement	145249.50	16.00	440.50
A	145259.50	16.00	440.53
B	145269.50	16.00	440.55
Back of W. Abutment	145279.50	16.00	440.56

TOP OF WEST APPROACH  
SLAB ELEVATIONS  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

DESIGNED Phillip R. Litchfield	EXAMINED <i>Thomas J. Demasalski</i> ENGINEER OF BRIDGE DESIGN
CHECKED Nicholas R. Barnett	PASSED <i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES
DRAWN Gregory D. Farmer	
CHECKED PRL/NRB	

January 29, 2008

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 1832	SECTION 5BR-2	COUNTY WASHINGTON	TOTAL SHEETS 97	SHEET NO. 33	SHEET NO. 7 18 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-			

Contract #76949

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	-16.00	440.54
A	145353.50	-16.00	440.52
B	145363.50	-16.00	440.49
End of E. Appr. Pavement	145373.50	-16.00	440.46

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	-12.00	440.62
A	145353.50	-12.00	440.60
B	145363.50	-12.00	440.58
End of E. Appr. Pavement	145373.50	-12.00	440.54

☉ ROADWAY, P.G., & STAGE CONST. JOINT

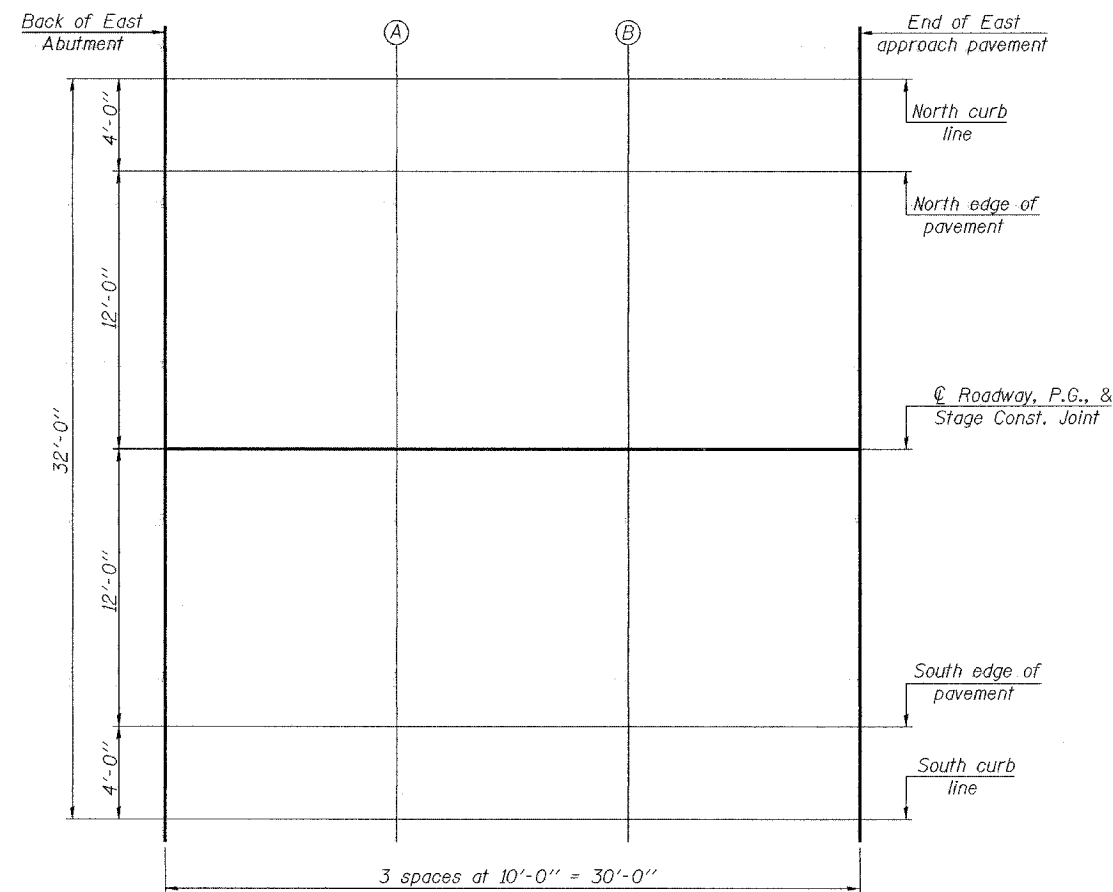
Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	0.00	440.81
A	145353.50	0.00	440.79
B	145363.50	0.00	440.76
End of E. Appr. Pavement	145373.50	0.00	440.73

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	12.00	440.62
A	145353.50	12.00	440.60
B	145363.50	12.00	440.58
End of E. Appr. Pavement	145373.50	12.00	440.54

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of E. Abutment	145343.50	16.00	440.54
A	145353.50	16.00	440.52
B	145363.50	16.00	440.49
End of E. Appr. Pavement	145373.50	16.00	440.46



PLAN

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

EXAMINED	Thomas J. Domagalaki PRINCIPAL ENGINEER
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

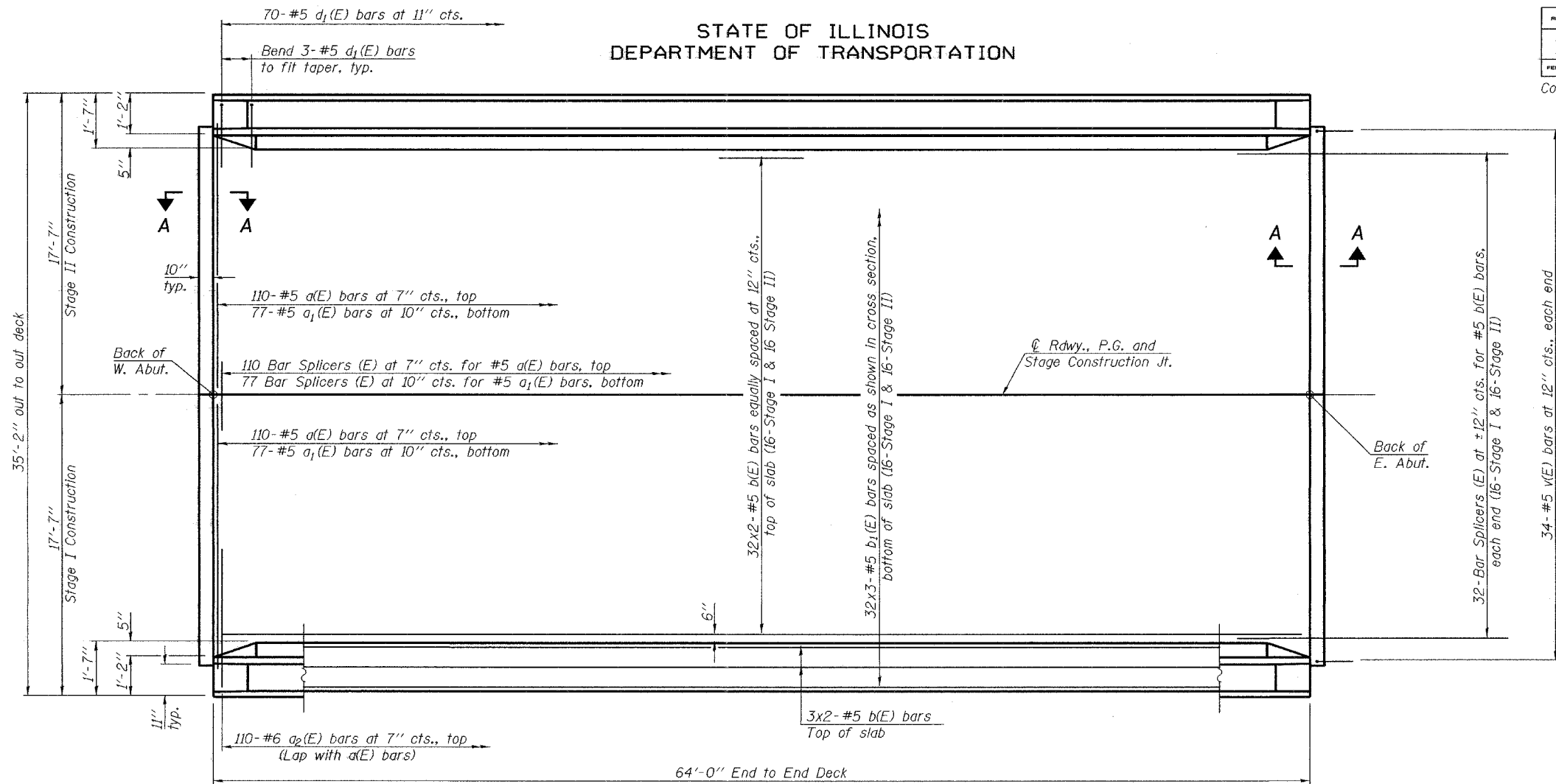
January 28, 2008

TOP OF EAST APPROACH  
SLAB ELEVATIONS  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	34	18 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

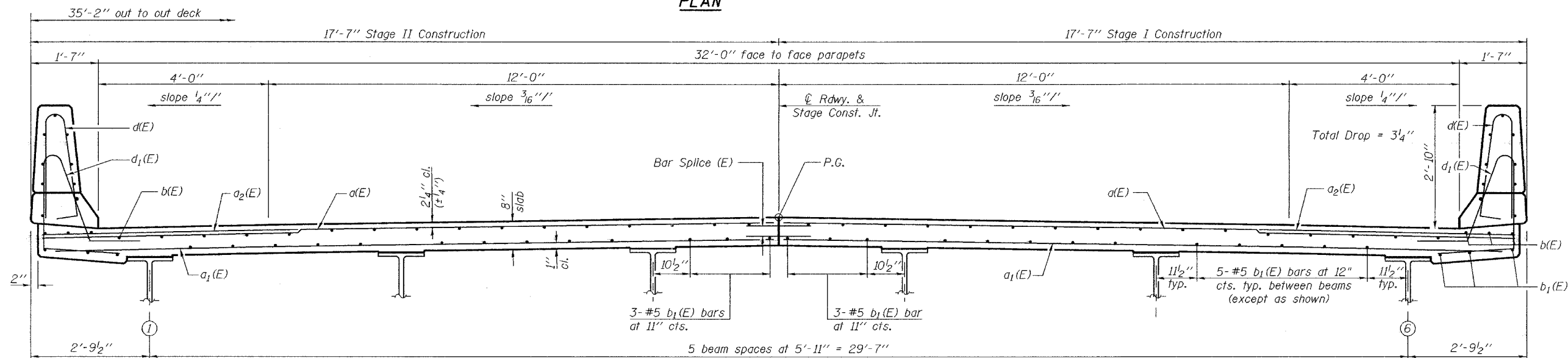
Contract #76949



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

Notes:  
See Sheet 9 of 18 for superstructure details and Bill of Material.  
Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.  
See Sheet 9 of 18 for parapet reinforcement.  
Section A-A shown on sheet 10 of 18.

PLAN



CROSS SECTION

(Looking East)

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

EXAMINED	Thomas J. Demagala ENGINEER OF BRIDGE DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

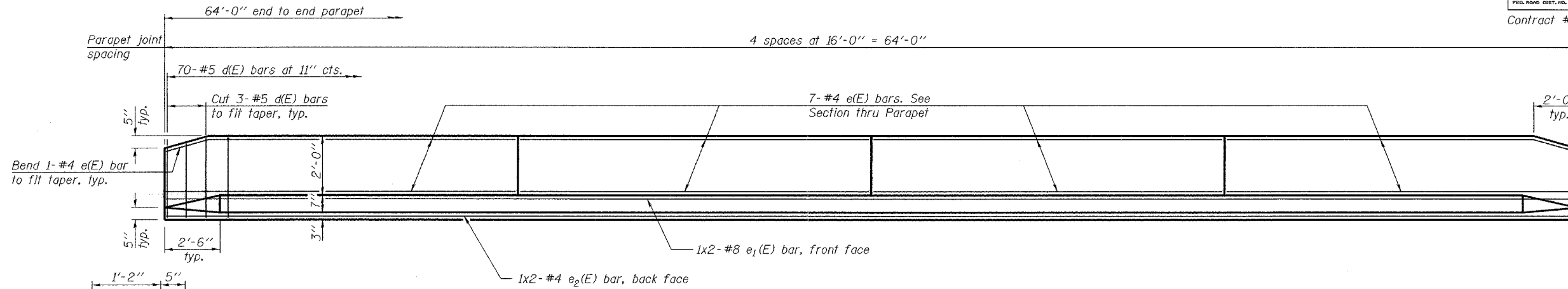
SUPERSTRUCTURE  
F.A.S. RTE. 1832 - SEC 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

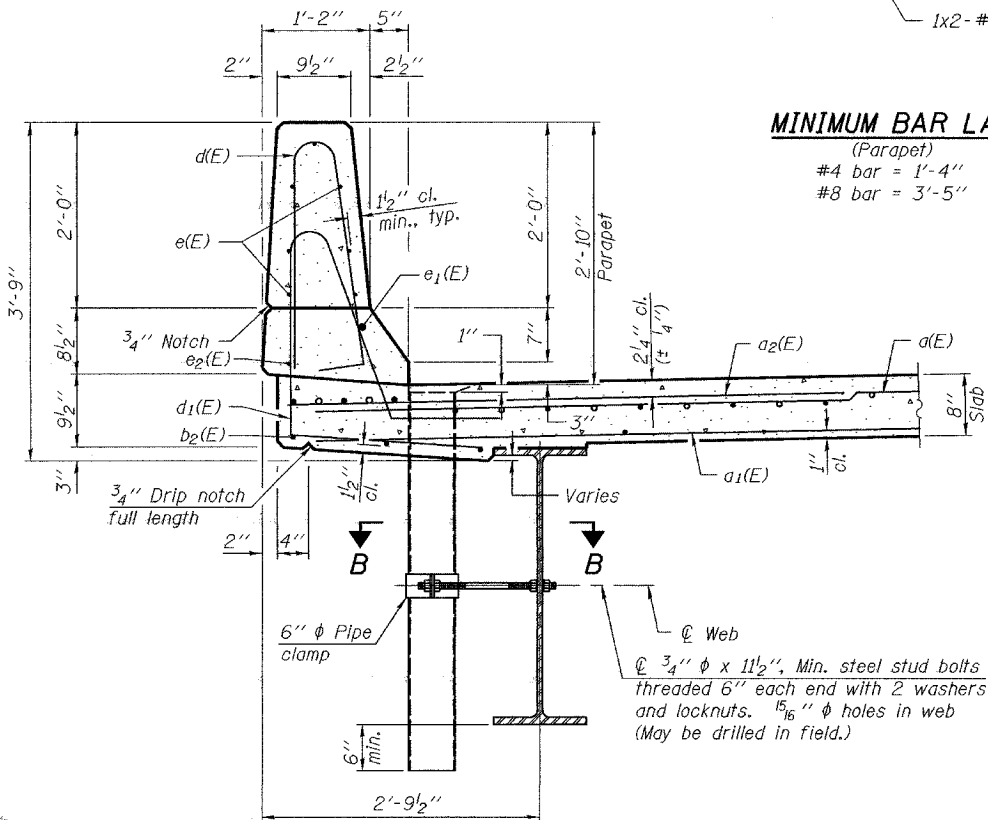
SHEET NO. 9  
18 SHEETS

Contract #76949



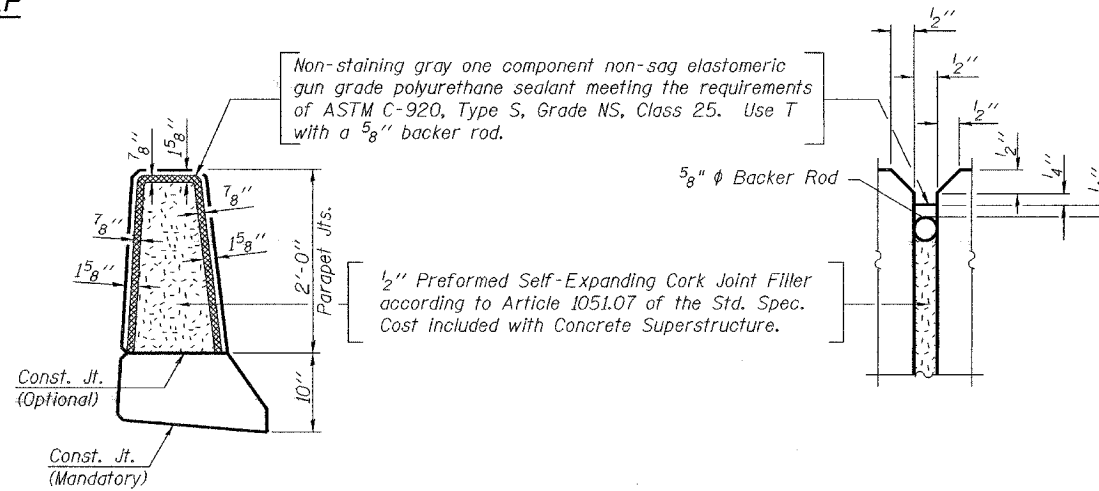
**MINIMUM BAR LAP**

(Parapet)  
#4 bar = 1'-4"  
#8 bar = 3'-5"



**INSIDE ELEVATION OF PARAPET**

Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod.



**PARAPET JOINT DETAILS**

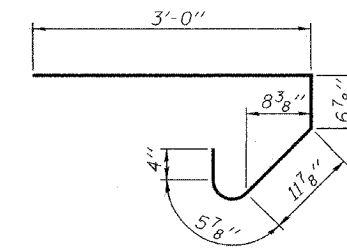
**Notes:**

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-SP1 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.

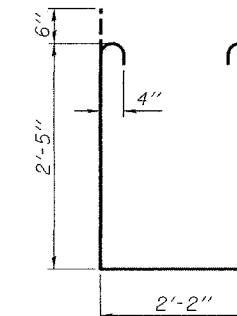
**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	220	#5	17'-1"	—
a1(E)	154	#5	16'-3"	—
a2(E)	220	#6	6'-0"	—
b(E)	76	#5	32'-11"	—
b1(E)	96	#5	22'-8"	—
d(E)	140	#5	5'-7"	⌋
d1(E)	140	#5	7'-6"	⌋
e(E)	56	#4	15'-9"	—
e1(E)	4	#8	33'-7"	—
e2(E)	4	#4	32'-6"	—
m(E)	8	#6	16'-5"	—
m1(E)	12	#6	17'-3"	—
m2(E)	24	#6	7'-7"	—
m3(E)	8	#6	2'-7"	—
m4(E)	8	#6	5'-8"	—
s(E)	72	#5	5'-5"	⌋
s1(E)	64	#4	8'-0"	⌋
v(E)	68	#5	3'-4"	⌋
Reinforcement Bars, Epoxy Coated		Pound	18200	
Concrete Superstructure		Cu. Yds.	88.1	

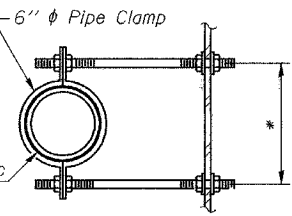
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.



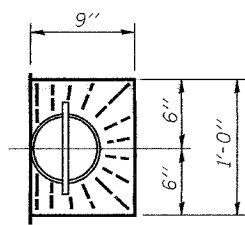
**BAR s(E)**



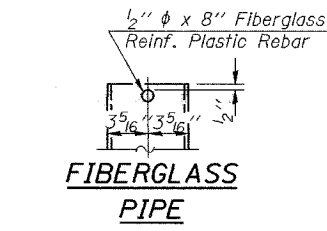
**BAR s1(E)**



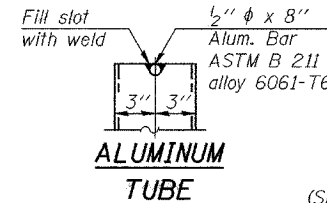
**SECTION B-B**  
\* Dimension as required by Pipe Clamp



**TOP PLAN**



**FIBERGLASS PIPE**

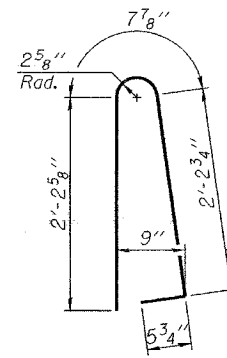


**ALUMINUM TUBE**

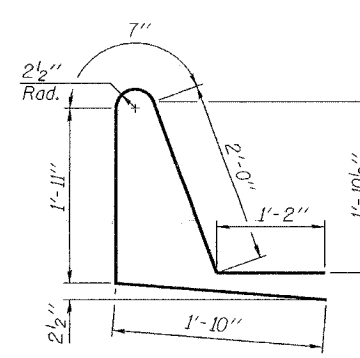


**TOP PLAN**

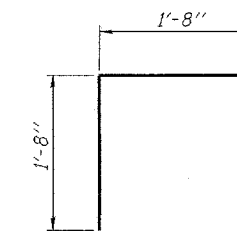
(Showing Aluminum Tube)



**BAR d(E)**



**BAR d1(E)**



**BAR v(E)**

**SUPERSTRUCTURE DETAILS**  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

EXAMINED	Thomas J. Demagala
PASSED	Ralph E. Anderson

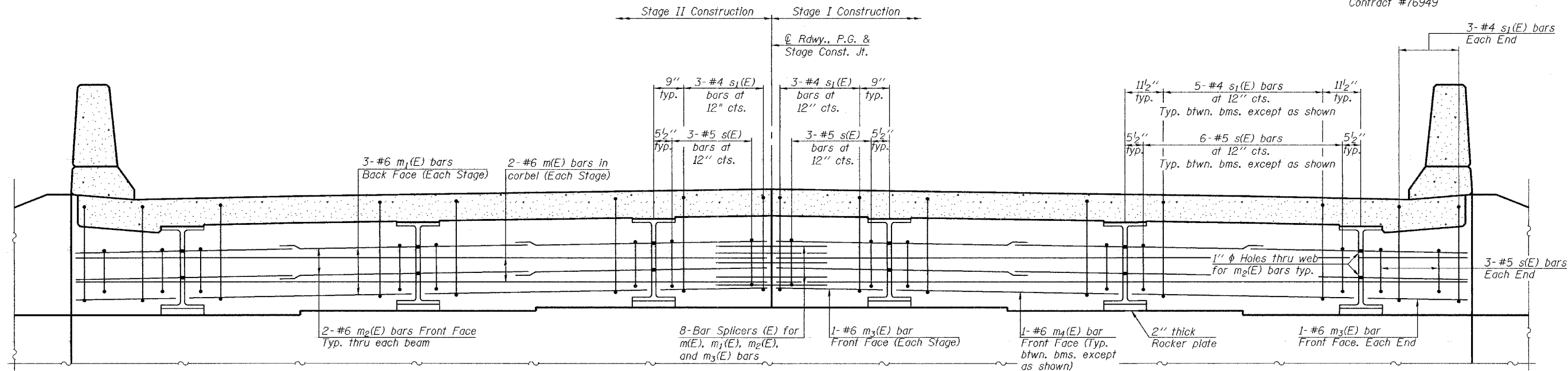
January 28, 2008

ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 1832	SECTION 5BR-2	COUNTY WASHINGTON	STATION 97	SHEET 36	SHEET NO. 10 18 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-	

Contract #76949



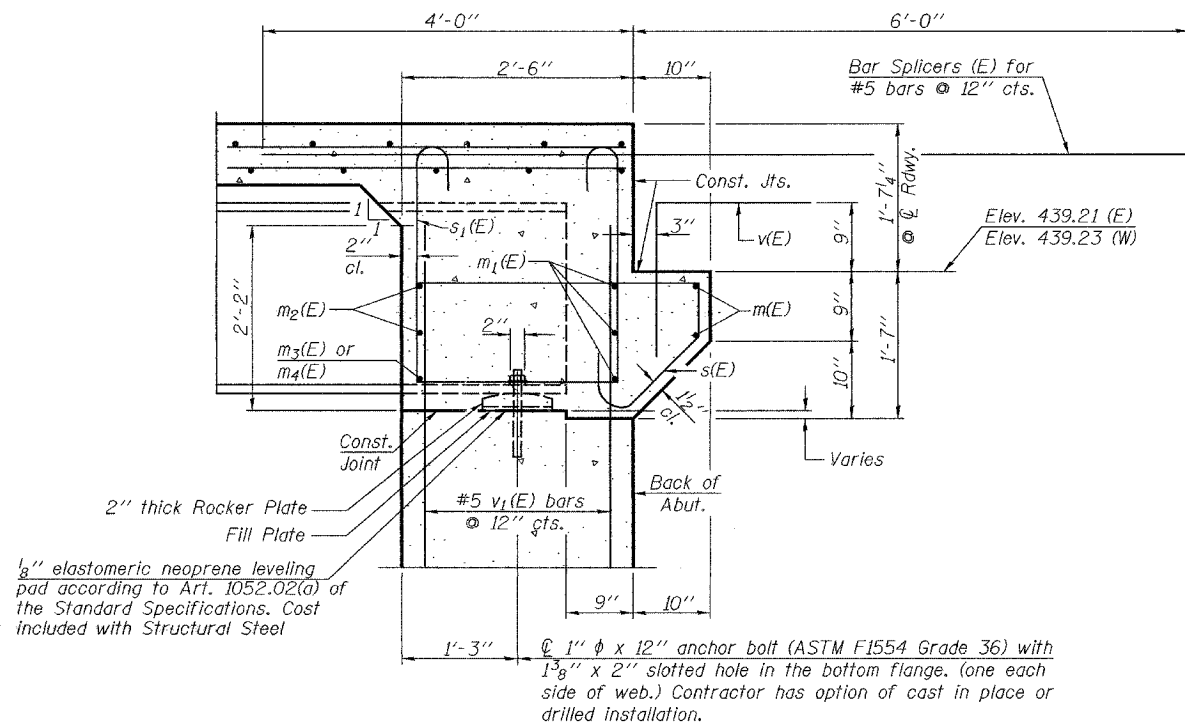
**DIAPHRAGM ELEVATION AT ABUTMENT**

(East diaphragm shown, looking East, West diaphragm similar)

**MIN. BAR LAP**

#6 Bar = 2'-9"

Notes: Reinforcement bars in diaphragm are billed with Superstructure on sheet 9 of 18.  
Concrete in diaphragm is included with Concrete Superstructure on sheet 9 of 18.  
For detail of s(E) and s1(E) bars see sheet 9 of 18.  
The s(E) and s1(E) bars shall be placed parallel to the beam.



**SECTION A-A**

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

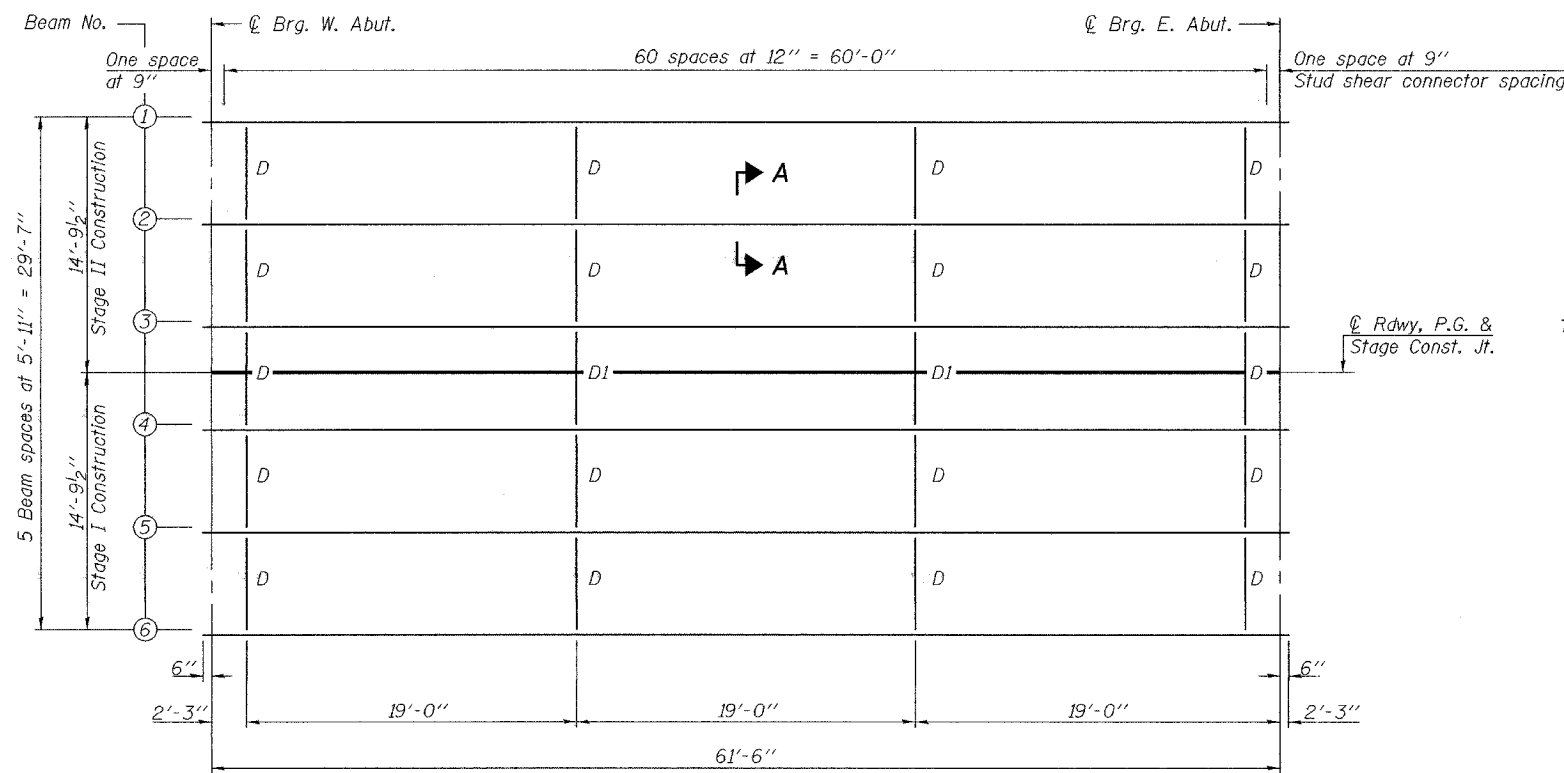
**DIAPHRAGM DETAILS**  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

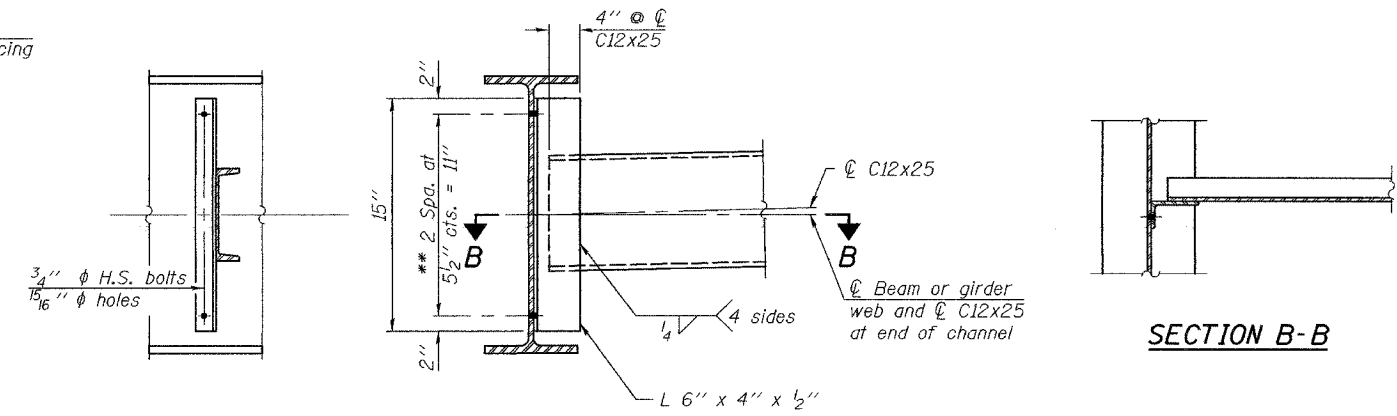
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	31
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

Contract #76949



**FRAMING PLAN**

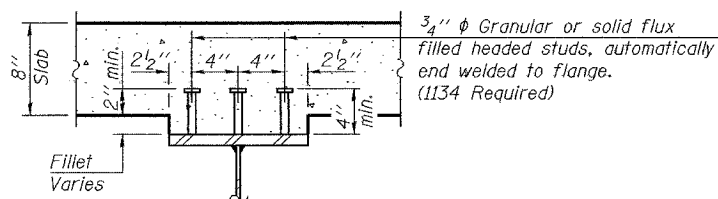
(All beams are W24x146, NTR, and AASHTO M270 Gr. 50)



**DIAPHRAGM D**

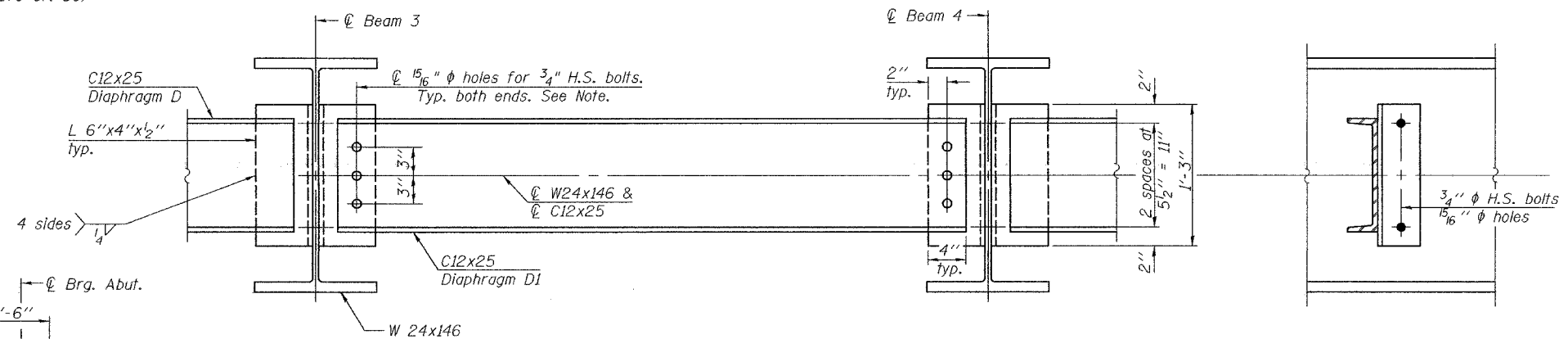
(18 Required)

Note:  
Two hardened washers required for each set of oversized holes.  
\*\* 3/4"  $\phi$  HS bolts, 1 5/16"  $\phi$  holes



**SECTION A-A**

$\phi$  1"  $\phi$  holes in beam for m<sub>2</sub>(E) bars. See sheet 10 of 17.



**DIAPHRAGM D1**

(2 Required)

Note: Install only the center bolt at each end of Diaphragm D1. The bolts shall be finger tightened prior to deck pour to permit rotation of Diaphragm D1. Install the remaining bolts and fully tighten after stage two deck pour is complete.  
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

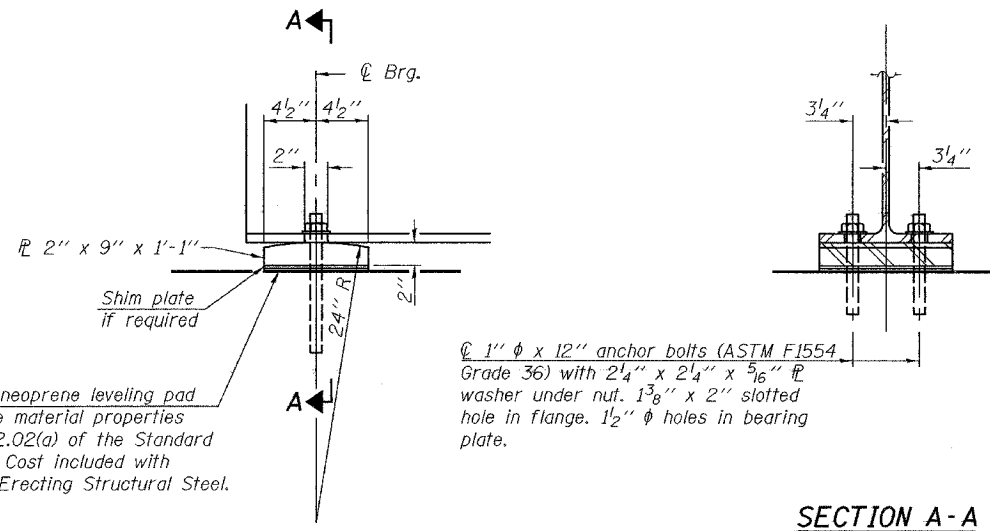
**TYP. END OF BEAM ELEVATION**

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

EXAMINED	Thomas J. Demagala	January 28, 2008
PASSED	Ralph E. Anderson	

**STRUCTURAL STEEL**  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUTMENT

**FIXED BEARING**

Notes:  
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

		0.5 Sp.
$I_s$	(in <sup>4</sup> )	4580
$I_o(n)$	(in <sup>4</sup> )	12183
$I_o(3n)$	(in <sup>4</sup> )	8715
$S_s$	(in <sup>3</sup> )	371
$S_o(n)$	(in <sup>3</sup> )	544
$S_o(3n)$	(in <sup>3</sup> )	487
DC1	(k/')	0.773
M <sub>DC1</sub>	(k)	365.5
DC2	(k/')	0.150
M <sub>DC2</sub>	(k)	70.9
DW	(k/')	0.296
M <sub>DW</sub>	(k)	139.8
M <sub>ℓ + Imp</sub>	(k)	708.3
M <sub>u</sub> (Strength I)	(k)	1994.7
φ <sub>r</sub> M <sub>n</sub>	(k)	2567.3
f <sub>s</sub> DC1	(ksi)	11.82
f <sub>s</sub> DC2	(ksi)	1.75
f <sub>s</sub> DW	(ksi)	3.44
f <sub>s</sub> 1.3(ℓ+I)	(ksi)	20.31
f <sub>s</sub> (Service II)	(ksi)	37.32
f <sub>s</sub> (Total)(Strength I)	(ksi)	-
V <sub>r</sub>	(k)	21.7

		Abut.
R <sub>DC1</sub>	(k)	23.8
R <sub>DC2</sub>	(k)	4.6
R <sub>DW</sub>	(k)	9.1
R <sub>ℓ + Imp</sub>	(k)	67.0
R <sub>Total</sub>	(k)	104.5

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads (in.<sup>4</sup> and in.<sup>3</sup>).

$I_o(n), S_o(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) due to short-term composite live loads (in.<sup>4</sup> and in.<sup>3</sup>).

$I_o(3n), S_o(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in.<sup>4</sup> and in.<sup>3</sup>).

DC1: Un-factored non-composite dead load (kips/ft.).

M<sub>DC1</sub>: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M<sub>DC2</sub>: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M<sub>DW</sub>: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M<sub>ℓ + Imp</sub>: Un-factored live load moment plus dynamic load allowance (Impact) (kip-ft.).

M<sub>u</sub> (Strength I): Factored design moment (kip-ft.).  
1.25 (M<sub>DC1</sub> + M<sub>DC2</sub>) + 1.5 M<sub>DW</sub> + 1.75 M<sub>ℓ + Imp</sub>

φ<sub>r</sub>M<sub>n</sub>: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

f<sub>s</sub> (Service II): Sum of stresses as computed from the moments below (ksi).  
M<sub>DC1</sub> + M<sub>DC2</sub> + M<sub>DW</sub> + 1.3 M<sub>ℓ + Imp</sub>

f<sub>s</sub> (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).  
1.25 (M<sub>DC1</sub> + M<sub>DC2</sub>) + 1.5 M<sub>DW</sub> + 1.75 M<sub>ℓ + Imp</sub>

V<sub>r</sub>: Factored shear range in span computed according to Article 6.10.10.

**\*TOP OF BEAM ELEVATIONS**

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
West Abut.	439.88	439.99	440.08	440.08	439.99	439.88
East Abut.	439.86	439.97	440.06	440.06	439.97	439.86

\*For Fabrication only

DESIGNED Phillip R. Litchfield  
CHECKED Nicholas R. Barnett  
DRAWN Gregory D. Farmer  
CHECKED PRL/NRB

EXAMINED Thomas J. Domagala  
PASSED Ralph E. Anderson  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

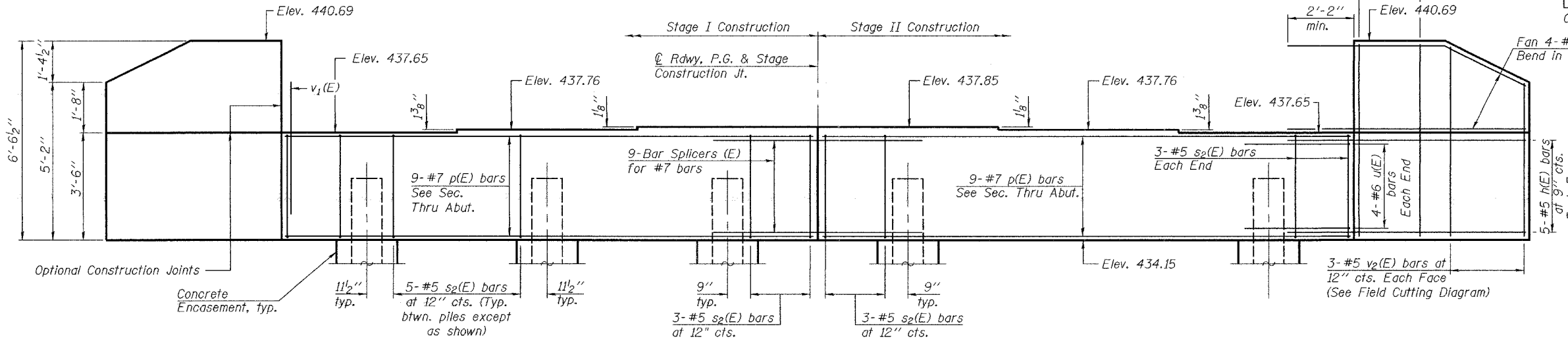
STRUCTURAL STEEL DETAILS  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. 13
F.A.S. 1832	5BR-2	WASHINGTON	97	39	18 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949

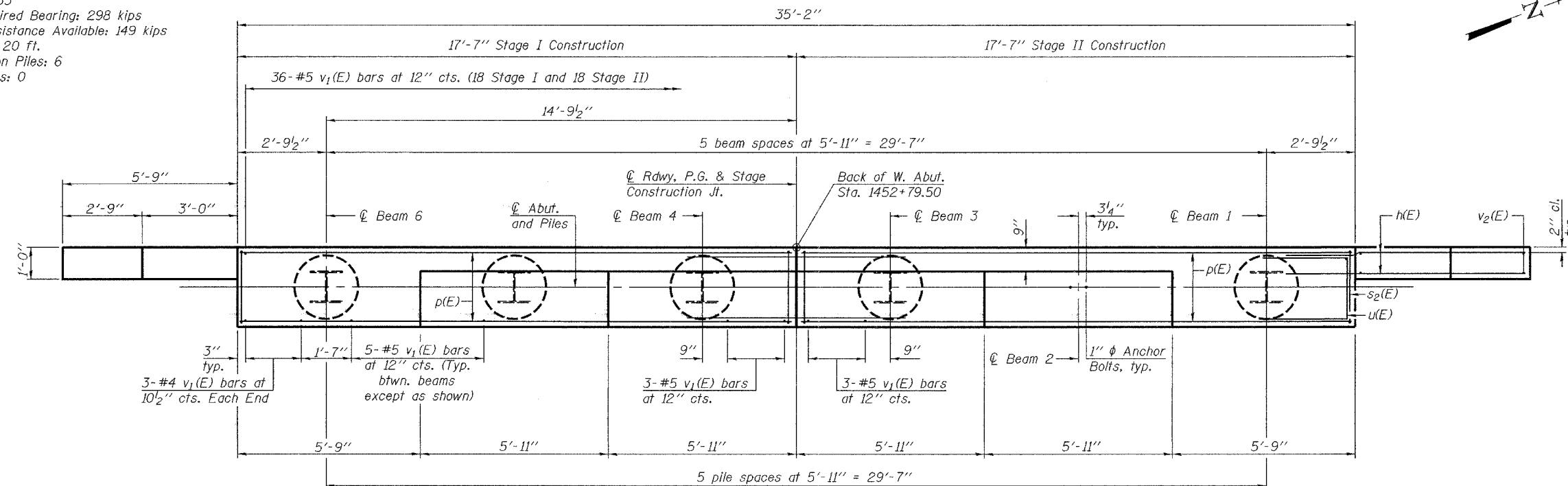
Notes: Pour steps monolithically with cap.



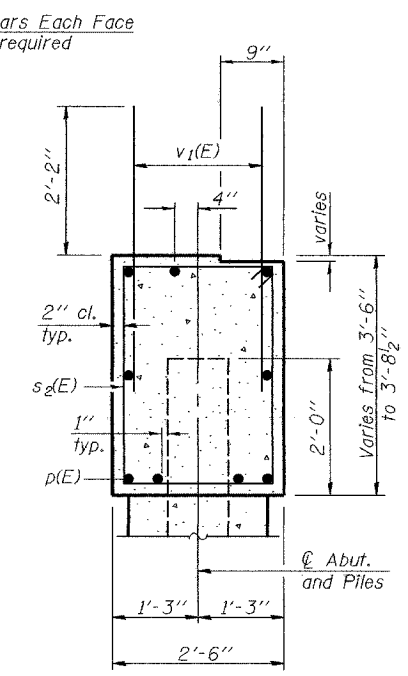
ELEVATION

PILE DATA

Type: HP12x53  
Nominal Required Bearing: 298 kips  
Factored Resistance Available: 149 kips  
Est. Length: 20 ft.  
No. Production Piles: 6  
No. Test Piles: 0



PLAN

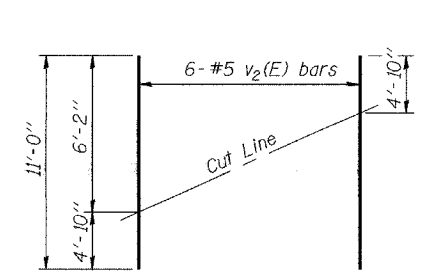


SEC. THRU ABUT.

BILL OF MATERIAL

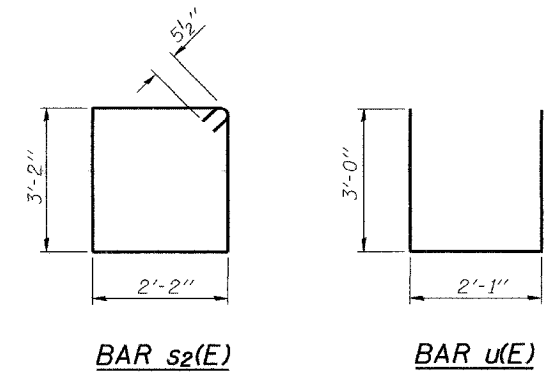
Bar	No.	Size	Length	Shape
h(E)	36	#5	8'-1"	—
p(E)	18	#7	17'-3"	—
s2(E)	32	#5	11'-7"	□
u(E)	8	#6	8'-1"	—
v1(E)	68	#5	4'-4"	—
v2(E)	6	#5	11'-0"	—
v3(E)	12	#5	6'-2"	—
Structure Excavation			Cu. Yd.	70
Concrete Structures			Cu. Yd.	14.4
Reinforcement Bars, Epoxy Coated			Pound	1880
Furnishing Steel Piles HP12x53			Foot	120
Driving Piles			Foot	120
Concrete Encasement			Cu. Yd.	2.1

For details of Bar Splicers, see sheet 17 of 18.  
For details of piles and Concrete Encasement, see sheet 15 of 18.



FIELD CUTTING DIAGRAM

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s2(E)

BAR u(E)

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

January 28, 2008  
EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

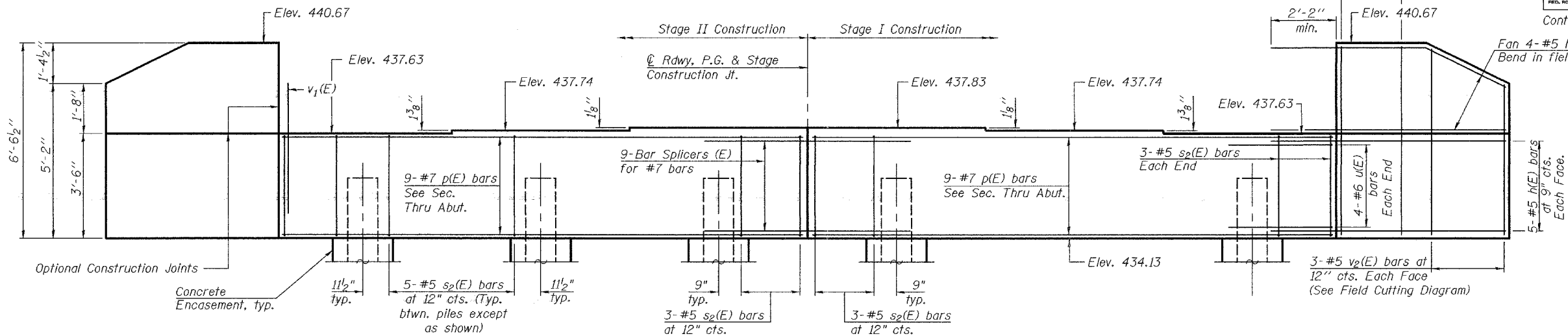
WEST ABUTMENT  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATIONING	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	4b
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

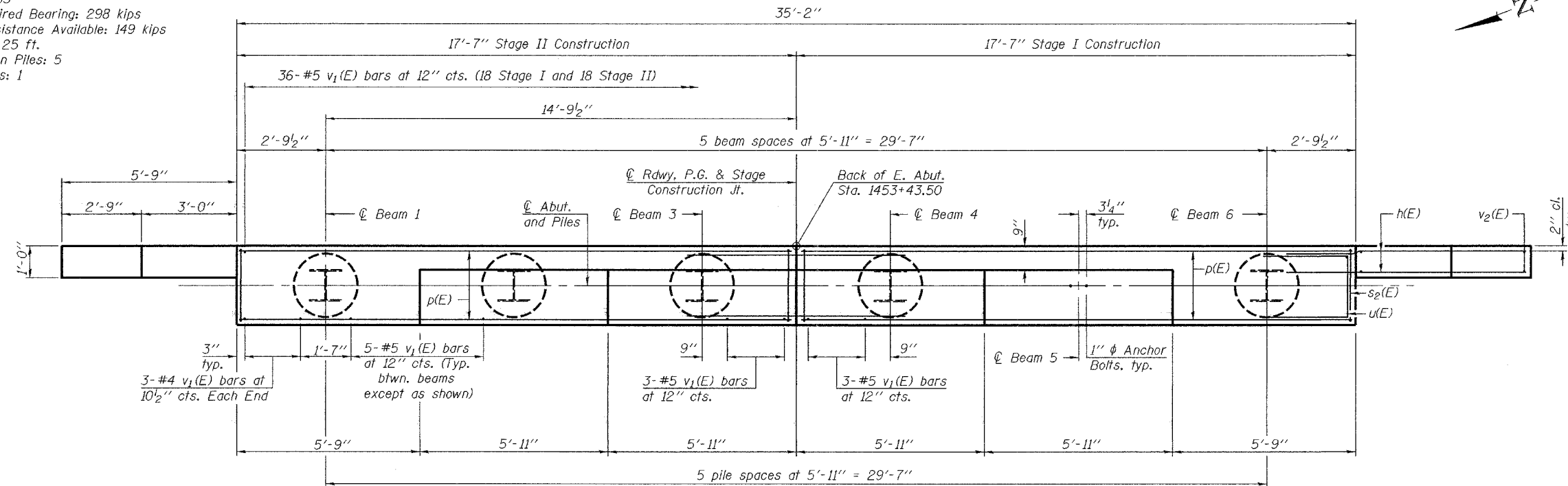
SHEET NO. 14  
18 SHEETS

Notes: Pour steps monolithically with cap.



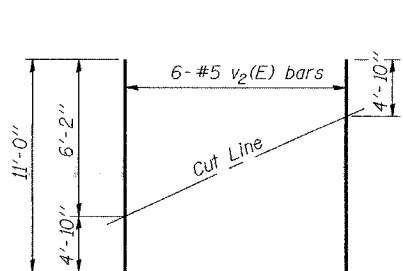
**PILE DATA**

Type: HP12x53  
Nominal Required Bearing: 298 kips  
Factored Resistance Available: 149 kips  
Est. Length: 25 ft.  
No. Production Piles: 5  
No. Test Piles: 1



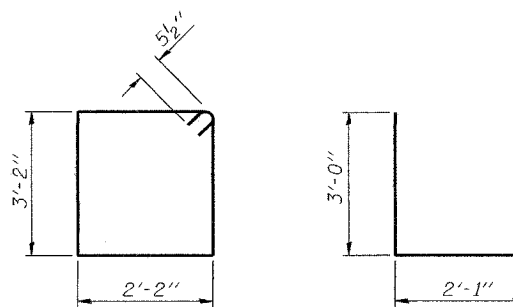
**PLAN**

Note:  
If h(E) bars interfere with Steel H-Piles, cut h(E) bars to fit and maintain min. 2'-2" embedment.



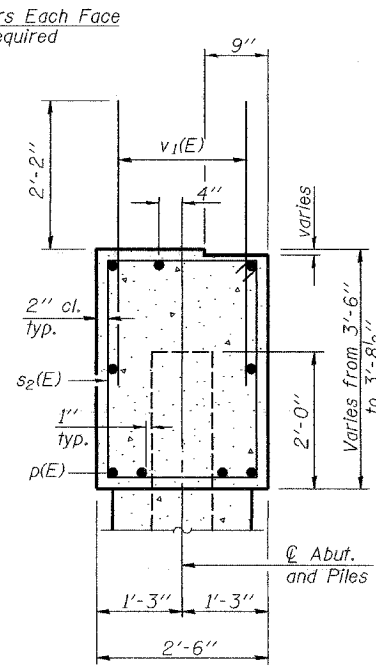
**FIELD CUTTING DIAGRAM**

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s2(E)

BAR u(E)



**SEC. THRU ABUT.**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	36	#5	8'-1"	
p(E)	18	#7	17'-3"	
s2(E)	32	#5	11'-7"	□
u(E)	8	#6	8'-1"	□
v1(E)	68	#5	4'-4"	
v2(E)	6	#5	11'-0"	
v3(E)	12	#5	6'-2"	
Structure Excavation			Cu. Yd.	70
Concrete Structures			Cu. Yd.	14.4
Reinforcement Bars, Epoxy Coated			Pound	1880
Furnishing Steel Piles, HP12x53			Foot	125
Driving Piles			Foot	125
Test Pile Steel, HP12x53			Each	1
Concrete Encasement			Cu. Yd.	2.1

For details of Bar Splicers, see sheet 17 of 18.  
For details of piles and Concrete Encasement, see sheet 15 of 18.

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

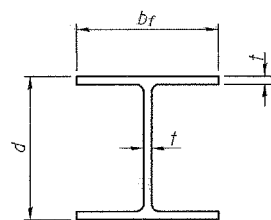
January 28, 2008  
EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**EAST ABUTMENT**  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

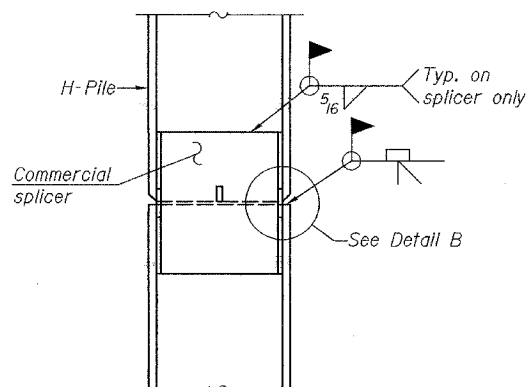
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 15
F.A.S. 1832	5BR-2	WASHINGTON	97	41	18 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949

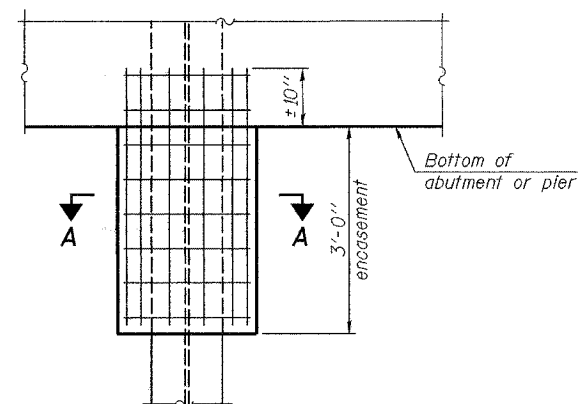


STEEL PILE TABLE

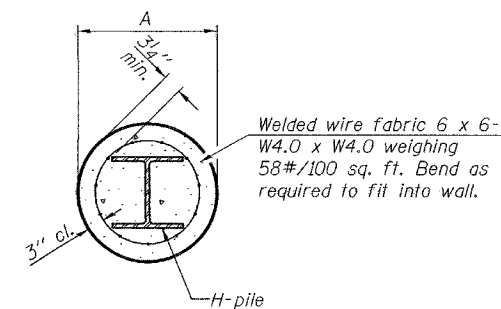
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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



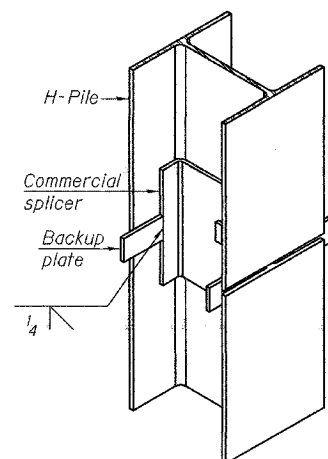
ELEVATION



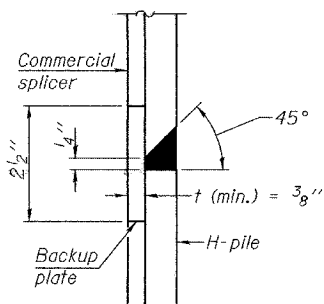
SECTION A-A

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

PILE ENCASEMENT

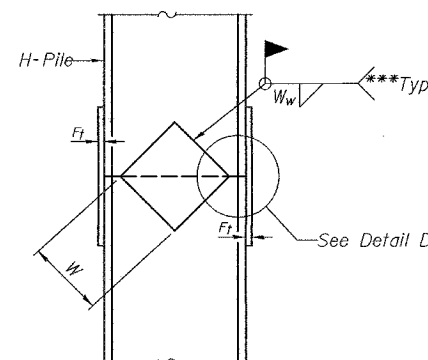


ISOMETRIC VIEW

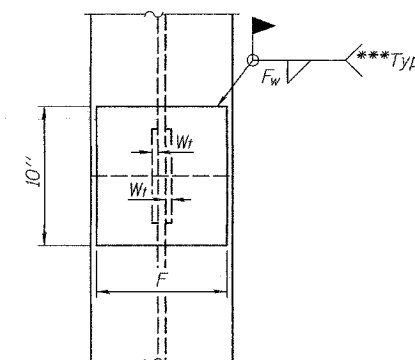


DETAIL "B"

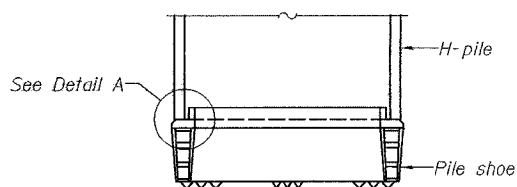
WELDED COMMERCIAL SPLICE



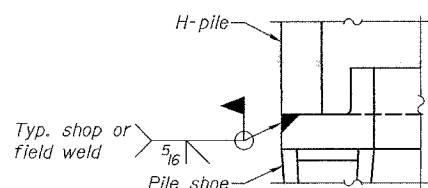
ELEVATION



END VIEW

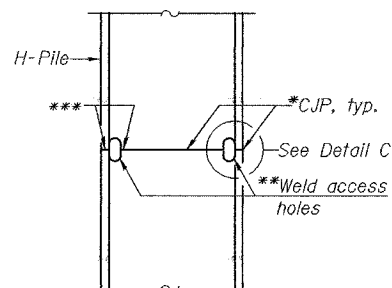


ELEVATION

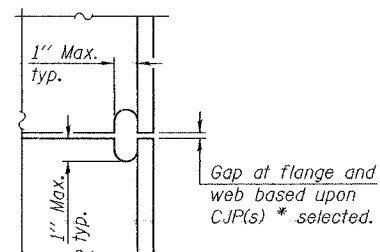


DETAIL A

H-PILE SHOE ATTACHMENT

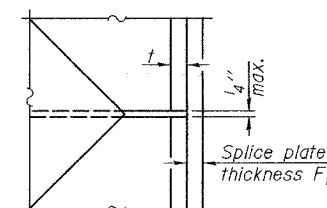


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	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"

PILE DATA

F.A.S. RTE. 1832 - SEC. 5BR-2

WASHINGTON COUNTY

STATION 1453+11.50

STRUCTURE NO. 095-0077

\*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.

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

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

EXAMINED	Thomas J. Domagala
PASSED	Ralph E. Anderson

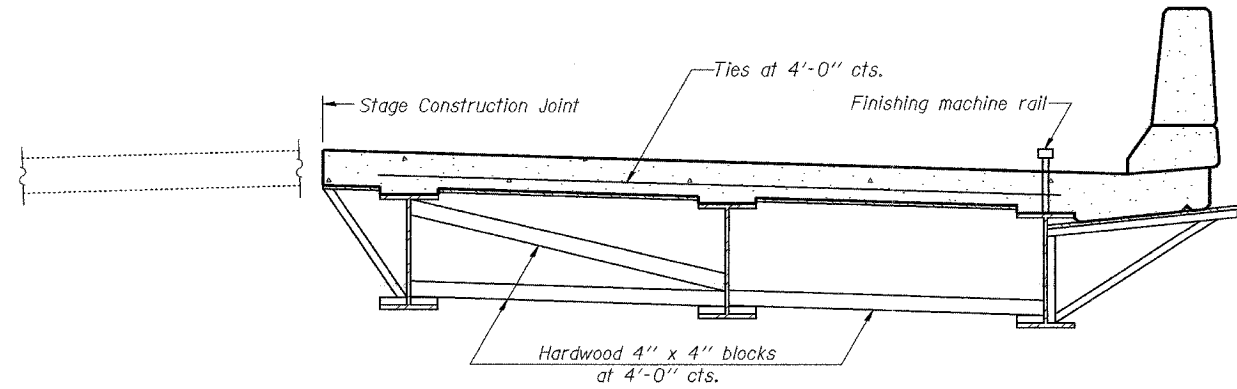
9-3-07

F-HP

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	42
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 16  
18 SHEETS  
Contract #76949



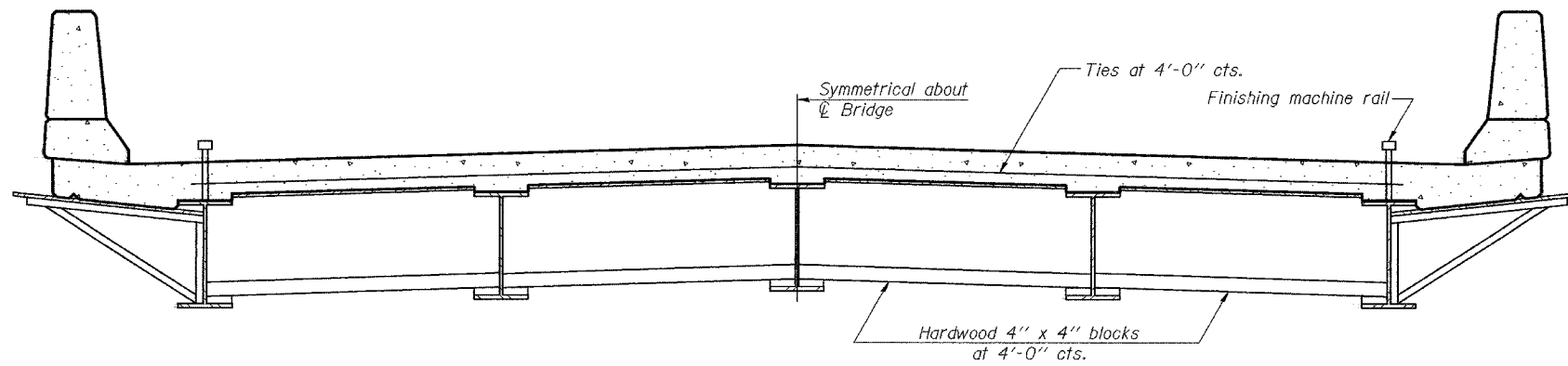
**FORM BRACES FOR  
STAGE CONSTRUCTION**

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**FORM BRACES FOR  
STANDARD CONSTRUCTION**

DESIGNED Phillip R. Litchfield  
CHECKED Nicholas R. Barnett  
DRAWN Gregory D. Farmer  
CHECKED PRL/NRB

January 28, 2008  
EXAMINED Thomas J. Domagala  
PASSED Ralph E. Anderson  
ENGINEER OF BRIDGES AND STRUCTURES

SB-1

11-1-06

**CANTILEVER FORMING BRACKETS**  
**F.A.S. RTE. 1832 - SEC. 5BR-2**  
**WASHINGTON COUNTY**  
**STATION 1453+11.50**  
**STRUCTURE NO. 095-0077**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DISTRICT	SHEET NO.	SHEET NO. 17
F.A.S. 1832	5BR-2	WASHINGTON	97	43	18 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length. All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

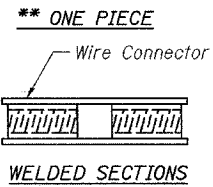
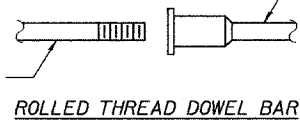
- ① Minimum Capacity (Tension in kips) =  $1.25 \times f_y \times A_t$
- ② Minimum \*Pull-out Strength (Tension in kips) =  $0.66 \times f_y \times A_t$

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.

$A_t$  = Tensile stress area of lapped reinforcement bars.

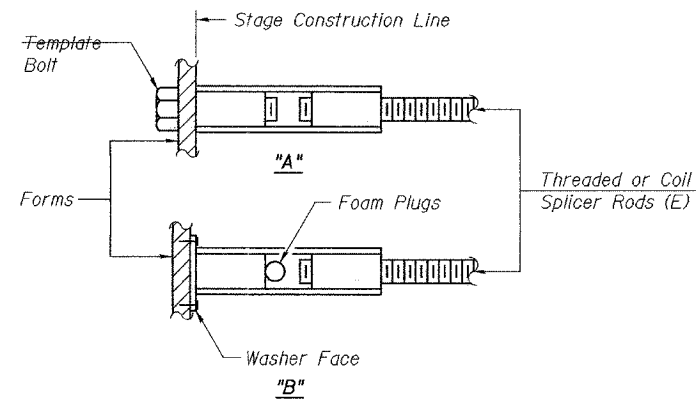
\* = 28 day concrete

The diameter of this part is equal or larger than the diameter of bar spliced.



**BAR SPLICER ASSEMBLY ALTERNATIVES**

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



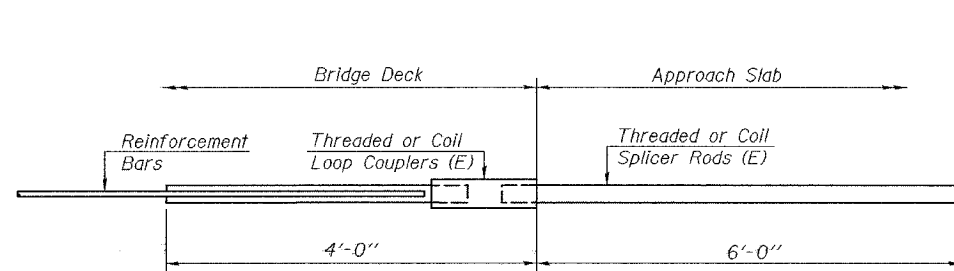
**INSTALLATION AND SETTING METHODS**

"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.

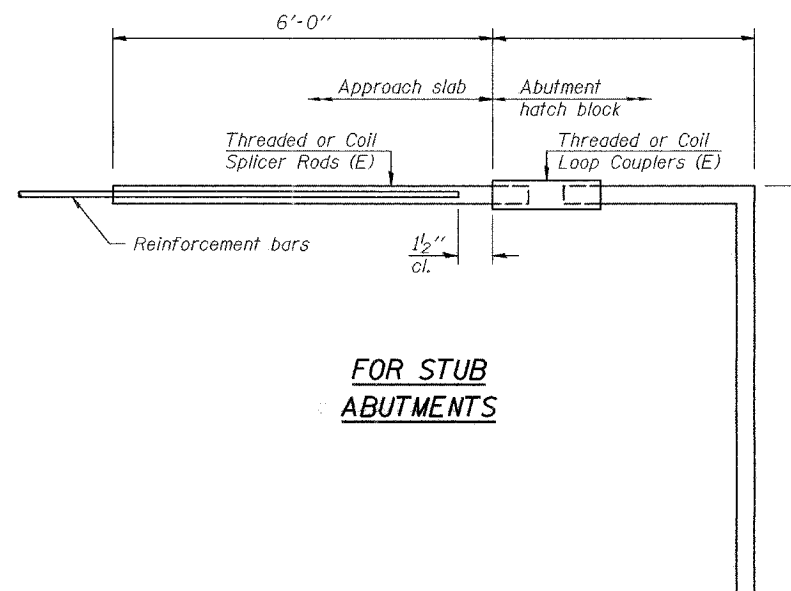
(E) : Indicates epoxy coating.

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



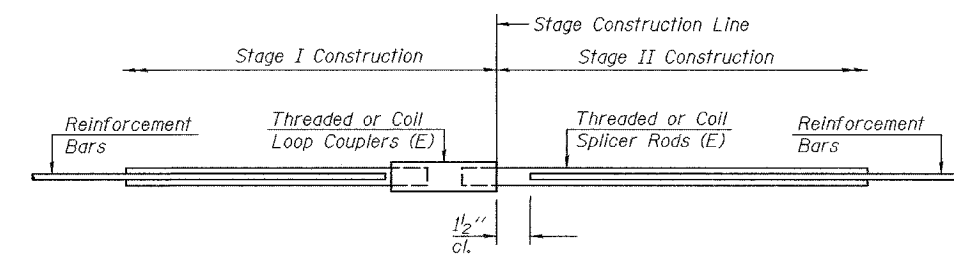
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 64



**FOR STUB ABUTMENTS**

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



**STANDARD**

Bar Size	No. Assemblies Required	Location
#6	16	Diaphragm
#5	187	Deck
#7	18	Abutment

DESIGNED	Phillip R. Litchfield
CHECKED	Nicholas R. Barnett
DRAWN	Gregory D. Farmer
CHECKED	PRL/NRB

EXAMINED *Thomas J. Domagalicki*  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

BSD-1

11-1-06

**BAR SPLICER ASSEMBLY DETAILS**  
 F.A.S. RTE. 1832 - SEC. 5BR-2  
 WASHINGTON COUNTY  
 STATION 1453+11.50  
 STRUCTURE NO. 095-0077

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	430A
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

Contract #76949

Illinois Department of Transportation  
Division of Highways  
District 8 Macomb

### SOIL BORING LOG

Page 1 of 1  
Date 10/29/70

ROUTE FAS 1832 DESCRIPTION IL 180 over Plum Creek LOGGED BY C. Hoffman

SECTION 5BR-2 LOCATION SE 14, NE 14, SEC. 28, TWP. 1S, RNG. 4W, 3 PM

COUNTY Washington DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 095-0077 (P)  
Station 1453+15

BORING NO. 1 E. Abut  
Station 1453+57  
Offset 10.00ft Left  
Ground Surface Elev. 441.31 ft

SOIL DESCRIPTION	DEPTH (ft)	BLOW COUNT	SPT (ft)	UNSATURATED Wt. (%)	WATER CONTENT (%)	SPT (ft)		CORRECTION (%)
						(ft)	(ft)	
Brown CLAY	50	1.65	15					
	12	0.76	29					
Dark Gray Clayey SILT	8	0.52	29					
Dark Gray SILT	4	0.16	35					
Dark Gray Silty Sandy CLAY	7	0.62	25					
Gray and Brown Coarse SAND and Fine GRAVEL	22		NC					
Gray and Brown Coarse SAND and Coarse GRAVEL	12		NC					
Brown Highly Weathered SHALE	38	0.81	20					
Gray Weathered SHALE								

Surface Water Elev. \_\_\_\_\_ ft  
Stream Bed Elev. 429.51 ft  
Groundwater Elev.: \_\_\_\_\_ ft  
First Encounter \_\_\_\_\_ ft  
Upon Completion \_\_\_\_\_ ft  
After \_\_\_\_\_ Hrs. \_\_\_\_\_ ft

Gray Weathered SHALE (continued)

END OF BORING

NOTE: Value in Blow# Column is the N-Value of the Sample

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)

Illinois Department of Transportation  
Division of Highways  
District 8 Macomb

### SOIL BORING LOG

Page 1 of 1  
Date 10/29/70

ROUTE FAS 1832 DESCRIPTION IL 180 over Plum Creek LOGGED BY C. Hoffman

SECTION 5BR-2 LOCATION SE 14, NE 14, SEC. 28, TWP. 1S, RNG. 4W, 3 PM

COUNTY Washington DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 095-0077 (P)  
Station 1453+15

BORING NO. 2 W. Abut  
Station 1452+71  
Offset 10.00ft Right  
Ground Surface Elev. 439.91 ft

SOIL DESCRIPTION	DEPTH (ft)	BLOW COUNT	SPT (ft)	UNSATURATED Wt. (%)	WATER CONTENT (%)	SPT (ft)		CORRECTION (%)
						(ft)	(ft)	
Brown Silty CLAY	100+		NC					
	10	0.97	26					
Brown and Gray Clayey SILT	11	0.62	26					
Dark Gray Silty CLAY	12	1.96	24					
Gray Clay TILL	12	1.46	22					
	10	1.07	20					
Brown Clay TILL	86	3.42	14					
Gray Clay TILL	80	4.33	12					
Gray Weathered SHALE								

Surface Water Elev. \_\_\_\_\_ ft  
Stream Bed Elev. 429.51 ft  
Groundwater Elev.: \_\_\_\_\_ ft  
First Encounter \_\_\_\_\_ ft  
Upon Completion \_\_\_\_\_ ft  
After \_\_\_\_\_ Hrs. \_\_\_\_\_ ft

Gray Weathered SHALE (continued)

END OF BORING

NOTE: Value in Blow# Column is the N-Value of the Sample

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)

DESIGNED Phillip R. Litchfield  
CHECKED Nicholas R. Barnett  
DRAWN Gregory D. Farmer  
CHECKED PRL/NRB

EXAMINED *Thomas J. Demagala*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

SOIL BORING LOGS  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON CO.  
STATION 1453+11.50  
STRUCTURE NO. 095-0077

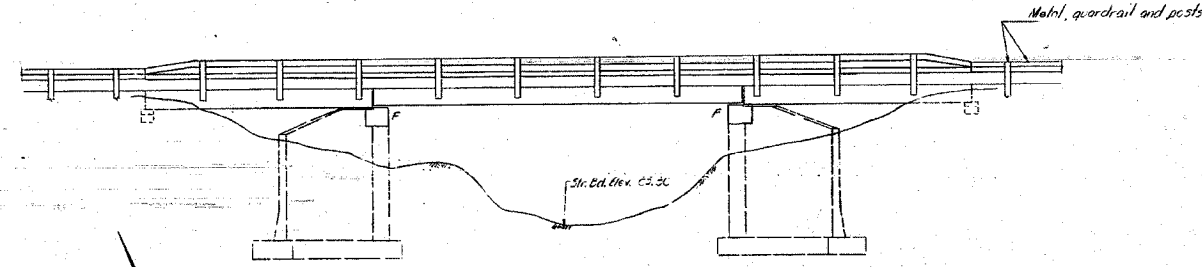


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	44
STA. _____ TO STA. _____				
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				

BM: Chiseled 'D' on top of Northwest abutment wingwall  
 16'-4" - 36" - 1452+96 - Elev. 364.60  
 Existing Structure: Span P.C. thru Gully @ 231'0" B.C. to B.C.  
 Built in 1921 as SBI #115, Sec. 5-B @ Sta. 1452+15.  
 Existing deck to be removed by bridge contractor.

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

PROJECT NO.	SECTION	SHEET NO.	SHEETS
1832	5BR-2	WASHINGTON 2	7



**TOTAL BILL OF MATERIAL**

Item	Unit	Sum	Sub	Total
Portland Cement Concrete Pavement	Sq. Yds	27		27
Pavement Fabric	Sq. Yds	27		27
Concrete Removal	Cu. Yds	9		9
Expansion Bolts (2")	Each	40	32	72
Class X Concrete	Cu. Yds	1.6	13.2	14.8
Precast Prestressed Conc. Deck	Sq. Ft	1003		1003
Precast Concrete Bridge Slab	Sq. Ft	259		259
Steel Railing, Type N	Lin. Ft	130		130
Reinforcement Bars	Lbs.		1750	1750
Post Tensioning Strand (70 k.s.f.)	Sq. Yds	2		2
Removal of Existing Superstructure	Each			1
Coal Tar Interlayer, Protective Coat	Sq. Yds	120		120
Bit. Concrete Surf. Co. @ Class I	Ton	37		37

**GENERAL NOTES**

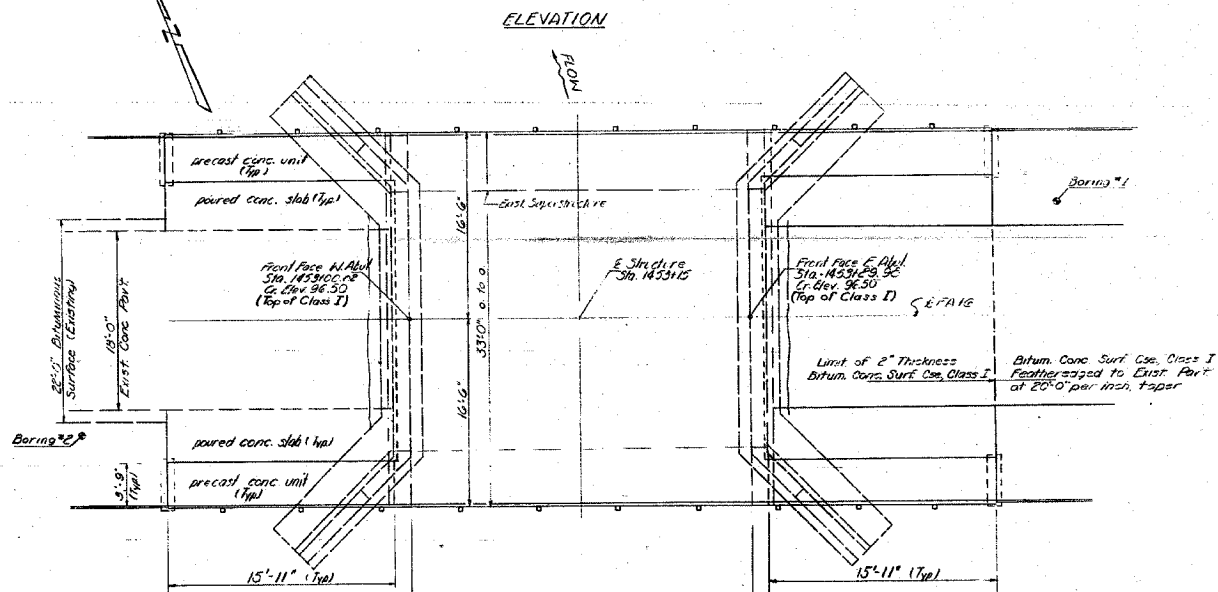
All reinforcement bars shall be lapped 24 diameter unless otherwise shown.

It shall be the responsibility of the contractor to verify all dimensions and conditions existing in the field prior to construction and ordering materials.

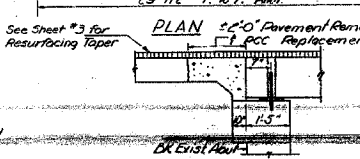
An alternate strand pattern using Extra High Strength Prestressing Strand (70 k.s.f.) is permitted. Expansion bolts shall consist of self-drilling expansion anchors and 3/8" hooked bolts. Hooked bolts shall set a minimum of 12" into new concrete unless otherwise shown.

Shoulder transition to wingwall shall be shaped with broken concrete. Cost incidental.

Limits of Coal Tar Interlayer Protective Coat shall be back to back of abutments.



DESIGNED	H.Y. Lee
CHECKED	G.M. Miller
DRAWN	G.M. Miller
CHECKED	G.M. Miller



**PRECAST PRESTRESSED UNITS**

$f_c = 5,000$  psi  
 $f_{ci} = 4,000$  psi  
 $f'_s = 248,000$  psi (25 strands)  
 $f_s = 173,800$  psi (25 strands)

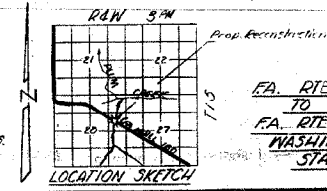
**PRECAST UNITS**

$R = 4,500$  psi  
 $R_c = 1,800$  psi  
 $R_p = 1,800$  psi  
 $n = 6$

**FIELD UNITS**

$R = 1,000$  psi (11 bags)  
 $W = 75$  Feching  
 $R_s = 20,000$  psi (25 bags)  
 $n = 6$

Allow 25% for future W.S.  
 Loading 4.3 20-44



FA. RTE. 16 OVER TRIBUTARY  
 TO PLUM CREEK  
 FA. RTE. 16 SECTION 5BR-1  
 WASHINGTON COUNTY  
 STATION 1453+15

Rev. 2-25-71 W.H.

Rev. 11-15-71

S.N. 095-0077

FOR INFORMATION ONLY

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**EXISTING STRUCTURE PLANS**

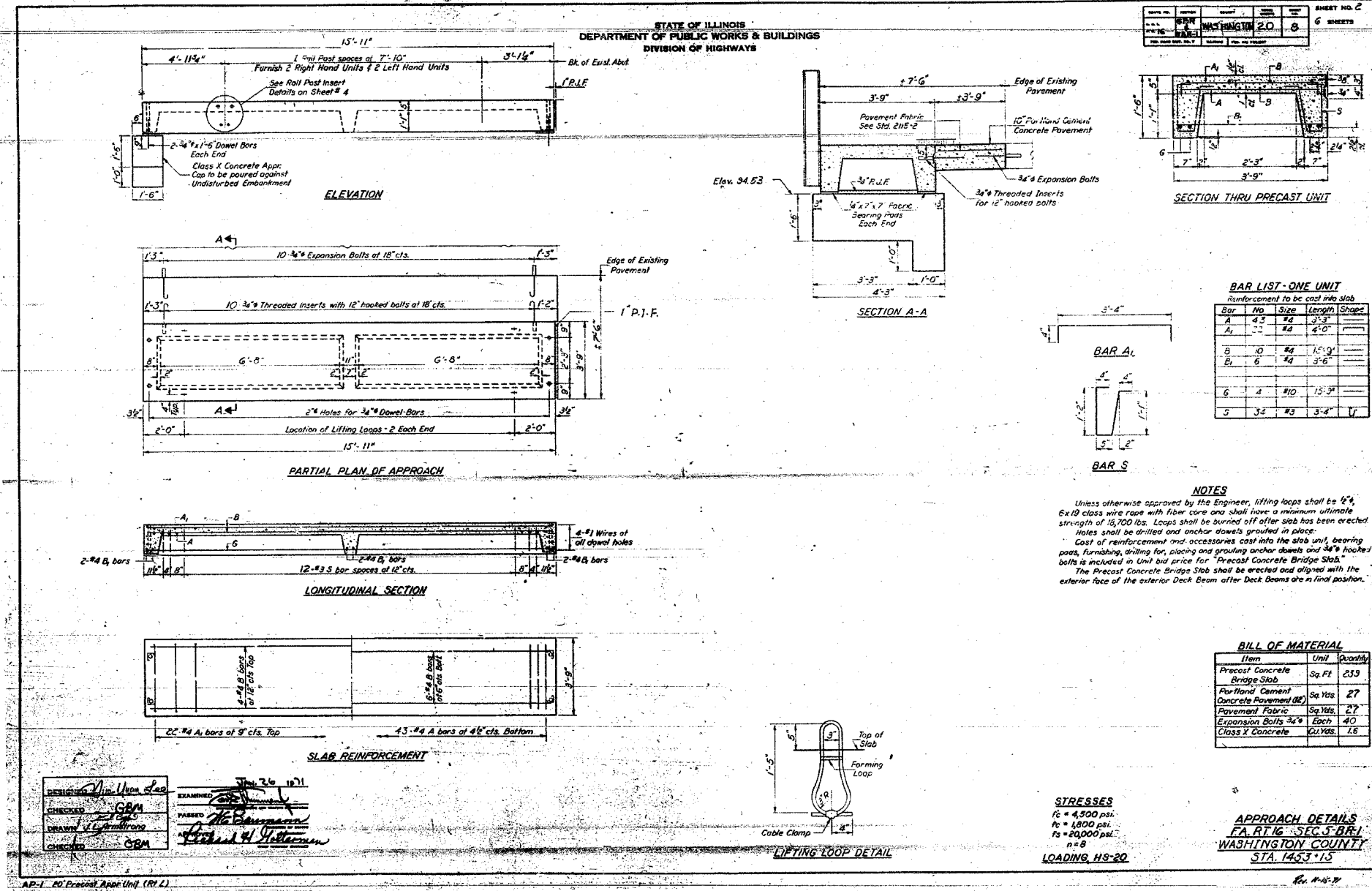
FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_

DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

PLOT DATE = 11/29/2007  
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 PLOT SCALE = 58.80000 / IN.  
 REFERENCE = BREF#

F.A.S. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
182	5BR-2	WASHINGTON	97	45
TO STA. _____				
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				



FOR INFORMATION ONLY

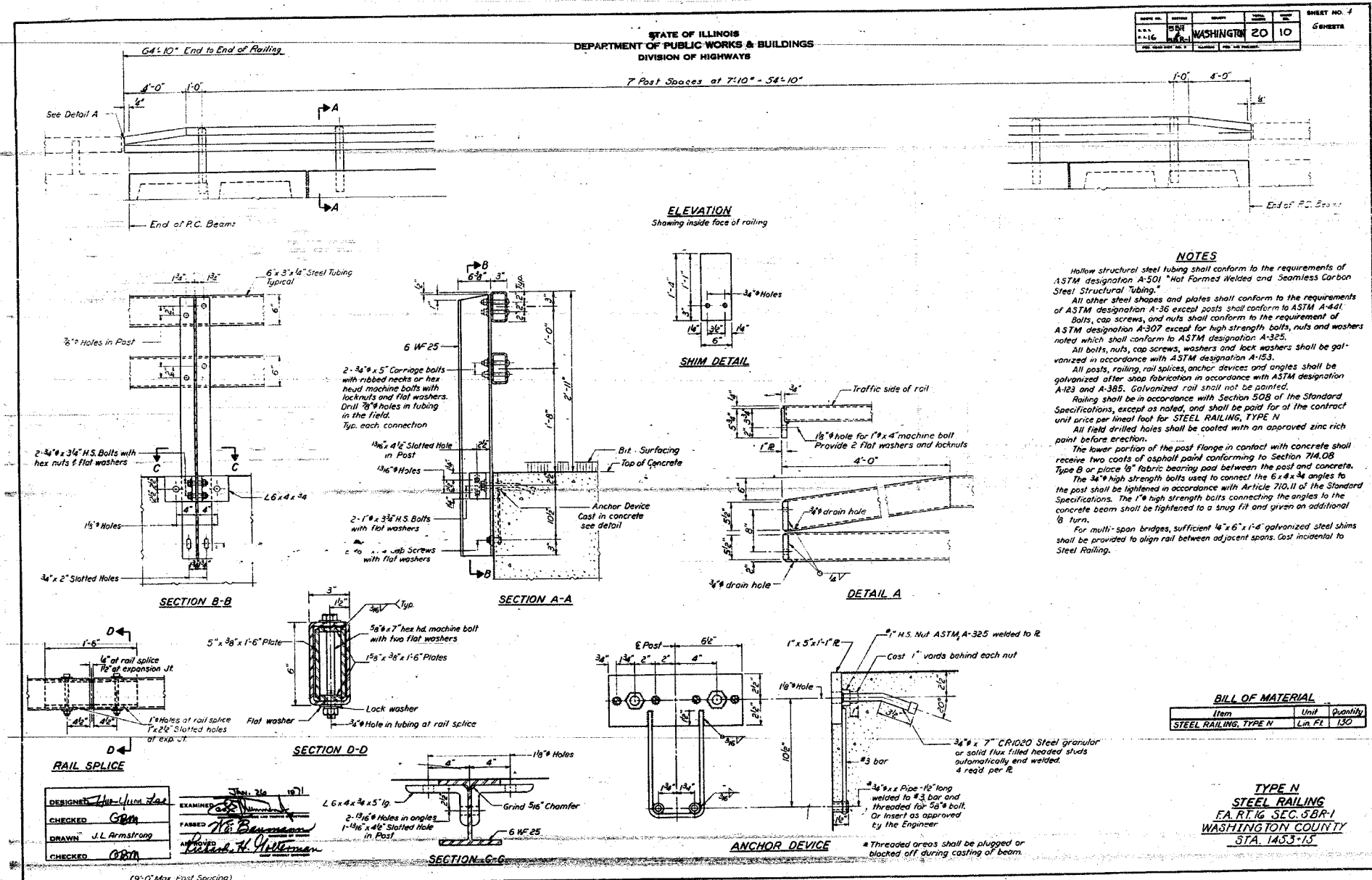
S.N. 095-0077

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EXISTING STRUCTURE PLANS
NAME	DATE	
		FAS ROUTE 1832 SECTION 5BR-2 WASHINGTON COUNTY SCALE: VERT. _____ DATE _____ HORIZ. _____ DRAWN BY _____ CHECKED BY _____

PLOT DATE = 11/29/2007  
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	47
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**NOTES**

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-501 "Hot Formed Welded and Seamless Carbon Steel Structural Tubing."

All other steel shapes and plates shall conform to the requirements of ASTM designation A-36 except posts shall conform to ASTM A-441.

Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to ASTM designation A-325.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with ASTM designation A-153.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with ASTM designation A-153 and A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for of the contract unit price per lineal foot for STEEL RAILING, TYPE N.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place 1/2" fabric bearing pad between the post and concrete.

The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Article 710.11 of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete beam shall be tightened to a snug fit and given an additional 1/2 turn.

For multi-span bridges, sufficient 4 x 6 x 1/4 galvanized steel shims shall be provided to align rail between adjacent spans. Cost incidental to Steel Railing.

**BILL OF MATERIAL**

Item	Unit	Quantity
STEEL RAILING, TYPE N	Lin. Ft.	130

**TYPE N  
STEEL RAILING  
FA. RT. 16 SEC. 5BR-1  
WASHINGTON COUNTY  
STA. 1453-15**

DESIGNED: J.L. Armstrong  
CHECKED: J.L. Armstrong  
DRAWN: J.L. Armstrong  
EXAMINED: J.L. Armstrong  
FABRICATED: J.L. Armstrong  
APPROVED: J.L. Armstrong

R-2

FOR INFORMATION ONLY

S.N. 095-0077

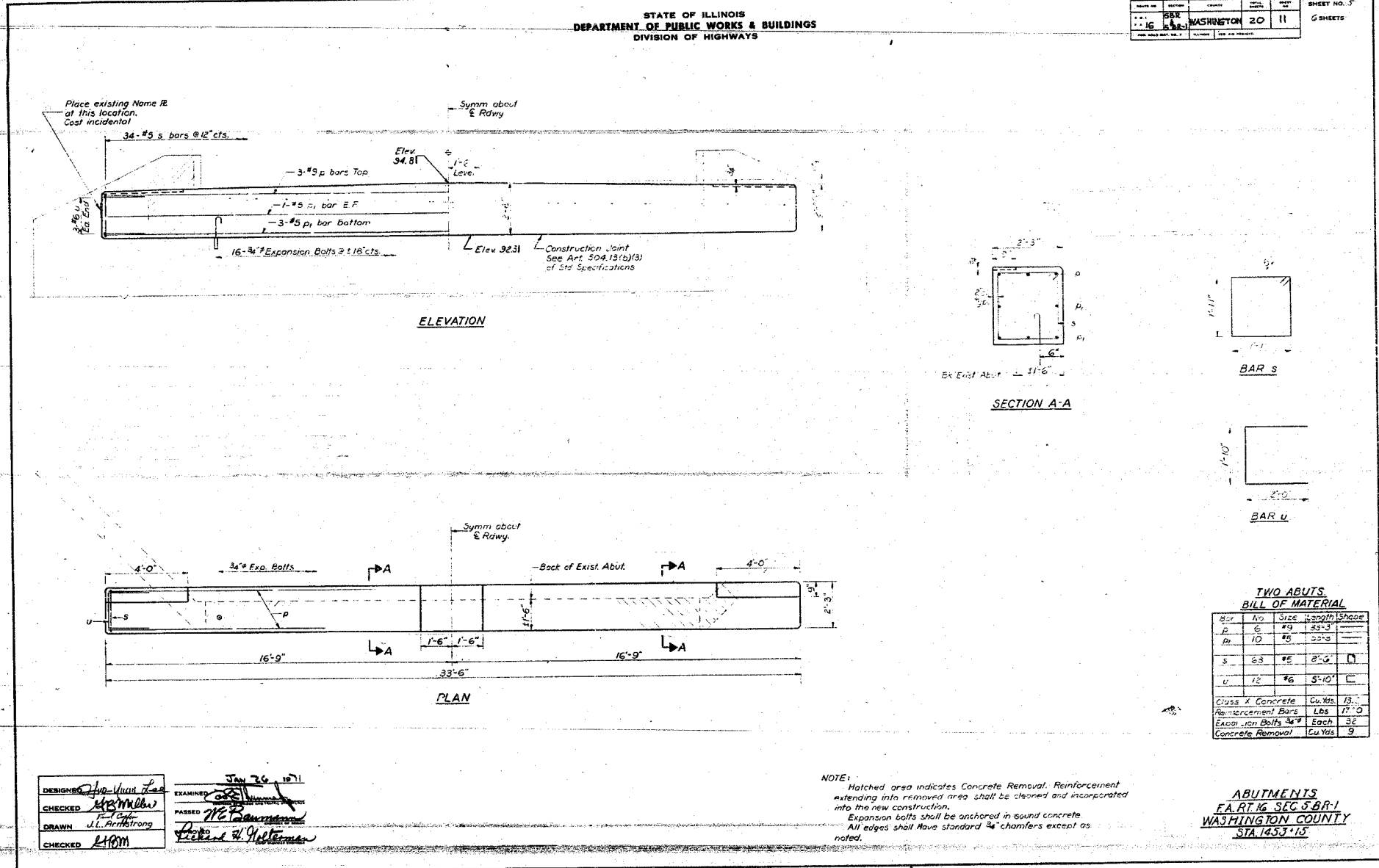
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EXISTING STRUCTURE PLANS
NAME	DATE	
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 REFERENCE = WEP4

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	48
STA.		TO STA.		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
16	5BR-2	WASHINGTON	97	48



DESIGNED: J. L. Armstrong  
CHECKED: J. L. Armstrong  
DRAWN: J. L. Armstrong  
CHECKED: J. L. Armstrong

EXAMINED: J. L. Armstrong  
PASSED: J. L. Armstrong  
DATE: Jan 26, 1971

**NOTE:**  
Hatched area indicates Concrete Removal. Reinforcement extending into removal area shall be cleaned and incorporated into the new construction.  
Expansion bolts shall be anchored in sound concrete. All edges shall have standard 3/4" chamfers except as noted.

FOR INFORMATION ONLY

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**EXISTING STRUCTURE PLANS**

FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_

DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

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S.N. 095-0077



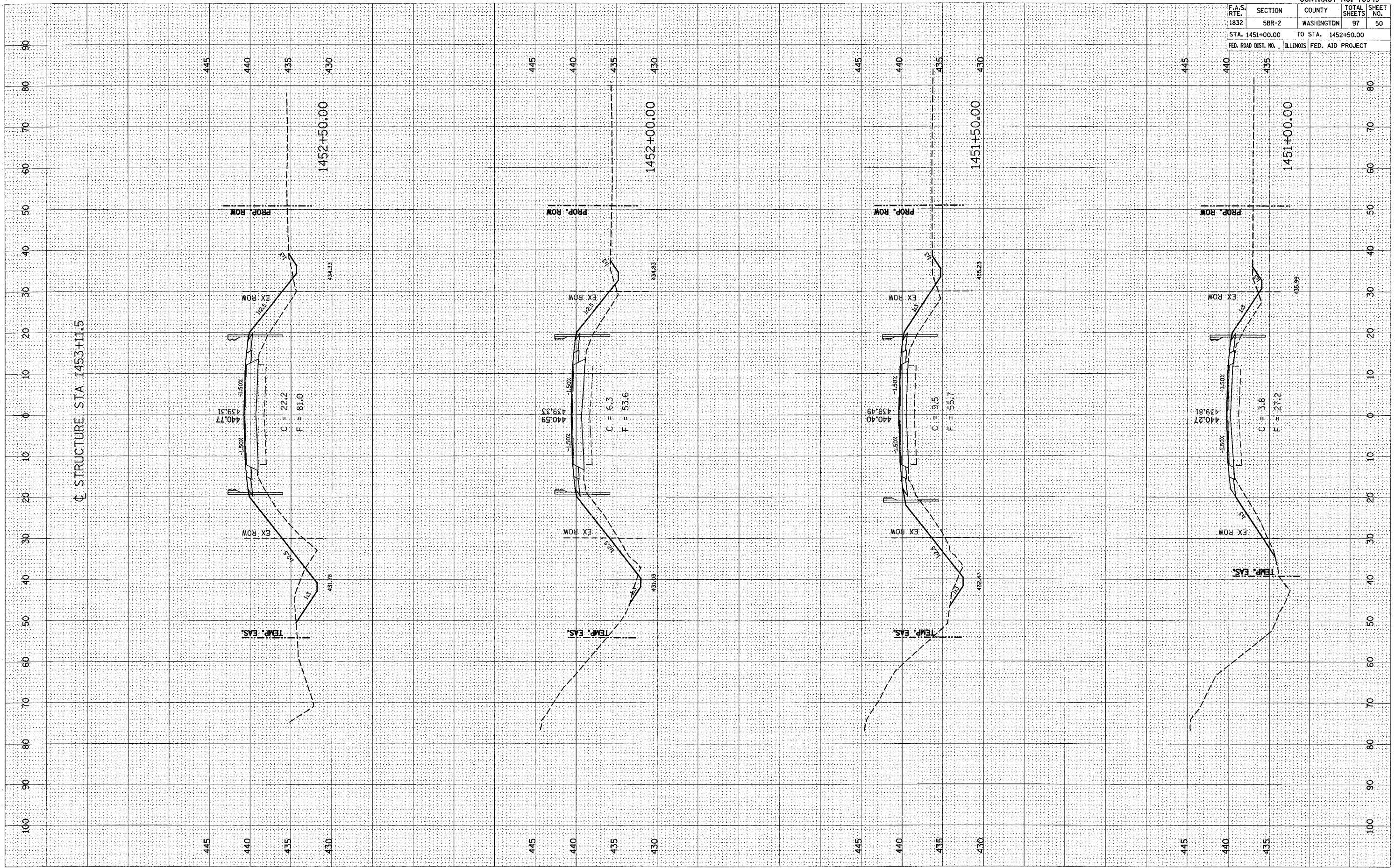


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	SBR-2	WASHINGTON	97	50
STA. 1451+00.00		TO STA. 1452+50.00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

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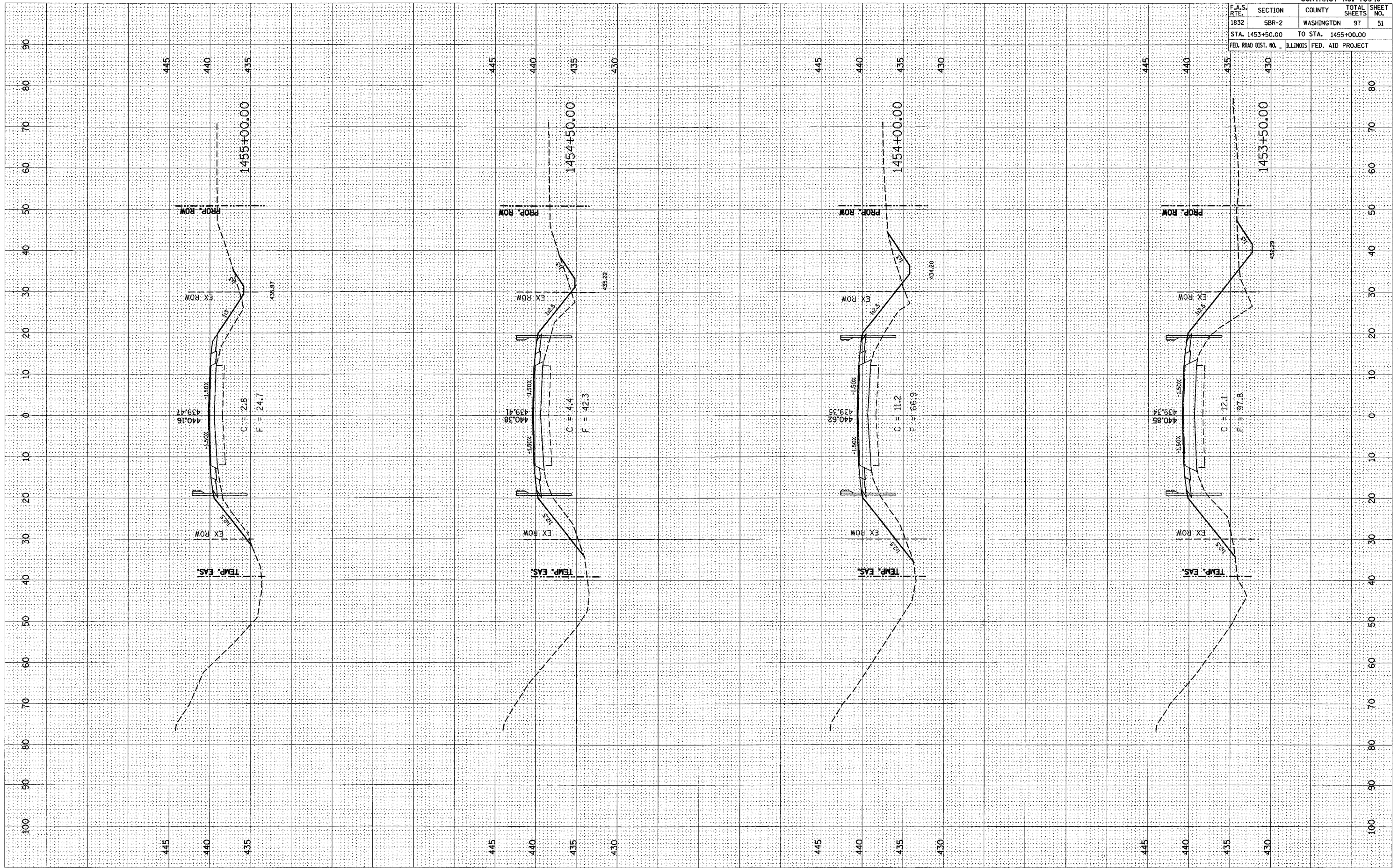


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	51
STA. 1453+50.00		TO STA. 1455+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY  
 SURVEYED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 TEMPLATES AREAS CHECKED: \_\_\_\_\_

ORIGINAL SURVEY  
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 TEMPLATES AREAS CHECKED: \_\_\_\_\_

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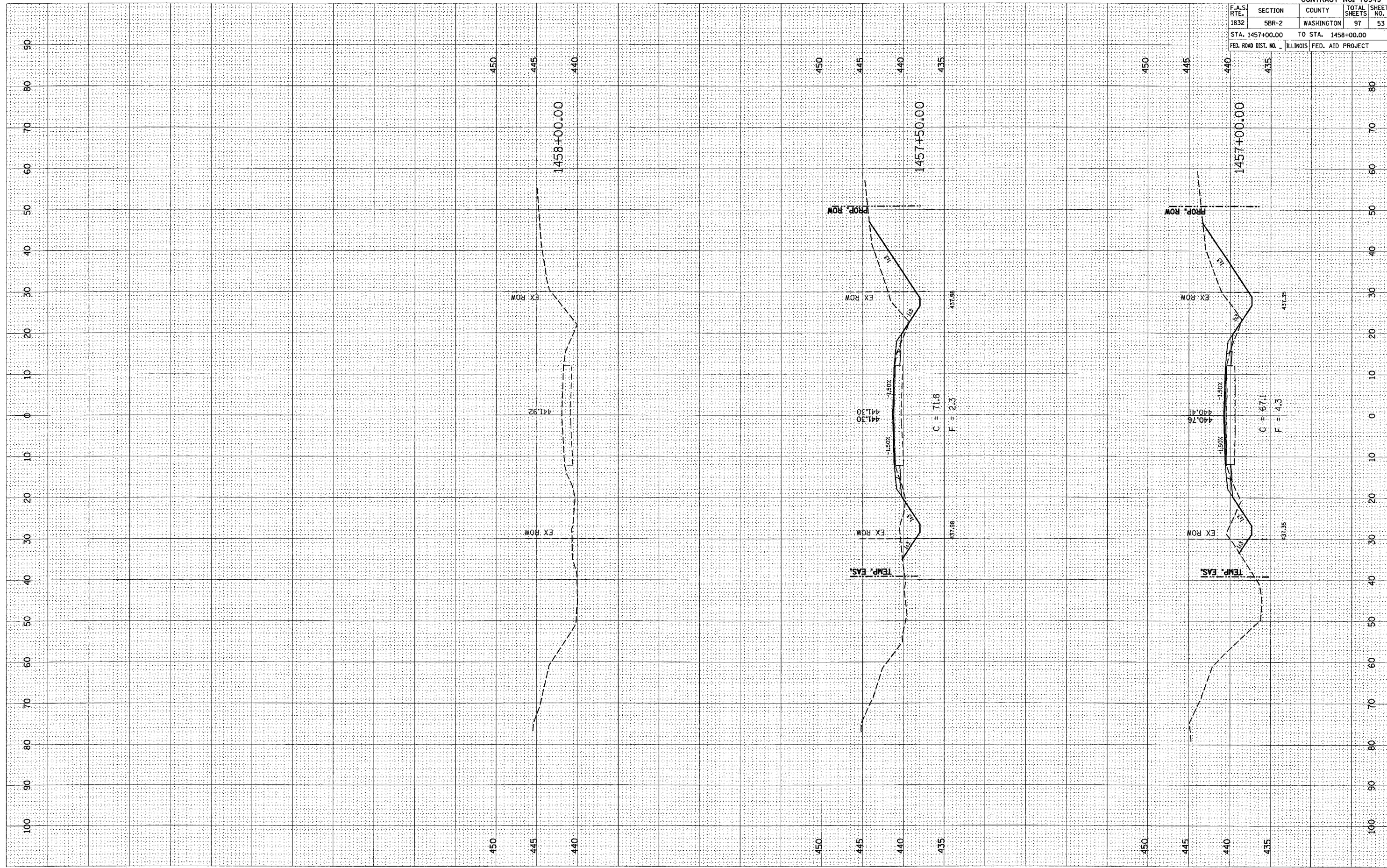


FINAL SURVEY CHECKED  
 NOTE BOOK PLOTTED  
 AREAS CHECKED

ORIGINAL SURVEY CHECKED  
 TEMPLATE PLOTTED  
 AREAS CHECKED

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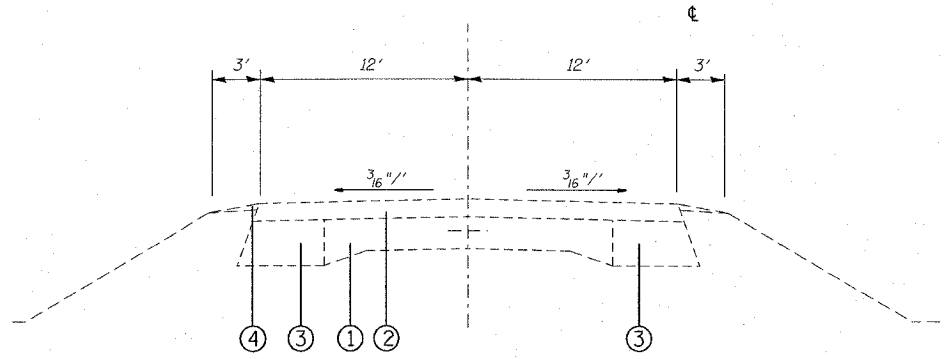
DATE  
 BY  
 NO.



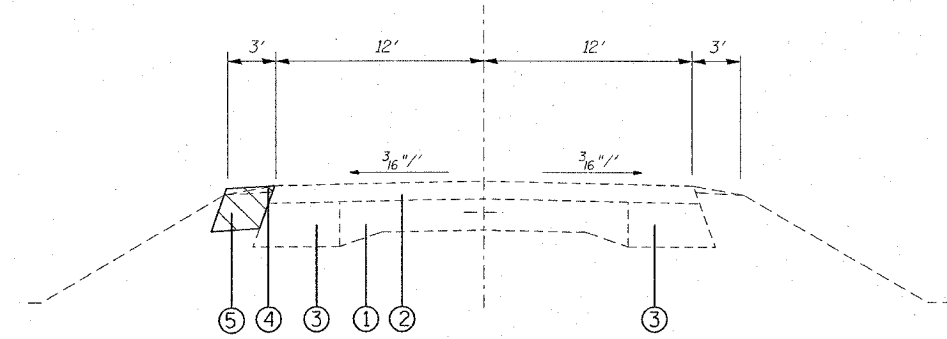
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS
1832	5BR-2	WASHINGTON	97
STA. 1457+00.00		TO STA. 1458+00.00	
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT	



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	54
STA. _____ TO STA. _____		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



**TYPICAL SECTION**  
STA. 1505+00.00 TO STA. 1517+00.00

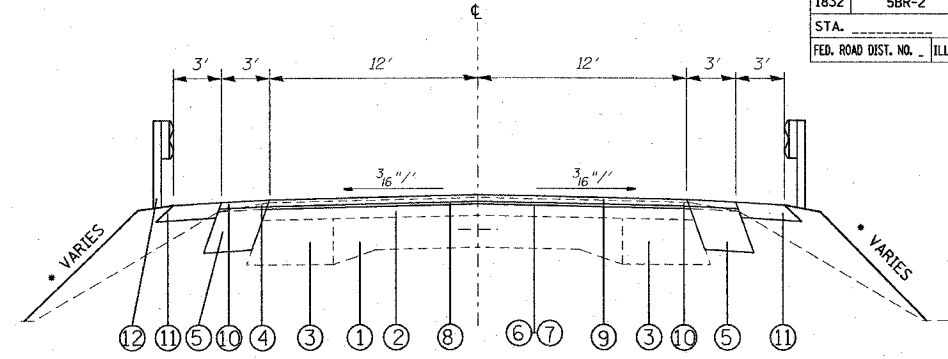


**TYPICAL SECTION**  
STA. 1507+75.00 TO STA. 1514+25.00 - LT

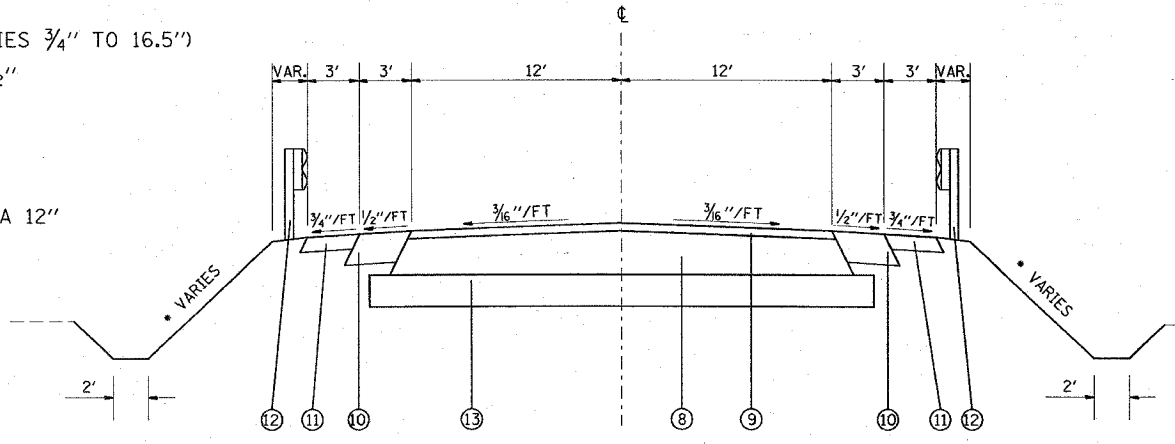
REMOVAL

**LEGEND**

- ① EXISTING P.C.C. PAVEMENT 9-6-9
- ② EXISTING BITUMINOUS OVERLAY 6" (±)
- ③ EXISTING BASE COURSE WIDENING 8"
- ④ EXISTING AGGREGATE SHOULDERS
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 9"
- ⑥ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑦ PROPOSED AGGREGATE (PRIME COAT)
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 3/4" TO 16.5")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, 1 1/2"
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDER, 8"
- ⑪ PROPOSED AGGREGATE SHOULDER, TYPE B 6"
- ⑫ PROPOSED GUARDRAIL
- ⑬ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE A 12"



**TYPICAL SECTION**  
STA. 1507+75.00 TO STA. 1510+84.00  
STA. 1511+16.16 TO STA. 1514+25.00

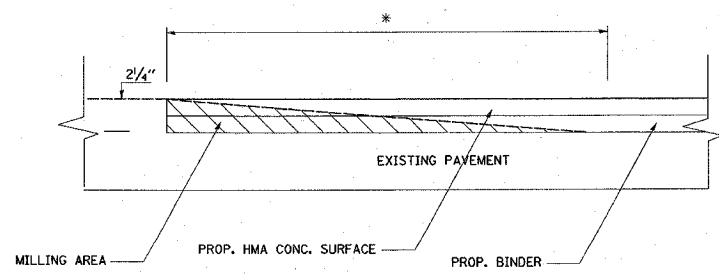


**PROPOSED TYPICAL SECTION**  
STA. 1510+67.40 TO STA. 1510+84.90

**MIXTURE REQUIREMENTS**

MIXTURE USE	SURFACE	BINDER	WIDENING COURSE	SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 58-22
RAP % (MAX)	10%	15%	15%	30%
DESIGN AIR VOIDS	4.0% @ Ndes= 70	4.0% @ Ndes= 70	4.0% @ Ndes= 70	2.0% @ Ndes=30
MIX COMPOSITION (GRADATION MIXTURE)				
FRICTION AGG	MIXTURE "D"	MIXTURE "B"	MIXTURE "B"	BAM

PLAN QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN (59.8 KG/SQ M/25 MM THICKNESS).



**HMA SURFACE REMOVAL DETAIL**  
\* BEGINNING STA. 1508+00.00 TO STA. 1508+89.34  
ENDING STA. 1315+00.69 TO STA. 1514+25.00  
S.N. 095-0078

DRAWING NOT TO SCALE

REVISIONS	
NAME	DATE

S.N. 095-0078  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TYPICAL SECTIONS MIXTURE REQUIREMENT & HMA REM. DETAIL**  
FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY  
SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	55
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

RESURFACING SCHEDULE

STATION	RT/LT	HOT-MIX ASPHALT BS WIDENING 9" (SQ YD)	AGGREGATE PRIME COAT (TON)	BIT. MAT'L PRIME COAT (TON)	HMA CONC BINDER SUPER, MIX "B" (TON)	HMA CONC SURF CSE, SUPER, MIX "C", N70 (TON)	SUB-BASE GRANULAR MATERIAL TY-A 12" (SQ YD)	HMA SHOULDERS 8" (SQ YD)	AGG. SHLD TYPE B 6" (SQ YD)
1508+00.00 TO 1508+90.00	RT/LT				10.08				
1507+75.00 TO 1510+52.50	RT								
1507+75.00 TO 1510+68.30	LT	97.77							
1508+00.00 TO 1510+86.00	RT/LT		1.14	0.24		64.06		190.67	190.67
1508+90.00 TO 1510+86.00	RT/LT				307.33				
1510+67.40 TO 1510+84.00	RT/LT						50.56		
1511+18.90 TO 1514+25.00	LT	102.03							
1511+16.00 TO 1513+15.00	RT/LT				312.03				
1511+09.00 TO 1514+25.00	RT								
1511+16.00 TO 1514+25.00	RT/LT		1.24	0.26		69.22		206.00	206.00
1513+15.00 TO 1514+25.00	RT/LT				12.32				
TOTAL		199.80	2.38	0.50	641.76	133.28	50.56	396.67	396.67

GUARDRAIL SCHEDULE

STATION	RT/LT	SPBGR (FT)	TBT - T1 (SPECIAL) (EA)	TBT - T6A (EA)	GUARDRAIL MRKS TY-A (EA)	BI-DIREC PRISM BARR REFLEC (EA)
1508+45.25 TO 1510+76.50	RT	137.5	1	1	3	
1509+45.25 TO 1510+89.00	LT	50	1	1	2	
1510+86.00 TO 1511+16.00	RT/LT					2
1511+22.25 TO 1513+53.50	LT	137.5	1	1	3	
1511+11.00 TO 1512+54.75	RT	50	1	1	2	
TOTAL		375	4	4	9	2

TEMPORARY PAVEMENT MARKING SCHEDULE

STATION	RT/LT	STOP BAR	PAVEMENT MARKING			WORK ZONE PVMT REMOVAL (SQ FT)	PVMT MRKG REMOVAL (SQ FT)	
			LINE 4" PAVEMENT (FT)	LINE 6" (TEMP. BARR.) (FT)	LINE 24" PAVEMENT (FT)			
1504+95.00	RT	STOP BAR			12	24.0		
1504+70.00	LT	STOP BAR			12	24.0		
1504+70.00		1517+35.00	STAGE 2	2530		843.3		
1504+95.00 TO 1517+35.00			STAGE 1	2480		826.7		
1504+70.00 TO 1517+35.00	RT/LT						843.3	
1504+70.00 TO 1517+35.00	CL						105.4	
1507+95.00 TO 1515+64.50			STAGE 1		770			
1506+40.50 TO 1515+69.50			STAGE 2		930			
1507+51.24	MALLARD	RT			46	92.0		
1517+35.00	LT	STOP BARS			24	48.0		
SUB-TOTAL								
TOTAL				5010	1700	94	1858.0	948.7

PAVEMENT MARKING SCHEDULE

STATION	RT/LT	CL	PAVEMENT - THERMOPLASTIC				24" WHITE LINE (FT)
			4" WHITE LINE (FT)	4" YELLOW LINE (FT)	YELLOW SKIP DASH LINE 4" (FT)	DBL AMBER RSD REFL PMK (EA)	
1504+69.00 TO 1517+36.00	CL				316.75	16	
1504+69.00 TO 1517+36.00	RT/LT		2414				
1507+51.24	STOP BAR	RT					38
1509+00.00 TO 1513+00.00	CL			400.0			
SUB-TOTAL			2414	400.00	316.75	16	
TOTAL				3130.75		16	38

S.N. 095-0078

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	56
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

TREE REMOVAL SCHEDULE

STATION	OFFSET	RT/LT	6 TO 15 UNITS	OVER 15 UNITS
1510+86.70	40.5	LT		16
1510+97.80	61.2	RT	12	
1510+98.40	59.5	RT	10	
1511+27.20	33.5	LT		24
SUB-TOTAL			10	12
TOTAL			22	40

SEEDING SCHEDULE

STA	STA	AREA SQ FT	SEEDING CLASS 2 (ACRE)	NITROGEN FERT. NUTR (POUND)	PHOSPHORUS FERT. NUTR (POUND)	POTASSIUM FERT. NUTR (POUND)	MULCH METHOD 1 (ACRE)
1507+75.00	TO 1513+50.00	LT	5005	0.12	10.34	10.34	0.12
1507+75.00	TO 1513+50.00	RT	5824	0.13	12.03	12.03	0.13
TOTAL				0.25	22.37	22.37	0.25

REMOVAL SCHEDULE

LOCATION					PVMT REMOVAL		HMA SURF REMOVAL VAR. DEPTH (SQ YD)	SPBGR (FT)
FROM	OFFSET	TO	OFFSET	RT/LT	MAINLINE REMOVAL (SQ YD)	WIDENING REMOVAL (SQ YD)		
1507+75.00		1510+68.30		LT		97.77		
1508+00.00		1508+90.00		RT/LT			240.00	
1508+59.00		1510+36.00		RT			177.00	
1509+54.00		1510+83.00		LT			129.00	
1510+86.50		1511+87.50		RT			101.00	
1510+93.25		1511+17.90		RT/LT	68.14			
1511+09.50		1512+95.50		LT			186.00	
1511+18.90		1514+25.00		LT		102.03		
1512+27.00	20.6	1512+44.50	26.6	RT				
1513+00.00		1514+25.00		RT/LT			333.33	
TOTAL					68.14	199.80	573.33	593.00
						267.94		

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 1507+75.00 TO STA. 1510+86.00	352.5	264.4	262.5	1.9
STA. 1511+16.00 TO STA. 1514+25.00	188.5	141.4	236.7	-95.3
TOTAL	541.0	405.8	499.2	-93.4

EARTHWORK SCHEDULE (WIDENING)

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 1507+75.00 TO STA. 1510+68.30	25.0	18.7	0.0	18.7
STA. 1511+18.90 TO STA. 1514+25.00	26.1	19.6	0.0	19.6
TOTAL	51.1	38.3	0.0	38.3

ROW MARKERS SCHEDULE

LOCATION				ROW MARKERS (EA)
STATION	SIDE	OFFSET		
1506+37.55	29.54	L+		1
1506+37.56	30.46	R+		1
1507+50.00	29.54	L+		1
1508+50.00	44.55	L+		1
1509+55.29	78.21	R+		1
1510+43.14	30.43	R+		1
1510+49.50	78.2	R+		1
1510+80.00	44.57	L+		1
1512+00.00	45.42	R+		1
1513+00.00	29.59	L+		1
1514+00.00	45.41	R+		1
1514+50.00	30.4	R+		1
1514+50.00	29.54	L+		1
TOTAL				13

EARTHWORK SCHEDULE (CHANNEL)

LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJTD FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
STA. 0+40.00 TO STA. 1+80.00	632.4	474.3	241.5	232.8
TOTAL	632.4	474.3	241.5	232.8

S.N. 095-0078

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SCHEDULE OF QUANTITIES**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

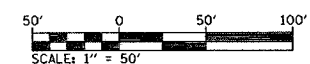
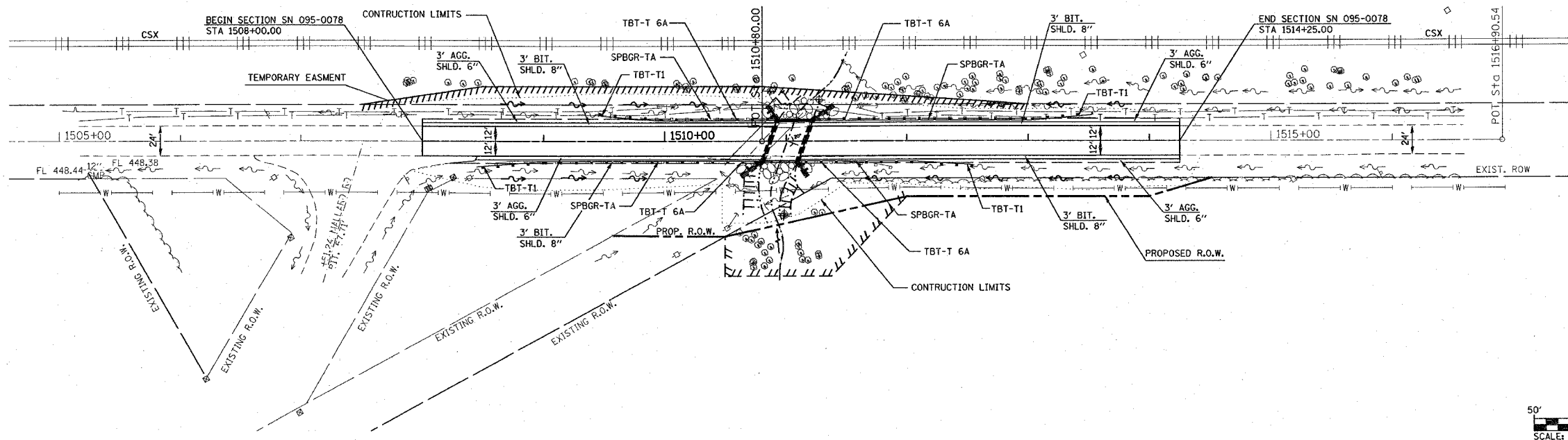
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 HORIZ. \_\_\_\_\_  
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 CHECKED BY \_\_\_\_\_

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	57
STA. 1505+00.00		TO STA. 1516+90.00		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

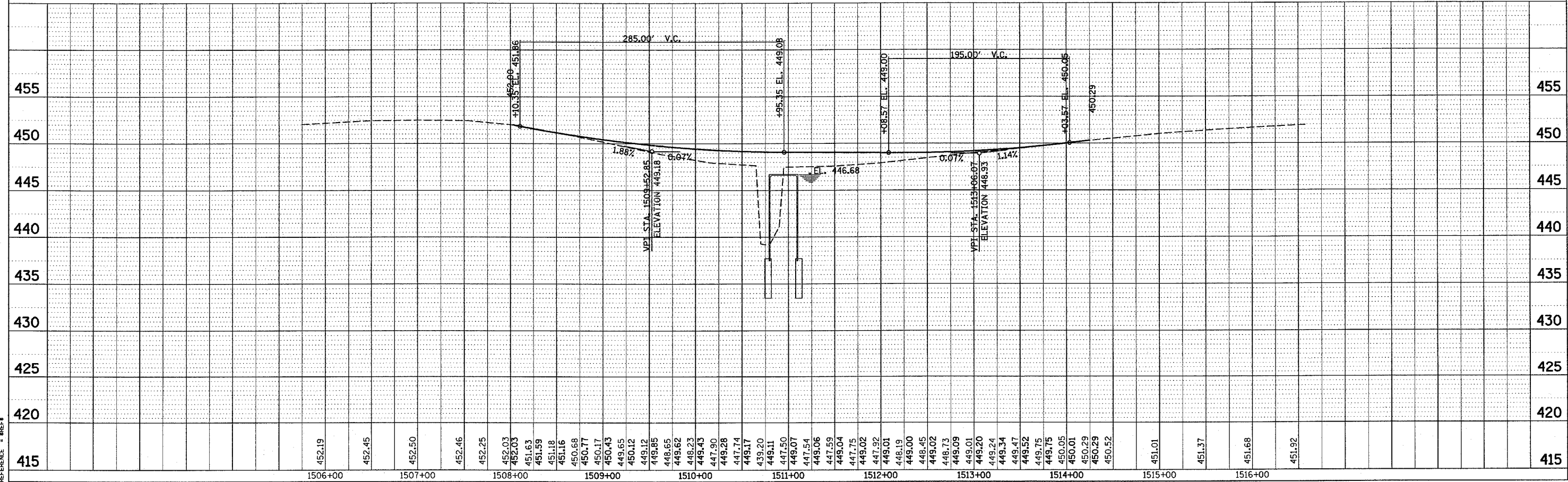
NOTE: PRAIRIE REMNANT IS LOCATED ON THE NORTH SIDE OF THE PROJECT AND EXTEND FROM THE EDGE OF SHOULDER TO THE EVANSVILLE WESTERN RAILWAY RAILROAD RACKS. NO VEHICLES ARE TO BE PARKED ON THE NORTH SIDE OF THE PROJECT.



PLAN	REVISIONS	DATE
NO.	BY	
NO.	BY	
NO.	BY	



PROFILE	REVISIONS	DATE
NO.	BY	
NO.	BY	
NO.	BY	



PLOT DATE = 12/7/2007  
 PLOT SCALE = 50.0000 / IN  
 REFERENCE = MREF

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	58
STA. 0+00.00		TO STA. 2+00.00		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT

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

PROFILE	DATE
SURVEYED	
PLOTTED	
BY	
NOTE BOOK NO.	
STRUCTURE NOTATION	

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 USER NAME = gclinh

PROP. CURVE CHANNEL-1  
 PI STA. = 0+11.91  
 $\Delta = 13^\circ 10' 15''$  (RT)  
 D = 114' 35' 30"  
 R = 50.00'  
 T = 5.77'  
 L = 11.49'  
 E = 0.33'  
 P.C. STA = 0+06.14  
 P.T. STA = 0+17.63

PROP. CURVE CHANNEL-2  
 PI STA. = 0+24.56  
 $\Delta = 15^\circ 35' 54''$  (LT)  
 D = 286' 28' 44"  
 R = 20.00'  
 T = 2.74'  
 L = 5.44'  
 E = 0.19'  
 P.C. STA = 0+21.82  
 P.T. STA = 0+27.27

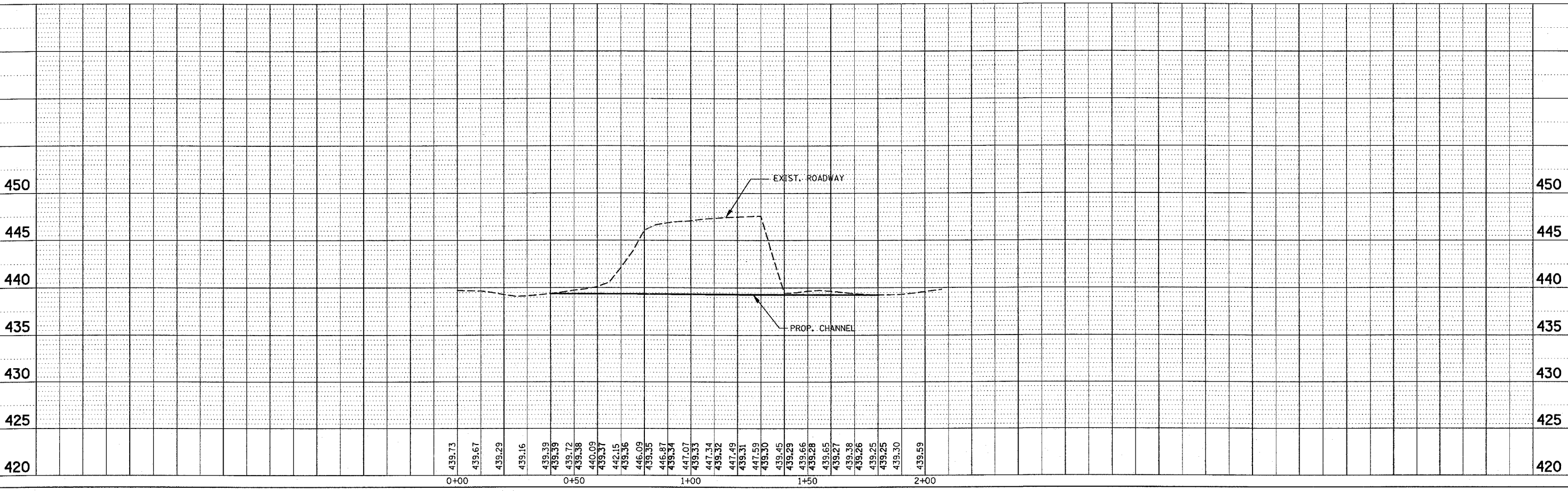
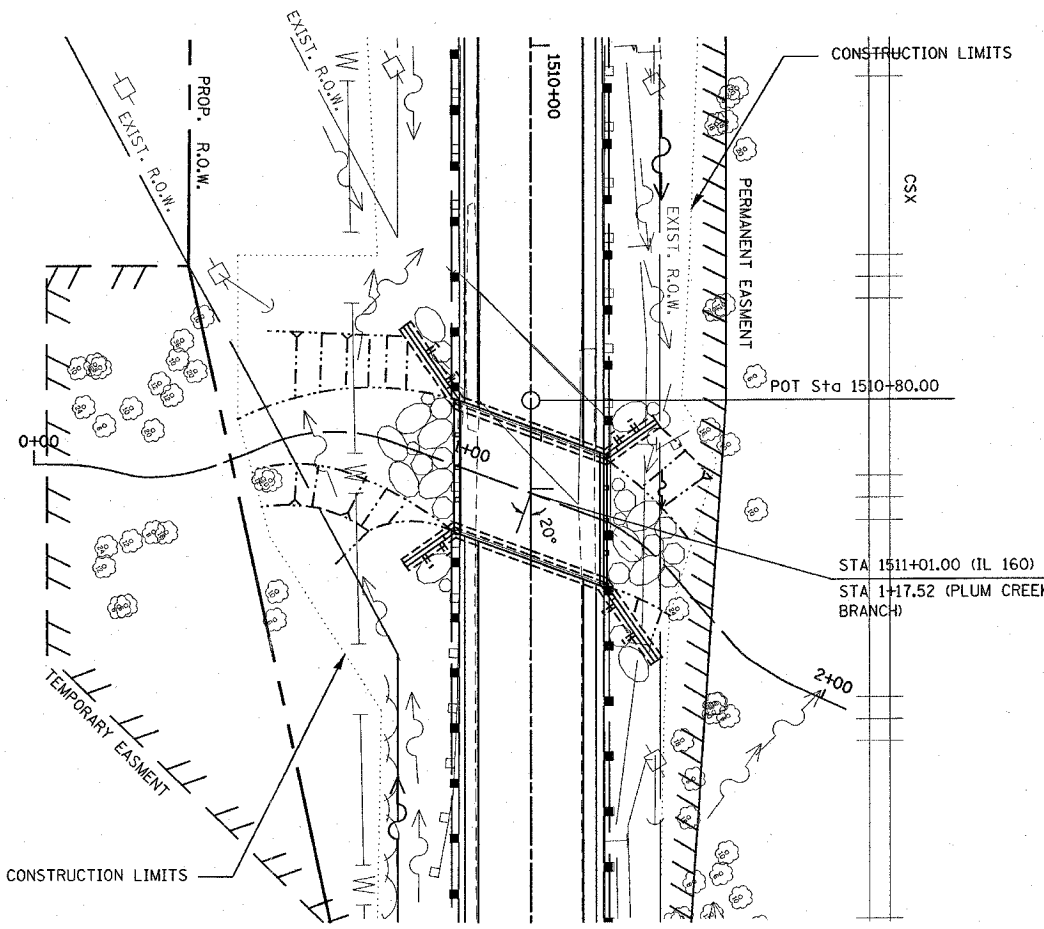
PROP. CURVE CHANNEL-3  
 PI STA. = 0+36.24  
 $\Delta = 17^\circ 49' 30''$  (LT)  
 D = 114' 35' 30"  
 R = 50.00'  
 T = 7.84'  
 L = 15.56'  
 E = 0.61'  
 P.C. STA = 0+28.39  
 P.T. STA = 0+43.95

PROP. CURVE CHANNEL-4  
 PI STA. = 0+68.05  
 $\Delta = 44^\circ 19' 14''$  (RT)  
 D = 143' 14' 22"  
 R = 40.00'  
 T = 16.29'  
 L = 30.94'  
 E = 3.19'  
 P.C. STA = 0+51.76  
 P.T. STA = 0+82.70

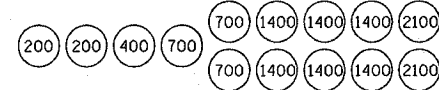
PROP. CURVE CHANNEL-5  
 PI STA. = 1+46.39  
 $\Delta = 22^\circ 59' 55''$  (RT)  
 D = 114' 35' 30"  
 R = 50.00'  
 T = 10.17'  
 L = 20.07'  
 E = 1.02'  
 P.C. STA = 1+36.22  
 P.T. STA = 1+56.29

PROP. CURVE CHANNEL-6  
 PI STA. = 1+80.08  
 $\Delta = 17^\circ 14' 46''$  (LT)  
 D = 286' 28' 44"  
 R = 20.00'  
 T = 3.03'  
 L = 6.02'  
 E = 0.23'  
 P.C. STA = 1+77.05  
 P.T. STA = 1+83.07

PROP. CURVE CHANNEL-7  
 PI STA. = 1+90.92  
 $\Delta = 7^\circ 21' 59''$  (LT)  
 D = 208' 04' 21"  
 R = 27.54'  
 T = 1.77'  
 L = 3.54'  
 E = 0.06'  
 P.C. STA = 1+89.15  
 P.T. STA = 1+92.69



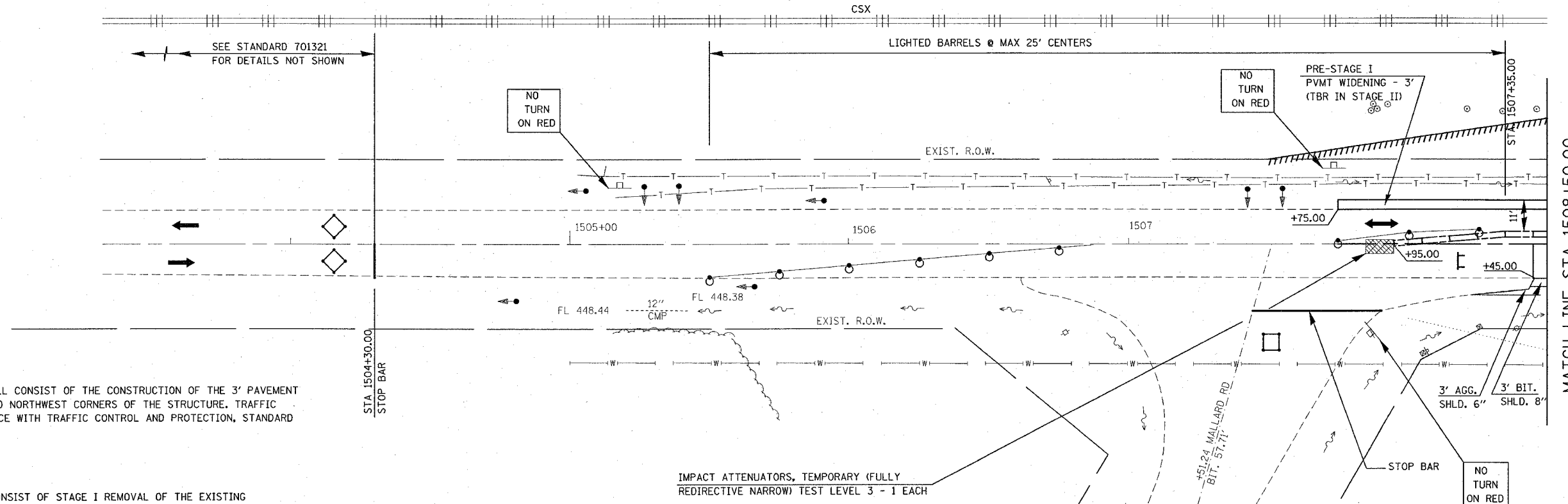
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	59
STA. _____ TO STA. _____		FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT		



SAND MODULE IMPACT ATTENUATOR LAYOUT  
(IF OPTION USED)

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE AND FIELD ENTRANCES LOCATED WITHIN THE LIMITS OF THE PROJECT.
2. TRAFFIC CONTROL & PROTECTION, STANDARD 701321 (SPECIAL) INCLUDES BOTH STAGE I & II AND ANY ADDITIONAL SIGNING OR TRAFFIC CONTROL DEVICES SHOWN ON THE STAGE CONSTRUCTION PLANS.
3. ALL ADDITIONAL TRAFFIC SIGNAL HEADS, LOOP DETECTORS AND ASSOCIATED EQUIPMENT REQUIRED TO MAINTAIN ACCESS AT THE FIELD AND DRIVEWAY ENTRANCES SHALL BE INCLUDED IN THE COST OF "TEMPORARY BRIDGE TRAFFIC SIGNALS"
4. THE COST OF "BARRICADES, TYPE III" SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
5. ALL SIDEROADS AND ENTRANCES WITHIN TRAFFIC CONTROL SHALL HAVE "NO RIGHT TURN ON RED" AND "STOP HERE ON RED" SIGNS. THE COST SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".



PRE-STAGE I CONSTRUCTION:

1. PRE-STAGE I CONSTRUCTION SHALL CONSIST OF THE CONSTRUCTION OF THE 3' PAVEMENT WIDENING ON THE NORTHEAST AND NORTHWEST CORNERS OF THE STRUCTURE. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION, STANDARD 701326.

STAGE I CONSTRUCTION:

1. STAGE I CONSTRUCTION SHALL CONSIST OF STAGE I REMOVAL OF THE EXISTING STRUCTURE, AND STAGE I CONSTRUCTION OF THE REPLACEMENT STRUCTURE, PAVEMENT REMOVAL, PAVEMENT WIDENING ON THE LEFT, GRADING, RESURFACING THE EAST AND WEST SIDES OF THE STRUCTURE, GUARDRAIL, RIPRAP, ETC. STAGE I CONSTRUCTION SHALL BE DONE ACCORDING TO STAGE CONSTRUCTION AS DETAILED IN THE BRIDGE PLANS. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARD 701321 AND AS DETAILED IN THE STAGE CONSTRUCTION PLANS. THIS TRAFFIC CONTROL SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION 701321 (SPECIAL).

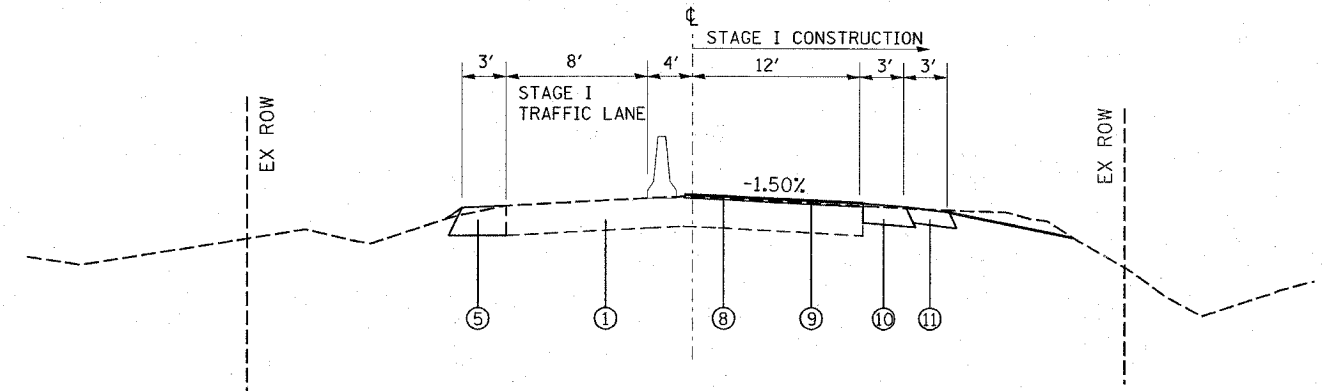
IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE NARROW) TEST LEVEL 3 - 1 EACH

LEGEND:

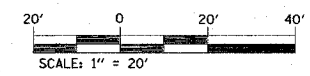
	STRUCTURE REMOVAL
	PAVEMENT REMOVAL
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	INDUCTION LOOP DETECTOR
	DRUM WITH STEADY BURNING LIGHT
	SIGNALIZED TWO-WAY TRAFFIC LANE
	TEMPORARY BRIDGE TRAFFIC SIGNAL
	TYPE III BARRICADE

LEGEND

- ① EXISTING PAVEMENT
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- ⑪ PROPOSED AGGREGATE SHOULDER 6"



STAGE I TYPICAL SECTION  
STA. 1507+75.0 TO STA. 1508+50.0  
(NTS)



REVISIONS	
NAME	DATE

SN 095-0078

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SUGGESTED STAGE I CONSTRUCTION**

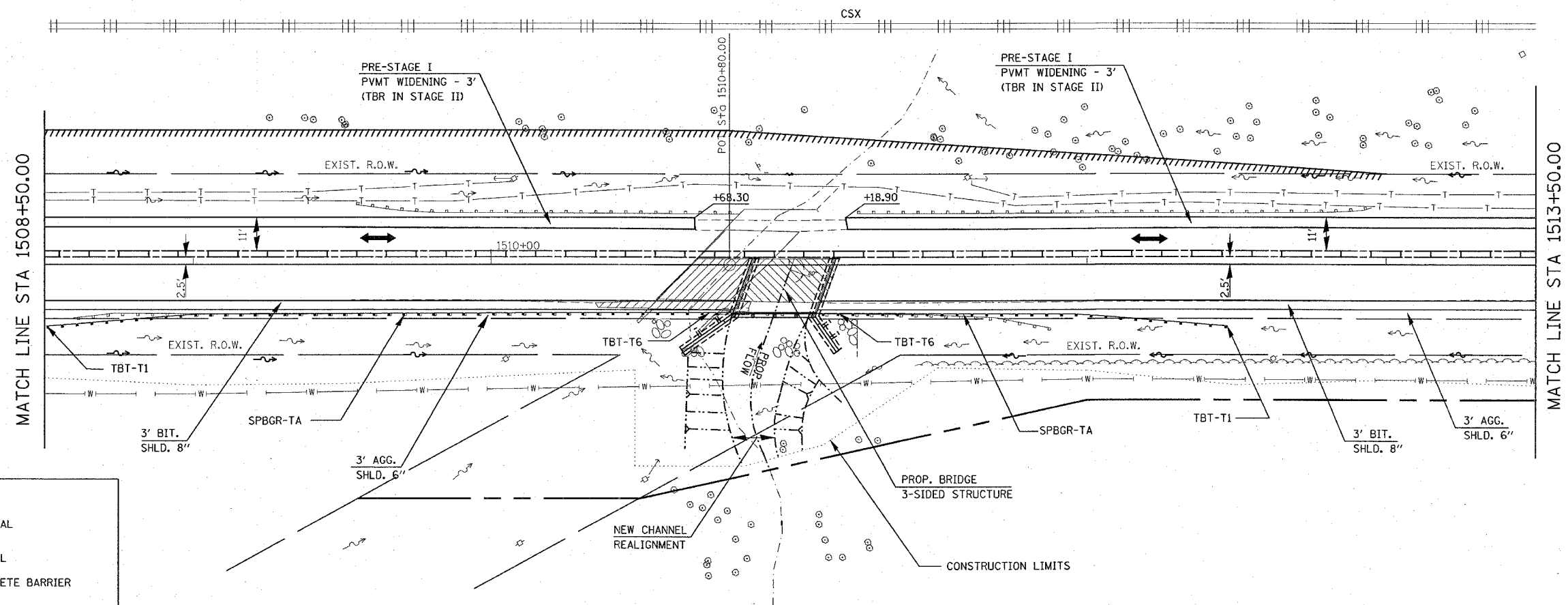
FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_ HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
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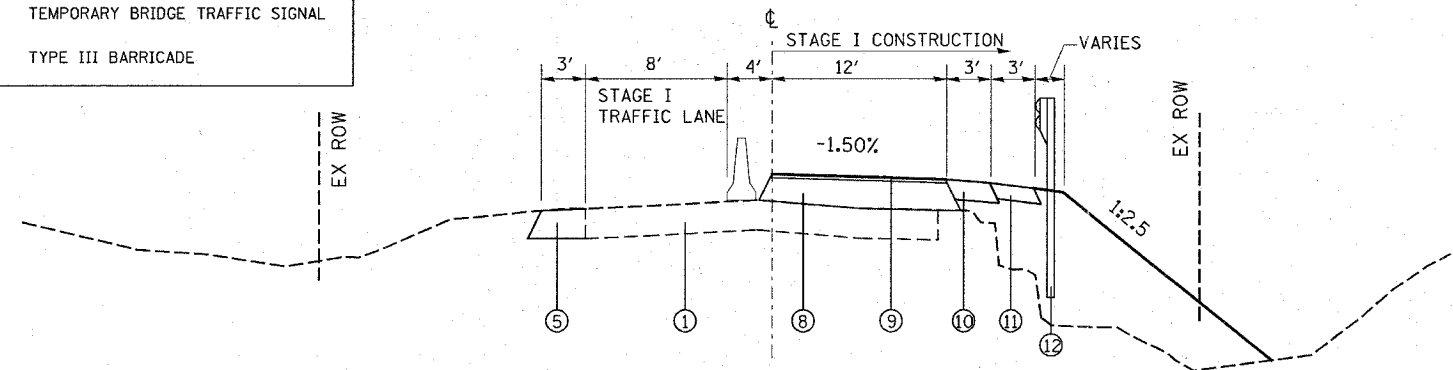
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	60
STA. _____ TO STA. _____		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



**LEGEND:**

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

- LEGEND**
- ① EXISTING PAVEMENT
  - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
  - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
  - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
  - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
  - ⑪ PROPOSED AGGREGATE SHOULDER 6"
  - ⑫ PROPOSED GUARDRAIL



**STAGE I TYPICAL SECTION**  
 STA. 1508+50.0 TO STA. 1513+50.0  
 (NTS)



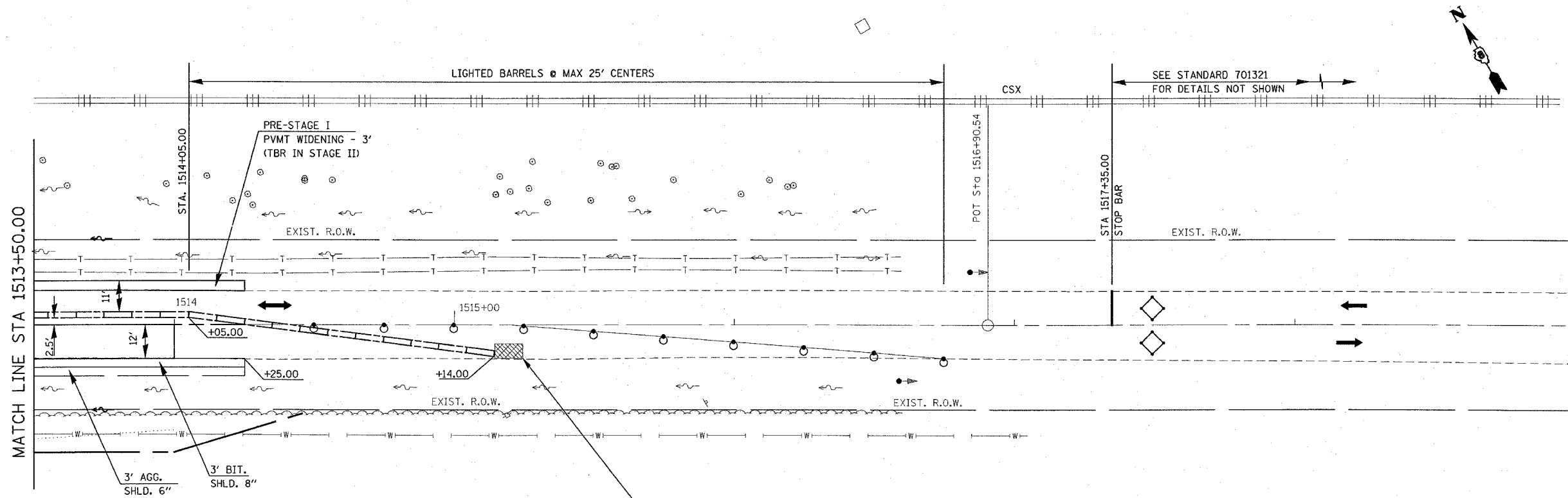
SN 095-0078

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUGGESTED STAGE I CONSTRUCTION**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY  
 SCALE: VERT. \_\_\_\_\_ HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
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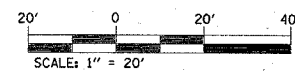
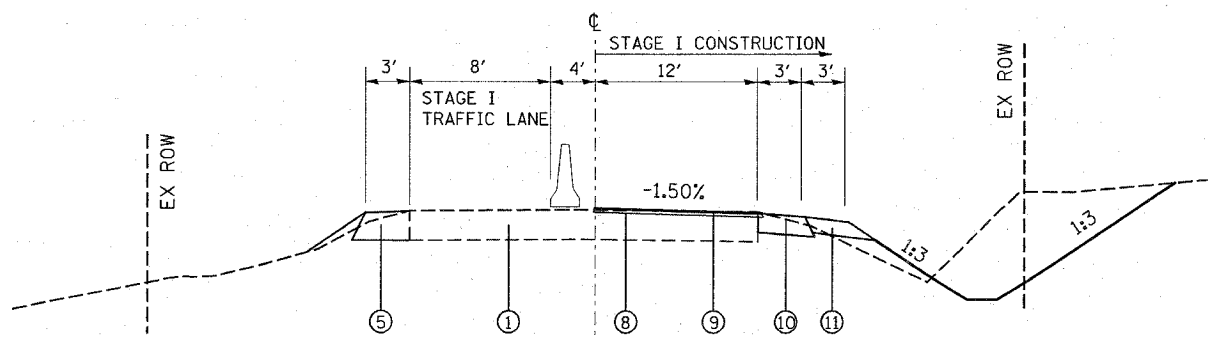
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	61
STA. _____ TO STA. _____		FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT		



**LEGEND:**

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

- LEGEND**
- ① EXISTING PAVEMENT
  - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
  - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
  - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
  - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
  - ⑪ PROPOSED AGGREGATE SHOULDER 6"



REVISIONS	
NAME	DATE

SN 095-0078

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SUGGESTED STAGE I CONSTRUCTION**

FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_

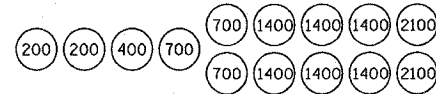
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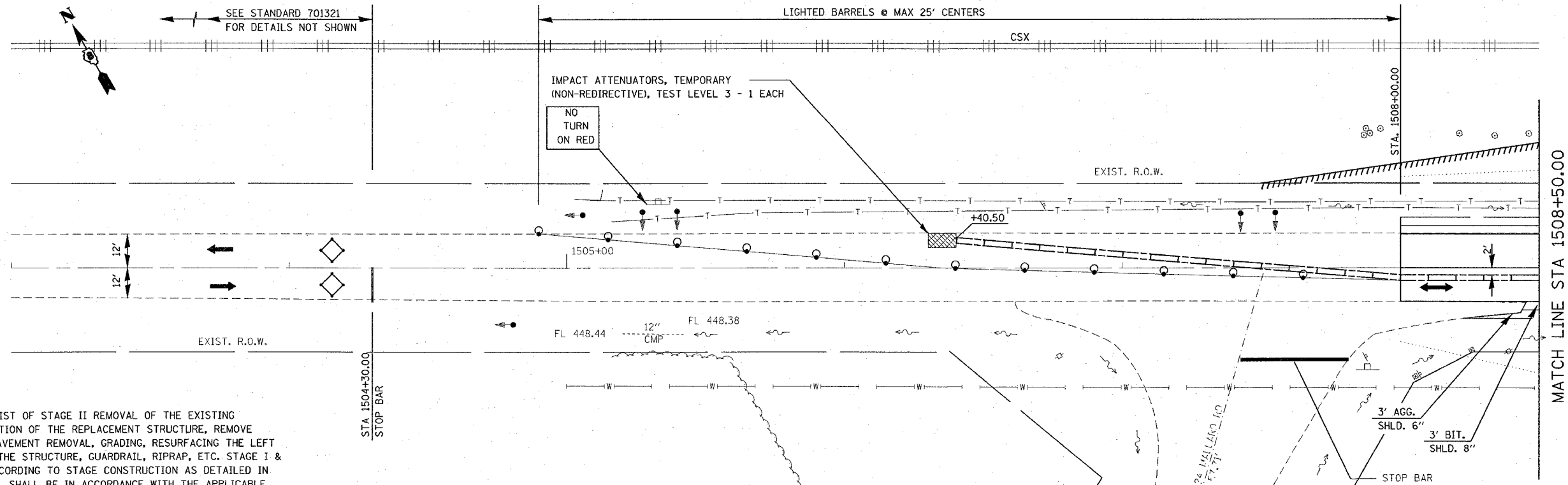
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	62
STA. _____ TO STA. _____		FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT		

NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE AND FIELD ENTRANCES LOCATED WITHIN THE LIMITS OF THE PROJECT.
2. TRAFFIC CONTROL & PROTECTION, STANDARD 701321 (SPECIAL) INCLUDES BOTH STAGE I & II AND ANY ADDITIONAL SIGNING OR TRAFFIC CONTROL DEVICES SHOWN ON THE STAGE CONSTRUCTION PLANS.
3. ALL ADDITIONAL TRAFFIC SIGNAL HEADS, LOOP DETECTORS AND ASSOCIATED EQUIPMENT REQUIRED TO MAINTAIN ACCESS AT THE FIELD AND DRIVEWAY ENTRANCES SHALL BE INCLUDED IN THE COST OF "TEMPORARY BRIDGE TRAFFIC SIGNALS"
4. THE COST OF "BARRICADES, TYPE III" SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
5. ALL SIDEROADS AND ENTRANCES WITHIN TRAFFIC CONTROL SHALL HAVE "NO RIGHT TURN ON RED" AND "STOP HERE ON RED" SIGNS. THE COST SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".

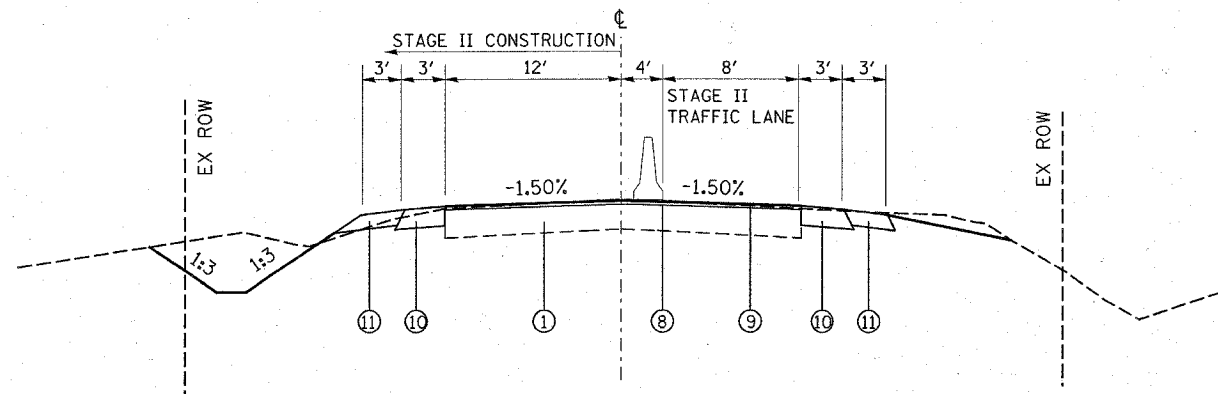


SAND MODULE IMPACT ATTENUATOR LAYOUT (IF OPTION USED)



STAGE II CONSTRUCTION:

1. STAGE II CONSTRUCTION SHALL CONSIST OF STAGE II REMOVAL OF THE EXISTING STRUCTURE, AND STAGE II CONSTRUCTION OF THE REPLACEMENT STRUCTURE, REMOVE PRE-STAGE I PAVEMENT WIDENING, PAVEMENT REMOVAL, GRADING, RESURFACING THE LEFT SIDE PAVEMENT EAST AND WEST OF THE STRUCTURE, GUARDRAIL, RIPRAP, ETC. STAGE I & II CONSTRUCTION SHALL BE DONE ACCORDING TO STAGE CONSTRUCTION AS DETAILED IN THE BRIDGE PLANS. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARD 701321 AND AS DETAILED IN THE STAGE CONSTRUCTION PLANS. THIS TRAFFIC CONTROL SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION 701321 (SPECIAL).



STAGE II TYPICAL SECTION  
STA. 1507+75.0 TO STA. 1508+50.0  
(NTS)

LEGEND

- ① EXISTING PAVEMENT
- ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
- ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
- ⑪ PROPOSED AGGREGATE SHOULDER 6"

LEGEND:

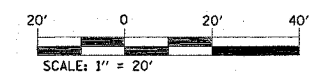
- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

SN 095-0078

REVISIONS	
NAME	DATE

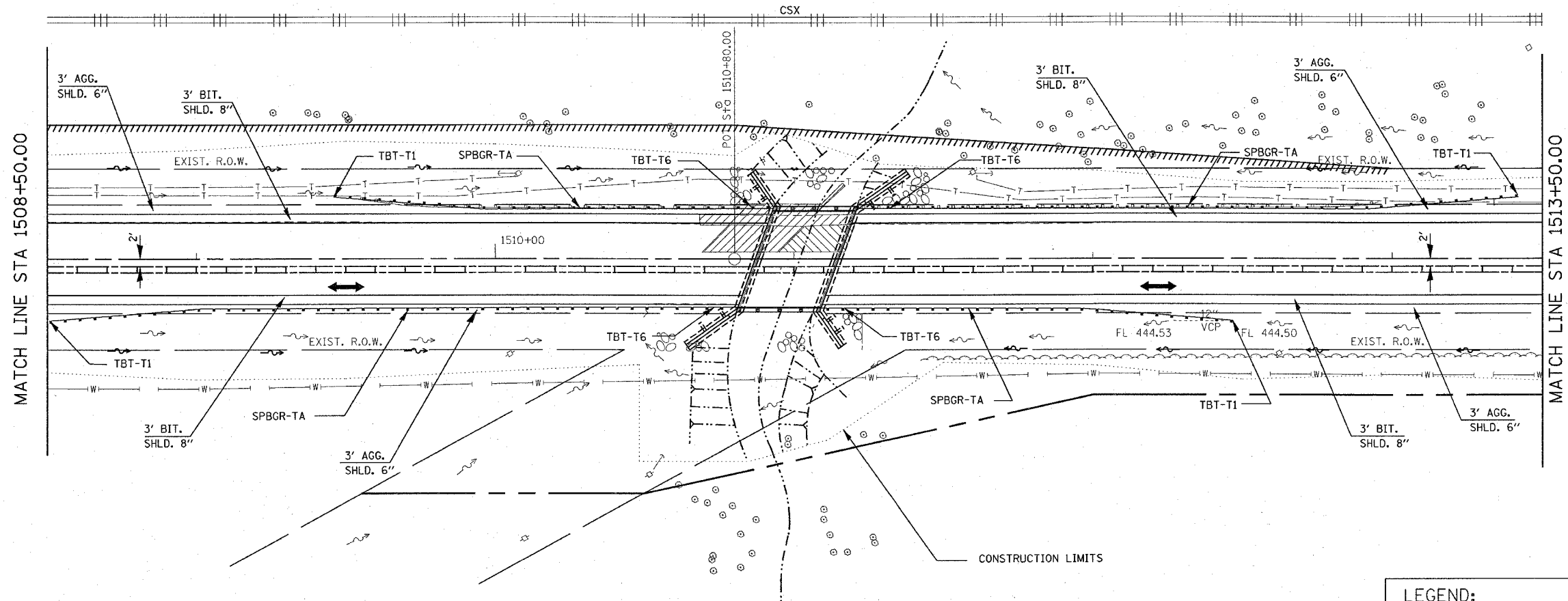
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUGGESTED STAGE II CONSTRUCTION**  
FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
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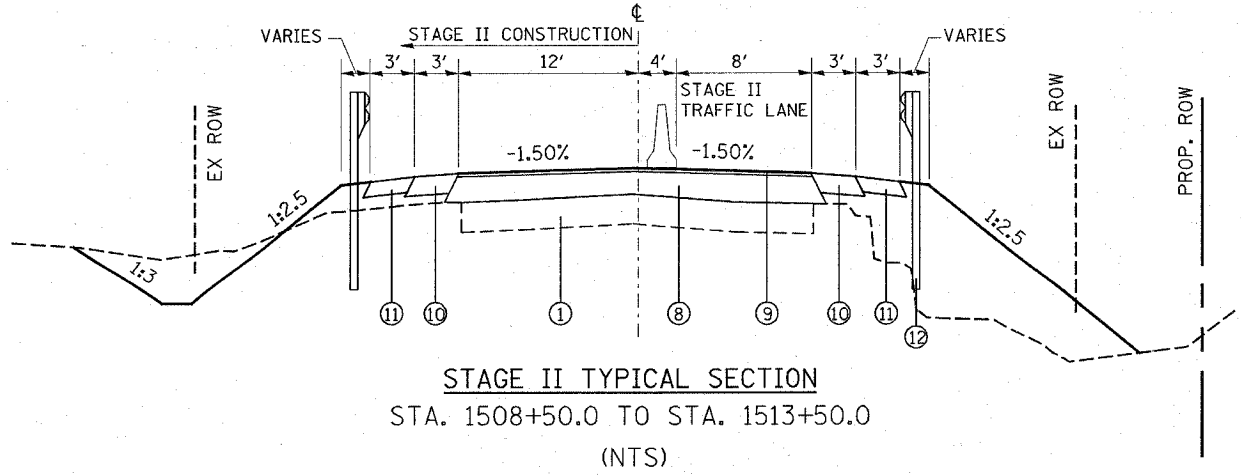
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	63
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



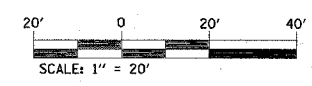
**LEGEND:**

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- INDUCTION LOOP DETECTOR
- DRUM WITH STEADY BURNING LIGHT
- SIGNALIZED TWO-WAY TRAFFIC LANE
- TEMPORARY BRIDGE TRAFFIC SIGNAL
- TYPE III BARRICADE

- LEGEND**
- ① EXISTING PAVEMENT
  - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
  - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
  - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
  - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
  - ⑪ PROPOSED AGGREGATE SHOULDER 6"
  - ⑫ PROPOSED GUARDRAIL



**STAGE II TYPICAL SECTION**  
STA. 1508+50.0 TO STA. 1513+50.0  
(NTS)



REVISIONS	
NAME	DATE

SN 095-0078

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SUGGESTED STAGE II CONSTRUCTION**

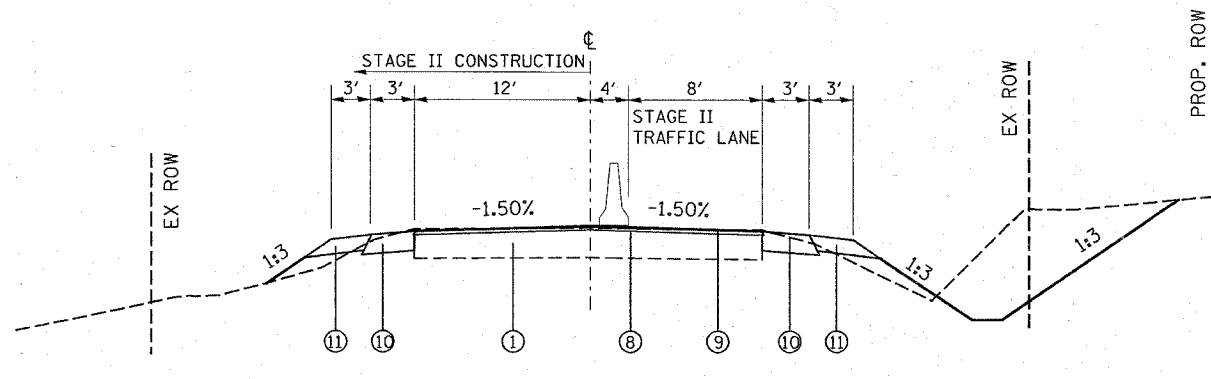
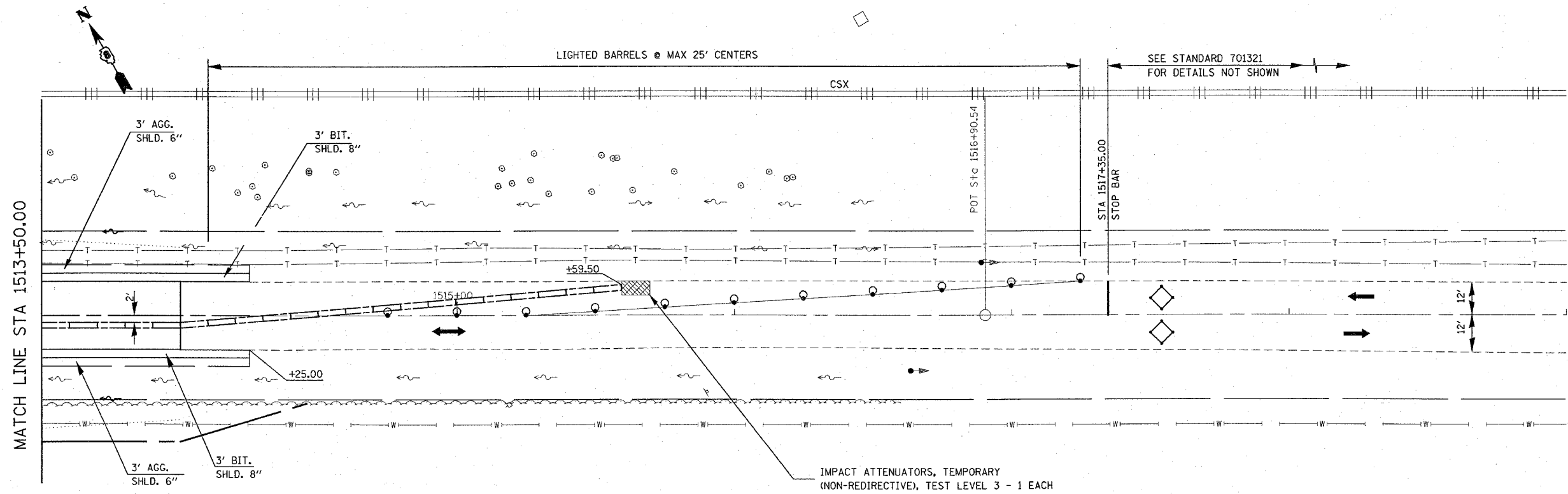
FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_

DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

PLOT DATE = 12/7/2007  
PLOT SCALE = 20.0000' / IN.  
USER NAME = gmlm

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	64
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT _____		



STAGE II TYPICAL SECTION  
STA. 1513+50.0 TO STA. 1514+25.0  
(NTS)

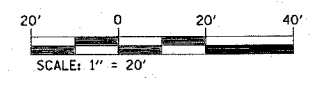
- LEGEND**
- ① EXISTING PAVEMENT
  - ⑤ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING 9"
  - ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES 0.75" TO 15")
  - ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2 "
  - ⑩ PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"
  - ⑪ PROPOSED AGGREGATE SHOULDER 6"

- LEGEND:**
- STRUCTURE REMOVAL
  - PAVEMENT REMOVAL
  - TEMPORARY CONCRETE BARRIER
  - IMPACT ATTENUATOR
  - INDUCTION LOOP DETECTOR
  - DRUM WITH STEADY BURNING LIGHT
  - SIGNALIZED TWO-WAY TRAFFIC LANE
  - TEMPORARY BRIDGE TRAFFIC SIGNAL
  - TYPE III BARRICADE

SN 095-0078

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUGGESTED STAGE II CONSTRUCTION**  
FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY  
SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_



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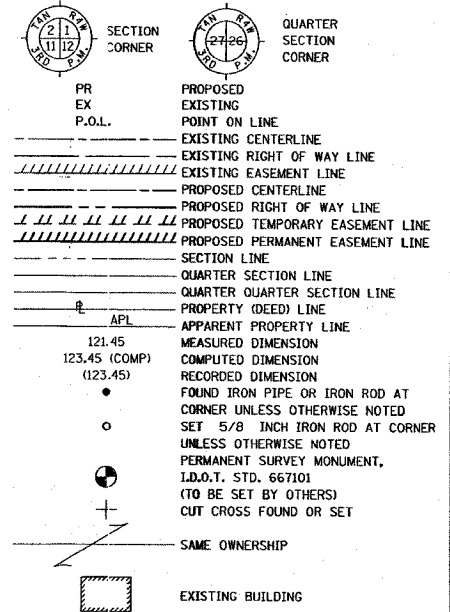


PART OF THE EAST HALF OF SECTION 28, T.1S., R.4W., OF THE 3RD PM, WASHINGTON COUNTY, ILLINOIS

BEARINGS SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5BR-2	WASHINGTON	97	66
STA. 1449+00.00 TO STA. 1458+00.00			
CONTRACT NO.:			

LEGEND



STATE OF ILLINOIS )  
COUNTY OF MONTGOMERY )

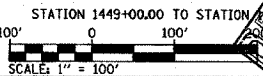
I, TONY HARD, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCELS TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.



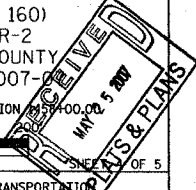
DATED \_\_\_\_\_  
TONY HARD, PLS NO. 2953  
LICENSE EXPIRATION DATE: 11/30/2008

**McDonough-Whitlow, P.C.**  
Consulting Engineers & Land Surveyors  
138 East Wood Street  
Hillsboro, IL 62049  
Phone: 217.532.9233  
Fax: 217.532.6300  
PROFESSIONAL DESIGN NO. 184-002754

ILLINOIS DEPARTMENT OF TRANSPORTATION  
TOTAL HOLDING  
FAS 1832 (IL 160)  
SECTION 5BR-2  
WASHINGTON COUNTY  
JOB NO. R-98-007-0

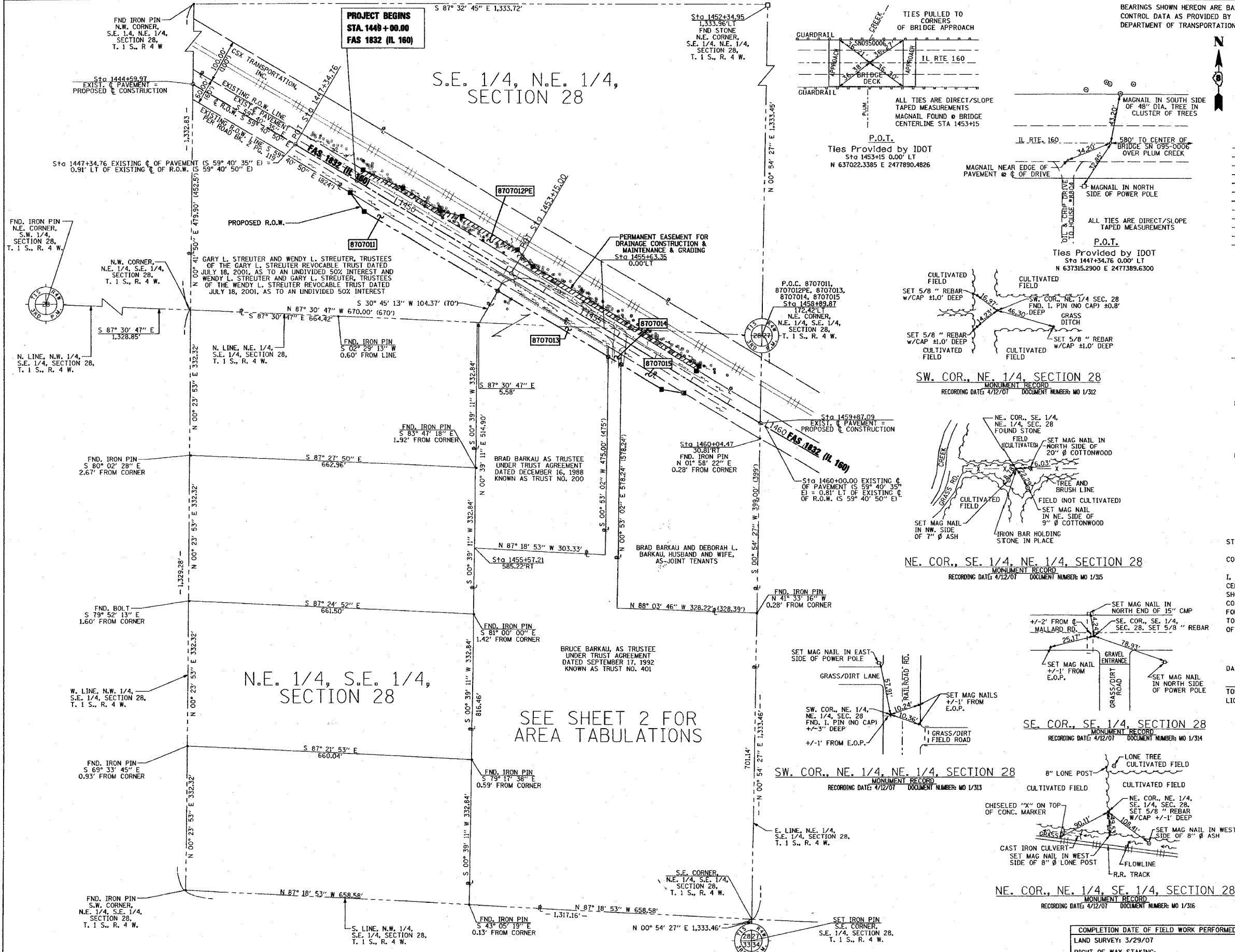


ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS/DISTRICT 8  
1102 EASTPORT PLAZA DRIVE  
COLLINGSVILLE, ILLINOIS 62234-6198



COMPLETION DATE OF FIELD WORK PERFORMED  
LAND SURVEY: 3/29/07  
RIGHT OF WAY STAKING:

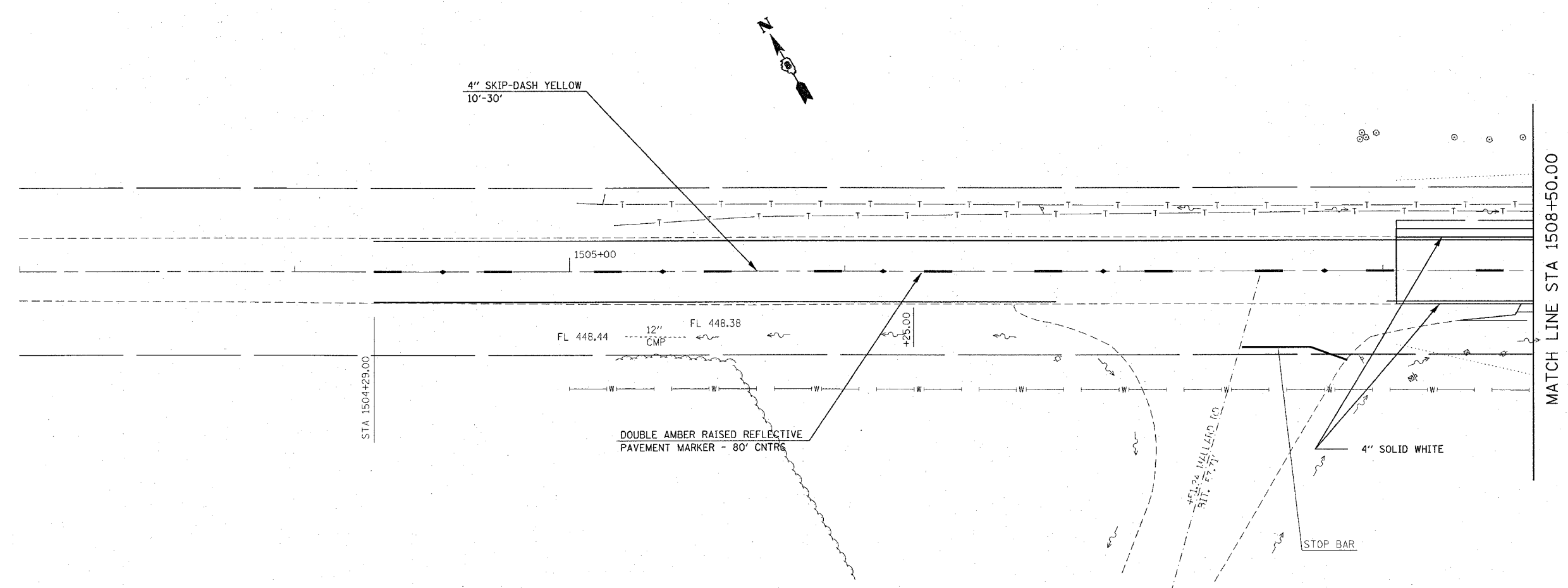
NO.	DATE	DESCRIPTION	BY



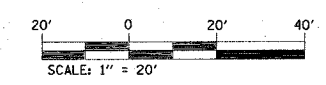




F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	68
STA. 1503+00.00		TO STA. 1508+50.00		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



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SN 095-0078

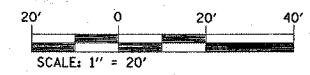
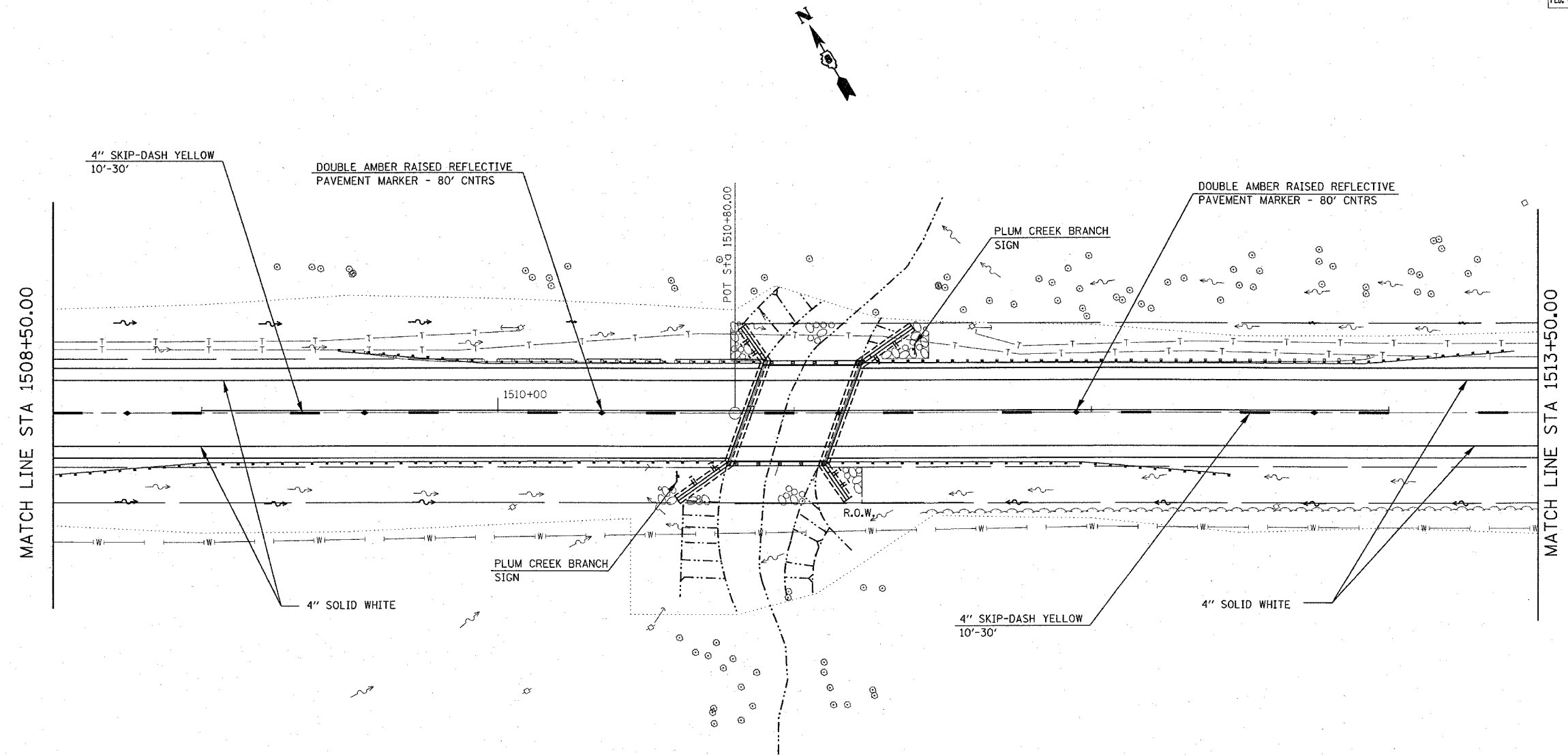
REVISIONS		DATE
NAME		

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING PLANS**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_

DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	69
STA. 1508+50.00		TO STA. 1513+50.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



SN 095-0078

REVISIONS	
NAME	DATE

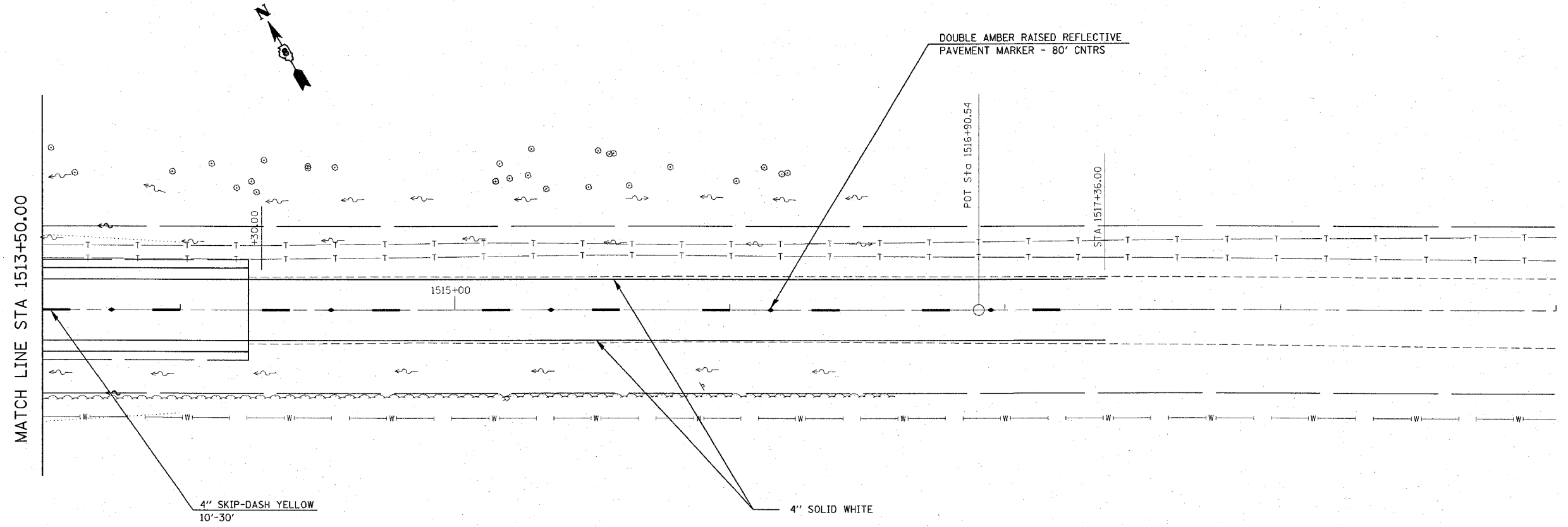
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING PLANS**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_

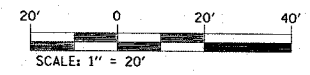
DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

PLOT DATE = 12/7/2007  
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 USER NAME = gshar

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	70
STA. 1513+50.00		TO STA. 1519+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLOT DATE = 12/7/2007  
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 PLOT SCALE = 20,000000 / IN.  
 USER NAME = gelrth



SN 095-0078

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING PLANS**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_

DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

Bench Mark: Chiseled square on bridge abutment @ NW corner of structure 095-0007  
Sta. 1510+84.7, 18.4 ft. Left, Elev. 445.40

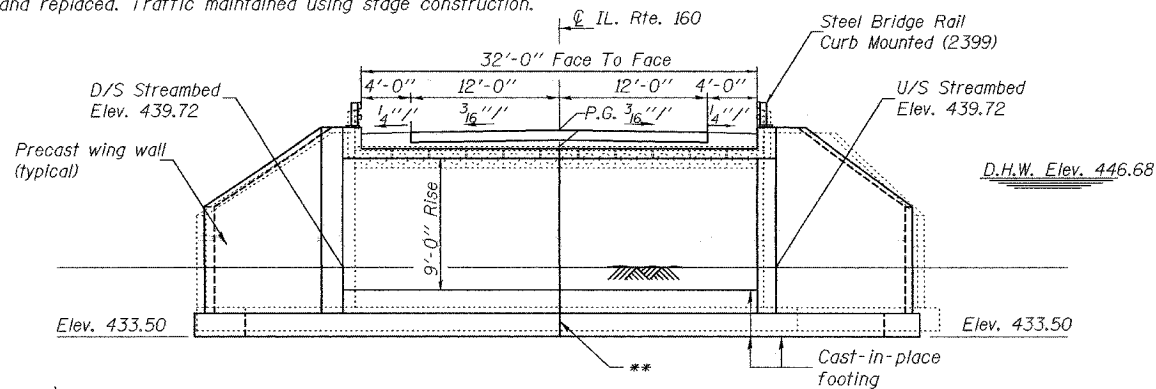
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOWNSHIP	SHEET NO.	SHEET NO. 1
F.A.S. 1832	5BR-2	WASHINGTON	97	71	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

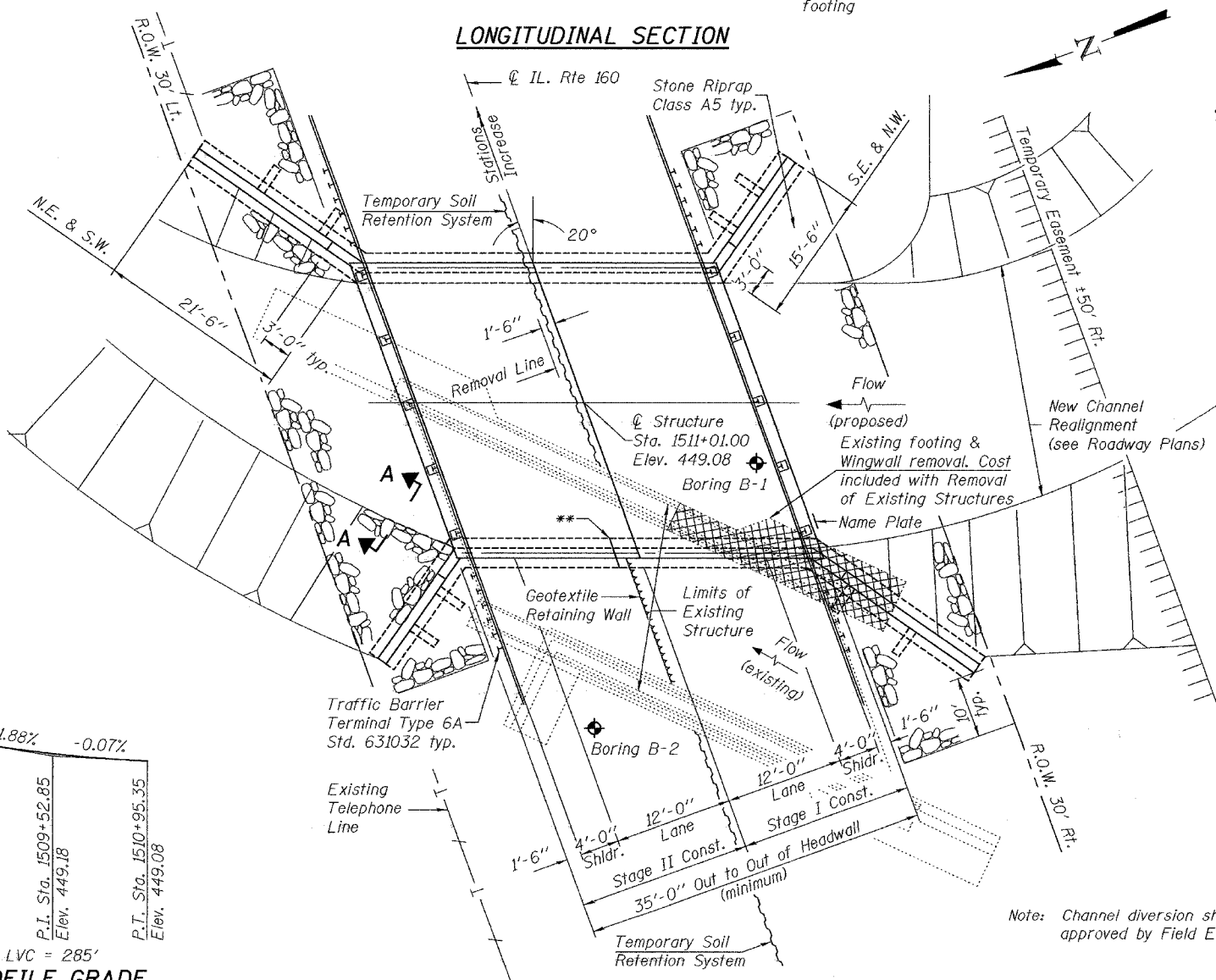
Contract #76949

Existing Structure: S.N. 095-0007 Built in 1921 as S.B.I. Route 15, Section 5B at Station 1510+80 as a 1 span RC slab bridge. Closed abutments on spread footings. 1971 superstructure replacement, and widening, with PPC deck beams. Existing bridge to be removed and replaced. Traffic maintained using stage construction.

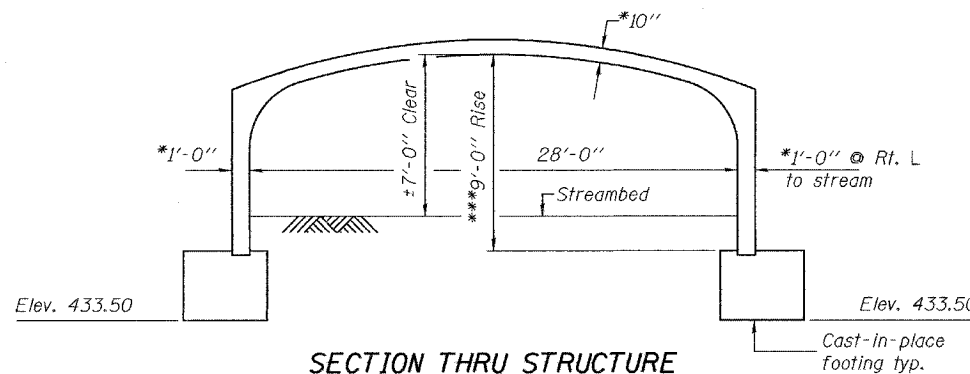
No salvage



LONGITUDINAL SECTION



PLAN



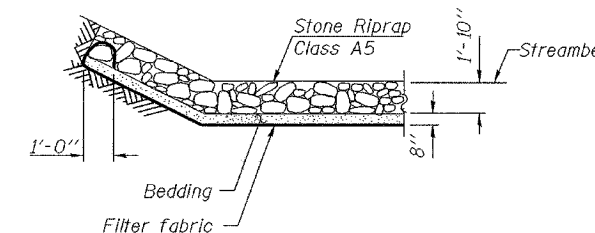
SECTION THRU STRUCTURE

\*Slab and wall thickness and shape may vary as per manufacturer's design.  
\*\*Stage I west footing to be constructed ±2' into Stage II Construction  
\*\*\*Based on Con Span sections that have a minimum rise of 9'-0'.

Note: The selected structure by the contractor shall provide a hydraulically equivalent waterway opening specified in the waterway information table.

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 Stage Construction Details
- 3 Temporary Soil Retention System
- 4 Geotextile Retaining Wall
- 5 Temporary Concrete Barrier
- 6-7 Footing Details
- 8 Wingwall Details
- 9 Headwall Details
- 10 Bar Splicer Details
- 11 Steel Bridge Rail Details
- 12 Soil Boring Logs



SECTION A-A

DESIGN SCOUR  
ELEVATION TABLE

Design Scour Elev. (ft.)	D.S. 437.72	U.S. 437.72
--------------------------	-------------	-------------

SEISMIC DATA

Seismic Performance Category (SPC) = B  
Bedrock Acceleration Coefficient (A) = .11g  
Site Coefficient (S) = 1.5

LOADING HS20

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

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)

PRECAST UNITS

$f'_c = 5,000$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 65,000$  psi (welded wire fabric)

Note: Channel diversion shall be approved by Field Engineer.

WATERWAY INFORMATION

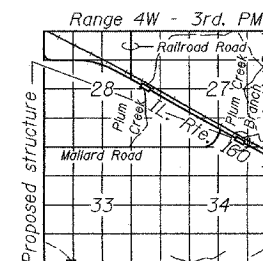
Drainage Area = 0.87 sq. mi. Low Grade Elev. 447.49 ft. @ Sta. 1510+95

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	50	741	79.84	139.00	446.68	1.54	1.16	448.22	447.84
Base	100	860	79.84	139.00	446.85	1.58	1.52	448.43	448.37
Exist. Overtop.	15	516	79.84	N/A	446.17	1.32	N/A	447.49	N/A
Prop. Overtop.	35	670	N/A	139.00	446.54	N/A	0.95	N/A	447.49
Scour	10	466	79.84	139.00	446.03	1.08	0.48	447.11	446.51

STATION 1511+01.00  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.S. RTE 1832 - SEC. 5BR-2  
LOADING HS20  
STRUCTURE NO. 095-0078

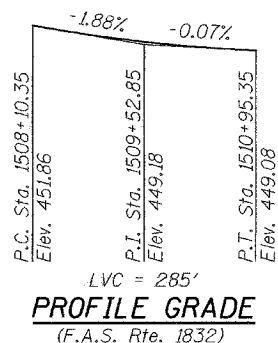
NAME PLATE

See Std. 515001



LOCATION SKETCH

GENERAL PLAN AND ELEVATION  
IL. RTE. 160 OVER  
PLUM CREEK BRANCH  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON CO.  
STATION 1511+01.00  
STRUCTURE NO. 095-0078



PROFILE GRADE  
(F.A.S. Rte. 1832)

DESIGNED	January 29, 2007
CHECKED	
DRAWN	
CHECKED	

EXAMINED  
PASSED  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2008

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

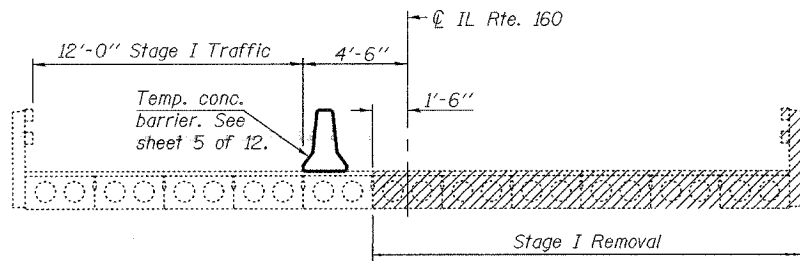
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 2  
12 SHEETS

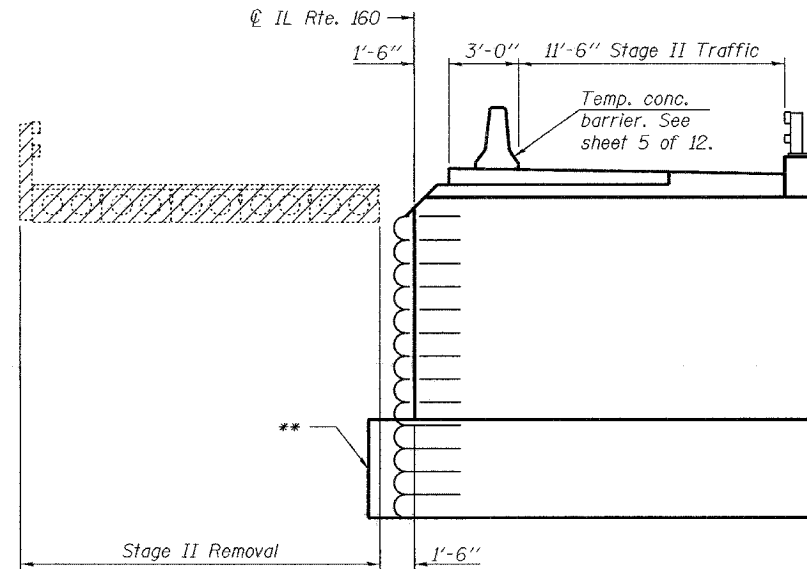
Contract #76949

**GENERAL NOTES**

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 option of using a precast footing is not allowed.  
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.  
After the keyways have been grouted and cured, the joints on the three sides of the structure shall be externally sealed using 13" wide external sealing bands conforming to Article 1057.01. Cost included with Three-Sided Precast Concrete Structures.  
The footing design is based on the following maximum reactions applied at the top of the footing:  
Vertical 15.4 k/ft  
Horizontal 6.3 k/ft  
The contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete footing design with calculations, details, signed and sealed by an Illinois Licensed Structural Engineer shall be submitted for review and approval.  
All construction joints shall be bonded.  
Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.  
Dimensions for the Three-Sided Precast are for a Con Span section. Hy-Span, REDI-SPAN Bridge System and BEBO-Arch System are also acceptable, but dimensions may vary.  
It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included with the cost of "Concrete Structures".  
Structural Seal does not include design of Precast elements.  
For backfilling and embankment, see Standard Specifications.  
All exposed edges shall be chamfered 3/4".  
Allowable Bearing Pressure for Footing = 4 ksf.

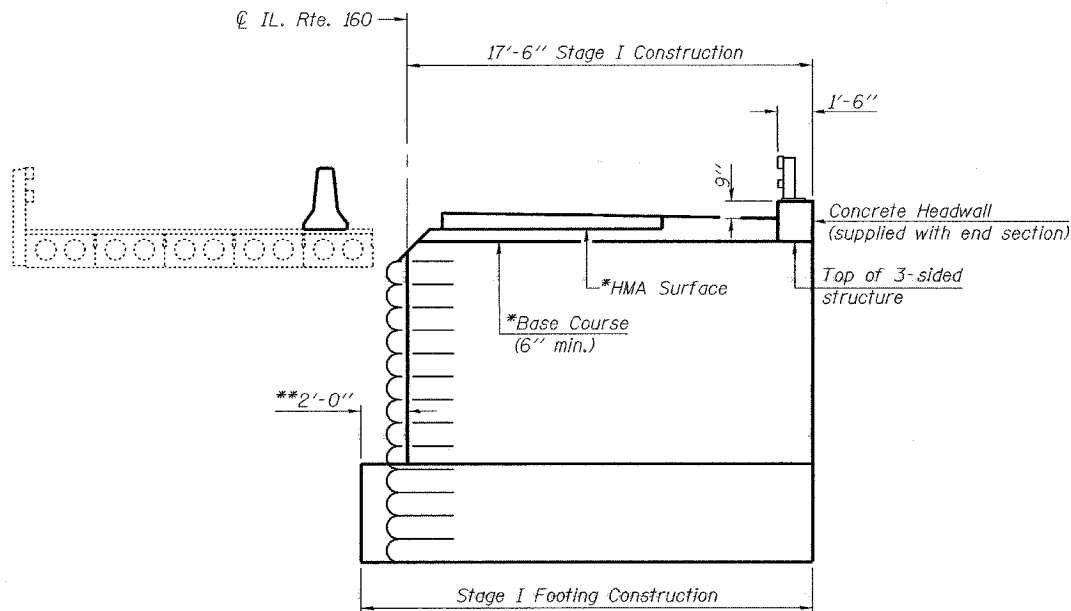


**STAGE I REMOVAL**



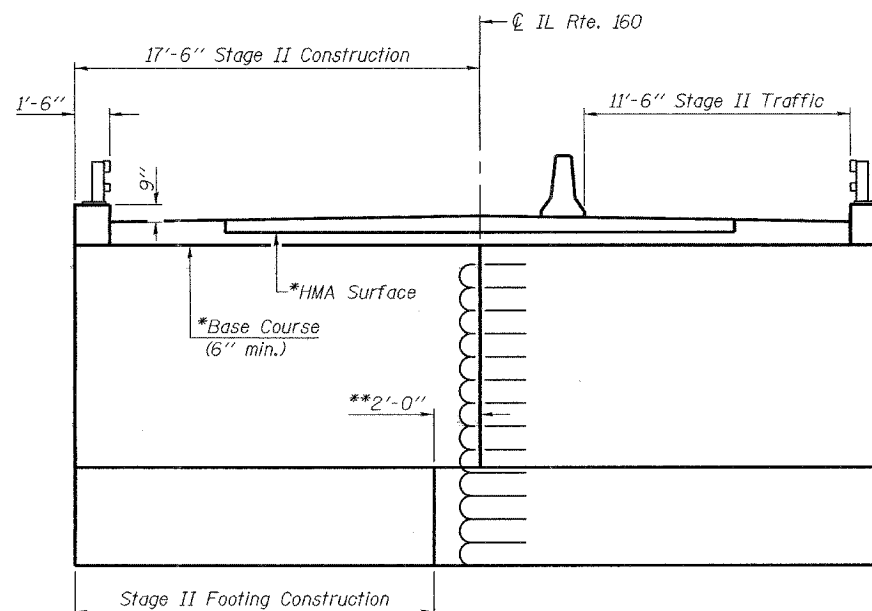
**STAGE II REMOVAL**

(Looking East at New West footing at Rt. L to Footing)



**STAGE I CONSTRUCTION**

(Looking East at New West footing at Rt. L to Footing)



**STAGE II CONSTRUCTION**

(Looking East at New West footing at Rt. L to Footing)

\*For quantities of HMA Surface and Base Course, see Roadway Plans.  
\*\*Stage I west footing to be constructed 2'-0" @ Rt. L to IL Rte. 160 into Stage II Construction.

Note: For quantity of Temporary Concrete Barrier, see Roadway Plans.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 2	Each			1
Name Plates	Each	1		1
Stone Riprap, Class A5	Sq. Yd.			340
Filter Fabric	Sq. Yd.			340
Concrete Structures	Cu. Yd.		145.0	145.0
Reinforcement Bars, Epoxy Coated	Pound		6590	6590
Bar Splicers	Each		28	28
Structure Excavation	Cu. Yd.		365	365
Three Sided Precast Concrete Structure, 28' x 9'	Foot	37.25		37.25
Temporary Soil Retention System	Sq. Ft.			444.1
Steel Rail, Type 2399	Foot	64		64
Geotextile Retaining Wall	Sq. Ft.			1769
Precast Concrete Substructure	L. Sum		1	1
Concrete Sealer	Sq. Ft.	144		144

**STAGE CONSTRUCTION DETAILS**  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1511+01.00  
STRUCTURE NO. 095-0078

Rev. 2-19-08

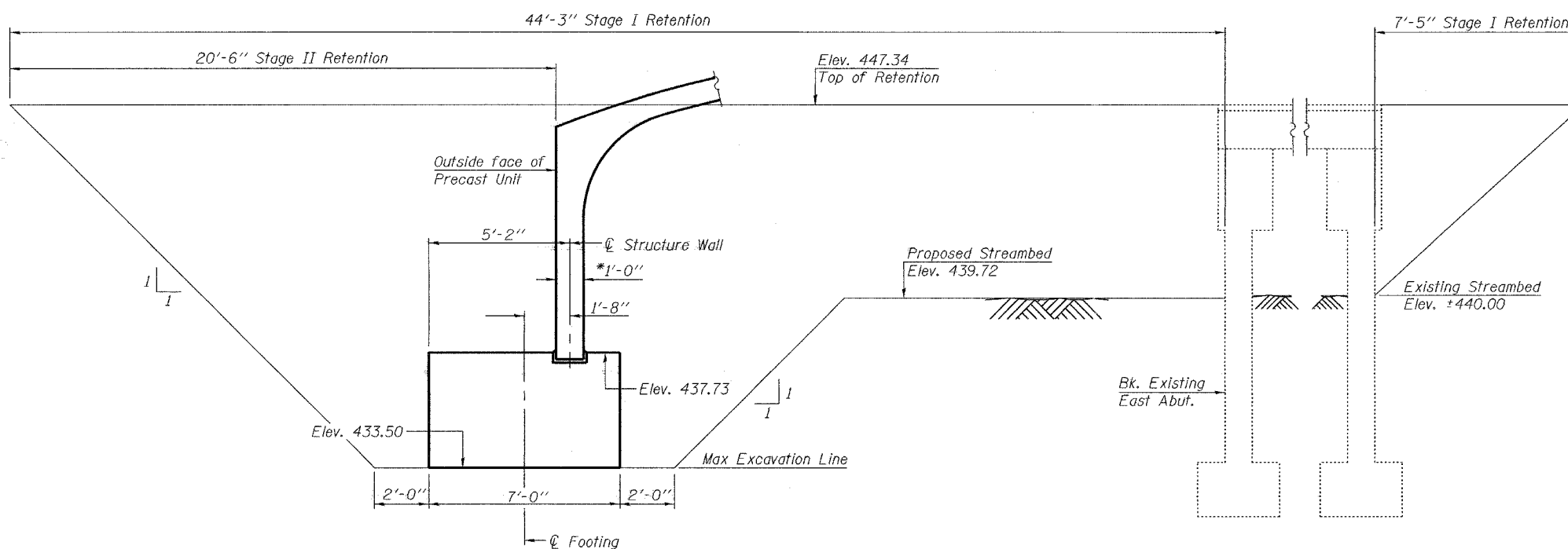
DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

EXAMINED	January 28, 2008	Thomas J. Demagalki
PASSED		Ralph E. Anderson

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

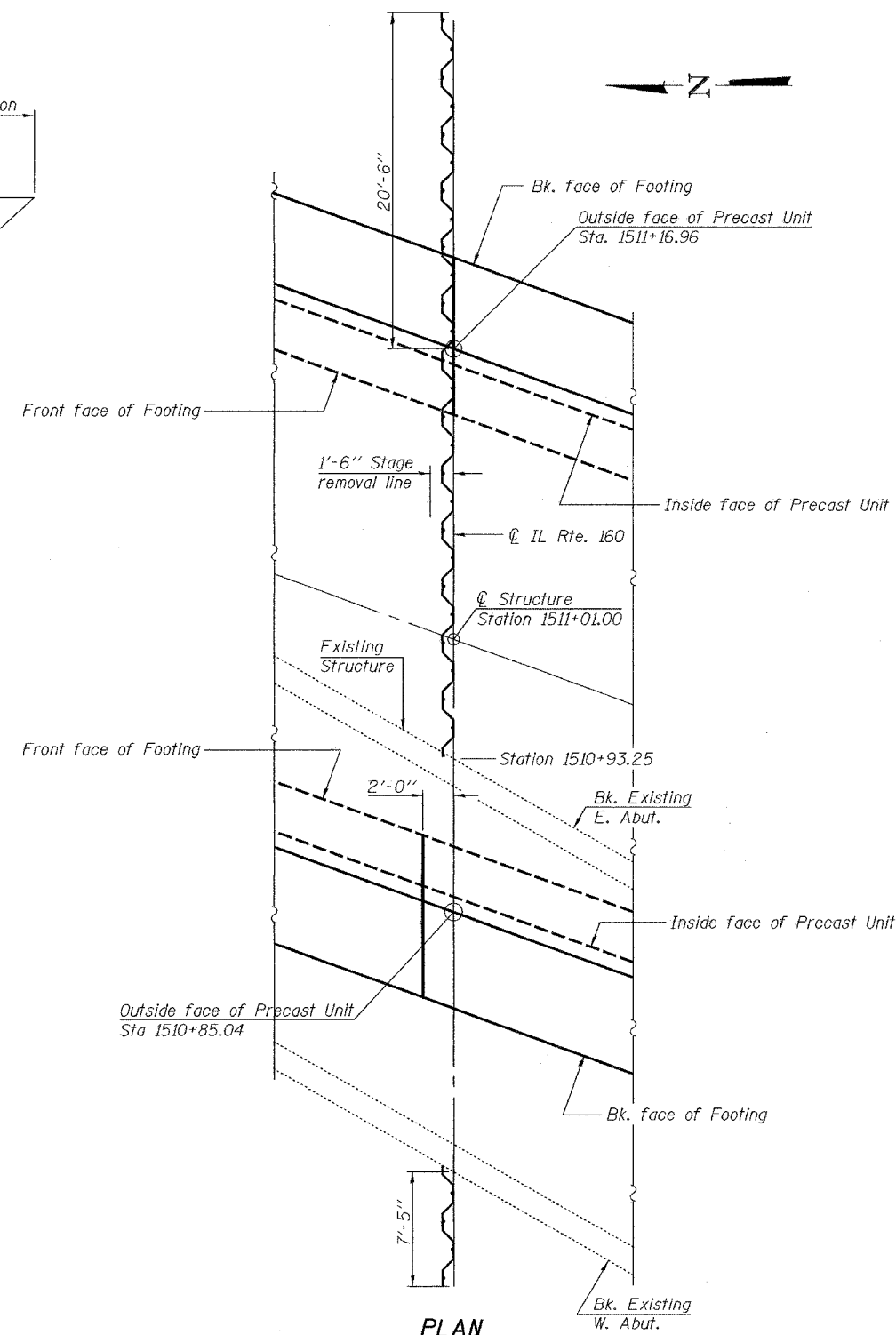
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F.A.S. 1832	5BR-2	WASHINGTON	97	73	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #76949



**TEMPORARY SOIL RETENTION SYSTEM**

(Looking South at East Footing)



**PLAN**

DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

EXAMINED	Thomas J. Domagala	January 28, 2008
PASSED	Ralph E. Anderson	

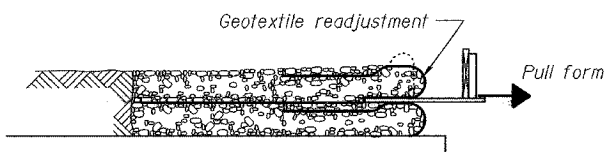
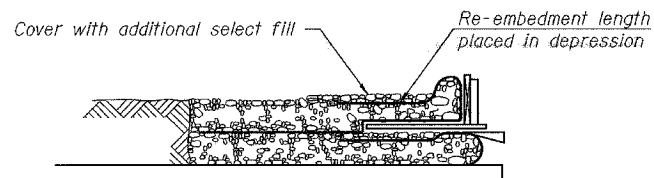
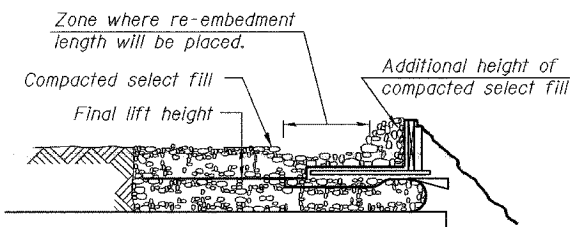
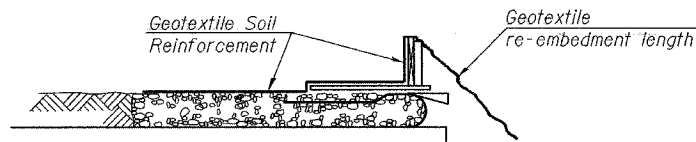
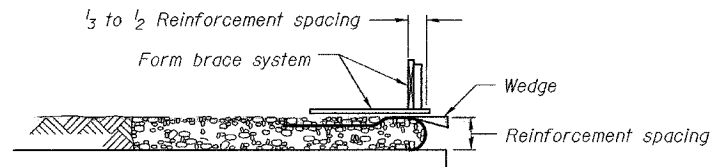
**TEMPORARY SOIL RETENTION SYSTEM**  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1511+01.00  
STRUCTURE NO. 095-0078

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	74
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract #76949

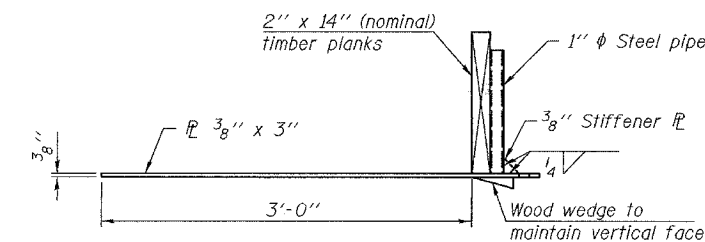
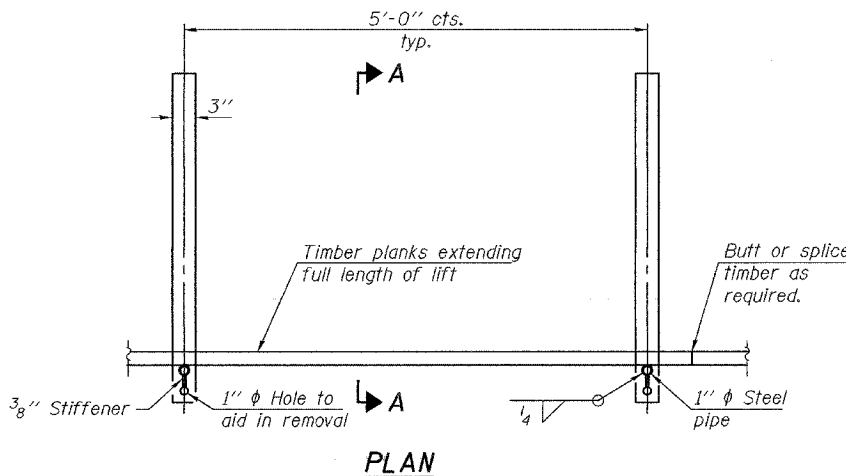
SHEET NO. 4  
12 SHEETS



**GEOTEXTILE WALL  
CONSTRUCTION SEQUENCE**

Note:  
The geotextile soil reinforcement shall have a minimum allowable tensile strength (T min.) of 50 lb./in. as determined by the procedure described in the Special Provision. The computations supporting the determination of (T min.) shall be submitted to the engineer for approval.

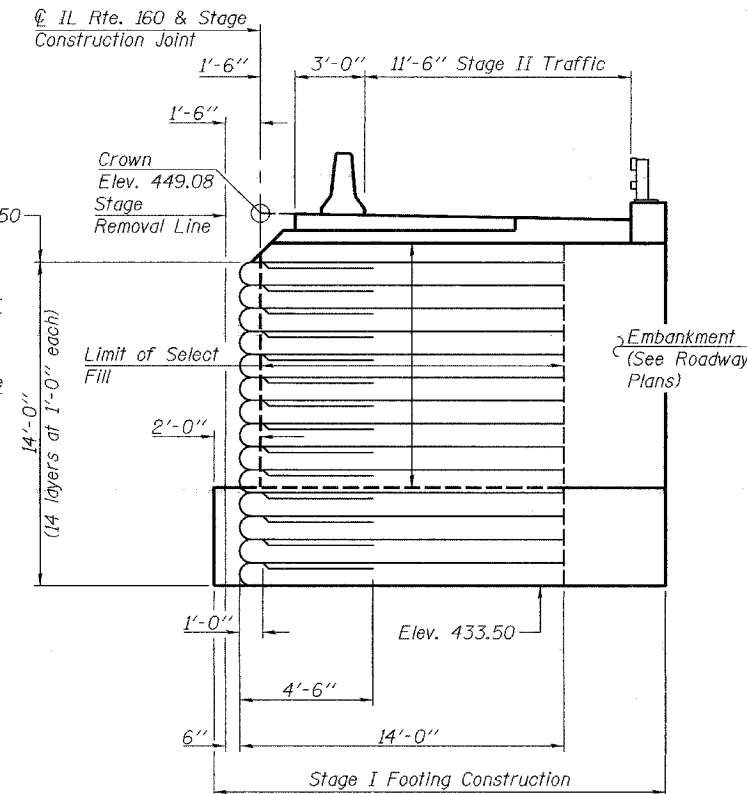
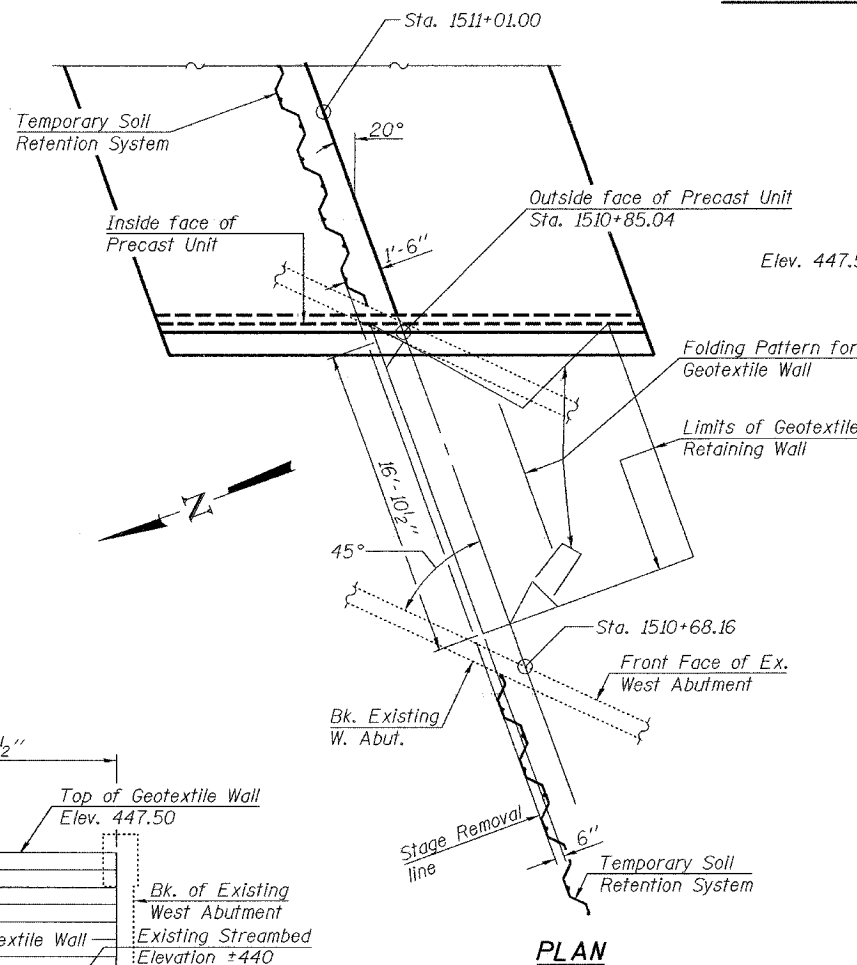
1. Place form brace system on completed reinforcement level; back from the finished fabric face a distance of  $\frac{1}{3}$  to  $\frac{1}{2}$  the geotextile reinforcement spacing.
2. Position fabric so that the required geotextile re-embedment length extends over the top of the form brace and the design reinforcement width is placed with no slack against the previous level.
3. Compact select fill material in lifts to final lift height. create ( $\pm 3''$ ) depression in zone where re-embedment length will be located and place additional height of compacted select fill against form brace.
4. Fold geotextile re-embedment length back over form brace into zone where depression was made in select fill and place additional select fill ( $\pm 3''$ ) to embed geotextile and bring to final lift height.
5. Pull form brace outward allowing geotextile face to slightly readjust to form tight round face level with plan reinforcement spacing.



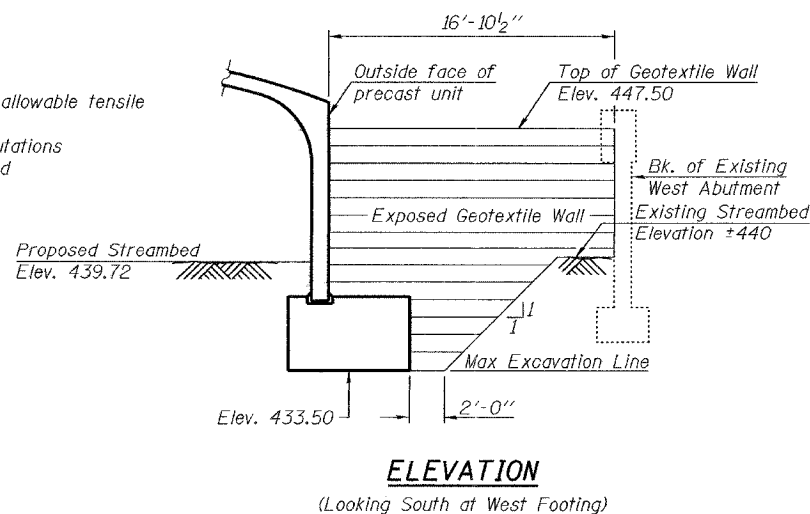
**SECTION A-A**

Note:  
This is a suggested detail, the Contractor is responsible for the design of the form brace system to be used.

**GEOTEXTILE WALL  
FORM BRACE DETAIL**



**CROSS SECTION**



**ELEVATION**

(Looking South at West Footing)

**GEOTEXTILE RETAINING WALL  
F.A.S. RTE. 1832 - SECT. 5BR-2  
WASHINGTON COUNTY  
STATION 1511+01.00  
STRUCTURE NO. 095-0078**

DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

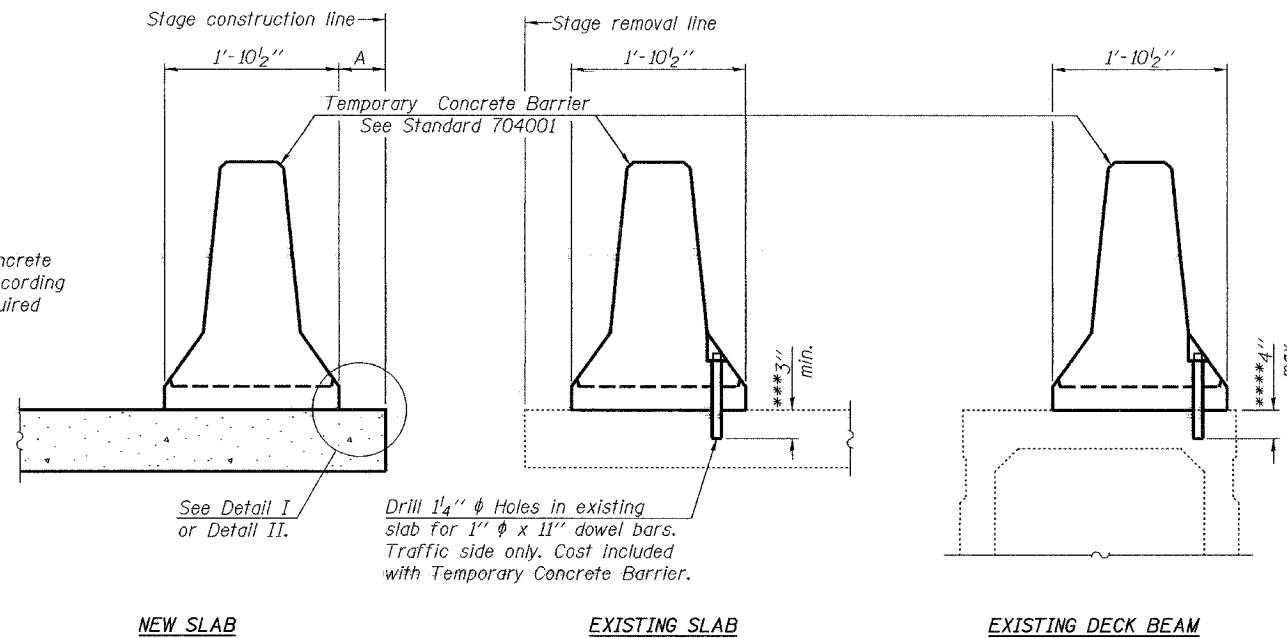
EXAMINED	Thomas J. Domagalaki ENGINEER OF BRIDGE DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

January 28 2008

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5
F.A.S. 1832	5BR-2	WASHINGTON	97	75	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949



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

NEW SLAB

EXISTING SLAB

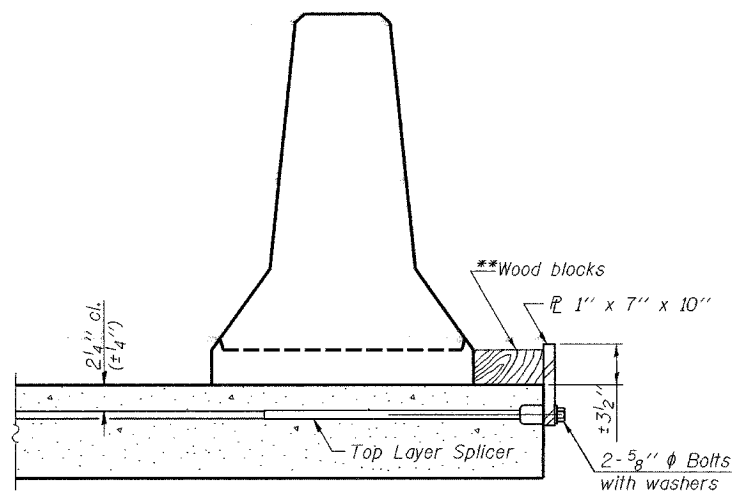
EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

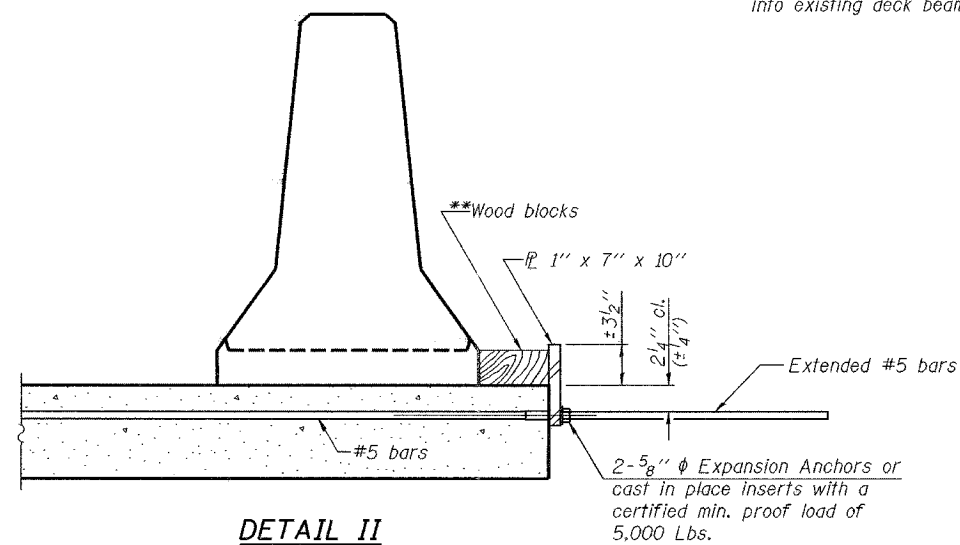
NOTES

- Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.
- Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.  
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

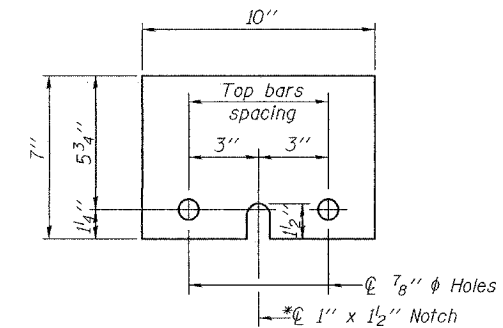
- \*\*\*Dimension shown is minimum required embedment into concrete.  
If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- \*\*\*If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x 10"

\* Required only with Detail II

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

DESIGNED Nicholas R. Barnett	January 28 2008
CHECKED Ray Ahanchi	EXAMINED Thomas J. Demagala
DRAWN Gregory D. Farmer	PASSED Ralph E. Anderson
CHECKED NRB/GRA	

R-27

9-3-07

TEMPORARY CONCRETE BARRIER  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1511+01.00  
STRUCTURE NO. 095-0078

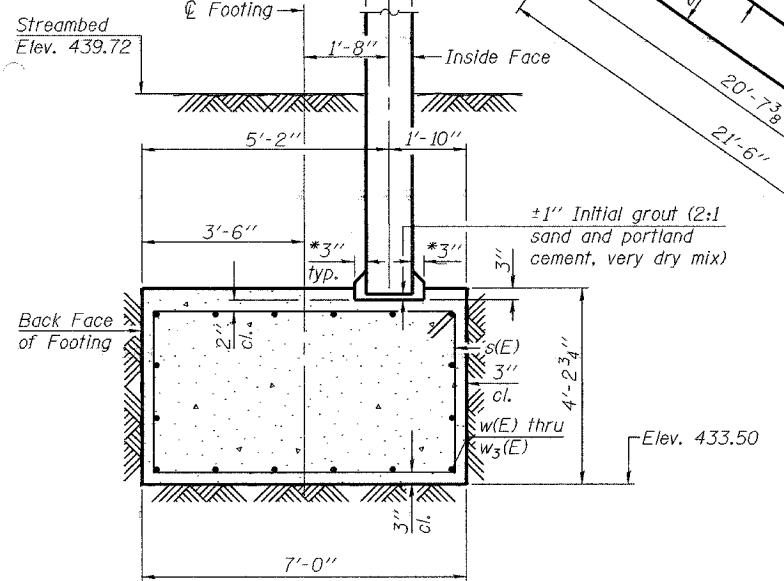
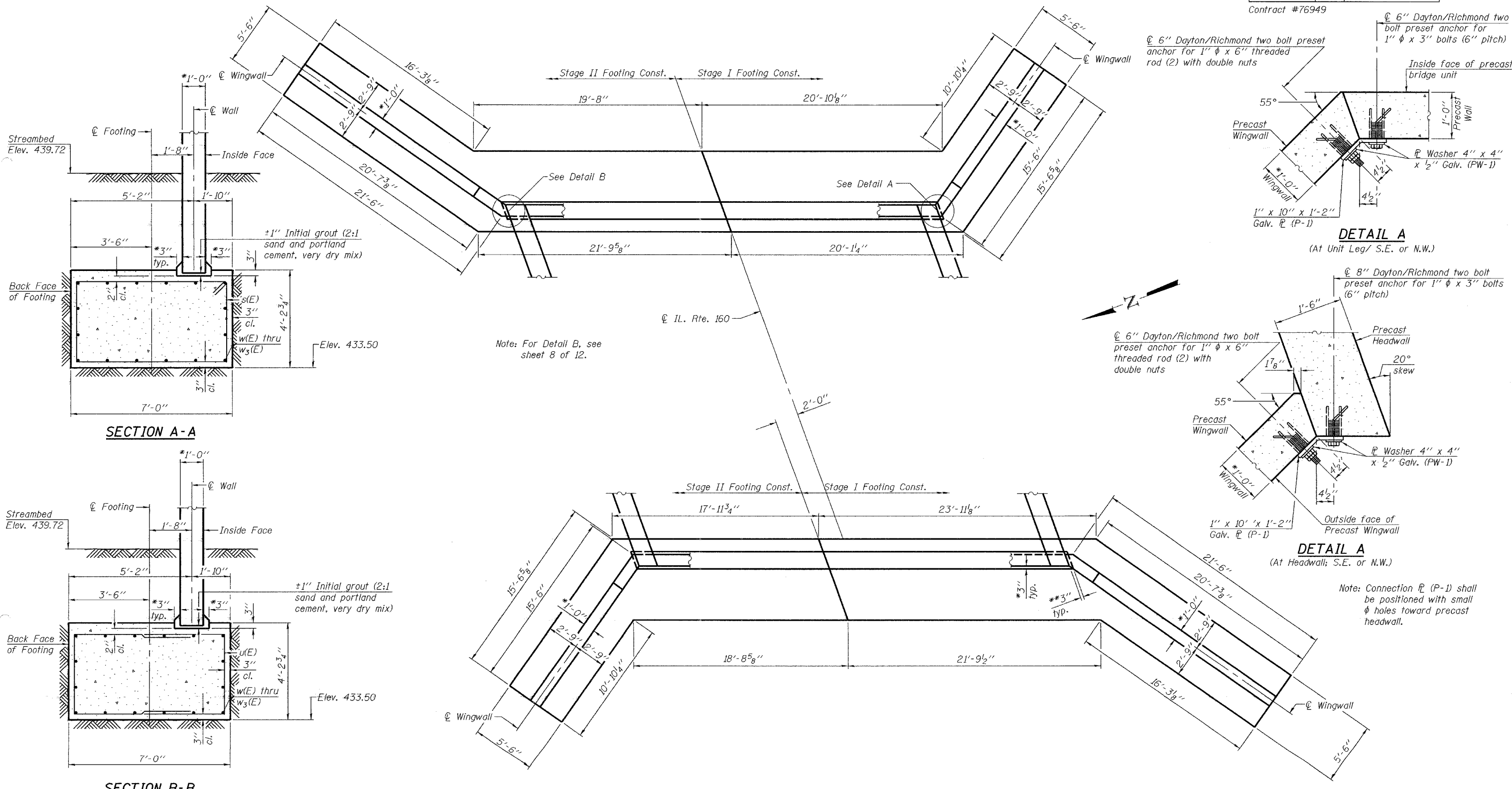




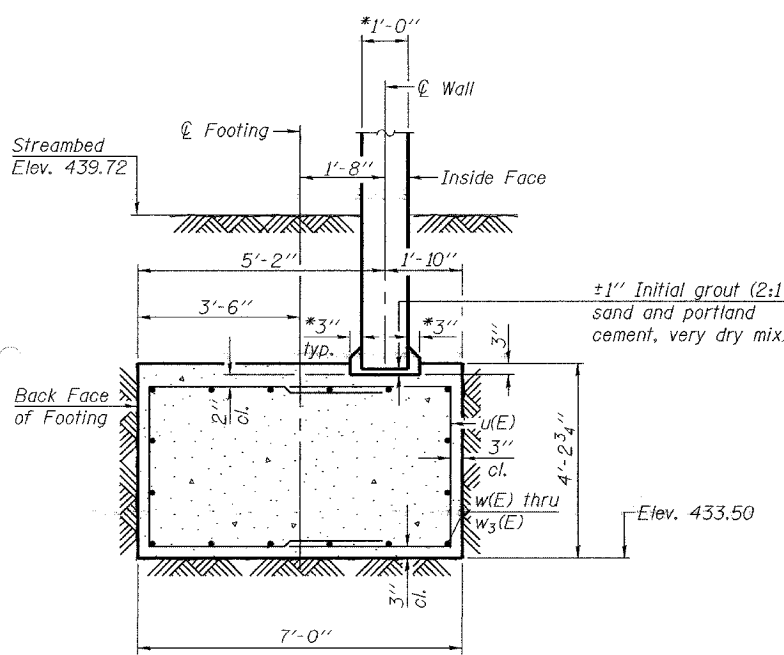
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. 7
F.A.S. 1832	5BR-2	WASHINGTON	97	71	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

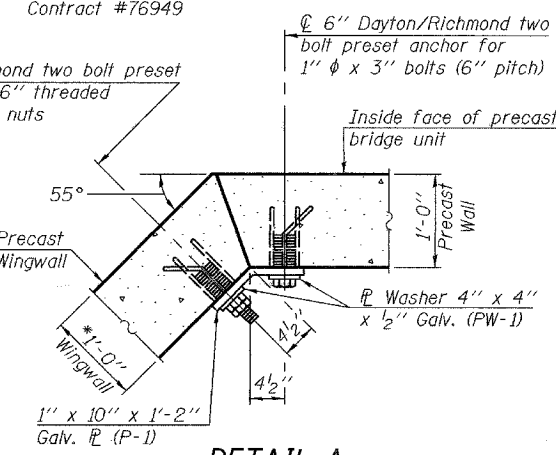
Contract #76949



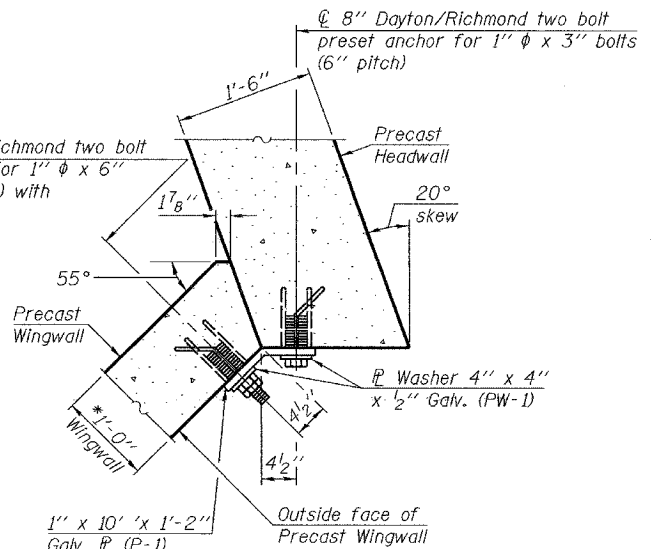
SECTION A-A



SECTION B-B



DETAIL A  
(At Unit Leg/ S.E. or N.W.)



DETAIL A  
(At Headwall; S.E. or N.W.)

Note: Connection (P-1) shall be positioned with small  $\phi$  holes toward precast headwall.

\*Slab and wall thickness and shape may vary as per manufacturer's design.  
\*\*May vary due to tolerances in the precast unit.

DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

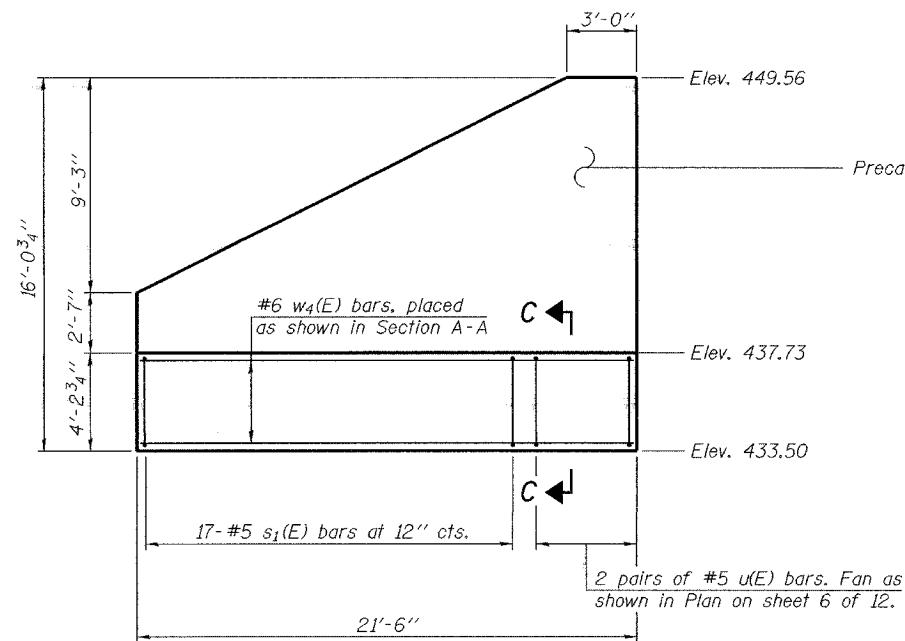
EXAMINED	Thomas J. Demagala	January 28 2008
PASSED	Ralph E. Anderson	

**FOOTING DETAILS**  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1511+01.00  
STRUCTURE NO. 095-0078

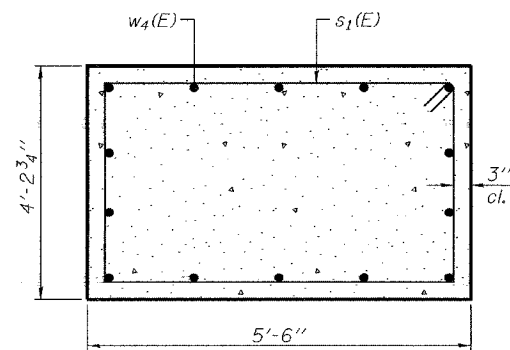
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	78	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

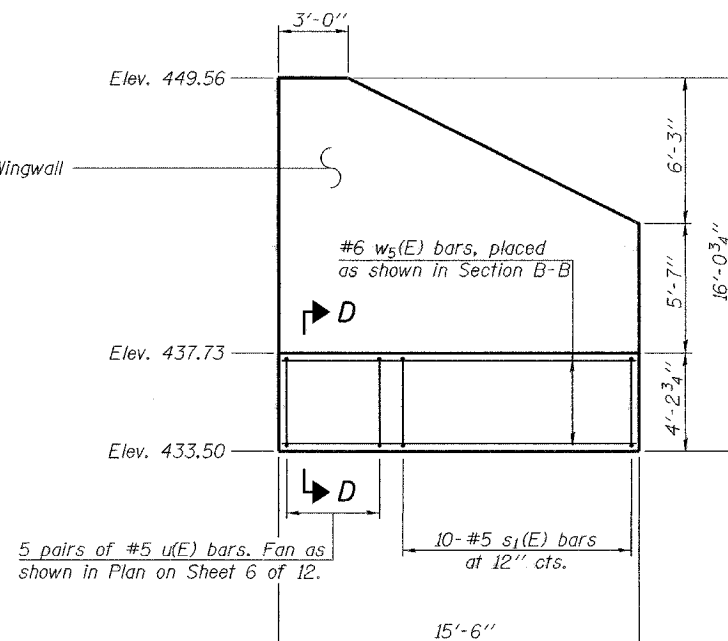
Contract #76949



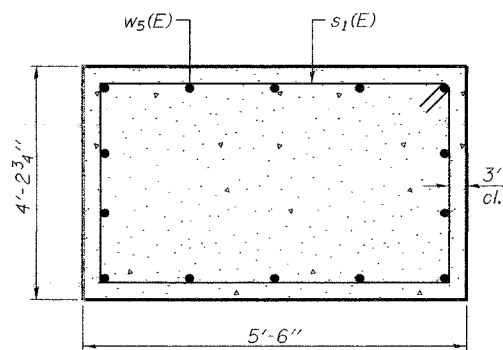
**NORTHEAST AND SOUTHWEST WINGWALLS**  
(Looking Inside Face)



**SECTION C-C**

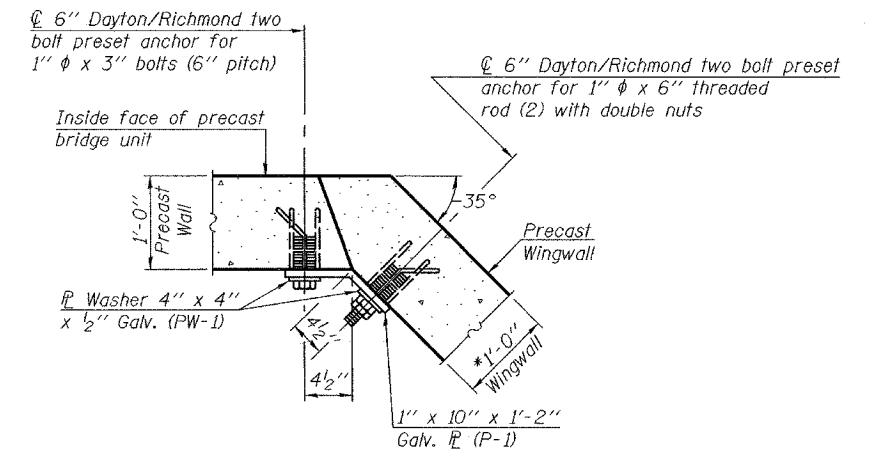


**NORTHWEST AND SOUTHWEST WINGWALLS**  
(Looking Inside Face)

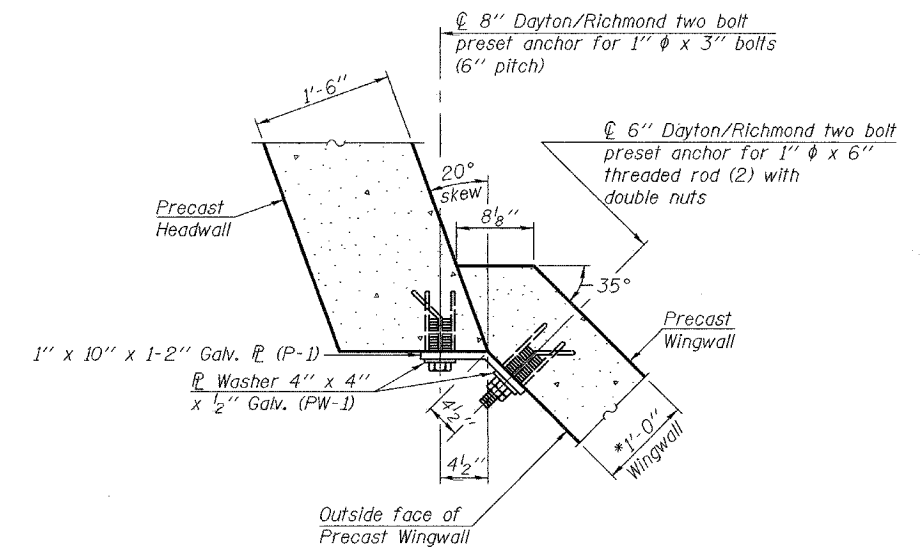


**SECTION D-D**

Note: Reinforcement for wingwalls is to be determined by the fabricator.  
Precast Wingwall & associated hardware is billed as Precast Concrete Substructure, L. Sum.



**DETAIL B**  
(At Unit Leg; S.W. or N.E.)



**DETAIL B**  
(At Headwall; S.W. or N.E.)

Note: Connection P-1 shall be positioned with small phi holes toward precast headwall.

**PRECAST WINGWALL DETAILS**  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1511+01.00  
STRUCTURE NO. 095-0078

DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

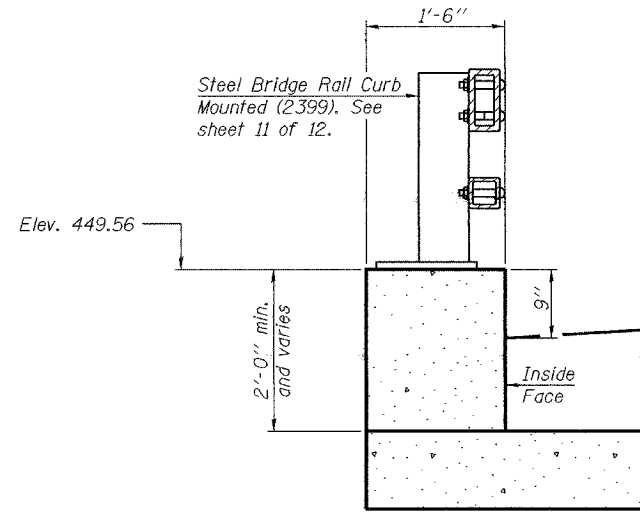
EXAMINED	Thomas J. Demagalki ENGINEER OF BRIDGE DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

January 28 2008

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

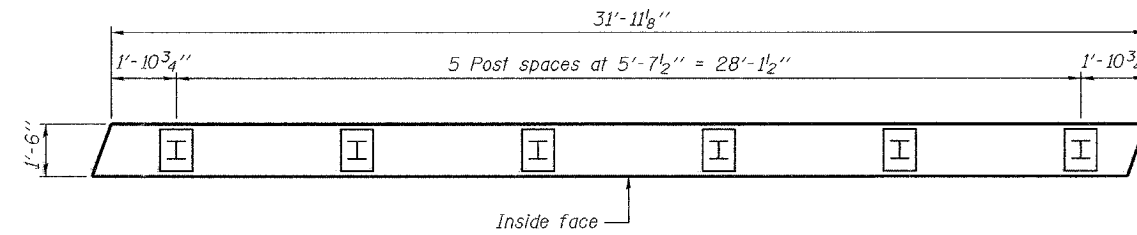
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	79	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76949

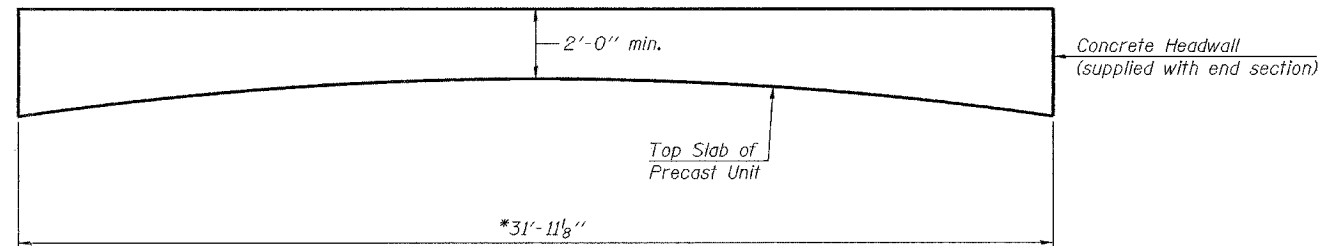


Note: Headwall to be designed by precast provider.  
Concrete Sealer shall be applied to top and inside exposed face of Precast Headwall.  
Headwall shall be designed per AASHTO Art. 2.7 of Standard Specifications.

SECTION THRU HEADWALL



PLAN OF HEADWALL POST LAYOUT



PRECAST HEADWALL ELEVATION

\*Dimension measured along inside face of headwall

DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

January 28 2008

EXAMINED *Thomas J. Demagala*  
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

HEADWALL DETAILS  
F.A.S. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1511+01.00  
STRUCTURE NO. 095-0078

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	80
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #76949

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) =  $1.25 \times f_y \times A_t$
- ② Minimum \*Pull-out Strength (Tension in kips) =  $0.66 \times f_y \times A_t$

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.

$A_t$  = Tensile stress area of lapped reinforcement bars.

\* = 28 day concrete

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

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

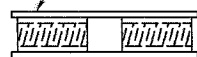
The diameter of this part is equal or larger than the diameter of bar spliced.

**ROLLED THREAD DOWEL BAR**



\*\* ONE PIECE

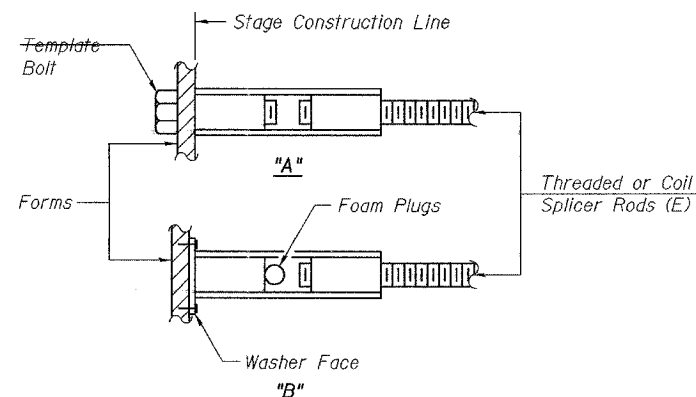
Wire Connector



WELDED SECTIONS

**BAR SPLICER ASSEMBLY ALTERNATIVES**

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

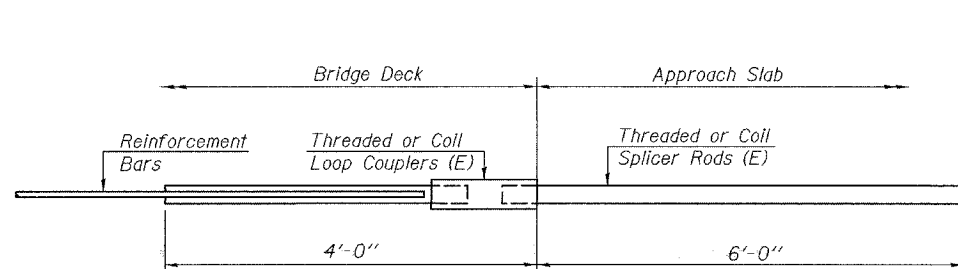


**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.

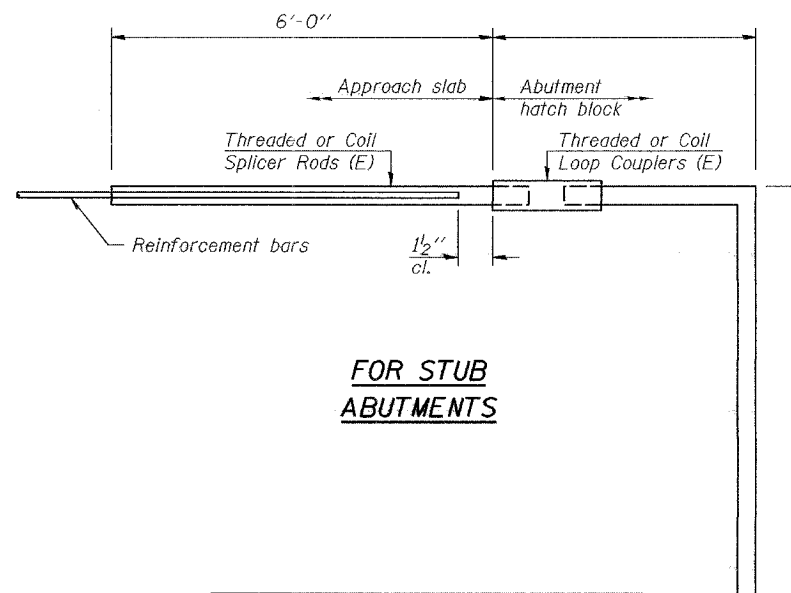
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



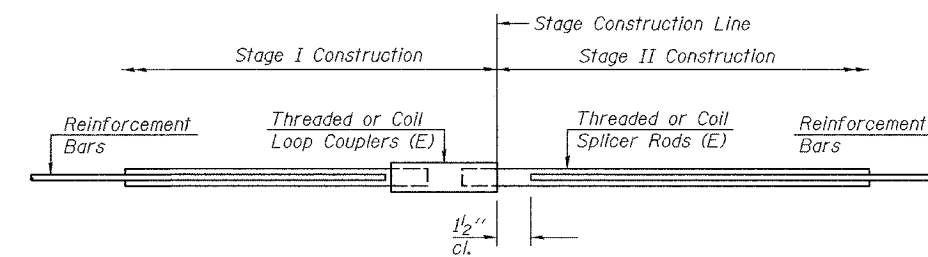
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

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



**FOR STUB ABUTMENTS**

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



**STANDARD**

Bar Size	No. Assemblies Required	Location
#6	28	Footings

**BAR SPLICER ASSEMBLY DETAILS**

F.A.S. 1832 - SEC. 5BR-2

WASHINGTON COUNTY

STATION 1511+01.00

STRUCTURE NO. 095-0078

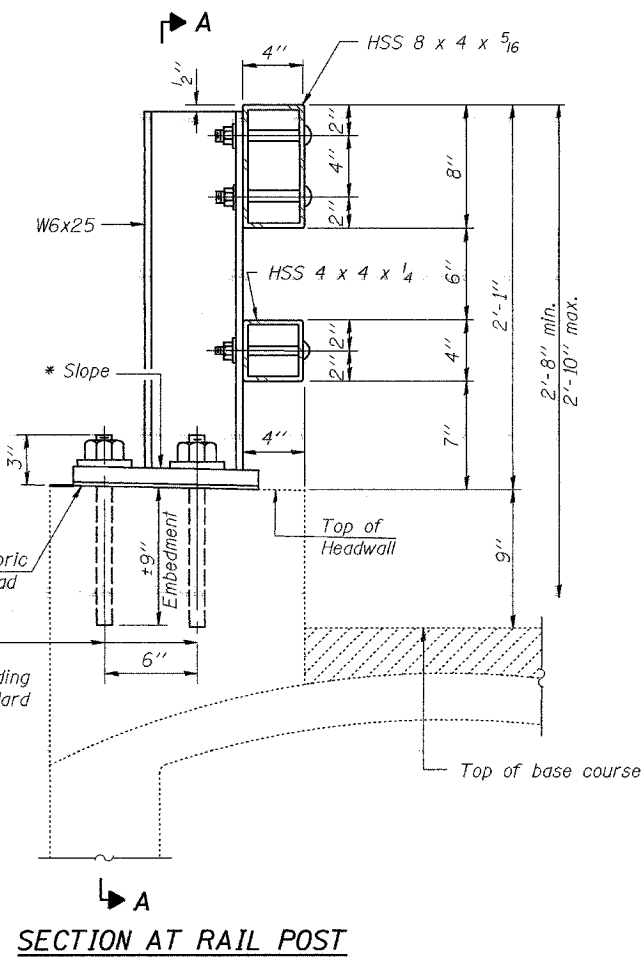
DESIGNED Nicholas R. Barnett  
CHECKED Roy Ahanchi  
DRAWN Gregory D. Farmer  
CHECKED NRB/GRA

January 28 2008  
EXAMINED Thomas J. Damagalki  
PASSED Ralph E. Anderson

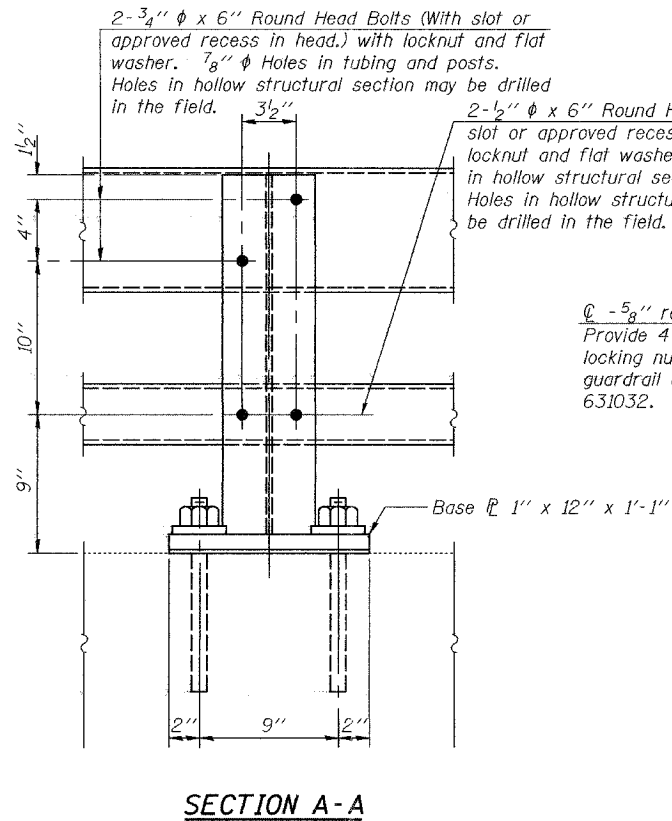
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.S. 1832	SECTION 5BR-2	COUNTY WASHINGTON	SHEET NO. 97	SHEET NO. 81	SHEET NO. 11 12 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-	

Contract #76949



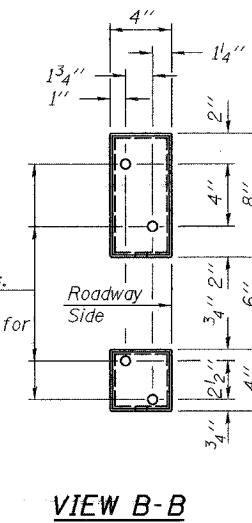
4- 1"  $\phi$  H.S. Threaded Anchor Rods with hex nuts and lock washers, drilled and set according to Article 509.06 of the Standard Specifications.



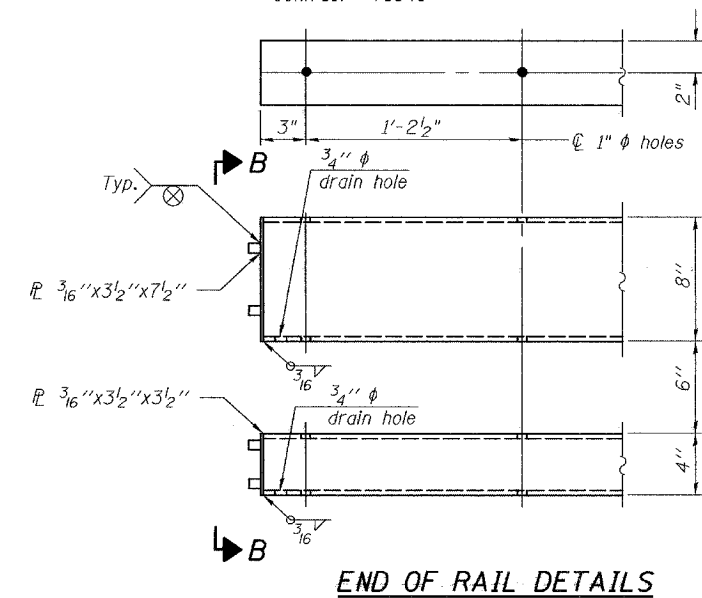
2-3/4"  $\phi$  x 6" Round Head Bolts (With slot or approved recess in head.) with locknut and flat washer. 7/8"  $\phi$  Holes in tubing and posts. Holes in hollow structural section may be drilled in the field.

2-1/2"  $\phi$  x 6" Round Head Bolts (With slot or approved recess in head.) with locknut and flat washer. 5/8"  $\phi$  Holes in hollow structural section and post. Holes in hollow structural section may be drilled in the field.

4- 5/8" reduced base welded studs. Provide 4- 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.



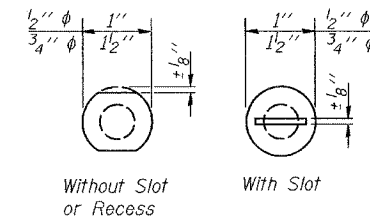
VIEW B-B



END OF RAIL DETAILS

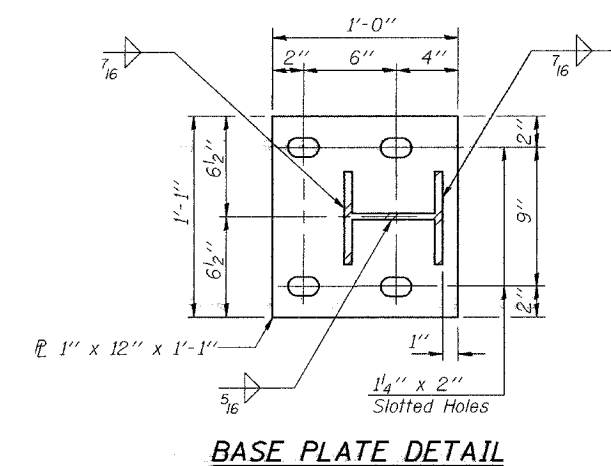
Notes:

- All field drilled holes shall be coated with an approved zinc rich paint before erection.
- Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
- Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
- Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
- All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

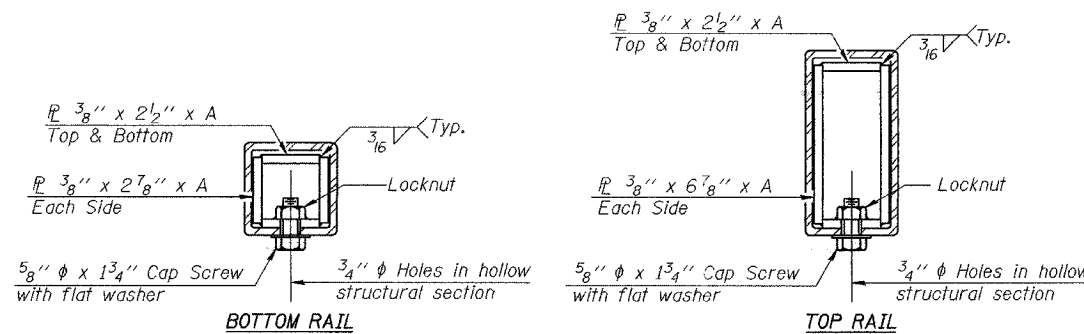


Without Slot or Recess With Slot

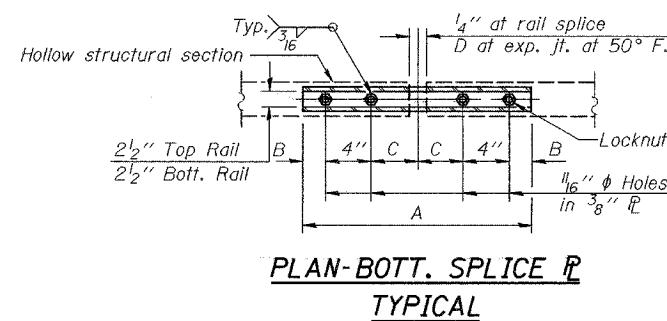
VIEW C-C



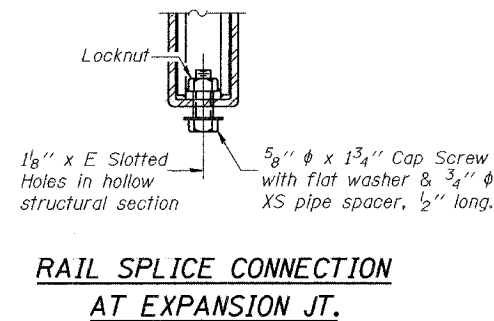
BASE PLATE DETAIL



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	64'-0"

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1 1/4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

DESIGNED	Nicholas R. Barnett
CHECKED	Ray Ahanchi
DRAWN	Gregory D. Farmer
CHECKED	NRB/GRA

EXAMINED	Thomas J. Demagala	January 28 2008
PASSED	Ralph E. Anderson	

11-1-06

(6'-3" Maximum Post Spacing)

STEEL RAILING, TYPE 2399  
F.A.S. RTE 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1511+01.00  
STRUCTURE NO. 095-0078

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1832	5BR-2	WASHINGTON	97	82
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

Contract #76949

**Illinois Department of Transportation**  
Division of Highways  
District - Materials

### SOIL BORING LOG

Page 1 of 1  
Date 2/25/01

ROUTE FAS 1832 DESCRIPTION IL #60 over Branch of Plum Creek LOGGED BY J. King

SECTION 5BR-2 LOCATION SE 1/4, SE 1/4, SEC. 27, TWP. 15, RANG. 4W, 3 PM

COUNTY Washington DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 095-0078 (E) / Station 1511+80

BORING NO. I.E. Abut Station 1511+90

Offset 15,000 ft Right  
Ground Surface Elev. 448.72 ft

DEPTH (ft)	DIAMETER (ft)	SOIL TYPE	REMARKS	DEPTH (ft)	DIAMETER (ft)	SOIL TYPE	REMARKS
0			Surface Water Elev. _____ ft	0			
			Stream Bed Elev. 438.72 ft				
			Groundwater Elev. _____ ft				
			First Encounter _____ ft				
			Upon Completion _____ ft				
			After _____ Hrs.				
0		Gray SHALE (continued)		0			
3	0.65	S	23	3	0.65	S	23
7	0.58	S	26	7	0.58	S	26
448.0		END OF BORING		448.0			
		Brown and Gray Clay TILL					
6	1.63	B	20	6	1.63	B	20
5	0.65	B	25	5	0.65	B	25
436.7		Gray Clay TILL		436.7			
3	0.20	B	34	3	0.20	B	34
434.2		Brown and Gray Clay TILL		434.2			
64	3.30	S	11	64	3.30	S	11
100	2.57	S	12	100	2.57	S	12
429.2		Gray SHALE		429.2			

NOTE: Value in Blows/6" Column is the N-Value of the Sample

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

BBS, Form 137 (Rev. 8-99)

**Illinois Department of Transportation**  
Division of Highways  
District - Materials

### SOIL BORING LOG

Page 1 of 1  
Date 2/25/01

ROUTE FAS 1832 DESCRIPTION IL #60 over Branch of Plum Creek LOGGED BY J. King

SECTION 5BR-2 LOCATION SE 1/4, SE 1/4, SEC. 27, TWP. 15, RANG. 4W, 3 PM

COUNTY Washington DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 095-0078 (E) / Station 1511+80

BORING NO. P.W. Abut Station 1511+70

Offset 15,000 ft Left  
Ground Surface Elev. 448.52 ft

DEPTH (ft)	DIAMETER (ft)	SOIL TYPE	REMARKS	DEPTH (ft)	DIAMETER (ft)	SOIL TYPE	REMARKS
0			Surface Water Elev. _____ ft	0			
			Stream Bed Elev. 438.72 ft				
			Groundwater Elev. _____ ft				
			First Encounter _____ ft				
			Upon Completion _____ ft				
			After _____ Hrs.				
0		Gray Laminated SHALE (continued)		0			
3	0.52	B	29	3	0.52	B	29
444.0		Brown Silty CLAY		444.0			
11	1.30	B	22	11	1.30	B	22
442.0		Brown and Gray Clay TILL		442.0			
10	1.11	B	22	10	1.11	B	22
5	1.10	S	22	5	1.10	S	22
11	0.39	B	20	11	0.39	B	20
434.0		Gray TILL		434.0			
40	5.54	S	11	40	5.54	S	11
31	3.12	S	11	31	3.12	S	11
429.8		Gray Laminated SHALE		429.8			

NOTE: Value in Blows/6" Column is the N-Value of the Sample

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

BBS, Form 137 (Rev. 8-99)

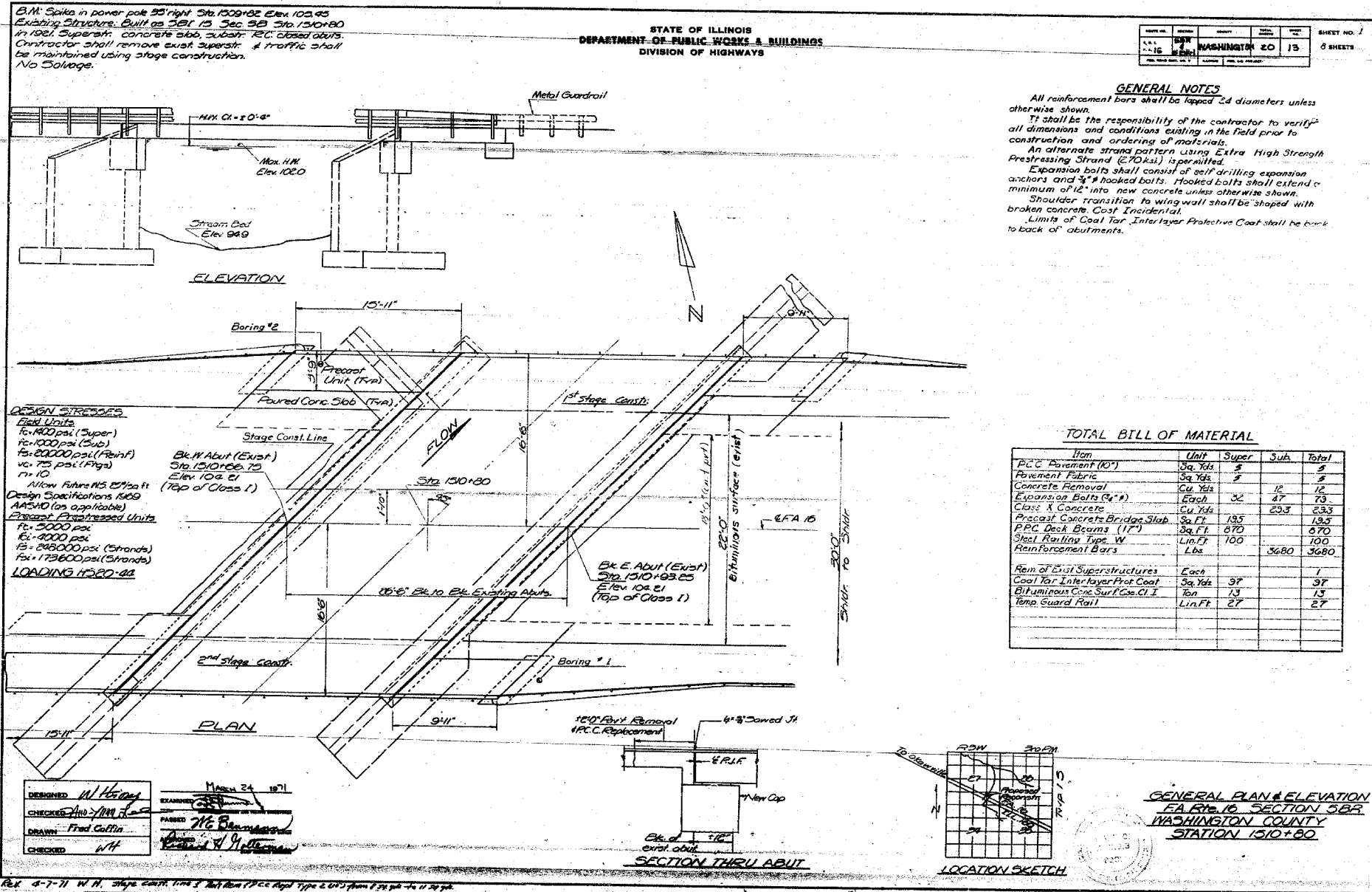
DESIGNED Nicholas R. Barnett  
CHECKED Ray Ahanchi  
DRAWN Gregory D. Farmer  
CHECKED NRB/GRA

January 28 2008  
EXAMINED Thomas J. Demagalaki  
PASSED Ralph E. Anderson  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

SOIL BORING LOGS  
F.A.S. RTE. 1832 - SEC. 5BR-2  
WASHINGTON COUNTY  
STATION 1511+01.00  
STRUCTURE NO. 095-0078



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	83
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



FOR INFORMATION ONLY

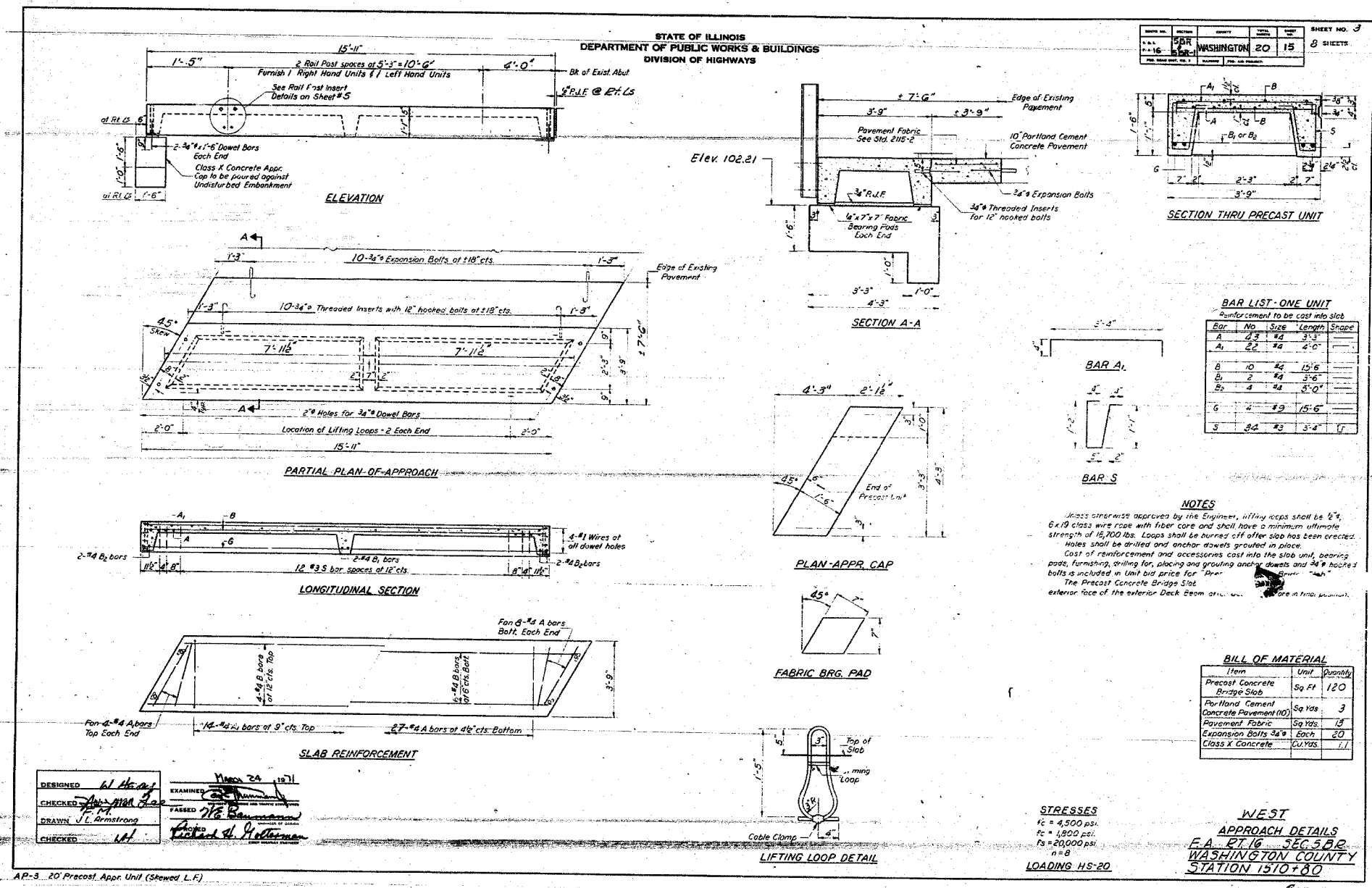
S.N. 095-0078

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION EXISTING STRUCTURE PLANS
NAME	DATE	
		FAS ROUTE 1832 SECTION 5BR-2 WASHINGTON COUNTY
SCALE: VERT. _____	HORIZ. _____	DRAWN BY _____
DATE _____		CHECKED BY _____

PLOT DATE = 11/25/2007  
FILE NAME = c:\projects\76949\plan\1832\5br\1832\_5br\_83.dgn  
PLOT SCALE = 5/8" = 1'-0"  
REFERENCE = #1832



F.A.S. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
MS2	5BR-2	WASHINGTON	97	85
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



DESIGNED: *W. H. ...*  
 CHECKED: *...*  
 DRAWN: *J. L. Armstrong*  
 EXAMINED: *...*  
 PASSED: *...*  
 CHECKED: *...*

**STRESSES**  
 f<sub>c</sub> = 4,500 psi.  
 f<sub>t</sub> = 1,000 psi.  
 f<sub>s</sub> = 20,000 psi.  
 n = 8  
 LOADING HS-20

**WEST APPROACH DETAILS**  
 F.A. RT. 16 SEC. 5 BR.  
 WASHINGTON COUNTY  
 STATION 1510+80

FOR INFORMATION ONLY

S.N. 095-0078

REVISIONS		DATE
NAME		

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**EXISTING STRUCTURE PLANS**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY  
 SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

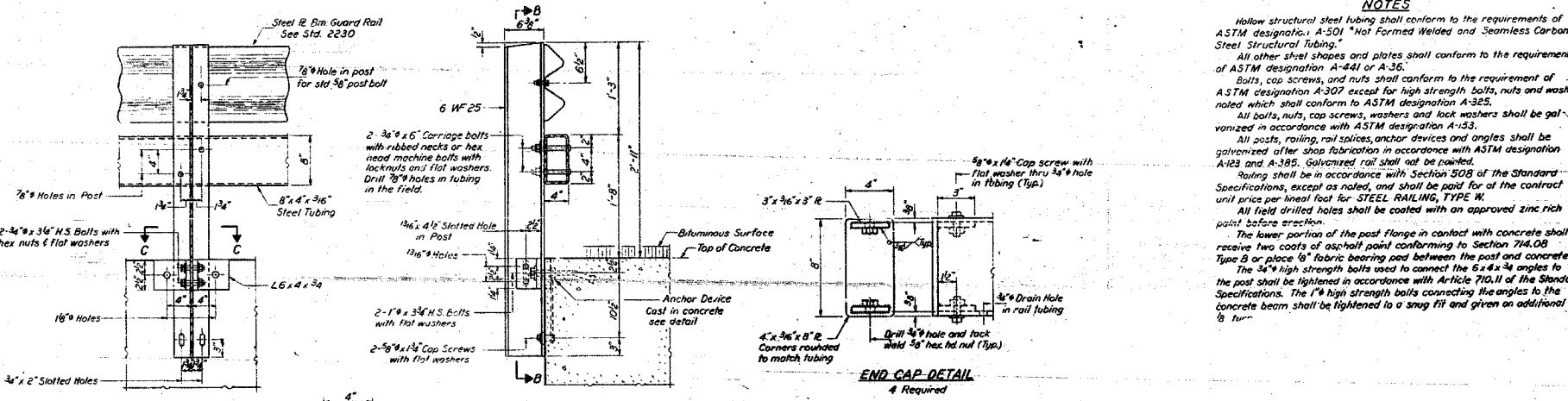
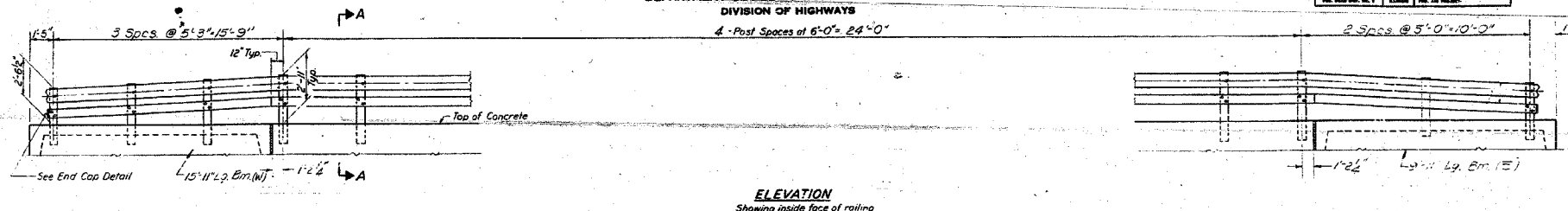
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 PLOT SCALE = 1/8" = 1'-0"  
 REFERENCE = #REF#



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	87
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	87



**NOTES**

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-501 "Not Formed Welded and Seamless Carbon Steel Structural Tubing."

All other steel shapes and plates shall conform to the requirements of ASTM designation A-441 or A-36.

Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to ASTM designation A-325.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with ASTM designation A-153.

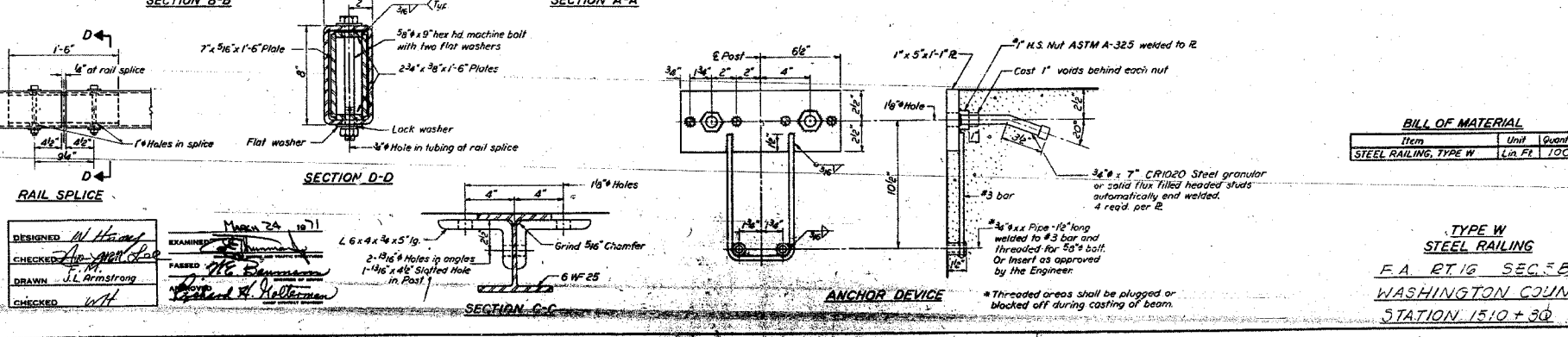
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with ASTM designation A-123 and A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lineal foot for STEEL RAILING, TYPE W.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place 1/2" fabric bearing pad between the post and concrete.

The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Article 710.11 of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete beam shall be tightened to a snug fit and given an additional 1/8 turn.



**BILL OF MATERIAL**

Item	Unit	Quantity
STEEL RAILING, TYPE W	Lin. Ft.	100

**TYPE W  
STEEL RAILING**  
F.A. RT 16 SEC. 5B2  
WASHINGTON COUNTY  
STATION 1510 + 30

DESIGNED: M. H. H. / M. H. H.  
CHECKED: J. L. Armstrong / J. L. Armstrong  
DRAWN: J. L. Armstrong / J. L. Armstrong  
CHECKED: M. H. H. / M. H. H.

FOR INFORMATION ONLY

S.N. 095-0078

REVISIONS		DATE
NAME		

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**EXISTING STRUCTURE PLANS**

FAS ROUTE 1832  
SECTION 5BR-2  
WASHINGTON COUNTY

SCALE: VERT. / HORIZ. / DATE

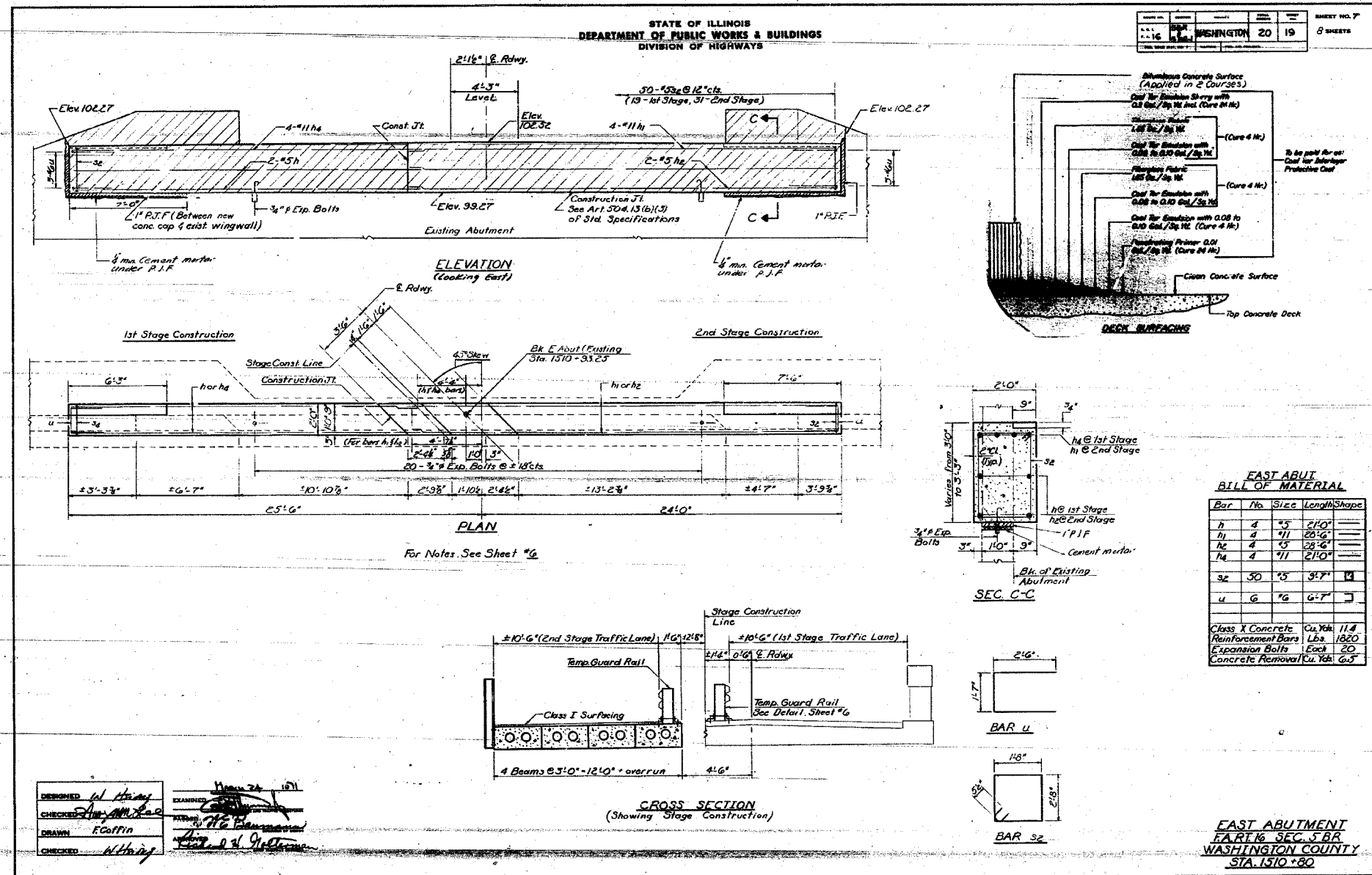
DRAWN BY / CHECKED BY

PLOT DATE = 11/29/2007  
PLOT SCALE = 1/8" = 1'-0"  
REFERENCE = #REF#





F.A.S. MILE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	89
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



FOR INFORMATION ONLY

PLOT DATE = 11/29/2007  
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 REFERENCE = #REF#

DESIGNED: H. H. H. H.  
 CHECKED: J. J. J. J.  
 DRAWN: F. Coffin  
 CHECKED: W. H. H. H.

REVISIONS	NAME	DATE

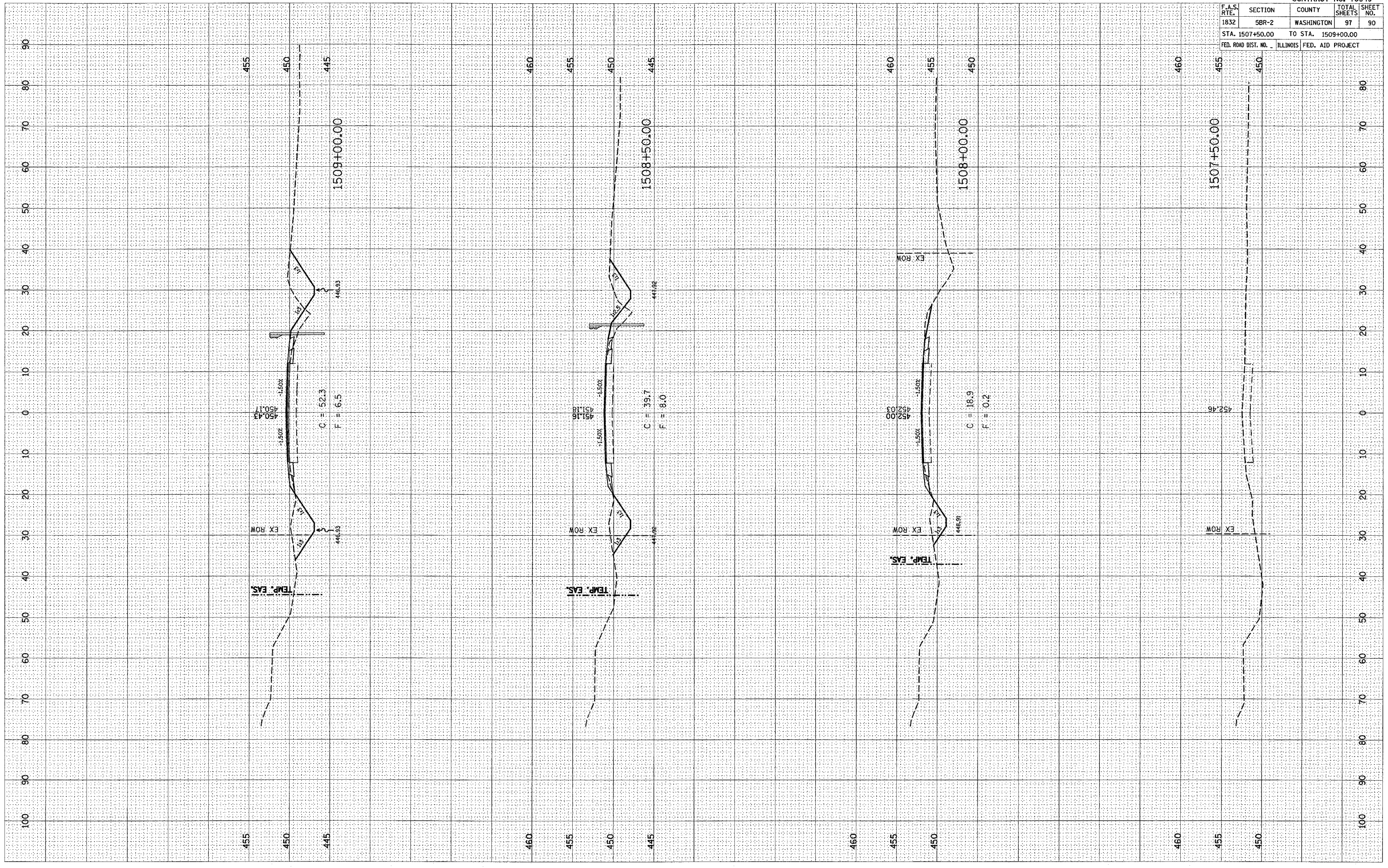
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**EXISTING STRUCTURE PLANS**  
 FAS ROUTE 1832  
 SECTION 5BR-2  
 WASHINGTON COUNTY  
 SCALE: VERT. HORIZ.  
 DATE: DRAWN BY: CHECKED BY:

S.N. 095-0078

FINAL SURVEY SURVEYED PLOTTED DATE  
 NO. BOOK TEMPLATE AREAS CHECKED

ORIGINAL SURVEY SURVEYED PLOTTED DATE  
 NO. BOOK TEMPLATE AREAS CHECKED

PLOT DATE = 12/7/2007  
 PLOT SCALE = 1/8" = 100'  
 USER NAME = galtrah



CONTRACT NO. 76949			
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS
1832	5BR-2	WASHINGTON	97
STA. 1507+50.00		TO STA.	1509+00.00
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	91
STA. 1509+50.00		TO STA. 1511+50.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

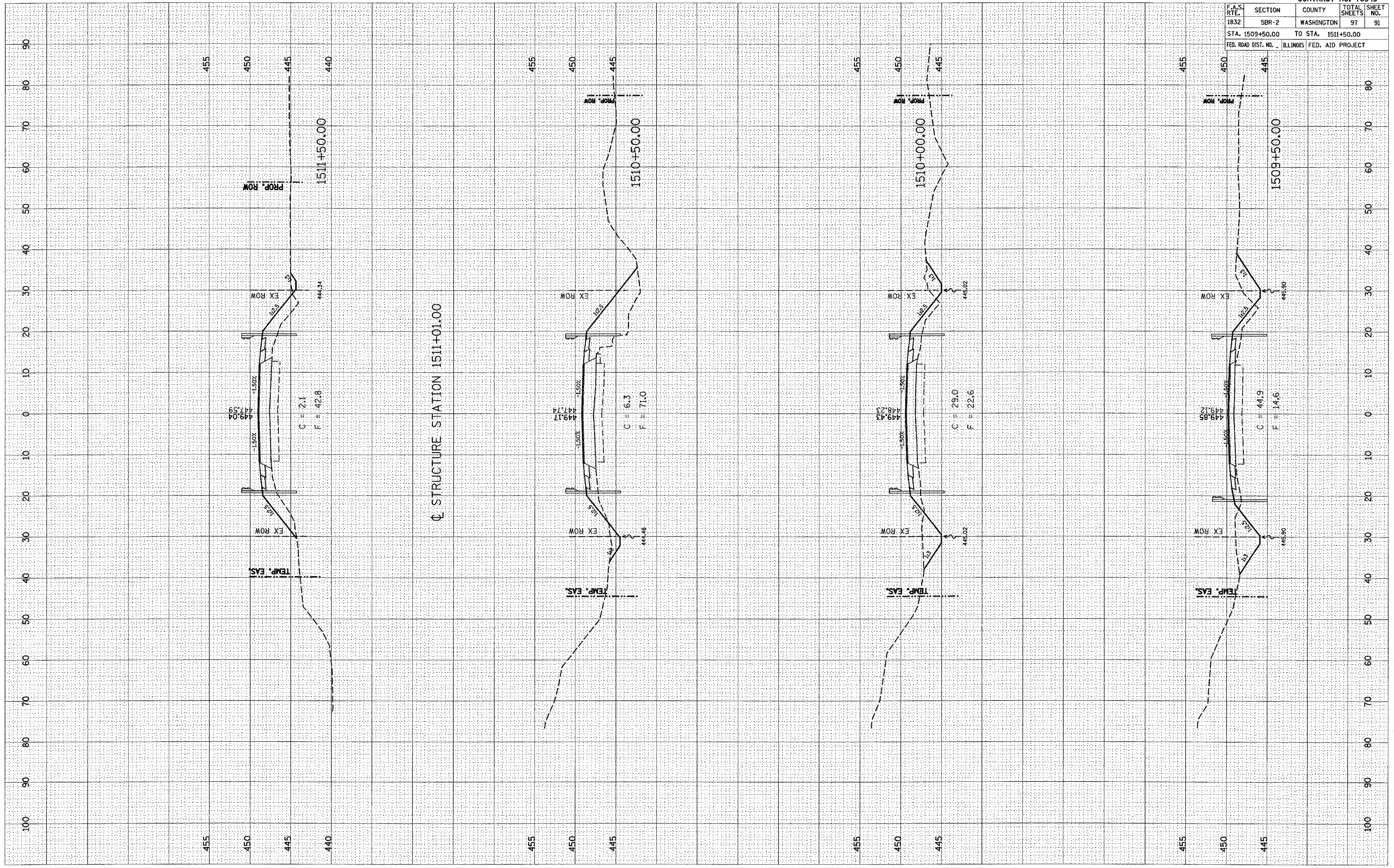
FINAL SURVEY

SURVEYED	BY	DATE
NOTE BOOK		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY

SURVEYED	BY	DATE
NOTE BOOK		
AREAS CHECKED		
NO.		

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 USER NAME = gmluh







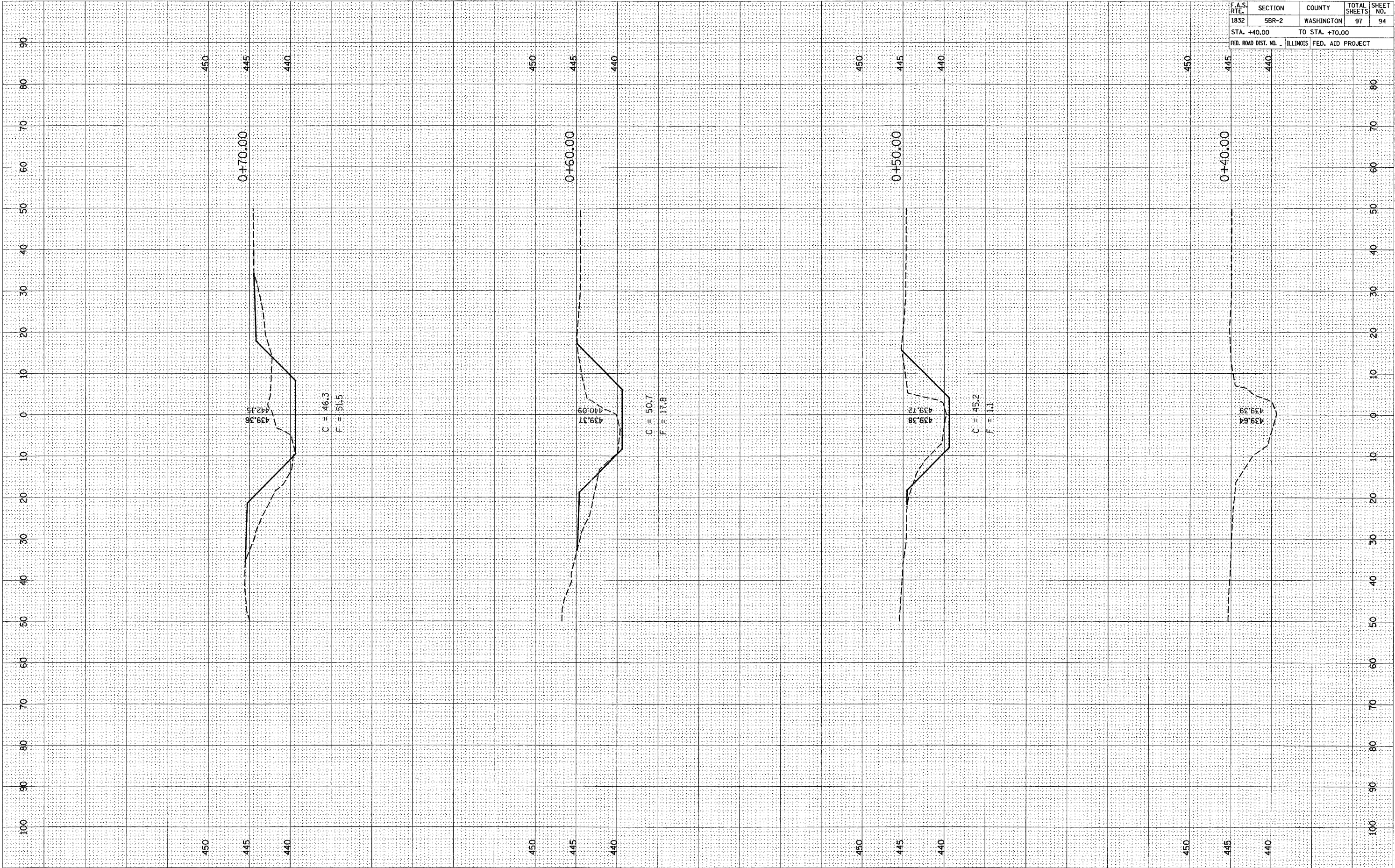


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	94
STA. +40.00		TO STA. +70.00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_ PLOTTED: \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_ AREAS CHECKED: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_ PLOTTED: \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_ AREAS CHECKED: \_\_\_\_\_

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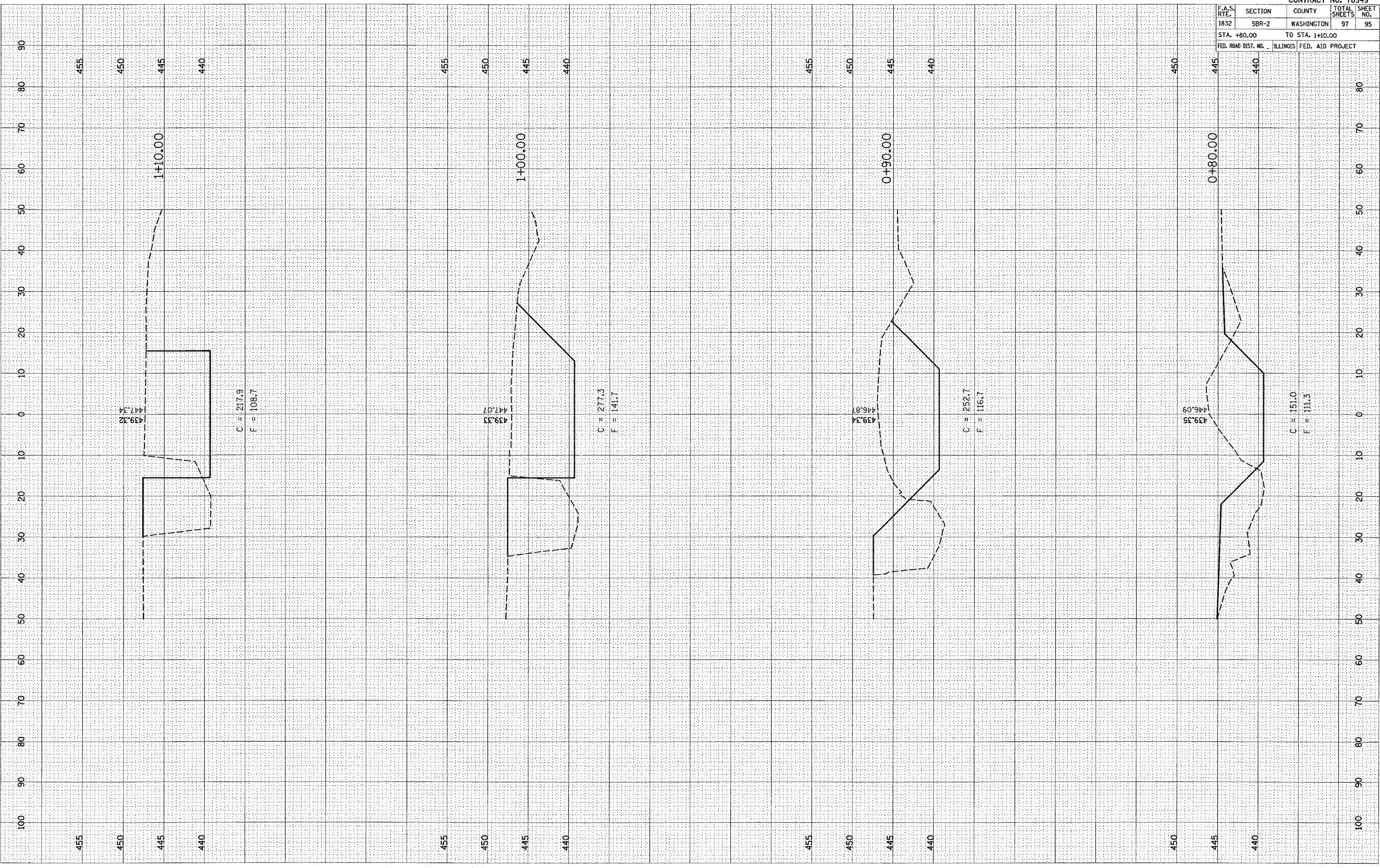




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 USER NAME = galink

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

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



CONTRACT NO. 76949			
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
1832	5BR-2	WASHINGTON	97 95
STA. +80.00		TO STA. 1+10.00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

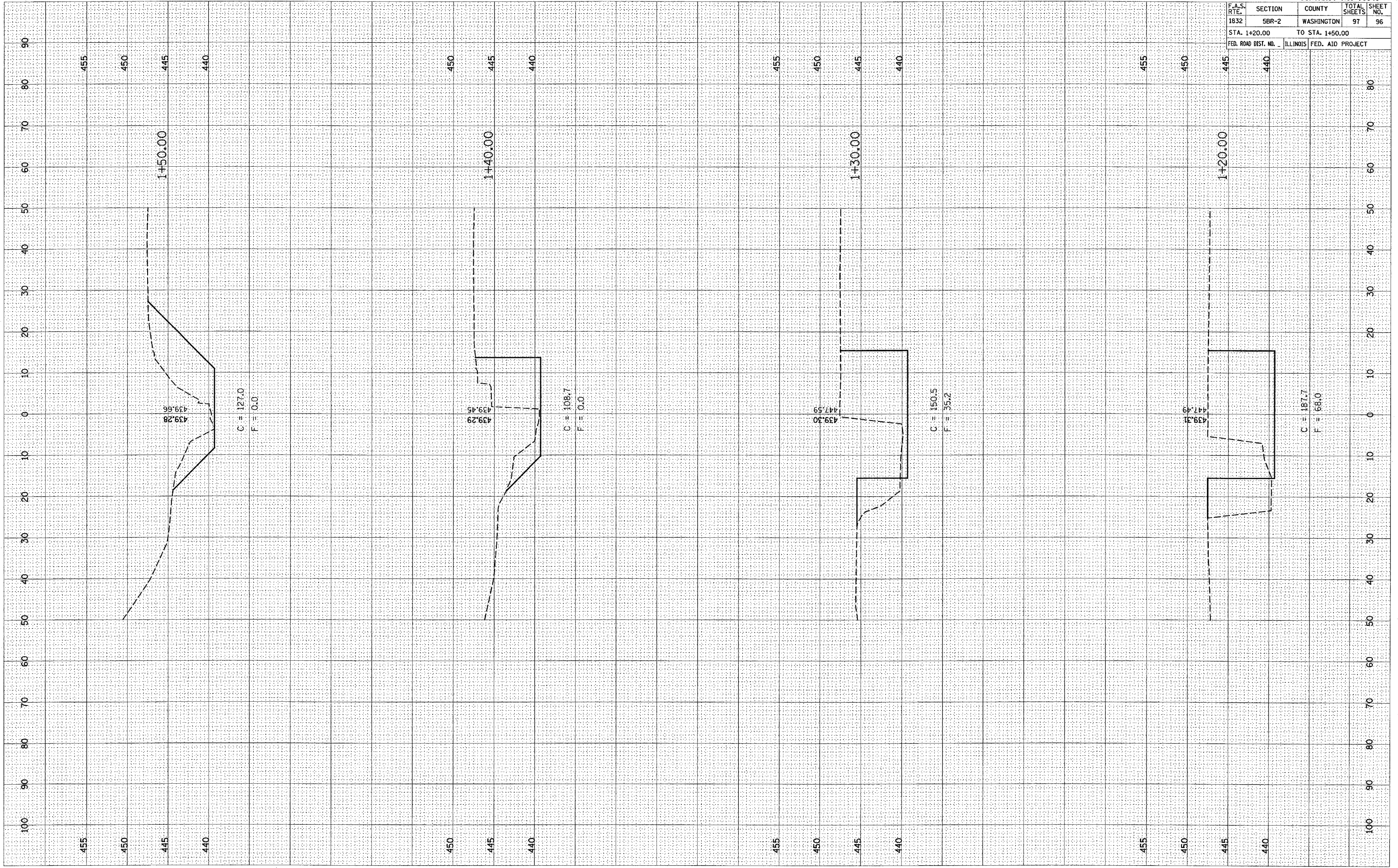


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1832	5BR-2	WASHINGTON	97	96
STA. 1+20.00		TO STA. 1+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY  
 SURVEYED \_\_\_\_\_ BY \_\_\_\_\_ DATE \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 TEMPLATE \_\_\_\_\_  
 AREAS \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_

ORIGINAL SURVEY  
 SURVEYED \_\_\_\_\_ BY \_\_\_\_\_ DATE \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 TEMPLATE \_\_\_\_\_  
 AREAS \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_

PLOT DATE = 12/7/2007  
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 USER NAME = geluh



CONTRACT NO. 76949			
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS
1832	5BR-2	WASHINGTON	97
STA. 1+60.00		TO STA. 1+80.00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

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

ORIGINAL SURVEY	SURVEYED	DATE
NO.	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	

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