CONTRACT NO. 76946 RTE. SECTION COUNTY TOTAL SHEET SHEETS NO. 817 8BR-2, 8BR-3 WASHINGTON 52 1

STATE OF ILLINOIS

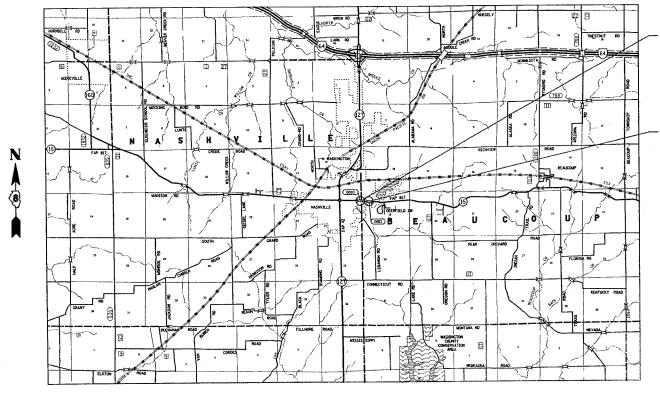
**DEPARTMENT OF TRANSPORTATION** 

**DIVISION OF HIGHWAYS** 

**PROPOSED** HIGHWAY PLANS

**FAP ROUTE 817 (IL 15)** SECTION 8BR-2, 8BR-3 PROJECT: BHF- 0817 ( 006 SUPERSTRUCTURE REPLACEMENT **WASHINGTON COUNTY** 

C-98-112-05



3.3% 2.2%

REMOVE AND REPLACE SINGLE SPAN PPC DECK BEAM SUPERSTRUCTURE IN KIND OVER NASHVILLE CREEK BEGIN STA 22+83 END STA 27+00 SN 095-0010

REMOVE AND REPLACE SINGLE SPAN PPC DECK BEAM SUPERSTRUCTURE IN KIND OVER NASHVILLE CREEK BEGIN STA 34+50 FND STA 38+00

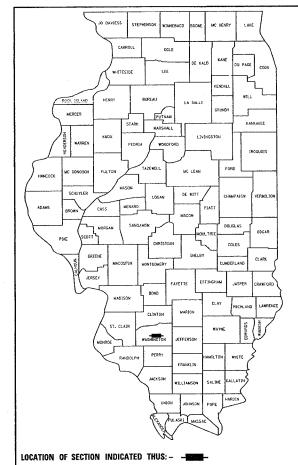
GROSS LENGTH 9.01 MI

HET LENGTH - O.O. MI

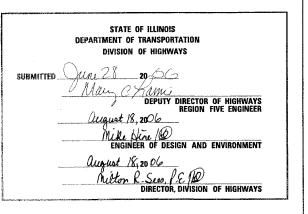
LAT 38.34307

LONG 89.36814

LONG 89.37180



D-98-089-05



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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

(618) 346-3209

MUEHLFELD

ARTHUR

CONTACT:

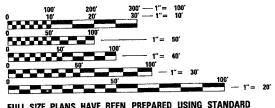
SQUAD

(618) 346 - 3179

PATTI Lebeau

ENGINEER:

**PROJECT** 



FOR INDEX OF SHEETS, SEE SHEET NO. 2

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

CONTRACT NO. 76946

FAP ROUTE 817

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

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- INDEX OF SHEETS, HIGHWAY STANDARDS, **GENERAL NOTES & COMMITMENTS**
- SUMMARY OF QUANTITES
  - TYPICAL SECTIONS
- **TIE POINTS & BENCHMARKS**
- WIDE LOAD SIGNING

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- REMOVAL PLAN 10
- PLAN SHEET
- STAGE CONSTRUCTION 12-14
- **EROSION CONTROL SHEET**
- PLAT OF HIGHWAYS
- 16--17
- 18 MISCELLANEOUS DETAILS
- PAVEMENT MARKING SHEET 19
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- 34 REMOVAL PLAN
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#### **HIGHWAY STANDARDS**

00000104	63103202	70132108
280001-02	635011-01	701326-02
51500102	666001	70200106
63000106	701011-01	704001-02
630301-03	701301-02	78000101
631006-03	70130601	781001-02
631011-02	701311-02	

#### 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. 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 (ELECTRIC)
  - \* CHARTER COMMUNICATIONS, INC.
  - . CITY OF NASHVILLE (GAS, WATER & SEWER)
  - \* AT&T (COMMUNICATIONS)
  - \* WASHINGTON COUNTY WATER CO.

MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY \*.

- NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
- 4. THE CONTRACTOR SHALL PROVIDE TWO SIGNAL HEADS (EACH) FOR THE THREE ENTRANCES LOCATED WITHIN THE STAGE CONSTRUCTION OF SN 095-0010 (STA 23+24.27 RT, STA 24+64.35 LT AND STA 26+28.65 LT.) THE SIGNALS, DETECTOR LOOPS, AND THE NUMBER OF TURNS OF WIRE IN THE LOOPS SHALL BE AS DETERMINED BY THE ENGINEER.
- 5. THE CONTRACTOR SHALL FURNISH AND INSTALL WOOD SIGN SUPPORTS IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS; HOWEVER, INSTALLATION BY METHOD 'A' (ARTICLE 730.04(d)) SHALL BE THE ONLY METHOD PERMITTED.
- 6. "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.
- 7. ALL SIGNS THAT INTERFERE WITH CONSTRUCTION OPERATIONS SHALL BE REMOVED, STORED AND RE-ERECTED ACCORDING TO ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
- 8. ANY DAMAGE TO SIGNS CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT THE CONTRACTOR'S
- 9. ALL SAW CUTTING FOR REMOVAL ITEMS SHALL BE FULL DEPTH AND SHALL BE INCLUDED IN THE COST
- 10. 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
- 11. THE COST FOR GRADING AND SHAPING ALONG THE PROPOSED WIDENING SHALL BE INCLUDED IN THE COST OF "EARTH EXCAVATION (WIDENING)".
- 12. THE TRAFFIC CONTROL MEASURES SHOWN ON PLANS FOR STAGE I AND II SHALL SUPPLEMENT AND BE IN ACCORDANCE WITH TRAFFIC CONTROL STANDARD 701321.
- 13. THE COST OF "BARRICADES, TYPE III" USED DURING STAGE CONSTRUCTION SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
- 14. A QUANTITY OF 737.5 FEET OF "TEMPORARY PAVEMENT MARKING LINE 6 INCHES" WHITE HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER.
- 15. THE BARRIER UNIT AT EACH END OF THE TRAFFIC CONTROL INSTALLATION SHALL BE SECURED TO THE PAVEMENT OR SHOULDER USING ALL SIX ANCHORING PINS FOR F-SHAPE BARRIER OR ALL SIX DOWEL BARS FOR NEW JERSEY SHAPE BARRIER.
- 16. THE TEMPORARY CONCRETE BARRIER (STATE OWNED) IS LOCATED AT THE CARLYLE MAINTENANCE YARD, CONTACT JASON ROECKENHAUS AT (618) 594-3001 PRIOR TO PICK UP. THE CONTRACTOR SHALL PICK UP THE BARRIER AND RETURN THE BARRIER TO THE SAME LOCATION UPON COMPLETION OF THE PROJECT. ANY DAMAGED BARRIER WILL NOT HAVE TO BE REPLACED. THE CONTRACTOR SHALL DISFOSE OF DAMAGED CONCRETE BARRIER IN AN APPROVED DUMP SITE. THE CONNECTOR PINS SHALL BE FURNISHED BY THE CONTRACTOR AND THE COST SHALL BE INCLUDED WITH THE COST OF "TEMPORARY CONCRETE BARRIER

#### EROSION CONTROL PLAN

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 RECOMMENDED INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER AND SILT FENCES WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSIOR, URETHANE/GEOTEXTILE (SILT WEDGES), EARTH MEDIAN AND/OR OTHER MATERIAL APPROVED BY THE EROSION AND SEDIMENT CONTROL COORDINATOR.

TEMPORARY DITCH CHECKS, GEOTEXTILES, ROLLED EXCELSIOR, SILT WEDGES, PANELS 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.

TEMPORARY SEEDING AND MULCH SHALL BE COMPLETED ON A WEEKLY BASIS ON EXPOSED GROUND AND SHALL BE IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS/ACRE. THIS WORK SHALL BE PAID FOR AS "TEMPORARY EROSION CONTROL SEEDING", WHICH WILL INCLUDE MULCH. FOR CALCULATION PURPOSES, THREE APPLICATIONS OF TEMPORARY SEEDING WAS ASSUMED.

EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.

FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE WITH CLASS 2 SEEDING.

#### COMMITMENTS

NONE

#### PERTINENT INFORMATION

TWO ENTRANCES WILLTBE AFFECTED DURING THIS PROJECT. THE PROPERTY OWNERS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF ANY WORK AFFECTING THEIR ENTRANCES.

PRIVATE ENTRANCE AT STA 24+64.35 LT: "THE LATE" EDWARD & MARY BERNREUTER 1117 E. ST. LOUIS STREET NASHVILLE, IL 62263 (618) 327-3334 CONTACT PERSON: CAROL LUTZ (DAUGHTER) (618)327-3955

COMMERCIAL ENTRANCE AT STA 23+24.27 RT: LEO BARCZWESKI 22925 RICHVIEW ROAD RICHVIEW. IL 62877 (618) 493-7742 SHEILA EATON (618) 443-2162 PAUL BARCZWESKI (618) 327-9187

PRIVATE ENTRANCE AT STA 25+82.12 LT WILL BE CLOSED DURING CONSTRUCTION OF SN 095-0010. THE BARRICADES SHALL BE PLACED ALONG THE PROPOSED WIDENING TO MAXIMIZE THE PARKING AREA FOR THE PROPERTY OWNER. PRIVATE ENTRANCE AT STA 26+28.65 LT SHALL REMAIN OPEN AT ALL TIMES. IF TEMPORARY CLOSURE IS NEEDED, THE PROPERTY OWNER SHALL BE NOTIFIED.

EDWARD & DOROTHY HOFFMAN 1175 E. ST. LOUIS STREET NASHVILLE, IL 62263 HM: (618) 327-4165 WK: (618) 327-4401

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	INDEX OF SHEETS. HIGHWAY
		TIMEY OF SUFFISHING
		STANDARDS, GENERAL NOTES
		AND COMMITMENTS
		FAP ROUTE 817
		SECTION 8BR-2, 8BR-3
		WASHINGTON COUNTY
		SN 095-0010 & 0011

I TNATE DEPARTMENT OF TRANSPORTATION

# SUMMARY OF QUANTITIES

	F AND NO PAR AND THE MENT OF		80% FED [		CONSTRUCTIO	A CONTRACTOR OF THE PROPERTY O	/ / / / / 1 1	
	SUMMARY OF QUANTITIES		20% STATE TOYAL	SN 095 SEC 8		SN 095-0011 SEC 8BR-3		
CODE NO	ITEM	UNIT	QUANTITIES	X080-2A	SFTY-3N	X080-2A	SFTY-3N	
20200100	EARTH EXCAVATION	CU YD	35	35		ege entrace de la constantina della constantina		
20200500	EARTH EXCAVATION (WEDENING)	CU YD	70	40		30		
20400800	FURNISHED EXCAVATION	CU YD	290	55		235		
25000200	SEEDING, CLASS 2	ACRE	0.5	0.25		0.25		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	46	23		23		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	46	23		23		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	46	23		23		
25100115	MULCH, METHOD 2	ACRE	0.5	0.25		0.25		
25100630	EROSION CONTROL BLANKET	SQ YD	807	240		567		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	150	75		75		
28000300	TEMPORARY DITCH CHECKS	EACH	2	2				
28000400	PERIMETER EROSION BARRIER	FOOT	1090	255		835		
28100105	STONE RIPRAP, CLASS A3	SQ YD	129	84		45		
28200200	FILTER FABRIC	SQ YD	129	84		45		
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	37	37				
40200500	AGGREGATE SURFACE COURSE, TYPE A 6"	SQ YD	80	80				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.7	0.4	l	0.3		
40600300	AGGREGATE (PRIME COAT)	TON	4	2		2		
40600990	TEMPORARY RAMP	SQ YD	72	· 36		36		
40800040	INCIDENTAL BITUMINOUS SURFACING	TON	6	6				
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	132	66		66		
44000007	BITUMINOUS SURFACE REMOVAL 2"	SQ YD	1926	1038		888		
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	99	99				
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	2	1		1		
50102400	CONCRETE REMOVAL	CU YD	19.3	10.1		9.2		
50105220	PIPE CULVERT REMOVAL	FOOT	43	43				
50300225	CONCRETE STRUCTURES	CU YD	0.9	0.9				
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	2465	1414		1051		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	40	40				
50901005	STEEL BRIDGE RAIL, TYPE SM	F00T	252	126		126		
51500100	NAME PLATES	EACH	2	1		1		
54002020	EXPANSION BOLTS 3/4 INCH	EACH	224	112		112		
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	41	41				
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	275	158		117		
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	746	428		318		
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	487.5	125		362.5		
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			CON	ITRAC	T NO.	76946
F.A.P.	SECTIO	N	COUN	ITY	TOTAL	SHEET NO.
817	8BR-2, 8	BR-3	WASHIN	IGTON	52	3
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CC0 00	ID DICT NO	BIB	inte CEN	ATD	PROJECT	

ILLINOIS DEPARTMENT OF TRANSPORTATION

# SUMMARY OF QUANTITIES

(1884) (1984) <del>(Managanga, mpalaupak</del> tysika nemena dan Vak	CULAR A STATE OF A CHARLETTEC	Wat C Personne Soundaries	80% FED	CONSTRUCTION TYPE CODE				
	SUMMARY OF QUANTITIES		20% STATE TOTAL	SN 095 SEC 8		SN 095-0011 SEC 8BR-3		
CODE NO	ITEM	UNIT	QUANTITIES	X080-2A	SFTY-3N	X080-2A	SFTY-3N	
63100041	TRAFFIC BARRIER TERMINAL, TYPE 1B	EACH	1			1		
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2				
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	8	4		4		
63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	6	2		4		
63200310	GUARDRAIL REMOVAL	FOOT	662.5	225		437.5		
63301210	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL, TYPE A	<b>F</b> 00Т	37.5			37.5		
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	7	7				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	14	7		7		
67100100	MOBILIZATION	L SUM	· 1	0.5		0.5		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	0.5		0.5		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5		0.5		
70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	2	1		1		
70106600	TEMPORARY BRIDGE TRAFFIC SIGNALS (STATE FURNISHED CONTROLLER)	EACH	2	1		1		
70106700	TEMPORARY RUMBLE STRIP	EACH	6	3		3		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	108	52		56		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	4248	1848		2400		
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	737.5	287.5		450		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1452	633		819		
70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	425	200		225		
70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	312.5	87.5		225		
70500100	TEMPORARY STEEL PLATE DEAM SUARD RAIL,	T00T	37,5			37.5.		
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE	FOOT	4248	1848	-	2400		
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	9	5		4		
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	1			1		
78100300	REPLACEMENT REFLECTOR	EACH	4	2		2		
78200410	GUARDRAIL MARKERS, TYPE A	EACH	15	6		9		
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	5	2		3		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1416	616		800		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	14	7		7		
78300200		EACH	14	7			7	

		CONTRAC	T NO.	76946
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
817	8BR-2, 8BR-3	WASHINGTON	52	4
STA.		TO STA.		

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SPECIALTY ITEMS

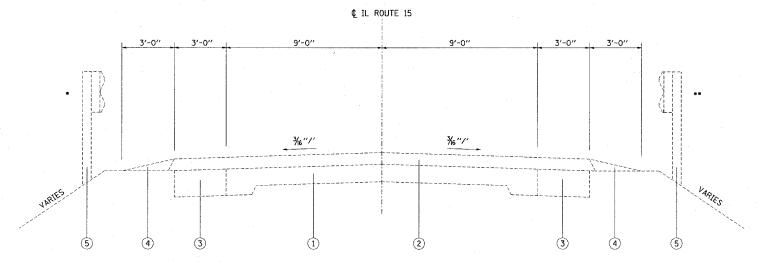
ILLINOIS DEPARTMENT OF TRANSPORTATION

# SUMMARY OF QUANTITIES

	e.	SOMMENT OF GOTTOT						
	SUMMARY OF QUANTITIES	80% FED 20% STATE	SN 095	CONSTRUCTION TYPE CODE  SN 095-0010 SN 095-0011				
CODE NO	CODE NO ITEM		TOTAL QUANTITIES	SEC 8BR-2 X080-2A SFTY-3N		SEC 8BR-3 X080-2A SFTY-3N		
		UNIT			SELL-3N	299	1111 11 C	
X0324744	REMOVAL OF EXISTING PRECAST CONCRETE UNITS	SQ FT	598	299		299		
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	20.5	14		6.5		
X0325445	RIGHT-OF-WAY AND PROPERTY CORNERS	EACH	2	2				
X3560130	BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9 INCH	SQ YD	544	297		247		
X4066416	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", NTO	TON	255	139		116		
X6330103	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, TANGENT	EACH	1			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	1		1			
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	3		1		2	
							·	
	*							
				A				

STA. TO STA.
FED. ROAD DIST. NO. | ILLINOIS | FED. AID | PROJECT

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• 0010- STA 24+79 TO STA 25+57 0011- STA 34+93 TO STA 37+45 \*\* 0010- STA 23+79 TO STA 26+56 0011- STA 34+84 TO STA 37+46

#### EXISTING TYPICAL SECTION

0010- STA 22+83 TO STA 24+76.58 STA 25+59.42 TO STA 27+00

0011- STA 34+50 TO STA 35+76.79 STA 36+48.63 TO STA 38+00

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• 0010- STA 24+83 TO STA 25+53 0011- STA 34+64 TO STA 39+10 •• 0010- STA 23+61 TO STA 27+50 0011- STA 34+43 TO STA 37+97

#### PROPOSED TYPICAL SECTION

0010- STA 22+83 TO STA 24+76.58 STA 25+59.42 TO STA 27+00

0011- STA 34+50 TO STA 35+76.79 STA 36+48.63 TO STA 38+00

# <u>LEGEND</u>

- 1) EXISTING PCC PAVEMENT 9"-6"-9"
- (2) EXISTING RESURFACING
- (3) EXISTING PCC BASE COURSE WIDENING 9"
- 4 EXISTING AGGREGATE SHOULDER
- (5) EXISTING GUARDRAIL
- (6) PROPOSED BITUMINOUS SURFACE REMOVAL 2"
- 7) PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE 2 "
- (8) PROPOSED BITUMINOUS BASE COURSE WIDENING, SUPERPAVE 9"
- 9 PROPOSED GUARDRAIL
- (10) PROPOSED BITUMINOUS MATERIALS PRIME COAT
- (11) PROPOSED AGGREGATE (PRIME COAT)

MIXTURE USE	SURFACE	BINDER / BSE CSE
AC/PG	PG 64-22	PG 64-22
RAP % (MAX)	10%	15%
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION		·
(GRADATION MIXTURE)		
FRICTION AGG	MIXTURE "C"	MIXTURE "B"

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

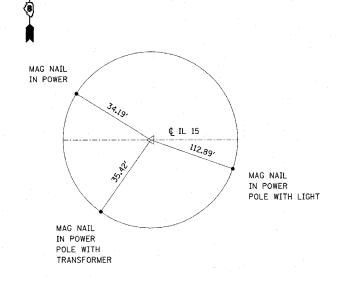
REVISIONS		
NAME	DATE	

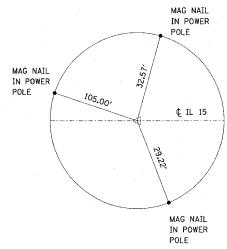
ILLINOIS DEPARTMENT OF TRANSPORTATION

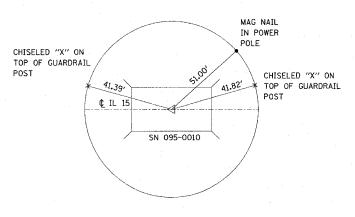
TYPICAL SECTION

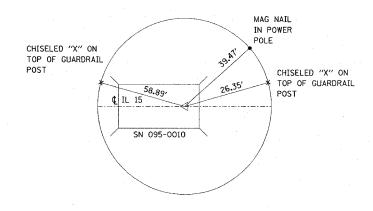
FAP ROUTE 817 SECTION 8BR-2, 8BR-3 WASHINGTON COUNTY SN 095-0010 & 0011

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PLOT SCALE = \$SCALE\$
REFERENCE = \$REF\$









TIE POINT

MAG NAIL
P.O.L. STA 19+00

TIE POINT

MAG NAIL
P.C. STA 21+80.11

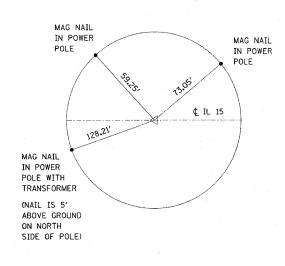
TIE POINT

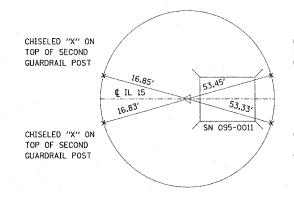
MAG NAIL

C.O.B. STA 25+18.00

TIE POINT

MAG NAIL
P.T. STA 25+36.71

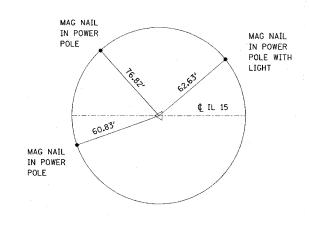




CHISELED "X" ON TOP OF SECOND GUARDRAIL POST

CHISELED "X" ON TOP OF SECOND GUARDRAIL POST

CHISELED "X" ON TOP OF SECOND GUARDRAIL POST



TIE POINT

MAG NAIL
P.C. STA 31+36.15

TIE POINT

MAG NAIL
P.T. STA 35+87.26

TIE POINT

MAG NAIL

C.O.B. STA 36+12.71

TIE POINT

MAG NAIL

P.O.L. STA 42+00

# TEMPORARY BENCHMARKS

TBM 702 - CUT ON WESTMOST CORNER OF CONCRETE FOUNDATION FOR TRAFFIC SIGNAL CONTROL BOX ON SE CORNER OF IL RTE 127 AND IL RTE 15 IN NASHVILLE. ELEV = 517.914

TBM-1 - "X" CUT ON S. TOP FLANGE BOLT ON FIRE HYDRANT ON N. SIDE OF IL RTE 15 IN FRONT OF HOUSE \*1117

STA 24+26 OFFSET = 25' LT

ELEV = 483.910

TBM-2 - RR SPIKE IN S. SIDE OF POWERPOLE ON N. SIDE OF IL RTE 15, APPROX. 175' E. OF NE CORNER OF SN 095-0010 BRIDGE DECK. STA 27+32 OFFSET = 33' LT ELEV = 482.692 TBM-3 - RR SPIKE IN S. SIDE OF POWERPOLE ON N. SIDE OF IL RTE 15, APPROX.

18' W. AND 18' N. OF NW CORNER OF SN 095-0011 BRIDGE DECK

STA 35+58 OFFSET = 33' LT

ELEV = 489.842

CHISELED "X" ON

TOP OF SECOND

GUARDRAIL POST

CHISELED "X" ON

TOP OF SECOND

GUARDRAIL POST

TBM-4 - RR SPIKE IN N. SIDE OF POWERPOLE ON S. SIDE OF IL RTE 15,
APPROX. 142' W. OF W. END OF GUARDRAIL FOR BRIDGE SN 095-0011.
STA 33+50 OFFSET = 31' RT
ELEV = 484.484

NOTE: ALL TIES PULLED DIRECT

REVISIONS DATE						
DATE						
	ĺ					
	DATE					

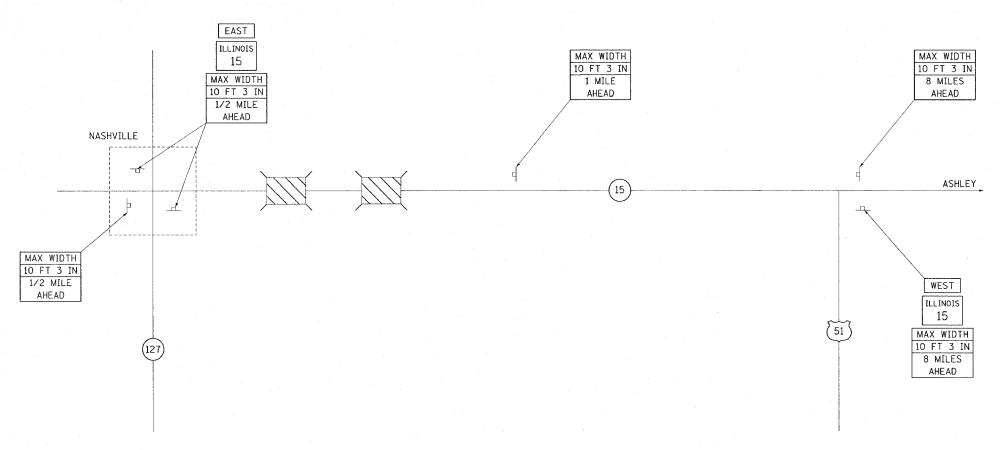
ILLINOIS DEPARTMENT OF TRANSPORTATION
TIE POINTS AND BENCHMARKS

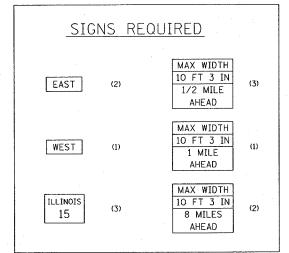
THE POINTS AND BENCHMARKS

FAP ROUTE 817 SECTION 8BR-2, 8BR-3 WASHINGTON COUNTY SN 095-0010 & 0011

# <u>NOTES</u>

- 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 R.E./R.T. 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 HGTS., AND RETURN THEM UPON COMPLETION OF THE CONTRACT.
- 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





ILLINOIS DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 76946

RTE. SECTION COUNTY TOTAL SHEET NO. 817 8BR-2, 8BR-3 WASHINGTON 52 8 TO STA.

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

WIDE LOAD SIGNING

FAP ROUTE 817 SECTION 8BR-2, 8BR-3 WASHINGTON COUNTY SN 095-0010 & 0011

DATE NAME SCALE ENCE

 
 CONTRACT
 NO.
 76946

 F.A.P. RTE.
 SECTION
 COUNTY
 TOTAL SHEETS NO.

 817
 8BR-2
 WASHINGTON
 52
 9
 TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

# EARTHWORK SCHEDULE

					EARTH	EARTH	EARTH	EMBANKMENT	EARTHWORK
LOCATION				EXCAVATION	EXCAVATION	EXCAVATION		BALANCE	
					(WIDENING)		ADJUSTED FOR		WASTE (+) OR
STATI	ON	TO	S	TATION			SHRINKAGE (25%)		SHORTAGE (-)
					CU YD	CU YD	CU YD	CU YD	CUYD
STA .	22+83.0	TO	STA	23+00.0	1.9		1.4		1.4
STA	23+00.0	TO	STA	23+50.0	5.8	0.8	4.9	4.5	0.4
STA	23+50.0	TO	STA	24+00.0	5.8	7.0	9.6	6.9	2.7
STA	24+00.0	TO	STA	24+50.0	5.8	10.4	12.0	3.9	8.1
STA	24+50.0	TO	STA	24+90.0	5.0	8.0	9.7	31.7	-22.0
STA	24+90.0	TO	STA	24+96.5		1.2	0.9	10.0	-9.1
SN 09	5-0010								
STA	25+39.5	TO	STA	25+50.0		2.1	1.6	12.8	-11.2
STA	25+50.0	ТО	STA	26+05.0	5.1	5.5	7.9	35.0	-27.1
STA	26+05.0	TO	STA	26+50.0	5.0		3.8	1.6	2.2
STA	26+50.0	ТО	STA	27+00.0	5.6		4.2	0.5	3.7
STA	27+00.0	TO	STA	27+50.0				2.2	-2.2
STA	27+50.0	ТО	STA	28+00.0				1.9	-1.9
SUBTO	OTAL				40	35	- 56	111	-55

# RESURFACING SCHEDULE

					BITUMINOUS	AGGREGATE	BIUTMINOUS CONCRETE	BITUMINOUS
LOCAT	ION				MATERIALS	(PRIME COAT)	SURFACE COURSE,	SURFACE
					(PRIME COAT)		SUPERPAVE	REMOVAL - 2"
STATI	ON	TO	STAT	ION	TON	TON	TON	SQ YD
STA	22+83.0	ТО	STA	23+00.0	0.04	0.17	5.1	45.3
STA	23+00.0	ТО	STA	23+50.0	0.04	0.20	14.9	133.6
STA	23+50.0	то	STA	24+00.0	0.04	0.20	14.9	133.6
STA	24+00.0	ТО	STA	24+50.0	0.04	0.20	14.9	133.6
STA	24+50.0	ТО	STA	24+76.6	0.04	0.21	7.9	70.9
STA	24+76.6	TO	STA	24+96.5	0.04	0.21	8.2	73.0
STA	25+39.5	TO	STA	25+59.4	0.04	0.21	8.2	73.0
STA	25+59.4	то	STA	26+05.0	0.04	0.20	13.6	121.5
STA	26+05.0	TO	STA	26+50.0	0.04	0.20	13.4	120.0
STA	26+50.0	TO	STA	27+00.0	0.04	0.20	14,9	133.5
TOTAL	_				0.4	2	116 *	1038

\* BITUMINOUS CONCRETE SURFACE COURSE IS NOT A TOTAL QUANTITY. SEE BRIDGE PLANS FOR ADDITIONAL QUANTITY.

# ROW MARKERS SCHEDULE

LOCAT	ION		FURNISHING & ERECTING RIGHT-OF-WAY MARKERS	RIGHT-OF-WAY AND PROPERTY CORNERS	
STATI	ON	OFFSET	SIDE	EACH	EACH
STA	23+45.00	28.66	· RT	1	
STA	24+11.09	42.87	RT	1	
STA	26+46.11	30.00	RT	1	
STA	24+60.00	28.83	LT	1	1
STA	24+85.00	50.39	LT	1	1
STA	25+33.86	53.81	LT	1	
STA	25+75.00	36.86	LT	1	
TOTAL		'		7	2

# TEMPORARY RAMP SCHEDULE

LOCATION	WIDTH	LENGTH	TEMPORARY RAMP	
LOCATION	FOOT	FOOT	SQ YD	
STA 22+83	24	6.75	18	
STA 27+00	24	6.75	18	
TOTAL			36	

# GUARDRAIL SCHEDULE

	GUARDRAIL	STEEL PLATE	TRAFFIC BARRIER	TRAFFIC	TRAFFIC	GUARDRAIL	TERMINAL
LOCATION	REMOVAL	BEAM	TERMINAL, TYPE 1,	BARRIER	BARRIER	MARKERS,	MARKER -
		GUARDRAIL,	SPC (TANGENT)	TERMINAL,	TERMINAL,	TYPE A	DIRECT
		TYPE A		TYPE 2	TYPE 6A		APPLIED
	FOOT	F00T	EACH	EACH	EACH	EACH	EACH
EB IL 15						4	
WB IL 15						2	
NW QUADRANT	12.5			1	1		
NE QUADRANT	12.5			1	1		
SW QUADRANT	100	50	1		1		1
SE QUADRANT	100	75	1		1		1
TOTAL	225	125	2	2	4	6	2

# STAGING SCHEDULE

STATE .	OUNEDUEE							
	BITUMINOUS	TEMPORARY	TEMPORARY	RELOCATE	TEMPORARY	IMPACT	IMPACT	IMPACT
LOCATION	BASE COURSE	RUMBLE	CONCRETE	TEMPORARY	PAVEMENT	ATTENUATOR,	ATTENUATOR,	ATTENUATOR,
	WIDENING, 9"	STRIPS	BARRIER	CONCRETE	MARKING	TEMPORARY	TEMPORARY (FULLY	RELOCATE
				BARRIER	- LINE 6"	(NON-REDIRECTIVE)	REDIRECTIVE, NARROW)	(NON-REDIRECTIVE)
	SQ YD	EACH	FOOT	FOOT	FOOT	EACH	EACH	EACH
PRE-STAGE I	297							
STAGE I		3	200		200	2		
STAGE II				87.5	87.5		1	1
TOTAL	297	3	200	87.5	287.5	2	1	1

# PAVEMENT MARKING SCHEDULE

	F	PAVEMENT MARKING REMOV	'AL		THEF	RMOPLASTIC PAVEMENT MA	ARKING		TEMPORARY	SHORT-TERM	WORK ZONE	RAISED REFLECTIVE	REPLACEMENT	RAISED REFLECTIVE
LOCATION	SOLID CENTERLINE	4" YELLOW 4" WHITE	EDGE	EDGE LINE	1	E SKIP-DASH CENTERLINE EDGE LINE 4" YELLOW 4" WHITE	LINE	PAVEMENT	PAVEMENT MARKING	PAVEMENT MARKING REMOVAL	PAVEMENT MARKER REMOVAL	REFLECTOR 2-WAY AMBER	PAVEMENT MARKER  2-WAY AMBER	
	4" YELLOW 4"		4" WHITE	WHITE			4" WHITE							MARKING LINE - 4"
			RT			LT	RT							
STATION TO STATION	SQ FT	SQ FT	SQ FT	SQ FT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	EACH	EACH	EACH
STA 22+40.00 TO STA 28+06.00	189	50	188.5	188.5	566	150	566	566	1848	52	633	7	2	5
SUB-TOTAL	189	50	188.5	188.5	566	150	566	566						
TOTAL		616				1848			1848	52	633	7	2	- 5

ALL QUANTITIES ON THIS SHEET ARE NOT TOTAL PROJECT QUANTITIES. THE QUANTITIES ON THIS SHEET ARE THE TOTAL FOR SN 095-0010.

REVISIONS NAME		
NAME	DATE	

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

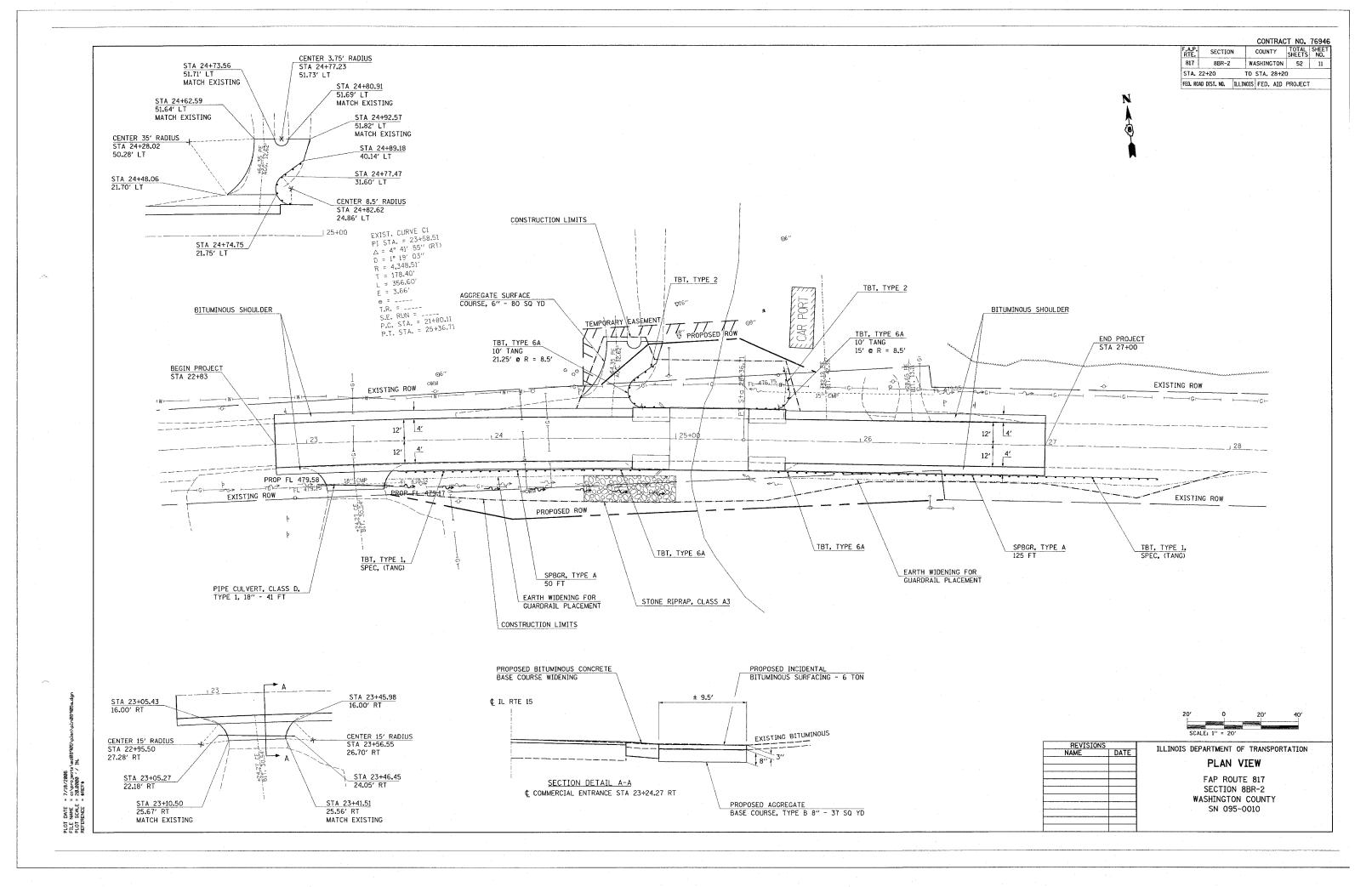
FAP ROUTE 817 SECTION 8BR-2 WASHINGTON COUNTY SN 095-0010

 
 CONTRACT NO. 76946

 F.A.P. RTE.
 SECTION
 COUNTY SHEETS NO.

 817
 88R-2
 WASHINGTON
 52
 10
 STA. 22+20 TO STA. 28+20 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT DRIVEWAY PAVEMENT REMOVAL - 13.1 SQ YD BROKEN CONCRETE TO BE REMOVED AND DRIVEWAY PAVEMENT
REMOVAL - 8.3 SQ YD GUARDRAIL REMOVAL 12.5 FT REGRADED BITUMINOUS SURFACE REMOVAL GUARDRAIL REMOVAL 12.5 FT DRIVEWAY PAVEMENT REMOVAL - 22.7 SQ YD BITUMINOUS SURFACE REMOVAL TEMPORARY EASEMENT 7 7 7 ROPOSED ROW END PROJECT STA 27+00 BEGIN PROJECT STA 22+83 EXISTING ROW EXISTING ROW PROPOSED ROW DRIVEWAY PAVEMENT
REMOVAL - 18.4 SQ YD | GUARDRAIL REMOVAL PIPE CULVERT REMOVAL - 43 FT GUARDRAIL REMOVAL , DRIVEWAY PAVEMENT REMOVAL - 36.5 SQ YD ⊚14″ ILLINOIS DEPARTMENT OF TRANSPORTATION REMOVAL PLAN FAP ROUTE 817 SECTION 8BR-2 WASHINGTON COUNTY SN 095-0010

DATE = \$DATE\$
NAME = \$FILEL\$
SCALE = \$SCALE\$
RENCE = \$REF\$

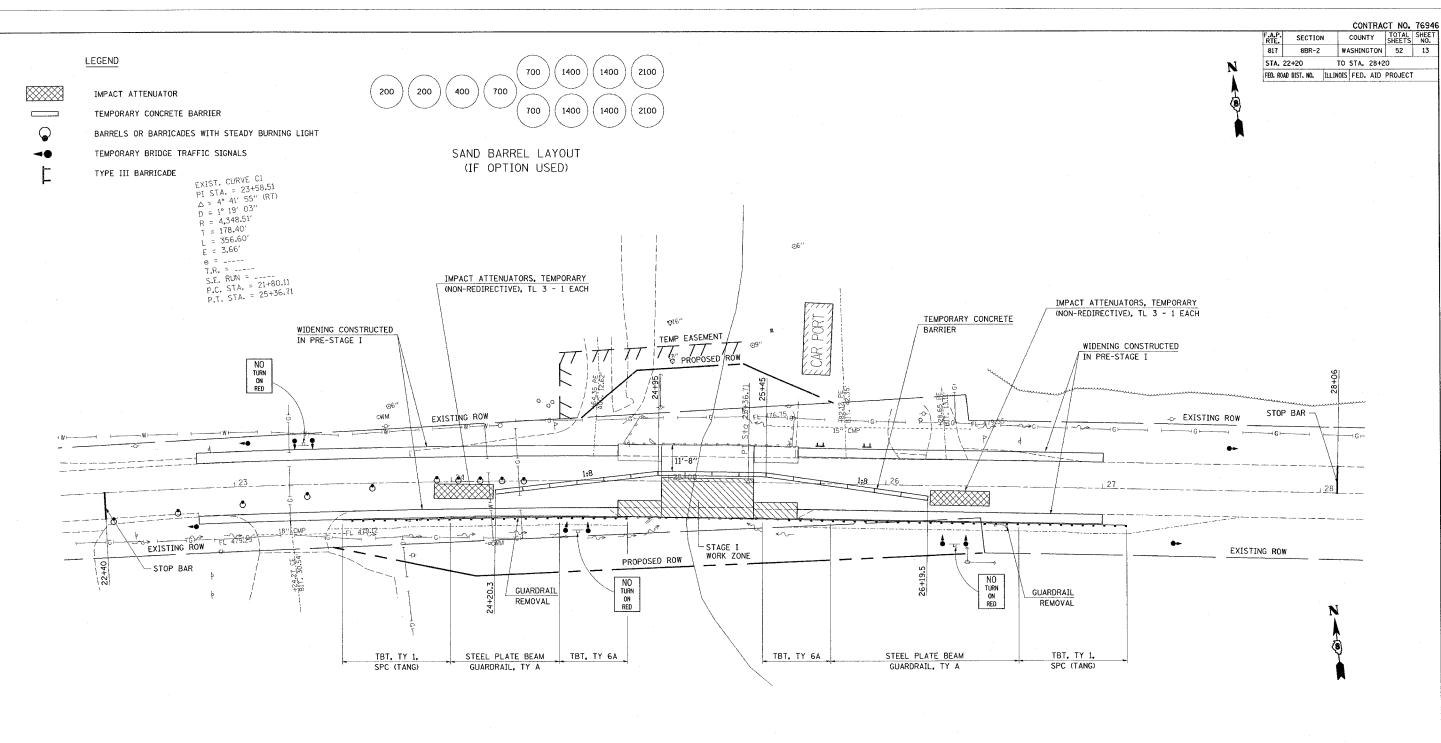


817 8BR-2 WASHINGTON STA. 22+20 TO STA. 28+20 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT EXIST. CURVE C1
PI STA. = 23+58.51
\[ \Delta = 4\circ 41\circ 55\circ (RT) \]
D = 1\circ 19\circ 03\circ
R = 4.348.51\circ
T = 178.40\circ
L = 356.60\circ
E = 3.66\circ E = 5.60 E = 7.7. S.E. RUN = 21+80.11 P.C. STA. = 25+36.71 P.T. STA. = 25+36.71 BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9 INCHES BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9 INCHES TEMP EASEMENT 778" PROPOSED ROW EXISTING ROW EXISTING ROW 18" CMP -- 1G -- FL 479.12 EXISTING ROW EXISTING ROW PROPOSED ROW PRE-STAGE I DESCRIPTION OF WORK: "BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9 INCHES" SHALL BE CONSTRUCTED TO ALLOW FOR TRAFFIC IN STAGE I AND II. REVISIONS NAME ILLINOIS DEPARTMENT OF TRANSPORTATION STAGE CONSTRUCTION PRE-STAGE I FAP ROUTE 817 SECTION 8BR-2 WASHINGTON COUNTY SN 095-0010

CONTRACT NO. 76946
COUNTY TOTAL SHEET NO.

F.A.P. SECTION

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# SEQUENCE OF CONSTRUCTION:

THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR PREPARATION OF THE STATE FURNISHED TRAFFIC CONTROLLER. THE CONTRACTOR SHALL PICK UP THE TRAFFIC CONTROLLER AT THE T.M. BUILDING.

PLACE STOP BARS AS SHOWN ON PLANS.

PLACE TEMPORARY RUMBLE STRIPS (3 EACH) EAST OF STRUCTURE FOR WESTBOUND TRAFFIC.

REMOVE CENTERLINE AND CONFLICTING SOLID EDGE PAVEMENT MARKINGS BETWEEN STOP BARS.

PLACE 200 FT TEMPORARY CONCRETE BARRIER AND 2 EACH IMPACT ATTENUATORS, TEMPORARY.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.

PERFORM ALL NECESSARY BRIDGE WORK IN STAGE I WORK ZONE.

REMOVE EXISTING GUARDRAIL ON SOUTH SIDE AND REPLACE WITH PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A, TBT TYPE 6A AND TBT, TYPE 1 (SPECIAL) TANGENT IN SW AND SE QUADRANTS



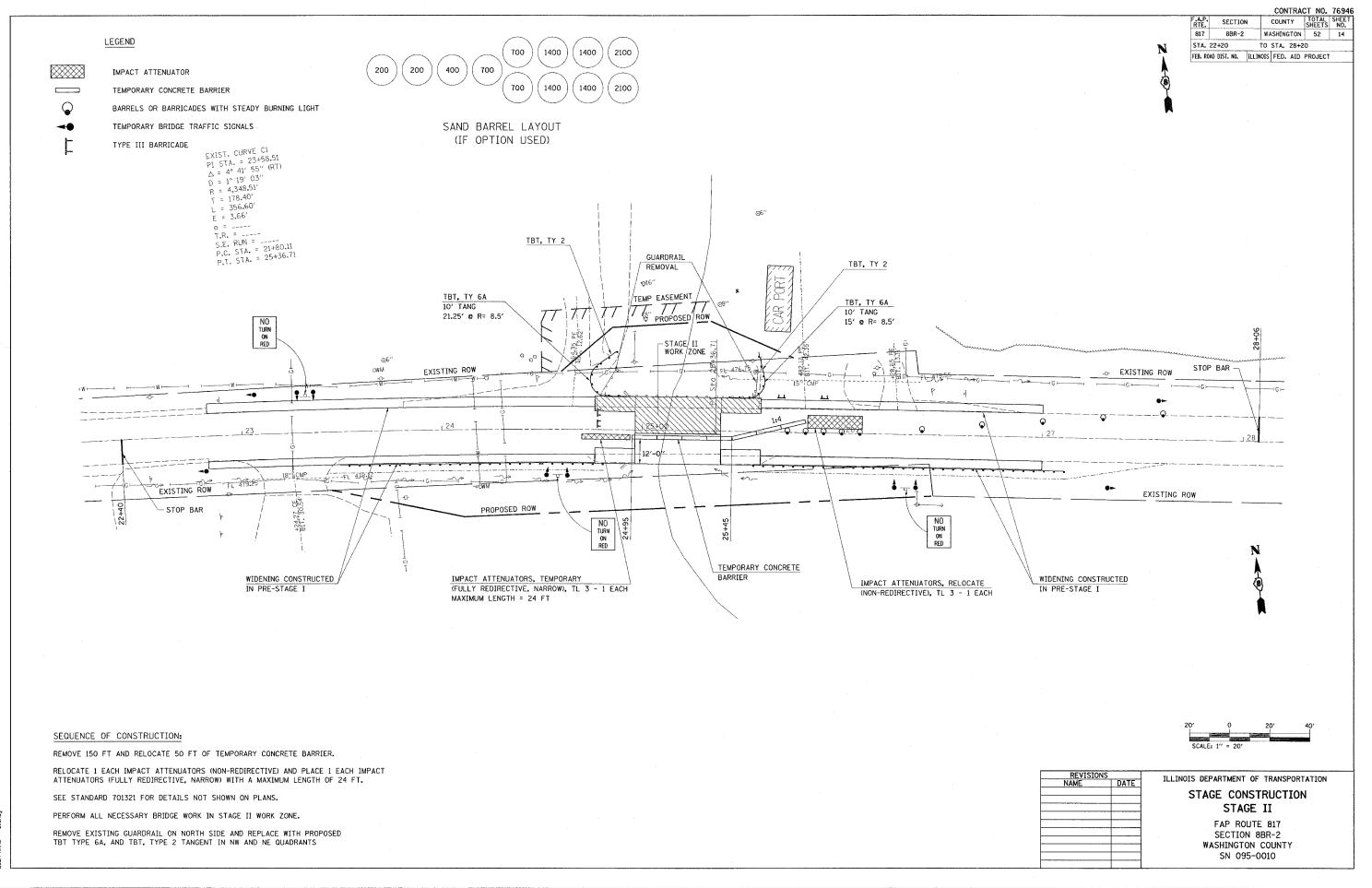
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NAME	DATE	ILLI
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INOIS DEPARTMENT OF TRANSPORTATION
STAGE CONSTRUCTION

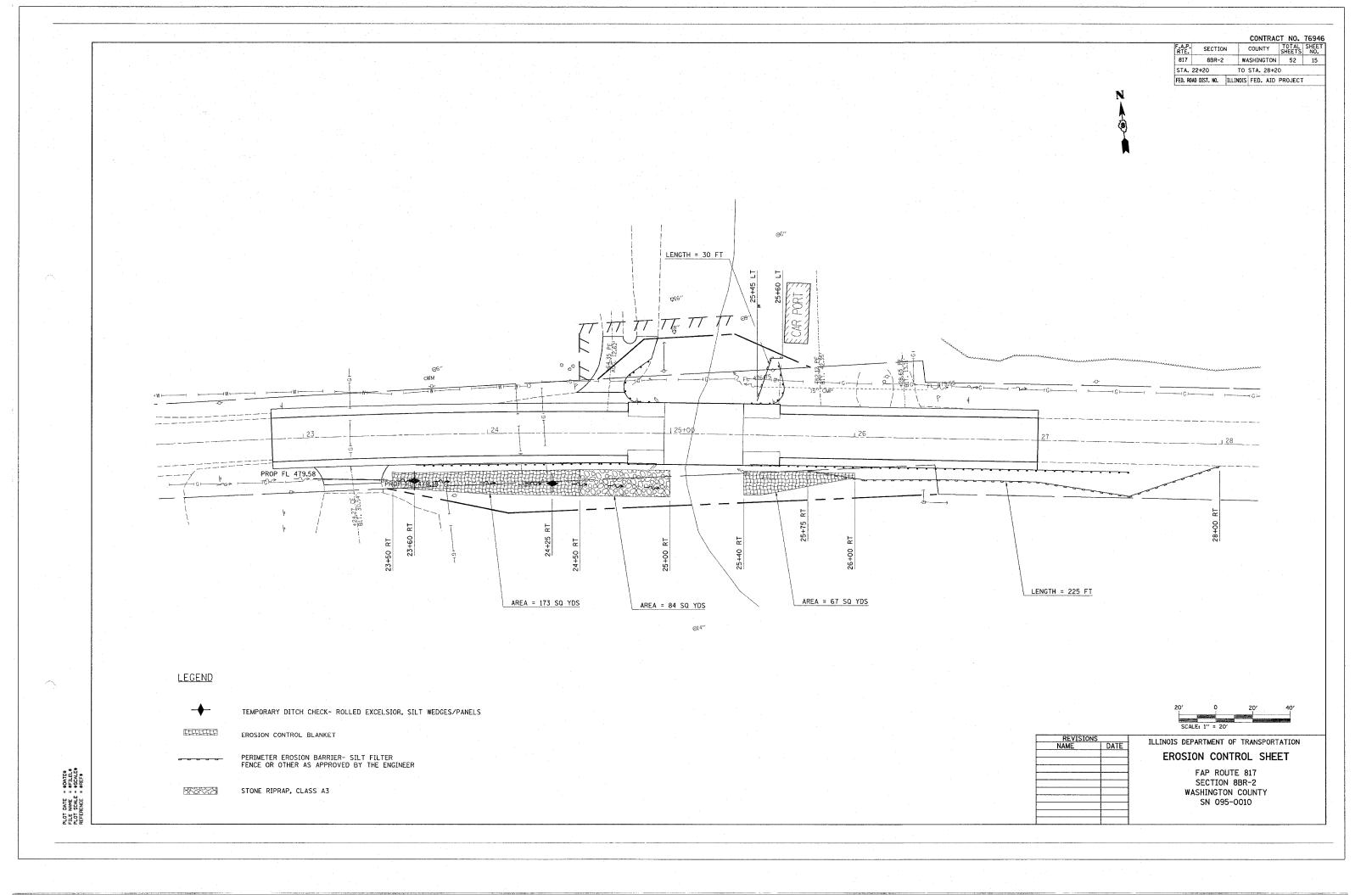
STAGE I

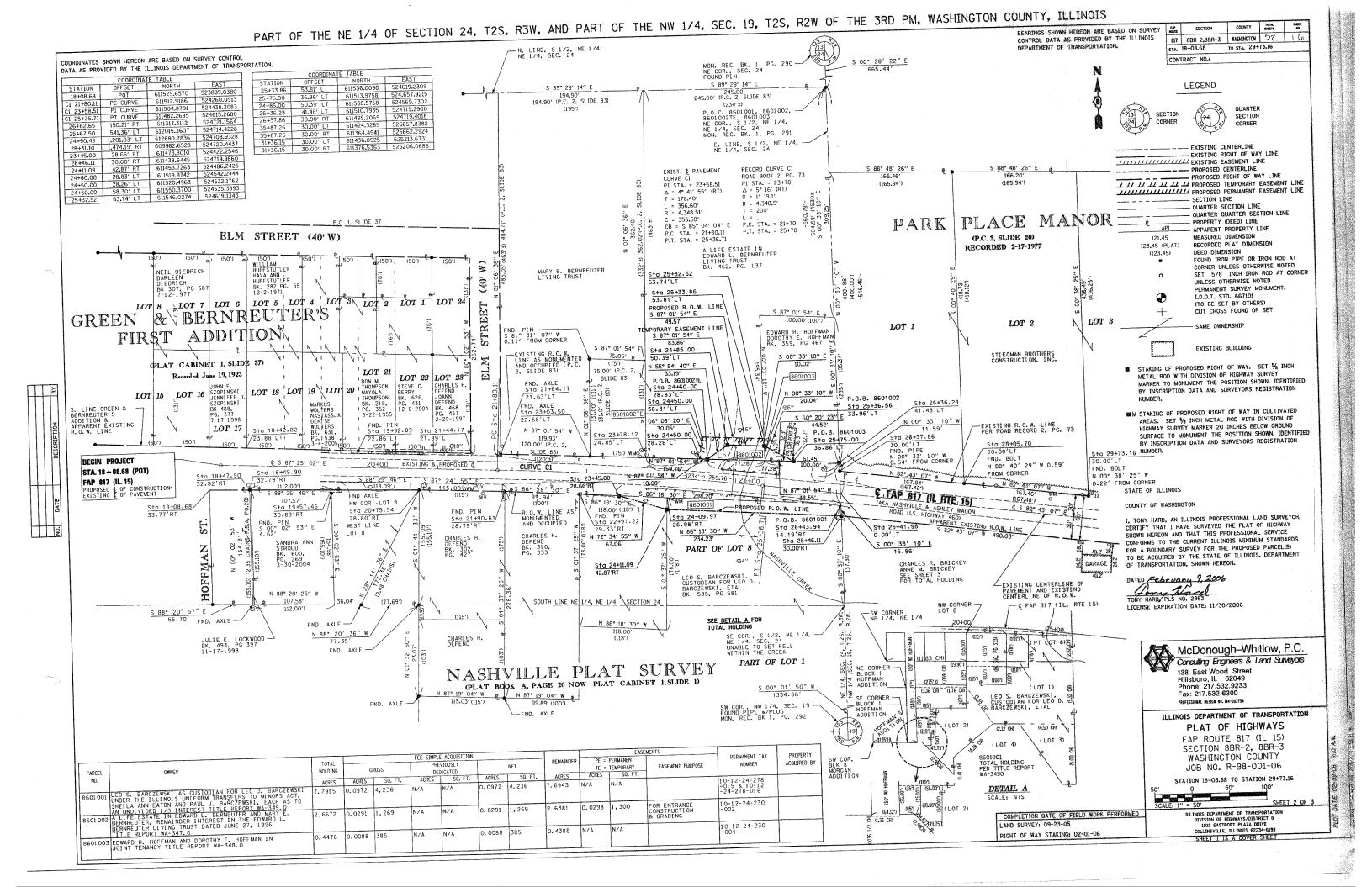
FAP ROUTE 817
SECTION 8BR-2
WASHINGTON COUNTY
SN 095-0010

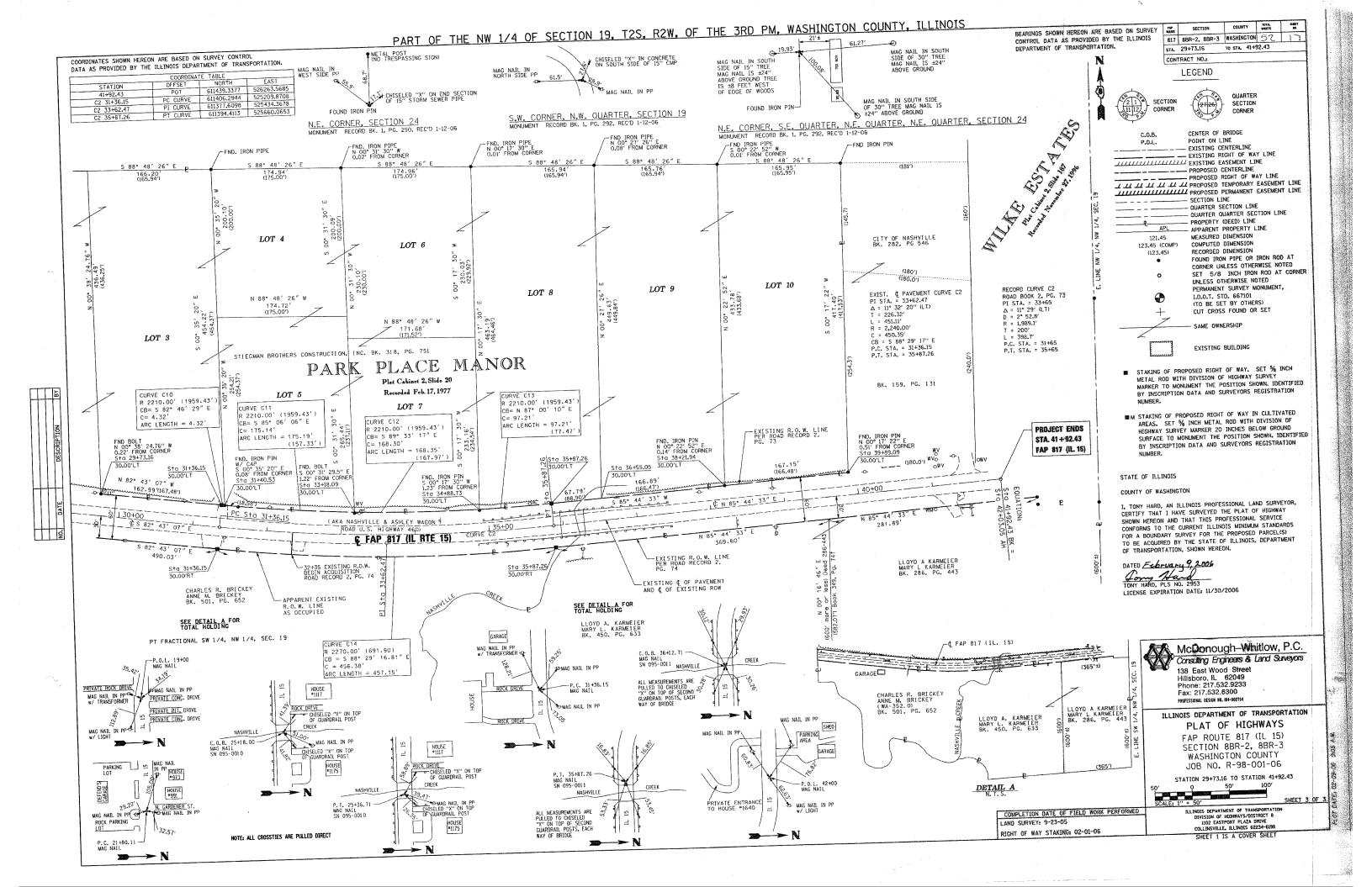
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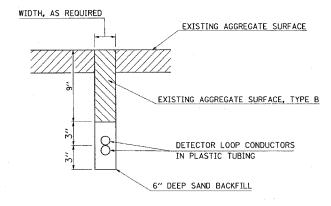


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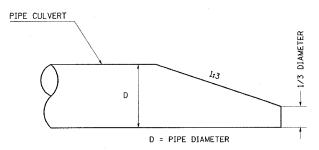




# DETAIL DETECTOR LOOP INSTALLED IN TRENCH

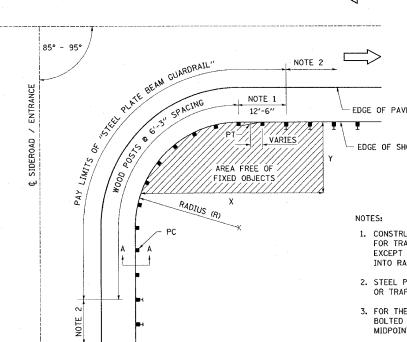
INSTALLATION IS TO BE DONE IN CONFORMANCE WITH THE REQUIREMENTS OF THE PLANS AND SECTION 886 OF THE STANDARD SPECIFICATIONS WITH THE FOLLOWING EXCEPTIONS:

- 1. SLOTS ARE TO BE TRENCHED INSTEAD OF SAWED.
- 2. THIS WORK SHALL NOT BE PAID FOR SEPERATELY BUT SHALL BE INCLUDED IN THE COST OF TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH.



### ENTRANCE CULVERT BEVELED END SECTION DETAIL

THE BEVELED END PORTION SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT FOR THE PIPE CULVERT

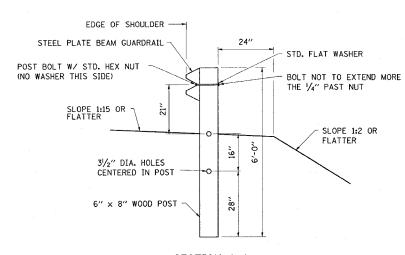


EDGE OF PAVEMENT - EDGE OF SHOULDER

- 1. CONSTRUCT ACCORDING TO STANDARD 631011 FOR TRAFFIC BARRIER TERMINAL TYPE 2, EXCEPT DELETE END SECTION AND SPLICE INTO RADIUS GUARDRAIL.
- 2. STEEL PLATE BEAM GUARDRAIL TYPE A, TYPE B, OR TRAFFIC BARRIER TERMINAL AS SPECIFIED.
- 3. FOR THE 8'-6" RADIUS, THE RAIL IS NOT BOLTED TO THE POST LOCATED AT THE MIDPOINT OF THE CURVE.

# PLAN VIEW SHORT RADIUS GUARDRAIL DETAIL

NOT TO SCALE



INSTALLATION CHARACTERISTICS PER DESIGN RADIUS										
R	NO. OF WOOD POSTS	X	Υ							
8′-6"	5 (NOTE 3)	25′	15′							
17'-0''	<b>6</b> ·	30′	15′							
25′-6″	. 8	40′	20′							
35′-0″	11	50′	20′							

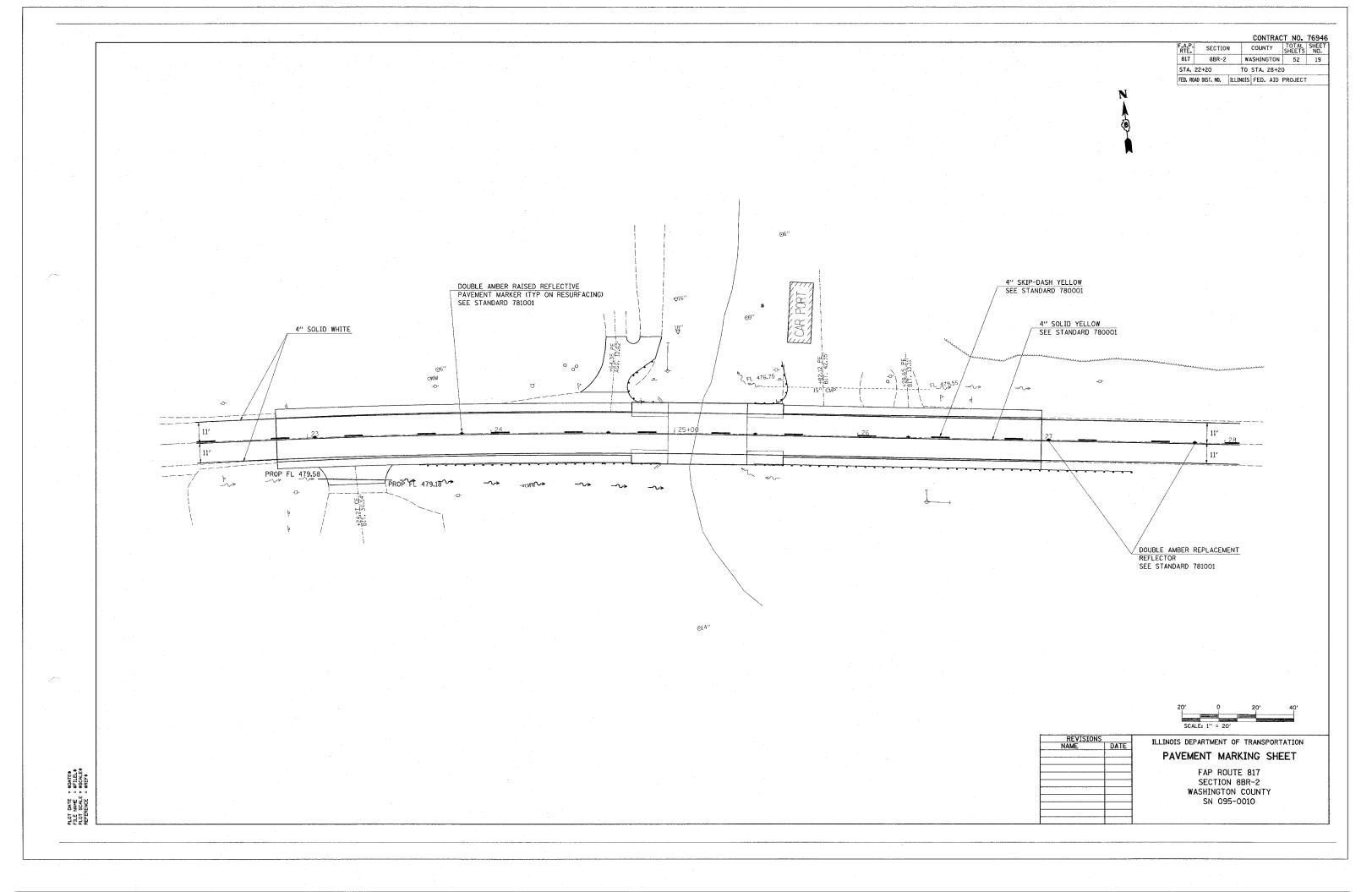
SECTION A-A

NOT TO SCALE

REVISIONS	ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME DAT	E ILLINOIS DEI AINTMENT OF THANSFORTATION
	MISCELLANEOUS DETAILS
	MISCELLANEOGS DETAILS
	FAP ROUTE 817
	SECTION 8BR-2

TE 817 8BR-2 WASHINGTON COUNTY SN 095-0010

| DATE = 7/18/2006 | NAME = ci\projects\e | SCALE = 56.0000 / IN | PRENCE = \$REF\$



Bench Mark: RR Spike in South Side of Power Pole on North Side of Route 15, approximately 175' East of Northeast Corner of S.N. 095-0010 Bridge Deck, Elev. 482.69.

Existing Structure: S.N. 095-0010 was built in 1921 as S.B.I. Rte. 15 Sec. 8B at Sta. 25+18.00. In 1971 the superstructure was replaced, and the substructure widened. The existing single span structure consists of PPC deck beams on spread footing supported closed abutments. The bk. to bk. abts dimension measures 43'-0" while the 0.-0, width measures 33'-0". The existing superstructure shall be replaced with PPC deck beams, and the substructure will be repaired with Structural Repair of Concrete, Staging shall be used

No Salvage.

during construction.

### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Traffic Barrier Terminal Std, 631032 Type 6A (typ. all four corners)

INDEX OF SHEETS

TOTAL 52 F.A.P. 817 WASHINGTON

PED. ROAD DIST. NO. 7 Contract #76946

SHEET NO.

20

SHEET NO. 1

10 SHEETS

Stage Construction Details Temporary Concrete Barrier for Stage Construction

Type SM Steel Bridge Rail Side Mounted

Bridge Approach Pavement (Special)

6,-7. Superstructure Details West Abutment

General Plan

Fast Abutment

Abutment Repair and Concrete Removal Details

## GENERAL NOTES

Attach new Name Plate to the backside of 8" rail element. Existing Name Plate is to be removed, cleaned and relocated adjacent to new Name Plate. Cost included in the cost of Name Plates.

Repair of the abutments shall be completed prior to placement of the new deck beams.

The minimum thickness of Bituminous overlay shall be 2" and varies as required to adjust for the new profile grade and beam camber.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

The top surface of the beams shall be finished according to Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of \( \frac{1}{4} \)''.

All Construction joints shall be bonded.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

The contractor is advised that the existing Precast Prestressed Concrete Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

## TOTAL BILL OF MATERIAL

UNIT	SUPER	SUB	TOTAL
Sq. Yd.		66	66"
Each	1		1
Cu. Yd.		10.1	10.1
Cu. Yd.		0.9	0.9
Sq. Ft.	1414		1414
Pound		40	40
Foot	126		126
Each	1		1
Each		112	112
Sg. Yd.	158		158
Foot	428		428
Sq. Ft.	299		299
Sq. Ft.		14.0	14.0
Ton	23		23
	Sq. Yd. Each Cu. Yd. Cu. Yd. Sq. Ft. Pound Foot Each Each Sq. Yd. Foot Sq. Ft.	Sq. Yd.         Each       1         Cu. Yd.         Cu. Yd.         Sq. Ft.       1414         Pound       126         Each       1         Each       5q. Yd.       158         Foot       428         Sq. Ft.       299         Sq. Ft.       297	Sq. Yd.       66         Each       1         Cu. Yd.       10.1         Cu. Yd.       0.9         Sq. Ft.       1414         Pound       40         Foot       126         Each       1         Each       112         Sq. Yd.       158         Foot       428         Sq. Ft.       299         Sq. Ft.       14.0

R3W - 3rd. PM - R2W LOCATION SKETCH

ERIC M. LAGEMANN

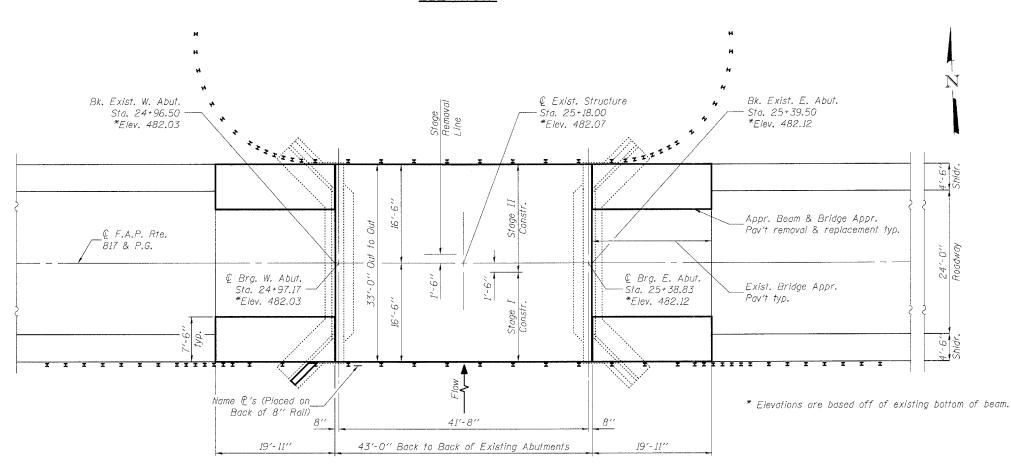
LICENSE NO.

Expires 11/30/2006

GENERAL PLAN ILLINOIS ROUTE 15 OVER NASHVILLE CREEK F.A.P. ROUTE 817 - SECTION 8BR-2 WASHINGTON COUNTY STATION 25+18.00 STRUCTURE NO. 095-0010

# 17''x36' -Appr. Beams typ. Natural Ground Streambed Elev. ±472.0

### ELEVATION



PLAN

LOADING HS20-44 (New Construction) No Allowance for future wearing surface.

DESIGN SPECIFICATIONS (New Construction)

# DESIGN STRESSES

FIELD UNITS

 $f'_c = 3,500 \text{ psi}$   $f_y = 60,000 \text{ psi} \text{ (reinforcement)}$ 

 $f'_{c} = 5,000 \ psi$ 

f'<sub>ci</sub> = 4,000 psi

 $f'_s = 270,000 \text{ psi } (\frac{l_2}{2}) \text{ low lax. strands})$ 

PRECAST PRESTRESSED UNITS

 $f_{si} = 201,960 \text{ psi } (\frac{1}{2})^{\prime\prime} \phi \text{ low lax. strands})$ 

DESIGNED EML CHECKED NJM EML DRAWN

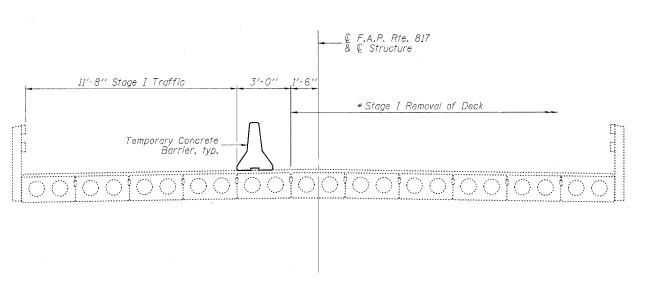
CHECKED NJM

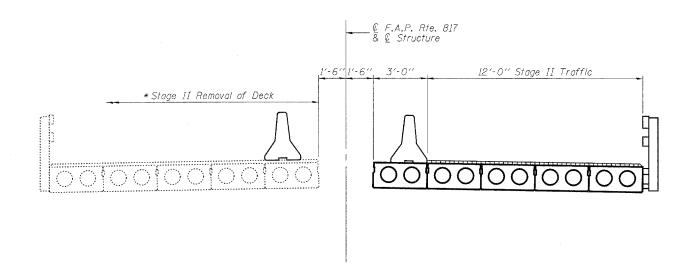


See Std. 515001

ROUTE NO.	SECTION	ĆOL	COUNTY TOTAL SHEETS		SHEET NO.	SHEET NO. $2$
F A P 817	8BR-2. 8BR-3	WASHI	NGTON	52	21	10 SHEETS
FED. ROAD DIST, NO. 7		ILLINGIS	FED. AID PRO	OJECT-		

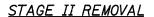
Contract #76946

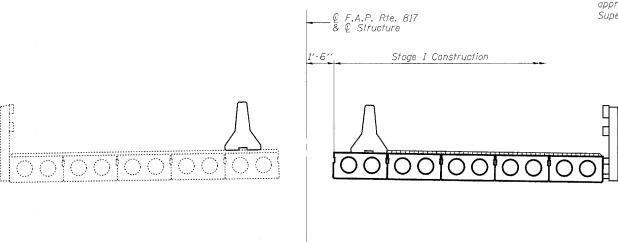


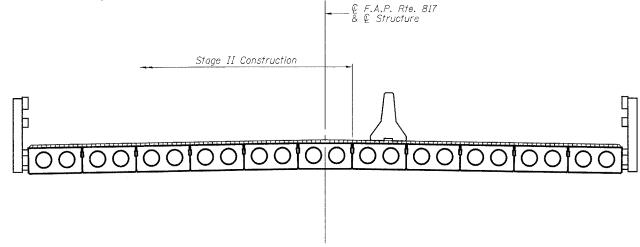


# STAGE I REMOVAL

st The Contractor is required to brace the abutments at the beam seats longitudinally prior to the deck beam removal process. The braces shall stay in place until all new deck beams are doweled into position. This is to prevent the development of excessive stresses in the abutments during construction. Bracing details and computations are to be submitted to the Engineer for approval. The cost is included in Removal of Existing Superstructures.







STAGE I CONSTRUCTION

STAGE II CONSTRUCTION

All sections are looking East.

For quantity of Temporary Concrete Barrier, see

roadway plans.

For details of Temporary Concrete Barrier, see

sheet 3 of 10.

For requirements for lapping waterproofing membrane, see notes on sheet 3 of 10.

DESIGNED EML CHECKED NJM DRAWN EML CHECKED NJM

STAGE CONSTRUCTION DETAILS F.A.P. ROUTE 817 - SECTION 8BR-2 WASHINGTON COUNTY STATION 25+18.00 STRUCTURE NO. 095-0010



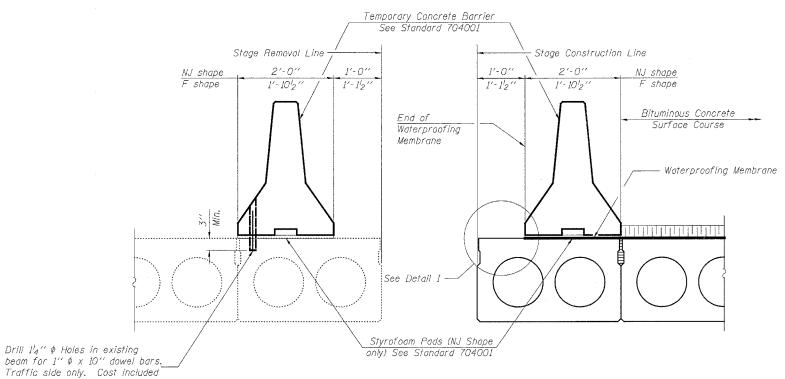
# **NOTES**

The  $\frac{3}{4}$ "  $\phi$  high strength boits used to connect the wood blocks shall be tightened to a snug fit without crushing the wood block. The wing type threaded insert assembly shall be spaced 6'-0" longitudinally.

The Waterproofing Membrane shall extend under the Temporary Concrete Barrier without the asphalt sand seal protection layer. Once the Temporary Concrete Barrier has been removed, and the penetrating primer, coal tar emulsion, coal tar emulsion and fiberglass fabric, and coal tar emulsion slurry layers of the Wateproofing Membrane is lapped 6", the asphalt sand seal protection layer shall be applied according to Article 581 of the Standard Specifications.

The cost for H.S. bolts, flat headed washers, and wood block is included with Temporary Concrete Barrier.

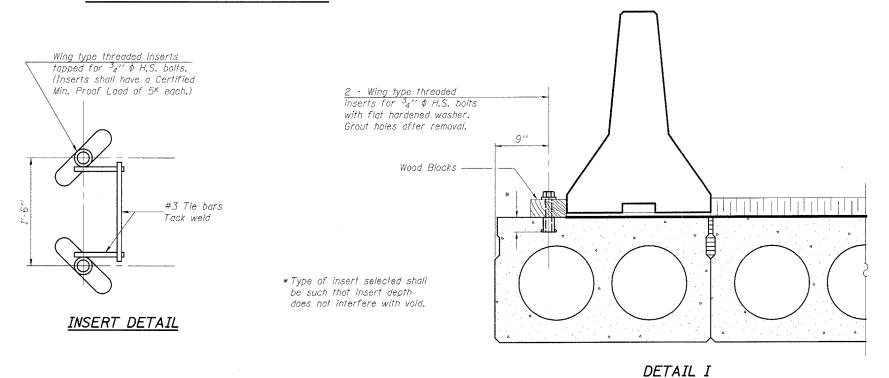
The cost for wing type threaded inserts is included with Precast Prestressed Concrete Deck Beams (17" Depth).



#### EXISTING PPC DECK BEAMS

#### NEW PPC DECK BEAMS

# SECTIONS THRU PPC DECK BEAMS



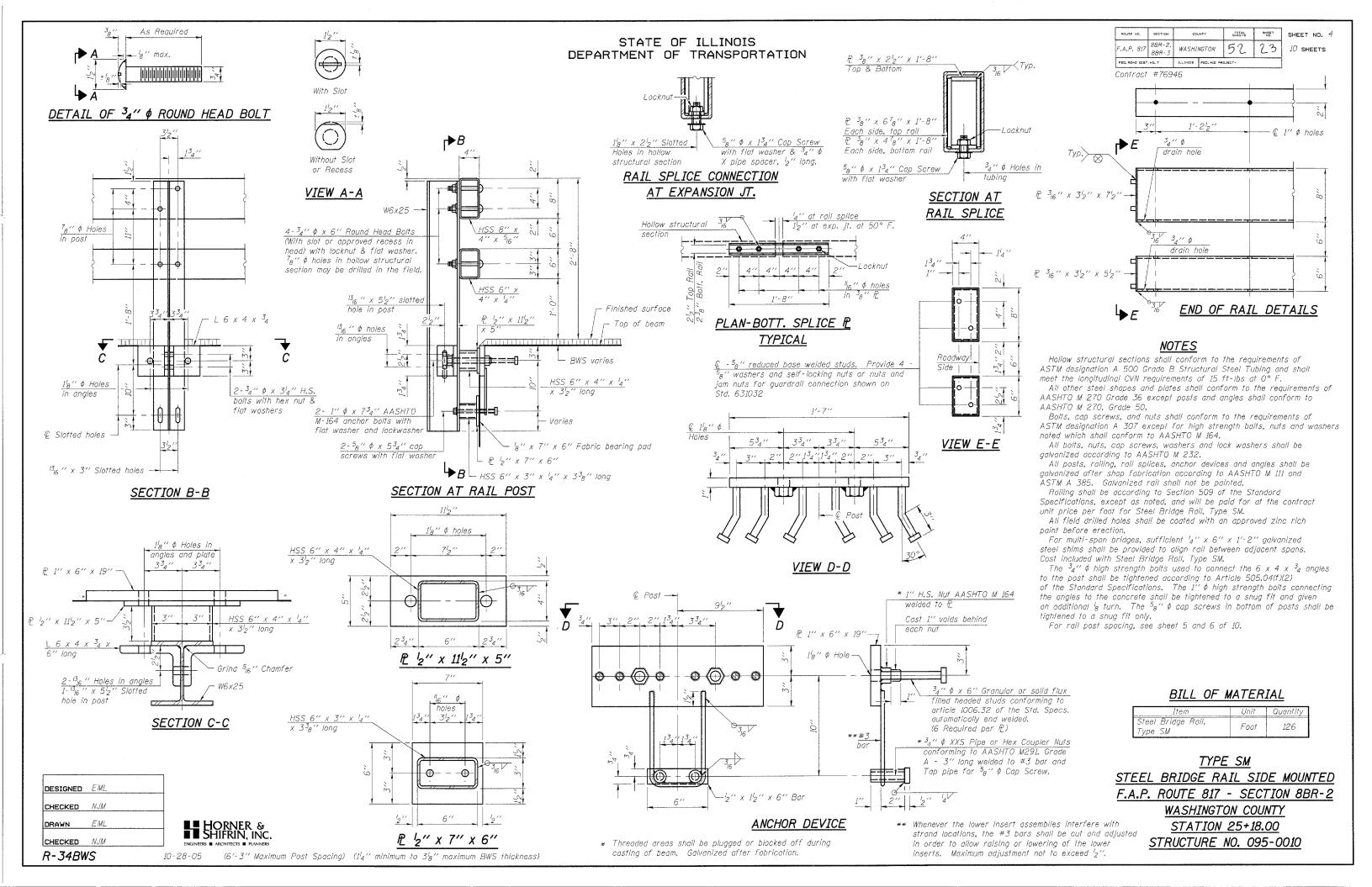
DESIGNED EML CHECKED NJM EML DRAWN CHECKED NJM

with Temporary Concrete Barrier.



The Temporary Concrete Barrier and wood blocks shall not be removed until Stage II Construction PPC Deck Beams have been placed and shear keys grouted.

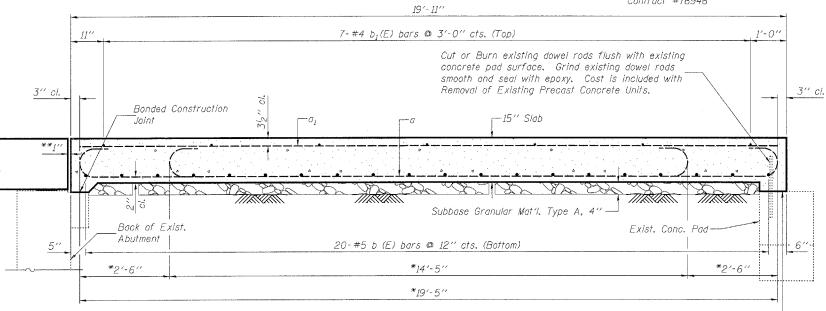
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION F.A.P. ROUTE 817 - SECTION 8BR-2 WASHINGTON COUNTY STATION 25+18.00 STRUCTURE NO. 095-0010



SHEET NO. 5 F.A.P. 817 8BR-2. 8BR-3 52 24 WASHINGTON 10 SHEETS FED. ROAD DIST. NO. 7

Contract #76946

10 mil. polyethylene bond breaker-



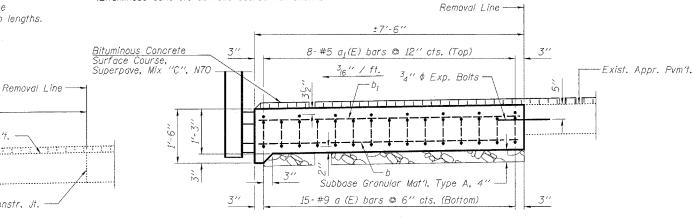
\* Stagger No. 9 a bars as shown on plan.

\*\*1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in Precast Prestressed Concrete Deck Beam lengths.

Exist. Appr. Beam

# SECTION A-A

(Bituminous concrete surface course not shown)



# SECTION B-B

Back of Exist.

Abutment

(Showing removal of existing Bridge Approach)

+71-611

Exist. Appr. Pvm't. -

34" \$ Exp. Bolts

Exist. Constr. Jt.

# SECTION B-B

(Bituminous concrete surface course not shown)

# 16'-11" 19'-5"

#### BAR a

For quantity of Bituminous Surface Removal and Bituminous Concrete Surface Course, Superpave, Mix "C", N7O on the bridge approach pavement, see roadway plans.

Removal of existing approach beams is included in Removal of Existing Precast Concrete Units.

Removal of existing approach pavement is included with Concrete Removal. Concrete Removal, Removal of Existing Precast Concrete Units and Bridge Approach Pavement (Special) shall occur during its respective stage construction and prior to placement of the new deck beams.

See Special Provisions for Bridge Approach Pavement (Special). See sheet 4 of 10 for rail anchor device to be cast in approach beams.

# BAR LIST

Bar	No.	Size	Length	Shape
a(E)	60	#9	19'-5''	$\subset$
a <sub>1</sub> (E)	32	#5	19'-5''	
b(E)	80	#5	7'-3''	
b <sub>I</sub> (E)	28	#4	7'-3''	

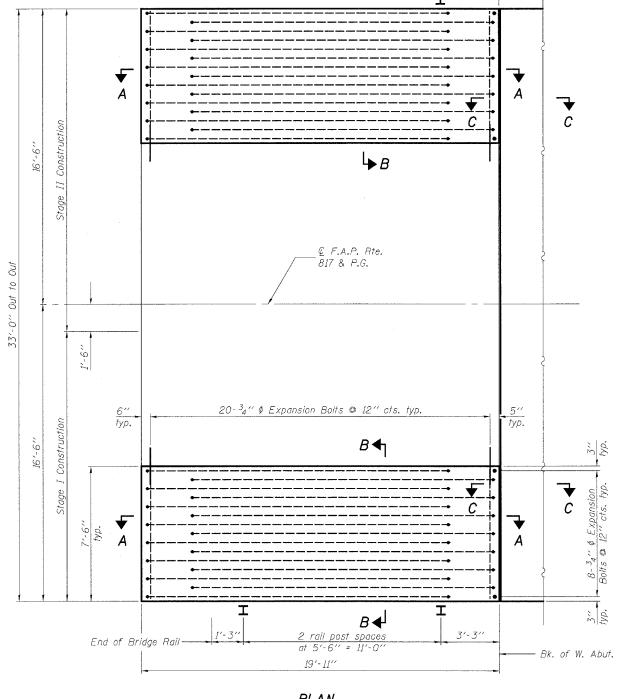
# BILL OF MATERIAL

Item	Unit	Total
Bridge Approach Pavement (Special)	Sq. Yd.	66
Concrete Removal	Cu. Yd.	9.2
Expansion Bolts <sup>3</sup> 4 Inch	Each	112
Removal of Existing Precast Concrete Units	Sq. Ft.	299

BRIDGE APPROACH PAVEMENT (SPECIAL,

F.A.P. ROUTE 817 - SECTION 8BR-2 WASHINGTON COUNTY

STATION 25+18.00 STRUCTURE NO. 095-0010



End of Bridge Rail

 $\rightarrow B$ 

<u>PLAN</u> (Bituminous Wearing Surface not shown for clarity, Approach Beam at E. Abut. is mirror image of W. Abut.)

DESIGNED	EML	
CHECKED	NJM	
DRAWN	EML	
CHECKED	NJM	

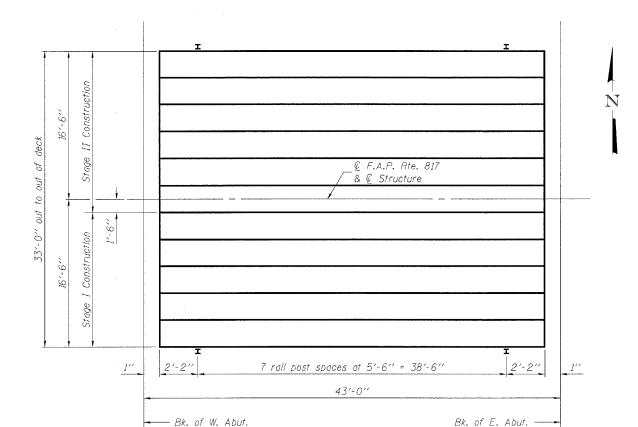
HORNER & SHIFRIN, INC.

SECTION C-C

(Bituminous concrete surface course not shown)

ROUTE NO.	BECTION	COUNTY		TOTAL SHEETS	SHEET NO.	SHEET NO. 6
F.A.P. 817 8BR-2, 8BR-3		WASHI	NGTON	52	25	10 sheets
FEO. ROAD DIST. NO. 7		ILLINOIS	FED. AID PR	DJECT-		

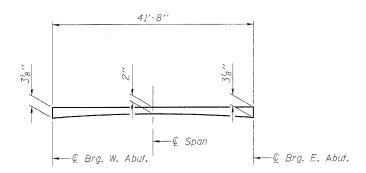
Contract #76946



<u>PLAN</u>

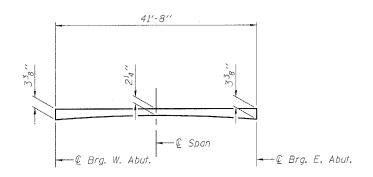
#### Notes:

Rail spacing the same on both sides of the bridge. See sheet 5 of 10 for end of bridge rail location.



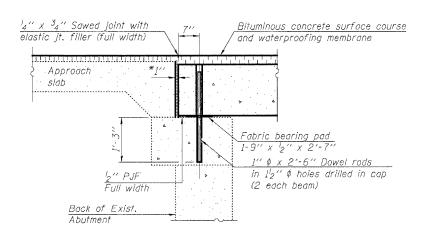
# BITUMINOUS CONCRETE SURFACE COURSE PROFILE

(Bituminous concrete surface course along edge of beams)



# BITUMINOUS CONCRETE SURFACE COURSE PROFILE

Bituminous Concrete Surface Course Profile dimensions include '2" for waterproofing membrance thickness.

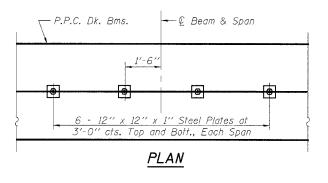


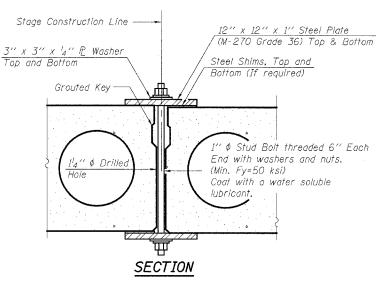
# SECTION THRU ABUTMENT

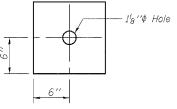
\*  $1^{\prime\prime}$  Jt. shall be filled with non-shrink grout.  $1^{\prime\prime}$ dimension may vary to accommodate tolerance in beam lengths.

After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the

All horizontal dimensions are at right angles to beam ends. See sheet 7 of 10 for bearing pad details.







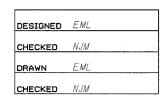
# CLAMPING PLATE

# SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

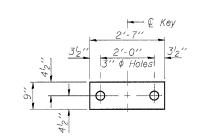
See Special Provisions for Stage Construction of Precast Prestressed Concrete Deck Beams. Cost included with "Precast Prestressed Concrete Deck Beams".

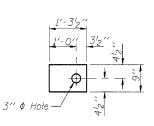
See Stage Construction Details for traffic lanes.

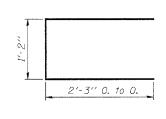
SUPERSTRUCTURE DETAILS F.A.P. ROUTE 817 - SECTION 8BR-2 WASHINGTON COUNTY STATION 25+18.00 STRUCTURE NO. 095-0010











BAR U

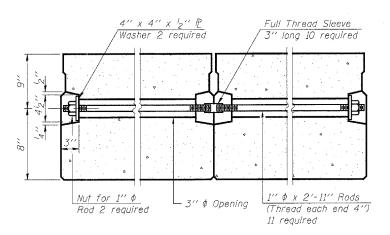
SHEET NO. 7 ROUTE NO. TOTAL 26 F.A.P. 817 WASHINGTON 86R-3

10 SHEETS

Contract #76946



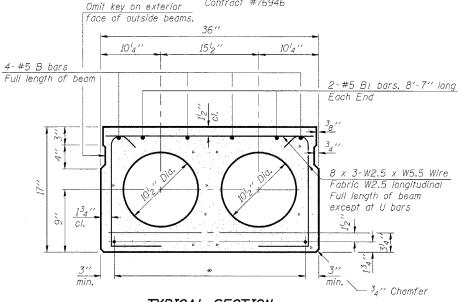
FABRIC BEARING PAD



STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

# TYPICAL TRANSVERSE TIE ASSEMBLY



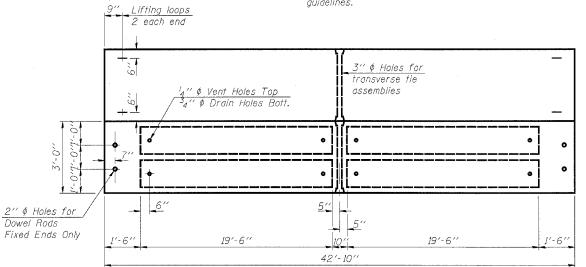
## TYPICAL SECTION

1<sub>2</sub>" \$\phi\$ Strands, Each Strand Stressed to 30,900 Lbs. 9-Strands  $1^{3}_{4}$ " up, 4-Strands  $3^{l}_{4}$ " up, 2-Strands 12" up

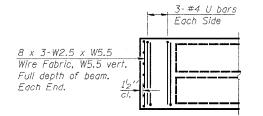
#### \*Transverse Strand Placement Guidelines

- Place strands symmetrically about centerline of beam.
- The minimum distance from center to center of strands in all directions shall be 2".
- The minimum clearance from strand to dowel hole shall be  $\frac{1}{2}$ .
- The minimum clearance from strand to void shall be  $1^{l_2}$ ".

Vertical placement of strands shall not be adjusted to satisfy the above guidelines.

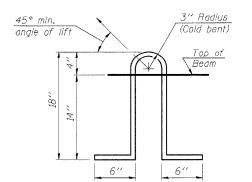


<u>PLAN</u>

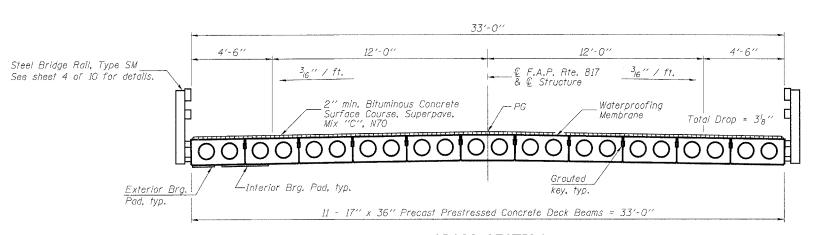


# END PLAN

DESIGNED	EML
CHECKED	NJM
DRAWN	EML
CHECKED	NJM



LIFTING LOOP DETAIL



#### CROSS SECTION

#### **NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be  $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in, Lifting loops shall be  $2^{-\frac{1}{2}}$ "  $\phi$ -270 ksi strands, as shown.

The I'' \$\phi\$ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two l<sub>g</sub> fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each hearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be 4,000 p.s.i.

See sheet 3 of 10 for Wing Type Threaded Insert location and spacing.

See sheet 4 of 10 for rall anchor device to be cast in precast beams.

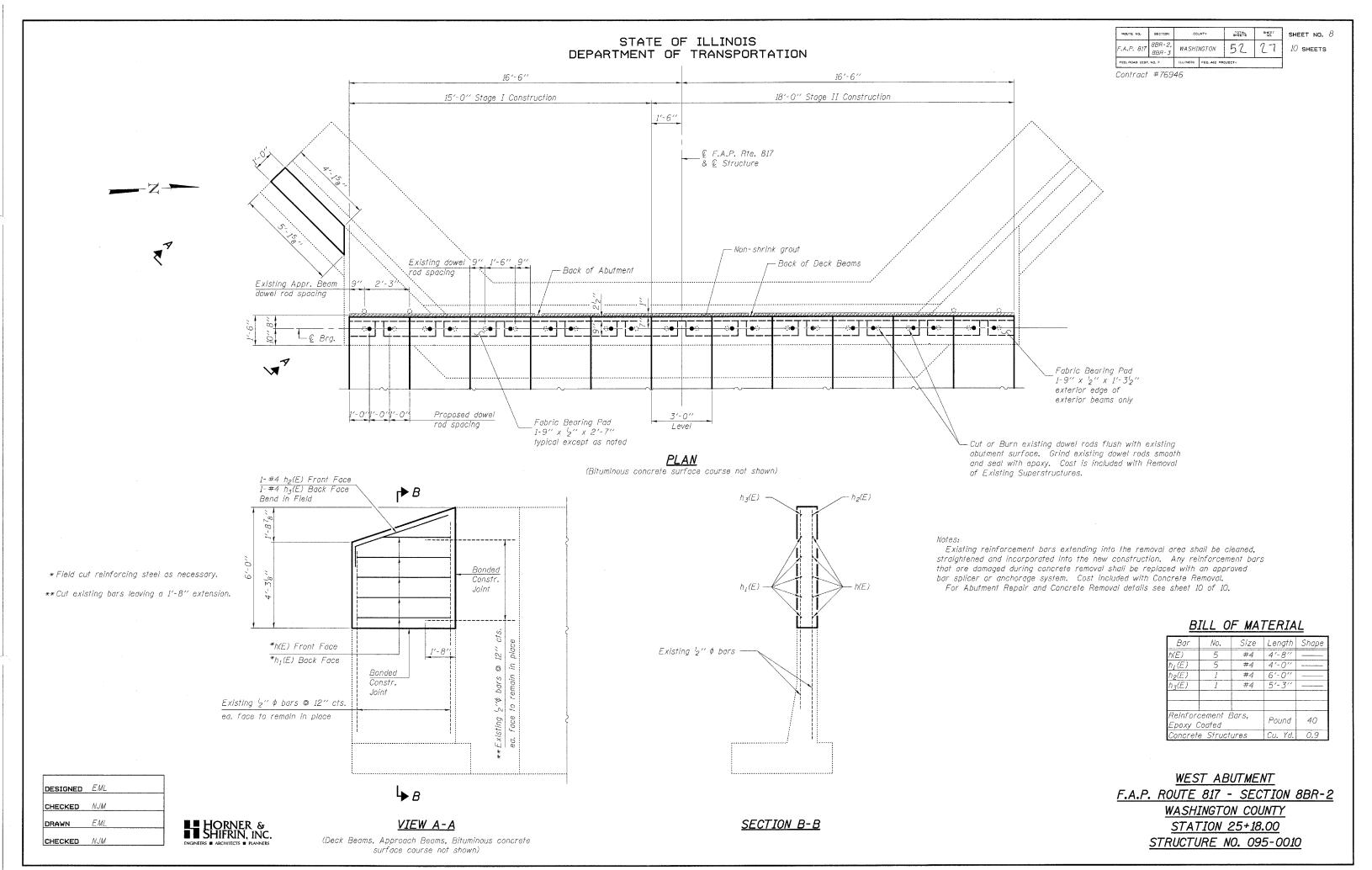
See sheet 6 of 10 for spacing of rail post.

See sheet 6 of 10 for Shear Key Clamping Details at Stage Const. Jt.

# BILL OF MATERIAL

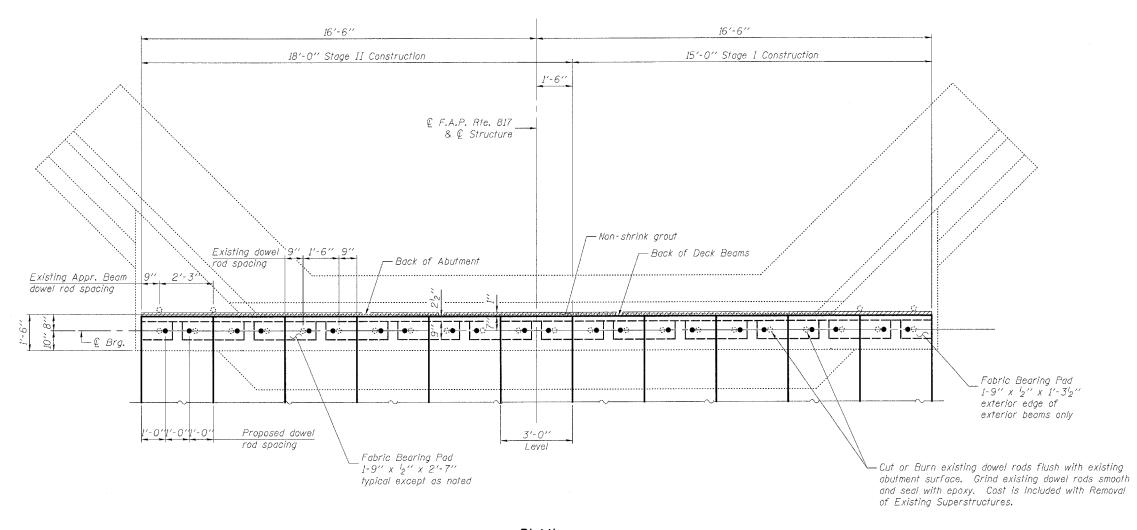
Item	Unit	Total
Precast Prestressed Concrete Deck Beams (17'' Depth)	Sq. Ft.	1414

SUPERSTRUCTURE DETAILS F.A.P. ROUTE 817 - SECTION 8BR-2 WASHINGTON COUNTY STATION 25+18.00 STRUCTURE NO. 095-0010



	,					
ROUTE NO.	SECTION	ceu	JNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9
F.A.P. 817	8BR-2, 8BR-3	WASHI	NGTON	52	28	10 SHEETS
FED. POAD DIST.	FED. POAD DIST. NO. 7 ILLINOIS		FED. AID PR	JECT-		

Contract #76946



PLAN
(Bituminous concrete surface course not shown)

Notes:

For Abutment Repair details see sheet 10 of 10.

DESIGNED EML

CHECKED NJM

DRAWN EML

CHECKED NJM

HORNER & SHIFRIN, INC

EAST ABUTMENT

F.A.P. ROUTE 817 - SECTION 8BR-2

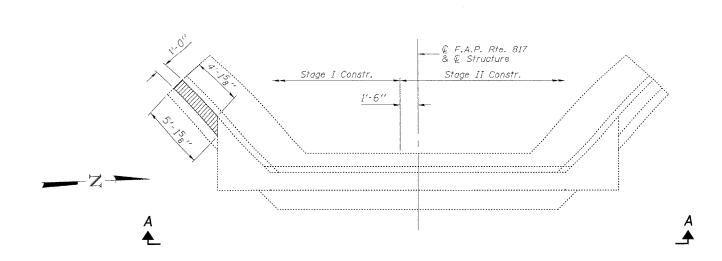
WASHINGTON COUNTY

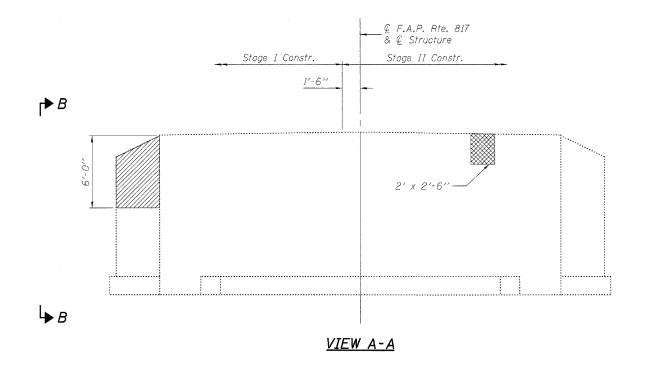
STATION 25+18.00

STRUCTURE NO. 095-0010

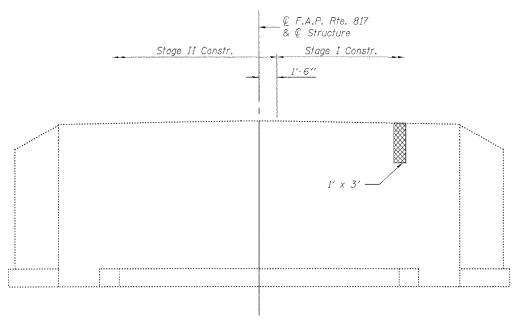
ROUTE NO.	SECTION	cou	NTY	TOTAL SHEETS	SHEET NG.	SHEET NO. 10
F.A.P. 817	8BR-2, 8BR-3	WASHI	NGTON	52	29	10 sheets
FEO. ROAD DIST. NO. 7		ILLINOIS	FEO. ALC PR	DJECT-		

Contract #76946

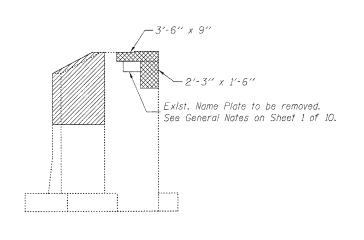




PLAN - WEST ABUTMENT



ELEVATION - EAST ABUTMENT



# VIEW B-B

# BILL OF MATERIAL

<i>Item</i>	Unit	Total
Concrete Removal	Cu. Yd.	0.9
Structural Repair of Concrete (Depth Equal to or less than 5'')	Sq. Ft.	14.0

Notes

Concrete Removal and Structural Repair of Concrete shall occur during its respective stage construction. See Special Provisions for Structural Repair of Concrete. <u>LEGEND</u>

Concrete Removal
Structural Repair of Concrete

DESIGNED EML
CHECKED NJM
DRAWN EML
CHECKED NJM

HORNER & SHIFRIN, INC.

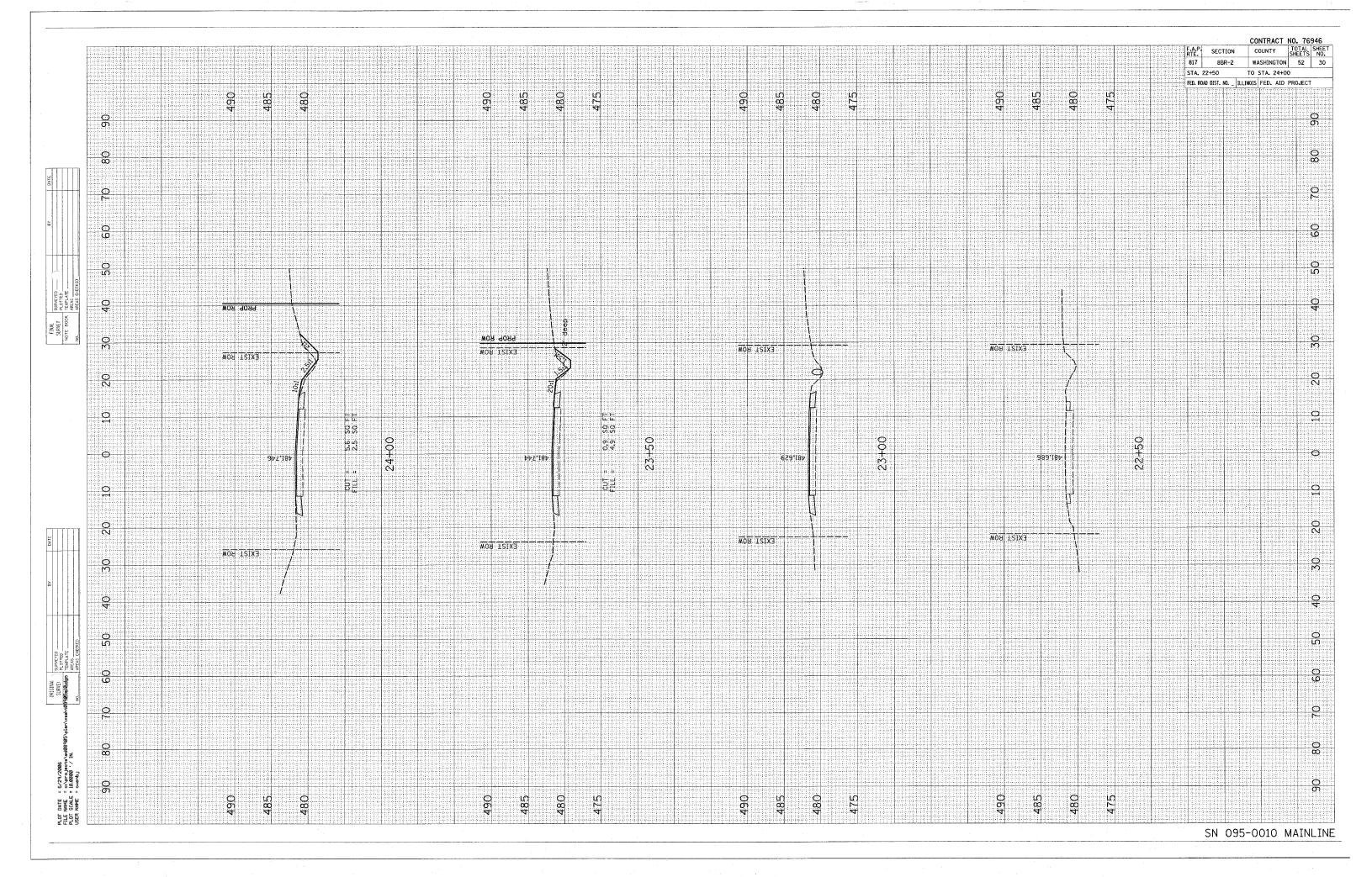
ABUTMENT REPAIR AND
CONCRETE REMOVAL DETAILS

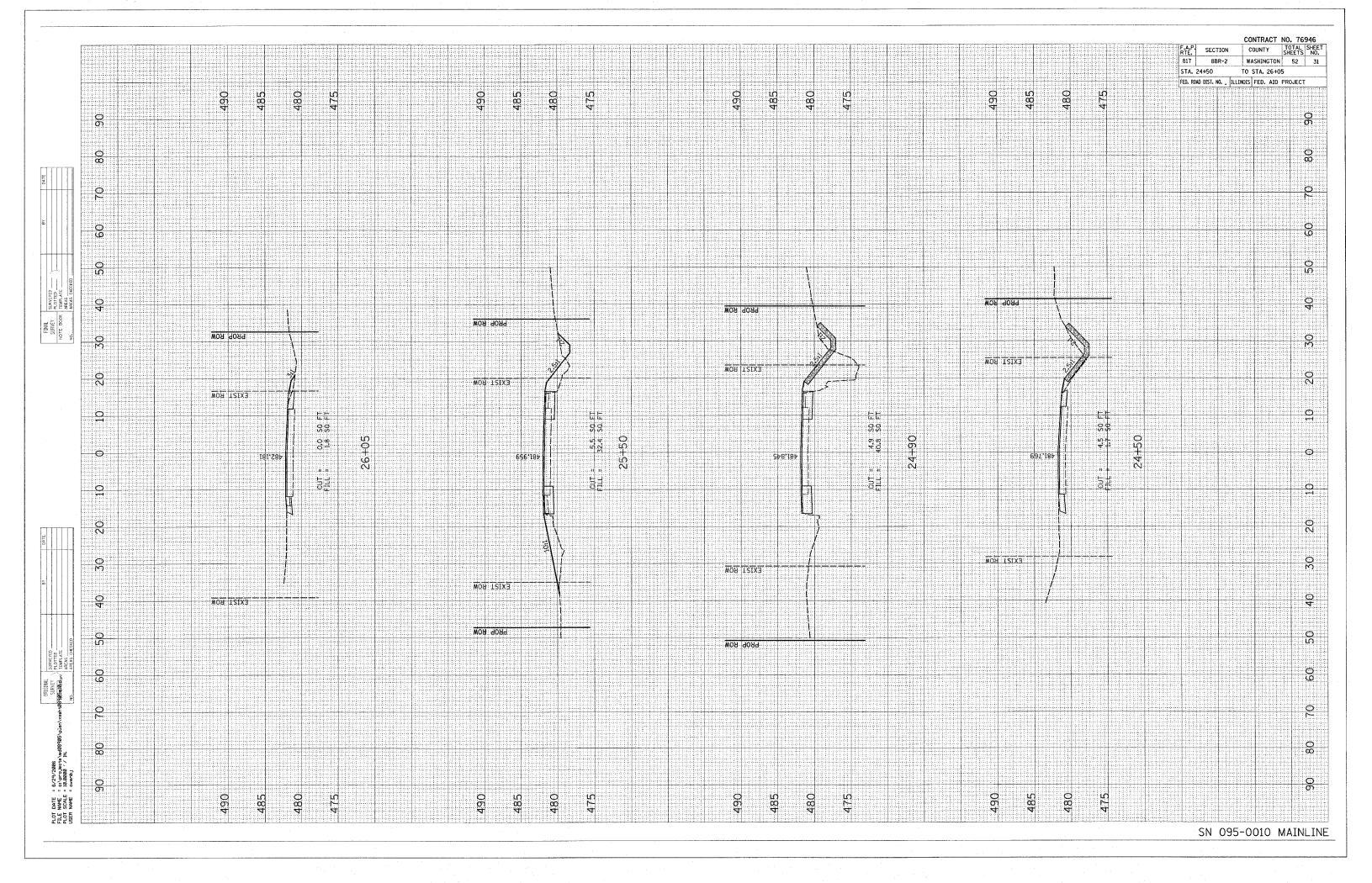
F.A.P. ROUTE 817 - SECTION 8BR-2

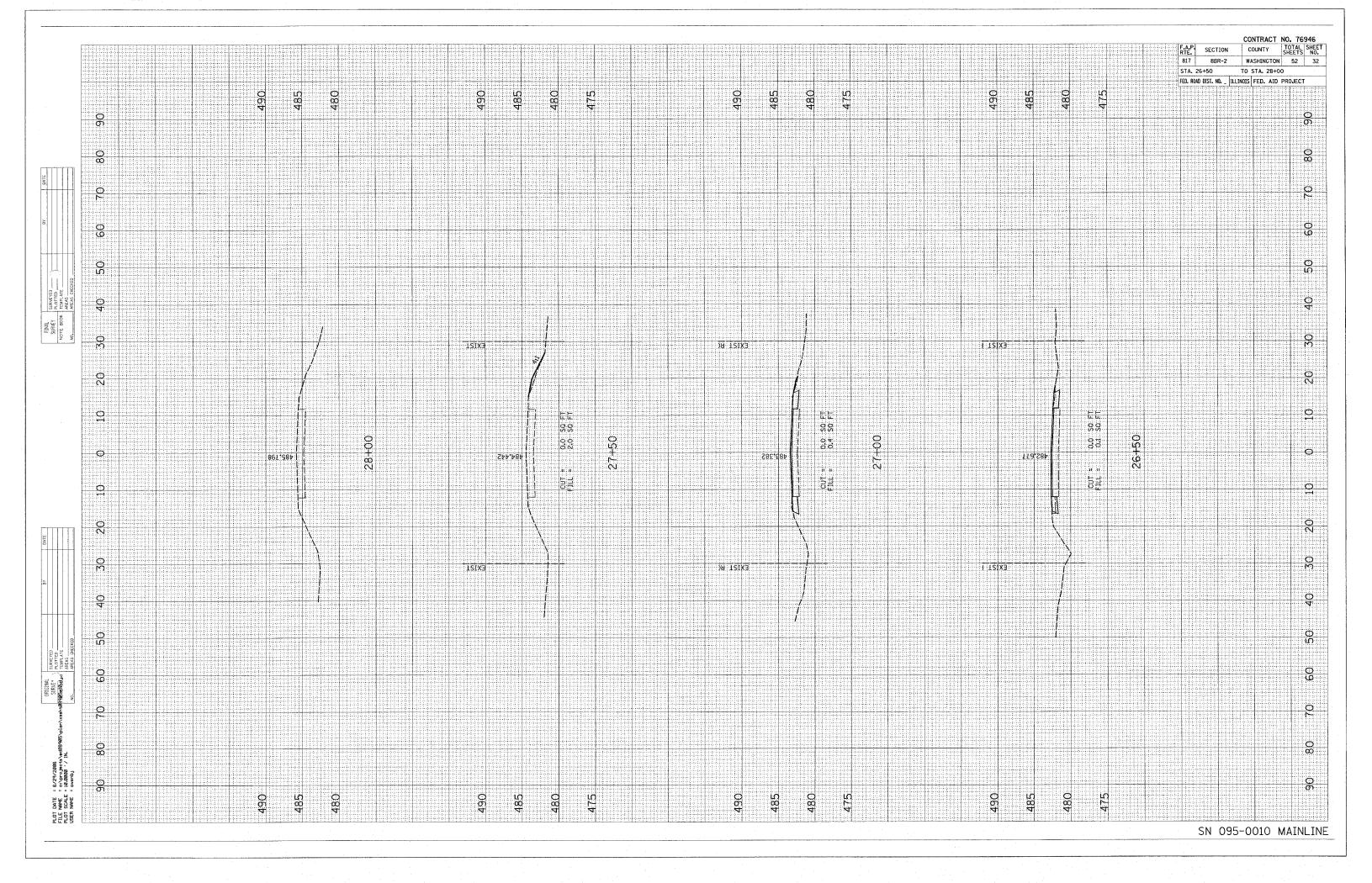
WASHINGTON COUNTY

STATION 25+18.00

STRUCTURE NO. 095-0010







# EARTHWORK SCHEDULE

					EARTH	EARTH	EMBANKMENT	EARTHWORK	
LOCATI	ON				EXCAVATION	EXCAVATION		BALANCE	
					(WIDENING)	ADJUSTED FOR		WASTE (+) OR	
STATIO	N	TO	S	TATION		SHRINKAGE (25%)		SHORTAGE (-)	
					CU YD	CU YD	CU YD	CUYD	
STA	33+50.0	TO	STA	34+00.0			1.9	-1.9	
STA	34+00.0	TO	STA	34+50.0			8.9	-8.9	
STA	34+50.0	TO	STA	35+00.0	5.3	3.9	10.6	-6.6	
STA	35+00.0	ТО	STA	35+50.0	5.3	<b>3.</b> 9	6.1	-2.2	
STA	35+50.0	TO	STA	35+96.7	3.0	2.1	26.1	-24.1	
SN 095	5-0010								
STA	36+28.7	то	STA	36+65.0	1.9	1.4	45.1	-43.7	
STA	36+65.0	ТО	STA	37+00.0	3.9	2.9	38.7	-35.8	
STA	37+00.0	ТО	STA	37+50.0	5,3	3.9	43.3	-39.4	
STA	37+50.0	TO	STA	38+00.0	5.3	3.9	34.5	-30.6	
STA	38+00.0	TO	STA	38+50.0			21.5	-21.5	
STA	38+50.0	TO	STA	39+00.0			13.2	-13.2	
STA	39+00.0	TO	STA	39+50.0			7.1	-7.1	
SUBTO	TAL				30	22	257	-235	

#### GUARDRAIL SCHEDULE

	GUARDRAIL	STEEL PLATE	REMOVE AND	TRAFFIC BARRIER	REMOVE AND RE-ERECT	TRAFFIC	TRAFFIC	GUARDRAIL	TERMINAL
LOCATION	REMOVAL	BEAM	RE-ERECT STEEL	TERMINAL, TYPE 1,	TRAFFIC BARRIER	BARRIER	BARRIER	MARKERS,	MARKER
		GUARDRAIL,	PLATE BEAM	SPC (TANGENT)	TERMINAL, TYPE 1	TERMINAL,	TERMINAL,	TYPE A	DIRECT
		TYPE A	GUARDRAIL, TYPE A			TYPE 1B	TYPE 6A		APPLIED
	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH
EB IL 15								4	
WB IL 15								5	
NW QUADRANT	137.5 *	37.5				1	1		
NE QUADRANT	100	137.5	37.5		1		1		1
SW QUADRANT	100	75		1			1		1
SE QUADRANT	100	75		1			1		1
TOTAL	437.5	325 **	37.5	2 **	1	1	4	9	3

- 50 FT TBT, TYPE 1 SPECIAL (TANGENT) (NW QUADRANT) PLACED FOR STAGE I INCLUDED IN GUARDRAIL REMOVAL.

  TBT, TYPE 1 SPECIAL (TANGENT) (NE QUADRANT) PLACED FOR STAGE I SHALL BE REMOVED AND RE-ERECTED TO ITS PERMANENT LOCATION.
- \*\* NOT A TOTAL QUANTITY. ADDITIONAL QUANTITY SHOWN IN STAGING SCHEDULE.

# RESURFACING SCHEDULE

					BITUMINOUS	AGGREGATE	BIUTMINOUS CONCRETE	BITUMINOUS
LOCATION					MATERIALS	(PRIME COAT)	SURFACE COURSE,	SURFACE
					(PRIME COAT)		SUPERPAVE	REMOVAL - 2"
STAT	ION	ТО	STAT	ION	TON	TON	TON	SQ YD
STA	34+50.00	ТО	STA	35+00.00	0.05	0.27	14.9	133.3
STA	35+00.00	TO	STA	35+50.00	0.05	0.27	14.9	133.3
STA	35+50.00	TO	STA	35+76.79	0.02	0.19	8.2	71.5
STA	35+76.79	то	STA	35+96.71	0.02	0.19	8.2	73.1
STA	36+28.70	ТО	STA	36+48.63	0.02	0.19	8.2	73.2
STA	36+48.63	то	STA	36+65.00	0.01	0.14	5.1	43.7
STA	36+65.00	TO	STA	37+00.00	0.03	0.21	10.7	93.3
STA	37+00.00	TO	STA	37+50.00	0.05	0.27	14.9	133.3
STA	37+50.00	то	STA	38+00.00	0.05	0.27	14.9	133.3
TOTA	L.				0.3	2	100**	888

\*\* BITUMINOUS CONCRETE SURFACE COURSE IS NOT A TOTAL QUANTITY SEE BRIDGE PLANS FOR ADDITIONAL QUANTITY

 CONTRACT NO. 76946

 SECTION
 COUNTY SHEET NO.
 TOTAL SHEET NO.

 8BR-2
 WASHINGTON 52
 33

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

F.A.P. RTE. 817

SECTION

#### STAGING SCHEDULE

LOCATION	BITUMINOUS	TEMPORARY	STEEL PLATE	TRAFFIC BARRIER	TEMPORARY	RELOCATE	TEMPORARY	IMPACT	IMPACT
	BASE COURSE	RUMBLE	BEAM GUARDRAIL,	TERMINAL, TYPE 1,	CONCRETE	TEMPORARY	PAVEMENT	ATTENUATOR,	ATTENUATOR,
	WIDENING, 9"	STRIPS	TYPE A	SPC (TANGENT)	BARRIER	CONCRETE	MARKING	TEMPORARY	RELOCATE
						BARRIER	- LINE 6"	(NON-REDIRECTIVE)	(NON-REDIRECTIVE)
	SQ YD	EACH	F00T	EACH	F00T	FOOT	FOOT	EACH	EACH
PRE-STAGE 1	247		37.5	2					
STAGE I		3			225		225	2	
STAGE II				The state of the s		225	225		2
TOTAL	247	3	37.5 **	2 **	225	225	450	2	2

\*\* NOT A TOTAL QUANTITY. ADDITIONAL QUANTITY SHOWN IN GUARDRAIL SCHEDULE.

# PAVEMENT MARKING SCHEDULE

	PAVEMENT M	ARKING REN	JOVAL	THERMOPLASTIC	PAVEMENT	MARKING	TEMPORARY	SHORT-TERM	WORK ZONE	RAISED REFLECTIVE	REPLACEMENT	RAISED REFLECTIVE	RAISED REFLECTIVE
LOCATION	DOUBLE SOLID	EDGE	LINE	DOUBLE SOLID	EDGE	LINE	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT MARKER	REFLECTOR	PAVEMENT MARKER	PAVEMENT MARKER
	CENTERLINE 4" YELLOW	4" WHITE		CENTERLINE	4" WHITE		MARKING	MARKING	MARKING	REMOVAL		,	(BRIDGE)
		LT	RT	4" YELLOW	LT	RT	LINE - 4"		REMOVAL		2-WAY AMBER	2-WAY AMBER	2-WAY AMBER
STATION TO STATION	SQ FT	SQ FT	SQ FT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	EACH	EACH	EACH	EACH
STA 33+20.00 TO STA 39+20.00	400	200	200	1200	600	600	2400	56	819	7	2	4	1
SUB-TOTAL	400	200	200	1200	600	600							
TOTAL		800		2	2400		2400	56	819	7	2	4	1

#### TEMPORARY RAMP SCHEDULE

	WIDTH	LENGTH	TEMPORARY
LOCATION			RAMP
	FOOT	FOOT	SQ YD
STA 34+50	24	6.75	18
STA 38+00	24	6.75	18
TOTAL			36

ALL QUANTITIES ON THIS SHEET ARE NOT TOTAL PROJECT QUANTITIES. THE QUANTITIES ON THIS SHEET ARE THE TOTAL FOR SN 095-0011.

ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF QUANTITIES

> FAP ROUTE 817 SECTION 8BR-3 WASHINGTON COUNTY SN 095-0011

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BITUMINOUS SURFACE REMOVAL BITUMINOUS SURFACE REMOVAL GUARDRAIL REMOVAL 87.5 FT GUARDRAIL REMOVAL 100 FT BEGIN PROJECT STA 34+50 END PROJECT STA 38+00 EXISTING ROW EXISTING ROW GUARDRAIL REMOVAL 100 FT GUARDRAIL REMOVAL 100 FT



REVISION	s T	
NAME	DATE	
	1	

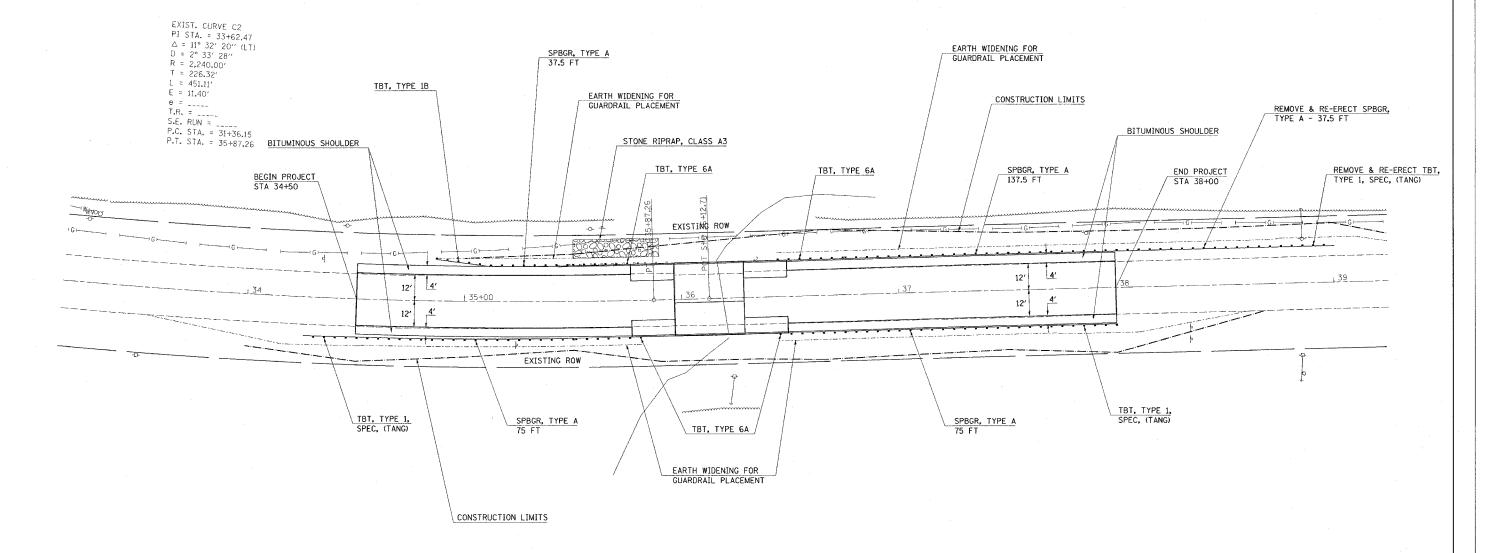
ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

FAP ROUTE 817 SECTION 8BR-3 WASHINGTON COUNTY SN 095-0011

PLOT DATE = \$DATE\$ FILE NAME = \$FILEL\$ PLOT SCALE = \$SCALE\$ REFERENCE = \$REF\$







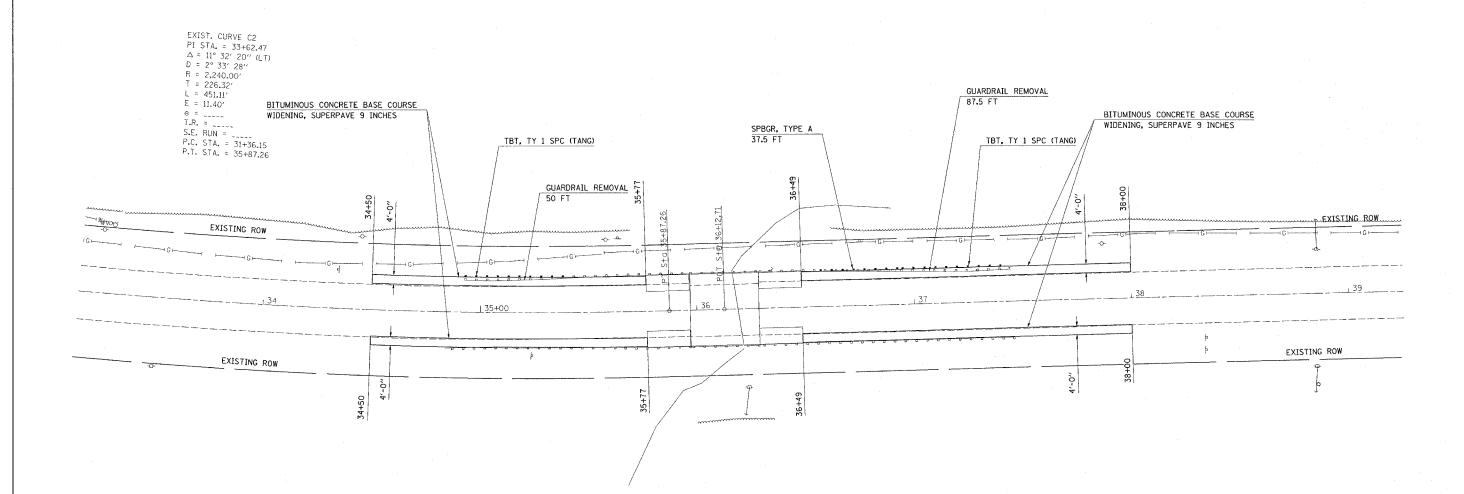
REVISION	15	
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ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN VIEW

FAP ROUTE 817 SECTION 8BR-3 WASHINGTON COUNTY SN 095-0011

PLOT DATE = 7/18/2006 FILE NeWE = exyprojects\ved08995\plan\pln8999 PLOT SCALE = za.2006 / IN. REFERENCE = \$REF\$

CONTRACT NO. 76946 F.A.P. SECTION 817 8BR-3 COUNTY TOTAL SHEET NO. 8BR-3 WASHINGTON 52 36 STA. 33+15 TO STA. 39+25 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



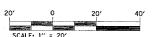
### PRE-STAGE I DESCRIPTION OF WORK:

REMOVE EXISTING GUARDRAIL THAT WILL CONFLICT WITH PROPOSED WIDENING. (50 FT IN NW QUADRANT AND 87.5 FT IN NE QUDRANT) THIS INCLUDES EXISTING END SECTIONS.

PLACE TBT, TYPE 1 SPECIAL (TANGENT) IN NW QUADRANT.

PLACE 37.5 FT OF TEMPORARY STEEL PLATE BEAM GUARDRAIL AND TBT, TYPE 1 SPECIAL (TANGENT) IN NE QUADRANT.

PLACE "BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9 INCHES" TO ALLOW FOR TRAFFIC IN STAGE I AND II.

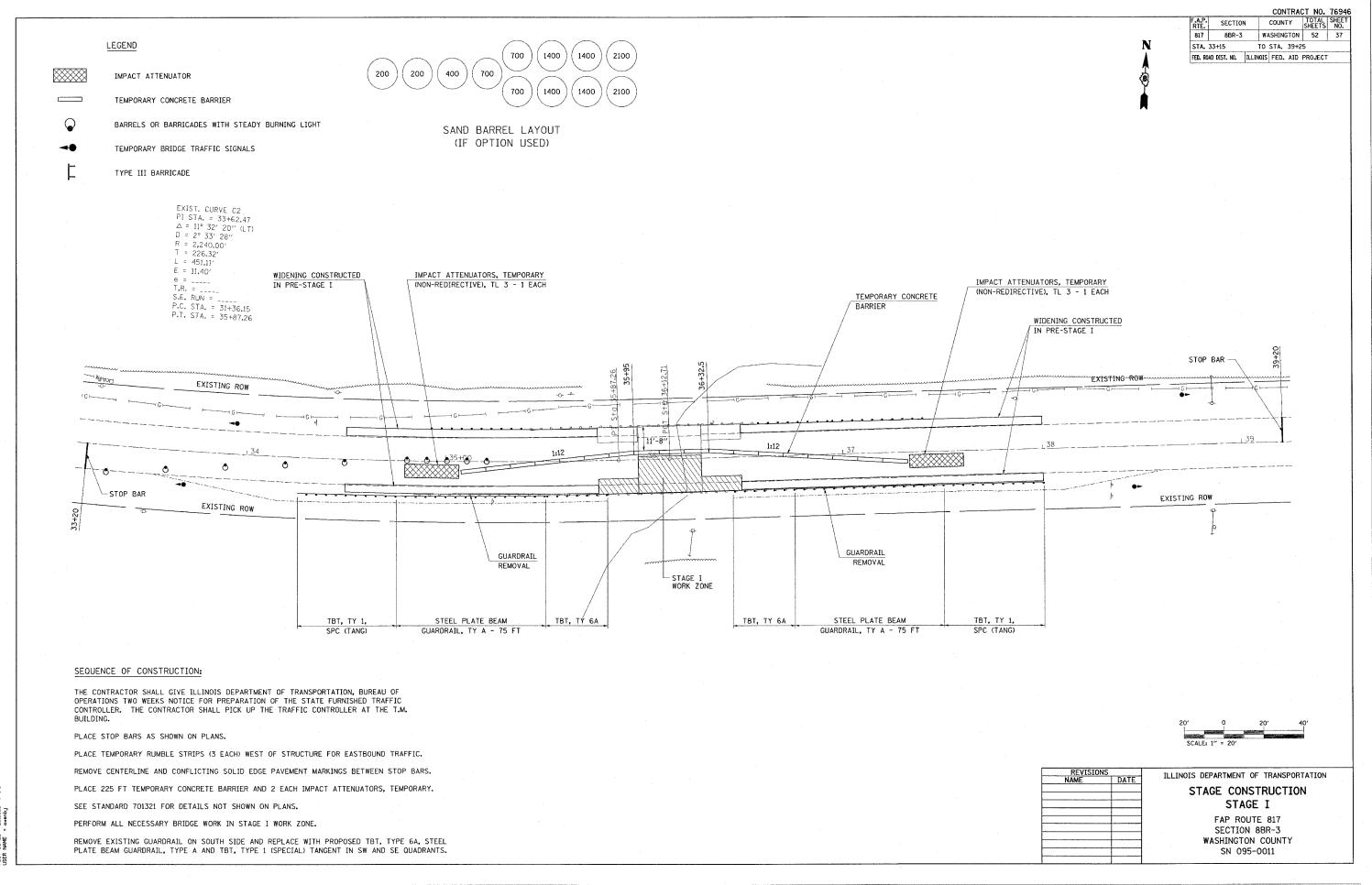


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NAME	DATE			
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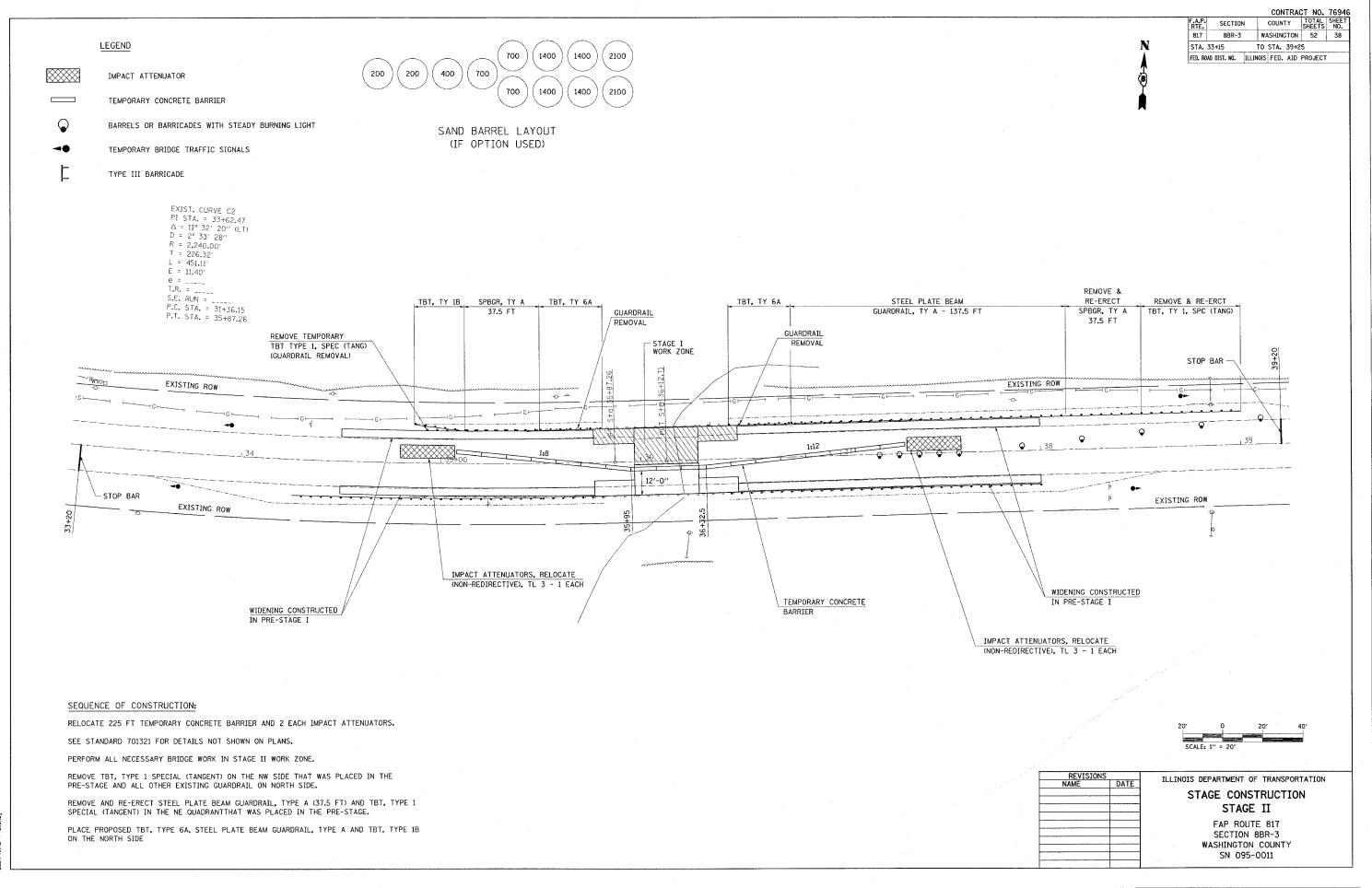
ILLINOIS DEPARTMENT OF TRANSPORTATION STAGE CONSTRUCTION

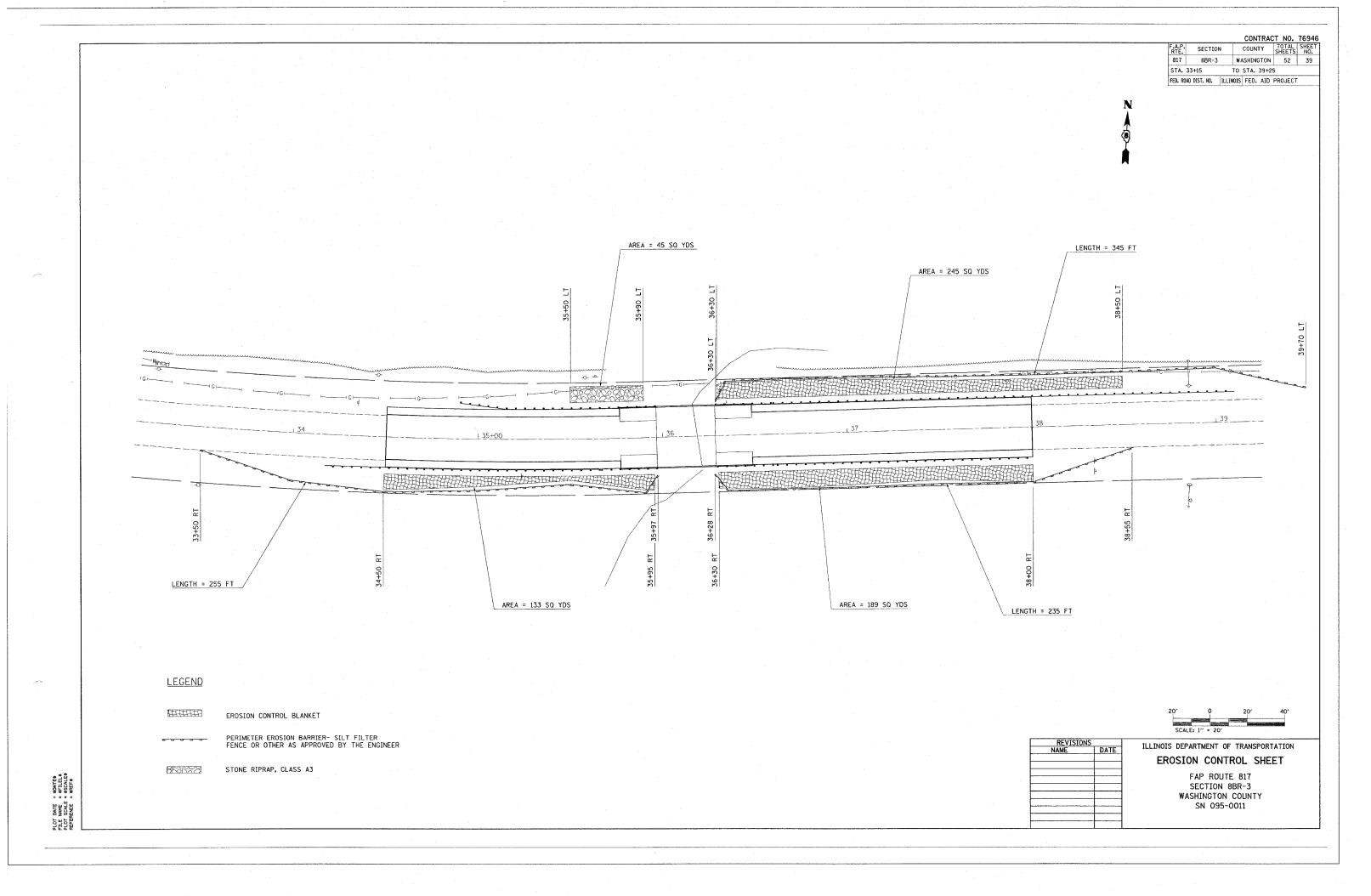
> PRE-STAGE I FAP ROUTE 817 SECTION 8BR-3 WASHINGTON COUNTY SN 095-0011

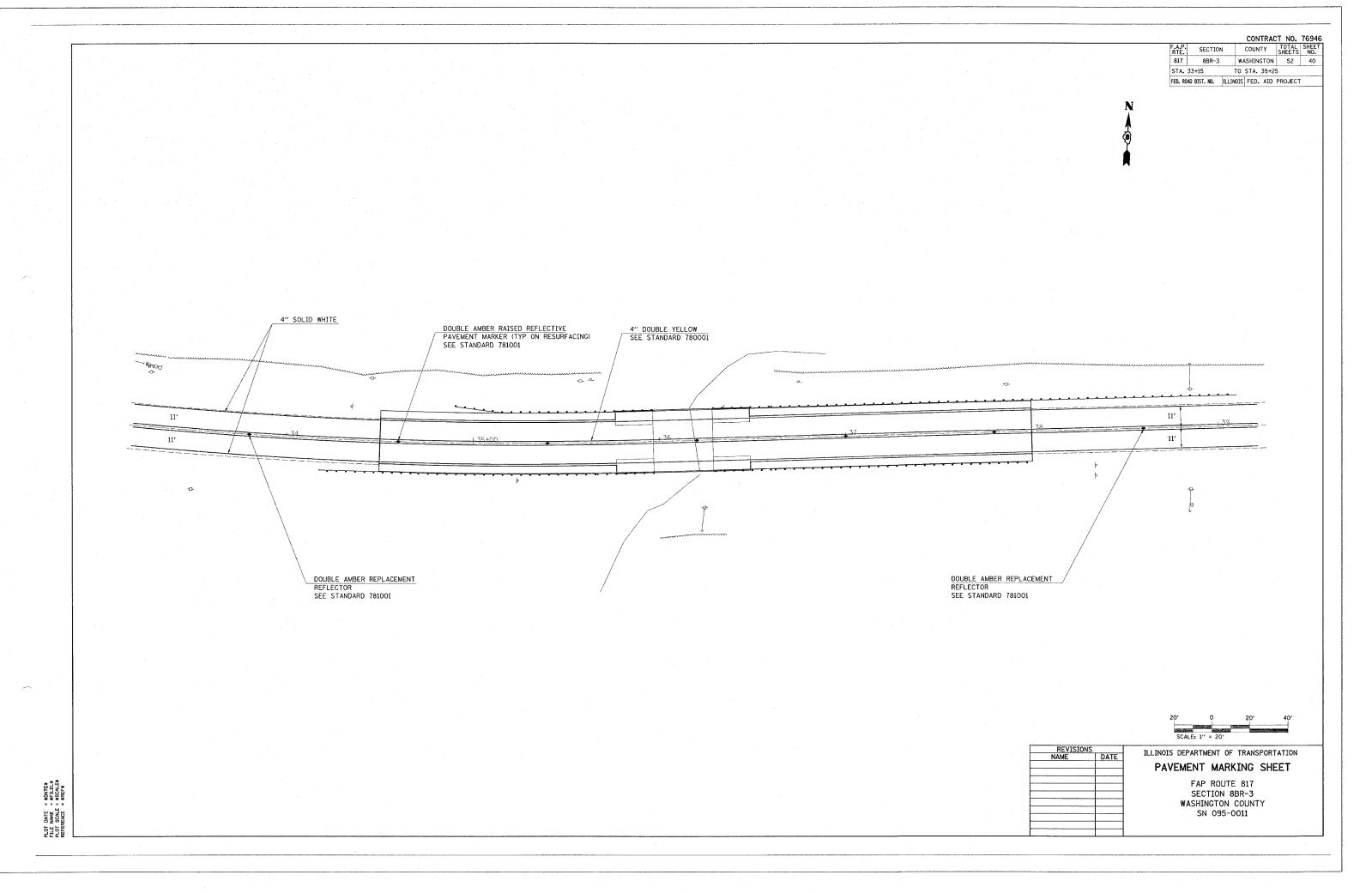
DATE NAME SCALE NAME



PLOT DATE = 7/18/2006 FILE NAME = criprojects/sed8905/plan/stg68905\_bl.dgn PLOT SCALE = 28/0000 / IN. USER NAME = overb.J







Bench Mark: RR Spike in South Side of Power Pole on North Side of Route 15, approximately 18' West & 18' North of Northwest Corner of S.N. 095-0011 Bridge Deck, Elev. 489.84.

Existing Structure: S.N. 095-0011 was built in 1921 as S.B.I. Rte. 15 Sec. 8B at Sta. 36+25.00. In 1971 the superstructure was replaced, and the substructure widened. The existing single span structure consists of PPC deck beams on spread footing supported closed abutments. The bk. to bk. abts dimension measures 32'-0" while the 0.-0, width measures 33'-0". The existing superstructure shall be replaced with PPC

deck beams, and the substructure will be repaired with Structural Repair of concrete. Staging shall be used

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

### INDEX OF SHEETS

General Plan Stage Construction Details

Temporary Concrete Barrier for Stage Construction

Type SM Steel Bridge Rail Side Mounted

Bridge Approach Pavement (Special) 6.-7. Superstructure Details

*Abutments* 

Abutment Repair Details

### GENERAL NOTES

WASHINGTON

F.A.P. 817

8BR-3

Contract #76946

SHEET NO. 1

9 sheets

TOTAL SHEETS

41

Attach new Name Plate to the backside of 8" rail element. Existing Name Plate is to be removed, cleaned and relocated adjacent to new Name Plate. Cost included in the cost of Name Plates.

Repair of the abutments shall be completed prior to placement of the new deck beams.

The minimum thickness of Bituminous overlay shall be 2" and varies as required to adjust for the new profile grade and beam camber.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

The top surface of the beams shall be finished according to Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of  $\frac{1}{4}$ ".

All Construction joints shall be bonded.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

The contractor is advised that the existing Precast Prestressed Concrete Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

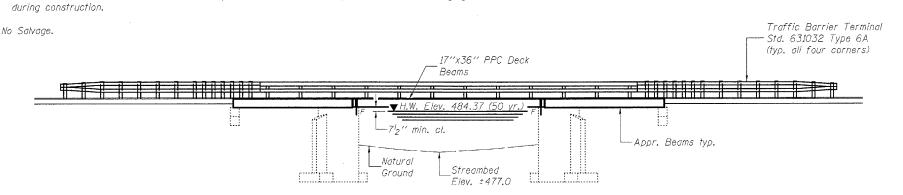
### TOTAL BILL OF MATERIAL

UNIT	SUPER	SUB	TOTAL
Sq. Yd.		66	66
Each	1		1
Cu. Yd.		9.2	9.2
Sq. Ft.	1051		1051
Foot	126		126
Each	1		1
Each		112	112
Sq. Yd.	117		117
Foot	318		318
Sq. Ft.	299		299
Sq. Ft.		6.5	6.5
Ton	16		16
	Each Cu. Yd. Sq. Ft. Foot Each Each Sq. Yd. Foot Sq. Ft. Sq. Ft.	Each 1 Cu. Yd. Sq. Ft. 1051 Foot 126 Each 1 Each Sq. Yd. 117 Foot 318 Sq. Ft. 299 Sq. Ft.	Each 1 Cu. Yd. 9.2 Sq. Ft. 1051 Foot 126 Each 1 Each 112 Sq. Yd. 117 Foot 318 Sq. Ft. 299 Sq. Ft. 6.5

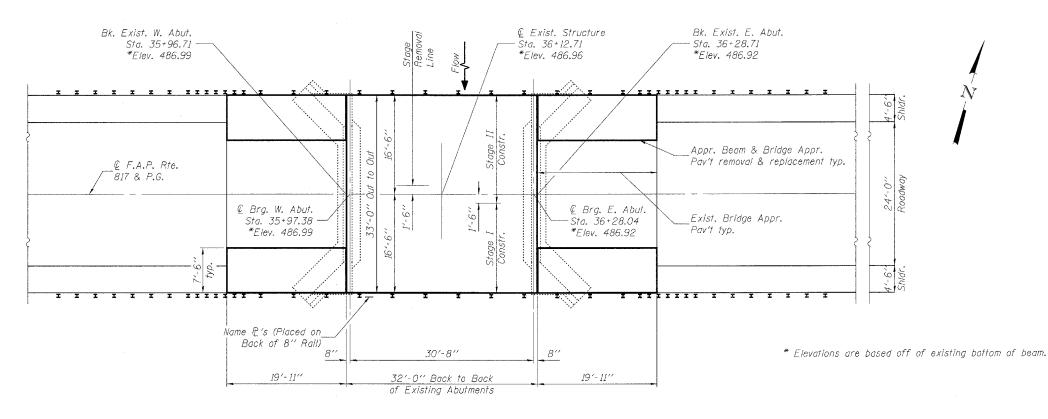
R3W - 3rd. PM - R2W

LOCATION SKETCH

GENERAL PLAN ILLINOIS ROUTE 15 OVER NASHVILLE CREEK F.A.P. ROUTE 817 - SECTION 8BR-3 WASHINGTON COUNTY STATION 36+12.71 STRUCTURE NO. 095-0011



### ELEVATION



PLAN

STATION 36+12.71

LOADING HS20-44 (New Construction) No Allowance for future wearing surface.

DESIGN SPECIFICATIONS (New Construction)

### DESIGN STRESSES

FIELD UNITS

 $f_c' = \overline{3,500 \text{ psi}}$ 

 $f_{y} = 60,000 \text{ psi (reinforcement)}$ 

### PRECAST PRESTRESSED UNITS

 $f_c' = 5,000 \ psi$ 

 $f'_{ci} = 4,000 psi$ 

 $f'_s = 270,000 \text{ psi } (\frac{l_2}{4}) \text{ low lax. strands})$  $f_{si} = 201,960 \text{ psi } (\frac{1}{2})'' \phi \text{ low lax. strands})$ 

RE-BUILT 200 BY STATE OF ILLINOIS FAP RT 817 - SEC 8BR-3 LOADING HS20 DESIGNED EML STR. NO. 095-0011 CHECKED NJM NAME PLATE DRAWN EML See Std. 515001

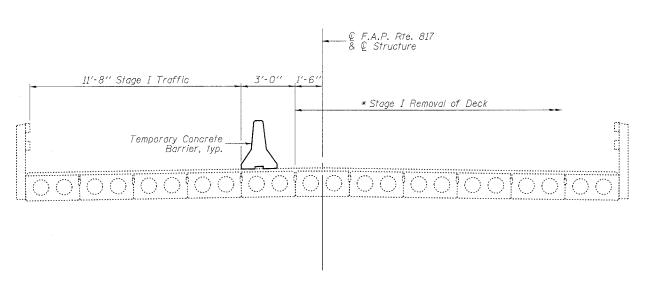
CHECKED NJM



Cric Logemann 6/21/06 Expires 11/30/2006

TOTAL SHEETS SHEET NO. 2 F.A.P. 817 8BR-2, WASHINGTON 42 9 SHEETS

Contract #76946

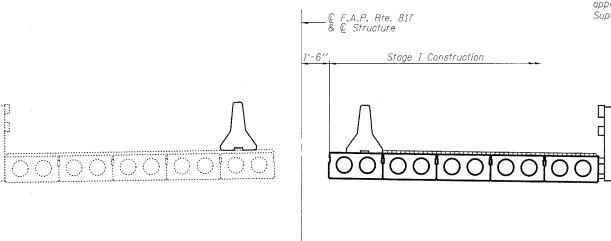


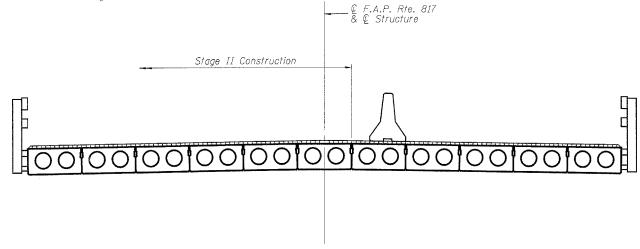
© F.A.P. Rte. 817 & © Structure 1'-6" 1'-6" 3'-0" 12'-0" Stage II Traffic \* Stage II Removal of Deck 0000000000

### STAGE I REMOVAL

\* The Contractor is required to brace the abutments at the beam seats longitudinally prior to the deck beam removal process. The braces shall stay in place until all new deck beams are doweled into position. This is to prevent the development of excessive stresses in the abutments during construction. Bracing details and computations are to be submitted to the Engineer for approval. The cost is included in Removal of Existing Superstructures.







STAGE I CONSTRUCTION

STAGE II CONSTRUCTION

All sections are looking East.

For quantity of Temporary Concrete Barrier, see

roadway plans.

For details of Temporary Concrete Barrier, see

sheet 3 of 9.

For requirements for lapping waterproofing membrane, see notes on sheet 3 of 9.

DESIGNED EML CHECKED NJM DRAWN EML CHECKED NJM

HORNER & SHIFRIN, INC.

STAGE CONSTRUCTION DETAILS F.A.P. ROUTE 817 - SECTION 8BR-3 WASHINGTON COUNTY STATION 36+12.71 STRUCTURE NO. 095-0011



Contract #76946

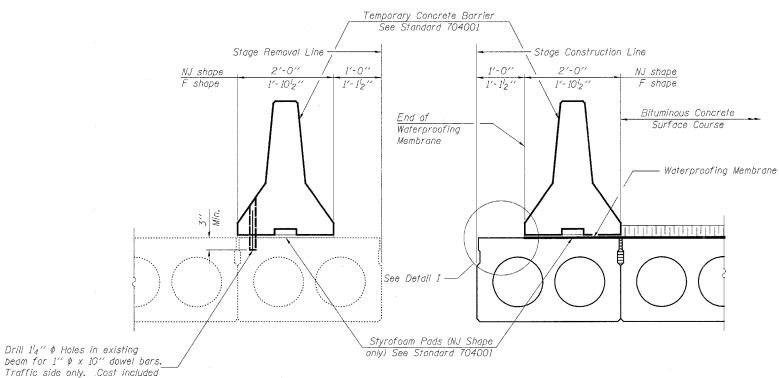
### NOTES

The  $^34''$   $\phi$  high strength bolts used to connect the wood blocks shall be tightened to a snug fit without crushing the wood block. The wing type threaded insert assembly shall be spaced 6'-0'' longitudinally.

The Waterproofing Membrane shall extend under the Temporary Concrete Barrier without the asphalt sand seal protection layer. Once the Temporary Concrete Barrier has been removed, and the penetrating primer, coal tar emulsion, coal tar emulsion and fiberglass fabric, and coal tar emulsion slurry layers of the Waterproofing Membrane is lapped 6", the asphalt sand seal protection layer shall be applied according to Article 581 of the Standard Specifications.

The cost for H.S. bolts, flat headed washers, and wood block is included with Temporary Concrete Barrier.

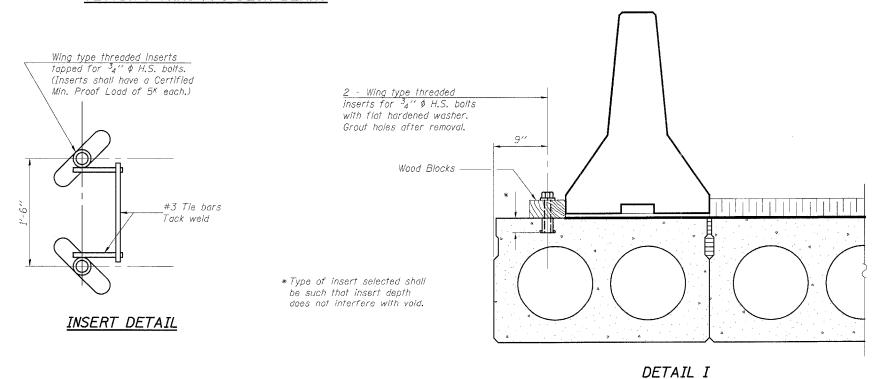
The cost for wing type threaded inserts is included with Precast Prestressed Concrete Deck Beams (17" Depth).



EXISTING PPC DECK BEAMS

NEW PPC DECK BEAMS

### SECTIONS THRU PPC DECK BEAMS



DESIGNED EML

CHECKED NJM

DRAWN EML

CHECKED NJM

with Temporary Concrete Barrier.

HORNER & SHIFRIN, INC

The Temporary Concrete Barrier and wood blocks shall not be removed until Stage II Construction PPC Deck Beams have been placed and shear keys grouted.

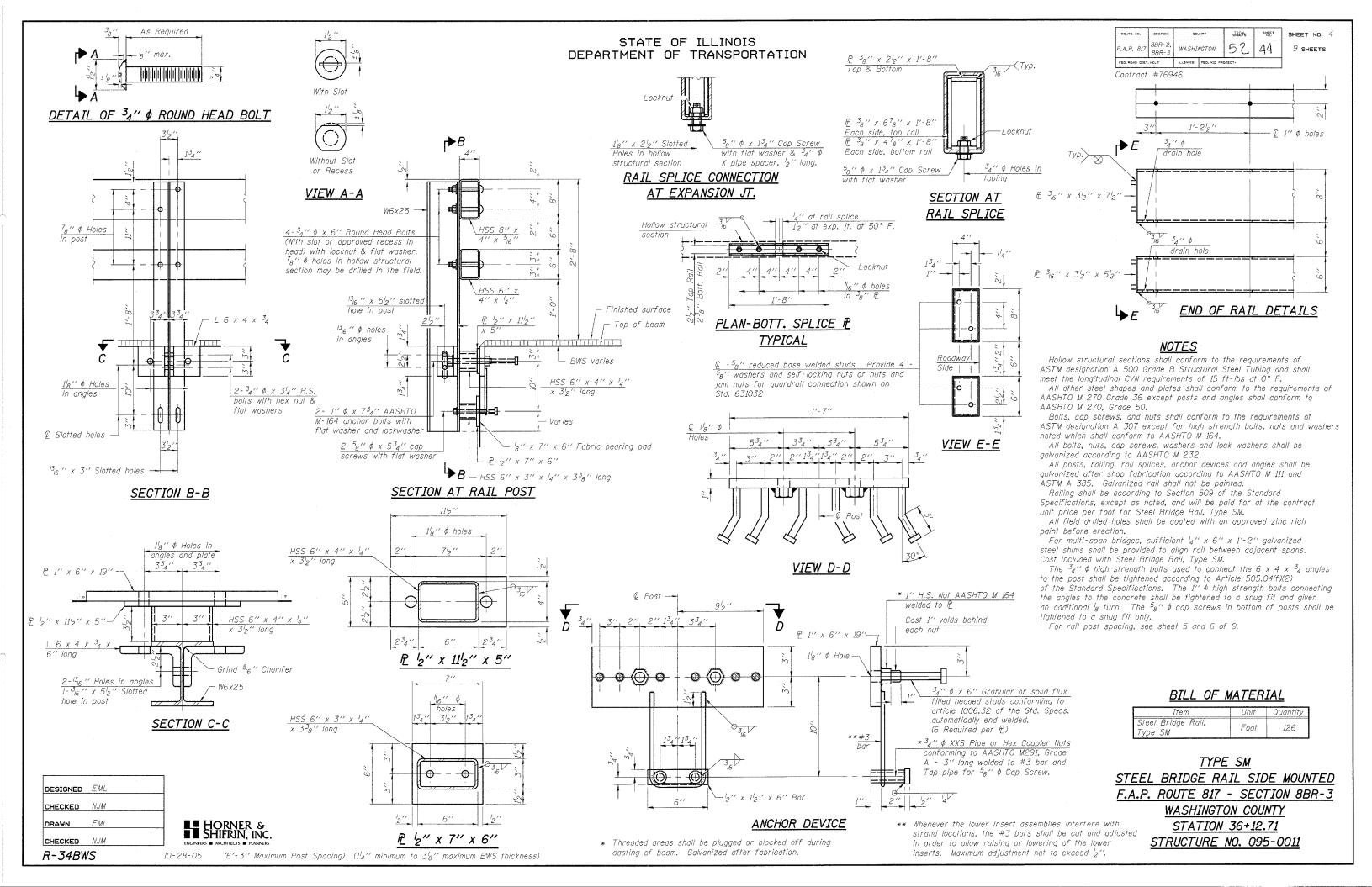
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION

F.A.P. ROUTE 817 - SECTION 8BR-3

WASHINGTON COUNTY

STATION 36+12.71

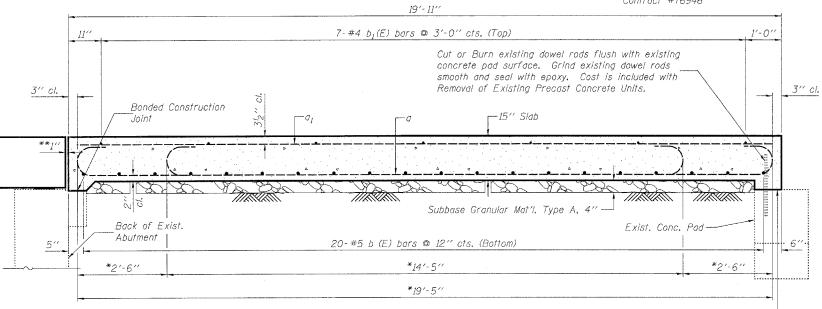
STRUCTURE NO. 095-0011



SHEET NO. sheet no. 5TOTAL F.A.P. 817 8BR-2, WASHINGTON 45 52 9 SHEETS FED. ROAD DIST. NO. 7 BLLINGIS FED. AID PROJECT

Contract #76946

10 mil. polyethylene bond breaker-



\* Stagger No. 9 a bars as shown on plan.

C

\*\*1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in Precast Prestressed Concrete Deck Beam lengths.

Exist. Appr. Beam

SECTION A-A

(Bituminous concrete surface course not shown) Removal Line -Bituminous Concrete Surface Course, Superpave, Mix "C", N70 8-#5 a₁(E) bars @ 12" cts. (Top) -Exist. Appr. Pvm't. Subbase Granular Mat'l. Type A, 4" 15-#9 a (E) bars @ 6" cts. (Bottom)

SECTION B-B (Showing removal of existing Bridge Approach)

Exist. Appr. Pvm't. -

Exist. Constr. Jt.

Removal Line -

see roadway plans.

Precast Concrete Units.

SECTION B-B (Bituminous concrete surface course not shown)

# *16'-11''* 19'-5''

BAR a

For quantity of Bituminous Surface Removal and Bituminous Concrete Surface Course, Superpave, Mix "C", N7O on the bridge approach pavement,

Removal of existing approach beams is included in Removal of Existing

Removal of existing approach pavement is included with Concrete Removal.

Concrete Removal, Removal of Existing Precast Concrete Units and Bridge

Approach Pavement (Special) shall occur during its respective stage

See Special Provisions for Bridge Approach Pavement (Special). See sheet 4 of 9 for rall anchor device to be cast in approach beams.

construction and prior to placement of the new deck beams.

	<u>BI</u>	LL OF	MATERI	<u>AL</u>	
		tem		Unit	
dae	Approach F	Pavement	(Special)	Sa. Yd.	

80

BAR LIST

No. Size Length Shape 60 #9 19'-5'' C #5

#5 7′-3′′

. Item	Unit	Total
Bridge Approach Pavement (Special)	Sq. Yd.	66
Concrete Removal	Cu. Yd.	9.2
Expansion Bolts <sup>3</sup> 4 Inch	Each	112
Removal of Existing Precast Concrete Units	Sq. Ft.	299

28 #4 7'-3''

BRIDGE APPROACH PAVEMENT (SPECIAL) F.A.P. ROUTE 817 - SECTION 8BR-3

WASHINGTON COUNTY STATION 36+12.71 STRUCTURE NO. 095-0011

# - 3₄'' ¢ Exp. Bolts Back of Exist. Abutment

(Bituminous concrete surface course not shown)

SECTION C-C

DESIGNED EML CHECKED NJM DRAWN

CHECKED NJM

Stage II Construction

Construction

,,9-,91

6'' typ.

End of Bridge Rail

Out

2

Out

 $\triangleright B$ 

 $\blacktriangleright B$ 

€ F.A.P. Rte. 817 & P.G.

 $20^{-3}$ 4"  $\phi$  Expansion Bolts @ 12" cts. typ.

 $B \blacktriangleleft_1$ 

 $B \blacktriangleleft$ 

typ.

Bk. of W. Abut.

2 rail post spaces

at 5'-6" = 11'-0" typ.

19'-11"

<u>PLAN</u> (Bituminous Wearing Surface not shown for clarity, Approach Beam at E. Abut. is mirror image of W. Abut.)

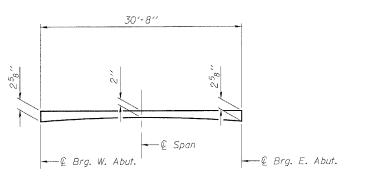
I



→ @ Beam & Span

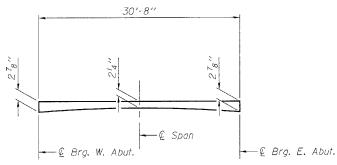
Contract #76946

P.P.C. Dk. Bms.



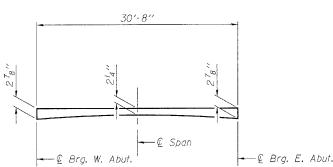
### BITUMINOUS CONCRETE SURFACE COURSE PROFILE

(Bituminous concrete surface course along edge of beams)

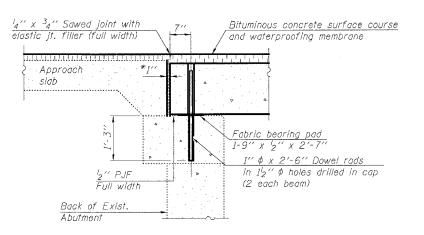


(Bituminous concrete surface course along € Roadway)

Bituminous Concrete Surface Course Profile dimensions include 12" for waterproofing membrance thickness.



### BITUMINOUS CONCRETE SURFACE COURSE PROFILE



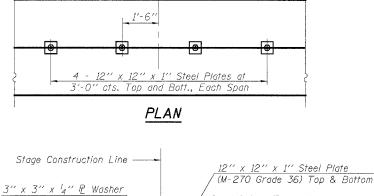
### SECTION THRU ABUTMENT

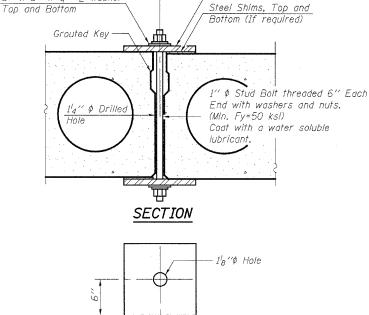
\* 1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the

shear keys.

All horizontal dimensions are at right angles to beam ends. See sheet 7 of 9 for bearing pad details.





### SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

CLAMPING PLATE

See Special Provisions for Stage Construction of Precast Prestressed Concrete Deck Beams. Cost included with "Precast Prestressed Concrete Deck Beams". See Stage Construction Details for traffic lanes.

SUPERSTRUCTURE DETAILS F.A.P. ROUTE 817 - SECTION 8BR-3 WASHINGTON COUNTY STATION 36+12.71 STRUCTURE NO. 095-0011

### DESIGNED EML CHECKED NJM DRAWN EML CHECKED NJM



© F.A.P. Rte, 817

-& ¢ Structure

5 rail post spaces at 5'-6" = 27'-6"

32'-0"

PLAN

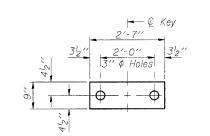
Rail spacing the same on both sides of the bridge.

See sheet 5 of 9 for end of bridge rail location.

Bk. of E. Abut. --

Bk. of W. Abut.

Notes:



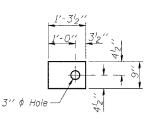
FABRIC BEARING PAD

**FIXED** 

′ ¢ Vent Holes Top

14'-0"

′ ¢ Drain Holes Bott.



FABRIC BEARING PAD

\*Transverse Strand Placement Guidelines

shall be 2".

3" ¢ Holes for transverse tie

assemblies

guidelines.

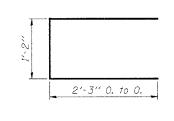
Place strands symmetrically about centerline of beam.

Vertical placement of strands shall not be adjusted to satisfy the above

14'-0"

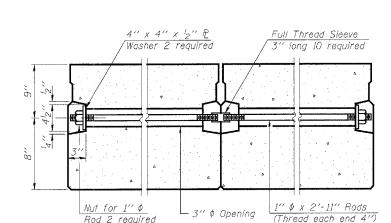
The minimum clearance from strand to dowel hole shall be  ${}^{l}_{2}$ . The minimum clearance from strand to void shall be  $l_2^{\prime\prime}$ .

The minimum distance from center to center of strands in all directions



BAR U

### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

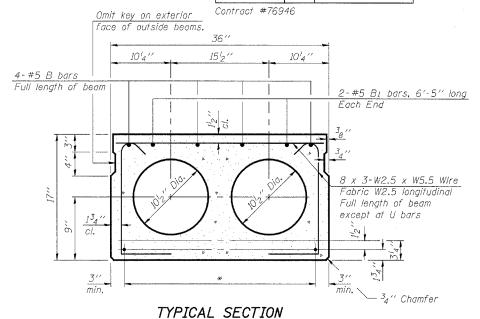


Rod 2 required

TYPICAL TRANSVERSE TIE ASSEMBLY

11 required

SHEET NO. TOTAL SHEET NO. 7 52 47 9 SHEETS E.A.P. 817 WASHINGTON



½" \$ Strands, Each Strand Stressed to 30,900 Lbs. 5-Strands  $1^{3}_{4}$ " up, 4-Strands  $3^{l}_{4}$ " up

#### 33'-0" 12'-0" 4'-6" 4'-6" Steel Bridge Rail, Type SM 316" / ft. F.A.P. Rte. 817 3<sub>16</sub>" / ft. See sheet 4 of 9 for details. & @ Structure 2" min. Bituminous Concrete Surface Course, Superpave, Mix "C", N7O Waterproofing Total Drop = 31/8" 0000 00 00100 00100 Grouted ∠Interior Brg. Pad, typ. Exterior Brg key, typ. Pad, typ. 11 - 17" x 36" Precast Prestressed Concrete Deck Beams = 33'-0"

### CROSS SECTION

### **NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be  $^{l}_{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be  $2^{-1}2''$   $\phi$ -270 ksi strands, as shown.

The I''  $\phi$  rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two  $l_{g}^{\prime\prime}$  fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearina.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be 4,000 p.s.i.

See sheet 3 of 9 for Wing Type Threaded Insert location and spacing.

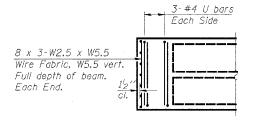
See sheet 4 of 9 for rail anchor device to be cast in precast beams.

See sheet 6 of 9 for spacing of rail post.

See sheet 6 of 9 for Shear Key Clamping Details at Stage Const. Jt.

### PLAN

31'-10"



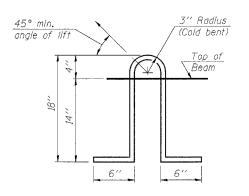
END PLAN

Lifting loops

2 each end

[	
DESIGNED	EML
CHECKED	NJM
DRAWN	EML
CHECKED	NJM

2" ∮ Holes for Dowel Rods Fixed Ends Only



LIFTING LOOP DETAIL

1'-6'

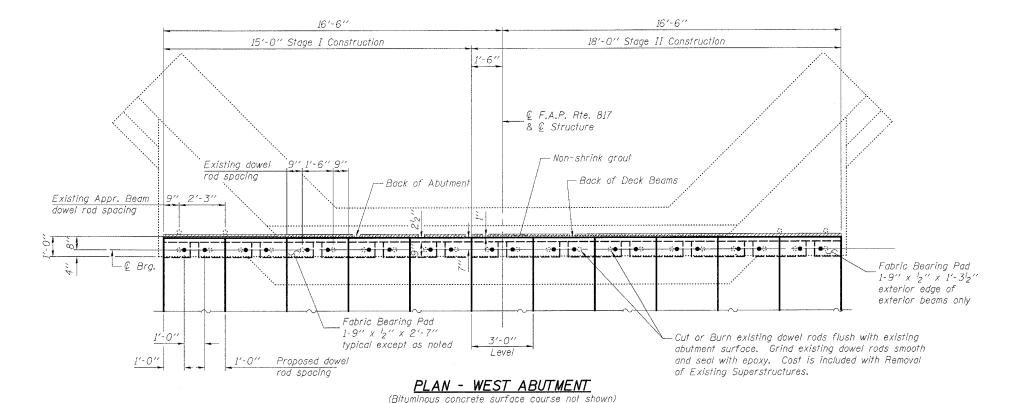
Item	Unit	Total
Precast Prestressed Concrete Deck Beams (17'' Depth)	Sq. Ft.	1051

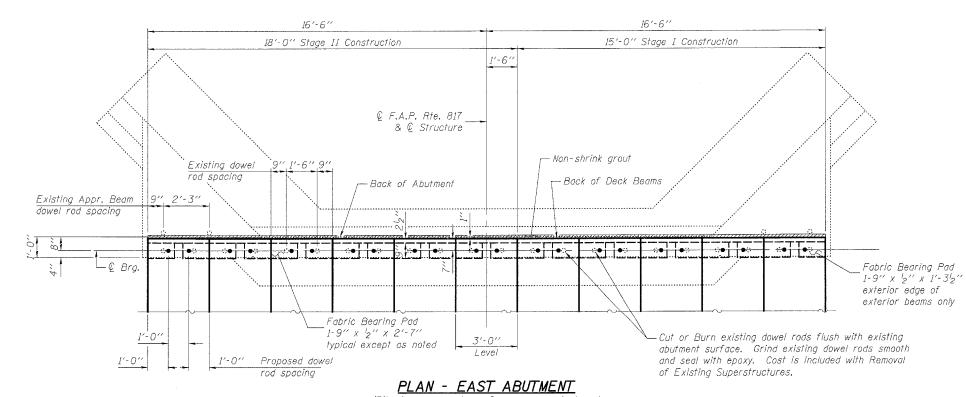
BILL OF MATERIAL

SUPERSTRUCTURE DETAILS F.A.P. ROUTE 817 - SECTION 8BR-3 WASHINGTON COUNTY STATION 36+12.71 STRUCTURE NO. 095-0011

ROUTE NO.	SECTION	cou	INTY	TOTAL SHEETS	SHEET NO.	SHEET NO. $8$
F.A.P. 817	8BR-2, 8BR-3	WASHI	VGTON	52	48	9 SHEETS
FEO. ROAD DIST	. NO. 7	ILLINOIS FED. AID PROJECT-				

Contract #76946





DESIGNED EML

CHECKED NJM

DRAWN EML

CHECKED NJM

HORNER & SHIFRIN, INC.

72

(Bituminous concrete surface course not shown)

ABUTMENTS

F.A.P. ROUTE 817 - SECTION 8BR-3

WASHINGTON COUNTY

STATION 36+12.71

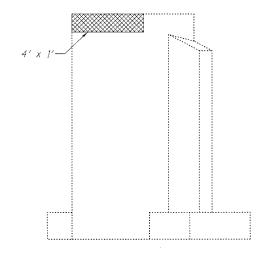
STRUCTURE NO. 095-0011

Note: For Abutment Repair details see sheet 9 of 9.

ROUTE NO.	BECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9
F.A.P. 817	8BR-2, 8BR-3	WASHINGTO	52	49	9 SHEETS
FEG. ROAD DIST, NO. 7 ILLINOIS FED. AID FR		PROJECT~			

Contract #76946

Stage II Constr.	© F.A.P. Rte. 817 & © Structure  Stage I Constr.
	1'-6"
	A <del>&lt;</del>
	1' × 1'-6''—



VIEW A-A

# ELEVATION - EAST ABUTMENT (Looking East)

### BILL OF MATERIAL

<i>Item</i>	Unit	Total
Structural Repair of Concrete (Depth Equal to or less than 5″)	Sq. Ft.	6.5

Concrete Removal and Structural Repair of Concrete shall occur during its respective stage construction.

See Special Provisions for Structural Repair of Concrete.

No Structural Repair of Concrete required for the West Abutment. <u>LEGEND</u>

Structural Repair of Concrete

ABUTMENT REPAIR DETAILS F.A.P. ROUTE 817 - SECTION 8BR-3 WASHINGTON COUNTY STATION 36+12.71 STRUCTURE NO. 095-0011

DESIGNED	EML
CHECKED	NJM
DRAWN	EML
CHECKED	NJM



