9-22-06 Letting, Item 010

CONTRACT NO. 76965				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	56-BR-1	MADISON	23	1

FOR INDEX OF SHEETS, SEE SHEET NO. 2

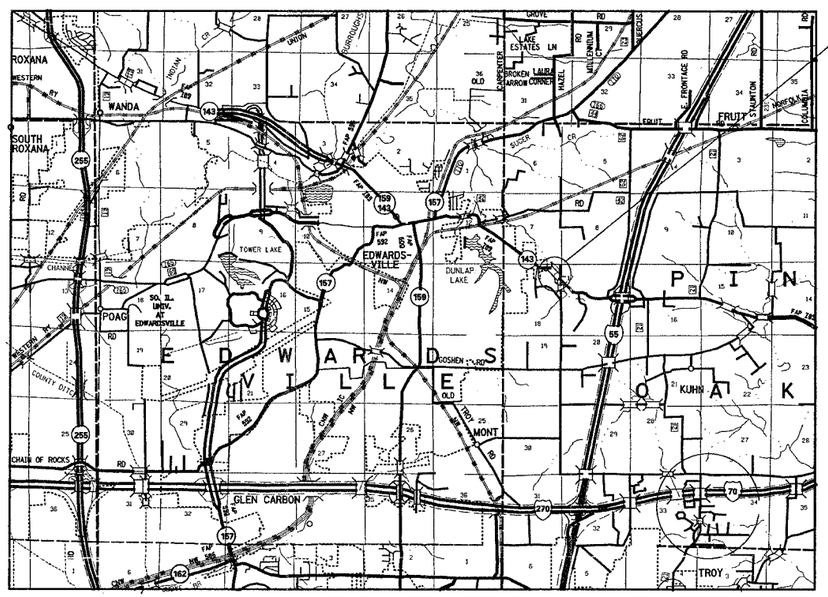
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAP ROUTE 789 (IL 143)
SECTION 56-BR-1
PROJECT: BHF-0789(044)
SUPERSTRUCTURE REPLACEMENT
OVER LITTLE MOONEY CREEK
MADISON COUNTY
C-98-134-05

D-98-107-05

LOCATION OF SECTION INDICATED THUS: –



PROJECT LOCATION
IL 143 OVER LITTLE MOONEY CREEK
(SN 060-0147)
STA 108+74.00

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

0 100' 200' 300'	0 10' 20' 30'	1"= 100' 1"= 10'
0 50' 100'		1"= 50'
0 50' 100'		1"= 40'
0 50' 100'		1"= 30'
0 50' 100'		1"= 20'

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: 6550 (2006)
ADT: 6900 (2007)
SU: 4.4%
MU: 1.5%

LAYOUT
0 MI 1 MI 2 MI 3 MI
1" = 1 MILE

GROSS LENGTH = 230.0 FT = 0.044 MILES
NET LENGTH = 230.0 FT = 0.044 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED June 29 20 06
William C Lamie
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER

August 18, 20 06
Mike Stine PE
ENGINEER OF DESIGN AND ENVIRONMENT

August 18, 20 06
Milton R. Sees, P.E.
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. 76965

LATITUDE = 38.80085 LONGITUDE = 89.91337

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	56-BR-1	MADISON	23	2
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76965

INDEX OF SHEETS

HIGHWAY STANDARDS

D00001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
D01001	AREAS OF REINFORCEMENT BARS
D01006	DECIMAL OF AN INCH OF A FOOT
515001-02	NAME PLATE FOR BRIDGES
630001-06	STEEL PLATE BEAM GUARDRAIL
630301-03	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-02	TRAFFIC CONTROL BARRIER TERMINAL, TYPE 6A
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
664001-01	CHAIN LINK FENCE
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
701321-08	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH
702001-06	TRAFFIC CONTROL DEVICES
704001-02	TEMPORARY CONCRETE BARRIER
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

COMMITMENTS

NONE

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 BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NORMAL THICKNESS. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
4. SAW CUTTING ON ALL EDGES FOR REMOVAL ITEMS SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEM AS INDICATED AND ACCORDING TO SECTION 440 OF THE STANDARD SPECIFICATIONS.
5. 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:

   * CITY OF EDWARDSVILLE
   * AT&T ILLINOIS

   MEMBERS OF J.U.L.I.E (800) 892-0123 ARE INDICATED BY *. NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
6. IF ANY SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED OR RESURFACED OVER. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
7. 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, BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT. THE SEEDING SHALL BE CLASS 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.
8. 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.

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO 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.
2. 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 FOAM/GEOTEXTILE (SILT WEDGES), EARTH MEDIAN AND/OR OTHER MATERIAL APPROVED BY THE EROSION AND SEDIMENT CONTROL COORDINATOR.
3. TEMPORARY DITCH CHECK, GEOTEXTILES, ROLLED EXCELSIOR, SILT WEDGES, PANELS SHALL BE LOCATED AT EVERY 1.5 FT FALL/RISE IN DITCH GRADE.
4. TEMPORARY DITCH CHECKS, AGGREGATE USES GRADING NO. 3 - REMOVE AT END OF CONSTRUCTION.
5. TEMPORARY SEEDING SHALL BE COMPLETED ON A WEEKLY BASIS ON EXPOSED GROUND AND SHALL BE PAID FOR AS "TEMPORARY EROSION CONTROL SEEDING" AND NO OTHER PAYMENT WILL BE PERMITTED. FOR CALCULATION PURPOSES, THREE APPLICATIONS OF TEMPORARY SEEDING WAS ASSUMED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS/GENERAL NOTES & HIGHWAT STANDARDS

FAP ROUTE 789
SECTION 56-BR-1
MADISON COUNTY

SCALE: VERT. HORIZ.
DRAWN BY
DATE
CHECKED BY

PLOT DATE = 6/29/2006
FILE NAME = c:\projects\ed0705\plan\plin0705a.dgn
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = REF

CONTRACT NO.76965

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	56-BR-1	MADISON	23	3
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE X080-2A	SFTY-3N	
20200500	EARTH EXCAVATION (WIDENING)	CU YD	40	40		
20400800	FURNISHED EXCAVATION	CU YD	60	60		
25000210	SEEDING, CLASS 2A	ACRE	0.25	0.25		
25100105	MULCH, METHOD 1	ACRE	0.25	0.25		
28000300	TEMPORARY DITCH CHECKS	EACH	10	10		
28100109	STONE RIPRAP, CLASS A5	SQ YD	180	180		
28200200	FILTER FABRIC	SQ YD	180	180		
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.3	0.3		
40600300	AGGREGATE (PRIME COAT)	TON	1	1		
40600990	TEMPORARY RAMP	SQ YD	100	100		
44000030	BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	562	562		
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	800	800		
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	1		
50102400	CONCRETE REMOVAL	CU YD	0.2	0.2		
50300225	CONCRETE STRUCTURES	CU YD	0.5	0.5		
50400105	PRECAST CONCRETE BRIDGE SLAB	SQ FT	359	359		
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	930	930		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	30	30		
50901005	STEEL BRIDGE RAIL, TYPE SM	FOOT	153	153		
51500100	NAME PLATES	EACH	1	1		
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	110	110		
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	282	282		
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	412.5	412.5		
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4		
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4		
63200305	STEEL PLATE BEAM GUARD RAIL REMOVAL	FOOT	298	298		
66410400	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED	FOOT	60	60		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	10		
67100100	MOBILIZATION	L SUM	1	1		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		

SUMMARY OF QUANTITIES

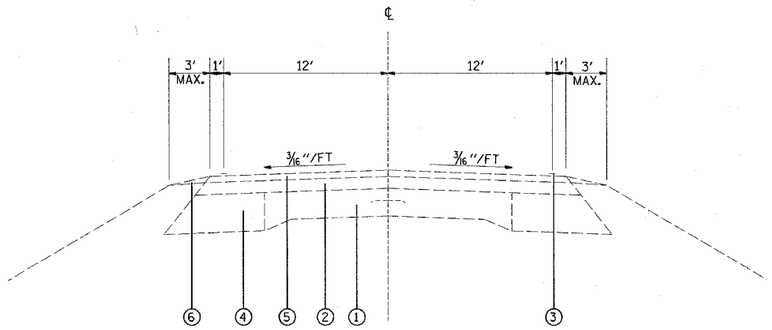
CODE NO	ITEM	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE X080-2A	SFTY-3N	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1214	1214		
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	560	560		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	405	405		
70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	280	280		
70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	280	280		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1674	1674		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	3	3		
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2	2		
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	12	12		
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	10	10		
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	252	252		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4	4		
X0324744	REMOVAL OF EXISTING PRECAST CONCRETE UNITS	SQ FT	359	359		
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	2	2		
X3560160	BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERFAVE 12 INCH	SQ YD	104	104		
X4066426	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70	TON	69	69		
X4066616	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N70	TON	31	31		
X7200200	WIDE LOAD SIGNING	L SUM	1	1		
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2	
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2	

*SPECIALTY ITEMS

PLOT DATE = 6/29/2006
FILE NAME = c:\projects\std8705\plan\pln187056.dgn
PLOT SCALE = 50.0000 / IN.
REFERENCE = REF

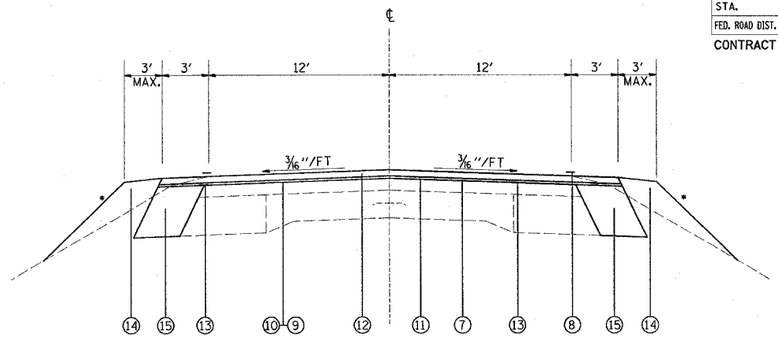
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	68-BR-1	MADISON	23	4
STA.	TO STA.			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76896



EXISTING TYPICAL SECTION

STA. 107+59.00 TO STA. 108+59.00
STA. 108+89.00 TO STA. 109+89.00



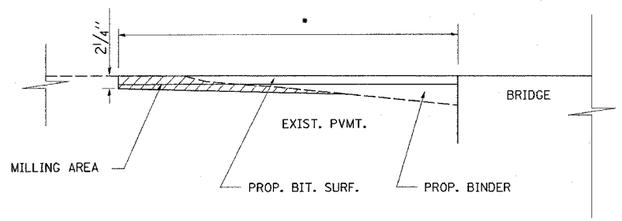
PROPOSED TYPICAL SECTION

STA. 107+59.00 TO STA. 108+59.00
STA. 108+89.00 TO STA. 109+89.00

• SEE CROSS SECTIONS FOR SIDE SLOPE

LEGEND

1. EXISTING PAVEMENT 9-6-9
2. EXISTING BITUMINOUS BINDER, 3"±
3. EXISTING PAVEMENT MARKING
4. EXISTING BITUMINOUS WIDENING, 9"
5. EXISTING BITUMINOUS SURFACE COURSE, 1 1/2 "
6. EXISTING AGGREGATE SHOULDER
7. PROPOSED BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)
8. PROPOSED PAVEMENT MARKING
9. PROPOSED BITUMINOUS MATERIAL (PRIME COAT)
10. PROPOSED AGGREGATE (PRIME COAT)
11. PROPOSED BINDER COURSE, 3/4 "
12. PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, 1 1/2 "
13. PROPOSED STRIP REFLECTIVE CRACK CONTROL
14. PROPOSED EARTH SHOULDER
15. PROPOSED BITUMINOUS CONCRETE BASE COURSE WIDENING, 12"



*SEE PLAN & PROFILE FOR BEGINNING AND END STATION OF RESURFACING

BITUMINOUS SURFACE REMOVAL DETAIL

MIXTURE REQUIREMENTS

MIXTURE USE	SURFACE	LEVELING BINDER	BINDER	WIDENING COURSE
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	10%	10%	15%	15%
DESIGN AIR VOIDS	4% Ndes=70	4% Ndes=70	4% Ndes=70	4% Ndes=70
MIX COMPOSITION				
(GRADATION MIXTURE)		IL 9.5	IL 19.0	IL 19.0
FRICTION AGGREGATE	MIXTURE "D"	MIXTURE "C"	MIXTURE "B"	MIXTURE "B"

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS/MIXTURE REQUIREMENTS & MILLING DETAIL

FAP ROUTE 789
SECTION 68-BR-1
MADION COUNTY

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 6/29/2006
FILE NAME = c:\pw_ijmsta\wd10705\plan\plin10705a.dgn
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = REF

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	68-BR-1	MADISON	23	5
STA.	TO STA.			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76896

PAVING SCHEDULE

STATION	BIT. MAT'L PRIME COAT (TON)	AGG. PRIME COAT (TON)	BIT. CONC. BINDER CSE SUPER., N70 (TON)	BIT. CONC. SURF. CSE., SUPER., MIX "D", N70 (TON)	BIT. SURF. REMOVAL VAR DEPTH (SQ YD)	STRIP REFL CRACK CTL TREATMENT (FT)	BIT BSE CSE WIDENING (SQ YD)
107+59.00 TO 108+59.00	0.11	0.50	15.08	28.27	276.13	400.0	51.24
108+59.00 TO 108+89.00				11.00			
108+89.00 TO 109+89.00	0.11	0.50	15.81	29.64	284.88	400.0	52.08
TOTAL	0.22	1.00	30.89	68.91	561.01	800.0	103.32

TEMPORARY PAVEMENT MARKING SCHEDULE

STATION		PAVEMENT TEMP PVMT MRKG- LINE 4" (FT)	BRIDGE TEMP PVMT MRKG- LINE 4" (FT)	PAVEMENT TEMP PVMT MRKG- LINE 6" (FT)	BRIDGE TEMP PVMT MRKG- LINE 6" (FT)	WORK ZONE PM REMOVAL (SQ FT)	PVMT MRKG REMOVAL (SQ FT)
105+77.5 TO 107+59.00	℄ STAGE I						30.25
105+77.5 TO 107+59.00	℄ & EDGE	151.5	30.0			60.5	
107+33.5 TO 110+07.00	WALL			243.5	30.0		
108+98.00 TO 111+84.50	℄ & EDGE	265.5	30.0			98.5	
107+33.50 TO 110+07.00	WALL			243.5	30.0		
109+89.00 TO 111+84.50	℄ STAGE II						32.6
SUB-TOTAL		417.0	60.0	487.0	60.0		
TOTAL		477.0		547.0		159.0	62.85

EARTHWORK SCHEDULE

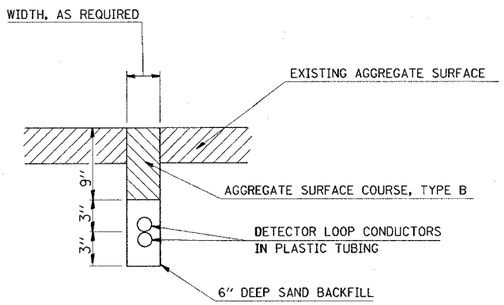
STATION	CUT (SQ FT)	FILL (SQ FT)	EARTH EXCAV. (CU YD)	EARTH EXC. ADJTD FOR SHRINK. (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BAL WASTE (+) SHORTAGE (-) (CU YD)
106+00.0	0.0	1.1				
			0.0	0.0	0.8	-0.8
106+25.0	0.0	0.7				
			0.0	0.0	0.5	-0.5
106+50.0	0.0	0.4				
			0.0	0.0	0.3	-0.3
106+75.0	0.0	0.3				
			0.0	0.0	0.6	-0.6
107+00.0	0.0	1.1				
			0.0	0.0	1.3	-1.3
107+25.0	0.0	1.7				
			0.0	0.0	1.9	-1.9
107+50.0	0.0	2.5				
			2.7	2.0	6.1	-4.0
107+75.0	5.9	10.6				
			5.4	4.0	10.5	-6.5
108+00.0	5.7	12.1				
			5.3	4.0	12.5	-8.5
108+25.0	5.8	14.8				
			2.7	2.0	6.9	-4.8
108+50.0	0.0	0.0				
109+00.0	0.0	0.0				
			3.4	2.6	4.2	-1.6
109+25.0	7.4	9.0				
			7.8	5.8	10.4	-4.6
109+50.0	9.4	13.5				
			7.8	5.8	12.3	-6.5
109+75.0	7.4	13.1				
			3.4	2.6	8.9	-6.4
110+00.0	0.0	6.2				
			0.0	0.0	4.3	-4.3
110+25.0	0.0	3.0				
			0.0	0.0	2.4	-2.4
110+50.0	0.0	2.2				
			0.0	0.0	1.8	-1.8
110+75.0	0.0	1.7				
			0.0	0.0	1.3	-1.3
111+00.0	0.0	1.0				
			0.0	0.0	1.5	-0.5
111+00.0	0.0	0.0				
TOTAL			38.5	28.9	87.5	-58.6

THERMO. PAVEMENT MARKING SCHEDULE

STATION		PAVEMENT EDGE WHITE LINE (FT)	PAVEMENT YELLOW SKIP DASH LINE 4" (FT)	BRIDGE EDGE WHITE LINE (FT)	BRIDGE YELLOW SKIP DASH LINE 4" (FT)
105+77.50 TO 107+59.00	℄		45.4		
107+59.00 TO 108+59.00	RT/LT	200.0			
107+59.00 TO 108+59.00	℄		25.0		
108+59.00 TO 108+89.00	RT/LT			60.0	
108+59.00 TO 108+89.00	℄				7.5
108+89.00 TO 109+89.00	RT/LT	200.0	25.0		
108+89.00 TO 111+84.5	℄		48.9		
SUB-TOTAL		400.0	144.3	60.0	7.5
TOTAL		544.3		67.5	

GUARDRAIL SCHEDULE

LOCATION STA		STA		SPBGR REMOVAL (FT)	TBT-T1 (SPECIAL) (EA)	SPBGR, TYA (FT)	TBT-T6A (EA)	GUARDRAIL MKRS (EA)
106+04.0	TO	108+35.5	LT		1	150	1	3
107+57.5	TO	108+35.5	LT	78.0				
107+42.5	TO	108+36.5	RT		1	12.5	1	2
107+71.5	TO	108+36.0	RT	65.0				
109+12.0	TO	111+18.5	LT		1	125	1	4
109+12.0	TO	109+88.0	LT	76.0				
109+13.0	TO	111+19.5	RT		1	125	1	3
109+13.0	TO	109+92.0	RT	79.0				
TOTAL				298.0	4	412.5	4	12



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.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES & DETECTOR LOOP DETAIL

FAP ROUTE 789
SECTION 68-BR-1
MADISON COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

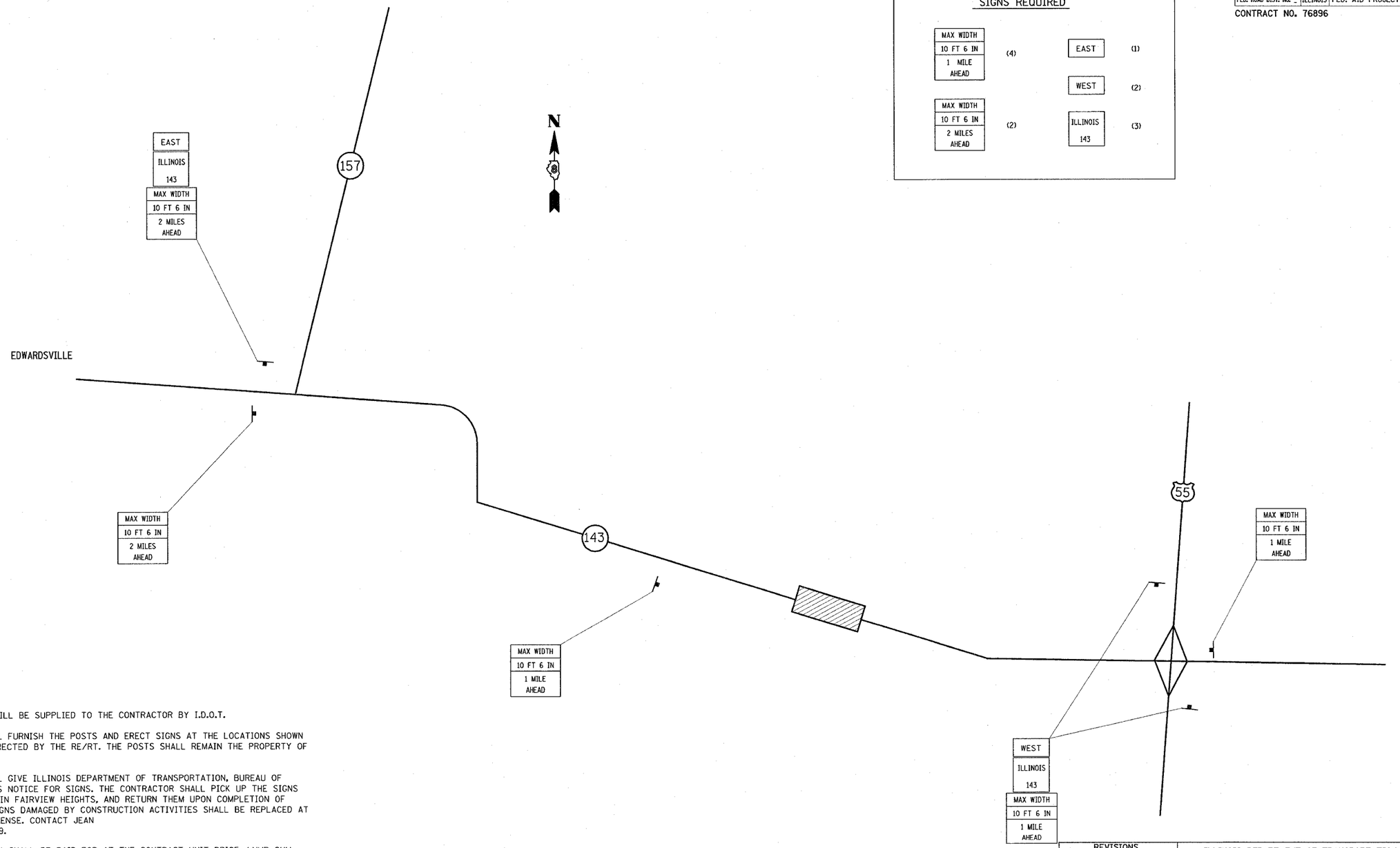
PLOT DATE = 6/29/2006
FILE NAME = c:\projects\sd1070b\plan\pln107025a.dgn
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = REF

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	68-BR-1	MADISON	23	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76896

SIGNS REQUIRED

MAX WIDTH 10 FT 6 IN 1 MILE AHEAD	(4)	EAST	(1)
		WEST	(2)
MAX WIDTH 10 FT 6 IN 2 MILES AHEAD	(2)	ILLINOIS 143	(3)



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. ANY SIGNS DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. 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'.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

WIDE LOAD SIGNING

FAP ROUTE 789
SECTION 56-BR-1
MADISON COUNTY

SCALE: VERT. HORIZ. DRAWN BY
DATE CHECKED BY

PLOT DATE = 6/29/2006
FILE NAME = c:\projects\wd1070\plan\bin1070sa.dgn
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = ANSI B

CONTRACT NO. 76965

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	56-BR-1	MADISON	23	7
STA. 106+00.00	TO STA. 112+00.00			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

TIE POINT - STA 105+06.69

MAGNAIL TOP OF LAST WOODEN GR POST TO THE NW

PUNCH HOLE NE FLANGE BOLT HYDRANT

MAGNAIL SE SIDE OF 48"Ø TREE

TIE POINT - STA 108+74.0

MAGNAIL SW SIDE OF 18"Ø ELM TREE

MAGNAIL TOP OF END WOODEN GR POST NEAR BRIDGE APPROACH

SE CORNER OF CONC. BRIDGE APPROACH

TIE POINT - STA 108+95.52

MAGNAIL SW SIDE OF 18"Ø ELM TREE

MAGNAIL TOP OF END WOODEN GR POST NEAR BRIDGE APPROACH

SE CORNER OF CONC. BRIDGE APPROACH

TIE POINT - STA 112+68.34

MAGNAIL SW SIDE OF POWER POLE W/ DEAD MAN ANCHORS

MAGNAIL IN NE SIDE OF END WOODEN GR POST

CHISELED X TOP NW CORNER OF CONC RETAINING WALL

EXIST. CURVE C2
PI STA. = 110+82.98
Δ = 14° 50' 04" (RT)
D = 3° 58' 44"
R = 1,439.96'
T = 187.46'
L = 372.82'
E = 12.15'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 108+95.52
P.T. STA. = 112+68.34

℄ EXIST. STRUCTURE STA 108+74.00

BK. EXIST. W. ABUT. STA. 108+59.00

BK. EXIST. E. ABUT. STA. 108+89.00

BEGIN PROJECT 107+59.00

END PROJECT 109+89.00

CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED

PVMT AREA 276.13 SQ YD

PVMT AREA 284.88 SQ YD

TBT-T1 1 EACH

TBT-T6A 1 EACH

RR5

EXIST. ROW

MILLING & RESURFACING AREA

SCALE: 1" = 20'

BM - RR SPIKE IN POWER POLE APPROX 100' SE OF RIDGEVIEW RD ELEVATION 510.38.

PROPOSED PROFILE GRADE LINE

EXIST. PROFILE GRADE LINE

VPI STA. 108+59.00 ELEVATION 507.85

VPI STA. 108+89.00 ELEVATION 507.75

+1.61% -0.33% -0.71%

506.24

507.04

ELEV. 503.3

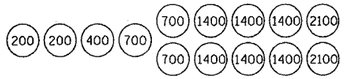
PLOT DATE = 6/30/2006
FILE NAME = c:\projects\edi\d78765\plan\pln078765a.dgn
PLOT SCALE = 20.0000 ' / IN.
USER NAME = galinh

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
AS-BUILT NOTATIONS
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

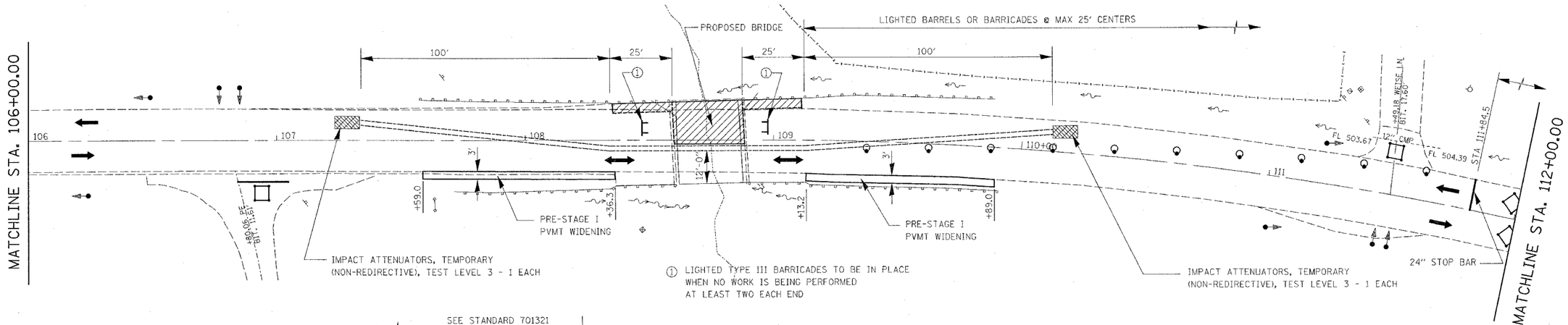
PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
AS-BUILT NOTATIONS
STRUCTURE
NOTE BOOK
NO.
BY
DATE

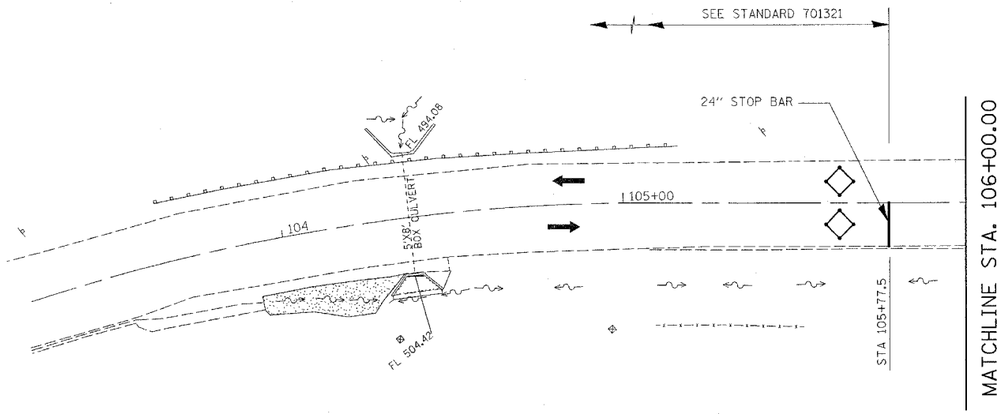
CONTRACT NO. 76965

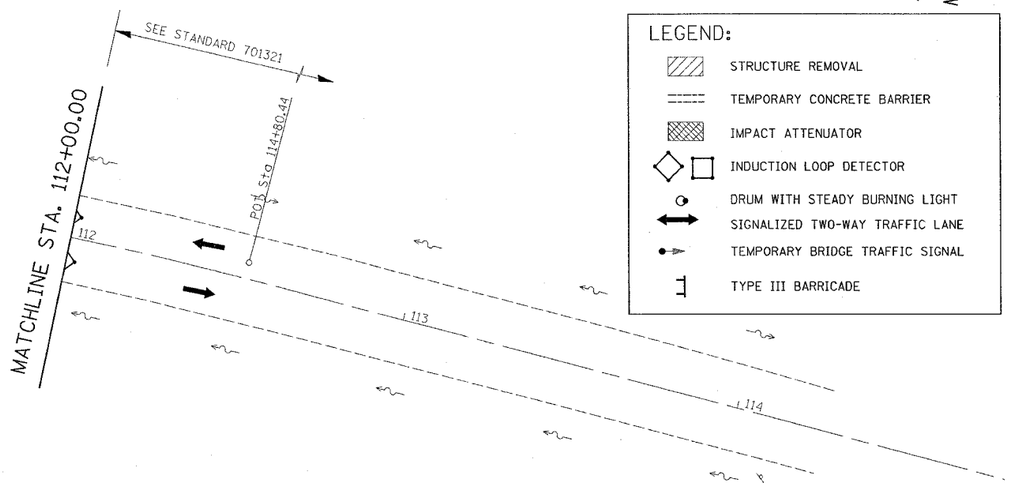
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	56-BR-1	MADISON	23	8
STA. 103+20.00	TO STA. 114+80.44			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)







LEGEND:

- STRUCTURE 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

PRE-STAGE I CONSTRUCTION:

1. PRE-STAGE I CONSTRUCTION SHALL CONSIST OF THE CONSTRUCTION OF THE 3' PAVEMENT WIDENING ON THE SOUTHEAST AND SOUTHWEST 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 SUPERSTRUCTURE, AND STAGE I CONSTRUCTION OF THE REPLACEMENT STRUCTURE. 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).

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. THE FINAL BITUMINOUS WEARING SURFACE MUST BE IN PLACE ON THE STRUCTURE PRIOR TO OPENING A LANE TO TRAFFIC.
4. REFER TO PLAN AND PROFILE SHEET TO DETERMINE LIMITS OF MILLING AND RESURFACING AREA.
5. 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"

20' 0 20' 40'
SCALE: 1" = 20'

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION

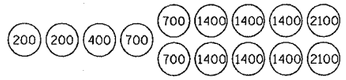
FAP ROUTE 789
SECTION 56-BR-1
MADISON COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

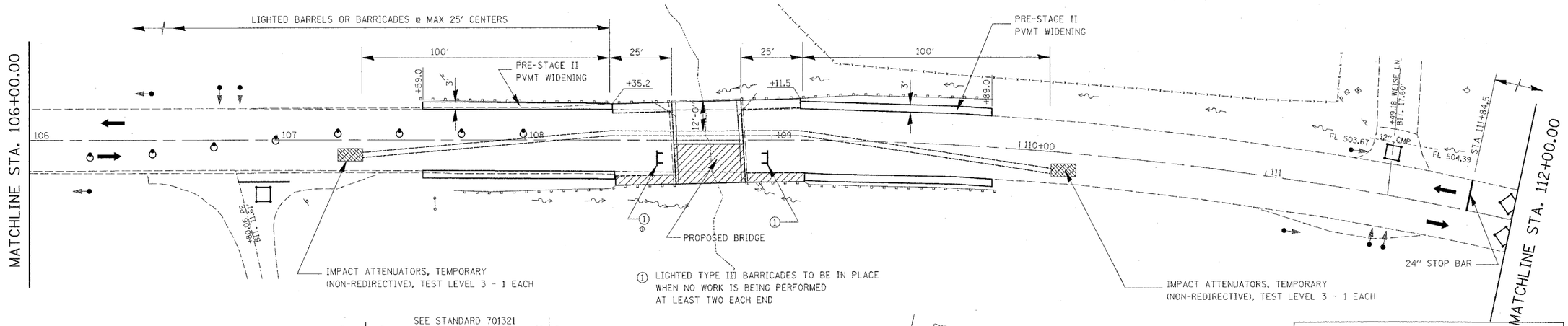
PLOT DATE = 6/29/2006
FILE NAME = c:\projects\sd107765\plan\plo107765a.dgn
PLOT SCALE = 20.0000 ' / IN.
REFERENCE = REF

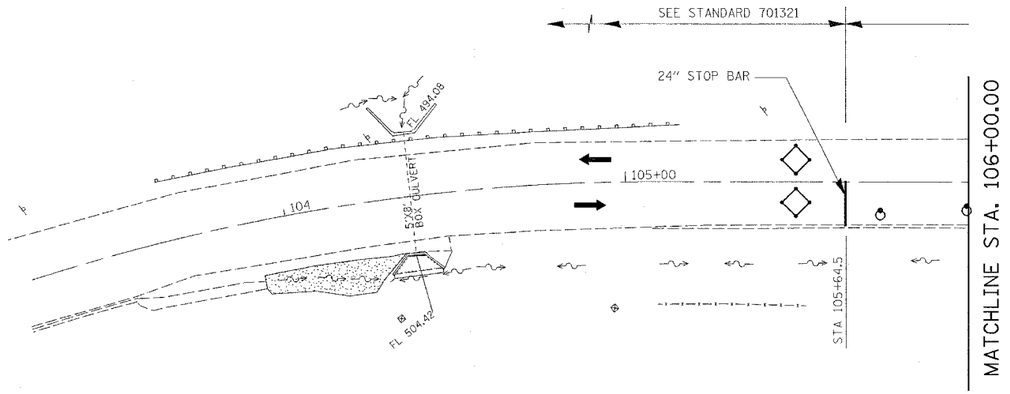
CONTRACT NO. 76965

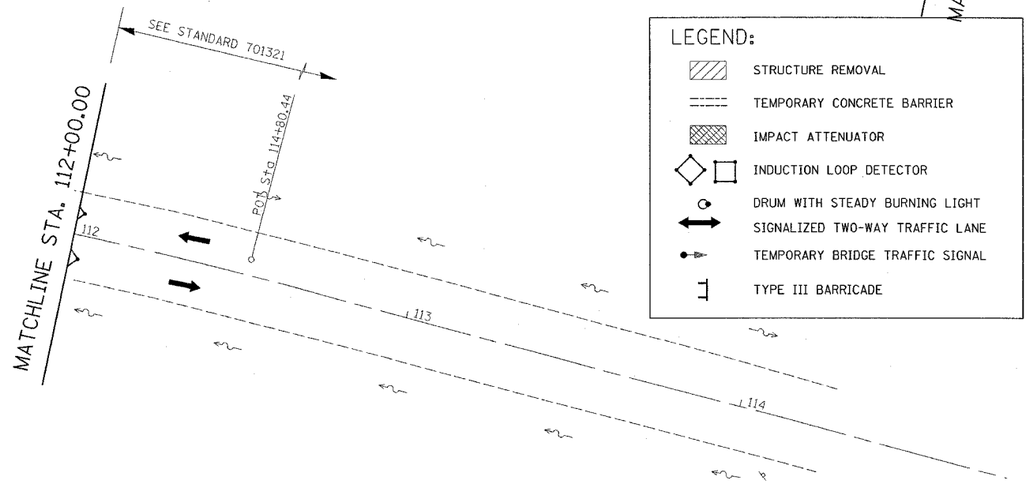
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	56-BR-1	MADISON	23	9
STA. 103+20.00	TO STA. 114+80.44			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)







LEGEND:

- STRUCTURE 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

PRE-STAGE II CONSTRUCTION:

1. PRE-STAGE II CONSTRUCTION SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF EXISTING GUARDRAILS ON THE NORTHWEST CORNER OF THE STRUCTURE AND THE CONSTRUCTION OF THE 3' PAVEMENT WIDENING ON THE NORTHEAST AND NORTHWEST CORNERS OF THE STRUCTURE. PRE-STAGE II SHOULD BE CONSTRUCTED AT THE END OF STAGE I CONSTRUCTION AND BEFORE THE REMOVAL OF THE TEMPORARY CONCRETE BARRIERS.

STAGE II CONSTRUCTION:

1. STAGE II CONSTRUCTION SHALL CONSIST OF STAGE II REMOVAL OF THE EXISTING SUPERSTRUCTURE, AND STAGE II CONSTRUCTION OF THE REPLACEMENT STRUCTURE. STAGE 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).

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. THE FINAL BITUMINOUS WEARING SURFACE MUST BE IN PLACE ON THE STRUCTURE PRIOR TO OPENING A LANE TO TRAFFIC.
4. REFER TO PLAN AND PROFILE SHEET TO DETERMINE LIMITS OF MILLING AND RESURFACING AREA.
5. 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"

20' 0 20' 40'
SCALE: 1" = 20'

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION

FAP ROUTE 789
SECTION 56-BR-1
MADISON COUNTY

SCALE: VERT.
HORIZ.
DATE
DRAWN BY
CHECKED BY

PLOT DATE = 6/29/2006
FILE NAME = c:\projects\ed07705\plan\plin07705a.dgn
PLOT SCALE = 20.0000 ' / IN.
REFERENCE = #REF#

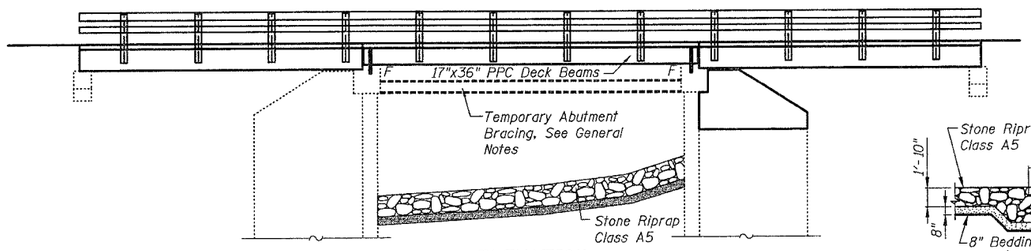
Bench Mark: BM "104" - Punch mark on NE top flange bolt on fire hydrant on the NE side of IL Route 143 & SE side of Wiese Lane, approximately 200' NW of Ridgeview Road and SE of Bridge. Elev. 508.74

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

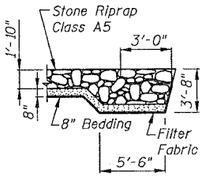
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 789	56-BR-1	MADISON	23	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
8 SHEETS

Contract #76965

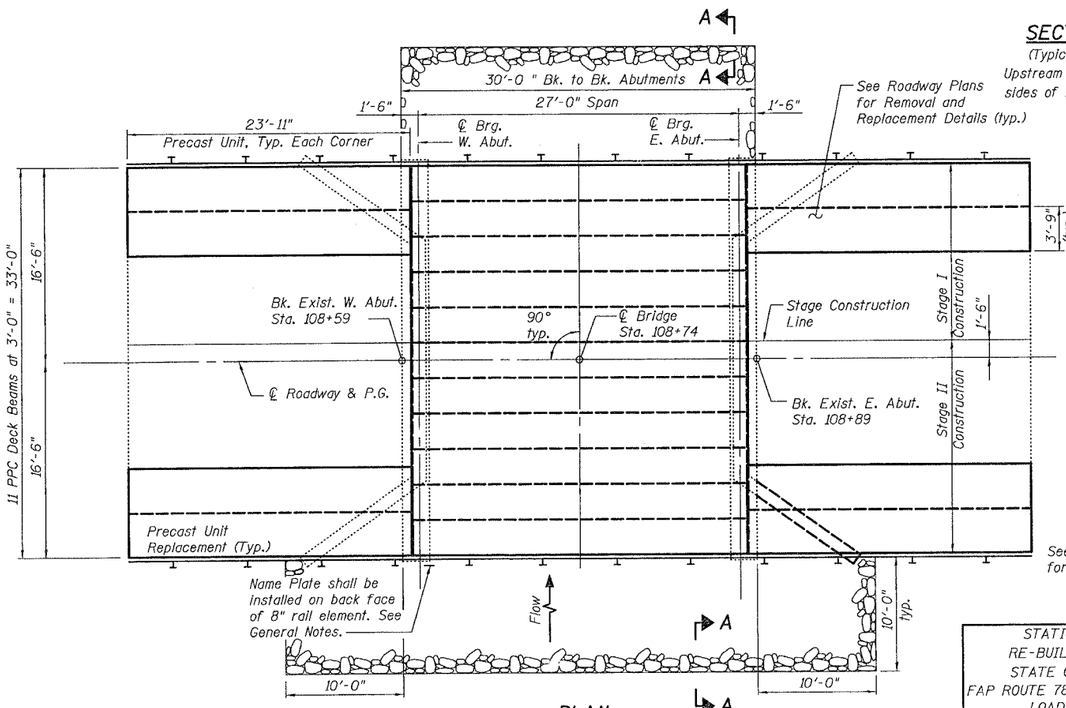


ELEVATION



SECTION A-A

(Typical along both Upstream and Downstream sides of Riprap Treatment)



PLAN

See Roadway Plans for guardrail (typ.).

GENERAL NOTES

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 work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Existing name plate shall be cleaned and relocated adjacent to the new name plate. Cost included with Name Plates.

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.

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

The Contractor is advised that the existing PPC 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.

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.

Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing Superstructures.

The minimum thickness of bituminous overlay shall be $1\frac{1}{2}$" and varies as required to adjust for the new profile grade and camber.

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

The Contractor is advised that due to the lack of vertical reinforcement in the back of the abutment walls a temporary bracing system must be provided prior to the removal of the existing PPC deck beams in order to ensure stability of the abutments. The bracing system shall provide lateral support along the top of the existing abutment walls and be in place until all beams are set, dowel bars are installed and shear key grout is allowed to cure a minimum of seven days. The details must be submitted to the Engineer for approval. Cost to be included with Removal of Existing Superstructures.

The top surface of the beams shall be finished according to Article 504.06 of the Standard Specification 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.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.	——	180	180
Filter Fabric	Sq. Yd.	——	180	180
Removal of Existing Superstructures	L. Sum	1	——	1
Concrete Removal	Cu. Yd.	——	0.2	0.2
Concrete Structures	Cu. Yd.	——	0.5	0.5
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	——	2	2
Precast Concrete Bridge Slab	Sq. Ft.	359	——	359
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	930	——	930
Reinforcement Bars, Epoxy Coated	Pound	——	30	30
Steel Bridge Rail, Type SM	Foot	153	——	153
Name Plates	Each	1	——	1
Waterproofing Membrane System	Sq. Yd.	110	——	110
Portland Cement Mortar Fairing Course	Foot	282	——	282
Removal of Existing Precast Unit	Sq. Ft.	359	——	359
Bituminous Concrete Surface Course Superpave, Mix "C" N50	Ton	11	——	11

LOADING HS20-44

No allowance for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'_c = 5,000 psi
f'_{ci} = 4,000 psi
f'_s = 270,000 psi ($\frac{1}{2}$"ϕ low lax. strands)
f_{si} = 201,960 psi ($\frac{1}{2}$"ϕ low lax. strands)

PRECAST UNITS

f'_c = 4,500 psi
f_c = 1,800 psi
f'_s = 20,000 psi
n = 8

WATERWAY INFORMATION

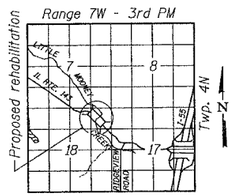
Drainage Area = 1.33 Sq. Mi. Low Grade Elev. 506.8 @ Sta. 115+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	1,310	95		502.1	1.5		503.6	
Base	100	1,530	104		502.5	1.9		504.4	
Overtopping									
Max. Calc.	500	1,760	123		503.3	1.7		505.0	

STATION 108+74
RE-BUILT 200_ BY
STATE OF ILLINOIS
FAP ROUTE 789 - SEC 56-BR-1
LOADING HS20
STR. NO. 060-0147

NAME PLATE

See Std. 515001



LOCATION SKETCH

Plans Prepared By:
Oates Associates, Inc.

LICENSED STRUCTURAL ENGINEER
BRUCE P. SCHOPP
081-005158
COLLINSVILLE, ILLINOIS
STATE OF ILLINOIS

06/29/06

EXPIRES 11/30/06

GENERAL PLAN & ELEVATION
IL ROUTE 143 OVER LITTLE MOONEY CREEK
F.A.P. ROUTE 789 - SECTION 56-BR-1
MADISON COUNTY
STA. 108+74
STRUCTURE NO. 060-0147

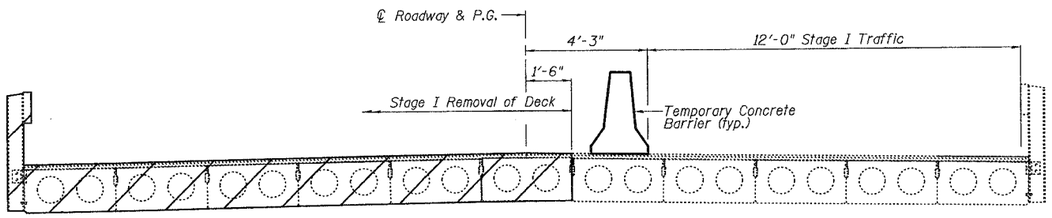
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

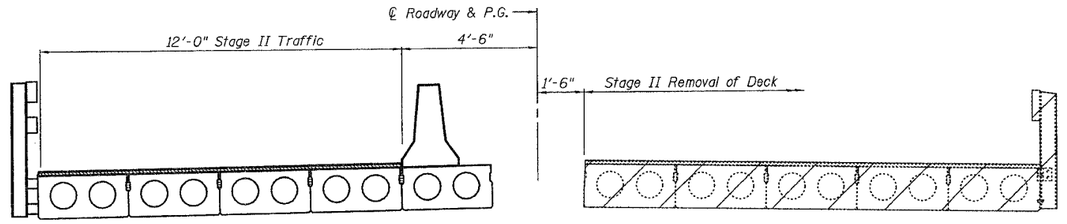
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 789	56-BR-1	MADISON	23	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
8 SHEETS

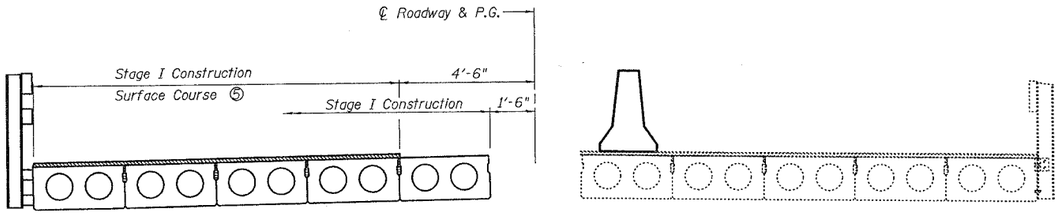
Contract #76965



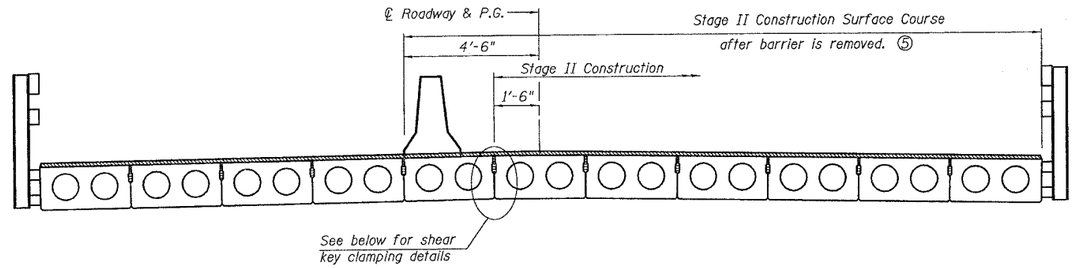
STAGE I REMOVAL
(Looking East)



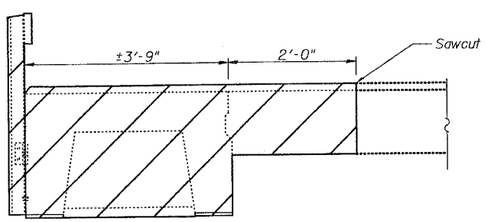
STAGE II REMOVAL
(Looking East)



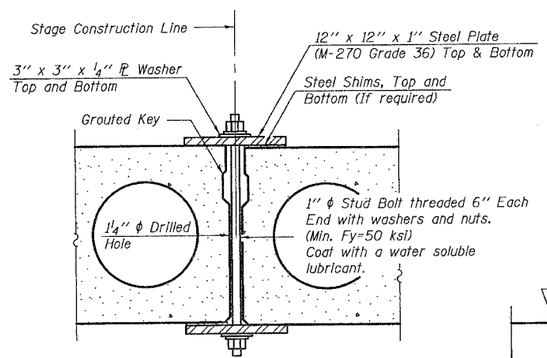
STAGE I CONSTRUCTION
(Looking East)



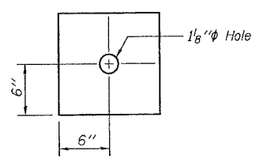
STAGE II CONSTRUCTION
(Looking East)



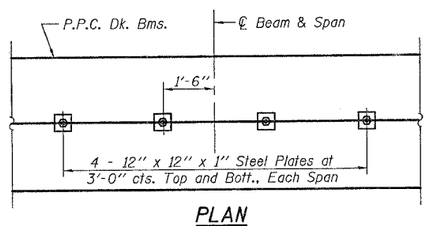
APPROACH SLAB REMOVAL SECTION



SECTION



CLAMPING PLATE



PLAN

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Notes:
① For quantity of Temporary Concrete Barrier, see roadway plans.
② For details of Temporary Concrete Barrier, see sheet 3 of 8.
③ See Special Provisions for Stage Construction Precast Prestressed Concrete Deck Beams.
④ Cost of shear key clamps is included with Precast Prestressed Concrete Deck Beams (17" Depth).
⑤ See sheet 3 of 8 for Surface Course and Waterproofing Membrane System detail and notes.

STAGE CONSTRUCTION DETAILS
IL ROUTE 143 OVER LITTLE MOONEY CREEK
F.A.P. ROUTE 789 - SECTION 56-BR-1
MADISON COUNTY
STA. 108+74
STRUCTURE NO. 060-0147

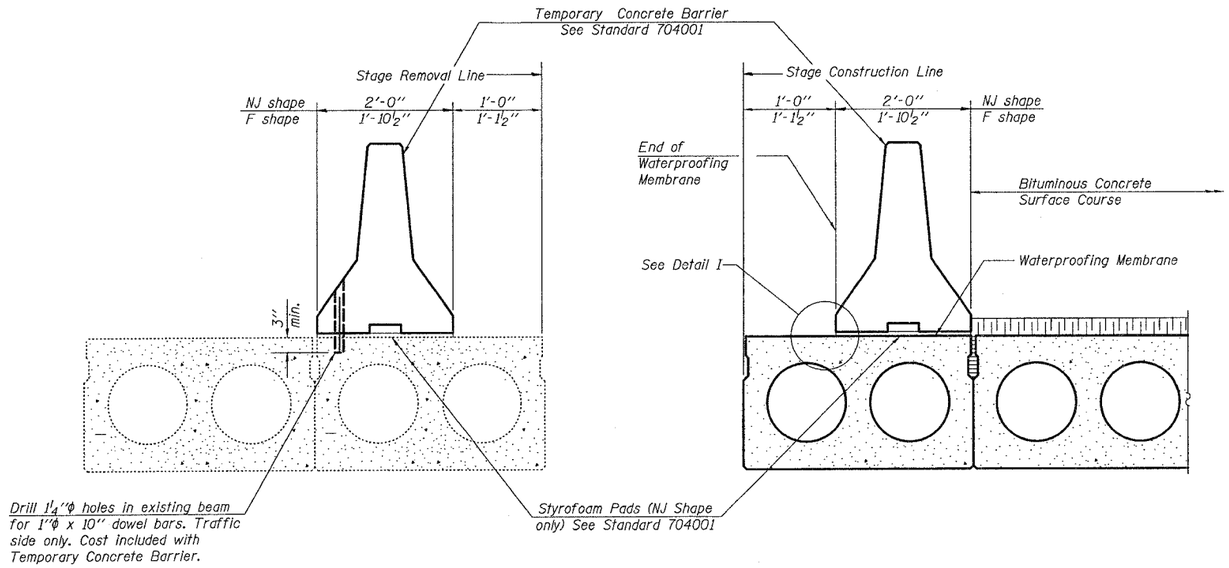
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 789	56-BR-1	MADISON	23	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
8 SHEETS

Contract #76965

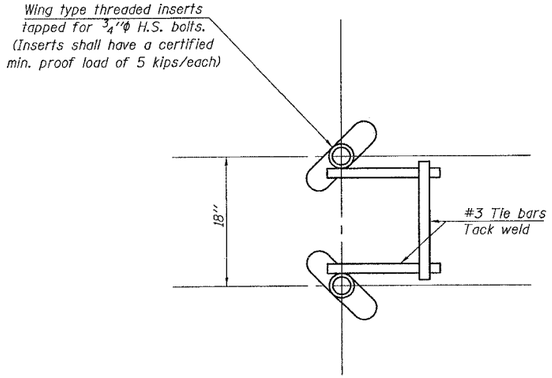
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



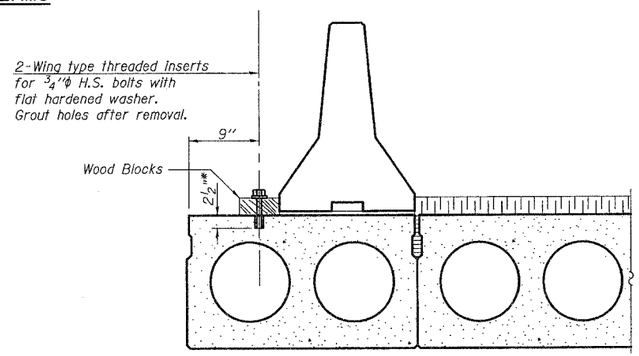
EXISTING PPC DECK BEAMS

NEW PPC DECK BEAMS

SECTIONS THRU PPC DECK BEAMS



INSERT DETAIL



*Type of insert selected shall be such that insert depth does not interfere with void.

DETAIL I

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.

NOTES

The ¾"ϕ 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 fiber-glass 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 Concrte Deck Beams (17" Depth).

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
IL ROUTE 143 OVER LITTLE MOONEY CREEK
F.A.P. ROUTE 789 - SECTION 56-BR-1
MADISON COUNTY
STA. 108+74
STRUCTURE NO. 060-0147

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
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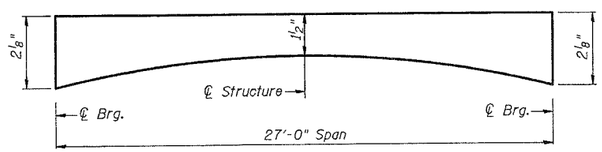
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 789	56-BR-1	MADISON	23	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

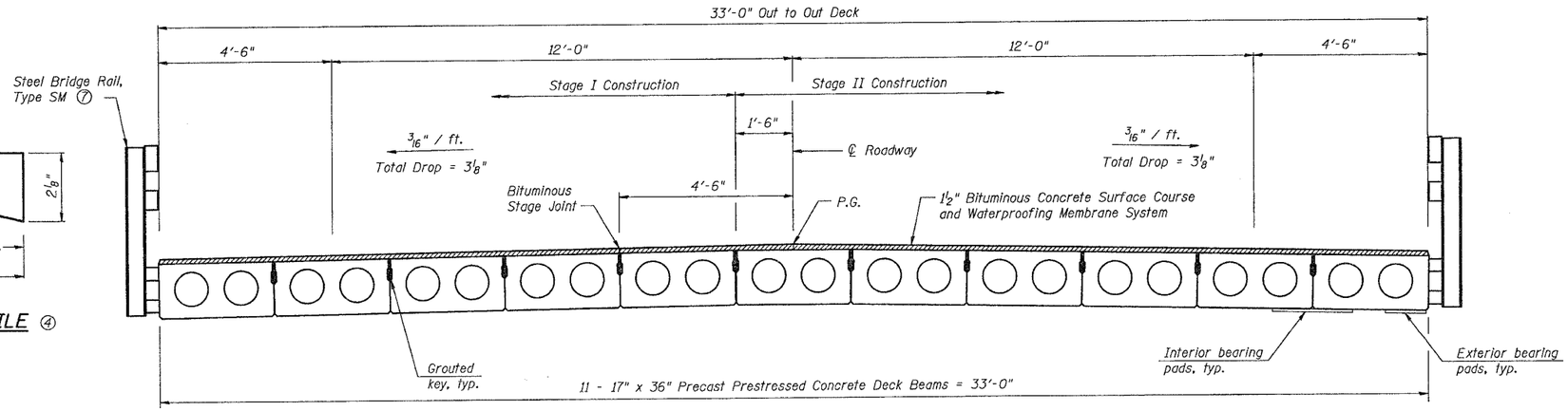
SHEET NO. 4
8 SHEETS

Contract #76965

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

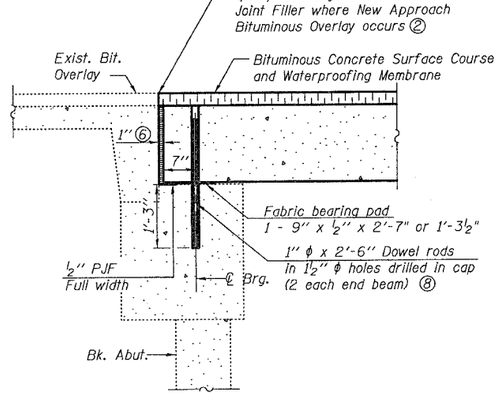


BITUMINOUS CONCRETE SURFACE COURSE PROFILE ④



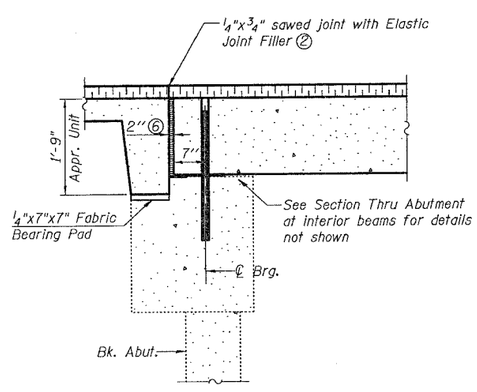
CROSS SECTION

(Looking East)



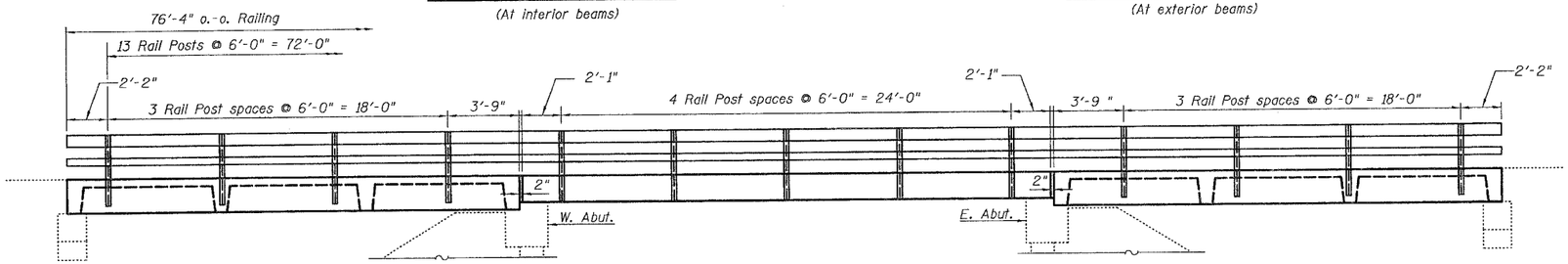
SECTION THRU ABUTMENT

(At interior beams)



SECTION THRU ABUTMENT

(At exterior beams)



TYPE SM STEEL BRIDGE RAIL SIDE MOUNTED RAIL POST SPACING ⑦

Notes:

1. 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.
2. Dowel rods drilled in cap, Elastic Joint Filler, and PJF are included in the cost of Precast Prestressed Concrete Deck Beams (17" depth).
3. See sheet 5 of 8 for bearing pad details.
4. Thicknesses shown are for Beams 1 thru 5 and 7 thru 11. Thickness for Beam 6 will vary from those shown at beam edges to ¼" additional at ℄ Roadway.
5. Bituminous Concrete Surface Course and Waterproofing Membrane to be placed after grouting the shear keys and applying Portland Cement Mortar Fairing Course.
6. End Joint shall be filled with non-shrink grout. Dimension may vary to accommodate tolerance in beam lengths. Cost included with Precast Prestressed Concrete Deck Beams (17" depth).
7. For details of Type SM Steel Bridge Rail Side Mounted, see sheet 7 of 8.
8. Existing dowel rods shall be burned off flush with the top of the existing concrete. Cost to be included in the cost of Removal of Existing Superstructures.

SUPERSTRUCTURE DETAILS
IL ROUTE 143 OVER LITTLE MOONEY CREEK
F.A.P. ROUTE 789 - SECTION 56-BR-1
MADISON COUNTY
STA. 108+74
STRUCTURE NO. 060-0147

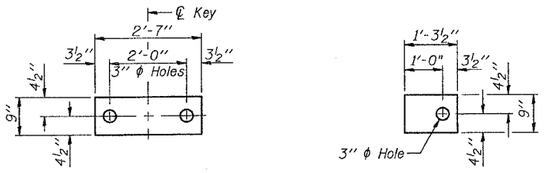
PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 789	56-BR-1	MADISON	23	14
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
8 SHEETS

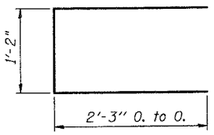
Contract #76965



FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

FIXED



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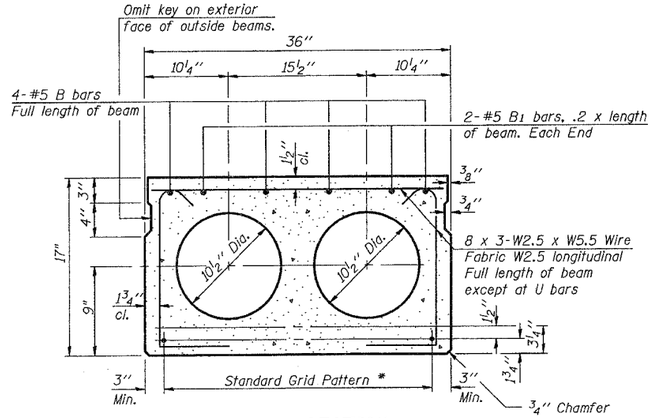
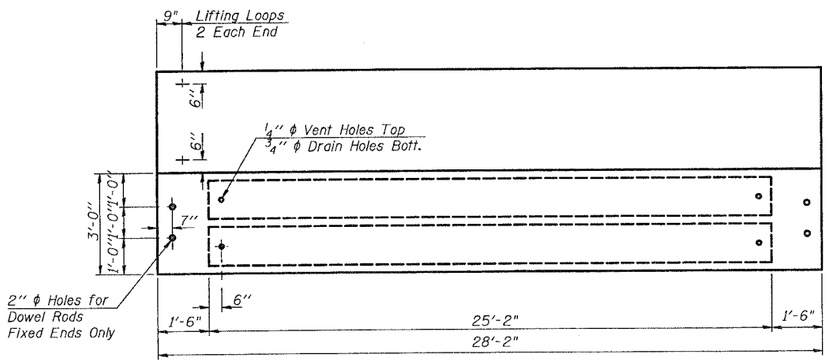
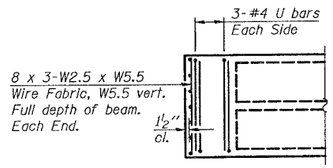


TYPICAL SECTION

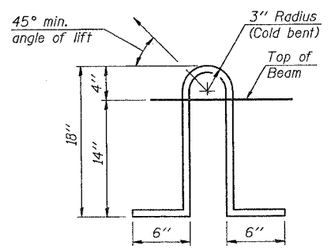
½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6-Strands 1¾" up, 4-Strands 3¼" up



PLAN



END PLAN



LIFTING LOOP DETAIL

* Transverse Strand Placement Guidelines

1. Place strands symmetrically about centerline of beam.
2. The minimum distance from center to center of strands in all directions shall be 2".
3. The minimum clearance from strand to dowel hole shall be ½".
4. The minimum clearance from strand to void shall be 1½".

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

NOTES

① Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
② The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.
③ Lifting loops shall be 2-½" ϕ-270 ksi strands, as shown.
④ The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
⑤ 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.
⑥ Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
⑦ Required Release Strength, f'ci, shall be 4,000 p.s.i.
⑧ Temporary Concrete Barrier inserts shall be cast in precast beams along Stage Construction Joint. See sheet 3 of 8 for location of inserts.
⑨ Each beam shall have four lifting loops, two cast in each end as shown. Loops shall be burned off after beams have been erected.

SUPERSTRUCTURE BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	930

SUPERSTRUCTURE DETAILS
IL ROUTE 143 OVER LITTLE MOONEY CREEK
F.A.P. ROUTE 789 - SECTION 56-BR-1
MADISON COUNTY
STA. 108+74
STRUCTURE NO. 060-0147

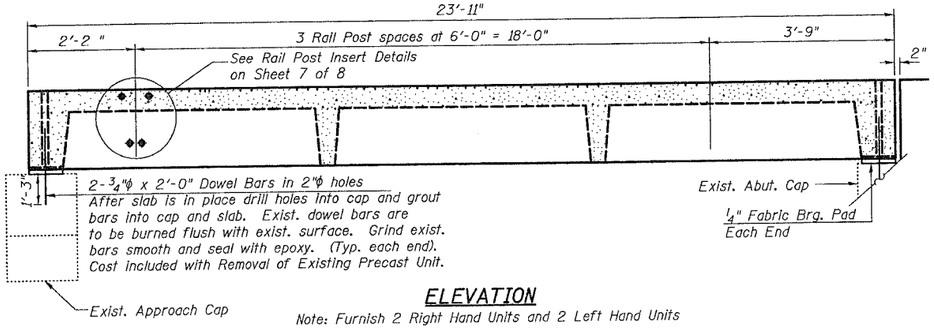
PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 789	56-BR-1	MADISON	23	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

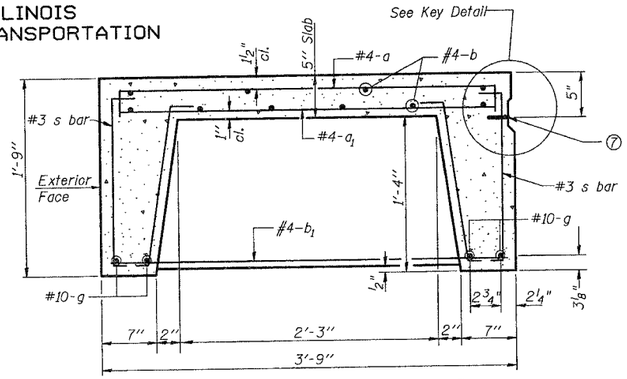
SHEET NO. 6
8 SHEETS

Contract # 76965

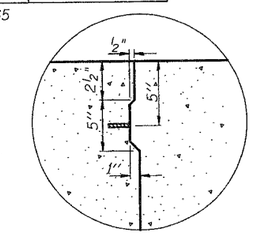


ELEVATION

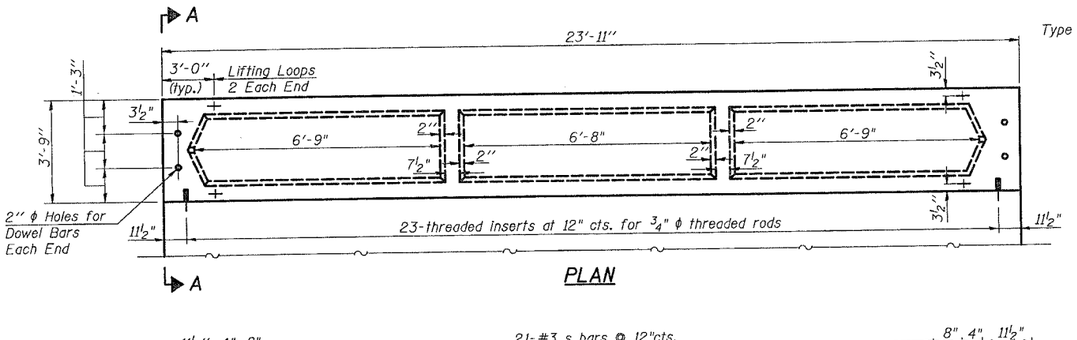
Note: Furnish 2 Right Hand Units and 2 Left Hand Units



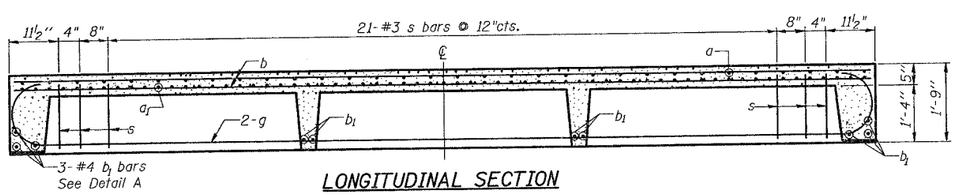
SECTION THRU PRECAST UNIT



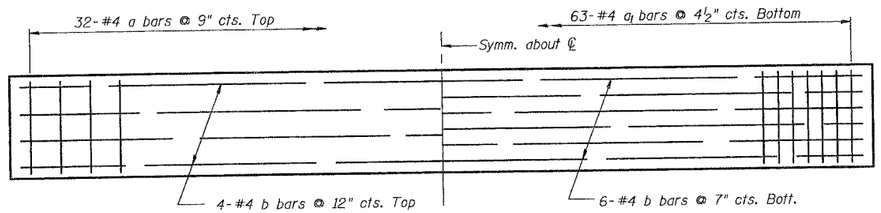
KEY DETAIL



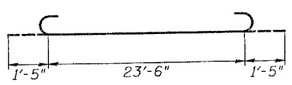
PLAN



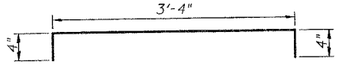
LONGITUDINAL SECTION



SLAB REINFORCEMENT



BAR a



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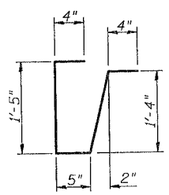
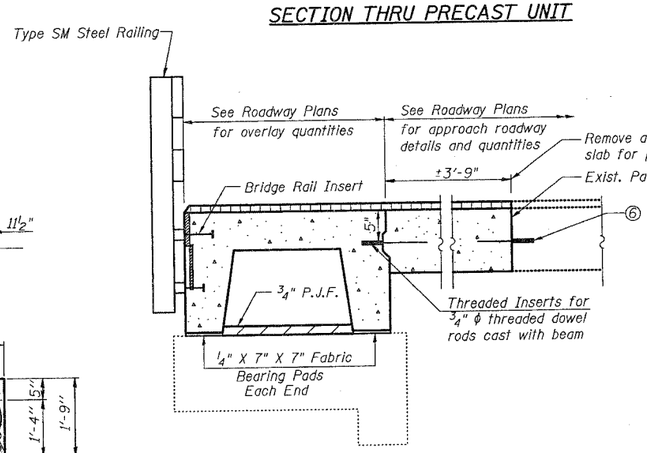


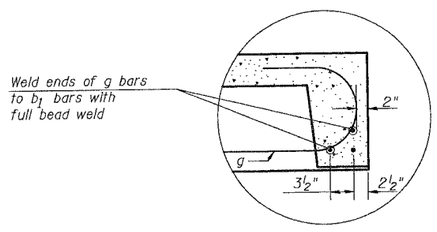
BAR s

FABRIC BEARING PADS

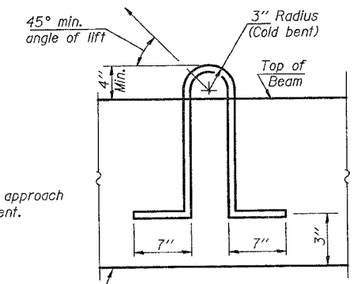
1/4" Thick Fabric Pads-16 Required



SECTION A-A



DETAIL A



LIFTING LOOP DETAIL

Approved alternate may be substituted for the above.

NOTES

① Cost of reinforcement and accessories cast into slab unit, bearing pads, furnishing, drilling for, placing and grouting anchor dowels and 3/4" ϕ dowel rods is included in Unit bid price for Precast Concrete Bridge Slab.
② See Roadway Plans for Approach Slab Details.
③ Bridge rail inserts shall be cast in precast beams. See Sheet 4 of 8 for rail post spacing and sheet 7 of 8 for rail details.
④ Lifting loops shall be 2-1/2"-270 ksi strands, as shown. Strands shall conform to the requirements of AASHTO M203
⑤ The Precast Concrete Bridge Slab shall be erected and aligned with the exterior face of the exterior Deck Beam after Deck Beams are in final position.
⑥ Epoxy Grout bars 9" into existing approach in accordance with Article 584 of the Standard Specifications.
⑦ Threaded inserts with 3/4" ϕ threaded dowel rods cast with beam @ 12" cts. Cost included with Precast Concrete Bridge Slab.
⑧ Tack welding of stirrups to bottom longitudinal reinforcement bars will not be permitted except as otherwise authorized in writing by the Engineer.

The surface of the member shall not deviate more than 1/1200 of the full length of the member from a straight line connecting the two end points on the member's surface. In addition to State inspection and prior to erection, the beam shall be approved by the resident Engineer at the jobsite. The units shall remain on the bottom supporting forms until the concrete has attained a compressive strength of not less than 3,500 pounds per square inch.

BILL OF MATERIAL

ITEM	UNIT	QUAN.
Precast Concrete Bridge Slab	Sq. Ft.	359
Removal of Existing Precast Unit	Sq. Ft.	359

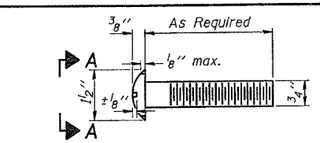
APPROACH BEAM DETAILS
IL ROUTE 143 OVER LITTLE MOONEY CREEK
F.A.P. ROUTE 789 - SECTION 56-BR-1
MADISON COUNTY
STA. 108+74
STRUCTURE NO. 060-0147

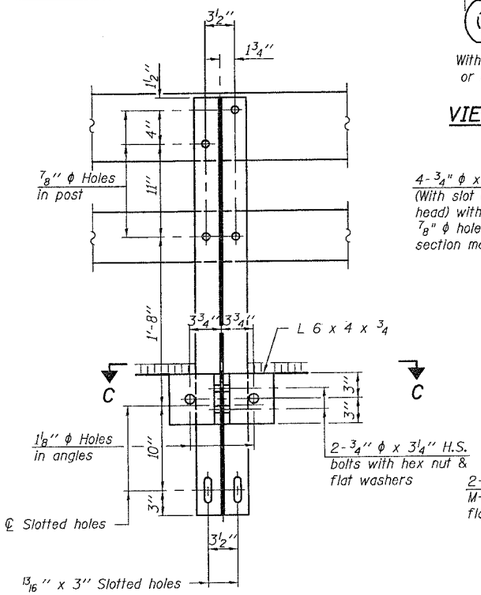
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 789	56-BR-1	MADISON	23	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

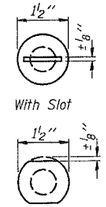
SHEET NO. 7
8 SHEETS
Contract #76965

DETAIL OF $\frac{3}{4}$" ϕ ROUND HEAD BOLT

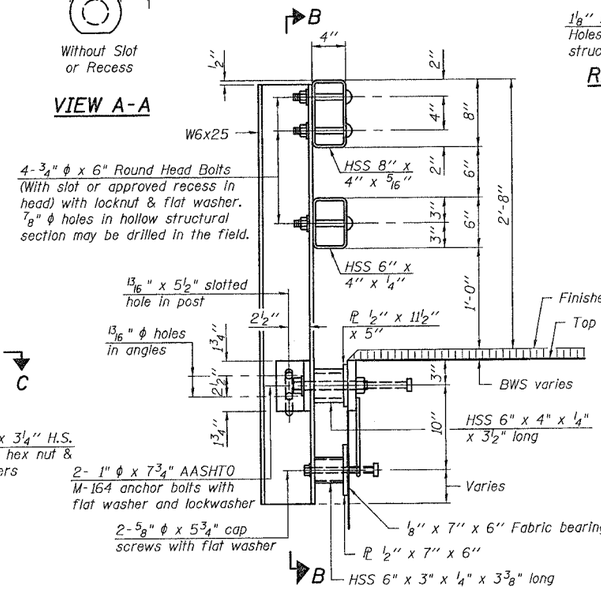




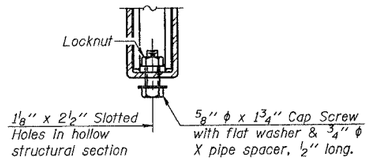
SECTION B-B



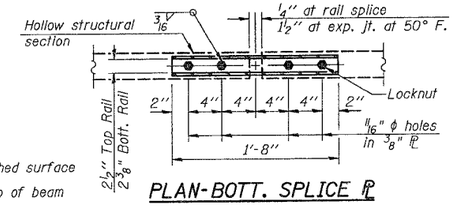
VIEW A-A



SECTION AT RAIL POST

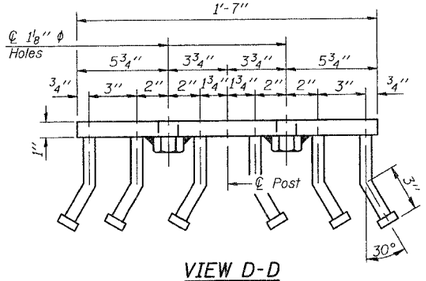


RAIL SPLICE CONNECTION AT EXPANSION JT.

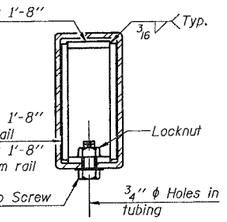


PLAN-BOTT. SPLICE PL TYPICAL

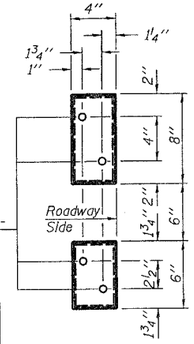
℄ -5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



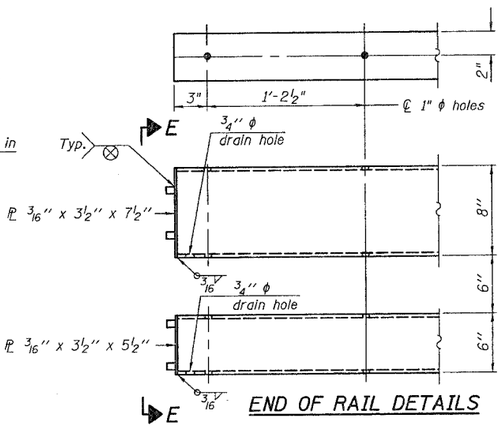
VIEW D-D



SECTION AT RAIL SPLICE



VIEW E-E



END OF RAIL DETAILS

NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM.

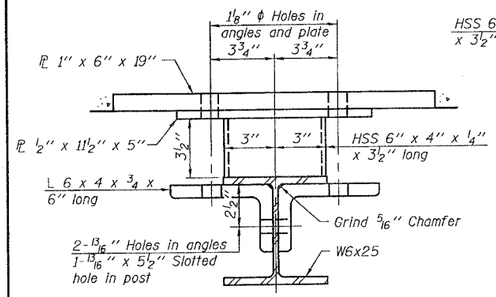
All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.

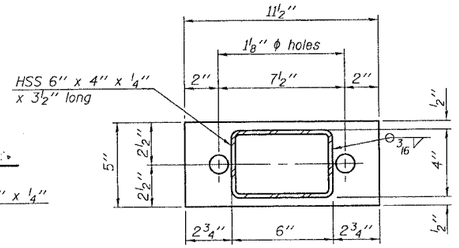
The 3/4" ϕ high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1" ϕ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" ϕ cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

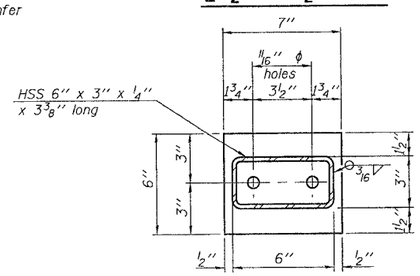
Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	153



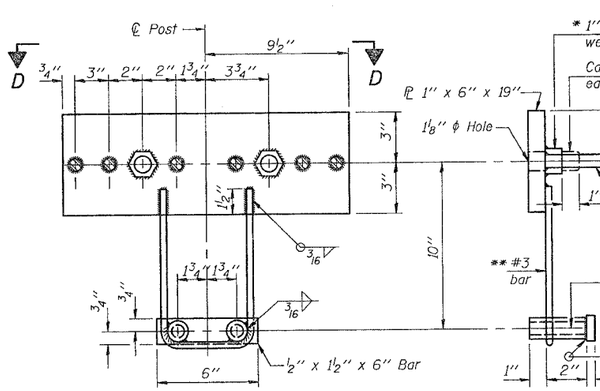
SECTION C-C



PL 1/2" x 11 1/2" x 5"



PL 1/2" x 7" x 6"



ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

TYPE SM
STEEL BRIDGE RAIL SIDE MOUNTED WITH BITUMINOUS WEARING SURFACE
IL ROUTE 143 OVER LITTLE MOONEY CREEK
F.A.P. ROUTE 789 - SECTION 56-BR-1
MADISON COUNTY
STA. 108+74
STRUCTURE NO. 060-0147

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

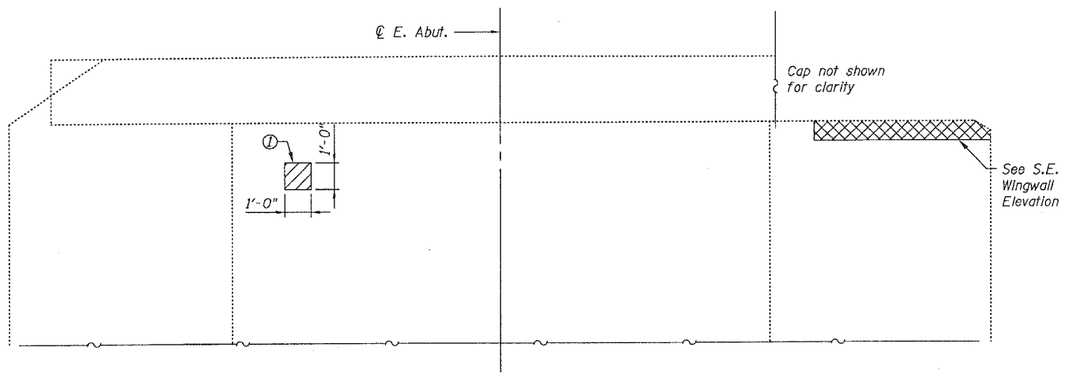
R-34BWS 10-28-05 (6'-3" Maximum Post Spacing) (11/4" minimum to 3 1/8" maximum BWS thickness)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

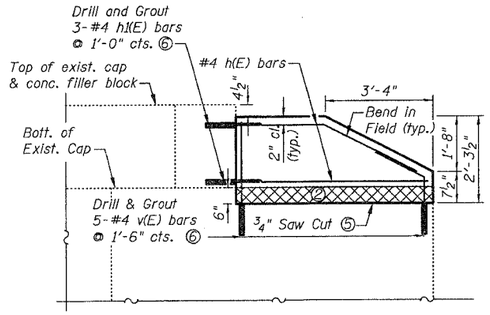
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 789	56-BR-1	MADISON	23	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

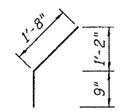
SHEET NO. 8
8 SHEETS

Contract #76965



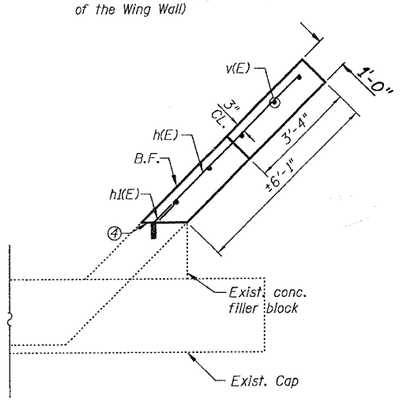
EAST ABUTMENT
(Looking East)





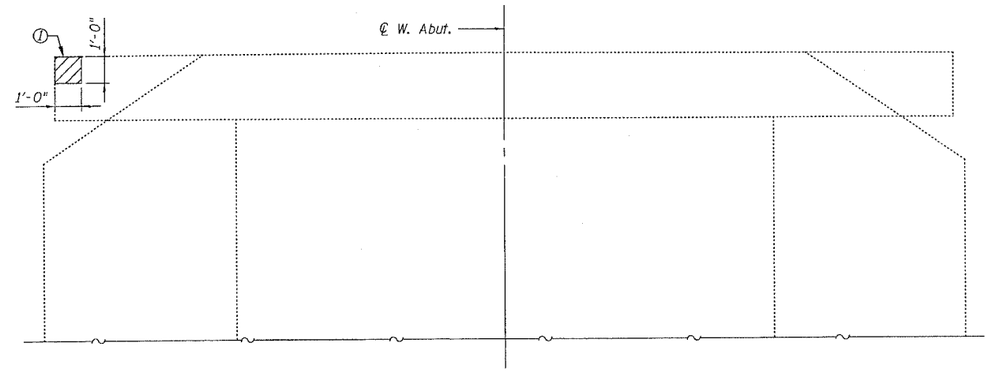
BAR h1(E)

S.E. WING WALL ELEVATION
(Dim. measured along the length of the Wing Wall)

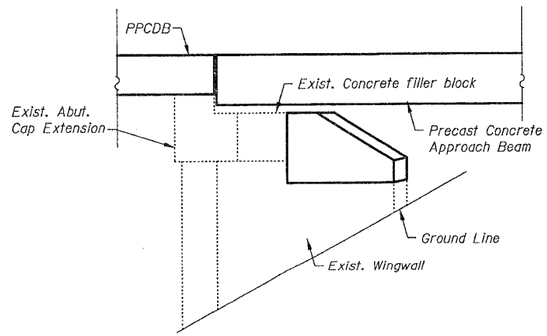


S.E. WING WALL PLAN

Note:
1. Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.
2. Cross hatched area indicates area of Concrete Removal.
3. Reinforcement bars designated (E) shall be epoxy coated.
4. Delaminated and loose concrete to be removed from face of filler block before drilling and grouting h1(E) bars. Cost to be included with Reinforcement Bars, Epoxy Coated.
5. Existing reinforcemnt bars are to be cleaned and incorporated into new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
6. Epoxy grout h1(E) and v(E) bars in ¾"ϕ x 9" minimum drilled holes. The grout and the method of application shall be approved by the Engineer. See Section 584 of the Standard Specification.



WEST ABUTMENT
(Looking West)



ABUTMENT END VIEW

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	3	#4	6'-5"	
h1(E)	3	#4	2'-5"	
v(E)	5	#4	3'-2"	
Structural Repair Of Concrete (≤5")			Sq. Ft.	2
Reinforcement Bars, Epoxy Coated			Pound	30
Concrete Removal			Cu. Yd.	0.2
Concrete Structures			Cu. Yd.	0.5

ABUTMENT REPAIRS
IL ROUTE 143 OVER LITTLE MOONEY CREEK
F.A.P. ROUTE 789 - SECTION 56-BR-1
MADISON COUNTY
STA. 108+74
STRUCTURE NO. 060-0147

PLOT DATE = $DATE$
FILE NAME = $FILEL$
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CONTRACT NO. 76965

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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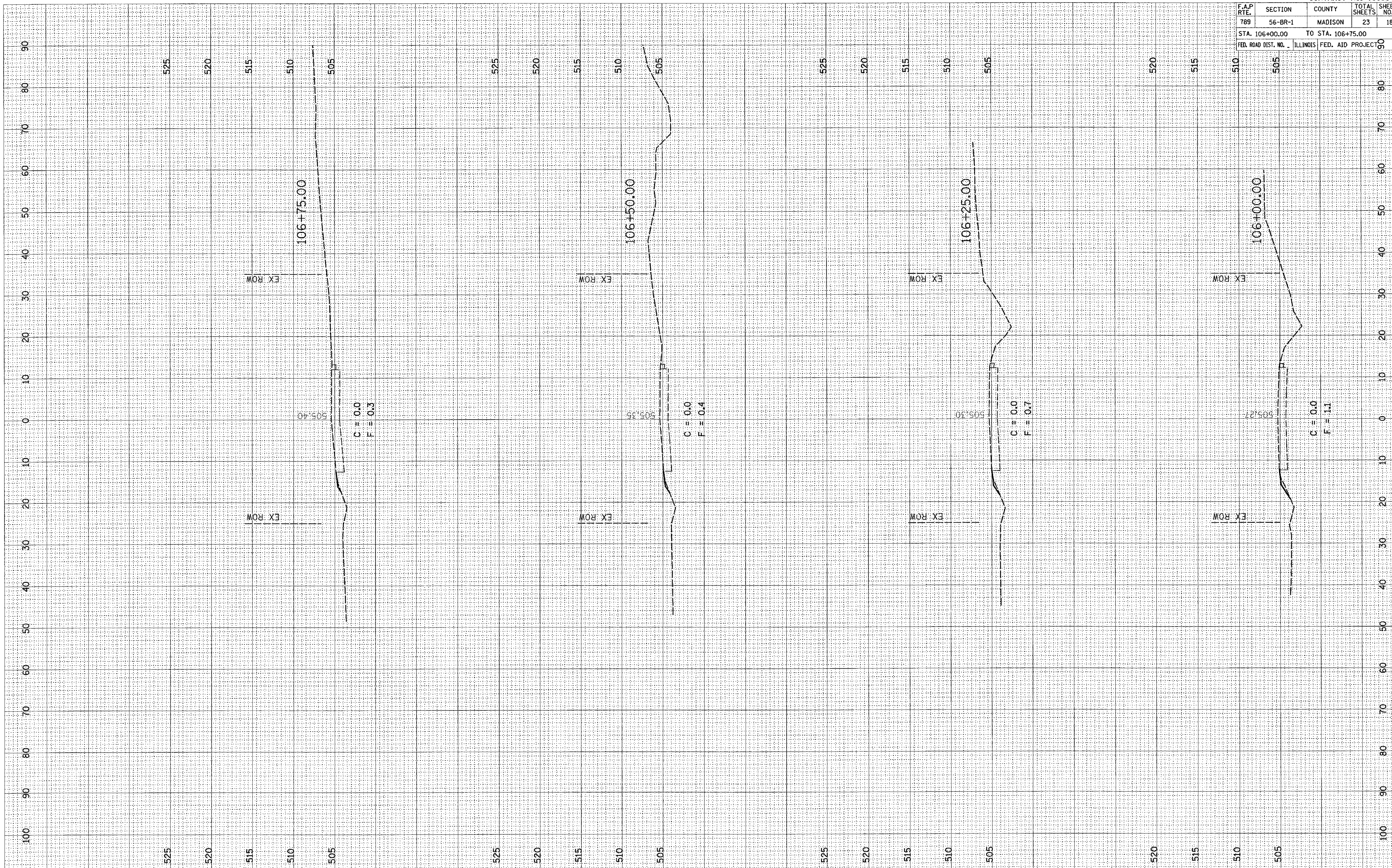
STA. 106+00.00 TO STA. 106+75.00

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



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CONTRACT NO. 76965

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

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505.48
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F = 1.1
EX ROW

107+25.00
505.80
C = 0.0
F = 1.7
EX ROW

107+50.00
506.11
C = 0.0
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EX ROW

107+75.00
506.90
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EX ROW

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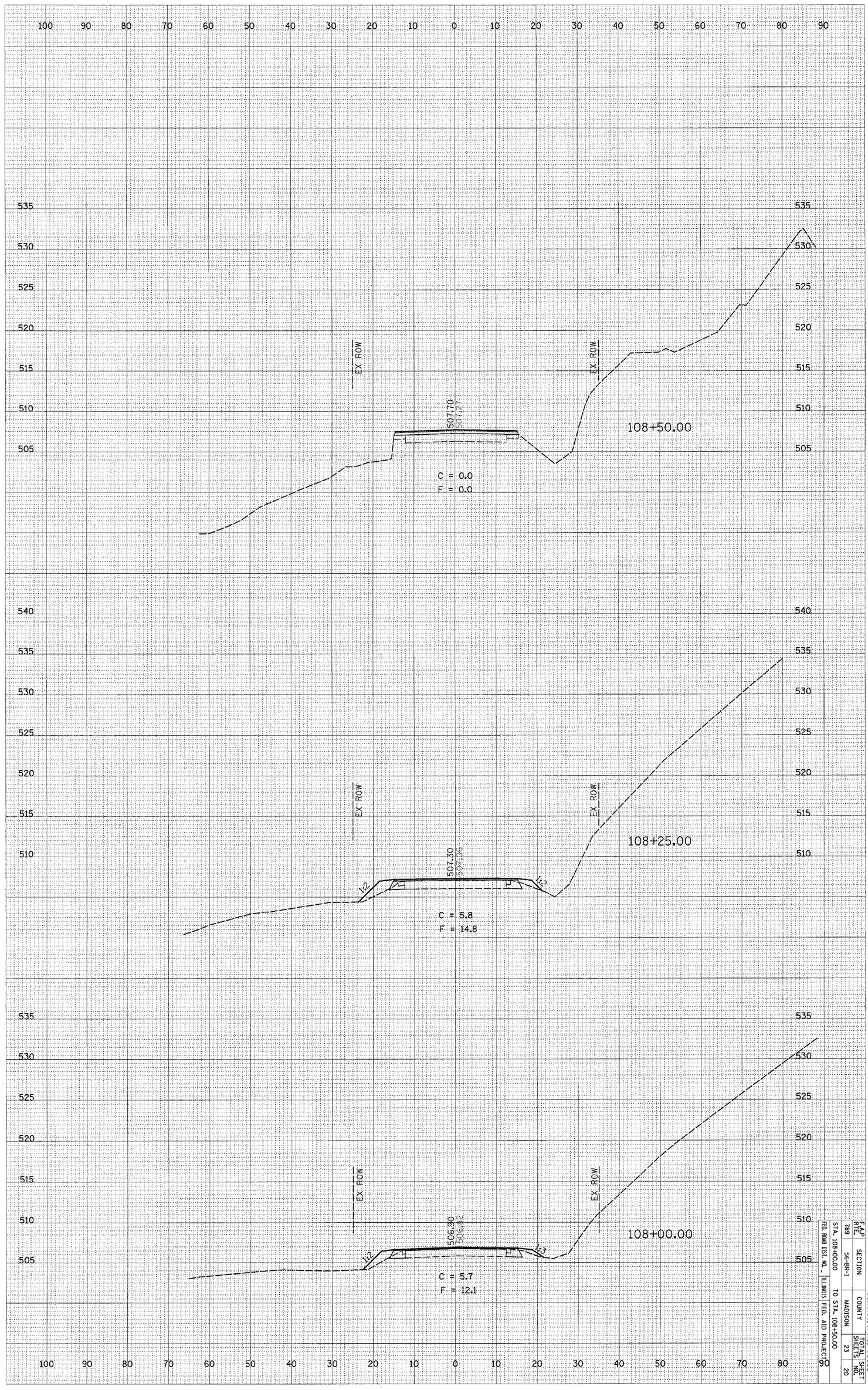

CONTRACT NO. 76985

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

CONTRACT NO. 76965

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
789	56-BR-1	MADISON	23	21
STA. 109+00.00		TO STA. 109+75.00		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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	TYPED		
	AREAS		
NO.	AREAS CHECKED		

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EX ROW

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109+50.00

EX ROW

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EX ROW

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109+00.00

EX ROW

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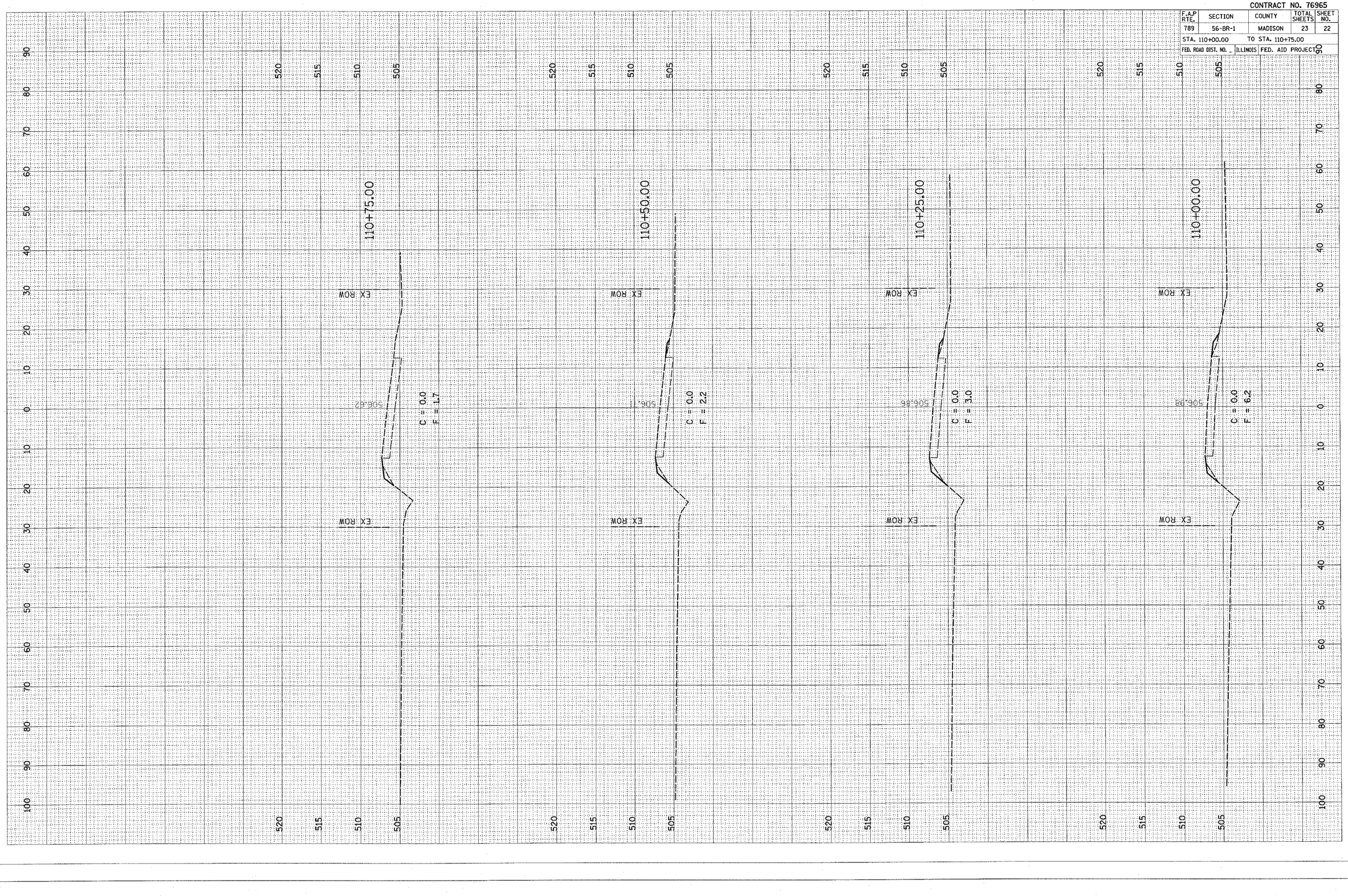

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STA. 111+00.00 TO STA. 111+25.00

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