8-3-07 Letting, Item 106

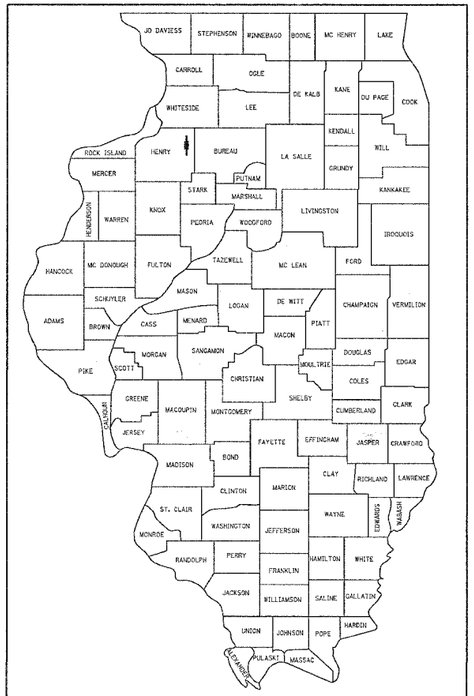
PROJECT ENGINEER: REBECCA MARRUFFO

SENIOR SQUAD LEADER: BRAD CUSHMAN(815)-284-5996

CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	1

D-92-092-07



LOCATION OF SECTION INDICATED THUS:- ▬▬

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

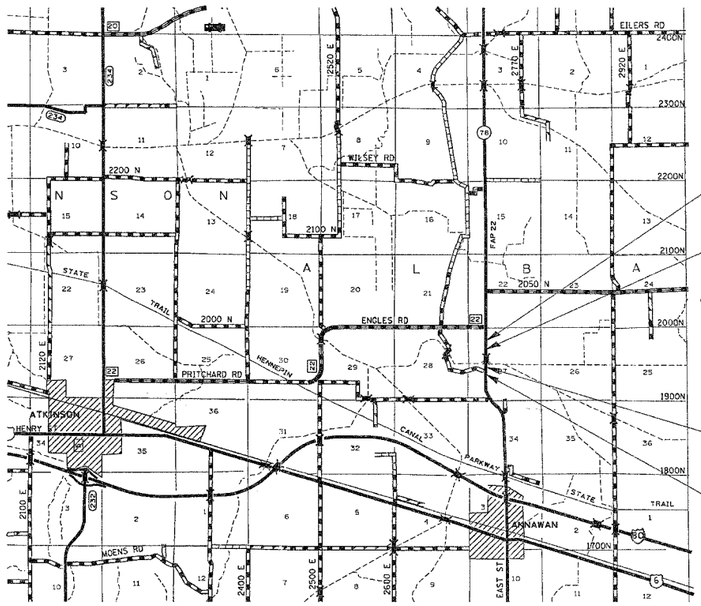
PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 22 (IL 78)
SECTION (125BR-2)D
PROJECT BHF-0022(067)
HENRY COUNTY
C-92-112-07

STATE STANDARDS

001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND A FOOT
280001-03	TEMPORARY EROSION CONTROL SYSTEMS
420401-05	BRIDGE APPROACH PAVEMENT
515001-02	NAME PLATE FOR BRIDGES
630001-07	STEEL PLATE BEAM GUARDRAIL
630201-04	PCC/BITUMINOUS STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-03	TRAFFIC BARRIER TERMINAL, TYPE 6A
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
667101	PERMANENT SURVEY MARKERS
701006-02	TYPICAL APPLICATION OF TRAFFIC CONTROL STANDARD
701201-02	TYPICAL APPLICATION OF TRAFFIC CONTROL STANDARD
701301-02	TYPICAL APPLICATION OF TRAFFIC CONTROL STANDARD
701306-01	TYPICAL APPLICATION OF TRAFFIC CONTROL STANDARD
701311-02	TYPICAL APPLICATION OF TRAFFIC CONTROL STANDARD
701321-08	TYPICAL APPLICATION OF TRAFFIC CONTROL STANDARD
702001-06	TRAFFIC CONTROL DEVICES
704001-03	TEMPORARY CONCRETE BARRIER
720011	METAL POST FOR SIGNS, MARKERS AND DELINEATORS
728001	TELESCOPING STEEL SIGN SUPPORT
729001	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS AND MARKERS)
780001-01	TYPICAL PAVEMENT MARKINGS
886001	DETECTOR LOOP INSTALLATIONS
886006	TYPICAL LAYOUT FOR DETECTION LOOPS

R.5.E.



R.5.E.

N

IMPROVEMENT ENDS
STA. 684+39.05

SECTION BEGINS
STA. 675+78.82

T.17N.

SECTION (125BR-2)D
INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING SUPER STRUCTURE SN-037-0130 OVER COAL CREEK. STA. 680+94.98.

SECTION BEGINS
STA. 683+94.05

IMPROVEMENT BEGINS
STA. 675+33.82

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED May 16 20 07
George F. Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 29, 2007
Eric E. Harm
Interim ENGINEER OF DESIGN AND ENVIRONMENT

June 29, 20 07
Milton R. Sees, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

100' 200' 300' — 1"= 100'
0 10' 20' 30' — 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

NET LENGTH OF PROJECT = 644 LIN. FEET = 0.122 MILES
GROSS LENGTH OF PROJECT = 765 LIN. FEET = 0.145 MILES

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 64D47 ALBA TOWNSHIP SECTION - 27

FAP 22 (IL 78) SECTION (125BR-2)D HENRY COUNTY

CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITES

	CODE NUMBER	ITEM	UNIT	X081-2A 80% FED/ 20%STATE TOTAL QUANTITY
	20200100	EARTH EXCAVATION	CU YD	235
	20400800	FURNISHED EXCAVATION	CU YD	190
	25100630	EROSION CONTROL BLANKET	SQ YD	500
	28000300	TEMPORARY DITCH CHECKS	EACH	2
	28000400	PERIMETER EROSION BARRIER	FOOT	300
	31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	25
	35300300	PORTLAND CEMENT CONCRETE BASE COURSE 8"	SQ YD	22
	40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	115
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	SQ YD	146
	40600990	TEMPORARY RAMP	SQ YD	80
	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX"C", N50	TON	342
	42001300	PROTECTIVE COAT	SQ YD	299
	42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	137
	44000700	APPROACH SLAB REMOVAL	SQ YD	137
	48203020	HOT-MIX ASPHALT SHOULDERS, 5-3/4"	SQ YD	1,178
	50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
	50102400	CONCRETE REMOVAL	CU YD	4.5
	50300225	CONCRETE STRUCTURES	CU YD	5.8
	50300260	BRIDGE DECK GROOVING	SQ YD	273
	50400105	PRECAST CONCRETE BRIDGE SLAB	SQ FT	359
	50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2618
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4720
	50800515	BAR SPLICERS	EACH	92
*	50901050	STEEL RAILING, TYPE SM	FOOT	259
	51500100	NAME PLATES	EACH	1
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	33
*	63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	525
*	63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4

*SPECIALTY ITEMS

	CODE NUMBER	ITEM	UNIT	X081-2A 80% FED/ 20%STATE TOTAL QUANTITY
*	63100167	TRAFFIC BARRIER TERMINAL TYPE I, SPECIAL (TANGENT)	EACH	4
	63200310	GUARDRAIL REMOVAL	FOOT	650
	63500105	DELINEATORS	EACH	4
	61000400	ENGINEERS FIELD OFFICE, TYPE A	CAL MO	5
	66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH	2
	67100100	MOBILIZATION	L SUM	1
	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DAY	2
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
	70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	2243
	70300570	PAVEMENT MARKING TAPE, TYPE III 24"	FOOT	24
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	681
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	400
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	400
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	4500
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	16
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	382
	X0324744	REMOVAL OF EXISTING PRECAST CONCRETE UNITS	SQ FT	359
	X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	7
	X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	291
	Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	11
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1
	Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON - REDIRECTIVE), TEST LEVEL 3	EACH	2
	Z0030350	IMPACT ATTENUATORS, RELOCATE (NON - REDIRECTIVE), TEST LEVEL 3	EACH	2

*SPECIALTY ITEMS

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GENERAL NOTES

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	(125BR-2)D	Henry	34	3
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #64D47				

See cross sections for special ditches and backslopes.

The final top 100 mm (four inches) of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils.

It is estimated that 186 cubic yards of earth will be hauled to the job from outside the project limits. A shrinkage factor of 25% has been used.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 2A shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1. Class 2A shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches. This work will be included in the contract unit price per Cubic Meter (Cubic Yard) for EARTH EXCAVATION.

Program #5 (Arch. Size) Enlarge 200% Enlarge 107%

Fertilizer shall be applied to all disturbed areas and incorporated into the seedbed prior to seeding or placement of sod at the rate specified in Sections 250 and 252 of the Standard Specifications. This work shall be included in the cost of EARTH EXCAVATION.

Mulch Method II shall be applied over all seeded areas. This shall be included in the cost of the EARTH EXCAVATION.

The following Mixture Requirements are applicable for this project:

Mixture Uses(s):	Mainline Surface Course	Top Shoulder	Bottom Shoulder	Level Binder
PG:	PG 64-22	PG 58-22	PG 58-22	PG 64-22
Design Air Voids	4.0 @ N50	3 @ N50	2 @ N50	4 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5	IL 9.5 or 12.5	BAM	IL 9.5
Friction Aggregate	C	C	N/A	N/A
20 Year ESAL	2.2	N/A	N/A	2.2

To help avoid excess drop offs at the edge of pavement, the existing aggregate wedge or shoulder is to be pulled up and rolled to match the edge of pavement before placing any bituminous material. All costs associated with pulling up the shoulders shall be considered included in the contract unit price per TON for HOT-MIX ASPHALT SURFACE COURSE of the type specified.

Bituminous and Aggregate prime coat shall be placed in accordance with Section 406 of the Standard Specifications. The cost of the prime coats shall be included in the contract unit price per metric ton (ton) for LEVELING BINDER (MACHINE METHOD) of the type specified.

This structure will retain the same number 037-0130.

The contractor shall submit four copies of the required shop drawings for review and approval to the Bureau of Bridges and Structures, 2300 South Dirksen Parkway, Springfield, IL 62764. After approval of initial submittal, the contractor shall submit one set of shop drawings to Dave Lippert, Engineer of Materials, 126 East Ash Street, Springfield, IL 62706, and eight (8) sets of shop drawings to be distributed to:

District 2 District Engineer (1)
Fabricator (1)
Contractor (2)
Resident Engineer (2)
District 2 Bureau of Materials (2)

Embankment quantities for the construction of the Traffic Barrier Terminals as shown in the plans are included in quantities for Furnished Excavation.

The Contractor shall supply the Resident Engineer with the manufacturer's installation requirements for the type of Steel Plate Beam Guardrail Terminal Type 1 Special (Tangent) or Steel Plate Beam Guardrail Terminal Type I Special (Flared).

One 16d galvanized nail shall be used to toe nail the wood block out to the wood post on all Traffic Barrier Terminal Type I Specials.

Delineators shall be installed as shown in Standard 635001, except that the post shall be rotated 180° and only metal-backed delineators shall be permitted.

Delineators shall be placed at the ends of approach guardrail terminal sections. This work will be paid for at the contract unit price each for DELINEATORS.

Pavement Marking shall be done according to Standard 780001.

PERMANENT SURVEY MARKERS, TYPE II, shall be set at intervals of 1.6 Km (1 mile) or as directed by the Engineer. Bridge or culvert projects shall have one survey marker placed near the structure. Estimated: 2 Each.

Permanent Survey Markers, Type II shall be cast-in-place as shown on Highway Standard 667101.

The Contractor shall submit to the Engineer a description of location, elevation, and coordinates for each permanent survey marker. The Engineer shall submit this information to the Survey Crew.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

Geneseo Telephone Co. Ameren IP

CADD data will be available to Contractors and Consultants working on this project. This information will be provided upon request as MicroStation CADD files and Geopak coordinate geometry files ONLY. If data is required in other formats it will be your responsibility to make these conversions. If any discrepancy or inconsistency arises between the electronic data and the information on the hard copy, the information on the hard copy should be used. Contact the District's Project Engineer to request these files.

COMMITMENTS

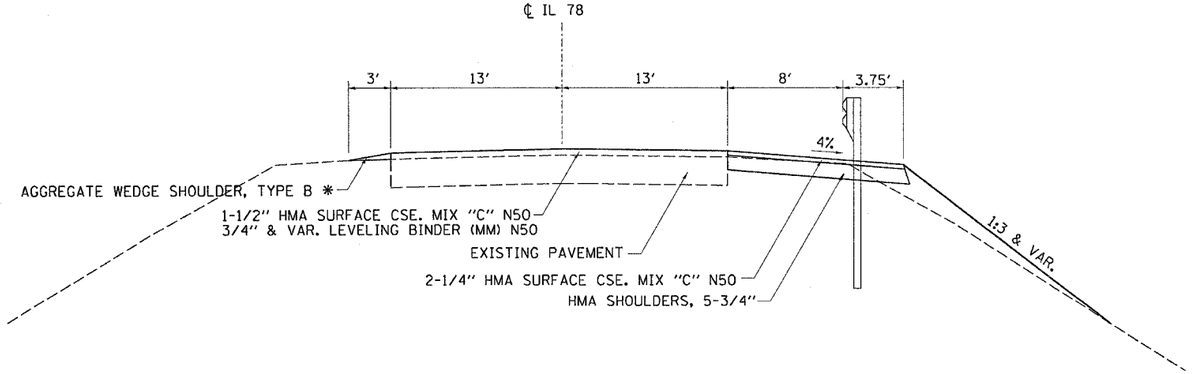
1. All work on the structures over Coal Creek shall be performed from the existing deck and no work shall take place below the existing structure on the ground nor in the creek bed.
2. No tree shall be removed.
3. No materials shall be placed below the structure.

CONTRACT NO. 64D47

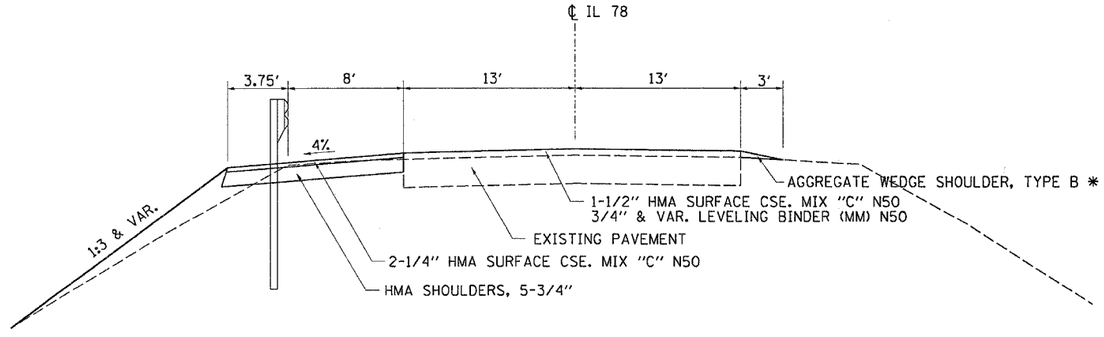
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL SECTIONS

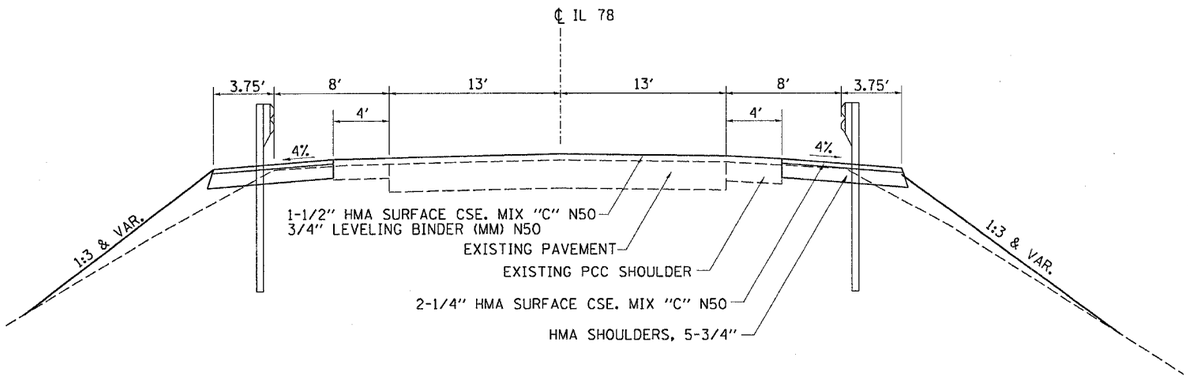
STA. 676+03.82 - STA. 678+45.64



STA. 683+34.98 - STA. 684+39.05

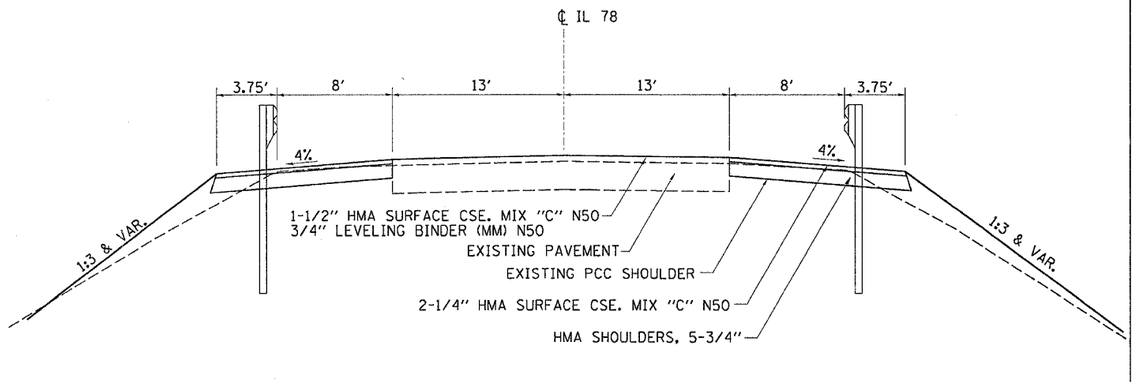


STA. 678+56.82 - STA. 680+29.68
STA. 681+58.37 - STA. 682+83.43



* INCLUDED IN CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SHOULDER SURFACE COURSE.

STA. 678+45.64 - STA. 679+06.82
STA. 682+83.43 - STA. 683+34.98



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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DATE

DRAWN BY
CHECKED BY

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TYPICAL SECTIONS

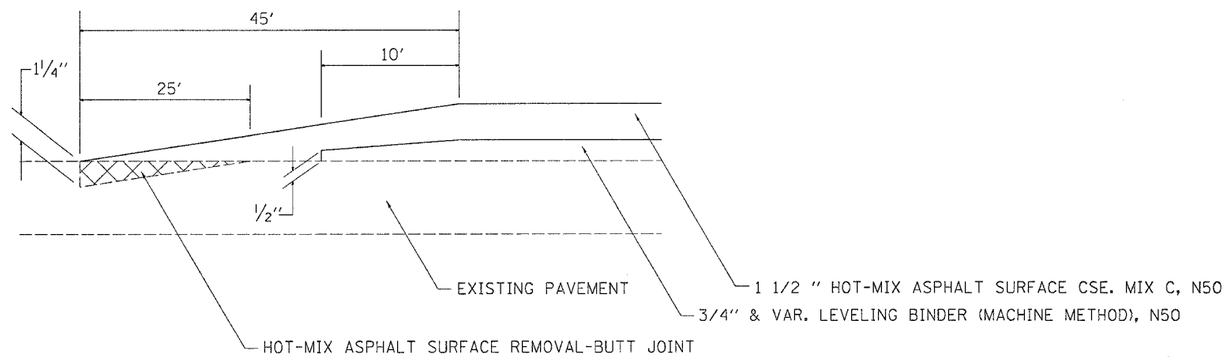
CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL SECTIONS

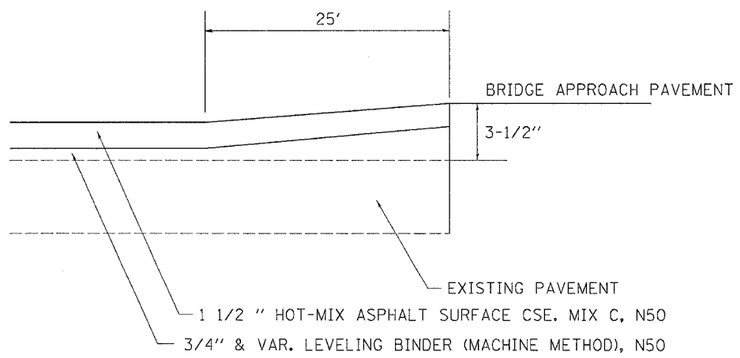
STA. 675+33.82 - STA. 676+03.82
STA. 683+69.05 - STA. 684+39.05

TYPICAL TAPER



STA. 680+05.80 - STA. 680+30.80
STA. 681+58.06 - STA. 681+83.06

TYPICAL TAPER TRANSITION



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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DATE

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TYPICAL SECTIONS

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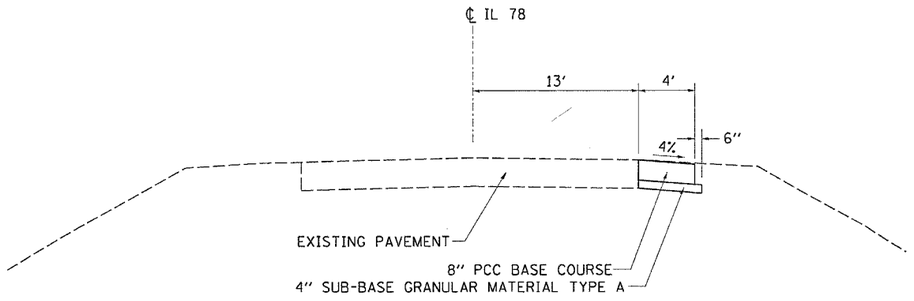
CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

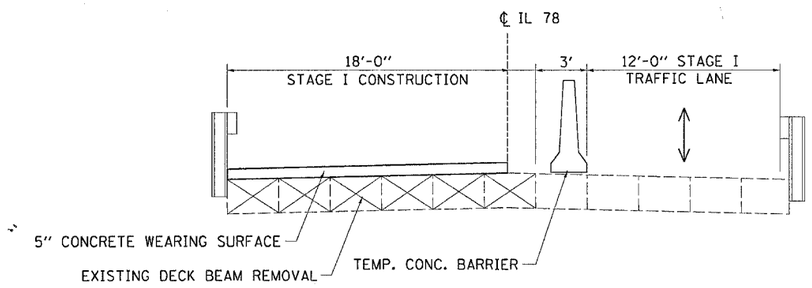
STAGING TYPICAL SECTIONS

STAGE 1

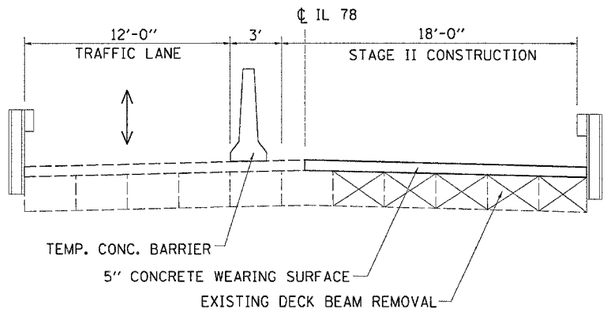
STA. 678+56.82 RT - STA. 679+06.82 RT



STAGE I



STAGE II



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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STAGING TYPICAL SECTIONS

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CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

20200100 EARTH EXCAVATION

CU YD	LOCATION IL 78		
235.00	LT & RT	675+33.82 -	684+ 39.05
235.00	TOTAL		

20400800 FURNISHED EXCAVATION

CU YD	LOCATION IL 78		
190.00	LT & RT	675+33.82 -	684+ 39.05
190.00	TOTAL		

25100630 EROSION CONTROL BLANKET

SQ YD	LOCATION IL 78		
500	RT	677+00 -	679+ 00
500	TOTAL		

28000300 TEMPORARY DITCH CHECK

EACH	LOCATION IL 78	
1.00	RT	676+00
1.00	RT	677+00
2.00	TOTAL	

28000400 PERIMETER EROSION BARRIER

FOOT	LOCATION IL 78		
200	RT	677+50 -	679+ 50
100	LT	678+50 -	679+ 50
300	TOTAL		

31100300 SUB-BASE GRANULAR MATERIAL, TYPE A 4"

SQ YD	LOCATION IL 78		
25	RT	678+56.82 -	679+ 06.82
25	TOTAL		

35300300 PORTLAND CEMENT CONCRETE BASE COURSE 8"

SQ YD	LOCATION IL 78		
22	RT	678+56.82 -	679+ 06.82
22	TOTAL		

42001400 BRIDGE APPROACH PAVEMENT (SPECIAL)

SQ YD	LOCATION IL 78		
68.5		680 + 30.80 -	680 + 54.72
68.5		681 + 34.33 -	681 + 58.06
137	TOTAL		

44000700 APPROACH SLAB REMOVAL

SQ YD	LOCATION IL 78		
68.5		680 + 30.80 -	680 + 54.72
68.5		681 + 34.33 -	681 + 58.06
137	TOTAL		

63000000 STEEL PLATE BEAM GUARDRAIL, TYPE A

FOOT	LOCATION IL 78		
350.00	RT	676+36.24 -	679+ 86.23
37.50	LT	679+46.74 -	679+ 84.24
137.50	LT	681+67.79 -	683+ 42.78
525.00	TOTAL		

63100087 TRAFFIC BARRIER TERMINAL, TYPE 6A

EACH	LOCATION IL 78		
1	RT	679+ 86.23 -	680+ 31.82
1	LT	679+ 84.24 -	680+ 29.83
1	RT	681+57.98 -	682+03.56
1	LT	681+58.30 -	682+03.88
4	TOTAL		

63100167 TRAFFIC BARRIER TERMINAL TYPE I, SPECIAL (TANGENT)

EACH	LOCATION IL 78		
1	RT	675+ 86.24 -	676+ 36.24
1	LT	678+ 96.79 -	679+ 46.74
1	RT	682+03.56 -	682+53.56
1	LT	683+41.38 -	683+91.38
4	TOTAL		

63200310 GUARDRAIL REMOVAL

FOOT	LOCATION IL 78		
300	RT	677+ 24.19 -	680+ 25.61
125	LT	678+ 99.04 -	680+ 25.46
75	RT	681+61.78 -	682+38.28
150	LT	683+42.78 -	683+92.78
650	TOTAL		

63500105 DELINEATORS

EACH	LOCATION IL 78	
1	RT	675+ 84.40
1	LT	678+ 97.21
1	RT	682+ 42.17
1	LT	683+ 92.78
4	TOTAL	

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CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

70300520 PAVEMENT MARKING TAPE TYPE III, 4"

FOOT	LOCATION				
	IL 78				
343	RT	679+03.13	-	682+46.43	STAGE I (WHITE)
749	LT	677+34.57	-	684+83.50	STAGE I (WHITE)
773	RT	677+15.43	-	684+88.24	STAGE II (WHITE)
378	LT	679+04.59	-	682+82.69	STAGE II (WHITE)
2,243	TOTAL				

70300570 PAVEMENT MARKING TAPE TYPE III, 24"

FOOT	LOCATION			
	IL 78			
12	RT	676+99.85		STOP BAR, STAGE 1 (WHITE)
12	LT	685+00.33		STOP BAR, STAGE 1 (WHITE)
24	TOTAL			

70301000 WORKZONE PAVEMENT MARKING REMOVAL

SQ FT.	LOCATION				
	IL 78				
250	LT	677+34.57	-	684+83.05	STAGE I
258	RT	677+15.43	-	684+88.24	STAGE II
126	LT	679+04.59	-	682+82.67	STAGE II (WHITE)
24	RT	676+99.85	-		STOP BAR
24	LT	685+00.33	-		STOP BAR
681	TOTAL				

70400100 TEMPORARY CONCRETE BARRIER

FOOT	LOCATION			
	IL 78			
400	LT	679+12.69	-	683+12.32
400	TOTAL			

70400200 RELOCATE TEMPORARY CONCRETE BARRIER

FOOT	LOCATION			
	IL 78			
400	RT	678+87.68	-	682+87.31
400	TOTAL			

78001110 PAINT PAVEMENT MARKING - LINE 4" (TWO COATS)

FOOT	LOCATION				
	IL 78				
500	STA.	675+00	-	685+00	(YELLOW SKIP DASH)
2000	RT STA	675+00	-	685+00	(WHITE EDGE LINE)
2000	LT STA	675+00	-	685+00	(WHITE EDGE LINE)
4500	TOTAL				

78200410 GUARDRAIL MARKERS, TYPE A

EACH	LOCATION			
	IL 78			
4	RT	676+33.67	-	680+52.78
4	LT	679+47.24	-	680+53.26
4	LT	681+35.81	-	681+91.99
4	RT	681+36.39	-	683+42.77
16	TOTAL			

78201000 TERMINAL MARKER - DIRECT APPLIED

EACH	LOCATION	
	IL 78	
1	RT	675+84.40
1	LT	678+97.24
1	RT	682+42.28
1	LT	683+92.60
4	TOTAL	

78300100 PAVEMENT MARKING REMOVAL

SQ FT	LOCATION				
	IL 78				
267	STA.	677+00	-	685+00	(CENTERLINE)
115	STA.	679+03.13	-	682+46.43	RT (STAGE I)
382	TOTAL				

Z0030250 IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3

EACH	LOCATION		
	IL 78		
1	LT	679+12.69	STAGE 1
1	LT	683+12.32	STAGE 1
2	TOTAL		

Z0030350 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3

EACH	LOCATION		
	IL 78		
1	RT	678+87.68	STAGE 2
1	RT	682+87.31	STAGE 2
2	TOTAL		

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CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BITUMINOUS SCHEDULE

STATION TO STATION	REMARKS	LENGTH (FT)	WIDTH (FT)	TOTAL AREA (SY)	40600625 LEVELING BINDER (MM) N50 (TON)	40600982 HMA SURFACE REMOVAL BUTT JOINT (SQ YD)	48203020 HMA SHOULDERS, 5-3/4" (SQ YD)	40603310 HMA SURFACE COURSE MIX"C" N50 (TON)	40600990 TEMPORARY RAMP (SQ YD)
STA. 675+33.82 - 680+31.83	SHOULDER RT	498.01	11.75	573.33			573.33	72.24	
STA. 678+45.64 - 680+29.83	SHOULDER LT	184.19	11.75	168.22			168.22	21.20	
STA. 681+57.98 - 683+34.98	SHOULDER RT	177	11.75	144.11			144.11	18.16	
STA. 681+58.13 - 684+39.05	SHOULDER LT	280.92	11.75	292.22			292.22	36.82	
STA. 675+33.82 - 675+78.82	BUTT JOINT	45	26	132.00		73.00		11.09	
STA. 683+94.05 - 684+39.05	BUTT JOINT	45	26	132.00		73.00		11.09	
STA. 675+78.82 - 680+30.80	MAINLINE	451.98	35	1355.00	75.88			113.82	
STA. 681+58.06 - 683+94.05	MAINLINE	235.99	34	690.00	38.64			57.96	
STA. 680+43.72 - 680+54.57	TEMP. RAMP	11	33	40.04					40.04
STA. 681+34.33 - 681+45.33	TEMP. RAMP	11	33	40.04					40.04
TOTAL QUANTITY		1,940		3,567	115	146	1,178	342	80

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE

DRAWN BY
CHECKED BY

CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HORIZONTAL & VERTICAL CONTROL

Chain RTE78 contains:
3 CUR 240 CUR 250 CUR 260 CUR 270 4

Beginning chain RTE78 description
==========

Point 3 N 1,722,818.6068 E 2,368,441.1452 Sta 552+87.59

Course from 3 to PC 240 359° 29′ 34.03″ Dist 711.8061′

Curve Data

Curve 240
P.I. Station 561+99.69 N 1,723,730.6727 E 2,368,433.0709
Delta = 2° 00′ 10.09″ (LT)
Degree = 0° 30′ 00.05″
Tangent = 200.2956′
Length = 400.5503′
Radius = 11,458.8606′
External = 1.7504′
Long Chord = 400.5300′
Mid. Ord. = 1.7501′
P.C. Station 559+99.40 N 1,723,530.3850 E 2,368,434.8440
P.T. Station 563+99.95 N 1,723,930.7761 E 2,368,424.2991
C.C. N 1,723,428.9464 E 2,356,976.4324

Curve Data

Curve 250
P.I. Station 566+00.24 N 1,724,130.8795 E 2,368,415.5274
Delta = 2° 00′ 10.09″ (RT)
Degree = 0° 30′ 00.05″
Tangent = 200.2956′
Length = 400.5503′
Radius = 11,458.8612′
External = 1.7504′
Long Chord = 400.5300′
Mid. Ord. = 1.7501′
P.C. Station 563+99.95 N 1,723,930.7761 E 2,368,424.2992
P.T. Station 568+00.50 N 1,724,331.1672 E 2,368,413.7543
C.C. N 1,724,432.6058 E 2,379,872.1665

Course from PT 250 to PC 260 359° 29′ 34.03″ Dist 6,507.9276′

Curve Data

Curve 260
P.I. Station 640+84.72 N 1,731,615.1094 E 2,368,349.2712
Delta = 44° 13′ 50.07″ (LT)
Degree = 2° 59′ 57.32″
Tangent = 776.3000′
Length = 1,474.7189′
Radius = 1,910.3340′
External = 151.7081′
Long Chord = 1,438.3725′
Mid. Ord. = 140.5467′
P.C. Station 633+08.42 N 1,730,838.8398 E 2,368,356.1434
P.T. Station 647+83.14 N 1,732,166.5427 E 2,367,802.8620
C.C. N 1,730,821.9286 E 2,366,445.8843

Course from PT 260 to PC 270 315° 15′ 43.95″ Dist 286.9438′

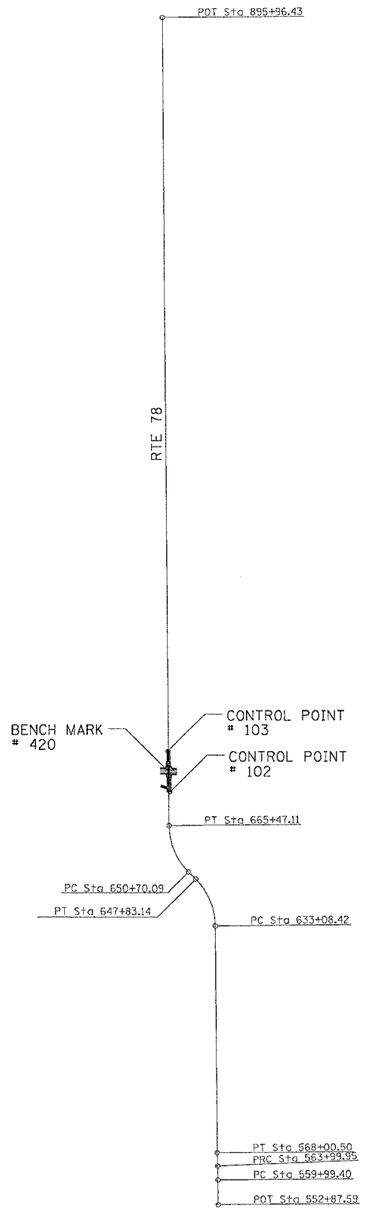
Curve Data

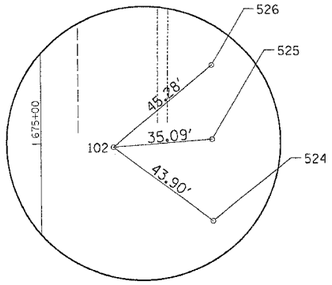
Curve 270
P.I. Station 658+47.75 N 1,732,922.7692 E 2,367,053.5257
Delta = 44° 18′ 38.00″ (RT)
Degree = 3° 00′ 00.00″
Tangent = 777.6610′
Length = 1,477.0191′
Radius = 1,909.8600′
External = 152.2559′
Long Chord = 1,440.4852′
Mid. Ord. = 141.0141′
P.C. Station 650+70.09 N 1,732,370.3691 E 2,367,600.8928
P.T. Station 665+47.11 N 1,733,700.4086 E 2,367,047.7269
C.C. N 1,733,714.6497 E 2,368,957.5339

Course from PT 270 to 4 359° 34′ 21.95″ Dist 23,049.3221′

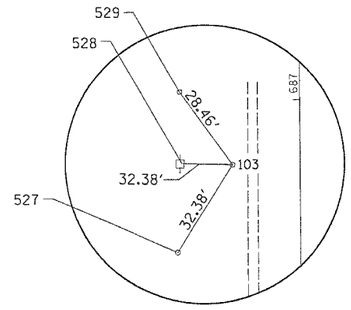
Point 4 N 1,756,749.0899 E 2,366,875.8571 Sta 895+96.43

==========
Ending chain RTE78 description





HORIZONTAL CONTROL
POINT NO. 102



HORIZONTAL CONTROL
POINT NO. 103

CONTROL POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
102	1734652.1273	2367066.3686	622.8965	RTE78	674+98.66	25.7377′ RT	GPS CONTROL POINT, PIN
103	1735832.5671	2367010.5208	618.5474	RTE78	686+79.48	21.3064′ LT	GPS CONTROL POINT, PIN

SURVEY WORK POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
123	1735195.5717	2366963.6442	620.0700	RTE78	680+42.85	72.9316′ LT	TRAVERSE STATION, PIN
124	1735188.3796	2367107.4495	621.4300	RTE78	680+34.59	70.8161′ RT	TRAVERSE STATION, PIN

BENCH MARKS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
420	1735203.9252	2367054.3269	620.6416	RTE78	680+50.5318	17.8109′ RT	ABUTMENT, CHISELED "X"

REFERENCE TIES

POINT	CHAIN	STATION	OFFSET	DESCRIPTION
524	RTE78	674+72.44	60.9423′ RT	SHOULDER, PIN
525	RTE78	675+01.13	60.7434′ RT	SHOULDER, PIN
526	RTE78	675+27.55	60.6093′ RT	SHOULDER, PIN
527	RTE78	686+52.18	38.7217′ LT	SHOULDER, PIN
528	RTE78	686+79.87	37.272′ LT	POWER POLE, PK NAIL
529	RTE78	687+02.65	37.8451′ LT	SHOULDER, PIN

CURVE POINT NUMBERS

CHAIN	CURVE	PI	CC	PC	PT
RTE78	240	240	241	242	243
RTE78	250	250	251	252	253
RTE78	260	260	261	262	263
RTE78	270	270	271	272	273

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

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HORIZONTAL & VERTICAL CONTROL

CONTRACT NO. 64D47

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN
SURVEYED BY DATE
DRAWN BY
ALIGNMENT CHECKED
GRADES CHECKED
NOTE BOOK
NO.

PROFILE
SURVEYED BY DATE
DRAWN BY
GRADES CHECKED
NOTE BOOK
NO.
STRUCTURE NO.(IF ANY) CK'KD

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IMPROVEMENT BEGINS STA. 675+33.82
SECTION ENDS STA. 675+78.82
45' BUTT JOINT
675+33.82 17.15' RT
675+77.51 24.77' RT
50'-0"
TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT
350' STEEL PLATE BEAM GUARDRAIL, TYPE A
CONSTRUCTION LIMITS
EXISTING R.O.W.
678+90.00 25.25' LT
678+45.64 18.20' LT
EXISTING R.O.W.
IL 78
MATCH LINE STA. 679+00
HMA SHOULDER 8"
GUARDRAIL REMOVAL
TEMPORARY DITCH CHECK
PERIMETER EROSION BARRIER

673 674 675+00 676 677 678

625 620 615 610 605 600 595

45' BUTT JOINT

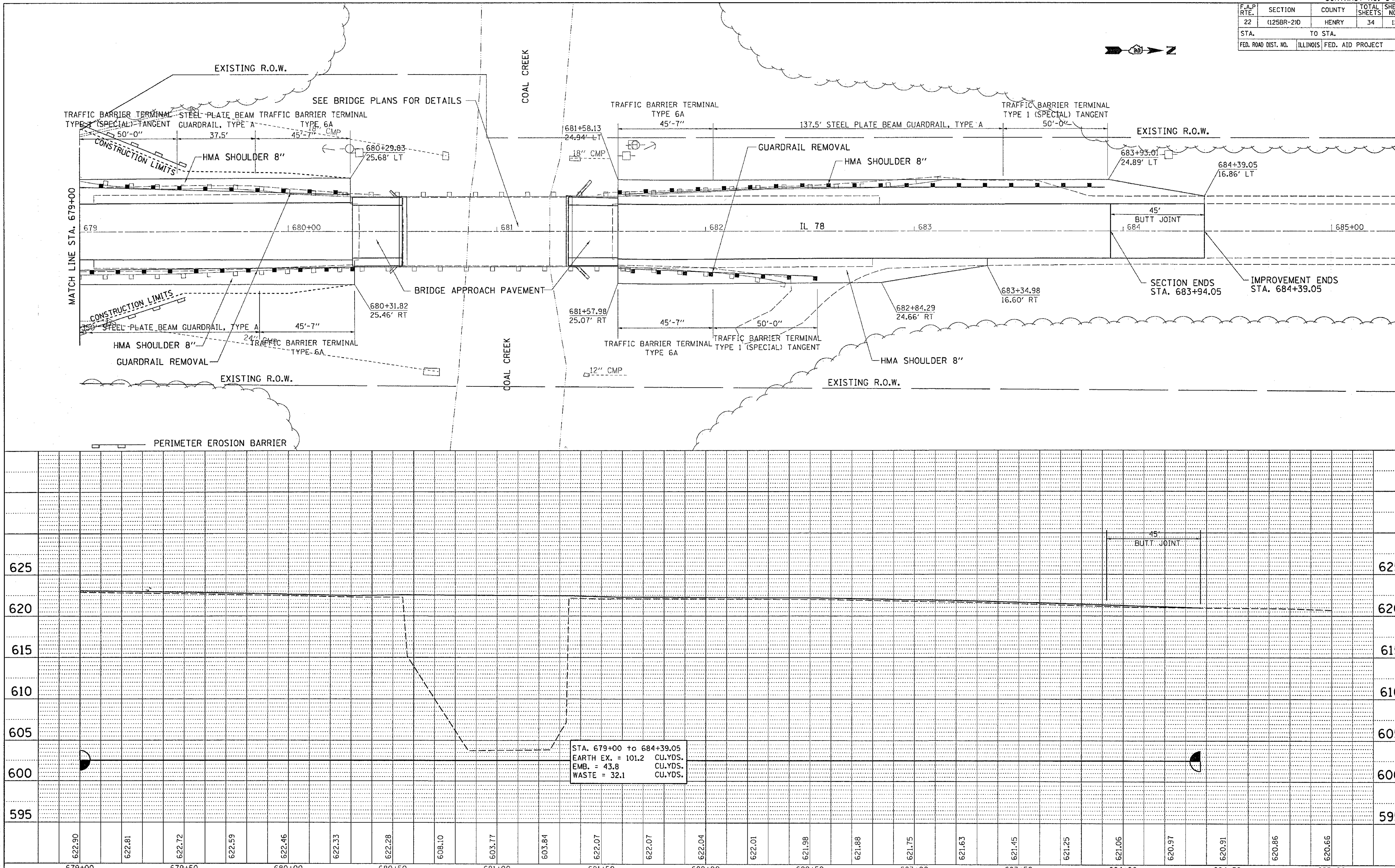
623.50 623.49 623.49 623.48 623.47 623.43 623.40 623.38 623.36 623.31 623.26 623.21 623.14 623.06 622.99 622.90

675+50 676+00 676+50 677+00 677+50 678+00 678+50 679+00

STA. 675+33.82 to 679+00
EARTH EX. = 131.8 CU.YDS.
EMB. = 316.5 CU.YDS.
HAUL IN = 217.7 CU.YDS.

CONTRACT NO. 64D47

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



B.M.: Chiseled "□" SE Corner of Bridge, Str. No. 037-0130
Sta 680+50.5, 17.8 Rt., Elev. 620.64

Existing Structure: One span PPC Deck Beam superstructure, R.C. Closed Abutments. Built as SBI 78, 125 BC, Henry County (SN 037-0062). Rebuilt in 1978 as FA 22, Sec 125BR-2 (SN 037-0130). Existing superstructure to be removed and replaced with PPC Deck Beams and Con. Wear Surf.

One lane traffic to be maintained using Stage Construction.

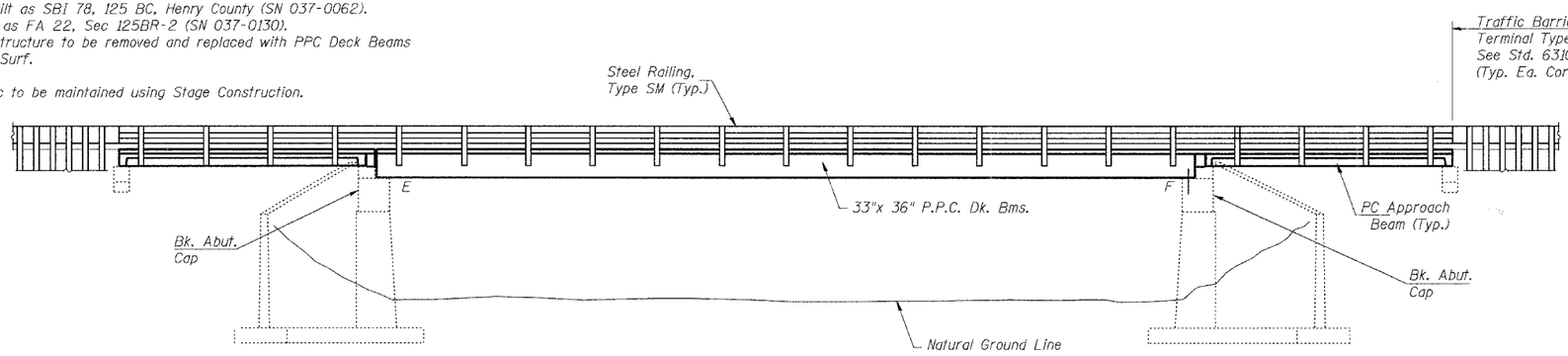
No Salvage.

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	13
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

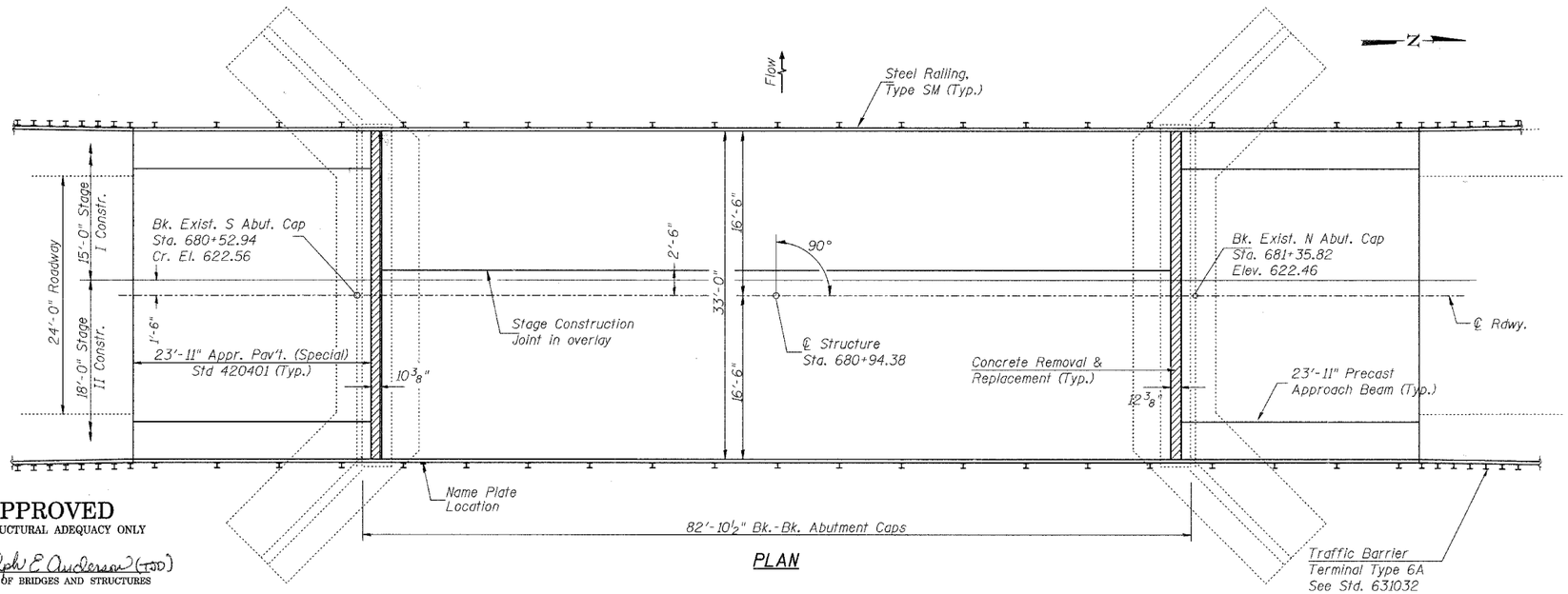
SHEET NO. 1 OF 13 SHEETS

*(125BR-2)D

CONTRACT NO. 64047



ELEVATION



PLAN

NOTE:
See Roadway plans for profile grade information.

GENERAL NOTES

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

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

No in-stream work will be allowed on this project.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. 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 minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for new profile grade and beam camber.

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.

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

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the 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 the transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and suring 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.

Reinforcement bars designated (E) shall be epoxy coated.

Protective Coat shall be applied to the top and edges of the concrete wearing surface.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
Removal of Existing Superstructures	Each	1	-	1
Removal of Existing Precast Concrete Unit	Sq. Ft.	359	-	359
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2,618	-	2,618
Precast Concrete Bridge Slab	Sq. Ft.	359	-	359
Protective Coat	Sq. Yd.	299	-	299
Reinforcement Bars, Epoxy Coated	Pound	3,720	1,000	4,720
Steel Railing, Type SM	Foot	259	-	259
Concrete Wearing Surface, 5"	Sq. Yd.	291	-	291
Bridge Deck Grooving	Sq. Yd.	273	-	273
Structure Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	-	7	7
Name Plates	Each	1	-	1
Bar Splicers	Each	80	12	92
Asbestos Bearing Pad Removal	Each	11	-	11
Concrete Structures	Cu. Yd.	-	5.8	5.8
Concrete Removal	Cu. Yd.	-	4.5	4.5
Preformed Joint Strip Seal	Ft.	33	-	33

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E Anderson (TJD)
ENGINEER OF BRIDGES AND STRUCTURES

JAMES O. HAMILTON 081-003668 LICENSED STRUCTURAL ENGINEER OF JACKSONVILLE, ILLINOIS

James O. Hamilton
5/14/2007
Lic. Expires 11/30/2008

STATION 680+94.38
REBUILT 200 BY
STATE OF ILLINOIS
F.A. RT. 22 SEC. (125BR-2)D
LOADING HS20
STRUCTURE NO. 037-0130

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

NAME PLATE
See Std. 515001

Attach new name plate to back side of 8" rail element. Clean and re-locate existing name plate adjacent to new name plate. Cost included in the cost of "Name Plates".

LOADING HS20-44
Allow 25#/Sq Ft Future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 p.s.i.
f'c = 5,000 p.s.i. (Concrete Wearing Surface)
fy = 60,000 p.s.i. (Reinforcement)

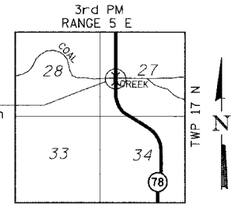
PRECAST PRESTRESSED UNITS

f'c = 5,000 p.s.i.
f'ci = 4,000 p.s.i.
f's = 270,000 p.s.i. (½" ϕ low relaxation strands)
f'si = 201,960 p.s.i. (½" ϕ low relaxation strands)

PRECAST NON-PRESTRESSED UNITS

f'c = 4,500 p.s.i.

INDEX TO SHEETS



LOCATION SKETCH

GENERAL PLAN
F.A.P. 22 (ILL 78) OVER COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Rev: Date:

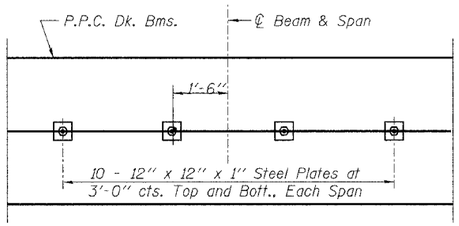
2244-12b001

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	14
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

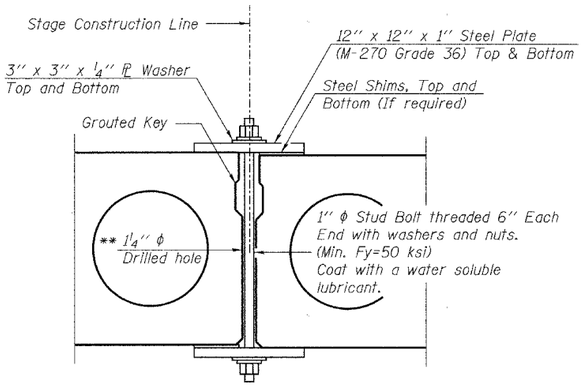
SHEET NO. 2 OF 13 SHEETS

*(125BR-2)D

CONTRACT NO. 64D47



PLAN



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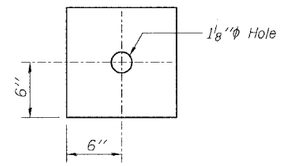


CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

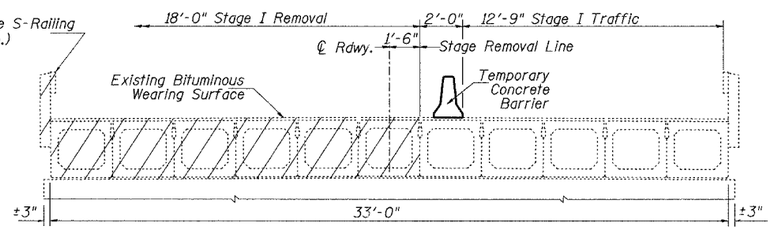
Cost included with Precast Prestressed Concrete Deck Beams.

See Stage Construction Details for traffic lanes.

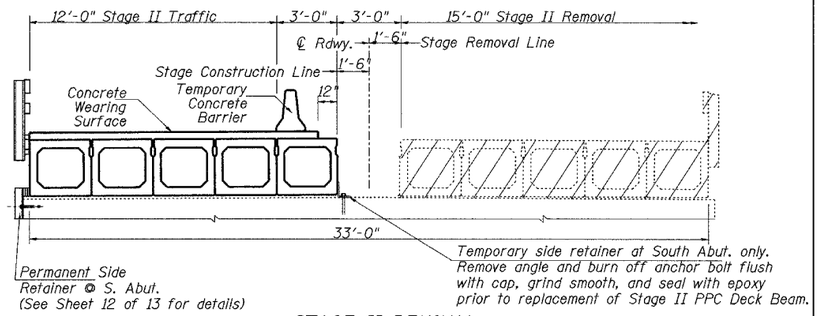
Stage construction of precast prestressed concrete deck beams shall be according to Article 504.06(d) of the Standard Specifications.

** As an alternate to the drilled holes, the Contractor may request the Fabricator to cast 2" diameter semi-circular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts. If the Contractor elects to use this alternate, the details shall be identified on the shop drawings.

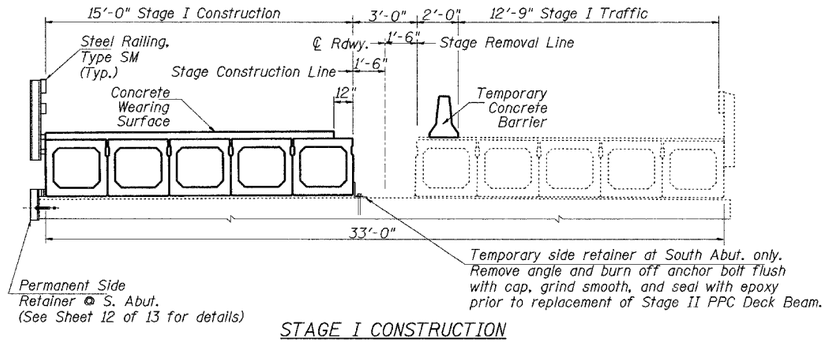
DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN



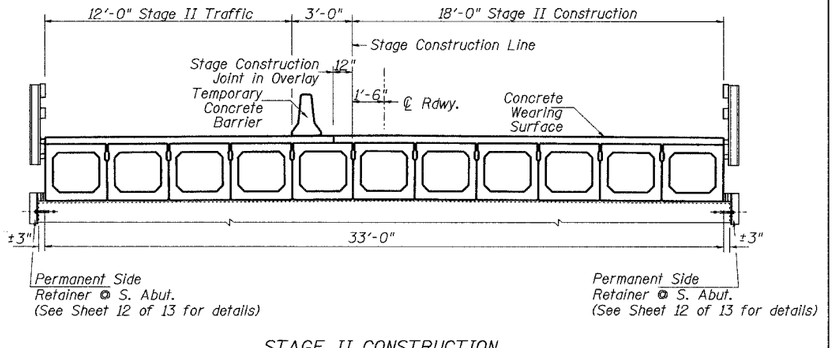
STAGE I REMOVAL



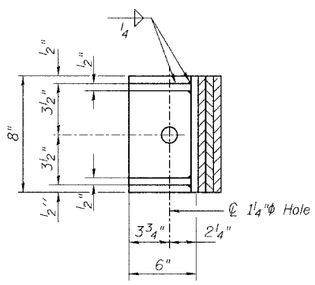
STAGE II REMOVAL



STAGE I CONSTRUCTION

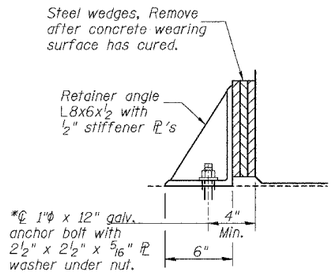


STAGE II CONSTRUCTION



TEMPORARY RETAINER ANGLE PLAN

The retainers and hardware shall be galvanized after shop fabrication accordance to AASHTO M111 ASTM 385.



TEMPORARY RETAINER ANGLE ELEVATION

*Anchor bolts or approved threaded rod may be placed in drilled holes and grouted in place. Cost of retainers, accessories, and galvanizing are included with Precast Prestressed Concrete Deck Beams.

Notes:

All cross-sections are looking North.

Hatched area indicates Removal of Existing Superstructure.

For Temporary Concrete Barrier Details see sheet 3 of 13.

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

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

STAGE CONSTRUCTION DETAILS
F.A.P. 22 (ILL 78) OVER COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Rev: Date:

2244-12b002

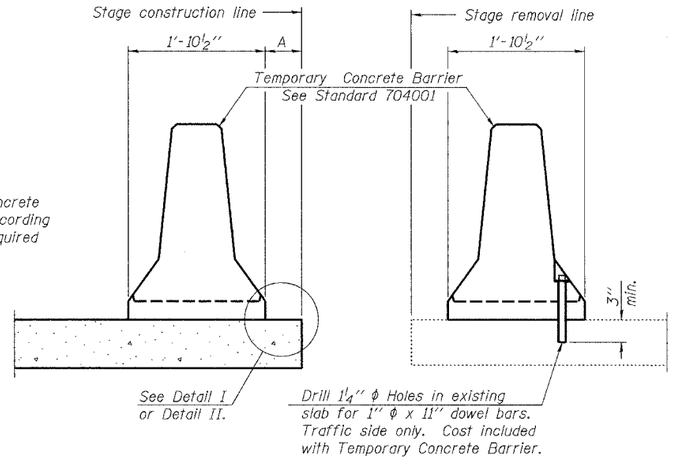
ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	15
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 3 OF 13 SHEETS

*(125BR-21D

CONTRACT NO. 64D47

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



NEW SLAB EXISTING SLAB

SECTIONS THRU SLAB

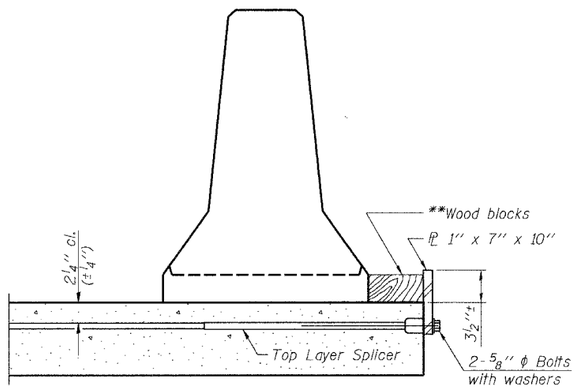
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

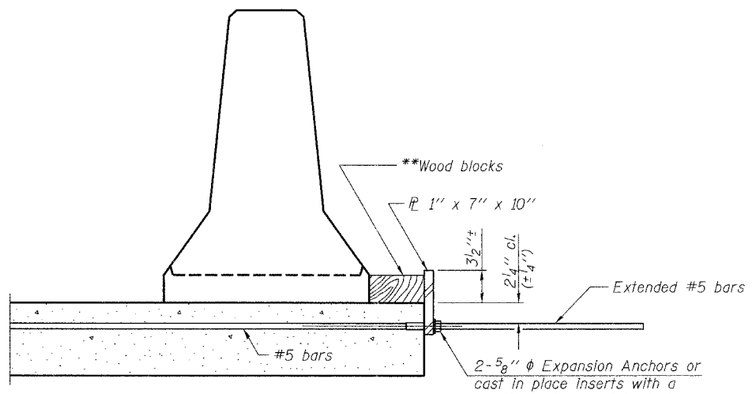
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

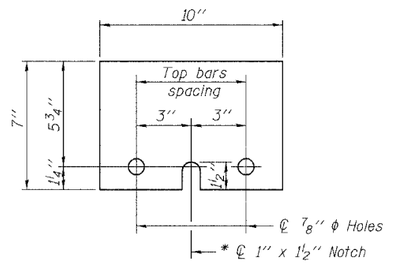
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

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

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

R-27 11-1-06

2244-12b003

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION F.A.P. 22 (ILL 78) OVER COAL CREEK SECTION (125BR-2)D HENRY COUNTY STATION 680+94.38 STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

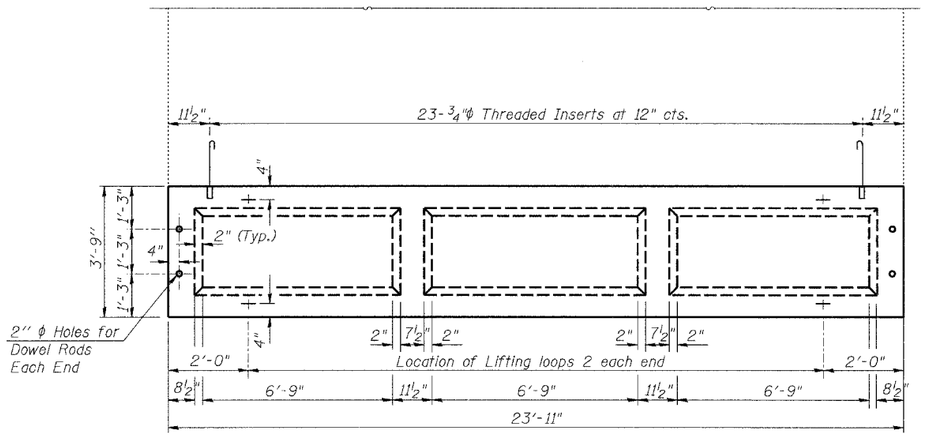
Rev: Date:

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	16
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

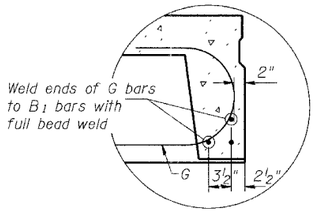
*(125BR-2)D

SHEET NO. 4 OF 13 SHEETS

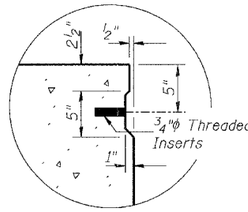
CONTRACT NO. 64D47



TYPICAL PLAN OF BEAM



DETAIL A



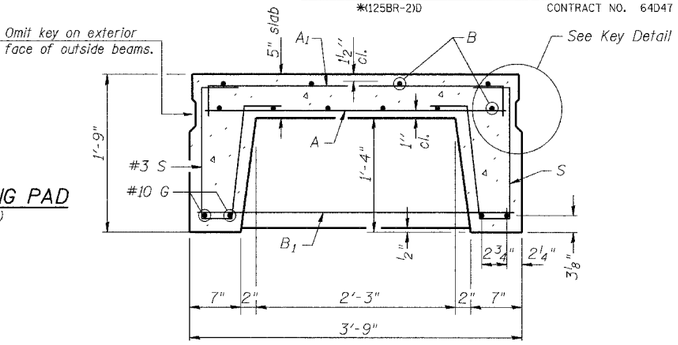
KEY DETAIL

Note:
Tack welding of stirrups to bottom longitudinal reinforcement bars will not be permitted except as otherwise authorized in writing by the Engineer.

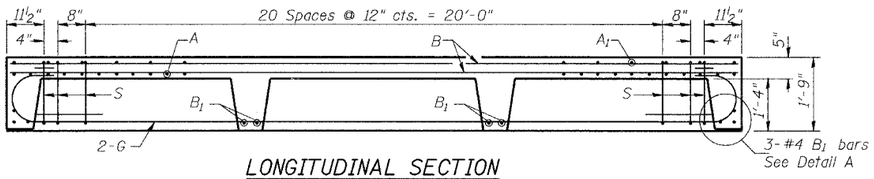
½" FABRIC BEARING PAD
(4 Req'd. per beam)

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.

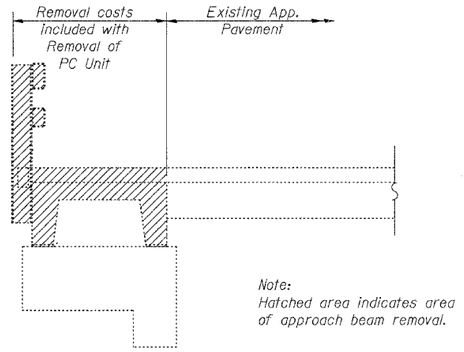
Precast concrete bridge slab shall meet the requirements of Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Concrete Bridge Slab.



SECTION THRU PRECAST UNIT

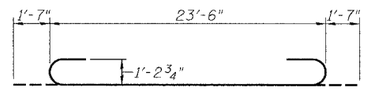


LONGITUDINAL SECTION

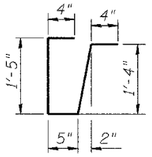


Note:
Hatched area indicates area of approach beam removal.

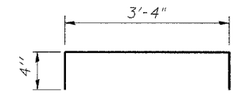
TYPICAL APPROACH REMOVAL SECTION



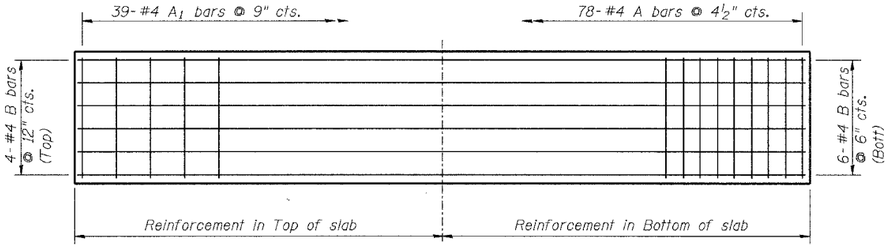
BAR G



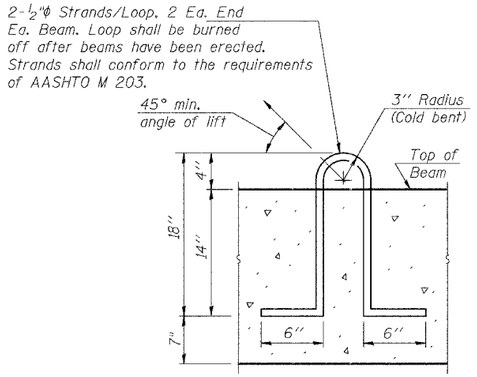
BAR S



BAR A1



PLAN
Showing Slab Reinforcement



LIFTING LOOP DETAIL
Approved alternate may be substituted for the above

BILL OF MATERIAL

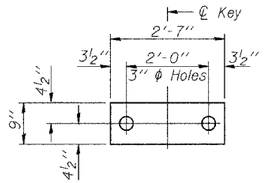
Item	Unit	Quantity
Precast Concrete Bridge Slab	Sq. Ft.	359
Removal of Existing Precast Unit	Sq. Ft.	359

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

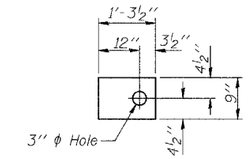
APPROACH DETAILS
F.A.P. 22 (ILL 78) OVER
COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Rev: Date:

2244-12b004

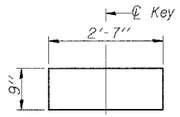


½" FABRIC BEARING PAD
(Interior) 10 req'd

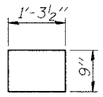


½" FABRIC BEARING PAD
(Exterior) 2 req'd

FIXED

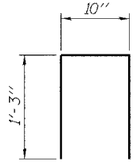


¼" FABRIC BEARING PAD
(Interior) 20 req'd

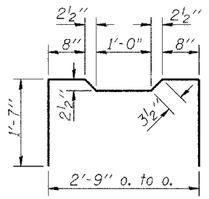


¼" FABRIC BEARING PAD
(Exterior) 4 req'd

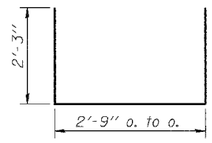
EXPANSION



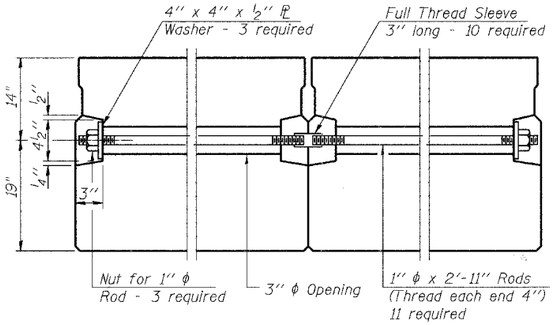
D(E) BAR



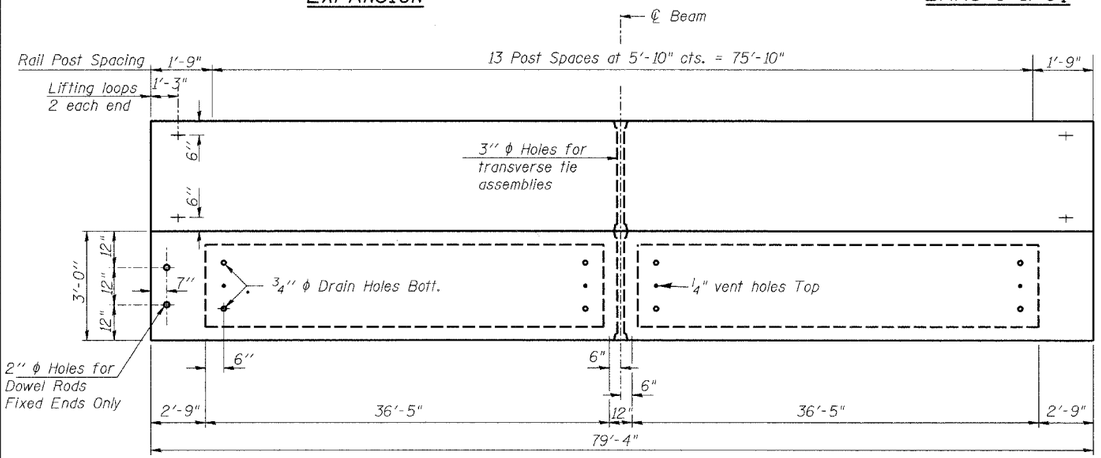
BAR A1



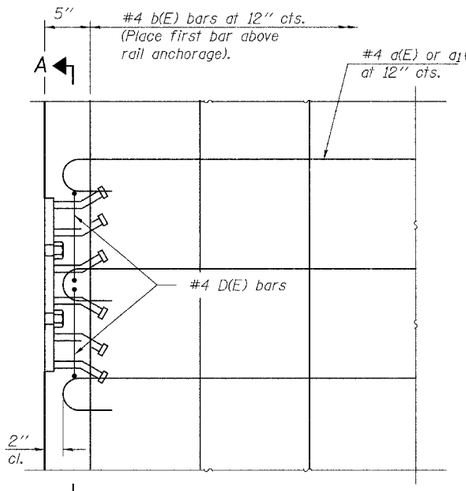
BARS U & U1



TYPICAL TRANSVERSE TIE ASSEMBLY



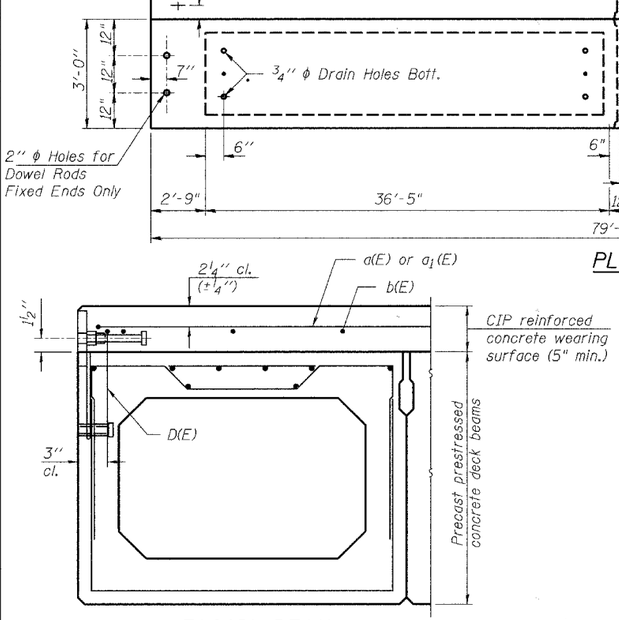
PLAN



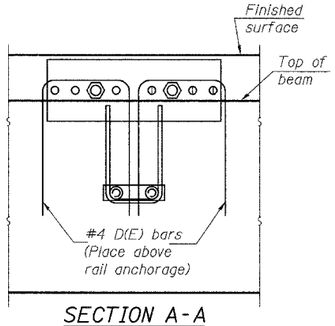
PLAN AT RAIL ANCHOR

Rail anchorage shall be cast in PPC deck beams. See typical section for dimensions, strand pattern and bar callouts not shown.

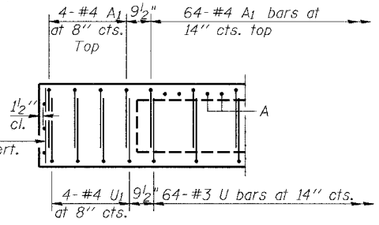
Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.



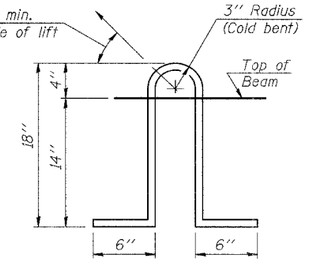
FASCIA BEAM



SECTION A-A



END ELEVATION



LIFTING LOOP DETAIL

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

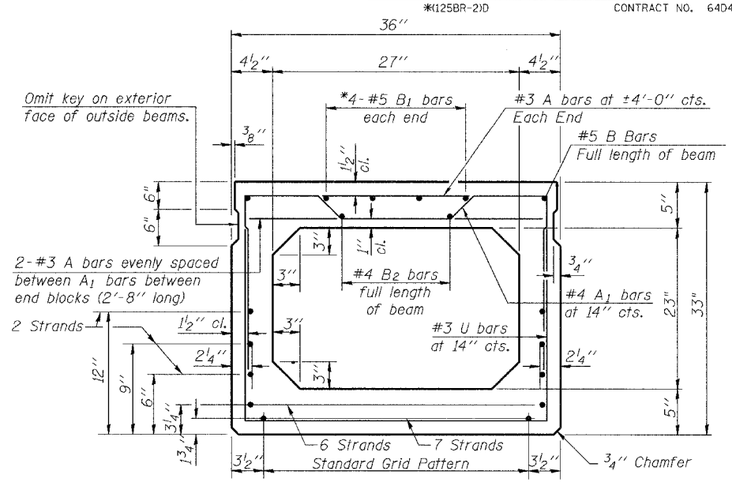
PD-5-S 11-1-06
2244-12b005

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	17
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 5 OF 13 SHEETS

*(125BR-2)D

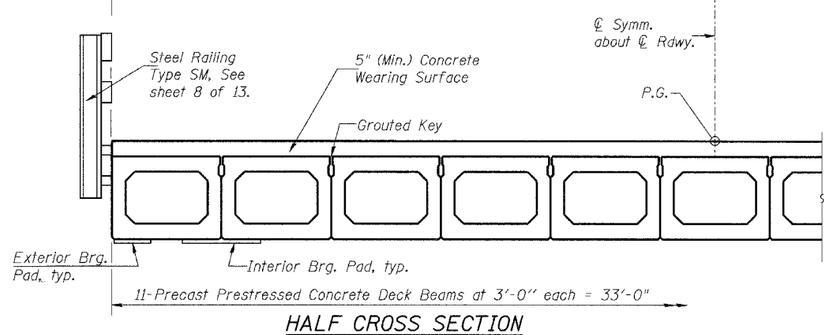
CONTRACT NO. 64D47



TYPICAL SECTION

19-½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
7-Strands 1³⁄₄" up, 6-Strands 3¼" up, 2-Strands 6" up,
2-Strands 9" up, 2-Strands 12" up

Note:
Place strands symmetrically
about ℄ of beam.



HALF CROSS SECTION

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (33" Depth)	Sq. Ft.	2,618

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

Lifting loops shall be 3-½" ϕ-270 ksi strands, as shown.

The 1" ϕ 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.

Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.

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.

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, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

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

Rail post anchor devices shall be cast into outside face of exterior beams as specified elsewhere.

DECK BEAM DETAILS
F.A.P. 22 (ILL 78) OVER
COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

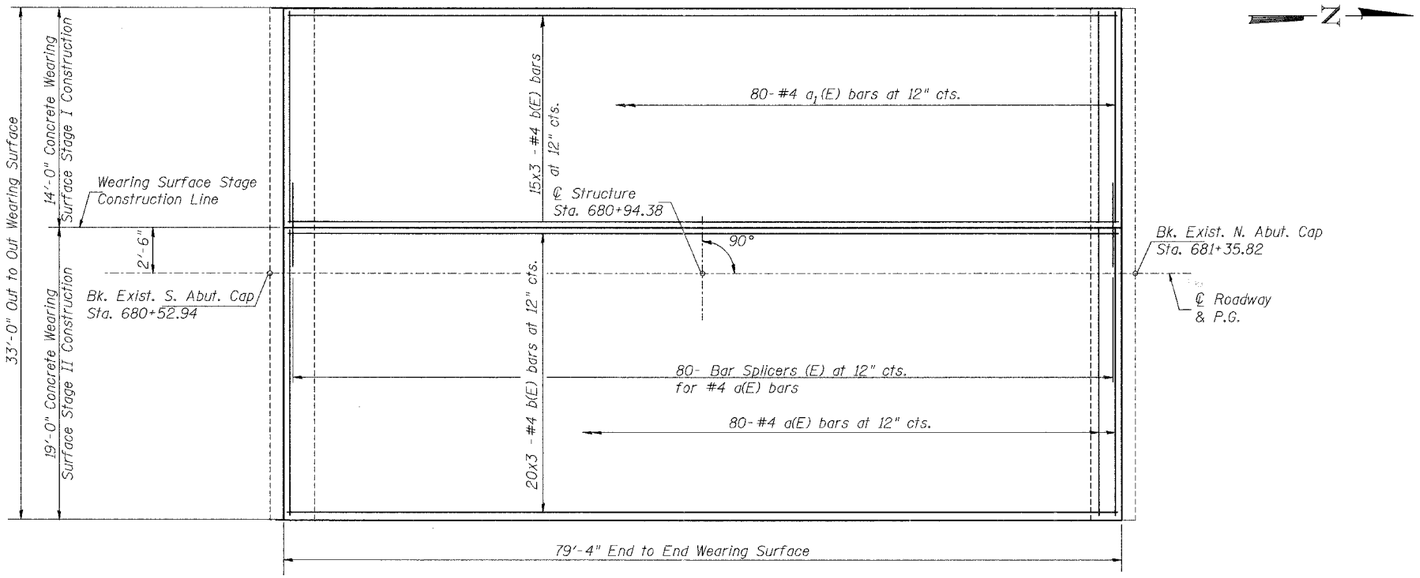
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Rev: Date:

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	18
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 6 OF 13 SHEETS

*(125BR-2)D

CONTRACT NO. 64D47



PLAN
CONCRETE WEARING SURFACE

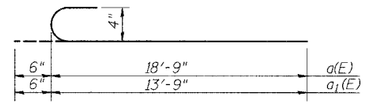
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	80	#4	19'-3"	⊂
a_1(E)	80	#4	14'-3"	⊂
b(E)	105	#4	27'-6"	—
Reinforcement Bars, Epoxy Coated			Lbs.	3,720
Concrete Wearing Surface, 5"			Sq. Yds.	291
Bar Splicers			Each	80

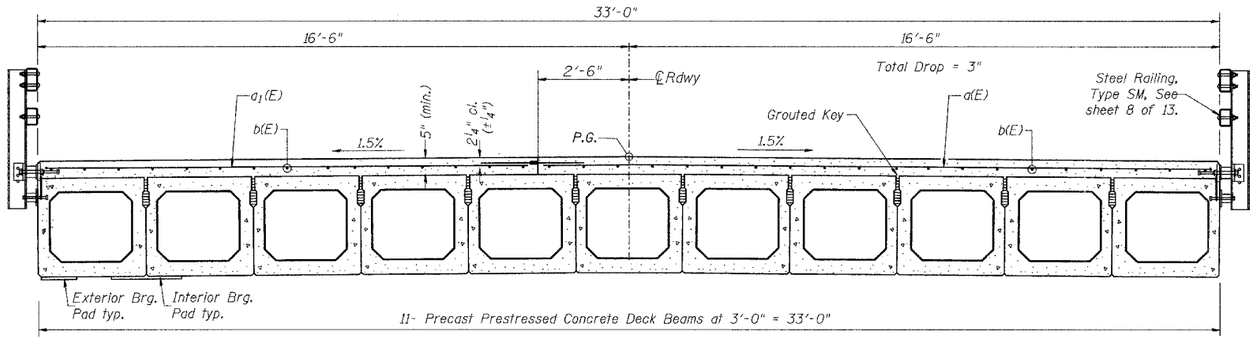
For details of Bar Splicers, see sheet 13 of 13.
Bars indicated thus 1 x 2 - #4 etc. indicates 1 line of bars with 2 lengths per line.

MIN. BAR LAP

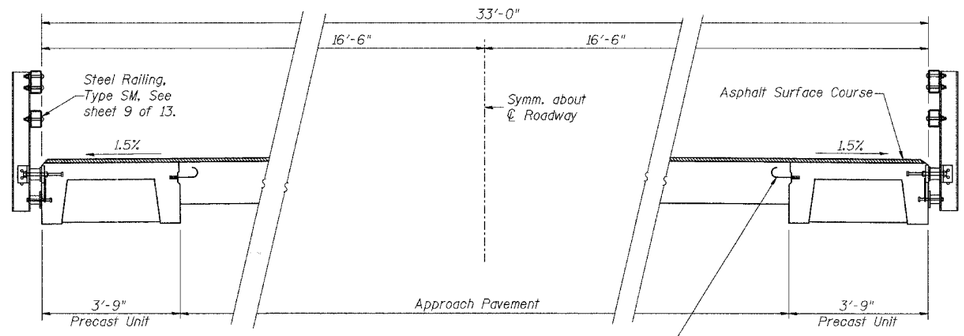
#4 Bar = 1'-8"



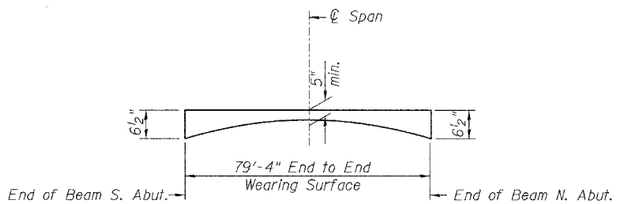
BARS a(E) & a_1(E)



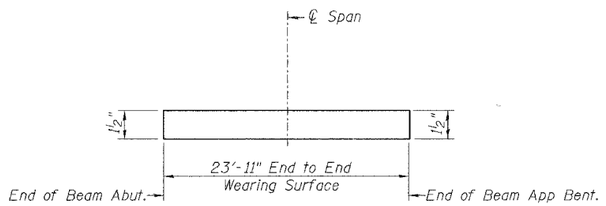
CROSS SECTION (DECK BEAMS)
Looking North



CROSS SECTION (APPROACH UNITS)



REINFORCED CONCRETE WEARING SURFACE PROFILE
PPC DECK BEAMS



ASPHALT SURFACE COURSE
PRECAST UNITS

DESIGNED	BAN
CHECKED	JDH
DRAWN	TC
CHECKED	BAN

OVERLAY DETAILS
& TYPICAL SECTIONS
F.A.P. 22 (ILL 78) OVER
COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Rev: Date:

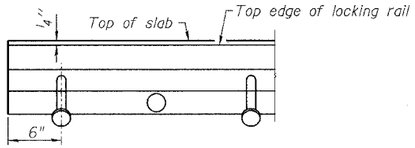
2244-12b006

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	19
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

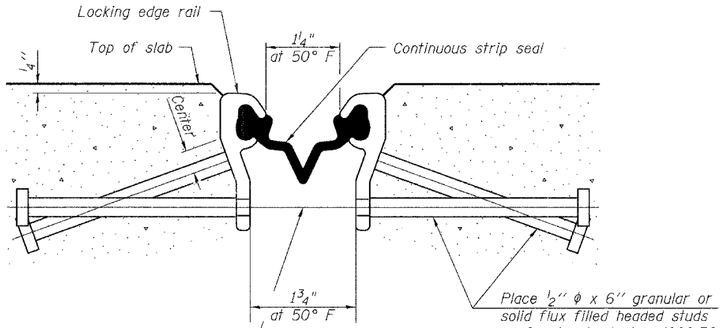
SHEET NO. 7 OF 13 SHEETS

*(125BR-2)D

CONTRACT NO. 64D47



TYPICAL END TREATMENT



SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue.

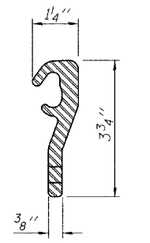
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

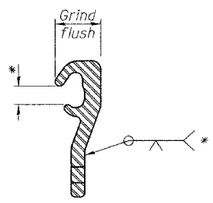
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Preformed Joint Strip Seal	Foot	33



LOCKING EDGE RAIL



* Omit weld at seal opening.

LOCKING EDGE RAIL SPLICE

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

PREFORMED JOINT STRIP SEAL
F.A.P. 22 (ILL 78) OVER COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Rev: Date:

2244-12b007

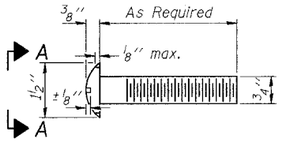
FOR RAIL POST SPACING SEE SH.#5 & #10 OF 13

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	20
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

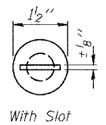
*(125BR-2)D

SHEET NO. 8 OF 13 SHEETS

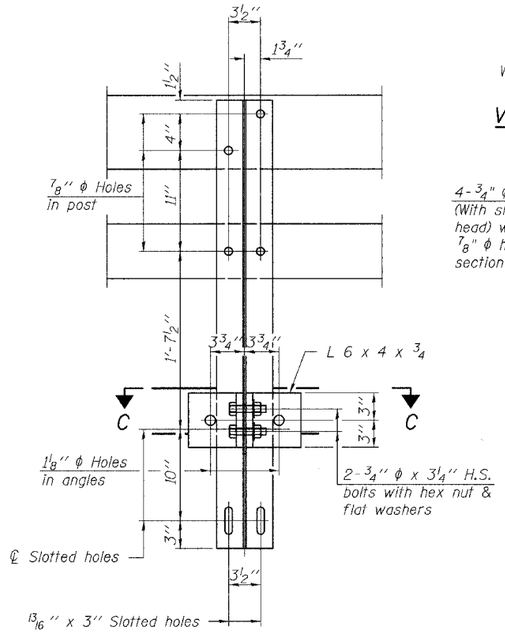
CONTRACT NO. 64D47



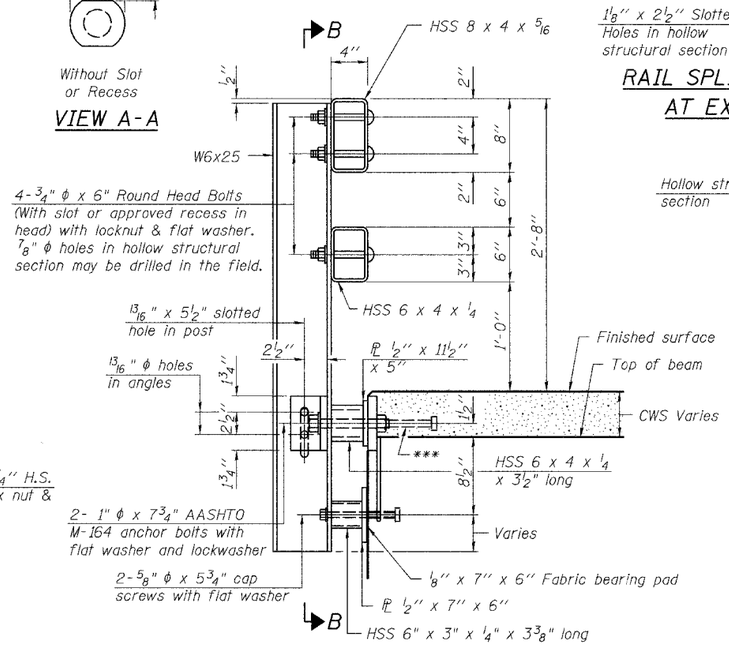
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



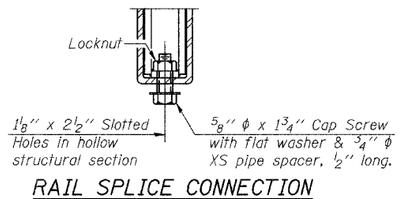
VIEW A-A



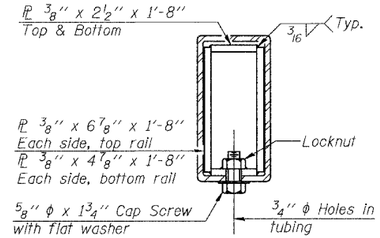
SECTION B-B



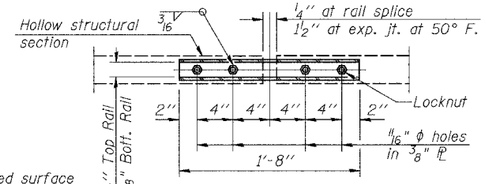
SECTION AT RAIL POST ON STRUCTURE



RAIL SPLICE CONNECTION AT EXPANSION JT.

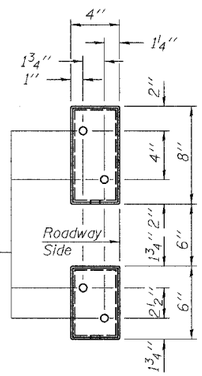


SECTION AT RAIL SPLICE

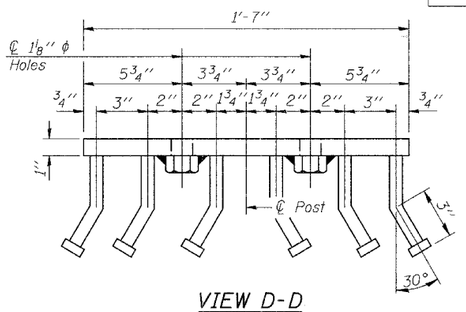


PLAN-BOTT. SPLICE ℄ TYPICAL

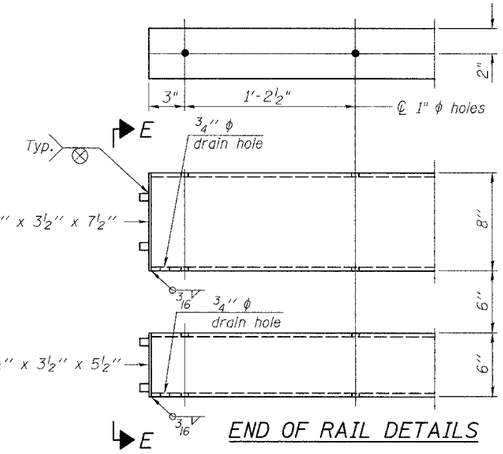
℄ -5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



VIEW E-E



VIEW D-D



END OF RAIL DETAILS

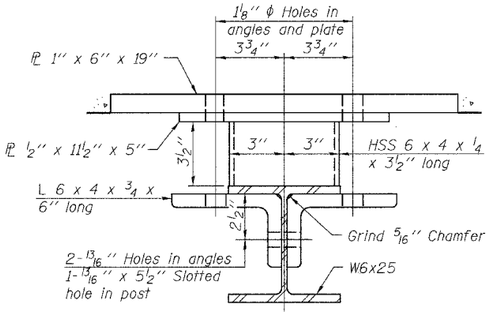
Notes:

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

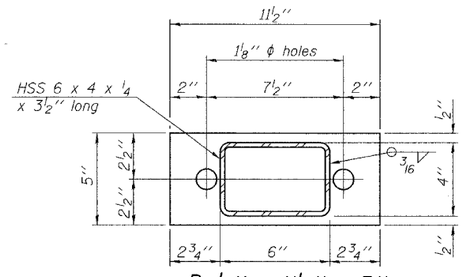
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.

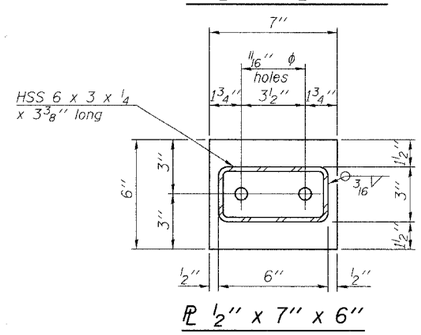
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

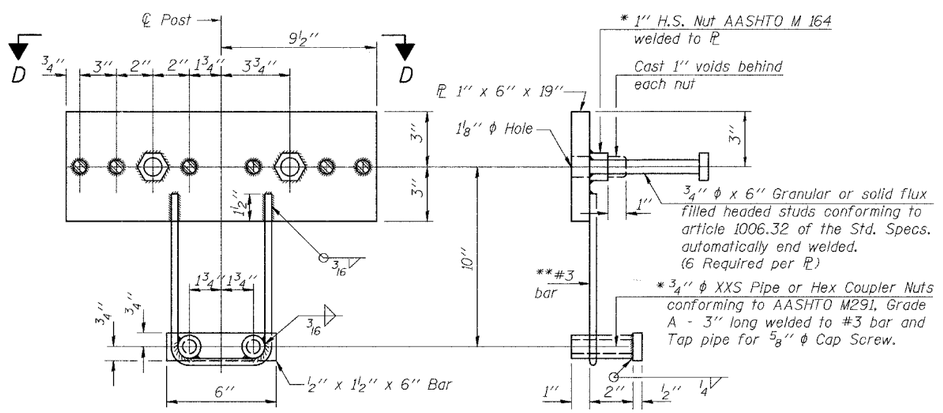
*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



SECTION C-C







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".

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	163

See Sheet 9 of 13 for additional quantities.

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

R-34CWS 11-1-06 (6'-3" Maximum Post Spacing) (5" minimum to 6 1/2" maximum CWS thickness)

2244-12b008

STEEL RAILING, TYPE SM
WITH CONCRETE WEARING SURFACE
F.A.P. 22 (ILL 78) OVER
COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Rev: Date:

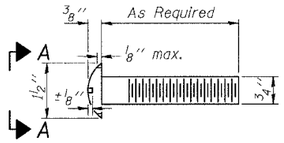
ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	21
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

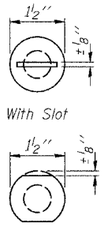
SHEET NO. 9 OF 13 SHEETS

*(125BR-2D CONTRACT NO. 64D47

FOR RAIL POST SPACING SEE SH.#10 OF 13

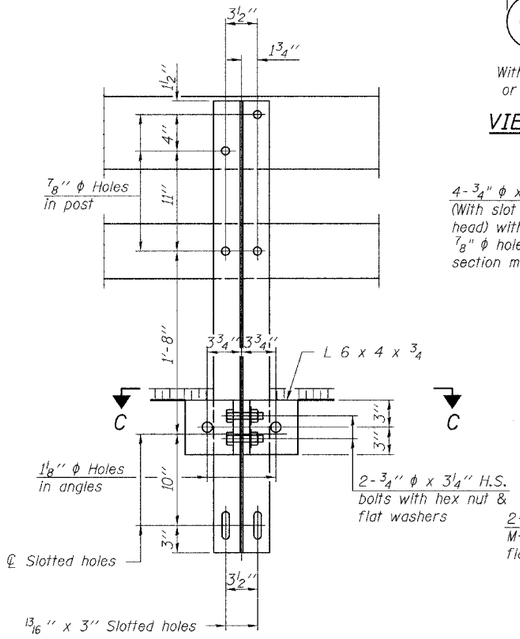
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



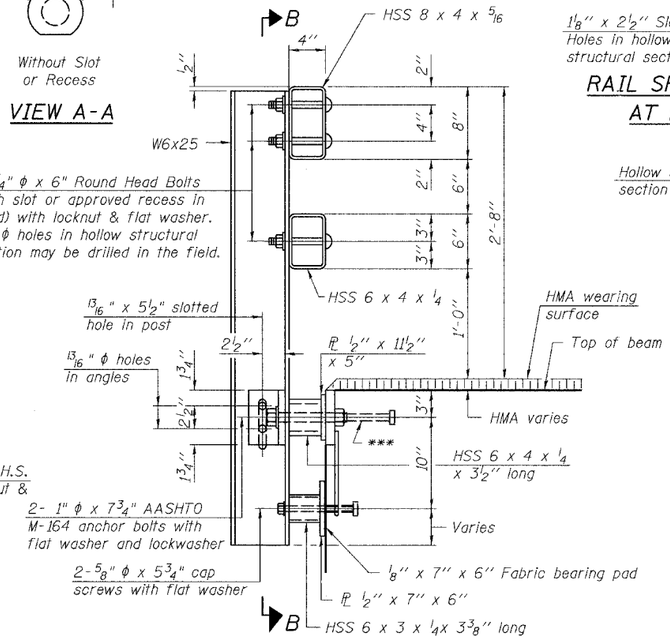


VIEW A-A

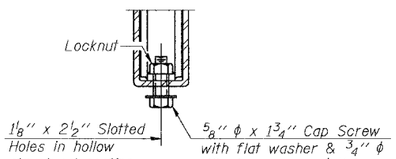
SECTION B-B

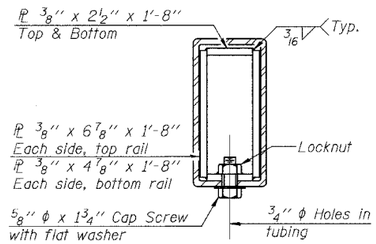


SECTION AT RAIL POST ON APPROACH BEAM

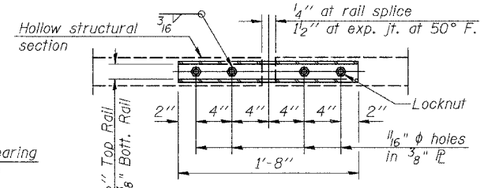


RAIL SPLICE CONNECTION AT EXPANSION JT.



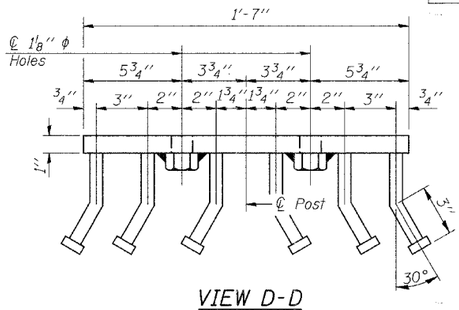


SECTION AT RAIL SPLICE

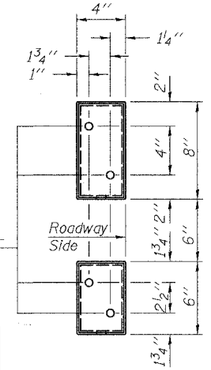


PLAN-BOTT. SPLICE PL TYPICAL

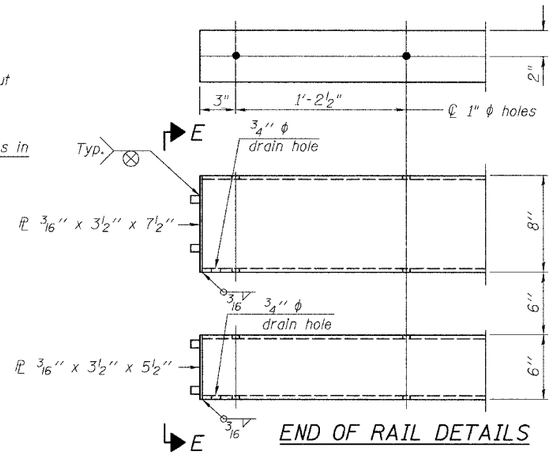
℄ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



VIEW D-D



VIEW E-E



END OF RAIL DETAILS

Notes:

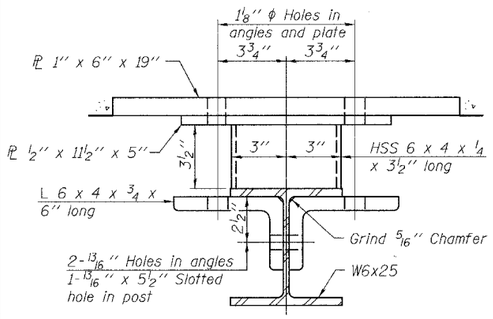
All field drilled holes shall be coated with an approved zinc rich paint before erection.

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 Railing, Type SM.

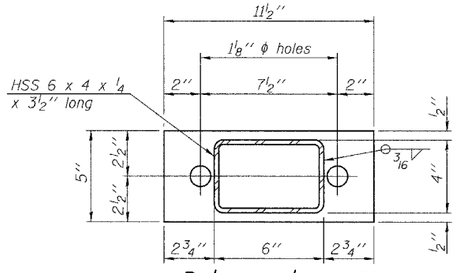
All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.

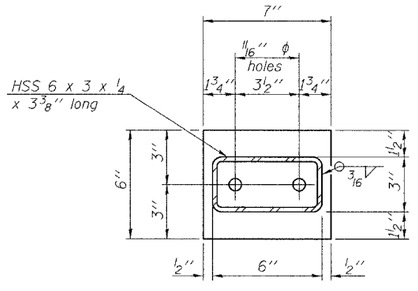
*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

SECTION C-C

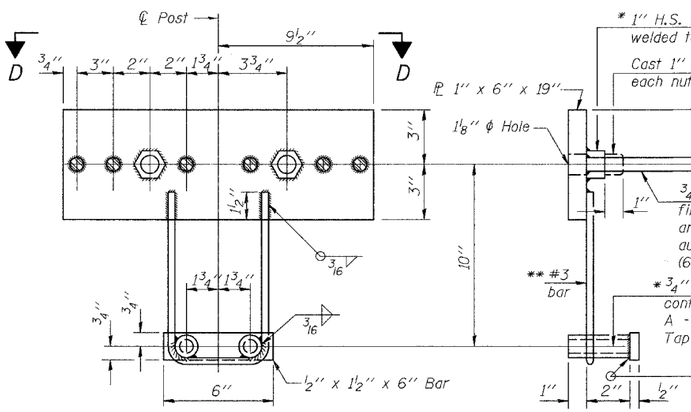


PL 1/2" x 11 1/2" x 5"





PL 1/2" x 7" x 6"



* 1" H.S. Nut AASHTO M 164 welded to PL

Cast 1" voids behind each nut

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".

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	96

See sheet 8 of 13 frr additional quantities.

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

R-34HMAWS 11-1-06 (6'-3" Maximum Post Spacing) (1 1/4" minimum to 3 1/8" maximum HMA thickness)

2244-12b009

STEEL RAILING, TYPE SM WITH HOT-MIX ASPHALT WEARING SURFACE F.A.P. 22 (ILL 78) OVER COAL CREEK SECTION (125BR-2)D HENRY COUNTY STATION 680+94.38 STR. NO. 037-0130

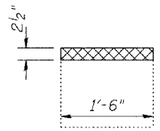
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Rev: Date:

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	22
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

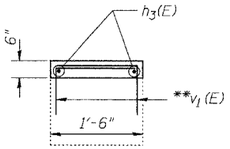
SHEET NO. 10 OF 13 SHEETS

*(125BR-2)D

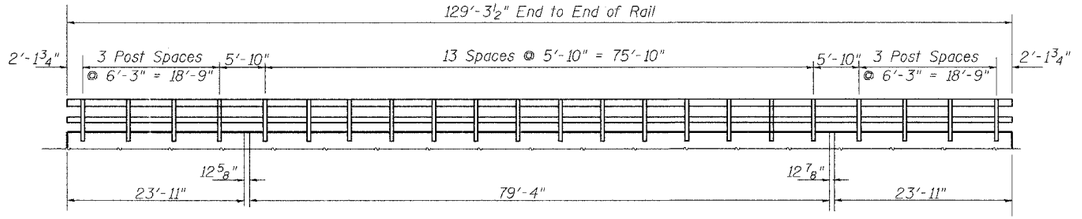
CONTRACT NO. 64D47



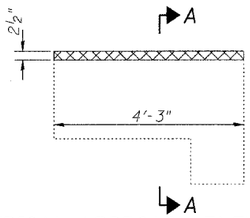
SECTION A-A



SECTION B-B

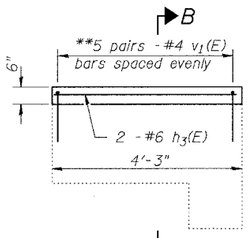


RAIL POST SPACING



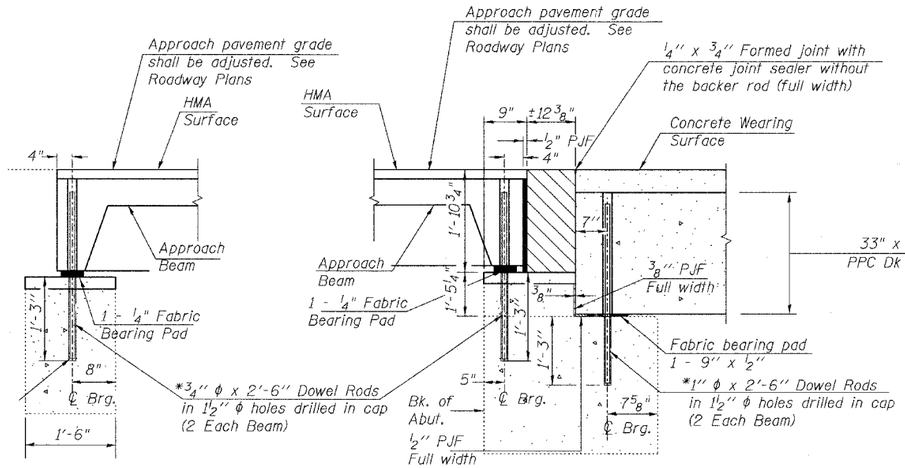
TYPICAL APPROACH ELEVATION CONCRETE REMOVAL

Northwest Bent Looking North
(Other bents similar)



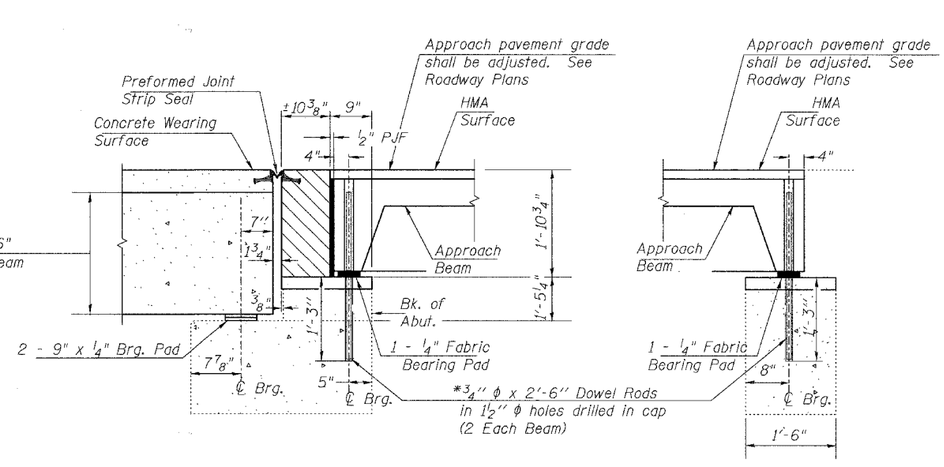
TYPICAL APPROACH BENT ELEVATION

Northwest Bent Looking North
(Other bents similar)



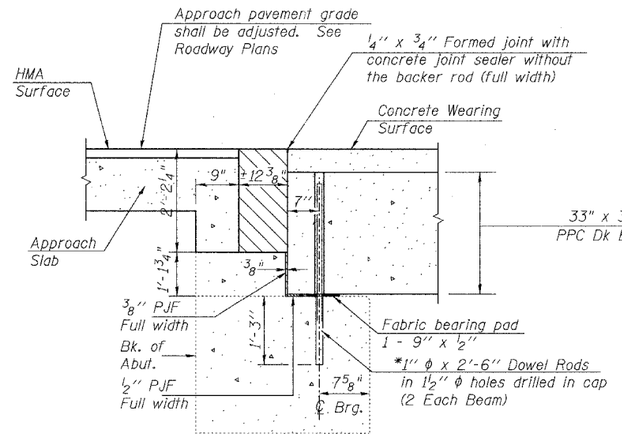
SECTION THRU NORTH ABUTMENT

@ ℄ App. Beam



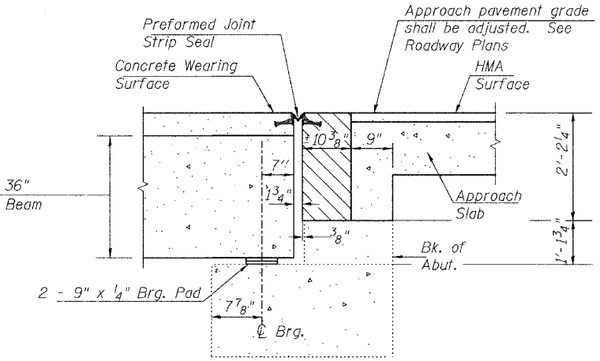
SECTION THRU SOUTH ABUTMENT

@ ℄ App. Beam



SECTION THRU NORTH ABUTMENT

@ ℄ Rdwy



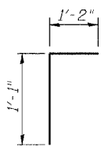
SECTION THRU SOUTH ABUTMENT

@ ℄ Rdwy

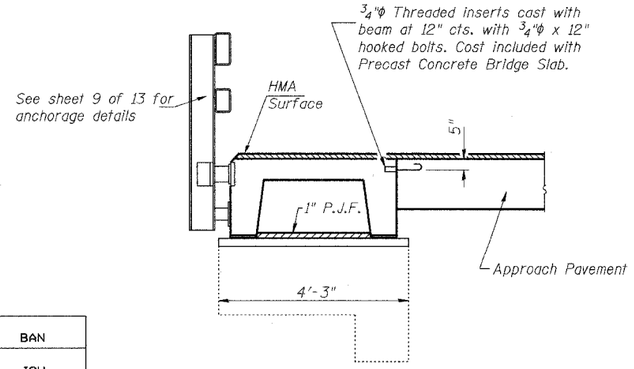
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h3(E)	8	#6	4'-0"	——
v1(E)	40	#4	2'-3"	Γ
Concrete Removal			Cu. Yd.	0.2
Concrete Structures			Cu. Yd.	0.4
Reinforcement Bars, Epoxy Coated			Pound	110

Bill of Material contains only Approach Bents.



BAR v1(E)



TYPICAL APPROACH SECTION NEAR BENT

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

**Epoxy grout bars v(E) in 9" min. drilled holes according to Section 584 of the Standard Specifications.

* Existing Dowel Rods shall be burned off flush with the top of existing concrete, ground smooth, and sealed with epoxy. Cost to be included in the cost of Removal of Existing Superstructures.

Notes :

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.

Hatched area to be poured after concrete wearing surface is in place.

See sheet 4 and 5 of 13 for bearing pad details.

SUPERSTRUCTURE & APPROACH BENT DETAILS
F.A.P. 22 (ILL 78) OVER
COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Rev: Date:

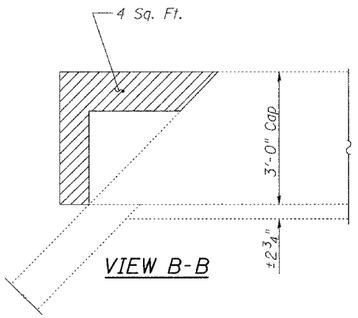
2244-12b010

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	23
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

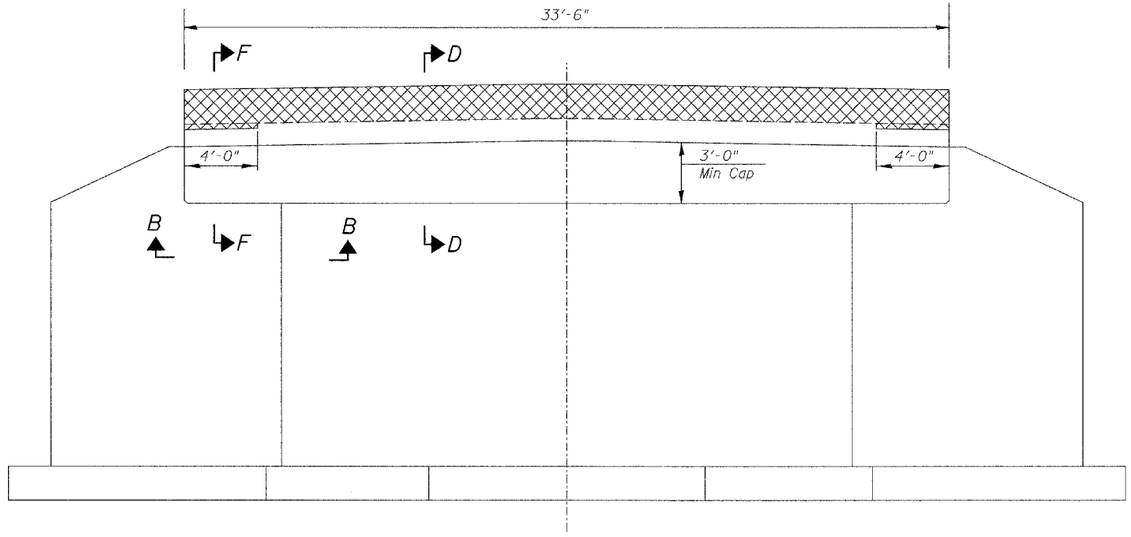
SHEET NO. 11 OF 13 SHEETS

*(125BR-2)D

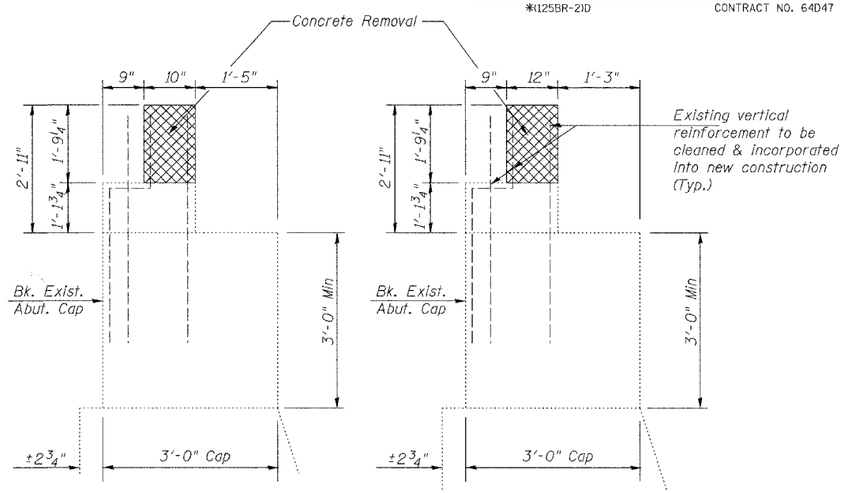
CONTRACT NO. 64D47



VIEW B-B

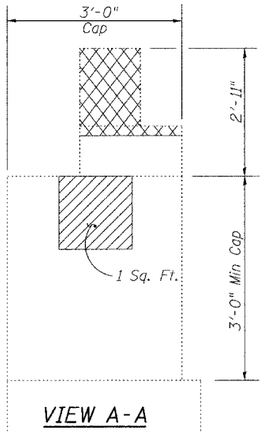


NORTH ABUTMENT
Looking North



SECTION C-C
(Showing Removal)
(SOUTH ABUTMENT)

SECTION D-D
(Showing Removal)
(NORTH ABUTMENT)

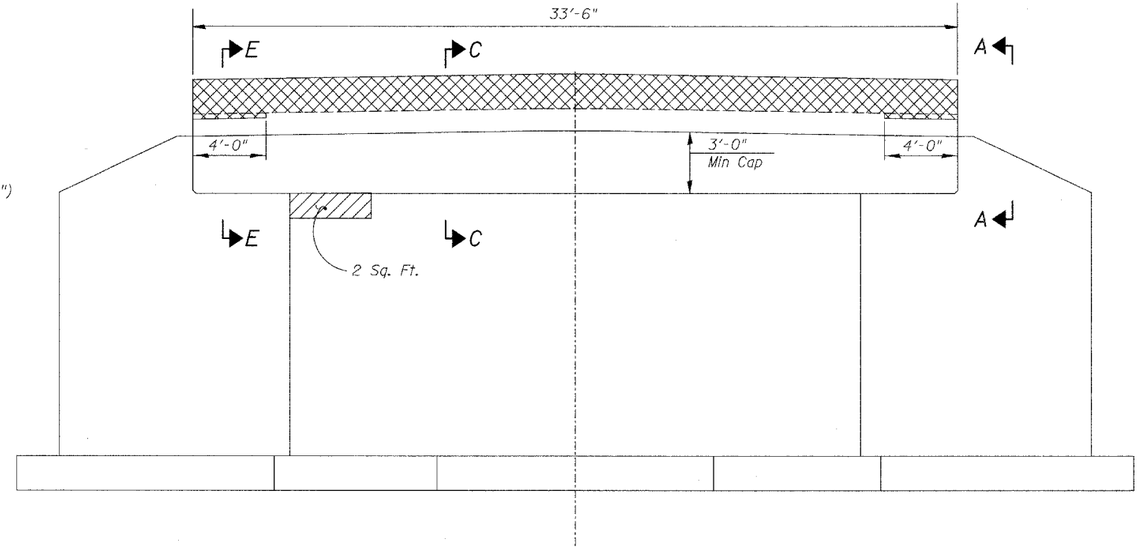


VIEW A-A

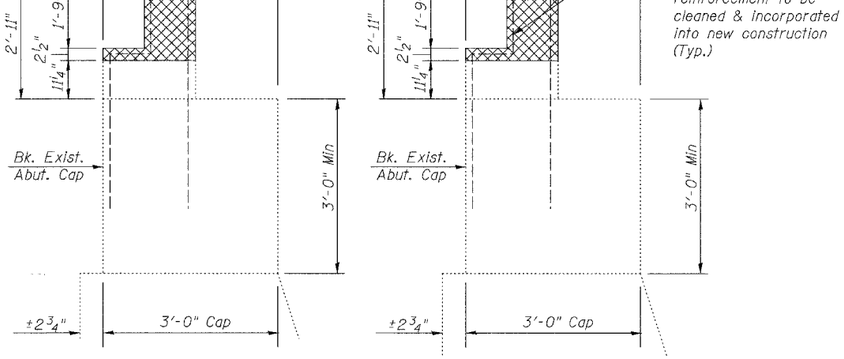
LEGEND

Structural Repair of Concrete (Depth Equal to or less than 5")

Concrete Removal



SOUTH ABUTMENT
Looking South



SECTION E-E
(Showing Removal)
(SOUTH ABUTMENT)

SECTION F-F
(Showing Removal)
(NORTH ABUTMENT)

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	4.3
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	7

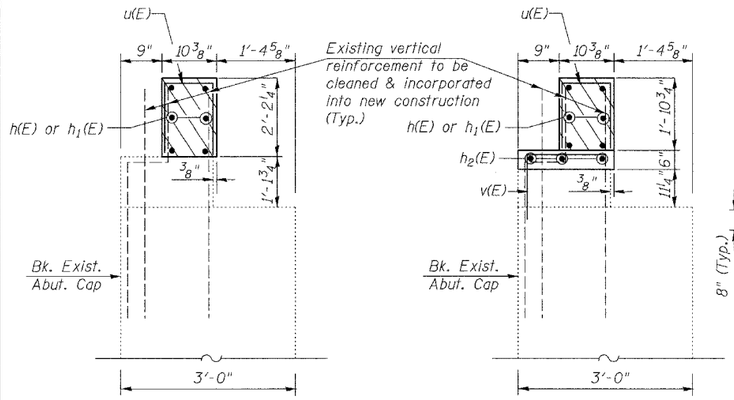
DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

2244-12b011

ABUTMENT REPAIR AND CONCRETE REMOVAL F.A.P. 22 (ILL 78) OVER COAL CREEK SECTION (125BR-2)D HENRY COUNTY STATION 680+94.38 STR. NO. 037-0130

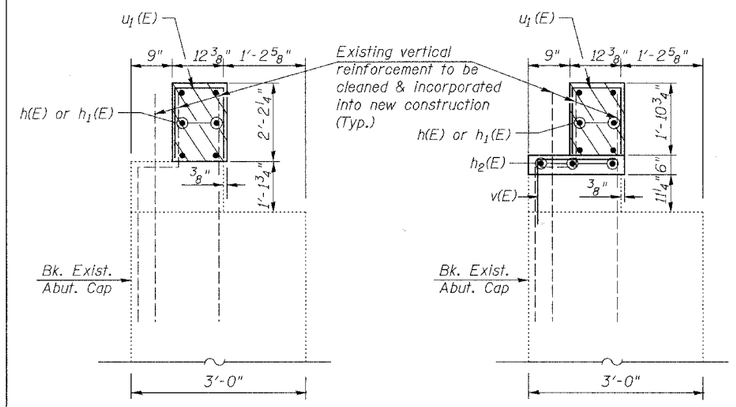
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Rev: Date:



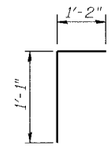
SECTION A-A SOUTH ABUTMENT

SECTION C-C SOUTH ABUTMENT

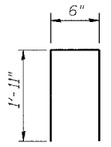


SECTION B-B NORTH ABUTMENT

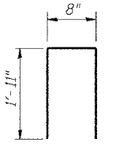
SECTION D-D NORTH ABUTMENT



BAR v(E)



BAR u(E)



BAR $u_1(E)$

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

Notes:

Existing vertical reinforcement bars extending into new construction shall be cleaned, straightened and incorporated into the new construction. Cost to be included with Concrete Removal.

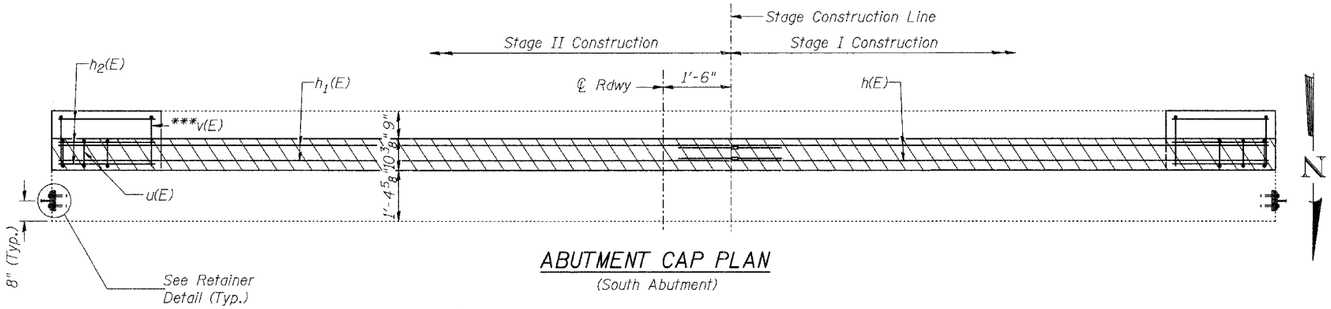
Hatched areas shall be poured after concrete wearing surface is in place and cured.

See sheet 2 of 13 for additional anchor bolt notes.

See Sheet 13 of 13 for Bar Splicer Details.

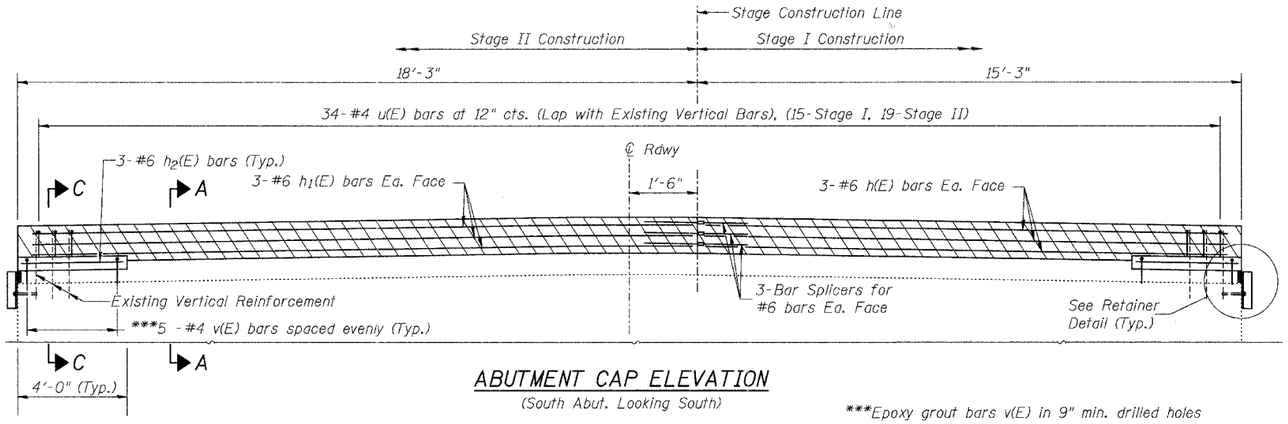
MIN. BAR LAP

#4 = 1'-4"



ABUTMENT CAP PLAN

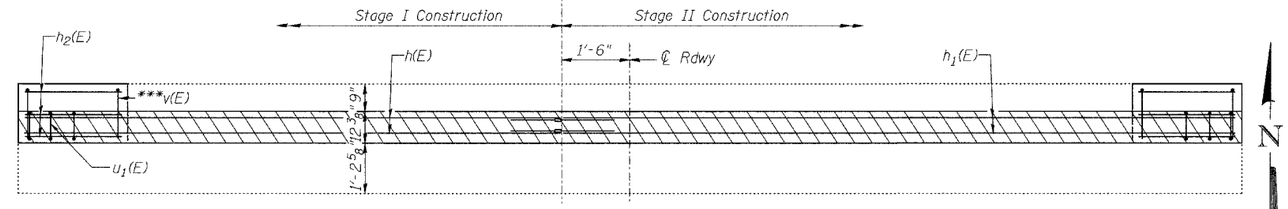
(South Abutment)



ABUTMENT CAP ELEVATION

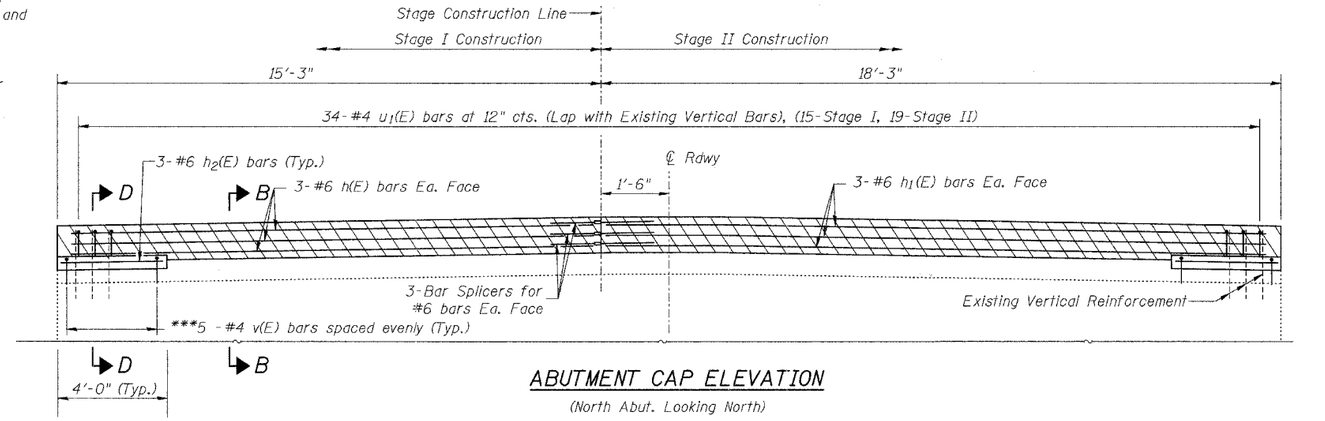
(South Abut. Looking South)

***Epoxy grout bars v(E) in 9" min. drilled holes according to Section 584 of the Standard Specifications.



ABUTMENT CAP PLAN

(North Abutment)



ABUTMENT CAP ELEVATION

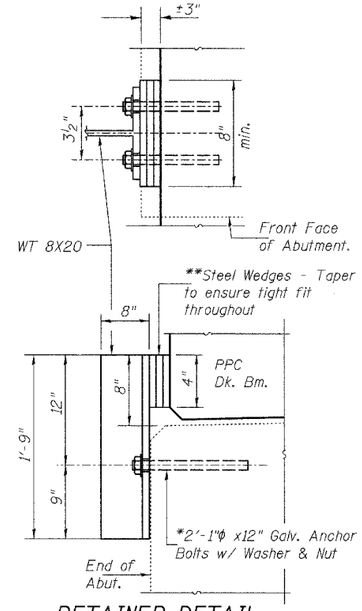
(North Abut. Looking North)

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	24
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

*(125BR-21D

SHEET NO. 12 OF 13 SHEETS

CONTRACT NO. 64D47



RETAINER DETAIL S. ABUTMENT

* Anchor bolts will be approved threaded rod placed in drilled holes and grouted in place. Cost of retainer and accessories are included with Precast Prestressed Concrete Deck Beams.

** Remove steel wedges after concrete wearing surface has cured.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#6	15'-0"	——
$h_1(E)$	12	#6	18'-0"	——
$h_2(E)$	12	#6	3'-9"	——
u(E)	34	#4	4'-4"	⊓
$u_1(E)$	34	#4	4'-6"	⊓
v(E)	20	#4	2'-3"	⌐
Concrete Structures			Cu. Yd.	5.4
Bar Splicers			Each	12
Reinforcement Bars, Epoxy Coated			Pound	890

ABUTMENT DETAILS F.A.P. 22 (ILL 78) OVER COAL CREEK SECTION (125BR-2)D HENRY COUNTY STATION 680+94.38 STR. NO. 037-0130

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Rev: Date:

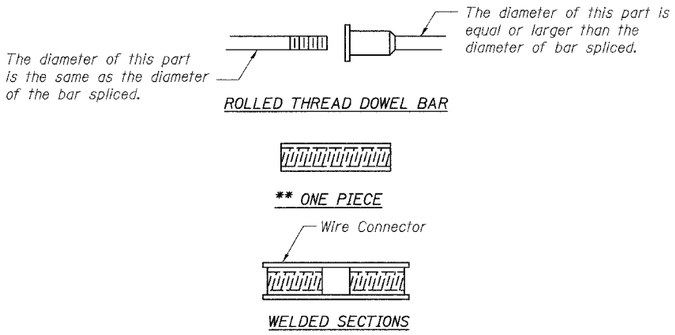
2244-12b012

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 22	*	HENRY	34	25
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 13 OF 13 SHEETS

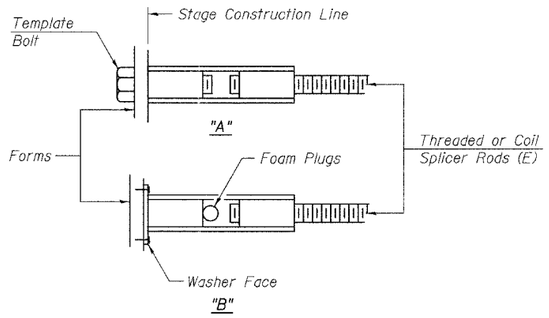
*(125BR-2)D

CONTRACT NO. 64D47



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

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

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

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

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

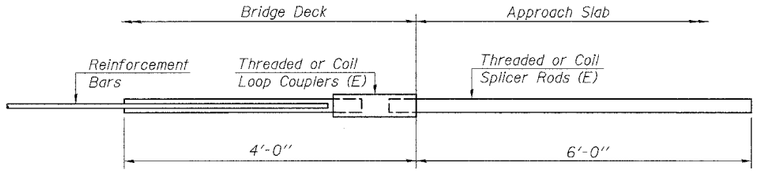
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = 1.25 x fy x A_t

② Minimum *Pull-out Strength (Tension in kips) = 0.66 x fy x A_t

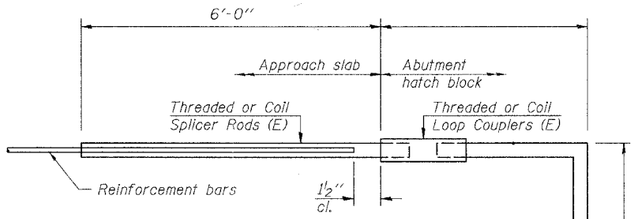
Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



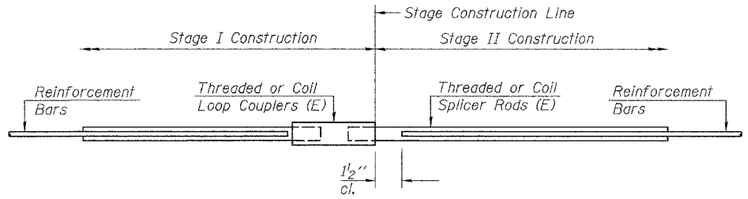
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#4	80	Conc. wear. Surf.
#6	12	Abut. End Block

DESIGNED	BAN
CHECKED	JOH
DRAWN	TC
CHECKED	BAN

BSD-1 11-1-06

2244-12b013

BAR SPLICER ASSEMBLY DETAILS
F.A.P. 22 (ILL 78) OVER COAL CREEK
SECTION (125BR-2)D
HENRY COUNTY
STATION 680+94.38
STR. NO. 037-0130

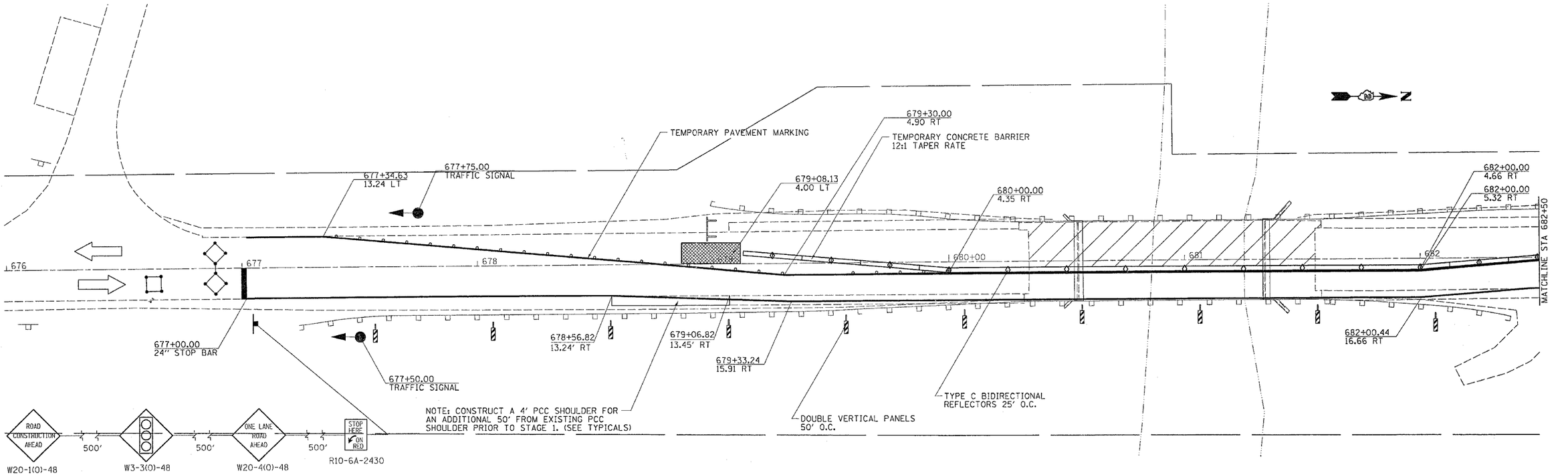
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

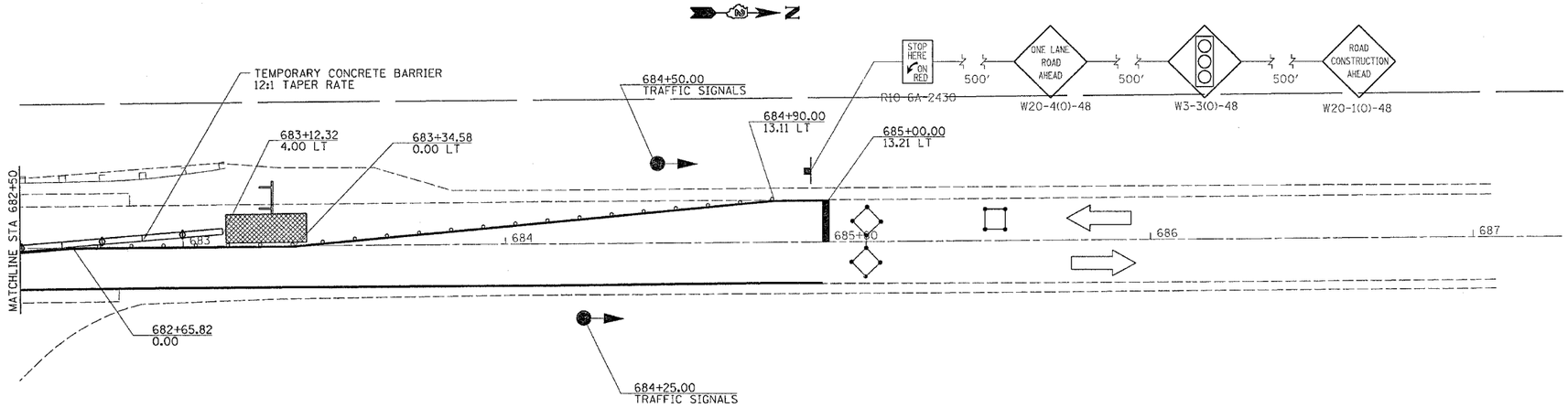
Rev: Date:

CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	26
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 1





= WORK AREA
= SIGN
= TYPE III BARRICADE
= DOUBLE VERTICAL PANEL
= TYPE C BIDIRECTIONAL REFLECTOR
= TRAFFIC SIGNAL
= INDUCTION LOOP DETECTOR
= IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

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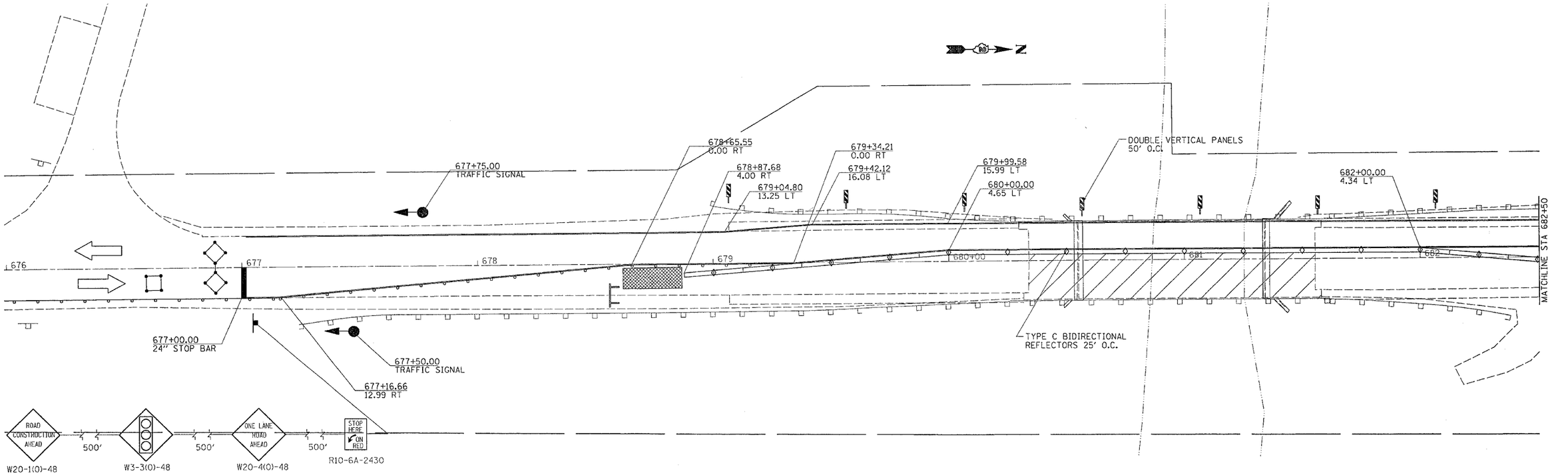
FILE NAME = c:\projects\p209207\d892207stg.dgn
PLOT SCALE = 20.0000 ' / IN.
USER NAME = cushmandw

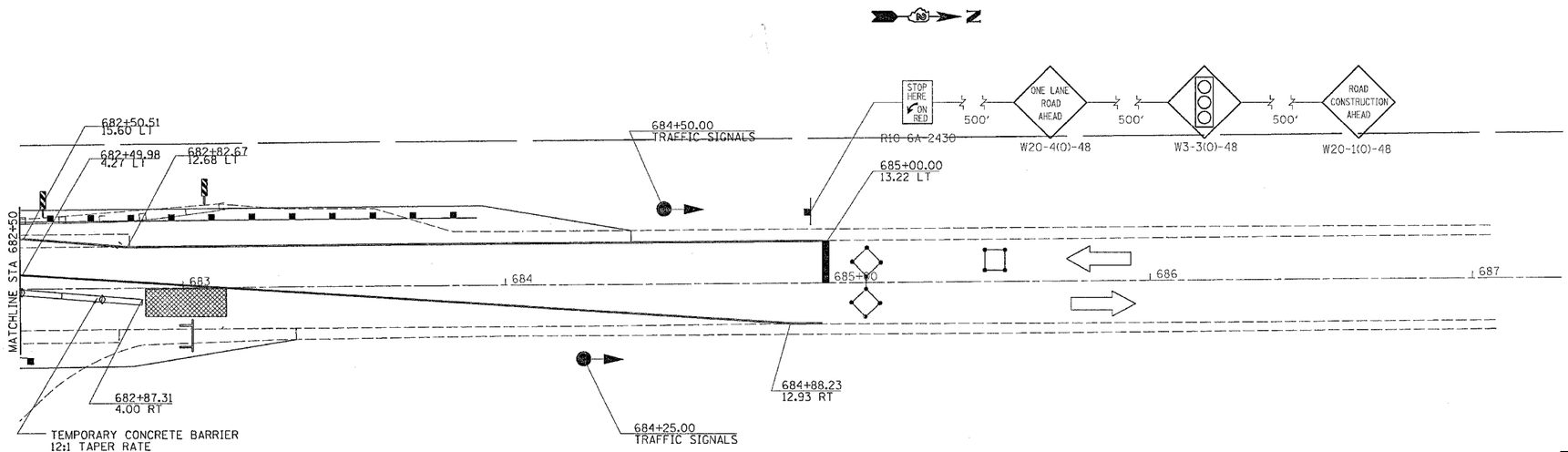
STAGING DETAILS

CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	27
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 2





= WORK AREA
= SIGN
= TYPE III BARRICADE
= DOUBLE VERTICAL PANEL
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= INDUCTION LOOP DETECTOR
= IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

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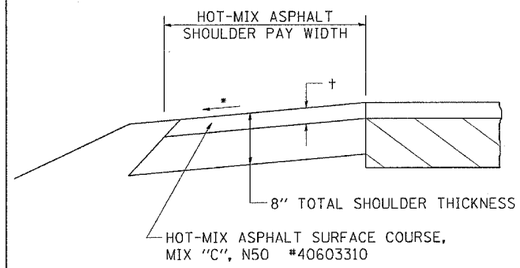
STAGING DETAILS

CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	28
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOT-MIX ASPHALT SHOULDER



† = SEE TYPICAL SECTIONS FOR THICKNESS

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

GENERAL NOTES

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED.

USE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. WHEN RESURFACING EXISTING HOT-MIX ASPHALT SHOULDERS. THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310.

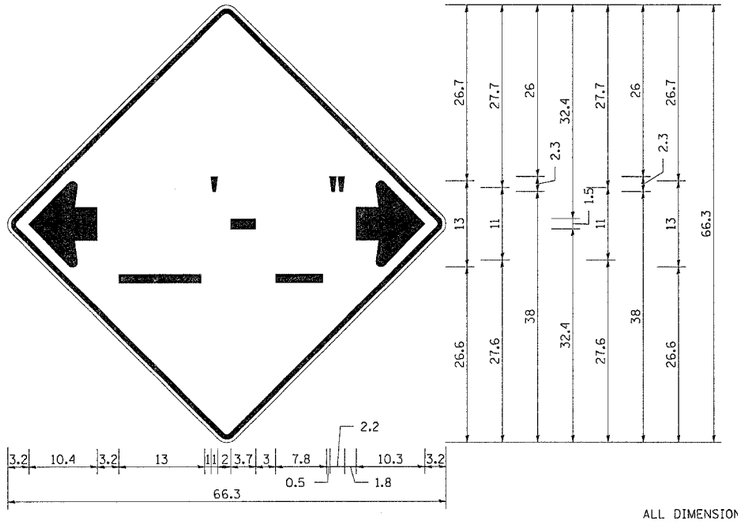
REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

HOT-MIX ASPHALT SHOULDER 23.4a

REVISED 10-06-06

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



NOTES
W12-2 - Horizontal Clearance Sign 48.0" across sides, 1.9" Radius, 0.8" Border, 0.5" Indent, Black on Orange; Standard Arrow Custom 10.4" X 8.1" 180° Black 11 Inch D Series Lettering; Standard Arrow Custom 10.4" X 8.1" 0°

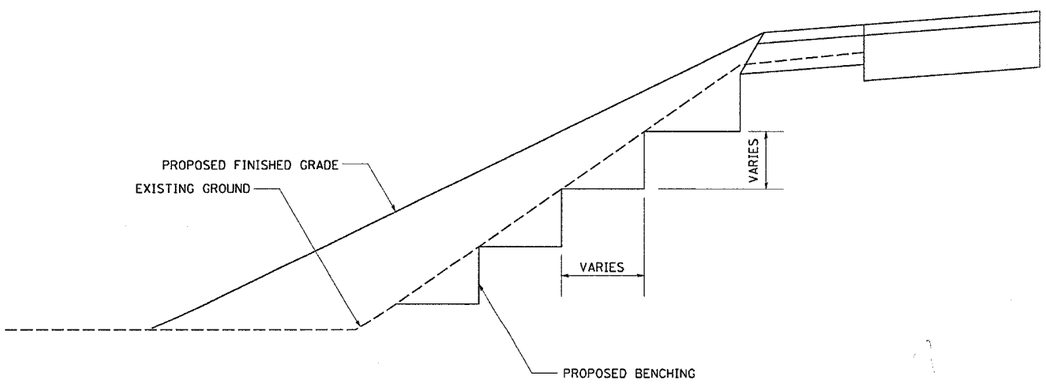
All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES) 39.4

REVISED 6-29-05

TYPICAL BENCHING ON EXISTING EMBANKMENT



TYPICAL BENCHING ON EXISTING EMBANKMENT 50.4

REVISED 2-22-06

STOP LINE SIGN FOR TEMPORARY SIGNALS

SIZE: 600(24) x 600(24)

100(4) CAPITAL LETTERS - BLACK

13(1/2) BORDER - BLACK

WHITE REFLECTIVE - TYPE AP
HIGH INTENSITY PRISMATIC SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

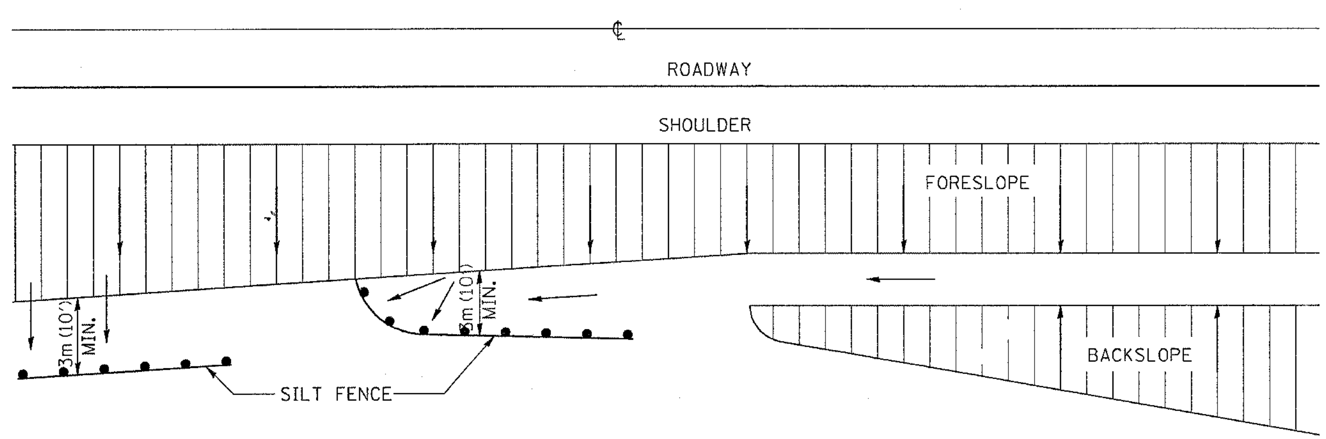
STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

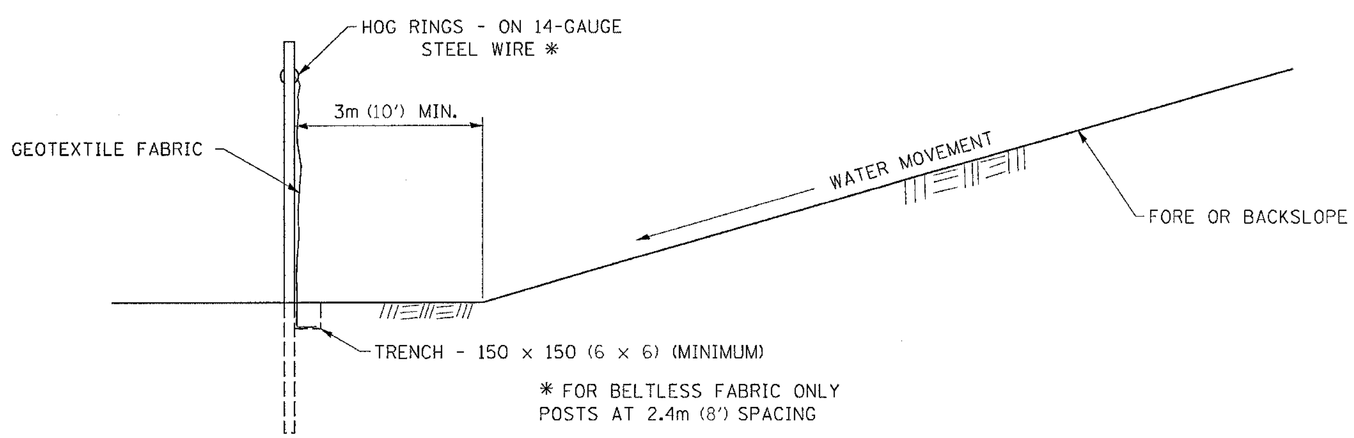
REVISED 1-22-07

PLOT DATE = Wed May 16 11:34:48 2007
FILE NAME = c:\projects\b269207\d892207sp1.dgn
PLOT SCALE = 50.000000 ' / IN.
REFERENCE = REF

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	29
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EROSION CONTROL DETAILS FOR SILT FENCE



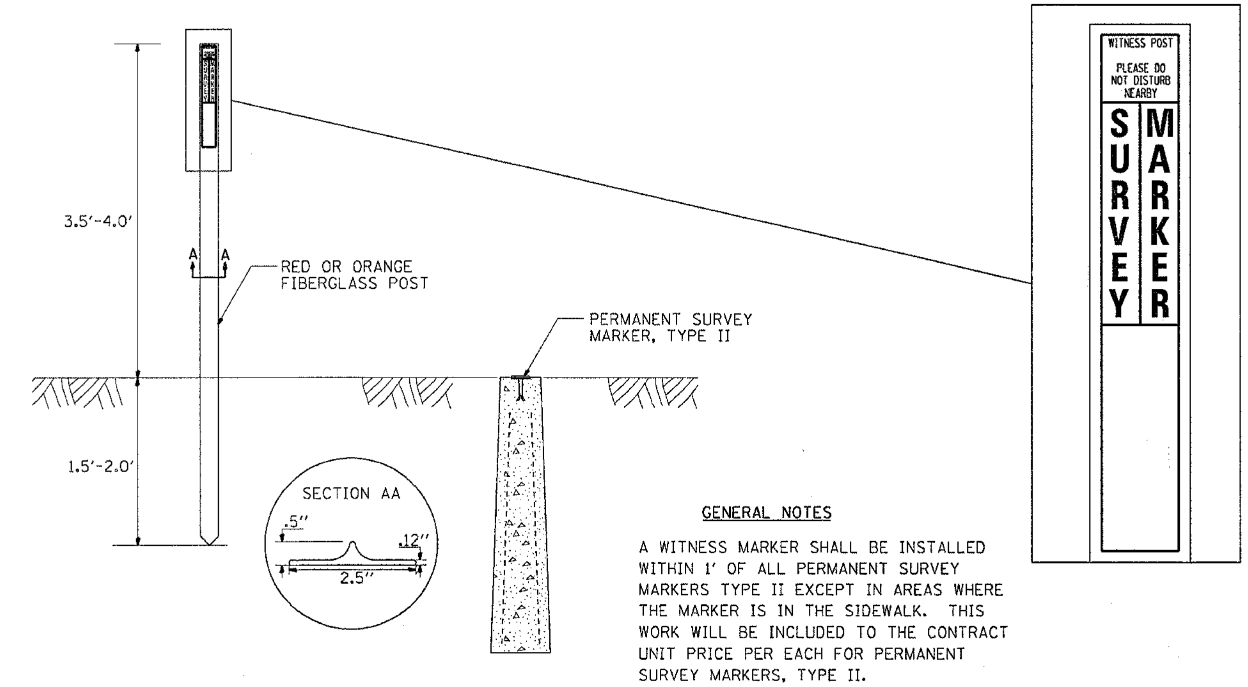


* FOR BELTLESS FABRIC ONLY POSTS AT 2.4m (8') SPACING

DETAILS OF SILT FENCE

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

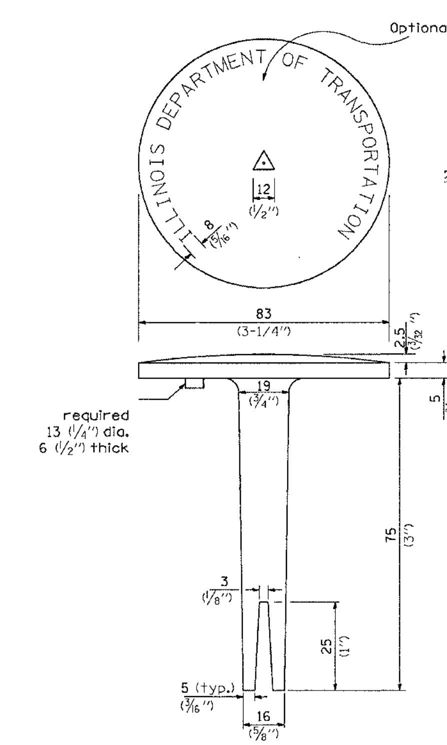
WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II



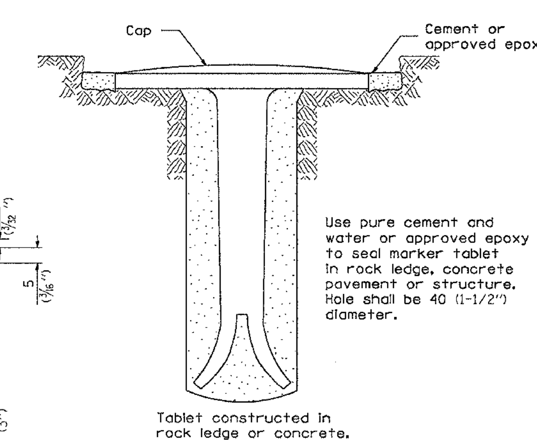
GENERAL NOTES

A WITNESS MARKER SHALL BE INSTALLED WITHIN 1' OF ALL PERMANENT SURVEY MARKERS TYPE II EXCEPT IN AREAS WHERE THE MARKER IS IN THE SIDEWALK. THIS WORK WILL BE INCLUDED TO THE CONTRACT UNIT PRICE PER EACH FOR PERMANENT SURVEY MARKERS, TYPE II.

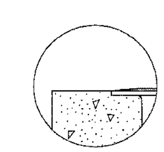
PERMANENT SURVEY MARKERS, TYPE II



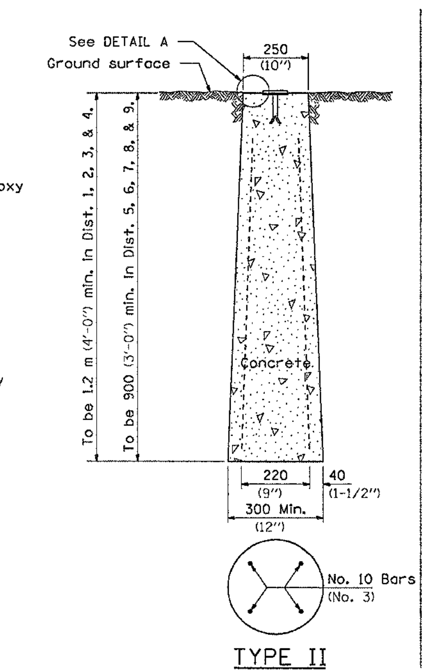
BRASS OR ALUMINUM TABLET



TYPE II



DETAIL A



TYPE II

CAST-IN-PLACE MARKER

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

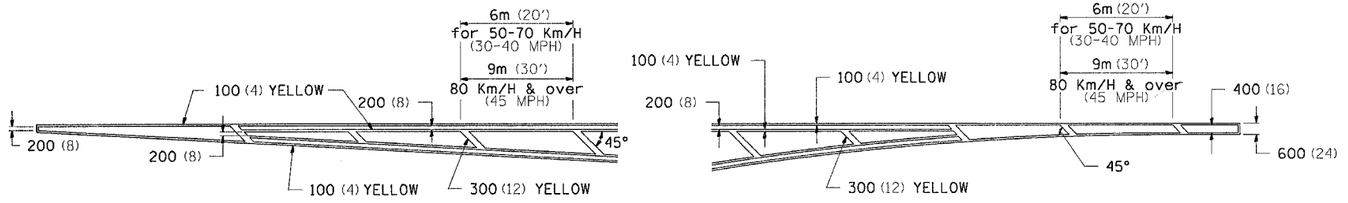
PLOT DATE = Wed May 16 11:34:55 2007
FILE NAME = c:\projects\p20207\d09287spl.dgn
PLOT SCALE = 50.0000 '/ IN.
REFERENCE = #REF#

CONTRACT NO. 64D47

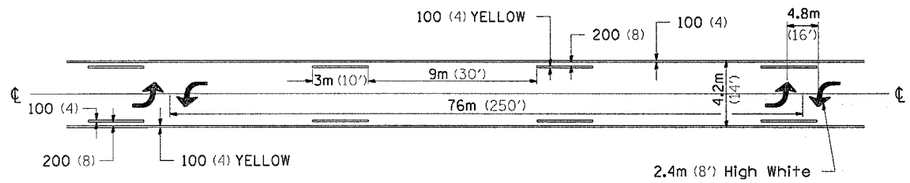
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	30
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

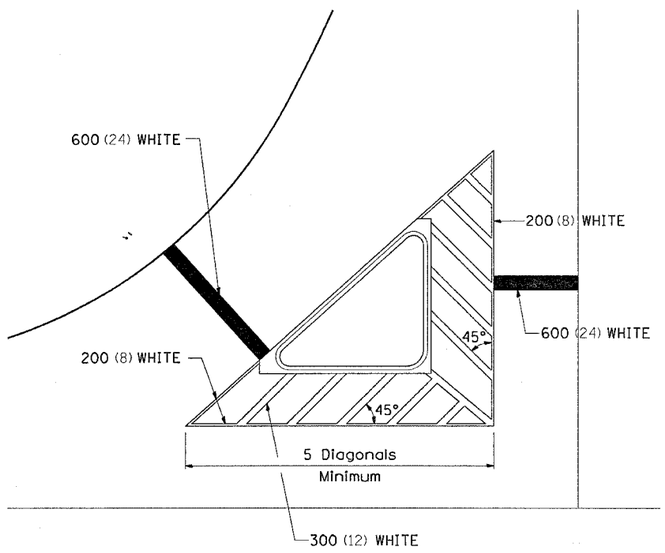
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



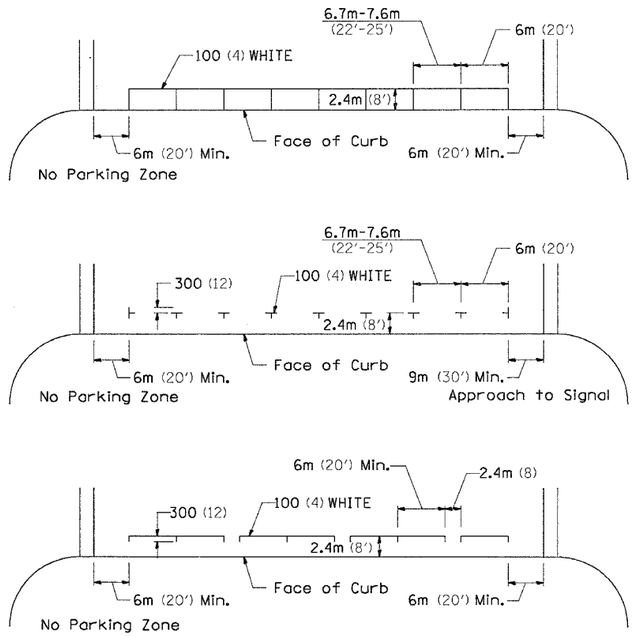
MEDIAN PAVEMENT MARKING



TYPICAL ISLAND OFFSET SHOULDER WIDTH



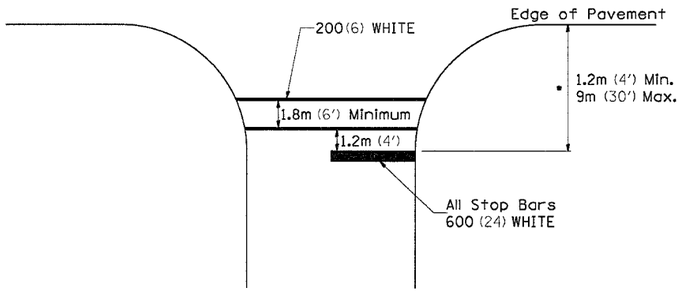
TYPICAL PARKING SPACING



•• ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

STANDARD CROSSWALK MARKING

See Schedules for Locations



• Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

PLOT DATE = Wed May 16 11:26:03 2007
FILE NAME = c:\projects\d2007\d97207\pl-dgn
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REFERENCE = REF

REVISED 2-7-05

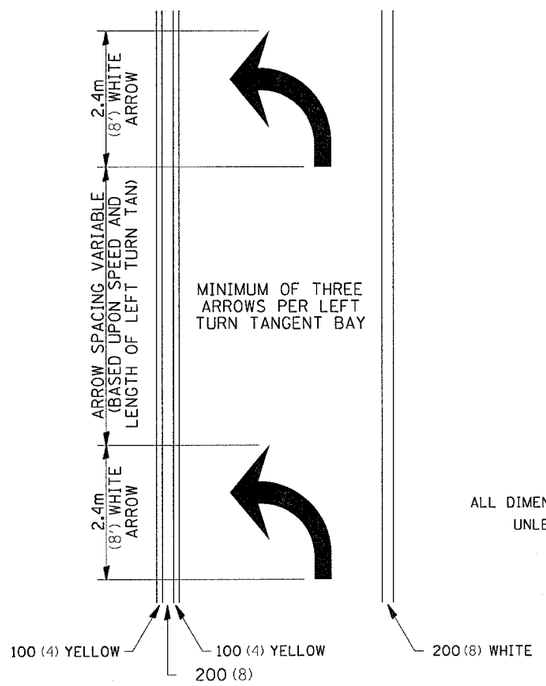
CONTRACT NO. 64D47

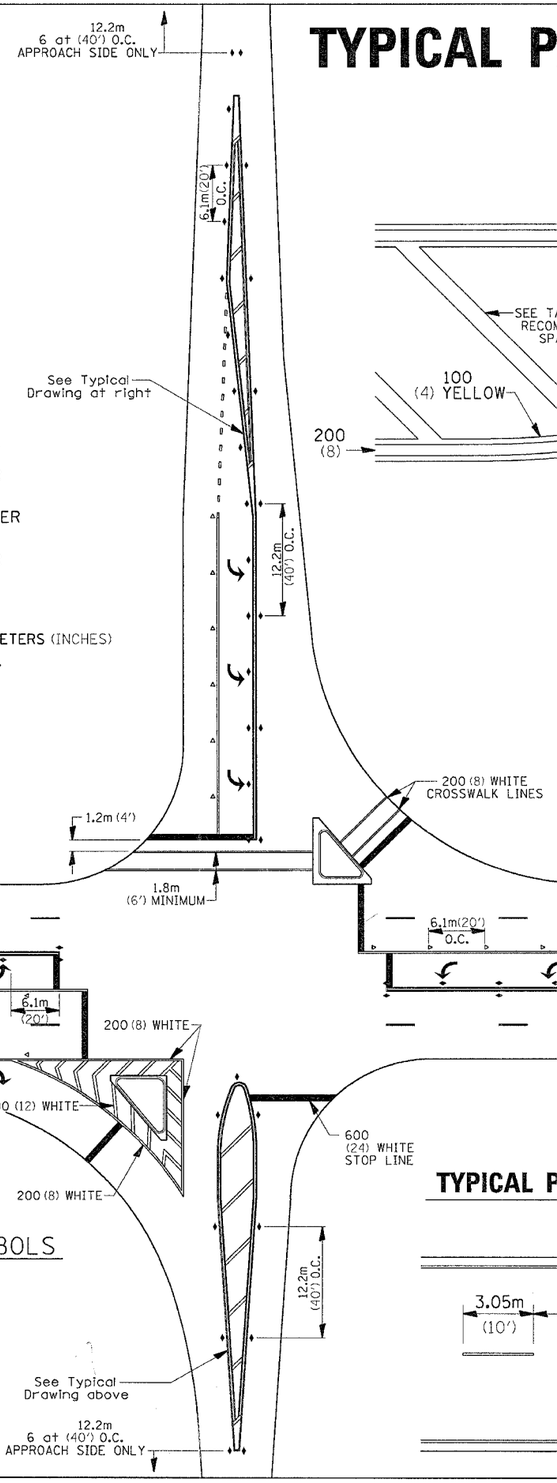
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	31
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* ROUTE 22 (IL 78)

TYPICAL PAVEMENT MARKINGS

ARROW LAYOUT

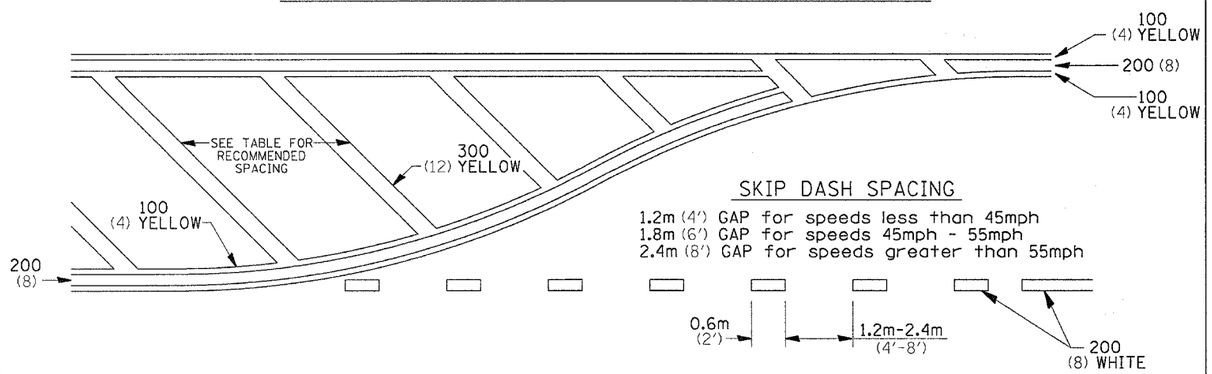




- REDUCE TO 12.2m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 15Km/H (10MPH) LOWER THAN POSTED SPEEDS.
- ** USE DOUBLE MARKERS WHEN ADT ≥ 25,000

MULTI-LANE / UNDIVIDED

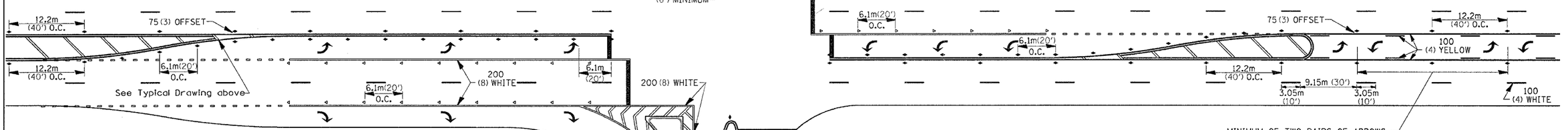
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



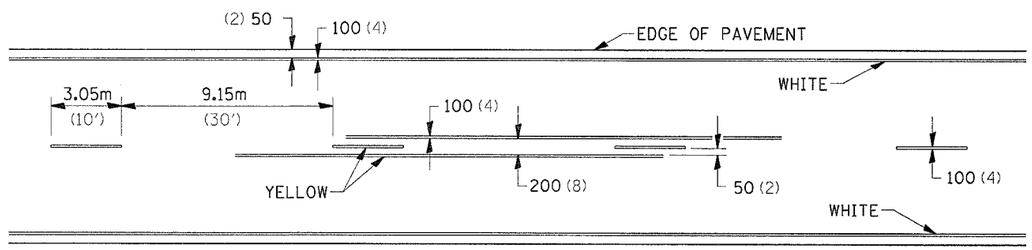
RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 50Km/H (30MPH)	15.3m (50')	4.53m (15')	3.05m (10')
50-60Km/H (30-40MPH)	22.9m (75')	6.1m (20')	4.53m (15')
70Km/H (45MPH) & over	22.9m (75')	9.05m (30')	6.1m (20')

NOTE: If the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES



PLOT DATE = Wed May 16 11:35:12 2007
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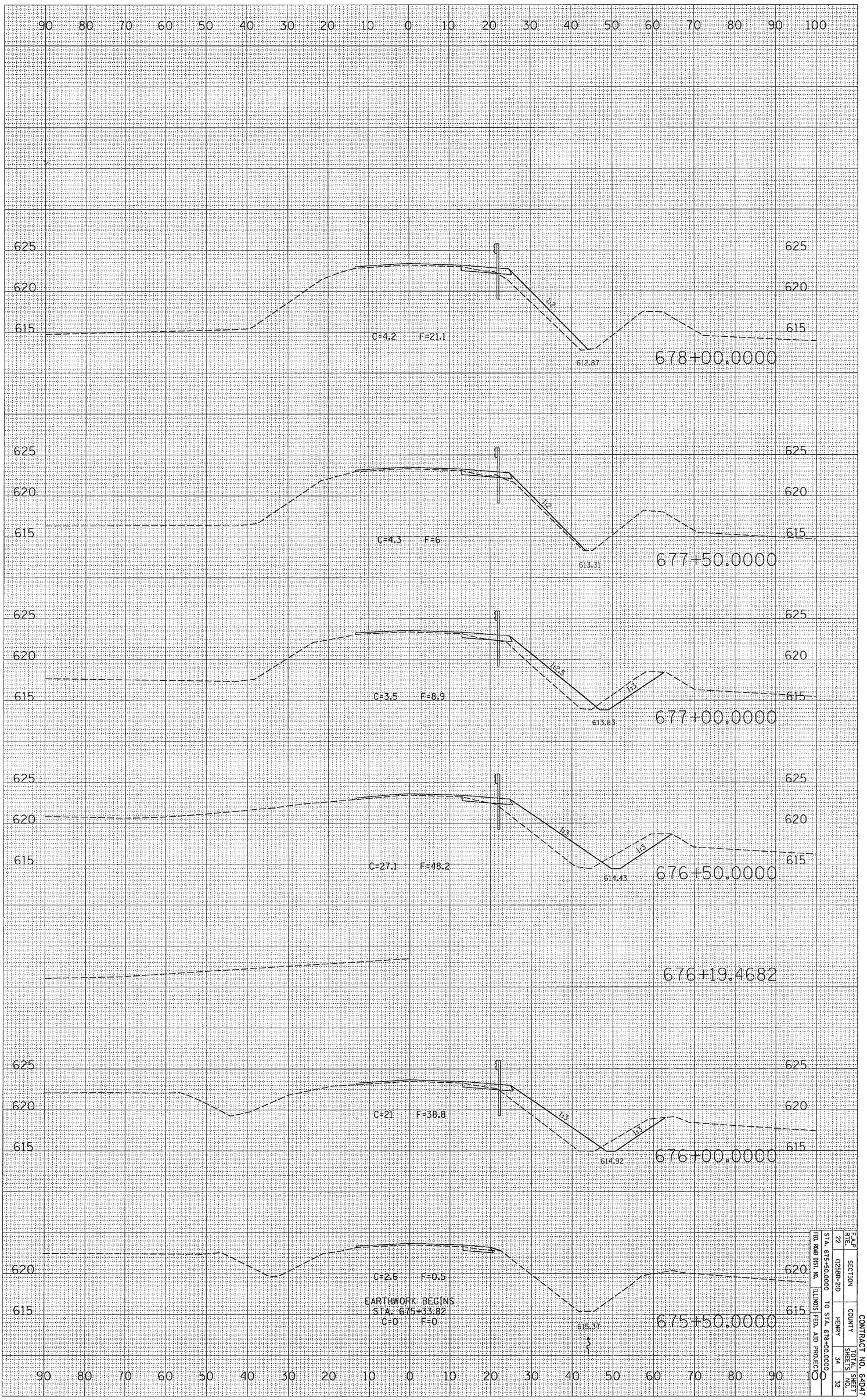
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = MDS

REVISED 10-15-04

PLOT DATE = Wed May 16 11:37:07 2007
FILE NAME = c:\projects\p209207\d09207xmshtl.dgn
PLOT SCALE = 10.000 ' / IN.
USER NAME = cushmanbw

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

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



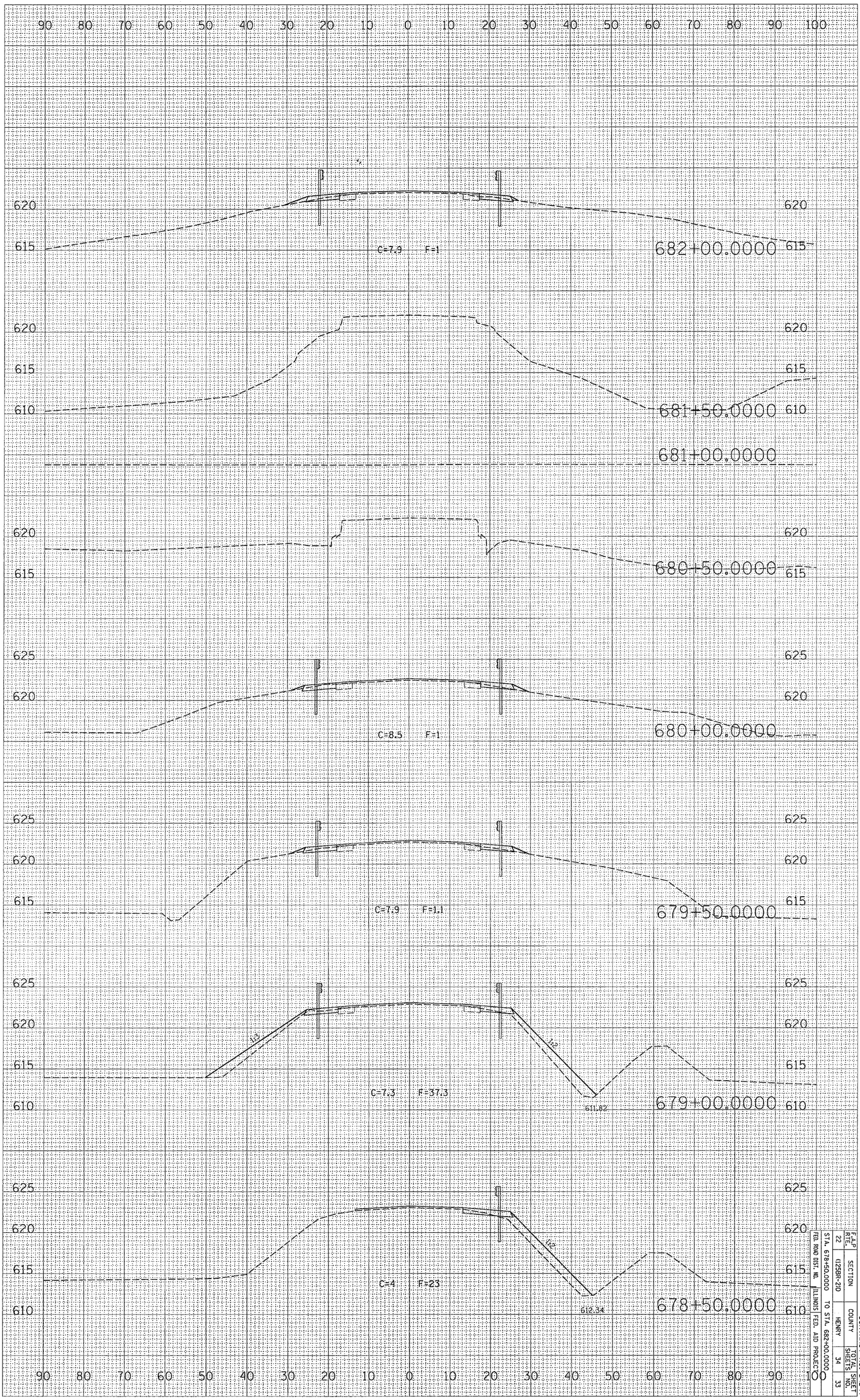
FED. ROAD DIST. NO.	FED. AID PROJECT	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA. 675+50.0000		12258R-2D	HENRY	34	32
TO STA. 678+00.0000					

CONTRACT NO. 64D47

PLOT DATE = Wed May 16 11:36:56 2007
FILE NAME = c:\projects\p209207\d09207xmshtlvgrd
PLOT SCALE = 10.0000 ' / IN.
USER NAME = cushmanbw

ORIGINAL SURVEY		BY	DATE
NO.	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

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



CONTRACT NO. 64D47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(12)5BR-2D	HENRY	34	33

STA. 678+50.0000 TO STA. 682+00.0000
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PLOT DATE = Wed May 16 11:36:46 2007
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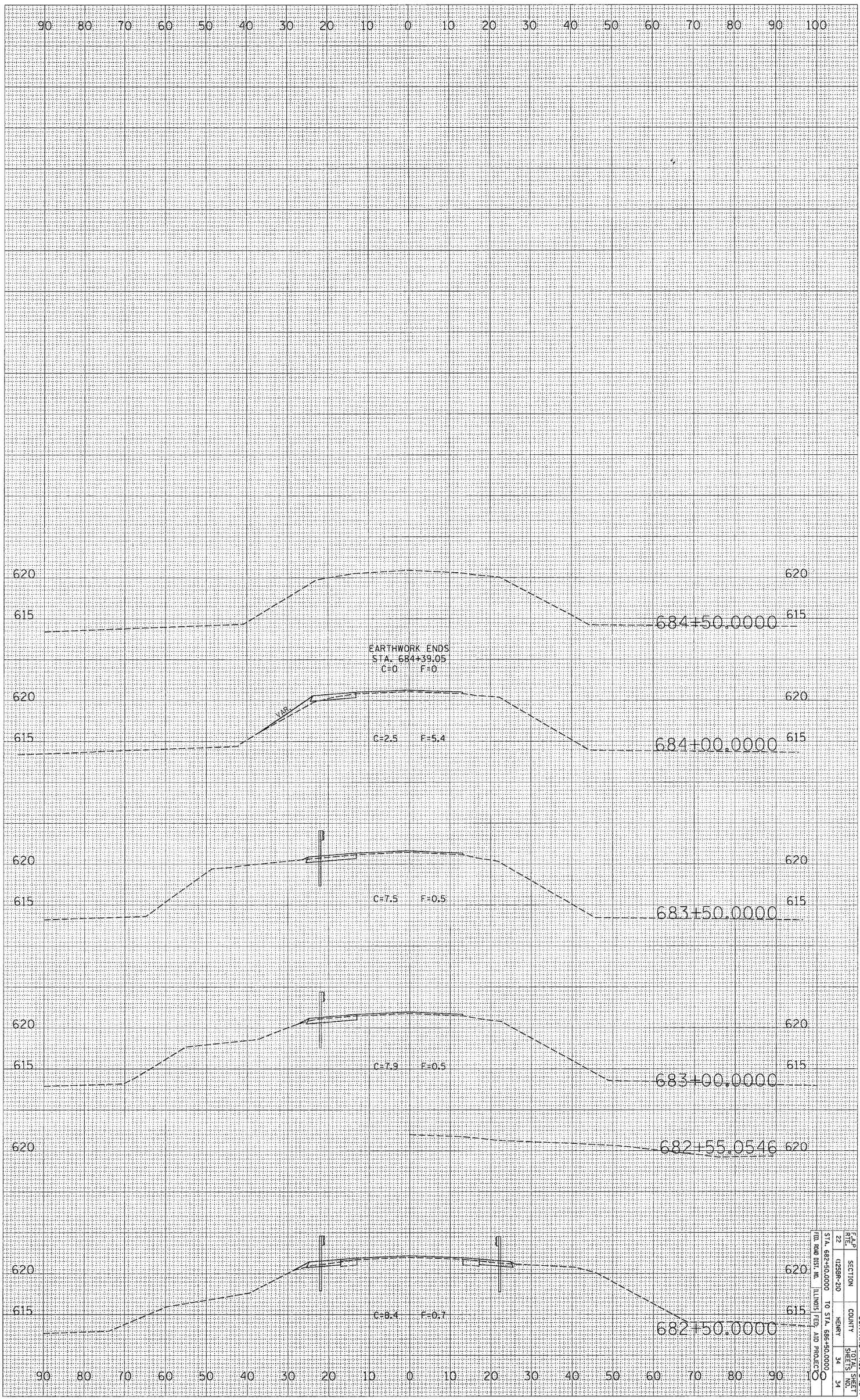
USER NAME = cushmanbw

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

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



F.A.P. RTE.	SECTION	COUNTY	SHEETS	SHEET NO.
22	(125BR-2)D	HENRY	34	34

STA. 682+50.0000 TO STA. 684+50.0000

ILLINOIS FED. AID PROJECT

FED. ROAD DIST. NO.

CONTRACT NO. 64047