CONTRACT NO. R 20060

BRIDGES OVER 20' SPAN					
FEDERAL REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MAIM-94-2(81)44		1	14

INDEX

PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
MAIM-94-2(81)44	I-94-45-4488A	BRIDGE DECK RECONSTUCTION AND WIDENING	3 SPANS @ 21'-0, 28'-0, 21'-0 SKEW: SQUARE	WILLOW CREEK	

SHEET NO.	SHEET DESIGNATION	SUBJECT	F. H. W. A. APPROVAL
1	ONE SHEET	INDEX AND TITLE SHEET	
2	W1	GENERAL PLAN	
3	W2	GENERAL PLAN DETAILS	
4	W3	BENT NO.1 AND NO.4 DETAILS	
5	W4	SUPERSTRUCTURE DETAILS	
6	W5	SUPERSTRUCTURE DETAILS AND BILL OF MATERIALS	
7	W6	R.C. BRIDGE APPROACH DETAILS	
8	W7	SPECIAL RAILING CONNECTION DETAILS	
9	ONE SHEET	BRIDGE SUMMARY	

TRAFFIC DATA		
A. D. T. (1988)		12,800 V.P.D.
A. D. T. (19 PROJECTED)		V.P.D.
D. H. V. (19 PROJECTED)		V.P.H.
TRUCKS		D.H.V. % A.D.T. %
DESIGN SPEED		70 M.P.H.
ACCESS CONTROL		FULL
FUNCTIONAL CLASSIFICATION	RURAL FREEWAY	

NOTE:
WHENEVER PROJECT NO. IR-94-2(71)44
APPEARS ON THESE PLANS OR CONTRACT DOCUMENTS
IT SHALL BE INTERPRETED AS MAIM-94-2(81)44

R-20060
5 OF 6

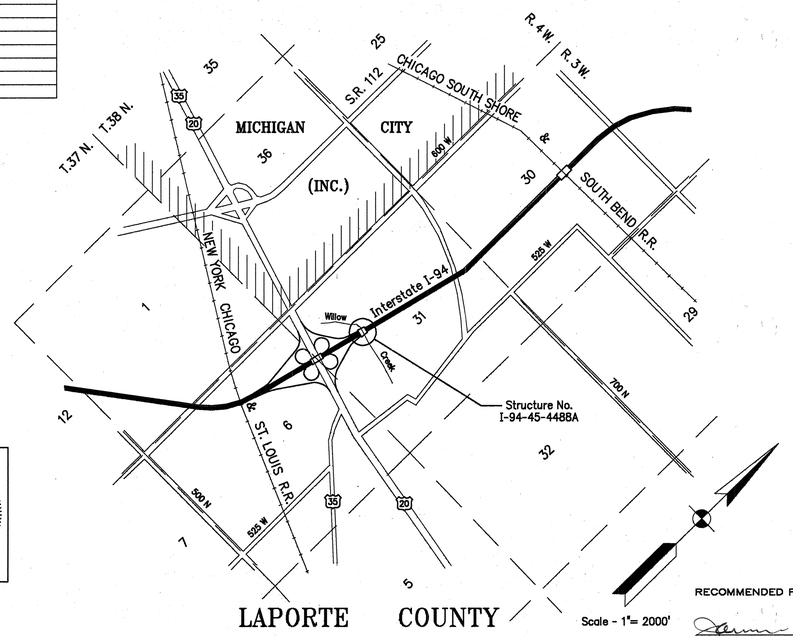
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

FOR SPANS OVER 20 FEET ON INTERSTATE ROUTE NO. 94

PROJECT NO. MAIM-94-2(81)44

This Structure is located on I-94 over Willow Creek, approximately 0.4 Miles East of U.S. 20 in Section 31, T.38N., R.3W., LaPorte County, Indiana.



INDEX CONTINUED
STANDARD DRAWINGS

SHEET NO.	SHEET DESIGNATION	SUBJECT	F. H. W. A. APPROVAL	ADOPTED "A" REVISION "R"
	BRIDGE STD. BR5	RAILING CONNECTION DETAILS		
10	BRIDGE STD. C1	MISCELLANEOUS DETAILS	11-22-91	R 10-01-91
	BRIDGE STD. C2	MISCELLANEOUS DETAILS		
11	BRIDGE STD. C3	MISCELLANEOUS DETAILS	1-26-88	R 11-02-87
	BRIDGE STD. C4	MISCELLANEOUS DETAILS		
	BRIDGE STD. C5	PRECAST DECK PANEL DETAILS		
	BRIDGE STD. D	CASTING DETAILS, ROADWAY DRAINS		
	BRIDGE STD. D1	ADJUSTING FRAME DETAILS FOR ROADWAY DRAINS		
	BRIDGE STD.			
	BRIDGE STD. PB	PRESTRESSED CONCRETE, TYPE I-BEAMS		
	BRIDGE STD. PB	PRESTRESSED CONCRETE, TYPE I-BEAMS		
	BRIDGE STD. PB6	PRESTRESSED BOX BEAMS		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS, WIDE		
	BRIDGE STD. PB	PRESTRESSED COMPOSITE BOX BEAMS, WIDE		
	BRIDGE STD. PB10	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS		
	BRIDGE STD. PB11	ELASTOMERIC BEARING PAD DETAILS		
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD. R2A	BRIDGE LIGHTING DETAILS		
	BRIDGE STD. R2B	BRIDGE LIGHTING DETAILS		
12	BRIDGE STD. S1	MISCELLANEOUS DETAILS	1-22-87	R 12-01-86
	BRIDGE STD. SH1	STEEL SHOE DETAILS		
	BRIDGE STD. SS1	STRUCTURAL EXPANSION JOINTS CLASS SS, SHEET 1		
	BRIDGE STD. SS2	STRUCTURAL EXPANSION JOINTS CLASS SS, SHEET 2		
	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD.			
13	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS	PENDING	R 3-01-90
	ROAD STD. SHEET B	STANDARD PAVEMENT JOINTS		
	ROAD STD. SHEET MA	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MB2	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MC2	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH2	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MH2A	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MN1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	GUARDRAIL SHEET G-1	W-BEAM GUARDRAIL COMPONENTS		
	GUARDRAIL SHEET G-2	THRIE-BEAM GUARDRAIL COMPONENTS		
	GUARDRAIL SHEET G-3	W-BEAM GUARDRAIL ASSEMBLIES		
	GUARDRAIL SHEET B-1	TYPICAL BRIDGE APPROACH GUARDRAIL		
	GUARDRAIL SHEET E-1	GUARDRAIL END TREATMENT TYPE I		
	GUARDRAIL SHEET E-2	GUARDRAIL END TREATMENT TYPE OS		
	GUARDRAIL SHEET E-3	GUARDRAIL END TREATMENT TYPE MS		
	GUARDRAIL SHEET T-1	GUARDRAIL TRANSITION TYPE GB		
	GUARDRAIL SHEET T-2	GUARDRAIL TRANSITION TYPE GP		
	GUARDRAIL SHEET T-3	GUARDRAIL TRANSITION TYPE VH		
	GUARDRAIL SHEET T-4	PIER CONNECTION DETAILS		
	ROAD STD. SHEET GR10B	W-BEAM GUARD RAIL TERMINAL SECTION		
14	ROAD STD. SHEET CB1	CONCRETE MEDIAN BARRIER	1-11-89	R 9-01-88
	ROAD STD. SHEET CB2	TEMPORARY CONCRETE BARRIER		
	ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 1B DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS		

PLANS PREPARED BY :
AMERICAN CONSULTING ENGINEERS, INC.

CERTIFIED BY Michael H. Menning DATE May 15, 1992

MICHAEL H. MENNING REGISTERED No. 860409 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL 7-9-92
BRIDGE REHABILITATION ENGINEER, INDOT

JAMES C. KARP REGISTERED No. 15000 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL 7-10-92
DESIGN CONSULTANT SERVICES ENGINEER, INDOT

DAVID K. PLUCKEBAUM REGISTERED No. 20574 STATE OF INDIANA PROFESSIONAL ENGINEER

APPROVED 7-14-92
CHIEF DIVISION OF DESIGN

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
APPROVED: -
DIVISION ADMINISTRATOR DATE

BRIDGE FILE:- I-94-45-4488A

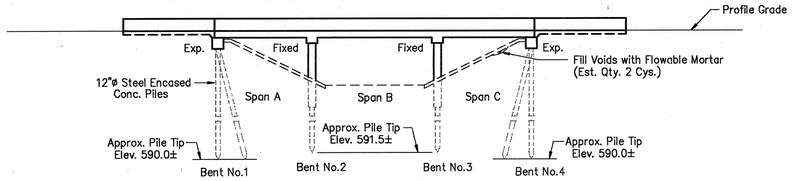
REVISIONS	
DATE	SHEET NO.

REVISIONS	
DATE	SHEET NO.

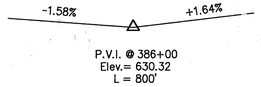
INDIANA DEPARTMENT OF HIGHWAYS
STANDARD SPECIFICATIONS DATED 1988
TO BE USED WITH THESE PLANS.
DES. NO. 49550

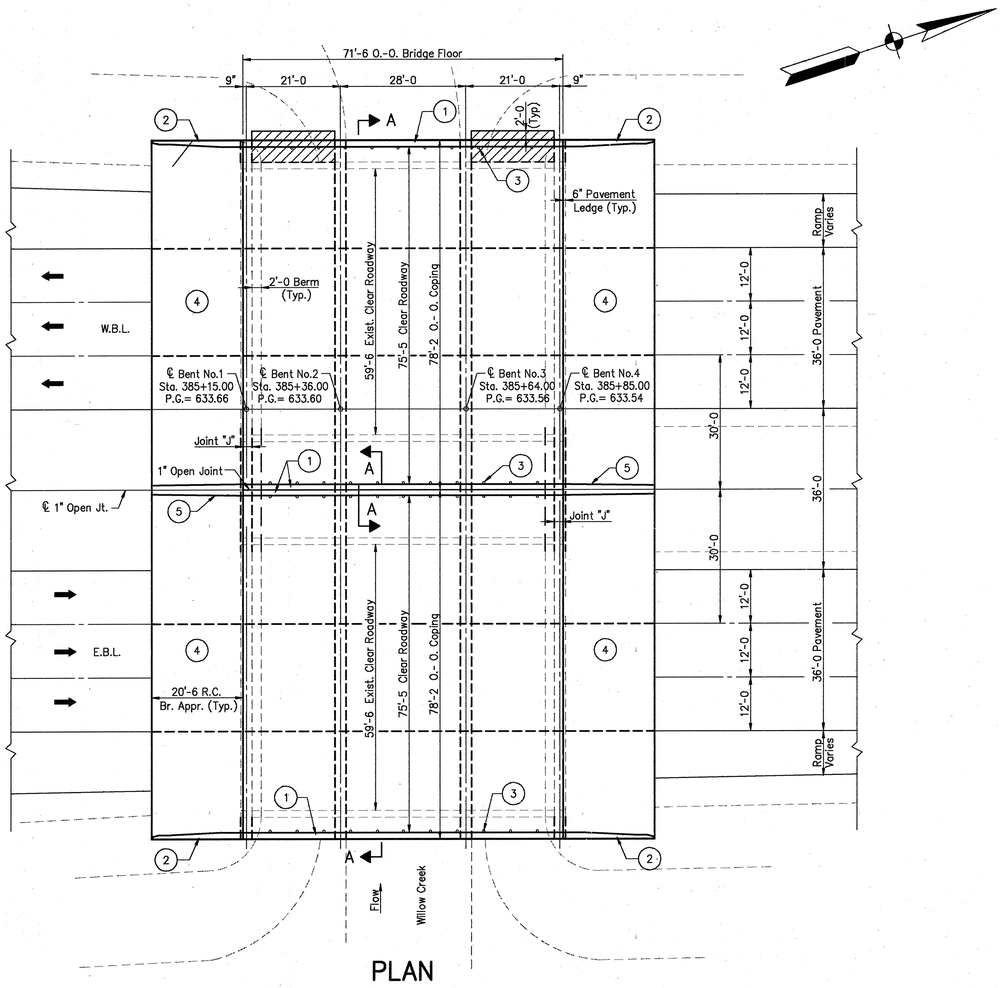
DWG FILE: \BB\88224BTS
PLOT SCALE: 1=1
PLOT ORIGIN: 0.00,0.00
SPELLCHK:
EDIT DATE: 05/13/92
EDITED BY: DDG

STRUCTURE BUILT TO AN 800' SAG VERTICAL CURVE

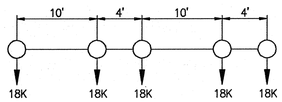


ELEVATION

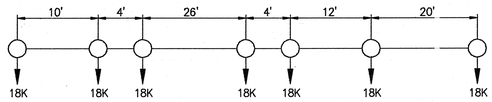




PLAN



90k TRUCK

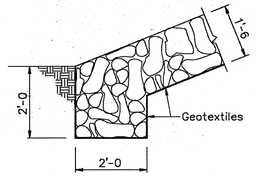


126k TRUCK

SPECIAL TOLL ROAD LOADINGS

LEGEND

1. Construct Concrete Railing.
2. Construct Special Railing Connection.
3. Install 6" ø P.V.C. Pipe Drains @ 6'-0 c-c.
4. Construct R.C. Bridge Approach
5. Concrete Median Barrier



TYPICAL RIPRAP KEYWAY DETAIL

Scale- 1/2"= 1'-0

STANDARD DRAWINGS		
Bridge Standard	Road Standard	Description
C1		Reinforcing Bar Notes, Pile Shell Splice
C3		Construction Joint Type"A", Type IA Joint
		Vertical Reinforcing Splice, 6" Floor Drain Detail
S1		Pipe Screen Detail
	A	Sheet Wire Fabric, Longitudinal Joint
	CB1	Concrete Median Barrier

DESIGN DATA

LIVE LOAD: HS20-44 Loading with impact and distribution of loads in accordance with 1989 AASHTO Specifications and Interim Specifications and checked for 2-24,000 lb. axles spacings 4'-0 apart and Special Toll Road Loadings shown on this drawing.

DEAD LOAD: Actual weight plus 35 lbs./sft. to provide for future wearing surface.

ALLOWABLE STRESSES: f'c = 3,000 psi fy = 40,000 psi

Notes :

The Contractor shall be responsible for placing flowable mortar in disturbed areas of existing precast riprap due to existing structure removal and formwork faslework placement. All labor and materials necessary to complete this work shall be included in the cost of the pay item "Concrete Class "C" in Superstructure".

Joint "J" indicates 1/2" preformed joint filler under front 6" of slab bearing area and one layer of medium weight roofing felt under remainder of bearing area.

Permanent pavement markings are included in Road Project.

Hatched area denotes 18" revetment riprap over geotextiles. (Total Estimated Quantity = 30 Tons Riprap and 41 Sys. Geotextiles)

GENERAL PLAN

BRIDGE DECK REPLACEMENT AND WIDENING

TWIN CONTINUOUS REINFORCED CONCRETE SLAB BRIDGES
3 SPANS : 21'-0; 28'-0; 21'-0 75'-5 CLEAR ROADWAY, SQUARE
OVER WILLOW CREEK ON I-94

INDIANA DEPARTMENT OF HIGHWAYS

LAPORTE COUNTY

SCALE:- 1/16" =1'-0 UNLESS NOTED DATE:- May 15, 1992

SUBMITTED FOR APPROVAL

DRAWING:- W1 OF W7 SHEET:- 2 OF 14

PROJECT:- IR-94-2(71)44

CONTRACT NO. R-20060

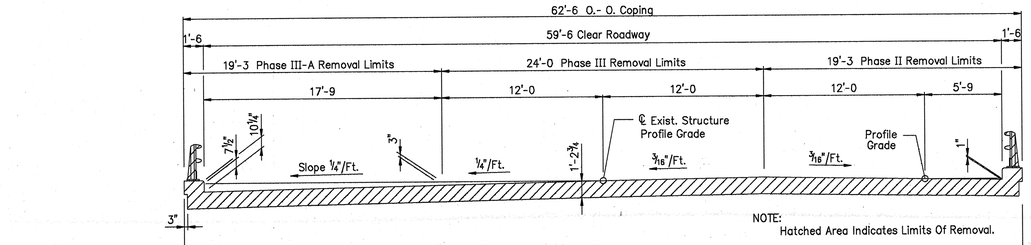
BRIDGE FILE:- I-94-45-4488A

MICHAEL H. WENNING REGISTERED No. 860409 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED _____ C'K'D _____
DRAWN DDG 4/3/92 C'K'D DAD 5/6/92
TRACED _____ C'K'D _____

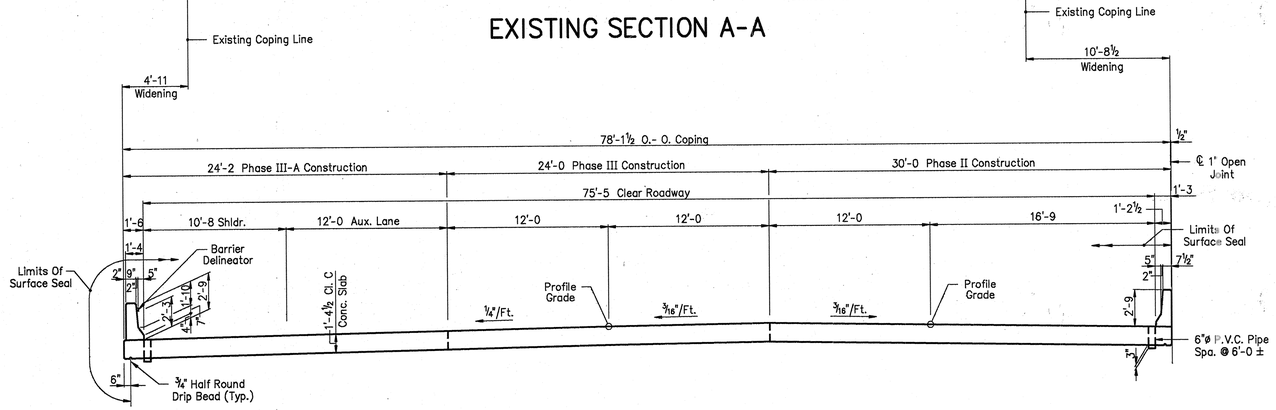
DWG FILE: \86\88224801
PLOT SCALE: 1=192
PLOT ORIGIN: 0.00,0.00

SPELLCHK: 05/06/92
EDIT DATE: 05/14/92
EDITED BY: DDG



NOTE:
Hatched Area Indicates Limits Of Removal.

EXISTING SECTION A-A



PROPOSED SECTION A-A

GENERAL NOTES

Two lanes of traffic shall be maintained in each direction throughout the length of the project.

Plans of the existing structures are on file in the Bridge Department, Indiana Department of Highways, as Bridge No.: I-94-45-4488

Where new work is to be fitted to old work, the contractor shall check all dimensions and conditions in the field, and report any errors or discrepancies to the engineer and assume responsibility for their correctness and fit of the new part to the old.

Reinforcing steel covering shall be 2 1/2" below the top and 1" minimum above the bottom of the floor slab, and 2" in all other parts, unless noted.

Continuous concrete pours shall be required between construction joints as shown in the detail plans.

Chamfer exposed edges 1", unless noted. Bevel forms 1/4" under copings.

Concrete in superstructure and railing to be Class "C".

All concrete not noted above to be Class "A".

Piles shall have a minimum bearing value shown on the detail drawings. Determine the pile lengths by Article 701 of the Specifications.

Tolerance in the position of the pile head is to be maximum 2".

Barrier Delineators shall be placed at the interior end of railing transitions and at 20 feet spacing (max.) thereafter. The color of the delineators shall match the adjacent lane line.

GENERAL PLAN DETAILS

INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- 3/16"= 1'-0 DATE:- May 15, 1992

SUBMITTED FOR APPROVAL .....

DRAWING:- W2 OF W7 SHEET:- 3 OF 14

PROJECT:- IR-94-2(71)44

CONTRACT NO. R-20060

BRIDGE FILE:- I-94-45-4488A

MICHAEL H. WENNING REGISTERED No. 860409 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED		C'K'D	
DRAWN	DDG 4/8/92	C'K'D	DAD 5/5/92
TRACED		C'K'D	

DWG FILE: \88\88224B02
PLOT SCALE: 1=64
PLOT ORIGIN: 0.00,0.00

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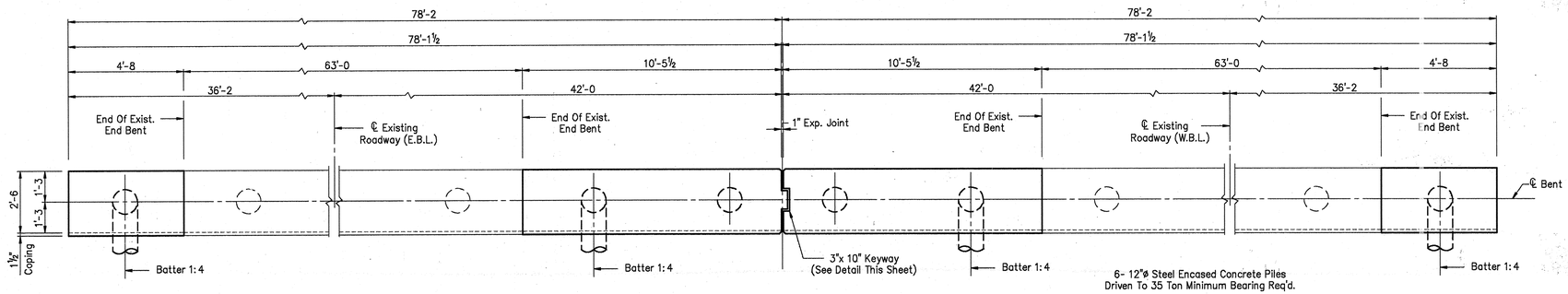
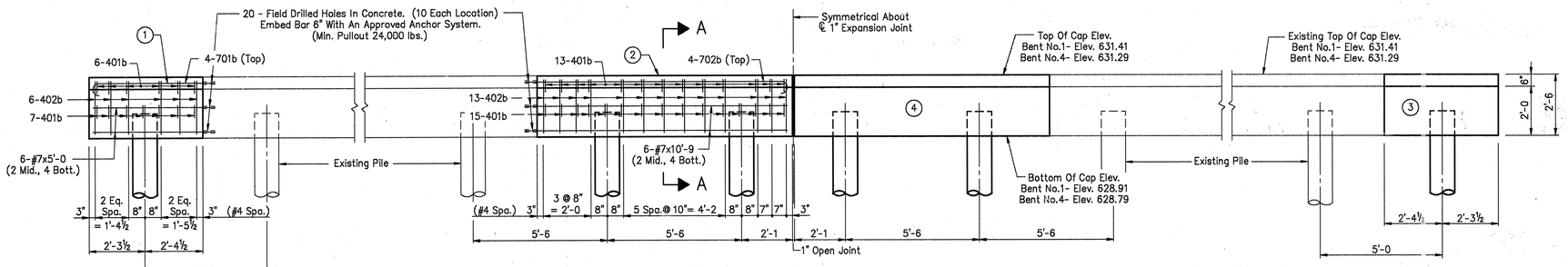
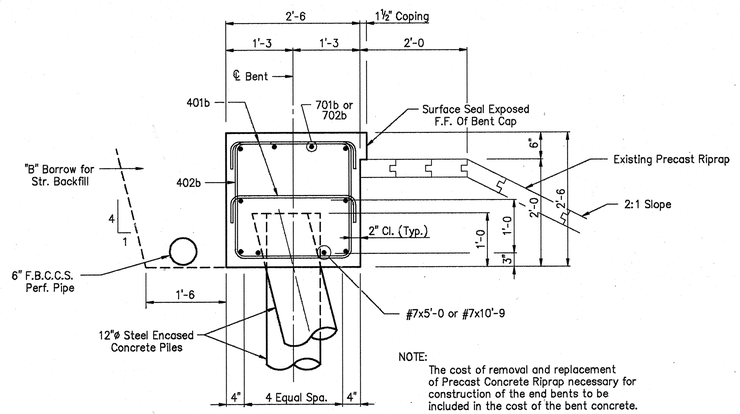
EDITED BY: DDG



PLAN @ BENT No.1
(Bent No.4 Same By 180° Rotation)

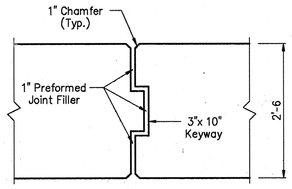


ELEVATION @ BENT No.1
(Bent No.4 Same)

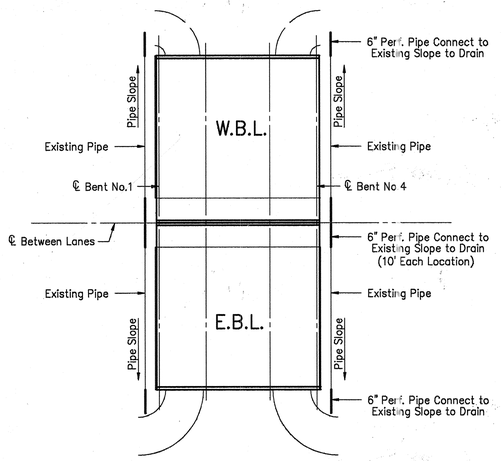


NOTE:
The cost of removal and replacement of Precast Concrete Riprap necessary for construction of the end bents to be included in the cost of the bent concrete.

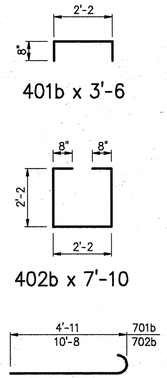
SECTION A-A
SCALE: 3/4" = 1'-0



SECTION THRU CAP
(SHOWING 1" EXPANSION JOINT)
SCALE: 3/4" = 1'-0



PLAN
(SHOWING 6" F.B.C.C.S. PERF. PIPE)
NO SCALE



BILL OF MATERIALS
BENT No.1 (E.B.L.)
(Bent No.4 E.B.L. Same)

Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
701b	4	5'-8	
702b	4	11'-5	
#7	6	10'-9	
#7	6	5'-0	
Total No. 7			333
401b	41	3'-6	
402b	19	7'-10	
Total No. 4			195
Total Reinforcing Steel			528

Concrete		
Class "A" In Substructure		
Pour No.1	1.1	Cys.
Pour No.2	2.4	Cys.
Total Class "A" In Substructure	3.5	Cys.

Miscellaneous		
3-12"ø (7 Ga.) Steel Encased Concrete Piles @ Approx. 40 Lft. Each	120	Lft.
"B" Borrow for Structure Backfill	3	Cys
6" F.B.C.C.S. Pipe (2 @ 10')	20	Lft.
Field Drilled Holes In Concrete	20	Ea.

BILL OF MATERIALS
BENT No.1 (W.B.L.)
(Bent No.4 W.B.L. Same)

Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
701b	4	5'-8	
702b	4	11'-5	
#7	6	10'-9	
#7	6	5'-0	
Total No. 7			333
401b	41	3'-6	
402b	19	7'-10	
Total No. 4			195
Total Reinforcing Steel			528

Concrete		
Class "A" In Substructure		
Pour No.3	1.1	Cys.
Pour No.4	2.4	Cys.
Total Class "A" In Substructure	3.5	Cys.

Miscellaneous		
3-12"ø (7 Ga.) Steel Encased Concrete Piles @ Approx. 40 Lft. Each	120	Lft.
"B" Borrow for Structure Backfill	3	Cys
6" F.B.C.C.S. Pipe (2 @ 10')	20	Lft.
Field Drilled Holes In Concrete	20	Ea.

Notes :

For reinforcing bar notes, see Bridge Standard C1.

All reinforcing steel to be epoxy coated.

BENT No.1 AND No.4 DETAILS

INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- 3/8"= 1'-0, UNLESS NOTED DATE:- May 15, 1992

SUBMITTED FOR APPROVAL

DRAWING:- W3 OF W7 SHEET:- 4 OF 14

PROJECT:- IR-94-2(71)44

CONTRACT NO. R-20060

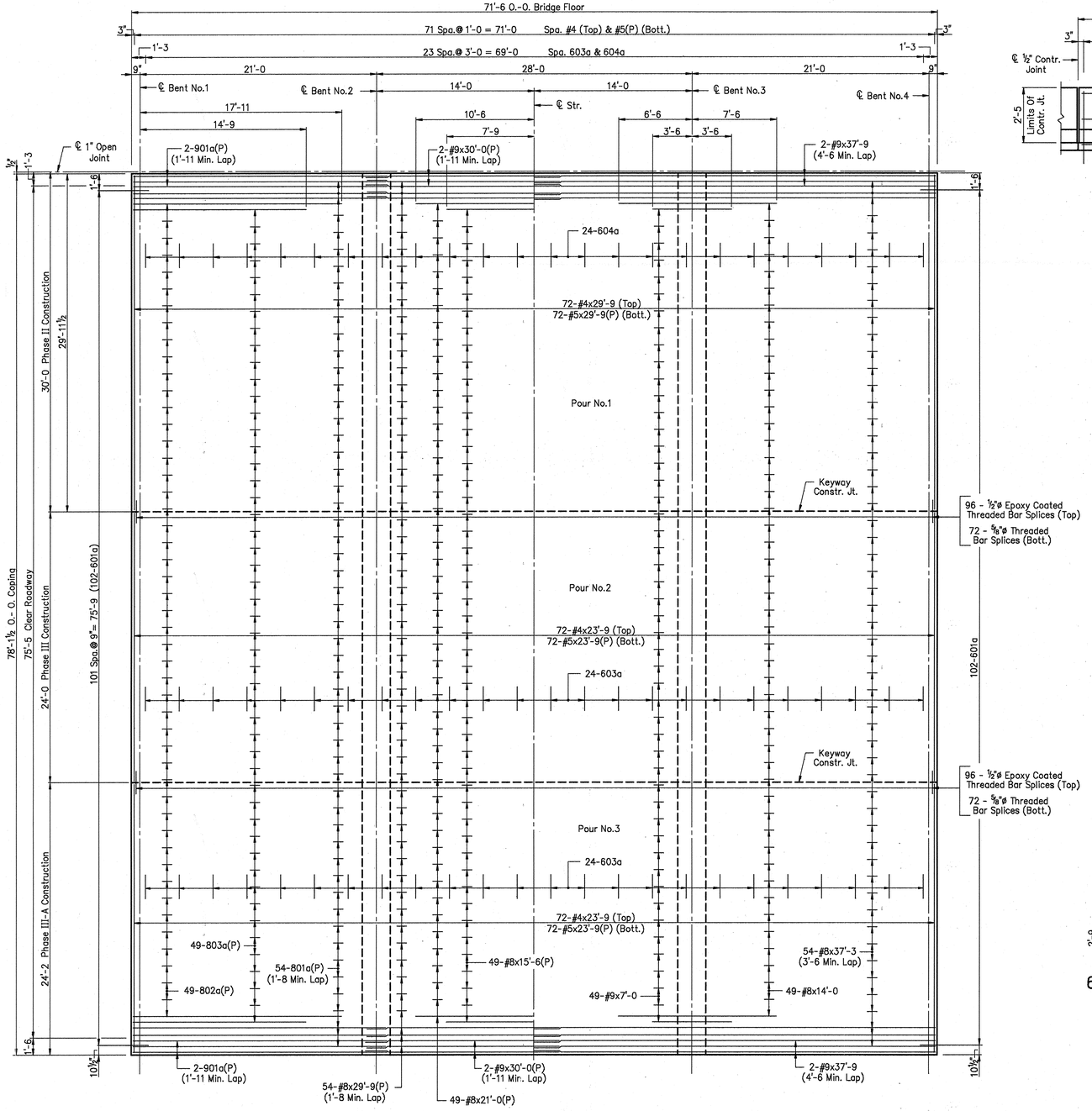
BRIDGE FILE:- I-94-45-4488A

MICHAEL H. WENNING REGISTERED No. 860409 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED		C'K'D	
DRAWN	DDG 4/3/92	C'K'D	DAD 5/5/92
TRACED		C'K'D	

DWG FILE: \88\88224B03
PLOT SCALE: 1=32
PLOT ORIGIN: 0.00,0.00

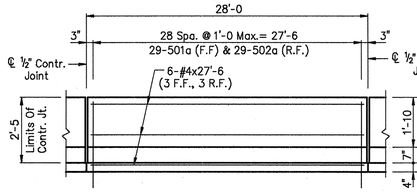
SPELLCHK:
EDIT DATE: 05/13/92
EDITED BY: DDG



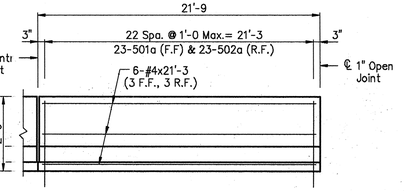
This Half Showing Bottom Reinforcing Steel

This Half Showing Top Reinforcing Steel

PARTIAL PLAN - E.B.L.
(W.B.L. Same By 180° Rotation)



INTERIOR CONCRETE RAILING PANEL
(2 Required)
No Scale



END CONCRETE RAILING PANEL
(4 Required)
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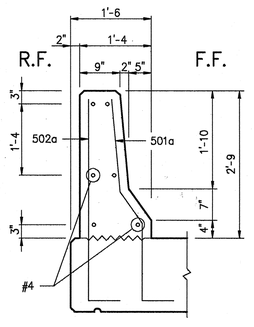
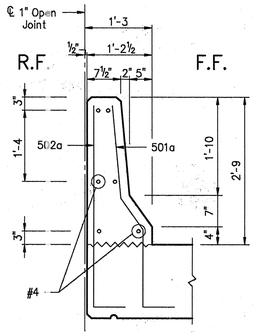
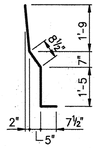


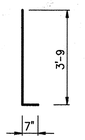
TYPICAL SECTION @ OUTSIDE COPING
Scale- 3/4"= 1'-0



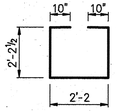
TYPICAL SECTION @ MEDIAN COPING
Scale- 3/4"= 1'-0



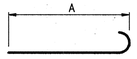
501a x 4'-6



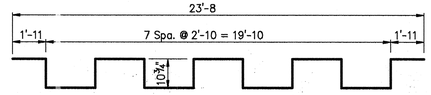
502a x 4'-4



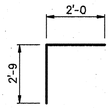
503a x 8'-3



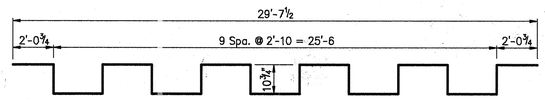
Mark	A	Length
601a	4'-0	4'-8
701a	23'-10	24'-7
702a	29'-8	30'-5
801a(P)	22'-4	23'-3
802a(P)	18'-5	19'-4
803a(P)	15'-3	16'-2
901a(P)	22'-6	23'-5



603a x 30'-10



602a(P) x 4'-9



604a x 38'-7

BILL OF MATERIALS
E.B.L. SUPERSTRUCTURE
(W.B.L. Superstructure Same)

Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
Plain Reinforcing Steel			
901a	8	23'-5	
#9	4	30'-0	
	Total No. 9		1,045
801a	108	23'-3	
802a	98	19'-4	
803a	98	16'-2	
#8	54	29'-9	
#8	49	21'-0	
#8	49	15'-6	
	Total No. 8		29,058
#7	8	29'-9	
#7	16	23'-9	
	Total No. 7		1,263
602a	18	4'-9	128
#5	72	29'-9	
#5	144	23'-9	
	Total No. 5		5,801
Total Plain Reinforcing Steel			37,295
Epoxy Coated Reinforcing Steel			
#9	98	7'-0	
#9	8	37'-9	
	Total No. 9		3,359
#8	108	37'-3	
#8	98	14'-0	
	Total No. 8		14,405
701a	8	24'-7	
702a	8	30'-5	
#7	8	23'-9	
	Total No. 7		1,288
601a	204	4'-8	
603a	48	30'-10	
604a	24	38'-7	
	Total No. 6		5,044
501a	150	4'-6	
502a	150	4'-4	
503a	218	8'-3	
	Total No. 5		3,258
#4	72	29'-9	
#4	12	27'-6	
#4	144	23'-9	
#4	24	21'-3	
	Total No. 4		4,277
Total Epoxy Coated Reinforcing Steel			31,631
Concrete			
Class "C" In Superstructure			
Pour No.1			119.7 Cys.
Pour No.2			97.1 Cys.
Pour No.3			95.1 Cys.
Total Class "C" In Superstructure			311.9 Cys.
Class "C" Concrete Railing Median Coping			71.5 Lft.
Class "C" Concrete Railing Outside Coping			71.5 Lft.
Total Class "C" Concrete Railing			143 Lft.
Miscellaneous			
Surface Seal			6,245 Sft.
6- 12"ø (7 Ga.) Steel Encased Concrete Piles @ Approx. 40' Each			240 Lft.
Concrete Encasement For Piles 6 @ 13'-0 (Approx.)			78 Lft.
Barrier Delineator			10 Ea.
Threaded Bar Splices			160 Ea.
Epoxy Coated Threaded Bar Splices			208 Ea.

Notes :

All reinforcing steel to be epoxy coated, except as noted.

(P) Indicates plain Reinforcing Steel.

For reinforcing bar notes, see Bridge Standard C1.

For additional details, see Drawing ?.

Cost of 6" P.V.C. deck drains to be included in the cost of Superstructure Concrete. See Bridge Standard C3 for details.

SUPERSTRUCTURE DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE:- 3/16"= 1'-0 UNLESS NOTED DATE:- May 15, 1992

SUBMITTED FOR APPROVAL

DRAWING:- W4 OF W7 SHEET:- 5 OF 14

PROJECT:- IR-94-2(71)44

CONTRACT NO. *R-20080*

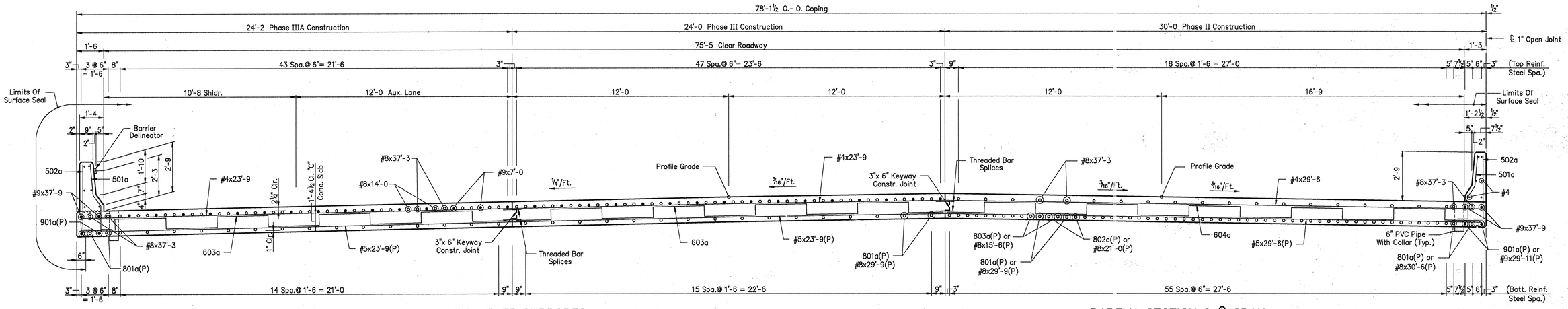
BRIDGE FILE:- I-94-45-4488A

MICHAEL H. WENNING REGISTERED No. 860409 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED		C'K'D	
DRAWN	DDG 4/9/92	C'K'D	DAD 5/4/92
TRACED		C'K'D	

DWG FILE: \88\88224B04
PLOT SCALE: 1=64
PLOT ORIGIN: 0.00,0.00

SPELLCHK: 05/08/92
EDIT DATE: 05/14/92
EDITED BY: DDG

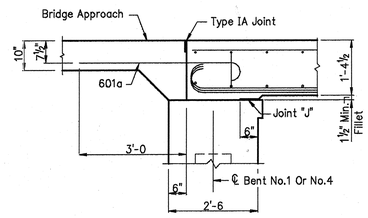


PARTIAL SECTION OVER SUPPORTS

PARTIAL SECTION @ ℄ SPAN

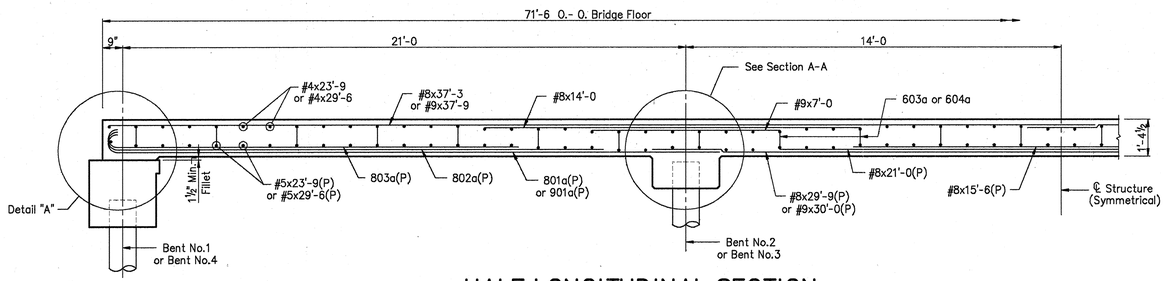
TYPICAL SECTION

Scale- 3/8"= 1'-0



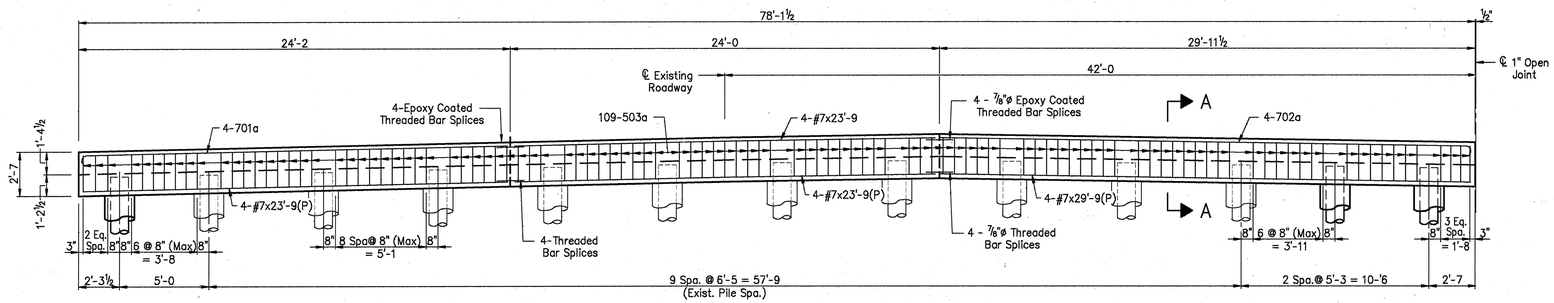
DETAIL "A"

Scale- 1/2"= 1'-0



HALF LONGITUDINAL SECTION

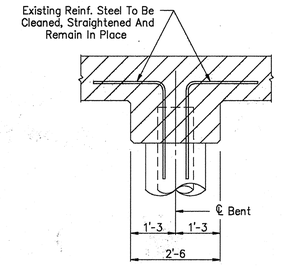
Scale- 3/8"= 1'-0



ELEVATION - BENT NO.2

(BENT NO.3 THE SAME)

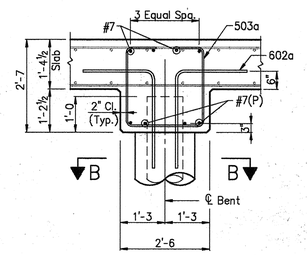
Scale- 1/4"= 1'-0



NOTE:
Hatched area indicates limits of concrete removal.

EXISTING SECTION A-A

Scale- 1/2"= 1'-0



PROPOSED SECTION A-A

Scale- 1/2"= 1'-0

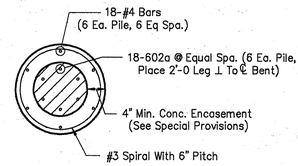
Notes :

All reinforcing steel to be epoxy coated, except as noted.

(P) Indicates plain Reinforcing Steel.

For reinforcing bar notes, see Bridge Standard C1.

For Bill of Materials, see Drawing



SECTION B-B

Scale- 3/4"= 1'-0

SUPERSTRUCTURE DETAILS AND BILL OF MATERIALS

INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- AS NOTED DATE:- May 15, 1992

SUBMITTED FOR APPROVAL .....

DRAWING:- W5 OF W7 SHEET:- 6 OF 14

PROJECT:- IR-94-2(71)44

CONTRACT NO. R-20060

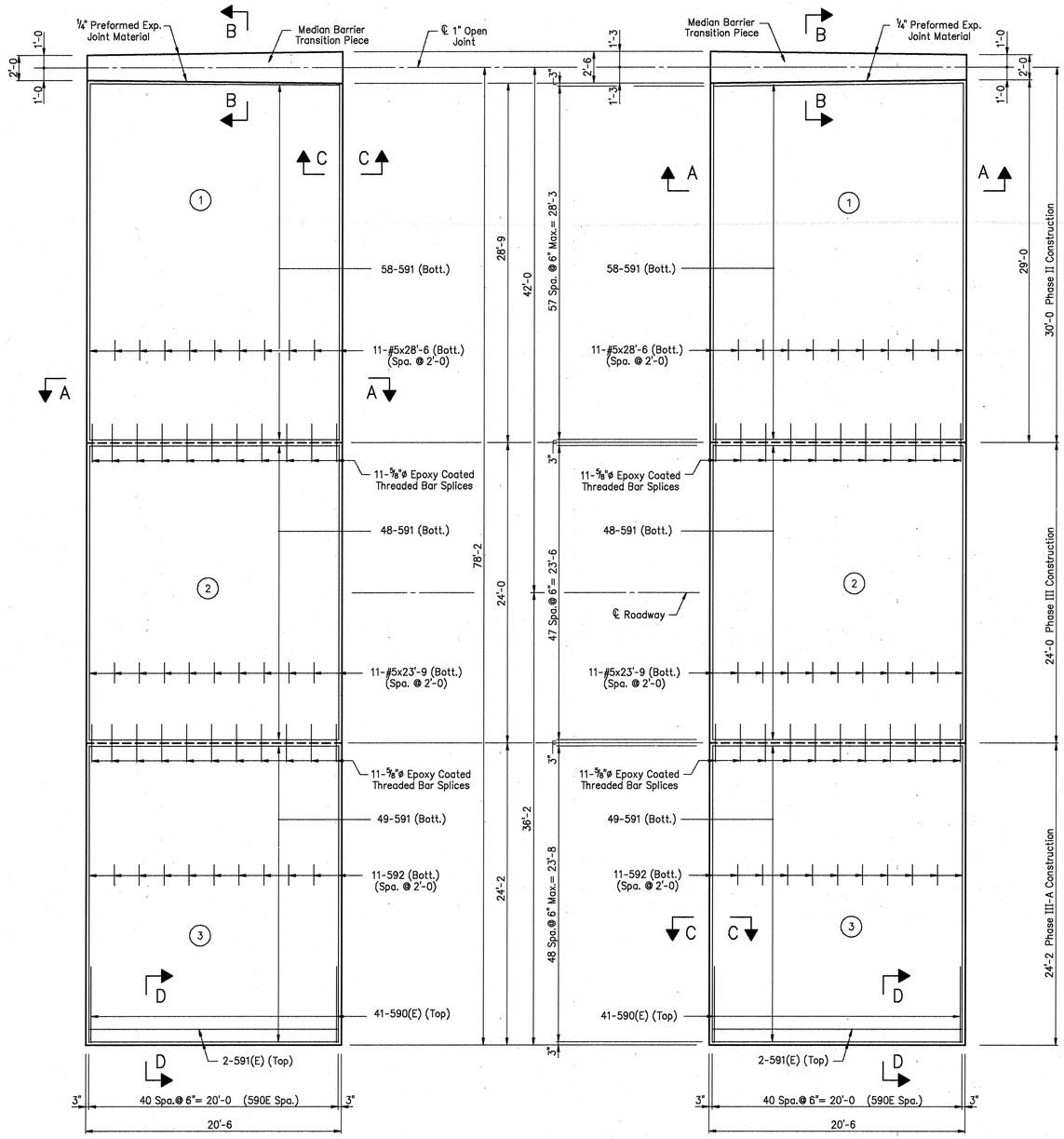
BRIDGE FILE:- I-94-45-4488A

MICHAEL H. MENKING REGISTERED No. 860409 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED		C'K'D	
DRAWN	DDG 4/8/92	C'K'D	DAD 5/4/92
TRACED		C'K'D	

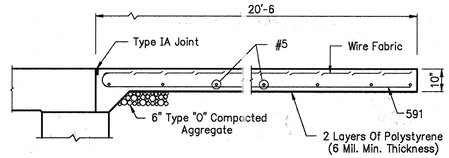
DWG FILE: \BSY\88224805
PLOT SCALE: 1=32
PLOT ORIGIN: 0.00,0.00

SPELLCHK: 05/08/92
EDIT DATE: 05/13/92
EDITED BY: DDG

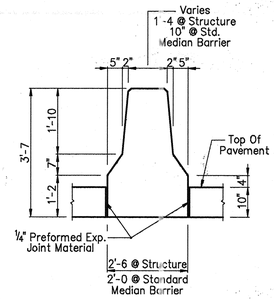


PLAN @ BENT NO.1 (E.B.L.)
(W.B.L. THE SAME OPPOSITE HAND)

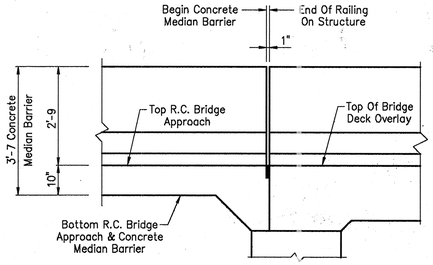
PLAN @ BENT NO.4 (E.B.L.)
(W.B.L. THE SAME OPPOSITE HAND)



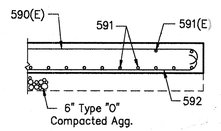
SECTION A-A
Scale- 3/8"= 1'-0



SECTION B-B
Scale- 1/2"= 1'-0



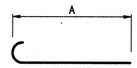
SECTION C-C
Scale- 1/2"= 1'-0



SECTION D-D
Scale: 1/2"= 1'-0

BILL OF MATERIALS
R.C. BRIDGE APPROACH
E.B.L.
(W.B.L. THE SAME)

Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
Plain Reinforcing Steel			
591	310	20'-7	
592	22	24'-3	
#5	22	28'-6	
#5	22	23'-9	
Total Plain Reinforcing Steel			8,411
Epoxy Coated Reinforcing Steel			
590	82	6'-7	
591	4	20'-7	
Total Epoxy Coated Reinforcing Steel			649
Miscellaneous			
Cement Concrete Pvm't., Reinf., 10 Inch			
Pour No.1	(2 @ 65.8 Sys.)		131.6 Sys.
Pour No.2	(2 @ 54.7 Sys.)		109.4 Sys.
Pour No.3	(2 @ 55.0 Sys.)		110.0 Sys.
Total Cement Conc. Pvm't., Reinf., 10 Inch			351.0 Sys.
Type "O" Compacted Aggregate for Base			114 Ton
Epoxy Coated Threaded Bar Splice			44 Each
Concrete Median Barrier			41.0 Lft.



Mark	A	Length
590	6'-0	6'-7
591	20'-0	20'-7
592	23'-8	24'-3

Notes :

For reinforcing bar notes, see Bridge Standard C1.

(E) Indicates epoxy reinforcing steel.

(X) Indicates concrete pour number.

Median Barrier Transition Piece to be paid for as equivalent length of "Concrete Median Barrier", Lft.

For additional details, see Road Standard Pavement Joints Sheet A and CB1.

R.C. BRIDGE APPROACH DETAILS
INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- 3/16"= 1'-0, UNLESS NOTED DATE:- May 15, 1992

SUBMITTED FOR APPROVAL .....

DRAWING:- W6 OF W7 SHEET:- 7 OF 14

PROJECT:- IR-94-2(71)44

CONTRACT NO. R-20060

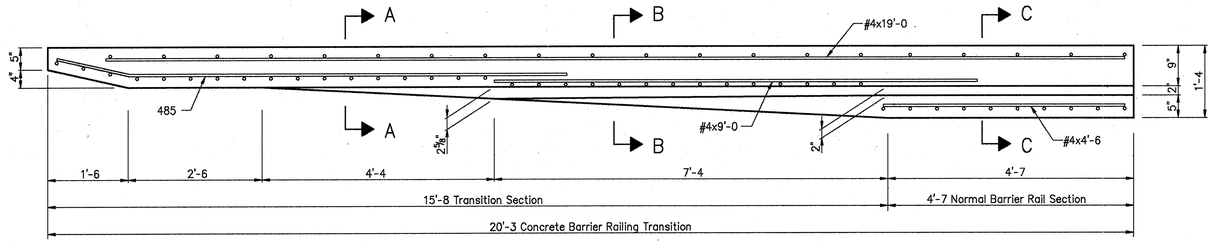
BRIDGE FILE:- I-94-45-4488A

MICHAEL H. WENTLING REGISTERED No. 860409 STATE OF INDIANA PROFESSIONAL ENGINEER

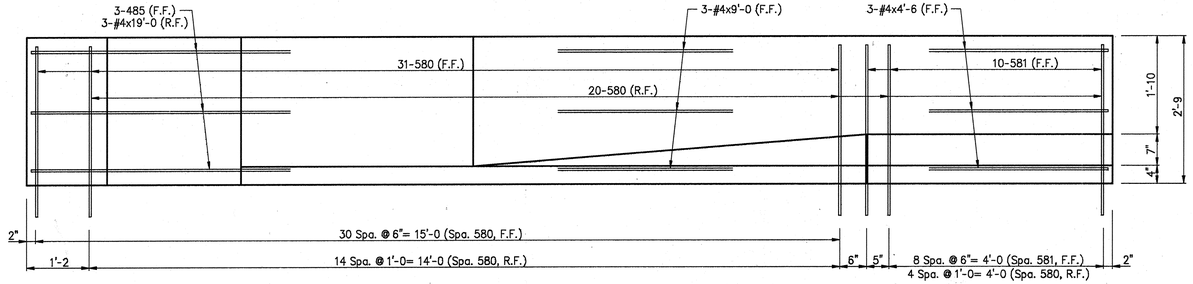
DESIGNED		C'K'D	
DRAWN	DDG 4/7/92	C'K'D	DAD 5/5/92
TRACED		C'K'D	

DWG FILE: \BR\8824B06
PLOT SCALE: 1=64
PLOT ORIGIN: 0.00,0.00

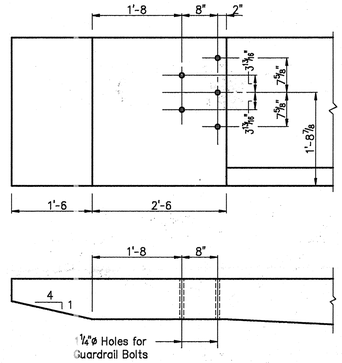
SPELLCHK: 05/08/92
EDIT DATE: 05/14/92
EDITED BY: DDG



PLAN - OUTSIDE COPING



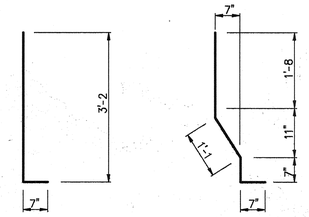
ELEVATION



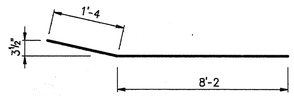
GUARDRAIL ATTACHMENT DETAILS

BILL OF MATERIALS
(4 REQUIRED)

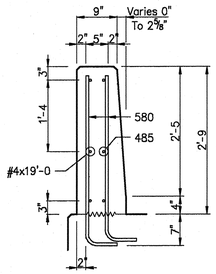
Epoxy Coated Reinforcing Steel			
Size And Mark	No. Of Bars	Length (Feet)	Weight (Lbs.)
580	51	3'-9	
581	10	3'-11	
Total No.5			240
485	3	9'-6	
#4	3	19'-0	
#4	3	9'-0	
#4	3	4'-6	
Total No.4			84
Total Epoxy Coated Reinforcing Steel			324
Concrete			
Total Class "C" In Superstructure			20.25 Lft.
Miscellaneous			
Surface Seal			130 Sft.



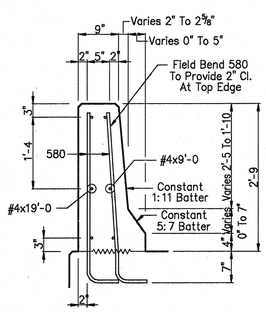
580 x 3'-9 581 x 3'-11



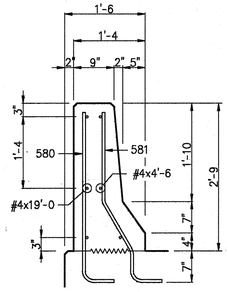
485 x 9'-6



SECTION A-A



SECTION B-B



SECTION C-C

SPECIAL RAILING CONNECTION DETAILS
INDIANA DEPARTMENT OF TRANSPORTATION

SCALE:- 3/4"= 1'-0 UNLESS NOTED DATE:- May 15, 1992

SUBMITTED FOR APPROVAL .....

DRAWING:- W7 OF W7 SHEET:- 8 OF 14

PROJECT:- IR-94-2(71)44

CONTRACT NO. R-20060

BRIDGE FILE:- I-94-45-4488A

MICHAEL H. WENNING REGISTERED No. 860409 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED		C'K'D	
DRAWN	DDG 4/14/92	C'K'D	DAD 5/5/92
TRACED		C'K'D	

DWG FILE: \BR\BR224B07
PLOT SCALE: 1=16
PLOT ORIGIN: 0.00,0.00

SPELLCHK: 05/06/92
EDIT DATE: 05/14/92
EDITED BY: DDG

BRIDGE FILE

I-94-45-4488A

STRUCTURE QUANTITIES

ITEM	CONCRETE CLASS C IN SUPERSTR. CU. YDS.	CONCRETE CLASS A IN SUBSTR. CU. YDS.	CONCRETE CLASS B ABOVE FTG. CU. YDS.	CONCRETE CLASS B IN FOOTING CU. YDS.	CONCRETE RAILING CLASS C CU. YDS.	CONCRETE RAILING CLASS C LIN. FT.	REINF. STEEL TOTAL LBS.	STRUCT. STEEL *** LBS.	EPOXY COATED REINF. STEEL LBS.	ANCHOR PLATES MK-AP EACH	PILES EPOXY COATED SHELLS NO.	PILES EPOXY COATED SHELLS LIN. FT.	PILES TREATED TIMBER NO.	PILES TREATED TIMBER LIN. FT.	PILES STEEL ENCASED CONC. - 12"ø NO.	PILES STEEL ENCASED CONC. - 12"ø LIN. FT.	PILES CONC. PILE ENCASEMENT NO.	PILES CONC. PILE ENCASEMENT LIN. FT.	CAST IRON DRAIN PIPE LBS.	CAST IRON, GRATES, BASINS & FITTINGS LBS.	RAILING TYPE OR LIN. FT.	EXPANSION JOINT TYPE LIN. FT.	EXPANSION JOINT CLASS LIN. FT.	CONC. STR. MEMBERS BOX BEAMS TYPE SQ. FT.	CONC. STR. MEMBERS I BEAM TYPE LIN. FT.	CEMENT CONC. PVM'T. 10 INCH SQ. YDS.		FIELD DRILLED HOLES IN CONCRETE EACH	THREADED BAR SPLICE EACH	EPOXY COATED THREADED BAR SPLICE EACH	SURFACE SEAL * SQ. FT.	BARRIER DELINEATOR EACH	CONCRETE MEDIAN BARRIER LIN. FT.	COMPACTED AGGREGATE FOR BASE TON	"B" BORROW FOR STRUCT. BACKFILL CU. YDS.
EAST BOUND LANE																																			
BENT No.1		3.5					528								3	120																			
BENT No.4		3.5					528								3	120													20						3
SUPERSTRUCTURE	311.9					143	37,295		31,631						6	240	6	78											20						3
R.C. BRIDGE APPROACHES							8,411		649																					160	208	6,245	10			
SPECIAL RAILING CONNECTIONS						40.5			648																		351				44			41	114	
																															260				
WEST BOUND LANE																																			
BENT No.1		3.5					528								3	120																			
BENT No.4		3.5					528								3	120													20						3
SUPERSTRUCTURE	311.9					143	37,295		31,631						6	240	6	78											20						3
R.C. BRIDGE APPROACHES							8,411		649																					160	208	6,245	10			
SPECIAL RAILING CONNECTIONS						40.5			648																		351				44			41	114	
																															260				
Reinf. Steel For Lip Gutter, Pvmt., Tapers, etc.																																			
TOTALS	623.8	14.0				367	93,524		65,256						24	960	12	156									702		80	320	504	13,010	20	82	228	12

* ESTIMATED QUANTITY, PAID FOR AS LUMP SUM.

BRIDGE FILE

I-94-45-4488A

APPROACH QUANTITIES

STRUCT. NO.	LOCATION	DESCRIPTION SIZE	DESCRIPTION KIND	LENGTH LIN. FT.	CONC. CL. A IN STRS. CU. YDS.	REINF. STEEL LBS.	PIPE END SECTION EACH		REMARKS
	@ BENT No.1 E.B.L.	6"	F.B.C.C.S.(Perf.)(.052")	10					Connect To Existing Pipe, Slope To Drain
	@ BENT No.1 E.B.L. (MEDIAN)	6"	F.B.C.C.S.(Perf.)(.052")	10					Connect To Existing Pipe, Slope To Drain
	@ BENT No.4 E.B.L.	6"	F.B.C.C.S.(Perf.)(.052")	10					Connect To Existing Pipe, Slope To Drain
	@ BENT No.4 E.B.L. (MEDIAN)	6"	F.B.C.C.S.(Perf.)(.052")	10					Connect To Existing Pipe, Slope To Drain
	@ BENT No.1 W.B.L.	6"	F.B.C.C.S.(Perf.)(.052")	10					Connect To Existing Pipe, Slope To Drain
	@ BENT No.1 W.B.L. (MEDIAN)	6"	F.B.C.C.S.(Perf.)(.052")	10					Connect To Existing Pipe, Slope To Drain
	@ BENT No.4 W.B.L.	6"	F.B.C.C.S.(Perf.)(.052")	10					Connect To Existing Pipe, Slope To Drain
	@ BENT No.4 W.B.L. (MEDIAN)	6"	F.B.C.C.S.(Perf.)(.052")	10					Connect To Existing Pipe, Slope To Drain
			TOTALS						Total Of Reinforcing Steel Carried To "Structure Quantities"

APPROACH TABLE

LOCATION LT/RT	LOCATION STATION	DESCRIPTION	WIDTH FT.	RADII FT.	GRADE %	LENGTH FT.	DISTANCE BEYOND R/W FT.	EXCAVATION (CYS.) CUT	EXCAVATION (CYS.) FILL	BITUMINOUS SURFACE LBS./SYD.	BITUMINOUS SURFACE TONS	BITUMINOUS BINDER LBS./SYD.	BITUMINOUS BINDER TONS	BITUMINOUS BASE LBS./SYD.	BITUMINOUS BASE TONS	COMP. AGG. BASE DEPTH (IN.)	COMP. AGG. BASE TONS

PAVED SIDE DITCH AND SODDING SUMMARY

LT. OR RT.	STATION TO STATION	PAVED SIDE DITCH (LIN. FT.) TYPE	PAY LENGTH	NO. OF LUGS	PAY LENGTH	CUT OFF WALLS	PAY LENGTH	TOTAL PAY LENGTH	SODDING (SQ. YDS.) FOR PSD	FOR DITCHES	SHOULDERS	OTHER	TOTAL SOD

NOTES :

Weight of Spirals includes weight of 1½ extra turns top and bottom.

Spacers and 1½ turns at laps included in cost of Spiral.

*** The weight of structural steel is approximate only, and it shall be the Contractor's responsibility to determine the weight on which he bases his bid.

For Test Bar Samples, see Bridge Standard C1.

REVISIONS

DATE	ITEM

BRIDGE SUMMARY

INDIANA DEPARTMENT OF HIGHWAYS

DATE :- May 15, 1992

SUBMITTED FOR APPROVAL

SHEET:- 9 OF 14

PROJECT:- IR-94-2(71)44

CONTRACT NO. R-20060

BRIDGE FILE:- I-94-45-4488A

MICHAEL H. WENNING REGISTERED No. 860409 STATE OF INDIANA PROFESSIONAL ENGINEER

SUMMARIZED DAD 5/6/92 C'K'D DDG 5/6/92

TRACED DDG 5/6/92 C'K'D DAD 5/12/92

DWG FILE: \BS\BS24808
PLOT SCALE: 1=1
PLOT ORIGIN: 0.00,0.00

SPELLCHK: 05/14/92
EDIT DATE: 05/14/92
EDITED BY: DDG