BRIDGE CONTRACT No. 3887

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	S-456(1)	1955	1	20

INDEX

PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION	CONTRACT NO.
S-456(1)	25-A-3500	CONT. R.C. SLAB	32'-6", 45'-6", 32'-6"	COAL CREEK	11+30	3887

SHEET NO.	SHEET DESIGNATION	SUBJECT
1		INDEX & TITLE SHEET
2	ONE SHEET	TYPICAL CROSS SECTIONS
3	C1 (STRUCTURE 25-A-3500)	LAYOUT
4	C2	GENERAL PLAN
5	C3	DETAILS, BENTS Nº 1 & 4
6	C4	PIER & THICKENED PAVEMENT DETAILS
7	C5	SUPERSTRUCTURE DETAILS
8	C6	SUPERSTRUCTURE DETAILS
9	ONE SHEET	SUMMARY
10	BRIDGE STD. C1	STANDARD MISCELLANEOUS DETAILS (OCT. 6, 1952)
11	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS (REV. 10-6-53)
12	ROAD STD. SHEET mC	MISCELLANEOUS STANDARDS (REV. 3-25-47)
13	ROAD STD. SHEET mD	MISCELLANEOUS STANDARDS (REV. 2-1-54)
14	ROAD STD. SHEET GR	STEEL BEAM GUARD RAIL (REV. 7-27-48)
15	BRIDGE STD. G1	STANDARD THICKENED PAVEMENT DETAILS (REV. 3-20-53)
16	BRIDGE STD. M1	MISCELLANEOUS APPROACH DETAILS (REV. 4-15-53)
17	BRIDGE STD. M2	MISCELLANEOUS APPROACH DETAILS (REV. 9-7-54)
18	BRIDGE STD. S1	TYP. DETAILS FOR PLACING SPECIAL FILLING MATERIAL (REV. 9-20-52)
19	SHEET 1 DETOURS	STANDARD DETOUR SIGNS (REV. 2-11-54)
20	SHEET 2 DETOURS	STANDARD DETOUR SIGNS (REV. 5-1-51)

STATE OF INDIANA

STATE HIGHWAY DEPARTMENT

BRIDGE PLANS

FOR SPANS OVER 20 FEET ON STATE ROAD NO. 25 SECTION A

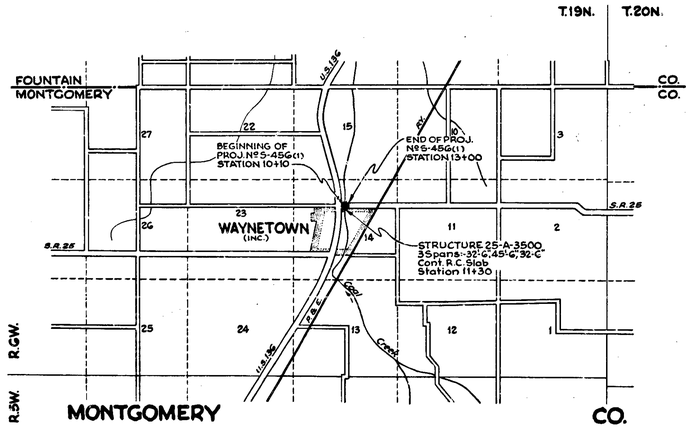
F.A.S. PROJECT NO. S-456(1)

WAYNETOWN–WINGATE ROAD

BEGINNING AT A POINT ON S.R. 25 AT THE WEST EDGE OF WAYNETOWN APPROX. 10' NORTH OF THE ℄ OF U.S. 136 AND EXTENDING NORTH A DISTANCE OF APPROX. 290' TO A POINT ON S.R. 25 APPROX. 300' NORTH OF THE ℄ OF U.S. 136, ALL IN SECTION 14-T.19N.-R.6W., MONTGOMERY COUNTY.

ROADWAY LENGTH = 0.033 MI.
BRIDGE LENGTH = 0.021 MI.
TOTAL LENGTH = 0.054 MI.

MAX. GRADE:- -0.727G%



Scale:- 1" = 3,000'

APPROVED AND ADOPTED BY STATE HIGHWAY DEPARTMENT OF INDIANA — DATE 1-25-55

Virgil Smith
ACTING CHAIRMAN, STATE HIGHWAY DEPARTMENT OF INDIANA

APPROVED — DATE 1-21-55

Carl E. Vogelgesang
CHIEF ENGINEER, STATE HIGHWAY DEPARTMENT OF INDIANA

RECOMMENDED FOR APPROVAL DATE 1-19-55

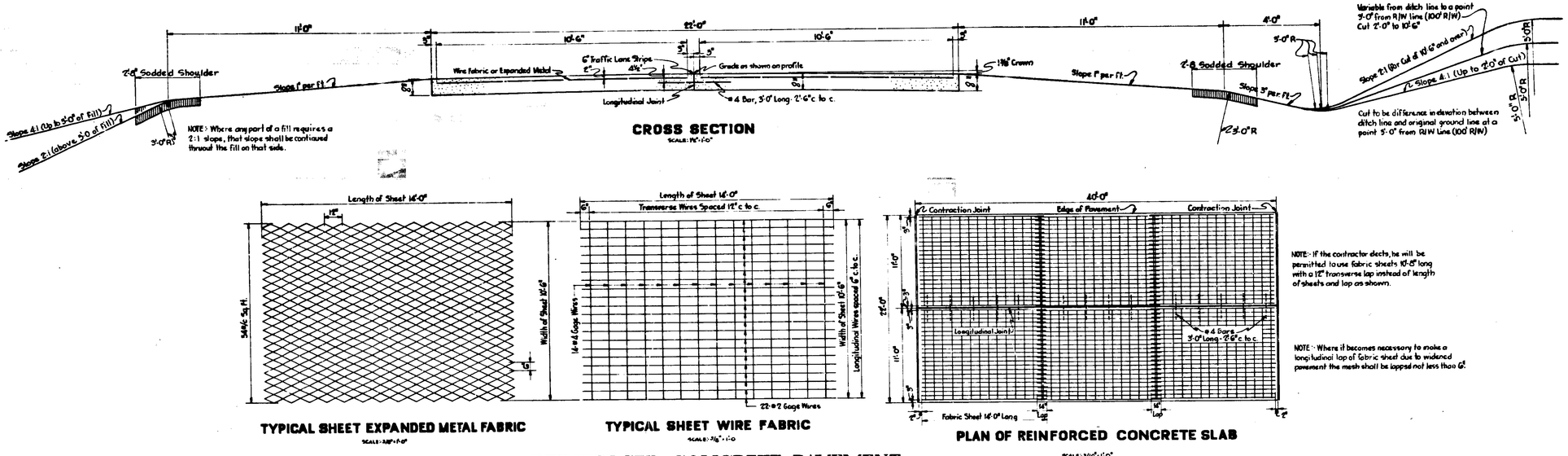
J. V. Smyth
ENGINEER OF BRIDGE DESIGN, STATE HIGHWAY DEPARTMENT OF INDIANA

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED:-
[redacted] DISTRICT ENGINEER — [redacted] DATE

BRIDGE FILE:- 25-A-3500

STATE HIGHWAY COMMISSION OF INDIANA
1952 STANDARD ROAD AND BRIDGE SPECIFICATIONS
TO BE USED WITH THESE PLANS

PUBLIC ROAD DIVISION NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	S4540	1955	2	20



CROSS SECTION
SCALE: 1/2" = 1'-0"

TYPICAL SHEET EXPANDED METAL FABRIC
SCALE: 3/8" = 1'-0"

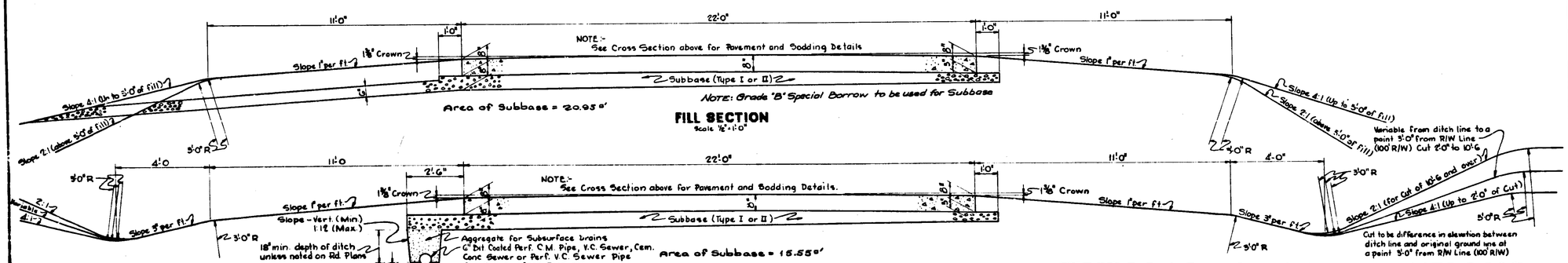
TYPICAL SHEET WIRE FABRIC
SCALE: 3/16" = 1'-0"

PLAN OF REINFORCED CONCRETE SLAB
SCALE: 3/16" = 1'-0"

NOTE:- If the contractor elects, he will be permitted to use fabric sheets 10'-8" long with a 12" transverse lap instead of length of sheets and lap as shown.

NOTE:- Where it becomes necessary to make a longitudinal lap of fabric sheet due to widened pavement the mesh shall be lapped not less than 6".

REINFORCED CONCRETE PAVEMENT



Area of Subbase = 20.95 □'

NOTE: Grade "B" Special Borrow to be used for Subbase

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

Area of Subbase = 15.55 □'

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

Cut to be difference in elevation between ditch line and original ground line at point 3'-0" from R/W line.

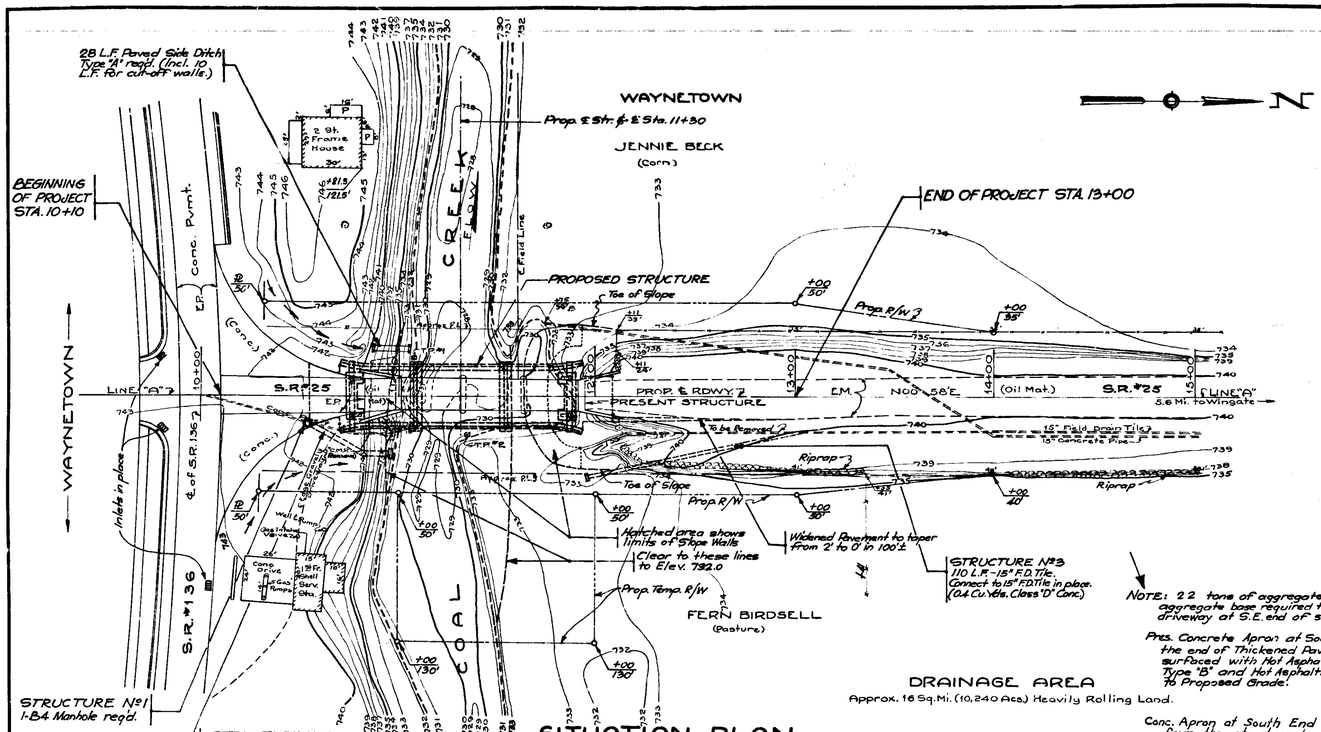
TYPICAL SUBBASE SECTIONS

NOTE:-
A Guide Post (Type "A") is to be set at outlet of subsurface drain at exact location as directed by the engineer, in order to preserve the location of the subsurface drain.

TYPICAL CROSS SECTIONS

SCALE: AS NOTED
JANUARY 5, 1955
RECOMMENDED FOR APPROVAL ..... ENGINEER OF BRIDGE DESIGN
BRIDGE CONTRACT: 3887
BRIDGE FILE: 25-A-3500

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	5436(1)	1955	5	20



SITUATION PLAN

Scale:- 1" = 30'-0", Contour Interval = 1 Ft.

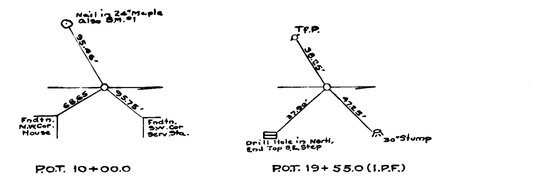
NOTE: 22 tons of aggregate for compacted aggregate base required to match gravel driveway at S.E. end of structure.

Pres. Concrete Apron at South End, from the end of Thickened Pavement, to be surfaced with Hot Asphaltic Conc. Surface, Type "B" and Hot Asphaltic Conc. Binder to Proposed Grade.

Conc. Apron at South End to be removed from the structure to Sta. 10+53.42 ± & replaced with Thickened Pavement at Proposed Grade.

DRAINAGE AREA

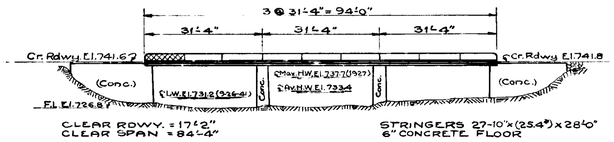
Approx. 16 Sq. Mi. (10,240 Acs.) Heavily Rolling Land.



REFERENCES

Not to Scale

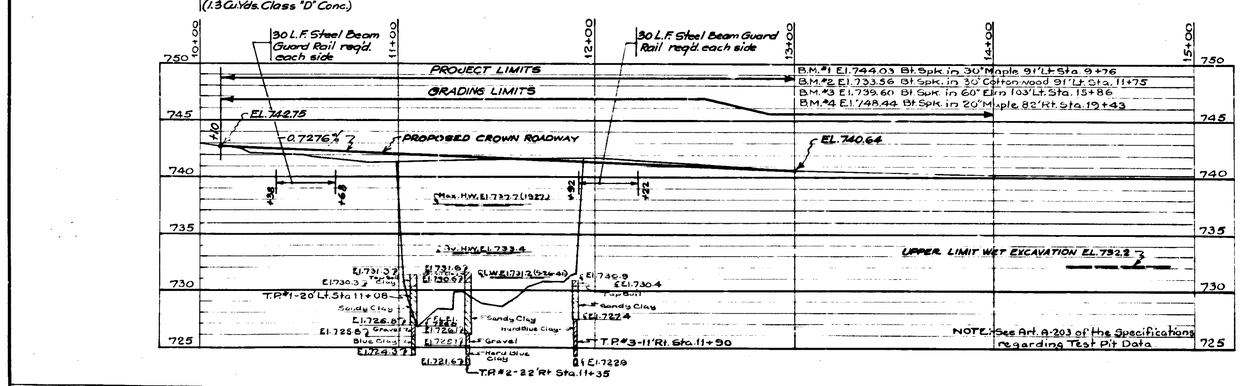
STRUCTURAL STEEL WT. = 10 TONS (Approx.)



PRESENT STRUCTURE

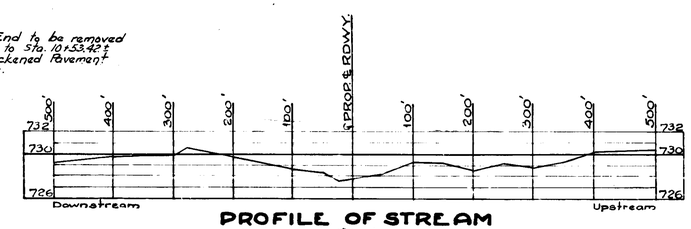
UPSTREAM ELEVATION

Scale :- 1/16" = 1'-0"



PROFILE ON PROPOSED ℄ ROADWAY

Scales:- Horiz. 1" = 50'-0", Vert. 1" = 5'-0"



PROFILE OF STREAM

Scales:- Horiz. 1" = 100'-0" Vert. 1" = 5'-0"

Balance:-

Fill + 20%	565 Cu. Yds.
Surplus Excav.	475 " "
Common Excav.	220 " "
Waste	150 " "

LAYOUT

CONTINUOUS REINF. CONCRETE SLAB BRIDGE.

3 SPANS - 32'-6, 45'-6, 32'-6 — 28'-0 ROADWAY + 2 @ 2'-0 WALKS

OVER COAL CREEK. — ON STATE ROAD 25-A

STATE HIGHWAY DEPARTMENT OF INDIANA

MONTGOMERY COUNTY

SCALE:- As Noted — JANUARY 5, 1955

RECOMMENDED FOR APPROVAL: J. V. Smyth

DRAWING:- C1 OF 6

PROJECT:- 5436(1) — STATION:- 11+90

BRIDGE CONTRACT NO. 3887

BRIDGE FILE:- 25-A-3500

DESIGNED — CKD.

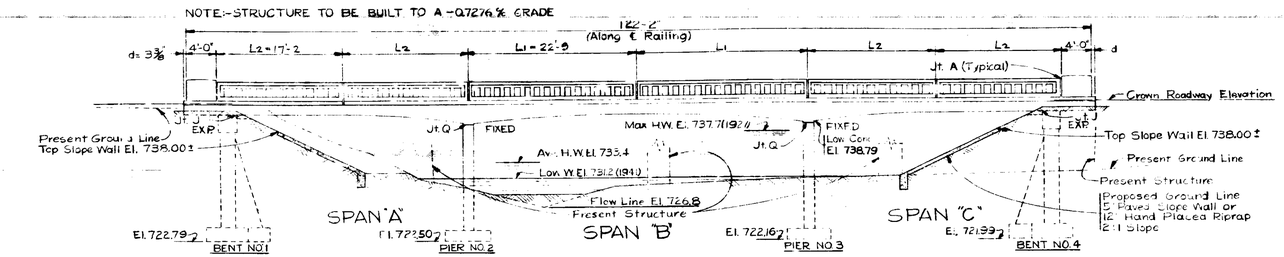
DRAWN L.S. 9-3-42 CKD. R.E.F. 9-24-42

TRACED M.F.B. 11-17-54 CKD. J.E.B. 11-17-54

NOTE:- FIELD NOTES-BOOK DR. 816, Pages 27 to 58.

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJ. NO.	TOTAL SHEETS	SHEET NO.	TOTAL SHEETS
4	IND.	3456(1)	5	4	20

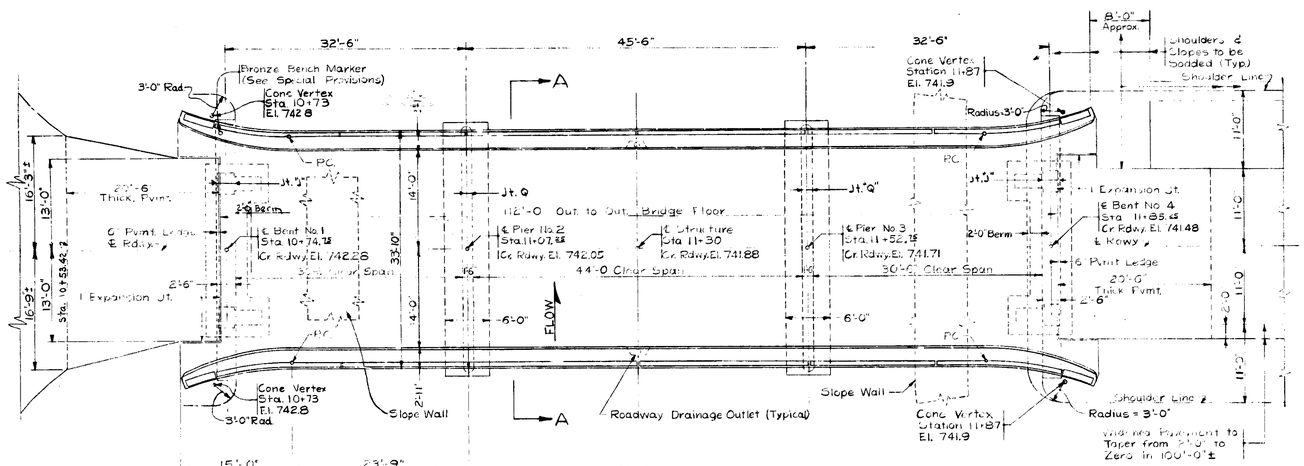
NOTE:-STRUCTURE TO BE BUILT TO A -0.7276% GRADE



ELEVATION

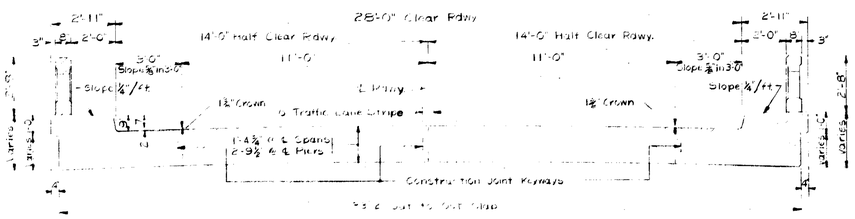
Scale:- 1/8" = 1'-0"

N



PLAN

Scale:- 1/8" = 1'-0"



SECTION A-A

Scale:- 1/8" = 1'-0"

STANDARD DRAWINGS

BR. STD.	RD. STD.	PURPOSE	DATE
G1		Miscellaneous Details	Oct. 1952
G2		Grade "B" Special Borrow	Oct. 2 1950
G3		Thickened Pavement	" 2-4-53
M1		Guide Posts - Head Walls - Paved Side Ditch	" 4-15-53
M2		Slope Walls	" 9-7-54
	MC	Manhole Ring and Cover	" 2-6-47
	MD	Manhole	" 6-1-54
	A	Pavement Joints	" 6-1-53
	GR	Guard Rail	" 7-7-49
	Detour 1	Standard Detour Signs	" 6-1-54
	Detour 2	" " "	" 5-1-51

GENERAL NOTES

Depth of footings to be extended if found necessary. See Art. B403.2(a) of Specifications.

Reinforcing steel covering shall be 1½ inches in floor slabs, 3 inches in footings, except bottom steel in footings shall be 4 inches, and 2 inches in all other parts unless noted.

Dimensions on bending diagrams for reinforcing bars are measured out to out of bars.

Concrete in footings and pier stems to be class "E".

Concrete in superstructure, including railing and bent caps to be class "F".

Concrete in structure not noted above to be class "D".

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

Bevel forms ¾ inch under copings; and chamfer exposed edges 1 inch unless noted.

Two roadway drainage outlets to be placed as shown on this drawing.

Construct 5 inch concrete slope wall or alternate 12 inch handlaid riprap slope walls at locations as shown on Layout.

All railings to be constructed perpendicular to grade.

6 inch traffic lane stripe to be placed along centerline of roadway on bridge floor and thickened pavement.

See Special provisions for items included in this contract.

DESIGN DATA

Designed for H20-S16-44 loading in accordance with 1953 A.A.S.H.O. Specifications.

TYPICAL APPROACH SECTION

See sheet No. 2.

JOINT LEGEND

JOINT "A" indicates a vertical ¾ inch open joint in railing only.

JOINT "J" indicates ½ inch preformed expansion material under front 6 inches of slab bearing area and two layers of medium weight roofing felt under remainder of bearing area.

JOINT "Q" indicates ½ inch preformed expansion material placed longitudinally on each of the outer 3 inch portions of the pier bearing area, with concrete to concrete bearing under the remaining portion.

1 inch Expansion Joint is a 1 inch cork, cork-rubber or fiber expansion joint extending from approximately 1½ inches below the surface of the roadway to the bottom of slab seat and a horizontal layer of medium weight roofing paper covering the slab seat. Joint sealing compound, hot poured joint sealer or cold applied mastic type filler to be placed in the top 1½ inch portion.

GENERAL PLAN

CONTINUOUS REINF. CONC. SLAB BRIDGE

S. STRAIGHT [illegible] 22'-8" — 26'-0" ROADWAY + 2 @ 2'-0" WALKS

OVER [illegible] ON STATE ROAD 25-A

STATE HIGHWAY DEPARTMENT OF INDIANA

[illegible] COUNTY

SCALE:-AS NOTED — JANUARY 5, 1955

RECOMMENDED FOR APPROVAL:- [illegible] — BRIDGE ENGINEER

DRAWING 2 OF 6

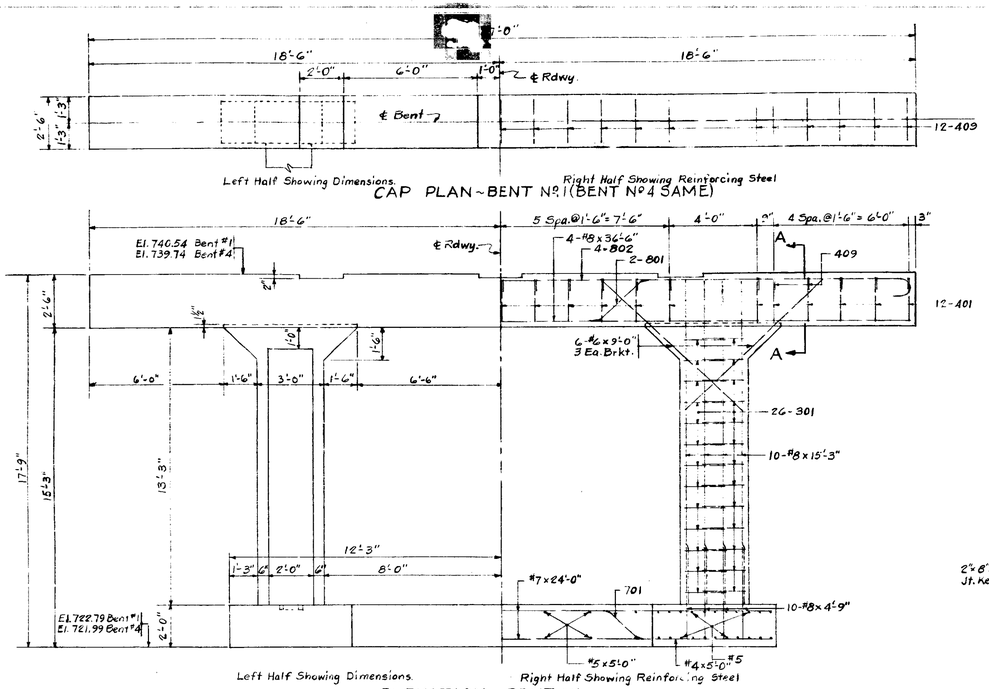
PROJECT:- 3456(1) STATION:-11+50

BRIDGE CONTRACT NO. 3887

BRIDGE FILE. [illegible]

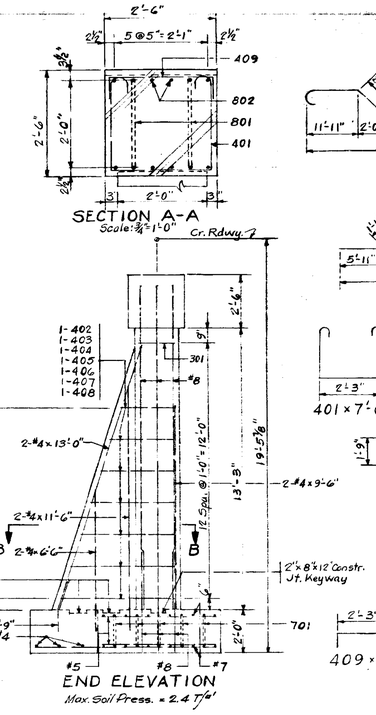
DESIGNED [illegible]
DRAWN W.K. [illegible] 2-54 CHECKED M.J.E. 12-17-54
TRACED [illegible]

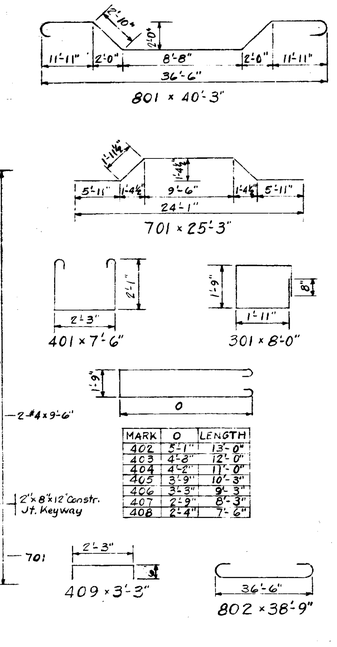
BRIDGES OVER 20' SPAN					
PUB ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	5456(1)	1955	5	20



CAP PLAN ~ BENT Nº 1 (BENT Nº 4 SAME)

ELEVATION ~ BENT Nº 1 (BENT Nº 4 SAME)

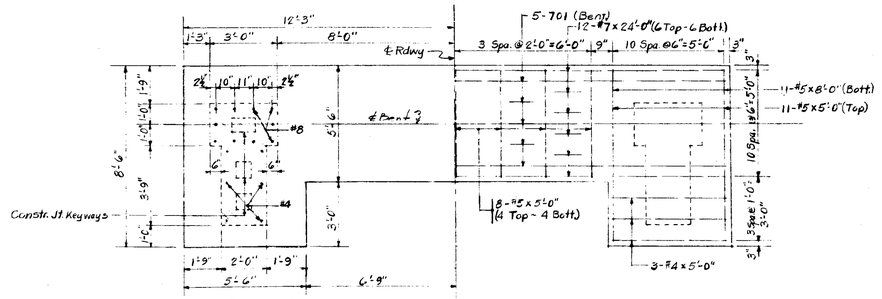




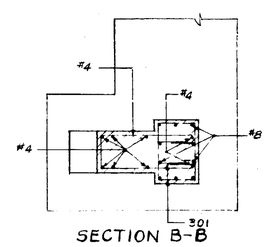
MARK	O	LENGTH
402	5'-1"	13'-0"
403	4'-8"	12'-0"
404	4'-5"	11'-0"
405	3'-9"	10'-3"
406	3'-3"	9'-3"
407	2'-9"	8'-3"
408	2'-4"	7'-6"

BILL OF MATERIALS
BENT Nº 1 (BENT Nº 4 SAME)

REINFORCING STEEL			
SIZE AND MARK	NO. OF BARS	LENGTH	WEIGHT (LBS)
801	2	40'-3"	
802	4	38'-9"	
#8	4	36'-6"	
#8	20	15'-3"	
#8	20	4'-9"	
	Total Nº 8		2087
701	5	25'-3"	
#7	12	24'-0"	
	Total Nº 7		847
#6	12	9'-0"	162
#5	22	8'-0"	
#5	36	5'-0"	
	Total Nº 5		371
401	23	7'-6"	
402	2	13'-0"	
403	2	12'-0"	
404	2	11'-0"	
405	2	10'-3"	
406	2	9'-3"	
407	2	8'-3"	
408	2	7'-6"	
409	23	3'-3"	
#4	4	13'-0"	
#4	4	11'-6"	
#4	4	8'-6"	
#4	4	6'-6"	
#4	4	5'-0"	
#4	4	2'-9"	
	Total Nº 4		396
301	52	8'-0"	1246
	TOTAL STEEL		4019
CONCRETE			
CLASS "F" - Cap		=	8.6 C.Y.
CLASS "D" - Column		=	9.6 C.Y.
CLASS "E" - Footing		=	12.4 C.Y.



FOOTING PLAN
(BENTS Nº 1 & Nº 4 SAME)



SECTION B-B

REINFORCING BAR NOTES

All dimensions on bending diagrams are measured out to out of bars.
All dimensions on details are measured on centerlines of bars, except where "cover" is indicated.
Bent bars are given a three or four digit bar mark.
The last two digits, Cl to 99, indicate the mark. The digit or digits preceding the last two indicate the size of the bar.
Straight bars will be designated by size and length.
Standard size hooks as shown on Br. Std. C1 are to be used on all hooked bars unless noted.
See summary sheet for Bill of Splice Bars.
See Br. Std. C1 for Bar Bending Details, Test Bar Samples, Std. Bar Laps and Embedment.

DETAILS, BENTS Nº 1 & 4

STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE:- 3/8" = 1'-0" UNLESS NOTED — JANUARY 5, 1955

RECOMMENDED FOR APPROVAL:-

DRAWING:- C3 OF 6

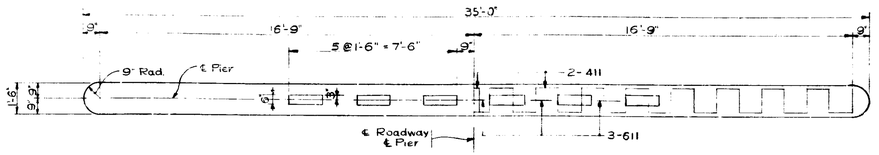
PROJECT:- 5456(1) — STATION:- 11+30

BRIDGE CONTRACT NO. 3887

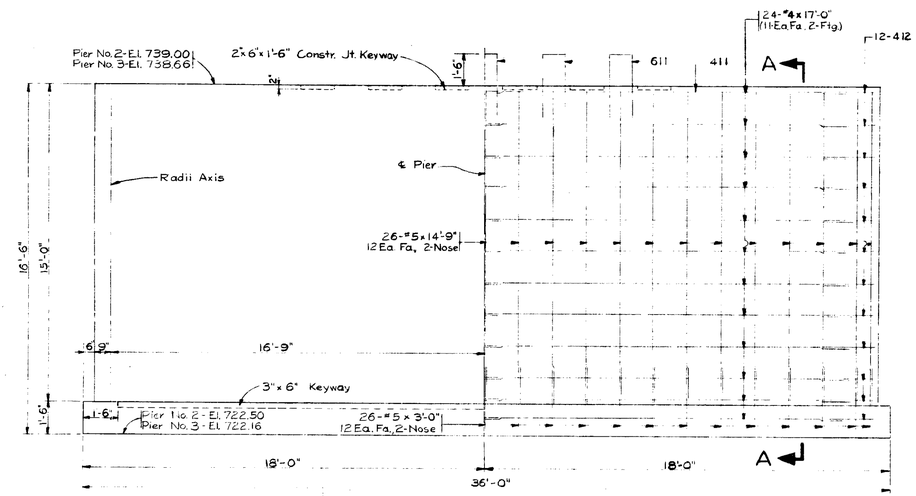
BRIDGE FILE:- 25-21-3500

DESIGNED L.C.S. 9-16-54 CKD. C.E.H. 11-16-54
DRAWN C.S.M. 11-23-54 CKD. W.K.K. 12-3-54
TRACED

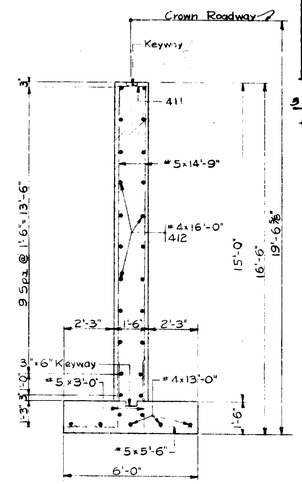
BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND	9456(1)	1954	6	20



CAP PLAN

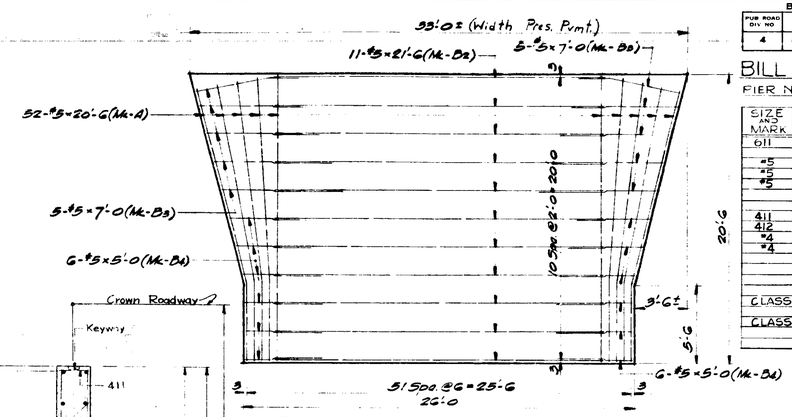


ELEVATION



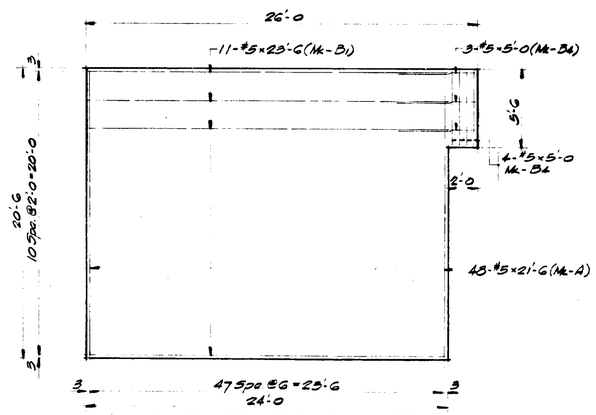
SECTION A-A

Max. Soil Press. = 2.3 T/□'



THICKENED PAVEMENT

SOUTH END Scale:- 1/4" = 1'-0



THICKENED PAVEMENT

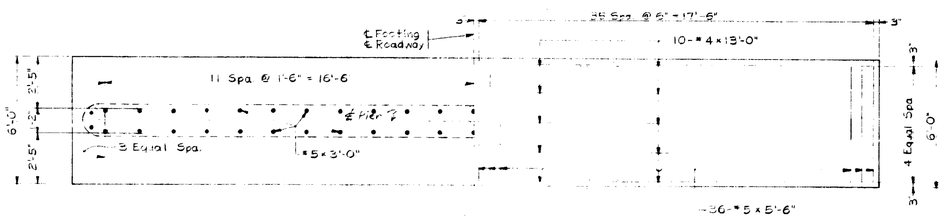
NORTH END Scale:- 1/4" = 1'-0

NOTE:- See summary sheet for thickened pavement steel bill.

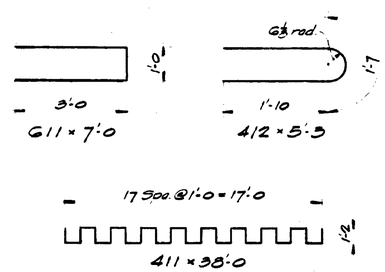
BILL OF MATERIALS

PIER NO. 2 (PIER NO. 3 SAME)

SIZE AND MARK	NO. OF BARS	LENGTH	WEIGHT (LBS)
#11	5	7'-0"	53
#5	50	14'-9"	
#5	72	5'-6"	
#5	50	3'-0"	
		Total No. 5	1339
#11	2	38'-0"	
#12	24	3'-3"	
#4	48	17'-0"	
#4	15	13'-0"	
		Total No. 4	810
		TOTAL STEEL	2202
CONCRETE			
CLASS "E" Above Footing		=	28.9 C.Y.
CLASS "E" Footing		=	12.0 C.Y.



FOOTING PLAN-PIERS NO. 2 & NO. 3



NOTE:- For reinforcing bar notes, see Drawing C3

PIER & THICKENED PAVEMENT DETAILS

STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE:- 3/8" = 1'-0" UNLESS NOTED JANUARY 5, 1955

RECOMMENDED FOR APPROVAL:- [signature]

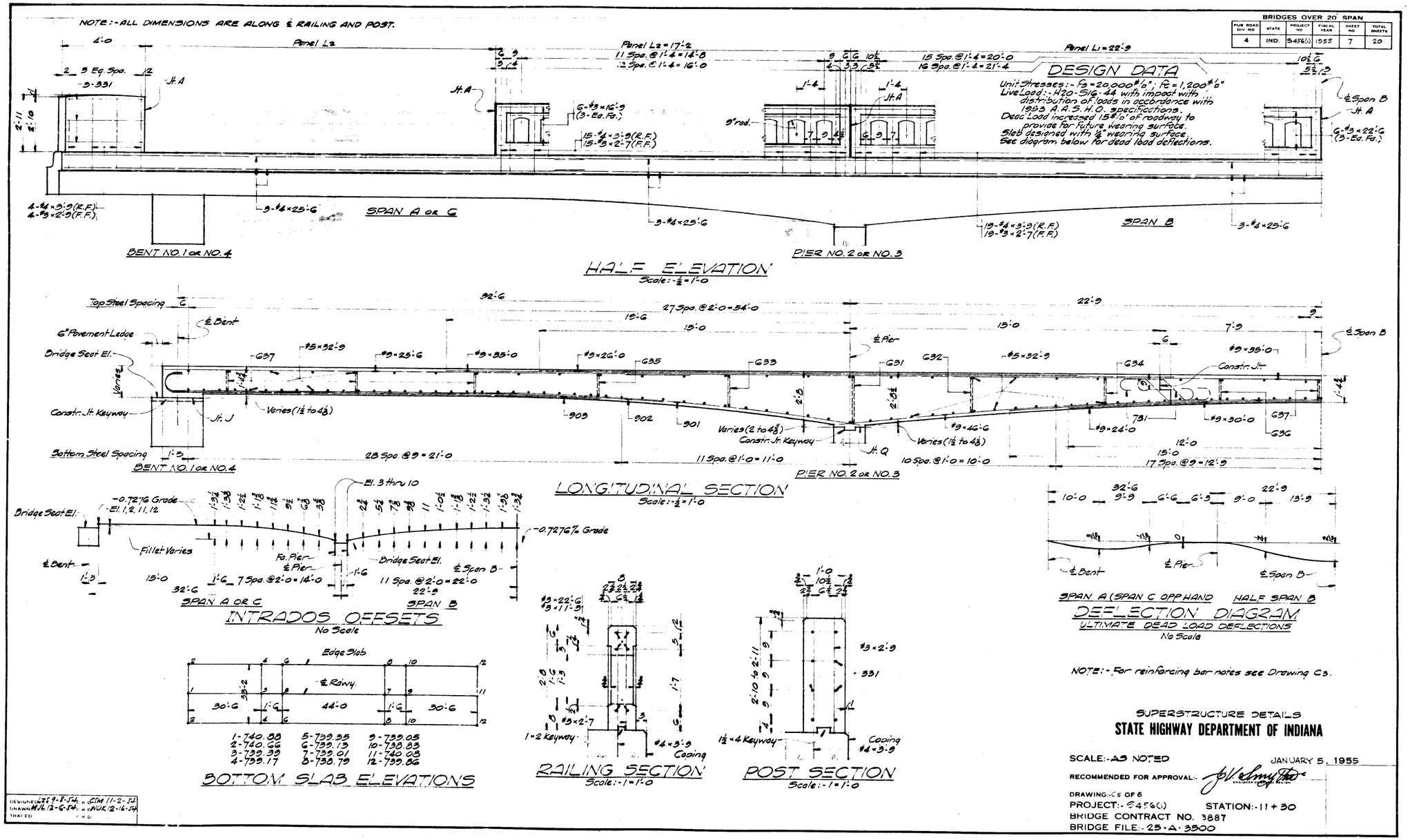
DRAWING C4 OF 5

PROJECT:- 9456(1) STATION:- 11+30

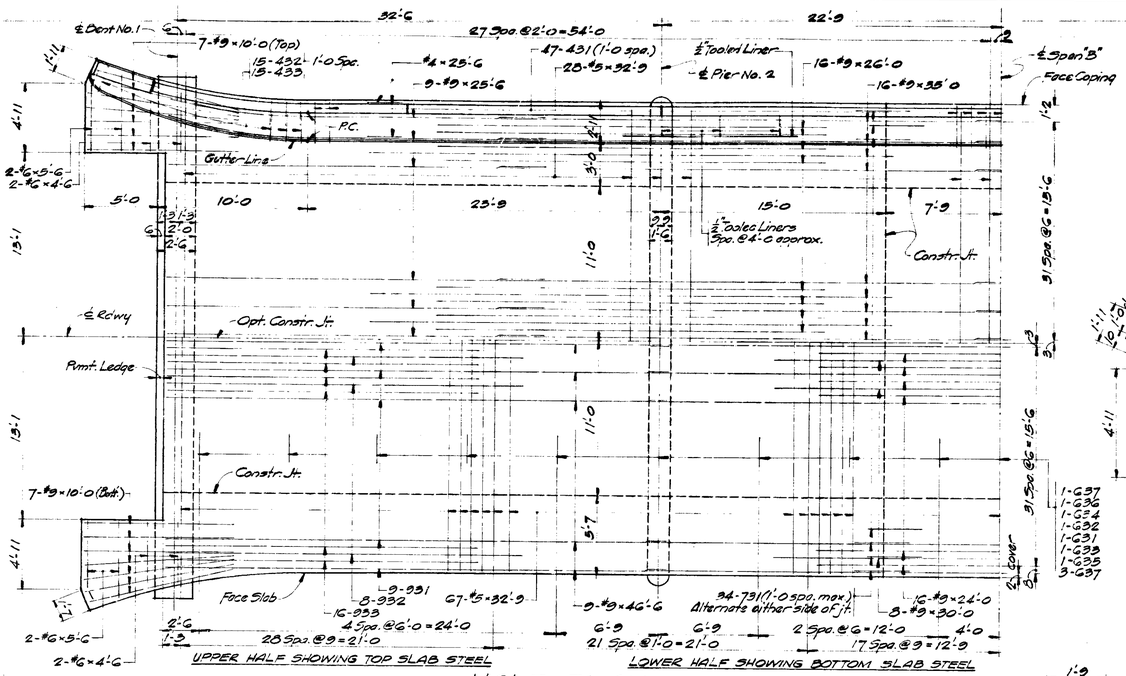
BRIDGE CONTRACT NO. 3887

BRIDGE FILE:- 25-A-3500

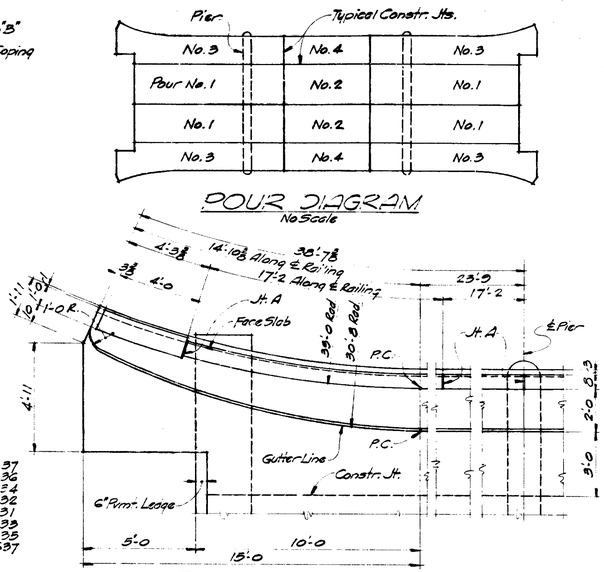
DESIGNED	ZS 11-10-54	CS 11-15-54	
DRAWN	N.J.K. 12-1-54	J.L. 12-15-54	
TRACED			


NOTE:- ALL DIMENSIONS ARE ALONG ℄ RAILING AND POST.
BRIDGES OVER 20' SPAN
PUB ROAD DIV. NO. 4
STATE IND.
PROJECT NO. S456(1)
FISCAL YEAR 1955
SHEET NO. 7
TOTAL SHEETS 20
DESIGN DATA
Unit Stresses:- fs = 20,000#/□"; fc = 1,200#/□"
Live Load:- H20-S16-44 with impact with distribution of loads in accordance with 1953 A.A.S.H.O. specifications.
Dead Load increased 15#/□' of roadway to provide for future wearing surface.
Slab designed with ¼" wearing surface.
See diagram below for dead load deflections.
Panel L2
Panel L2 = 17'-2
11 Spa. @ 1'-4 = 14'-8
12 Spa. @ 1'-4 = 16'-0
Panel L1 = 22'-9
15 Spa. @ 1'-4 = 20'-0
16 Spa. @ 1'-4 = 21'-4
SPAN A OR C
SPAN B
BENT NO. 1 OR NO. 4
PIER NO. 2 OR NO. 3
HALF ELEVATION
Scale:- ½ = 1'-0
Top Steel Spacing
6" Pavement Ledge
Bridge Seat El.
Constr. Jt. Keyway
Bottom Steel Spacing
27 Spa. @ 2'-0 = 54'-0
28 Spa. @ 9 = 21'-0
11 Spa. @ 1'-0 = 11'-0
10 Spa. @ 1'-0 = 10'-0
17 Spa. @ 9 = 12'-9
LONGITUDINAL SECTION
Scale:- ½ = 1'-0
Fillet Varies
Fa. Pier
Bridge Seat El.
7 Spa. @ 2'-0 = 14'-0
11 Spa. @ 2'-0 = 22'-0
INTRADOS OFFSETS
No Scale
SPAN A (SPAN C OPP HAND
HALF SPAN B
DEFLECTION DIAGRAM
ULTIMATE DEAD LOAD DEFLECTIONS
No Scale
Edge Slab
℄ Rdwy.
1-740.88
2-740.66
3-739.39
4-739.17
5-739.35
6-739.13
7-739.01
8-738.79
9-739.05
10-738.83
11-740.08
12-739.86
BOTTOM SLAB ELEVATIONS
1×2 Keyway
Coping
RAILING SECTION
Scale:- 1 = 1'-0
1½×4 Keyway
POST SECTION
Scale:- 1 = 1'-0
NOTE:- For reinforcing bar notes see Drawing C3.
SUPERSTRUCTURE DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA
SCALE:- AS NOTED
JANUARY 5, 1955
RECOMMENDED FOR APPROVAL:-
DRAWING:- C5 OF 6
PROJECT:- S456(1)
STATION:- 11 + 30
BRIDGE CONTRACT NO. 3887
BRIDGE FILE:- 25-A-3500
DESIGNED LZS 9-8-54
DRAWN MJL 12-6-54
TRACED
CKD CSM 11-2-54
CKD WDK 12-16-54

BRIDGES OVER 20' SPAN					
PUB. ROAD DIV. NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
4	IND.	S456(1)	1955	8	20



HALF PLAN
Scale: - 1/2" = 1'-0



POUR DIAGRAM
No Scale

PART PLAN
TYPICAL WING CORNER
Scale: - 3/8" = 1'-0

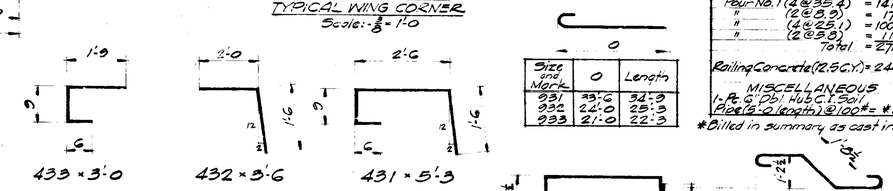
BILL OF MATERIALS
SUPERSTRUCTURE

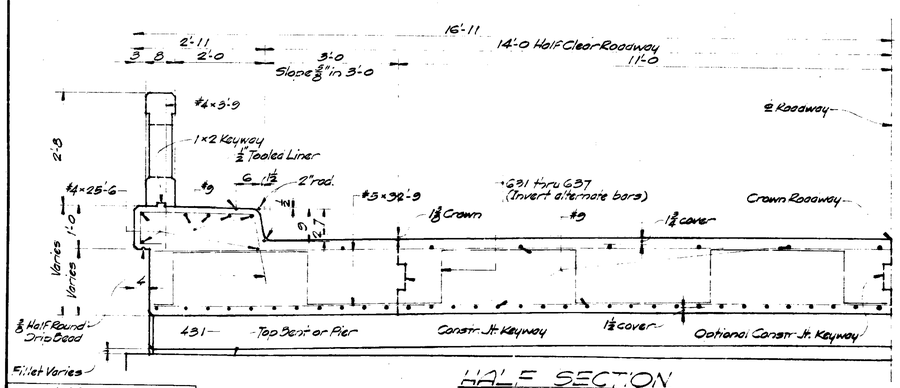
SIZE AND MARK	NO. OF BARS	LENGTH	WEIGHT
931	32	34'-9	
932	32	25'-3	
933	64	22'-3	
#9	18	46'-6	
"	64	35'-0	
"	64	30'-0	
"	64	26'-0	
"	36	25'-6	
"	32	24'-0	
"	36	10'-0	
	TOTAL NO. 9		37,230
731	68	6'-0	834
631	4	30'-1	
632	4	26'-5	
633	4	25'-1	
634	4	23'-10	
635	4	22'-7	
636	4	22'-6	
637	14	22'-3	
#6	8	5'-0	
"	8	4'-6	
	TOTAL NO. 6		1,492
#5	189	32'-9	6,456
431	186	5'-3	
432	60	3'-0	
433	60	3'-0	
#4	30	25'-6	
"	212	3'-9	
	TOTAL NO. 4		1,955
331	12	9'-0	
#3	24	22'-6	
"	48	16'-3	
"	16	8'-9	
"	196	2'-7	
	TOTAL NO. 3		753
	TOTAL STEEL		48,720

CONCRETE
Class "F":
Pour No. 1 (4 @ 35.4) = 141.6 Cu. Yds.
" (2 @ 8.9) = 17.8 " "
" (4 @ 25.1) = 100.4 " "
" (2 @ 5.8) = 11.6 " "
Total = 271.4 " "
Railing Concrete (2.5 C.Y.) = 244.3 L.F.

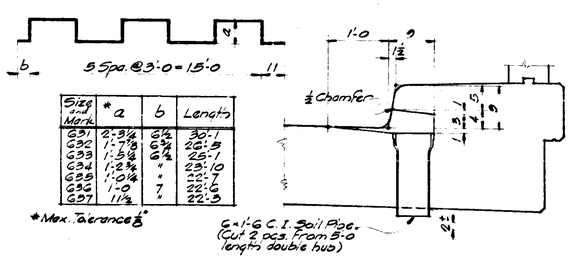
MISCELLANEOUS
1-Pr. 6" Dbl. Hub C.I. Soil Pipe (5'-0 length) @ 100# = #100*

*Billed in summary as cast iron.





HALF SECTION
Scale: - 3/4" = 1'-0



Size and Mark	* a	b	Length
G31	2'-3 1/4"	6 1/4"	30'-1
G32	1'-7 7/8"	6 1/4"	26'-5
G33	1'-5 1/4"	6 1/4"	25'-1
G34	1'-2 3/4"	"	23'-10
G35	1'-0 1/4"	"	22'-7
G36	1'-0	7	22'-6
G37	11 1/2"	"	22'-3

*Max. Tolerance 1/8"

DRAINAGE OUTLET
Scale: - 1" = 1'-0

For location of drainage outlets see Drawing C2. For additional details see Br. Std. C1.

NOTE: - For reinforcing bar notes see Drawing C3.

SUPERSTRUCTURE DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: - AS NOTED — JANUARY 5, 1955

RECOMMENDED FOR APPROVAL: - J. V. Livingston — ENGINEER OF BRIDGES

DRAWING: - C6 OF 6
PROJECT: - S456(1) — STATION: - 11 + 30
BRIDGE CONTRACT NO. 3887
BRIDGE FILE: - 25-A-3500

DESIGNED L.E.S. 9-2-54 K C.F.M. 11-2-54
DRAWN M.L. 11-29-54 K D.R.D.K. 12-16-54
TRACED ..... CKD .....

BRIDGES OVER 20' SPAN				
PUB. ROAD SYM. No.	PROJECT No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
4	[illegible]	1955	9	20

STRUCTURE QUANTITIES

ITEM	CONCRETE CLASS F CU. YDS.	CONCRETE CLASS D CU. YDS.	CONCRETE CLASS E ABOVE FTG. CU. YDS.	CONCRETE CLASS E FTG. CU. YDS.	RAILING CONCRETE CLASS F CU. YDS.	RAILING CONCRETE CLASS F LIN. FT.	#11(1 1/4") LBS.	#10(1 1/8") LBS.	#9(1") LBS.	#8(1 1/8") LBS.	#7(7/8") LBS.	#6(3/4") LBS.	#5(5/8") LBS.	#4(1/2") LBS.	#3(3/8") LBS.	#2(1/4") LBS.	TOTALS LBS.	STRUCTURAL STEEL LBS.	CAST IRON LBS.	PILES Nº	PILES LIN. FT.
Bent Nº1	8.6	9.6		12.4						2087	847	162	371	396	156		4019				
Pier Nº2			28.9	12.0								53	1339	810			2202				
Pier Nº3			28.9	12.0								53	1339	810			2202				
Bent Nº4	8.6	9.6		12.4						2087	847	162	371	396	156		4019				
Superstructure	271.4				12.5	244.3			37,250		834	1,892	6456	1955	788		48,720		100		
Splice Bars									65	23	16	34	21	12	6		177				
Reinf. Steel from "Approach Structs." column																					
Reinf. Steel for Thickened Pavement													2827				2827				
Reinf. Steel for Lip Gutter, Pvmt. Tapers, etc.																					
TOTALS	288.6	19.2	57.8	48.8	12.5	244.3			37,295	4197	2544	1956	12,724	4379	1071		64,166		100		

BILL OF SPLICE BARS

REINFORCING STEEL Size	Nº Pcs.	Length	Location	Weight	Total Weight
9	2	9'-6	Splice Bars for #9 cut for test	65	
8	1	8'-9	" Bar " #8 " " "	23	
7	1	8'-0	" " " #7 " " "	16	
6	3	7'-6	" Bars " #6 " " "	34	
5	3	6'-9	" " " #5 " " "	21	
4	3	6'-0	" " " #4 " " "	12	
3	3	5'-6	" " " #3 " " "	6	
					177

Note:- For Test Bar Samples see Br. Std. "C".

BILL OF MATERIALS FOR THICKENED PAVEMENT

REINFORCING STEEL Mk.	Size	Nº Pcs.	Length	Location	Weight	Total Weight
A	5	100	20'-6	Longitudinal	2138	
B1	"	11	23'-6	Transverse	270	
B2	"	11	21'-6	"	247	
B3	"	10	7'-0	"	73	
B4	"	19	5'-0	" & Longit.	99	
						2827

Note: See Drwg. C4 & Bridge Std. G1 for additional Typical Details.

BARRICADES, BARRIERS, TRAFFIC SIGNS, & LIGHTS

ITEM	UNIT	QUANTITY	ASSEMBLY	
WARNING SIGNS	Each	6	Signs 130 R	2
			" 123 R	2
			" 124 R	
			" 115 R	2
			Torches	4
STD. BARRICADES (TYPE A)	Each	2	Barricades (Type A)	2
			Signs 113 R	2
			" W11 R	
			" 117	2
			Lanterns	4
STD. 3'-0" x 4'-3" SIGNS	Each		Signs 113	
BRIDGE (SUITABLE) BARRIERS	Each	*	Suitable Barriers	2
		*	Lanterns or Torches	4
STD. BARRICADES (TYPE B)	Each		Barricades (Type B)	
			Signs 113	
			Lanterns or Torches	
TYPICAL SIGN STANDARDS	Each		Signs 119 R	
			" W11 R	
			" 117	
			Lanterns	

*Not a pay item.

APPROACH STRUCTURES

STRUCT. Nº	LOCATION	DESCRIPTION SIZE	DESCRIPTION KIND	DESCRIPTION LENGTH	CL. D CONC. IN STRUCTS. CU. YDS.	REINF. STEEL LBS.	CAST IRON LBS.	REMARKS
1	15' R. Sta. 10+54		B4 Manhole					Connect to Str. Nº2
2	15' R. Sta. 10+54	30"	R.C., V.C. or C.I. Pipe	50'	1.3			" " " Nº1
3	20' R. Sta. 13+00	15"	Field Drain Tile	110'	0.4			" " 15" F.D. Tile in place
				TOTALS	1.7			Total of Reinf. Stee. carried to "Structure Quantities"

SUBMITTED LZS 12-29-54 WDK 1-3-55
TRACED LZS 1-5-55 CK. WDK 1-5-55

SUMMARY

ITEM	DESCRIPTION	UNIT	QUANTITY
1	Class F Concrete	Cu. Yds.	288.6
2	Class D Concrete	Cu. Yds.	19.2
3	Class E Concrete above Footings	Cu. Yds.	57.8
4	Class E Concrete in Footings	Cu. Yds.	48.8
5	Railing Concrete	Lin. Ft.	244.3
6	Reinforcing Steel	Lbs.	64,166
7	Structural Steel	Lbs.	
8	Cast Iron	Lbs.	100
9	Untreated Timber Piles Furnished	Lin. Ft.	
10	Untreated Timber Piles Driven	Lin. Ft.	
11	Furnishing Equipment for Driving Piles	Lump Sum	
12	Wet Excavation	Cu. Yds.	426
13	Waterway Excavation	Cu. Yds.	105
14	Common Excavation	Cu. Yds.	220
15	Special Borrow	Cu. Yds.	
# 16	Grade B Special Borrow	Cu. Yds.	660
17	Sodding	Sq. Yds.	130
18	Mulched Seeding	Sq. Yds.	330
19	Cement Concrete Pavement	Sq. Yds.	
20	Reinforced Cement Concrete Pavement	Sq. Yds.	235
21	Thickened Reinf. Cement Concrete Pavement	Sq. Yds.	121
22	Aggregate for Compacted Aggregate Base	Tons	22
23	Removal Present Structure	Lump Sum	1
24	Temporary Bridge and Approaches	Lump Sum	
25	Warning Signs	Each	6
26	Std. Barricades (Type A)	Each	2
27	Class D Concrete in Structures	Cu. Yds.	1.7
28	R/W Markers	Each	6
29	Hot Asphaltic Conc. Surface - Type B	Tons	109
30	" " " Binder	Tons	21.7
31	Covering Aggregate	Tons	1.1
32	Bitum. Mat'l. for Prime	Gals.	22
33	Pavement Removal	Sq. Yds.	75
34	Paved Side Ditch - Type A	Lin. Ft.	28
35	Pavement Contraction Joints	Lin. Ft.	70
36	1" Expansion Joints	Lin. Ft.	74
37	Guide Posts - Type A	Ea.	8
38	Steel Beam Guard Rail	Lin. Ft.	120
39	Slope Wall	Sq. Yds.	240
40	30" R.C., V.C. or C.I. Pipe	Lin. Ft.	50
41	15" Drain Tile	Lin. Ft.	110
42	B4 Manhole	Ea.	1
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			

Includes 72 Cu. Yds. for Subbase

SUMMARY

STATE HIGHWAY DEPARTMENT OF INDIANA

JANUARY 5, 1955

RECOMMENDED FOR APPROVAL:- J. V. Smythe ENGINEER OF BRIDGE DESIGN

PROJECT:- S456 (1)

BRIDGE CONTRACT Nº 3887

BRIDGE FILE:- 25-A-3500

D STR

CONTRACT No. B-18416

BRIDGES OVER 20' SPAN					
FEDERAL REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	BHS-3554(2)	198	1	22

INDEX

PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
BHS-3554(2)	25-54-3500A	BRIDGE REPAIRS & OVERLAY	3 SPANS 32'-6" 45'-6" 32'-6"	EAST FORK COAL CREEK	

SHEET NO.	SHEET DESIGNATION	SUBJECT	F.H.W.A. APPROVAL
1		TITLE AND INDEX SHEET	
2	D1	GENERAL PLAN	
3	D2	CONSTRUCTION PROCEDURE, GENERAL NOTES, STANDARD DRAWING TABLE, MATERIAL NOTES	
4	D3	CONCRETE RAILING DETAILS	
5	D4	MISCELLANEOUS DETAILS	

NOTE: WHENEVER INDIANA DEPARTMENT OF HIGHWAYS APPEARS IN THESE PLANS OR CONTRACT DOCUMENTS IT SHALL BE INTERPRETED AS INDIANA DEPARTMENT OF TRANSPORTATION.

INDIANA DEPARTMENT OF HIGHWAYS

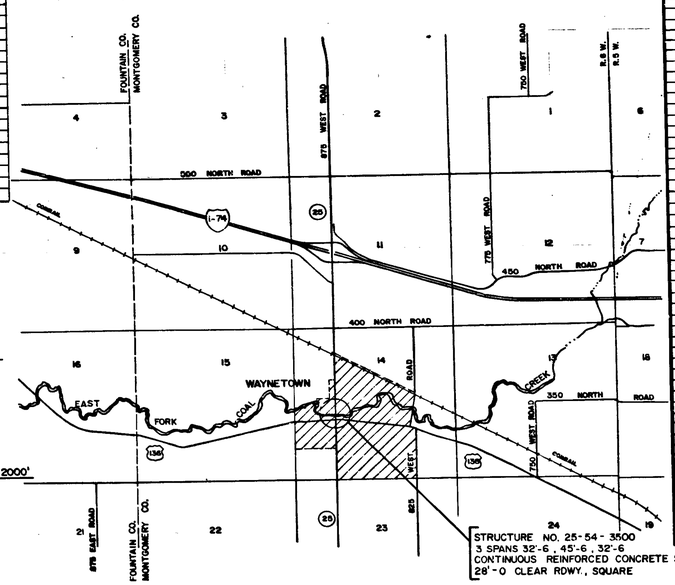
BRIDGE PLANS

FOR SPANS OVER 20 FEET ON STATE ROAD NO. 25

PROJECT NO. BHS-3554(2)

STRUCTURE NO. 25-54-3500 ON STATE ROAD 25 OVER EAST FORK COAL CREEK LOCATED IN SECTION 14, R.6W., T.19N. IN WAYNE TOWNSHIP, MONTGOMERY CO.

TRAFFIC DATA		
A.D.T. (1988)		1500 V.P.D.
A.D.T. (19 PROJECTED)		V.P.D.
D.H.V. (19 PROJECTED)		V.P.D.
TRUCKS	D.H.V. % A.D.T. %	
DESIGN SPEED		M.P.H.
ACCESS CONTROL		



SCALE 1" = 2000'

STRUCTURE NO. 25-54-3500
3 SPANS 32'-6", 45'-6", 32'-6"
CONTINUOUS REINFORCED CONCRETE SLAB
28'-0 CLEAR RDWY., SQUARE

THESE PLANS PREPARED BY
FINK ROBERTS & PETRINI, INC.
CONSULTING ENGINEERS
3001 WEST 86TH STREET
INDIANAPOLIS, INDIANA 46268

DATE: JUNE 5, 1989
CERTIFIED BY: Guy E. Cantwell

GUY E. CANTWELL 12220 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL 7-27-89
BRIDGE ENGINEER

JAMES C. KARR PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL 7/28/89
DESIGN CONSULTANT SERVICE MANAGER

EDWARD J. COX No. 14441 STATE OF INDIANA PROFESSIONAL ENGINEER

APPROVED 7/28/89
CHIEF, DIVISION OF DESIGN

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
APPROVED:
DIVISION ADMINISTRATOR DATE

BRIDGE FILE: 25-54-3500A

INDEX CONTINUED
STANDARD DRAWINGS

SHEET NO.	SHEET DESIGNATION	SUBJECT	F.H.W.A. APPROVAL	ADOPTED "A" REVISED "R"
	BRIDGE STD. BR1	ALUMINUM BRIDGE RAILING		
	BRIDGE STD. BR2	ALUMINUM BRIDGE RAILING DETAILS		
	BRIDGE STD. BR3	STEEL BRIDGE RAILING		
	BRIDGE STD. BR4	STEEL BRIDGE RAILING DETAILS		
6	BRIDGE STD. BR5	RAILING CONNECTION DETAILS	1-22-87	R12-01-86
	BRIDGE STD.			
7	BRIDGE STD. C1	MISCELLANEOUS DETAILS	7-13-88	R 6-01-88
	BRIDGE STD. C2	MISCELLANEOUS DETAILS		
8	BRIDGE STD. C3	MISCELLANEOUS DETAILS	1-26-88	R11-02-87
	BRIDGE STD. C4	MISCELLANEOUS 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		
	BRIDGE STD. S1	MISCELLANEOUS DETAILS		
	BRIDGE STD. SH1	STEEL SHOE DETAILS		
	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD.			
	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS		
	ROAD STD. SHEET B	STANDARD PAVEMENT JOINTS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
9	ROAD STD. SHEET MT3	MISCELLANEOUS STANDARDS	8-5-88	R8-1-88
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
10	ROAD STD. SHEET MT5	MISCELLANEOUS STANDARDS	7-13-88	R6-1-88
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
11	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS	5-19-88	R4-4-88
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
12	ROAD STD. SHEET GR2	GUARD RAIL CLASS	*	R4-2-84
	ROAD STD. SHEET GR	GUARD RAIL CLASS		
	ROAD STD. SHEET GR	GUARD RAIL CLASS	*	R4-2-84
13	ROAD STD. SHEET GR4A	GUARD RAIL CLASS		
	ROAD STD. SHEET GR5	ALUMINUM GUARD RAIL DETAILS		
	ROAD STD. SHEET GR6	STEEL TUBE GUARD RAIL DETAILS		
14	ROAD STD. SHEET GR7	GUARD RAIL PIER CONNECTION DETAILS		
	ROAD STD. SHEET GR8	STEEL BEAM GUARD RAIL		
	ROAD STD. SHEET GR9	ALUMINUM BEAM GUARD RAIL		
15	ROAD STD. SHEET GR10	GUARD RAIL BURIED ENDS	*	R2-1-85
	ROAD STD. SHEET GR10A	GUARD RAIL BREAKAWAY CABLE TERM.		
	ROAD STD.			
16	ROAD STD. SHEET CB2	TEMPORARY CONCRETE BARRIER	1-11-89	R9-1-89
			*	A SEPT 1988
17	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	*	A SEPT 1988
18	ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS	*	R9-1-88
19	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS	*	R9-1-88
20	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS	1-11-89	R9-1-88
21	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS	*	R9-1-88
22	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS		

* PENDING

REVISIONS	
DATE	SHEET NO.
9-14-89	1, 3

REVISIONS	
DATE	SHEET NO.

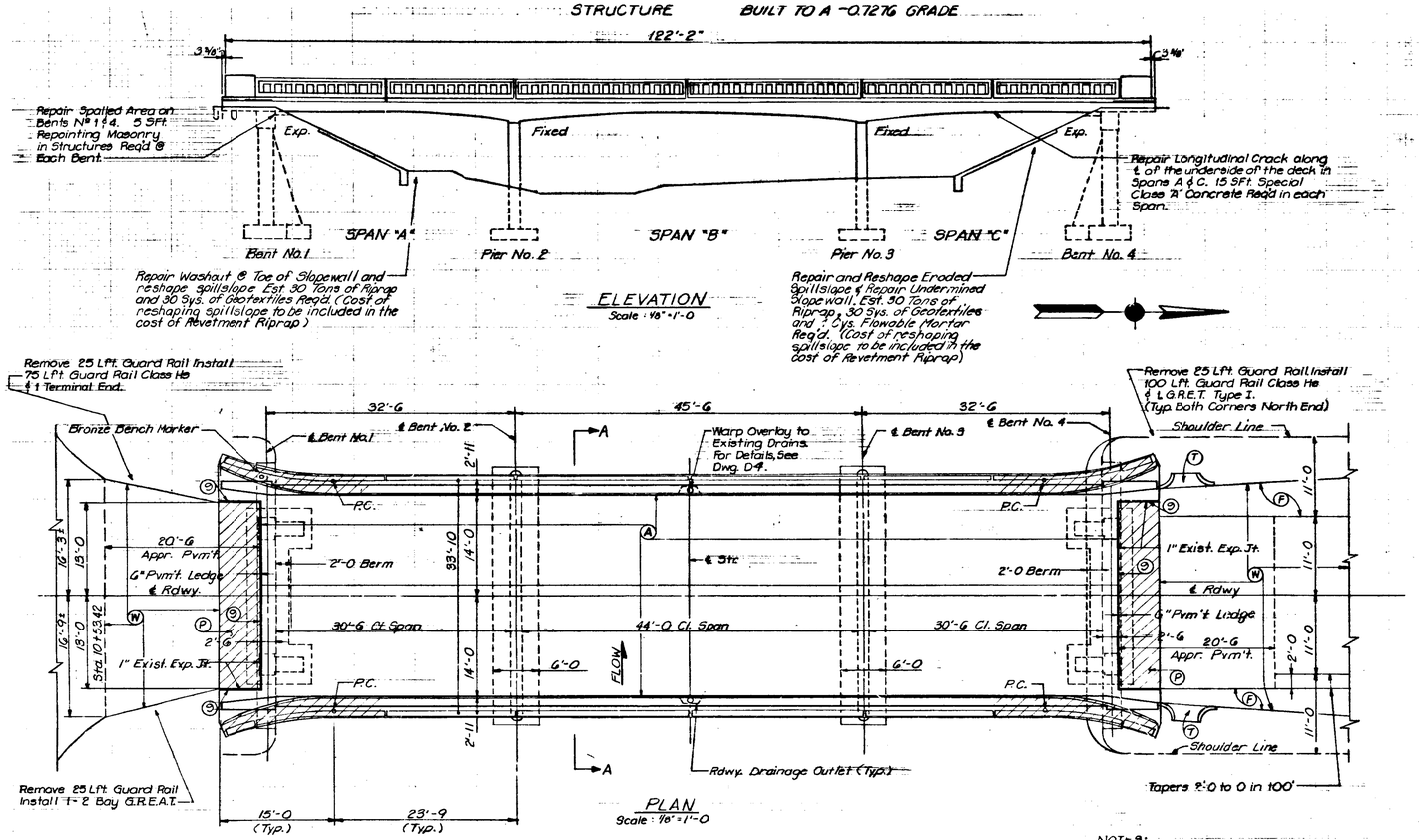
INDIANA DEPARTMENT OF HIGHWAYS
STANDARD SPECIFICATIONS DATED 1988
TO BE USED WITH THESE PLANS.

B 18416

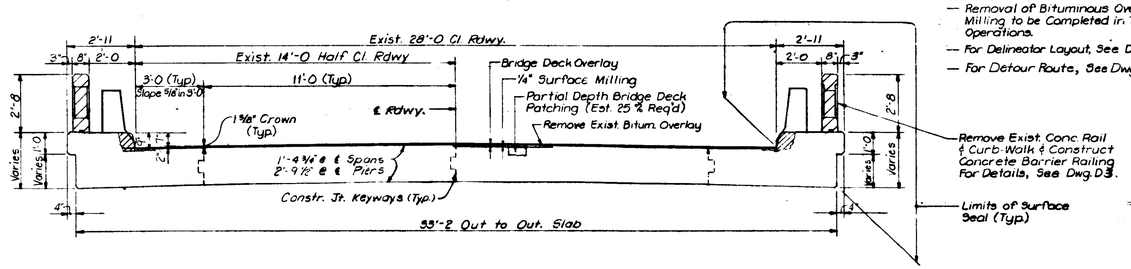
SF-22427

TP100

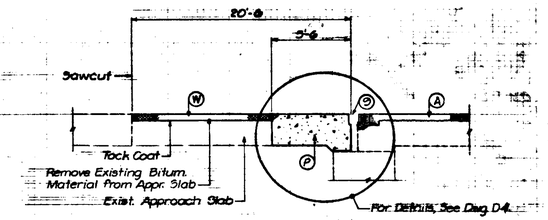
STRUCTURE BUILT TO A -0.72% GRADE



PLAN
Scale: 1/8" = 1'-0

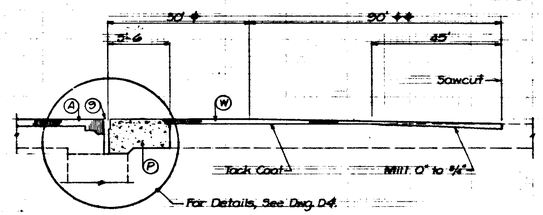


SECTION A-A
Scale: 3/8" = 1'-0



HALF LONGITUDINAL SECTION - SOUTH END
No Scale

* Wedge to be a Continuation of the Bridge Deck Profile.
** Taper Wedge Uniformly to Meet Existing Grade.



HALF LONGITUDINAL SECTION - (NORTH END)
No Scale

LEGEND

- (A) Limits of Surface Milling & Bridge Deck Overlay
- (P) 10" R.C. Pavement (For Details, See Dwg. D4.)
- (W) Bituminous Wedge (See Mat'l. Notes Dwg. D2.)
- (S) Expansion Joint Type BS9
- Limits of Removal
- (T) Bituminous Turnout (For Details, See Dwg. D4.)
- (F) Bituminous Shoulder (For Details, See Dwg. D4)

NOTES:

- Removal of Bituminous Overlay & Surface Milling to be Completed in Two Separate Operations.
- For Delineator Layout, See Dwg. D4.
- For Detour Route, See Dwg. D2.

GENERAL PLAN
DECK RECONSTRUCTION & OVERLAY
CONTINUOUS REINF. CONC. SLAB BRIDGE
3 SPAN: 32'-6, 45'-6, 32'-6 28'-0 RDWY. & 2 BARRIER RAILS
OVER COAL CREEK ON STATE RD. 25

INDIANA DEPARTMENT OF HIGHWAYS
MONTGOMERY COUNTY

SCALE:- AS NOTED DATE:- JUNE 5, 1989

Guy E. Cantwell

DRAWING D1 OF 4 SHEET-2 OF 22
PROJECT:- BHS-9554(2) STATION:-
BRIDGE CONTRACT NO.
BRIDGE FILE:- 25-54-9500A

GUY E. CANTWELL REGISTERED 12220 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED	TWL	CKD	PEB
DRAWN	TWL	CKD	PEB
TRACED	L.L.A.	CKD	

SF-22317

TP118

CONSTRUCTION PROCEDURE

1. CLOSE BRIDGE AND DETOUR TRAFFIC.
2. REMOVE EXISTING BITUMINOUS OVERLAY AND MILL DECK TO A MINIMUM OF 1/4". REMOVE MILLING DUST.
3. REMOVE ALL DETERIORATED CONCRETE FROM ALL AREAS OF THE BRIDGE DECK AND AROUND ALL EXPOSED REINFORCING AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH THE SPECIFICATIONS.
4. REMOVE EXISTING CONCRETE RAILING AND A PORTION OF THE CURB-WALK AND CONSTRUCT CONCRETE BARRIER RAILING.
5. BLAST AND CLEAN ALL MILLED AND REMOVAL AREAS.
6. REMOVE AND REPLACE PORTIONS OF THE EXISTING APPROACH SLABS AS SHOWN ON THE PLANS.
7. PLACE PARTIAL DEPTH BRIDGE DECK PATCHING AND BRIDGE DECK OVERLAY AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE SPECIFICATIONS.
8. INSTALL EXPANSION JOINTS, TYPE BS9.
9. REPOINT THE BENT CAPS AT BENTS NO. 1 AND NO. 4.
10. PLACE RIPRAP AS INDICATED ON PLANS.
11. PATCH UNDERSIDE OF SLAB ALONG CENTERLINE IN SPANS A AND C.
12. REPAIR UNDERMINED SLOPEWALL AT NORTH END OF BRIDGE.
13. CONSTRUCT BITUMINOUS WEDGES.
14. INSTALL GUARD RAIL AND IMPACT ATTENUATOR AS INDICATED ON PLANS.
15. SEAL ROADWAY FACE, TOP, AND COPING FACE OF THE CONCRETE BARRIER RAILING TO THE BOTTOM OF THE DECK WITH A PENETRATING EPOXY SEALER. (ESTIMATED QUANTITY = 3095 SFT)
16. CONSTRUCT BITUMINOUS SHOULDERS.
17. DELINEATE THE APPROACH GUARD RAIL.
18. PERFORM ALL OTHER WORK AS INDICATED ON PLANS.
19. WHEN ALL WORK IS COMPLETED, OPEN STRUCTURE TO TRAFFIC.

(THE NUMBERS DO NOT NECESSARILY INDICATE THE SEQUENCE OF OPERATIONS.)

LEGEND

Std. Barricade, Type IIIB with sign (2 Req'd.)
Std. Barricade, Type IIIB (2 Req'd.)

Indicates Detour Route

(1) XW 20-3 48"x 48" (6 Req'd.)
(2) XW 20-2 48"x 48" (6 Req'd.)
(3) R11-4 60"x 30" (1 Req'd.)
(A) Detour Route Assembly Markers (24 Req'd.) placed as per Supplemental Specifications.
XM 4-8 24" x 12"
M1-4 or M1-6
MG-1 (L or R)S 21" x 15"
or MG-5S 21" x 15"

GENERAL NOTES

PLANS FOR THE EXISTING STRUCTURE ARE ON FILE AND ARE AVAILABLE UPON REQUEST IN THE BRIDGE DEPARTMENT, INDIANA DEPARTMENT OF HIGHWAYS AS:

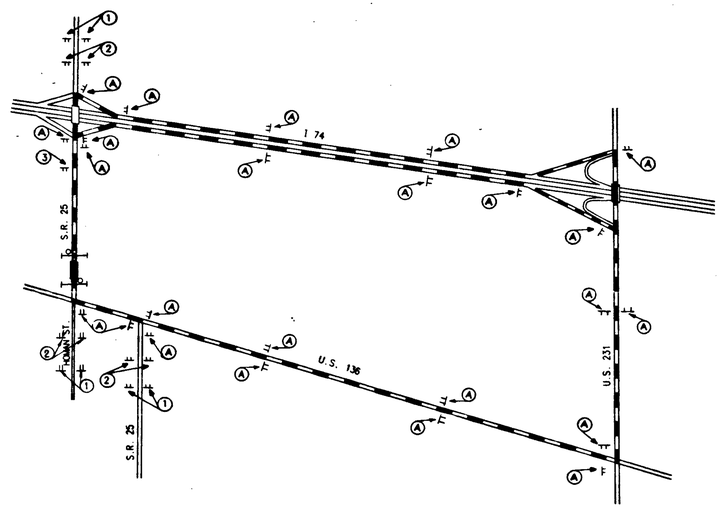
. FILE NO. 25-54-3500

THE HAND CHIPPING AND CLEANING OF DETERIORATED DECK AREAS SHALL BE AS DIRECTED BY THE ENGINEER. IT IS THE INTENT OF THESE PLANS THAT ALL SUCH DETERIORATED CONCRETE BE REMOVED AND SHOULD THERE BE ANY DOUBT AS TO THE QUALITY OF THE CONCRETE, REMOVAL SHALL CONTINUE UNTIL PERFECTLY SOUND CONCRETE IS EXPOSED. ALL EXISTING NON-FULL DEPTH PATCHES SHALL BE REMOVED.

ALL BITUMINOUS MATERIAL REQUIRED IN THIS CONTRACT TO BE INCLUDED IN THE PAY ITEM "BITUMINOUS MIXTURE FOR APPROACHES, LV", EXCEPT TACK COAT, WHICH SHALL BE PAID FOR SEPARATELY IN SYS, AND BITUMINOUS TURNOUTS WHICH SHALL BE PAID FOR AS EACH.

ALL QUANTITIES SHOWN ON PLANS ARE BASED ON THE USE OF THE 1-1/2" MODIFIED PORTLAND CEMENT CONCRETE OVERLAY. IF THE 2-1/4" DENSE PORTLAND CEMENT CONCRETE OVERLAY IS USED, SEE THE SPECIAL PROVISIONS FOR THE NECESSARY ADJUSTMENTS.

WHERE NEW WORK IS TO BE FITTED TO THE OLD, THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES OR ERRORS TO THE ENGINEER AND ASSUME RESPONSIBILITY FOR THEIR CORRECTNESS AND THE FIT OF THE NEW PART TO THE OLD.



NO SCALE

DETOUR ROUTE

STANDARD DRAWING TABLE

TRAFFIC STANDARD	BRIDGE STANDARD	ROAD STANDARD	PURPOSE
	C1		BAR BENDING DETAILS AND REBAR NOTES
	C3		EXPANSION JOINT, TYPE BS
	BR5		CONCRETE RAILING DETAILS
		ME	BITUMINOUS CURB
		GR2	STEEL BEAM GUARD RAIL DETAILS
		GR4A	GUARD RAIL CLASS HS
		GR7	CONNECTION BRACKET
		GR10	GUARD RAIL END TREATMENT, I TYPE
		CB2	TEMPORARY CONCRETE BARRIER
		SHT. 1 DETOURS	SPACING OF DRUMS
		SHT. 2A DETOURS	BARRICADE AND TYPICAL SIGN STANDARD
		SHT. 3 DETOURS	STANDARD DETOUR SIGNS
		SHT. 3A DETOURS	STANDARD DETOUR SIGNS
		SHT. 4 DETOURS	STANDARD DETOUR SIGNS
		SHT. 5 DETOURS	SIGN DESIGN DETAILS
MT3			TRAFFIC SIGN DETAILS
MT5			DELINEATORS

MATERIAL NOTES

BRIDGE DECK OVERLAY: 1-3/4" MODIFIED PORTLAND CEMENT CONCRETE OR 2-1/2" DENSE PORTLAND CEMENT CONCRETE: TOP OF 1-3/4" MOD. P.C.C. OVERLAY TO BE 1-1/2" ABOVE ORIGINAL BRIDGE FLOOR. TOP OF 2-1/2" DENSE P.C.C. OVERLAY TO BE 2-1/4" ABOVE ORIGINAL BRIDGE FLOOR.

37 TONS: *BITUMINOUS WEDGE: 110 LBS/SYD H.A.C. SURFACE, TYPE 11, LV OVER VARIABLE DEPTH BITUMINOUS BINDER, LV.

64 TONS: BITUMINOUS WIDENING: 990 LBS/SYD. BITUMINOUS BASE, TYPE 5D, LV.

101 TONS: BITUMINOUS MIXTURE FOR APPROACHES, LV

* THE MAXIMUM DEPTH OF HAC SURFACE, TYPE 11, LV SHALL NOT EXCEED 1-1/2". AT ALL LOCATIONS WHERE TOTAL WEDGE THICKNESS WILL EXCEED 1-1/2", BITUMINOUS BINDER, LV, SHALL BE PLACED AS A FIRST COURSE TO WITHIN ONE INCH OF FINISHED GRADE.

CONSTRUCTION PROCEDURES, GENERAL NOTES, STANDARD DRAWING TABLE, MATERIAL NOTES

INDIANA DEPARTMENT OF HIGHWAYS

MONTGOMERY COUNTY

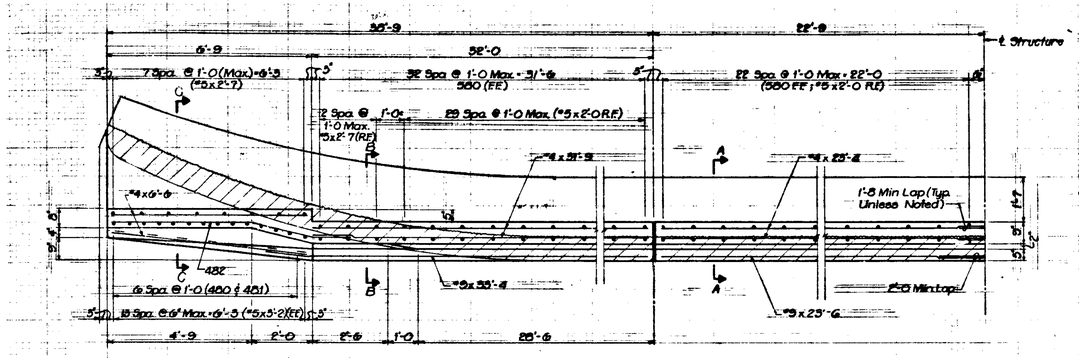
SCALE:- NONE DATE:- JUNE 5, 1989

DESIGNED TWL C'K'D PEB
DRAWN TWR C'K'D PEB
TRACED C'K'D

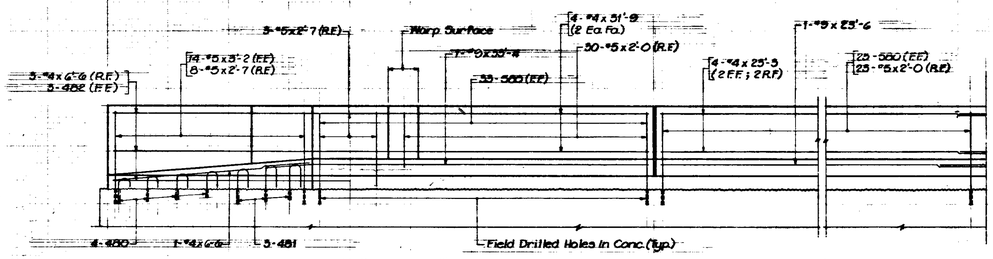
DRAWING:- D2 OF 4 SHEET:- 3 OF 22
PROJECT:-BHS-3554(2) STATION:-
BRIDGE CONTRACT NO.
BRIDGE FILE:- 25-54-3500A

GUY E. CARTWELL INDIANA 12220 STATE OF INDIANA PROFESSIONAL ENGINEER

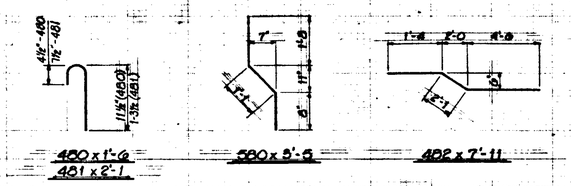
Rev: 9-14-89, Gen. Notes, Mat'l. Notes, Legend (Route Assembly Mkrs.)



HALF - PLAN
Scale: 1/2" = 1'-0



HALF - ELEVATION
Scale: 1/2" = 1'-0

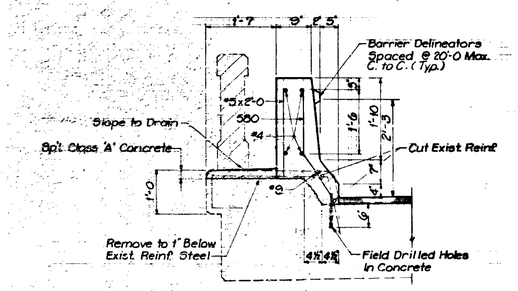


BILL OF MATERIALS

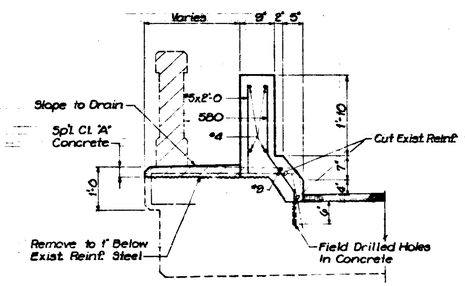
EPOXY COATED REINFORCING STEEL			
Size Or Mark	No. Of Bars	Length	Weight (Lbs.)
#9	4	35'-4	
#9	4	23'-6	
Total #9 Bars			713
580	224	3'-5	
#5	56	3'-2	
#5	44	2'-7	
#5	212	2'-0	
Total #5 Bars			1544
400	18	1'-6	
481	12	2'-1	
482	12	7'-11	
#4	18	51'-9	
#4	18	23'-3	
#4	18	6'-6	
Total #4 Bars			754
Total E.C. Reinf. Steel			3011
MISCELLANEOUS			
Class "C" Concrete Railing			246 Lft.
Special Class "A" Concrete			420 Cft.
Field Drilled Holes In Concrete			308 Each
Barrier Delineators			14 Each

NOTES:

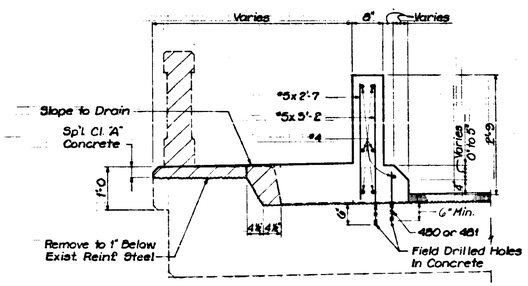
- Bars in Field Drilled Holes in Conc. to be Embedded in Epoxy Grout.
- Reinf. Bar Notes & Bar Bending Details, See Br. Std. C1.
- For Guard Rail Connection Details See Br. Std. BR5.
- Indicates Limits of Removal.



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



SECTION B-B
Scale: 3/4" = 1'-0



SECTION C-C
Scale: 3/4" = 1'-0

CONCRETE RAILING DETAILS

INDIANA DEPARTMENT OF HIGHWAYS

MONTGOMERY COUNTY

SCALE:- As Shown DATE:- JUNE 5, 1989

Guy E. Cantwell

DRAWING:- D5 OF 4 SHEET:- 4 OF 22

PROJECT:- BHS-5554(2) STATION:-

BRIDGE CONTRACT NO.

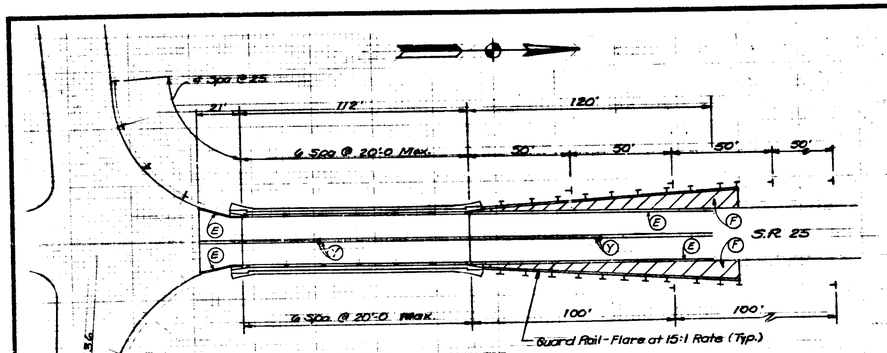
BRIDGE FILE:- 25-54-5500A

GUY E. CANTWELL REGISTERED 12220 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED	TWL	CKD	PEB
DRAWN	TWL	CKD	PEB
TRACED		CKD	

SF-22317

TP118

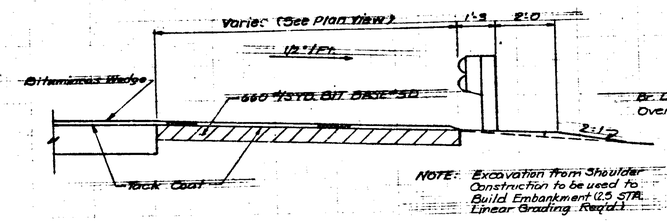


PLAN - APPROACH DETAILS

Scale : 1" = 30'

LEGEND

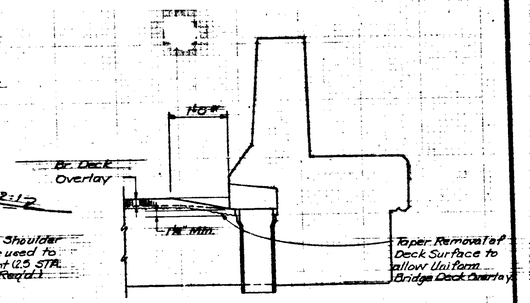
(E) Line Paint Solid White 4" (506 LFt. Req'd.)
(Y) Line Paint Solid Yellow 4" (506 LFt. Req'd.)
H Barrier Delineators (14 Req'd.)
A Delineator W/Post Type D3 (White) 3" Dia. (10 Req'd.)
(F) Bituminous Shldr. (See Mat'l. Notes Dwg. D2)



NOTE: Excavation from Shoulder Construction to be used to Build Embankment (2.5 STA. Linear Grading Req'd.)

NORTH APPROACH SHOULDER SECTION

Scale : 1½" = 1'-0



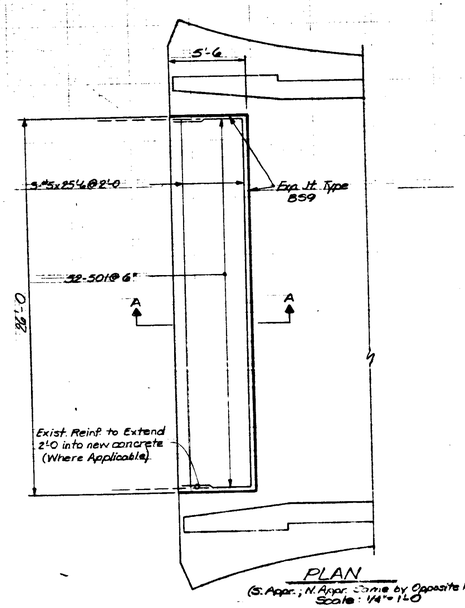
TREATMENT OF OVERLAY @ RDWY DRAIN

Scale : 1" = 1'-0

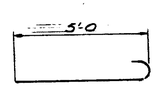
S.R. 25
CLOSED

XG20-5 shall be installed prior to beginning construction in accordance with the Special Provisions.

SIGN DETAIL XG20-5
(3 REQUIRED)



PLAN
(S. Appr.; N. Appr. Same by Opposite Hand)
Scale : 1/4" = 1'-0



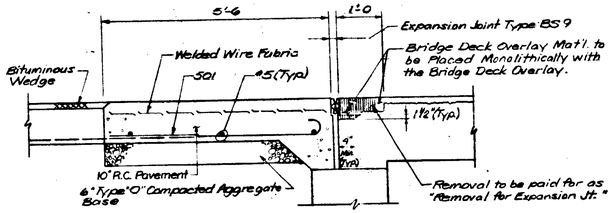
501 x 5'-7

BILL OF MATERIALS
(S. Appr. Slab, N. Appr. Slab Same)

REINFORCING STEEL			
SIZE OR MARK	NO. OF BARS	LENGTH	WEIGHT (LBS.)
501	32	5'-7	
#5	3	25'-6	
Total #5 Bars			383
Total Reinf. Steel			383
MISCELLANEOUS			
10" R.C. Pavement			16 SYS.
Type "O" Comp. Aggr. Base			5 TONS
Pavement Removal			16 SYS.
Exp. Jt. Type BS9			37 LFT.

SECTION X-X

Scale : 3/8" = 1'-0

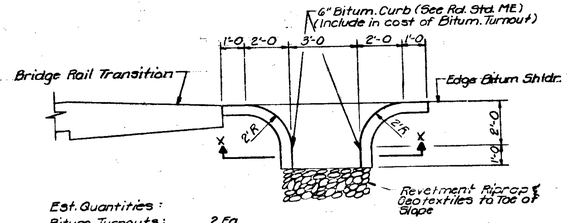


SECTION A-A

Scale : 3/4" = 1'-0

R.C. APPROACH SLAB DETAILS

Scale : As Shown



Est. Quantities:
Bitum. Turnouts: 2 Ea.
Geotextiles: 25 Sys.
Revetment Riprap 25 Tons

PLAN - BITUMINOUS TURNOUT

Scale : 3/8" = 1'-0

MISCELLANEOUS DETAILS
INDIANA DEPARTMENT OF HIGHWAYS
MONTGOMERY COUNTY

SCALE:- As Shown DATE:- JUNE 5, 1989

Mary C. Cantwell

DRAWING:- D4 OF 4 SHEET:- 5 OF 22
PROJECT:- BHS-3554(2) STATION:-
BRIDGE CONTRACT NO.
BRIDGE FILE:- 25-54-3500A

GUY E. CANTWELL REGISTERED 12220 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED DAA CKD. TWL
DRAWN WFA CKD. TWL
TRACED CKD.

SF-22317

TP118