BRIDGE CONTRACT NO. R6601

INDEX

PROJECT	STRUCTURE	TYPE	SPANS	OVER	STATION	CONTRACT NO.
I-70-I(17)7	I-70-7-5039	CONTINUOUS STEEL BEAM BRIDGE	3@ 30'-0", 62'-0" & 36'-6"	7TH ST.	390+54.1 LINE "A"	R6601

SHEET NO.	SHEET DESIGNATION	SUBJECT
1	ONE SHEET	INDEX AND TITLE SHEET
2	ONE SHEET	TEST BORINGS
3	S1	LAYOUT
4	S2	GENERAL PLAN
5	S3	BENT 1 & 4 DETAILS
6	S4	PIER 2 DETAILS
7	S5	PIER 3 DETAILS
8	S6	FRAMING PLAN
9	S7	STRUCTURAL DETAILS
10	S8	FLOOR DETAILS
11	S9	FLOOR DETAILS
12	S10	SCREEDS
13	S11	TABLE OF ELEVATIONS

STATE OF INDIANA

STATE HIGHWAY COMMISSION

BRIDGE PLANS

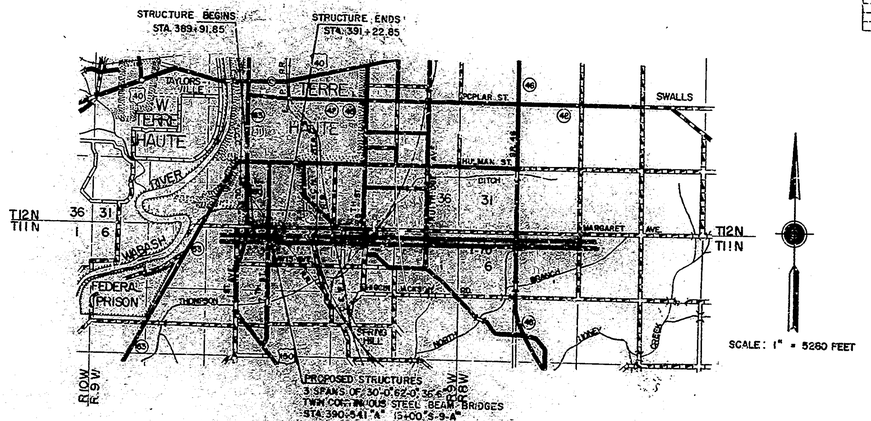
FOR SPANS OVER 20 FEET ON INTERSTATE ROUTE NO. 70 SECTION NO. 1

F.A.I. PROJECT NO. I-70-I(17)7

INTERSTATE HIGHWAY OVER SEVENTH STREET

BEGINNING AT A POINT APPROXIMATELY 60 FEET WEST OF THE EAST LINE OF SECTION 4, T11N, R9W AND APPROXIMATELY 1029 FEET SOUTH OF THE NORTH LINE OF SAID SECTION 4 AND RUNNING EASTERLY 131 FEET TO A POINT APPROXIMATELY 71 FEET EAST OF THE WEST LINE OF SECTION 3, T11N, R9W AND APPROXIMATELY 1024 FEET SOUTH OF THE NORTH LINE OF SAID SECTION 3

ROADWAY LENGTH = 0.000 MI.
BRIDGE LENGTH = 0.025 MI.
TOTAL LENGTH = 0.025 MI.
MAX. GRADE = 2.576 %



VIGO COUNTY

BRIDGES OVER 20' SPAN

PUBLIC ROAD SECTION NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-I (17)7	1964	1	19

INDEX CONTINUED
STANDARD DRAWINGS

SHEET NO.	SHEET DESIGNATION	SUBJECT	B.P.R. APPROVAL	ADOPTED & REVISED
14	ONE SHEET	SUMMARY		
15	BRIDGE STD. G	STANDARD MISCELLANEOUS DETAILS	6-21-63	R-5-1-65
	BRIDGE STD. I2	STANDARD MISCELLANEOUS DETAILS		
	BRIDGE STD. 0	CASTING DETAILS ROADWAY DRAINS		
	BRIDGE STD. P	ROADWAY DRAIN OUTLET DETAILS		
15A	BRIDGE STD. H	TYP. DETAILS OF THICK. PAVEMENT & LOC. TOE OF SL. A.E.B.		
	BRIDGE STD. I	TYP. DETAILS OF THICK. PAVEMENT & LOCATING TOE OF SLOPE		
	BRIDGE STD. I0	MISCELLANEOUS APPROACH DETAILS	*	A-7-27-64
	BRIDGE STD. I2	MISCELLANEOUS APPROACH DETAILS		
	BRIDGE STD. I43	MISCELLANEOUS APPROACH DETAILS		
16	BRIDGE STD. I45	SLOPEWALL DETAILS		
	BRIDGE STD. P2	STANDARD CONCRETE PILE DETAILS	12-4-52	R-10-4-63
17	BRIDGE STD. R1-A	ALUMINUM RAILING DETAILS	*	
18	BRIDGE STD. I0-B	STEEL RAILING DETAILS	*	R-1-22-63
	BRIDGE STD. I3	TYPICAL DETAILS FOR PLACING SPECIAL FILLING MATERIAL	*	R-1-14-63
	BRIDGE STD. I2	TYPICAL DETAILS FOR PLACING SPECIAL FILLING MATERIAL		
	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE		
19	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS		
	ROAD STD. SHEET MA	MISCELLANEOUS STANDARDS	3-26-64	R-2-1-64
	ROAD STD. SHEET MB	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MC	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MC1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MD1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MF	MISCELLANEOUS STRUCTURE STANDARDS		
	ROAD STD. SHEET MG	MISCELLANEOUS STRUCTURE STANDARDS		
	ROAD STD. SHEET MH	MISCELLANEOUS PRIVATE DRIVE STANDARDS		
	ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MJ	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET K	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MQ	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MR	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET S	MISCELLANEOUS STANDARDS CENTER DITCH INLETS		
	ROAD STD. SHEET S1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MT	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD.	STANDARD STRUCTURE CONNECTIONS FOR EXTENSION		
	ROAD STD.	STANDARD REINF. CONC. BOX CULVERTS		
	ROAD STD.	STANDARD REINF. CONC. BOX CULVERTS-SK. END & WING		
	ROAD STD.	STANDARD REINF. CONC. CULVERTS-SLAB TOP TYPE (W.F.)		
	ROAD STD.	STANDARD REINF. CONC. CULVERTS-SLAB TOP TYPE (U.F.)		
	ROAD STD. SHEET GR	STANDARD GUARD RAIL		
	ROAD STD. SHEET GR	STEEL BEAM GUARD RAIL		
	ROAD STD.	STANDARD REINF. CONCRETE ARCH-12' SPAN		
	ROAD STD.	STANDARD HEADWALLS		
	ROAD STD.	STANDARD STRUCTURAL PLATE ARCH		
	ROAD STD.	CONCRETE WINGS FOR STD. STRUCTURAL PLATE ARCHES		
	ROAD STD.	STANDARDS FOR SUPER-ELEVATION & WIDENING OF CURVES		
	ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS		

TRAFFIC DATA	
A.D.T. (1963)	10,368 V.P.D.
A.D.T. (1975 PROJECTED)	23,904 V.P.D.
TRUCKS	12 %
DESIGN SPEED	70 M.P.H.
ACCESS CONTROL	FULL

* INDICATES STANDARDS NOT APPROVED BY THE B.P.R. AS OF THE DATE OF THESE PLANS

INDIANA STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS DATED 1963
TO BE USED WITH THESE PLANS.

PREPARED AND SUBMITTED BY
HURST-ROSCHE & ASSOCIATES
CONSULTING ENGINEERS
HILLSBORO, ILLINOIS

REVISIONS	
DATE	SHEET NO.
9-22-64	4, 9, 11, 14, 15 Sheet Ea added

RECOMMENDED FOR APPROVAL 6-1-64

CARL J. KLINGELHOEFER REGISTERED No. 2420 STATE OF INDIANA PROFESSIONAL ENGINEER

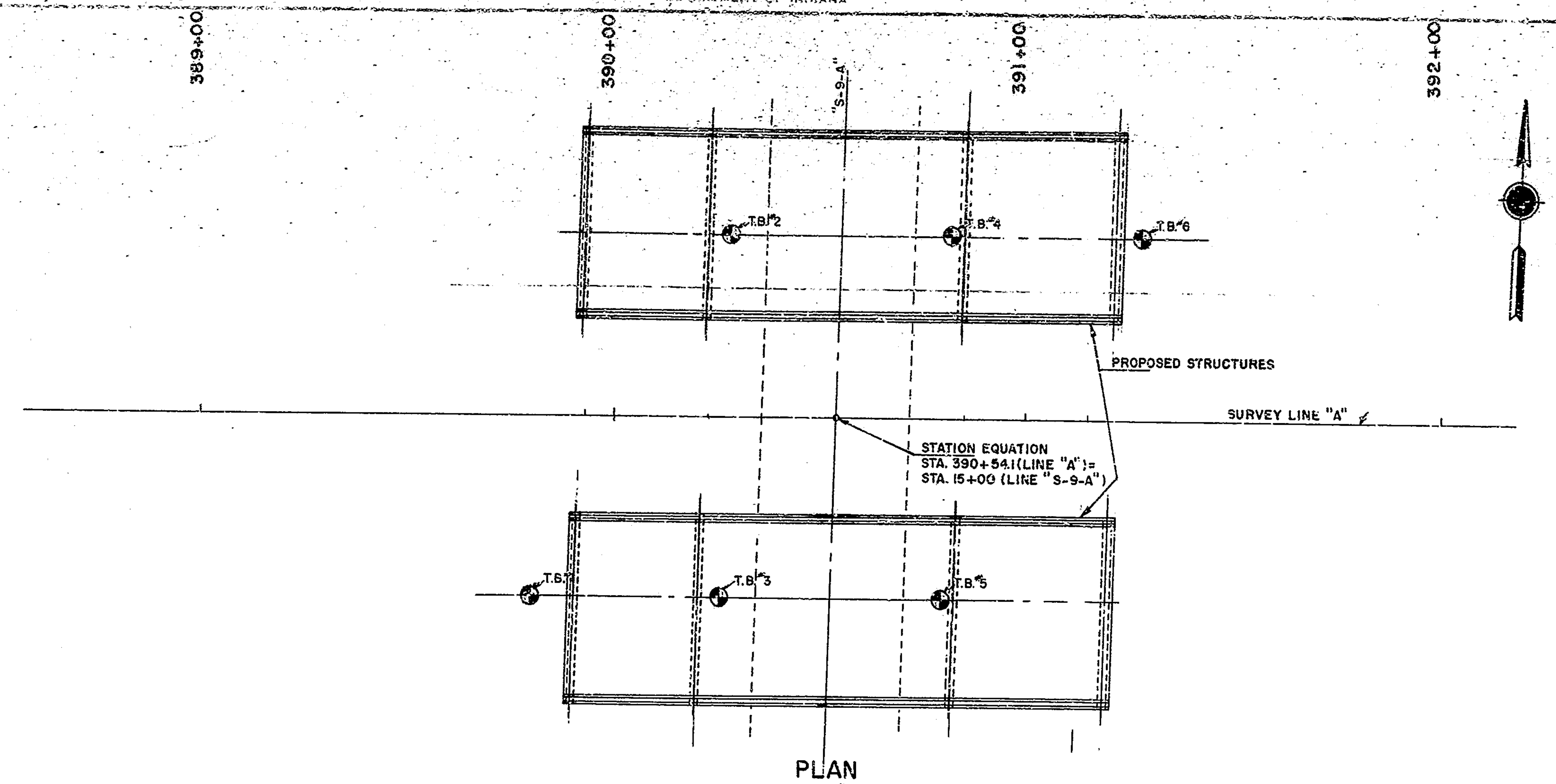
APPROVED 6-4-64
CHIEF ENGINEER—INDIANA STATE HIGHWAY COMMISSION

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED:
[redacted] DIVISION ENGINEER [redacted] DATE

BRIDGE FILE I-70-7-5039

STATE HIGHWAY
DEPARTMENT OF INDIANA

I-70-I(17)7	1964	2	19



PLAN
SCALE: 1"=20'

NOTE: SEE ARTICLE A-203 OF THE SPECIFICATIONS REGARDING TEST PIT DATA

NOTE:
▼ DENOTES FREE GROUND WATER TABLE
N INDICATES THE NUMBER OF BLOWS REQUIRED TO DRIVE A 1 3/8" I.D., 2" O.D. SAMPLER A DISTANCE OF 1.0' INTO UNDISTURBED SOIL WITH A 140 LB. HAMMER FREE FALLING A DISTANCE OF 30.0" THE NUMBER OF HAMMER BLOWS FOR SEATING THE SPOON AND MAKING THE TESTS ARE RECORDED FOR EACH 6" OF PENETRATION ON THE DRILL LOG (EXAMPLE — 6/8/9). THE STANDARD PENETRATION TEST RESULTS CAN BE OBTAINED BY ADDING THE LAST TWO FIGURES (i.e. 8+9=17 BLOWS/FT.)

BORING NO.	T.B.#1	T.B.#2	T.B.#3	T.B.#4	T.B.#5	T.B.#6
STATION	389+79.91	390+28.76	390+25.44	390+82.76	390+79.44	391+28.29
OFFSET	42 RT.	42 LT.	42 RT.	42 LT.	42 RT.	42 LT.
GROUND ELEV.	489.2	489.0	489.4	489.3	489.4	489.2

T.B.#1

SAMPLE NO.	ELEV.	N	DESCRIPTION
	489.2		GROUND LEVEL
			BLACK MOIST SILTY FINE SAND
	486.2		BROWN MOIST MEDIUM STIFF SILTY FINE SAND
1	484.2	3 4/5	
2	479.2	4 4/6	
	476.2		BROWN MOIST VERY LOOSE FINE SAND WITH A LITTLE FINE TO MEDIUM GRAVEL
3	474.2	3 3/5	
4	469.2	2 3/4	
5	464.2	8 ▼ 12/17	BROWN WET DENSE FINE TO COARSE SAND WITH SOME FINE TO MEDIUM GRAVEL WITH A TRACE OF COARSE GRAVEL
6	459.2	12 9/14	
	457.7		END OF BORING

DEPTH OF BORING 31.5'
GROUND WATER DEPTH AT COMPLETION 29.0'

T.B.#2

SAMPLE NO.	ELEV.	N	DESCRIPTION
	489.0		GROUND LEVEL
			BLACK MOIST SILTY FINE SAND
	486.0		BROWN MOIST MEDIUM STIFF SILTY FINE SAND
1	464.0	3 5/8	
2	479.0	11 6/11	
	476.0		BROWN MOIST DENSE FINE TO COARSE SAND WITH A TRACE OF FINE TO MEDIUM GRAVEL
3	474.0	8 14/24	
4	469.0	13 19/21	
5	464.0	7 ▼ 12/17	BROWN WET DENSE FINE TO COARSE SAND WITH SOME FINE TO MEDIUM GRAVEL
6	459.0	7 13/15	
	457.5		END OF BORING

DEPTH OF BORING 31.5'
GROUND WATER DEPTH AT COMPLETION 27.5'

T.B.#3

SAMPLE NO.	ELEV.	N	DESCRIPTION
	489.4		GROUND LEVEL
			BLACK MOIST SILTY FINE SAND
	483.9		BROWN MOIST MEDIUM STIFF SILTY FINE SAND
1	484.4	5 5/7	
	490.4		BROWN MOIST MEDIUM DENSE SILTY FINE TO COARSE SAND WITH A LITTLE FINE GRAVEL
2	479.4	5 5/7	
3	474.4	8 17/14	
	471.4		BROWN MOIST DENSE FINE TO COARSE SAND WITH SOME FINE TO MEDIUM GRAVEL AND A LITTLE COARSE GRAVEL
4	469.4	10 15/21	
5	464.4	12 ▼ 15/17	BROWN WET DENSE FINE TO COARSE SAND WITH SOME FINE TO MEDIUM GRAVEL
6	459.4	9 13/16	
	457.9		END OF BORING

DEPTH OF BORING 31.5'
GROUND WATER DEPTH AT COMPLETION 28.0'

T.B.#4

SAMPLE NO.	ELEV.	N	DESCRIPTION
	489.3		GROUND LEVEL
			BLACK SILTY FINE SAND
	486.3		BROWN MOIST MEDIUM STIFF SILTY FINE TO MEDIUM SAND
1	484.3	4 9/5	
2	479.3	5 10/7	
	476.3		BROWN MOIST DENSE FINE TO COARSE SAND WITH A LITTLE FINE TO MEDIUM GRAVEL
3	474.3	6 12/17	
4	469.3	7 14/18	
5	464.3	10 ▼ 12/15	BROWN WET DENSE FINE TO COARSE SAND WITH SOME FINE TO MEDIUM GRAVEL
6	489.3	11 12/16	
	457.8		END OF BORING

DEPTH OF BORING 31.5'
GROUND WATER DEPTH AT COMPLETION 28.0'

T.B.#5

SAMPLE NO.	ELEV.	N	DESCRIPTION
	489.4		GROUND LEVEL
			BLACK MOIST SILTY SAND
	486.4		BROWN MOIST MEDIUM STIFF SILTY FINE SAND
1	484.4	6 6/5	
2	479.4	6 5/7	
	476.4		BROWN MOIST DENSE FINE TO COARSE SAND WITH SOME FINE GRAVEL
3	474.4	10 16/28	
4	469.4	9 12/17	
	465.4	▼	
5	464.4	9 12/23	BROWN WET VERY DENSE FINE TO COARSE SAND WITH SOME FINE TO MEDIUM GRAVEL.
6	459.4	11 15/18	
7	454.4	11 9/13	
	452.4		BROWN AND GRAY WET VERY DENSE FINE TO MEDIUM SAND
8	449.4	12 14/18	
	445.4		BROWN WET VERY DENSE FINE TO COARSE SAND WITH SOME FINE TO MEDIUM GRAVEL
9	444.4	8 16/21	
10	440.9	11 15/19	
	439.1		END OF BORING

DEPTH OF BORING 20.0'
GROUND WATER DEPTH AT COMPLETION 33.5'

T.B.#6

SAMPLE NO.	ELEV.	N	DESCRIPTION
	489.2		GROUND LEVEL
			BLACK MOIST MEDIUM STIFF SILTY SAND
	485.2		BROWN MOIST MEDIUM STIFF SILTY FINE SAND
1	484.2	4 4/5	
2	479.2	4 5/7	BROWN MOIST MEDIUM STIFF FINE TO COARSE SAND
	476.2		BROWN MOIST VERY DENSE FINE TO COARSE SAND WITH A LITTLE FINE TO COARSE GRAVEL
3	474.2	14 20/22	
4	469.2	13 15/18	
5	464.2	8 ▼ 13/16	BROWN WET VERY DENSE FINE TO COARSE SAND WITH SOME FINE TO MEDIUM GRAVEL
6	459.2	7 15/12	
	457.7		END OF BORING

DEPTH OF BORING 31.5'
GROUND WATER DEPTH AT COMPLETION 29.0'

SOIL BORING

APRIL 16, 1964

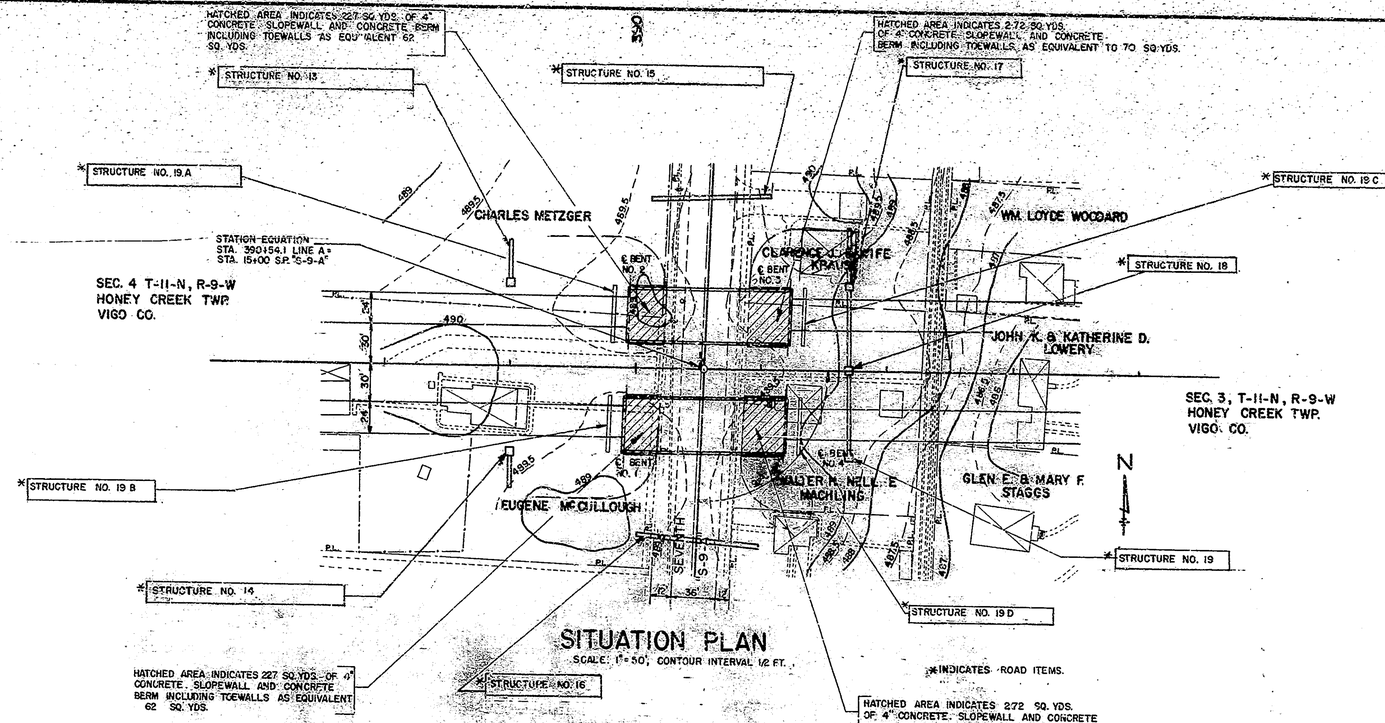
SCALE: HORZ. 1"=20', VERT. 1"=5'-0"

SUBMITTED FOR APPROVAL [signature]

PROJECT: I-70-I(17)7

~~BRIDGE~~ CONTRACT NO. R6601

BRIDGE FILE: I-70-7-5039



SITUATION PLAN

SCALE: 1"=50', CONTOUR INTERVAL 1/2 FT.

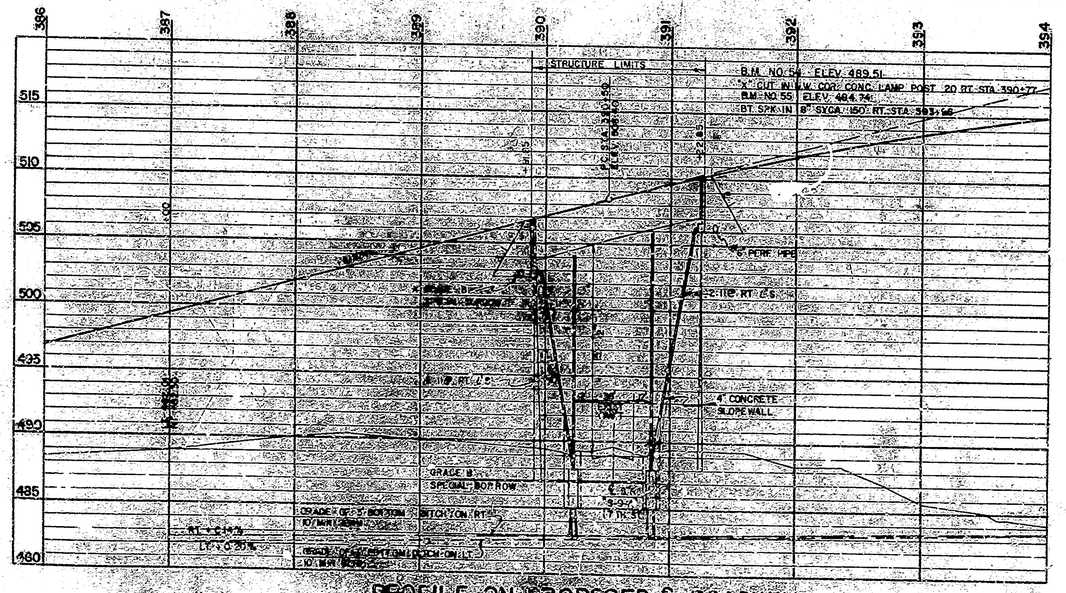
BRIDGES OVER 20' SPAN

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (17)7	1964	3	19

STA. TO STA. ON (℄) LINE A. BETWEEN STA. 389+65 TO STA. 391+58 AND (90' RT. & LT.) BUY R/W INCLUDING MINERAL RIGHTS WITHIN THESE LIMITS.

UTILITIES

POWER:	PUBLIC SERVICE CO. OF INDIANA 725 WABASH AVENUE TERRE HAUTE, INDIANA
TELEPHONE:	GENERAL TELEPHONE CO. OF INDIANA 711 POPLAR STREET TERRE HAUTE, INDIANA
GAS LINES:	TERRE HAUTE GAS CORP 632 CHERRY STREET TERRE HAUTE, INDIANA
WATER LINES:	TERRE HAUTE WATER WORK CORP 119 SOUTH SEVENTH STREET TERRE HAUTE, INDIANA
TELEPHONE CABLES:	AMERICAN TELEPHONE & TELEGRAPH CO. 660 OHIO STREET TERRE HAUTE INDIANA PHONE CR. 4228



PROFILE ON PROPOSED ℄ ROADWAY

SCALES 1"=50' H. INT. 1"=5' VERT.

DESIGNED R.K. CK'D T.H.
DRAWN T.H. CK'D R.K.
TRACED R.F. CK'D R.K.

LAYOUT

TWIN CONTINUOUS STEEL BEAM BRIDGES

3 SPANS OF 30'-0", 62'-0", 36'-6", & 39'-6" ROADWAY
INTERSTATE HIGHWAY OVER SEVENTH STREET
SKEW 2°-16' RT

STATE HIGHWAY DEPARTMENT OF INDIANA

VIGO COUNTY

SCALE:- AS NOTED

APRIL 16, 1964

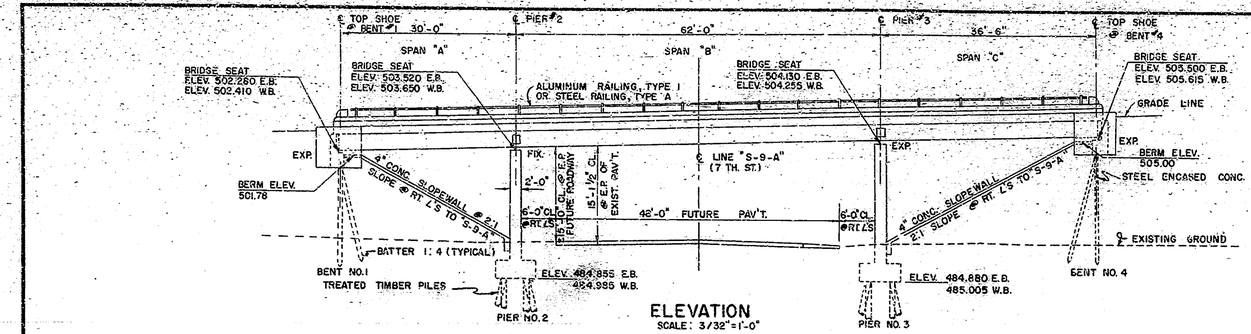
SUBMITTED FOR APPROVAL:- Carlson

DRAWING:- S1 OF S11

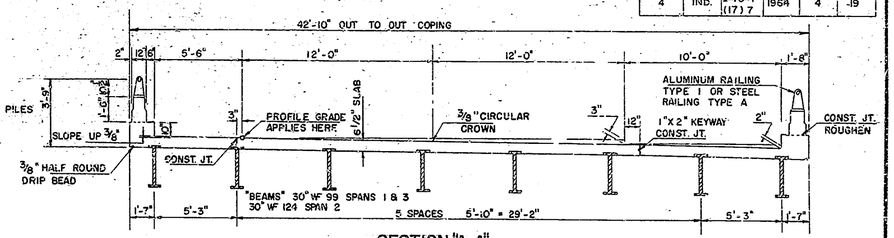
PROJECT:- I-70-1(17)7

~~BRIDGE~~ CONTRACT NO. 26601

BRIDGE FILE:- I-70-7-5639

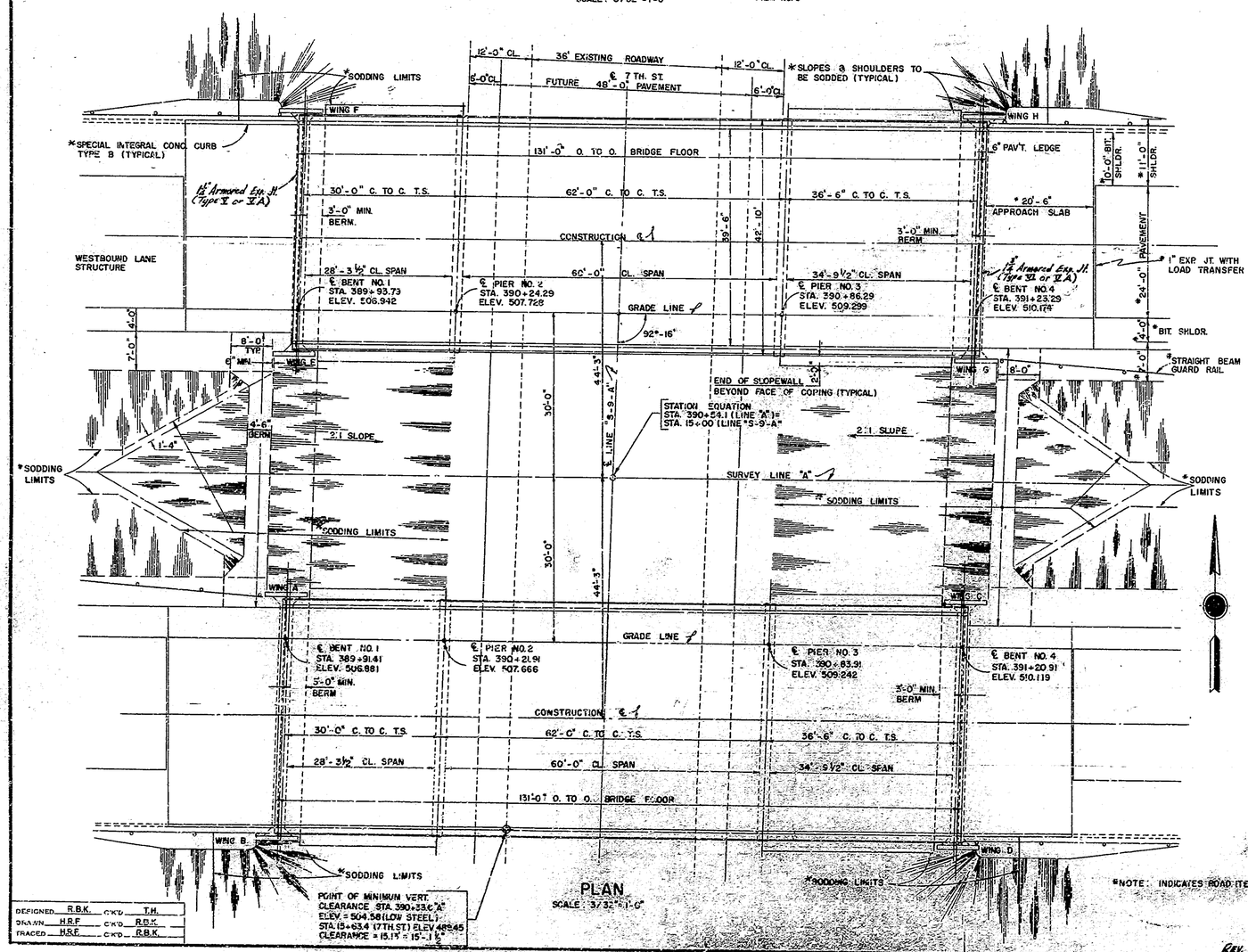


ELEVATION
SCALE: 3/32"=1'-0"



SECTION "A-A"
SCALE ¼"=1'-0"

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (17) 7	1964	4	19



PLAN
SCALE: 3/32"=1'-0"

DESIGNED	R.B.K.	CK'D	T.H.
DRAWN	H.R.F.	CK'D	R.B.K.
TRACED	H.R.F.	CK'D	R.B.K.

REV. 9-29-64 - EXP. Jts.

DESIGN DATA:
DESIGNED FOR H20-S16-44 LOADING IN ACCORDANCE WITH 1961 A.A.S.H.O. SPECIFICATIONS. MAIN CARRYING MEMBERS CHECKED FOR 2-24,000 LB. AXLES SPACED AT 4'-0" O.C.

JOINT LEGEND:
FOR DETAIL OF ARMORED EXPANSION JOINT SEE BRIDGE STD. **J**. JOINT M INDICATES ONE LAYER OF ROOFING FELT (MED. WT.) UNDER HORIZONTAL BEARING SURFACES AND 1/4" EXPANSION JT. MATERIAL ALONG VERT. SIDE OF 2" DEPRESSED KEYWAYS IN MUDWALL.

GENERAL NOTES:
NO. PRESENT STRUCTURE AT PROPOSED BRIDGE SITE.
DEPTH OF FOOTINGS TO BE EXTENDED IF FOUND NECESSARY. SEE ARTICLE B 403.2(A) OF THE SPECIFICATIONS.
PILES SHALL HAVE MINIMUM BEARING VALUE SHOWN ON DETAIL DRAWINGS. DETERMINE PILE LENGTHS BY ART. F-203 OF THE SPECIFICATIONS. FOR DETAILS OF STEEL ENCASED CONCRETE PILES SEE BRIDGE STD. C1, THE SPECIAL PROVISIONS AND APPLICABLE ARTICLES OF THE SPECIFICATIONS.
PILES SHALL BE DRIVEN TO ELEV. NECESSARY TO OBTAIN DESIRED BEARING. REINFORCING STEEL COVERING SHALL BE 1½" TOP AND 1" MIN. IN BOTT. OF FLOOR SLAB, 3" FOOTINGS, EXCEPT BOTT. STEEL WHICH SHALL BE 4" & 2" IN ALL OTHER PARTS UNLESS NOTED. CONCRETE IN FOOTNG & PIER STEMS TO CONSTR. JT. NO. 1 TO BE CLASS "E" CONCRETE IN SUPERSTRUCTURE, INCLUDING RAILING, BENT CAPS, TOP OF PIERS ABOVE CONSTR JT. NO. 1 AND WINGWALLS TO BE CLASS "F".
CONCRETE IN STRUCTURE NOT NOTED ABOVE, IN STEEL ENCASED CONCRETE PILES & CONCRETE SLOPEWALL TO BE CLASS "D".
CONTINUOUS CONCRETE POURS SHALL BE REQUIRED BETWEEN CONSTRUCTION JOINTS AS SHOWN ON THE DETAIL PLANS.
WATERPROOF BACK OF MUDWALL & WINGS AT END BENTS IN ACCORDANCE WITH SPECIFICATIONS.
BEVEL FORMS 1/4" UNDER COPINGS, AND CHAMFER EXPOSED EDGES 1" UNLESS NOTED.
CONSTRUCT 4" CONCRETE SLOPEWALL AT LOCATIONS AS SHOWN ON LAYOUT.
TOLERANCE IN POSITION OF PILE HEAD MAXIMUM 2".
EXP. JOINT ARMOR TO CONFORM TO ROADWAY CROWN CURVATURE.

ALL RAILING TO BE CONSTRUCTED PERPENDICULAR TO GRADE.
THE CONTRACTOR SHALL PREPARE DETAILED WORKING OR SHOP DRAWINGS TO ENABLE HIM TO FABRICATE ERECT & CONSTRUCT ALL PARTS OF THE WORK IN CONFORMITY WITH THE ENGINEERS DRAWINGS & SPECIFICATIONS. AND SHALL SUBMIT FOUR (4) COPIES OF THESE TO THE ENGINEER. SEE ARTICLE 1103.2 OF THE SPECIFICATIONS.
SEE SPECIAL PROVISIONS FOR ITEMS INCLUDED IN THIS CONTRACT.

LIST OF STANDARD DRAWINGS

BR. STD.	ROAD STD.	PURPOSE
C1		REINF. BAR NOTES, SPLICE PILE SHELLS, NOTCH IN SLAB @ ENDS OF BEAMS, 1" EXP. JT.
J		EXPANSION JOINTS
MS		SLOPEWALL DETAILS
R-A		ALUMINUM RAILING DETAILS
R-B		STEEL RAILING DETAILS
	MA	PAVEMENT OFFSETS

GENERAL PLAN
CONTINUOUS STEEL BEAM BRIDGES
3 SPANS - 30'-0", 62'-0", 36'-6" SKEW 2°-16'

STATE HIGHWAY DEPARTMENT OF INDIANA
VIGO COUNTY

SCALE:- AS SHOWN — APRIL 16, 1964

SUBMITTED FOR APPROVAL: [signature]

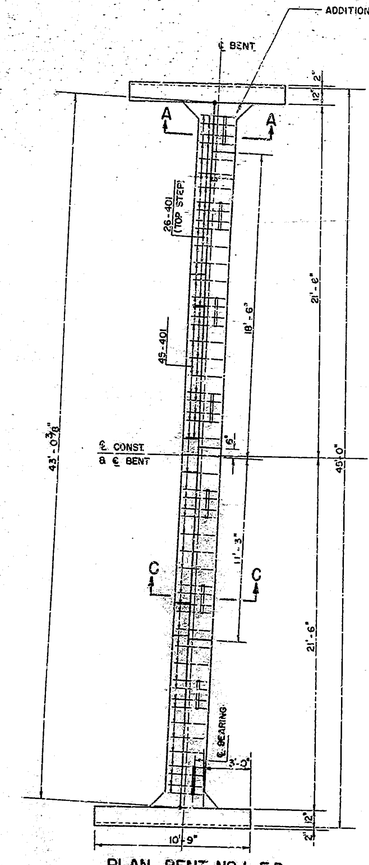
DRAWING S2 OF S11

PROJECT:- I-70-1(17)7

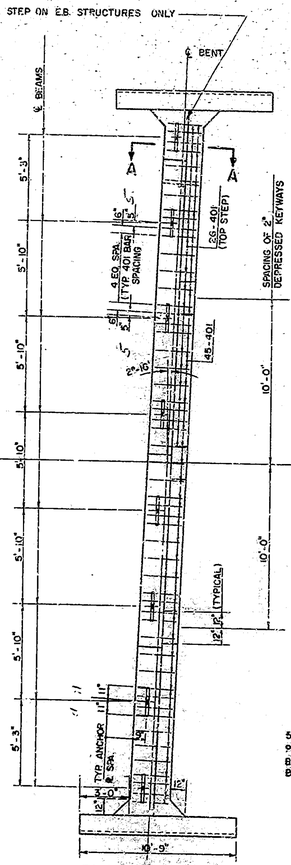
~~BRIDGE~~ CONTRACT NO. R 6601

BRIDGE FILE:- I-70-7-5039

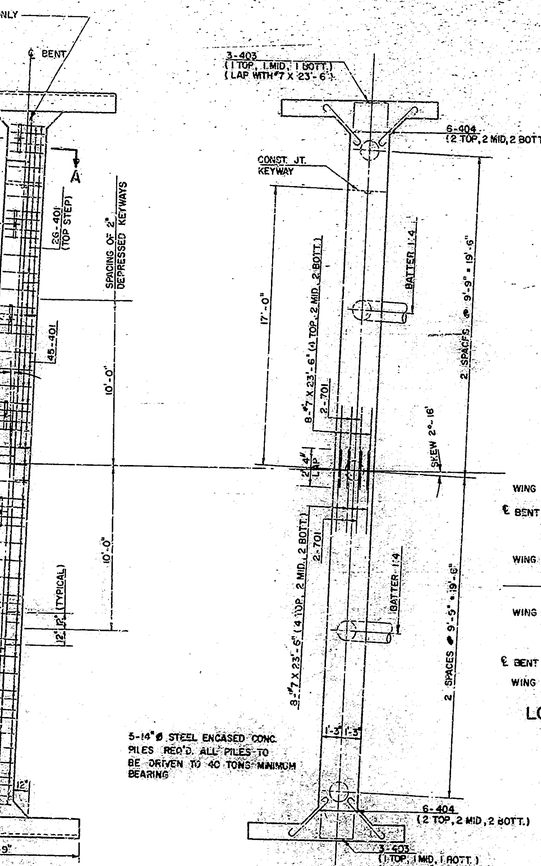
BRIDGES OVER 20' SPAN					
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (17) 7	1964	5	19



PLAN BENT NO.1 E.B.
BENT NO.4 W.B. SAME BY 180° ROTATION EXCEPT AS NOTED

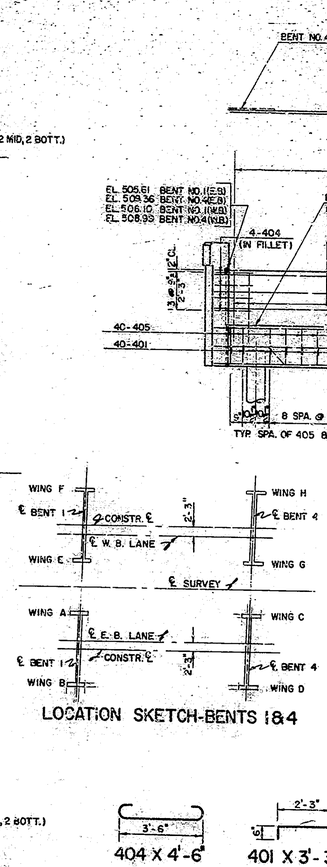


PLAN BENT NO. 4 E.B.
BENT NO.1 W.B. SAME BY 180° ROTATION EXCEPT AS NOTED



5-14"Ø STEEL ENCASED CONC. PILES REQ'D. ALL PILES TO BE DRIVEN TO 40 TONS MINIMUM BEARING

CAP PLAN - BENT NO.1 E.B. & W.B.
BENT NO.4 E.B. & W.B. SAME BY 180° ROTATION



LOCATION SKETCH-BENTS 1&4

BENT NO.4 E.B. & NO.1 W.B. BRIDGE SEAT ELEV.

NOTE: 401 IN BEARING SEAT NOT SHOWN

FRONT ELEVATION - BENT NO.1 E.B. & NO.4 W.B.

FRONT ELEVATION BENT NO.4 E.B. & NO.1 W.B. SAME EXCEPT AS NOTED IN "BENT NO.4 E.B. & NO.1 W.B. BRIDGE SEAT ELEVATION"

DETAIL OF ANCHOR PLATE AP2

SECTION C-C

NOTES:
ANCHOR PLATES AP TO BE PRE-SET IN CONCRETE.
FOR REINFORCING BAR NOTES SEE BR. STD. CI.
SENT CAP IS NOT TO BE POURED UNTIL FILL HAS BEEN COMPLETED UP TO APPROXIMATE ELEVATION OF BOTTOM OF CAP.

BILL OF MATERIALS
BENT NO.1
BENT NO. 4 SAME

REINFORCING STEEL

SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT
701	4	25'-4"	
#7	16	23'-6"	
TOTAL #7			976
#5	20	10'-6"	
TOTAL #5			219
401	111	3'-3"	
402	43	9'-3"	
403	6	5'-0"	
404	20	4'-6"	
405	40	7'-9"	
#4	12	23'-0"	
#4	2	20'-9"	
#4	16	10'-6"	
#4	32	7'-0"	
TOTAL #4			1268
TOTAL STEEL			2463

CONCRETE

CLASS "F" IN CAP & WINGS	
POUR NO.1	17.5 CU.YDS.
POUR NO.2	5.0 CU.YDS.
TOTAL CLASS "F"	22.5 CU.YDS.

MISCELLANEOUS

5-14"Ø 7 GA. STEEL		BENT 1 ONLY
ENCASED CONC. PILES X35=	175 LIN. FT.	
ANCHOR PLATES MK. AP2=	8 EA.	
5-14"Ø 7 GA. STEEL		BENT 4 ONLY
ENCASED CONC. PILES X40=	200 LIN. FT.	

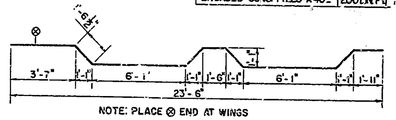
404 X 4'-6"

401 X 3'-3"

403 X 5'-0"

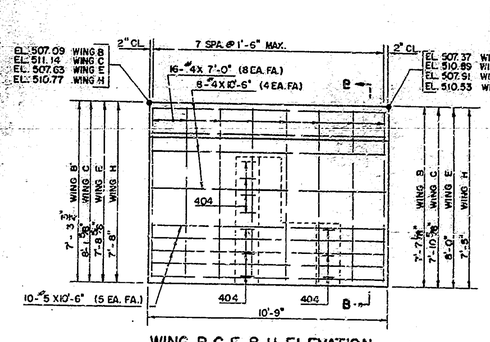
405 X 7'-9"

402 X 9'-3"

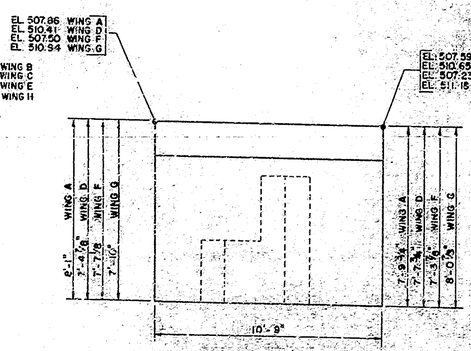


NOTE: PLACE @ END AT WINGS

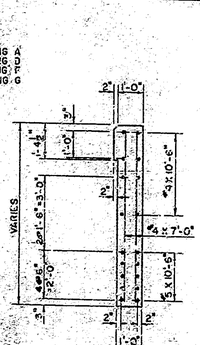
701 X 25'-4"



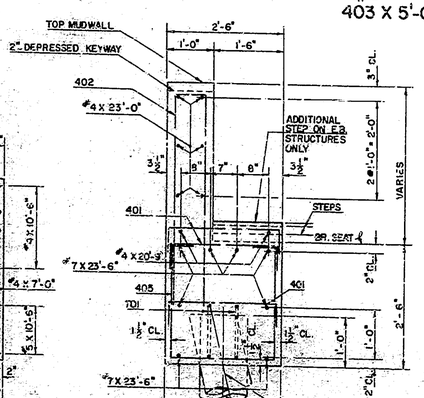
WING B,C,E & H ELEVATION
SCALE: 3/8" = 1'-0"



REINF. STEEL SAME AS WINGS B,C,E & H.
WING A,D,F & G ELEVATION
SCALE: 3/8" = 1'-0"



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



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

BENTS NO.1 & NO. 4 DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 1/4" = 1'-0" UNLESS NOTED

APRIL 16, 1964

SUBMITTED FOR APPROVAL:

DRAWING: S3 OF S11
PROJECT: I-70-1(17)7
~~BRIDGE~~ CONTRACT NO. R6601
BRIDGE FILE: I-70-7-5039

DESIGNED	R.B.K.	C'K'D.	T.H.
DRAWN	H.R.F.	C'K'D.	R.K.
TRACED	H.R.F.	C'K'D.	R.K.

BRIDGES OVER 20' SPAN

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (17)7	1964	6	19

CONCRETE	
CLASS "S" CAP POUR #2	27.2 CU.YDS.
CLASS "S" ABOVE FTG POUR #1	13.2 CU.YDS.
CLASS "S" IN FTG.	22.9 CU.YDS.
MISCELLANEOUS	
ANCHOR PLATES MK AP2	8 EACH
16 TREATED TIMBER FILES	
25 TON MIN. CAP. X 25+	400 LIN. FT.

BAR 1101 X 24'-8"

BAR 1001 X 24'-4"

BAR 602 X 4'-3"

BAR 406 X 2'-8"

BAR 601 X 2'-11"

BAR 501 THRU. 514

BAR	V
501	2'-9"
502	3'-2"
503	3'-6"
504	3'-11"
505	4'-3"
506	4'-8"
507	5'-0"
508	5'-5"
509	5'-9"
510	6'-2"
511	6'-6"
512	6'-11"
513	7'-3"
514	7'-8"

CAP PLAN
SCALE: 3/8"=1'-0"

ANCHOR PLATE MK AP2
SEE DRAWING S3 FOR DETAILS & SETTING DIMENSIONS

FOOTING PLAN
SCALE: 3/8"= 1'-0"

ELEVATION (LOOKING EAST ON E.B. LANE) (LOOKING WEST ON W.B. LANE)
SCALE: 3/8"=1'-0"

NOTE:-
FOR REINFORCING BAR NOTES SEE BRIDGE S.S.T.D. C.
ANCHOR PLATES TO BE PRE-SET IN CONCRETE.
FOR DETAIL OF ANCHOR PLATES SEE DWG S3

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

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

REINFORCING STEEL

SIZE AND MARK	NO OF BARS	LENGTH	WEIGHT (LBS.)
1101	8	24'-8"	
TOTAL #11			1048
1001	8	24'-4"	
TOTAL #10			836
501	25	10'-2"	
TOTAL #8			760
601	10	2'-11"	
602	26	4'-3"	
#6	2	24'-3"	
#6	4	17'-0"	
#6	4	21'-0	
#6	4	23'-3"	
#6	26	15'-3"	
#6	4	11'-3"	
#6	9	24'-4"	
#6	10	22'-4"	
TOTAL #6			1972
#501	2	9'-3"	
502	2	9'-0"	
503	2	9'-9"	
504	2	10'-6"	
505	2	11'-3"	
506	2	12'-0"	
507	2	12'-9"	
508	2	13'-6"	
509	2	14'-3"	
510	2	15'-0"	
511	2	15'-9"	
512	2	16'-6"	
513	2	17'-3"	
514	2	18'-0"	
TOTAL #5			3683
406	96	2'-8"	
#4	12	19'-6"	
TOTAL #4			195
TOTAL STEEL			5196

DESIGNED R.B.K CKD. T.H.
DRAWN J.P.F. CKD. R.K.
TRACED J.P.F. CKD. R.K.

PIER NO. 2 DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE:- AS SHOWN

APRIL 16, 1964

SUBMITTED FOR APPROVAL:

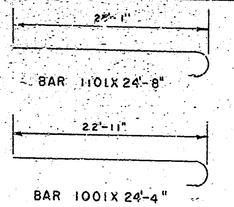
DRAWING S4 OF SI.

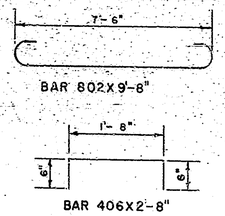
PROJECT:- I-70-1 (17)7

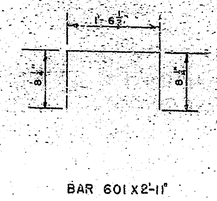
BRIDGE CONTRACT NO. R6601

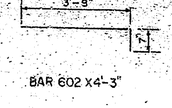
BRIDGE FILE:- I-70-7-5039

BRIDGES OVER 20' SPAN					
PUB. ROAD DIS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (17) 7	1964	7	19

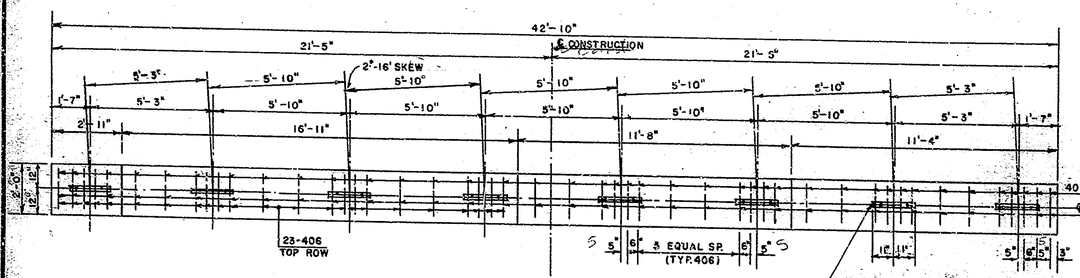




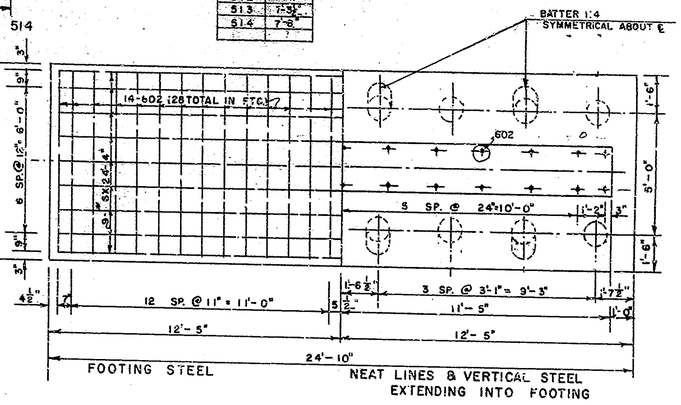




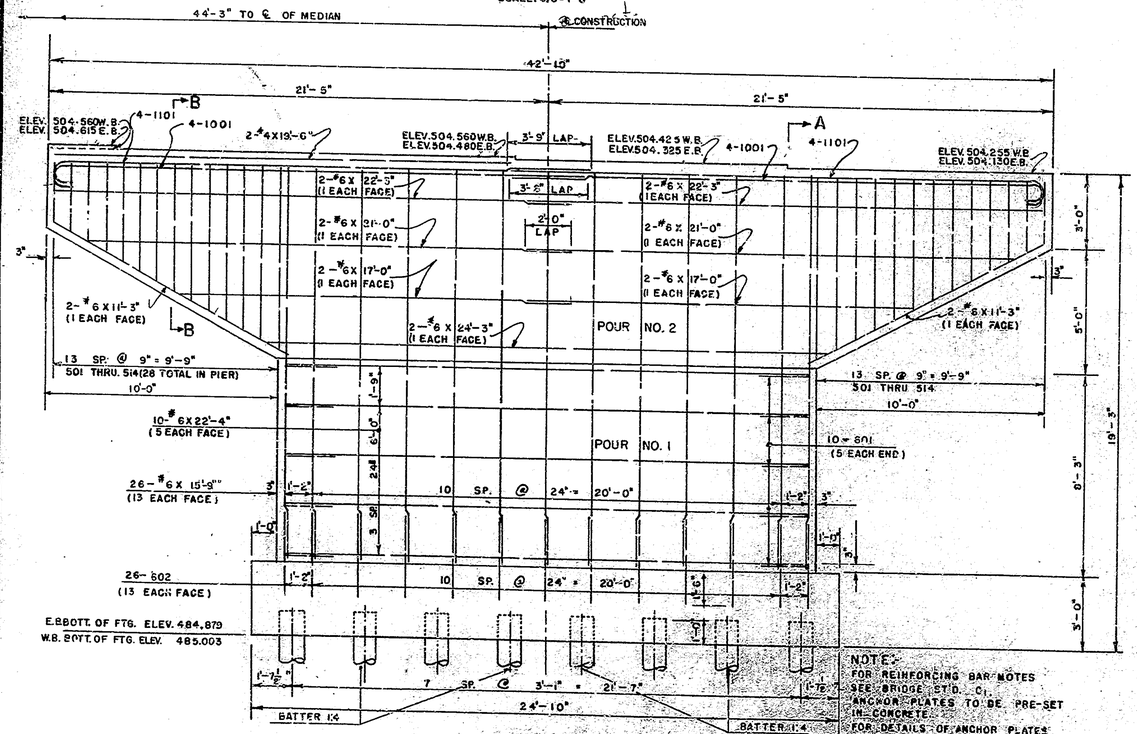
BAR	L
501	2'-9"
502	3'-0"
503	3'-3"
504	3'-6"
505	3'-9"
506	4'-0"
507	4'-3"
508	4'-6"
509	4'-9½"
510	5'-0"
511	5'-3½"
512	5'-6½"
513	5'-9½"
514	6'-0"



CAP — PLAN
SCALE: 3/8" = 1'-0"

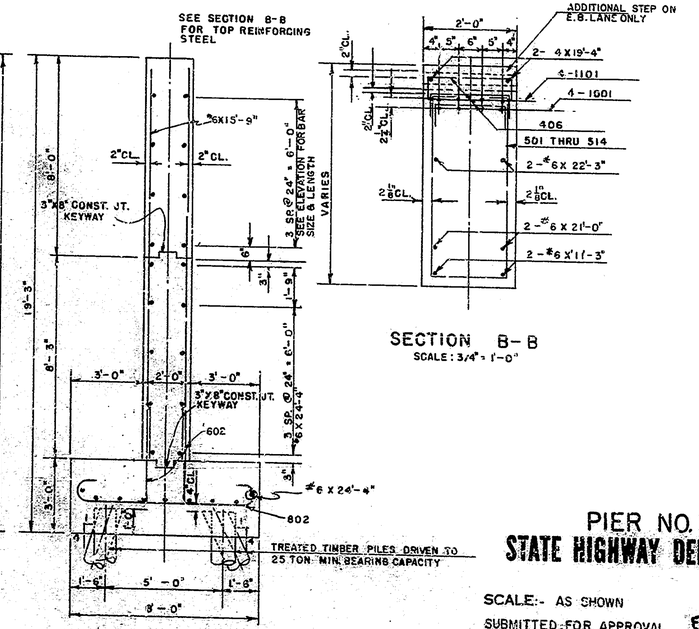


FOOTING PLAN
SCALE: 3/8" = 1'-0"



NOTE:-
FOR REINFORCING BAR NOTES SEE BRIDGE STD. C1
ANCHOR PLATES TO BE PRE-SET IN CONCRETE
FOR DETAILS OF ANCHOR PLATES SEE DWG. S3

ELEVATION (LOOKING EAST ON E.B. LANE) (LOOKING WEST ON W.B. LANE)
SCALE: 3/8" = 1'-0"



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

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

REINFORCING STEEL

SIZE & MARK	NO. OF BARS	LENGTH	WEIGHT LBS.
1101	8	24'-8"	
TOTAL #11			1048
1001	8	24'-3"	
TOTAL #10			835
802	68	9'-8"	
TOTAL #8			725
601	10	2'-11"	
602	26	4'-3"	
#6	2	24'-3"	
#6	4	17'-0"	
#6	4	21'-0"	
#6	4	22'-3"	
#6	4	11'-3"	
#6	26	15'-9"	
#6	9	24'-4"	
#6	10	22'-4"	
TOTAL #6			1991
501	2	8'-3"	
502	2	8'-0"	
503	2	7'-9"	
504	2	10'-6"	
505	2	13'-3"	
506	2	12'-0"	
507	2	12'-9"	
508	2	13'-6"	
509	2	14'-3"	
510	2	15'-0"	
511	2	15'-9"	
512	2	16'-6"	
513	2	17'-3"	
514	2	18'-0"	
TOTAL #5			383
406	95	2'-8"	
#4	2	19'-6"	
TOTAL #4			195
TOTAL STEEL			5178

CONCRETE	
CLASS "F" CAP POUR #2	22.2 CU.YDS.
CLASS "E" ABOVE FTG. POUR #1	14.2 CU.YDS.
CLASS "E" IN FTG.	21.5 CU.YDS.

MISCELLANEOUS	
ANCHOR PLATES MK AP2	8 EACH
16 TREATED TIMBER PILES	
25 TON MIN. CAP. 25±	400 LIN. FT.

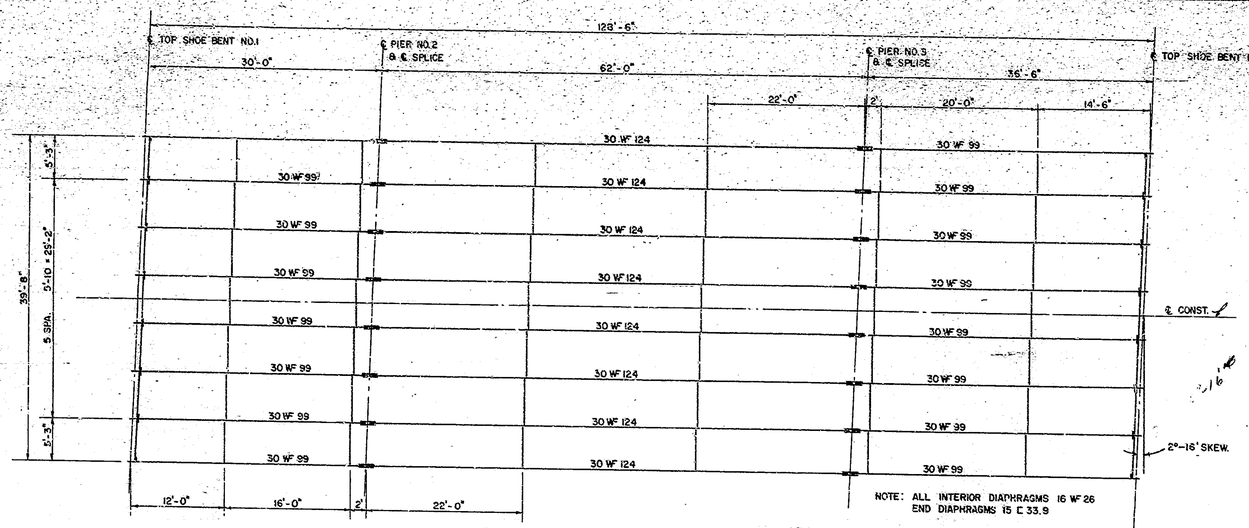
DESIGNED	R.B.K.	CK'D	T.H.
DRAWN	J.P.E.	CK'D	R.K.
TRACED	J.P.E.	CK'D	R.K.

PIER NO. 3 DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE:- AS SHOWN
SUBMITTED FOR APPROVAL
APRIL 16, 1964

DRAWING:- S3 OF S11
PROJECT:- I-70-1(17)7
~~BRIDGE~~ CONTRACT NO. 26601
BRIDGE FILE:- I-70-7-5039

BRIDGES OVER 20' SPAN					
PUB. ROAD ROUTE NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (17) 7	1964	8	19



NOTE: ALL INTERIOR DIAPHRAGMS 16 WF 26
END DIAPHRAGMS 15 C 33.9

FRAMING PLAN EASTBOUND LANE (WESTBOUND SAME)
SCALE: 1/8"=1'-0"

DATA USED FOR DESIGN AND DETAILS

LIVE LOAD - H20-S16-44 WITH IMPACT & DISTRIBUTION OF LOAD IN ACCORDANCE WITH 1961 A.A.S.H.O. SPECIFICATIONS. MAIN-CARRYING-MEMBERS-CHECKED FOR 2-24,000 LB. AXLES SPACED AT 4'-0" ON CENTER.

DEAD LOAD - ACTUAL WEIGHT PLUS 35 LBS. PER SQ. FT. TO PROVIDE FOR FUTURE WEARING SURFACE.

SLAB - DESIGNED WITH 16,000 LB. WHEEL PLUS IMPACT AND WITH $\frac{1}{2}$" MONOLITHIC WEARING SURFACE.

UNIT STRESSES -

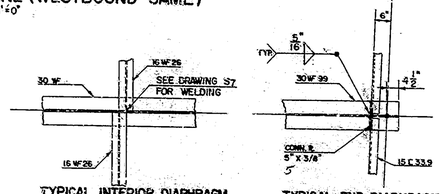
STRUCTURAL STEEL BENDING (TENSION)	*20,000 LBS. PER SQ.IN.
SHEAR ON RIVETS	13,500 LBS. PER SQ.IN.
STRUCTURAL STEEL BEARING (ON POWER DRIVEN RIVETS AND TORQUED HIGH STRENGTH BOLTS)	40,000 LBS. PER SQ.IN.
BEARING STEEL ON CONCRETE - INCLUDING OVERTURNING & ECCENTRIC LOADING	1,000 LBS. PER SQ.IN.
REINFORCING STEEL (TENSION)	20,000 LBS. PER SQ.IN.
CONCRETE (COMPRESSION)	1,200 LBS. PER SQ.IN.
BEARING, STRUCTURAL STEEL PARTS IN CONTACT	29,500 LBS. PER SQ.IN.

*ALL STRUCTURAL STEEL TO BE FABRICATED FROM A.S.T.M. A-36 STEEL UNLESS NOTED.

GENERAL NOTES

1. RIVETS $\frac{7}{8}$"ø
2. OPEN HOLES $\frac{15}{16}$"ø UNLESS NOTED
3. PAINT - ALL PAINT SHALL BE IN ACCORDANCE WITH CURRENT STATE HIGHWAY SPECIFICATIONS.
   SHOP - ONE COAT OF RED LEAD TYPE I OR II EXCEPT AS NOTED.
   FIELD - TWO (2) COATS OF ALUMINUM
4. THE CONTRACTOR SHALL PREPARE DETAILED WORKING OR SHOP DRAWINGS TO ENABLE HIM TO FABRICATE, ERECT, AND CONSTRUCT ALL PARTS OF THE WORK IN CONFORMITY WITH THE ENGINEERS DRAWINGS AND THE SPECIFICATIONS AND SHALL SUBMIT FIVE (5) COPIES OF THESE TO THE ENGINEER. SEE ART. E 1103.2 OF THE SPECIFICATIONS.
5. BEAMS TO BE STRAIGHT WITHIN A TOLERANCE OF $\frac{3}{8}$" AT CENTER. IF CAMBER EXISTS, LAY OUT BEAMS WITH CAMBER UP. BEAMS SHALL BE CHECKED FOR CAMBER WHILE SUPPORTED IN SUCH A WAY AS TO HAVE NO BENDING MOMENT IN THE DIRECTION OF CAMBER.
6. HOLES FOR BEAM SPLICES SHALL BE S/B-PUNCHED OR SUB-DRILLED & REAMED TO SIZE WHILE ASSEMBLED. SEE ART. E 1103.18 (D) OF THE SPECIFICATIONS.
7. THE SHOP PLANS SHALL INDICATE WHETHER REAMING IS TO BE DONE IN SHOP OR FIELD. IF SHOP REAMING OR DRILLING IS USED, THE BEAMS MAY BE REAMED WITH WEBS EITHER IN A HORIZONTAL OR VERTICAL POSITION. IF THE BEAMS ARE REAMED WITH THE WEBS VERTICAL THEY SHALL BE SUPPORTED RELATIVE TO THEIR FINAL ERECTION POSITION. IF THEY ARE REAMED WITH THE WEBS HORIZONTAL, A MINIMUM OF ONE LINE OF BEAMS SHALL BE SHOP ASSEMBLED WITH WEBS VERTICAL AND INSPECTED FOR FIT. THE SHOP DETAILS SHALL SHOW A PLAN OF MATCH-MARKING FOR ALL REAMED PIECES. ALL SPLICE PLATES TO BE REMOVED, CLEANED, & PAINTED AFTER REAMING. SPLICE PLATES SHALL NOT EXTEND BEYOND THE END OF THE BEAM AFTER BOLTING FOR SHIPMENT.
8. FLANGE SPLICE BARS SHALL HAVE PLANED OR ROLLED EDGES AND HOLES IN BARS SHALL BE SUB-DRILLED & REAMED OR DRILLED FULL SIZE WHILE ASSEMBLED.
9. AS SOON AS THE ENGINEER HAS APPROVED THE FIELD WELDS, ALL WELDS AND ANY SURFACE FROM WHICH THE SHOP COAT HAS BEEN OMITTED OR BECOMES WORN OFF OR HAS OTHERWISE BECOME DEFECTIVE, SHALL BE THOROUGHLY CLEANED OF ALL CHARRED PAINT OR ANY FOREIGN MATTER AND COMPLETELY COVERED WITH ONE COAT OF SHOP PAINT.
10. DIAMETER OF HOLES IN ALL MATERIAL CONNECTING TOP SHOES TO BEAM FLANGES SHALL BE 1" ø. BOLTS CONNECTING BEAM FLANGE TO TOP SHOE SHALL EXTEND IN TO TOP SHOE A MIN. OF ONE INCH.
11. SHIMS BETWEEN BEAMS AND TOP SHOES MAY BE BUILT UP.
    NO SHIM SHALL BE LESS THAN $\frac{1}{8}$" IN THICKNESS.
12. CURVED SURFACES OF SHOES TO BE MACHINED AFTER WELDMENTS HAVE BEEN COMPLETED.

WEIGHT OF STRUCTURAL STEEL (ESTIMATED) = 139,500 LBS. (W.B. STRUCTURE)
+ 139,400 LBS. (E.B. STRUCTURE)
278,900 LBS. TOTAL

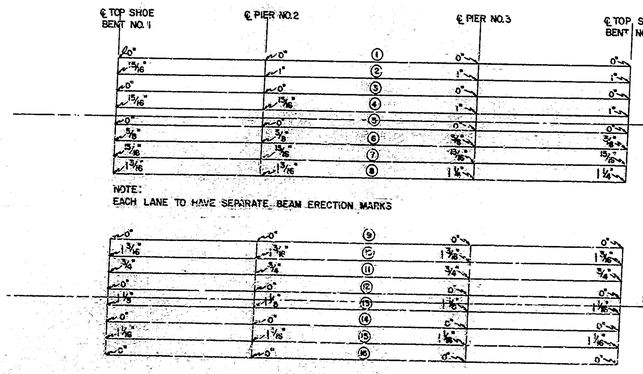


TYPICAL INTERIOR DIAPHRAGM DETAIL
SCALE: 1/2"=1'-0"

TYPICAL END DIAPHRAGM DETAIL
SCALE: 1/2"=1'-0"

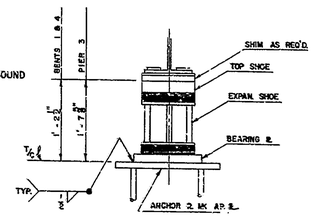
MOMENT AND REACTION SUMMARY

	MOMENTS (FT. KIPS)										REACTIONS (KIPS)							
	0.4 SPAN A		0.5 SPAN B		0.6 SPAN C		PIER 2 (R2)		PIER 3 (R3)		BENT 1 (R1)		PIER 2 (R2)		PIER 3 (R3)		PIER 4 (R4)	
	INT. BEAM	EXT. BEAM	INT. BEAM	EXT. BEAM	INT. BEAM	EXT. BEAM	INT. BEAM	EXT. BEAM	INT. BEAM	EXT. BEAM	INT. BEAM	EXT. BEAM	INT. BEAM	EXT. BEAM	INT. BEAM	EXT. BEAM	INT. BEAM	EXT. BEAM
DEAD LOAD	231	230	226.3	260.8	54.5	62.3	155.9	194.3	190.4	224.8	6.7	7.8	42.1	50.5	45.2	54.3	9.6	11.3
LIVE LOAD	135.9	120.5	286.7	258.0	167.3	150.6	168.2	151.4	177.3	159.6	24.4	22.0	36.0	32.4	35.9	32.3	26.6	24.0
IMPACT	40.2	36.2	76.5	68.9	50.2	45.2	44.9	40.4	50.9	45.8	7.3	6.6	9.6	8.7	10.3	9.3	8.0	7.2
TOTAL	197.2	181.7	589.5	587.7	272.0	258.1	369.0	386.1	408.6	430.2	38.4	36.4	87.7	91.6	91.4	95.9	44.2	42.5

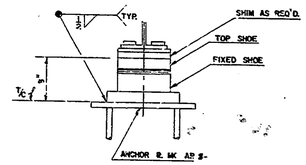


NOTE:
EACH LANE TO HAVE SEPARATE BEAM ERECTION MARKS

SHIM PLAN
NO SCALE



EXPANSION SHOE ASSEMBLY
BENTS 1 & 4 & PIER 3
NO SCALE



FIXED SHOE ASSEMBLY
PIER NO. 2
NO SCALE

DESIGNED	R.B.K.	C'K'D.	T.H.
DRAWN	H.S.F.	C'K'D.	R.K.
TRACED	H.R.F.	C'K'D.	R.K.

FRAMING PLAN
STATE HIGHWAY DEPARTMENT OF INDIANA

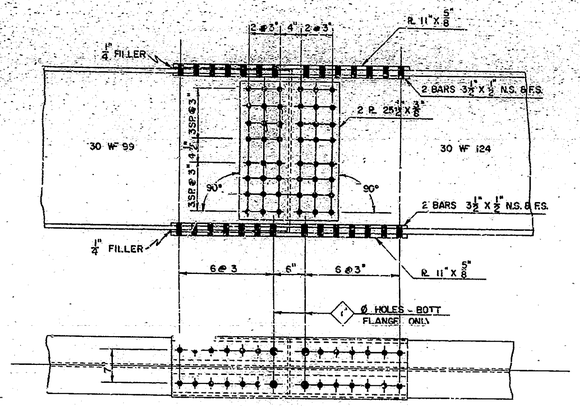
SCALE:- AS SHOWN

APRIL 16, 1964

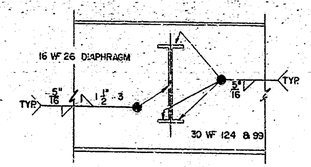
SUBMITTED FOR APPROVAL .....

DRAWING:- 8 OF 11
PROJECT:- I-70-1(17)7
~~BRIDGE~~ CONTRACT NO. 26601
BRIDGE FILE:- I-70-7-5039

BRIDGES OVER 20' SPAN					
FED. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (17) 7	1964	9	19

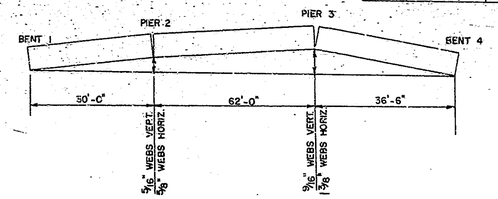


FIELD SPLICE PIER NO. 2 & 3
SCALE: 1" = 1'-0"

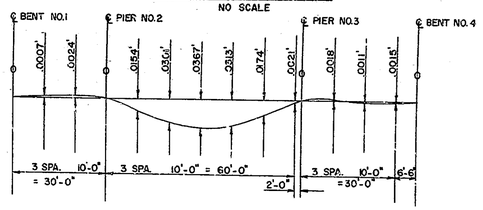


FIELD WELDMENT OF INTERIOR DIAPHRAGMS
NO SCALE

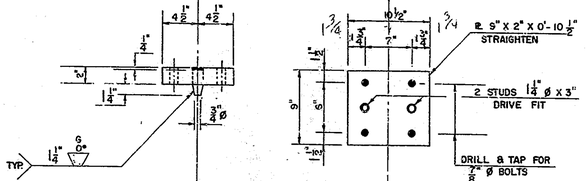
NOTE
Curved surfaces of shoes to be machined after weldments have been completed.



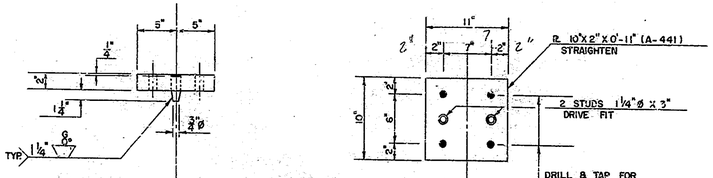
BLOCKING DIAGRAM (FOR REAMING)
NO SCALE



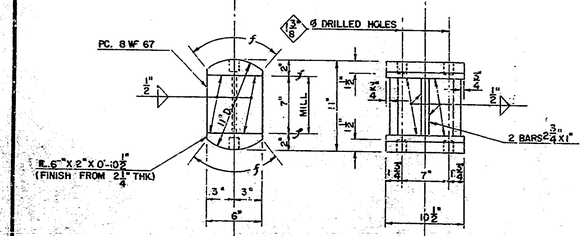
CONCRETE D.L. DEFLECTIONS (FT.)
SCALE 1" = 20' HORZ.
1" = 1" VERT.



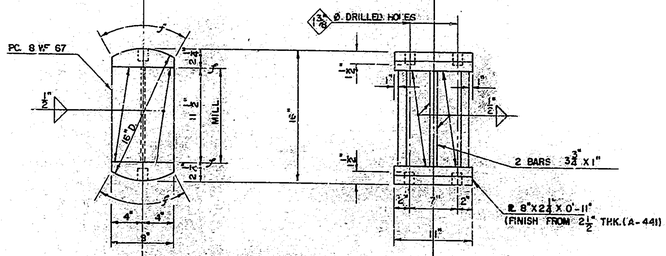
TOP SHOE
BENT NO. 1 & 4



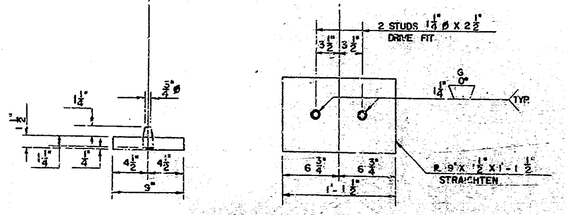
TOP SHOE
PIER NO. 3 & NO. 2



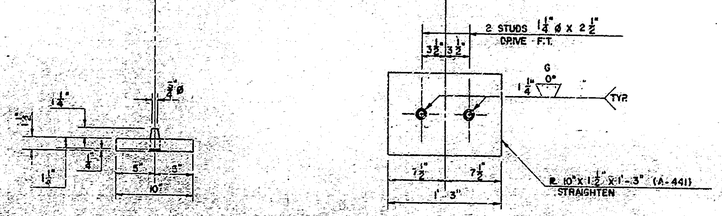
EXPANSION SHOE
BENT NO. 1 & 4



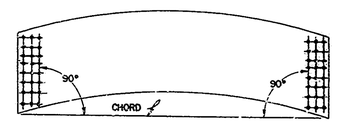
EXPANSION SHOE
PIER NO. 3



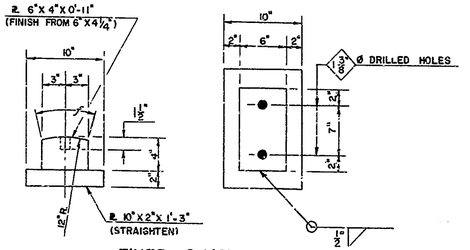
BEARING PLATE
BENT NO. 1 & 4
SCALE: 1½" = 1'-0"



BEARING PLATE
PIER NO. 3
SCALE: 1½" = 1'-0"



WEB PUNCHING SKETCH
NO SCALE



FIXED SHOE
PIER NO. 2
SCALE 1½" = 1'-0"

DESIGNED	R.R.K.	CK'D	T.H.
DRAWN	H.R.F.	CK'D	R.K.
TRACED	H.R.F.	CK'D	R.K.

STRUCTURAL DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE:- AS SHOWN — APRIL 16, 1964

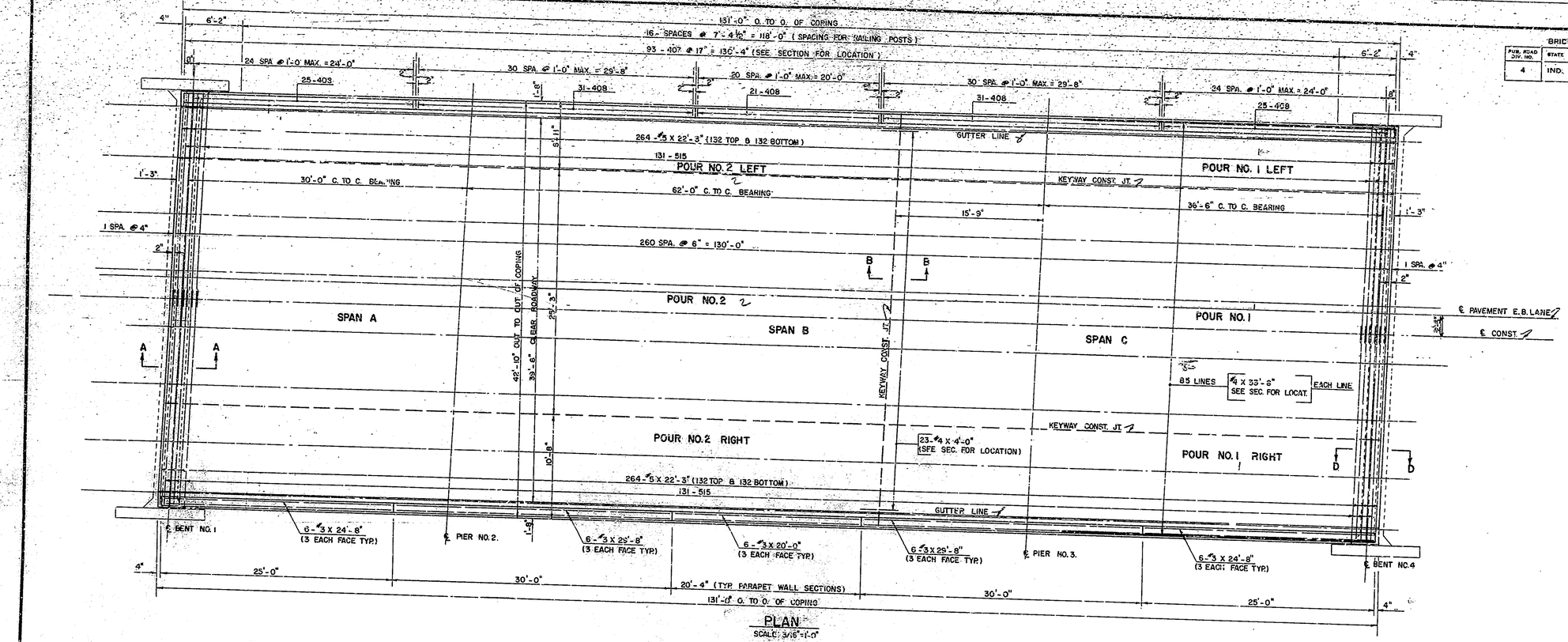
SUBMITTED FOR APPROVAL

DRAWING:- S7 OF S11
PROJECT:- I-70-(17)7
~~BRIDGE~~ CONTRACT NO. 26601
BRIDGE FILE:- I-70-7-5039

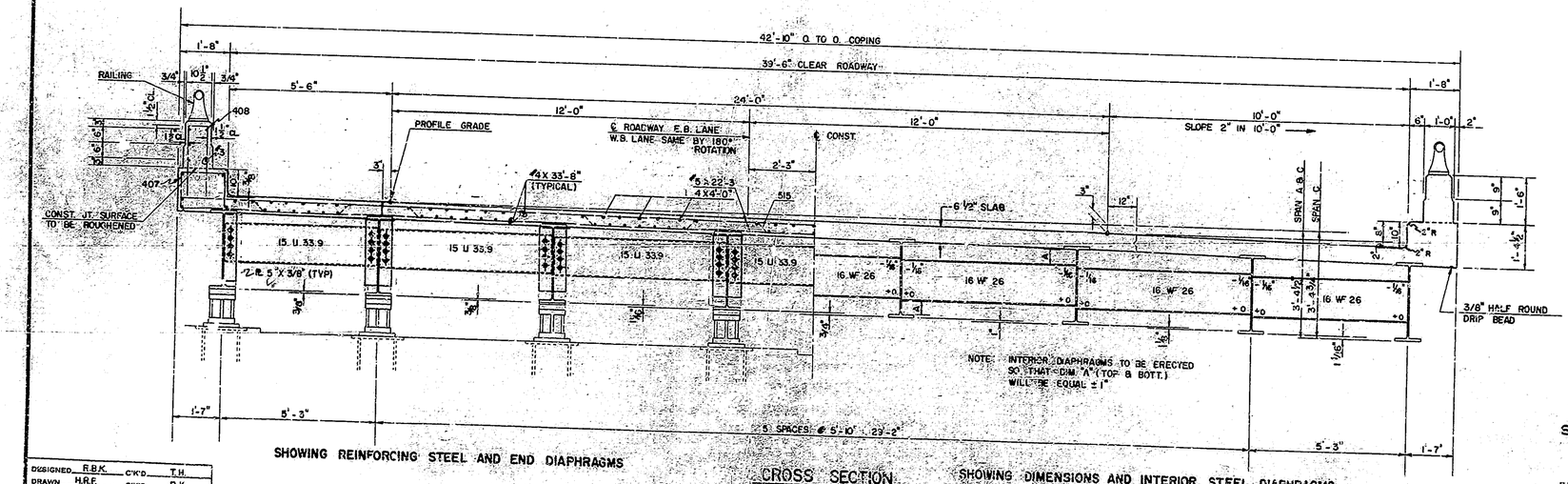
Rev. 2-25-64 - Nole

BRIDGES OVER 20' SPAN

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (117)	1964	10	19



PLAN
SCALE: 3/16"=1'-0"



SHOWING REINFORCING STEEL AND END DIAPHRAGMS

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

SHOWING DIMENSIONS AND INTERIOR STEEL DIAPHRAGMS

NOTES:

FOR SECTIONS A-A AND B-B SEE DRAWING S5
FOR REINFORCING BAR NOTES SEE BRIDGE STD. C1
FOR ALUMINUM RAILING DETAILS SEE BRIDGE STD. R1-A.
FOR STEEL RAILING DETAILS SEE BRIDGE STD. R1-B
AFTER STRUCTURAL STEEL HAS BEEN ERECTED, CONCRETE FORMS SHALL NOT BE BLOCKED AGAINST THE EXPANSION END OF THE STEEL IN MAKING ANY POURS ADJACENT TO STEEL SPANS.
SEQUENCE OF POUR TO BE MADE IN ORDER OF POUR NUMBERS. TRANSVERSE CONSTRUCTION JOINTS ARE OPTIONAL, AND POURS MAY BE MADE CONTINUOUS, PROVIDED THE POUR TERMINATES AT A CONSTRUCTION JOINT INDICATED ON THE PLAN.

DESIGNED	R.B.K.	C'K'D	T.H.
DRAWN	H.R.F.	C'K'D	R.K.
TRACED	H.R.F.	C'K'D	R.K.

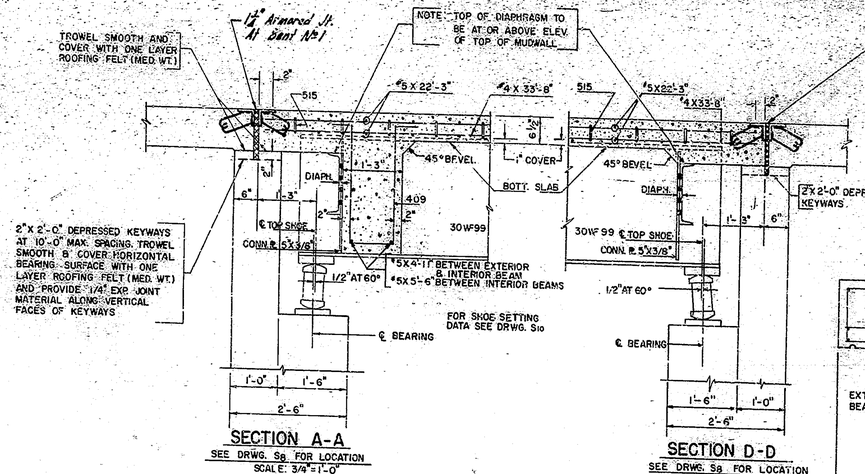
FLOOR DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE:- AS SHOWN

SUBMITTED FOR APPROVAL: [signature]

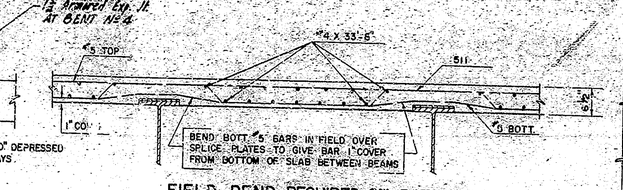
APRIL 16, 1964

DRAWING:- S8 OF S11
PROJECT:- I-70-1(117)
~~BRIDGE~~ CONTRACT NO. 26601
BRIDGE FILE:- I-70-7-5039

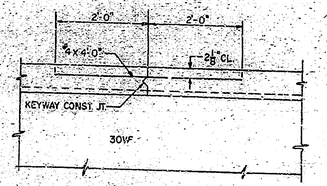


SECTION A-A
SEE DRWG. S8 FOR LOCATION
SCALE: 3/4"=1'-0"

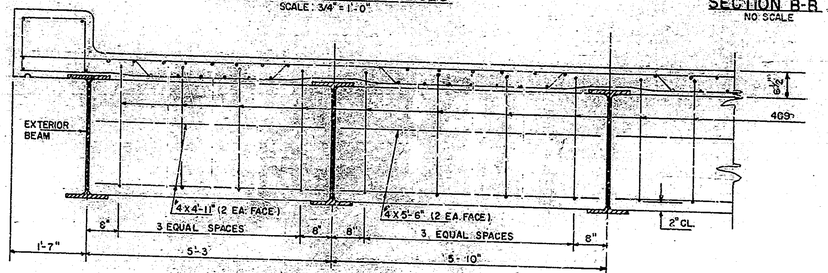
SECTION D-D
SEE DRWG. S8 FOR LOCATION
SCALE: 3/4"=1'-0"



FIELD BEND REQUIRED ON BOTTOM BARS OVER BEAM SPLICES
SCALE: 3/4" = 1'-0"



SECTION B-B
NO SCALE



CONCRETE END DIAPHRAGM REINFORCEMENT
SCALE: 3/4" = 1'-0"

BRIDGES OVER 20' SPAN

PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (117) 7	1964	11	19

REINFORCING STEEL

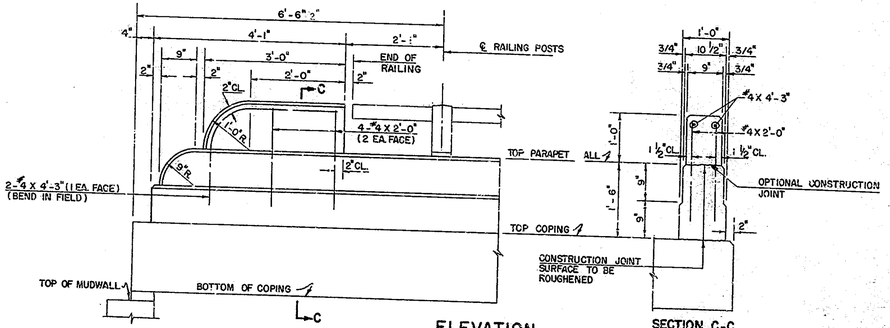
SIZE AND MARK	NO. OF BARS	LENGTH	WEIGHT LBS.
515	262	23'-1"	
#5	528	22'-3"	
#5	8	4'-11"	
#5	20	5'-6"	
	TOTAL NO. 5		18,717
407	186	3'-8"	
408	266	5'-3"	
409	128	6'-9"	
#4	340	33'-8"	
#4	23	4'-0"	
#4	16	2'-0"	
#4	8	4'-3"	
	TOTAL #4		9,267
#3	24	29'-8"	
#3	24	24'-8"	
#3	12	20'-0"	
	TOTAL #3		581
	TOTAL STEEL		28,565

CONCRETE

CLASS "F" SUPERSTRUCTURE	
POUR NO. 1	27.6 CU.YDS.
POUR NO. 1 RIGHT	14.3
POUR NO. 1 LEFT	10.2
POUR NO. 2	42.5
POUR NO. 2 RIGHT	21.6
POUR NO. 2 LEFT	15.3
TOTAL	131.5 CU.YDS.
RAILING CONCRETE	13.9 CU.YDS.

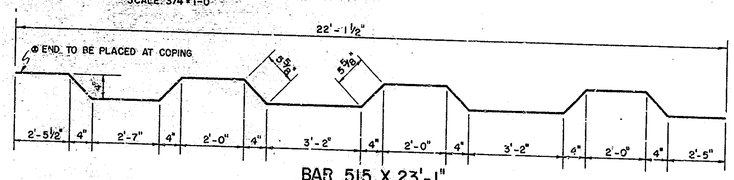
MISCELLANEOUS

ALUM. RAILING (TYPE I) OR	
STEEL RAILING (TYPE A)	264 LIN. FT.
℄ EXP. JOINT ARMOR (TYPE W-1/2)	59.3 Lin. Ft.
℄ EXP. JOINT ARMOR (TYPE W-1)	59.3 Lin. Ft.

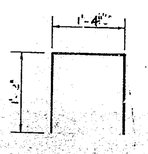


ELEVATION
TYPICAL END POST DETAILS
SCALE: 3/4"=1'-0"

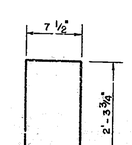
SECTION C-C



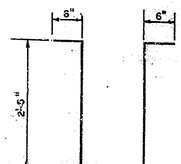
BAR 515 X 23'-1"
NO SCALE



BAR 407 X 3'-8"
NO SCALE

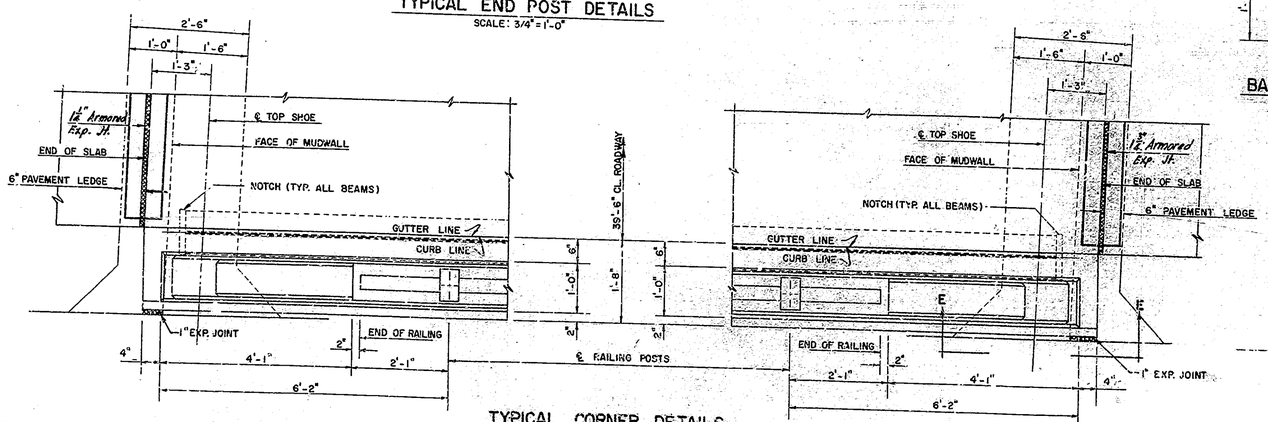


BAR 408 X 5'-3"
NO SCALE

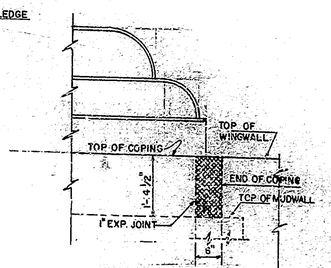


BAR 409 X 6'-9"
NO SCALE

NOTES:
FOR REINFORCING BAR NOTES SEE BRIDGE STANDARD C1.
FOR DETAILS OF NOTCH AT ENDS OF BEAMS, SEE BRIDGE STANDARD C1.
FOR LOCATION OF SECTIONS A-A AND B-B SEE DRWG. S8



TYPICAL CORNER DETAILS
SCALE: 3/4"=1'-0"



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

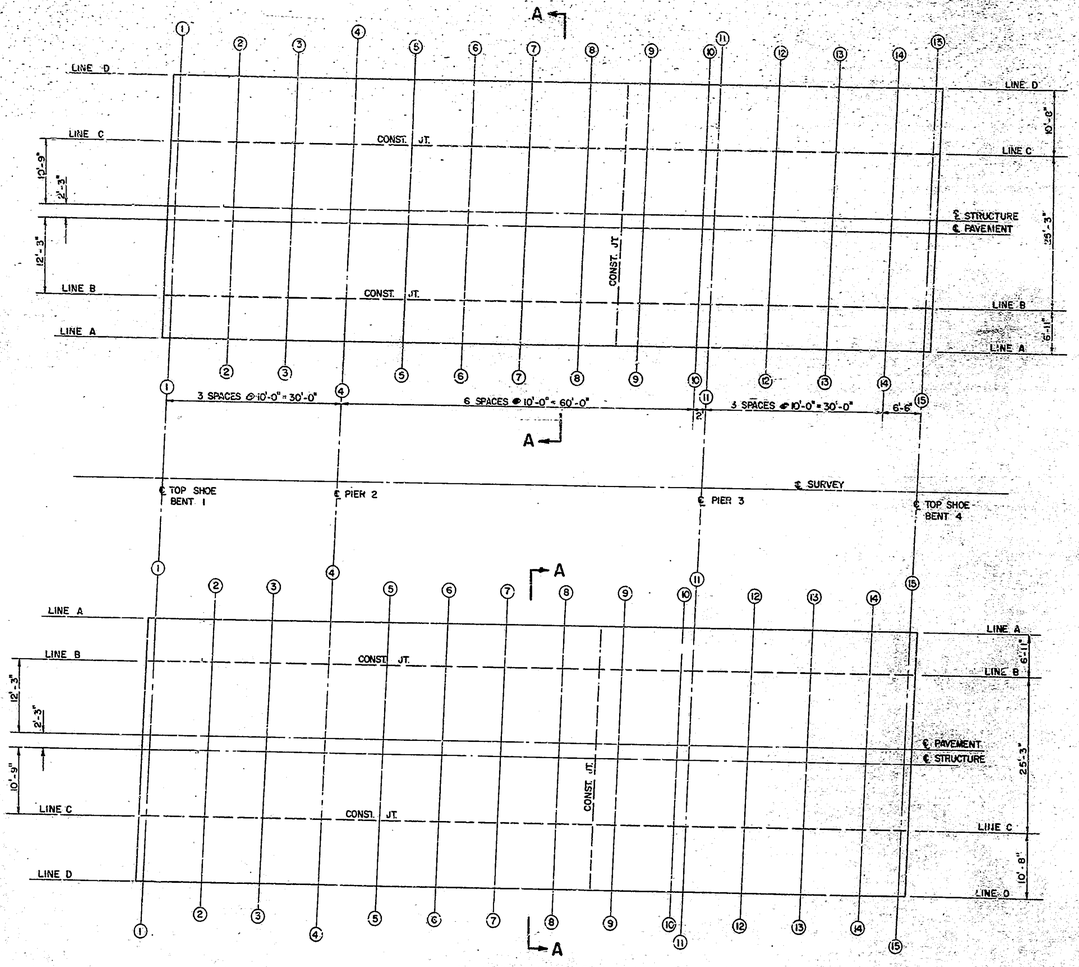
FLOOR DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE:- AS SHOWN
APRIL 16, 1964.
SUBMITTED FOR APPROVAL
DRAWING:- S9 OF S11
PROJECT:- I-70-1(117)7
~~BRIDGE~~ CONTRACT NO. R6601
BRIDGE FILE:- I-70-7-5039

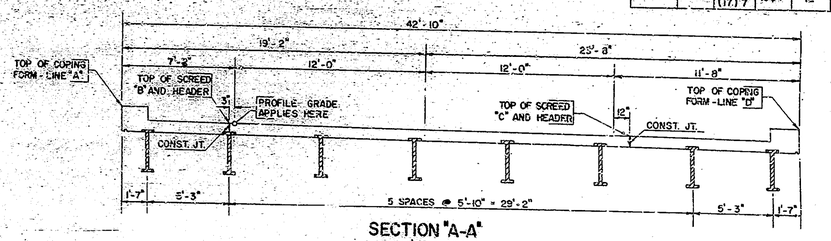
DESIGNED	R.B.K.	C'K'D	T.H.
DRAWN	H.R.F.	C'K'D	R.K.
TRACED	H.R.F.	C'K'D	R.K.

REV. 9-23-64 ~ Exp. Jts.

BRIDGES OVER 20' SPAN					
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (17) 7	1964	12	19



PLAN OF SCREEDS
SCALE: 3/32" = 1'-0"



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

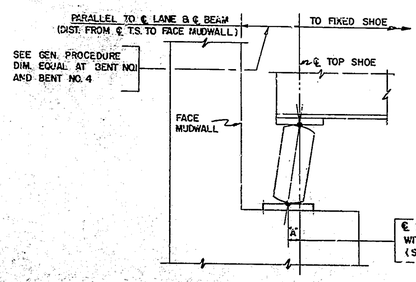
GENERAL NOTES

PURPOSE:

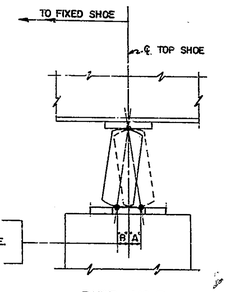
PLAN OF SCREEDS SHOWS LOCATION OF SCREEDS.
TABLE OF ELEVATIONS SHOWS DATA FOR SETTING SCREEDS AND COPING FORMS, SO THAT THE SLAB AND COPINGS WILL BE AT THE FINAL GRADE ELEVATIONS AFTER ALL THE CONCRETE HAS BEEN POURED. SEE DRWG. S 11
TABLE I SHOWS DATA FOR SETTING EXPANSION PLATES.

GENERAL PROCEDURE:

(1) AFTER ALL RIVETS HAVE BEEN DRIVEN, ALL INTERIOR DIAPHRAGMS HAVE BEEN WELDED IN PLACE, ADJUST THE THE SUPERSTRUCTURE LONGITUDINALLY SO THAT THE DISTANCE FROM THE ℄ TOP SHOES TO THE FACE OF THE MUDWALL AT BENT NO. 1 IS EQUAL TO THE DISTANCE AT BENT NO. 4 , ON E.B. AND W.B. STRUCTURES.
(2) WITH THE SUPERSTRUCTURE IN THE ADJUSTED POSITION CALLED FOR IN (1) WELD THE FIXED SHOES TO THE ANCHOR PLATES AT PIER NO. 2.
(3) ADJUST THE EXPANSION PLATES UNDER EACH EXPANSION SHOE IN ACCORDANCE WITH DIMENSION "A" OR "B" IN TABLE I FOR THE PREVAILING TEMPERATURE. NOTE THAT DIMENSION "A" IS ALWAYS THE DISTANCE FROM A VERTICAL LINE THRU THE ℄ TOP SHOE IN A DIRECTION AWAY FROM THE FIXED SHOES. WELD THE EXPANSION PLATES TO THE ANCHOR PLATES.
(4) AFTER THE SHOES ARE SET TAKE ELEVATIONS AT ALL SCREED POINTS ON TOP OF ADJACENT BEAMS. ENTER THESE ELEVATIONS IN THE TABLE OF ELEVATIONS. SUBTRACT THESE ELEVATIONS FROM THE TABULATED ELEVATIONS AND USE RESULTING DIMENSION AS THE HEIGHT FOR SETTING THE SCREED OR COPING FORM ABOVE THAT POINT. THIS DIMENSION REMAINS CONSTANT REGARDLESS OF HOW MUCH OR IN WHAT ORDER THE CONCRETE IS POURED. DO NOT SET SCREEDS ON COPING FORMS BY LEVELING.
(5) NO CONCRETE IN THE FLOOR IS TO BE POURED UNTIL THE ABOVE OPERATIONS ARE COMPLETED.



BENT № 1 OR BENT № 4
NO SCALE



PIER № 3
E.B. & W.B. STRUCTURES
NO SCALE

TABLE I

	DIMENSION "A"						
TEMPERATURE (F.)	0°	20°	40°	60°	80°	100°	120°
℄ TOP SHOE TO ℄ EXP. R. BENT NO.1	1 1/16"	7/8"	5/16"	1/2"	11/16"	7/8"	1 1/16"
℄ TOP SHOE TO ℄ EXP. R. BENT NO.4	1 5/16"	1 1/16"	5/8"	1/2"	3/16"	3/16"	1/16"
℄ TOP SHOE TO ℄ EXP. R. PIER NO.3	5/16"	3/16"	1/8"	0"	1/8"	3/16"	5/16"
							DIMENSION "B" FOR PIER 3

DESIGNED	R.B.K.	CK'D	T.H.
DRAWN	H.R.F.	CK'D	R.K.
TRACED	H.R.F.	CK'D	R.K.

SCREEDS

STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE:- AS SHOWN
APRIL 16, 1964
SUBMITTED FOR APPROVAL:
DRAWING-SHO OF S11
PROJECT:- I-70-1(17)7
~~BRIDGE~~ CONTRACT NO. 86601
BRIDGE FILE:- I-70-7-5039

BRIDGES OVER 20' SPAN					
FUR. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (117) 7	1964	13	19

TABLE OF ELEVATIONS - E.B. LANE

POINT		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	ELEVATION TOP OF COPING FORM	507.765	508.025	508.280	508.540	508.810	509.085	509.350	509.595	509.835	510.065	510.115	510.355	510.595	510.830	510.980
	ELEVATION TOP OF OUTSIDE BEAM															
	DIST. TOP BEAM TO TOP COPING FORM															
B	ELEVATION TOP OF SCREED	506.895	507.150	507.410	507.670	507.940	508.215	508.475	508.725	508.965	509.195	509.245	509.485	509.726	509.960	510.110
	ELEVATION TOP OF BEAM															
	DIST. TOP BEAM TO TOP SCREED															
C	ELEVATION TOP OF SCREED	506.595	506.855	507.110	507.370	507.645	507.915	508.180	508.430	508.665	508.900	508.945	509.185	509.430	509.665	509.815
	ELEVATION TOP OF BEAM															
	DIST. TOP BEAM TO TOP SCREED															
D	ELEVATION TOP OF COPING FORM	507.275	507.530	507.790	508.045	508.320	508.590	508.855	510.105	509.345	509.575	509.625	509.895	510.105	510.345	510.490
	ELEVATION TOP OF OUTSIDE BEAM															
	DIST. TOP BEAM TO TOP COPING FORM															

TABLE OF ELEVATIONS - W.B. LANE

POINT		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	ELEVATION TOP OF COPING FORM	507.810	508.070	508.325	508.565	508.860	509.130	509.395	509.645	509.880	510.110	510.155	510.395	510.640	510.875	511.020
	ELEVATION TOP OF OUTSIDE BEAM															
	DIST. TOP BEAM TO TOP COPING FORM															
B	ELEVATION TOP OF SCREED	506.955	507.210	507.470	507.730	508.000	508.275	508.540	508.785	509.020	509.255	509.300	509.540	509.730	510.015	510.165
	ELEVATION TOP OF BEAM															
	DIST. TOP BEAM TO TOP SCREED															
C	ELEVATION TOP OF SCREED	506.710	506.965	507.225	507.480	507.755	508.025	508.290	508.540	508.775	509.005	509.050	509.290	509.530	509.765	509.915
	ELEVATION TOP OF BEAM															
	DIST. TOP BEAM TO TOP SCREED															
D	ELEVATION TOP OF COPING FORM	507.410	507.665	507.920	508.180	508.455	508.725	508.990	509.240	509.475	509.705	509.750	509.990	510.230	510.465	510.610
	ELEVATION TOP OF OUTSIDE BEAM															
	DIST. TOP BEAM TO TOP COPING FORM															

NOTE:
FOR LOCATIONS OF SCREED POINTS AND NOTES SEE DRWG. S10

DESIGNED	R.K.	CK'D	T.H.
DRAWN	R.F.	CK'D	R.K.
TRACED	R.F.	CK'D	R.K.

TABLE OF ELEVATIONS

STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE:- NO SCALE — APRIL 16, 1964

SUBMITTED FOR APPROVAL

DRAWING:- S11 OF S11
PROJECT:- I-70-1(117)7
~~BRIDGE~~ CONTRACT NO. 26601
BRIDGE FILE:- I-70-7-5039

BRIDGES OVER 20' SPAN

FUR. ROAD REC. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-70-1 (117)7	1964	14	19

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.	REINFORCING STEEL (1934 STD. WTS.) *11(1 1/2") LBS.	*10(1 1/8") LBS.	*9(1") LBS.	*8(1") 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.	STEEL ENCASED CONCRETE PILES No.	STEEL ENCASED CONCRETE PILES LIN FT.	TREATED TIMBER PILES No.	TREATED TIMBER PILES LIN FT.	ANCHOR PLATES MK AP2 EACH	RAILING TYPE I OR TYPE A LIN. FT.	EXPANSION JOINT ARMOR 1 1/2" Lin. Ft.	EXPANSION JOINT ARMOR 1 1/4" Lin. Ft.
West Bound Structure																												
Bent No. 1	22.5										976		219	1,268			2,453											
Pier No. 2	22.2		13.2	22.9			1,048	838		760		1,972	383	195			5,196			5	175			8				
Pier No. 3	22.2		14.2	21.5			1,048	838		723		1,991	383	195			5,178					16	400	8				
Bent No. 4	22.5										976		219	1,268			2,463					16	400	8				
Superstructure	131.5				13.9								18,717	9,267	581		28,565	**139,500		5	200			8				
																									244	39.3	39.3	
TOTAL	220.9		27.4	44.4	13.9		2,096	1,676		1,483	1,952	3,963	19,921	12,193	581		43,865	**139,500		10	375	32	800	32	244			
East Bound Structure																												
Bent No. 1	22.5										976		219	1,268			2,463											
Pier No. 2	22.2		13.2	22.9			1,048	838		760		1,972	383	195			5,196			5	175			8				
Pier No. 3	22.2		14.2	21.5			1,048	838		723		1,991	383	195			5,178					16	400	8				
Bent No. 4	22.5										976		219	1,268			2,463					16	400	8				
Superstructure	131.5				13.9								18,717	9,267	581		28,565	**139,400		5	200			8				
																									244	39.3	39.3	
TOTAL	220.9		27.4	44.4	13.9		2,096	1,676		1,483	1,952	3,963	19,921	12,193	581		43,865	**139,400		10	375	32	800	32	244			
Splice Bars							58	45		23	16	34	28	16	6		226											
Paint Steel Piers Exposed Struct. Column																												
Paint Steel for R.C. Piers & Pier Caps																												
Roof Steel for Lo Boiler Rm., Stairs etc.																												
TOTALS	441.8		54.8	88.8	27.8		4,250	3,397		2,989	3,920	7,960	39,870	24,602	1,168		87,956	**278,900		20	750	64	1,600	64	488	78.6	78.6	

BILL OF SPLICE BARS

REINFORCING STEEL

Size	Number Pieces	Length	Weight
#11	1	11'-0"	58
#10	1	10'-6"	45
#8	1	8'-9"	23
#7	1	8'-0"	16
#6	9	7'-0"	34
#5	4	6'-9"	28
#4	4	6'-0"	16
#3	3	5'-6"	6
TOTAL			226

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

BILL OF MATERIALS FOR R.C. BRIDGE APPROACH

REINFORCING STEEL

Size Mark	No Pcs.	Length	No Pcs.	Length	No Pcs.	Length	Weight

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
				TOTALS				Total of Reinf. Steel carried to "Structure Quantities"

SUMMARIZED R.K. CHKD. W.M.
TRACED J.P.E. CHKD. R.K.

BARRICADES, BARRIERS, TRAFFIC SIGNS, & LIGHTS

ITEM	UNIT	QUANTITY	ASSEMBLY		
WARNING SIGNS	Each		Signs 130 R		
			" 123 R		
			" 124 R		
			" 115 R		
			Torches		
STD. BARRICADES (TYPE A)	Each		Barricades (Type A)		
			Signs 113 R		
			" W11R		
			" 117		
			Lanterns		
STD. "OPEN" SIGNS	Each		Signs 115		
BRIDGE (SUITABLE) BARRIERS	Each	2 *	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 113 R		
			" W11R		
			" 117		
			Lanterns		

*Not a pay item.

** 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.

SUMMARY

ITEM	DESCRIPTION	UNIT	QUANTITY W. B. Structure	QUANTITY E. B. Structure	QUANTITY Splice Bars	QUANTITY Total
1	Class F Concrete	Cu. Yds.	220.9	220.9		441.8
2	Class D Concrete	Cu. Yds.				
3	Class E Concrete above Footings	Cu. Yds.	27.4	27.4		54.8
4	Class E Concrete in Footings	Cu. Yds.	44.4	44.4		88.8
5	Railing Concrete	Lin. Ft.				
6	Reinforcing Steel	Lbs.	43,865	43,865	226	87,956
7	Structural Steel	Lbs.				
8	Cast Iron	Lbs.				
9	Untreated Timber Piles Furnished	Lin. Ft.				
10	Untreated Timber Piles Driven	Lin. Ft.				
11	Furnishing Equipment for Driving Piles	Lump Sum				1
12	Wet Excavation	Cu. Yds.				
13	Wiley Way Excavation	Cu. Yds.				
14	Common Excavation	Cu. Yds.				
15	Special Borrow	Cu. Yds.				
16	Grade B Special Borrow	Cu. Yds.				
17	Sodding	Sq. Yds.				
18	Mulched Seeding	Sq. Yds.				
19	Cement Concrete Pavement	Sq. Yds.				
20	Reinforced Cement Concrete Pavement	Sq. Yds.				
21	Thickened Reinf. Cement Concrete Pavement	Sq. Yds.				
22	Aggregate for Compacted Aggregate Base	Tons				
23	Removal Present Structure	Lump Sum				
24	Temporary Bridge and Approaches	Lump Sum				
25	Warning Signs	Each				
26	Std. Barricades (Type A)	Each				
27	Class D Concrete in Structures	Cu. Yds.				
28	R/W Markers	Each				
29	Steel Pile Shells Furnished (14")	Lin. Ft.	375	375		750
30	Steel Pile Shells Driven (14")	Lin. Ft.	375	375		750
31	Treated Timber Piles Furnished	Lin. Ft.	800	800		1600
32	Treated Timber Piles Driven	Lin. Ft.	800	800		1600
33	Anchor Plates (MK AP-2)	Each	32	32		64
34	4" Concrete Slopewall	Sq. Yds.	484	484		968
35	Foundation Excavation Unclassified	Cu. Yds.	102	102		204
36	Railing Concrete	Cu. Yds.	13.9	13.9		27.8
37	Structural Steel	Lump Sum				1
38	Railing (Type I or A)	Lin. Ft.	244	244		488
39	1" Expansion Joint	Lin. Ft.	6	6		12
40	1 1/2" Expansion Joint Armor (Type II or IA)	Lin. Ft.	39.3	39.3		78.6
41	1 1/2" Expansion Joint Armor (Type II or IA)	Lin. Ft.	39.3	39.3		78.6
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SUMMARY

STATE HIGHWAY DEPARTMENT OF INDIANA

APRIL 16, 1964

SUBMITTED FOR APPROVAL: [signature]

PROJECT:- I-70-(17)7

~~BRIDGE~~ CONTRACT No. 26601

BRIDGE FILE:- I-70-7-5039

REV. 9-25-64 - Items 40 & 41 Added

EN STR

I-70-7-5039