CONTRACT No. B- 15132

INDEX

PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION
BRM- -X255(3)	50-36-6788	CONTINUOUS REINFORCED CONC. SLAB	THREE SPAN 26'3", 31'6", 26'3" SKEW 45°00'	VON FANGE DITCH	STA. 486+20.50 LINE "R"

SHEET NO	SHEET DESIGNATION	SUBJECT	FHWA APPROVAL
1	ONE SHEET	TITLE SHEET	
2	ROAD SHEET	TYPICAL CROSS SECTION	
3	ONE SHEET	SOIL BORINGS	
4	ONE SHEET	EROSION CONTROL	
5-7	DETAIL SHEETS	RETAINING WALL DETAILS	
8	C1 STR. 50-36-6788	LAYOUT	
9	C2 STR. 50-36-6788	GENERAL PLAN	
10	C3 " " "	SUPERSTRUCTURE DETAILS	
11	C4 " " "	SUPERSTRUCTURE DETAILS	
12	C5 " " "	SUPERSTRUCTURE DETAILS & BILL OF MATERIALS	
13		TRAFFIC SIGN DETAILS	
14		SUMMARY	
15		ESTIMATE OF QUANTITIES	
16-22		CROSS SECTIONS	

TRAFFIC DATA		
A.D.T. (1982)		7045 V.P.D.
A.D.T. (2002 PROJECTED)		9715 V.P.D.
D.H.V. (2002 PROJECTED)		972 V.P.D.
TRUCKS		D.H.V. 11 % A.D.T. 12 %
DESIGN SPEED		60 M.P.H.
ACCESS CONTROL		NONE

NOTE:--
WHENEVER M-X255 ( ) APPEARS IN THESE PLANS OR CONTRACT DOCUMENTS IT SHALL BE INTERPRETED AS BRM-X255 (3)

STATE OF INDIANA

INDIANA DEPARTMENT OF HIGHWAYS

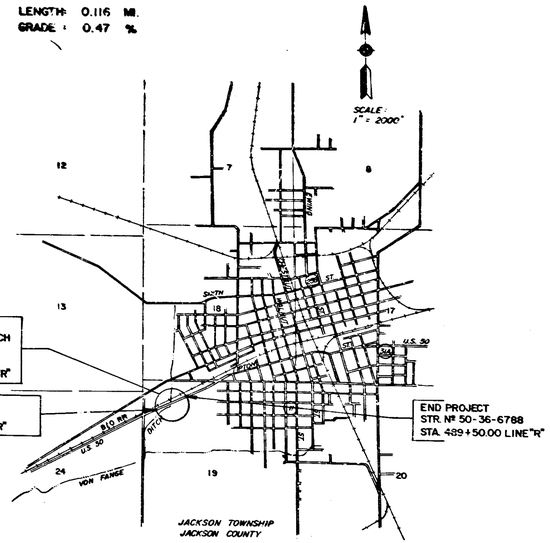
BRIDGE PLANS

FOR SPANS OVER 20 FEET ON STATE ROAD NO. U.S. 50

PROJECT NO. ST - X255 (A) PE
ST - X255 (A) R/W
BRM - X255 (3) CONSTR

BEGINNING AT A POINT BEING THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 19, T-6-N, R-6-W, THENCE NORTHERLY ALONG THE NORTH-SOUTH SECTION LINE 257.63 FEET TO A POINT BEING THE CENTER LINE OF U.S 50, THENCE NORTHEASTERLY ALONG SAID CENTER LINE 975.06 FEET TO CENTER LINE OF STRUCTURE OVER VON FANGE DITCH. ALL POINTS BEING IN JACKSON TOWNSHIP, JACKSON COUNTY, INDIANA.

BRIDGE LENGTH: 0.016 MI.
ROADWAY LENGTH: 0.100 MI.
TOTAL LENGTH: 0.116 MI.
MAX. GRADE : 0.47 %



STR. Nº 50-36-6788
OVER VON FANGE DITCH
THREE SPAN
SKEW 45°00'
STA. 486+20.50 LINE "R"

BEGIN PROJECT
STR. Nº 50-36-6788
STA. 483+40.00 LINE "R"

END PROJECT
STR. Nº 50-36-6788
STA. 489+50.00 LINE "R"

FUAD ELYAS MUSLEH
No. 9709
STATE OF INDIANA
REGISTERED PROFESSIONAL ENGINEER

THESE PLANS PREPARED BY
CLYDE E. WILLIAMS & ASSOCIATES INC.
PROFESSIONAL ENGINEERS
SOUTH BEND, Ind. → INDIANAPOLIS
CERTIFIED _____ DATE 7-15-83

INDIANA DEPARTMENT OF HIGHWAYS
STANDARD SPECIFICATIONS DATED 1978
TO BE USED WITH THESE PLANS.

REVISIONS	
DATE	SHEET NO.

REVISIONS	
DATE	SHEET NO.
2-13-84	8
3-13-84	8
3-22-84	1, 2, 17 thru 22
11-13-84	1, 2, 5, 7, 4, 9, 11, 12, 14, 15
12-18-84	1, 8

BRIDGES OVER 20' SPAN

FEDERAL REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	BRM-X225(3)	1963	1	47

INDEX CONTINUED
STANDARD DRAWINGS

SHEET NO.	SHEET DESIGNATION	SUBJECT	F.H.W.A. APPROVAL	LOAST TYPE REVISION
23	BRIDGE STD. BR1	ALUMINUM BRIDGE RAILING	*	R-10-23-84
24	BRIDGE STD. BR2	ALUMINUM BRIDGE RAILING DETAILS	*	R-10-23-84
25	BRIDGE STD. BR3	STEEL BRIDGE RAILING	12-16-80	R11-15-60
26	BRIDGE STD. BR4	STEEL BRIDGE RAILING DETAILS	5-10-79	R12-1-78
	BRIDGE STD. BR5	RAILING CONNECTION DETAILS		
	BRIDGE STD. BR6	RAILING CONNECTION DETAILS		
27	BRIDGE STD. C1	MISCELLANEOUS DETAILS	12-21-81	R-12-7-81
	BRIDGE STD. C2	MISCELLANEOUS DETAILS		
28	BRIDGE STD. C3	MISCELLANEOUS DETAILS	12-21-81	R-12-7-81
29	BRIDGE STD. C4	MISCELLANEOUS DETAILS	12-4-74	R-10-28-74
	BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS		
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD. PB	PRESTRESSED CONCRETE TYPE I-BEAMS		
	BRIDGE STD. PC	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. PBIC	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS		
	BRIDGE STD. PB11	ELASTOMERIC BEARING PAD DETAILS		
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD. B2A	BRIDGE LIGHTING DETAILS		
	BRIDGE STD. B2B			
30	BRIDGE STD. S1	MISCELLANEOUS DETAILS	1-17-72	R8-2-71
	BRIDGE STD. SH1	STEEL SHOE DETAILS		
30A	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE	*	R9-19-84
30B	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE	1-12-60	R11-15-39
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD.			
	BRIDGE STD.			
31A	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS	*	R9-4-84
31	ROAD STD. SHEET B	STANDARD PAVEMENT JOINTS	*	R9-4-84
	ROAD STD. SHEET MA	MISCELLANEOUS STANDARDS		
32	ROAD STD. SHEET MB	MISCELLANEOUS STANDARDS	*	R9-4-84
	ROAD STD. SHEET MB2	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MC	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MC1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MM	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS		
33	ROAD STD. SHEET ME2	MISCELLANEOUS STANDARDS	*	R-9-4-84
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
34	ROAD STD. SHEET MH1	MISCELLANEOUS STANDARDS	8-30-84	R-6-1-84
35	ROAD STD. SHEET MH2	MISCELLANEOUS STANDARDS	8-30-84	R-6-1-84
	ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MK	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
36	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS	7-19-83	R-5-2-83
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MQ	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MR	MISCELLANEOUS STANDARDS		
37	ROAD STD. SHEET MT3	MISCELLANEOUS STANDARDS - TRAFFIC SIGN DETAILS	8-30-82	A JULY 82
	ROAD STD.	STANDARD REINF. CONCRETE BOX CULVERTS		
	ROAD STD.	STANDARD REINF. CONCRETE CULVERTS		
	ROAD STD. SHEET GR	GUARD RAIL CLASS		
	ROAD STD. SHEET GR	GUARD RAIL CLASS		
38	ROAD STD. SHEET GR4	GUARD RAIL CLASS	*	R-4-2-84
39	ROAD STD. SHEET GR5	ALUMINUM GUARD RAIL DETAILS	5-21-82	R 4-1-82
40	ROAD STD. SHEET GR6	STEEL TUBE GUARD RAIL DETAILS	5-21-82	R 4-1-82
	ROAD STD. SHEET GR			
41	ROAD STD. SHEET GR1C	GUARD RAIL BURIED END		
42	ROAD STD. SHEET C82	TEMPORARY CONCRETE BARRIER	5-21-82	R 4-1-82
	ROAD STD.		*	R-6-1-84
	ROAD STD. SHEET T DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 1A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 1B DETOURS	STANDARD DETOUR SIGNS		
43	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS	4-10-84	R-2-1-84
44	ROAD STD. SHEET 2A DETOURS	STANDARD DETOUR SIGNS	4-10-84	R-2-1-84
45	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS	4-10-84	R-2-1-84
	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS		
46	ROAD STD. SHEET 4 DETOURS	STANDARD DETOUR SIGNS	12-8-83	R-10-3-83
47	ROAD STD. SHEET 5 DETOURS	STANDARD DETOUR SIGNS	4-10-84	R-2-1-84
	ROAD STD. SHEET 5A DETOURS	STANDARD DETOUR SIGNS		

* FHWA APPROVAL PENDING

APPROVED 9-1-83
CHIEF HIGHWAY ENGINEER—INDIANA DEPARTMENT OF HIGHWAYS

RECOMMENDED FOR APPROVAL 8-22-83
ENGINEER OF BRIDGE DESIGN, INDIANA DEPARTMENT OF HIGHWAYS

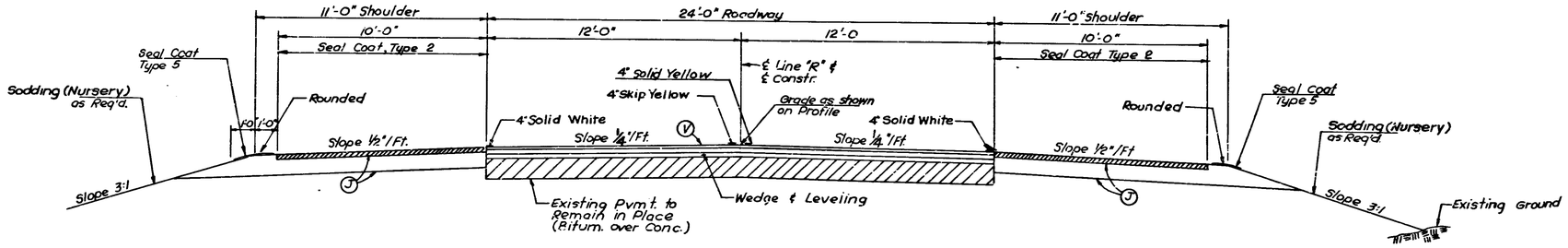
WILLIAM B. CODDO
No. 8040
STATE OF INDIANA
REGISTERED PROFESSIONAL ENGINEER

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
APPROVED:
DIVISION ADMINISTRATOR DATE

BRIDGE FILE: 50-36-6788

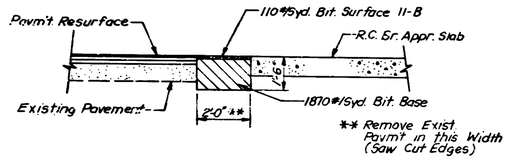
TP100

FEDERAL ROAD DESIGN NO.	STATE	PROJECT NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	IND.	M-X255(3)	1983	2	47



TYPICAL SECTION

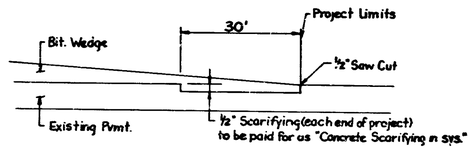
FROM STA. 483+40 TO STA. 485+77.44
FROM STA 486+63.56 TO STA. 489+50



** Remove Exist. Pavm't in this Width (Saw Cut Edges)

PAVEMENT RELIEF JOINT DETAIL

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



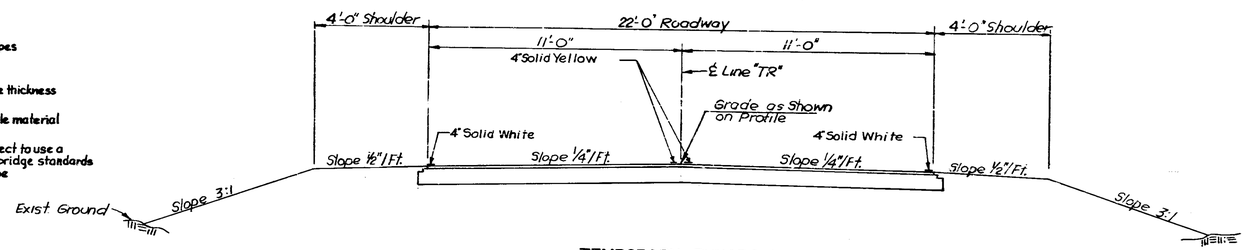
½" Scarifying (each end of project) to be paid for as "Concrete Scarifying in sys."

SCARIFICATION DETAIL

* NOTE: Unless otherwise specified the Contractor shall have the option of using either Hot Asphalt Concrete (H.A.C.) or Hot Asphalt Emulsion" (H.A.E.) on all Bituminous items except Surface

TEMPORARY PIPE STRUCTURE REQUIRED
Centerline Station 486+63
Pipes to be 60' min length
Total opening below EL. 567 to be 25 sq ft.
Opening to be provided by one or more pipes
Minimum pipe size to be 36"
Pipes to be Group "D" or better
See Special Provisions for minimum pipe thickness
Minimum pipe cover to be 2 ft.
Fill in stream to be clean, non-erodable material

As an alternate, the contractor may elect to use a temporary bridge in accordance with bridge standards TA and TB in lieu of the temporary pipe



TEMPORARY RUNAROUND

FROM STA. 9+66.75 "TR" TO STA 15+93.41 "TR"

** 110#/Syd. Hot A.C. Surface Type 11-B over 990#/Syd. Bituminous Base Type 5D

** The 110#/Syd. Bituminous Surface Type 11-B to be placed if Temporary Run-Around is to be in place over Winter

Ⓥ BITUMINOUS RESURFACE
* 110 #/Syd. Bitum. Surface H.A.C. Type 11-B
220 #/Syd Binder No 8 or No 9
330 #/Syd Bitum Base Avg. for Wedge and Leveling as required.

Ⓙ 330 #/Syd. Bitum. Base (Size No. 5-D) on 9" Type "O" Compacted Aggregate Base #53

TYPICAL CROSS SECTIONS

JULY 15, 1983

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

SOUTH GLADE CONSTRUCTION INC. No. 15350 STATE OF INDIANA PROFESSIONAL ENGINEER

Rev. 11-9-84 Scarification Detail, Temporary Pipe Structure note added

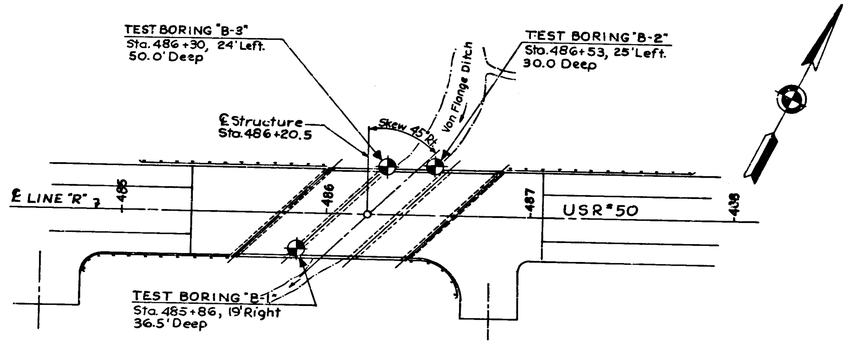
Rev. 3-22-84 TEMPORARY RUNAROUND ADDED

Contr. B-15132

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
M-X255(3)	R & TR	2	47	

TP110

1975



PLAN
Scale: 1"=30'-0"

BORING NO.	"B-1"	"B-2"	"B-3"
STATION	485+86	486+53	486+30
OFFSET	19' Right	25' Left	24' Left.
GROUND ELEV.	569.7	561.6	565.5

Sample Nº	Elev.	N	Description
	569.7		GROUND LEVEL
1	568.2	2-3-3	Brown moist loose to medium dense SANDY GRAVEL with rock fragments and some clay layers (fill) A-1-a
2	565.7	2-3-4	
3	563.2	5-7-6	
4	560.7 559.7	5-6-7	
5	558.2	4-6-8	Brown moist to very moist medium dense SANDY LOAM with trace rock fragments (possible fill) A-4
6	555.7 554.7	10-12-18 ▼	
7	553.2	8-10-12	Gray wet medium SAND A-1-b
8	550.7 549.7	7-11-14	
9	548.2	10-12-16	Brown wet medium dense SAND A-1-b
10	543.2	9-10-14	
11	538.2	10-13-16	
12	533.2	9-11-14	
			END OF BORING Depth of Boring - 36.5'

Sample Nº	Elev.	N	Description
	561.6		GROUND LEVEL
1	560.6	1-1	Black very moist very soft CLAY LOAM with fine sand layers and little organic matter A-6
2	559.1 559.1	2-2 ▼	Dark gray very moist very loose SANDY LOAM with trace organic matter A-2-4
3	557.6	2-3-4	Gray wet loose SAND A-3
4	555.1 554.1	4-5-5	
5	552.6 551.6	5-6-5	Gray wet medium dense SAND A-1-b
6	550.1 549.1	5-7-9	Dark brown wet medium dense SAND A-1-b
7	547.6	6-8-11	Brown and gray wet medium dense SAND A-1-b
8	545.1	8-10-13	
9	542.6	7-10-11	
10	540.1	9-12-16	
11	535.1	8-14-15	
12	531.6	8-10-12	
			END OF BORING Depth of Boring - 30.0'

Sample Nº	Elev.	N	Description
	565.5		GROUND LEVEL
1	564.0 563.0	2-2-3	Black, very moist, soft CLAY LOAM with some organic matter A-4
2	561.5 560.5	2-3-4	Brown and gray very moist, medium stiff CLAY A-4
3	559.0 558.0	2-3-3 ▼	Brown and gray wet, loose to medium dense SAND A-1-b
4	556.5 555.5	5-9-10	
5	554.0	4-6-8	Gray wet medium dense SAND A-1-b
6	551.5	5-7-9	
7	549.0	6-8-10	
8	546.5	5-7-8	
9	544.0	6-9-9	
10	539.0	7-9-11	
11	534.0 530.5	6---9	
12	529.0	6-9-10	Gray wet medium dense SAND A-3
13	524.0 520.5	10-12-16	
14	519.0	12-20-24	Gray wet dense to very dense SAND A-3
15	515.5	14-26-32	
			END OF BORING Depth of Boring - 50.0'

565
560
555
550
545
540
535
530
525
520
515

▼ Denotes Ground Water Table
N - Indicates the Number of Blows required to drive a 1⅜" I.D., 2" O.D. Split Spoon Sampler 6" by means of a 140# weight falling 30".

SOIL BORINGS
INDIANA DEPARTMENT OF HIGHWAYS
JACKSON COUNTY

SCALE: HORIZ: 1"= 30'-0"
VERT. 1"= 5'-0"

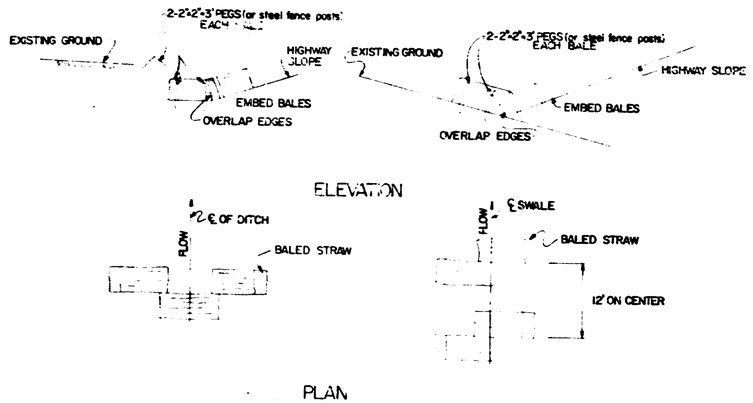
JULY 15, 1983

SHEET 3 OF 47

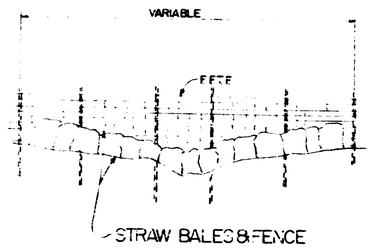
PROJECT:- M-X255( )
BRIDGE CONTRACT NO.:- 3-15132
BRIDGE FILE:- 50-36-6788

ROBERT C. DE CONDON
No. 15350
STATE OF INDIANA
PROFESSIONAL ENGINEER

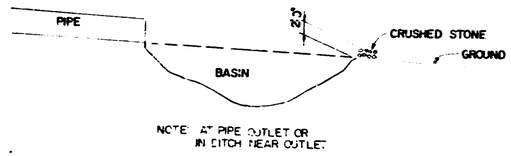
M-X 255(3) "R" 3 47



METHOD A



METHOD B



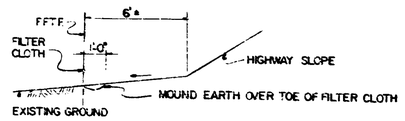
METHOD D

TABLE OF QUANTITIES

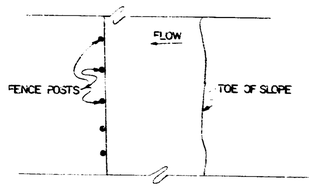
LOCATIONS	LEFT OR RIGHT	METHOD A	B	C	D	E
STATION TO STATION	FEET	BALES	LFT.	LFT.	EACH	BALES
485+63	41' LT.	6				
487+00	34' RT.	4				
487+65	43' LT.	6				
488+12	86' LT.	4				
488+40	34' RT.	4				
	TOTAL	24				

PAY ITEMS

METHOD A	"STRAW BALES IN PLACE"	EACH
METHOD B	"EROSION CONTROL METHOD B"	LIN.FT.
METHOD C	"EROSION CONTROL METHOD C"	LIN.FT
METHOD D	"EROSION CONTROL METHOD D"	EACH
METHOD E	"STRAW BALES IN PLACE"	EACH

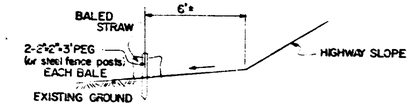


ELEVATION

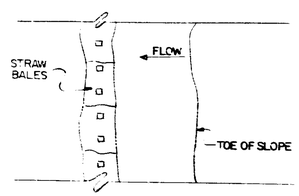


PLAN

METHOD C



ELEVATION



PLAN

METHOD E

DESIGNED ____ C.K.D.
DRAWN J.D.S.H. C.K.D.
TRACED ____ C.K.D.

Rev 6-6-79 Method D and E

EROSION CONTROL
INDIANA STATE HIGHWAY COMMISSION

SCALE

DATE JULY 15, 1983

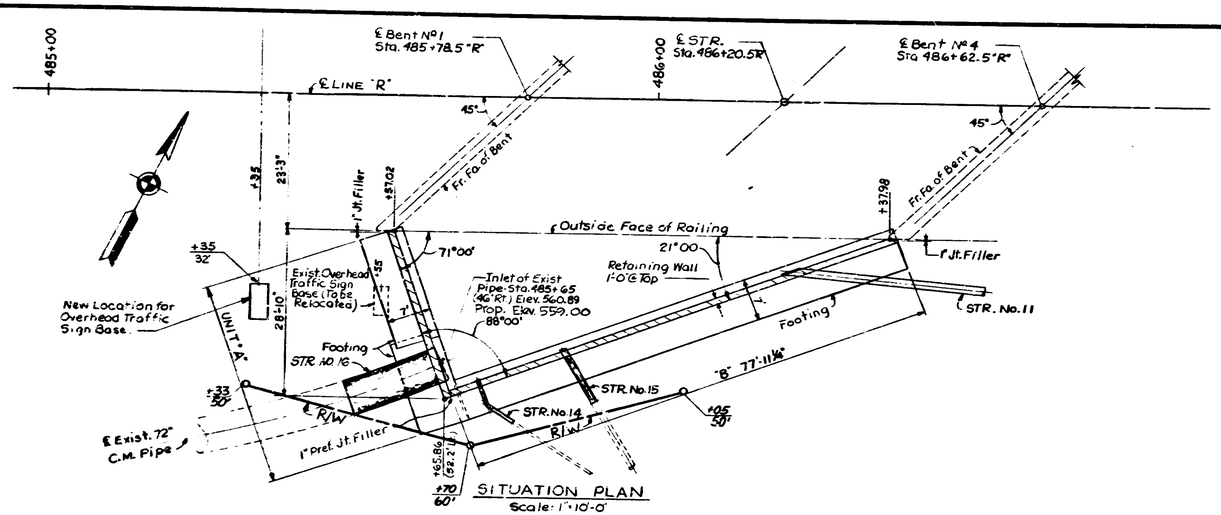
DRAWING NO. [illegible] SHEET NO. 4 OF 47

PROJECT M-X255(3)

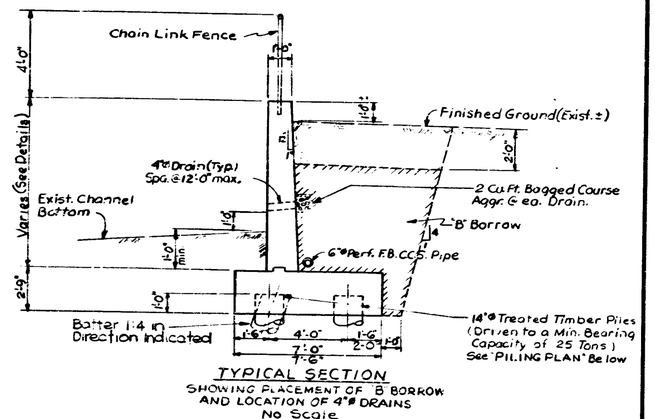
CONTRACT NO B-15732

BRIDGE FILE 50-36-6788

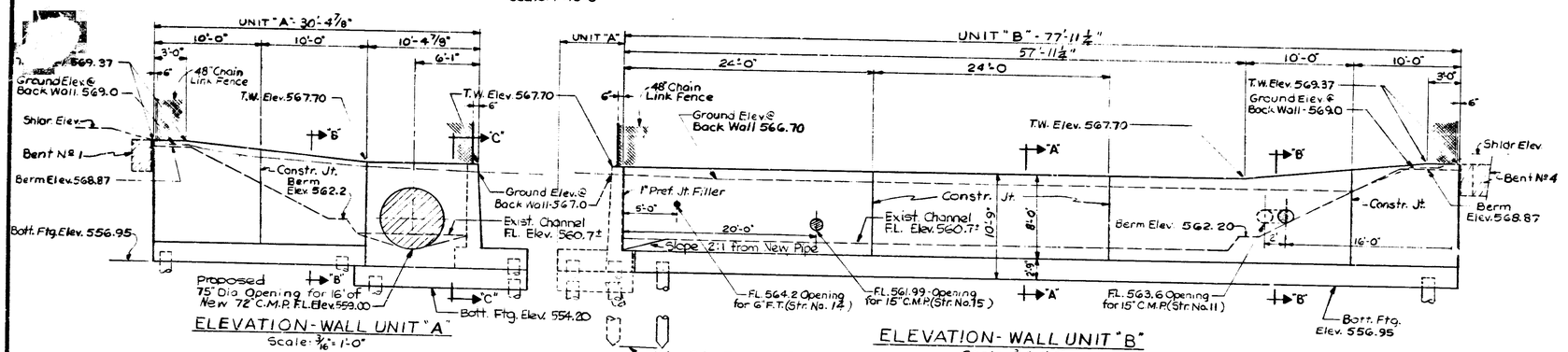
JUSTIN GLODE GONSER PENNSYLVANIA No. 15350 STATE OF INDIANA PROFESSIONAL ENGINEER



SITUATION PLAN
Scale: 1"=10'-0"

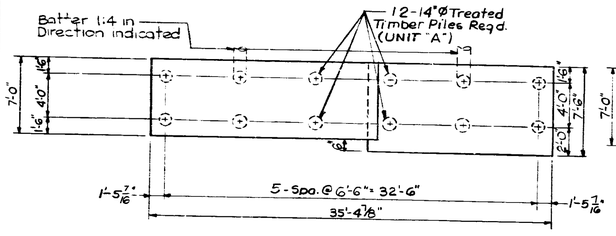


TYPICAL SECTION
SHOWING PLACEMENT OF "B" BORROW AND LOCATION OF 4"ø DRAINS
No Scale

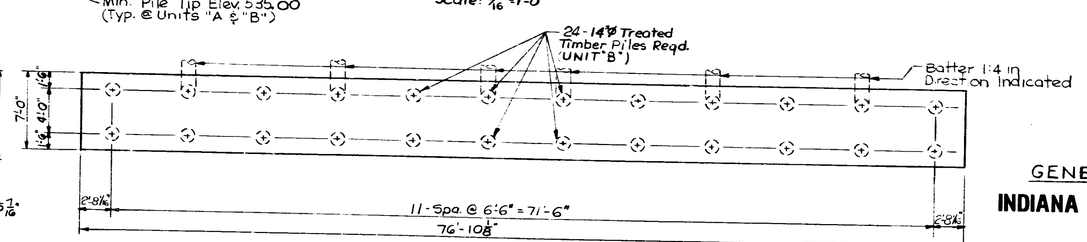


ELEVATION - WALL UNIT "A"
Scale: 3/16"=1'-0"

ELEVATION - WALL UNIT "B"
Scale: 3/16"=1'-0"



PILING PLAN - UNIT "A"
Scale: 3/16"=1'-0"



PILING PLAN - UNIT "B"
Scale: 3/16"=1'-0"

NOTES

Depth of Footing to be extended if found necessary. See Art. 206.11C of the specifications.
Reinforcing steel covering shall be 3 inches in footing except bottom steel which shall be 4 inches and 2 inches in all other parts unless noted.
All concrete to be Class "A".
Continuous concrete pours shall be required between construction joints as shown on detail plans.
For Reinforcing Bar Notes and bar bending details, see Br. Std. C1.
Chamfer exposed edges 1 inch unless noted.
Waterproof back of wall in accordance with Art. 702.2 of the specifications.
4"ø Drains to be placed as shown on plans. Cost of drains to be included in cost of concrete. Drains will not project beyond the face of wall.

For Pay Items covering these structures, see Sheet No 14 & No 15.

RETAINING WALL
GENERAL ARRANGEMENT PLAN

INDIANA DEPARTMENT OF HIGHWAYS

DESIGNED H.Y.P	CK'D J.G.C.		
DRAWN D.E.B	CK'D H.Y.P.		
TRACED	CK'D		

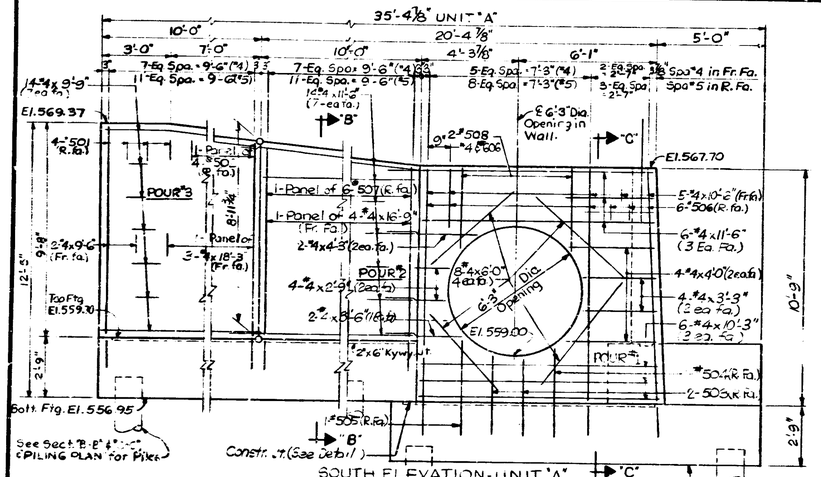
SCALE:- AS NOTED
DATE:- JULY 15, 1988

DRAWING:- OF SHEET:- 5 OF 47
PROJECT:- M-X-255(3)
CONTRACT NO. B-15132
BRIDGE FILE:- 50-36-6788

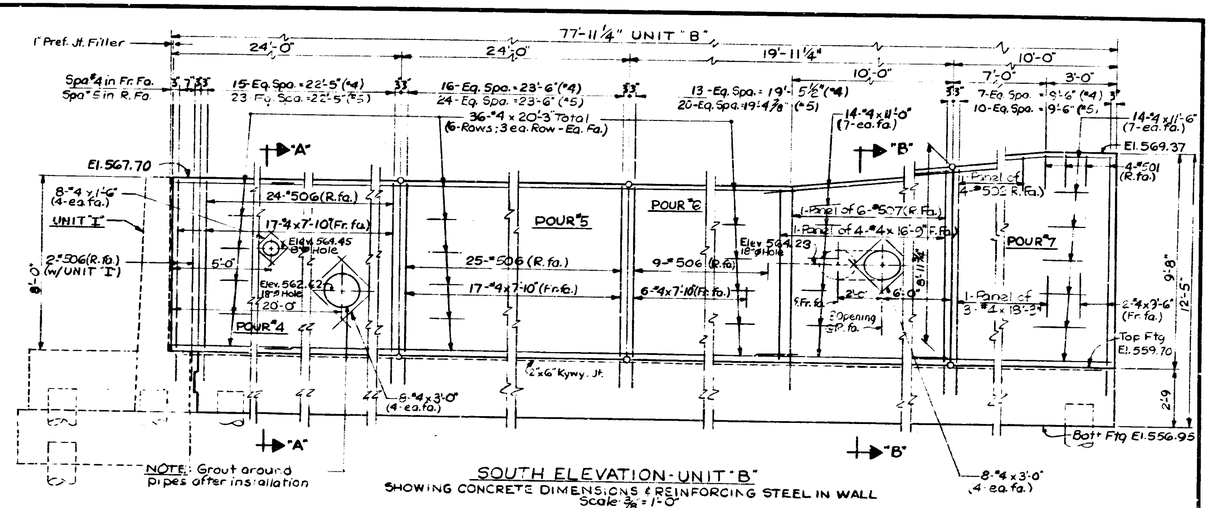
JUSTIN GLODE JOHNSON
No. 15350
STATE OF INDIANA
PROFESSIONAL ENGINEER

Rev. 11-9-84 R/W Plotted on Situation Plan

TP101

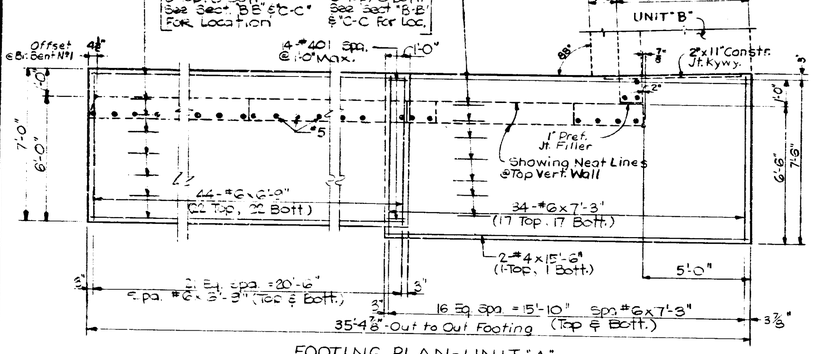


SOUTH ELEVATION-UNIT "A"
SHOWING CONCRETE DIMENSIONS & REINFORCING STEEL IN WALL
Scale: ⅜"=1'-0"

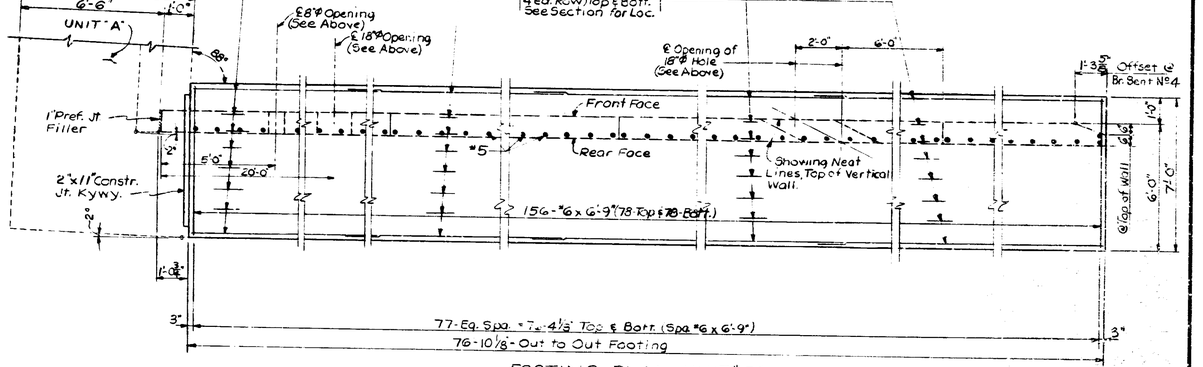


NOTE: Grout around pipes after installation

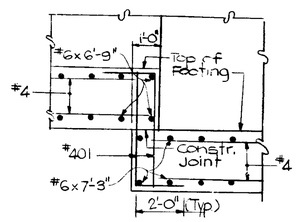
SOUTH ELEVATION-UNIT "B"
SHOWING CONCRETE DIMENSIONS & REINFORCING STEEL IN WALL
Scale: ⅜"=1'-0"



FOOTING PLAN-UNIT "A"
SHOWING CONCRETE DIMENSIONS & REINFORCING STEEL
Scale: ⅜"=1'-0"



FOOTING PLAN-UNIT "B"
SHOWING CONCRETE DIMENSIONS & REINFORCING STEEL
Scale: ⅜"=1'-0"



CHANGE IN FOOTING DETAIL
No Scale

NOTES:
See Br. Std. C1, for Reinforcing Bar Notes.
See Drwg. No. 5 for General Arrangement of Retaining Wall & "PILING PLAN."
See Drwg. No. 7 for Sections, Additional Details & Bill of Materials.
See Br. Std. C3, for Constr. & Expansion Joint Details

DESIGNED T.Y.P. C'K'D. J.G.C.
DRAWN J.B. C'K'D. H.Y.B.
TRACED C'K'D.

UNITS "A" & "B"
RETAINING WALL DETAILS

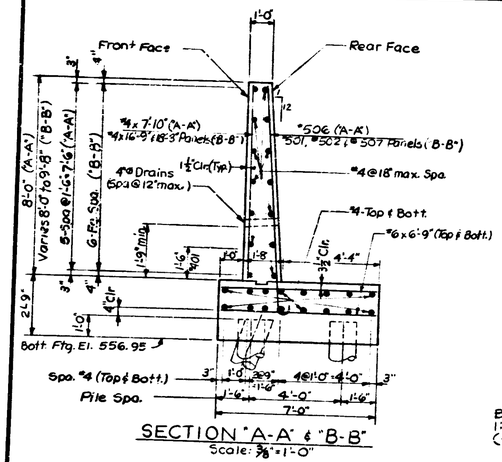
INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- AS NOTED
DATE:- JULY 15, 1988

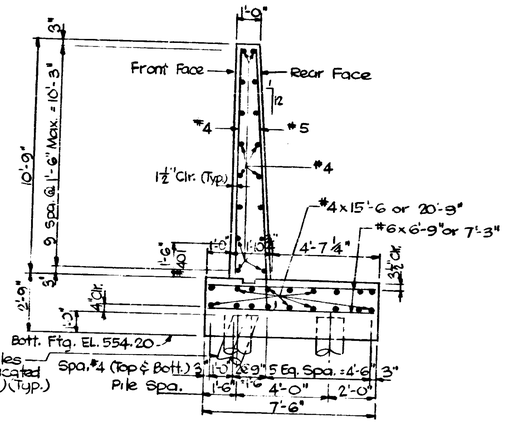
DRAWING:- OF SHEET:- 6 OF 47
PROJECT:- M-X-255(3)
CONTRACT NO. B-15132
BRIDGE FILE:- 50-36-6788

ARTHUR McGEE DAWSON No. 15650 REGISTERED PROFESSIONAL ENGINEER

TP101

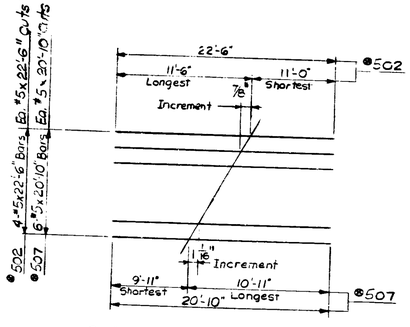


SECTION "A-A" & "B-B"
Scale: 3/8" = 1'-0"

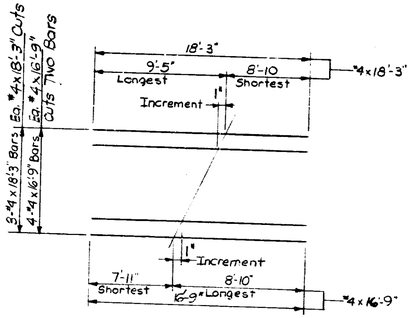


SECTION "C-C"
Scale 3/8" = 1'-0"

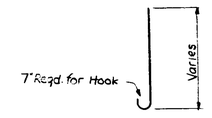
Batter Alternate Piles 1:4 in Direction Indicated (Front Piles Only) (Typ.)



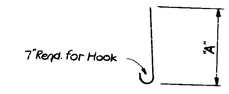
CUTTING DIAGRAM - #502 & #507
#Indicates Bars to be Bent (See Below)
No Scale



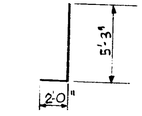
CUTTING DIAGRAM - #4 x 18'-3" & #4 x 16'-9"
No Scale



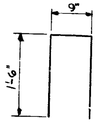
BENDING DIAGRAM - #502 & #507
No Scale



Mark & Size	"A"	Length
#501	11'-0"	11'-7"
#503	3'-6"	4'-1"
#504	4'-0"	4'-7"
#505	4'-8"	4'-10"
#506	11'-0"	11'-7"



#401 x 7'-3



#508 x 3'-9"

NOTES
See Br. Std. C1, for Reinforcing Bar Notes
See Br. Std. C3, for Construction & Expansion Joint Details
See Drwg. No. 5 for General Arrangement of Retaining Wall & "PILING PLAN"
See Drwg. No. 6 for Addition Information & Details

UNITS "A" & "B"
BILL OF MATERIALS

REINFORCING STEEL			
Mark & Size	No. of Bars	Length	Weight (Lbs.)
#6	34	7'-3"	
#6	200	6'-9"	
		TOTAL #6	2338
#501		11'-7"	
#502		22'-5"	
#503		4'-1"	
#504		4'-7"	
#505		4'-10"	
#506	66	11'-7"	
#507	100	20'-9"	
#508		7'-9"	
		TOTAL #5	1367
#401	14	7'-2"	
#4	20	20'-3"	
#4	20	20'-3"	
#4		18'-3"	
#4		16'-9"	
#4		15'-6"	
#4		11'-0"	
#4		10'-0"	
#4		10'-0"	
#4		9'-0"	
#4		8'-0"	
#4	40	7'-6"	
#4		6'-0"	
#4		4'-7"	
#4		4'-0"	
#4		3'-6"	
#4	16	2'-0"	
#4	8	1'-6"	
		Total #4	2869
Total Reinforcing Steel			6653

CONCRETE	
Class "A" Concrete above Footing	
Pour #1	4.7 Cys.
Pour #2	4.7 Cys.
Pour #3	4.7 Cys.
Pour #4	9.5 Cys.
Pour #5	9.5 Cys.
Pour #6	9.5 Cys.
Pour #7	2.2 Cys.
Total Class "A" Concrete above Footing	43.9 Cys.
Class "A" Concrete in Footing	
Unit "A"	26.7 Cys.
Unit "B"	54.8 Cys.
Total Class "A" Concrete	125.4 Cys.

MISCELLANEOUS	
"B" Borrow	176 Cys.
Chain Link Fence	107 3 L.F.
14" ø Treated Timber Piles 36' & 42' Req'd.	1512 L.F.

UNITS "A" & "B"
RETAINING WALL DETAILS
& BILL OF MATERIALS
INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- AS NOTED
DATE:- JULY 15, 1983

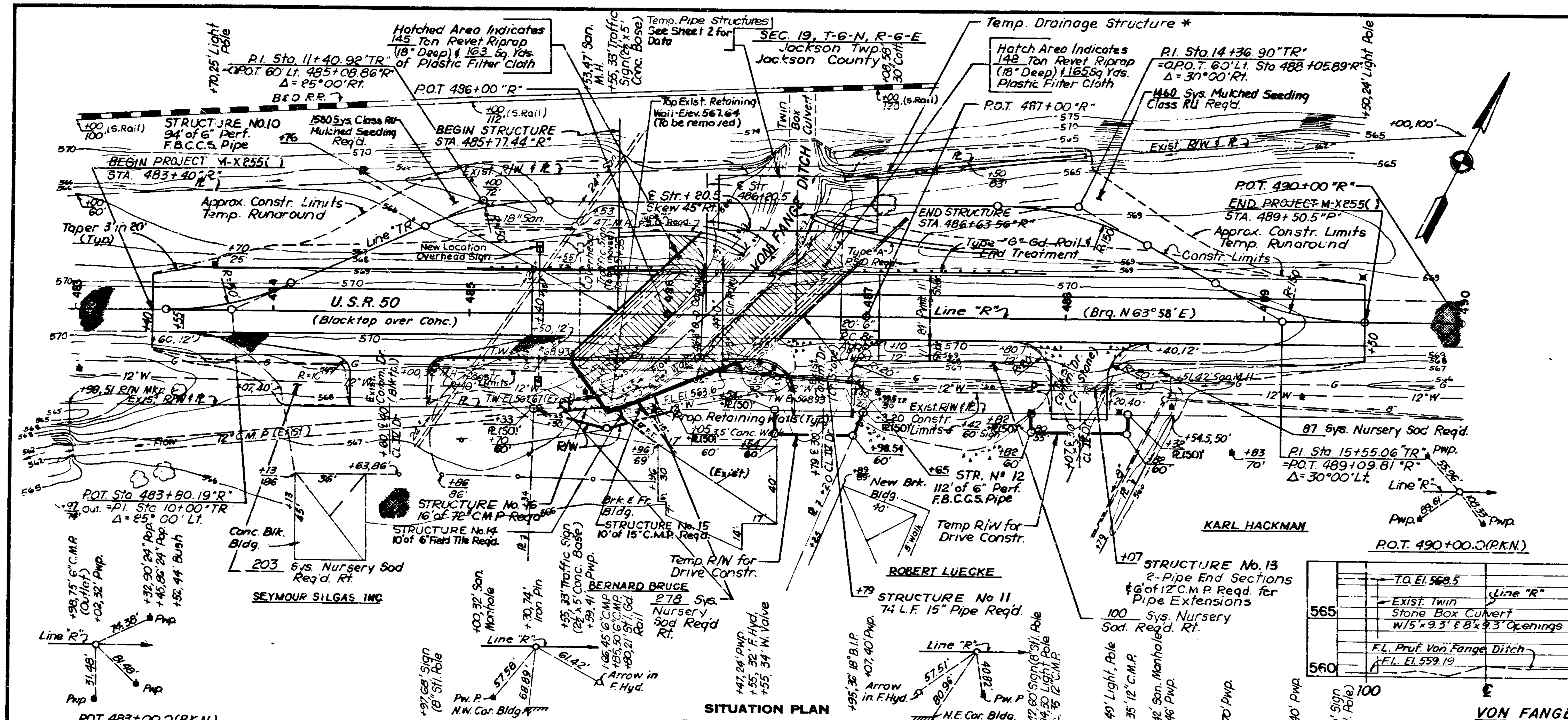
DESIGNED H.Y.P CK'D J.G.C
DRAWN D.E.B CK'D H.Y.P.
TRACED CK'D

DRAWING:- OF SHEET:- 7 OF 47
PROJECT:- M-X-255(3)
CONTRACT NO. B-15132
BRIDGE FILE:- 50-36-6788

STATE OF INDIANA — No. 15350 — REGISTERED PROFESSIONAL ENGINEER

Rev. 11-9-84 Piles in Bill of Matls

TP101



PRESENT STRUCTURE

R.C. Girder 1 @ 28 Sk. 45° R with 24'-0" Cl. Rdwy. width widened to 39'-8" with P.C. B's.

UTILITY OWNERS

Public Service, Indiana
1000 East Main
Plainfield, Indiana 46168

Continental Telephone System
909 North Chestnut Street
Seymour, Indiana 47274

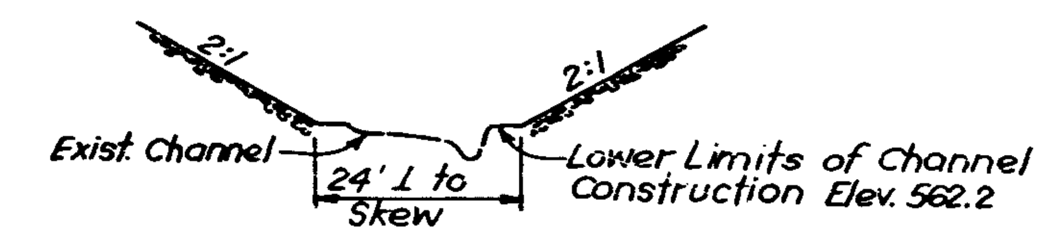
Indiana Gas Company
1630 N Meridian Street
Indianapolis, Indiana 46202

Seymour Water Co.
114 S. Chesnut St. Seymour, Ind.

Sanitary Sewer Department
City Hall, 220 N. Chestnut
Seymour, Indiana 47274

PAVED TEMPORARY RUNAROUND REQUIRED

See Sheet Nº 2 for Typ. Sect.
See sheet Nº 8 for Profile Grade
See Rd. Std. MI, for additional details
Clear Rdwy. width to be 28 ft. if Temp. Structure is used.

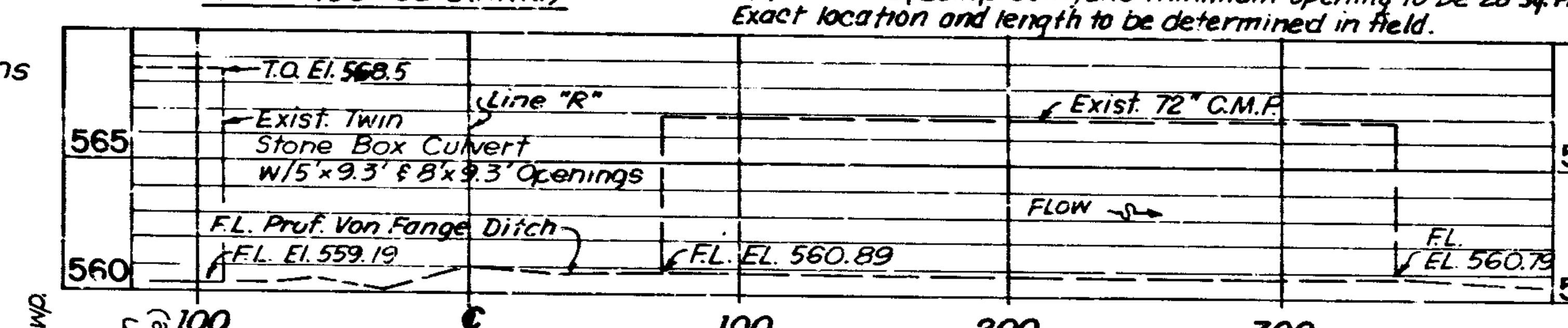


TYPICAL CHANNEL SECTION
No Scale

NOTES

For Typical Cross Section, See Sheet No. 2

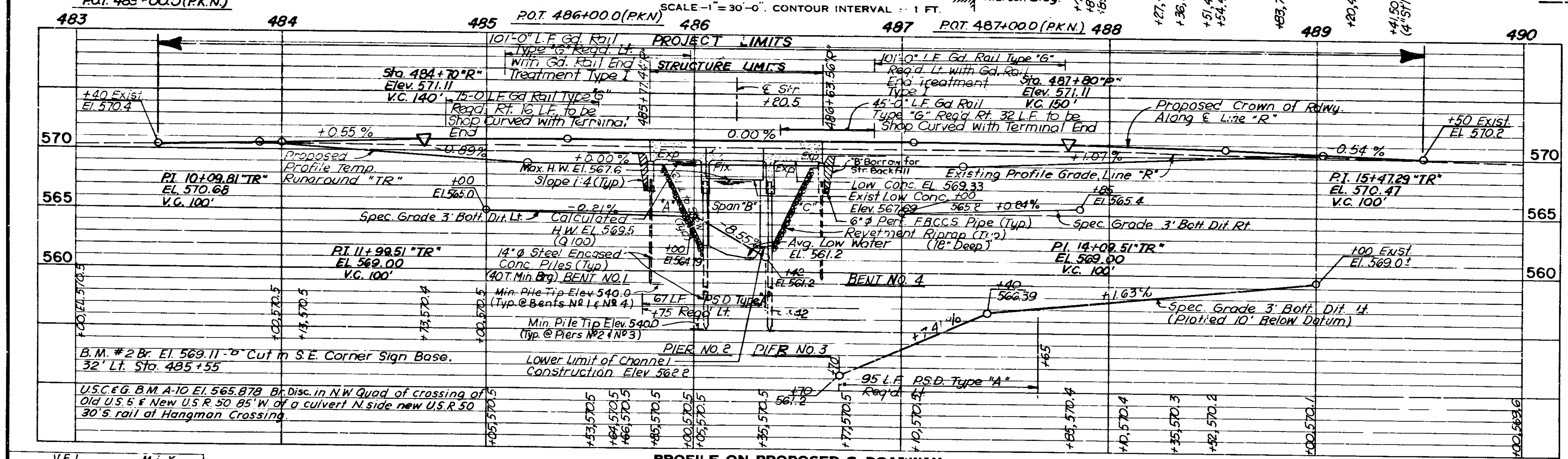
* To be removed with temp. runaround and cost will be included in the cost of temp. Pipe and approaches (Lump Sum) and minimum opening to be 28 Sq. Ft. Exact location and length to be determined in field.



VON FANGE DITCH PROFILE

DESIGN FLOOD DATA

DRAINAGE AREA	2.3 Sq. Mi.
MAGNITUDE	1700 Cfs.
VELOCITY	6.0 Ft./Sec.
FREQUENCY	100 Yr. Storm
AREA REQ'D. BELOW EL. 569.5	280 SQ. FT.
AREA PROVIDED	316 SQ. FT.
FREE BOARD	0 FT.



PROFILE ON PROPOSED ℄ ROADWAY
SCALES: HORIZ. 1" = 30'-0" VERT. 1" = 5'-0"

NOTE: FIELD NOTES, BOOK BR-2349

DRAWN V.E.L. CKD. M.L.K.
DESIGNED H.Y.P. CKD. J.G.C.
TRACED CKD.

Rev. 12-18-84 Notes revised
Rev. 11-13-84 Nursery Sod deleted. Temporary Runaround note added
REV. 3-13-84 R/W COORDINATES NOTES
REV. 2-13-84 BRG. LINE "R"

1977

TP117

LAYOUT
CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE

3-SPAN 26'-3", 31'-6", 26'-3" — SKEW 45°00' RT.
ONE 44'-0" ROADWAY, 1'-3" COPINGS — 46'-6" O-O COPINGS
OVER VON FANGE DITCH — ON U.S. 50

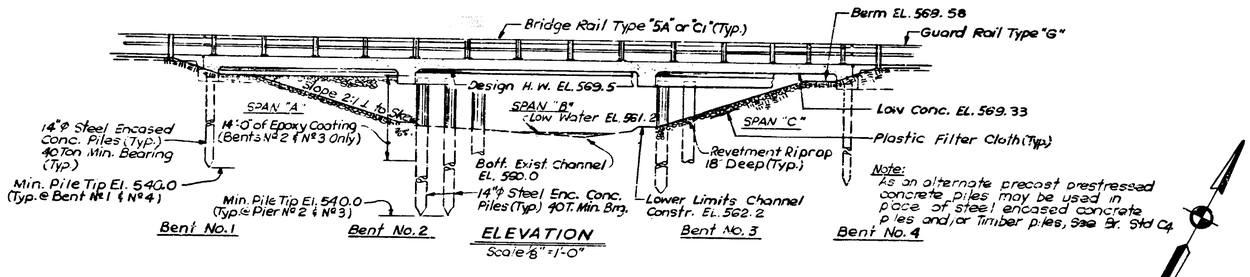
INDIANA DEPARTMENT OF HIGHWAYS
JACKSON COUNTY

SCALE:– AS NOTED — DATE:– JULY 15, 1983

DRAWING C1 OF C5 — SHEET 3 OF 47
PROJECT:– M X255(3) — STATION:– 486+20.5
BRIDGE CONTRACT NO. B-
BRIDGE FILE:- 50-3- 6788

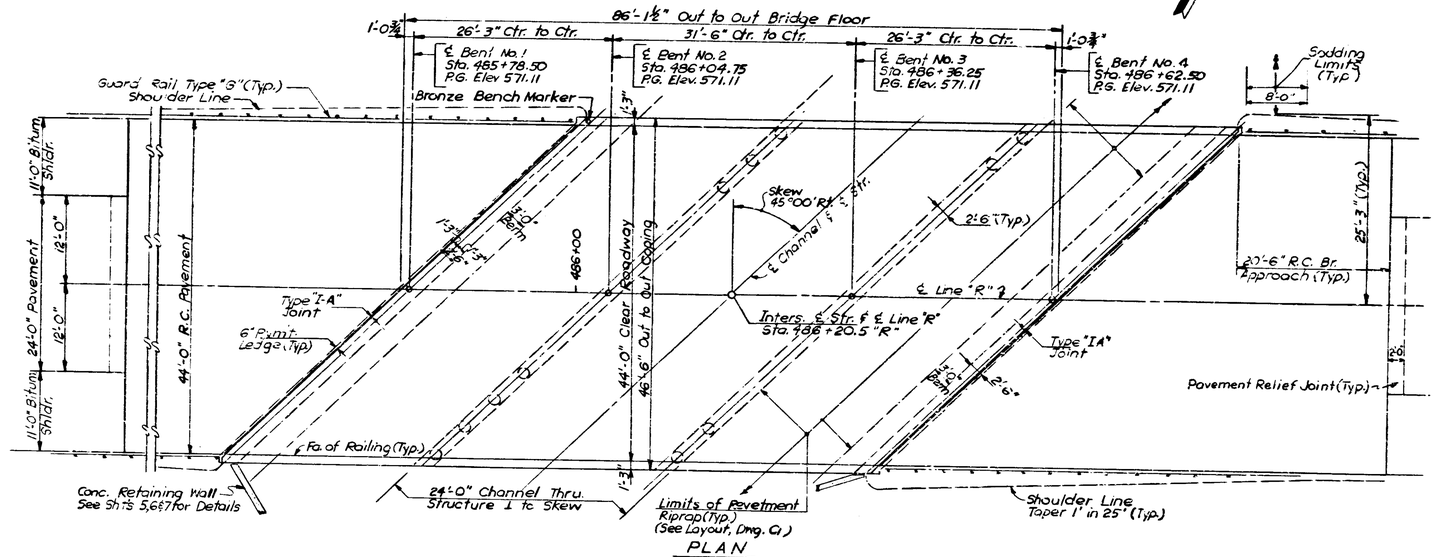
JUSTIN CLEDE CONGER — No. 15350 — STATE OF — PROFESSIONAL ENGINEER

STRUCTURE TO BE BUILT TO A 0.00% GRADE

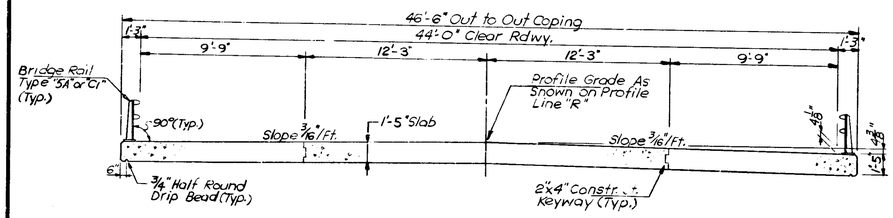


ELEVATION
Scale: 1/8" = 1'-0"

Note: As an alternate precast prestressed concrete piles may be used in place of steel encased concrete piles and/or Timber piles, See Br. Std C4



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



TYPICAL SECTION ⊥ TO ℄ ROADWAY
Scale: ¼" = 1'-0"

DESIGNED	H.Y.P.	C'K'D	J.G.C.
DRAWN	M.L.K.	C'K'D	J.G.C.
TRACED		C'K'D	

Rev. 11-13-84 Depth of Epoxy Coating, Notes, Std. Drawings

DESIGN DATA

Designed for HS 20-44 loading in accordance with 1977 AASHTO Specifications and Interim Specifications.

TYPICAL CROSS SECTIONS

For Typical Roadway Section, See Sheet No. 2

GENERAL NOTES

Existing Reinf. Conc. Girder Bridge & Proposed Bridge 31'-8" to be removed.

Piles shall be driven to elevation shown on plans or below if necessary to obtain minimum bearing value shown on detail drawings. Determine pile lengths by Art. 701 of the Specifications.

For details of steel encased concrete piles, See Bridge Standard C1, and applicable articles in the Specifications.

Reinforcing steel covering shall be 2½" inches in top and 1" inch min. in bottom of floor slabs and 2" inches in all other parts, unless noted.

Concrete in superstructure, to be Class "C".

Concrete in Paved side ditches and Steel Encased concrete piles to be class "A".

Continuous concrete pours shall be required between construction joints as shown on detail plans. Tolerance in position of pile head maximum 2" inches.

Chamfer exposed edges 1 inch unless noted.

Construct Riprap at locations shown on Layout. Only the face of deck coping, top of the deck, and 7" of the underside of the bridge slab from coping to drip bead are to be surface sealed.

Prestressed Concrete Piles may be used as Alternates. See Bridge Std. C4.

STANDARD DRAWINGS

BRIDGE	ROAD	PURPOSE
BR-1		Aluminum bridge railing
BR-2		Aluminum railing details
BR-3		Steel bridge railing
BR-4		Steel railing details
C-1		Reinforcing notes and bending details & Pile splices
C-3		Constr. Joint Details
S-1		Placing "B" Borrow
	MA	R.C. Bridge Approach
	ME-2	Pipe End Sections
	MH 1	Private Drives
	MH 2	Private and Commercial Drives
	MP	Pipe Classifications
	GR 4	Guard Rail Type "GA" or "GST"
	GR 5	Aluminum Guard Rail Details
	GR 6	Steel Tube Guard Rail Details
	A	Wire Mesh
	SR 10	Guard Rail Buried Ends
	CB 2	Temp. Concrete Barrier
	MB	Paved Side Ditch 3' Bottom Ditch
	MT 3	Traffic Sign Schedule
C-4		Pile Alternates

STANDARD DRAWINGS (CONT'D)

BRIDGE	ROAD	PURPOSE
	2	Standard Detour Signs
	2A	Standard Detour Signs
	3	Standard Detour Signs
	4	Standard Detour Signs
	5	Standard Detour Signs
TA		Std. Temporary Bridge
TB		Std. Temporary Bridge

GENERAL PLAN

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE

3-SPAN 26'-3", 31'-6", 26'-3" ONE 44'-0" ROADWAY, 1'-3" COPINGS OVER VON FANGE DITCH

SKEW 45°00' RT. 46'-6" O.-O. COPINGS ON U.S. 50

INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- AS NOTED DATE:- JULY 15, 1983

DRAWING:- C2 OF C5 SHEET:- 9 OF 47

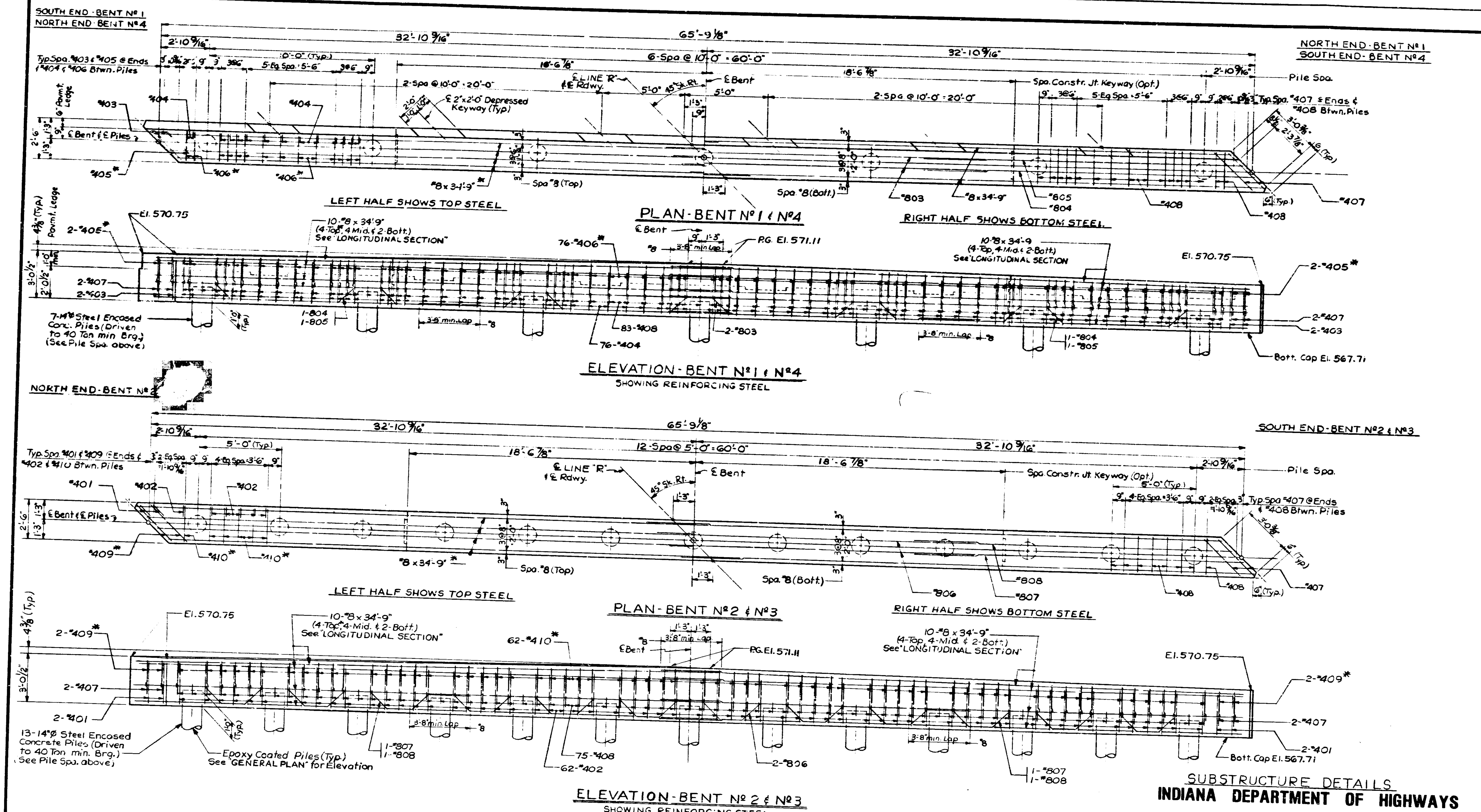
PROJECT:- M-X 255(3)

CONTRACT NO. B-15132

BRIDGE FILE:- 50-36-6788

JOHN G. DE CONCINI No. 15350 STATE OF INDIANA PROFESSIONAL ENGINEER

TP101



NOTES:
For Reinforcing Bar Notes, see Br. Std. C1
For Section of Bents, see Drwg. C5
For Bill of Materials & Details, see Drwg. C5
* Notes Epoxy Coated Reinf. Steel

DESIGNED H.Y.P.	CK'D J.G.C.		
DRAWN D.E.B.	CK'D H.Y.P.		
TRACED	CK'D		

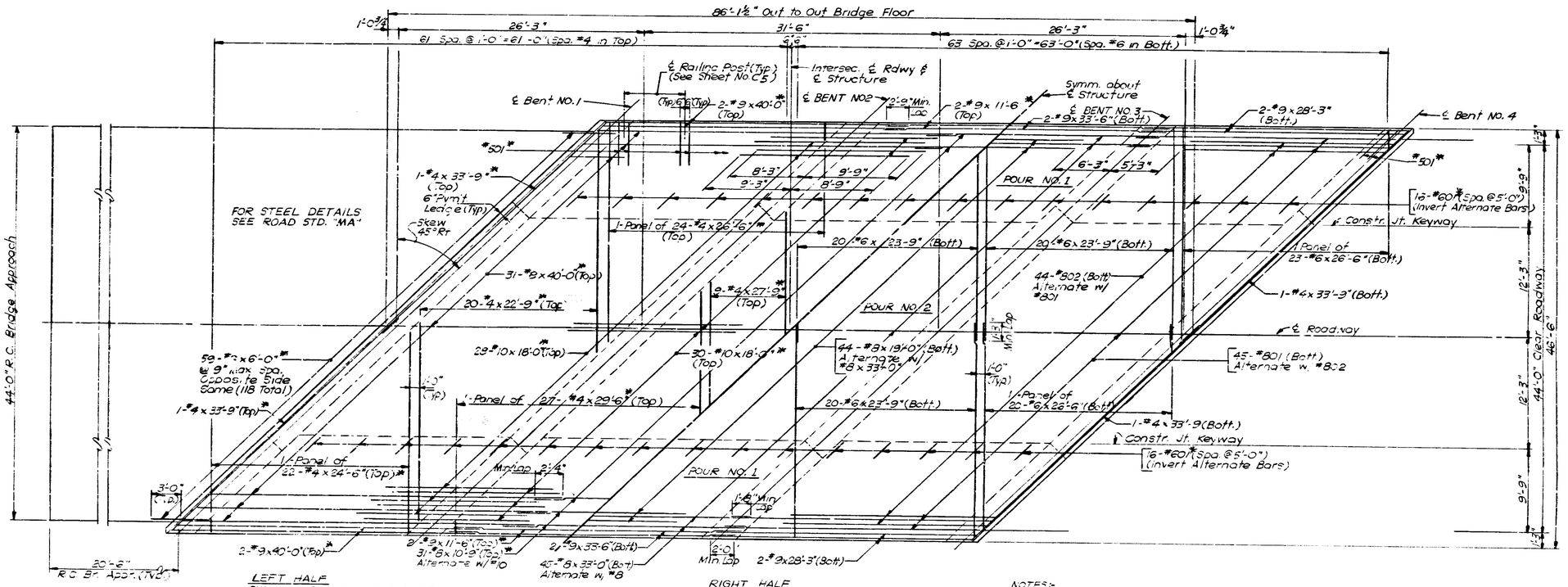
SUBSTRUCTURE DETAILS
INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- 3/8" = 1'-0" DATE:- JULY 15, 1983

DRAWING:- C3 OF C5 SHEET:- 10 OF 47
PROJECT:- M-X 255(3)
CONTRACT NO. B-15132
BRIDGE FILE:- 50-36-6788

No. 15350

TP101



NOTES:-

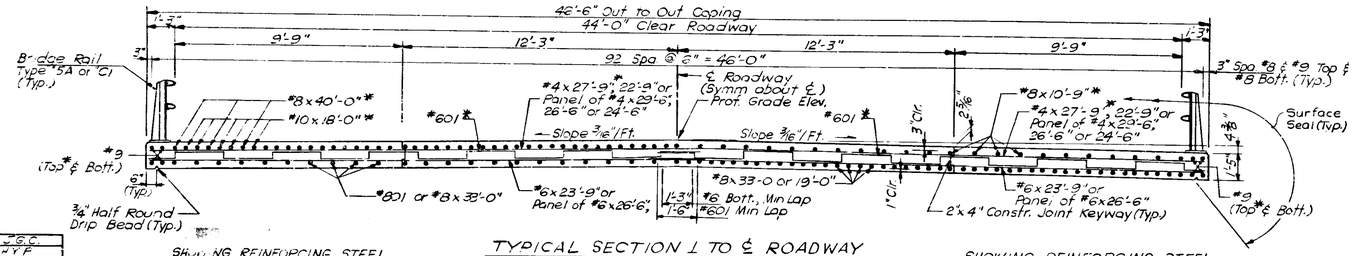
The top reinforcing in the deck shall be securely tied down to the deck forms to prevent lifting during concrete placement. See Br. Std. C for Reinforcing Bar Notes. The 2"x4" Constr. Joint Keyways may be eliminated subject to the approval of the Engineer.

* Denotes Epoxy Coated Reinforcing Steel

DESIGN DATA

Reinforced Concrete f'c
Unit Stresses: fs = 20,000 p.s.i. ; fc = 1200 p.s.i.
Live Load: HS 20-44 with impact and distribution of loads in accordance with 1977 A.A.S.H.T.O. Specifications and AASHTO Interim Specifications.
Dead Load: Increased 35 #/Sq. ft. for roadway for Future Wearing Surface.

Maximum Dead Load Deflection:-
Span A or C = 3/16"
Span B = 7/16"



SHOWING REINFORCING STEEL AT BENTS NO. 2 & NO. 3

TYPICAL SECTION ⊥ TO ℄ ROADWAY
Scale 3/8" = 1'-0"

SHOWING REINFORCING STEEL AT MIDSPAN

Rev. 11-13-84 EC bars denoted

DESIGNED HYP C'K'D J.G.C.
DRAWN M.L.K C'K'D J.Y.P
TRACED C'K'D

SUPERSTRUCTURE DETAILS

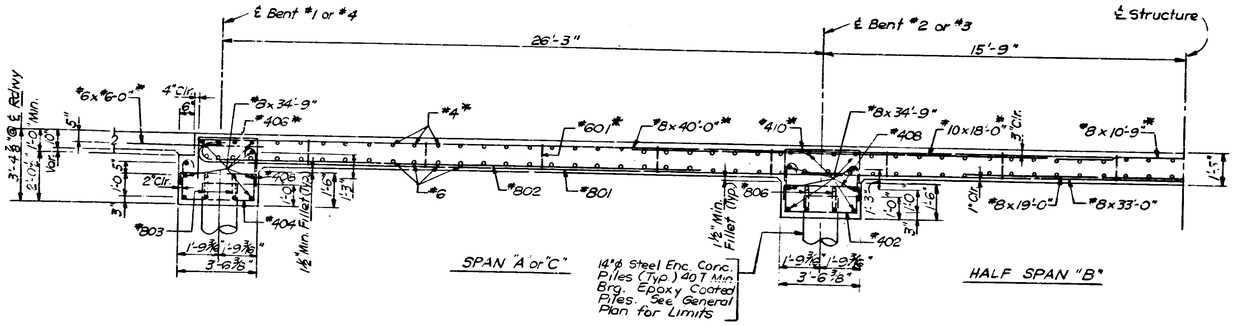
INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- AS NOTED DATE:- JULY 15, 1988

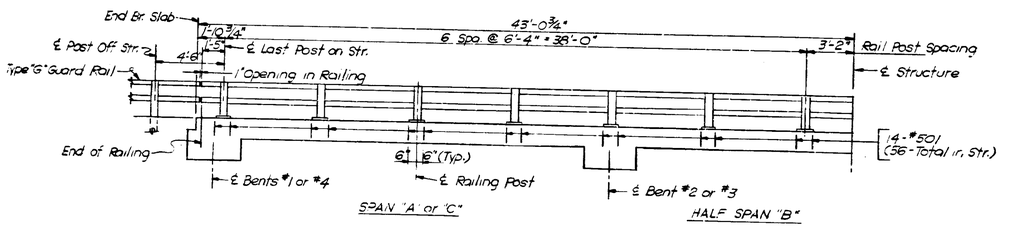
DRAWING:- C4 OF C5 SHEET:- 11 OF 47
PROJECT:- M-X 255 (3)
CONTRACT NO. B-15132
BRIDGE FILE:- 50-36-6788

JOSEPH G. CHASE CONSULTING ENGINEER No. 15350 STATE OF INDIANA PROFESSIONAL ENGINEER

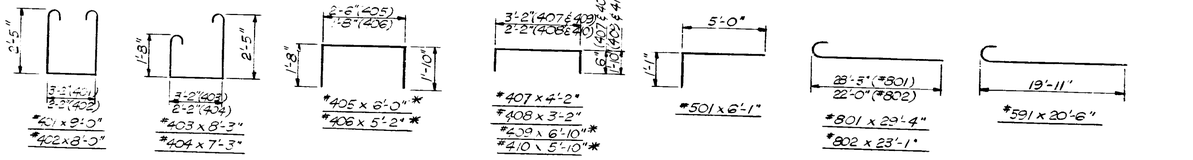
TP101

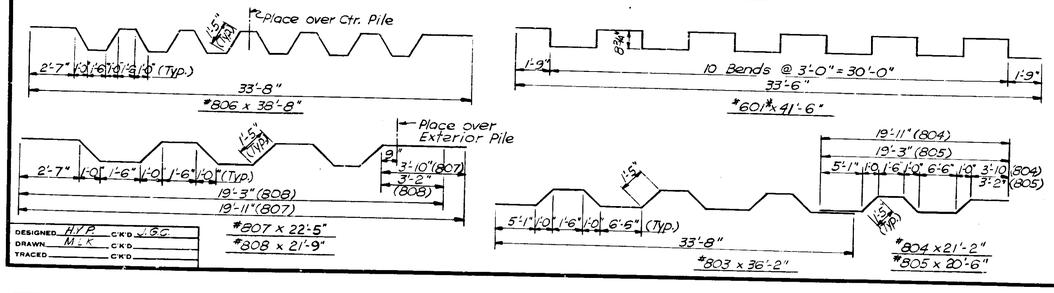


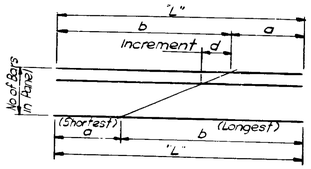
HALF LONGITUDINAL SECTION
Scale ⅜" = 1'-0"



HALF ELEVATION
Scale ¼" = 1'-0"

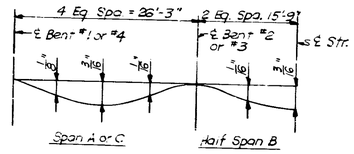






CUTTING DIAGRAM

Bar Size	No Bars in Panel	a	b	"L"	d
#6	20	3'-0"	22'-9"	26'-6"	1'-0"
#6	23	2'-3"	24'-3"	26'-6"	1'-0"
#4 *	27	1'-9"	27'-9"	29'-6"	1'-0"
#4 *	24	1'-9"	24'-9"	26'-6"	1'-0"
#4 *	22	1'-9"	22'-9"	24'-6"	1'-0"



DEAD LOAD DEFLECTION DIAGRAM
No Scale

BILL OF MATERIALS

MISCELLANEOUS

Railing, Type SA or C1	170.3 L.F.
14"ϕ 7Ga. St'l. Encased Concrete Piles	
Bents No 1 & No 4.	
7-14"ϕ 7Ga. St'l. Enc. Conc. Piles @ 44'ea.	616 L.F.
Bents No 2 & No 3	
13-14"ϕ Piles Epoxy Coated @ 14'ea.	
Bent	364 L.F.
13-14"ϕ Piles @ 30'ea. Bent	780 L.F.
Surface Seal	4203 Sft.

BILL OF MATERIALS
(R.C. Bridge Approaches)

REINFORCING STEEL

Mark & Size	No. of Bars	Length	Weight (lbs)
#591	176	20'-6"	
#5	44	31'-9"	
	Total #5		5220

Total Reinforcing Steel	5220

MISCELLANEOUS

10" R.C. Pavement	444.0 Sys.

BILL OF MATERIALS

REINFORCING STEEL

Mark & Size	No. of Bars	Length	Weight (lbs)
#10 *	116	18'-0"	8985 *
#9 *	8	40'-0"	
#9	4	33'-6"	
#9	8	28'-3"	
#9 *	4	11'-6"	
Total #9			1224
* Total Epoxy Coated #9			1244 *
#801	90	29'-4"	
#802	88	23'-1"	
#803	4	36'-2"	
#804	4	21'-2"	
#805	4	20'-6"	
#806	4	38'-8"	
#807	4	22'-5"	
#808	4	21'-9"	
#8 *	22	40'-0"	
#8	48	34'-9"	
#8 *	32	34'-3"	
#8	45	33'-0"	
#8	44	19'-3"	
#8 *	31	10'-9"	
Total #8			24839
* Total Epoxy Coated #8			10480 *
#601 *	32	41'-6"	
#6	43	26'-6"	
#6	120	23'-9"	
#6 *	118	6'-0"	
Total #6			5992
* Total Epoxy Coated #6			3058 *
#501 *	56	6'-1"	355 *
#401	8	9'-5"	
#402	124	8'-5"	
#403	8	8'-3"	
#404	152	7'-3"	
#405 *	8	6'-0"	
#406 *	152	5'-2"	
#407	16	4'-2"	
#408	316	3'-2"	
#409 *	8	6'-10"	
#410 *	124	5'-10"	
#4	4	33'-9"	
#4 *	4	33'-9"	
#4 *	27	29'-6"	
#4 *	18	27'-9"	
#4 *	24	26'-6"	
#4 *	22	24'-6"	
#4 *	40	22'-9"	
Total #4			2294
* Total Epoxy Coated #4			2425 *
Total Reinforcing Steel			34349
* Total Epoxy Coated Steel			27547 *

CONCRETE

Class "C" Concrete in Superstructure	
Pour No 1 Lt.	56.5 Cyd.
Pour No 1 Rt.	58.5 Cyd.
Pour No 2	137.8 Cyd.
Total Class "C" Concrete	254.8 Cyd.

* Denotes Epoxy Coated Reinforcing Steel

SUPERSTRUCTURE DETAILS

INDIANA DEPARTMENT OF HIGHWAYS

SCALE:- AS NOTED DATE:- JULY 15, 1983

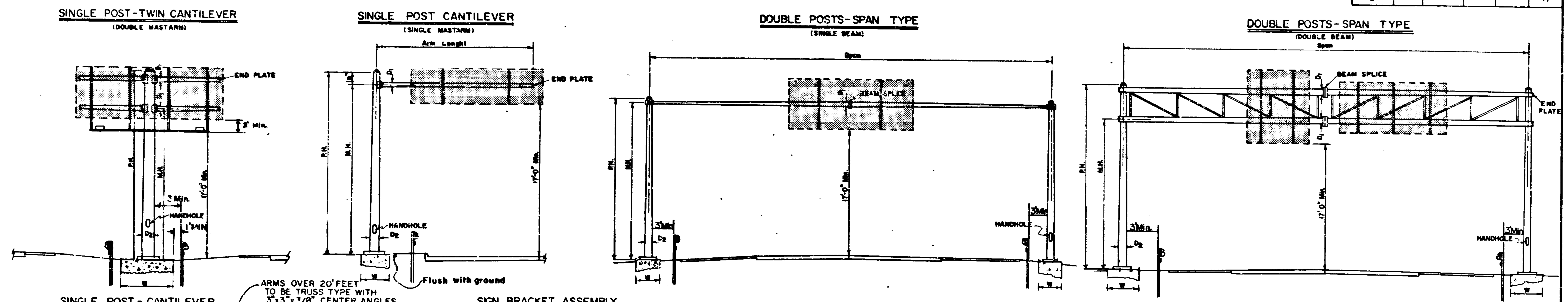
DRAWING:- C5 OF C5 SHEET:- 12 OF 47
PROJECT:- M-X 255(3)
CONTRACT NO. B-15132
BRIDGE FILE:- 50-36-6788

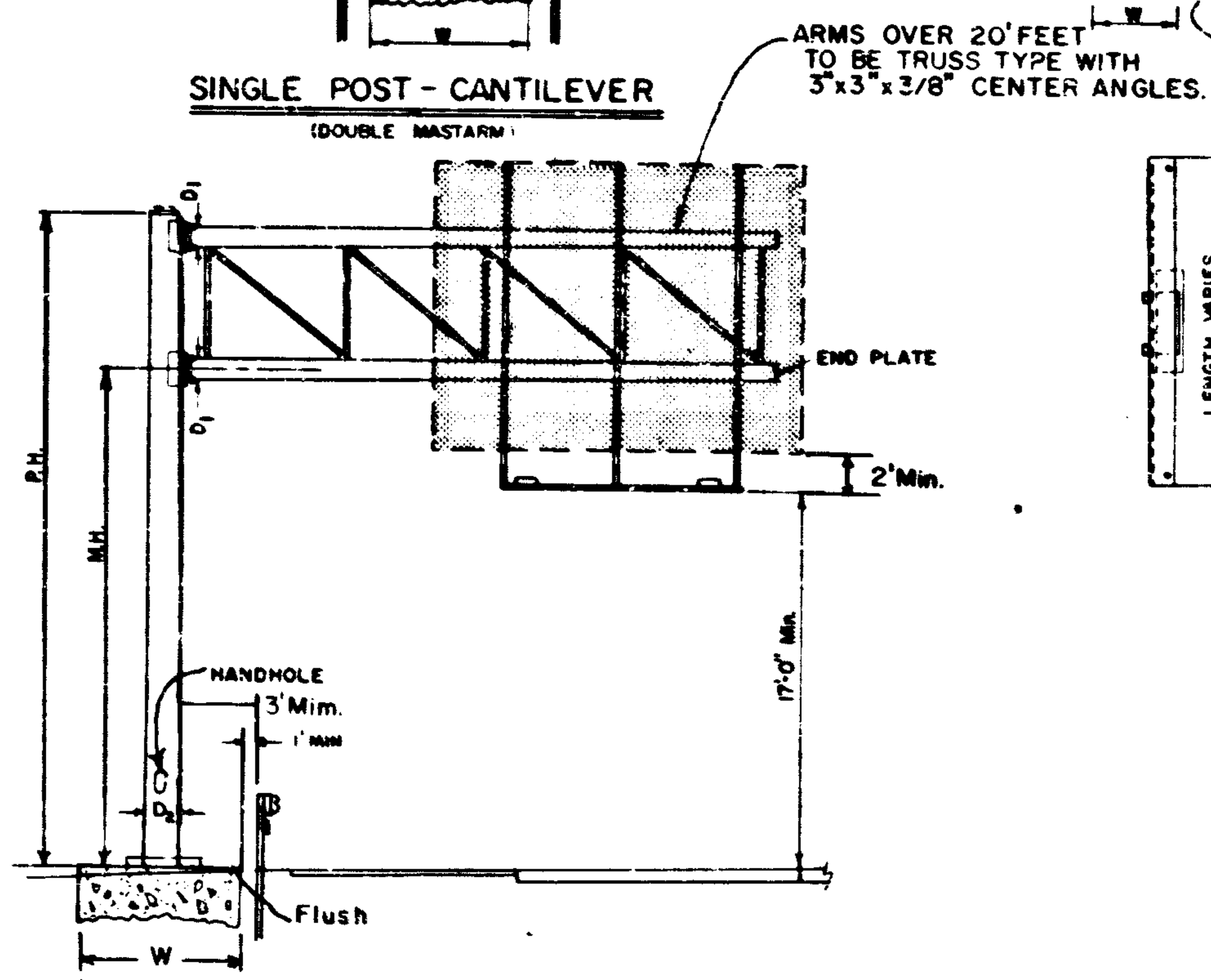
STATE OF INDIANA No. 15159 REGISTERED PROFESSIONAL ENGINEER

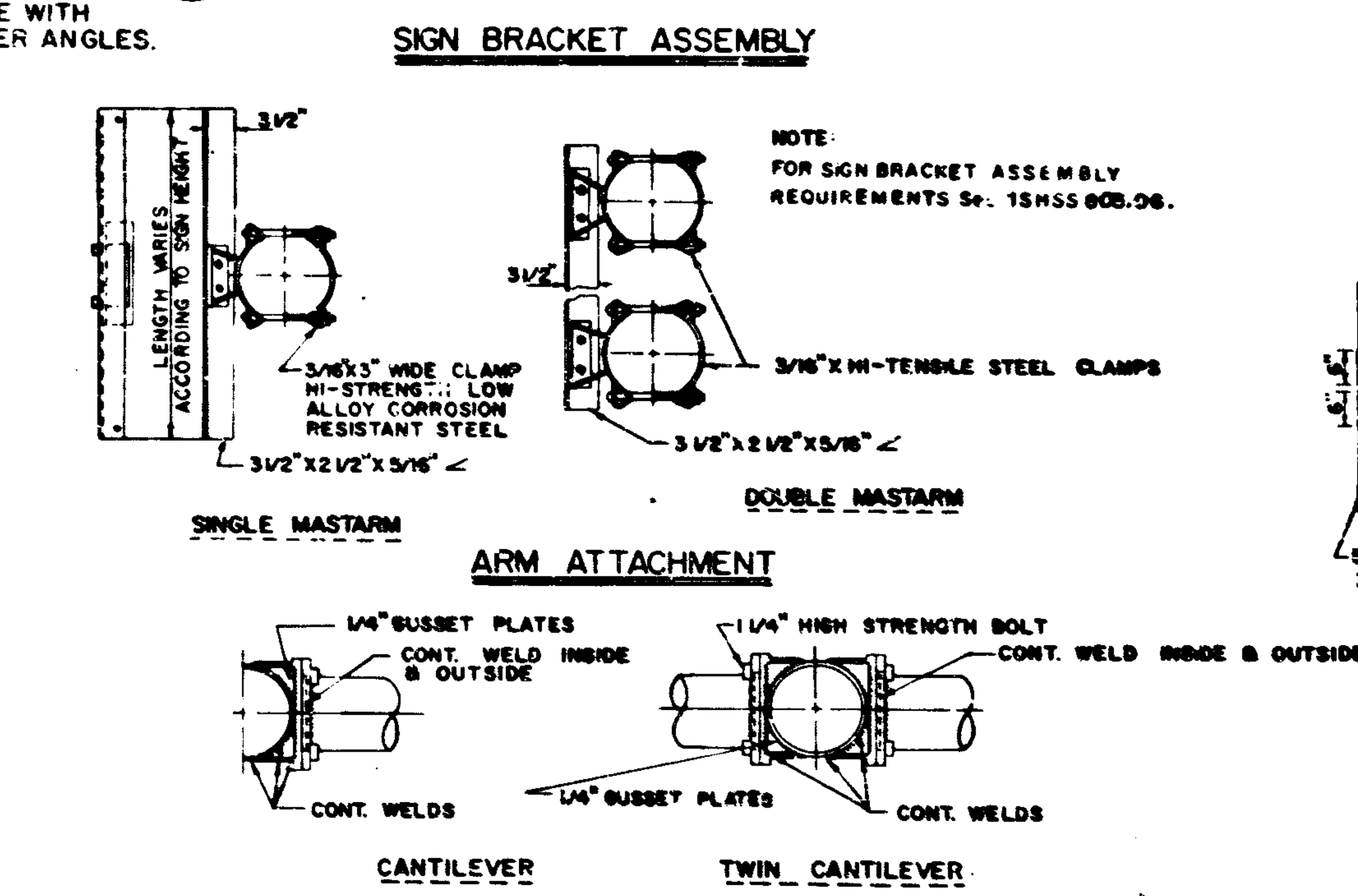
TP101

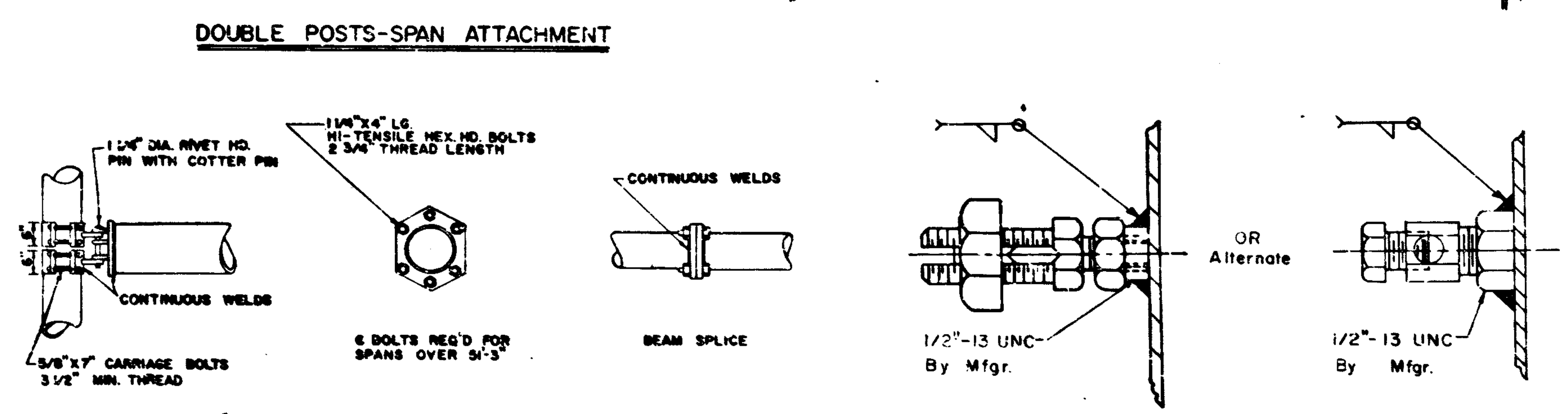
Rev. 11-13-84 Bill of Matls. Epoxy Coated for denoted, Piling

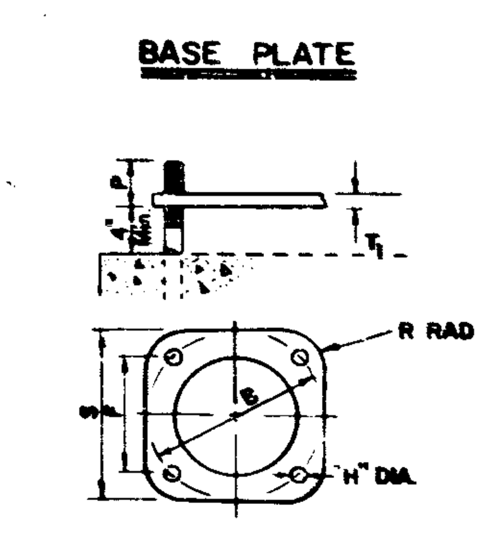
FED ROAD REG NO	STATE	PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	IND	M-X 255(P)	1983	13	47

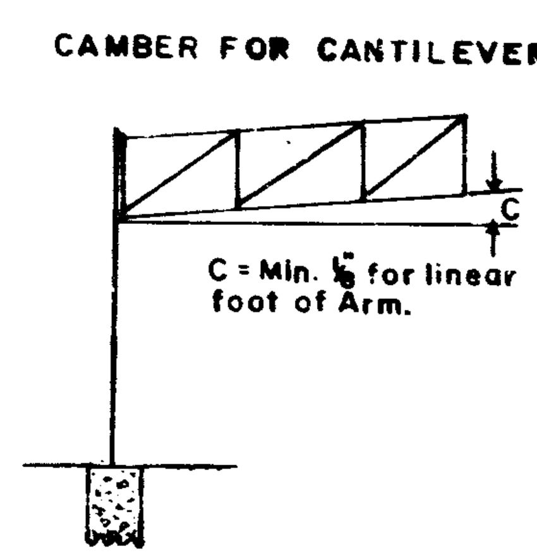












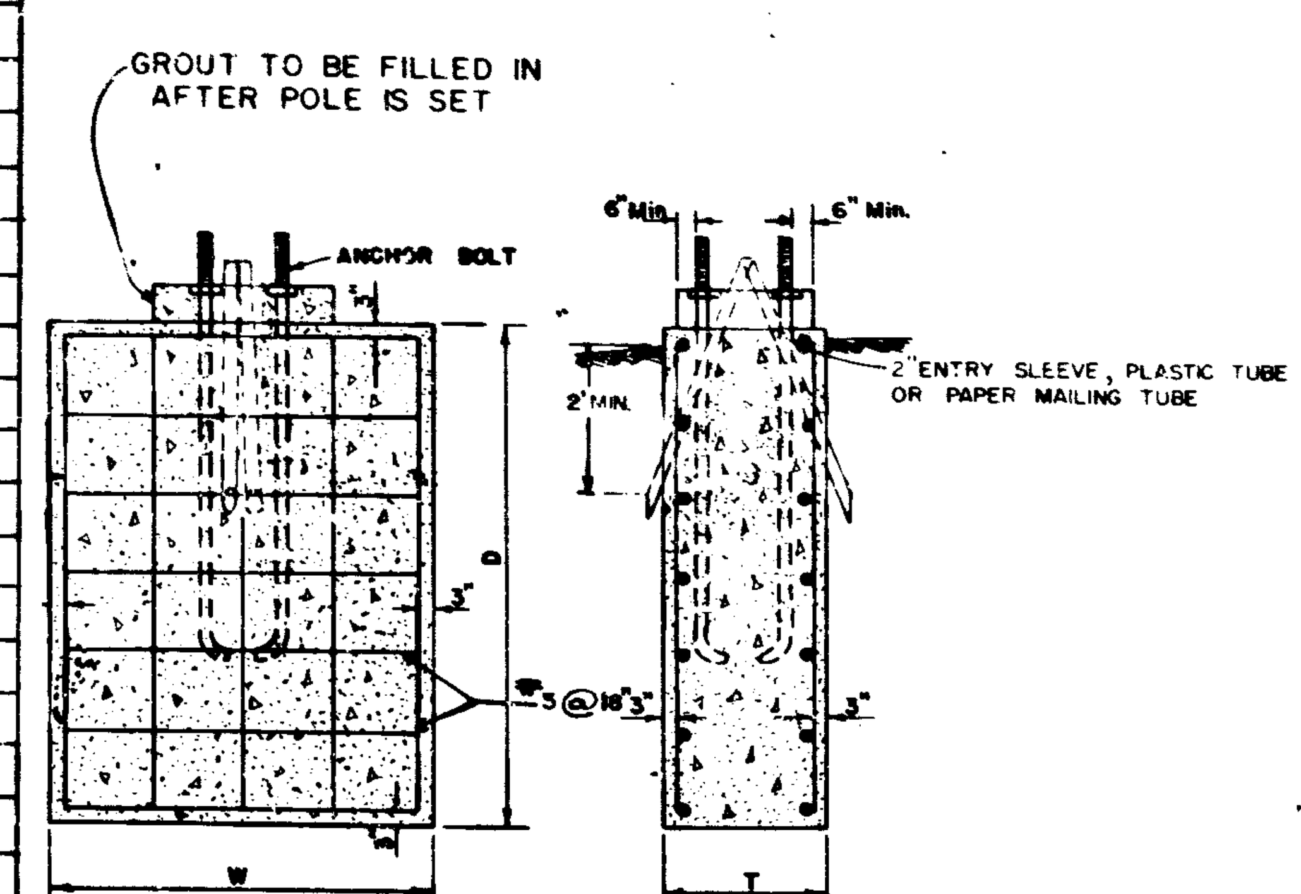
DETAIL OF GROUNDING CONNECTION

THE GROUNDING CONNECTION SHALL BE LOCATED 12" FROM THE BOTTOM OF THE SUPPORT EASILY ACCESSIBLE FROM THE STRUCTURE MANHOLE.

OXIDATION INHIBITOR SHALL BE LIBERALLY APPLIED TO ALL SURFACES THAT MATE WITH A DISSIMILAR MATERIAL.

Material furnished for Overhead Sign Structures shall be according with Indiana State Highway Standard Specification 1978 - 909.19

STRUCTURE NUMBER	SIGN AREA	ARM OR BEAM		UPRIGHT				BASE DIMENSION							ANCHOR	SPAN OR ARM	FOOTING DATA					GUARD
		D_1	THICK-NESS	D_2	THICK-NESS	M. H.	P. H.	B	F	H	P	R	S	T_1	BOLT DIA.	LENGTH	T	W	D	Concrete Cu. Yds.	Steel Lbs.	RAIL
		EXISTING						20"	14 1/8"	2 1/8"	3 3/4"	4 1/2"	20 1/2"	2"	1 3/4" x 90"	EXIST.	3'	5'	9'	10	274	As Per Bridge Plan Sheet No. 8



TRAFFIC SIGN DETAILS

Frank E. Donaldson
ENGINEER of TRAFFIC DESIGN and CONSTR.

Contr. B-15132

FRANK E. DONALDSON REGISTERED No. 12142 STATE OF INDIANA PROFESSIONAL ENGINEER

REVISIONS	
9-6-73	Chg'd from sh. to Plastic Sleeve
2-1-74	CHANNEL Addition
3-11-74	Misc.
8-26-75	Misc
6-28-73	CAMBER MISC. NOTES

SHEET 2

DATED: 12-19-72

BRIDGE FILE

STRUCTURE QUANTITIES

ITEM	CONCRETE: CLASS C SUPERSTR CU. YDS.	CLASS A SUBSTR CU. YDS.	CLASS B ABOVE FTG. CU. YDS.	CLASS B IN. FTG. CU. YDS.	CLASS "A" IN STEEL TYPE CU. YDS.	CONCRETE RAILING CLASS C CU. YDS.	CONCRETE RAILING CLASS C LIN. FT.	REINF. STEEL TOTAL LBS.	STRUCT. STEEL *** LBS.	EPOXY COATED REINF STEEL LBS.	ANCHOR PLATES M-AP EACH	PILES: UNTREATED TIMBER NO	UNTREATED TIMBER LIN. FT.	TREATED TIMBER NO	TREATED TIMBER LIN. FT.	12"ø STEEL ENCASED CONC. NO	12"ø STEEL ENCASED CONC. LIN.FT.	PERMV CONTLD EXPOSED REINF CONC PILES NO	PERMV CONTLD EXPOSED REINF CONC PILES LIN. FT.	CAST IRON DRAIN PIPE LBS.	CAST IRON, GRATES, BASINS, & FITTINGS LBS.	RAILING TYPE SA OR C/ LIN. FT.	EXP JOINT TYPE LIN FT.	EXP JOINT CLASS LIN FT.	CONC. STR. MEMBERS: BOX BEAMS TYPE SQ. FT.	CONC. STR. MEMBERS: I BEAM TYPE LIN. FT.	BRIDGE DECK MEMBRANE SQ. FT.		BITUM MIXTURE FOR APPROACHES TONS	BRIDGE DECK SURFACE SQ. YDS	DECK DRAIN EACH	SURFACE SEAL ** SQ. FT.	FINISHING AND CURING SQ. YD	BLASTING AND CLEANING SQ. YD.		
SUPERSTRUCTURE	254.8							34349		27547						40	1396	26	364			170.3												4208				
RETAINING WALLS UNIT "A" & "B"					25.4			6853						36	1512																							
Reinf. Steel for Approach Structures																																						
Reinf. Steel for R.C. Bridge Approaches								5220																														
Reinf. Steel for Lip Gutter, Pvmt., Tapers, etc.																																						
TOTALS	254.8				25.4			46222		27547				36	1512	40	1396	26	364			170.3												4208				

** ESTIMATED QUANTITY

BRIDGE FILE

APPROACH STRUCTURES

STRUCT. NO.	LOCATION	DESCRIPTION: SIZE	DESCRIPTION: KIND	LENGTH LIN. FT	CONCR. CL. A IN STRS. CU. YDS.	REINF. STEEL LBS.	PIPE END SEC. EACH		REMARKS
10	Sta 485+76 (45° Skew)	6"	EBC Perf. C.S. Pipe (or SS)	24					Drains B" Borrow @ End Bent No 1
11	Sta 485-72 (31° R.)	15"	Group "A" Pipe	74			1		Drains thru Retaining Wall
12	Sta 486+65 (45° Skew)	6"	EBC Perf. C.S. Pipe (or SS)	112					Drains "B" Borrow @ End Bent No 4
13	Sta 485-07 (35° R.)	12"	Pipe Extensions	6			2		@ Ends of Exist 12" Pipe
14	Sta 485+71.5 (49° Rt)	6"	Field Tile	10					Drains thru Retaining Wall
15	Sta 485+85 (44° Rt)	15"	Group A Pipe	10					Drains thru Retaining Wall
16	Sta 485+65 (46° Rt)	72"	C.M. Pipe (0.109)	16					Connect to Existing 72" Pipe
			TOTALS						Total of Reinforcing Steel Carried to "Structure Quantities"

PAVED SIDE DITCH & SODDING SUMMARY

LT OR RT.	STATION TO STATION	PAVED SIDE DITCH (LIN. FT.): TYPE	PAY LENGTH	NO. OF LUGS	PAY LENGTH	CUT OFF WALLS	PAY LENGTH	TOTAL PAY LENGTH	SODDING (SQ. YD.): FOR P.S.D.	FOR DITCHES	SHOULDERS	OTHER	TOTAL SOD
LT.	486+70 - 497+65	A	95	1	8	2	16	112	30				30
LT.	486+75 - 496+42	A	67	1	8	2	16	91	20				20

APPROACH TABLE

LOCATION LT/RT	LOCATION STATION	DESCRIPTION	WIDTH FT.	RADII FT.	GRADE %	LENGTH FT.	DIST. BETWEEN R/W FT.	EXCAVATION(CYS) CUT	EXCAVATION(CYS) FILL	BITUM SURFACE* #/SQ YD	BITUM SURFACE* TONS	BITUM. BINDER* #/SQ YD	BITUM. BINDER* TONS	BITUM. BASE #/SQ YD	BITUM. BASE TONS	COMP AGG BASE Depth (in)	COMP AGG BASE TONS
Rt.	484+60	Class IV	40'	50'/0	-10	22	—	—	45	110	13.3	230	27.7			6	93.9
Rt.	486+79	Class IV	30'	20'&10'	-10	41	3	—	44	110	8.6	220	2.2			6	51.9
Rt.	488+07	Class IV	30'	20'&10'	-10	41	3	—	29	110	7.6	2.50	15.2			6	45.9
											30.1		55.1				181.6

* Bitum. Mixture for Approaches 85.2 Tons

NOTES:
Weight of Spirals includes weight of 1½ extra turns top and bottom.
Spacers and 1½ turns at laps included in cost of Spiral.
*** The weight of structural steel is approximate only, and it shall be the Contractor's responsibility to determine the weight on which he bases his bid.
For Test Bar Samples See Bridge Standard C1.

NOVEMBER 1978

SUMMARIZED MLK C'K'D. HYP
TRACED DCB C'K'D. H.Y.P.

TP103

REVISIONS

DATE	ITEM
11-15-84	Reinf. Steel: Epoxy Coated Reinf. Steel, 47 Piles Req. & Epoxy Coated revised

BRIDGE SUMMARY
INDIANA DEPARTMENT OF HIGHWAY

DATE. JULY 15, 1983

SHEET 14 OF 47

PROJECT: M-X255(3)
CONTRACT NO: B-5[illegible]2
BRIDGE FILE: 50-36-6788

JUSTIN GLOEDE CORNELIUS No. 15350 STATE OF INDIANA REGISTERED

ESTIMATE OF QUANTITIES

STRUCTURE PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
51002	CONCRETE CLASS C (P)				
	SUPERSTRUCTURE	CYS.			254.8
51001	CONCRETE, CLASS A (P)				
	SUPERSTRUCTURE	CYS.			
51005	CONCRETE, CLASS A (P)				
	SUBSTRUCTURE	CYS.			
51010	CONCRETE, CLASS B ABOVE				
	FOOTINGS	CYS.			
51015	CONCRETE, CLASS B (P) FOOTINGS	CYS.			
51875	SPECIAL CLASS A CONCRETE	SFT.			
	CONCRETE, CLASS A (P)				
	STRUCTURE	CYS.			125.4
51045	CONCRETE STRUCTURAL MEMBERS	LSUM			
51030	REINFORCING STEEL	LBS.			16,222 *
51032	EPOXY COATED REINFORCING STEEL	LBS.			27547
51035	STRUCTURAL STEEL	LBS.			
51038	STRUCTURAL STEEL	LSUM			
51080	BRONZE PLATES	LBS.			
51070	ANCHOR PLATES (WR-AP 1)	EACH			
51075	ANCHOR PLATES (WR-AP 2)	EACH			
51080	ANCHOR PLATES (WR-AP 3)	EACH			
51085	ANCHOR PLATES (WR-AP 4)	EACH			
51112	ANCHOR BOLTS	EACH			
51069	TIE DOWN ASSEMBLY WR-1A	EACH			
51065	CAST IRON, DRAIN PIPE, 4 INCH	LBS.			
51100	CAST IRON, DRAIN PIPE, 6 INCH	LBS.			
51105	CAST IRON, DRAIN PIPE, 8 INCH	LBS.			
51110	CAST IRON, GRATES, BASINS AND FITTINGS	LBS.			
51134	REMOVAL OF PRESENT RAILING	LFT.			
51132	RAILING RESET	LFT.			
51115	RAILING (TYPE S OR C)	LFT.			
51120	RAILING (TYPE SA OR C1)	LFT.			170.3
51125	RAILING (TYPE 6 OR D)	LFT.			
51130	RAILING (TYPE 7 OR E)	LFT.			
51020	CLASS C, CONCRETE RAILING	CYS.			
51025	CLASS C, CONCRETE RAILING	LFT.			
51131	BARRIER RAILING TYPE X	LFT.			
51215	CLASS X EXCAVATION	CYS.			
51220	WET EXCAVATION	CYS.			
51223	WATERWAY EXCAVATION	CYS.			
51224	WATERWAY EXCAVATION	LSUM			
51225	DRY EXCAVATION	CYS.			
51230	FOUNDATION EXCAVATION (UNCLASSIFIED)	CYS.			293
51231	FOUNDATION EXCAVATION (UNCLASSIFIED)	LSUM			
51813	PNEUMATICALLY PLACED MORTAR	SFT.			
51829	REPOINTING MASONRY IN STR'S.	CYS.			
51814	WELDED STEEL WIRE FABRIC	SFT.			
51859	PAINTING OLD STEEL BRIDGE	LSUM			
51881	EXPANSION JOINT, TYPE ESS	LFT.			
51885	EXPANSION JOINT, TYPE RSS	LFT.			
51887	EXPANSION JOINT, TYPE RSS	LFT.			
51888	EXPANSION JOINT, TYPE RSS	LFT.			
51890	EXPANSION JOINT, TYPE RS11	LFT.			
51925	EXPANSION JOINT, CLASS S-S	LFT.			
51926	EXPANSION JOINT, CLASS T-S	LFT.			

SUMMARIZED M.L.K. C'K'D H.Y.P

TRACED D.E.B. C'K'D M.L.K

STRUCTURE PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
51135	TIMBER PILES FURNISHED, (UNTREATED)	LFT.			
51140	TIMBER PILES DRIVEN, (UNTREATED)	LFT.			
51145	TIMBER PILES FURNISHED, TREATED	LFT.			1890
51150	TIMBER PILES DRIVEN, TREATED	LFT.			1512
51155	PILE SHELLS FURNISHED AND DRIVEN (12 INCH)	LFT.			
51160	PILE SHELLS FURNISHED AND DRIVEN (16 INCH)	LFT.			1396
51165	STEEL H PILES FURNISHED AND DRIVEN (8 BP 36)	LFT.			
51190	STEEL H PILES FURNISHED AND DRIVEN (10 BP 42)	LFT.			
51195	STEEL H PILES FURNISHED AND DRIVEN (12 BP 53)	LFT.			
51210	PILE EXCAVEMENT (CONCRETE)	LFT.			
51157	EPOXY COATED PILE SHELLS FURNISHED AND INSTALLED (14")	LFT.			564
51338	REMOVAL OF PRESENT STRUCTURE (PORTIONS)	LSUM			1
51330	REMOVAL OF PRESENT STRUCTURE	LSUM			
51335	TEMPORARY BRIDGE AND APPROACHES	LSUM			1
	TEMPORARY PIPE AND APPROACHES	LSUM			
51866	CONCRETE SLOPEWALL 5 INCH	SYS.			
51365	SLOPEWALL	SYS.			
51370	RIPRAP	SYS.			
51375	REVETMENT RIPRAP	TON			246
51371	HANDLAID RIPRAP 12 INCH	SYS.			
51372	DUMPED RIPRAP	TON			
51376	PLASTIC FILTER CLOTH	SYS.			328
51106	DECK DRAINS	EACH			
51095	STEEL DRAIN PIPE (6 INCH)	LSUM			
51100	STEEL DRAIN PIPE (8 INCH)	LSUM			
51092	STEEL PIPE CONDUIT (2 INCH)	LFT.			
51866	RIVETS REMOVED	EACH			
51861	FIELD DRILLED HOLES	EACH			
51867	STRUCTURAL STEEL CUTTING	SYS.			
51863	FIELD DRILLED HOLES IN CONCRETE	EACH			
51826	SURFACE SEAL	LSUM			1
51827	BRIDGE DECK MEMBRANE	LSUM			
51842	BRIDGE DECK OVERLAY	SYS.			
51845	BRIDGE DECK SURFACE	SYS.			
		CYS.			
51843	BRIDGE DECK PATCHING	SFT.			
51833	CONCRETE SCARIFYING	SYS.			760
51890	ADDITIONAL CONCRETE SCARIFYING	SYS.			
51837	BLASTING AND CLEANING	SYS.			
51838	FINISHING AND CURING	SYS.			

* Includes 274 Lbs for Sign Foundation

APPROACH PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
02020	UNCLASSIFIED EXCAVATION	CYS.			
02210	COMMON EXCAVATION	CYS.			
02215	BORROW	CYS.			
02250	B BORROW	CYS.			176
02255	B BORROW FOR STRUCTURE BACKFILL	CYS.			25
02301	REMOVAL OF PAVEMENT	SYS.			381
02235	PREPARING PAVEMENT	SYS.			
	LINEAR GRADING	MILE			0.115
52180	TERMINAL JOINT	LFT.			
52185	CONTRACTION JOINT, TYPE D-1	LFT.			
52280	CONCRETE PAVEMENT REINFORCED (7 INCH)	SYS.			
52285	CONCRETE PAVEMENT REINFORCED (8 INCH)	SYS.			
52290	CONCRETE PAVEMENT REINFORCED (9 INCH)	SYS.			
52300	CONCRETE PAVEMENT REINFORCED (10 INCH)	SYS.			416
05070	CONCRETE SIDEWALK	SYS.			
52305	TYPE B COMPACTED AGGREGATE FOR BASE (SEE NO. 53)	TON			
52840	COVER AGGREGATE	TON			
52510	AGGREGATE FOR UNDERDRAINS	CYS.			
52508	TYPE B COMPACTED AGGREGATE FOR BASE (SEE NO. 53)	CYS.			
52310	SUBBASE	CYS.			725
52320	BITUMINOUS STABILIZED SUBBASE	TON			
52325	BITUMINOUS BASE	TON			155
0426C 52330	BITUMINOUS BASE (SEE NO 53)	TON			618
52331	BITUMINOUS BINDER	TON			110
52350	BITUMINOUS SURFACE	TON			126
	BITUMINOUS MATERIAL FOR TACK COAT	SYS.			1165
52461	BITUMINOUS MATERIAL FOR PRIME COAT				
	SEAL COAT TYPE B	SYS.			190
04348	SEAL COAT TYPE 2	SYS.			879
52475	BITUMINOUS MIXTURE FOR APPROACHES	TON			86
52375	BITUMINOUS MIXTURE FOR SHOULDER	TON			
52380	BITUMINOUS MATERIAL, APPLIED	TON			
52500	GUARD RAIL, TYPE A	LFT.			
52505	GUARD RAIL, TYPE B	LFT.			
52510	GUARD RAIL, TYPE C	LFT.			
52515	GUARD RAIL, TYPE D	LFT.			
52520	GUARD RAIL, TYPE E	LFT.			
52525	GUARD RAIL, TYPE F	LFT.			
52530	GUARD RAIL, TYPE G	LFT.			303
	GUARD RAIL, END TREATMENT, TYPE I	EACH			2
52535	REMOVAL OF GUARD RAIL	LFT.			
02380	SODDING	SYS.			
52383	MULCHED SEEDING	SYS.			
52388	SEED MIXTURE "R"	LBS.			
52397	SEED MIXTURE "TR"	LBS.			
52400	MULCHING MATERIAL	TON			
52405	FERTILIZER	TON			
52410	WATER	M.G.			0.12
52415	AGRICULTURAL LIMESTONE	TON			
52398	SEED MIXTURE "CR"	LBS.			
52401	MULCHING MATERIAL (WOOD CELLULOSE FIBER)	TON			
52610	MAINTAINING TRAFFIC	LSUM			
52370	CLEARING RIGHT-OF-WAY	LSUM			
52434	BREAKAWAY CABLE TERMINAL TYPE "A"	EACH			

1. INCLUDES 485 TONS FOR TEMPORARY RUNAROUND.
2. INCLUDES 54 TONS FOR TEMPORARY RUNAROUND
3. INCLUDES 500 LFT. UNDISTRIBUTED FOR NO PASSING ZONE MARKING.
4. INCLUDES 2000 LFT. UNDISTRIBUTED FOR NO PASSING ZONE MARKING.

APPROACH PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
	PIPE: GR. A (0.064") 12"	LFT.			6
	PIPE: GR. A (0.064") 15"	LFT.			84
07125	PIPE: GR. A (0.064" PECS) 18"	LFT.			
07175	PIPE: GR. A (0.064" PECS) 24"	LFT.			
07225	PIPE: GR. A (0.064" PECS) 30"	LFT.			
07275	PIPE: GR. A (0.064" PECS) 36"	LFT.			
07325	PIPE: GR. A (0.064" PECS) 42"	LFT.			
	FIELD TILE 4"	LFT.			10
10000	PIPE: GR. B (0.064" CS) 12"	LFT.			
10025	PIPE: GR. D (0.064" CS) 15"	LFT.			
10050	PIPE: GR. D (0.064" CS) 18"	LFT.			
10075	PIPE: GR. D (0.064" CS) 24"	LFT.			
10100	PIPE: GR. D (0.064" CS) 30"	LFT.			
10125	PIPE: GR. D (0.064" CS) 36"	LFT.			
10150	PIPE: GR. D (0.064" CS) 42"	LFT.			
	PIPE: (0.109" CM) 72"	LFT.			16
31700	PIPE: 0.052" FIE WRP. CS 6"	LFT.			206
08000	PIPE: 0.064" PECS 12"	LFT.			
52175	CONCRETE CLASS A (P) STRUCTURE	CYS.			
52178	CONCRETE CLASS C (P) STRUCTURE	CYS.			
16000	PIPE END SECTION 12"	EACH			2
16005	PIPE END SECTION 15"	EACH			1
16010	PIPE END SECTION 18"	EACH			
16015	PIPE END SECTION 21"	EACH			
16020	PIPE END SECTION 24"	EACH			
16025	PIPE END SECTION 27"	EACH			
16030	PIPE END SECTION 30"	EACH			
16035	PIPE END SECTION 33"	EACH			
16040	PIPE END SECTION 36"	EACH			
45000	INLET, TYPE A-1	EACH			
45025	INLET, TYPE B-8	EACH			
45050	INLET, TYPE E-7	EACH			
45070	INLET, TYPE P-12A	EACH			
05335	PAVED SIDE DITCH TYPE A	LFT.			210
06140	PAVED SIDE DITCH TYPE R	LFT.			
06135	PAVED SIDE DITCH TYPE C	LFT.			
06150	PAVED SIDE DITCH TYPE D	LFT.			
06155	PAVED SIDE DITCH TYPE F	LFT.			
06160	PAVED SIDE DITCH TYPE I	LFT.			
06165	PAVED SIDE DITCH TYPE	LFT.			
52831	DRILLED HOLES FOR MUDJACKING	EACH			
52830	MATERIAL FOR MUDJACKING	CYS.			
	STRAW BALES IN PLACE	EACH			24
	SODDING (NURSERY)	SYS.			718 RR
	MULCHED SEEDING CLASS "RU"	SYS.			3040

** Includes 50 Sys. for R.S.D.

APPROACH PAY ITEMS

CODE NO.	DESCRIPTION	UNIT	STRUCTURE		TOTAL QUANTITY
08010	42" FENCE, F. YIELD	LFT.			
08345	48" FENCE, CHAIN LINK	LFT.			108
52340	CONSTRUCTION SIGNS (TYPE A)	EACH			12
52345	CONSTRUCTION SIGNS (TYPE B)	EACH			4
	STANDARD BARRICADES (TYPE III A)	EACH			2
	P.C. B.B.	EACH			
06650	STOP SIGN, TYPE R-1A	EACH			
08632	DO NOT PASS SIGN, TYPE R-11-A	EACH			
08635	YIELD SIGN, TYPE R-3A	EACH			
08637	PASS WITH CARE SIGN, TYPE R-12A	EACH			
08660	CURVE SIGN, TYPE R-2AR	EACH			
08663	CURVE SIGN, TYPE R-2AL	EACH			
08670	REVERSE CURVE SIGN, TYPE R-1AR	EACH			
08673	REVERSE CURVE SIGN, TYPE R-1AL	EACH			
08680	LARGE ARROW SIGN, TYPE R-11A	EACH			
08685	STOP AHEAD SIGN, TYPE R-13A	EACH			
08725	DELINEATOR WITH POST, TYPE D-1 3 INCH	EACH			
08730	DELINEATOR WITH POST, TYPE D-2 3 INCH	EACH			
	DELINEATOR POST	EACH			
08771	FLEXIBLE DELINEATOR POST	EACH			
	TEMPORARY PAVEMENT MARKING TYPE II	LFT.			6400
52367	TEMPORARY PAVEMENT MARKING PAINT	LFT.			2400
	* EMPORARY PAVEMENT MARKING TYPE I	LFT.			300
52360	RIGHT-OF-WAY MARKERS	EACH			3
08500	MONUMENT, TYPE A	EACH			
08505	MONUMENT, TYPE B	EACH			
08510	MONUMENT, TYPE C	EACH			
08515	MONUMENT, TYPE D	EACH			
52841	FLASHING ARROW SIGN	EACH			
0671.2	LINE, SKIP YELLOW, 4"	LFT.			653
06713	LINE, SOLID, WHITE, 4"	LFT.			1220
06715	LINE, SOLID, YELLOW, 4"	LFT.			2610
06702	WHITE, 5"	LFT.			
06716	REMOVAL OF LINE, SOLID, WHITE, 4"	LFT.			60
06717	REMOVAL OF LINE, SOLID, YELLOW, 4"	LFT.			120
06718	REMOVAL OF LINE, SKIP, WHITE, 4"	LFT.			
52536	TEMPORARY CONCRETE BARRIER	LFT.			
52819	TEMPORARY CROSSOVER TYPE "B"	EACH			
	REMOVAL OF SPAN OVER HEAD SIGN STRUCTURE, TWIN TUBE TRUSS	L SUM			1
	REINSTALLATION OF SPAN OVERHEAD SIGN STRUCTURE, TWIN TUBE TRUSS	LSUM			1
	CONCRETE FOR SPAN OVERHEAD SIGN STRUCTURE FOUNDATIONS	CYS			10

END STR

REVISIONS	
DATE	ITEM
11-13-84	51030, 51032, 51157, 51145, 51150, 51375, 51160, 52250, 52300, 52340 & Nursery Sod Revised; 51335, 52345 Deleted; 51833, Temp. Pips & Appr., Mulched Seeding, Temp. Pavement Markings Type I and Type II Added

BRIDGE ESTIMATE OF QUANTITIES

INDIANA STATE HIGHWAY COMMISSION

DATE: JULY, 15, 1983

PROJECT: M-X 255(3)
CONTRACT NO: 8-15132
BRIDGE FILE: 50-36-6788

SHEET 15 OF 47

NOVEMBER, 1978

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