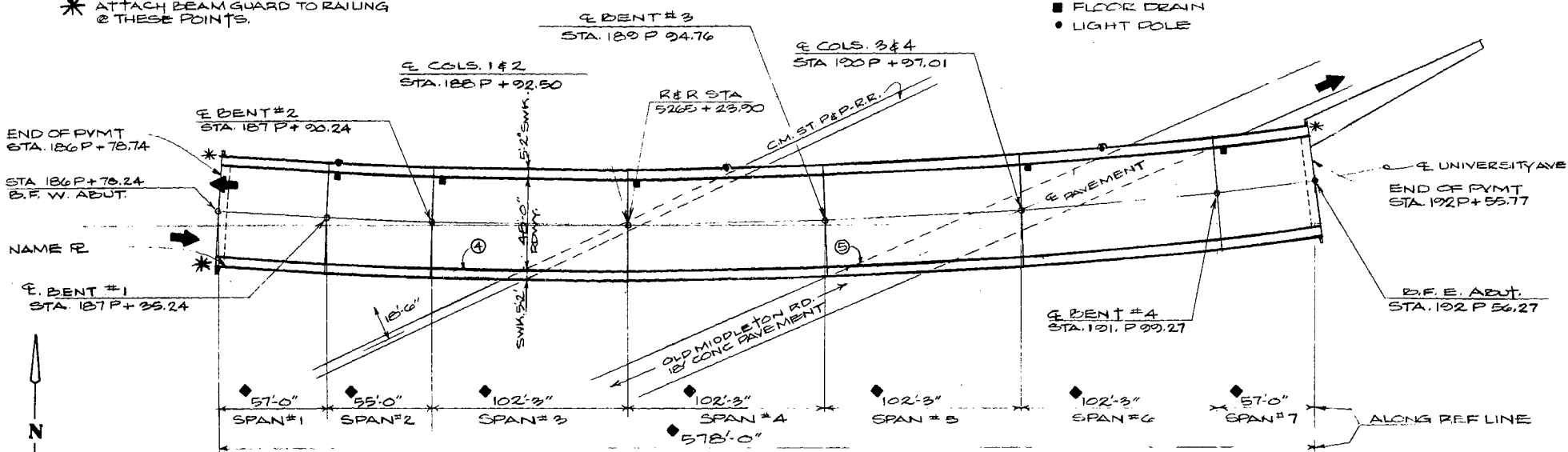


* ATTACH BEAM GUARD TO RAILING
@ THESE POINTS.



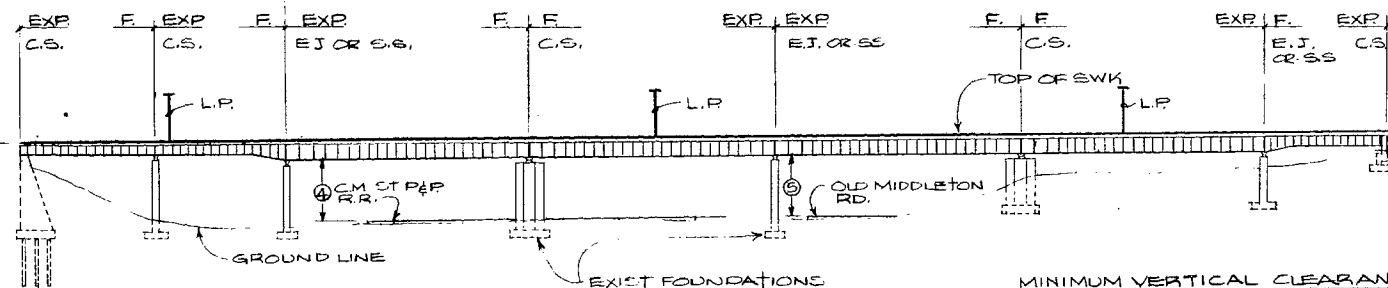
TRAFFIC VOLUME

UNIVERSITY AVE. A.D.T. = 22,250, 1976
OLD MIDDLETON RD A.D.T. = 5850, 1976

PLAN VIEW

7 SPAN STL GIRDER STRUCTURE

TYPE OF BRGS. → EXP. C.S., F. EXP. C.S., E. EXP. EJ OR S.S., F. F. C.S., EXP. EXP. EJ OR S.S., F. F. C.S., EXP. F. EXP. EJ OR S.S., C.S.
TYPE OF JOINT
C.S. = COMPRESSION SEAL
S.S. = STRIP SEAL
EJ. = ELASTOMERIC EXP. JT.



CURVE DATA

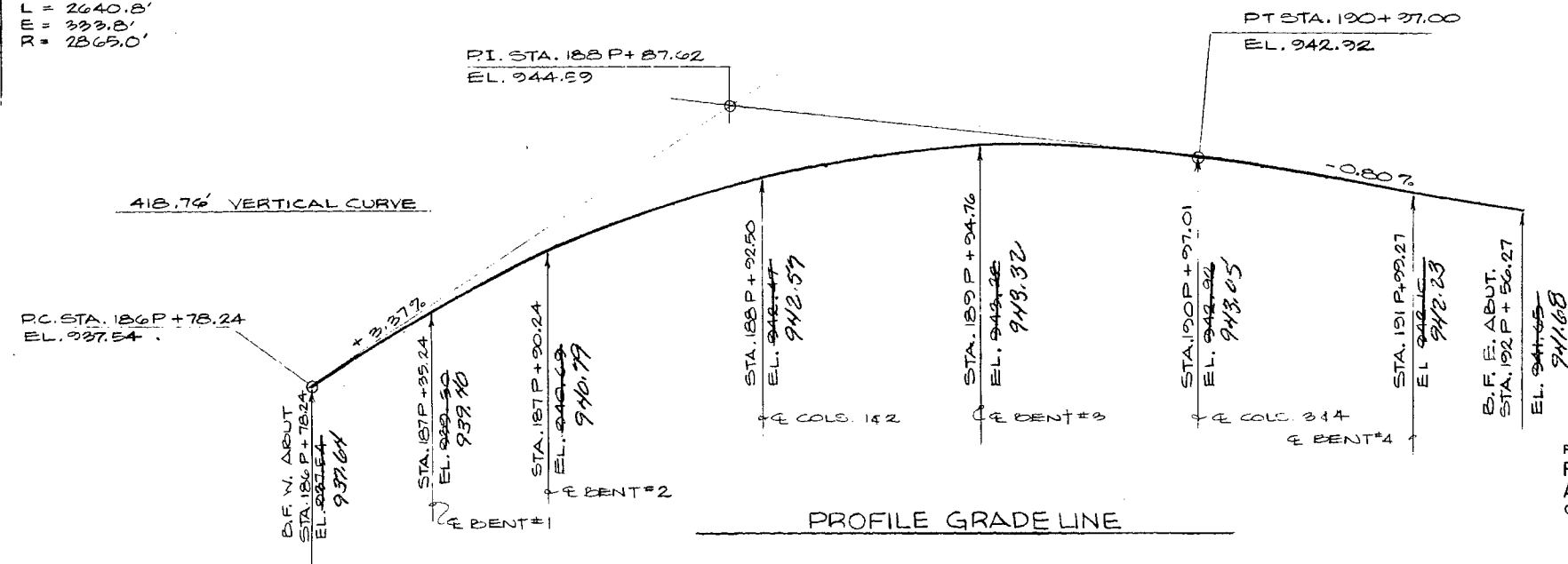
PI = 182P+19.90
I = 127°11'
Δ = 52°49'
D = 2°00' L
T = 1422.7'
L = 2640.8'
E = 393.8'
R = 2865.0'

P.I. STA. 188P+27.62
EL. 944.59

MINIMUM VERTICAL CLEARANCES:

- ④ TO RAILROAD — 22'5"
- ⑤ TO OLD MIDDLETON RD. — 12'3/2"

ELEVATION



PROFILE GRADE LINE

LIST OF DRAWINGS

1. GENERAL PLAN	X57690
2. CROSS SECTION & QUANTITIES	X57691
3. SUPERSTRUCTURE - STRUCTURAL PLAN & SHEAR STUD DETAILS	X57692
4. SUPERSTRUCTURE - ELEV. SCHEDULE	X57693
5. SUPERSTRUCTURE - BRACKET & STRINGER DETAILS	X57694
6. SUPERSTRUCTURE - BRACKET DETAILS	X57695
7. SUPERSTRUCTURE ROADWAY DECK PLAN	X57696
8. SUPERSTRUCTURE - DEFLECTION SCHEDULE	X57697
9. SUPERSTRUCTURE - CONCRETE REINFORCING	X57698
10. ABUTMENT RECONSTRUCTION	X57699
11. EXPANSION DEVICE, BENT 3, 4	X57700
12. EXPANSION DEVICE, BENT 3, 4	X57700-A
13. COMPRESSION SEAL JT.	X57701
14. COMPRESSION SEAL JT.	X57702
15. FLOOR DRAIN	X57703
16. STEEL RAILING	X57704
17. STEEL RAILING	X57705
18. ELECTRICAL PLAN	X57706

DESIGN DATA

LIVE LOAD

INVENTORY RATING: H.S. 20
OPERATING RATING: H.S. 30

ALLOWABLE DESIGN STRESSES:

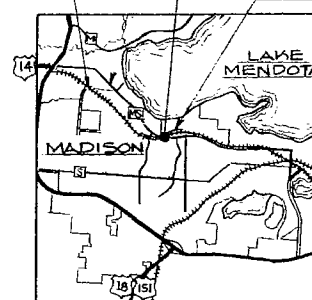
CONC. MASONRY: RD. & SD. W. SLAB $f_c = 4000$ PSI
ALL OTHER $f_c = 3500$ PSI
BAR STEEL REINFORCEMENT - GRADE 60 $f_y = 60,000$ PSI
EXIST. STRUCTURAL CARBON STL. - ASTM A709 $f_s = 18,000$ PSI
NEW STRUCTURAL CARBON STL. - ASTM A36 $f_s = 20,000$ PSI

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED. BAR REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- DIMENSIONS INDICATED ARE TAKEN FROM PLANS DATED 1934 FOR STRUCTURE AND/OR FROM SHOP DWGS. DATED 1934 FOR EXISTING STL. SUPERSTRUCTURE, AND HAVE NOT GENERALLY BEEN FIELD VERIFIED. CRITICAL DIMENSIONS SHALL BE FIELD VERIFIED BEFORE COMMENCING PORTIONS OF WORK THAT WILL BE AFFECTED.
- ALL ELEVATIONS ON THESE DWGS. REFER TO THE SAME DATUM AS ELEV. GIVEN ON THE ORIGINAL PLANS FOR THIS STRUCTURE, DATED 1934. ORIGINAL BENCHMARKS ARE UNKNOWN. FOR CONSTRUCTION PURPOSES, TEMPORARY BENCHMARKS MAY BE ESTABLISHED ON THE ABUT. BRIDGE SEATS WITH ASSUMED ELEVATIONS AS GIVEN BELOW, TAKEN FROM 1934 PLANS.

WEST ABUTMENT		ASSUMED BRIDGE SEAT ELEV.	EAST ABUTMENT		ASSUMED BRIDGE SEAT ELEV. TOP OF CONC.
GIRDER	G1	930.79	GIRDER	G25	934.89
	G2	931.25		G26	935.25
	G3	931.55		G27	935.55
	G4	931.62		G28	935.66

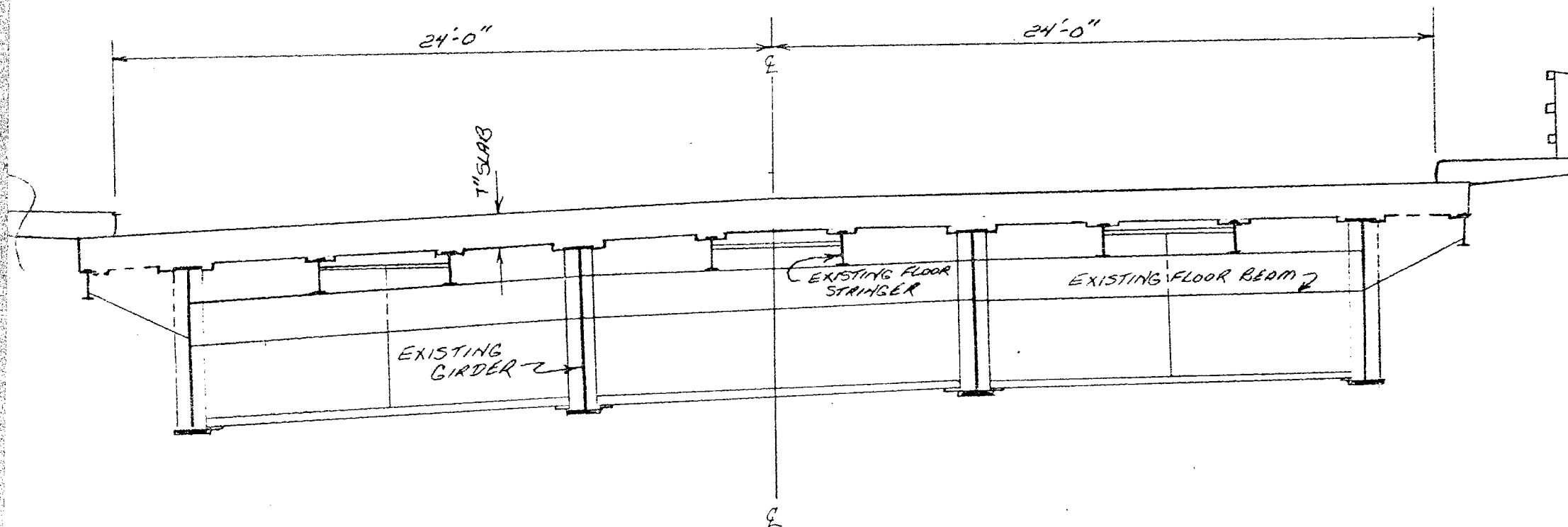
UNIVERSITY AVE
BRIDGE STR.
OLD MIDDLETON RD.
C.M. ST. P&P R.R.



LAYOUT

PREPARED BY:
ROLF KILLINGSTAD &
ASSOCIATES LTD.
CONSULTING ENGINEERS

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
UNIVERSITY AVE OVER OLD MIDDLETON RD			
County	DANE	Town/City/Village	MADISON
Design Spec.	AASHTO 1974 REV. TO 1972	Load	H.S. 20
Designed	RTK	Drawn	RTK
By	JDB	Checked	JDB
By	D.R.S.	Planned	JDB
Approved	W.A. Kline Chief Bridge Engineer	Date	2-21-77
GENERAL PLAN			SHEET 1 OF 18
			X57690



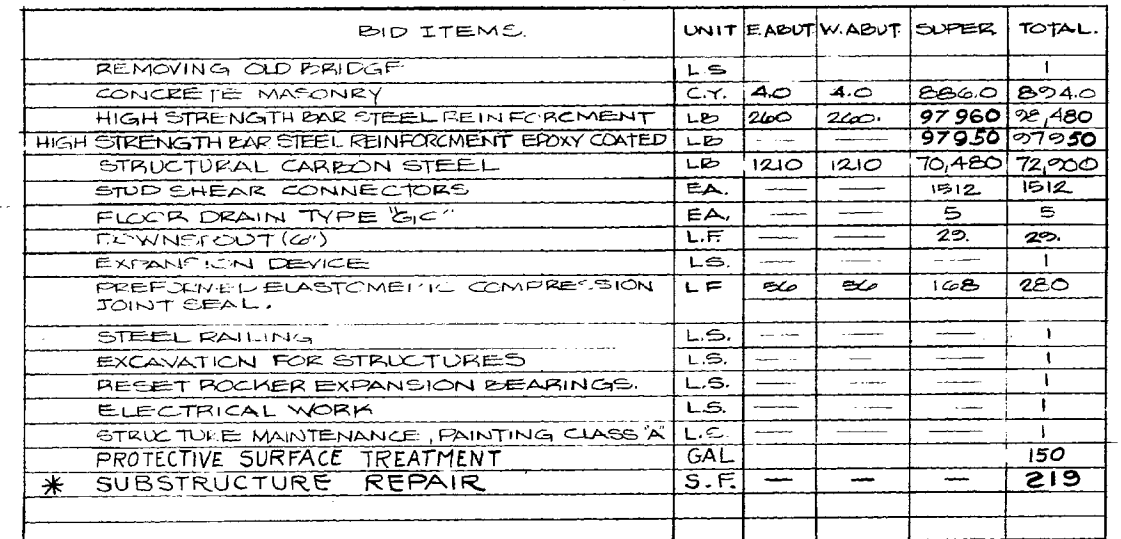
CROSS SECTION THRU ROADWAY SHOWING
NEWLY IMPLEMENTED HAUNCHES

ID: 5992-2-61
BRM 4701(001)

AD

7.1

TOTAL ESTIMATED QUANTITIES.



EXISTING CROSS SECTION

52'-4" OUT TO OUT OF CONC.

24'-0"

24'-0"

5'-2"

FACE OF RAILING

EDGE OF SIDEWALK SLAB

POINT REF. TO ON PROFILE

FACE OF CONC

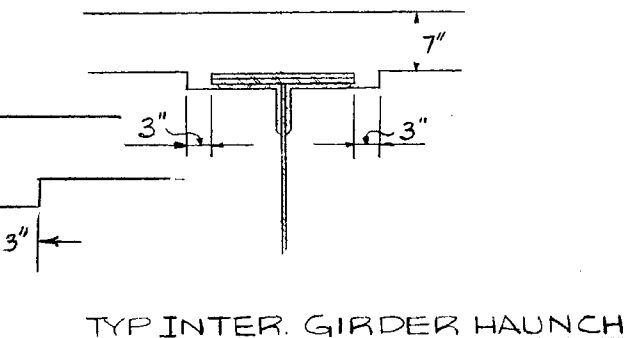
7" NOMINAL

VARIES

VARIES

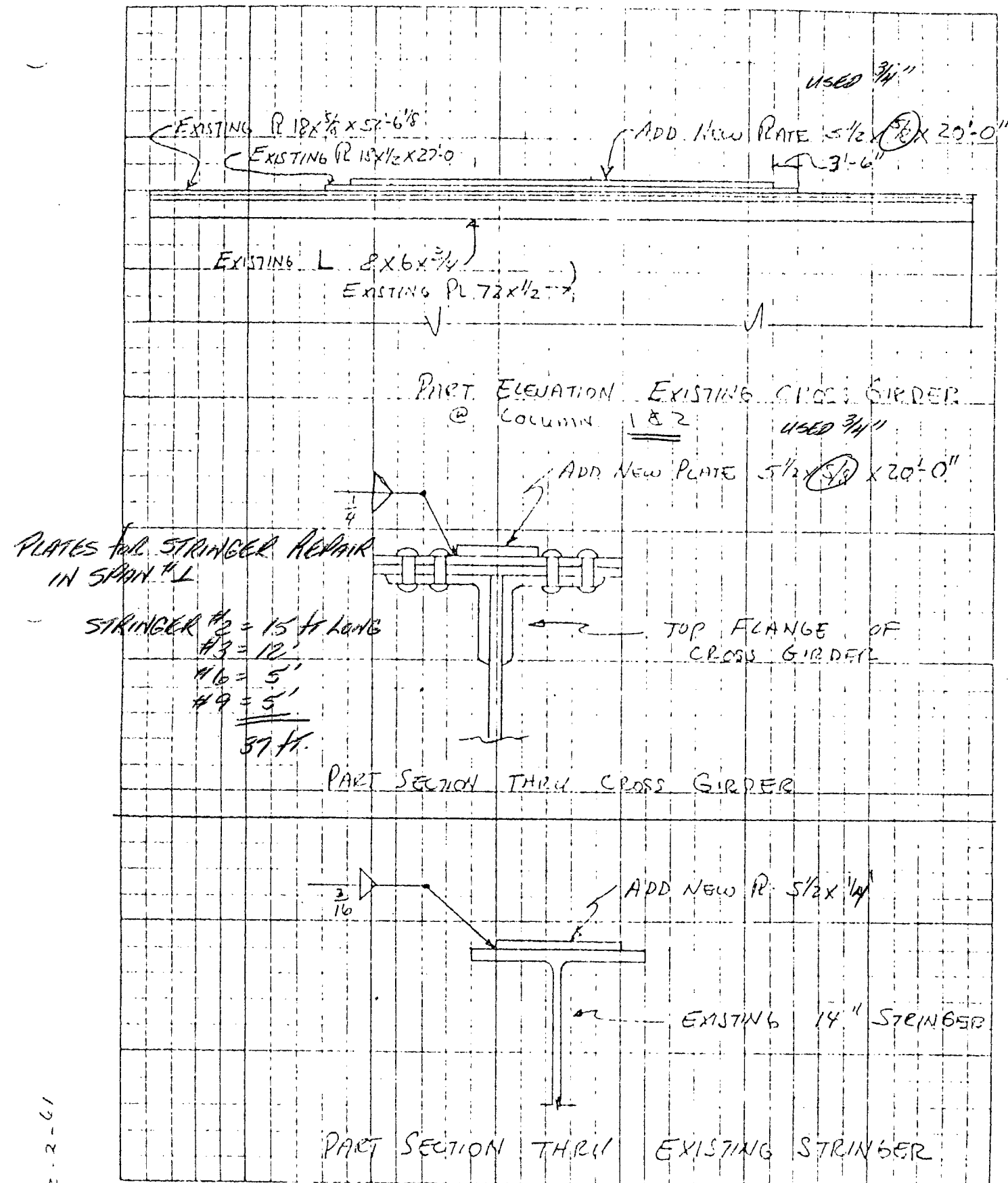
10"

- NOTE! ABOVE X-SEC. of DECK REVISED TO SHOW NEW HAUNCHES. ~~REVISIONS TO~~



TYP INTER. GIRDER HAUNCH

1	4/25/77			828
No.	Date	Revision		By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS				
STRUCTURE B-13-952				
Const. Spec.	1975	Drawn By	D.R.S.	Plans Checked K.T.V.
CROSS SECTION & QUANTITIES			SHEET 2 OF 13	
			X57691	

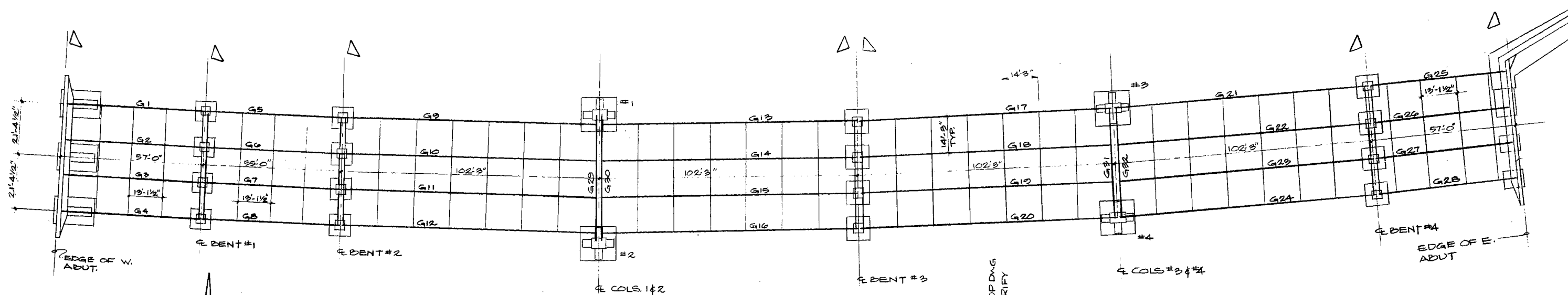


544-2-61

PROJECT/STRUCTURE NO. B-13-952	DATE 8-9-77
NAME OF ROAD	DATE
TITLE REPAIR TO CROSS GIR.	DATE
STAGES 1 STAGES.	DATE

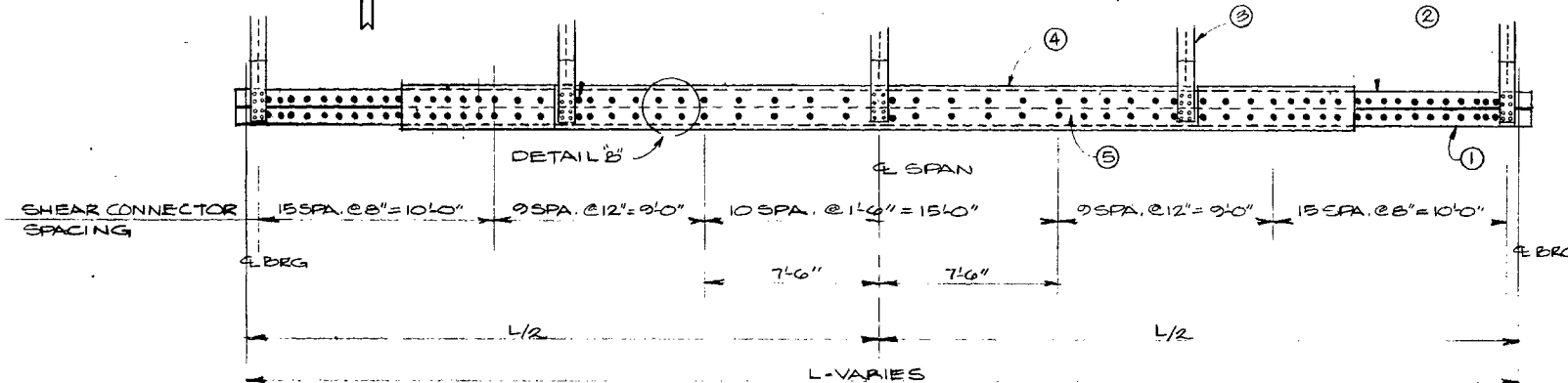
ROCKER EXPANSION BRG.
LOCATIONS TOTAL QTY (28) TO BE
RESET.

STATE PROJECT NUMBER	SHEET NO.
5992-2-61	7.2

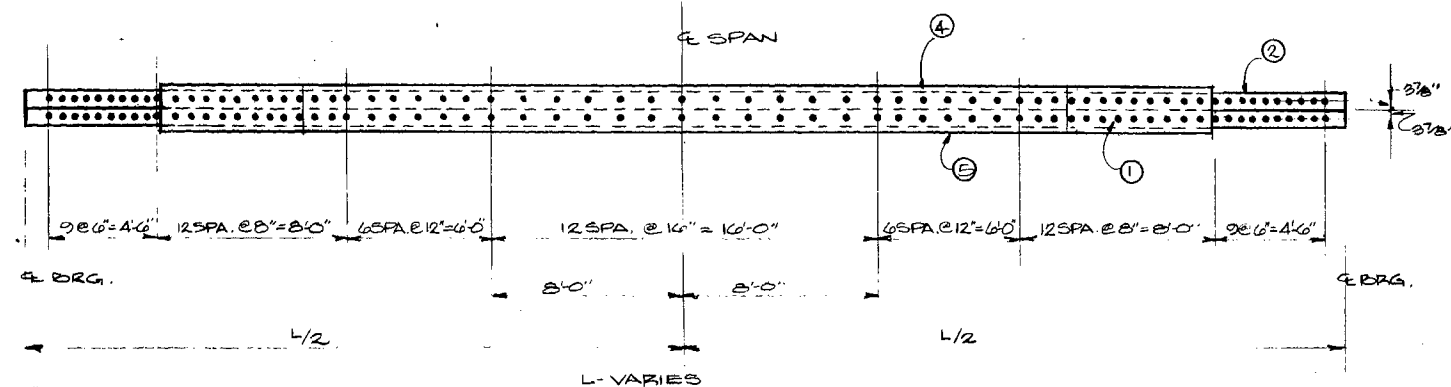


PLAN OF STL. SUPERSTRUCTURE

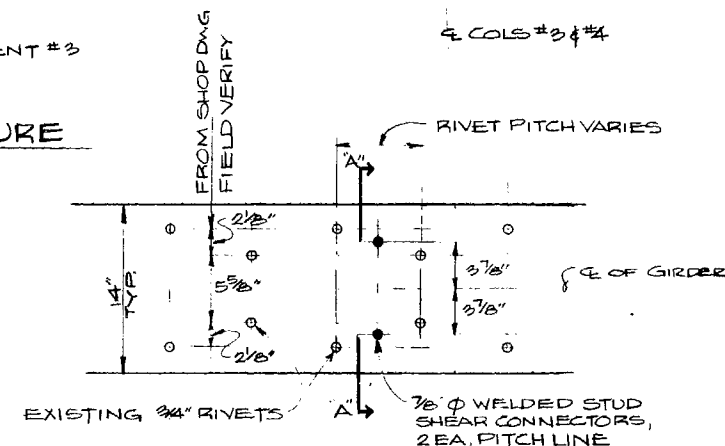
STUDS MAY BE SHIFTED LONGITUDINALLY
FROM POSITION SHOWN IF NECESSARY TO
AVOID OBSTRUCTIONS. STUDS SHALL BE WELDED
TO FLANGE ANGLES OR COVER PLATES ONLY



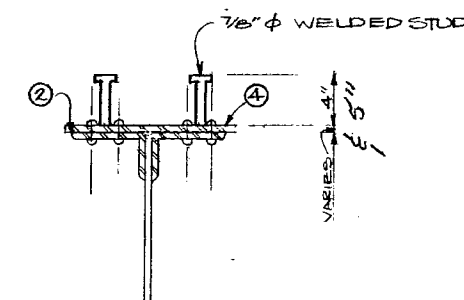
SHEAR CONNECTOR PLAN
TYP. GIRDERS (G1, G4, G5, G8, G25, G28)



SHEAR CONNECTOR PLAN
INTERIOR GIRDERS (G2, G3, G6, G7, G26, G27)



DETAIL "B"



SECTION "A-A"

NOTES.

1. 7/8" φ FIELD WELDED STUD SHEAR CONNECTORS
2. EXISTING 6" x 4" x 1/2" FLANGE ANGLES, TYPICAL
3. NEW SPICE R CONNECTOR, SEE NEW BRACKET DETAILS SHT. 5 OF 17
4. EXISTING COVER PLATE, THICKNESS VARIES.
5. TOP FLANGE OF EXISTING GIRDER
6. NEW BRACKETS & STRINGERS ARE NOT SHOWN ON PLAN OF STL. SUPERSTRUCTURE SEE SHT. 5 OF 17

PREPARED BY
ROLF KILLINGSTAD &
ASSOCIATES LTD.
CONSULTING ENGINEERS

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec. 1975	Drawn By D.R.S.	Plans Checked J.D.B.	
SUPERSTRUCTURE STRUCTURAL PLAN & SHEAR STUD DETAILS.			SHEET 3 OF 18 X57692

5992-2-61

7.3

TOP OF DECK & TOPOF STEEL ELEVATIONS & HAUNCH CONSTANT

LOCATION	E. W. BRG.	1/8 SPAN	1/4 SPAN	3/8 SPAN	1/2 SPAN	5/8 SPAN	3/4 SPAN	7/8 SPAN	E. BRG.	NO. SHEAR CONN.
SPAN #1	GIRDER #1	T.D. 926.95	927.28	927.80	928.20	928.60	928.60	928.60	928.60	118
	T.S.	926.19	926.70	927.14	927.54	927.85	927.85	927.85	927.85	
	H.C.	0.54	0.45	0.44	0.45	0.54	0.54	0.54	0.54	
	GIRDER #2	T.D. 927.40	927.84	928.26	928.66	929.05	929.05	929.05	929.05	134
	T.S.	926.65	927.16	927.61	928.00	928.31	928.31	928.31	928.31	
	H.C.	0.54	0.45	0.44	0.45	0.54	0.54	0.54	0.54	
	GIRDER #3	T.D. 927.68	928.12	928.54	928.94	929.33	929.33	929.33	929.33	134
	T.S.	926.95	927.46	927.91	928.29	928.60	928.60	928.60	928.60	
	H.C.	0.54	0.45	0.44	0.45	0.54	0.54	0.54	0.54	
	GIRDER #4	T.D. 927.78	928.22	928.64	929.04	929.43	929.43	929.43	929.43	118
	T.S.	927.02	927.53	927.97	928.35	928.68	928.68	928.68	928.68	
	H.C.	0.54	0.45	0.44	0.45	0.54	0.54	0.54	0.54	
SPAN #2	GIRDER #5	T.D. 928.64	929.00	929.34	929.67	929.99	929.99	929.99	929.99	118
	T.S.	927.90	928.33	928.70	929.01	929.26	929.26	929.26	929.26	
	H.C.	0.54	0.46	0.44	0.46	0.54	0.54	0.54	0.54	
	GIRDER #6	T.D. 929.09	929.46	929.80	930.13	930.44	930.44	930.44	930.44	134
	T.S.	928.36	928.80	929.17	929.47	929.71	929.71	929.71	929.71	
	H.C.	0.54	0.45	0.44	0.45	0.54	0.54	0.54	0.54	
	GIRDER #7	T.D. 929.37	929.74	930.08	930.41	930.72	930.72	930.72	930.72	134
	T.S.	928.65	929.09	929.46	929.77	930.01	930.01	930.01	930.01	
	H.C.	0.54	0.45	0.44	0.45	0.54	0.54	0.54	0.54	
	GIRDER #8	T.D. 929.47	929.84	930.18	930.51	930.82	930.82	930.82	930.82	118
	T.S.	928.73	929.16	929.53	929.84	930.09	930.09	930.09	930.09	
	H.C.	0.54	0.45	0.44	0.45	0.54	0.54	0.54	0.54	
SPAN #3	GIRDER #9	T.D. 940.03	940.29	940.54	941.01	941.22	941.42	941.60	941.78	NONE
	T.S.	939.24	939.60	940.19	940.41	940.63	940.83	940.86	940.99	
	H.C.	0.52	0.43	0.35	0.33	0.32	0.35	0.48	0.52	
	GIRDER #10	T.D. 940.48	940.75	940.99	941.10	941.47	941.68	941.87	942.06	NONE
	T.S.	939.68	940.04	940.39	940.66	940.87	941.10	941.35	941.43	
	H.C.	0.52	0.44	0.38	0.32	0.31	0.32	0.43	0.50	
	GIRDER #11	T.D. 940.76	941.03	941.28	941.39	941.76	942.16	942.34	942.51	NONE
	T.S.	939.98	940.34	940.69	940.96	941.17	941.40	941.56	941.73	
	H.C.	0.52	0.44	0.38	0.32	0.31	0.32	0.43	0.50	
	GIRDER #12	T.D. 940.86	941.13	941.38	941.49	941.86	942.07	942.26	942.41	NONE
	T.S.	940.07	940.38	940.79	941.02	941.46	941.67	941.89	941.89	
	H.C.	0.52	0.48	0.35	0.32	0.32	0.33	0.34	0.48	0.52
SPAN #4	GIRDER #13	T.D. 941.81	941.94	942.08	942.18	942.28	942.36	942.44	942.49	NONE
	T.S.	941.02	941.25	941.46	941.58	941.67	941.75	941.83	941.73	
	H.C.	0.52	0.43	0.35	0.33	0.32	0.33	0.35	0.48	0.52
	GIRDER #14	T.D. 942.26	942.40	942.53	942.64	942.74	942.82	942.83	942.95	NONE
	T.S.	941.46	941.69	941.91	942.05	942.14	942.23	942.27	942.23	
	H.C.	0.50	0.43	0.37	0.32	0.31	0.32	0.38	0.44	0.52
	GIRDER #15	T.D. 942.54	942.68	942.82	942.93	943.03	943.11	943.18	943.23	NONE
	T.S.	941.76	941.99	942.21	942.35	942.43	942.53	942.57	942.53	
	H.C.	0.50	0.43	0.37	0.32	0.31	0.32	0.38	0.44	0.52
	GIRDER #16	T.D. 942.64	942.78	942.92	943.03	943.13	943.21	943.28	943.33	NONE
	T.S.	941.86	942.09	942.32	942.41	942.50	942.59	942.67	942.57	
	H.C.	0.52	0.48	0.34	0.32	0.31	0.32	0.35	0.48	0.52

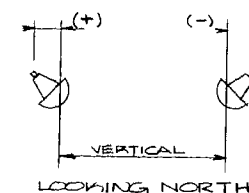
LOCATION	E. W. BRG.	1/8 SPAN	1/4 SPAN	3/8 SPAN	1/2 SPAN	5/8 SPAN	3/4 SPAN	7/8 SPAN	E. BRG.	SHEAR CONNECTOR
SPAN #5	GIRDER #17	T.D. 942.54	942.55	942.55	942.58	942.50	942.45	942.40	942.35	NONE
	T.S.	941.73	941.79	941.95	941.93	941.90	941.86	941.82	941.65	
	H.C.	0.52	0.48	0.35	0.33	0.32	0.33	0.35	0.43	0.52
	GIRDER #18	T.D. 942.93	943.01	943.00	942.99	942.96	942.91	942.85	942.79	NONE
	T.S.	942.17	942.28	942.38	942.40	942.37	942.34	942.25	942.09	
	H.C.	0.52	0.44	0.38	0.32	0.31	0.32	0.37	0.43	0.51
	GIRDER #19	T.D. 943.27	943.29	943.29	943.28	943.25	943.20	943.14	943.07	NONE
	T.S.	942.47	942.58	942.68	942.70	942.67	942.64	942.55	942.39	
	H.C.	0.52	0.44	0.38	0.32	0.32	0.32	0.37	0.43	0.51
	GIRDER #20	T.D. 943.37	943.39	943.39	943.38	943.35	943.30	943.24	943.17	NONE
	T.S.	942.56	942.62	942.78	942.76	942.73	942.69	942.65	942.43	
	H.C.	0.52	0.48	0.35	0.32	0.32	0.32	0.35	0.48	0.52
SPAN #6	GIRDER #21	T.D. 942.23	942.12	942.02	941.91	941.81	941.71	941.62	941.52	NONE
	T.S.	941.34	941.33	941.42	941.33	941.23	941.13	941.01	940.77	
	H.C.	0.52	0.48	0.35	0.33	0.32	0.33	0.35	0.43	0.52
	GIRDER #22	T.D. 942.68	942.58	942.47	942.37	942.27	942.17	942.07	941.98	NONE
	T.S.	941.78	941.82	941.84	941.80	941.70	941.60	941.44	941.21	
	H.C.	0.51	0.43	0.37	0.32	0.31	0.32	0.38	0.44	0.52
	GIRDER #23	T.D. 942.96	942.86	942.76	942.66	942.56	942.46	942.36	942.26	NONE
	T.S.	942.08	942.12	942.14	942.10	942.00	941.90	941.74	941.51	
	H.C.	0.51	0.43	0.37	0.32	0.31	0.32	0.38	0.44	0.52
	GIRDER #24	T.D. 943.06	942.96	942.86	942.76	942.66	942.56	942.46	942.36	NONE
	T.S.	942.17	942.16	942.25	942.16	942.06	941.96	941.84	941.55	
	H.C.	0.52	0.48	0.35	0.32	0.32	0.32	0.35	0.48	0.52
SPAN #7	GIRDER #25	T.D. 941.42	941.30	941.20	941.19	941.19	941.08	940.99	940.93	118
	T.S.	940.65	940.63	940.55	940.55	940.42	940.42	940.22	940.22	
	H.C.	0.54	0.46	0.44	0.44	0.46	0.46	0.54	0.54	
	GIRDER #26	T.D. 941.87	941.76	941.65	941.65	941.54	941.54	941.44	941.44	134
	T.S.	941.11	941.10	941.02	941.02	940.88	940.88	940.67	940.67	
	H.C.	0.54	0.45	0.44	0.44	0.45	0.45	0.54	0.54	
	GIRDER #27	T.D. 942.15	942.04	941.93	941.93	941.82	941.82	941.72	941.72	134
	T.S.	941.41	941.40	941.32	941.32	941.18	941.18	940.97	940.97	
	H.C.	0.54	0.45	0.44	0.44	0.45	0.45	0.54	0.54	
	GIRDER #28	T.D. 942.25	942.14	942.03	942.03	941.92	941.92	941.82	941.82	118
	T.S.	941.48	941.46	941.38	941.38	941.25	941.25	941.05	941.05	
	H.C.	0.54	0.45	0.44	0.44	0.45	0.45	0.54	0.54	
TRANSVERSE GIRDER	GIRDER #29	T.D.								NONE
	T.S.									
	H.C.									
	GIRDER #30	T.D.								NONE
	T.S.									
	H.C.									
	GIRDER #31	T.D.								NONE
	T.S.									
	H.C.									
	GIRDER #32	T.D.								NONE
	T.S.									
	H.C.									

- H.C. = THE HAUNCH CONSTANT. = SLAB DEPTH MINUS THE DEAD LOAD DEFLECTION OF THE CONCRETE MINUS THE STEEL THICKNESS TO THE BOTTOM OF TOP FLANGE.
- T.S. ARE ANTICIPATED ELEVATIONS OF TOP OF STEEL GIRDERS (ARE TOP COVER PL. WHERE APPLICABLE) AFTER EXIST. DECK, SDWK, ETC. IS REMOVED & NEW BRACKETS & STRINGERS ARE INSTALLED. THEY HAVE BEEN COMPUTED FROM DATA FROM 1934 PLANS & STL. SHOP DWGS. AND INCLUDE DEFLECTION DUE TO WEIGHT OF STL. SUPERSTRUCTURE, INCLUDING EXISTING GIRDERS, FLR. BMS., STRINGERS & LATERAL BRACING & NEW BRACKETS & STRINGERS.
- ACTUAL T.S. ELEVATIONS SHALL BE DETERMINED IN THE FIELD BEFORE FORMING FOR DECK, AND ADJUSTMENTS SHALL BE MADE FOR ANY VARIATIONS FROM THE ELEVATIONS SHOWN.
- T.D. ARE DESIRED FINAL DECK ELEVATIONS, ADJUST HAUNCH DEPTH IF NECESSARY TO ACHIEVE THESE ELEVATIONS.
- WHERE THE END OF A COVER PLATE FALLS NEAR AN EIGHTH PT, T.S. ELEV. & H.C. HAVE BEEN COMPUTED INCLUDING THE THICKNESS OF THE COVER PL.

ROCKER SETTING DATA.

TEMPERATURE TIME OF SETTING - °F	W. ABUT.	CENT #1	CENT #2	CENT #3	CENT #4	E. ABUT.
120	+9/16"	+9/16"	+9/16"	+9/16"	+9/16"	+9/16"
100	+9/16"	+9/16"	+9/16"	+9/16"	+9/16"	+9/16"
80	+9/16"	+9/16"	+9/16"	+9/16"	+9/16"	+9/16"
60	+9/16"	+9/16"	+9/16"	+9/16"	+9/16"	+9/16"
40	0	0	0	0	0	0
20	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"	-1/16"
0	-9/16"	-9/16"	-9/16"	-9/16"	-9/16"	-9/16"
-20	-1/4"	-1/4"	-1/4"	-1/4"	-1/4"	-1/4"

SEE SHT 20F17 FOR LOCATION ON SUPER-STRUCTURE PLAN. TOTAL QTY TO BE RESET (28)



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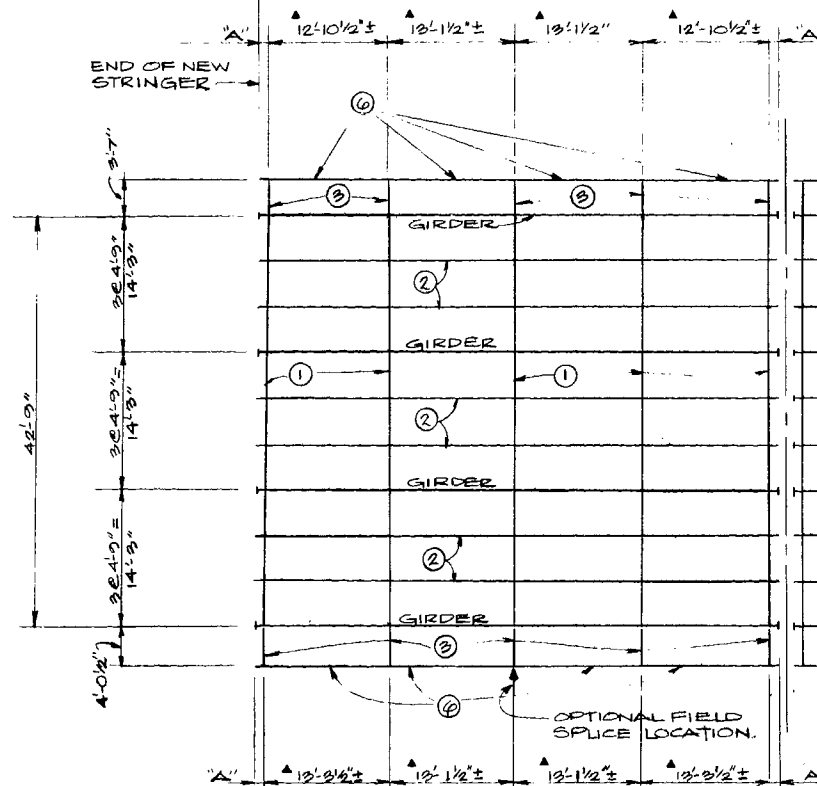
No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec. 1975	Drawn By DRS	Plans Checked J.D.B.	
SUPERSTRUCTURE ELEV. SCHEDULE			SHEET 4 OF 18
			X57693

5992-2-61

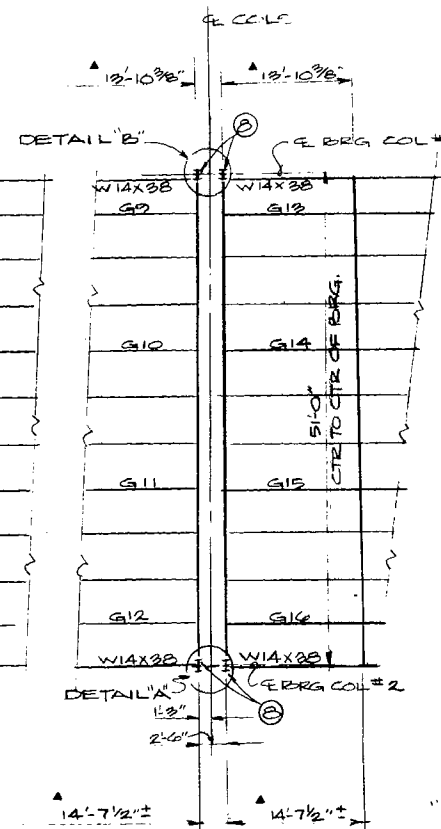
7.4

THIS END TYP
W. END SPAN #1
E. END SPAN #7

THIS END TYP
E. END SPAN #1
W. END SPAN #2
E. END SPAN #2
W. END SPAN #7



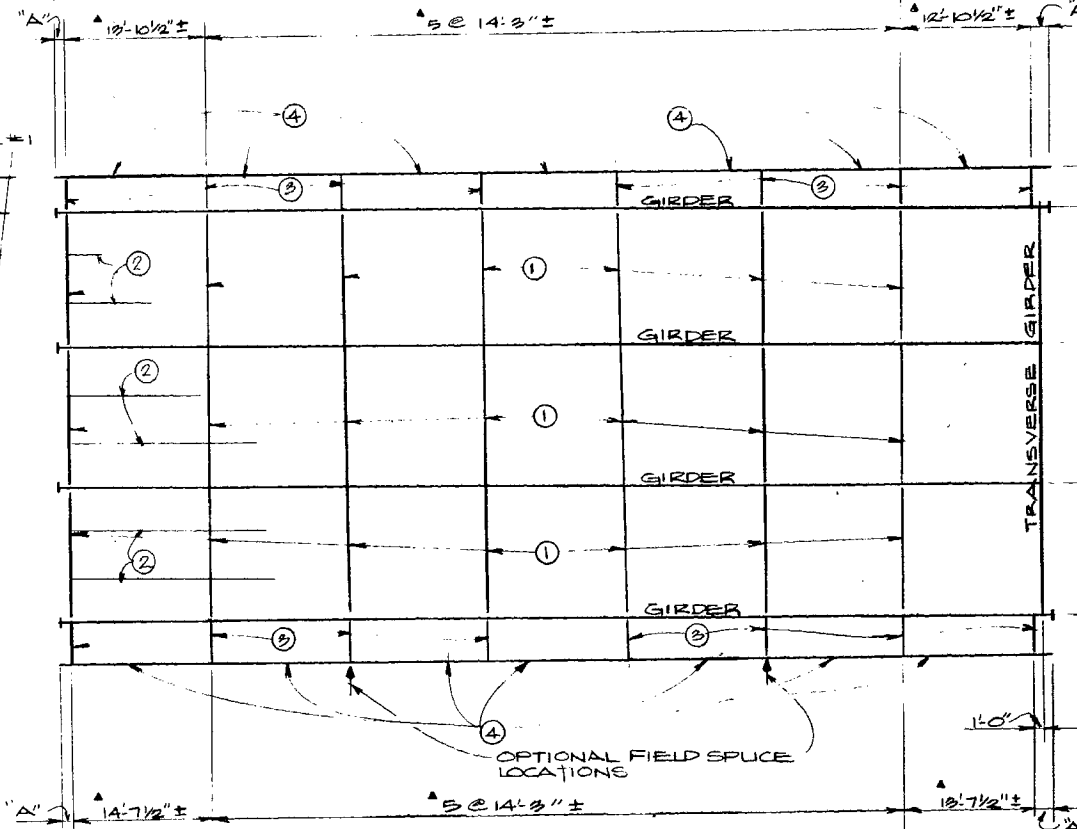
SPANS 1, 2 & 7



SPANS 3 & 4 @ COL #1 & 2

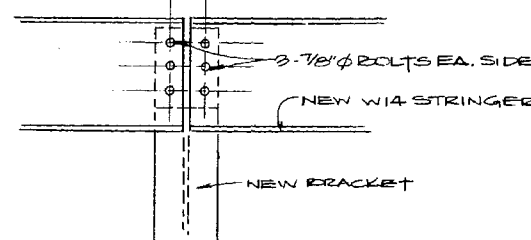
THIS END TYP
W. END SPAN #2
E. END SPAN #4
W. END SPAN #5
E. END SPAN #6

THIS END TYP
E. END SPAN #5
W. END SPAN #6

SPAN 5 SHOWN
(SPANS 3, 4 & 6 SIMILAR)

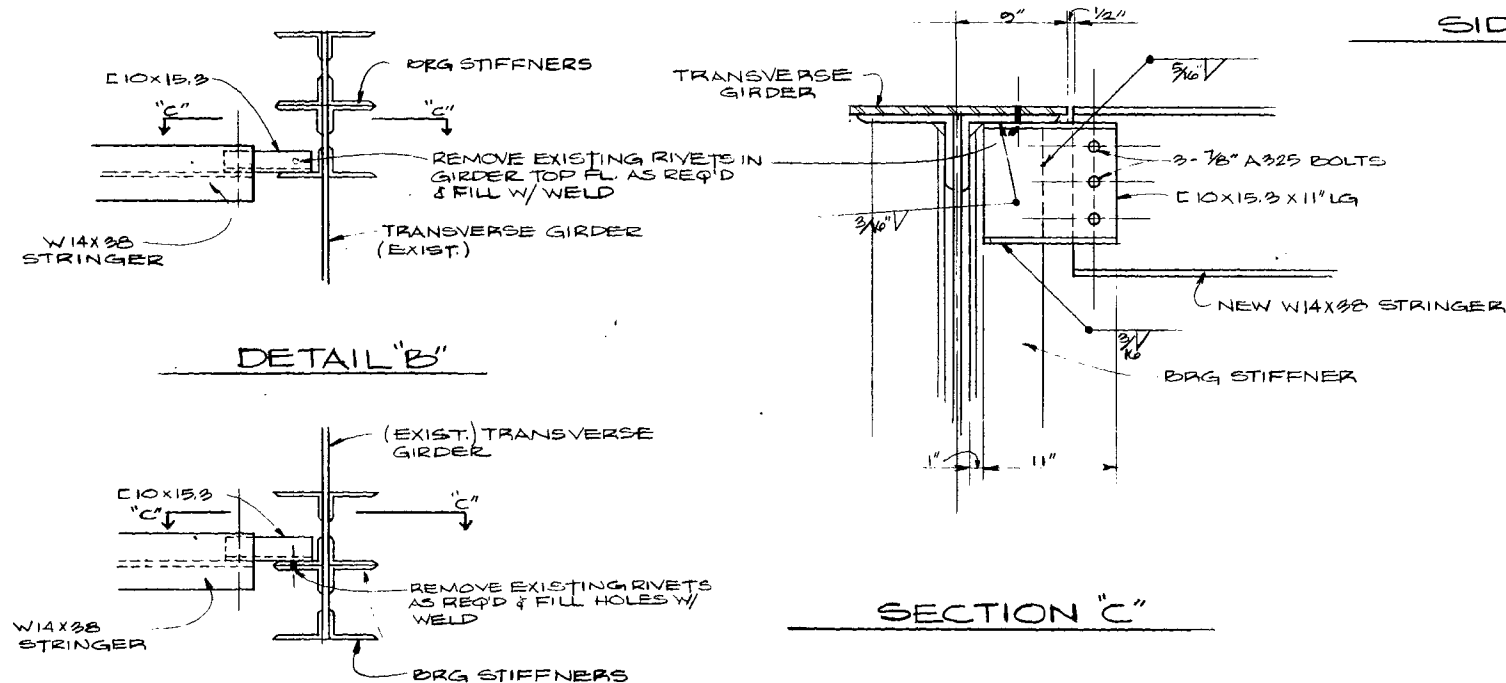
SIDEWALK BRACKET PLAN

1. EXISTING 12" I @ 50" FLR BMS TO REMAIN
2. EXISTING 14" I @ 50" FLR BMS TO REMAIN
3. NEW CANTILEVER BRACKETS (SEE DETAILS SHT 6)
4. NEW SDWK STRINGERS (W14X38) @ SPANS 3, 4, 5, 6
5. INDICATE LENGTHS ON WHICH QUANTITIES ARE BASED. DETAILING OF NEW STRUCTURAL STL. SHALL BE BASED ON SHOP DWGS FOR EXISTING SUPERSTRUCTURE WHICH WILL BE PROVIDED FOR CONTRACTORS USE.
6. NEW SDWK STRINGER W14X34 @ SPANS 1, 2 & 7
7. NEW STRINGERS MAY REQUIRE CAMBER TO MATCH CAMBER OF EXIST. GIRDERS. DETERMINE REQ'D CAMBER FROM SHOP DWGS. FOR EXIST. GIRDERS & T.S. ELEV. TABULATED ON SHT 4
8. REMOVE EXISTING L'S FOR SDWK BRACKETS ON TOP OF TRANSV. GIRDERS # 23 & # 20 FILL EXISTING HOLES W/ BOLTS.

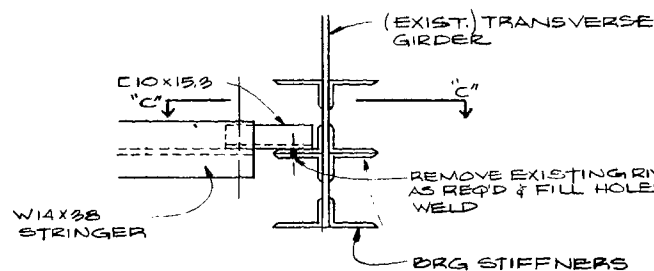


FIELD SPICE

LOCATION	DIM. "A"
W. ABUTMENT	1'-3"
BENT #1	1'-0"
BENT #2	1'-0"
COLS. #1 & #2	(SEE DETAIL)
BENT #3	1'-0"
COLS. #3 & #4	2'-0"
BENT #4	1'-0"
E. ABUTMENT	1'-3"



DETAIL "B"



DETAIL "A"

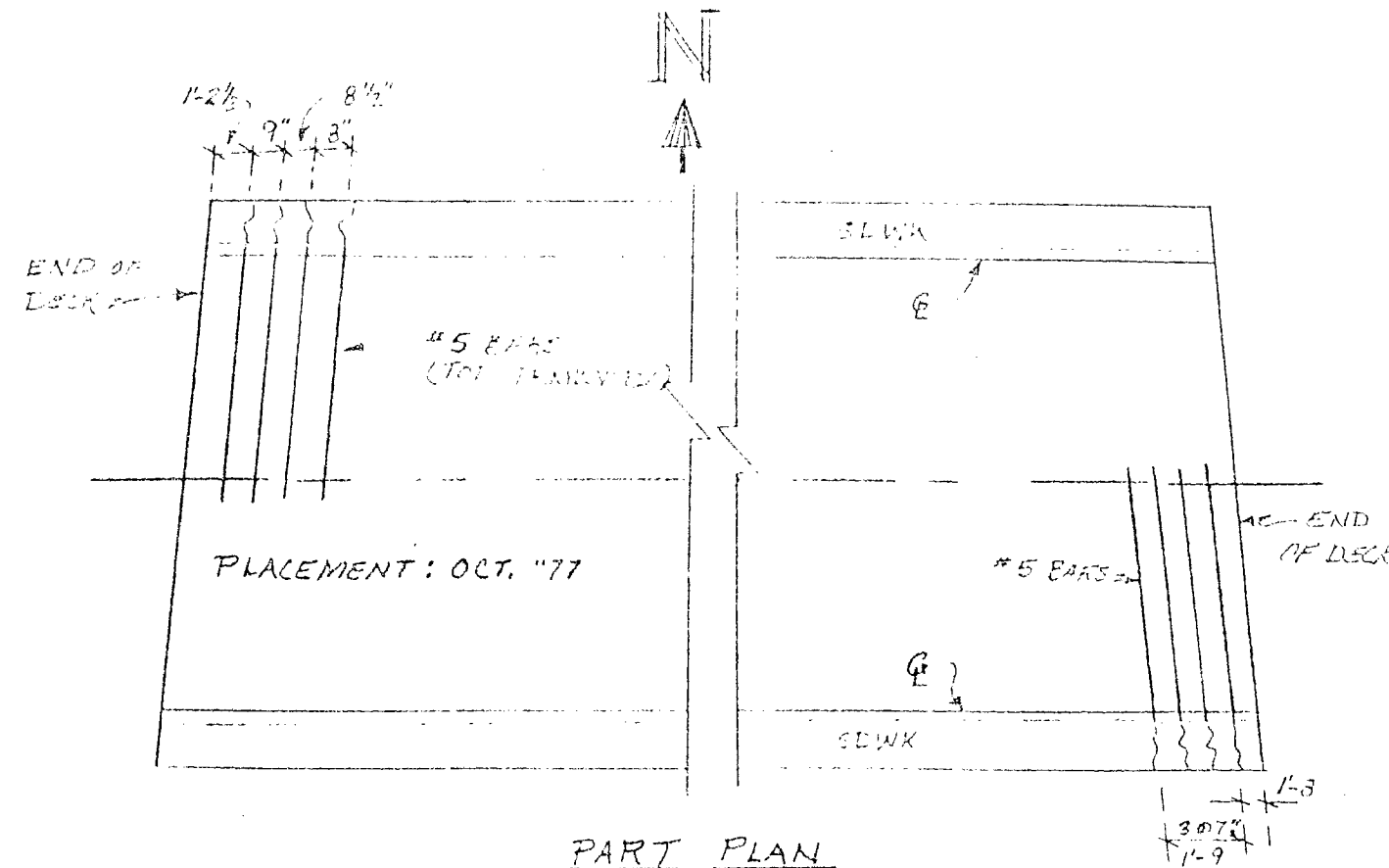
SECTION "C"

DETAIL @ END CONNECTION.

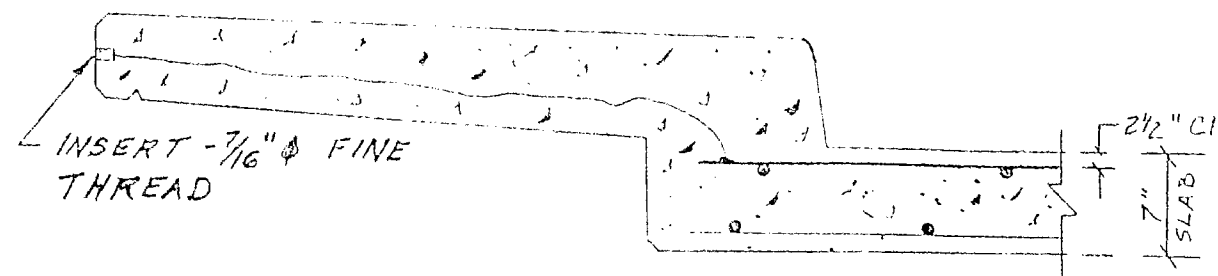
No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec. 1975	Drawn By DRS	Plans Checked J.D.B.	
SUPERSTRUCTURE BRACKET & STRINGER DETAILS		SHEET 5 OF 18 X57694	

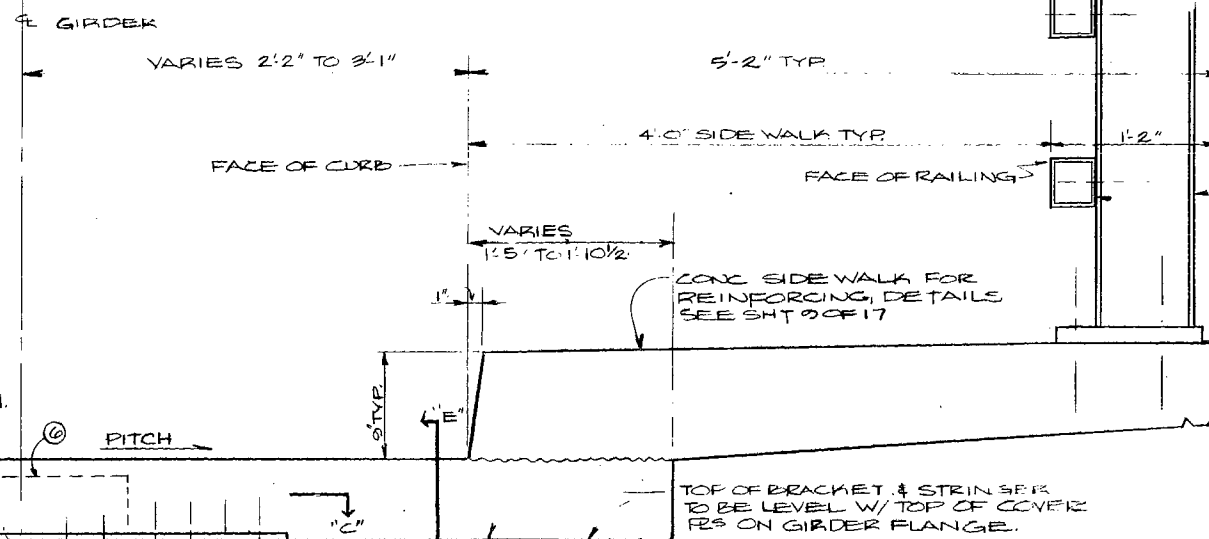
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LOCATION OF GROUNDED EPOXY BARS FOR STRUCTURE
B-13-952 ON UNIVERSITY AVE. GROUNDED PER SPECIALS



NOTE: 3M EPOXY COATED #5 BARS EXTEND
 APPROXIMATELY 24' FROM $\odot$ INTO RDWY.
 GROUND INSERTS ARE IN SEQUENCE
 WITH BAR LOCATIONS.





1. DETAILS SHOWN ARE TYPICAL FOR ALL SPANS EXCEPT AS NOTED
2. ATTACH BRACKET OPPOSITE FRAMING OF FLR BMS
3. ALL NEW STEEL TO CONFORM TO ASTM-A36
4. ALL FIELD CONNECTIONS SHALL BE MADE WITH HIGH TENSILE STRENGTH FRICTION TYPE BOLTS.
5. PAINTING OF NEW STEEL SHALL BE PROVIDED AND PAID FOR UNDER STRUCTURAL CARBON STEEL

6. REMOVE EXISTING TEE TOP FLANGE & PUNCH OUT 8 RIVETS WITHOUT DAMAGE TO TOP FLANGE

7. EXISTING COVER RS TO REMAIN.

SPANS 1,2,7
SPANS 3,4,5,6

GIRDER WEB

STIFFENER L
L5 x 3 1/2 x 3/16 (SPANS 1,2,7)
L6 x 3/2 x 3/8 (SPANS 3,4,5,6)

MIN. CL.

SPANS 1,2,7
SPANS 3,4,5,6

1/2"
3/16"
1/8"

FILL R

COPE WEB TO PROVIDE CL. FOR WELD

FILL END OF SLOT COMPLETELY W/ WELD METAL
SLOT FL FOR GROOVE WELD

SPANS 1,2,7
SPANS 3,4,5,6

3/16"
3/8"

O.S. LEG OF STIFFENER
1/8" REINFORCEMENT

SPANS 3,4,5,6

A hand-drawn diagram showing a vertical girder web intersected by a horizontal stiffener. The stiffener is a rectangular plate with hatched shading. It is welded to the web with a fillet weld. Labels with arrows point to the 'FILL' (the weld area), the 'STIFFENER' (the horizontal plate), and the 'GIRDER WEB' (the vertical plate).

TRANSVERSE SECTION
TYP SPANS 3, 4, 5, 6
SPANS 1, 2, 7, SIMILAR.

(6) 7/8" ϕ BOLTS
TYP. ALL SPANS
W14x28 SPANS 3, 4, 5, 6 } SEE SHT 5 FOR OPTIONAL
W14x24 SPANS 1, 2, 7 } EDEGE LOCATIONS

Diagram showing the distance from the centerline of the girder to the centerline of the stringer for the North and South sides.

Side	Distance (ft-in)
NORTH SIDE	3'7"
SOUTH SIDE	4'-0 1/2"

2' 8" 19/16" ϕ HOLES TO MATCH RIVET HOLES IN EXIST. STIFFENER L @ BRACKET CONNECTION DETAIL FROM SHOP DWGS. FOR EXIST. SIDER STRUCTURE CUT IF REQ'D. TO CL. FL. L

7/16"x8" FLANGE? VARIES

FORM DECK TO BOTTOM OF FLANGE

CLEARANCE

SPANS 1,2,7

15'6"

SPANS 3,4,5,6

17'8"

BRACKET DETAIL

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No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec.	1975	Drawn By	D.R.S. Plans Checked J.D.B.
SUPERSTRUCTURE BRACKET DETAILS.		SHEET 6 OF 18 X57695	

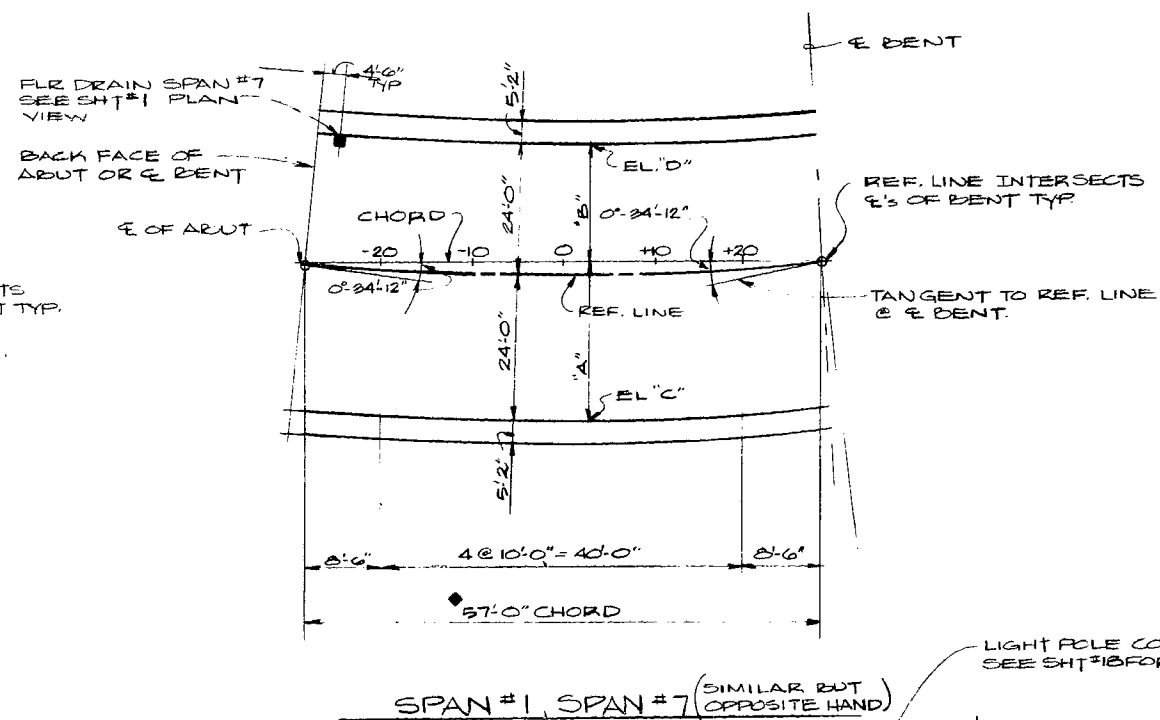
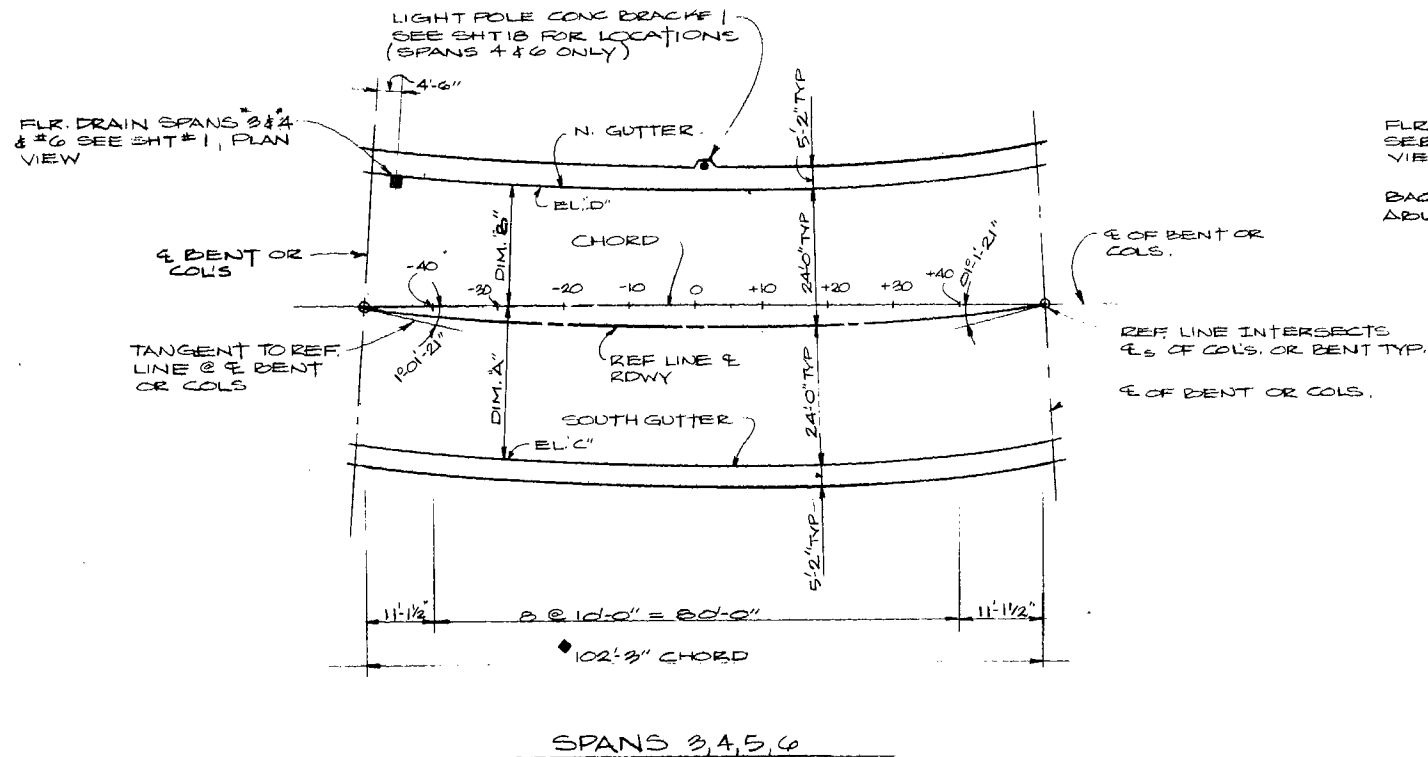
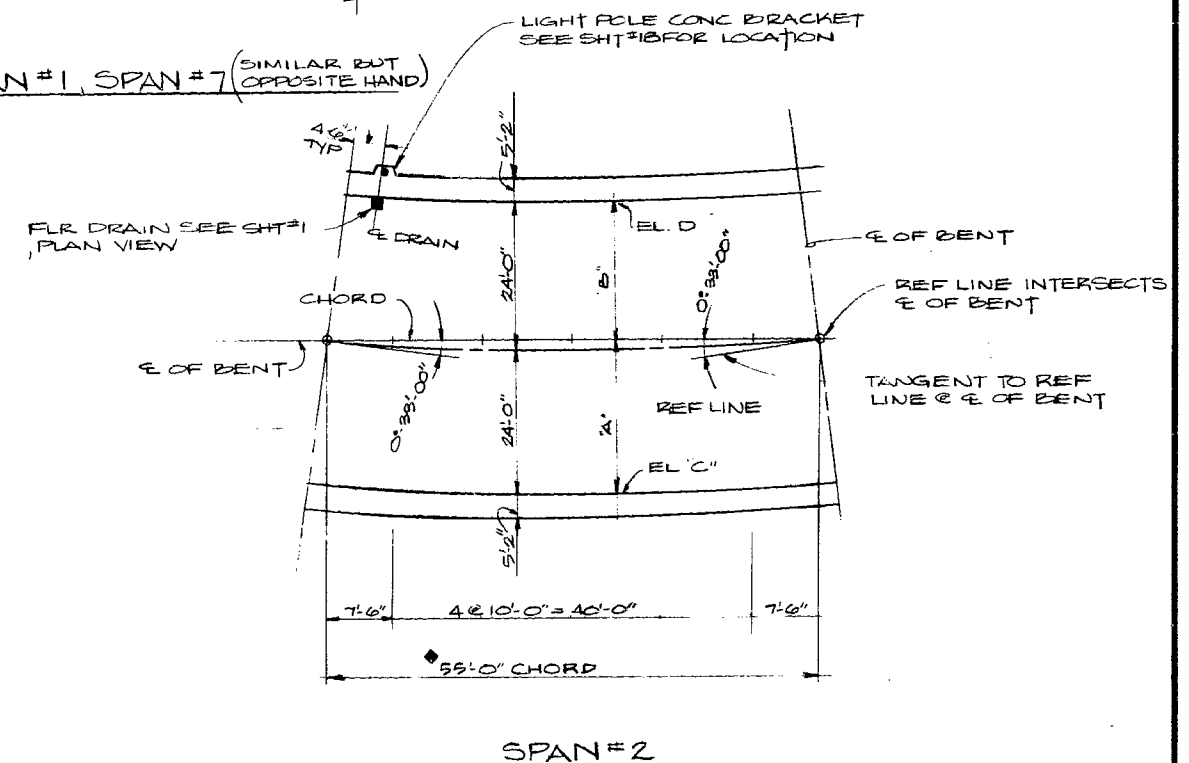


TABLE OF OFFSETS & ELEVATIONS

		EXP. JT. @ W. ABUT	EXP. JT. @ E. BENT	-20'	-10'	0	+10'	+20'	EXP. JT. @ E. BENT	EXP. JT. @ W. ABUT
SPAN #1	DIM. "A"	24'-0 1/8"	---	24'-0 7/8"	24'-1 1/2"	24'-1 3/4"	24'-1 1/2"	24'-0 7/8"	24'-0"	---
	DIM. "B"	23'-11 7/8"	---	23'-11 1/8"	23'-10 1/2"	23'-10 1/4"	23'-10 1/2"	23'-11 1/8"	24'-0"	---
	EL. "C"	937.76	---	938.00	938.31	938.63	938.94	939.22	939.47	---
	EL. "D"	938.82	---	937.06	937.37	937.69	938.00	938.28	938.53	---
SPAN #2	DIM. "A"	---	24'-0"	24'-0 3/8"	24'-1 3/8"	24'-1 3/8"	24'-1 3/8"	24'-0 3/8"	24'-0"	---
	DIM. "B"	---	24'-0"	23'-11 1/4"	23'-10 3/8"	23'-10 3/8"	23'-10 3/8"	23'-11 1/4"	24'-0"	---
	EL. "C"	---	939.47	939.68	939.94	940.20	940.45	940.69	940.86	---
	EL. "D"	---	938.53	938.74	939.00	939.26	939.51	939.75	939.92	---
SPAN #7	DIM. "A"	---	24'-0"	24'-0 7/8"	24'-1 1/2"	24'-1 3/4"	24'-1 1/2"	24'-0 7/8"	---	24'-0 1/8"
	DIM. "B"	---	24'-0"	23'-11 1/8"	23'-10 1/2"	23'-10 1/4"	23'-10 1/2"	23'-11 1/8"	---	23'-11 3/8"
	EL. "C"	---	942.27	942.20	942.12	942.04	941.96	941.88	---	941.83
	EL. "D"	---	941.33	941.26	941.18	941.10	941.02	940.94	---	940.89



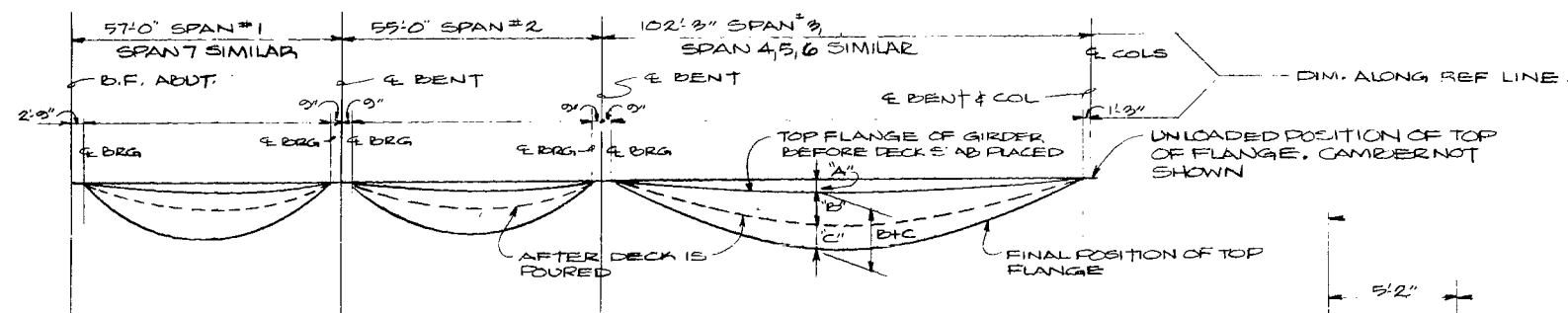
		AT WEST EXP. JOINT	-40'	-30'	-20'	-10'	0	+10'	+20'	+30'	+40'	AT EAST EXP. JOINT
DIM. A		24'-0"	24'-2 1/8"	24'-3 3/8"	24'-4 3/8"	24'-5 1/4"	24'-5 1/2"	24'-5 1/4"	24'-4 3/8"	24'-3 3/8"	24'-2 1/8"	24'-0"
	DIM. B	24'-0"	23'-0 7/8"	23'-8 3/8"	23'-7 3/8"	23'-6 3/4"	23'-6 1/2"	23'-6 3/4"	23'-7 3/8"	23'-8 3/8"	23'-0 7/8"	24'-0"
SPAN #3	EL. "C"	940.86	941.11	941.31	941.51	941.70	941.88	942.05	942.21	942.36	942.50	942.64
	EL. "D"	939.92	940.17	940.37	940.57	940.76	940.94	941.11	941.27	941.42	941.56	941.70
SPAN #4	EL. "C"	942.64	942.77	942.88	942.98	943.07	943.15	943.21	943.27	943.32	943.36	943.39
	EL. "D"	941.70	941.83	941.94	942.04	942.13	942.21	942.27	942.33	942.38	942.42	942.45
SPAN #5	EL. "C"	943.39	943.40	943.41	943.41	943.39	943.37	943.34	943.29	943.24	943.17	943.09
	EL. "D"	942.45	942.46	942.47	942.46	942.45	942.43	942.40	942.35	942.30	942.23	942.15
SPAN #6	EL. "C"	943.09	943.00	942.92	942.84	942.76	942.68	942.60	942.52	942.44	942.36	942.27
	EL. "D"	942.15	942.06	941.98	941.90	941.82	941.74	941.66	941.58	941.50	941.42	941.33

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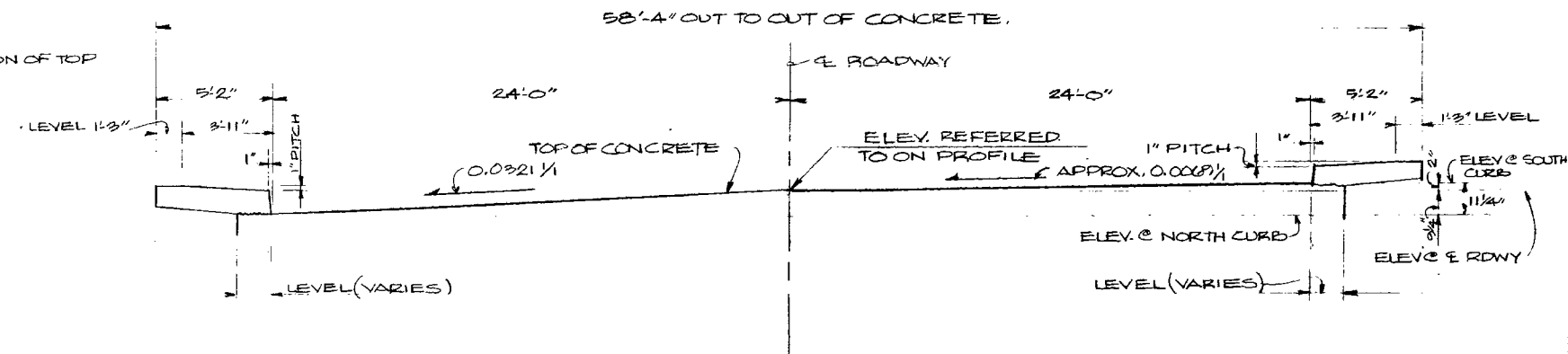
No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec. 1975	Drawn By DRS	Plans Checked JDB	
SUPERSTRUCTURE ROADWAY DECK PLAN			SHEET 7 OF 18 X57696

5992-2-61

7.7



DEFLECTION DIAGRAM.

ROADWAY CROSS SECTION
(LOOKING EAST, TYPICAL ALL SPANS)
(NOT TO SCALE)

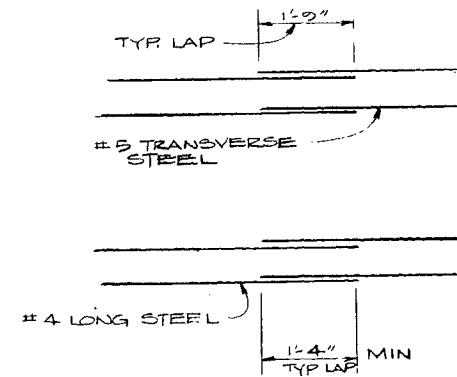
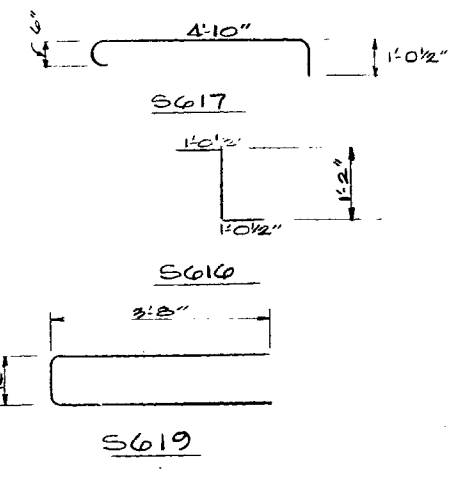
DEAD LOAD DEFLECTION SCHEDULE (INCHES)										
	GIRDERS	MARK	W. E. DRG. OR TRANSV. G.	1/8 PT	1/4 PT	3/8 PT	1/2 PT	3/4 PT	1 PT	E. E. DRG. OR TRANSV. G.
SPAN #1	G1	B	0		1/4		5/16		1/4	0
		B+C	0		3/8		1/2		3/8	0
	G2 & G3	B			1/4		3/8		1/4	
		B+C			3/8		1/2		3/8	
SPAN #2	G4	B			1/4		3/8		1/4	
		B+C			3/8		1/2		3/8	
	G5	B			3/16		5/16		3/16	
		B+C			5/16		1/2		5/16	
SPAN #3	G6 & G7	B			1/4		3/8		1/4	
		B+C			3/8		1/2		3/8	
	G8	B	0		1/4		5/16		1/4	0
		B+C	0		3/8		1/2		3/8	0
SPAN #4	* G9	B	0	5/16	1/2	11/16	3/4	1 1/16	5/16	1/16
		B+C	0	7/16	13/16	1 1/16	1 1/8	1 5/16	1 1/2	1/16
	* G10 & G11	B	0	3/8	5/8	3/4	7/8	13/16	1 1/16	3/16
		B+C	0	3/8	5/8	3/4	7/8	13/16	1 1/16	3/16
SPAN #5	* G12	B	0	5/16	3/16	3/4	13/16	3/4	5/8	1/16
		B+C	0	1/2	7/8	1 1/8	1 3/16	1 1/8	7/8	1/16
	* G13	B	1/16	5/16	3/16	11/16	3/4	1 1/16	5/16	0
		B+C	1/16	1/2	13/16	1 1/8	1 1/8	1 5/16	1 1/8	0
SPAN #6	* G14 & G15	B	3/16	1/2	11/16	13/16	7/8	3/4	5/8	0
		B+C	3/16	1/2	11/16	13/16	7/8	3/4	5/8	0
	* G16	B	1/16	3/8	5/8	3/4	13/16	3/4	5/16	0
		B+C	1/16	3/8	5/8	3/4	13/16	3/4	5/16	0
SPAN #7	G17 & G21	B	0	5/16	1/2	5/8	11/16	5/8	1/2	0
		B+C	0	7/16	13/16	1	1 1/8	1	13/16	0
	* G18 & G19	B	0	3/8	5/8	3/4	13/16	3/4	11/16	1/8
		B+C	0	3/8	5/8	3/4	13/16	3/4	11/16	1/8
SPAN #8	* G22 & G23	B	1/8	7/16	11/16	3/4	7/8	3/4	5/8	0
		B+C	1/8	7/16	11/16	3/4	7/8	3/4	5/8	0
	G20 & G24	B	0	5/16	3/16	3/4	13/16	3/4	5/16	0
		B+C	0	1/2	7/8	1 1/8	1 3/16	1 1/8	7/8	0
SPAN #9	G25	B	0		3/16		5/16		3/16	0
		B+C			5/16		1/2		5/16	
	G26 & G27	B			1/4		3/8		1/4	
		B+C			1/4		3/8		1/4	
SPAN #10	G28	B			1/4		5/16		1/4	
		B+C	0		3/8		1/2		3/8	0

A = DEFLECTION DUE TO STEEL SUPERSTRUCTURE INCLUDING NEW BRACKETS & STRINGERS
 B = DEFLECTION DUE TO ROADWAY DECK SLAB
 C = DEFLECTION DUE TO SIDEWALK SLAB & RAILING
 * INCLUDES DEFLECTION OF SUPPORTING TRANSVERSE GIRDER, G20, G20, G21, OR G22

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No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec. 1975	Drawn By DRS	Plans Checked JDB	
SUPERSTRUCTURE DEFLECTION SCHED.			SHEET 2 OF 18 X57697

7.8



DUE TO HORIZONTAL CURVE OF REF. LINE
LAP LENGTHS SHALL BE MIN SHOWN @ SOUTH
SIDE & WILL INCREASE PROGRESSIVELY
TOWARDS NORTH SIDE.

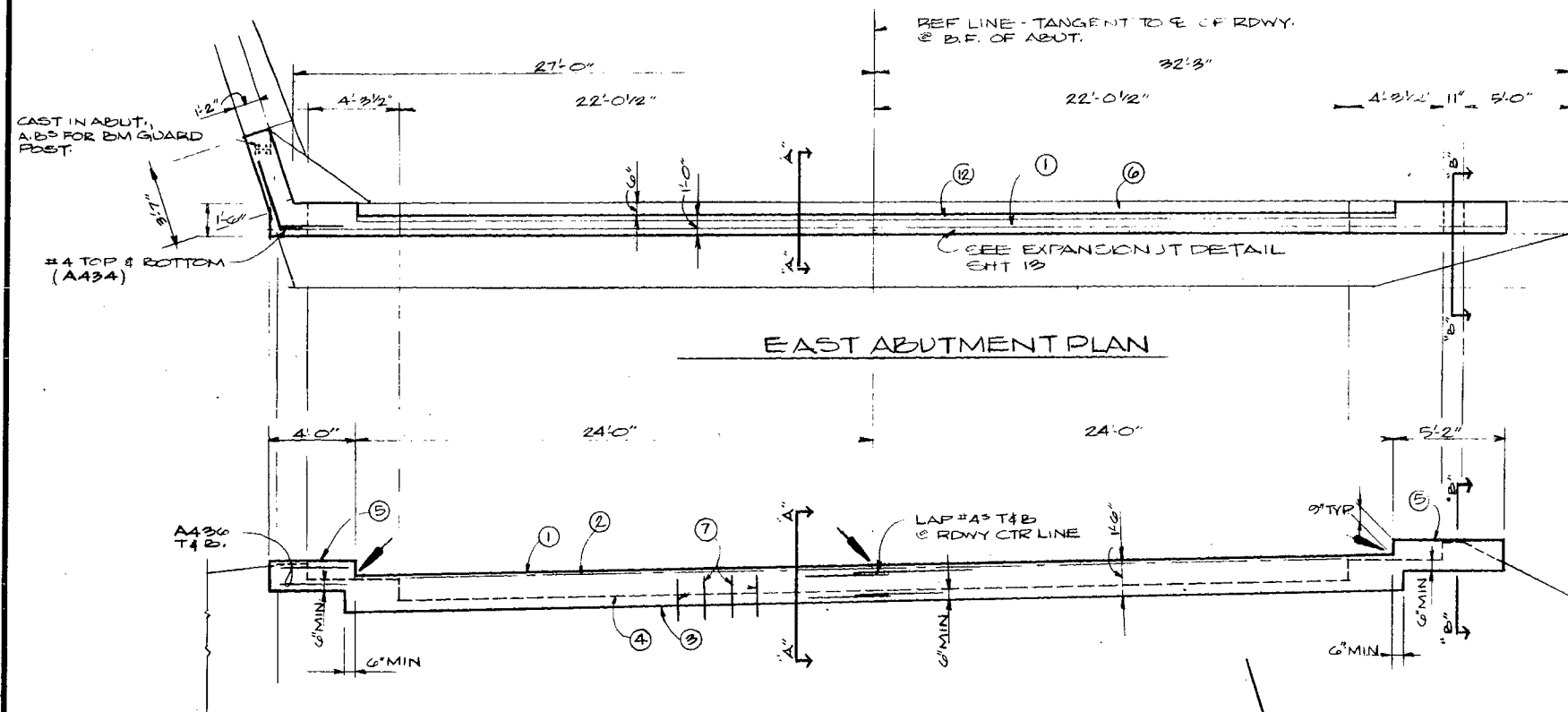
* REINFORCING TO HAVE EPOXY COATING, PER SPEC.
THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES
BAR SIZE. DIMENSIONS IN BENDING ARE OUT TO
OUT OF BAR.

→ INDICATES THAT ONE-HALF QUANTITY TO BE EPOXY COATED.

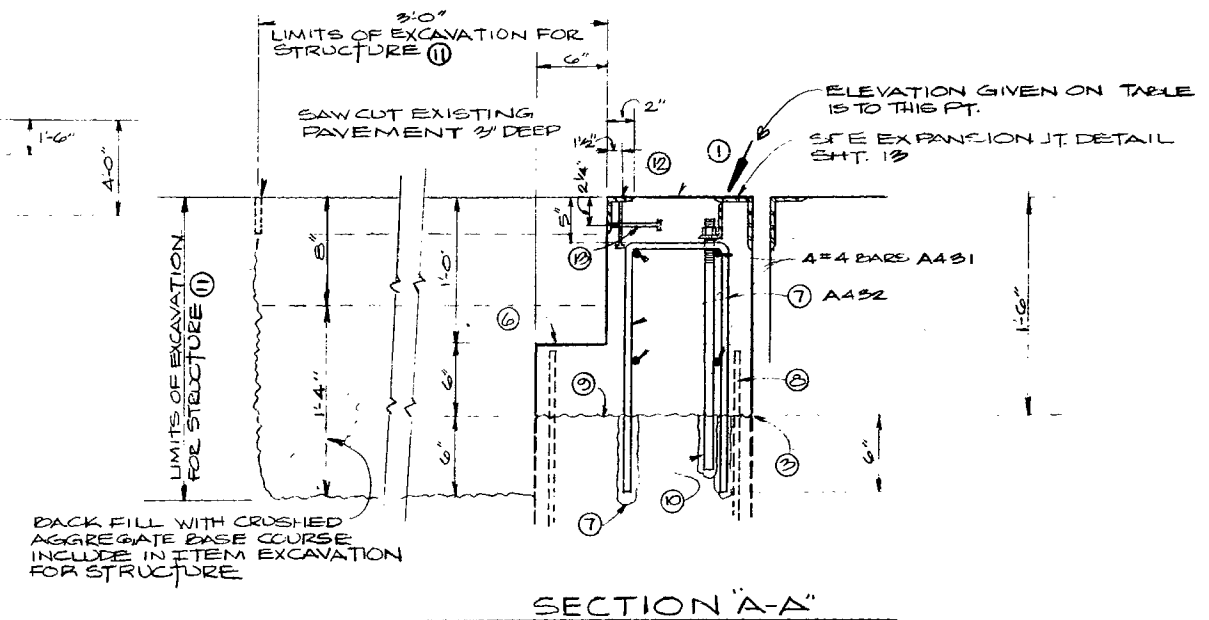
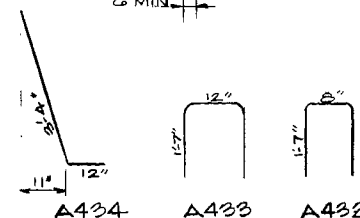
1. BOTTOM TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS OR ADJACENT TO EA GIRDER OR STRINGER & BY INDIVIDUAL BAR CHAIRS @ 2'-0" CTRS. MIDWAY BETWEEN GIRDERS OR STRINGERS.
2. TOP LONGIT. BAR STEEL SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROX 4'-0" CTRS.
3. THE 9" HT. OF SIDEWALK SHALL BE MAINTAINED AT ALL POINTS OF BRG.
4. SEE ELECTRICAL SHT. 17 OF 17 FOR LIGHT STANDARD BASE REINFORCING.



No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec.	1975	Drawn By	Plans Checked
		D.R.S.	RTM
SUPERSTRUCTURE CONC. REINFORCING		SHEET 9 OF 18 X57698	



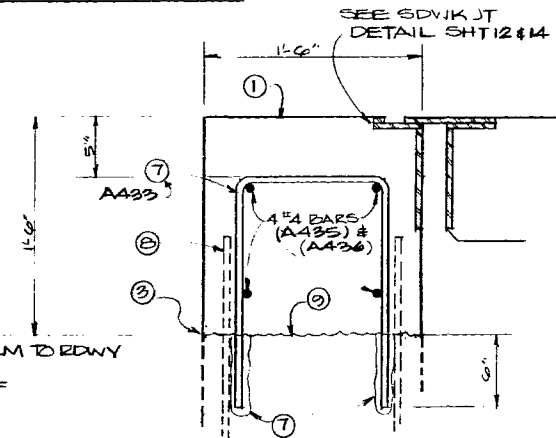
ELEVATION EAST ABUT.
(LOOKING EAST)



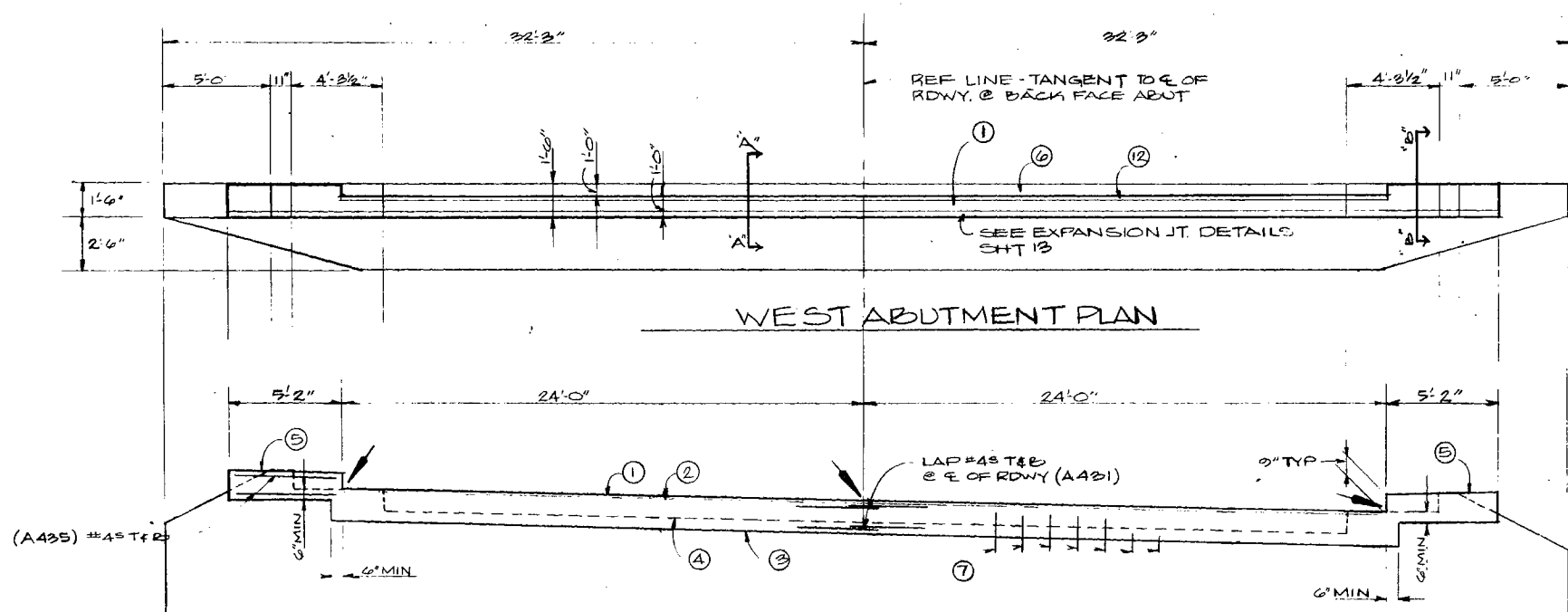
SECTION A-A

MARK	NO.	LENGTH	BENT	LOCATION
A431	10	24'-8"		ABUTMENT
A432	78	3'-8"	X	ABUTMENT
A433	10	4'-0"	X	SWK ABUTMENT
A434	2	4'-8"	X	SWK ABUTMENT
A435	12	4'-3"		SWK ABUTMENT
A436	4	3'-3"		SWK ABUTMENT

TOTAL BAR WT. 551.0 LBS



SECTION B-B



ELEVATION WEST ABUT.
(LOOKING WEST)

1. TOP OF NEW ABUTMENT, SLOPE TO CONFORM TO RDWY
2. TOP OF EXISTING RDWY.
3. SAWCUT 1" DEEP PRIOR TO BREAKING OFF TOP OF ABUTMENT TYP ALL AROUND.
4. TOP OF EXISTING ABUTMENT
5. TOP OF NEW SDWK. @ ABUTMENT.
6. APPROACH SLAB NOTCH.
7. DRILL & GROUT IN NEW #4 DOWEL BARS @ 15" OC
8. EXISTING REINFORCING STL SHALL REMAIN
9. EXERCISE CARE THAT JOINT BETWEEN OLD & NEW CONCRETE SHALL BE SQUARE. PAINT JOINT BETWEEN OLD & NEW CONCRETE W/A BONDING AGENT.
10. DRILL & GROUT IN BOLTS TO SUPPORT JOINT ARMOR ANGLE
11. REMOVE EXIST. 3" BITUM OVERLAY & 1/2" CONC. BASE SLAB & EXCAVATE TO DEPTH SHOWN
12. 3" x 2" x 3/16" L
13. 3/8" x 4" ANCHOR STUDS x 4" LG @ 6" ALTERNATE CTRS, WELD TO L #12
14. CONCRETE REMOVAL IS PART OF ITEM; REMOVING OLD BRIDGE & WILL BE PAID FOR UNDER THIS ITEM. CONC. MASONRY, BAR STEEL & EXCAVATION, ARE PART OF THOSE ITEMS.

ELEV. TABLE

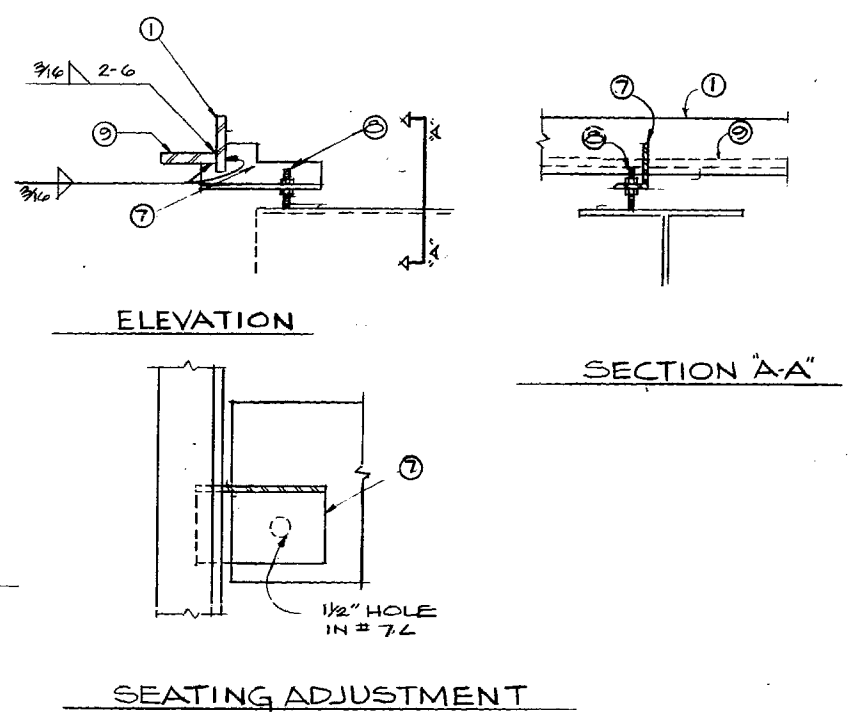
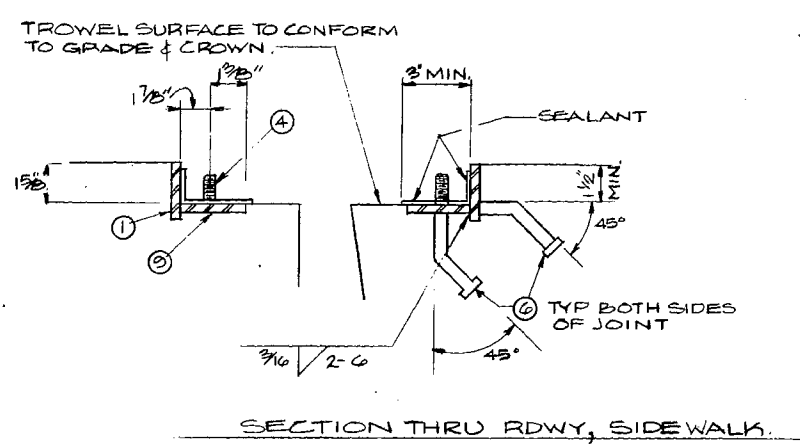
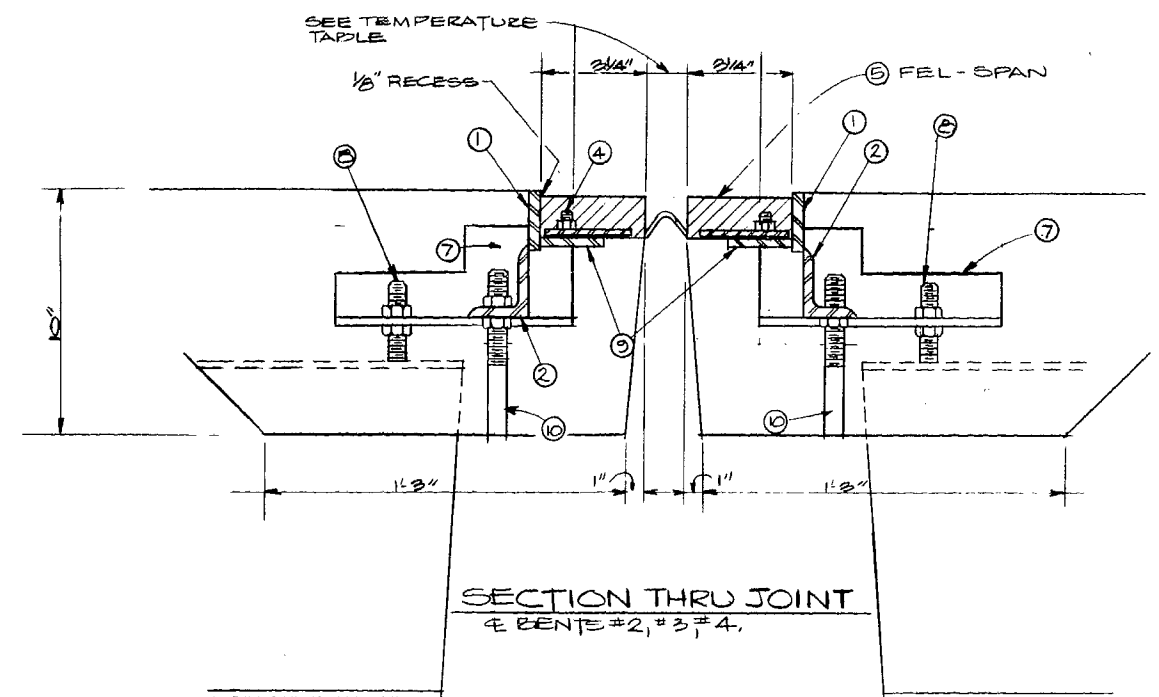
LOCATION	W. ABUT	E. ABUT
E. ROADWAY	937.55	941.66
N. GUTTER	936.82	940.89
S. GUTTER	937.76	941.53

ARROW INDICATES PT. OF ELEV @ ABUTMENT.

* SEE NEW PROFILE GRADE SHEET # 7.0

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-052			
Const. Spec. 1975	Drawn By DRS	Plans Checked R.T.K	
ABUTMENT MODIFICATION			SHEET 10 OF 18 X57699

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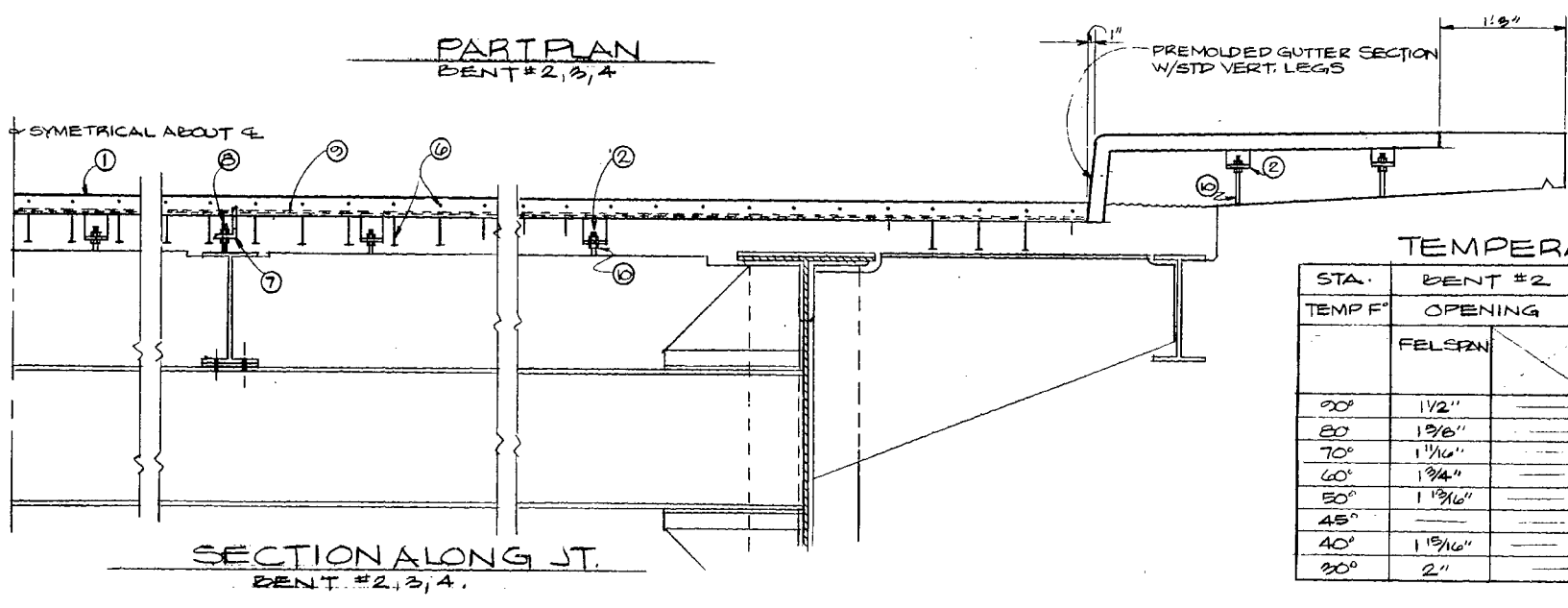
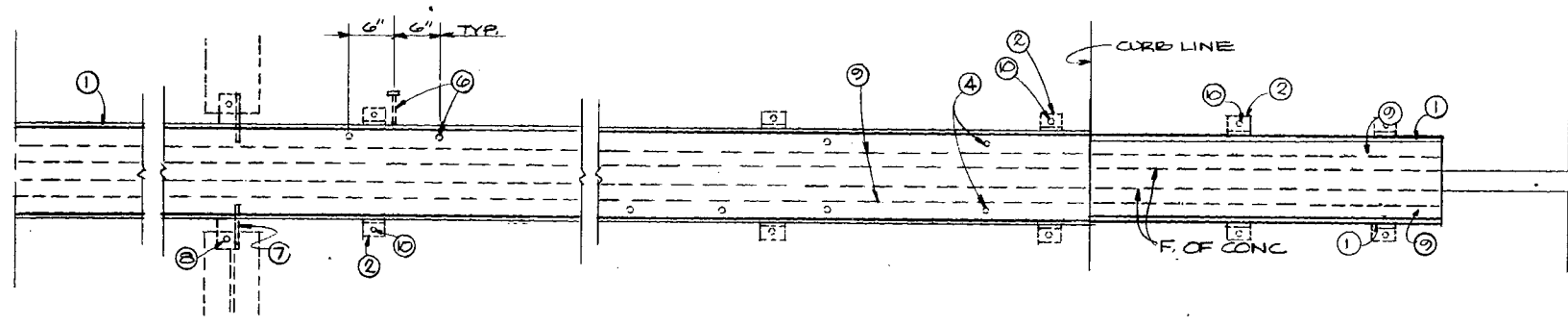
GENERAL NOTES

APPLY SEALANT ALONG BOTTOM & SIDES OF TROUGH AS RECOMMENDED BY MANUFACTURER PRIOR TO PLACING EXPANSION DEVICE. CONCRETE MUST BE FREE OF ALL DERRIS.

EACH STUD #4 SHALL HAVE A WASHER & HEX NUT OR TORQUE NUT. TIGHTEN ALL NUTS TO MANUF. RECOMMENDED TORQUE.

CLEAN BOLT HOLE CAVITY AND FILL CAVITY DEPTH W/ SEALANT OR BOLT HOLE PLUG. CLEAN EXCESS SEALANT FROM SURFACE.

ELASTOMERIC JT. ASSEMBLY, INCLUDING ANCHORAGE ARMOR AND HARDWARE WILL BE PAID FOR @ THE LUMP SUM PRICE FOR EXPANSION DEVICE.

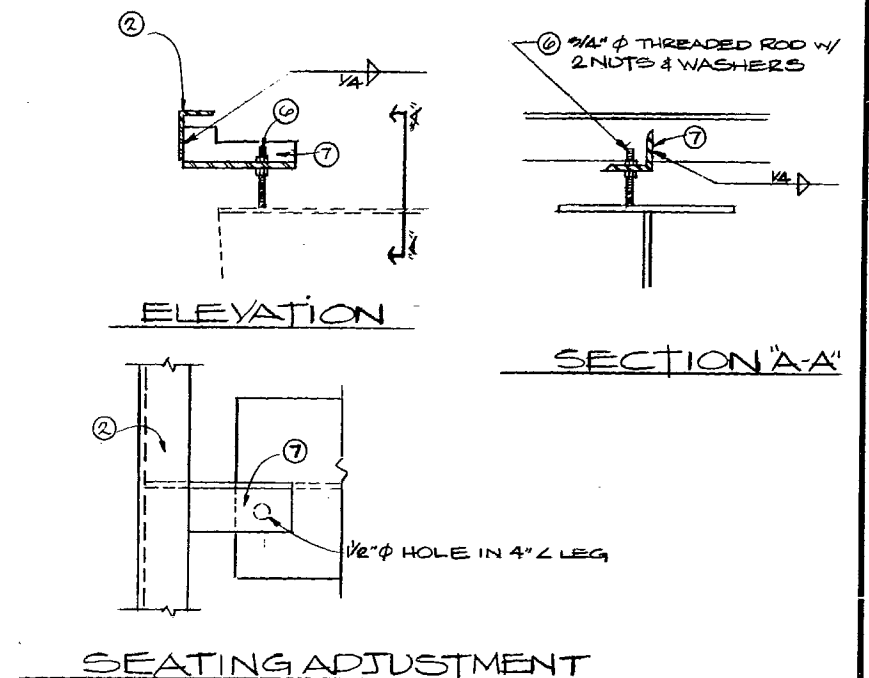


TEMPERATURE TABLE						
STA.	BENT #2	BENT #3	BENT #4			
TEMP F	OPENING	OPENING	OPENING			
	FELSPAN	FEL-SPAN	FEL-SPAN			
90°	1 1/2"	1 3/16"	1 1/2"			
80°	1 3/8"	1 5/16"	1 3/8"			
70°	1 1/4"	1 1/2"	1 1/4"			
60°	1 3/4"	1 3/8"	1 3/4"			
50°	1 13/16"	1 13/16"	1 13/16"			
45°						
40°	1 13/16"	1 13/16"	1 13/16"			
30°	2"	2 1/8"	2"			

1. BAR 2 1/2" x 3/8" BUILT TO CONFORM TO ROADWAY CROWN.
2. L 3/4" x 2 1/2" x 3/8" x 2" LONG, PLACE MIDWAY BTWN. STRINGERS WELD TO #1. PROVIDE 1 3/16" HOLE IN 2 1/2" LEG FOR #10
3. VOID
4. THREADED STUDS PROVIDED BY MANUF. WELD TO #9
5. FEL SPAN MODEL # T-303A
6. 1/2" x 6" STUDS @ 6" ALTERNATE CTRS BEND AFTER WELDING TO NO. 1 OR NO. 9
7. L 4" x 3" x 3/8" W/ 1 1/2" HOLE FOR #8 IN 4" LEG
8. WELD 3/4" THREADED ROD TO TOP OF GIRDER OR STRINGER FLANGE AS SHOWN
9. 3/8" x 3 1/4" BAR WELD TO #1
10. 3/4" Q ROD (THREAD 4") WELD NUT TO #2

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No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec. 1975	Drawn By D.R.S.	Plans Checked RTH	
EXPANSION DEVICE BENT #2, #3, & 4			SHEET 11 OF 18 X57700



GENERAL NOTES.

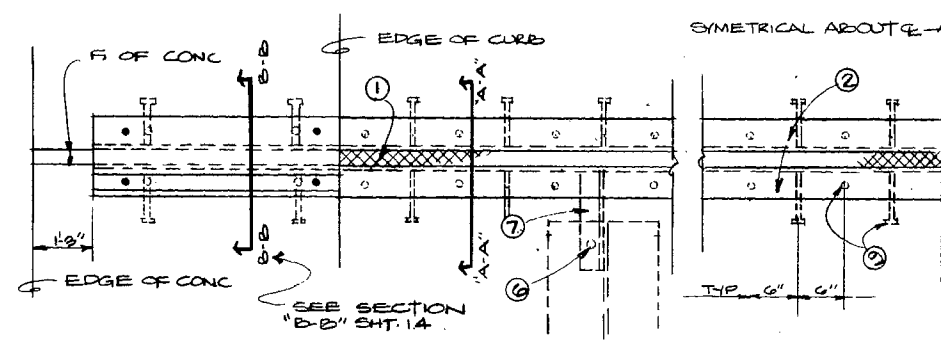
AFTER CONCRETE HAS SET; THE JOINT OPENING SHALL BE THOROUGHLY CLEANED. EXPANSION JOINT SHALL BE BUILT TO CONFORM TO ROWY CROVIN & GRADE. ALL MTL IN EXP. JT. EXCEPT NEOPRENE SEAL SHALL BE PAID FOR STRUCTURAL CARBON STEEL. ONE FIELD SPICE IN ARMOR L^S SHALL BE PERMITTED. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NEOPRENE SEAL CAPPING DETAIL - PROVIDE EITHER: SCE-42B CLOSED CELL NEOPRENE SPONGE CONFORMING TO ASTM D1056-67T, 1 THICK CUT TO MATCH THE UNCOMPRESSED SEAL CROSS SECTION & CEMENTED IN PLACE W/ THE LUBRICANT ADHESIVE, OR A FLAP FORMED BY CUTTING AWAY ALL BUT THE TOP SURFACE OF THE SEAL THEN BENT DOWN & CEMENTED IN PLACE.

LEGEND

1. PREFORMED ACME, BROWN OR WATSON - BOWMAN NEO PRENE SEAL
2. $6" \times 4" \times 3/8" \angle 5$, ANGLE FACES MUST BE PARALLEL WITHIN $1/16" \pm$. ANGLES TO CONFORM TO ROADWAY CROWN
3. $3/8" \phi \times 4" \text{ LG STUDS @ } 6" \text{ ALTERNATE CENTERS WELD TO ARMOR ANGLE}$
4. $1/2" \times 2 1/2" \times 3/8" \times 3" \text{ LG PLATE @ } 30" \text{ GC ON ADJUT. SIDE, WELD TO } \angle 2$, PROVIDE $1 3/16" \phi \text{ HOLE IN } 2 1/2" \text{ LEG FOR \#5}$
5. $3/4" \phi \text{ ROD } \times 1 1/2" \text{ LG W/ NUT, TACK WELD NUT TO BOTTOM OF OF } \angle \#11 \text{ (THREAD } 3/4") \text{ IF GROUTED IN PLACE PROVIDE 2 NUTS FOR ADJUSTMENT, DO NOT WELD.}$
6. WELD $3/4" \phi \text{ THREADED ROD TO TOP OF GIRDER OR STRINGER AS SHOWN, @ COLS } 1 \& 2 \& \text{ COLS } 3 \& 4 \text{ SPACE @ } 30" \text{ CTRS.}$
7. $4" \times 3" \times 3/8" \text{ W/ } 1 1/2" \phi \text{ HOLE FOR \#6, HOLES IN } 4" \text{ LEG}$
8. RETAINER BAR $1/4" \times 1"$, FILLET WELD TO BE STAGGERED W/ PLUG WELD. WELD TO $\angle 2$
9. $5/8" \phi \times 6 \times 3/8" \text{ LG STUDS @ } 6" \text{ ALTERNATE CTRS, WELD TO } \angle 2$
10. $1 3/16" \phi \text{ VENT HOLES SPACED @ } 24" \phi \text{ CTRS ON } \angle \#2 \& \text{ RS } 12 \& 13$

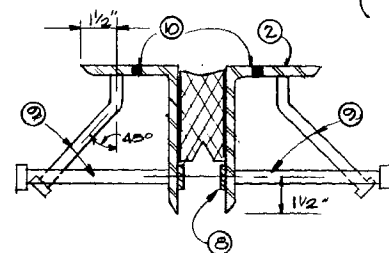
NOTE.

WORK THIS SHT W/ SHT # 14

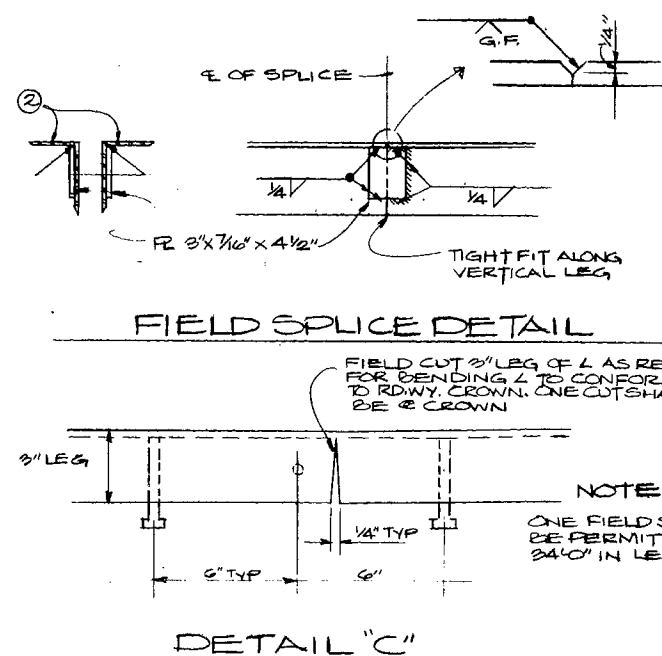


PARTS PLAN

(4 COLS 1 & 2, 4 COLS. 3 & 4) & BENT #1
SIMILAR



SECTION "A-A"



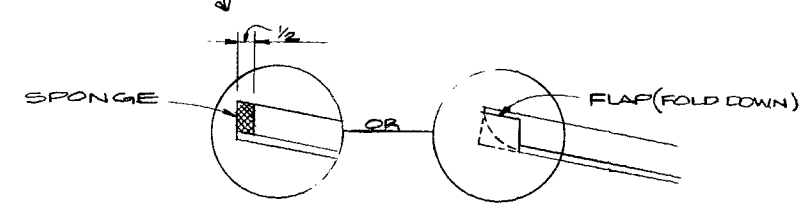
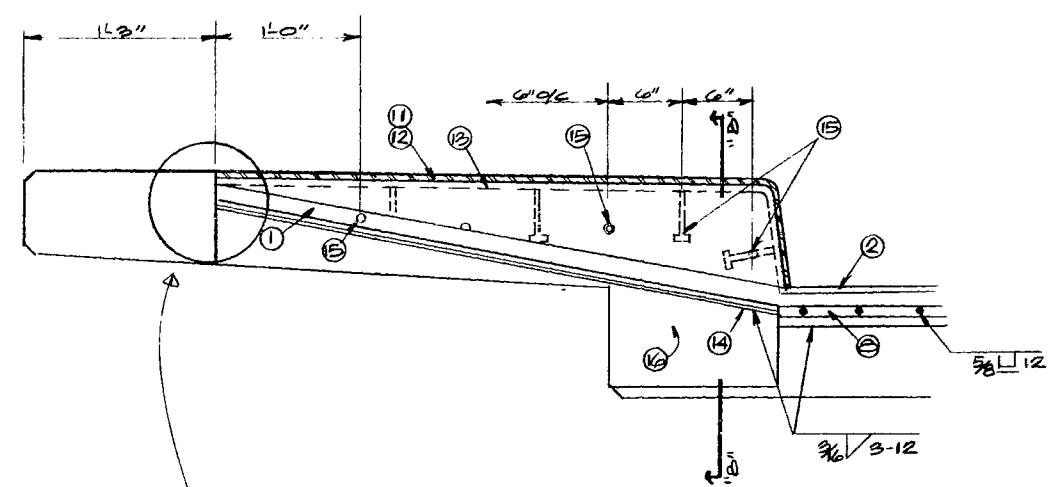
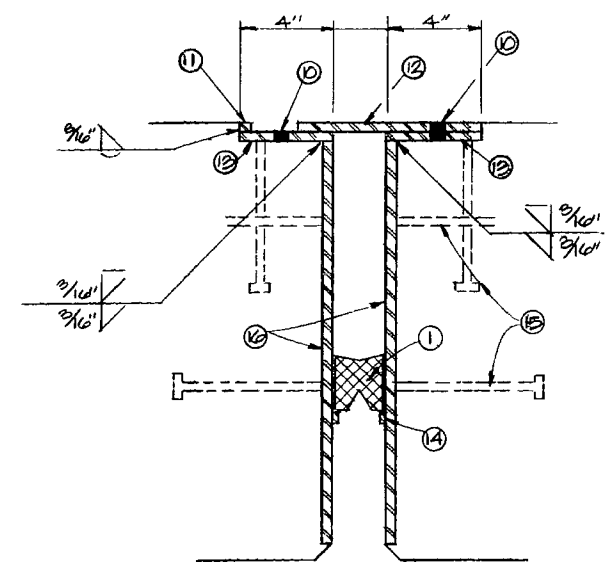
DETAIL "C"

STA.	W. ABUT.		COLS #1 & 2		COLS #3 & #4		E. ABUT		BENT #1	
TEMP °F	OPENING		OPENING		OPENING		OPENING		OPENING	
	J-300 H-3000	WA-300	J-200 H-2000	WA-200	J-200 H-2000	WA-200	J-300 H-3000	WA-300	J-200 H-2000	WA-200
90°	2"	2"	1 5/16"	1 5/16"	1 5/16"	1 5/16"	2"	2"	1 5/16"	1 5/16"
80°	2 1/16"	2 1/16"					2 1/16"	2 1/16"		
70°	2 1/8"	2 1/8"					2 1/8"	2 1/8"		
60°	2 1/8"	2 1/8"					2 1/8"	2 1/8"		
50°	2 3/16"	2 3/16"					2 3/16"	2 3/16"		
45°										
40°	2 1/4"	2 1/4"					2 1/4"	2 1/4"		
30°	2 5/16"	2 5/16"	↓	↓	↓	↓	2 5/16"	2 5/16"	↓	↓

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-052			
Const. Spec. 1375	Drawn By D.R.S.	Plans Checked RTH	
COMPRESSION- SEAL JT		SHEET 13 OF 18	
COLS #1 & 2 COLS #3 & 4 E. & W. ABUT. & BENT#1		X57701	

LEGEND (CONTINUED FROM SHT #13)

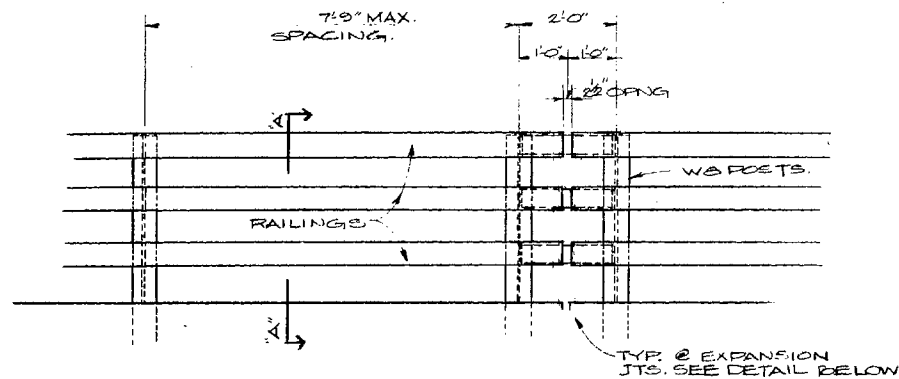
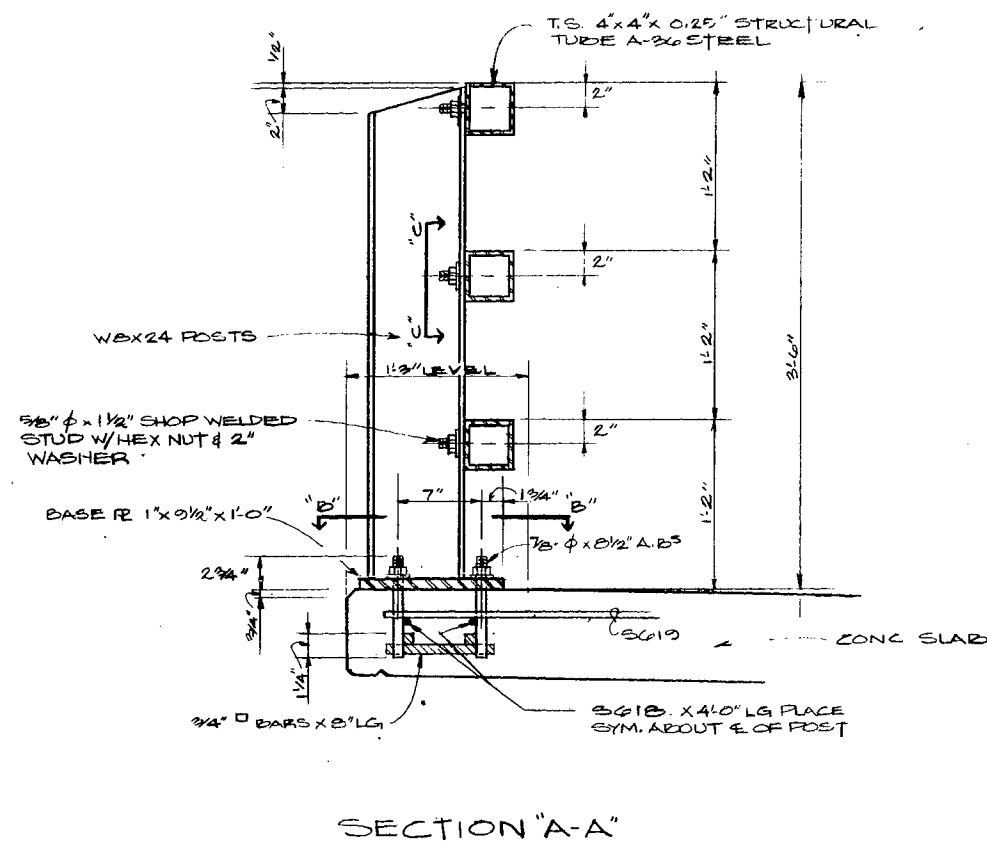
10. 13/16" ϕ VENT HOLES PLACED @ 2'-0" CTRS ON R#12 & 13 & L#2.
11. R 3/8" x 1/2" WELD TO R#13 ABUT. SIDE AS SHOWN
12. R 3/8" x 1/2" FASTEN TO R#13 ON EXPANSION SIDE W/ 1/2" ϕ STAINLESS STEEL COUNTER SUNK BOLTS @ 1'-0" CTRS. TACK WELD NUT TO PLATE NO.13.
13. R 3/8" x 4" WELD TO R#16 AND L#2.
14. RETAINER BAR 1/4" x 1/2", WELD TO R#17
15. 3/8" ϕ x 6 3/8" LG STUDS. WELD TO R#13 & #16
16. 2" R SHAPE TO FIT, SHOP WELD TO R#13



CAPPING DETAIL
(NEOPRENE SEAL @ SDWK)

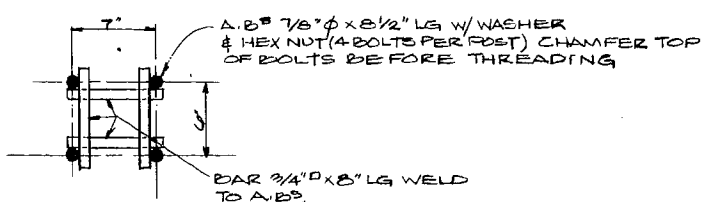
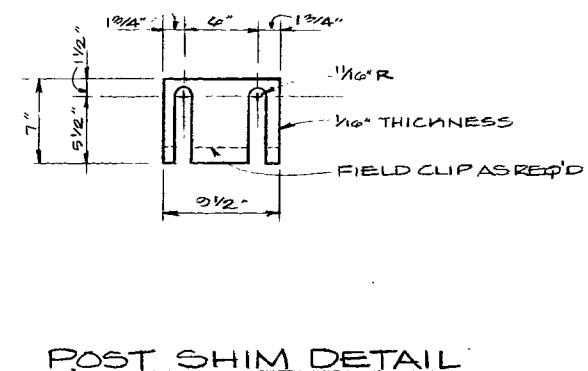
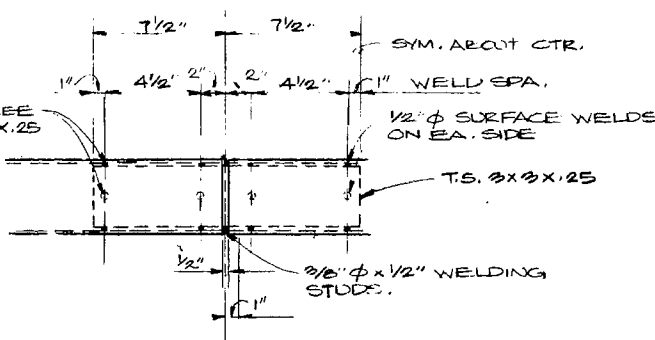
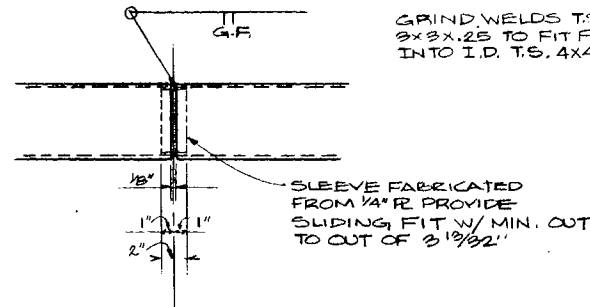
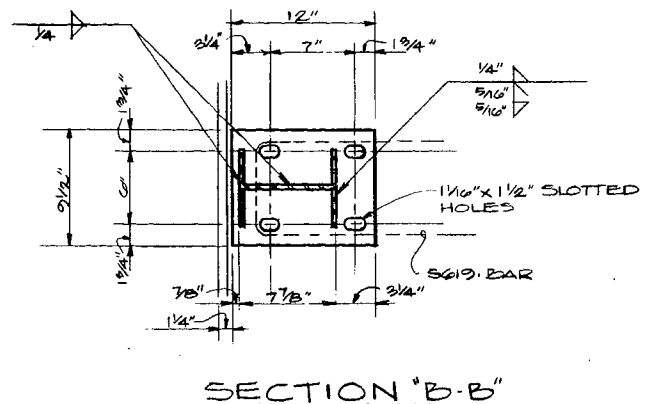
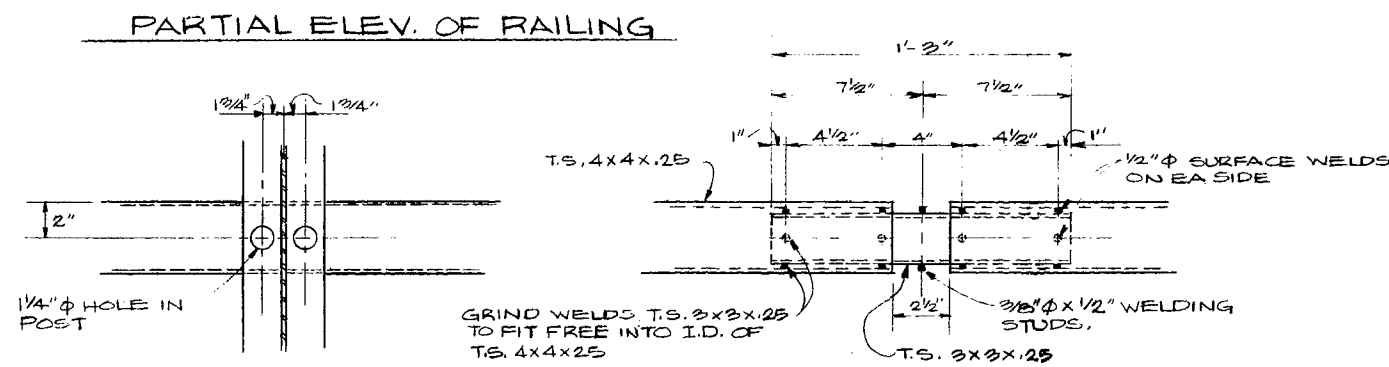
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WORK THIS SHT. WITH #13			
No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec.	1975	Drawn By	D.R.S.
		Plans Checked	RTH
NEOPRENE SEAL EXPANSION JT. @ SIDEWALK COLS #1 & 2 & 3, 4, E & W ABUT # BENT #1			SHEET 14 OF 18 X57702



NOTES:

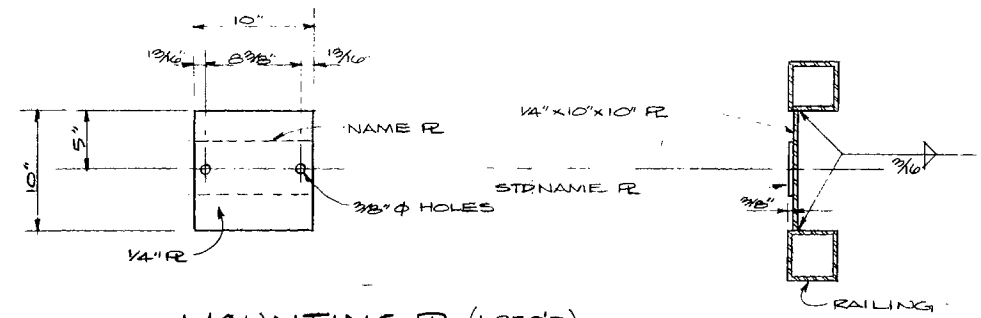
1. RAILING SHALL BE 4" x 4" x 0.25" STRUCTURAL TUBING CONFORMING TO ASTM DESIGNATION A-36.
2. CAULK EXP. JOINTS BETWEEN SHIMS.
3. UPPER 4" OF ANCHOR BOLTS, NUTS & WASHERS SHALL BE GALVANIZED.
4. ALL MEMBERS SHALL BE GALVANIZED AFTER FABRICATION.
5. FILL POST ANCHOR BOLT HOLES W/ NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
6. ANCHOR BOLTS SHALL BE 7/8" ϕ NOMINAL CONFORMING TO ASTM A325 W/ 3" THREAD.
7. POST, BASE PL AND SHIMS SHALL BE MADE FROM MATERIAL CONFORMING TO ASTM DESIGNATION A36. PLACE POST NORMAL TO GRADELINE.
8. POSTS, BASE PL SHALL BE FLAT W/ ALL SURFACES FREE FROM WARP & ALL EDGES SMOOTH, STRAIGHT & VERTICAL. ALL R CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.
9. PLACE ANCHOR BOLTS NORMAL TO BASE PL.



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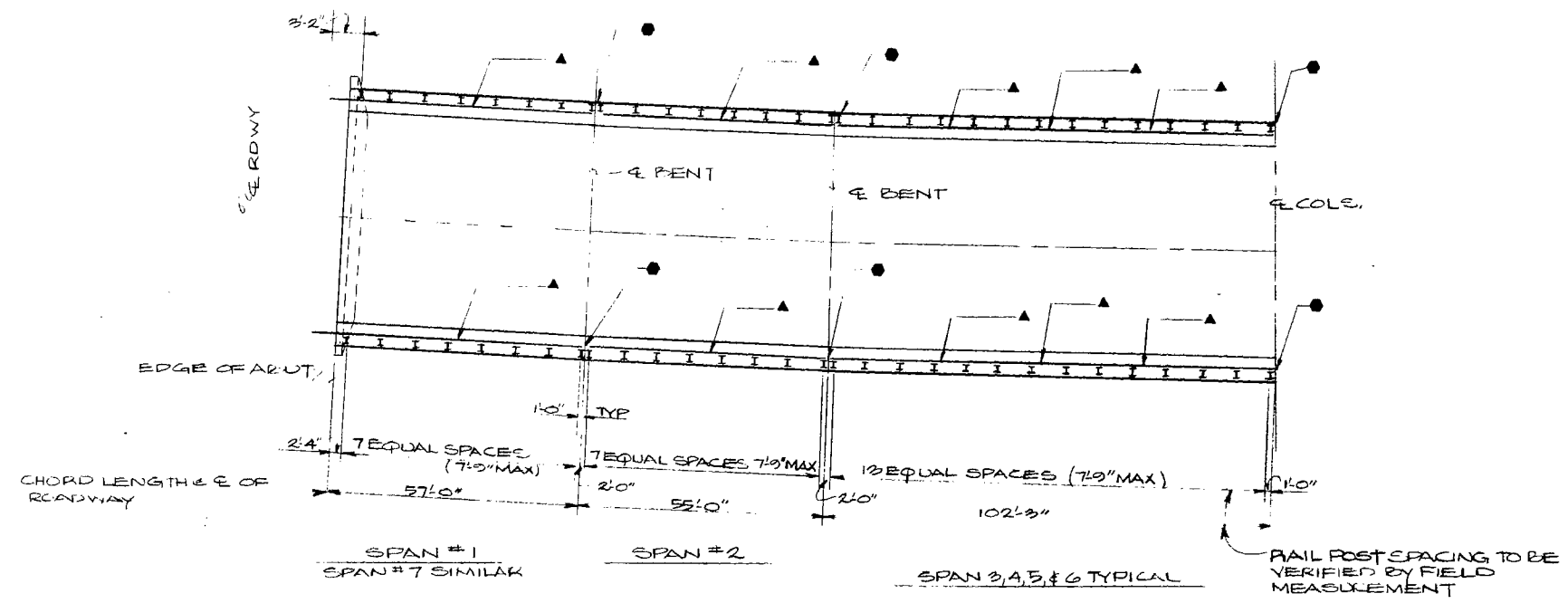
No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec. 1975	Drawn By D.R.S.	Plans Checked R.T.K.	
STEEL RAILING			SHEET 14 OF 18
			X57704

- ▲ FIELD ERECTION JT. SEE DETAIL SHT 10 @ 1/2 PANEL LENGTH ± 4" TO NEAREST POST
- SEE PARTIAL RAIL ELEV. SHT 10 FOR RAIL DETAILS & EXPANSION JOINTS

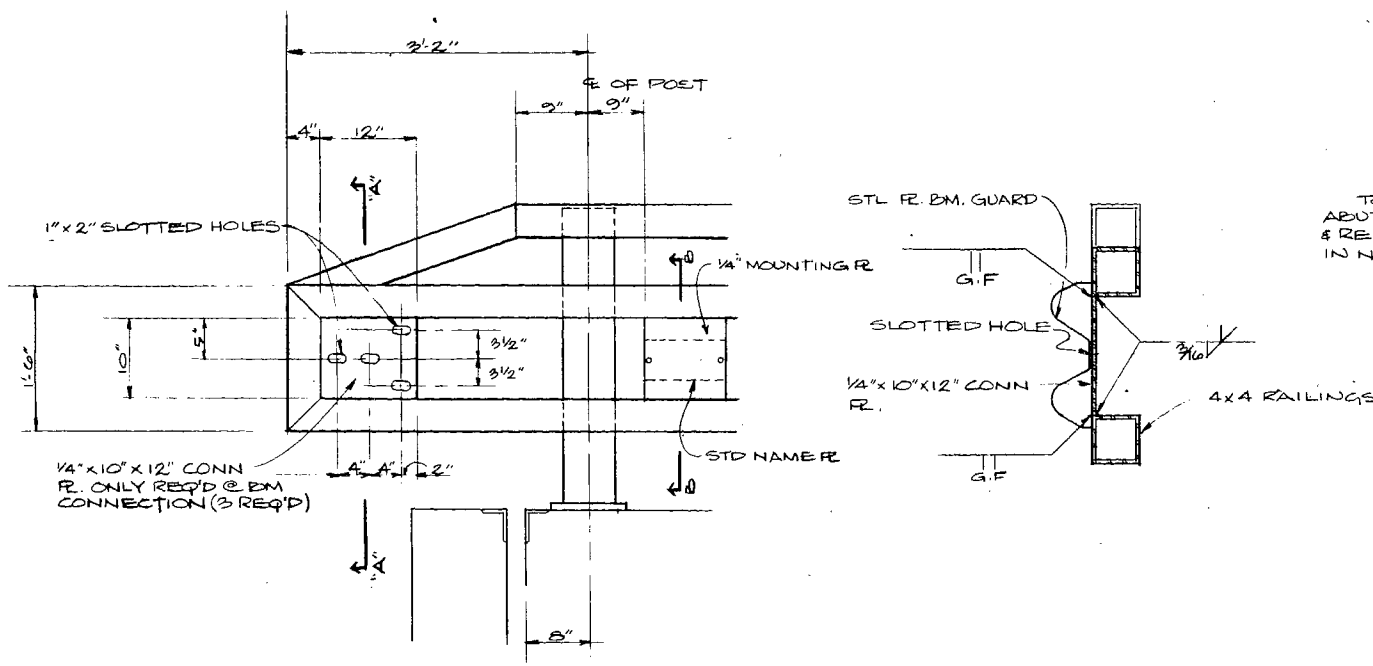


MOUNTING R. (1 REQ'D)
(FOR NAME R.)
(SEE SHT #1 FOR LOCATION)

SECTION "B-B"

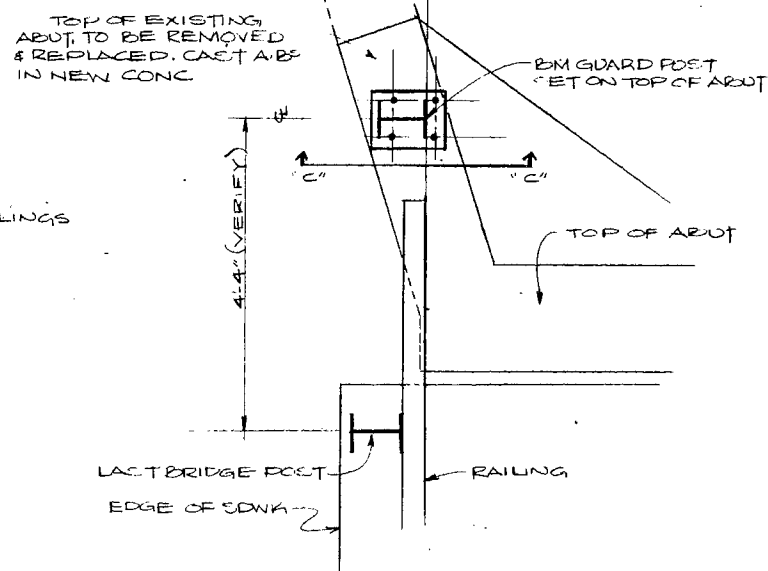


POST & RAILING PLAN VIEW

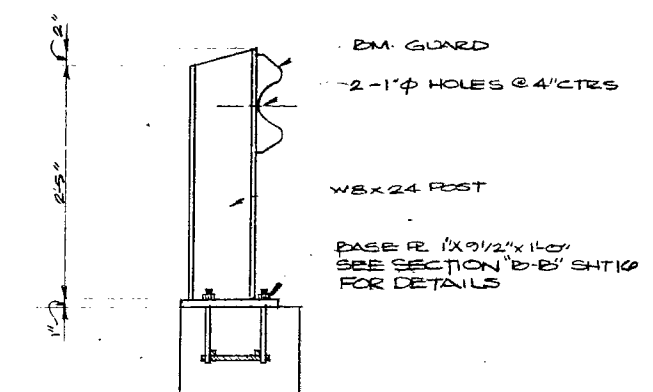


PARTIAL ELEVATION

SECTION "A-A"



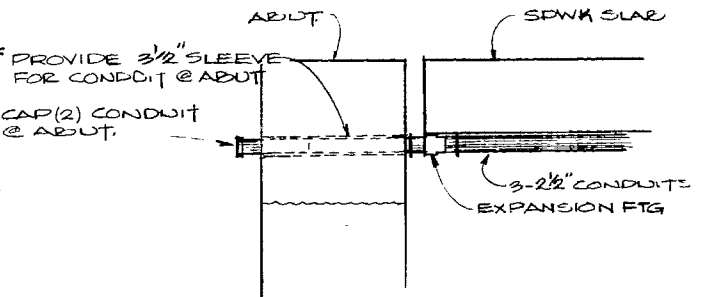
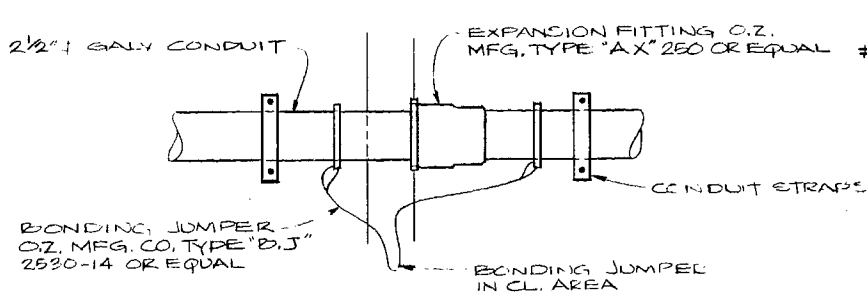
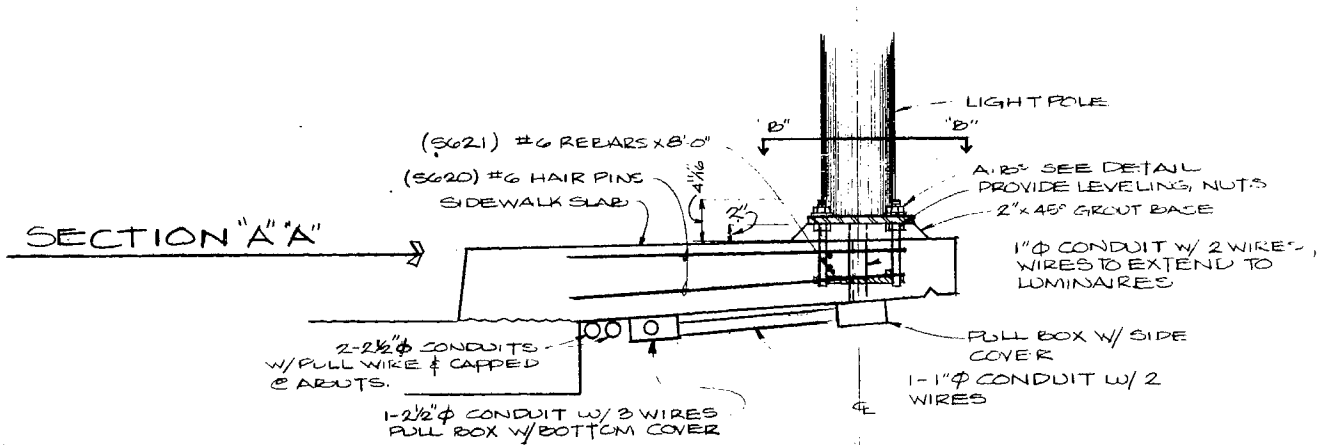
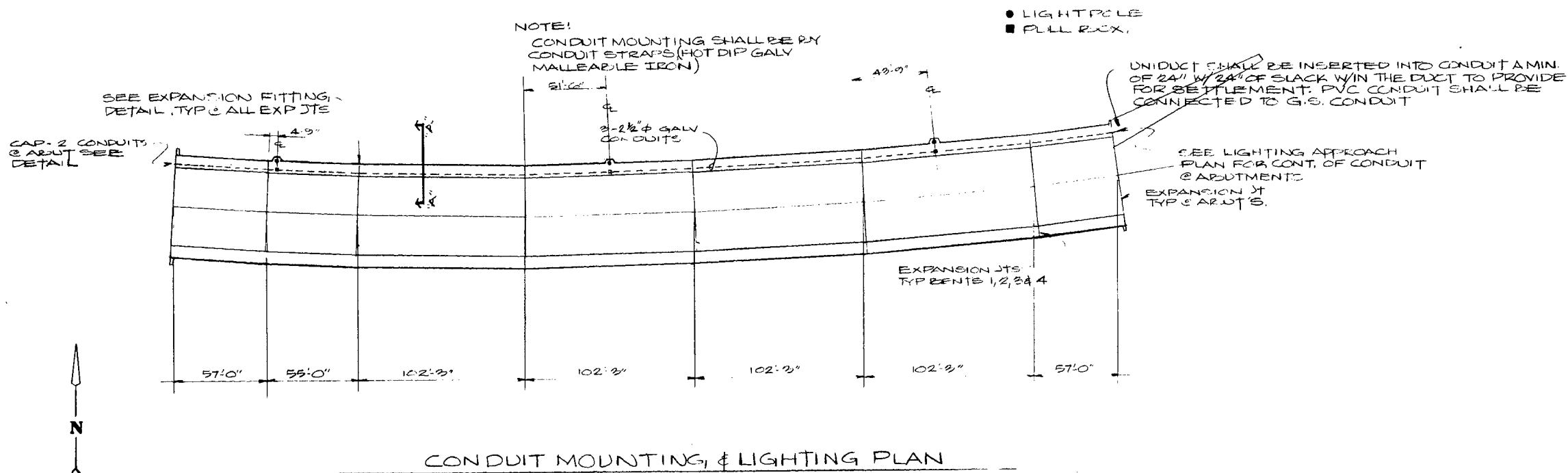
RAILING PLAN VIEW @ ABUT.
BRIDGE N.W. CORNER ABUTMENT



SECTION "C-C"

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No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-952			
Const. Spec. 1975	Drawn By D.R.S.	Plans Checked R.T.H.	
STEEL RAILING			SHEET 17 OF 18
			X57705



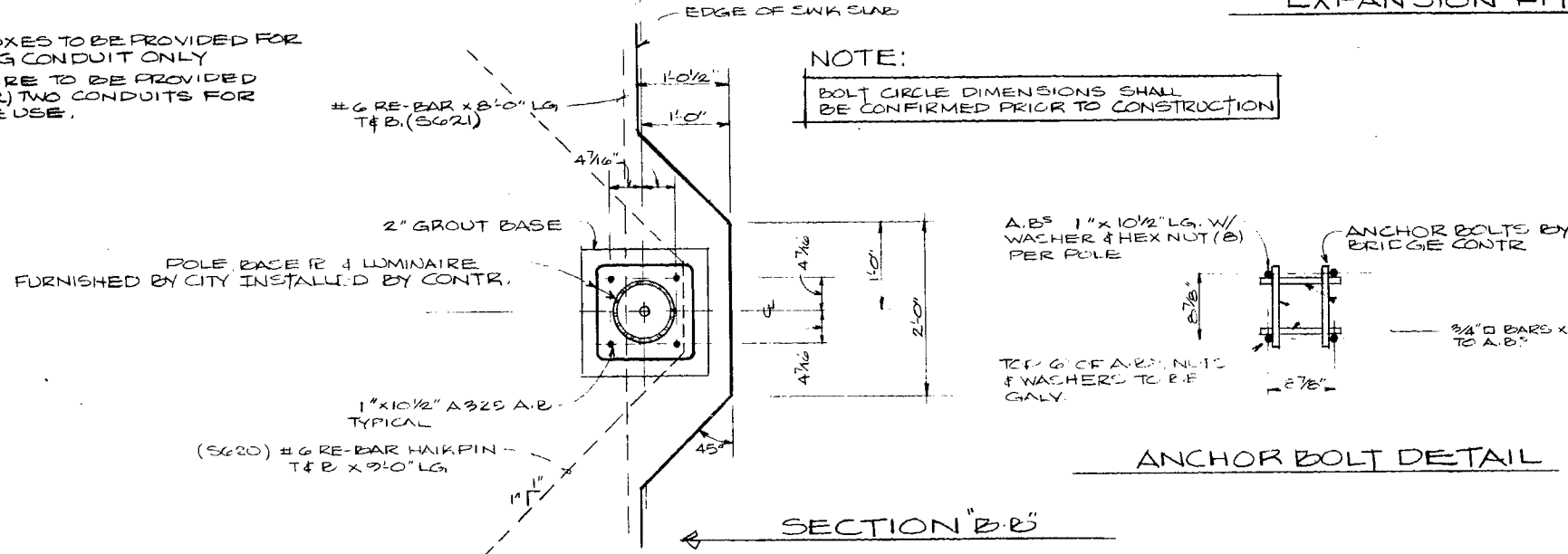
- NOTES.
1. PULL BOXES TO BE PROVIDED FOR LIGHTING CONDUIT ONLY
 2. PULL WIRE TO BE PROVIDED IN THE (2) TWO CONDUITS FOR FUTURE USE.

NOTE:
BOLT CIRCLE DIMENSIONS SHALL
BE CONFIRMED PRIOR TO CONSTRUCTION

ESTIMATES OF QUANTITIES FOR ELECTRICAL WORK.

ITEM	UNIT	TOTAL
2 1/2" CONDUIT W/ PULL WIRE	L.F.	1160
2 1/2" CONDUIT W/ 3 COND. WIRE	L.F.	578
INSTALL LT. UNIT TYPE A	EA.	3
EXPANSION FITTING	EA.	18
PULL BOX	EA.	6
1" CONDUIT W/ 2 WIRES	L.F.	15

ANCHOR BOLTS WILL BE INCLUDED IN
THE BID ITEM STRUCTURAL CARBON STEEL.



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No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-13-052			
Const. Spec. 1975	Drawn By D.R.C.	Plans Checked R.T.H.	
ELECTRICAL PLAN			SHEET 18 OF 18
			X57706