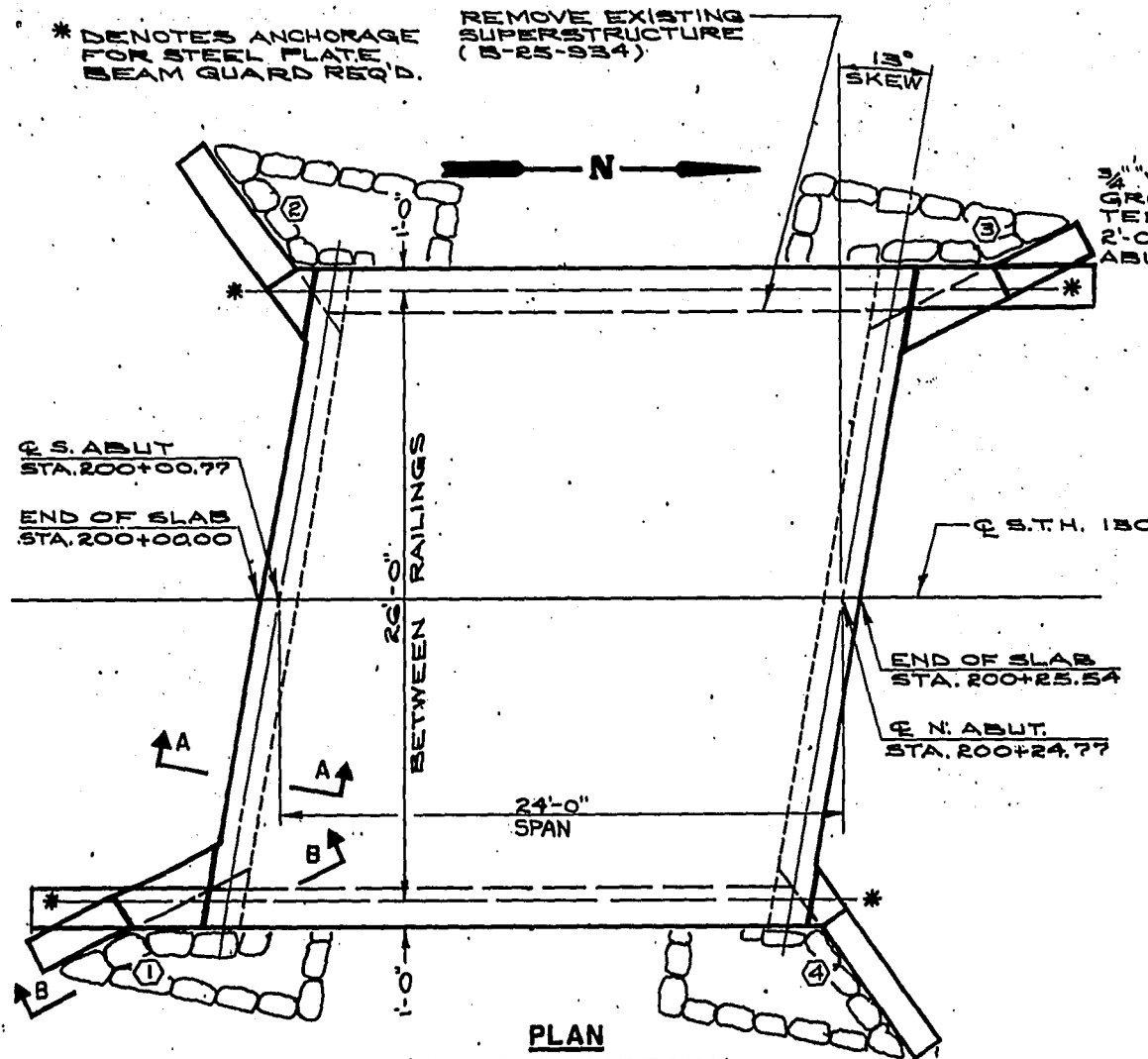


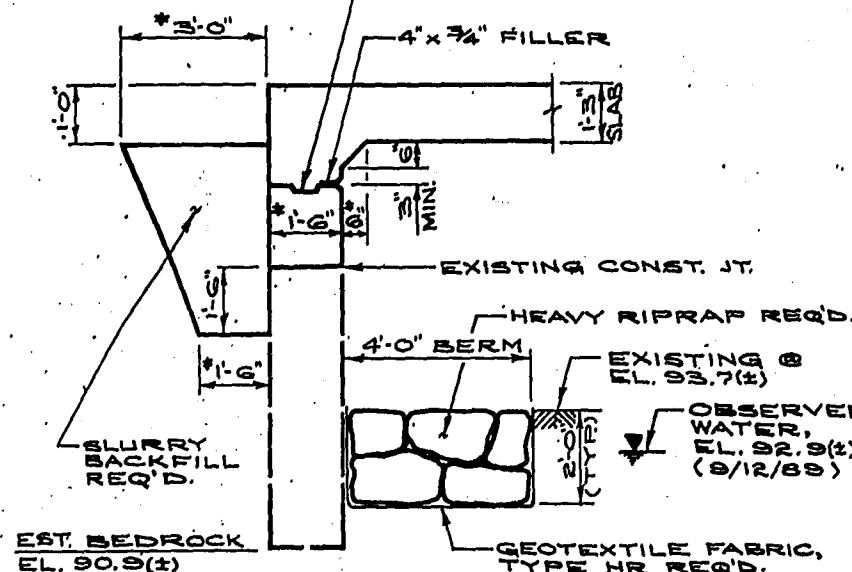
* DENOTES ANCHORAGE FOR STEEL PLATE BEAM GUARD REQ'D.

REMOVE EXISTING SUPERSTRUCTURE (B-25-934)



PLAN

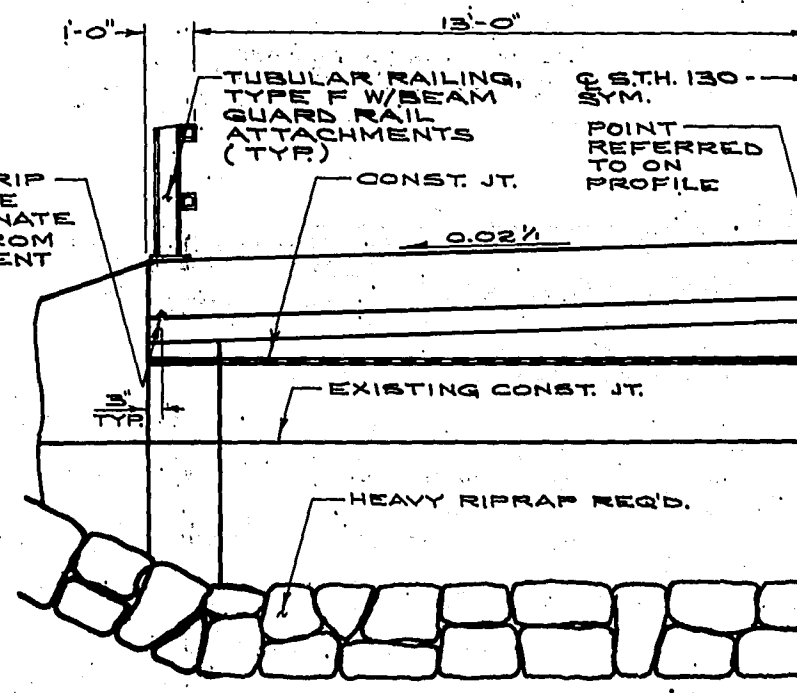
(SINGLE SPAN CONCRETE SLAB) (REHABILITATION)
CONST. JT. FORMED BY A SURFACED BEVELED 2"x6"



SECTION A-A

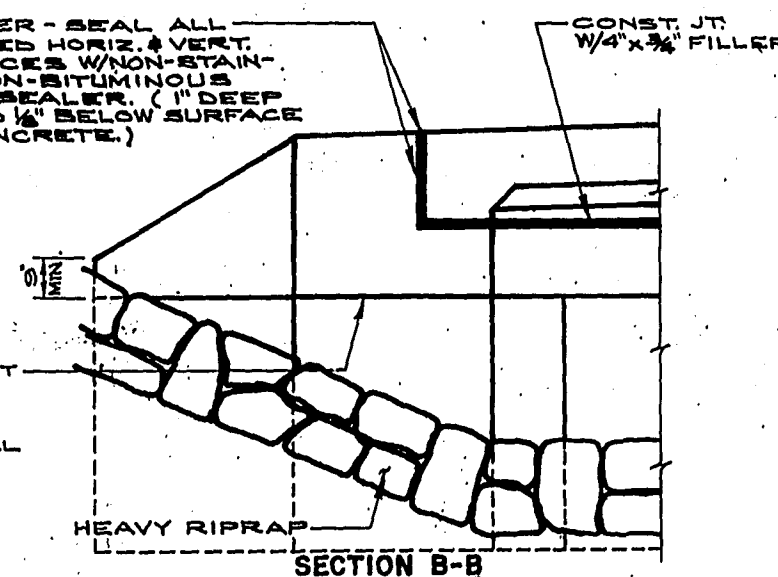
* DIMENSIONS ARE NORMAL TO THE C OF SUBSTRUCTURE UNITS.

3/4" V Drip GROOVE TERMINATE 2'-0" FROM ABUTMENT



TYPICAL HALF SECTION THRU ROADWAY

1/2" FILLER - SEAL ALL EXPOSED HORIZ. & VERT. SURFACES W/ NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/2" BELOW SURFACE OF CONCRETE.)



SECTION B-B

TOTAL ESTIMATED QUANTITIES

BID ITEM	UNIT	QTY
REMOVING OLD BRIDGE, STATION 200+12	LS.	1
EXCAVATION FOR STRUCTURES, BRIDGES B-25-934	LS.	1
CONCRETE MASONRY, BRIDGES	CY.	53
PROTECTIVE SURFACE TREATMENT	GAL.	4
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	1,500
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	5,370
TUBULAR RAILING, TYPE F, STRUCTURE B-25-934	LS.	1
HEAVY RIPRAP	CY.	30
GEOTEXTILE FABRIC, TYPE HR	SY.	55
CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS	EACH	92
CONCRETE MASONRY ANCHORS, TYPE S, 5/8-INCH	EACH	64

NON-BID ITEM

FILLER	SIZE	1/2" & 3/4"
--------	------	-------------

STATE PROJECT NUMBER SHEET NO.

5770-00-79 8.0

DESIGN DATA

LIVE LOAD

INVENTORY RATING _____ HS22
OPERATIONAL RATING _____ HS37
MAX. STD. PERMIT VEHICLE LOAD _____ 190 KIPS.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF _____ 20 LBS./SQ. FT.

ALLOWABLE DESIGN STRESSES

CONCRETE MASONRY, SLAB _____ $f_c = 4,000$ p.s.i.
HIGH-STRENGTH BAR STEEL REINFORCEMENT- $f_y = 60,000$ p.s.i.

TRAFFIC DATA

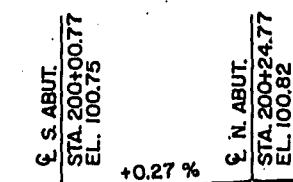
A.D.T. (1989) _____ 625
DESIGN SPEED _____ 55 M.P.H.

GENERAL NOTES

THE EXISTING SUPERSTRUCTURE IS A SINGLE-SPAN-STEEL DECK GIRDER BRIDGE 25.5' LONG WITH A 24.5' CLEAR ROADWAY. DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
DIMENSIONS ARE BASED ON FIELD NOTES. THEREFORE THE CONTRACTOR SHALL VERIFY THEM IN THE FIELD BEFORE ACCEPTANCE.

LIST OF DRAWINGS

DECK REPLACEMENT	SHT. 1
ABUTMENTS	SHT. 2
ABUTMENT DETAILS	SHT. 3
SUPERSTRUCTURE	SHT. 4
SUPERSTRUCTURE DETAILS	SHT. 5
TUBULAR RAILING	SHT. 6



PROFILE GRADE LINE

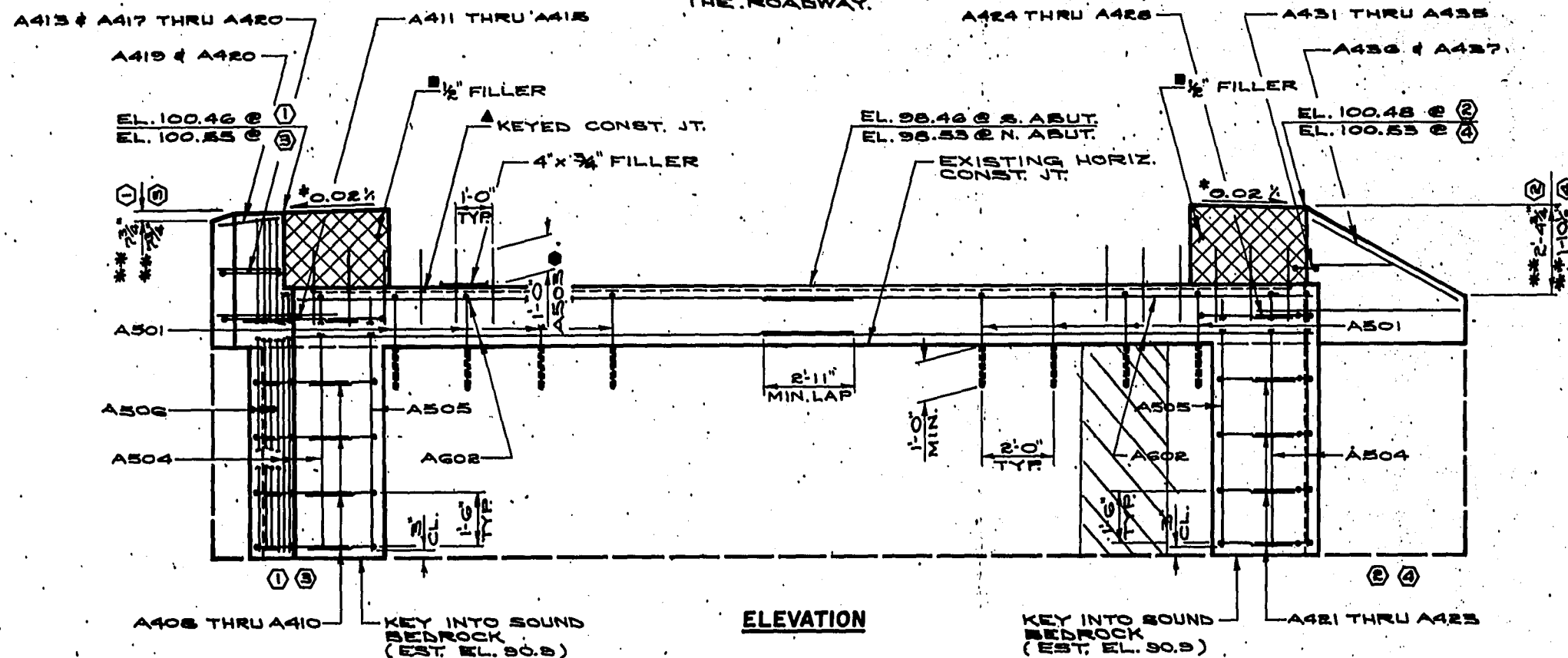
BENCH MARK

NO. 1, STA. 199+98, CHISELED "B" IN SE WINGWALL — EL. 100.00
B-25-934, 13' RT.

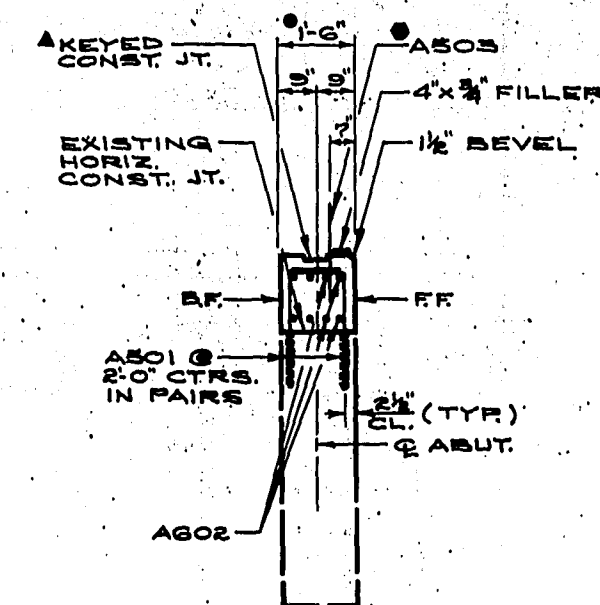
BRIDGE OFFICE CONTACT:
(608) 266-8486
D. BABLER

No.	Date	Revision	By
WESTBROOK ASSOCIATED ENGINEERS, INC. PLAIN, WI 53577			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-25-934			
S.T.H. 130 OVER OTTER CREEK			
County	IOWA	Town	CLYDE
Design Spec.	AASHTO. 1989	Load	Const. 1989
Designed By	JJK	Checked By	GWB
Drawn By	PCC	Checked By	GWB
Approved	State Bridge Engineer		
DECK REPLACEMENT			SHEET 1 OF 6 X82871

* SLOPES SHOWN ARE NORMAL TO THE Q OF THE ROADWAY.



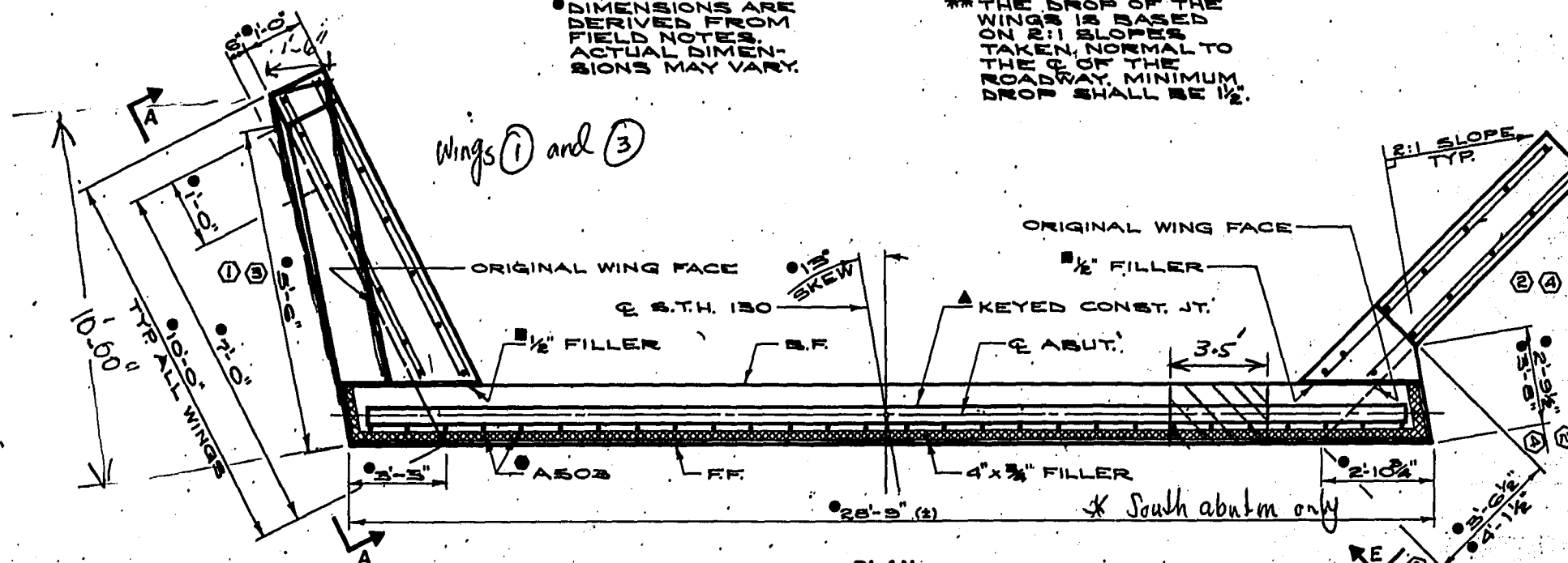
ELEVATION



TYPICAL SECTION THRU BODY

• DIMENSIONS ARE DERIVED FROM FIELD NOTES. ACTUAL DIMENSIONS MAY VARY.

** THE DROP OF THE WING IS BASED ON 2:1 SLOPE. TAKEN NORMAL TO THE Q OF THE ROADWAY. MINIMUM DROP SHALL BE 1 1/2\".



PLAN

- 1/2" FILLER - TO TOP OF WINGS AS SHOWN. SEAL VERT. & HORIZ. SURFACES WITH GRAY NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)
- KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2"x4".
- A503 BARS MAY BE PLACED AFTER THE CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. HOLD 1'-0" DEEP.

SEE SHT. 3 FOR VIEW A & VIEW E.

* This piece was taken out due to extensive cracks on the body. poured back with fresh concrete.

No	Date	Revision	By
WESTBROOK ASSOCIATED ENGINEERS, INC. PLAIN, WI 53577			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-25-934			
Const. Spec.	1989	Drawn By: PCC	Plans Checked: GWB
ABUTMENTS			SHEET 2 OF 6 X 82871

5770-00-79

8.2

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

BILL OF BARS (TWO ABUTMENTS) UNCOATED

1,500 LBS*

MARK	NO. REQ'D	LENGTH	BENT	CUT DIAG	LOCATION
A501	48	3-6	X		BODY - DOWELS VERT.
A502	32	15-8			" - DOWELS HORIZ.
A503	56	2-0			" - DOWELS VERT.
A504	12	8-2	X		" - DOWELS "
A505	4	7-2			" - DOWELS "
A506	10	9-2			" - DOWELS "
A408	8	6-8	X		BODY & WINGS 1 & 3 HORIZ.
A409	8	5-6	X		" & " 1 & 3 "
A410	8	7-3	X		WINGS 1 & 3 "
A411	2	8-5	X		BODY & WINGS 1 & 3 "
A412	2	7-3	X		" & " 1 & 3 "
A413	4	8-11	X		WINGS 1 & 3 "
A414	2	11-3	X		BODY & WINGS 1 & 3 "
A415	2	11-9	X		" & " 1 & 3 "
A516	28	4-4			WINGS 1 & 3 VERT.
A417	2	4-9	X		" 1 & 3 HORIZ.
A418	2	6-1	X		" 1 & 3 "
A419	4	8-3			" 1 & 3 "
A420	4	7-9			" 1 & 3 "
A421	8	4-0	X		BODY & WINGS 2 & 4 "
A422	8	3-7	X		" & " 2 & 4 "
A423	8	4-0	X		" & " 2 & 4 "
A424	2	6-10	X		" & " 2 & 4 "
A425	2	5-2	X		" & " 2 & 4 "
A426	2	7-2	X		WINGS 2 & 4 "
A427	2	11-7	X		BODY & WINGS 2 & 4 "
A428	2	11-2	X		" & " 2 & 4 "
A529	10	6-9	X		WINGS 2 & 4 VERT.
A530	6	4-5			" 2 & 4 "
A431	2	3-5	X		" 2 & 4 HORIZ.
A432	2	3-1	X		" 2 & 4 "
A433	2	3-7	X		" 2 & 4 "
A434	2	6-0			" 2 & 4 "
A435	2	5-4			" 2 & 4 "
A436	2	8-1	X		2 & 4 - TOP & B.F.
A437	2	8-11	X		2 & 4 - " & B.F.

VIEW A (WINGS 1 & 3)

(WINGS 2 & 4) VIEW E

SECTION D-D

SECTION H-H

SECTION C-C

SECTION G-G

SECTION B-B

SECTION F-F

** BID ITEM "CONCRETE MASONRY ANCHORS, TYPE S, 5/8-INCH" 64 EACH REQ'D. ASTM A-480

** BID ITEM "CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS" WEIGHT IS NOT INCLUDED IN BILL OF BARS. 32 EACH REQ'D. (A501, A516, A529 & A530)

F.F. - FRONT FACE
B.F. - BACK FACE

* DIMENSIONS ARE DERIVED FROM FIELD NOTES. ACTUAL DIMENSIONS MAY VARY.

MARK	"C"	"D"	"E"	"F"	"G"	"H"	SETS REQ'D.
A529	SET 1	2-5		6-9		4-4	5
	SET 2		4-4		2-5		2

CUTTING DIAGRAM - A529

① MARK AND CUT ALL BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS.

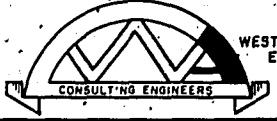
② BUNDLE AND MARK CUT BARS WITH BAR MARK AND SET NUMBERS.

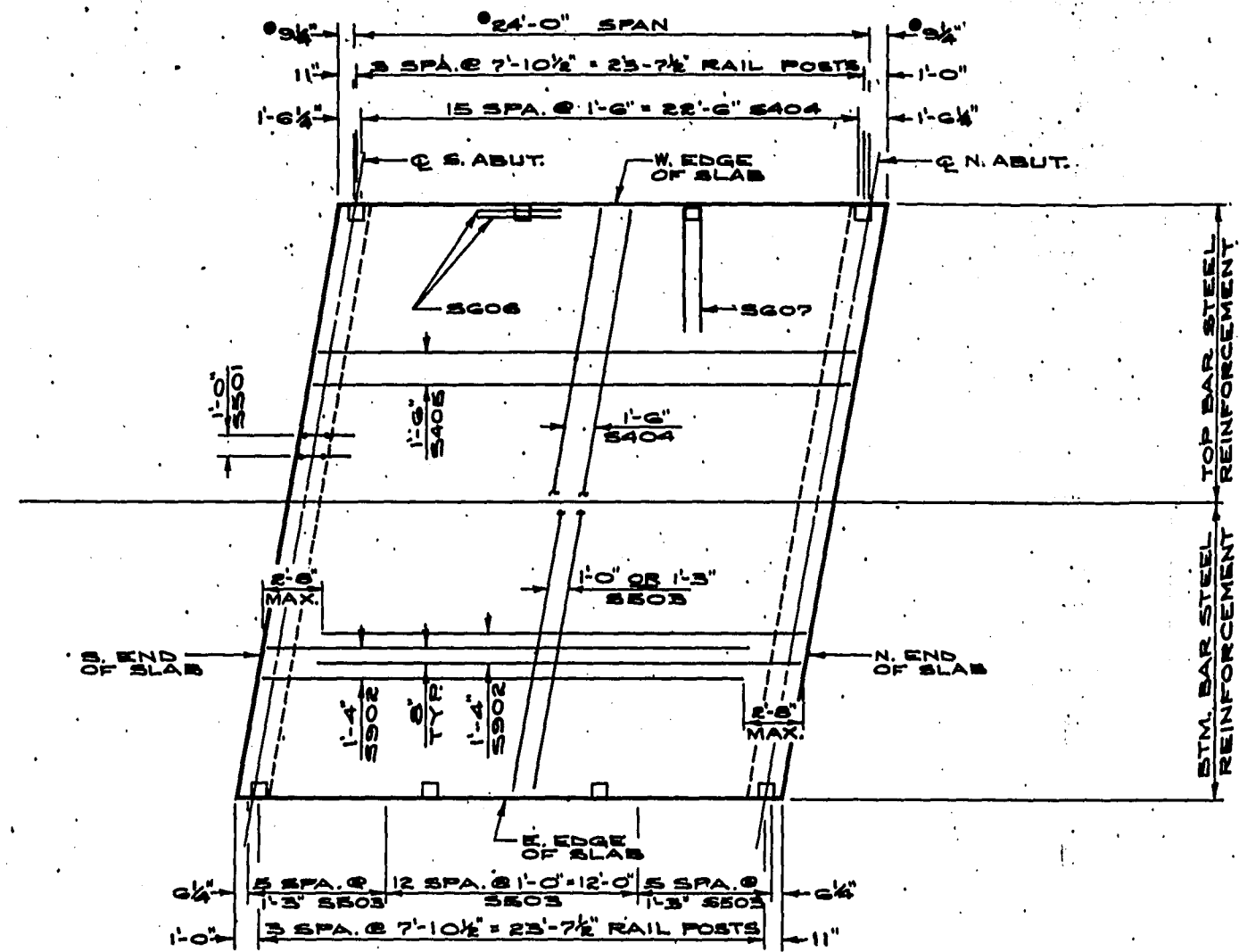
* "H" IS THE NUMBER OF BARS IN A CUTTING DIAGRAM PRIOR TO CUTTING.

MARK	"A"	Ø°
A408	4-2	50
A409	3-2	103
A410	3-6	27
A411	4-9	50
A412	3-11	103
A414	9-9	120
A415	10-3	120
A417	2-9	50
A418	3-3	103
A421	2-3	50

MARK	"A"	Ø°
A422	1-9	77
A423	1-9	43
A424	3-9	50
A425	3-1	77
A426	3-1	43
A427	10-1	130
A428	9-8	130
A431	1-11	50
A432	1-6	77
A433	1-6	43

* A408 THRU A415, A417, A418, A421 THRU A428, & A431 THRU A433

No.	Date	Revision	
 WESTBROOK ASSOCIATED ENGINEERS, INC. PLAIN, WI. 53577			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-25-934			
Const. Spec.	1989	Drawn By	PCC
		Placed By	GWB
ABUTMENT DETAILS			SHEET 3 OF 6
X82871			

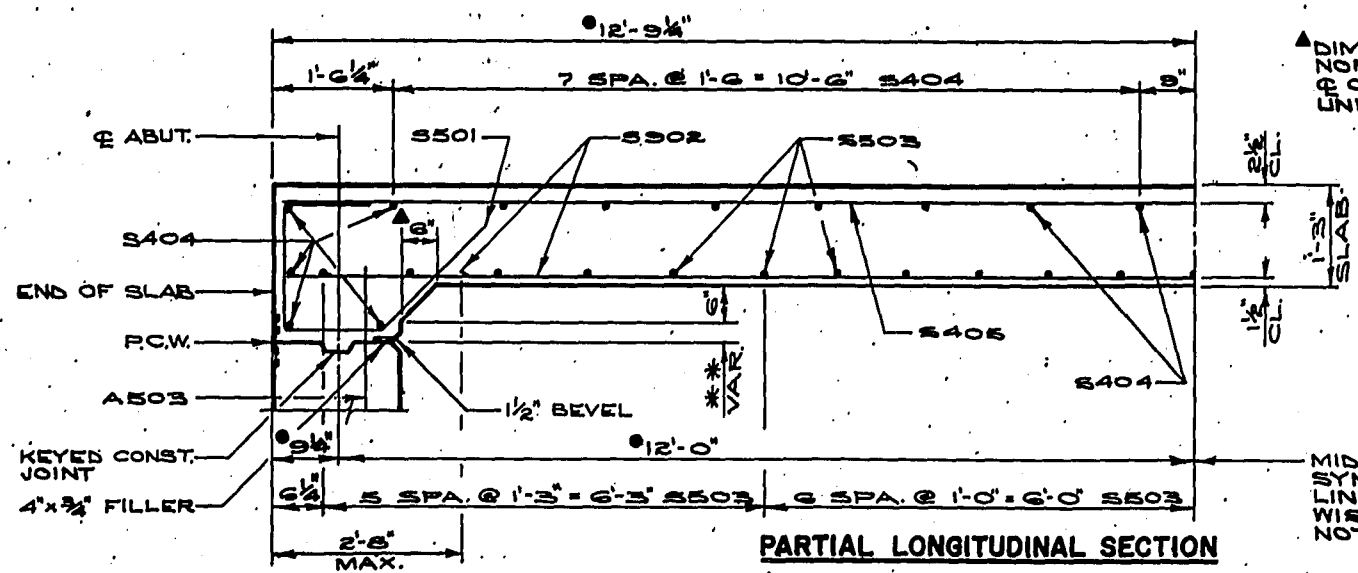


PLAN

• DIMENSIONS ARE DERIVED FROM FIELD NOTES. ACTUAL DIMENSIONS MAY VARY.

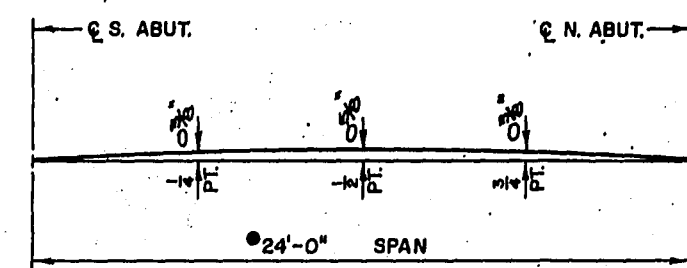
**VARIES - 1" @ ① + ④
3/4" @ ② + ⑤
0" @ C. ROADWAY

▲ DIMENSION IS NORMAL TO THE C. OF SUBSTRUCTURE UNITS.



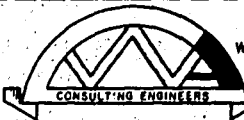
PARTIAL LONGITUDINAL SECTION

MID-SPAN STRUCTURE SYM. ABOUT THIS LINE UNLESS OTHERWISE SHOWN OR NOTED.



SLAB CAMBER DIAGRAM

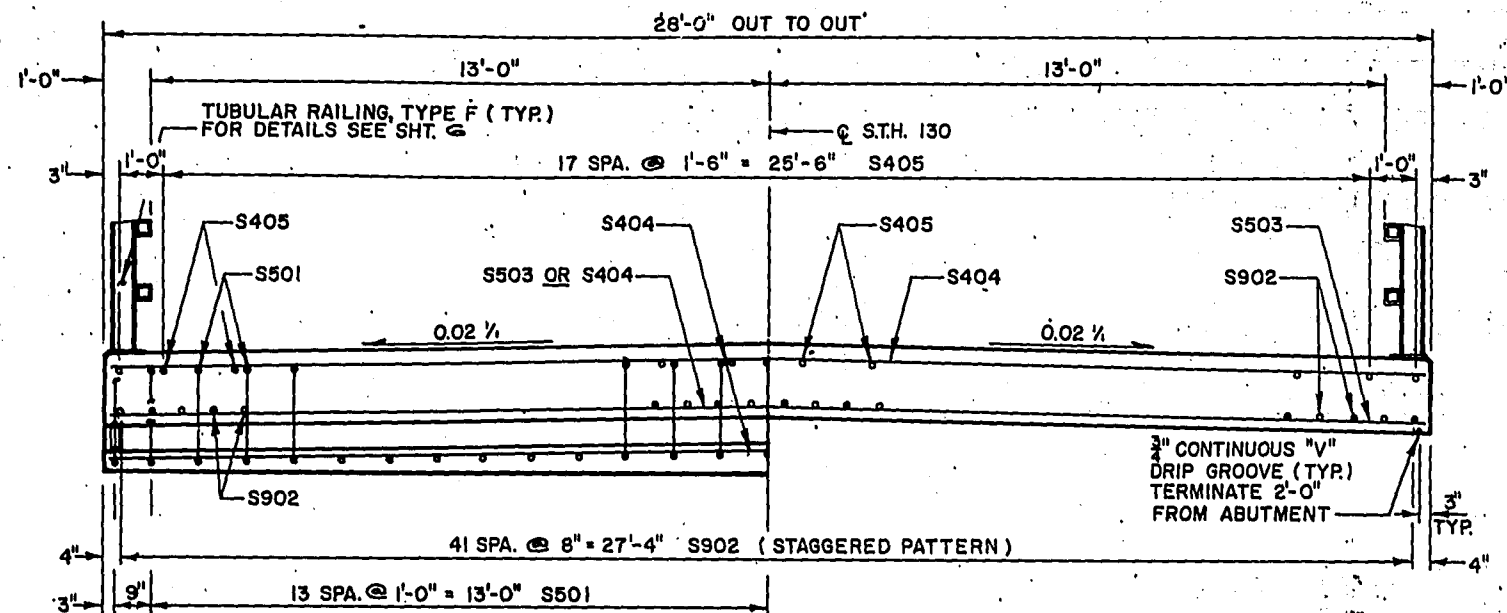
NOTE:
CAMBER SPAN AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION AND FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. DEADLOAD DEFLECTION ONLY EQUALS APPROXIMATELY 1/4 OF CAMBER VALUES SHOWN.
ALTERNATE TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS.
BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).
ALL TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE PLACED ON THE SKEW.

No.	Date	Revision	By
 WESTBROOK ASSOCIATED ENGINEERS, INC. PLAIN, WI 53577			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-25-934			
Cont. Spec.	1989	Drawn PCC By	Plans Checked GWB
SUPERSTRUCTURE			SHEET 4 OF 6 X 82871

5770-00-79

8.4

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.
ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.



AT ABUT.

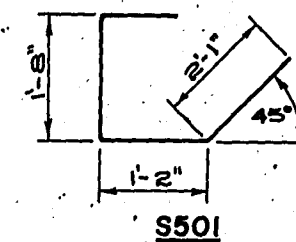
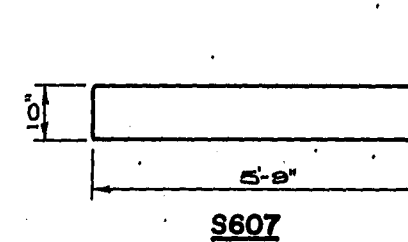
IN SPAN

CROSS SECTION THRU ROADWAY

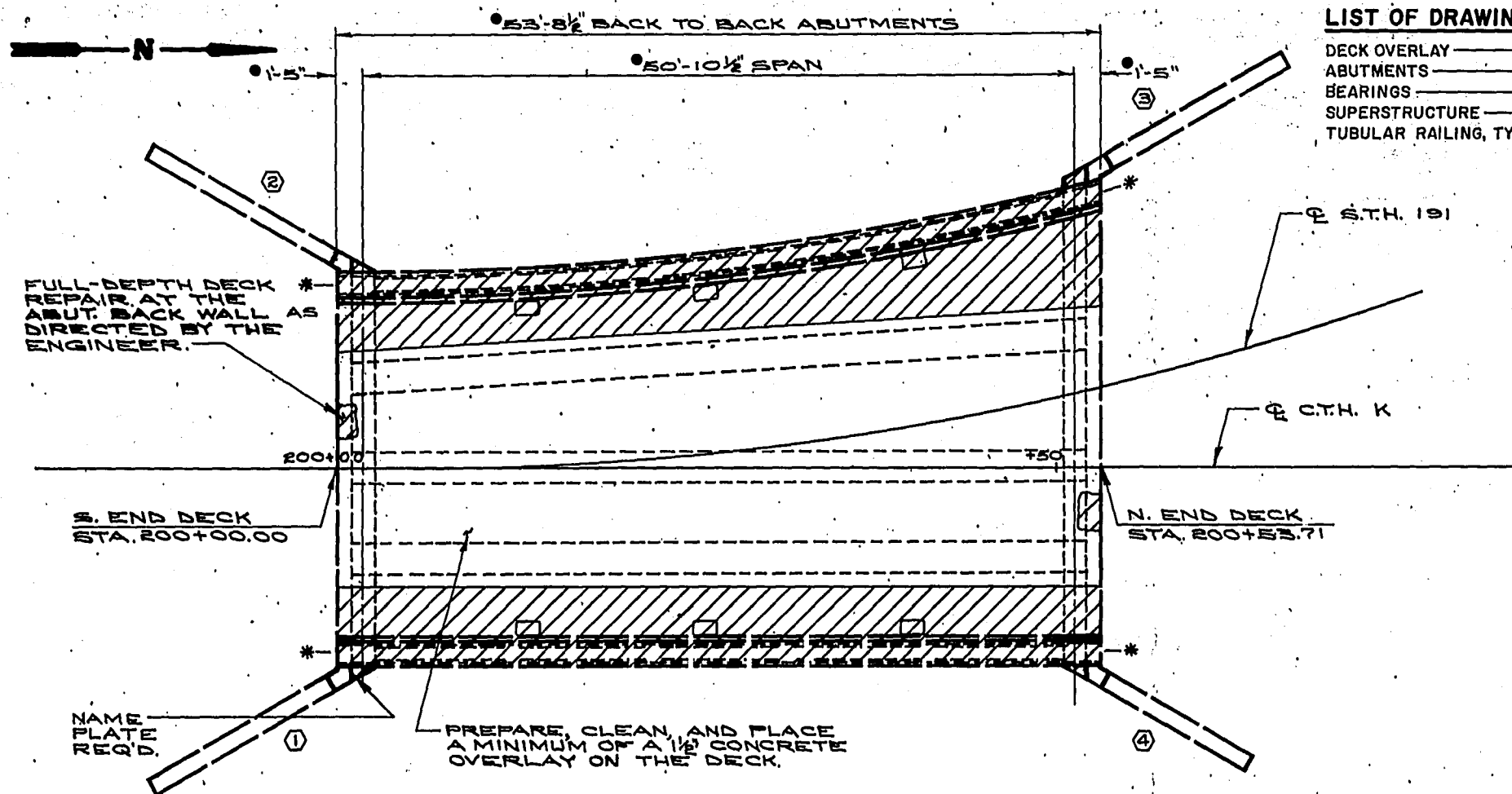
BILL OF BARS COATED

5,370 LBS.

MARK	NO. REQ'D.		LENGTH	BENT	CUT DIAG.	LOCATION
	COATED	UNCOATED				
S501	58		7-0	X		SLAB @ ABUT. - TIES LONGIT.
S902	42		22-9			" - BTM. "
S503	23		28-4			" - " " TRANS.
S404	24		28-4			" - TOP "
S405	20		24-9			" - " " LONGIT.
S606	16		4-0			@ RAIL POSTS "
S607	8		12-0	X		@ " " " TRANS.



No.	Date	Revision	By
WESTBROOK ASSOCIATED ENGINEERS, INC. PLAIN, WI 53577			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-25-934			
Const. Date 1989	Drawn By PCC	Plans Checked GWB	
SUPERSTRUCTURE			SHEET 5 OF 6
DETAILS			X 82871

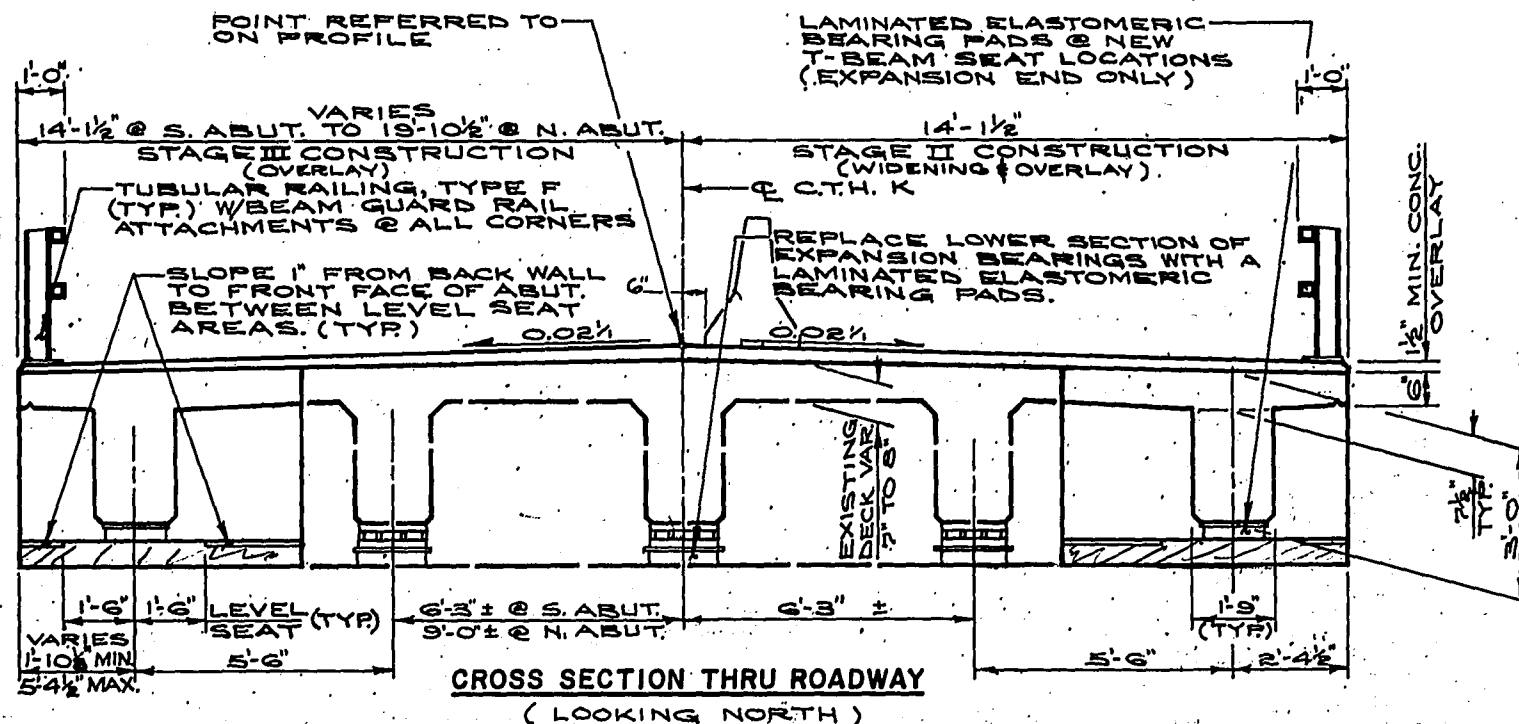


PLAN

* DENOTES BEAM GUARD ATTACHMENT

DIAGONAL HATCHING DENOTES REMOVAL

AVERAGE OVERLAY THICKNESS = 3"



CROSS SECTION THRU ROADWAY
(LOOKING NORTH)

LIST OF DRAWINGS ——— X82872

DECK OVERLAY	SHT. 1
ABUTMENTS	SHT. 2
BEARINGS	SHT. 3
SUPERSTRUCTURE	SHT. 4
TUBULAR RAILING, TYPE F	SHT. 5

DESIGN DATA

LIVE LOAD

INVENTORY RATING	H24, HS17
OPERATIONAL RATING	HS28
MAXIMUM PERMIT VEHICLE	180K

ALLOWABLE DESIGN STRESSES

CONCRETE MASONRY	f'_c	= 4,000 p.s.i.
EXISTING CONCRETE MASONRY	f'_b	= 2,000 p.s.i.
BAR STEEL REINFORCEMENT, GRADE 60	f_y	= 60,000 p.s.i.
EXISTING REINFORCEMENT STEEL	f_y	= 33,000 p.s.i.

GENERAL NOTES

- DRAWING SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OUTWISE SHOWN OR NOTED.
- DIMENSIONS ARE BASED UPON BRIDGE INSPECTION REPORTS, SURVEY DATA, AND FIELD NOTES. THE CONTRACTOR SHALL VERIFY THEM IN THE FIELD BEFORE ACCEPTANCE.

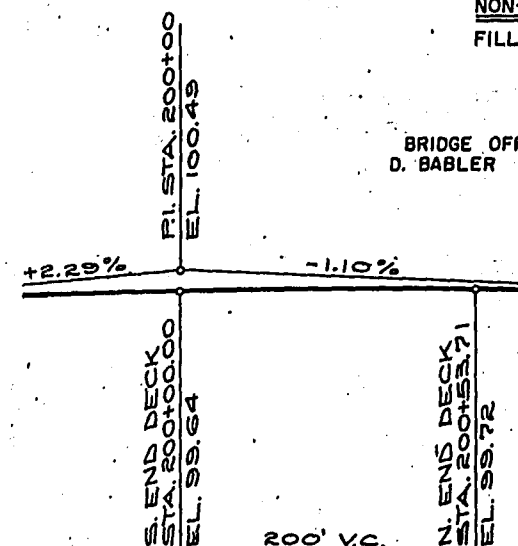
BENCH MARK

NO.	STATION	DESCRIPTION	ELEVATION
1.	200+00	CHISELED "D" IN S.W. WINGWALL OF STRUCTURE B-25-935, 14' LT.	100.00

TOTAL ESTIMATED QUANTITIES

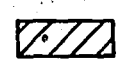
BID ITEM	UNIT	TOTALS
PROTECTIVE SURFACE TREATMENT	GAL.	8
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	16,200
PREPARATION, DECKS	S.Y.	105
CLEANING, DECKS	S.Y.	105
FULL-DEPTH DECK REPAIR	S.Y.	5
CONCRETE MASONRY, OVERLAY, DECKS	C.Y.	17
REMOVING OLD BRIDGE, STATION 200+27	L.S.	1
EXCAVATION FOR STRUCTURES, BRIDGES B-25-935	L.S.	1
TUBULAR RAILING, TYPE F, STRUCTURE B-25-935	L.S.	1
LAMINATED ELASTOMERIC BEARING PADS	EA.	2
CONCRETE MASONRY ANCHORS, TYPE L, NO. 6 BARS	EA.	149
NON-LAMINATED ELASTOMERIC BEARING PADS	EA.	2
CONCRETE MASONRY, BRIDGES	C.Y.	23
POLLUTION CONTROL, CLASS II		
STRUCTURE B-25-935	L.S.	1
BEARING REPLACEMENT	EA.	3
STRUCTURE REPAINTING, ORGANIC ZINC RICH SYSTEM, STRUCTURE B-25-935	L.S.	1
NON-BID ITEM		
FILLER	SIZE-1/2" & 3/4"	

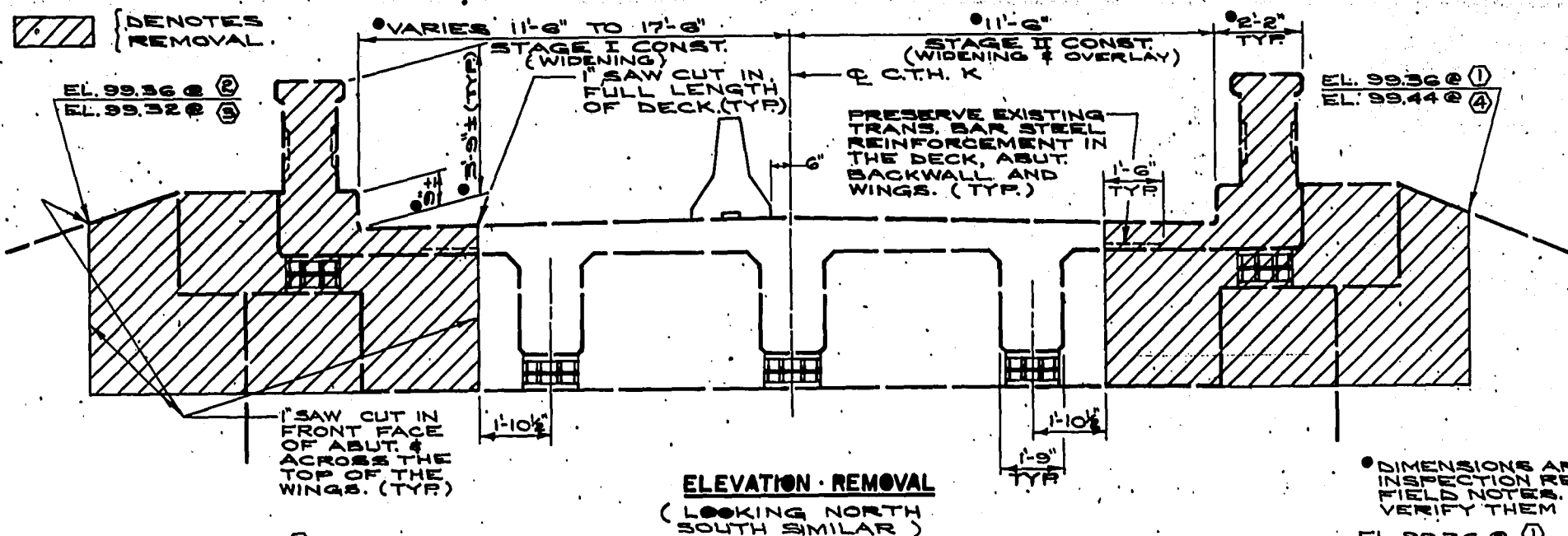
BRIDGE OFFICE CONTACT
D. BABLER (608) 266-8486



PROFILE GRADE LINE - S.T.H. 191

No.	Date	Revision	By
WESTBROOK ASSOCIATED ENGINEERS, INC. PLAIN, WI 53577			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-25-935			
S.T.H. 191 & C.T.H. K OVER DODGE BRANCH			
County	IOWA	Town/County	HOLLANDALE
Design Spec.	AASHTO 1989	Load	Const. Spec. 1989
Designed By	JJK	Design Checked	GWB
By		Drawn By	PCC
Checked	JJK	Checked	JJK
Approved		Date	
State Bridge Engineer		2-20-90	
DECK OVERLAY		SHEET 1 OF 5 X82872	

 DENOTES REMOVAL.



ELEVATION - REMOVAL
(LOOKING NORTH
SOUTH SIMILAR)

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.
ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

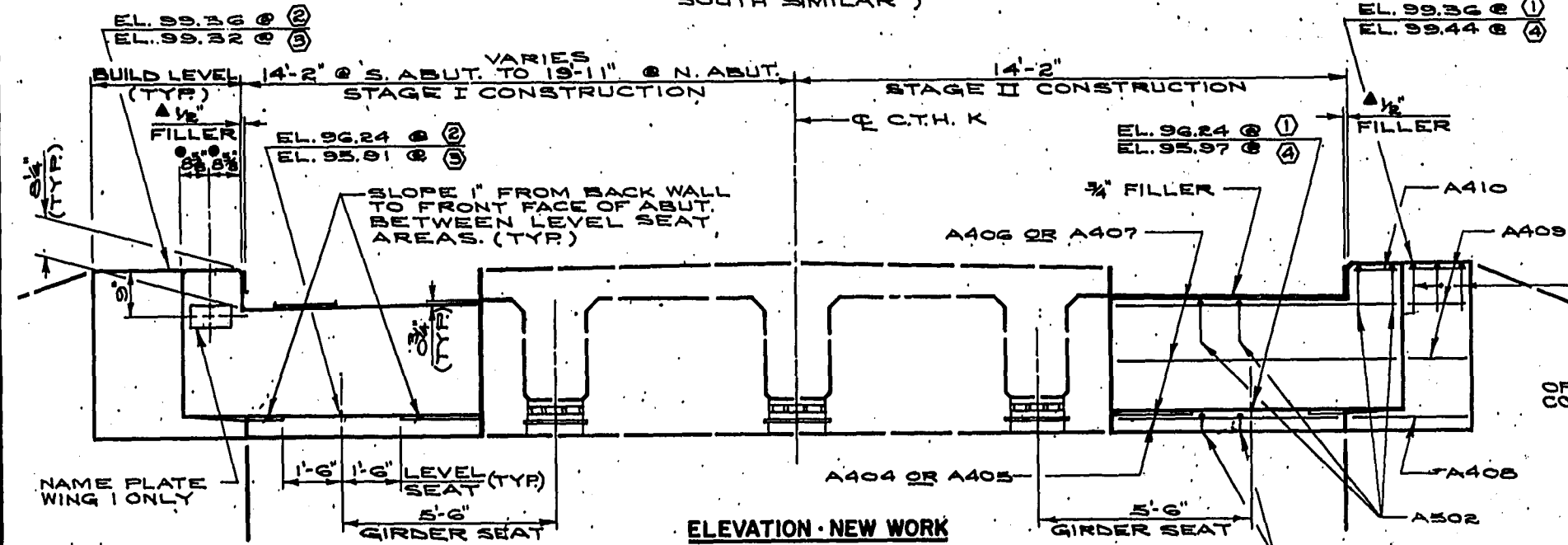
BILL OF BARS - COATED

550 LBS.

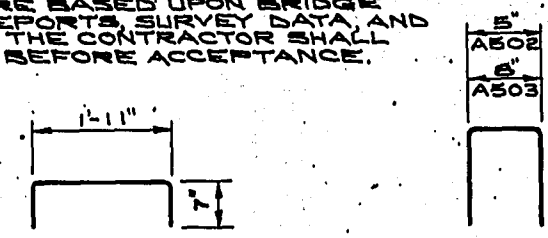
MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
A501	39	2'-11"	X	ABUT. - SEAT - TIES
A502	45	2'-3"	X	" - BACK WALL - TIES
A503	12	2'-0"	X	" - WING WALL - "
A404	9	7'-9"		" - SEAT @ WINGS 1, 2, & 4 - HORIZ.
A405	3	10'-0"		" @ WING 3
A406	18	9'-3"		" - BACK WALL @ 1, 2, & 4
A407	6	12'-3"		" @ WING 3
A408	8	4'-2"		" - WINGS
A409	24	2'-1"		" - "
A410	8	1'-6"		" - BACK WALL

• DIMENSIONS ARE BASED UPON BRIDGE INSPECTION REPORTS, SURVEY DATA, AND FIELD NOTES. THE CONTRACTOR SHALL VERIFY THEM BEFORE ACCEPTANCE.

▲ SEAL ALL EXPOSED SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD BELOW CONCRETE SURFACE.)

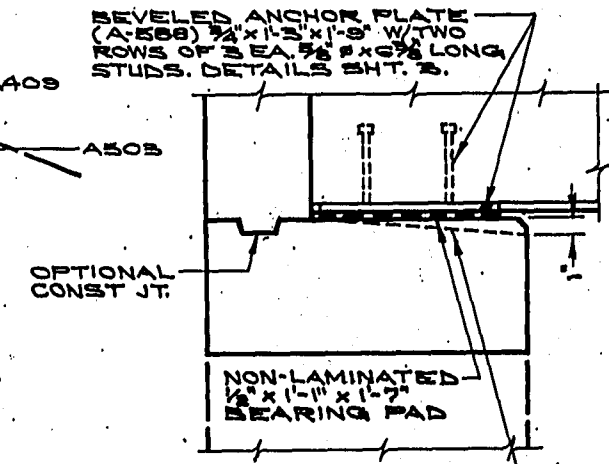


ELEVATION - NEW WORK
(LOOKING NORTH
SOUTH SIMILAR)

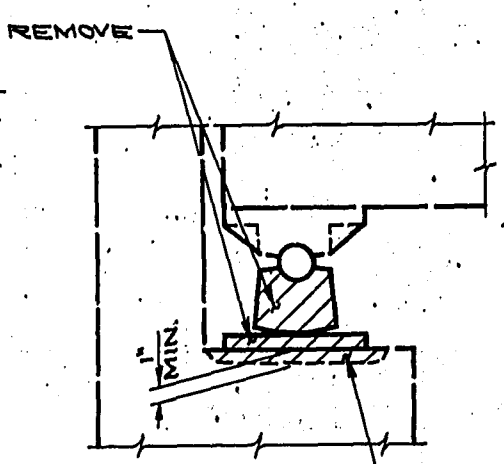


S501
BEVELED ANCHOR PLATE (A508) 3/4"x1 1/2"x1'-9" W/TWO ROWS OF 3EA. 5/8"x6" LONG STUDS. DETAILS SHOWN.

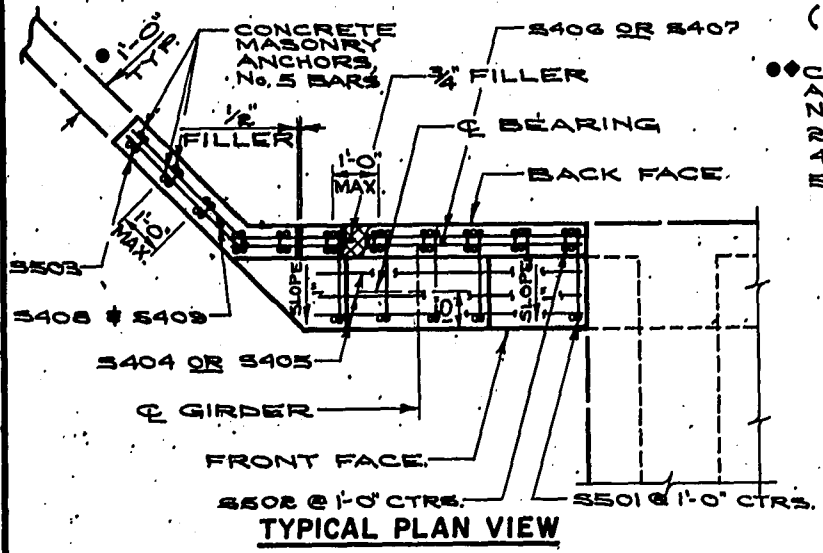
S502 & S503



NEW FIXED BEARING DETAIL



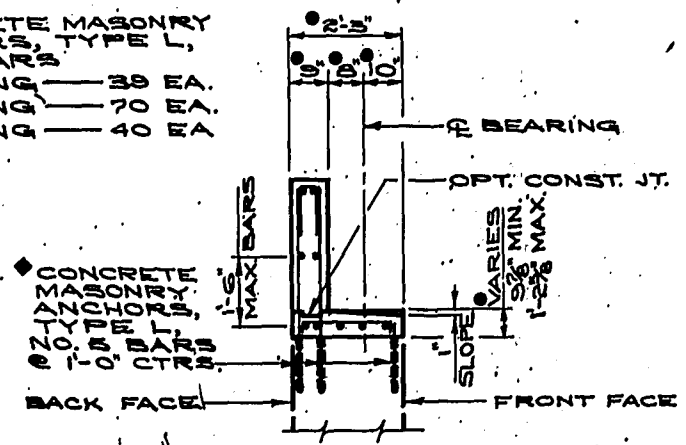
AT EXPANSION BEARINGS



TYPICAL PLAN VIEW

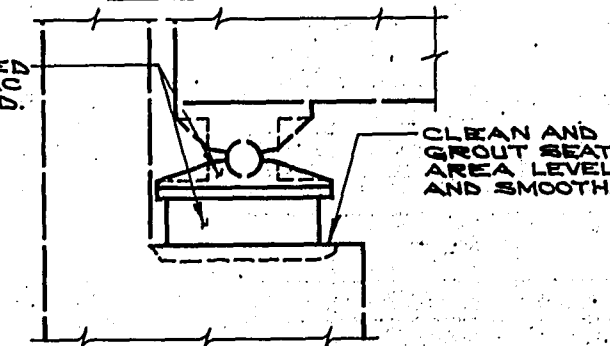
• CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS
2'-1" LONG — 30 EA.
4'-6" LONG — 70 EA.
5'-2" LONG — 40 EA.

• CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS
2'-1" LONG — 30 EA.
4'-6" LONG — 70 EA.
5'-2" LONG — 40 EA.



TYPICAL SECTION THRU ABUT. BODY

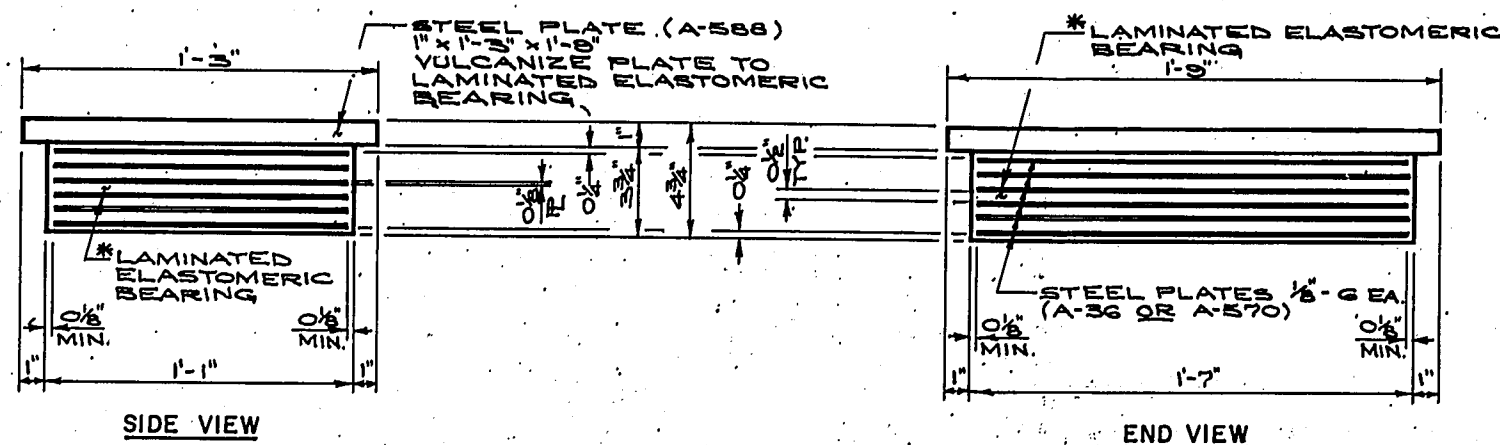
NEW LAMINATED ELASTOMERIC BEARING PAD. SEE DETAIL. SEE SHIT. 5



EXISTING EXPANSION BEARING REPLACEMENT

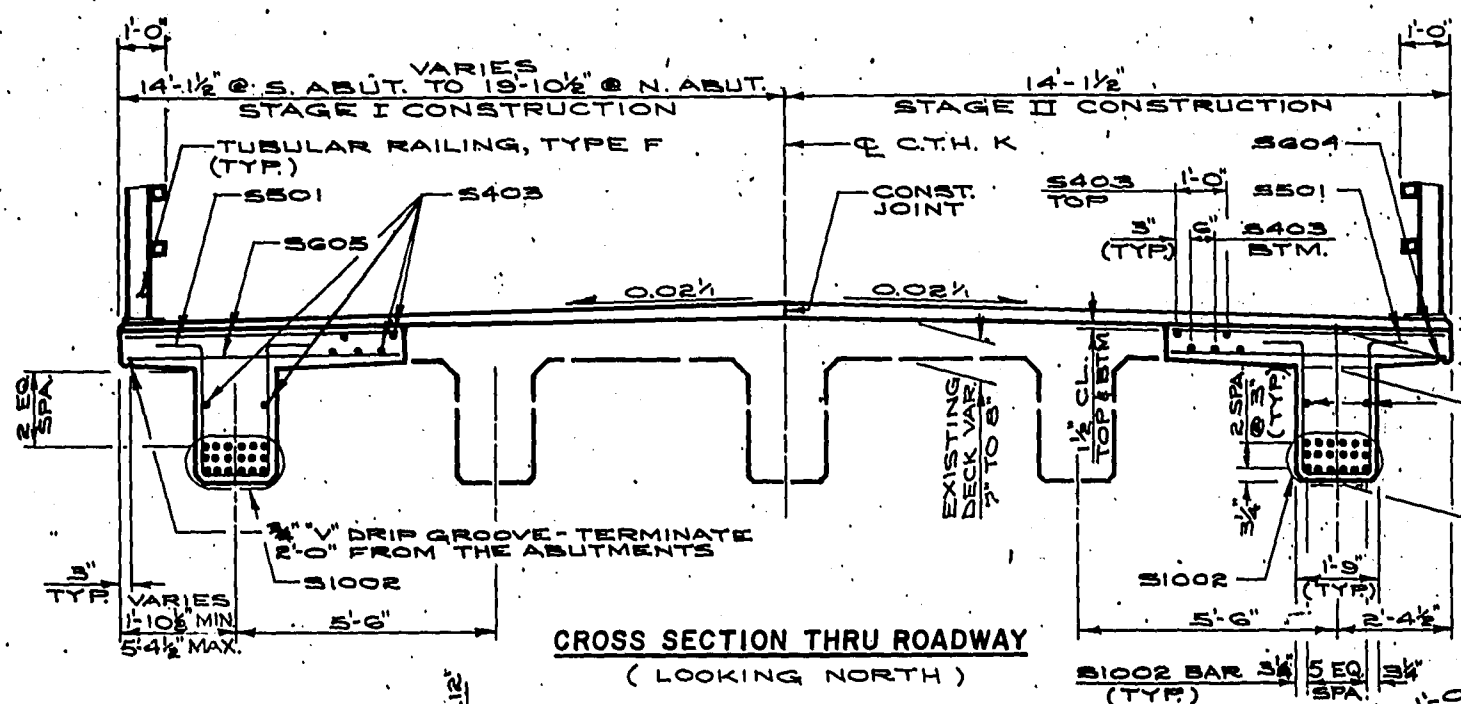
BEARING DETAILS

No.	Type	Revision	By
 WESTBROOK ASSOCIATED ENGINEERS, INC. PLAIN, WI 53577 CONSULTING ENGINEERS			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-25-935			
Comp. Spec.	1989	Drawn By	PCC
		Plant Checked	JJK
ABUTMENTS			SHEET 2 OF 5 X02872



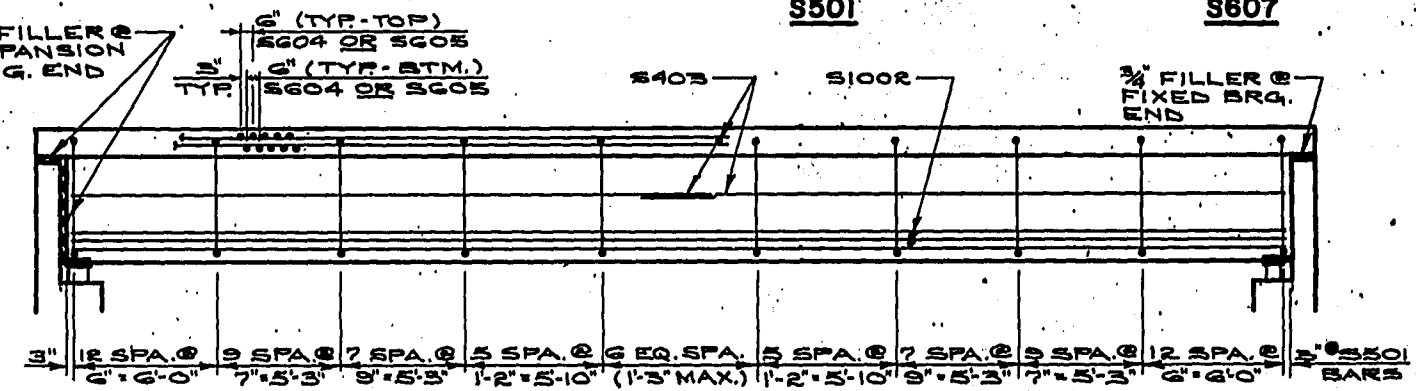
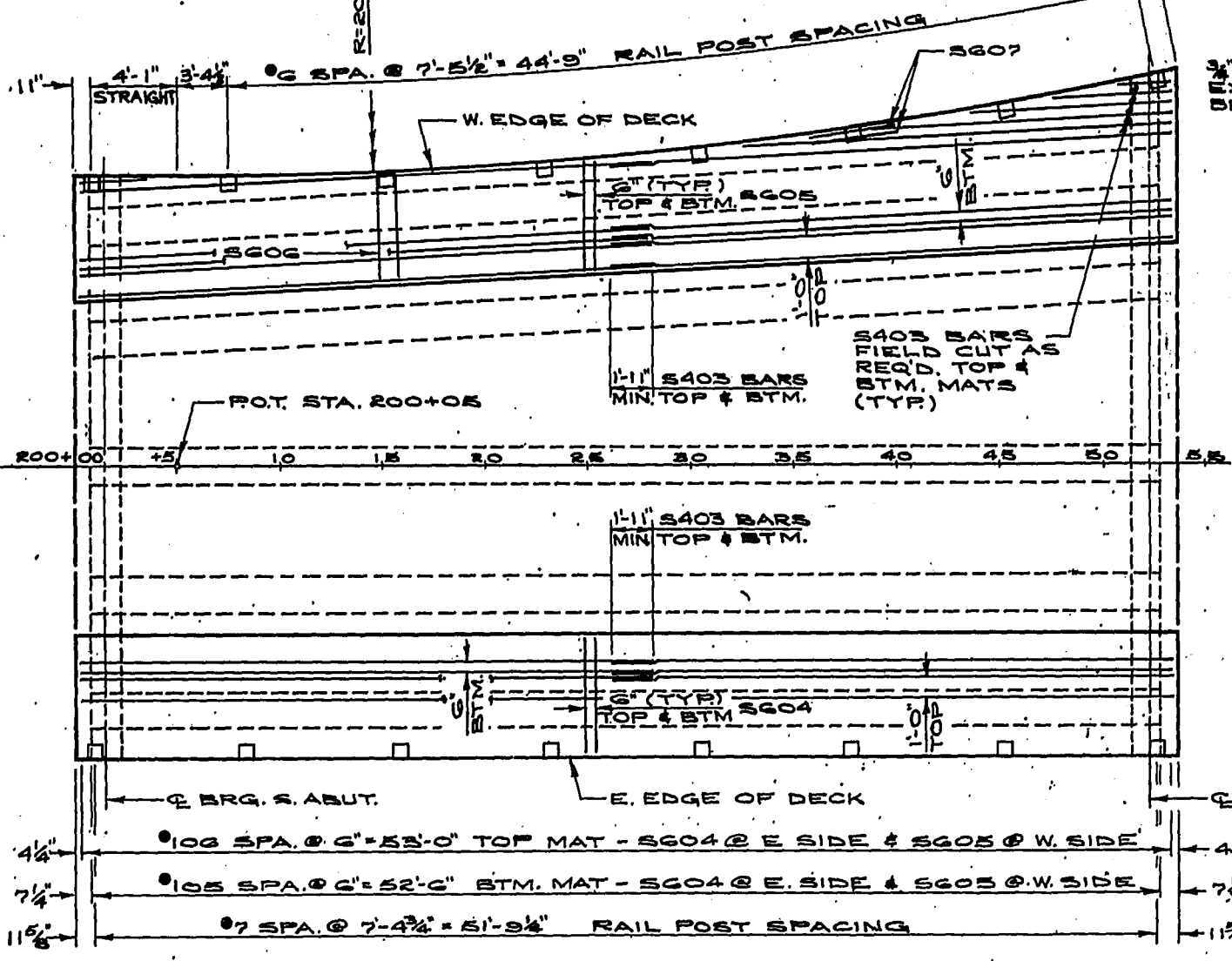
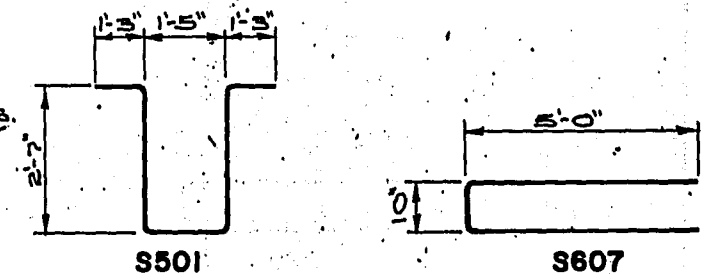
* LAMINATED ELASTOMERIC BEARING (DUROMETER 55 ± 5) SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 30.0 °F.

THE FIRST DIGIT OF A 3 DIGIT BAR MARK AND THE FIRST DIGIT OF A 4 DIGIT BAR MARK SIGNIFIES THE BAR SIZE.
BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.



BILL OF BARS		COATED		15,650 LBS.	
MARK	NO. REQ'D	LENGTH	BENT	CUT DIAG.	LOCATION
S501	146	8-9	X		DECK - GIRDER STIRRUPS - TRANS.
S1002	36	51-9			GIRDERS LONGIT.
S403	92	27-10			DECK - TOP & BTM. - "
S604	213	5-9			DECK - E. SIDE - TOP & BTM. TRANS.
S605	106	14-6	X	X	- W. - " - " - "
S606	16	10-6	X		@ RAIL POSTS
S607	32	4-0			@ " " " LONGIT.

DIMENSIONS ARE BASED UPON BRIDGE INSPECTION REPORTS, SURVEY DATA, AND FIELD NOTES. THE CONTRACTOR SHALL VERIFY THEM BEFORE ACCEPTANCE.



STATION	OFFSET LEFT	ELEVATION	OFFSET RIGHT	ELEVATION
200+00	14'-1 1/2"	99.36		99.36
+05	14'-1 1/2"	99.39		99.39
+10	14'-2 1/4"	99.41		99.41
+15	14'-4 3/8"	99.43		99.43
+20	14'-8"	99.43		99.43
+25	15'-1"	99.44		99.44
+30	15'-7 1/2"	99.43		99.43
+35	16'-3 1/2"	99.42		99.42
+40	17'-0 3/8"	99.40		99.40
+45	17'-11 1/8"	99.38		99.38
+50	19'-0 1/4"	99.35		99.35
+53.71	19'-10 1/2"	99.32		99.32

EDGE OF DECK OFFSET DISTANCE AND TOP OF DECK (EDGE)

ELEVATIONS

CUTTING DIAGRAM - S605

CONTRACTOR SHALL CUT TRANSVERSE DECK BARS (S605) IN THE FIELD AND EPOXY TREAT DAMAGED TO PROVIDE MINIMUM 2" CLEAR. ALL BAR CUTS WILL BE NORMAL TO THE BAR AXIS. PAYMENT FOR ALL FIELD CUTTING AND TREATMENT SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES".

No.	Date	Revision	By

WESTBROOK ASSOCIATED ENGINEERS, INC.
PLAIN, WI 53577

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

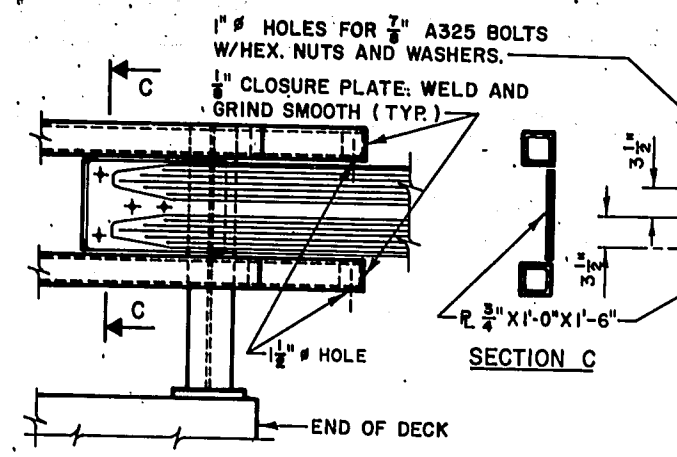
STRUCTURE B-25-935

1989 PCC JJK

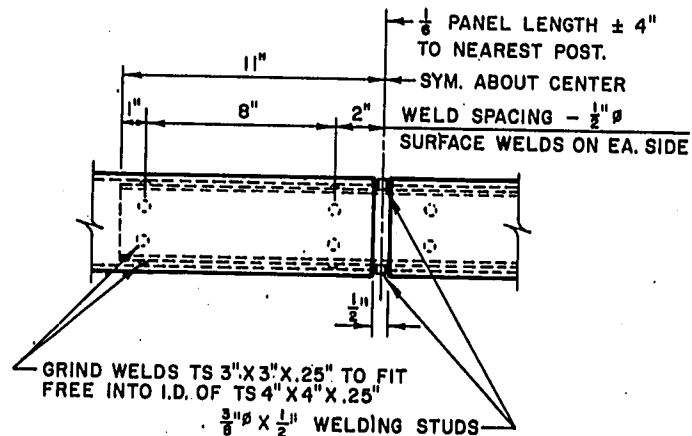
SUPERSTRUCTURE

SHEET 4 OF 5

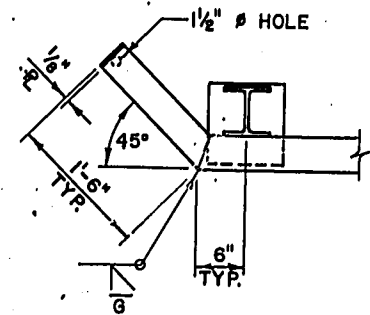
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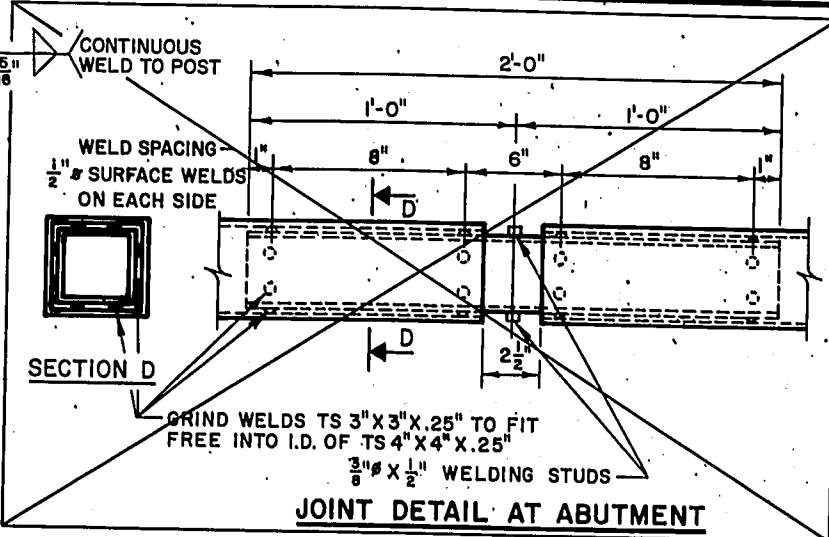
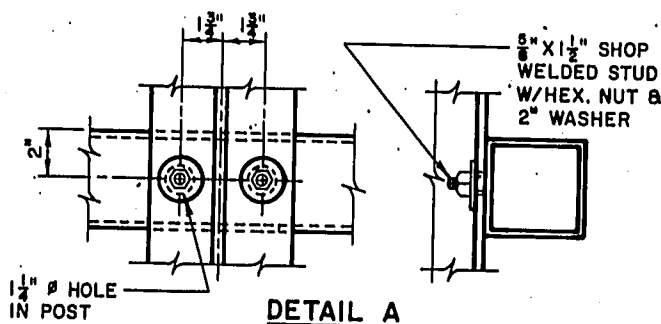
DETAIL AT END POST
(BEAM GUARD RAIL ATTACHMENT)



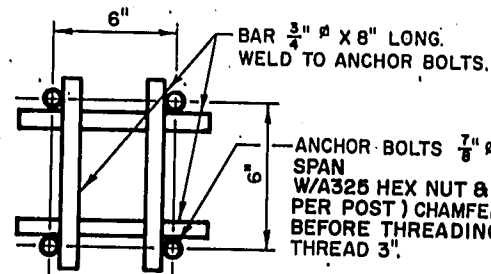
FIELD ERECTION JOINT DETAIL



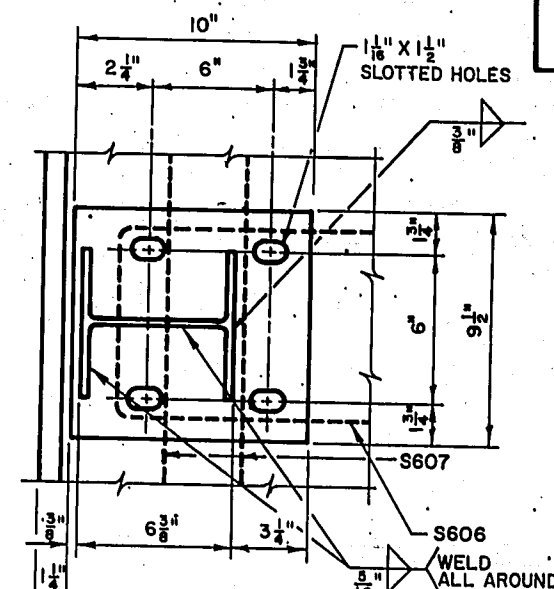
PLAN DETAIL AT END POST



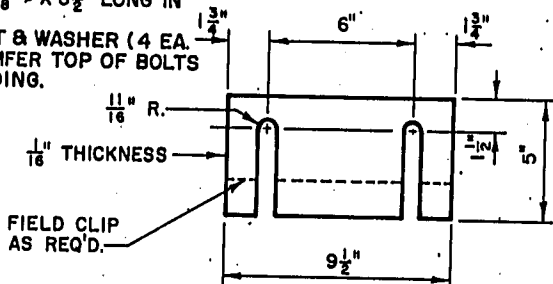
JOINT DETAIL AT ABUTMENT



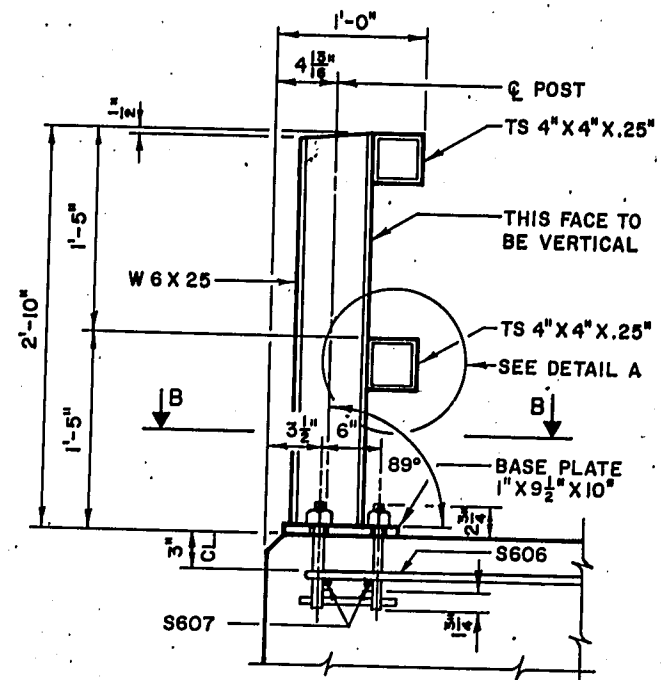
ANCHOR BOLT DETAILS



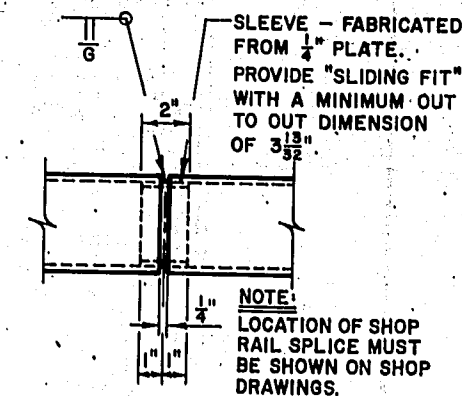
SECTION B



SHIM PLATE DETAIL
(4 PER POST)



SECTION THRU RAILING



SHOP RAIL SPLICE DETAIL

GENERAL NOTES

- BID ITEM SHALL BE "TUBULAR RAILING, TYPE F", WHICH INCLUDES ALL ITEMS SHOWN.
- RAILING SHALL BE FABRICATED IN 2 OR 3 PANEL LENGTHS.
- FILL SHIM PLATE SLOTS AND ANCHOR BOLT HOLES WITH A NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.
- RAILING SHALL BE 4 X 4 X .25 STRUCTURAL TUBING CONFORMING TO A.S.T.M. DESIGNATION A36.
- ANCHOR BOLTS SHALL BE 7/8" NOMINAL CONFORMING TO A.S.T.M. DESIGNATION A449 OR MATERIAL OF MINIMUM YIELD STRENGTH OF 92 KSI. AND ELONGATION OF 14%.
- POST, BASE PLATES AND SHIMS SHALL BE MADE FROM MATERIAL CONFORMING TO A.S.T.M. DESIGNATION A36. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST NORMAL TO GRADE LINE.
- PLACE ANCHOR BOLTS NORMAL TO BASE PLATE.
- ALL MEMBERS, INCLUDING UPPER 4" OF ANCHOR, SHALL BE GALVANIZED AFTER FABRICATION. A NO. 6 COMMERCIAL BLAST CLEANING, BY S.S.P.C. SPECIFICATIONS, SHALL BE GIVEN TO ALL MEMBERS TO BE GALVANIZED. BLAST CLEANING IS NOT REQUIRED FOR COLD FORMED TUBING, EXCEPT TO REMOVE WELDING SLAG AND IMPERVIOUS SUBSTANCES.
- WELD WITH E70 ELECTRODES.

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 WESTBROOK ASSOCIATED ENGINEERS, INC. PLAIN, WI 53577			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-25-935			
Const. Spec.	1989	Drawn By	PCC
		Plots Checked	JJK
TUBULAR RAILING, TYPE F			SHEET 5 OF 5
			X82872