

STATE OF MINNESOTA  
DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR BRIDGE DECK REPAIR

County Highway No. 3

Between CSAH. I - E. RIVER ROAD And CSAH. II - FOLEY BLVD.

A PT. 1000' E. & 525' N. OF THE CENTER OF SEC. 26, T.31 N., R.24 W. A PT. 1665' E. & 120' N. OF THE CENTER OF SEC. 26, T.31 N., R.24 W.  
From \_\_\_\_\_ To \_\_\_\_\_  
Give proper reference to Sections, Township and Range

GROSS LENGTH	— 0 —	FEET	— 0 —	MILES
BRIDGES LENGTH	451.76	FEET	.09	MILES
EXCEPTIONS LENGTH	— 0 —	FEET	— 0 —	MILES
NET LENGTH	451.76	FEET	.09	MILES

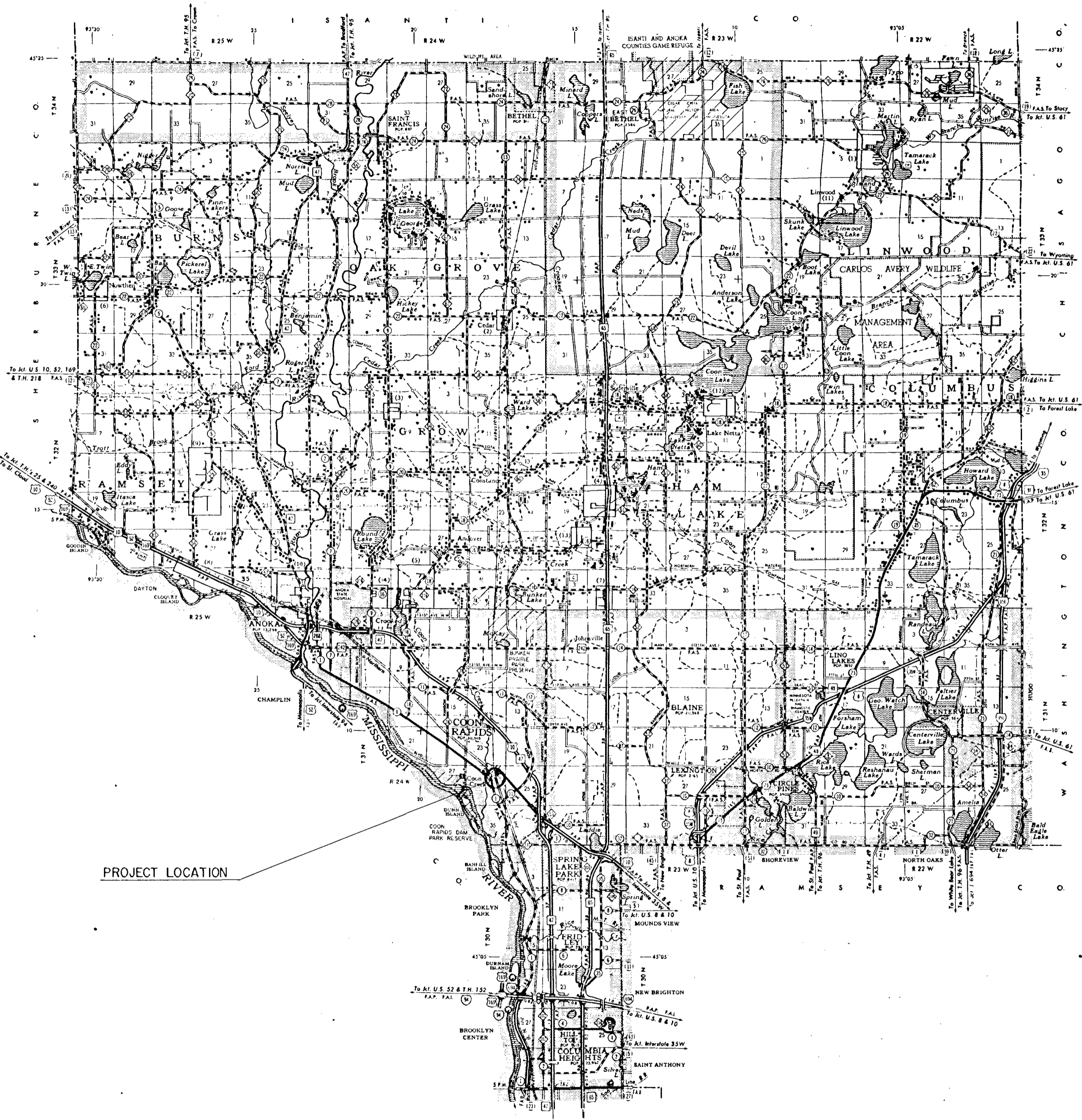
INDEX OF SHEETS

- Sheet No. 1A Title Sheet & Layout Map
- No. 1 Est. Quantities & Typical Sec.
- No. 2-3 General Plan Elevation
- No. 4-10 Removal & Reconstruction
- No. 11 Median & Railing Details
- No. 12 Waterproof Expansion Device
- No. 13 Traffic Control Details

THERE ARE 14 SHEETS IN THIS PLAN.

CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT OF WAY LINE
- PRESENT RIGHT OF WAY LINE
- CONTROL OF ACCESS LINE
- PROPERTY LINE (Except Land Lines)
- VACATED PLATTED PROPERTY
- CORPORATE OR CITY LIMITS
- TRUNK HIGHWAY CENTER LINE
- RETAINING WALL
- RAILROAD
- RAILROAD RIGHT OF WAY LINE
- RIVER OR CREEK
- DRY RUN
- DRAINAGE DITCH
- ELECTRIC POWER LINE
- TELEPHONE OR TELEGRAPH LINE
- JOINT TELEPHONE AND POWER
- CORNER
- TELEPHONE CABLE - AERIAL
- TELEPHONE CABLE - UNDERGROUND
- POWER CABLE UNDERGROUND
- GAS MAIN
- CULVERT
- BIOPLET
- GUARD RAIL
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SNOW FENCE
- STONE WALL OR FENCE
- HEDGE
- WATER PIPE
- SEWER PIPE
- DRAIN TILE
- SPRINGS
- MARSH
- TIMBER
- ORCHARD
- BRUSH
- NURSERY
- CATCH BASIN
- MANHOLE
- FIRE HYDRANT
- STREET LIGHT
- RAILROAD CROSSING SIGN
- RAILROAD CROSSING BELL
- ELECTRIC WARNING SIGN
- CROSSING GATE
- CATTLE GUARD
- OVERPASS (Highway Over)
- UNDERPASS (Highway Under)
- BRIDGE
- BUILDING (One Story Frame)
- F FRAME
- C CONCRETE
- S STONE
- T TILE
- B BRICK
- ST STUCCO
- IRON PIPE OR ROD
- MONUMENT (STONE, CONCRETE, OR METAL)
- WOODEN PUS
- GRAVEL PIT
- SAND PIT
- BORROW PIT
- ROCK QUARRY
- MEANDER CORNER



PROJECT LOCATION

DESIGN DESIGNATION

ADT (CURRENT YEAR) 14,700  
 ADT (FUTURE YEAR) 29,400  
 T (HEAVY COMMERCIAL)  
9 Ton Design  
 Design Speed 45 MPH  
 Design Speed not achieved at:  
 STA \_\_\_\_\_ TO STA \_\_\_\_\_ MPH \_\_\_\_\_  
 STA \_\_\_\_\_ TO STA \_\_\_\_\_ MPH \_\_\_\_\_

SPECIFICATIONS

THE "STANDARD" SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, DATED JAN. 1, 1978, SHALL GOVERN.

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Paul K. Lund COUNTY ENGINEER DATE 7-12-83

ANOKA COUNTY REG. NO. 6549

RECOMMENDED FOR APPROVAL \_\_\_\_\_ 19 \_\_\_\_\_ DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL \_\_\_\_\_ 19 \_\_\_\_\_

APPROVED \_\_\_\_\_ 19 \_\_\_\_\_ STATE AID ENGINEER

Minn. Proj. No. \_\_\_\_\_ County Proj. No. 83-08-03  
 State Proj. No. \_\_\_\_\_ S.A.P. \_\_\_\_\_

CONSTRUCTION PLAN FOR BRIDGE DECK REPAIR

BRIDGE NO. 02521

C.S.A.H. 3 (COON RAPIDS BLVD. BY-PASS)  
OVER BURLINGTON NORTHERN R.R. IN  
COON RAPIDS.

BRIDGE NO. 02522

C.S.A.H. 3 (COON RAPIDS BLVD. BY-PASS)  
OVER EAST RIVER ROAD N.B. (C.S.A.H. 1)  
IN COON RAPIDS.

INDEX

- 1 - TITLE SHEET
- 2 - BR. NO. 02521 - GENERAL PLAN & EL.
- 3 - BR. NO. 02522 - GENERAL PLAN & EL.
- 4 - REMOVAL PLAN FOR EXP. DEVICES (02521)
- 5 - RECONSTRUCTION PLAN (02521)
- 6 - REMOVAL & RECONSTR. DETAILS (02521)
- 7 & 8 - REMOVAL PLAN FOR EXP. DEVICES (02522)
- 9 & 10 - RECONSTRUCTION PLAN (02522)
- 11 - MEDIAN & RAILING DETAILS
- 12 - EXP. JOINT DEVICE DETAILS
- 13 - TRAFFIC CONTROL DETAILS

ITEM NO.	SCHEDULE OF QUANTITIES ITEM	UNIT	BRIDGE NO.		TOTAL
			02521	02522	
0401.501	CONCRETE MIX NO. 3U17A	CU. YD.	162	157	319
0401.603	WEARING COURSE FINISH	SQ. FT.	22800(P)	21780(P)	44580(P)
0433.505	REMOVE SLAB, TYPE 1	SQ. FT.	150	300	450
0433.601	SCARIFY BIT. APPROACH	SQ. FT.	7200	7250	14450
0433.505	REMOVE SLAB, TYPE 3	SQ. FT.	80	50	130
0433.607	RECONSTRUCT EXP. DEVICE, TYPE SPECIAL	LIN. FT.	173	266	439
0394.508	WEARING COURSE MIXTURE	TON	105	105	210
0394.509	BITUM. MATERIAL FOR MIXTURE	TON	7.9	7.9	15.8
0401.511	CONCRETE MIX NO. 3X33	SQ. FT.	80	50	130
0433.603	REPAIR CONCRETE SURFACE	SQ. FT.	—	50	50
0433.505	REMOVE CONCRETE MEDIAN	SQ. FT.	1920	1800	3720
0401.605	RAISED MEDIAN CONC. MIX NO. 3X46	SQ. FT.	1920	1800	3720
0401.604	VINYL ACETATE WATERSTOP	LIN. FT.	330	300	630
0433.602	REPAIR SLOPE PAVING JOINT	LIN. FT.	275	350	625
0433.601	SCARIFY BRIDGE DECK	SQ. FT.	22800(P)	21780(P)	44580(P)

CONSTRUCTION NOTES:

THE MINNESOTA DEPARTMENT OF TRANSPORTATION  
"STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION"  
1978 EDITION SHALL GOVERN.

NO REMOVAL WILL BE PERMITTED UNTIL THE REMOVAL  
LIMITS HAVE BEEN OUTLINED BY THE CONTRACTOR  
AND APPROVED BY THE ENGINEER. REMOVAL AND  
RECONSTRUCTION SHALL CONFORM TO SPEC. 7433.

PROVIDE SAW CUT IN CONCRETE WEARING COURSE OVER ALL  
CONSTRUCTION JOINTS IN EXISTING SLAB AND APPROACH  
PANELS. SEAL WITH CONCRETE JOINT SEALER PER SPEC. 3123.

THE CONTRACTOR SHALL MAKE FIELD MEASUREMENTS AS  
NECESSARY, PRIOR TO FABRICATION OF THE EXPANSION JOINT DEVICES  
AND CURB OR RAIL PLATES, TO ASSURE PROPER FIT IN THE FINAL WORK.

NOTE:

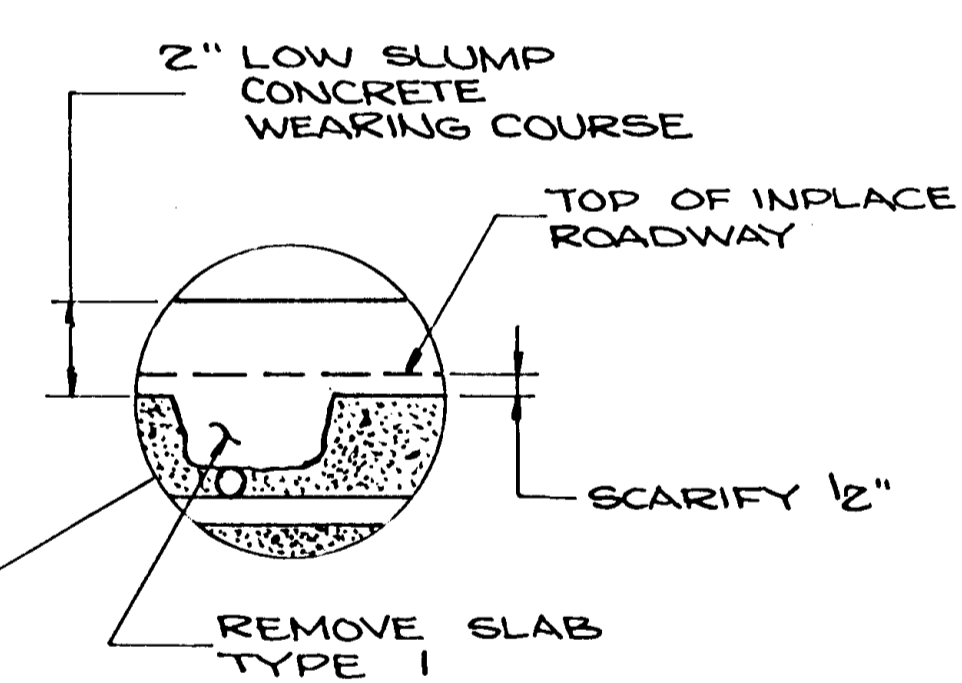
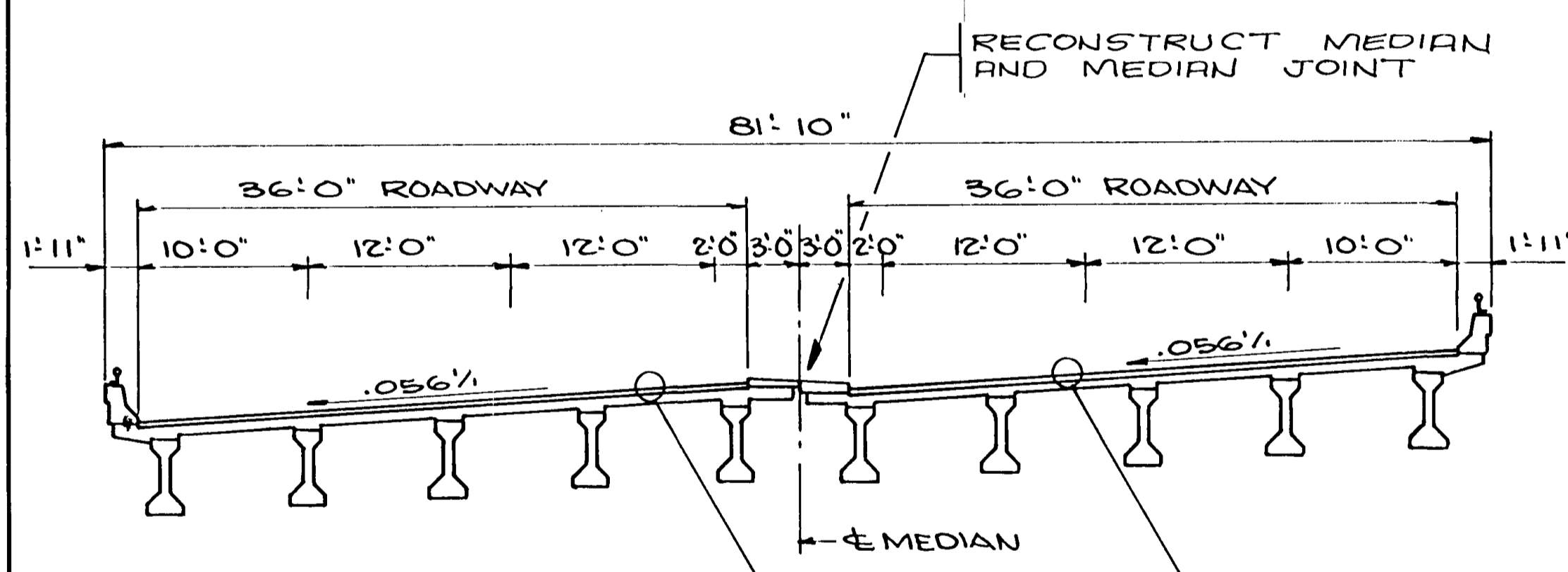
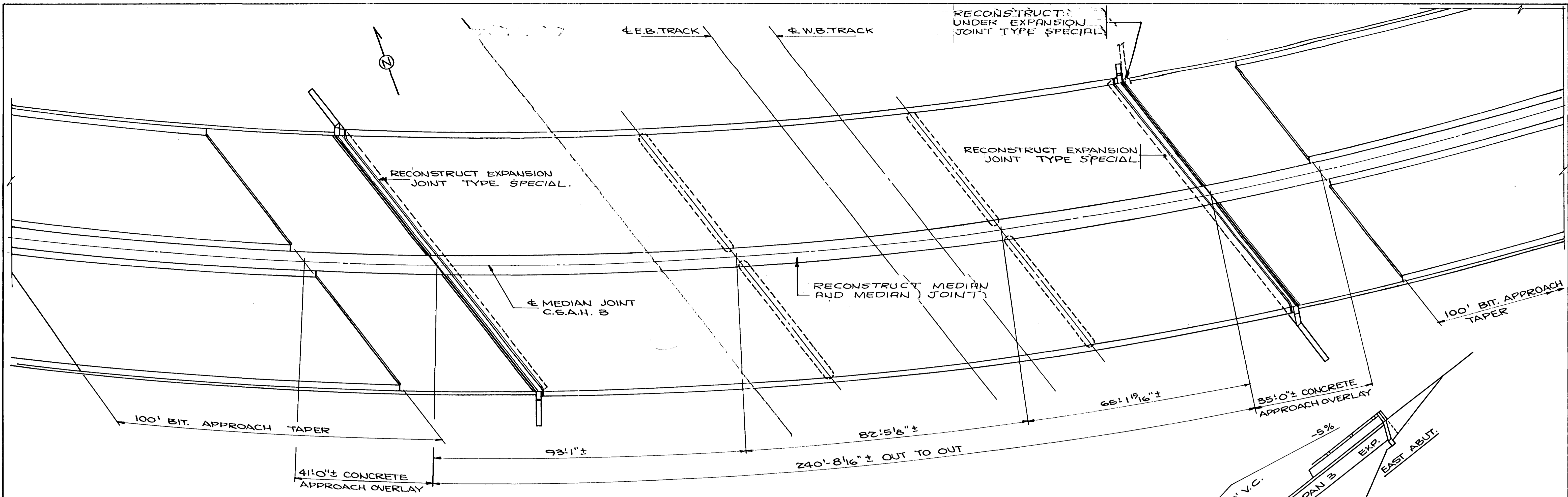
CONTRACT B IS FOR BRIDGE NOS. 02521 & 02522

APPROVED Paul K. Lund 7-12-83  
COUNTY ENGINEER DATE

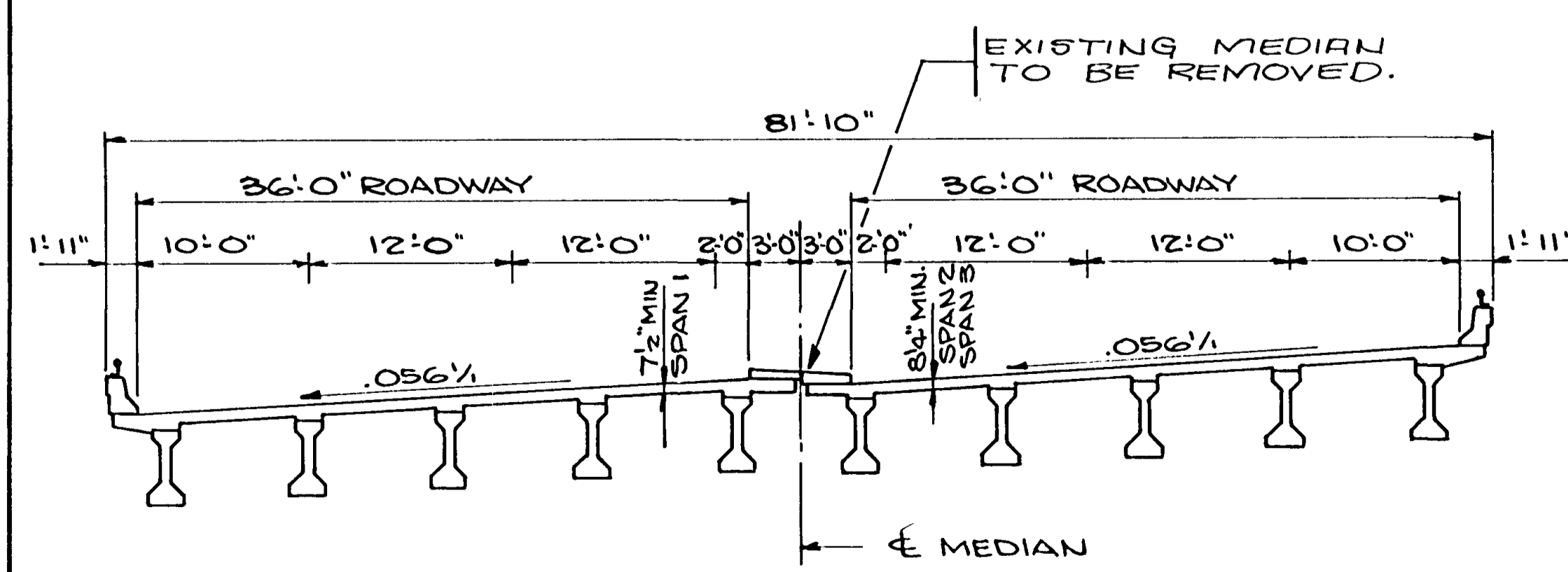
I HEREBY CERTIFY THAT THIS PLAN WAS  
PREPARED BY ME OR UNDER MY DIRECT  
SUPERVISION AND THAT I AM A DULY  
REGISTERED PROFESSIONAL ENGINEER  
UNDER THE LAWS OF THE STATE OF  
MINNESOTA.  
6-29-83 6924 Robert K. Hennig  
DATE REG. NO. ENGINEER

PLANS PREPARED BY  
ERICKSON ENGINEERING CO.  
3340 REPUBLIC AVE.  
ST. LOUIS PARK, MINNESOTA 55426

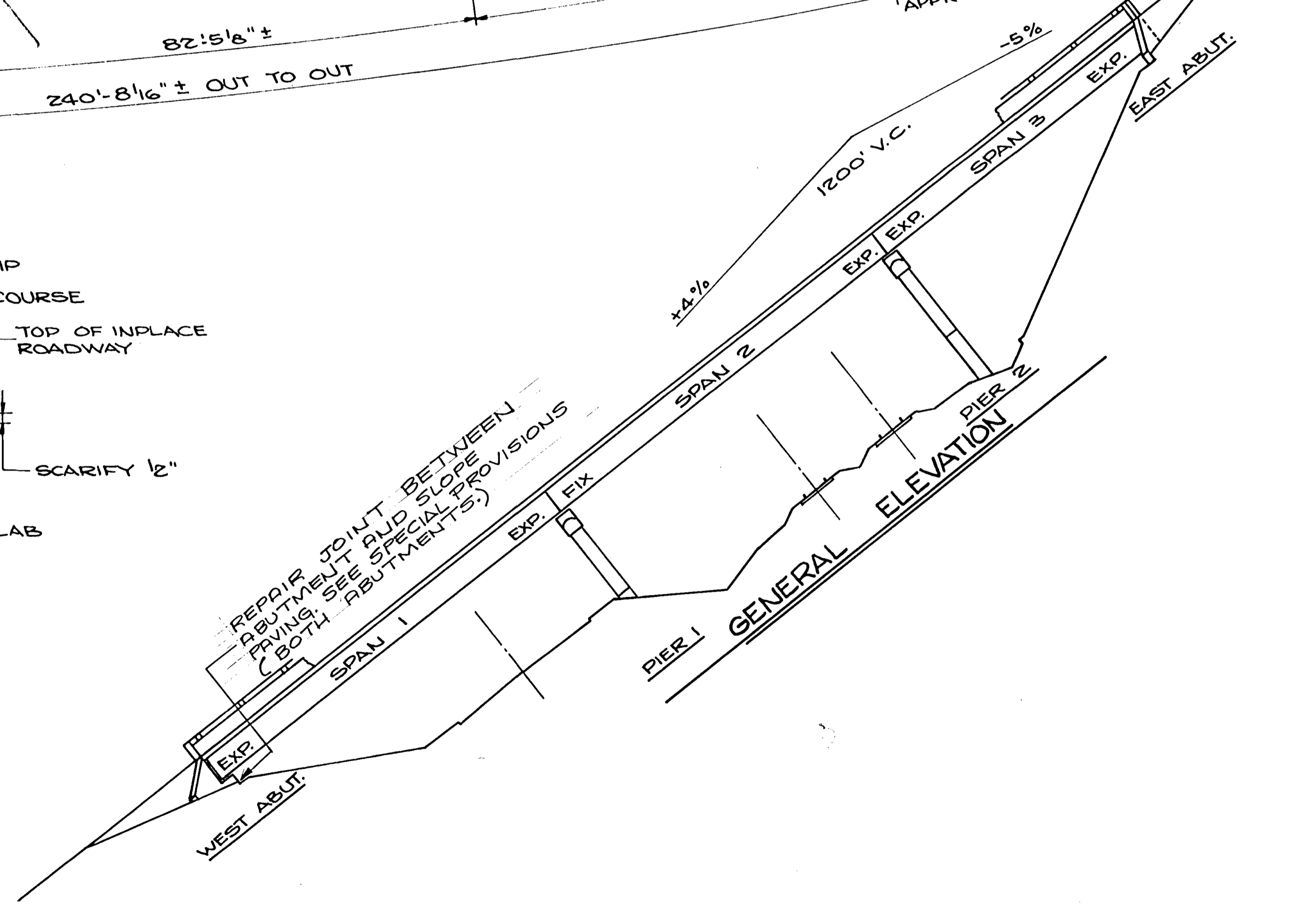
TITLE SHEET	DES:	DR: R.H.	APPROVED:	BRIDGE NO.
CONTRACT B	CHK:	CHK:		02521
BR. NOS. 02521 & 02522	SHEET NO. 1 of 13 SHEETS			02522



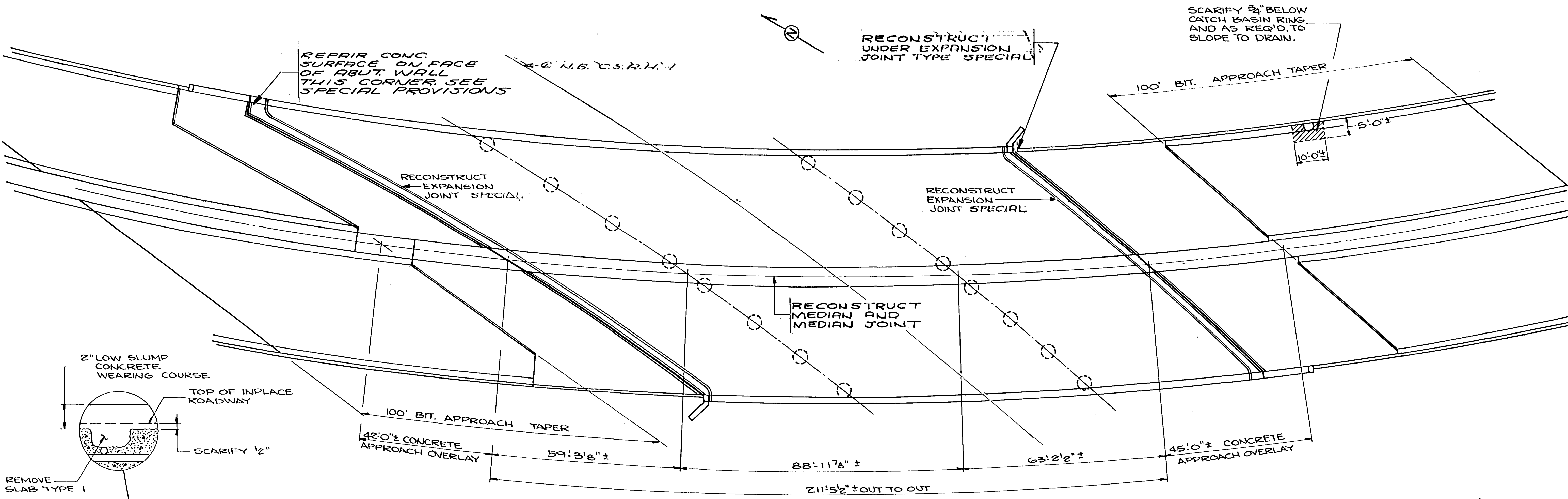
TYPICAL SECTION PROPOSED



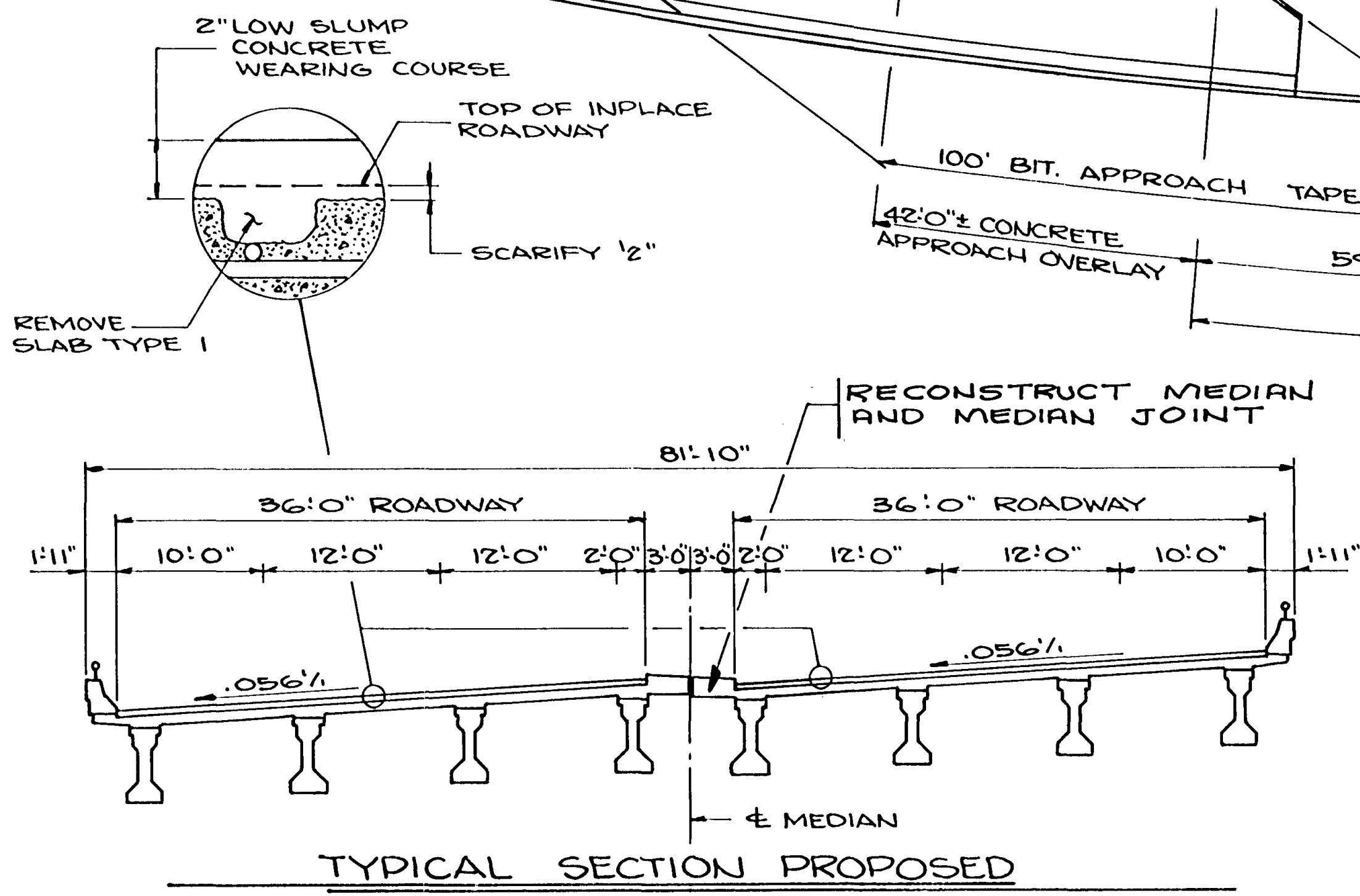
TYPICAL SECTION INPLACE



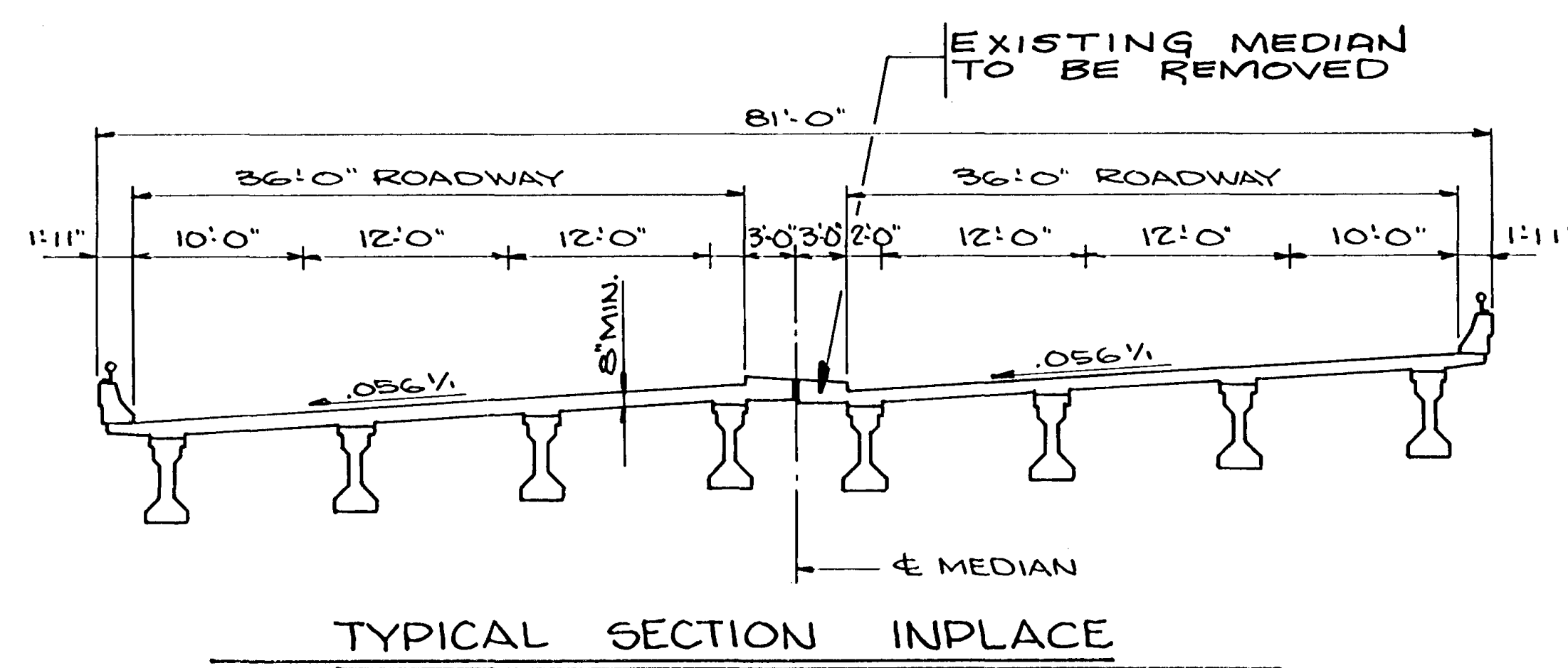
GENERAL PLAN & ELEVATION		DES:	DR: R.H.	APPROVED	BRIDGE NO. 02521
C.S.A.H. 3 (COON RAPIDS BLVD. BY-PASS) OVER BURLINGTON NORTHERN R.R. IN COON RAPIDS		CHK:	CHK:		
SHEET NO. 2 of 13 SHEETS					



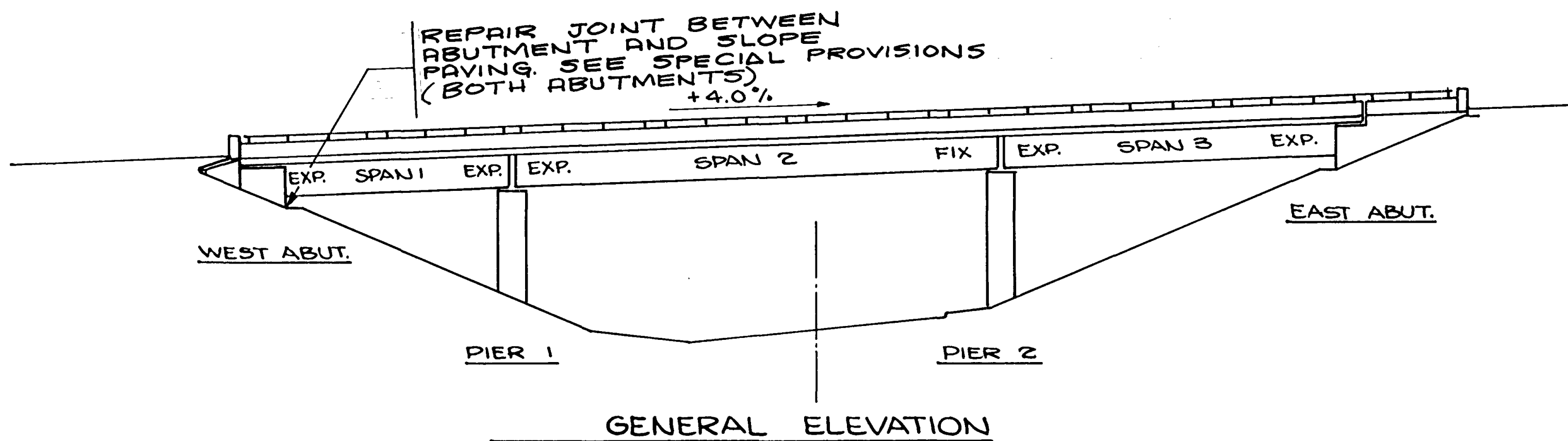
GENERAL PLAN



TYPICAL SECTION PROPOSED

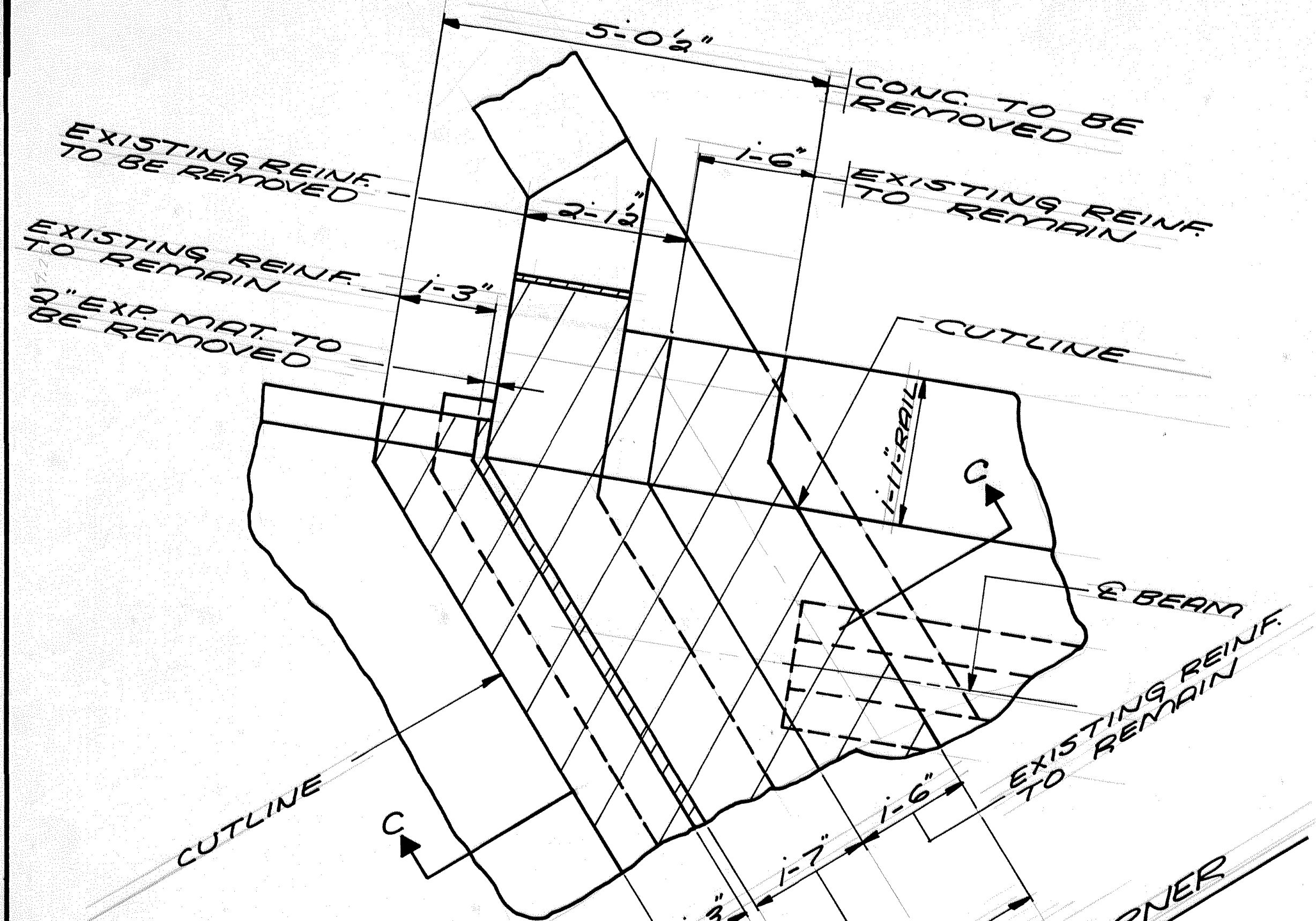


TYPICAL SECTION INPLACE

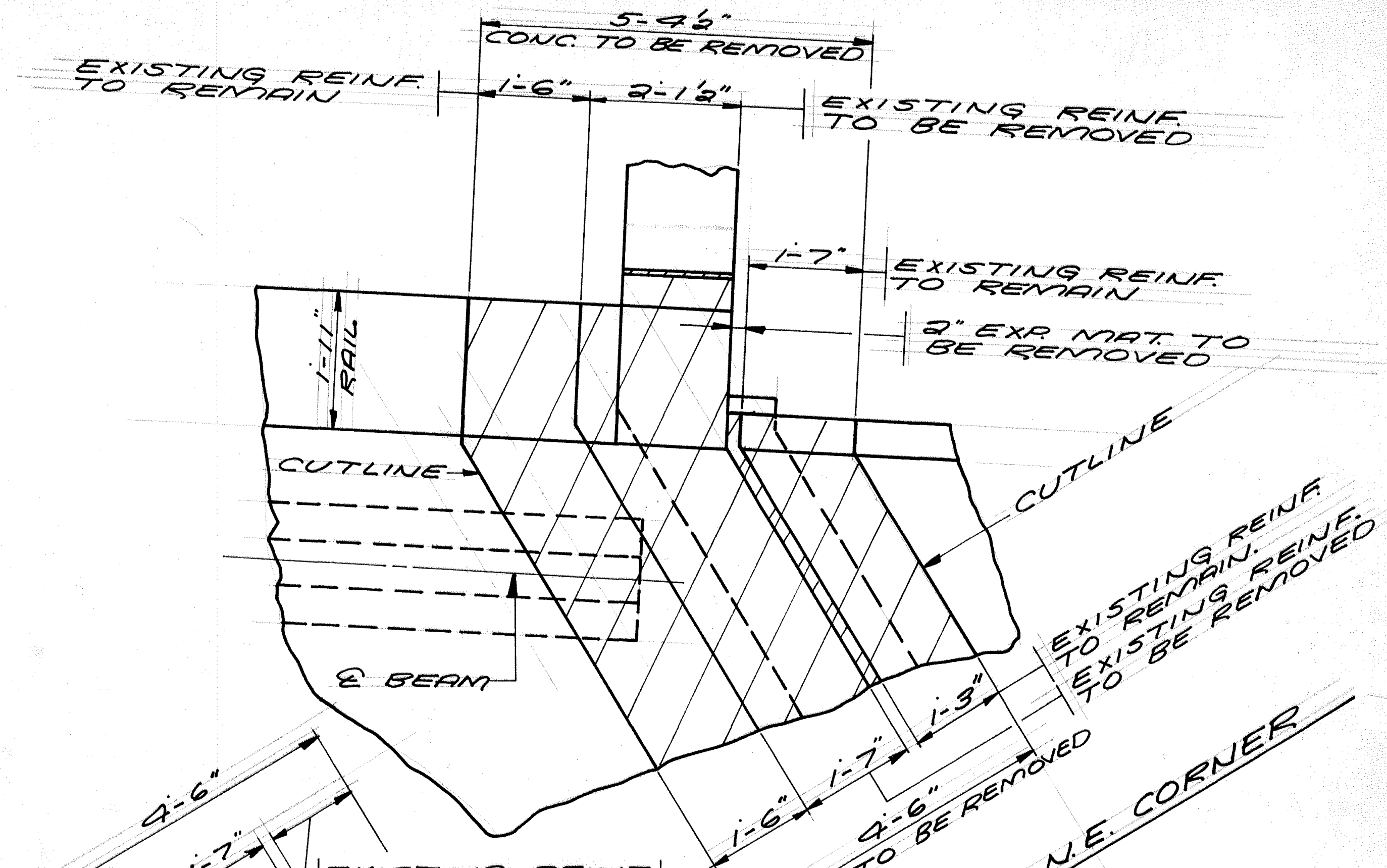


GENERAL ELEVATION

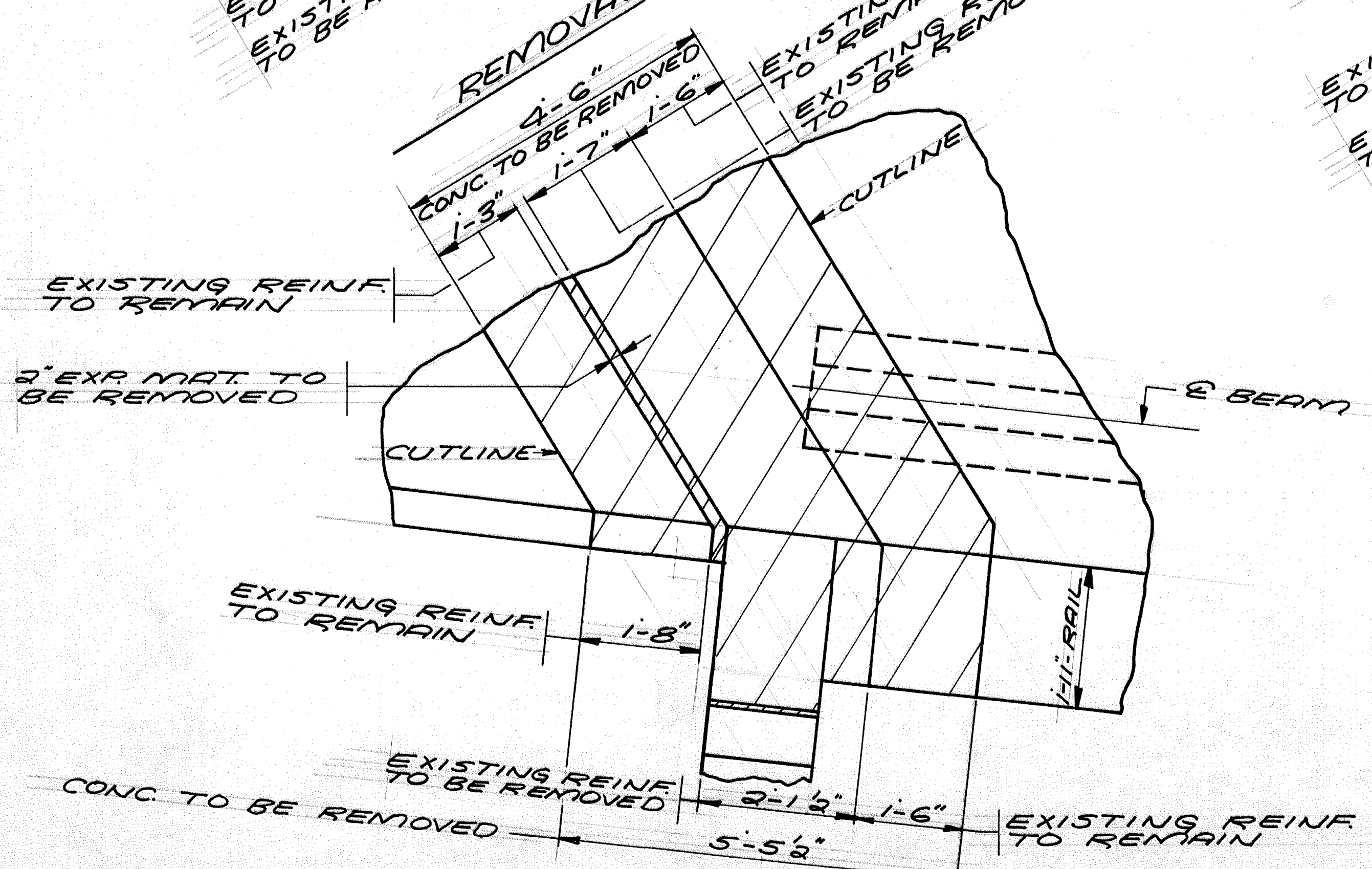
GENERAL PLAN & ELEVATION		DES:	DR: R.H.	APPROVED:	BRIDGE NO. 02522
C.S.A.H. 3 (COON RAPIDS BLVD. BY-PASS) OVER EAST RIVER RD. N.B. (C.S.A.H. 1) IN COON RAPIDS.		CHK:	CHK.		
SHEET NO. 3 of 13 SHEETS					



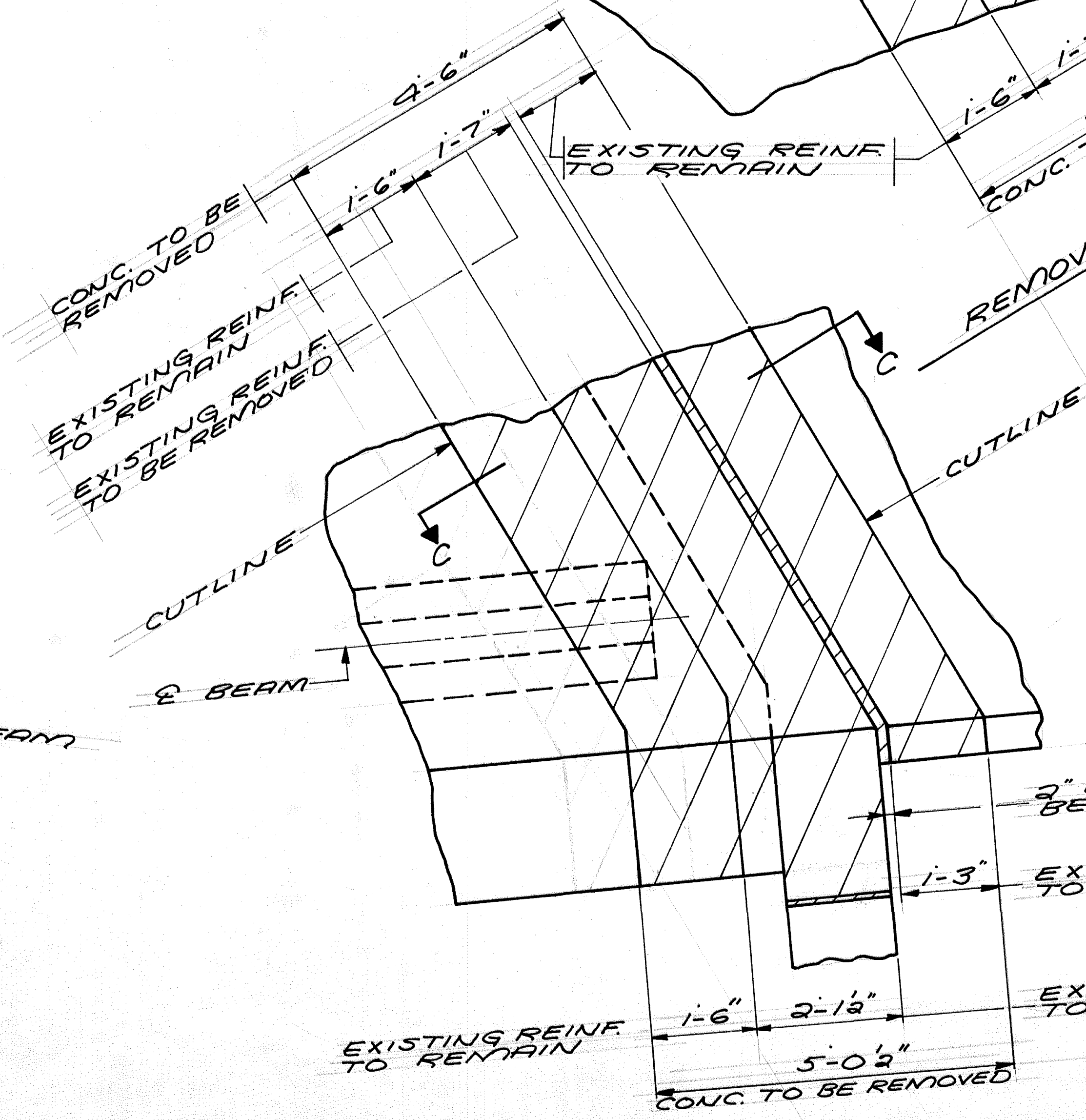
REMOVAL PLAN N.W. CORNER



REMOVAL PLAN N.E. CORNER



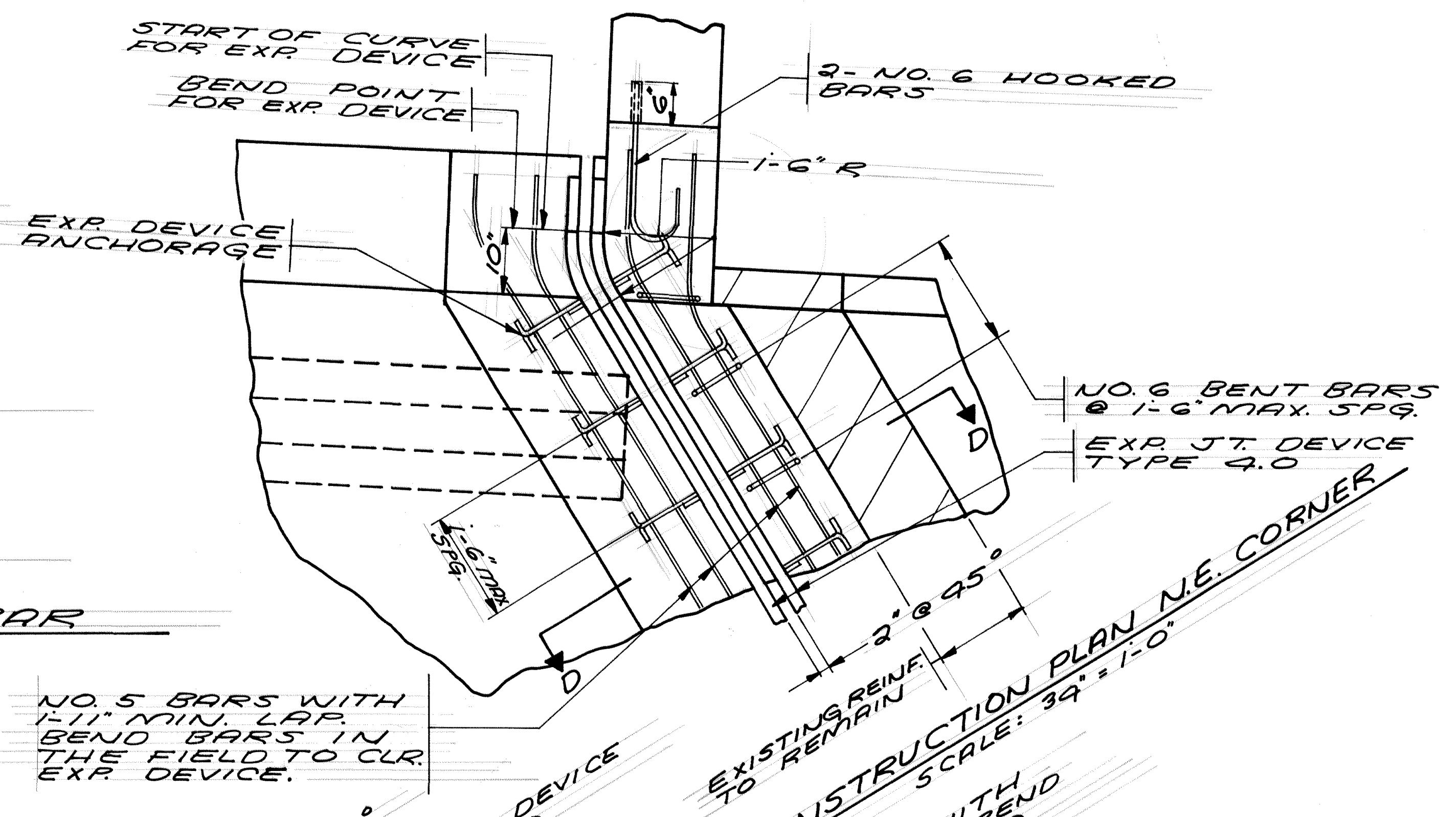
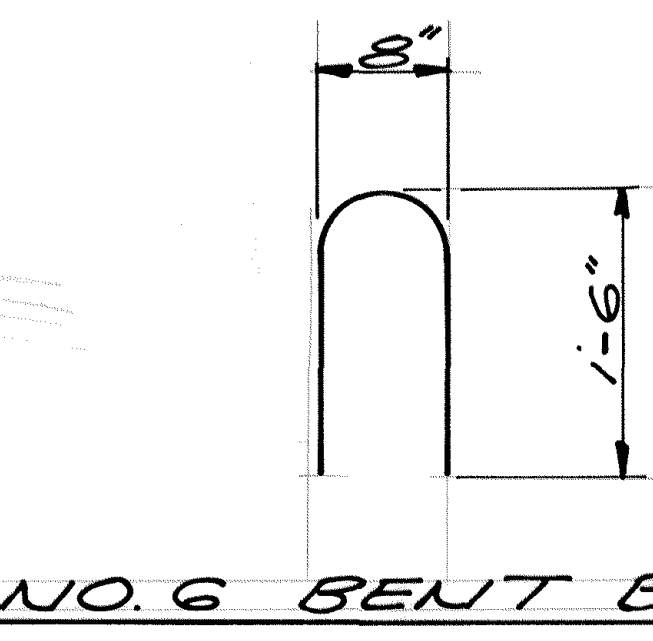
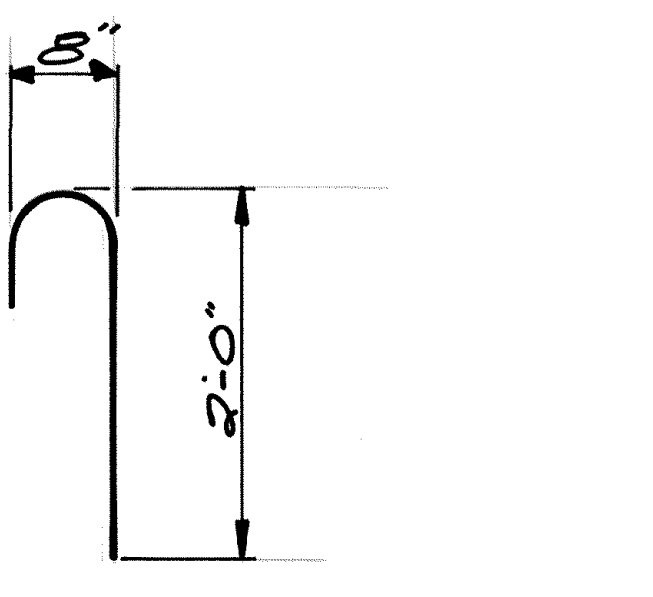
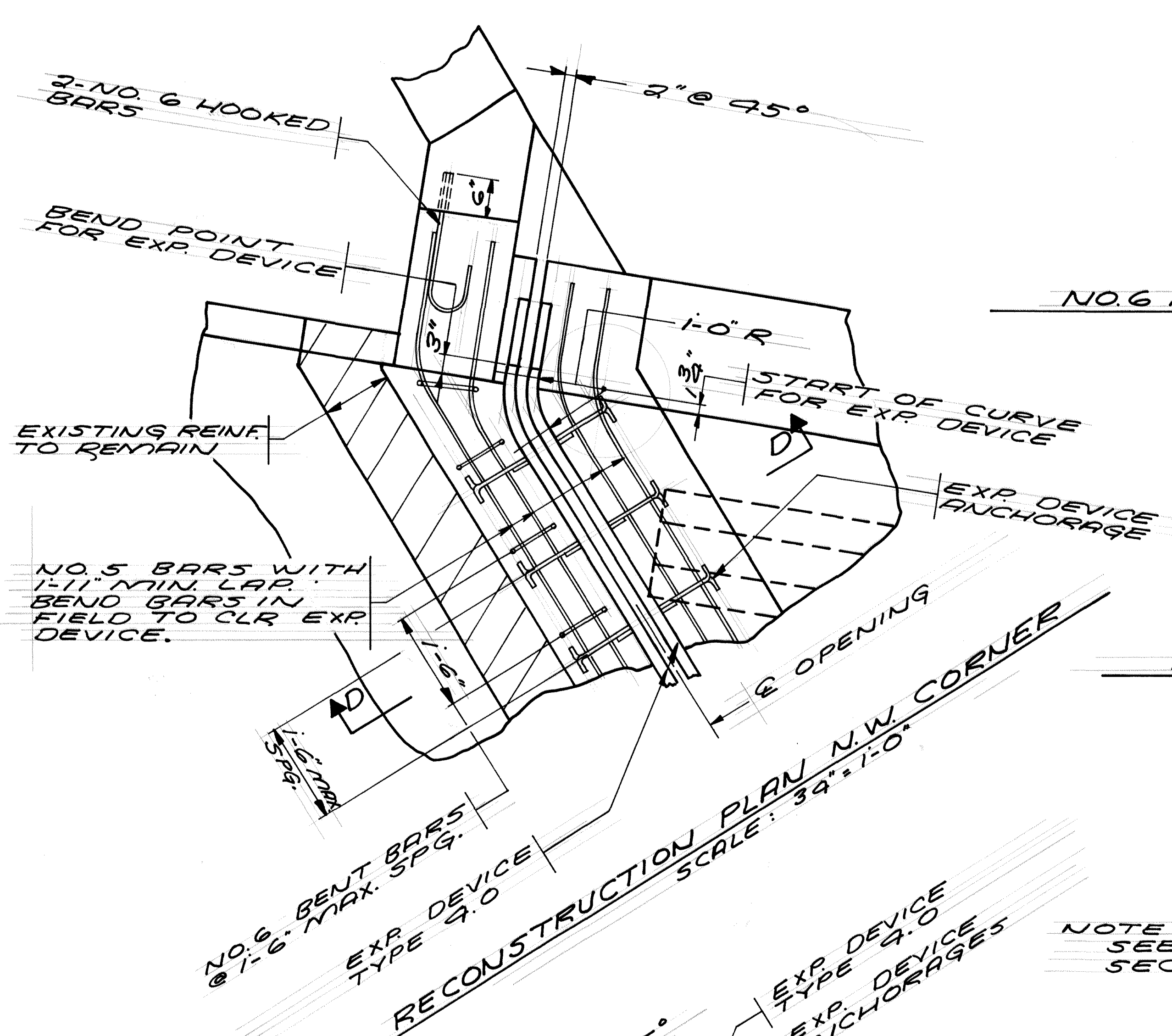
REMOVAL PLAN S.W. CORNER



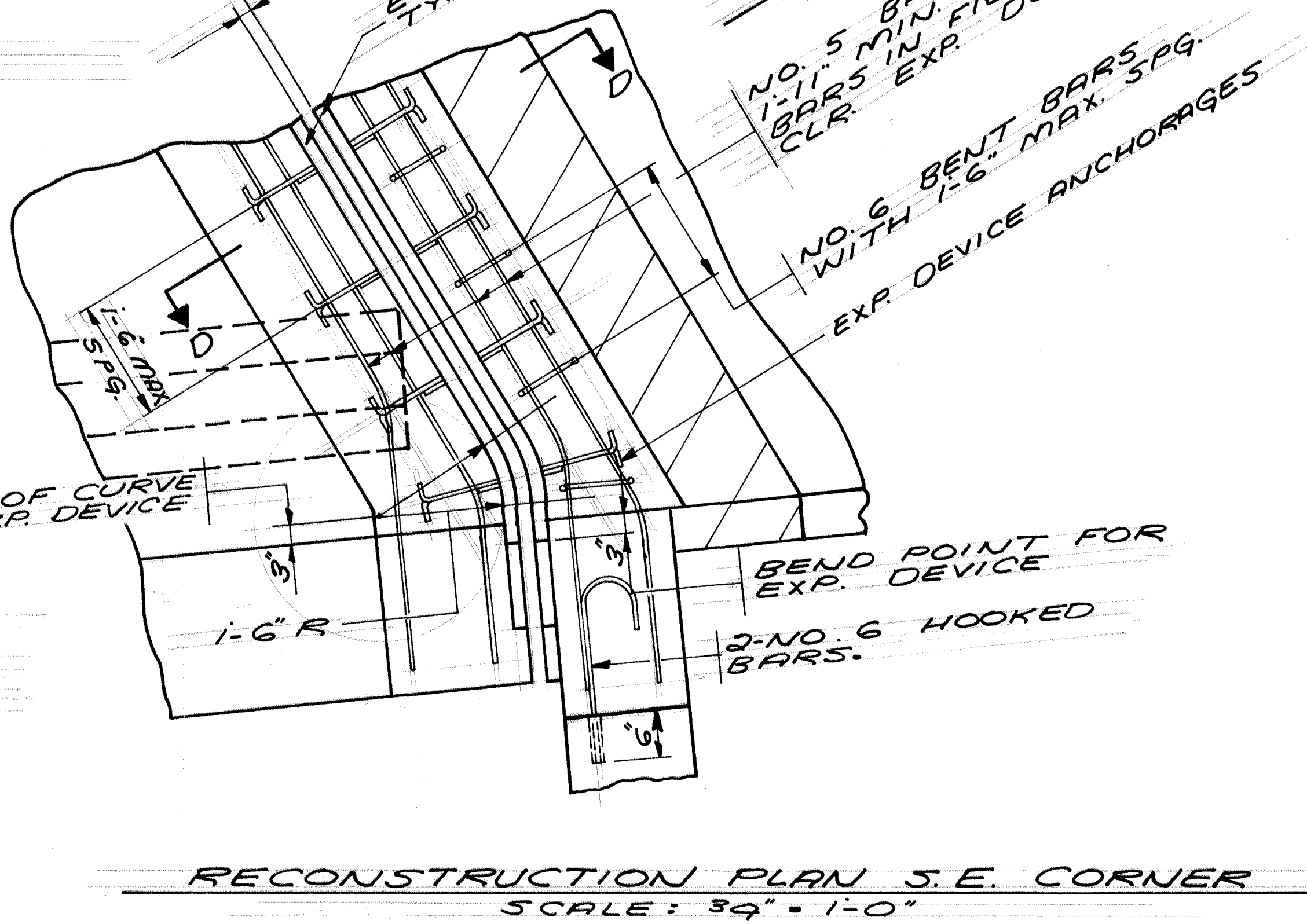
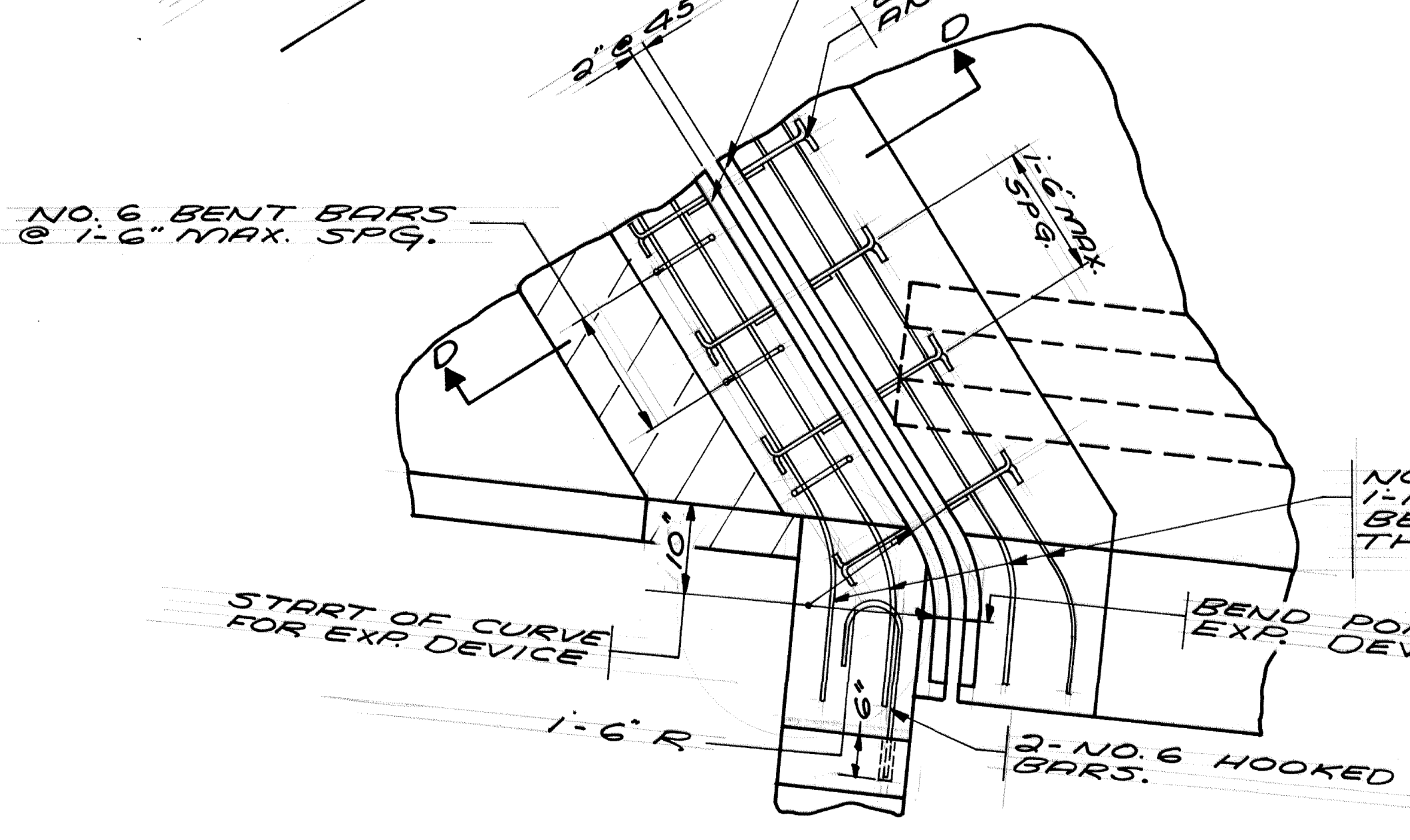
REMOVAL PLAN S.E. CORNER

NOTE:  
SEE SHEET 6 FOR  
SECTION C-C

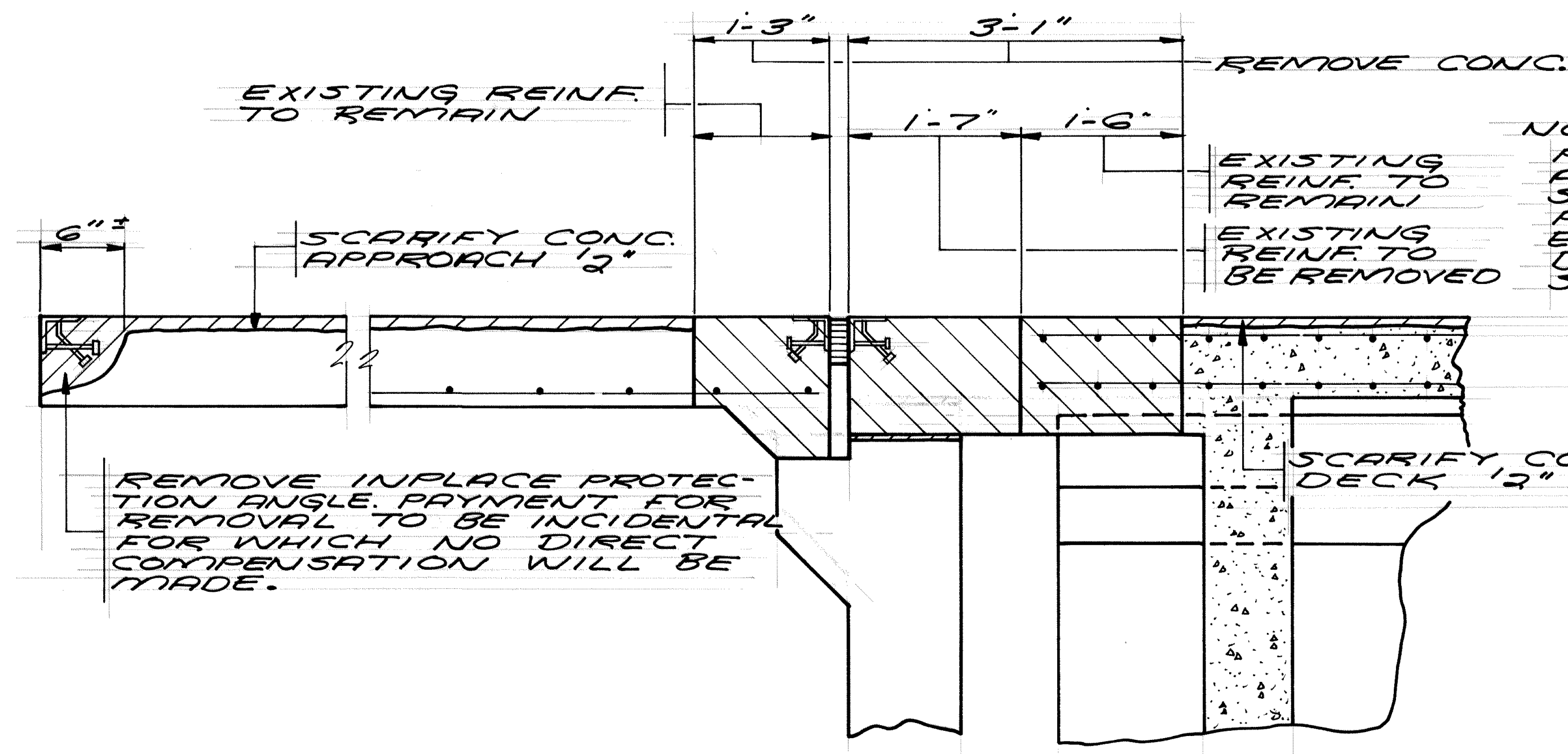
REMOVAL PLAN FOR EXP. DEVICE	DRAWN:	CHECKED:	APPROVED:	BRIDGE NUMBER 02521
	D.J.V.	R.R.T.		
	SHEET 4 OF 13 SHEETS			



NOTE  
SEE SH. 6 FOR  
SECTION D-D

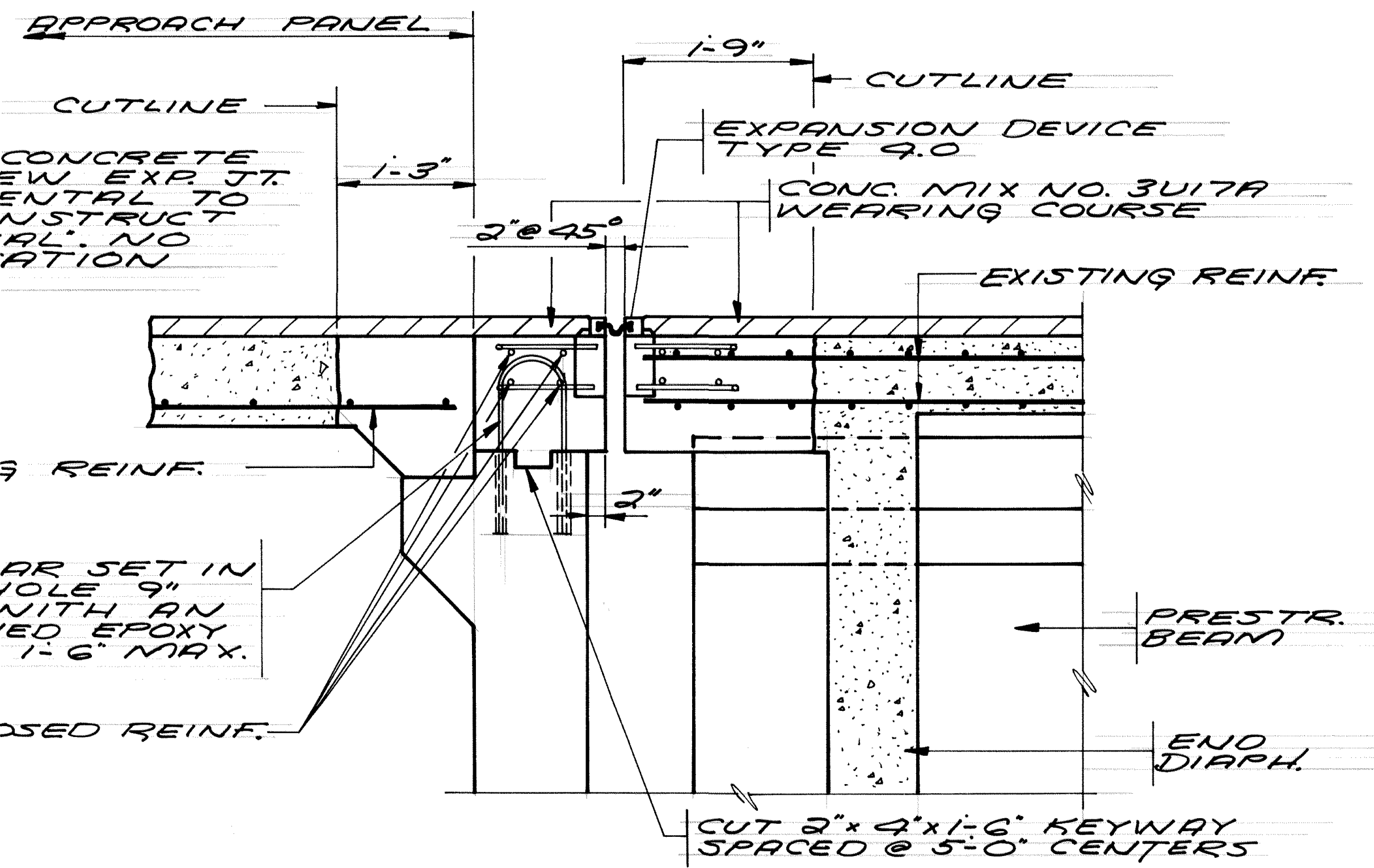


RECONSTRUCTION PLAN	DRAWN: D.J.V.	CHECKED R.R.T.	APPROVED	BRIDGE NUMBER 02521
	SHEET 5 OF 13 SHEETS			



**SECTION C-C - REMOVAL**  
SCALE: 1" = 1'-0"

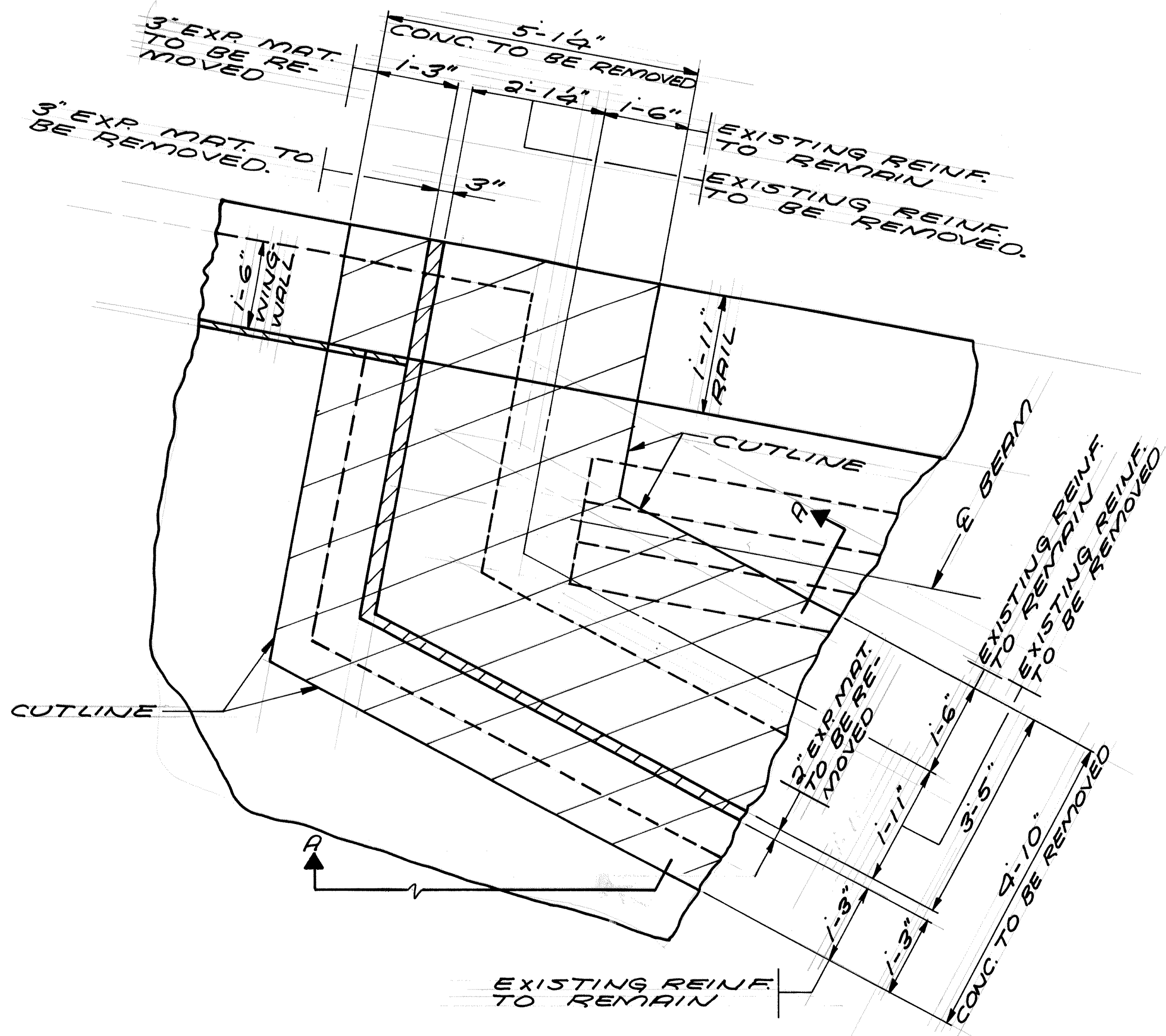
**NOTE:**  
PROPOSED NEW CONCRETE AND REINF. @ NEW EXP. JT. SHALL BE INCIDENTAL TO PAY ITEM "RECONSTRUCT EXP. JOINT SPECIAL". NO DIRECT COMPENSATION SHALL BE MADE.



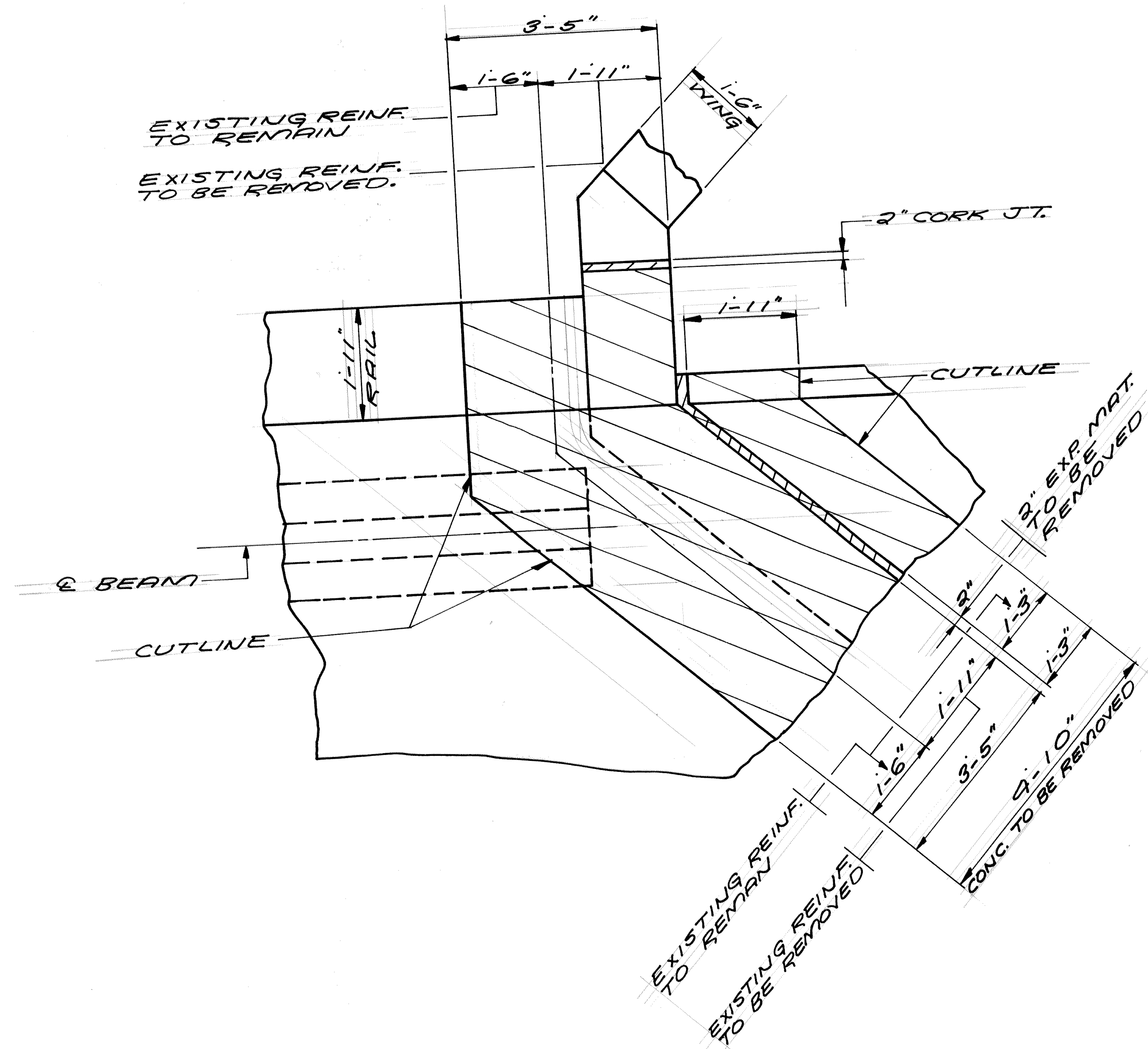
**SECTION D-D - RECONSTRUCTION**  
SCALE: 1" = 1'-0"

**NOTE:**  
REMOVAL OF RAILING CONC. & REINF. FOR PLACING OF NEW EXP. JOINTS SHALL BE INCIDENTAL TO PAY ITEM "RECONSTRUCT EXP. JOINT DEVICE SPECIAL". NO DIRECT COMPENSATION SHALL BE MADE.  
RAILING REINF. SHALL BE BENT OR CUT TO PROVIDE CLEARANCE FOR EXP. DEVICE AS DIRECTED BY THE ENGINEER IN THE FIELD.  
ADDITIONAL REINF. AT RAILING SHALL BE PLACED AS DIRECTED BY THE ENGINEER IN THE FIELD. INCLUDED IN PRICE BID FOR "RECONSTRUCT EXP. JT. SPECIAL."

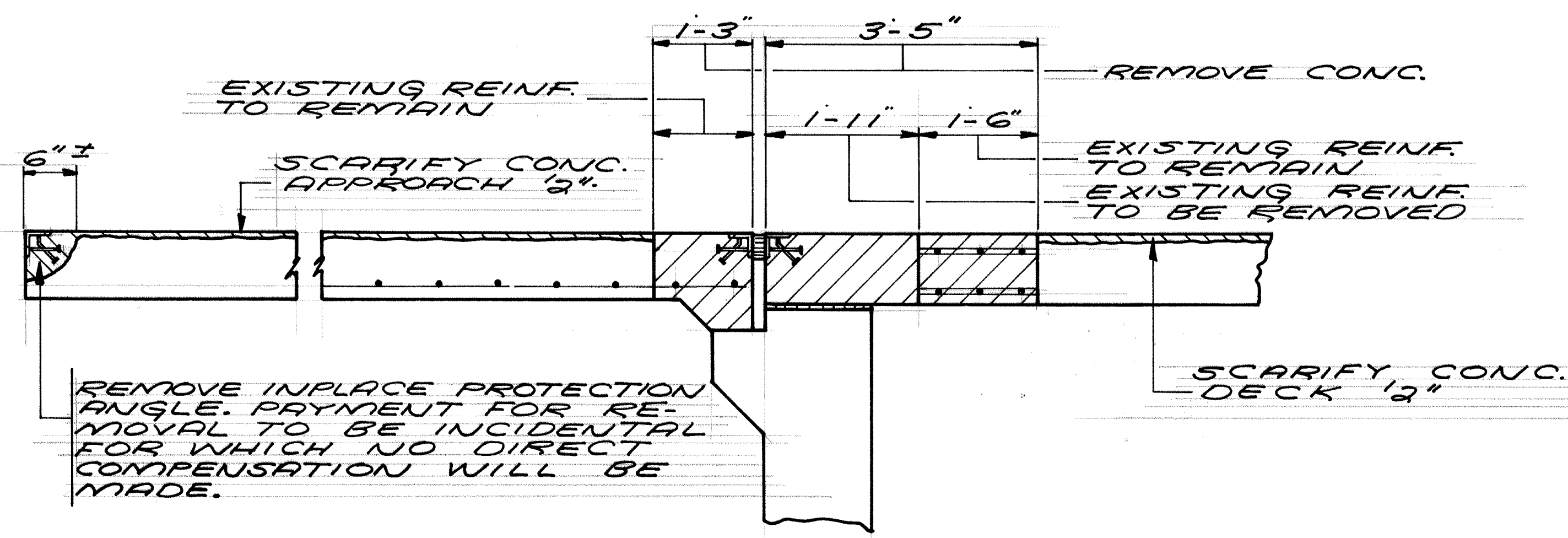
REMOVAL AND RECONSTRUCTION DETAILS	DRAWN: D.J.V.	CHECKED: R.R.T.	APPROVED:	BRIDGE NUMBER 02521
	SHEET 6 OF 13 SHEETS			



REMOVAL PLAN N.W. CORNER

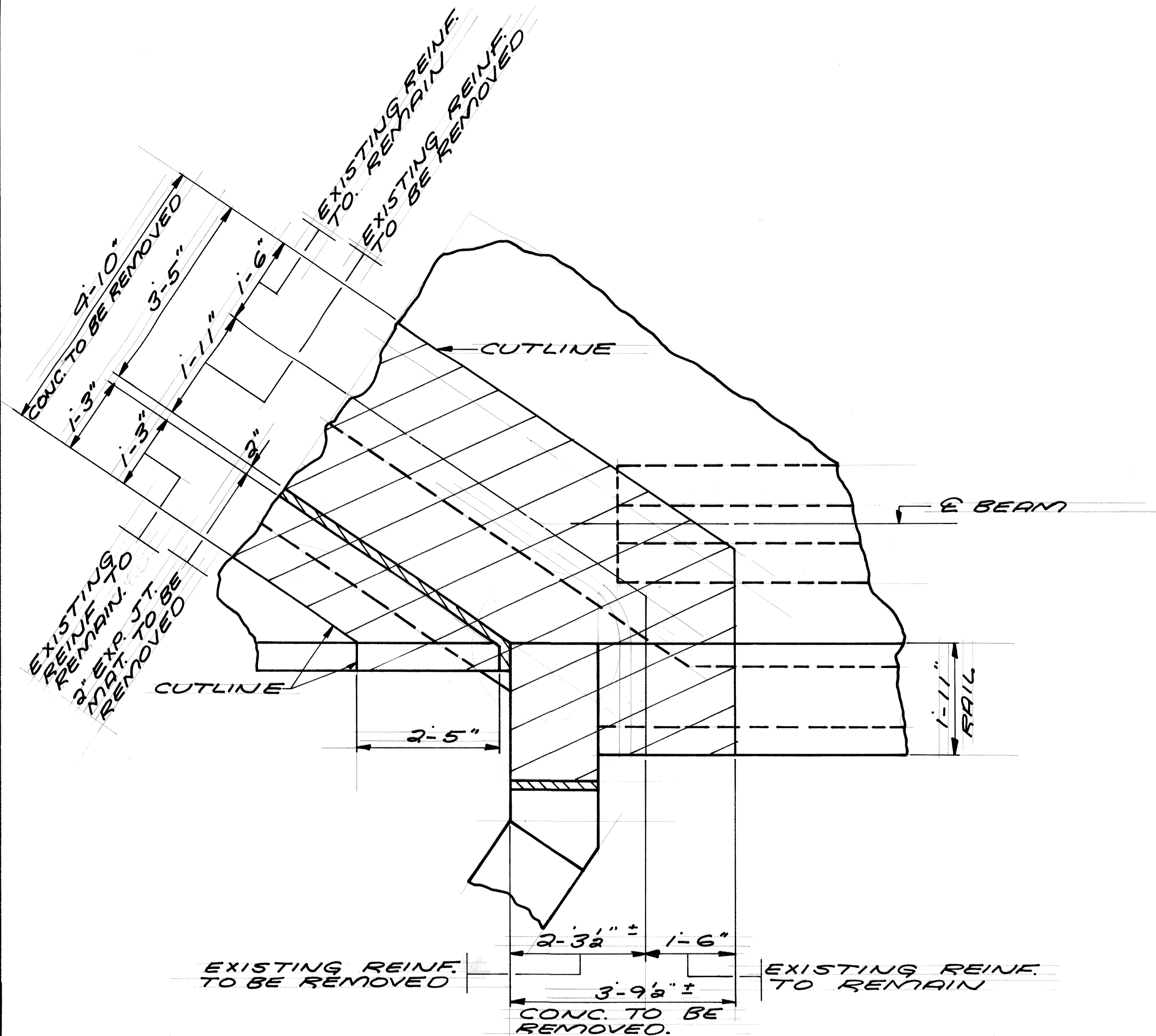


REMOVAL PLAN N.E. CORNER

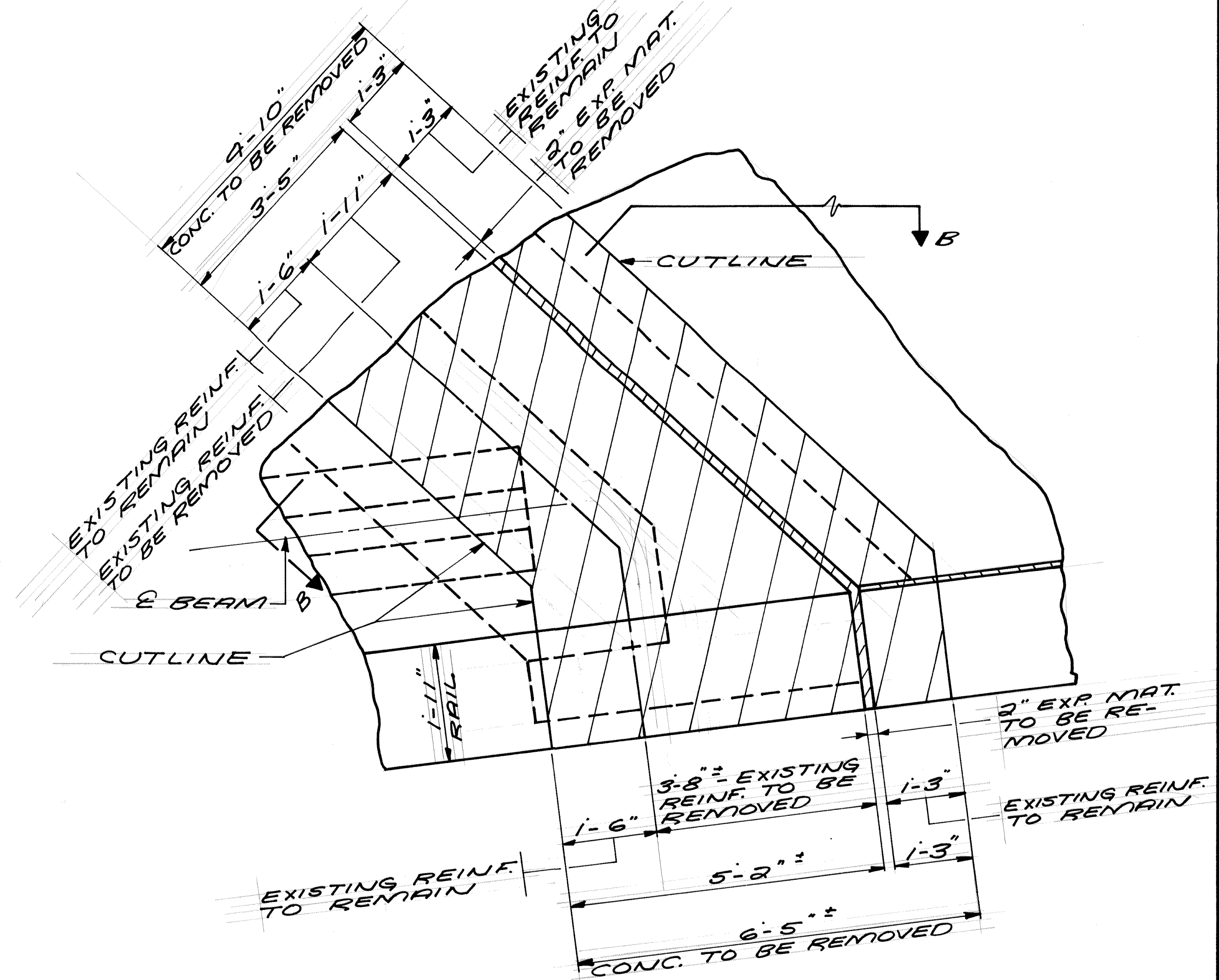


REMOVAL PLAN @ N.W. & N.E. CORN.	DRAWN: D.J.V.	CHECKED: R.R.T.	APPROVED	BRIDGE NUMBER 02522
	SHEET 7 OF 13 SHEETS			

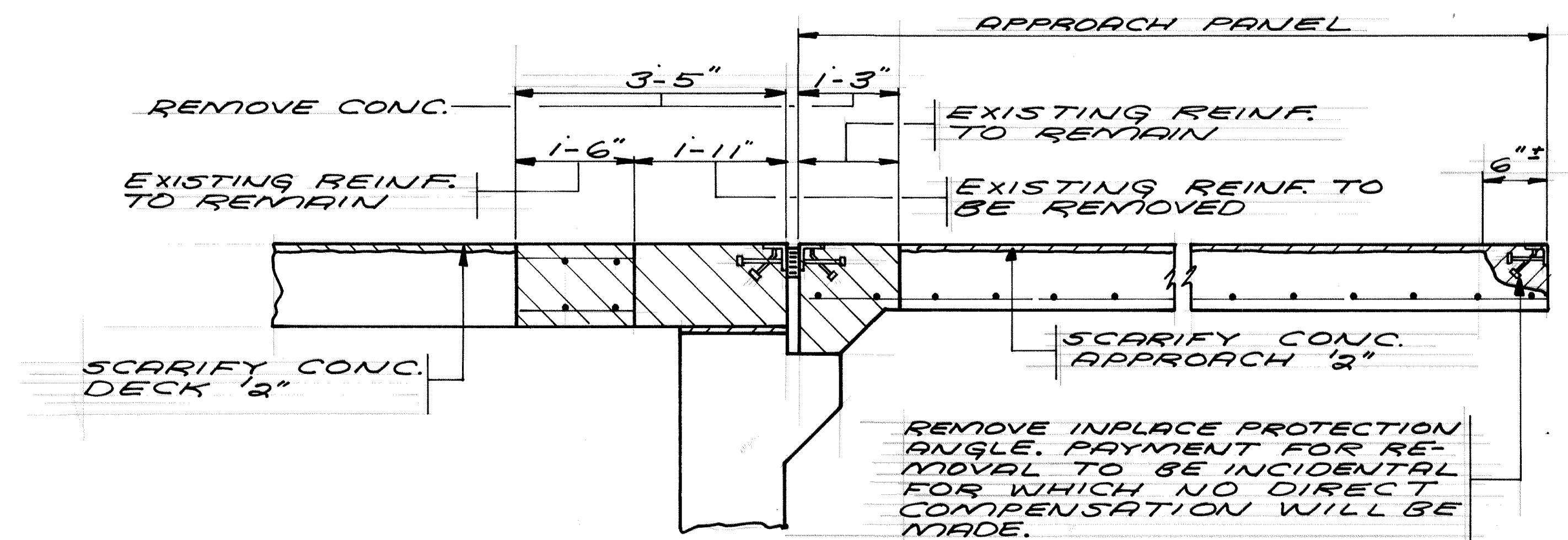




REMOVAL PLAN S.W. CORNER

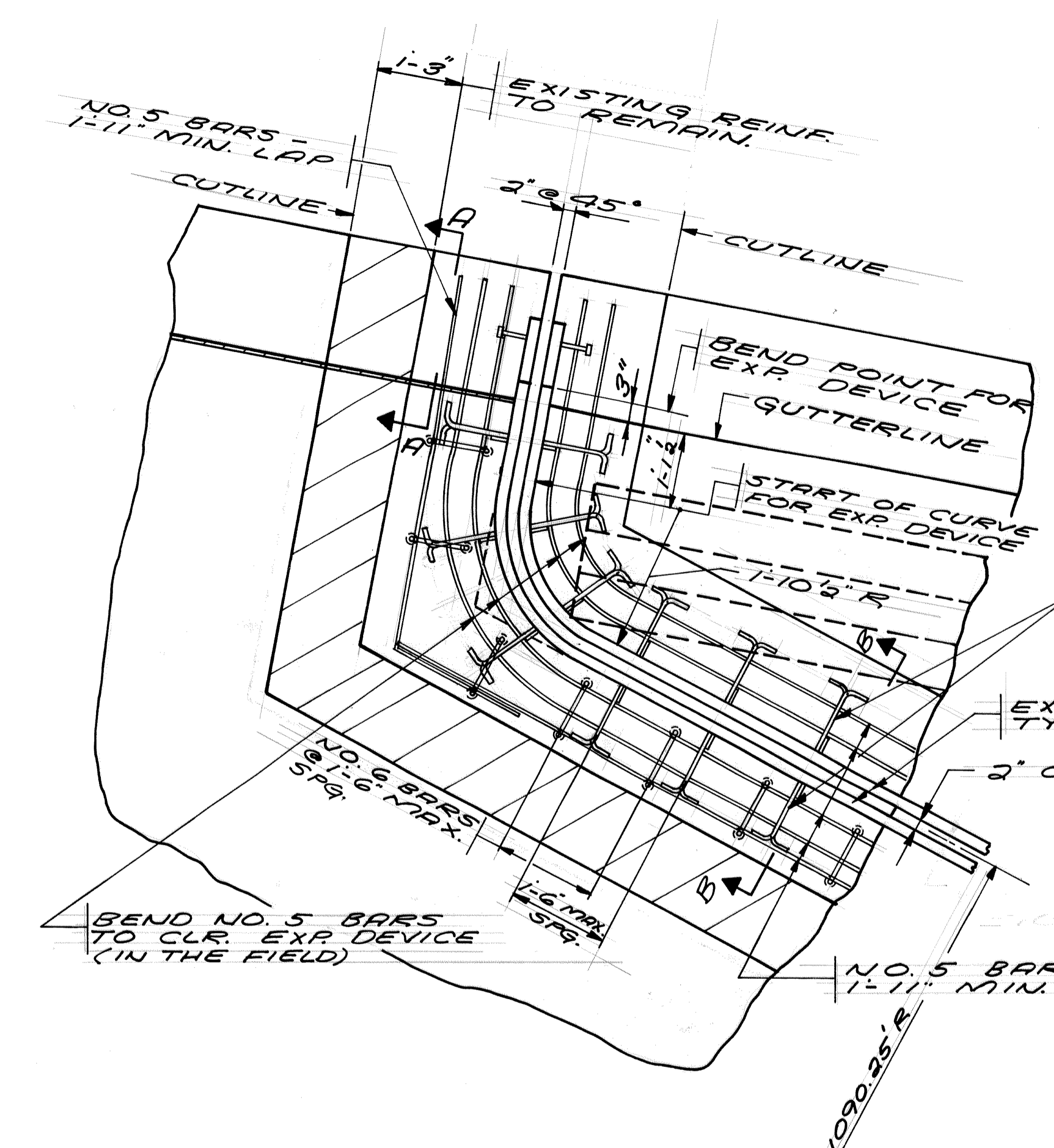


REMOVAL PLAN S.E. CORNER



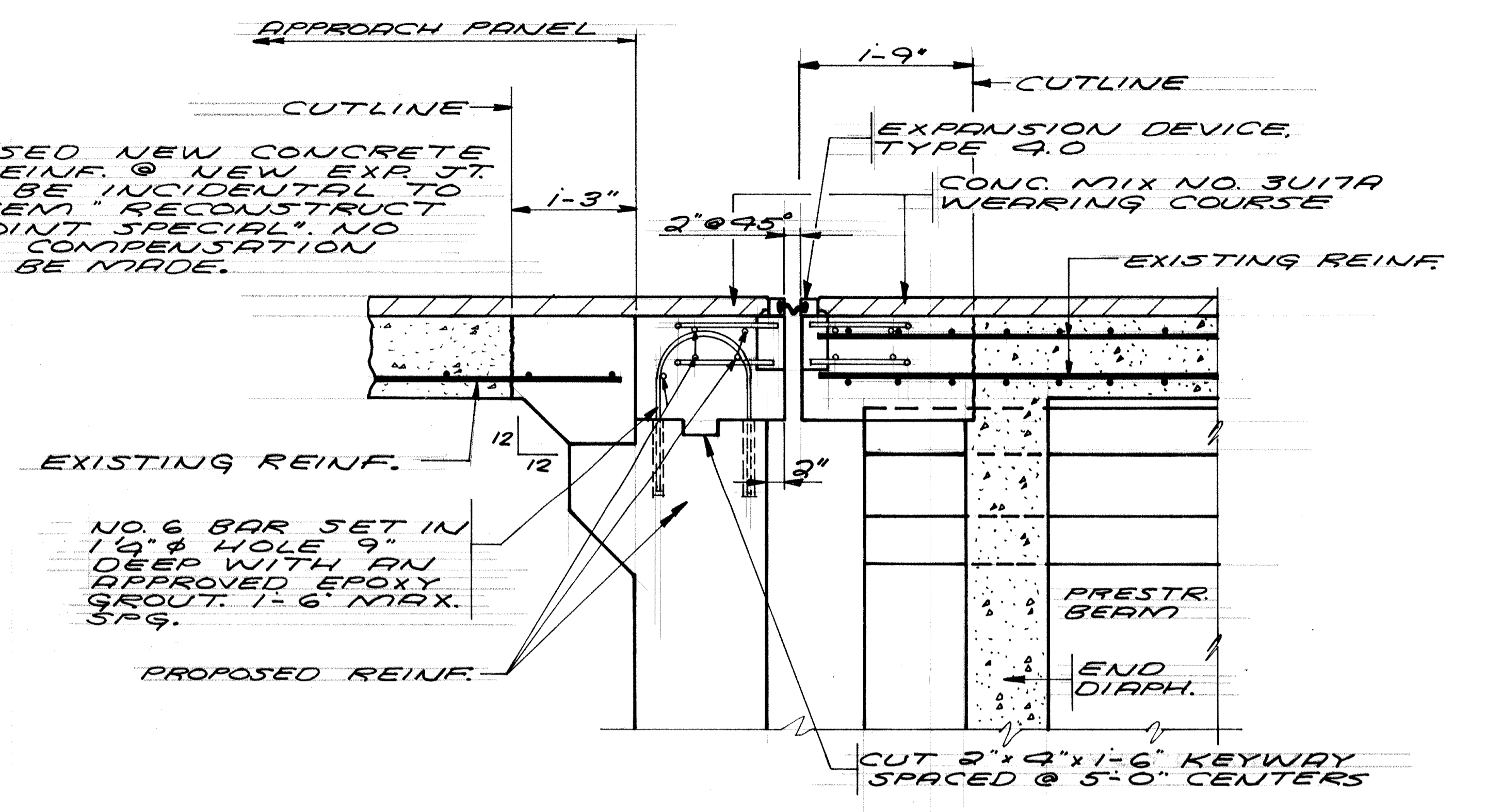
SECTION B-B

REMOVAL PLAN @ S.W. & S.E. CORNS.	DRAWN:	CHECKED:	APPROVED:	BRIDGE NUMBER 02522
	D.J.V.	R.R.T.		
SHEET 8 OF 13 SHEETS				

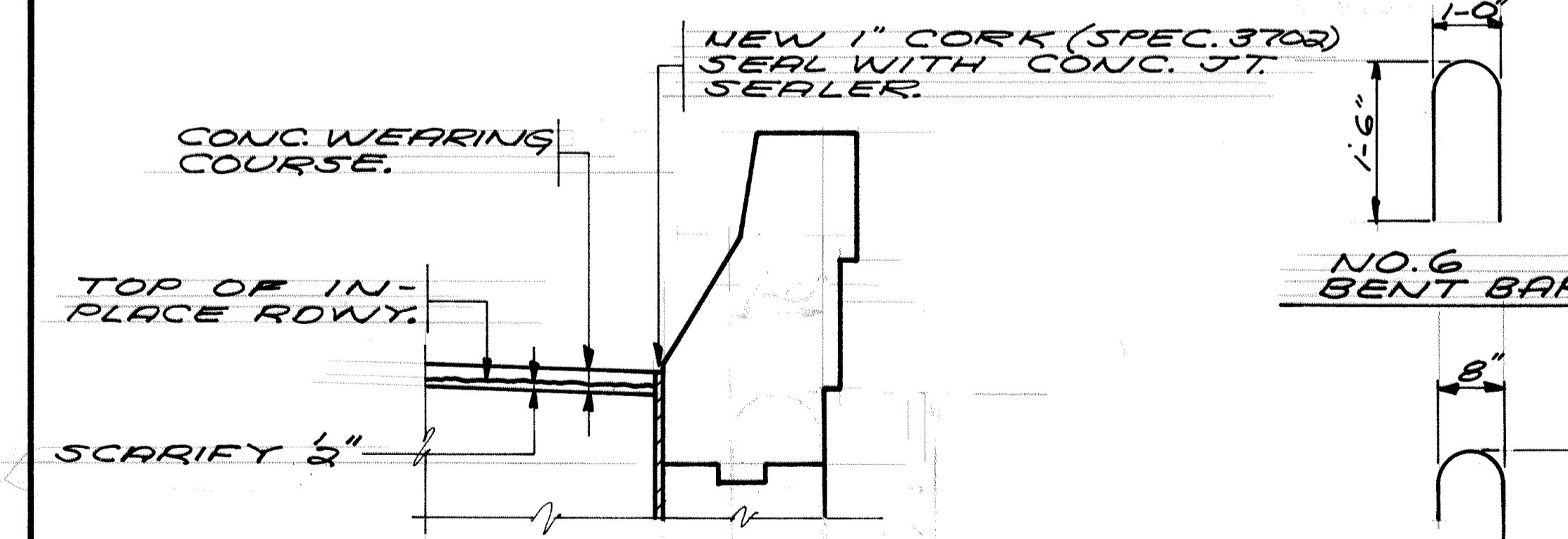


RECONSTRUCTION PLAN N.W. CORNER  
SCALE: 3/4" = 1'-0"

NOTE:  
PROPOSED NEW CONCRETE AND REINF. @ NEW EXP. JT. SHALL BE INCIDENTAL TO PAY ITEM "RECONSTRUCT EXP. JOINT SPECIAL". NO DIRECT COMPENSATION SHALL BE MADE.

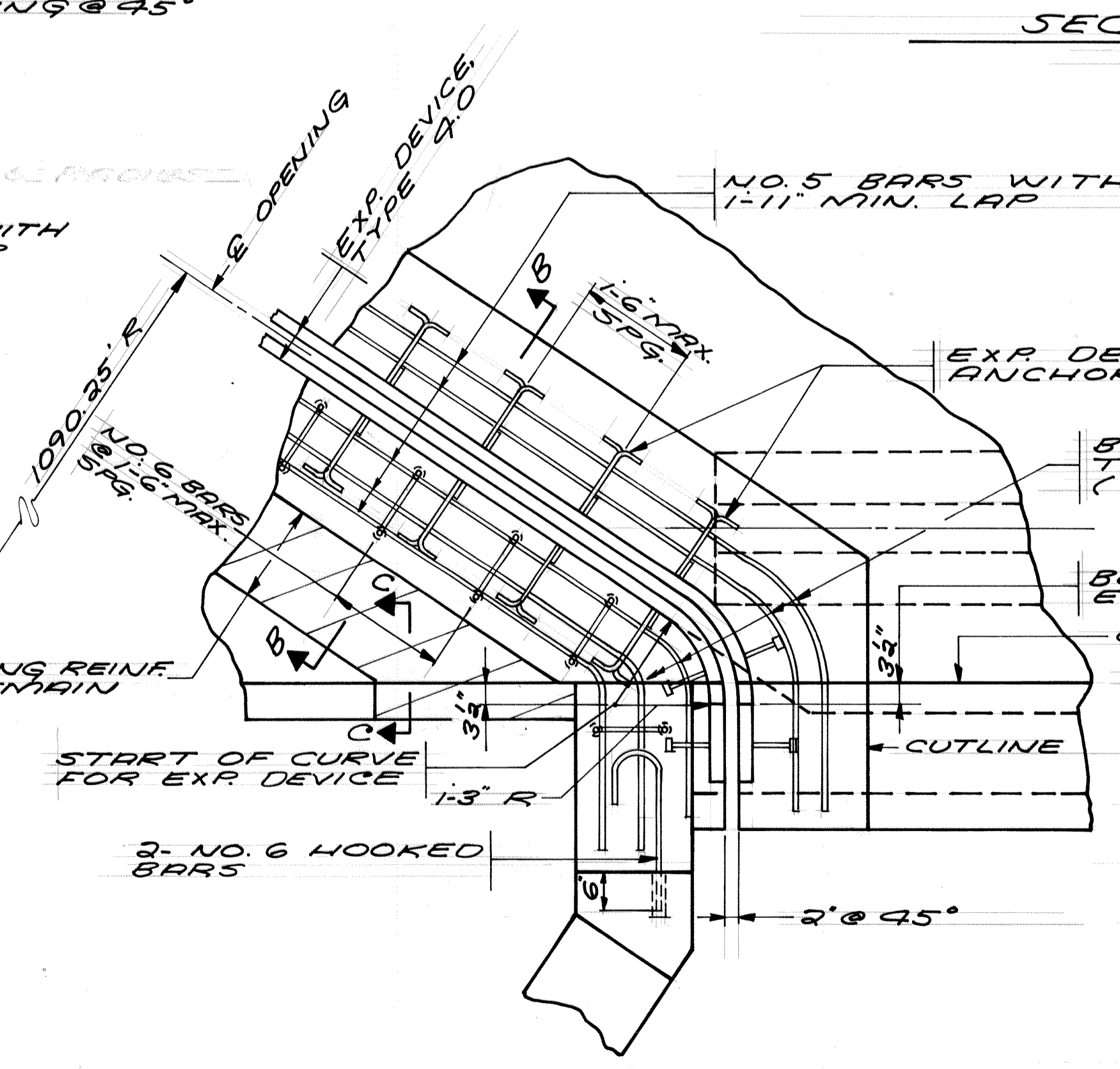


SECTION B-B - RECONSTRUCTION  
SCALE: 1" = 1'-0"

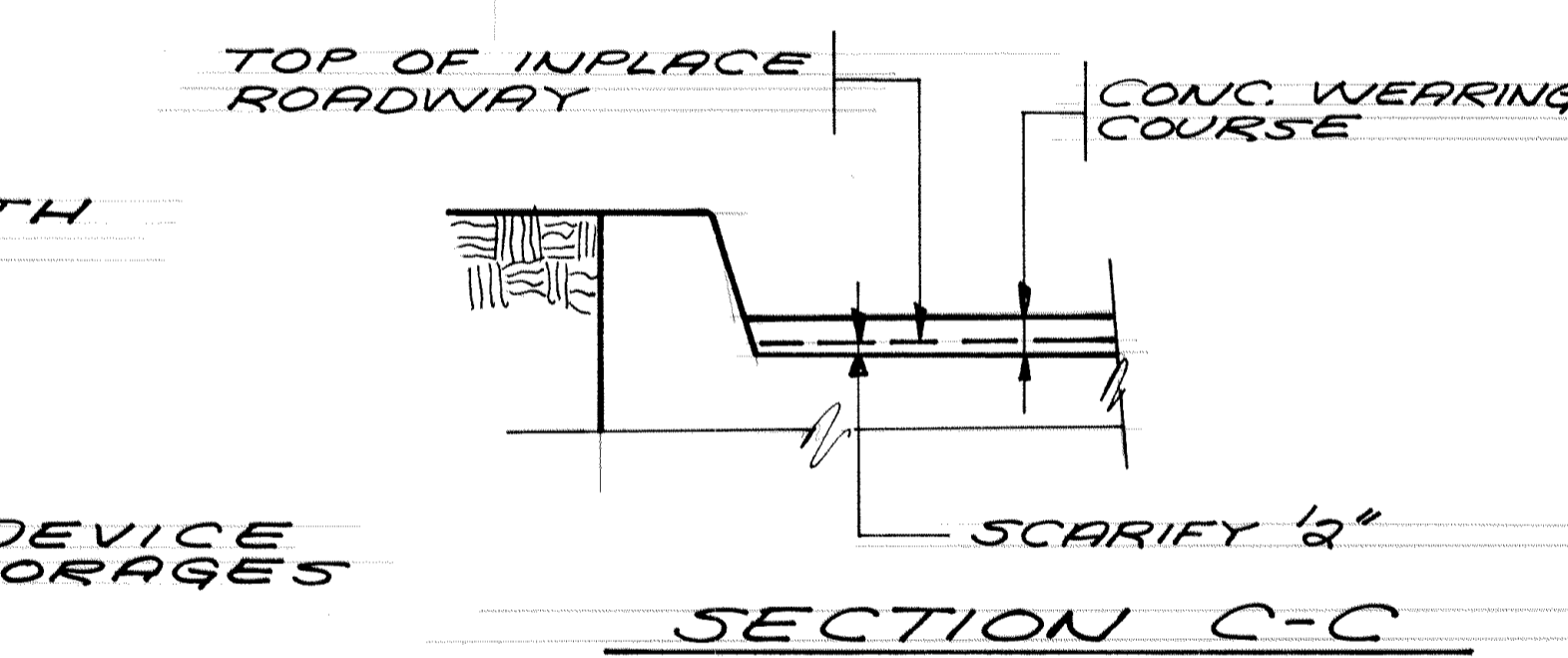


SECTION A-A

NO. 6 HOOKED BAR



RECONSTRUCTION PLAN S.W. CORNER  
SCALE: 3/4" = 1'-0"

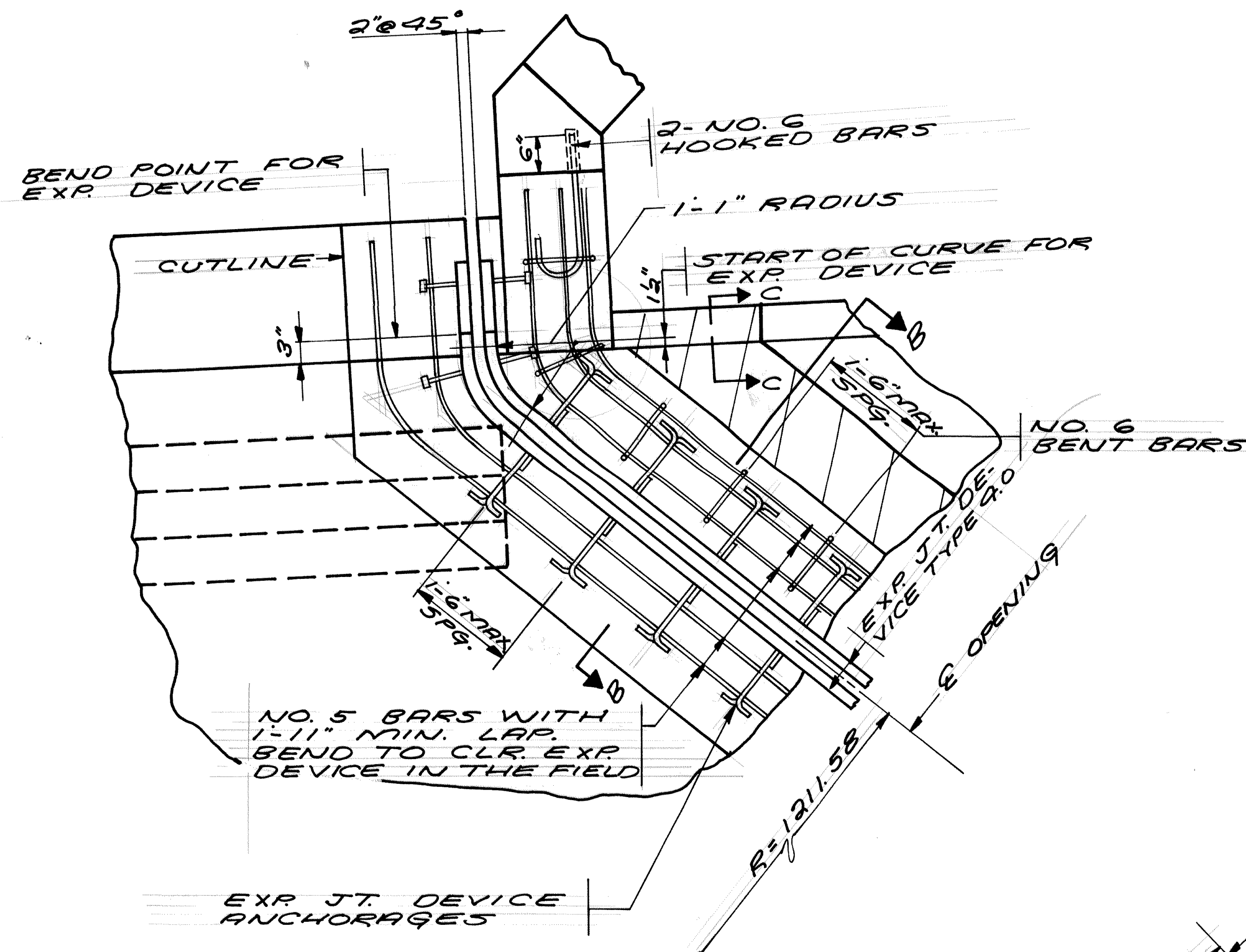


SECTION C-C

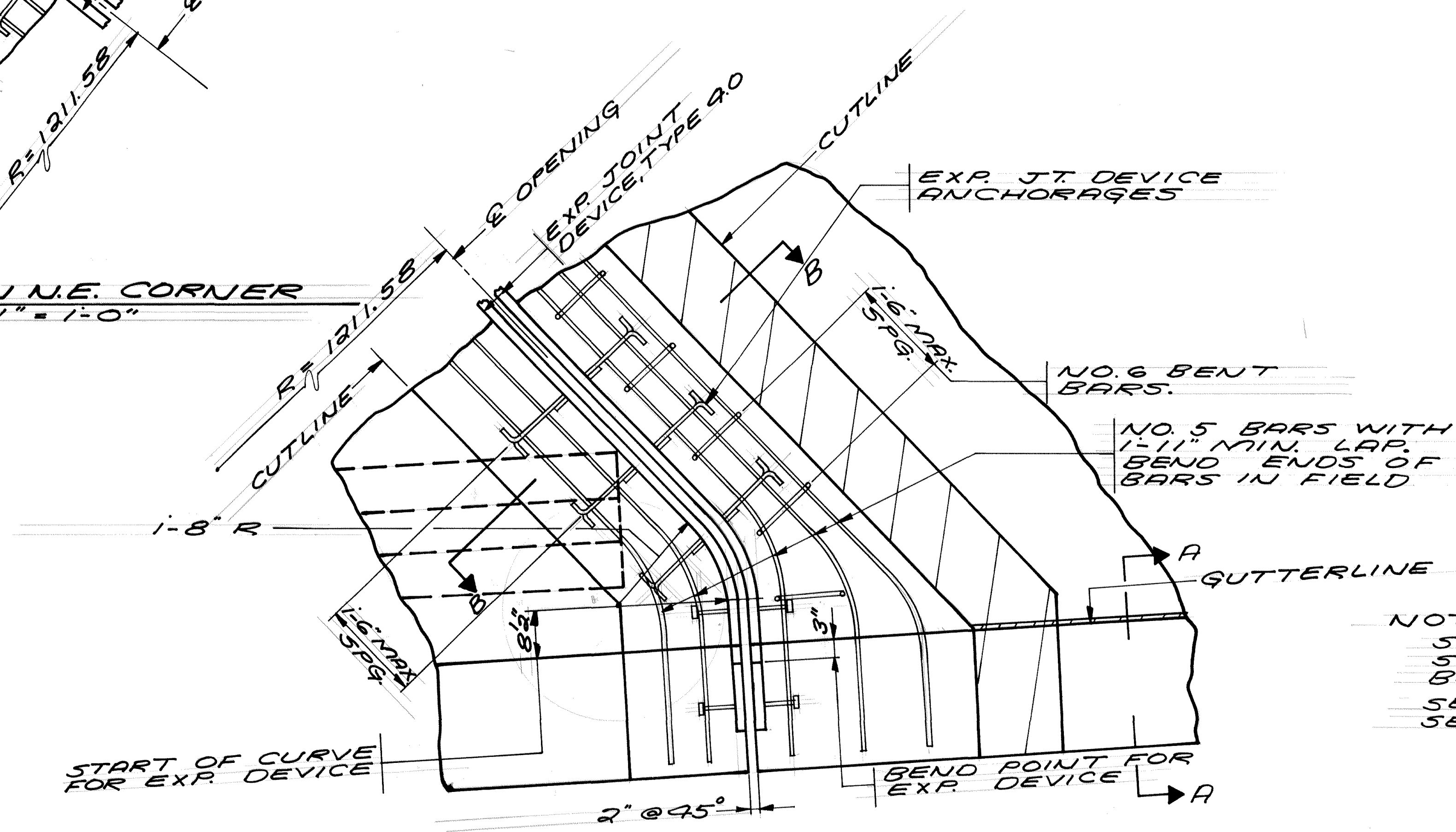
NOTE:  
REMOVAL OF RAILING CONC. & REINF. FOR PLACING OF NEW EXP. JOINT SHALL BE INCIDENTAL TO PAY ITEM "RECONSTRUCT EXP. JOINT SPECIAL". NO DIRECT COMPENSATION SHALL BE MADE.  
RAILING REINF. SHALL BE BENT OR CUT TO PROVIDE CLEARANCE FOR EXP. DEVICE AS DIRECTED BY THE ENGINEER IN THE FIELD.  
ADDITIONAL REINF. AT RAILING SHALL BE PLACED AS DIRECTED BY THE ENGINEER IN THE FIELD.

NOTE:  
NEW 1" CORK JOINT & CONC. JT. SEALER TO BE INCLUDED IN PAY ITEM "RECONSTRUCT EXP. JT. SPECIAL"

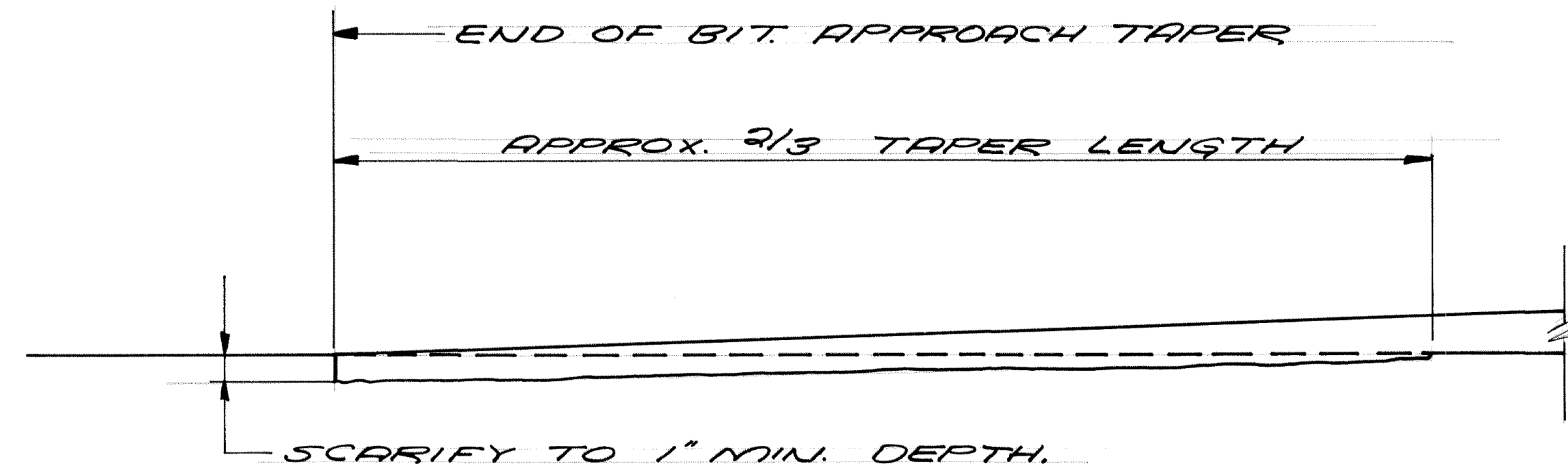
RECONSTRUCTION N.W. & S.W. CORNERS	DRAWN: D.J.V.	CHECKED: R.R.T.	APPROVED	BRIDGE NUMBER 02522
SHEET 9 OF 13 SHEETS				



RECONSTRUCTION PLAN N.E. CORNER  
SCALE: 1" = 1'-0"



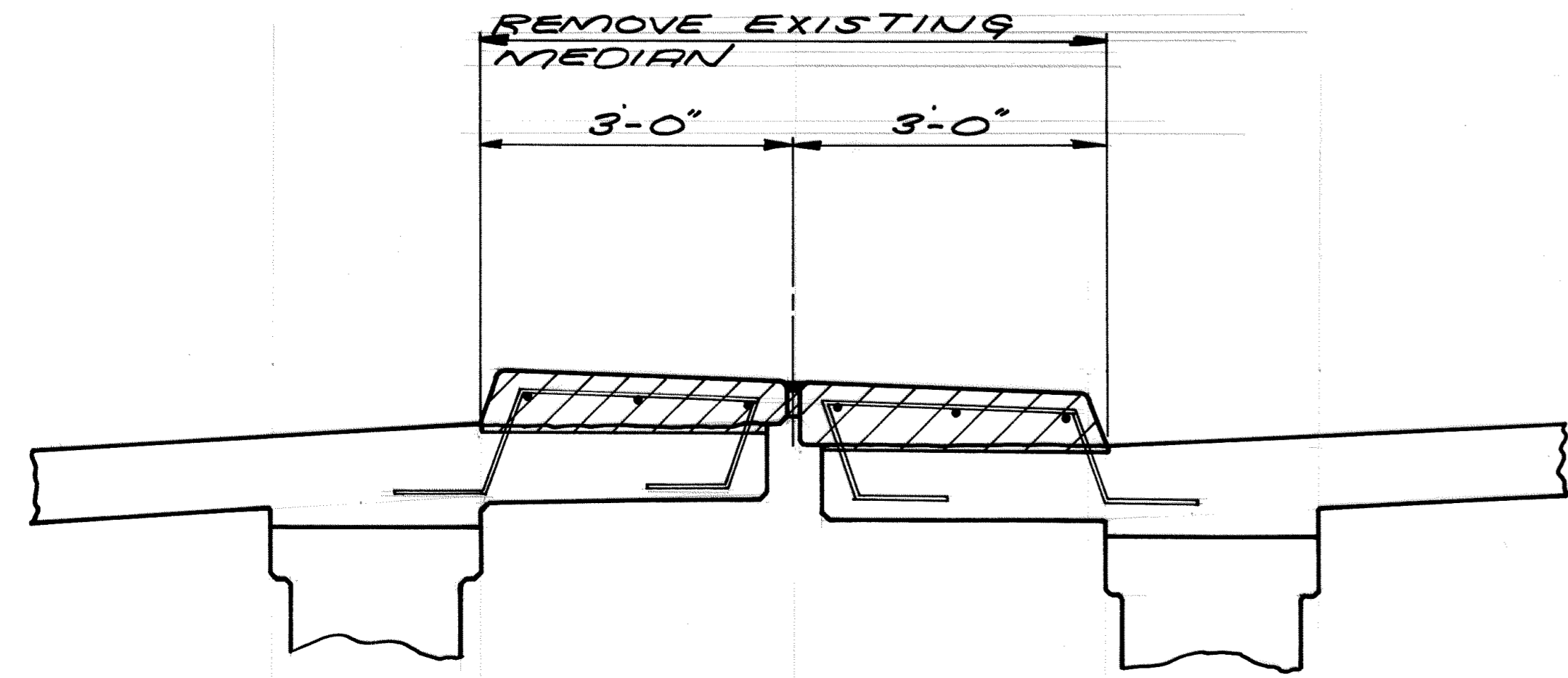
RECONSTRUCTION PLAN S.E. CORNER



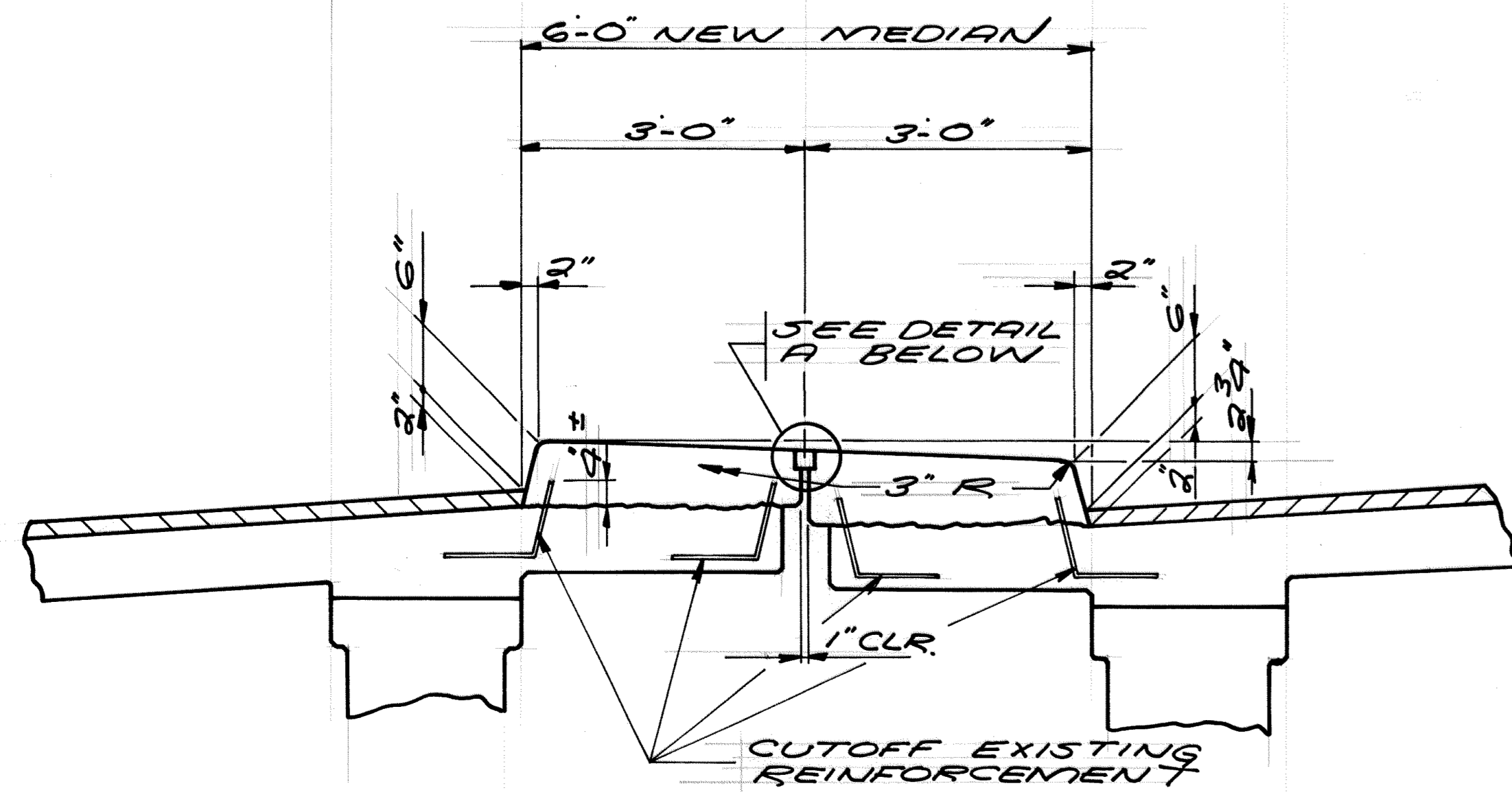
BITUMINOUS TAPER DETAIL  
TYPICAL ON BRIDGES 02521 & 02522

NOTE:  
SEE SHEET 9 FOR SECTION B-B AND BENT BAR DETAILS.  
SEE SHEET 9 FOR SECTIONS A-A & C-C

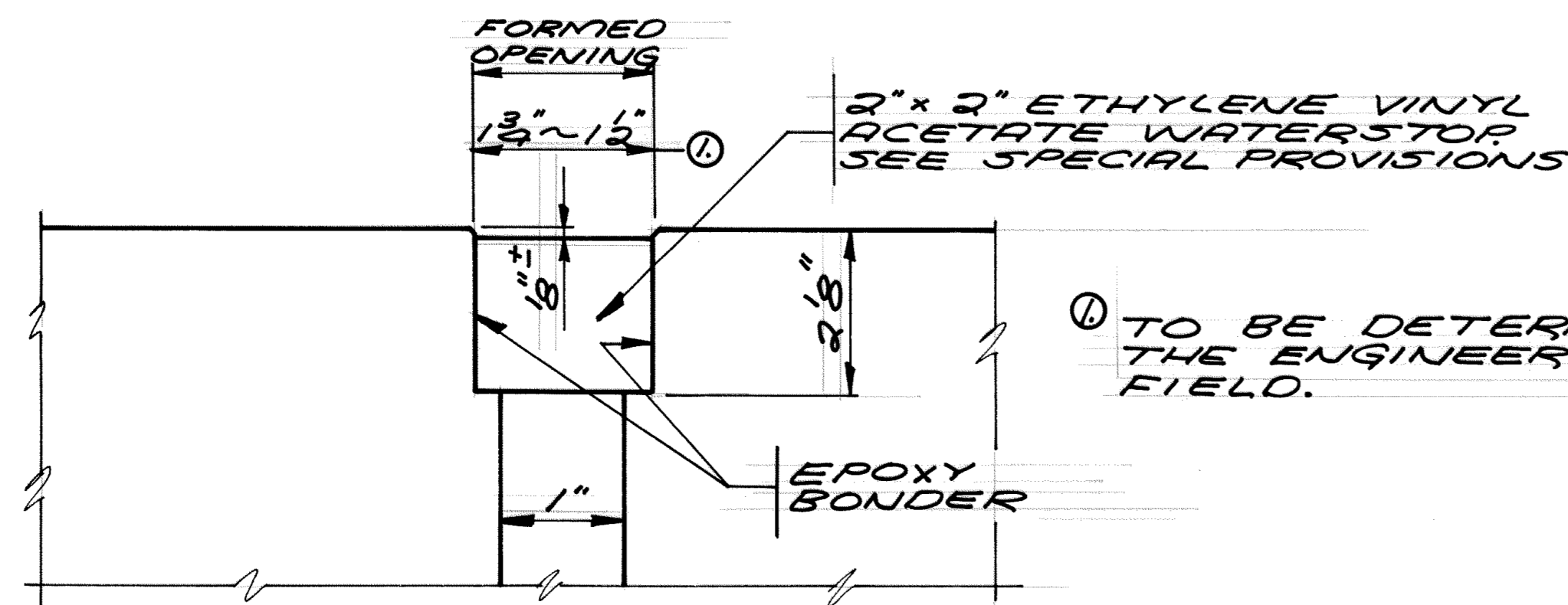
RECONSTRUCTION N.E. & S.E. CORNERS	DRAWN: D.J.V.	CHECKED: R.R.T.	APPROVED:	BRIDGE NUMBER
	SHEET 10 OF 13 SHEETS			02522



REMOVAL OF EXISTING MEDIAN



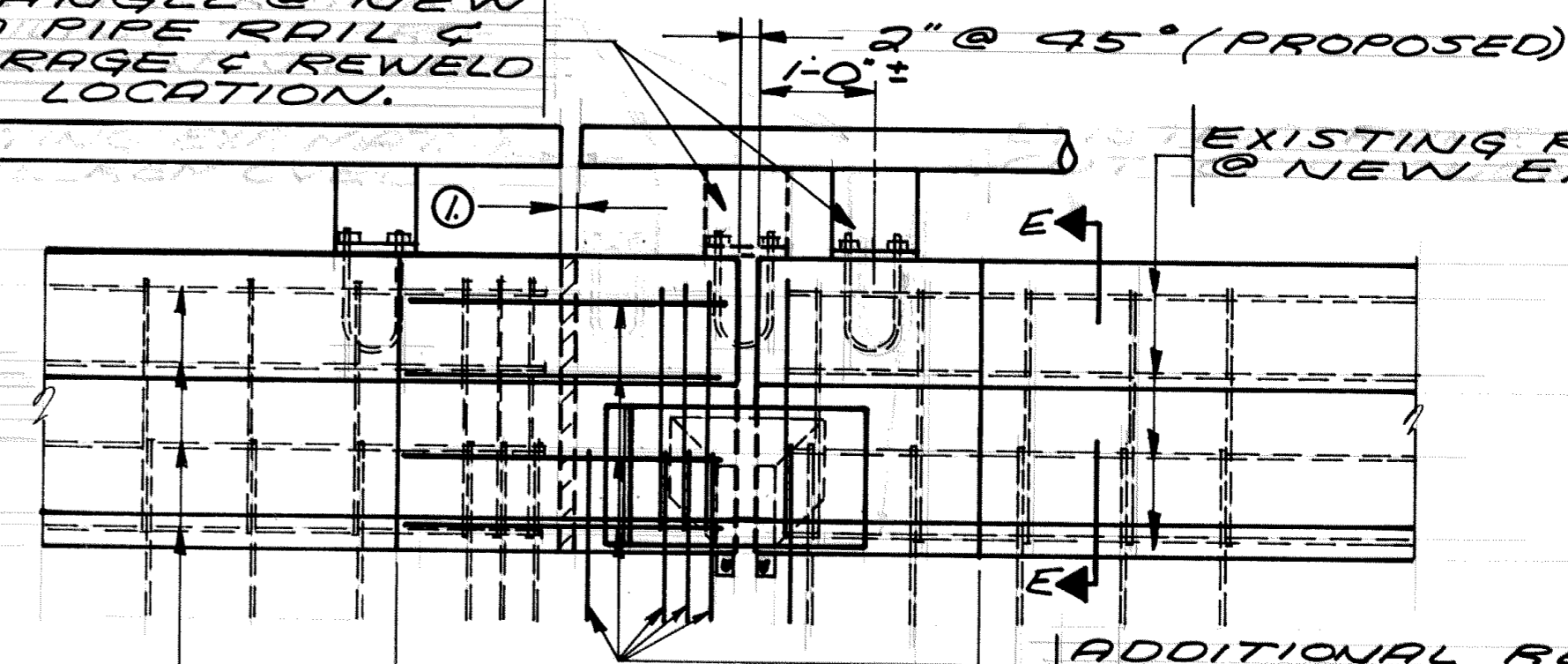
RECONSTRUCT NEW MEDIAN



DETAIL A - VINYL ACETATE WATERSTOP  
NO SCALE

CUT EXISTING ANGLE @ NEW OPENING FROM PIPE RAIL & RESET ANCHORAGE & REWELD TO PIPE @ NEW LOCATION. REPAIR RAIL & ANGLE WITH GALVA. STICK.

EXISTING EXP. MAT. TO BE REMOVED.

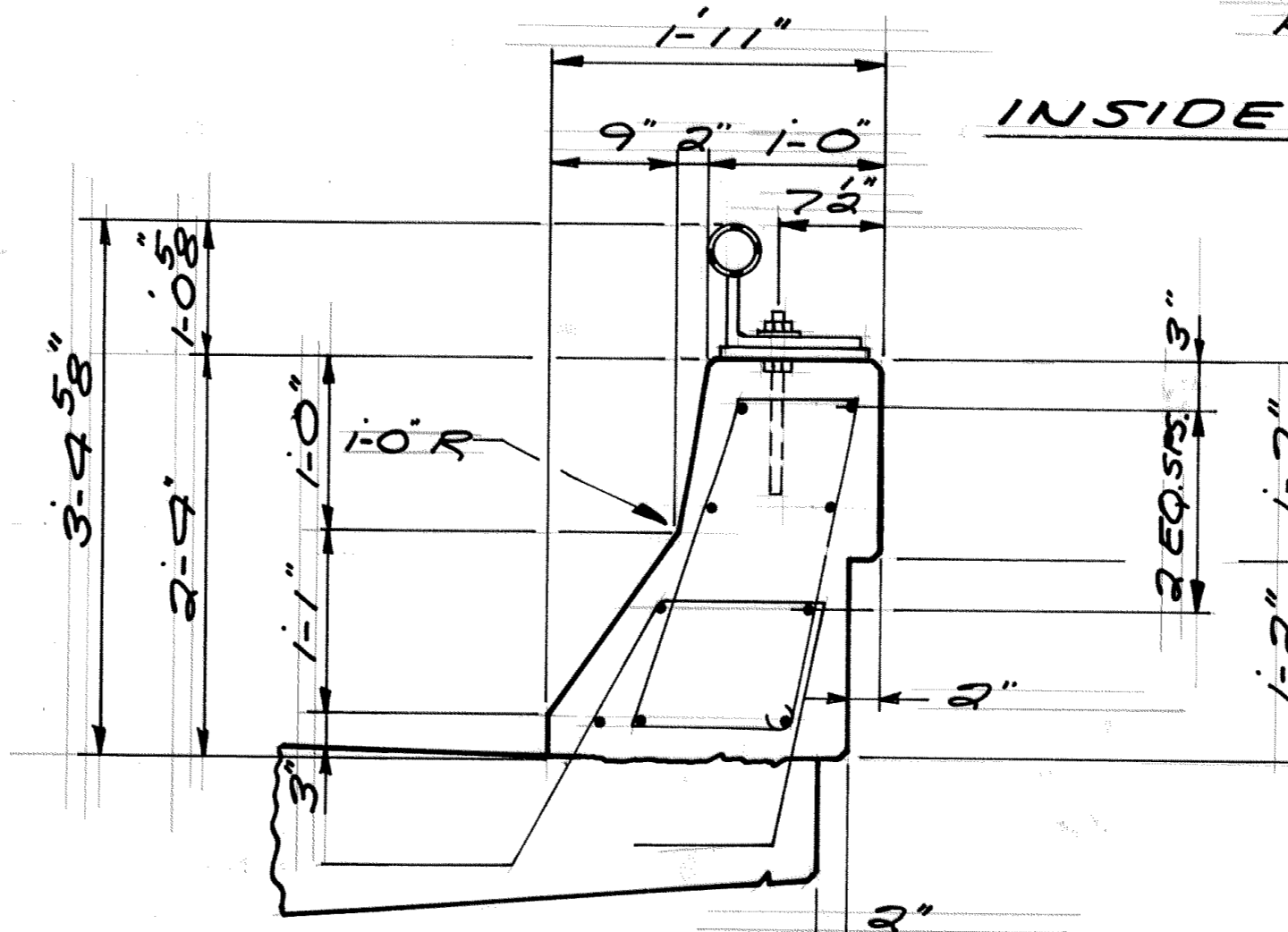


EXISTING REINF.

EXISTING CONC. TO BE REMOVED. NEW EXP. JT. DEVICE PLACED. ADDITIONAL REINF. PLACED & NEW RAIL CONC. POURED.

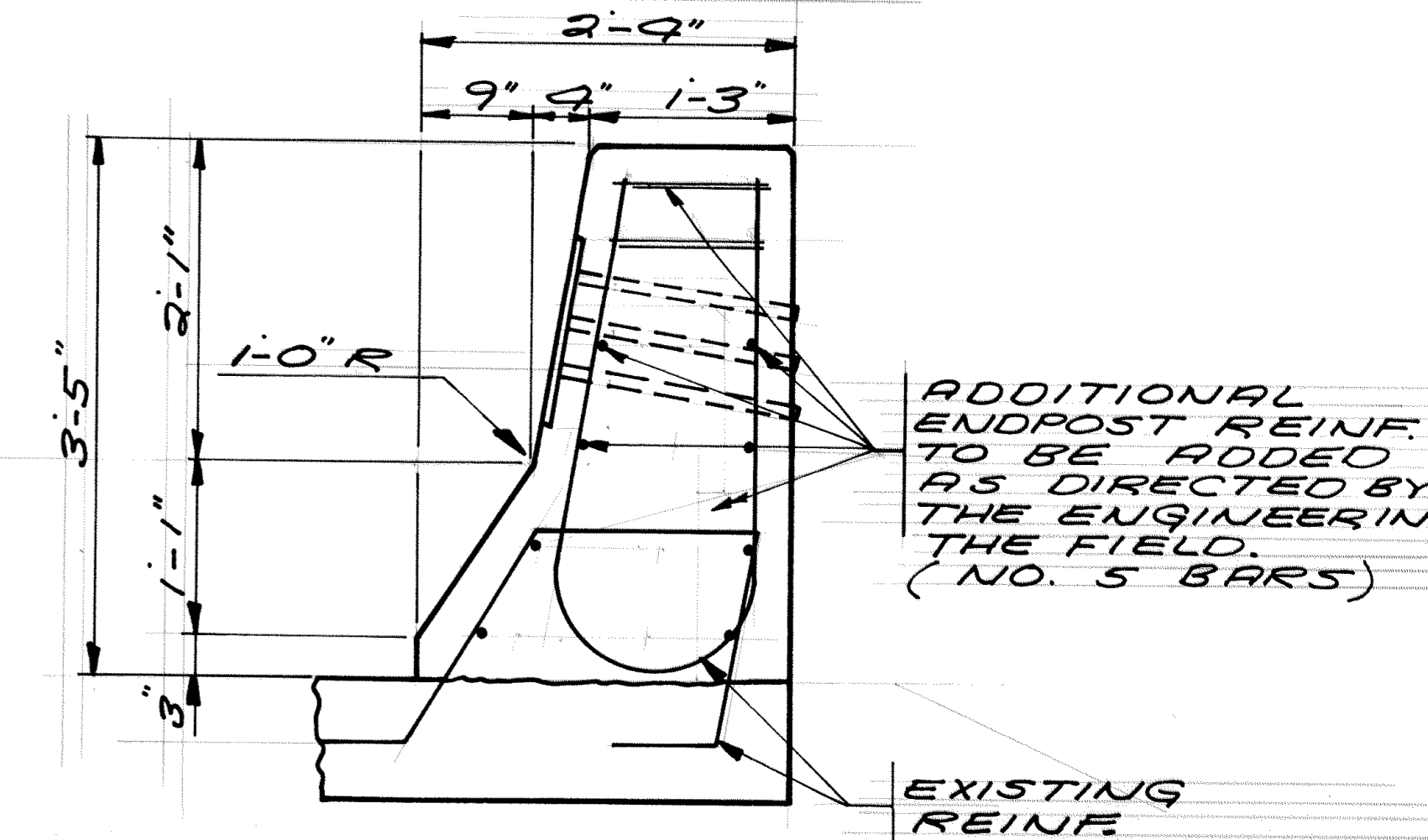
ADDITIONAL REINF. (NO. 5 BARS) TO BE ADDED AS DIRECTED BY THE ENGINEER IN THE FIELD

EXISTING REINF. TO BE CUTOFF @ NEW EXP. JT. OPENING.



SECTION E-E

INSIDE RAIL ELEVATION @ N.W. & S.E. CORNERS  
BR. NO. 02522

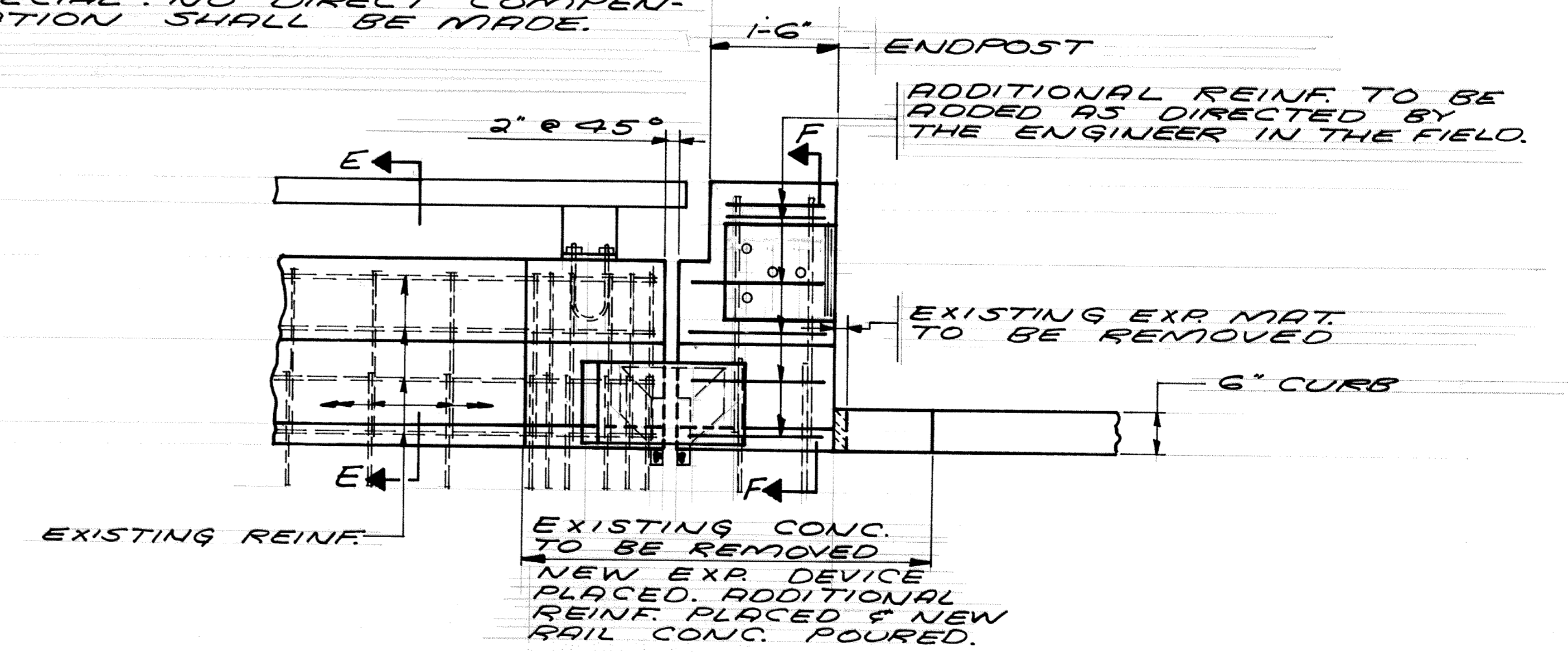


ADDITIONAL ENDPOST REINF. TO BE ADDED AS DIRECTED BY THE ENGINEER IN THE FIELD. (NO. 5 BARS)

EXISTING REINF.

SECTION F-F  
AT ENDPOST

NOTE:  
ALL CONC., REINF. & ETC. NEEDED TO REPAIR RAILINGS WHERE NEW EXP. DEVICES HAVE BEEN INSTALLED SHALL BE INCIDENTAL TO PAY ITEM "RECONSTRUCT EXP. JT. DEVICE SPECIAL". NO DIRECT COMPENSATION SHALL BE MADE.



EXISTING REINF.

EXISTING CONC. TO BE REMOVED. NEW EXP. DEVICE PLACED. ADDITIONAL REINF. PLACED & NEW RAIL CONC. POURED.

EXISTING EXP. MAT. TO BE REMOVED

6" CURB

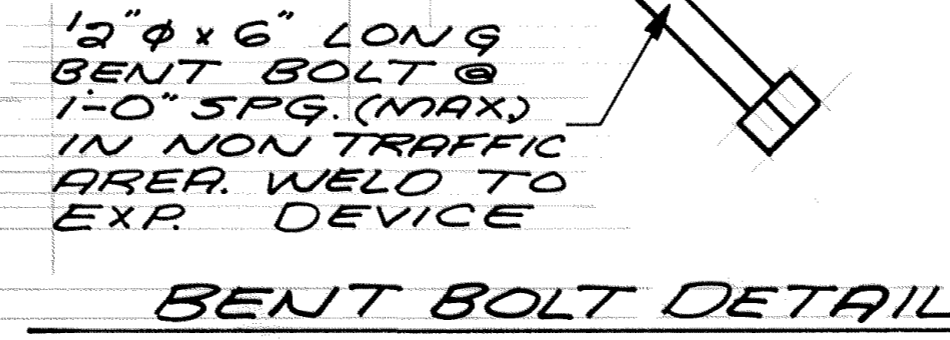
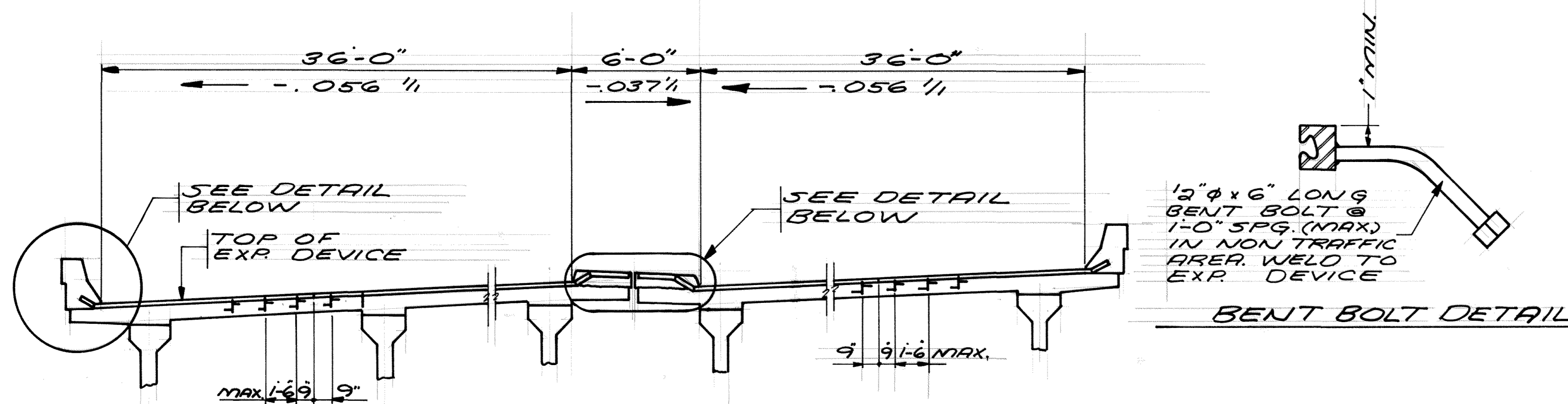
TYP. INSIDE RAIL ELEVATION @ CORNERS WITH ENDPOST

MEDIAN & RAILING DETAILS	DRAWN D.J.V.	CHECKED R.R.T.	APPROVED	BRIDGE NUMBERS
	SHEET 11 OF 13 SHEETS			02521 & 02522

**NOTES**

GALVANIZE STRUCTURAL STEEL AFTER FABRICATION PER SPEC. 3394.  
 JOINTS IN ROWS, R. OR EXTRUSION SHALL BE LOCATED AT BREAKS IN TRANSVERSE PROFILE & AS OTHERWISE REQUIRED, JOINTS SHALL BE CLOSE FIT & WELDED. REPAIR AFTER WELDING AS PER SPEC. 3471.3L.  
 STRUCTURAL STEEL SHALL COMPLY WITH SPEC. 3306, SPEC. 3307, & SPEC. 3309.  
 EXP. DEVICE SHALL BE STRAIGHTENED TO A TOLERANCE OF 1/8" IN 10 FT.  
 CAP SCREWS SHALL BE COUNTERSUNK 1/16" BELOW TOP OF PLATE.  
 GALVANIZE SCREWS & NUTS PER SPEC. 3392.  
 NEW REINFORCEMENT BARS ARE TO HAVE THE SAME TREATMENT AS THE INPLACE REINFORCEMENT.  
 WHEN EXP. DEVICES ARE USED AT ENDS OF BRIDGE, THE BRIDGE CONTRACTOR SHALL FURNISH EXPANSION DEVICE & GLAND.

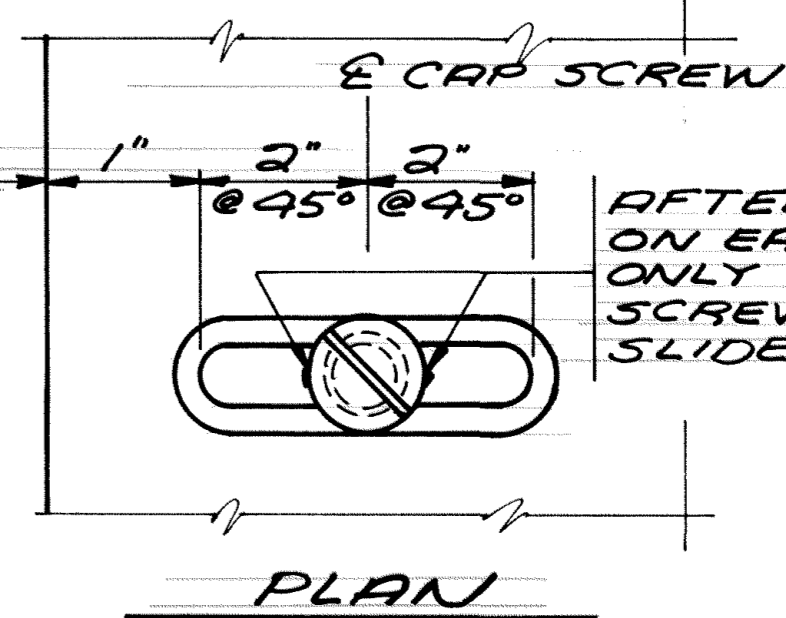
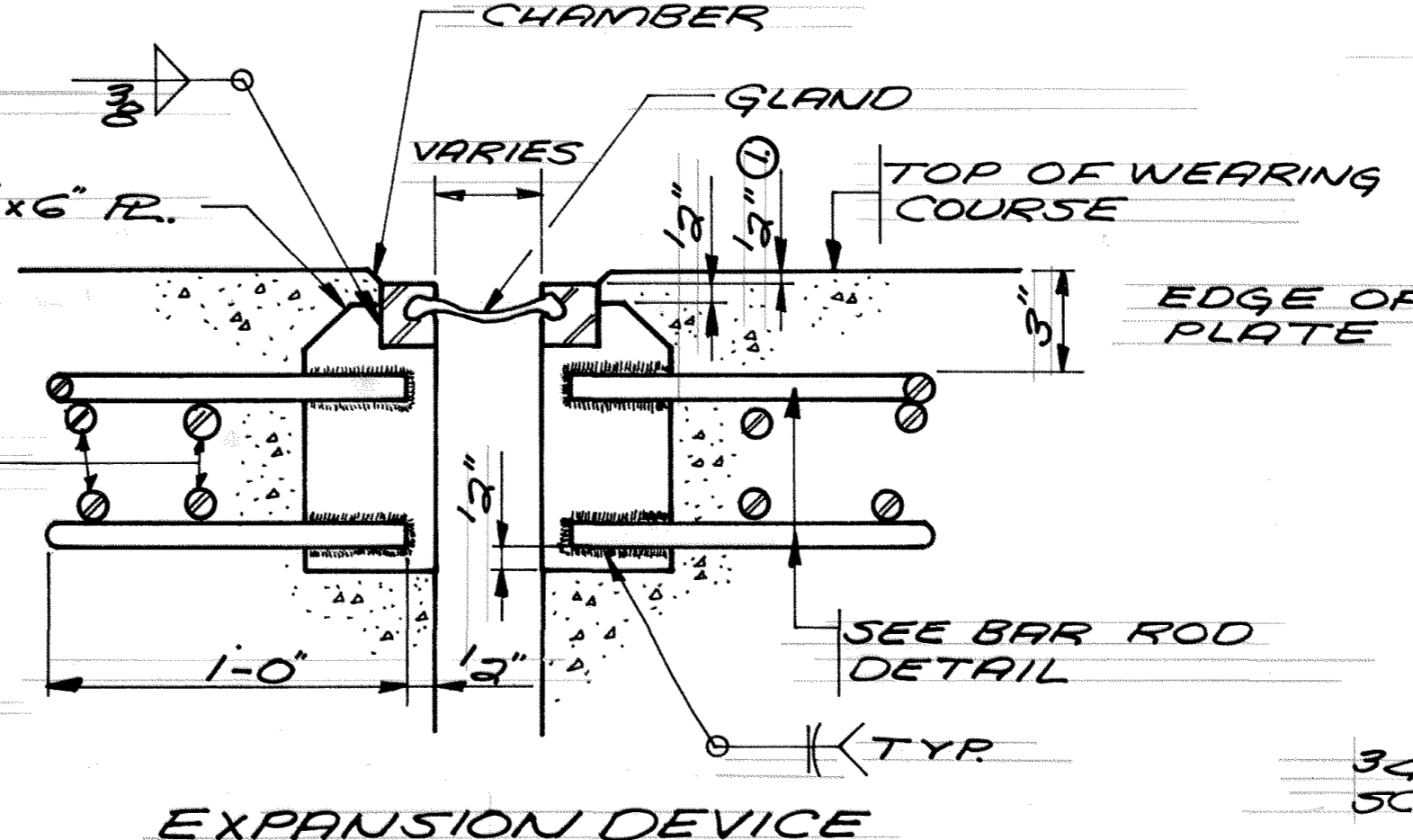
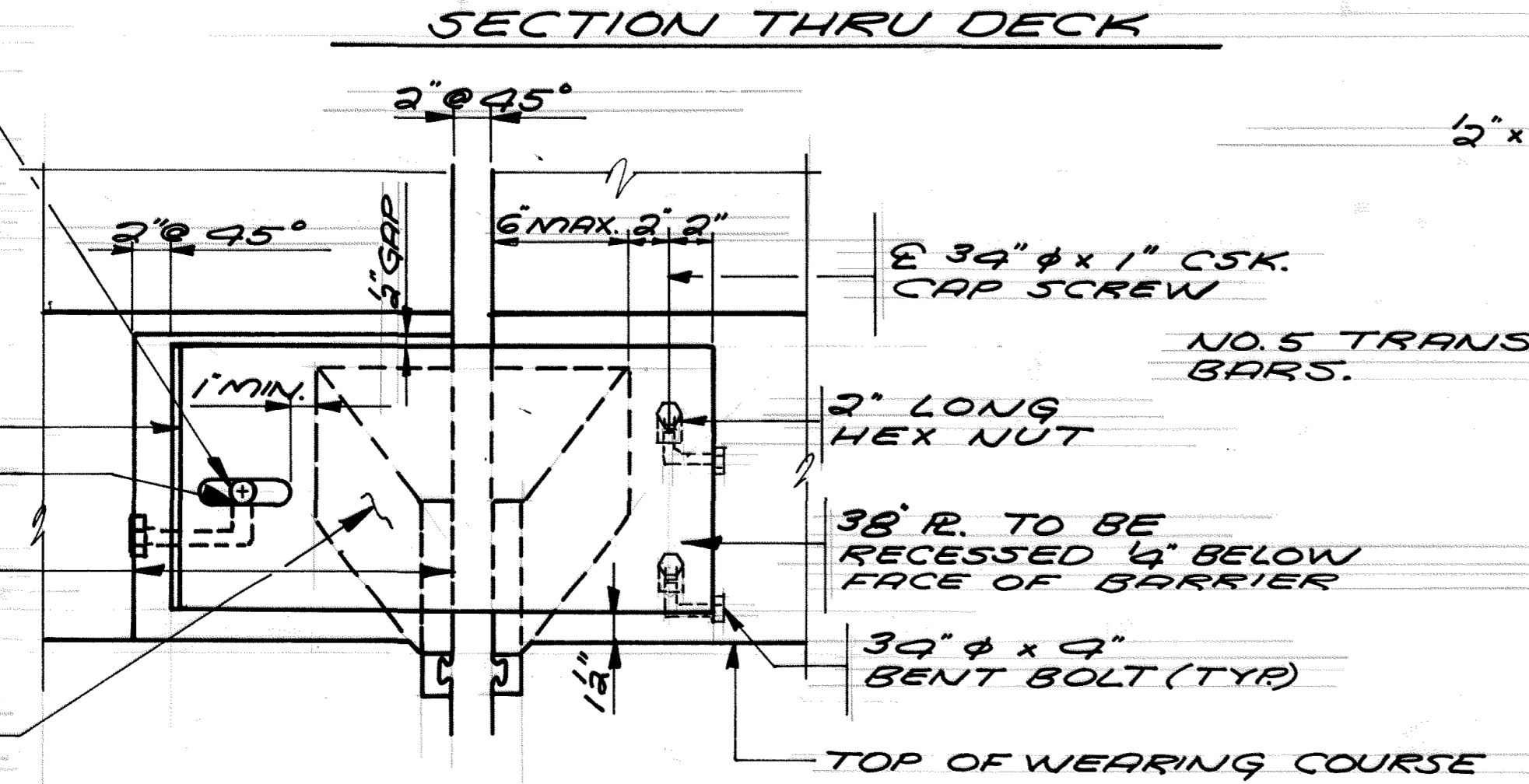
① 5/8" MAX. WHEN SNOWPLOW FINGERS ARE USED. USE 1/8" (WITH 1/4" MAX.) WHEN SNOWPLOW FINGERS ARE NOT USED.



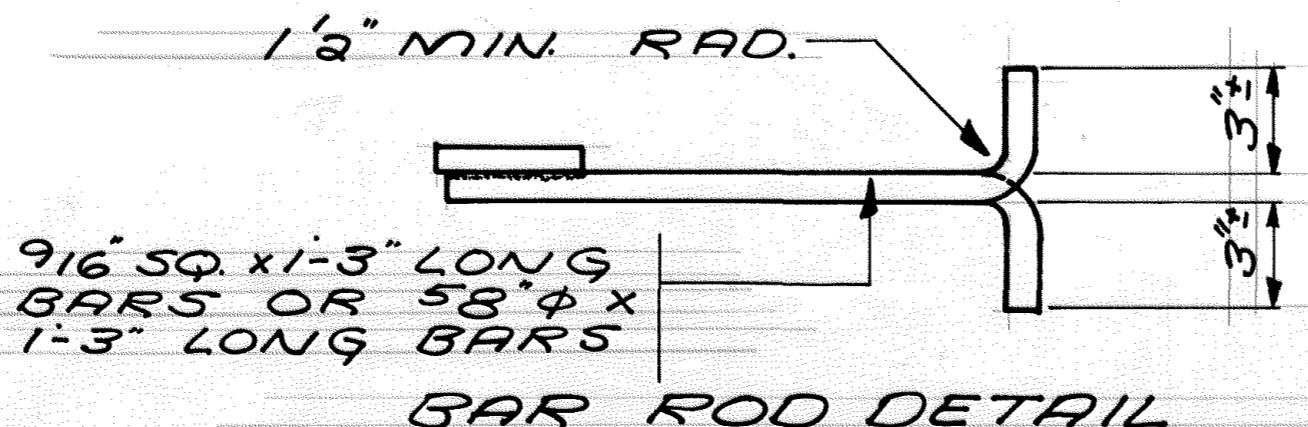
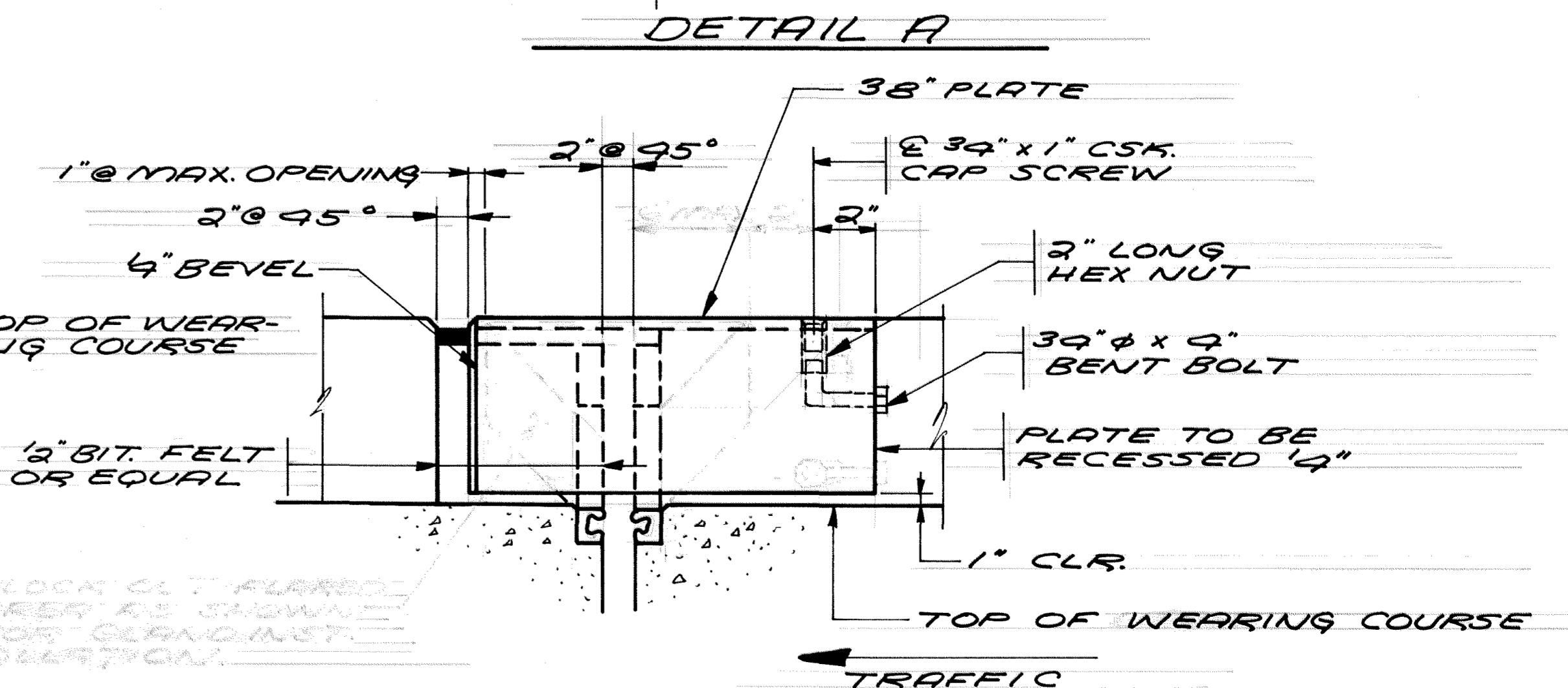
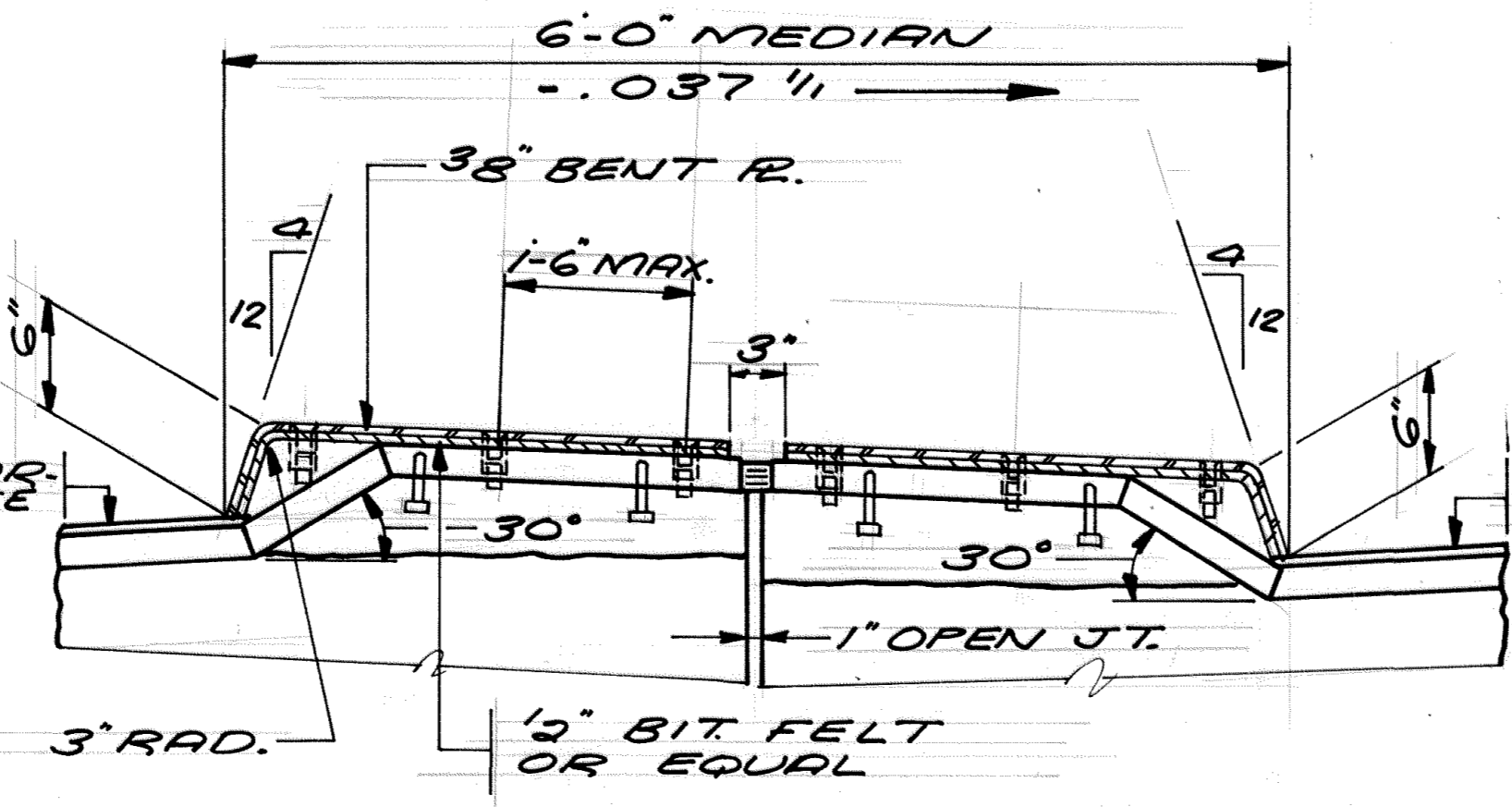
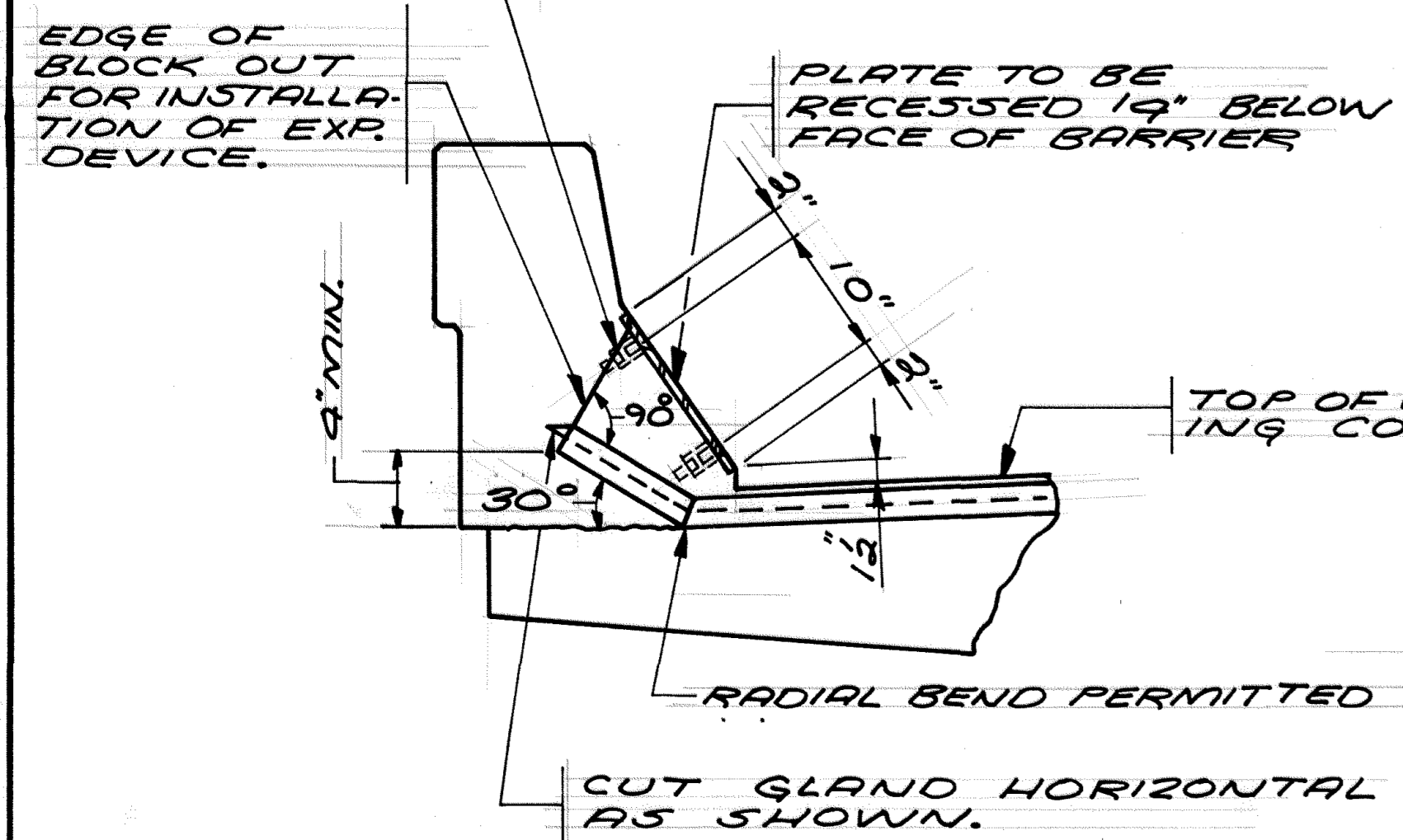
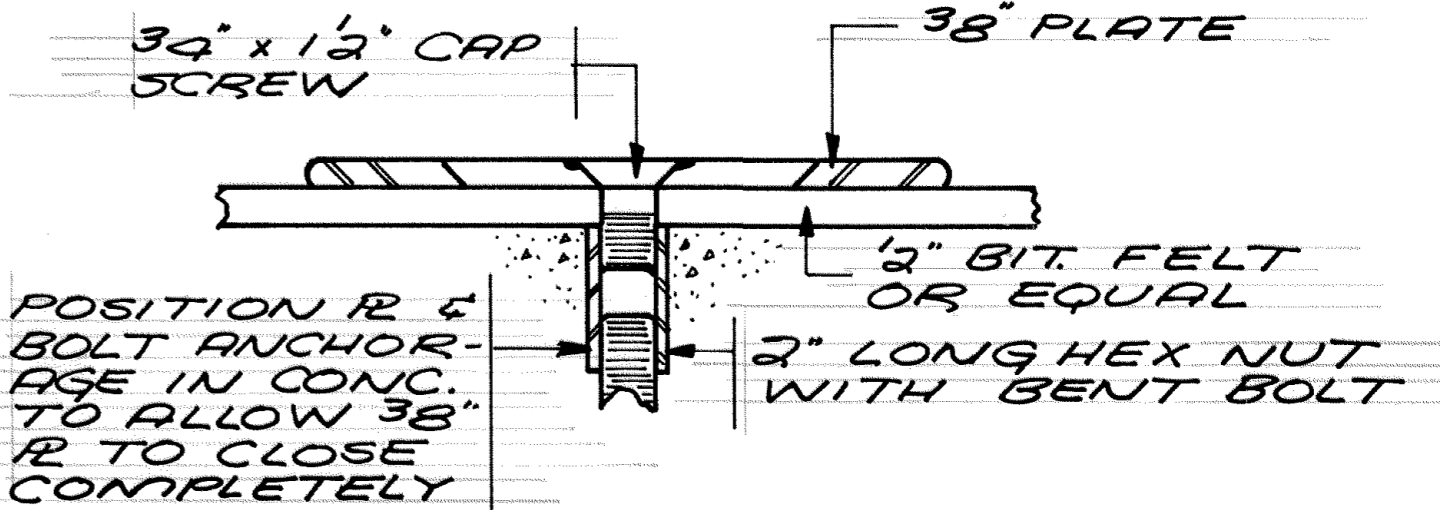
1" x 5" SLOTTED HOLE FOR 3/4" x 1 1/2" CSK. CAP SCREW WITH 2" LONG HEX NUT & 3/4" x 9" BENT BOLT. DO NOT TIGHTEN DOWN CAP SCREW

1/2" BIT FELT OR EQUAL

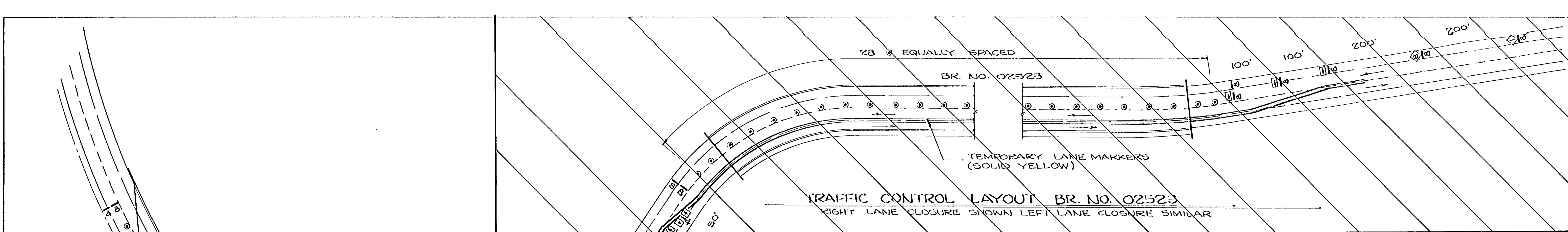
BLOCK OUT FLARED AREA AS SHOWN FOR GLAND INSTALLATION



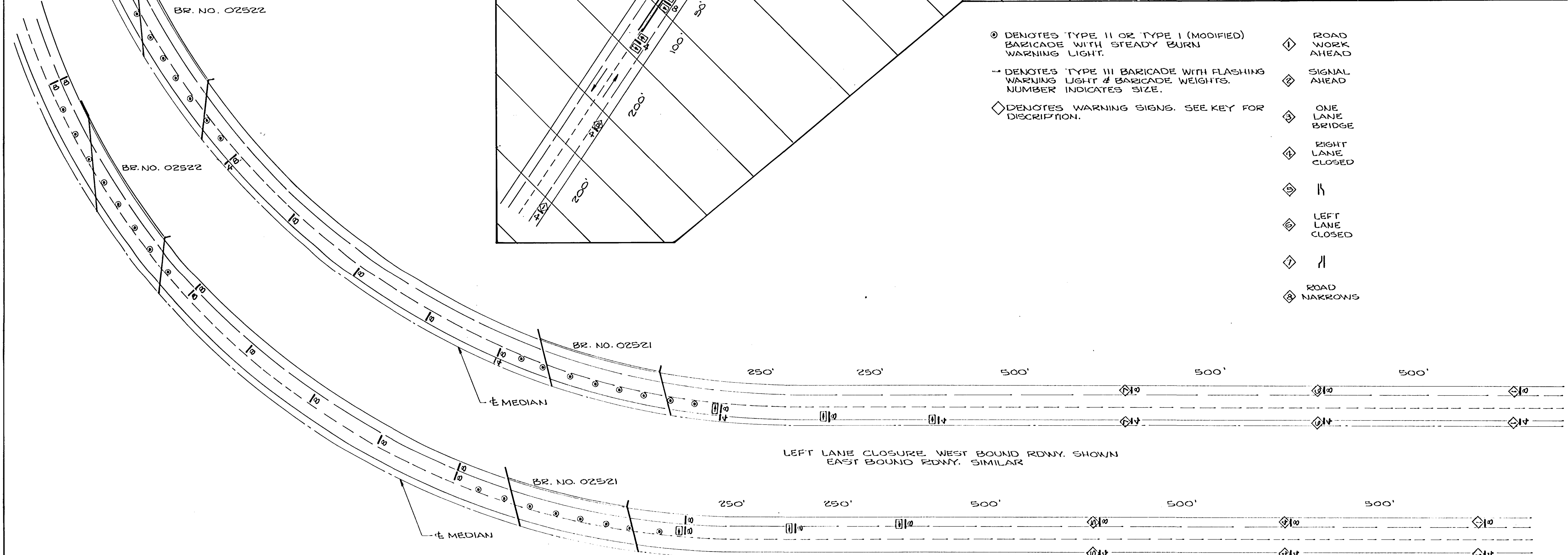
AFTER ASSEMBLY, FIELD WELD LUGS ON EACH EDGE OF CAP SCREW ONLY TO PREVENT TURNING. CAP SCREW MUST BE ABLE TO SLIDE ALONG SLOT.



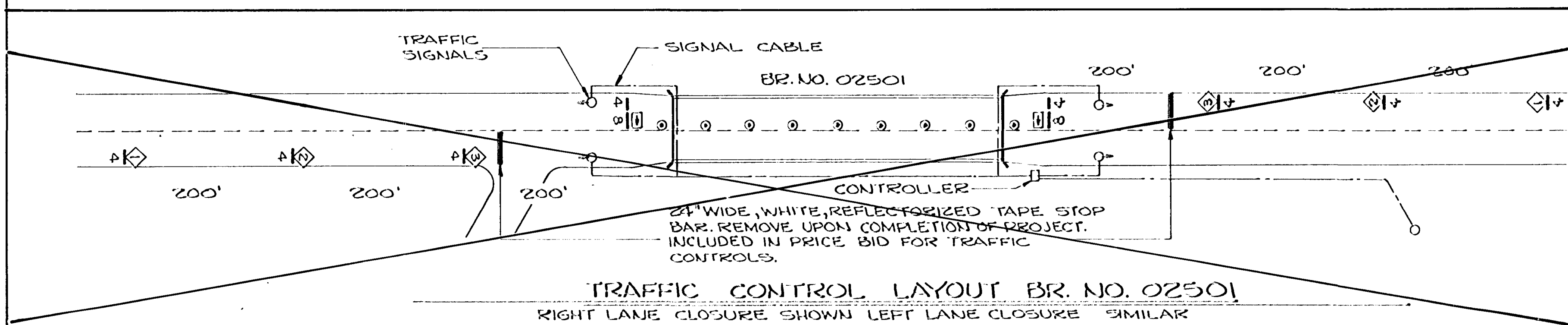
WATERPROOF EXPANSION DEVICE	DRAWN: D.J.V.	CHECKED: R.R.T.	APPROVED:	BRIDGE NUMBERS 02521 & 02522
	SHEET 12 OF 13 SHEETS			



- ② DENOTES TYPE II OR TYPE I (MODIFIED) BARICADE WITH STEADY BURN WARNING LIGHT.
- DENOTES TYPE III BARICADE WITH FLASHING WARNING LIGHT & BARICADE WEIGHTS. NUMBER INDICATES SIZE.
- ◇ DENOTES WARNING SIGNS. SEE KEY FOR DESCRIPTION.
- ◇ ROAD WORK AHEAD
- ◇ SIGNAL AHEAD
- ◇ ONE LANE BRIDGE
- ◇ RIGHT LANE CLOSED
- ◇ [Symbol]
- ◇ LEFT LANE CLOSED
- ◇ [Symbol]
- ◇ ROAD NARROWS



TRAFFIC CONTROL LAYOUT BR. NO. 02521 & 02522



TRAFFIC CONTROL DETAILS		DES:	DR: R.H.	APPROVED:	BRIDGE NO. 02501
		CHK:	CHK:		02521
		SHEET NO. 1/3 OF 1/3 SHEETS			02522
					02523