

NOTE: STRUCTURE BUILT TO A 500' VERTICAL CURVE.

REMOVE EXIST. CONC. CURVED WING RAILING AND PORTION OF WINGWALL (TYP. EA. WINGWALL) SEE DETAIL DRWG. D3

REMOVE EXIST. CONC. BRIDGE RAILING AND CONCRETE CURB SEE DETAIL DRWG. D3

CONSTRUCT NEW CONC. BARRIER RAIL

CONSTRUCT NEW CONCRETE RAILING CONNECTION (TYP.) SEE DETAIL DRWG. D3

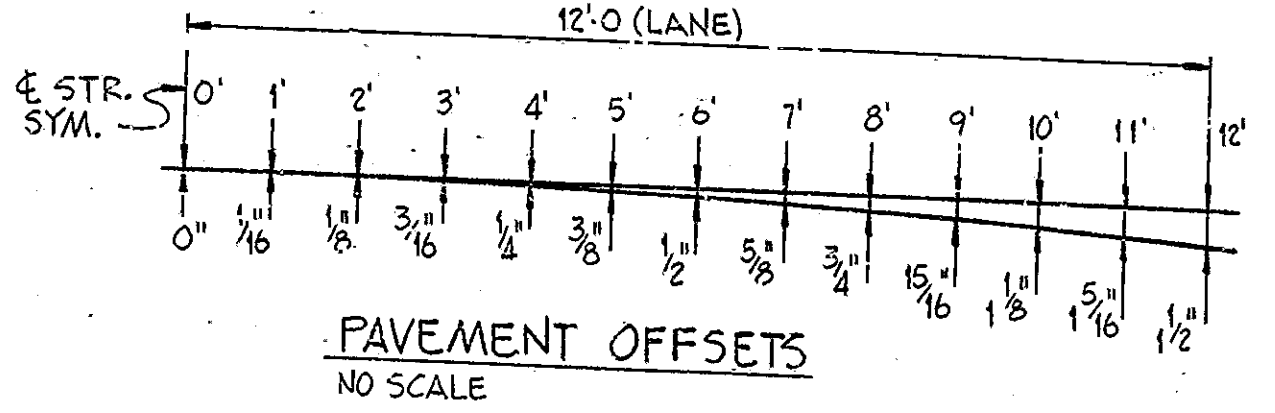
REMOVE EXIST. GUARD RAIL
 SANDBLAST AND PAINT END BEARINGS AT BENTS N#1 AND N#4 (TO BE PAID FOR AS "PAINTING BEARING ASSEMBLIES", LSUM)

EXIST. ROCK LEDGE

REMOVE DEBRIS FROM STREAM (TO BE INCLUDED IN THE COST OF OTHER ITEMS)

RECONSTRUCT ERODED AREA AT NORTH SPILL SLOPE WITH REVEGETATION RIPRAP (EST. QTY. = 50 TON'S)

INSTALL GUARD RAIL TYPE H (TYP.)



REMOVE 40 LFT. EXIST. GUARD RAIL & INSTALL 100 LFT. GUARD RAIL TYPE H WITH GUARD RAIL END TREATMENT TYPE I (TYP. SOUTH END ONLY)

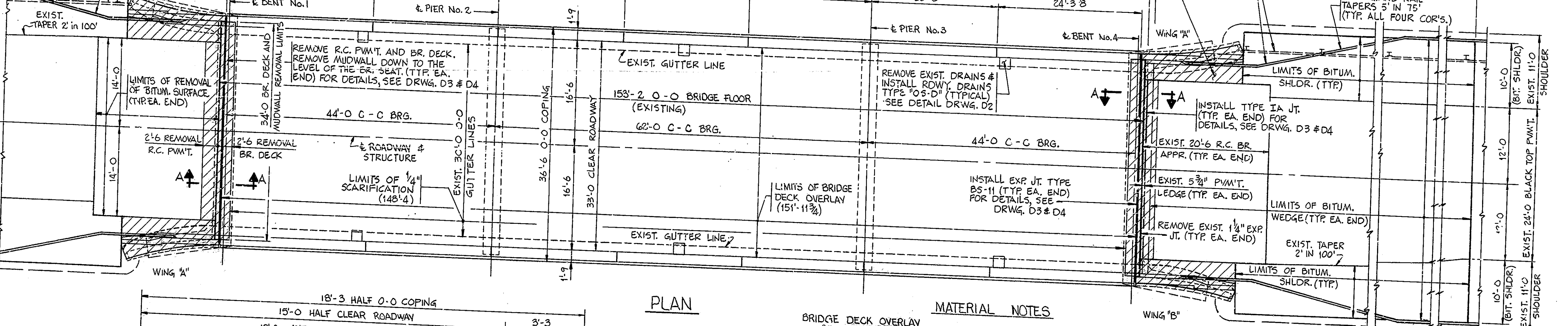
1/2" CONTRACTION JT. SPA. (TYP. EA. COPING)

ELEVATION

REMOVE INTEGRAL CONC. CURB, WALK AND WIDEN R.C. PAVT. TO BE PAID FOR AS "REMOVAL OF PAVEMENT" IN SYS. (EST. QTY. = 10.5 SYS. AT EACH CORNER) RECONSTRUCT NEW CONC. SLAB (TYP. ALL FOR CORNERS) SEE DETAIL DRWG. D3

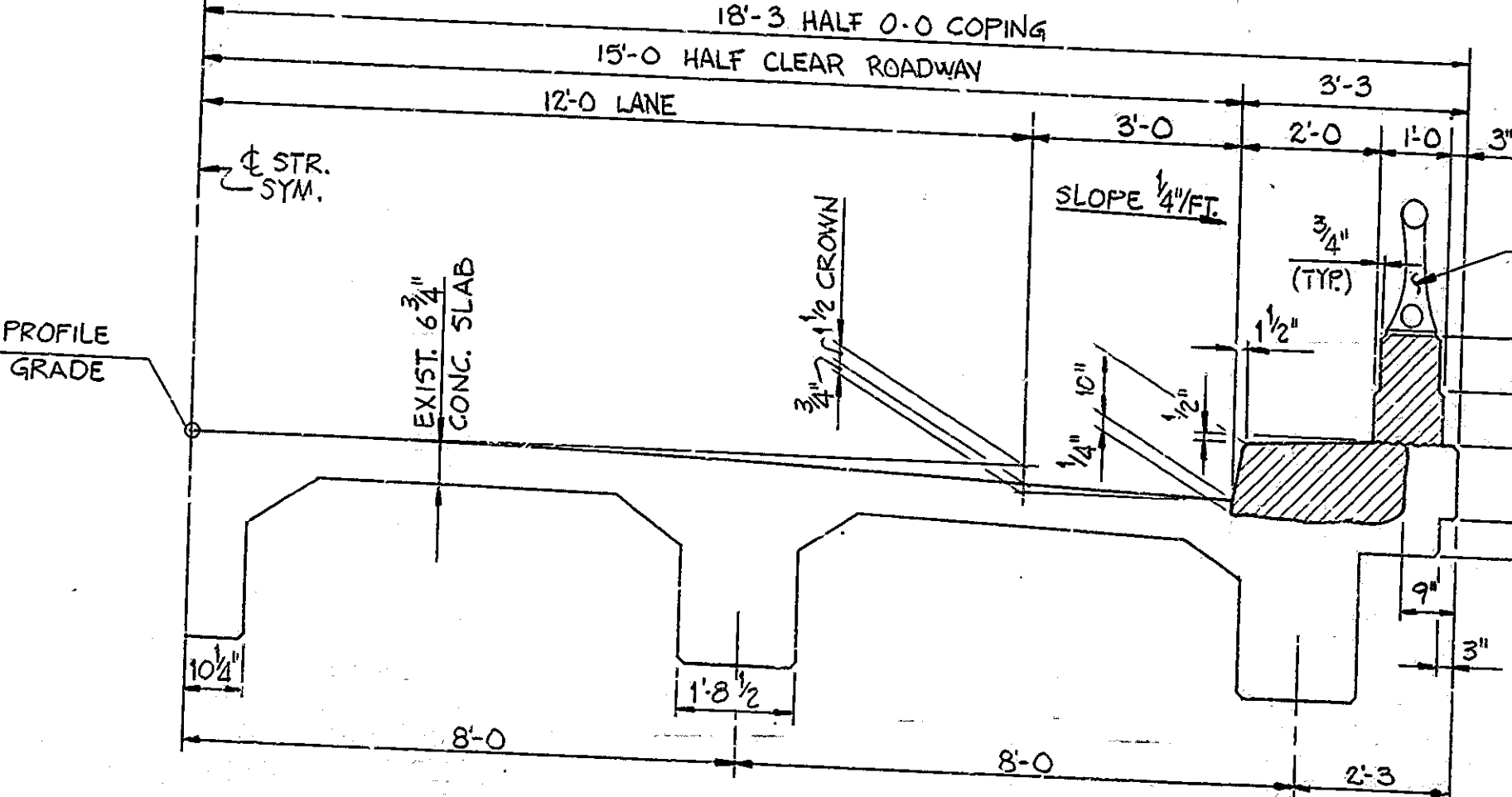
REMOVE 140 LFT. EXIST. GUARD RAIL & INSTALL 100 LFT. GUARD RAIL TYPE H WITH GUARD RAIL END TREATMENT TYPE I (TYP. NORTH END ONLY)

NEW GUARD RAIL TAPERS 5' IN 75' (TYP. ALL FOUR COR'S.)



MATERIAL NOTES
 BRIDGE DECK OVERLAY
 1 3/4" MODIFIED PORTLAND CEMENT CONCRETE OR 2 1/2" DENSE PORTLAND CEMENT CONCRETE (1 1/2" OR 2" RESPECTIVELY ABOVE ORIGINAL SURFACE)
 BITUMINOUS WEDGE
 1 1/2" H.A.C. SURFACE TYPE 11 ON VARIABLE DEPTH BITUMINOUS BINDER OR BASE
 BITUMINOUS SHOULDER
 660 #5 BITUMINOUS BASE TYPE 5D

NOTES:
 FOR CONSTRUCTION PROCEDURE NOTES, GENERAL NOTES AND ADDITIONAL DETAILS SEE DETAIL DRWG. D2.
 FOR SECTIONS A-A, SEE DRWG. D4.



EXISTING HALF SECTION
 SCALE: 1/2" = 1'-0"

NOTE: FOR PROPOSED HALF SECTION SEE DETAIL DRWG. D2.

PLAN

NOTE: ALL HATCHED AREAS INDICATES LIMITS OF CONC. REMOVAL (TO BE PAID FOR AS "REMOVAL OF PRESENT STRUCTURE (PORTIONS)", LSUM), EXCEPT INTEGRAL CURBS, WALKS AND WIDEN R.C. PAVT'S. (SEE PLAN THIS SHEET).

STANDARD DRAWINGS	
BR. STD.	PURPOSE
BR5	RAILING CONNECTION DETAILS
C1	REINFORCING BAR NOTES
C3	CONSTR. JT. TYPE A & TYPE IA JT.
D	RDWY. DRAIN TYPE OS WITH GRATE TYPE D
GR7	RAILING OFFSET BRACKET
MT3	TRAFFIC SIGN DETAILS
CB2	TEMPORARY CONCRETE BARRIER
GR2	GUARD RAIL CLASS HS DETAILS
GR2A	GUARD RAIL CLASS HA OR HS
GR5	ALUMINUM GUARD RAIL DETAILS
GR10	GUARD RAIL END TREATMENT TYPE I
DETOUR	STANDARD DETOUR SIGNS

GENERAL PLAN

BRIDGE DECK RECONSTRUCTION AND OVERLAY
 CONTINUOUS REINFORCED CONCRETE GIRDER BRIDGE
 3 SPANS: 44'-0", 62'-0", 44'-0" OVER 33'-0" CLEAR ROADWAY
 STATE ROAD 63 REDWOOD CREEK

INDIANA DEPARTMENT OF HIGHWAYS
 WARREN COUNTY

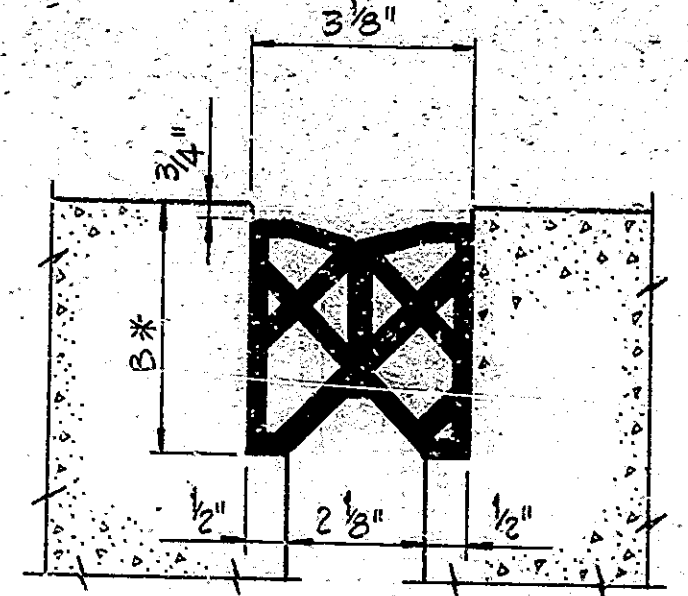
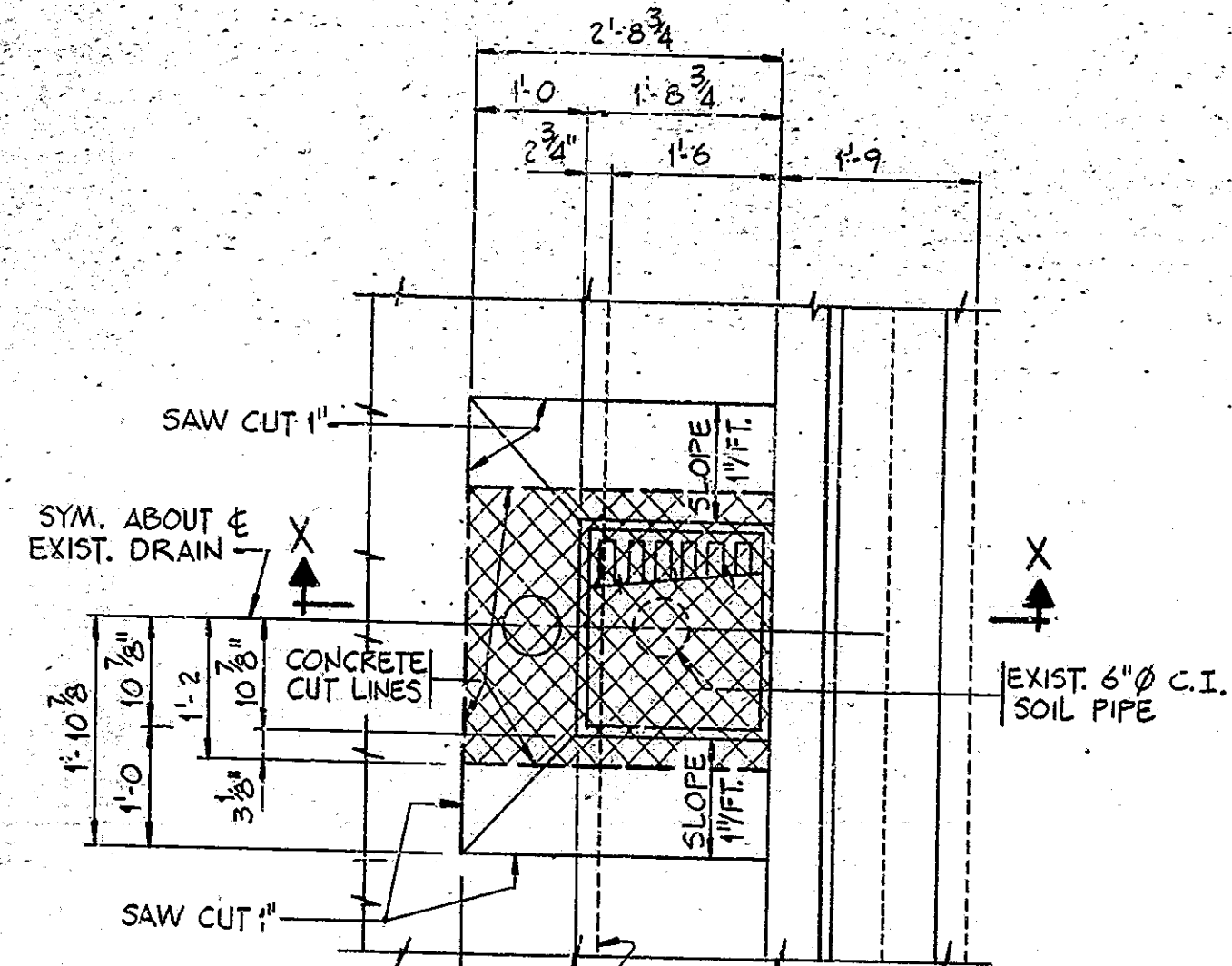
SCALE: 1/8" = 1'-0" (UNLESS NOTED) DATE: MAY 14, 1985

SUBMITTED FOR APPROVAL

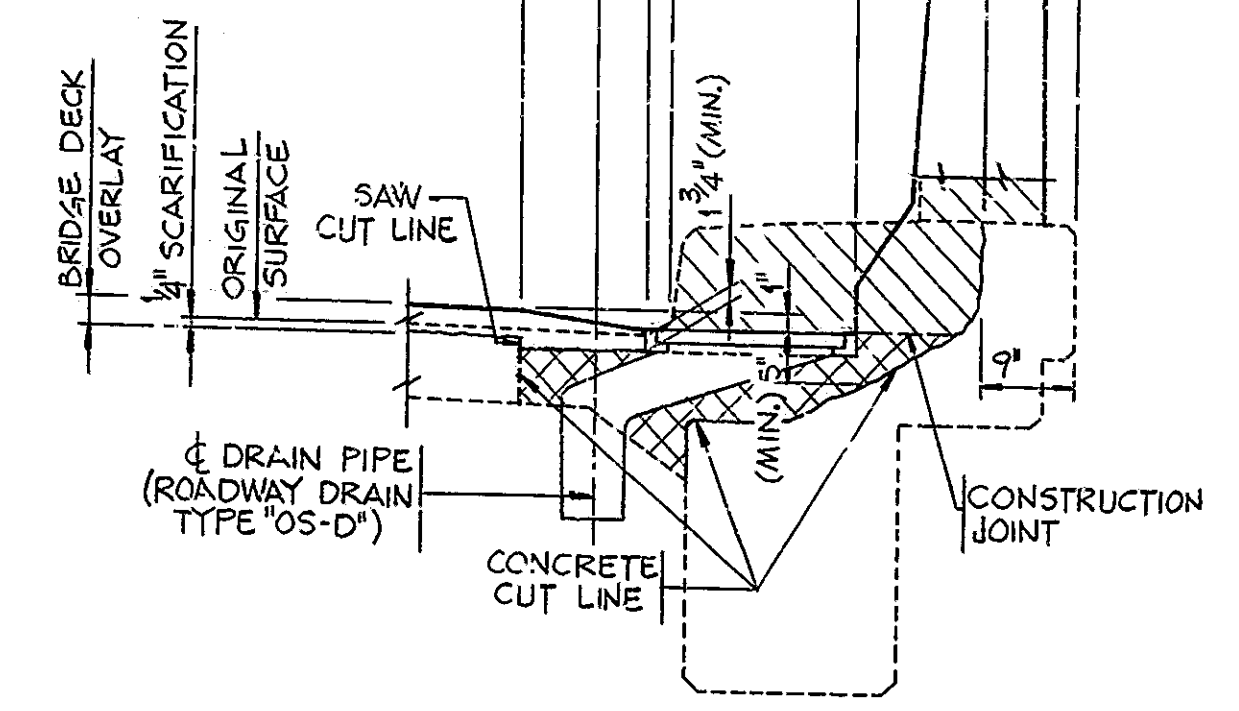
DRAWING: D1 OF D3 SHEET: 2 OF 23
 PROJECT: MABRZ-9986(4)
 CONTRACT NO. B-15647
 BRIDGE FILE: G3-86-4697A



DESIGNED: CKD
 DRAWN: WGT, 10-11-84
 TRACED: CKD

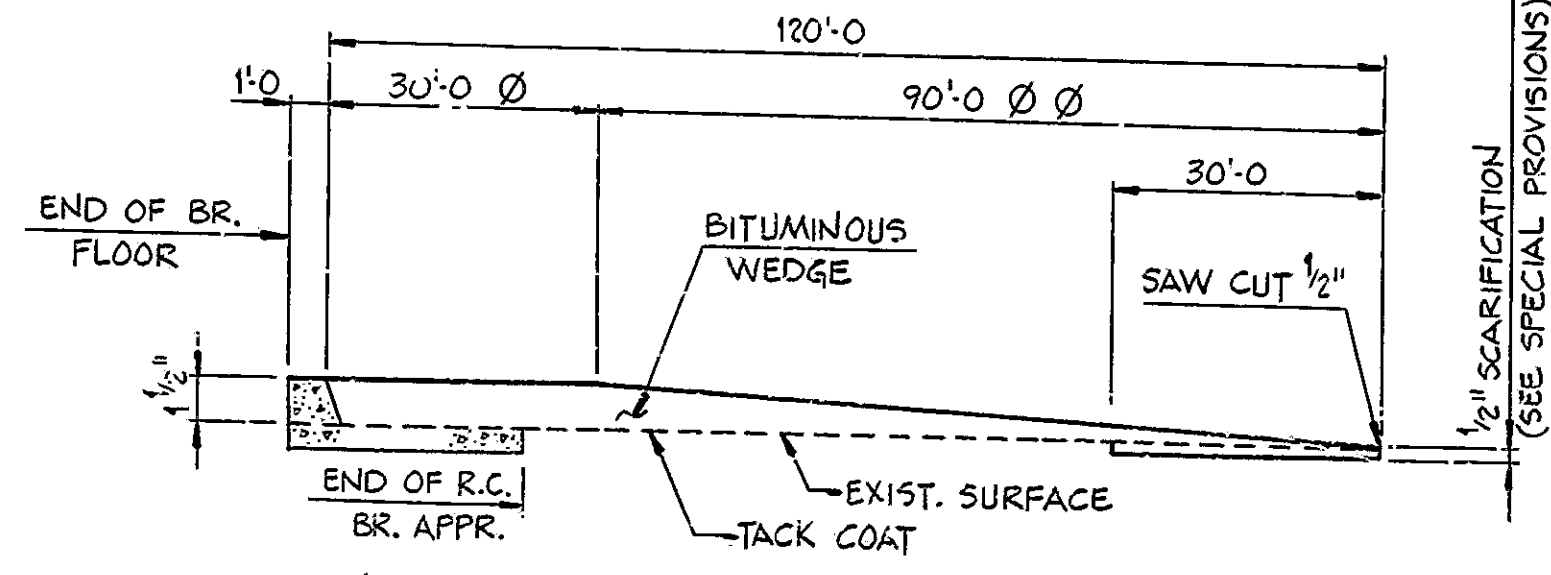


NOTES:
HATCHED AREA INDICATE CONCRETE REMOVAL.
CROSS-HATCHED AREA INDICATE FULL-DEPTH SLAB REMOVAL AT EACH EXIST. RDWY. DRAIN. TO BE INCLUDED IN THE COST OF "REMOVAL OF PRESENT STRUCTURE" (PORTION) LSUM. EXIST. REINF. STEEL TO BE CLEANED AND REMAIN IN PLACE.



SECTION X-X

ROADWAY DRAIN DETAILS
SCALE: 3/8" = 1'-0"



TYPICAL WEDGE DETAIL
NO SCALE

CONSTRUCTION PROCEDURE

1. CLOSE THE STRUCTURE TO TRAFFIC.
2. REMOVE EXISTING BITUMINOUS SURFACE ON EACH R.C. BRIDGE APPROACH.
3. REMOVE EXISTING BRIDGE RAILING, WIDEN R.C. APPROACH SLABS, PORTION OF CURBS AND CONCRETE WINGWALLS AS SHOWN ON THE DETAIL PLANS.
4. REMOVE EXIST. EXP. JT'S, PORTIONS OF R.C. BR. APPRS., BR. DECK AND MUDWALL DOWN TO THE LEVEL OF THE BR. SEAT AS SHOWN IN THE DETAIL PLANS.
5. SCARIFY THE REMAINING EXISTING BRIDGE FLOOR 1/4". REMOVE SCARIFIED DUST.
6. REMOVE ALL DETERIORATED CONCRETE BELOW THE LEVEL OF SCARIFICATION AND REMOVE CONCRETE AROUND REINFORCING, ALONG CURBS, INACCESSIBLE TO SCARIFYING EQUIPMENT AND AS REQUIRED FOR INSTALLATION OF EXPANSION JOINTS BY HANDCHIPPING AND CLEANING IN ACCORDANCE WITH SPECIAL PROVISIONS.
7. REMOVE EXISTING ROADWAY DRAINS AND INSTALL NEW ROADWAY DRAINS AS SHOWN IN THE DETAILS.
8. POUR NEW BRIDGE RAILS AND PORTIONS OF R.C. BR. APPRS., BR. DECK AND MUDWALL AS SHOWN IN DETAIL PLANS.
9. BLAST AND CLEAN ALL REMOVAL AND SCARIFIED AREAS.
10. PLACE THE BRIDGE DECK PATCHING MATERIAL AND PLACE DECK OVERLAY TO THE LEVEL INDICATED IN THE PLANS AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
11. INSTALL BS EXPANSION JOINTS.
12. SURFACE SEAL PORTIONS OF THE STRUCTURE AS SHOWN IN DETAIL PLANS. TO BE PAID FOR AS "SURFACE SEAL" LSUM.
13. CONSTRUCT THE BITUMINOUS WEDGES, BITUMINOUS SHOULDERS AND ALL OTHER WORK AS SHOWN IN THE PLANS.
14. INSTALL ALL GUARD RAIL.
15. REPAINT ROADWAY CENTER LINES AND PAVEMENT EDGE LINES AS SHOWN ON THE DETAILS.
16. OPEN STRUCTURE TO TRAFFIC.

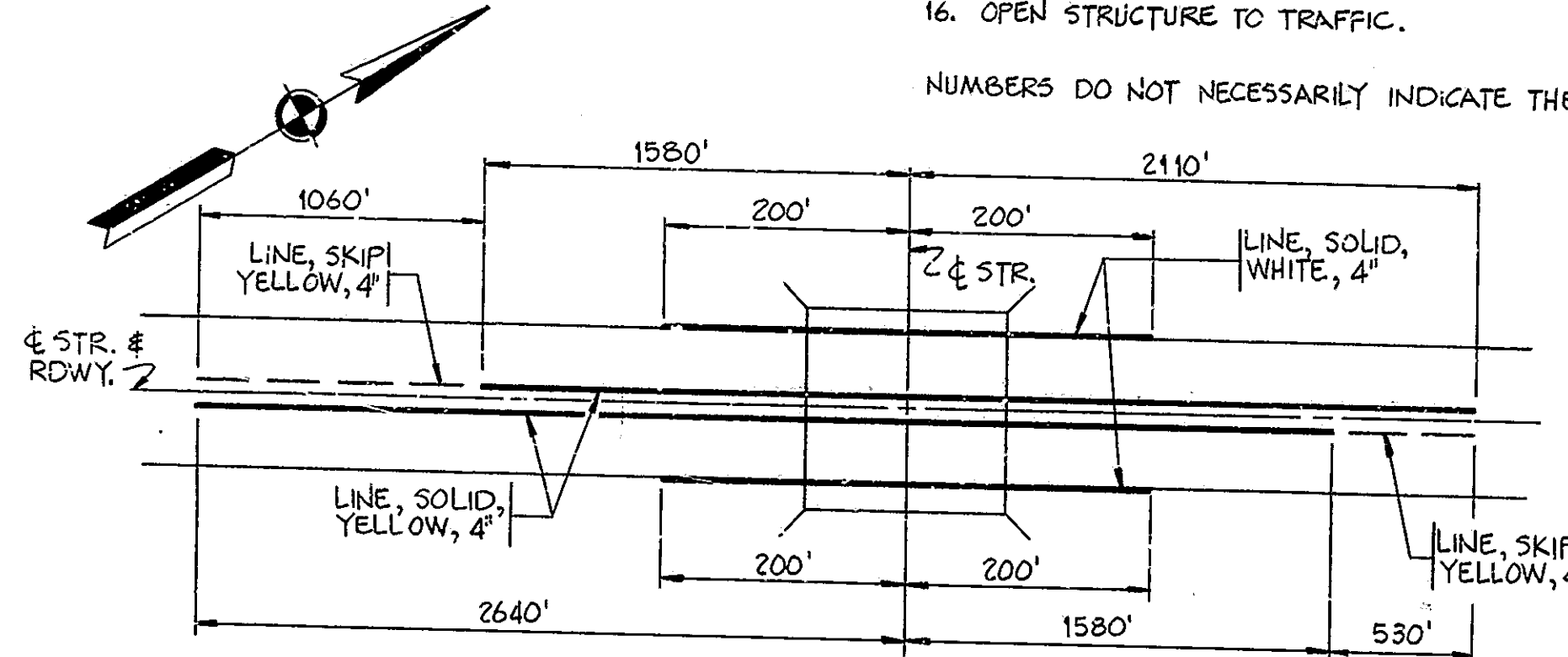
NUMBERS DO NOT NECESSARILY INDICATE THE SEQUENCE OF OPERATIONS.

GENERAL NOTES

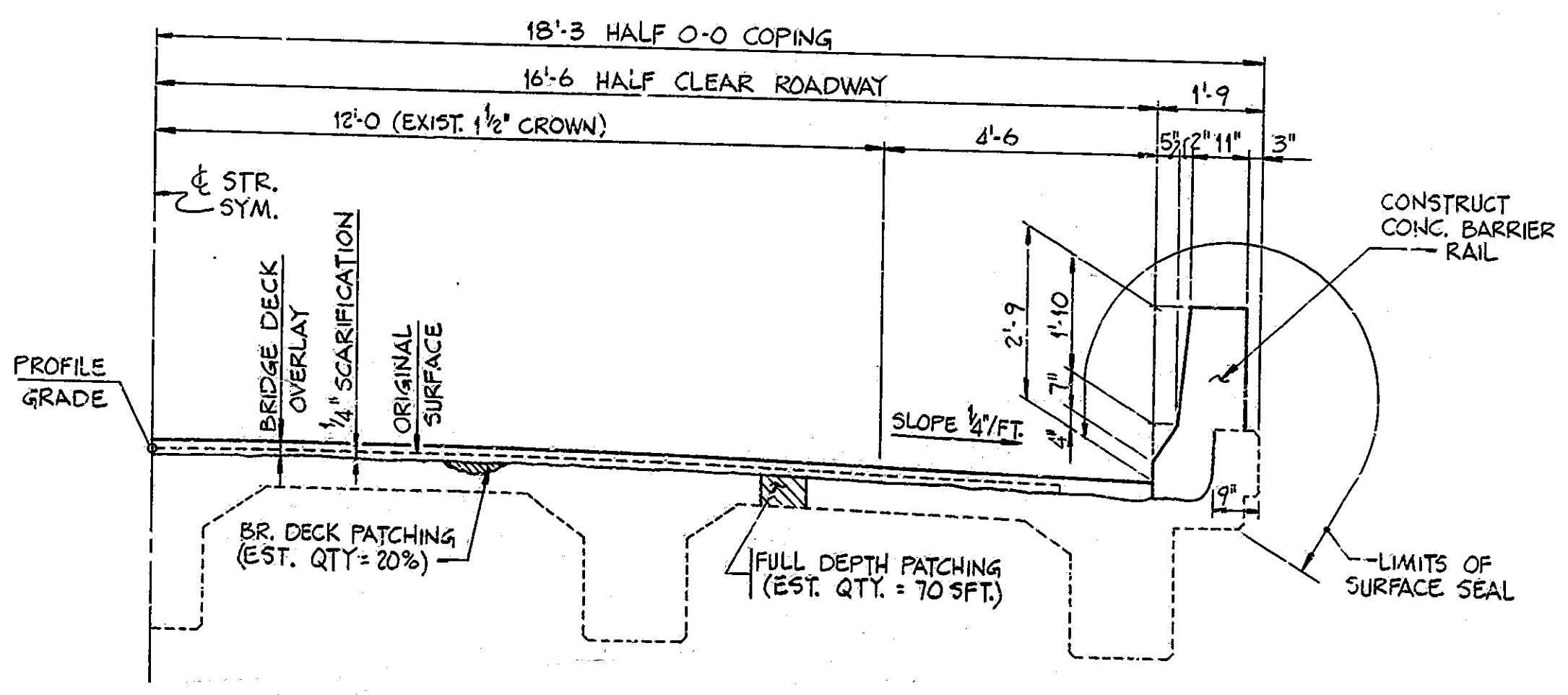
1. PLANS OF THE EXISTING STRUCTURE ARE ON FILE IN THE BRIDGE DEPARTMENT, INDIANA DEPARTMENT OF HIGHWAYS AS BR. N#: 63-H-4697.
2. WHERE NEW WORK IS TO BE FITTED TO OLD WORK, THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND CONDITIONS IN THE FIELD, AND REPORT ANY ERRORS OR DISCREPANCIES TO THE ENGINEER AND ASSUME RESPONSIBILITY FOR THEIR CORRECTNESS AND FIT OF THE NEW PART TO THE OLD.
3. THE HANDCHIPPING AND CLEANING OF THE DETERIORATED DECK AREAS SHALL BE AS DIRECTED BY THE ENGINEER. IT IS THE INTENT OF THESE PLANS THAT ALL SUCH DETERIORATED CONCRETE BE REMOVED AND SHOULD THERE BE ANY DOUBT AS TO THE QUALITY OF THE CONCRETE, REMOVAL SHALL CONTINUE UNTIL PERFECTLY SOUND CONCRETE IS EXPOSED. ALL EXISTING NON-FULL DEPTH PATCHING IS TO BE REMOVED.
4. CONCRETE FOR PATCHING OF DETERIORATED DECK AREAS UP TO THE LEVEL OF SCARIFICATION TO BE SPECIAL CLASS "A" CONCRETE OR MODIFIED PORTLAND CEMENT CONCRETE. SEE THE SPECIAL PROVISIONS.
5. ALL BITUMINOUS MATERIALS REQUIRED IN THE CONTRACT TO BE INCLUDED IN THE PAY ITEM "BITUMINOUS MATERIAL FOR APPROACHES", EXCEPT FOR TACK COAT WHICH IS TO BE PAID FOR AS "BITUMINOUS MATERIAL FOR TACK COAT" IN SYS.
6. SEAL ALL JOINTS AND CRACKS IN THE APPROACH PAVEMENT WITHIN THE LIMITS OF THE BITUMINOUS WEDGES WITH A HOT POURED JOINT SEALER BEFORE PLACING THE BITUMINOUS WEDGES.
7. LENGTH AND QUANTITIES OF THE BITUMINOUS WEDGES SHOWN IN THE PLANS ARE BASED ON THE USE OF MODIFIED PORTLAND CEMENT CONCRETE OVERLAY (1 3/4"). SEE THE SPECIAL PROVISIONS.
8. THE CONCRETE IN THE BRIDGE DECK AND THE MUDWALL TO BE CLASS "A".
9. THE PAY ITEM "FULL DEPTH PATCHING" SHALL INCLUDE THE COST OF REMOVAL OF EXISTING CONCRETE, CLEANING REINFORCING STEEL, FORMING UNDERSIDE OF THE DECK AND FURNISHING AND POURING CLASS "A" CONCRETE IN THE FLOOR CAVITY UP TO THE LEVEL OF SCARIFICATION.
10. THE COST OF NECESSARY RECONSTRUCTION AT THE CURBS FOR INSTALLATION OF BS JOINTS IS TO BE INCLUDED IN THE COST OF THE BS JOINT.
11. THE CONCRETE IN THE RAILING TO BE CLASS "C".
12. ALL EXISTING END BEARING TO BE PAINTED. THE PAINT SHALL BE IN ACCORDANCE WITH SECTION 619 OF THE SPECIFICATIONS.

FIRST FIELD COAT: ZINC SILICATE
SECOND FIELD COAT: VINYL FINISH COAT

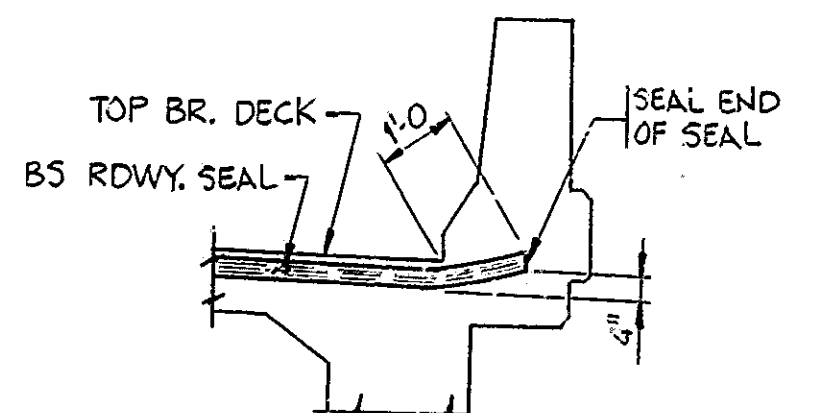
ALL REMOVAL EQUIPMENT USED FOR PARTIAL CONCRETE REMOVALS OF BRIDGE FLOORS SHALL BE HANDHELD. PNEUMATIC HAMMERS, 30 LBS. MAXIMUM WEIGHT, SHALL BE USED FOR AREAS OF BRIDGE DECK PATCHING AND ALL AREAS WITHIN 24 INCHES OF FULL DEPTH REMOVAL LINES. PNEUMATIC HAMMERS, UP TO 90 LBS. MAXIMUM WEIGHT, MAY BE USED FOR ALL OTHER REMOVALS OUTSIDE THESE LIMITS. DECK AREAS TO BE REMOVED FULL DEPTH SHALL BE COMPLETELY SEPARATED (CONCRETE AND STEEL) FROM ADJACENT CONCRETE BEFORE HAMMERS HEAVIER THAN 30 LBS. MAY BE USED.



PAVEMENT MARKING DETAIL
NO SCALE



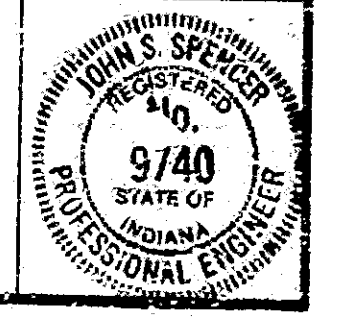
PROPOSED HALF SECTION
SCALE: 1/2" = 1'-0"



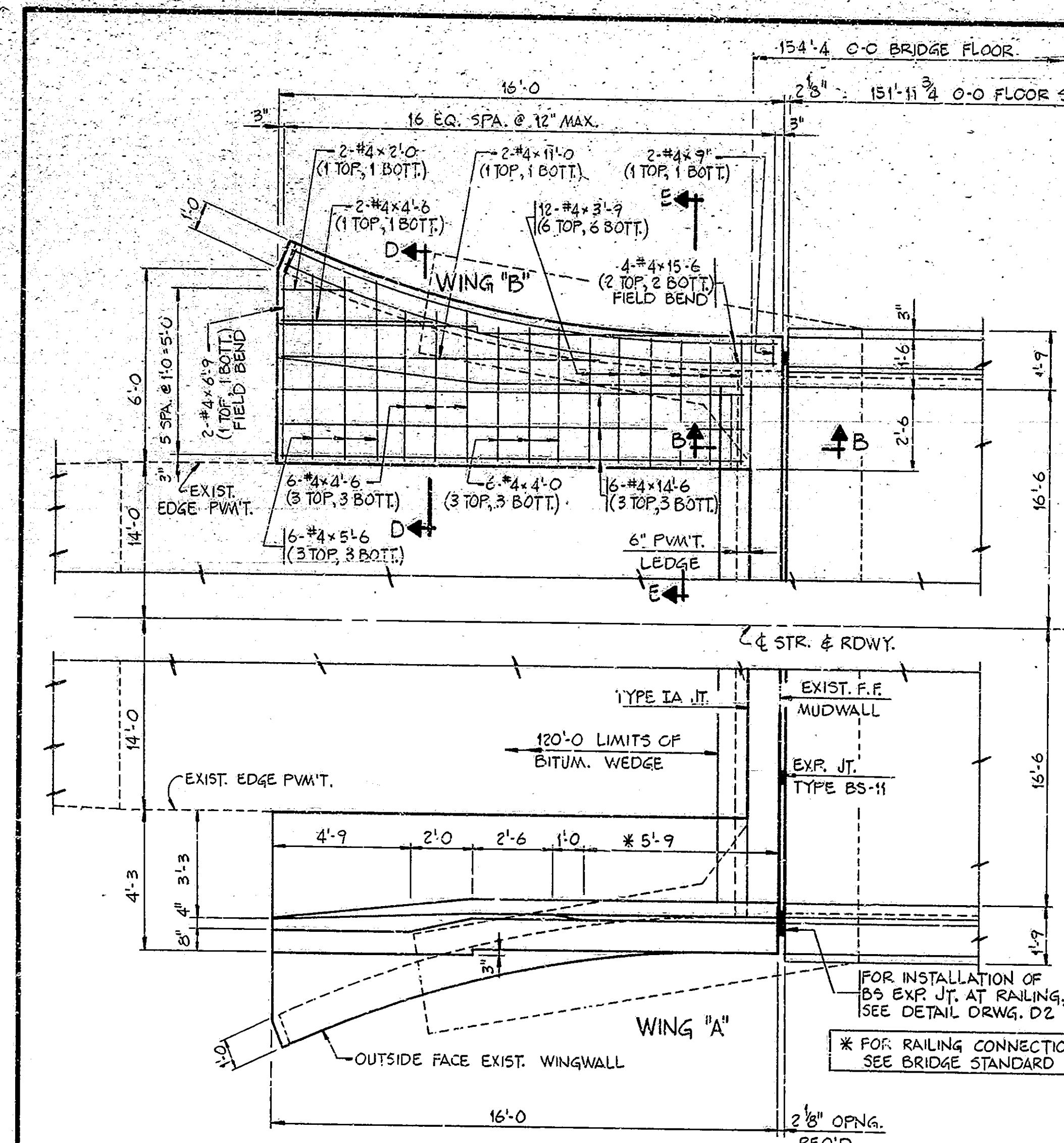
RAILING EXP. JT. INSTALLATION AT BENT
(BENT N#1 AND BENT N#4 THE SAME)
SCALE: 3/8" = 1'-0"

NOTES AND DETAILS
INDIANA DEPARTMENT OF HIGHWAYS

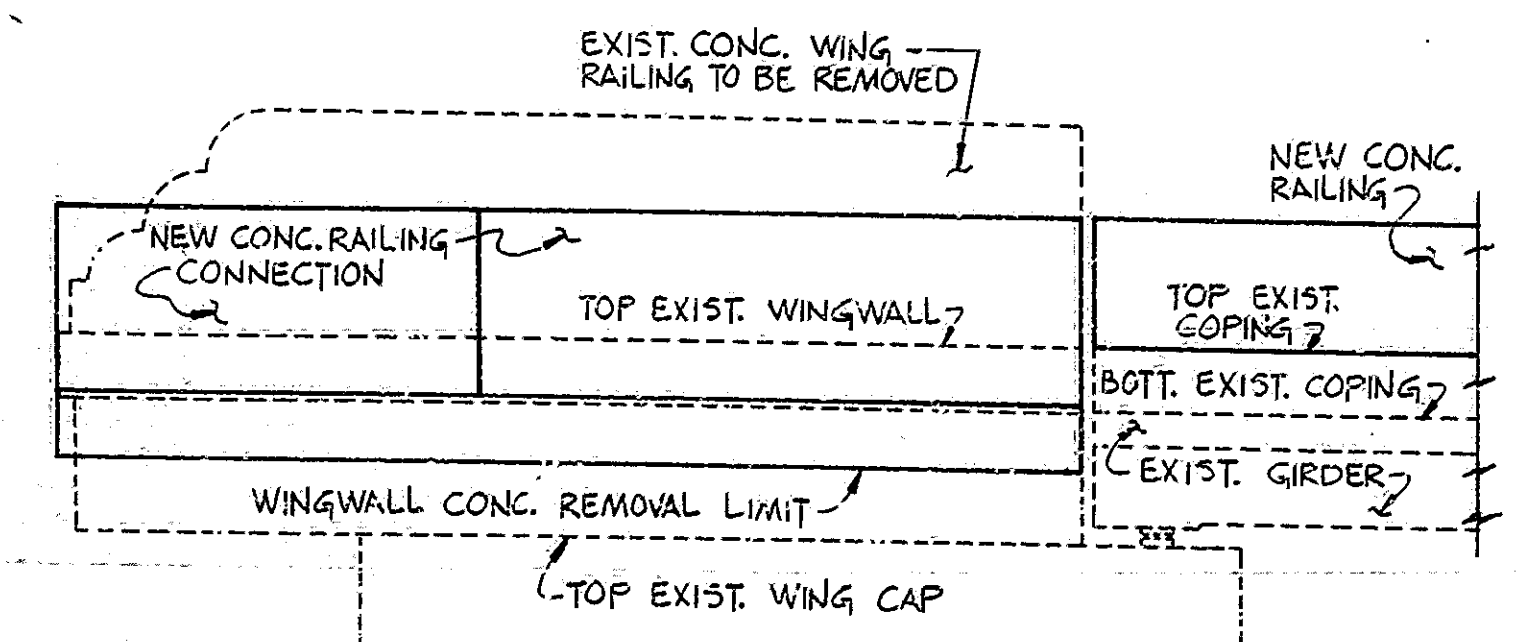
SCALE: AS NOTED DATE: MAY 14, 1985
SUBMITTED FOR APPROVAL: *[Signature]*
DRAWING: D2 OF D4 SHEET: 3 OF 23
PROJECT: MABRZ-9986(4)
CONTRACT NO. B-15647
BRIDGE FILE: 63-86-4697A



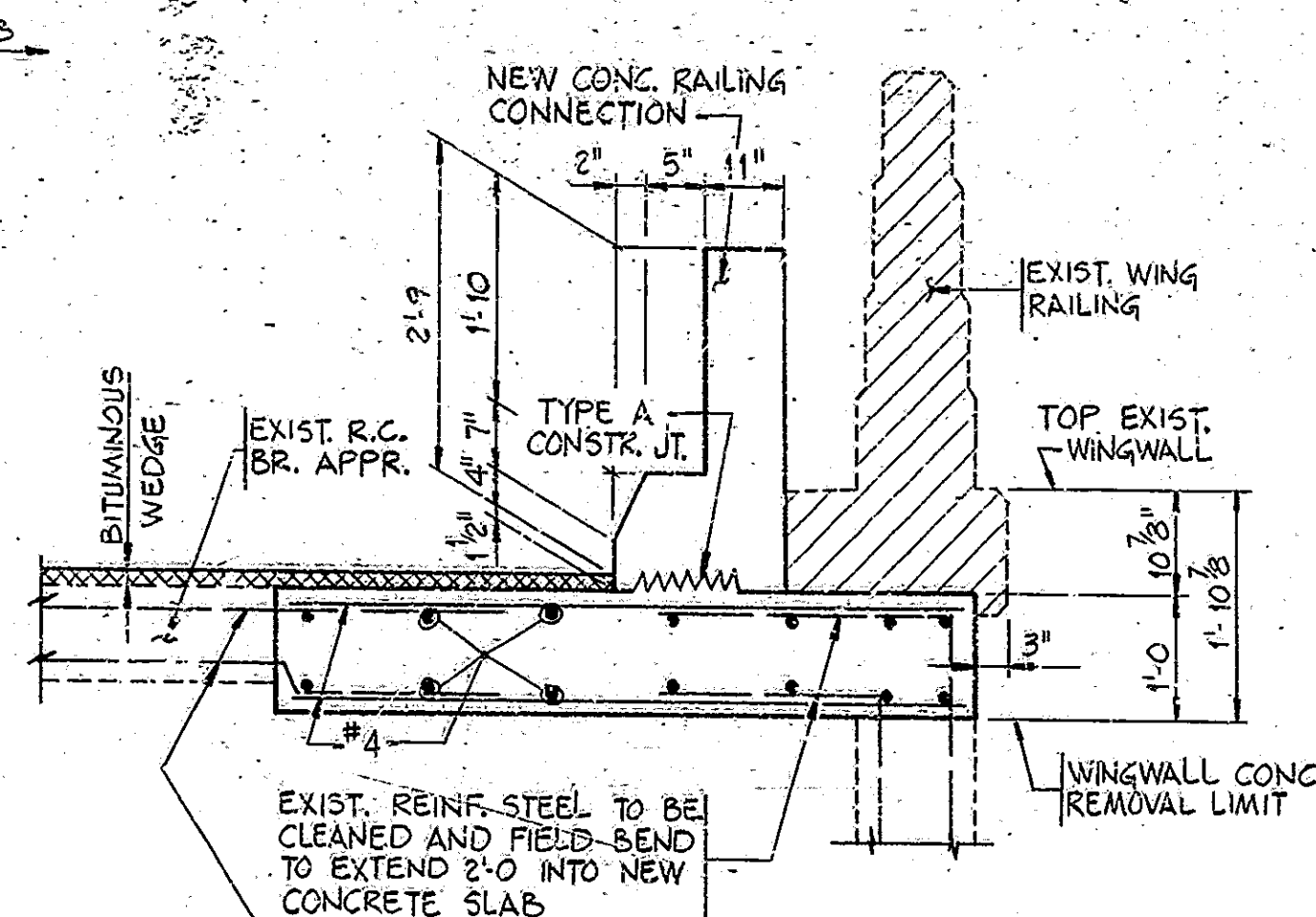
DESIGNED: CKD
DRAWN: RJC 1-7-85, CKD MHW 1-30-85
TRACED: CKD



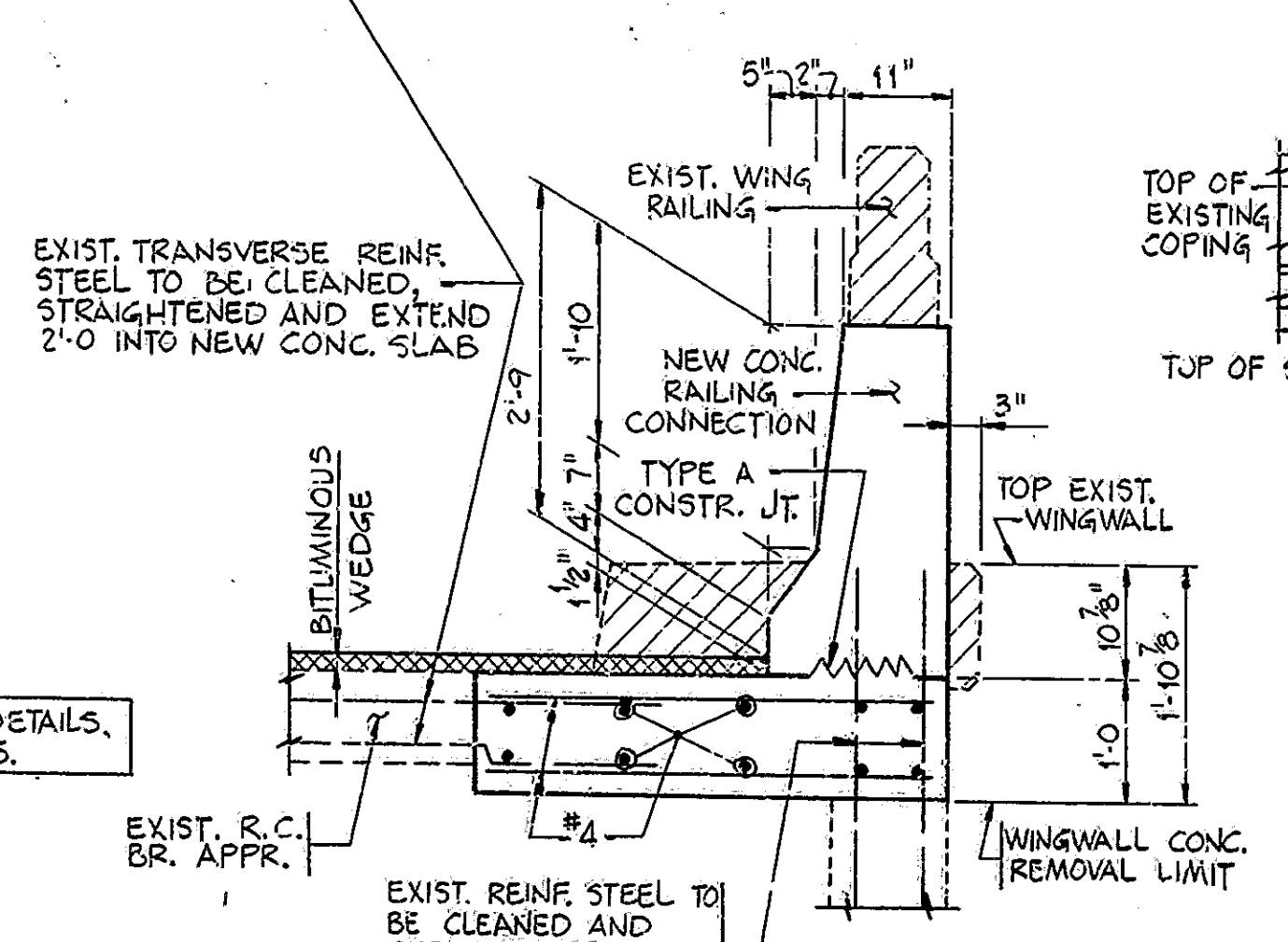
PLAN AT BENT N^o 1
BENT N^o 4 THE SAME BY 180° ROTATION
(SCALE: 3/8"=1'-0")



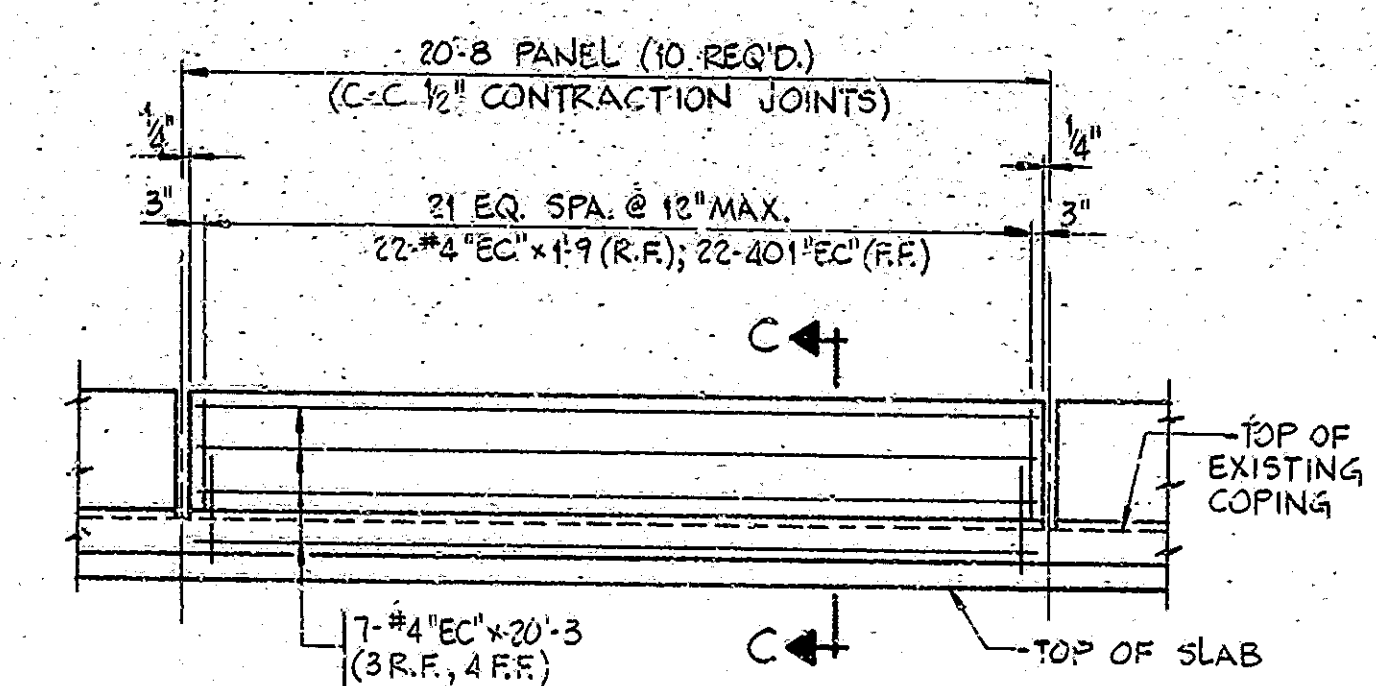
ELEVATION WING "A"
WING "B" THE SAME BY OPPOSITE HAND
(SCALE: 3/8"=1'-0")



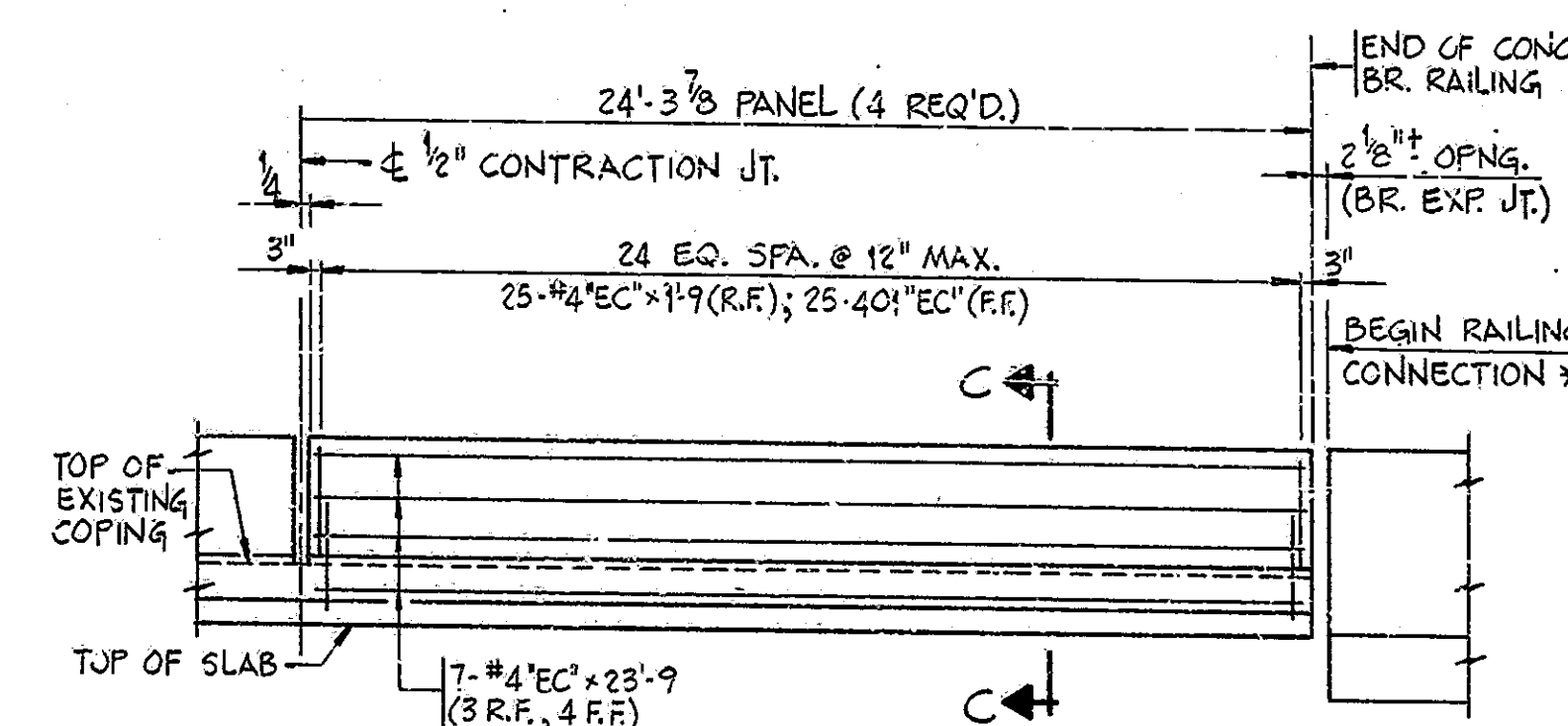
SECTION D-D



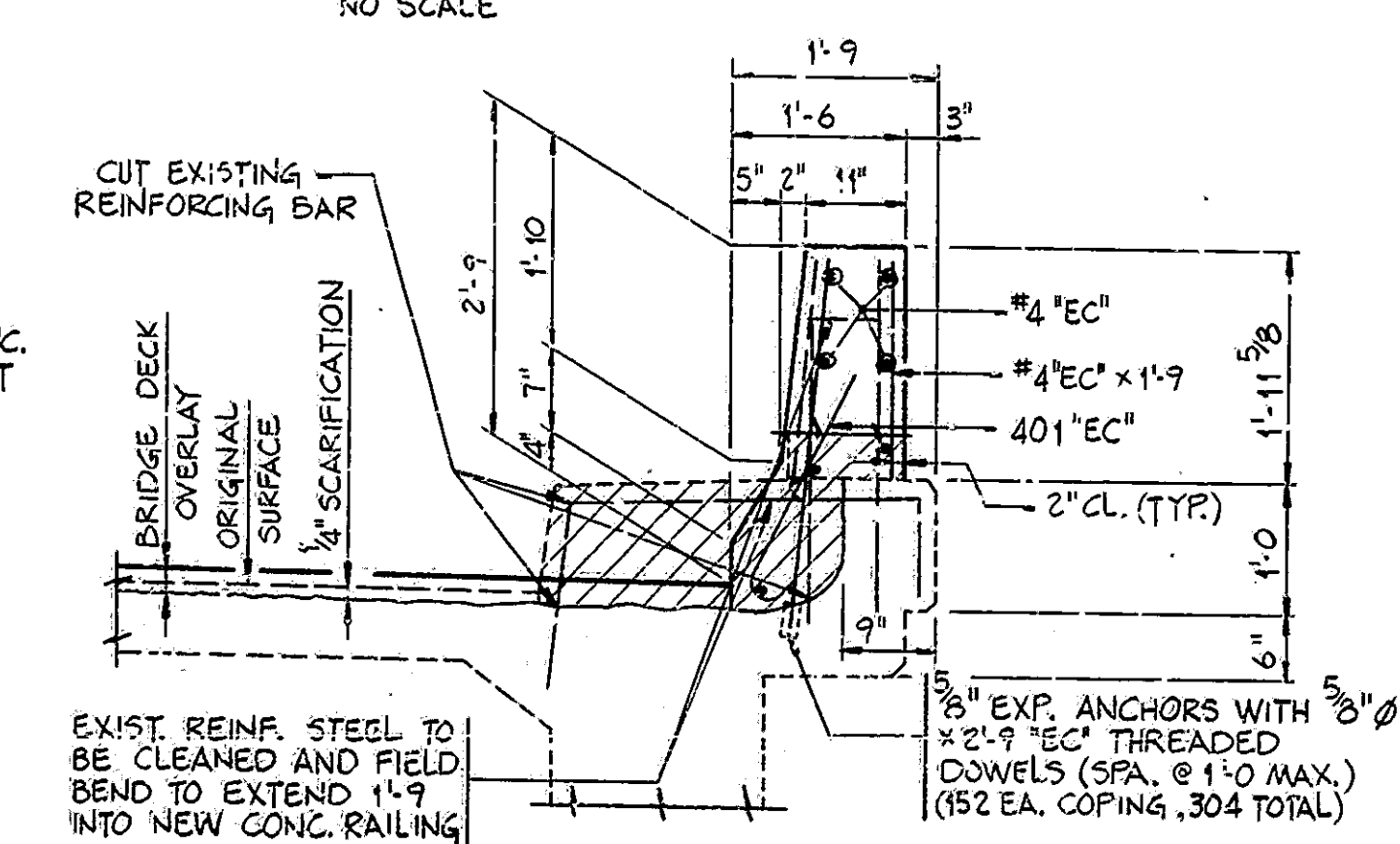
SECTION E-E



TYPICAL INTERIOR PANEL
NO SCALE



TYPICAL END PANEL
NO SCALE



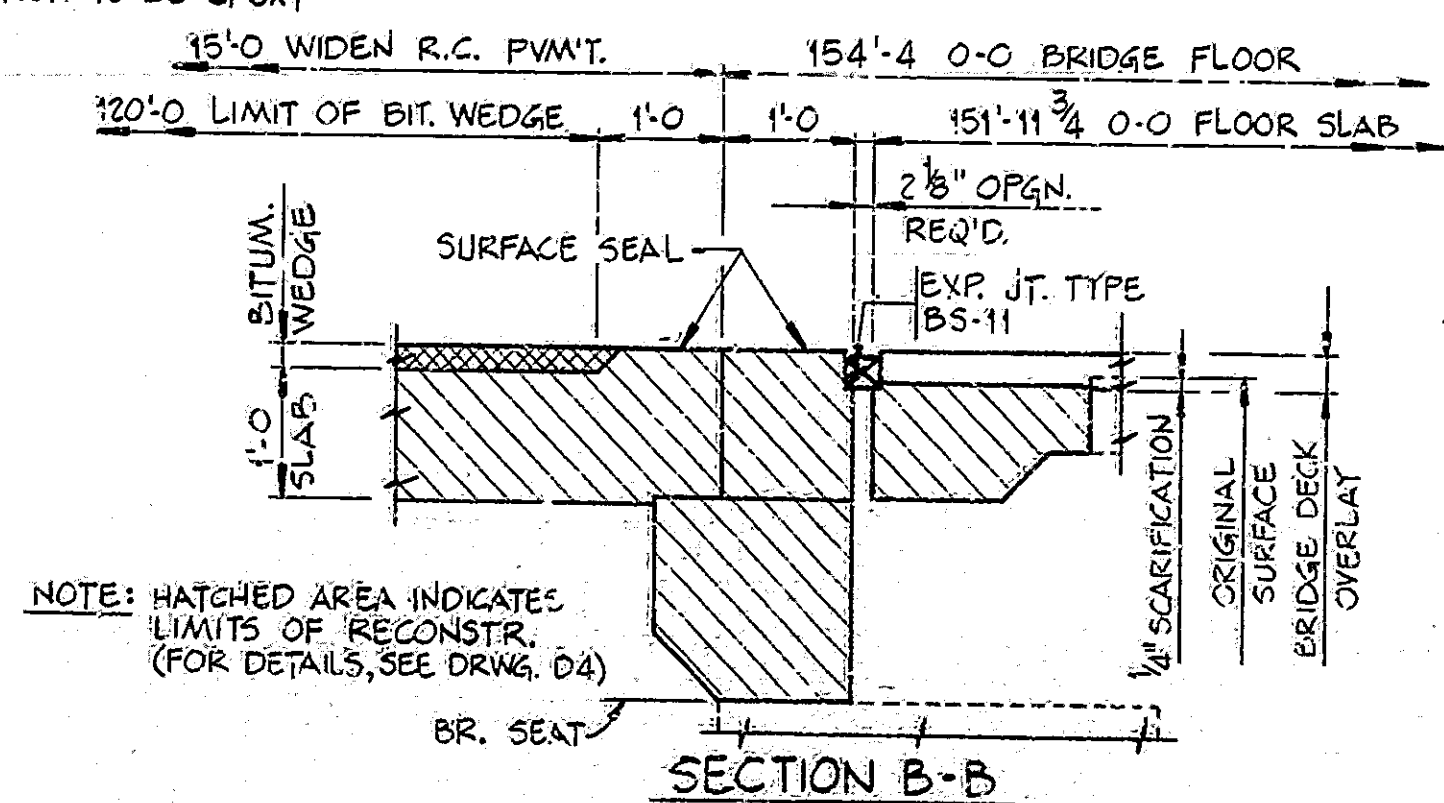
SECTION C-C

NOTES:

FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARD C1.
3/8" EXPANSION ANCHORS WITH #2-9 x 2'-9 ANCHOR DOWELS SHALL BE A TYPE APPROVED BY THE ENGINEER. EXPANSION ANCHORS SHALL BE EMBEDDED A MINIMUM OF 3" AND CAPABLE OF A PULL-OUT TEST OF 9000 LBS. ALL THESE ITEMS TO BE INCLUDED IN THE COST OF THE CONCRETE.
"EC" INDICATES EPOXY COATED REINFORCING STEEL.

RAILING NOTES:

RAILING CONCRETE QUANTITIES ARE BASED ON THE USE OF 1 3/4" MOD. P.C.C. OVERLAY. IF THE 2 1/2" DENSE P.C.C. IS USED THE COST OF THE ADDITIONAL RAILING CONCRETE SHALL BE INCLUDED IN THE COST OF THE BRIDGE DECK OVERLAY.
HATCHED AREAS INDICATE CONCRETE REMOVAL
ALL REINFORCING STEEL IN NEW CONC. RAILING AND NEW CONC. RAILING CONNECTION TO BE EPOXY COATED.



SECTION B-B

RECONSTRUCTION DETAILS

INDIANA DEPARTMENT OF HIGHWAYS

SCALE: 3/4"=1'-0, UNLESS NOTED DATE: MAY 14, 1985

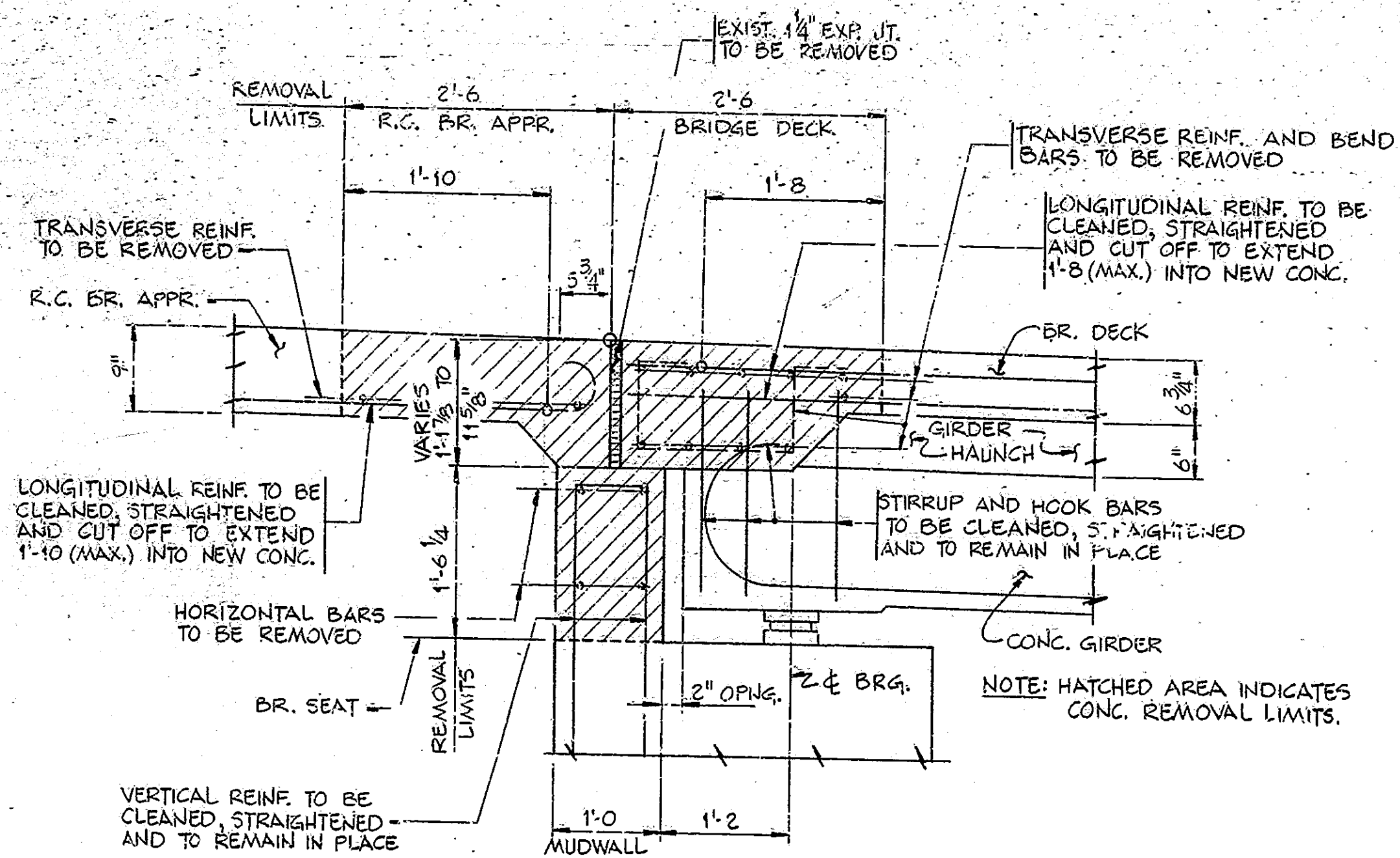
SUBMITTED FOR APPROVAL *John S. Spencer*

DRAWING: D3 OF D4 SHEET: 4 OF 23

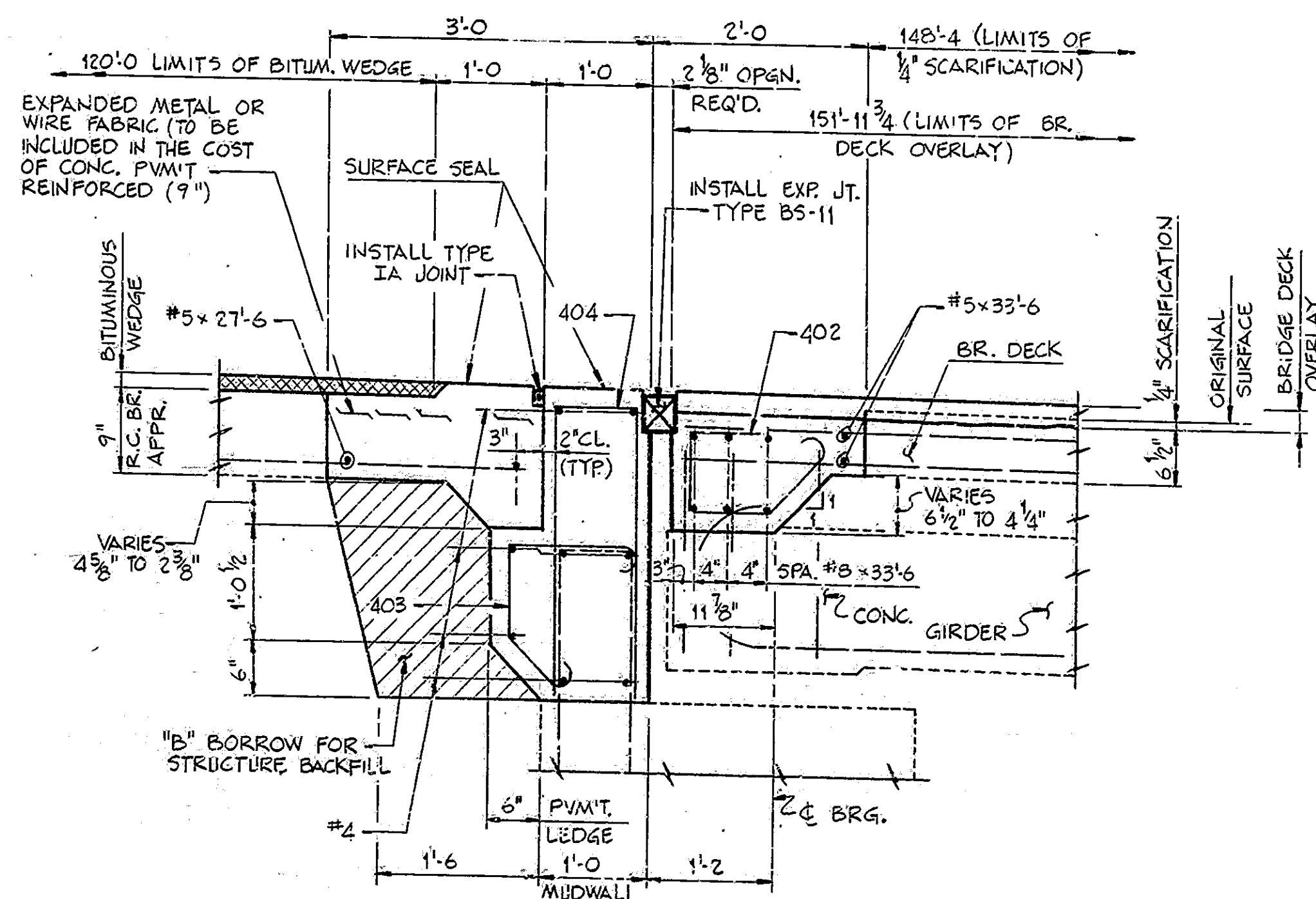
PROJECT: MABRZ-9986(4)
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BRIDGE FILE: 63-86-4697A



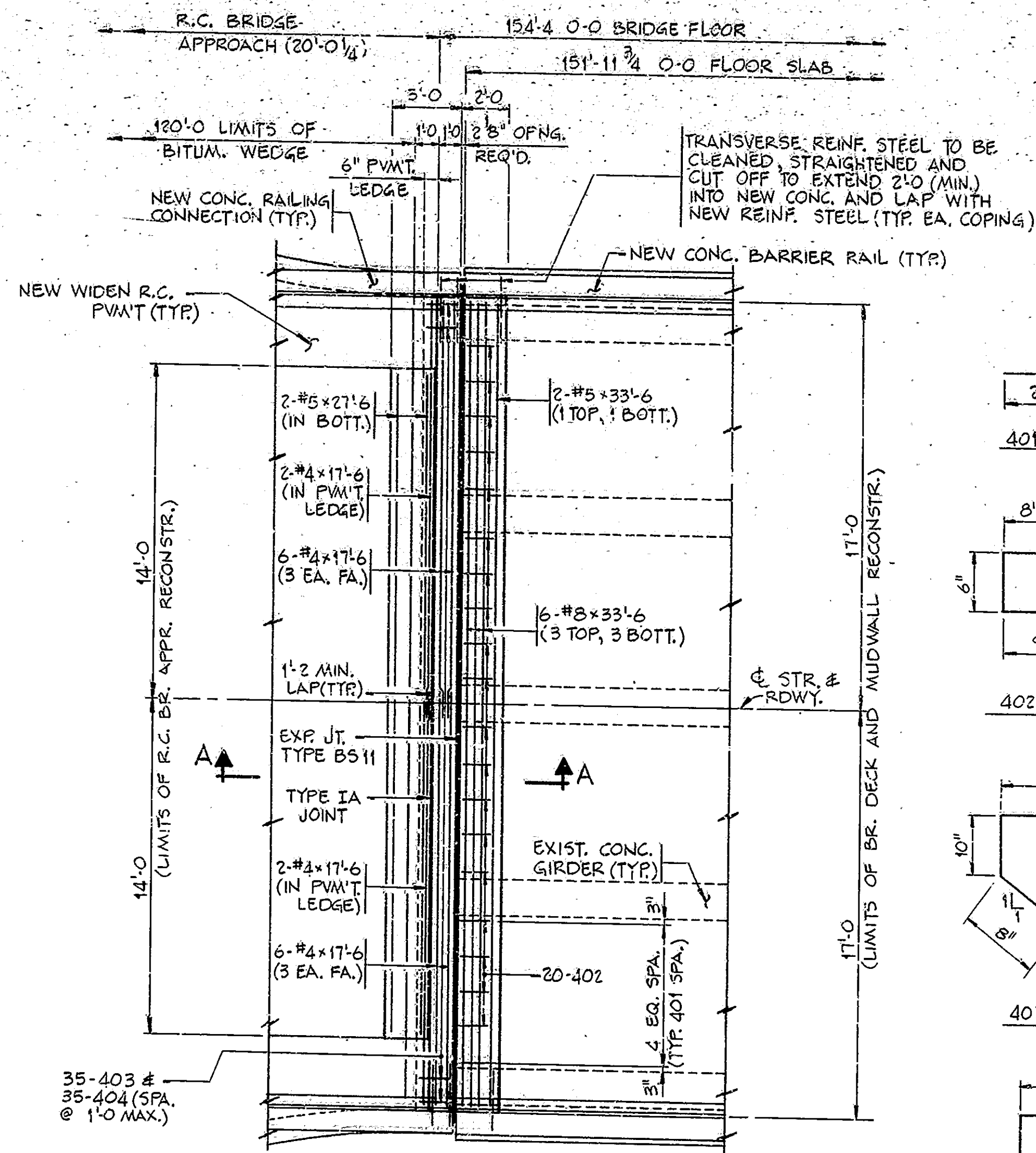
DESIGNED: RJC 1-2-84
DRAWN: RJC 1-2-84
TRACED: CJC
CHKD: MHW 1-30-85
CHKD:



SECTION A-A (SHOWING REMOVAL)
(FOR PLAN, SEE DRWG. D1)



SECTION A-A (SHOWING RECONSTRUCTION)



PLAN AT BENT N°1 SHOWING RECONSTRUCTION

BENT N°4 THE SAME BY 180° ROTATION
(SCALE: 1/4" = 1'-0")

BILL OF MATERIALS

REINFORCING STEEL			
SIZE #	N° OF BARS	LENGTH	WEIGHT (LBS.)
#8	12	33'-6"	1073
#5	4	33'-6"	
#5	4	27'-6"	
TOTAL #5			254
402	40	3'-4"	
403	70	3'-8"	
404	70	5'-8"	
#4	32	17'-6"	
#4	16	15'-6"	
#4	24	14'-6"	
#4	8	11'-0"	
#4	8	6'-9"	
#4	24	5'-6"	
#4	32	4'-6"	
#4	24	4'-0"	
#4	48	3'-9"	
#4	8	2'-0"	
#4	8	0'-9"	
TOTAL #4			1176
TOTAL REINFORCING STEEL 3103			
EPOXY COATED REINFORCING STEEL			
401	320	2'-6"	
#4	28	23'-9"	
#4	70	20'-3"	
#4	320	1'-9"	
TOTAL #4			2300
* 4 RAILING CONNECTIONS @ 2490 LBS. EACH 996			
TOTAL EPOXY COATED REINF. 3296			
CONCRETE			
CLASS "A" IN SUPERSTR. 2 @ 1.9 3.8 CYS			
CLASS "A" IN SUBSTR. 4 SLABS @ 2.8 11.2 CYS			
2 MUDWALLS @ 4.2 8.4 CYS			
TOTAL CLASS "A" IN SUBSTR. 19.6 CYS			
CLASS "C" CONC. RAILING			
RAILING ON SUPERSTR. @ 15.8 31.6 CYS			
* 4 RAILING CONNECTIONS @ 1.7 6.8 CYS			
TOTAL CLASS "C" CONC. RAILING 38.4 CYS			
MISCELLANEOUS			
6 STD. ROADWAY DRAINS REQ'D TYPE "OS" GRATE "D" @ 252 LBS. EACH 1512 LBS.			

NOTES:

- FOR REINFORCING BAR NOTES, SEE BRIDGE STANDARD C1.
- * FOR RAILING CONNECTION DETAILS, SEE BRIDGE STANDARD BRE.
- "EC" INDICATES EPOXY COATED REINFORCING STEEL.

RECONSTRUCTION DETAILS

INDIANA DEPARTMENT OF HIGHWAYS

SCALE: 1" = 1'-0", UNLESS NOTED DATE: MAY 14, 1985

SUBMITTED FOR APPROVAL *John S. Spencer*

DRAWING: D4 OF D4 SHEET: 5 OF 23

PROJECT: MABRZ-9986(4)

CONTRACT NO. B-15647

BRIDGE FILE: 63-26-4697A

DESIGNED: CKD
DRAWN: RJC 5-3-85
CHECKED: MNW
TRACED: CKD

