

PROJECT NO.	YEAR	SHEET NO.
I440-4(53)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1		HMB	ADDED LIGHTING
2	1-11-84	ELO	Added Sign

LIST OF DRAWINGS

DRAWING NUMBER	REVISION DATE
LAYOUT	M-110-148
GENERAL NOTES AND ESTIMATED QUANTITIES	M-110-149
FOUNDATION DATA	M-110-150
SUPERSTRUCTURE	M-110-151
SUPERSTRUCTURE DETAILS	M-110-152
SUPERSTRUCTURE DETAILS	M-110-153
SUPERSTRUCTURE DETAILS	M-110-154
ABUTMENT NUMBER 1	M-110-155
ABUTMENT NUMBER 2	M-110-156
ABUTMENT NUMBER 2 DETAILS	M-110-157
BENT NUMBER 1	M-110-158
BENT NUMBER 2	M-110-159
BILL OF STEEL PRECAST, PRESTRESSED BRIDGE DECK PANELS (TENNESSEE STANDARD)	M-103-149 + 150

LIST OF STANDARD DRAWINGS

K-80-14	STD. REINFORCING BAR SUPPORT DETAILS	8-27-76
K-85-150	MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	1-9-75
K-86-144	REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS	7-17-81
K-38-162	BRIDGE RAILING CONCRETE PARAPET	11-82
H-5-111	STD. PILE DETAILS	11-12-82
M-8-149	STD. DWG LIGHT STANDARD SUPPORT DETAILS	11-20-75

LIST OF SPECIAL PROVISIONS

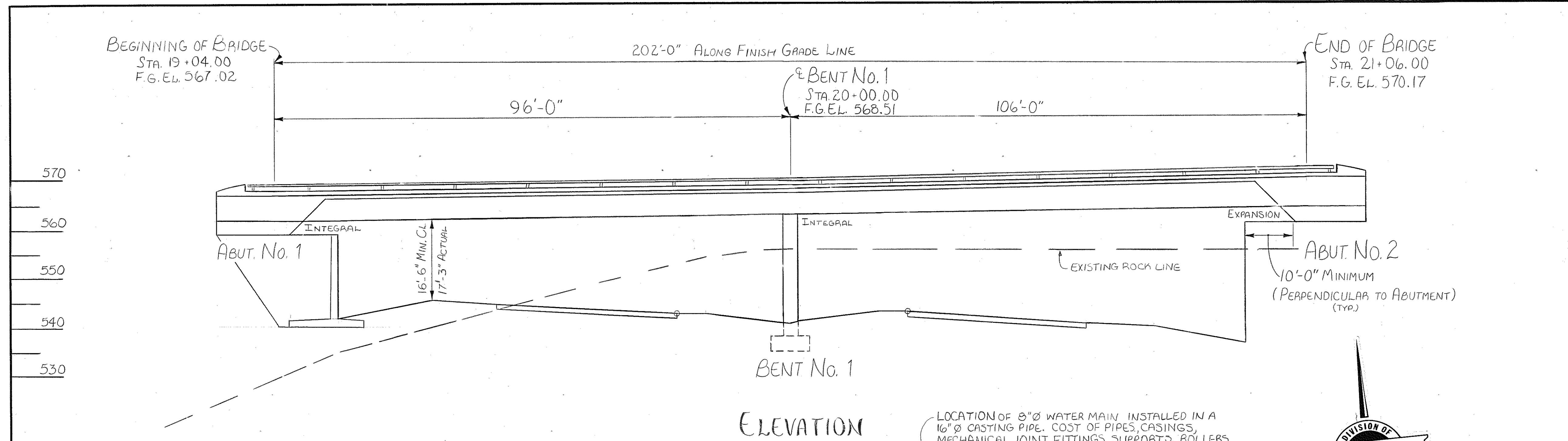
105 A	REGARDING APPROVAL OF SHOP DRAWINGS	9-08-81
907A	REGARDING EPOXY COATED REINFORCING STEEL	9-08-81

2002 ADT = 10,200
 64'-0" ROADWAY WITH 2' 5"-0" SIDEWALKS

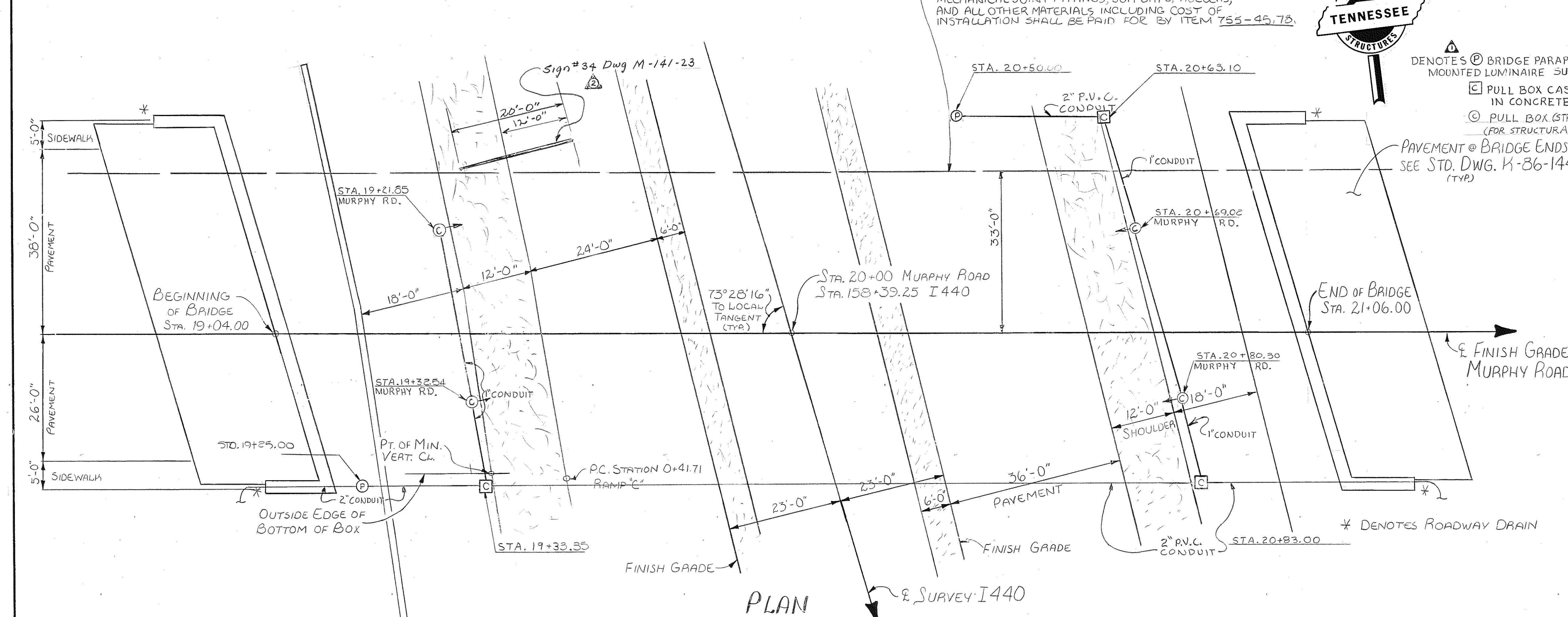
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
LAYOUT BRIDGE 5
 MURPHY ROAD OVER INTERSTATE 440
 STATION 158+39.25
 DAVIDSON COUNTY
 1983

CORRECT Colleen L. Lovell
 ENGINEER OF STRUCTURES
 APPROVED Louis Grand
 DIRECTOR OF HIGHWAYS

M-110-148



ELEVATION

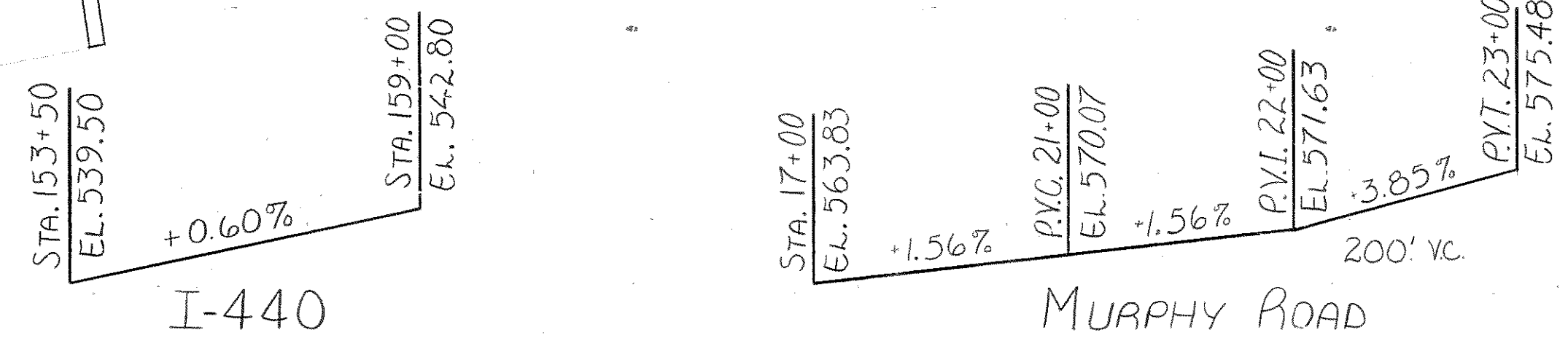


PLAN

HORIZONTAL CURVE DATA I:440

N = 637,165.21	Lc = 1,120.17'
e = 1,756,904.58	Os = 4.375'
P.I. = STA. 158+50.67	P = 2.22'
Δ = 36° 45' 15.5"	K = 174.97'
Δc = 28° 00' 15.5"	Xc = 349.80'
Dc = 2'-30"	Yc = 8.91'
B = 2,291.83'	Es = 125.50'
Ts = 937.10'	S.E. = 0.057%
Ls = 350.00'	

DESIGNED BY KENNY E. BOD DATE 4-82
 DRAWN BY DEANNA CHAFFIN DATE 12-82
 SUPERVISED BY P. L. HARRISON DATE 12-82
 CHECKED BY KENNY E. BOD DATE 12-82



I-440

MURPHY ROAD

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION MARCH 1981 EDITION.

LOADING: HS 20-44.

DESIGN SPECIFICATIONS: AASHTO 1977 EDITION WITH ADDENDA.

CONCRETE: TO BE CLASS 'A' (CAST IN PLACE), F'C 3000 P.S.I., EXCEPT FOR CONCRETE BRIDGE DECKS. SEE SPECIAL NOTE FOR CONCRETE BRIDGE DECKS.

SPECIAL NOTE FOR CONCRETE BRIDGE DECKS: CLASS 'A' CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS EXCEPT AS FOLLOWS: MINIMUM 28 DAYS COMPRESSIVE STRENGTH - 4500 P.S.I., MAXIMUM WATER/CEMENT = 5.0 GAL./SACK OF CEMENT. AIR CONTENT = 6% (±) 2%. SEE SURFACE FINISH SKETCH FOR LIMITS. PAYMENT WILL BE UNDER ITEM 604-01.12.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS MAY BE EITHER REMAIN-IN-PLACE STEEL OR PRECAST, PRESTRESSED CONCRETE PANELS. IN EITHER CASE, FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO SUPPORT MEMBERS. THE CONTRACTOR SHALL TAKE STEPS TO ASSURE THE STABILITY OF THE EXTERIOR GIRDER AGAINST TWISTING OR OVERTURNING DURING SLAB POURING OPERATIONS.

BEARING DEVICES: SHALL BE IN ACCORDANCE WITH THE DETAILS AND DIMENSIONS SHOWN ON DRAWING M-110-156. THE CONTRACTOR MAY ALSO SUBMIT ALTERNATE DETAILS FOR APPROVAL. SEE NOTE 8.

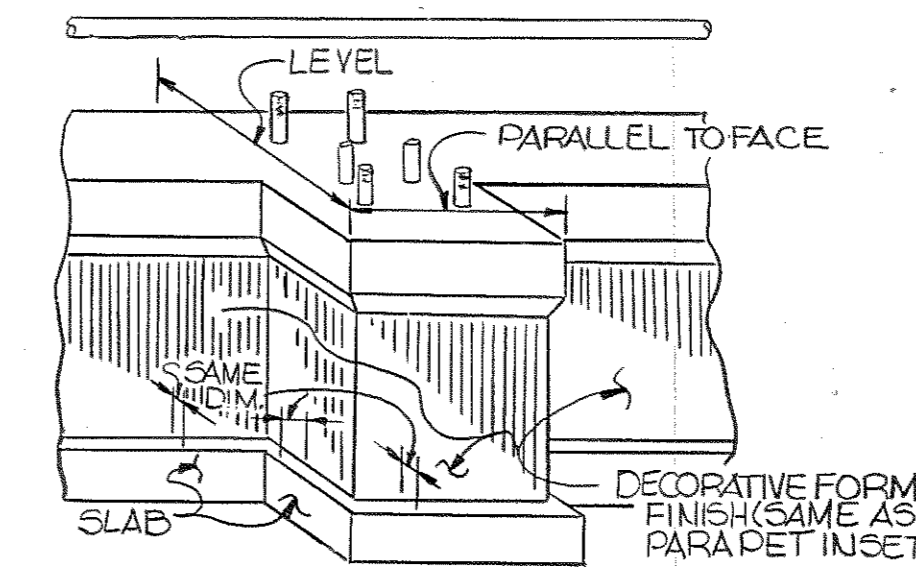
REINFORCING STEEL: TO BE ASTM A615 GRADE 60. STANDARD CR61 HOOK DETAILS APPLY UNLESS OTHERWISE NOTED. ON BILL OF MATERIALS, BENDING DIMENSIONS SHOWN ARE BASED ON GRADE 60. SPACING DIMENSIONS ARE CENTER TO CENTER UNLESS OTHERWISE NOTED. ON DETAILED DRAWINGS, THE SUFFIX 'E' FOR BARS SO MARKED, DENOTES EPOXY COATED REINFORCEMENT. (SEE SPECIAL PROVISION 307A)

SPECIAL NOTE - FOOTING FOR PILES: AFTER EXCAVATION TO ROCK FOR FOOTING HAS BEEN COMPLETED, HOLES 6" DEEP SHALL BE DRILLED AT POINTS DESIGNATED BY THE ENGINEER. FROM THE RESULTS OBTAINED, THE ENGINEER SHALL DETERMINE THE FINAL FOOTING ELEVATIONS. NO REINFORCING STEEL FOR PILE COLUMNS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

LINSEED OIL PROTECTIVE TREATMENT: SURFACES RECEIVING AN APPLIED TEXTURE FINISH SHALL NOT RECEIVE A LINSEED OIL TREATMENT. SEE SURFACE FINISH SKETCH THIS SHEET.

SHOP DRAWINGS: SEE SPECIAL PROVISION NO 105 A.

PILES: TO BE HPI0X42 DRIVEN TO REFUSAL ON ROCK OR A MINIMUM BEARING OF 55 TONS FOR THE ABUTMENTS.



LIGHT SUPPORT DETAIL

SEE "STANDARD DRAWING LIGHT STANDARD SUPPORT DETAILS" STD. DWG. NO. M-8-149 FOR THE REMAINING DETAILS.

NOTE: LIGHT STANDARD SUPPORT TO CONFORM TO PARAPET SHAPE.

ESTIMATED QUANTITIES

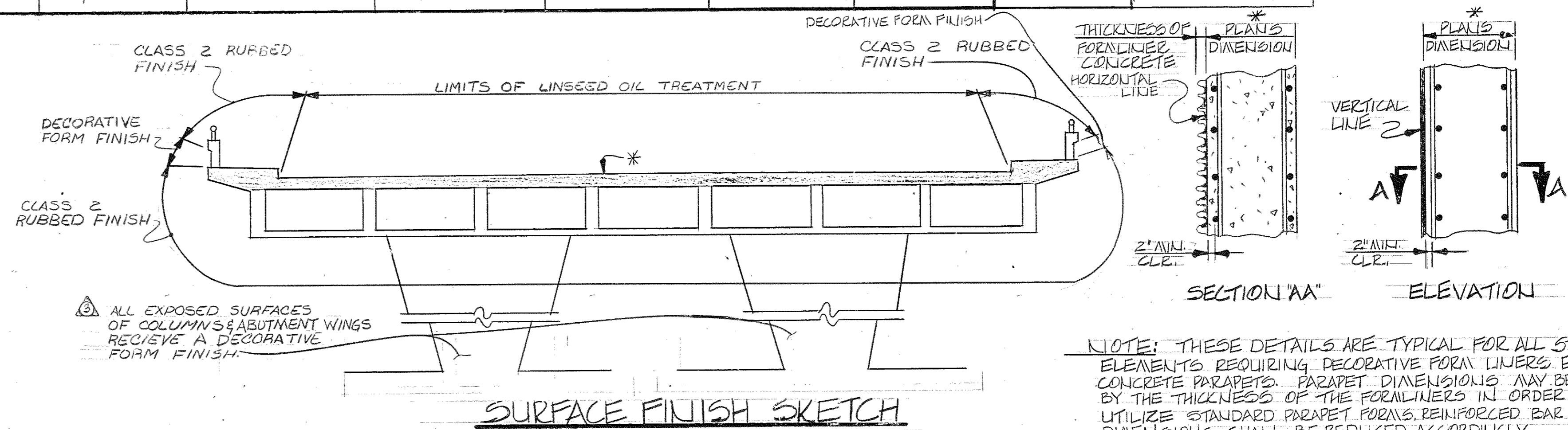
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ITEM	DRY EXCAVATION (BRIDGES) C.Y. ①	ROCK EXCAVATION (BRIDGES) C.Y. ①	ROCK DRILLING (BRIDGES) L.F.	CLASS 'A' CONCRETE (BRIDGE DECK) (C.Y.)	EPOXY COATED REINFORCING STEEL LBS.	CLASS 'A' CONCRETE (BRIDGES) (C.Y.)	STEEL BAR REINFORCEMENT (BRIDGES) LBS.	LINSEED OIL TREATMENT S.Y.	CONC. PARAPET WITH STRUCTURAL TUBING (K-38-162) L.F. ⑥	6" PERF. CN. PIPE (18 GA.)/V POROUS BACKFILL L.F. ④	6" C.M. PIPE UNDERDRAINS (18 GA.) L.F.	BEARINGS (M-110-156) EA. ②④	ROADWAY EXPANSION DEVICE L.F. ③	STEEL PILES (10 INCH) DRIVING L.F.	STRUCTURE LIGHTING (BRIDGE NO.5) L.S. ⑩
SUPERSTRUCTURE				434.2	240,673	583.4	164,512	1,436							
ABUTMENT NO.1	219		12			27.3	5,986			93	16			321	
BENT NO.1		1187	12			190.4	24,586								
ABUTMENT NO.2	121				1,287	54.2	6,800			93	16	8		600	
PAVEMENT AT BRIDGE ENDS					9,124	155.5	30,242	349							
TOTALS	340	1,187	24	434.2	251,084	1019.8	232,126	1,785	455	186	32	8	80	921	1

* DENOTES: ALL ESTIMATED QUANTITIES BASED ON PLANS DIMENSIONS.

- ① NOTE: EXCAVATION BASED ON LOWER ROAD PROFILE.
- ② NOTE: SEE DWG. NO. M-110-156.
- ③ NOTE: THE COST OF WATER STOPS, BITUMINOUS FIREBOARD, ETC., AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN BRIDGE ITEMS BID ON.
- ④ NOTE: COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN COST OF PERFORMED C.M. PIPE.
- ⑤ NOTE: ALL REINFORCING STEEL IN THE TRAFFIC FACE OF PARAPETS SHALL BE EPOXY COATED. COST TO BE INCLUDED IN THE PRICE FOR BID ITEM 620-14.
- ⑥ NOTE: COST OF BRIDGE RAIL ENDPOST IS TO BE INCLUDED IN THE COST OF THE BRIDGE RAIL SYSTEM.
- ⑦ NOTE: ALL EXPOSED SURFACES ON I-440 SIDE OF ABUTMENTS SHALL RECEIVE A DECORATIVE FORM FINISH. THE PARAPET INSET AND ALL EXPOSED SURFACES OF BENT SHALL RECEIVE A DECORATIVE FORM FINISH.
- ⑧ NOTE: ACCEPTABLE EXPANSION DEVICES INCLUDE: A) ON-FLEX 25 BY ACCESSORIES, INC. B) AS 200 BY ACNE HIGHWAY PRODUCTS, INC. C) WABO-MAURER 58200 BY WATSON BOWMAN ASSOCIATES, INC. OR EQUAL. TOTAL REQUIRED MOVEMENT 1 3/8".
- ⑨ NOTE: AT THE CONTRACTOR'S OPTION, ALTERNATE BEARING DEVICES MAY BE SUBMITTED FOR APPROVAL TO THE ENGINEER OF STRUCTURES. THE BEARING SHALL BE CAPABLE OF PROVIDING THE FOLLOWING MINIMUM REQUIREMENTS UNDER SERVICE LOADS.

BEARING	TOTAL MOVEMENT	DEAD LOAD REACTION	LIVE LOAD REACTION
ABUT. NO. 2	1 3/8"	123 KIPS	58 KIPS

⑩ NOTE: LUM SUM FOR STRUCTURE LIGHTING TO INCLUDE THE INSTALLATION OF 252 L.F. OF 2" P.V.C. CONDUIT 1/2 L.F. 1" GALVANIZED STEEL CONDUIT, 7 PULL BOXES, 2 LIGHT STANDARD SUPPORTS WITH 8 ANCHOR BOLTS AND ALL MISCELLANEOUS HARDWARE NECESSARY FOR INSTALLATION.



CONCRETE FINISHING: PORTIONS OF THE BRIDGE SURFACE DESIGNATED TO RECEIVE A CLASS 2 RUBBED FINISH SHALL BE FINISHED ACCORDING TO SUBSECTION 604-22 OF THE STANDARD SPECIFICATIONS. PORTIONS OF THE BRIDGE SURFACE DESIGNATED TO RECEIVE A DECORATIVE FORM FINISH SHALL BE FORMED USING A FORMLINER SIMILAR TO BURKE B4308 CONCRETE PAPER LITHOTEK FORMLINER FRACTURED FINISH GROOVED T150, SYMONS 3/4" NARROW FRACTURED FINISH P/C 309-09-9 OR EQUAL AFTER STRIPPING FORMLINERS, THE DECORATIVE FORM FINISH AREAS SHALL RECEIVE A CLASS 1 ORDINARY FINISH IN ACCORDANCE WITH SUBSECTION 604-23 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, A SAMPLE CASTING USING THE FORMLINER TO BE FURNISHED. THE COST OF ALL CONCRETE FINISHES SHALL BE INCLUDED IN THE UNIT PRICE OF ITEMS BID ON. SURFACES RECEIVING A DECORATIVE OR CLASS 2 FINISH SHALL NOT RECEIVE A LINSEED OIL TREATMENT. SEE SURFACE FINISH SKETCH THIS SHEET. ABSOLUTELY NO MECHANICALLY FRACTURED SURFACES SHALL BE ALLOWED.

* SHADED PORTION DENOTES 4,500 P.S.I. CONCRETE, ALL OTHER CONCRETE TO BE 3,000 P.S.I.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
GENERAL NOTES AND
ESTIMATED QUANTITIES
MURPHY ROAD OVER INTERSTATE 440
STATION 158+39.25
DAVIDSON COUNTY
1983

DESIGNED BY KEN ELROD DATE 4-82
DRAWN BY KEL OVENS DATE 11-82
SUPERVISED BY P.L. HARRISON & H.M. BRIDGES DATE 11-82
CHECKED BY ELROD DATE 12-82

CORRECT *William L. Small*
ENGINEER OF STRUCTURES
APPROVED *Louis E. Evans*
DIRECTOR OF HIGHWAYS

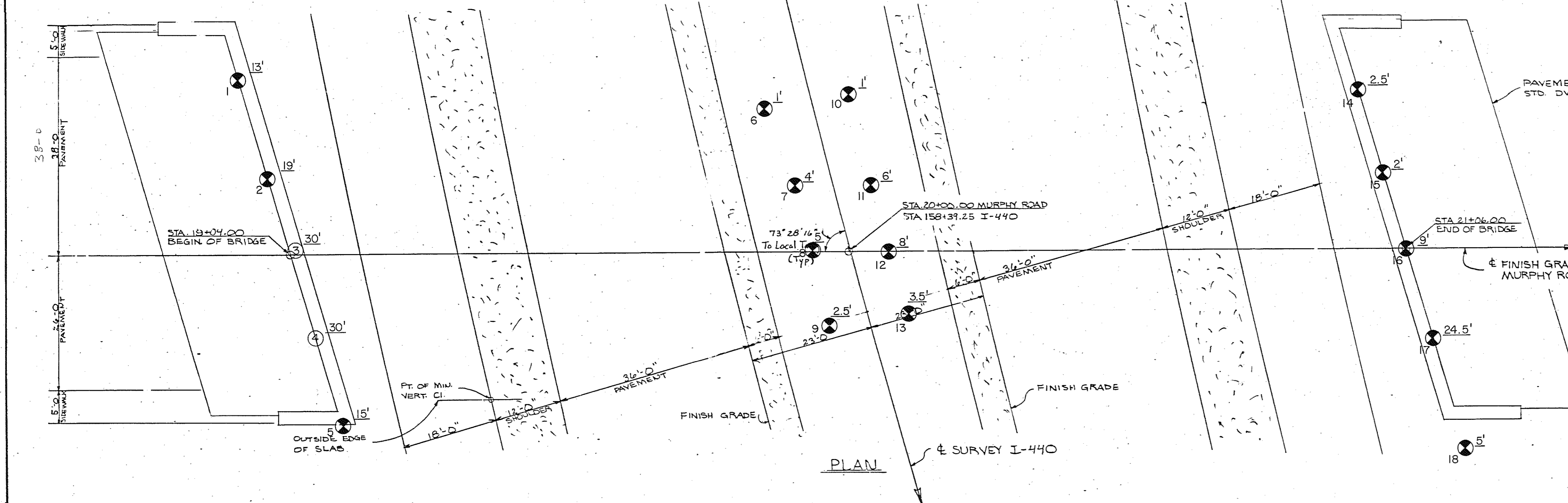
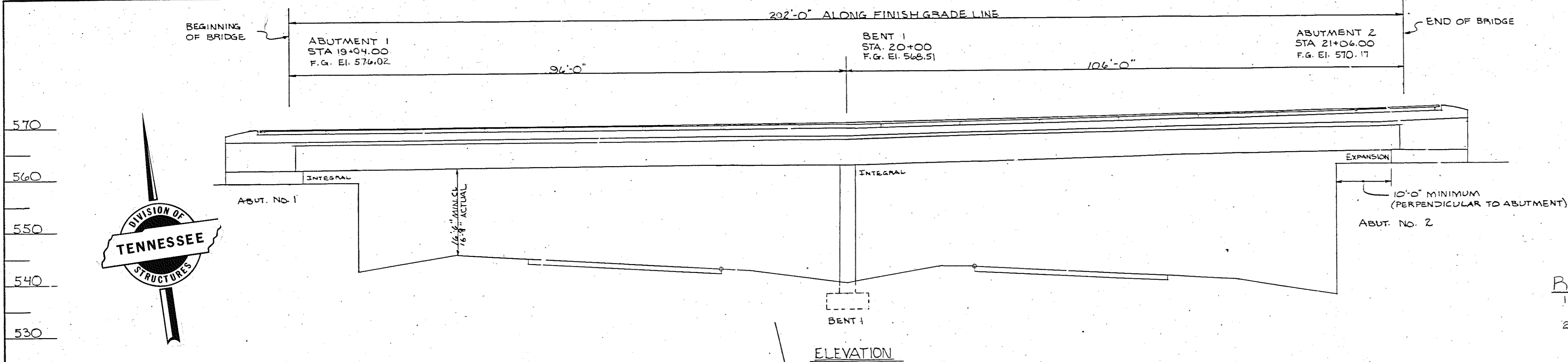
PROJECT NO.	YEAR	SHEET NO.
I-440-4(13)209	1982	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

B.M. No. 34
 CONC. MON. WITH BRASS CAP
 32.45' LT. STA. 16+15.46 MURPHY RD.
 ELEV. 562.75

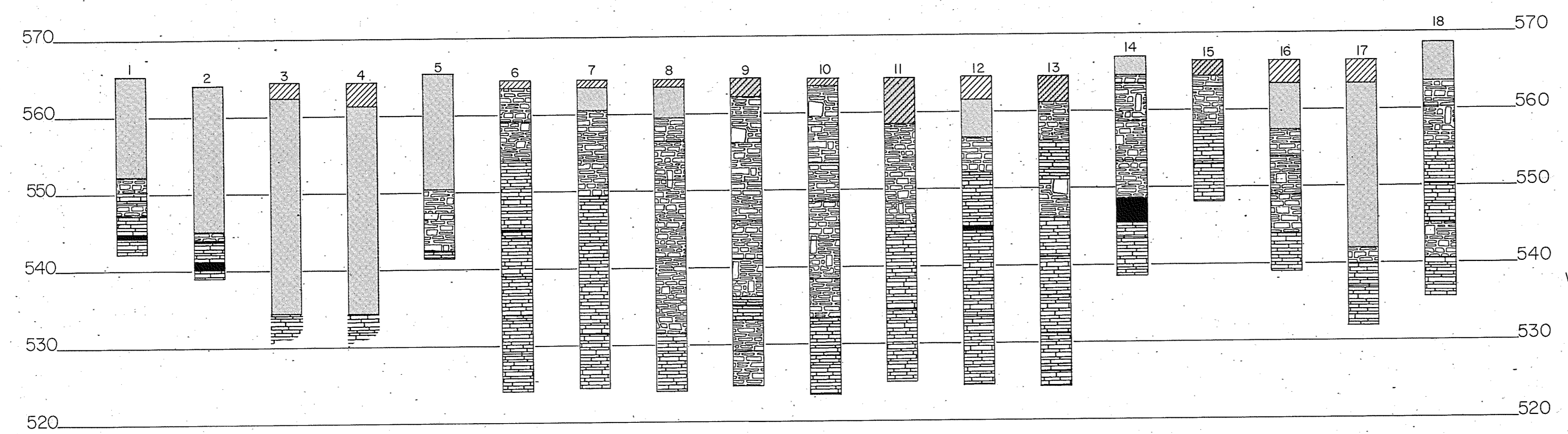
B.M. No. 33
 CONC. MON. WITH BRASS CAP
 130.15' RT. STA. 18+16.61 MURPHY RD.
 IN MEDIAN IN PARK CIRCLE
 ELEV. 568.70

REQUIRED:
 1) APPROXIMATE EXISTING GROUND LINE AND ROCK LINE.
 2) SUFFICIENT GROUND, ROCK, AND CORING INFORMATION FOR BRIDGE FOUNDATIONS.



GROUND AND TOP OF ROCK ELEVATIONS

1. G 565.2 R 552.2	10. G 564.5 R 563.5
2. G 564.0 R 545.0	11. G 564.5 R 558.5
3. G 564.4 R 534.4	12. G 564.7 R 536.7
4. G 564.3 R 534.3	13. G 564.7 R 561.2
5. G 565.5 R 550.5	14. G 567.0 R 564.5
6. G 564.5 R 563.5	15. G 566.4 R 564.4
7. G 564.5 R 560.5	16. G 566.4 R 557.4
8. G 564.5 R 559.5	17. G 566.4 R 541.9
9. G 564.7 R 562.2	18. G 568.7 R 563.7



Legend

- CAVITY
- ▨ SILTY CLAY
- ▧ PAVEMENT WITH SOIL
- ▩ PAVEMENT
- ▦ WEATHERED LIMESTONE
- ▤ LIMESTONE (10 TONS/FT.²)

WASHBORE 30'
 HOLE NO. 13' DEPTH ROCK ENCOUNTERED
 CORE

NOTE: THIS DRAWING IS FOR FOUNDATION INFORMATION ONLY AND IS NOT TO BE USED AS A LAYOUT.

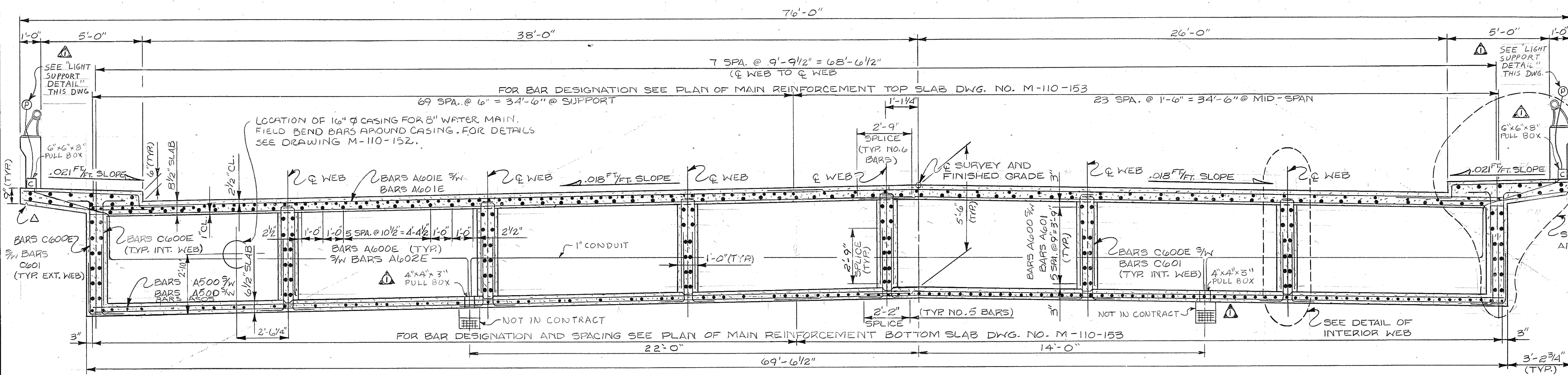
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
FOUNDATION DATA
 MURPHY ROAD OVER
 INTERSTATE 440
 STATION 158+39.25
 DAVIDSON COUNTY
 1982

DESIGNED BY: KENNY ELROD DATE: 4-82
 DRAWN BY: KENNY ELROD DATE: _____
 SUPERVISED BY: BROOKS DATE: _____
 CHECKED BY: BROOKS DATE: 4-82

CORRECT: *Carlleton L. Farnell*
 ENGINEER OF STRUCTURES
 APPROVED: *Lewis Evans*
 DIRECTOR OF HIGHWAYS

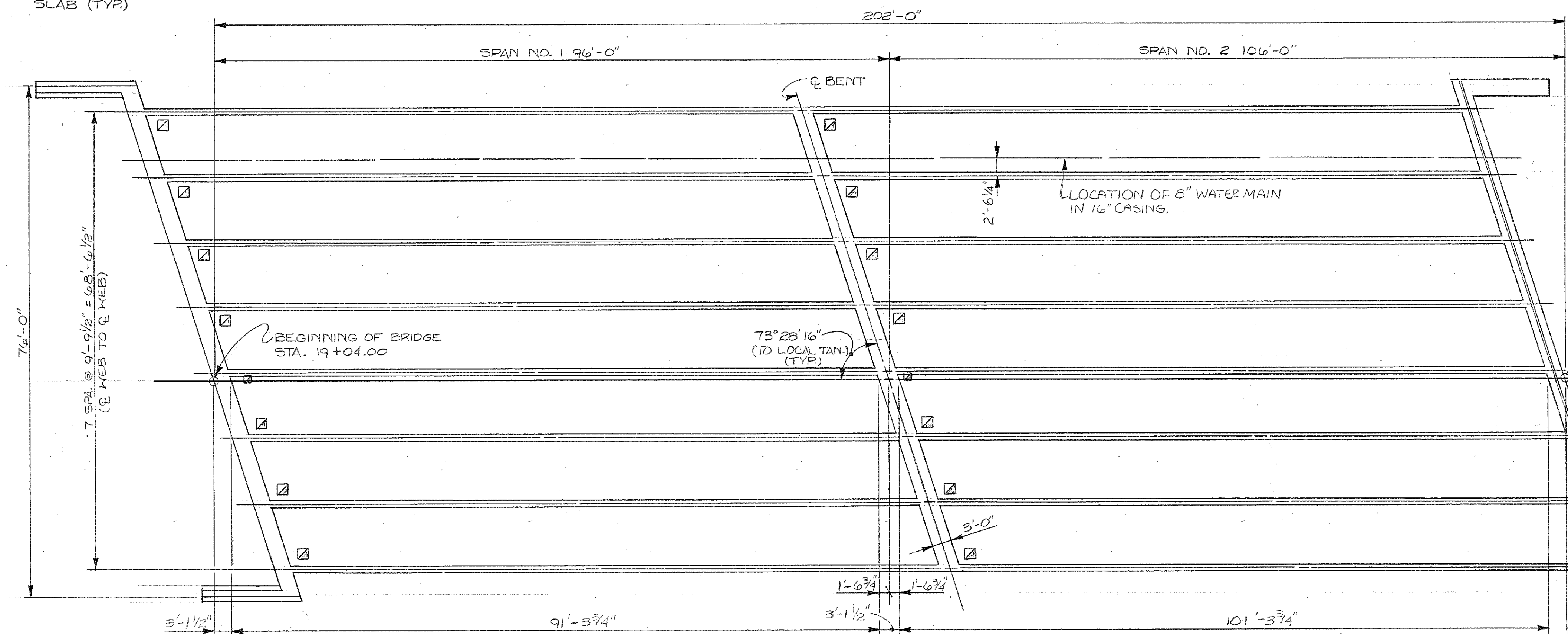
PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)2010	1983	

REVISIONS		
NO.	DATE	BRIEF DESCRIPTION
1	HMB	ADDED LIGHTING
2	9-13-83 KE	DEAD LOAD CORRECTION CURVE
3	3-26-80 KE	SUPERSTRUCTURE REINFE.



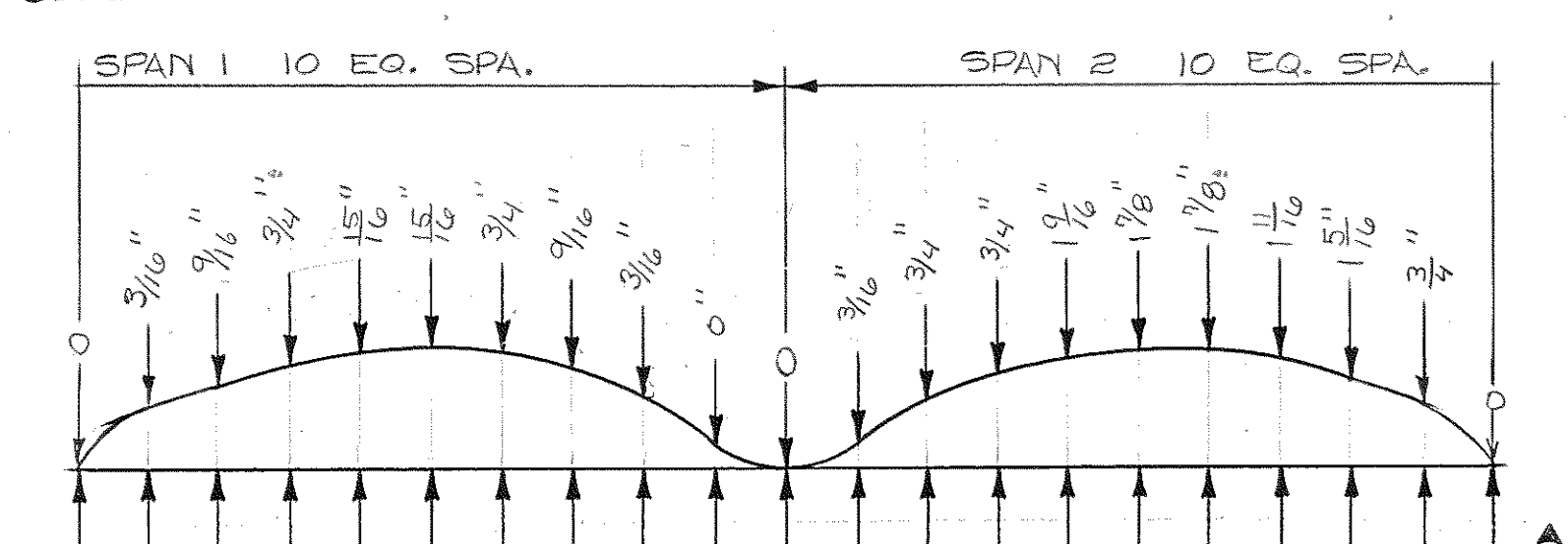
— HALF SECTION AT BENT — — TYPICAL CROSS SECTION — — HALF SECTION AT MID SPAN —

△ 1" TRIANGULAR DRIP BEAD TO RUN FULL LENGTH OF SLAB (TYP)



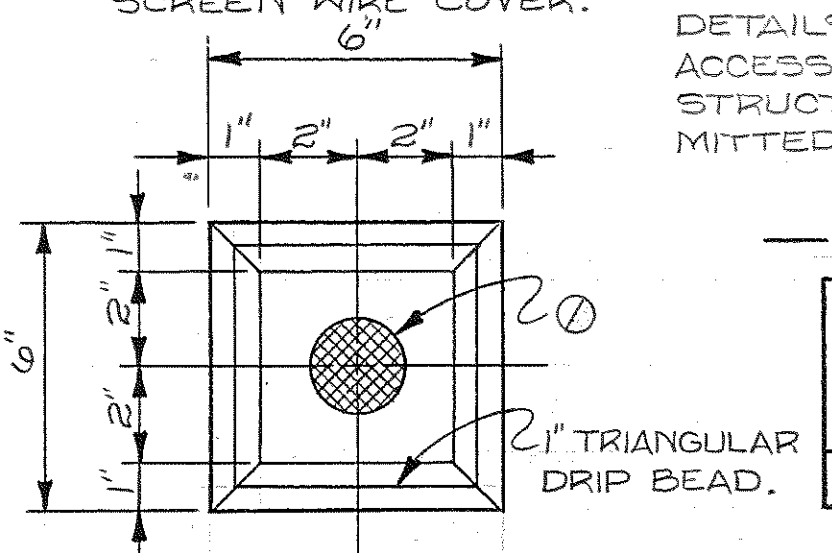
— FRAMING PLAN —

NOTE: THIS CURVE IS FOR DEAD LOAD CAMBER ONLY AND SHOULD BE INCREASED BY THE AMOUNT OF ANTICIPATED TAKE UP IN THE FALSEWORK.



— DEAD LOAD CORRECTION CURVE —

① 2" Ø WEEPHOLE WITH SCREEN WIRE COVER.

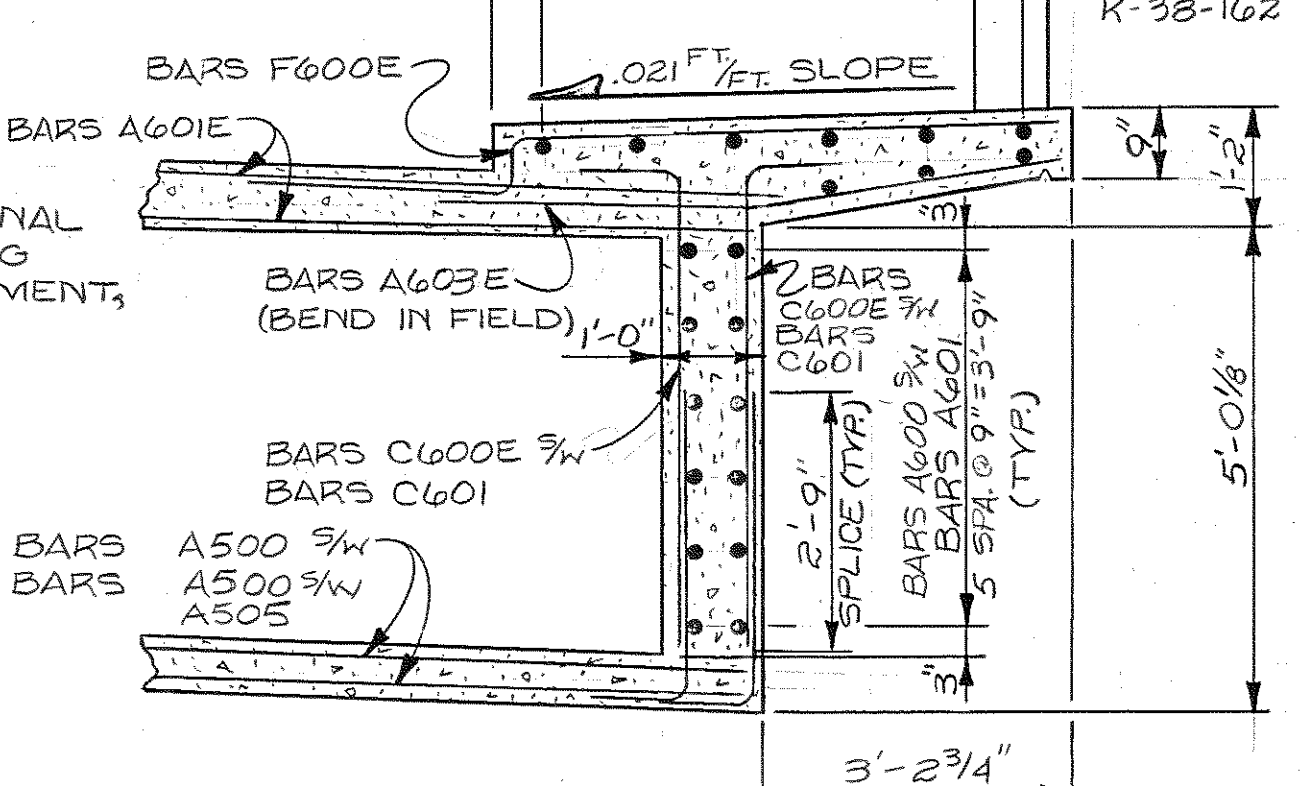


— WEEP HOLE DETAILS —

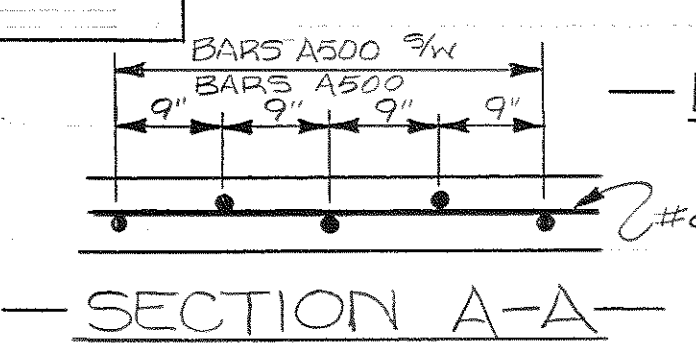
NOTE: WHEN POURING SIDEWALK, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR BRIDGE RAIL. THE PARAPET SHALL NOT BE POURD UNTIL THE SLAB IS POURD AND CURED.

NOTE: SEE 'PART LONGITUDINAL SECTION' FOR SPACING OF SHEAR REINFORCEMENT, DWG. NO. M-110-152.

END OF BRIDGE STA. 21+06.00
 △ SURVEY & FINISHED GRADE
 DECORATIVE FORM FINISH (SAME AS PARAPET INSET)
 LIGHT SUPPORT DETAIL SEE STANDARD DWG. LIGHT STANDARD SUPPORT DETAILS STD. DWG. NO. M-8-149 FOR REMAINING DETAILS.
 NOTE: LIGHT STANDARD SUPPORT TO CONFORM TO PARAPET SHAPE.



— DETAIL OF SIDEWALK AND EXTERIOR WEB — (FOR SPACING OF BARS F600E & A600E, SEE DWG. NO. M-110-152)



— DETAIL OF INTERIOR WEB —

NOTE: IF THE CONTRACTOR ELECTS TO USE PERMANENT STEEL BRIDGE DECK FORMS, DETAILS FOR PROVIDING ACCESS TO ALL CELLS OF THE STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER.

— ESTIMATED QUANTITIES —

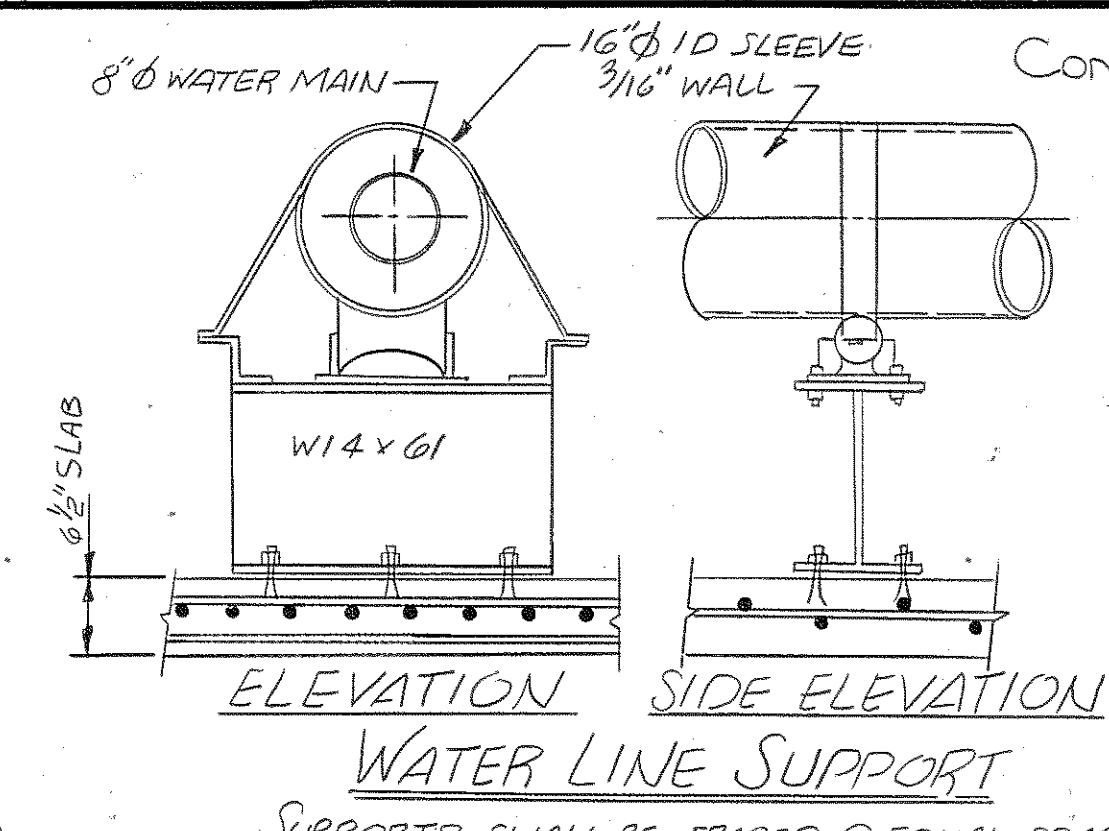
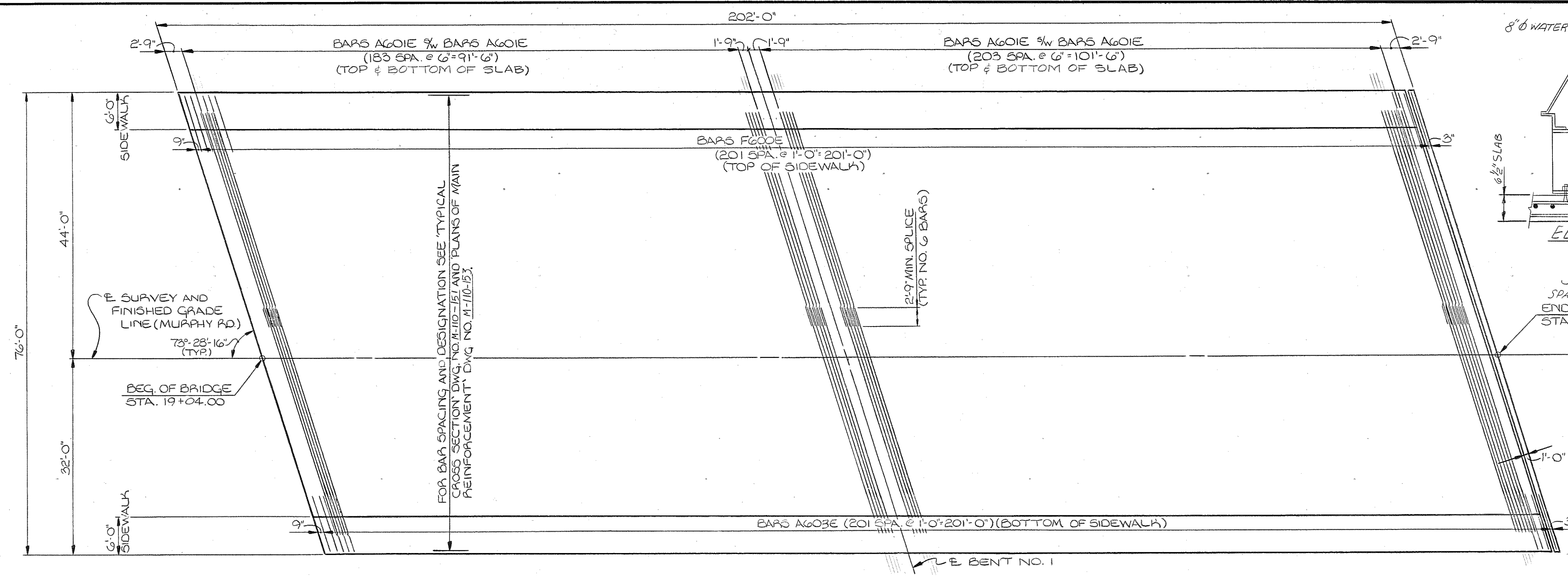
CLASS 'A' CONCRETE (BRIDGE DECK) (C.Y.)	EPOXY COATED REINFORCING STEEL (LBS.)	STEEL BAR REINFORCEMENT (LBS.)	CLASS 'A' CONCRETE (BRIDGES) (C.Y.)
434.2	240,473	164,512	563.4

STATE OF TENNESSEE
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 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE
 MURPHY ROAD OVER
 INTERSTATE 440
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 DAVIDSON COUNTY
 1983

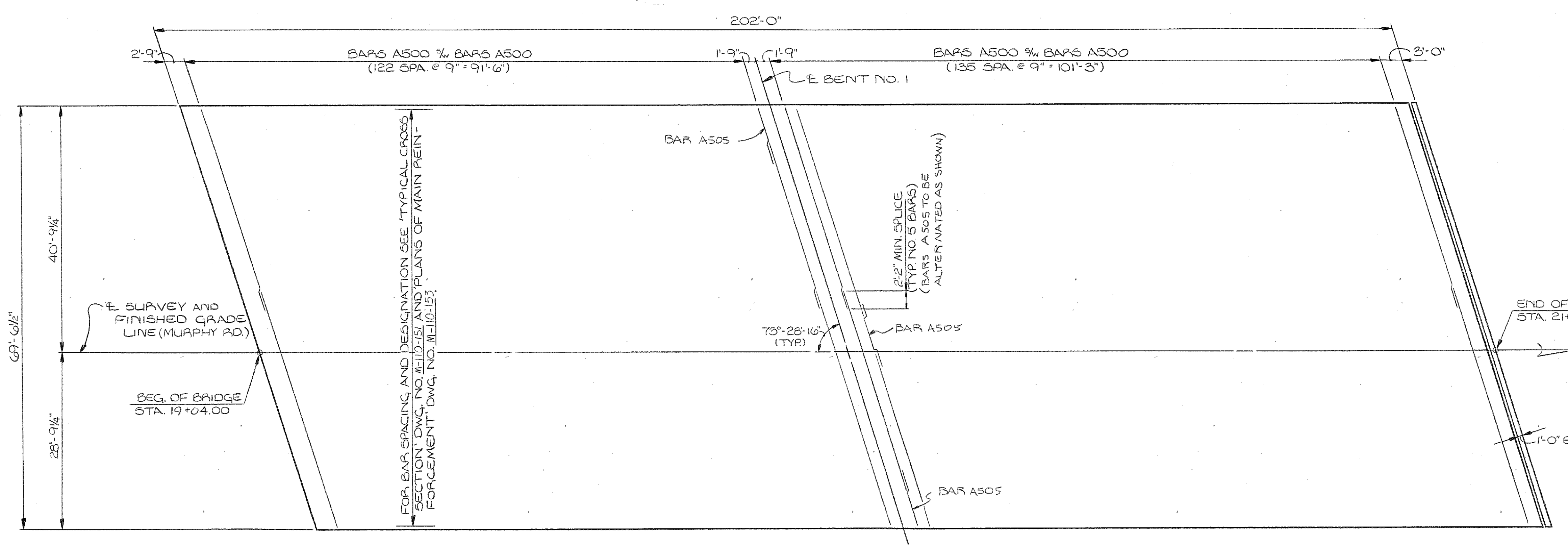
CORRECT *Challen L. Sovell*
 ENGINEER OF STRUCTURES
 APPROVED *Leslie Covens*
 DIRECTOR OF HIGHWAYS

DESIGNED BY KEN ELROD DATE 11-82
 DRAWN BY VICKY FORREST DATE 12-82
 SUPERVISED BY R.L. HARRISON - H.M.B. DATE 12-82
 CHECKED BY KEN ELROD DATE 12-82

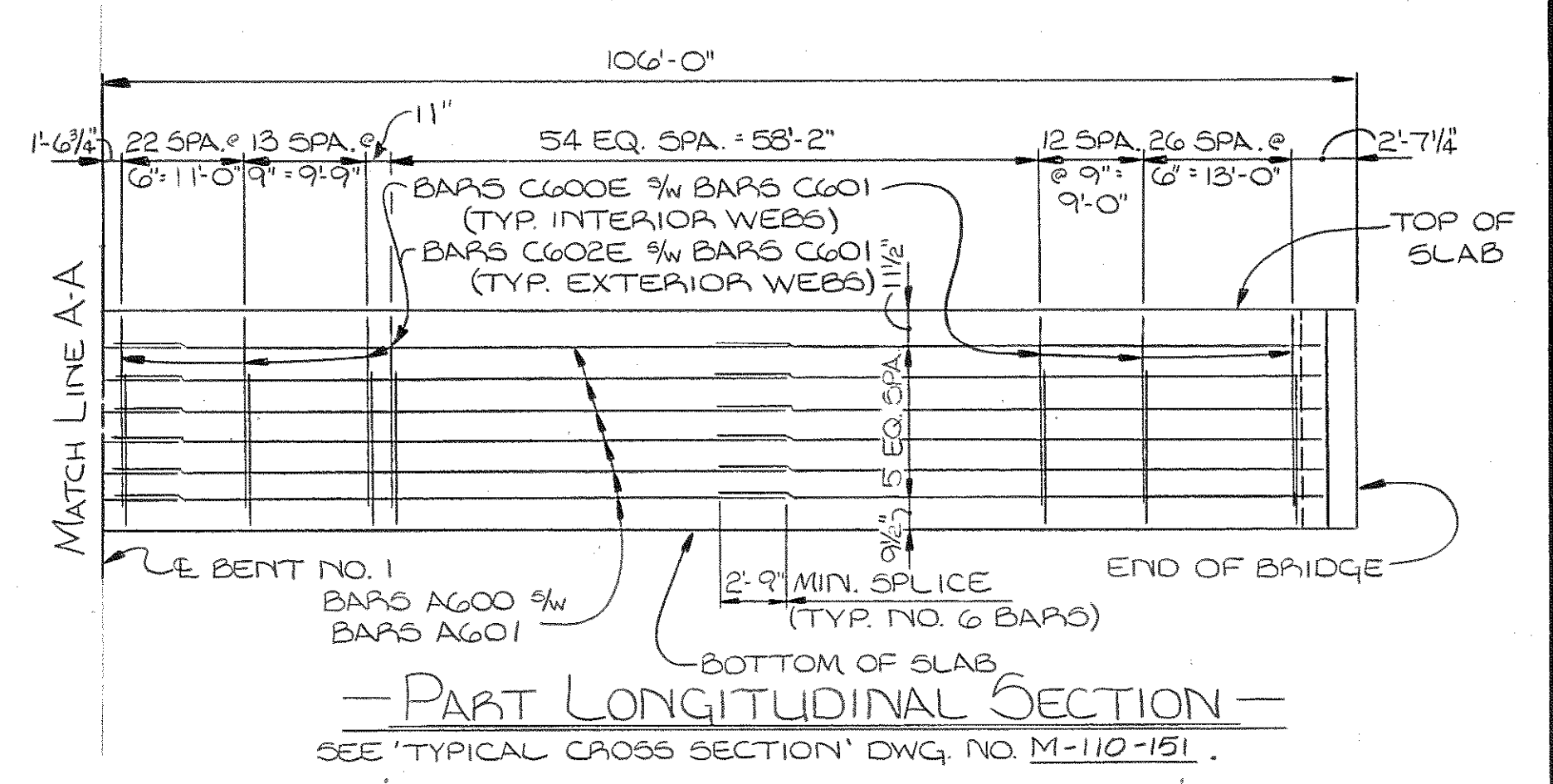
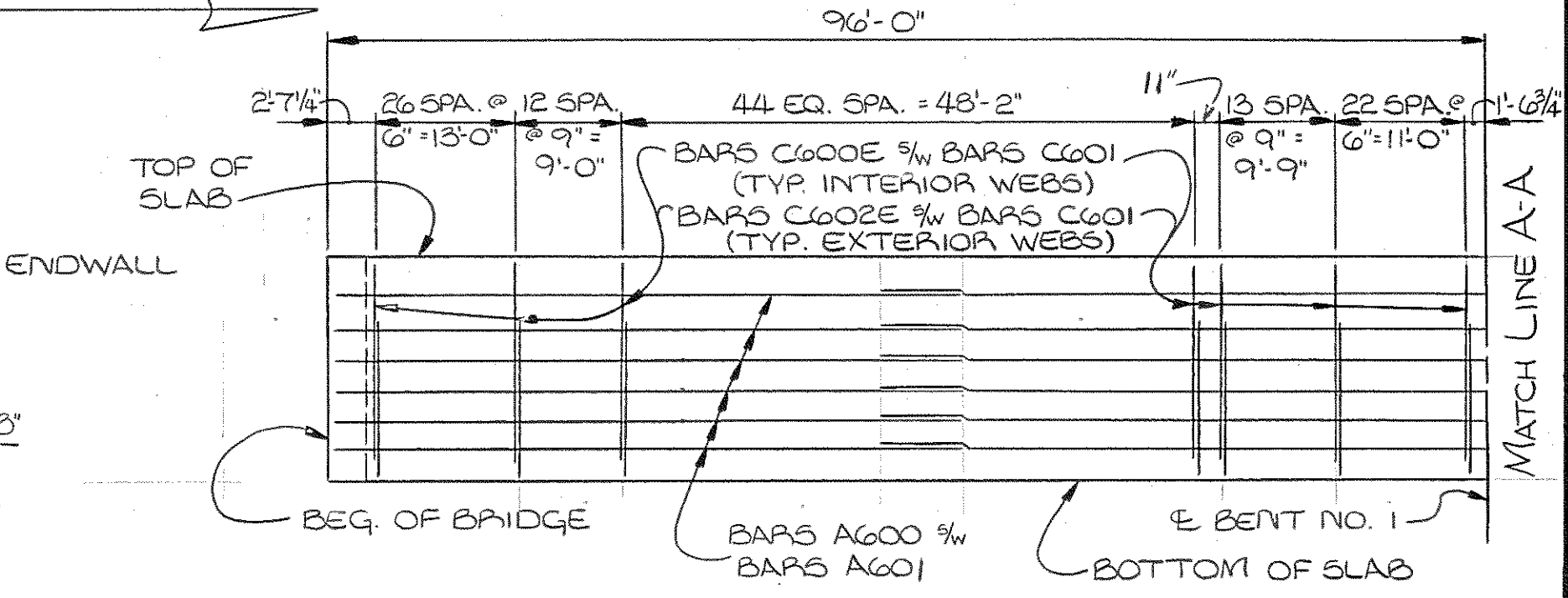
PROJECT NO.		YEAR		SHEET NO.	
I-440-4(53)206		1983			
REVISIONS					
NO.	DATE	BY	BRIEF DESCRIPTION		
1	3-27-86	KE	ADDED BAR A505 BOT. SLAB		



- TOP SLAB PLAN -



- BOTTOM SLAB PLAN -



NOTE: FORMS AND SUPPORTS FOR THE ENTIRE BOTTOM SLAB SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF SUPERSTRUCTURE CONCRETE. CONCRETE FOR THE TOP AND BOTTOM SLAB AND WALLS MAY BE PLACED IN ANY SEQUENCE, HOWEVER, CONSTRUCTION JOINTS WILL BE PERMITTED AT DESIGNATED LOCATIONS ONLY. NO TOP SLAB CONCRETE MAY BE PLACED UNTIL ALL WALLS HAVE BEEN COMPLETED.

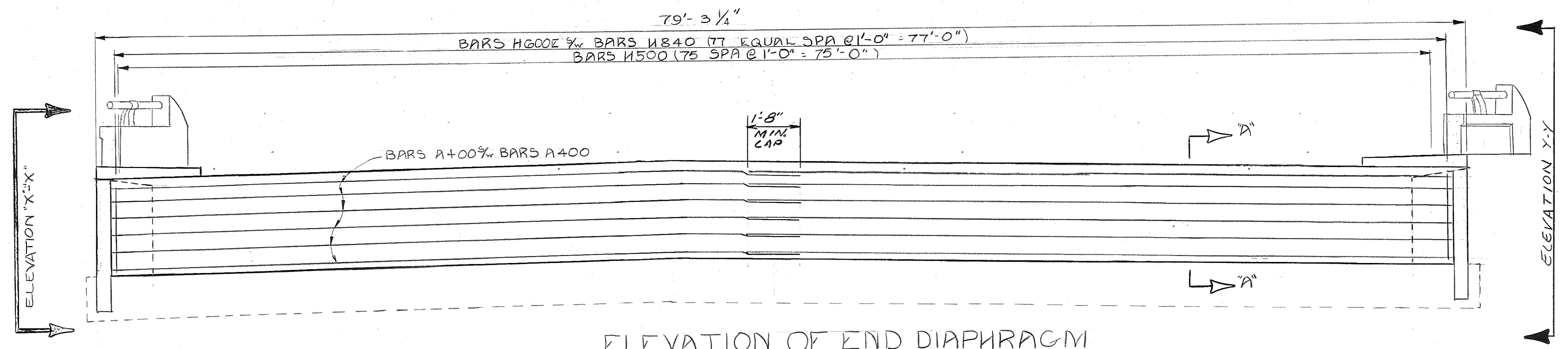
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 MURPHY ROAD OVER
 INTERSTATE 440
 STATION 158+39.25
 DAVIDSON COUNTY
 1983

DESIGNED BY K.E. DATE 4-82
 DRAWN BY M.D. DATE 12-82
 SUPERVISED BY BLH & HPO DATE 12-82
 CHECKED BY K.E. DATE 12-82

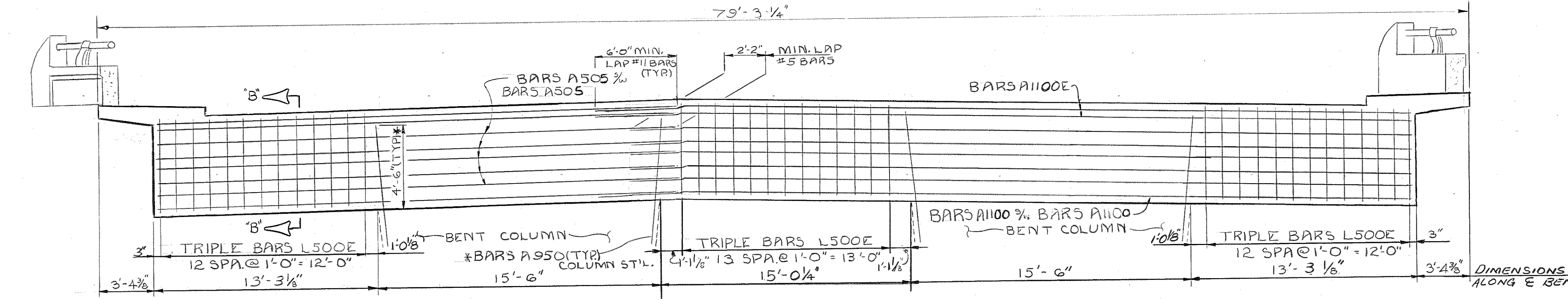
CORRECT Charles L. Small
 ENGINEER OF STRUCTURES
 APPROVED Lewis Searns
 DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.
I-440-4 (53)206	1983	

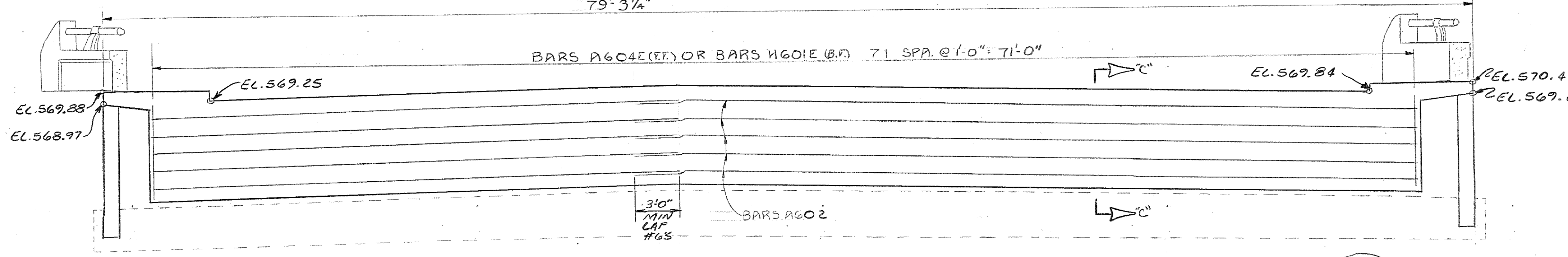
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



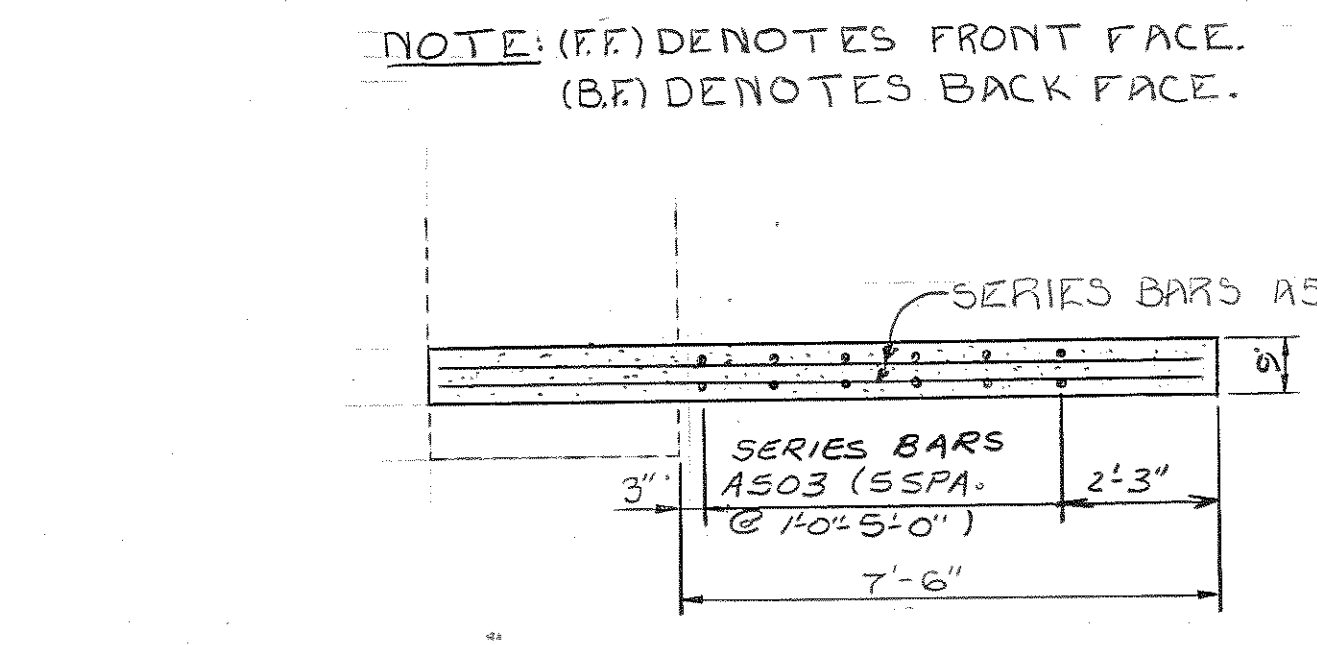
ELEVATION OF END DIAPHRAGM
LOOKING BACK ON SURVEY @ ABUTMENT NO. 1



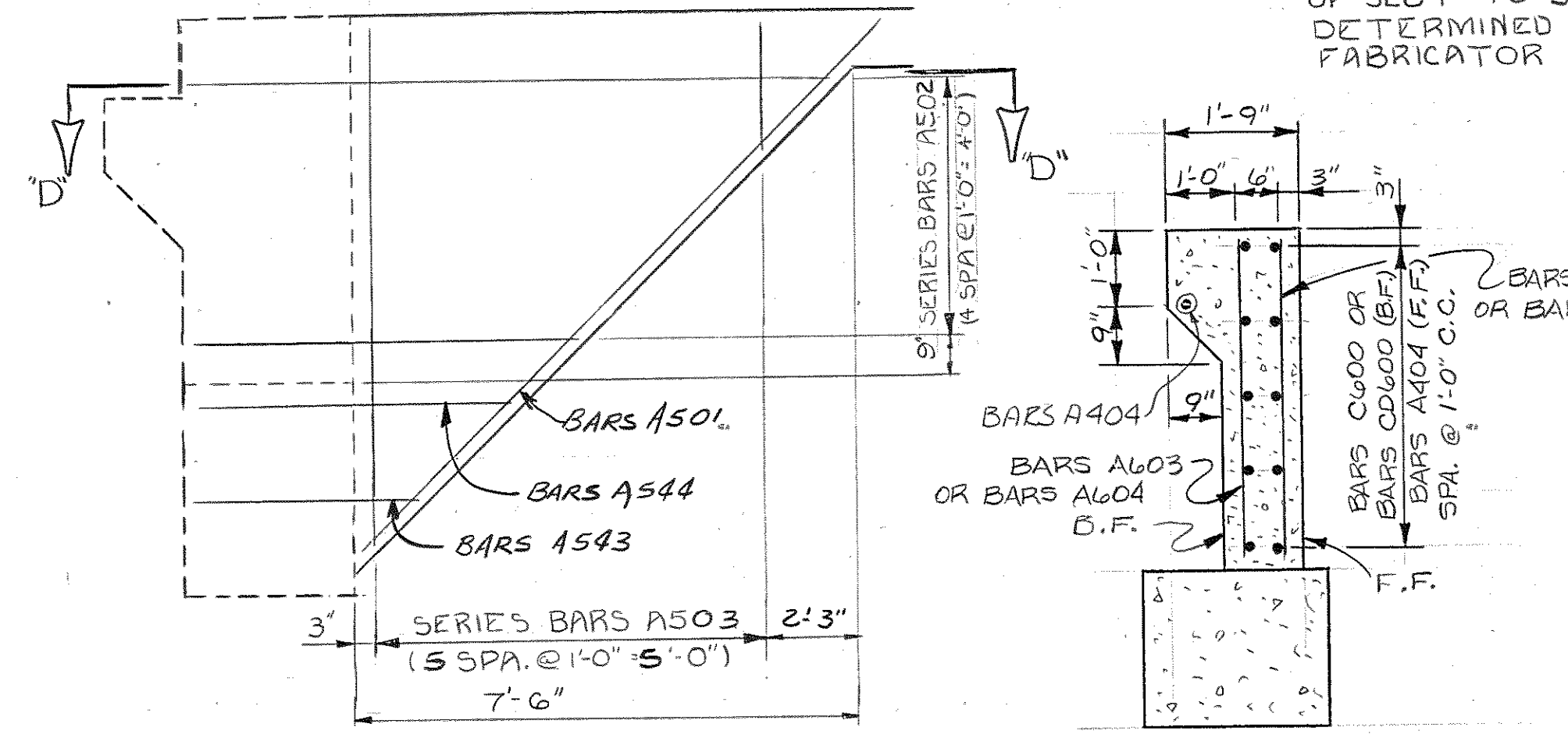
ELEVATION AT SUPPORT DIAPHRAGM
LOOKING BACK ON SURVEY



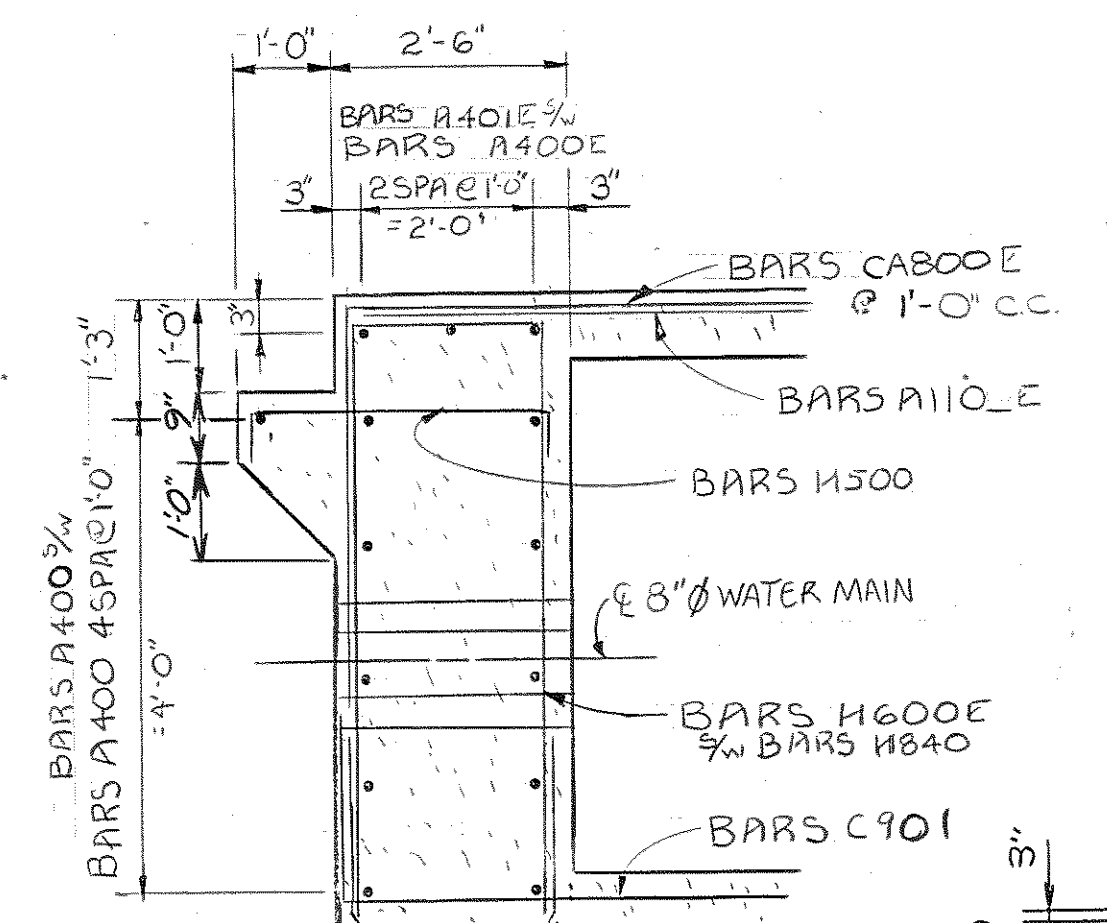
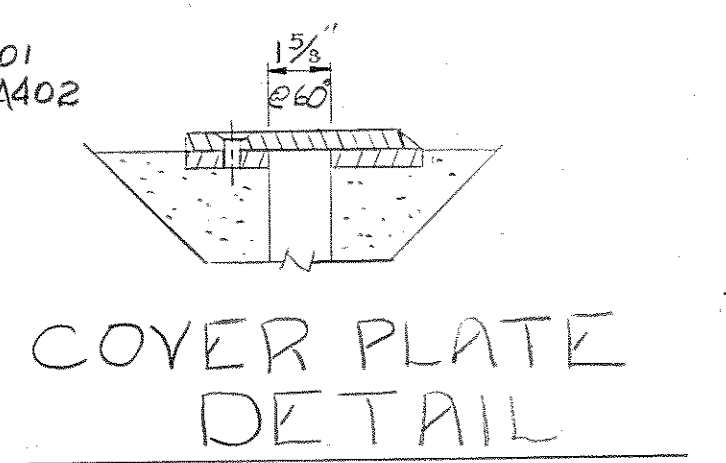
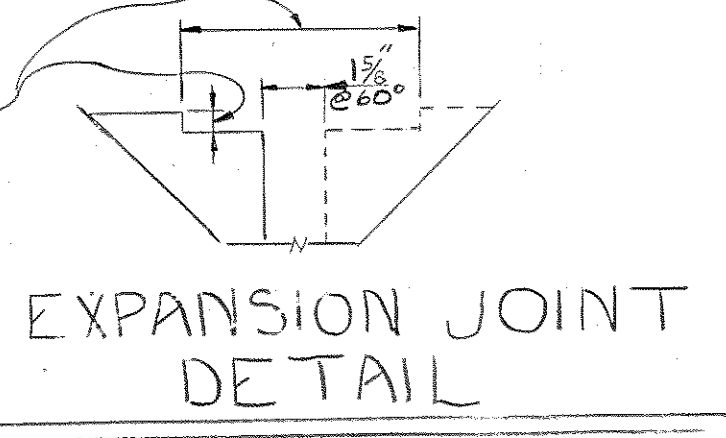
ELEVATION OF END DIAPHRAGM
LOOKING BACK ON SURVEY @ ABUTMENT NO. 2



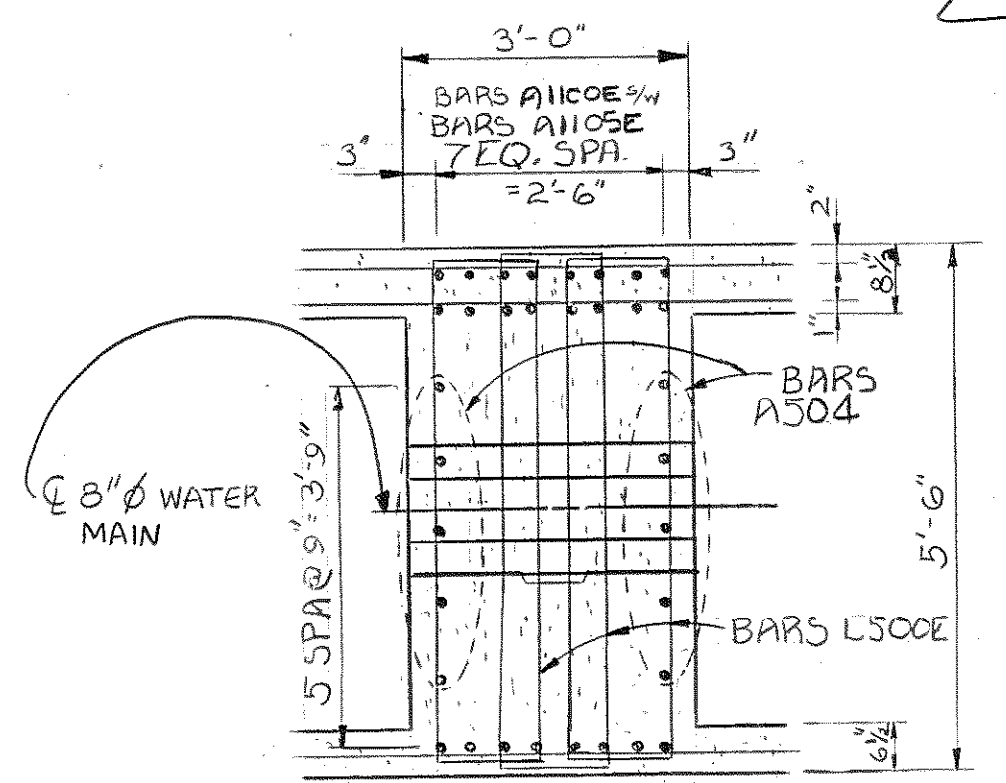
SECTION "D-D"



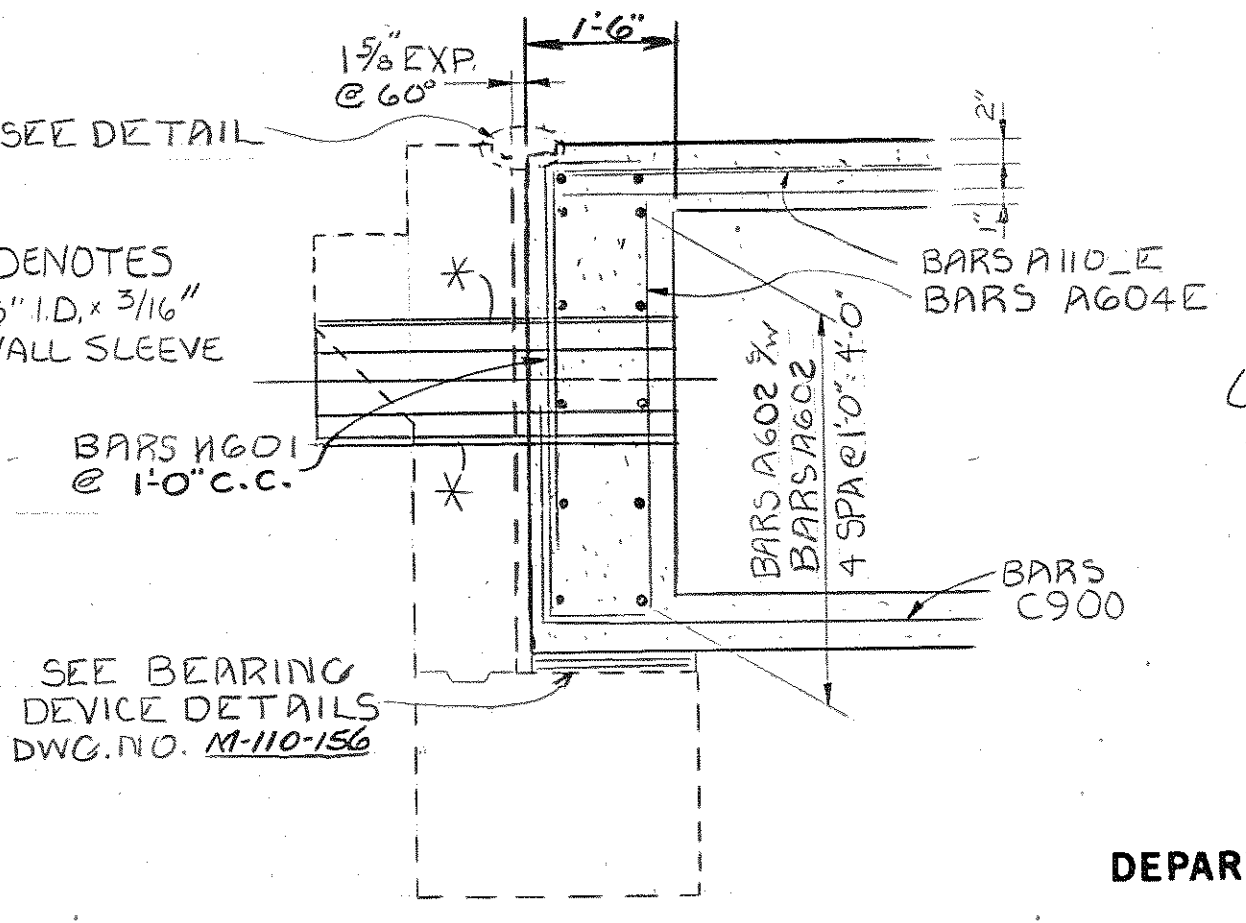
APRON WALL DETAIL - SECTION "E-E"



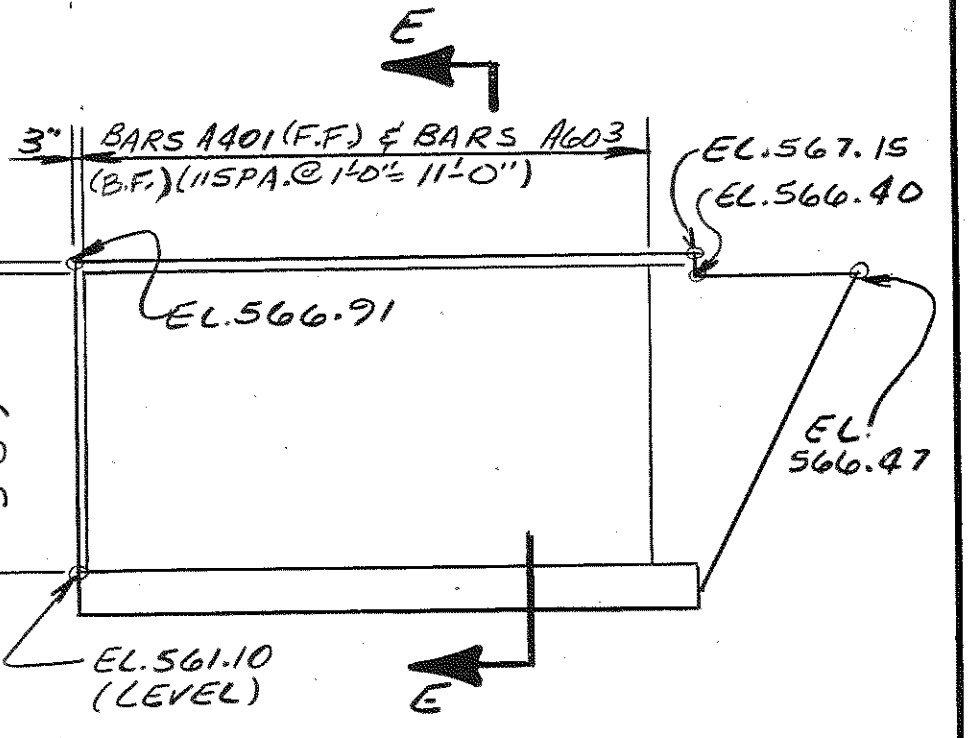
SECTION "A-A"



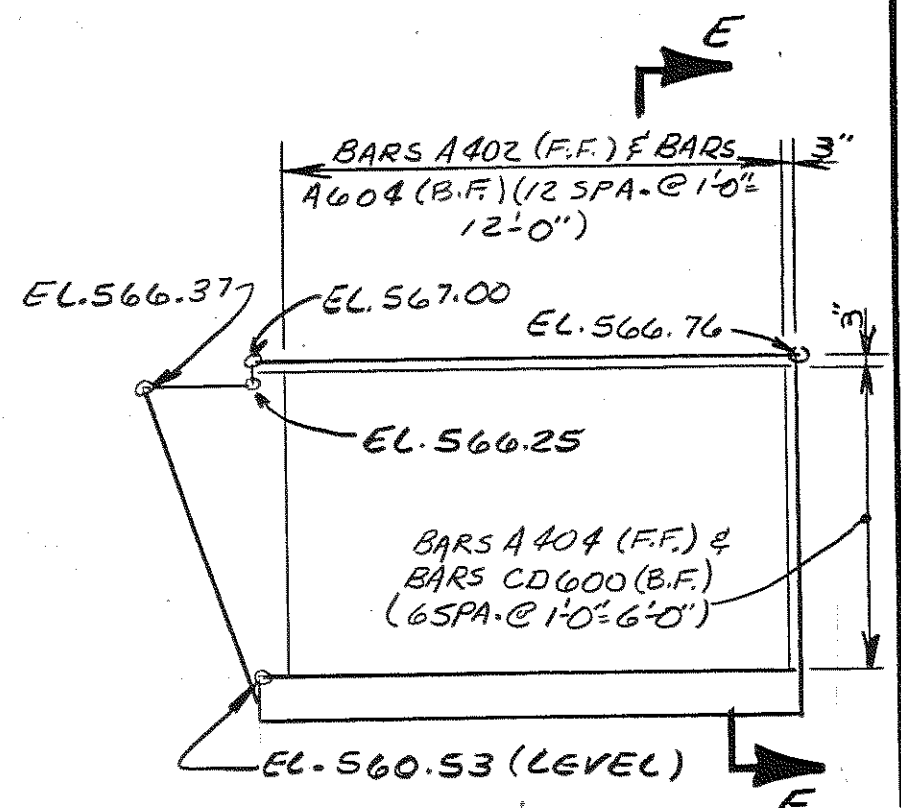
SECTION "B-B"



SECTION "C-C"



ELEVATION X-X



ELEVATION Y-Y

UTILITY NOTE:
16" I.D. x 3/16" WALL CASING SHALL EXTEND THROUGHOUT LENGTH OF BRIDGE TO END OF APPROACH SLAB.
18" I.D. x 3/16" WALL SLEEVE SHALL BE FLUSH WITH CONCRETE FACE ON EACH SIDE OF THE 1 3/4" EXPANSION JOINT. THE SPACE BETWEEN THE 16" CASING AND THE 18" SLEEVE SHALL BE SEALED TO PREVENT WATER FROM ENTERING THE BRIDGE EXPANSION JOINT AREA.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
SUPERSTRUCTURE DETAILS
MURPHY ROAD OVER I-440
STATION 158+39.25
DAVIDSON COUNTY
1983

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR BRIDGE RAIL. FOR DETAILS OF BRIDGE RAIL SEE STANDARD DWG. NO. K-38-162.

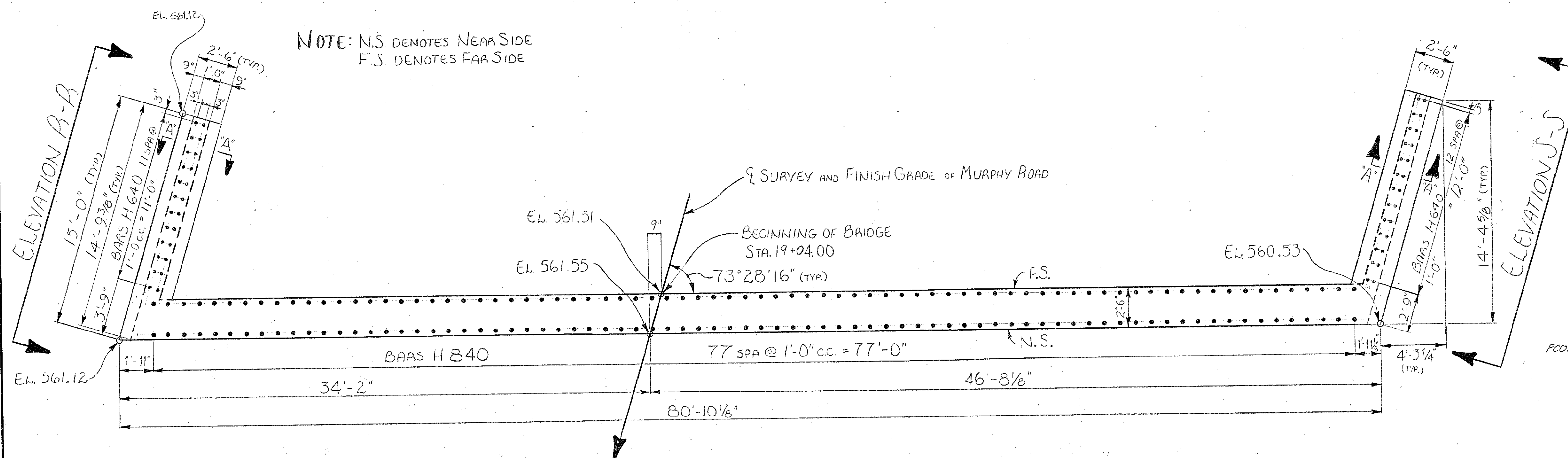
NOTE: TOP OF APRON WALL TO CONFORM TO BOTTOM OF SIDEWALK.

DESIGNED BY KENNY ELROD DATE 4-82
DRAWN BY WESLEY PURVIS DATE 12-82
SUPERVISED BY B.L.H. H.M.B. DATE 12-82
CHECKED BY K. ELROD DATE 12-82

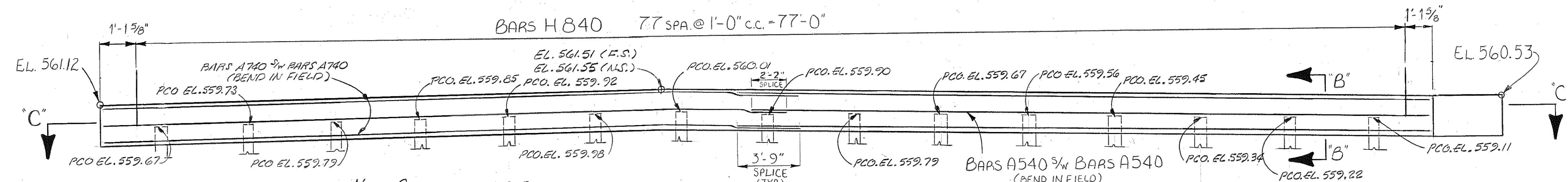
CORRECT *Clifton L. Lovell*
ENGINEER OF STRUCTURES
APPROVED *Lewis Evans*
DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.
I 440-4(53)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
Δ 2-8-83		HMB	ADDED PILES.



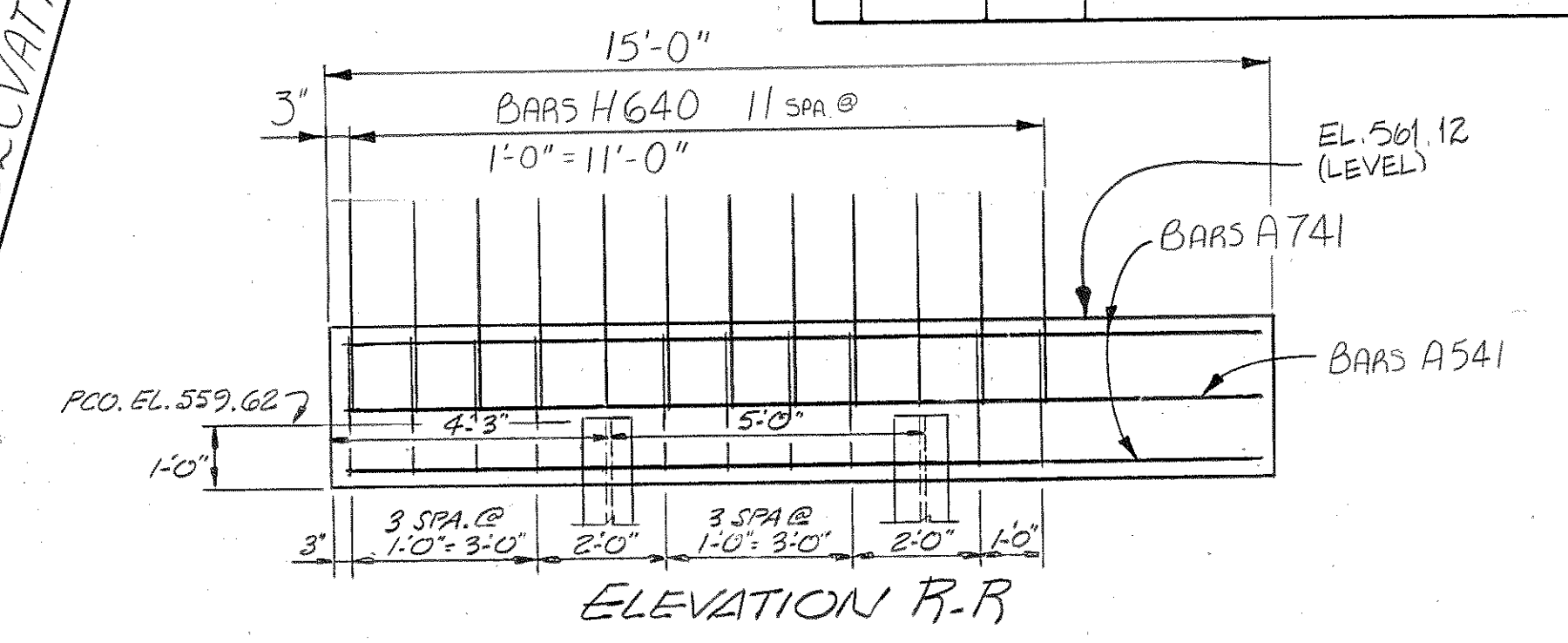
PLAN



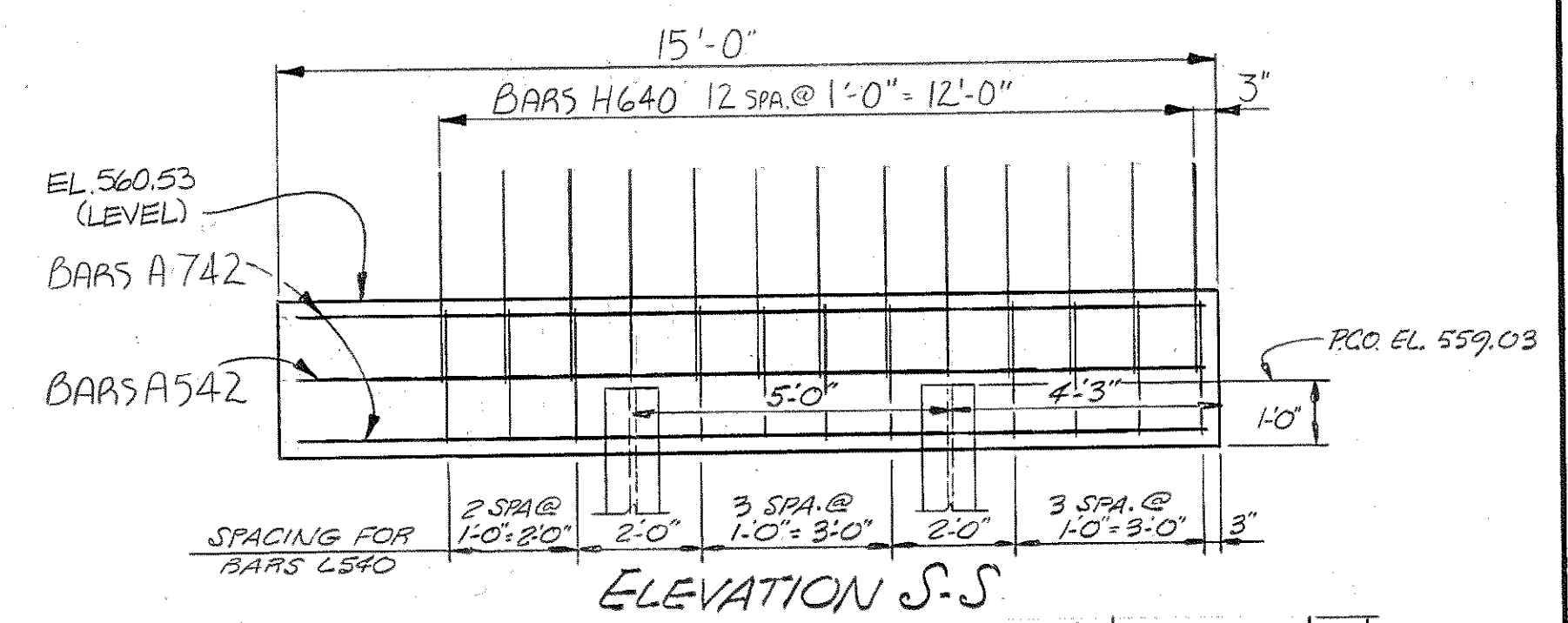
ELEVATION

(LOOKING BACK ON SURVEY)

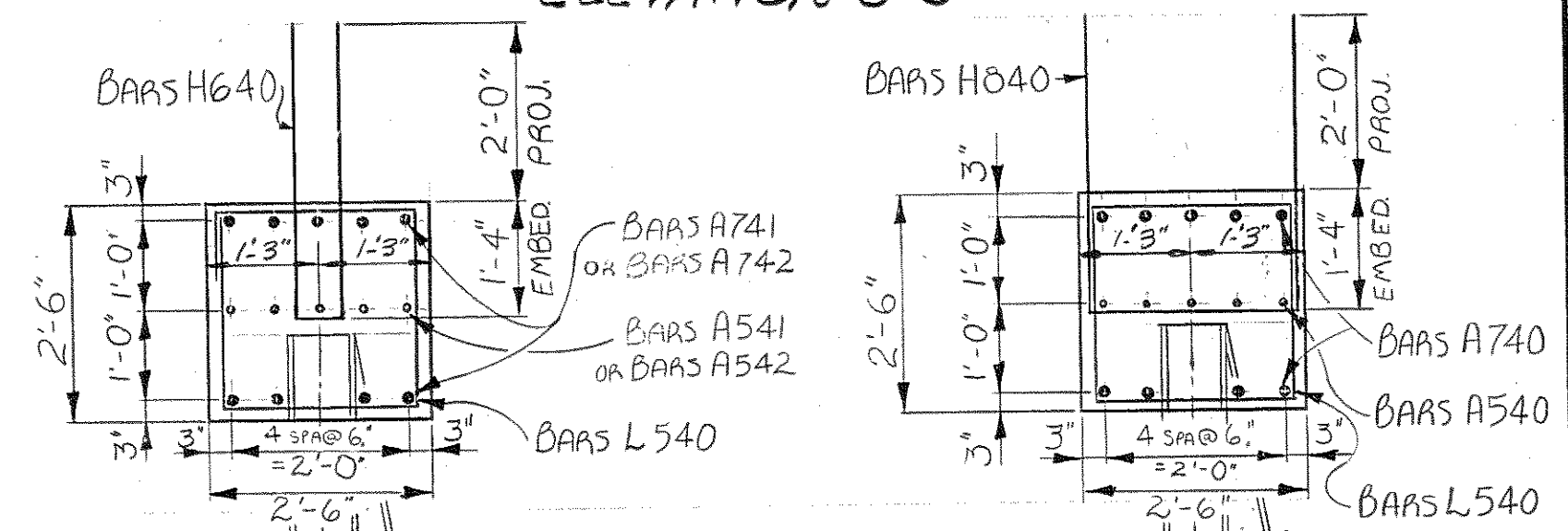
NOTE: SEE SECTION C-C FOR THE BAR LOCATIONS IN ABUTMENT BEAM.



ELEVATION R-R



ELEVATION S-S

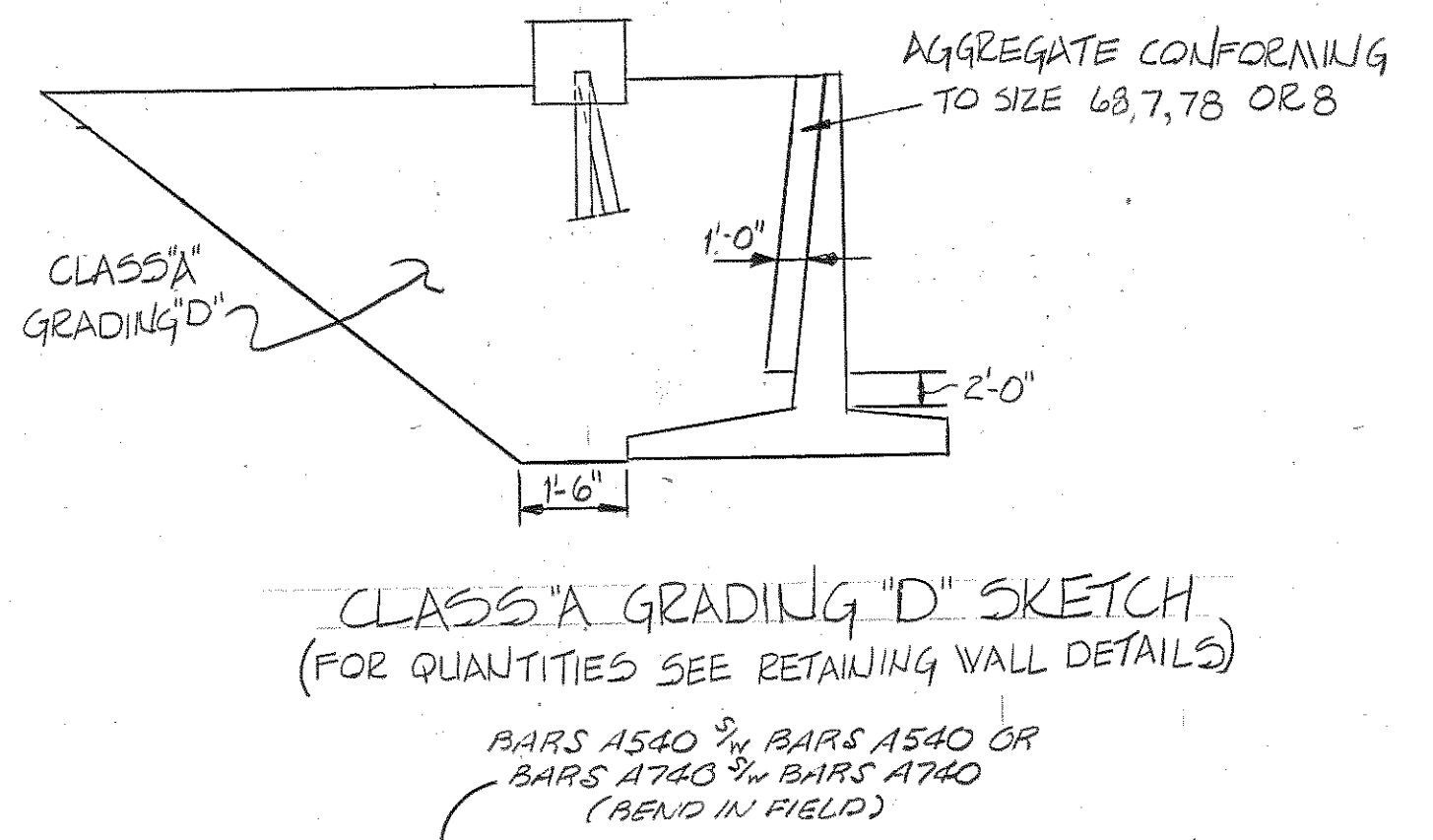


SECTION A-A

SECTION B-B

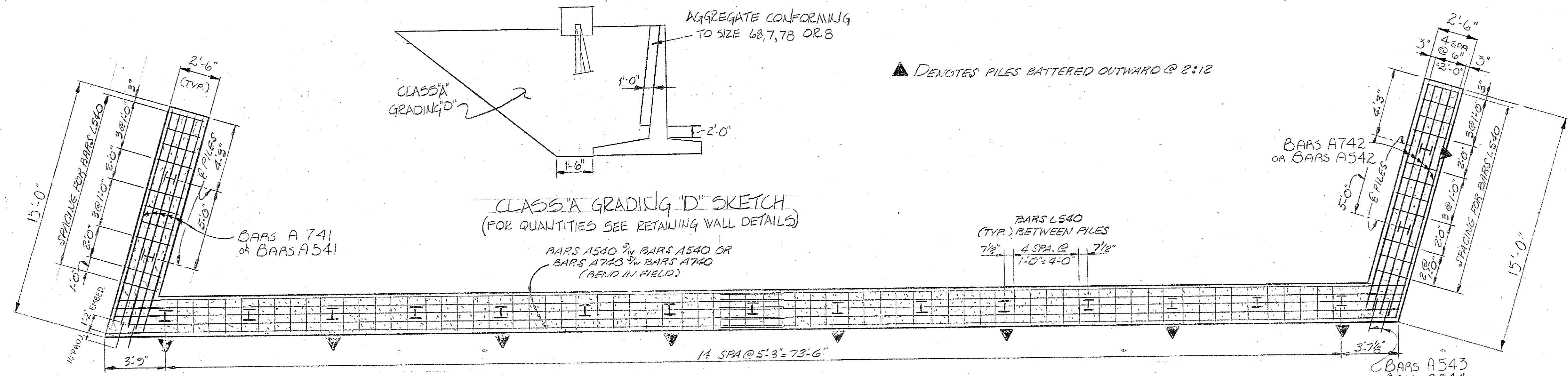
ESTIMATED QUANTITIES

ITEM	CLASS 'A' CONCRETE C.Y.	REINFORCING STEEL LBS.
ABUTMENT No. 1	2.73	5,986



CLASS 'A' GRADING 'D' SKETCH (FOR QUANTITIES SEE RETAINING WALL DETAILS)

▲ DENOTES PILES BATTERED OUTWARD @ 2:12



SECTION C-C

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
ABUTMENT No. 1
MURPHY ROAD OVER I440
STATION 158+39.25
DAVIDSON COUNTY
1983

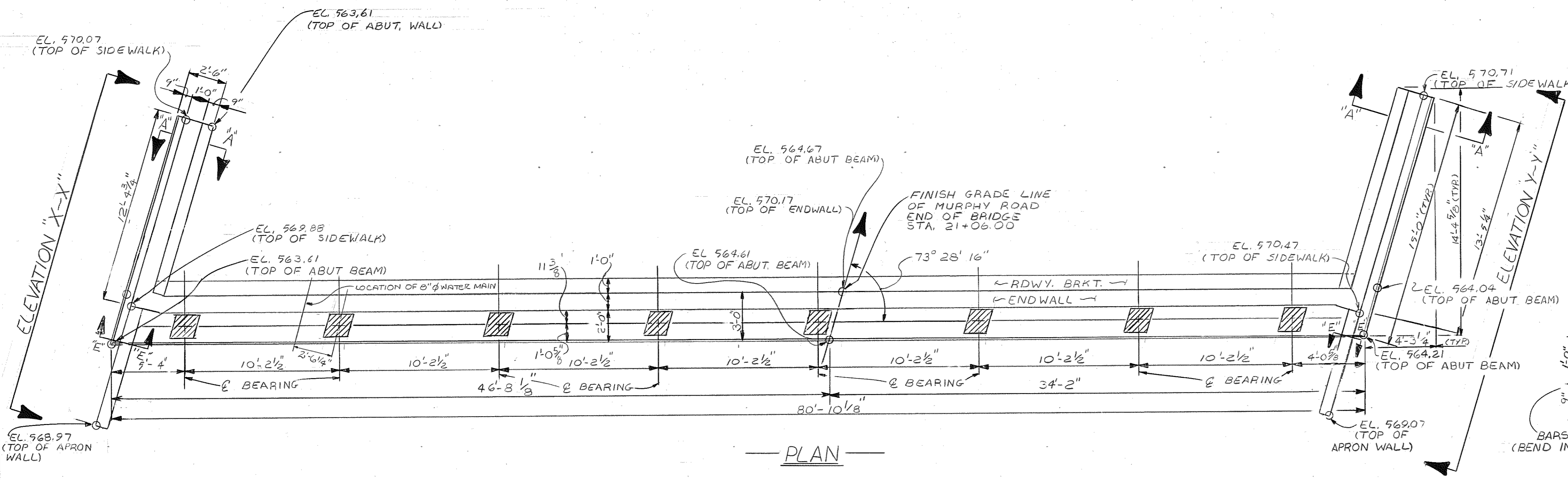
DESIGNED BY KEN ELROD DATE 4-82
DRAWN BY DEANNA CHAFFIN DATE 12-82
SUPERVISED BY B. L. HARDISON DATE 12-82
CHECKED BY ELROD DATE 12-82

CORRECT *Chellon L. Forewell*
ENGINEER OF STRUCTURES
APPROVED *Lewis Evans*
DIRECTOR OF HIGHWAYS

Const. No. 12014-3111-44

PROJECT NO.	YEAR	SHEET NO.
F-440-4(53)206	1983	

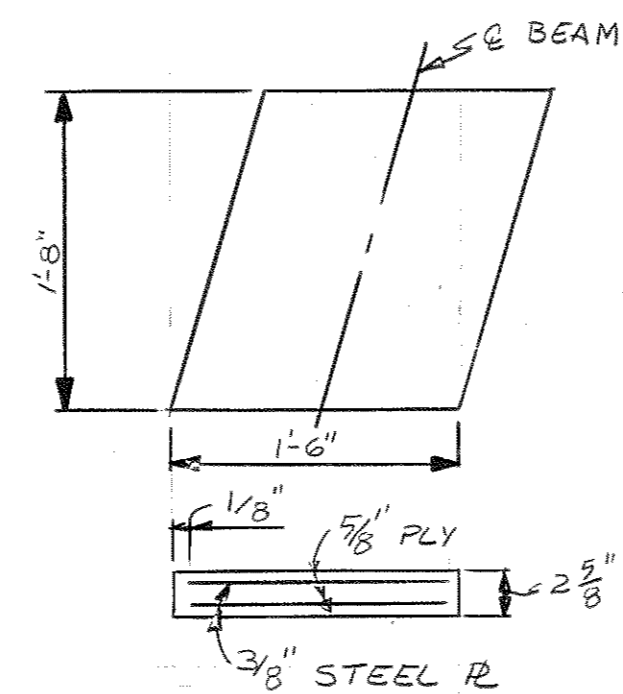
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	12-17-85	KE	ADDED PILES



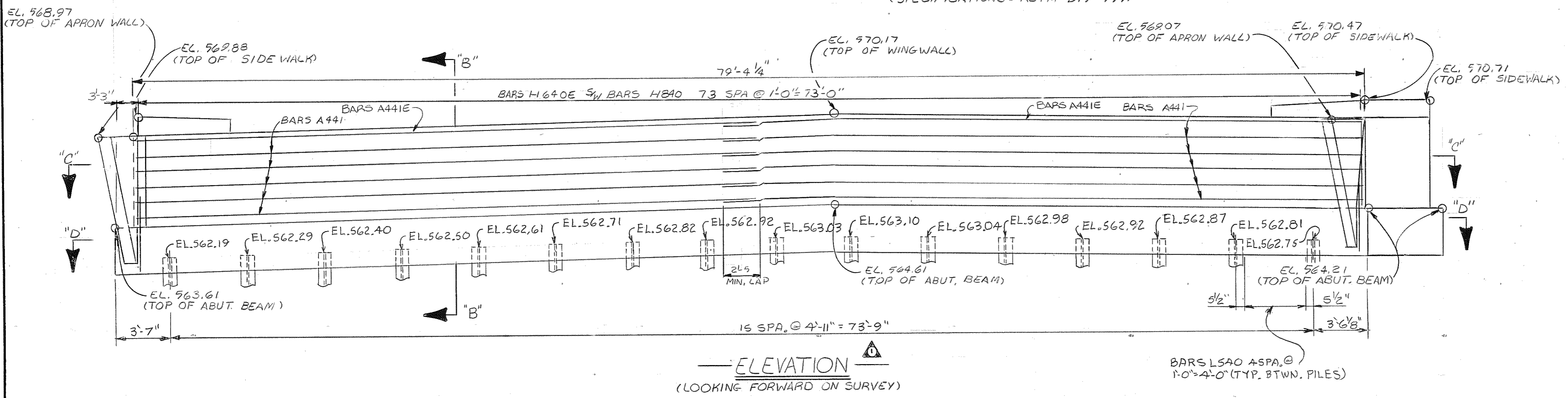
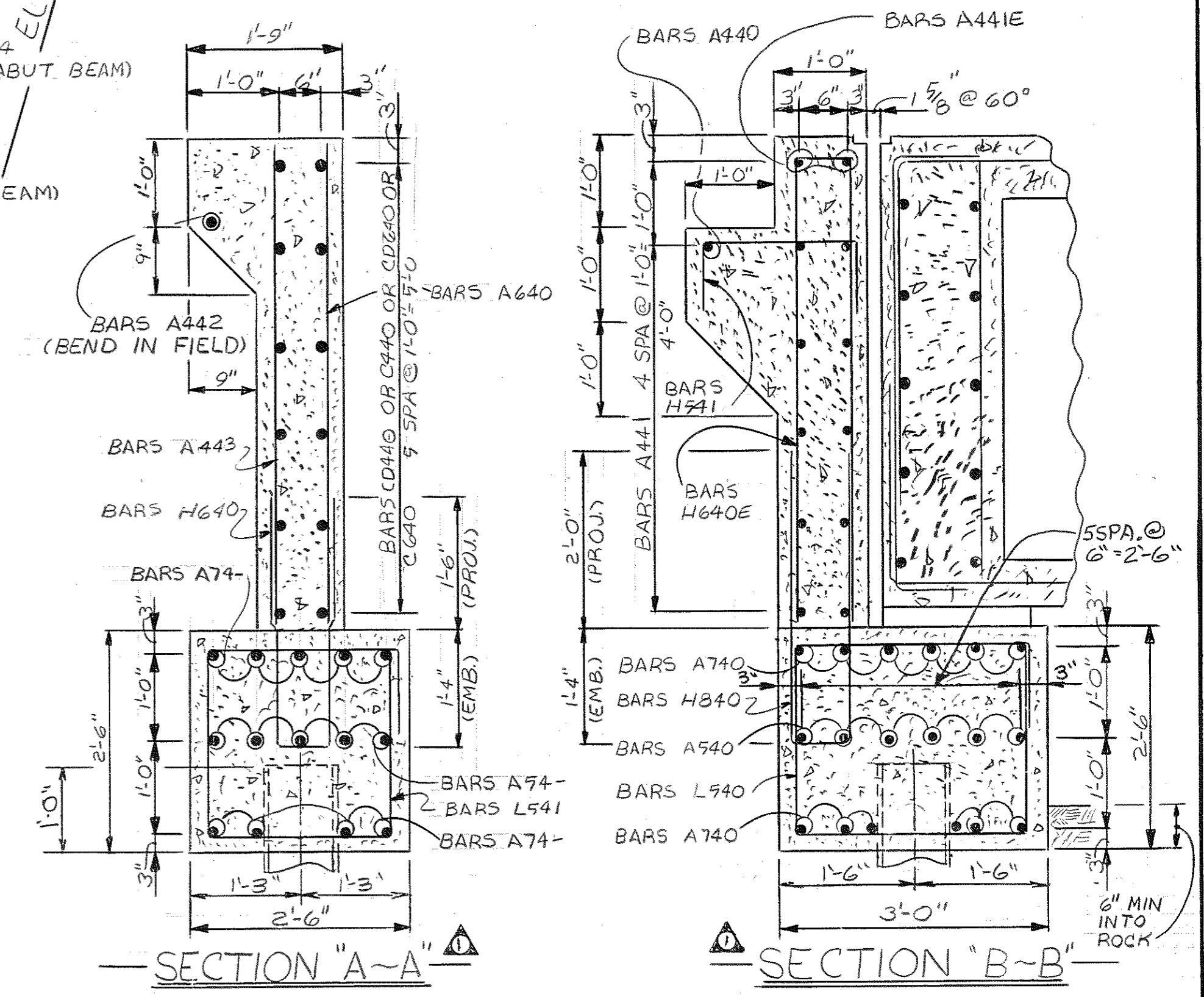
TOP OF APRON WALL TO CONFORM TO BOTTOM OF ROADWAY SLAB.

NOTE: COST OF BRIDGE RAIL AND POST IS TO BE INCLUDED IN COST OF THE BRIDGE RAIL SYSTEM.

FOR ELEVATIONS "X-X" & "Y-Y" SEE DWG. NO. M-110-157.



BEARING PAD DETAILS
(DUROMETER HARDNESS = 60)
(SPECIFICATIONS = ASTM D15-557)



ESTIMATED QUANTITIES

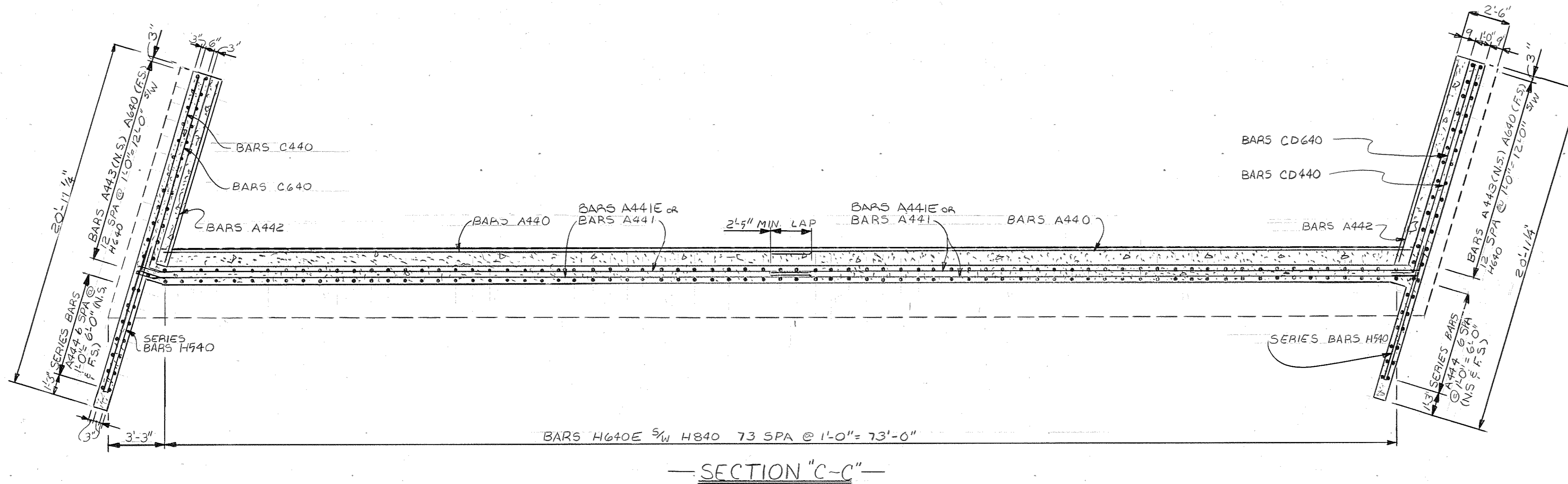
ITEM	EPOXY COATED REINFORCING STEEL (LBS.)	STEEL BAR REINFORCEMENT (LBS.)	CLASS 'A' CONCRETE (CY)
ABUT. NO. 2	1,287	6,800	54.2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
ABUTMENT NUMBER 2
MURPHY ROAD OVER
INTERSTATE 440
STATION 158+39.25
DAVIDSON COUNTY
1983

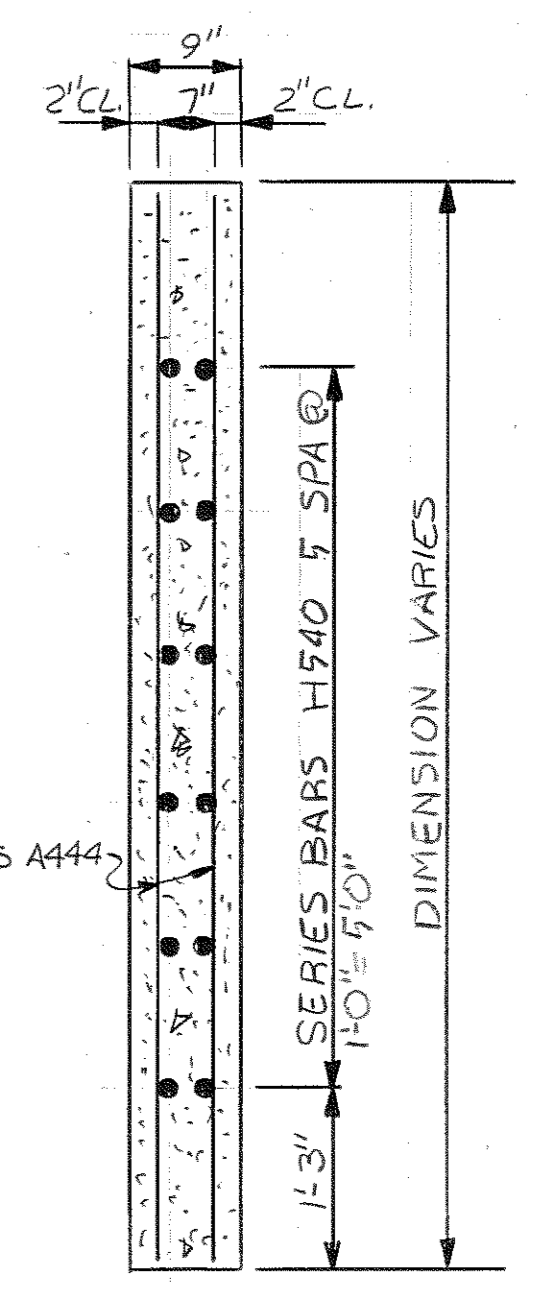
DESIGNED BY KENNY ELROD DATE 4-82
DRAWN BY KEVIN K. MARTIN DATE 12-82
SUPERVISED BY HARRISON BROOKS DATE 12-82
CHECKED BY ELROD DATE 12-82

CORRECT *William L. Lovell*
ENGINEER OF STRUCTURES
APPROVED *Lewis J. ...*
DIRECTOR OF HIGHWAYS

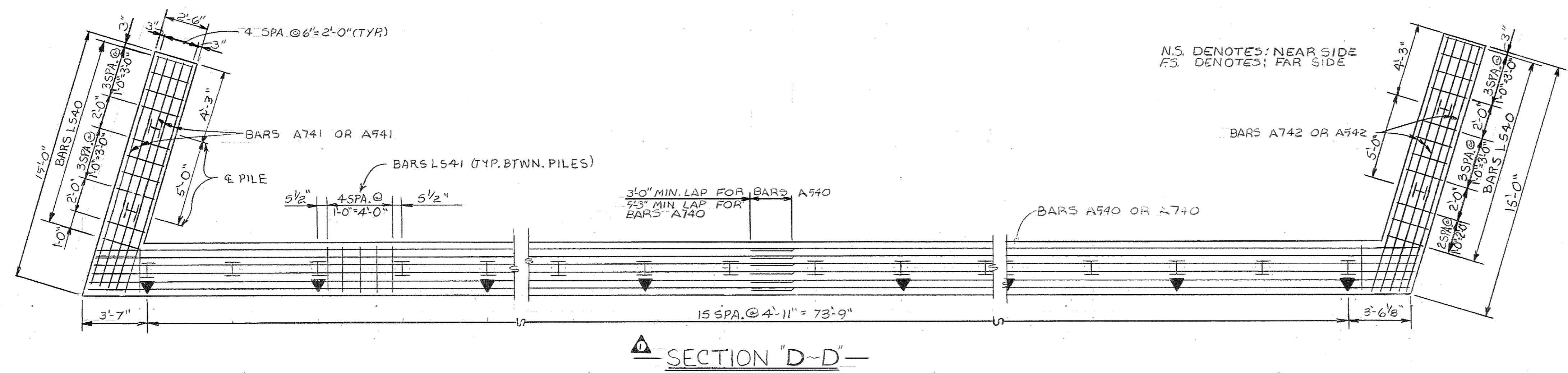
PROJECT NO.	YEAR	SHEET NO.	
T-440-4(73)206	1983		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	12-17-85	KE	ADDED PILES



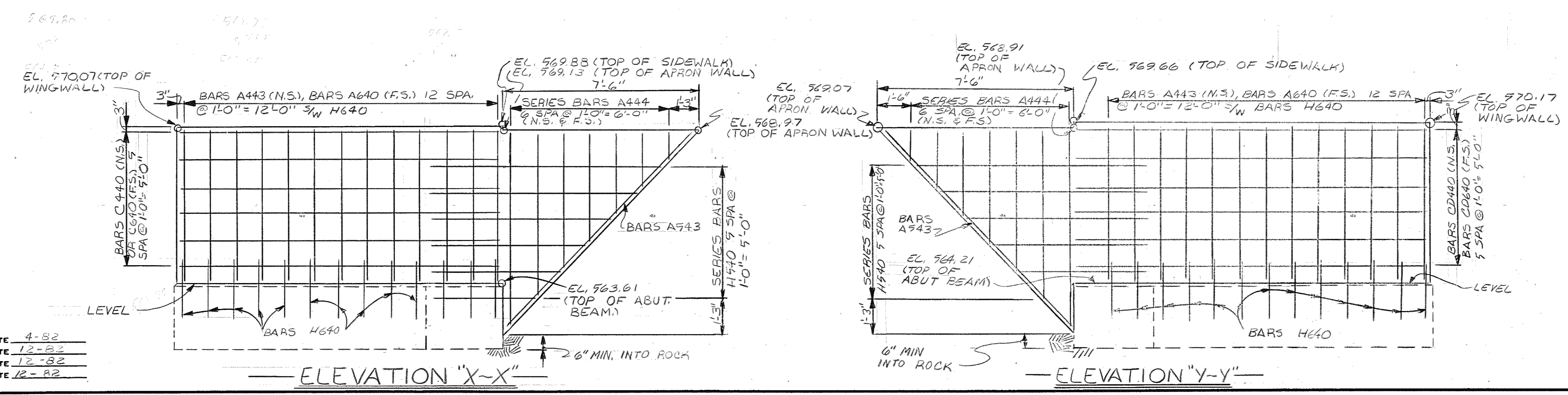
SECTION "C-C"



SECTION "E-E"



SECTION "D-D"



ELEVATION "X-X"

ELEVATION "Y-Y"

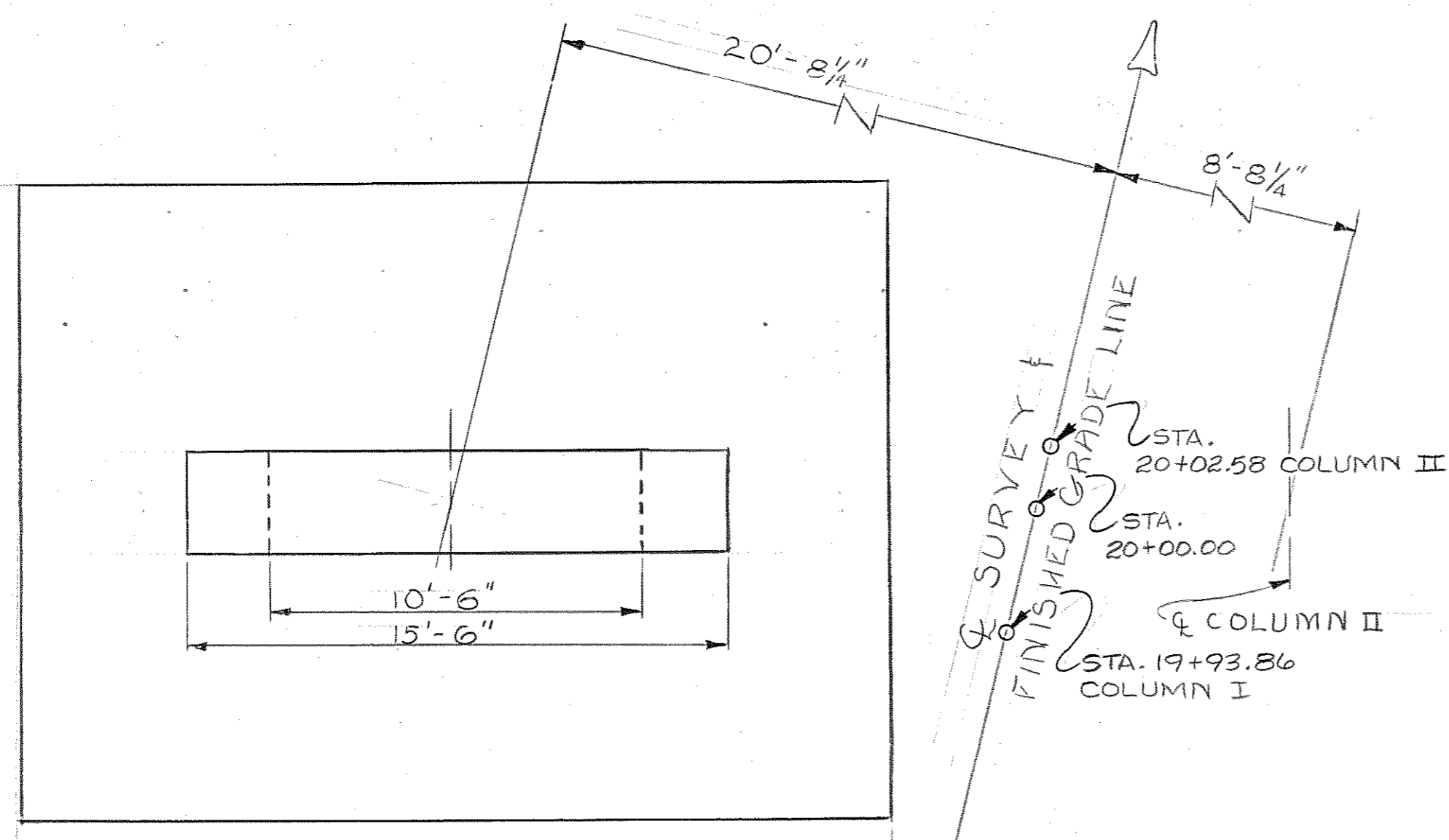
DESIGNED BY KENNY ECRD DATE 4-82
 DRAWN BY KEVIN X. MARTINEC DATE 12-82
 SUPERVISED BY HARRISON E. DODD'S DATE 12-82
 CHECKED BY ECRD DATE 12-82

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NUMBER 2 DETAILS
 MURPHY ROAD OVER
 INTERSTATE 440
 STATION 158+39.25
 DAVIDSON COUNTY
 1983

CORRECT *Colleen E. Lovell*
 ENGINEER OF STRUCTURES
 APPROVED *Louis E. Brown*
 DIRECTOR OF HIGHWAYS

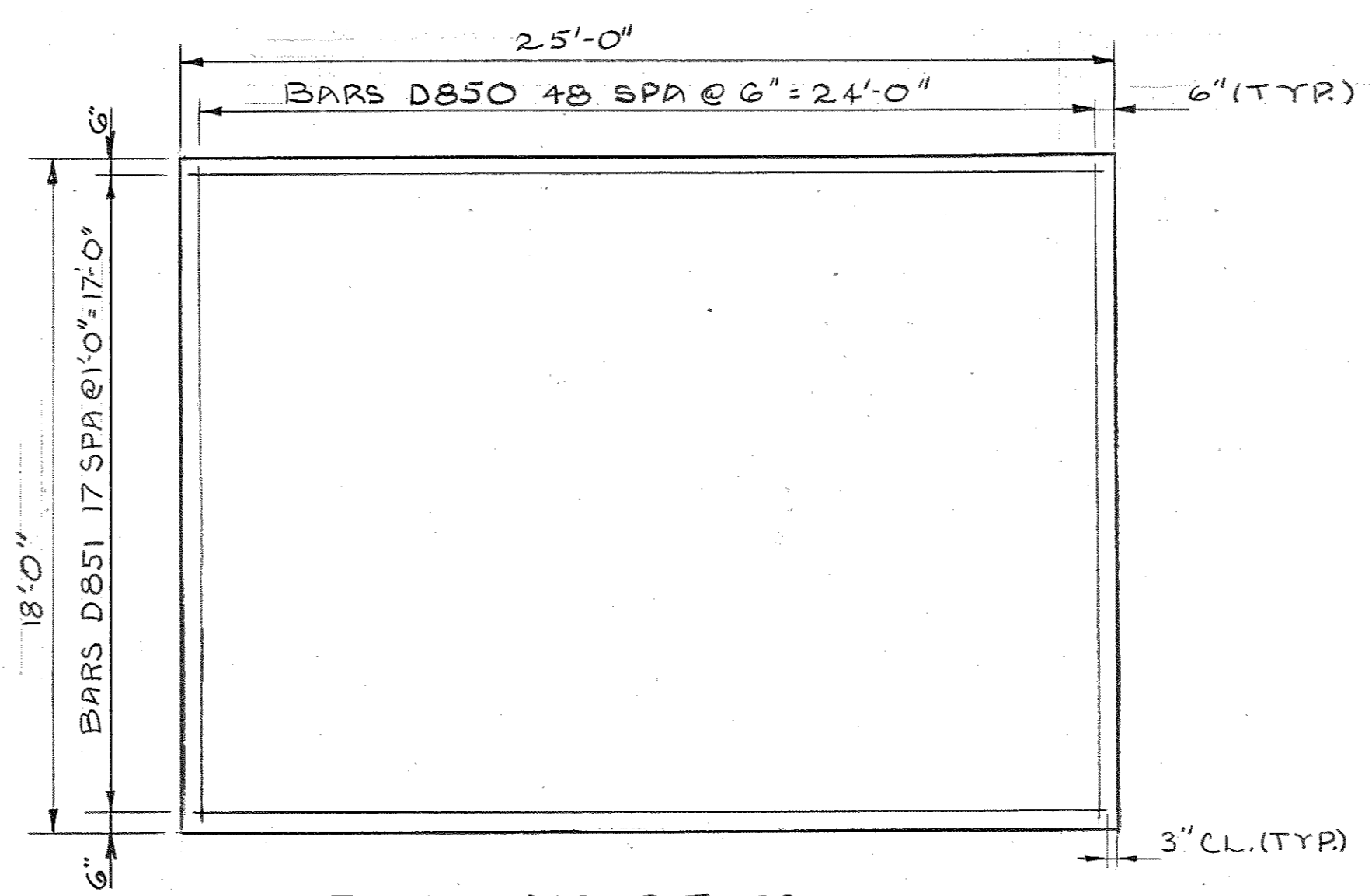
PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1983	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

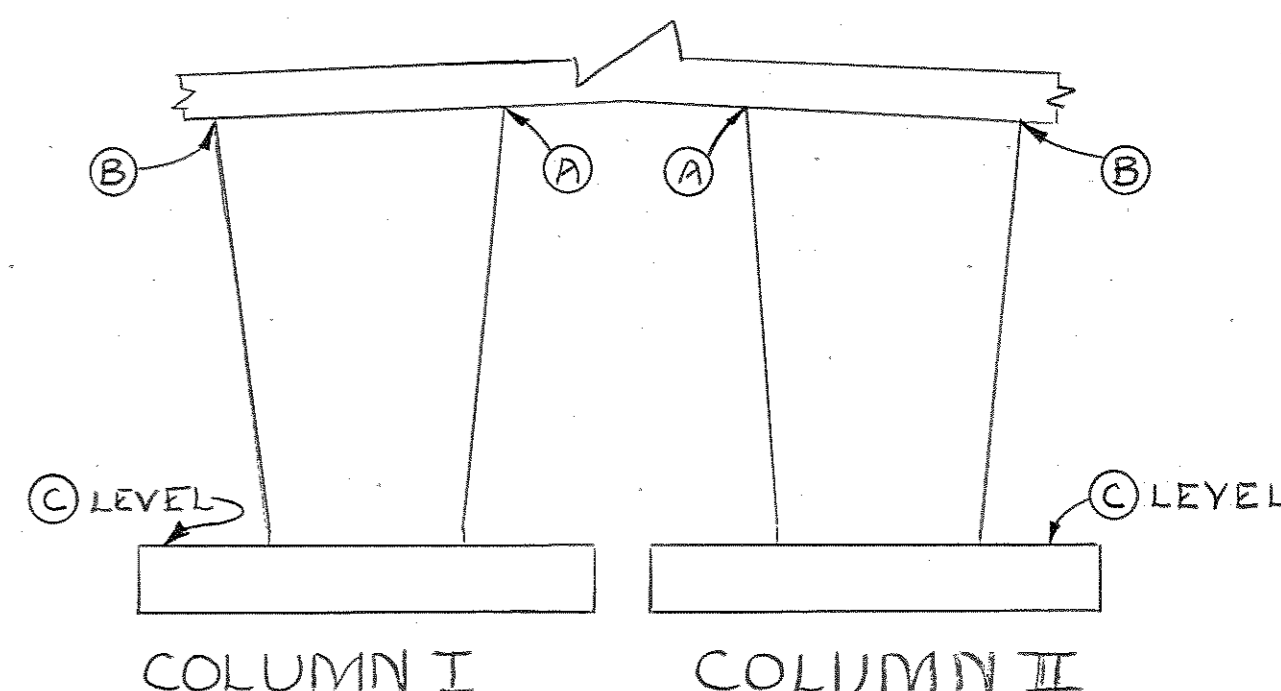


PLAN

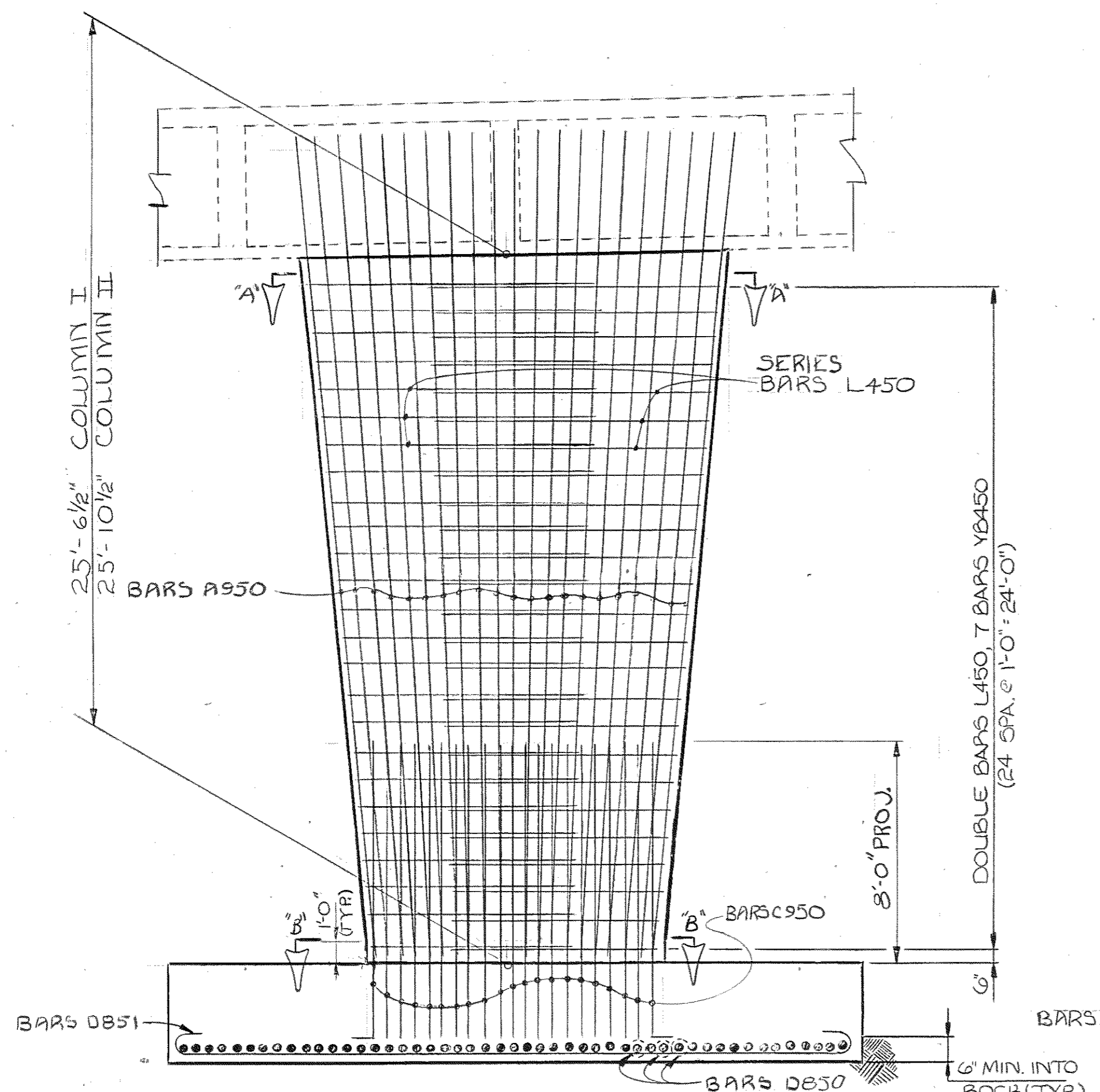
NOTE: COLUMN STEEL TO EXTEND 4'-6" INTO CAP BEAM.



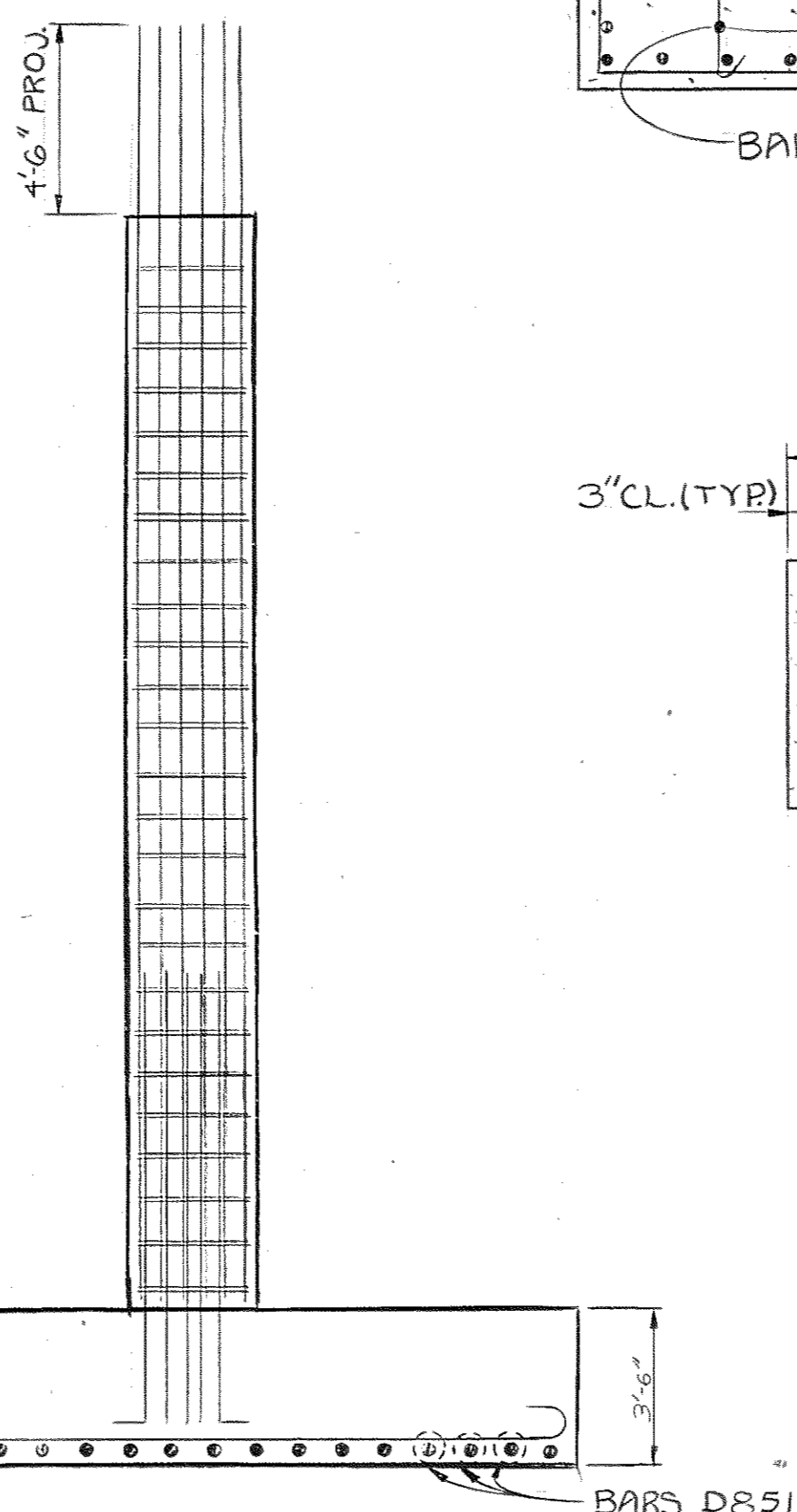
FOOTING DETAIL



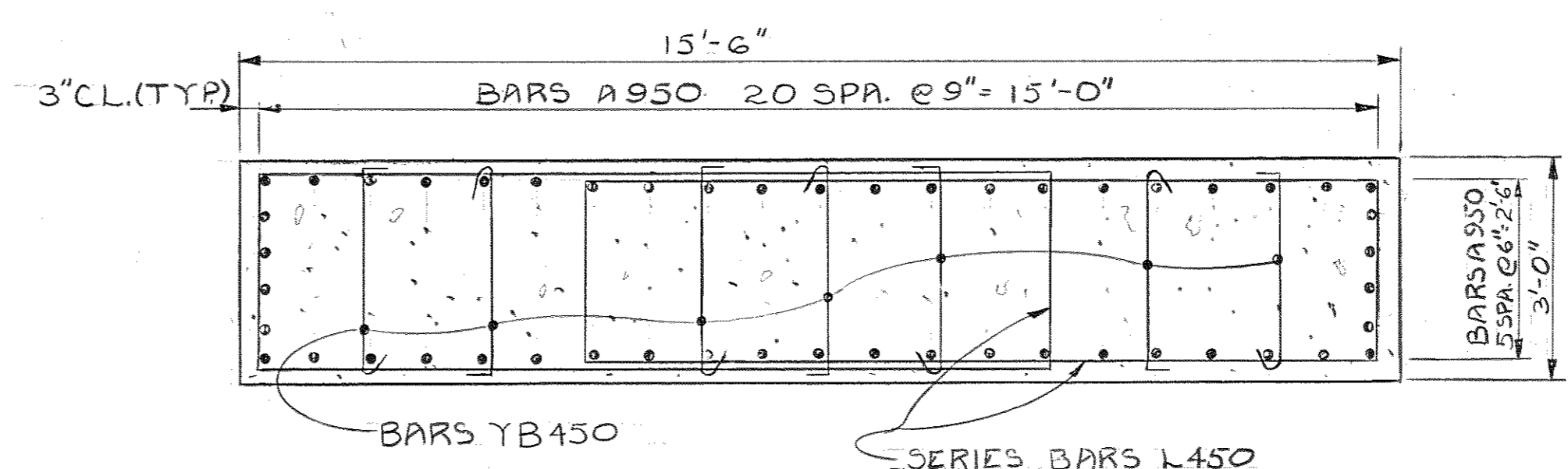
ELEVATION DETAILS
LOOKING FORWARD ON SURVEY



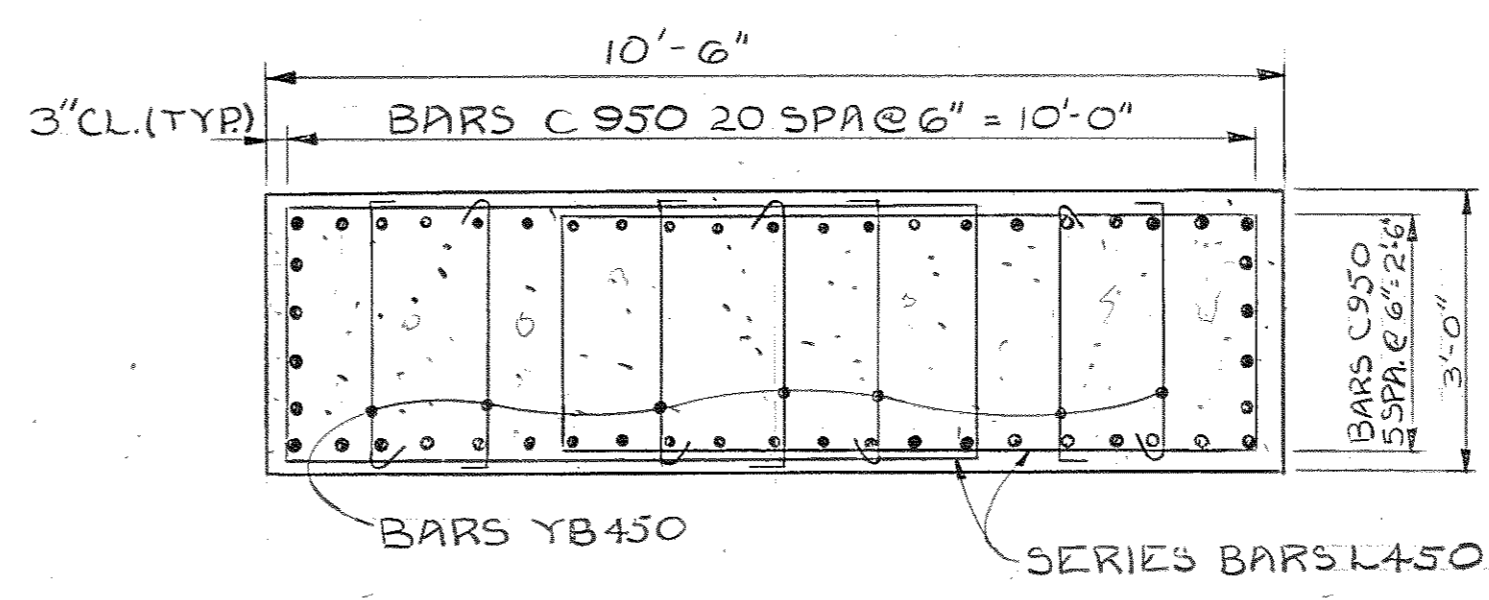
ELEVATION
LOOKING FORWARD ON SURVEY-COLUMN I
LOOKING BACKWARD ON SURVEY-COLUMN II



SIDE ELEVATION



SECTION "A-A"



SECTION "B-B"

TABLE OF ELEVATIONS

ELEVATIONS	A	B	C
COLUMN I	562.72	562.37	537.00
COLUMN II	562.99	562.79	537.00

ITEM	CONCRETE CLASS "A" (C.Y.)	REINFORCING STEEL LBS.
BENT NO. 1	190.4	24,586

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BENT NUMBER 1
MURPHY ROAD OVER I440
STATION 158+39.25
DAVIDSON COUNTY
1983

DESIGNED BY KEN ELROD DATE 11-82
DRAWN BY WESLEY PURVIS DATE 11-82
SUPERVISED BY R.L.H. DATE 11-82
CHECKED BY KEN ELROD DATE 12-82

CORRECT *Colleen L. Fovell*
ENGINEER OF STRUCTURES
APPROVED *Lewis Evans*
DIRECTOR OF HIGHWAYS

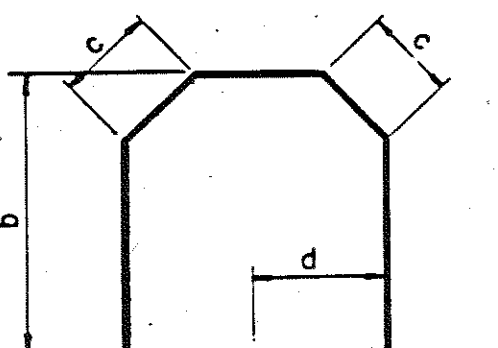
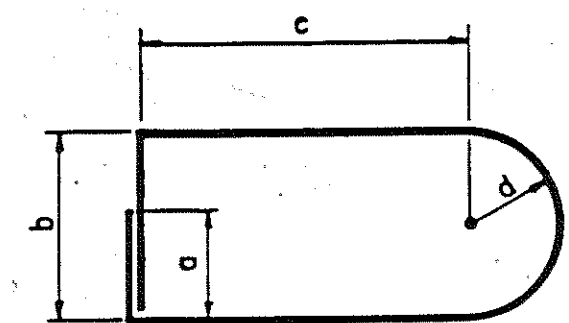
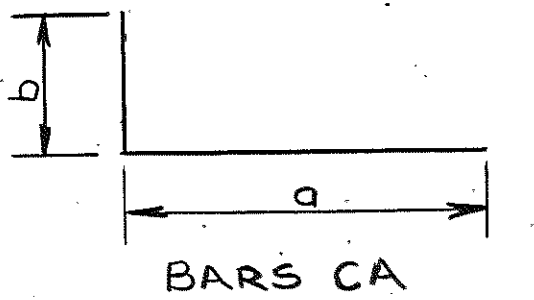
BILL OF STEEL

CONST. NO. 19014-3111-44.

Table with columns: PER BOARD, STATE, PER AM, PERAL, SHEET NO., TOTAL SHEETS. Values: 3, TENN, I-440-4(53)204, 1883

Main table for steel bill of materials, organized into columns for SUPERSTRUCTURE, SUPERSTRUCTURE (CONT'D), ABUTMENT No. 1, and ABUTMENT No. 2 (CONT'D). Includes bar location, size, no. req'd, bending dimensions, and length.

REVISIONS table with columns: NO., DATE, BY, BRIEF DESCRIPTION. Contains two revision entries.

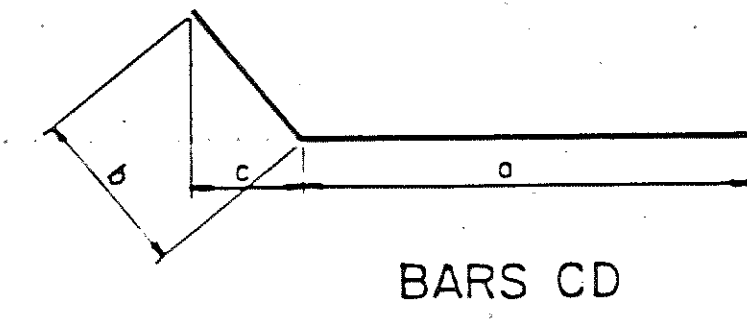
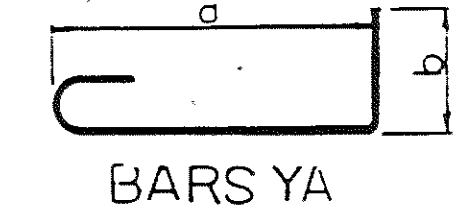
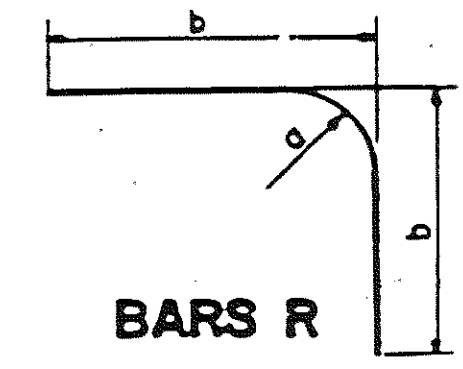
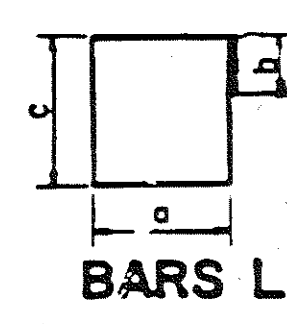
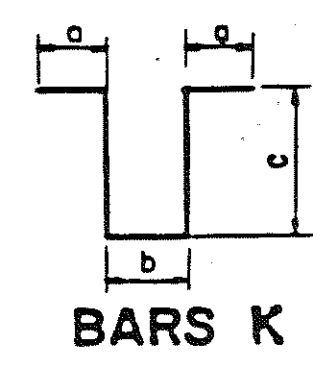
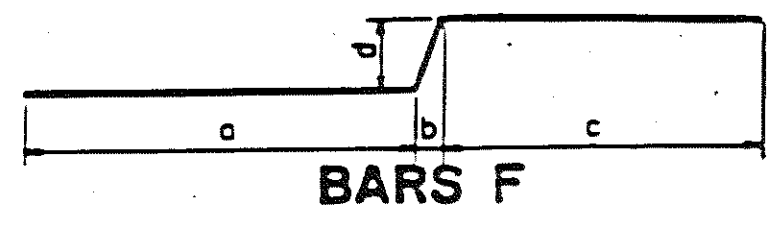
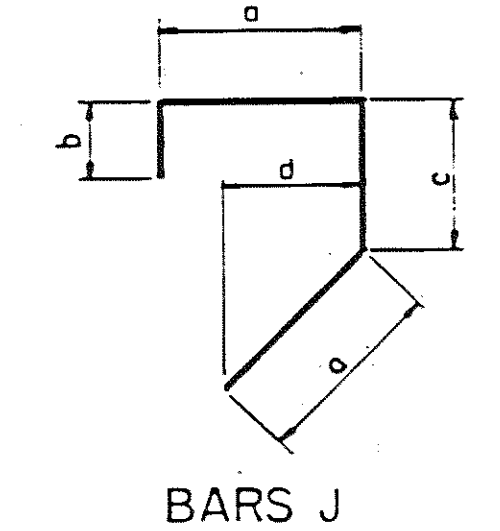
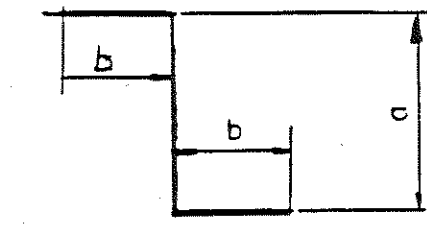
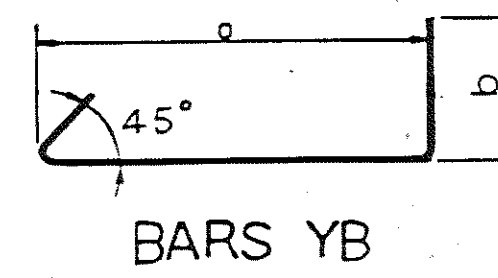
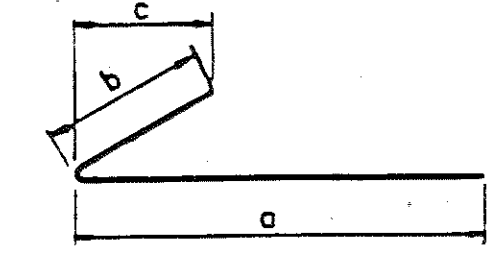
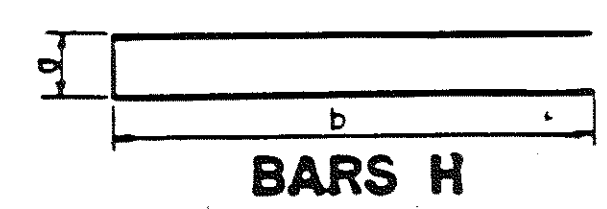
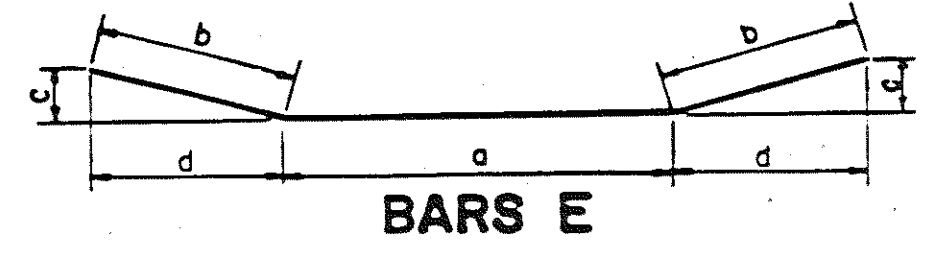
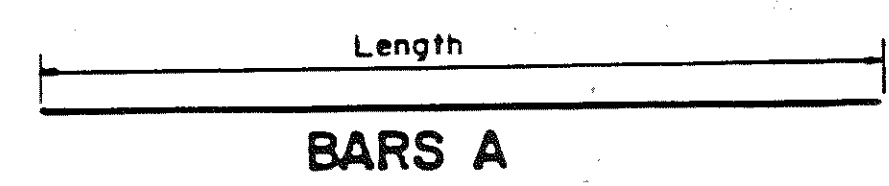


NOTE: THE SUFFIX 'E' DENOTES EPOXY COATED REINFORCEMENT.

REINFORCING STEEL CODE

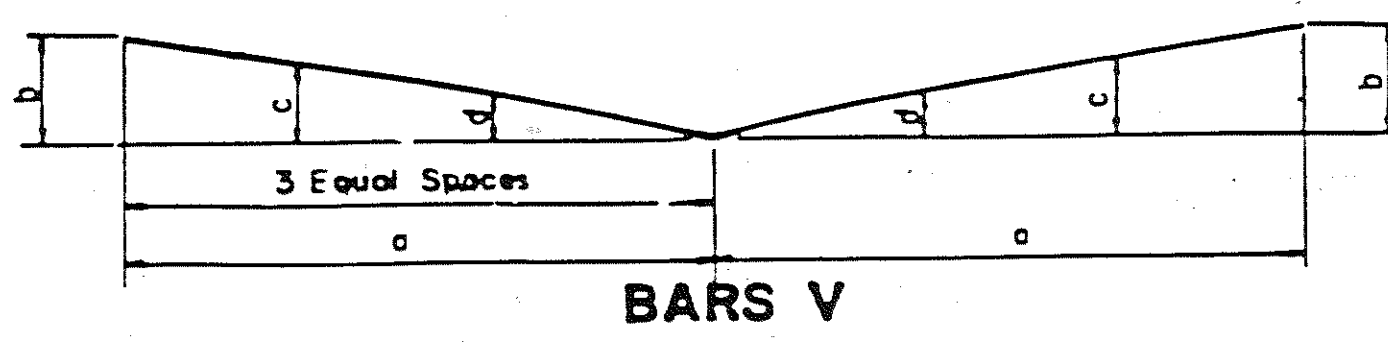
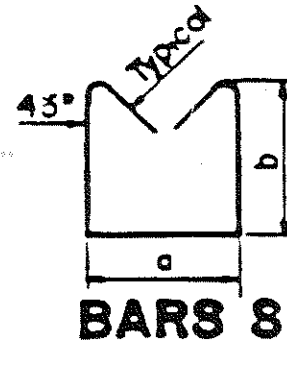
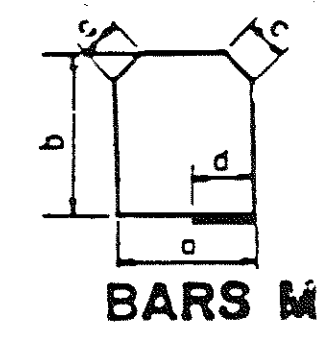
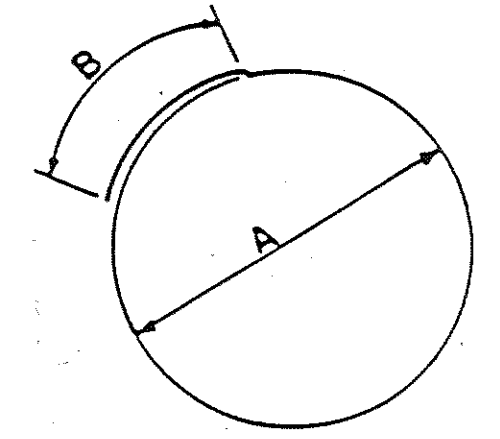
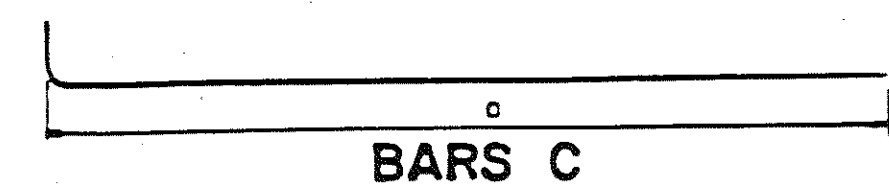
Table with columns: TYPE, SIZE, SERIES. Values: A, 5, 06

NOTE: Dimensions shown on this sheet are outside to outside of bar Standard C.R.S.I. Hook Details Shall Apply, Except As Noted.



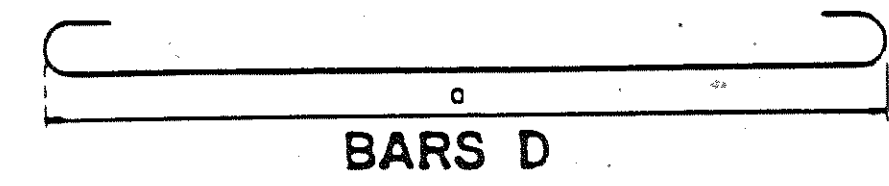
BARS Z

BARS J



BARS YA

BARS CD



BARS T

BARS M

BARS S

BARS V

BARS JX

DESIGNED BY: H.E. DATE: 12-82
DRAWN BY: M.D. DATE: 12-82
SUPERVISED BY: P.C.H. & H.V.B. DATE:
CHECKED BY: H.E. DATE: 12-82

CONNECT: Colleen L. Forevall
APPROVED: Lewis Evans

M-110-159

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BILL OF STEEL
MURPHY ROAD OVER
INTERSTATE 440
STATION 158+39.25
DAVIDSON COUNTY
1983