

CONST. NO. 19014-3109-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(3)211	1981	70

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	11/9/81	C.M.H.	LIGHTING

LIST OF DRAWINGS

DRAWINGS	DWG. NO.	LAST REVISION DATE
LAYOUT	M-93-1	
GENERAL NOTES & ESTIMATED QUANT.	M-93-2	
FOUNDATION DATA	M-93-3	
SUPERSTRUCTURE	M-93-4	
SUPERSTRUCTURE DETAILS	M-93-5	
SUPERSTRUCTURE DETAILS	M-93-6	
SUPERSTRUCTURE DETAILS	M-93-7	
SUPERSTRUCTURE DETAILS	M-93-8	
RETAINING WALLS 'A' & 'B'	M-93-9	
RETAINING WALL 'C'	M-93-10	
RETAINING WALLS 'D' & 'E'	M-93-11	
ABUTMENT NO. 1	M-93-12	
ABUTMENT NO. 1 DETAILS	M-93-13	
ABUTMENT NO. 1 DETAILS	M-93-14	
ABUTMENT NO. 2	M-93-15	
ABUTMENT NO. 2 DETAILS	M-93-16	
ABUTMENT NO. 2 DETAILS	M-93-17	
BILL OF STEEL	M-93-18	
BILL OF STEEL	M-93-19	
BILL OF STEEL	M-93-20	

LIST OF STANDARD DRAWINGS

DRAWINGS	DWG. NO.	LAST REVISION
STANDARD PILE DETAILS	H-5-111	11-27-73
STANDARD REINFORCING BARS SUPPORT	H-80-14	1-14-75
MISC. ABUT. & DRAINAGE DETAILS	H-85-150	1-9-75
REINF. CONC. PAVEMENT @ BRIDGE ENDS	H-86-144	5-12-77
BRIDGE PAILING - CONC. PARAPET	M-2B-1	1-28-74
TENN. STANDARD PRECAST PRESTRESSED		
BRIDGE DECK PANELS	H-80-15A	8-1-74

LIST OF SPECIAL PROVISIONS

PROVISIONS	DWG. NO.	LAST REVISION
REGARDING SECTION 604 - CONC. STRUCTURES	130	12-11-74
REGARDING SECTION 606 - PILING	134	10-1-75
REGARDING EPOXY COATED REINFORCING STEEL	471	2-15-79
REGARDING POST-TENSIONED PRESTRESSED CONC.	340	7-1-78
REGARDING SECTION 606 - PILING (STEEL)	135	2-2-74
REGARDING BUY AMERICAN REQUIREMENTS	294	2-22-79
REGARDING APPROVAL OF SHOP DRAWINGS	420	7-2-79
REGARDING SECTION 615 - PRECAST - PRESTRESSED		
CONCRETE BRIDGE MEMBERS	555	1-77
REGARDING HAULING OVER STRUCTURES	570	7-10-68

I-440 CURVE DATA

PI = 385+66.20
 Δ = 53° 49' 08"
 Dc = 3° 00'
 Ls = 300.00'
 Ts = 1120.29'
 Es = 234.10'
 Vc = 785'
 Os = 4° 30'
 Rc = 1409.86'
 Lc = 1443.96'
 SE = 0054%

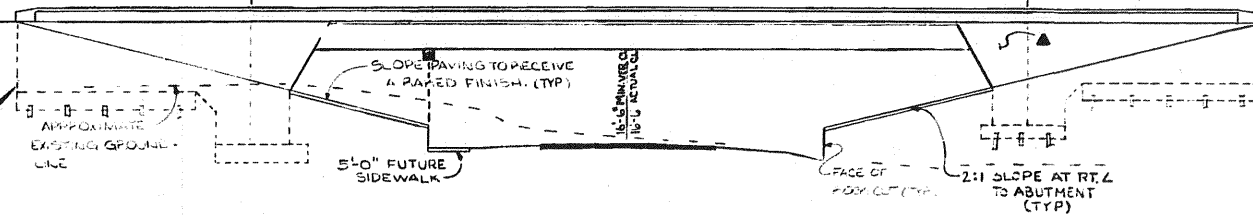
540
530
520
510
500
490
480



BEGINNING OF BRIDGE
STATION 374+90.83
FG ELEV. 525.65

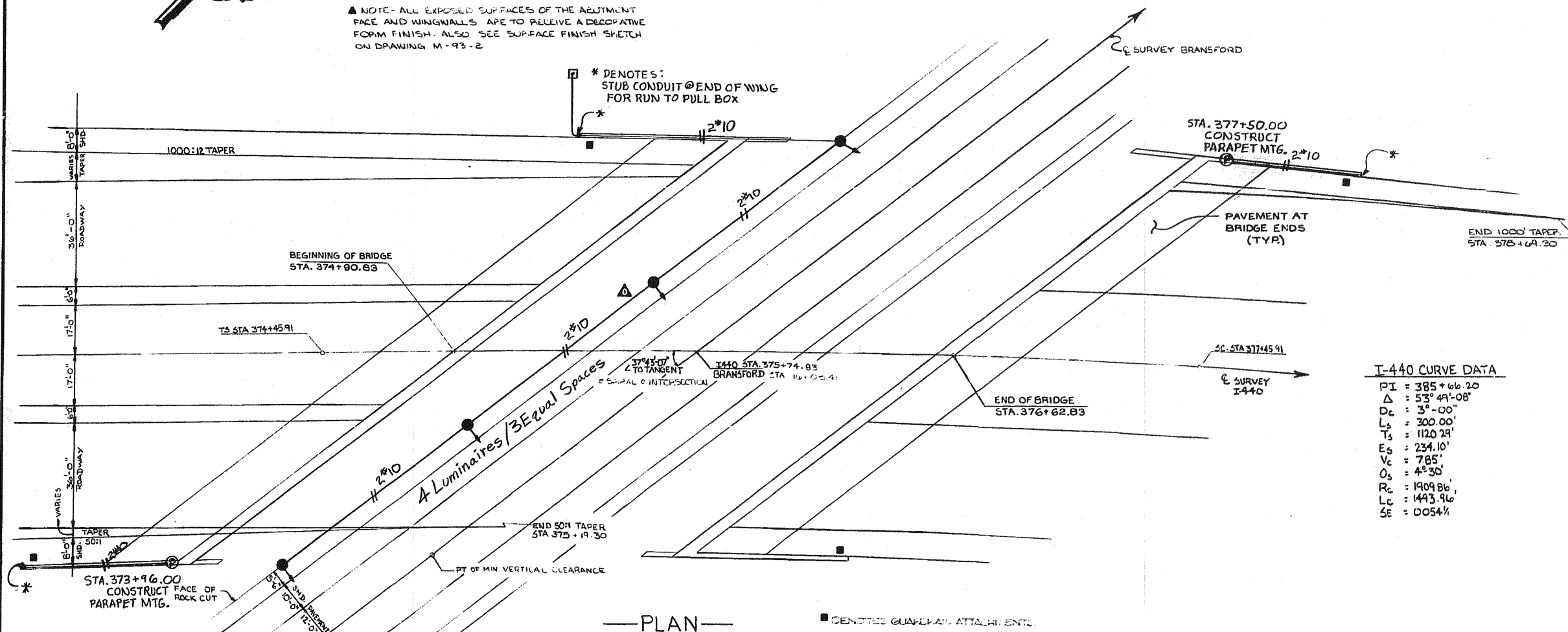
TOTAL LENGTH OF BRIDGE 72'-0"

END OF BRIDGE
STATION 376+62.83
FG ELEV. 525.85



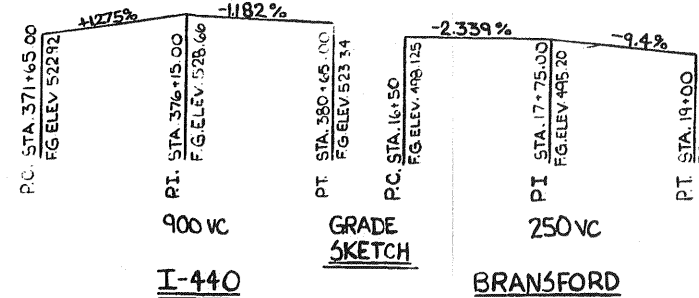
NOTE - ALL EXPOSED SURFACES OF THE ABUTMENT FACE AND WINGWALLS ARE TO RECEIVE A DECORATIVE FORM FINISH. ALSO SEE SURFACE FINISH SKETCH ON DRAWING M-93-2

* DENOTES:
STUB CONDUIT @ END OF WING
FOR RUN TO PULL BOX



PLAN

DENOTES GUARDRAIL ATTACHMENT



DESIGNED BY M. HOLLOWAY DATE 10-22-80
 DRAWN BY H. HOLLOWAY DATE 10-23-80
 SUPERVISED BY J. FIELDS DATE 10-23-80
 CHECKED BY DATE

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 LAYOUT OF BRIDGE
 I-440 OVER BRANSFORD AVENUE
 STATION 375+74.83
 DAVIDSON COUNTY
 1981

CORRECT *Charles L. Fowall*
 ENGINEER OF STRUCTURES
 APPROVED *James' Board*
 CHIEF OF HIGHWAYS

M-93-01

CLASS "A" GRADING IS 9956 Cu Yds

CONST. NO 19014-3109-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	71

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-20-81	M.H.	QUANTITIES
2	3-11-81	M.H.	GENERAL REVISIONS TO ABUTMENT QUANTITIES
3	10-6-82	M.H.	ADDED FORM LINER DETAIL AND REVISED REINFORCEMENT QUANTITY
4	4-13-83	M.H.	ADDED STRUC. LGT. NOTE # NO.
5	3-22-84	M.H.	CORRECTED CONCRETE QUANTITY
6	2-15-85	EM	CORRECT CONG. QTY (RETAINING WALLS, C&G, P.V.M.T @ BRIDGE ENDS)

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF HIGHWAYS (1968 EDITION).

LOADING: HS20-44 WITH ALTERNATE MILITARY.

DESIGN SPECIFICATIONS: MASHTO 1977 EDITION WITH ADDENDA.

CONCRETE: TO BE CLASS 'A' FC TO BE 5000 PSI. FOR SUPERSTRUCTURE CONCRETE AND 3000 PSI FOR SUBSTRUCTURES AND PARAPETS. SEE SPECIAL PROVISION NO. 130.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVAL 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. SEE SPECIAL PROVISION NO. 490 AND STANDARD DRAWING K-80-15A. THE CONTRACTOR SHALL TAKE STEPS TO ASSURE THE STABILITY OF THE EXTERIOR GIRDER AGAINST TWISTING OR OVERTURNING DURING SLAB POURING OPERATIONS.

REINFORCING STEEL: TO BE ASTM A615 GRADE 60. STANDARD C91 HOOK DETAILS APPLY UNLESS OTHERWISE NOTED ON BILL OF STEEL. BENDING DIMENSIONS SHOWN ARE BASED ON GRADE 60. SPACING DIMENSIONS ARE CENTER TO CENTER, UNLESS OTHERWISE NOTED ON DETAIL DRAWINGS. (THE SUFFIX 'E', FOR BARS SO MARKED, DENOTES EPOXY COATED REINFORCEMENT. SEE SPECIAL PROVISION 471.)

PRECAST, PRESTRESSED BRIDGE MEMBERS: SEE SPECIAL PROVISION NO. 555.

CONCRETE FINISHES: 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 FORM LINER SIMILAR TO BURKE FORMLINER BQ 308. "CONCRETE HARP" OF EQUAL SLOPE PAVING FINISH TO BE A STRIATED (RAKED) FINISH WITH TINES AT APPROXIMATELY THE SAME WIDTH AND SPACING TO DUPLICATE THE DECORATIVE FORM FINISH. STRIATIONS SHALL BE ORIENTED WITH THE LONG AXIS UP AND DOWN PAVING. AFTER STRIPPING FORM LINERS, THE DECORATIVE FORM FINISHED AREA SHALL BE GIVEN A "CLASS 1" ORDINARY FINISH ACCORDING TO SUBSECTION 604.22 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER, FOR APPROVAL, A SAMPLE CASTING USING THE FORMLINER TO BE FURNISHED. COST OF ALL CONCRETE FINISHES TO BE INCLUDED IN THE PRICE BID FOR CLASS 'A' CONCRETE (BRIDGES), CONCRETE PARAPET (M-28-1), AND SLOPE PAVING.

BRIDGE PILE SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DWG. M-28-1. EXCEPT AS NOTED ON DWG. M-93-4.

PILES: TO BE HP-1092 DRIVEN TO REFUSAL ON ROCK OR A MINIMUM BEARING OF 53 TONS FOR THE ABUTMENTS.

NOTE: THE CONTRACTOR SHALL SUPPORT THE ABUTMENTS UNTIL THE SUPERSTRUCTURE IS IN PLACE. FALSEWORK HAS BEEN REMOVED AND BACKFILLING HAS BEEN COMPLETED.

LINSEED OIL PROTECTIVE TREATMENT: SURFACES RECEIVING DECORATIVE OR CLASS 2 FINISH SHALL NOT RECEIVE A LINSEED OIL TREATMENT. SEE SPECIAL PROVISION NO. 130, AND SURFACE FINISH DETAIL, THIS SHEET.

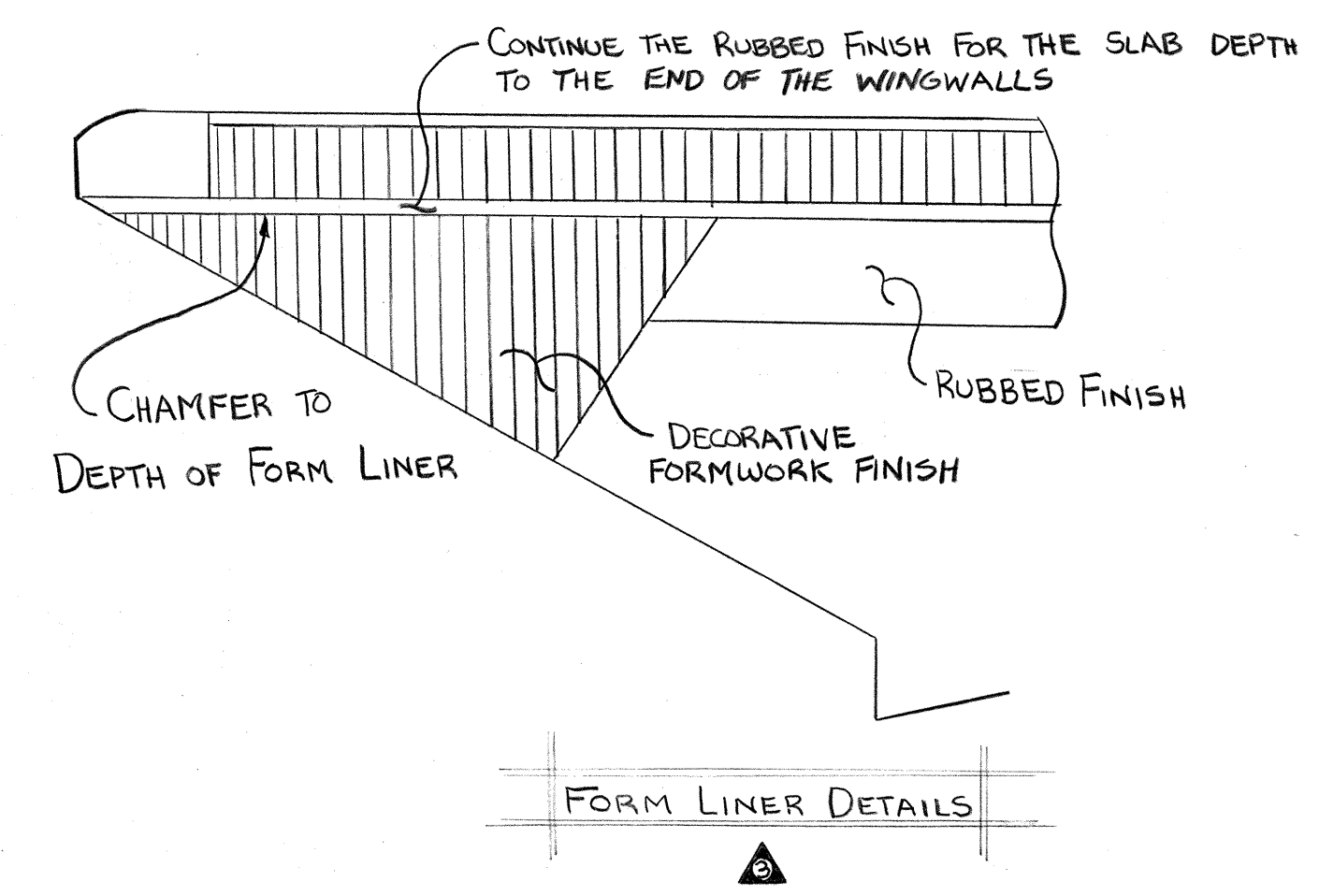
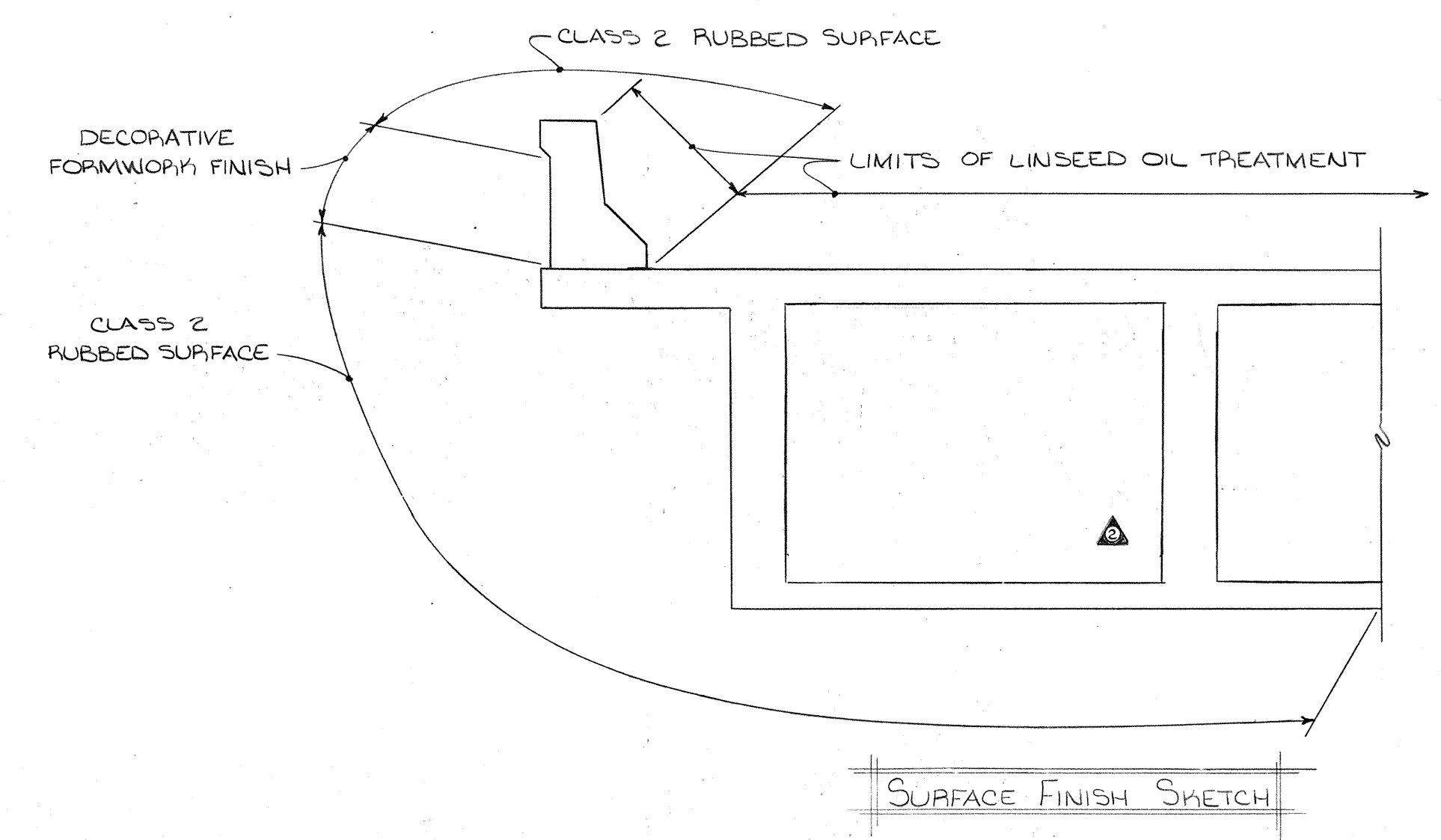
ESTIMATED QUANTITIES

ITEMS	204-02.01	204-04.01	604-03.01	604-03.02	604-03.03	604-02.03	606-22.03	606-22.03	606-42.03	615-05	616-08	714-01.01	710-10	710-11	204-05
	DRY EXCAVATION (BRIDGES) (CY) ①	ROCK EXCAVATION (BRIDGES) (CY) ①	CLASS 'A' CONCRETE ② (BRIDGES) (CY)	STEEL BAR REINFORCEMENT (BRIDGES) (LBS)	LINSEED OIL TREATMENT (SY)	EPOXY-COATED REINFORCING STEEL (LBS)	STEEL PILES 10" (DRIVING) (LF)	STEEL PILES 10" (FURNISH DOMESTIC) (LF)	STEEL PILES 10" (FURNISH FOREIGN) (LF)	POST-TENSIONING (LS)	CONCRETE PARAPET ③ (M-28-1) (LF)	STRUCTURE LIGHTING (BRIDGE NO. 1) ⑦ L.S.	6" Φ PERFORATED C.M. PIPE (18 GA) ③ W/ POROUS BACKFILL (LF)	6" Φ C.M. PIPE UNDERDRAINS (18 GA) (LF)	ROCK DRILLING (LF)
SUPERSTRUCTURE			1974.2	344,810		123,481									
ABUTMENT NO. 1	1963.6	1,141	1046.0	137,913		3,552	330	330	330				244	30	60
ABUTMENT NO. 2	190.1		969.1	128,117		474	3000	3000	3000				223	31	
RETAINING WALL 'A' & 'B'			87.4	14,492											
RETAINING WALL 'C'			42.0	2,724											
RETAINING WALL 'D' & 'E'			96.0	4,712											
P.V.M.T @ BRIDGE ENDS			292.3	90,998		26,755									
TOTALS	2,153.7	1,141	4507.0	723,766	3,739	154,262	3330	3330	3330	LUMP SUM	399	LUMP SUM	467 -	61	60

NOTES:

- ① EXCAVATION BASED ON LOWER ROAD PROFILE.
- ② COST OF BITUMINOUS PAPER AND ALL ITEMS FOR ITS INSTALLATION TO BE INCLUDED IN UNIT PRICE BID FOR CLASS 'A' CONCRETE.
- ③ COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN COST OF PERFORATED C.M. PIPE.
- ④ THE COST OF 16 THREADED STEEL INSERTS AND 16 7/8" Φ X 4" HEX HEAD BOLTS TO BE INCLUDED IN BRIDGE ITEMS BID ON.
- ⑤ NOTE: ALL REINFORCING STEEL IN THE TRAFFIC FACE OF PARAPETS SHALL BE EPOXY COATED. COST TO BE INCLUDED IN THE PRICE BID FOR ITEM 616-08.
- ⑥ COST OF 68 3/8" Φ THREADED ANCHOR BOLTS FOR FUTURE MEDIAN RAIL TO BE INCLUDED IN BRIDGE ITEMS BID ON. SEE DWG. M-93-4, DETAIL 'X'.
- ⑦ LUMP SUM FOR STRUCTURE LIGHTING, ITEM NO. 714-01.01 INCLUDES 370 FT. 1" Φ CONDUIT WITH PULL WIRES, 4 JUNCTION BOXES, AND ALL NECESSARY MATERIALS FOR INSTALLATION OF STRUCTURE LIGHTING.

FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE TENNESSEE STANDARD SPECIFICATION EXCEPT AS MODIFIED BY SPECIAL PROVISION NO. 130. SEE NOTE ABOVE REGARDING CONCRETE FINISHES.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GENERAL NOTES AND ESTIMATED QUANTITIES
INTERSTATE 440 OVER BRANNSFORD AVENUE
STATION 375+74.85
DAVIDSON COUNTY
1981

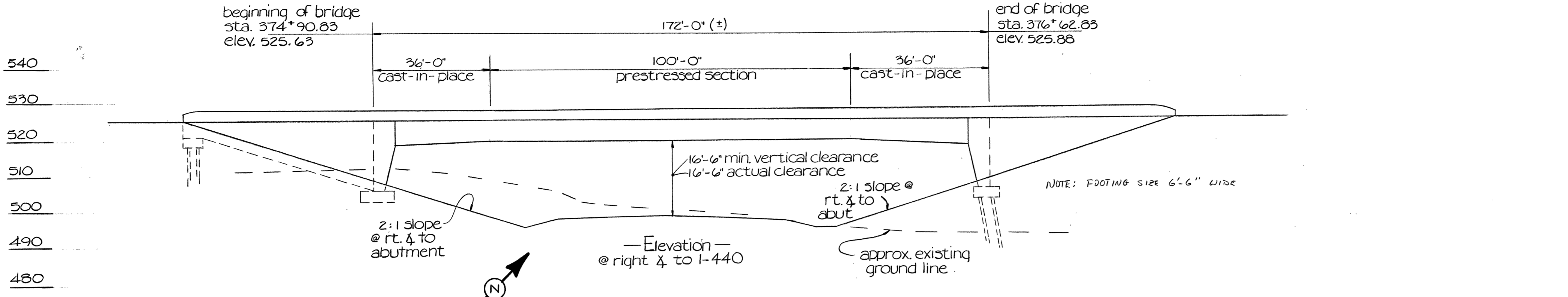
DESIGNED BY M. HOLLOWAY DATE _____
DRAWN BY K. COLEMAN DATE 11-80
SUPERVISED BY J. FIELDS DATE 11-80
CHECKED BY _____ DATE _____

CORRECT *Chilton L. Loresall*
ENGINEER OF STRUCTURES
APPROVED *Lewis S. Swans*
DIRECTOR OF HIGHWAYS

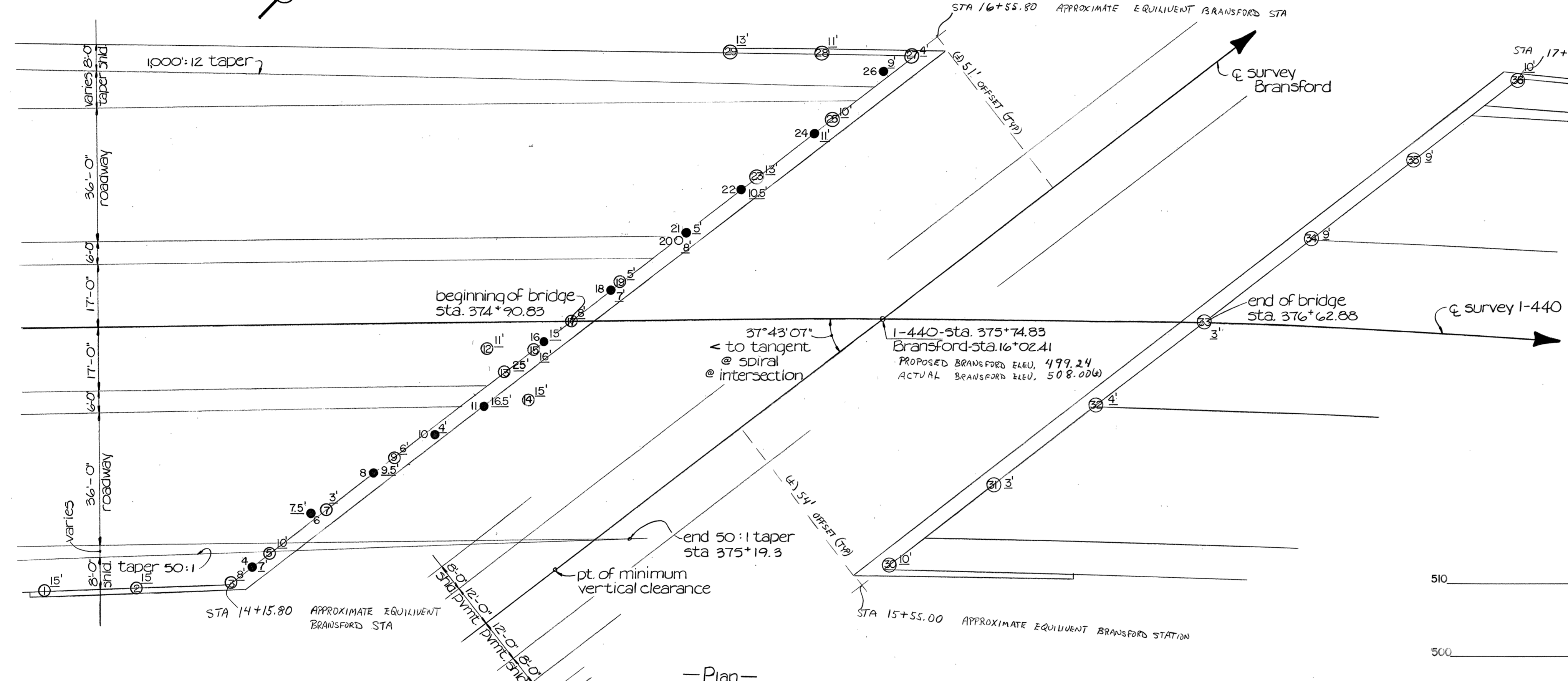
MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	72

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
3-3-80		WLD	Gen. revision - structure type

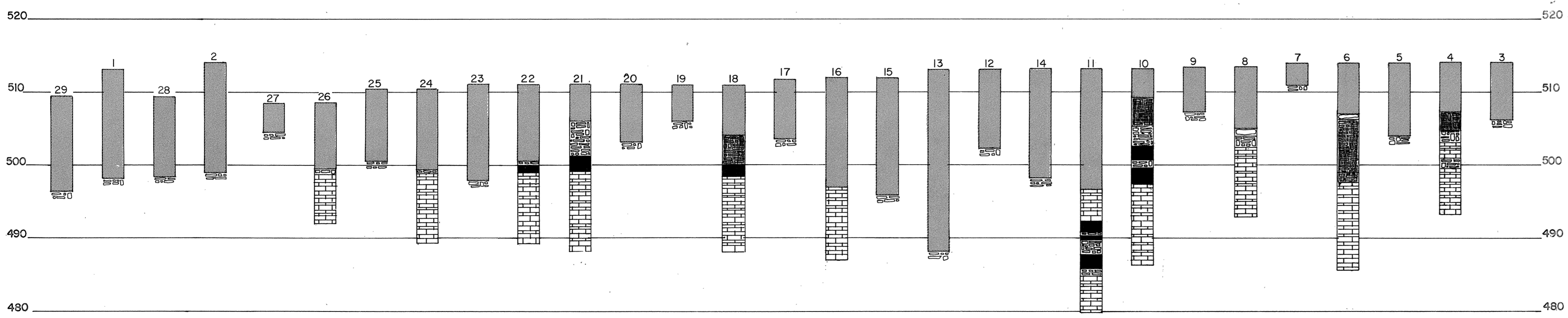
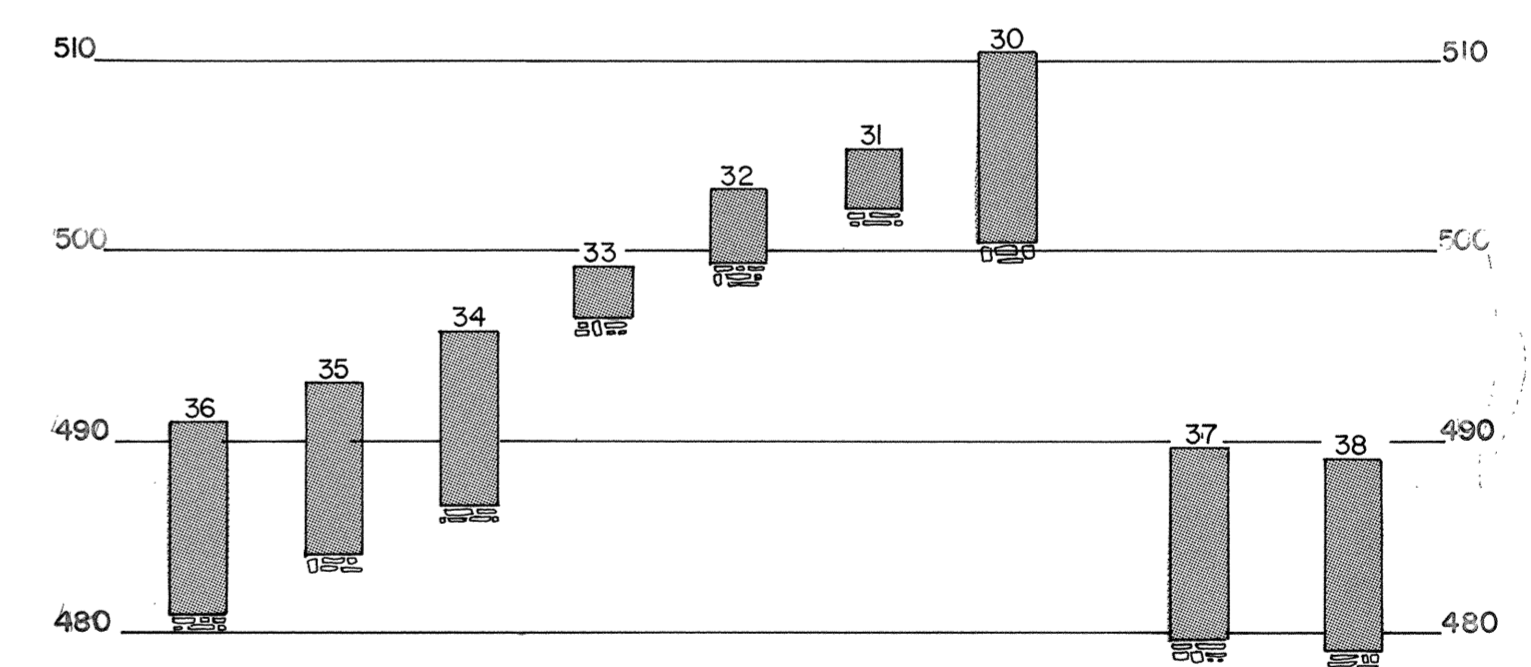


Required: Sufficient ground, rock, and coring information for bridge foundations.



GROUND AND ROCK ELEVATIONS

1 6513.7	8 6513.5	15 6512.0	22 6511.0	29 6509.4	36 6491.05
2 6498.7	9 6513.5	16 6512.0	23 6511.0	30 6496.4	37 6481.05
3 6513.2	10 6513.5	17 6511.93	24 6510.5	31 6505.32	38 6479.5
4 6514.15	11 6513.2	18 6511.0	25 6510.5	32 6507.32	39 6489.0
5 6506.15	12 6513.2	19 6511.0	26 6510.5	33 6503.32	40 6489.05
6 6514.15	13 6513.2	20 6511.0	27 6508.5	34 6499.24	
7 6514.0	14 6513.2	21 6511.1	28 6508.5	35 6499.24	
	15 6513.2	22 6511.1	29 6508.5	36 6495.87	
	16 6513.2	23 6511.1	30 6508.5	37 6486.87	
	17 6513.2	24 6511.1	31 6508.5	38 6493.05	
	18 6513.2	25 6511.1	32 6508.5	39 6489.05	
	19 6513.2	26 6511.1	33 6508.5		
	20 6513.2	27 6511.1	34 6508.5		
	21 6513.2	28 6511.1	35 6508.5		
	22 6513.2	29 6511.1	36 6508.5		
	23 6513.2	30 6511.1	37 6508.5		
	24 6513.2	31 6511.1	38 6508.5		
	25 6513.2	32 6511.1	39 6508.5		
	26 6513.2	33 6511.1	40 6508.5		



BORING NO. 10' DEPTH AUGERED TO REFUSAL
 CORE NO. 4' DEPTH AUGERED TO REFUSAL

- CLAY
- INTERVENING CAVITY OR SOIL ZONE
- CAVITY
- WEATHERED LIMESTONE
- LIMESTONE

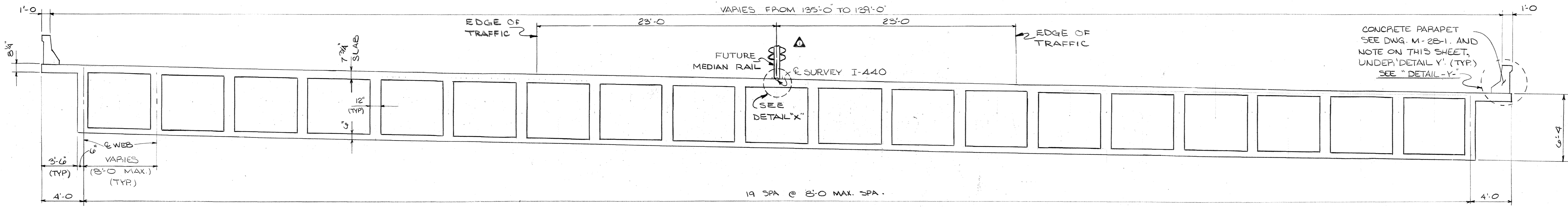
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 Foundation Data
 I-440 over Bransford Avenue
 Sta. 375+74.83
 Davidson County
 (1981)

DESIGNED BY WLD DATE
 DRAWN BY D. Briley DATE mar '80
 SUPERVISED BY Fields & DATE
 CHECKED BY DATE

CORRECT *Colleen L. Lonnell*
 ENGINEER OF STRUCTURES
 APPROVED *Lewis Brown*
 DIRECTOR OF HIGHWAYS

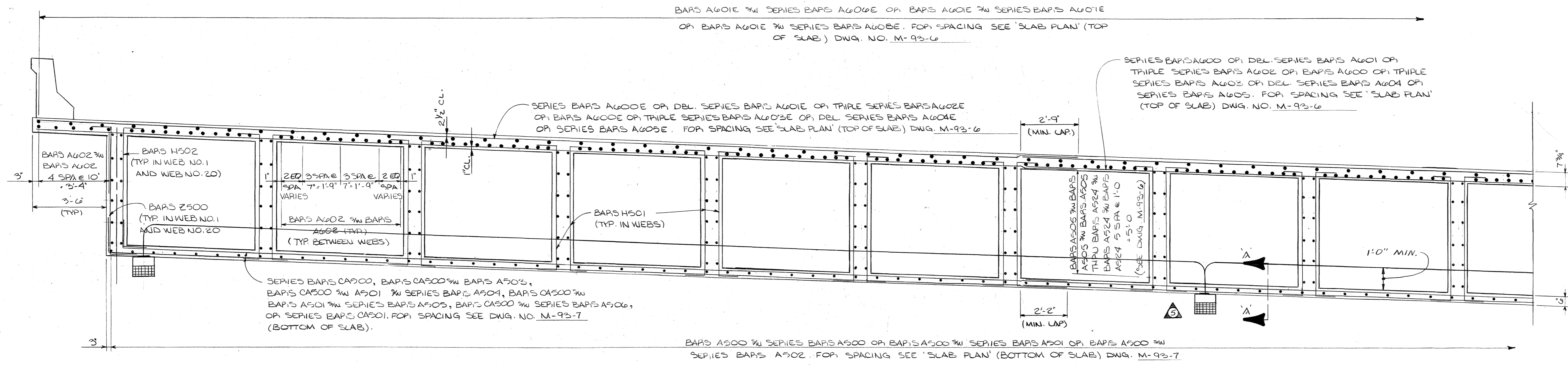
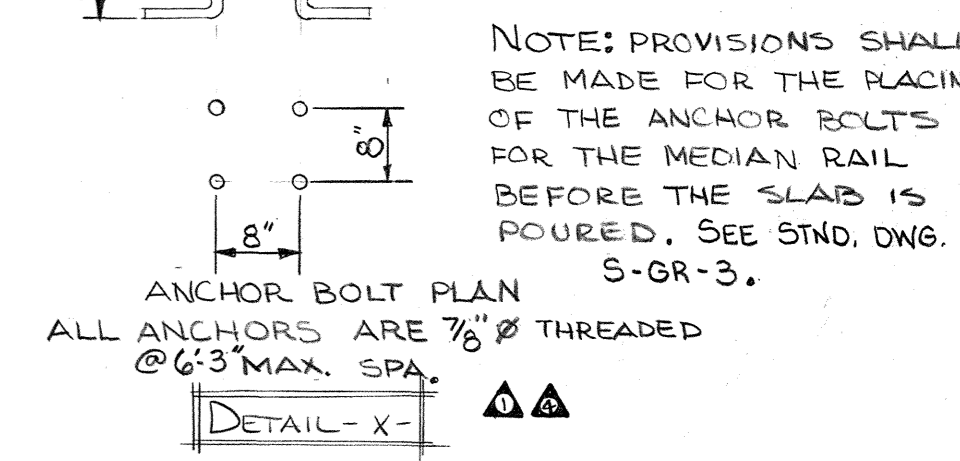
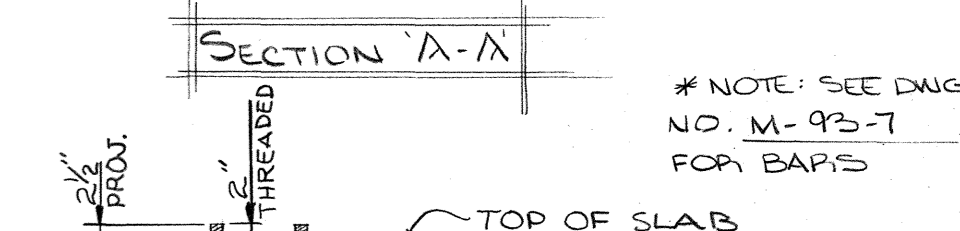
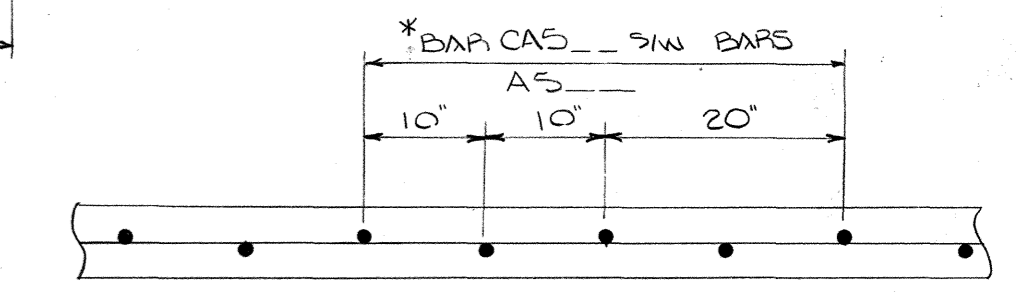
PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	73

REVISIONS				
NO.	DATE	BY	BRIEF DESCRIPTION	
1	2-20-81	M.H.	PARAPETS & MEDIAN RAIL	
2	8-11-81	M.H.	DELETED FILLETS	
3	10-6-82	M.H.	REVISED SECTION B-B	
4	1-8-83	M.H.	REVISED ANCHOR BOLT SIZE & PLAN	
5	4-13-83	M.H.	LIGHTING DETAILS	
6	3-22-84	M.H.	CORRECTS CONCRETE QUANTITY	



NOTE: THE POST-TENSIONING PROCESS SHALL NOT BEGIN UNTIL THE ENTIRE SUPERSTRUCTURE IS POURED AND THE FINAL POUR REACHES THE MINIMUM COMPRESSIVE STRENGTH. FORM WORK SHALL NOT BE REMOVED UNTIL ALL POST-TENSIONING IS COMPLETE. THE DIMENSIONS OF THE ANCHORAGES AND THE ADDITIONAL REINFORCING REQUIRED AT THE ANCHORAGES IS TO BE DETERMINED BY THE POST-TENSIONER.

TYPICAL CROSS-SECTION



- CONT. GENERAL NOTES:
- LOSS CALCULATIONS: LOSSES DUE TO ANCHOR SET, FRICTION, ELASTIC SHORTENING, CREEP, SHRINKAGE, AND RELAXATION OF STEEL SHALL BE CALCULATED BY AASHTO SPECIFICATIONS USING THE FOLLOWING:
- A. SECTION PROPERTIES
 1. A. AREA = 256.27 (FT²)
 2. I. MOMENT OF INERTIA = 1481.33 (FT⁴)
 3. Z_t = SECTION MODULUS @ TOP = 208.62 (FT³)
 4. Z_b = SECTION MODULUS @ BOTTOM = 440.04 (FT³)
 - B. PH = AMBIENT RELATIVE HUMIDITY = 70%
 - C. MOMENT DUE TO SUPERSTRUCTURE DEADLOAD = 2480 (K-FT)
 - D. MOMENT DUE TO DEAD LOADS APPLIED AFTER POST-TENSIONING = 7510 (K-FT) FOR CALCULATION OF FCS.

POST TENSIONING: SEE SPECIAL PROVISION NO. 540, AND NOTES THIS SHEET.

CONCRETE: TO BE CLASS 'A' F_c = 5000 PSI. STRESSING OPERATIONS SHALL NOT BEGIN UNTIL THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF 4000 PSI AS INDICATED BY TEST SPECIMENS. SEE SECTION 615.09 OF THE TENNESSEE STANDARD SPECIFICATIONS.

FRICTION COEFFICIENTS: U = 0.25 AND K = 0.0002

NOTE: IF THE CONTRACTOR ELECTS TO USE REMAIN IN PLACE FORMS, DETAILS FOR PROVIDING ACCESS TO ALL CELLS OF THE STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER OF STRUCTURES. SEE SPECIAL PROVISION NO. 450 & END DIAPHRAGM DETAIL THIS SHEET.

STRESSING SEQUENCE: AT NO TIME DURING STRESSING OPERATIONS SHALL MORE THAN 1/6 TH OF THE TOTAL PRESTRESSING FORCE BE ECCENTRIC ABOUT THE CENTERLINE OF THE BRIDGE.

TENDON PATH: THE TENDON PATH SHALL BE PARABOLIC BETWEEN CONTROL POINTS.

CLEARANCES FOR POST-TENSIONING DUCTS: HORIZONTAL CLEARANCE BETWEEN DUCTS = 2 1/2" MINIMUM. DUCTS MAY BE BUNDLED VERTICALLY IN GROUPS OF 3" MAXIMUM. VERTICAL CLEARANCE BETWEEN BUNDLE DUCTS = 3" MINIMUM.

BAR REINFORCEMENT INTERFERING WITH DUCT ALIGNMENT SHALL BE ADJUSTED BY THE ENGINEER.

ANCHORAGE DETAILS: ANCHORAGE DETAILS ARE TO BE DETERMINED BY THE FABRICATOR. DETAILS SHALL BE SHOWN ON THE SHOP DRAWINGS AND SUBMITTED TO THE ENGINEER OF STRUCTURES FOR APPROVAL.

TENSIONING FORCE: THE REQUIRED STRESSING LOAD AFTER ANCHORAGE RELAXATION IS 36425 K TOTAL OR 1822 K PER WEB AND A FINAL TENSION FORCE OF 29960 K TOTAL OR 1498 K PER WEB ON A SPAN AFTER LOSSES.

DUCT VENTS: DUCTS ARE TO BE PROVIDED AT BOTH ENDS OF TENDONS, AND WHERE DUCTS EXCEED 400 FEET IN LENGTH, SHALL BE VENTED WITHIN 6 FEET OF THE HIGH POINTS OF THE CABLE PATH.

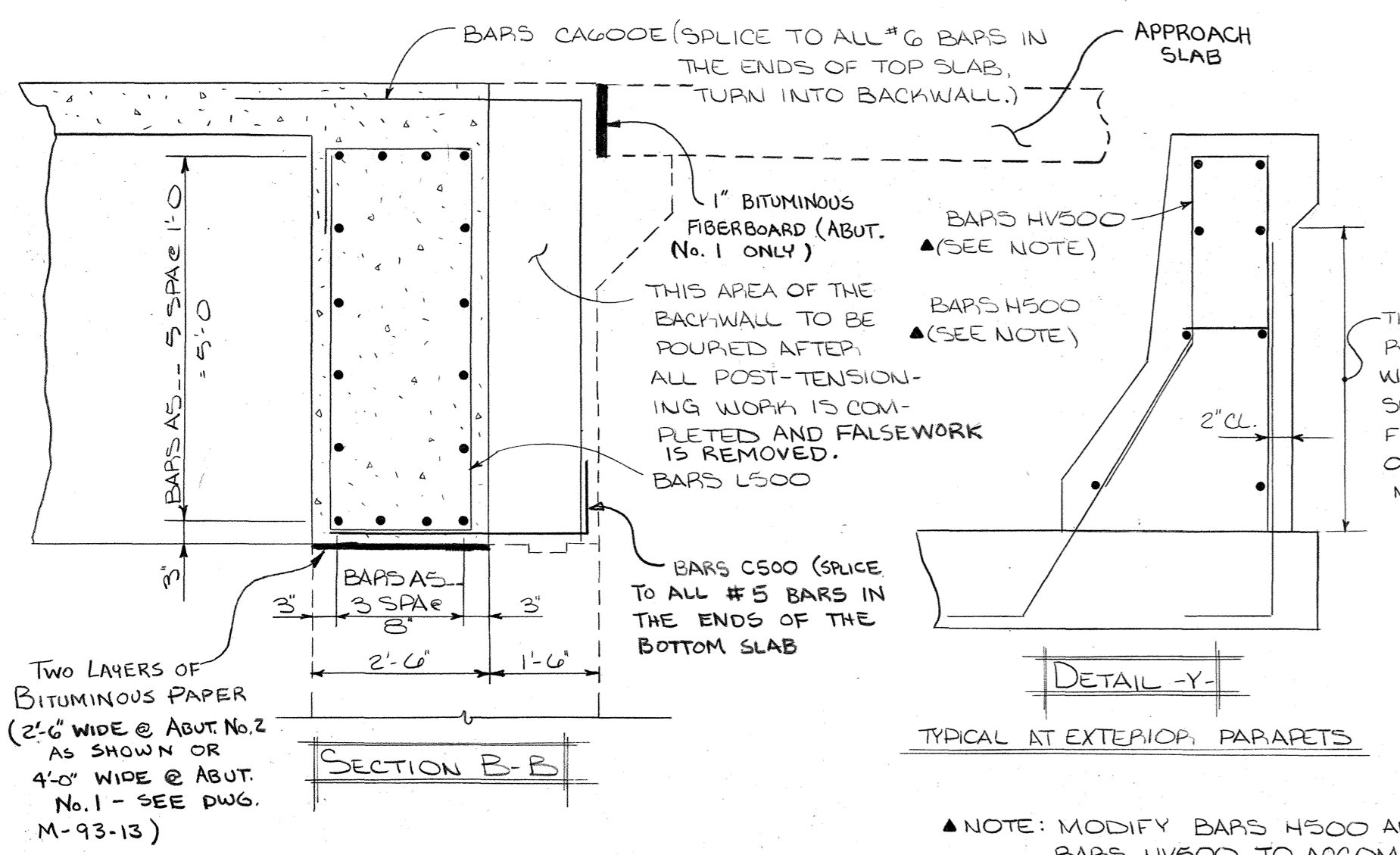
ESTIMATED QUANTITIES			
ITEM	CLASS 'A' CONCRETE CY.	REINFORCING STEEL LBS.	EPOXY COATED STEEL LBS.
SUPERSTRUCTURE	1974.2	344,810	123,480.9

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOST AND PARAPET. FOR DETAILS OF WINGPOST AND PARAPET SEE STANDARD DWG. NO. M-28-1 & DETAIL 'Y' THIS SHEET.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

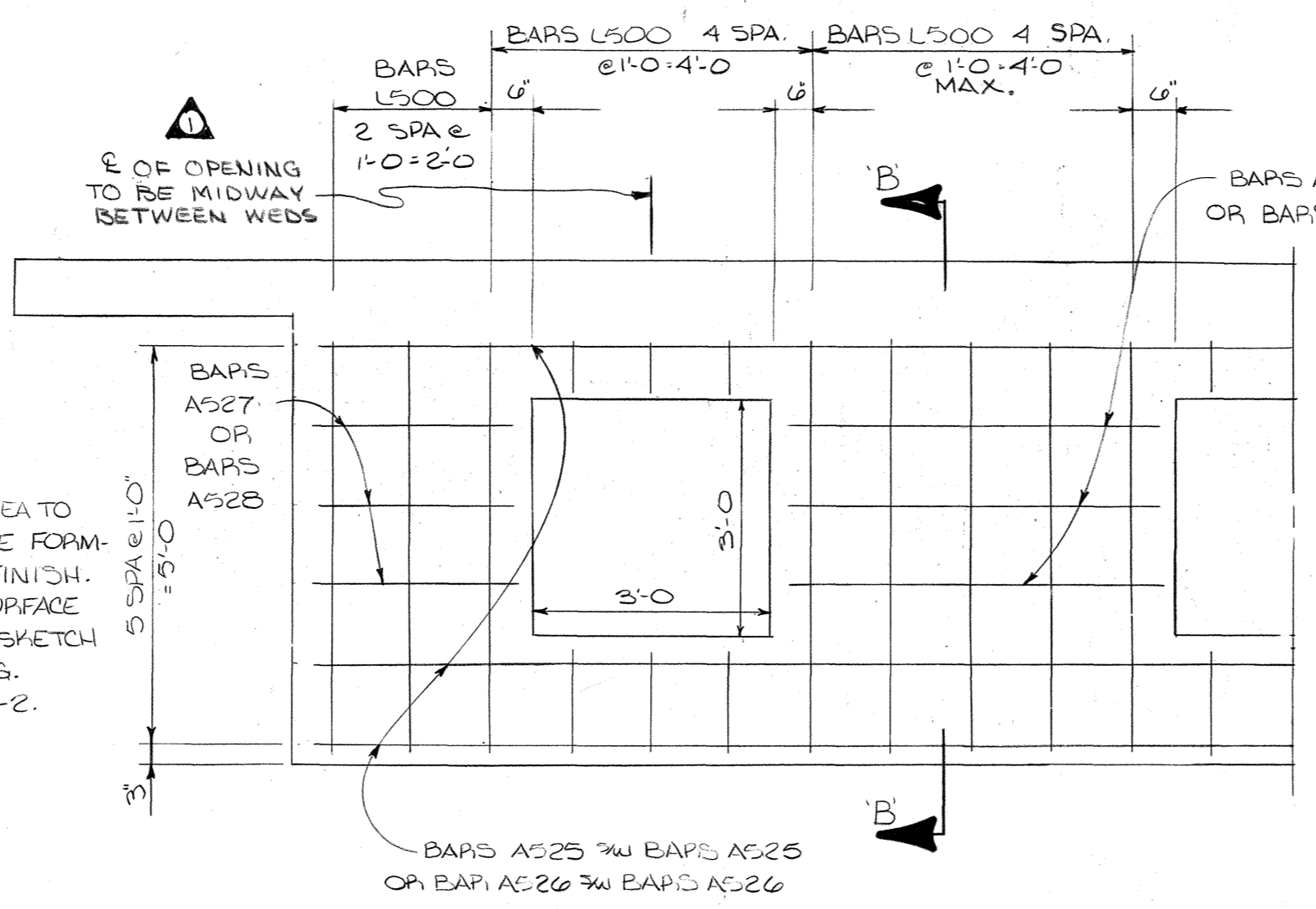
SUPERSTRUCTURE
INTERSTATE 440 OVER BRANSFORD AVENUE
STATION 375 + 74.83
DAVIDSON COUNTY
1981

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



TYPICAL AT EXTERIOR PARAPETS

NOTE: MODIFY BARS H500 AND BARS H501 TO ACCOMMODATE THE 2" CLEARANCE.



ELEVATION - A -

END DIAPHRAGM (TYP)

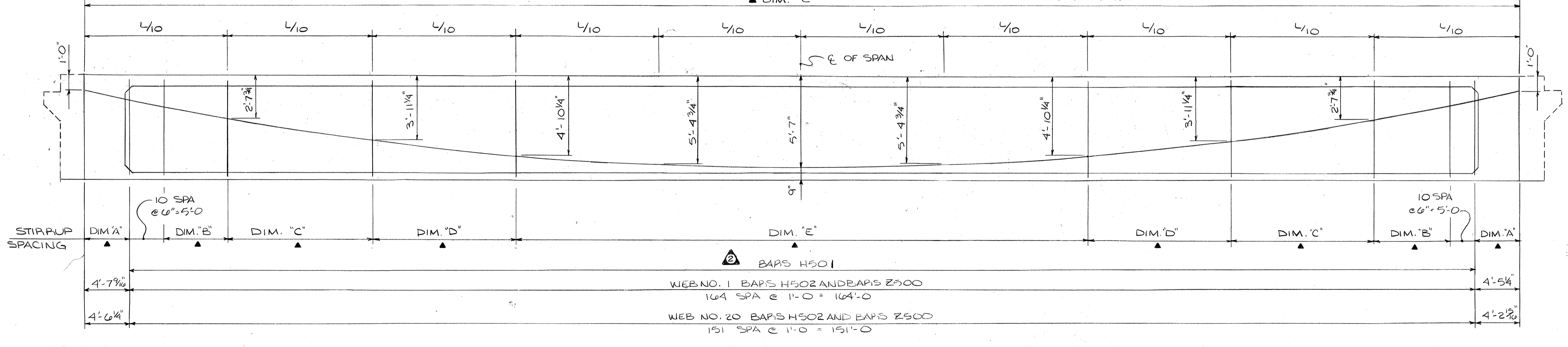
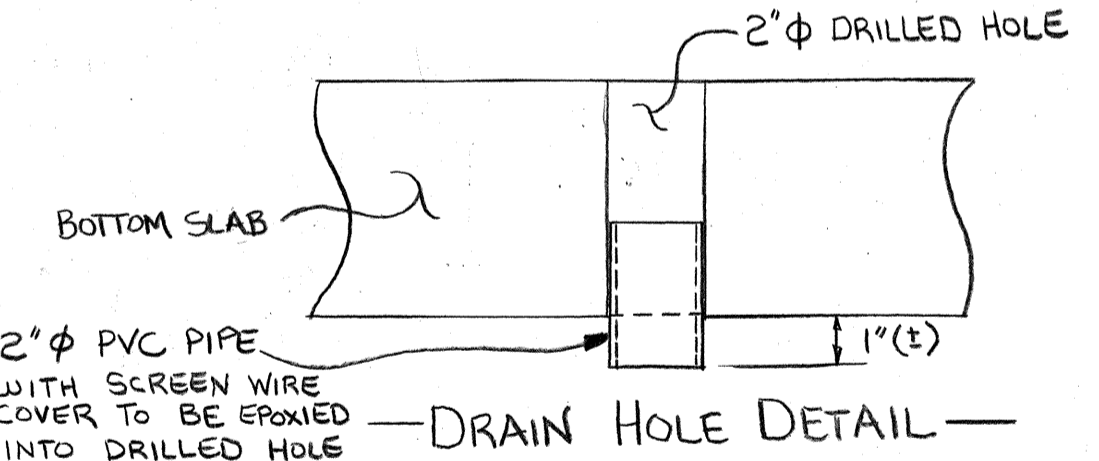
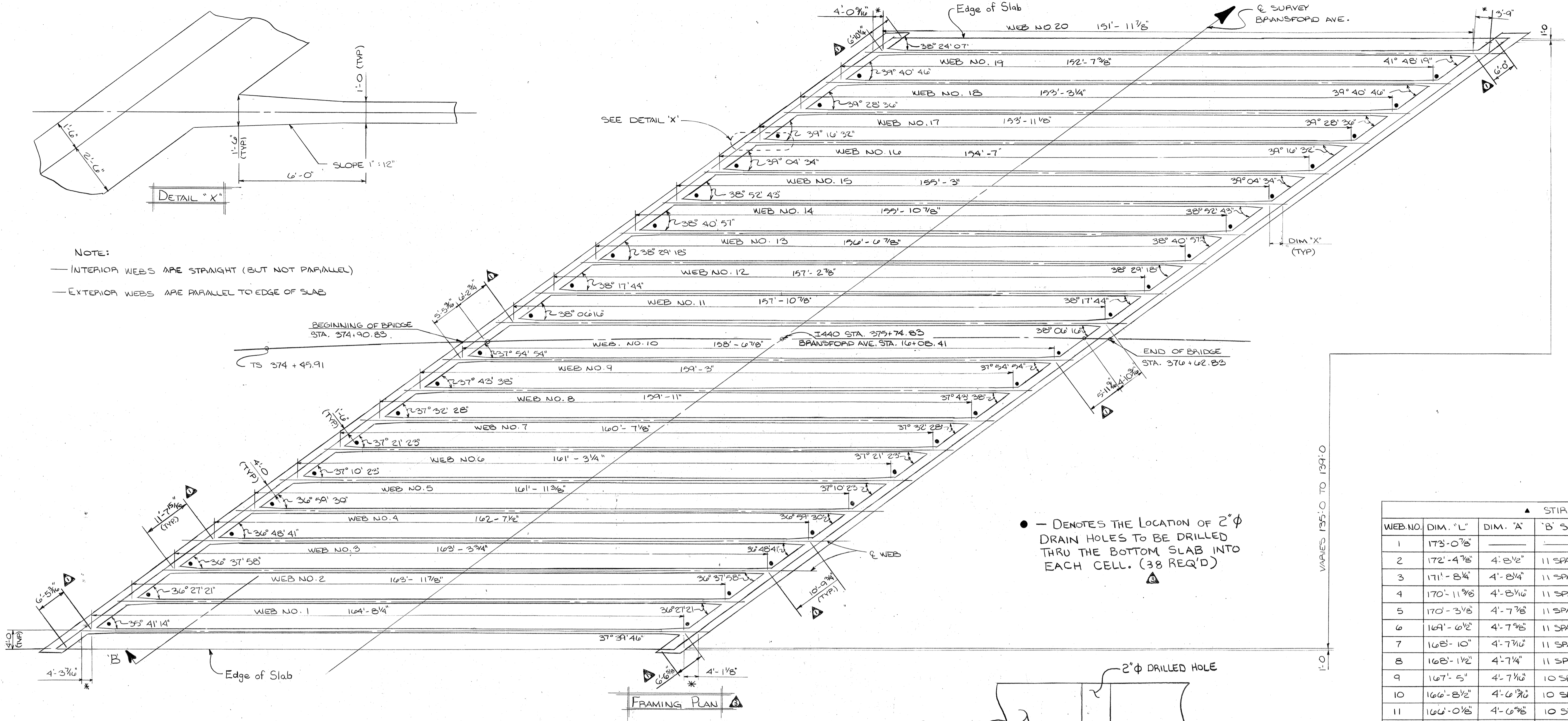
DESIGNED BY M. HOLLOPAIN DATE 10-80
DRAWN BY A. COLEMAN DATE 10-80
SUPERVISED BY J. FIELDS & I DATE 10-80
CHECKED BY DATE

PROJECT NO.	YEAR	SHEET NO.
I-440-4(3)211	1981	74

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	10-6-82	MAH	CORRECTED OR ADDED DIMENSIONS
2	1-10-83	MH	CORRECTED BAR DESIGNATION
3	8-19-88	JGU	Added Weep Holes. No. corrected.

WEB NO.	DIM. "X"
1	4'-2 1/2"
2	4'-2 1/4"
3	4'-1 7/8"
4	4'-1 7/8"
5	4'-1 7/8"
6	4'-1 7/8"
7	4'-1 7/8"
8	4'-1 7/8"
9	4'-1 7/8"
10	4'-0 7/8"
11	4'-0 7/8"
12	4'-0 7/8"
13	4'-0 7/8"
14	4'-0"
15	3'-11 3/8"
16	3'-11 3/8"
17	3'-11 3/8"
18	3'-11 3/8"
19	3'-11"
20	4'-2 1/2"

▲ STAIRUP SPACING FOR WEBS						
WEB NO.	DIM. "L"	DIM. "A"	'B' SPACING	'C' SPACING	'D' SPACING	'E' SPACING
1	173'-0 7/8"					
2	172'-4 3/8"	4'-8 1/2"	11 SPA @ 1'-0"	13 SPA @ 1'-3"	11 SPA @ 1'-6"	33 EQ. SPA.
3	171'-8 1/4"	4'-8 1/4"	11 SPA @ 1'-0"	13 SPA @ 1'-3"	11 SPA @ 1'-6"	33 EQ. SPA.
4	170'-11 3/8"	4'-8 1/2"	11 SPA @ 1'-0"	13 SPA @ 1'-3"	11 SPA @ 1'-6"	33 EQ. SPA.
5	170'-3 1/8"	4'-7 3/8"	11 SPA @ 1'-0"	13 SPA @ 1'-3"	11 SPA @ 1'-6"	32 EQ. SPA.
6	169'-6 1/2"	4'-7 3/8"	11 SPA @ 1'-0"	13 SPA @ 1'-3"	11 SPA @ 1'-6"	32 EQ. SPA.
7	168'-10"	4'-7 1/2"	11 SPA @ 1'-0"	13 SPA @ 1'-3"	11 SPA @ 1'-6"	32 EQ. SPA.
8	168'-1 1/2"	4'-7 1/4"	11 SPA @ 1'-0"	13 SPA @ 1'-3"	11 SPA @ 1'-6"	31 EQ. SPA.
9	167'-5"	4'-7 1/2"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	35 EQ. SPA.
10	166'-8 1/2"	4'-6 3/4"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	34 EQ. SPA.
11	166'-0 1/8"	4'-6 3/8"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	34 EQ. SPA.
12	165'-3 3/4"	4'-6 3/4"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	34 EQ. SPA.
13	164'-7 1/4"	4'-6 3/8"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	33 EQ. SPA.
14	163'-10 3/8"	4'-6"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	33 EQ. SPA.
15	163'-2 1/2"	4'-5 3/4"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	33 EQ. SPA.
16	162'-6 1/4"	4'-5 3/4"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	32 EQ. SPA.
17	161'-9 3/8"	4'-5 3/8"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	32 EQ. SPA.
18	161'-1 1/2"	4'-5 3/8"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	32 EQ. SPA.
19	160'-5 3/8"	4'-5"	10 SPA @ 1'-0"	12 SPA @ 1'-3"	10 SPA @ 1'-6"	31 EQ. SPA.
20	159'-9 1/4"					



DESIGNED BY M. HOLLORAN
 DRAWN BY K. COLEMAN
 SUPERVISED BY J. FIELDS
 CHECKED BY

DATE 11-80
 DATE 11-80
 DATE

ELEVATION
 SHOWING CABLE PATH AND STAIRUP SPACING

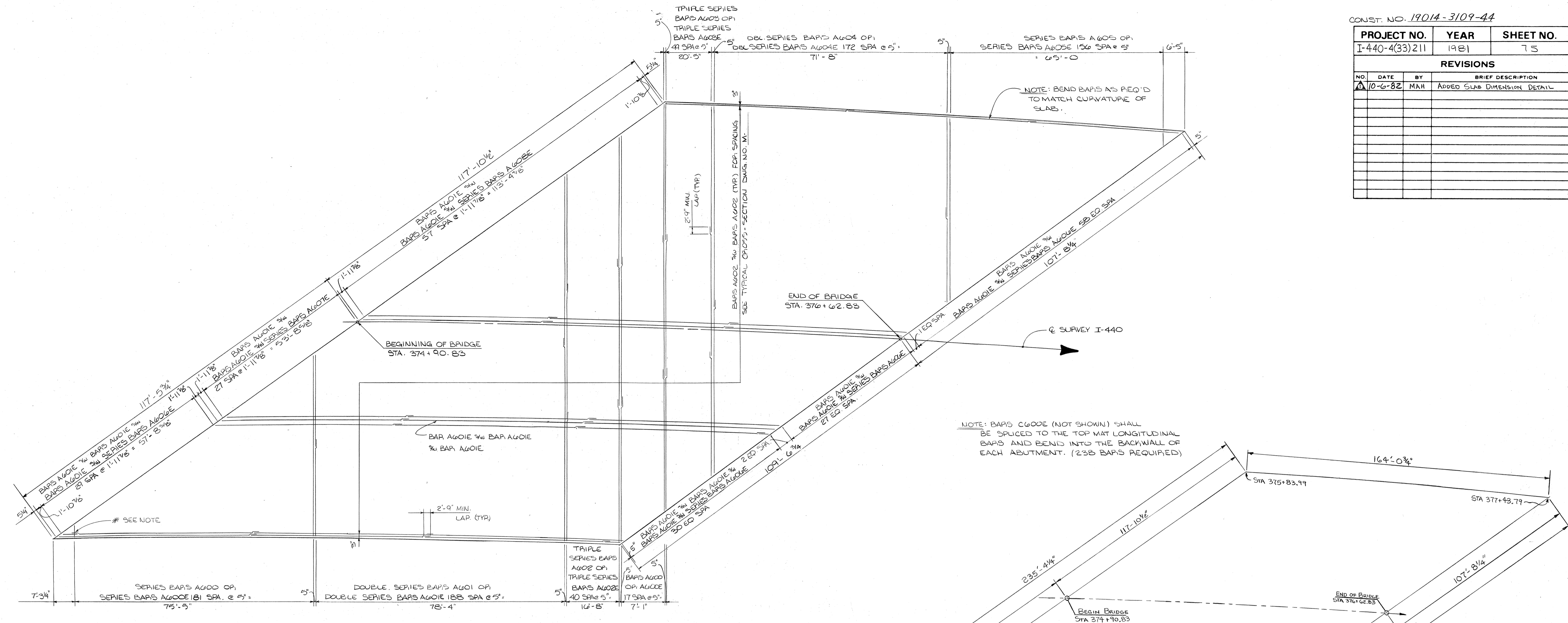
▲ SEE TABLE FOR DIMENSIONS.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 INTERSTATE 440 OVER BRANSFORD AVENUE
 STATION 375+74.83
 DAVIDSON COUNTY
 1981

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

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	75

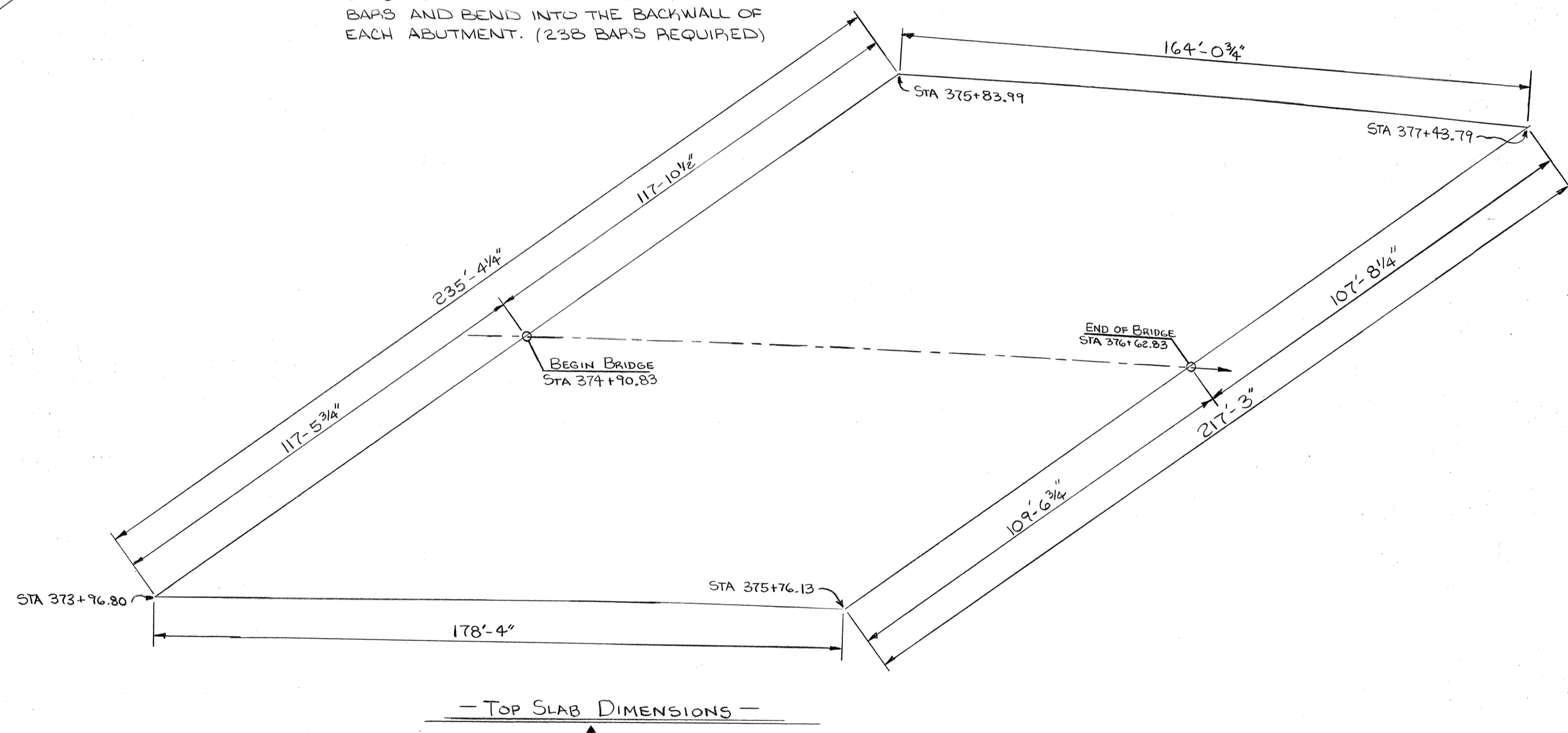
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	10-6-82	MAH	ADDED SLAB DIMENSION DETAIL



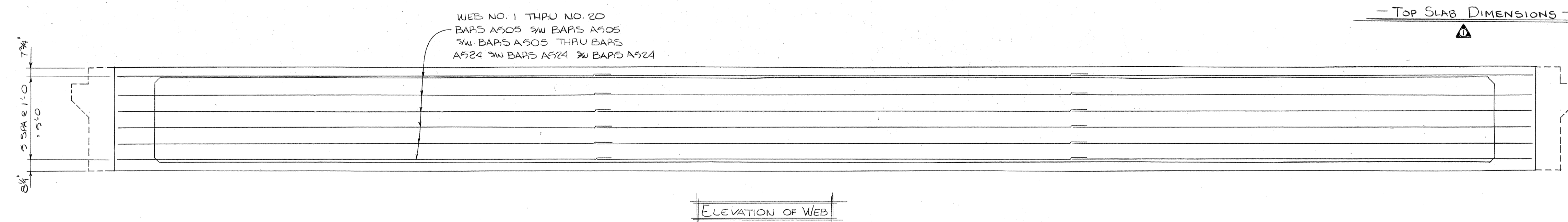
* NOTE: ALTERNATE ENDS FOR SHORT BAR SPLICES.

TOP SLAB PLAN

SHOWING TOP AND BOTTOM REINFORCEMENT OF THE TOP SLAB



TOP SLAB DIMENSIONS



ELEVATION OF WEB

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 INTERSTATE - 440 OVER
 BRANSFORD AVENUE
 STATION 375+74.83
 DAVIDSON COUNTY
 1981

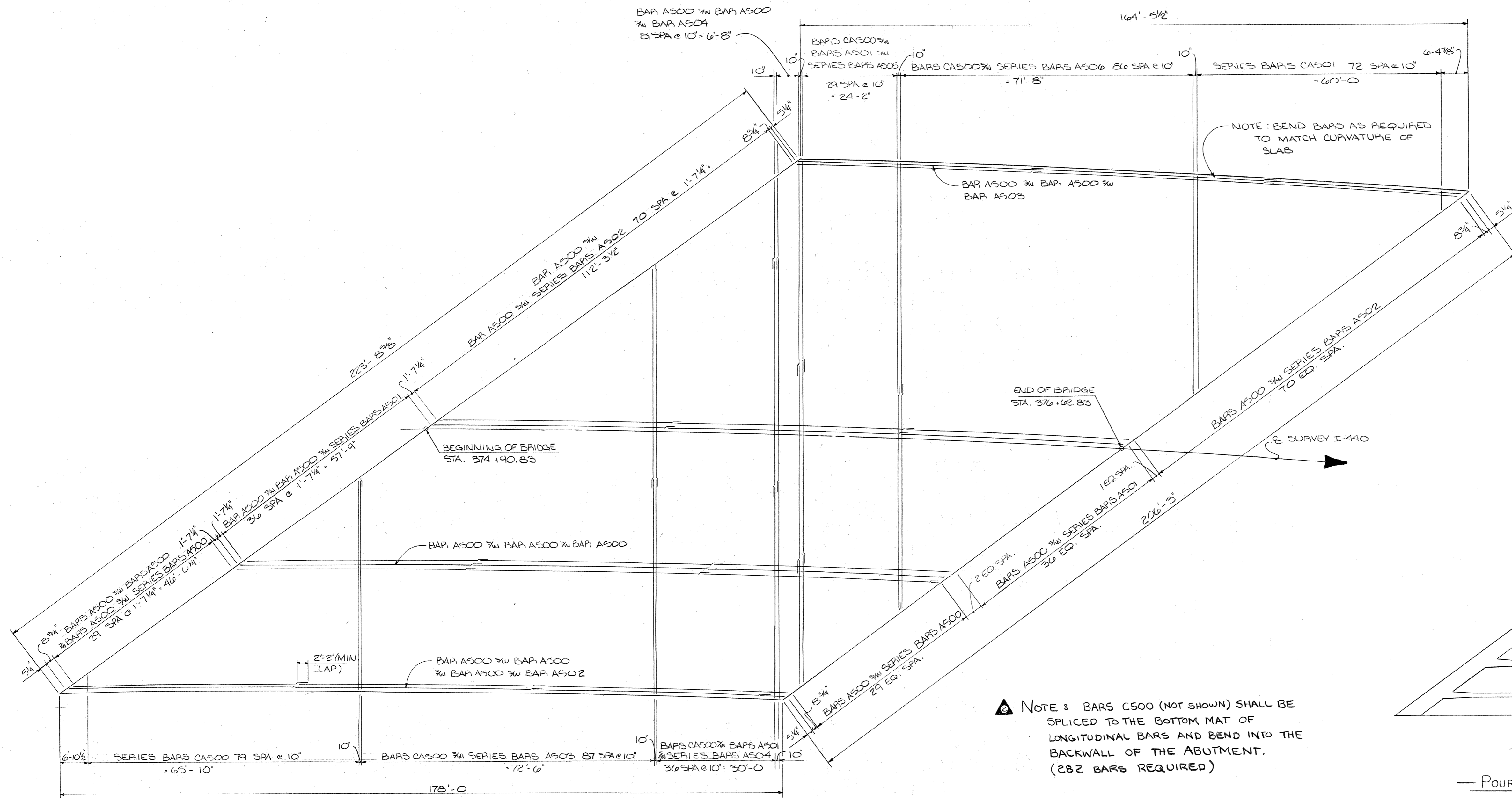
DESIGNED BY M. HOLLORAN DATE 80
 DRAWN BY K. COLEMAN DATE 12-80
 SUPERVISED BY J. FIELDS DATE 12-80
 CHECKED BY DATE

CORRECT *Calleton L. Sewell*
 ENGINEER OF STRUCTURES
 APPROVED *Lewis Evans*
 DIRECTOR OF HIGHWAYS

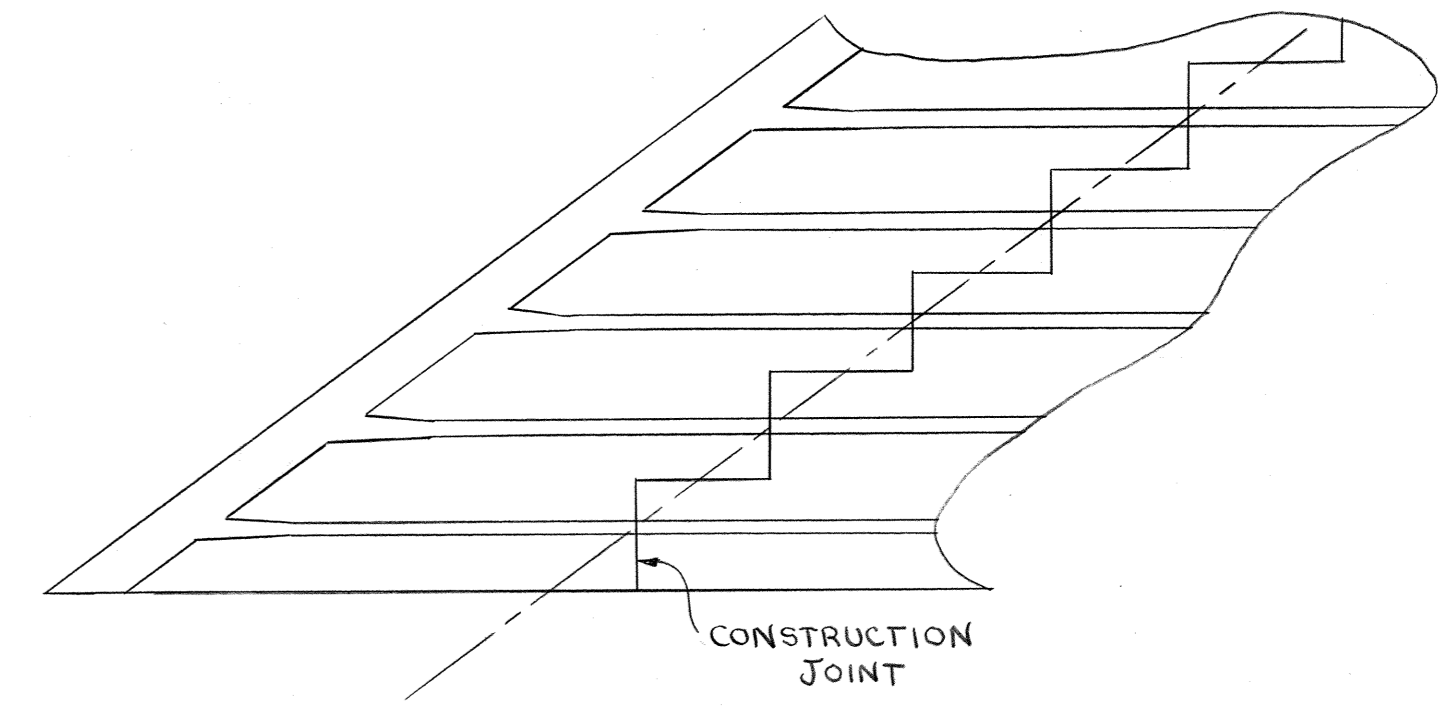
MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	76

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
Δ	8-11-81	MAH	ADDED POURING SEQUENCE AND DEAD LOAD CORRECTION CURVE
Δ	10-6-82	MH	ADDED C500 BARS

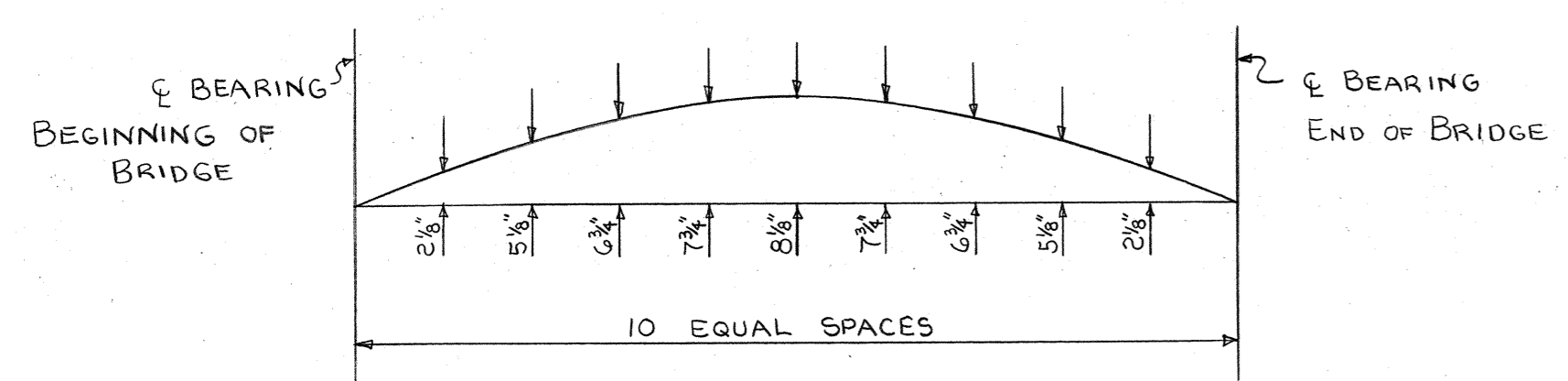


NOTE: BARS C500 (NOT SHOWN) SHALL BE SPLICED TO THE BOTTOM MAT OF LONGITUDINAL BARS AND BEND INTO THE BACKWALL OF THE ABUTMENT. (282 BARS REQUIRED)



POURING SEQUENCE
 FORMS AND SUPPORTS FOR THE ENTIRE BOTTOM SLAB SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF SUPER-STRUCTURE CONCRETE. CONCRETE FOR THE TOP AND BOTTOM SLAB AND WALLS MAY BE PLACED IN ANY SEQUENCE; HOWEVER, CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AS SHOWN. NO TOP SLAB CONCRETE MAY BE PLACED UNTIL ALL WALLS HAVE BEEN COMPLETED.

BOTTOM SLAB PLAN
 SHOWING REINFORCEMENT OF BOTTOM SLAB



DEAD LOAD CORRECTION CURVE
 THIS CURVE IS THE NET DEFLECTION OF ALL DEAD LOADS WITH THE EFFECTS OF POST-TENSIONING INCLUDED. THIS CURVE SHOULD BE INCREASED BY THE AMOUNT OF ANTICIPATED TAKE UP IN THE FALSEWORK AND CORRECTED TO COMPENSATE FOR THE EFFECTS DUE TO VERTICAL CURVE.

DESIGNED BY M. HOLLOWAY DATE 12-80
 DRAWN BY H. COLEMAN DATE 12-80
 SUPERVISED BY J. FIELDS DATE 12-80
 CHECKED BY DATE

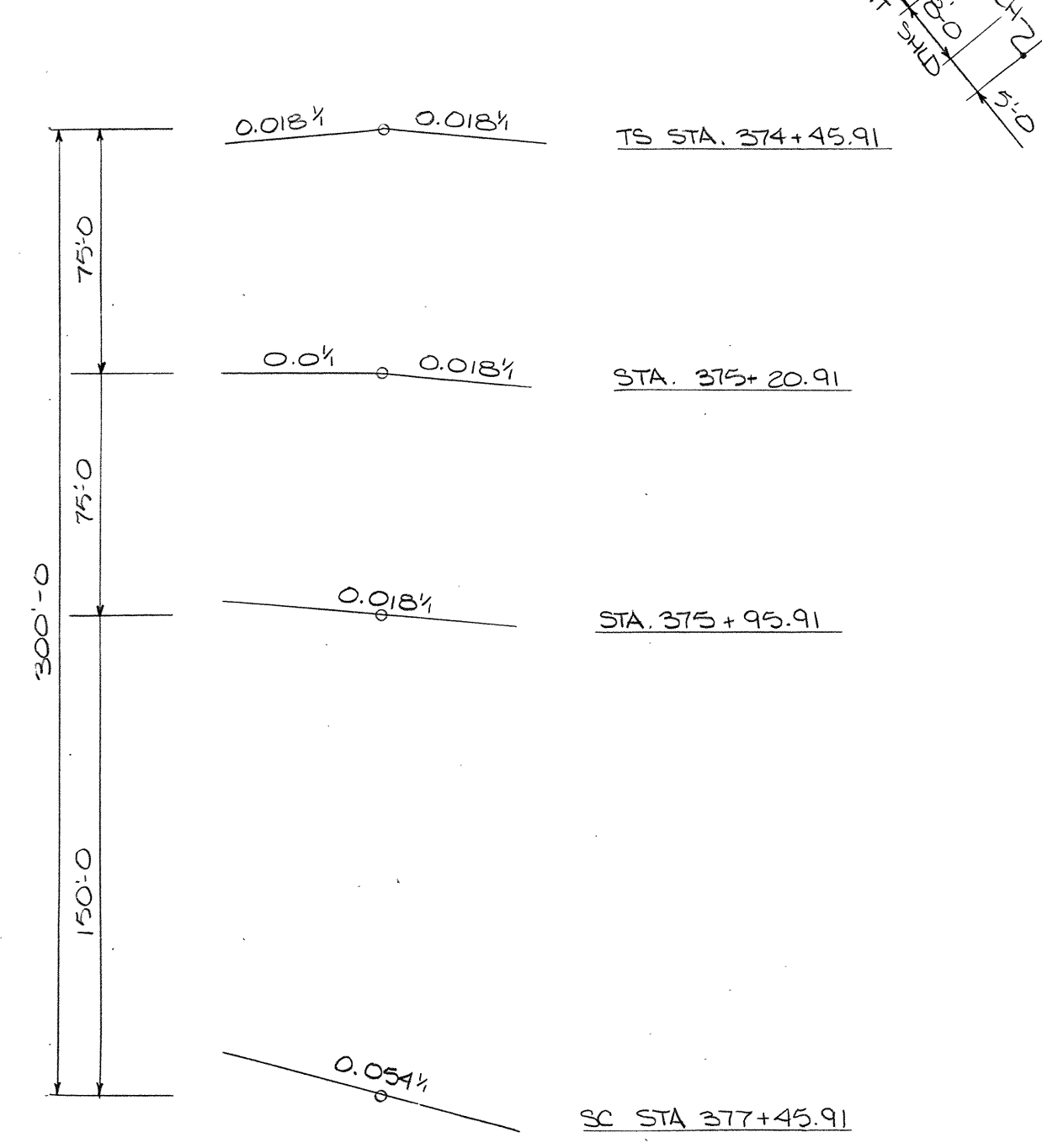
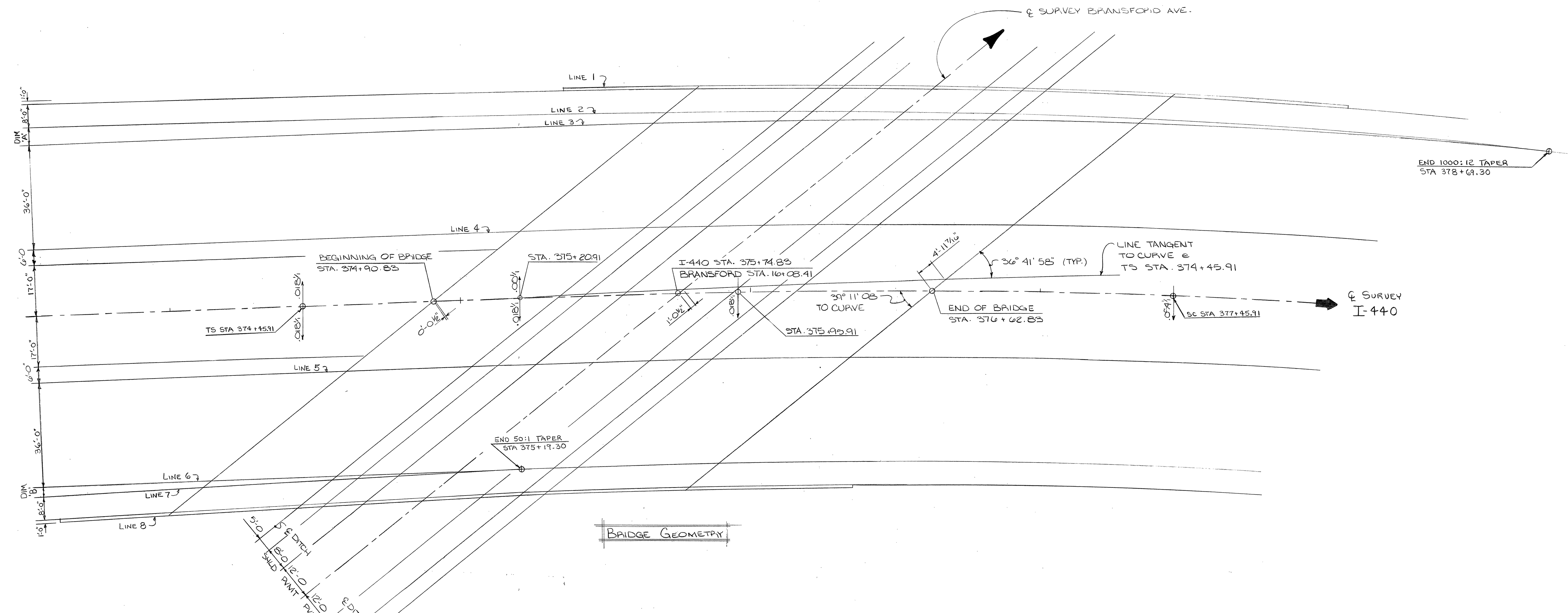
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 INTERSTATE-440 OVER
 BRANSFORD AVENUE
 STATION 375+74.83
 DAVIDSON COUNTY
 1981

CORRECT *Clifton L. Loraal*
 ENGINEER OF STRUCTURES
 APPROVED *Levin S. Evans*
 DIRECTOR OF HIGHWAYS

MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	77

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



STATION	DIMENSION 'A'	DIMENSION 'B'	ELEVATIONS									
			LINE 1	LINE 2	LINE 3	LINE 4	☉ SURVEY	LINE 5	LINE 6	LINE 7	LINE 8	
374+00	5.632'	2.386'						525.162	524.748	524.100	524.057	523.895
+10	5.512'	2.186'						525.224	524.810	524.162	524.123	523.961
+20	5.392'	1.986'						525.284	524.870	524.222	524.186	524.024
+30	5.272'	1.786'						525.340	524.926	524.278	524.246	524.084
+40	5.152'	1.586'						525.394	524.980	524.332	524.303	524.141
+50	5.032'	1.386'	524.202	524.355	524.441	525.054	525.445	525.031	524.383	524.358	524.328	524.196
+60	4.912'	1.186'	524.428	524.559	524.631	525.157	525.493	525.079	524.431	524.410	524.380	524.248
+70	4.792'	0.986'	524.650	524.760	524.818	525.258	525.539	525.125	524.477	524.459	524.429	524.297
+80	4.672'	0.786'	524.868	524.957	525.003	525.356	525.582	525.168	524.520	524.506	524.476	524.344
+90	4.552'	0.586'	525.084	525.051	525.184	525.451	525.622	525.206	524.560	524.549	524.519	524.387
375+00	4.432'	0.386'	525.296	525.341	525.363	525.544	525.659	525.245	524.577	524.570	524.540	524.428
+10	4.312'	0.186'	525.505	525.528	525.540	525.634	525.694	525.280	524.632	524.629	524.609	524.467
+20	4.192'	0.000'	525.710	525.712	525.713	525.721	525.726	525.310	524.664	524.664	524.644	524.502
+30	4.072'		525.912	525.893	525.884	525.865	525.755	525.341	524.693	524.693	524.673	524.531
+40	3.952'		526.111	526.070	526.052	525.887	525.762	525.368	524.720	524.720	524.700	524.558
+50	3.832'		526.307	526.244	526.217	525.966	525.805	525.391	524.743	524.743	524.723	524.581
+60	3.712'		526.499	526.415	526.380	526.042	525.827	525.413	524.764	524.764	524.744	524.603
+70	3.592'		526.688	526.582	526.540	526.116	525.845	525.431	524.783	524.783	524.763	524.621
+80	3.472'		526.874	526.746	526.697	526.187	525.860	525.446	524.798	524.798	524.778	524.636
+90	3.352'		527.056	526.907	526.852	526.255	525.873	525.459	524.811	524.811	524.791	524.649
376+00	3.232'		527.235	527.065	527.003	526.320	525.883	525.447	524.763	524.763	524.743	524.593
+10	3.112'		527.411	527.219	527.152	526.382	525.891	525.399	524.629	524.629	524.609	524.437
+20	2.992'		527.583	527.370	527.298	526.442	525.895	525.348	524.492	524.492	524.472	524.278
+30	2.872'		527.753	527.517	527.442	526.497	525.897	525.295	524.353	524.353	524.333	524.117
+40	2.752'		527.919	527.661	527.583	526.554	525.896	525.239	524.210	524.210	524.190	523.953
+50	2.632'		528.081	527.802	527.721	526.606	525.893	525.180	524.065	524.065	524.045	523.786
+60	2.512'		528.240	527.940	527.856	526.654	525.887	525.119	523.917	523.917	523.897	523.617
+70	2.392'		528.396	528.074	527.989	526.701	525.878	525.055	523.767	523.767	523.747	523.445
+80	2.272'		528.549	528.205	528.119	526.744	525.866	524.988	523.613	523.613	523.593	523.270
+90	2.152'		528.698	528.333	528.246	526.785	525.851	524.918	523.457	523.457	523.437	523.092
377+00	2.032'		528.844	528.458	528.370	526.823	525.834	524.846	523.298	523.298	523.278	522.912
+10	1.912'		528.987	528.578	528.492	526.858	525.814	524.771	523.137	523.137	523.117	522.728
+20	1.792'		529.126	528.694	528.610	526.891	525.792					
+30	1.672'		529.262	528.811	528.727	526.921	525.764					
+40	1.552'		529.395	528.922	528.841	526.947	525.738					

SLOPE CHANGE ON I-440

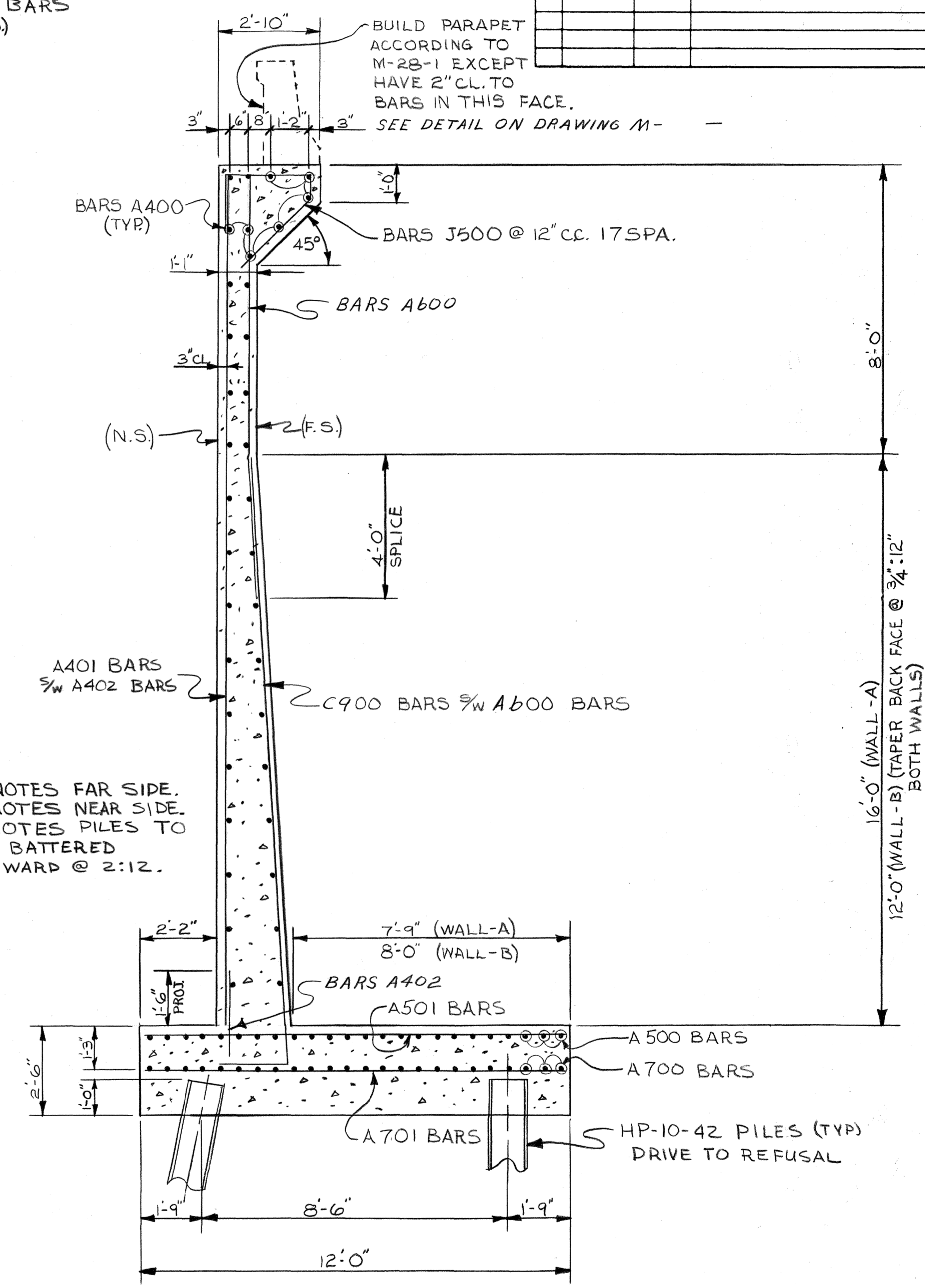
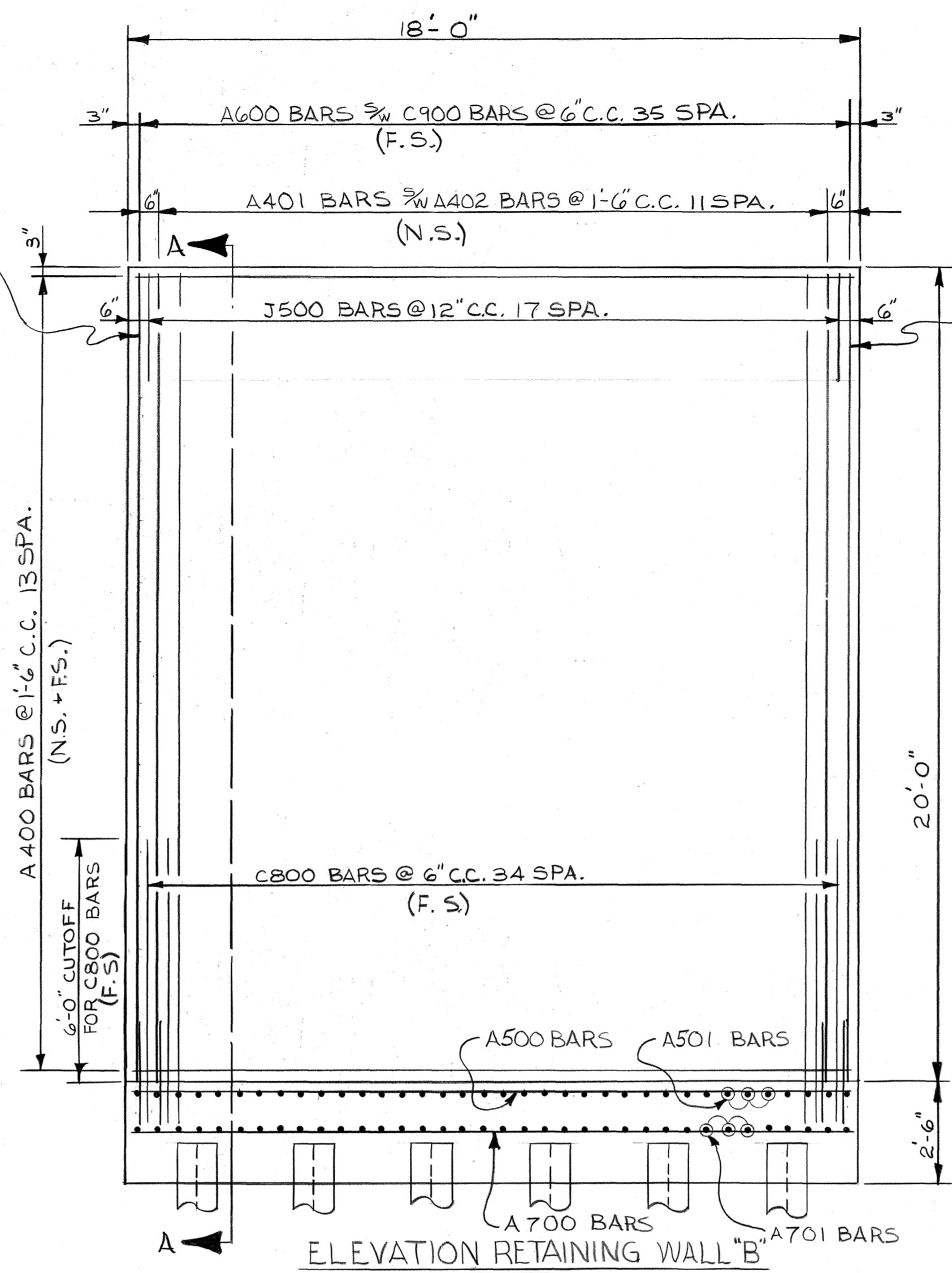
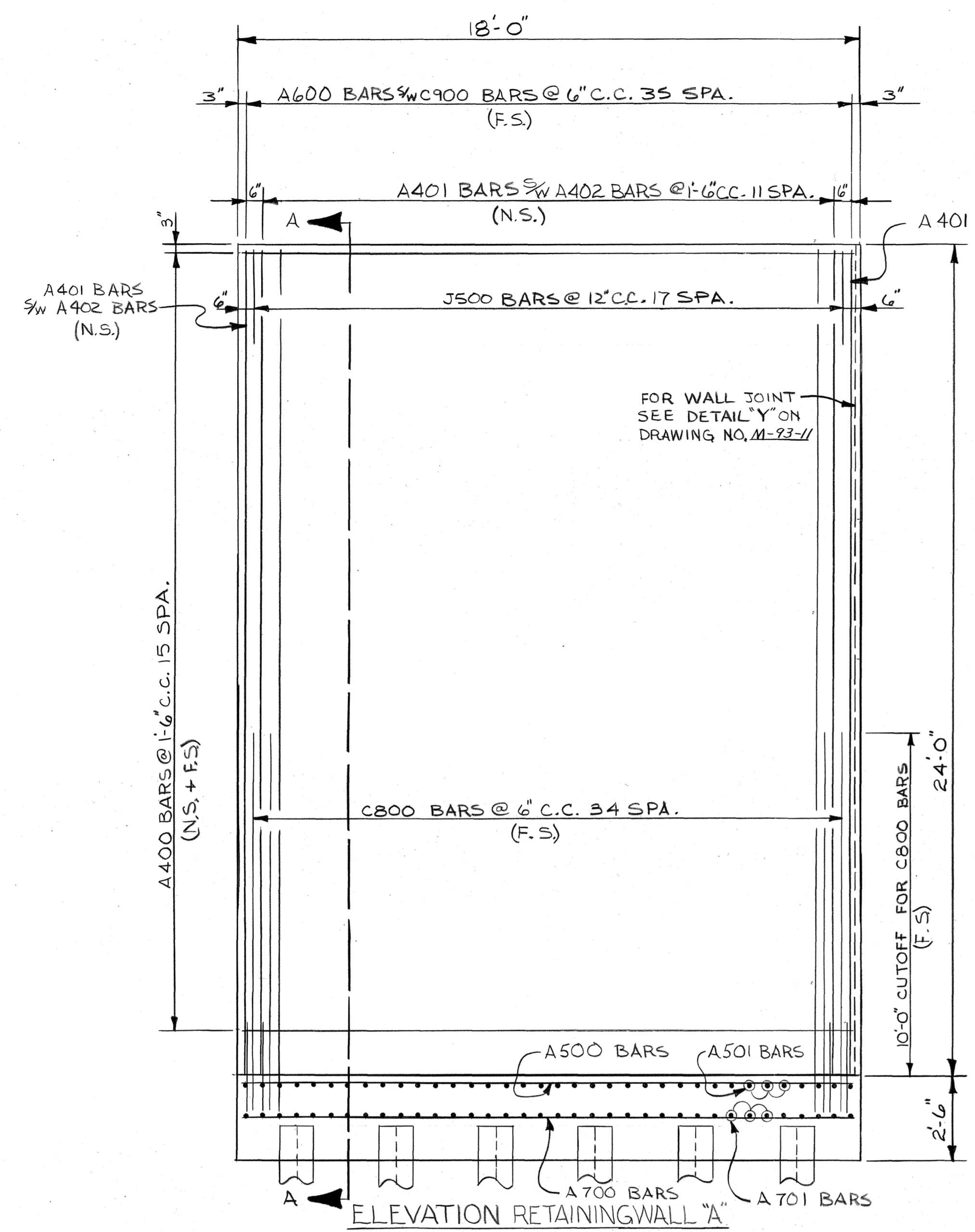
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 INTERSTATE 440 OVER
 BRANFORD AVENUE
 STATION
 DAVIDSON COUNTY
 1981

DESIGNED BY M. HOLLORAN
 DRAWN BY K. FRANKENFIELD
 SUPERVISED BY J. FIELDS
 CHECKED BY
 DATE 12/80
 DATE 12/80
 DATE

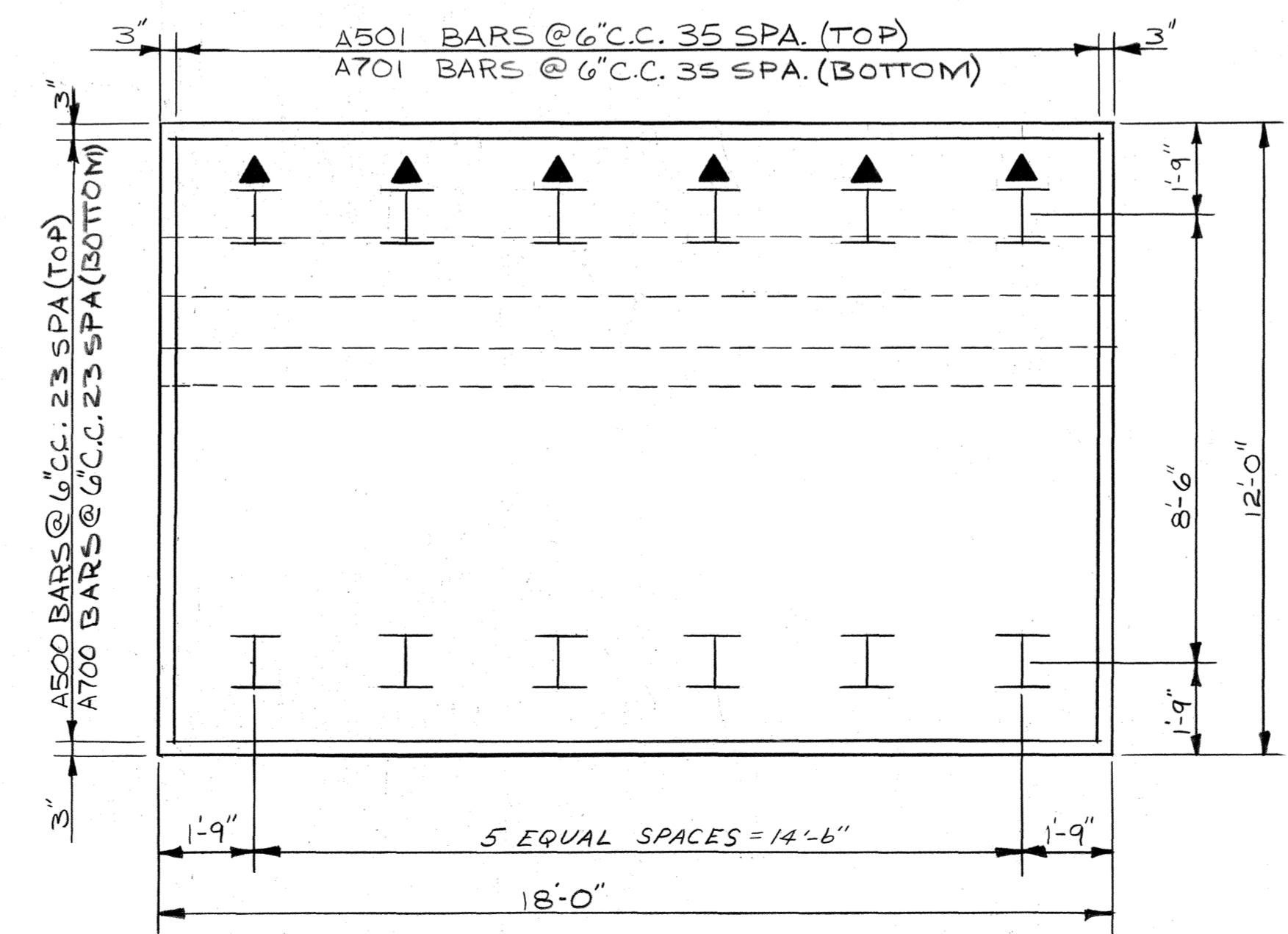
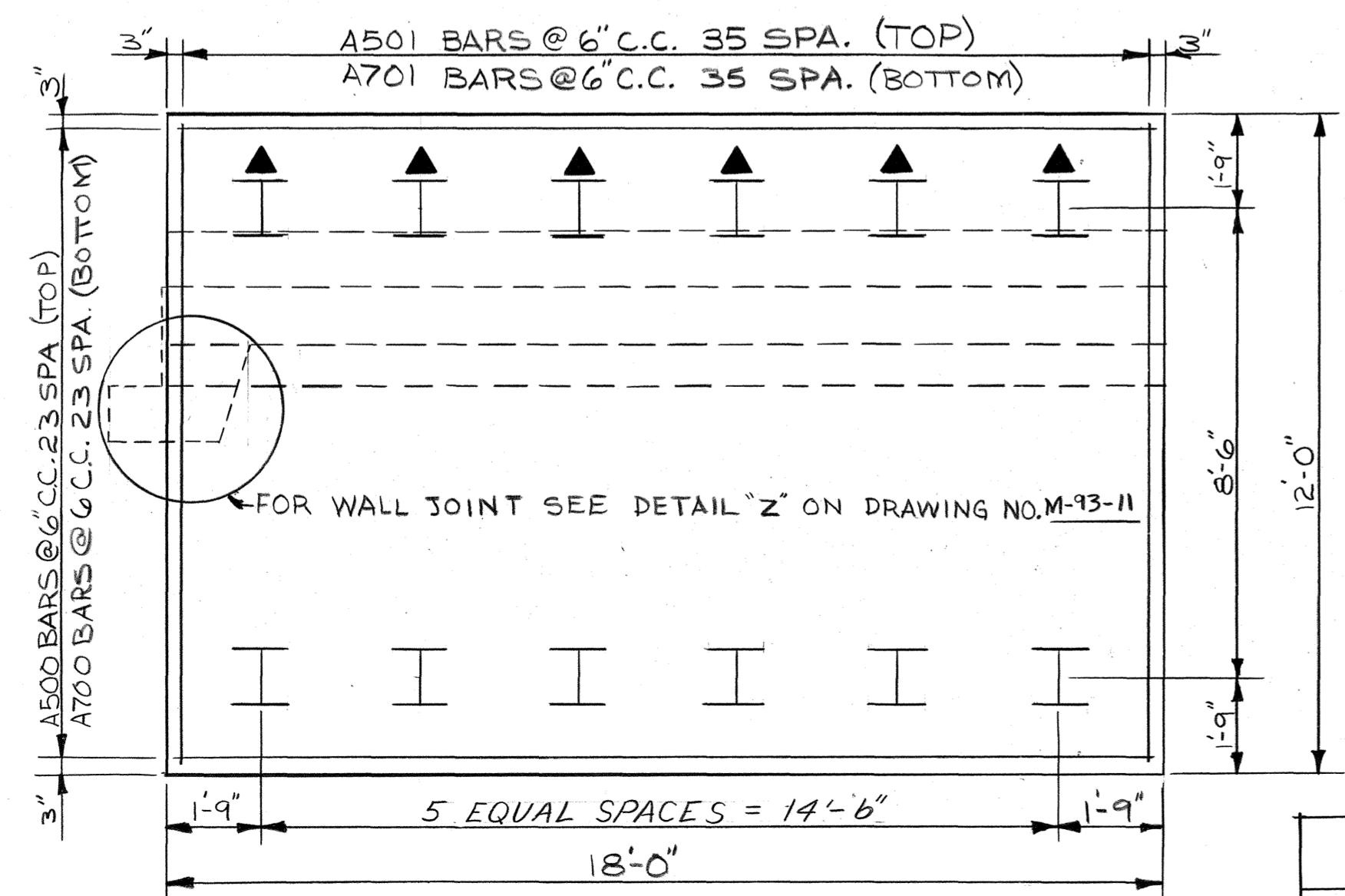
CORRECT *Colleen L. Foucaud*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Evans*
 DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	78

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



F.S.: DENOTES FAR SIDE.
 N.S.: DENOTES NEAR SIDE.
 ▲: DENOTES PILES TO BE BATTERED OUTWARD @ 2:12.



PLAN OF FOOTING

RETAIN. WALL	CONCRETE C.Y.	REINF. STEEL (LBS)
A	2.9	480.0

ESTIMATED QUANTITIES

RETAINING WALLS	CONCRETE (CUBIC YARD)	REINFORCING STEEL (LBS)
WALL "A"	44.9	7,480
WALL "B"	39.6	6,532

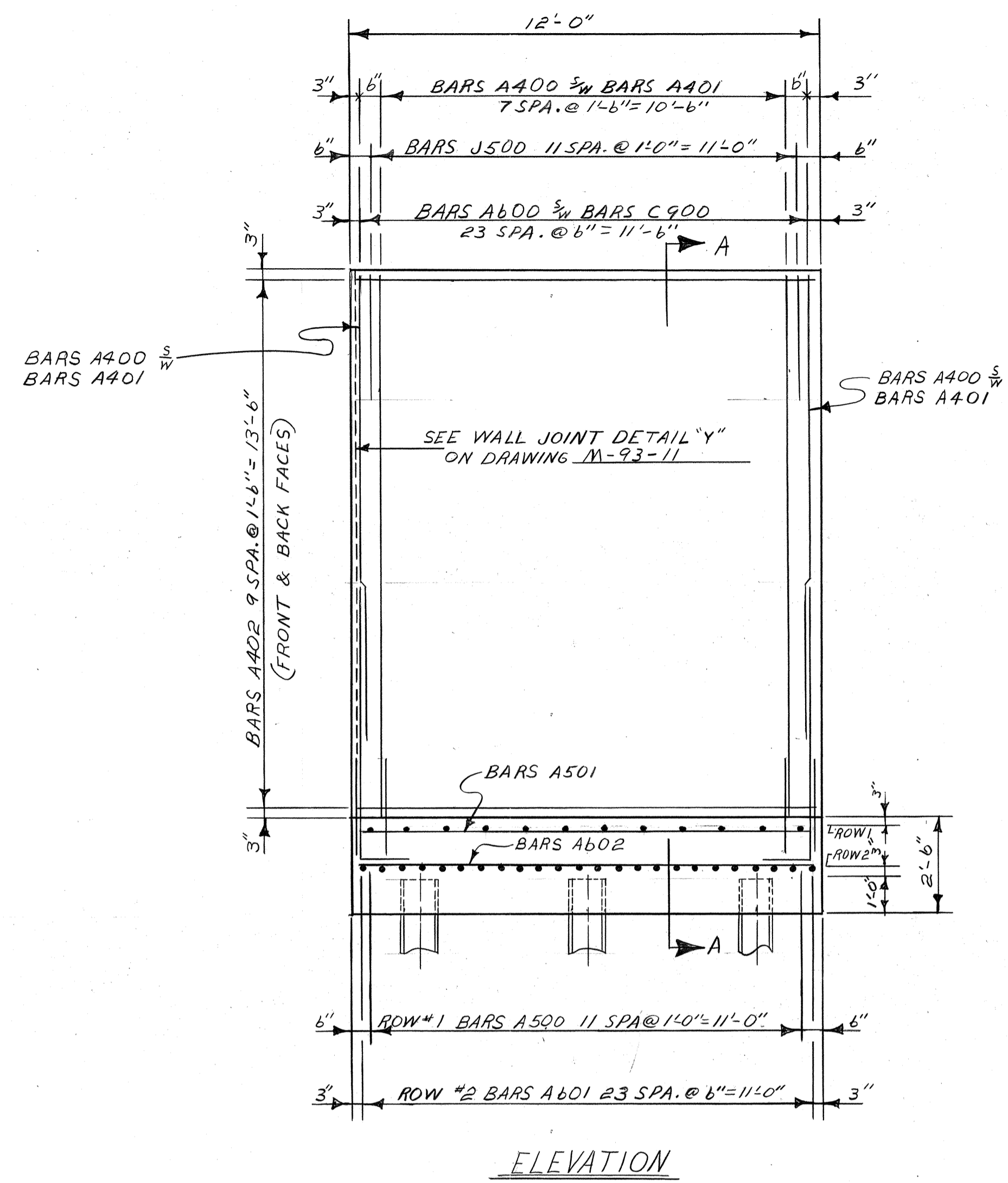
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 RETAINING WALLS "A" + "B"
 I440 OVER BRANSFORD AVENUE
 STATION 375+74.83
 DAVIDSON COUNTY
 1981

CORRECT *William L. Forsvall*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Guand*
 DIRECTOR OF HIGHWAYS

DESIGNED BY MARK HOLLORAN DATE 12-80
 DRAWN BY KEN FRANKENFIELD DATE 1-81
 SUPERVISED BY JIM FIELDS DATE 1-81
 CHECKED BY DATE

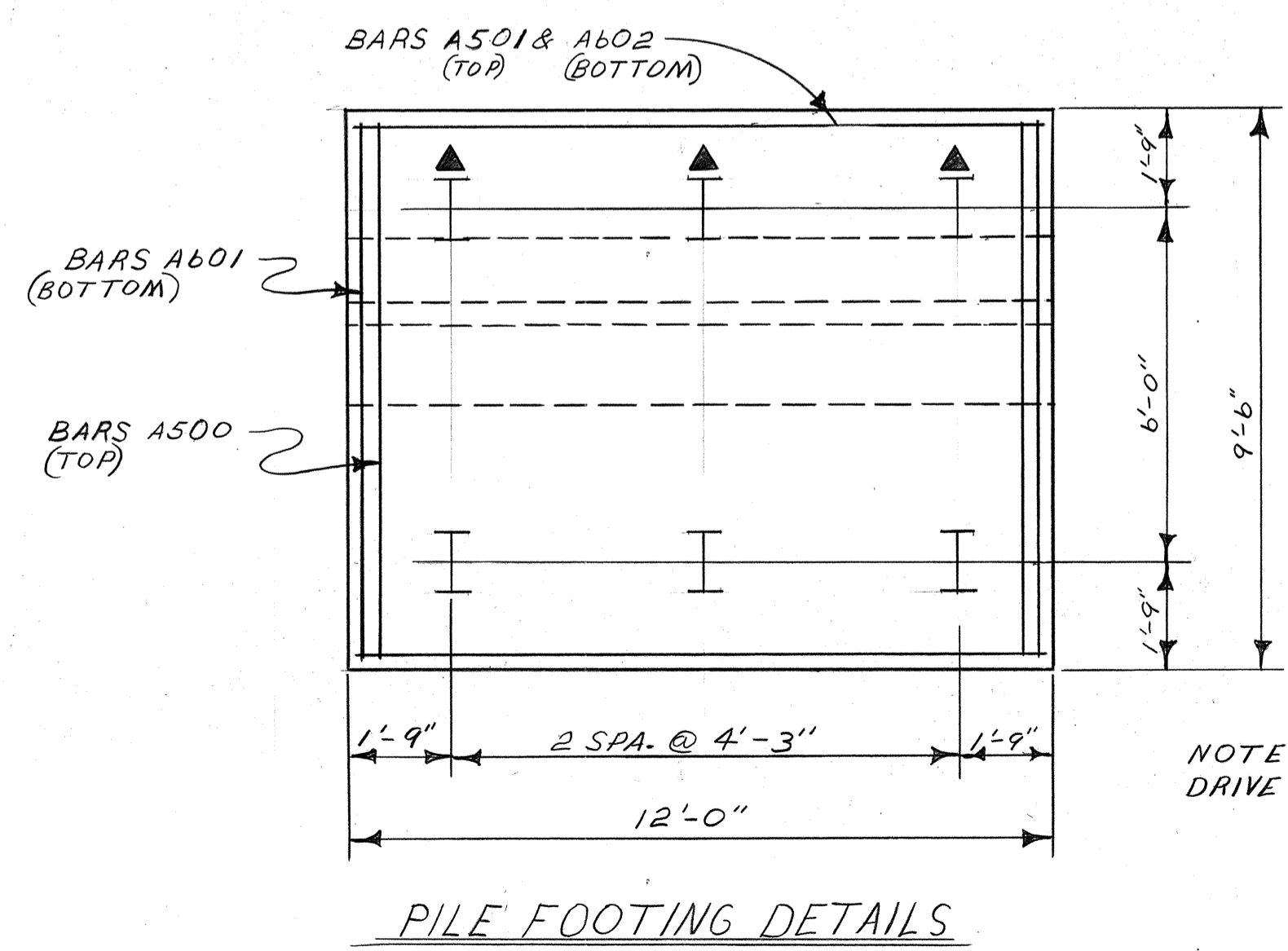
PLAN OF FOOTING

PROJECT NO.	YEAR	SHEET NO.	
I-440-4(33)211	1981	79	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

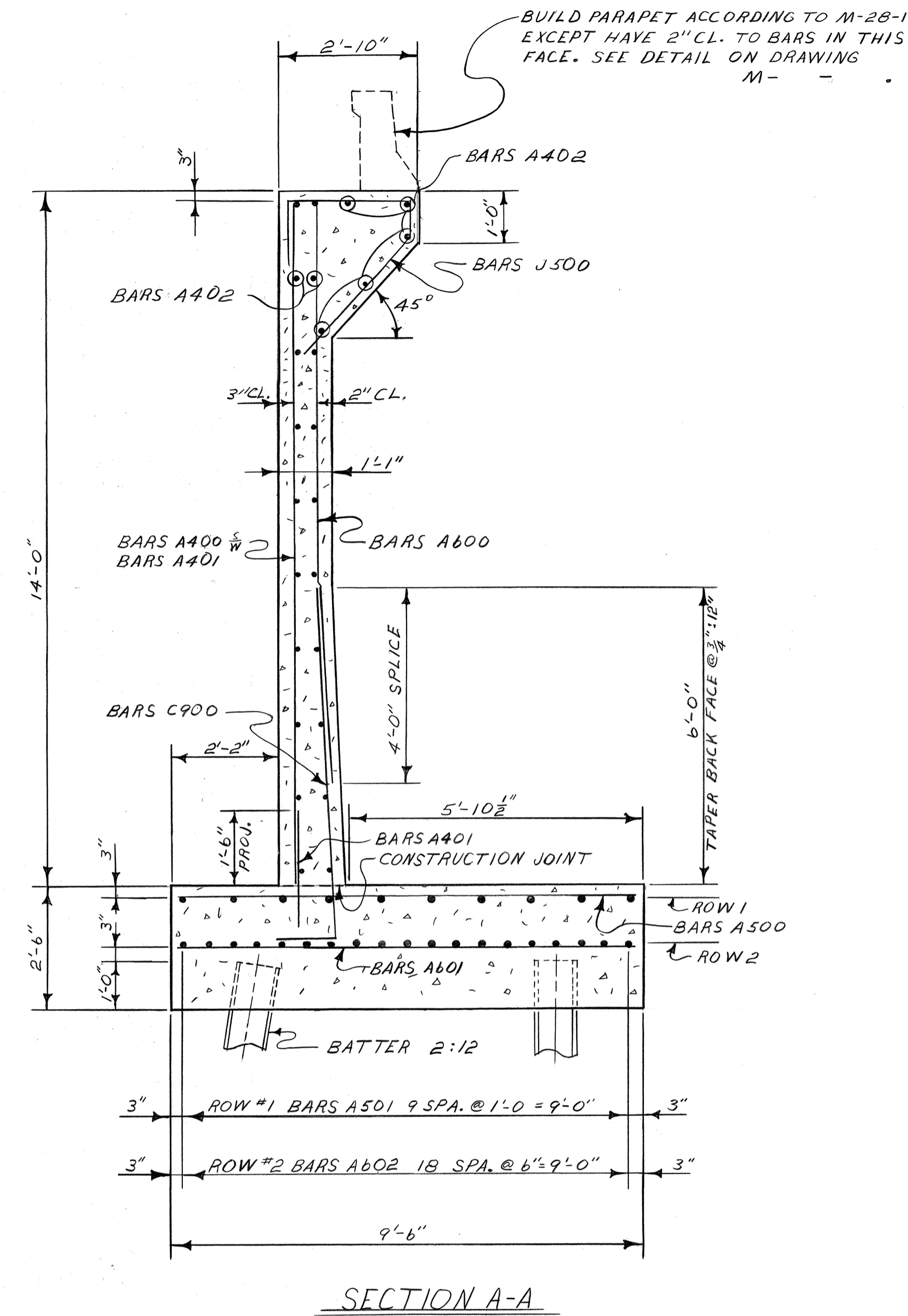


ELEVATION

▲ DENOTES: BATTER PILES FORWARD AT 2:12



PILE FOOTING DETAILS



SECTION A-A

ESTIMATED QUANTITIES	
CONCRETE CLASS "A" (C.Y.)	REINFORCING STEEL (LBS.)
19.3	2,452

QUANTITIES FOR WALL JOINT "Z"		
RETAIN. WALL	CONCRETE C.Y.	REINF. STEEL (LBS.)
C	1.7	271.0

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

RETAINING WALL 'C'
INTERSTATE 440 OVER BRANSFORD AVENUE
STATION 375+74.83
DAVIDSON COUNTY
1981

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

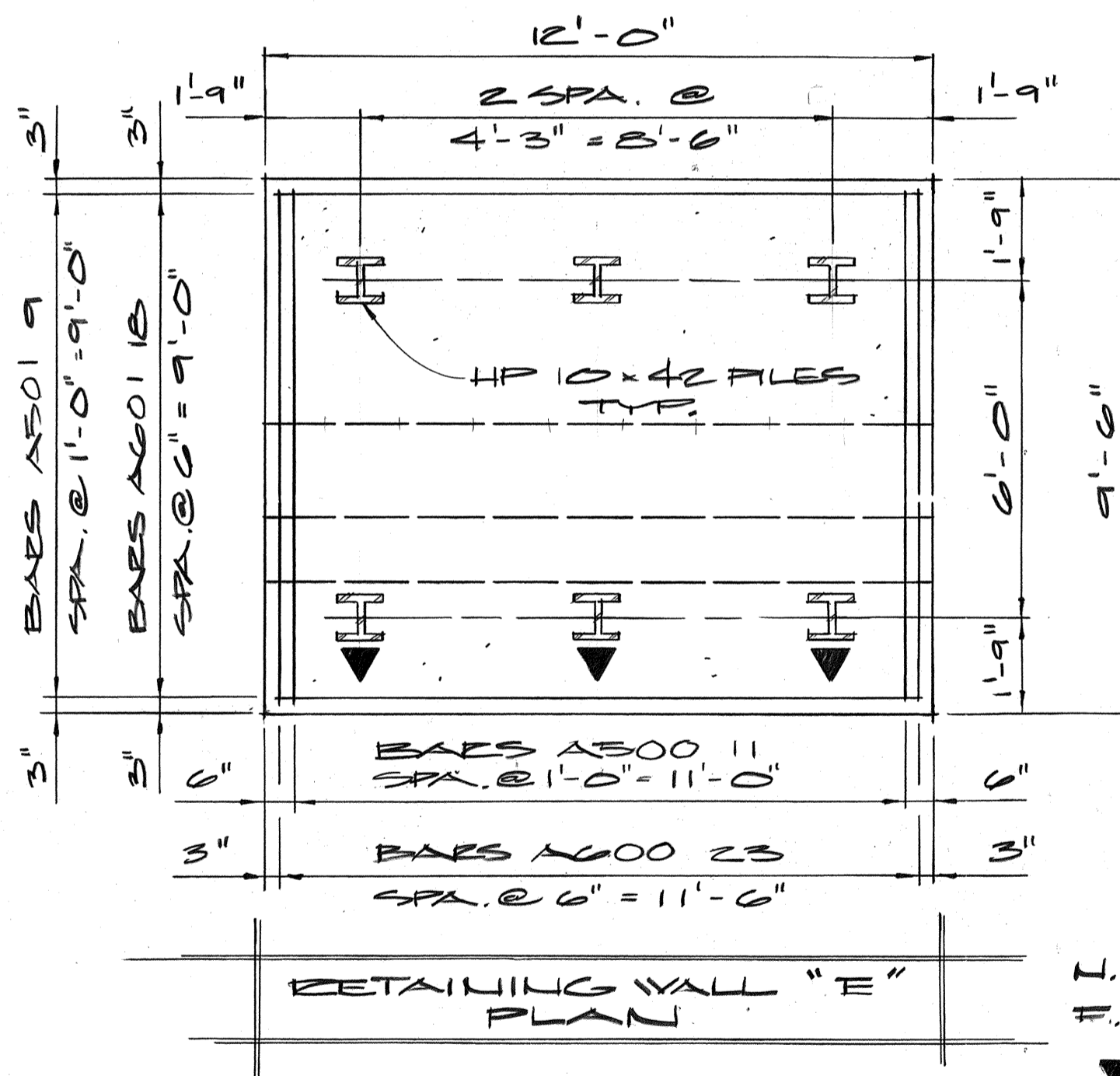
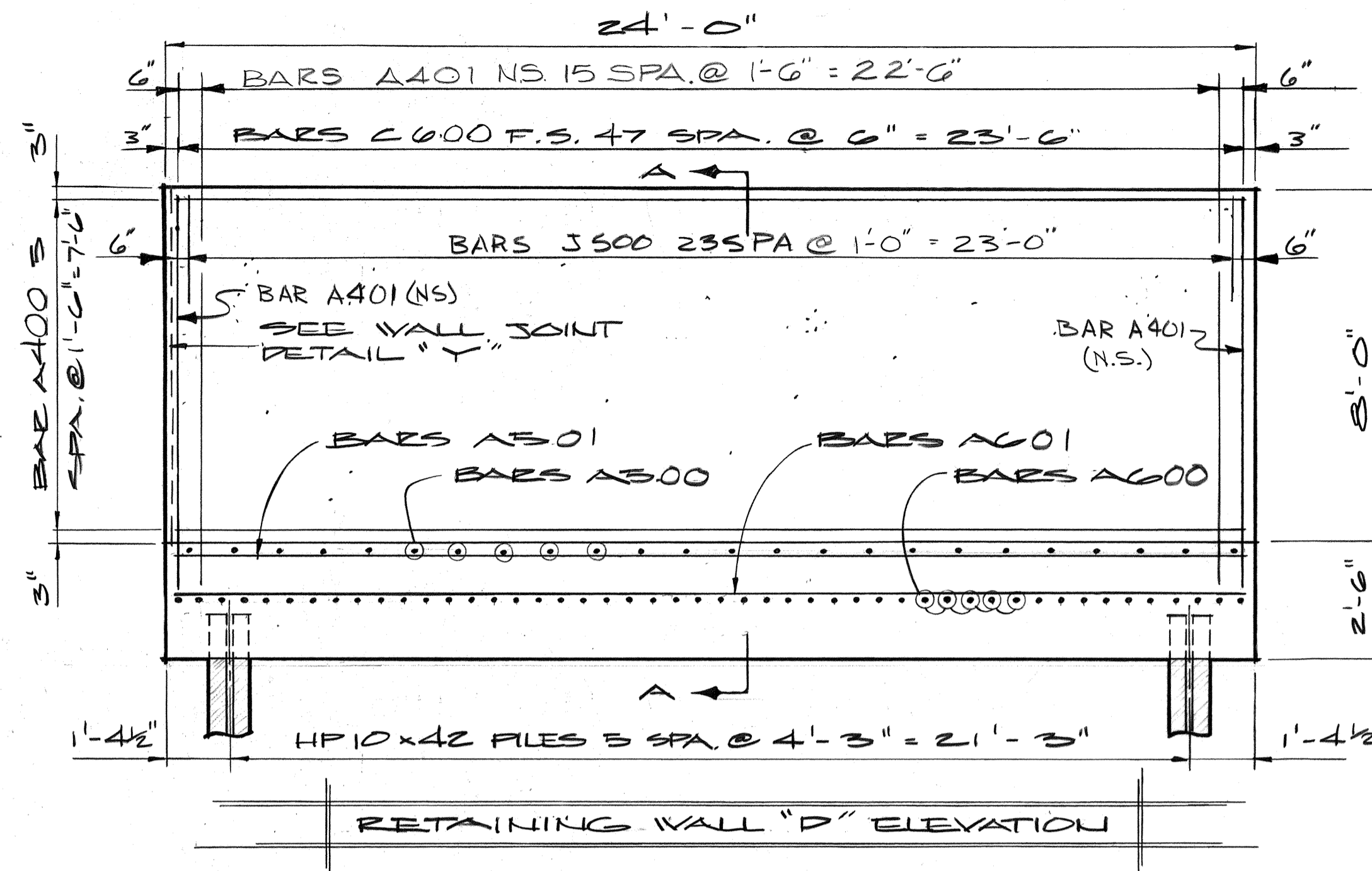
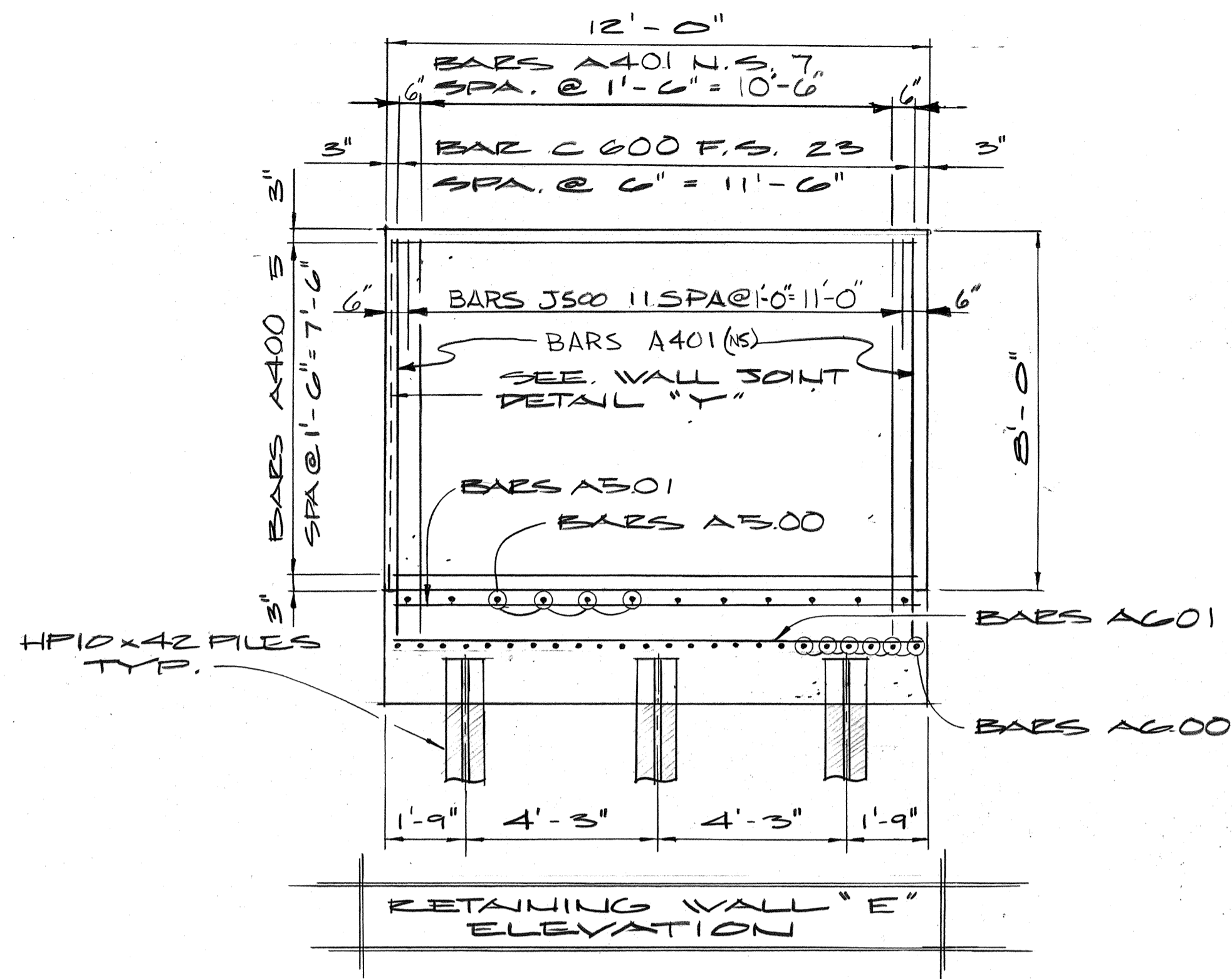
MICROFILMED

DESIGNED BY M. HOLLDRAN DATE 1-81
DRAWN BY T. LEWIS DATE 1-81
SUPERVISED BY J. FIELDS DATE 1-81
CHECKED BY _____ DATE _____

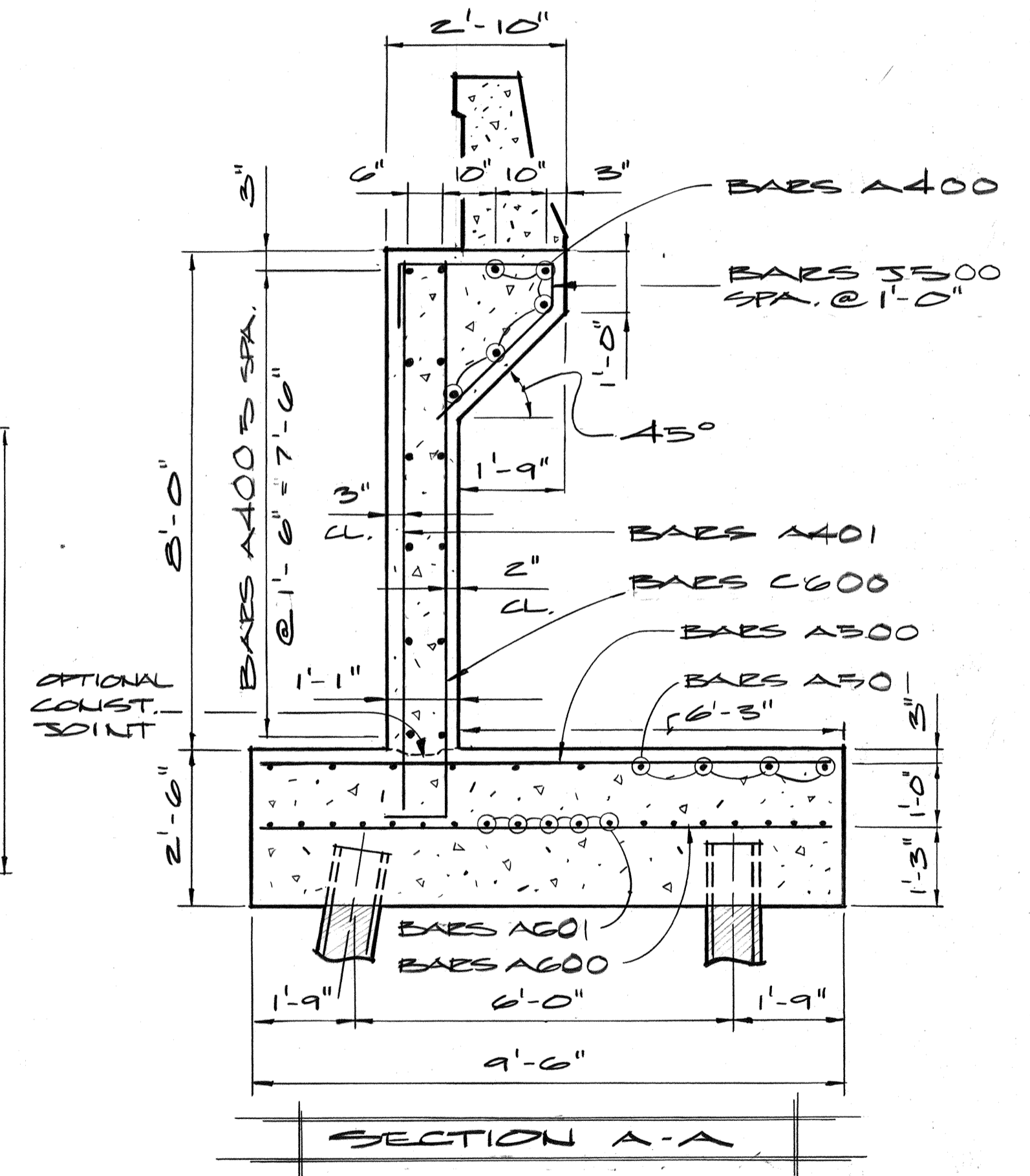
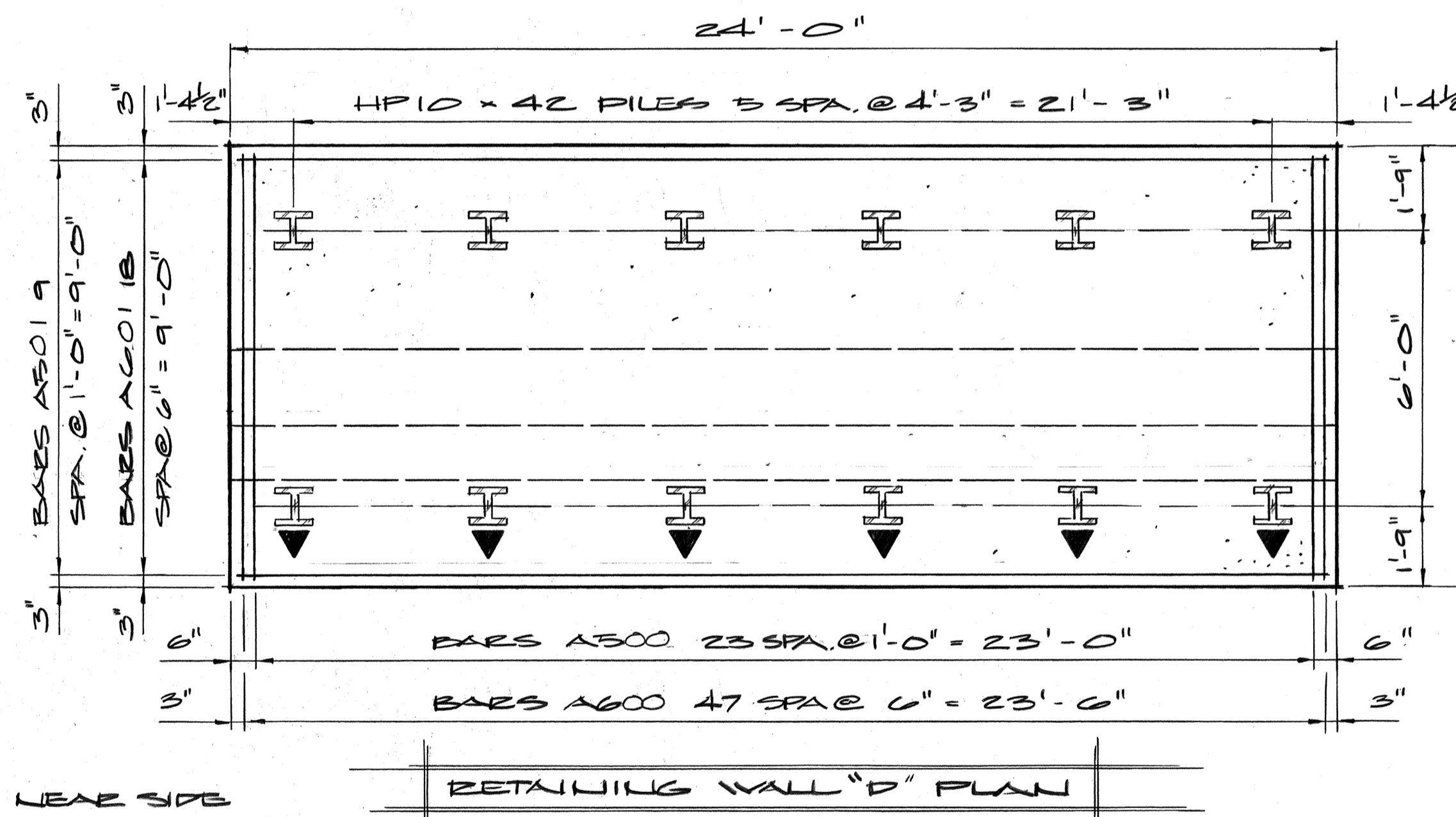
const. no. 19014-3109-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	80

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-15-85	EM	CORRECTED CONC QTY WALL "E"



L.S. : DENOTES LEAVE SIDE
 F.S. : DENOTES FACE SIDE
 ▼ : DENOTES PILES BATTERED OUTWARD @ 2:12

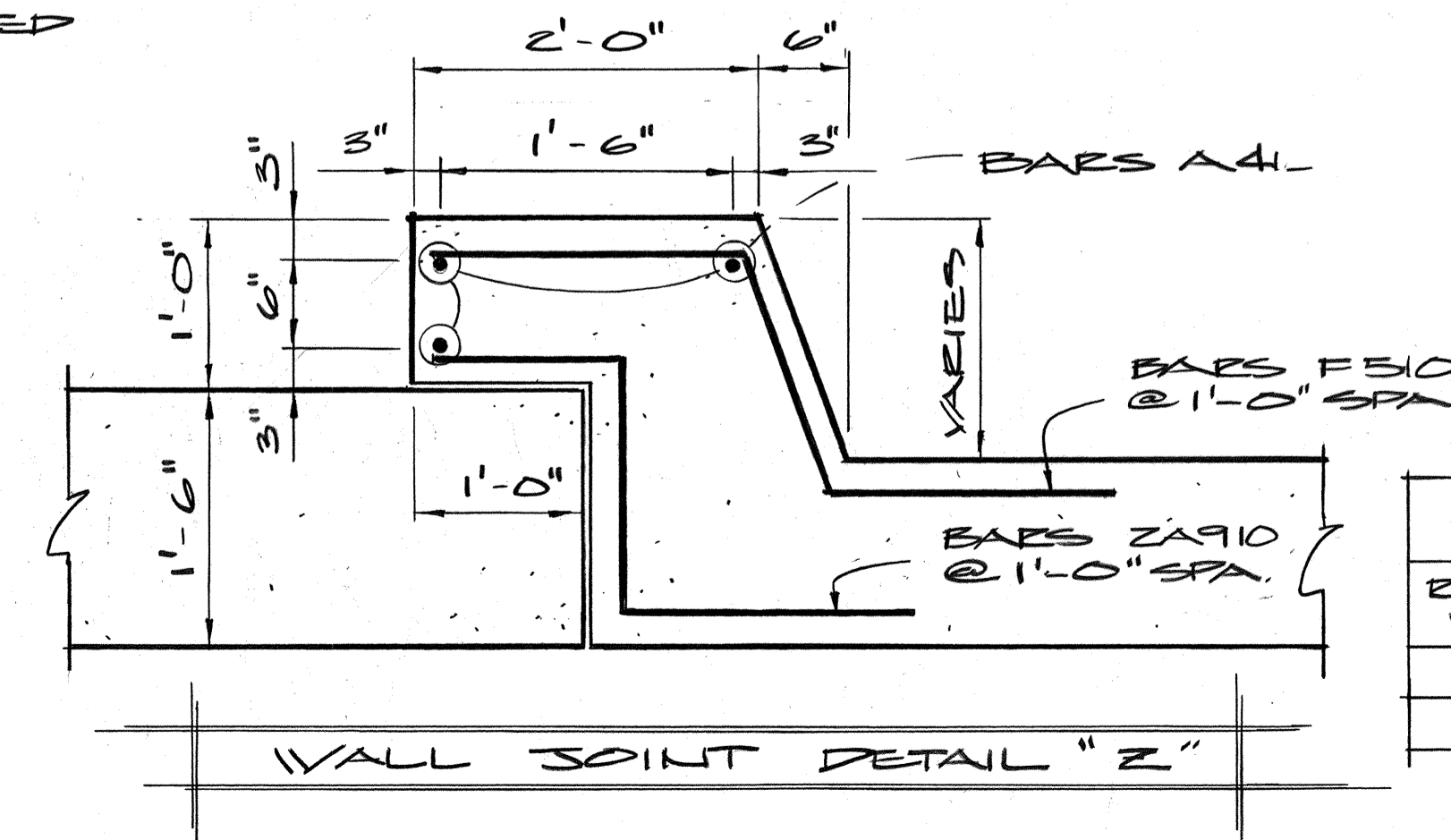
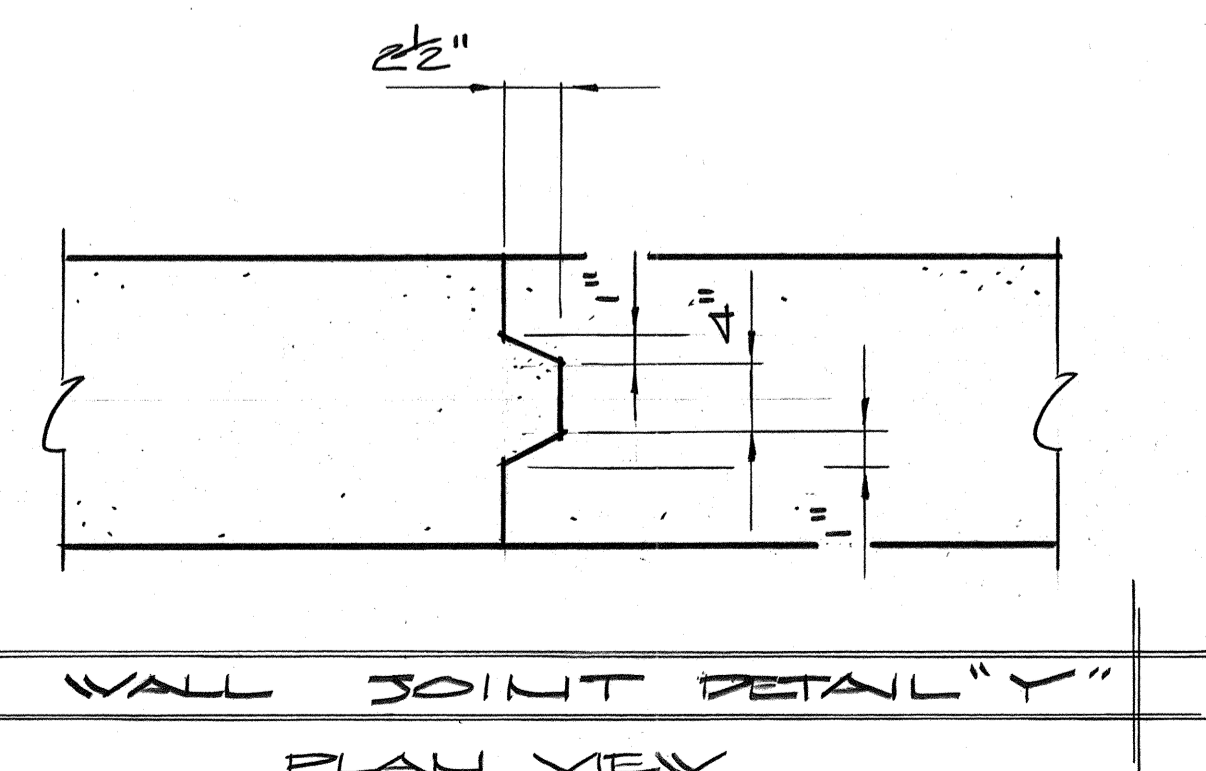


RETAINING WALLS	CONCRETE	REINFORCING STEEL
WALL D	31.7 CY	3045 lbs.
WALL E	16.3 CY	1580 lbs.

QUANTITIES FOR WALL JOINT "Z"		
RETAIN. WALL	CONCRETE C.Y.	REIN. STEEL (LBS)
D	.7	147.0
E	.7	147.0

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 RETAINING WALLS D AND E
 I-440 OVER BRANFORD AVE.
 STATION 375+74.83
 DAVIDSON COUNTY
 1981

CORRECTED
 ENGINEER OF STRUCTURES
 APPROVED
 DIRECTOR OF HIGHWAYS



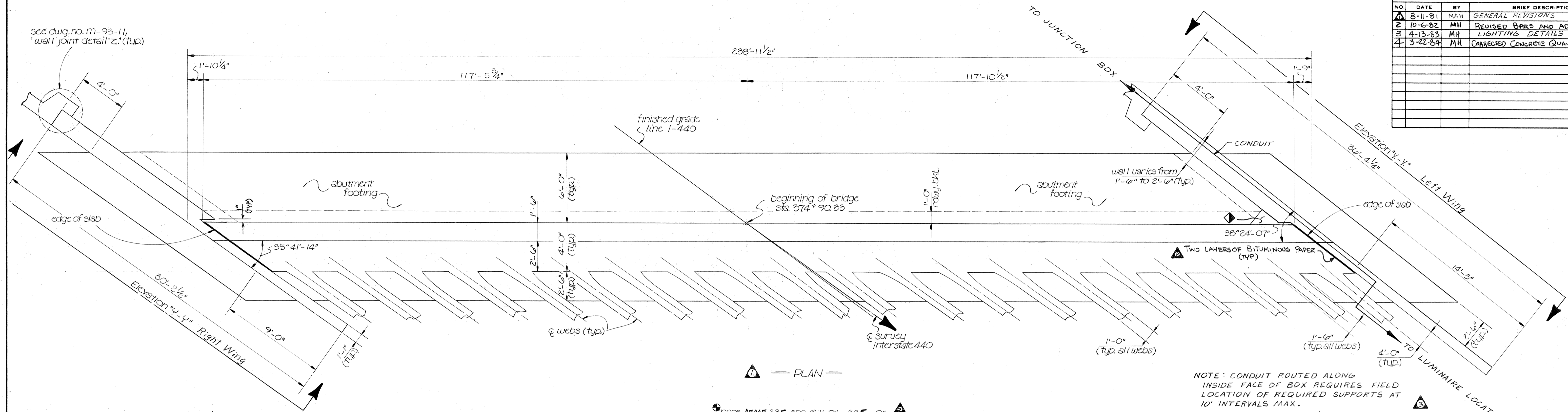
DESIGNED BY MARK HOLLOMAN DATE 12-80
 DRAWN BY SIM CLETIS DATE 1-81
 SUPERVISED BY S. FIELDS DATE 1-81
 CHECKED BY DATE

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	81

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	8-11-81	MAH	GENERAL REVISIONS
2	10-6-82	MH	REVISED BARS AND ADDED JOINT
3	4-13-83	MH	LIGHTING DETAILS
4	3-22-84	MH	CORRECTED CONCRETE QUANTITY

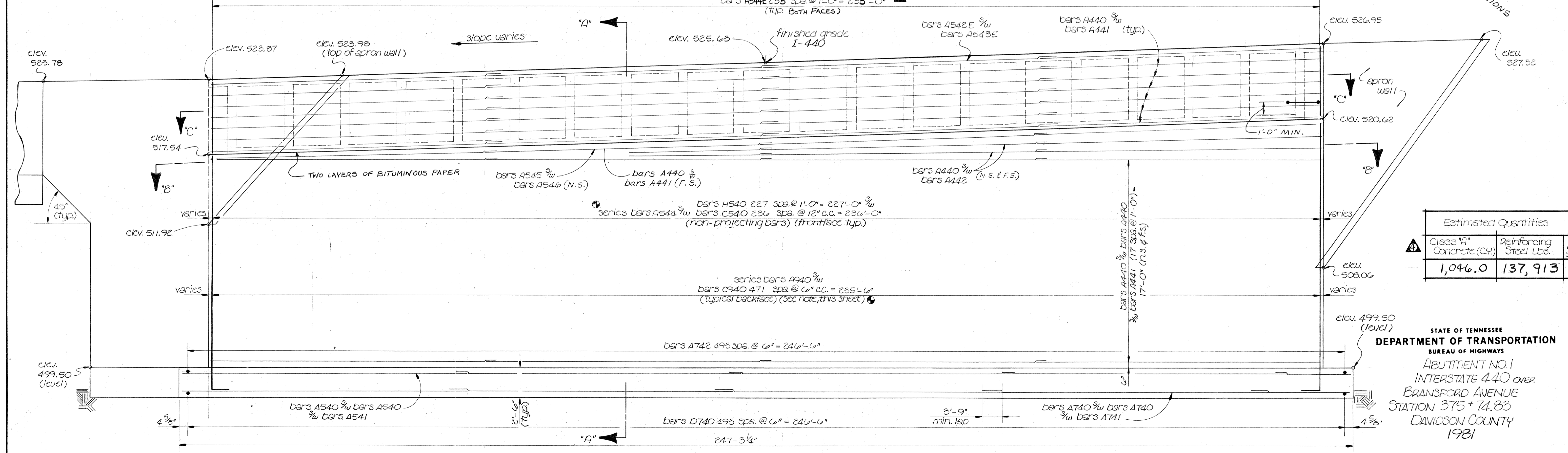
Note: For wingwall details see Dwg. no. M-93-13.

Note: CORNER FILLER EXTENDS FROM THE TOP OF FOOTING TO THE BOTTOM OF THE SUPERSTRUCTURE.



PLAN

NOTE: CONDUIT ROUTED ALONG INSIDE FACE OF BOX REQUIRES FIELD LOCATION OF REQUIRED SUPPORTS AT 10' INTERVALS MAX.



ELEVATION (looking back on survey)

NOTE: *7 bars, min. lsp=3'-9"
*5 bars, min. lsp=2'-2"
*4 bars, min. lsp=1'-8"

Estimated Quantities		
Class "A" Concrete (CY)	Reinforcing Steel Lbs.	EPOXY-COATED STEEL LBS.
1,046.0	137,913	3552

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
ABUTMENT NO. 1
INTERSTATE 440 OVER
BRANSFORD AVENUE
STATION 375 + 74.83
DAVIDSON COUNTY
1981

CORRECT
APPROVED
ENGINEER OF STRUCTURES
DIRECTOR OF HIGHWAYS

DESIGNED BY Mark Holborn
DRAWN BY Dennis Priddy
SUPERVISED BY J. Fields
CHECKED BY M. Holborn

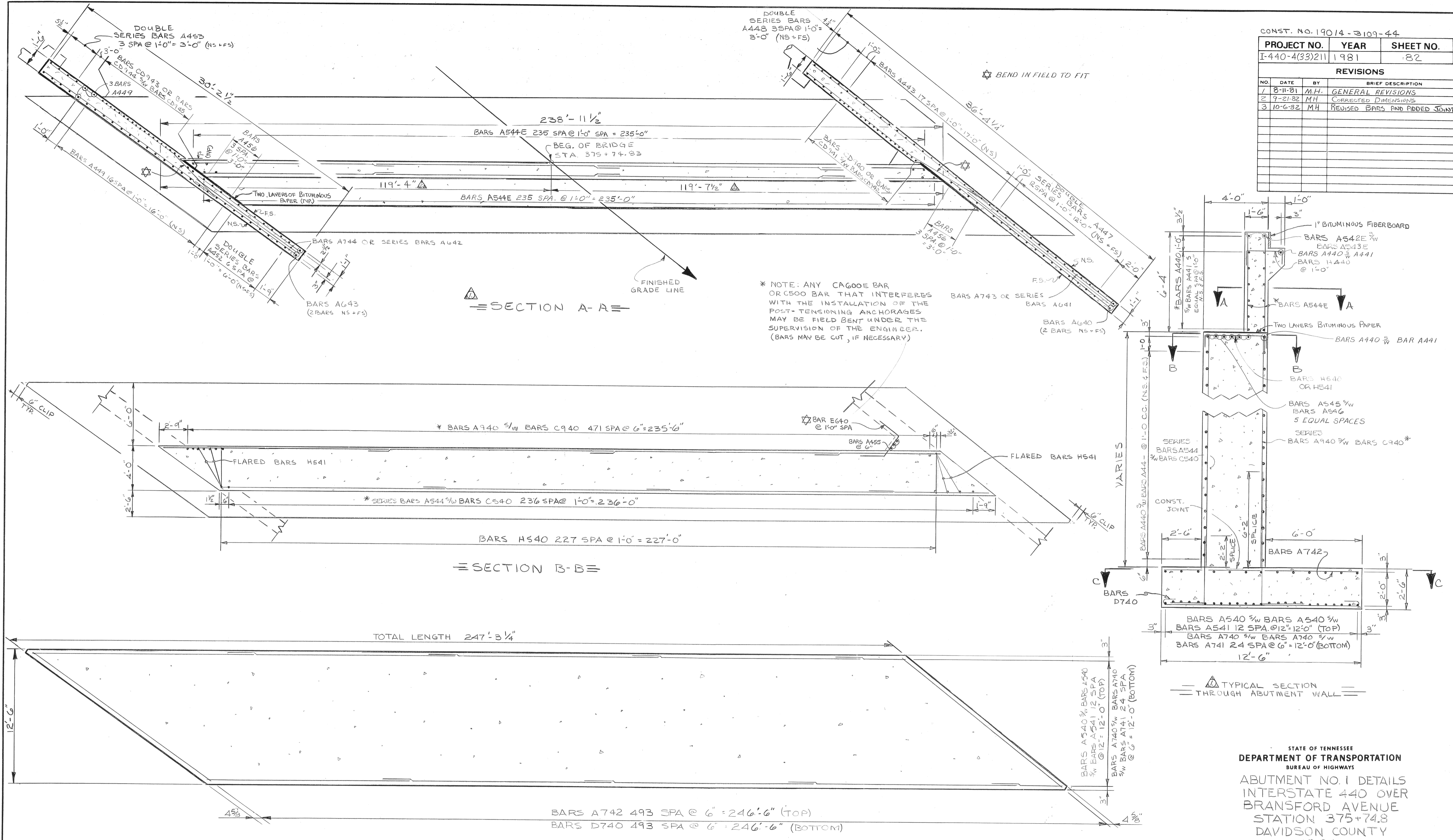
DATE
DATE
DATE
DATE

Note: Any bar interfering with installation of post-tensioning and/or gages may be field bent under supervision of the Engineer. (BARS MAY BE CUT, IF NECESSARY)

CONST. NO. 19014-3109-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(3)211	1981	82

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	8-11-81	M.H.	GENERAL REVISIONS
2	9-21-82	M.H.	CORRECTED DIMENSIONS
3	10-6-82	M.H.	REVISED BARS AND ADDED JOINT



* NOTE: ANY CAGOOE BAR OR C500 BAR THAT INTERFERES WITH THE INSTALLATION OF THE POST-TENSIONING ANCHORAGES MAY BE FIELD BENT UNDER THE SUPERVISION OF THE ENGINEER. (BARS MAY BE CUT, IF NECESSARY)

DESIGNED BY M. HOLLORAN
 DRAWN BY K. FRANKENFIELD
 SUPERVISED BY S. FIELD
 CHECKED BY _____

PLAN OF FOOTING
 SECTION C-C

NOTES: #7 BARS MIN. LAP = 3'-9"
 #5 BARS MIN. LAP = 2'-2"
 #4 BARS MIN. LAP = 1'-8"

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 1 DETAILS
 INTERSTATE 440 OVER
 BRANSFORD AVENUE
 STATION 375+74.8
 DAVIDSON COUNTY
 1981

CORRECT *Clifton L. Louscail*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Grand*
 DIRECTOR OF HIGHWAYS

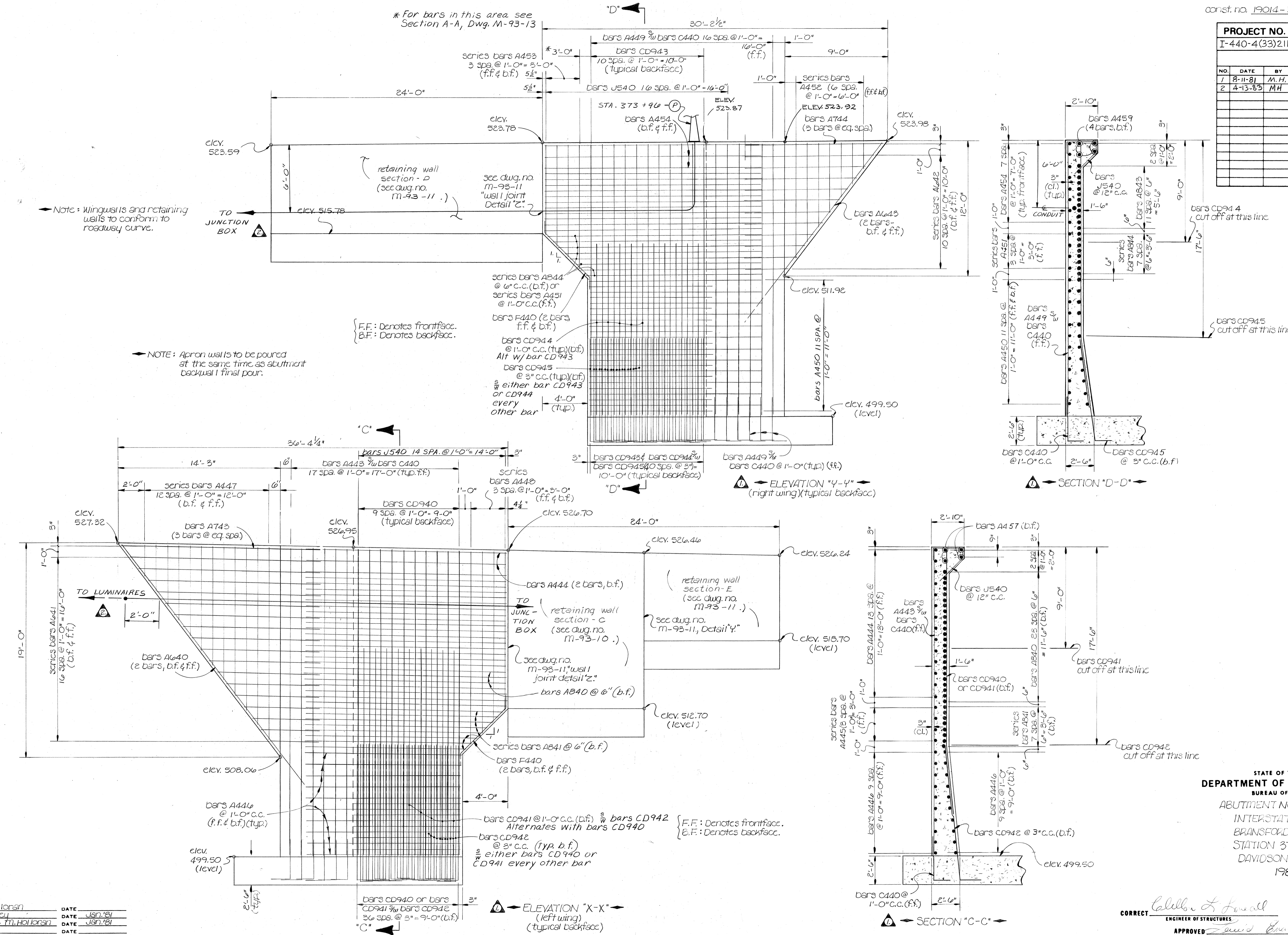
M-93-13

MICROFILMED

MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	83

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	8-11-81	M.H.	GENERAL REVISIONS
2	4-13-83	MH	LIGHTING DETAILS



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 1 DETAILS
 INTERSTATE 440 OVER
 BRANSFORD AVENUE
 STATION 375+74.85
 DAVIDSON COUNTY
 1981

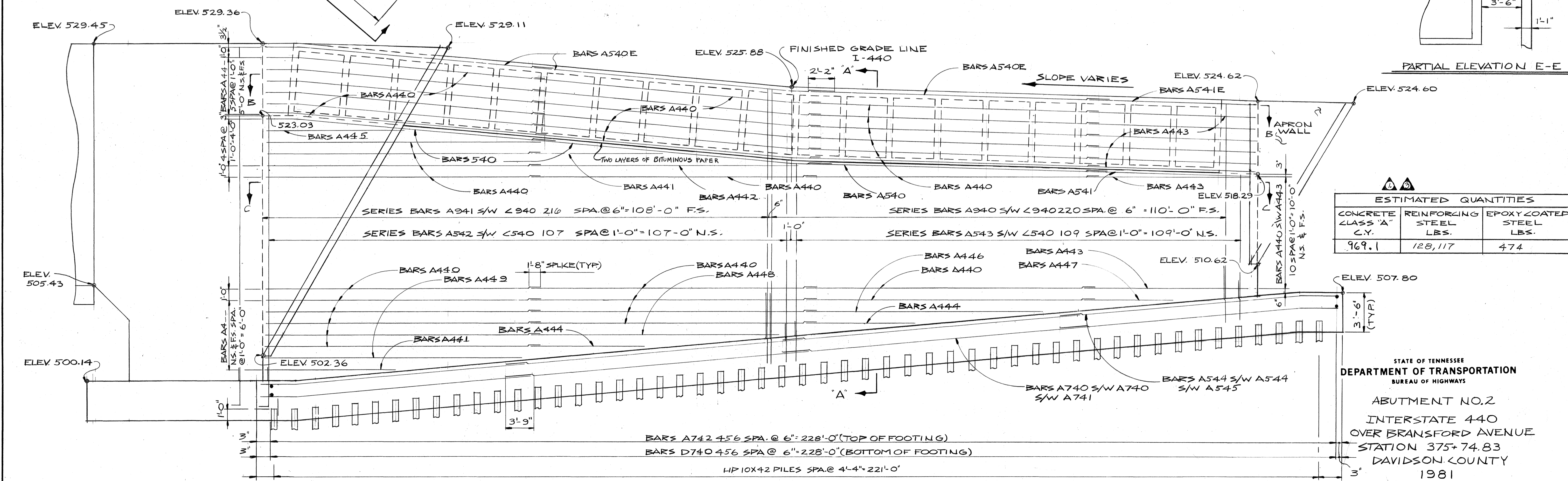
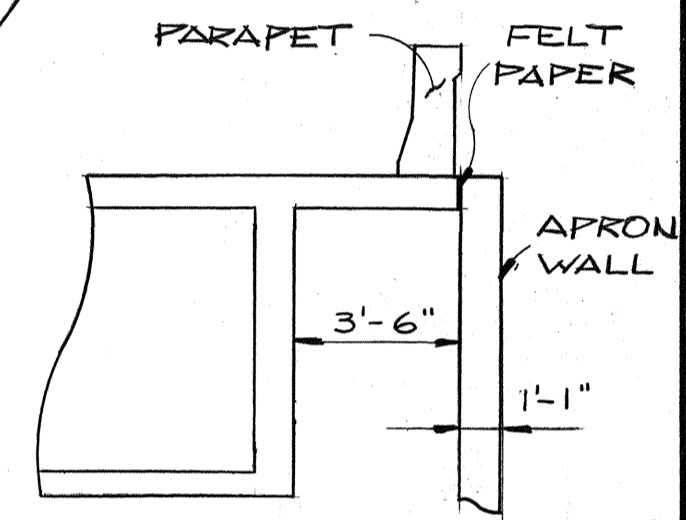
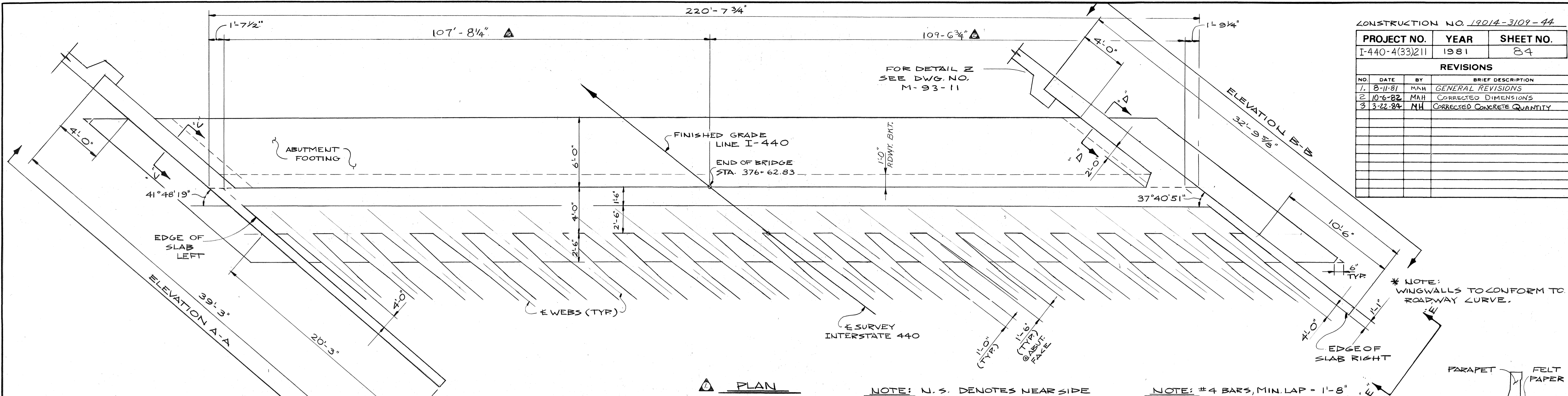
CORRECT *Calvin L. Kowal*
 ENGINEER OF STRUCTURES
 APPROVED *James G. ...*
 DIRECTOR OF HIGHWAYS

DESIGNED BY: Mark Holoran
 DRAWN BY: Donna Briley
 SUPERVISED BY: J. Fields & M. Holoran
 CHECKED BY: Holoran

DATE: Jan '81
 DATE: Jan '81
 DATE:

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	84

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1.	8-11-81	MAH	GENERAL REVISIONS
2.	10-6-82	MAH	CORRECTED DIMENSIONS
3.	3-22-84	NH	CORRECTED CONCRETE QUANTITY



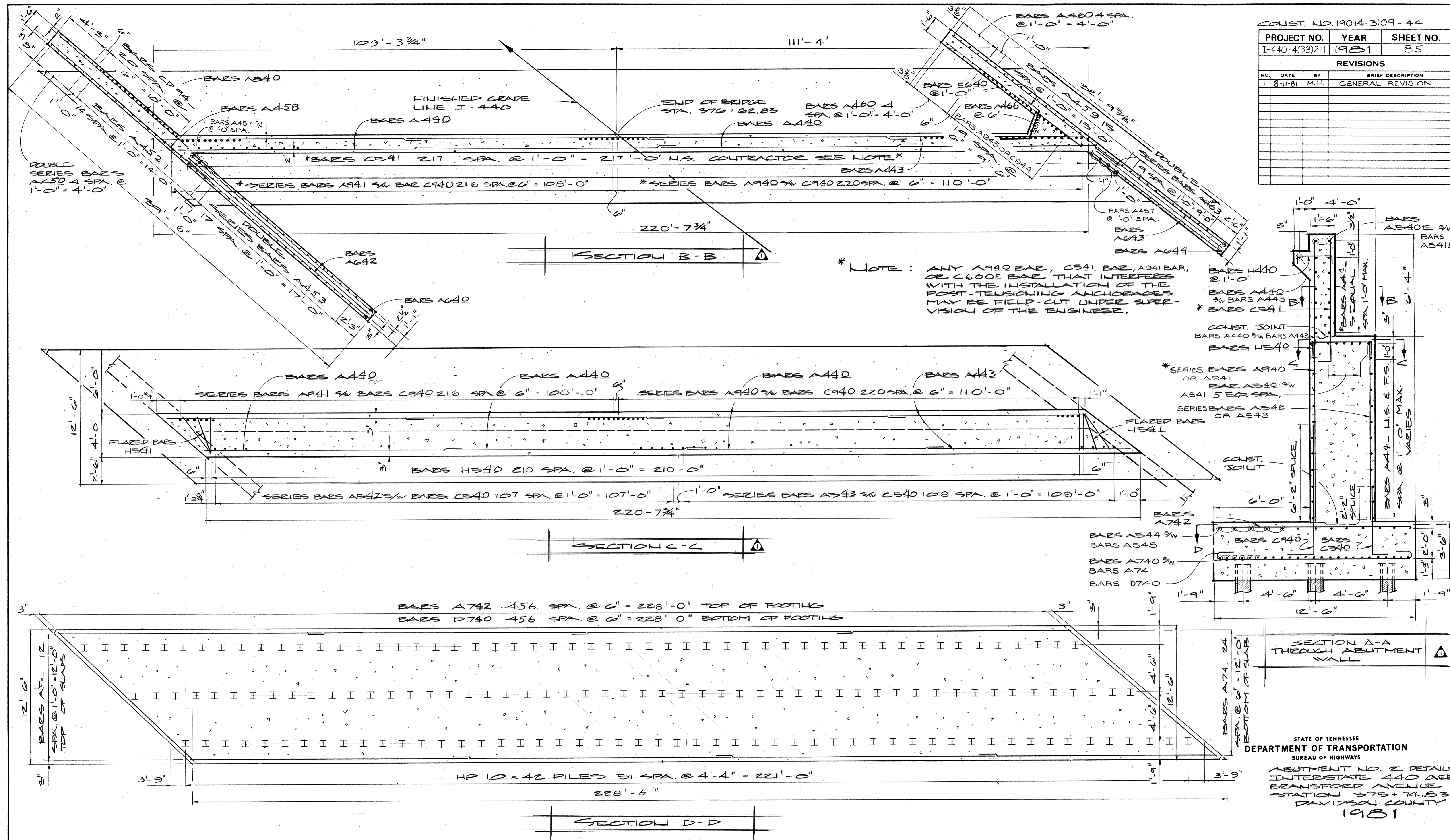
DESIGNED BY MARK HOLLORAN DATE _____
 DRAWN BY RT CHRISTY DATE 1-81
 SUPERVISED BY FIELDS DATE 1-81
 CHECKED BY _____ DATE _____

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

M. 925-15

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	85

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	8-11-81	M.H.	GENERAL REVISION



* NOTE : ANY A940 BAR, C541 BAR, A941 BAR, OR C600E BAR THAT INTERFERES WITH THE INSTALLATION OF THE POST-TENSIONING ANCHORAGES MAY BE FIELD-CUT UNDER SUPERVISION OF THE ENGINEER.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 2 DETAILS
 INTERSTATE 440 OVER
 BRANFORD AVENUE
 STATION 375+74.83
 DAVIDSON COUNTY
 1981

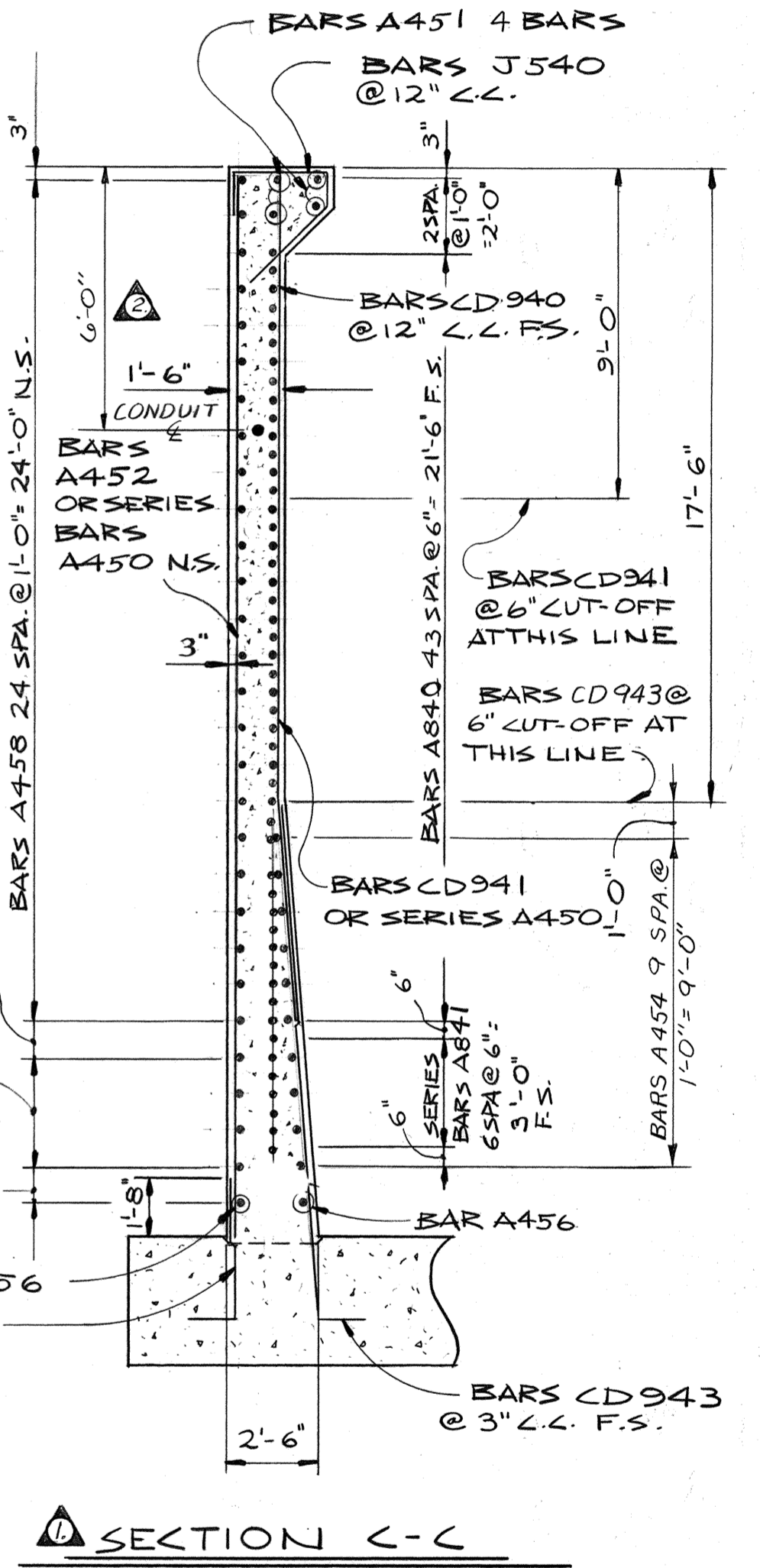
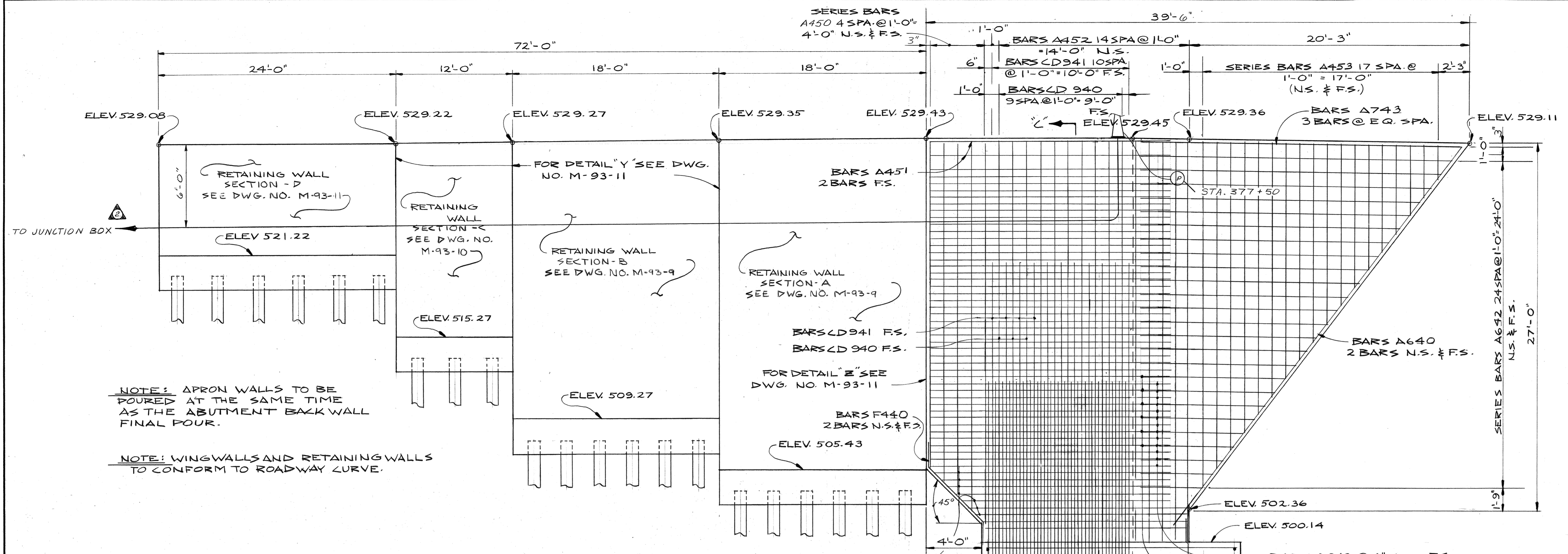
DESIGNED BY MARK HOLLEMAN DATE 1-81
 DRAWN BY SIM CURTIS DATE 1-81
 SUPERVISED BY S. FIELDS DATE 1-81
 CHECKED BY DATE

CORRECTED *William L. Lowell*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Evans*
 DIRECTOR OF HIGHWAYS

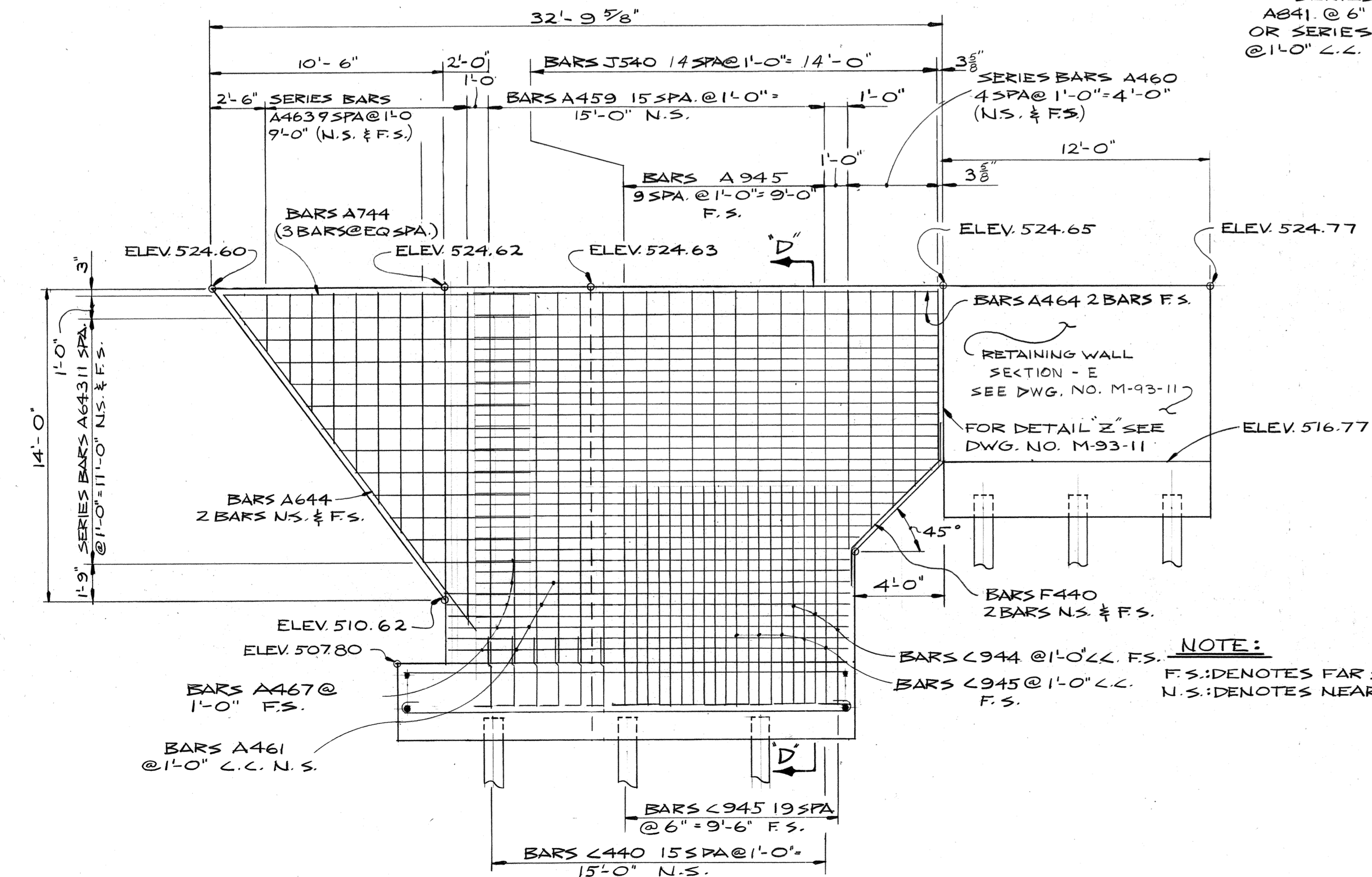
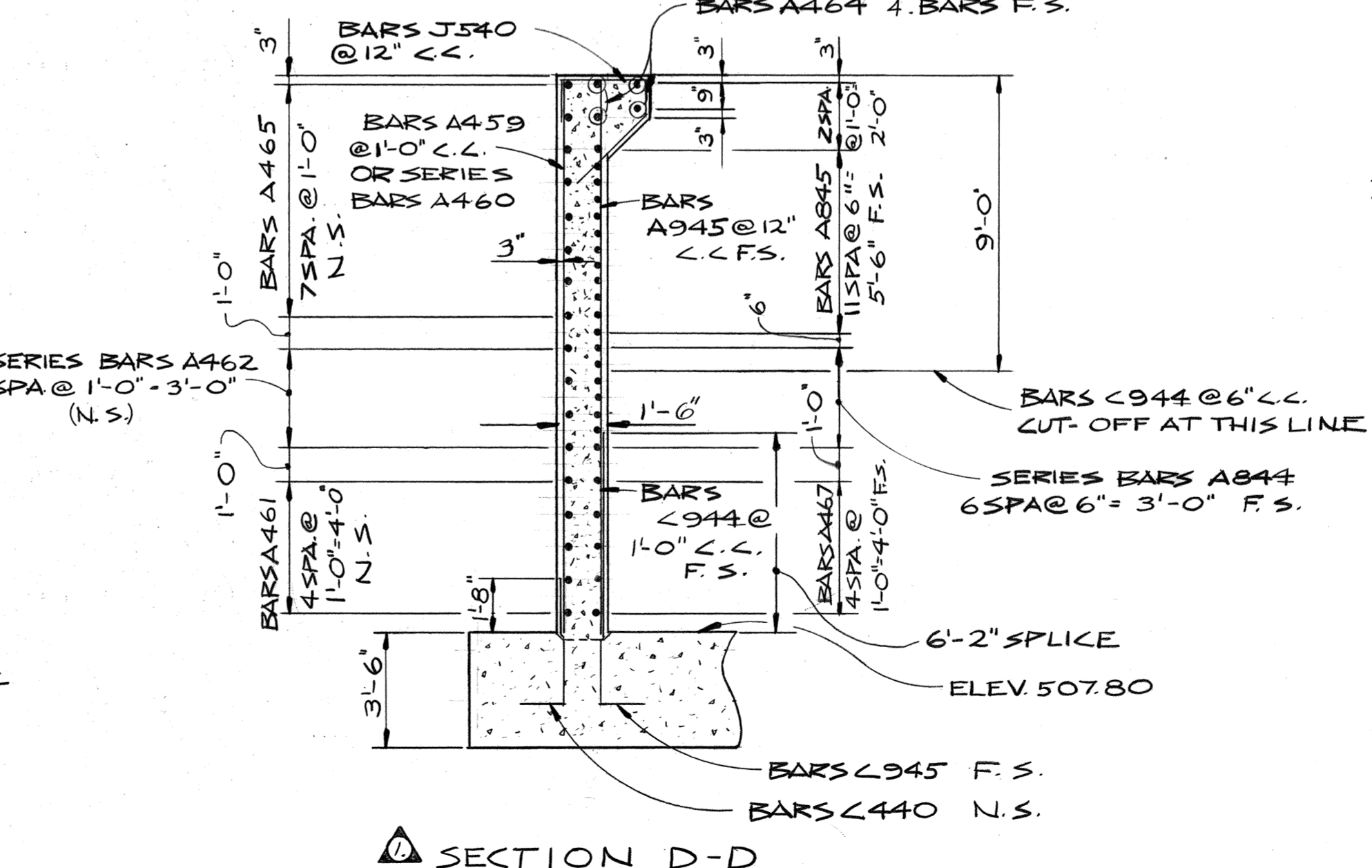
MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
I-440-4(33)211	1981	86

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	8-11-81	M.H.	GENERAL REVISIONS
2	4-13-83	MH	LIGHTING DETAILS



ELEVATION A-A LEFT WING



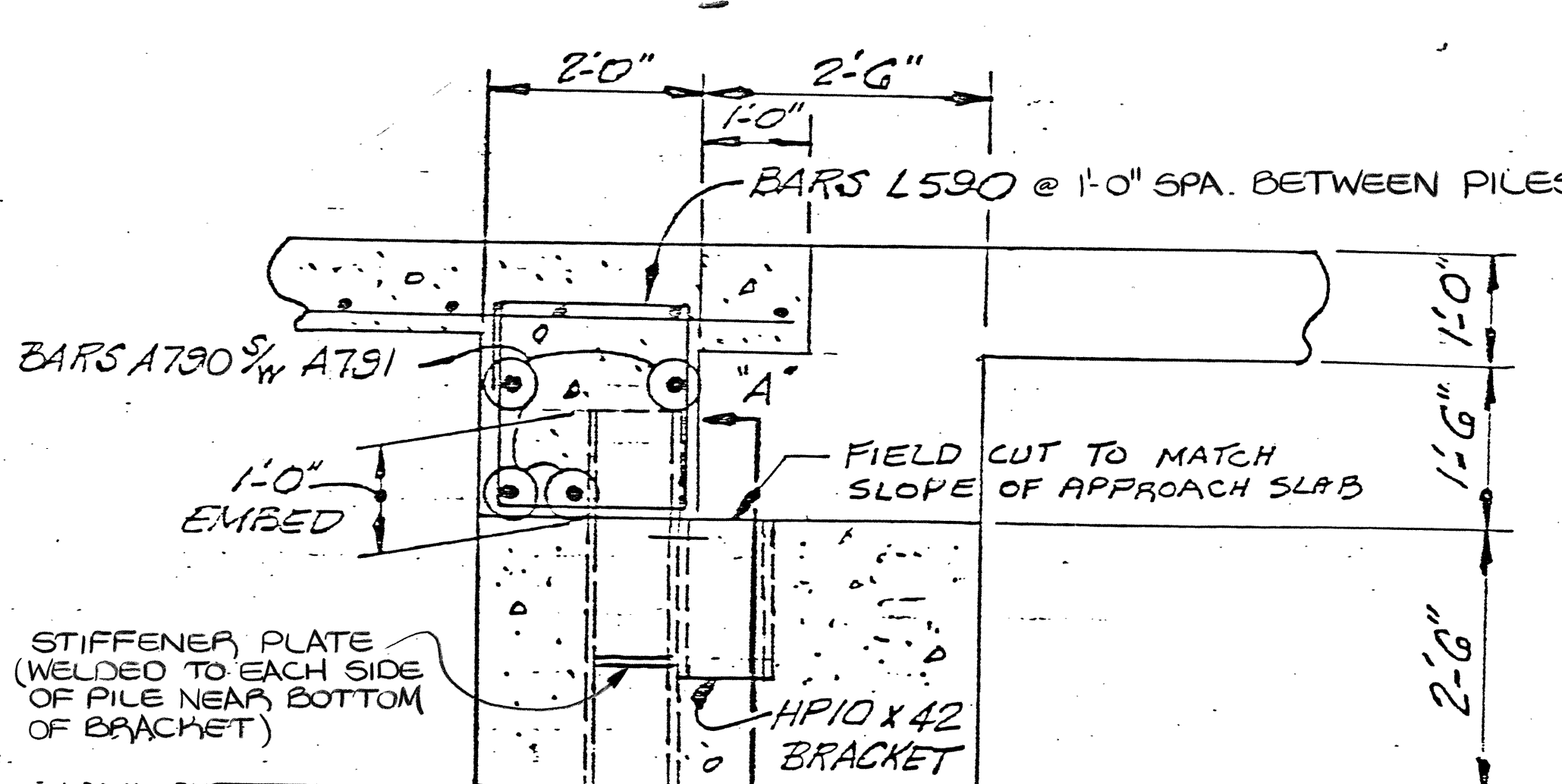
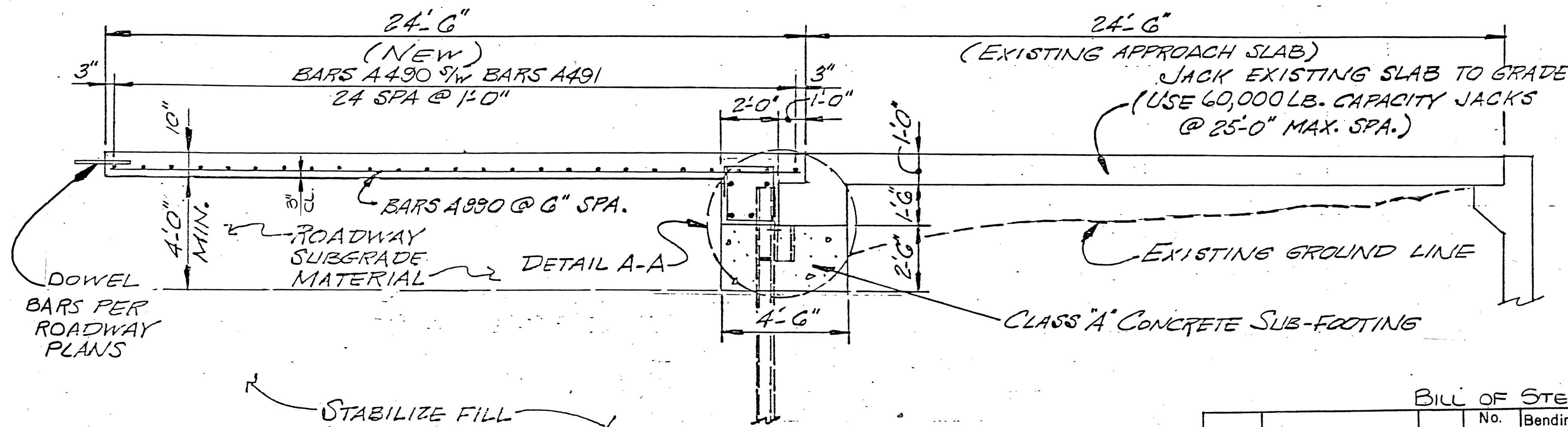
NOTE:
 F.S.: DENOTES FAR SIDE
 N.S.: DENOTES NEAR SIDE

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 ABUTMENT NO. 2 DETAILS
 INTERSTATE 440 OVER
 BRANSFORD AVENUE
 STATION 375+74.83
 DAVIDSON COUNTY
 1981

DESIGNED BY MARK HOLLORAN DATE 1-81
 DRAWN BY KJ CHRISTY DATE 1-81
 SUPERVISED BY FIELDS DATE 1-81
 CHECKED BY DATE

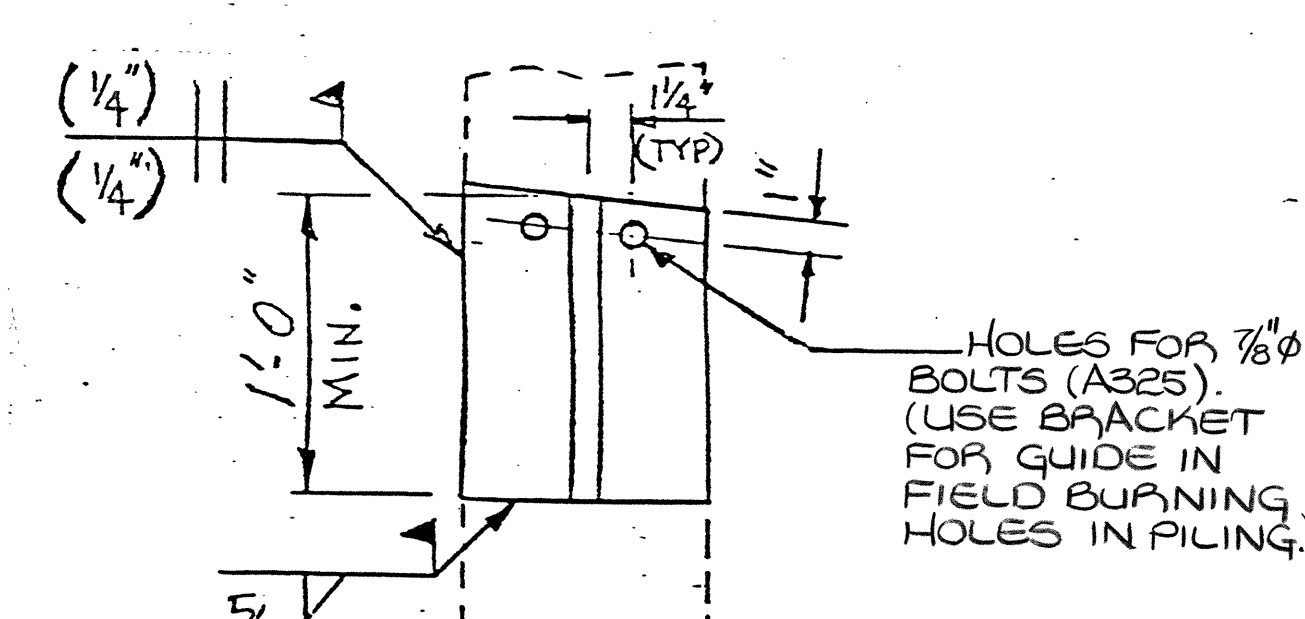
CORRECT *Colleen L. Lovell*
 ENGINEER OF STRUCTURES
 APPROVED *Louis Evans*
 DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.	
I-440-4(33)211	1984		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	11-9-84	M.H.	ADDED THIS DWG. TO PLANS.



PILES TO BE HP10X42 . SPA @ 10'-0" C.C. WITH APF 20 LB. PRUYN 75750 OR I.C.E. 20 LB. STD. PILE POINT, DRIVEN TO REFUSAL.

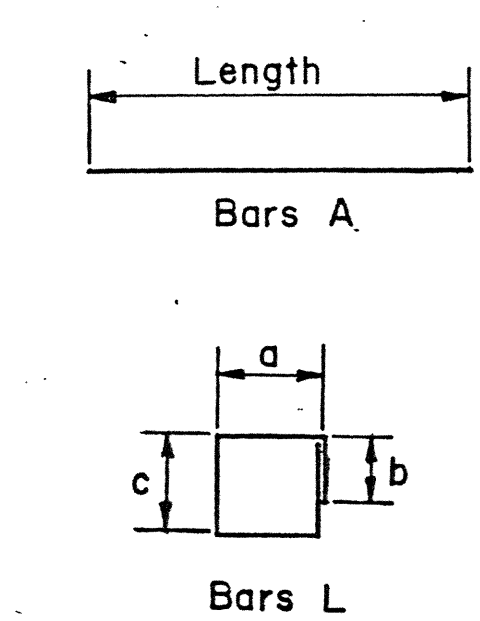
DETAIL "A-A"



SECTION "A-A"

BILL OF STEEL

Bars	Location	Size	No. Req'd	Bending Dimensions				Length
				a	b	c	d	
APPROACH SLAB AT ABUTMENT NO. 1	A490	SLAB	4	75				60'-0"
	A491	SLAB	4	25				55'-0"
	A790	FOOTING	7	12				60'-0"
	A791	FOOTING	7	4				59'-0"
	A990	SLAB	9	460				24'-2"
	L590	FOOTING	5	230	1'-8"	1'-0"	1'-9"	7'-8"
APPROACH SLAB AT ABUTMENT NO. 2	A490	SLAB	4	75				60'-0"
	A491	SLAB	4	25				37'-0"
	A790	FOOTING	7	12				60'-0"
	A791	FOOTING	7	4				41'-0"
	A990	SLAB	9	424				24'-2"
	L590	FOOTING	5	210	1'-8"	1'-0"	1'-9"	7'-8"



ESTIMATED QUANTITIES

ITEM	PAID FOR UNDER CONTRACT NO. 4484		PAID FOR UNDER CONTRACT NO. 8617	
	STEEL BAR REINFORCING (LBS.)	CLASS "A" CONCRETE (C.Y.)	PIILING HP 10x42 (L.F.)	CLASS "A" CONCRETE (C.Y.)
@ ABUT 1	45,515	203.2	720	96.3
@ ABUT 2	41,949	187.4	770	88.8

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 APPROACH SLAB REPAIR DETAILS
 INTERSTATE 440 OVER BRANSFORD AVENUE
 STATION 375+74.83
 DAVIDSON COUNTY
 1984

CORRECT *Clifton L. Sorell*
 ENGINEER OF STRUCTURES
 APPROVED *Lewis Swain*
 DIRECTOR OF HIGHWAYS

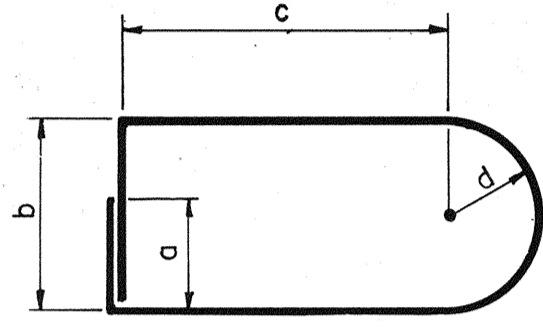
DESIGNED BY MARK HOLLORAN DATE 11-84
 DRAWN BY _____ DATE _____
 SUPERVISED BY _____ DATE _____
 CHECKED BY _____ DATE _____

BILL OF STEEL

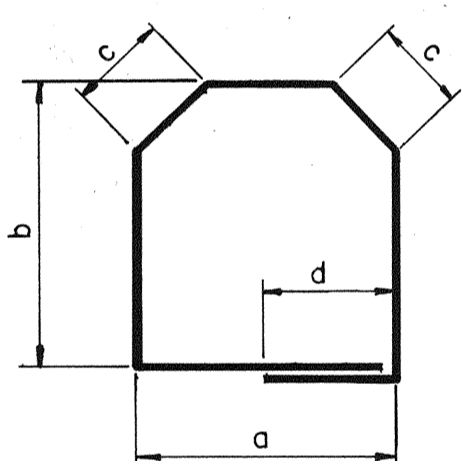
Table with project details: FED. ROAD DIST. NO. 3, STATE TENN., PROJ. NO. I-440-4(3)211, FISCAL YEAR 1981, SHEET NO. 88, TOTAL SHEETS.

REVISIONS table with columns: NO., DATE, BY, BRIEF DESCRIPTION. Includes revision 1: GENERAL REVISIONS TO ABUTMENT REINFORCEMENT and revision 2: REVISED BARS SHOWN.

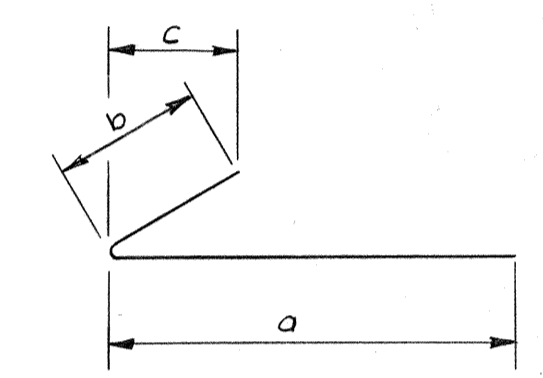
Main table of steel bars organized by abutment: ABUTMENT NO. 1 (EPOXY-COATED STEEL), ABUTMENT NO. 1 (CONT.), ABUTMENT NO. 1 (CONT.), ABUTMENT NO. 2 (EPOXY-COATED STEEL). Columns include BAR, LOCATION, SIZE, NO. REQ'D, BENDING DIMENSIONS (a, b, c, d), and LENGTH.



BARS X



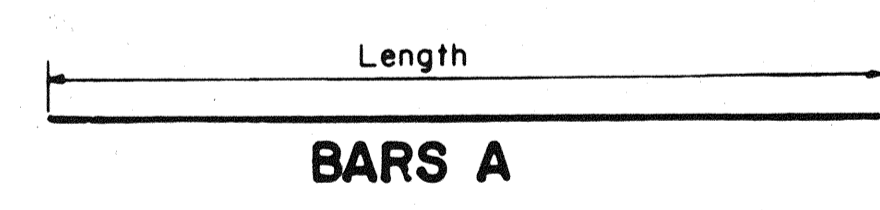
BARS M



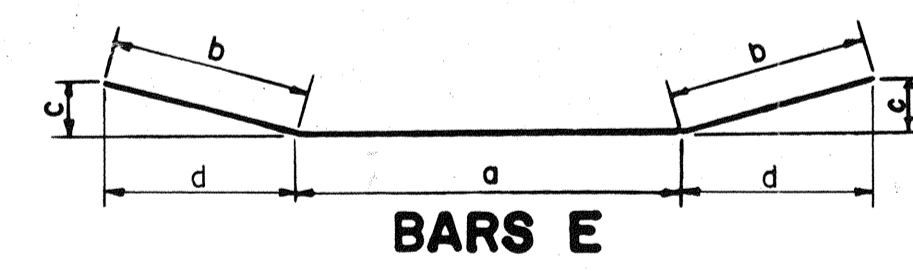
BARS CB

REINFORCING STEEL CODE

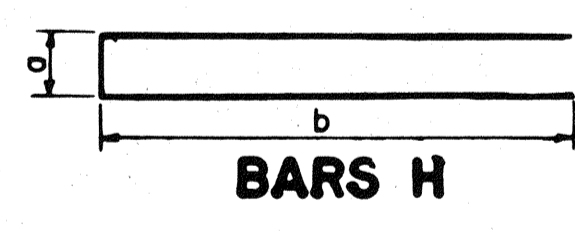
Table for Reinforcing Steel Code with columns: TYPE, SIZE, SERIES. Includes a note: 'NOTE: Dimensions shown on this sheet are outside to outside of bar. Standard C R S I Hook Details Shall Apply, Except As Noted.'



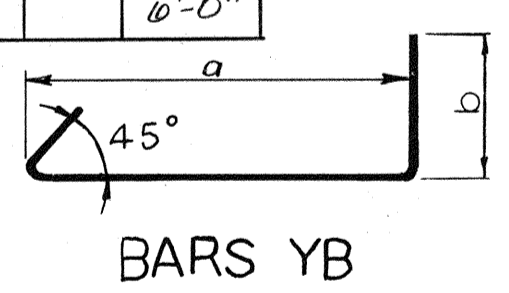
BARS A



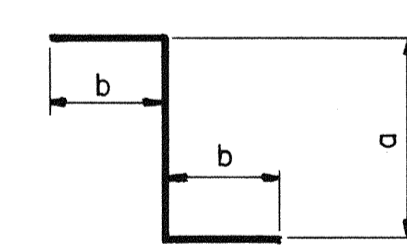
BARS E



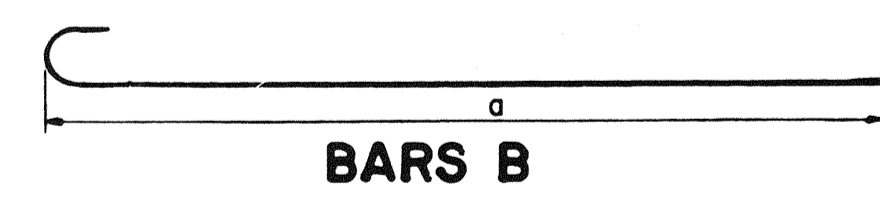
BARS H



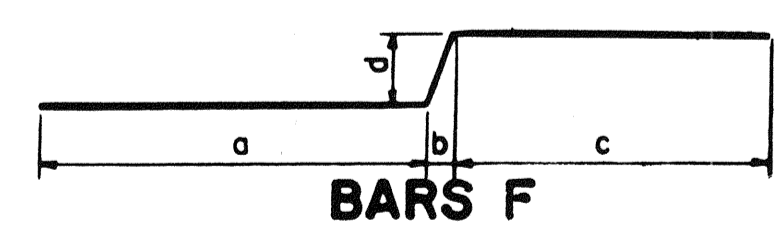
BARS YB



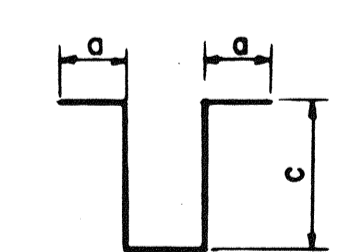
BARS Z



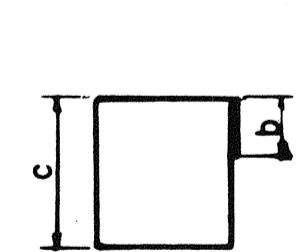
BARS B



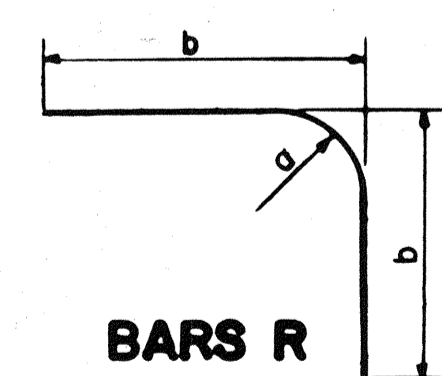
BARS F



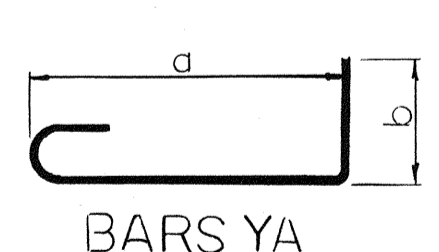
BARS K



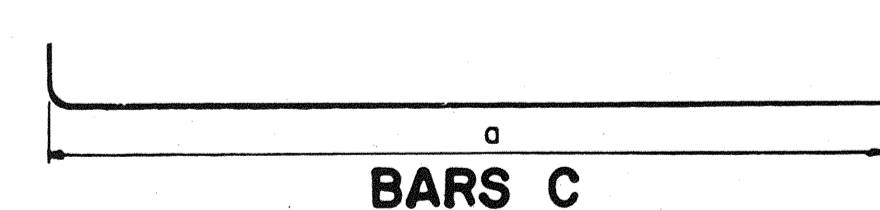
BARS L



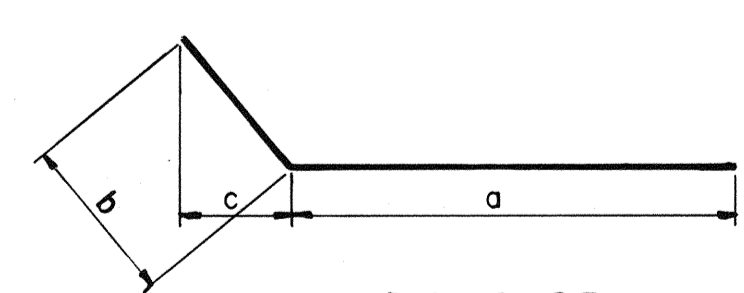
BARS R



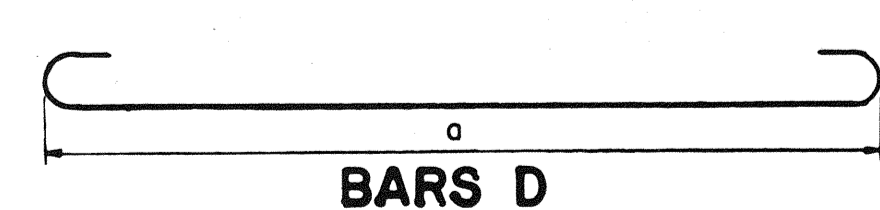
BARS YA



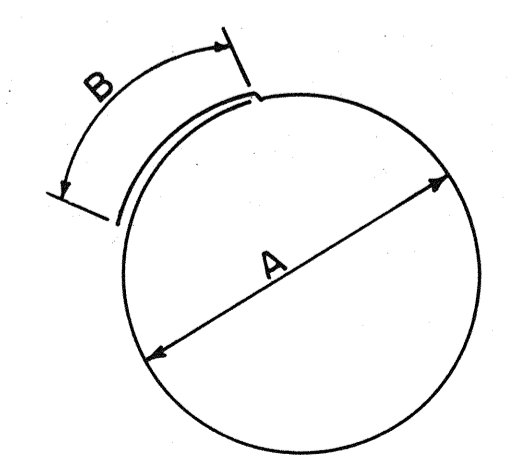
BARS C



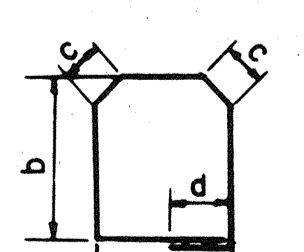
BARS CD



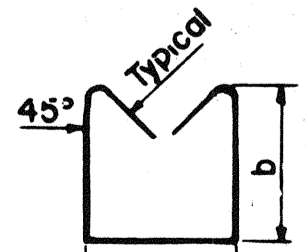
BARS D



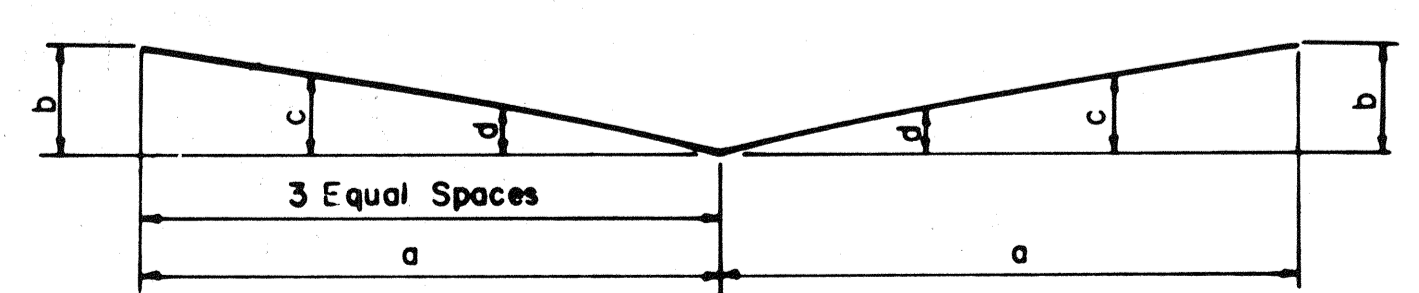
BARS T



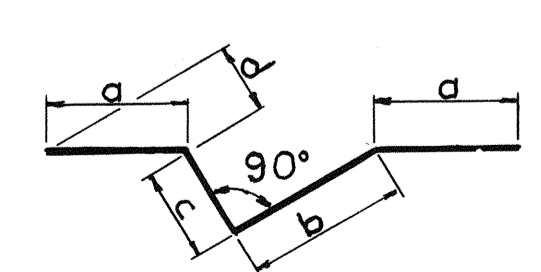
BARS M



BARS S



BARS V



BARS JX

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS

BILL OF STEEL

INTERSTATE 440 OVER BRANSFORD AVENUE STATION 375+74.83 DAVIDSON COUNTY 1981

CORRECT: [Signature] ENGINEER OF STRUCTURES APPROVED: [Signature] DIRECTOR OF HIGHWAYS

