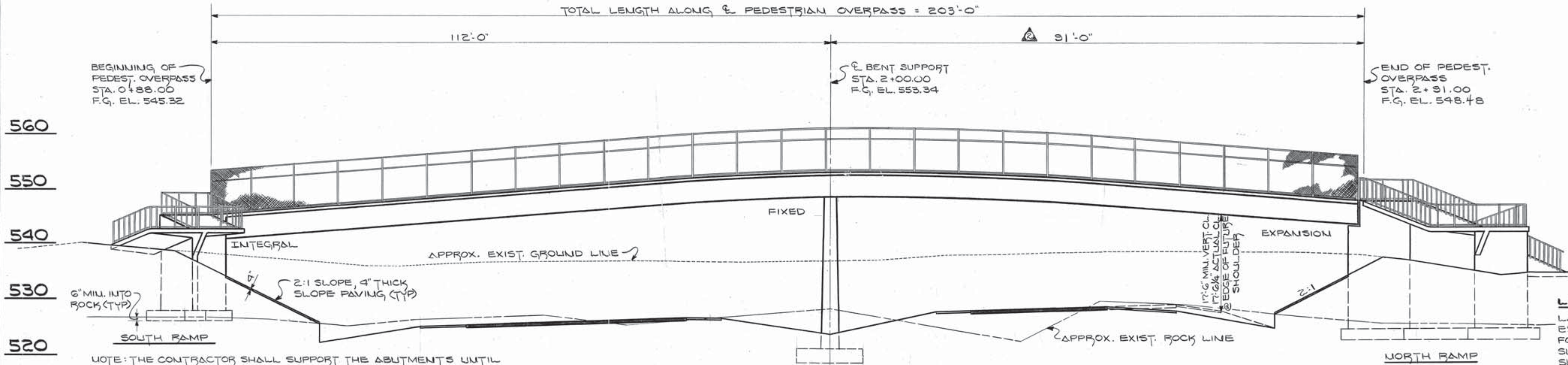
CONST. NO. 19015-3110-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44) 212	1981	64

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-81	Δ.S.	MISC. WORDING
2	Sept. 28 83	JHT	SPAN No 2 - Decreased by 5'-0"



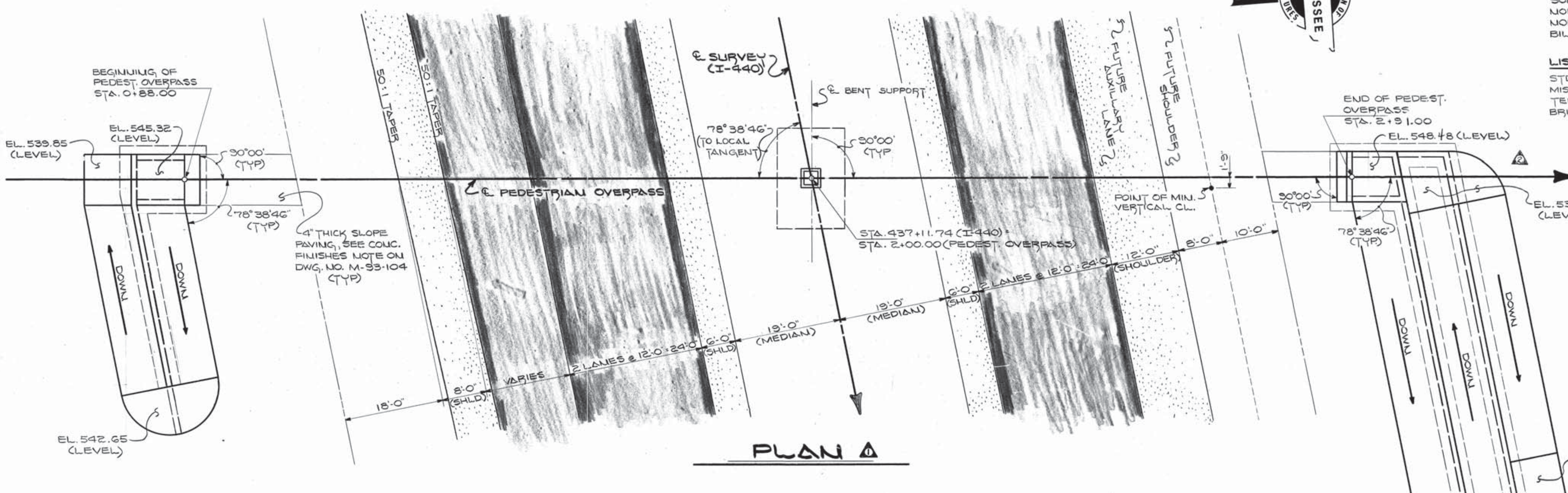
NOTE: THE CONTRACTOR SHALL SUPPORT THE ABUTMENTS UNTIL THE SUPERSTRUCTURE IS IN PLACE, FALSEWORK HAS BEEN REMOVED AND BACKFILLING HAS BEEN COMPLETED

NOTE: F.G. ELEVATIONS ARE ALONG ℄ OF STRUCTURE

ELEVATION AT RT. ∠s TO ℄ PEDESTRIAN OVERPASS (1)

LIST OF DRAWINGS	DWG. NO.	LAST REV. DATE
LAYOUT OF BRIDGE NO. 4	M-93-103	9-28-83
ESTIMATED QUANTITIES	M-93-104	9-28-83
FOUNDATION DATA	M-93-105	
SUPERSTRUCTURE	M-93-106	9-28-83
SUPERSTRUCTURE DETAILS	M-93-107	9-28-83
RAILS, FENCING AND MISC. DETAILS	M-93-108	5-7-81
ABUTMENT NO. 1 & 2 DETAILS	M-93-109	5-7-81
BENT SUPPORT	M-93-110	5-7-81
SOUTH RAMP DETAILS	M-93-111	5-7-81
SOUTH RAMP DETAILS	M-93-112	5-7-81
NORTH RAMP DETAILS	M-93-113	9-28-83
NORTH RAMP DETAILS	M-93-114	9-28-83
BILL OF STEEL	M-93-115	9-28-83

LIST OF STD. DRAWINGS	DWG. NO.	LAST REV. DATE
STD. REINF. BAR SUPPORT	K-80-14	8-27-76
MISC. ABUT. & DRAINAGE DETAILS	K-85-150	1-9-75
TENN. STD. PRECAST PRESTRESSED BRIDGE DECK PANELS	K-80-15A	



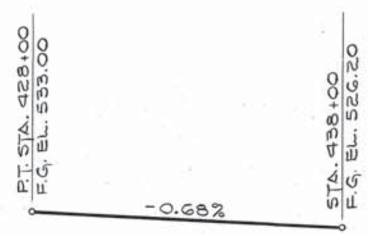
PLAN (1)

HORIZONTAL CURVE DATA

I-440 (PAPER LOC. ℄)
P.I. = 435+84.98
Δ = 2°15' RT.
D_c = 0°25'23"
R = 13,545.10'
T = 265.99'
L_c = 531.92'
E = 2,611'
S.E. = VARIES (TRANSITION FROM .032 @ STA. 433+18.39 TO .027 @ STA. 438+50.91)

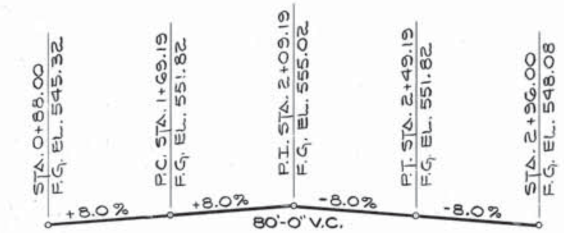
LIST OF SPECIAL PROVISIONS

SPECIAL PROVISION NO.	REGARDING	LAST REV. DATE
130	SECTION 604 — CONCRETE STRUCTURES	12-17-79
210	SUBSECTION 908.13 — ELASTOMERIC BEARING PAD	12-2-76
420	APPROVAL OF SHOP DRAWINGS	7-2-79
471	EPOXY COATED REINFORCING STEEL	2-16-79
495	PAINTING AND PREPARATION OF STEEL SURFACES	10-26-72
450	PERMANENT STEEL BRIDGE DECK FORMS	9-19-77
555	SECTION 615 — PRECAST-PRESTRESSED CONCRETE BRIDGE MEMBERS	7-1-77



GRADE SKETCH I-440

NOTE: ELEVATIONS SHOWN ARE BASED ON FUTURE FIN. GRADE



GRADE SKETCH PEDESTRIAN OVERPASS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

LAYOUT OF BRIDGE NO. 4 PEDESTRIAN OVERPASS OVER I-440 NEAR DORTCH AVE. STATION 437+11.74 DAVIDSON COUNTY 1981

DESIGNED BY MICHAEL MORRIS DATE DEC. '80'
DRAWN BY JIM CASON DATE MAR. '81'
SUPERVISED BY McINTURFF & SMITH DATE MAR. '81'
CHECKED BY McINTURFF & SMITH DATE APR. '81'

CORRECT Clellon L. Loveall — ENGINEER OF STRUCTURES
APPROVED Lewis Evans — DIRECTOR OF HIGHWAYS

M-93-103

CONST. NO. 19015-3110-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	65

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-81	A.M.S.	QUANTITES REVISED
2	9-28-83	JMP	QUANTITIES REVISED

ESTIMATED QUANTITIES

ITEM NUMBERS / ITEMS	204-02.01 DRY EXCAVATION (BRIDGES) C.Y. ① ⑤	204-04.01 ROCK EXCAVATION (BRIDGES) C.Y. ① ⑤	204-05 ROCK DRILLING (BRIDGES) L.F.	604-03.01 CLASS 'A' CONCRETE (BRIDGES) C.Y. ②	604-03.02 STEEL BAR REINFORCEMENT (BRIDGES) LBS. ① ②	604-02.03 EPOXY COATED REINFORCING STEEL LBS ① ②	604-03.03 LINSEED OIL TREATMENT S.Y. ②	604-01.04 1¼" ϕ STEEL PIPE HANDRAIL L.F. ③	707-06.03 CHAIN - LINK PEDESTRIAN BRIDGE CAGE (BLACK) ② ③ S.F.	908-21.04 BEARINGS M-93-109 EA.	920-01.11 ROADWAY EXPANSION DEVICE L.F. ④
SUPERSTRUCTURE				94.0	20,839	20,572	171				
SOUTH RAMP	124	41	12	89.7	7,526	13,827	99	144.7			
ABUTMENT NO. 1				11.9	1,386	4991					
BENT SUPPORT		66	6	29.3	7,875						
ABUTMENT NO. 2				17.3	5,585	159					
NORTH RAMP	440	106	12	232.3	22,372	37,213	215	291.3			
TOTAL	564	213	30	474.5	65,583	76,762	485	436.0	4,601	1	9.0

① THE COST OF BITUMINOUS-FIBERBOARD AND ANY OTHER MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN BRIDGE ITEMS BID ON.

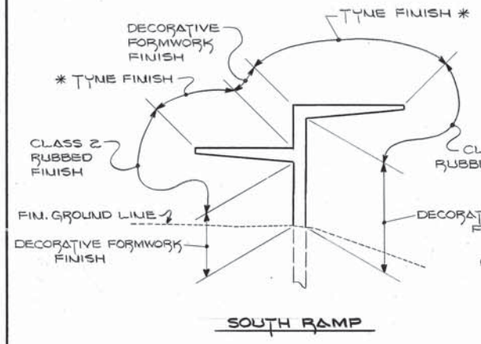
② THE PRICE BID FOR ITEM NO. 707-06.03 SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY FOR INSTALLATION, TO INCLUDE ALL FITTINGS, BASE PLATES AND U-BOLTS REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP PLANS FOR THE FENCE AND ITS INSTALLATION TO THE ENGINEER OF STRUCTURES FOR APPROVAL. FENCING TO BE 2 INCH BLACK DIAMOND MESH, THERMAL BONDED VINYL-CLAD, CHAIN LINK FABRIC. THE FENCING SHALL BE 9 GAGE, COMMERCIAL QUALITY, MEDIUM-HIGH CARBON, HOT DIPPED GALVANIZED STEEL WIRE, MEETING THE REQUIREMENTS OF ASTM A116, AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 75,000 P.S.I. THE WIRE SHALL HAVE A BONDED COATING OF PLASTICIZED POLYVINYL CHLORIDE, HAVING A MINIMUM THICKNESS OF 0.015 INCHES. POSTS, RAILS AND FRAMEWORK FOR CAGE SHALL BE GALVANIZED STRUCTURAL STEEL OR SCHEDULE 40 PIPE, AS APPROPRIATE, CLAD IN A BONDED VINYL COATING MATCHING THE COLOR OF THE MESH. ALL MISCELLANEOUS CONNECTIONS FOR POSTS, RAILS AND FRAMEWORK SHALL BE VINYL CLAD AND GALVANIZED, EXCEPT BASE PLATES, U-BOLTS, HEX. NUTS AND WASHERS WHICH SHALL ONLY BE GALVANIZED.

③ PIPE HANDRAIL AND ALL MISCELLANEOUS MATERIALS BID UNDER ITEM NO. 604-01.04 SHALL BE PAINTED IN ACCORDANCE WITH SPECIAL PROVISION 495, EXCEPT THE COLOR OF THE TOP COAT SHALL BE GLOSS BLACK, REASONABLY MATCHING THE COLOR OF VINYL FENCING. SEE PAINT NOTE THIS SHEET.

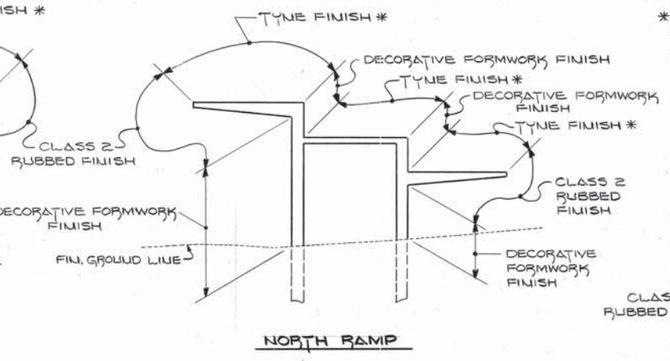
④ ACCEPTABLE EXPANSION DEVICES ARE AS 200 BY ACME; ON-FLEX 25 BY OLD-NORTH MFG. CO.; OR WABO-MAURER SA 200. TOTAL REQ'D MOVEMENT IS 1 1/16".

⑤ EXCAVATION BASED ON LOWER ROAD PROFILE.

NOTE TO CONTRACTOR: IF THE CONTRACTOR ELECTS TO USE PRECAST PRESTRESSED BRIDGE DECK PANELS, ALL CLEARANCES FOR SLAB REINFORCEMENT SHALL BE MAINTAINED WITH THE COST OF ANY NECESSARY CHANGES IN THE SLAB OR RAMPS TO BE BORNE BY THE CONTRACTOR.

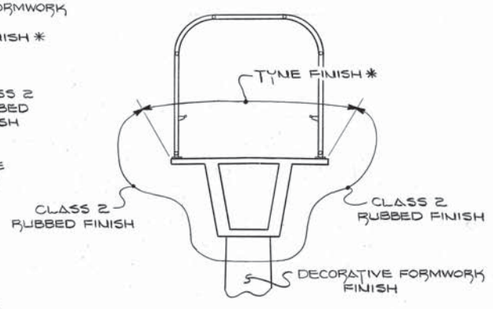


SOUTH RAMP



NORTH RAMP

* NOTE: SURFACES RECEIVING A TYNE FINISH SHALL ALSO RECEIVE A LINSEED OIL PROTECTIVE TREATMENT.



SUPERSTRUCTURE

FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE TENNESSEE STANDARD SPECIFICATIONS EXCEPT AS MODIFIED BY SPECIAL PROVISION NO. 130. SEE NOTES, THIS SHEET REGARDING CONCRETE FINISHES.

NOTE: EXPOSED FACES OF ABUTMENT AND BENT COLUMN TO RECEIVE DECORATIVE FORMWORK FINISH.

SURFACE TREATMENT SKETCHES

GENERAL NOTES:

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

DESIGN SPECIFICATIONS: AASHTO 1977 EDITION WITH ADDENDA.

DESIGN LIVE LOAD: 85 P.S.F.

CONCRETE: TO BE CLASS "A". f'_c = 3,000 P.S.I. SEE SPECIAL PROVISION NO. 130 AND CONCRETE FINISHING.

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

REINFORCING STEEL: TO BE ASTM A615 GRADE 60. STANDARD CRSI 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 NO. 471.

FOOTINGS ON ROCK: 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 BENT COLUMNS AND ABUTMENT WALLS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

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 FORMLINER BG308, "CONCRETE HARP", OR EQUAL. AFTER STRIPPING FORMLINER, THE DECORATIVE FORM FINISH AREAS SHALL BE GIVEN A "CLASS I 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. SLOPE PAVING FINISH TO BE A STRIATED (RAKED) FINISH WITH THE 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 THE SLOPE PAVING. COST OF ALL CONCRETE FINISHES TO BE INCLUDED IN THE PRICE BID FOR CLASS 'A' CONCRETE (BRIDGES) AND SLOPE PAVING.

ELASTOMERIC LAMINATED BEARING PAD: SEE SPECIAL PROVISION 210

NOTE: AT THE CONTRACTORS OPTION BEARING DEVICES MAY BE SUBMITTED FOR APPROVAL TO THE ENGINEER OF STRUCTURES. THE BEARINGS SHALL BE CAPABLE OF PROVIDING THE FOLLOWING MINIMUM REQUIREMENTS UNDER SERVICE LOAD.

BEARING	TOTAL MOVEMENT	DEAD LOAD REACTION	LIVE LOAD REACTION
M-93-109	1 1/16"	78.3 KIPS	24.5 KIPS

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

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 RAILS. IN EITHER CASE, FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO SUPPORT MEMBERS. SEE SPECIAL PROVISION NO. 450 AND STANDARD DRAWING Y-80-15A. THE CONTRACTOR SHALL TAKE STEPS TO ASSURE THE STABILITY OF THE EXTERIOR GIRDER AGAINST TWISTING OR OVERTURNING DURING SLAB POURING OPERATIONS.

PAINT: SYSTEM 'B' - SILICO CHROMATE - GLOSS BLACK TOP COAT - SEE TENNESSEE STANDARD SPECIFICATION SECTION 603 AND SPECIAL PROVISION 495.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ESTIMATED QUANTITIES BRIDGE NO. 4 PEDESTRIAN OVERPASS OVER I-440 NEAR DORTCH AVE. STATION 437+11.74 DAVIDSON COUNTY

CORRECT Charles L. Lowell 1981
ENGINEER OF STRUCTURES

APPROVED Louis Evans
DIRECTOR OF HIGHWAYS

M-93-104

DESIGNED BY MICHAEL MORRIS DATE DEC. '80
DRAWN BY JIM CASON DATE MAR. '81
SUPERVISED BY McINTURFF & SMITH DATE MAR. '81
CHECKED BY McINTURFF & SMITH DATE APR. '81

MICROFILMED

P.E. # 9015-1101-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	66

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

TOTAL LENGTH ALONG ℄ = 208'-0"(±)

BEGINNING OF PEDESTRIAN OVERPASS
STA. 0+88.00(±)
F.G. EL. 544.12

END OF PEDESTRIAN OVERPASS
STA. 2+96.00(±)
F.G. EL. 546.87

APPROX. EXISTING GROUND LINE

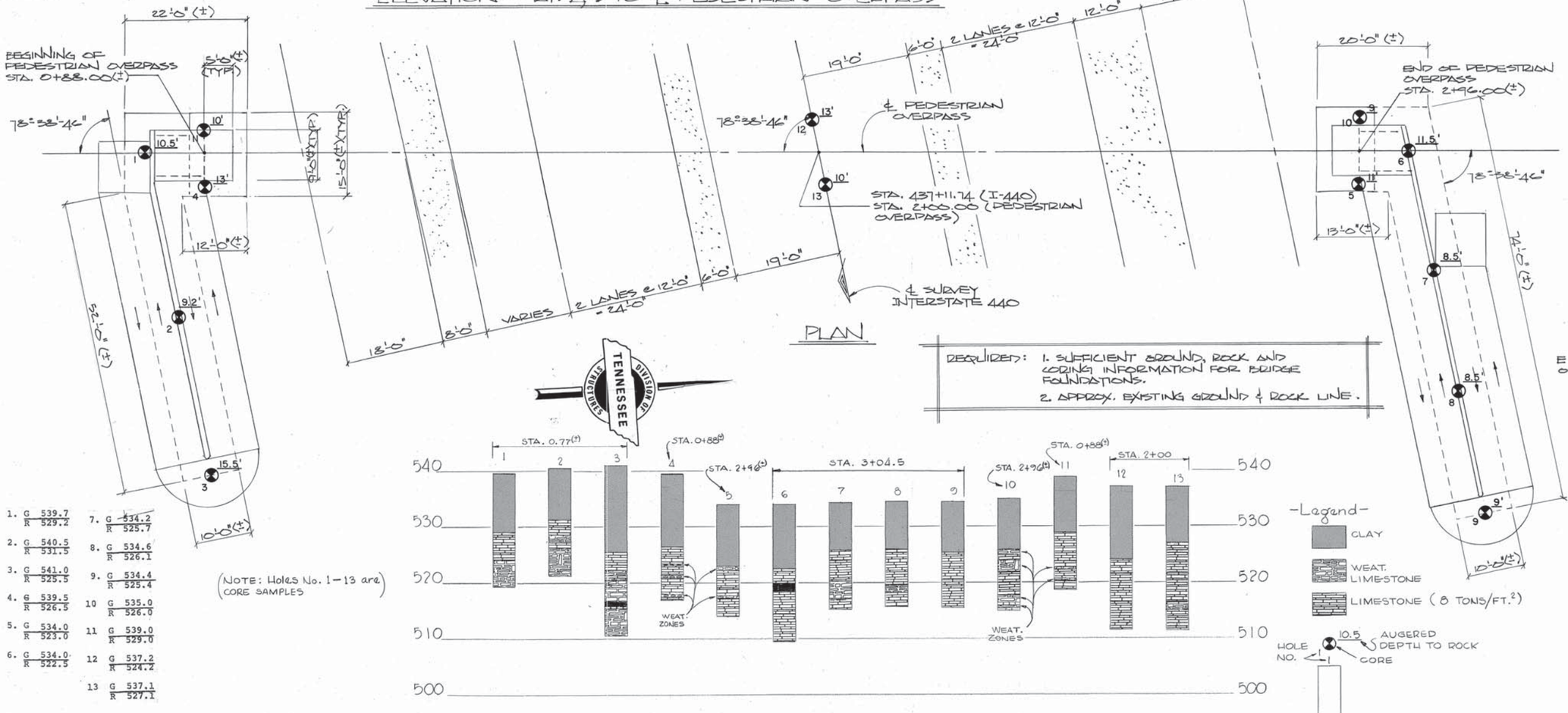
APPROX. EXISTING ROCK LINE

560
550
540
530
520

ELEVATION @ RT. ∠'s TO ℄ PEDESTRIAN OVERPASS

HORIZONTAL CURVE DATA

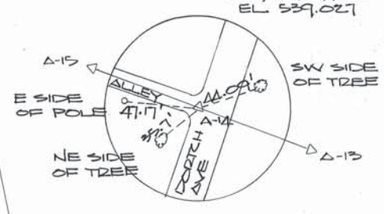
I-440 (PAP LOC. ℄)
P.I. = 435+84.983
Δ = 2°15' RT.
D_c = 0°25'23"
R = 13,545.102'
T = 265.992'
L_c = 531.915'
E = 2.611'
S.E. = VARIES



PLAN

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

SP W/PH
N 631,195.11
E. 1,119,644.36
EL 539.027



BENCH MARK A-14

-Legend-
- CLAY
- WEAT. LIMESTONE
- LIMESTONE (8 TONS/FT.²)

HOLE NO. 1 — 10.5 AUGERED DEPTH TO ROCK CORE

1.	G 539.7 / R 529.2	
2.	G 540.5 / R 531.5	
3.	G 541.0 / R 525.5	
4.	G 539.5 / R 526.5	
5.	G 534.0 / R 523.0	
6.	G 534.0 / R 522.5	
7.	G 534.2 / R 525.7	
8.	G 534.6 / R 526.1	
9.	G 534.4 / R 525.4	
10	G 535.0 / R 526.0	
11	G 539.0 / R 529.0	
12	G 537.2 / R 524.2	
13	G 537.1 / R 527.1	

(NOTE: Holes No. 1–13 are CORE SAMPLES)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

FOUNDATION DATA
PEDESTRIAN OVERPASS
OVER INTERSTATE 440
STATION 437+11.74
DAVIDSON COUNTY
1980

DESIGNED BY MICHAEL MORRIS DATE NOV. '80
DRAWN BY MICHAEL MORRIS DATE NOV. '80
SUPERVISED BY SMITH DATE NOV. '80
CHECKED BY _____ DATE _____

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

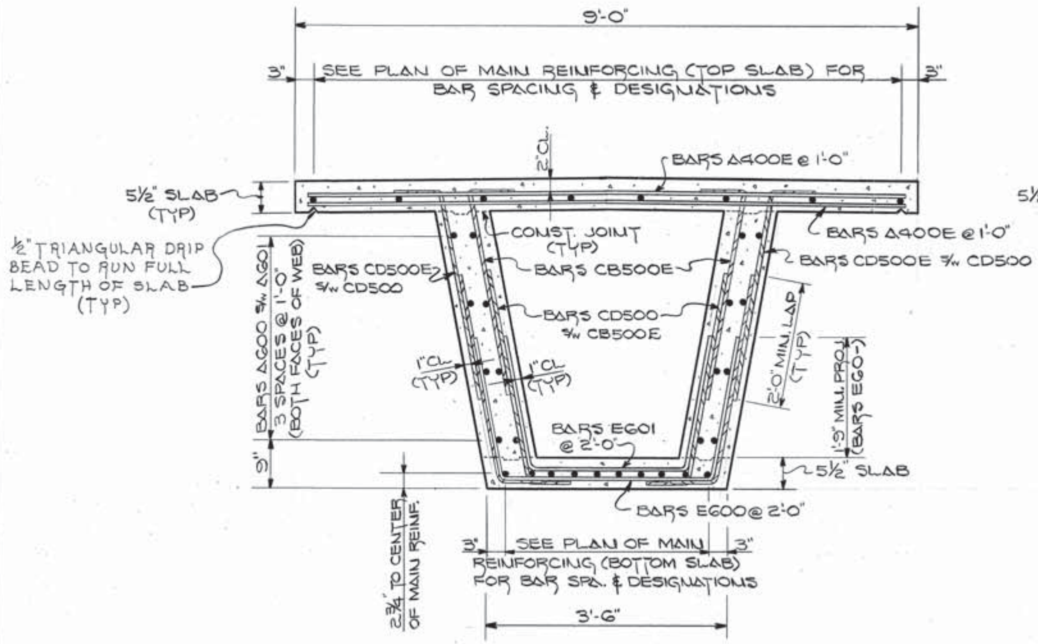
M-93-105

CONST. NO. 19015-3110-44

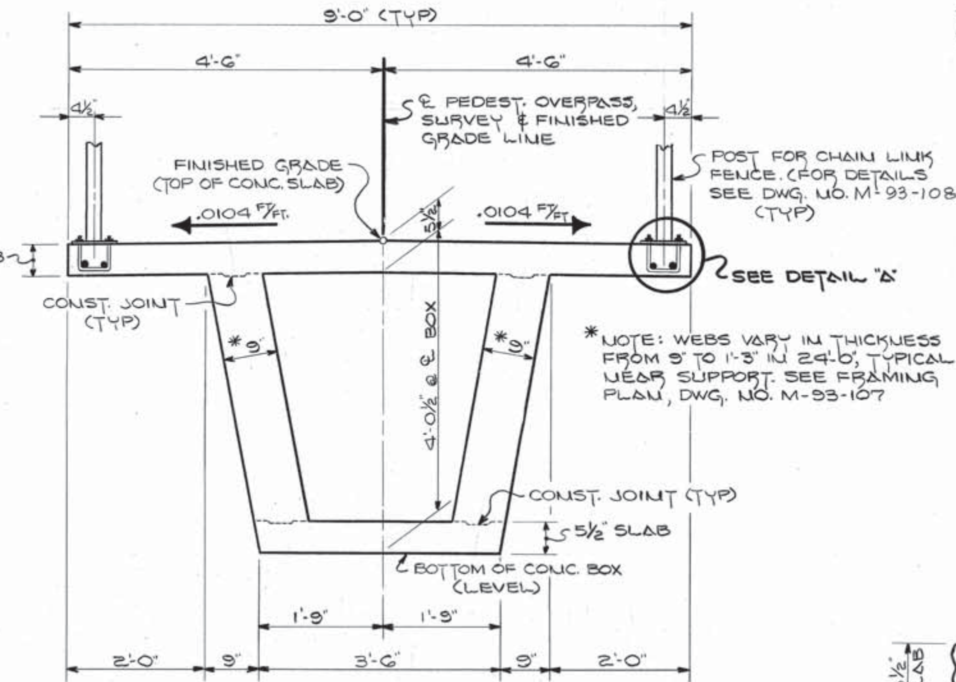
PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	67

REVISIONS

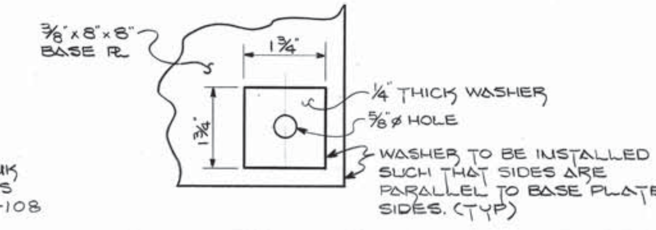
NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-21	A.M.S.	GENERAL REVISIONS
2	9-28-83	J.H.T.	General Revision Due To Span No. 2 Being Revised By 5'-0"



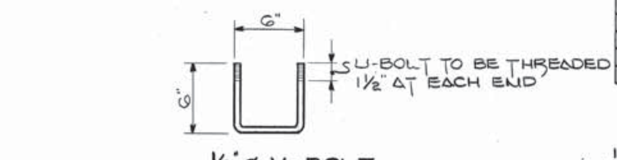
MID-SPAN CROSS SECTION △
(SHOWING TYPICAL PLACEMENT OF REINF. STEEL)



TYPICAL CROSS SECTION △

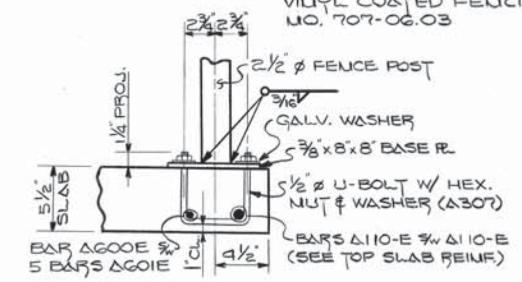


GALVANIZED WASHER DETAIL

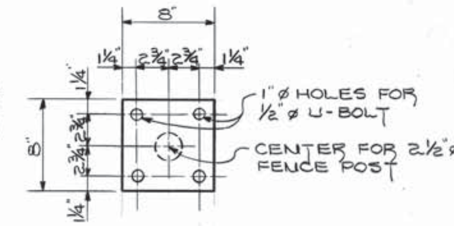


½" ø U-BOLT

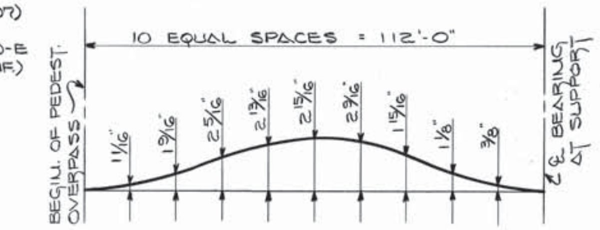
NOTE: COST OF U-BOLTS, BASE PL'S, HEX. NUTS AND WASHERS TO BE INCLUDED IN COST OF VINYL COATED FENCING, ITEM NO. 707-06.03



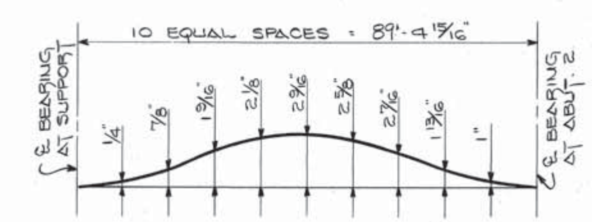
DETAIL "A" △



⅜" x 8" x 8" BASE PLATE



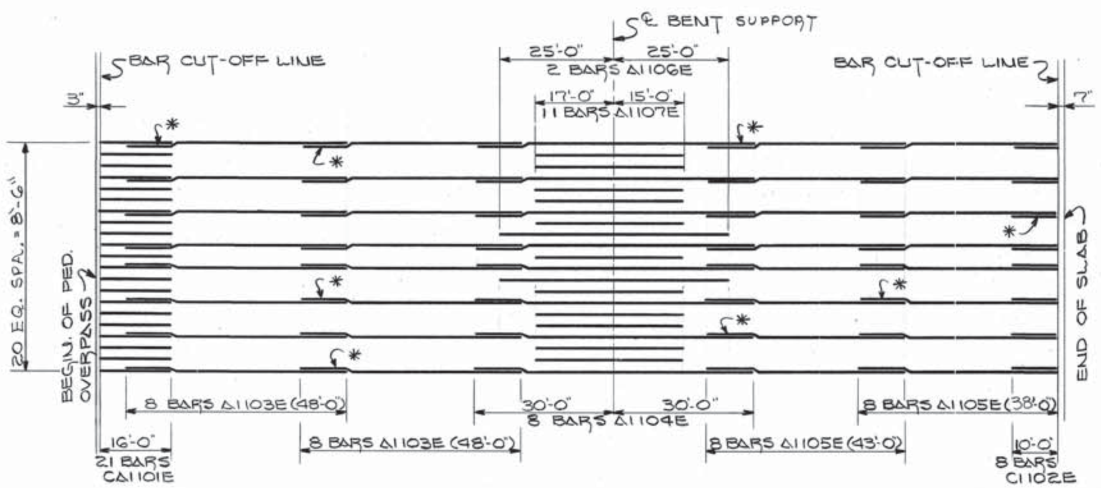
SPAN NO. 1 △



SPAN NO. 2 △ ②

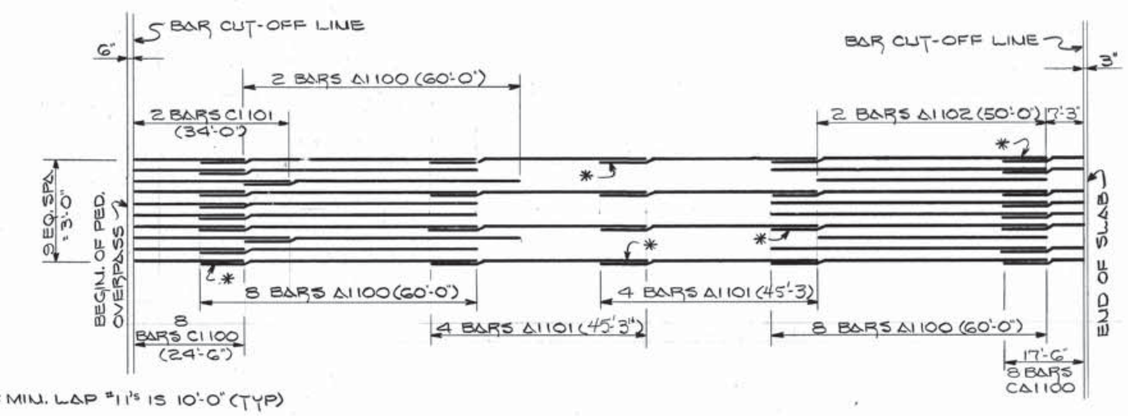
DEAD LOAD CORRECTION CURVE

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

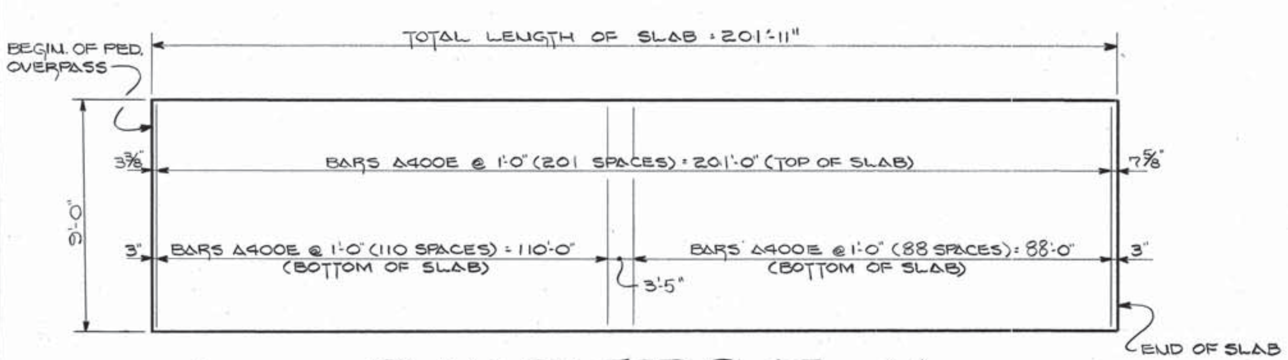


* NOTE: MIN. LAP #11'S IS 10'-0" (TYP)

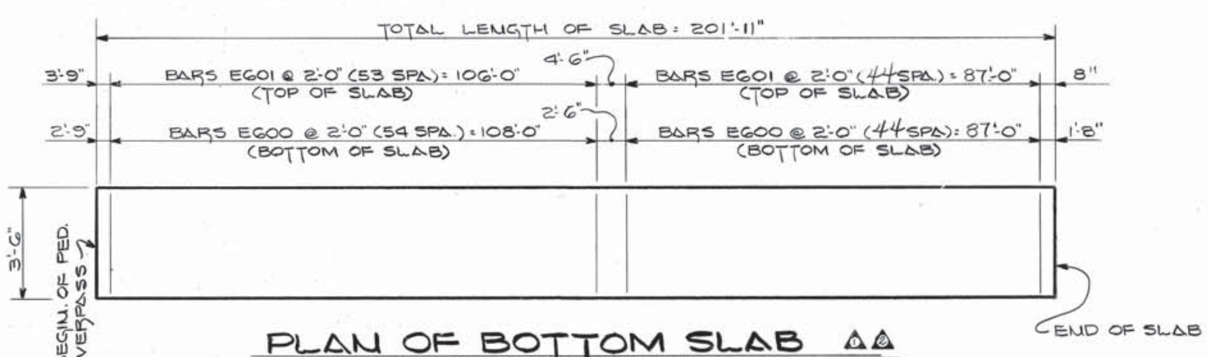
PLAN OF MAIN REINFORCING (TOP SLAB) △ ②



PLAN OF MAIN REINFORCING (BOTTOM SLAB) △



PLAN OF TOP SLAB △ ②
(SHOWING TRANSVERSE REINFORCING)



PLAN OF BOTTOM SLAB △ ②
(SHOWING TRANSVERSE REINFORCING)

② ESTIMATED QUANTITIES

CLASS "A" CONCRETE C.Y.	REINFORCING STEEL LBS.	EPOXY COATED REINFORCING STEEL LBS.
94.0	20,839	20,572

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE
PEDESTRIAN OVERPASS OVER I-440 NEAR DORTCH AVE.
STATION 437+11.74
DAVIDSON COUNTY
1981

CORRECT Clellon L. Loveall — ENGINEER OF STRUCTURES
APPROVED Louis Evans — DIRECTOR OF HIGHWAYS

DESIGNED BY MICHAEL MORRIS DATE DEC. '80
DRAWN BY JIM CASON DATE FEB. '81
SUPERVISED BY McINTURFF & SMITH DATE FEB. '81
CHECKED BY DATE

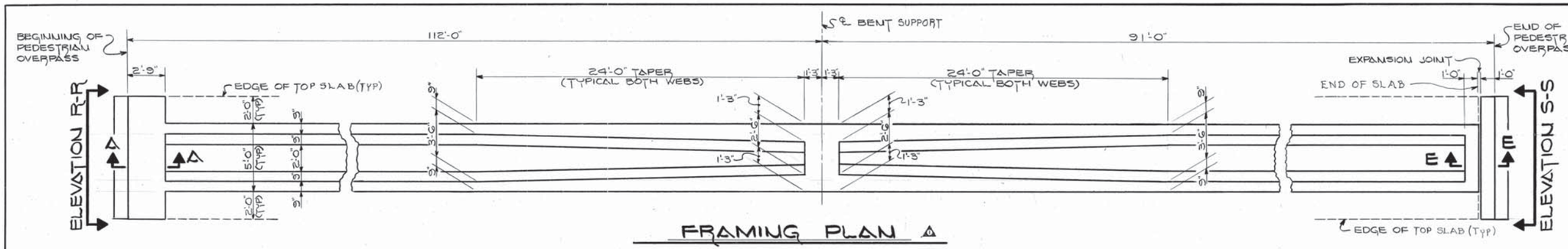
M-93-106

CONST. NO. 19015-3110-44

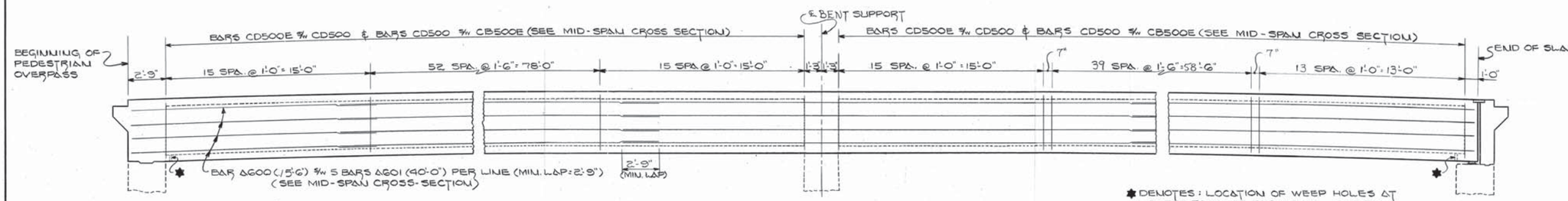
PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	68

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-81	A.M.S.	GENERAL REVISIONS
2	9-28-83	J.H.P.	General Revision

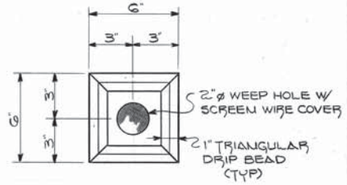


FRAMING PLAN △

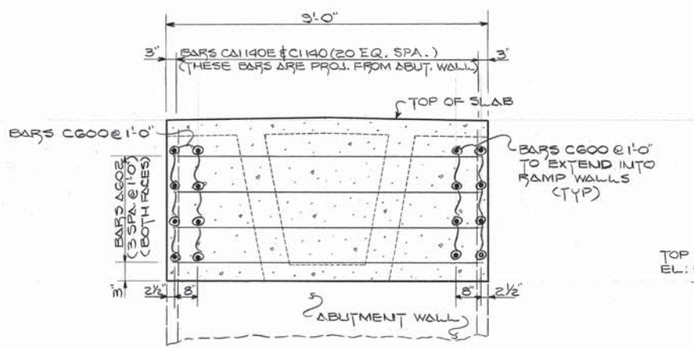


ELEVATION OF CONCRETE BOX △△
(SHOWING WEB REINFORCEMENT)

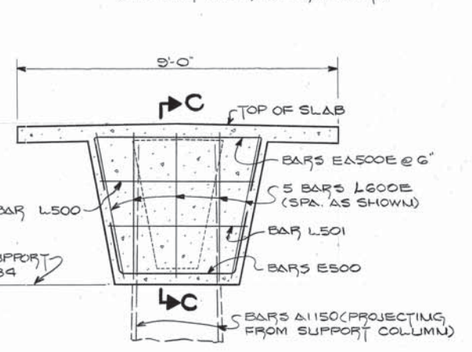
✱ DENOTES: LOCATION OF WEEP HOLES AT LOWEST POINT OF EACH CELL. SEE DETAIL THIS SHEET.



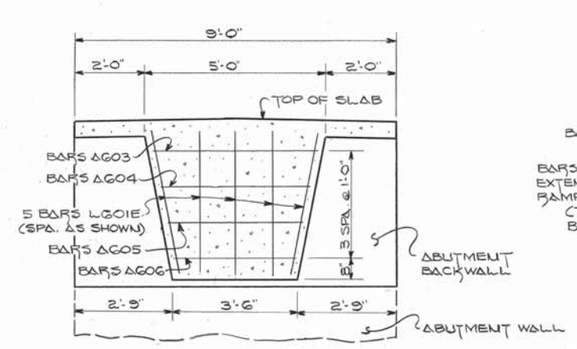
WEEP HOLE DETAILS



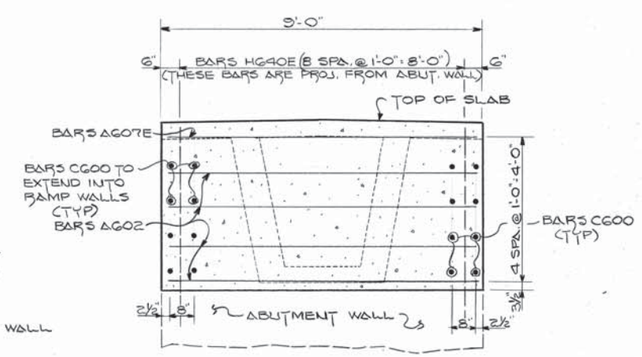
ELEVATION R-R △
(ABUTMENT NO. 1)



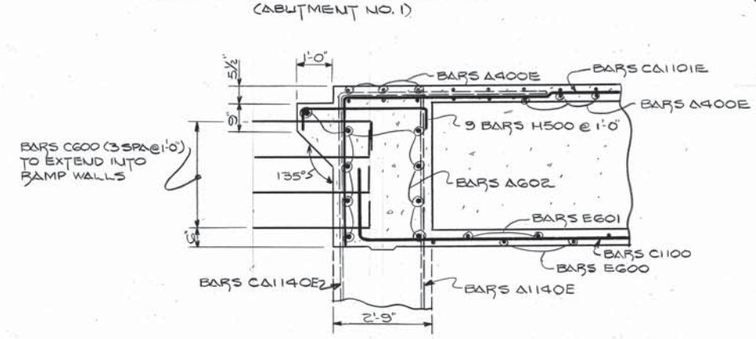
ELEVATION @ ℄ SUPPORT △
(SHOWING REINFORCING IN DIAPHRAGM)



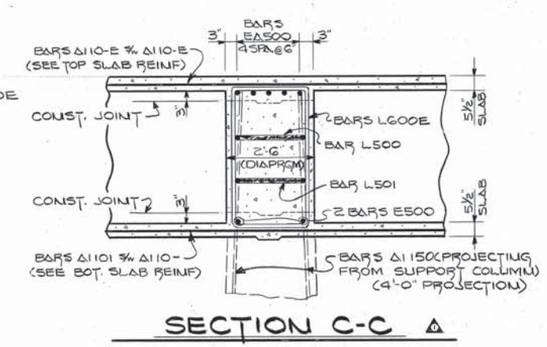
ELEV. OF END DIAPHRAGM
(ABUTMENT NO. 2)



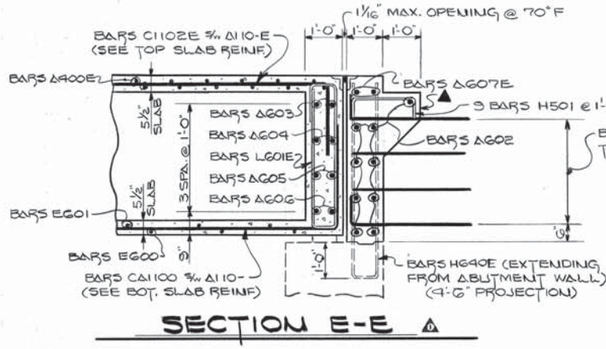
ELEVATION S-S △
(ABUTMENT NO. 2)



SECTION A-A △



SECTION C-C △



SECTION E-E △

▲ NOTE: SEE SECTION A-A FOR DIMENSIONS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS PEDESTRIAN OVERPASS OVER I-440 NEAR DORTCH AVE. STATION 437+11.74 DAVIDSON COUNTY 1981

DESIGNED BY MICHAEL MORRIS DATE DEC. '80
DRAWN BY JIM CASON DATE FEB. '81
SUPERVISED BY McINTURFF & SMITH DATE FEB. '81
CHECKED BY _____ DATE _____

CORRECT Clifton A. Foreall, ENGINEER OF STRUCTURES
APPROVED Lewis Evans, DIRECTOR OF HIGHWAYS

M-93-107

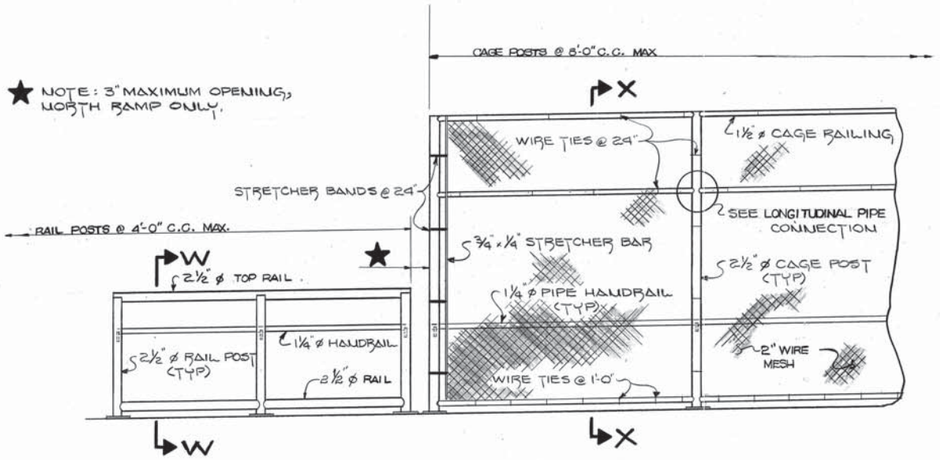
MICROFILMED

CONST. NO. 19015-3110-94

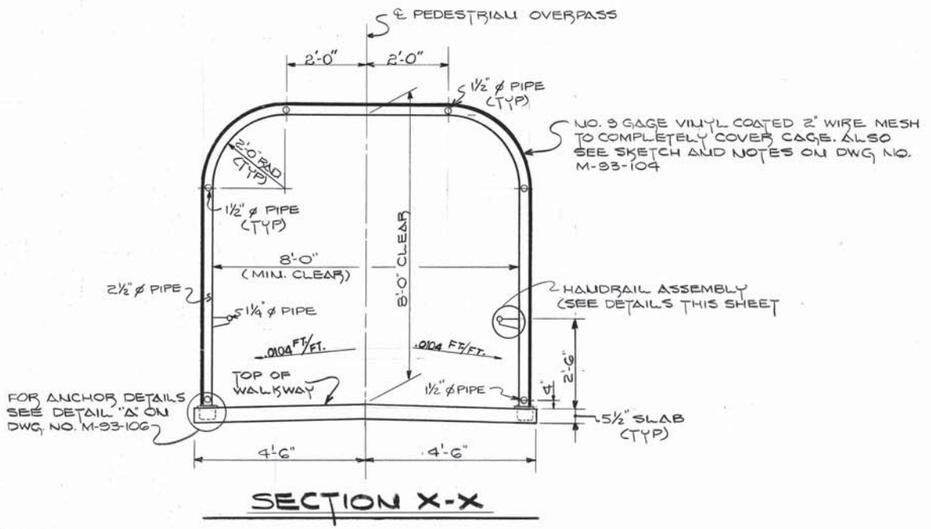
PROJECT NO.	YEAR	SHEET NO.
I-440-4(94)212	1981	69

REVISIONS

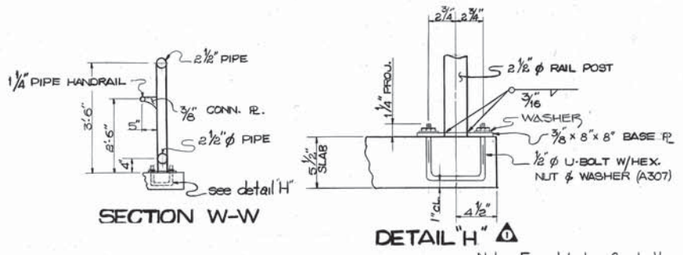
NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-81	AMS	Misc. Revisions
2	6-5-81	AMS	Added Note



CAGE AND RAILING DETAILS



SECTION X-X

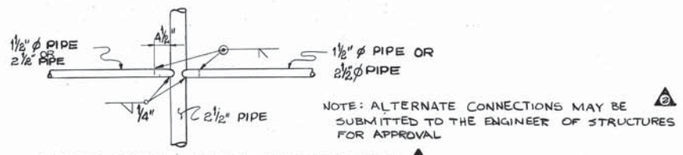


SECTION W-W

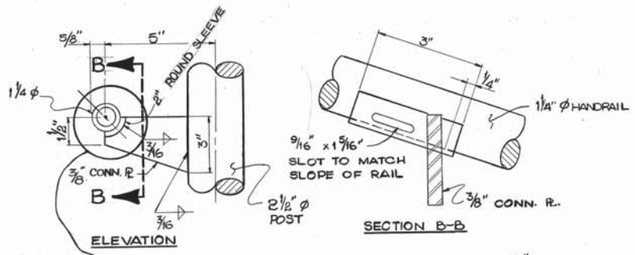
DETAIL "H" ⚠1

Note: For details of u-bolt, washer, base plate; and hexagon nut see dwg. no. M-93-106

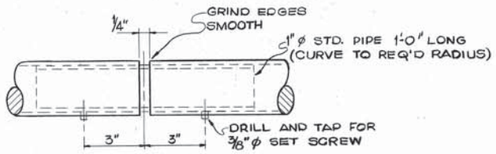
NOTE: CAGE POSTS AND RAIL POSTS TO BE FABRICATED VERTICAL



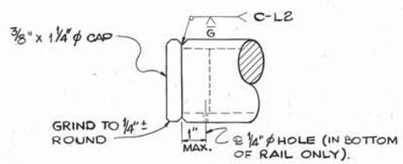
LONGITUDINAL PIPE CONNECTION ⚠1



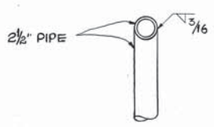
HANDRAIL ASSEMBLY DETAILS



RAIL SPLICE DETAIL



RAIL END CAP DETAIL



TOP RAIL TO POST CONNECTION

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

RAILS, FENCING, & MISC. DETAILS PEDESTRIAN OVERPASS OVER I-440 NEAR DORTCH AVE. STA. 437+11.74 DAVIDSON COUNTY 1981

DESIGNED BY Michael Morris DATE 12-80
DRAWN BY Patricia Sebastian DATE 4-81
SUPERVISED BY McInturff & Smith DATE 4-81
CHECKED BY McInturff DATE 4-81

CORRECT Clellon L Loveall ENGINEER OF STRUCTURES
APPROVED Lewis Evans DIRECTOR OF HIGHWAYS

M-93-108

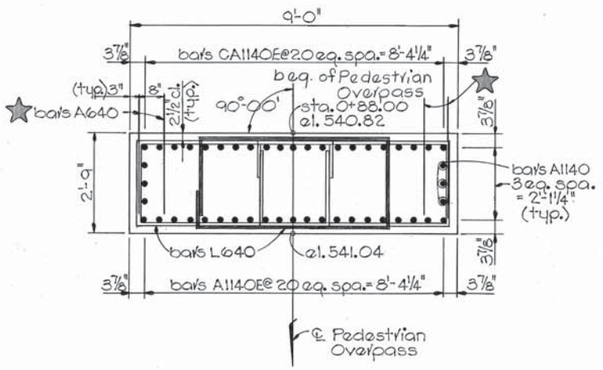
MICROFILMED

Const. No. 19015-3110-44

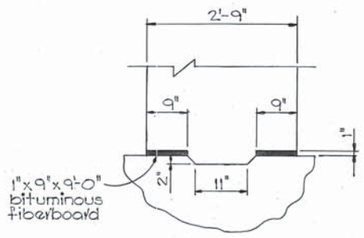
PROJECT NO.	YEAR	SHEET NO.
I-440-4(44) 212	1981	70

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-81	A.M.S.	Added epoxy steel gr. + general rev.

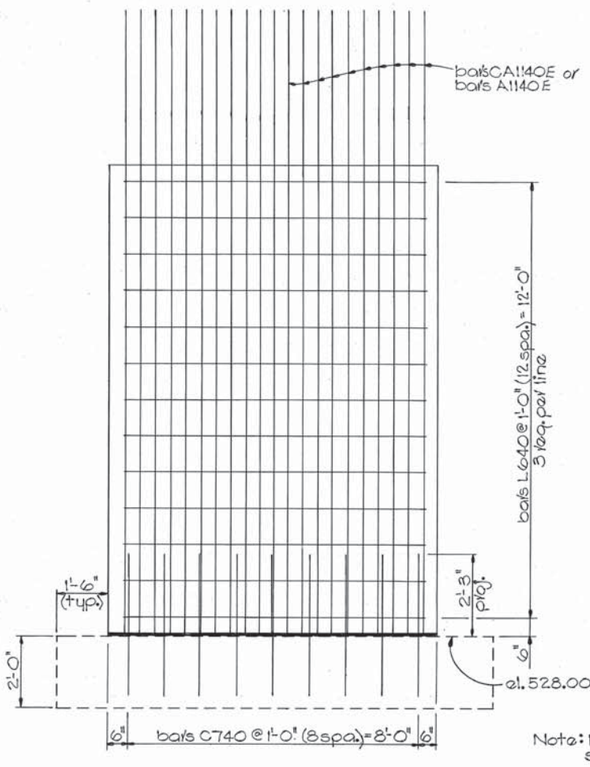


① PLAN

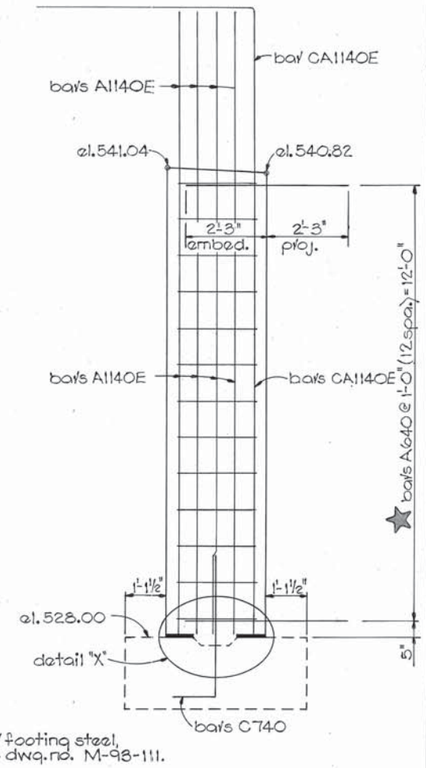


DETAIL "X"

★ Note: Bars A640 to splice with reinforcing in ramp walls.



① ELEVATION
(looking back on survey)



Note: For footing steel, see dwg. no. M-98-111.

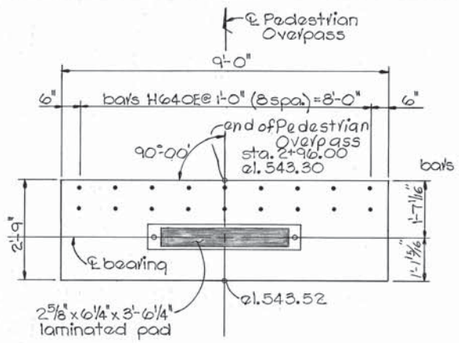
END ELEVATION ①

ESTIMATED QUANTITIES ①

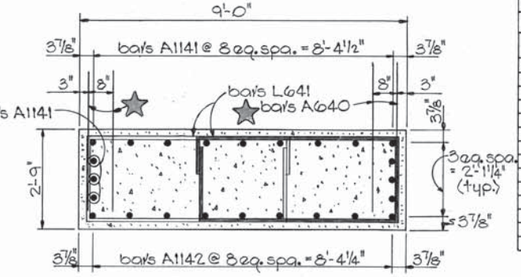
Class "A" Concrete c.y.	Reinforcing Steel lbs.	Epoxy Coated Reinforcing Steel lbs.
11.9	1,386	4,991

DESIGNED BY M. Morris DATE 2-81
DRAWN BY T. Wilson DATE 4-81
SUPERVISED BY McInturff, Smith DATE 4-81
CHECKED BY ____ DATE ____

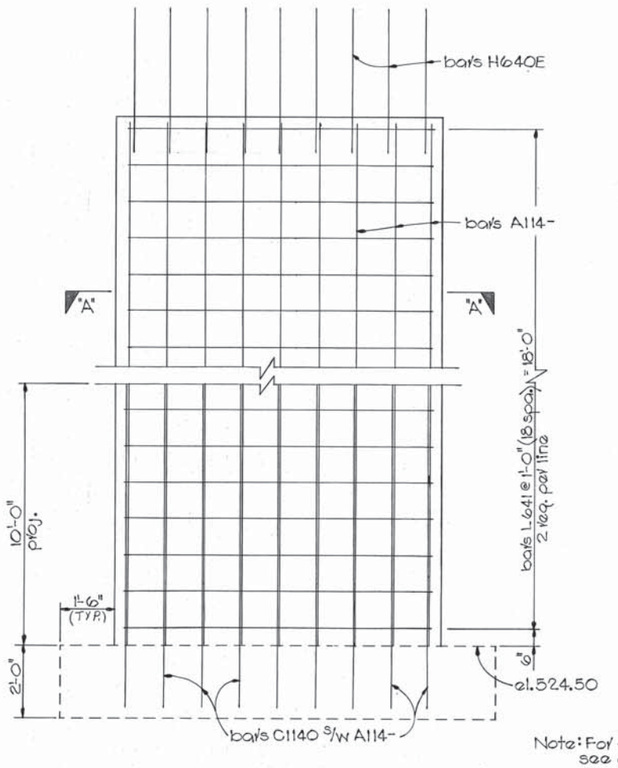
ABUTMENT No.1

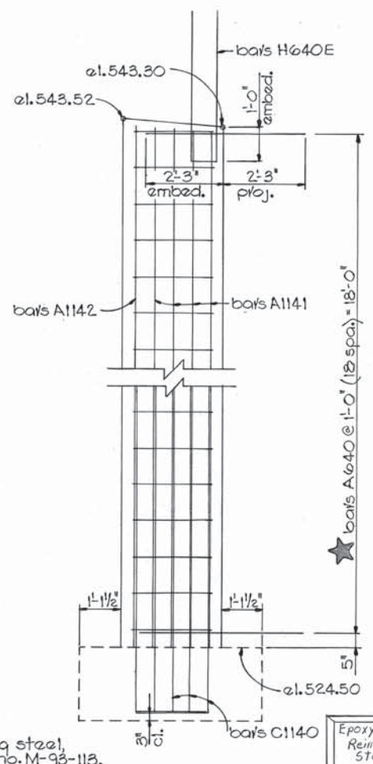


① PLAN



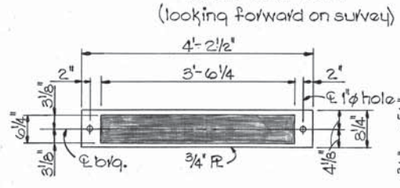
① SECTION A-A



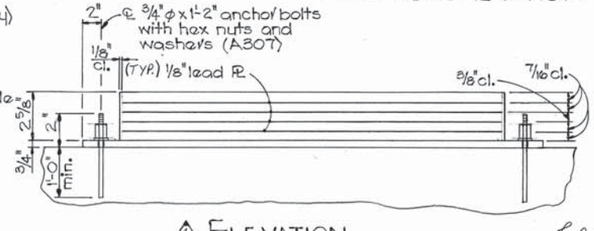


Note: For footing steel, see dwg. no. M-98-118.

① ELEVATION
(looking forward on survey)



PLAN



① ELEVATION

① END ELEVATION

① ESTIMATED QUANTITIES

Epoxy Coated Reinforcing Steel lbs.	Class "A" Concrete c.y.	Reinforcing Steel lbs.
159	17.3	5,585

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT No. 1 & 2 DETAILS PEDESTRIAN OVERPASS OVER I-440 NEAR DORTCH AVE. STATION 437+11.74 DAVIDSON COUNTY 1981

CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

ABUTMENT No. 2

LAMINATED PAD DETAILS

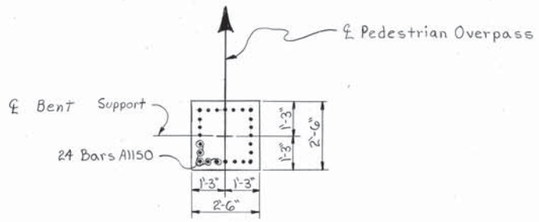
M-93-109

Const. No. 19015-3110-44

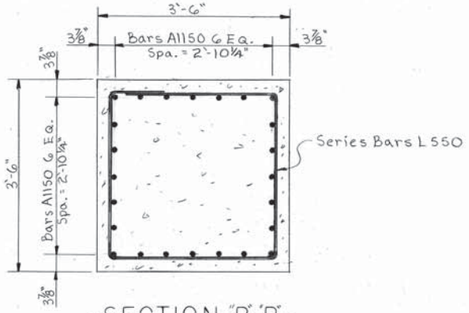
PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	71

REVISIONS

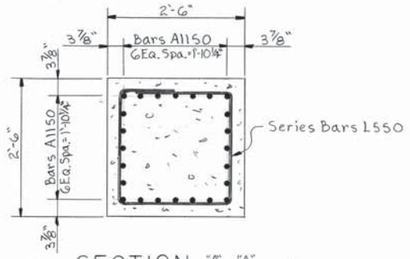
NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-81	AMS	Changed Conc. qt. & general revisions



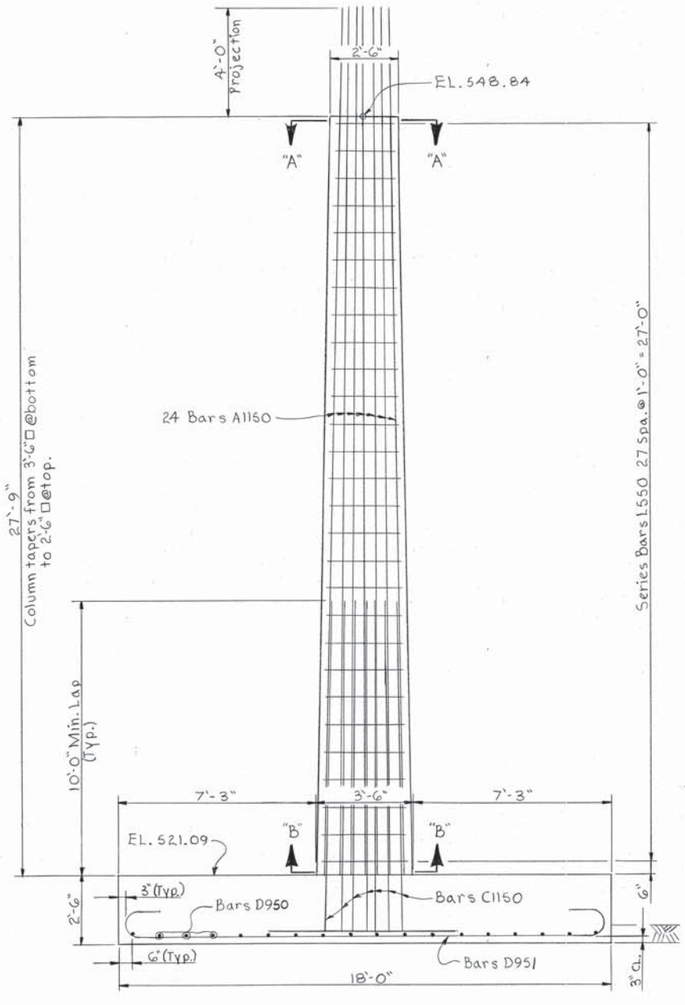
△1 -PLAN-



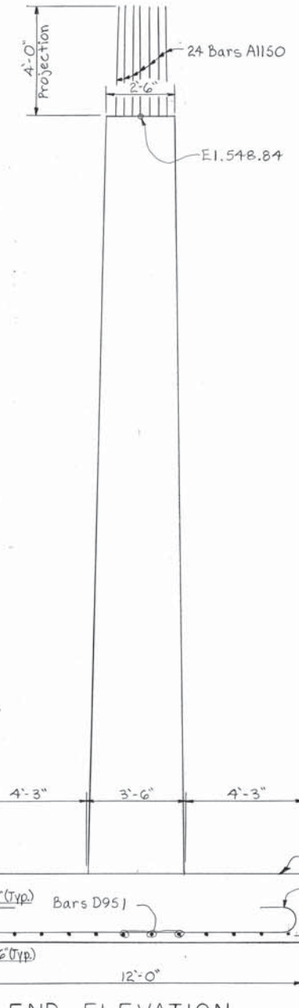
-SECTION "B"-"B"-
-BOTTOM OF COLUMN-



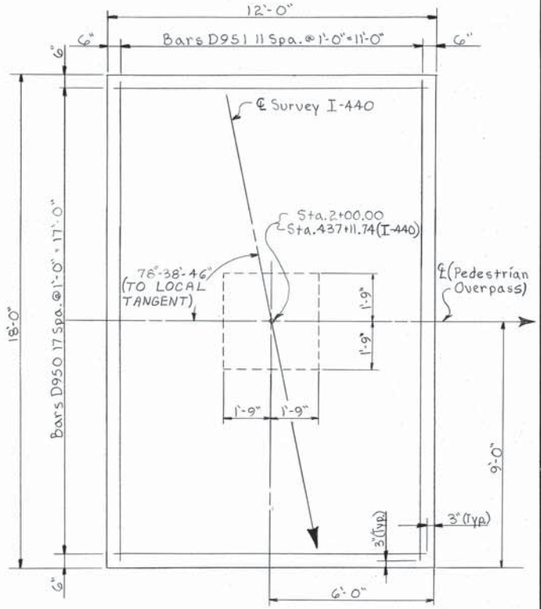
-SECTION "A"-"A"-
-TOP OF COLUMN-



△2 -ELEVATION-



△3 -END ELEVATION-



△4 -PLAN OF FOOTING-
(Showing Reinforcing Steel)

△5 -ESTIMATED QUANTITIES-

ITEM	CLASS "A" CONCRETE C.Y.	REINFORCING STEEL LBS.
Bent Support	29.3	7,875

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

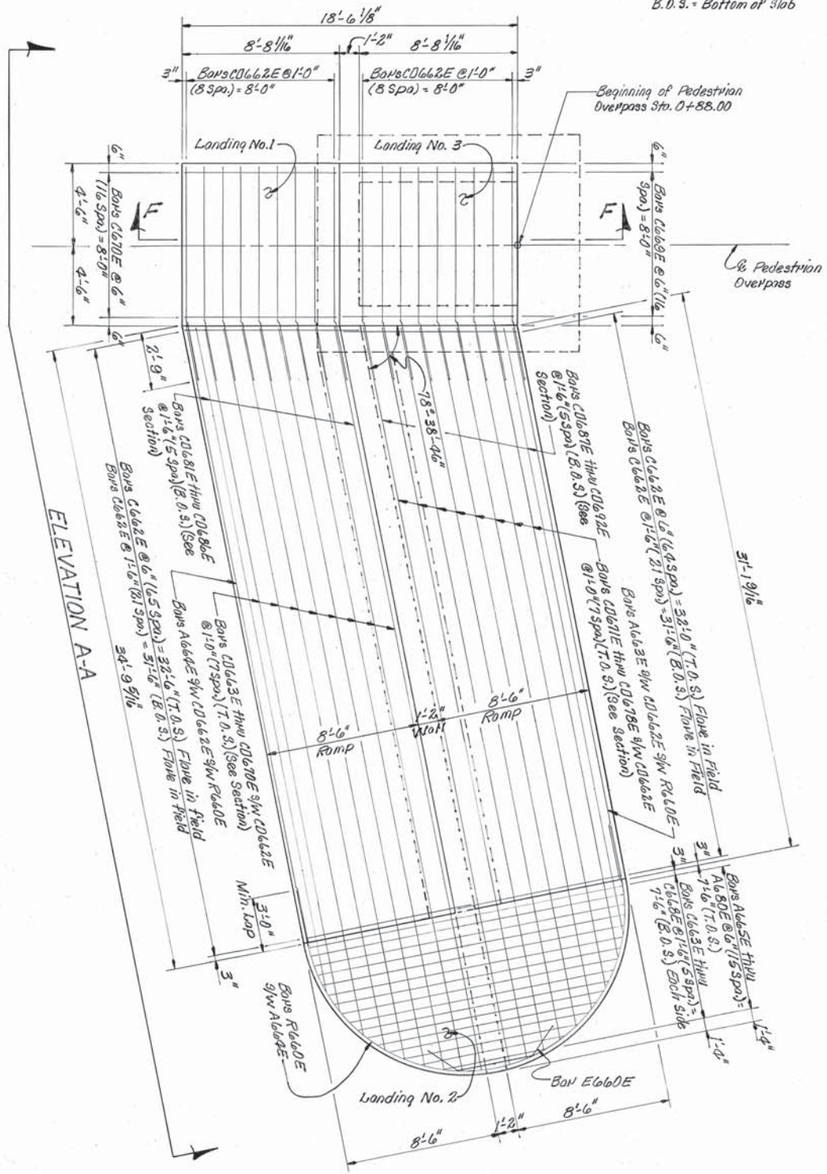
BENT SUPPORT
PEDESTRIAN OVERPASS
OVER I440 NEAR DORTCH AVE.
STATION 437+11.74
DAVIDSON COUNTY
1981

DESIGNED BY M. MORRIS DATE 1-81
DRAWN BY FRANK F. FROST DATE 3-81
SUPERVISED BY McINTYRE & SMITH DATE 3-81
CHECKED BY W.M.M. DATE 4-81

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-93-110

MICROFILMED



Note: T.O.S. = Top of Slab
B.O.S. = Bottom of Slab

Note: N.S. = Near Side
F.S. = Far Side

CONST. NO. 19015-3110-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	72

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-81	A.M.S.	General Revisions

PLAN ⑥

ELEVATION A-A

Note: For Sections See Sheet No. M-93-112

PLAN OF FOOTING ⑥
Showing Stake out & Dimensions

PLAN OF FOOTING ⑥
Showing Reinforcing Steel

ESTIMATED QUANTITIES ⑥

Class "A" Concrete C.Y.	Reinforcing Steel Lbs.	Epoxy Coated Reinforcing Steel Lbs.
89.7	7,526	13,827

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
SOUTH RAMP DETAILS
PEDESTRIAN OVERPASS OVER
I-440 NEAR DORTCH AVE.
STATION 437+11.74
DAVIDSON COUNTY
1981

DESIGNED BY Michael Morris DATE 2-81
DRAWN BY W. Graves DATE 3-81
SUPERVISED BY McInturff & Smith DATE 3-81
CHECKED BY ________ DATE ________

CORRECT Clellan L. Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

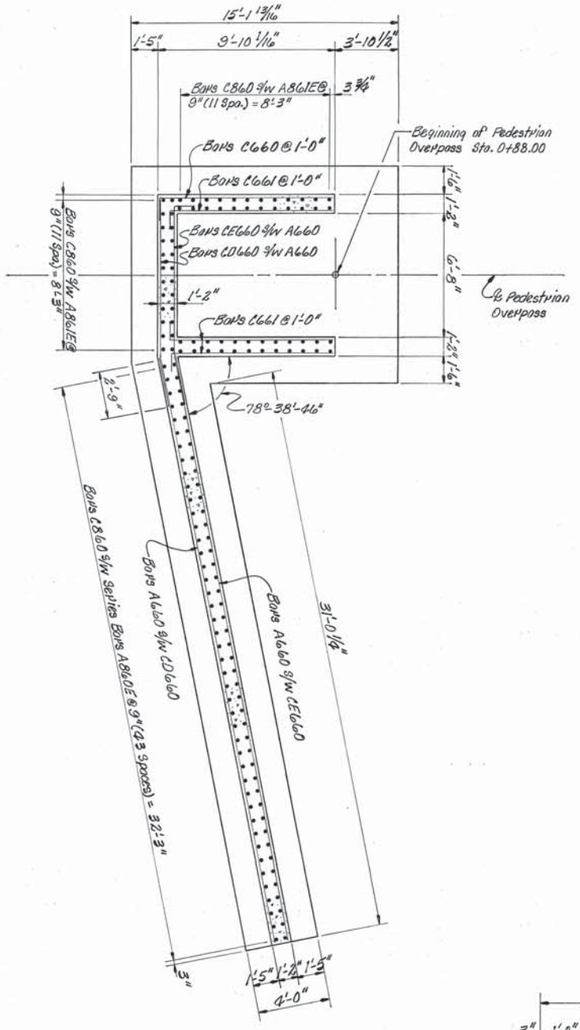
M-93-111

CONST. NO. 19015-3110-44

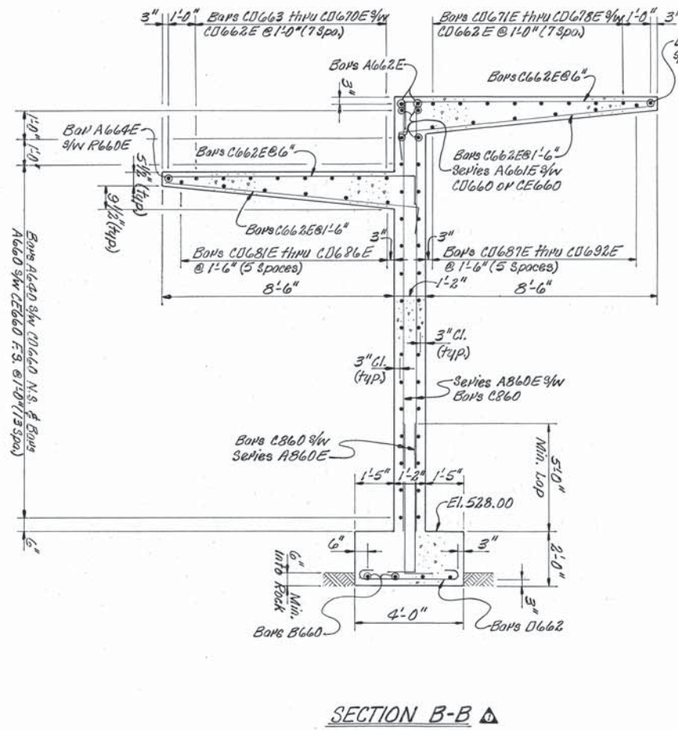
PROJECT NO.	YEAR	SHEET NO.
I-440-4(44)212	1981	73

REVISIONS

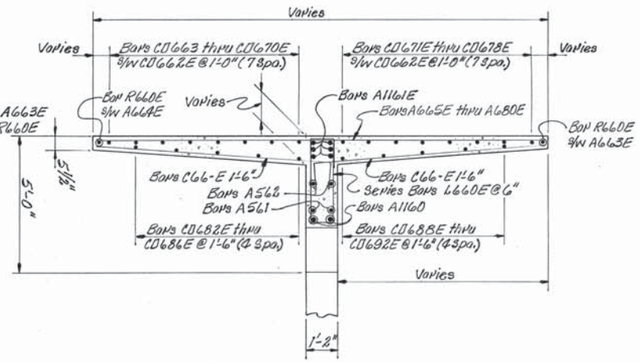
NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-81	A.M.S.	General Revisions



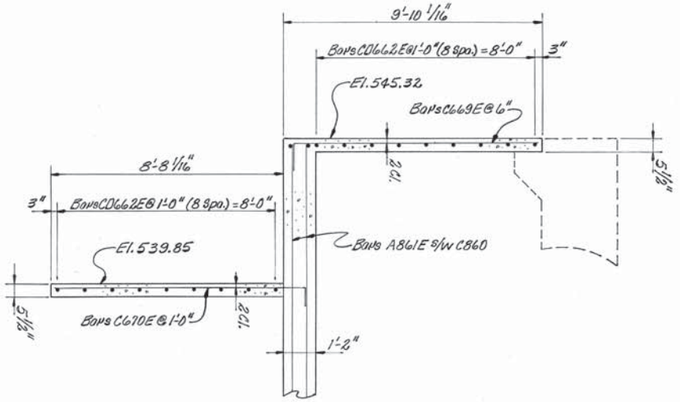
SECTION C-C ⚠



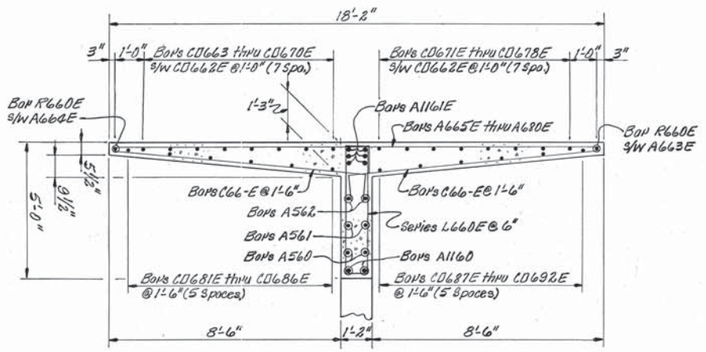
SECTION B-B ⚠



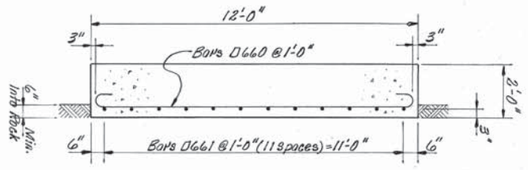
SECTION E-E ⚠



SECTION F-F ⚠



SECTION D-D



SECTION G-G

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SOUTH RAMP DETAILS PEDESTRIAN OVERPASS OVER I-440 NEAR DORTCH AVE. STATION 437+11.74 DAVIDSON COUNTY 1981

DESIGNED BY Michael Morris DATE 2-81
DRAWN BY W. Graves DATE 3-81
SUPERVISED BY McIntyre & Smith DATE 3-81
CHECKED BY _____ DATE _____

CORRECT Clellon L Fousell ENGINEER OF STRUCTURES
APPROVED Lewis Evans DIRECTOR OF HIGHWAYS

M-93-112

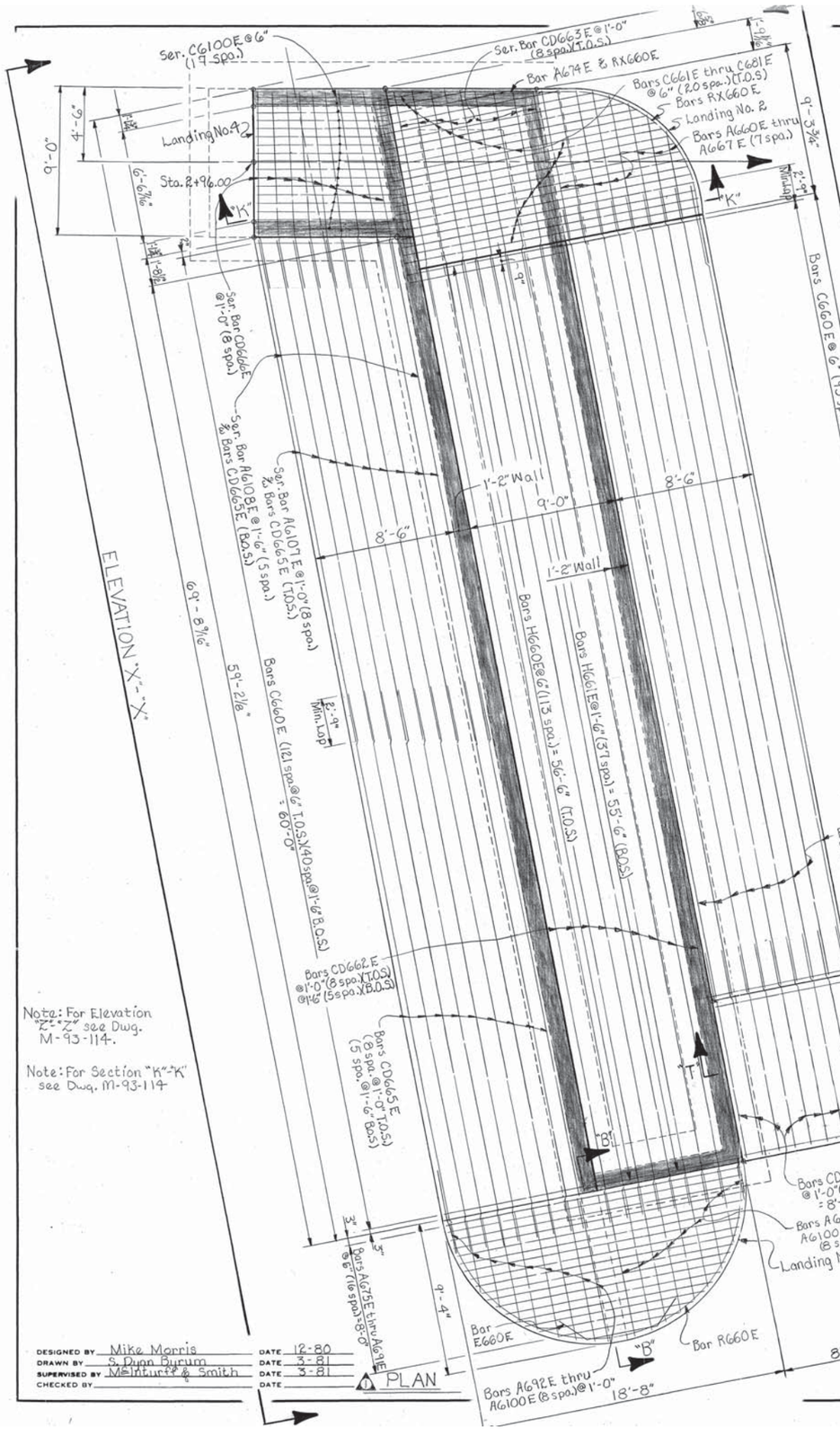
MICROFILMED

Const.# 19015-3101-44

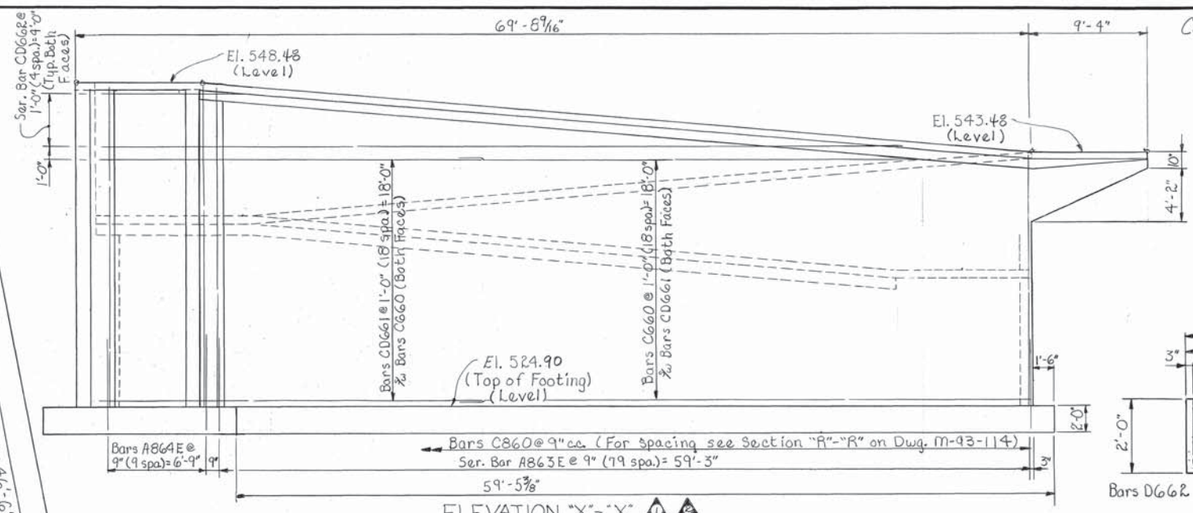
PROJECT NO.	YEAR	SHEET NO.
I-440-4(4)212	1981	74

REVISIONS

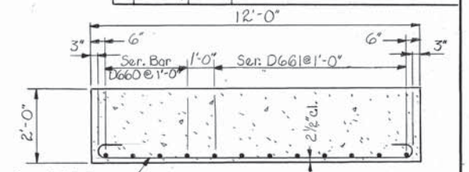
NO.	DATE	BY	BRIEF DESCRIPTION
1	5-2-81	AMS	Gen. Rev.
2	9-28-83	HHT	Elevation Change



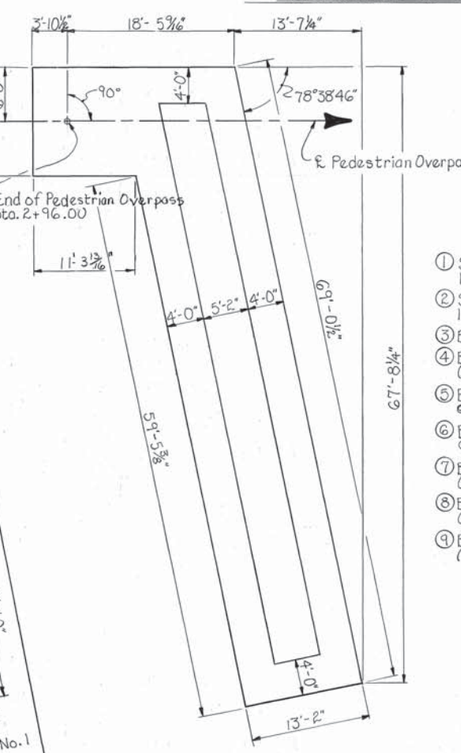
PLAN



ELEVATION "X"-"X"

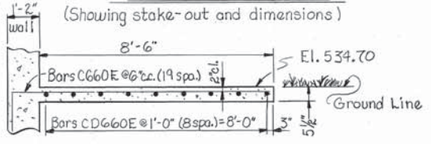


SECTION "M"-"M"



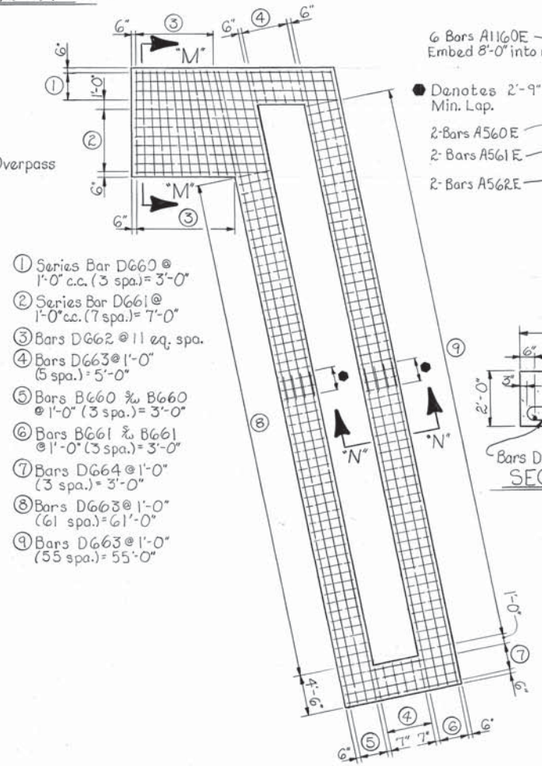
ELEVATION "Z"-"Z"

PLAN OF FOOTING
(Showing stake-out and dimensions)

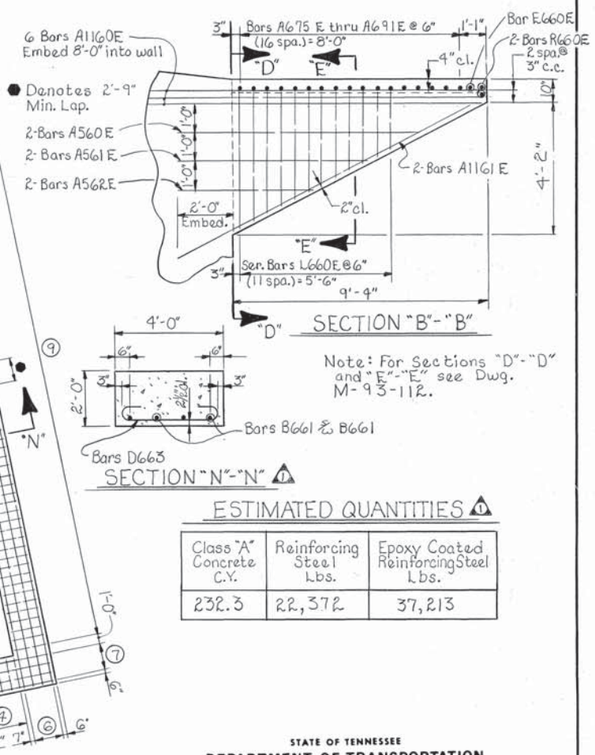


SECTION "T"-"T"

Note: For placement of reinforcing steel in bottom of slab of Landings No. 2 and 3 see respective Plans on Dwg. M-93-114



PLAN OF FOOTING
(Showing steel arrangement)



Note: For Sections "D"-"D" and "E"-"E" see Dwg. M-93-112.

ESTIMATED QUANTITIES

Class "A" Concrete C.Y.	Reinforcing Steel Lbs.	Epoxy Coated Reinforcing Steel Lbs.
232.3	22,372	37,213

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

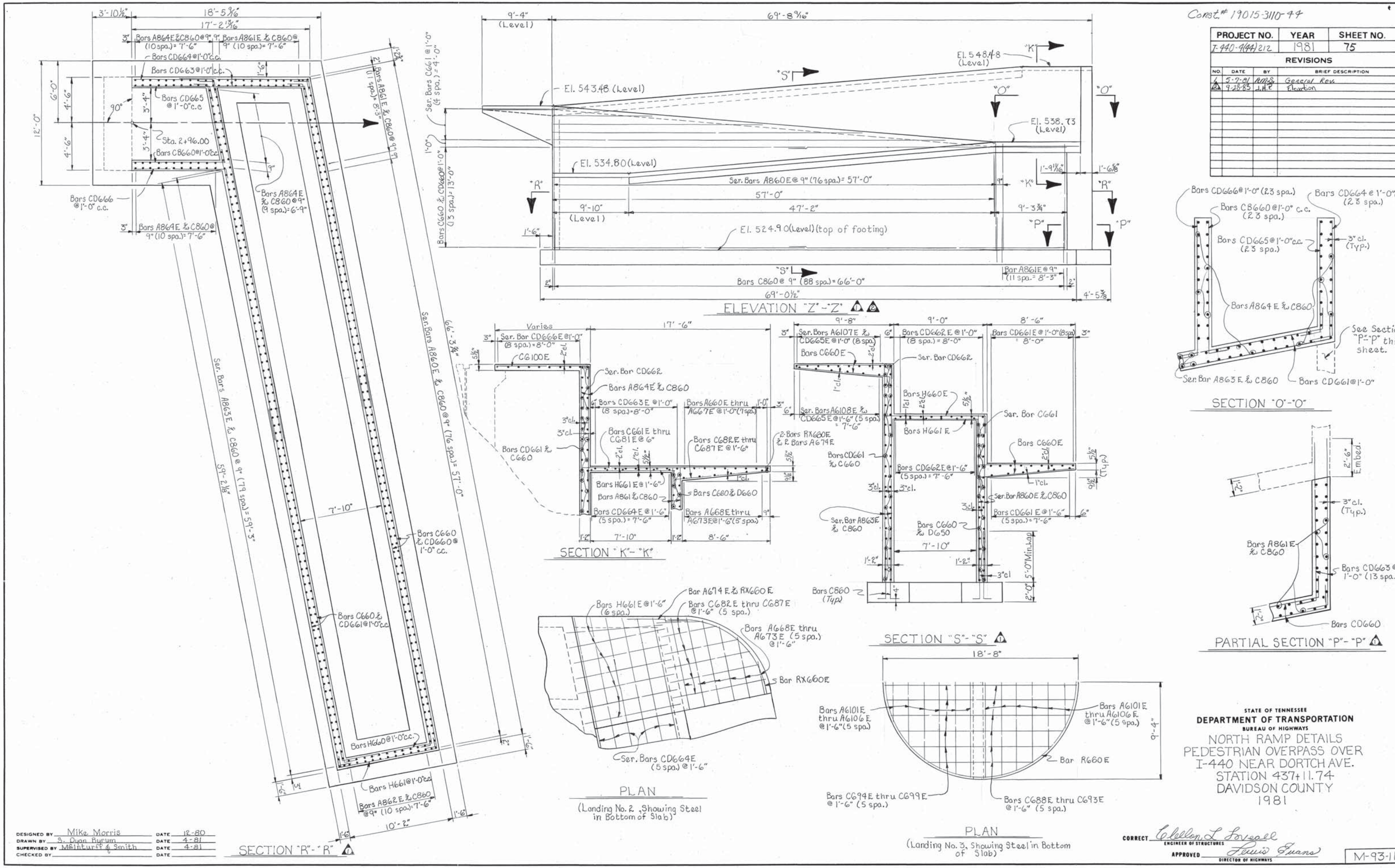
NORTH RAMP DETAILS PEDESTRIAN OVERPASS OVER I-440 NEAR DORTCH AVE. STATION 437+11.74 DAVIDSON COUNTY 1981

DESIGNED BY Mike Morris DATE 12-80
DRAWN BY S. Dyan Byrum DATE 3-81
SUPERVISED BY McArthur & Smith DATE 3-81
CHECKED BY _____ DATE _____

CORRECT Clellon L. Foreacre
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-93-113

MICROFILMED


Const. # 19015-3110-44
PROJECT NO. | YEAR | SHEET NO.
I-440-4(44)212 | 1981 | 75
REVISIONS
NO. | DATE | BY | BRIEF DESCRIPTION
1 | 5-7-81 | R.M.S. | General Rev.
2 | 9-28-83 | J.H.F. | Elevation
ELEVATION "Z"-"Z"
El. 548.48 (Level)
El. 543.48 (Level)
El. 538.73 (Level)
El. 534.80 (Level)
El. 524.90 (Level) (top of footing)
69'-8 9/16"
69'-0 1/2"
Ser. Bars A860E @ 9" (76 spa.) = 57'-0"
Bars C860 @ 9" (88 spa.) = 66'-0"
Bar A861E @ 9" (11 spa. = 8'-3")
SECTION "K"-"K"
SECTION "S"-"S"
SECTION "O"-"O"
PARTIAL SECTION "P"-"P"
SECTION "R"-"R"
PLAN
(Landing No. 2, Showing Steel in Bottom of Slab)
PLAN
(Landing No. 3, Showing Steel in Bottom of Slab)
Sta. 2+96.00
DESIGNED BY Mike Morris DATE 12-80
DRAWN BY S. Dyan Byrum DATE 4-81
SUPERVISED BY McInturff & Smith DATE 4-81
CHECKED BY DATE
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
NORTH RAMP DETAILS
PEDESTRIAN OVERPASS OVER
I-440 NEAR DORTCH AVE.
STATION 437+11.74
DAVIDSON COUNTY
1981
CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS
M-93-114

BILL OF STEEL ⚠

CONST. NO. 19015-3110-44

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-440-4(4)02	1981	76	

SUPERSTRUCTURE

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A600	WEBS	6	16				⚠	15'-6"
A601	WEBS	6	80					12'-2"
A602	ENDWALL & BK WALL	6	18					8'-8"
A603	ENDWALL	6	2					4'-7"
A604	ENDWALL	6	2					4'-2"
A605	ENDWALL	6	2					3'-9"
A606	ENDWALL	6	2					3'-5"
A1100	BOT. SLAB	11	18					60'-0"
A1101	BOT. SLAB	11	8				⚠	45'-3"
A1102	BOT. SLAB	11	2					50'-0"
C600	ENDWALL & BK WALL	6	32	3'-2"				4'-2"
C1100	BOT. SLAB	11	8	24'-6"				26'-6"
C1101	BOT. SLAB	11	2	34'-0"				36'-0"
CA1100	BOT. SLAB	11	8	17'-6"	3'-0"			20'-6"
⚠ CD500	WEBS	5	416	3'-2"	6"	1'-1⅛"		3'-8"
⚠ E500	BENT DIAPH.	5	2	3'-3½"	1'-6"	1'-5¾"	3¼"	6'-4"
E600	BOT. SLAB ⚠	6	100	3'-4"	2'-2"	2'-1½"	4¾"	7'-8"
⚠ E601	BOT. SLAB ⚠	6	99	2'-4"	2'-2"	2'-1½"	4¾"	6'-8"
⚠ H500	PAV. BRACKET	5	9	3'-5"	6"			4'-5"
⚠ H501	PAV. BRACKET	5	9	1'-8"	6"			2'-7"
L500	BENT DIAPH.	5	1	2'-0"	1'-0"	4'-1"		13'-1"
L501	BENT DIAPH.	5	1	2'-0"	1'-0"	3'-6¾"		11'-11"
A400E	TOP SLAB ⚠	4	462					8'-8"
A600E	TOP SLAB	6	2					20'-6"
A601E	TOP SLAB	6	10					40'-0"
A601E	BACKWALL	6	2					8'-8"
A1103E	TOP SLAB	11	16					48'-0"
A1104E	TOP SLAB	11	8					60'-0"
A1105E	TOP SLAB ⚠	11	16					38'-0"
A1106E	TOP SLAB	11	2					50'-0"
A1107E	TOP SLAB	11	11					32'-0"
C1102E	TOP SLAB	11	8	10'-6"				12'-0"
CA1101E	TOP SLAB	11	21	16'-0"	4'-0"			20'-0"
⚠ CB500E	WEBS	5	366	3'-2"	6"	1'-1⅛"		3'-8"
⚠ CD500E	WEBS	5	306	3'-2"	6"	1'-1⅛"		3'-8"
EA500E	BENT DIAPH.	5	5	4'-8"	1'-6"	1'-5¾"	3¼"	7'-8"
L600E	BENT DIAPH.	6	5	2'-2"	1'-0"	3'-9½"		12'-9"
L601E	ENDWALL	6	5	8"	1'-0"	4'-0"		10'-2"

ABUTMENTS NO. 1

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A640	ABUT. WALL	6	52					4'-6"
A1140E	ABUT. WALL	11	27					16'-10"
C1140	FOOTING & COL.	7	9	4'-1				5'-3"
CA1140E	ABUT. WALL	11	21	17'-1"	6'-0"			23'-1"
L640	ABUT. WALL	6	39	5'-3⅝"	1'-0"	2'-4⅛"		16'-0"

ABUTMENT NO. 2

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A640	ABUT. WALL	6	76					4'-6"
A1141	ABUT. WALL	11	15					18'-7"
A1142	ABUT. WALL	11	9					15'-10"
C1140	FOOTING	11	24	11'-9"				13'-9"
⚠ HC40E	ABUT. WALL	6	9	8"	5'-7"			11'-9"
L641	ABUT. WALL	6	38	5'-5⅝"	1'-0"	2'-4⅛"		16'-5"

BENT SUPPORT

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A1150	COLUMN	11	24					31'-9"
C1150	COL. & FOOTING	11	24	12'-4"				14'-4"
D950	FOOTING	9	18	11'-6"				14'-0"
D951	FOOTING	9	12	17'-6"				20'-0"
SERIES	COLUMN	5	1			1'-0"		312'-1"
L550	⚠			DIM. 'A' & 'C' VARIES FROM 3'-1" TO 2'-11⅝" IN INCREMENTS OF 7/16". (28 BARS)				

SOUTH RAMP

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A560	LANDING 2	5	2					3'-9
A561	LANDING 2	5	2					6'-0"
A562	LANDING 2	5	2					8'-0"
A660	WALL	6	28					33'-0"
A1160	LANDING 2	11	2					12'-0"
D660	FOOTING	6	4	32-10"				33'-6"
C660	WALL	6	17	9'-0"				10'-0"
C661	WALL	6	51	8'-6				9'-6"
CB60	FOOTING & WALL	8	160	6'-8"				7'-11"
D1660	FOOTING	6	15	11'-6				12'-10"
D1661	FOOTING	6	12	14'-8"				16'-0"
D1662	FOOTING	6	31	3'-6"				4'-10"
CD660	WALL ⚠	6	17	8'-10"	2'-9"	7"		11'-7"
CE1660	WALL	6	17	8'-4"	2'-9"	7"	1'-0"	12'-1"
SERIES	WALL	6	2	VARY FROM 5'-0 TO 30'-0" IN INC. OF 12'-6" (3 BARS)				52'-6"
A662E	WALL	6	2					33'-0"
A663E	RAMP	6	1					31'-0"
A664E	RAMP	6	1					34'-9"
A665E	LANDING 2	6	1					17'-8"
A666E	LANDING 2	6	1					17'-9"
A667E	LANDING 2	6	1					17'-5"
A668E	LANDING 2	6	1					17'-2"
A669E	LANDING 2	6	1					16'-11"
A670E	LANDING 2	6	1					16'-6"
A671E	LANDING 2	6	1					16'-1"
A672E	LANDING 2	6	1					15'-6"
A673E	LANDING 2	6	1					14'-10"
A674E	LANDING 2	6	1					14'-1"

SOUTH RAMP CONT.

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A675E	LANDING 2	6	1					13'-3"
A676E	LANDING 2	6	1					12'-2"
A677E	LANDING 2	6	1					11'-1"
A678E	LANDING 2	6	1					9'-9"
A679E	LANDING 2	6	1					8'-1"
A680E	LANDING 2	6	1					5'-9"
SERIES	WALL	8	2	VARY FROM 14'-4¾" TO 17'-1" IN INC. OF 3/4" (44 BARS)				692'-7"
AB60E	⚠							
AB61E	WALL	8	72					17'-1"
AI1161E	LANDING 2	11	6					16'-3"
C662E	RAMP	6	175	9'-3"				10'-3"
C663E	LANDING 2	6	2	9'-1"				10'-1"
C664E	LANDING 2	6	2	8'-10"				9'-10"
C665E	LANDING 2	6	2	8'-3"				9'-3"
C666E	LANDING 2	6	2	7'-6"				8'-4"
C667E	LANDING 2	6	2	5'-10"				6'-10"
C668E	LANDING 2	6	2	3'-3"				4'-3"
C669E	LANDING 3	6	17	9'-5"				10'-5"
C670E	LANDING 1	6	17	9'-6"				10'-6"
CD66E	WALL	6	1	8'-10"	2'-9"	7"		11'-7"
CD662E	LANDING 1 & 3	6	18	8'-10"	2'-9"	8"		11'-7"
CD663E	RAMP	6	1	34'-6"	4'-1"	4⅛"		38'-7"
CD664E	RAMP	6	1	34'-4"	5'-8"	5¾"		40'-0"
CD665E	RAMP	6	1	34'-2"	6'-8"	6⅝"		40'-10"
CD666E	RAMP	6	1	33'-11"	7'-4"	7⅜"		41'-3"
CD667E	RAMP	6	1	33'-9"	8'-0"	8"		41'-9"
CD668E	RAMP	6	1	33'-7"	8'-4"	8⅜"		41'-11"
CD669E	RAMP	6	1	33'-5"	8'-8"	8⅝"		42'-1"
CD670E	RAMP	6	1	33'-2"	8'-10"	8⅞"		42'-0"
CD671E	RAMP	6	1	31'-5"	4'-3"	4¼"		35'-8"
CD672E	RAMP	6	1	31'-8"	5'-8"	5¾"		37'-4"
CD673E	RAMP	6	1	31'-10"	6'-9"	6¾"		38'-7"
CD674E	RAMP	6	1	32'-1"	7'-6"	7½"		39'-7"
CD675E	RAMP	6	1	32'-3"	8'-1"	8⅛"		40'-4"
CD676E	RAMP	6	1	32'-5"	8'-5"	8⅓"		40'-10"
CD677E	RAMP	6	1	32'-8"	8'-8"	8⅝"		41'-4"
CD678E	RAMP	6	1	32'-10"	8'-10"	8⅞"		41'-8"
CD68E	RAMP	6	1	34'-6"	3'-0"	¼"		37'-6"
CD682E	RAMP	6	1	34'-4"	5'-8"	¼"		40'-0"
CD683E	RAMP	6	1	34'-1"	7'-1"	3⅜"		41'-2"
CD684E	RAMP	6	1	33'-9"	8'-0"	3⅜"		41'-9"
CD685E	RAMP	6	1	33'-6"	8'-7"	½"		42'-1"
CD686E	RAMP	6	1	33'-2"	8'-10"	⅛"		42'-0"
CD687E	RAMP	6	1	31'-2"	3'-0"	6"		34'-2"
CD688E	RAMP	6	1	31'-8"	5'-8"	11½"		37'-4"
CD689E	RAMP	6	1	31'-11"	7'-1"	1'-2⅝"		39'-0"
CD690E	RAMP	6	1	32'-3"	8'-1"	1'-4⅜"		40'-4"
CD691E	RAMP	6	1	32'-7"	8'-7"	1'-5½"		41'-2"
CD692E	RAMP	6	1	32'-9"	8'-10"	1'-6"		41'-7"
CE661E	WALL	6	1	8'-4"	2'-9"	7"	1'-0"	12'-1"
E660E	LANDING 2	6	1	5'-9"	2'-0"	2'-0"	2'-0"	9'-9"
SERIES	LANDING 2	6	1	10"	1'-0"			101'-3"
L660E				DIM. 'C' VARIES FROM 2'-0" TO 4'-6¼" IN INC OF 2 3/4" (12 BARS)				
R660E	LANDING 2	6	1	8'-11"	3'-0"	11'-10"		34'-0"

NORTH RAMP

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
B660	FOOTING	6	8	37'-0"				37'-8"
B6661	FOOTING	6	8	36'-0"				36'-8"
C660	WALL	6	66	37'-0"				38'-0"
CB60	FOOTING ⚠	8	446	6'-8"				8'-0"
SERIES	WALL	6	2	BARS VARY IN LENGTH FROM 58'-0" TO 5'-0" IN INC. OF 13'-3" (5 BARS)				162'-6"
C6661								
CB660	WALL	6	24	8'-9"	1'-0"	2½"		9'-9"
CD660	WALL	6	28	29'-9"	1'-0"	2½"		30'-9"
CD6661	WALL	6	38	31'-10"	1'-0"	2½"		32'-10"
SERIES	WALL	6	2		1'-0"	2½"		160'-0"
CD6662				DIM. 'A' VAR. IN LENGTH FROM 23'-0" TO 11'-0" IN INC. OF 10'-6" (5 BARS)				
C6662E	RAMP	6	175	9'-3"				10'-3"
C6663E	LANDING 2	6	2	9'-1"				10'-1"
C6664E	LANDING 2	6	2	8'-10"				9'-10"
C6665E	LANDING 2	6	2	8'-3"				9'-3"
C6666E	LANDING 2	6	2	7'-6"				8'-4"
C6667E	LANDING 2	6	2	5'-10"				6'-10"
C6668E	LANDING 2	6	2	3'-3"				4'-3"
C6669E	LANDING 3	6	17	9'-5"				10'-5"
C670E	LANDING 1	6	17	9'-6"				10'-6"
CD666E	WALL	6	1	8'-10"	2'-9"	7"		11'-7"
CD6662E	LANDING 1 & 3	6	18	8'-10"	2'-9"	8"		11'-7"
CD663E	RAMP	6	1	34'-6"	4'-1"	4⅛"		38'-7"
CD664E	RAMP	6	1	34'-4"	5'-8"	5¾"		40'-0"
CD665E	RAMP	6	1	34'-2"	6'-8"	6⅝"		40'-10"
CD666E	RAMP	6	1	33'-11"	7'-4"	7⅜"		41'-3"
CD667E	RAMP	6	1	33'-9"	8'-0"	8"		41'-9"
CD668E	RAMP	6	1	33'-7"	8'-4"	8⅜"		41'-11"
CD669E	RAMP	6	1	33'-5"	8'-8"	8⅝"		42'-1"
CD670E	RAMP	6	1	33'-2"	8'-10"	8⅞"		42'-0"
CD671E	RAMP	6	1	31'-5"	4'-3"	4¼"		35'-8"
CD672E	RAMP	6	1	31'-8"	5'-8"	5¾"		37'-4"
CD673E	RAMP	6	1	31'-10"	6'-9"	6¾"		38'-7"
CD674E	RAMP	6	1	32'-1"	7'-6"	7½"		39'-7"
CD675E	RAMP	6	1	32'-3"	8'-1"	8⅛"		40'-4"
CD676E	RAMP	6	1	32'-5"	8'-5"	8⅓"		40'-10"
CD677E	RAMP	6	1	32'-8"	8'-8"	8⅝"		41'-4"
CD678E	RAMP	6	1	32'-10"	8'-10"	8⅞"		41'-8"
CD68E	RAMP	6	1	34'-6"	3'-0"	¼"		37'-6"
CD682E	RAMP	6	1	34'-4"	5'-8"	¼"		40'-0"
CD683E	RAMP	6	1	34'-1"	7'-1"	3⅜"		41'-2"
CD684E	RAMP	6	1	33'-9"	8'-0"	3⅜"		41'-9"
CD685E	RAMP	6	1	33'-6"	8'-7"	½"		42'-1"
CD686E	RAMP	6	1	33'-2"	8'-10"	⅛"		42'-0"
CD687E	RAMP	6	1	31'-2"	3'-0"	6"		34'-2"
CD688E	RAMP	6	1	31'-8"	5'-8"	11½"		37'-4"
CD689E	RAMP	6	1	31'-11"	7'-1"	1'-2⅝"		39'-0"
CD690E	RAMP	6	1	32'-3"	8'-1"	1'-4⅜"		40'-4"
CD691E	RAMP	6	1	32'-7"	8'-7"	1'-5½"		41'-2"
CD692E	RAMP	6	1	32'-9"	8'-10"	1'-6"		41'-7"
CE661E	WALL	6	1	8'-4"	2'-9"	7"	1'-0"	12'-1"
E660E	LANDING 2	6	1	5'-9"	2'-0"	2'-0"	2'-0"	9'-9"
SERIES	LANDING 2	6	1	10"	1'-0"			101'-3"
L660E				DIM. 'C' VARIES FROM 2'-0" TO 4'-6¼" IN INC OF 2 3/4" (12 BARS)				
R660E	LANDING 2	6	1	8'-11"	3'-0"	11'-10"		34'-0"

NORTH RAMP CONT.

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A696E	LANDING NO. 3	6	2					7'-9"
A697E	LANDING NO. 3	6	2					8'-3"
A698E	LANDING NO. 3	6	2					8'-8"
A699E	LANDING NO. 3	6	2					8'-11"
A6100E	LANDING NO. 3	6	2					9'-1"
A6101E	LANDING NO. 3	6	2					4'-5"
A6102E	LANDING NO. 3	6	2					6'-6"
A6103E	LANDING NO. 3	6	2					7'-6"
A6104E	LANDING NO. 3	6	2					8'-4"
A6105E	LANDING NO. 3	6	2					8'-10"
A6106E	LANDING NO. 3	6	2					9'-1"
SERIES	RAMP	6	1	BARS VAR. IN LENGTH FROM 34'-9" TO 36'-6" IN INC. OF 2½" (9 BARS)				320'-3"
A6107E								
SERIES	RAMP	6	1	BARS VAR. IN LENGTH FROM 34'-9" TO 36'-2½" IN INC. OF 3½" (6 BARS)				212'-11"
A6108E								
SERIES	WALL	8	2	BARS VAR. IN LENGTH FROM 8'-5" TO 13'-8" IN INC. OF 3/4" (77 BARS)				1235'-3"
AB60E								
AB61E	WALL	8	46					13'-8"
AB62E	WALL	8	22					18'-5"
SERIES	WALL	8	2	BARS VAR. IN LENGTH FROM 25'-4½" TO 85'-5" IN INC. OF 3/4" (80 BARS)				1670'-10"
AB63E								
AB64E	WALL	8	64					23'-5"
A1160E	LANDING NO. 3	11	6					17'-2"
A1161E	LANDING NO. 3	11	2					11'-9"
C660E	LANDINGS & SLAB	6	309	9'-3"				10'-3"
C6611E	LANDING NO. 2	6	1	3'-2"				4'-2"
C662E	LANDING NO. 2	6	1	5'-8"				6'-8"
C663E	LANDING NO. 2	6	1	8'-4"				9'-4"
C664E	LANDING NO. 2	6	1	10'-7"				11'-7"
C665E	LANDING NO. 2	6	1	13'-2"				14'-2"
C666E	LANDING NO. 2	6	1	14'-2"				15'-2"
C667E	LANDING NO. 2	6	1	14'-10"				15'-10"
C668E	LANDING NO. 2	6	1	15'-6"				16'-6"
C669E	LANDING NO. 2	6	1	16'-0"				17'-0"
C670E	LANDING NO. 2	6	1	16'-5"				17'-5"
C671E	LANDING NO. 2	6	1	16'-9"				17'-9"
C672E	LANDING NO. 2	6	1	17'-0"				18'-0"
C673E	LANDING NO. 2	6	1	17'-4"				18'-4"
C674E	LANDING NO. 2	6	1	17'-7"				18'-7"
C675E	LANDING NO. 2	6	1	17'-9"				18'-9"
C676E	LANDING NO. 2	6	1	17'-11"				18'-11"
C677E	LANDING NO. 2	6	1	18'-1"				19'-1"
C678E	LANDING NO. 2	6	1	18'-2"				19'-2"
C679E	LANDING NO. 2	6	1	18'-3"				19'-3"
C680E	LANDING NO. 2	6	1	18'-3"				19'-3"
C681E	LANDING NO. 2	6	1	18'-3"				19'-3"
C682E	LANDING NO. 2	6	1	9'-5"				10'-3"
C683E	LANDING NO. 2	6	1	8'-11"				9'-11"
C684E	LANDING NO. 2	6	1	8'-3"				9'-3"
C685E	LANDING NO. 2	6	1	7'-4"				8'-4"
C686E	LANDING NO. 2	6	1	5'-8"				6'-8"
C687E	LANDING NO. 2	6	1	4'-0"				5'-0"
C688E	LANDING NO. 3	6	1	9'-8"				10'-8"
C689E	LANDING NO. 3	6	1	9'-5"				10'-5"
C690E	LANDING NO. 3	6	1	9'-0"				10'-0"
C691E	LANDING NO. 3	6	1	8'-2"				9'-2"
C692E	LANDING NO. 3	6	1	7'-0"				8'-0"
C693E	LANDING NO. 3	6	1	5'-0"				6'-0"
C694E	LANDING NO. 3	6	1	9'-3"				10'-3"
C695E	LANDING NO. 3	6	1	9'-0"				10'-0"
C696E	LANDING NO. 3	6	1	8'-7"				9'-7"
C697E	LANDING NO. 3	6	1	7'-10"				8'-10"
C698E	LANDING NO. 3	6	1	6'-7"				7'-7"
C699E	LANDING NO. 3	6	1	4'-9"				5'-9"

NORTH RAMP CONT.

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
SERIES	LANDING NO. 4	6	1	DIM. 'A' VAR. IN LENGTH FROM 7'-10" TO 9'-7¾" IN INC. OF 1¼" (18 BARS)				174'-11"
C6100E								
CD660E	LANDING NO. 1	6	9	9'-8"	2'-9"	2¾"		12'-5"
CD666E	RAMP	6	15	47'-4"	2'-9"	2¾"		50'-1"
CD6628	RAMP	6	15	57'-2"	2'-10"	3"		60'-0"
SERIES	LANDING NO. 2	6	1		2'-9"	2¾"		114'-0"
CD663E				DIM. 'A' VAR. IN LENGTH FROM 9'-2" TO 10'-8" IN INC. OF 2¼" (6 BARS)				
CD666E	RAMP	6	15	27'-5"	2'-9"	2¾"		30'-0"
SERIES	LANDING NO. 4	6	1		2'-9"	2¾"		105'-0"
CD666E				DIM. 'A' VAR. IN LENGTH FROM 8'-10" TO 9'-0" IN INC. OF 1/4" (9 BARS)				
E660E	LANDING NO. 3	6	1	3'-7"	2'-0"	1'-5"	1'-5"	7'-7"
H660E	RAMP	6	114	9'-10"	1'-0"			11'-9"
H661E	LANDING 2 & RAMP	6	45	8'-3"	1'-0"			10'-2"
SERIES	LANDING NO. 3	6	1	10"	1'-0"			105'-0"
L660E				DIM. 'C' VAR. IN LENGTH FROM 4'-6" TO 1'-9" IN INC. OF 3" (12 BARS)				
RX660E	LANDING NO. 3	6	2	9'-2"	3'-0"	18'-4"		34'-9"
RX660E	LANDING NO. 2	6	2	8'-4"	12'-4"	2'-0"		16'-4"

BARS

BARS A

BARS B

BARS C

BARS D

BARS E

BARS F

BARS T

BARS H

BARS R

BARS YA

BARS YB

BARS K

BARS L

BARS S

BARS M

BARS CD

BARS CB

BARS JX

BARS CA

BARS GA

BARS CE

BARS RX

BARS EA

REINFORCING STEEL CODE

Type	Size	Series
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.

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	5-7-81	AMS	General Revisions
⚠2	9-28-83	HHP	General Revision

DESIGNED BY M. MORRIS DATE 2-81
DRAWN BY KIM DILLON DATE 4-81
SUPERVISED BY MCINTURFF, SMITH DATE 4-81
CHECKED BY DATE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL

Pedestrian Overpass Over
I-440 Near Dortch Ave.
Station 437+11.74
Davidson County
1981

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-93-115

MICROFILMED