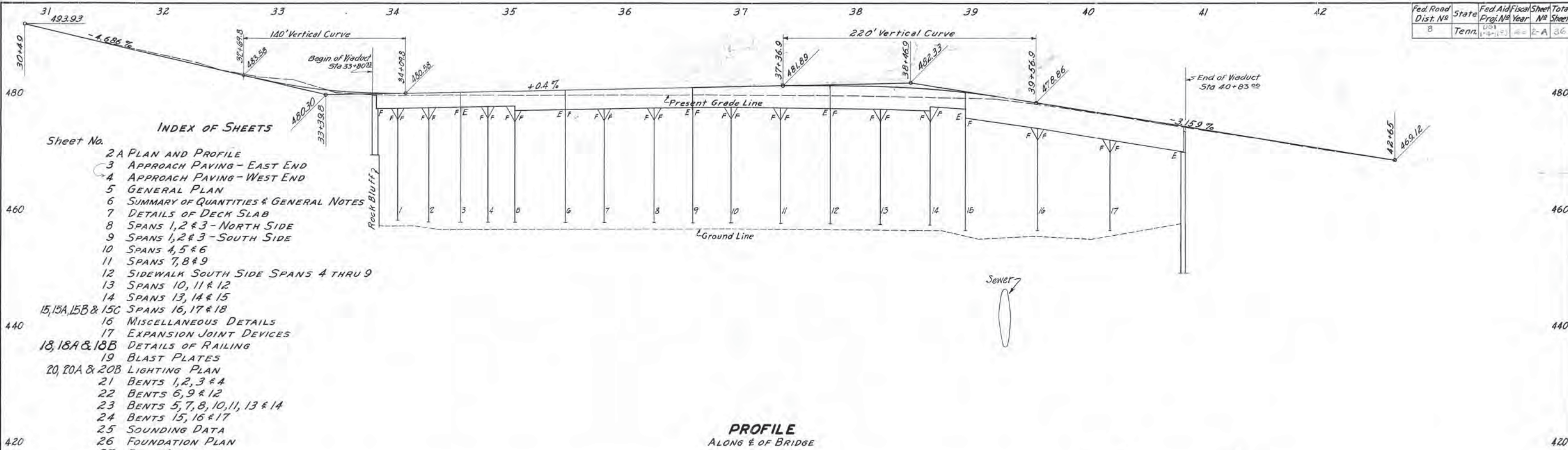
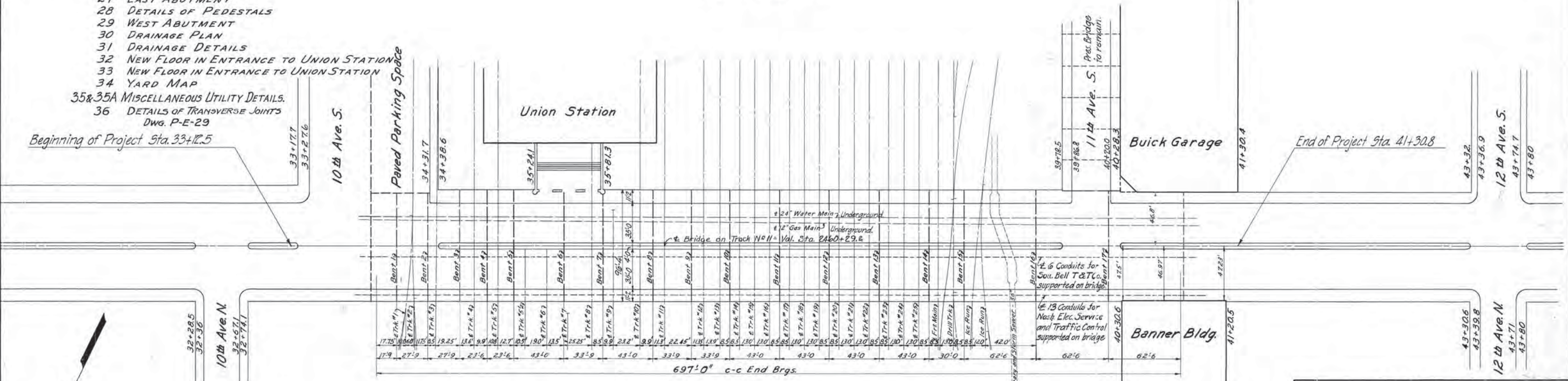


Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
8	Tenn.	101	46	2-A	36



- INDEX OF SHEETS**
- Sheet No.
- 2 A PLAN AND PROFILE
 - 3 APPROACH PAVING - EAST END
 - 4 APPROACH PAVING - WEST END
 - 5 GENERAL PLAN
 - 6 SUMMARY OF QUANTITIES & GENERAL NOTES
 - 7 DETAILS OF DECK SLAB
 - 8 SPANS 1, 2 & 3 - NORTH SIDE
 - 9 SPANS 1, 2 & 3 - SOUTH SIDE
 - 10 SPANS 4, 5 & 6
 - 11 SPANS 7, 8 & 9
 - 12 SIDEWALK SOUTH SIDE SPANS 4 THRU 9
 - 13 SPANS 10, 11 & 12
 - 14 SPANS 13, 14 & 15
 - 15, 15A, 15B & 15C SPANS 16, 17 & 18
 - 16 MISCELLANEOUS DETAILS
 - 17 EXPANSION JOINT DEVICES
 - 18, 18A & 18B DETAILS OF RAILING
 - 19 BLAST PLATES
 - 20, 20A & 20B LIGHTING PLAN
 - 21 BENTS 1, 2, 3 & 4
 - 22 BENTS 6, 9 & 12
 - 23 BENTS 5, 7, 8, 10, 11, 13 & 14
 - 24 BENTS 15, 16 & 17
 - 25 SOUNDING DATA
 - 26 FOUNDATION PLAN
 - 27 EAST ABUTMENT
 - 28 DETAILS OF PEDESTALS
 - 29 WEST ABUTMENT
 - 30 DRAINAGE PLAN
 - 31 DRAINAGE DETAILS
 - 32 NEW FLOOR IN ENTRANCE TO UNION STATION
 - 33 NEW FLOOR IN ENTRANCE TO UNION STATION
 - 34 YARD MAP
 - 35 & 35A MISCELLANEOUS UTILITY DETAILS.
 - 36 DETAILS OF TRANSVERSE JOINTS
Dwg. P-E-29



TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

PLAN AND PROFILE

L&NPRCA VIADUCT - BROAD STREET - MILE 182.5 - NASH TERM.

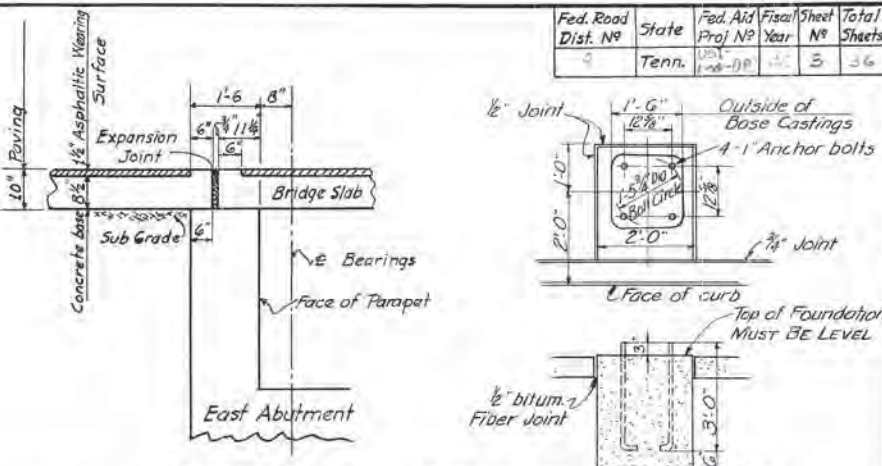
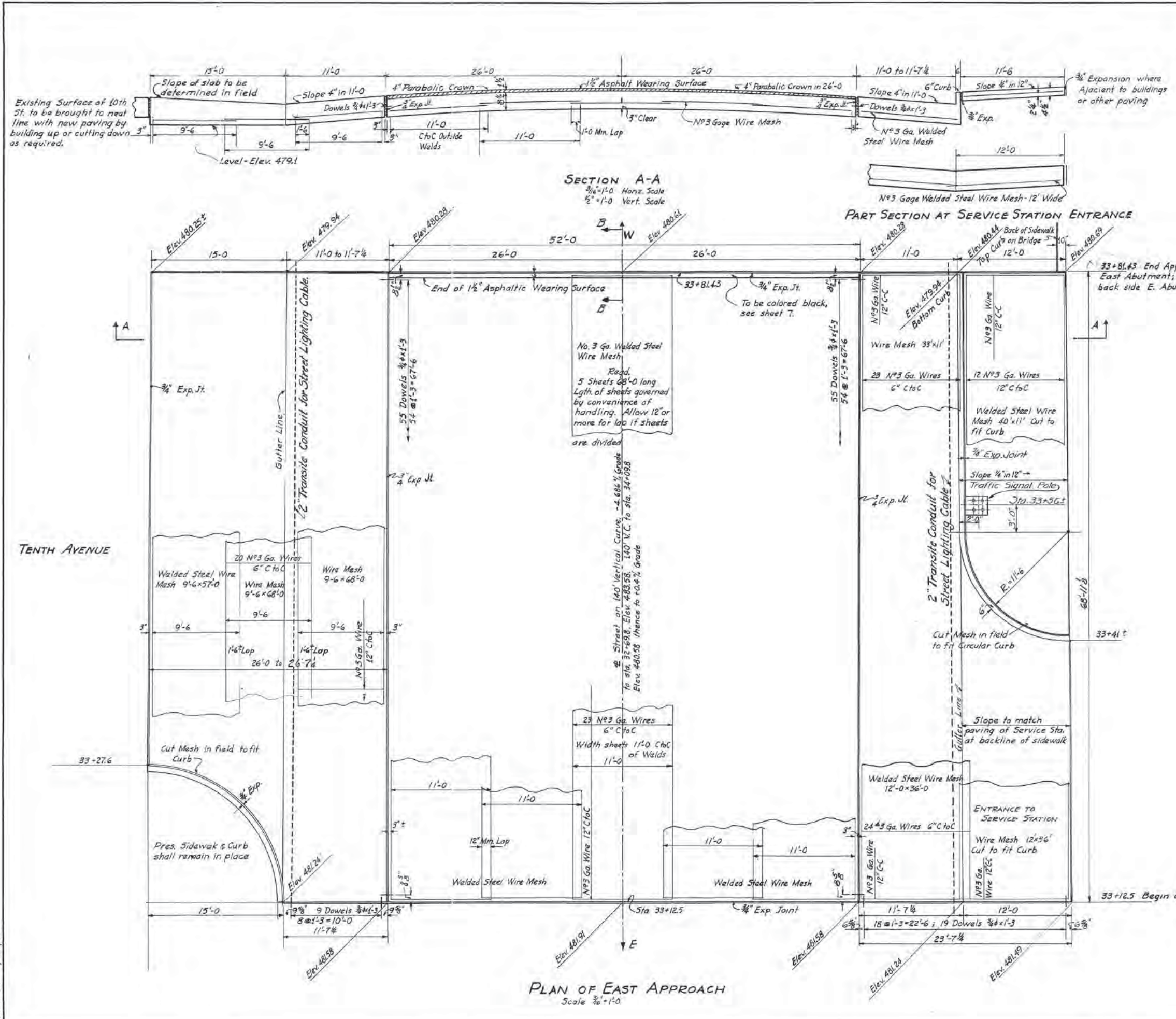
Scale: Design L&NRR Revisions
Hor. 1"=40' Detailed PRE 2-26-46
Vert. 1"=8' Traced HBL 3-28-46
Checked OK 5-1-46

B-13-135

MICROFILMED



Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Tenn.	101-10-10	1946	5	36



NOTES: FOR ROAD SLABS - E. & W. APPROACHES

Median Strip on West approach slab only.
 All earth embankment or backfill to be constructed in layers not to exceed 6" in depth. Each layer to be compacted with a sheep's foot or tamping roller with earth at optimum of moisture. Hand tamping to be used when impractical to use sheep's foot roller.
 When necessary to join new pavement or sidewalk with existing pavement or sidewalk the existing surface will be cut and brought to a neat line by the use of an air hammer or other suitable equipment.
 Cost of connecting sewer pipe to existing sewers or structures shall be included in the unit price bid for other items.
 All existing brick (including bridge surface) grates, curb irons, frames, and covers removed during construction of this project shall become the property of the City of Nashville, Tenn., and the Contractor shall load them in vehicles furnished by the City.

Borrow excavation (Common) shall be suitable material approved by the Engineer. If necessary to have borrow-pit it shall be furnished by the Contractor and borrow material taken in a manner that may be readily measured. Borrow material shall be used only when suitable earth is found insufficient with in the right of way lines to complete the project.
 The City of Nashville to relay or adjust water mains, gas mains, sanitary sewers and service connections conflicting with the proposed improvement.
 The City of Nashville to remove all poles, hydrants, obstructions etc.
 The Contractor shall make necessary adjustments of existing manholes and catch basins, cost to be included in price bid for other items.
 Transverse expansion joints to be 3/4" wide and spaced at intervals shown on plans or as directed by the Engineer. Load transfers will be required at expansion joints only.
 All expansion joint filler to be premolded fiber. Transverse contraction (Dummy) joints will be required at 20' intervals between expansion joints.
 Present curbs and sidewalks at front and sides of Post Office to remain in place.
 Transite Conduit to be placed below paving slab after crossing abutments in slab.

See Sheet #4 for estimated quantities & Joint Details.

TENNESSEE
DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

APPROACH PAVING - EAST END

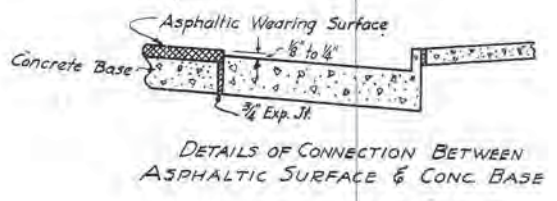
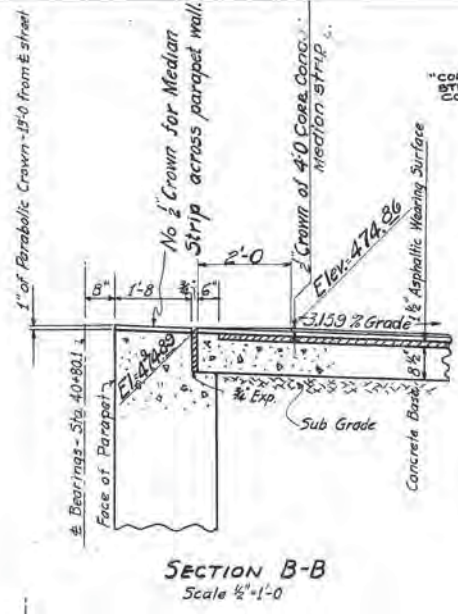
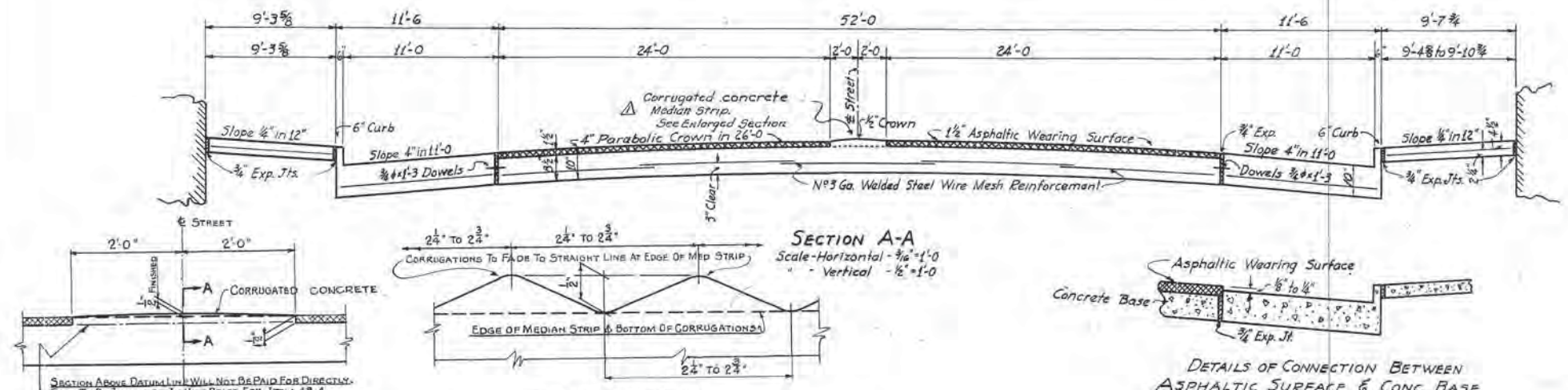
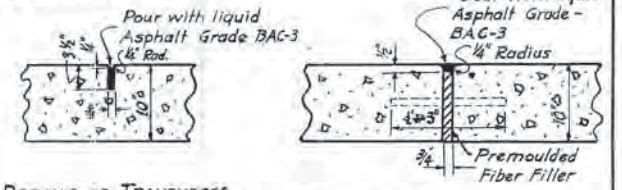
L&N.R.R. Co. Viaduct-Broad St. Mile 186.5 Nashville Terminal-
 Scale: Design: L&N.R.R. Co. Revisions: March 1, 1946
 As Shown Detailed: J.K.G. 3-26-46
 Traced: W.D.P. 5-1-46 LeN. L.F. 6817
 Checked: P.R.E. 5-14-46

Revised: 9/21/46

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	TENN.	U.S. 42-08	46	4	36

REVISED APRIL 29, 1947
 MEDIAN STRIP CORRUGATED.

REVISED 6-17-47
 "CORRUGATED WHITE CONCRETE MEDIAN STRIP" CHANGED TO "CORRUGATED CONCRETE MEDIAN STRIP"



SECTION ABOVE DATUM LINE WILL NOT BE PAID FOR DIRECTLY. COST TO BE INCLUDED IN UNIT PRICE FOR ITEM 48-4.
 SECTION BELOW DATUM LINE TO BE PAID FOR UNDER ITEM 48-4.

PART SECTION A-A SHOWING FINISHED SURFACE

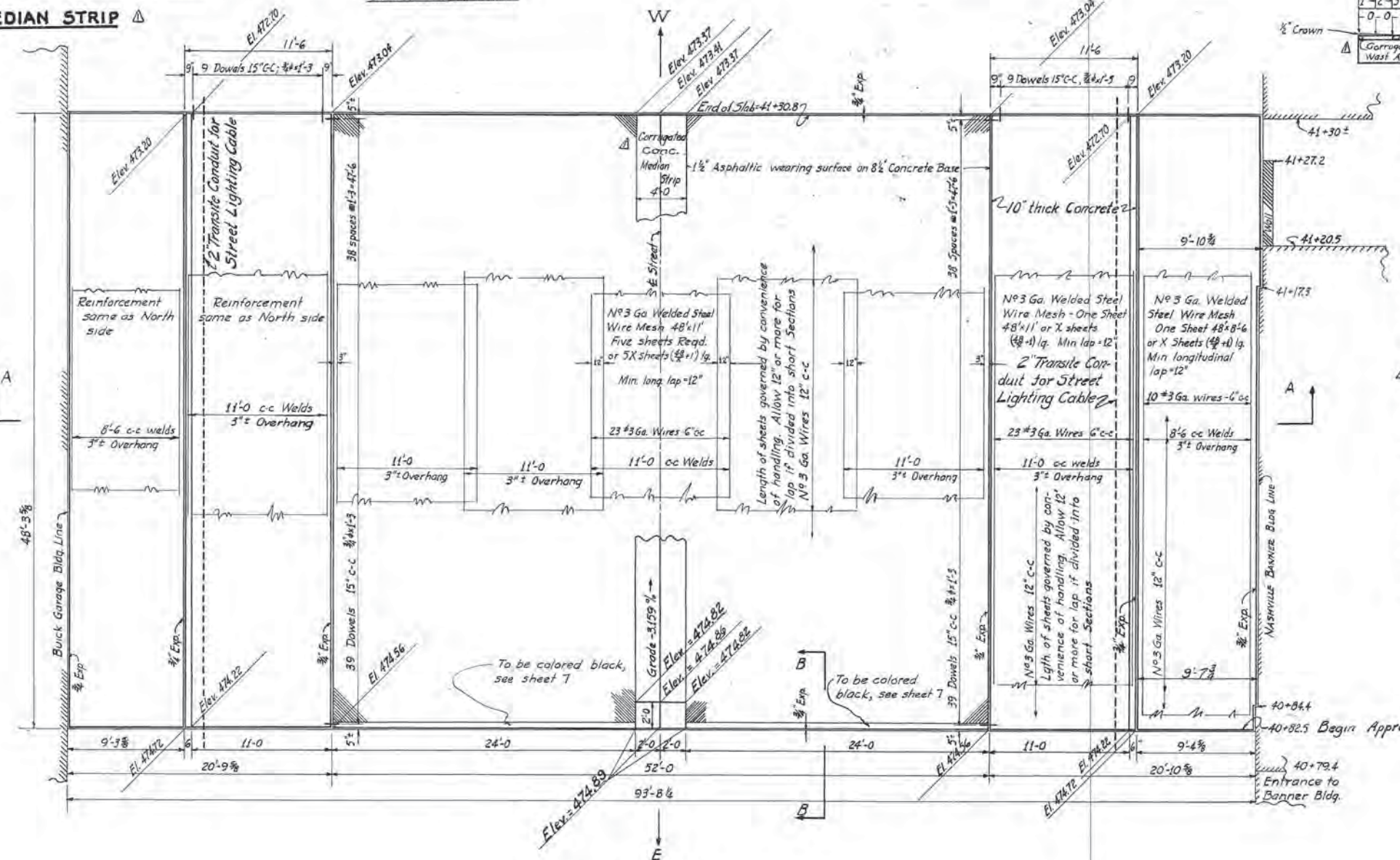
MEDIAN STRIP

PAVEMENT OFFSETS FOR PARABOLIC CURVE

ESTIMATED ROADWAY QUANTITIES

DESCRIPTION	QUANTITY		TOTAL QUANTITY	UNIT
	E. APPR.	W. APPR.		
ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED)	303	201	504	Cu. Yds.
CULVERT EXCAVATION (UNCLASSIFIED)				
BORROW				
FINISH CONCRETE ROADWAY INC. CURB (10") REINFORCED	174	124	298	Sq. Yds.
CONCRETE ROADWAY BASE REINFORCED (8")	398	279	677	Sq. Yds.
CONCRETE SIDEWALKS REINFORCED (4")	50	102	152	Sq. Yds.
CONCRETE DRIVEWAY (10")	136	0	136	Sq. Yds.
REMOVING RAILS AND TIES	138	98	236	Lin. Ft.
Corrugated Concrete Median Strip (12")	0	214	214	Sq. Yds.
Fine Aggregate Asphaltic Concrete Surface Course	33.2	21.4	54.6	Tons
* STEEL WIRE MESH REINFORCEMENT	3800	2350	6150	Lbs.
* DOWELS (LARGE WELDED DOWEL SPACES 4'-11" BY 3" SPACES ONE)	442	325	767	Lbs.
* PREMOULDED FIBER EXPANSION JOINT FILLER 3/4"x9" (247x0.8)	336	198	534	Sq. Ft.
* PREMOULDED FIBER EXPANSION JOINT FILLER 3/4"x4" (232x0.93)	36	77	113	Sq. Ft.

Items marked thus * to be included in cost of Concrete Roadway Base Reinforced.



PLAN OF WEST APPROACH Scale 3/4"=1'-0"

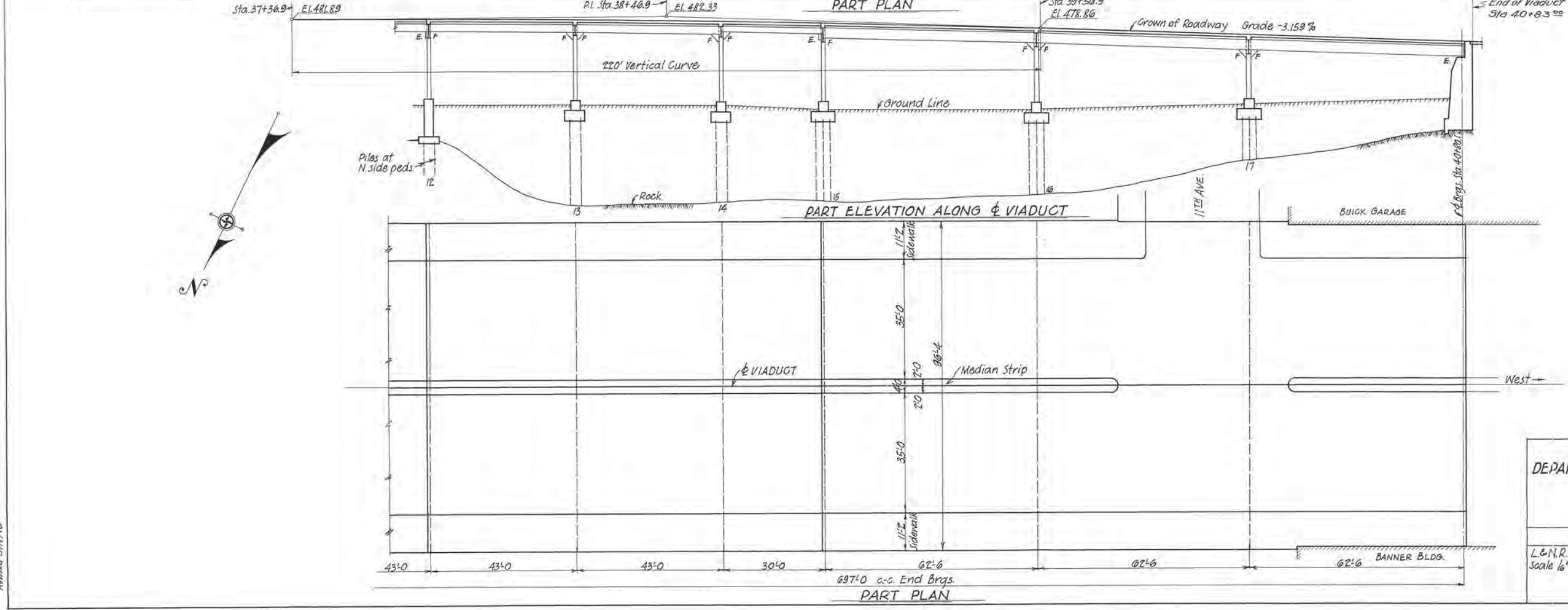
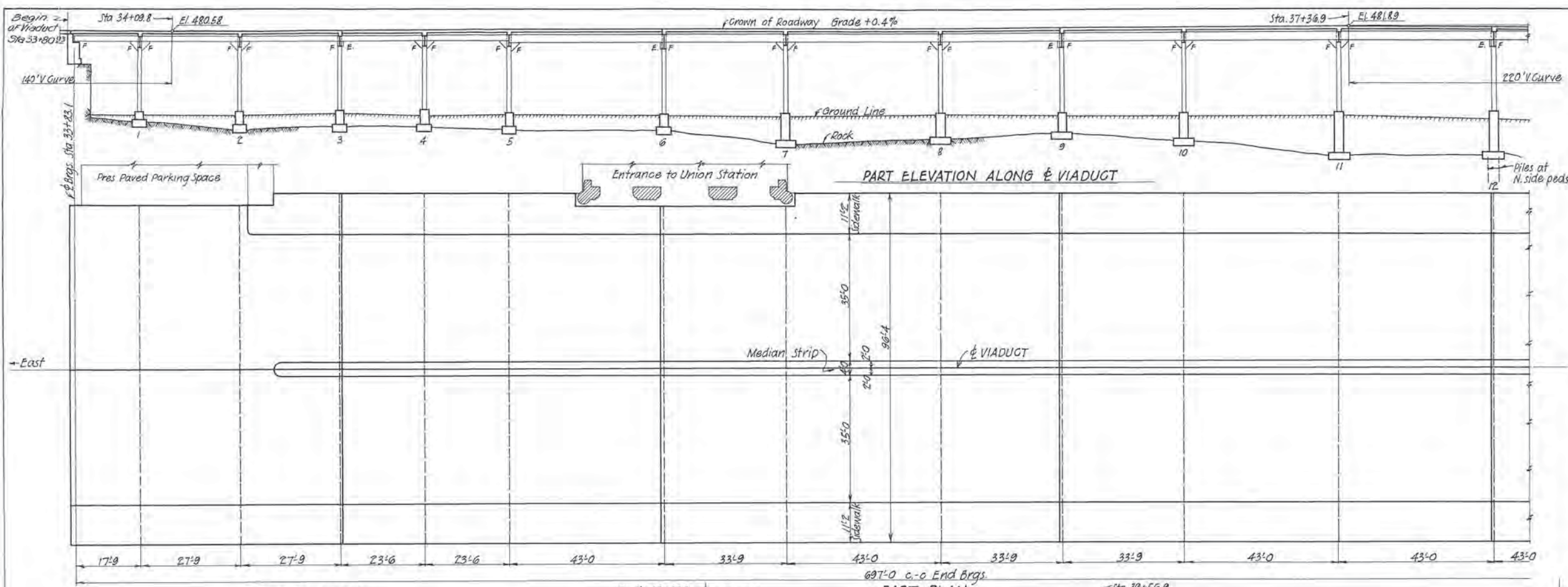
TENNESSEE DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

APPROACH PAVING - WEST END
 L. & N. R.R. Co. - BROAD STREET-MILE 1865 - NASHVILLE TERMINAL
 Scale: Design: L. & N. R.R. Co. Revisions: March 1, 1946
 As Shown Detailed: J. K. G. Traced: W. D. P. Checked: P. R. E.
 3-26-46
 5-1-46
 5-14-46

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Tenn.	1-4-161	42	5	36

TABLE OF ELEVATIONS

POINT	STATION	GRADE ELEV.	ELEV. TOP OF FLOOR BEAM	ELEV. TOP OF MASONRY
Brqs. East Abut.	33+83.10	480.60	—	477.44
Bent 1	34+00.85	480.56	479.02	458.55
Bent 2	34+28.60	480.66	479.13	458.66
Bent 3	34+56.35	480.77	479.24	458.77
Bent 4	34+79.85	480.86	479.33	458.86
Bent 5	35+03.35	480.96	479.43	457.96
Bent 6	35+46.35	481.13	479.60	457.63
Bent 7	35+80.10	481.26	479.73	457.76
Bent 8	36+23.10	481.43	479.90	457.93
Bent 9	36+56.85	481.57	480.04	458.07
Bent 10	36+90.60	481.70	480.17	458.20
Bent 11	37+33.60	481.87	480.34	458.37
Bent 12	37+76.60	481.92	480.39	458.42
Bent 13	38+19.60	481.67	480.14	458.17
Bent 14	38+62.60	481.12	479.59	457.62
Bent 15	38+92.60	480.55	479.02	457.55
Bent 16	39+55.10	478.91	477.38	456.91
Bent 17	40+17.60	476.94	475.41	457.94
Brqs. West Abut.	40+80.10	474.96	—	470.26



TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

GENERAL PLAN AND ELEVATION

L & N. R. R. Co. Viaduct - Broad Street - Mile 186.5 - Nash Terms.
Scale 1/4" = 1'-0" Design L & N. R. R. Revisions March 1, 1946
Detailed JFM 3-23-46
Traced JFM 5-1-46 L & N. L. F. 6217
Checked OKH 8/3/50

Sheet 5 of
B-13-140 H 68500

GENERAL NOTES:-

SPECIFICATIONS- Standard Specifications for Highway Bridges of the American Association of State Highway Officials, 1944 for design. Standard Specifications of the Tennessee Department of Highways for construction, except as noted.

DESIGN LOADING- A120-516-44.
CONCRETE- Concrete in railing to be Class S, in remainder of structure to be Class A. Exposed edges and corners chamfered 3/4" except as otherwise shown. Bearing areas on bridge seats and pedestals not properly finished shall be bush-hammered to a level surface and suitable steel shim plates used, if necessary, to bring masonry plates to correct elevation. Temporary open holes in top surfaces of concrete shall be covered to exclude water.

REINFORCEMENT- Deformed bars, new billet steel, intermediate grade, A.A.S.H.O. Spec. M31-42. Type of deformation subject to the approval of the engineer. Dimensions are to ϕ of bars.

EXCAVATION- Where it is necessary to excavate through concrete platforms for pedestals or drain lines, the backfill shall be thoroughly compacted and the platforms neatly patched. The unit price bid for excavation shall include patching platforms.

ROCK FOUNDATION- Excavation in rock to be made as near as possible to the neat lines of the masonry and concrete for footings placed against rock without use of forms unless the rock is more than 6" from the edge of the masonry. Foundation for pedestals and west abutment to be at least 1'-0" into solid rock. After the foundation is uncovered, holes shall be drilled into the rock to a depth of 6'-0" at points designated by the engineer.

PILE FOUNDATION- If the foundation material at the elevation shown on the plans for bottom of the pedestal contains cinders or other material injurious to the piles, such material shall be removed and replaced with clay or other satisfactory material thoroughly compacted. Piles shall be driven to solid bearing on rock. Piles shall be furnished of sufficient length to drive to rock without splicing.

STEEL PILING- Structural Steel Piles and steel plate caps shall be made from material conforming to A.S.T.M. Spec. A7-42 with a minimum copper content of 0.2%. Welding shall be done in accordance with Specifications for Welded Highway and Railway Bridges of the American Welding Society.

MEDIAN STRIP- The median strip shall be corrugated as detailed on sheet 4. Cost to be included in the price of Class "A" concrete.

STRUCTURAL STEEL- For Specifications see sheet 22.

BLAST PLATES- Blast Plates shall be made of Wrought Iron conforming to A.S.T.M. Spec. A42-39.

COPPER WATER SEAL- 24 oz. Soft Copper Fed. Spec. Q-Q-G-501 Type I C.I.A. Copper must not touch reinforcing or structural steel.

JOINT FILLER- Premoulded Joint Filler shall conform to A.A.S.H.O. Spec. M59-42. Joints to be sealed with Rai Seal (not poured type) or equal.

GREY IRON CASTINGS- Castings shall conform to A.S.T.M. Spec. A48-41 Class 30.

CAST IRON PIPE- G.I. Pipe shall conform to A.S.T.M. Spec. A44-41 Class 150.

ASPHALTIC WEARING SURFACE- Standard Specifications of the Tennessee Department of Highways - Section 104 - Fine Aggregate Asphaltic Concrete.

PIPE SLEEVES- Shall be cut from standard weight steel pipe. All sleeves shall be accurately located and shall be parallel to the center line of the bridge and the grade line.

DISPOSAL OF MATERIALS IN PRESENT STRUCTURE:-

All salvage materials in the present bridge structure, except the brick surface on the roadway and the car rails and the Utilities, shall become the property of the State. The contractor shall use care and shall not damage the salvage materials in dismantling the structure and shall load the material from the structure on vehicles furnished by the Department. The bricks and car rails which are removed shall be loaded on vehicles furnished by the City. Materials belonging to the Utilities shall be given them at the bridge site. Cost of above to be included in Unit Prices bid for Items of Construction.

SPECIAL NOTE:-

The Contractor shall arrange his work to avoid, as far as possible, interference with traffic on the tracks of the R.R. Co. Arrangements shall be made with the Superintendent of the R.R. Co. before interrupting traffic on any track and not more than 3 tracks shall be out of service at any time.

Where necessary, the Contractor shall sheet the sides of the excavation for the pedestals and drainage lines and brace it thoroughly to prevent any damage to the railroad tracks. He may use timber salvaged from the present structure for this purpose.

The Contractor shall submit drawings showing details of the sheeting to the R.R. Co. for their approval before starting construction and all work in connection therewith shall be subject to the approval of the R.R. Co.

NOTE TO BIDDER:-

No direct payment will be made for Copper Water Seal, Premoulded Joint Filler, Rai Seal, Arco-Sealit and Paraffin. Cost of these items is to be included in the unit price of items bid upon.

For purpose of payment, the weight of structural steel includes structural steel, expansion joint devices, 3/8" diam. tie rods and lead plates.

The R.R. Co. will remove the motor car shop at new Bent 3 and the ice house at new Bent 6 and build the new motor car shop, power house and ice house as shown on sheet 26. That part of present Bent 6 built into the commissary building will be left in place. The steel will be burnt off flush with the building and the R.R. Co. will make any necessary changes and repairs to the building.

The Contractor shall furnish and install pipe sleeves and struct. steel conduit supports and shall install conduit for the Sou. Bell Tel. & Tel. Co.

The Contractor shall furnish and install pipe sleeves, struct. steel conduit supports and pull box covers and frame for Nashville Electric Service and Traffic Control.

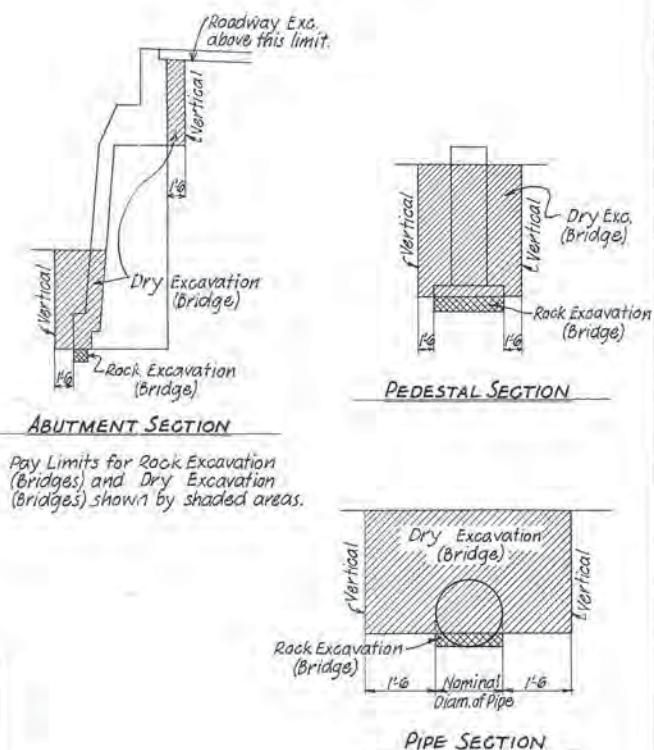
NONPARTICIPATING ITEMS.

	PIPE SLEEVES EACH	STRUCT. STEEL LBS.	INSTALLING 3 1/2" TRANSITE CONDUIT LIN. FT.	REINFORCING STEEL LBS.	CONCRETE CLASS A, CU. YDS.
Sou. BELL TEL & TEL. Co.	312	10,794	4230	358	—
NE3 AND TRAFFIC CONTROL	343	7,102	—	184	1.08
TOTAL.	655	18,896	4230	542	1.08

WORK TO BE DONE BY RAILROAD Co.-

The R.R. Co. will furnish all labor and material for shifting tracks as shown on Sheet 34 and lowering tracks where necessary to provide clearance below the completed structure.

The R.R. Co. will make changes and repairs to buildings as shown in the NOTE TO BIDDER and will make any changes necessary in its telephone, light and signal wires.



SUMMARY OF QUANTITIES

ITEM	REMOVE PRESENT VIADUCT	ROCK EXCAVATION CU. YDS.	DRY EXCAVATION CU. YDS.	REMOVE STONE MASONRY CU. YDS.	ROCK DRILLING LIN. FT.	CONCRETE CLASS A CU. YDS.	STRUCT. STEEL PILES LIN. FT.	REINFORCING STEEL LBS.	STRUCT. STEEL LBS.	ASPHALTIC WEARING SURFACE TONS	CONCRETE CLASS S CU. YDS.	LIGHTING SYSTEM	GREY IRON CASTINGS LBS.	6" G. IRON PIPE LIN. FT.	8" G. IRON PIPE LIN. FT.	12" G. IRON PIPE LIN. FT.	18" G. IRON PIPE LIN. FT.	REMOVE FLOOR ENTRANCE TO UNION STATION	WROG. IRON BLAST PLATES LBS.	
SUB STRUCTURE		76.2	1,126.	252.7		563.7	2,180.	24,054												
SUPERSTRUCTURE						2,022.3		324,263		303.6	80.6									147,800.
DRAINAGE SYSTEM		6.	980.										4,360.	873.	68.	262.	805.			
ENTRANCE TO UNION STATION						33.5		1,540.												
TOTALS	Lump Sum	82.2	2,106.	252.7	300.	2619.5	2,180.	349,857	240,542.3	303.6	80.6	Lump Sum	4,360.	873.	68.	262.	805.	Lump Sum	147,800.	

* The weight of Reinforcing Steel is based on the weight of plain round or square bars, measurement & payment will be made on this basis.
 ** No allowance for the shop coat of paint has been made in the weight of the structural steel, measurement & payment will be made on this basis.
 The cost of the paint shall be included in the unit price bid for this item.
 No Wet Excavation will be measured or paid for on this structure.

TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

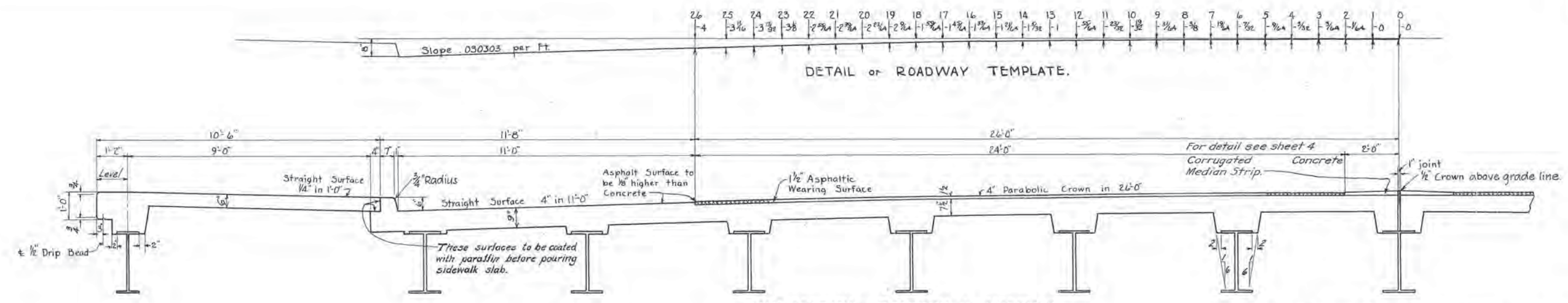
SUMMARY OF QUANTITIES AND GENERAL NOTES

L & N. R. Co. Viaduct - Broad Street - Mile	186.5 - Nash. Terms.
Scale	Design L & N. R. Revisions
None	Detailed J.F.M. 3-25-46
	Traced J.F.M. 5-1-48
	Checked P.R.E. 6-20-46
	7-5-46
	March 1, 1946
	L & N. R. 8217

B-13-141 sheet 6 of 6
H68,500

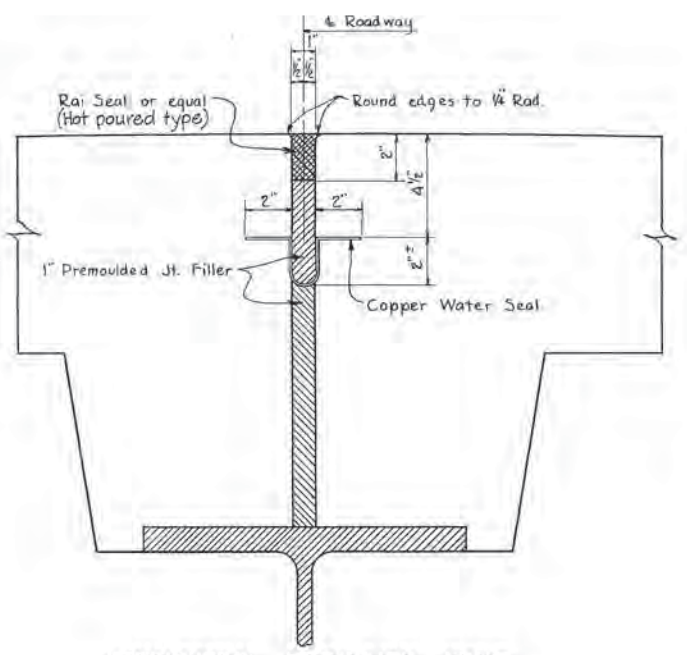
Revised 6/10/47 - Note for corrugated median strip

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
8	Tenn.	1151 1-4-18	46	7	36

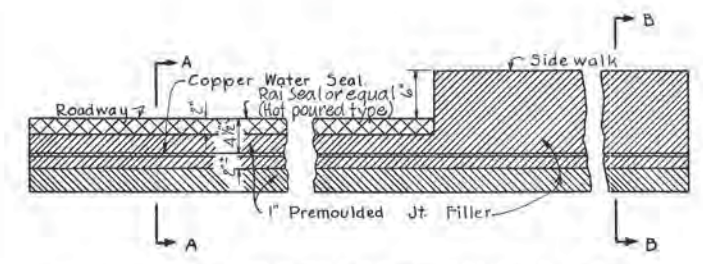


HALF SECTION - ROADWAY & SIDEWALK.
Scale: 1/2" = 1'-0"

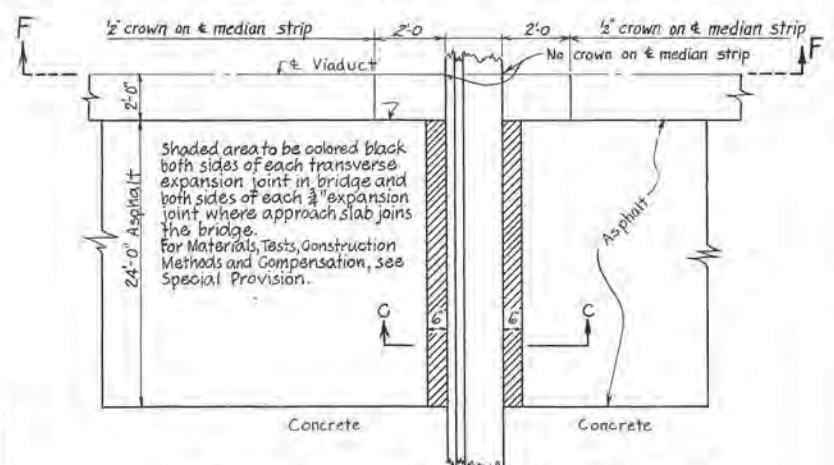
Note: Top Flanges of all longitudinal Main beams to be encased as shown.



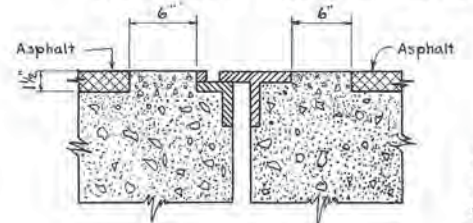
LONGITUDINAL EXPANSION JOINT.
Scale: 3/4" = 1'-0"



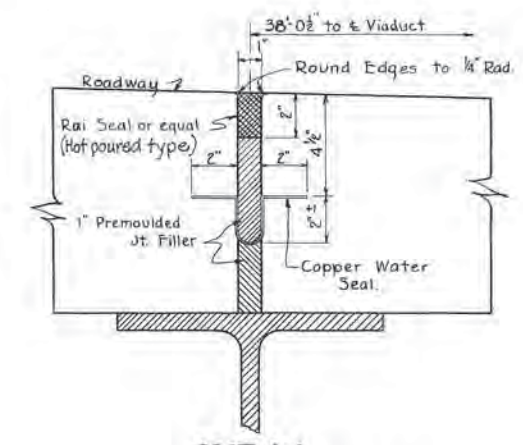
JOINT AT ENTRANCE TO PARKING SPACE.



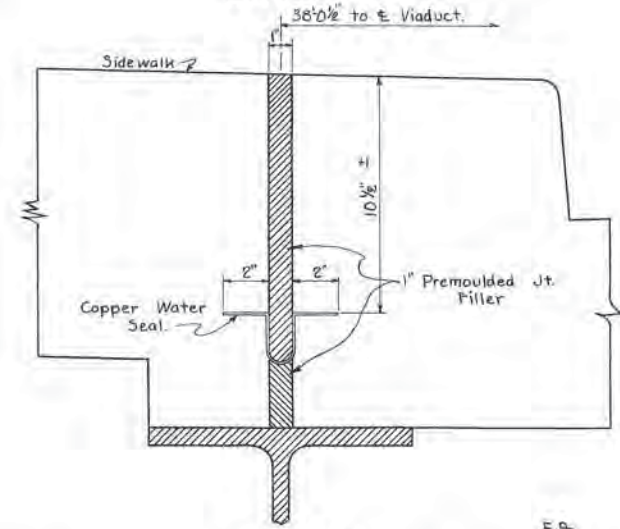
PART PLAN OF PAVING AT TRANSVERSE JOINT.



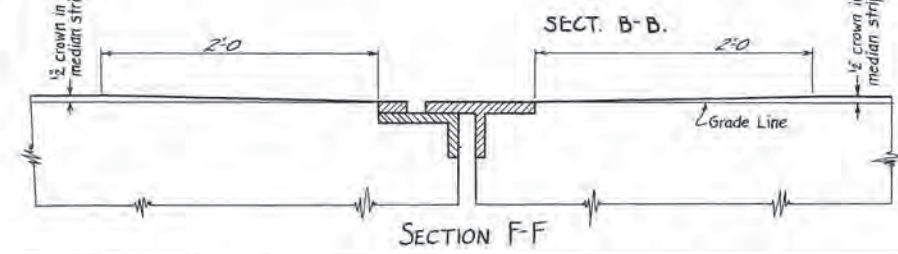
SECT. C-C.



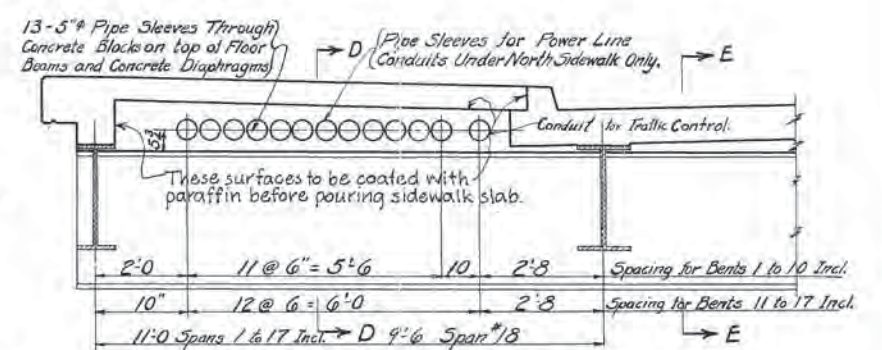
SECT. A-A.



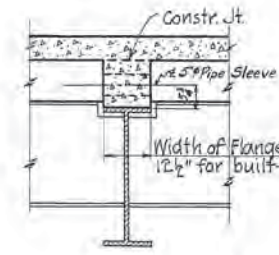
SECT. B-B.



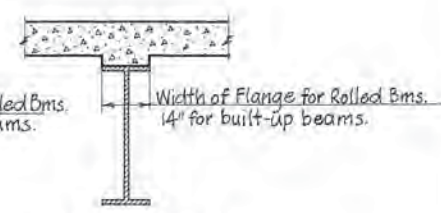
SECTION F-F



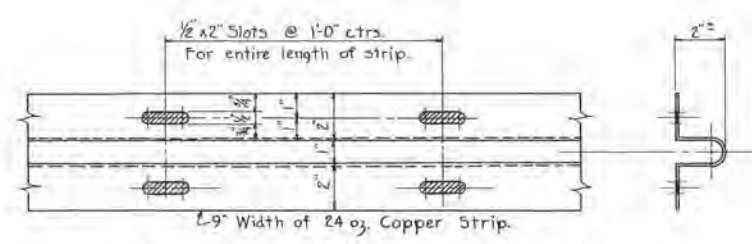
DETAIL OF BLOCK ON TOP OF FLOOR BEAMS.



SECTION D-D



SECTION E-E



PART DETAIL OF COPPER WATER SEAL.

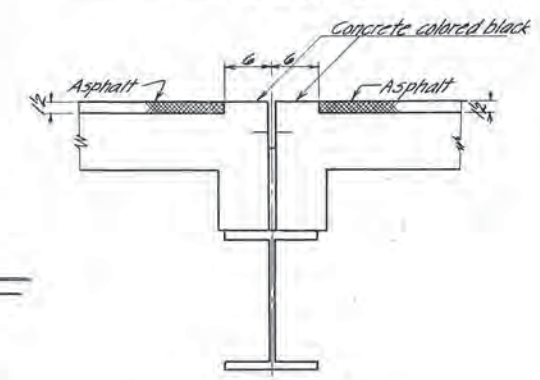
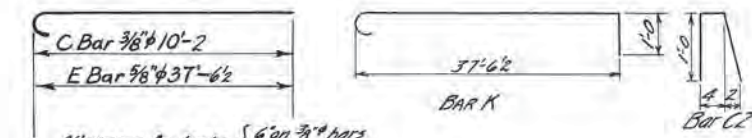
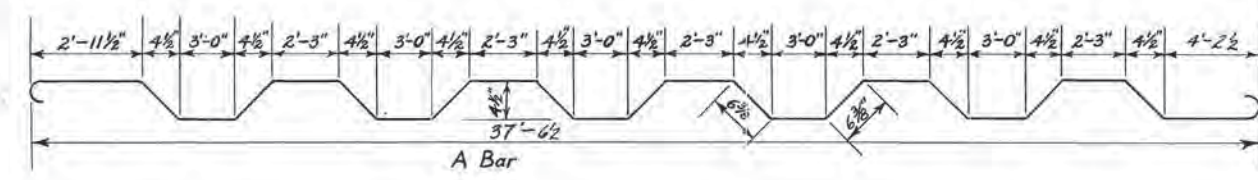
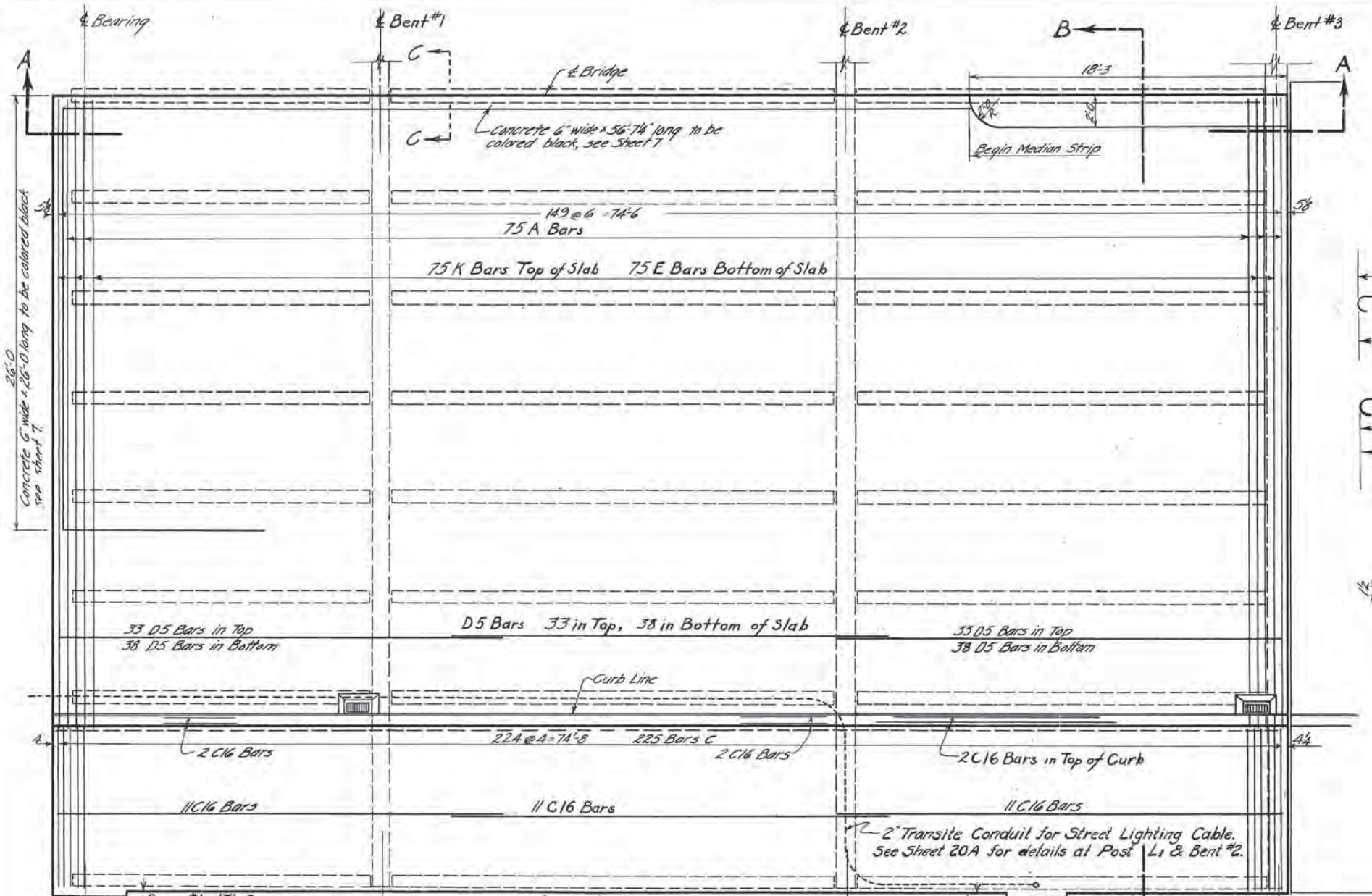
24 oz. Soft Copper Seal 9" wide before bending. Order any length desired but must be lapped 3" and soldered at joints.

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

DETAILS OF DECK SLAB.
L & N R.R. Co. Viaduct - Broad Street - Mile 186.5 - Nash Terms.
Scale: As Shown Design L & N R.R. Co. Revisions March 1, 1946
Detailed A.J.-JFM Mar 22, 1946
Traced D.J.T. Apr 22, 1946
Checked P.R.E. May 16, 1946 L & N L.F. 6217
6-20-46

Revised 6/10/47 - Median Strip Corrugated
Revised 8/15/46

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
E	TENN.	UG1 (1-4-118)	1946	B	36



Bar	No Req.	Size	Length
A	75	3/8" φ	40'-5"
E	75	3/8" φ	38'-3"
C	225	3/8" φ	10'-8"
C2	75	3/8" φ	2'-4"
C16	39	3/8" φ	26'-0"
D5	216	3/8" φ	26'-6"
K	75	3/8" φ	39'-2"

Bar Bill for North Side Only.

PLAN OF NORTH HALF

SECTION A-A

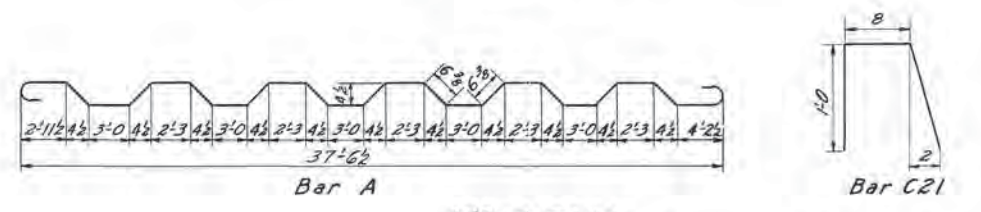
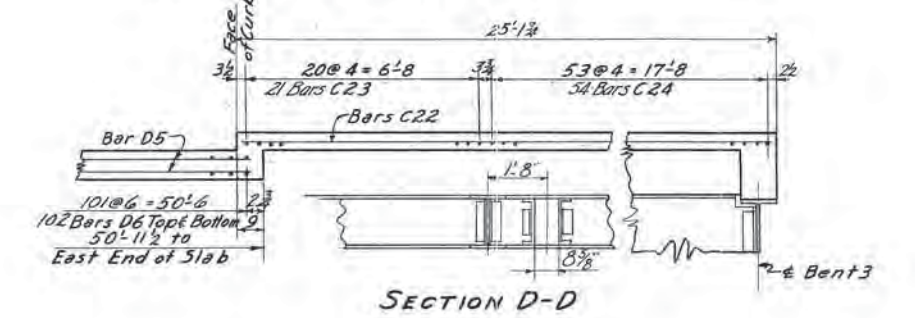
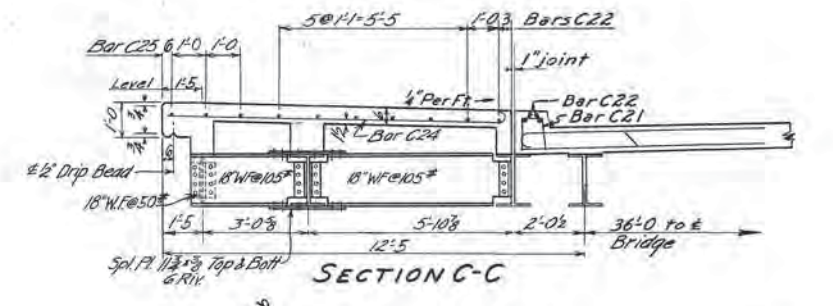
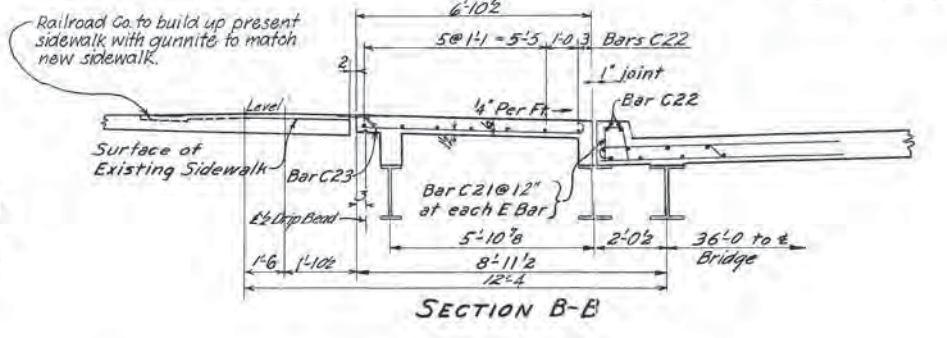
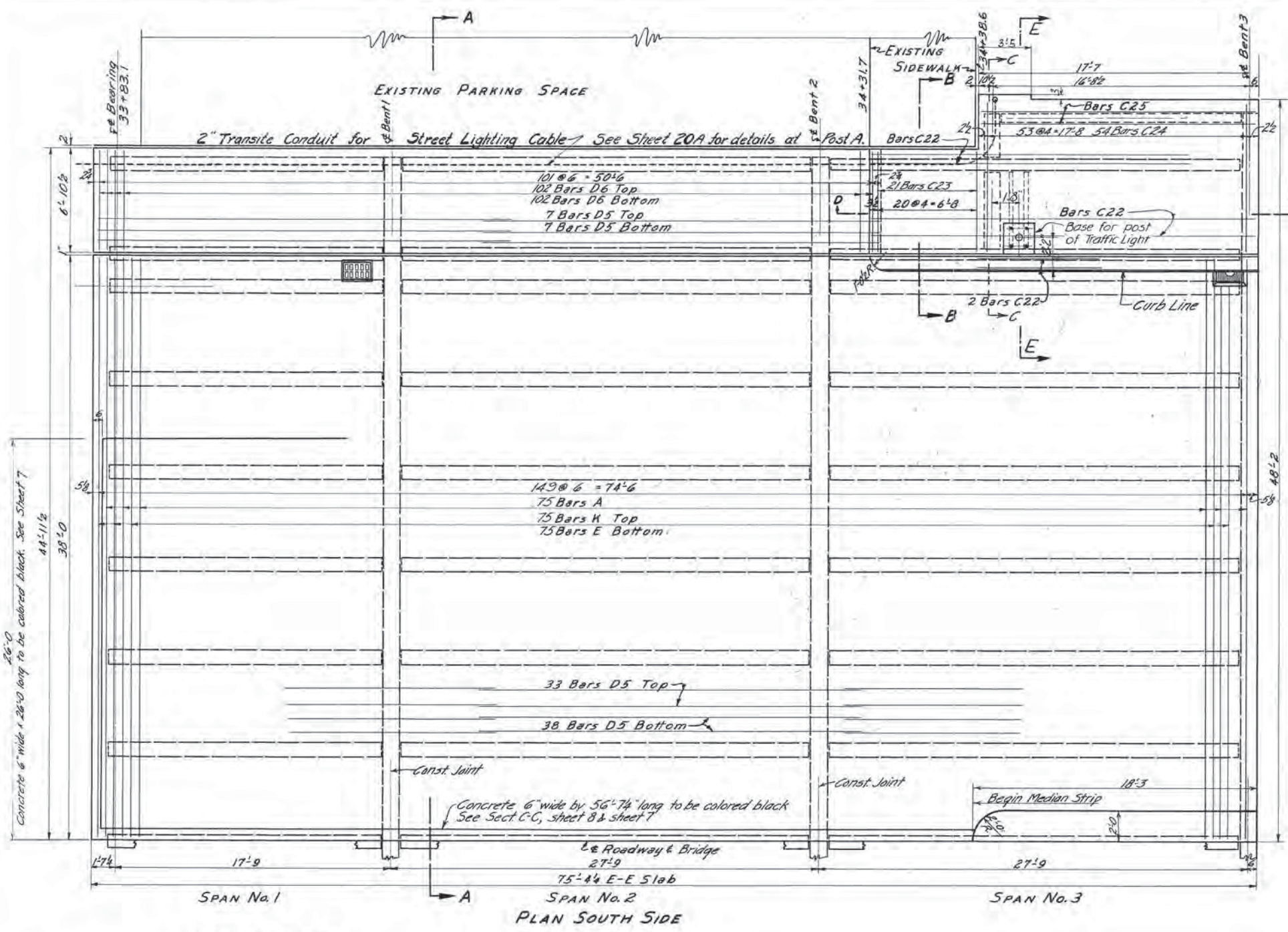
SECTION B-B

For Details of South Side of Spans 1, 2, & 3, see Sheet 9.
For Details of Deck Slab, see Sheet 7.
For Details of Diaphragms and Bearing Plates, see Sheet 16.

ESTIMATED QUANTITIES
Asphalt Paving 17,37 Tons
Concrete, Class A 107.8 Cu Yds.
Reinforcing Steel 16,539 Lbs.
Structural Steel 56,020 Lbs.

TENNESSEE
DEPARTMENT of HIGHWAYS & PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

NORTH SIDE SPANS 1-2 & 3
L & N R.R. Co. Viaduct - Broad Street - Mile 186.5 - Nash. Terms.
Scale Design L & N R.R. Co. Revisors March 1, 1946
Detailed J.P.B. Mar. 21, 1946
Traced J.P.B. Apr. 30, 1946
Checked P.R.E. May 14, 1946
L & N L.F. 6217
6-20-46



NOTE: For details of Base for Post of Traffic Light and Section E-E, See Sheet 11.

For Details of Slab, see Sheet 7.
For Details of Diaphragms and Bearing Plates, see Sheet 16.

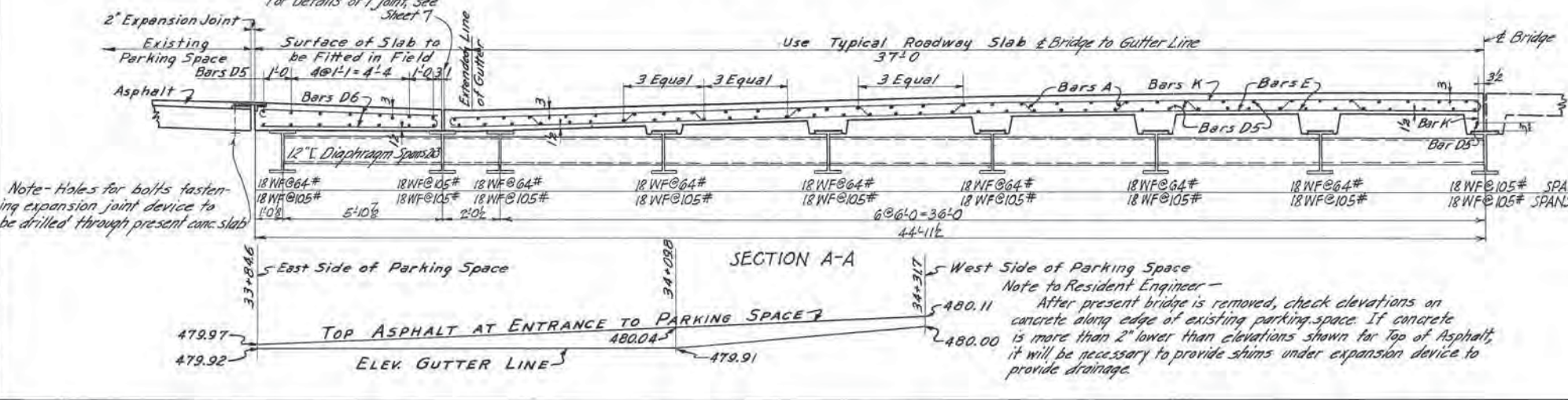
ESTIMATED QUANTITIES

Asphalt Paving	17.37 Tons
Concrete, Class A	105.5 Cu. Yd.
Reinforcing Steel	17,472 Lbs.
Structural Steel	6,154 Lbs.

BILL OF BARS

MARK	No. Bars	SIZE	LENGTH
A	75	6\"/>	

Revised: 9/21/46



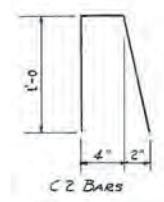
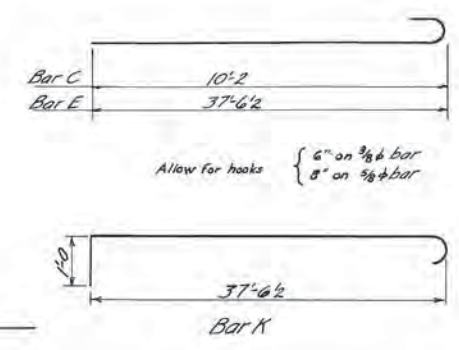
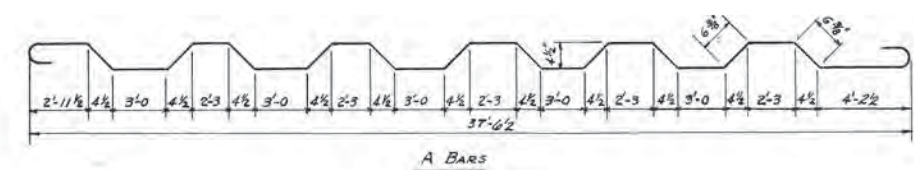
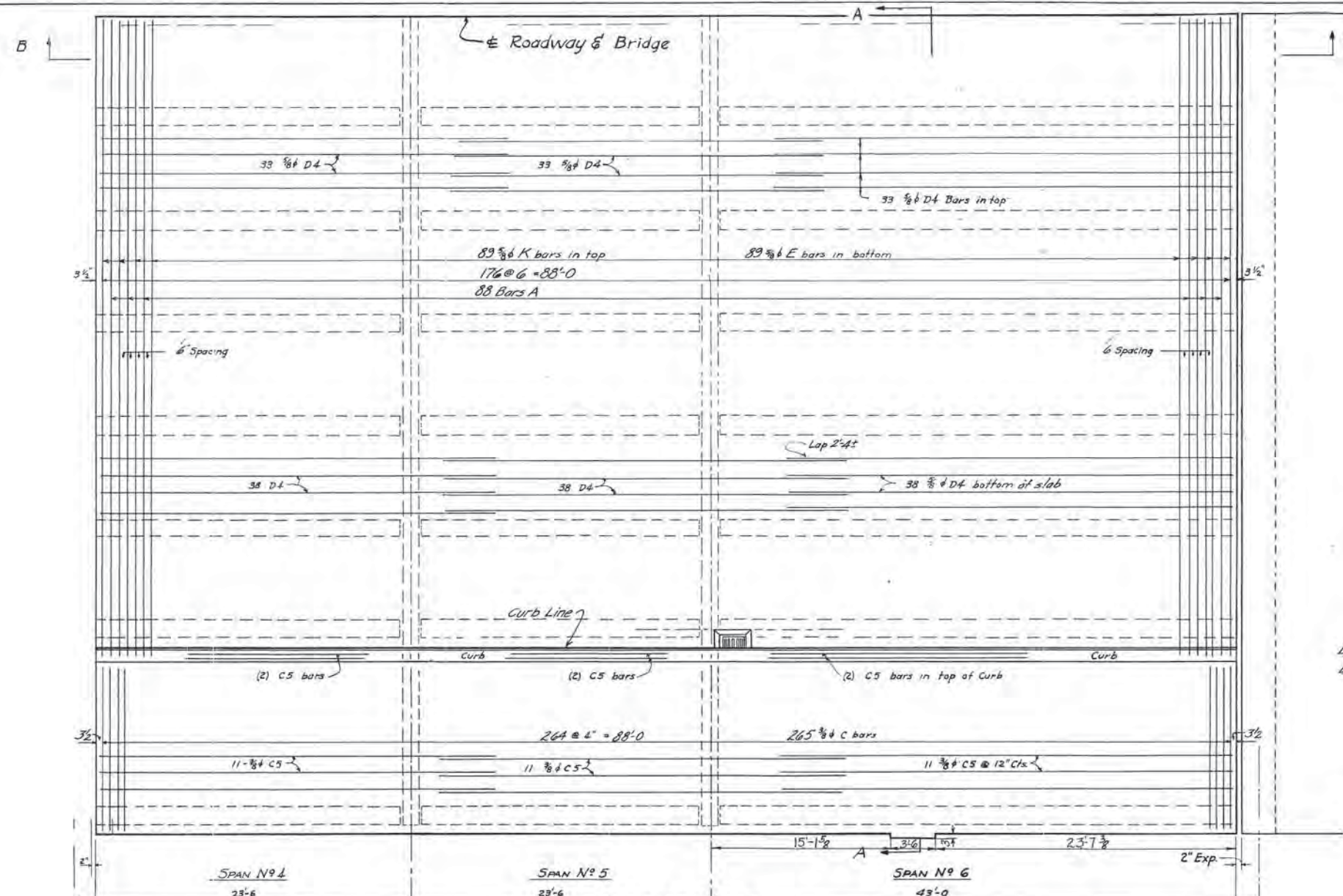
Note to Resident Engineer -
After present bridge is removed, check elevations on concrete along edge of existing parking space. If concrete is more than 2\"/>

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

SPANS 1, 2, 3-SOUTH SIDE

L&NRR Co. VIADUCT-BROAD STREET-MILE 1865-NASH. TERM. Scale Design L&NRR Revisions March 1, 1946. Detailed AJ Mar 20, 1946 Apr 30, 1946 Traced HBL May 14, 1946 L&NLF 6217 Checked P.R.E.

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
5	Tenn.	-51	4	10	34



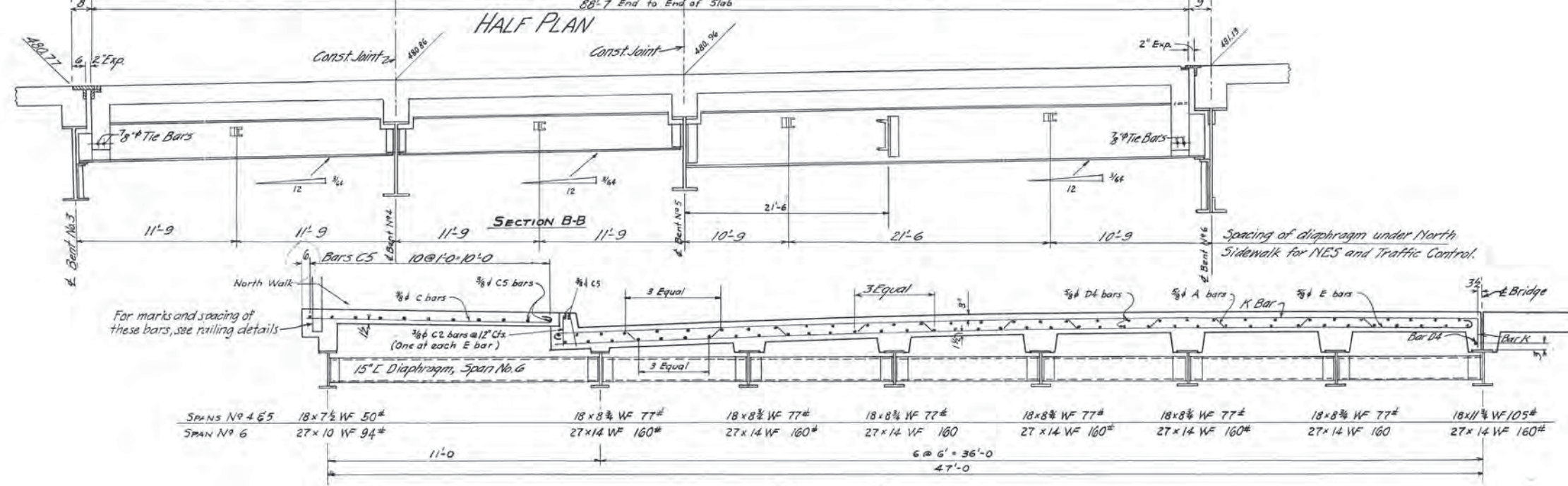
BAR BILL

Bar	Reqd.	Size	Length
A	176	3/8 φ	40'-5"
C	265	3/8 φ	10'-8"
C2	178	"	2'-4"
C5	45	"	30'-3"
D4	432	3/8 φ	31'-0"
E	178	"	38'-3"
K	178	"	39'-2"

NOTE: Bar Bill includes North & South Street Slabs & North Sidewalk Slab. Does not include South Sidewalk Slab.

For Details of Slab, see Sheet 7.
For Details of Diaphragms, see Sheet 16.
For Details of So. SW Slab, see Sheet 12.

ESTIMATED QUANTITIES
Asphalt Paving 38.72 Tons
Concrete, Class A 24,720 Cu Yds.
Reinforcing Steel 37,492 Lbs.
Structural Steel 156,663 Lbs.



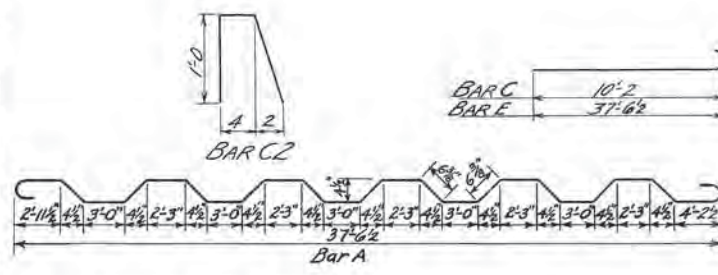
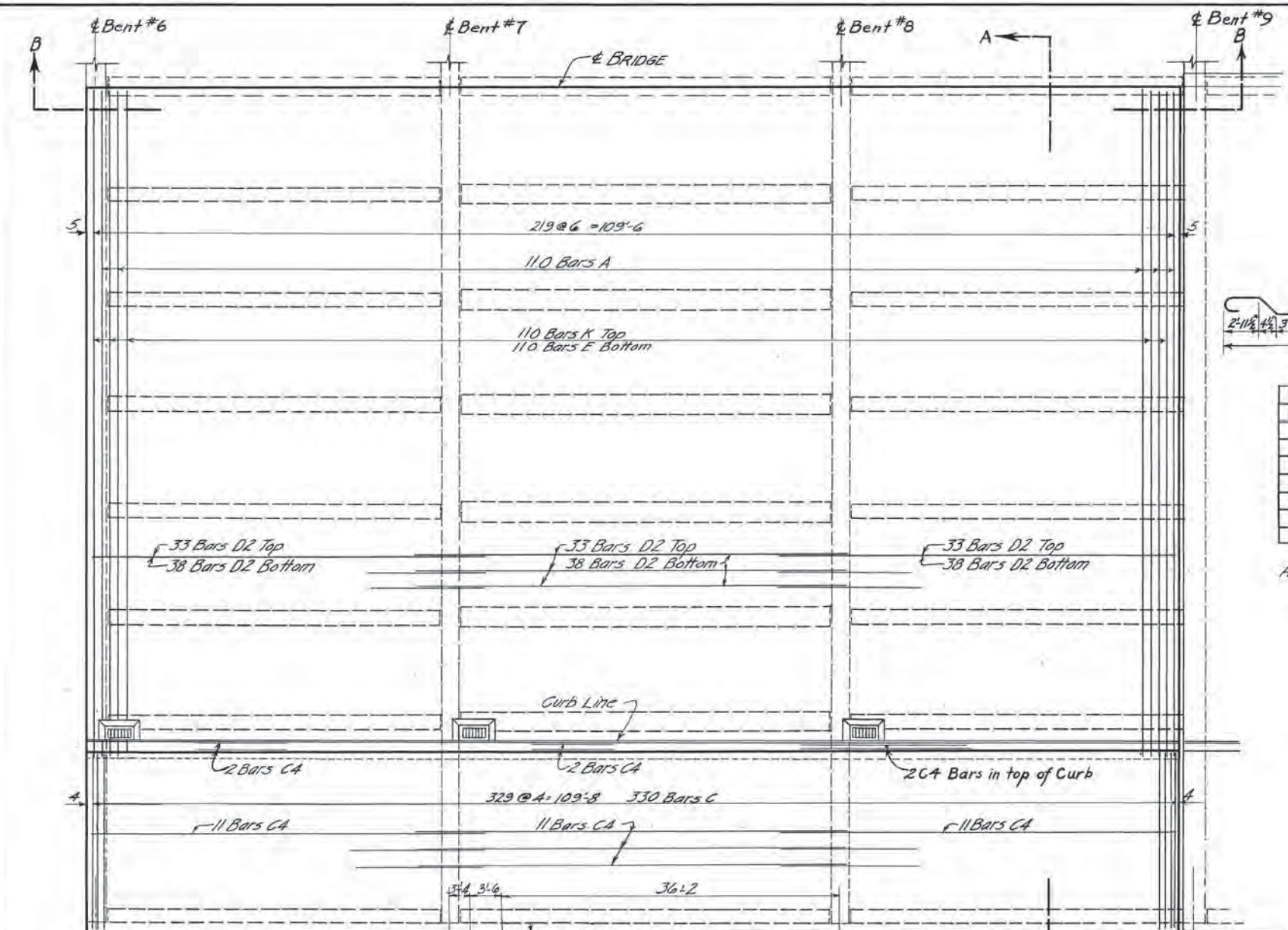
TENNESSEE
DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

SPANS 4, 5 & 6

L & N R.R. Co. Viaduct Broad Street - Mile 186.5 - Nash. Term.
Scale Design L & N R.R. Co. Revisions March 1, 1946
Detailed L. E. B. Mar 21, 1946
Traced W. D. P. Apr 30, 1946 L & N. L.F. 6217
6-20-46

OK P.R.E. Sheet 10 of 34
B-13-145 H68500

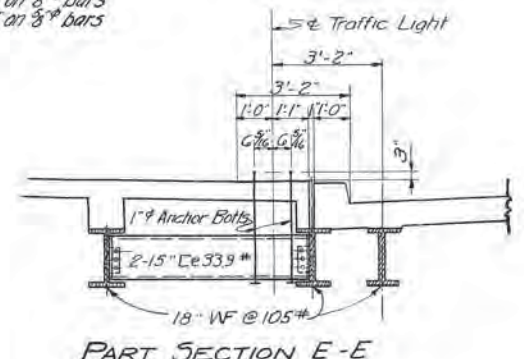
SECTION A-A
Symmetrical about E, except for South Sidewalk Slab and stringers under sidewalk, span 6 - see sheet 12



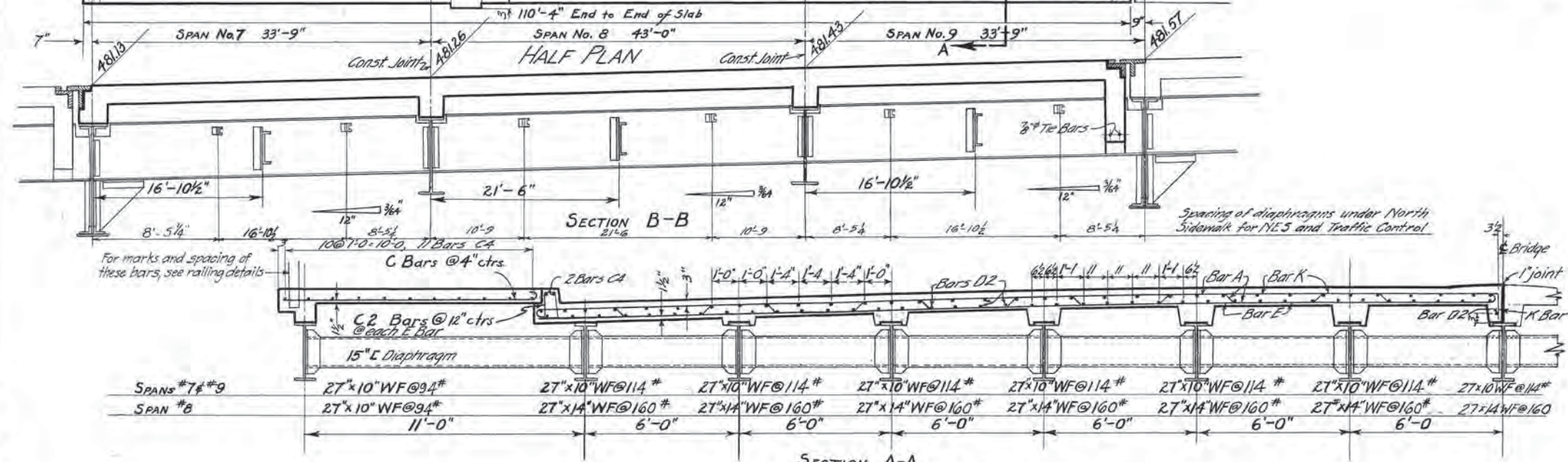
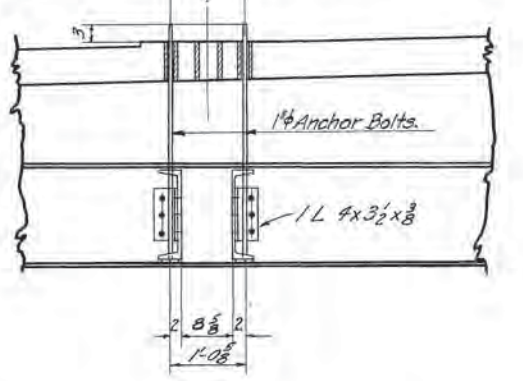
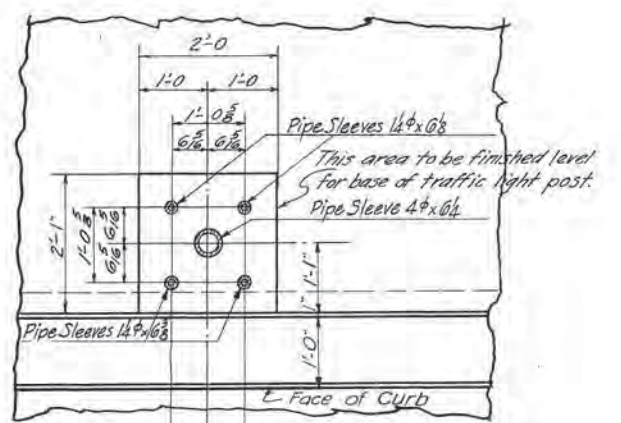
Bar	No. Req.	Size	Length
A	220	3/8" φ	40'-5"
E	220	3/8" φ	38'-3"
C	330	3/8" φ	10'-8"
C2	220	3/8" φ	2'-4"
C4	45	3/8" φ	37'-8"
D2	432	5/8" φ	38'-3"
K	220	5/8" φ	39'-2"

Note:
Bar Bill includes North & South Street Slabs but only the North Sidewalk Slab.
37'-6"

Allowance for hooks: 6" on 3/8" bars, 8" on 5/8" bars



DETAILS FOR TRAFFIC SIGNAL LIGHT BASE
For location, see Sheet No 9



For Details of Slab, see Sheet 7.
For Details of Diaphragms, see Sheet 16.
For Details of South Sidewalk slab see sheet 12.

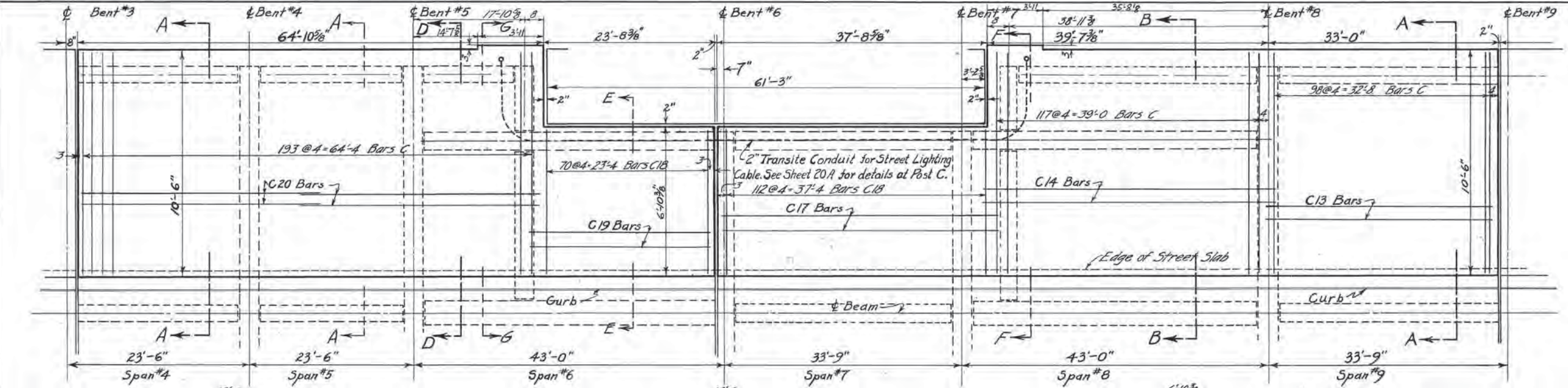
ESTIMATED QUANTITIES
Asphalt Paving 48.55 Tons
Concrete, Class A 2889 Cu. Yds.
Reinforcing Steel 46428 Lbs.
Structural Steel 226177 Lbs.

BILL OF PIPE SLEEVES FOR TRAFFIC CONTROL:
2-1 1/2" x 6"
1-1 1/2" x 6"
2-1 1/2" x 6"

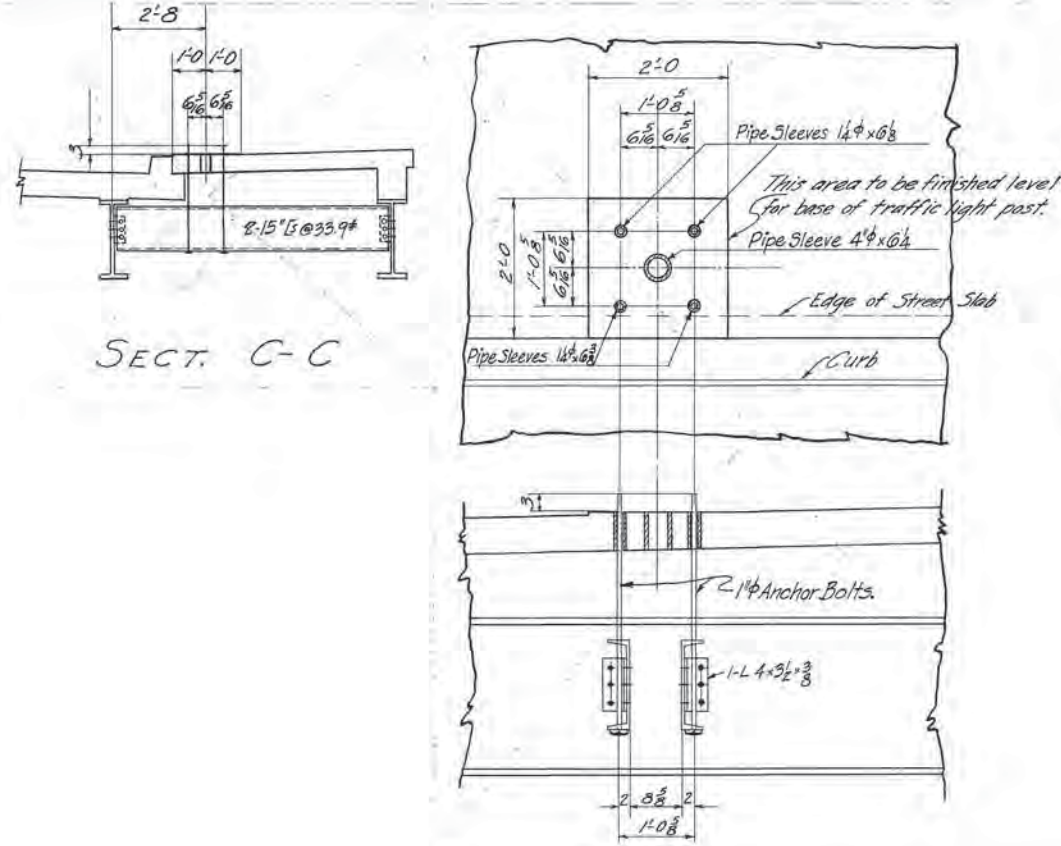
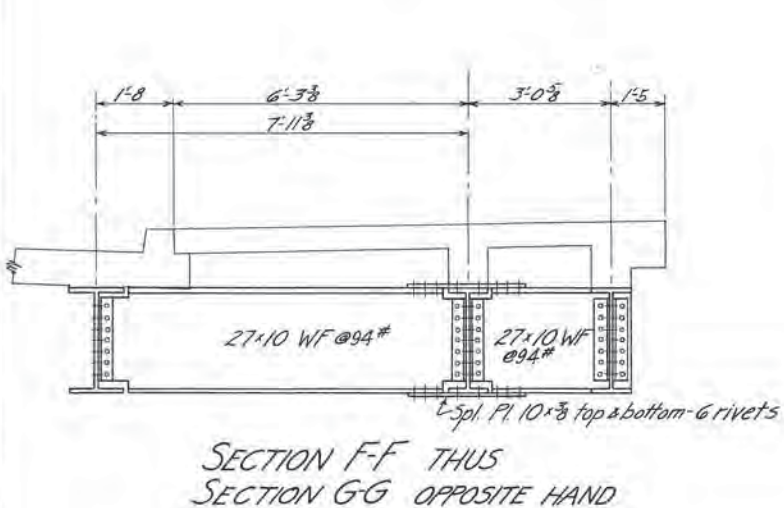
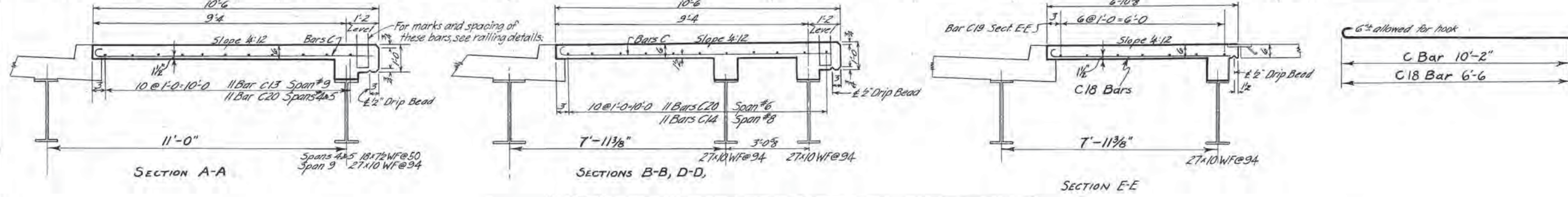
TENNESSEE
 DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT
 SPANS 7-8-9
 L&N. R.R. Co. Viaduct - Broad Street - Mile 186.5 - Nash. Terms.
 Scale 1/4" = 1'-0" Design L&N. R.R. Co. Revisions March 1, 1946
 Detailed J.P.B. Apr. 30, 1946
 Traced J.P.B. 6-20-46
 Checked P.R.E. L&N L.F. 6217
 Sheet 11 of 36
 B-13-146 H68500

Revised 9/2/46

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
6	Tenn.	1-4-118	1946	12	36



Bar No.	Req.	Size	Length
C-	411	3/8" φ	10'-8"
C13	11	3/8" φ	34'-0"
C14	11	3/8" φ	39'-9"
C17	7	3/8" φ	39'-3"
C18	184	3/8" φ	7'-0"
C19	7	3/8" φ	25'-3"
C20	22	3/8" φ	33'-0"

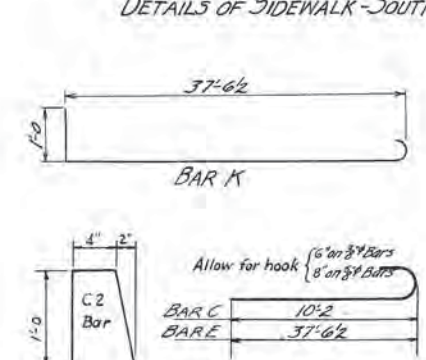
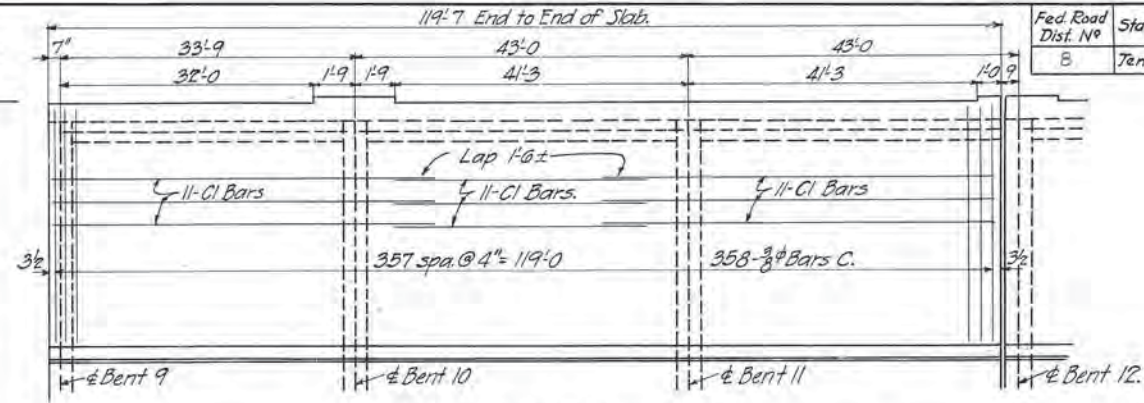
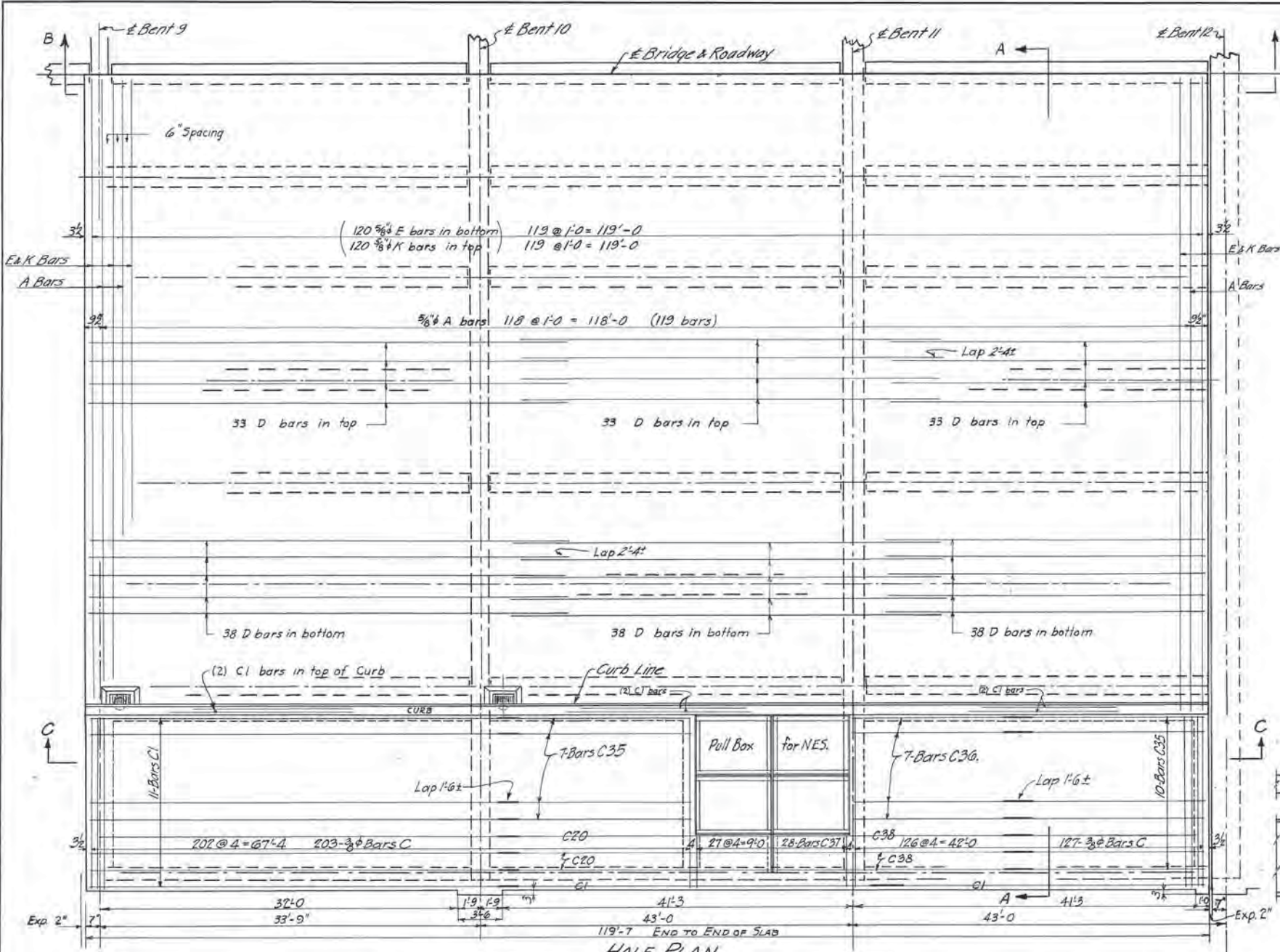


ESTIMATED QUANTITIES
 Concrete, Class A 46.5 Cu Yds.
 Reinforcing Steel 2880 Lbs

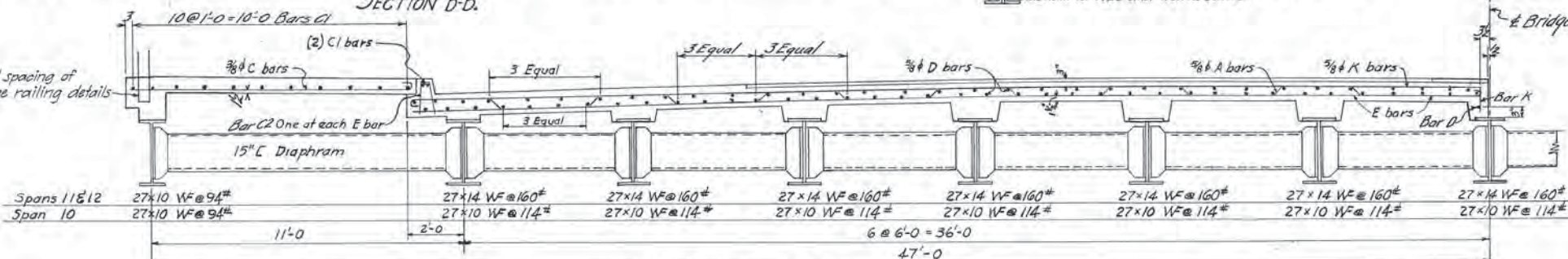
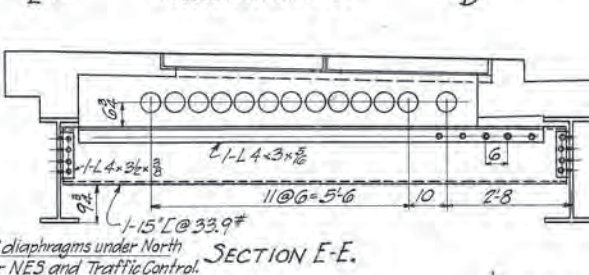
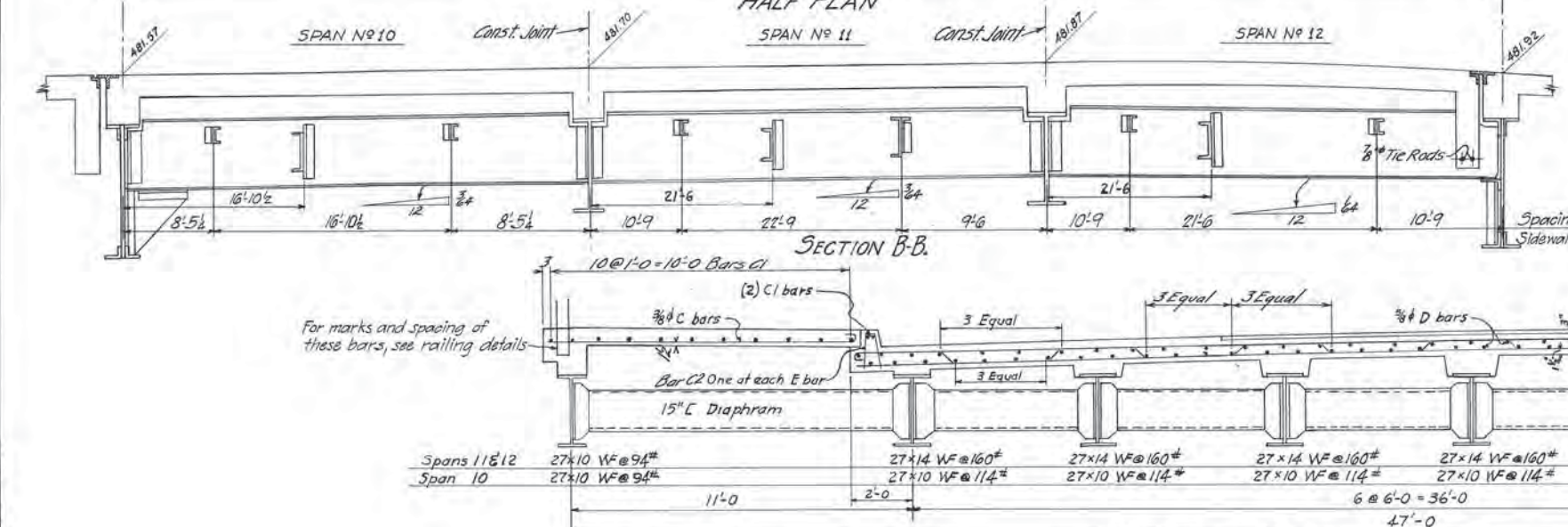
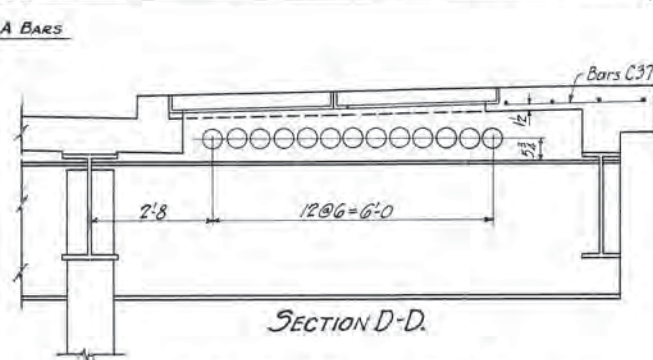
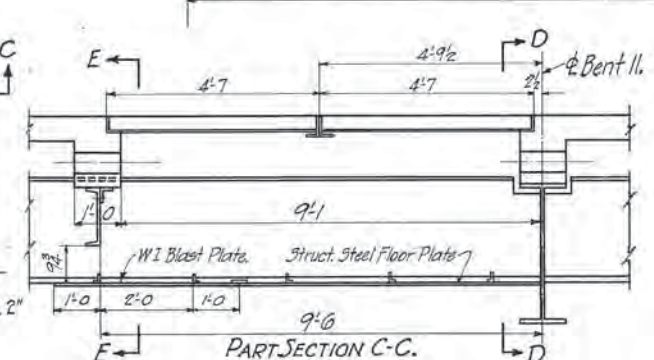
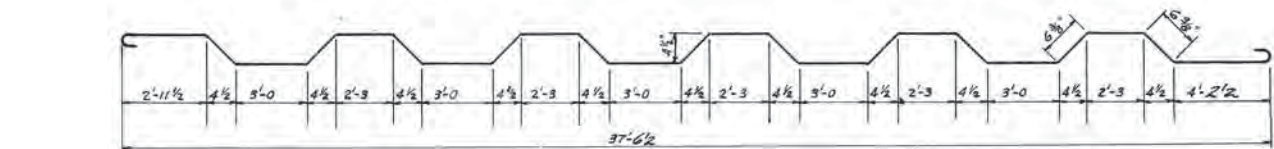
TENNESSEE
 DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

SIDEWALK SOUTH SIDE SPANS 4 THRU 9
 L&N.R.R. Co. Viaduct - Broad Street - Mile 18&5-Nash Term.
 Scale Design L&N.R.R. Co. March 1, 1946.
 8 1/2" x 11" Detailed J.P.B. Revisions 6-20-46
 Traced J.P.B. Mar 19, 1946
 Checked P.R.E. Apr 30, 1946
 L&N.L.F. 6217

Revised 9/21/46



BAR BILL			
BAR	Req'd	Size	LENGTH
A	238	5/8"	40'-5"
C	638	3/8"	10'-8"
C1	58	"	40'-9"
C2	240	"	2'-4"
E	240	3/8"	38'-3"
D	432	"	41'-4"
K	240	"	39'-2"
C20	3	3/8"	33'-0"
C35	17	"	28'-3"
C36	7	"	15'-4"
C37	28	"	3'-0"
C38	3	"	20'-0"



For Details of Slab, see Sheet 7
 For Details of Diaphragms, see Sheet 16
 For Details of Pull Box Cover and Frame, see Sheets 35 & 35A.

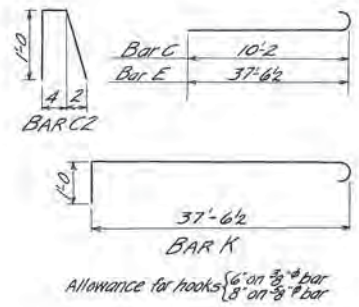
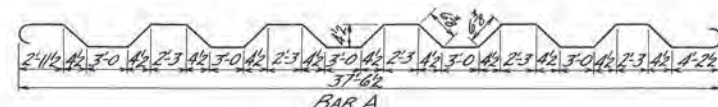
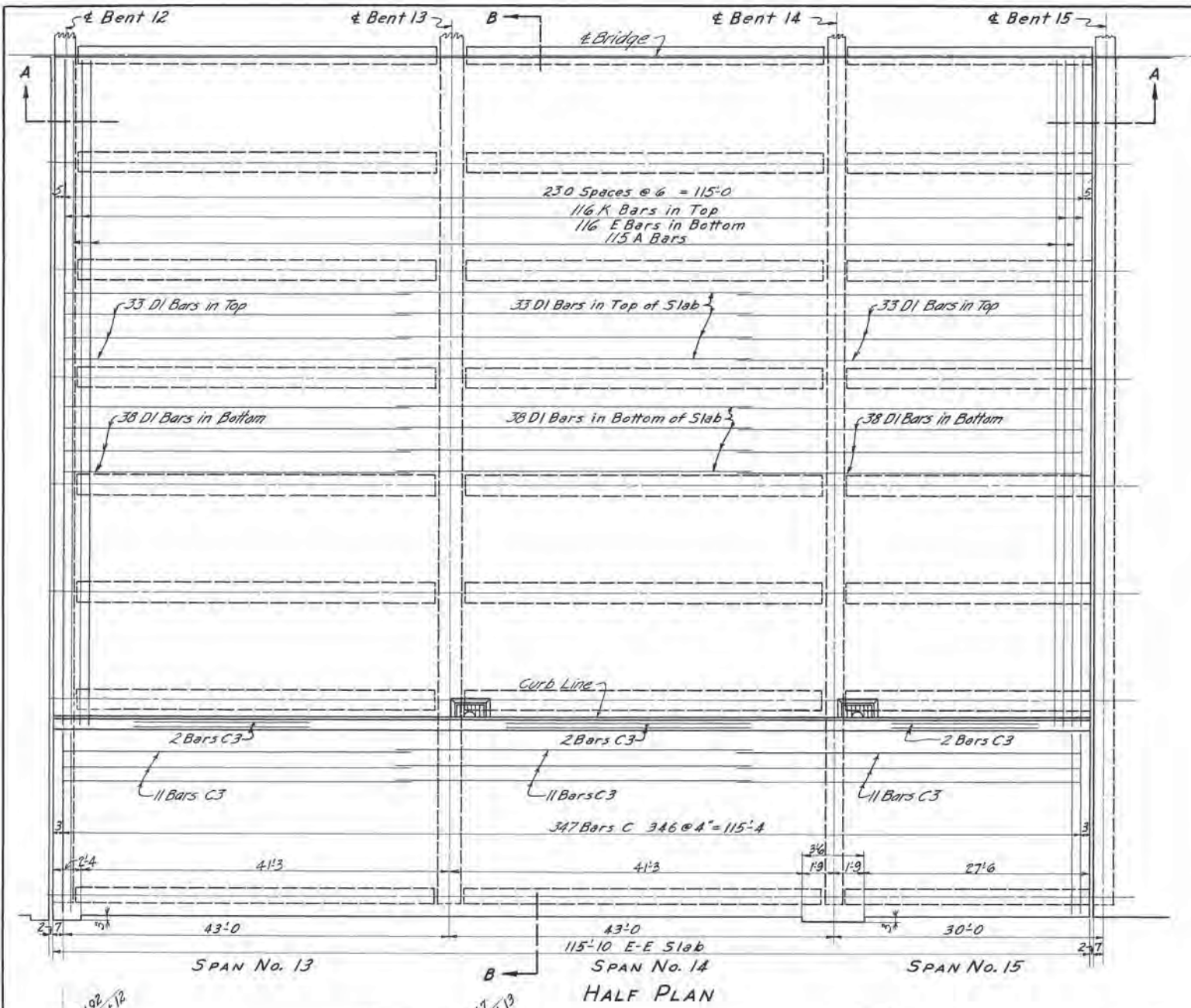
ESTIMATED QUANTITIES
 Asphalt Paving 5265 Tons
 Concrete, Class A 3459 Cu. Yds.
 Reinforcing Steel 51,207 Lbs.
 Structural Steel 262,302 Lbs.

TENNESSEE
 DEPARTMENT OF HIGHWAYS & PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

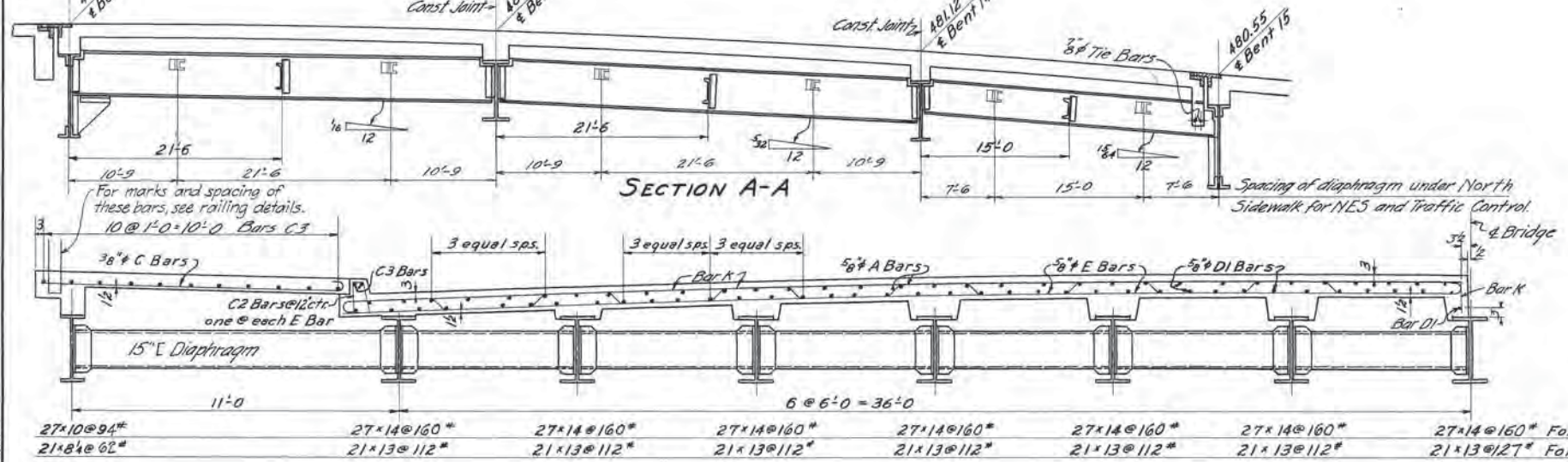
SPANS 10, 11, & 12

L & N. R.R. Co. Viaduct - Broad Street - Mile 186.5 - Nash. Terms.
 Scale Design: L & N. R.R. Co. Revisions March 1, 1946
 Detailed: L. E. B. Mar. 21, 1946
 Traced: W. D. P. Apr. 30, 1946
 Checked: P. R. E. 6-20-46 L & N. L.F. 6217
 7-5-46

Sheet 13 of 36
 B-13-148
 H68500



Bar	Reqd.	Size	Length
A	230	3/8"	43'-5"
D1	432	-	40'-0"
E	232	-	38'-3"
K	232	-	39'-2"
C	794	3/8"	10'-8"
C2	232	-	7'-4"
C3	18	-	39'-6"



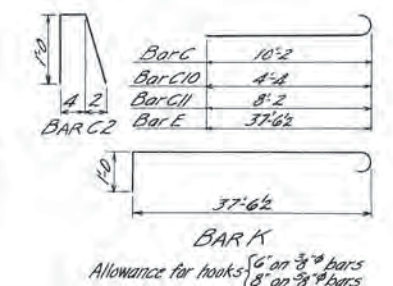
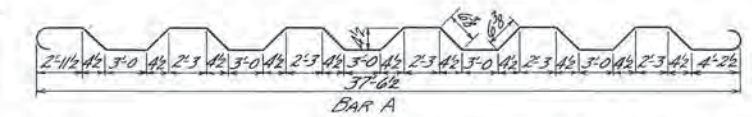
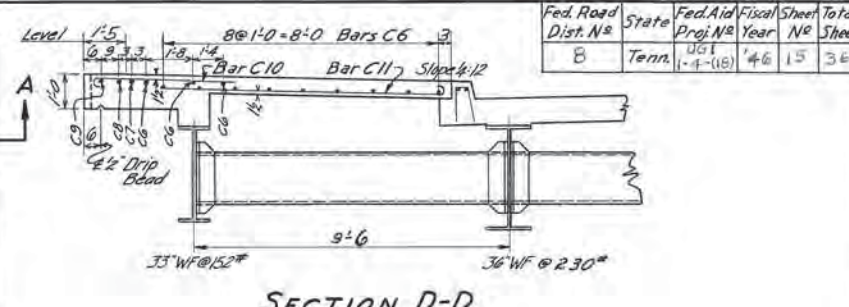
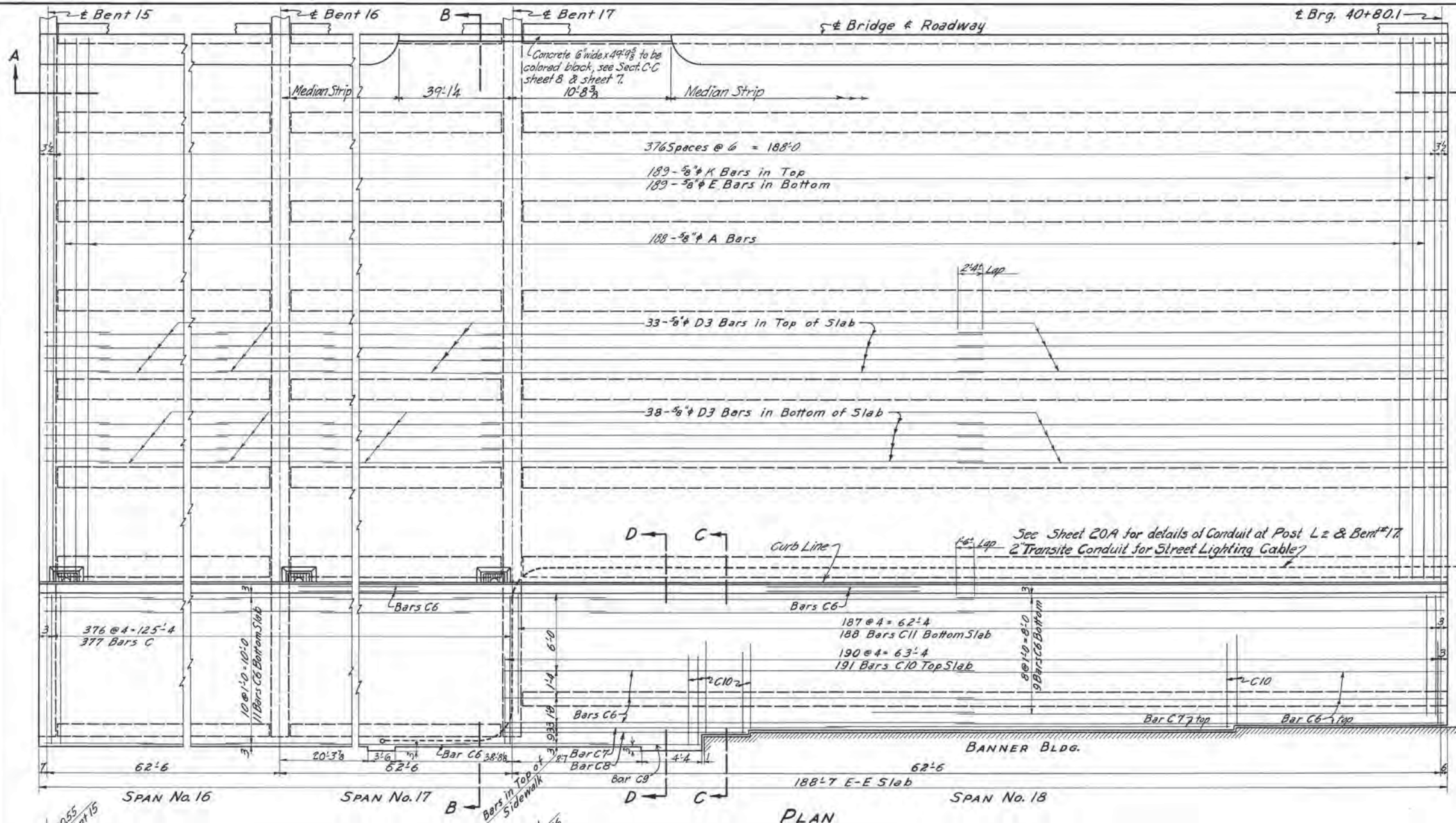
For Details of Slab, see Sheet 7
For Details of Diaphragms, see Sheet 16

ESTIMATED QUANTITIES
Asphalt Paving 50.97 tons
Concrete, Class A 3354 Cu Yds
Reinforcing Steel 51,000 Lbs
Structural Steel 255,552 Lbs

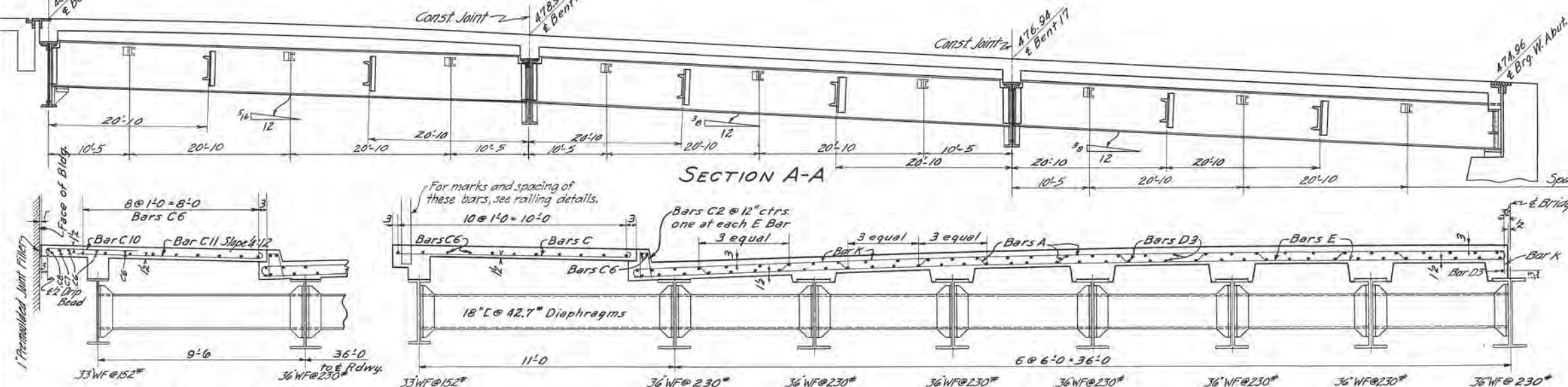
**TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT**

SPANS 13, 14, & 15

L&NRR Co. VIADUCT - BROAD STREET - MILE 186.5 - NASH. TERM.
Scale Design L&NRR Revisions March 1, 1946
None Detailed AJ Mar 21, 1946
Traced HBL Apr 31, 1946
Checked P.R.E. 6-20-46 L&N.L.F. 6217



Bar	Reqd.	Size	Length
A	188	3/8"	40'-5"
D-3	432	"	33'-4"
E	189	"	38'-3"
C	377	3/8"	10'-8"
C2	189	"	2'-4"
C6	80	"	32'-9"
C7	2	"	25'-6"
C8	1	"	17'-6"
C9	1	"	14'-6"
C10	191	"	4'-10"
C11	188	"	8'-8"
K	189	3/8"	39'-2"



For Details of Slab, see Sheet 7
For Details of Diaphragms and Bearing Plates, see Sheet 16

ESTIMATED QUANTITIES
Asphalt Paving 3898 Tons
Concrete Class A 2691 Cu Yds
Reinforcing Steel 41,359 Lbs.
Structural Steel 348,693 Lbs.

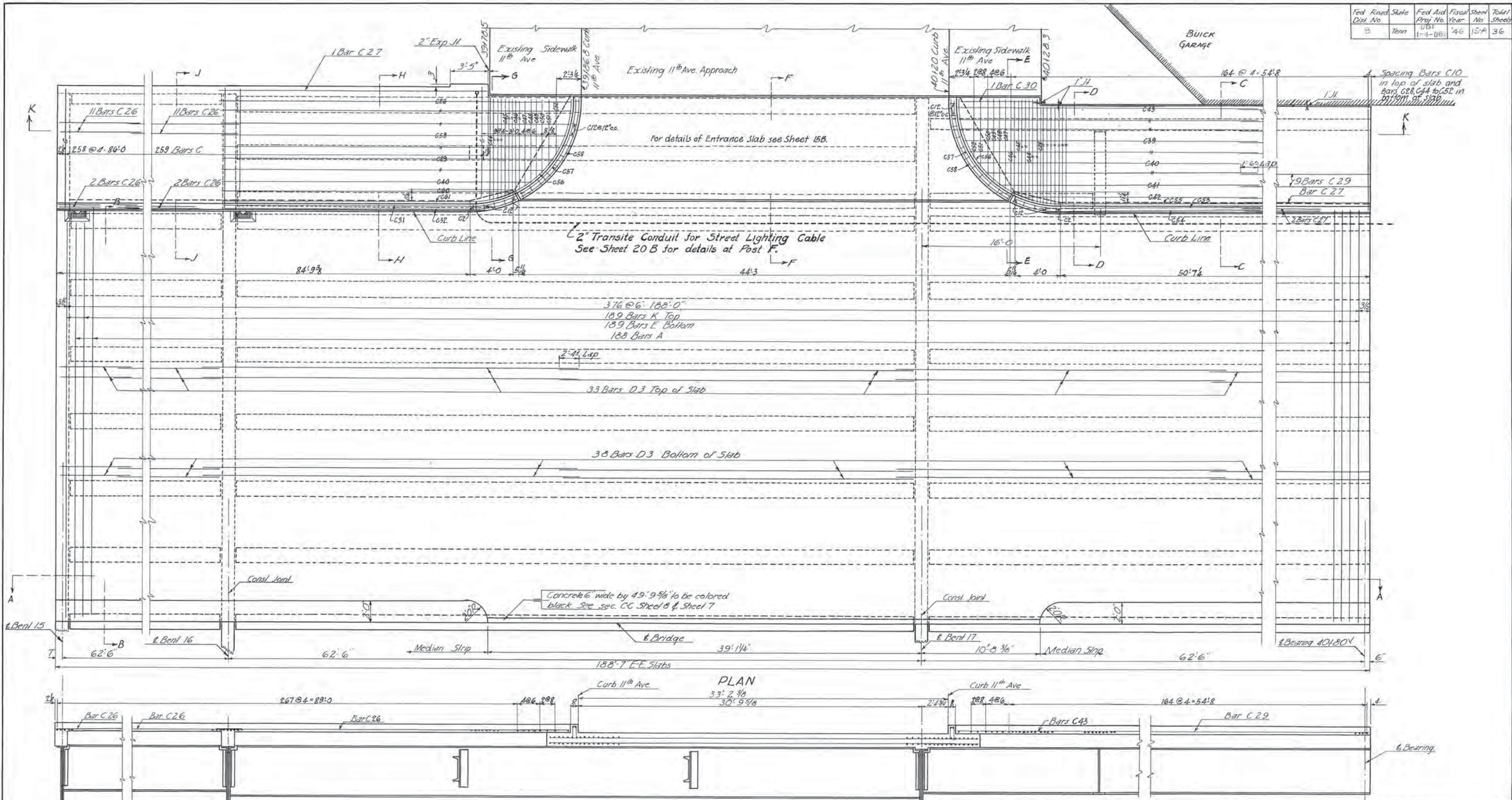
TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

SPANS 16, 17, & 18 NORTH SIDE

LENRRCO. VIADUCT-BROAD STREET-MILE 1865-NASH. TERM.
Scale Design L & NRR Revisions March 1, 1946
None Detailed AJ Mar. 22, 1946
Traced HBL Apr. 30, 1946
Checked P.R.E. May 14, 1946

L & N.L.F. 6217
6-20-48

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
3	Tenn.	US 1 (1-108)	'46	15A	36



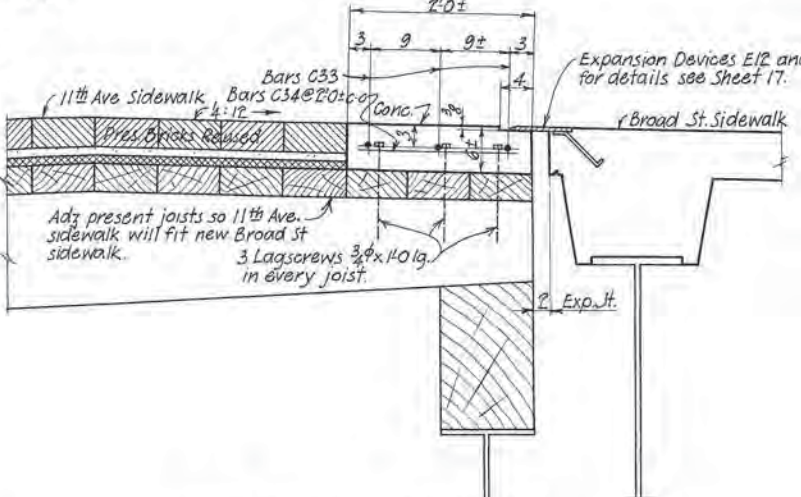
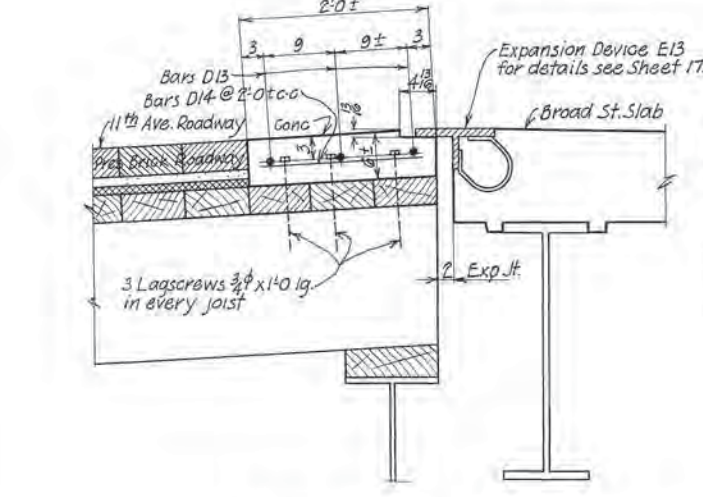
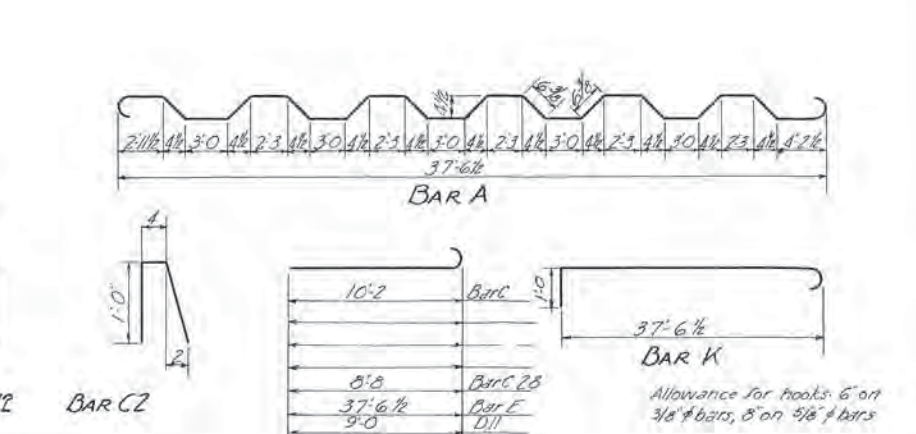
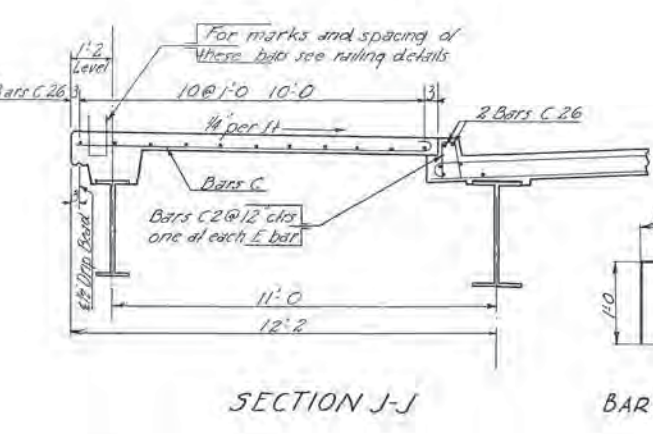
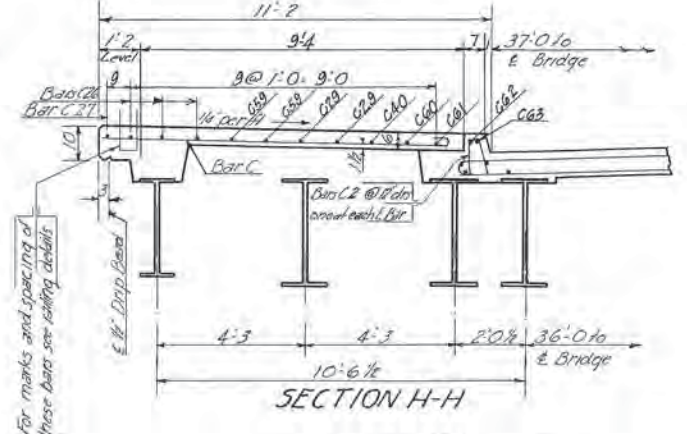
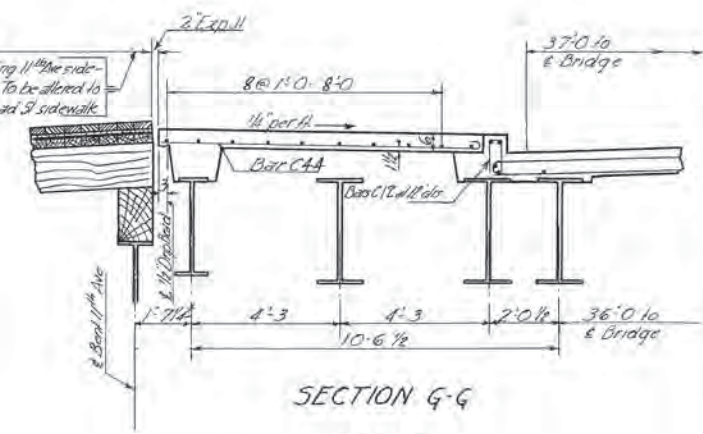
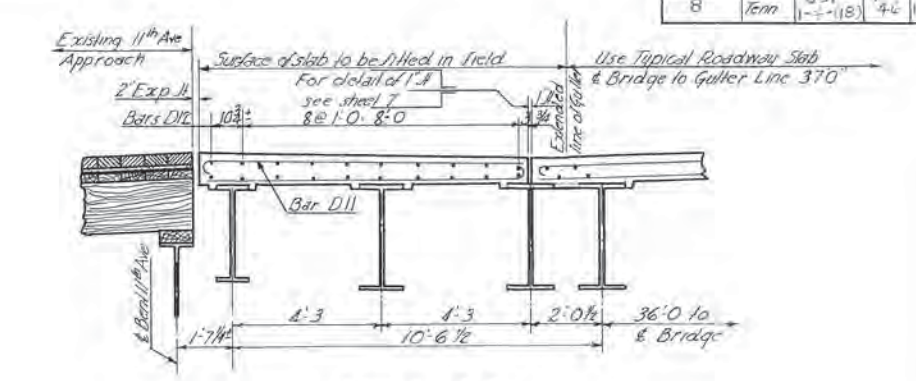
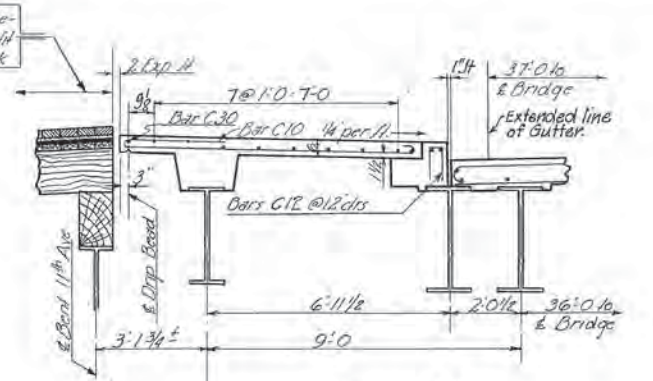
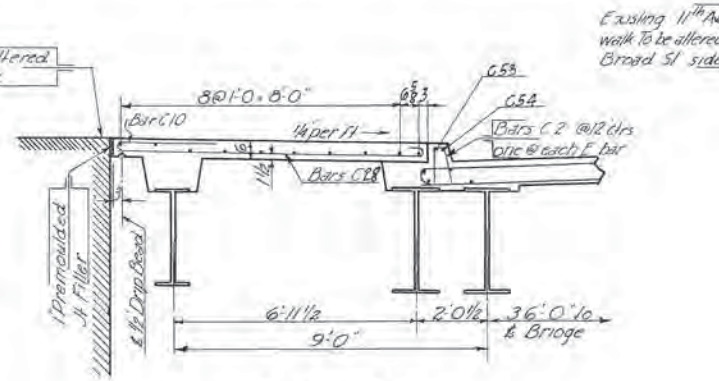
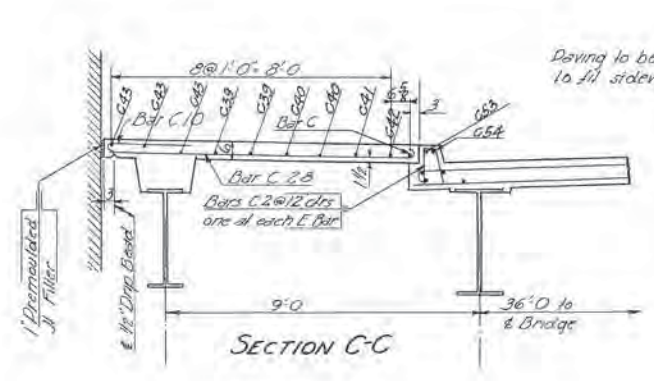
SECTION KK

ESTIMATED QUANTITIES
 Asphalt Paving 38.98 tons
 Concrete, Class A 275.0 cu yds
 Reinforcing Steel 43,773 lbs.
 Structural Steel 341,932 lbs.

NOTES:
 Work this sheet with sheets No. 15, 15B & 15C
 Sections A-A & B-B shown on sheet 15. All other sections shown on sheet 15B
 For details of slab see sheet 7
 For details of diaphragms and bearing plates see sheet 16

TENNESSEE
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT
 SPANS 16, 17 & 18 SOUTH SIDE

L&NRR Co.	Viaduct - Broad Street - Mile 186.5	Nashville Terms
Scale	Design L&NRR	Revisions
3/8" = 1'-0"	Detailed A.J.	May 9, 1946
1/4" = 1'-0"	Traced GAS, Jr.	Oct. 2, 1946
	Checked P.R.E.	L&N LP 6217



MARK	SIZE	LENGTH	a	b	R	REQ'D.
C53	3/8φ	32'3	4'2	28'1	9'6	1
C54	"	32'4	4'3	28'1	9'9	1
C55	"	32'1	4'0	28'1	9'1	1
C61	"	29'0	4'0	25'0	9'1	1
C31	"	25'5	4'2	21'3	9'6	1
C32	"	25'6	4'3	21'3	9'9	1

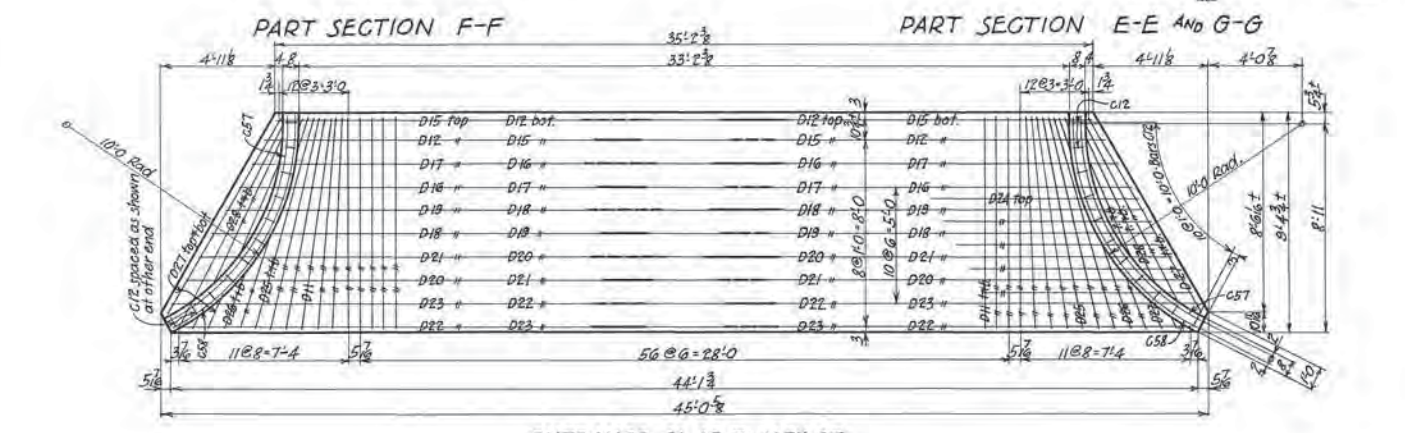
MARK	SIZE	LENGTH	R	REQ'D.
C56	3/8φ	12'9	9'1	2
C57	"	10'7	9'6	2
C58	"	11'0	9'10	2

PART BILL OF BARS

MARK	REQ'D.	SIZE	LENGTH
C39	2	3/8φ	29'3
C40	3	"	28'3
C41	1	"	26'3
C42	1	"	24'3
C43	3	"	30'3
C44	7	"	9'6
C45	6	"	9'3
C46	4	"	9'0
C47	2	"	8'6
C48	2	"	8'3
C49	2	"	7'9
C50	2	"	7'3
C51	2	"	6'6
C52	2	"	5'9
C53	1	"	32'3
C54	1	"	32'4
C55	1	"	32'1
C56	2	"	12'9
C57	2	"	10'7
C58	2	"	11'0
D15	4	5/8φ	22'0
D16	4	"	17'6
D17	4	"	23'0
D18	4	"	18'10
D19	4	"	24'0
D20	4	"	20'2
D21	4	"	25'0
D22	4	"	20'4
D23	4	"	26'0
D24	5	"	9'0
D25	12	"	9'11
D26	8	"	10'2
D27	8	"	10'5
D28	8	"	10'8

PART BILL OF BARS

MARK	REQ'D.	SIZE	LENGTH
A	188	3/8φ	10'-5"
D3	132	"	33'-4"
D12	4	"	16'-2"
D11	130	"	9'-8"
E	189	"	38'-3"
K	189	"	39'-2"
C	259	3/8φ	10'-8"
C2	137	"	2'-4"
C10	171	"	4'-10"
C12	30	"	2'-5"
C26	29	"	32'-3"
C27	4	"	24'-3"
C28	157	"	9'-2"
C29	9	"	31'-0"
C30	1	"	7'-0"
C31	1	"	25'-5"
C32	1	"	25'-6"
C33	6	3/8φ	7'-9"
C34	10	"	1'-9"
D13	3	5/8φ	32'-9"
D14	17	"	1'-9"



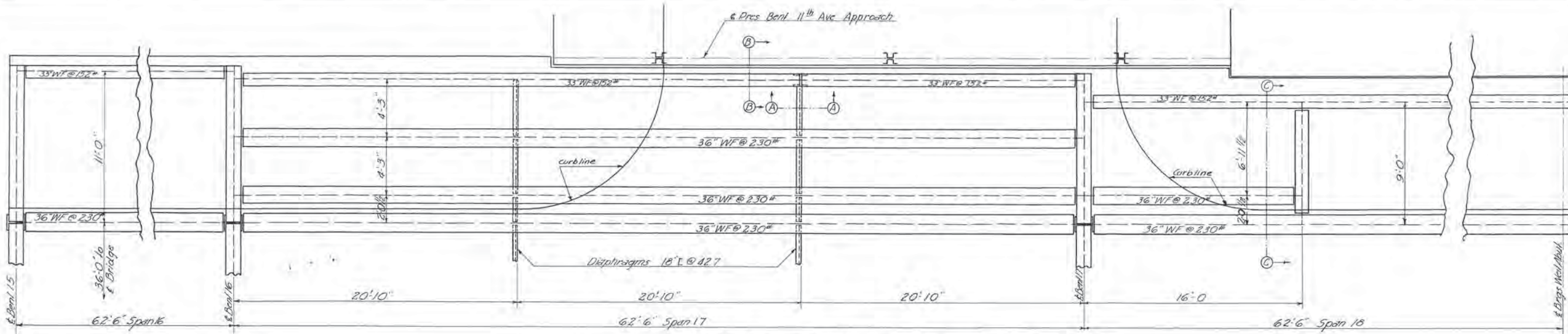
BILL OF LAGSCREWS
102 Lagscrews 3/4φ x 10 lg.

Note: Work this steel with steel 15A

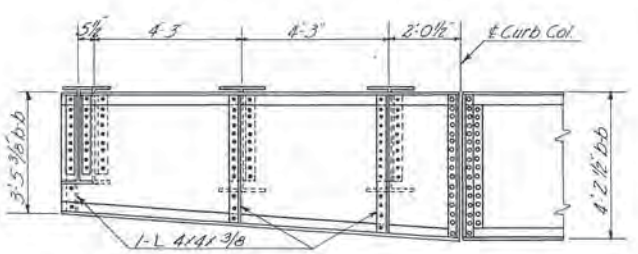
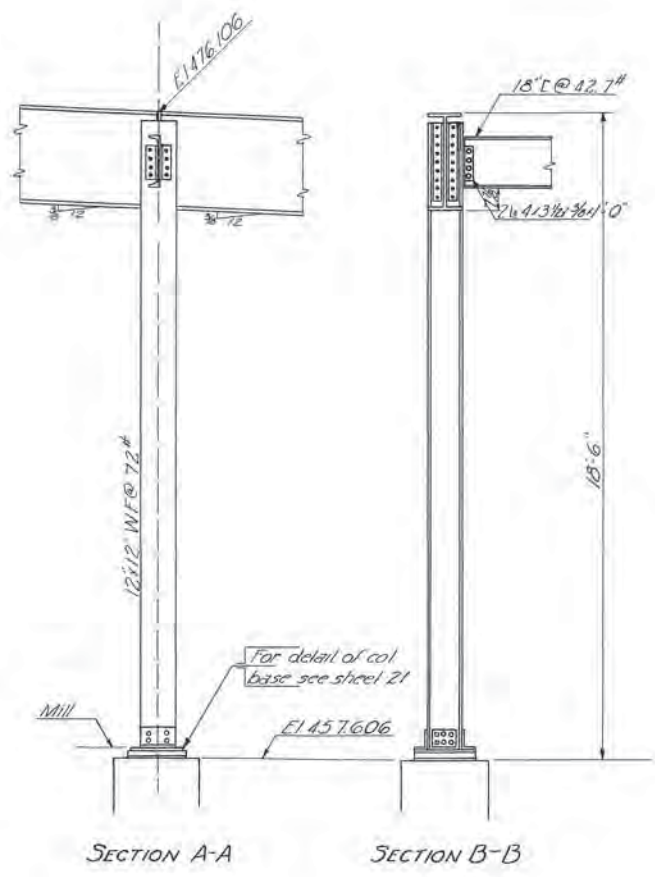
TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT
SPANS 16-17 & 18 SOUTH SIDE

LENRR Co. Viaduct - Broad Street - Mile 186.5 - Nashville Terms
Scale 3/8" = 1'-0" Design LENRR Revisions May 11 1946
Detailed A.J. Traced GAS Jr. Oct 7, 1946
Checked PRE L&N LF 6217

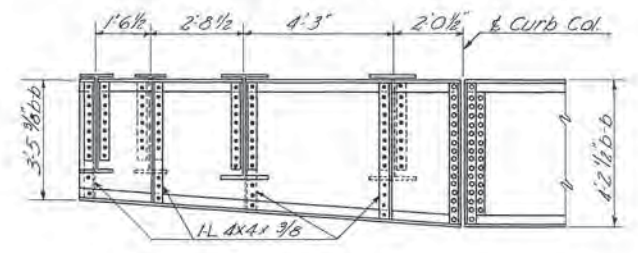
Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
B	Tenn.	UG 1-4-(18)	'46	15-C	36



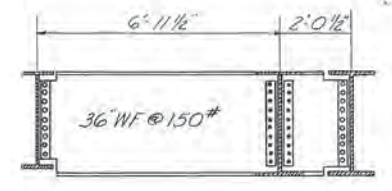
STEEL FRAMING PLAN SOUTH SIDE SPANS 16, 17 AND 18.



CANTILEVER FLOOR BEAM - SOUTH SIDE BENT 16

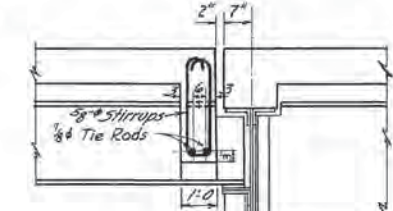
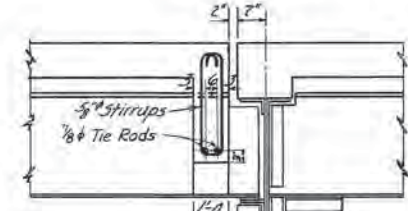
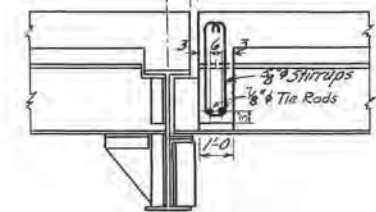
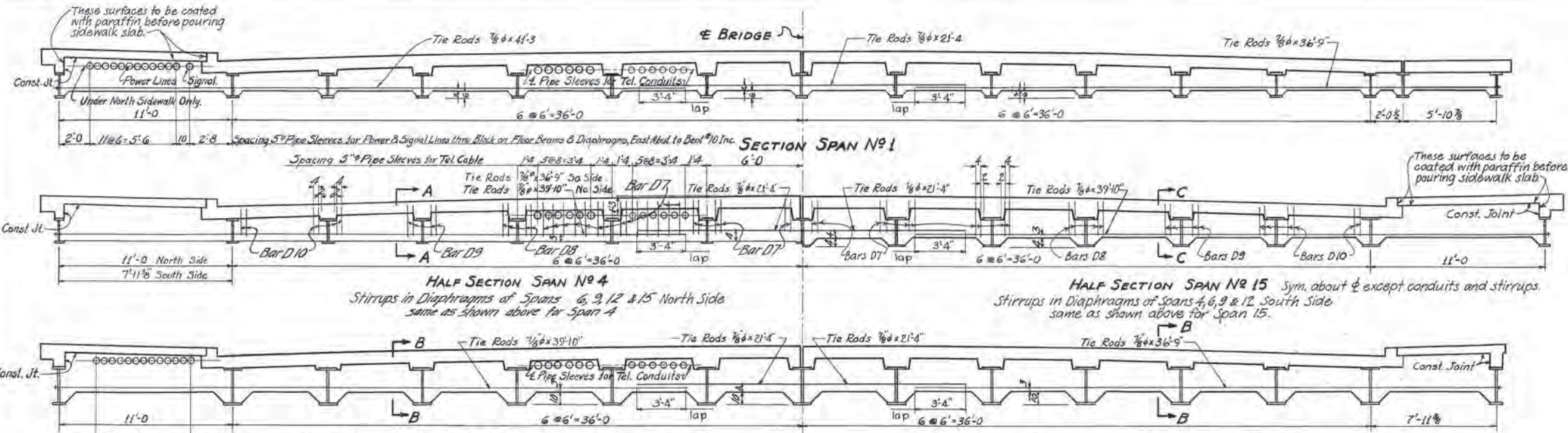


CANTILEVER FLOOR BEAM - SOUTH SIDE BENT 17

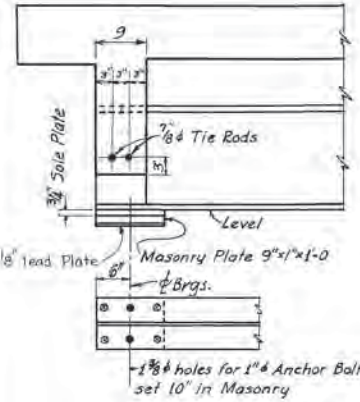
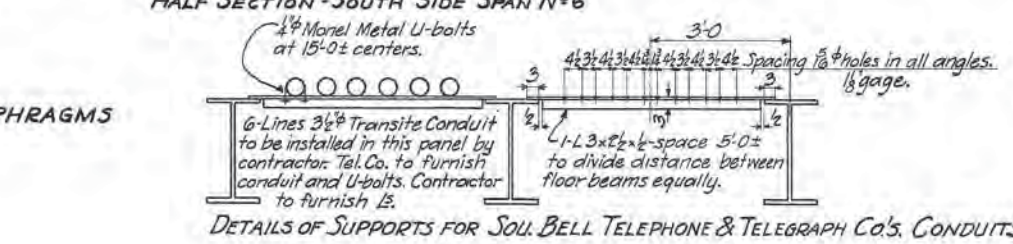
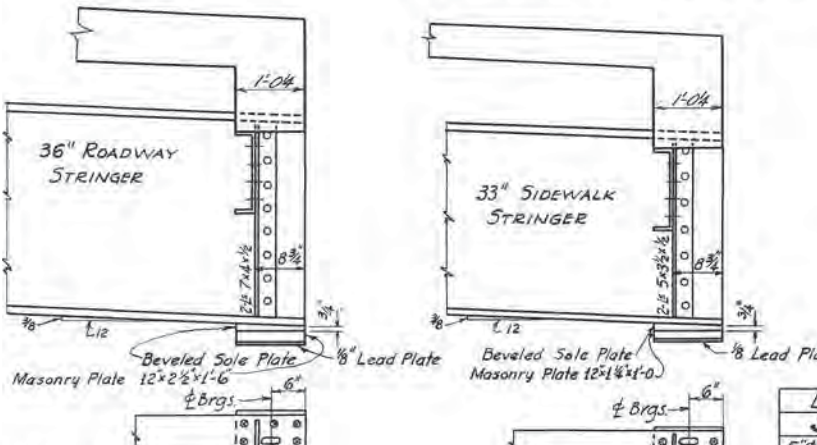


SECTION C-C

TENNESSEE
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT
 STEEL FRAMING PLAN - SOUTH SIDE - SPANS 16, 17 & 18
 L&NRR Co. Viaduct - Broad Street - Mile 186.5 Nashville, Tenn.
 Scale 3/8" = 1'-0" Design L&NRR Co. May 6 1946
 Detailed P.R.E.
 Traced G.A.S., Jr.
 Checked P.R.E.
 LF 6217



DETAILS OF CONCRETE DIAPHRAGMS



BILL OF PIPE SLEEVES FOR NES AND TRAFFIC CONTROL CONDUITS.

SIZE	No. REQ. NES	TRAFFIC	LOCATION
5" x 0'-9" long	12	1	Diaphragm Span #1 at East Abut.
" x 1'-0" "	108	9	Fir. Bms, Bents 1, 2, 3 & 4 Diaphragms Spans 4, 6, 9, 12, 15
" x 1'-0 1/2" "	60	5	Floor Beam Blocks, Bents 5, 7, 8, 10 & 14.
" x 1'-0 1/2" "	72	6	" " " " " " " " " " 6, 9, 12, 15, 16 & 17.
" x 1'-0 1/4" "	12	1	Diaphragm Span #18 at West Abut.
" x 1'-4 1/2" "	24	2	Floor Beam Blocks, Bents 11 & 13.

BILL OF PIPE SLEEVES FOR TELEPHONE CO. CONDUITS.

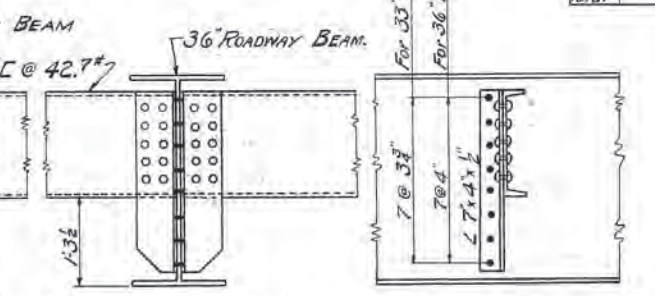
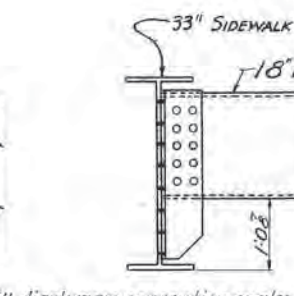
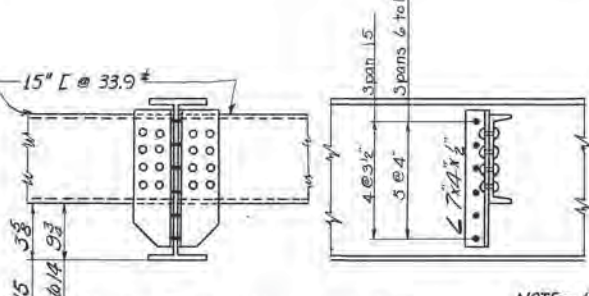
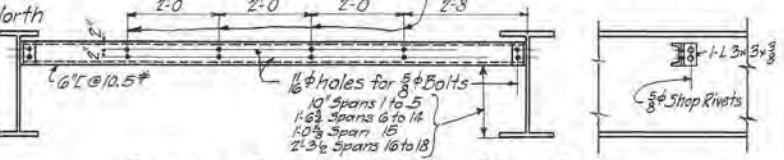
SIZE	No. REQ.	LOCATION
5" x 0'-9" long	12	Diaphragm at East Abut. Span #1
" x 1'-0" "	108	Fir. Bms, Bents 1, 2, 3 & 4 Diaphragms Spans 4, 6, 9, 12, 15
" x 1'-0 1/2" "	60	Floor Beam Blks, Bents 5, 7, 8, 10 & 14.
" x 1'-0 1/2" "	72	Diaphragm at West Abut. Span #18
" x 1'-4 1/2" "	24	" " " " " " " " " " 11 & 13

STIRRUPS FOR DIAPHRAGMS

BILL OF STIRRUPS

SPAN	D-7		D-8		D-9		D-10	
	Left	Right	Left	Right	Left	Right	Left	Right
4	6-9	30	6-6	8	6-3	8	5-9	12
6	"	"	"	"	"	"	"	"
9	"	"	"	"	"	"	"	"
12	"	"	"	"	"	"	"	"
15	"	"	"	"	"	"	"	"
Total	150		40		40		60	

DETAILS OF BEARING PLATES AND END DIAPHRAGM-SPAN 18



NOTE - All diaphragm connection angles shall extend for full depth between fillets of beams.

For holes in diaphragms under North Sidewalk, see Note above.

MISSCELLANEOUS DETAILS

L & N. R.R. Co. VIADUCT-BROAD ST.-MILE 186.5-NASHVILLE TERM.

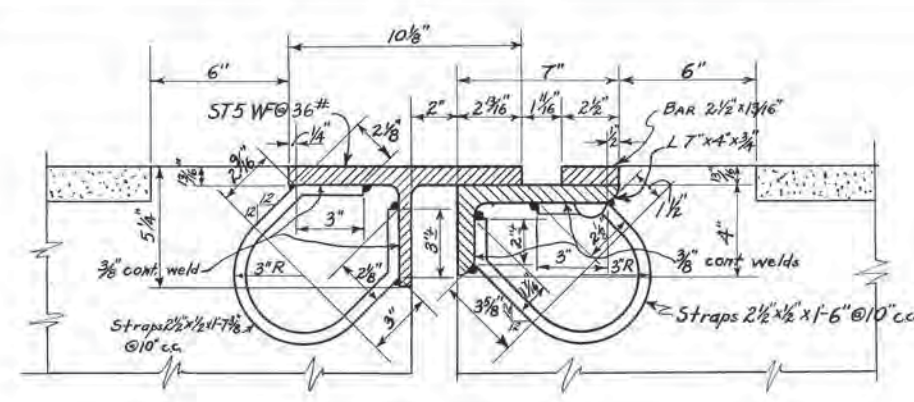
Scale: Design: L & N. R.R. Revisions: Mar. 1, 1916

None Detailed: P.R.E. 3-23-16

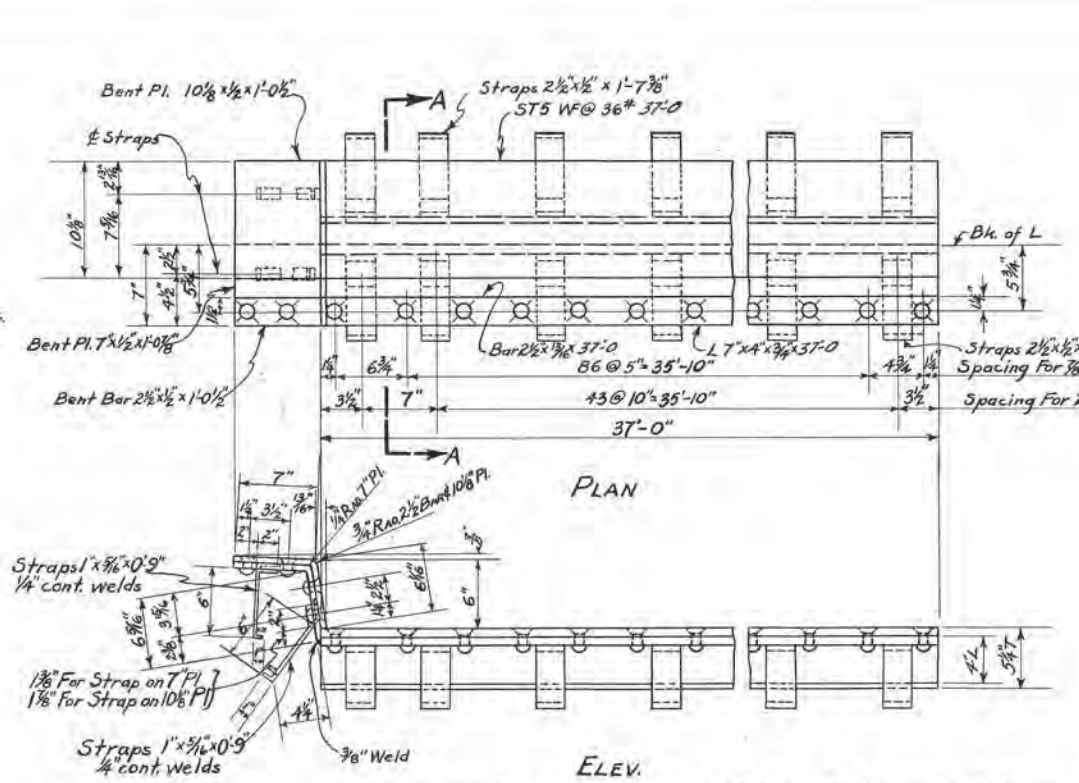
Traced: W.D.P. 5-7-16

Checked: W.D.K. 6-20-16 L & N. L.F. 6217

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
8	TENN.	UG1-4-(15)	46	17	36

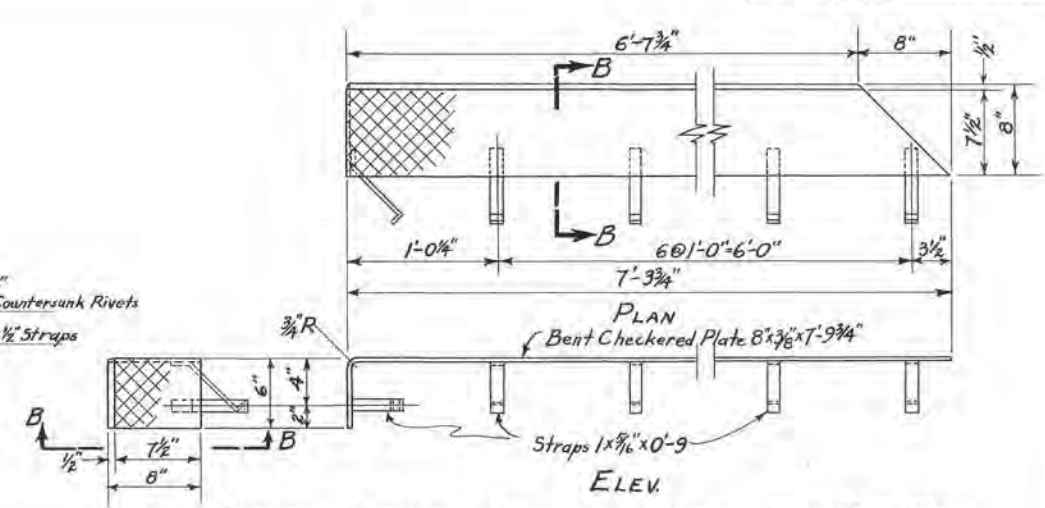


SECTION AA

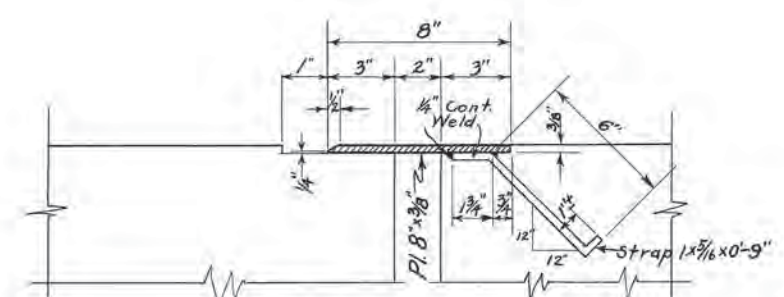


ELEV.

EXPANSION DEVICE FOR ROADWAY AND CURB E1B AS SHOWN 6 REQ'D.
 EXPANSION DEVICE FOR ROADWAY AND CURB E1C OPP HAND 6 REQ'D.
 Expansion Devices E1B and E1C to be bent to Roadway Template as shown on Sheet 7.

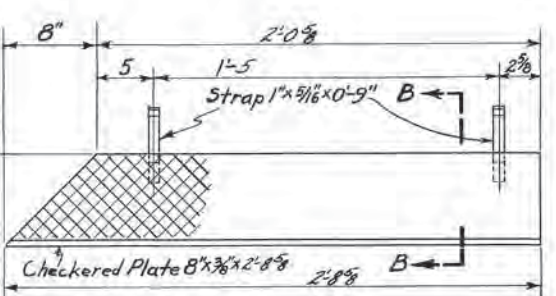


EXPANSION DEVICE FOR SIDEWALK AT PARKING SPACE E10 1 REQ'D

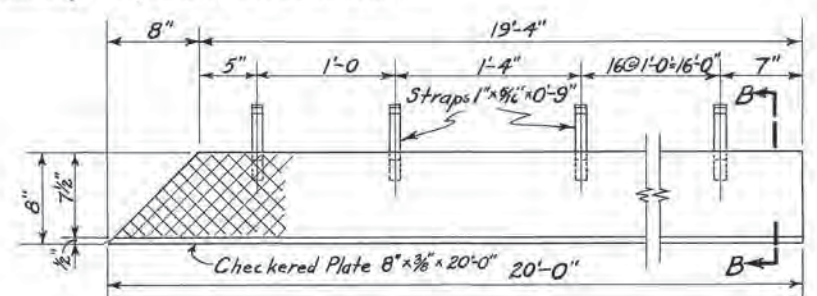


TYPICAL SECTION BB

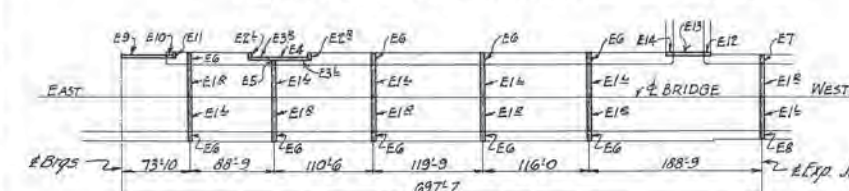
EXPANSION DEVICE FOR ROADWAY AT 11TH AVE. E13 - 1 REQ'D.



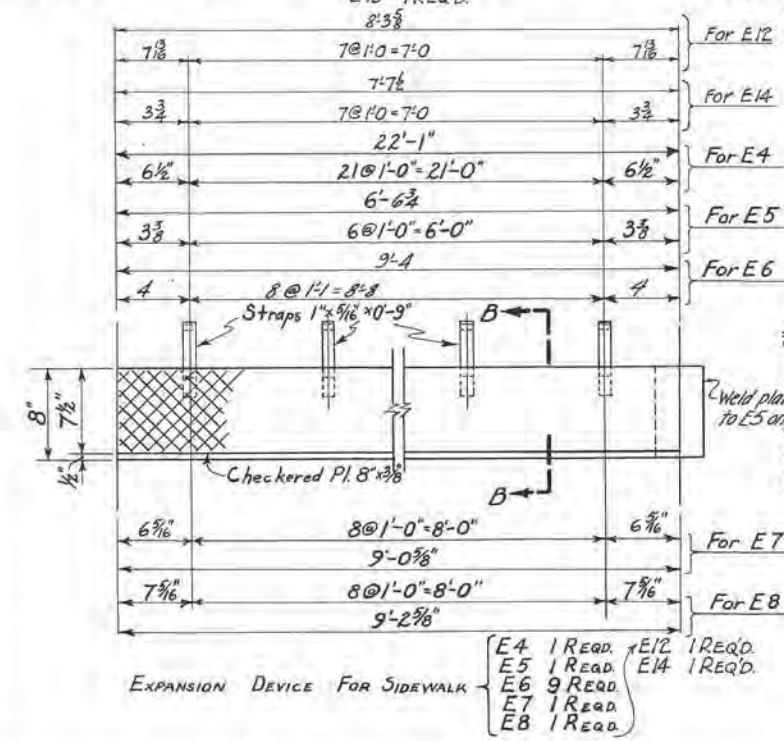
EXPANSION DEVICE FOR SIDEWALK AT PARKING SPACE E11 1 REQ'D



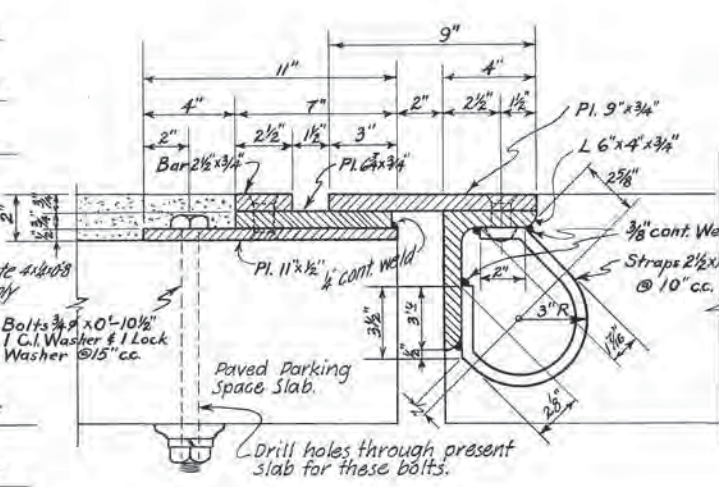
EXPANSION DEVICE FOR SIDEWALK E3B AS SHOWN 1 REQ'D.
 EXPANSION DEVICE FOR SIDEWALK E3C OPP HAND 1 REQ'D



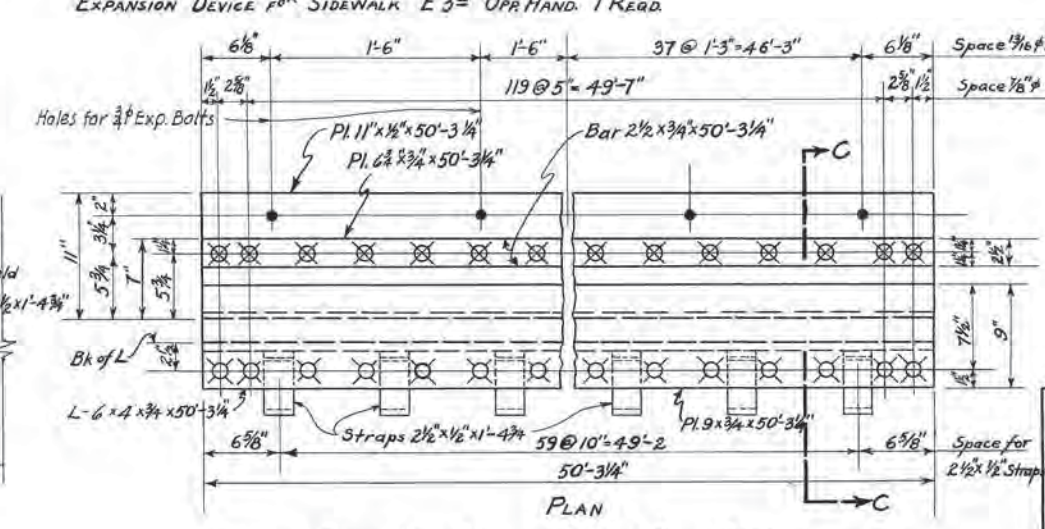
MARKING DIAGRAM
 Scale 1"=100'-0"



EXPANSION DEVICE FOR SIDEWALK E2B AS SHOWN 1 REQ'D.
 EXPANSION DEVICE FOR SIDEWALK E2C OPP HAND 1 REQ'D.



SECTION C-C



EXPANSION DEVICE FOR PARKING SPACE E9 1 REQ'D.

38 Bolts 3/4" x 10-10 1/2" lg with 1 CI Washer & 1 Lock Washer
 2 Expansion Bolts 3/4" x 4-0

ESTIMATED QUANTITIES

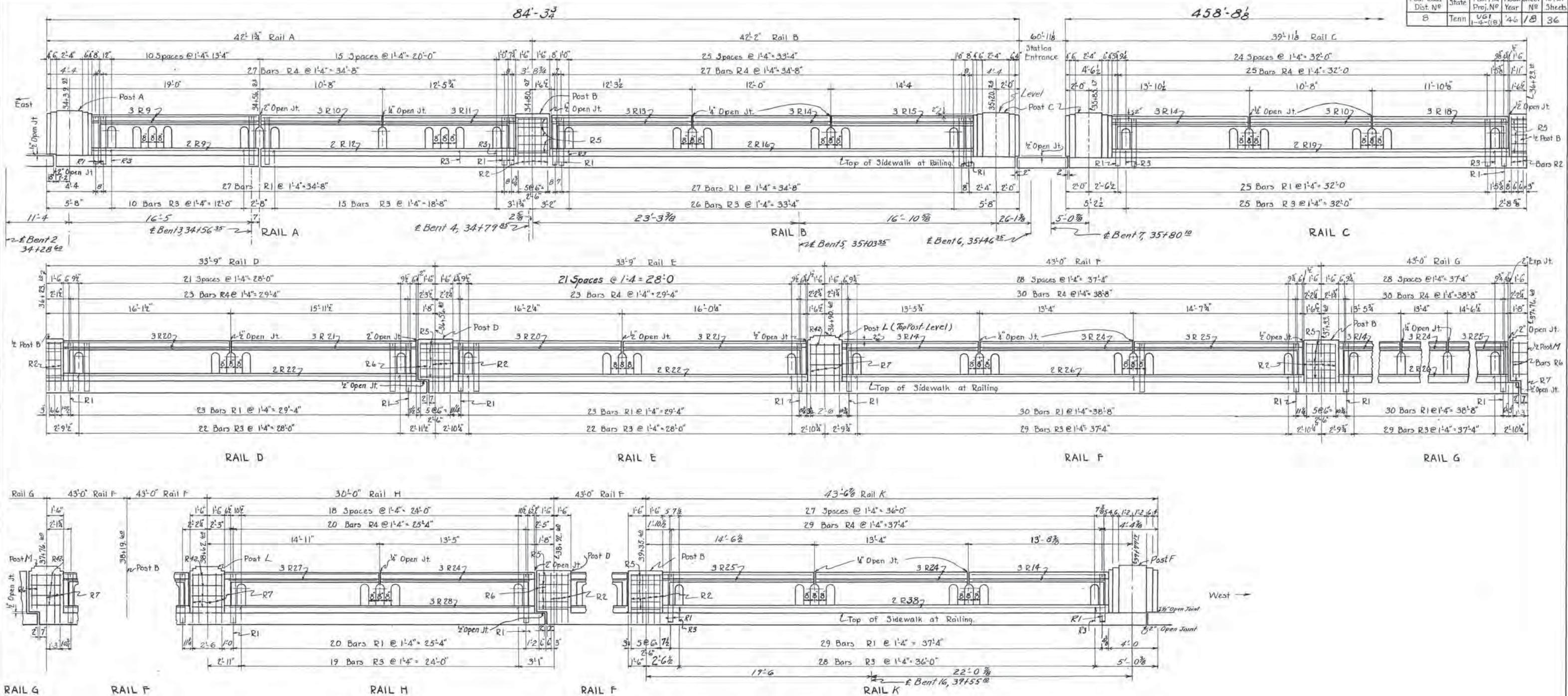
Structural Steel 47,340 Lbs.

Weight of Expansion Joint Devices included in weight of structural steel in Table of Estimated Quantities sheet 6

TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

EXPANSION JOINT DEVICES
 L&N R.R. Co. VIADUCT - BROAD STREET - MILE 186.5 NASH. TERM.
 SCALE DESIGN: L&N.R.R. REVISIONS March 1, 1946
 DETAILED: J.F.M. May 1, 1946
 TRACED: J.R.B. Aug. 6, 1948
 CHECKED: P.R.E. L&N L.F. 6217

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
8	Tenn.	UGT 1-4-(18)	46	18	36



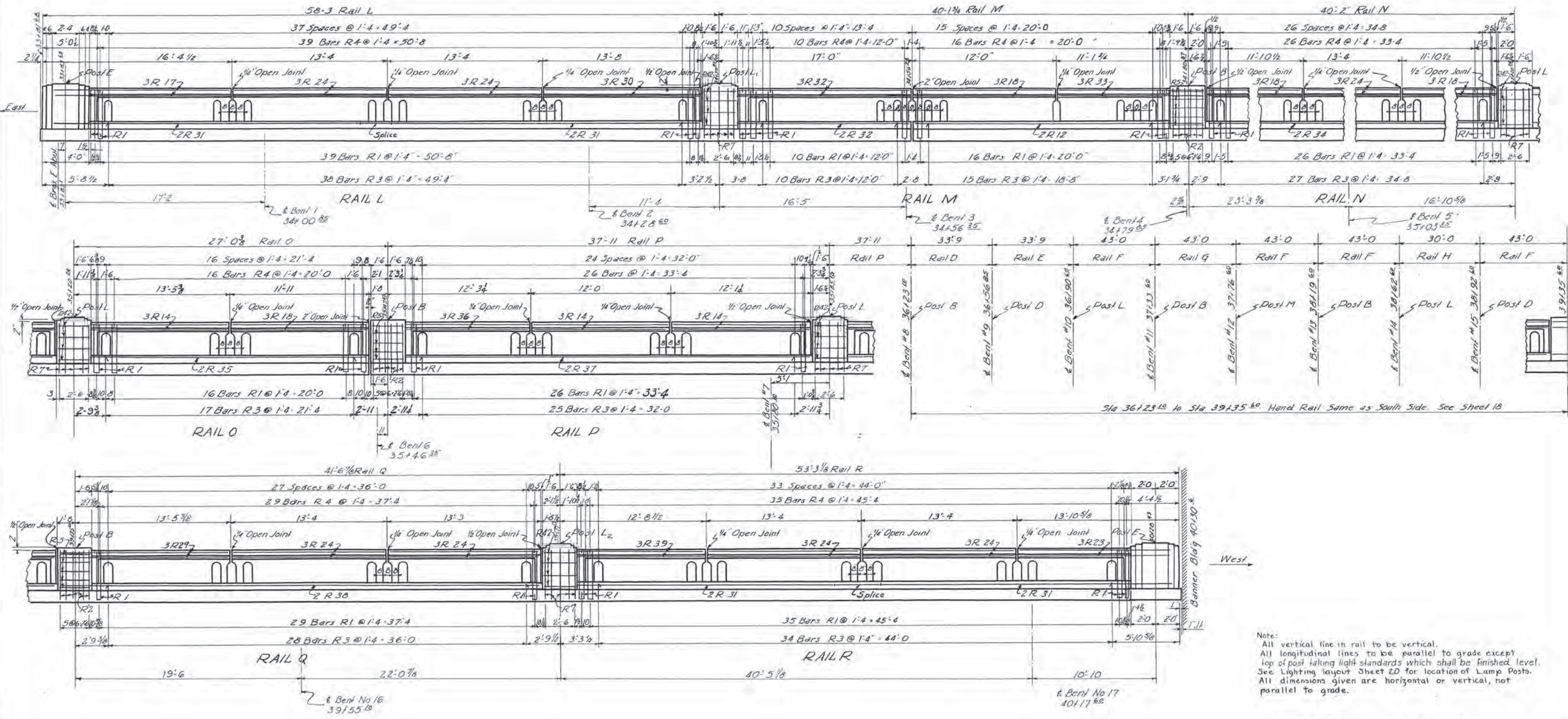
Work this sheet with sheets 18A & 18B

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

HANDRAIL SOUTHSIDE

L&N R.R. Co. Viaduct - Broad Street - Mile 186.5 - Nash Terms
Scale: 1/4" = 1'-0" Design: L&N R.R. Co. Revisions March 1, 1946
Detailed: J.V.G. 5/9/46
Traced: R.J.T. L&N LF 6217
Checked: A.I.

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
8	Tenn.	UG1 1-4-(18)	46	18-A	36



Sta 36123.42 to Sta 39135.60. Hand Rail Same as South Side. See Sheet 18

Note:
 All vertical line in rail to be vertical.
 All longitudinal lines to be parallel to grade except top of post taking light standards which shall be finished level.
 See Lighting layout Sheet 20 for location of Lamp Posts.
 All dimensions given are horizontal or vertical, not parallel to grade.

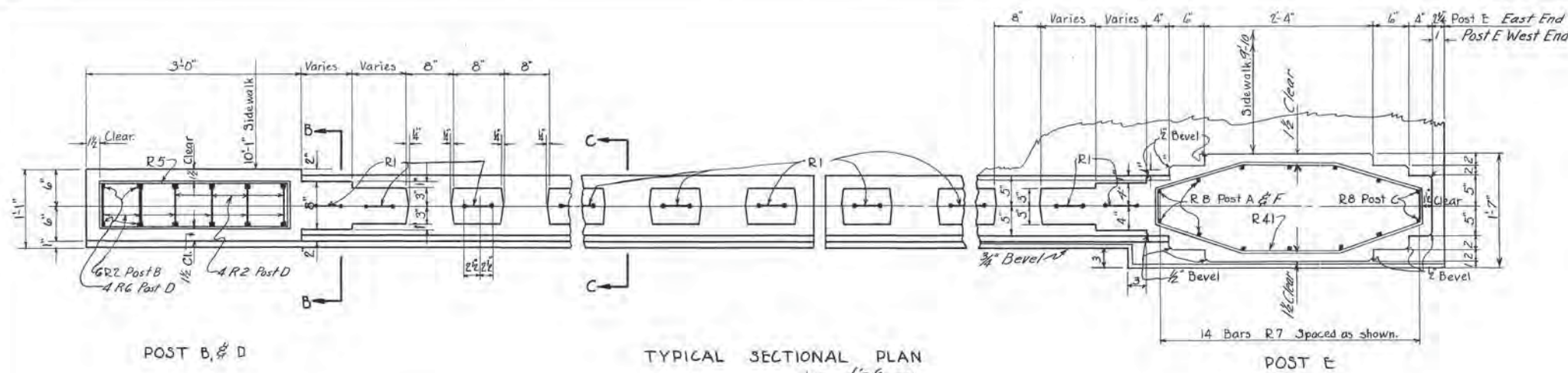
Anchor Bolts for light standards to be placed where required before pouring concrete in posts taking light standards.

Note Work with Sheet Nos. 18 & 18B

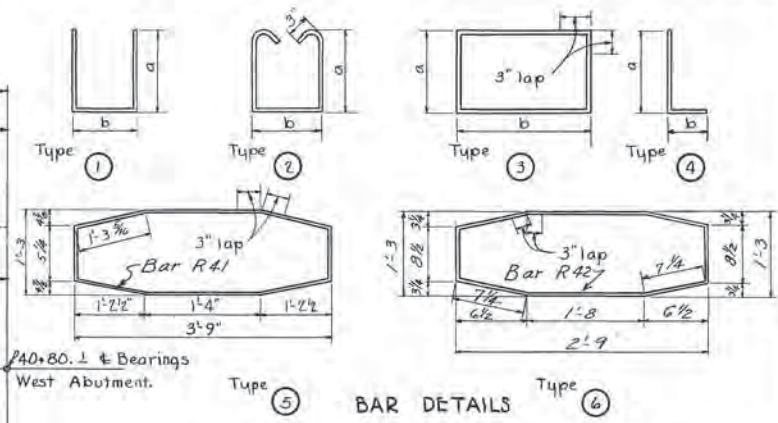
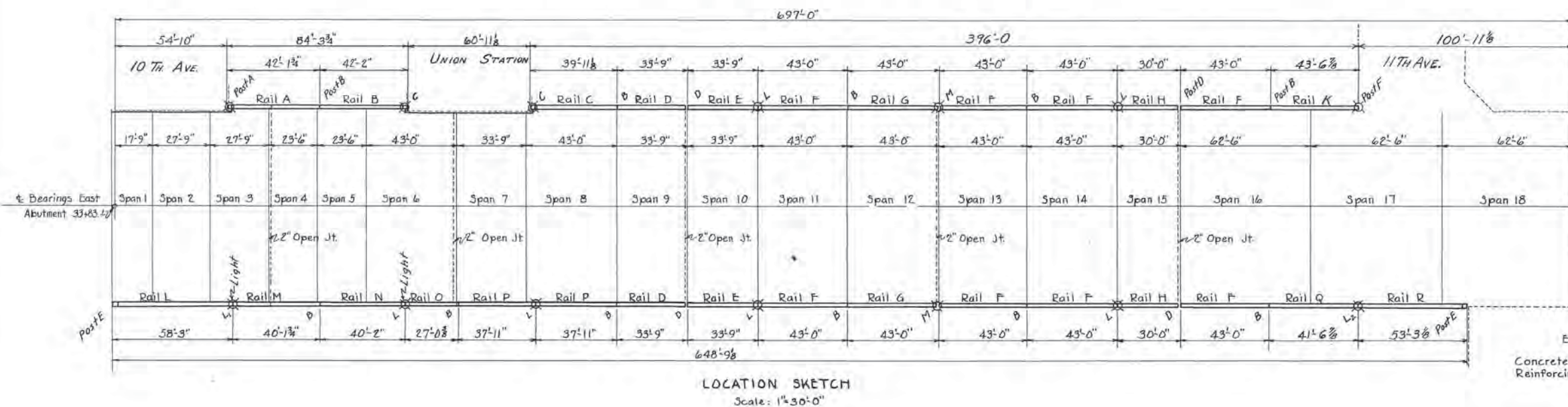
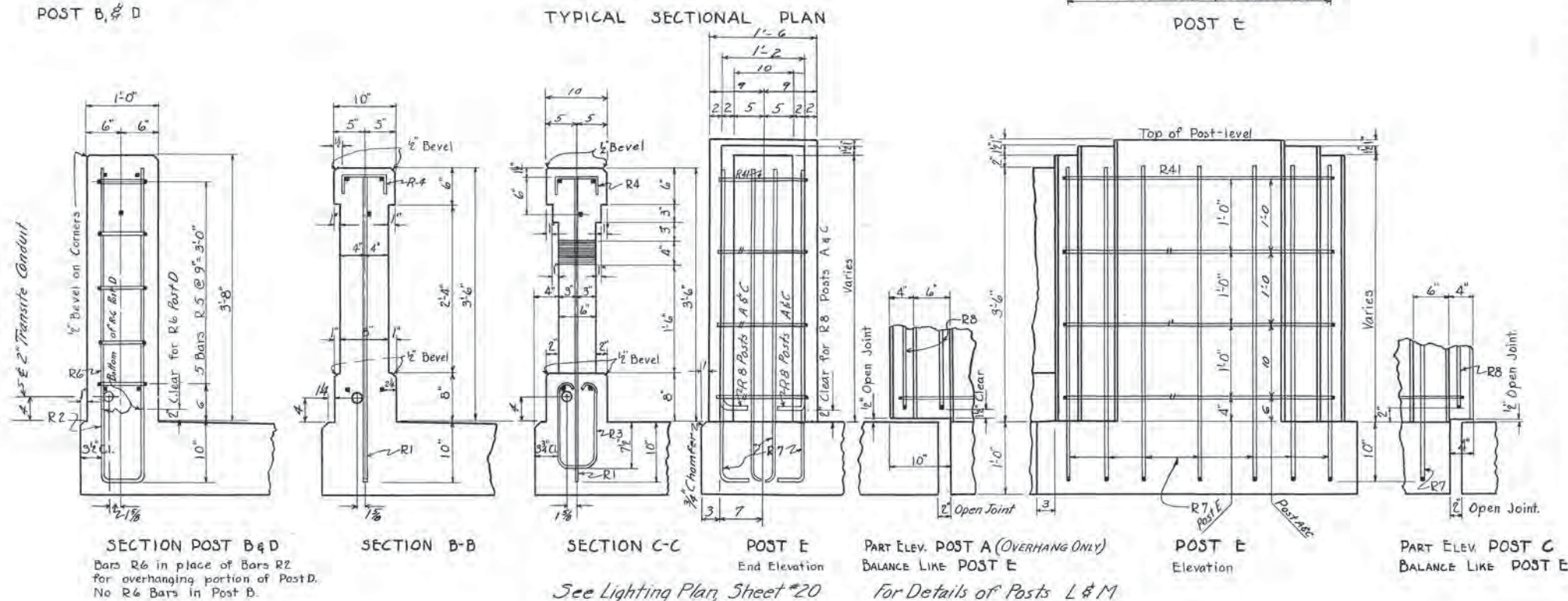
TENNESSEE
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

HANDRAIL NORTHSIDE

L&N RR Co. Viaduct - Broad Street - Mile 186.5 - Nash. Term. Scale 1/4"=1'-0" Design L&N RR Co. Revisions March 1, 1946
 Drawn J.K.G. 5/9/46
 Traced G.A.S. L&N LF 6217
 Checked A.J.

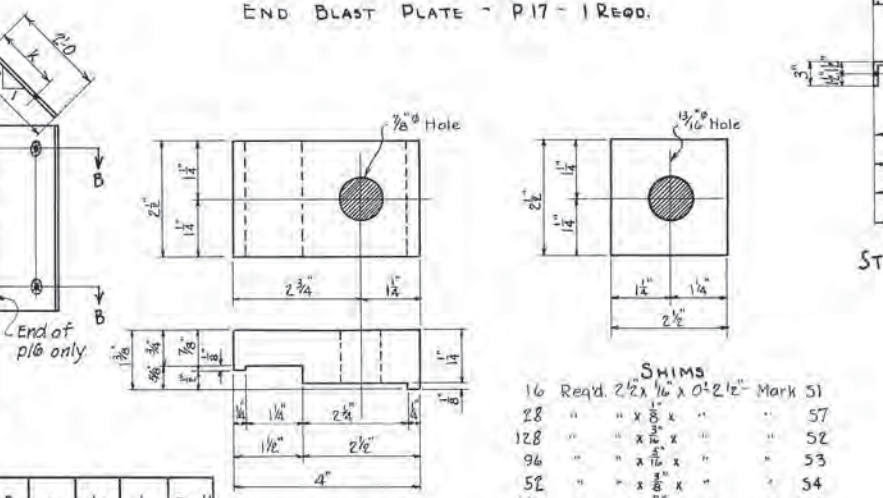
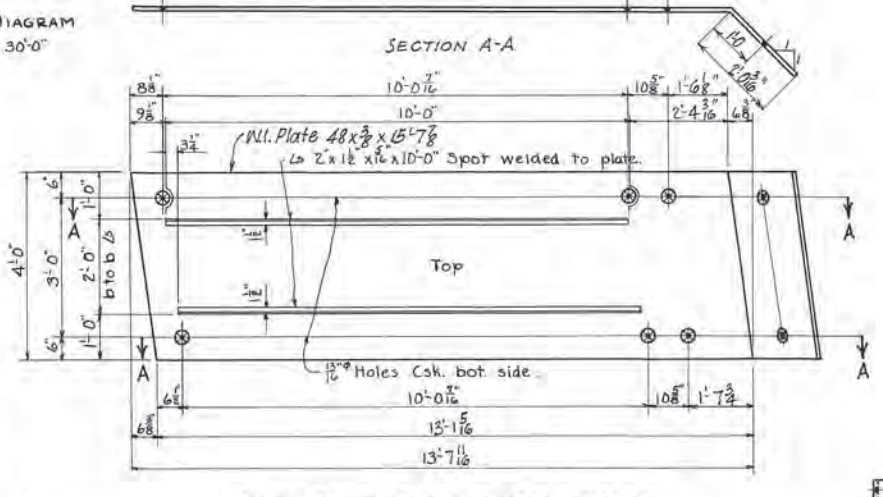
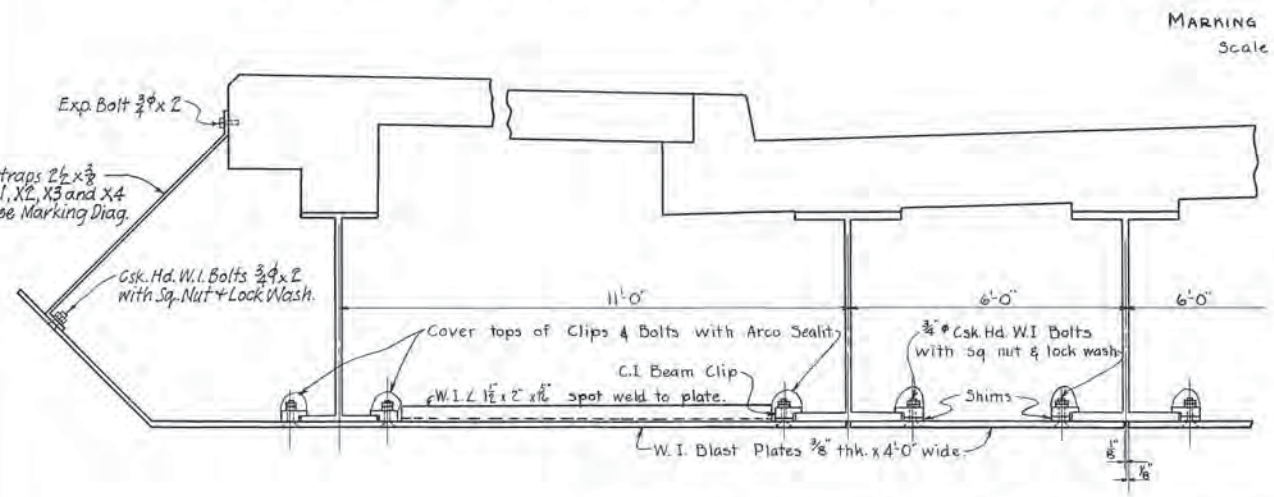
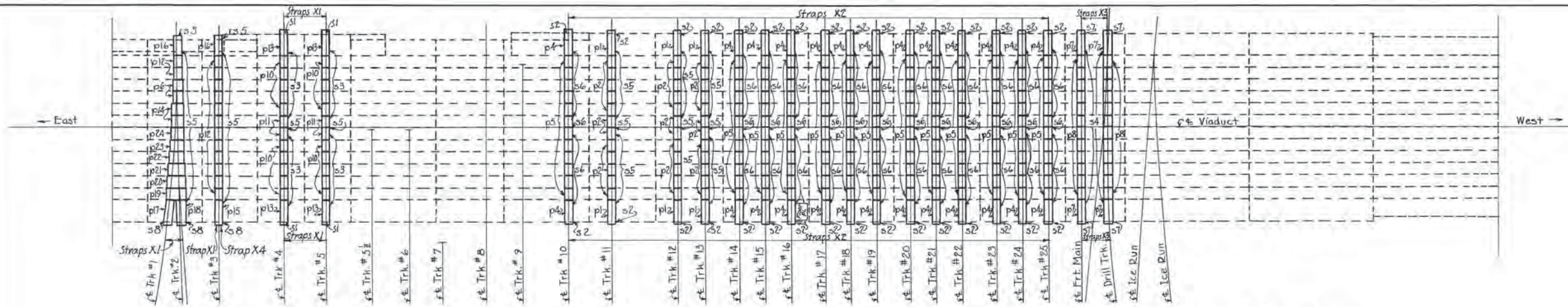


Mark	Type	Number Req'd.			Size	Length		Location	a		b	
		South Rail	North Rail	Total		Ft	In		Ft	In	Ft	In
R1	1	329	451	780	1/2"	8	6	Spindles	4	2	0	5
R2	"	38	44	82	"	9	0	Posts B&D	4	4	0	7
R3	2	312	427	739	3/8"	3	2	Plinth	1	2	0	6 1/2
R4	1	329	449	778	"	0	11	Top of rail	0	3	0	7
R5	3	35	40	75	"	7	2	Posts B&D	0	9	2	7
R6	Straight	12	12	24	1/2"	3	4	Posts D&M	3	4	0	7
R7	4	70	94	164	"	4	7	" A,C,E,F,L,M	4	4	0	5
R8	4	12	-	12	"	3	7	" A C&F	3	4	0	5
R41	5	16	8	24	3/8"	9	0	" A,C,E,F,F	See Detail			
R42	6	12	28	40	"	8	6	" L,M,L,L,L	"			
R9	Str.	5	-	5	1/2"	14	10	Mor. in Rail A Top & bottom	"			
R10	"	6	-	6	"	10	4	" " " A&C "	"			
R11	"	3	-	3	"	13	8	" " " A Top	"			
R12	"	2	2	4	"	24	3	" " " A&M Bottom	"			
R13	"	3	-	3	"	12	0	" " " B Top	"			
R14	"	24	30	54	"	11	9	" " " B,C,F,G,K,O,P Top	"			
R15	"	3	0	3	"	12	3	" " " B "	"			
R16	"	2	-	2	"	36	6	" " " B Bottom	"			
R17	"	0	3	3	"	15	5	" " " L Top	"			
R18	"	3	12	15	"	11	7	" " " C,M,N&O "	"			
R19	"	2	-	2	"	34	1	" " " C Bottom	"			
R20	"	6	6	12	"	17	4	" " " D&E Top	"			
R21	"	6	6	12	"	15	8	" " " " "	"			
R22	"	4	4	8	"	33	4	" " " " Bottom	"			
R23	"	0	3	3	"	12	10	" " " F Top	"			
R24	"	21	39	60	"	13	1	" " " F,G,H,L,N,Q,R&K Top	"			
R25	"	18	15	33	"	14	4	" " " F,K,36 Top	"			
R26	"	10	10	20	"	39	10	" " " F&G Bottom	"			
R27	"	3	3	6	"	13	4	" " " H Top	"			
R28	"	2	2	4	"	26	9	" " " H Bottom	"			
R29	"	0	3	3	"	14	9	" " " Q Top	"			
R30	"	-	3	3	"	13	5	" " " L Top	"			
R31	"	-	8	8	"	29	0	" " " L&R Bottom	"			
R32	"	-	5	5	"	15	4	" " " M Top & Bottom	"			
R33	"	-	3	3	"	12	4	" " " M "	"			
R34	"	-	2	2	"	36	10	" " " N Bottom	"			
R35	"	-	2	2	"	23	9	" " " O "	"			
R36	"	-	6	6	"	10	8	" " " P Top	"			
R37	"	-	4	4	"	34	9	" " " P Bottom	"			
R38	"	2	2	4	"	41	5	" " " Q&K "	"			
R39	"	-	3	3	"	11	0	" " " R Top	"			



Estimated Quantities
Concrete Class 5 806 Cu. Yds.
Reinforcing Steel 13,023 lbs.

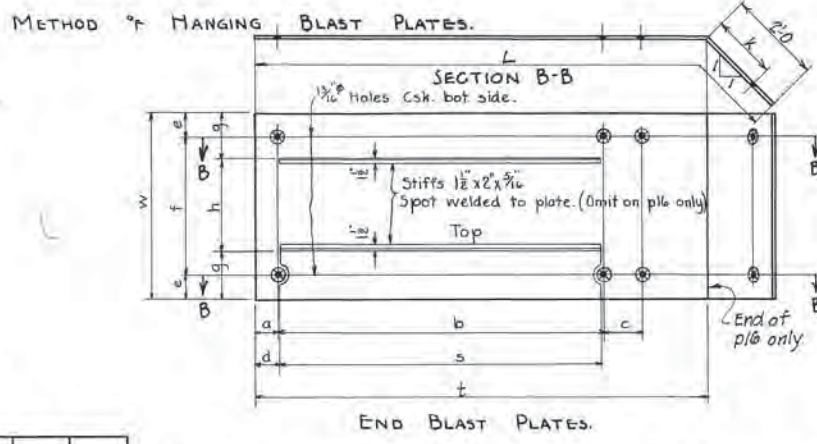
NOTE: Work this sheet with sheets 18 & 18A.
TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT
HANDRAIL DETAILS - NORTH & SOUTH SIDES
L&N R.R. Co. - Viaduct - Broad Street - Mile 186.5 Nash. Term.
Scale: As Shown. Design L&N R.R. Revisions March 1, 1946
Detailed J.K.G. 5/9/46
Traced D.J.T. L&N LT 6217
Checked A.J.



2'-3 3/8"	X1 - 2 1/2" x 3/8" x 2'-8 1/2" lg. - 3 Req'd.
2'-9 3/8"	X2 - 2 1/2" x 3/8" x 3'-2 3/8" - 64 "
2'-5"	X3 - 2 1/2" x 3/8" x 2'-10 3/8" - 8 "
1'-10 3/8"	X4 - 2 1/2" x 3/8" x 2'-4 1/4" - 1 "

Note:
Blast Plates to be centered over the t. of Track.
Estimated Weight of Blast Plates 147,800 lbs.
Above wt includes Clips, Bolts and Straps.

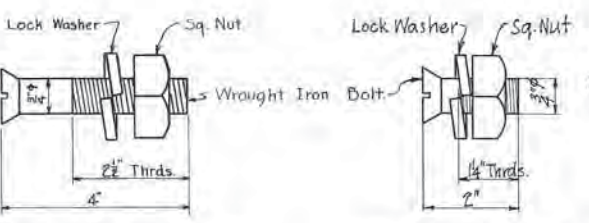
For details of floor plate shown between tracks 16 and 17 north side and bill of material for hanging plate, see sheet 35. Material for hanging plate is not included in number req'd shown on this sheet.



MARK	W.	THK.	LENGTH L	a	b	c	d	e	f	g	h	k	Req'd
p1	48	3/8	14'-11 7/8"	6 7/8"	9'-10 15/16"	1'-1"	7 3/8"	9'-9"	2 1/2"	3'-0"	1'-0"	1'-6 1/2"	6
p4	"	"	14'-11 7/8"	8 3/8"	9'-9"	"	8 3/8"	"	"	"	"	"	25
p6	"	"	9'-9"	7 1/4"	6'-8 5/8"	1'-2 3/4"	"	"	"	"	"	"	2
p7	"	"	14'-11 7/8"	7 3/8"	9'-10 3/8"	11 1/4"	8 3/8"	9'-9"	2 1/2"	1'-0"	2'-0"	1'-1 3/8"	4
p13	"	"	14'-11 7/8"	5 3/4"	10'-0 3/8"	10 1/2"	7 7/8"	"	"	"	"	11 7/8"	4
p18	54	"	14'-11 7/8"	7 1/4"	9'-11 3/8"	"	8 7/8"	9'-9"	9	"	2'-0"	"	1
p15	48	"	14'-11 7/8"	7 1/4"	9'-11 3/8"	"	8 7/8"	9'-9"	6	"	2'-0"	"	1

MARK	W.	THK.	LENGTH L	a	b	c	d	e	Req'd
p2	48	3/8	5'-11 1/2"	6 7/8"	4'-10 3/8"	6 7/8"	6	3'-0"	30
p3	"	"	"	"	4'-10 3/8"	6 7/8"	"	"	6
p5	"	"	8 3/8"	4'-7"	8 3/8"	"	"	"	156
p8	"	"	7 3/8"	4'-8"	7 3/8"	"	"	"	24
p10	"	"	5 3/4"	5'-0 3/4"	5 3/4"	"	"	"	20
p11	"	"	"	4'-10 3/8"	7 1/4"	"	"	"	4
p12	"	"	7 3/4"	4'-9 1/2"	7 3/4"	"	"	"	14
p19	7 1/2"	9'-6"	1'-0"	7 1/2"	1'-0"	7 1/2"	4'-9 1/2"	"	1
p20	"	8'-6"	"	6'-6"	"	"	"	"	1
p21	"	8'-0"	"	6'-0"	"	"	"	"	1
p22	"	7'-0"	"	5'-0"	"	"	"	"	1
p23	"	6'-6"	"	4'-6"	"	"	"	"	1
p24	"	6'-0"	"	4'-0"	"	"	"	"	1
p14	"	5'-6"	"	3'-6"	"	"	"	"	2
p6	"	5'-0"	"	3'-0"	"	"	"	"	2

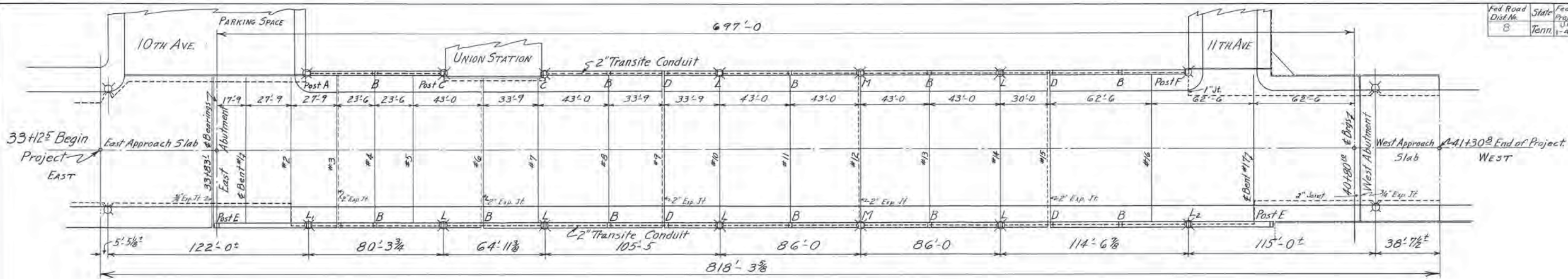
C.I. BEAM CLIP
1326 Req'd.



TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

BLAST PLATES

L & N RR Co. VIADUCT - BROAD STREET - MILE	156.5-NASH. TERM
Scale 1/4" = 1'-0"	Design L & N RR Revisions March 1, 1946
Traced D.J.T.	Detailed J.F.M. 3-23-46
Checked J.K.G.	5-1-46 L & N L.F. 6217



⊗ Indicates Light Post with 10,000 Lumen Lamps

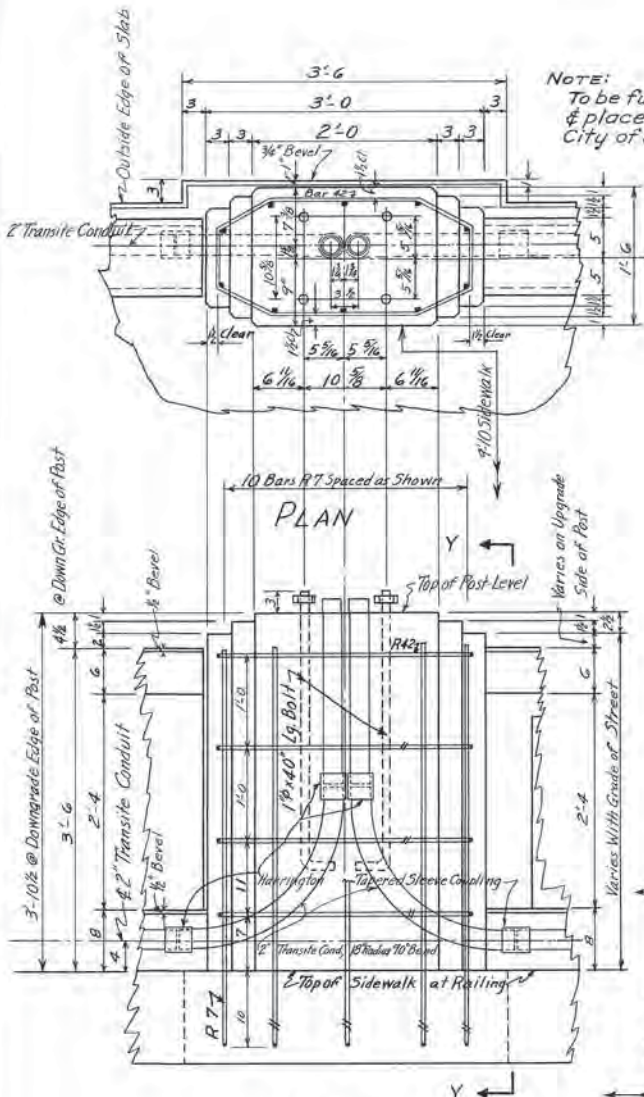
WIRING DIAGRAM

Scale 1"=30'

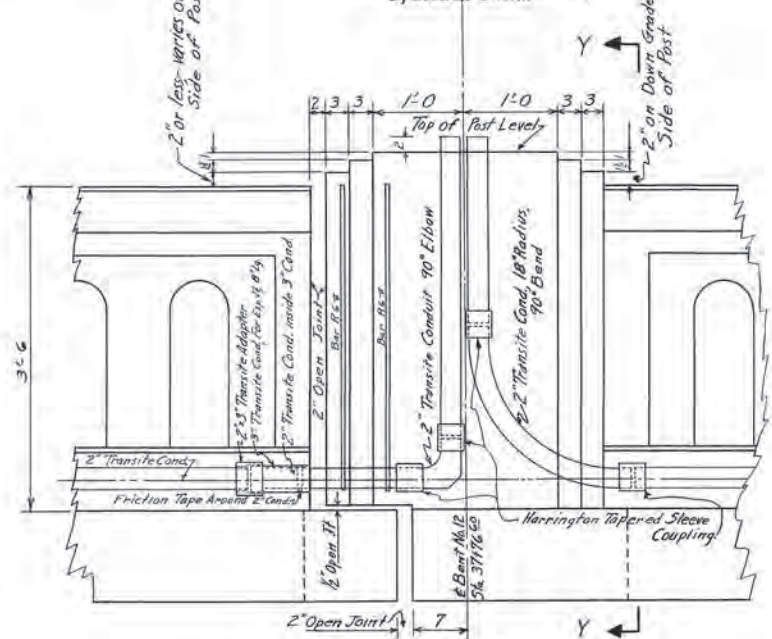
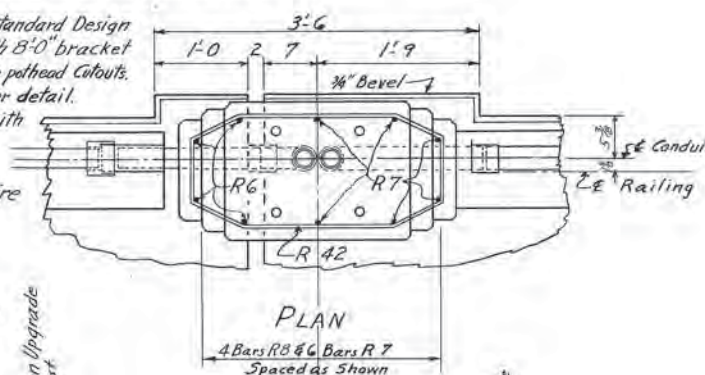
APPROXIMATE BILL OF MATERIAL

Cable-1900 Lin Ft. No. 6, 5000 Volt Single Conductor; Flamenal Street Lighting Cable
 Cable- 600 Lin Ft. 2 Conductor 6000 Volts to ground, braided, Pole & Bracket Cable
 Conduit 1800 " 2" Johns-Manville Transite Cond. Including Couplings.
 Conduit 16 Pcs. 3" x 8" Lg. Johns-Manville Transite Conduit
 Conduit 42 Pcs. 18" Radius 90° Bends 2" " " "
 Conduit 2 Pcs. 90° Elbows 2" " " "
 Conduit 17 Pcs. 2' x 3" Adapters " " " "
 Lamps 18 Each 10,000 lumen, 20 Ampere, P5-40, Base up, Burning Series Lamp
 (Light Standards 14 Each 21'-18" High)
 " 4 Each 25'-0" High Union Metal Standard Design
 No. 6401-Y76 Octafitite pendent Slots with B'-0" bracket arm, pressed steel bases to accommodate pathead Cutouts.
 Anchor Bolts 72 Each 1" x 40" Lg. with sq head nuts as per detail.
 Pathead Cutouts 18 " GE Form F100-B pathead Cutouts with Mounting spud brackets with cable clamps.
 Catalog No. 3732073 G2.
 Luminares 18 Each GE Form 79R Series Luminaire with #110 Halophane refractors & heat insulated slip-fitter hoods.
 Note: Materials to be furnished as shown above or equal.
 Conduit-1 Pc. 3" x 4" Long. Johns-Manville Transite

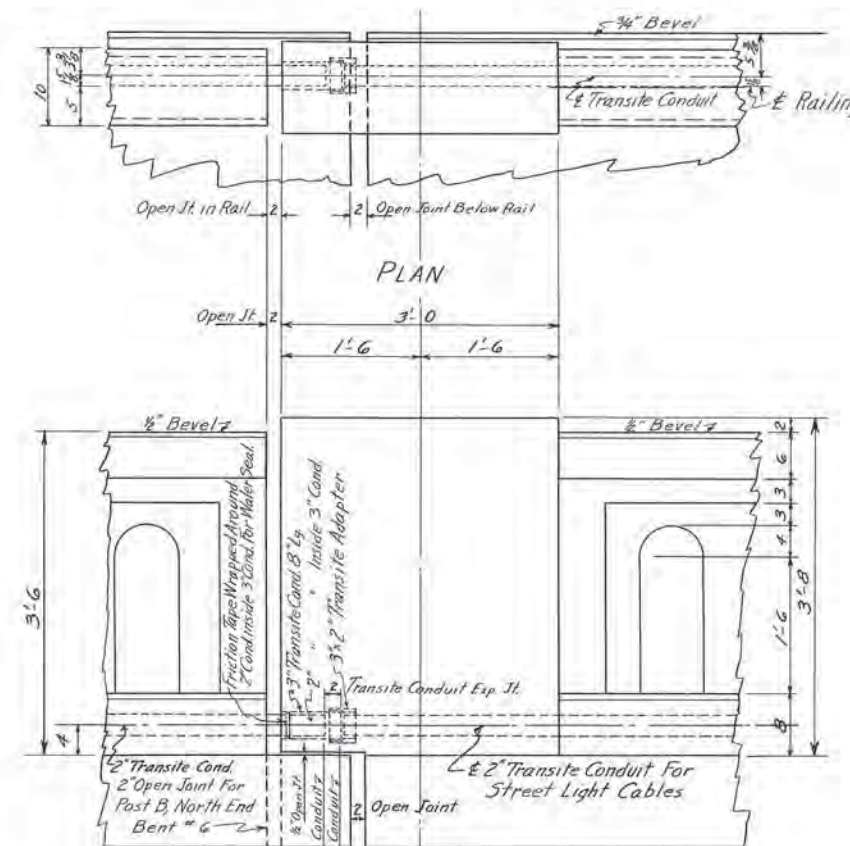
NOTE:
To be furnished & placed by the City of Nashville



ELEVATION POST L
Scale 1"=1'-0"
Intermediate Railing Post For Light Standard Showing 2" Transite Conduits



ELEVATION POST M (FOR 2" OPEN JOINT)
Bars same as Post L, except R6 as shown, R7 & R42 not shown, Anchor Bolts same as Post L, not shown.



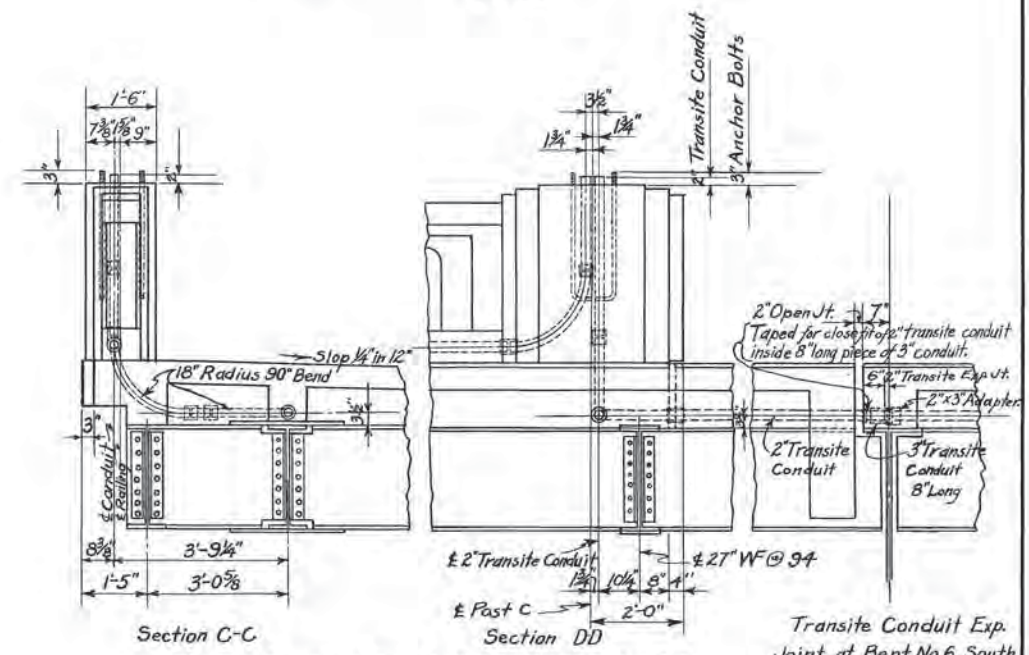
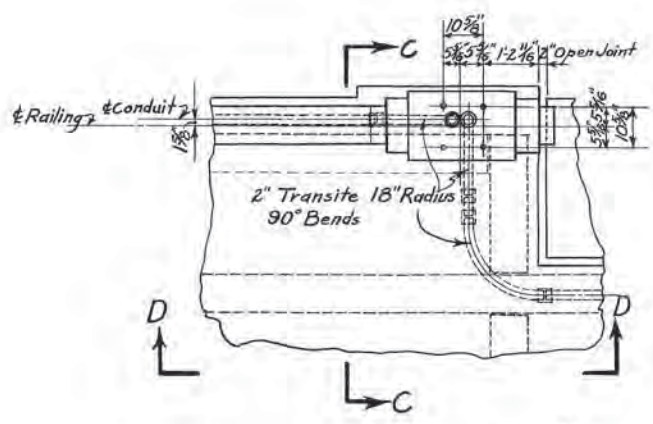
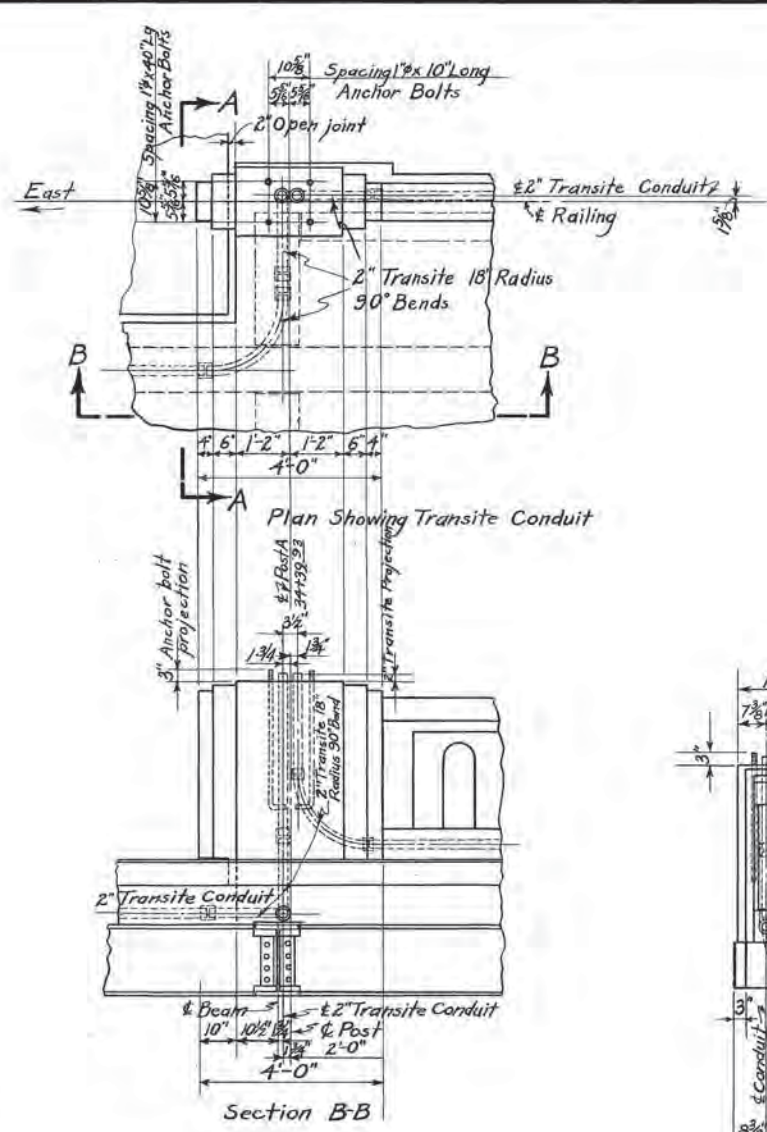
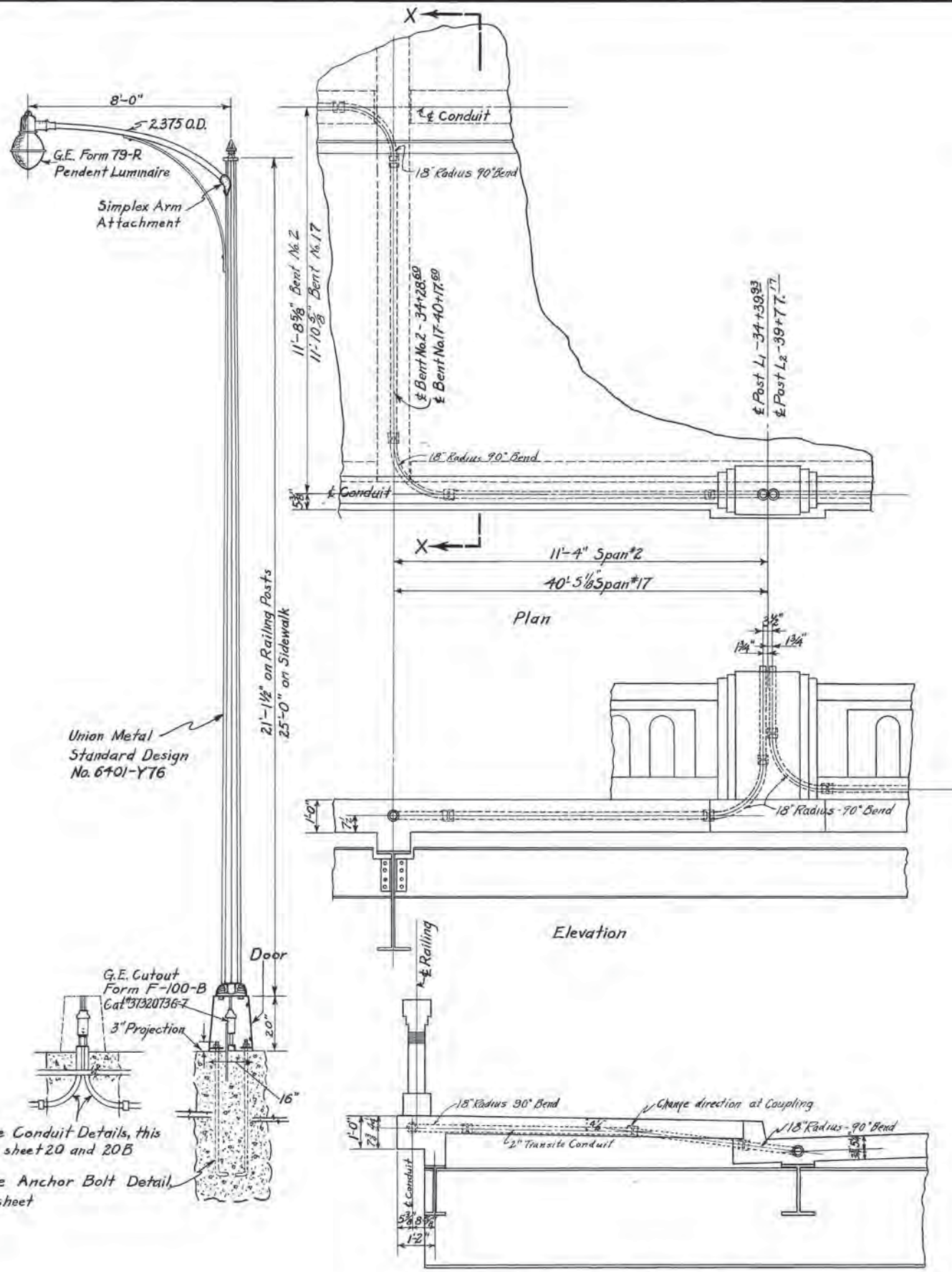
ELEVATION POST D
Showing Exp Joint for Transite Conduit - same for Post B at Bent G, North Side, except 2" Exp. Jt. in sidewalk at edge of Post. Use same arrangement of Exp. Joint for open joint in N&S South Railing at Bent #3 at Abutments. The 8" long piece of 3" Transite Cond. should be placed on up grade side of open joints so water will drain away from Transite Expansion Joint.

Work this sheet with sheet 20A & 20B

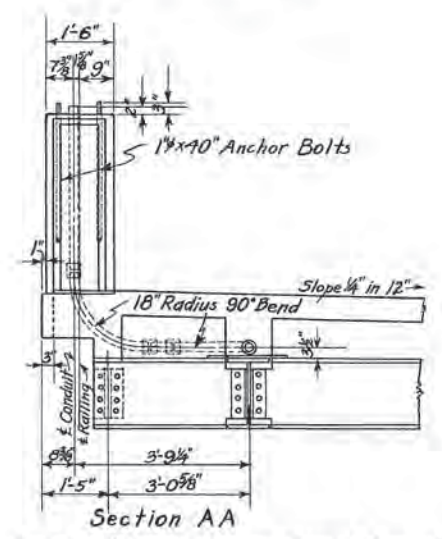
STATE OF TENNESSEE
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

LIGHTING PLAN AND DETAILS
 L&N RR Co. Viaduct - Broad Street Mile BA 186.5 Nash. Terms
 Scale as Shown Design L&N RR Co. Revisions March, 1946
 Detailed J.K.G. L&N.L.F. 6217
 Traced R.E.M.L. Checked A.J.

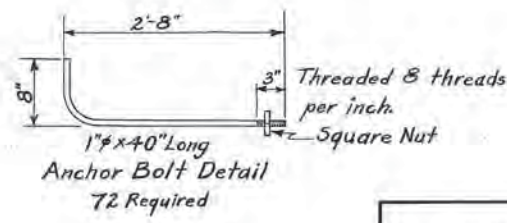
Final Rev.	Dist. No.	Sta	Proj. No.	Fiscal Year	Sheet No.	Total Sheets
8	7688	UG1	4-118	46	20-A	36



Post C Showing Transit Conduit and Anchor Bolts
 1 As Shown East Side of Station Entrance.
 1 Opposite Hand West Side of Station Entrance
 Reinforcing Bars Not Shown



Details of Post A Showing Transit Conduit & Anchor Bolts
 Reinforcing Bars Not Shown



Work With Sheet 20#20B

Section X-X

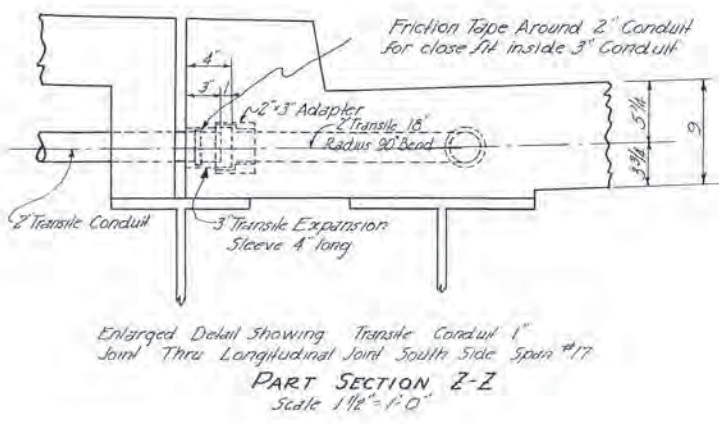
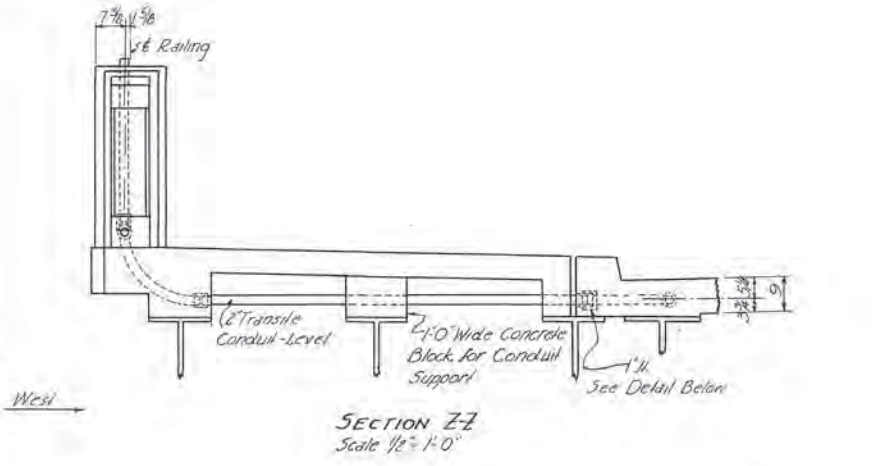
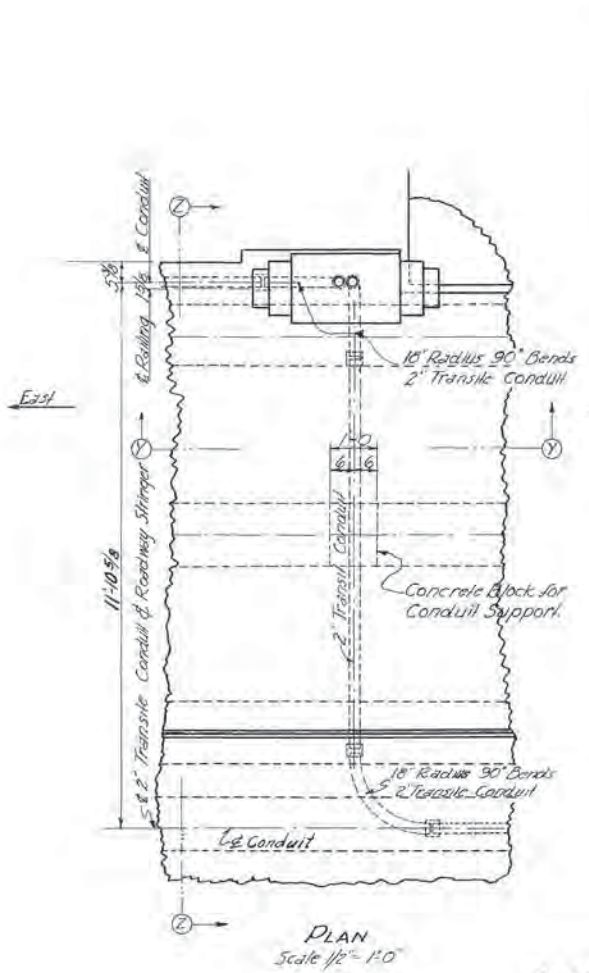
DETAILS TRANSITE CONDUIT IN POSTS L₁ & L₂ AND AT BENT No. 2 & 17
 POST L₁ & BENT No. 2 AS SHOWN - POST L₂ & BENT No. 17, OPPOSITE HAND
 ANCHOR BOLTS & REINFORCING BARS NOT SHOWN

TENNESSEE
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

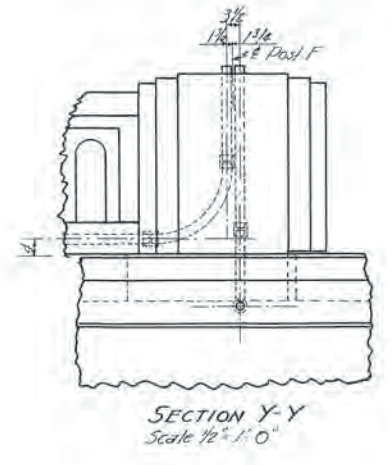
LIGHTING DETAILS

L&N.R.R.Co.-Viaduct - Broad Street Mile 186.5 Nash, Tenn.
 Scale: 1/4" = 1'-0" Design: L&N.R.R.Co. Revisions May 10, 1946
 Detailed: J.K.G. 5-14-46 Traced: J.P.B. L&N.L.F. 6217
 Checked: A.J.

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
B	Tenn.	151 (1-4-18)	46	20-8	36



Post F Showing Details Transite Conduit Reinforcing Bars & Anchor Bolts Not Shown

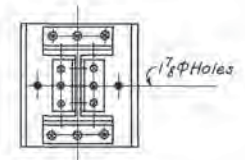
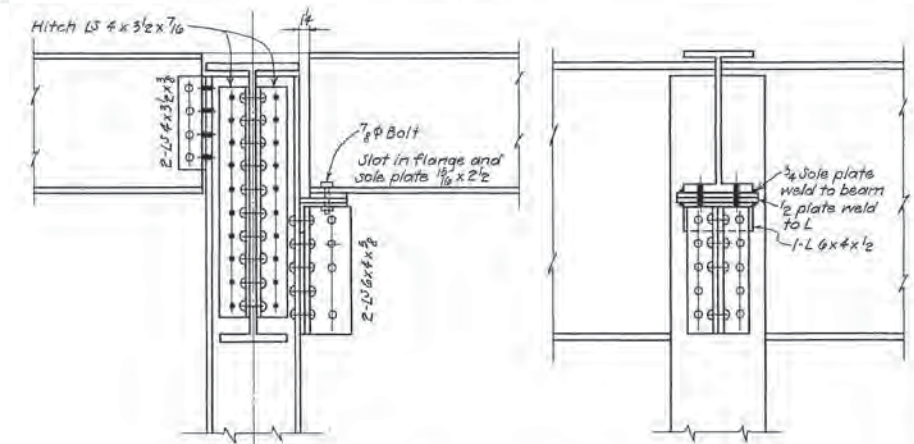
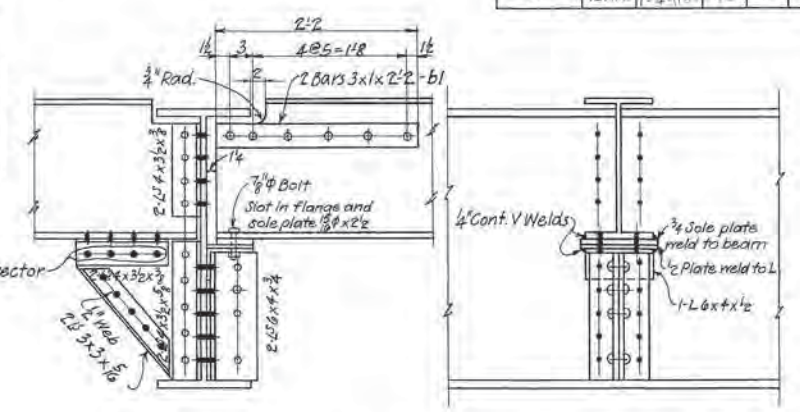
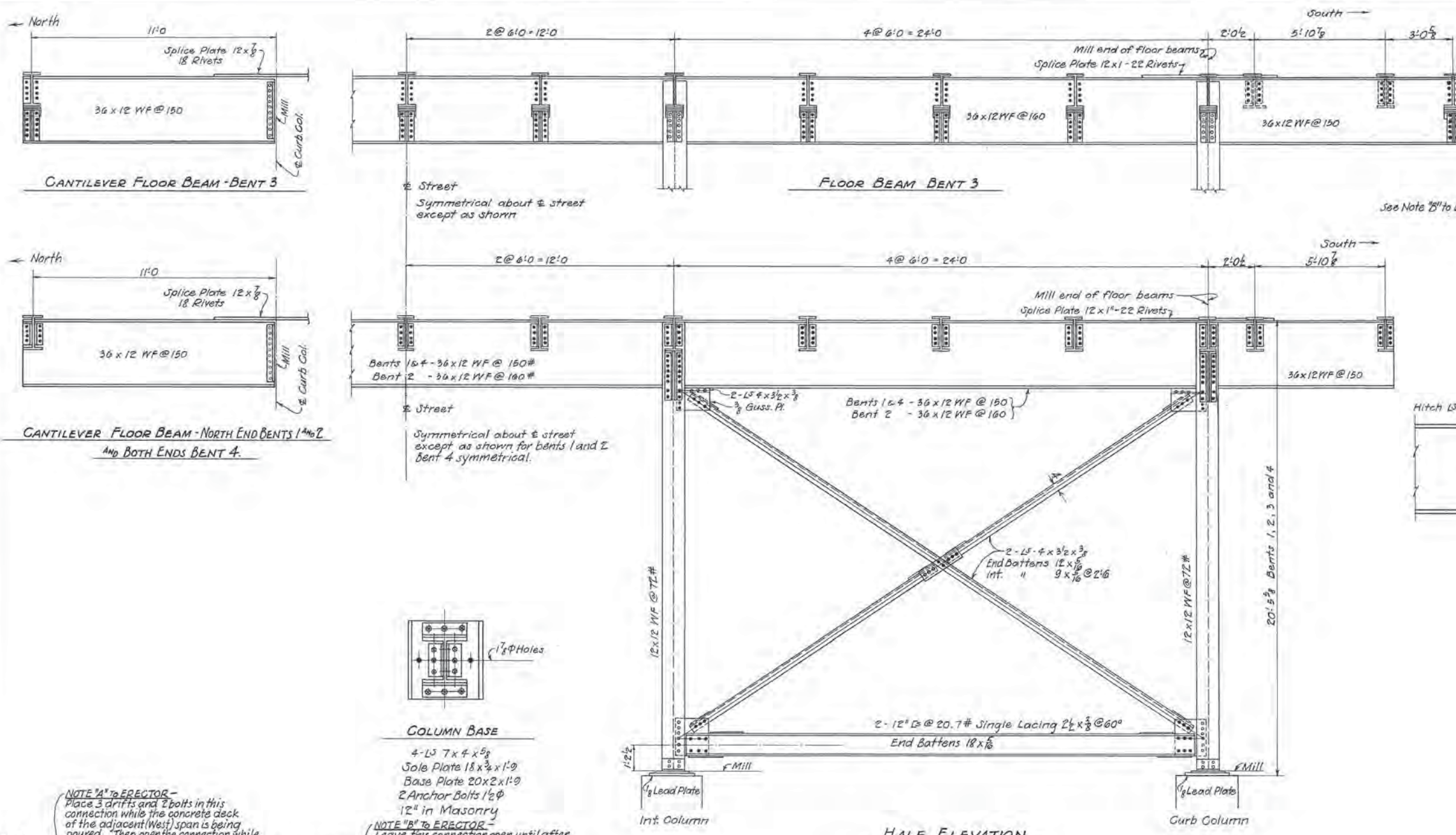


Work this sheet with sheets 20 & 20A

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT
LIGHTING DETAILS

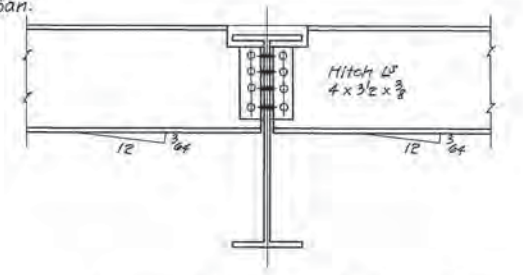
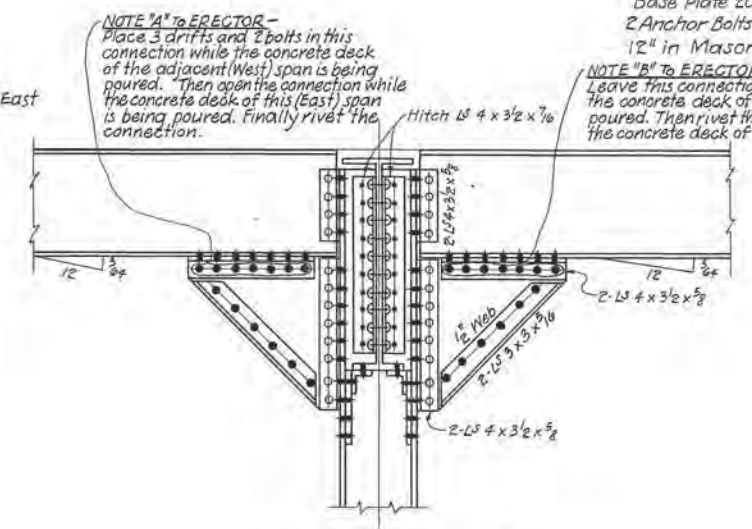
L&NRR Co.	Viaduct-Broad Street - Mile 19.6.5 - Nashville Terms.
Scale	Design L&NRR Revisions May 13 1946
As shown	Detailed JKG 5-16-46
	Traced GASJ L&N LF 6217
	Checked AT

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
B	Tenn.	UGT-4-118	46	21	30



NOTE 'A' TO ERECTOR - Place 3 drifts and 2 bolts in this connection while the concrete deck of the adjacent (West) span is being poured. Then open the connection while the concrete deck of this (East) span is being poured. Finally rivet the connection.

NOTE 'B' TO ERECTOR - Leave this connection open until after this concrete deck of this span has been poured. Then rivet the connection and pour the concrete deck of the adjacent span.



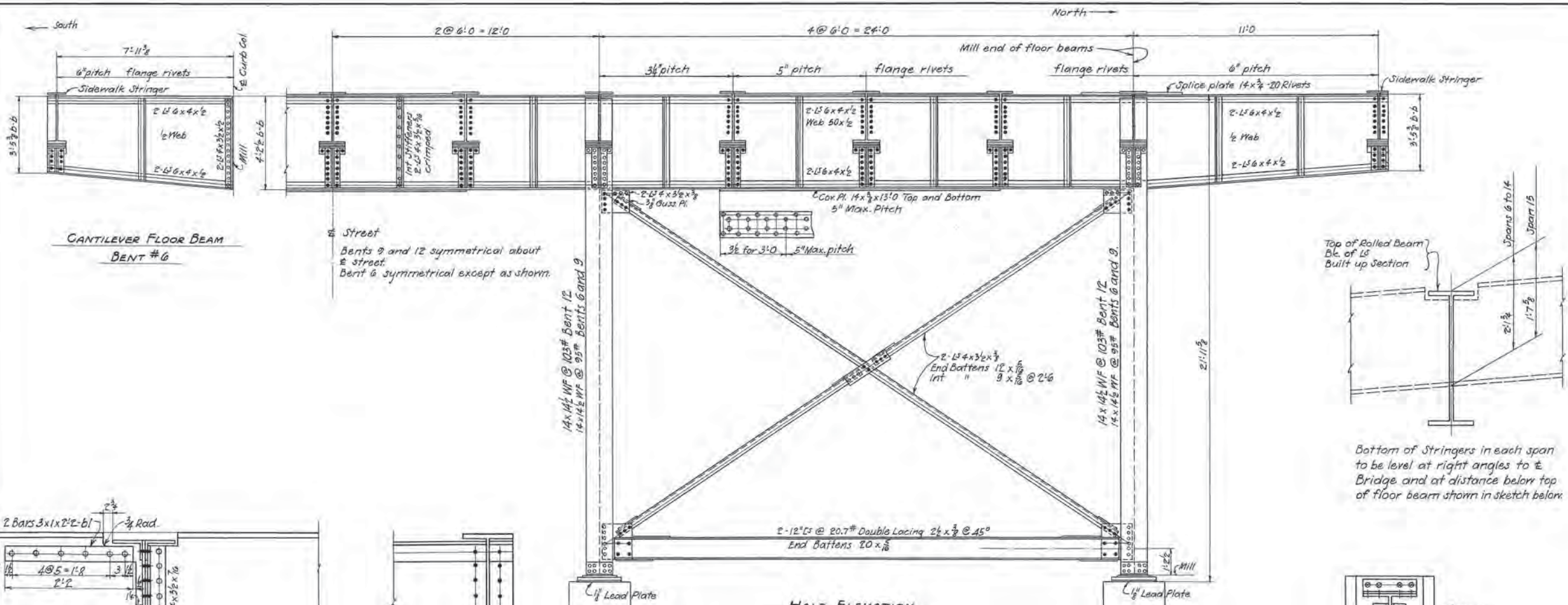
ESTIMATED QUANTITIES
 Structural Steel 125,000 Lbs.

TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

BENTS 1, 2, 3 AND 4

L & N. R. Co. - Viaduct - Broad Street - Mile 186.5 - Nashville Terms.
 Scale Design L & N. R. Revisions March 1, 1946.
 3/8" = 1'-0" Detailed P.E.E. Mar 25, 1946
 3/8" = 1'-0" Traced J.M.P. May 14, 1946
 Checked W.B.K. L & N. L. F. 6217

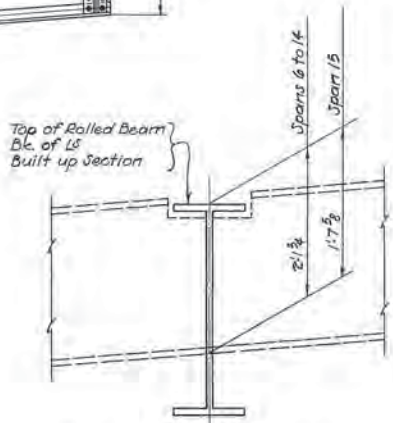
Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
8	Tenn.	1-4-45	46	22	36



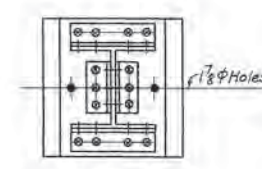
GENERAL NOTES:-

- MATERIAL** O. H. Structural Steel ASTM A7-42 min. 0.2% Copper Content. Rivet Steel A.S.T.M. A141-39 min. 0.2% Copper Content.
- SPECIFICATIONS** Standard Specifications for Highway Bridges of the American Association of State Highway Officials, 1944, for Design. Standard Specifications of the Tennessee Department of Highways for Construction except as noted.
- LOADING** H-20-S16-44.
- RIVETS** 7/8" Diameter.
- OPEN HOLES** 1 1/8" Diameter except as noted.
- BEAMING** All holes in columns, floorbeams and their fillers, stringers and holes in floorbeam and stringer and connections shall be subpunched 1/8" diam. and reamed to size while assembled or reamed to a steel template. Drill holes in all material more than 3/4" thick.
- COVER PLATES** Universal mill plates with both edges rolled shall be used for cover plates. Four lines of rivets shall be used in all cover plates.
- WELDING** Welding shall be done in accordance with specifications for Welded Highway and Railway Bridges of the American Welding Society. No welding will be permitted except where specifically shown on drawings.
- MILLED ENDS** Mill bottoms of all columns. Mill ends of floorbeams at all curb columns. All stiffeners on brackets shall be milled and made to bear against seat angles, and shall be ground to fit fillets of seat angles.
- DETAILS** Minimum distance of rivet hole to sheared edge shall be 1 1/2". Re-entrant corners of coped beams shall have 3/4" radius.
- PAINT**

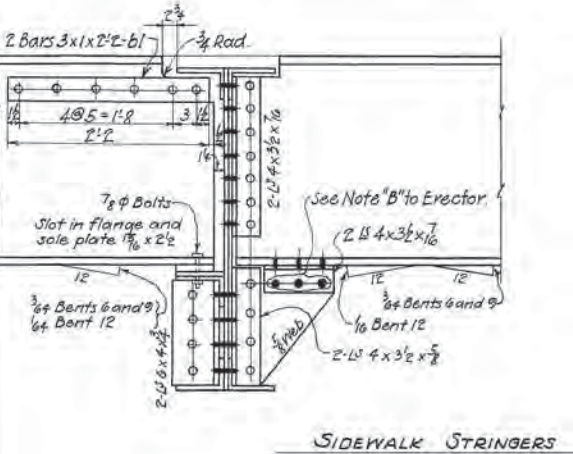
Shop Coat	Red Lead Paint	A.A.S.H.O. Spec. M72-42.
1st Field Coat	Red Lead Paint	A.A.S.H.O. Spec. M72-42.
2nd Field Coat	White Paint	A.A.S.H.O. Spec. M70-42.
3rd Field Coat	Aluminum Paint	A.A.S.H.O. Spec. M69-42.



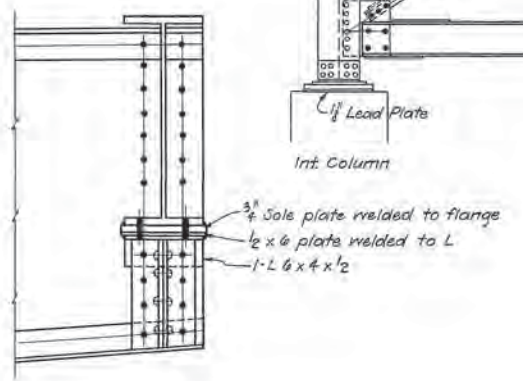
Bottom of Stringers in each span to be level at right angles to the Bridge and at distance below top of floor beam shown in sketch below.



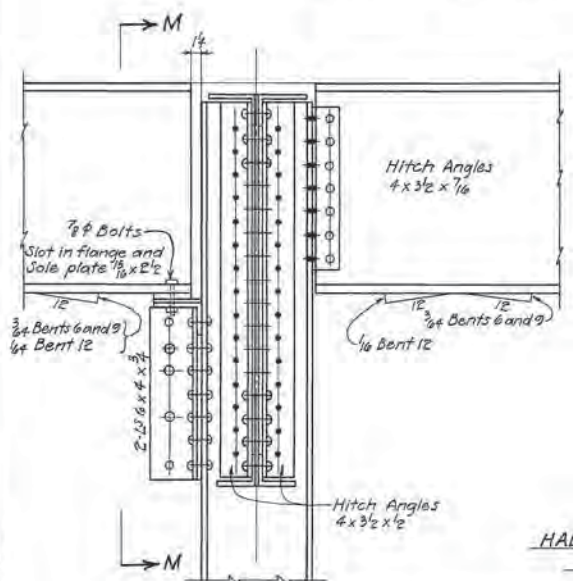
COLUMN BASE
 4-13 7/8 x 4 x 5/8
 Sole Plate 18 x 3/4 x 2'-0"
 Base Plate 24 x 2' x 2'-0"
 2-Anchor Bolts 1/2" φ
 12" in Masonry



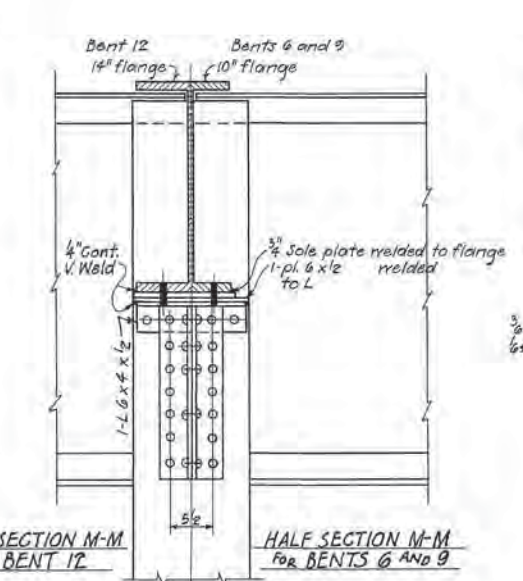
SIDEWALK STRINGERS



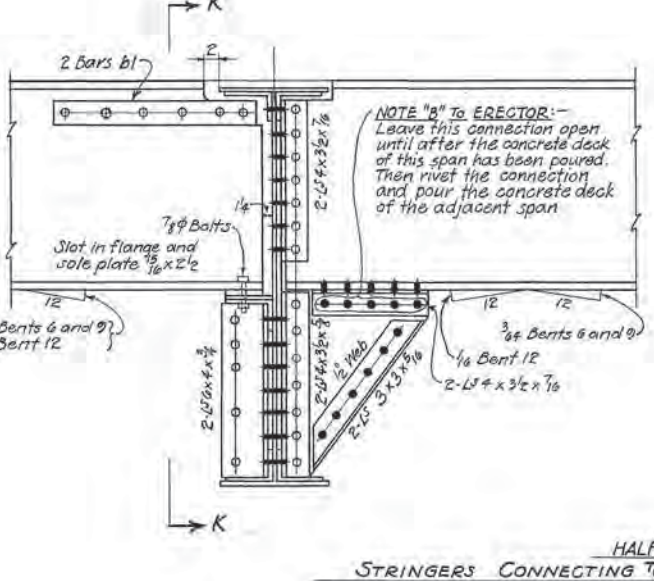
Int. Column



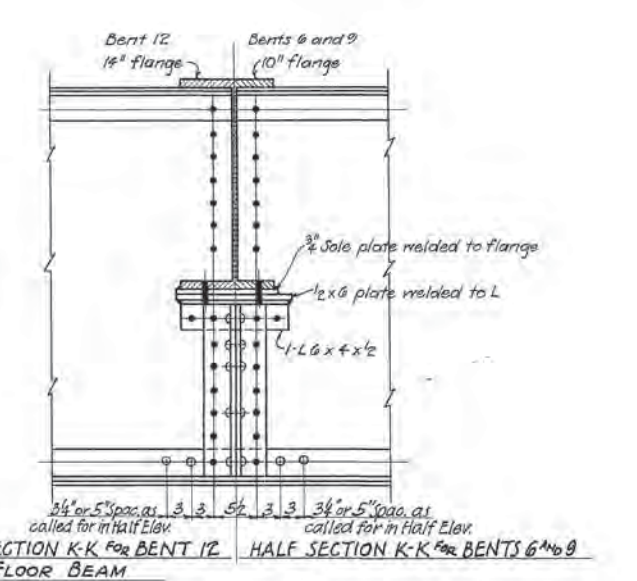
HALF SECTION M-M for BENT 12



HALF SECTION M-M for BENTS 6 AND 9



STRINGERS CONNECTING TO FLOOR BEAM



HALF SECTION K-K for BENTS 6 AND 9

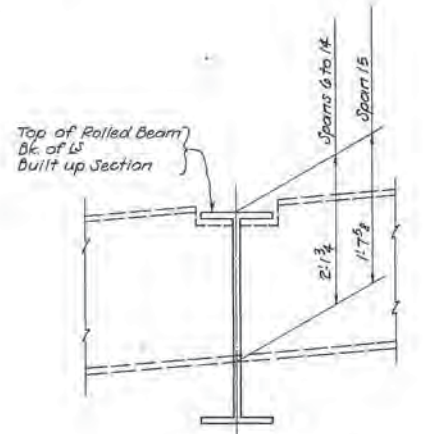
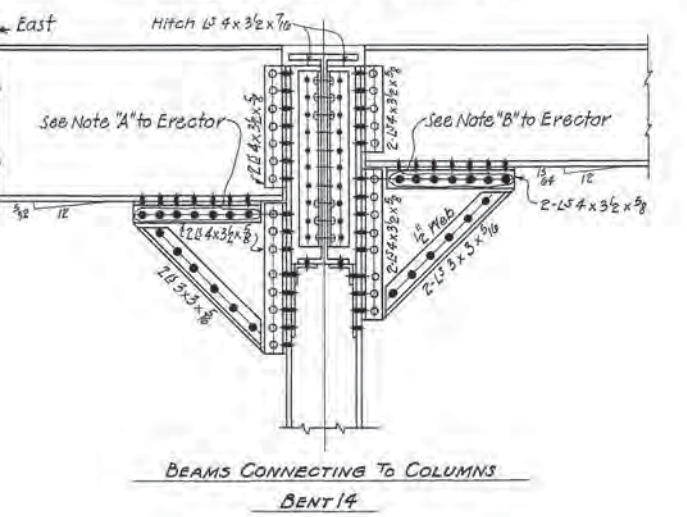
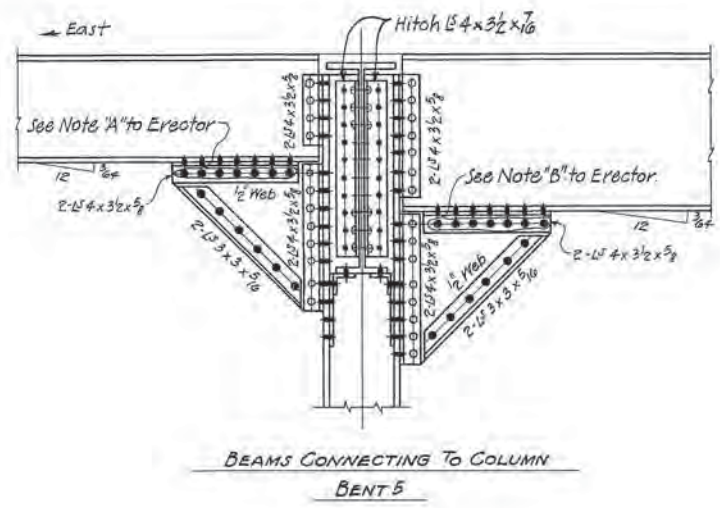
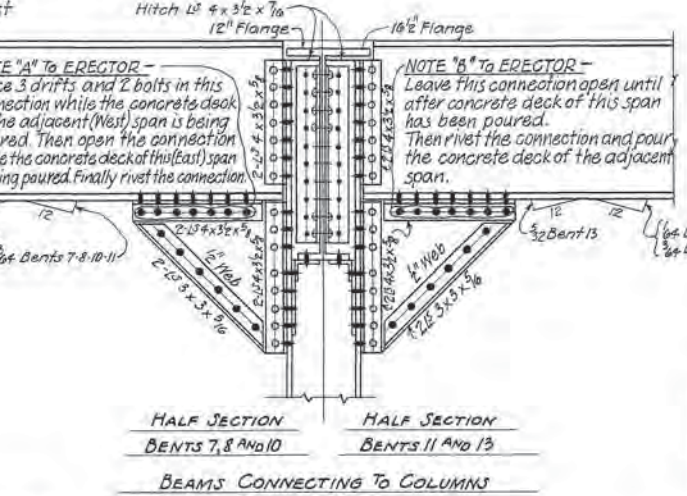
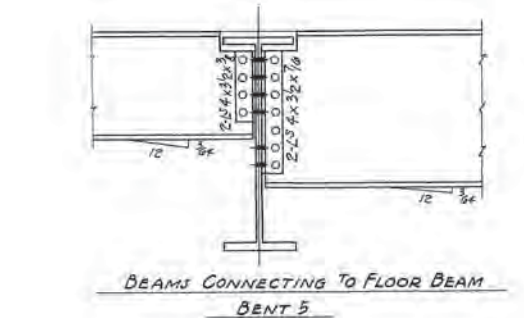
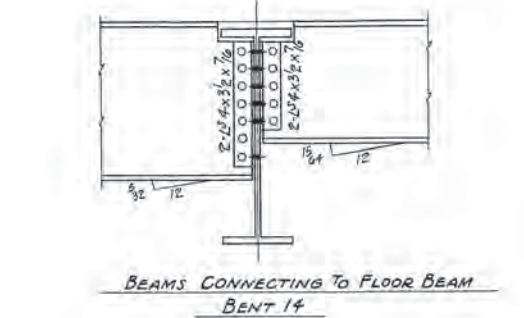
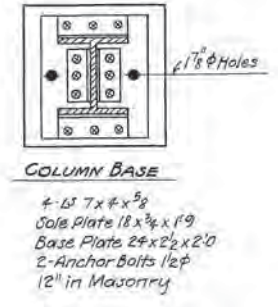
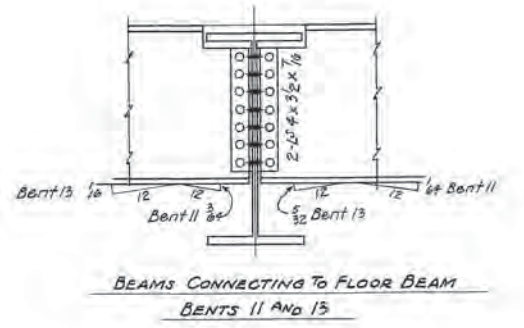
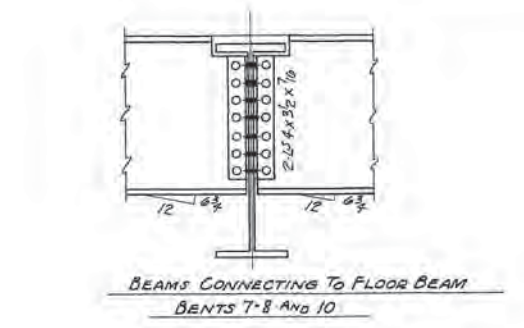
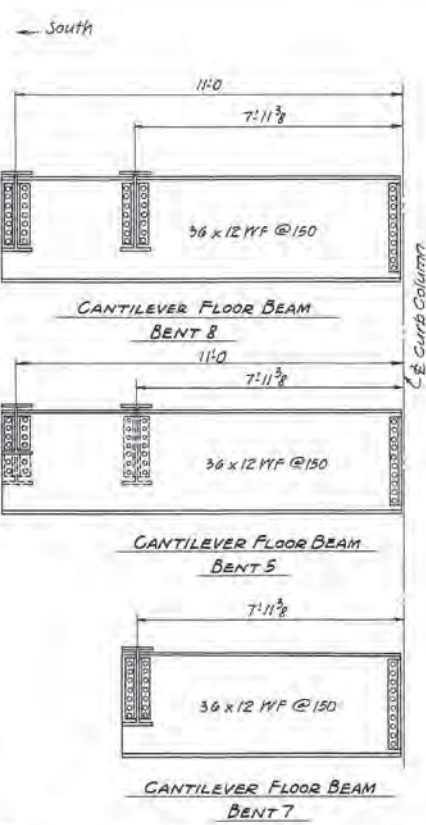
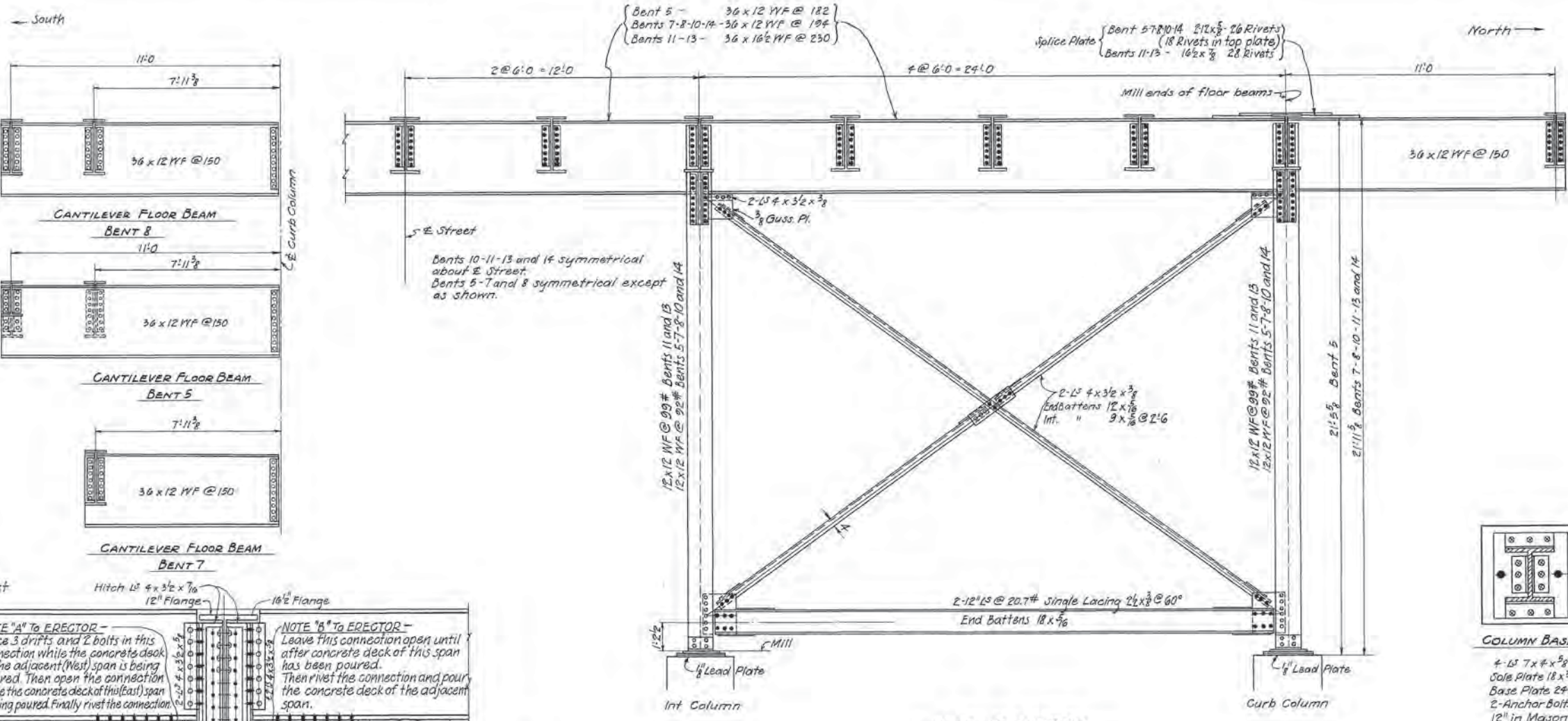
ESTIMATED QUANTITIES
 Structural Steel 119,050 Lbs.

TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

BENTS 6, 9 AND 12

L. & M. R. Co. Viaduct-Broad Street-Mile 186.5-Nash. Terms.
 Scale 1/4"=1'-0" Design L. & M. R. Co. Revisions March 1, 1946.
 1/4"=1'-0" Detailed R.E. Mar. 25, 1946
 3/8"=1'-0" Traced J.K.P. May 1, 1946
 Checked W.B.K. May 12, 1946 L. & M. R. Co. 217

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
8	Tenn.	1-4-116	46	23	36



HALF ELEVATION

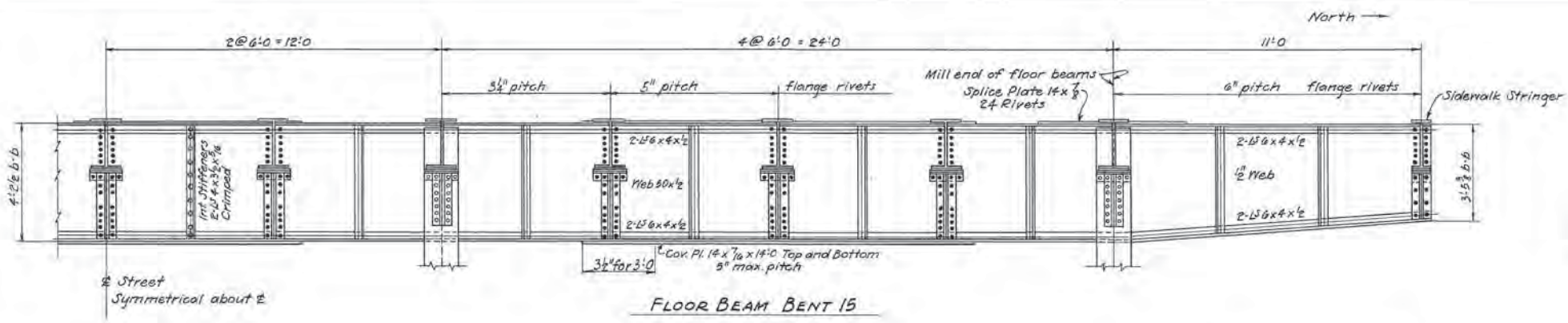
ESTIMATED QUANTITIES
Structural Steel 270,563 Lbs.

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

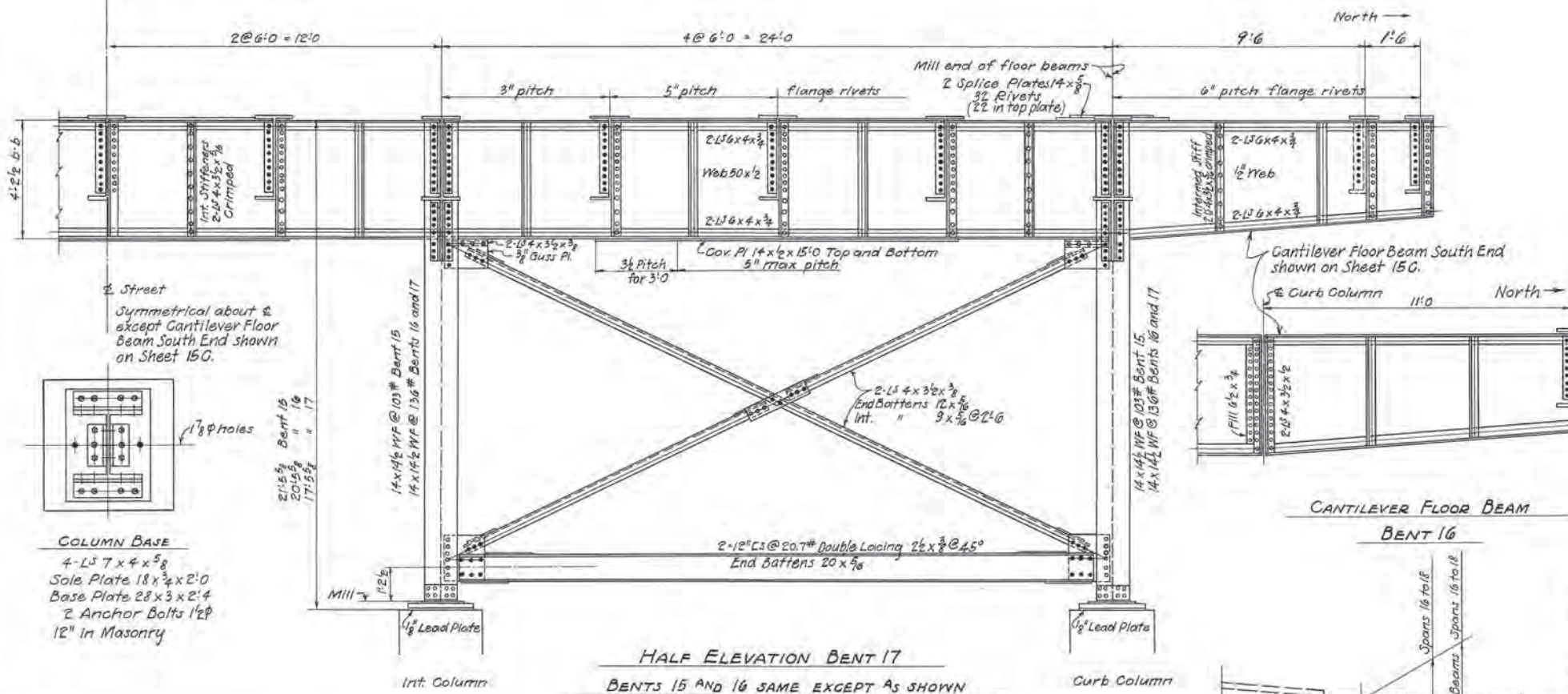
BENTS 5-7-8-10-11-13 AND 14

L. & N. R. R. Co. Viaduct - Broad Street - Mile 186.5 - Nash. Terms.
Scale 3/4" = 1'-0" Design L. & N. R. R. Revisions March 1, 1946
3/4" = 1'-0" Detailed A. R. E. Mar. 25, 1946
3/4" = 1'-0" Traced J. M. P. May 14, 1946 L. & N. L. F. 6217
Checked W. & K.

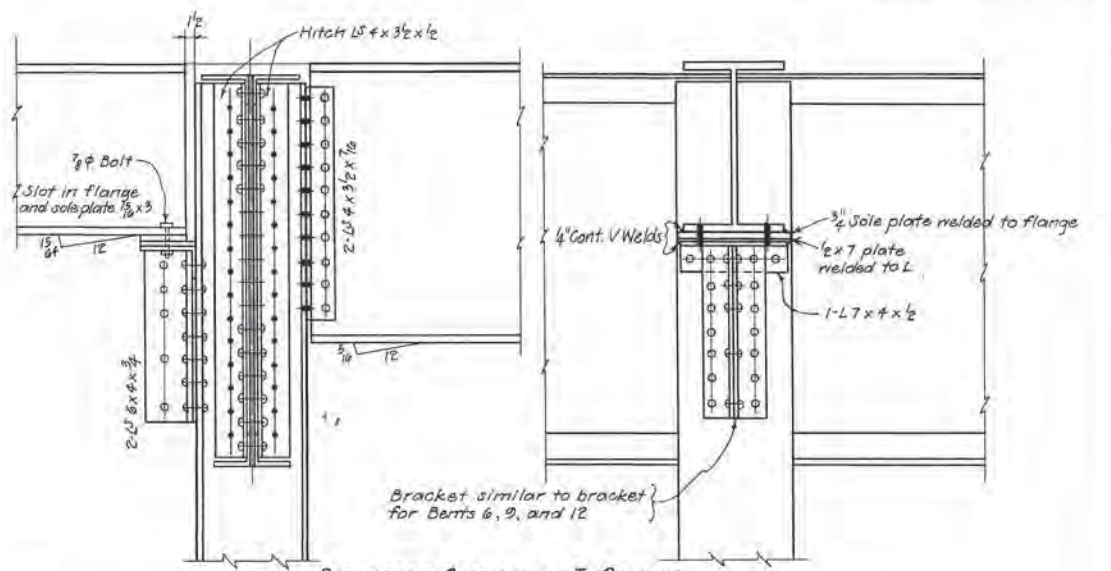
Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
2	Tenn.	1-3-16	46	24	36



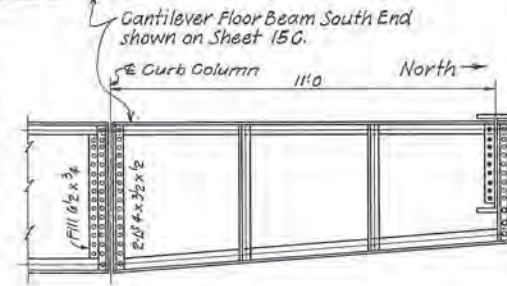
FLOOR BEAM BENT 15



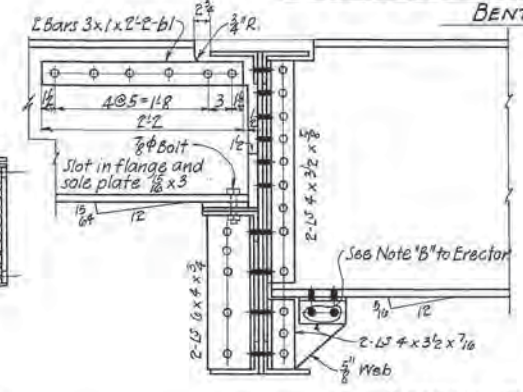
HALF ELEVATION BENT 17
BENTS 15 AND 16 SAME EXCEPT AS SHOWN



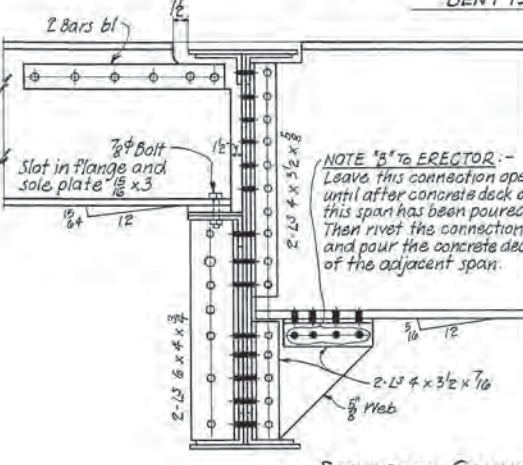
STRINGERS CONNECTING TO COLUMN BENT 15



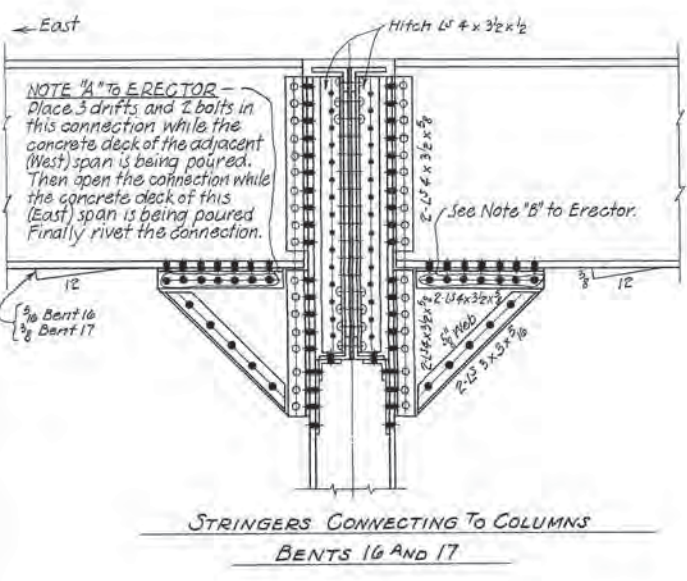
CANTILEVER FLOOR BEAM BENT 16



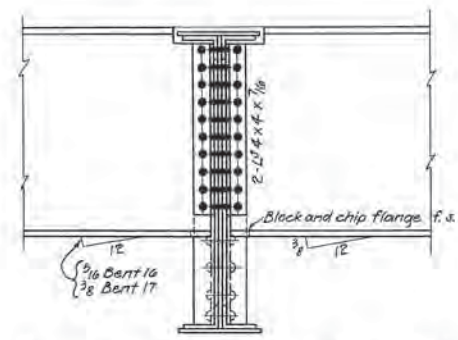
SIDEWALK STRINGER BENT 15



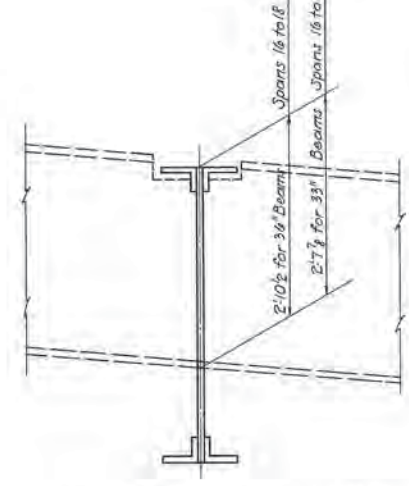
STRINGERS CONNECTING TO FLOOR BEAM BENT 15



STRINGERS CONNECTING TO COLUMNS BENTS 16 AND 17



STRINGERS CONNECTING TO FLOOR BEAM BENTS 16 AND 17



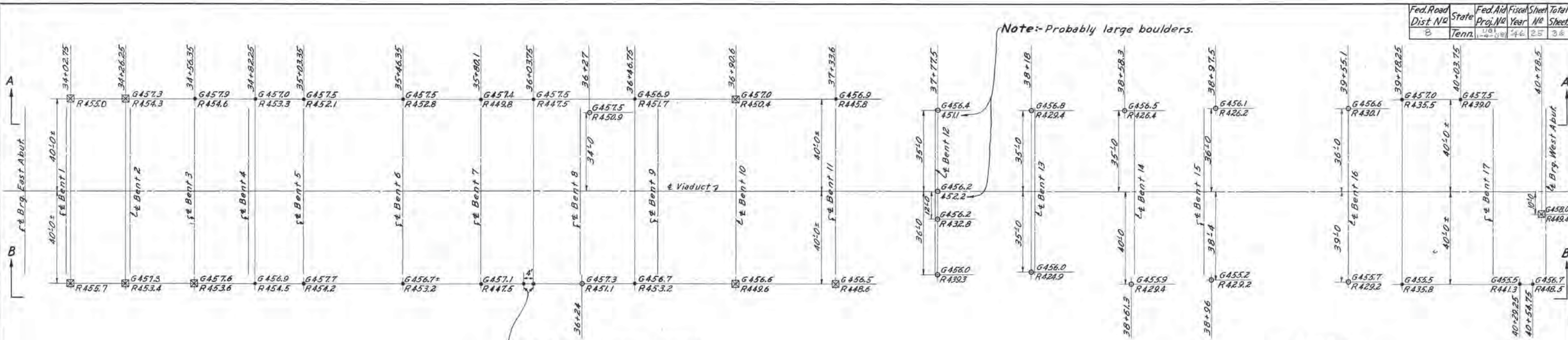
Bottom of Stringers in each span to be level at right angles to centerline and at distance below top of floor beam shown in sketch above.

ESTIMATED QUANTITIES
Structural Steel 134,975 Lbs.

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

BENTS 15, 16 AND 17	
L & N.R.R. Co. Viaduct - Broad Street - Mile 186.5 - Nashville Terms.	March 1, 1946.
Scale: 1" = 14'-0"	Design: L & N.R.R. Revisions: March 25, 1946.
3/4" = 14'-0"	Traced: J.W.P. May 11, 1946.
	Checked: W.B.K. May 14, 1946.
	6-20-46
	L & N.L.F. 6217

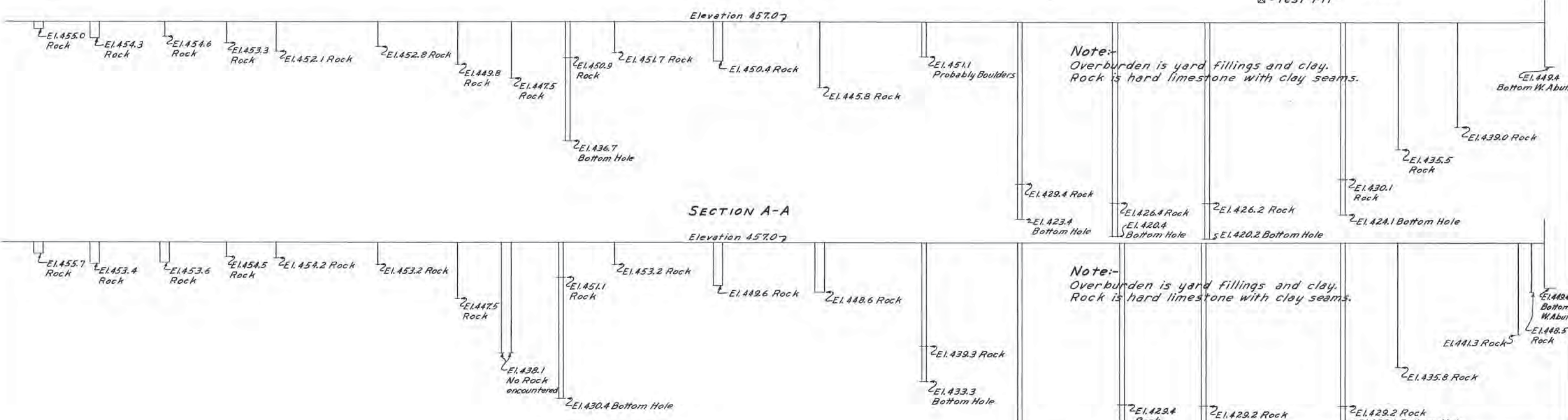
Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
B	Tenn.	1065-NASH	1946	25	36



Note: No Rock encountered by rod soundings to El. 436.1.

-LEGEND-
 G= Ground Elevation
 R= Rock "
 • = Rod Sounding
 ○ = Core Drill Sounding
 ⊠ = Test Pit

SOUNDING DATA



SECTION A-A

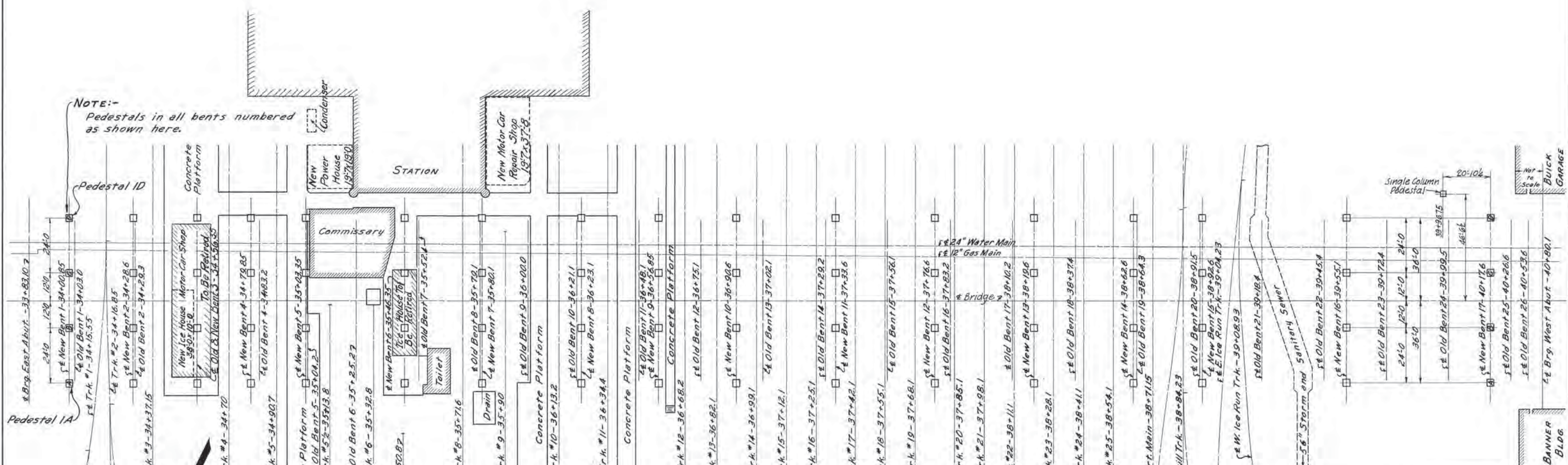
SECTION B-B

TENNESSEE
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

SOUNDING DATA

L&NRR Co. VIADUCT-BROAD STREET-MILE 1065-NASH, TERM. Scale Design L&NRR Revisions March 1, 1946
 Hor. 1"=20' Detailed HBL 3-23-46
 Vert. 1"=8' Traced HBL L&N.L.F. 6217
 Checked OK [Signature]

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
8	Tenn.	U51-1-4-05	46	26	36

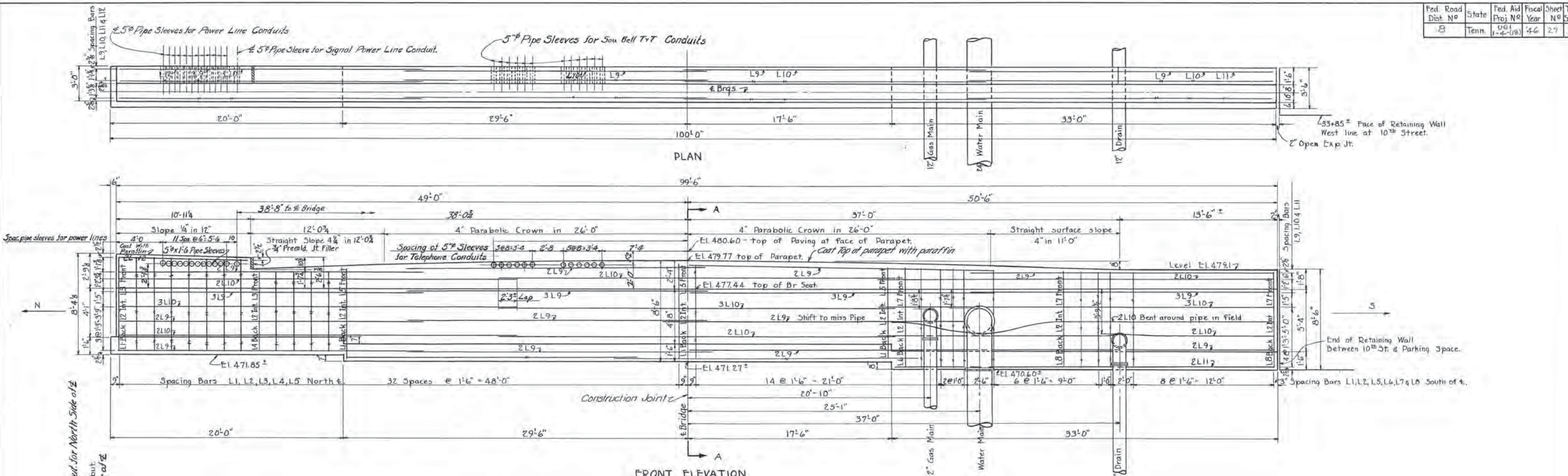


NOTE:-
Pedestals in all bents numbered as shown here.

FOUNDATION PLAN

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

FOUNDATION PLAN
L&NRRCO. VIADUCT - BROAD STREET - MILE 186.5 - NASH TERM.
Scale: Design L&NRR Revisions March 1, 1946
1"=20'-0" Detailed HBL 3-23-46
Traced HBL 5-1-46 L&NLF 6217
Checked OK [Signature]



BILL OF BARS

Mark	Size	Length	No. Reqd.
L1	5/8"	8'-0"	40
L2	"	4'-0"	67
L3	"	5'-3"	13
L4	"	7'-0"	5
L5	"	5'-10"	32
L6	"	8'-6"	9
L7	"	6'-6"	22
L8	"	8'-2"	13
L9	"	2'-6"	38
L10	"	3'-6"	23
L11	"	3'-6"	2
L12	"	10'-6"	2

Estimated Quantities

Removing Stone Masonry	102	Cu. Yds.
Dry Excavation	52	Cu. Yds.
Concrete - Class "A"	84	Cu. Yds.
Reinforcing Steel	3224	lbs.

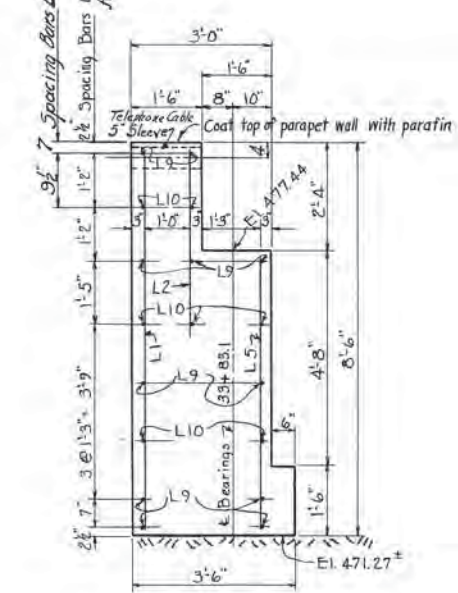
BILL OF PIPE SLEEVES
 12-5/4"x16" for SBT & T. Co.
 13-5/4"x16" for NES and Traffic Control.

TENNESSEE
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

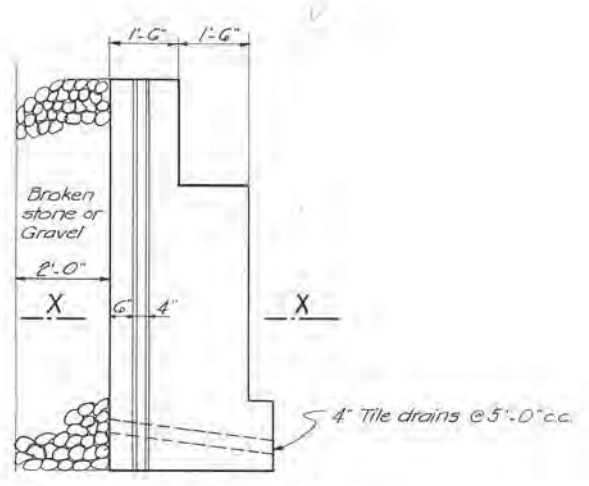
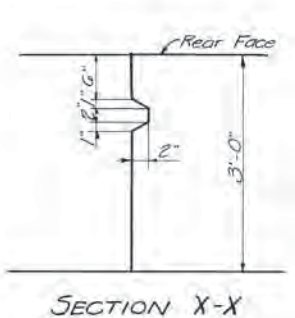
EAST ABUTMENT

LAN.R.R. Co. Viaduct - Broad Street - Mile 186.5 - Nash. Terms.
 Scale: 1/4" = 1'-0" Design LAN.R.R. Revisions: Mar. 23, 1946 March 1, 1946
 Detailed J.M.G. May 18, 1946
 Traced D.J.T. 6-20-46
 Checked J.F.M. L&N. L.F. 6217

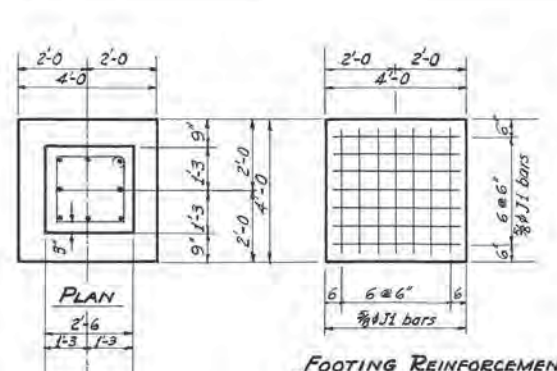
Revised 9/21/46
 Spacing Bars L9-L10 @ E. Abut. for North Side of E.
 Spacing Bars L9-L10 at E. Abut. for South Side of E.



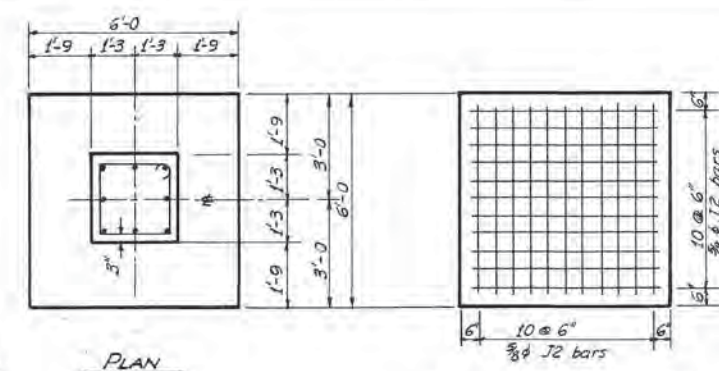
5" Pipe Sleeve Shown is not in Sect. A-A. Sleeves to be placed on North Side of E. only.



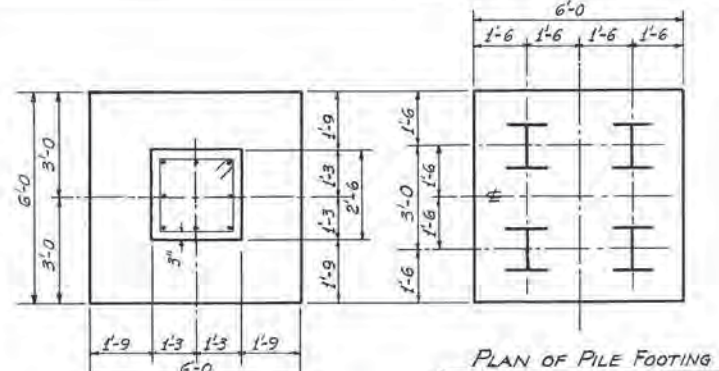
Note: Cost of porous back fill (broken stone or gravel) in place, shall be included in the items bid upon.



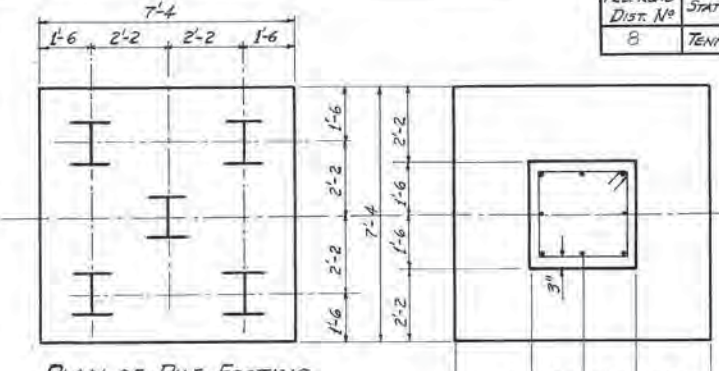
FOOTING REINFORCEMENT



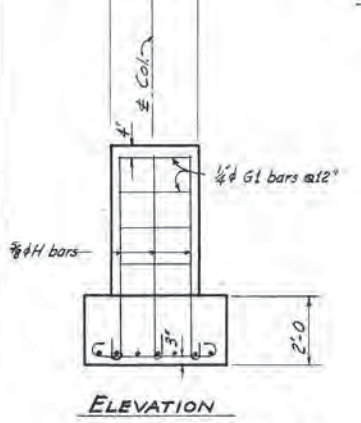
FOOTING REINFORCEMENT



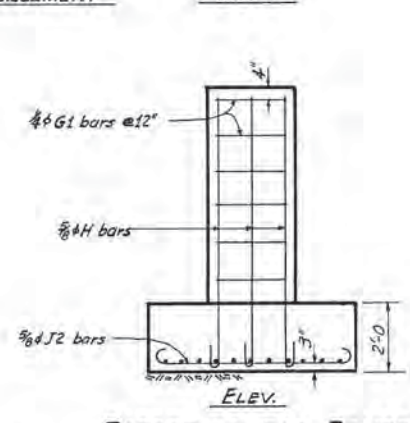
PLAN OF PILE FOOTING



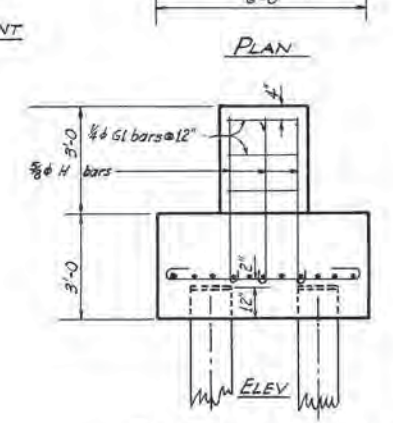
PLAN OF PILE FOOTING



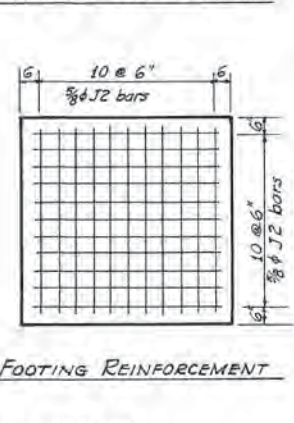
ELEVATION



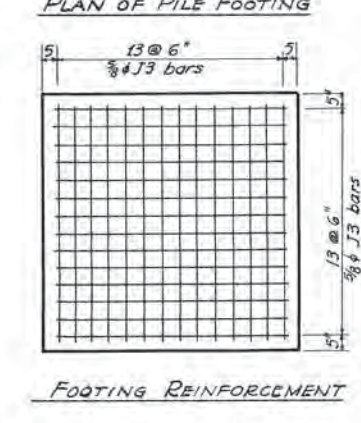
ELEV.



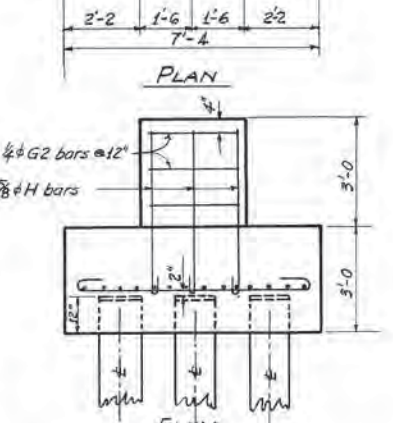
ELEV.



FOOTING REINFORCEMENT



FOOTING REINFORCEMENT



ELEV.

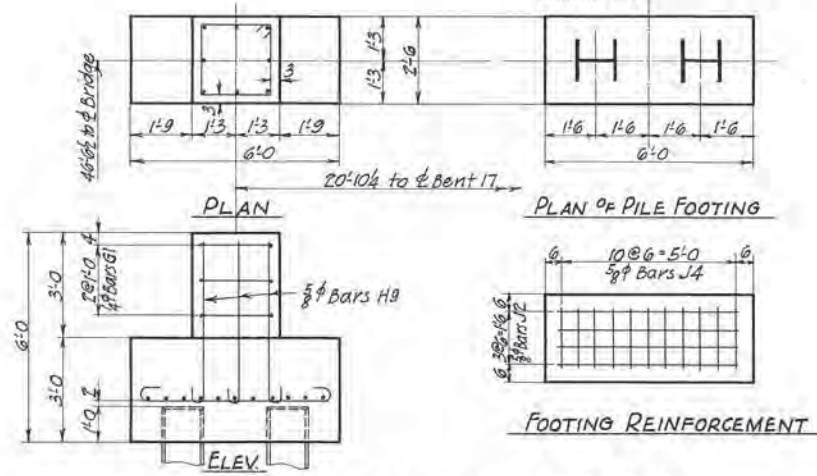
PEDESTALS FOR BENTS No 1 to 6 inc.

PEDESTALS FOR BENTS No 7 to 11 inc., 12C & 12D

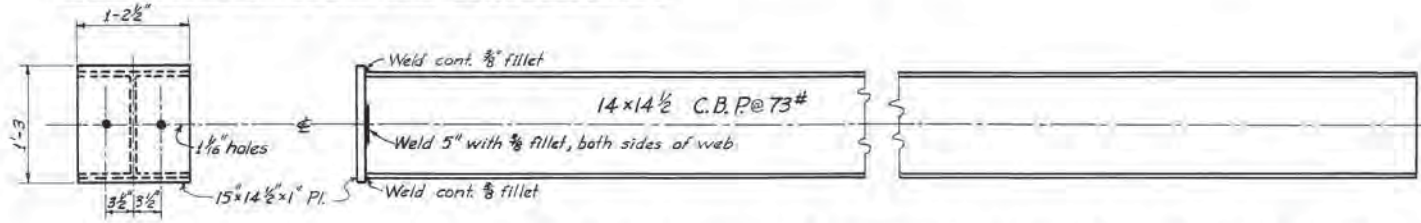
PEDESTALS FOR BENTS 13 & 14 AND 12A & 12B

PEDESTALS FOR BENTS 15, 16, & 17

Note: Pedestals 12C & 12D are shown on rock foundation. After rock is uncovered, the engineer may require that Pedestals be built on Pile foundation.

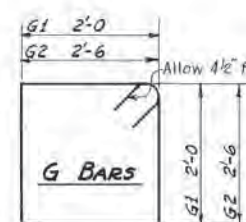


PEDESTAL FOR SINGLE COLUMN AT STA. 39+96.75



PILE DETAILS FOR PEDESTALS No 12A & 12B AND BENTS No 13 to 17 inc. AND SINGLE COLUMN PEDESTAL

Note - Cost of furnishing 15x14 1/2 x 1" plates and welding plates to piles is to be included in unit price bid for steel piling.



Mark	Length	Reqd.
G1	4' x 8'-9"	301
G2	4' x 10'-9"	36

		Allow 8" for hooks
32-#8 x 4'-10"	H1	4'-2"
160-#8 x 6'-7"	H2	5'-11"
16-#8 x 11'-7"	H3	10'-11"
48-#8 x 10'-4"	H4	9'-5"
32-#8 x 9'-4"	H5	8'-8"
32-#8 x 7'-10"	H6	7'-2"
16-#8 x 12'-4"	H7	11'-8"
16-#8 x 13'-10"	H8	13'-2"
184-#8 x 5'-4"	H9	4'-8"
16-#8 x 8'-10"	H10	8'-2"

DETAILS OF H BARS

		Allow 8" for hooks
336-#8 x 4'-10"	J1	3'-6"
708-#8 x 6'-10"	J2	5'-6"
336-#8 x 8'-2"	J3	6'-10"
11-#8 x 3'-4"	J4	2'-0"

DETAILS OF J BARS

PEDESTAL NUMBER	TOP ELEV.	BOTTOM ELEV.	HEIGHT	H BARS		G BARS		J BARS	
				MK	No/Ped	MK	No/Ped	MK	No/Ped
1A to 1D	458.55	454.05	4'-6"	H1	8	G1	3	J1	14
2A to 2D	458.66	452.41	6'-3"	"2	"	"	"	"	"
3A to 3D	458.77	452.52	6'-3"	"2	"	"	"	"	"
4A to 4D	458.86	452.61	6'-3"	"2	"	"	"	"	"
5A to 5D	457.96	451.71	6'-3"	"2	"	"	"	"	"
6A to 6D	457.63	451.38	6'-3"	"2	"	"	"	"	"
7A & 7B	457.76	446.51	11'-3"	"3	"	"	"	"	"
7C & 7D	457.76	448.01	9'-9"	"4	"	"	"	"	"
8A to 8D	457.93	448.93	9'-0"	"5	"	"	"	"	"
9A to 9D	458.07	450.57	7'-6"	"6	"	"	"	"	"
10A to 10D	458.20	448.45	9'-9"	"4	"	"	"	"	"
11A & 11B	458.37	446.37	12'-0"	"7	"	"	"	"	"
11C & 11D	458.37	444.87	13'-6"	"8	"	"	"	"	"
12A & 12B	458.42	452.42	6'-0"	"9	"	"	"	"	"
12C & 12D	458.42	449.92	8'-6"	"10	"	"	"	"	"
13A to 13D	458.17	452.17	6'-0"	"9	"	"	"	"	"
14A to 14D	457.62	451.62	6'-0"	"9	"	"	"	"	"
15A to 15D	457.55	451.55	6'-0"	"9	"	"	"	"	"
16A to 16D	456.91	450.91	6'-0"	"9	"	"	"	"	"
17A to 17D	457.94	451.94	6'-0"	"9	"	"	"	"	"
Single Col. Pedestal	457.608	451.608	6'-0"	"9	"	"	"	"	"

Estimated Quantities.

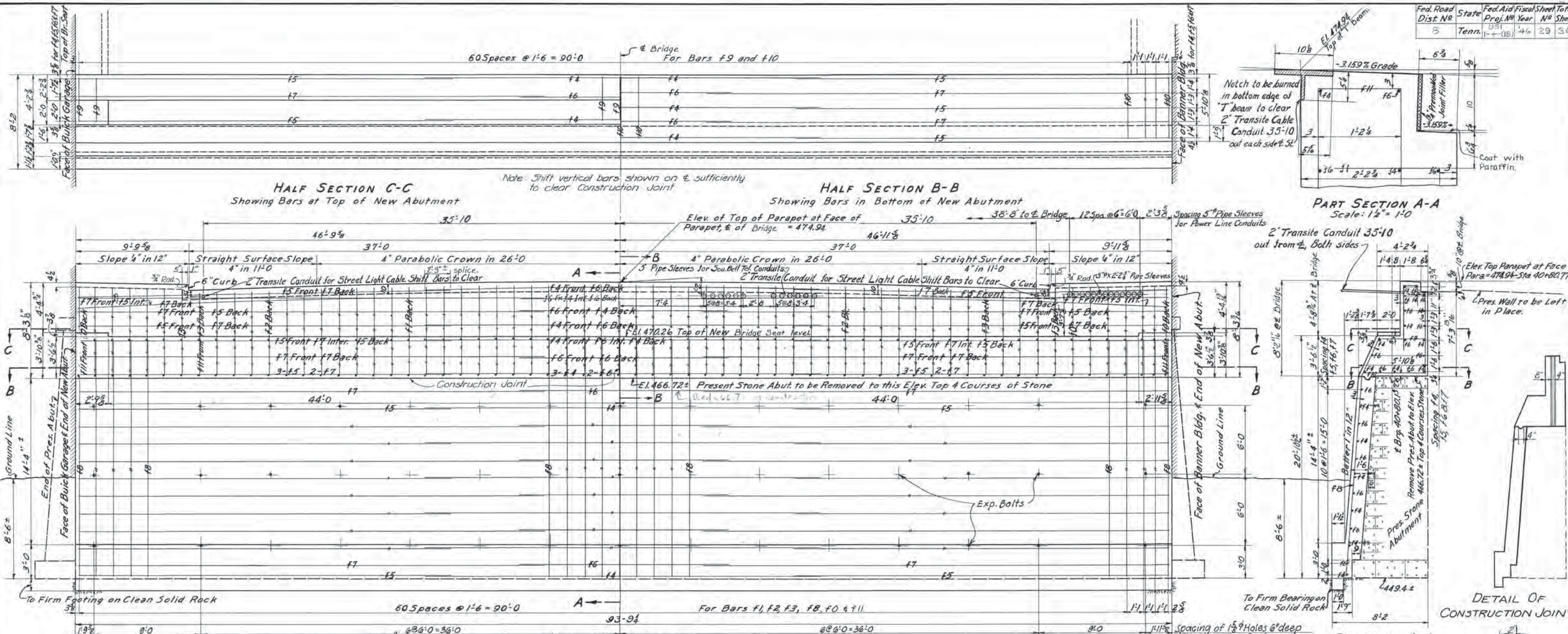
Removing Stone Masonry	50 Cu. Yds.
Rock Excavation	71 " "
Dry	914 " "
Concrete - Class "A"	281.7 " "
Reinforcing Steel	14,285 lbs.
Steel Piling	2,180 Lin. Ft.

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

DETAILS OF PEDESTALS & STEEL PILES.

L. & N. R.R. Co. - Viaduct - Broad St. - Mile 186.5 - NASH. TERM

Scale: Design: L. & N. R.R. Co. Revisions: March 1, 1946
 Detailed: L. E. B.
 Traced: W. D. P.
 Checked: O. E. S. 100-330

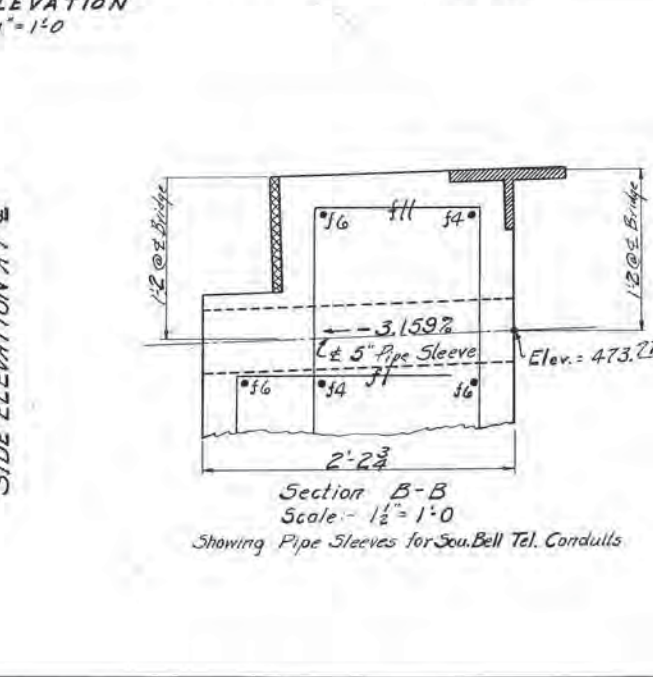
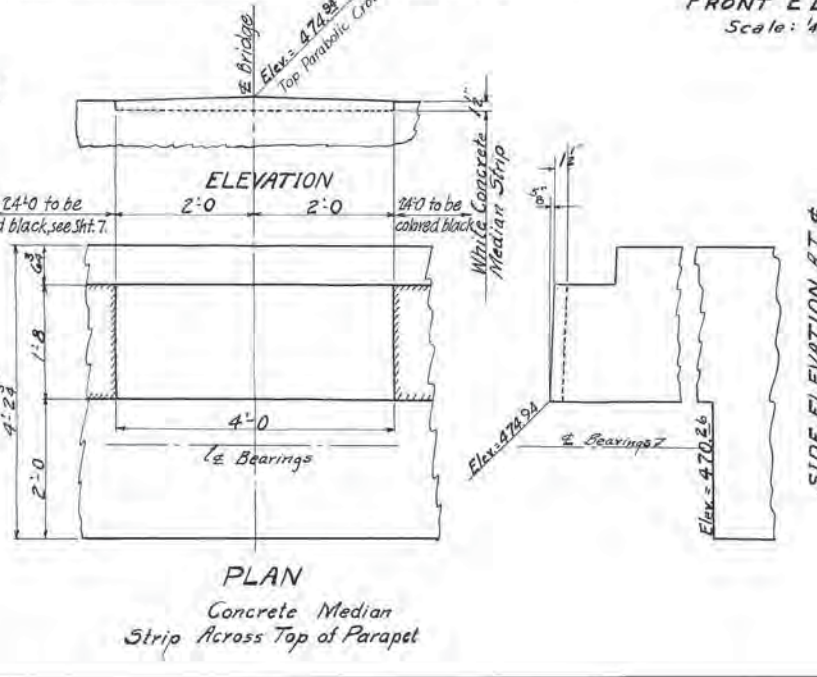


BILL OF BENT BARS

MARK	No.	SIZE	LENGTH	A	B	C
F0	13	5/8"	8'-9"	7'-2"	1'-7"	
F1	25	"	8'-3"	6'-8"	1'-7"	
F2	16	"	8'-0"	6'-5"	1'-7"	
F3	10	"	7'-10"	6'-3"	1'-7"	
F8	64	"	20'-11"	17'-3"	3'-8"	
F11	64	"	8'-6"	5'-9"	1'-4"	1'-9"

BILL OF STRAIGHT BARS

MARK	No.	SIZE	LENGTH
F4	15	5/8"	34'-0"
F5	30	"	32'-0"
F6	16	"	18'-0"
F7	32	"	40'-0"
F9	64	"	3'-10"
F10	64	"	5'-4"



BILL OF EXP. BOLTS

45 Sq. Hd. Bolts 1" x 7 1/2", 6" Thds.
45 Exp. Shields 0-5" lg. for 1" bolts.

BILL OF PIPE SLEEVES

12-5" x 2'-2 1/2" for S.B.T. Co.
13-5" x 2'-2 1/2" for NES and Traffic Control.

ESTIMATED QUANTITIES - DETAIL OF KEY

Stone Masonry Removed	100.7 Cu. Yds.
Rock Excavation	5.2 Cu. Yds.
Dry Excavation	160.0 Cu. Yds.
Concrete, Class A	198.0 Cu. Yds.
Reinforcing Steel	6547 Lbs.

Weight of Expansion Bolts and Shields included in weight of Reinforcing Steel.

TENNESSEE DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

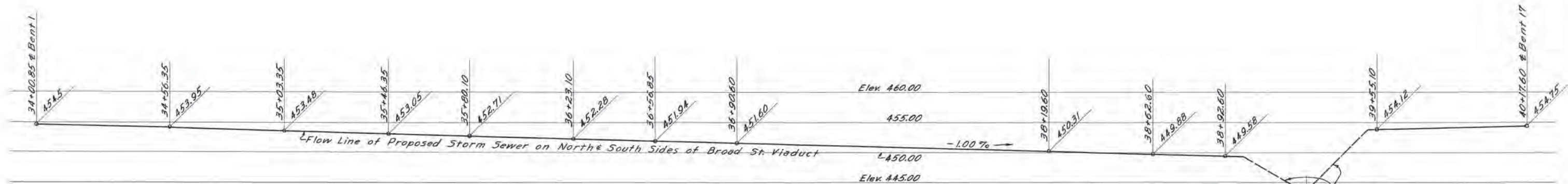
WEST ABUTMENT

L&NRR Co. VIADUCT - BROAD STREET - MILE 186.5 - NASH. TERM. Scale Design L&NRR. Revisions March 1, 1946

As Detailed	JKG	3-28-46	
Shown Traced	HBL	5-1-46	L&N.R. 6217
Checked	JFM	5-15-46	
		6-20-46	

Sheet 29 of H-68500

Revised 9/21/46



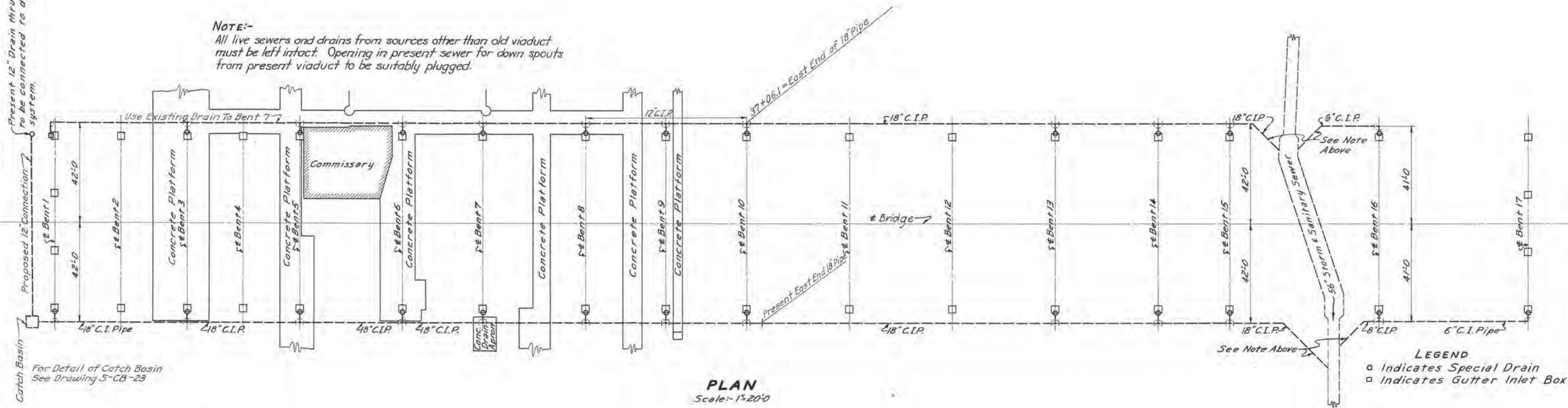
PROFILE
 Scales:-
 Hor-1"=20'-0"; Vert-1"=8'-0"

NOTE:- Connect Southside Viaduct Drains At Bents 1, 3, 5, 6 & 7 With Railroad's Existing Sewer.

NOTE:- Adjust in Field to Hit Present Storm Sewer Connections.

Present 12" Drain thru East Abutment to be connected to drainage system.

NOTE:- All live sewers and drains from sources other than old viaduct must be left intact. Opening in present sewer for down spouts from present viaduct to be suitably plugged.



PLAN
 Scale:- 1"=20'-0"

For Detail of Catch Basin See Drawing S-CB-23

ESTIMATED QUANTITIES

Grey Iron Castings	4360 Lbs.
6" C.I. Pipe	873 Lin. Ft.
8" C.I. Pipe	68 " "
12" C.I. Pipe	262 " "
18" C.I. Pipe	805 " "
Rock Excavation	6 cu. Yds.
Dry Excavation	980 " "

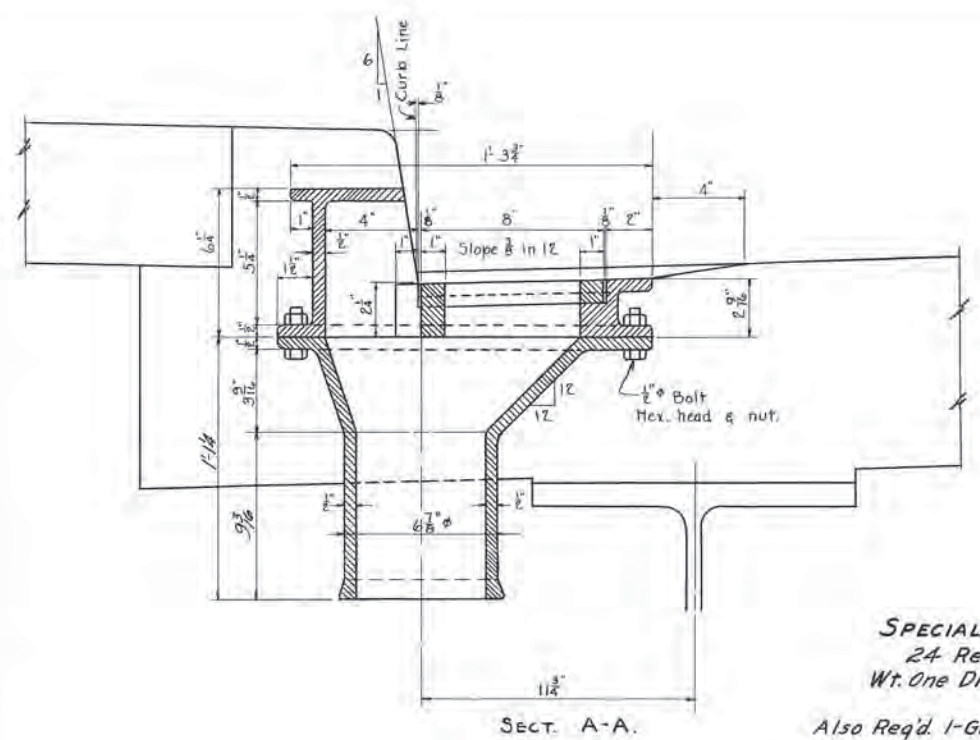
TENNESSEE
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT

DRAINAGE PLAN

L&NRRCA VIADUCT-BROAD STREET-MILE 186.5 NASH TERM
 Scale Design L&NRR Revisions March 1, 1946
 As Detailed JHG Mar. 25, 1946
 Shown Traced HBL May 1, 1946 L&NLF. 6217
 Checked J.F.M. Nov. 26, 1947

Revised 10-28-48

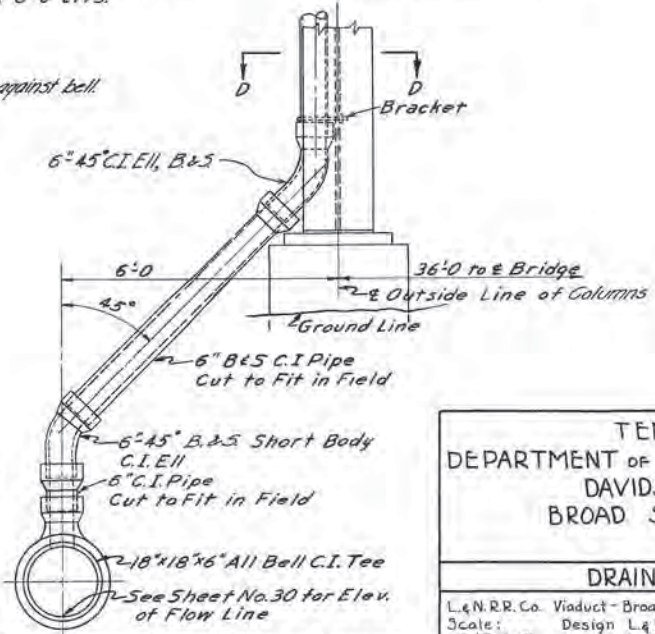
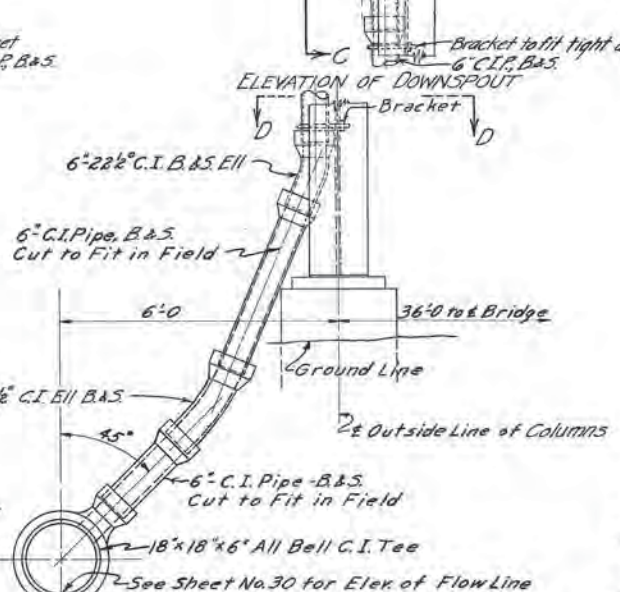
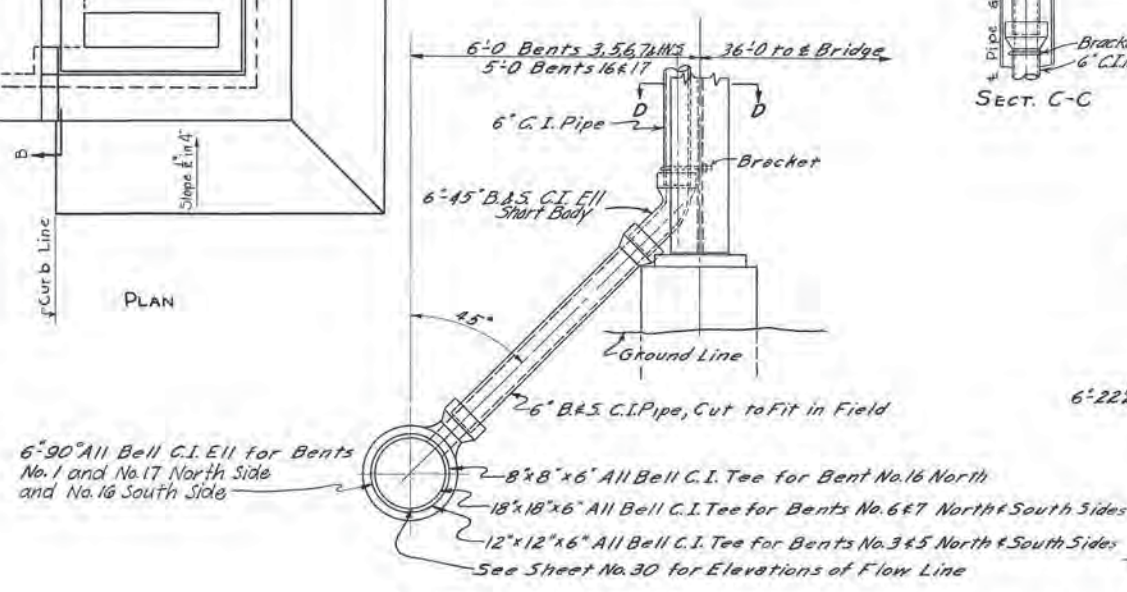
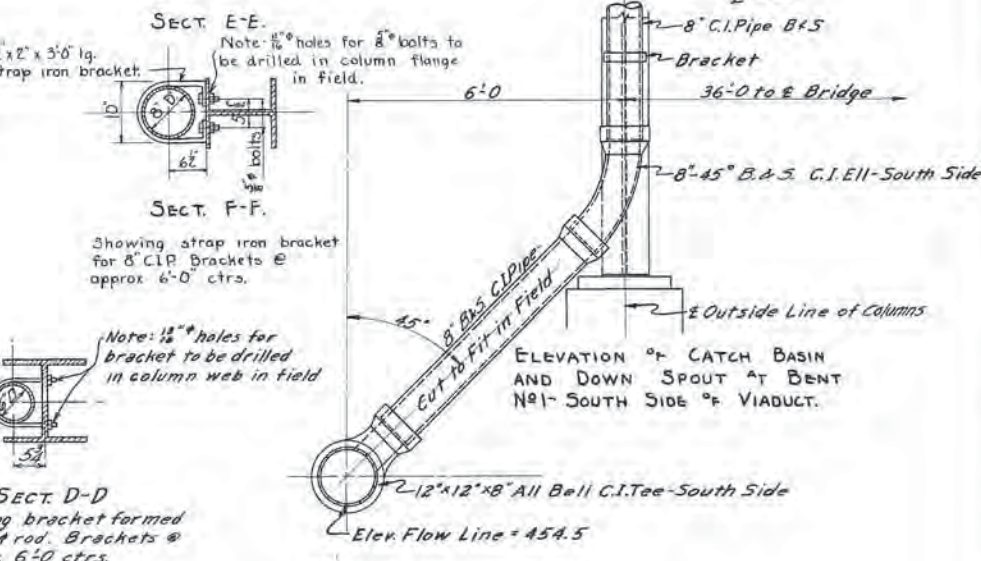
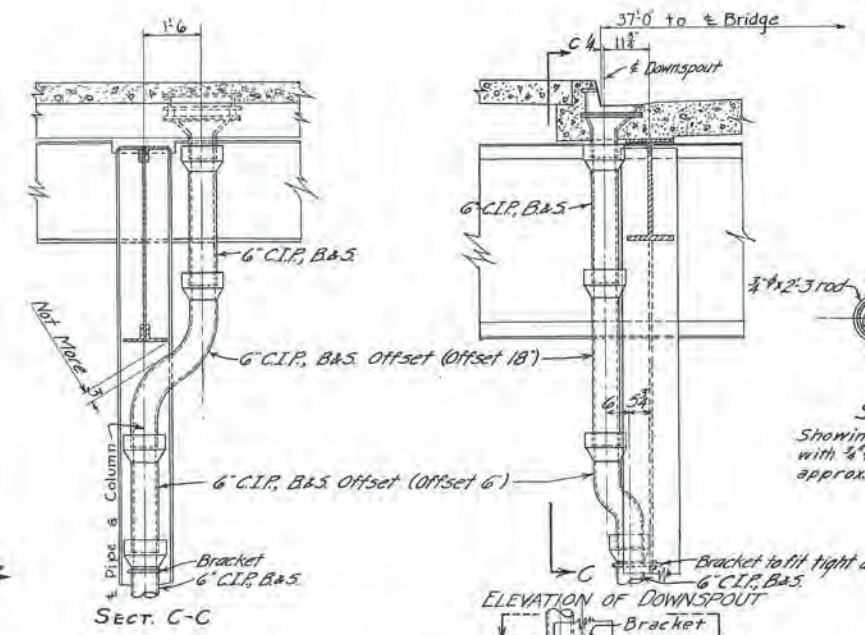
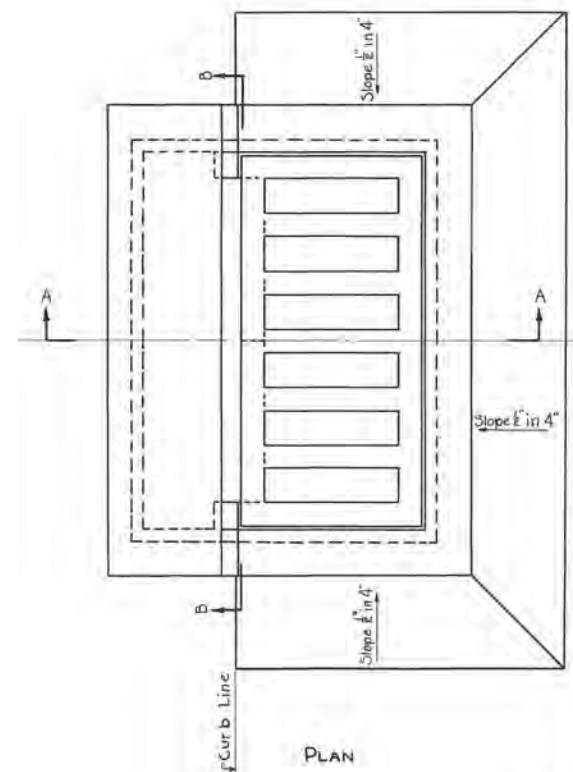
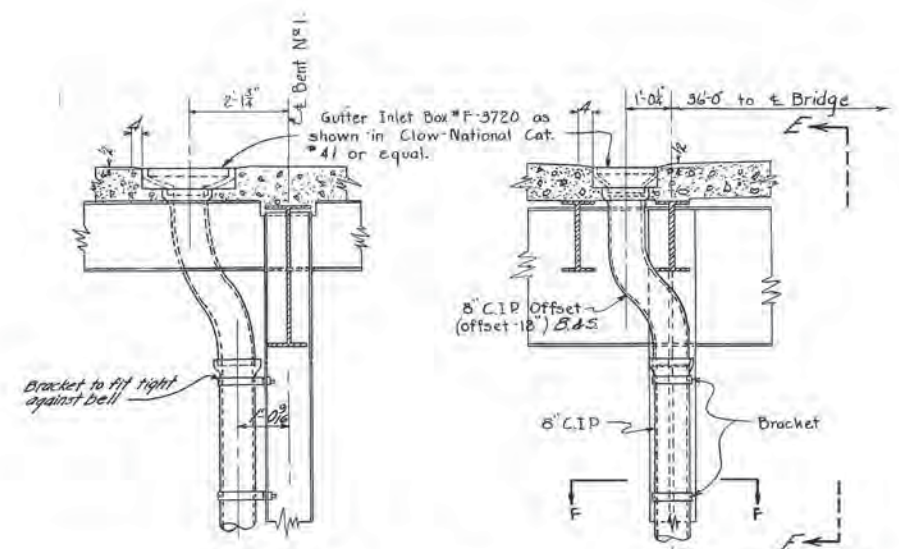
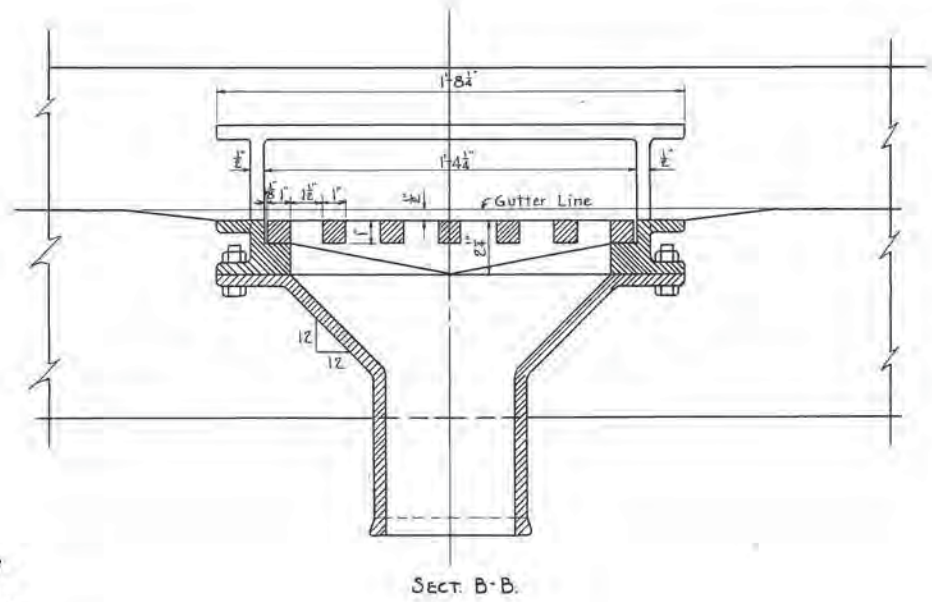
MICROFILMED



SPECIAL DRAIN
24 Required
Wt. One Drain-170 lbs.

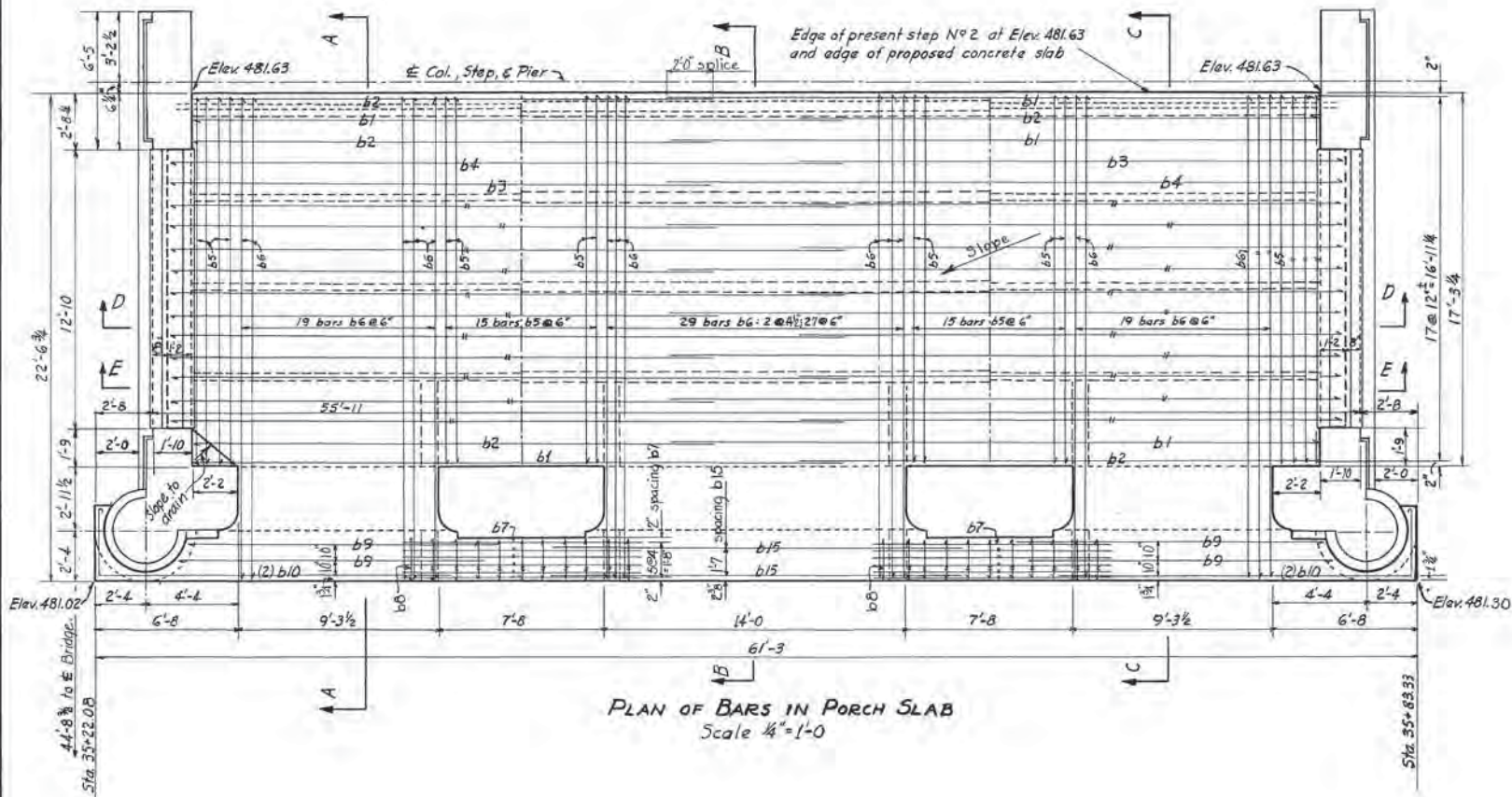
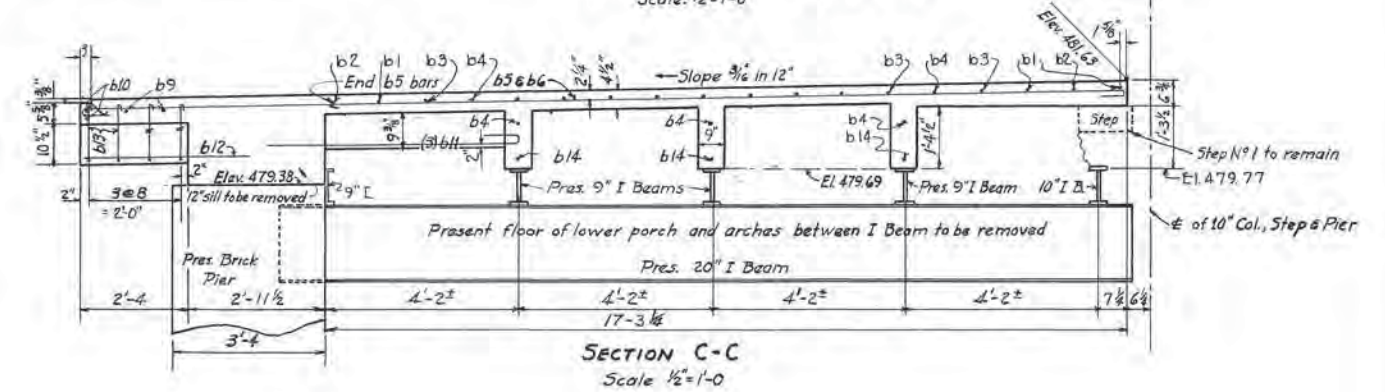
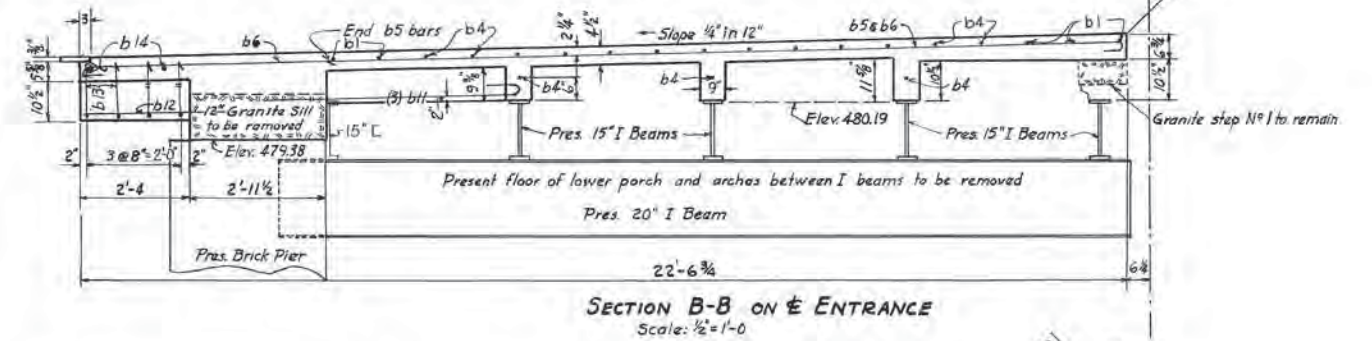
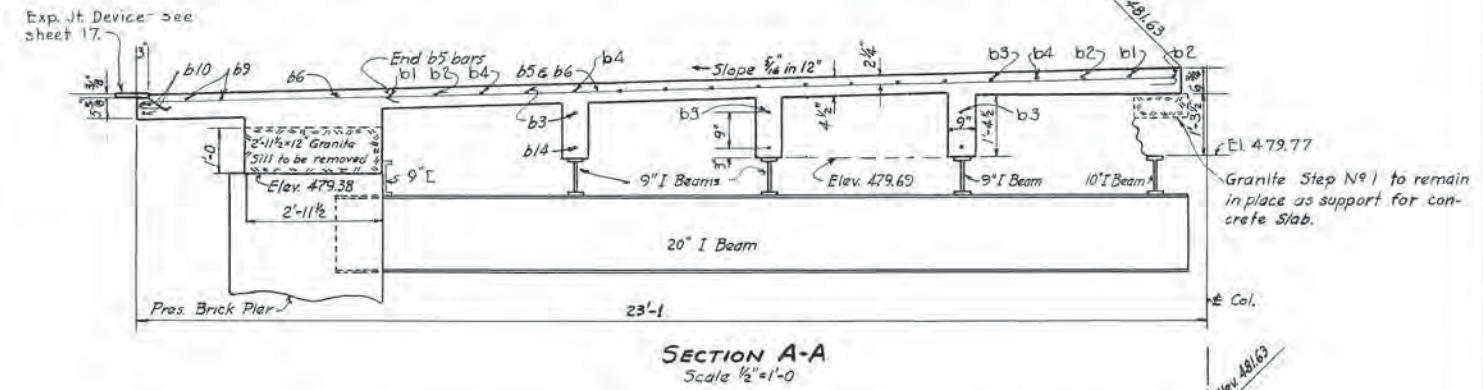
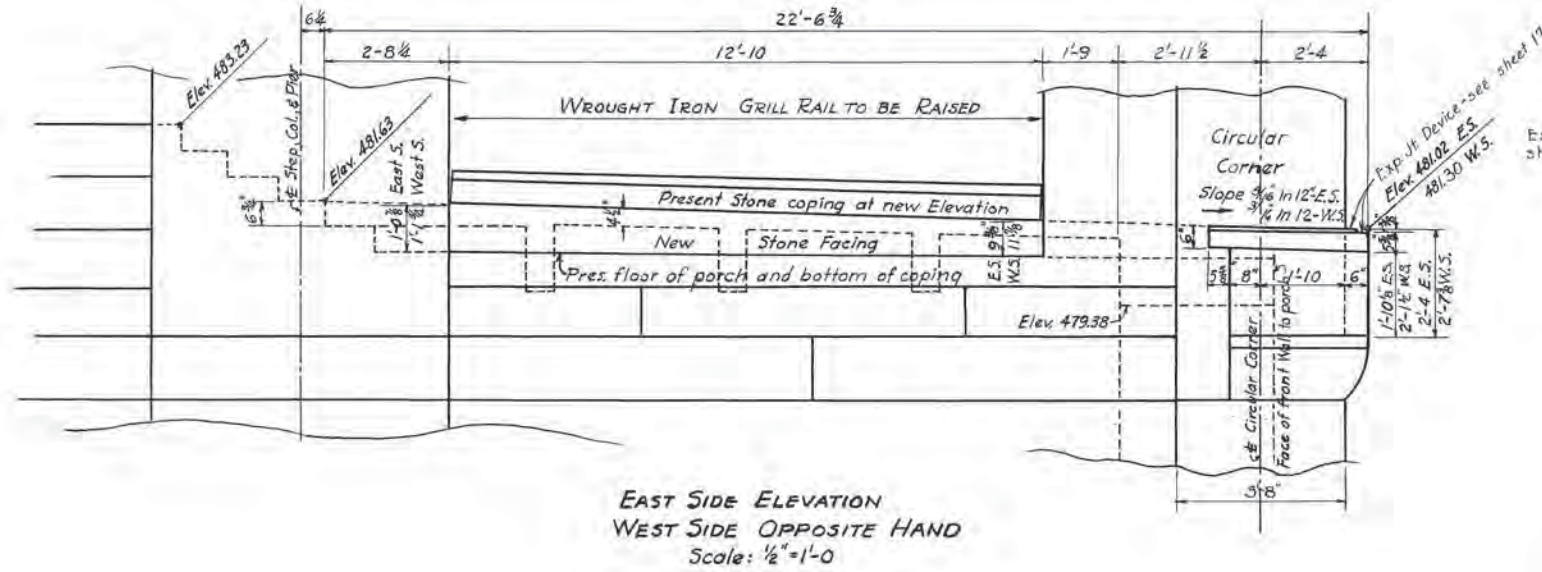
Also Req'd 1-Gutter Inlet Box
No. F-3720 Wt. 280 lbs.
as shown in Clow-Natl. Cat. No. 41 or equal

NOTE:-
Reinforcing bars to be bent to clear drains.



TENNESSEE
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DAVIDSON COUNTY
 BROAD STREET VIADUCT
DRAINAGE DETAILS
 L. & N. R. Co. Viaduct - Broad Street - Mile 18.65 - Nash. Terms.
 Scale: Design L. & N. R. Revisions March 1, 1946
 3" = 1'-0" Detailed P.R.C. Mar 25, 1946
 Traced D.J.T. May 1, 1946 L. & N. L.F. 6217
 Checked J.F.M.

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
8	Tenn.	001-4-1(B)	46	32	36

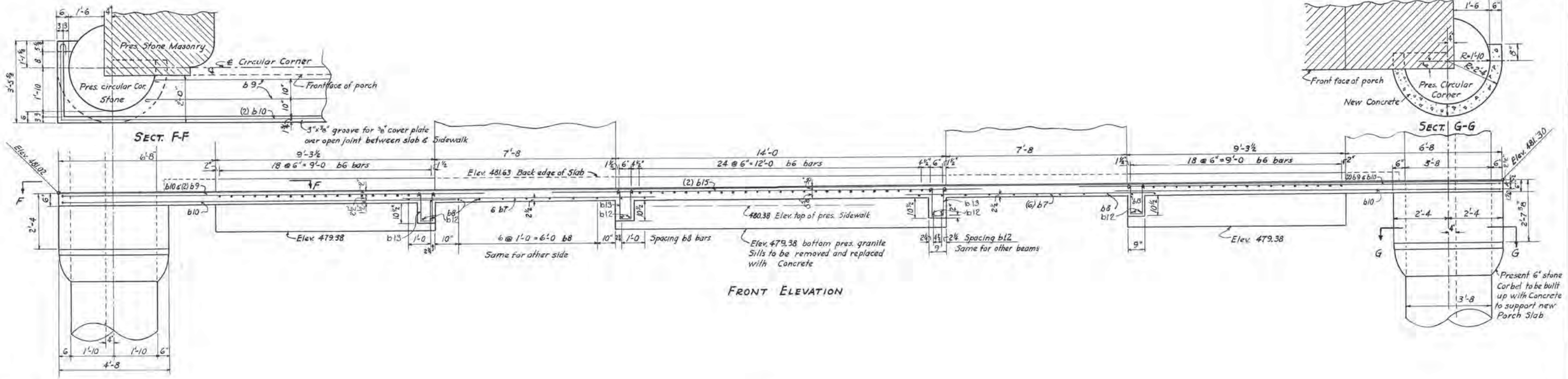


ESTIMATED QUANTITIES:-
 CONCRETE, CLASS A 33.5 cu. yds.
 REINFORCING STEEL 1540 Lbs.

WORK THIS SHEET WITH SHEET 33

**TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT**

NEW FLOOR IN ENTRANCE TO UNION STATION
 L.&N. R.R. Co. Viaduct-Broad St. Mile 186.5-Nashville Tenn.
 Scale: Design: L.&N. R.R. Co. Revisions: March 1, 1946
 As Shown Detailed: J.K.G. 3-27-46
 Traced: W.D.P. L.E.N. L.F. 6217
 Checked: J.F.M.



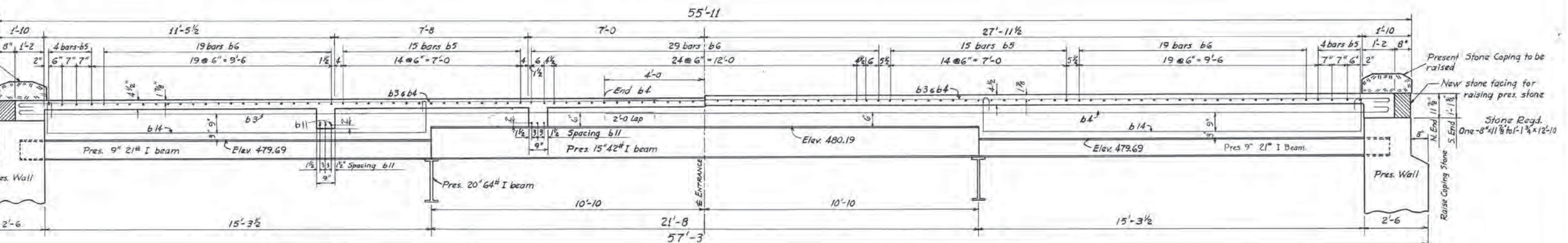
Note: Present Wrought Iron Grill Rail to be removed for raising floor and replaced at new elevation

Present stone coping to be raised

New stone facing for raising present coping

Stone Reqd. One-8"x9 3/8" to 1-0 1/2"x12'-10"

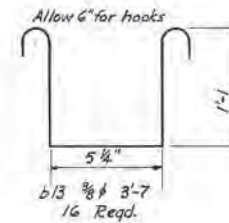
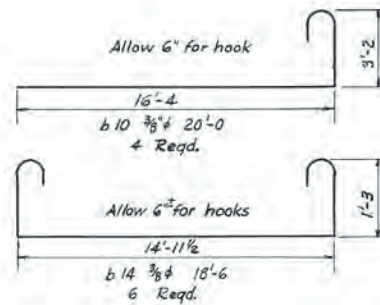
Pres. Wall



Mark	Size	Length	Reqd.
b7	3/8φ	12'-0"	12
b12	"	4'-0"	8
b15	"	17'-0"	2

Allow 6" for hook				
Mark	Size	A	Length	Reqd.
b1	3/8φ	24'-0"	24'-6"	5
b2	"	30'-0"	30'-6"	5
b3	"	25'-2"	25'-8"	16
b4	"	31'-2"	31'-8"	16
b9	"	14'-0"	14'-6"	4
b11	"	5'-6"	6'-0"	12

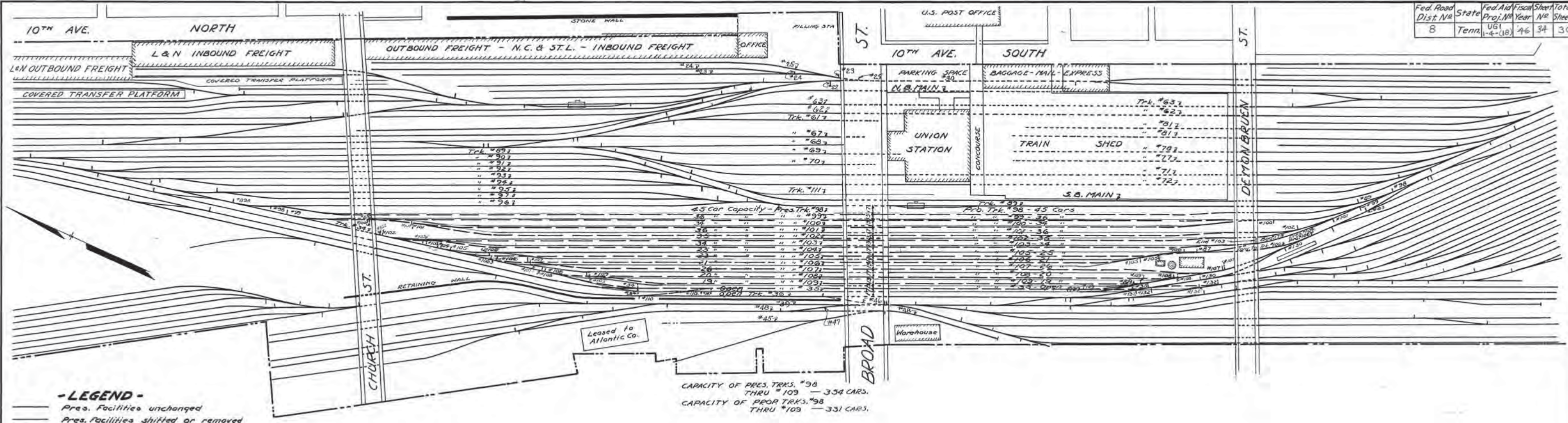
Allow 6" for each hook				
Mark	Size	A	Length	Reqd.
b5	3/8φ	17'-0"	18'-0"	38
b6	"	22'-4"	23'-4"	67
b8	"	1'-9"	2'-9"	22



WORK THIS SHEET WITH SHEET N°32

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

NEW FLOOR IN ENTRANCE TO UNION STATION
L & N. R.R. Co. Viaduct - Broad St. Mile 186.5 Nash. Term.
Scale: 1/2"=1'-0" Design: L & N. R.R. Co. Revisions: March 1, 1946
Detailed: J. K. G. 3-26-46
Traced: W. D. P. L. E. N. L. E. N° 6217
Checked: J. F. M.



-LEGEND-

— Pres. Facilities unchanged

- - - Pres. Facilities shifted or removed

--- Prop. Facilities

YARD MAP
SHOWING TRACK CHANGES IN CONNECTION WITH REBUILDING BROAD STREET VIADUCT

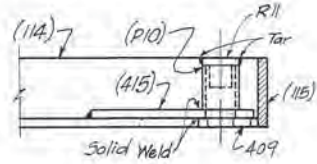
Track Numbers used on Viaduct Plans.	Corresponding Track Valuation Numbers shown on Yard Map	
1	25	Freight House.
2	30	
3	North Bound Main.	Passenger.
4	63	
5	62	
5 ^{1/2}	61 Spur	
6	67	
7	68	
8	69	
9	70	
10	71	
11	72	
12	111 Spur to be removed.	
13	South Bound Main.	
14	89	
15	98	
16	99	
17	100	
18	101	
19	102	
20	103	
21	104 To be removed.	
22	105	
23	106	
24	107	
25	108	
Freight Main	109	
Crossover	36	
Drill	46 Crossover between Freight Main & Drill.	
Crossover	39	
Ice Run	47 " " Drill & Ice Run.	
"	48	
"	45	

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

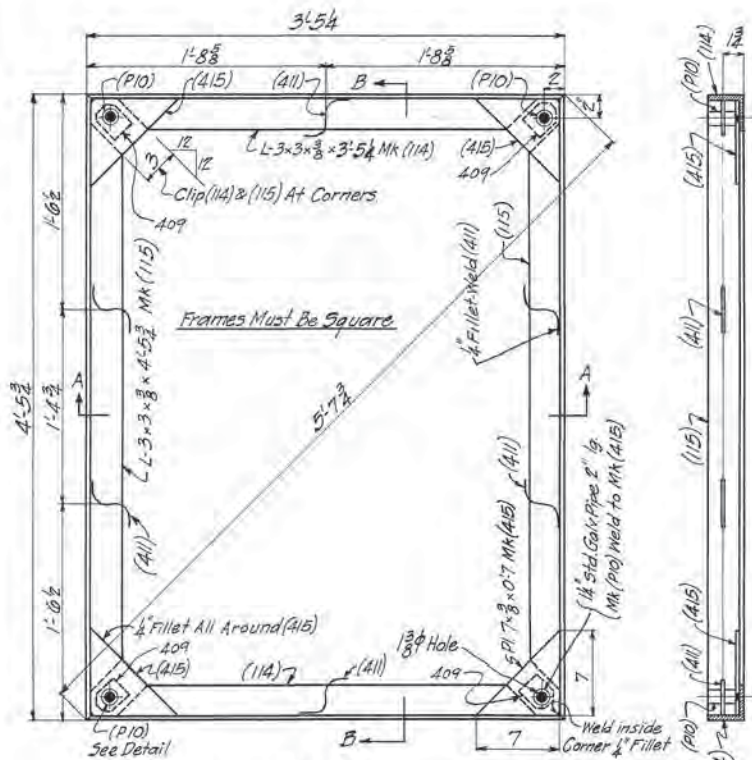
YARD MAP

LENRRCA VIADUCT - BROAD STREET - MILE 186.5 - NASH TERM. 1965
Scale Design LENRR Revisions Sept. 22, 1945
1"=100' Detailed CTY 2-28-46
Traced CTY 3-23-46 L&NLF.6217
Checked OK 8/28/46

Sheet 34 of
H-68500



CORNER DETAIL



PLAN

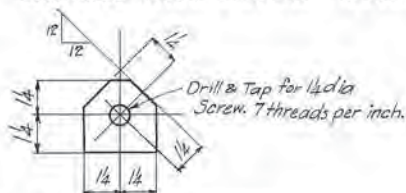
SECTION-AA

COVER FRAME ASSEMBLY
4-REQD

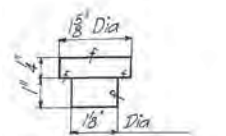
BILL OF MATERIAL FOR ONE FRAME.

Mark	No. Req'd	Shape	Description	Length
114	2	L	3x3x3/8	3'5 1/2
115	2	L	3x3x3/8	4'5 1/2
411	6	Bar	1/2"	0'9 1/2
415	4	Bar	7x3/8	0'7
P10	4	Pipe	1 1/4" Std. Galv.	0'2
409	4	Bar	2 1/2x3/8	0'2 1/2
R11	4	Cap	1 1/8" Dia. Brass	0'1 1/2

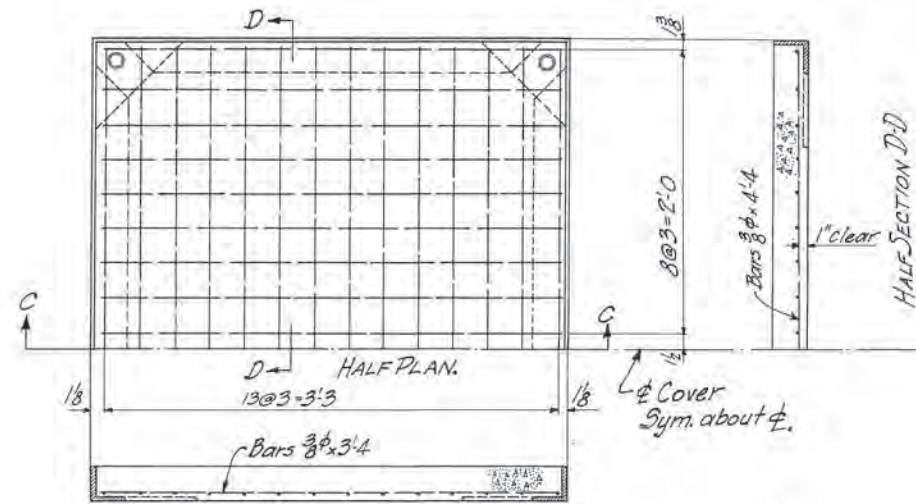
ESTIMATED WEIGHT-ONE FRAME - 136 LBS.



R 2 1/2 x 3 x 0 1/2 MARK 409.



PIPE CAP-MARK R11.

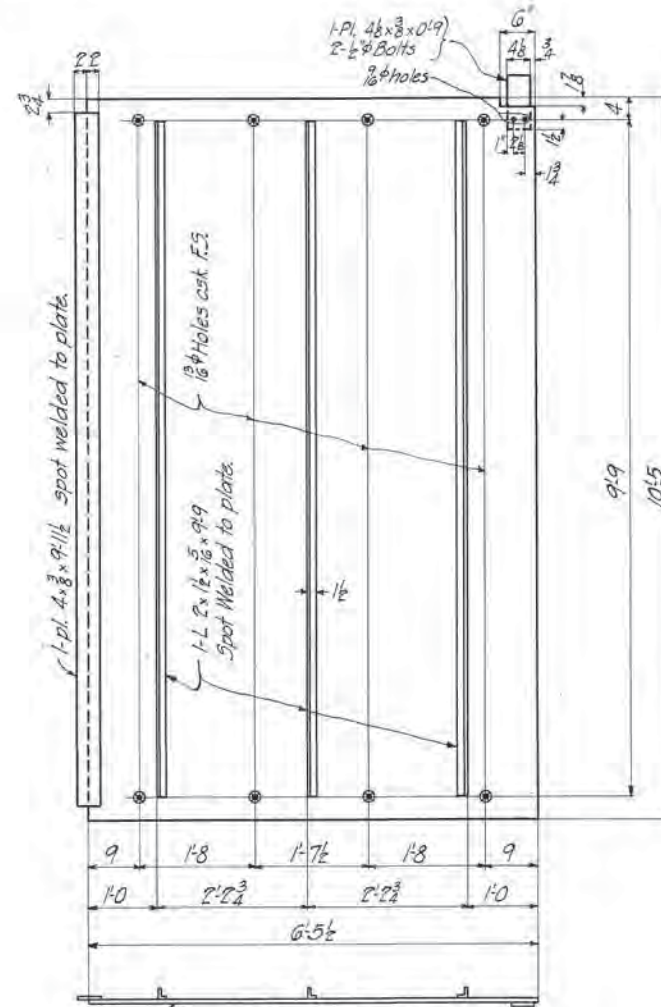


SECTION-CC.

DETAIL OF HATCH COVER
4-REQD.

Bill of Reinforcing Bars for One Cover
18-Bars 3/8"x3'4"
14-Bars 3/8"x4'4"

ESTIMATED QUANTITIES FOR 4-COVERS.
Concrete, Class A 0.55 cu. yd.
Reinforcing Steel 184 lbs.

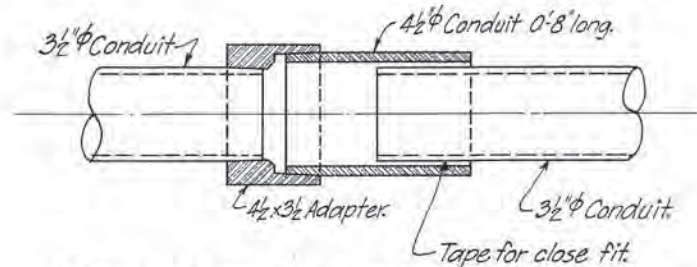


L-Pl. 7 1/2 x 3/8 x 10'5 Struct. Steel.

FLOOR PLATE FOR PULL BOX.
For location, see sheet 19.

Bill of Material for Hanging Floor Plate:
8-C.I. Beam Clips
8-Csk. Hd. Bolts 3/4"x4" with Sq. Nut & Lock Washer } Detailed on Sheet 19.
4-Shims 2 1/2x3/8x0'2 1/2 Mark 32
4-Shims 2 1/2x3/8x0'2 1/2 Mark 36

ESTIMATED WEIGHT 1214 LBS.



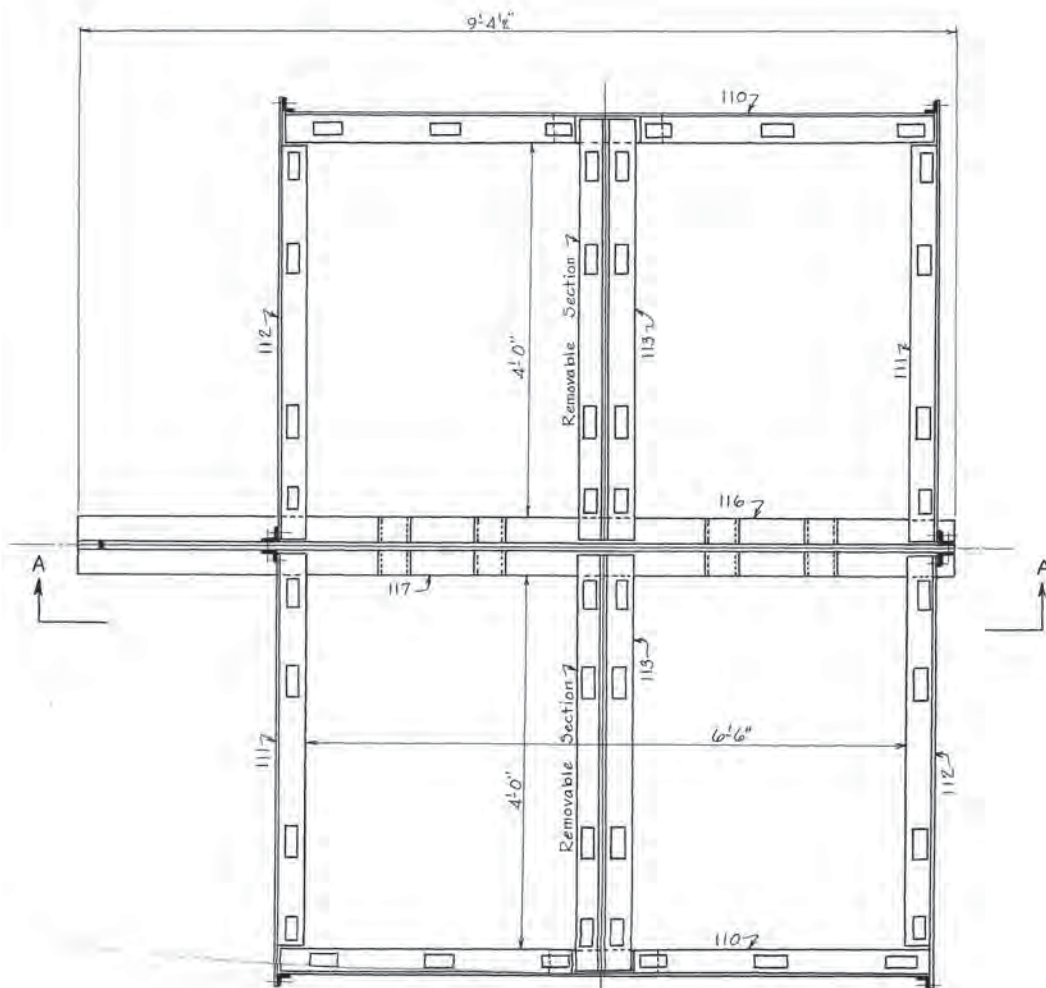
DETAIL OF EXPANSION JOINT IN TELEPHONE CONDUIT.

Install expansion joint in each line of conduit near bents 3, 6, 9, 12, 15 and West Abutment.

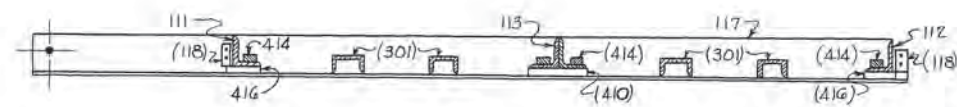
TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

MISCELLANEOUS UTILITY DETAILS.

L & N.R.R.Co.	Viaduct-Broad Street	Mile 186.5	Nash, Tenn.
Design	L&N	Revisions	
Detailed	PRE	7-5-46	June 20, 1946
Traced	PRE		L & N LF 0217
Checked	PRE		

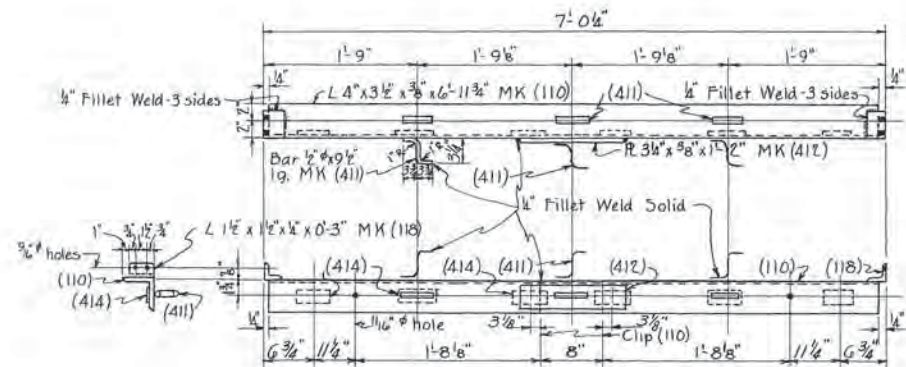


PLAN

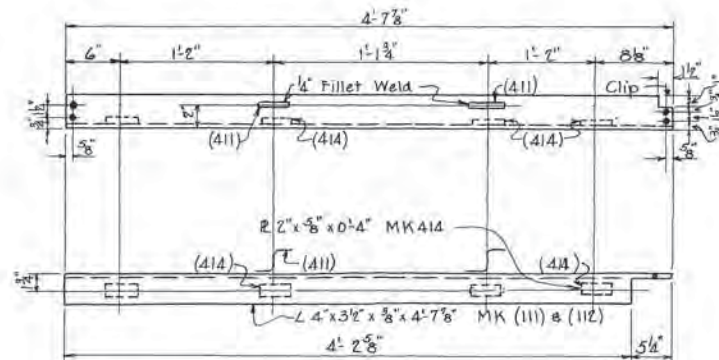


SECTION A-A

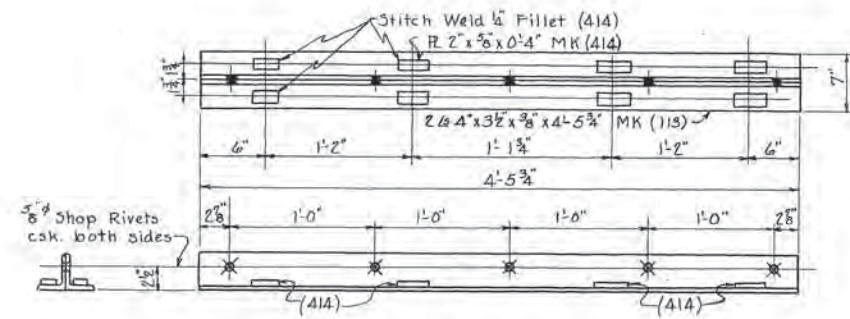
ERECTION DIAGRAM



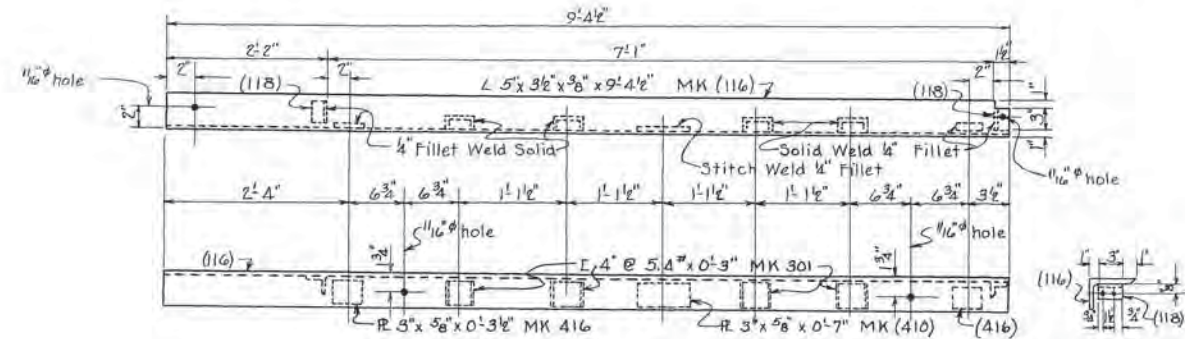
FRAME ASSEMBLY MK 110
2 REQUIRED



FRAME ASSEMBLY AS SHOWN MK 111 2 REQ'D.
" " " " MK 112 " "



BEAM ASSEMBLY MK 113 2 REQ'D.



ONE BEAM ASSEMBLY AS SHOWN MK 116
" " " " MK 117

BILL OF MATERIAL

MARK	QUAN.	SHAPE	DESCRIPTION	LENGTH
110	2	L	4" x 3 1/2" x 3/8"	6'-11 3/4"
111	2	L	" " "	4'-7 3/8"
112	2	L	" " "	"
113	2	JL	" " "	4'-5 3/4"
116	1	L	5" x 3 1/2" x 3/8"	9'-4 1/2"
117	1	L	" " "	"
118	8	L	1 1/2" x 1 1/2" x 1/4"	0'-3"
301	8	C	4 @ 5.4"	"
410	2	Pl	3" x 8"	0'-7"
411	20	Bar	1/2" phi	0'-9 1/2"
412	2	Pl	3 1/2" x 3/8"	1'-2"
414	44	Pl	2" x 8"	0'-4"
416	4	Pl	3" x 5/8"	0'-3 1/2"

Estimated Weight 764 lbs.

TENNESSEE
DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
DAVIDSON COUNTY
BROAD STREET VIADUCT

MISCELLANEOUS UTILITY DETAILS

L & N. R. R. Co. - Viaduct - Broad Street - Mile 186.5 - Nash Term. Design Revisions July 5, 1946
Detailed Traced D.J.T. L & N. L.F. 6217
Checked PRE