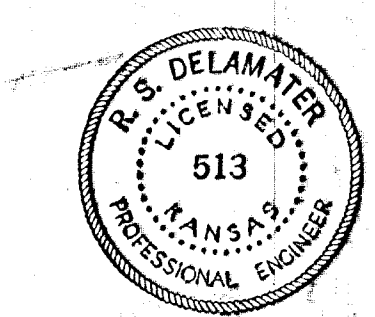


WASSALL STREET BRIDGE OVER DRY CREEK

CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER
FEBRUARY, 1954

- INDEX OF SHEETS**
- Sheet 1. Contour Map
 - " 2. Construction Layout
 - " 3. Abutment Details
 - " 4. Pier Details
 - " 5. Slab Details
 - " 6. Handrail Details
 - " 7. Bar Supports & Spacers



Scale 1" = 50'

GRADING NOTES:

Grading Contractor shall excavate the channel to the grade and dimensions indicated placing the excavated materials in road fills at the ends of the bridge, approximately half at each end of the bridge, as directed by the Engineer. Fills are to be built to the cross section shown, extending as far back as possible with the material available from the channel change.

Dirt and rip-rap in the existing walkway crossing are included in the quantities of Common Excavation. The item of Removal of Existing Crossing includes removal of handrails along the walk and the removal of the concrete pipe under the crossing. Contractor shall use reasonable care in removal of pipes and handrail, storing all salvageable material at the site as directed by the Engineer.

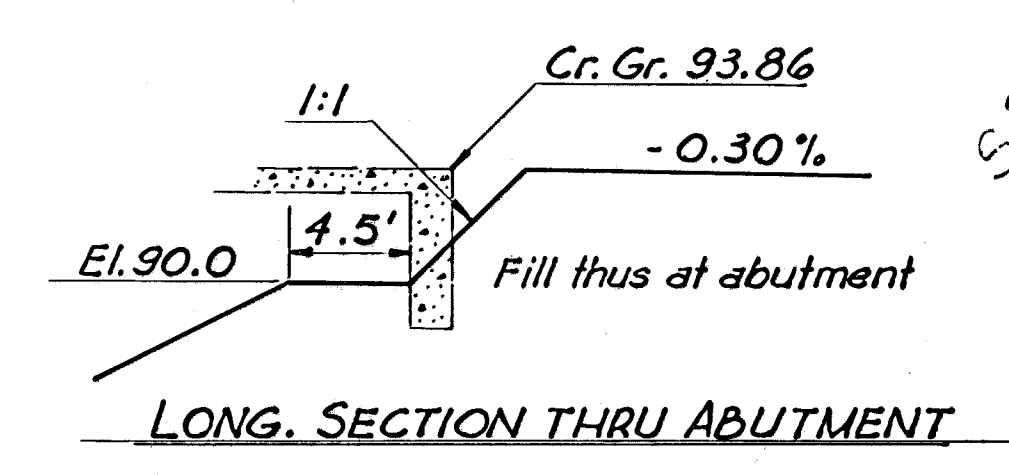
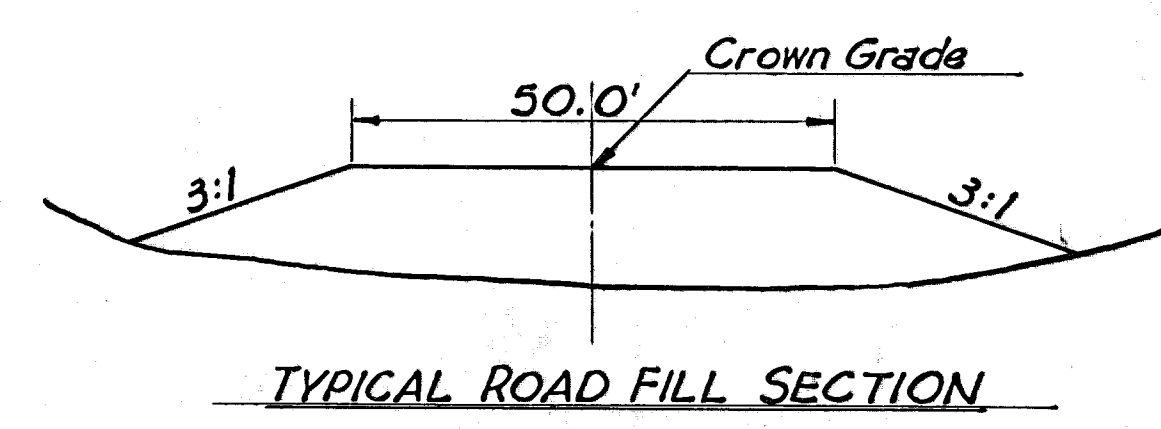
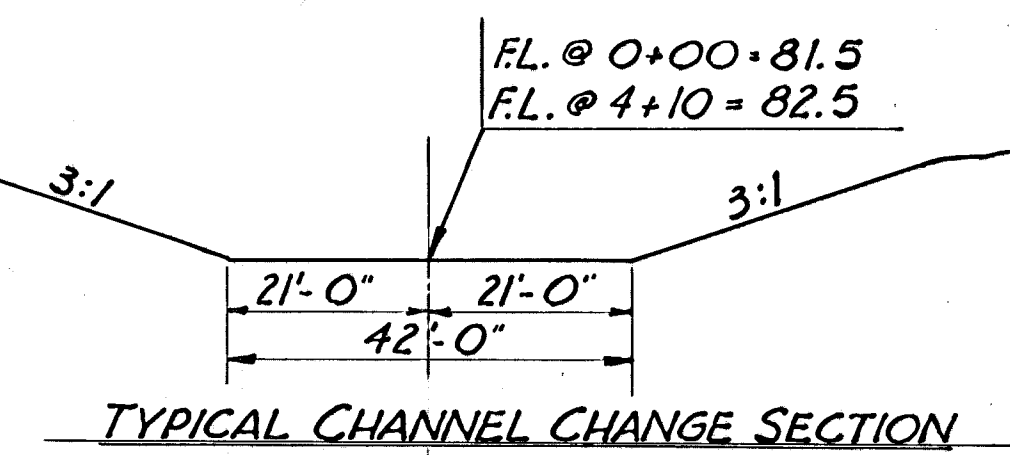
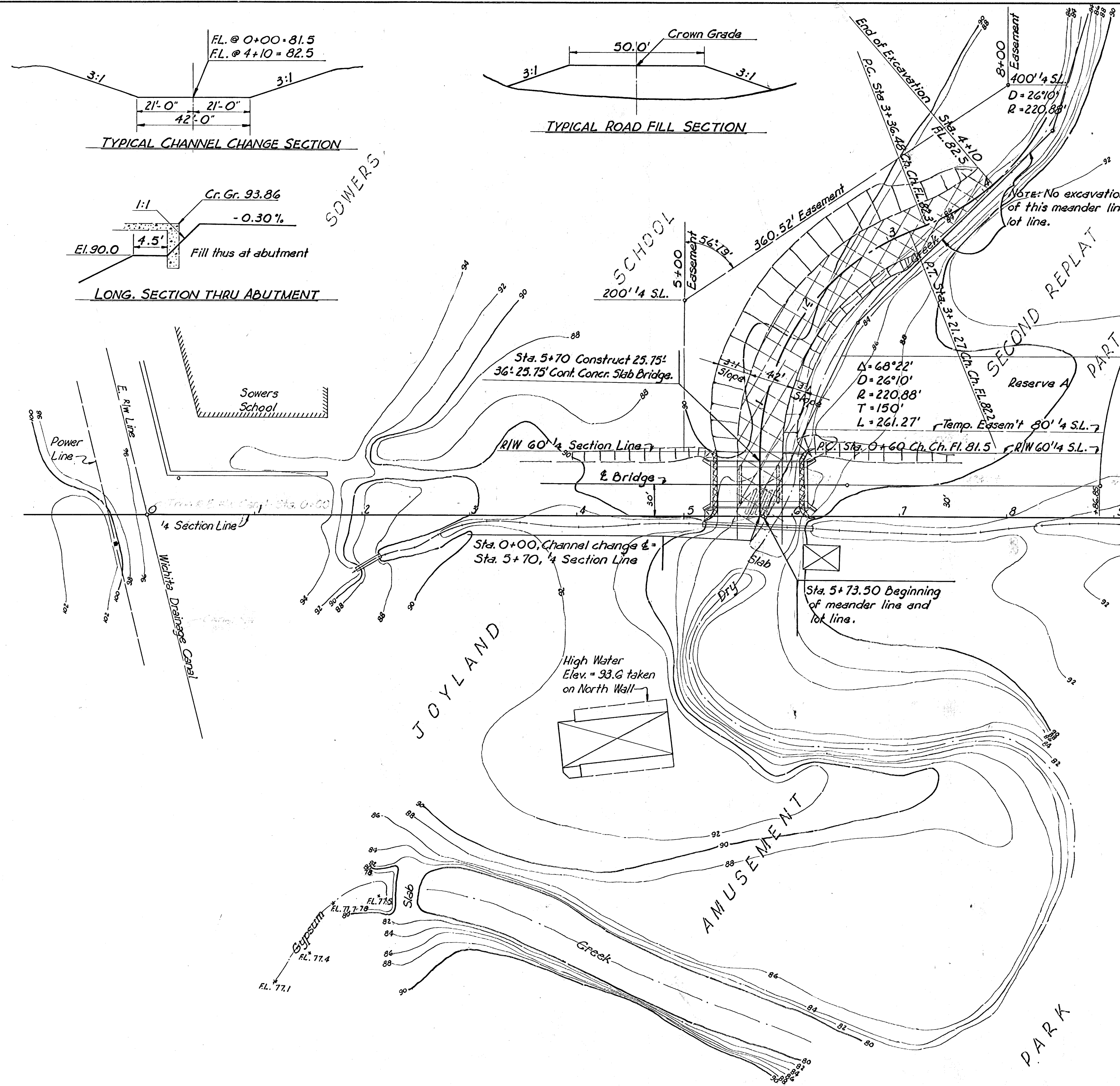
Broken concrete and blocks removed from the channel shall be scattered in the toe of the fill only, with particular care taken to avoid pockets of such material in the fill.

All trees, brush, and similar material unsuitable for fill shall be hauled to the city dump for disposal; burning at the site will not be permitted.

Dirt placed in the roadway fill, as described above, shall be compacted as specified for Type B compaction, Kansas State Highway Commission specifications.

GRADING QUANTITIES		
ITEM	QUAN.	UNIT
Small Trees Removed	50	Each
Large Trees Removed	33	Each
Common Excavation	5500	Cu. Yds.
Compaction of Earthwork, Type B	5000	Cu. Yds.
Removal of Existing Crossing	Lump Sum	
Water	1	M. Gal.

CITY OF WICHITA, KANSAS B. E. SMITH, CITY ENGINEER	
CONTOUR MAP WASSALL STREET BRIDGE OVER DRY CREEK	
R. S. DELAMATER CONSULTING ENGINEER WICHITA, KANSAS	DATE March 1, 1954 SCALE 1" = 50' DWG. NO. 79-D-1



SURV. PCT. 1/12/54
 DES. DR. R.C.T.
 TR. H.L.M.
 CRO. H.L.M.
 APP. 2/1/54

B.M. #2 Spike in N. side of stump on backslope of R.R. 1' Rt. of Sta. 4+75 Elev. 92.88

B.M. #3 Big Spike near base of S. side 60" tree - with blaze around spike. 32.5' Lt. of Sta. 6+39 Elev. 86.97

SHEET NO. 2
OF 7 SHEETS

GENERAL NOTES:

CHANNEL CHANGE & GRADING: The Grading Contractor shall excavate the channel change at bridge site including existing crossing prior to construction of the piers and will construct embankment at abutments to Crown Grade prior to construction of abutments.

BRIDGE EXCAVATION: Elevation 83.0 shall designate the Excavation Boundary Plane, Class I excavation above the plane and Class II below. Bridge excavation quantities shall be computed to a line 1'-6" outside of concrete lines all around.

CONCRETE: Concrete shall be Class A in abutments, piers and handrail and Class AAA in superstructure.

PILES: All piles shall be driven to the penetration shown unless in the opinion of the Engineer such penetration cannot be reached without injury to the piles. All treated timber piles shall be driven to a minimum computed bearing value of 20 tons per pile and all steel piles driven to a minimum computed bearing value of 37 tons per pile.

SOUNDINGS: Soundings shown on this sheet are as taken by borings in the field and represent the best information available to the City of Wichita.

REINFORCING STEEL: All reinforcing steel shall conform to A.S.T.M. Specification A 305-49.

DESIGN:

Design Loading: H 20-44 AASHO. Specifications

Unit Stresses: $f_s = 20,000$ psi. reinforcing

$f_c = 1,200$ psi. Class A

$f_c = 1,600$ psi. Class AAA

Pile Loading: 20 tons per pile, Treated Timber
37 tons per pile, Steel

GENERAL REQUIREMENTS: It is the intention of these plans and specifications that construction of the bridge shall be in accordance with applicable standard specifications and requirements of the Kansas State Highway Commission and that materials shall conform to those specifications unless otherwise expressly noted.

WATERWAY DATA

Maximum Design Discharge

4,500 c.f.s.

Area Required @ 6 ft./sec.

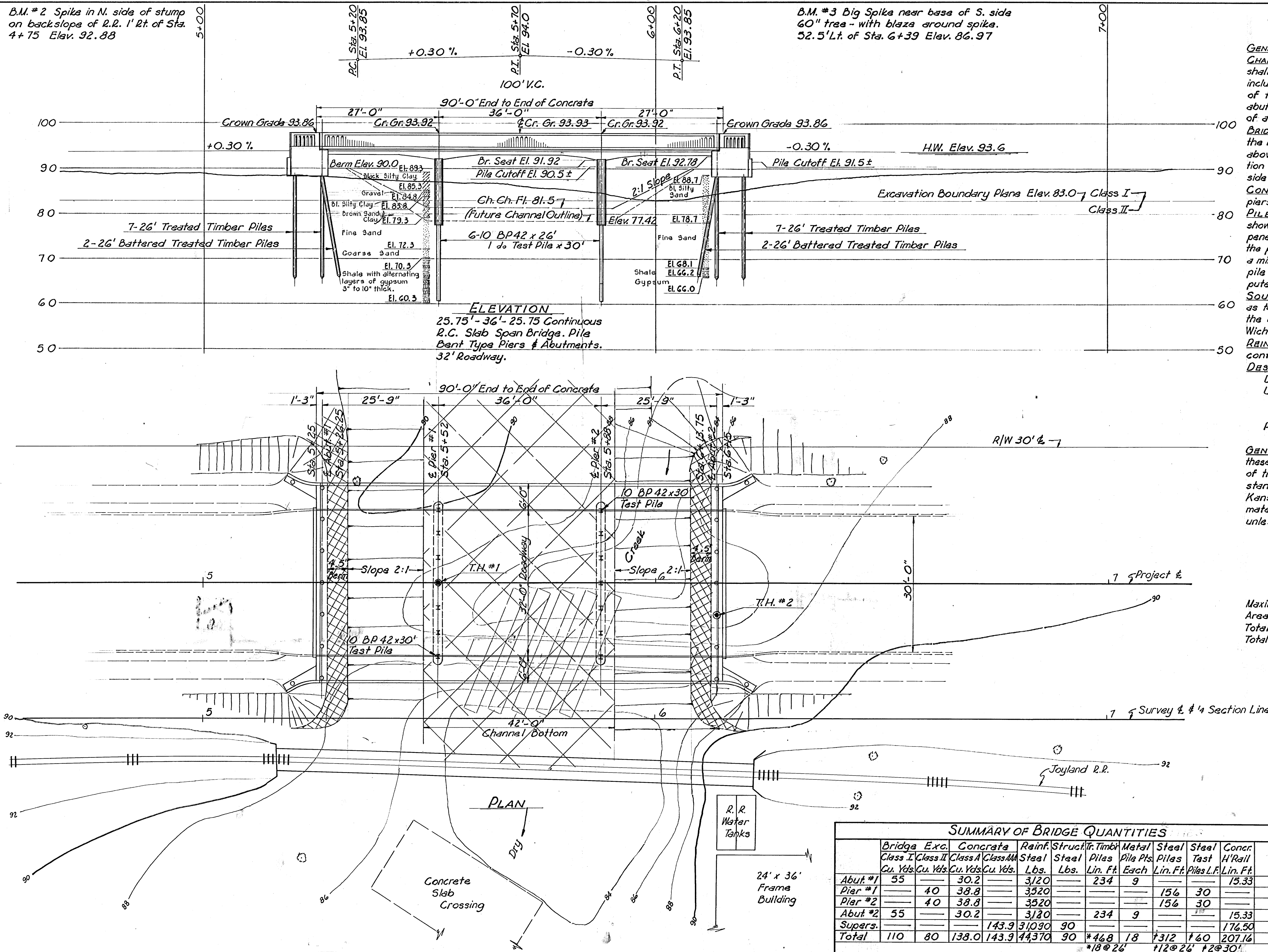
750 ft.²

Total Area Provided to Proposed Flow Line

750 ft.²

Total Area Provided to Future Flow Line

890 ft.²



SUMMARY OF BRIDGE QUANTITIES

	Bridge Exc.	Concrete	Reinf. Steel	Struct. Steel	Timber Piles	Metal Piles	Steel Piles	Steel H' Rail	Concr. H' Rail
	Class I	Class II	Class A	Class AAA					
	Cu. Yds.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Lbs.	Lbs.	Lin. Ft.	Each	Lin. Ft.
Abut. #1	55	—	30.2	—	3120	—	234	9	15.33
Pier #1	—	40	38.8	—	3520	—	—	156	30
Pier #2	—	40	38.8	—	3520	—	—	156	30
Abut. #2	55	—	30.2	—	3120	—	234	9	15.33
Supers.	—	—	—	143.9	31,090	90	—	—	176.50
Total	110	80	138.0	143.9	44,370	90	*468	18	*312
							*18@26'	*12@26'	*2@30'

CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

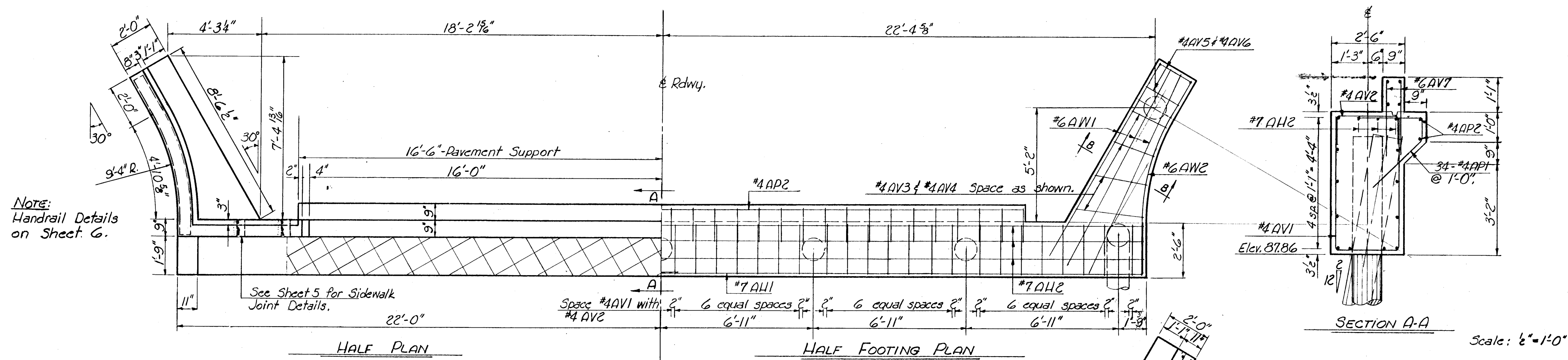
CONSTRUCTION LAYOUT WASSALL STREET BRIDGE

OVER
DRY CREEK

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE March, 1954
SCALE 1"=10'
DWG. NO. 79-D-2





Note:
Handrail Details
on Sheet 6.

See Sheet 5 for Sidewalk
Joint Details.

HALF PLAN

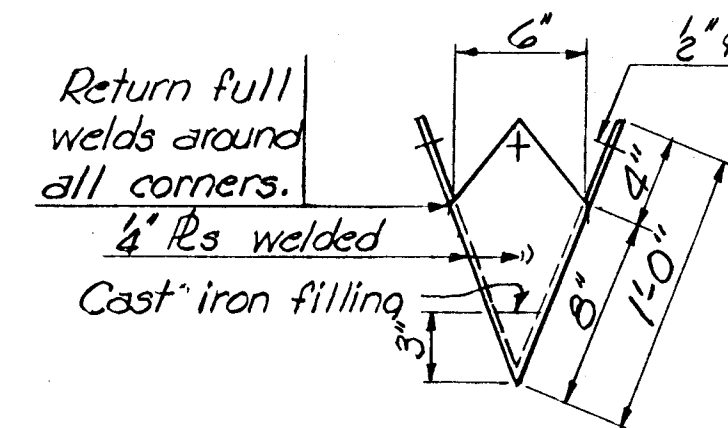
HALF FOOTING PLAN

SECTION A-A

Scale: 1/2" = 1'-0"

SECTION B-B

Note:
Handrail steel.
See sheet 6.



WELDED STEEL PILE POINT

NOTES:
Class A Concrete shall be used throughout.
Bevel all exposed edges with a 3/4" triangular
molding and fillet all corners 3/4" unless otherwise
noted.
All dimensions shown relative to reinforcing
steel placement are to 6" of bars unless otherwise
noted. All dimensions shown in the bending
diagrams are out to out of bars.
See sheet 6 for Handrail Details.
Pile Loading: 20 tons per pile.

After concreting is complete,
brick up these openings, using
common brick in cement mor-
tar; this work to be subsidiary
to Class A Concrete bid item.

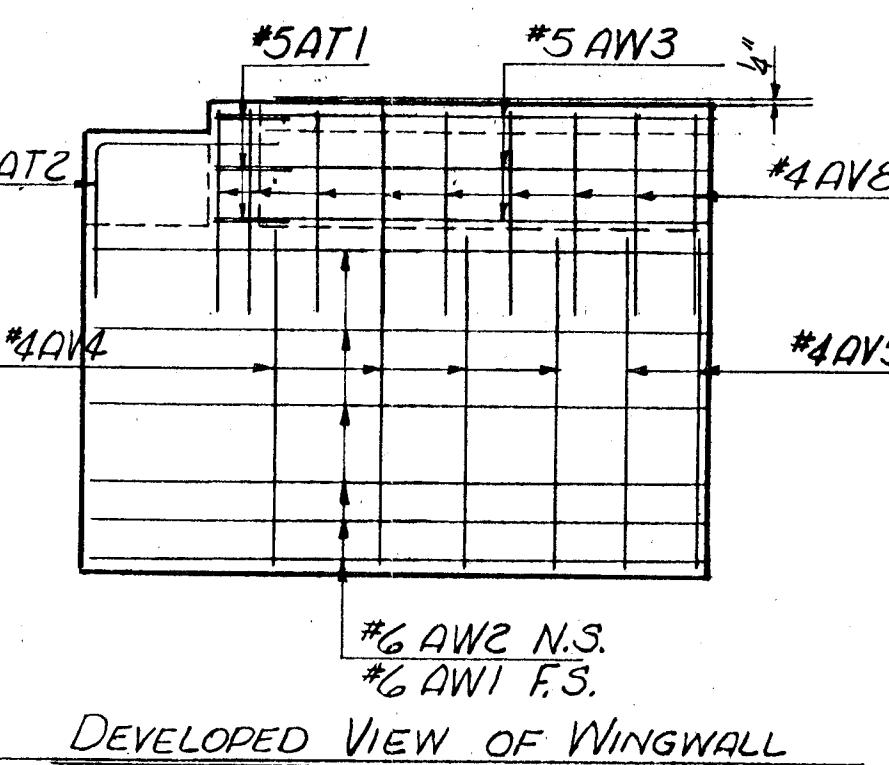
1/2" Celotex wall board
or approved equiv-
alent, to be removed
after sidewalk is
completed.

Elev. 87.86

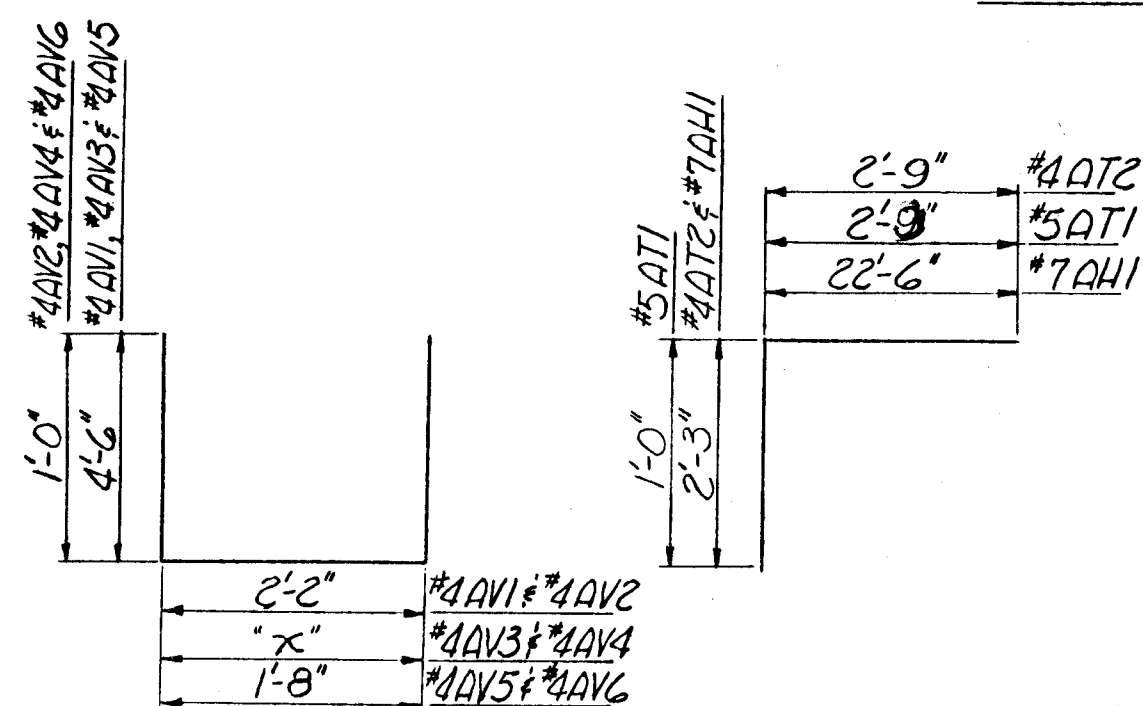
12" Vert. Treated Timber Piles
12" Battered Treated Timber Piles

HALF FRONT ELEVATION

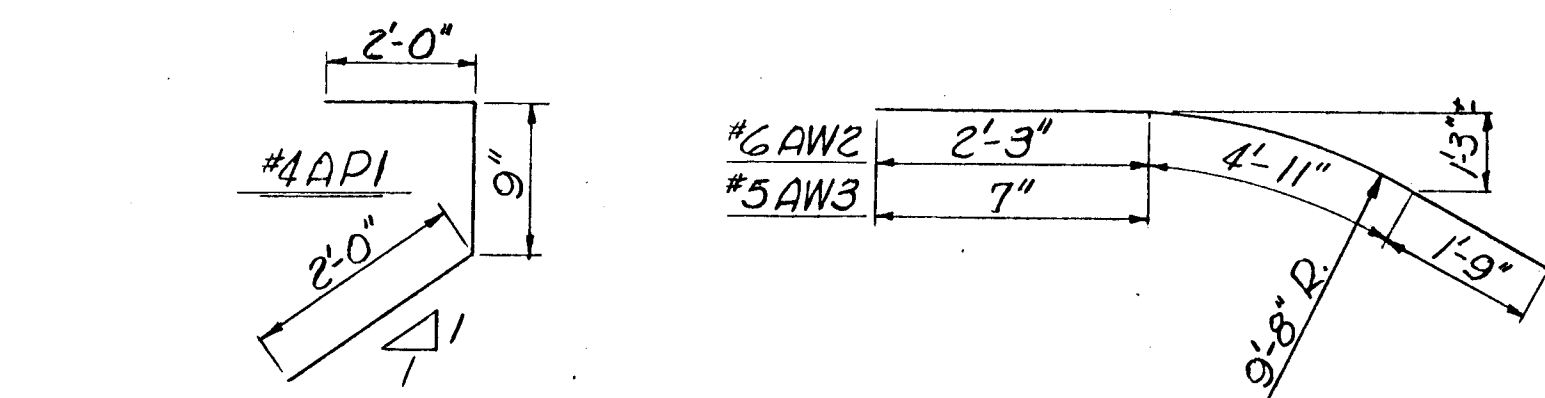
HALF FRONT ELEVATION SHOWING REINFORCING



DEVELOPED VIEW OF WINGWALL



* "x" dimension increases in increments
of 5" from 1'-9" to 3'-0".



* See bar bending diagrams

ABUTMENT BAR LIST AND SUMMARY OF QUANTITIES

Mark	AH1	AH2	AH3	AH4	AP1	AP2	AT1	AT2	AW1	AW2	AW3	AV1	AV2	AV3	AV4	AV5	AV6	AV7	AV8
No. Req'd.	10	18	8	34	4	12	4	12	16	12	12	44	44	8	8	4	4	66	58
Size	#7	#7	#5	#5	#4	#4	#5	#4	#6	#6	#5	#4	#4	#4	#4	#4	#6	#4	#4
Length	24'-9"	22'-6"	17'-6"	5'-6"	4'-9"	16'-9"	3'-9"	5'-0"	9'-9"	8'-11"	7'-3"	11'-2"	4'-2"	*	*	10'-8"	3'-8"	2'-3"	3'-0"
Shape	└	└	└	└	└	└	└	└	└	└	└	└	└	└	└	└	└	└	└

Class A Concrete 302 Cu. Yds.
Concrete Handrail 1533 Lin. Ft.
Reinforcing Steel 3120 Lbs.
Treated Timber Piles 234 Lin. Ft.
Metal Pile Points 9 Each

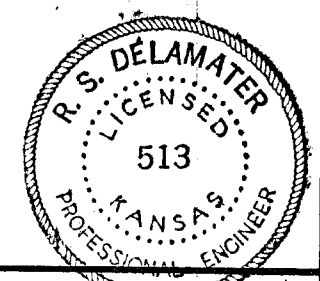
CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

ABUTMENT DETAILS
WASSALL STREET BRIDGE

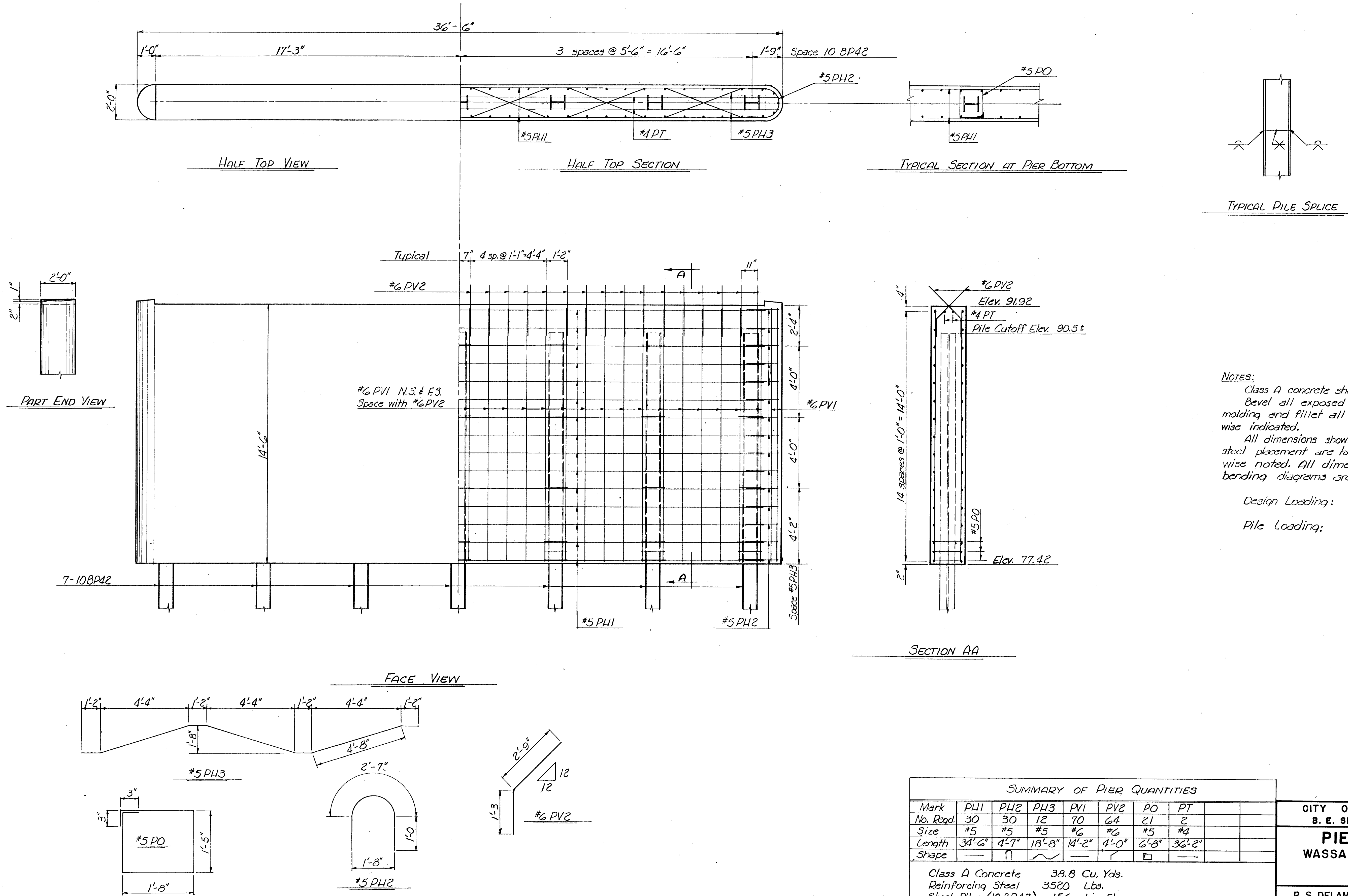
OVER
DRY CREEK

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE March 1954
SCALE 1/8" = 1'-0"
DWG. NO. 79-D-3



Class A Concrete



NOTES:
Class A concrete shall be used throughout.
Bevel all exposed edges with a 3/4" triangular molding and fillet all corners 3/4" unless otherwise indicated.
All dimensions shown relative to reinforcing steel placement are to c of bars unless otherwise noted. All dimensions shown in the bending diagrams are out to out of bars.
Design Loading: 1120-44
Pile Loading: 37 tons per pile

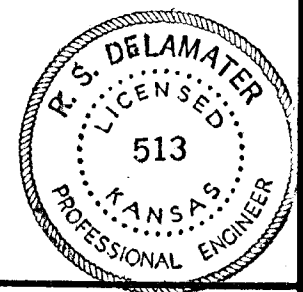
SUMMARY OF PIER QUANTITIES									
Mark	PH1	PH2	PH3	PV1	PV2	PO	PT		
No. Req'd	30	30	12	70	64	21	2		
Size	#5	#5	#5	#6	#6	#5	#4		
Length	34'-6"	4'-7"	18'-8"	14'-2"	4'-0"	6'-8"	36'-2"		
Shape	—	U	—	—	—	—	—		
Class A Concrete		38.8 Cu. Yds.							
Reinforcing Steel		3520 Lbs.							
Steel Piles (10 BP42)		156 Lin. Ft.							
Steel Test Pile		30 Lin. Ft.							

CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

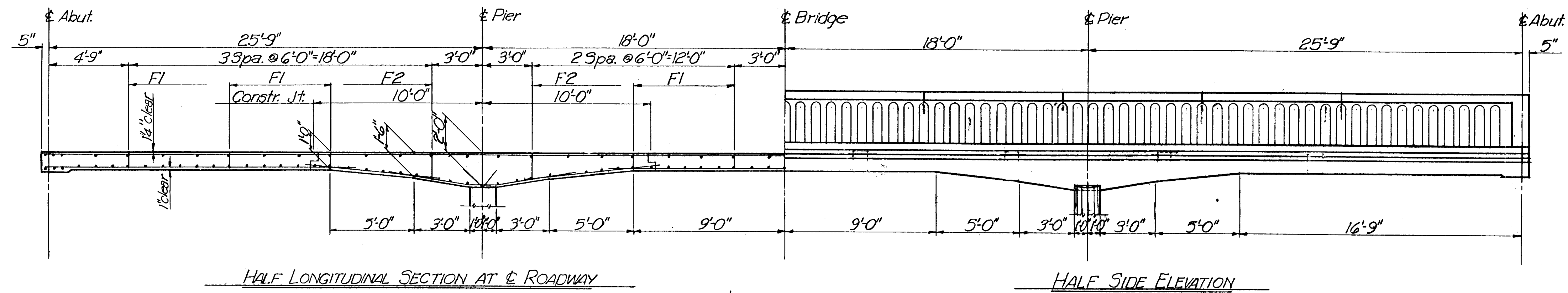
PIER DETAILS
WASSALL STREET BRIDGE
OVER
DRY CREEK

R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE: *March 10, 1954*
SCALE: *3/8" = 1'-0"*
DWG. NO.: **79-D-4**

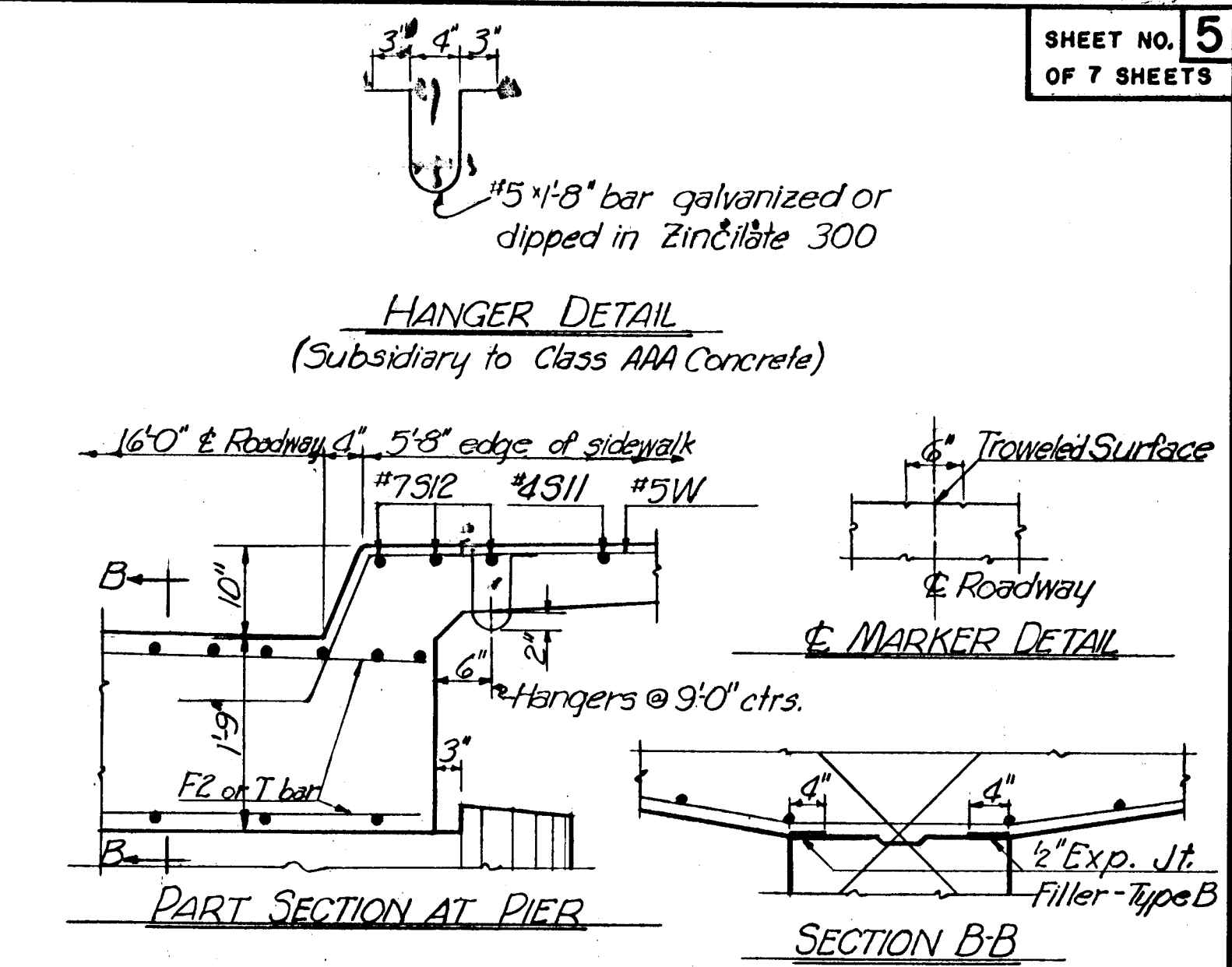


SURV. PLOT. DES. DR. PCT. TR. CND. A.H. APP. *R.S.D.*



HALF LONGITUDINAL SECTION AT ROADWAY

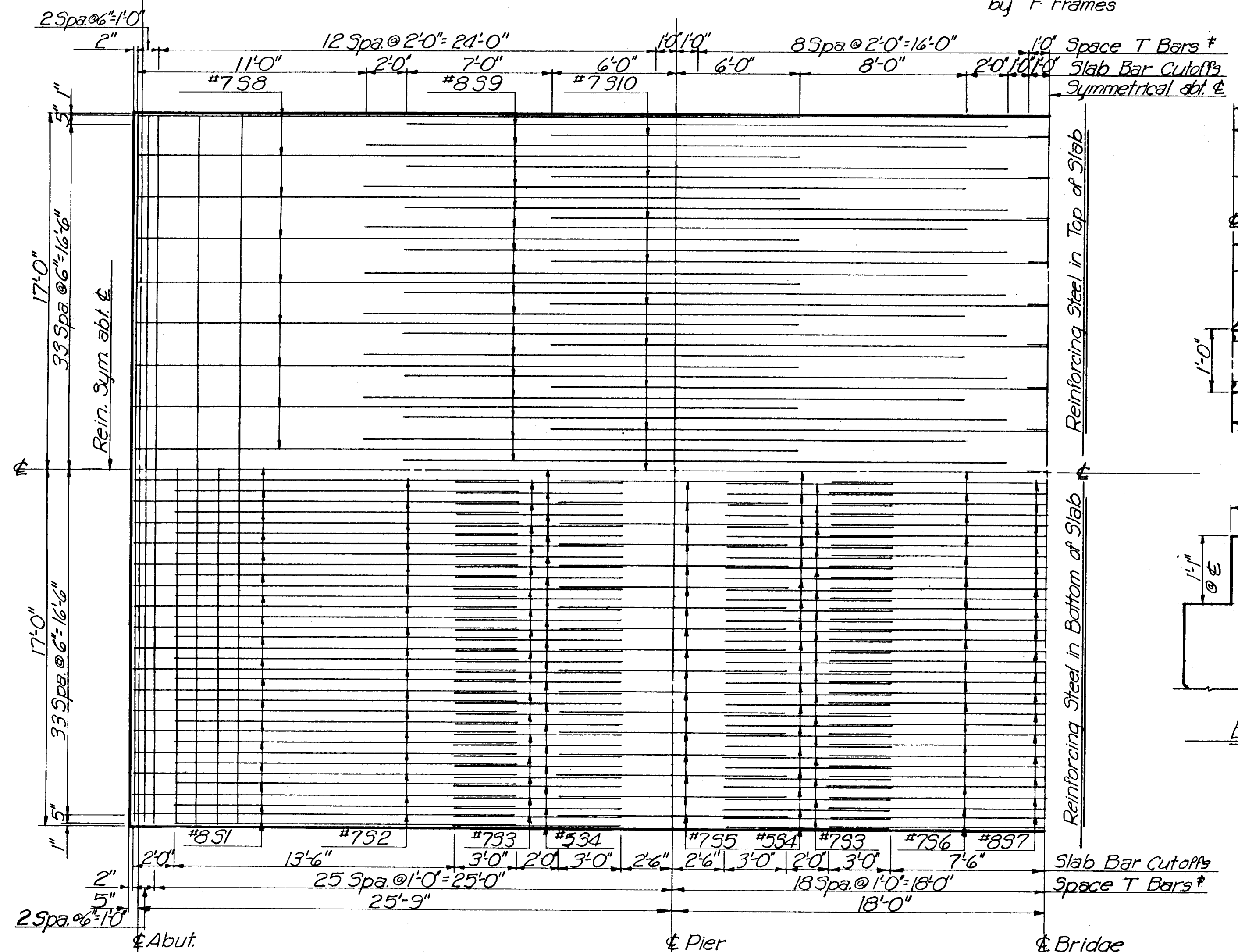
HALF SIDE ELEVATION



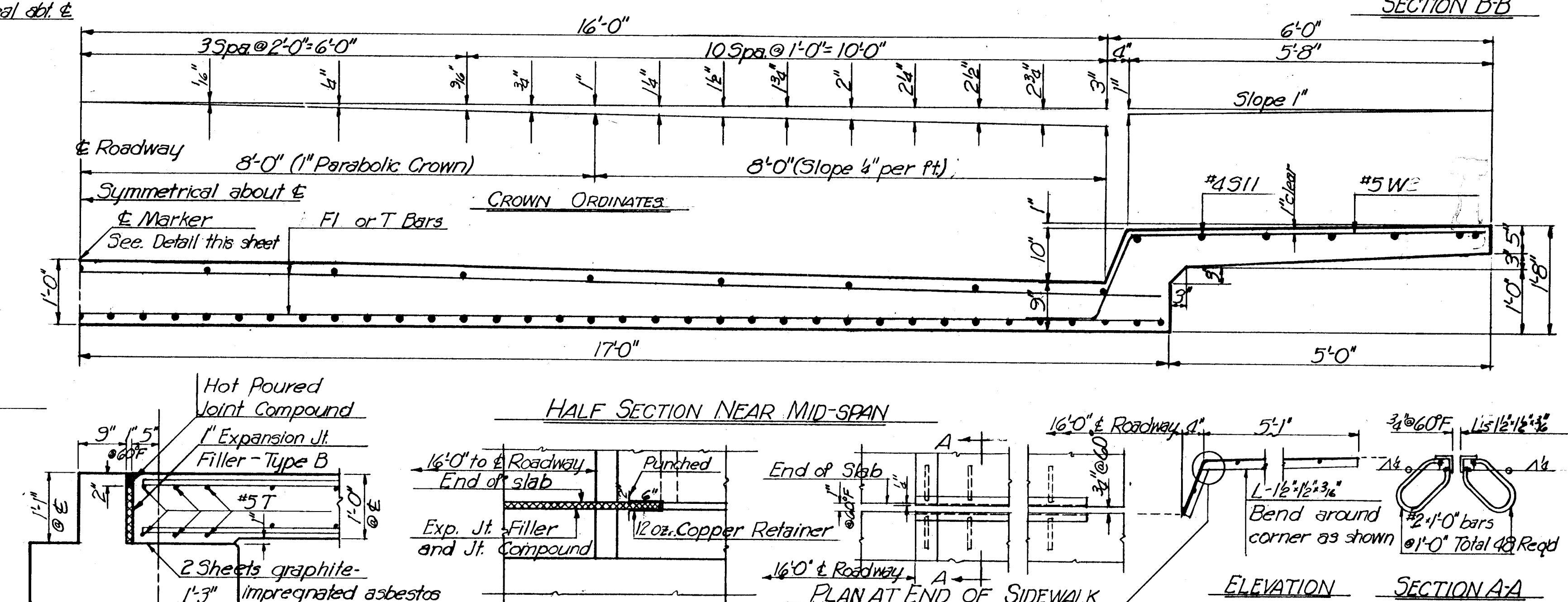
HANGER DETAIL
(Subsidiary to Class AAA Concrete)

PART SECTION AT PIER

SECTION B-B



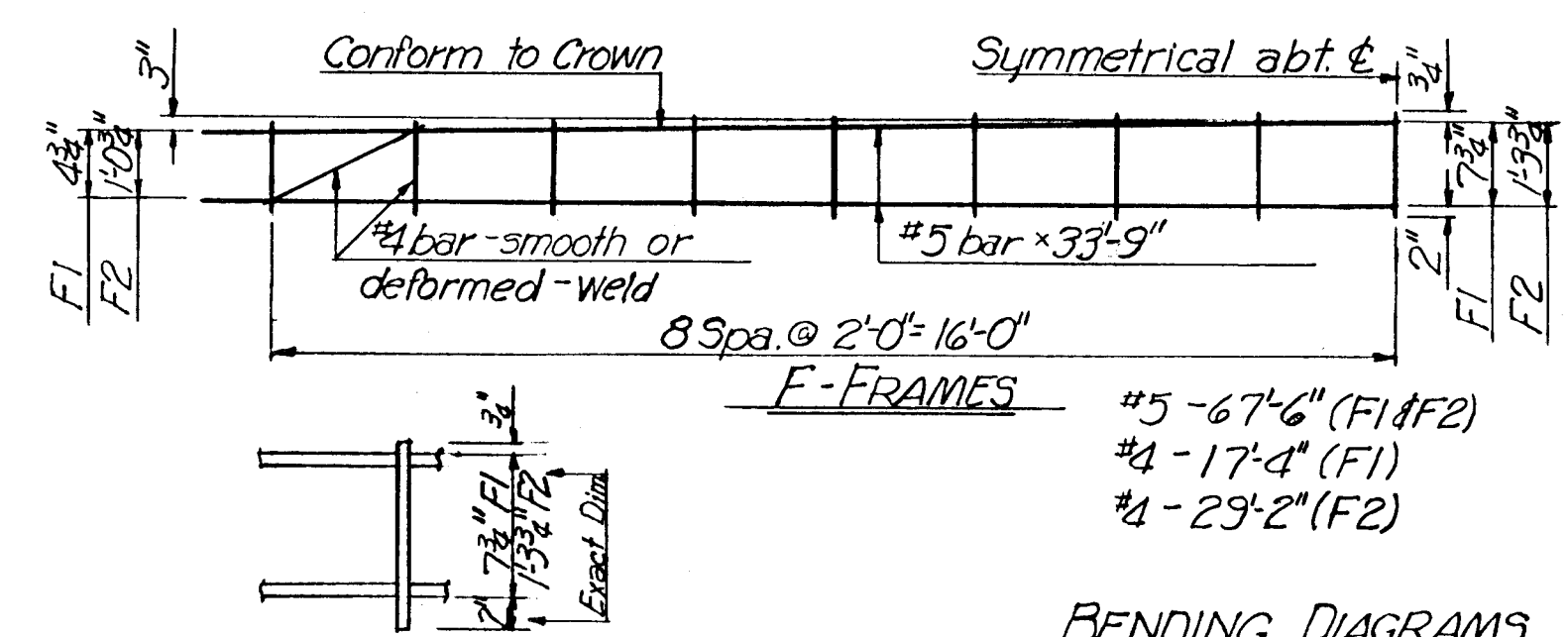
HALF PLAN SHOWING REINFORCING



HALF SECTION NEAR MID-SPAN

TOP VIEW AT EDGE OF SLAB

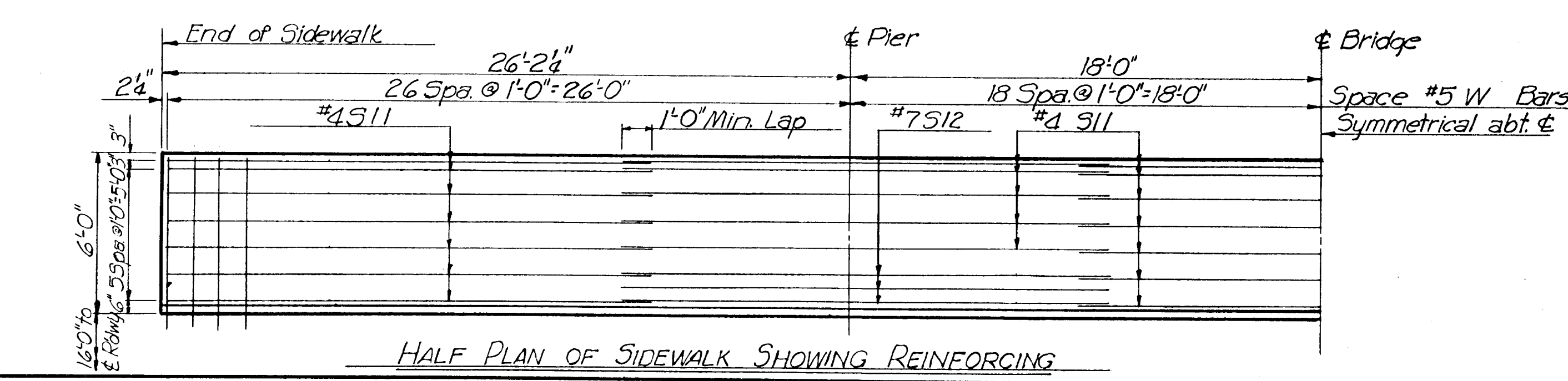
END OF SLAB DETAILS



F-FRAMES

BENDING DIAGRAM

NOTES:
Class AAA concrete shall be used throughout. Bevel all exposed edges with 3/8" triangular mauling unless otherwise indicated.
Expansion Joint materials and Copper Retainers shall not be paid for directly but shall be included in the unit price bid for Class AAA Concrete.
Design Loading: H 20-44
Unit Stresses: $f_c = 1600$ psi.
 $f_s = 20,000$ psi.
Slab construction joints are optional but if used shall be at locations shown.
Provide 3/8" dead load camber in each span.
See sheet 6 for Handrail details.



HALF PLAN OF SIDEWALK SHOWING REINFORCING

BAR LIST

Mark	F1	F2	S1	S2	S3	S4	S5	S6	S7
No. Reqd	10	4	70	68	136	140	68	35	34
Size	#	#	#8	#7	#7	#5	#7	#7	#8
Length	*	*	16'-6"	18'-6"	8'-0"	8'-0"	11'-2"	21'-0"	21'-0"
Shape									
Mark	S8	S9	S10	S11	S12	T	W		
No. Reqd	36	68	34	62	12	109	178		
Size	#7	#8	#7	#4	#7	#5	#5		
Length	32'-0"	29'-0"	25'-0"	18'-6"	18'-6"	33'-9"	8'-0"		
Shape									

*See Bending Diagrams

SUMMARY OF QUANTITIES

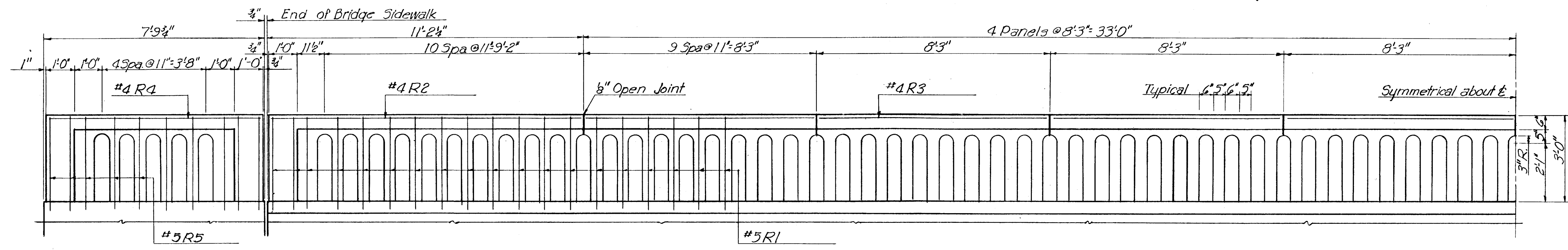
Class AAA Concrete	143.9	Cu. Yd.
Concrete Handrail	176.5	Lin. Ft.
Reinforcing Steel	31,090	Lbs.
Structural Steel	90	Lbs.

CITY OF WICHITA, KANSAS
B. E. SMITH, CITY ENGINEER

SLAB DETAILS
WASSALL STREET BRIDGE
OVER
DRY CREEK

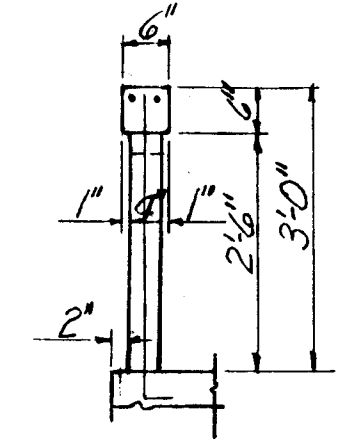
R. S. DELAMATER
CONSULTING ENGINEER
WICHITA, KANSAS

DATE **March, 1954**
SCALE _____
DWG. NO. **79-D-5**

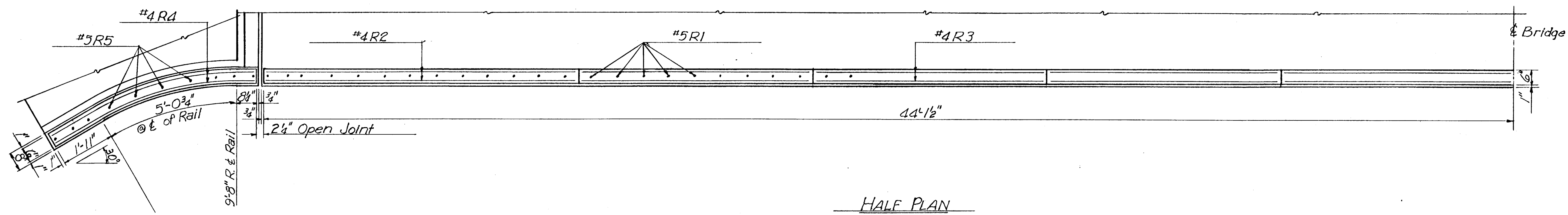


DEVELOPED VIEW OF ABUT. HANDRAIL

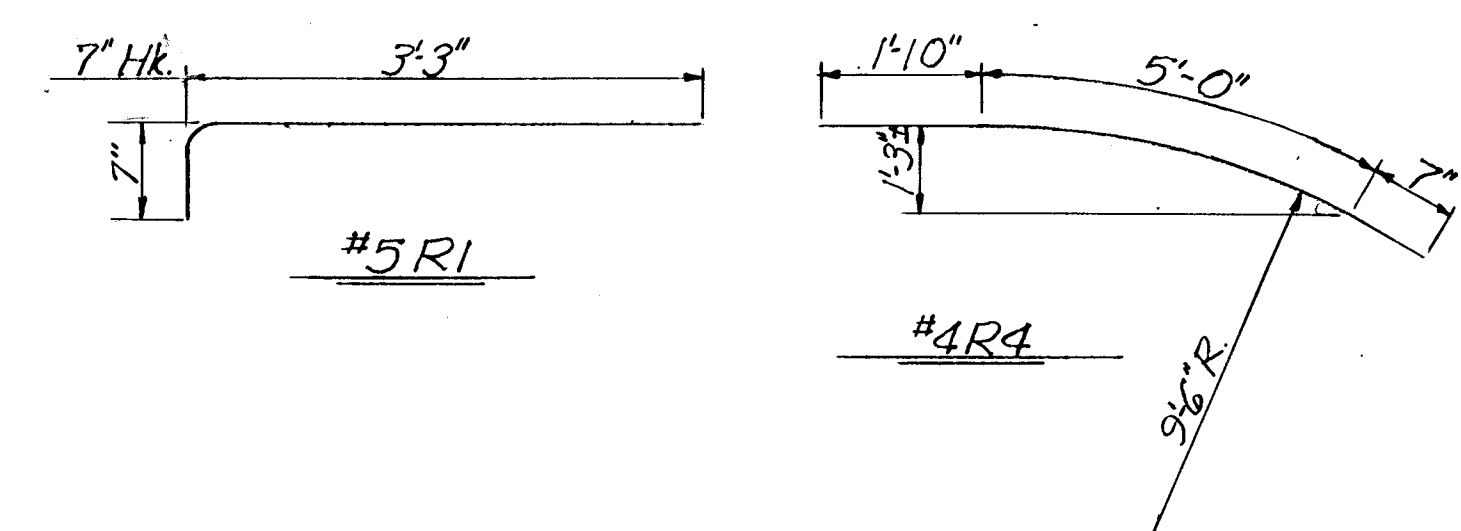
HALF ELEVATION OF BRIDGE HANDRAIL



SECTION THRU RAIL



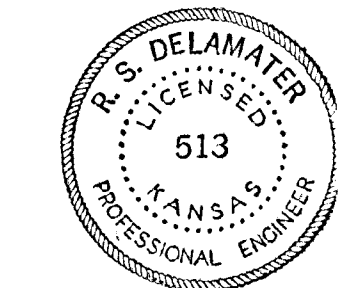
HALF PLAN



BAR LIST					
Mark	R1	R2	R3	R4	R5
No. Reqd	196	8	32	8	40
Size	#5	#4	#4	#4	#5
Length	3'-10"	11'-0"	8'-0"	7'-5"	3'-10"
Shape					
SUMMARY OF QUANTITIES					
Class A Concrete	5.6 Cu. Yd.				
Reinforcing Steel	1210 Lbs.				

NOTES:

All concrete used in the handrail shall be Class A.
Bevel all exposed edges with a 1/2" triangular molding unless otherwise indicated.
Bid item "Concrete Handrail" shall include all Class A Concrete and reinforcing steel in handrail complete in place, as shown on this sheet.
Concrete Handrail shall be bid on basis of linear feet in place. The Class A Concrete and Reinforcing Steel quantities shown on this sheet are for Contractor's information only.



CITY OF WICHITA, KANSAS B. E. SMITH, CITY ENGINEER	
HANDRAIL DETAILS WASSALL STREET BRIDGE OVER DRY CREEK	
R. S. DELAMATER CONSULTING ENGINEER WICHITA, KANSAS	DATE <i>January, 1954</i> SCALE <i>2" = 1'-0"</i> DWG. NO. 79-D-6

SURV. PLOT. DES. DR. *Alt.* TR. C.D. *PC* APP. *RD* *7/1/54*

