CITY OF WICHITA

SEDGWICK COUNTY, KANSAS

WOODMAN BRIDGE

PROJECT NO. DAKB 576042

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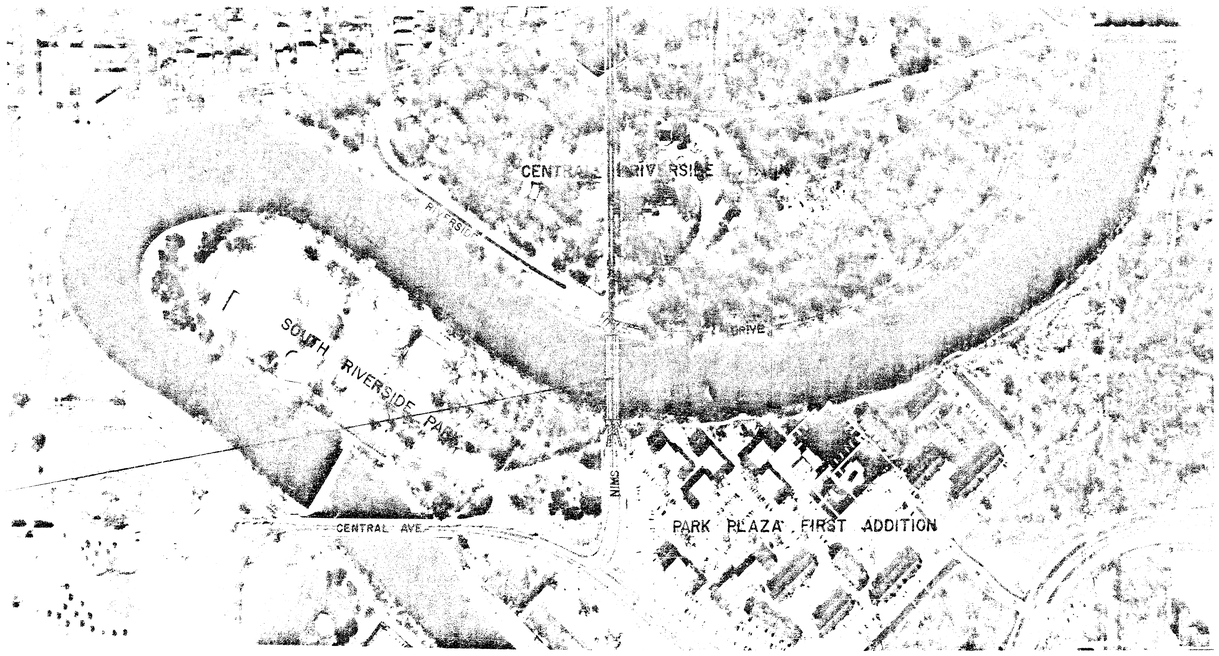
15	STANDARD PILE DETAILS
16	BRIDGE EXCAVATION
17	SUPPORTS AND SPACERS FOR REINFORCING STEEL

STA 1+75
45-3 AT 52-45' CONT. R.C.
SLAB SPANS 28-0"
ROADWAY AND TWO 8-0"
SIDEWALKS

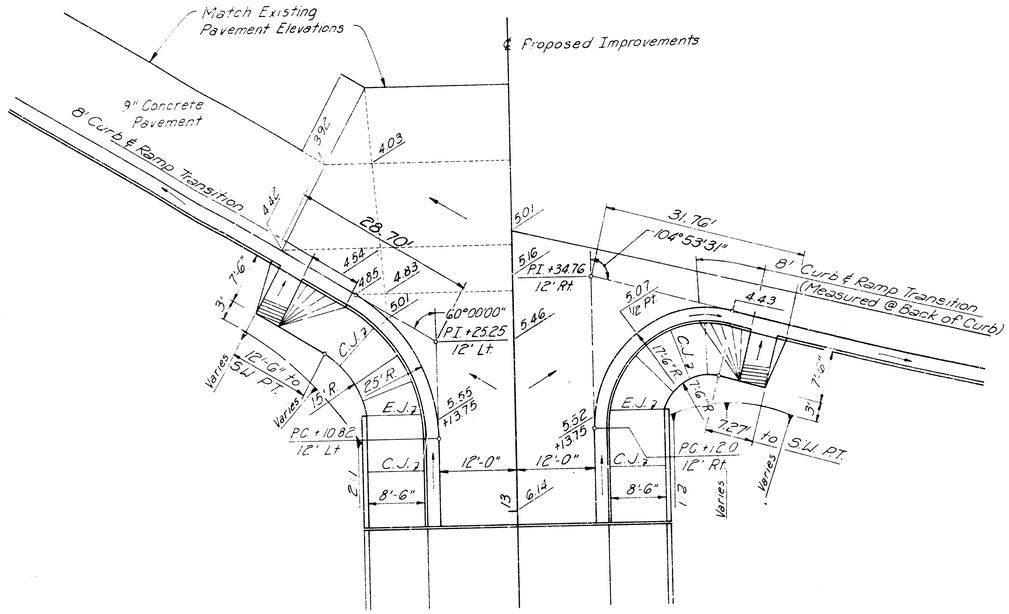


SCALE 1" = 200'

LITTLE ARKANSAS RIVER CROSSING

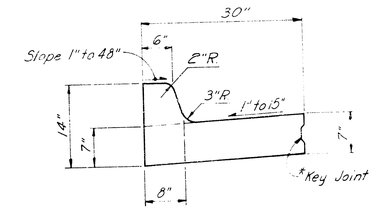
1977

PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DAKB 576042	'77	3	17



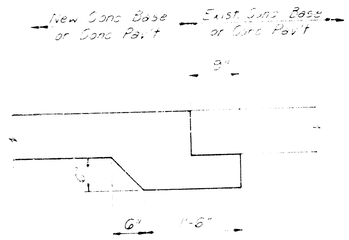
NORTH BRIDGE APPROACH

PAVING & SIDEWALK DETAILS

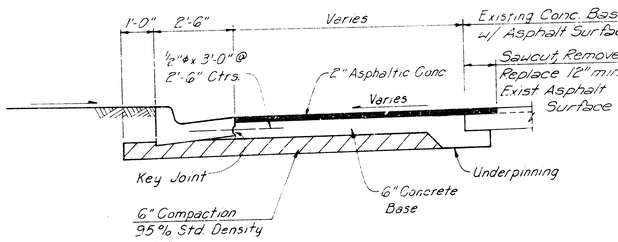


COMBINED CURB & GUTTER

* Omit where Curb & Gutter abuts full depth Asphalt Pavement.



UNDERPINNING DETAIL

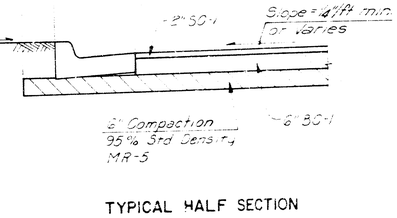


TYPICAL SECTION

CONCRETE BASE WIDENING

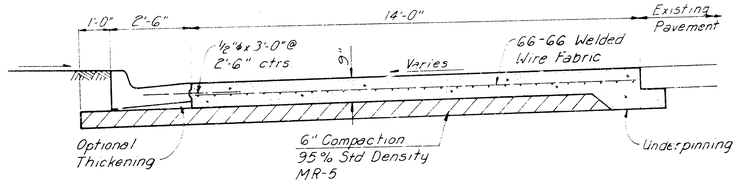
AT

SOUTH BRIDGE APPROACH



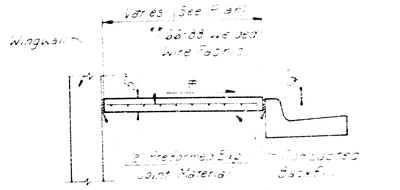
TYPICAL HALF SECTION

FULL DEPTH ASPHALT



TYPICAL SECTION

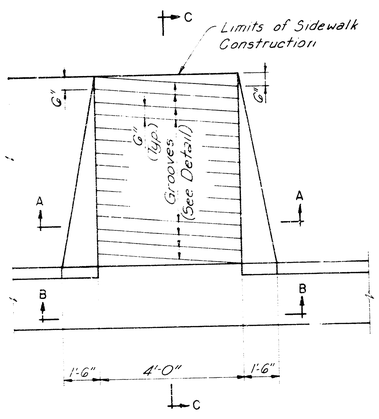
CONCRETE PAVEMENT



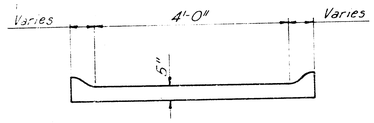
TYPICAL SECTION

5" SIDEWALK

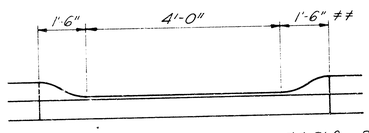
** May be omitted in sidewalk outside the Bridge Wings at South Abutment. Extend mesh through Contraction Joints.



SIDEWALK RAMP DETAILS

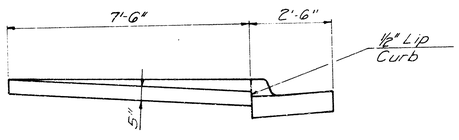


SECTION A-A

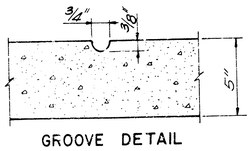


SECTION B-B

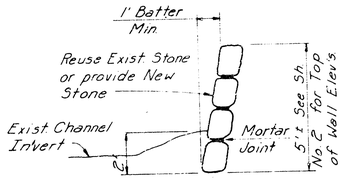
8' for Ramps @ N. Abut. See detail this sheet



SECTION C-C



GROOVE DETAIL



STONE MASONRY

WALL DETAIL

Note: New stone shall be comparable in size and shape to the existing stone and shall be as approved by the Engineer.

CITY OF WICHITA KANSAS

R.W. LINN, P.E. CITY ENGINEER

SURFACING DETAILS

WOODMAN BRIDGE

OVER THE LITTLE ARKANSAS RIVER

CITY OF WICHITA PROJECT NO. DAKB 576042

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

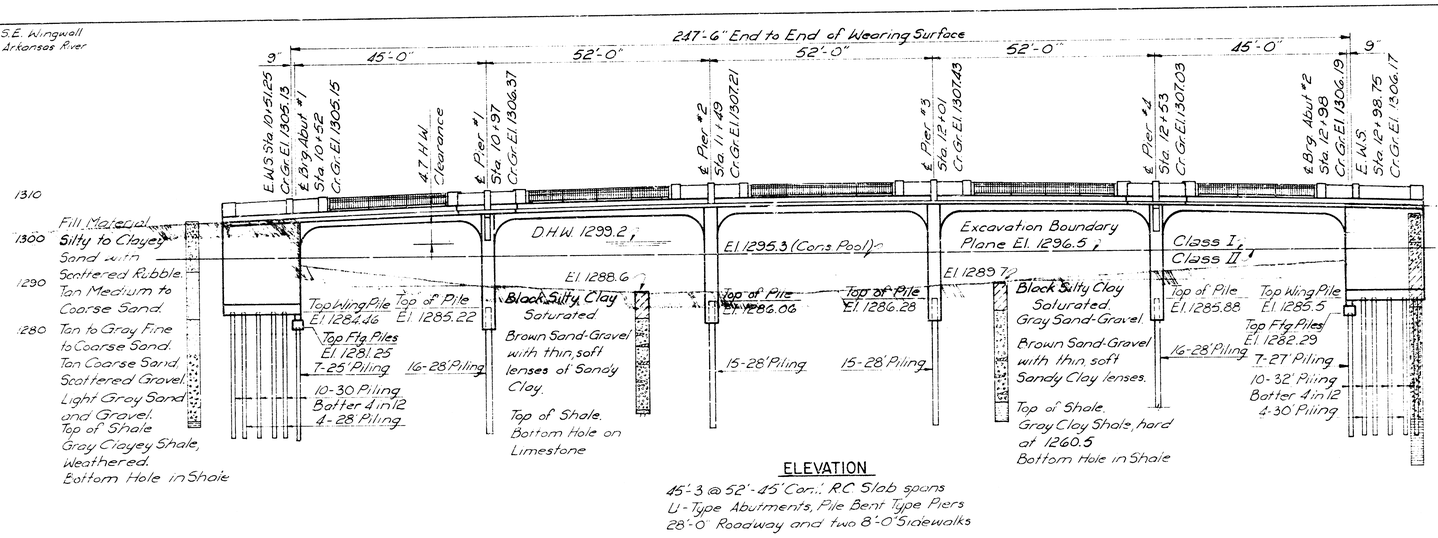
WICHITA, KANSAS

Designed by	Checked by
Drawn by	Date

BM #1 Cut ⊡ @ S.E. End S.E. Wingwall
Nims St. Bridge @ Little Arkansas River
El. 1305.846

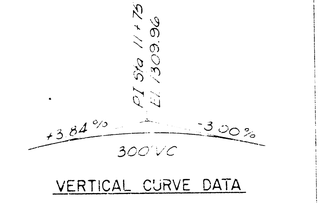
BM #2 RR Spike in E Side of ¼ Pole at Dbl. Transformer & Power Pole Sta 14+42' Rt. (Ground Level) El. 1306.085

Project No. DAKB 576042



ELEVATION

45'-3 @ 52'-45' Cont.: RC Slab spans U-Type Abutments, Pile Bent Type Piers 28'-0" Roadway and two 8'-0" Sidewalks



VERTICAL CURVE DATA

GENERAL NOTES

LOADING: HS20-44 AASHTO Specifications Edition of 1973.

UNIT STRESSES: f'_c = 4,000 p.s.i. f_c = 1,600 p.s.i. f_s = 20,000 p.s.i.

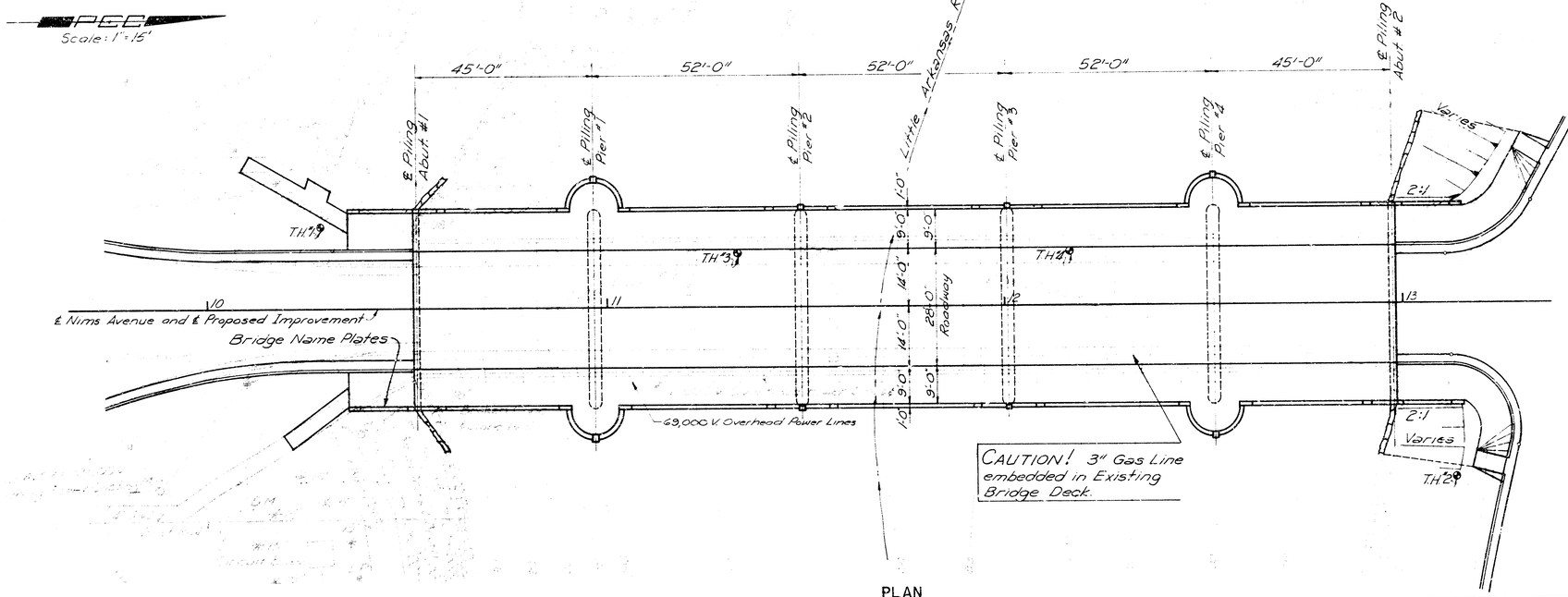
EMBANKMENT: The Contractor shall complete the embankment after the abutments have been constructed.

BRIDGE EXCAVATION: Elevation 1296.5 shall designate the Excavation Boundary Plane of Class I and II Excavation. Class I above the Plane, Class II below. See Bridge Excavation sheet for limits of pay excavation.

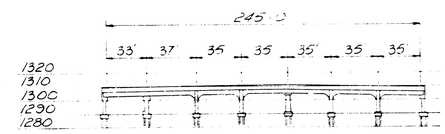
SOUNDINGS: The soundings shown on these plans are taken from notes obtained in the field and represent the best information to the City of Wichita Kansas. The logs of these soundings are available for review by prospective bidders at the office of the City Engineer; at the Consulting Engineer's Office, 1440 E. English or at Allied Laboratories 203 South Ellis.

PILES: All piles shall be driven to a penetration into shale unless in the opinion of the Engineer such penetration cannot be obtained without injury to the pile. All piles shall be driven to a minimum computed bearing value as follows: Abutment Wing Footings 39 Tons/Pile; Abutment Frontwall 48 Tons/P.e.; Piers 51 Tons/Pile.

REMOVAL OF EXISTING STRUCTURE: The Contractor shall remove the existing structure (7 @ 35' ± Concrete T-beam spans, concrete abutments and piers) prior to construction of the new bridge. Existing piles shall be removed to a minimum elevation of 1285.00.



PLAN



EXISTING BRIDGE

CITY OF WICHITA KANSAS
R.W. LINN, P.E. CITY ENGINEER

CONSTRUCTION LAYOUT

WOODMAN BRIDGE

OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by		Checked by	
Drawn by		Date	Job No.

REINFORCING STEEL

STRAIGHT BARS

Mark	No.	Size	Length
A1	88	#8	14'-11"
A2	88	#6	14'-11"
A3	44	#4	43'-8"
AD1	176	#8	3'-0"
AF1	10	#6	44'-8"
AF2	60	#4	2'-2"
C2	8	#6	39'-3"
C3	16	#6	36'-8"
C6	8	#5	16'-1"
OP1	56	#5	*
OP2	20	#7	8'-3"
OP3	8	#5	13'-5"
OP4	4	#5	13'-0"
OP5	4	#5	12'-5"
OP6	4	#5	11'-7"
OP7	4	#5	10'-6"
OP8	4	#5	9'-1"
OP9	4	#5	7'-2"
OP10	4	#4	8'-10"
OP11	4	#4	11'-4"
OP12	4	#4	12'-9"
OP13	4	#4	13'-3"
OP14	32	#4	*
OP16	8	#4	1'-9"
OP17	8	#4	2'-4"
OP18	8	#4	4'-0"
OP20	24	#4	*
PB2	48	#9	25'-3"
PB3	104	#5	44'-0"
PB5	24	#9	24'-0"

STRAIGHT BARS

Mark	No.	Size	Length
PR1	24	#4	16'-1"
PR2	584	#4	4'-0"
PR3	48	#4	7'-11"
PR4	24	#4	7'-8"
PR5	48	#4	2'-8"
PR7	48	#6	4'-0"
S1	52	#4	25'-6"
S2	28	#5	30'-3"
S3	32	#10	49'-0"
S4	28	#10	35'-6"
S5	28	#10	28'-0"
S6	32	#10	22'-0"
S7	28	#5	17'-6"
S8	32	#10	48'-6"
S9	28	#10	35'-0"
S10	28	#9	28'-0"
S11	32	#9	23'-6"
S12	14	#5	20'-6"
S13	26	#4	7'-0"
S14	20	#4	30'-0"
S15	20	#9	49'-0"
S16	20	#8	35'-6"
S17	20	#8	28'-0"
S18	20	#8	22'-0"
S19	20	#4	17'-0"
S20	20	#8	48'-6"
S21	20	#8	35'-0"
S22	20	#7	28'-0"
S23	20	#7	23'-6"
S24	10	#4	20'-0"
S25	32	#10	46'-0"
S26	12	#8	46'-0"
S27	28	#10	29'-6"
S28	16	#8	29'-6"
S29	28	#10	35'-0"
S30	16	#8	35'-0"
S31	32	#9	22'-6"
S32	12	#8	22'-6"
S33	44	#4	23'-6"
S34	32	#8	53'-0"

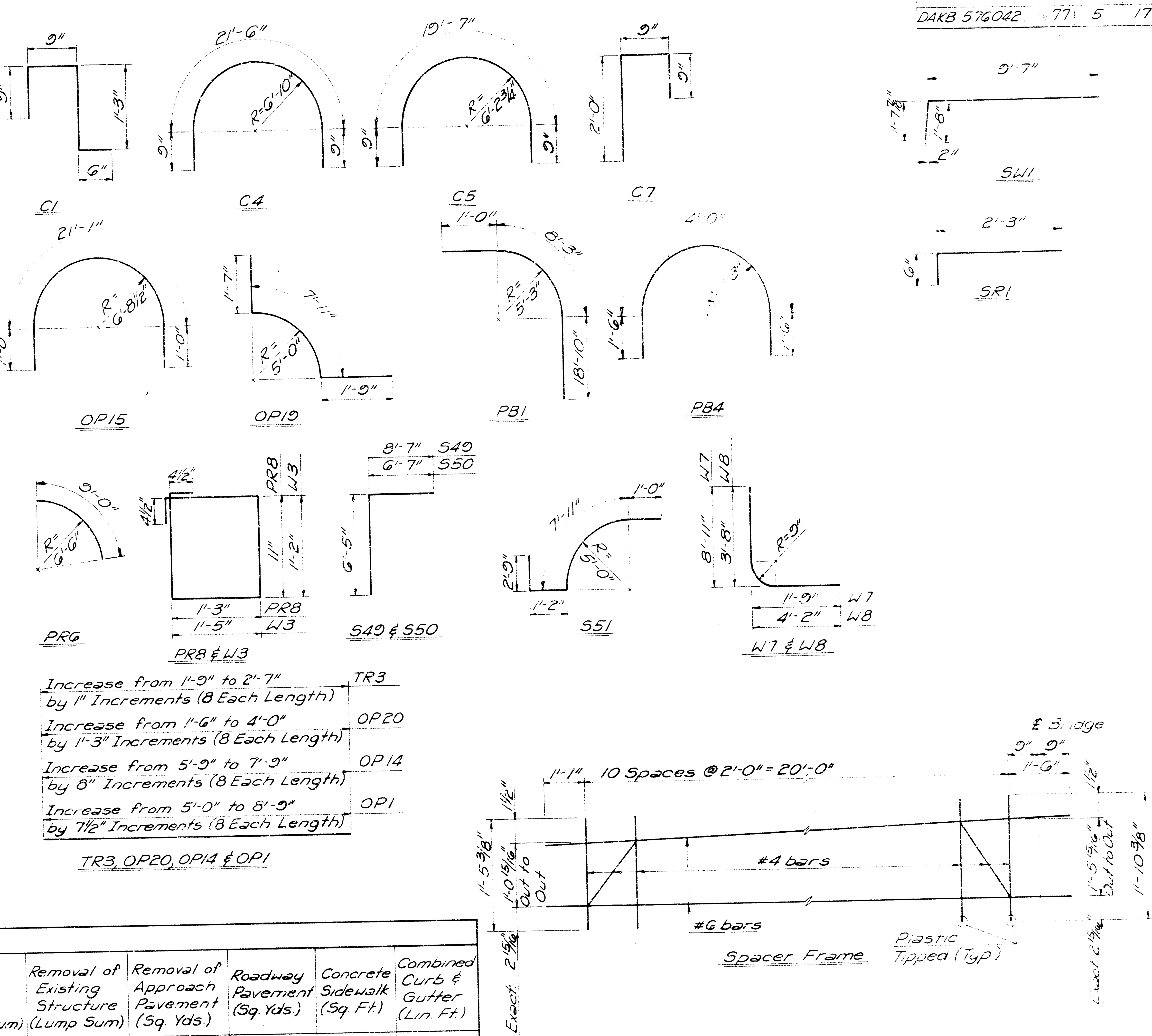
STRAIGHT BARS

Mark	No.	Size	Length
S35	12	#6	53'-0"
S36	28	#8	31'-0"
S37	16	#7	31'-0"
S38	42	#8	27'-0"
S39	16	#6	27'-0"
S40	48	#8	21'-0"
S41	12	#6	21'-0"
S42	44	#4	22'-0"
S43	16	#9	53'-0"
S44	6	#7	53'-0"
S45	14	#9	32'-0"
S46	8	#7	32'-0"
S47	8	#7	27'-0"
S48	6	#7	21'-0"
SR2	2	#4	29'-8"
T1	114	#4	30'-0"
T2	228	#5	43'-8"
TR1	176	#7	9'-4"
TR2	368	#7	2'-9"
TR3	88	#7	*
TR4	16	#7	16'-7"
W1	12	#7	20'-3"
W2	4	#7	19'-0"
W4	68	#9	17'-9"
W5	44	#4	17'-9"
W6	104	#4	17'-8"
WF1	44	#4	7'-0"
WF2	132	#6	10'-2"
WF3	48	#7	16'-1"
WF4	12	#4	16'-1"

BENT BARS

Mark	No.	Size	Length
C1	528	#4	3'-3"
C4	8	#6	23'-0"
C5	4	#6	21'-1"
C7	68	#5	3'-6"
F1	102	*	*
OP15	4	#4	23'-1"
OP19	8	#4	11'-3"
PB1	696	#9	28'-1"
PB4	136	#5	7'-0"
PR6	48	#4	9'-0"
PR8	24	#4	5'-1"
S49	44	#6	15'-0"
S50	44	#6	13'-0"
S51	84	#5	12'-10"
SR1	60	#4	2'-9"
SW1	496	#4	11'-3"
W3	56	#4	5'-11"
W7	64	#9	10'-5"
W8	68	#9	7'-7"

* See Bending Diagrams



BENDING DIAGRAMS
(All dimensions are out to out of bars)

SUMMARY OF QUANTITIES

Location \ Item	Excavation (Cu. Yds.) Class I	Excavation (Cu. Yds.) Class II	Class I Concrete (Cu. Yds.)	1¼" Latex Surface Course (Sq. Yds.)	Reinforcing Steel (Lbs.)	Concrete Piles (Lin. Ft.)	Metal Handrail (Lin. Ft.)	Linseed Oil Surface Treatment (Sq. Yds.)	Electric Lighting System (Lump Sum)	Removal of Existing Structure (Lump Sum)	Removal of Approach Pavement (Sq. Yds.)	Roadway Pavement (Sq. Yds.)	Concrete Sidewalk (Sq. Ft.)	Combined Curb & Gutter (Lin. Ft.)
Abutment #1	150	421.2	111.8		12,315	587								
Pier #1		215.3	97.9		19,575	448								
Pier #2		204.2	97.9		19,575	420								
Pier #3		201.2	97.9		19,575	420								
Pier #4		206.5	97.9		19,575	448								
Abutment #2	125	389.3	111.9		12,315	629								
Substructure Total	275	1637.7	615.3		102,930	2952								
Superstruct. Total			1191.8	770	137,310		310.6	561			712	540	143	411
Approach														
Total	275	1637.7	1807.1	770	240,240	* 2952	310.6	561	Lump Sum	Lump Sum	712	540	1430	411

NOTE: Only one of the following types of Piles shall be used on this structure: Pipe 12¾" or Prestressed 14".

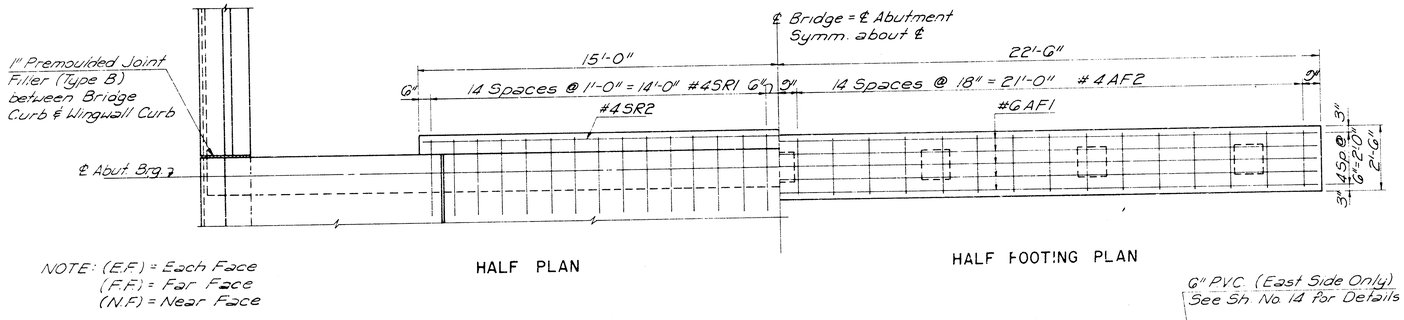
* Includes 7 @ 25', 7 @ 27', 66 @ 28', 14 @ 30' and 10 @ 32'

CITY OF WICHITA, KANSAS
R.W. LINN, PE CITY ENGINEER
SUMMARY OF QUANTITIES
WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by | Checked by
Drawn by | Date

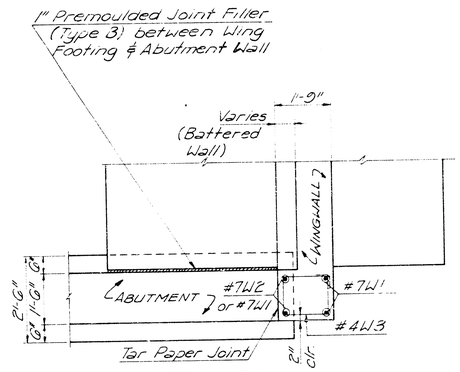
PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DAKB 576042	19 77	6	17



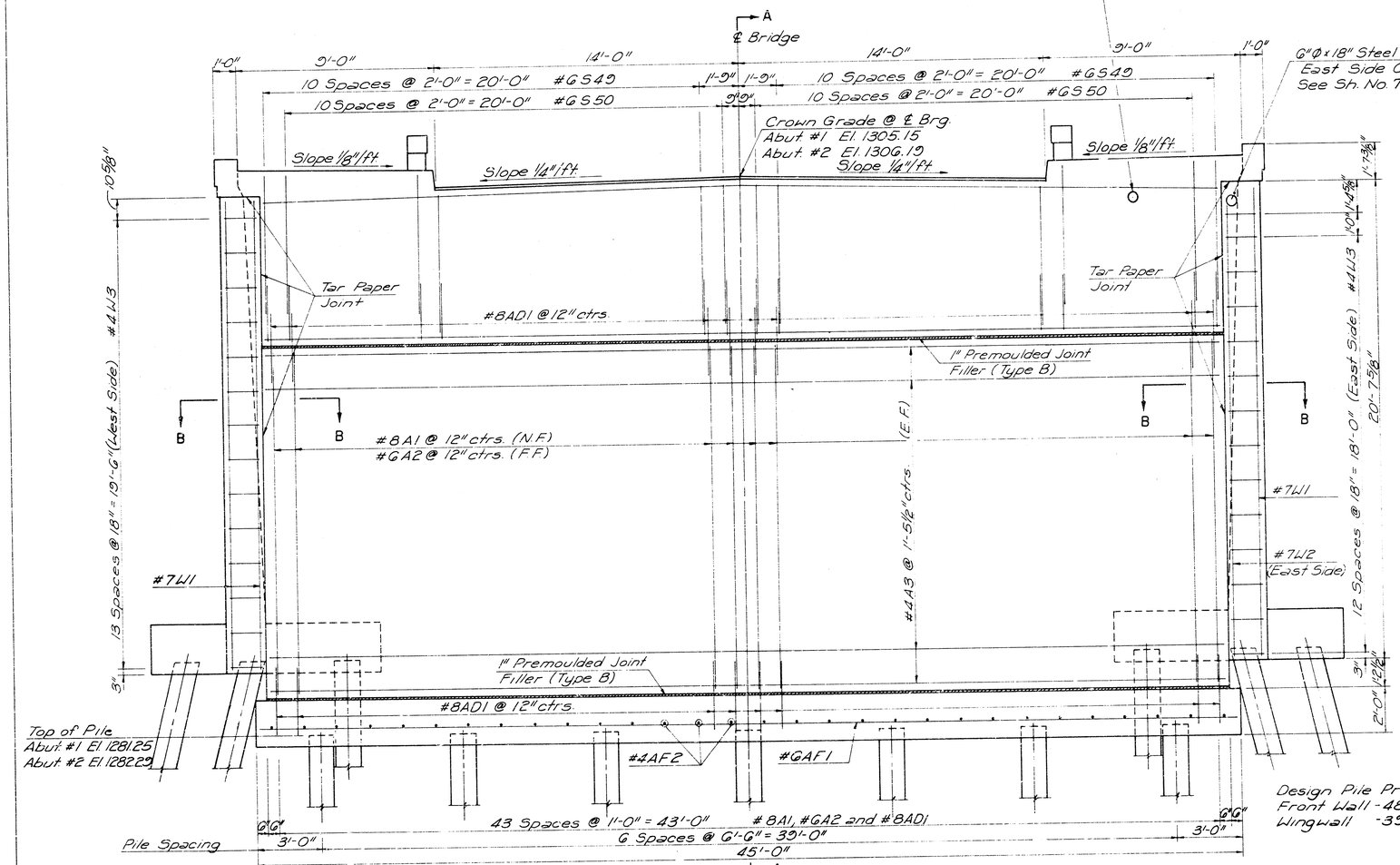
HALF PLAN

HALF FOOTING PLAN

NOTE: (E.F.) = Each Face
(F.F.) = Far Face
(N.F.) = Near Face

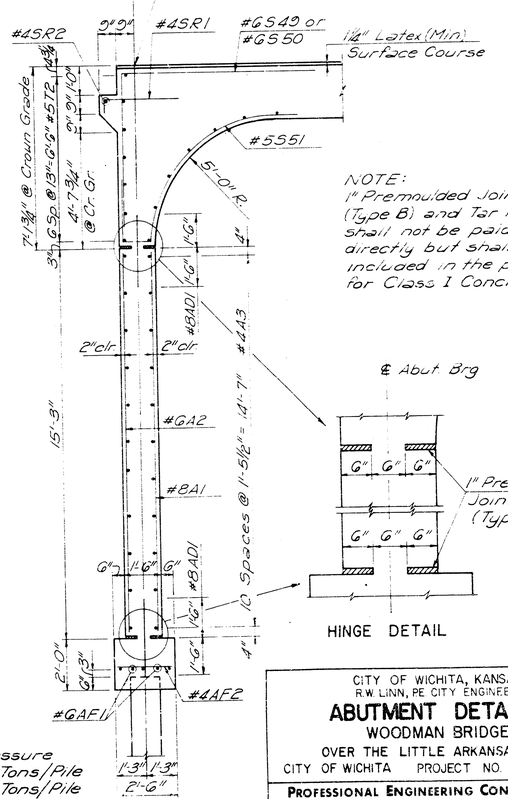


SECTION B-B



ELEVATION

Design Pile Pressure
Front Wall - 48 Tons/Pile
Wingwall - 39 Tons/Pile



SECTION A-A

NOTE:
1" Premoulded Joint Filler (Type B) and Tar Paper shall not be paid for directly but shall be included in the price bid for Class I Concrete.

HINGE DETAIL

CITY OF WICHITA, KANSAS
R.W. LINN, PE CITY ENGINEER

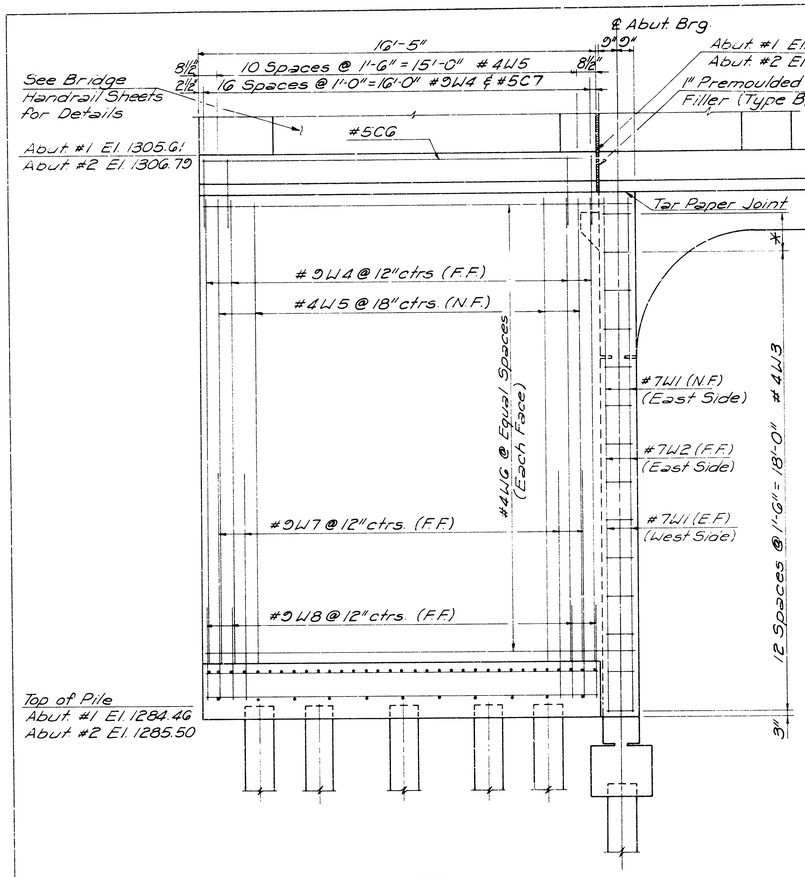
ABUTMENT DETAILS

WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042

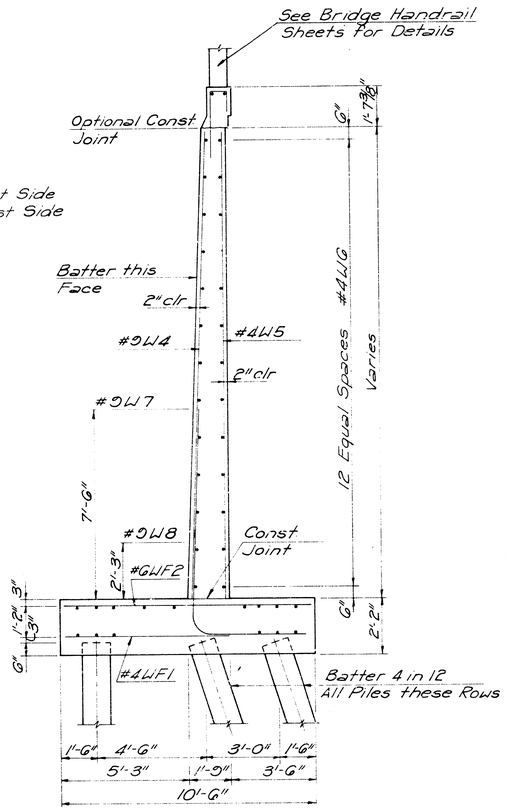
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	Checked by
Drawn by	Date

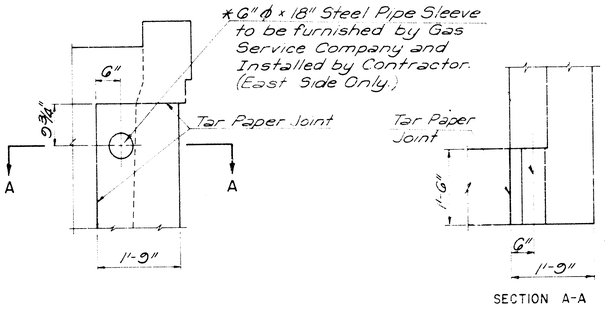
PROJECT NO.	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
DAKB 57G042	77	7	17



WINGWALL ELEVATION



SECTION THRU WINGWALL

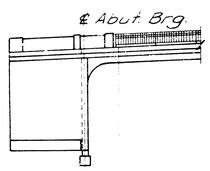


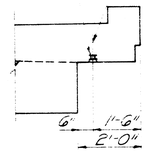
NOTE: Contractor to contact Gas Service Company before backfilling Wingwalls and construction of Sidewalk.

SLEEVE LOCATION DETAILS

* Grinnell CB Universal Galvanized Concrete Inserts.

* #4 bars 2'-0" (thru Inserts)





SECTION

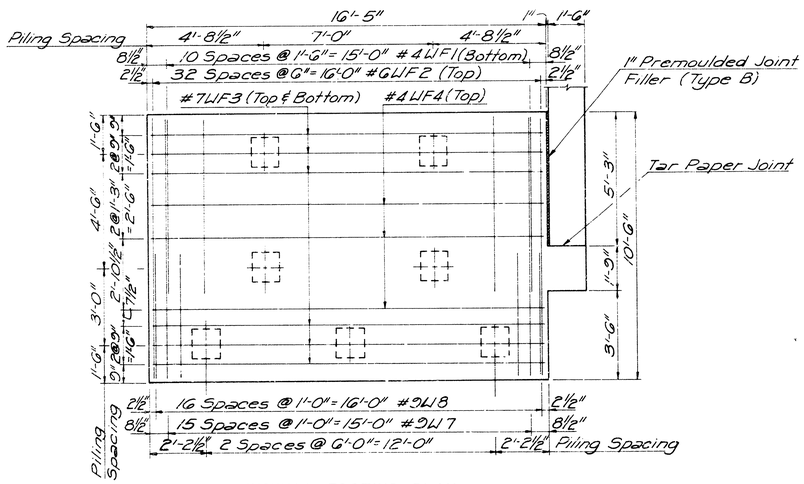
Insert Spacing 8'-0" 20 Spaces @ 11'-6" = 230'-0"

PART ELEVATION

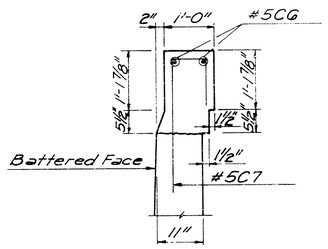
INSERT LOCATION DETAILS

* To be furnished by Gas Service Company and Installed by the Contractor. Cost of installation shall be included in the Price bid for Class I Concrete.

GAS LINE DETAILS
(EAST SIDE)



WINGWALL FOOTING PLAN



WINGWALL CURB DETAIL

CITY OF WICHITA, KANSAS
R.W. LINN, PE CITY ENGINEER

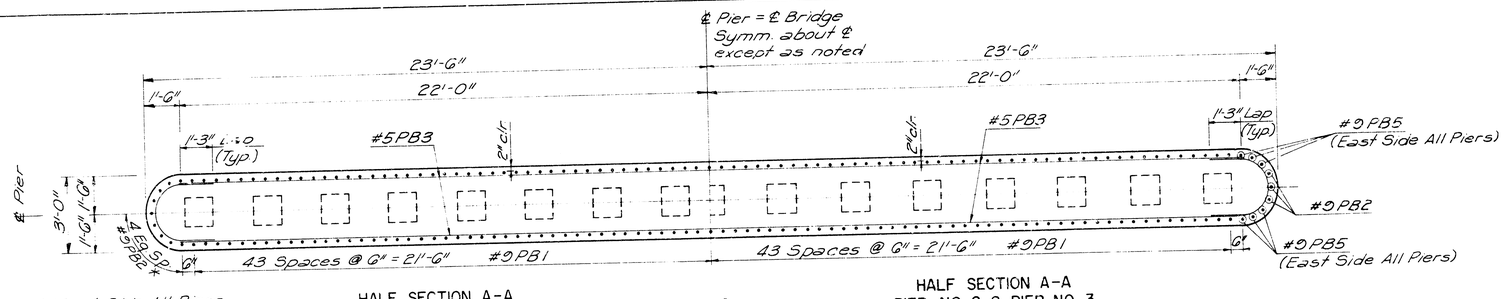
ABUTMENT DETAILS

WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 57G042

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

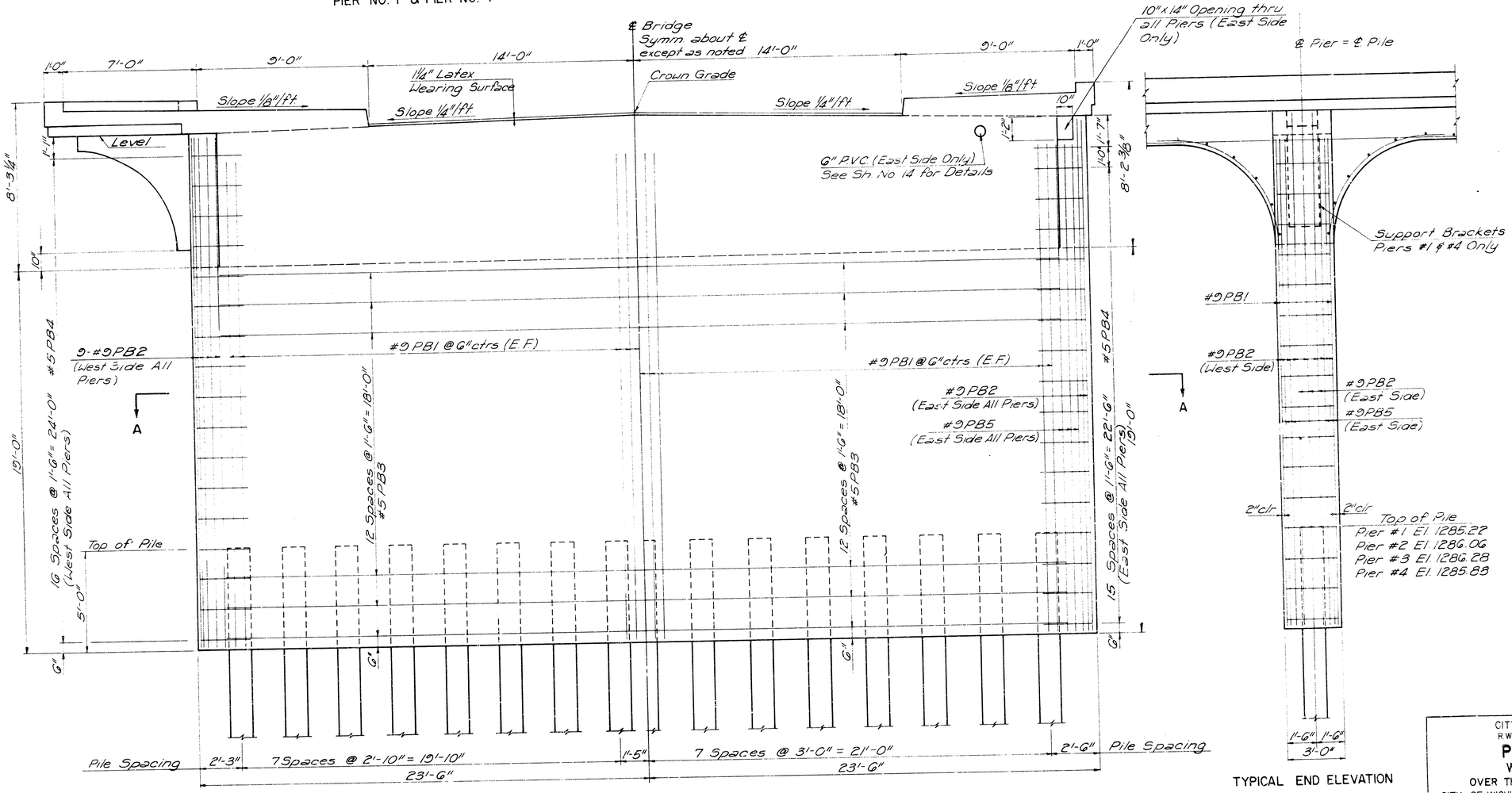
Designed by	Checked by
Drawn by	Date

PROJECT NO.	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
DAKB 576042		8	17



HALF SECTION A-A
PIER NO. 1 & PIER NO. 4

HALF SECTION A-A
PIER NO. 2 & PIER NO. 3



HALF ELEVATION
PIER NO. 1 & PIER NO. 4

HALF ELEVATION
PIER NO. 2 & PIER NO. 3

TYPICAL END ELEVATION

CITY OF WICHITA KANSAS
R.W. LINN, PE. CITY ENGINEER

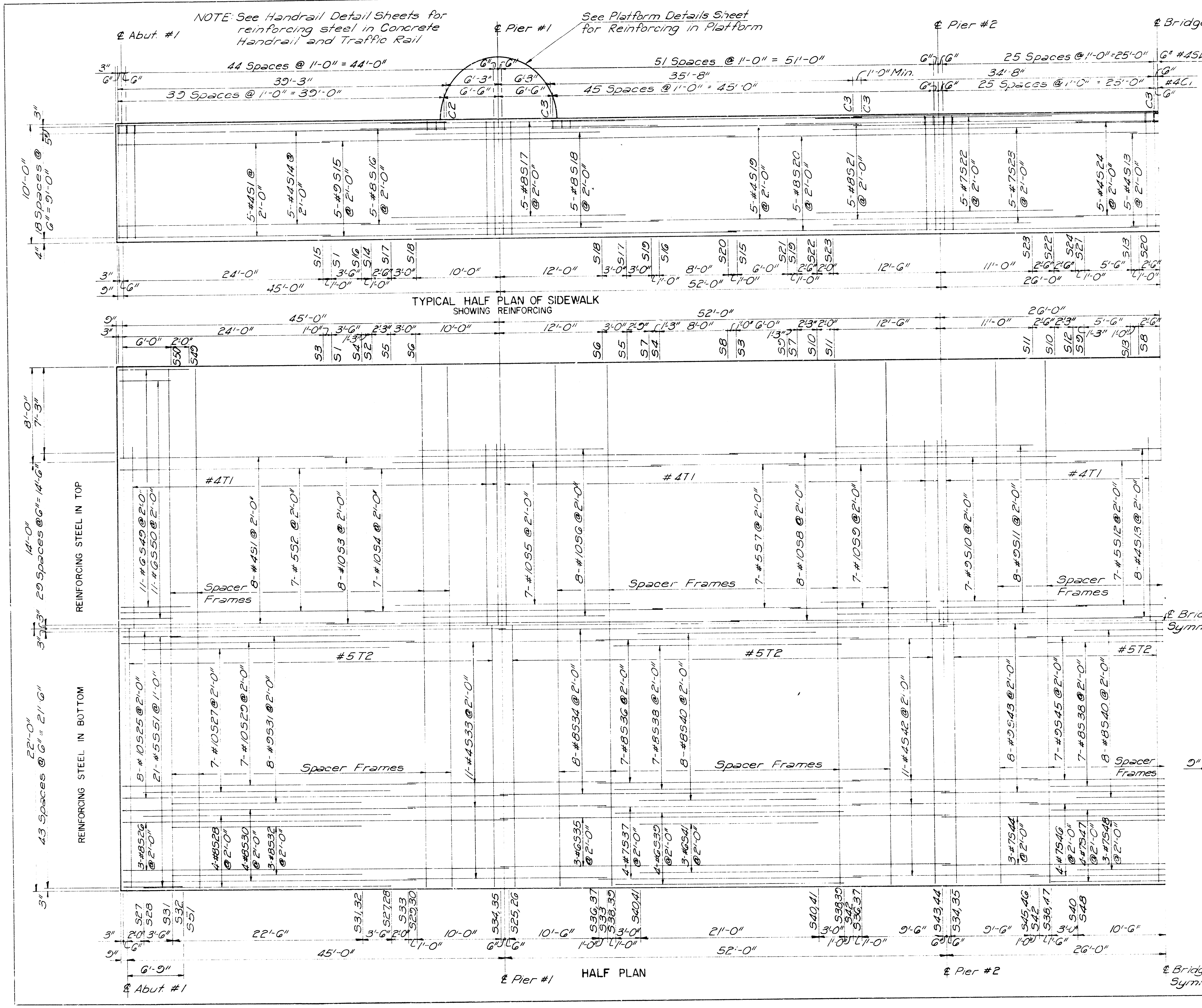
PIER DETAILS

WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed By	Checked By
Drawn By	Date

PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DAKB 576042	77	9	17



GENERAL NOTES

LOADING: HS 20-44 AASHTO Specifications, Edition of 1973

UNIT STRESSES: f'c = 4,000 p.s.i.; fc - 1,600 p.s.i.; fs = 20,000 p.s.i.

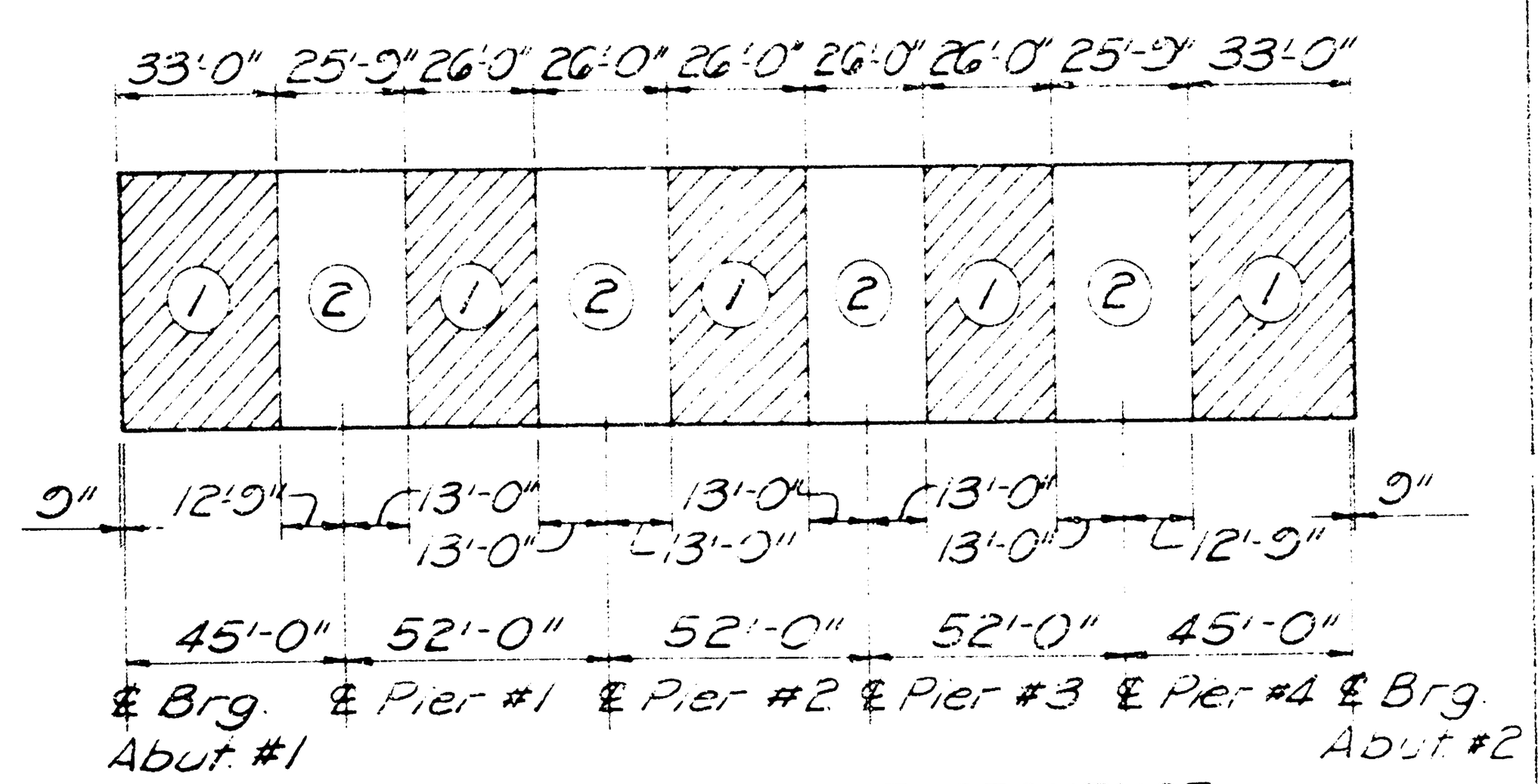
CONCRETE: Class I Concrete using Warmtone cement shall be used throughout. Bevel all exposed edges with a 3/4" triangular molding unless otherwise noted.

REINFORCING: All dimensions relative to reinforcing steel are to centerline of bar unless otherwise noted.

FALSEWORK: Falsework shall be left in place in any span until the concrete in that span and the next adjacent span constructed latest shall have attained its design strength. Construction joints shown are optional with the Contractor but if used shall be made only at the locations shown or as approved by the Engineer. If steel beams are used for falsework the pouring sequence as shown shall be followed. Sidewalks shall be placed in the same sequence as the floor with the falsework remaining in place. Concrete handrails may be built after removal of falsework. Metal handrails shall be installed after removal of falsework.

CAMBER: Camber shall be provided as shown on the camber diagram. Additional camber may be required if steel beams are used for falsework.

COVER OVER TOP SLAB BARS: After the reinforcing steel is placed and the finishing machine is set and adjusted, the cover over the top bars shall be checked using 2" blocking under the screed and passing it over the reinforcing mat.



CONCRETE PLACEMENT SEQUENCE

CITY OF WICHITA KANSAS
R.W. LINN, PE CITY ENGINEER

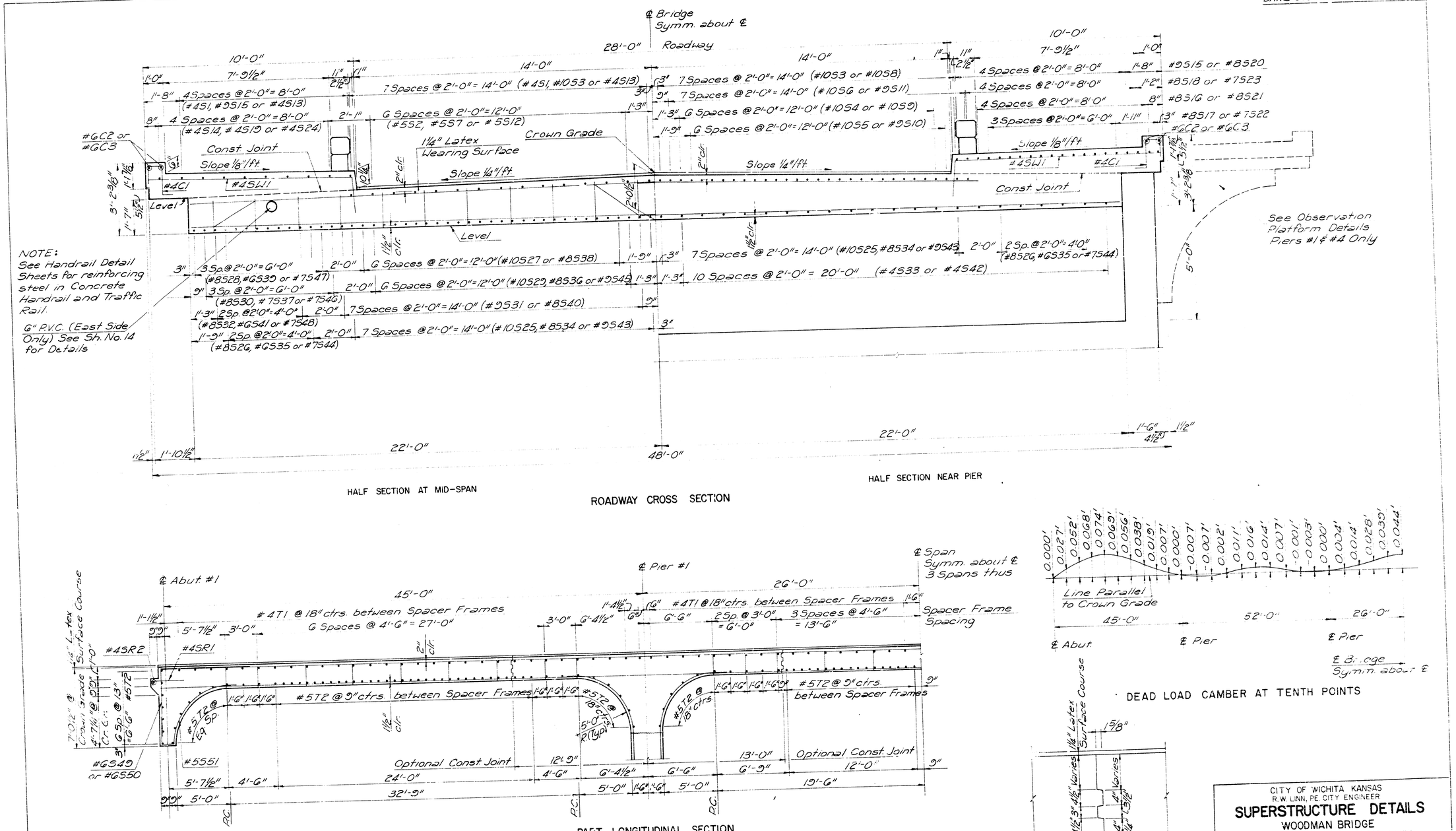
SUPERSTRUCTURE LAYOUT

WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by		Checked by	
Drawn by		Date	

PROJECT NO.	SHEET NO.	SHEET TOTAL
DAKB 576042	77	10	17



CITY OF WICHITA KANSAS
R.W. LINN, P.E. CITY ENGINEER

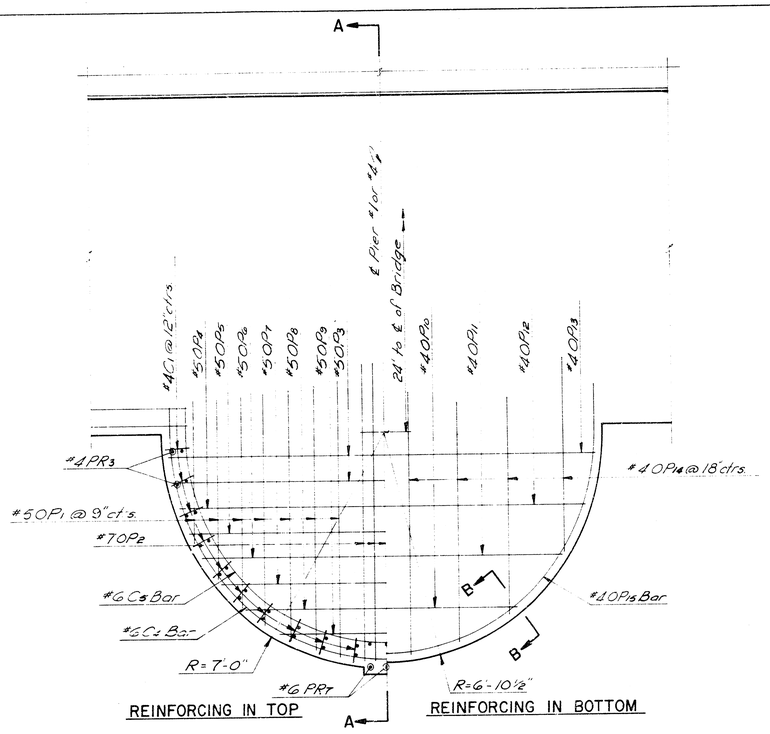
SUPERSTRUCTURE DETAILS

WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042

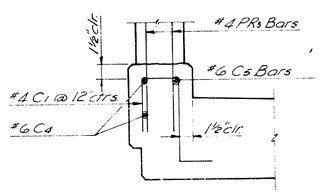
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	Checked by	Date
Drawn by		

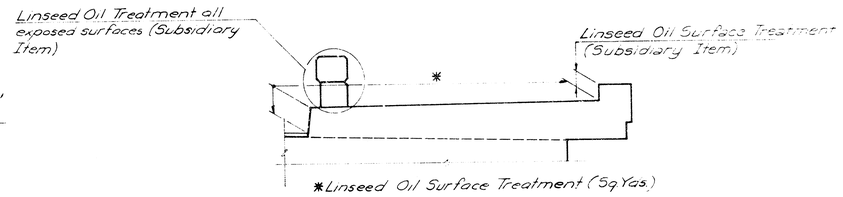
PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DAKB 576042	77	11	17



PLAN

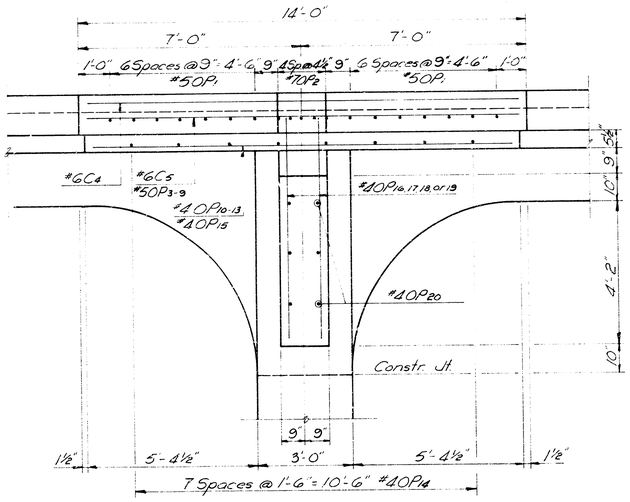


SECTION B-B

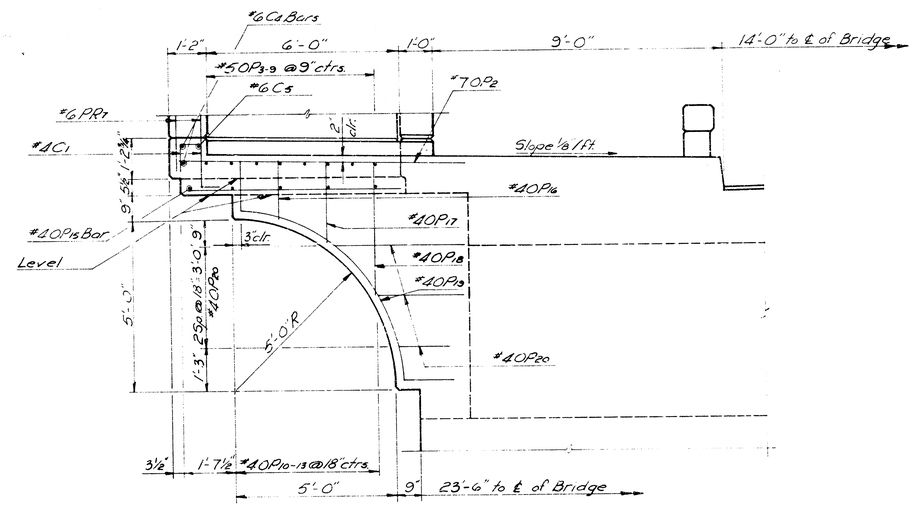


LINSEED OIL SURFACE TREATMENT

Note: Linseed Oil Treatment to include Observation Platforms.



ELEVATION



SECTION A-A

CITY OF WICHITA KANSAS
R.W. LINN, P.E. CITY ENGINEER

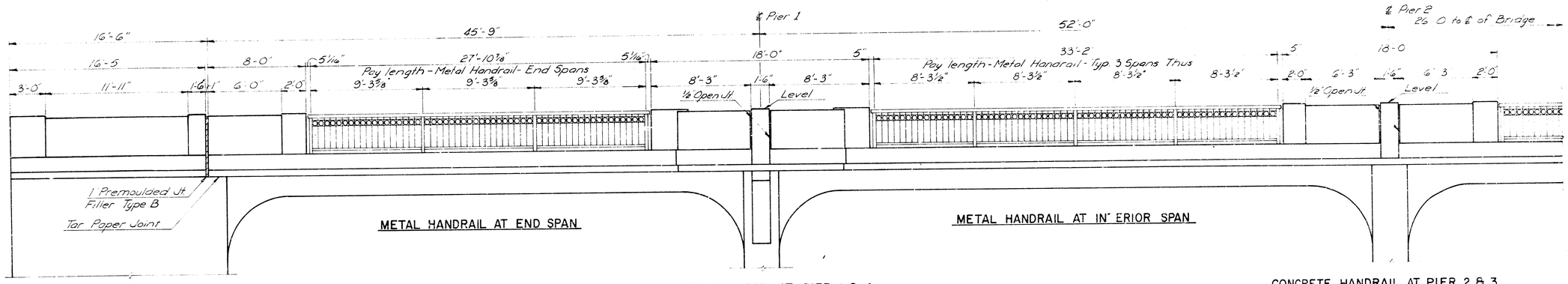
PLATFORM DETAILS

WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	Checked by	
Drawn by	Date	Job No.

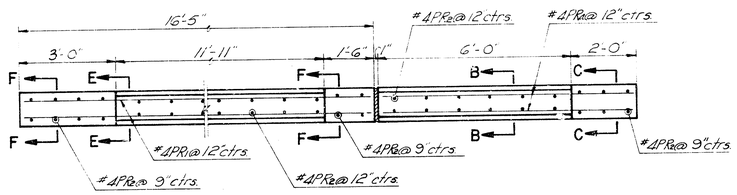
PROJECT NO.	FINAL SHEET NO.	SHEET NO.	TOTAL SHEETS
DAKB576042	77	12	17



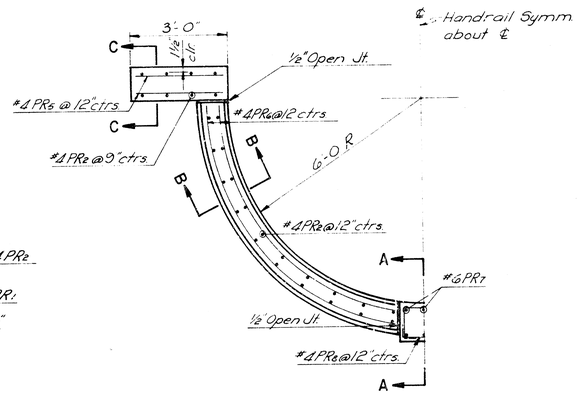
CONCRETE HANDRAIL AT ABUTMENT & WINGWALL

CONCRETE HANDRAIL AT PIER 1 & 4
ELEVATION

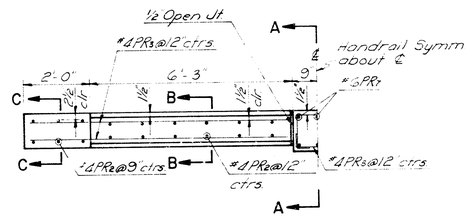
CONCRETE HANDRAIL AT PIER 2 & 3



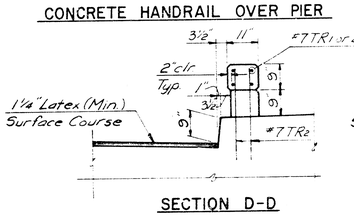
CONCRETE HANDRAIL AT ABUTMENT & WINGWALL



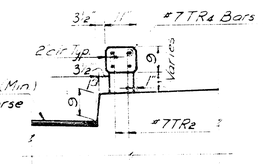
CONCRETE HANDRAIL AT PLATFORM



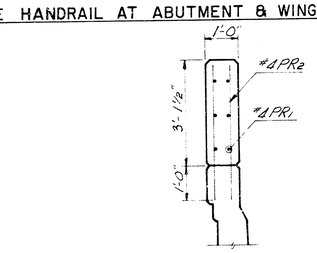
CONCRETE HANDRAIL OVER PIER



SECTION D-D

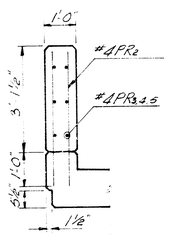


SECTION G-G

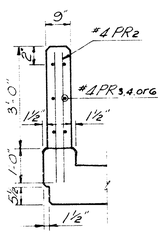


SECTION F-F

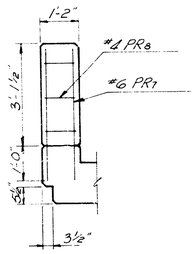
SECTION E-E



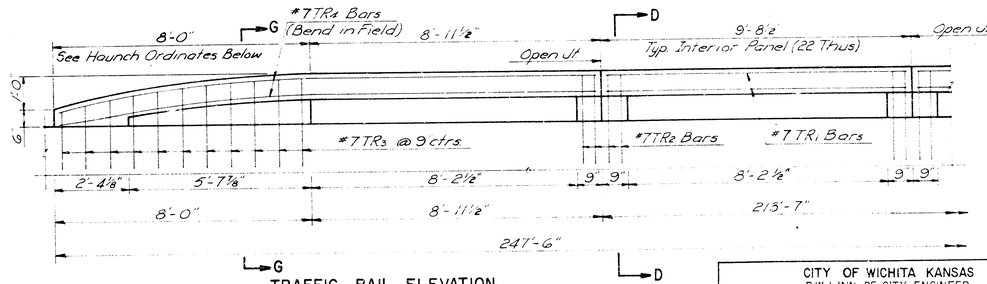
SECTION C-C



SECTION B-B



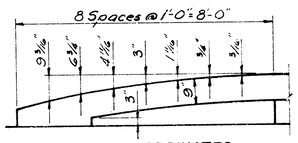
SECTION A-A



℄ G

TRAFFIC RAIL ELEVATION

All handrail joints shall be ½" open joints except those within 10'-0" of the piers and those shall be ¼" open joints.



HAUNCH ORDINATES

CITY OF WICHITA KANSAS
R.W. LINN, P.E. CITY ENGINEER

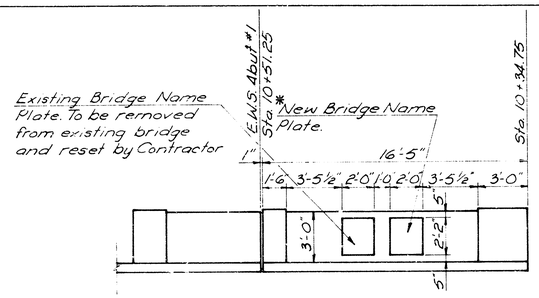
HANDRAIL DETAILS

WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by | Checked by
Drawn by | Date | Job No.

PROJECT	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
DAKB 576042	77	13	17



BRIDGE NAME PLATE
(Abutment #1 - East Side Only)

*New Bridge Name Plate shall be 5/16" x 24" x 26" bronze with concealed mountings. It shall have a 1" wide border and ribbon style letters. It shall contain the following information:

WOODMAN BRIDGE
1976
CITY OF WICHITA
JAMES M. DONNELL – MAYOR
GLENN J. SHANAHAN VICE MAYOR
A. F. (TONY) CASADO
ROBERT I. CORY
CONNIE A. PETERS
COMMISSIONERS
E. H. DENTON
CITY MANAGER
DESIGN LOADING HS20-44

Contractor shall furnish rubbings to Engineer for approval prior to casting name plate. Cost of furnishing and installing the new name plate and the cost of removing and resetting the existing name plate shall be included in the price bid for Class I Concrete.

GENERAL NOTES

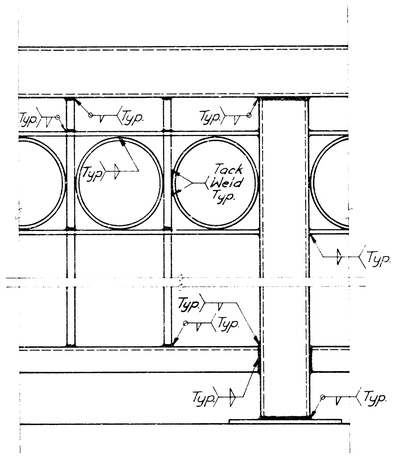
The top horizontal member of the rail and the posts shall be steel hollow structural tubing. Other shapes and plates shall conform to ASTM designation A36. All Steel pipe shall conform to ASTM designation A53.

Rail shall be fabricated full length for each section, and shall be fabricated to match vertical curvature of the structure. Rail posts shall be perpendicular to top of parapet. Shims may be used between concrete and base plate of posts.

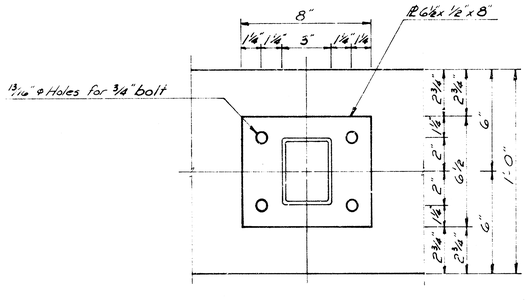
Anchors shall be ¾" standard snap-off Phillips Red Head or approved equal. Washers shall conform to article 1006.14(e) of the standard specifications for State Road and Bridge Construction 1973 Edition Kansas Department of Transportation.

Exposed portion of bolt and washer shall receive two coats of black paint.

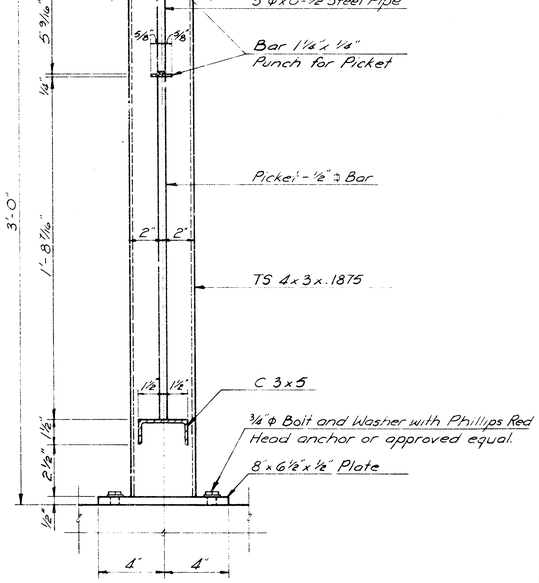
All parts of handrail shall be given one coat of red lead paint, one coat of black paint in the shop and one coat of black paint in the field.



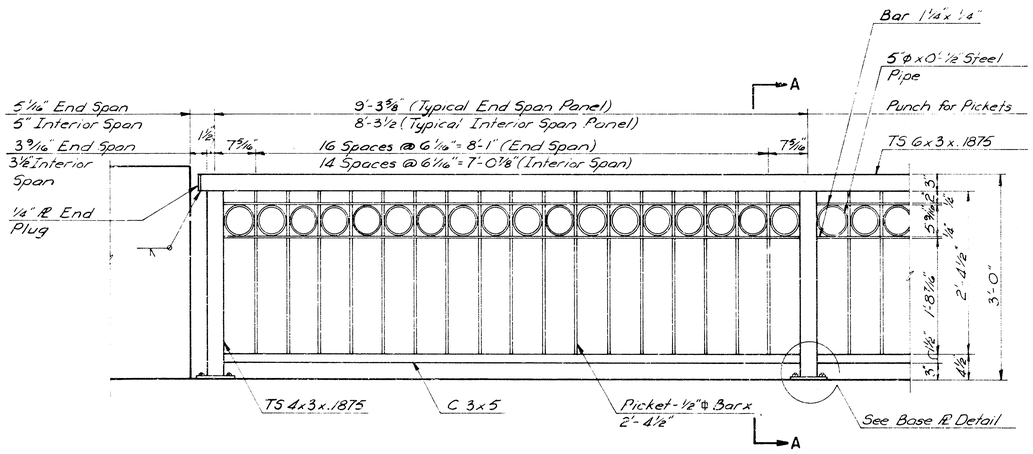
WELD DETAIL
All welds shall be 3/16" unless otherwise noted.



BASE PLATE DETAIL



SECTION A-A



METAL HANDRAIL ELEVATION

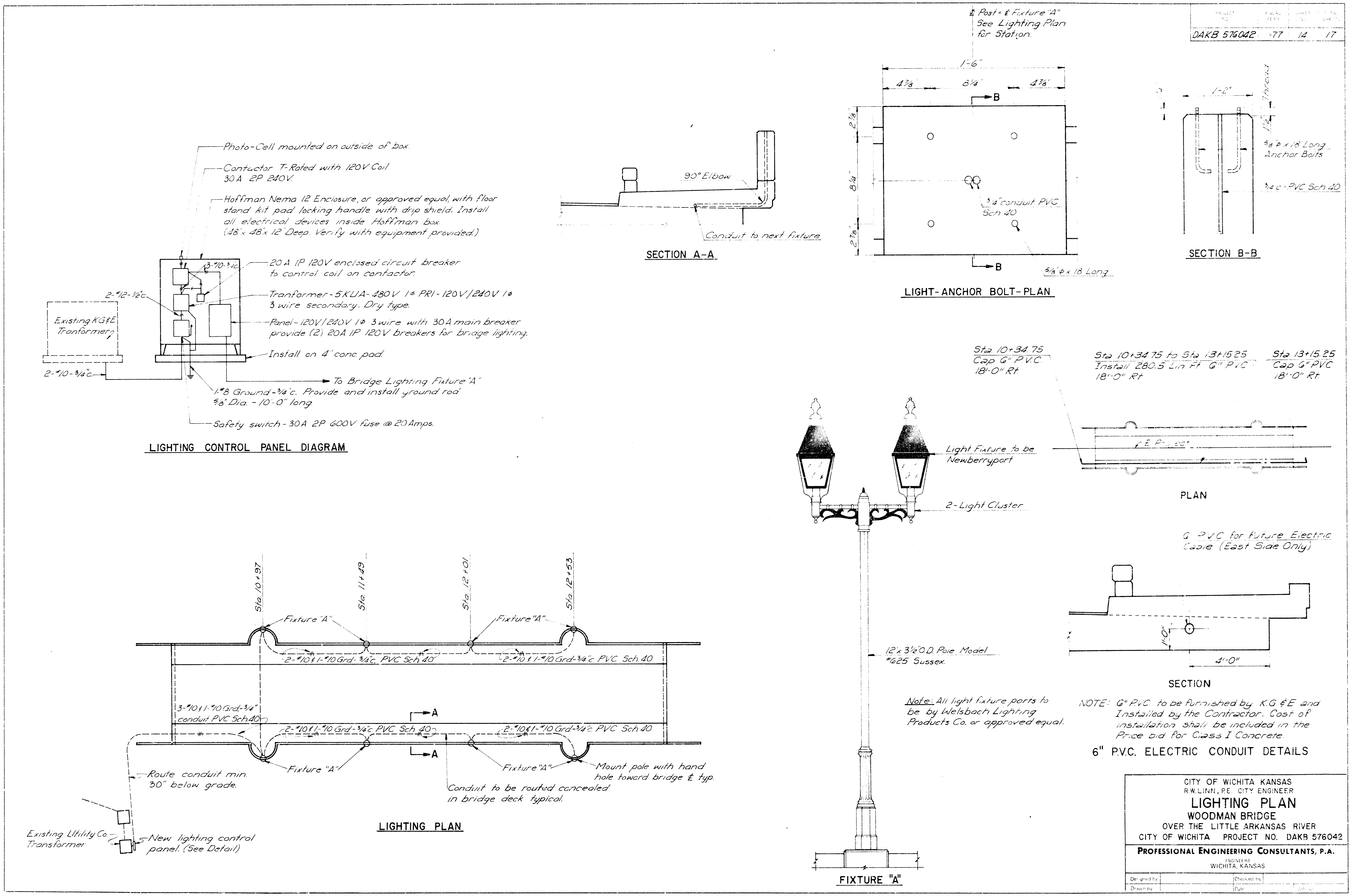
CITY OF WICHITA KANSAS
R.W. LINN, PE CITY ENGINEER

HANDRAIL DETAILS

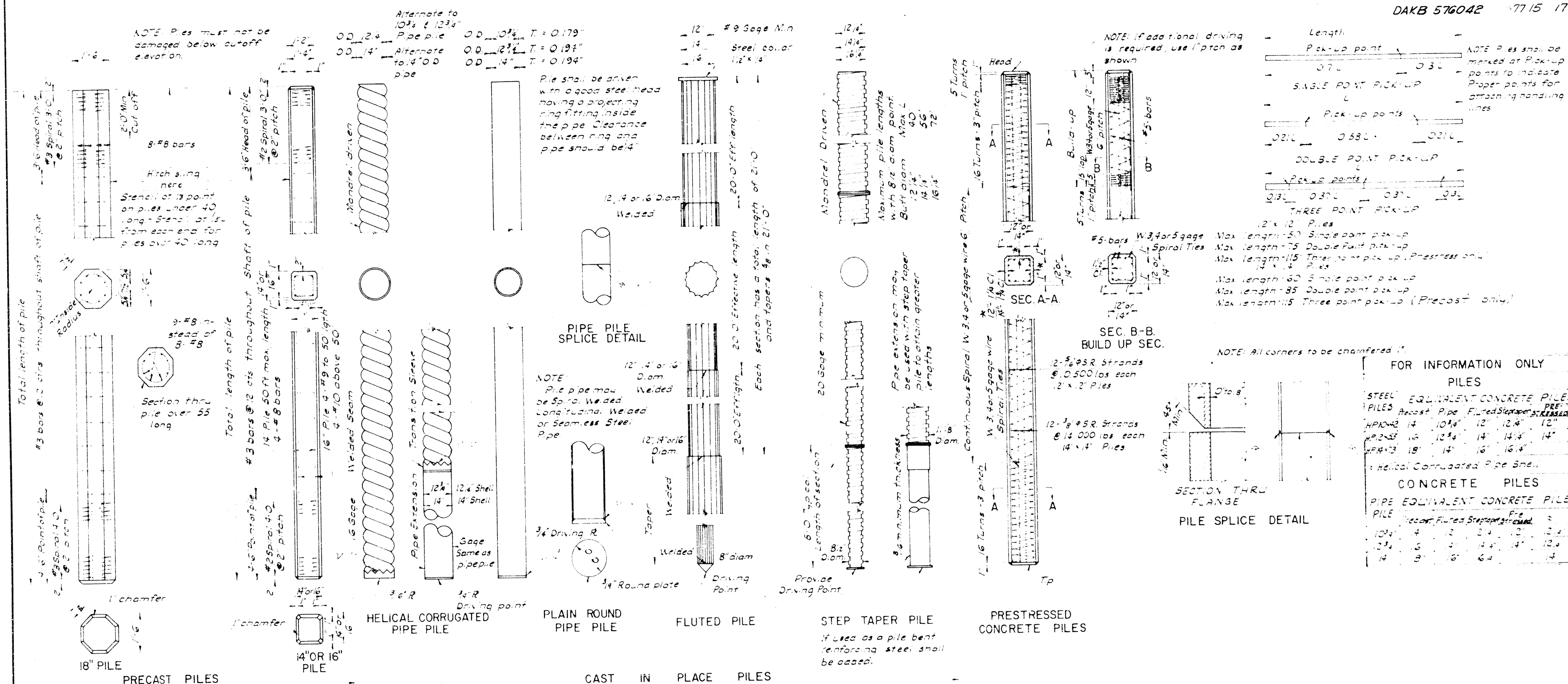
WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	Checked by
Drawn by	Date


DAKB 576042 | 77 | 14 | 17
Photo-Cell mounted on outside of box.
Contactor T-Rated with 120V Coil 30A 2P 240V.
Hoffman Nema 12 Enclosure, or approved equal, with floor stand kit pad locking handle with drip shield. Install all electrical devices inside Hoffman box. (48"x 48"x 12" Deep. Verify with equipment provided.)
3-#10-3/4"c.
20A 1P 120V enclosed circuit breaker to control coil on contactor.
2-#12-1/2"c.
Tranformer - 5KVA - 480V 1Φ PRI - 120V/240V 1Φ 3 wire secondary. Dry type.
Existing KG&E Tranformer
Panel - 120V/240V 1Φ 3 wire with 30A main breaker provide (2) 20A 1P 120V breakers for bridge lighting.
Install on 4" conc. pad.
2-#10-3/4"c.
To Bridge Lighting Fixture "A"
1-#8 Ground-3/4"c. Provide and install ground rod 5/8" Dia. - 10'-0" long.
Safety switch - 30A 2P 600V fuse @ 20 Amps.
LIGHTING CONTROL PANEL DIAGRAM
90° Elbow
Conduit to next fixture
SECTION A-A
℄ Post = ℄ Fixture "A" See Lighting Plan for Station.
1'-6"
4 7/8"
8 1/4"
4 7/8"
2 7/8"
8 1/4"
2 7/8"
3/4" conduit PVC Sch 40
5/8" Φ x 18 Long
LIGHT-ANCHOR BOLT-PLAN
1'-2"
Thread
1 1/2"
5/8"Φ x 18" Long Anchor Bolts
3/4"c-PVC Sch 40
SECTION B-B
Sta 10+34.75 Cap 6" P.V.C. 18'-0" Rt
Sta 10+34.75 to Sta 13+15.25 Install 280.5 Lin Ft 6" PVC 18'-0" Rt
Sta 13+15.25 Cap 6" PVC 18'-0" Rt
℄ Project
PLAN
6" PVC for Future Electric Cable (East Side Only)
1'-0"
4'-0"
SECTION
NOTE: 6" PVC to be furnished by K.G.&E and Installed by the Contractor. Cost of installation shall be included in the Price bid for Class I Concrete.
6" P.V.C. ELECTRIC CONDUIT DETAILS
Light Fixture to be Newberryport
2-Light Cluster
12'x 3 1/2" O.D. Pole Model #625 Sussex.
Note: All light fixture ports to be by Welsbach Lighting Products Co. or approved equal.
FIXTURE "A"
Sta. 10+97
Sta. 11+49
Sta. 12+01
Sta. 12+53
Fixture "A"
Fixture "A"
2-#10 & 1-#10 Grd-3/4"c. PVC Sch 40
2-#10 & 1-#10 Grd-3/4"c. PVC Sch 40
3-#10 & 1-#10 Grd-3/4" conduit PVC Sch 40
2-#10 & 1-#10 Grd-3/4"c. PVC Sch 40
2-#10 & 1-#10 Grd-3/4"c. PVC Sch 40
A
A
Route conduit min. 30" below grade.
Fixture "A"
Fixture "A"
Mount pole with hand hole toward bridge ℄ typ.
Conduit to be routed concealed in bridge deck typical.
Existing Utility Co. Transformer
New lighting control panel. (See Detail)
LIGHTING PLAN
CITY OF WICHITA KANSAS
R.W. LINN, P.E. CITY ENGINEER
LIGHTING PLAN
WOODMAN BRIDGE
OVER THE LITTLE ARKANSAS RIVER
CITY OF WICHITA PROJECT NO. DAKB 576042
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

DAKB 576042



FOR INFORMATION ONLY

PILES

STEEL PILES	EQUIVALENT CONCRETE PILES					
	Precast	Pipe	Fluted	Steptaper	PRE-STRESSED	*
HP10×42	14"	10¾"	12"	12¼"	12"	12¼"
HP12×53	16"	12¾"	14"	14¼"	14"	12¼"
HP14×73	18"	14"	16"	16¼"		14"

* Helical Corrugated Pipe Shell

CONCRETE PILES

PIPE PILE	EQUIVALENT CONCRETE PILES				
	Precast	Fluted	Steptaper	Pre-stressed	*
10¾"	14"	12"	12¼"	12"	12¼
12¾	16	14"	14¼"	14"	12¼
14	18"	16"	16¼		14

GENERAL NOTES

1. Specifications:
   Standard Specifications for State Road and Bridge Construction as currently used by the State Highway Commission of Kansas. (Ed. 1973).
2. Concrete:
   Concrete for cast-in-place shall be Class A concrete. f'c = 3,000 psi. See Sub-Article 703.07 (f)(2) Standard Specifications.
   Concrete for Precast and for Prestressed shall be Class AAA concrete f'c = 4,000 psi. See Article 703.07 (a) Standard Specifications.
3. Reinforcement:
   Reinforcing bars shall be new billet steel ASTM Designation A-615 grade 40 without exception. Hoops and spirals may be either plain or deformed bars. See Sub-Section 1006.01 Standard Specifications.
4. Precast Piles:
   Precast piles shall conform to the requirements of Article 703.07 (a)(b)(c)(d) Standard Specifications.
5. Cast-in-Place Shells:
   Steel shells for Cast-in-Place Concrete Piles shall conform to the requirements of Sub-Section 1006.06 Standard Specifications.
   All piles driven without mandrel shall be of the minimum gages or thicknesses shown above, except fluted pile use No. 9 gage minimum. Piles driven with mandrel shall be of sufficient strength and thickness to withstand driving without injury and to resist harmful distortion and/or buckling due to soil pressure after the mandrel is removed.
   Improperly driven, broken or otherwise defective shells shall be removed and replaced or otherwise corrected to the satisfaction of the Engineer, or the driving of an additional pile at no extra cost.
   The contractor shall maintain on the job at all times prior to and during the filling of the shells a light suitable for visual inspection of the pile.
6. Steel Pile:
   Steel pile shall conform to requirements of Article 1006.04 (e) Standard Specifications.
7. Pile Points:
   Pile points shall conform to the dimensions shown and requirements of Sub-Article 1006.06 (b)(3) Standard Specification. Pile points shall be mill welded to pile.
8. Welding:
   All field welding shall meet the requirements of Sub-Section 703.06 Standard Specifications.
9. Paint:
   All paint shall comply with Sub-Section 1008.06 Standard Specifications, or as specified on the plans.
10. Test Piles:
    Test Piles shall be driven where called for on the Bridge plans. The test piles located within the limits of the substructure will become a part of the Bridge Pile System.
11. Splices:
    Splices for Steel Piles and Shell Piling shall be in accordance with details shown on this sheet and shall comply with Sub-Section 703.06 Standard Specifications.
    Precast Concrete Pile splices shall comply with Sub-Article 703.07 (g)(1) Standard Specifications.
    Prestressed Concrete Pile splices shall be made in accordance with the manufacturers recommendations subject to the approval of the Engineer.
12. Driving Formula:
    Driving Formula shall conform to Sub-Article 703.04 (a)(3) Standard Specifications.
13. Mill Test Reports:
    Steel Piles test reports shall comply with Sub-Article 1006.04 (e)(3) Standard Specifications.
    Steel Shells test reports for cast-in-place piles shall comply with Article 1006.06 (d) Standard Specifications.
14. Measurement and Payment:
    Measurement for all piles shall comply with Sub-Section 703.08 Standard Specifications.
    Payment for all piles shall comply with Sub-Section 703.09 Standard Specifications.

CITY OF WICHITA PROJECT NO. DAKB 576042

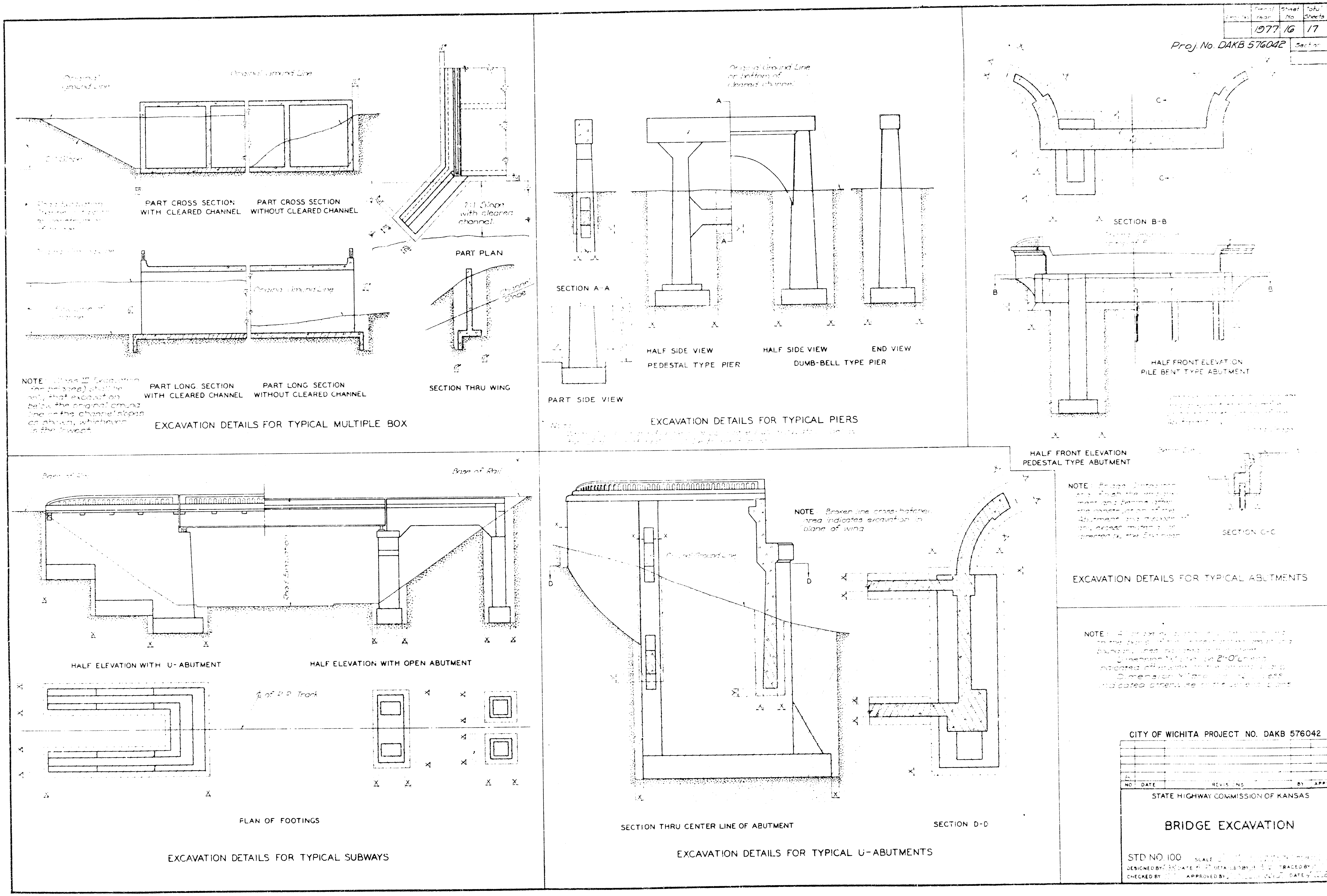
No.	DATE	REVISIONS	BY	APP'D
6	9-4-73	Revised For 1973 Const. Spec	G.F.K.	E.E.W.
5	8-26-66	Revise Entire Gen. Note	J.C.L.	E.E.W.
4	4-8-64	Add Longitudinal Welded Pipe Pile	J.C.L.	T.W.O.
3	4-4-61	Revise Choice of Pile Note Abuts	J.C.L.	T.W.O.
	3-27-61	Revise Pipe Pile General Note	J.C.L.	T.W.O.
	1-24-61	Remove Hole in Prestressed Conc. Pile	J.C.L.	T.W.O.

STATE HIGHWAY COMMISSION OF KANSAS

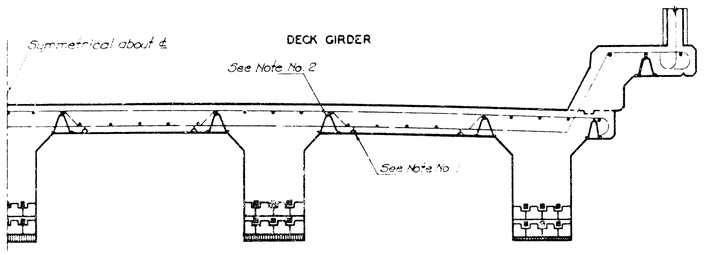
STANDARD PILE DETAILS

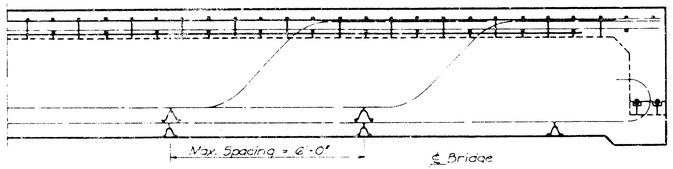
STD. NO. 102

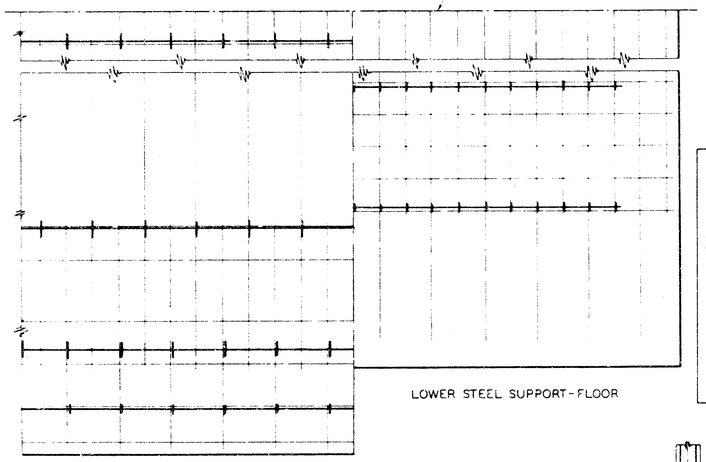
Traced: Kozi

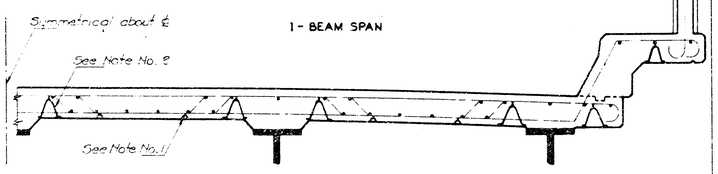

1977 16 17
Proj. No. DAKB 576042
PART CROSS SECTION WITH CLEARED CHANNEL
PART CROSS SECTION WITHOUT CLEARED CHANNEL
PART PLAN
PART LONG SECTION WITH CLEARED CHANNEL
PART LONG SECTION WITHOUT CLEARED CHANNEL
SECTION THRU WING
EXCAVATION DETAILS FOR TYPICAL MULTIPLE BOX
SECTION A-A
PART SIDE VIEW
HALF SIDE VIEW
PEDESTAL TYPE PIER
HALF SIDE VIEW
END VIEW
DUMB-BELL TYPE PIER
EXCAVATION DETAILS FOR TYPICAL PIERS
SECTION B-B
HALF FRONT ELEVATION
PILE BENT TYPE ABUTMENT
HALF FRONT ELEVATION
PEDESTAL TYPE ABUTMENT
SECTION C-C
EXCAVATION DETAILS FOR TYPICAL ABUTMENTS
HALF ELEVATION WITH U-ABUTMENT
HALF ELEVATION WITH OPEN ABUTMENT
FLAN OF FOOTINGS
EXCAVATION DETAILS FOR TYPICAL SUBWAYS
NOTE: Broken line cross-hatched area indicates excavation in plane of wing
SECTION THRU CENTER LINE OF ABUTMENT
SECTION D-D
EXCAVATION DETAILS FOR TYPICAL U-ABUTMENTS
CITY OF WICHITA PROJECT NO. DAKB 576042
STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE EXCAVATION
STD NO 100

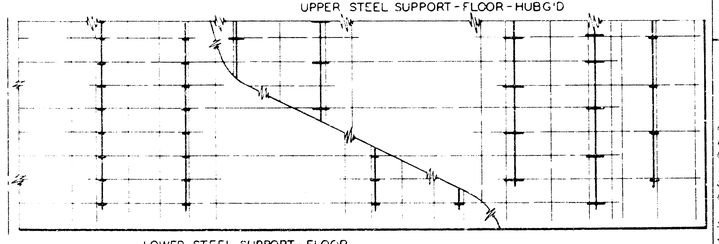
TYPICAL SUPERSTRUCTURE DETAILS

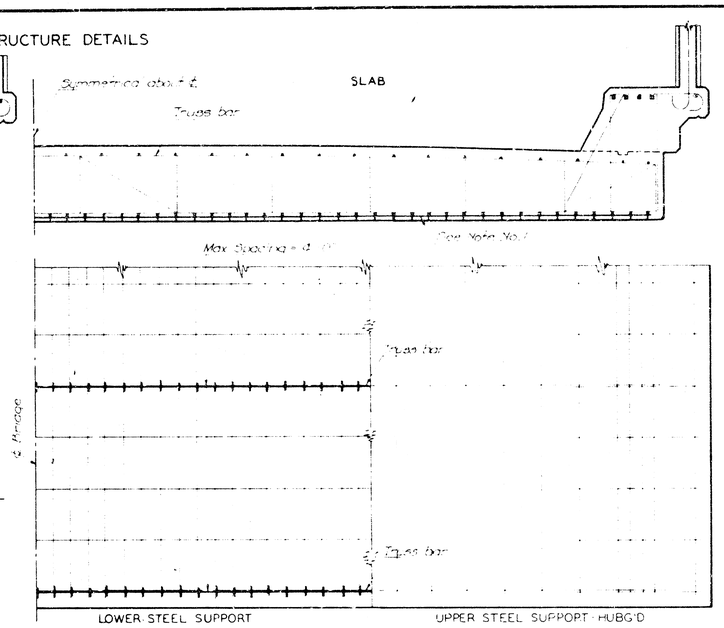




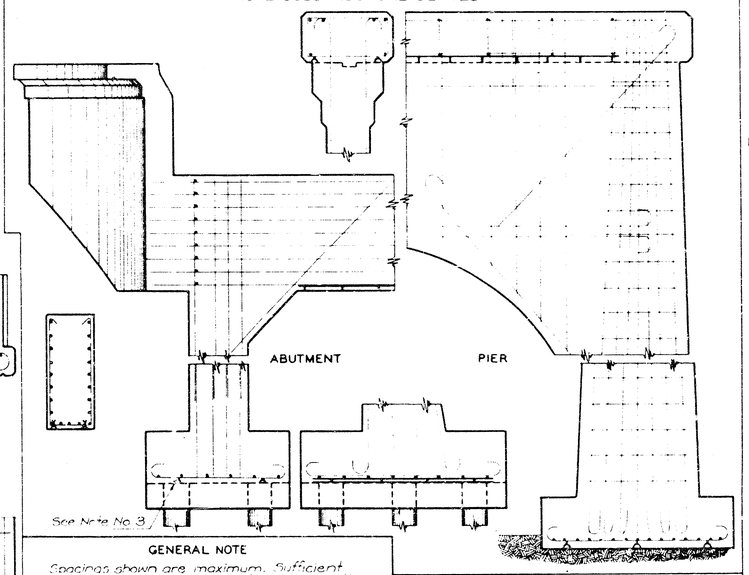








TYPICAL SUBSTRUCTURE DETAILS



GENERAL NOTE

Spacings shown are maximum. Sufficient supports shall be used, as determined by the Engineer, to retain the reinf steel in position.

Approved designs and arrangements of Supports or Spacers other than as shown on this sheet, may be used with the permission of the Engineer. Component parts of Supports and Spacers shall be securely welded at all contact points. Legs shall be so constructed that only the ends bear upon the forms.

Wire used for Supports and Spacers shall be of sufficient size to insure stability of Reinforcing Steel at the position shown on the Plans, within the limits indicated by Notes 1 & 2. Wire supports shall be supplemented with form ties or other approved devices where necessary.

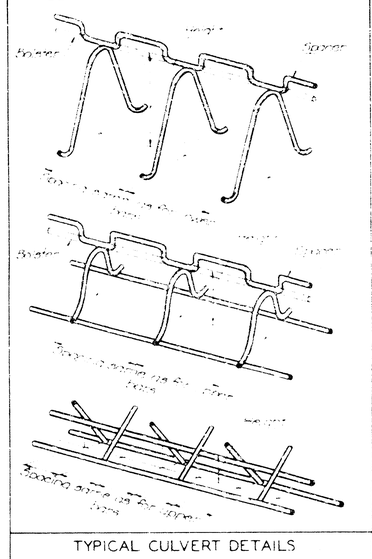
NOTE 1: *The lower side of Reinforcing Steel in these locations shall be not less than one and one half inch (1½") from the surface of the concrete.*

NOTE 2: The upper side of Reinforcing Steel in these locations shall be within the limits shown on the Plans.

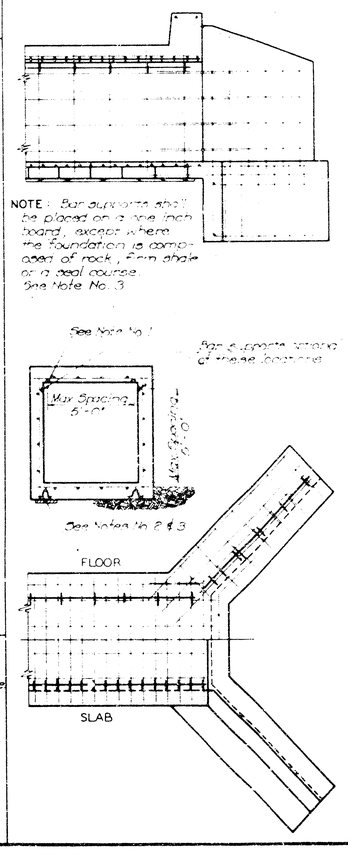
NOTE 3: The use of Wire Supports for Reinforcing Steel in these locations is optional. Where they are not used the Steel shall be supported from the forms by means of wire ties or saddles.

NOTE 4: *All bar supports or spacers in contact with forms shall be plastic tipped.*

BEAM BAR SPACERS & BOLSTERS



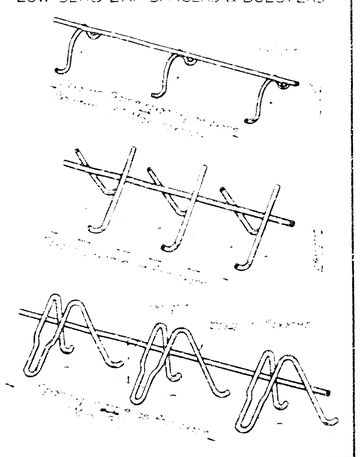
TYPICAL CULVERT DETAILS



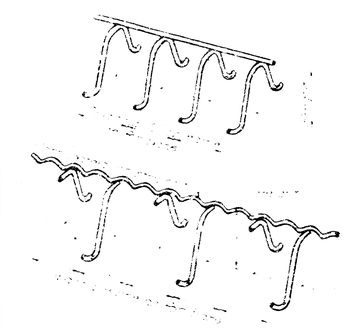
Proj. No	Fiscal Year	Sheet No	Total Sheets
	1977	17	17

Proj. No. DAKB 576042 Section

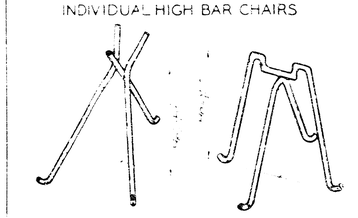
LOW SLAB BAR SPACERS & BOLSTERS



HIGH SLAB BAR SPACERS & BOLSTERS



INDIVIDUAL HIGH BAR CHAIRS



CITY OF WICHITA PROJECT NO. DAKB 576042

NO.	DATE	REVISIONS	BY	APP'D
6				

STATE HIGHWAY COMMISSION OF KANSAS

SUPPORTS AND SPACERS FOR REINFORCING STEEL

STD NO 610 SCALE

DESIGNED BY DATE DETAILED BY TRACED BY

CHECKED BY APPROVED BY DATE