

STATE OF KANSAS
STATE HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY

SEDGWICK CO.

K 96

BRIDGE ONLY

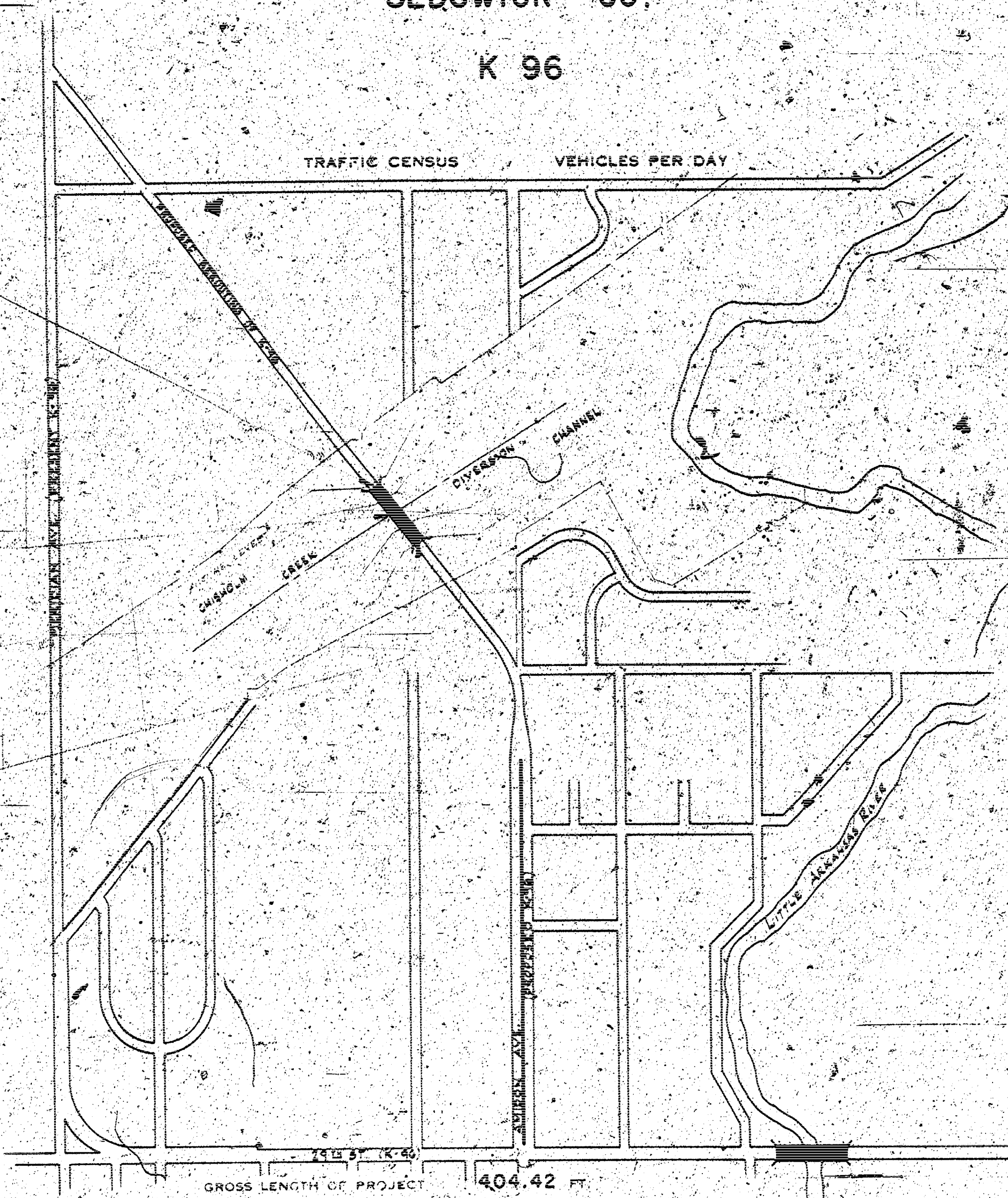
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Sta. 40+18.10 END Proj. 96-87 K 5020 (2)

Sta. 36+15.89 Construct Br. No. 96-87-27.6
54'-9"-59.58'-3"-54'-9" Cont. Prestressed Conc.
Girder Spans, Pile Bent Type Piers & Abuts.
28'-0" Roadway.

Sta. 36+13.68 BEGIN Proj. 96-87 K 5020 (2)



CONVENTIONAL SIGNS

COUNTY LINE	RETAINING WALL
CITY, VILLAGE, OR BOROUGH	BASE OF SURVEY LINE
STATE OR NATIONAL LINE	LEVEE
TOWNSHIP LINE	COVERTS
SECTION LINE	DRAINAGE
GRANT LINE	TRUCK STOP
FENCE LINE	POWER LINE
GUARD FENCE	TELEPHONE OR TELEGRAPH LINE
UNFENCED PROPERTY	MARSH
RIGHT OF WAY LINE	HEDGE
TRAVELLED WAY	LOGS
RAILROADS	GRADE ELEVATION

GROSS LENGTH OF PROJECT 404.42 FT.

EXCEPTIONS 00.00

ADDITIONS 00.00

NET LENGTH OF PROJECT 404.42 FT. 0.076 MILES

NET LENGTH OF BRIDGE 404.42 FT. 0.076 MILES

NET LENGTH OF ROAD 00.00 FT. 0.000 MILES

SCALE 1" = 10' HORIZ.

WICHITA (SAMPLE SIGN)

PLANS PREPARED BY:

R. S. DELAMATER
Consulting Engineer
Wichita, Kansas

DATE November 1955

RECORD FOR APPROVAL DATE

ENGINEER OF DESIGN
STATE HIGHWAY COMMISSION OF KANSAS

APPROVED DATE

STATE HIGHWAY ENGINEER
STATE HIGHWAY COMMISSION OF KANSAS

RECORD FOR APPROVAL DATE

ENGINEER
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE

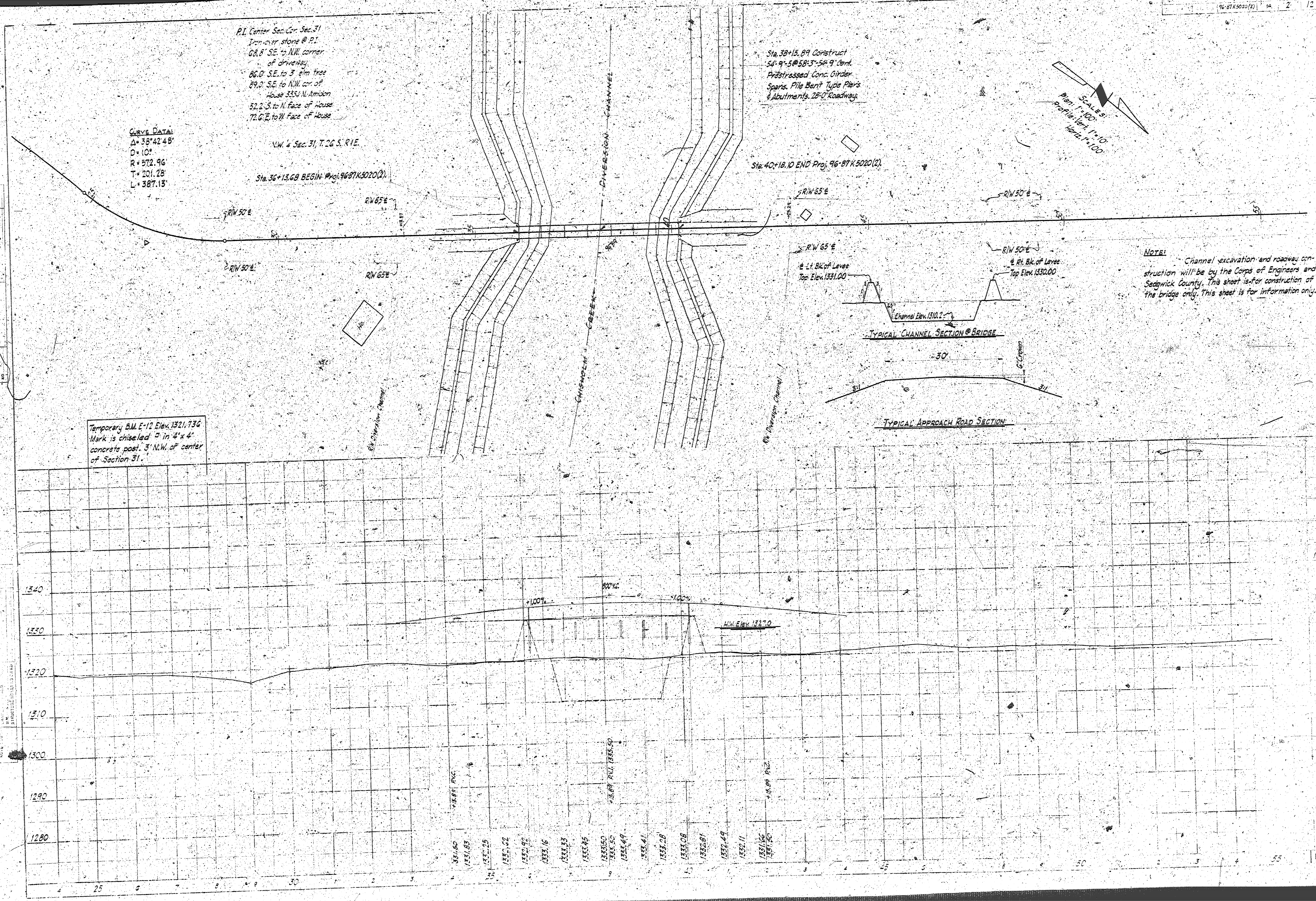
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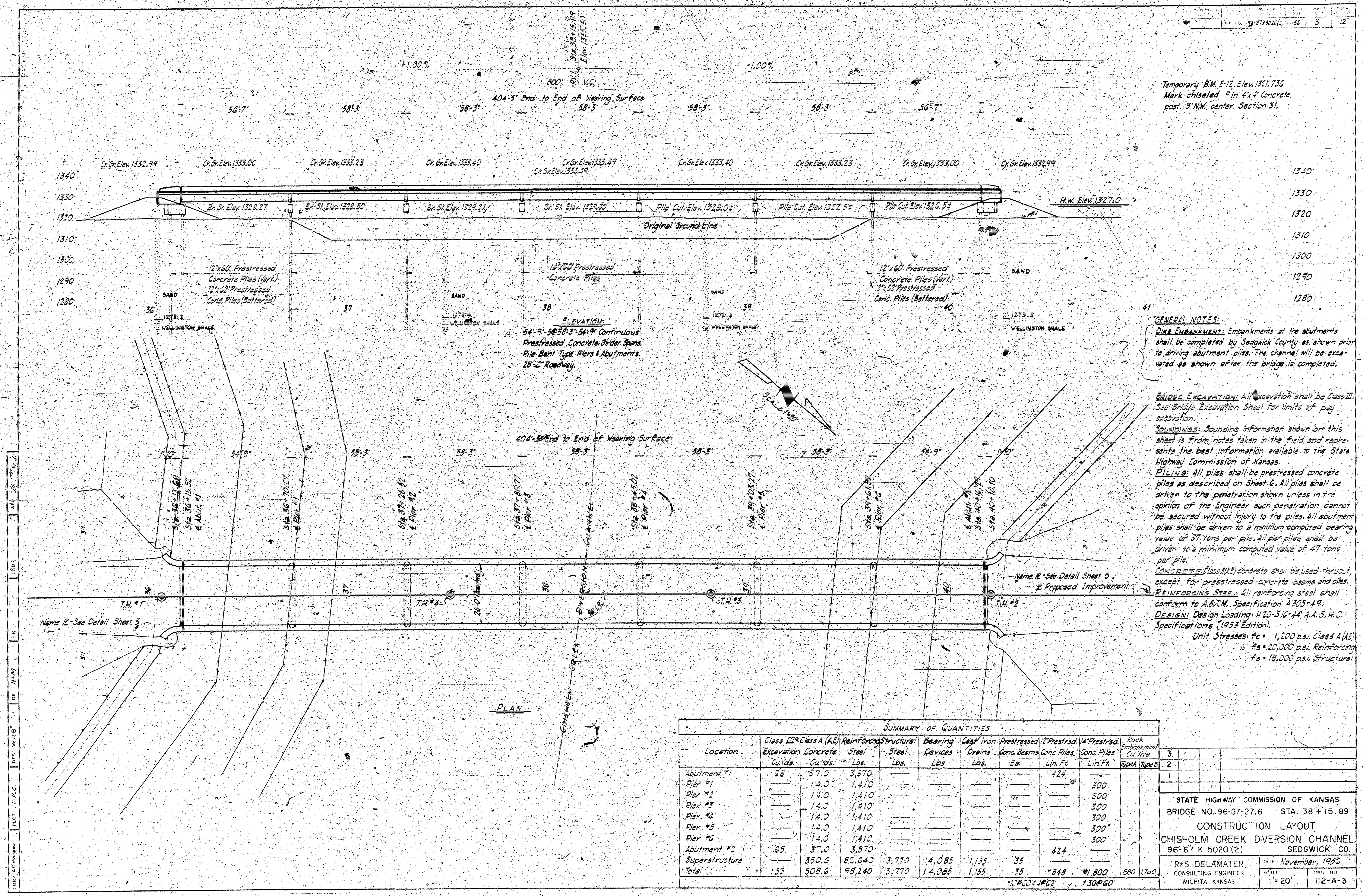
DISTRICT ENGINEER
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE

AMIDON & CHANNEL 'B'

3 SHEETS

PLAN	DATE	BY	CHKD
10/1/80	10/1/80	10/1/80	10/1/80
10/1/80	10/1/80	10/1/80	10/1/80
10/1/80	10/1/80	10/1/80	10/1/80
10/1/80	10/1/80	10/1/80	10/1/80





Temporary B.M. E-12, Elev. 1321.736
Mark chiseled "in 4x4" concrete
post, 3' NW, center Section 31.

GENERAL NOTES:
1. **EMBANKMENTS:** Embankments at the abutments shall be completed by Sedgwick County as shown prior to driving abutment piles. The channel will be excavated as shown after the bridge is completed.

2. **BRIDGE EXCAVATION:** All excavation shall be Class III. See Bridge Excavation Sheet for limits of pay excavation.

3. **SOUNDINGS:** Sounding information shown on this sheet is from notes taken in the field and represents the best information available to the State Highway Commission of Kansas.

4. **PILING:** All piles shall be prestressed concrete piles as described on Sheet 6. All piles shall be driven to the penetration shown unless in the opinion of the Engineer such penetration cannot be secured without injury to the piles. All abutment piles shall be driven to a minimum computed bearing value of 37 tons per pile. All pier piles shall be driven to a minimum computed value of 47 tons per pile.

5. **CONCRETE:** Class (A) concrete shall be used thruout, except for prestressed concrete beams and piles.

6. **REINFORCING STEEL:** All reinforcing steel shall conform to A.S.T.M. Specification A305-49.

7. **DESIGN:** Design Loading: H 20-S16-44 A.A.S.H.O. Specifications (1953 Edition).

Unit Stresses: $f_c = 1,200$ psi. Class A (A)

$f_s = 20,000$ psi. Reinforcing

$f_s = 18,000$ psi. Structural

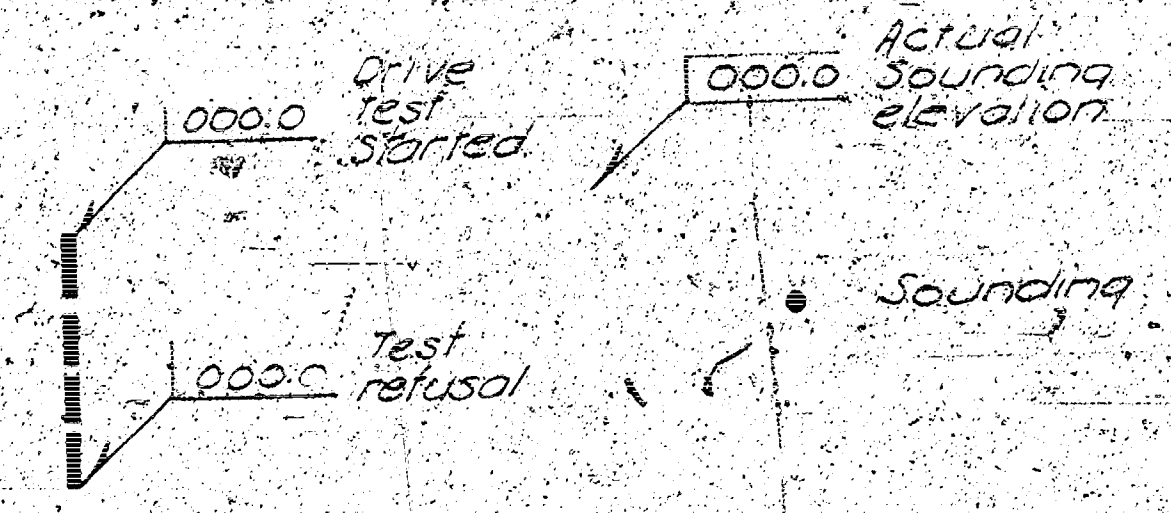
SUMMARY OF QUANTITIES										
Location	Class III	Class A (A)	Reinforcing	Structural	Bearing	Cast Iron	Prestressed	Prestressed	Prestressed	Rock
	Excavation	Concrete	Steel	Steel	Devices	Drains	Conc. Beams	Conc. Piles	Conc. Piles	Embankment
	Cu Yds.	Cu Yds.	Lbs.	Lbs.	Lbs.	Lbs.	Ea.	Lin. Ft.	Lin. Ft.	Cu Yds.
Abutment #1	68	37.0	3,570					424		
Pier #1		14.0	1,410						300	
Pier #2		14.0	1,410						300	
Pier #3		14.0	1,410						300	
Pier #4		14.0	1,410						300	
Pier #5		14.0	1,410						300	
Pier #6		14.0	1,410						300	
Abutment #2	68	37.0	3,570					424		
Superstructure		350.6	82,640	3,770	14,085	1,155	35			
Total	133	508.6	98,240	3,770	14,085	1,155	35	848	1,800	1,160

STATE HIGHWAY COMMISSION OF KANSAS
BRIDGE NO. 96-07-27.6 STA. 38+15.89
CONSTRUCTION LAYOUT
CHISHOLM CREEK DIVERSION CHANNEL
96-07 K 5020 (2) SEDGWICK CO.
R+S DELAMATER, CONSULTING ENGINEER
WICHITA, KANSAS
DATE November, 1956
SCALE 1" = 20'
DWG. NO. 112-A-3



GEOLOGIC PROFILE

- LEGEND
- | | | | |
|--|---------------|--|--------------------------|
| | Sand & gravel | | Silt/clay & gravel |
| | Silty sand | | Shale |
| | Limy shale | | Shale & gypsum stringers |

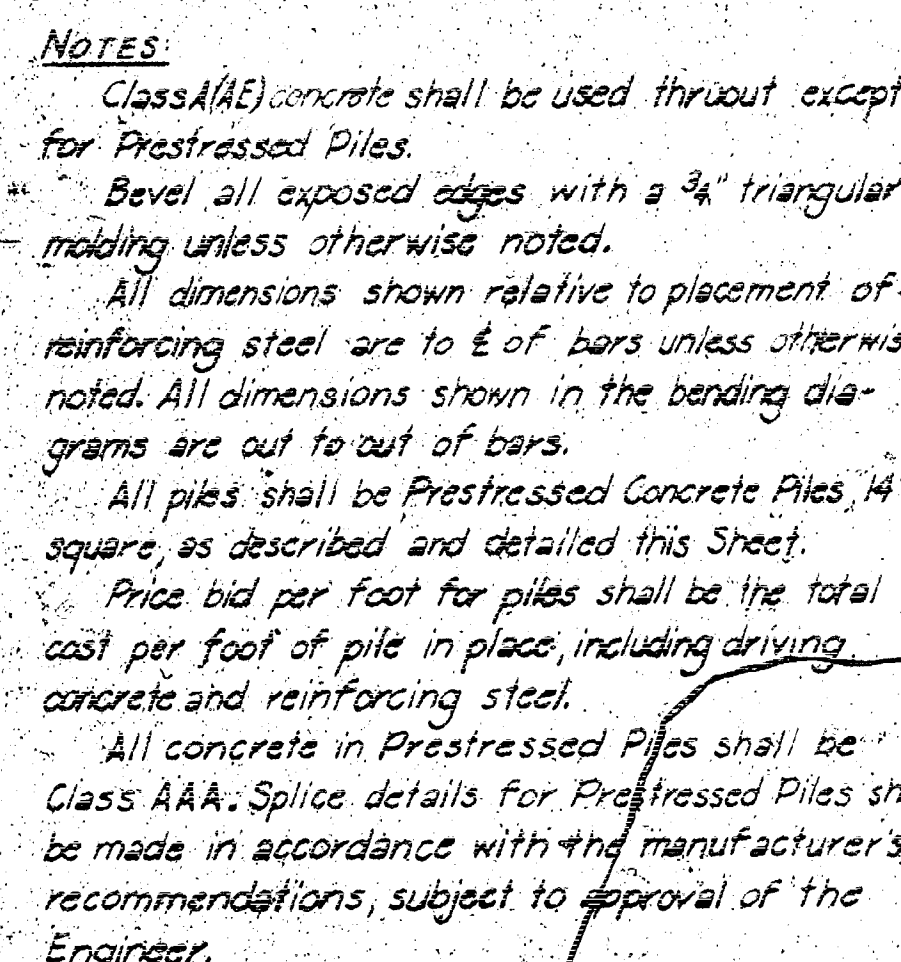


NOTE
 The soundings shown on these plans are taken from notes obtained in the field and represent the best information available to the Kansas Highway Commission.
 The logs of these soundings are in the files of the State Highway Commission of Kansas and are available at their offices at Topeka, Kansas for inspection by interested and qualified bidders.

Scale 1" = 20 ft. Horiz. 1" = 20 ft. Vert.

STATE HIGHWAY COMMISSION OF KANSAS		BR. NO. 96-87-27.6	STA. 30+15.89
ENGINEERING GEOLOGY CHISHOLM CREEK DIVERSION CHANNEL			
PROJ. 96-87-K-5020(2)		SEDGWICK CO.	
SHEET NO.	OF	SCALE	APP'D
DESIGNED	BY	DETAILS	QUANTITIES
DESIGN CK.	BY	DETAIL CK.	TRACED

NOTE: If additional driving is required, use 1" pitch as shown



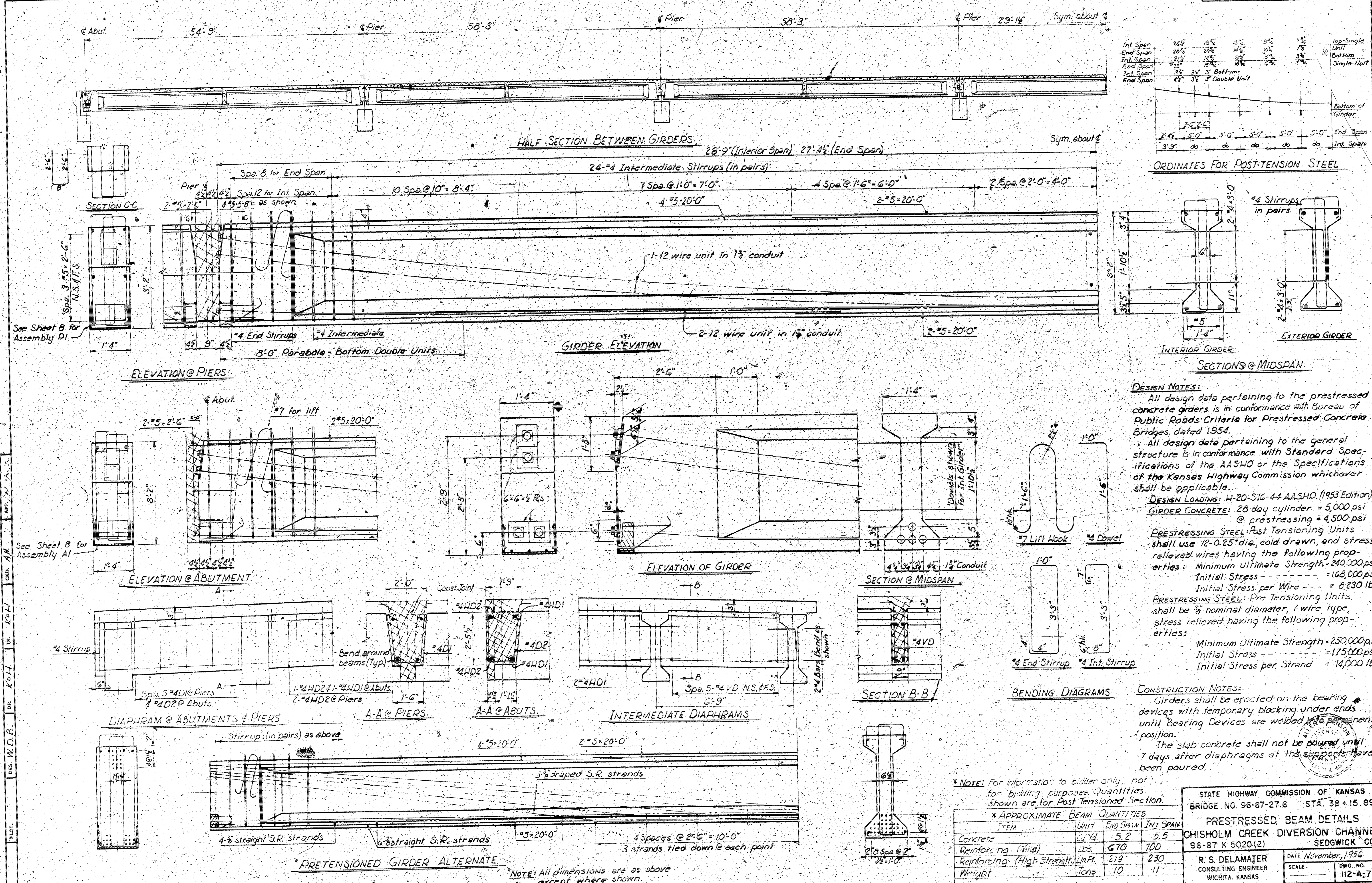
Per No	Elev A	Elev B	Elev C
1	1328.50	1324.50	1327.50
2	1329.21	1325.21	1328.00
3	1329.30	1325.30	1328.00
4	1329.30	1325.30	1328.00
5	1329.21	1325.21	1328.00
6	1328.50	1324.50	1327.50

ELEVATION TABLE				SUMMARY OF PER QUANTITIES									
Pier No	Elev. A'	Elev. B	Elev. C	Mark	PH1	PH2	PH3	P0	PV1	PV2	PV3	PT1	PT2
1	1325.50	1324.50	1327.50	Nº Reqd	5	5	5	20	28	6	15	10	20
2	1325.50	1325.51	1328.51	Size	28"	28"	28"	4"	4"	4"	4"	4"	4"
3	1325.50	1325.50	1328.50	Length	28'-6"	31'-0"	7'-8"	11'-0"	5'-0"	9'-0"	3'-6"	3'-0"	2'-0"
4	1325.50	1325.50	1328.50	Shape				□	□	□	□		
5	1325.51	1325.51	1328.51										
6	1328.51	1324.50	1327.50										

Class A[4] Concrete 14.0 Cu Yds.
Reinforcing Steel 1410 Lbs.
Prestressed Concrete Piles 300 Lin Ft.

3			
2			
1			
REV.	BY	DATE	DESCRIPTION
STATE HIGHWAY COMMISSION OF KANSAS.			
BRIDGE NO. 96-87-27.6		STA. 38+15.8	
PIER DETAILS			
CHISHOLM CREEK DIVERSION CHANNE			
96-87 K 5020 (2)		SEBBIWICK CO	
R. S. DELAMATER		DATE	November, 1956
CONSULTING ENGINEER		SCALE	1 1/2" = 6'
WICHITA, KANSAS			

PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	KANSAS	9-87K50202	1956	7	12



ORDINATES FOR POST-TENSION STEEL

DESIGN NOTES:

All design data pertaining to the prestressed concrete girders is in conformance with Bureau of Public Roads' Criteria for Prestressed Concrete Bridges, dated 1954.

All design data pertaining to the general structure is in conformance with Standard Specifications of the AASHTO or the Specifications of the Kansas Highway Commission whichever shall be applicable.

DESIGN LOADING: W-20-S16-44 AASHTO (1953 Edition)

GIRDER CONCRETE: 28 day cylinder = 5,000 psi
@ prestressing = 4,500 psi

PRESTRESSING STEEL: Post Tensioning Units shall use 1/2-0.25" dia, cold drawn, and stress relieved wires having the following properties: Minimum Ultimate Strength-240,000 psi
Initial Stress ----- = 148,000 psi
Initial Stress per Wire --- = 9,330 lbs

PRESTRESSING STEEL: Pre Tensioning Units shall be % nominal diameter, 1 wire type, stress relieved having the following properties:

Minimum Ultimate Strength-250,000 psi
Initial Stress --- = 175,000 psi
Initial Stress per Strand = 14,000 lbs

CONSTRUCTION NOTES:
Girders shall be erected on the bearing devices with temporary blocking under ends until bearing devices are welded in the permanent position.
The slab concrete shall not be poured until 7 days after diaphragms at the supports have been poured.

