

STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



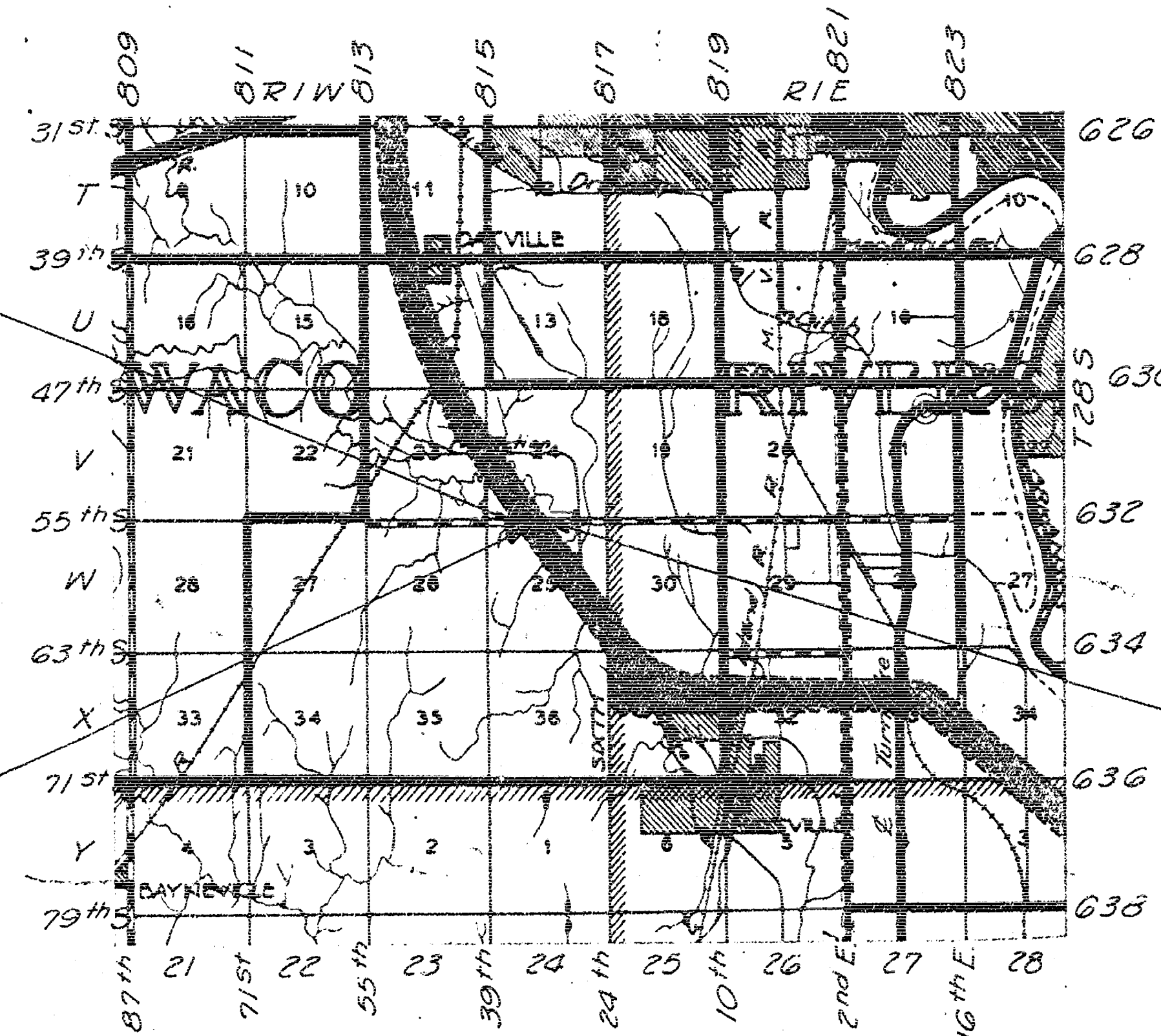
BRIDGE ONLY

INDEX OF SHEETS

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" 5	PIER & ABUTMENT DETAILS
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" 7	DECK DETAILS
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" 9	STANDARD PILE DETAILS
" 10	CAP ELEVATIONS & BRIDGE EXCAVATION

Sta. 13+68.12 Beginning of Project No. 632-24-1698

Sta. 16+98.12 Construct 36'-0"-13 Spans @ 45'-0" 36'-0" Continuous Steel Beam Bridge on Pile Bent Piers - 28' Roadway.



SCALE 1"=1 MILE

Sta. 20+28.12 End of Project No. 632-24-1698

CONVENTIONAL SIGNS

COUNTY LINE	-----
SECTION LINE	-----
WIRE FENCE	-----
HEDGE ROW	-----
RAILROADS	-----
SURVEY LINE	-----
RIGHT OF WAY	-----
TELEPHONE POLE	-----
POWER POLE	-----
TRAVELED WAY	-----

NET LENGTH OF PROJECT	6600 FT.	0.125 MILES
NET LENGTH OF BRIDGES	6600 FT.	0.125 MILES
NET LENGTH OF ROAD	None FT.	None MILES
EXCEPTIONS	" FT.	" MILES
ADDITIONS	" FT.	" MILES
GROSS LENGTH OF PROJECT	6600 FT.	0.125 MILES

PLANS PREPARED BY	SEDGWICK COUNTY ENGINEERING DEPARTMENT
DATE	APRIL 1959

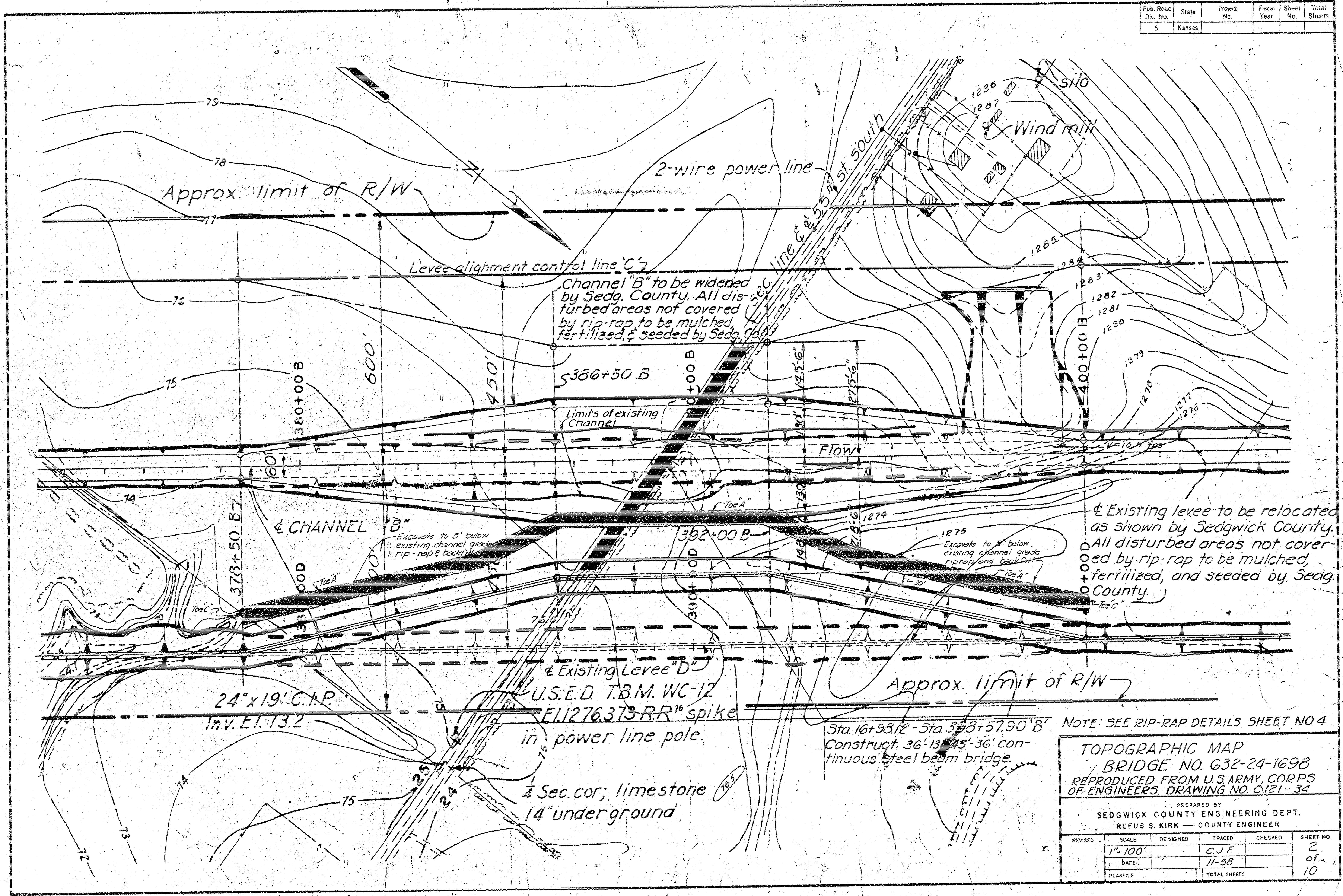
APPROVED	DATE
<i>W.D. Williams</i>	4-1-59
OFFICE OF THE COUNTY CLERK	

APPROVED	DATE
<i>Russell Kirk</i>	April 1959
COUNTY ENGINEER	

APPROVED	DATE
<i>Frank L. L...</i>	4-6-59

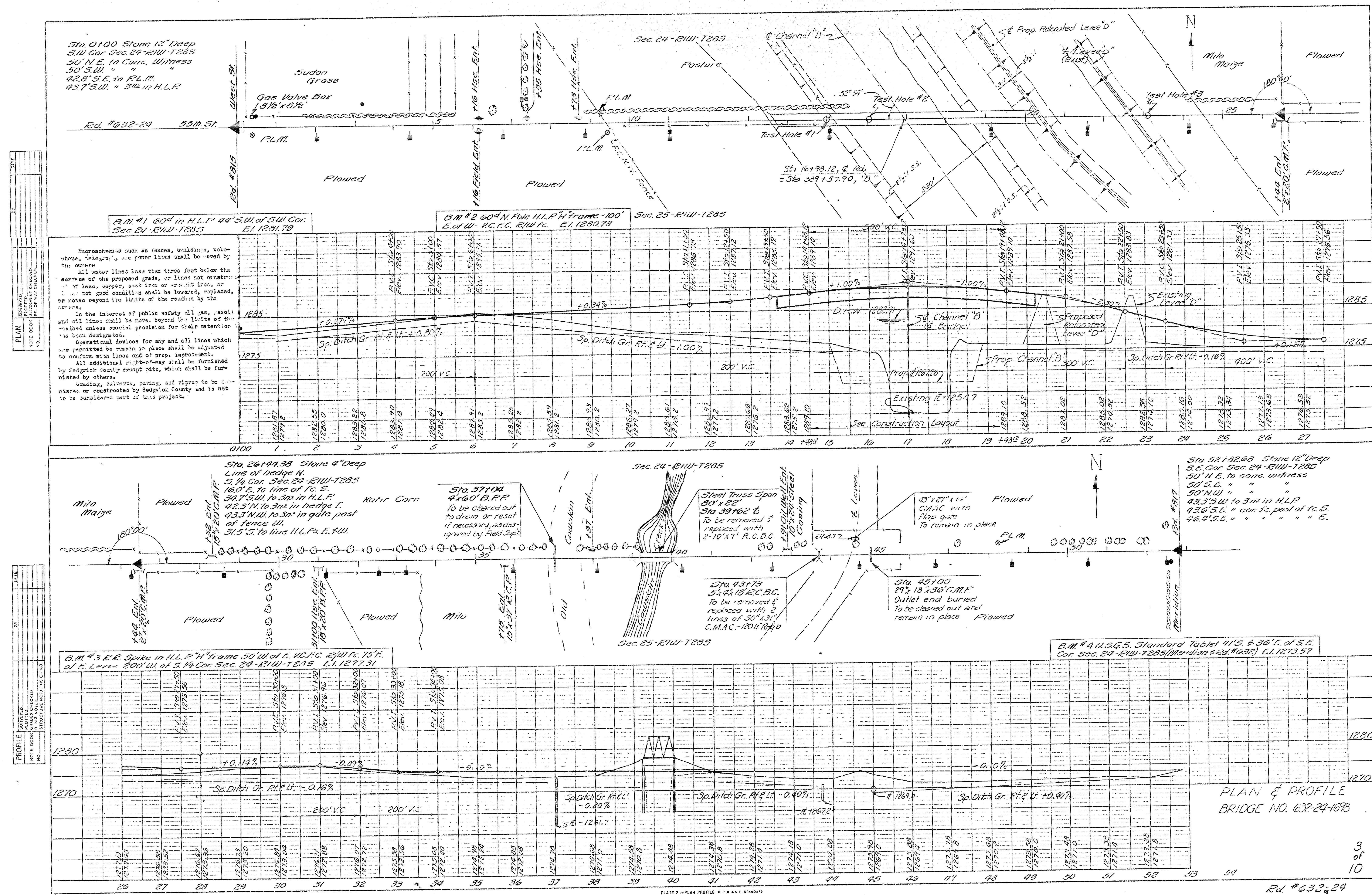
SENY County Hwy. MAR 14 1959
Received Tulsa C. of E. 7-3-2 1959
SENY County Hwy. MAY 14 1959
Received County Hwy.

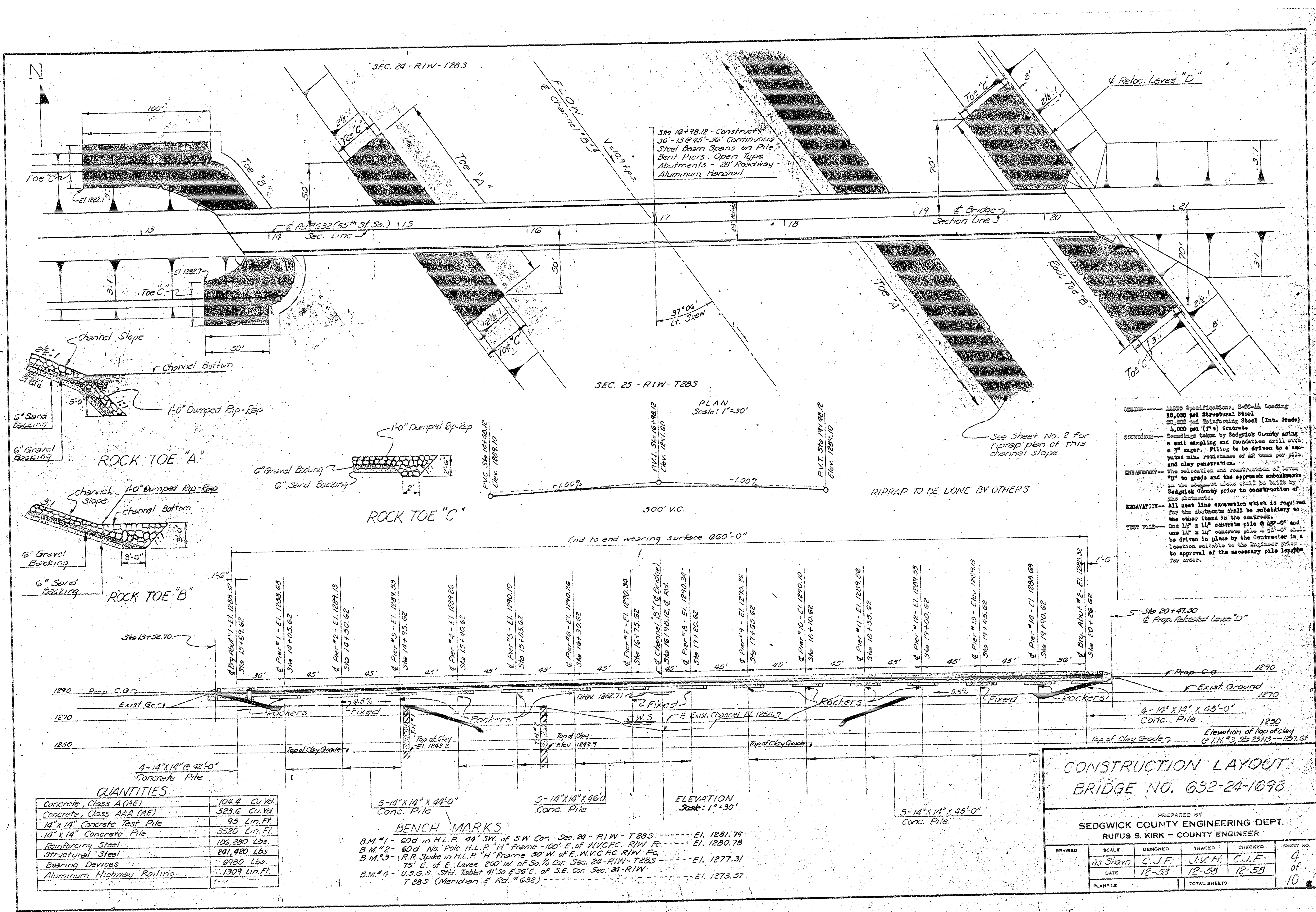
Pub. Road Div. No.	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
5	Kansas				



NOTE: SEE RIP-RAP DETAILS SHEET NO. 4

TOPOGRAPHIC MAP				
BRIDGE NO. 632-24-1698				
REPRODUCED FROM U.S. ARMY, CORPS OF ENGINEERS, DRAWING NO. C-121-34				
PREPARED BY				
SEDGWICK COUNTY ENGINEERING DEPT.				
RUFUS S. KIRK — COUNTY ENGINEER				
REVISED	SCALE	DESIGNED	TRACED	CHECKED
	1"=100'		G.J.F.	
	DATE		11-58	
	PLANFILE		TOTAL SHEETS	
				SHEET NO. 2 of 10





ADDITIONAL Specifications, 100-10, Loading
15,000 psi Structural Steel
20,000 psi Reinforcing Steel (Int. Grade)
4,000 psi (F_a) Concrete
Soundings taken by Sedgwick County using
a soil sampling and foundation drill with
a 7" auger. Piling to be driven to a com-
puted min. resistance of 12 tons per pile
and clay penetration.
The relocation and construction of levee
"B" to grade and the approach embankment
in the abutment areas shall be built by
Sedgwick County prior to construction of
this abutment.
EXCAVATION-- All new line excavation which is required
for the abutments shall be subsidiary to
the other items in the contract.
TEST PILE-- One 14" x 14" concrete pile @ 15'-0" and
one 14" x 14" concrete pile @ 20'-0" shall
be driven in place by the Contractor in a
location suitable to the Engineer prior
to approval of the necessary pile lengths
for order.

CONSTRUCTION LAYOUT BRIDGE NO. 632-24-1698

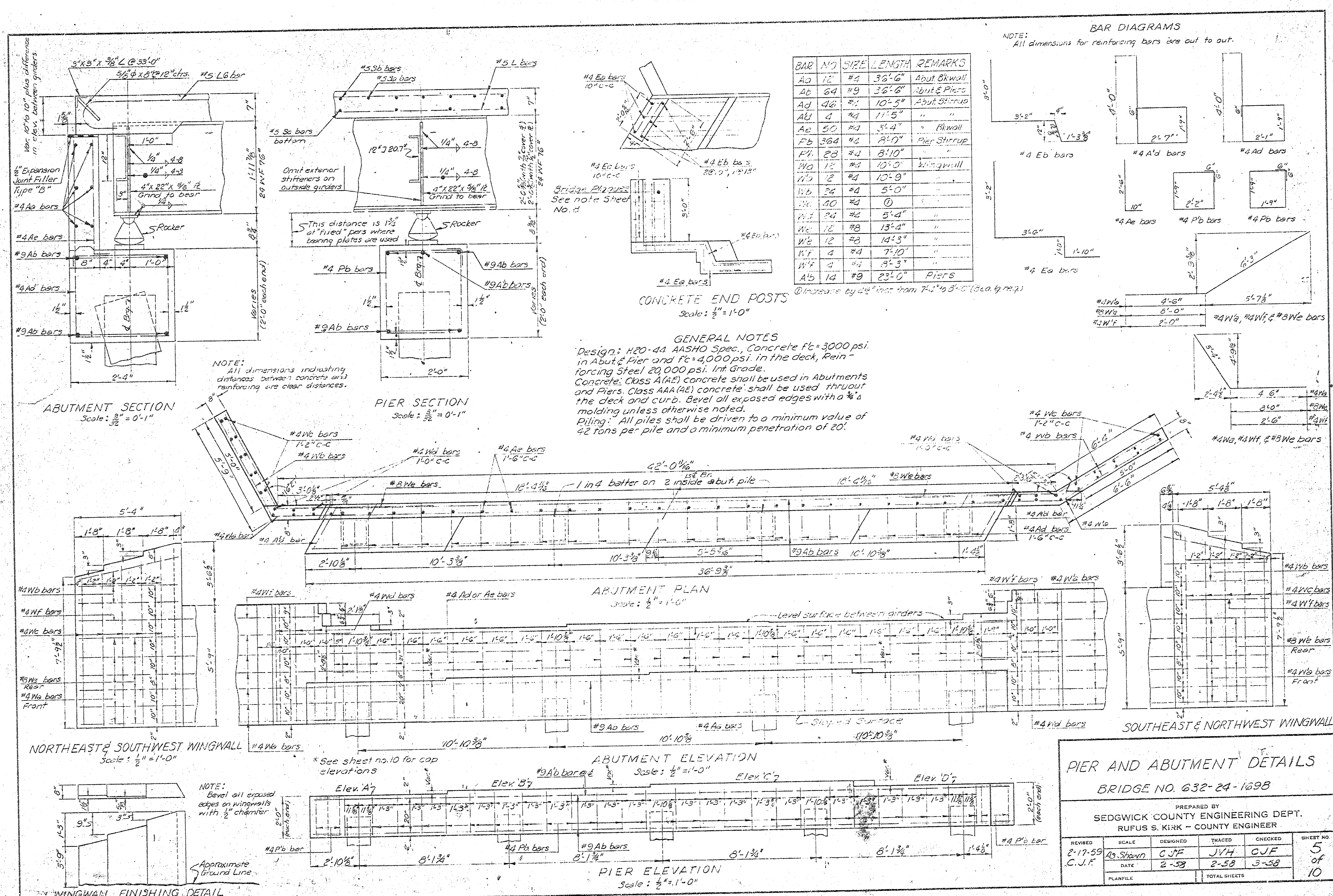
PREPARED BY
SEDGWICK COUNTY ENGINEERING DEPT.
RUFUS S. KIRK - COUNTY ENGINEER

REVISED	SCALE	DESIGNED	TRACED	CHECKED	SHEET NO.
As Shown	C.J.F.	J.V.H.	C.J.F.		4
DATE	12-53	12-53	12-53		of
PLANFILE			TOTAL SHEETS		10

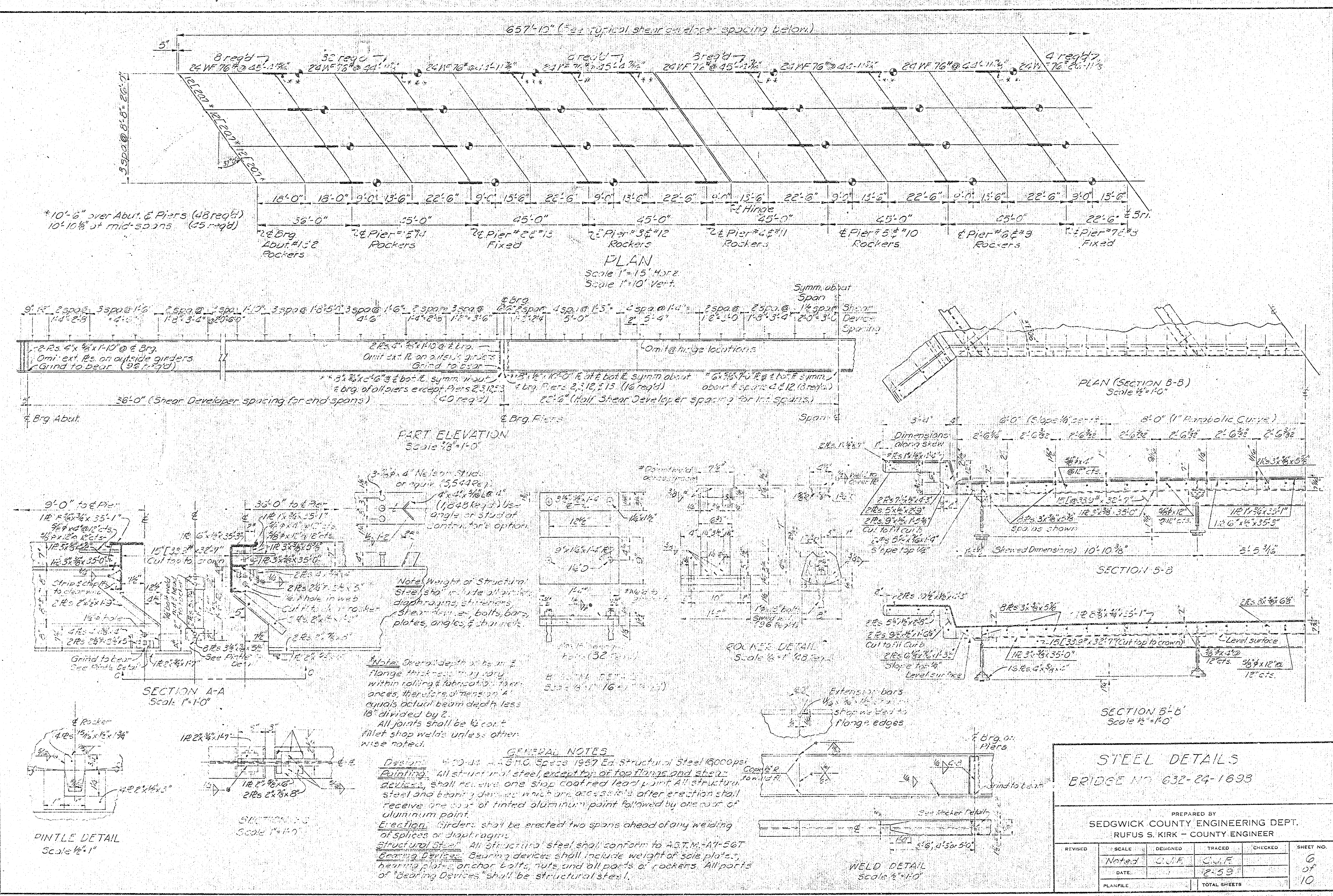
QUANTITIES	
Concrete, Class A (AE)	108.4 Cu.Yd.
Concrete, Class AAA (AE)	523.6 Cu.Yd.
14" x 14" Concrete Test Pile	95 Lin.Ft.
14" x 14" Concrete Pile	3520 Lin.Ft.
Reinforcing Steel	106,280 Lbs.
Structural Steel	281,420 Lbs.
Bearing Devices	6780 Lbs.
Aluminum Highway Railing	1309 Lin.Ft.

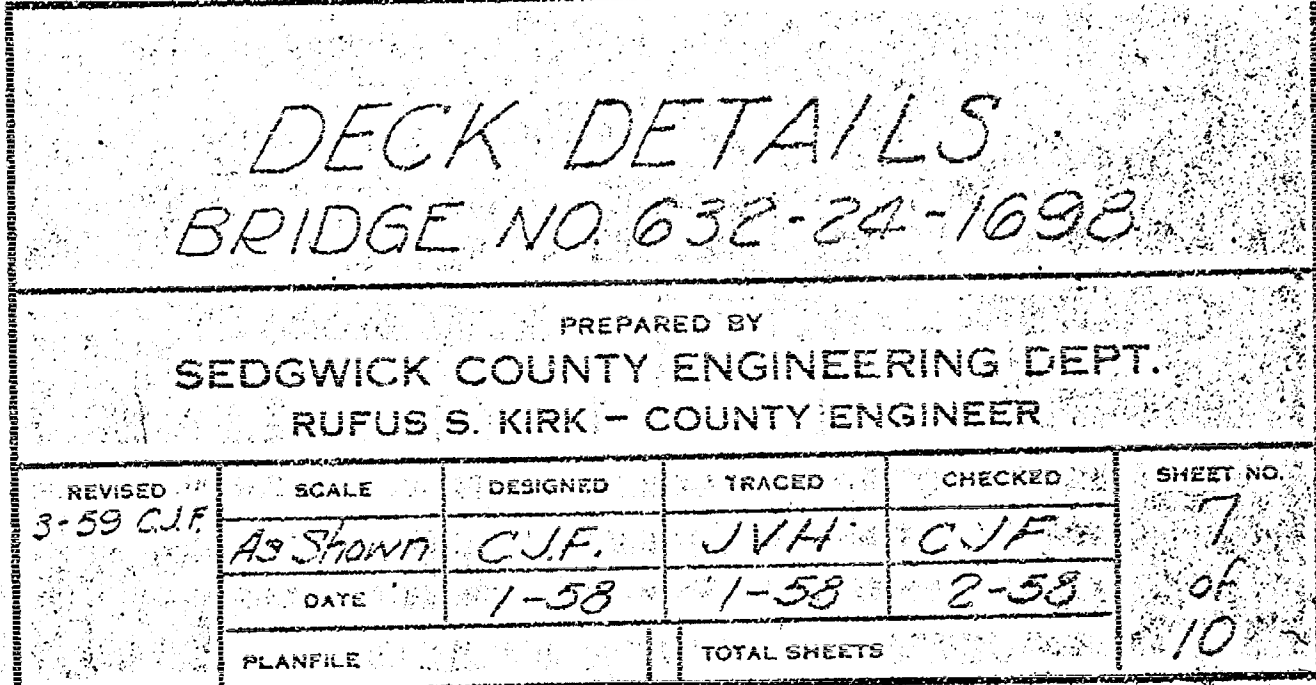
BENCH MARKS

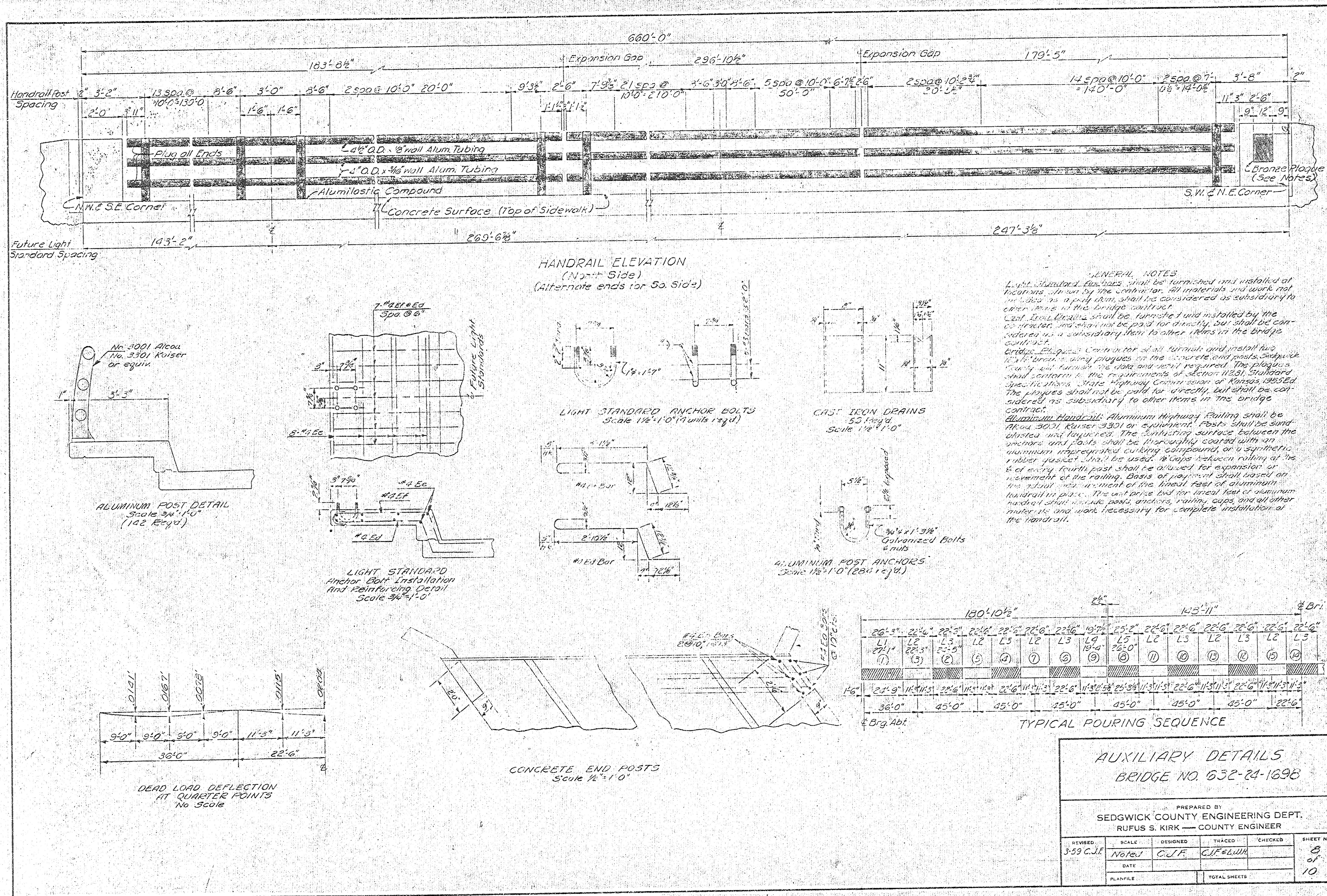
B.M. #1 - 60' W. H.L.P. 20' SW. of S.W. Cor. Sec. 24 - R1W - T283 ----- El. 1281.79
B.M. #2 - 60' W. No. Pole H.L.P. "H" frame - 100' E. of NW.C.C. R1W R2 ----- El. 1280.78
B.M. #3 - 1/2" R. Spike in H.L.P. "H" frame 50' W. of E. W.V.C.C. R1W R2 ----- El. 1277.31
B.M. #4 - 75' E. of E. Levee 200' W. of So. 1/4 Cor. Sec. 24 - R1W - T283 ----- El. 1273.57
B.M. #5 - U.S.G.S. Spot Tablet 4130 630 E. of S.E. Cor. Sec. 24 - R1W
T283 (Meridian & Ref. #632) ----- El. 1273.57



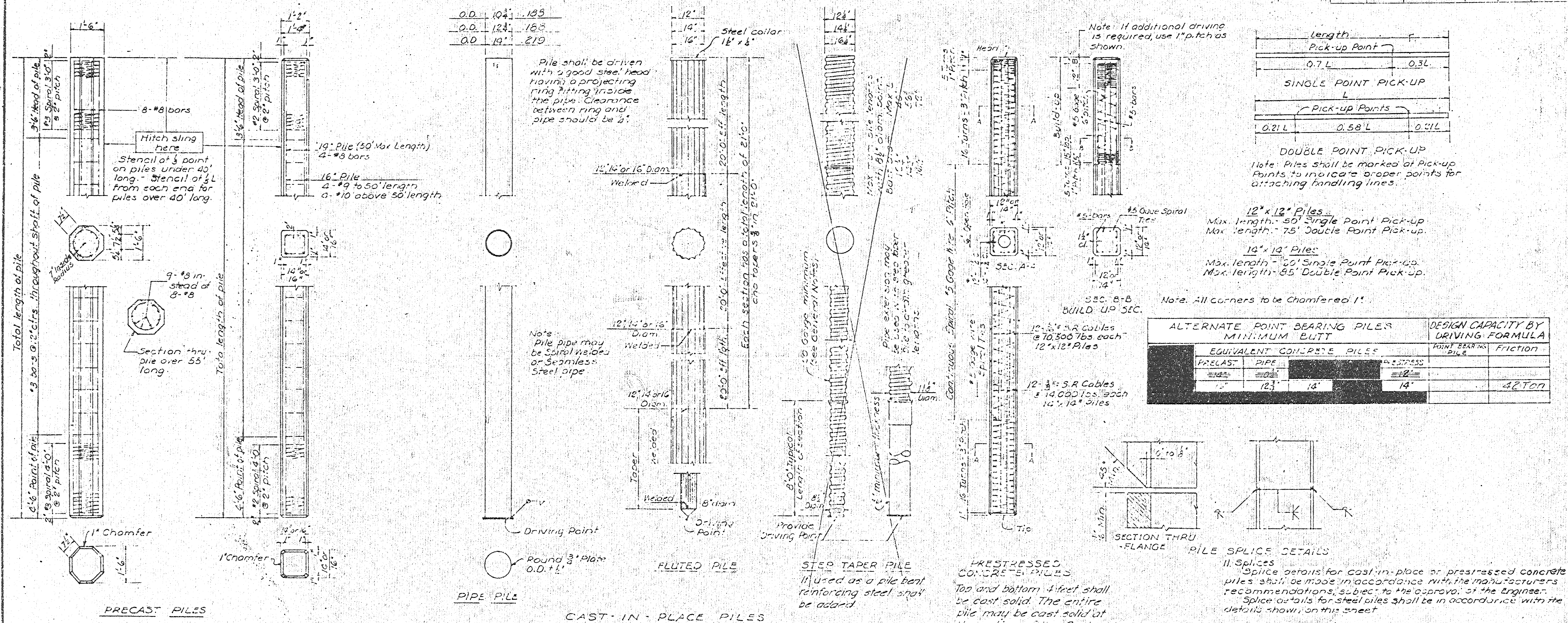
PIER AND ABUTMENT DETAILS				
BRIDGE NO. 632-24-1698				
PREPARED BY SEDGWICK COUNTY ENGINEERING DEPT. RUFUS S. KIRK - COUNTY ENGINEER				
REVISED 2-17-59 C.J.F.	SCALE As Shown	DESIGNED C.J.F.	THAINED J.V.H.	CHECKED C.J.F.
DATE 2-58		2-58	3-58	
PLANFILE	TOTAL SHEETS			SHEET NO. 5 of 10







PUB. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
5	KANSAS		195		



General Notes

1. Specifications
Standard Specifications for State Road and Bridge Construction
as currently used by State Highway Commission of Kansas.

2. Choice of Piles

As indicated in the plans, piles will be considered as either bearing piles or friction piles. Where point bearing piles are specified, the contractor may elect to use either the steel pile specified in the footing plans or the equivalent precast concrete, cast-in-place concrete or prestressed concrete pile shown in the Table on this Sheet. Where friction piles are specified the contractor may elect to use either the size and type concrete pile specified in the footing plans or the equivalent precast concrete, cast-in-place concrete or prestressed concrete pile shown in the Table on this Sheet. Steel piles are not included as an alternate where friction piles are specified. All types of piles not shown here are subject to the approval of the Engineer.

3. Concrete

5. Concrete
All concrete for precast and cast-in-place shall be Class 'A' $f'_c = 3000$ p.s.i. Concrete for prestressed piles shall be Class AAA, $f'_c = 4000$ p.s.i.

4. Reinforcement:
Reinforcing bars shall be new billet steel of intermediate grade without exception. Hoops and spirals may be either plain or deformed bars.

5 Precos: Pies

Precast piles shall conform to the requirements of Section 59.310 of the specifications.

6. Cast-in-place Stells

A. Pile shells shall have a minimum thickness as follows

1. Pipes driven without mandrel - See minimum shell thickness above.
2. Pipes driven with mandrel - Shell shall be of sufficient strength and thickness to withstand driving without injury and to resist harmfull distortion under buckling test loads. The core shall be of sufficient strength to allow the mandrel to be removed.
3. Pipe shells shall meet the following material requirements:
 - a. Fluted steel shells and steel collar - AISC 100 classification for steel beam flange.
 - b. Spiral welded steel - ASTM designation A552, Grade E and E2.
 - c. Corrugated steel - Corral Steel Pipe, Pipe.
 - d. Seamless steel pipe - ASTM A53, welded and grooveless. Steel Pipe Pipe.
 - e. Corrugated steel shell - SAE 1000.
4. The contractor shall maintain on the job at all times prior to and during the filling of the shells, a light source to their inspection.

D. Improperly driven, broken or otherwise defective shells shall be removed and replaced or otherwise corrected to the satisfaction of the Engineer by removal and replacement, at the driving of an additional pile at no extra cost.

7. Steel Piles

Steel pile material shall meet the requirements of ASTM A753.

3 Pire Points

All cast-impeller piles shall be equipped with a steel driving point or 5/16 minimum thickness. Driving points shall be mill welded to the pile shell. Driving points shall be either hot pressed steel meeting the requirements of SAE 1020, for forged steel, or cast steel meeting the requirements of ASTM Serial No. A-474-42, Grade 2, or structural steel meeting the requirements of ASTM A-7-53.

Steel piles shall have a square cut end only. No driving point is required.

9. Welding

4. Welding
All field welding shall meet the requirements of Section 51.32 of the Specifications.

10 Point

Small Comply with the Kansas Standard Specifications (1955 Edition),
Expose 3' (three feet) of cast in place piles below grade and
paint entire exposed surface with one coat red lead paint,
followed by two coats of aluminum paint.

ALTERNATE POINT BEARING PILES				DESIGN CAPACITY BY DRIVING FORMULA	
MINIMUM EULT					
EQUIVALENT CONCRETE PILES				POINT BEARING PILES	FRICTION
PRECAST	PIPE	PIPE	PIPE	STRESS	
EQUL	EQUL	EQUL	EQUL	EQUL	
15'	123'	14'	14'		42 Ton

11. Splices
Splice details for cast-in-place or prestressed concrete piles shall be made in accordance with the manufacturers' recommendations, subject to the approval of the Engineer.
Splice details for steel piles shall be in accordance with the details shown on this sheet.

12. Driving Formula

Piles shall be driven to the minimum bearing value as specified on the Construction Layout as determined by the driving formulas stipulated in the Specifications.

13. Mill Test Reports

Notified mill test reports, in triplicate, shall be furnished by the Contractor for all steel pile and cast-in-place pile shells.

14. Paymer

Payment for all piles will be made as set forth in the specification.

15 Test Dues

Test piles shall be driven where called for on the Bridge plans. All test piles shall be located so that they will become part of the Bridge pile system.

1							
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10							
NO.	DATE	REVISIONS			BY	APPROVED	

STATE HIGHWAY COMMISSION OF KANSAS

STANDARD PILE DETAILS

BRIDGE NO. 632-24-1698

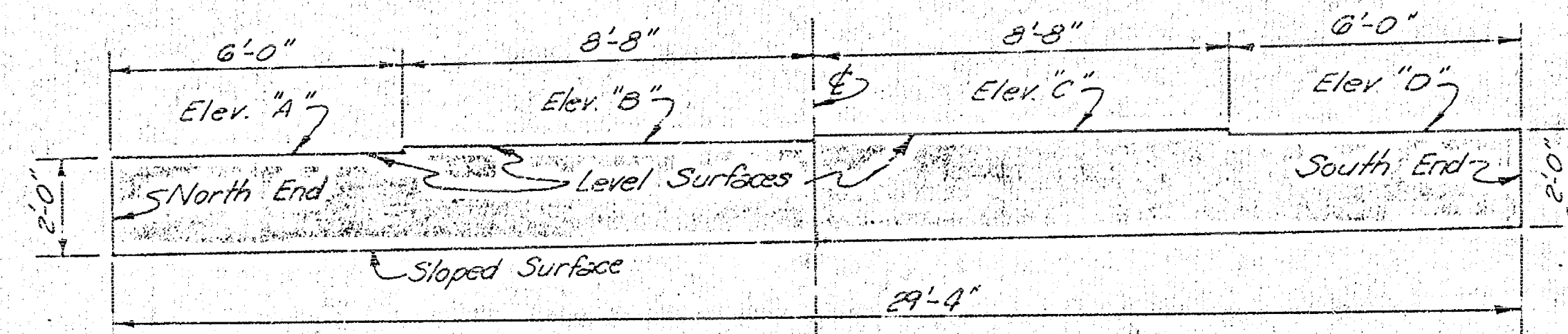
9
10

ENTRY NO.	OF	SCALE	APP'D.	
FOUNDED			QUANTITIES	TRACED
DRAWN BY		DETAILS	QUAN. CL.	TRACED CL.

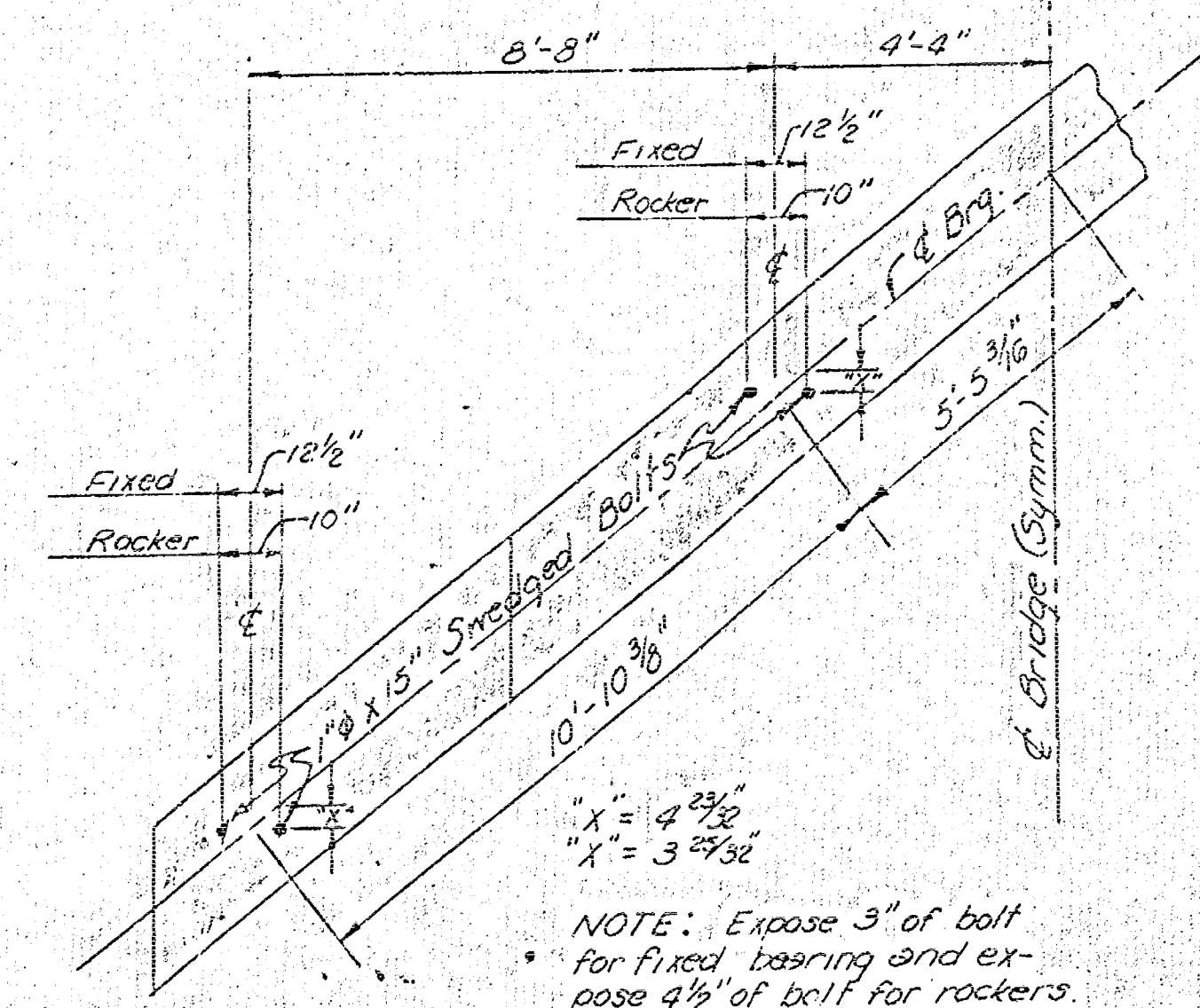
ABUTMENT & PIER ELEVATIONS

ABUTMENT OR PIER NO.		NORTH ELEV. "A"	ELEV. "B"	ELEV. "C"	SOUTH ELEV. "D"
Abut. No. 1	R	84.73	84.96	85.03	84.92
Pier No. 1	R	85.05	85.28	85.34	85.24
Pier No. 2	F	86.08	86.31	86.37	86.27
Pier No. 3	R	85.92	86.13	86.19	86.08
Pier No. 4	R	86.26	86.47	86.51	86.39
Pier No. 5	R	86.32	86.72	86.75	86.61
Pier No. 6	R	86.70	86.89	86.90	86.76
Pier No. 7	F	87.39	87.56	87.56	87.40
Pier No. 8	F	87.40	87.56	87.56	87.39
Pier No. 9	R	86.76	86.90	86.89	86.70
Pier No. 10	R	86.61	86.75	86.72	86.52
Pier No. 11	R	86.39	86.51	86.47	86.26
Pier No. 12	R	86.08	86.19	86.13	85.92
Pier No. 13	F	86.27	86.37	86.31	86.08
Pier No. 14	R	85.22	85.31	85.23	84.99
Abut. No. 2	R	84.61	84.89	84.80	84.54

R = Rockers, F = Fixed



Typical Cap Elevation (Normal to Roadway)



Part Plan of Pile Caps

