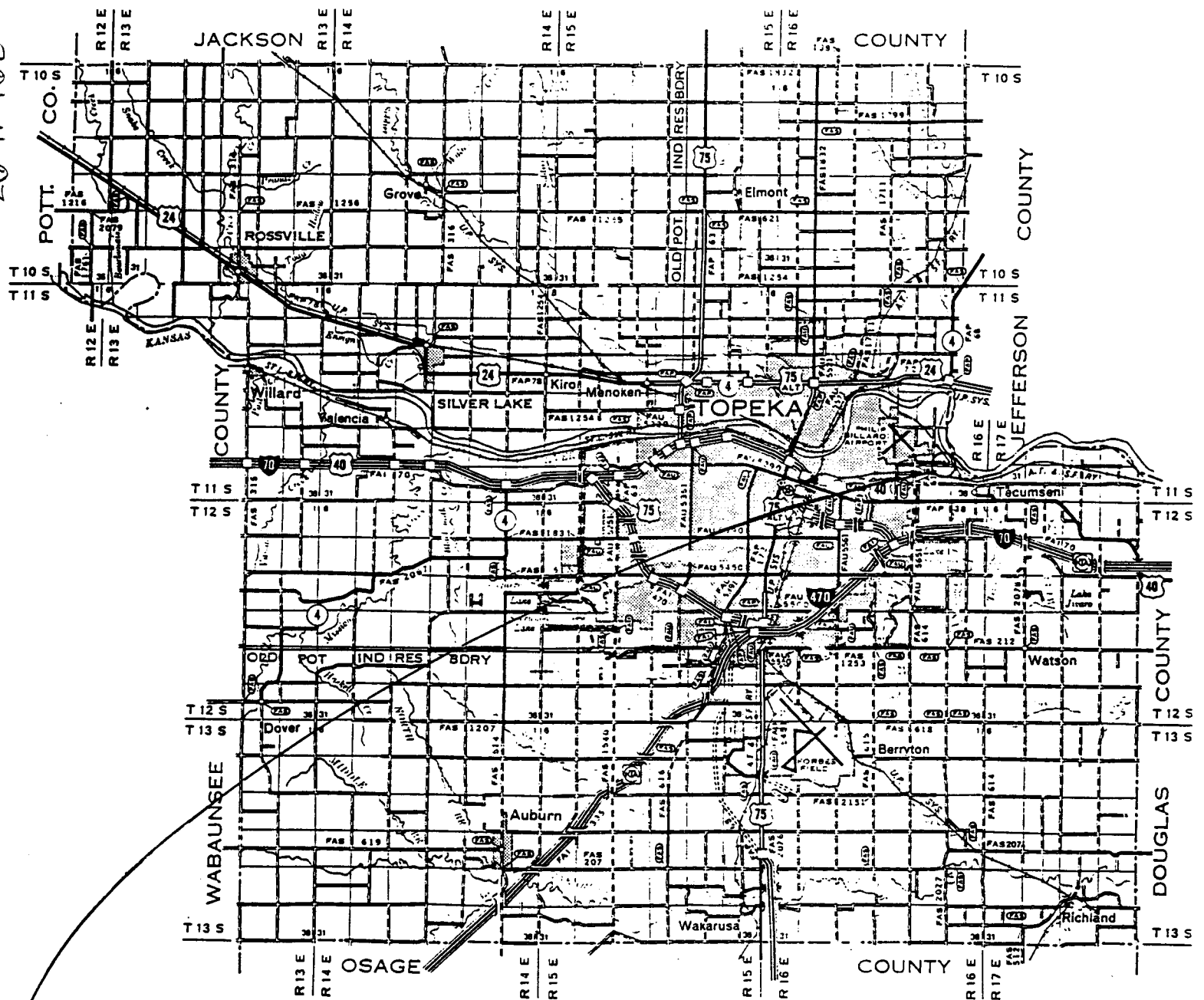


26-11-10E
E2 SW



**GEOTECHNICAL UNIT
GEOLOGY SECTION**

BRIDGE FOUNDATION GEOLOGY REPORT

**Project No. 004-089-K-3362-02
Bridge No. 26.80 Station 539+37.05**

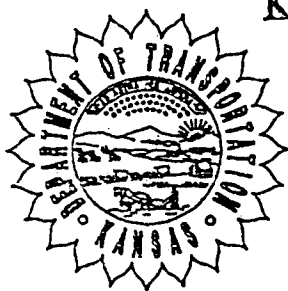
West Bound Oakland Expressway Over Seward Avenue

Shawnee County

**GENERAL HIGHWAY MAP
SHAWNEE COUNTY
KANSAS**

PREPARED BY THE
KANSAS DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION PLANNING
IN COOPERATION WITH THE
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SCALE
1986



KANSAS DEPARTMENT OF TRANSPORTATION

1. ROUTE-COUNTY NO. 004-089	7. SOUNDING NO. 1	12. SHEET 01 OF 02
2. BRIDGE STA. 539+37.05	8. PROJECT NO. K-3362-04	13. BRIDGE NO. 26.80
3. DESCRIPTION Oakland Expressway over Seward Ave.	14. HOLE STA. 540+38.41 Lt	
4. GEOLOGIST Billinger	15. VERTICLE SCALE 1"=10'	16. DATE 2-3-94
5. DRILLER Sunderland/Shull	17. RIG B-61	18. ELEVATION TOP OF HOLE 869.9
6. GROUND WATER ELEV. 858.5	19. TOTAL DEPTH OF HOLE 77.5	20. ELEVATION TOP OF ROCK 821.0

BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV.
			0°	869.9				
					Silt to silty Clay brown	0.461		866.9
				860		0.436		861.9
						0.586		857.1
						0.621		852.1
			21°	850				
				848.9				
			26°	843.9	Fine silty Sand, soft, gray	0.595		847.1
				840			4	842.4
					Sand, nearly clean coarse, some small gravel		7	838.4
				830				
			48°	821°				
				820				
	Avoca Mbr.		53°	816.9	Limestone, hard, gray nearly unit bedded shale break near the top.	905.036		819.8
			54.5	815.4		196.749		816.9
	King Hill Mbr.		56.7	813.2	Shale, gray-green, very firm limestone, gray-green, shaly, earthy	1.791		815.8
			60.2	810	Shale, limy, gray-green			
	Beil Mbr.		63.3	806.6	Limestone, shabby to blocky, shaly			
			68.9	801.9	Limestone, massive, hard, gray			
	Queen Hill Mbr.		72.3	797.5	Shale, dark gray grading to a black, very firm, fissile shale.			
	Big Springs Mbr.		75.4	794.5	Limestone, hard, light gray unit bedded			
	Andover Mbr.		76.5	793.0	Shale, firm			
	Spring Branch Mbr.		77.5	792.4	Shale, shaly			

Core Descriptions

004-089-K-3362-04

01 of 02

Core 1

49⁰-53⁵

Cored 4⁵

Recov. 4⁵

RQD = $\frac{42}{45} \times 100$

= 93.3%

49⁰-49³ Limestone, hard, gray, impure, fossiliferous

49³-49⁶ Shale, dark gray

49⁶-53⁰ Limestone, gray, hard, unit bedded

Avoca Ls.

fossiliferous

53⁰-53³ shale, dark gray

King Hill shale

53³-53⁵ Shale, gray-green, very firm

Sample 1 49⁸-50⁰⁵ Limestone, hard, gray, unit bedded

Sample 2 52⁴-53⁰ Limestone, hard, dark gray, unit bedded

Core 2

53⁵-57⁵

Cored 4⁰

Recov. 4⁰

RQD = $\frac{39}{40} \times 100$

= 95%

53⁵-54⁵ Shale, green, very firm

54⁵-55⁶ Limestone, green shale filling cracks
old Paleosol horizon, earthy

55⁶-56⁷ Limestone, gray-green, shaly, earthy.

56⁷-56⁸⁵ Shale, limy, green-gray

56⁸⁵-57⁴ Limestone, light gray-green, hard, impure

57⁴-57⁵ Shale, limy, firm, green-gray

Sample 3

53⁶-54¹ Shale, greenish, very firm

Sample 4

56²-56⁷ Limestone, shaly, gray-green, impure

Core 3

57⁵-59²

Cored 1⁷

Recov. 1⁰

lost 0⁷

RQD = $\frac{10}{17}$

= 58.8%

57⁵-59² Shale, gray-green, firm

(lost 0⁷ due to sand flowing in barrel)
plugging bit

KANSAS DEPARTMENT OF TRANSPORTATION

Report of sample of Geology Cores

Laboratory No. 94-0302

Date Rep'td. February 9, 1994

Date Rec'd. February 4, 1994

Specification No. - - Quantity - - -

Source of material Project

Sample from Project

Submitted by John Jimenez, Lawrence Geology Office

Identification marks Tags with samples

Project or POV 4-89 K-3362-04, Bridge #26.80, Shawnee County, District 1

Type of construction Bridge Seward Ave.

TEST RESULTS

Sample No.	Station	Dist.ft. CL	Depth ft.	Description	Qu. t.s.f.	Sample p.c.f. by Dry Wt.	Moisture (% of Dry Wt.)
Avoca LS CD-1	540+38	41' Lt	498-50 ⁰⁵	Ls, unit bedded	905.036	165.1	0.8
CD-2	"	"	524-530	" " "	196.749	155.2	3.6
King Hill Shale CD-3	"	"	536-541	Sh, green	7.791	131.0	10.8
CD-4	"	"	562-567	Ls, impure, greenish	*		

* CD-4 was broken in several pieces. All were too small to test.

cc: L.S. Ingram
L.A. Rockers
J. Jimenez
J.J. Brennan
Soil Section
File

Reported by Maris Hunt for

Title James J. Brennan, Soils Engineer