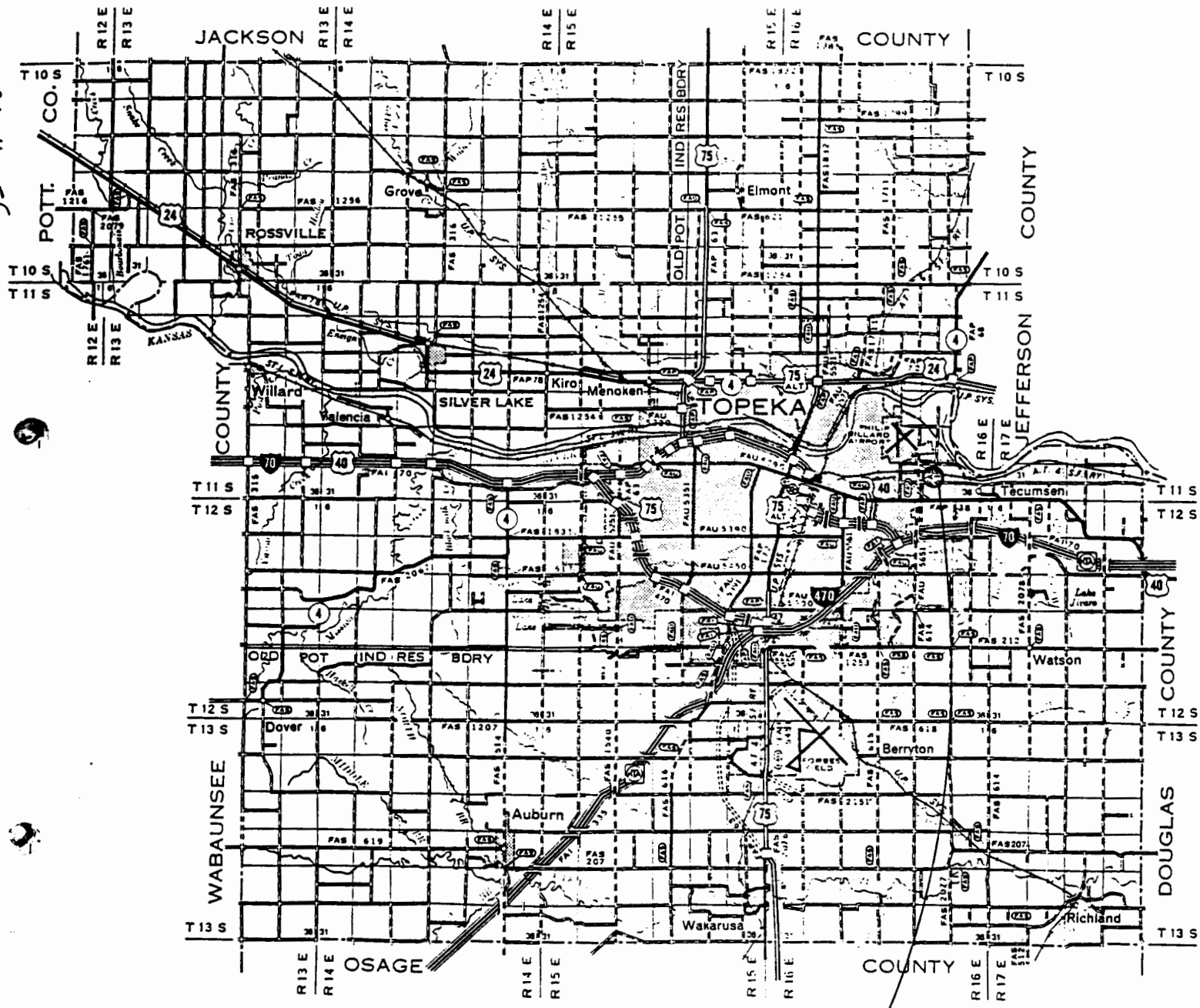


35-11-16E NE SE NW



GEOTECHNICAL UNIT
GEOLOGY SECTION

BRIDGE FOUNDATION GEOLOGY REPORT

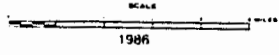
004-089 K-3362-04
Br. No. 26.47

West bound Oakland Expressway
over the Shunganunga Creek and A.T. & S.F. Railroad

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



KANSAS DEPARTMENT OF TRANSPORTATION



1. ROUTE-COUNTY NO. 004-089	7. SOUNDING NO. 3	2. SHEET 01 OF 02
2. BRIDGE STA. 521+02.60	8. PROJECT NO. K-3364-04	3. BRIDGE NO. 26.46
4. DESCRIPTION K-4 over Shunganunga Creek	9. HOLE STA. 0514+46, RE 18	4. HOLE STA. 0514+46, RE 18
5. GEOLOGIST Sunderland	10. VERTICLE SCALE 1"=10'	5. DATE September 1993
6. DRILLER shall	11. RIG B-61	6. ELEVATION TOP OF HOLE 890.6
7. GROUND WATER ELEV. 877.2	12. TOTAL DEPTH OF HOLE 394	7. ELEVATION TOP OF ROCK 884.2

of Project

BIT TYPE & I.D.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OF CASING DRIVE	
							 	ELEV.
			00	890	890.6			
Casing	Mantle		64	884.2				
	Ozawie Mbr.		113	880	879.3			
	19 mond Tecumseh Frm.		2			1.8		875.5
			3	870		10.7		870.5
			4			6.6		867.6
			5			13.2		864.7
			6	860		12.8		858.2
			7			30.4		852.5
					394	850	851.2	

Sounding 3 Core Descriptions

004-089-K-3362-04

02/02

Core 1	64-11 ²	64-8 ²	Limestone, broken, weathered, orangish
Cored 4 ⁸			Fossiliferous
Recov. 4 ⁸		8 ² -9 ⁰	Limestone, very weathered, soft, yellow-buff
			Very luggy
		9 ⁰ -10 ²	Limestone, weathered, broken, slabby
		10 ² -11 ²	Limestone, unweathered, light gray, hard
Core 2	11 ² -16 ²	11 ² -11 ³	Limestone, gray
Cored 5 ⁰		11 ³ -14 ⁶	Shale, gray, firm
Recov. 5 ⁰		14 ⁶ -14 ⁷	ls, stringer
		14 ⁷ -16 ²	Shale, gray
	Sample 1	12 ⁵ -13 ¹	Shale, gray, firm
Core 3	16 ² -21 ²	16 ² -21 ²	Shale, gray, firm
Cored 5 ⁰			
Recov. 5 ⁰		Sample 2	19 ³ -20 ¹
			Shale, gray, firm
Core 4	21 ² -24 ⁷	21 ² -24 ⁷	Shale, gray, firm
Cored 3 ⁵			
Recov. 3 ⁵		Sample 3	22 ⁵ -23 ⁰
			" " "
Core 5	24 ⁷ -29 ⁷	24 ⁷ -29 ⁷	Shale, gray firm
Cored 5 ⁰			
Recov. 5 ⁰		Sample 4	25 ⁸ -26 ⁴
			" " "
Core 6	29 ⁷ -34 ⁷	29 ⁷ -34 ⁷	Shale, gray, firm
Cored			
Recov.		Sample 5	31 ⁹ -32 ⁴
			" " "
Core 7	34 ⁷ -39 ⁴	34 ⁷ -39 ⁷	Shale, gray, firm
Cored 4 ⁷			
Recov. 4 ⁷		Sample 6	37 ¹ -38 ¹
			" " "

Core Hole #3

Oakland Express way over Shunganunga Creek
Sampled by Sunderland

Sta. 5/4 + 46, Rt 18 Near Abut 1	Elev			
↑ Ozark Limestone ↓	890.6	0 ⁰ -6 ⁴	very silty clay	
	884.2	6 ⁴ -8 ²	Limestone, weathered but hard, orangish-tuff very Fossiliferous.	
		8 ² -9 ⁰	Limestone, weathered, soft, yellow-tuff very Muggy, Fossiliferous	
		9 ⁰ -10 ²	Limestone, weathered, yellow-tuff, broken, slabby, Fossiliferous	
	↓ Tecumseh Shale ↓	879.3	10 ² -11 ³	Limestone, light gray, hard
			11 ³ -14 ⁶	Shale, gray, grades to greenish-gray, Firm
		14 ⁶ -14 ⁷	Ls stringer	
14 ⁷ -39 ⁴		Shale, gray, clayey to sandy in Some some zones		
851.2	39 ⁴	S/S		

- core 1 6⁴-11²
- core 2 11²-16²
- core 3 16²-21²
- core 4 21²-24⁷
- core 5 24⁷-29⁷
- core 6 29⁷-39⁷
- core 7 34⁷-39⁴

- Sample 1 12⁵-13¹
- Sample 2 19³-20¹
- Sample 3 22⁵-23⁰
- Sample 4 25⁸-26⁹
- Sample 5 31⁹-32⁴
- Sample 6 37⁷-38¹¹

KANSAS DEPARTMENT OF TRANSPORTATION

Report of sample of Geology Cores

Laboratory No. 93-3633

Date Rep'td. September 23, 1993

Date Rec'd. September 15, 1993

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-3362-01, Shunganunga Creek, Shawnee County, District 1

Type of construction Bridge Core Hole #3

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.)
1	514+46	18 Rt	125-131	Shale, gray	1.752	116.6	17.2
2	"	"	193-201	" "	10.748	128.4	10.7
3	"	"	225-230	" "	6.598	125.7	12.5
4	"	"	258-264	" "	13.196	129.3	11.6
5	"	"	319-324	" "	12.819	129.7	11.5
6	"	"	377-381	" "	30.402	133.0	10.2

All Samples are Tecumseh shale

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

Reported by *James J. Brennan*

Title James J. Brennan, Soils Engineer