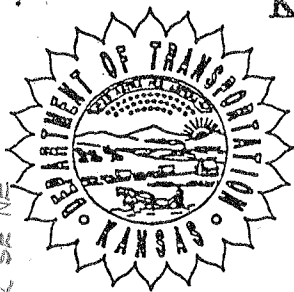


KANSAS DEPARTMENT OF TRANSPORTATION



22-11-16E
ER SE NE

1. ROUTE-COUNTY NO. 004-089	7. SOUNDING NO. 8	2. SHEET 01 OF
2. BRIDGE STA. 637+48.25	4. PROJECT NO. K-3362-05	3. BRIDGE NO. 28.66
3. DESCRIPTION S.B. Oakland Expressway Over Ks. River		4. HOLE STA. 628+99, 66 Rt
4. GEOLOGIST Randy Billinger	5. VERTICLE SCALE 1"=10'	5. DATE 1-20-94
5. DRILLER Bryan Shall	6. RIG B-61	6. ELEVATION TOP OF HOLE 864.7
6. GROUND WATER ELEV. 856.7	7. TOTAL DEPTH OF HOLE 108' 2"	7. ELEVATION TOP OF ROCK 827.6

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°	864.7				
8" hollow auger casing	Kansas River Alluvium		98	854.9	Silt, very soft, brown			
				850	Sand, silty, medium to coarse. lower 2° grades to coarse sand and small gravel			
				840				
			37'	827.6				
Hawthorn	Tecumseh Shale Frm.		407	824	shale, weathered, gray			
				820	shale, firm, dark gray			
				800				

DRILLING LOG (con't sheet)		SOUNDING NO. 8		PROJECT NO. K-3362-05		SHEET 02 OF		
ELEVATION TOP OF HOLE 864.7		GROUND WATER ELEV. 856.7		TOTAL DEPTH OF HOLE 108°		ELEVATION TOP OF ROCK 827.6		
BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OF CASING DRIVE	
							Depth	ELEV.
Diamond	Tecumseh shale Frm.	1		790	Shale, firm, dark gray		75 ⁵	789.2
		2	81 ⁵	783.2			80°	784.7
	Avoca LS Mbr.	3	86 ²	778.5	Limestone, unit bedded, gray, hard. shaly break 1° from top, 0 ³ thick.		83 ³	781.4
Hawthorn			87 ⁵	777.2	Shale, gray green very firm		85 ⁸	778.9
	King Hill shale Mbr			774.9	very limy shale with ls. stringers, gray-green			
			93 ⁹	770.8	shale, very firm, gray-green			
	Beil LS Mbr.		102 ⁸	761.9	Limestone, upper 3 ⁶ has numerous shaly zones, lower 5 ² is a harder more massive limestone with minor shaly zones, gray			
	Queen Hill Shale		106 ⁴	758.3	Shale, black, fissile, hard			
	Big Spring		108°	756.7	Limestone, hard			
				750				

Core 1
73⁰-77⁵ shale, dark gray, very firm

cored 4⁵

Recov. 4⁵

RQD = $\frac{4^3}{4^5} \times 100$
= 95.6%

sample
1

74⁸-75⁵ shale, dark gray, very firm

Core 2
77⁵-82³ shale, dark gray, very firm

cored 4⁸

Recov. 4⁸

RQD = 100%

sample
2

77⁵-81⁵ shale, dark gray, very firm
81⁵-82³ limestone, gray, hard, fossiliferous

79⁴-80⁰ shale, dark gray, very firm

Core 3
82³-86⁸ limestone, shaly, dark gray

cored 4⁵

Recov. 4⁴

RQD = $\frac{4^4}{4^5} \times 100$
= 93.3%

sample
3

82³-82⁶ limestone, shaly, dark gray
82⁶-86² limestone, hard, unit bedded, gray, fossiliferous
86²-86⁸ shale, gray, very firm

sample
4

82⁶-83³ limestone, dark gray, impure
85²-85⁸ limestone, gray, very hard

BM 61 864.17

T 5.36 869.53

28+99, 66 Rt 4.83 864.70

BM 61 5.36 864.17

Project # 004-089-K-3362-05 Bldg # 28.66
 Oakland Expressway over KS River

Core Hole 8 8647 00-98

Log 99-371

Sta 628+99, 66RT

8-61 371-385

Road Bryan check

80

North Bank of the

KS River

815-823

823-826

826-859

859-862

862-875

875-898

898-939

939-941

941-946

946-950

950-960

960-975

975-1015

1015-1022

1022-1028

1028-1064

1064-1066

1066-1080

1080

51 ft

Sand, silty, lower 20 gts coarser

with some gravel

shale, weathered

shale, firm, dark gray, lower 5 grades to

limy shale

LS, hard, gray, very fossiliferous

LS, shaly, dark gray

LS, hard, unit bedded, gray, fossiliferous

LS, shaly, impure, dark gray, fossiliferous

Shale, gray, grades to gray green

very shaly LS to very limy shale, much firmer

Shale, gray-green

LS, shaly, gray

LS, hard, gray

LS, shaly

LS, hard

LS, shaly zones

LS, hard, gets harder as you go down

gray

LS, shaly

LS, hard

Shale, black, fissile

LS, shaly to very limy shale

LS, hard

AVOCA

King Hill

B.P. I

LS

Queen Hill

Big Spring
LS

KANSAS DEPARTMENT OF TRANSPORTATION

Report of sample of Geology Cores

Laboratory No. 94-0201

Date Rep'td. January 27, 1994

Date Rec'd. January 25, 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-3362-05, Bridge #28.66, Shawnee County, District 1

Type of construction Bridge Kansas River Bridge Core Hole 8

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.)
CD-1	628+99	66' Rt	74 ⁸ -75 ⁵	Sh, gry, firm	15.354	128.3	10.9
CD-2	"	"	79 ⁴ -80 ⁰	Sh, gry, firm	11.760	124.8	11.8
CD-3	"	"	82 ⁶ -83 ³	Ls, gry impure hard	394.912	161.3	1.7
CD-4			85 ² -85 ⁸	Ls, gry hard massive	640.231	164.8	0.7

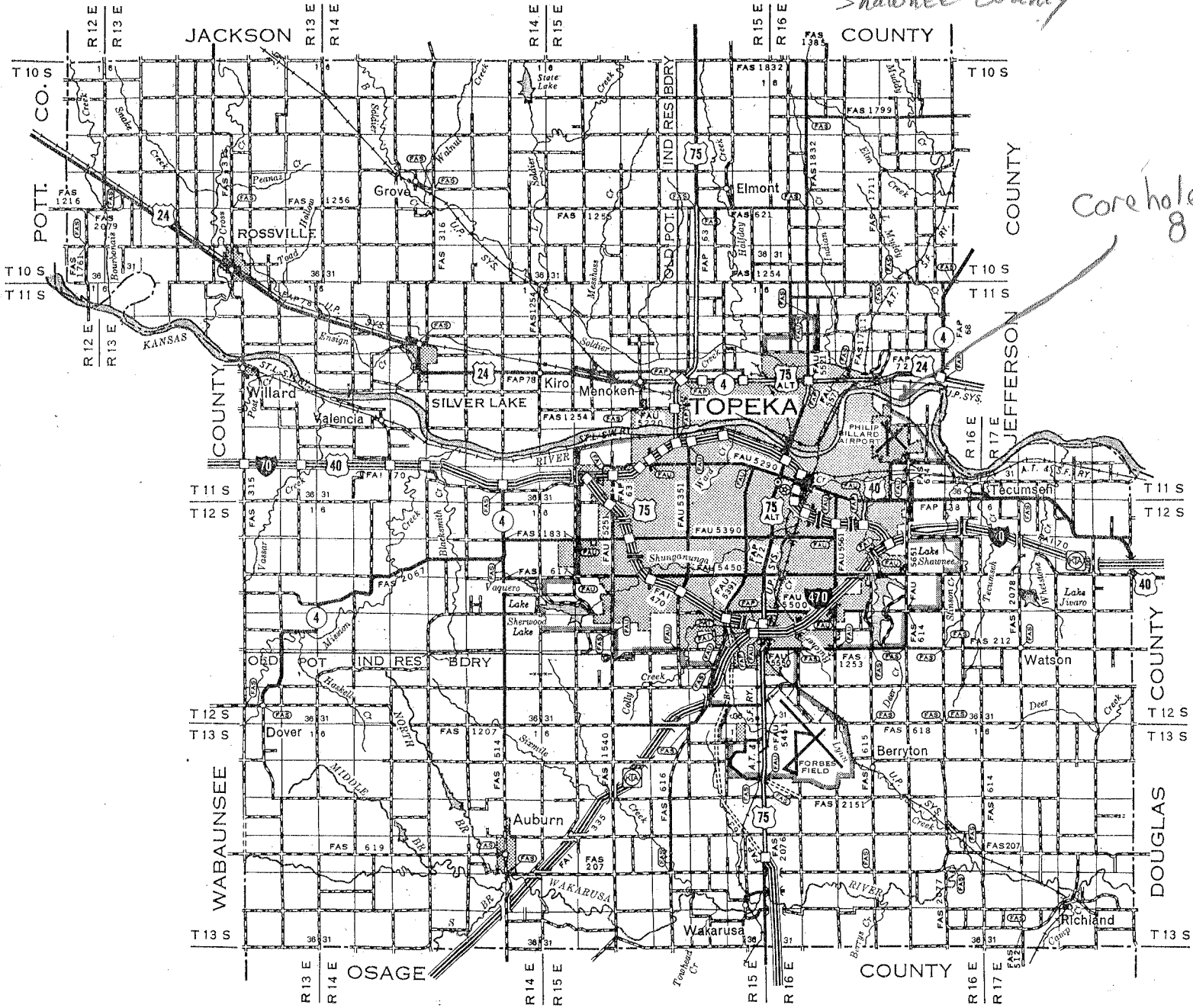
cc: L.S. Ingram
 L.A. Rockers
 J. Jimenez ✓
 J.J. Brennan
 Soil Section
 File

Reported by *Maris Hunt for*

Title James J. Brennan, Soils Engineer

Project 004-089-K-3362-05

Br. No. 004-089-28.66
Oakland Expressway over Kansas River
Shawnee County



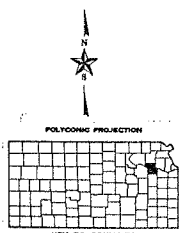
LEGEND

ROADS AND ROADWAY FEATURES

- PRIMITIVE ROAD
- UNIMPROVED ROAD
- GRADED AND DRAINED ROAD
- SOIL SURFACED ROAD
- GRAVEL OR STONE ROAD - NOT GRADED OR DRAINED
- GRAVEL OR STONE ROAD - GRADED AND DRAINED
- GRAVEL OR STONE ROAD WITH STABILIZED SURFACE
- BITUMINOUS ROAD - LOW TYPE
- PAVED ROAD
- DIVIDED HIGHWAY
- HIGHWAY WITH FULL CONTROL OF ACCESS AND INTERCHANGE

ROAD SYSTEM DESIGNATION

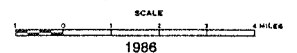
- FEDERAL-AID INTERSTATE HIGHWAY SYSTEM
- FEDERAL-AID PRIMARY HIGHWAY SYSTEM
- FEDERAL-AID SECONDARY HIGHWAY SYSTEM
- INTERSTATE NUMBERED HIGHWAY
- U.S. NUMBERED HIGHWAY
- STATE HIGHWAY SYSTEM OR STATE NUMBERED HIGHWAY
- END OF DESIGNATED SYSTEM OR MARKED ROUTE



FA SYSTEM REVISED TO MAR. 15, 1968

**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



1986