

2CE ⊕ ✓



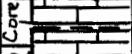
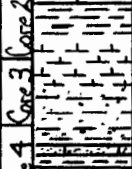


T 105  
R 13E  
sec. 34

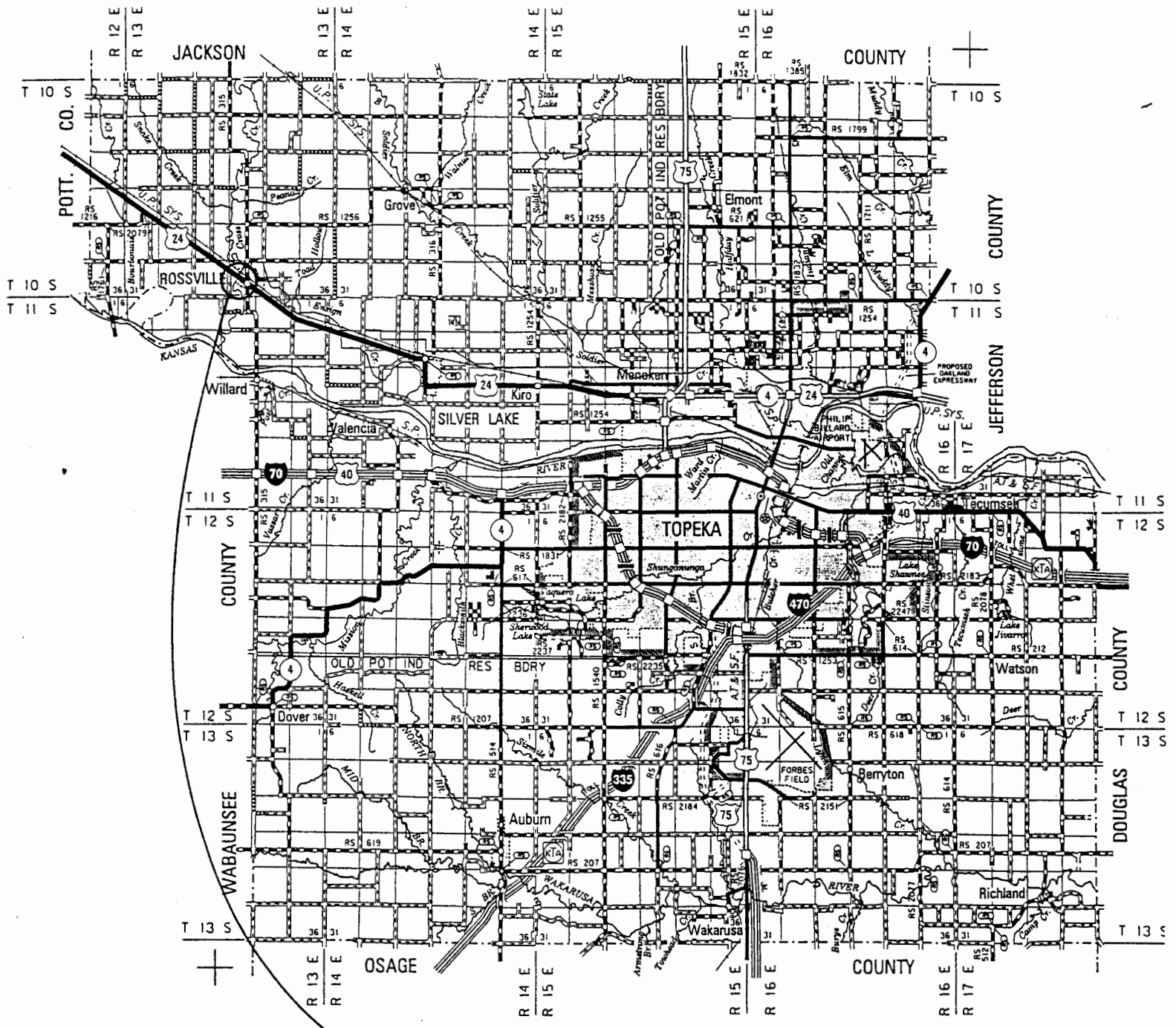
KANSAS DEPARTMENT OF TRANSPORTATION



1. ROUTE-COUNTY NO. 24-89	7. SOUNDING NO. CD#1	12. SHEET 1 OF 2
2. BRIDGE STA. 353+08	8. PROJECT NO. K-3602-01	13. BRIDGE NO. 5.20
3. DESCRIPTION US-24 over Cross Creek	14. HOLE STA. 352+105, RT. 35	
4. GEOLOGIST R. Hutchinson	9. VERTICLE SCALE 1"=10'	15. DATE 3-12-96
5. DRILLER Bob Bergman	10. RIG B-61	16. ELEVATION TOP OF HOLE 922.4
6. GROUND WATER ELEV. 903.8	11. TOTAL DEPTH OF HOLE 116.0	17. ELEVATION TOP OF ROCK 843.6

BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV.
					T.H.E. - 922.4			
	ALLUVIUM	[Diagonal lines]	10'	912.4	Silty Clay, brown			
		[Diagonal lines]		910	Silt with clay binder, brown			
		[Diagonal lines]	26'	896.4	Silt with clay binder, brown with sand lenses			
		[Diagonal lines]	37'	885.4				
"N" Hawthorne Wash Bit		[Dotted pattern]		880	Sand, fine to med. grain with scattered gravels and gravel lenses.		19	880.9
				870			6	876.4
				860			10	859.9

DRILLING LOG (con't sheet)		SOUNDING NO. <u>CD #1</u>		PROJECT NO. <u>K-3602-01</u>		SHEET <u>2</u> OF <u>2</u>		
ELEVATION TOP OF HOLE <u>922.4</u>		GROUND WATER ELEV. <u>903.8</u>		TOTAL DEPTH OF HOLE <u>116.0</u>		ELEVATION TOP OF ROCK <u>843.6</u>		
BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV.
	Alluvium			850	Sand, fine-coarse, with gravel layer at bedrock contact		14	850.9
	Willard Shale		81.0	843.6				
	Elmont Ls. Mbr.		84.5	841.4	Ls. light gray, foss., shly.	449.014	83	841.4
	Harvey-Ville Shale Mbr.			840	Sh. multi-colored, gray, green, to maroon, clayey with lmy lenses and sandy w/ss. lenses	19.858	Sam 2	846.6
	Reading Ls. Mbr.			830	Ls. gray, some pyritic nodules w/sh lenses	49.091	Sam 3	836.8
	Auburn Shale			820	Sh. green, micaceous, silty to clayey w/ ls. stringers	311.574	Sam 4	832.9
				810	Sh. gray, clayey			
			100.4	822.0				
			110.1	812.3				
			116.0	806.4				
			TD					
					Core #1, 81.0 - 84.0, (841.4 - 838.4) Cut: 3.0 Rec: 3.0			
					Core #2, 84.0 - 88.0 (838.4 - 834.4) Cut: 4.0 Rec: 3.05			
					Core #3, 88.0 - 92.0 (834.4 - 830.4) Cut: 4.0 Rec: 3.5			
					Core #4, 92.0 - 97.0 (830.4 - 825.4) Cut: 5.0 Rec: 3.5			
					Core #5, 97.0 - 102.0 (825.4 - 820.4) Cut: 5.0 Rec: 4.5			



**24-89 K-3602-01**  
**US-24 over Cross Creek**

**LEGEND**

ROADS AND ROADWAY FEATURES		ROAD SYSTEM DESIGNATION	
Primitive Road (Type A)	-----	Rural Secondary System	RS
Unimproved Road (Type B)	-----	Interstate Numbered Highway	
Graded and Drained Road (Type C)	-----	U.S. Numbered Highway	
Soil Surfaced Road (Type D)	-----	State Highway System or State Numbered Highway	
Gravel or Stone Road - Graded and Drained (Type E-2)	-----	End of Designated System or Marked Route	
Projected Road	-----	Kansas Turnpike Authority	
Bituminous Road - Low Type (Type F, G-1, H-1)	-----		
Paved Road (Type G-2, H-2, L, K, U)	-----		
Divided Highway	-----		
Highway With Full Control of Access and Interchange	-----		

**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**

