

SECTION II

Geology of the Project

Centerline of the proposed project begins at the junction of the present construction of Highway K-13 and Highway K-16. The proposed centerline trends in a northeasterly direction for 7.7 miles in Pottawatomie County through the northern edge of Fostoria, Kansas to Highway K-99 at the southern outskirts of Blaine, Kansas.

The topography is characterized by well drained rolling hills capped by glacial till and numerous glacial erratic boulders. The drainage is predominantly towards the southwest forming a dendritic pattern. Bedrock outcrops are scarce along the centerline of the project occurring only in low areas on the extremities of the project.

The stratigraphic units that are present along the project range from the Ft. Riley Limestone Member of the Barneston Limestone, Chase Group, Wolfcampian Series, on the western end of the project, to the Schroyer Limestone Member of the Wreford Limestone, Chase Group, Wolfcampian Series, on the eastern end of the project. All stratigraphic units are of lower Permian age.

The apparent regional dip is to the northeast at approximately 6 feet per mile with more severe local dip on the east end of the project.

From the beginning of the project, Station 82/00, to Station 106/00, the Ft. Riley Limestone Member is overlain by 2' to 5' of glacial till. At Station 91/00 the "Rimrock" becomes the weather top of the Ft. Riley Limestone Member. From Station 106/00 to Station 235/00 the proposed centerline transverses rolling hills composed of predominantly glacial till. An average thickness of 20 feet of glacial till overlays the Ft. Riley Limestone, Oketa Shale, and the Florence Limestone Members in this area.

From Station 235/00 to Station 250/00 the Florence Limestone Member is overlain by 3 to 5 feet of clay bound chert gravel and 3 to 10 feet of glacial till.

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From Station 250/00 to Station 459/00 the proposed project crosses relatively flat terrain dissected by several stream valleys. In this area, an average of 30 feet of glacial till overlays the Florence Limestone Member on the flatter terrain and an average of 5 feet of glacial till and 3 feet of clay bound chert gravel overlays the Florence Limestone Member in the stream valleys. See figure I.

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