

## Geotechnical Descriptive Analysis

### -L- Station 12+75 to 20+50

This segment of the project consists of the approach to the bridge on the south side of Mud Creek. The proposed construction begins approximately at the margin of the floodplain. Plans call for a few feet of ditch line cut at the beginning, to extend on the Left Side as far as Station 17+50. Roadway embankment is to be placed over the existing embankment slope and over the floodplain on the remainder of this segment. The new embankment will reach a maximum height of about 10 feet at Station 20+50, near proposed End Bent One.

This area is underlain by alluvial silt and sand comprising about 5 feet of soft to medium stiff, sandy silt (A-4) overlying 8 to 10 feet of very loose to dense, silty sand (A-2-4). The groundwater table is about 5 to 8 feet below the natural ground surface and should not be a factor in construction.

### -L- Station 21+75 to 29+75

This segment covers proposed construction on the approach to the bridge on the north side of Mud Creek, from End Bent Two to the end of the project. Plans call for roadway embankment to be emplaced over the existing embankment slope and over the floodplain to a maximum height of about 7 feet.

Soils on the floodplain consist of approximately 5 to 7 feet of alluvial clay and silt overlying 7 to 12 feet of alluvial sand including, in some places, a few feet of basal gravel. The clay and silt soils are composed of yellow, red, gray, or mottled, wet, soft to medium stiff, sandy clay to sandy silt (A-7-6, A-6, A-4). The sandy soils are composed of loose to medium dense, silty sand (A-2-4) and medium dense, sand and gravel (A-1-b).

A surficial layer of artificial fill has been placed over the floodplain on the Right Side of -L- from about Station 22+00 to Station 23+50. That material is composed of very loose, silty sand (A-2-4) and very soft, sandy silt (A-4) and a variety of other materials including tree stumps, masonry, stone and wood chips. Its maximum thickness is about 4 feet.

A thin, surficial layer of fine colluvial soil overlies the floodplain on the Right Side from Station 24+00 to the end of the project. The soil consists of yellow-brown, sandy silty clay with a maximum thickness of about 2 feet. The colluvial soil apparently is derived from erosion of a low hill that borders the project about 100 feet Right of -L-.

The groundwater table in this segment varies in depth from about 5 to 10 feet below the natural ground surface.

Respectfully Submitted,



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