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Schuyler Economic Development  
Schuyler, Nebraska

**RE: GEOLOGIC SETTING OF SCHUYLER AREA**

Gentlemen:

The Schuyler area lies in the historic floodplain of the Platte River. The surface geology of this floodplain is early Holocene and late Pleistocene in age and consists mainly of alluvium deposits known as Grigston series clay, silty sand, sand, and gravel. Clay and silt layers are commonly found in the upper 5 to 10 feet. These deposits are interbedded with silty to fine sand near the surface, gradually becoming coarser with depth. The occurrence of clay and silt seams becomes less frequent with the deeper deposits. Ground water can often be found at depths of 5 to 10 feet below grade. The alluvial silt, clay, sand, and gravels overly late Pliocene gravelly sands of the Platte River. These gravelly sands are associated with the Broadwater Formation and are derived from granite and quartzite found in the Rocky Mountains, and is interbedded with locally derived sands and gravels from sandstone, limestone, shale, and siltstone. These deposits are relatively deep and were carried by the Platte River, and its tributaries.

Site development in this area is usually straightforward. The soils are generally suitable for support of pavements, slabs, and typical 1 to 2 story commercial structures using shallow concrete foundations. However, it is not uncommon to find that the existing soils must be undercut and re-compacted to improve their support characteristics. Where a site must be raised by placing fill, delay times are necessary to allow the settlement to near completion before construction starts. In this area the delay times tend to be of relatively short duration, due to the granular nature of the soil deposits. Installation of utilities can be impacted by the shallow ground water, and dewatering could be required.

Please call if you have any questions.

Respectfully,  
**Thiele Geotech, Inc.**

A handwritten signature in blue ink that reads 'John A. Christiansen'.

John A. Christiansen, P.E.  
Vice President