



March 31, 2014

Mr. Herbert Sarten
Water and Wastewater Manager
Lenoir City Utilities Board
200 Depot Street
P.O. Box 449
Lenoir City, TN 37771

Re: Sanitary Sewer Service to Browder Bend Property

Dear Herbert:

In accordance with your request, Fulghum, MacIndoe, & Associates, Inc. has completed a preliminary study for the referenced project as it relates to extending sanitary sewer to undeveloped property situated in the Browder Bend area of Watts Bar Lake (see attached map). The subject property is bound to the east by Riverview Road, Watts Bar Lake to the south and west, and the existing railroad south of Broadway to the north.

As we understand, this property would most likely be developed into residential housing units. Based on the Lenoir City Quadrangle, it appears that most of the site drains to the south and west towards Watts Bar Lake. The nearest sanitary sewer to this site is located at Browder Hollow Road/West Broadway. Since the subject site is lower in elevation to the existing sanitary sewer infrastructure, a pump station and force main would be required to serve this area.

The pump station would be located at the lowest point of the subject property and the force main would need to extend from the proposed pump station to the north and east, then connect to the existing gravity sewer near Nell Tuck Pump Station. Based on the parcel size (approximate 293 acres), we estimate that a 6-inch force main (minimum) would be required to serve this property. A conceptual location for the proposed pump station and force main is shown on the attached map.

A preliminary opinion of probable project costs is shown below:

Browder Bend Property Sewer Extension Opinion of Probable Project Costs				
Description	Estimated Quantity	Unit	Unit Cost	Total Cost
6-inch force main	8,000	LF	\$45	\$360,000
Duplex Submersible Pump Station	1	LS	\$200,000	\$200,000

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Subtotal	\$560,000
Contingency at 15%	\$84,000
Total Opinion of Probable Construction Costs	\$644,000
Engineering and Construction Administration	\$130,000
Total Opinion of Probable Project Costs	\$774,000

If you have any questions or comments, please do not hesitate to contact me or Mike MacIndoe.

Sincerely,



Jack Southard, Jr., P.E.

