From:	Steve E. Fox
To:	Teresa Barnes
Cc:	Melissa A. Miller
Subject:	Burger King SR4/Horseshoe Bend
Date:	Thursday, December 21, 2017 4:38:54 PM
Attachments:	StreamStats Flow Statistics Report.pdf Site_OPT 5b revised mound.pdf Site_OPT 5b-Prelim Grading.pdf 60-in Pipe.pdf Channel.pdf

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Hi Theresa,

Per our conversation last week, here are some exhibits for a couple of scenarios that we ran with the existing stream:

- Liberty Township is requiring a 6' mound, with an 8' fence for the entire length of south property line.
- Per Streamstats, the 100-yr Q=221 CFS
- Our Eco department has determined that the stream is regulated and we'll need a USACE permit for either the culvert or relocated channel
- The option with the stream relocation seems to be my preferred, as the depth stays at 754' carrying the 221 cfs and allows for flood routing.
- If we use a 60" pipe, the depth gets up to 757.52, close to the FF of the existing house south of us

Please review and let us know your thoughts. We aren't sure how committed the township is to having the mound along the entire south parcel line yet.

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