

MEMORANDUM

DATE: May 1, 2018
FROM: Joseph Von Nessen, Ph.D.
RE: York County Impact Fee Report Response

The purpose of this memo is to provide a formal response to the TischlerBise study entitled *School Impact Fee Study and Capital Improvement Plan*, which was released on April 18, 2018. The TischlerBise study was specifically commissioned to (1) assess the maximum allowable school impact fees that could be levied on new residential homes – both owner-occupied and renter-occupied – in the Fort Mill School District and then to (2) determine whether or not these maximum allowable school impact fees would exceed the 30 percent cost burden criteria established by the U.S. Department of Housing and Urban Development (HUD).

Although TischlerBise finds that their estimated maximum allowable school impact fees would *not* exceed the cost burden criteria established by HUD, our review casts doubt on this conclusion. Specifically, we find that the TischlerBise conclusion is based on a set of assumptions that may not be realistic given current national and local economic conditions. In addition, TischlerBise combines the communities of Fort Mill and Tega Cay in their analysis, thereby masking the cost burden that would be imposed on Fort Mill, which has a significantly lower median income relative to Tega Cay. The cost burden on Fort Mill associated with the proposed impact fee is shown to exceed the HUD 30 percent cost burden criteria, even after allowing for the original assumptions made by TischlerBise. TischlerBise also ignores the potential cost burden that the proposed impact fee may impose on less affluent parts of the Fort Mill School District that fall outside of the incorporated areas.

Finally, the TischlerBise analysis also does not provide any assessment of the downstream effects that these impact fees may have on housing affordability to the extent that a price increase associated with impact fees could result in long-term supply constraints. As such, it will likely underestimate the total, long-run effects on affordability.

The remainder of this memo documents the findings of our review. First, we examine how changing several assumptions made in the TischlerBise analysis can have significant implications on whether or not the proposed impact fees create a

cost burden that exceeds the HUD cost burden criteria. Second, we describe the potential downstream effects that impact fees may have on housing affordability over time through their potential impacts on supply constraints.

Evaluation of Assumptions

Assumption 1: 20% Down Payment

In Appendix A of their report, TischlerBise calculates the median cost of homeownership in the Fort Mill School District both with and without the proposed maximum allowable school impact fee. As part of this calculation, TischlerBise makes the assumption that the down payment for a loan on a conventional, fixed-rate 30-year mortgage will be 20 percent of the total purchase price (pg. 26). However, this assumption stands in contrast to existing data showing that the average down payment on a mortgage was 11 percent as recently as 2016, with the average being around 8 percent for borrowers under the age of 35.¹

Assumption 2: 4.25% Mortgage Interest Rate

Also in Appendix A, TischlerBise assumes a mortgage interest rate of 4.25 percent for a home purchase, which is based on "...a survey of competitive interest rates in the District" from the website Bankrate.com (pg. 26). Although accurate as of April 2018, this mortgage interest rate does not take into account the likely increases in future mortgage interest rates that will occur over the next several years after any implementation of the proposed impact fees. The Federal Reserve has been steadily increasing interest rates since 2015 as national economic growth has continued to improve. In March 2018, the Federal Open Market Committee (FOMC) announced expectations for three interest rate increases in 2018 and increased its projections for 2019 and 2020, citing a positive economic outlook. Any increase that the Federal Reserve makes to the Federal Funds Rate will likely have the effect of increasing mortgage interest rates over time. Increases in mortgage interest rates have a direct effect on the cost of homeownership.

Assumption 3: \$78,652 Median Household Income

The HUD cost burden criteria for homeownership states that a household earning 80 percent of the median income should not have a cost burden ratio of more than 30 percent. In other words, a household earning 80 percent of the median income should not need to spend more than 30 percent of its income on a mortgage payment. Using these guidelines, TischlerBise estimated the HUD income threshold for the Fort Mill School District to be \$78,652 – or approximately \$6,554 per month. This is calculated based off of a value of \$98,315, which is the combined average median household income of Fort Mill and Tega Cay as provided by 2016 American Community Survey data (and adjusted for inflation). The \$78,652 estimate represents 80 percent of this average value (pg. 24).

One of the primary effects of using this method for estimating monthly income is that it weights the household income values of Fort Mill and Tega Cay equally. This

¹ Source: <http://www.realtor.com> - Jonathan Smoke (2017)

becomes problematic when considering that Fort Mill is nearly 60 percent larger than Tega Cay (5,020 occupied housing units vs. 3,151 occupied housing units) and Fort Mill has a median household income that is significantly lower than Tega Cay (\$66,748 vs. \$120,346). Thus, by combining these two communities in their analysis, TischlerBise masks the cost burden that would be imposed on Fort Mill as a result of the proposed school impact fee, which would exceed the HUD 30 percent cost burden criteria. This method also ignores any additional cost burden imposed on the less affluent parts of the school district that fall outside of the incorporated areas, which would also be likely to exceed the HUD 30 percent cost burden criteria.

In order to determine the impact that each of these three assumptions will have on the estimated cost burden, we run the following alternative scenarios:²

- A1: Monthly cost w/ impact fee & 11% down payment
- A2: Monthly cost w/ impact fee, 11% down payment, & 5% interest rate
- A3: Monthly cost w/ impact fee (using Town of Fort Mill median house price and median income)
- A4: Monthly cost w/ impact fee & 11% down payment (using Town of Fort Mill median house price and median income)
- A5: Monthly cost w/ impact fee, 11% down payment, & 5% interest rate (using Town of Fort Mill median house price and median income)

Table 1 places these five alternative scenarios against the baseline condition (BC) and the baseline condition with impact fee (BCI) as shown in Figure A6 of the TischlerBise report.

Table 1 – Baseline and Alternative Impact Fee Scenarios

	BC	BCI	A1	A2	A3	A4	A5
Purchase Price	\$259,472	\$275,930	\$275,930	\$275,930	\$229,880	\$229,880	\$229,880
Down Payment	\$51,894	\$55,186	\$30,352	\$30,352	\$45,976	\$25,287	\$25,287
Loan Amount	\$207,578	\$220,744	\$245,578	\$245,578	\$183,904	\$204,593	\$204,593
Loan Length (Years)	30	30	30	30	30	30	30
Loan Length (Months)	360	360	360	360	360	360	360
Yearly Interest Rate	4.25%	4.25%	4.25%	5.00%	4.25%	4.25%	5.00%
Monthly Payment	\$1,021	\$1,086	\$1,208	\$1,318	\$905	\$1,006	\$1,098
Property Tax (per month)	\$240	\$256	\$256	\$256	\$256	\$256	\$256
Stormwater Management Fee	\$6	\$6	\$6	\$6	\$6	\$6	\$6
Solid Waste Collection Fee	\$18	\$18	\$18	\$18	\$18	\$18	\$18
Water, Sewer, & Electric Utilities	\$173	\$173	\$173	\$173	\$173	\$173	\$173
Telephone, Cable, &	\$11	\$11	\$11	\$11	\$11	\$11	\$11

² 30-year mortgage interest rates are currently at approximately 4.58 percent and the Federal Reserve indicates that they will continue to raise interest rates through the year 2020. Thus, a 5 percent mortgage interest rate was deemed to be more appropriate to serve as a conservative projection for the long-run equilibrium over the next 3 to 5 years as the proposed impact fee is implemented.

	BC	BCI	A1	A2	A3	A4	A5
Internet Utilities							
Homeowners Insurance	\$78	\$78	\$78	\$78	\$78	\$78	\$78
Monthly Cost	\$1,547	\$1,628	\$1,750	\$1,860	\$1,447	\$1,548	\$1,640
Monthly Income	\$6,554	\$6,554	\$6,554	\$6,554	\$4,548	\$4,548	\$4,548

Cost Burden	23.6%	24.8%	26.7%	28.4%	31.8%	34.0%	36.1%

Note alternative scenarios A3-A5, in which the cost burden associated with the proposed impact fees is calculated based only on the median monthly income within the town of Fort Mill. Scenario A3 shows that maintaining all assumptions made by TischlerBise generates a housing cost burden of 31.8 percent when examining the cost burden exclusively within the town of Fort Mill. In scenarios A4 and A5, where more realistic assumptions are made about likely down payments and interest rates, the cost burden climbs to 34.0 percent and 36.1 percent, respectively. Thus, it is clear that combining the towns of Fort Mill and Tega Cay masks the housing cost burden to Fort Mill, which exceeds the cost burden criteria established by HUD.

Downstream Effects of Price Increases on Housing Supply

The TischlerBise report does not provide any assessment of the downstream effects that the proposed impact fees may have on housing affordability in the long run. Over the past 18 months, builder costs have significantly increased across the United States and within the Southeast. This has largely been due to an increase in the price of softwood lumber, which began in late 2016 as a result of higher import tariffs imposed on Canadian markets by the U.S. Department of Commerce. For example, since January 2017 the price of softwood lumber has risen by over 21 percent.³ In addition, over the past twelve months builder costs have increased at more than twice the rate of business costs as a whole (7.3% vs. 3.0%).⁴

This increase in builder costs, combined with the potential *additional increase in costs* associated with the proposed impact fees, are likely to constrain the supply of new housing by pricing some builders out of the market. This restriction in supply may, in turn, lead to further increases in the price of housing in Fort Mill and Tega Cay over time. Given that alternative scenarios A1 and A2 represent more realistic down payment and interest rate assumptions and generate cost burdens that get within two percentage points (28.4%) of the HUD cost burden criteria, it is possible that the additional increase in price brought about by a supply constraint may increase the cost burden beyond 30 percent *in all five alternative scenarios*. The TischlerBise report does not provide any analysis documenting whether these downstream effects could create an additional cost burden that would conflict with the HUD cost burden criteria.

³ Source: Random Lengths Framing Lumber Composite Index; March 2018

⁴ Source: Producer price index – final demand vs. hardware, building materials, and supplies retailing; March 2018 vs. March 2017