

Margaret Lake

From: Margaret Lake
Sent: Thursday, March 31, 2022 4:22 PM
To: Brian Gettinger
Subject: Re: TBC Driveway FM 1209 Additional Analysis

No, moving the driveway will not mitigate the need for the turn lane. There's still the issue of turning movements, but having the spacing due to the other location would be even better.

From: Brian Gettinger [REDACTED] >
Sent: Wednesday, March 30, 2022 6:13 AM
To: Margaret Lake <Margaret.Lake@txdot.gov>
Subject: Re: TBC Driveway FM 1209 Additional Analysis

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Mike's email seems to imply that changing the driveways location could mitigate the need for the turn lane.

If we centered the driveway on the property (assuming that is best spot) does that mitigate the need for the center turn lane?

BG

On Tue, Mar 29, 2022, 3:32 PM Miguel Arellano <Miguel.Arellano@txdot.gov> wrote:

Brian,

Let's be clear, the right and center turn lane are mitigating solutions for safety issue created by this driveway location and the use of this access. This is not necessarily a demand issue. Given the size of the truck you've documented and the size and number of large trucks that have been reported poses a safety issue for any turning movement into this access point, which also doesn't meet spacing requirements. It only take on one truck turning movement to create a preventable hazard to the public.

Again, with the decision to construct this driveway with no permit or approval at the location chosen, all liability is on the Boring Company at this point in time. I would encourage you to work with the AO on an engineering solution to mitigate this safety issue as soon as possible.

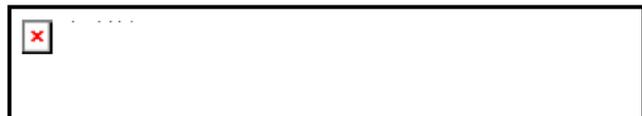
Thank you!

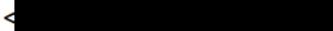
Mike Arellano, P.E. | Deputy District Engineer 

Austin District

7901 N. IH 35, Austin, TX 78753

Phone: (512) 832-7040 | Email: miguel.arellano@txdot.gov



From: Brian Gettinger < >
Sent: Tuesday, March 29, 2022 12:18 PM
To: Margaret Lake <Margaret.Lake@txdot.gov>; Diana Schulze <Diana.Schulze@txdot.gov>
Cc: Miguel Arellano <Miguel.Arellano@txdot.gov>; Hunter Brauer < >; Paul Gentsch < >
Subject: TBC Driveway FM 1209 Additional Analysis

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Diana and Margaret,

We would like to continue the dialogue about the necessity of a center turn lane into our site in addition to the tapered approach.

The TXDOT published traffic data for FM 1209 indicates the road is low traffic. 2020 is the latest and the only location on FM1209 near 71 had 3,594 as the AADT (annual average daily traffic). Assuming 2-18% 'k' value for a rural road daily peak hour conversion and a 50/50 directional split, at peak hour conditions there is a vehicle traveling each direction at a 12-18 second headway.

Even though this is low traffic, in my engineering opinion using this count for our driveway location is very conservative for the following reasons:

- AADT is likely higher than in front of our driveway as it is measured near 71 highway and the majority of flow along FM 1209 is headed to 71.
- This location captures school traffic to Bluebonnet Elementary which is nearly entirely coming from the south (based on the school zone boundaries) and does not cross our driveway.
- Traffic from The Colony is primarily leaving the neighborhood and heading south to 71 as the major transportation corridor. This does not cross our driveway.

Peak hour conditions considering these factors means the vehicle spacing is closer to 25 or 30 seconds which correlates observations from the site. I did a 15 minute traffic count on Friday 3/25 between 8:36 and 8:51 AM and there were 37 vehicles in each direction during that period. This validates the AADT average of >20 second average vehicle spacing.

At this spacing a truck can make an unobstructed turn into and out of our site without significant traffic impacts in either direction. In addition most deliveries are during the day and not during peak hours, therefore traffic spacing is even greater than 30 seconds.

Additionally:

1. The site is under construction and the current truckload exceeds the steady state condition once construction is complete.
2. Even with the higher construction truck rate the number of trucks is low, 10 or less per day and some days 0.

1. Daily truck counts for the last week:

1. 3/23 - 7
2. 3/24 - 8
3. 3/25 - 6
4. 3/26 - 1
5. 3/27 - 0
6. 3/28 - 8
7. 3/29 - 7

Based on this we recommend the following:

1. Build the tapered approach for the driveway as shown in previous submittal.
2. If TXDOT remains concerned about traffic flow and since the traffic count is from 2020, set up a traffic count near the driveway for conditions on FM 1209 and on the driveway to track trucks into the site. Based

on this data we can re-evaluate improvements as construction continues on the current parcel and other parcels in the vicinity.

The traffic flow on FM 1209 and the frequency of truck deliveries does not represent a risk to traffic great enough to warrant a center turn lane at this time.

BG

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Brian Gettinger, PE

Business Development Lead | TBC - The Boring Company

913-220-8806 | [REDACTED]

A Texas Department of Transportation message

