

**MEMORANDUM**

**TO:** Andrew Moore, Case Manager  
Zoning and Planning Department

**CC:** Kathleen G. Smith, P.E., PTOE, HDR, Inc

**FROM:** Natalia Rodriguez, DSD Transportation Review  
Scott A. James, P.E., PTOE

**DATE:** March 23, 2017

**SUBJECT:** Traffic Impact Analysis for 2222 Town Lake Circle  
Zoning Case No. C14-2016-0115

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Section 25-6-113 of the Land Development Code requires that a traffic impact analysis be conducted for a project proposed with a zoning application if the project is anticipated to generate more than 2,000 daily trips. The project site is located in central Austin, between Lakeshore Boulevard and East Riverside Drive. The application is to rezone from ERC-NMU to ERC-CMU to permit construction of up to 600 multi-family dwelling units. The proposed development is estimated to generate up to 3,760 daily trips. The anticipated build out year for this development is 2019.

**Roadways*****Riverside Drive***

The AMATP and CAMPO Plan classify East Riverside Drive as a six-lane major arterial between IH-35 and State Highway 71. According to TxDOT average daily traffic counts, the 2015 average daily traffic volume on East Riverside Drive, west of Pleasant Valley Road, was approximately 34,700 vehicles per day (vpd). Sidewalks are provided along both sides of the roadway and frequent transit service is available. The posted speed limit is 35 MPH in the vicinity of the site. The 2014 Austin Bicycle Plan recommends a protected bike lane on Riverside Drive between Lakeshore Boulevard and State Highway 71.

***Pleasant Valley Road***

The AMATP and CAMPO Plan classify Pleasant Valley Road as a four-lane major arterial, north and south of Riverside Drive. According to TxDOT average daily traffic counts, the 2015 average daily traffic volume on Pleasant Valley Road, south of Lakeshore Boulevard was approximately 19,600 vpd. Sidewalks are installed for portions of the western side of the roadway. The posted speed limit is 35 MPH. The 2014 Austin Bicycle Plan recommends a protected bike lane on Pleasant Valley Road.

***Lakeshore Boulevard***

The AMATP and CAMPO Plan classify Lakeshore Boulevard as a two-lane minor arterial between Riverside Drive and Pleasant Valley Road. According to TxDOT average daily traffic counts, the 2015 traffic volume on Lakeshore Boulevard, east of Riverside Drive was approximately 8,400 vpd. Sidewalk is installed along the southern side of the roadway and a combined trail and sidewalk network along the lakeshore is installed along the northern side of the roadway. The posted speed limit is 35 MPH. The 2014 Austin Bicycle Plan recommends a shared use path/trail on Lakeshore Boulevard between Riverside Drive and Pleasant Valley Road.

***Tinnin Ford Road***

The CAMPO Plan classifies Tinnin Ford Road as a two-lane collector between East Riverside Drive and Lakeshore Boulevard. According to TxDOT average daily traffic counts, the 2015 average daily traffic volume on Tinnin Ford Road, north of East Riverside Drive was approximately 5,400 vpd. The assumed speed limit is 30 MPH. Sidewalks are installed along portions of the eastern side of the roadway. The 2013 East Riverside Drive Corridor Development Program recommends northbound and southbound bike lanes on Tinnin Ford Road between East Riverside Drive and Lakeshore Boulevard.

***Burton Drive***

The CAMPO Plan classifies Burton Drive as a two lane collector south of East Riverside Drive. According to TxDOT average daily traffic counts, the 2015 average daily traffic volume on Burton Drive, south of Riverside Drive was approximately 6,100 vpd. The posted speed limit is 30 MPH.

***Elmont Drive***

The CAMPO Plan classifies Elmont Drive as a two lane collector roadway between Tinnin Ford Road and Pleasant Valley Road. Based on a review of peak hour traffic counts, approximately 2,500 vpd travel along Elmont Drive, east of East Riverside Drive. There is sidewalk installed along both sides of the roadway. The assumed speed limit is 30 MPH. The 2013 East Riverside Drive Corridor Development Program recommends bike lanes on Elmont Drive between Tinnin Ford Road and Country Club Creek.

***Town Lake Circle***

Town Lake Circle is a two lane local street that offers a roadway loop connection to two different points along Elmont Drive. Based on a review of peak hour traffic counts, approximately 1,100 vpd travel along Town Lake Circle. The assumed speed limit is 25 MPH.

**Trip Generation and Traffic Analysis**

Based on the ITE publication Trip Generation, 9<sup>th</sup> Edition, the 600 apartments (land use code 220) are expected to generate up to 3,760 daily trips, with a reduction of 5% for transit access, plus an addition 5% reduction for bicycle access, as summarized in the table below.

<b>Table 1 – Trip Generation</b>			
<b>Land Use</b>	<b>Size</b>	<b>Trip Generation</b>	<b>Adjusted Trips</b>
Apartment (Code 220)	600 units	3,760	3,393
<b>Totals</b>		<b>3,760</b>	<b>3,393</b>

Site traffic is expected to use East Riverside Drive and South Pleasant Valley Road as primary points of access to Tinnin Ford Road and the site.

<b>Table 2 – Trip Distribution</b>	
<b>Street Name</b>	<b>Traffic Percentage</b>
East Riverside Drive (eastbound)	25%
East Riverside Drive (westbound)	40%
South Pleasant Valley Road (southbound)	20%
South Pleasant Valley Road (northbound)	10%
Tinnin Ford Road (southbound)	5%
<b>Total</b>	<b>100%</b>

For this study, traffic counts were conducted on Tuesday, August 25, 2016 at the following intersections:

- Tinnin Ford Road/Burton Drive and East Riverside Drive
- Tinnin Ford Road and Elmont Drive
- Town Lake Circle (west) and Elmont Drive
- Town Lake Circle (east) and Elmont Drive
- S. Pleasant Valley Road and Lakeshore Boulevard
- S. Pleasant Valley Road and Elmont Drive

A two percent (2%) annual growth rate was assumed for this study. In addition, the following projects were included as background traffic: South Shore Townhomes (SP-2013-0432C), Oden Hughes Pleasant Valley (SP-2014-0516C), 1401 S. Pleasant Valley (SP-2014-0177C), Lakeshore Azul Apartments (SP-2012-0436C), and The Waterfront (SP-2016-0096C).

The intersections identified for analysis were evaluated using the Highway Capacity Manual (HCM) method for capacity analysis. The results of the analysis are shown in the following tables.

<b>Table 3 Existing Conditions (2016)</b>					
<b>Intersection</b>	<b>Traffic Control</b>	<b>AM Peak Hour</b>		<b>PM Peak Hour</b>	
		<b>Delay (secs)</b>	<b>LOS</b>	<b>Delay (secs)</b>	<b>LOS</b>
Tinnin Ford Road/ East Riverside Drive	Signal	18.3	B	36.8	D
S. Pleasant Valley Road/ Lakeshore Boulevard	Signal	14.1	B	16.5	B
S. Pleasant Valley Road/ Elmont Drive	Signal	8.1	A	13.4	B
Tinnin Ford Road/ Elmont Drive	Two way STOP	5.4	A	4.3	A
Town Lake Circle (west)/ Elmont Drive	Two way STOP	3.7	A	1.7	A
Town Lake Circle (east)/ Elmont Drive	Two way STOP	3.0	A	2.7	A

When the estimated additional trips were added to the identified intersections, the following analysis showed a slight reduction in operational capacity for the studied intersections. Table 4 shows the results of the “no build” and “build out” conditions.

**Table 4 Future Conditions – (No Build vs Build)**

		<b>2019 No Build</b>		<b>2019 Build w/o mitigation</b>		<b>2019 Build (w/ mitigation)</b>	
<b>Intersection</b>	<b>Traffic Control</b>	<b>AM/PM Peak Hour</b>		<b>AM/PM Peak Hour</b>		<b>AM/PM Peak Hour</b>	
		<b>Delay (secs)</b>	<b>LOS</b>	<b>Delay (secs)</b>	<b>LOS</b>	<b>Delay (secs)</b>	<b>LOS</b>
Tinnin Ford Road/ East Riverside Drive	Signal	36.8/23.0	D/C	54.2/24.9	D/C	36.7/24.8	D/C
S. Pleasant Valley Rd./ Lakeshore Boulevard	Signal	14.6/26.3	B/C	13.9/26.4	B/C	16.1/27.5	B/B
S. Pleasant Valley Rd./ Elmont Drive	Signal	14.2/21.1	B/C	19.0/28.0	B/C	16.2/19.5	B/B
Tinnin Ford Road/ Elmont Drive	Two way STOP	7.4/8.5	A/A	11.9/14.6	B/B	8.8/8.7	A/A
Town Lake Cir. (west)/ Elmont Drive	Two way STOP	2.4/1.2	A/A	3.5/1.7	A/A	3.5/1.7	A/A
Town Lake Cir. (east)/ Elmont Drive	Two way STOP	1.9/1.8	A/A	3.4/2.8	A/A	3.4/2.8	A/A

As shown in the table above, all of the study intersections are shown to operate at satisfactory levels of service under all study scenarios. However, the traffic study did recommend certain improvements to help mitigate the traffic impact due to the development. These were discussed with the review staff from ATD and the agreed upon.

### **Conclusions and Recommendations**

Upon review and approval of the TIA document, staff recommends approval of this zoning application subject to the following conditions:

1. At the time of subdivision and site plan development, the subject property shall comply with all design criteria within the East Riverside Corridor Regulating Plan (ERC), up to and including, pedestrian priority collector roadway standards, bicycle facilities and the possible dedication of right-of-way.
2. Per the East Riverside Regulating Plan (Section 3.5.3), this site must adhere to maximum block length requirements and provide a new street to traverse the site. This street shall be a public right-of-way, connecting Elmont Drive with Town Lake Circle and aligned with opposing street network so as to provide a maximum block face of no more than six hundred sixty feet (660 ft), and a maximum block perimeter of no more than one thousand eight hundred feet (1,800 ft. as measured along the curb line).

3. Prior to the 3<sup>rd</sup> reading, staff requests the applicant post fiscal for the following improvements:

Table 5 – List of Improvements			
Intersection	Improvements	Total Cost	Developer Share \$
S. Pleasant Valley Road and Elmont Drive	Modification of traffic signal, construction of left turn lanes	\$806,328	\$171,707 (21%)
Tinnin Ford Road and Elmont Drive	Construction of northbound right turn lane	\$96,848	\$33,703 (35%)
S. Pleasant Valley Road and Lakeshore Boulevard	Extend southbound right turn bay	\$58,876	\$1,119 (2%)
<b>Totals</b>		<b>\$962,052</b>	<b>\$206,529</b>

4. Development of this property should not vary from the approved uses, nor exceed the approved intensities and estimated traffic generation assumptions within the TIA document (dated March 10, 2017), including land uses, trip generation, trip distribution, traffic controls and other identified conditions.
5. The approvals and conditions stated in this TIA memorandum remain valid until March 23, 2022, after which revisions to the analysis or conditions may be required.

If you have any questions or require additional information, please contact me (512) 974 - 2208.



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