

Technical Memo

Date: Wednesday, April 06, 2016
 Project: One Two East TIA (C14-2014-0198)
 To: Scott A. James, P.E., PTOE – (Development Services Department)
 From: Kathleen G. Smith, P.E., PTOE – (HDR)

Subject: 1 2 East TIA (C14-2014-0198) Updated Project Information

This memo is provided to the City of Austin/ Development Services Department as supporting documentation for the Traffic Impact Analysis (TIA) related to the 1 2 East development proposal. This memorandum provides revised land use and driveway conditions relative to those presented in the TIA submitted on February 1, 2016.

A detailed summary of the estimated daily traffic produced by the revised land uses is shown in Tables 1 and 2. Please note that all land uses are decreased intensity except for the senior adult housing, which increased by 35 units. The proposed land use mix will generate approximately 4,205 new unadjusted weekday daily trips upon buildout. These revisions result in a net reduction of daily trips by approximately 34 percent compared to the land uses proposed in the February 2016 submission.

Table 1. Summary of Unadjusted Daily and Peak Hour Trip Generation

	Land Use	Size	24-Hour Two-Way Volume	AM Peak Hour		PM Peak Hour	
				Enter	Exit	Enter	Exit
Proposed	High-Rise Apartment	265 DU	1,113	20	60	59	38
	Residential Condominium	4 DU	39	1	3	3	1
	Senior Adult Housing – Attached	230 DU	791	16	30	31	26
	Supermarket	30,000 SF	3,067	63	39	163	157
	Pharmacy with Drive-Through	10,000 SF	969	18	17	50	50
	Total		5,979	118	149	306	272
Existing	Multipurpose Recreational Facility*	19,750 SF	39	0	0	0	0
	Pharmacy/Drugstore without Drive Through	8,000 SF	720	15	8	33	34
	Walk-in Bank (Cash Loan Facility)	1,964 SF	238	0	0	10	13
	High-Turnover (Sit-Down) Restaurant	6,112 SF	777	36	30	36	24
	Total		1,774	51	38	79	71
April 2016	Net Trips Added		4,205	67	111	227	201
Feb. 2016	Net Trips Added		6,333	109	140	311	281
	Reductions		- 2,128	- 42	- 29	- 84	- 80

* Bingo Hall produces zero peak hour trips due to hours of operation.

Table 2 provides a detailed summary of the adjusted traffic production for the One Two East development. The adjusted value takes into account both internal capture and pass-by reductions that were previously approved by City staff. The proposed land use mix will generate approximately 3,480 new adjusted weekday daily trips upon build-out.

Table 2. Summary of Adjusted Daily and Peak Hour Trip Generation

	Land Use	Size	24-Hour Two-Way Volume	AM Peak Hour		PM Peak Hour	
				Enter	Exit	Enter	Exit
Proposed	High-Rise Apartment	265 DU	1,004	18	54	53	34
	Residential Condominium	4 DU	35	1	3	3	1
	Senior Adult Housing – Attached	230 DU	714	14	27	28	23
	Supermarket	30,000 SF	2,491	57	35	118	113
	Pharmacy with Drive-Through	10,000 SF	743	16	15	32	32
	Total		4,987	106	134	234	203
Existing	Multipurpose Recreational Facility*	19,750 SF	39	0	0	0	0
	Pharmacy/Drugstore without Drive Through	8,000 SF	552	14	7	21	21
	Walk-in Bank (Cash Loan Facility)	1,964 SF	215	0	0	9	12
	High-Turnover (Sit-Down) Restaurant	6,112 SF	701	32	27	32	22
	Total		1,507	46	34	62	55
April 2016	Net Trips Added		3,480	60	100	172	148
Feb. 2016	Net Trips Added		5,188	99	127	230	205
	Reductions		- 1,708	- 39	- 27	- 58	- 57

* Bingo Hall produces zero peak hour trips due to hours of operation.

In response to Planning Commission's recommendation to move the retail driveway from Branch Street to 12th Street, the applicant has opted to remove the driveway completely. The supermarket, pharmacy, and senior housing trips will share the driveway on Branch Street that aligns with Catalpa Street.

It should be noted that the distribution of site generated traffic followed the same assumptions as the February 2016 submittal with one exception. Some trips exiting the site that were assumed to travel to southbound IH 35 via westbound 11th Street or westbound 12th Street were rerouted north to the U-turn lane at IH 35 and 15th Street where vehicles can access a southbound IH 35 entrance ramp.

As a reminder, the applicant is proposing the following improvements to mitigate the site's impact. These remain unchanged even after the reduction in trips discussed above. Accordingly, the total fiscal commitment for this project remains at **\$329,500**:

IH 35 frontage improvements and East 12th Street (to be built with the project)

- Construction of additional northbound lane (\$45,800)
- Widening of northbound frontage road, north of 12th Street (\$24,700)

IH 35 and East 11th Street (fiscal posting)

- Construction of dedicated right-turn lane (\$105,000)

Branch Street (to be built with the project)

- Street widening, Subchapter E compliant sidewalks and landscaping (\$125,000)

IH 35 and 12th Street & IH 35 and 11th Street (fiscal posting)

- Optimization of signal timing (\$14,000)

Future widening of East 11th Street (fiscal posting)

- Relocation of decorative arch to accommodate new westbound right turn lane on East 11th Street (\$15,000)

A revised traffic model was constructed to reflect the new driveway configuration. Intersection LOS and estimated delay results for 2018 forecasted, 2018 site plus forecasted (February 2016), and 2018 site plus forecasted (April 2016) traffic volume conditions are presented in Table 3. Both 2018 site plus forecasted calculations assume all improvements recommended and identified as part of this TIA.

As shown in Table 3, these revisions to the land uses and driveway access will improve the level of service (LOS) at the signalized diamond interchanges as compared to the February 2016 TIA submission. In addition, all unsignalized intersections analyzed as part of this study will continue to operate within acceptable ranges of levels of service (LOS) under 2018 site plus forecasted traffic conditions

Table 3. Intersection Level of Service and Delay (sec/veh)

Intersection	2018 Forecasted		2018 S+F (2.1.16)		2018 S+F (4.5.16)	
	AM	PM	AM	PM	AM	PM
Overall intersection LOS is reported for all intersections.						
IH 35 and 12 th Street	B (20.0)	F (82.2)	C (20.1)	D (50.1)	C (20.2)	D (48.8)
	C (21.9)	F (148.8)	C (22.7)	D (48.1)	C (22.5)	D (45.5)
IH 35 and 11 th Street	B (13.5)	C (22.8)	C (28.9)	C (25.5)	C (28.9)	C (25.1)
	C (28.1)	D (42.1)	C (23.1)	C (29.1)	C (22.8)	C (25.1)
Branch Street and 12 th Street	A (0.2)	A (1.2)	A (0.9)	A (3.9)	A (0.8)	A (2.8)
Branch Street and 11 th Street	A (1.3)	A (1.7)	A (2.3)	A (2.7)	A (2.3)	A (2.4)
IH 35 NB Frontage Road and Driveway A (egress only)	-	-	A* (0.3)	A* (0.6)	A* (0.3)	A* (1.0)
IH 35 NB Frontage Road and Driveway B (ingress only)	-	-	-	-	-	-
Branch Street and Driveway C at Catalpa Street	A (1.6)	A (1.3)	A (3.3)	A (2.2)	A (4.8)	A (5.0)
Branch Street and Driveway D at Juniper Street	A (1.3)	A (0.6)	A (1.2)	A (1.0)	A (1.0)	A (0.8)
Branch Street and Olive Street	A (1.8)	A (1.2)	A (5.2)	A (2.3)	A (5.3)	A (2.6)

The revised Synchro model analysis results are enclosed.

In summary, the adjustments to the land use and driveway configuration results in less traffic added to the roadway network, and in combination with the roadway improvements proposed, will bring identified intersection locations into an acceptable range of LOS.

Therefore, I respectfully request that review staff view the above changes in a favorable manner, and find them supportive of this application which will be before Austin City Council on April 14, 2016.