

6-D-19-UR



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May 31, 2019

Ms. Tarren Barrett
Knoxville Regional TPO Knoxville- Knox County Planning
400 Main Street Suite 403, Knoxville, TN 37907

Re: **Traffic Impact Letter - Addendum**
U-Haul Moving & Storage of Karns
7640 Oak Ridge Hwy. Knoxville, TN 37931 (Knox County)

Dear Ms. Barrett,

As requested, we have prepared an addendum "Traffic Impact" study for the above referenced project. Our study has evaluated the original traffic report & development plan as compared to current existing conditions. We have evaluated the impacts for our proposed development plan, which is replacing the proposed grocery store with a moving and storage center as part of the overall Franklin Creek Master Development. Finding are as follows:

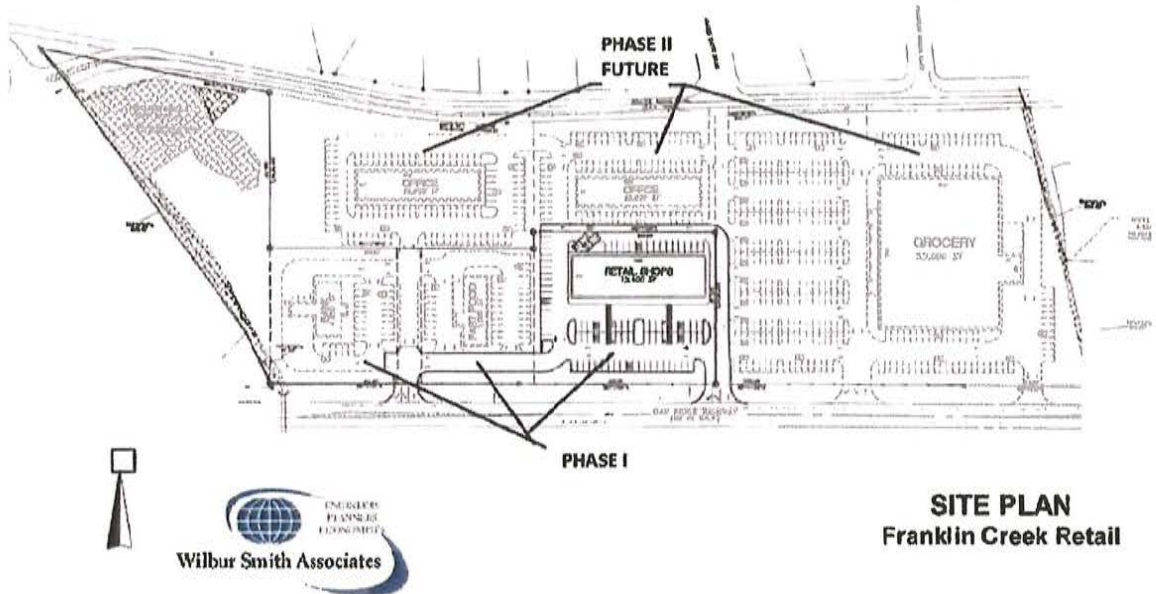
Original Traffic Study

The original traffic study for Franklin Creek Retail Development was prepared by Wilbur Smith Associates in 2006. Trip generation projections summary from the original study are presented in Table 1. The development was planned for two phases. Phase I included a total of 24,450 square feet of retail space, a bank and a fast food development resulting in 4,172 daily trips utilizing two connection points onto Oak Ridge Highway. Phase II was proposing 73,500 square feet of office and a grocery store development resulting in 5,334 daily trips with two additional proposed access points onto Oak Ridge and two additional access point onto Beaver Ridge. Refer to Exhibit 1. Upon completion this development would generate 9,506 daily trips utilizing 6 access / connection points. Refer to Exhibit 1.

Table 1 Summary of Trip Generation for Originally Proposed Franklin Creek Retail Development

Land use	LUC/size	Size	TRIP GENERATION				
			Daily Trips	PM PEAK Enter	Exit	SAT PEAK Enter	Exit
Specialty Retail	814	15,400	696	26	33	10	10
Drive-In Bank	912	4,050	2,481	93	93	77	74
Fast-Food Restaurant	934	5,000	995	90	83	151	145
Total Phase I		24,450	4,172	209	209	238	229
General Office	710	20,500	394	17	84	6	6
Supermarket	850	53,000	4,940	288	277	291	279
Total Phase II		73,500	5,334	305	361	297	285
Totals		97,950	9,506	514	570	535	514

Exhibit 1 Originally Proposed Development



Existing Development Conditions

Evaluation of existing development conditions finds the following:

1. Two connection / access points from Phase I onto Oak Ridge have been installed.
 2. The 15,400 SF Retail building has been completed.
 3. A 4,050 SF Auto Store was built and replaces the proposed Drive-Thru Bank
 4. The 10,250 SF Office building planned for Phase II is now completed
- Refer to Exhibit 2.

Exhibit 2 Existing Development



Table 2 below, reflects trip generation estimates of the existing development. You will notice a substantial reduction of daily trips for the existing development compared to the proposed initial development plan. Original daily trips estimated 4,172 trips compared to 1,184 daily trips for the current existing development. Also, we have provided an update for the original recommended improvements. See summary below for completed and not completed recommended improvements for the original proposed Phase 1 development.

Table 2 Trip Generation for Existing Development per 10th Edition of ITE

Land use	LUC	Size	TRIP GENERATION					
			Daily Trips	PM PEAK		SAT PEAK		
				Enter	Exit	Enter	Exit	
Variety Retail	814	15,400	695	26	33	10	10	
AUTO Parts	843	4,050	291	24	23	30	31	
General Office	710	10,250	197	9	42	6	6	
Totals		29,700	1,184	59	98	46	47	

Summary of Completed Original Traffic Study Recommended Improvements:

- *Oak Ridge shall be improved to a 4-or 5- lane arterial. / **Not completed.***
- *Driveway design shall conform to recommended standards and practices of State Highway and Transportation Officials, The Institute of Transportation. / **Two driveways completed on Oak Ridge Highway, part of Phase 1.***
- *Landscaping and signing of the driveway accesses to Oak Ridge Highway and Beaver Ridge Road should be minimized or low lying in order to maximize sight- distances and maintain a minimal sight- distance for Oak Ridge Highway and 300 feet for Beaver Ridge Road. – **Completed, part of Phase 1.***
- *Provide 2 – way left turn lane on Oak Ridge Hwy (S.R. 62) adjacent to the site. Two left turn lane should connect the existing center turn lane east and west of the site. / **Completed.***
- *Provide separate left and right lanes egressing the site to Oak Ridge Highway. / **Completed.***
- *Consider signalization the intersection of Oak Ridge Highway (S.R.62) and the proposed site access for the bank and fast food. / **Not completed.***
- *Provide a 100-foot right turn lane on Oak Ridge Highway to the proposed side access for the bank and fast food restaurant. / **Completed.***
- *Signalize the intersection of Oak Ridge Highway (S.R.62) and Gray Hendrix Road. / **Not completed.***
- *Provide for a continuous turn lane to the site to serve the multiple accesses to the site. / **Completed.***
- *Widen Gray Hendrix Road between Beaver Ridge Road and Oak Highway to a minimum of 20 feet. / **Not completed.***

Proposed U- Haul Moving & Storage Development

AMERCO Real Estate Company the development arm for U-Haul International has purchased the 5.7 acres of vacant land. The site is bounded by: Beaver Ridge Road and residential development to the north, existing partially developed commercial development and undeveloped land on the west, to the south is Oak Ridge Hwy and residential use across the Hwy.

AMERCO is proposing a U-Haul Moving & Storage development in place of the originally planned supermarket / grocery store. This development will include a 3-story interior access climate controlled self-storage building with a gross floor self-storage area of 102,084 SF, a small retail center with a gross floor area of less than 3,000 SF that will provide both moving supplies for purchase and the ability to rent U-Haul Trucks and Trailers, and an outdoor secured storage area providing 75 spaces for RV's, Boats and Vehicles. Refer to Exhibit 3.

During our internal Center Operations design / development due-diligence period, we studied the impacts of our development with existing conditions along with future proposed build-out by others and determined the following;

- Daily trips from a U-Haul Moving & Storage Center will have minimal impact on existing conditions and surrounding roadways.
- Existing and future businesses will not be impacted by a U-Haul Moving & Storage Center
- Two additional access / connection points onto both Oak Ridge and Beaver Ridge are not required.
- Provisions of a single restricted access connection onto Beaver Ridge is being proposed to reduce traffic congestion at peak demand times. It will also assist with on-site U-Haul Center Operations. A proposed restriction with a right-in and left-out only is being proposed that would restrict business traffic from taking a right turn toward the existing residential neighborhoods. This restriction would also control existing residential neighborhoods from bypassing their defined road travel system.

Exhibit 3 Currently Proposed Development and Existing Development



Estimated Trip Generation for U-Haul Moving and Storage of Karns

Trip generation estimates for the proposed U-Haul Moving and Storage project were developed based on historic trip generation information from U-Haul for similar sites and standard trip rates from ITE Trip Generation, 10th Edition. Refer to Table 3. It should be noted that hours of operation are Monday through Thursday 7am to 7pm, Friday 7am to 8pm, Saturday 7am to 7pm and Sunday 9am to 5pm.

Table 3 U-Haul Trip Generation Projections per 10th edition of ITE

Land Use	Size	TRIP GENERATION				
		Daily	AM	AM In/out	PM	PM in/out
Self-storage	102,084 sf	154	5	3/2	7	3/4
Boat/RV storage	75 spaces	2	1	1/1	1	1/1
Moving supply retail	3,000 sf	54	5	3/2	6	3/3
Total Trips		210	11	7/5	14	7/8

Calculated based on the following trip rates:

Storage: Daily- 1.51 trips per unit; AM= .10 trips per unit; PM= .17 trips per unit

Boat/ RV Storage: Daily- 0.014 trips per space; AM- 0.007 trips per space and PM -0.007 trips per unit

Building Materials & Lumber Store: Daily=18.05 trips per, AM=1.57 trips per ksf; PM=2.06 trips per ksf

Amended Trip Generation Analysis

Table 4 reflects the anticipated traffic counts for all existing completed development, remaining proposed and future uses for this development site.

Table 4 Trip Generation Projections for Existing Conditions, Proposed and Future development per 10th Edition of ITE

Land use	LUC/size	Size	TRIP GENERATION					
			Daily trips	PM PEAK		SAT PEAK		
				Enter	Exit	Enter	Exit	
Variety Retail (existing)	814	15,400	696	26	33	10	10	
AUTO Parts (existing)	843	4,050	291	24	23	30	31	
Fast-Food Restaurant (future)	934	5,000	995	90	83	151	145	
General Office (existing)	710	10,250	197	9	42	6	6	
Total Phase I		34,700	2,179	149	181	197	192	
General Office (future)	710	10,250	197	9	42	6	6	
Self-Storage	151	102,084	154	3	4	6	6	
Retail U-Haul	812	3,000	54	3	3	5	5	
RV storage		74 spaces	2	1	1	1	1	
Total U-Haul development (proposed)		105,084	210	7	8	12	12	
Total Phase II		115,334	407	16	50	18	18	
Totals		150,034	2,586	165	231	215	210	

Summary

Table 5 below shows the Comparison of Trip Generation projections for the original site development plans compared with the combined trip generation of the existing, current proposed and future development of the site. This table comparison clearly indicates a substantial reduction on trip generation.

Table 5 Comparison of Trip Generation Projections

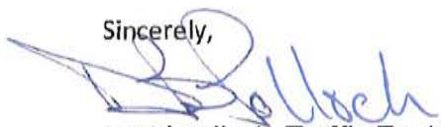
SUMMARY	SIZE	Daily trips	PM PEAK average	SAT PEAK average
Original proposal (Table 1)	97,950	9,506	542	525
Existing development (Table 2)	29,700	1,184	80	47
Current proposal (Table 4)	105,084	210	8	12
Future development (Table 4)	15,250	1,192	129	160
Total Existing /Current proposed/Future	150,034	2,586	217	219
Percent Difference	53.2%	-72.5%	-60.0%	-58.2%

Conclusion

Per the Knoxville / Knox County Metropolitan Planning Commission "Use on Review Report" dated 8/10/2006, the effect of the original proposed development on the subject property, surrounding properties and community as a whole were noted. In addition, Oak Ridge Hwy. was identified as a major arterial street which has sufficient capacity to handle the proposed traffic which will be generated from the proposed planned development. It was also noted that the impact of the proposed development on adjacent properties will be minimal.

Our amended traffic analysis is showing that the impact for the next phase of proposed development will provide minimal impacts to all roads and streets. In fact, the anticipated total trip generation of the proposed development when compared to the original Phase 2 plan is 72.5 % less impact. There is a need for added ingress / egress for the U-Haul and remaining developments outside of the existing Oak Ridge access points. Our proposal is to utilize one of the existing driveways onto Oaks Ridge Hwy and one of the original planned access points onto Beaver Ridge. The Beaver Ridge driveway is warranted for this development to achieve best access management practices.

Sincerely,



David Pollock, Traffic Engineering
AMERCO Real Estate Company / U-Haul International

