
CITY OF ARNOLD PLANNING COMMISSION, MAY 22, 2018 MEETING

TO: PLANNING COMMISSION
FROM: MARY P. HOLDEN, COMMUNITY DEVELOPMENT DIRECTOR
SUBJECT: 2018-08, COMMERCIAL SITE PLAN, TIGER EXPRESS CAR WASH, 1384 JEFFCO BLVD. **REVISED**
DATE: MAY 17, 2018
CC:

Request

Cochran Engineering, on behalf of the contract purchaser and owner of Tiger Express Car Wash, has submitted for approval of a commercial site plan for a car wash. The proposal is for a 5,067 square foot drive-through car wash with 18 vacuum stations. The site, 1384 Jeffco Blvd., (former UMB Bank location), has been subdivided and this is lot 1 at 1.27 acres. Zoning of the site is C-2. Please find attached the application, aerial of the site, the revised site plan and the traffic assessment.

Revisions

This commercial site plan was approved at the April 10, 2018 Planning Commission meeting with the below conditions:

1. Approval of the conditional use permit is contingent upon approval of the commercial site plan for the car wash and compliance with the Tree Preservation Ordinance should the subdivision not happen.
2. Remove the 4 foot LED light from all the vacuum arms.
3. Remove the 8 vacuum stations from the front yard setback along Arnold Tenbrook Road or receive Board of Adjustment approval for the placement of the 8 vacuum stations in the fifty foot front yard setback along Arnold Tenbrook Road.
4. Provide Missouri American Water approval of the easement vacation, new easement dedication and relocated sewer main.
5. Provide MoDOT approval for the entrance off of Jeffco Blvd.

Since the time of approval, the applicant has received approval from the Board of Adjustment for the front yard setback encroachment with the vacuum stations, received MoDOT approval for the entrance/exit off Jeffco Blvd for right in/right out only, and received approval of the record plat.

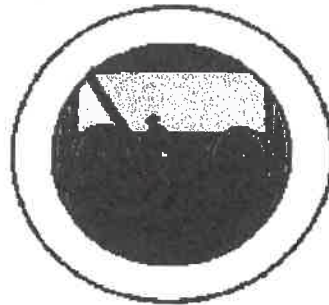
In addition, the plans before you tonight are revised to reflect the entrance/exit off Arnold Tenbrook Rd has been moved farther away from the intersection with Jeffco Blvd to align with Short Ln. They also contracted for a traffic assessment, which is included.

Recommendation

Staff is recommending approval of **only** the specific changes outlined above (while everything else remains the same) with the below revised conditions:

1. Approval of the conditional use permit is contingent upon approval of the commercial site plan for the car wash and compliance with the Tree Preservation Ordinance should the subdivision not happen.
2. Remove the 4 foot LED light from all the vacuum arms.
3. Provide Missouri American Water approval of the easement vacation, new easement dedication and relocated sewer main.

Community Development Department
City of Arnold
2101 Jeffco Blvd.
Arnold, MO 63010
636-282-2378
636-282-6677 Fax



COMMERCIAL SITE PLAN APPLICATION

File Number 2018-08

\$300.00 plus 1/2 % site development cost Fee-Paid _____

APPLICANT/CONTRACT PURCHASER

Roland Bartels T.E.R.C, LLC
Name
1213 Old Hwy 63; Ste 101
Columbia, MO 65201
Address, City, State, Zip

Telephone Number _____

Facsimile Number _____

1384 Jeffco Blvd;
Arnold, MO 63010
Property Address (or nearest intersection)

OWNER:

Kevin D. Blackwell Enterprises, LLC
Name
1001 Highway K;
Bonne Terre, MO 63628
Address, City, State, Zip

Telephone Number _____

Facsimile Number _____

C2
Zoning of property

Missouri American Water
Sanitary District

866-430-8020
Telephone Number

PWSD No. 1
Water District

636-296-0659
Telephone Number

Rock Community FPD
Fire District

636-296-2211
Telephone Number

March 13, 2018
Date of application

April 10, 2018
Meeting date targeting

City of Arnold MO Online GIS Base Map Viewer

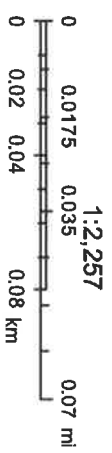


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Jefferson County Parcels - Property

□ Arnold City Limits

— Cross-Sections



City of Arnold Missouri, Jefferson County Missouri
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City of Arnold MO, Website User
City of Arnold Missouri



May 15, 2018

Eric S. Kirchner, PE
Senior Project Manager
Cochran
8 East Main Street
Wentzville, Missouri 63385

RE: Traffic Assessment
Tiger Express Car Wash
Arnold, Missouri
518-0059-00TE

Dear Mr. Kirchner:

As requested, we have prepared the following traffic assessment pertaining to a proposed commercial project in Arnold, Missouri. The subject site is located in the northeast quadrant of the intersection of Jeffco Boulevard (MoDOT controlled) and Arnold Tenbrook Road, as shown in **Figure 1**.



Figure 1: Site Location

411 North 10th Street, Suite 200
St. Louis, Missouri 63101
PHONE: 314.621.3395



It is imperative to note that the following assessment does not represent a detailed traffic impact study but rather simply forecasts the amount of traffic that would be generated by the proposed car wash facility, as well as the adjacent Harbor Freight Tools Store, and offers an opinion on the proposed development's relative level of anticipated traffic impact as compared to the previous banking facility. In addition, the site's proposed access is addressed. Given that this effort does NOT represent a detailed traffic impact study, it does not explicitly assess impacts (or the lack thereof) to Jeffco Boulevard, Arnold Tenbrook Road or the signalized intersection of those roadways.

Currently, the site is occupied by a vacated banking facility, inclusive of drive-thru facilities and an ATM. Under the proposal, the existing banking facility would be removed, the original parcel subdivided into two lots, and Tiger Express Car Wash would occupy the hard corner on the site (Lot 2). A Harbor Freight Tools Store is proposed to occupy the parcel immediately north of the proposed Tiger Express Car Wash (Lot 1).

The traffic forecast for the proposed Tiger Express Car Wash is based upon data collected in 2017 at an existing Tiger Express Car Wash in Columbia, Missouri. The data from the existing facility was collected on a sunny and clear day in late summer, when car wash volume was appreciable. Based upon this data, it is expected that the proposed facility in Arnold would generate 149 trips during the weekday midday, 112 trips during the weekday afternoon, and 126 trips during the Saturday midday peak hours.

It should be acknowledged that trip generation associated with the proposed Tiger Express Car Wash would be erratic. This type of service is weather dependent; on sunny clear days trip generation tends to be higher and on rainy or colder days, the trip generation can be considerably less. The data for the proposed car wash was based upon actual traffic counts conducted at another comparable Tiger Express facility on a late summer day when weather conditions were conducive to a higher level of trip generation. Therefore, the above estimate for the Tiger Express Car Wash should be considered a worst case scenario.

The proposed adjacent Harbor Freight Tools Store (to be developed by others) is expected to generate 21 trips during the weekday midday, 40 trips during the weekday afternoon, and 35 trips during the Saturday midday peak hours. Land Use Code: 816 (Hardware/Paint Store) of the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, was utilized for this forecast. The proposed trip generation values are summarized in Table 1.

Table 1– Trip Generation										
Proposed Tiger Express Carwash/Harbor Freight Tools										
<i>Land Use</i>	<i>Size</i>	<i>Weekday Midday</i>			<i>Weekday Afternoon</i>			<i>Saturday Midday</i>		
		<i>In</i>	<i>Out</i>	<i>Total</i>	<i>In</i>	<i>Out</i>	<i>Total</i>	<i>In</i>	<i>Out</i>	<i>Total</i>
Tiger Express Car Wash	5,087 SF	77	72	149	50	62	112	55	71	126
Harbor Freight Tools	15,030 SF	11	10	21	19	21	40	20	15	35
Total Trips		88	82	170	69	83	152	75	86	161



For the purposes of comparison, the number of trips that would have been generated by the previous banking facility during the weekday midday, weekday afternoon and Saturday midday peak hours were also calculated using ITE's Trip Generation Manual Land Use Codes: 912 (Drive-In Bank) and 712 (Small Office Building). Given the size of the building that accommodated the bank (9,776 square feet), it was prudent to assume that approximately 50% of the building was dedicated to "small office" uses rather than all of the space being utilized as banking facility. Table 2 summarizes the trip generation associated with the existing building on the site; which equated to 88 trips during the weekday midday, 112 trips during the weekday afternoon, and 131 trips during the Saturday midday peak hours.

Table 2– Trip Generation Existing Bank Building										
<i>Land Use</i>	<i>Size</i>	<i>Weekday Midday</i>			<i>Weekday Afternoon</i>			<i>Saturday Midday</i>		
		<i>In</i>	<i>Out</i>	<i>Total</i>	<i>In</i>	<i>Out</i>	<i>Total</i>	<i>In</i>	<i>Out</i>	<i>Total</i>
Banking Facility	4,888 SF	38	34	72	50	50	100	66	63	129
Small Office Space	4,888 SF	10	6	16	4	8	12	1	1	2
Total Trips		48	40	88	54	58	112	67	64	131

As can be seen when comparing Tables 1 and 2, the proposed Tiger Express Car Wash and Harbor Freight Tools developments would generate 82, 40, and 30 more trips in the weekday midday, weekday afternoon and Saturday midday peak hours, respectively. After accounting for in/out percentages, directional distribution, and driveway distribution, the impacts of the increase in trips attributable to the redevelopment on individual turning movements to and from the site are anticipated to be nominal. The reader is again reminded that this represents a "worst case" scenario in terms of trip differential given the data utilized for the Tiger Express Car Wash was based upon a higher operational day. Therefore, at times the difference in trip generation would be less than that presented above. Furthermore, while the comparison yields a potential increase in proposed trip generation from the existing land use, the value of increased trips is still below the industry standard threshold of 100 added vehicle trips during the peak hour that typically warrants further traffic impact analysis.

In addition to the trip generation potential, access to the Tiger Express Car Wash was also evaluated. Access onto Jeffco Boulevard would be provided via a shared curb cut that would also be accessible to the Harbor Freight Tools (Harbor Freight Tools also has access to another curb cut further to the north on Jeffco Boulevard). Per the provided site development plan, it appears that the proposed drive location would be slightly north (less than 50 feet) of the existing full access curb cut on Jeffco Boulevard that served the banking facility. Per MoDOT's request, the relocated access drive would be restricted to right turns only; which is a prudent requirement given the close proximity to the signalized intersection of Jeffco Boulevard and Arnold Tenbrook Road (approximately 140 feet to the south). As a result, the proposed restricted access to Jeffco Boulevard would represent a safety enhancement as compared to the existing full access drive that served the banking facility.

Secondary access to the site would be provided via a full access curb cut on Arnold Tenbrook Road. The existing full access drive to the site from Arnold Tenbrook Road is located approximately 130 feet east of the signalized intersection with Jeffco Boulevard. In conjunction with the development of the Tiger Express Car Wash, this access drive would be relocated approximately 130 further to the east, directly

Mr. Eric S. Kirchner, PE
May 15, 2018
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opposite Short Lane. This relocation is a safety and traffic flow enhancement in regards to access to Arnold Tenbrook Road as compared to the existing access.

Lastly, there would be cross access available across the Harbor Freight Tools site to the existing Arnold Square retail center. Currently, the Arnold Square retail center is served by three full access drives. However, it is our opinion that the majority of the traffic associated with the Tiger Express Car Wash would opt to utilize the two drives closest to Lot 2 that are evaluated above.

Overall, the proposed redevelopment of the northeast quadrant of the intersection of Jeffco Boulevard and Arnold Tenbrook Road would not represent a significant increase in traffic generation as compared to the now vacant banking facility. While it is acknowledged that there is the potential for the redeveloped site, which would provide for a Tiger Express Car Wash and a Harbor Freight Tools, to generate more traffic than the previous use, it is anticipated that, at worst, the value of increased trips is still below the industry threshold of 100 added vehicle trips during the peak hour that typically warrants further traffic impact analysis. After accounting for in/out percentages, directional distribution, and driveway distribution, the impacts of the increase in trips attributable to the redevelopment on individual turning movements to and from the site are anticipated to be nominal.

Furthermore, the proposed access modifications described above improve the safety and functionality of both site driveways and represent prudent access management improvements. Restricting the shared curb cut onto Jeffco Boulevard to right turns only increases the safety of the site's drive by preventing left turns from the site onto a busy five lane roadway and across a dedicated southbound left turn bay. Additionally, restricting left turns from Jeffco Boulevard into the site prevents any disruption to the functionality of the existing southbound left turn lane serving the signalized intersection at Arnold Tenbrook Road. Relocating the full access curb cut on Arnold Tenbrook Road approximately 130 feet further to the east than the current full access drive is also an enhancement because it increases the spacing between the site's drive and the signalized intersection of Jeffco Boulevard and Arnold Tenbrook Road. This increased spacing leads to increased functionality, better sight lines for vehicles exiting the site, and increased queue storage between the intersection of Jeffco Boulevard and Arnold Tenbrook Road and the site's drive.

I trust you will find this assessment useful in evaluating the potential traffic implications associated with the redevelopment of the subject site. Should you have any questions or comments concerning this assessment, please don't hesitate to contact me at 314-446-3791. We look forward to working with you again.

Sincerely,
Lochmueller Group

A handwritten signature in cursive script that reads "Julie Nolfo".

Julie Nolfo, PE, PTOE
Project Liaison