

TRAFFIC IMPACT REVIEW

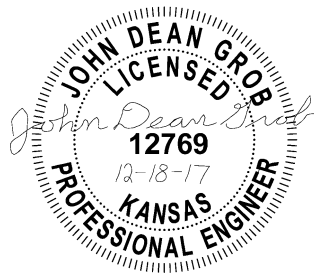
for

BECKHAUS TOWNHOMES

5275 6th Street
Lawrence, Kansas

Prepared by:

J. Dean Grob
Grob Engineering Services



December 18, 2017

TRAFFIC IMPACT REVIEW
Beckhaus Townhomes
5275 6th Street

- 1. Identify the specific development plan under study and any existing development on and/or approved plans for the site (land use types and intensities and the arrangement of buildings, parking and access). Also, identify land uses (including types and the arrangement of buildings, parking and access) on property abutting the proposed development site, including property across public streets.**

Beckhaus Townhomes at 5275 6th Street will be twelve-unit senior living townhomes with a clubhouse/office and associated site improvements. While the property has a 6th street address, access will be taken from Branchwood Drive. The existing single-family residence will be razed as part of the redevelopment. The townhomes and clubhouse/office will total 29,340-square feet of building space. The only existing access to the property is being relocated to the south most point along the east right-of-way of Branchwood Drive. The new access location is required due to previously prescribed right-of-way access restrictions imposed by KDOT. The center of proposed entrance is approximately 344 feet south of the south curb line of 6th Street. The new access aligns with the entrance to the new senior living development on the west side of Branchwood Drive. The site is zoned UR with rezoning to RMO pending. The properties adjacent to the south are zoned RS7-PRD. The property adjacent to the west is zoned RM15-PD. The proposed site layout and surrounding properties are shown on the Preliminary Development Plan.

- 2. Identify the land uses shown in Horizon 2020 for the proposed development site under study, as well as the ultimate arterial and collector street network in the vicinity of the site (at least the first arterial or collector street in each direction around the site).**

The Future Land Use Map from Horizon 2020 identifies the area containing the development site as Low-Density Residential. Per the adopted Major Thoroughfares Map, the ultimate collector and arterial street system in the vicinity will be: 6th Street, a principal arterial; to the west Branchwood Drive, a collector; to the south Harvard Drive, a collector; and to the east Congressional Drive, a collector.

- 3. Identify the functional classification of the public street(s) bordering the site and those streets on which access for the development is proposed. The functional classification is shown on the Major Thoroughfares Plan, adopted as a part of Transportation 2025 and Figure 14 in Horizon 2020.**

The site is bordered to the west by Branchwood Drive and to the north by 6th Street which are classified as collector and principal arterial streets, respectively per the adopted T2040 Major Thoroughfares Map. The only site access will be from Branchwood Drive

- 4. Identify allowable access to the development site as defined by criteria included in the adopted Access Management Plans for arterial and**

collector streets in Lawrence. [Currently, this list includes W. 6th Street, 31st Street, and 23rd Street Corridor study.]

This site is within the limits of any adopted Access Management Plans for 6th Street.

- 5. Document current public street characteristics adjacent to the site, including the nearest arterial and collector streets [number and type of lanes, speed limits or 85th percentile speeds, and sight distances along the public street(s) from the proposed access(es)].**

6th Street is a four-lane street plus single and dual turn lanes at intersecting collector and arterial streets with no on-street parking permitted. Branchwood is two-lanes with parking permitted on both sides of the street. The posted speed limit on 6th Street is 45 miles per hour. There is no posted speed limit on Branchwood Drive. Observed sight distance is unobstructed from the proposed access point along Branchwood Drive to the next major intersection to the south at Stonecreek Drive and to the north at 6th Street.

- 6. Compare proposed access with AASHTO established design criteria (driveway spacing, alignment with other streets and driveways, city driveway standards, and minimum sight distances.) Assess the feasibility of access connections to abutting properties, including shared access with the public street system.**

The proposed relocated access drive will be 25 feet wide with no designated left/right turn lanes. There are turn lanes on northbound Branchwood Drive at 6th Street.

- 7. Estimate the number of trips generated by existing and proposed development on the site for a typical weekday and weekday peak hours using the latest edition of Trip Generation published by the Institute of Transportation Engineers. Local trip generation characteristics may be used if deemed to be properly collected and consistent with the subject development application. The Public Works Director shall make such determination. Calculate the net difference in trips between existing and proposed uses. If the development site already has an approved plan, also estimate the number of trips that would be generated by the approved land uses. If the development application is proposing a land use DIFFERENT THAN indicated in Horizon 2020 and Transportation 2040, also estimate the number of trips that would be generated by the land use indicated in Horizon 2020 or Transportation 2040.**

The estimated traffic generated by the proposed center has been based upon the 9th Edition of ITE Trip Generation. This project combines assisted living with day care and senior adult housing. The trip generation handbook categories that were evaluated were as follows:

252 – Senior Adult Housing
710 – General Office Building

Category 252 – Senior Adult Housing

The daily average rate based on per unit (12) is 3.44 per unit for a total of 41 trips, half entering and half exiting. The rate for the A.M. peak hour is 0.39 trips per unit or 5 trips with the percent of trips entering 46 percent and exiting at 54 percent. The rate for the P.M. peak hour is 0.35 trips per unit or 4 trips with the percent of trips entering at 55 percent and exiting at 45 percent.

Category 710 – General Office Building

The daily average rate based on per employee (3) is 4.38 per employee for a total of 13 trips, half entering and half exiting. The rate for the A.M. peak hour is 0.81 trips per employee or 2 trips with the percent of trips entering 53 percent and exiting at 47 percent. The rate for the P.M. peak hour is 0.84 trips per employee or 3 trips with the percent of trips entering at 47 percent and exiting at 53 percent.

Summary

The estimated traffic generated by the proposed center summarized for the combined uses equates to an average date rate of 54 trips. The rate for the A.M. peak hour is 7 trips and the rate for the P.M. peak hour is 7 trips. A typical threshold for a more detailed evaluation or the need for street/highway improvements/modifications is generally when traffic exceeds 100 trips per any peak hour of the day. The above summarized traffic counts show that peak hour traffic is well below 100 trips per peak hour and thus limiting the impact of the proposed development on the transportation network.

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