



August 30, 2021

Tim Teddy  
Community Development Department – Director  
701 E. Broadway  
Columbia, MO 65201

**RE: Request for Annexation Agreement – JR2 Development LLC. – Richland Road Subdivision**

Mr. Teddy and Staff:

Please find attached with this letter an annexation agreement request for the 142.83-acre tract of land located South of Tradewinds Parkway and Richland Road intersection. The current zoning is A-1 and the parcel is located in the County. The parcel ID number for the property is 17-600-13-00-001.00 01 and 18-400-18-00-005.00 01.

The property is currently in the county and not contiguous with the City limits. The development will consist of approximately 350 affordable single-family residential home sites, a mixture of 65ft and 70ft wide lots, with an additional 20 condo-style multifamily dwellings units. A site layout is included with this request.

The required traffic study has been completed and the proposed layout (Attachment A) complies with future roadways shown on the CATSO plan. The CATSO plan identifies a Major Arterial Roadway continuation of Tradewinds Parkway to the South. This designed Major Arterial is under consideration to be redefined as a Major Collector. The redesignation is from the request to have Olivet Road be defined as a Minor Arterial with future I-70 Connectivity to the North.

The proposed extension of Tradewinds Parkway beyond the first stub street will not serve traffic until there is development further South. Since this street will see no use, it is requested that the extent of work completed for this street is grading street to subgrade, installing necessary culverts as required to convey drainage and providing payment to City of Columbia for costs of paving to complete street extension at future date. Payment to the City of Columbia would be after all phases of the development have been platted.

A comprehensive traffic study was conducted with City/County staff. The traffic study recommends a left turn lane at the western entrance of proposed development, this is to be installed by developer. In addition, the study identifies the intersection at Richland Rd and Grace Lane as impacted the most from the proposed developments in the area. City and County staff requested the traffic engineer, Shawn White, to generate a Memorandum (Attachment B) that gives a breakdown of contributed traffic volume and increases due to the 3 proposed

developments in the area. The Osburn Farms tract has been identified as potentially contributing 20% of the increase in traffic volume at the Richland Rd and Grace Lane intersection. The intent of this memorandum was to associate the percentage of increase to the percentage of cost each development would contribute to a future roundabout at the intersection. Jacob Ray, the City of Columbia Traffic Engineer, has compiled a construction cost estimate (Attachment C) from roundabouts similar in size built in Columbia to establish a cost of the proposed roundabout at Richland Rd and Grace Lane. The estimated projected cost is \$940,486.55. JR2 Development acknowledges the basis of cost sharing of this offsite improvement and is willing to contribute their 20% share (\$188,097.20) of the total project costs. This public improvement cost share payment would be made in 3 separate payments at the time of plating platting lots 100, 150, and lot 200.

Existing utilities support the development of the site. Water District #9 has a 12" watermain at the frontage of the property. Boone Electric has overhead electric capacity at frontage of property. Boone County Regional Sewer District has a 12" gravity sewer main extending through the property. The sewer main is part of the Grindstone Watershed Agreement. It is JR2's intent to abide by this long-standing agreement between the City of Columbia and The Boone County Regional Sewer District.


Development and construction of the property shall conform to all Boone County ordinances and standards for the duration the property remains outside the city limits. The property owner agrees to obtain all required approvals from the appropriate Boone County authorities for zoning, platting and permits. At the time the property becomes annexed to the City of Columbia the JR2 Development will comply with City of Columbia code and ordinances for development and construction.

The property shall be exempt from all city street lighting construction requirements both before and following annexation.

JR2 Development will provide tree preservation as outlined in City of Columbia code.

Please let me know if you have any questions.

Sincerely,  
Keenan Simon, P.E.



Simon and Struempff Engineering





**RICHLAND RD  
DEVELOPMENT**  
CONCEPT LAYOUT  
RICHLAND ROAD COLUMBIA, MO



**SIMON & STRUEMPF ENGINEERING**  
CREATING CLIENTS FOR LIFE  
210 PARK AVENUE  
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## MEMORANDUM

**Date:** August 10, 2021  
**To:** Mr. Thaddeus Yonke, AICP – Boone County Planning  
**From:** Ms. Shawn White, P.E., PTOE  
**CBB Job Number:** 031-21  
**Project:** Relative Traffic Impact Memo  
Proposed Residential Development – Osburn Farms  
Richland Road between Tradewinds Parkway and Rangeline Road  
Boone County, Missouri

At the County's request, CBB has provided a summary of the relative impact of the currently proposed Zumwalt Tract (Old Hawthorne), Osburn Farms and Silver Lakes (Richland Tract) development trips on the adjacent roadways, specifically the intersection of Richland Road and Rolling Hills Road which is under the control of the City of Columbia.

CBB prepared traffic studies for all three developments currently under consideration. As detailed in the respective traffic studies no one development triggers the need for significant improvements at the intersection of Richland Road and Rolling Hills Road. However, all three developments together result in the need for improvements at the intersection, such as a traffic signal or roundabout. It is our understanding the city thinks a single-lane roundabout would be the preferred ultimate configuration for the intersection.

In an effort to better illustrate the increase in trips as a result of the proposed Zumwalt Tract (Old Hawthorne), Osburn Farms and Silver Lakes (Richland Tract) developments, the percent increase in site trips over the 2021 Base traffic volumes is summarized in **Table 1**. Note that the Base traffic volumes include the area approved developments (i.e., Brooks Phase I and II, The Vineyards, Crescent Ridge and the Elk Park gas station) as well as the 15 percent increase to account for the Discovery Parkway Connection resulting in an increase of about 50 percent over the existing traffic volumes at the intersection of Richland Road and Rolling Hills Road.

As shown in Table 1, the proposed Zumwalt Tract development is projected to increase the PM peak hour traffic volumes approximately 12 percent, the proposed Osburn Farms development is projected to increase the PM peak hour traffic volumes approximately 20 percent and the proposed Silver Lakes development is projected to increase the PM peak hour traffic volumes approximately 27 percent at the intersection of Richland Road and Rolling Hills Road.





Table 1: Site Trips as a Percent Increase over the Base Traffic Volumes – Richland Road and Rolling Hills Road

INTERSECTION	WEEKDAY PM PEAK HOUR		
	BASE TRAFFIC VOLUMES	DEVELOPMENT TRIPS	% INCREASE IN TRAFFIC VOLUMES
Zumwalt Tract (Old Hawthorne)	870	110	12%
Osburn Farms	870	180	20%
Silver Lakes (Richland Tract)	870	240	27%

The capacity of the Richland Road and Rolling Hills Road intersection was also related to a percent increase of the respective developments as shown in **Table 2**. The volume to capacity ratio, or v/c, was used from the Synchro analysis from the respective traffic impact studies.

The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available, and vehicles are not expected to experience significant queues and delays. As the v/c ratio approaches 1.0, traffic flow may become unstable, and delay and queuing conditions may occur. Once the demand exceeds the capacity (i.e., a v/c ratio greater than 1.0), traffic flow is unstable and excessive delay and queuing is expected. As detailed in the respective traffic impact studies, the combined impact of the Zumwalt Tract, Osburn Farms and Silver Lakes developments would result in a v/c ratio of 1.14 which results in a forecasted LOS F.

Again, it is important to note that the full build out of the area approved developments and the Discovery Parkway Connection will result in a fairly significant utilization of the available capacity at the intersection of Richland Road and Rolling Hills Road.

As shown in Table 2, the proposed Zumwalt Tract development alone is projected to utilize about 12 percent of the available capacity during the PM peak hour, the proposed Osburn Farms development alone is projected to utilize about 26 percent of the available capacity during the PM peak hour and the proposed Silver Lakes development alone is projected to utilize about 37 percent of the available capacity during the PM peak hour at the intersection of Richland Road and Rolling Hills Road.



Table 2: Site Trips as a Percent Increase of the Available Capacity – Richland Road and Rolling Hills Road

INTERSECTION	WEEKDAY PM PEAK HOUR		
	BASE V/C RATIO	FORECASTED V/C RATIO WITH EACH PROPOSED DEVELOPMENT	% OF AVAILABLE CAPACITY USED BY EACH DEVELOPMENT
Zumwalt Tract (Old Hawthorne)	0.61	0.73	12%
Osburn Farms	0.61	0.87	26%
Silver Lakes (Richland Tract)	0.61	0.98	37%

Based on initial discussions with the city, it was stated that it would be reasonable for the currently proposed developments (i.e., Zumwalt Tract, Osburn Farms and Silver Lakes) to be responsible for approximately 50 percent of the ultimate improvement at the intersection of Richland Road and Rolling Hills Road. **Table 3** depicts each developments potential “share” of the 50 percent match based on the traffic volume increase and the v/c ratio increase.

Table 3: Estimated Development Potential Share of 50 Percent Match

INTERSECTION	WEEKDAY PM PEAK HOUR	
	BASED ON TRAFFIC VOLUME INCREASE	BASED ON V/C INCREASE
Zumwalt Tract (Old Hawthorne)	10%	8%
Osburn Farms	17%	17%
Silver Lakes (Richland Tract)	23%	25%

The above information is not meant to assign financial responsibility to any specific development but is provided as requested by the County to assist in their review efforts.

Please do not hesitate to contact me via email at [swhite@cbbtraffic.com](mailto:swhite@cbbtraffic.com) or by phone at 314-449-9572 with any questions.