LEE'S SUMMIT
MISSOURI

DEVELOPMENT REVIEW FORM
TRANSPORTATION IMPACT

DATE:	February 6, 2019	**CONDUCTED BY:**	Michael K Park, PE, PTOE
SUBMITTAL DATE:	January 22, 2019	**PHONE:**	816.969.1800
APPLICATION #:	PL2018234	**EMAIL:**	Michael.Park@cityofls.net
PROJECT NAME:	DTLS APARTMENTS	**PROJECT TYPE:**	Prel Dev Plan (PDP)

SURROUNDING ENVIRONMENT *(Streets, Developments)*

The proposed redevelopment project generally includes the entire block located between E. Main Street and Douglas Street, north of 2nd Street and south of 1st Street in or near the Downtown Lee's Summit Central Business District. The surrounding area includes restaurants, retailers, education (elementary school), church and office uses. A church exists at the site where this redevelopment project is proposed.

ALLOWABLE ACCESS

The proposed redevelopment project will be accessed from sidewalks surrounding the block and driveways along E. Main Street and 1st Street.

EXISTING STREET CHARACTERISTICS *(Lanes, Speed limits, Sight Distance, Medians)*

East Main Street is a two-lane local road within the downtown area and adjacent to the project site. It has a 25 mph speed limit. There is on-street parking along E. Main Street south of 2nd Street, but none north of 2nd Street. Second Street is three-lane, undivided, 30 mph minor arterial with limited space/paved shoulder for bicycle accommodations throughout the downtown area. There is no on-street parking along 2nd Street. Second Street has a grade separated crossing (underpass) of the UPRR. The intersection of E. Main Street at 2nd Street is traffic signal controlled with left-turn lanes on 2nd Street and southbound E. Main Street. There is a retaining wall located at the northeast corner of the intersection that limits intersection sight distance to the extent southbound right-turns cannot turn on a red indication. Douglas Street is a two-lane, undivided, 25 mph minor arterial adjacent to the project site. The speed limit changes to 35 mph north of 1st Street. There is on-street parking along Douglas Street south of 2nd Street, but none exists north of 2nd Street. The intersection of Douglas Street at 2nd Street is traffic signal controlled with left-turn and right-turn lanes along 2nd Street. First Street is a two-lane, undivided, 25 mph local street built to urban standards (e.g. curb and gutter, sidewalk, etc.) similar to E. Main Street, Douglas Street and 2nd Street. First Street is stop controlled at its intersections of E. Main Street and Douglas Street. Other than the aforementioned location, sight distances at the existing intersections and proposed driveway locations are adequate.

ACCESS MANAGEMENT CODE COMPLIANCE? **YES** ☒ **NO** ☐

All criteria in the Access Management Code have been satisfied.

TRIP GENERATION

Time Period	Total	In	Out
Weekday	2,060	1,030	1,030
A.M. Peak Hour	126	29	97
P.M. Peak Hour	147	93	54

The trip generation described above only represents the proposed redevelopment and does not consider any trip reduction (or credit) attributed to previous development that existed on the site in present or immediate past that would be removed.

TRANSPORTATION IMPACT STUDY REQUIRED? **YES** ☒ **NO** ☐

The proposed development will likely generate more than 100 vehicle trips to the surrounding street system during any given peak hour as a minimum condition for a transportation impact study. A transportation impact study was prepared by TranSystems, dated January 16, 2019.

The transportation impact study compares existing traffic conditions to those conditions that may exist upon development of the proposed project during the A.M. and P.M. commuter peak hours. The study evaluated these two scenarios at the intersections of Douglas at 2nd Street, Douglas at Chipman Road, Douglas at 1st Street, 2nd Street at Market Street, 2nd Street at Green Street, 2nd Street at E. Main Street, 2nd Street at Jefferson Street, and any site driveways proposed. The operational analysis of each intersection is reported in terms of level of service (LOS), using an industry accepted methodology and rating system that ranges from A to F (A representing uncongested operations and F failing operations). The City of Lee's Summit has adopted a LOS Policy describing adequate traffic conditions. This LOS Policy sets a community standard of LOS C for adequate conditions at traffic signal controlled intersections and LOS C desirable conditions at stop controlled intersections though LOS D or LOS E may be acceptable in certain situations.

The study reports all existing intersections have adequate level of service (LOS) C or above with exception of the northbound left-turn stop controlled movement at the intersection of 2nd Street and Jefferson Street. This movement exhibits a LOS D, but delay is less than 40 seconds on average per vehicle during the peak hour. The delay is caused by significant traffic along 2nd Street during the peak hour. However, the northbound left-turn movement is very low volume. There are no roadway capacity improvements recommended, none within reason that would measurably improve the LOS and the intersection does not meet warrants for traffic signal control.

The study projects trip generation from the development, assigns those trips to the surrounding road network and evaluates traffic operations at the same intersections as existing conditions. The study reports all intersections will continue to operate at adequate level of service (LOS) with exception of the same northbound left-turn movement identified in the existing conditions scenario. The northbound left-turn movement at the intersection of 2nd Street and Jefferson Street degrades to LOS E, reflecting a few additional seconds of delay per vehicle during the peak hour as a result of increased volume projected along 2nd Street. However, this left-turn volume is not increased by the development and there are no recommended improvements. The intersection post development would still not meet signal warrants. A signal is also not warranted at the nearby two-way stop controlled intersection of 2nd Street at Green Street. The study further reports all projected vehicle queues are adequately managed in existing turn lanes. There are no

traffic capacity improvements recommended in association with the redevelopment project to mitigate its impact or ensure adequate transportation infrastructure.

The redevelopment project will reconstruct the northeast corner of the intersection at 2nd Street and E. Main Street. The reconstruction will improve pedestrian access, eliminate sight distance obstructions, and enhance intersection operations by lifting the existing right-turn on red restriction. The redevelopment project will also eliminate a driveway from Douglas Street and two driveways from E. Main Street; improving access management in the area. This project, by nature of its complimentary mixed use, and incorporation of pedestrian and bicycle facilities encourages non-motorized transportation activity in the downtown area.

A separate parking report was submitted by TranSystems, dated January 2019, on behalf of the applicant which is discussed in more detail in the staff report. The consideration of shared parking requested from nearby public parking areas within 300 feet of the project to meet visitor parking demands is available based on a study of parking supply and demand completed by the City in 2016.

LIVABLE STREETS *(Resolution 10-17)* **COMPLIANT** ☒ **EXCEPTIONS** ☐

The proposed development plan includes all Livable Streets elements identified in the City's adopted Comprehensive Plan, associated Greenway Master Plan and Bicycle Transportation Plan attachments, and elements otherwise required by ordinances and standards, including but not limited to shared parking, sidewalk, landscaping, bicycle racks, and accessibility. No exceptions to the Livable Streets Policy adopted by Resolution 10-17 have been proposed.

RECOMMENDATION: **APPROVAL** ☒ **DENIAL** ☐ **N/A** ☐ **STIPULATIONS** ☐
Recommendations for Approval refer only to the transportation impact and do not constitute an endorsement from City Staff.

Staff recommends approval of the proposed preliminary development plan.