LEE'S SUMMIT
MISSOURI

DEVELOPMENT REVIEW FORM
TRANSPORTATION IMPACT

DATE:	January 3, 2020	**CONDUCTED BY:**	Michael K Park, PE, PTOE
SUBMITTAL DATE:	December 10, 2019	**PHONE:**	816.969.1800
APPLICATION #:	PL2019378	**EMAIL:**	Michael.Park@cityofls.net
PROJECT NAME:	MID CONTINENT PUBLIC LIBRARY - COLBERN	**PROJECT TYPE:**	Prel Dev Plan (PDP)

SURROUNDING ENVIRONMENT *(Streets, Developments)*

The proposed development project is located along the north side of Colbern Road, between Rice Road and Ball Drive. The area to the south is commercial. Property surrounding the site to the north, east and west is mostly undeveloped agricultural property planned for commercial uses.

ALLOWABLE ACCESS

The proposed development project will be accessed by an existing driveway along Colbern Road. Future access would be provided by a network of new public roadways to the immediate west, if and when, the adjacent property develops. At such time, the existing driveway should be removed and the project contemplates accommodations for these future access changes throughout its site plan.

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

Colbern Road is a four-lane undivided major arterial street with a posted speed limit of 40 mph through the vicinity of the site. There are left-turn lanes within the raised median at the existing driveway that provides access to the site. There are medians periodically along Colbern Road between Rice Road and Ball Drive. However, access along the corridor is closely spaced, frequent, and therefore congested. It does not comply with the Access Management Code. Each driveway along Colbern Road, including the existing driveway to the subject development has full access except for one located on the south side nearby. There are no medians at the intersection of Rice Road and Colbern Road. Rice Road is a two-lane collector street with a posted speed limit of 45 mph north of Colbern Road and 35 mph south of Colbern Road, in very close proximity to the signal controlled interchange at M-291 Highway. The intersection of Rice Road and Colbern Road is two-way stop controlled with Rice Road yielding to Colbern Road. Rice Road does not have any dedicated turn lanes at the intersection of Colbern Road. Turn lanes and traffic signal control at Rice Road are not feasible due to the proximity to M-291 Highway. The intersection of Ball Drive at Colbern Road is traffic signal controlled with a dedicated westbound left-turn lane and raised medians. There is adequate sight distance for the current conditions.

ACCESS MANAGEMENT CODE COMPLIANCE? YES ☐ NO ☒

Existing access does not comply with intersection spacing requirements or turn lane requirements of the Access Management Code. Driveways are too closely spaced along Colbern Road. Turn lanes lack minimum storage capacities. No new access is proposed and the development intends to revise access whenever adjacent roadways are constructed. If and when adjacent roadway(s)

are constructed to support land development to the north and west, the existing driveway on Colbern Road would be removed and in combination with other access management improvements along the Colbern Road corridor, substantial compliance with the code could be attained enhancing operations and safety. Since this is an existing driveway, an expansion to existing business, a low trip generator, and considering future roadway improvement potential incorporated in the proposed site plan; staff supports continuing these existing conditions, and any associated code waivers necessary, for this development to be approved without mitigation. The Access Management Code permits the City Engineer (or designee) to grant such waivers.

TRIP GENERATION

Time Period	Total	In	Out
Weekday	1404	702	702
A.M. Peak Hour	21	15	6
P.M. Peak Hour	170	82	88

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 weekday peak hour. A traffic impact study, dated October 3rd, 2019, has been completed by Olsson. The study assessed existing and proposed development scenarios during the AM and PM Peak Hours at the intersections along Colbern Road from M-291 NB Ramp to Ball Drive, including Rice Road, the existing driveway that serves the proposed development and adjacent church driveways directly across the development. As expected, the existing level of service operation at the intersection of Rice Road and Colbern Road has movements that do not meet minimum acceptable performance (e.g. experience significant delay). These existing conditions cannot be mitigated without access control (i.e. eliminating the left-turn movements by raised medians along Colbern Road) since the intersection is too close to M-291 for a traffic signal. A plan has been conceptually drafted and reflected in the Thoroughfare Master Plan, for additional roadways north of Colbern Road that replace full access at Rice Road. This plan would occur as land development is proposed to the west and north of the subject site and mitigates the operational deficiencies noted in the study. Similar traffic operations are expected in the proposed development scenario. The study does not recommend any transportation improvements in association with the proposed development, but rather supports access modifications as the aforementioned surrounding roadway network is built/modified. Driveway left-turn movements onto Colbern Road also experience significant delay during peak hours. However, such delay and vehicle queues generally occur on private property. No other study intersection in the existing or development scenario has queuing or delay concerns.

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 sidewalk, landscaping, and accessibility. In addition, bike racks and planned street connectivity have been incorporated in the site design. 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.