



# LEE'S SUMMIT MISSOURI

## DEVELOPMENT REVIEW FORM TRANSPORTATION IMPACT

**DATE:** December 18, 2020      **CONDUCTED BY:** Michael K Park, PE, PTOE  
**SUBMITTAL DATE:** December 6, 2020      **PHONE:** 816.969.1800  
**APPLICATION #:** PL2020274      **EMAIL:** Michael.Park@cityofls.net  
**PROJECT NAME:** LOTS 7 & TRACT C STREETS OF WEST PRYOR      **PROJECT TYPE:** Prel Dev Plan (PDP)

### **SURROUNDING ENVIRONMENT** (*Streets, Developments*)

The proposed preliminary development plan is located within the Streets of West Pryor project along the east side Lowenstein Drive. The property is located south of I470, adjacent to residential use to the south, undermined and undeveloped property to the west, and commercial mixed-use development to the east. Lowenstein Park is also to the south - southeast of the development.

### **ALLOWABLE ACCESS**

Access to the site is from existing driveways associated with the Streets of West Pryor project or in the case of proposed townhomes, access is proposed off Black Twig Circle, a new private street through the subject property, with two intersections at Lowenstein Drive. Black Twig Circle would align with Black Twig Lane at its intersection with Lowenstein Drive. Black Twig Circle would also intersect Lowenstein Drive west of Black Twig Lane near the western property line of the development. There is otherwise no new access nor change in access associated with the Streets of West Pryor project area previously approved and constructed.

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

Lowenstein Drive is an improved and realigned three-lane commercial collector with additional capacity, median restrictions and multiple turn lanes in proximity to Pryor Road between Pryor Road and Black Twig Lane. Lowenstein Drive west of Black Twig Lane remains a partly built-out two-lane urban standard and part unimproved standard roadway. This section of Lowenstein Drive will be improved in association with the proposed development to comply with the City's Unimproved Road Policy, to include two twelve-foot lanes, curb and gutter, sidewalk, etc. along the entirety from Black Twig Lane to the westernmost property line of the subject development.

Lowenstein Drive has full access along Pryor Road between Chipman Road and I-470 with traffic signal control. This roadway was improved and traffic signal installed in association with the previously approved Streets of West Pryor development. Lowenstein Drive continues east of Pryor Road as a private street/driveway into the Summit Woods Shopping Center. Black Twig Lane is a two-lane roadway between Lowenstein Drive and Chipman Road that has been improved to urban standards in association with the same Streets of West Pryor development. Pryor Road is a four-lane, median divided, major arterial with a 35 mph speed limit in the vicinity of the proposed development. Pryor Road extends north-south across the City with major junctions at Interstate 470 and M-150 Highway. It also intersects the nearest east-west major arterial, Chipman Road. There is adequate sight distance at the existing intersections proposed intersections that provide direct access to the development.

**ACCESS MANAGEMENT CODE COMPLIANCE?**Yes No 

Black Twig Circle will be a private street constructed with this phase of the project. The location and intersections associated with Black Twig Circle are fully compliant with the Access Management Code. No new access is otherwise proposed for the development. The access and roadways for this development are consistent with the built-out environment, approved preliminary development plan and conceptual development plan for Streets of West Pryor.

**TRIP GENERATION**

Time Period	Total	In	Out
Weekday	2,067	1,033	1,034
A.M. Peak Hour	139	29	110
P.M. Peak Hour	190	127	63

Trip generation shown above reflects the net difference in trip generation comparing the proposed land uses in Lot 7 and Tract C to the approved land uses on the same properties associated with Streets of West Pryor. The proposed land use is for 83 townhome dwelling units, 184 apartment dwelling units, and an 88-room hotel.

**TRANSPORTATION IMPACT STUDY REQUIRED?**Yes No 

The proposed development will likely generate more than 100 net new vehicle trips during a weekday peak hour; the minimum condition for traffic impact study requirements. A traffic impact study was completed by SKW/McClure, dated August 2018, with supplemental analysis for plan revisions dated October 2018. This study and associated site plan for approved development was compared to the proposed site plan. The comparison, analysis and assessment was summarized in a memorandum by McClure, dated October 14, 2020. The traffic study, site plan and trip generation traffic comparison considered AM and PM Peak Hour traffic operations along Pryor Road at the intersections of Lowenstein Drive, Chipman Road, Summit Woods Xing, and I-470 Interchange as well as the intersections of Chipman Road at Black Twig Lane, Black Twig Lane at Lowenstein Drive, and all proposed commercial driveways. Analysis scenarios in the 2018 traffic study (with supplemental analysis) were completed for existing conditions and existing plus proposed development conditions with various increments of development phasing. The memorandum included these same scenarios, but focused on the differences and impacts of land use changes currently proposed. The memorandum comparing 2018 site plan to 2020 site plan not only reviewed Lot 7 and Tract C, but other site plan changes within the Streets of West Pryor project subject to separate PDP application(s).

Level of service (LOS) is an industry accepted standard measure of performance (e.g. delay) for traffic operations rated A-F, similar to a grade card with A the best and F the worst condition. The City Council has adopted a LOS policy in which the acceptable condition is LOS C or better for traffic signal controlled intersections and where LOS D (or worse) may be acceptable for stop controlled minor street approaches and driveways at major streets as adequate infrastructure.

In summary, the difference in approved plan from 2018 and the current plan for Lot 7 and Tract C does not warrant any additional transportation capacity improvements beyond those already required (and constructed) for the previously approved Streets of West Pryor development. Additional traffic likely generated by a proposed change does not create any level of service issues

nor warrant any change of intersection control at any of the studied intersections. All intersections with the improvements required for the approved Streets of West Pryor development are expected to have adequate operations in consideration of the proposed changes in Lot 7 and Tract C. The only transportation improvements recommended in association with this PDP are in compliance with the Unimproved Road Policy; urban road improvements to Lowenstein Drive west of Black Twig Lane.

**LIVABLE STREETS** (*Resolution 10-17*)

**COMPLIANT**

**EXCEPTIONS**

The proposed development 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 in full compliance with the Livable Streets Policy adopted by Resolution 10-17.

**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 development plan subject to the following conditions:

1. Substantial completion of any remaining off-site transportation improvements approved in association with the Streets of West Pryor development. These improvements shall be substantially completed prior to the issuance of any occupancy permits on Lot 7 and Tract C.
2. Improve Lowenstein Drive to urban standards that generally include curb and gutter, typical lane widths, enclosed storm sewer (as necessary), sidewalk, etc. from Black Twig to the westernmost property line of the subject development in compliance with the Unimproved Road Policy. These improvements shall be substantially completed prior to the issuance of any residential building permits on Tract C.