



**LEE'S SUMMIT**  
**MISSOURI**  
**DEVELOPMENT REVIEW FORM**  
**TRANSPORTATION IMPACT**

**DATE:** September 07, 2016      **CONDUCTED BY:** Michael K Park, PE, PTOE  
**SUBMITTAL DATE:** August 23, 2016      **PHONE:** 816.969.1800  
**APPLICATION #:** PL2016135      **EMAIL:** Michael.Park@cityofls.net  
**PROJECT NAME:** PARAGON STAR      **PROJECT TYPE:** Prel Dev Plan (PDP)

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

The proposed development project is located at the northeast quadrant of the View High Drive interchange at I-470. The surrounding area is mostly undeveloped.

**ALLOWABLE ACCESS**

The proposed development project will be accessed from View High Drive with potential future access from Bannister Road. Several streets are proposed within the development.

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

View High Drive is an arterial roadway adjacent to the proposed development; a road partially within the corporate limits of Kansas City, Missouri, and partially within the corporate limits of Lee's Summit, Missouri. All of View High Drive, including the portion(s) within the corporate limits of Lee's Summit, is maintained and controlled by the City of Kansas City, Missouri according to an executed agreement between the two jurisdictions. View High Drive is a median divided four-lane facility south of I-470 and an undivided two-lane facility north of I-470. The interchange at View High Drive and I-470 consists of four-lanes, without turn lanes, under a six-lane I-470. The I-470 ramp intersections at View High Drive are stop controlled.

Another potential roadway that may be used to directly access the development is Bannister Road. Bannister Road is within the corporate limits of Kansas City, Missouri. Bannister Road has a nearby interchange at View High Drive and MO 350 Highway, and then extends east thru Lee's Summit as Colbern Road and west across the metropolitan area into Kansas as 95<sup>th</sup> Street.

Sight distances at the proposed intersection with View High Drive is adequate. Sight distance at the potential intersection of Bannister Road/Norfleet/98<sup>th</sup> Street may be inadequate.

**ACCESS MANAGEMENT CODE COMPLIANCE?**

Yes

No

The proposed preliminary development plan is in compliance with the Access Management Code in consideration of the recommendations noted as stipulations of approval.

The conceptual development illustrated on the proposed preliminary development plan includes access along View High Drive just north of I-470 which does not meet Access Management Code criteria. This driveway should not be allowed due to its close proximity to the interchange at I-470.

Access management and required improvements along View High Drive and other roadways associated with the preliminary development plan (and conceptual land use areas), including the interchange at I-470, are partly or wholly the responsibility of Kansas City, Missouri and/or MoDOT and subject to their approval. This proposed development has been coordinated between the developer, Kansas City, MoDOT and Lee's Summit. The City of Kansas City, Missouri has reviewed the traffic impact of this development and its recommendations for approval are pending. MoDOT has also reviewed the traffic impact of this development and its recommendations for approval are pending.

**TRIP GENERATION**

| Time Period      | Total | In  | Out |
|------------------|-------|-----|-----|
| Weekday          | 1070  | 535 | 535 |
| A.M. Peak Hour   | 545   | 336 | 209 |
| P.M. Peak Hour   | 1227  | 610 | 617 |
| Sunday Peak Hour | 1493  | 760 | 733 |

The trip generation shown above represents the Preliminary Development Plan Area (Soccer Complex) for the Weekday A.M. and P.M. Peak Hours and a Saturday Peak Hour. This does not include land uses for the surrounding conceptual commercial mixed-use property (which is not included in the preliminary development plan, but has been considered in the applicant's traffic study).

**TRANSPORTATION IMPACT STUDY REQUIRED?**

YES

NO

The proposed preliminary development plan will likely generate more than 100 vehicle trips to the surrounding street system during any given peak hour. The surrounding property included in the re-zoning application, depicted with conceptual land uses on the preliminary development plan, but specifically excluded from the preliminary development plan also has a projected trip generation of at least 100 vehicle trips during the peak hour.

A draft traffic impact study for the proposed development was completed by GBA, dated July 11, 2016. The traffic study separately considered the impact of Phase 1 and Full Build of the entire property located in the re-zoning area north and east of the I-470 interchange at View High Drive. Phase 1 was described as the soccer complex, a hotel, shopping center, office space, apartments and recreational community center. Full Build included an expansion of the soccer complex, additional hotel rooms, additional retail and office space as well as more apartments and an athletic field house. The traffic study assessed existing conditions, existing plus approved development conditions (e.g. recently approved development along View High Drive/Longview Boulevard that is under construction), and the impact of proposed development upon those two aforementioned scenarios. The study included analysis of existing and proposed intersections along View High Drive from Chipman Road through the interchange at I-470 to the development for during the A.M. weekday peak hour, P.M. weekday peak hour and Saturday peak hour.

Analysis and recommendations for mitigation of development impact to achieve adequate operations at each of the study intersections for each study scenario and peak hour were based on level of service (vehicle delay) and vehicle queuing. Level of service is a performance rating from A to F, similar to a school grade card with A representing free flow conditions and F highly congested gridlock or failed operation. It is a measure of acceptable traffic operations from the driver's

perspective. The City Council has adopted a level of service goal C, but level of service D and below may be acceptable for some stop controlled approaches. MoDOT and Kansas City may have different desired level of service standards than Lee's Summit.

Phase 1 and subsequent Full Build of the proposed development was shown to require interchange improvements at I-470 and View High Drive. Various interchange options were explored, including a typical diamond interchange with traffic signal control, a roundabout interchange, and a diverging diamond interchange. MoDOT concurs that interchange improvements are needed to support the development, but at this time the interchange design has not been determined. A diverging diamond interchange (either 4-lane or 6-lane) is most likely. The I-470 interchange at View High Drive is within MoDOT right-of-way. All other existing and proposed intersections show adequate operations under existing or planned development conditions with exception of the Chipman Road and View High Drive intersection. This is a Kansas City, MO controlled intersection. Kansas City has yet not stated its conditions of development support, but staff has an understanding from Kansas City that a traffic signal is warranted and will be required at this location in support of the project.

The proposed roadways within the development appear to only serve the development. Thus, those roadways should be privately owned, but the ownership/right-of-way has not been determined.

There are some traffic circulation concerns associated with the proposed development. All development related traffic is proposed from one point of access at View High Drive. Additional access towards Bannister Road would help alleviate congestion, particularly during events, mass exit (e.g. lightning closures), etc. No analysis has been done related to trip impact along Bannister or required improvements for adequate infrastructure. Bannister is a Kansas City, MO roadway. Kansas City would be responsible for such conditions of development support. Additional traffic circulation concerns with regard to the parking layout (700-800 parking spaces) that is limited to one driveway.

**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, paths, and accessibility. A shared use path (Greenway) along View High Drive, paths/trails and sidewalk throughout the development are included in the project. The project incorporates transit elements, and many other non-motorized transportation amenities. The project also aligns with regional transportation, trails and bikeway plans and those too of Kansas City, MO. 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 subject to the following conditions:

1. The conceptually proposed driveway between the roundabout and interchange at I470 shall be removed.
2. The roadway labeled View High Boulevard (extending east from View High Drive), a proposed commercial collector, shall have all turn lanes required by and designed in conformance with the Access Management Code.
3. Interchange improvements/reconstruction as recommended by MoDOT at I-470 and View High Drive shall be substantially constructed prior to use of the sports complex, unless otherwise waived by MoDOT.
4. Improvements at View High Drive and Chipman Road (e.g. traffic signal installation), Bannister Road (intersection improvements, turn lanes and sight distance mitigation) or any other roadway under Kansas City, MO jurisdiction within the scope of study (e.g. 98<sup>th</sup> Street/Norfleet enhancements south of Bannister Road, Meers Road intersection improvements, etc.) recommended by Kansas City, MO shall be substantially constructed prior to use of the sports complex, unless otherwise waived by Kansas City, MO.
5. An updated and resubmitted traffic impact study shall be required for consideration of any proposed development within the conceptual areas of the re-zoning application.