



# LEE'S SUMMIT

## MISSOURI

### DEVELOPMENT REVIEW FORM

### TRANSPORTATION IMPACT

<b>DATE:</b>	April 18, 2019	<b>CONDUCTED BY:</b>	Michael K Park, PE, PTOE
<b>SUBMITTAL DATE:</b>	April 4, 2019	<b>PHONE:</b>	816.969.1800
<b>APPLICATION #:</b>	PL2019071	<b>EMAIL:</b>	Michael.Park@cityofls.net
<b>PROJECT NAME:</b>	PARAGON STAR VILLAGE	<b>PROJECT TYPE:</b>	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 and surrounding the development that intersect View High Drive, including View High Parkway and Paragon Parkway, which intersect View High Drive at a proposed roundabout. A proposed roadway, River Road, would connect between the proposed View High Parkway and Paragon Parkway with roundabout intersections at each end. A right-in/right-out driveway along View High Drive is proposed between I-470 and the proposed Paragon Parkway roundabout at View High Drive.

#### **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. The interchange of View High Drive at I-470 will be reconstructed to a four-lane diverging diamond configuration with traffic signal controlled cross-over/ramp intersections in association with the development. The interchange reconstruction is a condition of related development on the property, the sports complex, and will precede its occupancy and occupancy of the proposed mixed-use village. Likewise, View High Drive will also be reconstructed north of I-470 to the northern limits of development, including a roundabout at the proposed Paragon Parkway and View High Parkway intersection in association with the sports complex.

Another potential roadway that may be used to indirectly access the development is Bannister Road via the proposed View High Parkway and proposed River Road to the north and east, respectively. 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.

The interim plan is to only provide emergency access from Bannister Road until such time additional roadway improvements connecting proposed View High Parkway to Bannister Road are completed.

Sight distances at the proposed intersections with View High Drive are adequate. Sight distance at the potential intersection of Bannister Road/Norfleet/98<sup>th</sup> Street may be inadequate and subject to review and approval by the City of Kansas City, Missouri.

**ACCESS MANAGEMENT CODE COMPLIANCE?**

Yes

No

The proposed preliminary development plan is in compliance with the Access Management Code in consideration of the roadway improvements generally depicted on the plans and jurisdictional controls.

The development includes access along View High Drive just north of I-470 which is located within proposed state right-of-way and subject to MoDOT approval. This limited access driveway has been located as far a practical from the westbound off-ramp and includes a right-turn lane. MoDOT has approved this limited access though the spacing from I-470 is less than desired.

Access management and required improvements along View High Drive and other roadways associated with the preliminary development plan, 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. MoDOT and the City of Kansas City, Missouri have reviewed the traffic impact of this development and its recommendations, roadway improvements, etc. Both agencies have accepted the traffic study, its recommendations and support the related transportation improvements.

**TRIP GENERATION**

Time Period	Total	In	Out
Weekday	16,132	8,066	8,066
A.M. Peak Hour	1,068	575	493
P.M. Peak Hour	1,379	701	678

The trip generation shown above represents the Preliminary Development Plan for the Weekday A.M. and P.M. Peak Hours. This does not include land uses for the surrounding, previously approved, sports complex (which is included in the applicant's traffic study). The trip generation shown above does not account for trip capture between uses.

**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 was previously approved for a sports complex, but has not yet been constructed. The sports complex also has a projected trip generation of at least 100 vehicle trips during the peak hour.

A 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 (principally the sports complex) and Full Build of the entire property located in the area north and east of the I-470 interchange at View

High Drive. That study considered Phase 1 as the soccer complex, a hotel, shopping center, office space, apartments and recreational community center; significant portions of which are included in the proposed preliminary development plan. 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. Generally, full build includes the remaining portions of the proposed development that were not included in Phase 1. As the development has proceeded, Phase 1 has been limited to the soccer complex (complete build) and the proposed plan encompasses all of the mixed-use development. The traffic study assessed existing conditions, existing plus approved development conditions (e.g. recently approved development along View High Drive/Longview Boulevard that was 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 towards the northern limits of the proposed development 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 that time the interchange improvements had not been determined. A diverging diamond interchange (either 4-lane or 6-lane) was most likely and subsequently confirmed as the recommended improvement. The 4-lane diverging diamond interchange was approved by MoDOT on the basis of a study accepted by the Federal Highway Administration. The approved 4-lane diverging diamond interchange project is proceeding through the design and permitting process in association with the approved Phase 1, soccer complex.

The traffic study shows all other existing and proposed intersections have 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 not stated any conditions of development support related to the intersection of Chipman Road and View High Drive, though the City of Kansas City has indicated a traffic signal is warranted at that location. Any improvement conditions within the City of Kansas City, desired by the City of Kansas City in association with the proposed development can be applied by the City of Kansas City when approvals or permits are sought from the City of Kansas City by the development.

The proposed roadways within the development appear to only serve the development. Thus, those roadways will not be owned by the City.

All development related traffic is proposed from View High Drive with exception of emergency access to Bannister Road. Additional public access towards Bannister Road would help alleviate

congestion, particularly during events, mass exit (e.g. lightning closures), etc. This additional access is a consideration of future development north of the soccer complex and long-term improvement plan. No analysis has been done related to trip impact along Bannister Road in the event of public use nor are there required improvements at this time along the emergency route to Bannister Road to/from the development as determined by the City of Kansas City. Bannister Road is a Kansas City, MO roadway.

A supplemental memorandum was prepared by GBA, dated February 13, 2019, that assessed plan changes and traffic conditions in comparison of the 2016 traffic study, approved plan and proposed preliminary development plan. In summary of the memo, the proposed plan generates less traffic than the prior plan studied. The interchange (four lane diverging diamond) and road improvements (View High Drive reconstruction, turn lanes, roundabout(s), View High Parkway, Paragon Parkway and River Road) are still recommended to accommodate the development. Those improvements are in the design and permitting process. No additional improvement needs were identified. Staff concurs with the memorandum, as does the City of Kansas City and MoDOT. No further traffic analysis is needed.

**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 planned improvements to View High Drive, generally depicted on engineering plans for construction submitted to the City at this time, shall be constructed in accordance with those plans, pending approval by the responsible jurisdiction(s), prior to occupancy within the preliminary development plan.
2. The roadway labeled View High Parkway (extending east from View High Drive), Paragon Parkway and River Road, all streets not owned by the City, and generally depicted on engineering plans for construction submitted to the City at this time, shall be constructed in accordance with those plans, pending approval by the responsible jurisdiction(s), prior to occupancy within the preliminary development plan.
3. Interchange improvements/reconstruction as recommended and approved by MoDOT at I-470 and View High Drive, a four lane diverging diamond interchange, shall be substantially constructed prior to occupancy within the preliminary development plan.

