



DEVELOPMENT REVIEW FORM
TRANSPORTATION IMPACT

DATE: September 10, 2024 **CONDUCTED BY:** Erin Ralovo, PE, PTOE
SUBMITTAL DATE: July 14, 2023 **PHONE:** 816.969.1800
APPLICATION #: PL2023188/PL2024015 **EMAIL:** Erin.Ralovo@cityofls.net
PROJECT NAME: OLDHAM VILLAGE **PROJECT TYPE:** Prel Dev Plan (PDP)

SURROUNDING ENVIRONMENT (*Streets, Developments*)

The proposed development is located on the southwest corner of the US 50 and M291 interchange. It is bordered by M291 on the west, US 50 Highway on the north and Persels Road on the south. The area to the west is largely residential. East of M291 is a largely undeveloped commercial/industrial area and to the south of Persels Road is mixed residential and commercial area. Phase 1 is north of the existing intersection of M291 and Oldham Parkway and will be built on the east and west of Oldham Parkway. Phase 2 is south of Oldham Parkway and will be built along the east and west sides of realigned Jefferson Street.

ALLOWABLE ACCESS

The proposed development will be accessed from M291 and Oldham Parkway on the north. Oldham will be realigned and the entrance at M291 will be lengthened. From the south, the development will be accessed from Persels Road on Jefferson Street. Jefferson Street will also be realigned and will connect to Oldham Parkway at a location approximately 215 FT to the east of the current connection point to Oldham Parkway.

Internal access points are as follows:

- Access 1 is a RIRO access on the west side of Oldham Parkway approximately 320 feet west of Jefferson Street near the south end of the fitness and athletic business.
- Access 2 is a full access intersection along Oldham Parkway approximately 345 feet north of Access 1 serving the Fitness and athletic center to the west and pad sites to the north and east of Oldham Parkway.
- Access 3 is a full access driveway along Oldham Parkway located 375 feet north of Access 2 serving the restaurants on the east and west sides of Oldham Parkway.
- Access 4 is a full access driveway along Oldham Parkway approximately 375 feet north and west of Access 3 providing access to the small retail building and surface parking lot south of Oldham Parkway.
- Access 5 is a full access driveway along Oldham Parkway located 380 feet west of Access 4 and 200 feet east of an existing access point to an office building.
- Access 6 is a full access driveway and is located approximately 275 feet north of Access 10 serving the apartments on the west and two fast food restaurants and one coffee shop on the east.
- Access 7 is a full access driveway on the east side of Jefferson Street located approximately 160 feet north of Access 6 and 430 feet south of Oldham Parkway. This access serves a coffee shop and a small retail building as well as a small grocery store and continues to the north to Oldham Parkway as Access 8.
- Access 8 is a RIRO driveway on the south side of Oldham Parkway located approximately 275 feet east of Jefferson Street and 325 feet west of M291. MoDOT has expressed the desire to

change this entrance to a right-in only due to a concern about drivers trying to cross multiple lanes of traffic on Oldham Parkway to go north on M291.

- Access 9 is a right-in only driveway servicing the gas station with convenience store and is located approximately 175 feet east of the intersection at Jefferson Street and Persels and 400 feet west of M291.

- Access 10 is a full access driveway and is located on the east side of Jefferson Street located 300 feet north of the proposed public street connection and will serve two fast food restaurants.

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

Oldham Parkway is a two lane roadway, undeveloped north of the connection to M291. Jefferson Street is a two lane roadway, upgraded to urban standards with curb and gutter, a 5 foot sidewalk on the west side and a 10 foot multi-use path on the east side. M291 is a 6 lane divided highway with a signal at the intersection of Oldham Parkway. US 50 Highway is a 4 lane divided highway with offramps to M291. Persels Road is a 2 lane road with curb and gutter and sidewalk on both sides of the road. There is a signal at the intersection of Jefferson Street and Persels Road. There are no sight distance concerns within the study area.

ACCESS MANAGEMENT CODE COMPLIANCE?

Yes

No

The Access Management Code includes requirements for minimum spacing between street connections, depending on street classification and the type of access. Along commercial collector streets, such as Oldham Parkway and Jefferson Street, the minimum spacing for full access intersections is 300 feet, measured between centerlines. The majority of the access points in Phase 1 meet this minimum spacing. Access 5 is spaced 200 feet east of an existing driveway to an office building (currently Summit Park Church), which does not meet the minimum spacing requirement. This private drive should be removed as a condition of approval.

Access 8 is a right-in, right-out (RIRO) access along the south side of Oldham Parkway. This access is located within the functional area of the M291 intersection. MoDOT has suggested that the RIRO access is changed to a right-in only.

None of the proposed accesses meet the minimum spacing requirements. These closely spaced driveways are proposed due to the small lot sizes and the lack of access from other sides of the sites. Efforts have been made to have shared access with adjoining properties wherever possible and we support this waiver to the AMC.

Persels Road is a minor arterial and the minimum spacing is 400 feet. Access 9 is a right-in only driveway that just meets the minimum spacing from M291, however the spacing to Jefferson Street is not met. There is a separate right-turn lane and there are no safety or operational concerns with this access. To ensure that the driveway operates as a right-in only, a raised median on Persels Road will be required.

TRIP GENERATION

Time Period	Total	In	Out
Weekday	17291	N/A	N/A
A.M. Peak Hour	1775	917	858
P.M. Peak Hour	1324	695	629

Trip generation shown was provided in the Traffic Impact Study provided by the applicant. The trips estimated for the proposed development based on various ITE Codes in the ITE Trip Generation Manual 11th Edition Using ITE Codes 495-Recreational Community Center, 822-Strip Retail, 932-High Turnover Sit Down Restaurant, 934-Fast Food Restaurant with Drive Through, 937-Coffee Shop with Drive Through, 948-Automated Car Wash, 221-Multifamily Housing (Mid-Rise), 822-Strip Retail Plaza (<40K), 850-Supermarket, and 945-Convenience Store/Gas Station. The total trips were determined based on the anticipated use for each pad site. The total daily trips were not separated into Trips In and Trips Out. In the case where use is not finalized, the most conservative likely use is used.

TRANSPORTATION IMPACT STUDY REQUIRED?

YES

NO

The proposed development will likely generate more than 100 vehicle trips to the surrounding street system during a peak hour based on industry standard methods for trip generation estimates, a minimum requirement for a traffic impact study in the Access Management Code. A traffic impact study was prepared by Kimley Horn, dated August 2024. The traffic study was prepared to assess traffic impacts associated with the development and to provide public improvement recommendations or waivers requested by the development that mitigate delay and/or meet minimum standards defined by City and/or MoDOT policies.

The traffic study evaluated existing conditions and proposed development conditions of the subject development. The analysis included morning and evening commuter peak hours at the intersections of Oldham Parkway and Ward Road, Oldham Parkway and Jefferson Street, M291 and Oldham Parkway, Persels Road and Jefferson Street, M291 and Persels Road/Bailey Road. The study considered several scenarios; Existing Conditions, Existing plus Phase 1 Development Conditions, Existing plus Phase 2 Development, and Future Conditions for year 2044.

The traffic study looked at each intersection for turn lane requirements based on classification and projected turning movements. The available space and storage lengths were reviewed in coordination with the required turn lane lengths to provide recommendations for the subject development. The study found that the following the following improvements would be required:

PHASE 1

1. Oldham Parkway and M291

- Construct an eastbound Left Turn Lane with a minimum storage length of 350 feet plus taper.
- Construct a second eastbound left turn lane. This lane will extend at least 300 feet west of Jefferson Street plus taper.
- Construct an eastbound right-turn lane with a minimum storage length of 350 feet plus taper.
- Construct two westbound lanes on Oldham Parkway, extending east of the intersection. The right lane should terminate as a right-turn lane at Access 2, and the left lane will continue as the through lane.

2. Oldham Parkway and Jefferson Street

- Construct a raised median on Oldham Parkway to restrict Jefferson Street access to left-in/right-in/right-out.
- Construct an eastbound left-turn lane with a minimum storage length of 150 feet plus taper.
- Construct a westbound left-turn lane with a minimum storage length of 200 feet plus taper.

3. Oldham Parkway and Access 2
 - Install a traffic signal.
 - Construct a northbound left-turn lane with a minimum storage length of 150 feet plus taper.
 - Construct a southbound left-turn lane with a minimum storage length of 150 feet plus taper.
 - Construct the eastbound and westbound approaches with three lanes, to provide one inbound lane and two outbound lanes.
4. Oldham Parkway and Access 3
 - Construct a northbound left-turn lane with a minimum storage length of 150 feet plus taper.
5. Jefferson Street
 - Construct the realigned portion of Jefferson Street as a three-lane roadway with a center two-way left-turn lane.

PHASE 2

1. Oldham Parkway and M291
 - Lengthen the southbound right-turn lane to provide a minimum storage length of 300 feet plus taper.
2. Persels Road and M291
 - Construct an eastbound right-turn lane with a minimum storage length of 150 feet plus taper.
3. Persels Road and Market Street
 - Construct a raised median on Persels Road from M291 to Jefferson Street to restrict access to right-in/right-out.
4. Persels Road and Gas Station Access
 - Construct a westbound right-turn lane with a minimum storage length of 150 feet plus taper.

The traffic study looked at each noted intersection to be analyzed for traffic operations and assigned a Level of Service (LOS) associated with their delay. Level of Service (LOS) is an industry accepted performance measure for traffic operations based on delay represented by the A to F lettered scale, with A the best and F the worst. City policy has established a LOS goal C for traffic signal operations and LOS D (where LOS E and F may be acceptable) for stop controlled movements. MoDOT has a similar performance standard, but LOS D is acceptable for signal operations. These LOS targets indicate acceptable operational performance or adequate operational conditions for the transportation network.

In addition to measured vehicle delay, vehicle queues were analyzed. With exception of a couple movements, all of the overall LOS meet the City's goals.

It is recommended that traffic is maintained on existing Oldham Parkway while the relocated Oldham Parkway is under construction to minimize disruptions to traffic and to minimize the amount of detoured traffic travelling through the adjoining neighborhoods. Contractor should minimize the amount of time that Oldham Parkway is closed to through traffic.

LIVABLE STREETS (Resolution 10-17)

COMPLIANT

EXCEPTIONS

The proposed development plan will provide required sidewalks and all elements otherwise required by ordinances and standards, including but not limited to property landscaping, lighting, parking, and ADA accessibility. No exceptions to the Livable Streets Policy adopted by Resolution 10-17 are requested.

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 conditions noted below:

1. Construct all improvements recommended by the Traffic Impact Study and stated above.
2. Construct improvements required by MoDOT.
3. Remove Summit Park Church access, located approximately 200 feet west of Access 5, after the parking lot is constructed and work on Access 5 is complete.