

and maintained by MoDOT. Generally, Market St. provides one travel lane in each direction with a two-way left-turn center lane. Market St. is constructed with sidewalks on both sides of the street and intersects MO-150 at a signal. The south leg of the signalized intersection (northbound) is constructed with; one left-turn lane, one through lane, and one channelized right-turn lane. The north leg (southbound) consists of; two left-turn lanes and one shared through/right-turn lane. The west leg (eastbound) consists of; one left-turn lane, three through lanes, and a channelized right-turn lane. The east leg (westbound) consists of; one left-turn lane, two through lanes, and a channelized right-turn lane. The intersection of Market St. and Summitcrest Dr. is stop-controlled on Summitcrest Dr.

Sight distance is adequate for all the aforementioned street intersections.

ACCESS MANAGEMENT CODE COMPLIANCE? Yes No

All criteria in the Access Management Code criteria have been met.

TRIP GENERATION

Time Period	Total	In	Out
Weekday	1754	877	877
A.M. Peak Hour	167	85	82
P.M. Peak Hour	123	64	59

Trip generation shown was estimated for the proposed development based on multiple ITE Codes. The code used is for Fast-Food Restaurant with Drive-Through Window - 934 (3,751 sf).

TRANSPORTATION IMPACT STUDY REQUIRED? Yes No

The proposed development will likely generate more than 100 peak hour trips along the adjacent street network during a weekday peak hour, meeting the minimum requirement for a traffic impact study in the Access Management Code.

A traffic impact study was completed for the preliminary development plan by CBB, dated February 10, 2022. The study considered the traffic impact of the proposed commercial development consisting of a 3,751 sf., fast-food restaurant. The City has completed a review of the traffic study and concur with the study findings and recommendations.

The traffic study evaluated the subject property with a base condition, that included the approved nearby development along Market St. (Market Street Center), and the build condition. At the time of this study there were no additional approved developments to include. Therefore, and appropriately, the base and build scenarios were the only two scenarios reviewed for the subject development.

Intersection analysis compares proposed development conditions to existing conditions and all operations based on City and MoDOT established performance goals for measuring adequate infrastructure. The City has adopted a level of service (LOS) standard "C" for overall traffic signal operations; where individual traffic movements may be at LOS D or worse. Level of Service for stop controlled movements should be at least "D", but LOS E and LOS F may be acceptable. MoDOT has a similar performance standard, but LOS D is an acceptable benchmark for signal operations on their system. These performance goals, or minimum conditions of adequate infrastructure, help to identify public improvement needs associated with development for safer

and efficient travel. Level of Service is an industry accepted standard measure of traffic performance based on experienced or calculated delay and driver/user comfort rated on a scale from A to F, where A represents the best and F the worst. Other improvement needs may be identified based on vehicle queuing and minimum code criteria, guidelines and standards that address transportation operations and safety (e.g. turn lanes, sight distance, intersection spacing, alignment, etc.).

An assessment of the base and build conditions indicated acceptable levels of service for all studied intersections except for certain movements and intersections as noted below:

- Market Street and QuickTrip Drive, LOS D - A.M. Peak Hour (Build)
- Market Street and QuickTrip Drive, LOS F - P.M. Peak Hour (Base and Build)

In conclusion, the TIS recommends a northbound left-turn lane on Market Street at Summitcrest Drive with minor signal timing modifications. Per the study, the northbound left turn lane is warranted in existing conditions and will continue to be warranted with this project.

In review of the study, staff acknowledges that the turn lane is warranted. However, staff believes that the inclusion of the recommended turn lane could cause driver confusion with southbound left-turn traffic. However, the recommended improvements, as outlined in the submitted traffic study, are subject to MoDOT's review and implementation.

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, parking, and accessibility. 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 conditions noted below:

1. The Traffic Impact Study and development plans are subject to the review and approval of MoDOT. Furthermore, any improvements within state's rights-of-way (e.g. MO-150/Market St.) may be waived or modified or other improvements added at the discretion of MoDOT for MoDOT's approval of permitted work. The listed recommendations applicable to MoDOT ROW are based on MoDOT's review and comment of the development plan and associated traffic impact study. Any condition modified or provided by MoDOT, shall be documented to the City in substitute for the satisfaction of these conditions.