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March 4, 2025

Mr. Dan Slicker, Technical Director
Stark County Area Transportation Study
201 3rd Street NE, Suite 201
Canton, OH 44702-1211

RE: STA-Locust Street Corridor Study
City of Canal Fulton
Existing/Future Conditions Memo & Access Management Recommendations

Dear Mr. Slicker:

ms consultants has developed this preliminary memo summarizing the initial findings of the Locust Street Corridor Study in the City of Canal Fulton. The study is looking at the section of Locust Street between Beverly Avenue and Bonita Circle. This memo summarizes the following information:

- Corridor Overview
- Field Reconnaissance
- Corridor Traffic Volumes
- Capacity Analyses
- Signal Warrants
- Crash Data
- Summary of Existing/Future Conditions
- Access Management Recommendations

Corridor Overview

Locust Street is an east-west minor arterial located in the City of Canal Fulton. The study area is a 0.8-mile section on the east side Canal Fulton, near the east city limits. Locust Street is a three-lane roadway with a two-way left turn lanes and a 35-mph speed limit. The study area includes many commercial uses and there are many private driveways. While there are some sidewalks in the study area, there are discontinuities and sidewalks do not span the entire study area. The study area is shown as **Figure 1**.



Figure 1: Study Area

Field Reconnaissance

A field visit was conducted to confirm existing conditions and observe corridor conditions. The signal at Locust Street and Beverly was observed to have a pre-timed, 60-second cycle length. While the pedestrian push buttons (located in the northeast and southeast corners of the intersections) were found to be working properly, the northbound pedestrian countdown signal was not properly displaying the countdown clock. Overall, there were corridor-wide inconsistencies in pedestrian facilities, including broken sidewalks and ADA pads, missing ADA pads, and the lack of crosswalk striping. No side street queueing issues were observed.

Corridor Traffic Volumes

Corridor traffic volumes were developed using the traffic counts provided by SCATS. The traffic counts were collected between April and May 2024 for 6 locations listed below:

- Locust Street & Beverly Avenue
- Locust Street & Towpath Avenue
- Locust Street & Avalon Drive
- Locust Street & Lafayette Drive
- Locust Street & Elm Ridge Avenue
- Locust Street & Bonita Circle

SCATS also provide a slow growth rate of 0.1% per year based on the traffic model. Traffic plates for 2024 and 2045 can be found as **Figure 2**.

Capacity Analyses

Capacity analyses was performed using Highway Capacity Software (HCS). Based on this analysis, all intersections operate acceptably at a LOS of D or better. The capacity analyses are summarized in **Table 1**.

*Table 1: Design Year (2045) Capacity Analysis Summary
(delays in seconds/vehicle)*

	AM Peak	PM Peak
Beverly Avenue	A 7.0	A 9.2
Towpath Avenue*	B 15.0	D 30.4
Avalon Drive*	C 18.5	D 34.8
Lafayette Drive*	B 14.3	D 25.7
Elm Ridge Avenue*	C 16.9	C 22.9
Bonita Circle*	C 17.6	D 31.0

*unsignalized location – delays shown are for the worst performing stopped approach

Signal Warrants

Signal warrants for all intersections were performed using following the guidance in the ODOT *Traffic Engineering Manual* (TEM) and ODOT's signal warrant spreadsheet. To provide a conservative analysis, right turn reductions were not applied. Based on this analysis, the existing signal at Beverly Avenue is warranted and is recommended to remain. No other signals are warranted for the corridor. A summary of the signal warrants can be found below in **Table 2**.

Table 2: Signal Warrant Summary

	Warrant 1: Eight-Hour Volume	Warrant 2: Four-Hour Volume
Beverly Avenue	Yes (8 of 8 hours)	Yes* (10 of 4 hours)
Towpath Avenue	No (0 of 8 hours)	No (0 of 4 hours)
Avalon Drive	No (0 of 8 hours)	No (0 of 4 hours)
Lafayette Drive	No (2 of 8 hours)	No (2 of 4 hours)
Elm Ridge Avenue	No (5 of 8 hours)	No** (3 of 4 hours)
Bonita Circle	No (4 of 8 hours)	No (2 of 4 hours)

*Meets at 70% criteria, which can be used for existing signals

**would be met if 70% criteria for isolated community under 10,000 population was used

Crash Data

Crash reports were reviewed in the corridor for 2021-2023. A total of 23 crashes occurred in the corridor, with one serious injury crash due to an overturning motorcycle. **Figure 3** summarizes the crash types found in the study area, which shows angle and rear-end crashes are prominent crash types in the corridor. Additionally, the crashes at each intersection are summarized, with Elm Ridge Road having the most crashes, followed by Beverly Avenue. **Figure 4** show the crash diagram for the study area.

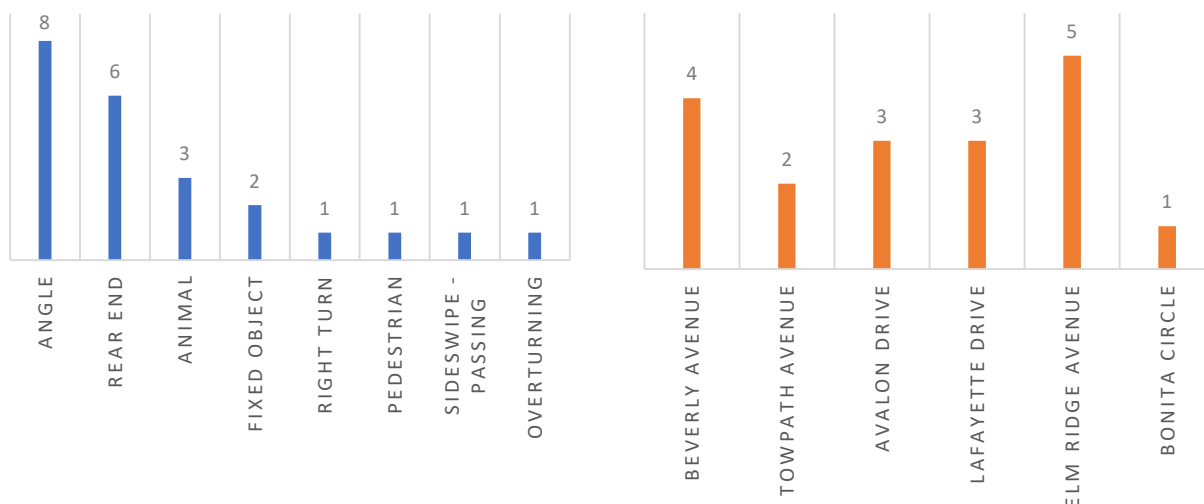


Figure 3: Crash Summary

Summary of Existing/Future Conditions

ms consultants has performed an initial analysis of the Locust Street corridor in Canal Fulton. The existing corridor has acceptable traffic operations, with all intersections predicted to operate at LOS D or better in the Design Year 2045. The existing signal in the study area, Beverly Avenue, is the only location in the study area that meets an eight-hour signal warrant.

In order to submit a formal ODOT safety funding application, the study area requires a minimum of 3 crashes per year and a minimum of 30% injury crashes. This study area has less than 5% injury crashes and no location averaging 3 crashes per year. Therefore, a formal ODOT safety funding application should not be pursued at this time.

Safety and operational improvements can still be made in the Locust Street corridor. Based on the above findings, the most likely type of improvements to improve safety and efficiency are access management solutions and sidewalk improvements. These improvements are discussed in the subsequent section.

Access Management

In order to minimize conflict points with turning vehicles, an access management plan for the Locust Street corridor has been developed. Access management helps to improve the safety and efficiency of a corridor by reducing conflict points, particularly at closely-spaced locations. Each section of the corridor was evaluated to identify locations where access points could be removed, realigned, or converted to restricted movements (right-in/right-out only, left-in/right-out only, right-in only, or right-out only).

The intent of this access management plan is to provide a long-term roadmap for improving safety and efficiency in the corridor. It is not anticipated that the access management plan would be implemented as a single project. Rather, it is envisioned that the access management plan will serve as a guideline for improvements as private properties develop or redevelop.

The plan also includes locations where gaps in the existing sidewalk network should be addressed. Completing the sidewalk network on Locust Street will help make the corridor a more attractive place for walking, encouraging non-vehicular transportation in the community. Combined with the access management recommendations, these improvements will improve pedestrian safety by reducing the number of driveways that a pedestrian would have to cross along Locust Street. At instances where turning movements are restricted, pedestrians would have fewer directions of travel to have to look/navigate to cross a driveway, also improving safety.

Figures A1-A5 show the proposed access management plan for the corridor.

Figure A1

Figure A1 shows potential access management improvements on Locust Street between the intersections at Beverly Avenue and Avalon Drive. The existing signal at Beverly Avenue is recommended to remain (as per signal warrant). The following access changes are recommended:

North side of Locust Street

- 1) Close western driveway at First Commonwealth Bank
- 2) Convert driveway between First Commonwealth Bank and Beverly Hills Plaza to right-In/right-out operation (RIRO)
- 3) Align western driveway at former Rite Aid site to align with Towpath Ave
- 4) Close eastern driveway at former Rite Aid site
- 5) Construct new driveway to former Rite Aid site on Avalon Drive

South side of Locust Street

- 6) Close Verizon driveway
- 7) Close western (inbound-only) McDonald's driveway
- 8) Convert eastern (full-movement) McDonald's driveway to RIRO operation
- 9) Close Taco Bell driveway

Pedestrian improvements

- Construct sidewalk on south side of Locust Street, west of Beverly Drive
- Stripe crosswalks on each leg at Beverly Drive intersection
- Add pedestrian signals for each leg at Beverly Drive intersection
- Add pushbuttons for each crossing at Beverly Drive intersection

Figure A2

Figure A2 shows potential access management improvements on Locust Street between the intersections at Avalon Drive and Lafayette Drive. The following access changes are recommended:

North side of Locust Street

- 10) Convert Pizza Hut driveway to RIRO
- 11) Make connection between Pizza Hut and Fox's Den parking lots
- 12) Convert eastern Fox's Den driveway to right-in only access
 - a) If existing land use changes and playground is removed, the eastern driveway should be removed, with replacement access provided on Canal Place
- 13) Close AutoZone driveway (both driveways on Canal Place to remain unchanged)
- 14) Close eastern SourceOne driveway

South side of Locust Street

- 15) Eliminate western Giant Eagle driveway
- 16) Construct main driveway for Giant Eagle site
 - a) Only if/when site were redeveloped
- 17) Modify main Giant Eagle driveway to align with Canal Place
- 18) Eliminate eastern Giant Eagle driveway

Pedestrian improvements

- Provide sidewalk and grass buffer strip in front of Fox's Den
- Construct sidewalk east of AutoZone
- Construct sidewalk along entire south side of this segment

Figure A3

Figure A3 shows potential access management improvements on Locust Street between Lafayette Drive and Etheridge Boulevard. The following access changes are recommended:

North side of Locust Street

- 19) Close driveway at Hill's Supply (drive on Elm Ridge Avenue to remain)

South side of Locust Street

- 20) Close western driveway at Auntie Em's
- 21) Widen eastern Auntie Em's drive to align with Elm Ridge Avenue and convert to full movement access

Pedestrian improvements

- Construct sidewalk along entire south side of street in this segment
- If a signal is warranted/installed in the future at Elm Ridge Avenue (not currently warranted), crosswalks should be included on all 4 legs of the intersection.

Figure A4

Figure A4 shows potential access management improvements for this segment of Locust Street. The following access changes are recommended:

North side of Locust Street

No improvements recommended

South side of Locust Street

- 22) Relocate driveway for 2425 Locust Street (Gregory Knight, O.D.) to align with Etheridge Boulevard
- 23) Eliminate driveway for AJ Mini Storage onto Locust Street. Provide cross-access to adjacent property to access new driveway across from Etheridge Boulevard.

Pedestrian improvements

- Construct sidewalk along entire south side of street in this segment
- Construct sidewalk across closed driveway on the north side

Figure A5

Figure A5 shows potential access management improvements for this segment of Locust Street. The following access changes are recommended:

North side of Locust Street

- 24) Eliminate western driveway of Marathon gas station

South side of Locust Street

- 25) Improve driveway for 11260 Portage Street NW (Carter Clearance Center)
- 26) Eliminate driveways for 11210 Portage Street NW (Patriots Auto Sales). Provide cross access to adjacent property to access driveway across from Tractor Supply driveway

Pedestrian improvements

- Construct sidewalk along south side of street to existing sidewalk near Bonita Circle
- Construct sidewalk across closed driveway on the north side



