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Classification Standards

FHWA's *Highway Functional Classification: Concepts, Criteria and Procedures (2023 Edition)* was referenced as the guidelines for all roads and highways. Table 3-6 from the FHWA guide is provided in the **Appendix** and includes specifications and qualitative descriptions for Collector vs. Load roads.

Existing Conditions – Little Sugarcreek Road

Limits of Investigation

Currently, Little Sugarcreek Road is classified as an Urban Local Road. The limits of Little Sugarcreek Road within the City of Bellbrook extend from SR-725 (Franklin Street, an Arterial in the City) to Terrace Creek (Local). For this investigation, the limits of potential reclassification should be extended to Feedwire Road (Arterial/Major Collector) in Sugarcreek Township. The total length of the corridor between SR-725 and Feedwire Road is approximately 1.84 miles.

Connecting Roadways

There are nine connecting roadways between SR-725 and Feedwire Road. All nine of these existing roads link small to large single-family home communities to Little Sugarcreek Road. The names of the connecting roads from North to South are as follows:

- Sugar Ridge Blvd.
- Eagle Stone Dr.
- Clear Brook Dr.
- Murphy's Crossing
- Possum Run Rd.
- Glenwood Way
- Terrace Creek
- Sable Ridge Dr.
- Vineyards Way

There are also additional single-family homes connected directly to Little Sugarcreek Road between SR-725 and Feedwire Road.

Lane Width

The LJB team used existing aerial mapping data and performed field measurements to determine that lane widths along Little Sugarcreek Road between SR-725 and Feedwire Road vary between 11 feet and 12 feet. Per FHWA Table 3-6, lane widths required for either a Major or Minor Collector Road must be 10 feet to 12 feet.

Inside Shoulder Width

FHWA does not require any width of inside shoulder be provided with respect to both Major and Minor Collector Roads. There are currently no existing inside shoulders on Little Sugarcreek Road.

Outside Shoulder Width

Utilizing existing aerial mapping data and then verifying through field measurements, LJB determined existing shoulder widths along Little Sugarcreek Road between SR-725 and Feedwire Road vary between 1 foot and 2 feet. As defined in FHWA Table 3-6, required outside shoulder widths for either a Minor or Major Collector are 1 foot to 4 feet and 1 foot to 6 feet, respectively.

AADT

LJB collected traffic counts on February 25, 2025, along Little Sugarcreek Road within the City of Bellbrook limits. The resulting AADT was 2,950—well above the minimum required AADT for a Major or Minor Collector. As depicted in Table 3-6, FHWA guidelines for Minor or Major Collectors indicate that urban AADT values should be within 1,100 to 6,300 VPD.

Divided/Undivided Roadway

FHWA does not require for Minor or Major Collectors to be divided; Little Sugarcreek Road is currently undivided.

Access

FHWA does not require restricted access for Minor or Major Collectors; access along Little Sugarcreek Road is currently uncontrolled.

Qualitative Description (Urban)

Little Sugarcreek Road serves to distribute trips from the residential areas connected to the corridor and along the corridor to the arterial roadways to the north (Feedwire Road) and the south (Franklin Street) located at either end of the 1.84-mile-long corridor. In addition, the corridor serves as a through route for traffic between the City of Bellbrook and the Cornerstone Development and other commercial developments to the northwest of the City.

Using the descriptions provided in FHWA Table 3-6, Little Sugarcreek Road carries regional through traffic and does not meet the description of an Urban Local Road. Current characteristics of Little Sugarcreek Road more closely match the descriptions of the Minor or Major Collectors as specified in Table 3-6.

Conclusions

Preliminary investigation of Little Sugarcreek Road indicates that the road has grown beyond its current classification as a Local Road. Specifications within FHWA Table 3-6 currently detail that the road will very likely meet most of the Minor Collector or Major Collector qualification requirements. Based on FHWA guidance, observed and understood corridor characteristics, and traffic data, our analysis indicates that Little Sugarcreek Road should be reclassified as a Minor Collector.

Appendix



Table 3-6: VMT and Mileage Guidelines by Functional Classifications – Collectors and Locals

Collectors:	Major Collector ²	Minor Collector ²	Local
Typical Characteristics			
Lane Width	10 feet - 12 feet	10 - 11 feet	8 feet - 10 feet
Inside Shoulder Width	0 feet	0 feet	0 feet
Outside Shoulder Width	1 foot - 6 feet	1 foot - 4 feet	0 feet - 2 feet
AADT ¹ (Rural)	300 - 2,600	150 - 1,110	15 - 400
AADT ¹ (Urban)	1,100 - 6,300 ²	1,100 - 6,300 ²	80 - 700
Divided/Undivided	Undivided	Undivided	Undivided
Access	Uncontrolled	Uncontrolled	Uncontrolled
Mileage/VMT Extent (Percentage Ranges)¹			
Rural System			
Mileage Extent for Rural States ³	8% - 19%	3% - 15%	62% - 74%
Mileage Extent for Urban States	10% - 17%	5% - 13%	66% - 74%
Mileage Extent for All States	9% - 19%	4% - 15%	64% - 75%
VMT Extent for Rural States ³	10% - 23%	1% - 8%	8% - 23%
VMT Extent for Urban States	12% - 24%	3% - 10%	7% - 20%
VMT Extent for All States	12% - 23%	2% - 9%	8% - 23%
Urban System			
Mileage Extent for Rural States ³	3% - 16%	3% - 16% ²	62% - 74%
Mileage Extent for Urban States	7% - 13%	7% - 13% ²	67% - 76%
Mileage Extent for All States	7% - 15%	7% - 15% ²	63% - 75%
VMT Extent for Rural States ³	2% - 13%	2% - 12% ²	9% - 25%
VMT Extent for Urban States	7% - 13%	7% - 13% ²	6% - 24%
VMT Extent for All States	5% - 13%	5% - 13% ²	6% - 25%
Qualitative Description (Urban)	<ul style="list-style-type: none"> • Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas • Penetrate residential neighborhoods, often for significant distances • Distribute and channel trips between local streets and arterials, usually over a distance of greater than three-quarters of a mile 	<ul style="list-style-type: none"> • Serve both land access and traffic circulation in lower density residential, and commercial/industrial areas • Penetrate residential neighborhoods, often only for a short distance • Distribute and channel trips between local streets and arterials, usually over a distance of less than three-quarters of a mile 	<ul style="list-style-type: none"> • Provide direct access to adjacent land • Provide access to higher systems • Carry no through traffic movement
Qualitative Description (Rural)	<ul style="list-style-type: none"> • Provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intra-county importance such as consolidated schools, shipping points, county parks, important mining and agricultural areas • Link these places with nearby larger towns and cities or with arterial routes • Serve the most important intra-county travel corridors 	<ul style="list-style-type: none"> • Be spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within reasonable distance of a minor collector • Provide service to smaller communities not served by a higher-class facility • Link locally important traffic generators with their rural hinterlands 	<ul style="list-style-type: none"> • Serve primarily to provide access to adjacent land • Provide service to travel over short distances as compared to higher classification categories • Constitute the mileage not classified as part of the arterial and collectors systems

1- Ranges in this table are derived from 2011 HPMS data.

2- Information for Urban Major and Minor Collectors is approximate, based on a small number of States reporting.

3- For this table, Rural States are defined as those with a maximum of 75 percent of their population in urban areas.