

CONNECT CLARKSVILLE

MULTIMODAL
TRANSPORTATION
PLAN

CLARKSVILLE
INDIANA



ACKNOWLEDGEMENTS

Special thanks goes to the people who volunteered their time, resources, and expertise to supporting the development of Connect Clarksville. 'Thank you' to the over 500 community members who offered their ideas and insights on the future of transportation in Clarksville. All in-person meetings for this plan were hosted at the Clarksville Library, so additional recognition is dedicated to library staff and leadership who helped to make those events possible.

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JUNE 2023



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The Connect Clarksville Multimodal Transportation Plan serves as the Town of Clarksville’s Thoroughfare Plan in accordance with IN Code § 36-7-4-506 (2022).



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1 | INTRODUCTION

The Connect Clarksville Multimodal Transportation Plan is the master guide for the development of the transportation network in Clarksville. An important piece of a municipality's planning toolbox, a thoroughfare plan commonly serves as the transportation component of an agency's comprehensive plan.

Connect Clarksville consists of goals for the transportation network, a review of the existing conditions of the network, an outline of the design and development standards for transportation facilities, and a roadmap for implementation in the plan. The Multimodal Transportation Plan applies to all streets within the Town of Clarksville's transportation system. As a multimodal plan, Connect Clarksville also influences planning and investments related to recreational trails, transit connections, and micromobility in addition to vehicular traffic.

Connect Clarksville is not a capital improvement plan, so it does not outline funding plans for specific projects. However, it may be used to guide decision making related to project

investment priorities by the various bodies of the Town of Clarksville. While the previous Thoroughfare Plan applied only to subdivision streets which would be built in newly subdivided areas of the Town, the Connect Clarksville Multimodal Transportation Plan focuses on improvements to be made to the existing system in pursuit of the goals of the Plan rather than on areas for future network expansion.

This plan allows the Town of Clarksville to understand what its transportation system looks like now and to influence how the system develops in the future. It will be utilized in the process of transportation planning, in the evaluation of projects, and in the formulation of transportation plans. A robust multimodal transportation plan will help the Town secure outside funding for transportation projects as well as influence how and where development occurs.

CONNECT CLARKSVILLE....

...establishes goals for how the transportation network will operate.

... outlines the existing conditions of the transportation network and assesses network areas of deficiency such as gaps in connectivity; safety areas of concern; areas with lack of access to transit; and gaps in active transportation.

... assesses the functional classifications of the roadway network and the design guidance for each classification.

... recommends future projects and policies to improve the network in accordance with the goals established.

The name “Connect Clarksville” emphasizes the goal of the transportation network of Clarksville: to connect residents, visitors, businesses, and organizations so that our community can thrive. As the existing conditions maps show, a challenge for the Town of Clarksville is the size and orientation of both older and newer neighborhoods of the Town, many of which are

isolated due to natural or manmade barriers. Additionally, the Town has very limited space for “greenfield” development (i.e. new growth on previously undeveloped land), so the existing network must be used as efficiently as possible to realize economic growth.

THIS PLAN PROVIDES:

New goals for the thoroughfare system that will inform future discussions, studies, investments, and priorities related to the transportation network and the movement of people and goods within and through Clarksville.

A snapshot of existing network conditions including 5-year crash data, vehicular volume data, existing trail infrastructure, and transit opportunities.

The framework for a multimodal project prioritization tool to assess potential projects based on specific criteria.

An updated street design standards and cross sections matrix.

A review of the existing planning context related to Clarksville transportation.

Ideas for implementation of this plan and for future plans and studies.

2 | GOALS

There are many possible goals of a transportation system. By identifying and prioritizing a select set of goals, a transportation plan provides stakeholders and decision-makers a benchmark for evaluating the purpose and needs of investments, developments, and changes related to the thoroughfare system.

The following goals were established with input from the Connect Clarksville Stakeholder Group.



CONNECTIVITY

Improve connections and mobility between Clarksville homes, workplaces, and destinations for all modes of transportation.



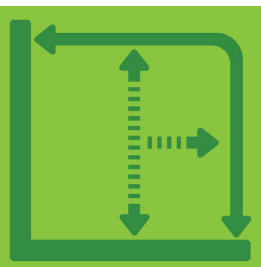
CHOICE

Empower residents and visitors to move around Clarksville with environmentally sustainable, aesthetically pleasing, and healthy options.



SAFETY

Enhance and promote the safe travel experience for all types of users within the thoroughfare network.



GROWTH

Foster community and stakeholder partnerships to improve the quality of place of Clarksville.

METRICS FOR SUCCESS

In order to measure progress towards the goals of the transportation system, a set of objective, data-driven, and time-based metrics should be established. Examples are provided for each of the four goals below. These suggested metrics can be used as a starting point for the Town; however, the Town must evaluate resource availability and allocation before committing to any metrics for success.



CONNECTIVITY

- ◆ Increase the number of civic destinations that a multiuse trail directly connects to by 50% within the next ten years.
- ◆ Complete 50% of the gaps in the sidewalk network within the next six years.
- ◆ Add 25% more transit stops to underserved areas in the next five years.
- ◆ Increase the share of residents who live within one mile of a trail by 50% in the next five years.



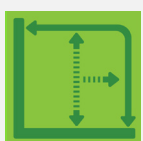
CHOICE

- ◆ Increase the number of residents who live within 0.5 miles of a transit stop by 25% within the next three years.
- ◆ Increase the availability of shared mobility technologies by implementing two technologies within the next five years.
- ◆ Increase transit availability by advocating for one new TARC route and exploring possible microtransit solutions in the next two years.
- ◆ Improve existing transit amenity infrastructure by adding 15% more bus shelters within the next three years.



SAFETY

- ◆ Reduce the number of severe and fatal vehicular collisions by 25% within the next three years.
- ◆ Reduce the number of collisions involving vulnerable road users by 20% within the next two years.
- ◆ Implement speed management policies and infrastructure to reduce the average and 85th percentiles speeds of vehicles on local, collector, and minor arterial routes by 10% within the next three years.



GROWTH

- ◆ Outline opportunities for public-private partnerships for investments in the transportation infrastructure within the next year.
- ◆ Create avenues for collaboration with the development community by hosting at least two developer engagement sessions within the next year.

3 | EXISTING CONDITIONS & PLANNING CONTEXT

PLANNING METHODOLOGY

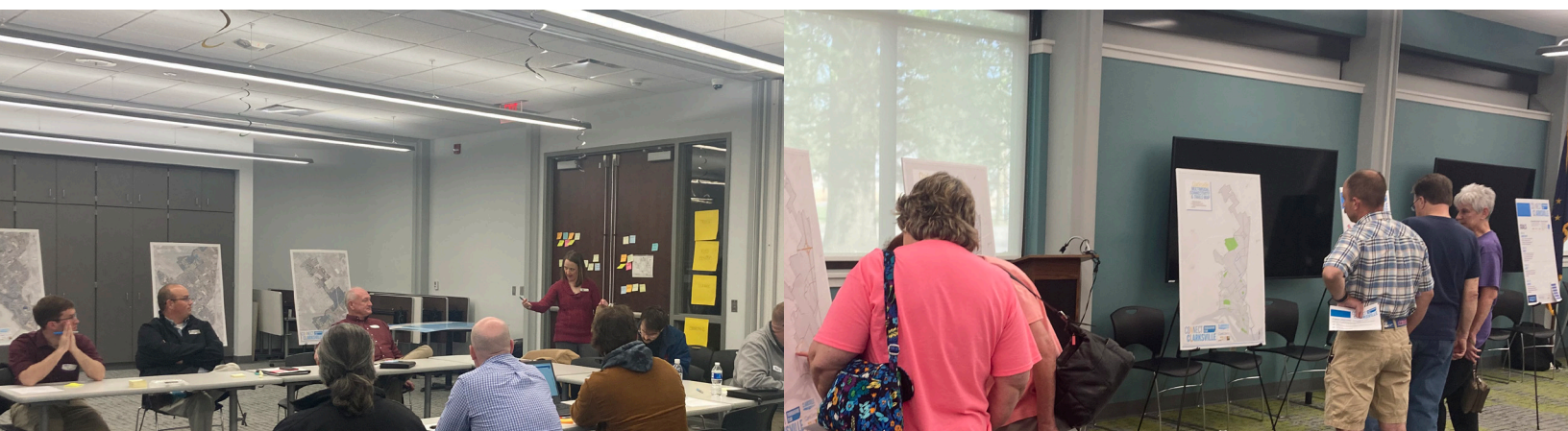
In the summer of 2022, the Town of Clarksville issued a Request for Proposals (RFP) for engineering and planning firms to develop the Clarksville Thoroughfare Plan. This planning effort would be funded by the Kentuckiana Regional Planning & Development Agency (KIPDA) and the Clarksville Redevelopment Commission. The Town sought a thoroughfare plan that would serve as the master plan for the development of the transportation system that would meet the needs of long-term growth within the region.

The Connect Clarksville Multimodal Transportation Plan project then began in Fall 2022. The project team met with Town staff members to develop a Project Management Plan and a Public Involvement Plan outlining how the plan would be developed. A large component of the development of the thoroughfare plan would be collecting input from a key stakeholders group. Invitations were sent to local school districts, developers, and transportation agencies to join the stakeholder group. This group met three times over the course of the project to review progress and provide feedback on the plan. The plan was originally titled the

Connect Clarksville Thoroughfare Plan, but the Stakeholder Group agreed that Multimodal Transportation Plan better reflected the goals of the plan.

Another component of the plan was collecting existing conditions data related to the thoroughfare system in Clarksville. The Town and KIPDA provided the consultant team with limited relevant data. The team then began organizing this data in map format for review by the team and by the stakeholders group. Using the existing conditions data, network deficiencies were identified. These include areas of high vehicular crash volumes, missing connections in the trail network, and areas lacking transit connectivity.

Next, recommendations for future projects to enhance the thoroughfare system were developed. These included projects previously identified by the Redevelopment Commission for priority investment and projects listed in KIPDA's Connecting Kentuckiana 2040 (CK2040) Metropolitan Transportation Plan (MTP). Additionally, new projects were proposed through this planning process for future investment by the Town.



STAKEHOLDER GROUP MEETING

DECEMBER 2022

PUBLIC OPEN HOUSE

APRIL 2023

PUBLIC ENGAGEMENT

OVERVIEW

An important component in the development of the Connect Clarksville Multimodal Transportation Plan was the involvement of community stakeholders and the general public. These groups were engaged in different ways.

First, a small **stakeholder group** was convened three times during the planning process. Invited organizations included the Town of Clarksville, local school districts, the regional metropolitan planning agency, regional transit agency, and local residential and commercial developers. The stakeholders group performed a workshop activity to assess allocation of street space, assisted in the development of the plan’s goals, and commented on the draft plan.

Second, the **general public** was engaged through an online and printed survey which assessed how people currently interact with the transportation system and how they desire to interact with it in the future.

Finally, a public information session was held near the end of the planning process to provide input on a draft of the Multimodal Transportation Plan before the final plan was created. Appendix A includes the Public Involvement Plan created at the beginning of the project.

PUBLIC SURVEY

During February and March of 2023, the Town sought community input on the future of Clarksville’s transportation network through a public survey. This survey was both accessible online and with a paper survey that was mailed to thousands of addresses in town. In total, 559 people responded to this survey and shared their insights on the current conditions of transportation in Clarksville and how they would like to see this transportation network change in the future. A summary of these responses is included in Exhibit 3-2. Additionally, Exhibit 3-1 shows how survey response rates varied across different areas of town.

Exhibit 3-1: Geographic Distribution of Response Rates from the Public Survey

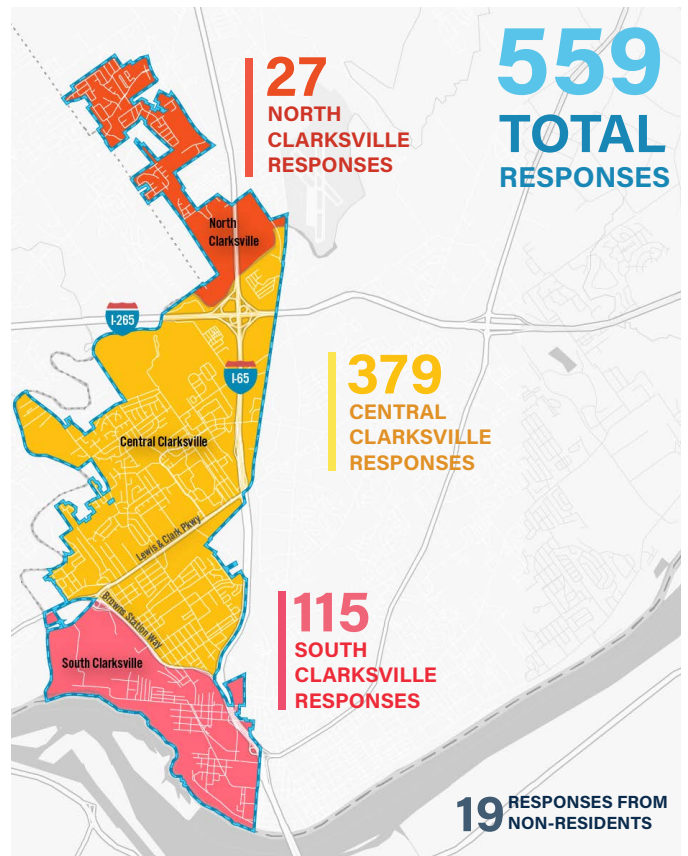
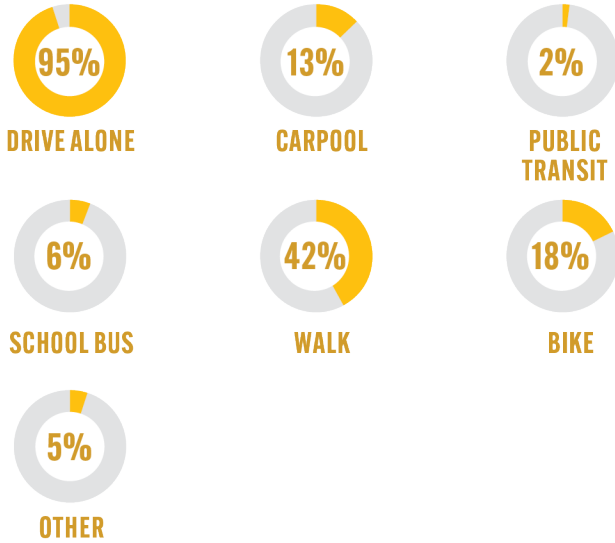


EXHIBIT 3-2 PUBLIC SURVEY SUMMARY

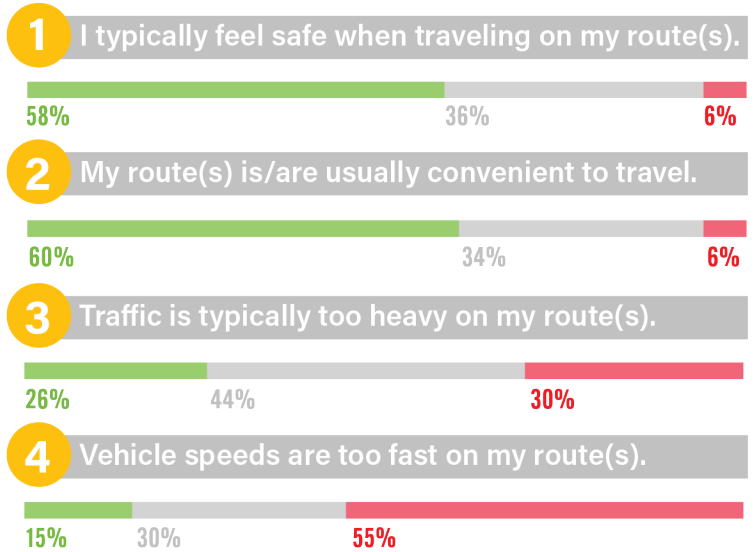
TODAY

Which of the following modes of transportation do you and your family use at least once a week?



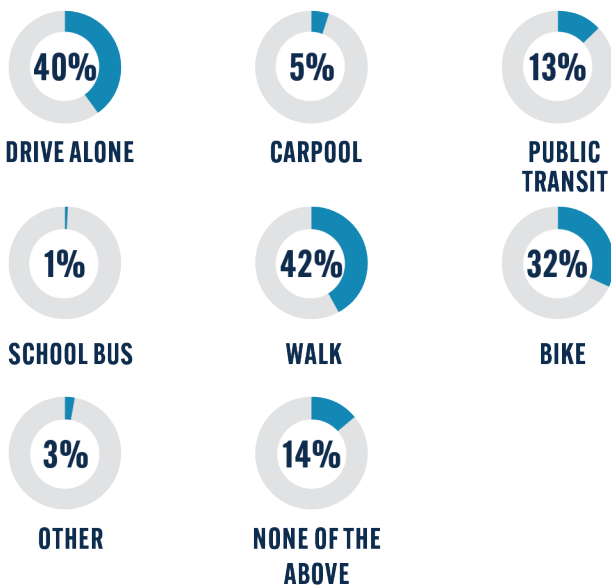
Please rate the following statements about the route(s) you typically travel in Clarksville.

■ Agree with statement
■ Somewhat agree with statement
■ Disagree with statement



TOMORROW

Which of the following modes of transportation would you and/or your family like to use more often?



Please select the top three improvements you would most like to see along streets in Clarksville.

	All Responses		North	Central	South
	Count	Percent	Clarksville	Clarksville	Clarksville
1 More sidewalks	232	43%	3	1	1
2 More pedestrian amenities	207	39%	2	3	2
3 Less traffic/congestion	203	38%	1	2	7
More street trees and plants	174	32%	#4	#5	3
Better drainage	173	32%	#5	#4	#4
More recreational trails	158	29%	3	#6	#6
Safer streets	147	27%	#5	#7	#5
Slower driving speeds	88	16%	#7	#8	#9
More bike lanes	87	16%	#6	#9	#8
More pedestrian crossings	84	16%	#5	#10	#10
More off-street parking	60	11%	#7	#11	#11
More bus routes and/or bus stops	41	8%	#7	#12	#10
Faster driving speeds	30	6%	#8	#13	#12
More on-street parking	20	4%	#8	#14	#12
Total Respondents	536	--	--	--	--

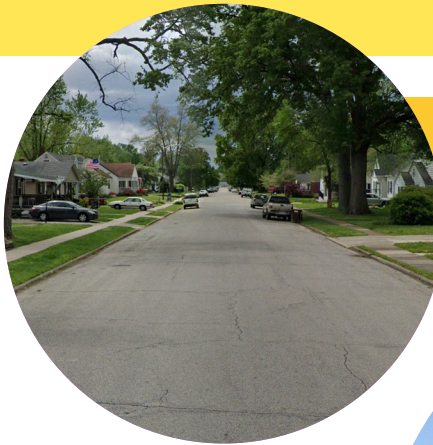
EXISTING CONDITIONS

The following maps show some of the existing conditions data that was collected for the Multimodal Transportation Plan. This data presents a snapshot of the state of the thoroughfare network in Clarksville. An analysis of the data highlights areas of network deficiency and emphasizes where future investment in the thoroughfare network is needed.

In the development of Connect Clarksville, the lack of adequate usership and performance data regarding bicycle, pedestrian, and transit modes of travel was identified as a barrier to enhancing connectivity in the Town. The Town currently collects trail data for users of the Discovery Trail and the Greenway. Additionally, the Town does not have an inventory of existing sidewalks. This data would be useful for identifying gaps in the sidewalk network.

The following maps are included:

- Basemap (Exhibit 3-3)
- Traffic and Crashes Map (Exhibit 3-4)
- Connectivity Map – Transit and Trails (Exhibit 3-5)



BOWNE BOULEVARD



LEWIS & CLARK PKWY.



DISCOVERY TRAIL AT EASTERN BLVD.



VETERANS PARKWAY

EXAMPLES OF CLARKVILLE'S EXISTING TRANSPORTATION SYSTEM

Exhibit 3-3

Clarksville BASE MAP

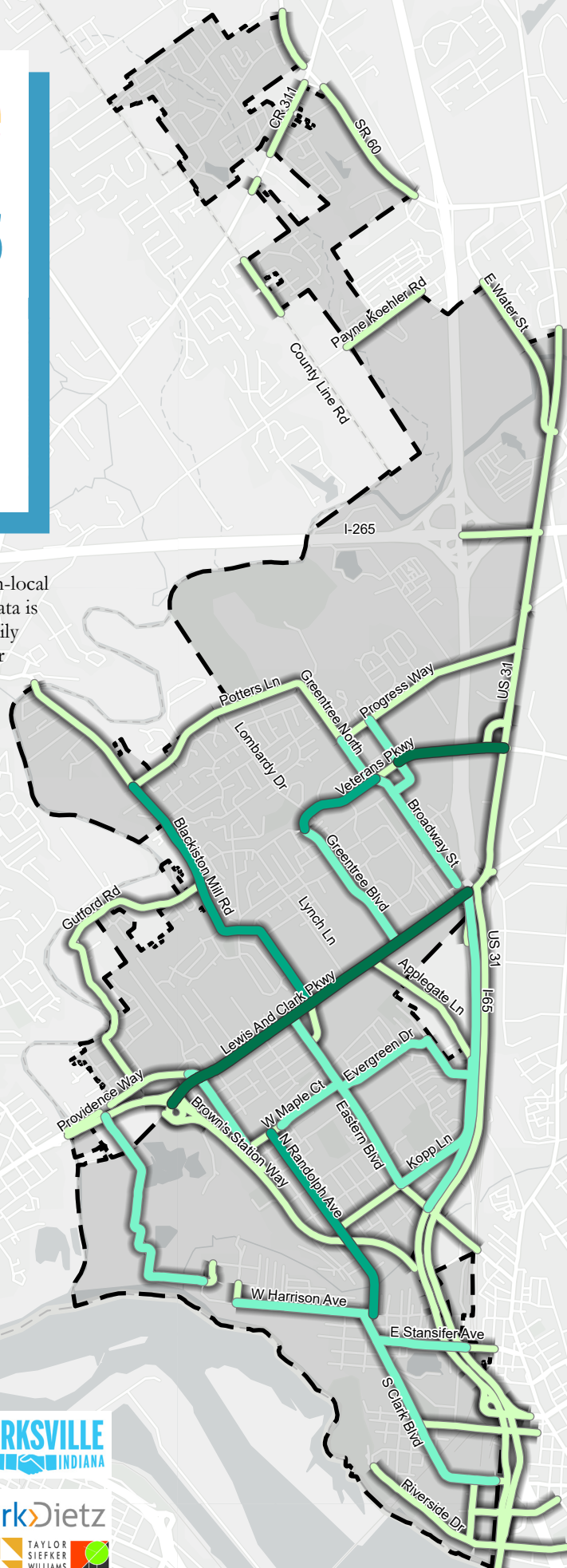


Clarksville TRAFFIC & CRASH MAP





Crash Frequency

- Lowest
- Low
- High
- Highest

This exhibit uses crash data from 2016-2022 to demonstrate crash frequencies on each of the non-local classified streets in the Clarksville network. The data is adjusted by the street segment's annual average daily traffic to account for roads that experience greater traffic volumes.



Clarksville MULTIMODAL CONNECTIVITY & TRAILS MAP

-  TARC Bus Stops
-  TARC Bus Route 72
-  Trails and Bicycle Facilities
-  Parks

Discovery Trail Average
Monthly Bike Counts:
21,650 (July-December
2022)

Discovery Trail Average
Monthly Bike Counts: 2,400
(July-December 2022)

Greenway Average Monthly
Bike Counts: 9,300 (July-
December 2022)

EXISTING POLICY & ORDINANCE REVIEW

OVERVIEW

The Town of Clarksville has existing policies and ordinances that relate to transportation. Reviewing these policies and ordinances helps identify the existing vision for Clarksville’s transportation network, which ordinances are guiding the development of Clarksville’s roadways, how these ordinances support the Town’s objectives, and how different ordinances interact and possibly conflict with one another. Through this review, the Multimodal Transportation Plan can provide recommendations going forward.

EXISTING VISION FOR CLARKSVILLE’S TRANSPORTATION NETWORK

2015 COMPREHENSIVE PLAN

Of the 17 vision elements in Clarksville’s Comprehensive Plan¹, two make specific mention of how Clarksville’s future transportation system should serve the community. The first statement is that Clarksville *“encourages livable and mixed-use infill development and redevelopment to establish well-designed, vibrant, and inviting commercial corridors which are pedestrian-, bicycle-, and*

transit-oriented...” The second states that Clarksville *“creates and maintains a robust transportation system that serves land use and conservation goals and offers individual choice on motorized and non-motorized modes of travel.”* Other vision elements also make mention of the need to provide high-quality stormwater drainage, to encourage the community to *“live and work in a sustainable manner,”* and to prioritize safety; all which can be supported by a transportation network.

CATAPULT CENTRAL CLARKSVILLE MASTER PLAN

Adopted in 2021, Catapult Central Clarksville (3C Master Plan)² articulates a vision for central Clarksville’s future transportation network, calling for a connected and walkable street network that prioritizes accessibility, multimodal transportation, and the integration of natural systems to lessen the impacts of flooding, storm water runoff, and the heat island effect. The plan includes maps of central Clarksville’s existing street network, proposed expansion to this network, and a proposed network of amenity infrastructure that connects parks and public spaces with a system of high-quality trails and sidewalks. A rendering shows the desired future design of Lewis & Clark Parkway with a planted median, on-street parking, street trees, and a paved cycle track that is separated from the sidewalk with a green strip.

¹ Clarksville Comprehensive Plan (2015): <https://www.townofclarksville.com/wp-content/uploads/2019/05/ComprehensivePlan.pdf>

² Catapult Central Clarksville Master Plan (2022): <https://www.townofclarksville.com/project/catapult-central-clarksville-3c-master-plan/>

Exhibit 3-6: 3C Master Plan Street Network Expansion

See page 8 of the Catapult Central Clarksville (3C) Master Plan

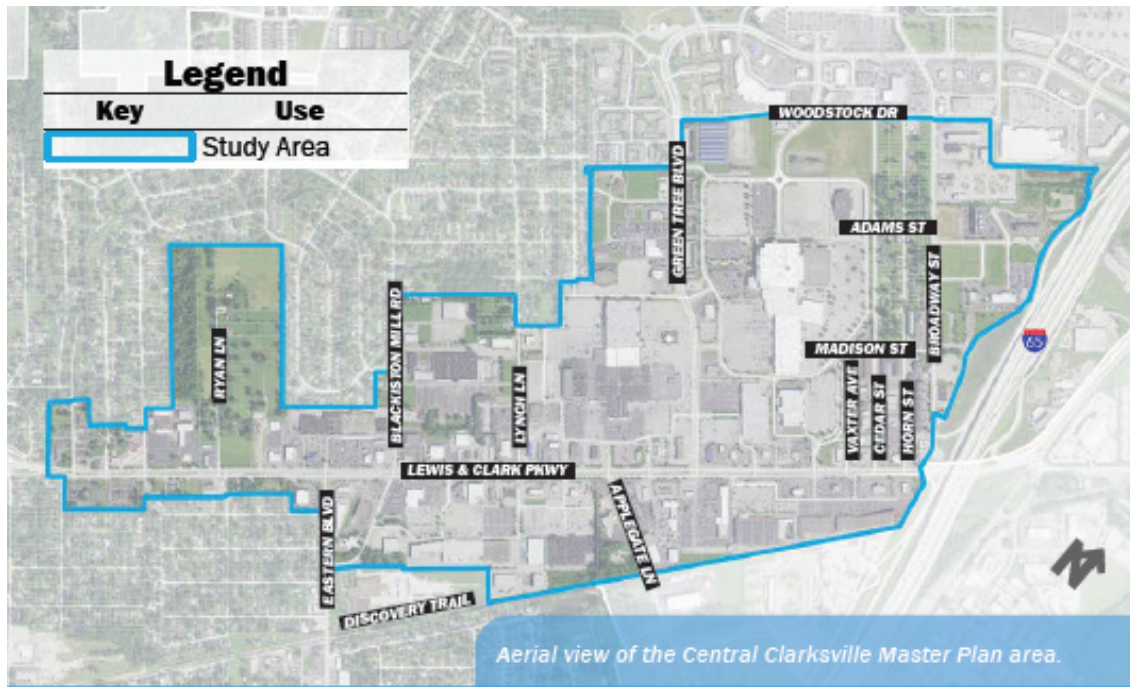
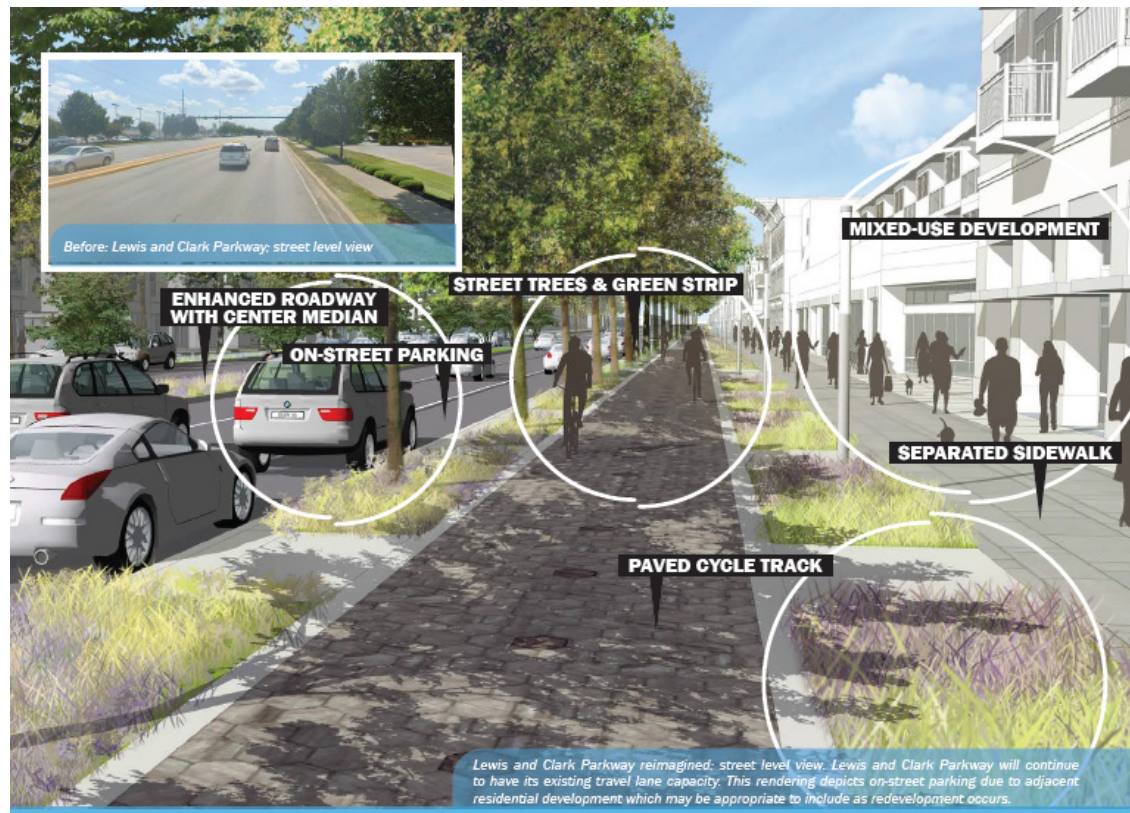


Exhibit 3-7: 3C Master Plan Example Street Design

See page 109 of the Catapult Central Clarksville (3C) Master Plan



COMPLETE STREETS TOOLBOX

The Complete Streets Toolbox³ offers guidance on how different street design elements can be used to develop streets which accommodate pedestrians, cyclists, and transit users in addition to vehicles. The Toolbox is intended to guide development in the South Clarksville Redevelopment Area but can also serve as a tool for street design in the entire town. The Toolbox does not include any specific street design requirements, but rather offers an overview of the different design tools that can be used and how they might vary in cost, time to complete installation, and impact. The Toolbox also provides a brief guide to how bicycle facilities

should be designed depending on the speed limit and traffic counts on any given street. All design tools that are included in the Toolbox are included in Exhibit 3-8.

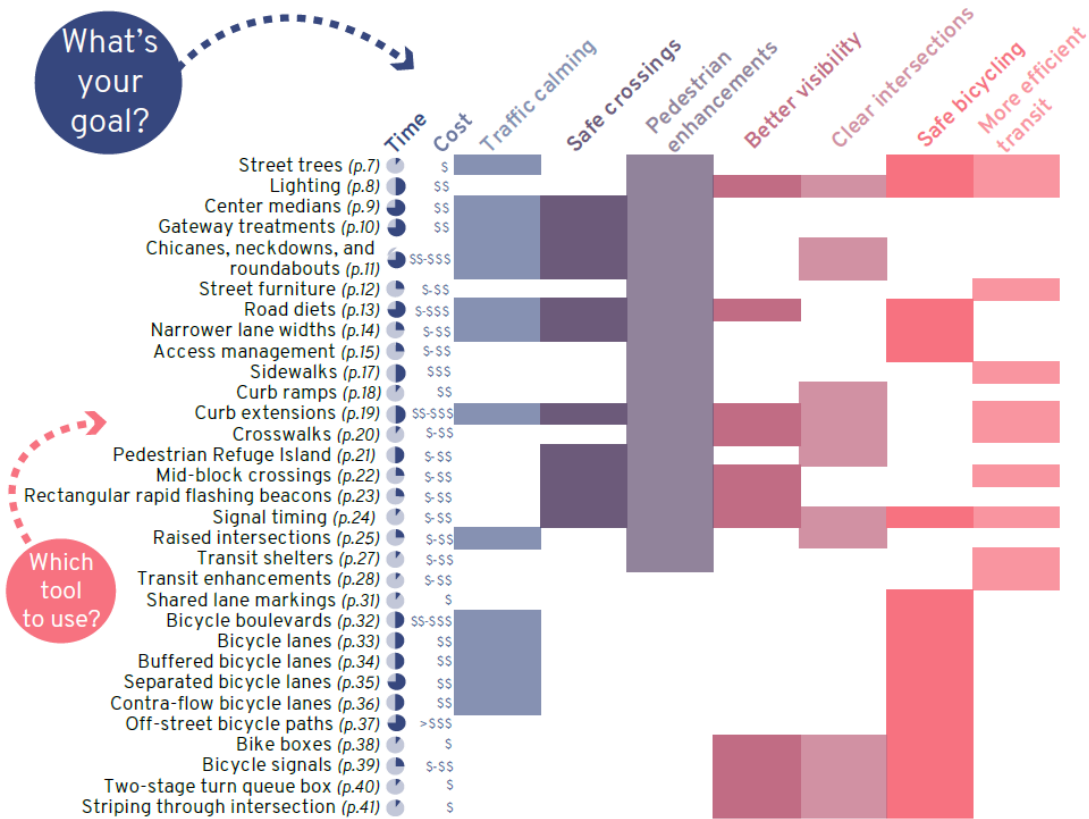
PARKS AND RECREATION MASTER PLAN

The 2018 Parks and Recreation Master Plan⁴ guides the development of park and trail facilities in Clarksville. As of 2018, this plan noted that less than half of Clarksville residents were living within one mile of a trail. Plan recommendations included trail expansion projects and the development of a town-wide trail system master plan.

Exhibit 3-8: Complete Streets Toolbox Design Tool Chart

See page 4 of the Clarksville Complete Streets Toolbox

Selecting the Right Tools



³ Complete Streets Toolbox (2018): <https://kipdatransportation.org/wp-content/uploads/2021/08/Clarksville-Complete-Streets-Toolbox-Final-Draft.pdf>

⁴ Parks and Recreation Master Plan (2018): <https://www.clarksvilleparks.com/assets/masterplan2018.pdf>

ZONING ORDINANCE

Three sections of Clarksville's Zoning Ordinance include specific standards and guidance for the development of transportation systems:

- In 1995, the Town added to its Subdivision Regulations the Thoroughfare Plan, which is intended to guide the development of subdivision streets.
- The Access Management Plan in the Zoning Ordinance's Article 4 provides and manages access to and from developments via thoroughfares with the purpose of improving the safety and operation of the roadway network. The Access Management Plan applies to all streets and roads in the Town.
- The most recent ordinance update is the South Clarksville Mixed-Use Zoning Update (SCMU) that was passed in 2018. The SCMU district guides the development of mixed-use, walkable, and sustainable development in South Clarksville.

While the Thoroughfare Plan and Access Management Plan serve different purposes, they both provide functional classifications of thoroughfares, standards for designing streets by their functional classifications, and estimates of trip generation rates for different land uses; however, their classifications and estimates are not aligned, creating a disjointed system for classifying and designing streets. This issue is discussed in further detail below.

FUNCTIONAL CLASSIFICATION

The Access Management Plan and existing Thoroughfare Plan both outline functional classifications for their roadways; however, the classes are different between the two sections. The Access Management Plan cites the Federal Highway Administration and the Indiana Department of Transportation's Road Inventory as the source for its classification system. In this system, there are nine different road types that are separated into six different functional classes; they include rural principal arterial, rural minor arterial, urban principal arterial,

rural major collector, urban minor arterial, rural minor collector, urban collector, rural local roads, and urban local streets. Conversely, the Thoroughfare Plan identifies five different functional classes: major arterial, minor arterial, major collector, minor collector, and local.

In describing each roadway type, the two sections of the zoning ordinance use different methods, with the Thoroughfare Plan providing the typical dimensions of each class and the Access Management Plan providing bulleted lists of common attributes for each class. With these discrepancies, it is difficult to identify how roadways are currently classified and how new developments should use these classifications and the resulting design standards.

DESIGN STANDARDS BY FUNCTIONAL CLASSIFICATION

While the existing Thoroughfare Plan identifies the typical dimensions of arterial and major collector roads, the plan only includes design standards for minor collector and local roads. This is because the plan only pertains to subdivisions, which typically only include low volume streets. The standards that are provided vary depending on the slope of the road and the density of adjacent development. The tables do not clarify if required dimensions are minimum, maximum, or absolute measurements.

In the Access Management Plan, the standards apply to all functional classes that are identified in the section and only regulate the minimum width of traveled ways and the width of graded shoulders.

Outside of its functional classification system, the Access Management Plan includes some provisions for sidewalk design and location, stating that sidewalks should be provided on both sides of streets where pedestrians are active, be present on at least one side of local streets, and be a minimum of four feet in width. The section also requires that all pedestrian ways are consistent with ADA standards.

TRIP GENERATION

Both the Thoroughfare Plan and the Access Management Plan include trip generation tables that estimate the number of trips generated by developing different land uses. The Access Management Plan's trip generation table includes an estimated number of daily trips per development size for each of its land use categories. For each land use, only one number of estimated daily trips is provided; however, the metric that is used to produce the estimates varies depending on the land use.

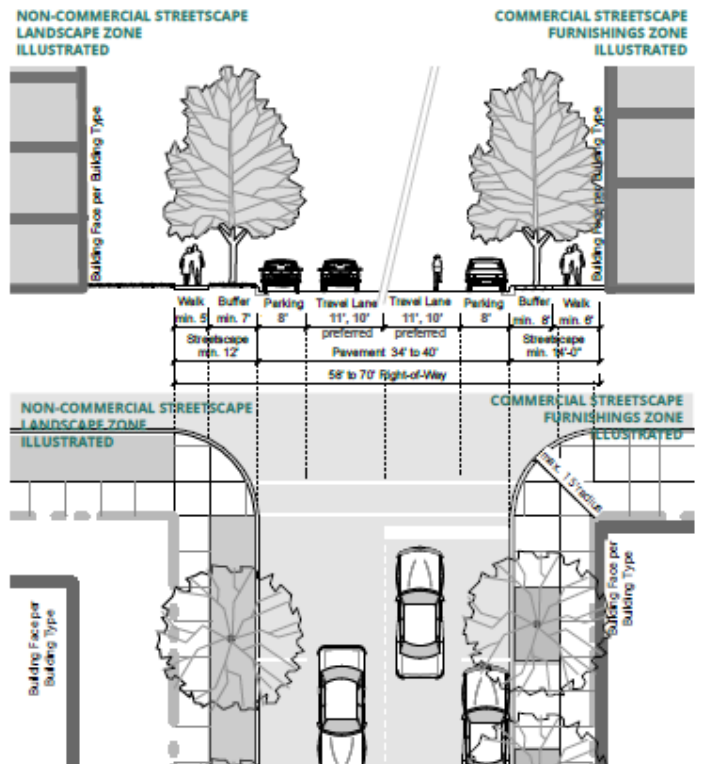
For each land use included in the Thoroughfare Plan's trip generation table, four estimates of daily trips are listed; a range of daily trips per acre and per unit, and a single, typical number of daily trips per acre and per unit. Because the two sections of the zoning ordinance are using different calculations to generate these estimates, the sections are providing different numbers for residents and developers to use. In some cases, the estimates for a particular land use in either section are dramatically different whereas others only differ by a single value. For the most part, the tables do not have identical categories so it can become difficult to identify which estimates should be used.

SOUTH CLARKSVILLE MIXED-USE ZONING UPDATE

Design standards (Figure 5) in the SCMU district for street design include requirements for providing on-street parking, wider widths for sidewalks and planted areas, limits on the

maximum width of paved areas, shorter curb radii to encourage slower turning speeds, and provisions on which streets bicycle infrastructure should be provided. The SCMU district is the only section of Clarksville's Zoning Ordinance that makes specific provisions for bicycle amenities and places a higher priority on pedestrian spaces with wider sidewalk widths and other design element.

Exhibit 3-9: Base Street Design in the SCMU District



4 | FUNCTIONAL CLASSIFICATION TABLES & MAPS

WHAT IS FUNCTIONAL CLASSIFICATION?

The functional classification system is a tool used in transportation planning to define the purpose of a roadway. Different roads have different primary functions, and specifying the function of every road in its network allows a community to properly plan for maintenance needs, development of adjacent land uses, and future funding needs. Additionally, the functional classification establishes how the roadway will look and feel. For example, does a given roadway provide ease of travel between cities or over longer distances, or does it provide high accessibility to adjacent land uses with lots of driveways?

The Access Management Plan of the Clarksville Zoning Ordinance defines the roadway classifications for the Town's network. The Access Management Plan says, "*The designation of roads is by their function as defined by the Federal Highway Administration and Indiana Department of Transportation Road Inventory for Town of Clarksville.*"

DESIGN CRITERIA

One important use of functional classification is to establish varying design criteria for roads on the thoroughfare network. The Connect Clarksville Multimodal Transportation Plan introduces new design criteria for the various functional classifications. These are found in Section 6. Implementation. These design criteria include consideration of multiple modes of travel. Previous criteria only considered vehicular travel and minimum sidewalk widths.

The functional classification design criteria shall be used when a new roadway is being planned or constructed on the thoroughfare system. Additionally, when existing roads are reconstructed or rehabilitated, the functional classification design criteria shall be consulted. In many cases, existing conditions such as right of way availability and locations of utilities will prevent all the design criteria from being feasible during reconstruction. However, documentation shall be required to establish the design variances from the new criteria.

EXISTING FUNCTIONAL CLASSIFICATION

The map to the right shows the existing functional classification of the road network in Clarksville. This data is maintained by KIPDA. While the Connect Clarksville Multimodal Transportation Plan does not include recommendations for revisions to the functional classification of any roadways, it does recommend the Town assess the existing functional classifications as part of the implementation of this plan.

CHANGING FUNCTIONAL CLASSIFICATIONS

Functional classifications for roadways are established to categorize and organize roads based on their intended purpose and the level of service they provide. These classifications help transportation agencies and planners make informed decisions regarding road design, maintenance, and management. The process of setting functional classifications involves several factors, including road characteristics, traffic volume, connectivity, and regional transportation needs.

As land use, density, and context of a thoroughfare change over time, the functional classification of the roadway may no longer be appropriate. For example, if new land uses along a roadway require the installation of access management/control on the roadway, its existing functional classification may not be accurate. The functional classification network

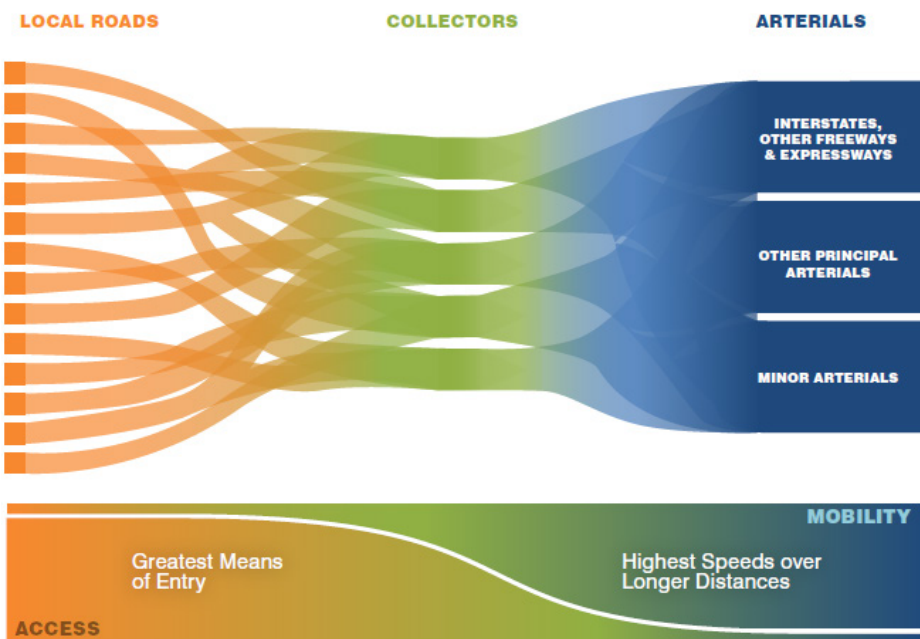
should be routinely reviewed to identify roadways that might be incorrectly classified.

The characteristics of a roadway to review include:

- ♦ Average Annual Daily Traffic
- ♦ Posted speed limit
- ♦ Existing right-of-way width
- ♦ Qualitative functions
- ♦ Access/mobility
- ♦ Multimodal usage

Once a change in the functional classification is identified, a formal request to change the functional classification must be processed by INDOT with sign-offs required by the metropolitan planning organization and the local agency. The impacts to federal funding eligibility of a particular roadway must be evaluated before changing functional classifications. This can be done in consultation with KIPDA.






Exhibit 4-1: Federal Highway Administration Functional Classifications

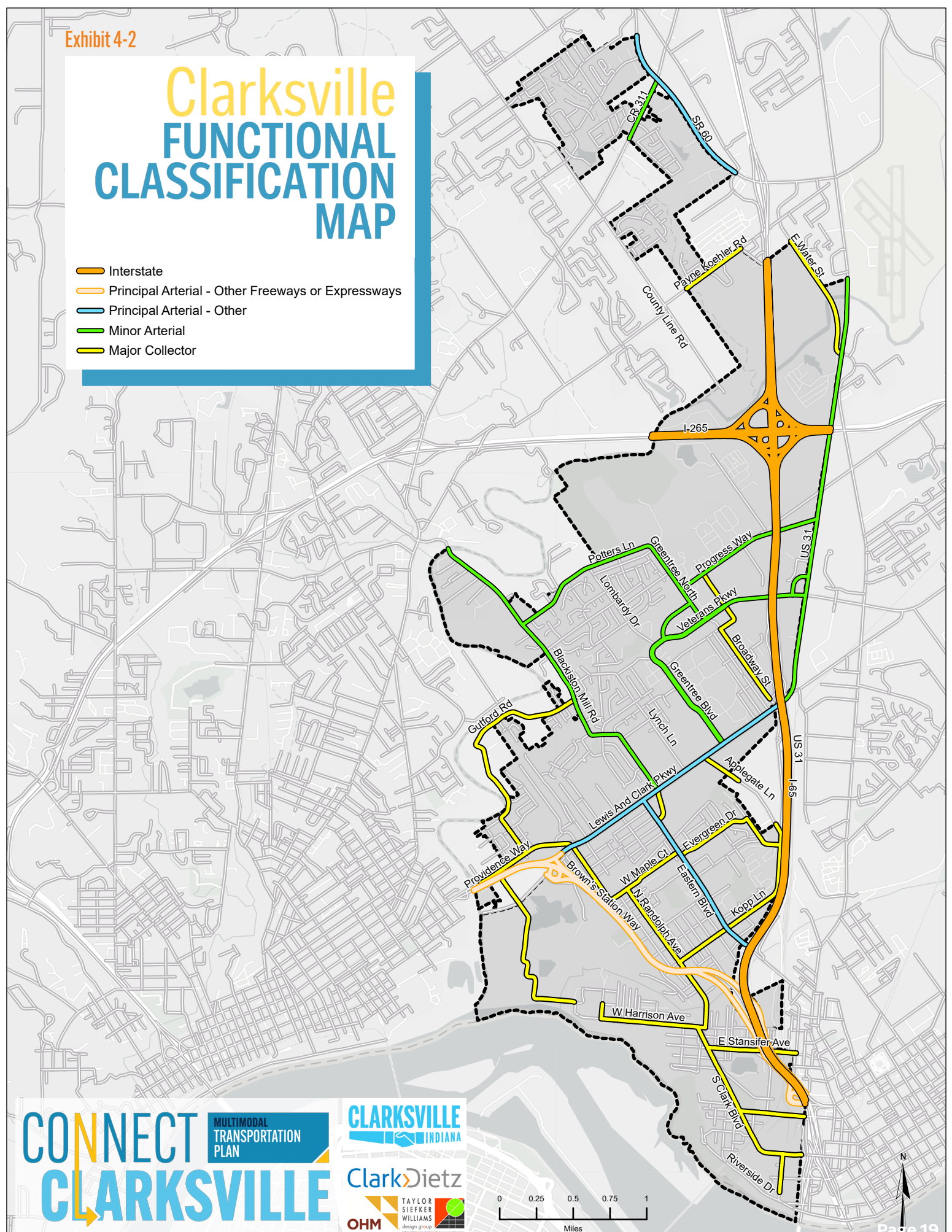


Source: FHWA Functional Classification Guidelines

See Highway Functional Classification Concepts, Criteria and Procedures (FHWA, 2013 Edition) for more info. https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf

Clarksville FUNCTIONAL CLASSIFICATION MAP

-  Interstate
-  Principal Arterial - Other Freeways or Expressways
-  Principal Arterial - Other
-  Minor Arterial
-  Major Collector



5 | DESIGN & DEVELOPMENT STANDARDS

GEOMETRIC STANDARDS MATRIX

Rather than traditional cross sections for each street and roadway type, Connect Clarksville includes a matrix that provides more clarity in comparing different types of roadways. The Geometric Standards Matrix is a new tool for allocating right of way widths to cross section elements. While the previous Thoroughfare Plan applied only to local and minor collector subdivision streets, the Geometric Standards Matrix applies to all streets in the Town.

The Geometric Standards Matrix is presented in Exhibit 5-1.

These cross sections represent the ideal elements and design standards for each type of street. The values listed in the table are the desirable dimensions for each cross section element. The Geometric Standards Matrix includes design standards for multimodal elements such as multiuse trails, bike lanes, and transit amenities. The matrix also establishes a preferred utility zone for underground utilities to be placed in order to minimize future impacts to

traffic and costly infrastructure improvements when utilities are serviced or relocated; this was an important issue identified in the Stakeholder Group.

When a new corridor is identified, right of way is subdivided, or a street is designed, the corridor should meet the values in the matrix. Given the Town's relative lack of developable land, the matrix will serve an even more important role in evaluating projects in which an existing thoroughfare is being reconstructed or rehabilitated. In these projects, the matrix should be used as a starting point in the design process, and the context of the roadway will influence how the standards are applied. If the design standards cannot be met given existing right of way constraints, then design variances may be requested or the Town can consider right of way expansion.

The values in the Geometric Standards Matrix were developed using INDOT Geometric Design Tables¹ and the National Association of City Transportation Officials (NACTO) Urban Street Design Guide² and Urban Bikeway Design Guide³.

¹ Indiana Department of Transportation 2013 Design Manual. <https://www.in.gov/dot/div/contracts/design/IDM.htm>

² Urban Street Design Guide, Island Press (2013). <https://nacto.org/publication/urban-street-design-guide/>

³ Urban Bikeway Design Guide, Island Press (2014). <https://nacto.org/publication/urban-bikeway-design-guide/>

Exhibit 5-1: Geometric Standards Matrix

Facility and Context Area		Cross Section Element Width (feet)													
		Minimum ROW (Ft.)	Landscape Transition	Sidewalk	Multi-use Trail	Transit Amenity Zone	Tree Zone	Landscape Verge	Protected Bike Lane	Buffered Bike Lane	Bike Lane	Shared Lane Markings	Curb & Gutter/Shoulder	On-Street Parking/Bump-Out	
FHWA Functional Classification	Description														
Other Principal Arterial	6-Lane Divided Major Arterial	160	9		12	10	6	10	8**					2	
Other Principal Arterial	4-Lane Divided Major Arterial	120	2		12	10	6	8					2		
Principal Arterial - Other Freeways and Expressways	Divided Major Arterial with service roads	200*	20		10	X			8**				2		
Minor Arterial	4-Lane Divided Minor Arterial	100	2		10	X	6	4					2		
Minor Arterial	4-Lane Undivided Minor Arterial	100	2	6		X	6	4	8				2		
Minor Arterial	2-Lane Undivided Minor Arterial	70	2		10		6	6					2		
Minor Arterial	One-way Minor Arterial	60	2	5				2		8			2	8	
Major Collector	Major Collector (TWLTL)	80	2	5		X		7		7			2		
Major Collector	2-Lane Major Collector	70	2	5		X		4		7			2	8	
Minor Collector	2-Lane Minor Collector	70	2	5		X		3			5		2	8	
Local	Local (Boulevard)	70	1	5				3				X	2	7	
Local	Local (Commercial)	50	1	5				3				X	2		
Local	Local (Park)	50	1	5††			4	3				X	2†		
Local	Local (Residential)	50	1	5				4				X	2	7	
Utilities Zone			UTILITIES												

* Service road widths not shown

** Protected Bike Lane or Shared Use Path

*** 28 ft. curb face to curb face (including parking on both sides)

† Park section may replace curb and gutter with earthen shoulders

†† Sidewalks on both sides of street may be replaced with 10 ft. multi-use trail on one side

Cross Section Element Width (feet)

Auxillary Lane	Travel Lane	Travel Lane	Travel Lane	Median/Center Turn Lane	Travel Lane	Travel Lane	Travel Lane	Auxillary Lane	On-Street Parking/Bump-Out	Curb & Gutter/Shoulder	Shared Lane Markings	Bike Lane	Buffered Bike Lane	Protected Bike Lane	Landscape Verge	Tree Zone	Transit Amenity Zone	Multi-use Trail	Sidewalk	Landscape Transition
11	11		11	16	11	11	11	12		2				8**	10	6	10	12		9
	11		11	16	11	11		12		2					8	6	10	12		2
12		11		11	16	11	11		12	2				8**			X	10		20
12		11		11	12	11	11			2					4	6	X	5		2
12		11		11		11	11			2				8	4	6	X		6	2
12				11		11				2					6	6			5	2
12		11		11						2					2				5	2
			11	12	11			12		2			7		7		X		5	2
12				11		11				2			7		4		X		5	2
			10		10				8	2		5			3		X		5	2
			10	14	10				7	2	X				3				5	1
			10		10				7	2	X				3				5	1
			10		10					2†	X				3	4			5††	1
					11	***			7	2	X				4				5	1

UTILITIES

Notes

- All values shown are in feet.
- Parking can be removed for transit amenity lanes, auxillary lanes, or landscape.
- Minor collector has parking on both sides; if no parking at all, provide 16' median with auxillary left turn lane at intersection.
- Curb shall be barrier curb for all streets.
- Bike facilities listed represent the minimum design standard for a roadway. Facilities can be upgraded from on-street to separated without a design variance request.

GEOMETRIC DESIGN STANDARDS OF LOCAL AND MINOR COLLECTOR RESIDENTIAL STREETS

The existing Thoroughfare Plan includes two tables of geometric design standards for local and minor collector streets within the Subdivision Ordinances. By replacing the existing Thoroughfare Plan, these tables need to be incorporated in the new Connect Clarksville Plan. Most of the values are found in the Geometric Standards Matrix, but additional design standards are found in the exhibits below.

COMPLETE STREETS TOOLBOX

The Complete Streets Toolbox was developed for the South Clarksville Redevelopment Area. The toolbox can be used to identify appropriate street design elements on new or reconstructed street projects. These elements will improve the walkability, bikeability, and livability of Clarksville streets in accordance with the goals established in Connect Clarksville. Although this toolbox does not constitute required guidelines in the Multimodal Transportation Plan, it should be considered for all projects.

Exhibit 5-2: Clarksville Minor Collector Street Standards

Terrain Classification	Level	Rolling	Hilly
Minimum Sight Distance (ft.)	275	200	150
Maximum Grade (%)	4	6	8
Minimum Centerline Radius (ft.)	275	200	150

Exhibit 5-3: Clarksville Minor Local Street Standards

Terrain Classification	Level	Rolling	Hilly
Minimum Sight Distance (ft.)	200	150	115
Maximum Grade (%)	4	8	10
Minimum Centerline Radius (ft.)	250	175	115

6 | IMPLEMENTATION

OVERVIEW

The Connect Clarksville Plan is intended to guide decision making related to project investment priorities by the various bodies of the Town of Clarksville. While the previous sections outline the existing conditions and the proposed design standards of the network, this section proposes a strategy for carrying out the goals of the Connect Clarksville Plan. The implementation strategy is organized in three areas:

- ◆ Project Recommendations
- ◆ Program Recommendations
- ◆ Policy Recommendations

Additionally, a Multimodal Project Prioritization Tool is proposed to help the Town prioritize investments that holistically consider multimodal elements.

PROJECT RECOMMENDATIONS

PROJECT TYPES

The Connect Clarksville Plan, while not a capital improvement plan, includes a list of projects that will enhance the thoroughfare network. These recommended projects include projects listed in KIPDA's draft Metropolitan Transportation Plan – Connecting Kentuckiana 2050. It also includes projects identified by the Clarksville Redevelopment Commission as priorities for the transportation system. Finally, the plan introduces new projects that advance the goals of the plan based on the review of existing conditions.

Recommended projects are categorized by the improvement type:

- ◆ **Multimodal Expansion** – Projects with significant multimodal and/or Complete Streets elements incorporated into an existing street.
- ◆ **Multimodal Connectivity** – New standalone shared-use paths or multiuse trails.
- ◆ **Roadway Enhancements** – Projects with significant improvements to vehicular safety and/or movement.
- ◆ **New Corridor** – Projects that create a new connection in the street network.

Clarksville

MULTIMODAL TRANSPORTATION PLAN PROJECTS

Improvement Type

- New Corridor
- Multimodal Connectivity
- Multimodal Enhancements
- Roadway Enhancements
- New Downtown Road Grid

#	ProjName
1	9th Street / Montgomery Avenue Multimodal Connection
2	Randolph Avenue Pedestrian Connection
3	Lewis and Clark Road Diet
4	Marriott Drive Improvements
5	Reconstruction of South Clark Boulevard
6	Brown's Station Way Streetscape
7	Stansifer Ave Streetscape Improvements
8	Progress Way
9	Eastern Boulevard Pedestrian and Transit Enhancements
10	River Falls Mall: Ring Road Extension
11	South Clark Blvd Extension into Origin Park
12	Applegate Lane Improvements
13	Cedar Street Reconstruction
14	I-65 & Veteran's Parkway
15	Blackiston Mill Road Phase III
16	Heritage Trail Extension
17	North Clarksville Multiuse Trail
18	Lapping Park to Lewis and Clark Parkway Connector Trail
19	South Clarksville Street Grid Buildout Phase II
20	Smyser Avenue Relocation

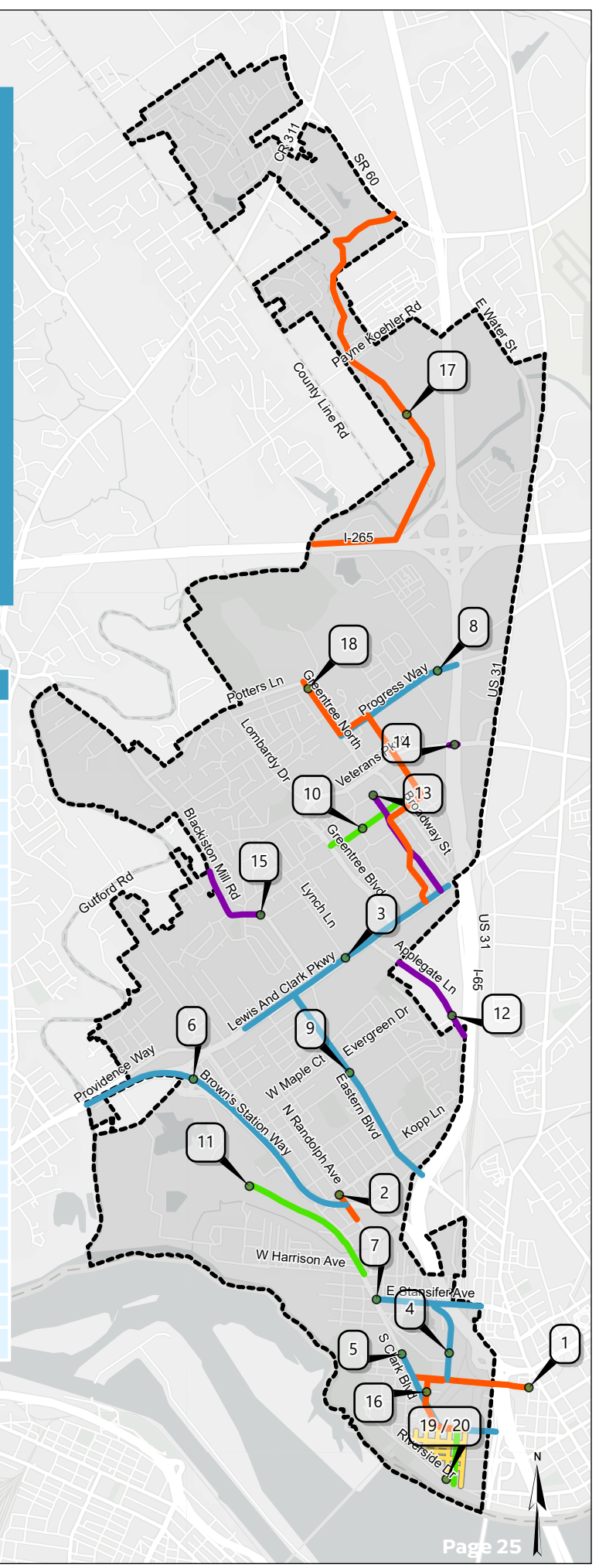


Exhibit 6-2: Recommended Projects Table

Recommended Projects - Multimodal Connectivity

Jeffersonville 9th Street / Clarksville Montgomery Avenue Multimodal Connection MAP ID: #1

Description: Design and construction of multimodal connection between Jeffersonville and Clarksville’s Arts Districts, underneath I-65 along Montgomery Avenue and 9th Street. The design will include new sidewalks, bicycle paths, lighting, and other aesthetic amenities. Project length is 0.64 miles.

Start Location:
S Clark Boulevard

End Location:
Indiana Avenue

Source:
KIPDA MTP

Randolph Avenue Pedestrian Connection MAP ID: #2

Description: Streetscape project to add sidewalks to Randolph for pedestrian crossing at Brown’s Station Way.

Start Location: Brooks Avenue

End Location: Francis Avenue

Source:
Connect Clarksville Multimodal Transportation Plan

Heritage Trail Extension MAP ID: #16

Description: Extending an arm of the Heritage Trail through the former Colgate property in the North Clarks Landing and the Marathon Oil property which would connect Colgate Park and the Clarksville Aquatic Center with the riverfront and Ohio River Greenway.

Start Location:
Montgomery Avenue / State Street

End Location:
Riverside Drive Multimodal Connectivity

Source:
2015 Comprehensive Plan

North Clarksville Multiuse Trail MAP ID: #17

Description: 10’ Multi-use bike and ped trail that follows a sewer easement. Will connect the Town’s northern areas with the main commercial district and Town’s golf course.

Start Location: I-265

End Location: SR 60

Source: KIPDA MTP & RDC

Lapping Park to Lewis and Clark Parkway Connector Trail MAP ID: #18

Description: Shared-use path along Cedar St. and Sam Gwin Dr. to connect Lapping Park/North Clarksville Trail to Lewis and Clark Parkway.

Start Location: Lewis and Clark Parkway

End Location: Lapping Park

Source:
Connect Clarksville Multimodal Transportation Plan

Recommended Projects - Multimodal Enhancements

Lewis and Clark Road Diet

MAP ID: #3

Description: Possible road diet from six lanes to four lanes. Segment is 6th worst on KIPDA's Top Crash List for Indiana and is host to several dangerous intersections and prone to crashes. Currently configured as six 12' lanes of two-way traffic with turning lanes dispersed throughout and six 11' lanes divided by a 3' curb median for 2-way traffic. A traffic study will need to be completed to evaluate the performance of a road diet option. If confirmed by traffic study, road diet will remove at least one traveling lane (likely two) to mitigate and discourage vehicles from dangerous maneuvers, and perhaps widen the lanes to 12 or 13'. Currently there are sidewalks on the north and south side of Lewis and Clark, but they are only 4-5' and the northern side lacks a plant buffer in some areas. The road diet will widen current sidewalks, improve and add crossings, and provide a vegetative buffer between vehicle traffic and pedestrian users in this busy shopping corridor.

Start Location:
Johnson Lane

End Location:
Horn Street

Source:
KIPDA MTP

Marriott Drive Improvements

MAP ID: #4

Description: Streetscape improvements for entirety of Marriott Drive: 14'+ two-way traffic lanes (nearby RV sales), 5' sidewalk, curb and gutter, sharrows or designated bike lanes.

Start Location:
Montgomery Avenue

End Location:
Stansifer Avenue

Source:
KIPDA MTP

Reconstruction of South Clark Boulevard

MAP ID: #5

Description: The proposed reconstruction of South Clark Boulevard project will implement complete street principles to enhance pedestrian circulation, provide a safe and buffered above grade cycle track, improve vehicular movement, and add landscaping along the existing corridor. The segment from Missouri Avenue to the Louisville and Indiana Railroad overpass would become a four-lane divided median roadway. The intersection with Missouri Avenue will require a traffic light as current configuration is somewhat confusing/dangerous. The portion from the railroad overpass to Montgomery Avenue would become a two-lane road with a parking lane on each side. The section from Montgomery Avenue to South Sherwood Avenue would be a sidewalk component to connect to existing pedestrian facilities. Improvements to the L&I overpass may be constructed as part of a separate project. The project includes new curb and gutter with sidewalks and planting strips on each side of the roadway. An above grade cycle track would be included on one side of the roadway. The intersection at Missouri Avenue would need to be rebuilt and realigned to allow for better traffic flow and a safer pedestrian, cyclist, and motorist environment.

Start Location:
Sherwood Avenue

End Location:
Missouri Avenue

Source:
KIPDA MTP

Brown's Station Way Streetscape

MAP ID: #6

Description: Implementation of the streetscape, traffic flow, and safety recommendations from the Brown's Station Way Master Plan.

Start Location:
Silver Creek / Town Limits

End Location:
Randolph Avenue

Source:
RDC

Stansifer Ave Streetscape Improvements

MAP ID: #7

Description: The project is a complete overhaul of Stansifer Avenue from Akers Avenue to South Clark Boulevard. The roadway will have new landscaped medians, curb and gutter, the addition of on-street parking, narrowing of the lane widths and drainage improvements. The project will also include pedestrian sidewalk upgrades and widening to at least 5' and designated bike lanes.

Start Location:
S Clark Boulevard

End Location:
Akers Avenue / Town Limits

Source:
RDC

Progress Way

MAP ID: #8

Description: The project will install new curb and gutter, sidewalks, and drainage along Progress Way from I-65 to Broadway. The width of the lanes will not change, instead they will be shifted south slightly to allow for drainage improvements. There will also be a reworking of the intersection with Addmore and Progress Way.

Start Location:
I-65

End Location:
Broadway Street

Source:
KIPDA MTP & RDC

Eastern Boulevard Pedestrian and Transit Enhancements

MAP ID: #9

Description: Project to improve pedestrian travel experience, enhance the transit amenities/connections, and beautify the corridor.

Start Location:
Lewis and Clark Parkway

End Location:
I-65 Ramps

Source:
Connect Clarksville Multimodal Transportation Plan

Recommended Projects - New Corridors

River Falls Mall: Ring Road Extension

MAP ID: #10

Description: The northern leg of the River Falls Mall's Ring Road will be reconstructed and extended to create a continuous east-west connection between Greentree Boulevard and Broadway Street. The road will extend on new alignment to the east to cross Cedar Street and then "T" into Broadway. The Bass Pro roundabout will remain. Typical sections would be 2' buffers, one 7' cycle track, two 5' sidewalks, two 5-7' landscape buffers, two 2-3' curb and gutter, and two 12' lanes. The northern portion of Horn Street will be vacated after completion of this project, Woodstock Drive has already been vacated from Cedar Street to Broadway Street.

Start Location:
Greentree Boulevard

End Location:
Broadway Street

Source:
KIPDA MTP

South Clark Blvd Extension into Origin Park

MAP ID: #11

Description: New roadway to serve as entrance to Origin Park.

Start Location:
W Harrison Avenue

End Location:
Bailey Avenue Levee

Source:
RDC

South Clarksville Street Grid Buildout Phase II

MAP ID: #19

Description: Continued buildout of the new street grid in South Clarksville. Various extents.

Start Location:
--

End Location:
--

Source:
RDC

Smyser Avenue Relocation

MAP ID: #20

Description: New road project connecting South Clark Boulevard to Riverside Drive. Project extends through flood-wall (requires new gate) to connect with Riverside Drive. Two 11' traffic lanes, curb and gutter, bike/ped, 3-way stop or traffic light at junction with Center Street/Court Avenue.

Start Location:
Riverside Drive

End Location:
S Clark Boulevard

Source:
KIPDA MTP

Recommended Projects - Roadway Enhancements

Applegate Lane Improvements

MAP ID: #12

Description: Widening to at least 12' lanes for two-way traffic, constructing new sidewalks to existing, and making streetlight improvements.

Start Location:

Kopp Lane

End Location:

Discovery Trailhead

Source:

KIPDA MTP

Cedar Street Reconstruction

MAP ID: #13

Description: Cedar Street would be reconstructed from Woodstock Drive south to Lewis & Clark Parkway. The segment between Ring Road extension (the mall's circulator road) and Madison Street would shift slightly west to operate as both a public street and circulatory for River Falls Mall. This segment of Ring Road would be removed. Throughout the reconstructed road would be curb and gutter, 2-4' planting verge, and 5' sidewalks on both sides of the roadway.

Start Location:

Woodstock Drive

End Location:

Lewis and Clark Parkway

Source:

KIPDA MTP

I-65 & Veteran's Parkway

MAP ID: #14

Description: Modify I-65 & Veteran's Parkway interchange by providing additional left turn capacity and adding pedestrian signal indications and push buttons at the signalized ramp terminal intersections from 0.1M E of Park Place/0.2M N of US31 to Progress Way/0.27M W

Start Location:

I-65 SB Ramp

End Location:

I-65 NB Ramp

Source:

KIPDA MTP

Blackiston Mill Road Phase III

MAP ID: #15

Description: The project will provide for a widening of Blackiston Mill Road from Blackiston View Drive to Marlowe. The two large curves radius and grades will be reduced to allow for better sight distance and safety improvements. Drainage improvements to prevent roadway flooding are also included. Sidewalks will be added along the roadway and connect to Blackiston Mill Road Phase II and Marlowe Drive.

Start Location: Blackiston View Drive

End Location: Marlowe Drive

Source:

KIPDA MTP & RDC

MULTIMODAL PROJECT PRIORITIZATION TOOL

The Connect Clarksville Multimodal Transportation Plan introduces a multimodal lens to the thoroughfare planning process by considering biking, walking, and transit in addition to vehicular travel.

As the Town uses Connect Clarksville to strategically outline investments in the thoroughfare system, it can use the Multimodal Project Prioritization Tool below to rank proposed projects based on a more holistic

view of benefits and impacts of the project. The tool includes project impacts that align with the goals of the Multimodal Transportation Plan and creates a direct way to assess proposed projects through the lens of the Multimodal Transportation Plan. A proposed project is given points for each of the tool’s criteria that it meets. This results in a project score which can be compared to other projects.

While prioritization tools create an objective framework for evaluating a project’s impact, subjectivity is still involved in the scoring process. As such, the Town’s planning process must consider how the tool will be used,

Exhibit 6-3: Multimodal Project Prioritization Tool

Multimodal Project Prioritization Tool		
Criteria	Description	Score
Proximity to a School	Project is within 1/2 mile of a school	0-1
Proximity to Community Spaces	Project is within 1/2 mile of a park, community center, library, or other public space	0-1
Sidewalk Connectivity	Project includes connecting an existing gap in the sidewalk network	0-1
Connection to Transit	Project is along or intersects a transit route	0-1
Public Support	Does the project improve biking and/or walking on one of the corridors identified by the public for improvement	0-1
Proximity to Main Street	Project is within 1/2 mile of Main Street in Clarksville	0-1
Proximity to Central Clarksville	Project is within 1/2 mile of Veteran’s Parkway or Lewis-Clark Parkway in Clarksville	0-1
Traffic Mobility Improvement	Project will significantly improve vehicular travel times and/or delay	0-1
Speed Management	Project includes traffic calming elements designed to reduce average vehicular speeds	0-1
Connection for North Clarksville	Project provides improved mobility for North Clarksville	0-1
Improves High-Crash Corridor	Project is along a corridor with five or more bicycle crashes or five or more pedestrian crashes	0-1
Connection to Existing Bicycle Facilities	Project intersects with existing trails, trail corridors, or bike lanes	0-1
Corridor Beautification	Project includes beautification components and/or improved streetscape aesthetics	0-1
Freight / Logistics Support	Project connects to a freight or logistics facility or corridor	0-1
Green Infrastructure	Project includes significant green infrastructure elements	0-1
Total Possible Score		0-15

including which bodies, groups, or individuals provide input on the scoring. The Recommended Projects of the Multimodal Transportation Plan were not evaluated using the prioritization tool, as the guidelines for using the tool should be created by the Town before implementation.

PROGRAM RECOMMENDATIONS

In addition to specific projects, there is additional planning work that the Town should undertake to advance the goals of Connect Clarksville. These Program Recommendations take the form of studies and investments.

BICYCLE AND PEDESTRIAN MASTER PLAN

Connect Clarksville identifies priority trail projects to increase the connectivity of the trail system. It also identifies multimodal enhancement projects that expand the provision of biking and walking facilities along existing routes. However, a thorough bicycle and pedestrian master plan is needed to fully assess the gaps in the sidewalk and bicycling network and propose a capital improvement plan specific to active transportation projects. The plan should also include a classification system for bike infrastructure and sidewalk/walking infrastructure similar to the roadway functional classification system. Bicycle level of traffic stress is one classification method to be considered.

The Town has already identified priority bike routes in addition to those shown in this Plan. However, those were not included in the Recommended Projects as they have not been studied further. These include routes along Tennyson Drive, Potters Lane, and Providence Way. These routes would be evaluated within the overall system as a part of a Bicycle and Pedestrian Master Plan.

CLARKSVILLE TRANSIT ACCESS STUDY

Currently, only one bus line operates within the Town of Clarksville. In addition to researching

possible transit needs and proposing new TARC routes, the Town should perform a Transit Access Study. This would involve assessing ridership data, determining what percentage of residents live within 1 mile of a bus stop, evaluating existing and proposed large transit ridership generators, and researching non-traditional solutions such as microtransit. The study would engage with TARC, KIPDA, and the public to develop a strategic plan for increasing Clarksville residents' access to transit.

Additionally, as Amtrak evaluates restarting a Louisville to Indianapolis commuter rail line, Clarksville could evaluate developing a commuter station in South Clarksville to link residents with commuter rail service. A train station in South Clarksville could also serve as a multimodal transportation hub and include economic development opportunities.

SOUTH AND WEST SIDE TRANSIT ROUTE

Clarksville has explored the feasibility of a bus route to serve South Clarksville. In preliminary discussions with TARC, it was clear that this route will be more feasible as the population density in this area returns with the new developments.

However, it is critical that the Town advocate for this route expansion and for a bus route that serves west Clarksville, including Origin Park and neighborhoods west of Blackiston Mill Road. These routes would increase the connectivity of the Town's multimodal thoroughfare network, one of the goals identified in this plan.

As noted in TARC's Long Range Plan, KIPDA can serve as a collaborator to facilitate these discussions.

MULTIMODAL DATA COLLECTION

The Town has mapped its sidewalk inventory, developed an assessment tool to determine sidewalk quality, and deployed this tool. The Town can use this data to inform when and where to close the sidewalk gaps or perform

sidewalk maintenance. The Town also has some trail user data by means of bicycle counters on some of the trails. However, these data are sparse and do not contribute to the discussion of modal priorities given that vehicular data is so readily available.

In addition to these data sources, the Town should identify other multimodal data that could be collected to establish baselines for strategic plans related to increasing multimodal connectivity and choice in the thoroughfare network.

SIDEWALK CONNECTIVITY INVESTMENTS

Many Clarksville neighborhoods lack sidewalks or have gaps in the sidewalk network. This limits residents' choices in how they move around. The public survey results indicated an overwhelming desire for additional sidewalks and pedestrian amenities. Additionally, the Town is rated very poorly for walkability by WalkScore, a walkability analysis tool. Prioritizing investments in projects that close sidewalk gaps meets the goals of Connect Clarksville and enhances the connectivity of all modes in the network.

The Town has already begun implementing Americans with Disabilities Act (ADA) compliance projects, most recently on Eastern Boulevard. Investing in ADA sidewalk compliance projects should be a priority for the Town in order to increase safety and choice for pedestrians.

FUNCTIONAL CLASSIFICATION REVIEW

As the Town continues to experience growth, it should establish a timeline for periodic assessments of the roadway inventory and the classifications of the roadways. The Federal Highway Administration Office of Planning, Environment, and Realty offers tables depicting various ranges of characteristics of the different

functional classifications. Using updated data of the Town's roadway inventory, the existing characteristics of Town streets (such as AADT, lane width, access control) can be compared to FHWA's guidelines. From there, recommendations to "right-size" a street's functional classification can be made.

ELECTRIC VEHICLE INFRASTRUCTURE INVESTMENTS

As electric vehicles become more widespread, the Town of Clarksville should strategically prepare its thoroughfare system to accommodate the needs of electric vehicles. In particular, vehicle charging in both public and private settings will become a necessary component of the local infrastructure. Initial electric vehicle charging stations should be considered for inclusion along important corridors in the Town which can serve residents, visitors, and interstate highway users.

INDOT's National Electric Vehicle Infrastructure (NEVI) plan¹ is a \$100 million investment in electric vehicle charging infrastructure across Indiana. The Town of Clarksville can support INDOT's NEVI plan by providing land for the charging stations, providing financial assistance, and promoting the plan to its residents. Clarksville can also be ready for any actions coming from INDOT's plan by developing their own electric vehicle charging infrastructure plans.

ASSET MANAGEMENT SYSTEMS AND GEOSPATIAL DATA GOVERNANCE PLAN

The Town currently owns some geospatial asset data such as road inventory, sidewalk inventory, and trail counters. However, effective asset management requires robust and clear policies for all steps of the asset management process. This includes data governance - how is geospatial data created, stored, managed, and

¹INDOT Electric Vehicle Charging Infrastructure Network (<https://www.in.gov/indot/current-programs/innovative-programs/electric-vehicle-charging-infrastructure-network/>)

used, and who has access to that data? All of this data can eventually be used for performance monitoring and capital investment planning. The Town should invest in improved asset management systems to help advance the goals of Connect Clarksville.

POLICY RECOMMENDATIONS

The Connect Clarksville Multimodal Transportation Plan provides geometric design standards by functional classification for all roadways in the Town including subdivision streets. In order to properly implement the new Plan, these recommendations should be considered for action by the Town:

THOROUGHFARE PLAN REPLACEMENT

- The *Connect Clarksville Multimodal Transportation Plan* should be adopted as a Town policy and serve as the Town of Clarksville's Thoroughfare Plan in accordance with IN Code § 36-7-4-506 (2022).

ZONING AND SUBDIVISION REGULATIONS UPDATES

- Zoning and subdivision regulations should be revised to align with this plan.
- The existing Thoroughfare Plan should be removed from the Subdivision Regulations (Ord. 152).
- Ordinance 152.72 (C) Interpretation of design tables should be removed.
- Ordinance 152.72 (M) Sidewalks should be revised to require sidewalks on both sides of all streets and a min. width of 5 ft.

ACCESS MANAGEMENT PLAN UPDATES

The Access Management Plan in the Zoning Ordinance should be amended to reflect the following changes:

- Article 4 Sec. 155-80. Design vehicle dimensions and trip generation rates tables should be reviewed and updated by ITE standards.
- Article 4 Sec. 155-90 A. B. C. should be removed and refer to Multimodal Transportation Plan for design standards of Local, Collector, and Arterial Roads.
- Article 4 Sec. 155-90 D. Sidewalks – should be revised to require sidewalks on both sides of all streets and a min. width of 5 ft.
- Article 4 Sec. 155-180 D. Add consideration of pedestrian and bicyclist connectivity to Review Criteria for Request to Change Access Spacing.

COMPLETE STREETS POLICY ADOPTION

The Comprehensive Plan recommends adoption of a Complete Streets Policy and outlines elements to be included in that plan. Adoption of a Complete Streets Policy supports the goals of the Connect Clarksville Multimodal Transportation Plan. Example elements of a Complete Streets Policy include:

- Traffic calming on local / collector streets
- Right sizing of streets
- Speed management
- Complete Streets Toolbox



APPENDIX A

PUBLIC ENGAGEMENT

OVERVIEW

Appendix A offers a detailed review of how public engagement was approached for Connect Clarksville and how resulting public input shaped the final plan. Included in this section is the original public involvement plan that guided the planning process, a brief summary of each steering committee meeting, and additional detail from the public survey that was not included in Section 3.

PUBLIC INVOLVEMENT PLAN

FACTORS FOR CONSIDERATION

Below are some initial steps to kick-off the community engagement process that should be taken to be consistent with Clarksville's new Standard Operating Procedures (SOP) for Community Engagement. Details that are pulled specifically from the SOP have the page number cited below.

1. Meet with Town staff to identify Steering Committee members, identify major questions they want answered through community engagement, define the audience for engagement efforts, and discuss public engagement options.

- A. Steering Committee: Composed of community members, Staff, and stakeholders that will attend the three Stakeholder Meetings that were outlined in the Scope of Work. Steering Committee members will provide feedback on the thoroughfare plan and help guide community engagement efforts.
- B. Define the audience by considering who should provide input in the process, the area of influence, area of impact, specific interests of the groups being engaged, and the metrics for a successful engagement effort (p.15). For example, a statistically valid survey in Clarksville would require at least 480 responses to have a 90% confidence level.
- C. Plan for engagement by identifying the major milestones (schedule, touch points), major discussion topics and questions to be answered, meeting formats, types of activities, metrics for success (p.16).
- D. Details from the SOP to consider using in the engagement process:
 - i. Community survey responses suggest hosting meetings between 6-8pm on Wednesdays, Thursdays, and Saturdays, with potential for midday options on Saturdays (p.25)

- ii. Meeting spaces need to be ADA accessible, language interpretation should be considered, events should be child-friendly, and have FAQ/schedule available (p.25)
- iii. Consider incentives like interactive activities, food, raffles, and recognizing involved citizens in the media (p.25)

2. Meet with Clarksville staff to develop a messaging strategy. This strategy should include project messaging, timing and frequency of communications, media and outreach strategy, and metrics for success.

- A. Town publications like the Town Magazine (mailed to all households) and monthly flyer mailed with water bill should be discussed in this meeting because their publication schedules could influence timing of public meetings and/or survey.
- B. Public meetings need one-month notice and weekly e-blast reminders following the initial announcement. This is not required for surveys (p.21).

3. Finalize Engagement Plan and share with the rest of the consulting team for additional feedback.

PUBLIC INVOLVEMENT PLAN OUTLINE

1. December 2022

- A. Public Announcement of Thoroughfare Study and Community Engagement Process
- B. 1st Steering Committee Meeting: Conduct street design activity/input on desired cross sections and get feedback on public meeting and survey promotion.

2. February 2023

- A. Release online public survey and send out mailed survey.
- B. 2nd Steering Committee Meeting: review draft cross sections/initial recommendations planning process and survey results.

3. March 2023

- A. Close Public Survey
- B. Begin Advertising public meeting (at least 1 month prior to meeting)

4. April 2023

- A. Share Feedback with the Community by sharing online
- B. Host Public Meeting: share planning process, survey results, draft plan, take public comments.
- C. 3rd Steering Committee Meeting: review draft plan and public meeting highlights, ask for final input.

5. May 2023

- A. Joint working session with Redevelopment Commission (RDC) and Town Council to share a draft of the plan and receive feedback.
- B. Present final plan to the Redevelopment Commission.

6. June 2023

- A. Present final plan to Town Council.
- B. Final plan is adopted.

STEERING COMMITTEE MEETINGS

OVERVIEW

The Connect Clarksville Steering Committee met three times throughout the planning process and was composed of representatives from nine different organizations, agencies, and businesses. These participating groups include:

- ◆ Clarksville Community Schools Corporation
- ◆ Denton Floyd Real Estate Group
- ◆ Form G Commercial Advisors
- ◆ Greater Clark County Schools
- ◆ Kentuckiana Regional Planning and Development Agency (KIPDA)
- ◆ One Southern Indiana
- ◆ Silver Creek School Corporation
- ◆ Transportation Authority of River City (TARC)
- ◆ Town of Clarksville (including the Town Manager, Communications Director, Planning Department, Sewage and Wastewater Department, and Public Works Department).

MEETING 1: KICK OFF AND VISIONING

December 2023

At this initial meeting with the steering committee members, attendees were oriented to the overall purpose of a thoroughfare plan, their role as committee members, and the planning process that would be undergone to develop *Connect Clarksville*. The committee was also asked to participate in visioning exercises to determine the general direction of the plan and to establish initial guidance on the future of Clarksville's transportation system. In one exercise, attendees worked together to develop a future cross section of arterial and collector streets. Below are some highlights from this process:

- ◆ **Utility Zones.** An area of the right-of-way on future roadways should be reserved as "utility zones". These areas should ideally be 15 feet wide and should not include any trees. In doing this, utilities can be installed and serviced without needing to uproot existing trees.
- ◆ **Supporting Public Transit.** Because passenger buses are wider than private automobiles, wider lanes should be included on streets with current and potential future bus routes. On roadways that have more than one travel lane per direction, wide lanes can be reserved only for the exterior lanes that buses typically use.
- ◆ **Bike and Pedestrian Infrastructure.** Bike lanes may not be suitable for every roadway in Clarksville. For arterial roadways that experience fast-moving and high volumes of automobile traffic, wider multi-use pathways that can support both pedestrians and cyclists are preferable to on-street bike lanes.

MEETING 2: EXISTING CONDITIONS AND DRAFT GOALS

February 2023

At the second meeting, steering committee members were presented with a summary of the existing conditions report. This included a series of maps that show the town's functional classification of roads, crash data, and traffic data. Additionally, attendees were asked to share some ideas for potential projects by marking project locations on a map.

The second component of this meeting was a discussion on what overall goals should drive the plan. To do this, the consultant team presented committee members with draft goals that they could revise and rank based on their priority level. Committee members additionally offered up other goals that should be included. After this meeting, the draft goal statements were revised for use in the final plan.

MEETING 3: DRAFT PLAN REVIEW

April 2023

During the final steering committee meeting, attendees were updated on the progress of the plan and were presented with the draft plan, public survey results, and highlights from the public meeting. During discussion, committee members made the following recommendations:

- ◆ Consider renaming the plan to a “Transportation Plan” from a “Thoroughfare Plan” since this plan addresses multimodal needs and has a more comprehensive approach to improving Clarksville’s transportation network.
- ◆ On collector streets, ensure that the language used to describe the placement of bike lanes and multi-use paths is flexible so that new roads do not have to conform to the exact specifications of the cross sections included in the plan. This could include a blanket statement in the plan that the bike and pedestrian design standards represent the minimum infrastructure for either mode on any given road class.
- ◆ Consider including additional projects, such as a feasibility study for a South Clarksville train station to connect with future Amtrack service, a trail to connect the levy trail and Brown Station Way, neighborhood connections to Lapping Park, a connection from the new boat launch in Origin Park to Blackiston Mill Road, and making beautification and multimodal improvements to Eastern Boulevard to articulate its significance as a gateway into Clarksville.

COMPLETE SURVEY RESPONSES

QUESTION 1

1. Which of the following modes of transportation do you and your family use at least once a week?								
	All Responses		North Clarksville		Central Clarksville		South Clarksville	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Drive alone	510	95%	25	93%	349	95%	104	97%
Carpool	69	13%	5	19%	52	14%	10	9%
Public transit (TARC)	12	2%	0	0%	9	2%	2	2%
School bus	34	6%	5	19%	24	7%	5	5%
Walk	223	42%	12	44%	157	43%	43	40%
Bike	94	18%	2	7%	67	18%	22	21%
Other (please specify)	25	5%	2	7%	18	5%	3	3%
Total	536		27		366		107	

QUESTION 2

2. Which of the following modes of transportation would you and/or your family like to use more often?								
	All Responses		North Clarksville		Central Clarksville		South Clarksville	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
None of the above	77	14%	7	26%	49	13%	18	17%
Drive alone	214	40%	10	37%	142	39%	43	40%
Carpool	27	5%	5	19%	18	5%	3	3%
Public transit (TARC)	67	13%	4	15%	43	12%	15	14%
School bus	8	1%	0	0%	5	1%	3	3%
Walk	225	42%	11	41%	165	45%	38	36%
Bike	170	32%	7	26%	124	34%	32	30%
Other (please specify)	17	3%	2	7%	14	4%	4	4%
Total	536		27		366		107	

QUESTION 3

3. Please select the top three improvements you would most like to see along streets in Clarksville. (Select three.)								
	All Responses		North Clarksville		Central Clarksville		South Clarksville	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
More sidewalks	232	43%	9	33%	154	42%	52	49%
More pedestrian amenities	207	39%	11	41%	136	37%	46	43%
Less traffic/congestion	203	38%	20	74%	142	39%	27	25%
More street trees and plants	174	32%	7	26%	124	34%	39	36%
Better drainage (i.e. stormwater retention)	173	32%	6	22%	125	34%	36	34%
More recreational trails	158	29%	9	33%	116	32%	28	26%
Safer streets	147	27%	6	22%	101	28%	30	28%
Slower driving speeds	88	16%	2	7%	62	17%	16	15%
More bike lanes	87	16%	5	19%	61	17%	17	16%
More pedestrian crossings (crosswalks)	84	16%	6	22%	56	15%	15	14%
More off-street parking	60	11%	2	7%	39	11%	12	11%
More bus routes and/or bus stops	41	8%	2	7%	23	6%	15	14%
Faster driving speeds	30	6%	0	0%	20	5%	5	5%
More on-street parking	20	4%	0	0%	14	4%	5	5%
Total	536		27		366		107	

QUESTIONS 4-7

4. I typically feel safe when traveling on my route(s).						
This statement is accurate		This statement is somewhat accurate		This statement is not accurate		Total
Count	Percent	Count	Percent	Count	Percent	
307	58%	193	36%	30	6%	530

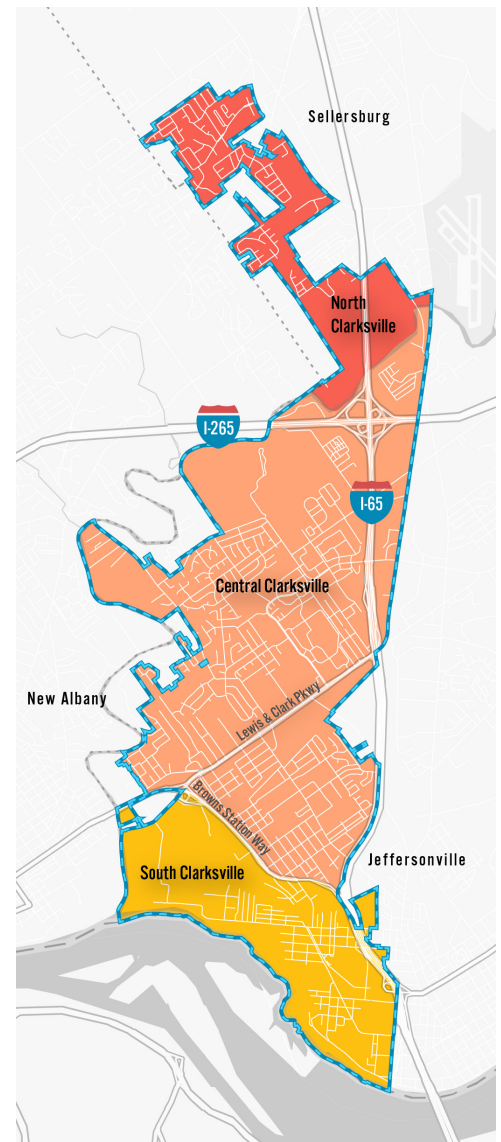
5. My route(s) is/are usually convenient to travel.						
This statement is accurate		This statement is somewhat accurate		This statement is not accurate		Total
Count	Percent	Count	Percent	Count	Percent	
322	61%	179	34%	30	6%	531

6. Traffic is typically too heavy on my route(s).						
This statement is accurate		This statement is somewhat accurate		This statement is not accurate		Total
Count	Percent	Count	Percent	Count	Percent	
135	25.5%	234	44.2%	161	30.4%	530

7. Vehicle speeds are too fast on my route(s).						
This statement is accurate		This statement is somewhat accurate		This statement is not accurate		Total
Count	Percent	Count	Percent	Count	Percent	
79	15.0%	157	29.7%	292	55.3%	528

QUESTION 8

Using the map above, where do you live?	
North Clarksville	27
Central Clarksville	366
South Clarksville	107
Sellersburg	5
Jeffersonville	3
New Albany	5
Kentucky	2
In Indiana, but not any of the listed communities	3
Other (please specify)	0
Total	518



OPEN RESPONSES (QUESTION 9)

Below are some highlights from the open response comments shared by survey respondents. Most of the survey respondents left comments, so not all of them are included below, but most comments generally addressed a few major topics: congestion, driving speeds, multi-modal accommodations, stormwater management, intersection design, and crashes. There were also several comments about pavement repairs, especially on Blackiston Mill Road. Those are not included below since they are not relevant to the scope of the plan.

CONGESTION

- ♦ “I don’t know what exactly I would choose, but I know there is way too much traffic on Veterans. Everything is moving that way when there are buildings that need to be occupied on Lewis and Clark too, not that Lewis and Clark is becoming much better with people getting on and off the interstate. Like I said, I don’t know what should be done but traffic is ridiculous and appears to be getting worse.”
- ♦ “There is entirely too much traffic outside of the Plum Creek/Meter Manor neighborhoods. I also avoid Veterans Pkwy at all costs due to traffic.”

DRIVING SPEEDS

- ♦ “Slower speeds and less on-street parking”
- ♦ “Slow down please. On our street we have a child. We walk sometimes on this street.”

MULTI-MODAL ACCOMMODATIONS

- ♦ “I would love to see more sidewalks. I see so many people walking, biking, running etc. and they have nowhere to do that except for in the streets. Providence Lane and the Blackiston Mill area could use sidewalks.”
- ♦ “Since I live and work in Clarksville, I’d like to see more bike lanes throughout town. Lewis

and Clark and Veterans Pkwy are crazy on bike. I am a year round bike commuter.”

- ♦ “I live in Farmington Apts. Am legally blind. Im afraid to cross Veterans Pkwy - people don’t stop for crosswalks i.e. Target. I have a white cane. People don’t know what it means.”

STORMWATER MANAGEMENT

- ♦ “There is no water drains at the entrance of our cul de sac and water stands there and freezes. We had water drainage there at one time but it was concreted over.”
- ♦ “The city put a drain in but did not clear a path for the rainwater to get to the drain. This causes lots of water to collect in yards!”

INTERSECTION DESIGN

- ♦ “More responsive traffic light at Carter Ave and Eastern Blvd. Sometimes it does not trigger for vehicles”
- ♦ “Need a red light on Greentree Blvd. and Byron Dr. Plus, put a turning light on Veteran Pkwy. To Lombardy Dr. Light on Blackiston Mill - Longfellow Drive or stop signs.”

CRASHES

- ♦ “Eastern Blvd. going on to I-65 there always serious crashes. Frequent serious car crashes at Eastern Blvd. on Lewis and Clark Blvd. by McDonalds and Providence Way and Lewis and Clark Blvd. intersection.”
- ♦ “Cars kill bike riders because they do not believe bikes are a legitimate mode of transportation. Recent improvements to congested intersections make it more dangerous to walkers and bikes.”

