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TRANSPORTATION

Transportation

After gathering existing data and conducting discussions with stakeholders and officials along the corridor, the consultant team arrived at the following key conclusions and key issues with regard to Manchester Road's existing transportation conditions. The Appendix contains additional information and data concerning the existing transportation conditions along and near the Manchester Road corridor.

- While Manchester Road experiences significant traffic volumes between Baxter Road and Route 141, and around Clarkson Road, during rush hour periods, the overall impediment to improved transportation performance relates to access management problems. The significant number of curb cuts and intersecting residential streets along Manchester Road, and the lack of connectivity between individual retail parcels, funnels almost all traffic in the local area onto Manchester Road and creates conflict between travelers using the corridor to commute and those using it to access individual businesses. The significant number of vehicles turning into and out of individual parcels creates safety issues.
- The lack of a grid or more coordinated street network contributes to Manchester Road's transportation problems. In most parts of the Midwest, a grid of streets, including secondary streets running parallel to main arterials, helps to disperse traffic and relieve bottlenecks on main streets (such as Manchester Road). It also allows traffic (including shoppers, workers, etc.) to circulate within corridors such as Manchester Road without having to get back on the main road. In contrast, very few significant north-south arterials intersect Manchester Road. Very few roads run parallel to Manchester. As a result, almost all traffic in the area funnels onto Manchester Road, creating congestion at peak periods.
- The inconsistency in the quality and presence of sidewalks, crosswalks, and bicycle facilities discourages pedestrian and bike activity along – and near – Manchester Road.
- A significant excess inventory of parking decreases the visual quality of the corridor, and reduces the amount of land available for development.
- The presence of the center turn lane, allowing unobstructed left turns in all locations, contributes to confusion along the corridor and has contributed to a significant number of accidents over the years as motorists attempt left turns without protection from oncoming traffic.

The following provides a summary of the key transportation recommendations from the Manchester Road Great Streets Master Plan. The appendix contains additional details concerning these recommendations.

Key Recommendations for Transportation

Access Management Guidelines – Access management strategies along arterials such as Manchester Road provide for the safe and efficient access to individual properties while ensuring that traffic moves smoothly and efficiently along the corridor. In general, MoDOT will use the standards outlined for major arterials in approving changes to transportation and access management along the Manchester Road corridor, and will consider modifications to standards for major arterials on a case by case basis.

Establishing a Grid Network of Streets – The five communities should establish a network of north-south and east-west streets running parallel to and perpendicular to Manchester Road to improve the overall flow of traffic in the five communities and to relieve congestion along Manchester Road. The diagrams on the following pages illustrate the recommended plan for a network of streets along and near the Manchester Road corridor, and the key north-south connectors serving the area in the future.

Back Streets – The five communities and/or private developers should install streets running generally parallel to Manchester Road. These streets could function as “service roads” behind businesses or

could serve as “Main Streets” for shopping center or town center areas. Back streets could also run north-south, particularly in town center districts, in order to provide for a downtown-like grid of streets.

Connected Parking Lots and Cross Access Agreements – The five communities should call for the establishment of cross access agreements and the connecting of parking lots between adjacent parcels along Manchester Road in order to relieve the main travel lanes of Manchester Road of local traffic.

Extensions of Existing Service Roads – Extensions of existing service roads in Ellisville and Wildwood, such as Truman Road, would provide additional access to businesses and relieve traffic volume from Manchester Road.

Boulevards – Over time, the five communities should work to install a landscaped median along the center of Manchester Road in order to improve safety. However, the Manchester Road master plan recommends that the communities work first to develop a network of back streets and connected parking lots to improve access management and provide alternative routes to individual properties before proceeding with the installation of a center median in particular sections of the corridor. In addition, the communities may wish to wait to install a center median along particular sections of Manchester Road until redevelopment proceeds in a given area along the corridor.

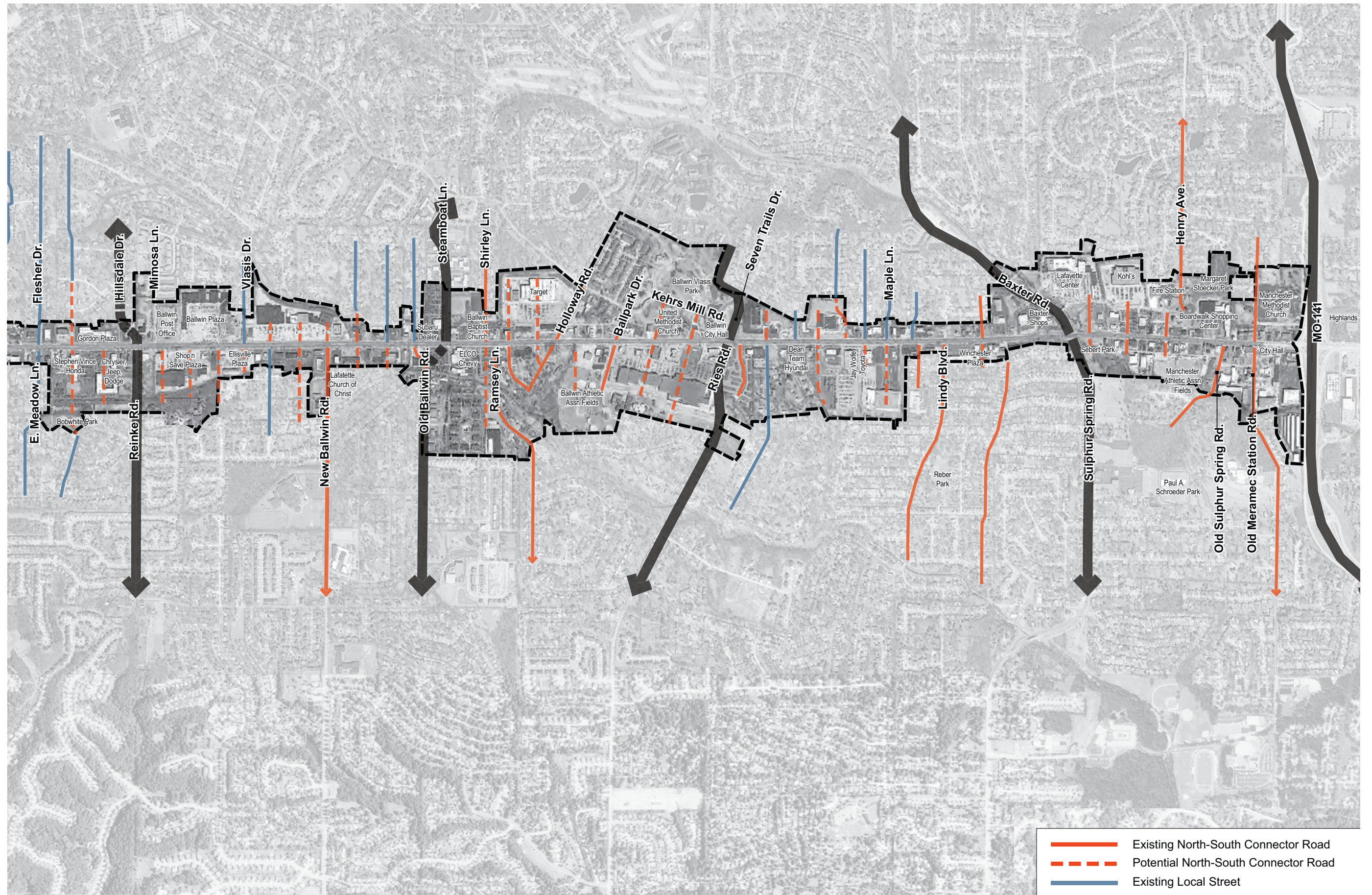
Traffic Signals – The Manchester Road Great Streets Master Plan calls for the installation of additional traffic signals at select locations in order to better manage traffic flow and to enhance the potential viability of individual businesses at and near these intersections. Prior to the approval of the installation of any additional traffic signals, especially at intersections spaced closer together than MoDOT standards, MoDOT would require the completion of progression analysis and other studies including signal warrants in order to agree to the installation of additional signals.

Road Sections – The Manchester Road Great Streets Master Plan generally recommends that Manchester Road utilize the existing road bed and continue to include two main travel lanes in each direction. Over time the center turn lane would convert to a boulevard median. Sidewalks and bike lanes would run along the sides of Manchester Road, with a separation of landscaping between the two main travel lanes and the bike / pedestrian lane. The diagrams that follow represent recommended sections for the various types of streets along the Manchester Road corridor. The consultant team recommends that the street plan and the recommended street sections integrate into the comprehensive plans and public works documents in all five communities.

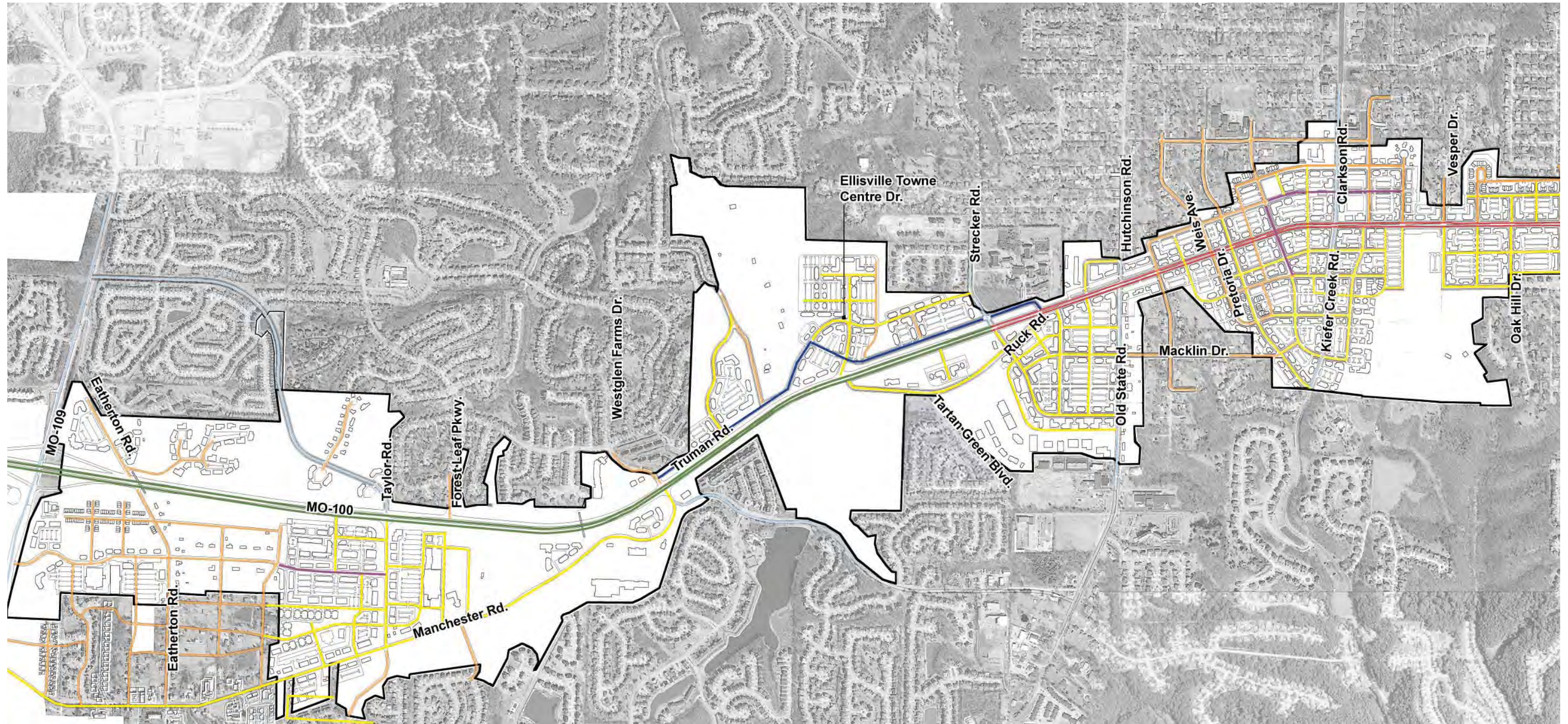
North-South Connectors - Western Segment











North-South Connectors - Eastern Segment

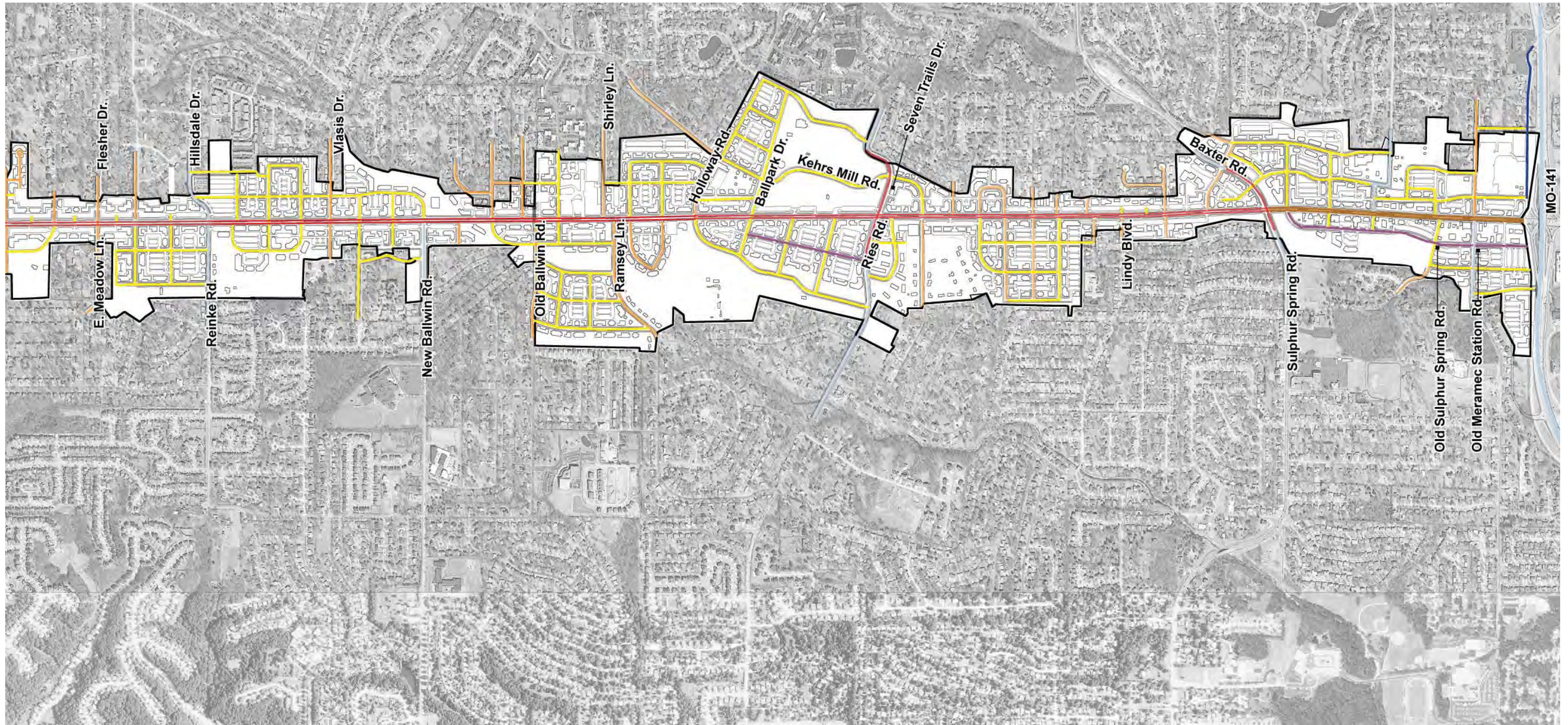


Thoroughfare Hierarchy - Western Segment



 New Boulevard	 Frontage Road
 Historic Boulevard	 Back Street
 Main Street	 North-South Arterial
 Side Street	 Parkway

Thoroughfare Hierarchy - Eastern Segment



New Boulevard

Frontage Road

Historic Boulevard

Back Street

Main Street

North-South Arterial

Side Street

Parkway

Backstreets, Option 1



Figure 14: Section, Backstreets Option 1: Back streets would run parallel to or perpendicular to Manchester Road and would serve as relief routes for Manchester Road as well as streets serving retail, office, or residential uses throughout the study area. The recommended street sections call for one travel lane in each direction, a landscape zone of six feet between the travel lanes and areas of development, and sidewalk areas of at least 10 feet in width to facilitate retail and commercial activities. The streets should include bulb outs at intersections to shorten the distance pedestrians must travel from one side of the street to another. Parking may line the street on both sides in a parallel fashion or may orient in an angled fashion on one side, in order to increase the total number of parking spaces. Buildings of up to four stories may flank back streets. The exact form and orientation of buildings along back streets would depend on market forces and individual redevelopment concepts.

Backstreets, Option 2



Figure 15: Section, Backstreets Option 2

Backstreets, Option 3 (Alley)

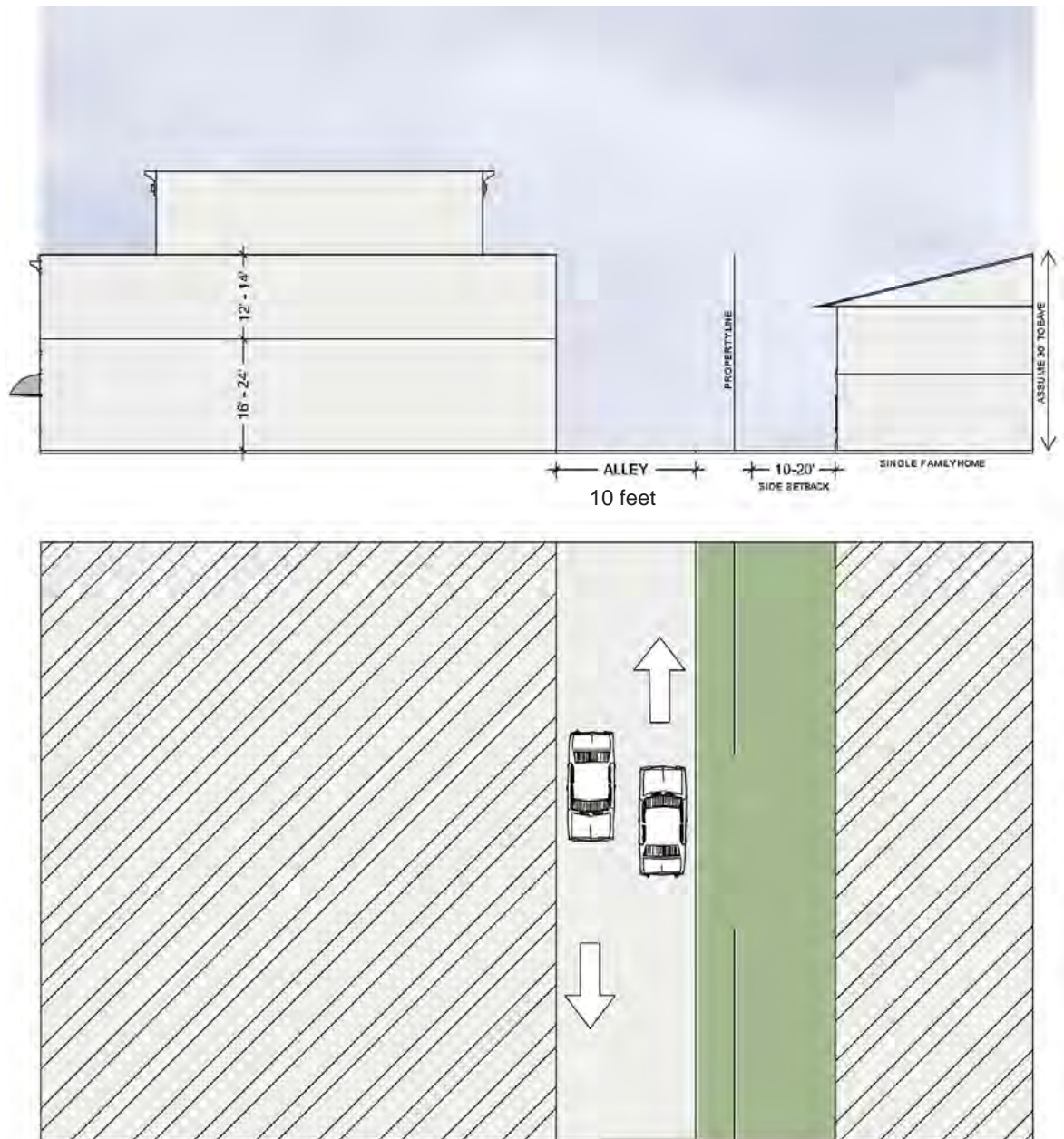


Figure 16: Section, Building Height at Residential Property with Alley: The access management plan envisions the use of alleys in various locations throughout the corridor, and particularly in town center districts, in order to provide service access to commercial establishments or residences. The street sections depicted here outline the recommended setbacks from alleys for buildings along the corridor. The communities may plan for alleys to represent an alternative form for back streets running parallel to Manchester Road. Site plans for various locations within town center districts may include plans for alleys to be located between blocks (and running behind buildings), similar to the design of alleys in older American cities. The access management plan does not depict precise recommendations for locations of alleys (located behind buildings) as the design of these streets would be conducted and determined as the development of town centers progresses.

Frontage Road



Figure 17: Section, Frontage Road (Woods Mill Road): Woods Mill Road represents a frontage road along the west side of Route 141 in Manchester. The section below outlines the recommended setbacks from Route 141 and the setbacks from buildings to Woods Mill Road.

“Main Street” Section



Figure 18: Section, Main Street: The “Main Street” section represents the recommended design for primary main streets in the various town center districts along the Manchester Road corridor. The street section recommends angled parking along either side of a two lane road in order to increase the number of parking spaces along the street. A minimum 10-foot wide sidewalk along the main streets would help facilitate outdoor dining and accommodate greater numbers of pedestrians compared to side streets or back streets. Landscaping including street trees will line the Main Streets. The plan anticipates buildings of up to five stories in height on either side of Main Streets.

“New Boulevard” Section



Figure 19: Section, New Boulevard: The “New Boulevard” street section reflects the recommended design for most of Manchester Road, between Baxter and Old State. As mentioned elsewhere in the master plan, the boulevard would over time include a landscaped median as redevelopment proceeds along the corridor in order to improve aesthetic quality and improve safety. A combined sidewalk and bike lane would be separated from the main travel lanes on either side of Manchester Road by a landscape buffer. A shallow bay of parking would potentially flank buildings on either side of the road, but the majority of parking would locate to the rear or side of individual buildings.

“Historic Boulevard” Section

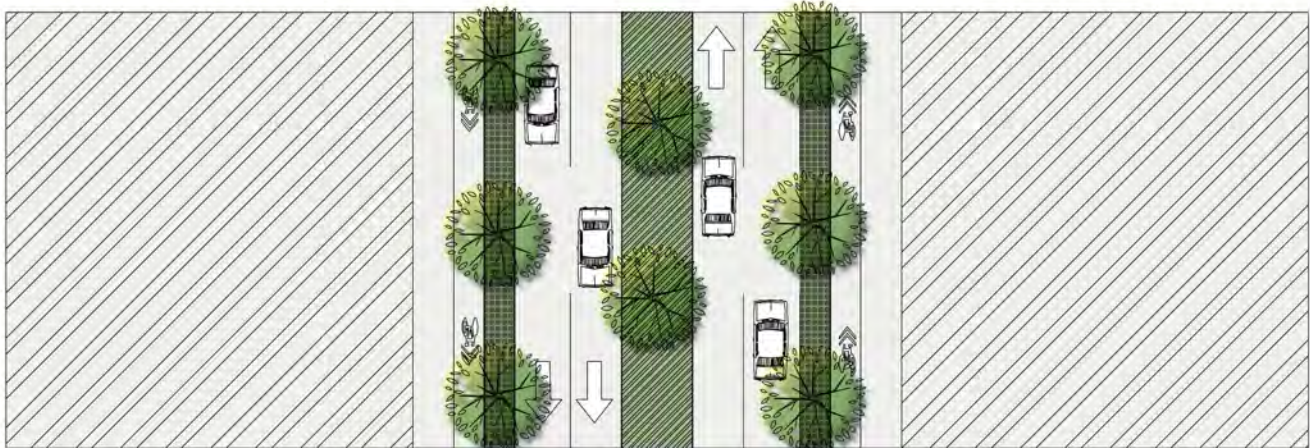


Figure 20: Section, Historic Boulevard: The “Historic Boulevard” street section reflects the recommended design for Manchester Road in the historic portion of Manchester. Over time, following the installation of back streets and other access management improvements, the community could install a landscaped median as redevelopment projects progress. A combined bike and pedestrian lane on either side of Manchester Road would provide for connectivity east and west and would also serve businesses and residences on either side of the street. Given the close proximity of existing buildings to Manchester Road, this street section does not anticipate providing parking in front of any structure. In contrast, parking would be provided to the rear or the side of individual buildings.

Residential Street Section



Figure 21: Section, Residential Street: Residential streets would serve as lower volume streets accessing residential developments in close proximity to Manchester Road. These streets would feature a lane of travel in each direction and parallel parking on each side. A landscape strip would separate the parallel parking area from sidewalks on either side.

North South Arterial

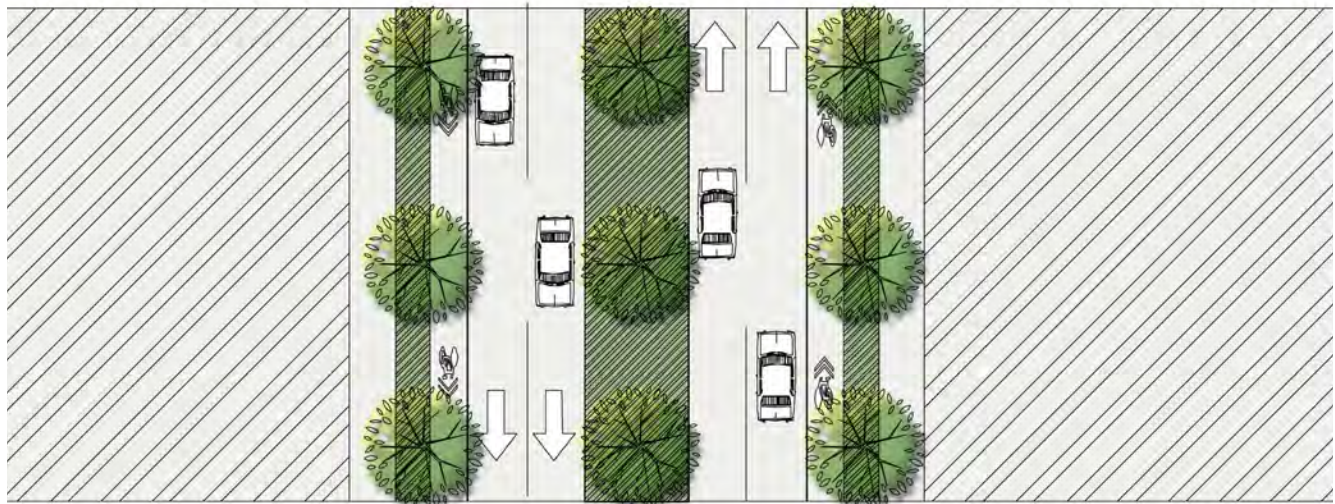


Figure 22: Section, North South Arterial: North-south arterials, including Clarkson Road and Baxter Road, would serve as primary transportation connectors with town center districts along the corridor and connect the area to other parts of St. Louis County. The recommended design for these streets resembles that for the boulevard along Manchester Road. A landscaped median would separate the north and south lanes of traffic (two lanes in each direction). Bike lanes would attach to the travel lanes, and a landscape strip would separate the bike lanes from nearby sidewalks.

Stream Corridor

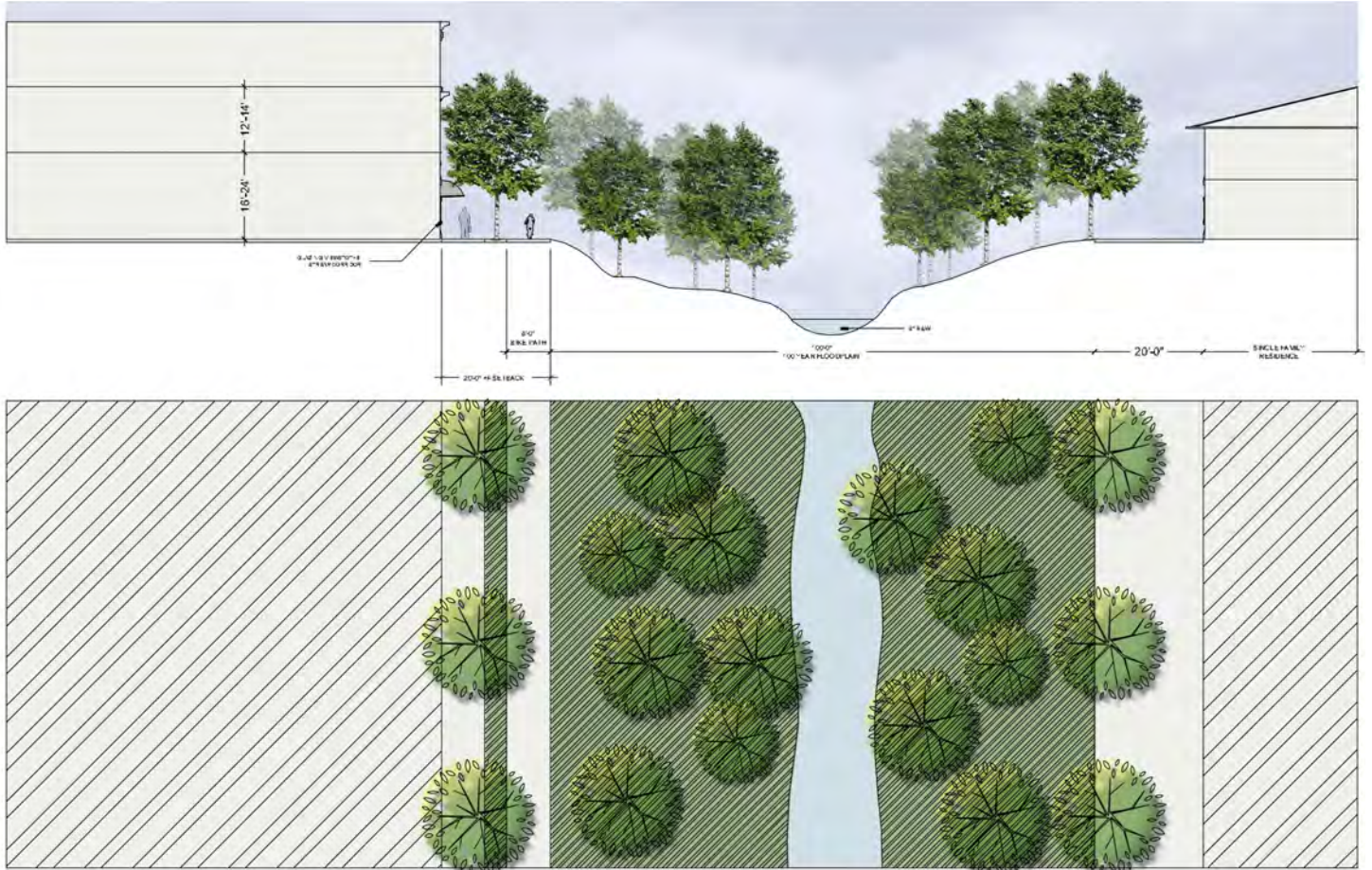


Figure 23: Section, Stream Corridor: This section illustrates the recommended design for streamway corridors in the study area, including those flanking Grand Glaize and Fishpot creeks. The communities should provide sufficient setback from the streams to buildings, and the design for bike and pedestrian trails on either side should access buildings in the area and provide for transportation conduits along the streamway.

Parkway Street Section

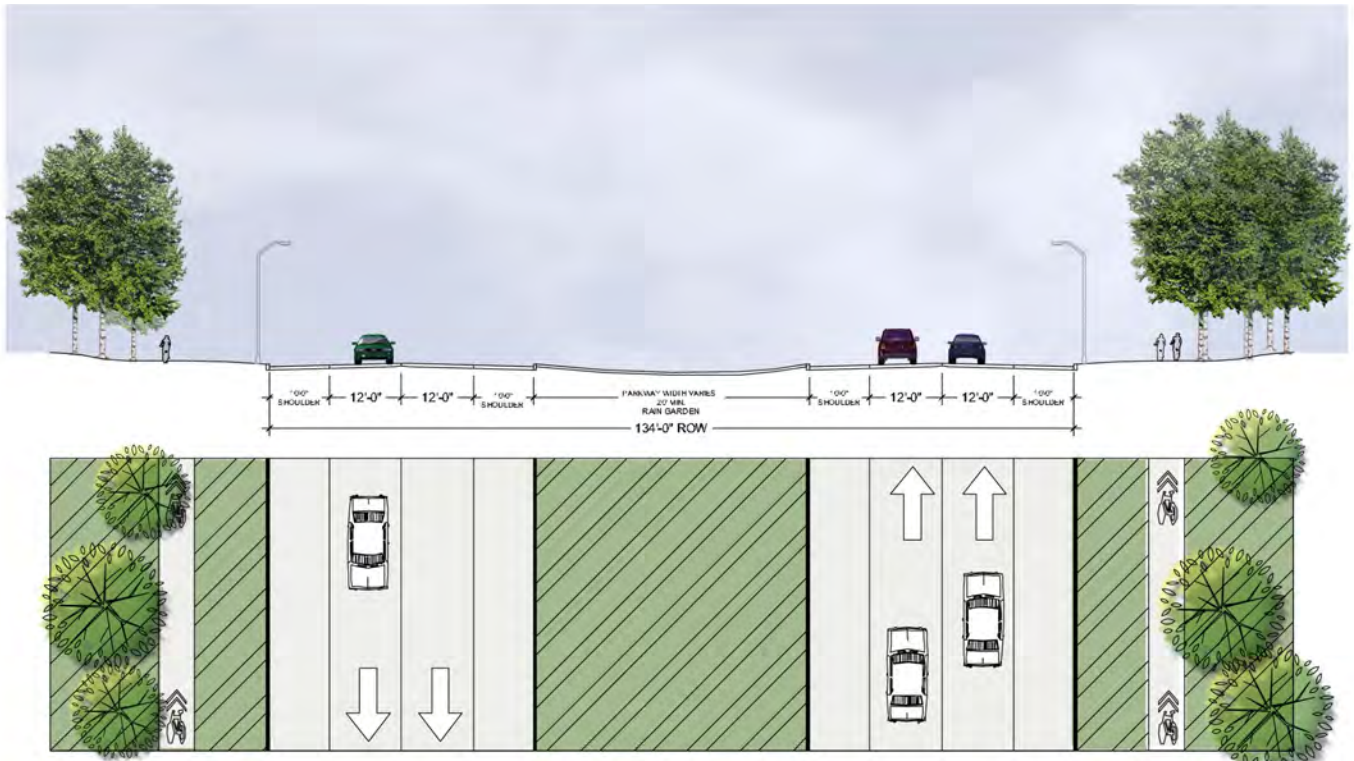


Figure 24: Section, Parkway: This section for the parkway applies to the higher speed portion of Manchester Road, between Old State and Route 109. The recommended section retains the basics of the design of this road. It maintains bike lanes as separated facilities on either side of the road. Importantly, though, the section calls for additional tree plantings and landscaping on either side to improve the aesthetic quality of this portion of the corridor.

Side Street at Left Turn Locations



Figure 25: Section, Side Street at Left Turn Locations: This section in plan and elevation view depicts the recommended design for the intersections of the main boulevards along Manchester Road and the side streets running north-south.

Access Management Plan – The access management plan (see foldout pages starting on page 50) represents the final plan resulting from the Great Streets planning effort for back streets, side streets, driveways, crosswalks, and traffic signal locations along the corridor. This plan evolved through the course of the planning effort based upon continued input from the public, the Steering Committee, MoDOT, and various city officials. The cities should use this plan as a guide in planning for access management and the future street network along the corridor as redevelopment and revitalization continues.

Transit – Metro currently provides bus service and related transit services to the Manchester Road corridor and has recently published a Long Range Plan for transit in the region. The communities should work with Metro to integrate the recommendations of the Manchester Road plan with the long term plans of Metro.

The Manchester Road Great Streets Master Plan recommends the implementation of Bus Rapid Transit (BRT) service along the Manchester Road corridor, with BRT vehicles using the existing two travel lanes in each direction of Manchester Road. The five communities should work with other jurisdictions to the east, toward the City of St. Louis, to help develop a BRT line along the Manchester Road corridor running east to connect with the MetroLink station at Maplewood. Providing the BRT service along Manchester Road will enhance the viability of the town centers along the corridor, and in turn higher density town center development would help support the development of BRT along the corridor. BRT service along Manchester Road should include the consolidation of some bus stops and enhancements of key BRT stops at town center locations. The five communities should actively promote the development of these key nodes at higher densities in order to help attract support from Metro for the development of BRT along the corridor. Once BRT is in place, the five communities should work with MoDOT and Metro to provide traffic signal prioritization for BRT vehicles and fare pre-payment technologies in order to enhance the efficiency and viability of the BRT service.

Parking – In order to promote more efficient use of real estate along the corridor and avoid the creation of vast, underutilized areas of parking, the five communities should promote shared parking strategies for retail districts along the corridor.

Specifically, the communities should consider the adoption of the following parking incentives to promote shared parking strategies:

- Elimination of any stipulations against shared parking facilities in city codes.
- Implementation of a shared parking model to provide for reduced requirements for parking for different uses.
- Elimination of any code-based requirements that discourage public access or the merging of parking lots.
- Identification of available pooled liability protection programs or insurance policies whereby owners of different parking facilities can pool resources and purchase a joint replacement policy. This type of policy would provide for public access across multiple parking lots at lower insurance rates compared to existing policies.

In addition, the five communities should modify their zoning regulations for parking as follows in order to encourage the more efficient use of parking and to therefore provide additional land for development or open space uses.

- The elimination of minimum parking requirements for parcels containing less than 20,000 square feet in land area.
- For parcels over 20,000 square feet in land area, the cities should implement the following requirements:
 - A **minimum** of 1 and 1/8 parking spaces per residential unit, of which a minimum of 1/8 parking space per residential unit will be provided as **Shared Parking**.
 - For non-residential uses, a **minimum** of 3.5 spaces per 1,000 square feet of non-residential Gross Floor Area (GFA) will be provided for Shared Parking. Maximum limits for Shared Parking will not exist. New on-street parking spaces created in conjunction with a development, above and beyond what previously existed, may be counted toward the minimum requirement for **Shared Parking**.
 - A **maximum** of 5 spaces per 1,000 square feet of non-residential GFA or two spaces per residential unit may be provided for **Reserved Parking**.

The five communities should implement the following design standards in order to better integrate parking with the surrounding urban environment and encourage walkability along the Manchester Road corridor.

- As the areas around town centers evolve over time, the cities should work to minimize surface parking and encourage the construction of structured parking facilities wrapped or hidden by surrounding land uses over time. As the density of development increases, the financial viability of providing structured parking will increase, and the five communities should encourage it to help create a more walkable town center environment.
- Where property owners or developers pursue surface parking, the cities should encourage property owners to place these facilities primarily between or behind buildings that have direct frontage onto Manchester Road. This strategy would help to prevent the creation of a “sea of parking” in front of each retailer or other use along Manchester Road.
- Requirements calling for surface parking lots with more than 50 spaces to include raised pedestrian walkways (at elevated grades above the level of surrounding pavement).
- Maximum curb cut dimensions of 15 to 25 feet, depending on the size of development area.
- On-street parking spaces should be at least 8 feet wide and 22 feet long. For each parallel parking space, the adjacent drive lane must be at least 10 feet wide and must provide at least 20 feet of clear maneuvering area in front of the space in the drive lane adjacent to the space. If striping is not required (in the event parking meters are not installed), the 8 feet width would still be applicable with no individual space length needed.
- Prohibition of at- and above-grade parking within 25 feet of a required building line (this essentially forbids surface parking adjacent to the street and provides incentives for the construction of parking structures wrapped by liner buildings).
- Prohibition of surface parking lots on sites that formerly included historic structures.
- Requirements for property owners to provide connections or grant easements for connections to adjacent parking lots on neighboring properties.

The communities should consider requiring investment in design, landscaping, and multi-modal improvements associated with surface lots that will likely not attract redevelopment prospects for some time. Potential investments may include:

- Adding green space and porosity to pavement surfaces in order to improve aesthetics and reduce rainwater runoff from existing lots. These strategies may also include the installation of perimeter landscaping, pocket parks and gardens, and bioswales.
- Improving pedestrian connectivity between destinations in order to generate foot traffic and support the sharing of parking between properties. Quality pedestrian through-paths across parking lots would shorten walking distances, provide direct connections between multiple uses, and improve overall safety.
- Adding bicycle parking facilities to existing parking lots to encourage non-motorized commuting and local travel.
- Removal of reserved spots for employee parking from key locations for bus stations and bicycle facilities in order to encourage use of these alternative modes of travel.
- General design and aesthetic improvements along the corridor, including: creation of improved transition zones between Manchester Road and existing parking lots, including places to rest; the installation of improved wayfinding and information systems; and, the creation of opportunities for shade and shelter for pedestrians.

These improvements can improve the overall performance and appearance of the corridor in the near term, prior to the redevelopment or conversion of existing land uses along the corridor. In addition, in the near term, the cities can work with groups of landowners to coordinate shared parking arrangements along the corridor. For example, a city could work with the owner of an auto parts store that closes by 5PM to arrange for neighboring restaurants to use his or her parking spaces after hours. The communities should also work with individual property owners to arrange for users of bus services along the corridor to use vacant parking spaces along the corridor during commuting hours.

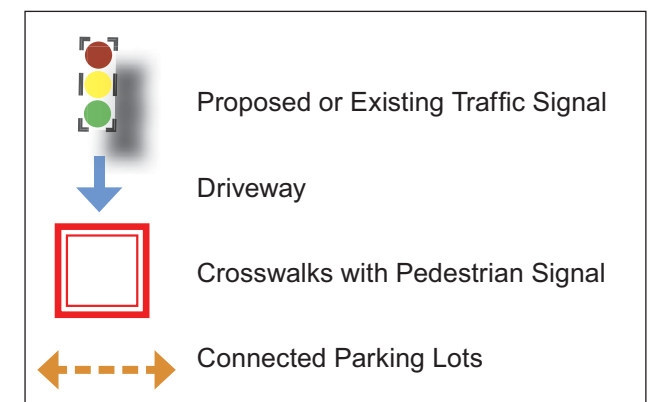
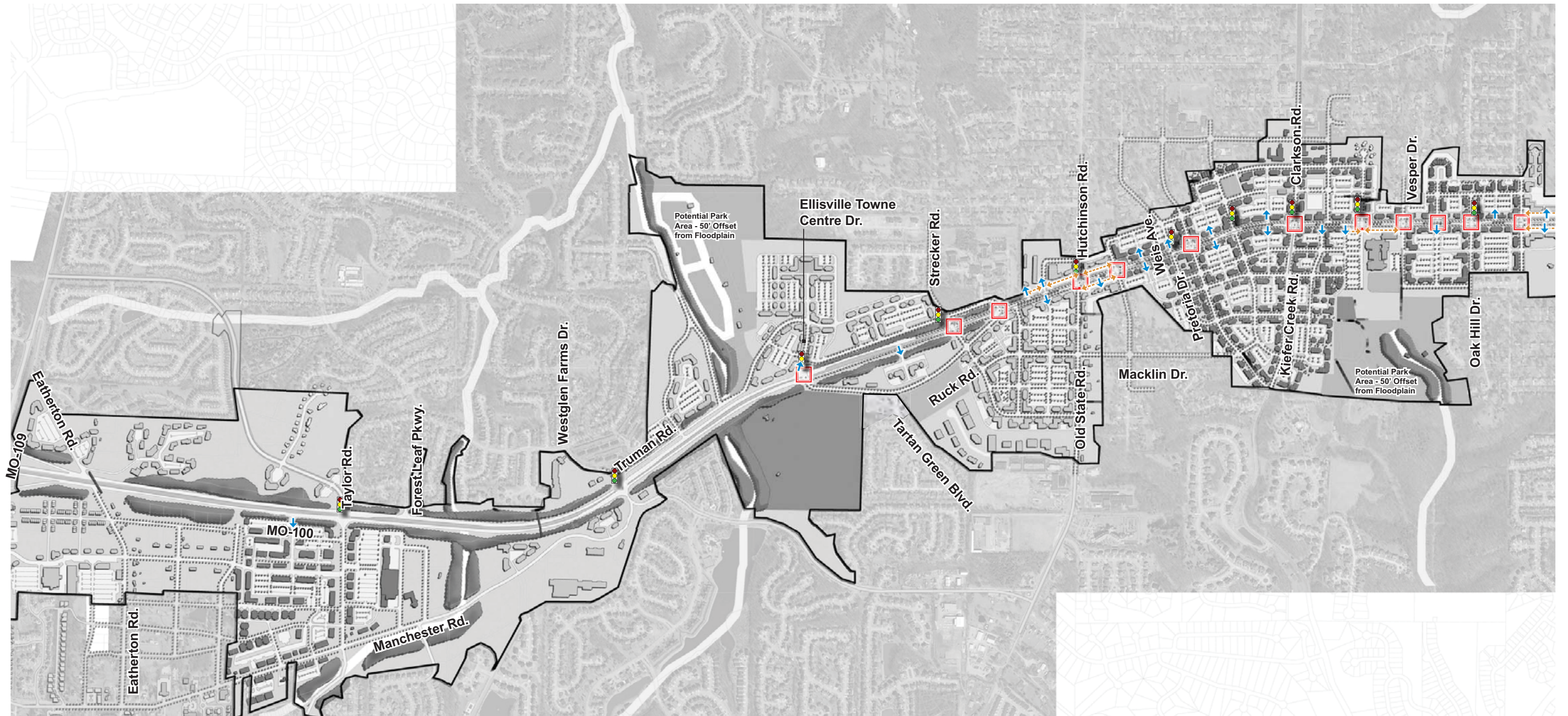
Creation of a Transportation Management Association - The five communities over time should consider establishing a Transportation Management Association (TMA), a member-controlled organization that encourages the efficient use of transportation and parking resources in a finite area. For example, the TMA could organize parking strategies for each of the five town center nodes along the Manchester Road corridor. Potential projects the TMA may pursue include improvements for sidewalks, bicycle storage, transit, and potentially district-wide parking garages.

Sidewalks – The master plan recommends that the streetscape along Manchester Road and nearby side streets and backstreets include sidewalks of a width of five feet or greater. The communities and developers should plan for wider sidewalks whenever possible, and in particular in town center areas, along “Main Streets”, to facilitate shopping and outdoor dining. The communities should provide for a planted landscape buffer of at least three feet between the travel lanes of Manchester Road and the combined sidewalk / bike lanes running parallel to the street, from Old State Road east to Route 141. Setting the sidewalk back from Manchester Road with a landscaped buffer will reduce the impact of vehicular noise on pedestrians and provide for enhanced safety. In addition, the five communities and MoDOT shall design the corners at major cross streets with Manchester Road to be handicap accessible, in accordance with ADA standards. Depending on the slope and corner radii, the communities should modify many of the existing east-west intersection crossings to create safer areas for walking. In general, MoDOT and the communities should design for a driveway radii of 15 feet, and the width of two-way driveways intersecting with Manchester Road should not exceed 30 feet. The

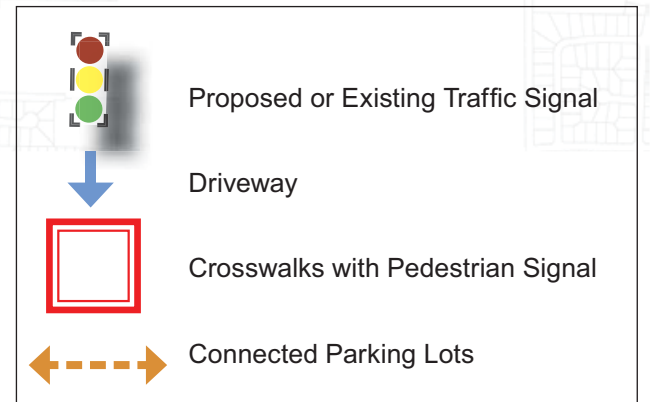
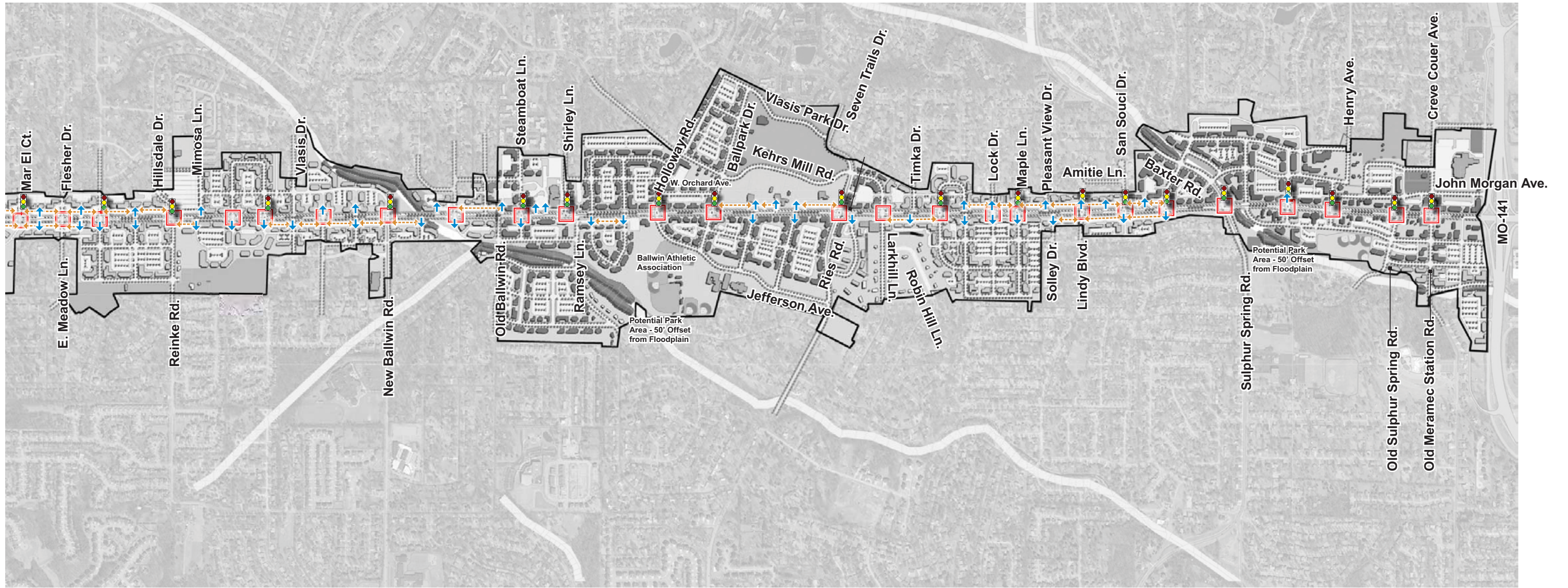
local communities will need to work with MoDOT and private landowners to coordinate and implement recommended streetscape improvements along the corridor over the next few decades.

Bicyclists – As illustrated in the Pedestrian and Bicycle Mobility Plan on the next page, the master plan recommends that the communities work to provide bike lanes attached to sidewalks along Manchester Road from Old State Road to Route 141. A landscape buffer should separate this combined bike / sidewalk lane from the vehicular travel lanes of Manchester Road. In addition, the communities should provide additional bike trails, running either parallel to Manchester Road or following the natural open spaces such as creeks, in order to connect different areas of the community and to provide additional recreational amenities for residents. These bike trails would feature asphalt or gravel surfaces and would traverse through more natural spaces along and near the Manchester Road corridor in West County.

Final Access Management Plan, May 2010 - Western Segment

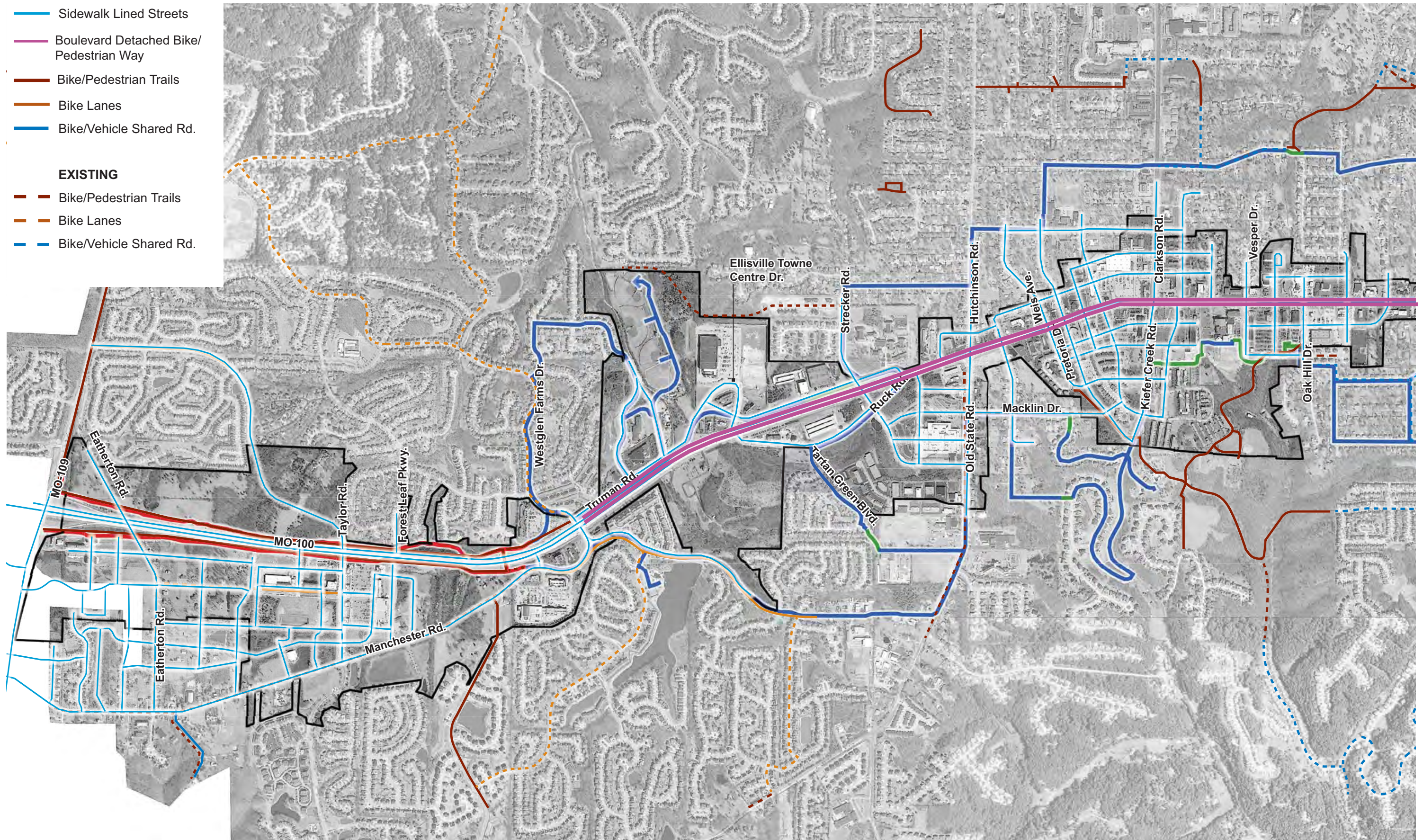


Final Access Management Plan, May 2010 - Eastern Segment

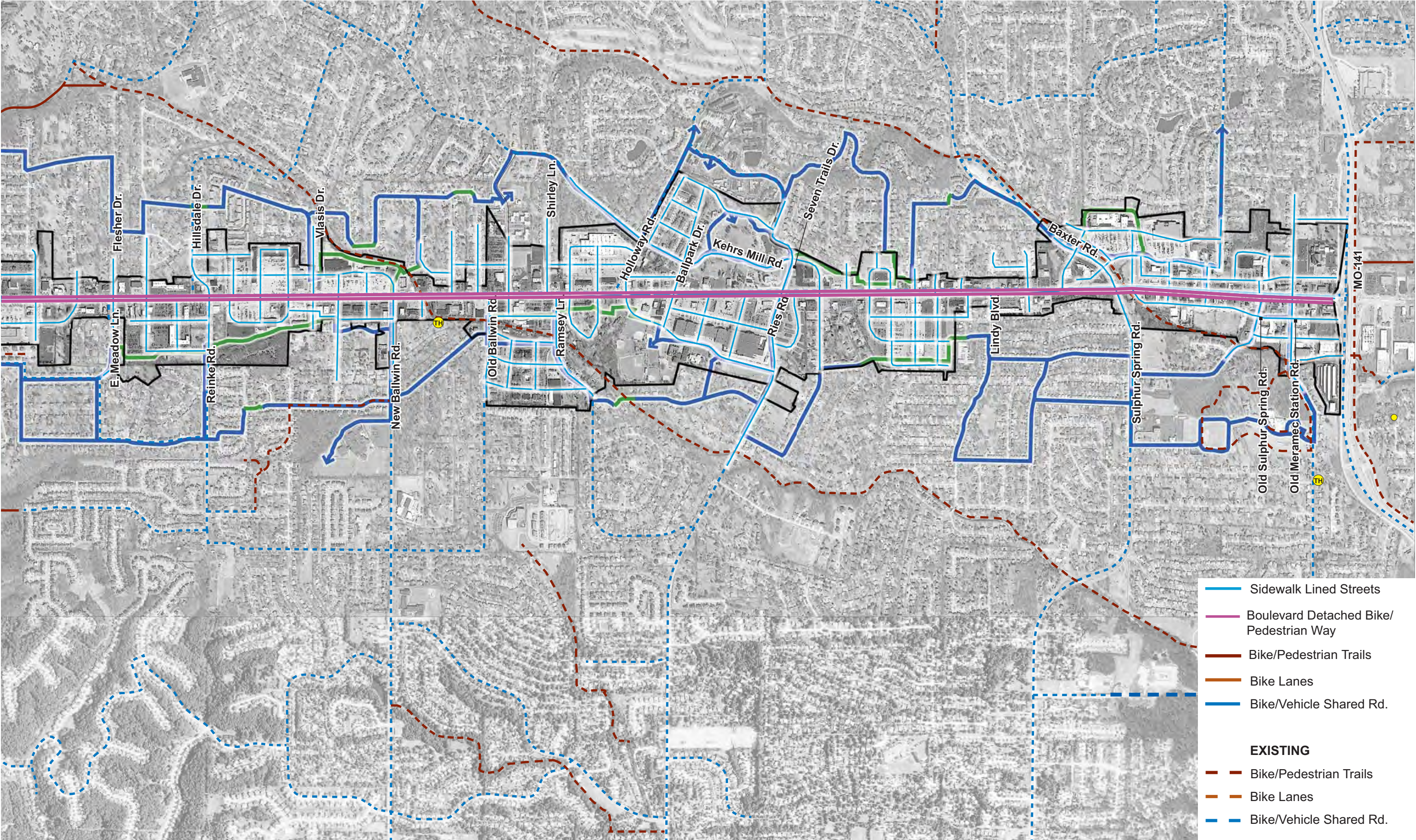


Pedestrian and Bicycle Mobility Plan - Western Segment

- Sidewalk Lined Streets
 - Boulevard Detached Bike/ Pedestrian Way
 - Bike/Pedestrian Trails
 - Bike Lanes
 - Bike/Vehicle Shared Rd.
- EXISTING**
- - - Bike/Pedestrian Trails
 - - - Bike Lanes
 - - - Bike/Vehicle Shared Rd.



Pedestrian and Bicycle Mobility Plan - Eastern Segment



- Sidewalk Lined Streets
- Boulevard Detached Bike/Pedestrian Way
- Bike/Pedestrian Trails
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