ORANGE AVENUE
CORRIDOR DESIGN ASSESSMENT

CITY OF WINTER PARK

DECEMBER 2019

INTRODUCTION

Every community has unique places that require special treatment. These special places may be retail corridors, historic districts, or beautiful neighborhoods that encourage a sense a place and community ownership. In Winter Park, Orange Avenue is one of these places. As the gateway between Winter Park and Orlando, intense interest has focused on the form and function of the street, as well as the buildings that line it. To respond to active development interest focused along the corridor, the City created the Orange Avenue Overlay District, which applies updated development standards to guide the rapid changes likely to come. To prepare for changes in land use, the Orange Avenue steering committee has also identified many mobility challenges along the corridor that will need to be improved as demand shifts. This Mobility Strategy Toolbox is serves as a supplemental guide to the Orange Avenue Overlay District and describes a spectrum of mobility enhancements that support economic development, create a meaningful gateway corridor, and enhance sense of place through careful design.

FOCUS ON SAFETY

According to FDOT crash data, nearly 500 crashes have occurred along Orange Avenue or at its major intersections between 2014 and 2019. Of these crashes, 9 involved a pedestrian or bicyclist, 8 of which resulted in an injury. Improving safety for all users must be the top priority as Winter Park thinks about mobility improvements along Orange Avenue. While the overall corridor concept includes a shift in traffic flow patterns that will ultimately improve safety, this toolbox includes suggestions for improved sidewalks, bicycle facilities, and pedestrian crossings which also function as traffic calming measures, encouraging slower vehicle travel speeds. These coordinated design elements combine with existing City enforcement and education efforts to create a safe and comfortable environment place to bike and walk.

Street view of Orange Avenue

OVERLAY DISTRICT GUIDING PRINCIPLES

The transportation recommendations below were developed by the Orange Avenue Overlay steering committee, and the pages that follow emphasize design elements supportive of the recommendations.

ENFORCE WINTER PARK'S MODAL HIERARCHY: The hierarchy of transportation from the Comprehensive Plan—pedestrians first, followed by bicyclists, then public transit users, then vehicles—should be kept at the forefront of any future improvements.

PROMOTE CHARACTER AND AESTHETIC APPEAL: Transportation enhancements should encourage decorative lighting, landscaping, and the planting of canopy trees along roads, sidewalks, and pathways to create shade and improve Winter Park's green aesthetic.

EXTEND COMPLETE STREET UPGRADES: An important mobility upgrade that should be implemented is the extension of the Denning Drive complete street improvements from their current terminus at the Orange Avenue/Minnesota Avenue/Denning Drive intersection south to the entrance of Mead Gardens.

IMPLEMENT TRAFFIC CALMING MEASURES TO REDUCE TRAVEL SPEEDS: Street design that reduces speeds on Orange Avenue should be incorporated to reduce the overall travel speed for improved safety.

STANDARDIZE SIDEWALKS: Sidewalks are encouraged to be at least ten (10) feet wide, with appropriate lighting, tree canopy, vegetated areas, and covering to protect from the elements.

RIGHT-SIZE ORANGE AVENUE: "Right-sizing" Orange Avenue refers to redesigning the street's traffic flow pattern and re-allocating space to more appropriately reflect the vision and expectations for the corridor. The current design is unsafe for all modes of transportation and hinders the safe use of public parking.

PRIORITIZE PEDESTRIAN SAFETY: Pedestrian safety in the area should be enhanced and prioritized as the top priority. When this is accomplished, appropriate scale throughout the corridor will create a high quality of place.

LEVERAGE ART AND DESIGN: Consideration should be given to the use of street murals, gateway monumentation, and wayfinding that incorporate public art and design elements throughout the corridor.

MODIFY MAJOR INTERSECTIONS FOR SAFETY AND TRAFFIC FLOW: Study the corridors major intersections, particularly the Denning Drive/Minnesota Avenue/Orange Avenue intersection, for ways to improve traffic flow and safety for vulnerable road users. This may include a traffic circle, changing signal patterns, or shifts in traffic patterns.

STRENGTHEN CONNECTIVITY: Where possible, connect pedestrians and cyclists to the surrounding residential areas via high-quality dedicated facilities for safety and comfort navigating the area.

BUILD THE RAIL TRAIL: A multi-use bike and pedestrian trail should be designed and constructed along the railroad to provide access and connectivity.

ENHANCE STREETSCAPES: Streetscapes throughout the Orange Avenue neighborhood should provide adequate buffering from street traffic, improve the aesthetic landscape, and enhance the comfort and walkability of the neighborhood.

STUDY AREA AND CONTEXT

Orange Avenue serves as a commuter corridor, but is also a visible gateway to Winter Park from neighboring jurisdictions. The study area includes Orange Avenue from US 17/92 (Orlando Avenue) to SR 426 (Fairbanks Avenue). In addition to the signalized intersections at the study area boundaries, the study also includes signalized intersections at Cypress Avenue and at Minnesota Avenue /Denning Drive. Development along Orange Avenue is characterized by one to two floor attached and detached retail and office buildings at shallow to medium setbacks. Parking is often located on-street or along the side and rear of buildings. However, as Orange Avenue continues to attract development interest, it has the potential to carry development at higher intensities and densities that support a safer and more diverse suite of travel choices.

FIGURE 1: CORRIDOR STUDY AREA

PEDESTRIAN ENHANCEMENTS

Pedestrian Improvements provides a wide array of safety, aesthetic, and placemaking benefits. The treatments in this chapter represent a series of options appropriate for Orange Avenue which should be considered for implementation along the corridor.

MARKED CROSSWALKS

There are many different styles of crosswalk striping, with some more effective than others for certain applications. Ladder and continental striping patters are generally used where visibility to drivers is the fundamental concern. Decorative crosswalks with textured pavement or high visibility striping can also be used to draw attention to high-traffic pedestrian areas. In addition to pavement markings, crosswalks may include signals or beacons, warning signs, raised platforms, curb bump-outs, and pedestrian countdown signals. All of these elements communicate to drivers that pedestrians may be present and a combination of elements can be applied to increase yielding behavior at intersections or midblock crossings where pedestrian visibility is a particular concern. Additionally, the presence of marked crosswalks guides pedestrians to cross at specific location, improving safety while encouraging predictable behavior.

RECOMMENDED AT: All intersections and select mid-block crossing points

Decorative pavement to delineate a pedestrian crossing

CROSSWALK LOCATIONS. The map above identifies the proposed location of all intersection and mid-block crosswalks along the corridor.

RECTANGULAR RAPID FLASHING BEACONS

At some uncontrolled crossings, particularly those with four or more lanes, it can be difficult to get motorists to yield to pedestrians, even when required to do so by law. High vehicle speeds and poor pedestrian visibility often combine to create conditions in which very few drivers are compelled to yield. One type of device proven to be successful in improving yielding compliance is the Rectangular Rapid Flash Beacon (RRFB). When present, pedestrians activate a bright flashing beacon, which is combined with a pedestrian crossing sign. Installation of an RRFB produces minimal traffic disruption and carries lower operating costs compared to traffic and hybrid signals. When used in conjunction with high visibility crosswalks and raised bulb-outs, the presence of an RRFB vastly increases yield behavior at drivers at crosswalks.

RECOMMENDED AT: Unsignalized intersections or midblock crossings where pedestrian presence is unexpected.

RRFB near a school zone.

Combined signage and high-visibility crosswalks in Minneapolis, MN

PEDESTRIAN LIGHTING

Pedestrian-scale street lighting provides safety, pedestrian comfort, and improved aesthetics to create a sense of place. Pedestrian lighting is crucial in ensuring pedestrians feel safe, meaning they will use the corridor frequently, contributing to the area's overall economic vibrancy. Lighting at transit stops allows for better visibility of pedestrians waiting for the bus during and after sunset and enhances security at those stops. Additionally, pedestrian lighting improves, facilitates, and encourages pedestrian traffic generally by facilitating a welcoming and safe-feeling corridor.

RECOMMENDED AT: Regular intervals along the entire corridor. Lighting should be chosen to support the overall urban design and aesthetic of Orange Avenue. As future investments are made along the corridor, new lighting design and opportunities should be considered.

Pedestrian lighting in Glendale, CA.

STREETSIDE DESIGN

Well-planned streetside design allows for appropriate buffering between the travel lanes, the sidewalk, and the various abutting properties. The area is typically divided in to zones whose area and design can be flexible depending on the available space and the type of activities conducted in any given area. Most essential to pedestrian safety is the through zone – the walking area that must remain clear. At a minimum, the pedestrian thorough zone must meet the requirements of the Americans with Disabilities Act (ADA) requirements for horizontal and vertical clearance, but additional elements where space allows can be used to enhance placemaking and define the streetside area for multimodal use. Landscaping and streetside furniture in the furnishings zone can provide for additional buffer from vehicle travel, while private furnishings and attractive business displays in the frontage zone can generate aesthetic appeal and define place for an area. Additionally, appropriate application of transit stop location and design, lighting, and pedestrian crossing areas can enhance pedestrian visibility to motorists and encourage safe and predictable multimodal use within a corridor.

RECOMMENDED: Clearly defined sidewalk zones where space permits. Utilize furnishings, landscaping, and elements such as cafe seating to further define the space when possible.

Streetside landscaping, furniture, public art, bike parking, and lighting are combined in Madison, WI

SHADE

In hot climates such as Winter Park, high temperatures are a challenge to walkability. Providing shade along sidewalks creates a visually attractive environment that encourages walking and greatly increases comfort during summer months. Trees, transit shelters, landscaping, business awnings, or even public art installations can help provide shade along the length of a corridor as well as points of visual interest. The combination of these shade providers with seating and other amenities can create shelter from rain, intimate gathering spaces, and provide lasting environmental benefit.

RECOMMENDED: Utilize shelters, awnings, or trees at regular intervals to provide shade along high-volume pedestrian corridors.

Trees and shelters provide shade to sidewalk and searing areas.

LEADING PEDESTRIAN INTERVALS

Increasing pedestrian visibility is an essential design tactic that can vastly improve pedestrian safety and reduce pedestrian-vehicle conflict. At signalized intersections, a leading pedestrian interval allows pedestrians a 3-5 second head start prior to the light turning green for vehicles. Thus, before cars begin to cross or make turning movements, pedestrians are already in the crosswalk and are much more visible to drivers.

RECOMMENDED AT: All signalized intersections. Leading intervals can improve crossing safety at all intersections, regardless of crossing volume.

Pedestrians crossing intersection.

RIGHT TURN ON RED RESTRICTIONS

Right turn on red (RTOR) may be restricted at intersections where high pedestrian traffic is expected, or where visibility is limited, as it reduces conflict between crossing pedestrians and turning cars. RTOR restrictions are generally low-cost to implement and involve only the addition of new signage at an existing signalized intersection. When used in conjunction with a leading pedestrian interval, a right turn on red restriction allows for pedestrians to be visible and present in the crossing area during their appropriate signal phase and improves safety by reducing pedestrian-vehicle crossing conflicts.

RECOMMENDED AT: Intersections with high pedestrian volumes, such as Minnesota/Denning Ave, near Alfond Stadium, and Pennsylvania Avenue.

Signage restricting right turn on red.

WAYFINDING

Pedestrian wayfinding helps people orient themselves in physical space and navigate from place to place. Wayfinding should include key destinations and attractions with distance and approximate walk time. Best practice wayfinding systems include 5-, 10-, and/or 15-minute walksheds and "heads-up" orientation (i.e. arrows pointing in the direction of the attraction.) Wayfinding on Orange Avenue should guide walkers toward Park Avenue, Hannibal Square, and Rollins College.

RECOMMENDED AT: Each intersection or decision point to guide pedestrians in the right direction.

Wayfinding signage in Phoenix

DRIVEWAYS

From the perspective of the sidewalk user, driveways can significantly impact the pedestrian realm experience. Ideally, the pedestrian through zone area of the sidewalk should remain straight across the driveway with no change in cross-slope. Driveways should not be excessively wide, as pedestrians are vulnerable each time they cross a driveway. Where possible, driveways should be consolidated, and curb radii should remain small to show entering and exiting vehicles.

RECOMMENDED AT: All vehicle entry points. Where possible, driveways should be consolidated, or driveways should be shifted to provide access on the side street, rather than directly on Orange Avenue.


Decorative crosswalk combined with raised bulb-out in Seattle, WA

RAISED BULB-OUTS

A bulb-out or curb extension is typically installed at an intersection or mid-block key pedestrian crossing point. Typically, the road is narrowed at the corner of an intersection by extending the sidewalk or pedestrian platform into the roadway. This makes pedestrians planning to cross more visible to motorists, reduces pedestrian crossing distance, and forces reduced vehicle turning speeds by decreasing the turning radius. Raised bulb-outs are often used on streets with on-street parking to clearly demarcate allowable parking areas and distinguish crossing locations for pedestrians. Aesthetic improvements like raised or decorative crosswalks and landscape planting can be used in combination with raised bulb-outs to provide a safe and highly-visible pedestrian area, distinct from any vehicle or bicycle facilities that may be adjacent.

RECOMMENDED AT: All intersections where right-of-way and turning movements allow (see corridor concept plan).

BICYCLE ENHANCEMENTS

As Orange Avenue increasingly becomes a local destination, enhancing connectivity from surrounding neighborhoods and to the entire community will play a role in increasing corridor vibrancy while contributing to Winter Park's quality of life. One of the greatest ways to encourage bicycling will be to improve safety by slowing traffic, connecting the corridor to existing and future bicycling routes, and offering visual suggestions that bicyclists are welcome and encouraged. Through the corridor planning process, local network connections have been identified. While the constraints of the corridor make the addition of dedicated bike lanes on Orange Avenue a challenge, a coordinated strategy to promote bicycle safety and mobility includes:

- *Safety enhancements at intersections through improved signage and pavement markings*
- *Design measures along Orange Avenue that promote vehicular speeds that are consistent with the posted speed limit (emphasis on intersection designs, lane widths, landscaping, and parking)*
- *Improved connectivity from existing and future local bicycle routes to the corridors*
- *The construction of a modified rail trail that connects destinations to regional bicycling facilities.*
- *The inclusion of bike racks in local site design to help offset parking needs and promote a welcome environment for those that choose to bike to and from destinations*

Bike racks in Houston, TX

RAIL TRAIL

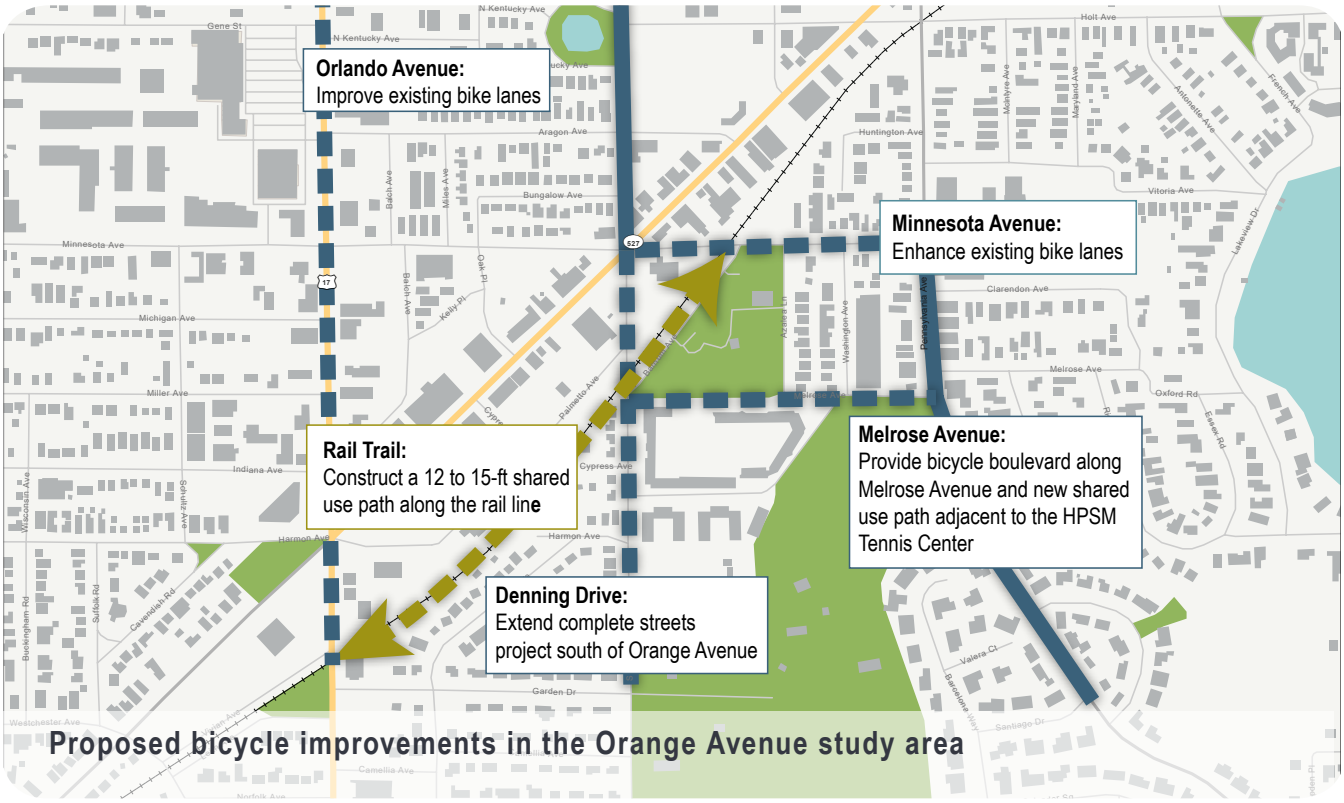
A rail trail is a shared-use path that is physically separated from traffic and is located within the railroad right-of-way that runs parallel to the corridor. This path would be designed for two-way travel and may be used by bicyclists, pedestrians, inline skaters, skateboarders, scooters, and other mobility devices. The design of the trail can take on a more eclectic approach by integrating it with redevelopment and infill development. The emphasis of the trail should be on connectivity. Given the limited parcel depths, a meandering network of connections will be required to connect local and regional networks with neighborhoods and corridor destinations. Advancing the spirit and intent of the trail through connectivity between local routes and regional facilities can be accomplished incrementally as development occurs.

Shared-use paths tend to attract a wider variety of bicycle rider skills and ages due to the increased separation from vehicles providing a level of safety and comfort not found in on-road facilities. In addition, rail trails have provided great economic development and placemaking opportunities in some communities. In Charlotte, shops and cafes directly front the trail rather than the street, providing activation at all times of day.

BICYCLE PARKING

The availability of bicycle parking is essential to a successful multimodal corridor. Leaving a bicycle unattended can easily result in damage or theft. The City can plan for and install bike parking in various ways, including the installation of racks at public buildings and in the public right-of-way near popular destinations. Also, requiring adequate bicycle parking for new development through the local zoning and permitting process is a cost effective way to provide bicycle parking. Convenient and functional bicycle parking enhances user experience and provides an opportunity to enhance urban form and placemaking through artful design or the creation of a bike parking corral in an existing vehicle parking space.

Businesses fronting along the Rail Trail in Charlotte, NC.



Proposed bicycle improvements in the Orange Avenue study area

Kimley»Horn

INTERSECTION TREATMENTS

The configuration of bicycle facilities at intersections should be given extra consideration given the complexity of turning movements and potential conflict points at the intersections along Orange Avenue. Intersection improvements may include elements such as pavement markings, pavement color, medians, and signage. Common bicycle intersection treatments that may be put to use throughout the study area are:

- Intersection crossing markings, which guide bicyclists across the intersection and highlight the bicycle lane for vehicles.
- Bike Boxes, which allow left-turning bicyclists to make a two-point turn, designating a safe place to wait for the traffic signal to turn.
- Combined bike lane and turn lane, which preserves space for bicyclists when turn lanes are needed

Appropriate intersection design increases visibility of bicyclists, helps all road users anticipate travel movements, and informs when travel is mixed or separated. Each intersection should be evaluated to determine the appropriate design based on traffic volumes, turning movements, and available right-of-way.

Bike box intersection treatments in St. Paul, MN

BICYCLE BENEFITS

Bicycle Benefits is a program designed to reward individuals and businesses alike for their commitment to creating a more livable and sustainable community. Bicyclists benefit by receiving discounts from participating businesses, and businesses benefit from increased customer traffic.

Example of bicycle benefits sticker in business window

TRANSIT & CURBSIDE TREATMENTS

Curbside Design plays an important role in the look and feel of a corridor, as well as in the management and operations of a busy corridor. While traditionally the curbside has accommodated parking, increased freight and delivery activities, bikesharing, and a renewed appetite for urban vibrancy have created new demands. This chapter explores some recommendations for curbside management techniques and design that will improve walkability, enhance the corridor's aesthetics, and modernize the corridor's overall performance.

BUS STOP SHELTERS AND LANDING PADS

Bus stops and landing pads are typically the first and last aspect of a transit system encountered by transit users and their effectiveness can leave a lasting impression on the system as a whole. Shelters should be provided wherever possible to not only offer an accessible point of contact for the bus system, but also can offer additional amenities such as trash cans, seating, network information, and lighting that contribute to the allover perception of an area. A well-designed bus stop is one that is ADA-accessible, easy to recognize and has identifiable access routes and waiting area, as well as provides shade and information on arrival and departure times.

RECOMMENDED: Existing Bus stops should be replaced with new transit shelters. Future development should account for the inclusion of these shelters when additional space is required to accommodate the shelters while maintaining pedestrian clear zones and other place-making features.

A bus shelter providing shade and arrival times

A bus shelter integrated into new development in Minneapolis.

Rideshare loading zone

Various curbside uses including short- and long-term parking

Parklet in San Francisco, CA

TRANSPORTATION NETWORK COMPANY (TNC)/LOADING FLEX ZONES

Busy streets in commercial areas can be challenged in balancing multimodal street use with various parking, transit, and loading zone needs. As transportation network companies (TNCs) like Uber and Lyft continue to grow, parking lanes can be shifted to prioritize spaces specifically as areas that function both as a convenient loading zone for business use and as a short-term pick-up/drop-off space for TNCs. This type of space allocation allows for municipalities to set curbside priorities based on desired use rather than on parking availability and to make way for multimodal and mixed-use curbside facilities in key areas.

RECOMMENDED: Locate one flex zone per block along Orange Ave and communicate the expectations with TNC companies to ensure operational compliance with pick-up and drop off provisions. Times limits for loading and flex activities may vary based on time of day.

PARKLETS

Parklets can provide a welcome public gathering space or additional outdoor business area in locations where curb and street space is limited. One to three regular parking spaces are converted in to a small park with landscaping, seating, turf, or other amenities for either permanent space expansion or temporary use (such as seasonally or for events). The formality of parklets can range depending on adjacent use. Many cities have an application process to promote the conversion of parking in to placemaking opportunities and cities also may participate in the annual PARK(ing) day, a global event which encourages the installation of parklets for an 8-hour period. Some parklets are effectively managed by nearby businesses and utilized as private seating areas for restaurants or cafes. Local design schools and colleges can be excellent partners in setting up and designing a pilot program.

RECOMMENDED: Partner with a local business to construct and manage one parklet along the corridor.

GREEN INFRASTRUCTURE

Green infrastructure uses natural process to properly capture, store and filter stormwater. These elements are easily integrated into curbside landscaping elements, and help to improve the city's stormwater management system overall, as well as provide vegetative greenery and improved aesthetics along urban corridors. Bioswales and stormwater trees provide landscaping opportunities along with functional capabilities to filter and manage excess water.

RECOMMENDED: Utilize curb bump-outs at intersections to install functional landscaping, and explore ways to integrate additional stormwater trees along the corridor.

Landscaping provides stormwater benefits in Madison, WI

PARKING

In addition to the application of the new Winter Park Parking policy, on-street parking should be viewed as a potential source to implement corridor enhancements when considering the physical constraints of the corridor. Its likely that new development along Orange Ave will include sufficient off-street parking and the parking demand will lessen when enhanced connectivity (walk and bike) is implemented. Furthermore, the addition of new residents, employees, and visitors to new development will shorten trip lengths. On-street parking should only be prioritized in sections where there is insufficient off-street parking and where primary building entrances are oriented towards the street.

On-street angle parking

INTEGRATING TECHNOLOGY

The curbside zone is a natural place to integrate innovative technology and mobility modes. Electric vehicle charging stations, interactive kiosks, e-mobility (such as e-scooters) and autonomous vehicles are all very real elements of the 21st century streetscape, with new innovations continually on the horizon. Winter Park should monitor current trends and remain flexible to adapting its curbside management priorities as technology advances and travel options change the way residents and visitors interact with the street.

GENERAL ENHANCEMENTS

SIGNAL TIMING

Traffic signal timing manages capacity and access to a corridor using the green phase of a signalized intersection. Depending on the type of intersection and the user mix that is present along a corridor, the timing and phase length directly impacts the operations within a corridor and on the surrounding streets. Accommodation should be made for all users, including pedestrians, bikes, and vehicles, and special consideration should be given to the accommodation for freight, transit, railroad, and emergency vehicles. The context of a corridor is especially critical since strategies for managing signal timing are dependent on organizational goals, land use, user mix, network configuration, and traffic demand.

Pedestrian signal in Minneapolis

ROADWAY LANE CONVERSION

Four-lane, undivided highways experience a variety of different crash types and safety concerns as volume and demand increases. Reducing lanes from four-lane to two-lane reduces conflict points for vehicles and the converted travel lanes on either side are then open for a variety of uses which can better accommodate the variety of desired uses within a corridor. A four-to-two lane conversion, often called a Road Diet, can provide a safer, dedicated space for bike and pedestrian facilities; accommodate a wider range of roadside uses such as parking, loading zones, and transit stops; and improve traffic flow by providing dedicated left- and right-turn lanes at key access points.

RECOMMENDED: Study the effects of completing a road diet on Orange Avenue, as well as any signal timing adjustments that might be necessary. Identify a phased improvement plan.

Current roadway configuration on Orange Avenue

ACCESS MANAGEMENT AND CONFLICT REDUCTION

Access management refers to the use of medians, turn restricts, driveway consolidation, and other traffic control techniques to restrict or control traffic access to certain locations. This typically results in smoother traffic operations and increased safety, particularly along busy corridors. Raised medians may be used to keep motorists from turning left across lanes of traffic or from blocking the flow of traffic while waiting to turn. Driveway consolidation is another popular tactic that minimizes driveway intrusions on a busy corridor, limiting the conflicts caused by motorists trying to turn. In each case, full access can be preserved to local businesses and destinations, but traffic patterns may be shifted from what is familiar to drivers.

RECOMMENDED: Install medians at certain areas along Orange Avenue, and restrict or consolidate driveways to smooth traffic operations and increase safety.

Decorated bicycle racks add art to the corridor

Public art, combined with furniture and other amenities

PUBLIC ART

Public art is an important component of street improvements. At a large scale, it can create a greater sense of place within a district and dictate gateway elements the define the atmosphere for a specific street or neighborhood. At pedestrian scale, public art provides visual interest in an area compounding the impact of other placemaking objects such as landscaping, wayfinding elements, and furniture. Cities often require that a certain threshold of project budget be devoted to public art and establish a public input and maintenance program to ensure the successful adaption of art activities in a neighborhood.

RECOMMENDED: Identify key local partners to work with local business organizations as the corridor develops. Set aside funding to ensure the corridor includes local artist work.

CORRIDOR VISION

CORRIDOR VISION

During the summer of 2019, data was collected and analyzed to determine potential corridor enhancements that would improve mobility, safety, and aesthetics in preparation for redevelopment.* Data collection included historic crash data, traffic data and field observations, along with conversations with City and corridor stakeholders to determine corridor priorities. From that process, it was clear that the top priority was designing a corridor that improved safety for all users, based on the road's high volume of crashes and caustic environment for walkers and bikers. A second priority was identifying design modifications that would support the place-making expectations for the corridor in anticipation of a new Orange Avenue Mixed-Use Overlay District. A few big ideas resulted from this process.

It's important to note that a complete reconstruction of the corridor is not required to advance the community priorities. For this reason, several of the actions suggested in this document can be advanced in the near term in anticipation of more intensive capital improvements to the street when the opportunity arises. Improvements such as crosswalk striping, landscaping, and wayfinding are low-cost, near-term improvements that can make an immediate impact on the Orange Avenue experience.

The major recommendations that resulted from the corridor visioning process are:

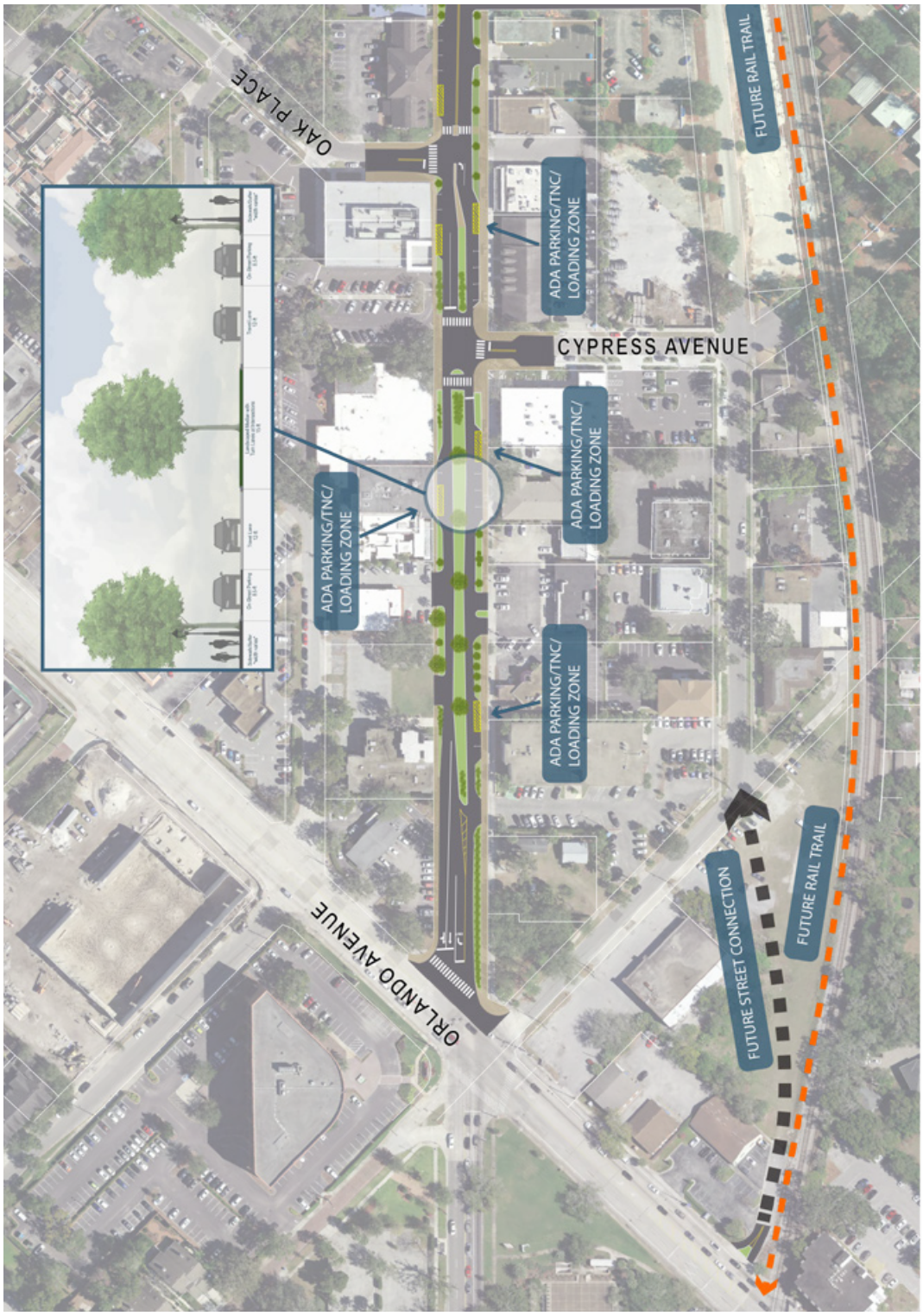
- **ROAD-DIET:** Corridor traffic volumes are near the threshold where reducing the number of thru-travel lanes from 4 to 3 (one-travel lane in each direction plus turn left-turn lanes where necessary) allows the corridor to function less like a highway and more like a high quality local main street. To accomplish this, some traffic would likely divert to larger order streets like W. Fairbanks Ave. Cursory traffic evaluations create sufficient evidence to suggest this concept is worth investigating further.
- **MODIFYING MAJOR INTERSECTIONS:** Any future modifications to the corridor will require improved designs at intersections at Fairbanks, Minnesota/Denning, and Orlando Ave. The redesign of these intersections will manage traffic, enhance the pedestrian experience and improved connectivity between both sides of the street thereby improving corridor vibrancy.
- **CURB-SIDE MANAGEMENT:** On-street parking has historically been coveted along the corridor. However, under the current configuration, its unsafe and ineffective. When considering the addition of transit service in the corridor, the result is a corridor where parking is highly valued but not effective. Low occupancy counts for parking in this area support these observations. Modernizing the corridor management concept by creating places for TNC (Uber and Lyft), loading, and transit activities will contribute towards corridor vibrancy.
- **PEDESTRIAN SAFETY:** A simple improvement can and should be the improved design of pedestrian travel along and across the corridor. This includes new crosswalks, limiting right-turn on red at key intersections, strategically placed mid-block crossing, and the use of pedestrian signals.
- **BIKE CONNECTIVITY:** The ability to add a high-quality bicycle facility to Orange Ave is limited due to space constraints. However, bike accessibility remains a priority and will add to neighborhood quality of life and corridor vibrancy. A future road diet will improve the bikeability of the corridor by reducing the number of travel lanes, travel speed, and conflict points. The addition of sharrows to the roadway will communicate the need to share space (vehicles and bicycles). However, the greatest addition will be the safe accommodation of cyclist by way of an extended "rail trail." This will provide connectivity to the rest of the community and parallel dedicated trail facilities, while also creating the opportunity to activate the back side of existing and future development. The result is multisided architecture and vibrancy that brings value to not just the frontage of Orange Ave but also along side streets and circulator/alleys.

* For additional information see Orange Avenue Mobility Assessment Phase 1, dated July 2019

CORRIDOR VISION EXHIBIT

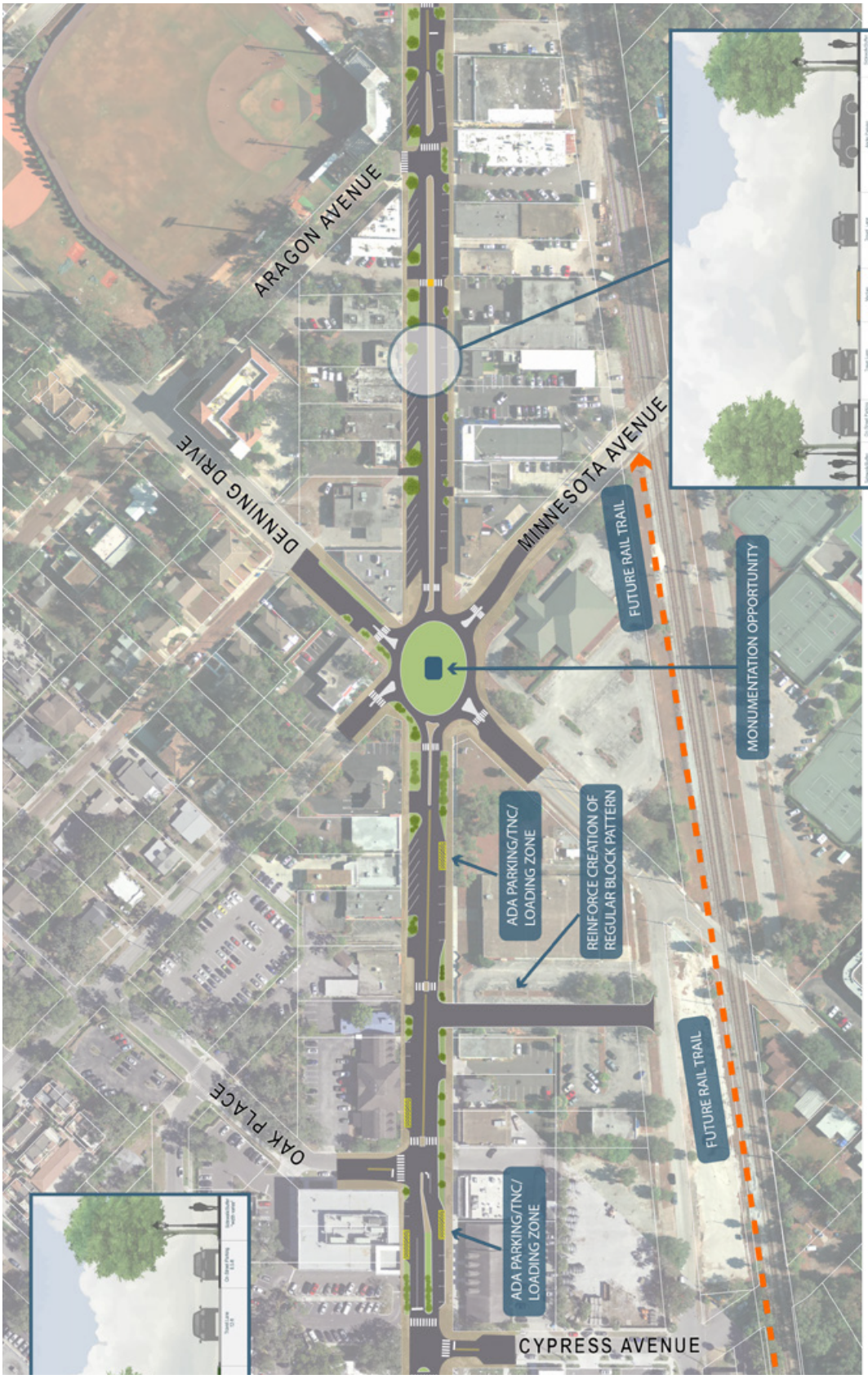
The following design is not intended to be a specific corridor design recommendation. Instead it serves as a visual representation of the some of the above features showcasing one possible way the corridor may be improved utilizing the techniques showcased in this document.

Corridor Section 1: Orlando Avenue to Oak Place



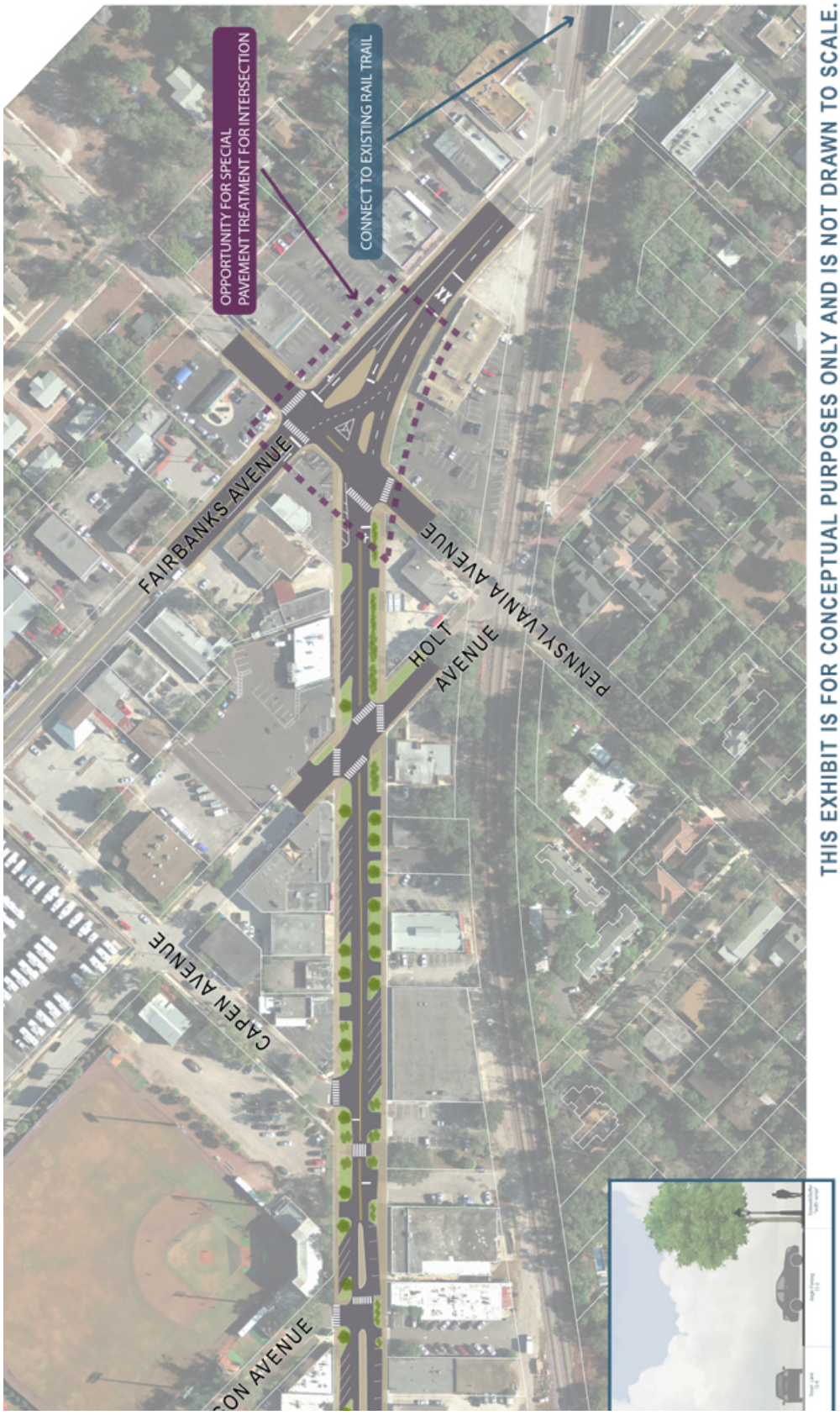
THIS EXHIBIT IS FOR CONCEPTUAL PURPOSES ONLY AND IS NOT DRAWN TO SCALE.

Corridor Section 2: Oak Place to Aragon Avenue



THIS EXHIBIT IS FOR CONCEPTUAL PURPOSES ONLY AND IS NOT DRAWN TO SCALE.

Corridor Section 3:Aragon Avenue to Fairbanks Avenue



ACTION ITEMS

In order to implement the Corridor Vision, a specific set of actions need to take place. The vision is intended to respond to increasing current and future development pressure, and thus contains a variety of recommendations that may be taken immediately, or that should be thought about pro-actively before development occurs. Some of the most critical implementation steps include:

- **IMPLEMENT PEDESTRIAN ENHANCEMENTS:** Where possible, improve crosswalk striping, signage, and sidewalks throughout the corridor to increase corridor walkability. This should be done as soon as possible to improve the experience of those who utilize the corridor today.
- **PERFORM A THOROUGH ROAD-DIET STUDY:** Collect traffic counts, turning movements, and explore a variety of options for network improvements in the surrounding neighborhoods. Road diets may have impacts beyond the select corridor, so it is important to thoroughly understand the impacts and mitigation options before proceeding.
- **DESIGN AND IMPLEMENT THE RAIL TRAIL EXTENSION:** Partner with FDOT, the rail operator, and other partners to design a trail that provides mobility throughout Winter Park and to other communities. Once completed, amend development guidelines accordingly to allow future development (or redevelopment) to activate the trail, along with the surrounding streets.
- **IDENTITY FUTURE CURBSIDE FLEX AREAS AND IMPLEMENT:** Observe current street operations, and partner with local businesses and stakeholders to understand their needs. Identify several locations that may be utilized as “flex zones,” and perform a pilot study, if necessary. Identify these areas on a future map in order to facilitate conversations with future developments.
- **IDENTIFY DESIGN FEATURES FOR INCLUSION IN FUTURE DEVELOPMENTS:** Formalize the corridor design, and memorialize the desired concept in a map or document. This will aid conversations with future developers or redevelopers to allow for space to be dedicated for the desired amenities incrementally as development occurs.