

ORANGE AVENUE

CORRIDOR STUDY



CORRIDOR MASTER PLAN SUMMARY | AUGUST 2017

Prepared by:



Prepared for:



Executive Summary

Introduction

MetroPlan Orlando and the City of Edgewood initiated the Orange Avenue Corridor Study to establish Orange Avenue (SR 527) as a livable and walkable multi-modal urban thoroughfare. This study establishes a corridor vision and identifies implementation actions to address network efficiency, safety, and livability within the context of future transportation needs. The study was completed in collaboration with Florida Department of Transportation (FDOT) District Five and other local and regional agency partners. This study provides a framework for improved mobility as part of a planning effort that engages residents, business owners, and others who use the Orange Avenue corridor.

The corridor study area is 2.4 miles and includes Orange Avenue (SR 527) from Pineloch Avenue in the City of Orlando (northern limit) to Hoffner Avenue in unincorporated Orange County (southern limit). FDOT District Five has responsibility for the roadway for the entire length of the study area. Beyond the roadway itself, the study area falls within three jurisdictions: the City of Orlando (0.3 miles), unincorporated Orange County (0.4 miles) and the City of Edgewood (1.7 miles), with the majority of the corridor frontage within the City of Edgewood.

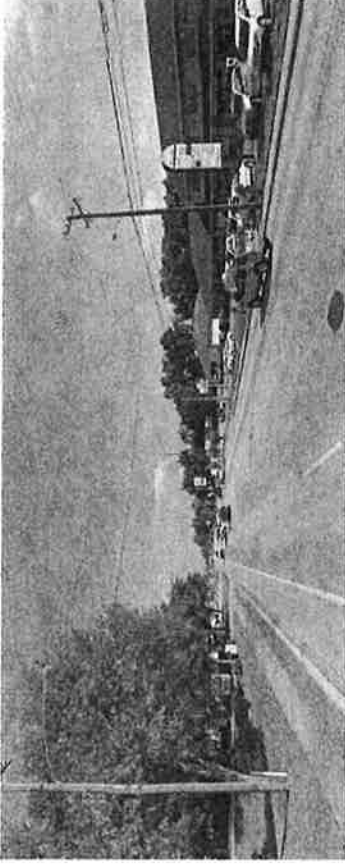
The study process engaged the project stakeholders, including residents, business owners, elected and appointed officials, and partner agencies. A project visioning team (PVT) was established to facilitate interagency coordination and provide input regarding the corridor analysis, improvement alternatives and recommendations.

The PVT members consisted of representatives from Florida Department of Transportation, LYNX, City of Edgewood, City of Orlando and Orange County.

In addition to the PVT meetings, a series of public forums were held at the City of Edgewood Farmer's Market in October of 2015, a series of one-on-one interviews with residents and merchants along the corridor, public meetings with the Edgewood City Council and Planning and Zoning Board, and a series of public meetings with the MetroPlan Orlando Committees and Boards.

Corridor Planning Background

A series of previous studies were reviewed and summarized to help guide previous efforts within and adjacent to the study area. The City of Edgewood completed a master plan in 2001 and the plan focused planning efforts for the City to become "a more livable Edgewood, where pedestrians, cyclists, transit users and motorists peacefully coexist."



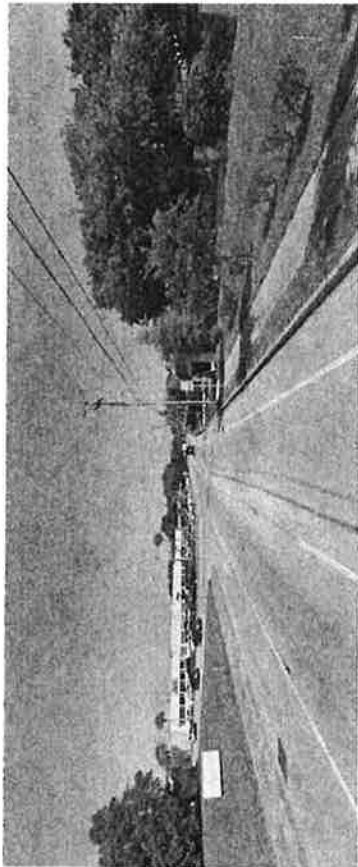
Existing Conditions / Two-Way Typical Section

Among the many things identified in the master plan that were still relevant for this project include the formation of a town center adjacent to the Holden Avenue, Orange Avenue, and Gatlin Avenue Intersections, and the beautification of Orange Avenue. In 2014, the City of Edgewood worked with the Urban Land Institute's TAP to update the master plan to include aspects of market viability, enhanced connectivity, and sound funding strategies.

Similar corridor planning studies have been completed for segments of Orange Avenue to the north (within the City of Orlando) and to the south (within Pine Castle, Belle Isle and unincorporated Orange County). Both plans focused on enhancing safety, aesthetics, and multimodal mobility. The purpose of the projects was to provide a safe and efficient multi-modal transportation corridor that serves a wide array of users, including the business community, while providing and enhancing livability consistent with the future vision for the area. They both also included specific improvements that can be advanced near-term through local agency participation and/or by FDOT as 3-R (Resurfacing, Restoration and Rehabilitation) projects, safety enhancements or push-button projects.

Finally, the FDOT conducted an intersection study for the Holden Avenue, Orange Avenue, and Gatlin Road intersections. This implementation plan proposes to widen the pavement for lengthened side-by-side left turn lanes along Orange Ave to service Gatlin Ave and Holden Ave. Other improvements include: the removal of the outside southbound continuous lane on Orange Avenue, pavement widening, milling and resurfacing of the roadway, introducing mast arm signals, upgrading pedestrian features, and drainage improvements.





Existing Conditions / One-Way Typical Section

Existing Conditions Review

The existing land use and transportation conditions in the corridor study area were examined. Between Mandalay Road and Pineloch Avenue, Orange Avenue has a five-lane typical section, with two 11' through lanes in each direction, a 12' two-way left turn lane, and 4.5' bike lanes in both directions. From Hoffner Avenue to Mandalay Road the corridor consists of a one-way pair, with Orange Avenue carrying southbound traffic and Hansel Avenue carrying northbound traffic.

Within this portion of the corridor, the typical section for both streets consists of two 12' through lanes, a 13' left-turn lane, and 5' bike lanes in both directions. Additional traffic analysis is detailed below:

Volumes/Freight Traffic – Orange Avenue serves as a primary north-south arterial connecting downtown Orlando (and Interstate 4 via Michigan Avenue) with industrial areas in Taft. Orange Avenue is also a primary freight corridor. Traffic counts collected in 2015 show an average daily volume of 36,900 vehicles north of the Holden/Gatlin intersections, and 41,500 vehicles south of the Holden/Gatlin intersections. Approximately 7.8 percent of the total traffic along Orange Avenue is from heavy vehicles.

Speed – Orange Avenue has a posted speed limit of 40 miles per hour throughout the study area. The speed data showed that southbound Orange Avenue between Drennen Road and Holden Avenue has a high occurrence of excessive speeding, with almost 13 percent of drivers traveling at 50 miles per hour or greater (i.e., 10+ miles per hour above the speed limit).

Level of Service - The comprehensive plans for Edgewood, Orlando and Orange County have established a Level of Service (LOS) standard of "E" for Orange Avenue.

All signalized intersections with the exception of the Holden/Gatlin intersections operate at LOS D or better for existing conditions. The Holden/Gatlin intersections operate at LOS E and F, with queues from that can extend ½ mile in each direction during the morning and afternoon peak periods.

Safety Analysis – Crash data for the period from January 2012 to October 2015 was analyzed for the corridor. During this period, there were 587 reported crashes. The Holden/Gatlin intersections are the most common location for vehicle crashes, accounting for over 20% of the total.

Pedestrian and Bicycle Analysis – While sidewalks are present along both sides of the corridor for its length, there are several locations with deficiencies that include substandard sidewalk widths, significant cracks in the sidewalk, and obstructions such as signs and utility poles. Orange Avenue has bike lanes along both sides of the street that range in width from 4.5' to 5'. Data regarding cycling trips along the corridor was collected from Strava, a mobile GPS app for recording cycling and running activity, and shows that Orange Avenue has a higher number of bicycle trips when compared to parallel north-south corridors.

Transit Conditions – The Orange Avenue corridor is served by three LYNX bus routes: Route 7 (S. Orange Avenue/Florida Mall), Route 11 (S. Orange Avenue/Orlando International Airport) and Route 18 (S. Orange Avenue/Kissimmee).

Together, these three routes provide four buses per hour in each direction. While the SunRail corridor runs parallel to Orange Avenue within the study area, there are no SunRail stops within the study area. Based on LYNX standards, three bus stop locations lack facilities that are warranted: south of Pineloch Avenue, west side of street (shelter), north of Suddath Road, east side of street (shelter), and north of Mary Jess Road, east side of Hansel Avenue (bench).

Access Management – While some cross-access connections exist between parcels, the City of Edgewood currently does not allow commercial driveways to connect to residential streets. Additionally, many parcels maintain multiple curb cuts or a continuous driveway apron along the Orange Avenue frontage which not only contributes to the congestion and some of the rear-end crashes on Orange Avenue, it also makes the walking environment less comfortable and limits the space available for landscaping, either within a median or adjacent to the right of way.

Land Use – The majority of the frontage along the Orange Avenue corridor is for commercial land uses, consisting of a mixture of office, strip retail and industrial. Similar land uses are found along the adjacent segments of Orange Avenue to the north and south of the study area.

Purpose and Need

Based on the existing conditions analysis and stakeholder input, the project's purpose is defined to address the following problems:

- Traffic congestion at Holden/Gatlin intersections
- Crash frequency at Holden/Gatlin intersection
- Unfriendly environment for pedestrians and bicyclists
- Inconsistent amenities for transit users
- Lack of consistent aesthetics and landscaping
- Inconsistent land use policies

These identified problems have been used as part of the development and evaluation of improvement alternatives along the corridor. The following table summarizes the evaluation measures associated with each need.

Need	Evaluation Measure
1. Reduce vehicle speeds between traffic signals.	<ul style="list-style-type: none"> • Vehicle lanes are not wider than the FDOT minimum standard. • Long-term land use patterns support reducing the posted speed limit below 40 mph.
2. Improve the safety and comfort of pedestrians and bicyclists traveling along and through the corridor.	<ul style="list-style-type: none"> • Number of sidewalk obstructions • Number of signalized and/or marked pedestrian crossings • Average spacing between driveway openings • Number of wide driveway openings (>30') • % of bike lane with buffer from travel lane
3. Reduce vehicle delays through the Holden and Gatlin intersections.	<ul style="list-style-type: none"> • Current corridor travel time • Year 2035 corridor travel time
4. Provide consistent, safe and comfortable facilities for transit users.	<ul style="list-style-type: none"> • Number of transit stops within 100 feet of a marked pedestrian crossing • Number of high-ridership bus stops with a transit shelter • Number of bus stops receiving ADA improvements
5. Use streetscape improvements to establish a corridor identity and promote redevelopment.	<ul style="list-style-type: none"> • Length of corridor able to accommodate street trees • Total median length • Number of gateway opportunities • Number of cross access easements • Number of driveway closures

A Plan for Change – Recommended Improvements

Based on the existing conditions, the issues and concerns, and utilizing the evaluation measures, the following recommended improvements were proposed within a structure of short-, mid-, and long-term implementation timeline.

Short-Term

Orange Avenue – One-Way Pair Segments (Hoffner Avenue to Mandalay Road)
As a part of the FDOT 3R Project, the one-way segments could be restriped to include on-street parking and buffered bike lanes.

Orange Avenue – Two-Way Segment (Mandalay Road to Pineloch Avenue)

As part of the FDOT 3R Project from East Grant Street to approximately Mandalay Road, the two-way segment will be restriped to narrow the existing two-way left turn lane to 11' and appropriate the 1' to the bike lanes, widening them to 5' each.

Holden/Gatlin/Orange Intersections and the LYNX Bus Stop Relocation

The current FDOT improvement project for the intersections of Holden Avenue, Gatlin Avenue, and Orange Avenue will reduce queue lengths and delay through the intersections. In addition to this project, this study recommends a short-term improvement to move the existing LYNX bus stop, just north of the Fort Gatlin Shopping Center Entrance to a location just south of the Entrance.

Streetscape Beautification Gateway

It is recommended that in addition to the FDOT 3R Project, the City of Edgewood work with the FDOT to increase the size of the existing median between Stratemeyer Drive and Mandalay Road.

Orange Avenue Right-of-Way Study

Based on the long term vision for Orange Avenue additional right-of-way will be needed to implement the proposed concept design. The existing right-of-way within the two-way segment varies, therefore a more detailed right-of-way study is recommended to conduct a short-term study to survey and evaluate the feasibility of attaining the required right-of-way for the long term vision.

Mid-Term

Modification of Land Development Regulations

The historic use of the properties as primarily auto-oriented commercial has led to a development pattern that utilizes long, skinny buildings, typically with one-bay of parking in the front addressing Orange Avenue. The style of recent development along Orange Avenue in Orlando was preferred to the existing patterns in Orange County and within the City of Edgewood. Both the City of Edgewood and Orange County have been working on updating their respective land development regulations to include more urban form patterns observed in the study area.

Particular focus should be given to land development regulations that encourage cross-access easements that allow users to exit to side streets, and encourage driveway consolidation on fronting properties.

In addition to those access-based measures, each agency should consider implementing parcel standards similar to the City of Orlando, specifically requiring “build-to” limits as opposed to “setback” requirements.

Adoption of Right-of-Way and/or Easement Dedication in the Comprehensive Master Plan

The study recommends that in concert with the right-of-way and easement study, each agency adopt a plan for the required space as part of their Comprehensive Master Plan. This will codify the desire for beautified landscape corridor and assist the various agencies in attaining funding from various State and Federal sources to implement corridor master plan.

Mid-Term and Long-Term

Orange Avenue – (Hoffner Avenue to Pineloch Avenue)

Beginning in the mid-term, it is recommended that the City of Edgewood adopt the previously mentioned urban form standards, the long-term master plan “The Grid,” and the Right-of-Way Dedication Plan. A master plan and the acquisition of right-of-way through the redevelopment / land development process is needed to fully implement the long term solutions proposed in this study, including landscaped medians, wider / safer pedestrian elements, and redevelopment in the City of Edgewater that promotes a more livable and walkable environment with new structures built up to the street and additional easement areas from the back of right-of-way for increased landscape and hardscape treatments. The typical section for one-way pair segment would maintain the buffered bike lane and the travel lanes, but remove some of the striped on-street parking along the left-side of the street in favor of spot curb extensions with street trees and green infrastructure such as rain gardens. The two-way segment features a landscape median, buffered bike lanes, and landscape and hardscape improvements on each side of the right of way. To accommodate these features, the curb-to-curb width would need to increase by 13’ from 65’ to 78’ overall. In the mid-term, a more refined conceptual design should be completed using the short-term Right-of-Way Study to determine the full impact of desired planted median and additional landscape and buffered bike lane elements. Over the long term, this project will be implemented through the acquisition of landscape easements, the purchasing of right-of-way, and the eventual redevelopment of properties throughout the corridor.

Long-Term

Implementation of the Public Portion of the “The Grid” Redevelopment Alternative

Beyond the FDOT improvements to the intersections, the City of Edgewood envisions this location to be a potential space for a town center. This area was discussed numerous times during the stakeholder outreach and the City of Edgewood Council meetings as a location that will see redevelopment on a larger scale and since this is also a fairly congested area, the study recommends the

“The Grid” street network alternative. This alternative examined extending Holden Avenue across Orange Avenue to a new north-south street that will connect to Gatlin Avenue. Gatlin Avenue would extend across Orange Avenue to a new north-south street that will connect to Holden Avenue. This new “grid” would form the primary structure for circulation for local traffic and regional traffic.

Additional new streets would be connected in concert with private redevelopment to further create a system of streets that would process all the traffic in this new town center. The proposed street network will allow for a wider variety of development potential because of a mix of block types that could handle various densities allowed by the City’s Comprehensive Master Plan.

Cost for Next Steps		
	Concept/ Planning Study	Construction
Total Short Term	\$186,000	\$220,000
Total Mid Term	\$744,833*	\$0
Total Long Term	\$2,474,704	\$7,261,481

Conclusions

The study encompasses the initial planning steps in the life-cycle of a project. The recommendations presented are based on the purpose and needs identified as part of the study. Several of the recommendations can be addressed on a case by case basis and will require further concept development as a separate next step in the process. The planning information and recommendations documented in this study will also be a public resource to community members, developers and others interested in transportation plans and how the area is expected to change. It will be used to track progress and follow up on recommendations made to address stated needs. Modest lower cost improvements may be considered and undertaken as funding becomes available. Recommendations that advance through private development will include right-of-way reservation, mitigation of traffic impacts of new development, and site design that incorporates local street and path connections, and other amenities, in support of bicycling, walking, and managing stormwater. Most improvements will be implemented over several years. The recommendations presented will also be reevaluated at the time of funding availability, to ensure that the best transportation solution is developed based on changes to land-use, traffic operations or prevailing best practice.