



#### **CITY OF COLUMBUS**

111 N. Front Street Columbus, OH 43215



### **Urban Planning & Design**

250 S. High Street Columbus, OH 43215



#### **Transportation Planning**

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## Acknowledgments

The Bexley and Columbus Joint Livingston Avenue Plan is co-authored by the many individuals that dedicated time and effort toward the completion of the study. Thank you to all community members who participated in the planning process and to the staff at All Saints Academy and the Jewish Community Center for their support in organizing the public meeting venue. Thank you to the Steering Committee members who volunteered their time and served in an official capacity during the entire length of the process.

#### **Southwest Bexley Steering Committee**

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Gregory Lee, Berwick Civic Association, Mideast Area Comm.

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All Saints Academy

Jewish Community Center of Greater Columbus



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Re-imagining the street as a community commons that prioritizes safety, pedestrian comfort, and instills neighborhood pride.

## 1.0 Executive Summary



The Bexley and Columbus Joint Livingston Avenue planning area focuses on East Livingston Avenue between Nelson Road and James Road and is surrounded by diverse neighborhoods including: Driving Park, Bexley, Berwick, Hanford Village, South Eastmoor, Mayfair, and Linwood.

The Bexley and Columbus Joint Livingston Avenue Plan ("Joint Livingston Avenue Plan") is the result of over a year-long partnership effort between the City of Columbus and City of Bexley with the mission of providing a safe, accessible, and attractive roadway corridor. To realize this mission, the Cities cooperatively developed a plan that would re-imagine the street corridor and revitalize its surrounding neighborhoods.

Established jointly by both cities, the following objectives guided the planning process:

- Infrastructure improvements designed to enhance pedestrian, bicyclist, and motorist safety;
- A streetscape plan designed to beautify the corridor;
- Road diet and safety strategies in support of Vision Zero Columbus goals;
- Recommendations to guide future development and land use policies;
- Engage multiple stakeholders through the process to build support and consensus for future of the corridor.



"Vision Zero fundamentally changes the approach to traffic safety by looking holistically at our transportation system – using input from our local government agencies, institutions, and residents to prioritize safety for all users — motorists, bicyclists, pedestrians, and transit riders."

- Vision Zero Columbus

The recommendations within this plan build on the past planning efforts undertaken by both the cities including the 2017 Southwest Bexley Strategic Framework, Vision Zero Columbus, the 2019 Columbus Thoroughfare Plan, Blueprint Columbus, and streetscape standards for Columbus and Bexley. In turn, the recommendations within the Joint Livingston Avenue Plan will inform future zoning code updates for both the cities as well as future developments along the corridor.

Extensive dialogue with the Steering Committee and broad-based community input resulted in a plan that provides a framework for achieving:

- Pedestrian and bike safety
- Vehicular traffic safety
- Streetscape beautification
- Neighborhood serving uses
- Access to parks and amenities

Furthermore, the community unanimously expressed that the number one issue along the street was speeding motorists that are often clocking above posted speed limits resulting in a highly unsafe environment for pedestrians, bicyclists, and property owners. In addition to this, the community strongly voiced their concern around overall street safety, including criminal activities; both cities will continue their efforts to make this a safer street holistically.

Through in-depth traffic analysis and future modeling various potential changes to the current roadway were studied to determine the most effective option to slow traffic and meet all the other goals identified for this corridor. The preferred strategy, as described within this report, is based on community feedback on the various options studied, research into successful examples of street safety projects implemented in Columbus and Bexley, national best practices, and the professional recommendations of the consultant team.

The most effective solution is determined to be one that methodically invests in overhauling the street character from it's current non-descript "highway-like" reputation to a beautiful urban "neighborhood street." The specific strategies recommended include street reconfigurations by implementing a road-diet (lane reduction), enhancing pedestrian and bikeway infrastructure, and streetscape beautification. These traffic-calming measures are known to effectively slow down motorists, thus resulting in improved safety with minimal impact on traffic volume.

Implementing these strategies will require further engineering and detailed design, conversations around impact of right-of-way expansion on private property, as well as securing funding, which would put the time-frame for implementation at five to six years and as such are defined as the "long-term" strategies.

In response to the community's need for immediate change, the plan also recommends near-term traffic calming measures that can be implemented within a year. These near-term strategies include changing the street character along the commercial areas of Livingston Avenue by introducing temporary elements such as planter boxes, flower baskets on utility poles, street furniture, public art, etc. In the near-term, along the residential areas of the corridor, the plan proposes to reduce two driving lanes by painting and striping to take away a lane and introduce a painted median.

Finally, the plan also provides urban design principles and streetscape guidelines to guide implementation of the plan vision in a manner that lends a continuity of aesthetics along the length of the street in support of the recommendations of the Joint Livingston Avenue Plan.

The Joint Livingston Avenue Plan represents a unique opportunity for two cities and a host of neighboring communities to unite behind a common vision to transform the corridor; bringing renewed value to the area by providing meaningful physical and cultural connectivity, and enhancements to pedestrian, bicyclist, motorist, and public safety.

# Summary of Recommendations

#### Near-Term Recommendations

- Explore tactical urbanism (temporary strategies) in the commercial area to enhance street character through elements such as public art, flower baskets, etc.
- Implement a road diet to reduce four driving lanes to two driving lanes with a painted median in the residential area and striping along the curb to reduce road width.

### Long-Term Recommendations

- Enhance pedestrian and bikeway infrastructure.
- Reconfigure the street to implement a road diet (lane reduction) with medians where feasible.
- Implement traffic calming measures and street beautification strategies.

#### Urban Design Principles and Streetscape Design Guidelines

Follow the urban design principles and streetscape design guidelines to guide implementation
of the Joint Livingston Avenue Plan recommendations.

### **Implementation**

- The Cities of Columbus and Bexley should work collaboratively to implement these recommendations.
- The recommendations contained in this report are aspirational and will require further design studies and exploration prior to implementation.





A process designed to include the community as co-creators of the future vision.

## 2.0 Planning Process

The planning study was the result of a collaboration between the City of Bexley and the City of Columbus. The cities partnered on this planning effort from early project definition and consultant selection to plan development and finalization. The cities provided project oversight by a "Working Group" composed of staff from Bexley and Columbus.

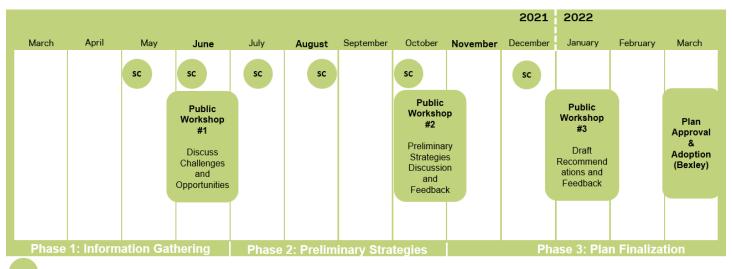
Spanning across thirteen months (March 2021 to March 2022), the planning process was designed around three primary phases: Information Gathering (visioning, needs, analysis), Preliminary Strategies (ideas exploration, preferred strategies) and Plan Finalization (recommendations, deliverables, approval). The process included community input throughout to ensure the future of the E. Livingston Avenue corridor responds to community needs.

A "Steering Committee," jointly appointed by both the cities, provided overall guidance and helped



Display boards for public input at Bexley City Hall

build consensus on the recommendations. The Steering Committee represented the diversity of the communities adjoining E. Livingston Avenue and, as identified under the Acknowledgments page of this report, included representatives of the various neighborhood and civic associations, public school, key institutions, activists, and grassroot advocates. The Steering Committee met six times during the planning period.



Steering Committee Meetings

Project Timeline

The process was designed to provide opportunities for the community to be engaged throughout ranging from virtual and in-person workshops to online surveys and feedback boards at Bexley City Hall. In some cases, the community members also provided their input directly to the Steering Committee members or members of the planning team.

The community was also updated via the project website at: <a href="http://www.bexley.org/livingston">http://www.bexley.org/livingston</a>. Public presentation material and meeting recordings were posted on the website along with information regarding upcoming public meeting

dates and links to surveys. Meeting notifications and project updates were sent through Bexley Blast. Some of the Steering Committee volunteers also personally handed out fliers to residences within the study area.

The outreach resulted in a wealth of information and feedback that shaped the final outcomes. A summary of the key aspirations gathered from the Steering Committee and community input is listed on the following page. (Refer to Appendix for community input and comments received through the process)



Discussion with the Steering Committee





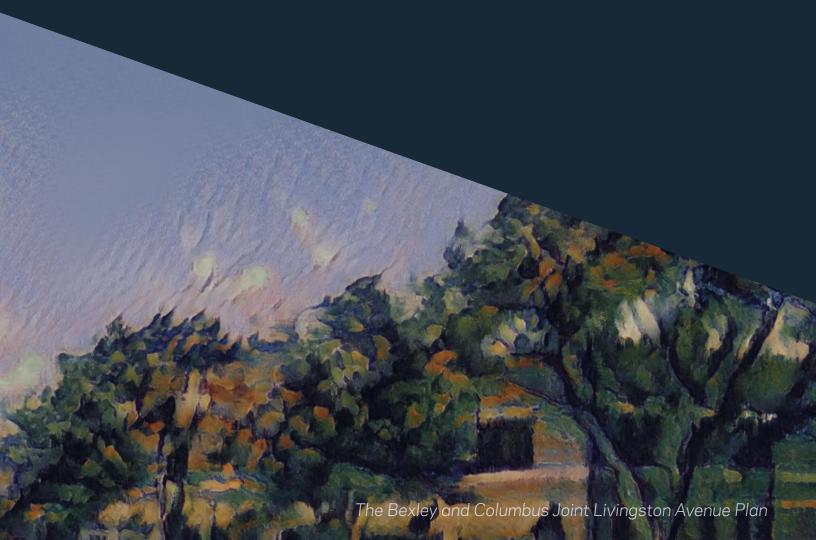
## **Community Aspirations**

- Traffic safety is of highest priority
- Urgency expressed around making some immediate changes to address road safety, specifically stopping cars from crashing into homes
- Various roadway design and law enforcement solutions suggested
- Multi-use of corridor designed for bikes, pedestrians, and mass transit desired
- Need to improve streetscape with street trees and landscape elements
- Attract businesses that create walkable destinations, without displacing older small businesses
- Collaboration between
   Bexley and Columbus on
   implementation of streetscape
   improvements and development

The Bexley and Columbus Joint Livingston Avenue Plan



The planning area focuses on E. Livingston Avenue between Nelson Road and James Road and is surrounded by a tapestry of neighborhoods including: Driving Park, Bexley, Berwick, Hanford Village, South Eastmoor, Mayfair, and Linwood.



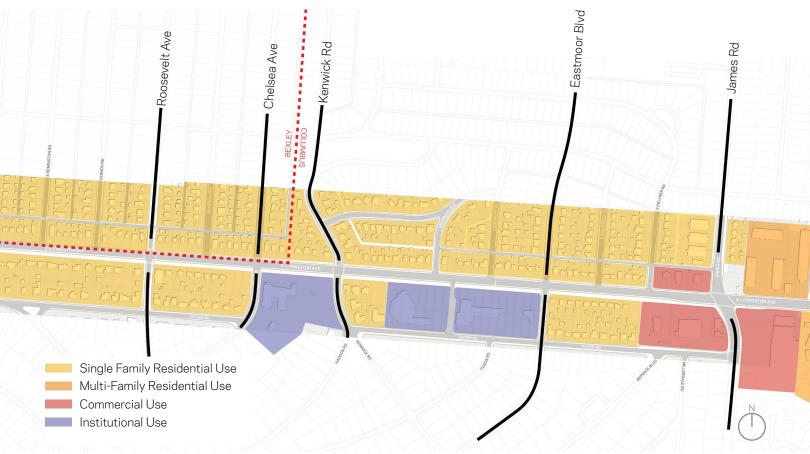
# 3.0 Existing Conditions Analysis

## 3.1 Neighborhoods and Land Use





Neighborhoods along Livingston Avenue



The Joint Livingston Avenue Plan study area extends from Nelson Road and the railroad to the west and to James Road on the east. The corridor traverses the Bexley and South Bexley neighborhoods to the north and the Columbus neighborhoods of Hanford Village and South Eastmoor, to the north and Berwick to the south. The Driving Park neighborhood anchors the west end of the corridor and the Mayfair and Linwood neighborhoods anchor the east end.

The Livingston Avenue corridor is characterized by a mix of land uses. The area between Nelson Road and Francis Road predominately lined by auto oriented convenience commercial uses, as is the James Road intersection, extending west to Kellner

Road. The corridor area between Francis Road and Kellner Road is mostly single family residential with the exception of a small enclave of multi-family residential, south of Livingston Avenue, between Castlegate Road and South Cassingham Road.

There are also a number of institutional uses located along the south edge of the corridor; Brookwood Presbyterian Church, Christ the King Catholic Church and All Saints Academy. The Brookwood Presbyterian Church site has been sold and is now approved for development of a senior living facility. While not directly fronting on Livingston Avenue, the Jewish Community Center of Greater Columbus is a large and important institutional use that has impact on the corridor.

## 3.2 Community Perceptions

Needs to be a pedestrian street - need joint tree lined walks between Bexley and Columbus Need some more mixed-use developments with a little more density

I don't enjoy my front lawn because of safety concerns - we end up using our backyard more - enjoy our neighbors over fences instead of open front yards - want to enjoy being able to ride our bikes along the boulevard.

Lots of stacking instances near College Ave

A micro-brewery as a destination would be cool!

Would like a more walkable street - walking to the businesses is very difficult

Maybe get some inputs from the business owners along this stretch - we need more opportunities for small businesses

> Re-purpose Uses: Community Serving or Commercial (ex: medical services are lacking)

Need more trash/ recycling bins

We spend a lot of time picking up trash and worrying about packages - It is missing the residential experience Perception of Livingston needs to change - from a quick drive through to a residential street and a destination

Lots of curb cuts causing a safety issue (going both East and West) - lack of crosswalks makes it even more unsafe

Too many curb cuts and turn lanes!

Solutions to improve transportation safety

We don't feel safe walking/biking along this corridor or in our homes

Intensification of land use -Need more mixed use & nonauto oriented uses

Understanding both opportunities and constraints between the two cities - breaking down barriers.

Maybe a boulevard and a tree lined street

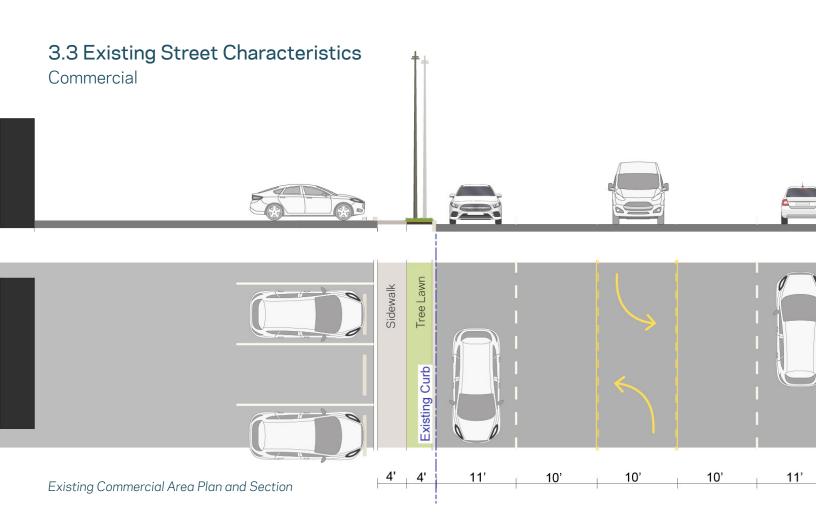
Speceoling

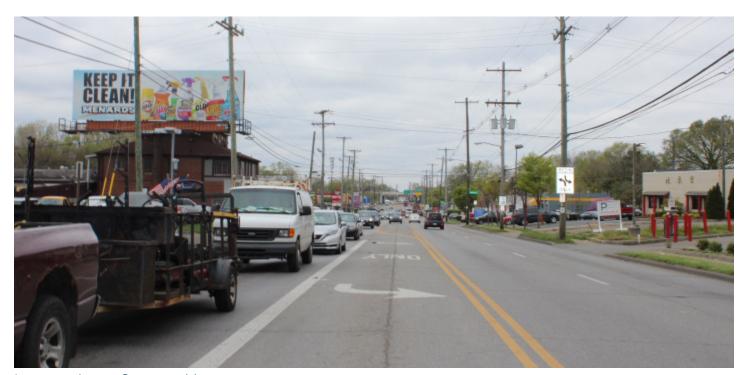
Challenge the assumption that Livingston needs to be 4 lanes - it has far fewer traffic lights than other E-W streets

Put the front yard back in Livingston

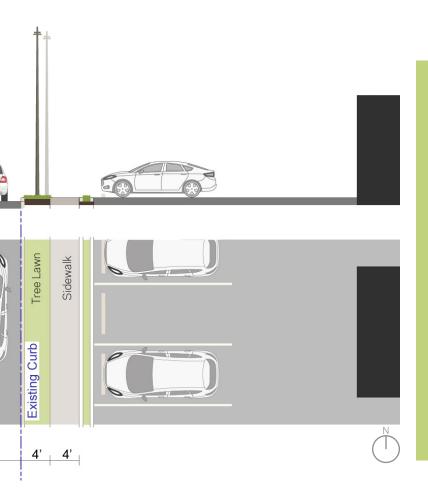
lt's a very unattractive corridor, soften it, make it pedestrian friendly

Definitely need a transition from auto/fast-food uses to more medical use/retail





Livingston Avenue Commercial Area



"Lots of curb cuts cause a safety issue (going both East and West) - lack of crosswalks makes it even more unsafe"

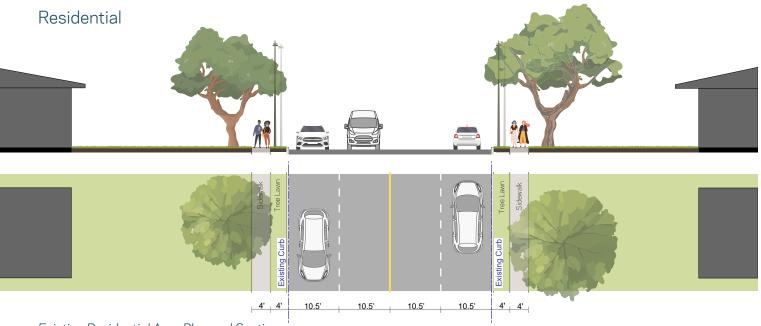
-Steering Committee Member

The character of the commercial and residential areas of E. Livingston Avenue are vastly different. However, they both share the same street corridor, which can be characterized by; high volume, fast moving traffic; a constant drone of car noise; minimal provisions for pedestrians and a heightened concern for the safety of pedestrians and for the residents and their homes along it.

The commercial areas of the corridor are characterized by auto oriented businesses with multiple curb cuts, buildings set back from the street, and with parking typically located in front of or sometimes surrounding the commercial building. The multiple curb cuts allow for

uncontrolled turning movements, across traffic, often not occurring in a safe manner and causing crashes. While narrow 4' wide sidewalks line both sides of the street, they are not well maintained, have multiple conflicts with curb cuts and moving vehicles and generally don't feel safe. In addition, the corridor is lined by utility poles and overhead lines, billboards and signage, inconsistent lighting and a lack of street trees and other streetscape elements.

### 3.3 Existing Street Characteristics



Existing Residential Area Plan and Section



Livingston Avenue Residential Area

The residential area of the corridor, in contrast, has a very robust landscape character with green lawns, attractive gardens and large shade trees that provide scale and beauty. These positive elements are unfortunately offset by the utility

poles and overhead lines, inconsistent lighting and narrow 4' wide poorly maintained sidewalks that are less than conducive for pedestrian and bicycle movement along the street.

## 3.4 Opportunities and Challenges

In addition to traffic analysis and street design considerations for E. Livingston Avenue, there are other challenges to overcome and opportunities to be embraced, that can help transform the corridor.

The railroad and Interstate 70 bridge over E. Livingston Avenue and present challenges along the corridor, by restricting traffic flow and pedestrian connectivity. Little can be done to physically change these obstacles, but if we consider them as community gateways, and upgrade them with fresh paint, new lighting, artwork, etc., they can become assets to the character and function of the corridor.

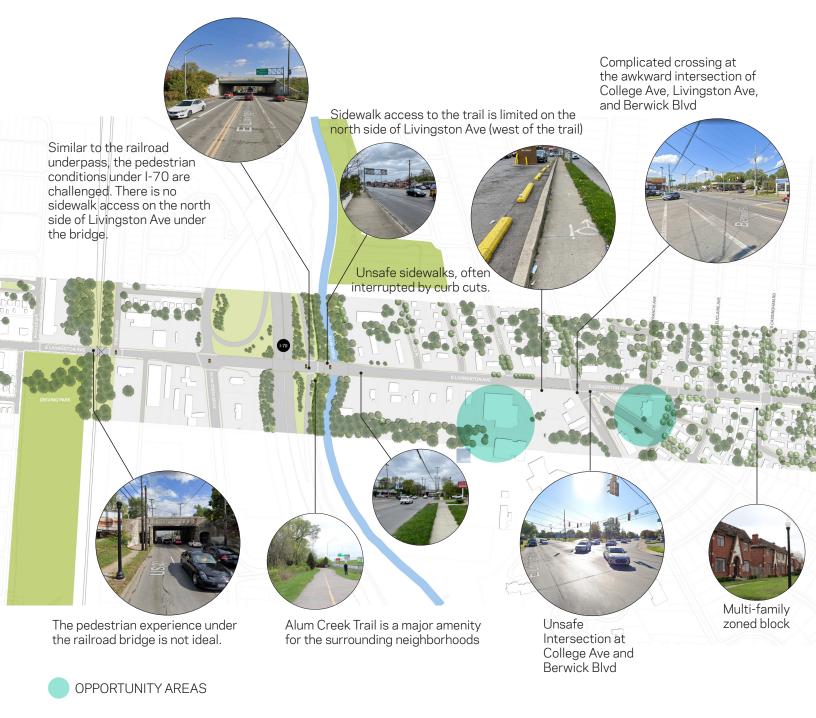
Alum Creek and the trail along it are great open space assets. The at-grade trail crossing at Livingston Avenue at the I-70 interchange is a challenge and safety concern. This creates the opportunity to consider a grade separated alternative, either a bridge over Livingston Avenue or rerouting the trail under the Livingston Avenue bridge that crosses Alum Creek.

The long-term redevelopment of the commercial properties along E. Livingston Avenue, between Alum Creek and College Avenue should consider the opportunity to create a strong open space and pedestrian connection to the Jewish Community Center. This connection would better link the redevelopment of Livingston Avenue with the spiritual, cultural, educational and recreational amenities that the center has to offer the community.

Berwick Boulevard intersects with Livingston Avenue at the College Avenue intersection, creating a five-way awkward and unsafe situation. Traffic on Berwick Boulevard is relative light and there are alternative routes to get to Livingston Avenue. Berwick Boulevard could be closed between Castlegate Road and Livingston Avenue, eliminating the awkward and unsafe challenges, but also creating land that could provide a public open space and placemaking opportunity along the corridor.

Bliss Run Tributary becomes an open stream corridor south of Livingston Avenue. This is a beautiful untapped natural amenity and open space opportunity. When combined with the former Brookwood Presbyterian Church overflow parking lot, this could be transformed into a neighborhood park and placemaking opportunity along the corridor.

## 3.4 Opportunities and Challenges



Opportunities and Constraints along Livingston Avenue



#### 3.5 Access, Curb Cuts, and Crosswalks



Access to properties along E. Livingston Avenue is through single or multiple curb cuts in the commercial areas and driveway aprons in the residential area. A portion of residential properties in Bexley, on the north side of E. Livingston

Avenue, between South Cassingham and Chelsea, have rear alley access and no front yard driveways.

There are a number of existing crosswalks, mostly on the north side of E. Livingston Avenue that connect across the side streets. The existing crosswalks that connect across E. Livingston Avenue are limited to Nelson Road, Alum Creek

Drive, Alum Creek Trail, College Avenue, South Roosevelt Avenue, Kenwick Road, Kingsbury Place (All Saints School crossing) and James Road.





Multiple curb cuts along the commercial section of Livingston Ave

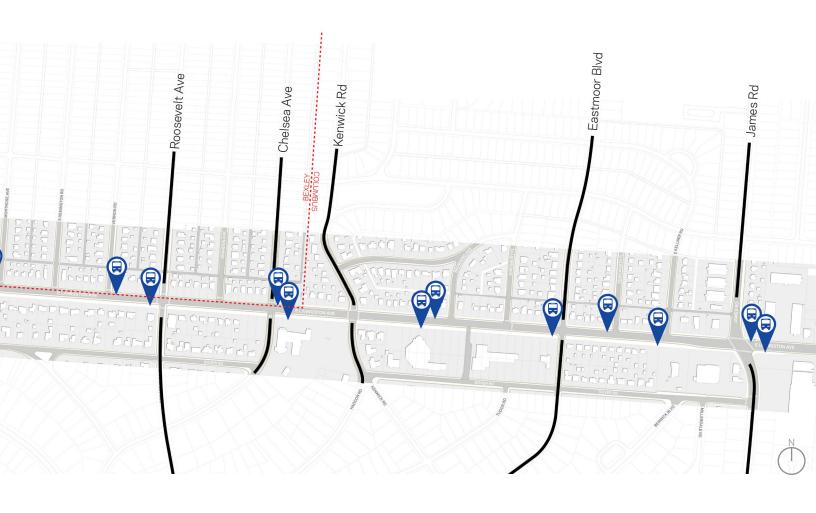
#### 3.6 Transit



Livingston Avenue is a major street going through multiple municipal areas and local transit plays an important role in connecting these neighborhoods. Although transit analysis was not a part of the scope of this plan, the team met with COTA staff during the planning process and following were the outcomes of the discussion:

- Given the low COTA ridership along this corridor, buses stop only for about 30-50 seconds and will therefore not warrant a bus pull-off.
- Buses will continue stopping in the travel lane

- and will further aid traffic calming along the corridor.
- Bus stops will be relocated with pedestrian safety in mind
- Move bus stops closer to intersections and marked crosswalks when possible so pedestrians can cross the street behind the bus
- Explore funding opportunities for providing bus stop shelters with seating
- Both cities will continue working with COTA to streamline transit and access to bus stops along the corridor.





Existing COTA Stop on Livingston Avenue

#### 3.7 Pedestrian Safety



Weekday Pedestrian Traffic Heat Map



Weekend Pedestrian Traffic Heat Map

Pedestrian safety along Livingston Avenue is very challenged. Traffic traveling over the 35mph speed limit, combined with multiple points where vehicles are turning in towards business establishments, driveways and side streets, is a top safety concern. Poorly maintained and narrow 4' wide sidewalks along both sides of the street, with limited or no vegetative or physical barriers between the street and the sidewalk, further compromises the feeling of a safe pedestrian space. The lack of well-marked and lit pedestrian crosswalks, especially

across Livingston Avenue, not only causes pedestrians to cross the street unsafely, but it limits connectivity between neighborhoods and the community.

E. Livingston Avenue currently has eight signalized pedestrian crossings between Nelson Road and James Road. There are 10 bus stops on the north side of E. Livingston Avenue and 11 bus stops on the south side. Pedestrian count data was collected for typical weekday (Tuesday-Thursday)



Unsafe pedestrian/sidewalk conditions



Unsafe pedestrian/sidewalk conditions

and Saturday pedestrian peak hour volumes at each intersection. The analysis and data are described in detail in the Traffic Volume Data and Calculations and the Crash Data and Analysis documents in the appendix section of this report.

The Crash Data and Analysis indicate there were 18 crashes involving pedestrians throughout the corridor. Five of these crashes occurred between the I-70 Ramps and College Avenue intersections where no mid-block crossings are present. More

information on the pedestrian crashes can be found in the Crash Data and Analysis in the appendix.

The image alongside summarizes the land uses, signalized and non-signalized crosswalks, current bus stop locations, and historical pedestrian crashes throughout the corridor. The analysis will be used by the City of Columbus as they conduct further studies to investigate where future crosswalks could be placed, and how bus stops could be relocated near crosswalk locations.

### 3.8 Traffic Volume and Capacity Analysis

Traffic analysis was conducted to ground this study in data for the current-state (2021) and projected future (2045) data. A summary of the methodology is shared below and described in detail in the appendix. Based on the analysis, the highest traffic volumes are seen at the E. Livingston Avenue intersections with Alum Creek Drive, I-70 Ramps, and James Road. The lowest traffic volumes are seen at the E. Livingston Avenue intersections with Roosevelt Avenue, Kenwick Road, and Kingsbury Drive. The College Avenue intersection acts as a transition between the high-volume intersections on the west end of the corridor and the lower-volume, more residential intersections on the east end of the corridor.

Based on these volumes and the capacity analysis, it is recommended that E. Livingston Avenue from S. Nelson Road to College Avenue be designed as a five-lane section, and from east of College Avenue to just west of James Road be designed as a three-lane section.

Turning movement count (TMC) data was collected over 12-hour (6:30 AM - 6:30 PM) on a typical weekday (Tuesday-Thursday) in April 2021 at the following E. Livingston Avenue intersections:

- S. Nelson Road
- IR-70 WB Ramps
- S. Roosevelt Avenue
- Kenwick Road
- Kingsbury Road

TMC data was collected by others and provided for the following E. Livingston Avenue intersections, with dates specified:

- Alum Creek Drive (January 22, 2020, from 7 AM - 7 PM)
- College Avenue/Berwick Boulevard (August 25, 2020, from 7 AM - 7 PM)

TMC data at the E. Livingston Avenue and James Road intersection was supplemented using StreetLight data averaging a typical weekday in 2019.

For all TMC data collected after March 2020, analysis was performed to determine if the data was impacted by the COVID-19 pandemic. The AM, PM, and total April 2021 IR-70 WB Ramps TMC data was compared to the AM, PM, and total January 2020 Alum Creek Drive TMC data. It was determined the 2021 PM data was within 2-3% of the 2020 PM data and 2021 total count data was very close to the total pre-pandemic data. However, the 2021 AM data was 14% different compared to pre-pandemic data. Therefore, an adjustment factor of 1.14 was applied to all intersections for the 2021 AM data only.

Linear annual growth rates were obtained from the Mid-Ohio Regional Planning Commission (MORPC). In general, 0.5% growth is assumed for all study intersection approaches, except for the following:

- 0.7% for Nelson Road north of E. Livingston Avenue
- 1.0% for IR-70 WB Ramp north of E. Livingston Avenue

 0.8% for College Avenue north of E. Livingston Avenue

The growth rates were applied to the adjusted AM count data and the PM count data to develop 2021 existing year and 2045 horizon year background volumes. Average daily traffic (ADT) volumes were developed for 2021 existing year and 2045 horizon year build conditions using the ODOT Partial Count Factor spreadsheet. Detailed findings from this analysis are documented in the

Traffic Volume Data and Calculations document in the appendix section of this report.

Capacity analysis for existing year (2021) and horizon year (2045) at all study intersections under different future scenarios of road reconfiguration and lane reductions was also conducted. The findings of that analysis are documented in the Capacity And Queuing Analysis document in the appendix section of this report and inform the recommendations of this plan.



AM Peak Vehicle Traffic Heat Map



PM Peak Vehicle Traffic Heat Map

# 3.9 Crash Analysis

One of the most challenging issue for the Livingston Avenue corridor is speeding traffic and motorists that are often clocking above posted speed limits, resulting in a highly unsafe environment for pedestrians, bicyclists, and property owners.

Vehicle crash data along E. Livingston Avenue between Nelson Avenue and James Road was obtained from the Ohio Department of Transportation (ODOT) GIS Crash Analysis Tool (GCAT) for years 2017 through 2020. Additionally, pedestrian crash data along the same corridor was obtained for years 2015 through 2020. Note, 2020 data is provided for informational purposes and cannot necessarily be compared to be previous data years due to the COVID-19 impact on traffic volumes.

Each crash report was reviewed for accuracy of crash type, location, and other such characteristics. A total of 652 crashes were obtained and then plotted on an aerial image where each crash occurred. The detailed crash diagrams are provided in the appendix section of this report. Some notable crash statistics are listed in the table on the following page.

News Release March 02, 2021

VISION ZERO COLUMBUS TO IMPLEMENT FIRST ACTION PLAN

"Columbus and the City
of Bexley are partnering
to implement Vision Zero
strategies that address speed
and the number of crashes on
Livingston."

https://www.columbus.gov/Templates/ Detail.aspx?id=2147519364

Crash Year	Number	Percent
2017	152	23.3%
2018	161	24.7%
2019	185	28.4%
2020	147	22.5%

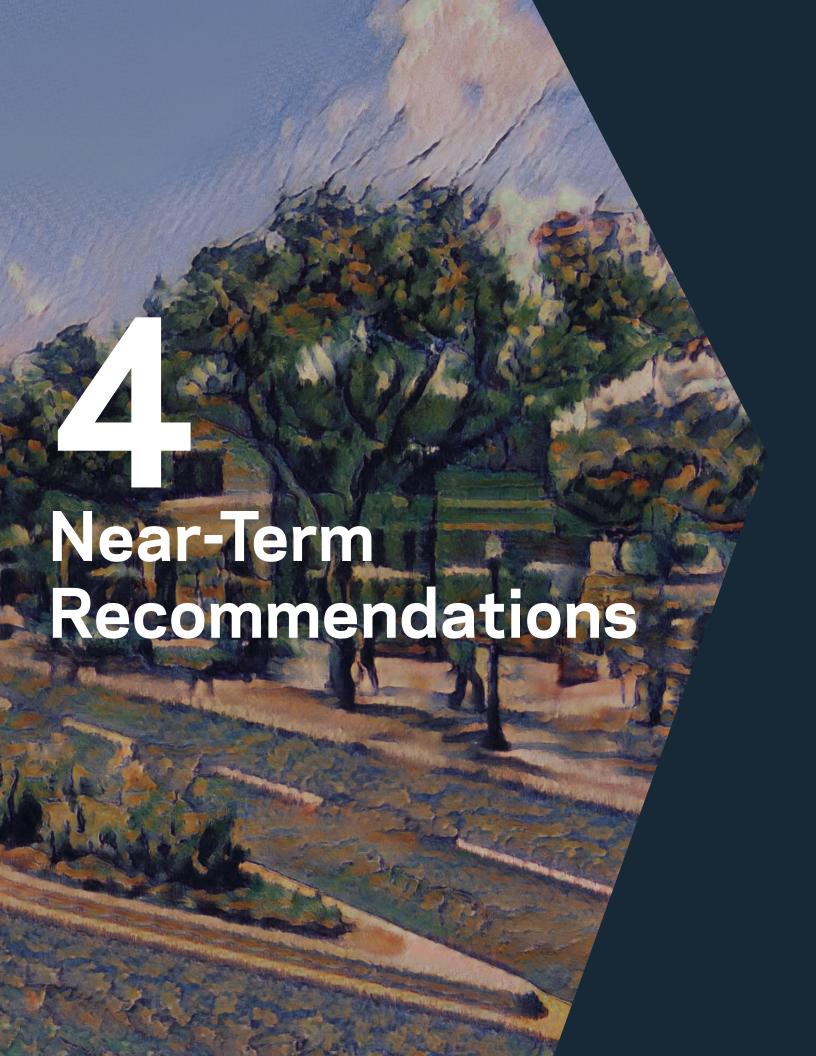
Crash Severity	Number	Percent
Fatal Crash	4	0.6%
Injury Crash	211	32.4%
Property Damage Crash	437	67.0%

Crash Type	Number	Percent
Rear End	175	26.8%
Angle	173	26.5%
Sideswipe - Passing	127	19.5%
Left Turn	75	11.5%
Fixed Object	31	4.8%
Pedestrian	18	2.8%
Sideswipe - Meeting	13	2.0%
Head On	11	1.7%
Pedal cycles	10	1.5%
Parked Vehicle	10	1.5%
Backing	8	1.2%

Road Condition	Number	Percent
Dry	496	76.1%
Wet	136	20.9%
Snow/Ice	15	2.3%
Other/Unknown	5	0.8%

Crash Statistics

Hour of Day	Number	Percent
12:00 AM	9	1.4%
1:00 AM	7	1.1%
2:00 AM	9	1.4%
3:00 AM	5	0.8%
4:00 AM	1	0.2%
5:00 AM	5	0.8%
6:00 AM	11	1.7%
7:00 AM	16	2.5%
8:00 AM	29	4.4%
9:00 AM	36	5.5%
10:00 AM	24	3.7%
11:00 AM	35	5.4%
12:00 PM	40	6.1%
1:00 PM	34	5.2%
2:00 PM	43	6.6%
3:00 PM	47	7.2%
4:00 PM	58	8.9%
5:00 PM	79	12.1%
6:00 PM	46	7.1%
7:00 PM	32	4.9%
8:00 PM	29	4.4%
9:00 PM	23	3.5%
10:00 PM	20	3.1%
11:00 PM	14	2.1%

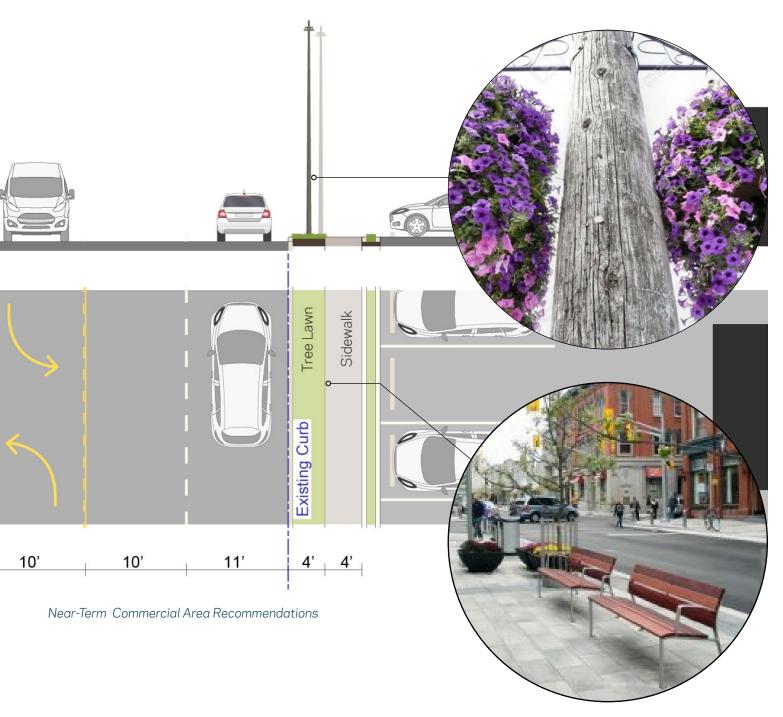


Responding to the urgent need to create a safer neighborhood corridor for pedestrians, bicyclists, and motorists.





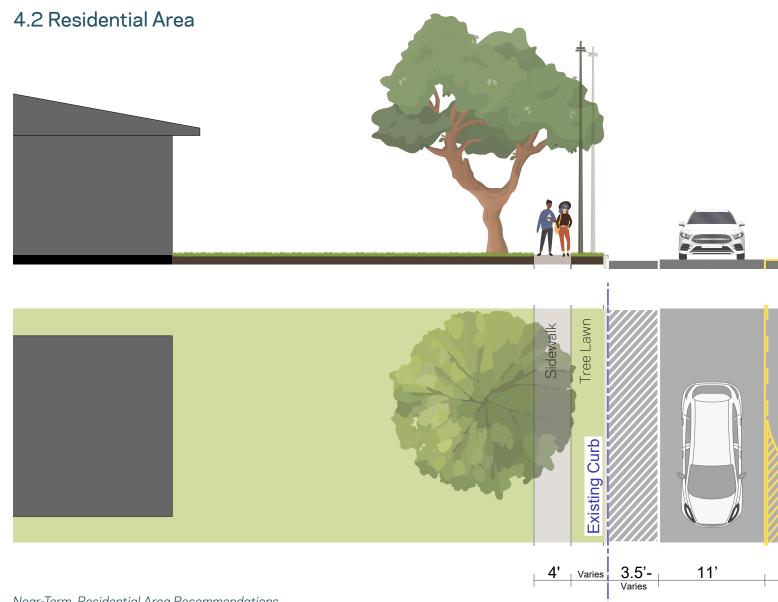
The near-term road diet for E. Livingston Avenue has been divided into two sections; the commercial areas and the residential neighborhood. The commercial areas extend from the railroad tracks and Nelson Road to Francis Avenue, on the west end and from South Kellner Road to James Road on the east end of the corridor. The residential section extends from Francis Road to South Kellner Road.



The existing five lane section of E. Livingston Avenue in the commercial areas will not change in the near-term due to the multiple curb cuts that serve the existing commercial businesses that lie along it. Changes in these areas will need to occur with redevelopment of the adjoining properties and the elimination of multiple curb cuts. See 5.0 Long-Term Improvements - Commercial Area.

While near-term road diet improvements are not possible, there is the opportunity to invest in the aesthetics of the corridor through enhanced landscaping, public art and street furniture.

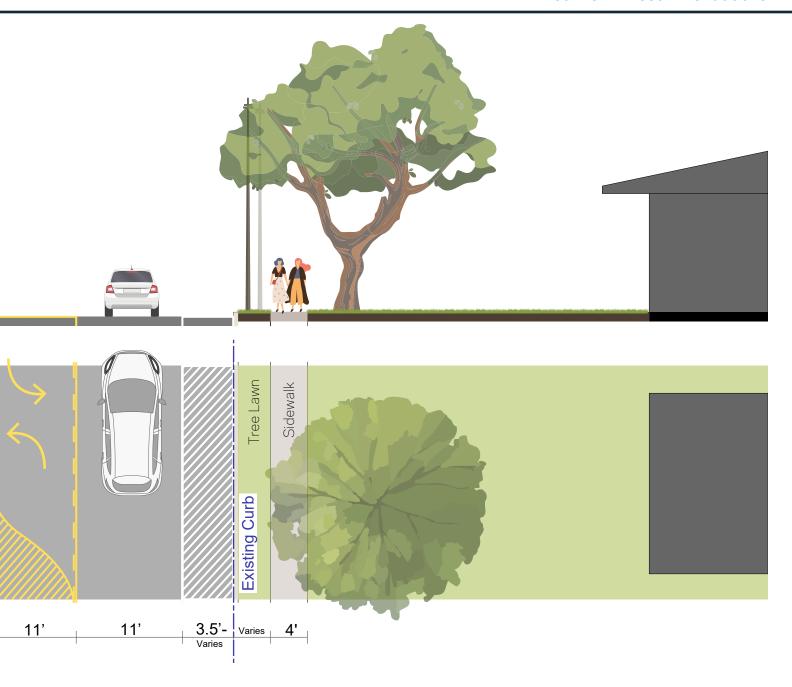
These recommendations are aspirational and will require further exploration and coordination prior to implementation.



Near-Term Residential Area Recommendations

The near-term road diet improvements in the residential area of E. Livingston Avenue will reduce the number of lanes from four to three, with one 11' wide moving lane in each direction and a 11' wide turning lane in between through painted striping of the street. This proposed new cross section will keep the existing curbs on each side of the street with the three 11' wide lanes centered between the curb-lines. This will require additional striping on each side of the street

(approx. 3.5') to take up the width of the eliminated lane. Where applicable, this will also require the removal of off-peak street parking on Livingston Ave between College Ave and James Rd. In the near-term improvements there are no other proposed changes within the right-of-way to tree lawns or sidewalks. The long-term improvements recommend additional improvements to the Livingston Avenue streetscape. See 5.0 Long-Term Recommendations.









Indianola Ave Road Diet



A unique opportunity for two cities and the many neighborhoods to unite behind a common vision to bring meaningful and sustainable change in the community.



# 5.0 Long-Term Recommendations

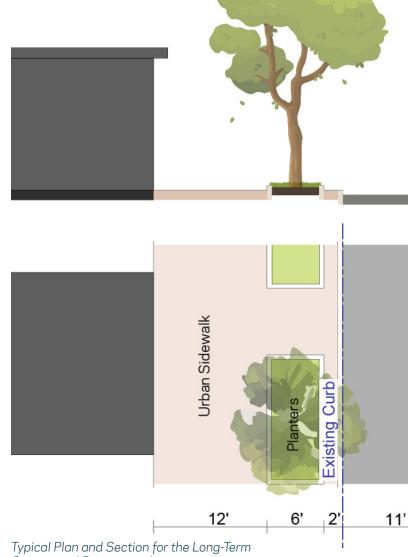
The long-term improvements for East Livingston Avenue have been divided into two sections; the commercial areas and the residential neighborhood. The commercial areas extend from the railroad tracks and Nelson Road to Francis Avenue, on the west end and from South Kellner Road to James Road on the east end of the corridor. The residential section extends from Francis Road to South Kellner Road.

These recommendations are aspirational and will require further design exploration and coordination prior to implementation.

## 5.1 Commercial Area

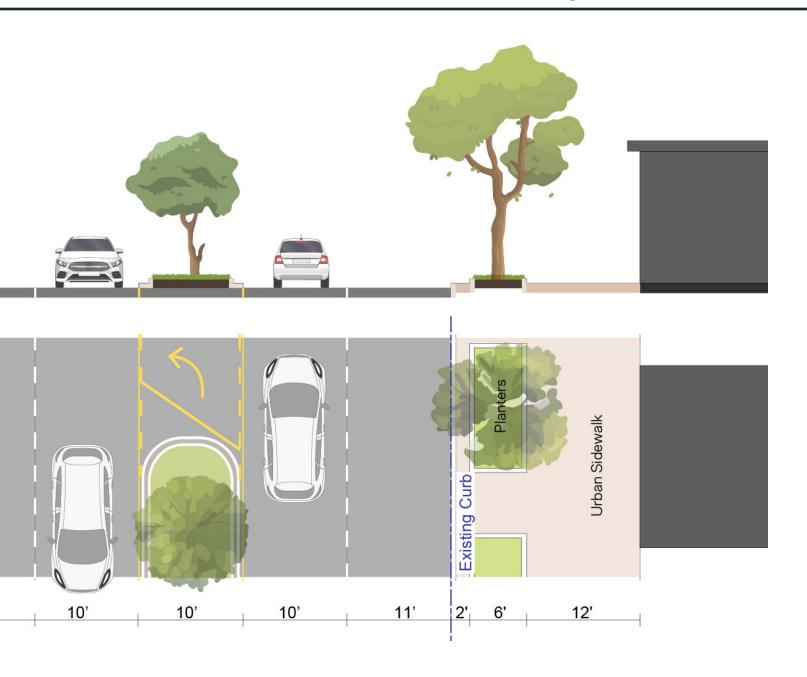
The long-term improvements to E. Livingston Avenue in the commercial areas will be implemented in conjunction with the redevelopment of the commercial property that line the street with a goal of reducing curb cuts and vehicular turning movements, bringing new buildings to the right-of-way line and locating parking behind the buildings with rear driveway access. This goal establishes a more urban street cross-section, an active and walkable streetscape environment and an inherently slower safer Livingston Avenue.

As the commercial areas are redeveloped, changes to the street can be considered. E. Livingston Avenue through the commercial areas will need to continue as five lane cross sections, with an 11' wide curb lane on each side, a 10'wide inside lane



Typical Plan and Section for the Long-Iern Commercial Recommendations

in each direction and the ability to accommodate a 10' wide turn lane. With the reduction in curb cuts, the long-term improvements also recommend the addition of a 10' wide central landscaped median that integrates the turn lane and scales down the street to encourage slower vehicular movement. The reduction in curb cuts and limited left turns along Livingston Ave will be aided with back access roads and dedicated left turn lanes at key intersections.



The urban streetscape will incorporate street trees in planters, street lighting, street furniture and other pedestrian amenities. The ground floors of buildings should have active, forward facing uses that animate the sidewalk. A variety of building setbacks, building heights and massing, changes in building materials and interstitial spaces within and between buildings will encourage social gathering, enhance placemaking and elevate the human experience.

<sup>\*</sup> Any median locations, dimensions, and actual feasibility will be determined in the next phase of the project.

# 5.1 Commercial Area - Long-Term Vision



Long-Term Commercial Vision





# Multi-use Path \* Any median locations, dimensions, and actual feasibility will be determined in the next phase of the project.

## 5.2 Residential Area

The long-term improvements in the residential area of E. Livingston Avenue build on the nearterm improvements and continues a three-lane cross-section. The existing curb line will remain with one 11' wide moving lane along the curb in each direction. The remaining space, in the middle of the street, will be dedicated to an 18' wide landscaped median, with 11' wide turning lanes at key intersections. In addition to the already established road diet in the near-term plan, the median will further act to slow traffic down on Livingston Avenue and provide tremendous value in beautifying the corridor.

The long-term improvements also include a 10' wide tree lawn on both sides of the street and an 8'-10' wide multi-use path/sidewalk. While these are the recommended long-term improvements, the final design is subject to detailed engineering studies which may require modifications. In addition, to accomplish the wide tree lawns and wide multi-use path/sidewalk, additional right-ofway may need to be acquired.

A typical plan view of the long-term improvements highlights the integration of turn lanes with the median and the provision for pedestrian crosswalks at side streets and across Livingston Avenue at key intersections. The plan also highlights portions of the corridor where residential properties fronting the street have direct driveway access to Livingston Avenue. The proposed median will restrict movement onto Livingston Avenue from these driveways.

# 5.2 Residential Area - Long-Term Vision - With Painted Median



Long-Term Residential Vision with Painted Median



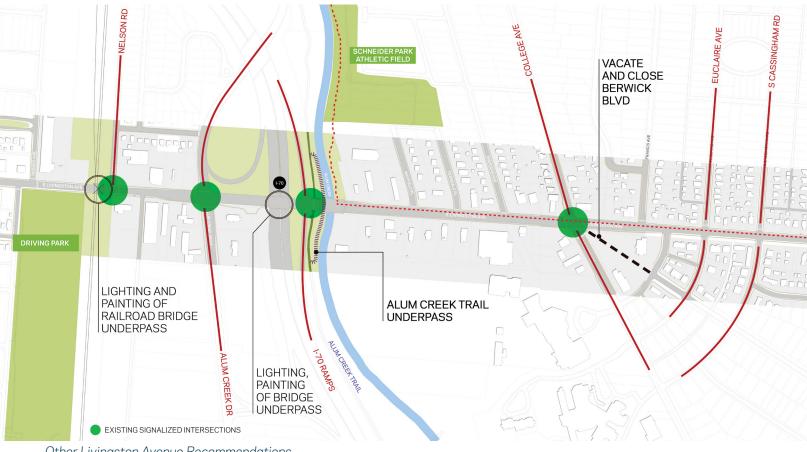
# 5.2 Residential Area - Long-Term Vision - With Planted Median



Long-Term Residential Vision with Planted Median



#### 5.3 Other Recommendations



Other Livingston Avenue Recommendations

Apart from the overarching street improvement recommendations, certain key intersections along the corridor will also benefit from design and tactical interventions.

The commercial area at the west end of the study has two major underpasses - the railroad bridge west of Nelson Road and the I-70 underpass. Both underpasses are in a state of disrepair and provide an extremely unsafe pedestrian experience. To help enhance the character of these 'gateways' and increase pedestrian visibility, it is recommended that both underpasses be made safer and

more welcoming through painting and lighting improvements.

The Alum Creek Trail is a major asset to the community along the corridor, however, the key access points to this trail are located just adjacent to the extremely busy I-70 on and off ramps.

Further, due to the lack of a sidewalk connection to the trail north of the corridor, pedestrians have no choice but to cross Livingston Avenue at this very busy intersection. To avoid this at grade crossing, it is recommended that an accessible, well-lit, and



safe underpass connection to the trail be explored at this intersection.

Finally, it is recommended that Berwick Boulevard be vacated and closed from Livingston Avenue to Castlegate Road. This will allow for a safer pedestrian crossing at the College Avenue intersection and will streamline traffic flow by eliminating additional traffic from Berwick Boulevard.



From vision to implementation - design guidelines serve as a tool to ensure implementation reflect the spirit contained with the recommendations of the Joint Livingston Avenue Plan.



# 6.0 Streetscape Design Guidelines

The purpose of the streetscape guidelines is to guide development of the streetscape for E. Livingston Avenue between Nelson Road and James Road. The intent of these guidelines is to lend a continuity of aesthetics along the length of the street in support of the recommendations of the Joint Livingston Avenue Plan and in keeping with City of Columbus and City of Bexley streetscape standards, best practices for street safety, operations, maintenance, and stormwater management.

Columbus City Code outlines maintenance responsibility within the ROW (Right of Way).

This guide is a long-term vision for the corridor, however, maintenance responsibility for streetscape items beyond what Columbus maintains will need to be determined with any long-term improvement project.

The following summarize the aspirations driving the guidelines:

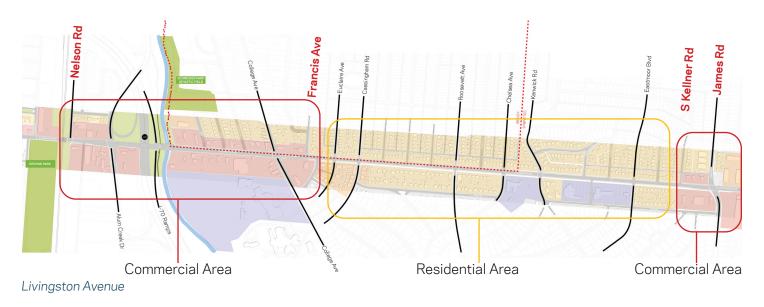
- Create a beautiful street
- Lend a continuity of aesthetics along the street
- Create a safer corridor
- Prioritize pedestrian experience
- Create a safe bikeway
- Improve vehicular safety
- Reflect urban neighborhood street character

The guidelines have been organized into the following sections

- How to use this Guide
- Commercial Section Streetscape Design Guidelines
- Residential Section Streetscape Design Guidelines
- Reference Standards

# 6.0 Streetscape Design Guidelines

## 6.1 How to Use This Guide



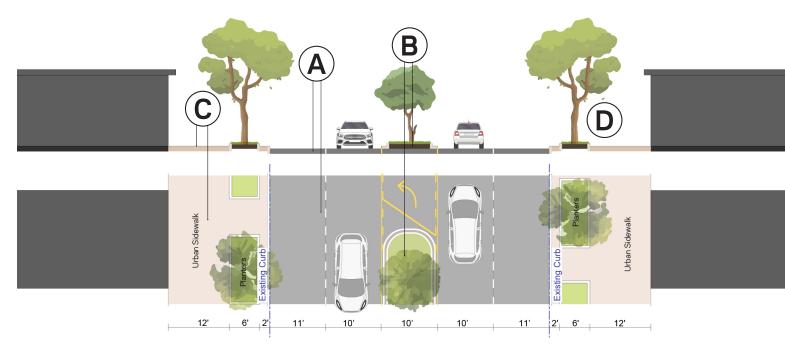
## Components of the street

The guidelines are categorized into Commercial and Residential Sections. As shown in the key map to the top of this page, the Commercial Section guidelines apply to E Livingston Avenue between Nelson Road & Francis Ave and between S Kellner Rd to James Road. The Residential Section guidelines apply to E Livingston Avenue between Francis Ave and S Kellner Rd.

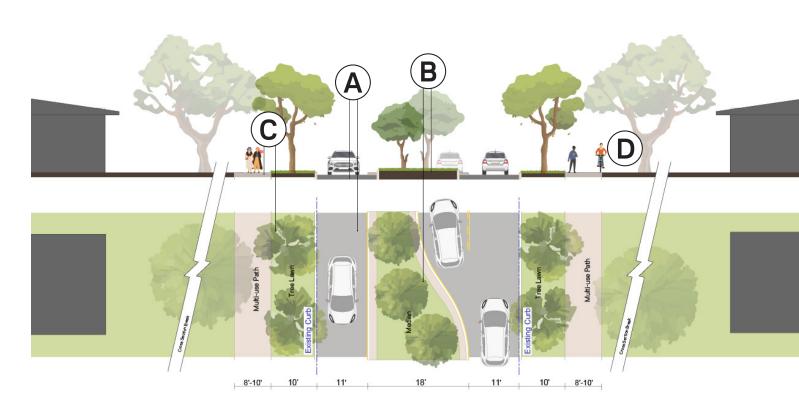
Within each section, the guidelines are organized under four key components of the street: moving lanes, medians, sidewalks/multi-use paths, and pedestrian realm.



Components of the street

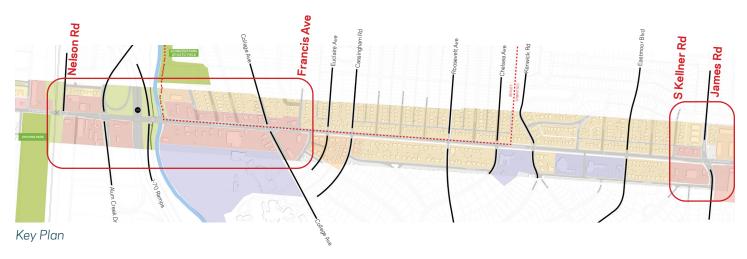


A Prototypical Livingston Ave Plan and Section in the Recommended Commercial Area



A Prototypical Livingston Ave Plan and Section in the Recommended Residential Area

# 6.2 Commercial Area



# A. Moving Lanes



Typical section through moving lanes (street)

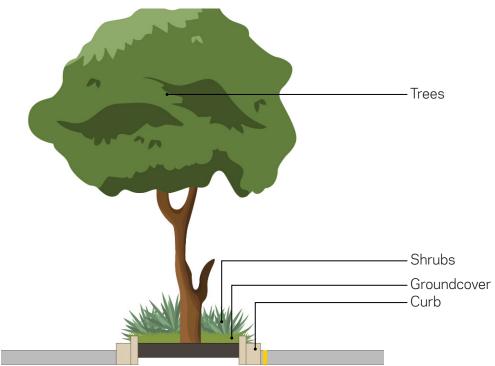


# A3. Crosswalks

Enhanced style of crosswalks to be used along Livingston Ave

 Refer COC Document 640 Pavement Marking

# B. Medians



Typical section through a commercial area median





## **B1.** Curbs

Concrete curbs for medians to be consistent with recent median improvements on Livingston Ave near Children's Hospital.

Refer to COC CMS 609 - Curbing, Concrete Medians, and Traffic Islands

# 6.2 Commercial Area

## B. Medians





#### **B2.** Groundcover

Evergreen, salt-resistant ground cover is recommended for medians.

 Refer to American Association of Nurserymen's American Standard for Nursery Stock





#### **B4. Shrubs**

Evergreen, salt-resistant shrubs are recommended for medians in combination with appropriate trees and ground cover.

- American Association of Nurserymen's American Standard for Nursery Stock
- COC CMS 661 (Trees, shrubs, and vines)



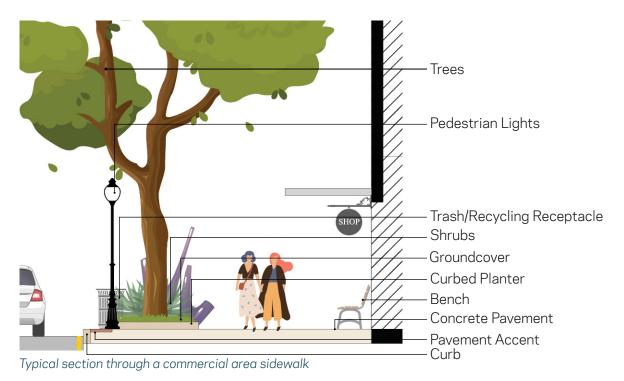


#### **B3. Trees**

For narrow medians (10'-11'), ornamental trees are recommended. For wider medians (18'-21'), a combination of ornamental and shade trees is recommended to create a vibrant tree canopy.

- American Association of Nurserymen's American Standard for Nursery Stock
- COC CMS 661 (Trees, shrubs, and vines)

# C. Sidewalks/Multi-use Paths





## C1. Paving

Sidewalks and Multi-use Paths shall be gray concrete with a light to medium broom finish or buff wash finish in the commercial areas.

Refer COC CMS 608 and COC Std. Dwg. 2300 (Concrete Sidewalk)

# 6.2 Commercial Area

# C. Sidewalks/Multi-use Paths



#### C2. Curbs

Concrete curbs for sidewalks to be consistent with recent sidewalk improvements on Livingston Ave.

Refer to COC CMS 609 - Curbing,
 Concrete Medians, and Traffic Islands



#### C3. Curbed Planters -

Planter curbs will be concrete and are to be set back 2'6" (30") from face of street curb to face of planter curb. Planter width should not be less than 6', unless required for special circumstances.

 Refer COC CMS 609 - Curbing, Concrete Medians, and Traffic Islands

# C. Sidewalks/Multi-use Paths





#### C4. Groundcover

Evergreen, salt-resistant ground cover is recommended for medians.

Refer to American Association of Nurserymen's American Standard for Nursery Stock





#### C5. Shrubs

Evergreen, salt-resistant shrubs are recommended for medians in combination with appropriate trees and ground cover.

- Refer to American Association of Nurserymen's American Standard for Nursery Stock
- COC CMS 661 (Trees, shrubs, and vines)





#### C6. Trees

For narrow medians (10'-11'), ornamental trees are recommended. For wider medians (18'-21'), a combination of ornamental and shade trees is recommended to create a vibrant tree canopy.

- Refer to American Association of Nurserymen's American Standard for Nursery Stock
- COC CMS 661 (Trees, shrubs, and vines)

# 6.2 Commercial Area

# C. Sidewalks/Multi-use Paths



# C7. Stormwater Management

Green Infrastructure strategies are to be implemented upon restructuring of the street. Bio-retention basins will have granite/concrete curbs that match the tree planters. They will also have a similar size and placement.

- For planting, soil, and construction details, refer Blueprint Columbus Green Infrastructure Design and Implementation Guidelines.
- Refer COC Stormwater Drainage Manual



#### C8. Furniture -

## Seating

All seating will be permanently installed in pavement and will have a black finish.

Benches may be the Victor Stanley Models (RB-12, RB-28) or any other bench with a similar design.

# C. Sidewalks/Multi-use Paths





#### C8. Furniture -

#### Trash/Recycling Receptacles

All trash and recycling receptacles will have a black finish and will be installed per City standards. The receptacles may be the Dumor (Model 107 or 157) or any other receptacle with a similar design.

- All receptacles will have the appropriate signs on it.
- COC CMS 608 for concrete sidewalks
- COC Std. Dwg. 2400 (Litter Receptacle)





#### **Bike Racks**

All bike racks will be permanently installed in pavement and will have a black finish.

Bike racks may be Huntco (Model BR3), DuMor (Model Bike Rack 83), Dero Bike Hitch or any decorative bike racks with a similar design.

COC CMS 608 for concrete sidewalks

#### 6.2 Commercial Area

# C. Sidewalks/Multi-use Paths



#### C9. Lighting

In the commercial section, all street lights will be painted black and will have single acorn luminaires with a provision for flower baskets.

- Refer to COC Street Light Specifications (fixture and pole types, lighting source, light distribution pattern, foot-candle levels)
- Refer COC document MIS 307 for pole specifications
- Refer COC document MIS 802 for luminaire specifications.



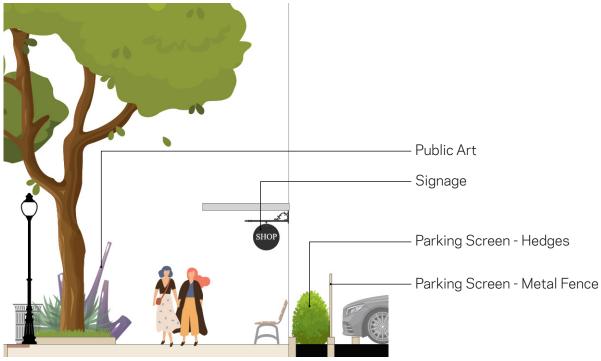
# C10. Traffic Signals

All new mast arm traffic signals at warranted intersections to be finished with black powder coating per COC standards.

 Refer to COC Traffic Signal Design Manual

#### 6.2 Commercial Area

#### D. Pedestrian Realm



Typical section through the commercial pedestrian realm







#### D1. Public Art -

- Follow COC Guidelines for Public Art
- Columbus Art Commission (City Code Section 3315)
- Explore public art on utility poles where possible.

# 6.2 Commercial Area

#### D. Pedestrian Realm





#### D2. Parking Screens

When surface lots are adjacent to sidewalks, they shall be screened with landscaped hedges or a combination of decorative metal fences and landscaped elements such as hedges or vines on the fences.

- Refer Bexley zoning ordinance for screening requirements.
- Screening not required for single family units
- Explore grants for parking lot screening for business owners in the commercial area
- Follow COC standards for screening materials



#### D3. Signage

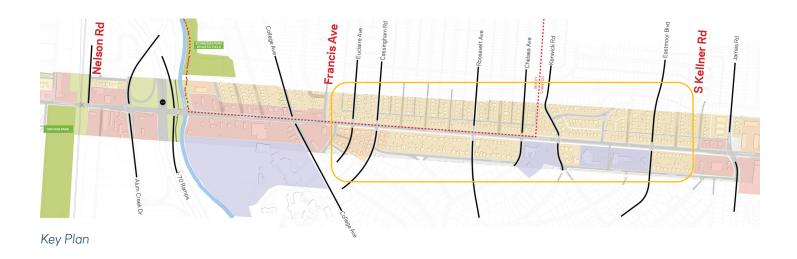
Refer to COC Guidelines for all signage design and placement on Livingston Avenue and Columbus jurisdiction. Refer Bexley signage design and placement guidelines for Bexley jurisdiction.



#### D4. Transit

Transit includes COTA bus stops and bus shelters. Co-ordinate with COTA and follow COC and COTA design guidelines for specifications.

Refer COTA Transit Stop Design Guide.



# A. Moving Lanes



Typical section through the moving lanes (street)

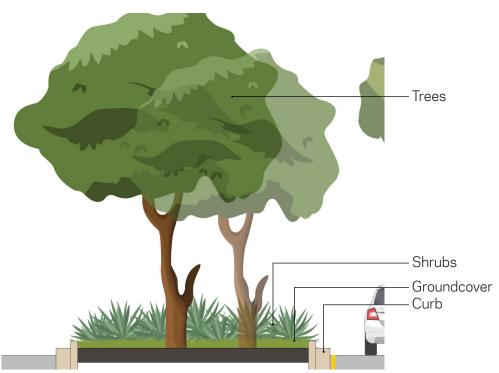


#### A1. Crosswalks

Enhanced style of crosswalks to be used along Livingston Ave

Refer COC Document 640 Pavement Marking

# B. Medians



Typical section through a residential median





#### **B1.** Curbs

Concrete curbs for medians to be consistent with recent median improvements on Livingston Ave near Children's Hospital.

Refer to COC CMS 609 - Curbing,
 Concrete Medians, and Traffic Islands

#### B. Medians





#### **B2.** Groundcover

Evergreen, salt-resistant ground cover is recommended for medians.

American Association of Nurserymen's American Standard for Nursery Stock





#### **B3. Shrubs**

Evergreen, salt-resistant shrubs are recommended for medians in combination with appropriate trees and ground cover.

- American Association of Nurserymen's American Standard for Nursery Stock
- COC CMS 661 (Trees, shrubs, and vines)





#### **B4. Trees**

For narrow medians (10'-11'), ornamental trees are recommended. For wider medians (18'-21'), a combination of ornamental and shade trees is recommended to create a vibrant tree canopy.

- American Association of Nurserymen's American Standard for Nursery Stock
- COC CMS 661 (Trees, shrubs, and vines)

#### B. Medians



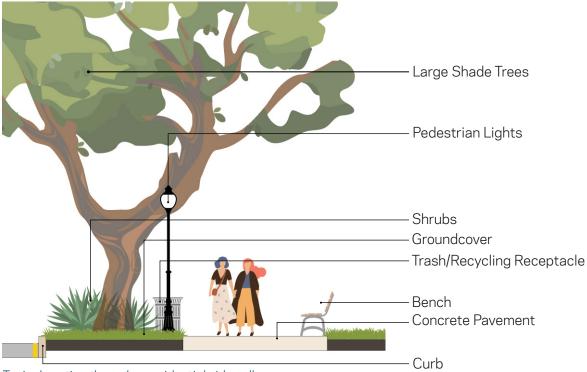
# **B7. Stormwater Management**

Green Infrastructure strategies are to be implemented upon restructuring of the street.

Bio-retention basins will have concrete curbs that match the median curbs. They will also have a similar size and placement. Street design can be explored to use medians as rain gardens.

- For planting, soil, and construction details, refer Blueprint Columbus Green Infrastructure Design and Implementation Guidelines.
- Refer COC Stormwater Drainage Manual

# C. Sidewalks/Multi-use Path



Typical section through a residential sidewalks



#### C1. Curbs

Concrete curbs for sidewalks to be consistent with recent sidewalk improvements on Livingston Ave.

Refer to COC CMS 609 - Curbing, Concrete Medians, and Traffic Islands

# C. Sidewalks/Multi-use Path



#### C2. Paving

Designated sidewalks shall be gray concrete with a light to medium broom finish or buff wash finish.

 Refer COC CMS 608 and COC Std. Dwg. 2300 (Concrete Sidewalk)



For designated multi-use paths, refer COC/Bexley standards.

Refer COC CMS 448 (Asphalt Pavement)



#### C3. Tree Lawns-

Maximize tree lawns to 10ft wide where possible along the residential section of Livingston Ave.

# C. Sidewalks/Multi-use Path





#### C4. Trees

A combination of ornamental trees and large shade trees with a large canopy recommended for tree lawns in the residential section.

For ideal tree types, placement guidelines, and structural soil requirements, refer COC Recreation and Parks Department's Urban Forestry section.



#### C5. Stormwater Management

Green Infrastructure strategies are to be implemented upon restructuring of the street. Bio-retention basins will have granite/concrete curbs that match the tree planters. They will also have a similar size and placement.

- For planting, soil, and construction details, refer Blueprint Columbus Green Infrastructure Design and Implementation Guidelines.
- Refer COC Stormwater Drainage Manual

# C. Sidewalks/Multi-use Path



# C6. Furniture - Seating

All seating will be permanently installed in pavement and will have a black finish.

Benches may be the Victor Stanley Models (RB-12, RB-28) or any other bench with a similar design.







# Trash/Recycling Receptacles

All trash and recycling receptacles will have a black finish and will be installed per City standards. The receptacles may be the Dumor (Model 107 or 157) or any other receptacle with a similar design.

- All receptacles will have the appropriate signs on it.
- COC CMS 608 for concrete sidewalks
- COC Std. Dwg. 2400 (Litter Receptacle)

# C. Sidewalks/Multi-use Path





#### **Bike Racks**

All bike racks will be permanently installed in pavement and will have a black finish.

Bike racks may be Huntco (Model BR3), DuMor (Model Bike Rack 83), Dero Bike Hitch or any decorative bike racks with a similar design.

COC CMS 608 for concrete sidewalks

# C. Sidewalks/Multi-use Path



# C7. Lighting

In the residential area, all pedestrian lights will be painted black and will have single acorn luminaires.

- COC Street Light Specifications (fixture and pole types, lighting source, light distribution pattern, foot-candle levels)
- Refer COC document MIS 307 for pole specifications
- Refer COC document MIS 802 for luminaire specifications.

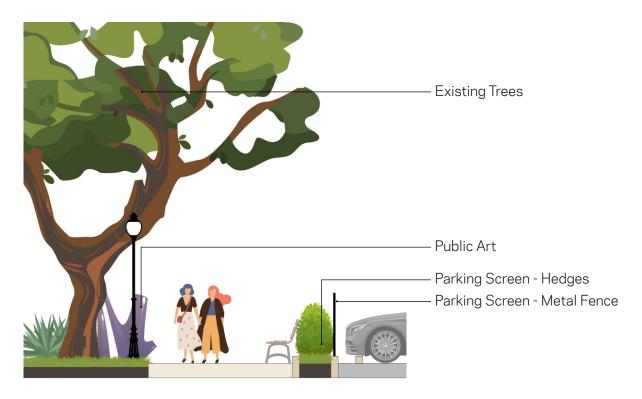


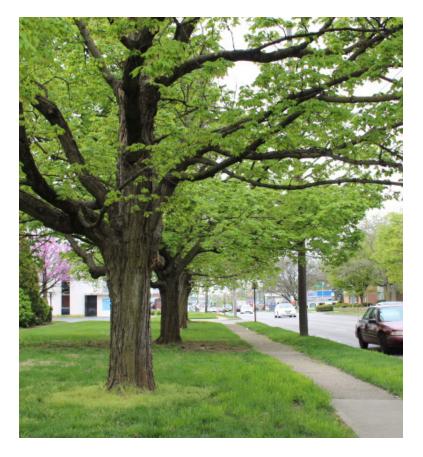
## C8. Traffic Signals

All new mast arm traffic signals at warranted intersections to be finished with black powder coating per COC standards.

 Refer to COC Traffic Signal Design Manual

#### D. Pedestrian Realm





#### **D1. Existing Trees**

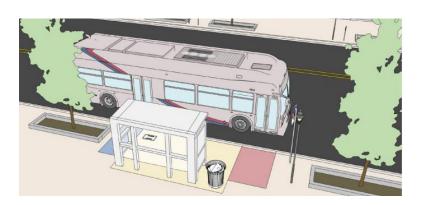
Retain existing, well-established, mature, healthy trees where possible. It is anticipated that in order to accomplish elements of this plan, mature tree removal may need to occur. Should that happen, the Cities will make every effort to ensure that it is replaced with a new tree.

Follow COC and City of Bexley guidelines for tree preservation/removal and remediation techniques.

#### D. Pedestrian Realm







## D2. Parking Screens

When surface lots are adjacent to sidewalks, they shall be screened with landscaped hedges or a combination of decorative metal fences and landscaped elements such as hedges or vines on the fences.

Note: Surface lot screening requirements are not applicable to single family units.

- Refer Bexley zoning ordinance for screening requirements.
- Screening not required for single family units
- Explore grants for parking lot screening for business owners in the commercial area
- Follow COC standards for screening materials

#### D4. Transit

Transit includes COTA bus stops and bus shelters. Co-ordinate with COTA and follow COC and COTA design guidelines for specifications.

Refer COTA Transit Stop Design Guide.

#### 6.4 Reference Standards

#### COTA Transit Stop Design Guide

https://prodwww.cota.com/static/ab242d40b9dcb3c19f0ccab09f681c5a/COTA-Transit-Stop-Design-Guide.pdf

#### Blueprint Columbus

https://www.columbus.gov/utilities/projects/blueprint/Green-Infrastructure-Design-Guidelines-and-Supplemental-Specifications/

Columbus Recreation and Parks - Urban Forestry <a href="https://www.columbus.gov/recreationandparks/Urban-Forestry/">https://www.columbus.gov/recreationandparks/Urban-Forestry/</a>

#### City of Columbus Manuals

- COC CMS 608 and COC Std. Dwg. 2300 (Concrete Sidewalk)
- COC CMS 641 (Pavement Marking)
- COC Std. Dwg. 2319 (Detectable Warning Surface)
- Ohio Manual of Uniform Traffic Control Devices, Section 3B.18 (Crosswalk Markings)
- COC CMS 609 (Curbing)
- COC Std. Dwg. 2000
- COC Street Light Specifications (fixture and pole types, lighting source, light distribution pattern, foot-candle levels)
- COC Traffic Signal Design Manual

# 6.5 Commercial Area - Long-Term Vision



Long-Term Commercial Vision



# 6.5 Residential Area - Long-Term Vision - With Painted Median



Long-Term Residential Vision with Painted Median



# 6.5 Residential Area - Long-Term Vision - With Planted Median



Long-Term Residential Vision with Planted Median

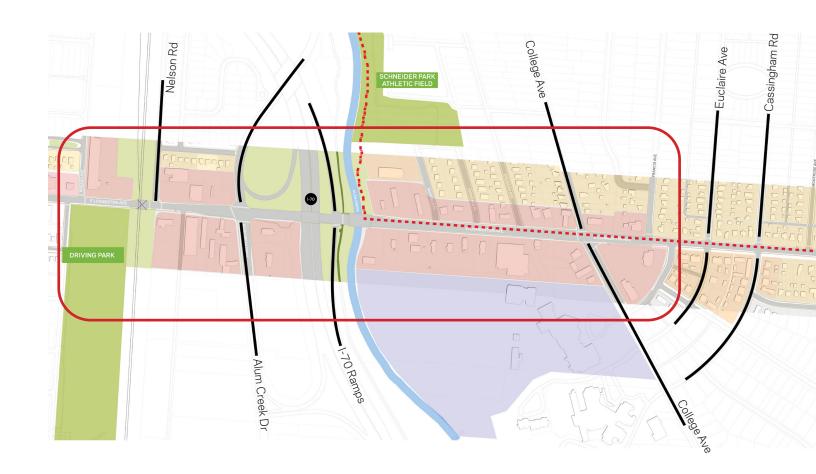






Strengthening neighborhood identity with a thriving, pedestrian friendly, mixed-use neighborhood corridor.

# 7.0 The Joint Livingston Ave Commercial Area Urban Development Principles

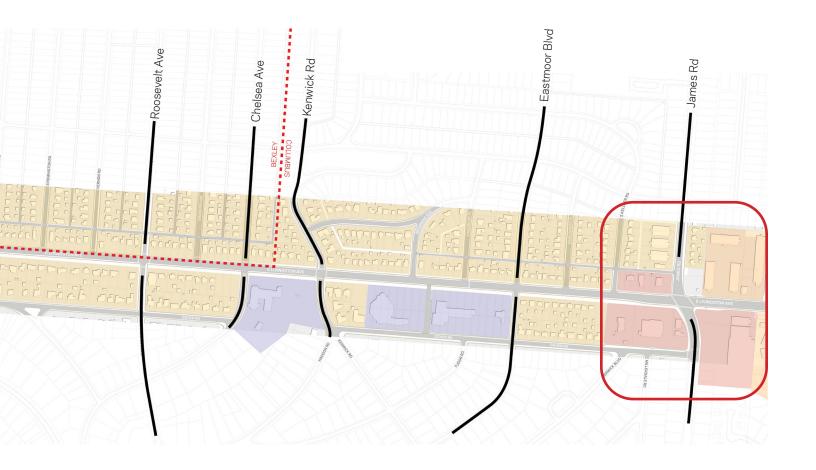


# 7.1 Guiding Principles Overview

The Joint Livingston Ave Commercial Area Urban Development Principles will inform future zoning code updates and development for the areas of the cities of Columbus and Bexley included within the study boundaries.

These principles have been created to work in tandem with the existing Columbus Citywide Planning Policies (C2P2 - current Land Use

Guidelines), the Livingston East Area Community Commercial Overlay (CCO - current Zoning Code) as well as applicable City of Bexley plans, studies, and zoning code. These principles will provide best practices to further the goals of the existing planning documents and code (C2P2/CCO) and will inform any future zoning code updates and future developments for the cities of Columbus and Bexley.



The purpose of these guiding principles is to advance and support community oriented urban (re)development through:

- Improved pedestrian access and safety
- Streamlined vehicular circulation and parking
- A cohesive and visually enhanced built environment



# 7.2 Commercial Area Urban Development Principles

- New buildings should front Livingston Avenue and be located with limited or zero setback along
   Livingston Avenue right-of-way, but modulation in this setback is encouraged to add architectural interest.
- New buildings should be multi-story with a mix of uses. Commercial uses on the ground floor to create street level activity with residential above, which includes affordable and market rate housing, is recommended.
- Parking should be located at the rear of new development.
- Preserve existing rear access roads as primary vehicular access to the Livingston Avenue frontage properties.





- Include rear access roads and alleys as the primary access for properties that front Livingston
   Avenue in proposed site plans. Rear parking should be designed for vehicular access and circulation
   to adjacent properties if space is not available for an access road or alley.
- Existing parking lots along Livingston Avenue should be screened using the Livingston Ave
   Streetscape Design Guidelines. This screening should occur where parcel redevelopment is not occurring in the short-term.
- To allow for adequate access, vehicular circulation, and recommended lot development, re-zoning of adjacent residential property on the north side of Livingston Avenue between College Avenue and Alum Creek may need to occur due to a shortage of adequate lot depth in that area.



# 8 Appendix

The following documents were produced as part of the planning process and inform the findings and recommendations of the Joint Livingston Avenue Plan.

They can be obtained at: <a href="http://www.bexley.org/livingston">http://www.bexley.org/livingston</a>

- 1. Traffic Volume Data and Calculations
- 2. Crash Data and Analysis
- 3. Turn Lane Length Calculations
- 4. Capacity and Queuing Analysis
- 5. Pedestrian Analysis
- 6. Highway Safety Manual and Benefit-Cost Analysis
- 7. Long Term Capacity Improvements Cost Estimate
- 8. Community Input
- 9. Livingston Avenue Design Options Considered