ARLINGTON PARK MOBILITY STUDY

2019

KYOVA
KENTUCKY • OHIO • WEST VIRGINIA
INTERSTATE PLANNING COMMISSION

CITY OF HUNTINGTON

Prepared by:

gai consultants

COMMUNITY SOLUTIONS GROUP

KYOVA Interstate Planning Commission
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ACKNOWLEDGEMENTS

About the KYOVA

KYOVA Interstate Planning Commission is the Metropolitan Planning Organization (MPO) for the Tri-State area of West Virginia, Kentucky, and Ohio. As the MPO, KYOVA serves as a transportation planning agency and forum for regional transportation decisions. Its mission is to plan for an orderly, cost-effective, multi-modal transportation system for all citizens of the service area. With the support of local officials, the Commission plans for sound transportation improvements, which facilitate the movement of goods and people in a safe and efficient manner. The Commission's goal is to promote cooperation among members to reach consensus on matters affecting all modes of transportation. KYOVA is responsible for the annual dissemination of millions of dollars in federal transportation funds to conduct transportation-related studies and implement transportation projects. KYOVA oversees transportation planning for the West Virginia counties of Cabell and Wayne; Kentucky counties of Boyd and Greenup; an urbanized area of Lawrence County, Ohio.

Participants

KYOVA would like to thank all the stakeholders involved with the development of the Arlington Park Mobility Study, especially the City of Huntington, the Arlington Park Neighborhood Association, and all those who participated in our public survey.

This document was stewarded internally by a KYOVA steering committee, focusing on mobility and safety concerns present in the Arlington Park neighborhood. This committee and the development of the mobility study are managed by Chris Chiles, Executive Director; Saleem Salameh, Ph.D., P.E, Technical Study Director; and Bethany Wild, Transportation Planner.

This study was developed by KYOVA in collaboration with the Community Solutions Group of GAI Consultants. All maps and graphics were created by Community Solutions Group unless otherwise noted.

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Published in _____

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1 INTRODUCTION

PRINCIPLES + OBJECTIVES

INTRODUCTION

The Arlington Park Mobility Study is a product of KYOVA Interstate Planning Commission, in partnership with the City of Huntington, and the community of Arlington Park. In an effort to improve the safety and mobility issues facing this community, KYOVA selected GAI Consultants, Inc. to develop a series of strategic recommendations to serve as a guide for future mobility investments. These strategies, once put into place, will improve access to areas such as downtown Huntington and connection to I-64, as well as improve the road network within the neighborhood for both vehicles and pedestrians alike.

The recommendations of this study have been developed through a collection of data, public input, and the consultant's site surveys. Through this process, a collection of 10 focus areas were selected for improvement. Each of these focus areas has a series of strategic recommendations that have been categorized into a detailed matrix of implementation, and each strategy was broken down by cost, congestion impact, vehicular and pedestrian safety, and other potential considerations. By using this system, each project can be placed into a time-frame of short-, medium-, and long-range projects that will be implemented throughout the life of the Arlington Park Mobility Study.

As an independent study for KYOVA, this plan addresses issues and makes recommendations for the City of Huntington's Arlington Park neighborhood that conform to the efforts being made in the City's Comprehensive Plan 2025, The Future of Huntington. The study also holds consistent with KYOVA's 2040 Metropolitan Transportation Plan and addresses all modes of applicable transport, including automobiles, bicycle, pedestrian, and transit.

PRINCIPLES + OBJECTIVES

KYOVA, supported by the consultant team Community Solutions Group of GAI, outlined the following objectives for the Arlington Park Mobility Study:

- Develop a plan that will better **connect** residents and other Arlington Park roadway users to areas both within and outside the neighborhood.
- Enhance **safety** and mobility for all modes and users.
- Improve **wayfinding** and safety with improved signage.
- Work with the **public** to identify desired mobility strategies.
- **Prioritize** improvements and identify enhancements that might be implemented in the short-term, mid-term, and long-term.

STUDY AREA

LOCATION

The Arlington Park neighborhood is located approximately 4 miles east of downtown Huntington, West Virginia. The project area can be defined by the road network of Midland Trail (Route 60) to the north, Washington Boulevard and Ferguson Road to the west, Norway Avenue to the south, and Walmart Drive to the east.

Arlington Park is classified as an early suburb to Huntington, with planning efforts for the community dating back to 1926 and representing a housing character of single family, ranch and split level style homes on 0.25-acre lots. This low to medium density neighborhood fits within the hills of south and east Huntington, making the neighborhood more dependent on vehicular use, as it is not easily accessible to downtown. Walkability in the neighborhood, as well as the use of bikes, is challenged by the terrain running throughout the area. With the community being primarily residential, most of the housing stock consists of owner-occupied units.

An edge is created by US Route 60 to the north, which is the principal arterial road leading into downtown from the east. The character along Route 60 features larger box stores, such as Walmart and Gabe's, which can be found alongside chain restaurants and services. With an average daily traffic (ADT) rate of 35,000+ vehicles, Midland Trail presents itself as a high volume traffic influencer to the community; gaining access to it can be challenging at times, especially depending on the selected direction of travel.

Other roadways surrounding the neighborhood, such as Washington Boulevard and Norway Avenue are classified as major collectors, with their ADT being 7,000+ and 4,000+, respectfully. These roadways serve as the main access point for the neighborhood and are also used by more than just the surrounding community. These roadways have become easy cut-through routes to avoid Route 60, and have become a congestion problem to those who live in the area. This study focuses on these roadways, along with other internal community streets, to determine strategic recommendations that may influence how the roadways can be used and improved in the future.

Map depicting the study area for the KYOVA Arlington Park Mobility Study on the eastern edge of Huntington, West Virginia.

PLANNING PROCESS

PROCESS

The consultant team, working under the guidance of KYOVA representatives, performed this study in four phases: Review and Analysis, Public Engagement, Mobility Study, and Implementation Strategy.

Review and Analysis gave the team the background information to understand existing challenges and opportunities. This phase formed the basis for identifying the potential mobility strategies that will be valuable for KYOVA and the City of Huntington towards future projects in the Arlington Park neighborhood.

Public Engagement opened a channel of dialogue between the public, KYOVA, the City of Huntington, and the consultant team to discuss existing conditions and needs. The meeting was a working session that allowed community members to collaborate in order to identify vehicular and pedestrians challenges they face and to prioritize potential solutions. The public survey served as mode of communication between the consultant team and potential members of the public that could not attend the meeting. This survey was live for more than a month and had positive participation of an estimated 15% of the community.

The Mobility Study shows how the team used input from the community, KYOVA, and the City of Huntington to propose improvements to vehicular and pedestrian safety and access throughout the neighborhood.

The implementation Strategy creates an outline for KYOVA and their role in moving proposed strategies forward. Proposed strategies are broken down into priority items focused on cost, impact, safety, and time.

REVIEW + ANALYSIS

- Reviewed relevant plans and studies to understand previously documented challenges and opportunities
- Reviewed collected data to gain an understanding of the existing mobility issues
- Engaged with KYOVA and the City of Huntington to understand current and past projects
- Performed a preliminary study area visit
- Presented and discussed findings with KYOVA's internal Technical Advisory Committee

PUBLIC ENGAGEMENT

- Held a public meeting to present initial findings and receive input
- Launched an online public survey to gain additional information from community members who could not attend the meeting

MOBILITY STUDY

- Developed strategies for vehicular improvements focused on safety and congestion issues
- Developed strategies for pedestrian improvements focused on safety and access needs
- Presented and discussed strategies with KYOVA's internal Technical Advisory Committee

IMPLEMENTATION STRATEGY

- Reviewed conceptual alternatives and civic capacity to develop a strategy for project implementation
- Strategies are prioritized by cost, impact, vehicular + pedestrian safety, and project time-frame

PLANNING PROCESS: MEETING

PUBLIC ENGAGEMENT

Public input was an essential part of this planning process. The Arlington Park Neighborhood Association, City leaders, and regional agencies were invited to participate in a community meeting that focused on the mobility and safety concerns in the area.

On February 13, 2019 GAI Consultants attended the regularly scheduled Arlington Park Neighborhood Association meeting to gain input about their mobility concerns. Jim Insco, of the City of Huntington, introduced the project, introduced the public to KYOVA representatives, and the consulting team. Then, the project;s consulting team was able to conduct an initial presentation that covered general information about the study area and the project objectives and goals. Information from previously collected data was also shared within this presentation such as: ADT counts, a slope analysis, sidewalk inventory, bicycle path delineation, public transit routes, roadway classifications, and crash data from the previous 5 years. After concluding the portion of the presentation about collected data, the team was then able to introduce alternative design solutions and an online public survey to be shared.

Once the presentation concluded, the attendees where then broken out into two main groups focused on the discussion of vehicular and pedestrian/bike safety and access within the study area. Through this process we were able to collect individual input and highlight areas of concern on maps using a dot identification activity. The consulting team was able to take detailed notes on their input and suggestions and use those to help determine areas of focus for alternative design solutions.

Sample map from the public meeting with areas of concern identified and notes to help provide understanding of their issues.

PLANNING PROCESS: SURVEY

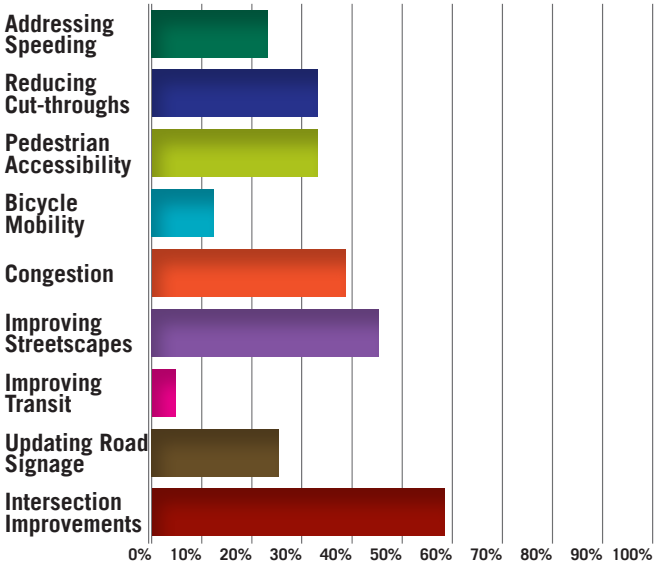
SURVEY ANALYSIS

An online survey was conducted to receive additional public input from community members who attended the Arlington Park Neighborhood Association meeting, as well as to reach individuals who where unable to attend the evening of February 13th. This survey, with a total of 59 participants, or roughly 15% participation rate from the Arlington Park community, provided a comprehensive understanding of the safety and mobility issues within the project area. The follow information provides a detailed summary of the survey, which has assisted in the development of the recommendations prepared for the Arlington Park Mobility Study.

Question 1:

Of the 59 responses to the survey, 58 respondents live in the Arlington Park neighborhood, with 1 respondent skipping the question. Therefore, we conclude that this survey represents mobility for the neighborhood focusing on origin trips rather than destination trips.

Question 2: Please identify your top priorities for improving transportation and mobility in Arlington Park:



Nearly 60% identified improving intersections and roadways should be the top priority for improving transportation and mobility. Nearly 50% identified improving streetscapes such as lighting and street trees as the second priority. Third, at nearly 40%, was addressing traffic congestion.

Other key responses included improving pedestrian accessibility and reducing cut-through traffic at around a third of respondents each.

These responses characterize the following focal points for mobility in Arlington Park:

- The most common priority is addressing auto-centric mobility, such as safety, circulation, and congestion. Overall, 65% of responses were for auto-centric mobility.
- The second most common priority is improving the neighborhood and pedestrian experience, with streetscapes, lighting, sidewalks, etc. Overall, almost 30% of responses were for pedestrian-focused improvements.
- Bicycle and transit improvements were relatively low in responses, combining for around the remaining 5%.
- These responses identify the following actions to be prioritized as part of this mobility study:
  - Improving intersections and roadways in ways that improve pedestrian and vehicular safety, reduce congestion, and improve pedestrian accessibility.
  - Improving streetscapes, including fixing sidewalks, providing better illumination, etc.
  - Reducing cut-through traffic in ways that is not disruptive to the neighborhood.

Question 3: Along which roadway(s) is speeding most concerning?

While eight roadway choices were given in the survey, and two more write-ins were added, most of the responses focused on the following three roads: Saltwell Road (75% of respondents), US Route 60 (46% of respondents), and Washington Boulevard (45% of respondents). US Route 60 is a state-owned road and beyond the City's control, so mitigative strategies may be limited. Follow-up discussions with residents indicated that the highest concern is along Saltwell Road at the S-bend by the cemetery.

Out of write-in responses, Parkway Drive received 7% of overall responses. Issues along Parkway Drive were also frequently brought up during public participation. Therefore, the following roads are priorities for considering traffic calming strategies:

- Saltwell Road
- US Route 60
- Washington Boulevard
- Parkway Drive

Question 4: Where is cut-through traffic most problematic?

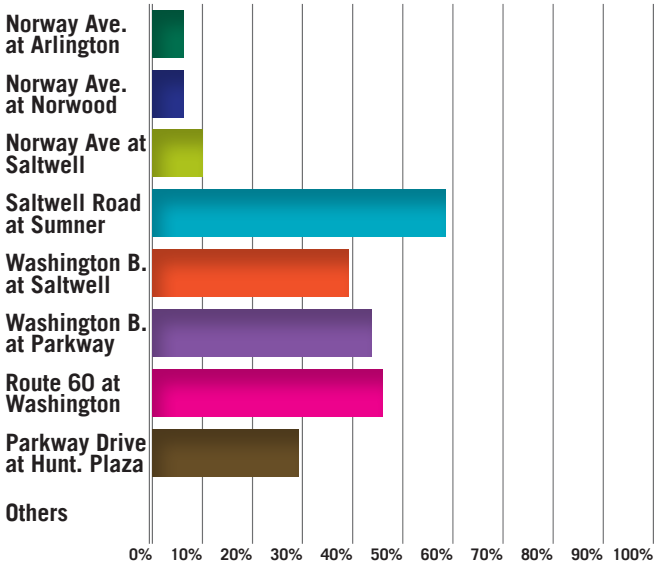
While eight roadway choices were given in the survey, and a few more write-ins were added, two roadways clearly emerged as having problematic cut-through traffic: Parkway Drive and Saltwell Road. Over 60% of the respondents selected Parkway Drive, which includes traffic through the Arlington Park neighborhood. Additionally, two write-ins indicated Texas Roadhouse area, which is just beyond Parkway Drive. Nearly 50% of the responses were for Saltwell Road, plus one write-in for the Saltwell Road corridor and one for Washington Boulevard, which connects to Saltwell Road.

Based on these responses, priorities for controlling cut-through traffic should be along the following roads:

- Parkway Drive
- Saltwell Road

It should also be noted that three participants skipped the question and two wrote-in none. Therefore, nearly 10% did not feel that cut-through traffic was problematic.

Question 5: Where should pedestrian crossings be improved?



Eight locations were given, and there were no write-ins. Eight skipped the question, suggesting that nearly 15% of respondents do not feel the need to improve pedestrian crossings. Out of responses, the only location to receive the most responses was the intersection of Saltwell Road at Sumner Avenue, selected by nearly 60% of respondents. Locations along Washington Boulevard at US Route 60, Parkway Drive, and Saltwell Road were selected by the next highest number of responses at rates between 45% and 40% of respondents. Additionally, the intersection of Parkway Drive at the Huntington Plaza entrance was indicated by nearly 30% of the respondents.

Therefore, the focus for improving pedestrian crossings should be at the entrance of Explorer Academy and the Arlington Park neighborhood at the intersection of Saltwell Road and Sumner Avenue. Additionally, focus for improving the intersections clustered around Washington Boulevard and Parkway Drive from Saltwell Road to US Route 60 and Huntington Plaza are a priority.

Question 6: How often do you travel by bicycle within Arlington Park?

Responses to this question indicated low demand for bicycle infrastructure in Arlington Park, with over 70% never using a bicycle and 10% riding a bicycle either occasionally or sometimes. While investment in bicycle infrastructure will spur demand, the results suggest investment should be a lower priority until more pressing concerns have been addressed.

Question 7: Where should bicycle-focused improvements be prioritized?

Only 20 of 59 participants responded to this question, with 7 null write-in responses. Therefore, 13 of 59 responses or fewer than a quarter of respondents want bicycle infrastructure in the area. Out of the affirmative responses, eight involved Washington Boulevard, two involved US Route 60, and three along Saltwell Road. Washington Boulevard is an unmarked on-street bicycle route. Therefore, while bicycle-focused improvements are not desired as a focal point for primary mobility needs, infrastructure should be focused along Washington Boulevard.

Question 8: What barriers do you experience in walking through the community?

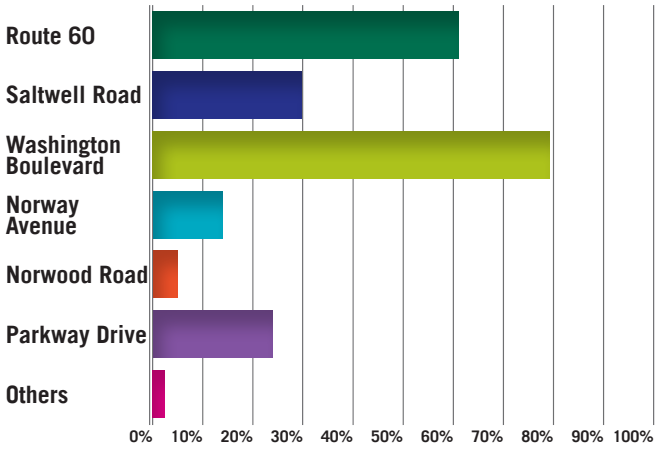
Most participants either skipped the question (28) or indicated that they do not experience barriers (9). Therefore, fewer than 40% of respondents indicated a need to improve barriers to pedestrian mobility within the neighborhood. Out of pedestrians experiencing barriers, the responses can be categorized as follows:

- Inadequate, poorly maintained, or nonexistent sidewalks (10)
- Threats from vehicles (speed or volume) and/or general lack of pedestrian safety (9)
- Parked cars (4)
- Improperly secured pets (4)
- Difficulty in crossing streets (4)
- Lack of lighting (2)
- Inadequate drainage resulting in ice and/or ponding (1)

In general, the primary barrier to pedestrian mobility is the lack of a perceived or physical barrier between vehicles and pedestrians. Pedestrians do not have a safe sidewalk to use, and where one may exist, it is in poor shape. Within Arlington Park, cars need to share the same space as pedestrians, yet do not do so in a successful manner.

PLANNING PROCESS: SURVEY

Question 9: Which roads experience problematic congestion?



The key part of this question is to identify locations where congestion is problematic. While Saltwell Road and Parkway Drive received between 20 and 30% of responses, the two key locations are along Washington Boulevard (80%) and US Route 60 (60%). Therefore, the key focus of this mobility study as it relates to congestion is the identified need to improve the intersection of US Route 60 and Washington Boulevard.

Question 10: Choose the most important feature to improve neighborhood streetscapes:

When asked how to improve neighborhood streetscapes, most respondents (nearly 60%) indicated street lighting is the most important feature. Counting the four respondents who skipped the question and the eight who indicated streetscape improvements are not necessary, the next highest group (20%) suggested that nothing was needed to improve neighborhood streetscapes.

Question 11: How often do you use public transit?

When asked about using public transportation, no respondents indicated that they use public transportation.

Question 12: What barriers do you identify to using public transportation?

Since none of the participants in Arlington Park use public transportation, most respondents either skipped the question or answered N/A (39 of 59 or 66%). A summary of resident responses regarding barriers to bus use are:

- No bus routes that directly service Arlington Park (11)
- Lack of safe sidewalks, road crossings, or a place to wait for the bus (8)
- Lack of bus frequency, dependability, or service area; long travel time (6)

Based on the responses, bus ridership may be attractive to a few prospective riders if a bus went through the neighborhood; if there were a safe way to get to the bus along Route 60; or if amenities such as sidewalks, crosswalks, and a defined stop with a shelter were in place. While operational changes are under the jurisdiction of the TTA, improved pedestrian mobility will help reduce barriers to transit use.

One participant noted, *"Rt 60 needs bus stops. It's dangerous [for] people with children standing on the roadside without an identifiable stop, in addition to the need for protection from the weather."*

Question 13: Please describe any traffic signs that you find problematic:

24 of 59 participants answered this question, with an additional 4 answering "N/A" or "None." The remaining responses are summarized as follows:

Challenges along Washington Boulevard from Saltwell to US Route 60 and Parkway Drive (18)

- Persistent issue of traffic along Washington Boulevard blocking Parkway Drive (8)
- Lack of an arrow for traffic making a left turn from Washington to US 60 (3)
- Inadequate lane delineation on Washington Blvd approaching US 60 (2)
- Poor visibility at Saltwell and Washington Blvd (2)
- Congestion from Saltwell behind Burger King (1)
- Lack of compliance or complaints about the stop sign at Parkway Drive by Goodwill (2)

Signs within Arlington Park (11)

- Unnecessary stop sign at Elwood and Carlton (7)
- Improving signs in Arlington Park (2)
- Warning signs for unsecured neighborhood pets (1)
- Stop sign at Carlton and Willoughby (1)

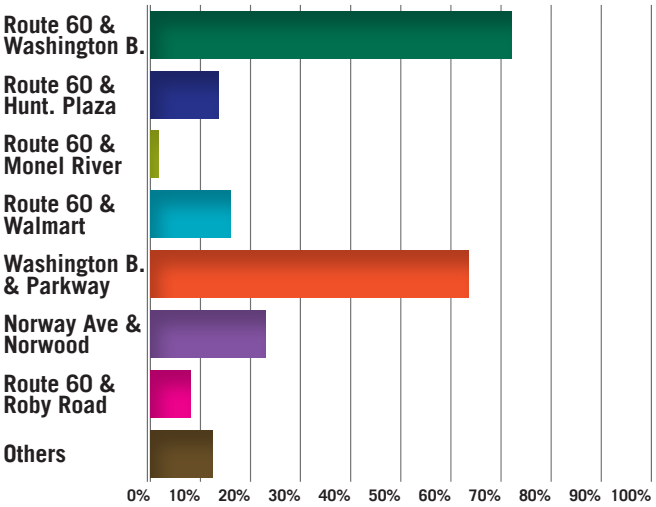
Signs along Saltwell Rd/Norwood Rd (7)

- Improving Saltwell and Sumner with signs or a signal (3)
- Additional warning signs for the S-bend along Saltwell (1)
- Improved school signs along Saltwell (1)
- Improving signs at Saltwell at Norway (1)
- Improving signs at Norway and Norwood (1)

The results show that 30% of respondents were concerned about signage in and around Washington Boulevard. The top issue was turning into and out of Parkway Drive. Other issues of note include the lack of a left turn arrow onto US Route 60, lack of lane delineation, and operational or visibility issues with the intersection with Saltwell Road.

Almost 20% of responses concerned signage within Arlington Park—mainly to improve signage overall, especially the recent stop sign installed to make the Elwood Avenue and Carlton Street intersection an all-way stop (from a three-way stop). Over 10% of responses brought up issues along the Saltwood Road/Norwood Road corridor, mainly concerning the operation of the intersection at Sumner Avenue, at the entry to Explorer Academy.

Question 14: Which intersection(s) do you believe are the most dangerous?



When asked about which intersections are the most dangerous, two intersections were identified by most respondents: US Route 60 and Washington Boulevard (over 70%) and Washington Boulevard and Parkway Drive (65%). Additionally, the intersection of Norway Avenue and Norwood Road received 25% of responses. Two intersections were added by write-in responses, with four responses indicating issues with Saltwell Road and Sumner Avenue, and three indicating issues with Saltwell Road and Washington Boulevard. In general, residents were also concerned about intersections along US Route 60, with the intersections of Huntington Plaza, Walmart, and Roby Road ranging from nearly 10% to almost 20% of responses.

Question 15: What recent transportation changes in your neighborhood have been made that you found to be beneficial?

Responses to this open-ended question in general indicate that residents do not feel like recent beneficial changes have been made. Thirty-five respondents skipped the question, and 10 answered "none," which is over 75 of participants. The largest beneficial change has been the "Do Not Block Intersection" sign on Washington Blvd at Saltwell Road, with 9 respondents (15%) writing it in.

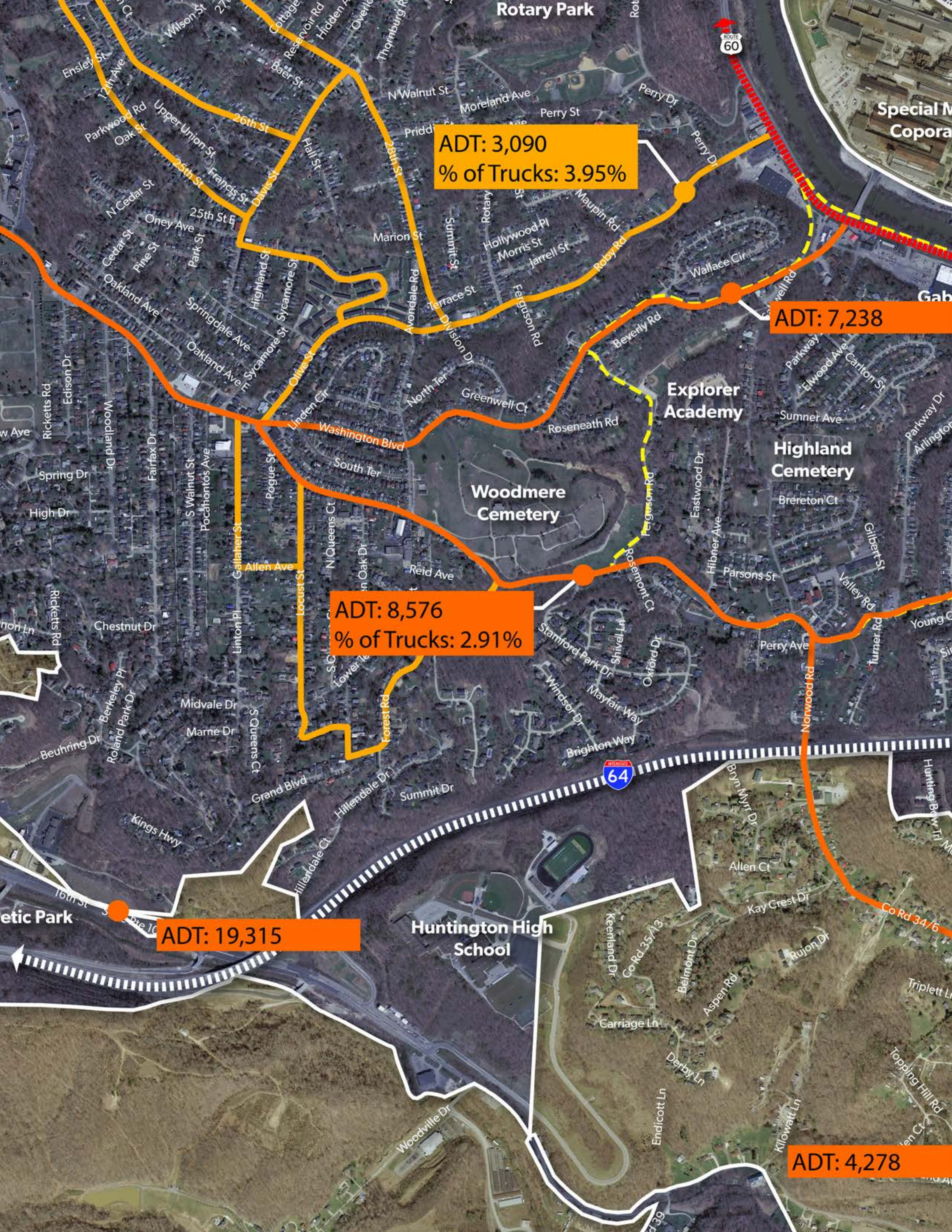
Responses indicated some differing of opinion with the recently added stop sign at the intersection of Elwood Ave and Carlton St. One person noted that the sign "caused outrage [when first installed] but seems to have died down." Another person noted that the sign "… is beneficial despite what others say. I've almost got hit multiple times there because [of] people just driving through."

SURVEY SUMMARY

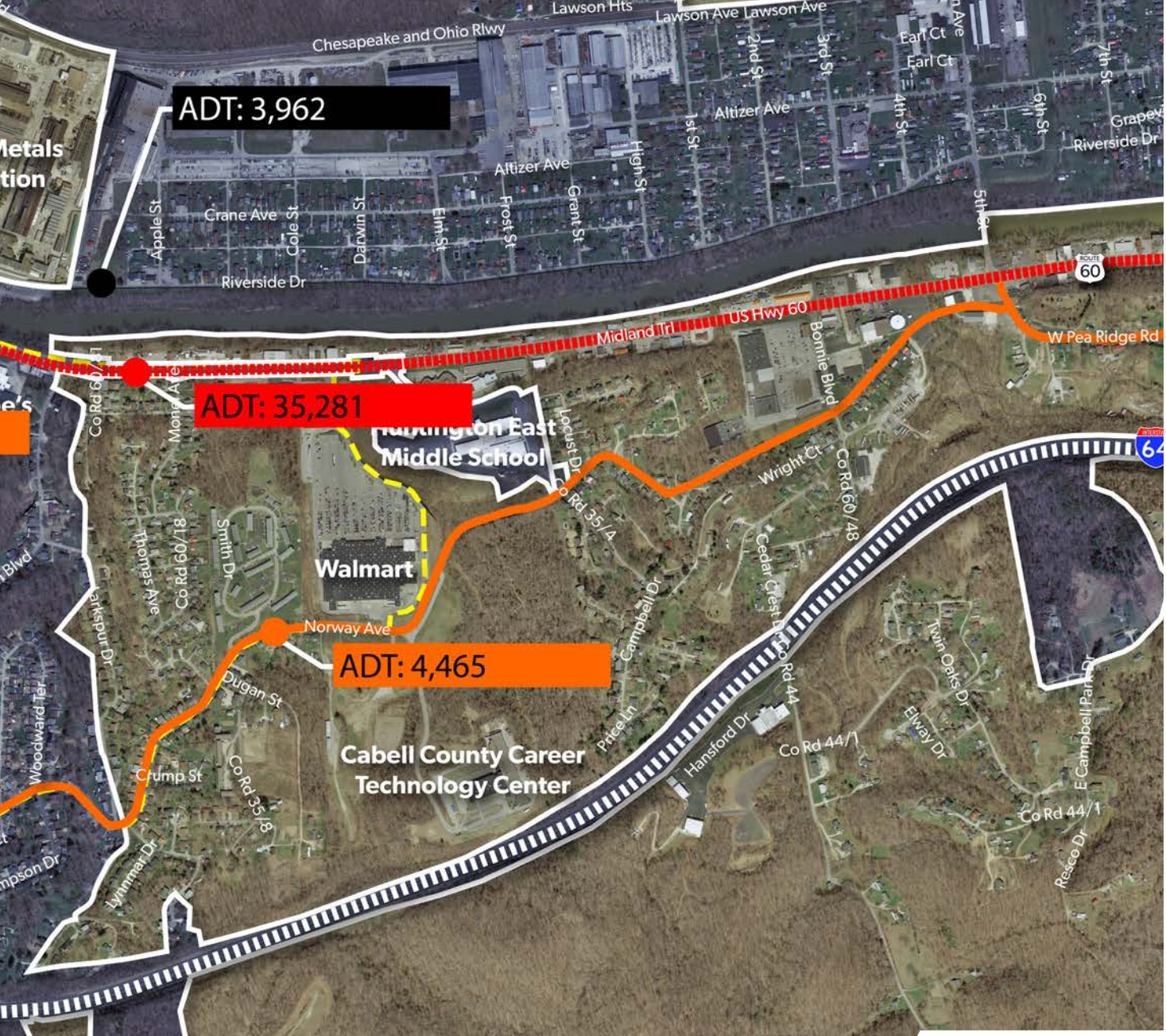
Due to survey responses and public meeting feedback, the project team has identified the following priorities for improvement:

- Improvements to the area around Washington Boulevard from Saltwell Road through Parkway Drive to US Route 60. Some of the factors to be addressed include the lack of a left turn arrow to US Route 60, lack of defined lanes, queues blocking the Parkway Drive intersection, lack of sidewalks, lack of crosswalks, and the deficient geometry of Saltwell Road.
- Improvements to Saltwell Road from Washington Boulevard to Norway Avenue, including the intersection of Sumner Avenue. Some of the priorities for improvement include traffic calming, improving the tight S-bend near Highland Cemetery, rebuilding and widening the sidewalk to be continuous along the road, improving school zone signage and safety of children walking to school and waiting for school buses, and improving the intersection with Sumner Avenue.
- While specific bicycle- and transit-focused infrastructure is not proposed now based on resident feedback, pedestrian mobility focused improvements should improve residents' ability to choose alternative modes of transportation when desired.

2 ANALYSIS



Rotary Park
Special M
Corpora
ADT: 3,090
% of Trucks: 3.95%
ADT: 7,238
Explorer Academy
Highland Cemetery
Woodmere Cemetery
ADT: 8,576
% of Trucks: 2.91%
etic Park
ADT: 19,315
Huntington High School
ADT: 4,278
60
64
N Walnut St
Moreland Ave
Perry St
Perry Dr
26th St
25th St
28th St
Hal St
Davis St
Francis St
Upper Union St
Parkwood Rd
Oak St
Ensley St
12th Ave
Wilson St
Reservoir Rd
Baer St
N Cedar St
25th St E
Oney Ave
Marion St
Summit St
Hollywood Pl
Morris St
Jarrell St
Roby Rd
Maupin Rd
Wallace Cir
Terrace St
Ferguson Rd
Avondale Rd
Division Dr
Cedar St
Pine St
Oakland Ave
Park St
Highland St
Sycamore St
Springdale Ave
Olive St
Linden Cir
Washington Blvd
Greenwell Ct
North Ter
Roseneath Rd
Beverly Rd
Parkway
Elwood Ave
Carlton St
Sumner Ave
Parkway Dr
Arlington
Ricketts Rd
Edison Dr
Woodland Dr
Fairfax Dr
Spring Dr
High Dr
S Walnut St
Pocahontas Ave
Gallaher St
Pogue St
South Ter
Allen Ave
Locust St
N Queens Ct
Oak Dr
Reid Ave
Eastwood Dr
Hibner Ave
Brereton Ct
Gilbert St
Parsons St
Valley Rd
Rosemont Ct
Young
Perry Ave
Turner Rd
Norwood Rd
Chestnut Dr
Linton Pl
Stamford Park Dr
Shirel Ln
Oxford Dr
Windsor Dr
Mayfair Way
Brighton Way
Forest Rd
Lower Ter
Midvale Dr
Marne Dr
S Queens Ct
Berkeley Pl
Roland Park Dr
Beuhring Dr
Grand Blvd
Hillendale Dr
Summit Dr
Kings Hwy
Hillerdale Ct
16th St
Bryn Mawr Dr
Allen Ct
Kay Crest Dr
Co Rd 34/6
Hunting Bow Trl
Keenland Dr
Co Rd 35/13
Belmont Dr
Rujon Dr
Aspen Rd
Triplett Ln
Carriage Ln
Derby Ln
Topping Hill Rd
Endicott Ln
Kilowatt Ln
Woodville Dr

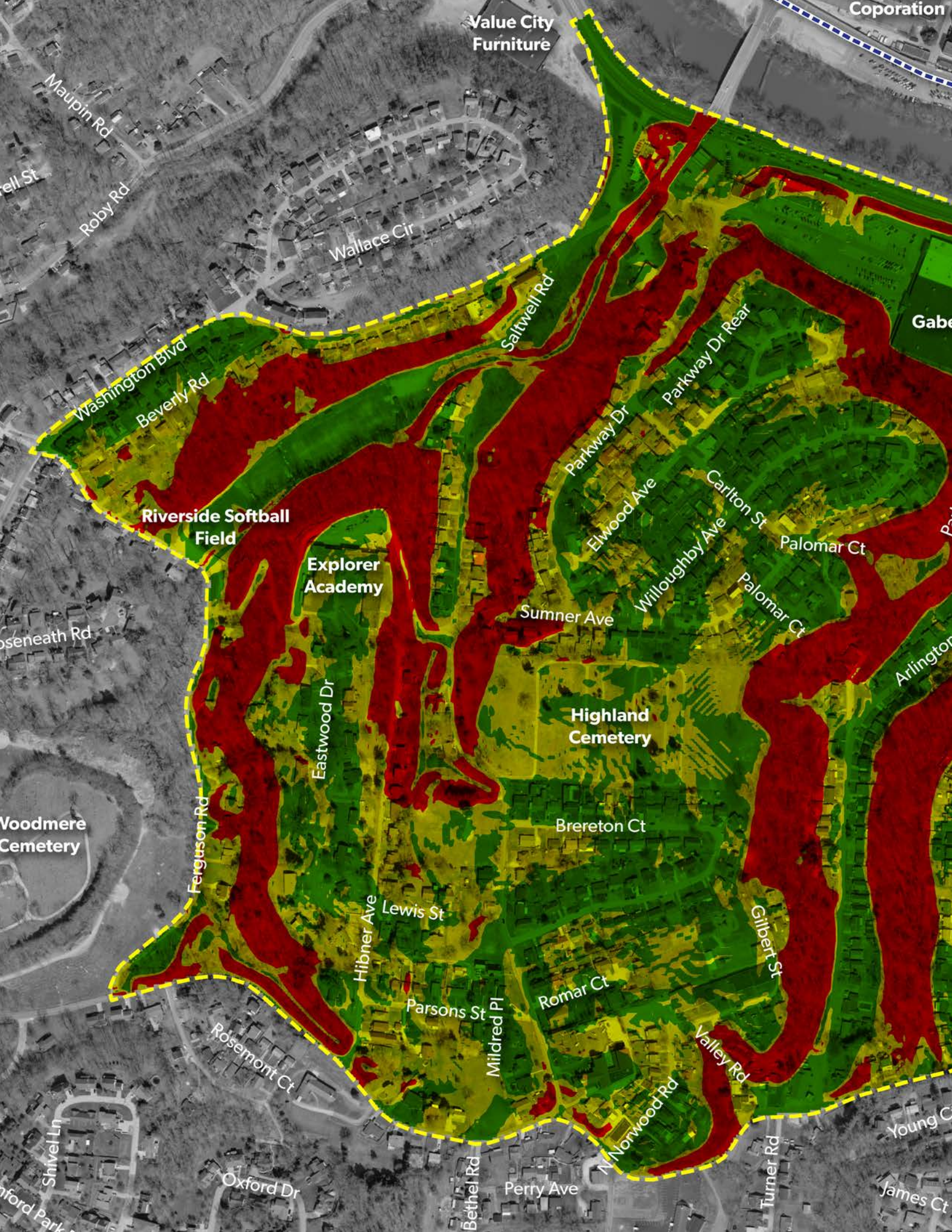


AVERAGE DAILY TRAFFIC

KYOVA provided the consulting team with the 2016 annual average daily traffic (ADT) from the WVDOH. US Route 60 carries the most traffic within the study area with and ADT of 35,281. Other study area influencers are Route 10 to the south, carrying 19,315, Norway Avenue with 8,576, and Washington Boulevard with 7,238.

LEGEND

- Project Area
- City of Huntington
- Minor Arterial
- Major Collector
- Principal Arterial

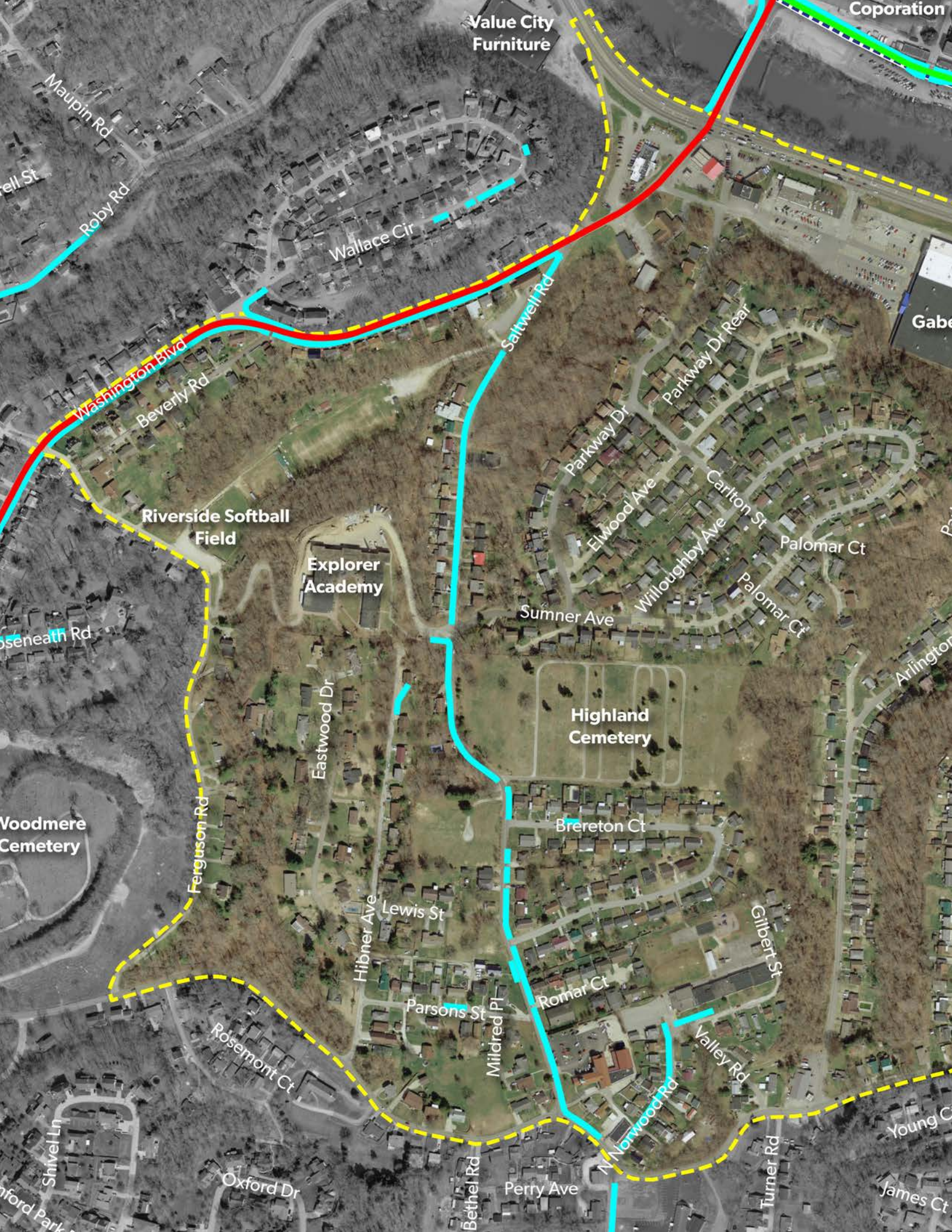

Value City Furniture
Coporation
Maupin Rd
Roby Rd
Wallace Cir
Saltwell Rd
Washington Blvd
Beverly Rd
Parkway Dr Rear
Parkway Dr
Elwood Ave
Carlton St
Palomar Ct
Willoughby Ave
Palomar Ct
Riverside Softball Field
Explorer Academy
Sumner Ave
Eastwood Dr
Highland Cemetery
Brereton Ct
Ferguson Rd
Woodmere Cemetery
Hibner Ave
Lewis St
Gilbert St
Romar Ct
Parsons St
Mildred Pl
Valley Rd
Rosemont Ct
N Norwood Rd
Shivel Ln
Oxford Dr
Bethel Rd
Perry Ave
Turner Rd
James Ct

SLOPE

Situated within the hills of south east Huntington, the terrain can be considered a regular challenge for both vehicles and pedestrians alike. While there is a sizable amount of terrain greater than 11% slope, especially surrounding the local elementary school of Explorer Academy, the roadways and existing sidewalks are found more typically on the moderate slope of 6-11%. Residential and commercial structures can be found on slopes less than 6%, fully utilizing these easier slopes for the built environment.

LEGEND

- Project Area
- City of Huntington
- 0-5% Slope
- 6-11% Slope
- 11% > Slope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Beverly Rd
Gabe
Parkway Dr Rear
Parkway Dr
Elwood Ave
Carlton St
Willoughby Ave
Palomar Ct
Palomar Ct
Riverside Softball Field
Explorer Academy
Sumner Ave
Highland Cemetery
Eastwood Dr
Ferguson Rd
Woodmere Cemetery
Brereton Ct
Hibner Ave
Lewis St
Gilbert St
Parsons St
Mildred Pl
Romar Ct
Rosemont Ct
Valley Rd
N Norwood Rd
Shivel Ln
Oxford Dr
Bethel Rd
Perry Ave
Turner Rd
James Ct

BIKE PATHS + SIDEWALKS

Pedestrian and cyclists have limited access to usable infrastructure within the project area. Sidewalks can be found along Washington Boulevard and Saltwell Road, however they are aging infrastructure and appear narrow due to overgrown vegetation and sediment collection. The bike routes within the hills of Huntington are also limited. Within the study area, only a “difficult” path is designated by the City. This route is located along Washington Boulevard and has no physical signifier of being a bike route.

LEGEND

- Project Area
- City of Huntington
- Easy (Bike Path)
- Difficult (Bike Path)
- Path WV (Bike Path)
- Existing Sidewalks


Value City Furniture
Coporation
Maupin Rd
Roby Rd
Wallace Cir
Saltwell Rd
Washington Blvd
Beverly Rd
Parkway Dr Rear
Parkway Dr
Elwood Ave
Carlton St
Willoughby Ave
Palomar Ct
Palomar Ct
Sumner Ave
Riverside Softball Field
Explorer Academy
Highland Cemetery
Eastwood Dr
Ferguson Rd
Woodmere Cemetery
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Rosemont Ct
Shivel Ln
Oxford Dr
Bethel Rd
Perry Ave
Turner Rd
James Ct
Young C
Arlington
5
3
4
4
3
6
3
1
1
8
1
1
3
2

CRASH DATA

Crash data received from KYOVA was provided by the West Virginia Division of Highways and was reviewed, from the years 2013-2017, to analyze vehicular and pedestrian safety within the study area. Of the total 29 incidents, a strong concentration can be seen along US Route 60 and Washington Boulevard. A detailed summary of the crashes within the study area can be found on the following pages.

LEGEND

- Project Area
- City of Huntington
- Vehicular Crash, No Injury
- Vehicular Crash, Injury
- Vehicular/Pedestrian Crash, Injury
- Crash Area Identifications
- Signalized Intersection

CRASH DATA

CRASH DATA SUMMARY

A summary of the vehicular crash reports for the study area was obtained for a 5-year period from 2013 through 2017, which is shown on the Crash Data map. Of the total 29 incidents, the majority occurred on the principal arterial street of US Route 60 and the major collector of Washington Boulevard. The following is a summary of several locations in the study area that experienced recordable crashes.

Crash Area #1: Norway Avenue and Rosemont Court

There has been one incident at this intersection within the past 5 years. This incident involved one motor vehicle colliding with a parked vehicle.

Collision Type	Collision With	Injuries
Rear-to-Side	Parked Motor Vehicle	None

Crash Area #2: Norway Avenue, Norwood Road, and Perry Avenue

There have been three incidents at this intersection within the past 5 years. Two accidents occurred in transport, with one being a single vehicle incident with a utility pole. No injuries were reported with any of these instances.

Collision Type	Collision With	Injuries
Single Vehicle Crash	Utility Pole/Light Support	None
Rear End	Motor Vehicle in Transport	None
Sideswipe, Opposite Direction	Motor Vehicle in Transport	None

Crash Area #3: Washington Boulevard and Saltwell Road

This incident is the only pedestrian-related collision recorded in the project area within the past 5 years. The accident recorded one injury occurred and one vehicle involved in the accident.

Collision Type	Collision With	Injuries
Single Vehicle Crash	Pedestrian	One

Crash Area #4: Washington Boulevard and Parkway Drive

There have been four incidents at this intersection within the past 5 years. All accidents occurred in transport, with no injuries reported in any of these instances.

Collision Type	Collision With	Injuries
Right Angle	Motor Vehicle in Transport	None
Rear End	Motor Vehicle in Transport	None
Angle (Front to Side) Opp. Direction	Motor Vehicle in Transport	None
Rear End	Motor Vehicle in Transport	None

Crash Area #5: US Route 60 and Washington Boulevard

There have been three incidents at this intersection within the past 5 years. Two accidents occurred in transport with no injuries reported, while one was contained to a single vehicle crash with one injury reported.

Collision Type	Collision With	Injuries
Right Angle	Motor Vehicle in Transport	None
Rear End	Motor Vehicle in Transport	None
Single Vehicle Crash	Other Fixed Object	One

Crash Area #6: US Route 60 and Huntington Plaza

There have been three incidents at this intersection within the past 5 years. All accidents occurred in transport, with no injuries reported.

Collision Type	Collision With	Injuries
Rear End	Motor Vehicle in Transport	None
Rear End	Motor Vehicle in Transport	None
Rear End	Motor Vehicle in Transport	None

Crash Area #7: US Route 60 and Arlington Boulevard

There has been one incident at this intersection within the past 5 years. This accident occurred in transport, with no injuries reported.

Collision Type	Collision With	Injuries
Rear End	Motor Vehicle in Transport	None

Crash Area #8: Arlington Boulevard and Parkway Drive

There has been one incident at this intersection within the past 5 years. This accident occurred in transport, with injuries reported.

Collision Type	Collision With	Injuries
Sideswipe, Opposite Direction	Parked Motor Vehicle	One

Crash Area #9: US Route 60 and Monel River Avenue

There have been four incidents at this intersection within the past 5 years. All accidents occurred in transport with three recording no injuries and one reported two injuries.

Collision Type	Collision With	Injuries
Sideswipe, Same Direction	Motor Vehicle in Transport	None
Right Angle	Motor Vehicle in Transport	Two
Angle (Front to Side) Same Direction	Motor Vehicle in Transport	None
Rear End	Motor Vehicle in Transport	None

Crash Area #10: US Route 60 and Walmart Drive

There have been five incidents at this intersection within the past 5 years. Four accidents occurred in transport, with one being a single vehicle crash. Of the five collisions, four had no recordable injuries, and one head-on collision had one injury occur.

Collision Type	Collision With	Injuries
Right Angle	Motor Vehicle in Transport	None
Angle - Direction Not Specified	Motor Vehicle in Transport	None
Rear End	Motor Vehicle in Transport	None
Head On	Motor Vehicle in Transport	One
Angle (Front to Side) Opp. Direction	Parked Motor Vehicle	None

Crash Area #11: Norway Avenue and Walmart Drive

There has been one incident at this intersection within the past 5 years. This accidents occurred in transport, with no injuries reported.

Collision Type	Collision With	Injuries
Right Angle	Motor Vehicle in Transport	None

Crash Area #12: 1000 Block of Norway Avenue

There has been one incident at this area within the past 5 years. This incident involved one motor vehicle colliding with a utility pole.

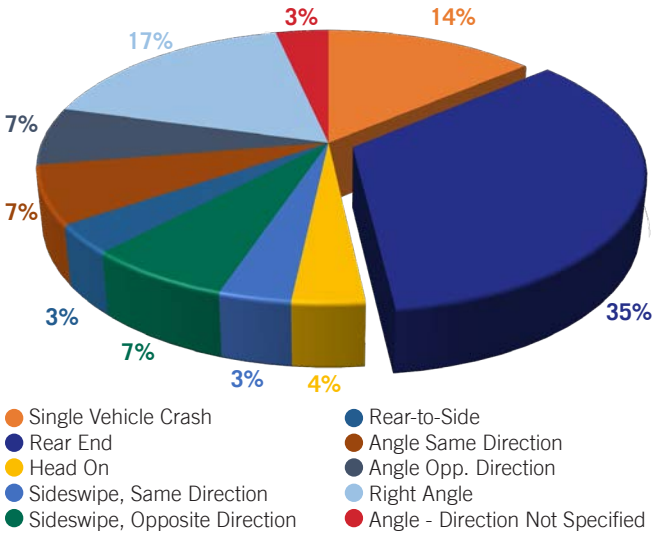
Collision Type	Collision With	Injuries
Single Vehicle Crash	Utility Pole/Light Support	None

Crash Area #13: Smith Drive and Henderson Lane

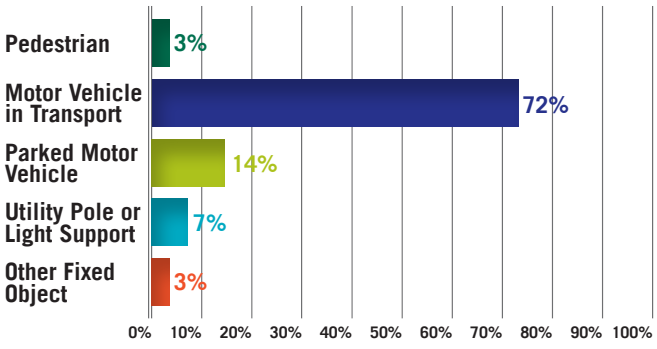
There has been one incident at this intersection within the past 5 years. This incident involved one motor vehicle colliding with a parked vehicle.

Collision Type	Collision With	Injuries
Angle (Front to Side) Same Direction	Parked Motor Vehicle	None

Overall Collision Type Summary

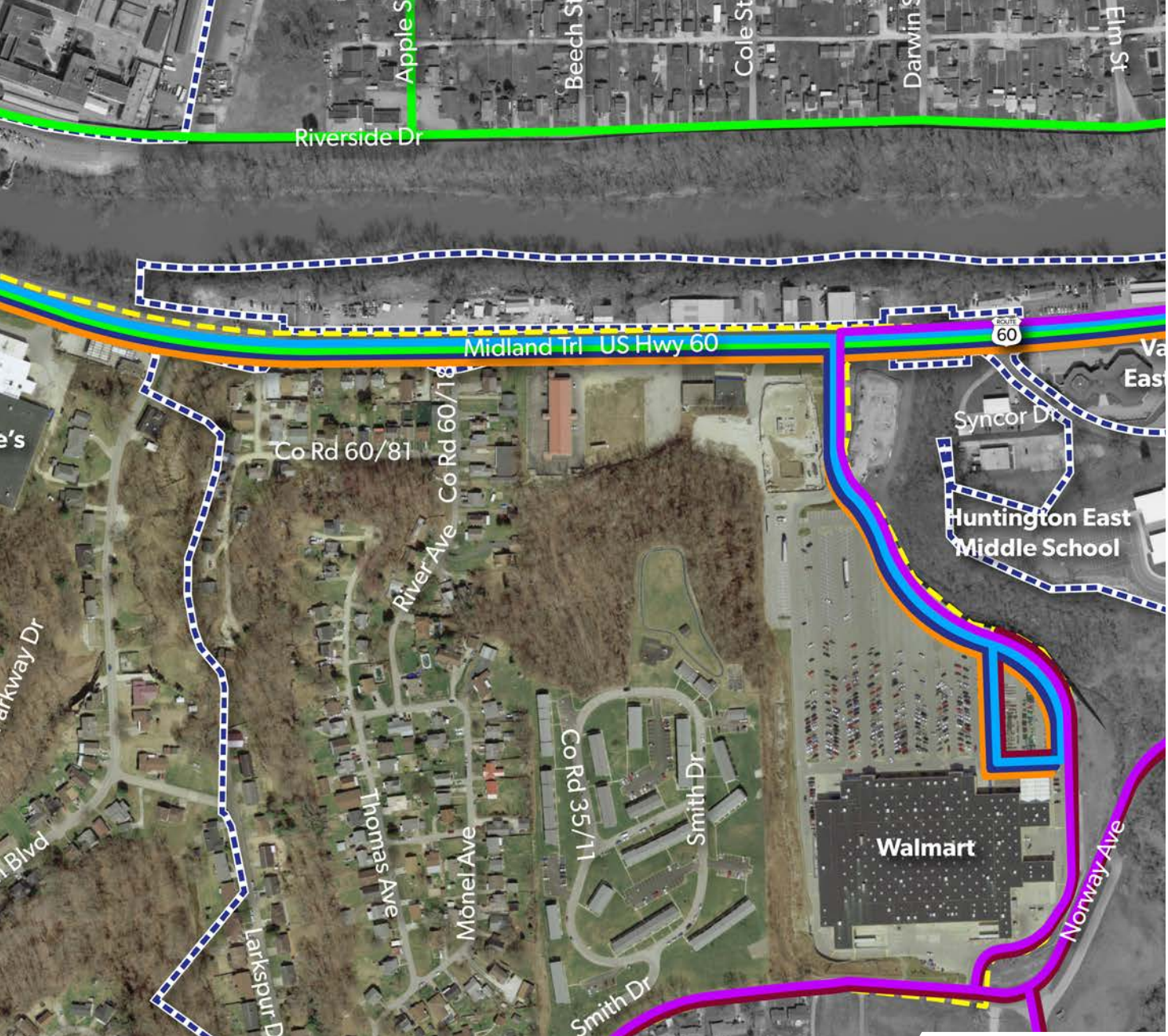


Overall Collision With Summary



Overall Injury Summary


Value City Furniture
Coporation
Maupin Rd
Roby Rd
Wallace Cir
Saltwell Rd
Gabe
Washington Blvd
Beverly Rd
Parkway Dr Rear
Parkway Dr
Elwood Ave
Carlton St
Willoughby Ave
Palomar Ct
Palomar Ct
Riverside Softball Field
Explorer Academy
Sumner Ave
Arlington
Highland Cemetery
Eastwood Dr
Ferguson Rd
Woodmere Cemetery
Brereton Ct
Hibner Ave
Lewis St
Gilbert St
Parsons St
Romar Ct
Mildred Pl
Valley Rd
Rosemont Ct
Norwood Rd
Shivel Ln
Oxford Dr
Bethel Rd
Perry Ave
Turner Rd
James Ct



PUBLIC TRANSIT

The Tri-State Transit Authority (TTA) is the primary source of public transit within the City of Huntington. The TTA has six regular routes traveling mainly east-west along the perimeter streets of the study area: Norway Avenue, Walmart Drive, and US Route 60.

LEGEND

- Project Area
- City of Huntington
- Route 02
- Route 05
- Route 07
- Route 09
- Route 20
- Route 30


Value City Furniture
Coporation
Maupin Rd
Roby Rd
Wallace Cir
Saltwell Rd
Washington Blvd
Beverly Rd
Parkway Dr Rear
Parkway Dr
Elwood Ave
Carlton St
Willoughby Ave
Palomar Ct
Palomar Ct
Riverside Softball Field
Explorer Academy
Sumner Ave
Eastwood Dr
Highland Cemetery
Woodmere Cemetery
Ferguson Rd
Brereton Ct
Hibner Ave
Lewis St
Gilbert St
Parsons St
Romar Ct
Mildred Pl
Rosemont Ct
Valley Rd
Norwood Rd
Shivel Ln
Oxford Dr
Bethel Rd
Perry Ave
Turner Rd
James Ct

ROAD CLASSIFICATIONS

The Federal Functional Classifications are sourced from the West Virginia Division of Highways Planning Division in cooperation with the US Department of Transportation. The study area is defined by the Principal Arterial of US Route 60 and the Major Collectors of Norway Avenue and Washington Boulevard. The internal street network is comprised of local neighborhood streets and are the main focus within the study area.

LEGEND

- Project Area
- City of Huntington
- Minor Arterial
- Major Collector
- Principal Arterial


Value City Furniture
Coporation
Maupin Rd
Roby Rd
Wallace Cir
Washington Blvd
Beverly Rd
Saltwell Rd
Parkway Dr Rear
Parkway Dr
Elwood Ave
Carlton St
Willoughby Ave
Palomar Ct
Sumner Ave
Riverside Softball Field
Explorer Academy
Highland Cemetery
Eastwood Dr
Ferguson Rd
Woodmere Cemetery
Brereton Ct
Lewis St
Hibner Ave
Gilbert St
Romar Ct
Parsons St
Mildred Pl
Rosemont Ct
Valley Rd
Norwood Rd
Shivel Ln
Oxford Dr
Bethel Rd
Perry Ave
Turner Rd
James Ct

ZONING

The Arlington Park study area is primarily a residential neighborhood with some perimeter commercial uses. This map depicts the zoning provided by the City of Huntington. With the project area being located on the edge of city limits it is understood the city zoning ends, however it can be assumed the residential area continues beyond the city line and commercial zoning would cover the area of Walmart and its surrounding developments.

LEGEND

- Project Area
- City of Huntington
- C-1
- C-2
- R-1


Value City Furniture
Coporation
Maupin Rd
Roby Rd
Wallace Cir
Saltwell Rd
Washington Blvd
Beverly Rd
Parkway Dr Rear
Parkway Dr
Elwood Ave
Carlton St
Willoughby Ave
Palomar Ct
Palomar Ct
Sumner Ave
Riverside Softball Field
Explorer Academy
Highland Cemetery
Eastwood Dr
Ferguson Rd
Woodmere Cemetery
Brereton Ct
Hibner Ave
Lewis St
Gilbert St
Romar Ct
Parsons St
Mildred Pl
Rosemont Ct
Valley Rd
Norwood Rd
Shivel Ln
Oxford Dr
Bethel Rd
Perry Ave
Turner Rd
James Ct

LANDUSE

As stated in the zoning classifications, the Arlington Park study area is primarily a residential neighborhood with some perimeter commercial uses. This map depicts the future land use provided by the City of Huntington.

LEGEND

- Project Area
- City of Huntington
- Open Space
- Commercial Node
- Convenience Commercial
- Hills Residential


SPECIAL METALS

3 MOBILITY

PRINCIPLES

PRINCIPLES

Mobility, as defined within this study, addresses travel for all modes of transportation, including vehicles and pedestrians. The right-of-way is typically defined as the public space that is reserved for a street, alley, pedestrian walkway, stormwater management, or other transportation and utility-related uses. Depending upon the location, the right-of-way can include various components, in addition to the standard vehicle cart way. Other right-of-way components might include a bike path, a pedestrian walkway, a transitional area for uses such as on-street parking, a transit stop, loading zones, and a zone for street furniture.

The key principles applied to improving mobility in the Arlington Park study area include:

1. **Design for safety** – Include in the design of streets that accommodate both vehicular safety and safety areas where pedestrians and vehicles cross paths. It is also important to provide safe connections to institutions such as schools and parks.
2. **Address congestion** – Ensure that traffic moves efficiently while not compromising pedestrian safety.
3. **Accommodate site conditions and natural elements** – Public streets should be designed to address natural conditions such as stormwater flow and changes in slope. A variety of interventions, including bioswales and stormwater planters, are available to address problematic stormwater flow.
4. **Consider the entire right-of-way** – Oftentimes streets can be reconfigured to improve access and safety by moving curbs, changing lane widths, etc.
5. **Connect effectively to the broader region** – The streets that make up the boundary of the study area (e.g., Washington Boulevard, Norway Avenue) are important regional connectors, and proposed improvements should be addressed within the larger area context.
6. **Consider early fixes** – In order to show progress, it makes sense to prioritize those improvements that require minimal capital cost yet quickly address problem areas.

US Route 60: Principal Arterial (185' ROW [Varies])

Washington Boulevard: Major Collector (50' ROW)

Saltwell Road: Neighborhood Collector (40' ROW)

Sumner Road: Local/Neighborhood (40' ROW)

ROAD CLASSIFICATIONS

STREET CHARACTERISTICS BY ROAD CLASSIFICATION

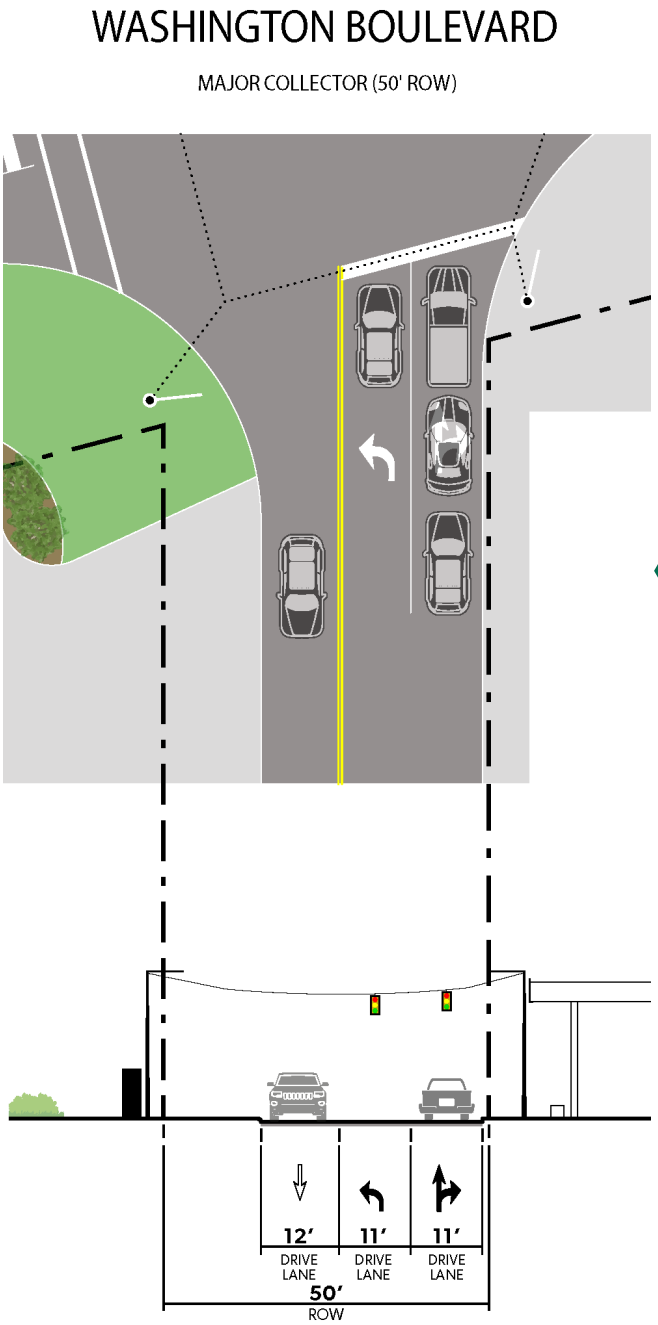
Major Collector – Examples in Study Area: Norway Avenue, Washington Boulevard

As defined by the Federal Highway Administration (FHWA), collector roads gather traffic from local roads and connect them to the larger arterial network. Collector roads are subsequently broken down into two classifications: major and minor. According to the FHWA, major collectors typically differ from minor collectors based on the following factors:

- longer in length
- lower connecting driveway densities
- higher posted speed limits and more signalized traffic intersections
- spaced at greater intervals
- higher annual traffic volumes
- more travel lanes

These roads are often used by commuters and provide convenient access throughout the area. Collector streets can also serve pedestrian and bicycle traffic and oftentimes also include public utilities within the right-of-way. In urban and suburban areas, major collector roads are typically lined with uses such as schools, other institutions, and medium to higher density residential. They are typically two-lane roads that may include street trees and also accommodate transit routes (Norway Avenue does accommodate the Huntington public transit system). Some collector streets provide on-street parking when there is sufficient width within the right-of-way. In residential areas, parallel parking lanes are typically 8 feet wide and are on either one or both sides of the travel lanes. In commercial areas, the parking width can range from 8 to 11 feet.

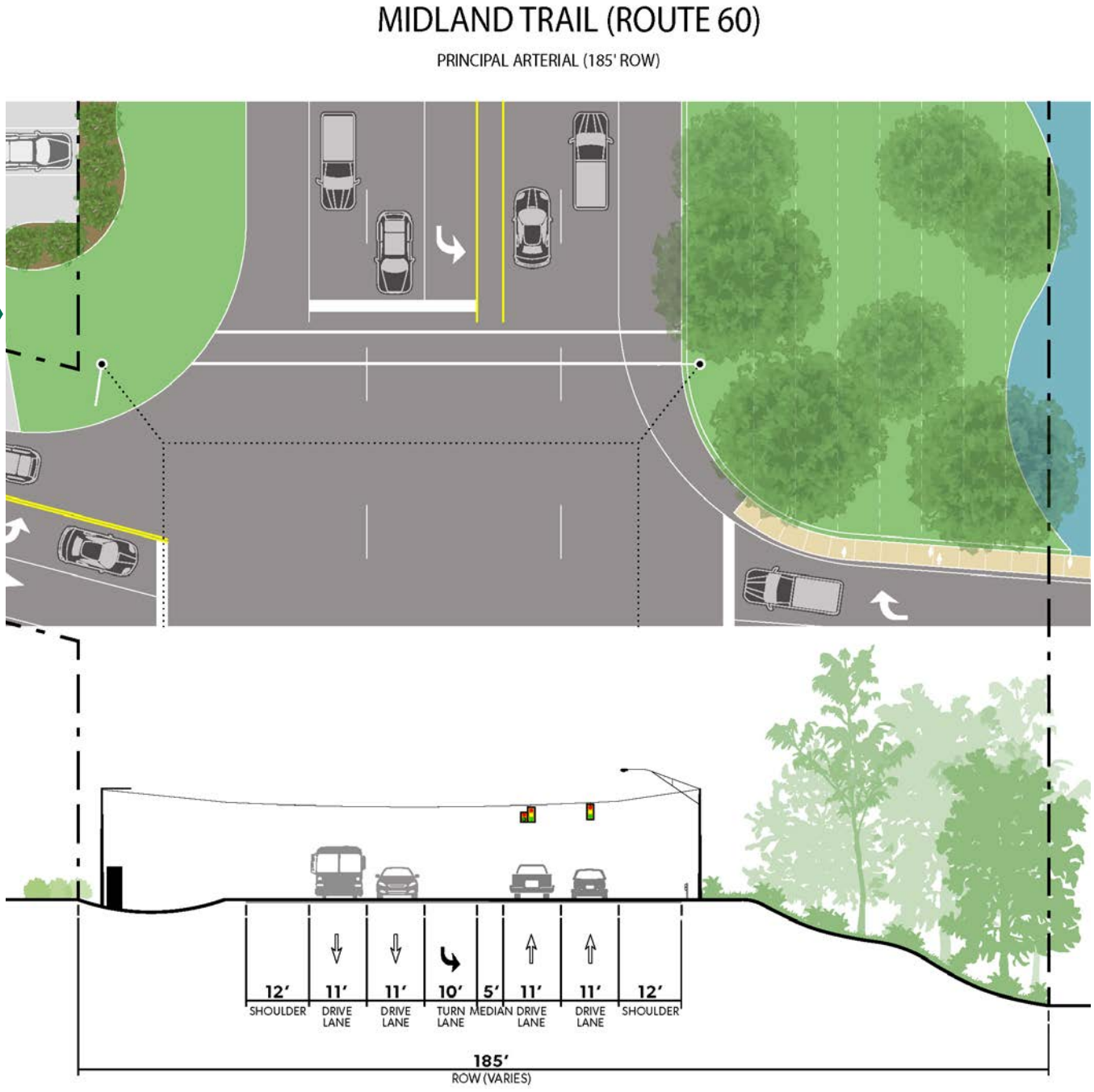
Since vehicular mobility is important along these routes, they are often designed with capacity and operations as a top priority. Washington Boulevard is one of the few roads within the study area that has existing sidewalks; thus, while operational issues are important, it is still imperative to also accommodate other users such as pedestrians.



ROAD CLASSIFICATIONS

Principal Arterial – Example in Study Area: US Highway 60

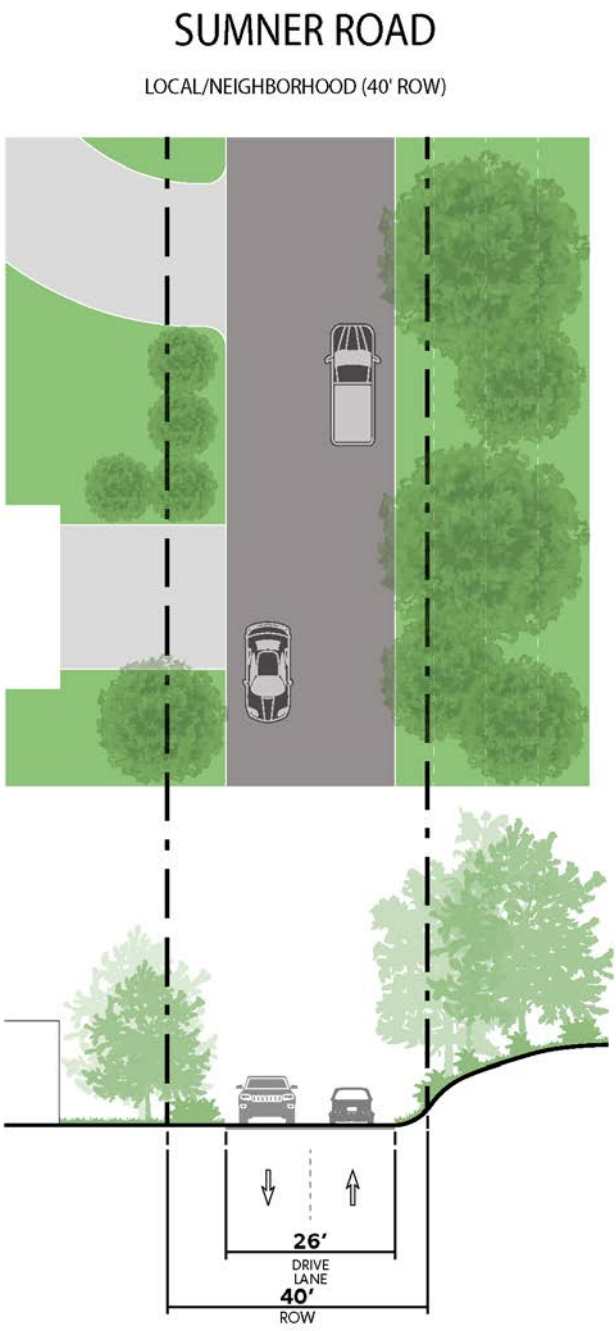
Principal arterials are focused on providing quick access, typically between a central business district and the outlying suburban and rural areas. Unlike access-controlled arterials (e.g., freeways and interstates), principal arterials provide direct access to adjacent land uses. Principal arterials are relatively high-volume corridors and can connect major rural corridors, as well as provide movement through more urban areas.



Local/Neighborhood – Example in Study Area: Sumner Avenue

The majority of roads located in the Arlington Park study area are classified as local roads. They usually provide access to the higher road system and do not carry through traffic. They do not typically carry mass transit, but provide direct access to adjacent land uses.

Characteristic	Principal Arterial	Major Collector	Local
Lane Width	11–12 feet	10–12 feet	8–10 feet
Outside Shoulder Width	8–12 feet	1–6 feet	0–2 feet
Divided/Undivided	Varies	Undivided	Undivided
Access	Partially Controlled/ Uncontrolled	Uncontrolled	Uncontrolled



ROAD CLASSIFICATIONS

SPECIAL CLASSIFICATIONS

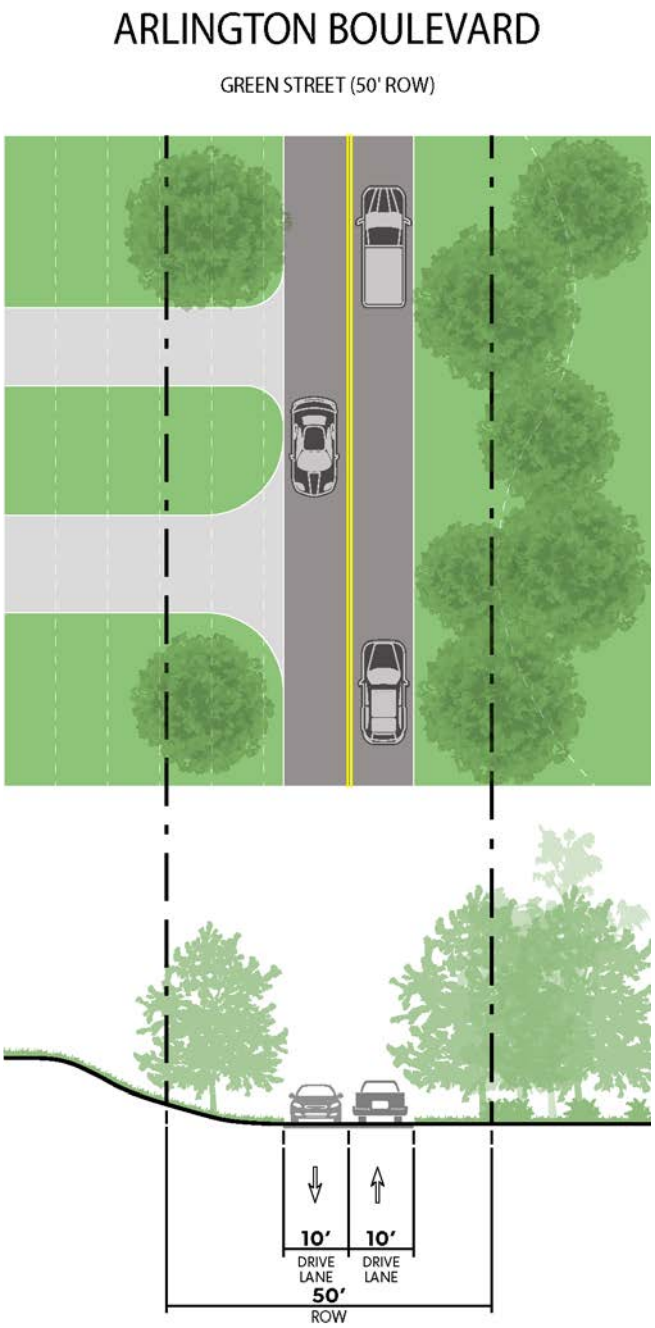
Potential Green Streets – Example in Study Area: Arlington Boulevard

Green streets acknowledge environmental conditions, such as stormwater flow, and can be part of a larger system or network that connects open spaces and water sheds. Green streets, while accommodating different users, also emphasize natural elements such as trees and plantings. In addition to providing visual benefits, green streets can also help with erosion control, noise abatement, and CO2 reduction. Green streets may be difficult to implement in areas where the right-of-way is narrow and other elements compete for space.

As it applies to this study, green streets will focus on those roads that can best address stormwater flow issues through the incorporation of green infrastructure elements. In order to accommodate green streets, a road may require more space within the right-of-way allocated to road edge. In some cases, green elements can be built on adjacent public or private lands or near access points or intersections where there is additional width.

Green infrastructure solutions incorporate soft engineering to stormwater issues, managing rainwater through alternative means such as infiltration through a vegetated network. There are a wide variety of green infrastructure elements that can be designed based on existing site conditions. Some of the elements that typically work well along roads include:

- Vegetated bioswales
- Pervious pavement
- Stormwater planters
- Rain gardens

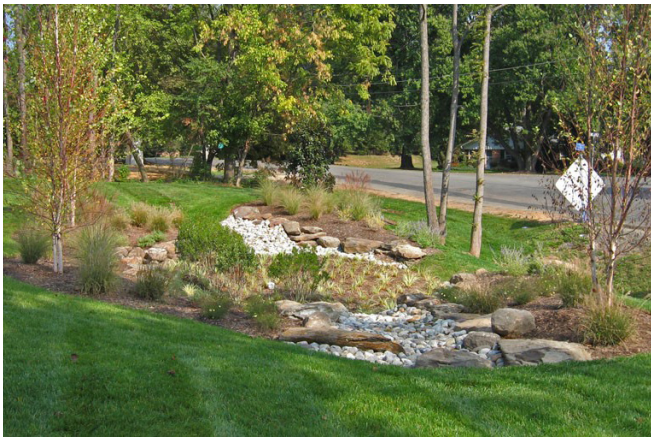


BEST PRACTICES

Vegetated bioswales – Vegetated bioswales are broad, shallow channels that infiltrate runoff from adjacent impervious surfaces and allow pollutants to settle out during the infiltration process. Bioswales can also convey rainfall through the swale and include check dams to slow runoff during peak events. Pollutants can be removed through filtering by the swale vegetation or through a subsoil matrix. The bioswales are planted with vegetative materials that are water and salt tolerant. Bioswales can also be constructed with an underdrain system to direct stormwater.

Stormwater planters – Stormwater planters are specialized planters that are constructed next to the road to manage street and sidewalk runoff. The planter is lined with a permeable fabric and then filled with gravel and topped with soil and plants. The soil layer is lower in elevation than the sidewalk in order to maximize the capture of runoff. During peak events, excess runoff is directed into an overflow pipe that ultimately connects to the existing stormwater pipe system.

Pervious pavement – Pervious pavement includes a permeable surface with an underlying stone bed that provides for temporary stormwater storage and infiltration. The surface material can vary from porous asphalt to concrete to structural pavers. Pervious pavement is best suited for uses such as sidewalks, parking lots, driveways

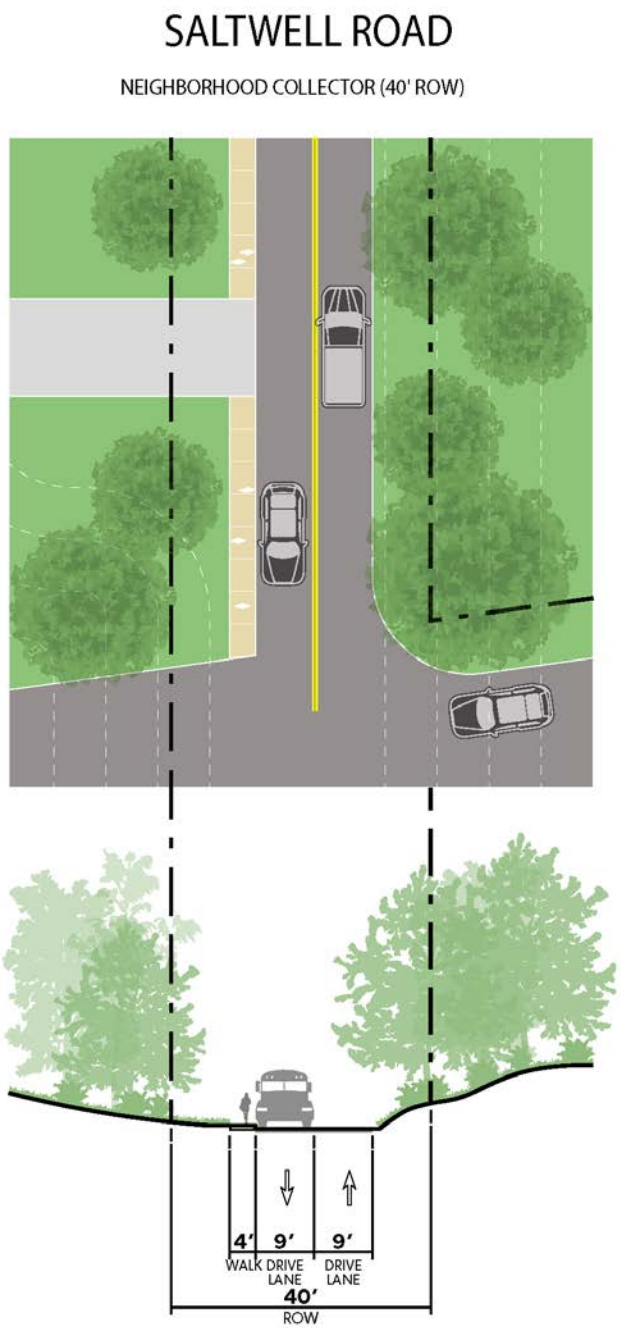


Rain gardens – Rain gardens are similar to bioswales in that they infiltrate stormwater runoff through vegetation. Rain gardens can vary in size, depending on the constraints of the location. Also similar to a bioswale, rain gardens can filter pollutants through vegetation and the soil medium. They are generally suited to smaller sites and can vary in complexity, depending on the amount of runoff volume that needs to be handled.

ROAD CLASSIFICATIONS

Study Area Neighborhood Connector – Study Area Examples: Saltwell Road, Arlington Boulevard

Although not designated as arterials, Saltwell Road and Arlington Boulevard provide important connections through the study area. Saltwell Road provides a critical link between Route 60 and Norway Avenue, with Arlington Boulevard also providing a similar north/south connection. Saltwell Road is of particular importance since it links the neighborhood to Explorer Academy. Both are two-lane streets, with Saltwell Road offering sidewalk access along portions of the right-of-way.



Bicycle Mobility Through the Study Area

There are limited opportunities to increase bicycle mobility within the study area, due primarily to relatively narrow right-of-ways on existing streets and a lack of a nearby viable bike route network. There is a designated bike route along Washington Boulevard that connects across the Guyandotte River to a path along Riverside Drive. The path along Washington Boulevard is not a dedicated bike lane, but rather a sharrow, i.e., a bike lane that shares space with the designated vehicle lane.

COMPLETE STREETS

ADOPT A COMPLETE STREET POLICY

Complete streets encourage a multi-modal approach to transportation design by considering all the potential users of the street network, including pedestrians, bicyclists, public transit, and private vehicles. Incorporating these policies into the street network promotes safe, livable communities by making our streets safer to all users by not just catering to automobiles.

The City of Huntington should consider adopting a Complete Streets Policy in an effort to make its streets more accessible for all of its users. Adopting a Complete Streets policy provides a great opportunity to rethink how our mobility and transportation networks should perform, with the primary goal of being less focused on the automobile and more accommodating to pedestrians and cyclists.

All public realm improvements should meet minimum Americans with Disability Act (ADA) standards, but should strive to exceed them whenever possible.

STORMWATER MANAGEMENT

Responsible sustainability practices should always play a key role in the design of streets. Good street design can directly contribute to the health and well-being of citizens by managing stormwater runoff through the use of bioswales, permeable pavements, and the inclusion of street trees in an effort to reduce the" heat island effect".

The City of Huntington has made a commitment to improving both the quality and quantity of the stormwater released into the region's streams and rivers by requiring all new development to follow the Municipal Separate Storm Sewer System requirements, or MS4. The MS4 program is managed by the West Virginia Department of Environmental Protection (DEP) in response to federal mandates established under the Clean Water Act. The purpose of MS4 is to reduce the post-storm water runoff from new development activities through the use of best management practices (BMPs), such as low impact development and the overall reduction in impervious surfaces. All new construction within the city limits requires these BMP strategies be followed to manage stormwater quality and quantity.

Opportunities exist within the Arlington Park neighborhood to establish itself as a leader in this area by making a commitment to implementing these BMPs on all future improvements within its public realm. Highlighted within this chapter shows how these BMPs can be used in the area along Arlington Boulevard, which can help reduce the amount of runoff and flooding along this residential street.

CROSSWALK + INTERSECTION IMPROVEMENTS

While the Arlington Park community has relatively low traffic volumes and speeds, the area is surrounded by higher volume ADT rates along US Route 60, Washington Boulevard, and Norway Avenue. As these roadways have speeds ranging from 30 to 45 miles per hour, it is highly recommended that crosswalks are put in place at strategic intersections throughout the area where there is a greater risk of vehicular/pedestrian conflict, such as the intersection of Saltwell Road and Sumner Avenue. Crosswalks could range in complexity from simple striping to actual paved crosswalks in more highly visible areas, and be identified as potential gateways into the neighborhood.

Other intersection improvements should be considered in areas where traffic blocking issues occur—for example, at the intersection of Washington Boulevard and Parkway Drive, where queuing for US Route 60 can be observed throughout the day. "Do Not Block Intersection" markings can be implemented at this intersection, along with the existing street signs to help enforce and visualize the need for a clear intersection at all times.

STREETS, LIGHTING, AND STREET TREES

Streets comprise more than 80% of our public realm but are often one of the most underutilized public spaces in our cities. Well-designed streets function as the front yards of our neighborhoods, promote positive business and commerce activities, generate higher home values for its residents, while simultaneously providing a safe place for our citizens to move about the neighborhood whether by foot, bicycle, car or public transit.

The Arlington Park neighborhood has various right-of-way distances that are contained throughout its street network, offers a wide variety of combinations of streetscape improvement initiatives which can be implemented including additional on-street parking, sidewalk improvements, intersection and crosswalk improvements, street trees, lighting, and place making. The various right-of-way distances in and around the neighborhood are:

- US Route 60: 185-foot right-of-way (Varies)
- Washington + Arlington Boulevard: 50-foot right-of-way
- Saltwell Road + Sumer Avenue: 40-foot right-of-way

SIDEWALKS

Sidewalks are a critical component of any neighborhood and can be the primary means for people to move throughout the neighborhood without the aid of a vehicle. Sidewalks should be installed along strategic roadways, such as Washington Boulevard, Saltwell Road, and Norway Avenue. If possible, it is recommended that all new sidewalks be a minimum of 5 feet wide, and to make all sidewalks contiguous where sections have been lost to erosion and deterioration.

4 RECOMMENDATIONS

METHODOLOGY

INTRODUCTION

Key opportunities are identified as improvement strategies that outline specific issues and recommendations for KYOVA, the City of Huntington, and Cabell County to examine and implement at specific locations. Data, site surveys, and community input helped determine where these locations would create the most impact for vehicular and pedestrian safety within and around the Arlington Park neighborhood. Leading issues in this area include:

- traffic congestion,
- vehicular and pedestrian safety, and
- aging infrastructure within the public realm.

Implementation strategies outlined within this chapter include recommendations that may require additional due diligence, local refinement, and funding to complete implementation. However, investment in this area is needed for the residents and those traveling through the neighborhood to reach their destinations in a safe and timely manner.

The consulting team has used the data collected to target 10 key issue areas throughout the community, with each area containing a list of recommendations. A matrix has been developed to highlight the impacts and the time frame needed for implementation of each recommended improvement. Impacts determined for each recommendation include: cost, congestion, vehicular safety, and pedestrian safety, with other considerations noted where needed. A breakdown of short-, medium-, and long-term strategies have been identified for each recommendation, based on the known impacts stated above. Each improvement is recommended to fit within the time frame listed below:

- Short Term, 0–2 years
- Medium Term, 3–5 years
- Long Term, 6–10 years

Deteriorating Sidewalks Along Saltwell Road

IMPLEMENTATION AREAS

1 Traffic congestion approaching Washington Boulevard and US Route 60 near Parkway Drive

The most critical intersection within the project study area is at the intersections of US Route 60, Washington Boulevard, and Parkway Drive. Currently stressed with high ADT and the lack of needed turn arrows, this intersection can be enhanced through various recommendations at a low cost.

2 Irregular intersection at Saltwell Road and Washington Boulevard

An intersection with sharp turning angles and poor sight lines can be improved through roadway reductions, clear markings, and signage. By eliminating roadway redundancies, this intersection can be improved for the safety of both vehicles and pedestrians.

3 Provide connection from Guyandotte River Bridge sidewalk to south side of Route 60

Keeping the pedestrian in mind, a previously painted and signal activated crosswalk has become an issue for safety. By updating the roadway markings and extending sidewalk connections to the current pedestrian push buttons, this highly traveled intersection will become a safer access point.

4 **Corridor Improvements along Saltwell Road**
A major public concern and a highlight to aging infrastructure can be found along Saltwell Road. This local road has become congested by oversized trucks and cut-through traffic. Safety updates through signage, lighting, a road alignment change will have a positive effect on this corridor.

5 **Improved Walkability and Safety along Saltwell Road**
Being one of the only streets in the project area with sidewalks, Saltwell Road would benefit from an investment in this system. As the roadway has been repaved over the years, the curb line has diminished, and sidewalks have become an extension of the road and parking areas. With the roadway being a main connection to the local elementary school, this issue is of high importance.

6 **Corridor Improvements along Norway Avenue**
As a major collector in the project area this road is in need of several corridor improvements such as signage, lighting, and lane differentiation to ease traffic confusion. Improvements along this corridor can be accomplished in a shorter time frame, with positive safety impacts to both vehicles and pedestrians.

7 **Safety improvements at the intersection of Norway Avenue and Norwood Road**
Improvements are crucial at the intersection of Norway Avenue and Norwood Road. High traffic volumes on aging pavement and markings have clearly taken a toll on the safety of this intersection. Low cost improvements can help enhance this area, along with curb replacements and minimizing asphalt where able.

8 **Safety improvements at the intersection of Norway Avenue and Arlington Boulevard**
Improvements to the intersection of Norway Avenue and Arlington Boulevard will help improve the safety and access for pedestrians. Through the implementation of new crosswalks and clear signage this area can be improved.

9 **Address Stormwater Issues along Arlington Boulevard**
Another major public concern is the regular flooding along Arlington Boulevard. Using best practices in green infrastructure to help ease the flooding patterns in the area would be an innovated approach to a reoccurring problem.

10 **Improve Safety and Mobility through the Arlington Park Neighborhood**
As the public survey indicated, signage issues are present within the Arlington Park community. This cost effective solution can be worked with the community to help ease daily traffic concerns.

IMPLEMENTATION SUMMARY

		Cost	Impact Congestion	Vehicular Safety	Pedestrian Safety	Other Considerations	Time Frame
1	**Issue: Traffic congestion approaching Washington Boulevard and Route 60 near Parkway Drive**						
	Washington Blvd at Parkway Dr - Add pavement markings to supplement "Do Not Block Intersection" signs	Low	High	Medium	Low		Short Term
	Delineate lane markings with paint and corresponding signs	Low	High	Medium	Low		Short Term
	Add curb to edge of Washington Blvd as it runs adjacent to the gas station	Medium	High	High	Medium		Medium Term
	Add left turn arrow for Washington Blvd at US Route 60	Low	High	Medium	Low	Requires full capacity analysis study	Medium Term
2	**Issue: Irregular intersection at Saltwell Road and Washington Boulevard**						
	Close channelized right turn from US Route 60 and stripe US Route 60 shoulder right turn lane	Medium	Low	High	Low		Long Term
	Supplement "No Parking Beyond this Point" sign along Washington Boulevard at church	Low	Low	High	Medium		Short Term
	Delineate stop bar with paint and with corresponding signs	Low	Medium	Medium to High	Medium		Short Term
3	**Issue: Connection from Guyandotte River Bridge sidewalk to south side of Route 60**						
	Construct ADA-compliant crosswalks across Washington Boulevard and the west side of US Route 60; add sidewalk and curb along the east side of Washington from US Route 60 to Parkway Dr (to also prevent cut-through traffic at gas station)	Medium	Medium	Low	High		Medium Term
	Add pedestrian push buttons and pedestrian signal heads to the intersection of US Route 60 and Washington Boulevard. Consider use of push button-actuated Leading Pedestrian Intervals	Medium	Low	Low	High		Medium Term
4	**Issue: Corridor Safety along Saltwell Road (e.g., signage, lighting, road alignment)**						
	Supplement "No Trucks" sign with advance and/or additional signs	Low	Low	Medium	Medium		Short Term
	Add additional warning signs with advisory speed plaques for the horizontal reverse curves plus electronic speed minder signs with radar display. Add "radar enforced" plaques if allowable	Low	Low	Medium	High	Confirm "radar enforced" sign allowable	Short Term
	Upgrade street lighting	Medium to High	Low	Medium	Medium		Long Term
	Realign Saltwell Road by the cemetery to straighten horizontal reverse curve and provide sidewalk on east side	High	Low	Medium	High		Long Term
	Fill missing sidewalk gaps from Sumner Avenue to Washington Blvd on the west side	Medium	Low	Low	High		Long Term
	Fill missing sidewalk gaps from Norway Avenue to Sumner Avenue on the east side	High	Low	Low	High	Requires further study – property ownership, utilities, slope	Long Term

Cost
- Low
- Medium
- High

Implementation Impact
- High
- Medium
- Low

Time Frame
- Short
- Medium
- Long

		Cost	Impact Congestion	Vehicular Safety	Pedestrian Safety	Other Considerations	Time Frame
5	**Issue: Walkability and Safety along Saltwell Road**						
	Implement sidewalk repairs	Medium	Low	Low	High		Short Term
	Locate stop signs a minimum of 4 feet behind any pedestrian crossing; paint corresponding stop bars	Low	Low	Medium	Medium		Short Term
	Coordinate with local schools for a crossing guard at the Sumner Avenue Intersection	Medium	Low	Medium	High	Requires school/other resources	Short Term
	Add all-way stop control at the intersection of Saltwell Road and Sumner Avenue	Low	Low	High	High	Requires multi-way stop sign study	Medium Term
	Widen sidewalk/improve school bus stop at intersection of Saltwell Road and Sumner Avenue	Medium	Low	Low	High		Medium Term
	Upgrade flashing school speed limit signs	Medium	Low	Low	High		Medium Term
	Install sidewalks along the south side of Sumner Avenue from Saltwell Road to Parkway Drive	Medium to High	Low	Low	High		Long Term
6	**Issue: Corridor Safety along Norway Avenue (e.g., signage, lighting, road delineation)**						
	Add warning signs with advisory speed plaques for intersections and curves	Low	Low	High	Medium		Short Term
	Locate stop signs a minimum of 4 feet behind any pedestrian crossing; paint corresponding stop bars	Low	Low	Medium	Medium		Short Term
7	**Issue: Safety at the intersection of Norway Avenue and Norwood Road**						
	Use pavement markings and surface-mounted delineators to better control traffic	Low	Low	Medium to High	Medium		Medium Term
	Coordinate potential sidewalk/curb improvements with church at southeast corner	Low to Medium	Low	Medium to High	Medium	Coordination with property owner/church	Medium Term
8	**Issue: Safety at the intersection of Norway Avenue and Arlington Boulevard**						
	Improve the crosswalk along Arlington Boulevard at Norway Avenue	Medium	Low	Medium	Medium		Short Term
9	**Issue: Stormwater Issues along Arlington Boulevard**						
	Implement green infrastructure along the east side of Arlington Blvd near intersection of Arlington Blvd and US Route 60	Medium	Low	Medium to High	Medium to High	Need engineering study to determine overall feasibility	Medium Term
	Implement green infrastructure along the west side of Arlington Blvd toward the intersection of Arlington Blvd and Norway Avenue	Medium	Low	Medium to High	Medium to High	Need engineering study to determine overall feasibility	Medium Term
10	**Issue: Safety and Mobility through the Arlington Park Neighborhood**						
	Locate stop signs a minimum of 4 feet behind any pedestrian crossing; paint corresponding stop bars	Low	Low	Medium	Medium		Short Term
	Coordinate with Arlington Park Neighborhood Association regarding stop sign changes, traffic calming locations, updated street lighting	TBD	Low	Medium	Medium	Coordinate with Arlington Park Neighborhood Association	Long Term

IMPLEMENTATION STRATEGIES

1 ISSUE: TRAFFIC CONGESTION APPROACHING WASHINGTON BOULEVARD AND ROUTE 60 NEAR PARKWAY DRIVE

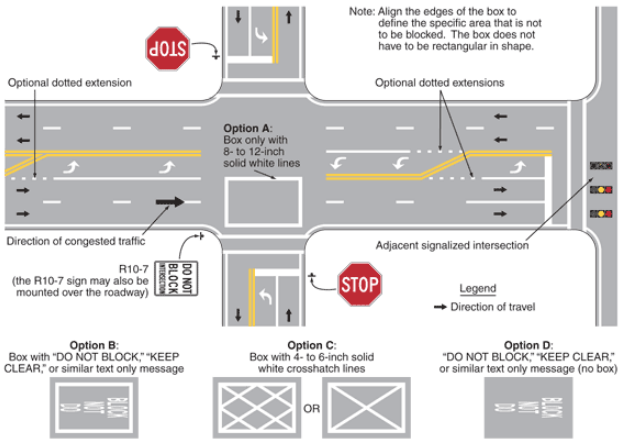
Washington Boulevard is a major collector road that connects with US Route 60 to the north (also extending across the Guyandotte River to Special Metals Corporation) and eventually transitions to Norway Avenue as it extends to the west and south. A portion of the western boundary of the study area is delineated by Washington Boulevard. Washington Boulevard is a two-lane road with a sidewalk running along the east side as the road extends south from Saltwell Road. The adjacent land use in the study area is primarily single family residential.

Currently, congestion is problematic at the intersection of US Route 60 and Washington Boulevard, especially as traffic heads north along Washington Boulevard, with cars backing up to Parkway Drive and blocking the intersection during peak hours. Cars also cut through the gas station lot, turning right onto US Route 60 from Washington Boulevard, since there is currently no curb to prevent automobiles from making this movement. This issue was also identified as a top priority in the survey that was administered to area residents. When asked which roads experience problematic congestion, the intersection of US Route 60 and Washington Boulevard was identified as a top concern. When asked about which intersections are the most dangerous, two intersections were identified by most respondents: US Route 60 and Washington Boulevard (over 70%) and Washington Boulevard and Parkway Drive (65%).

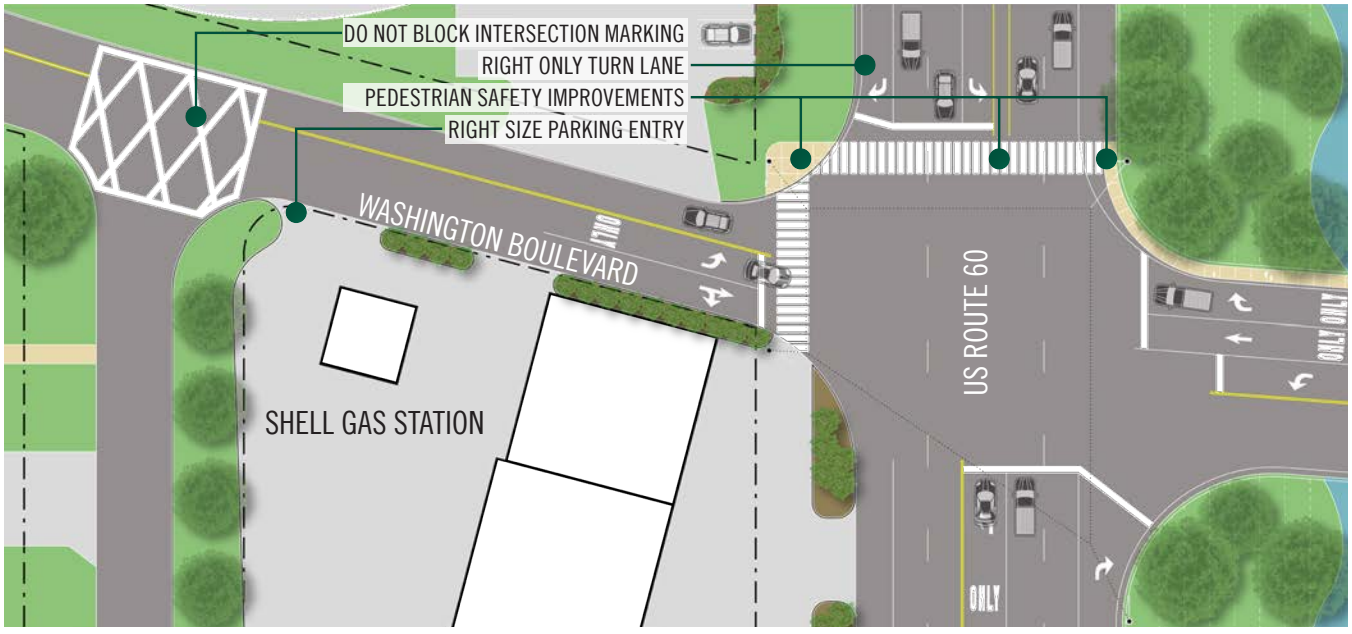
Proposed Improvements:

It is recommended that the existing "Do Not Block Intersection" signs at Parkway Drive be supplemented with additional signs and possibly pavement markings, as depicted below.
Other recommended improvements include the following:

- Delineate lane markings with paint and corresponding signs along Washington Boulevard near the US Route 60 and Parkway Drive intersections.
- Add a curb line to the edge of Washington Boulevard along the frontage of the gas station.
- Pending a capacity analysis of the corridor, add a left turn arrow for Washington Boulevard at US Route 60.



Alternative "Do Not Block Intersection" Marking (Source: MUTCD - US Department of Transportation)



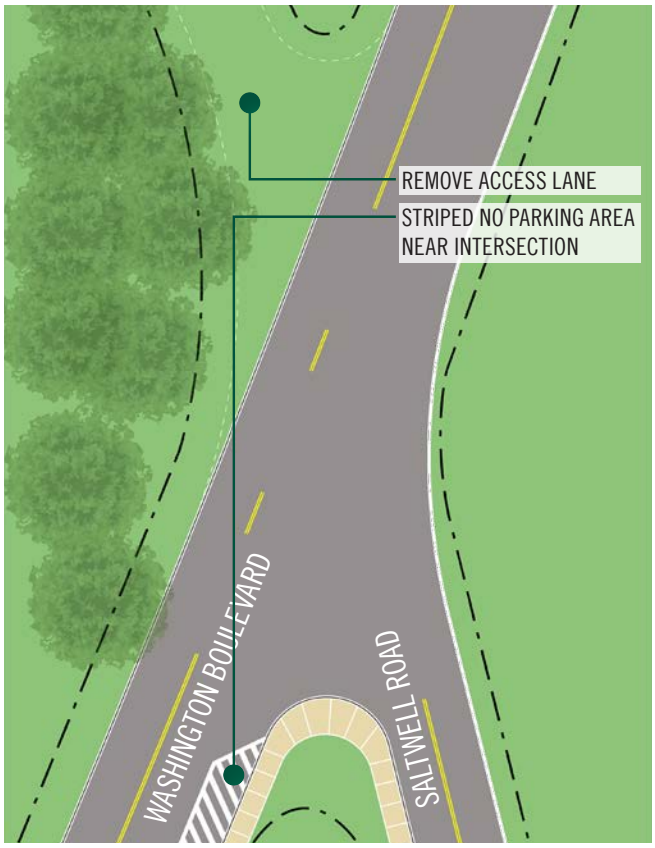
Proposed Improvements to Washington Boulevard at US Route 60

2 ISSUE: IRREGULAR INTERSECTION AT SALTWELL ROAD AND WASHINGTON BOULEVARD

Currently, Saltwell Road intersects with Washington Boulevard at an oblique angle, creating site line concerns. Crash data revealed that there had been a vehicle collision with a pedestrian at the intersection. The portion of Saltwell Road which is north of Washington Boulevard is one-way, with access provided via a channelized right turn lane from US Route 60. Saltwell Road provides an important link through the community and is a local two-lane road with a posted speed limit of 25 miles per hour. There is an existing narrow sidewalk that wraps around the corner, running directly adjacent to the street on the west side of Saltwell Road.

Proposed Improvements:

In order to address safety concerns, it is recommended that the channelized right turn access from US Route 60 be closed, and that the shoulder at the intersection of US Route 60 and Washington Boulevard be striped with a right turn lane to allow for the movement displaced by closing the lane. It appears that there is currently enough existing pavement located at the intersection to allow for the addition of the right turn lane.



Proposed Intersection, Saltwell Road at Washington Boulevard

3 ISSUE: SAFETY CONCERNS AT CONNECTION FROM GUYANDOTTE RIVER BRIDGE SIDEWALK TO SOUTH SIDE OF ROUTE 60

There is currently a sidewalk located on the west side of the Guyandotte River Bridge, connecting to the industrial development located to the north with the commercial development to the south. There is no sidewalk located south of Route 60 along Washington Boulevard, and US Route 60 is relatively wide at this point, with five lanes and a shoulder located on both sides of the road. While there is a stoplight located at the intersection, there are no crosswalks located at the intersection.

Proposed Improvements:

In order to address safety concerns at the intersection, a relatively low-cost solution includes the addition of ADA-compliant crosswalks across Washington Boulevard and the west side of US Route 60. As mentioned earlier, cut-through traffic persists at the gas station (turning right onto US Route 60 from Washington Boulevard), since there is no curb located along the roadway. It is suggested that a sidewalk and curb be constructed along the east side of Washington from US Route 60 to Parkway Drive in order to prevent this movement. Additional safety measures include the addition of pedestrian push buttons and pedestrian signal heads to the intersection of US Route 60 and Washington Boulevard. It is also suggested that push button-actuated Leading Pedestrian Intervals be considered. Leading Pedestrian Intervals give pedestrians the walk signal typically 3 to 7 seconds before motorists are permitted to proceed through the intersection, thus minimizing pedestrian/vehicle conflicts.

Guyandotte River Bridge at US Route 60

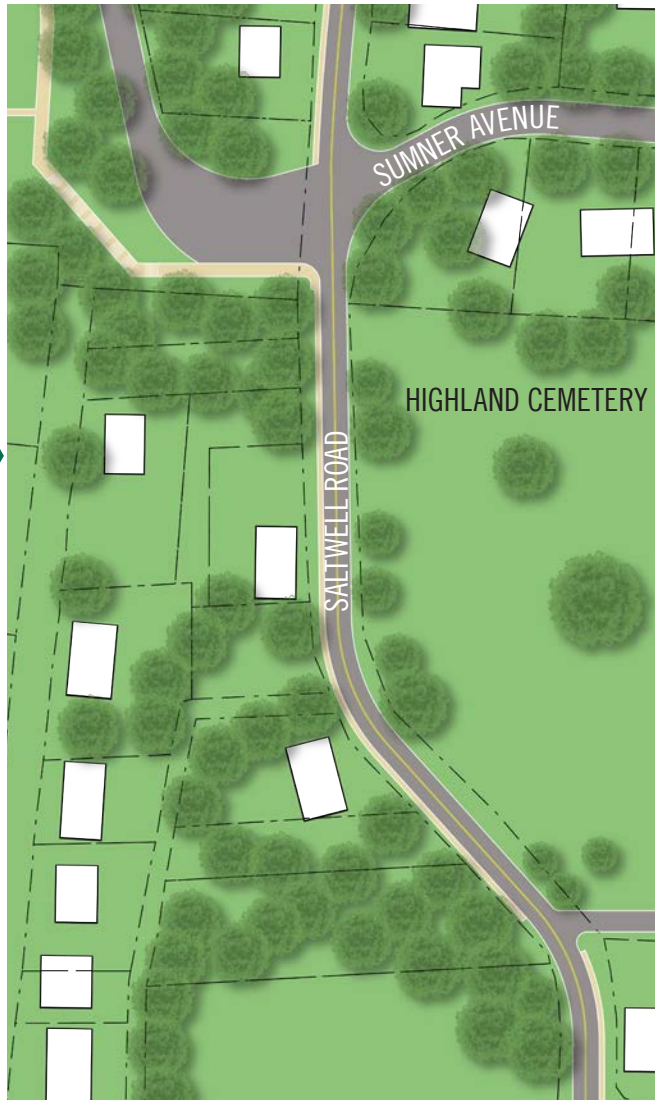
IMPLEMENTATION STRATEGIES

4 ISSUE: CORRIDOR SAFETY ALONG SALTWELL ROAD (E.G., SIGNAGE, LIGHTING, ROAD ALIGNMENT)

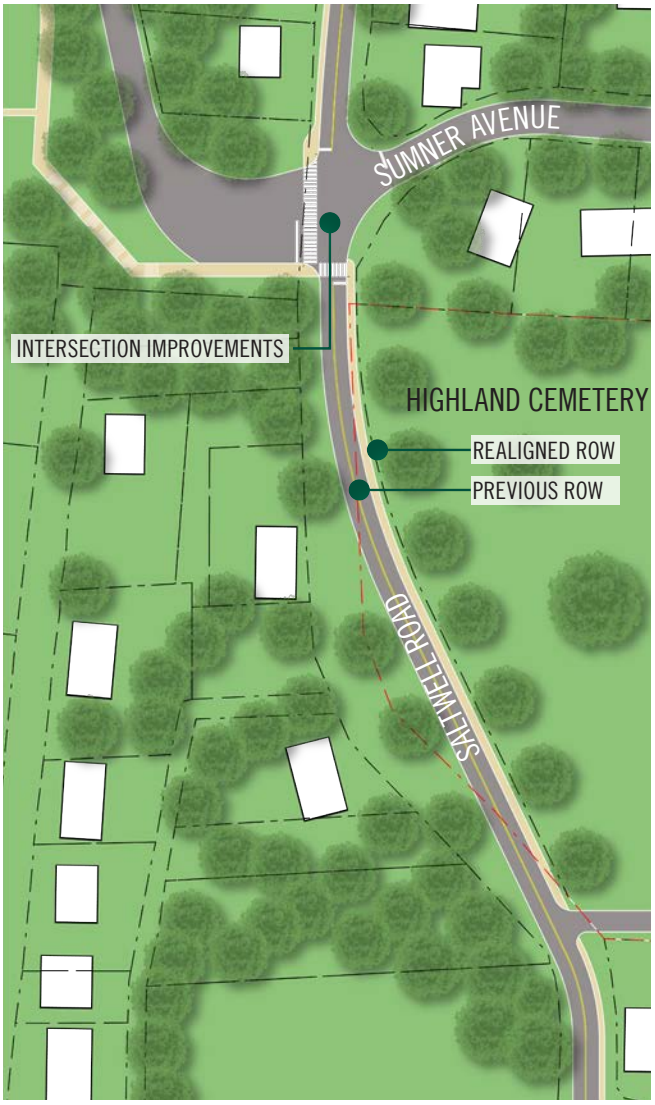
Saltwell Road is a two-lane, local road that connects with Washington Boulevard and US Route 60 to the north and with Norway Avenue to the south. The road provides an important connection to Explorer Academy at Sumner Avenue. The majority of land use adjacent to Saltwell Road is single family residential. Saltwell Road is one of the more walkable streets located within the study area, with sidewalks existing along most of the roadway. However, in some cases the sidewalks are inconsistent or in need of repair. Near the school entrance, there is a sidewalk located along the west side of the road; however, the intersection at Saltwell Road and Sumner Avenue is not controlled.

Proposed Improvements:

In the short-term, additional or advance "No Trucks" signs could be added to ensure that truck traffic does not occur on Saltwell Road. Also, additional warning signs with advisory speed plaques could be added at the horizontal reverse curve, including electronic speed minder signs with radar display. Potential long-term improvements include filling the missing sidewalk gaps from Norway Avenue to Sumner Avenue on the east side, thereby improving the connection to the academy. Lower priority improvements include upgrading the street lighting and filling the missing sidewalk gaps from Sumner Avenue to Washington Boulevard on the west side. Finally, a higher cost improvement includes realigning Saltwell Road by the cemetery to straighten the horizontal reverse curve, and providing a sidewalk on the east side of the road.



Existing Alignment of the S Bend in Saltwell Road



Proposed Realignment of Saltwell Road

5 ISSUE: WALKABILITY AND SAFETY ALONG SALTWELL ROAD

Saltwell Road is a two-way neighborhood collector that runs north and south between two major collector roads, Washington Boulevard to the north and Norway Avenue to the south. The corridor is primarily residential in nature; horizontal geometry and visibility are generally good across the corridor, with the exception of a sharp blind curve located adjacent to the Highland Cemetery property. Several instances of large delivery trucks crossing the centerline in an effort to negotiate the radius have been observed, creating a hazardous condition for oncoming traffic due to visibility issues. This segment of the corridor needs to be corrected due to the potential for a head-on collision caused by lack of visibility.

The sidewalk that runs along the corridor is currently in varied states of disrepair, intermittent, and severely undersized. The sidewalk also alternates randomly along the eastern and western edges of the road due to topography constraints without the benefit of crosswalks, stop bars, or signage.

Several major intersections exist along the Saltwell Road corridor that require attention, for example Washington Boulevard and the four-way intersection at Sumner Avenue, which includes the entrance to a major residential area to the east and Explorer Academy to the west. The intersection of Saltwell Road and Washington Boulevard has the only pedestrian-related incident in the **entire project** area recorded in the last 5 years. Survey data collected reinforces what we heard in the public meeting that these two intersections are in the greatest need for immediate attention for pedestrian safety improvements.

Proposed Improvements:

Sidewalk Improvements:

- Curb and sidewalks should be installed to a minimum of 5 feet wide and should be contiguous across the entire Saltwell Road corridor without interruption
- Curb and sidewalks should be installed along the south side of Sumner Avenue from Saltwell Road to Parkway Drive
- Sidewalk should be widened at the Sumner Avenue intersection to improve the safety of the school bus stop
- Ramps with truncated domes should be installed at all crosswalks and according to ADA standards

Miscellaneous improvements:

- Stop signs, stop bars, and crosswalks should be installed at all major intersections where pedestrians interact with vehicular traffic
- Stop signs should be installed a minimum of 4 feet behind stop bars
- Improved lighting should be installed at all pedestrian crosswalks to improve nighttime visibility
- School speed limit signs should be upgraded to flashing electrical signs
- Crossing guards should be used at the Sumner Avenue intersection during school drop-off and pick-up hours at Explorer Academy
- The geometry of the curved segment of Saltwell Road near Highland Cemetery needs to be corrected to improve the radius and visibility of the curve

Existing Sidewalk Conditions on the Eastern Side of Saltwell Road

Existing Sidewalk Conditions on the Western Side of Saltwell Road

IMPLEMENTATION STRATEGIES

6 ISSUE: CORRIDOR SAFETY ALONG NORWAY AVENUE (E.G., SIGNAGE, LIGHTING, ROAD DELINEATION)

Norway Avenue is a major collector road that runs east and west along the southern edge of the study area, with an ADT of +4,000. Norway Avenue serves as a primary access point to the Arlington Park neighborhood, but is also extensively used by people outside of the neighborhood as a shortcut to avoid congestion along US Route 60. Other than US Route 60, Norway Avenue has the most crash incidents recorded over the last 5 years, with a total of 6 occurring at 4 different locations. All incidents were vehicular in nature with no fatalities recorded. Norwood Avenue also serves as a primary route for the Tri-State Transit Authority.

Proposed Improvements:

Several low cost/low impact improvements can immediately be made along Norway Avenue corridor to improve pedestrian safety, such as:

- The addition of speed advisory warning signs at all intersections, especially where crashes have been recorded
  - Norway Avenue and Rosemont
  - Norway Avenue, Norwood road and Perry Avenue
  - Norway Avenue and Walmart Drive
  - 1000 Block of Norway Avenue
- Improved lighting
- Updated stripping and better lane differentiation
- Because Norway Road crosses through Norway Avenue, pedestrian cross walks should be installed at the intersection and signage put in place directing traffic to yield to pedestrians at this intersection

Existing sidewalk conditions along Norway Avenue

7 ISSUE: SAFETY AT THE INTERSECTION OF NORWAY AVENUE AND NORWOOD ROAD

The intersection of Norway Avenue and Norwood Road contains several obstacles that cause safety issues for vehicles and pedestrians. One challenge is where Norwood Road meets Norway Avenue in the middle of an S bend on an oblique angle, causing unfamiliar drivers not to know which direction Norway Avenue continues. Assisting in this challenge is the lack of pavement striping and curb lines: three of the four corners of this intersection meet parking areas where the road pavement and parking pavement have no discernible edge to them, making this intersection appear as a vast open space of pavement.

Crash data reveals that there have been 3 accidents at this intersection in the past 5 years, making this the second-highest intersection for accidents after US Route 60. Also, according to the public survey and feedback, this intersection was rated third for in need of safety improvements. With Norway Avenue being a major collector route within this neighborhood, and with an ADT of over 8,000, this intersection is considered a priority for improvement.

Proposed Improvements:

In order to address the safety and directionality of this intersection, it is recommended that new pavement markings and surface-mounted delineators be applied to the roadway to help control traffic flow. Also recommended is the addition of new curb along the roadways to help differentiate between parking areas and the lanes of travel. Along with the new curb, sidewalks should be replaced and brought up to a 6-inch curb height where new pavement has created flush curb lines. It is recommended to work with the neighboring church to determine their property entrances near this intersection, as well as local businesses to confirm they have proper access to their parking areas. Add crosswalks and stop bars at appropriate locations in conjunction with their supplemental stop signs. All stop bars shall be a minimum of 4 feet behind the stop sign.

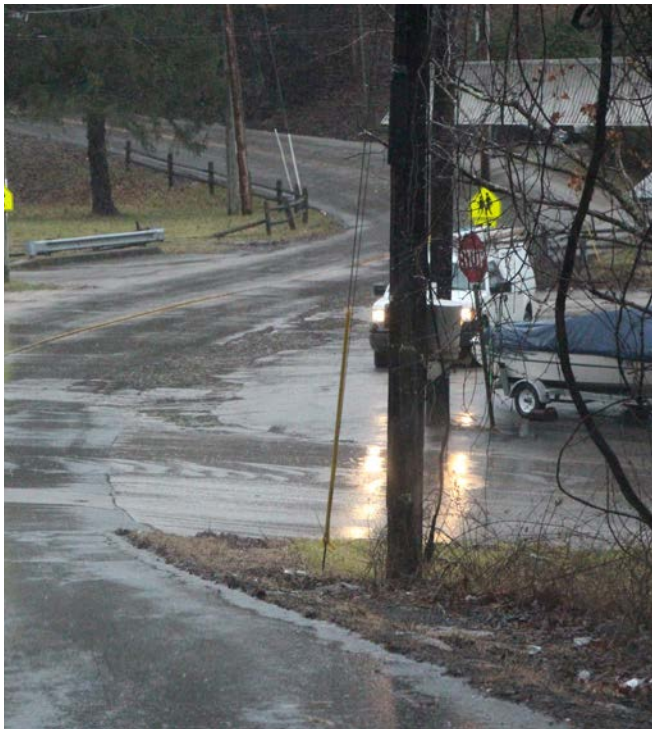
Existing Intersection, Norwood Road and Norway Avenue

8 ISSUE: SAFETY AT THE INTERSECTION OF NORWAY AVENUE AND ARLINGTON BOULEVARD

A deteriorated crosswalk striping where a sidewalk used to exist can be seen at this intersection that connects a commercial business on the west of Arlington Boulevard to the beginning of several residential properties on the east. Overgrown vegetation and regular wear and tear of the pavement markings has taken its toll on this pedestrian connection, while signage indicating pedestrian crossing still exists. As Norway Avenue is one of the major collectors within the project area, it is pertinent for these roadways to remain safe for pedestrians and vehicles alike.

Proposed Improvements:

At areas such as this, where sidewalks and crosswalks previously existed, it is recommended to invest in these pedestrian infrastructures to help create a safer public realm. New crosswalk markings should be used at this intersection and connect to proper ADA ramps at new sidewalks. Where the commercial property exists to the west, it is recommended that the City of Huntington coordinate with the business owner to make sure any new sidewalk does not interfere with access to their property. Through the addition of sidewalks and curbing at this intersection, vehicles will be guided better along the lanes of travel, and pedestrians will have a safer route along this busy roadway.



Existing Intersection, Norway Avenue and Arlington Boulevard

9 ISSUE: STORMWATER ISSUES ALONG ARLINGTON BOULEVARD

During heavy rainfall events, portions of the study area are impacted by flooded roadways. These events can impact driving on local roads during and after storms, especially along Arlington Boulevard, and it is understood that planning efforts are in place to address flooding issues. Arlington Boulevard is an important connector through the study area, linking Route 60 with Norway Avenue to the south. The following green infrastructure recommendations are based in part on observations during a storm event as well as on existing topography, watersheds, and site conditions.

Arlington Boulevard near Route 60:

As reflected in the photos below, currently there is stormwater overflow area along Arlington Boulevard near the intersection with Highway 60, just south of the existing medical office. The existing stormwater outlet overflows during heavy rainfall and floods the east side of the road. The curb line along Arlington at this point is inconsistent, with portions of the curb missing to the south along Arlington Boulevard.

Proposed Improvements:

Stormwater flow in the area is attributable to several different sources, including flow from the roadway, building driveway, and downspout from the medical building (a stormwater inlet is located just to the north of the driveway). To alleviate some of the flooding issues in this area, the stormwater flow from the roadway should be directed to a bioswale located along the east side of Arlington Boulevard and south of the driveway. The property along the east side of the road is wooded and relatively flat.

Arlington Boulevard During a Storm Event

IMPLEMENTATION STRATEGIES

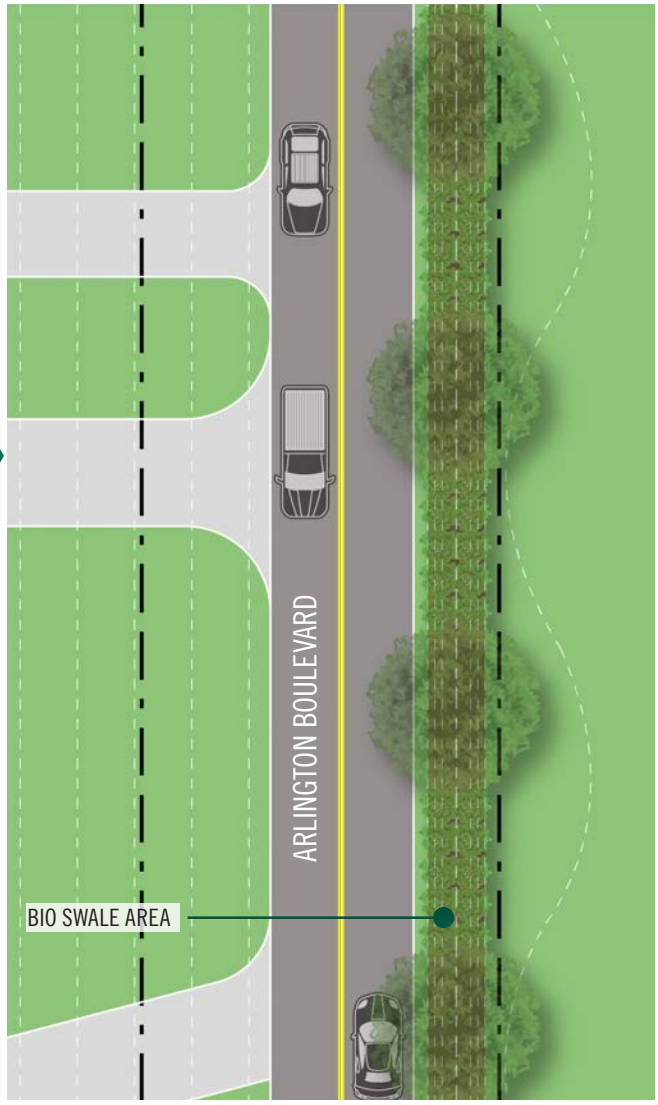
Diversion of stormwater near the driveway is limited to some extent by the narrow width of the property located between the road and the building. As a result, a stormwater planter may be most appropriate at this location. Any introduction of green infrastructure would require coordination with the existing land owners, as well as coordination with the utility companies.

Arlington Boulevard near Norway Avenue:

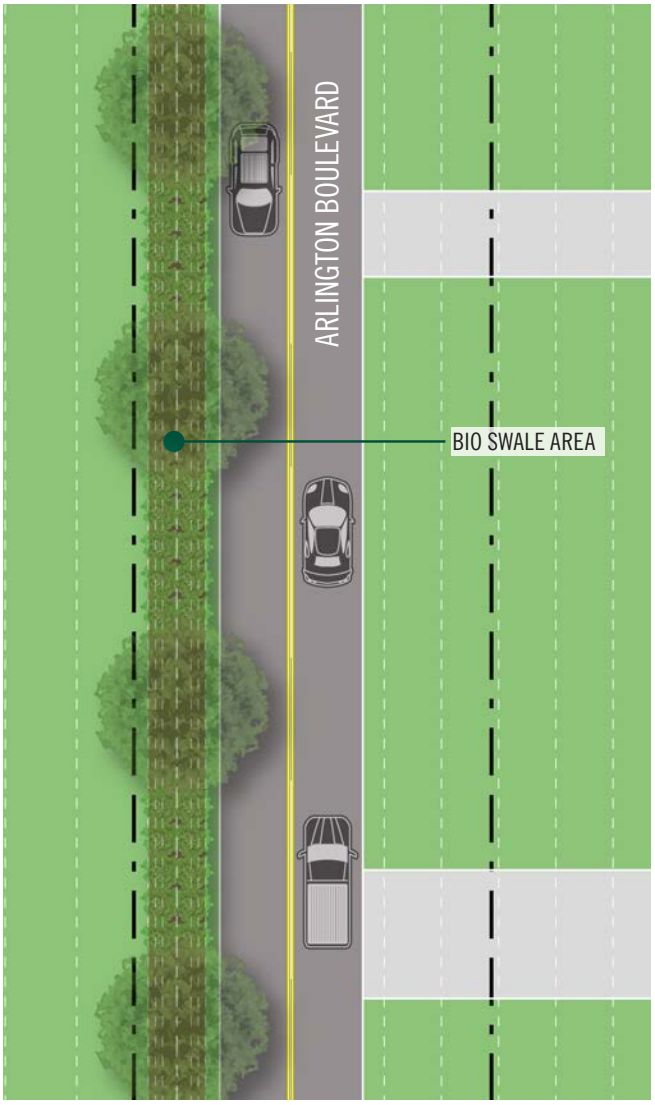
Some of the most extensive flooding along Arlington Boulevard occurs to the south near Norway Avenue. As depicted in the following photos, there is significant rainfall accumulation along the west side of the road during a rain event. This portion of the roadway lies at the bottom of a fairly steep slope, with an inconsistent curb line. There are also existing utility poles running along this section of the road, but no curb cuts.

Proposed Improvements:

In order to help alleviate stormwater overflow, it is recommended that a narrow bioswale be constructed along the west side of Arlington Boulevard along the sloped hillside. As with all suggested green infrastructure solutions, an engineering study would need to be completed in order to better understand issues such as soil conditions and exact utility locations (including the location of existing underground pipes and inlets). A swale could convey and reduce water runoff from the roadway and hillside. The introduction of a bioswale along the road would also require cooperation and negotiation with the property owners located along this segment of the roadway.



Proposed recommendations to Arlington Boulevard near US Route 60



Proposed recommendations to Arlington Boulevard near Norway Avenue

10 ISSUE: SAFETY AND MOBILITY THROUGH THE ARLINGTON PARK NEIGHBORHOOD

While the study area is bound by US Route 60 to the north and Norway Avenue to the south, with Washington Boulevard to the west and Walmart Drive to the east, the Arlington Park neighborhood fits compactly within a small section of this area. With two points of access, Parkway Drive to the north and Sumner Avenue to the southwest, the neighborhood is built of all local neighborhood roads with light local traffic.

Through the use of the online survey, community members brought forth several signage issues in the neighborhood that can be analyzed. The issues identified were:

- Unnecessary stop sign at Elwood and Carlton
- Improving signs (quality/clarity) in Arlington Park
- Warning signs for unsecured neighborhood pets
- Stop sign at Carlton and Willoughby

The responses within the survey indicated some differing of opinion with the recently added stop sign at the intersection of Elwood Ave and Carlton St. One person noted that the sign "caused outrage [when first installed] but seems to have died down." Another person noted that the sign "… is beneficial despite what others say. I've almost got hit multiple times there because [of] people just driving through." Each of these issues pertain to the lack or over used of stop signs at several intersections within the community. These issues should be reviewed and addressed through communication between the City of Huntington and the Arlington Park Neighborhood Association.

Safety concerns were also mentioned with the lack of street lighting in the neighborhood. Poorly lit streets can cause safety issues for the mobility of the community and can be addressed quickly and efficiently.

Proposed Improvements:

It is recommended that the City of Huntington work with the Arlington Park Neighborhood Association to identify areas of concern with stop signs and work together to determine their need. Any stop sign should be positioned a minimum of 4 feet behind a stop bar, and all markings within the neighborhood should be repainted for visual clarity.

Existing street lights should be reviewed for their effectiveness in the community. Any area that shows as poorly lit should be addressed through new lighting to match the existing lighting of the neighborhood.

Area of Arlington Park Neighborhood


Arlington
Park

5 FUNDING

IMPLEMENTATION STRATEGIES

NEXT STEPS

Now that priority projects have been identified for the Arlington Park neighborhood, the City of Huntington and KYOVA should continue to build support for the identified projects. The Arlington Park Neighborhood Association has worked collaboratively with the team during the planning process, and should continue to be updated regarding progress with the Arlington Park Mobility Plan. The short-term and lower cost priority projects are identified in the following table.

The recommendations of the plan should be prioritized and included within the next KYOVA Metropolitan Transportation Plan (MTP), which details a schedule for anticipated spending for transportation projects over a 4 year time period. The City of Huntington should also use this document when prioritizing capital improvement projects within the context of the entire city.

KYOVA is allocated federal funds through the Surface Transportation Block Grant (STBG) Program and Transportation Alternatives (which is considered a set-aside of STBG). There is a 20% local match required on these grants. The STBG funds are more widely used for surface transportation projects, while the set-aside funds can be used for multi-modal projects such as sidewalk improvements. Local municipalities can apply for these funds directly through KYOVA during the funding cycle. This is a great resource for local municipalities; however, there are some limitations to where they can be used (generally funds must be applied to a WVDOH system road). The Safe Routes to School program is also under the set-aside program and funds can be used to build sidewalks and paths to schools, including improvements along local roads. Other eligible improvements include traffic calming, speed reduction, and pedestrian crossing improvements.

Certain projects, such as those dealing with flooding issues by applying green infrastructure solutions (e.g., the construction of bioswales along the east side of Arlington Boulevard near the intersection of Arlington Boulevard and US Route 60), may be eligible for funding through different sources. Several have been available in the past through the US Environmental Protection Agency (USEPA), although availability is always subject to change. One of these funds is the Clean Water State Revolving Fund (CWSRF), which is a partnership between the federal government and states, and provides low cost funding for a wide variety of water quality-related projects. Individual states operate the CWSRF program.
The federal government also provides funding through the Congestion Mitigation and Air Quality Improvement (CMAQ) Program for transportation-related projects, including multi-modal improvements related to pedestrian and bicycle access, such as sidewalk improvements. Investing in streetscapes and sidewalks can also be prioritized and included within capital budgeting for the City of Huntington. Public funding considerations need to be addressed early in the process, given the lead time required to implement various funding alternatives.

As mentioned in the previous section, the City of Huntington should also work with the local school district to secure a crossing guard for the intersection at Saltwell Road near Explorer Academy.

Short Term Projects	Estimated Cost	Responsible Party
Washington Blvd at Parkway Dr - Add pavement markings to supplement "Do Not Block Intersection" signs	$	City of Huntington, KYOVA
Delineate lane markings with paint and corresponding signs at Washington Blvd and Parkway Drive	$	City of Huntington, KYOVA
Along Saltwell Road, add additional warning signs with advisory speed plaques for the horizontal reverse curves plus electronic speed minder signs with radar display. Add "radar enforced" plaques if allowable	$	City of Huntington
Along Saltwell Road, supplement "No Trucks" sign with advance and/or additional signs	$	City of Huntington
Implement sidewalk repairs along Saltwell Road	$$	City of Huntington, KYOVA
Along Saltwell Road, locate stop signs a minimum of 4 feet behind any unmarked pedestrian crossing; paint corresponding stop bars	$	City of Huntington
Coordinate with local schools for a crossing guard at the Sumner Avenue Intersection	$$	City of Huntington, school district
Along Norway Avenue, add warning signs with advisory speed plaques for intersections and curves	$	City of Huntington, KYOVA
Along Norway Avenue, locate stop signs a minimum of 4 feet behind any unmarked pedestrian crossing; paint corresponding stop bars	$	City of Huntington, KYOVA
Improve the crosswalk along Arlington Boulevard at Norway Avenue	$$	City of Huntington, KYOVA
Throughout the Arlington Park neighborhood, locate stop signs a minimum of 4 feet behind any unmarked pedestrian crossing and paint corresponding stop bars	$	City of Huntington

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NO
PARKING
7:00 AM
TO 6:00 PM

APPENDIX

TRAFFIC CAPACITY

VEHICLE VOLUME STUDY AT WASHINGTON BOULEVARD AND US ROUTE 60

GAI Consultants, Inc. self performed a turn study at the intersection of Washington Boulevard and US Route 60 to collect additional data, based on the known issues presented to the consulting team from the data received from KYOVA, as well as the responses from the public about the daily traffic congestion issues that are present at this intersection.

The study was conducted on March 3, 2019 between the times of 3p.m. to 4p.m. to account for the close of operations at the neighboring Special Metals Corporation, as recorded by Google.

This intersection has a significant impact on the surrounding neighborhood of Arlington Park and the traffic moving inbound and outbound of the City of Huntington from I-64 as well as further along US Route 60 between Huntington and the Village of Barboursville. While the character of US Route 60 consists of mainly large retailers and chain commercial services, Washington Boulevard is primarily a residential route and major collector for this area. This intersection is also one of two bridges crossing the Guyandotte River between the interstate and the City of Huntington, connecting US Route 60 to a major industrial complex of the Special Metals Corporation.

Near this intersection, further along Washington Boulevard, are the intersections of Parkway Drive and Saltwell Road. These two intersections with Washington Boulevard were highlighted by the data received and the public feedback as areas in need for improvement. Observations collected during the turn study at the intersection of Parkway Drive and Washington Boulevard showed multiple occasions where the queuing of vehicles for US Route 60 reached beyond this intersection, thus blocking access into and out of Parkway Drive, an entrance to shopping areas, as well as the Arlington Park neighborhood.

Additional observations of pedestrians and cyclists were taken at this intersection. A total of six pedestrians crossed Washington Boulevard, weaving between cars as there is no existing crosswalk striping marked. Of these six pedestrians, none used the manual pedestrian signalization button to safely cross at this intersection. One cyclist was seen using this intersection, obeying traffic signals, to travel north along Washington Boulevard and continue along the designated bike route depicted by the City of Huntington.

PM Time	Washington Boulevard									US Route 60									TOTAL
	Northbound				Southbound					Westbound				Eastbound					
	L	S	R	App. Total	L	S	R	App. Total	Sub-Total	L	S	R	App. Total	L	S	R	App. Total	Sub-Total	
3:00-3:15	19	12	22	53	28	29	19	76	129	35	273	7	315	13	259	10	282	597	726
3:15-3:30	20	17	33	70	24	29	41	94	164	46	293	10	349	14	241	7	262	611	775
3:30-3:45	20	20	36	76	28	14	28	70	146	48	183	13	244	6	176	2	184	428	574
3:45-4:00	32	13	57	102	23	18	26	67	169	44	142	8	194	8	282	4	294	488	657
TOTAL	91	62	148	301	103	90	114	307	608	173	891	38	1102	41	958	23	1022	2124	2732

Vehicle Volume Summary for Washington Boulevard and US Route 60

APPENDIX A

The consulting team performed a single-hour capacity and queuing simulation to assess the potential impacts of adding a northbound Washington Boulevard protected permissive left turn arrow, as suggested by public meeting feedback. In order to assess impacts of protected-permissive operation, a field-recorded, 130-second cycle length was used for the analysis. Signal splits were optimized, and the Washington Boulevard/T.R. Wickline Bridge timings and phasing were adjusted while the mainline US Route 60 signal timings were kept constant. This results in a direct comparison to isolate potential northbound left-turn phase impacts. Please refer to the tables below for the result of the capacity and queue length comparison with and without the Washington Boulevard left turn arrow. Capacity was analyzed in Synchro traffic simulation software based on HCM 2010 methodology, and 95th percentile queue lengths were analyzed in SimTraffic simulation software averaging five simulation runs.

The results of the analysis show that capacity for the northbound Washington Boulevard approach is anticipated to be comparable either with or without a left turn arrow, although the opposing capacity from the T.R. Wickline Bridge approach may degrade by one level of service. The northbound left turn queue length is anticipated to decrease, while the overall northbound queue length is anticipated to remain about the same, and the southbound queue length is anticipated to increase. During the analyzed 3p.m. to 4p.m. hour with the Specialty Metals shift change, none of the approaches were over capacity. As long as the southbound approach has sufficient capacity to absorb a slight decrease in capacity, or if there is some additional capacity from US Route 60, adding a northbound left turn lane may improve traffic flow on Washington Boulevard while still allowing the intersection to operate at an acceptable level of service. Ultimately, since US Route 60 functions as a multi-intersection corridor with capacity metered by other signals, additional data collection and analysis are required to make a final determination as to the feasibility of a left turn arrow for the Washington Boulevard approach.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Level of Service	B	C	C	C	C	B	C		C	D	C	C
Approach Level of Service		C			C			C			C	

Intersection Summary	Total
Level of Service	C

Existing Level of Service for Washington Boulevard and US Route 60

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue (ft)	51	256	224	129	243	229	52	122	175	125	93	64

Existing Queuing for Washington Boulevard and US Route 60

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Level of Service	B	C	C	C	C	B	C		C	D	D	D
Approach Level of Service		C			C			C			D	

Intersection Summary	Total
Level of Service	C

Proposed Left Turn Arrow Level of Service for Washington Boulevard and US Route 60

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue (ft)	56	266	231	151	259	231	41	100	184	135	108	64

Proposed Left Turn Arrow Queuing for Washington Boulevard and US Route 60

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