

CENTRALINA MOBILITY MANAGEMENT

WALK AUDIT REPORT



AUGUST 2021



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2021 ACKNOWLEDGEMENTS



Centralina Regional Council



Centralina Area Agency on Aging



Centralina Regional Planning



North Carolina Department of Transportation



Charlotte Area Transit System

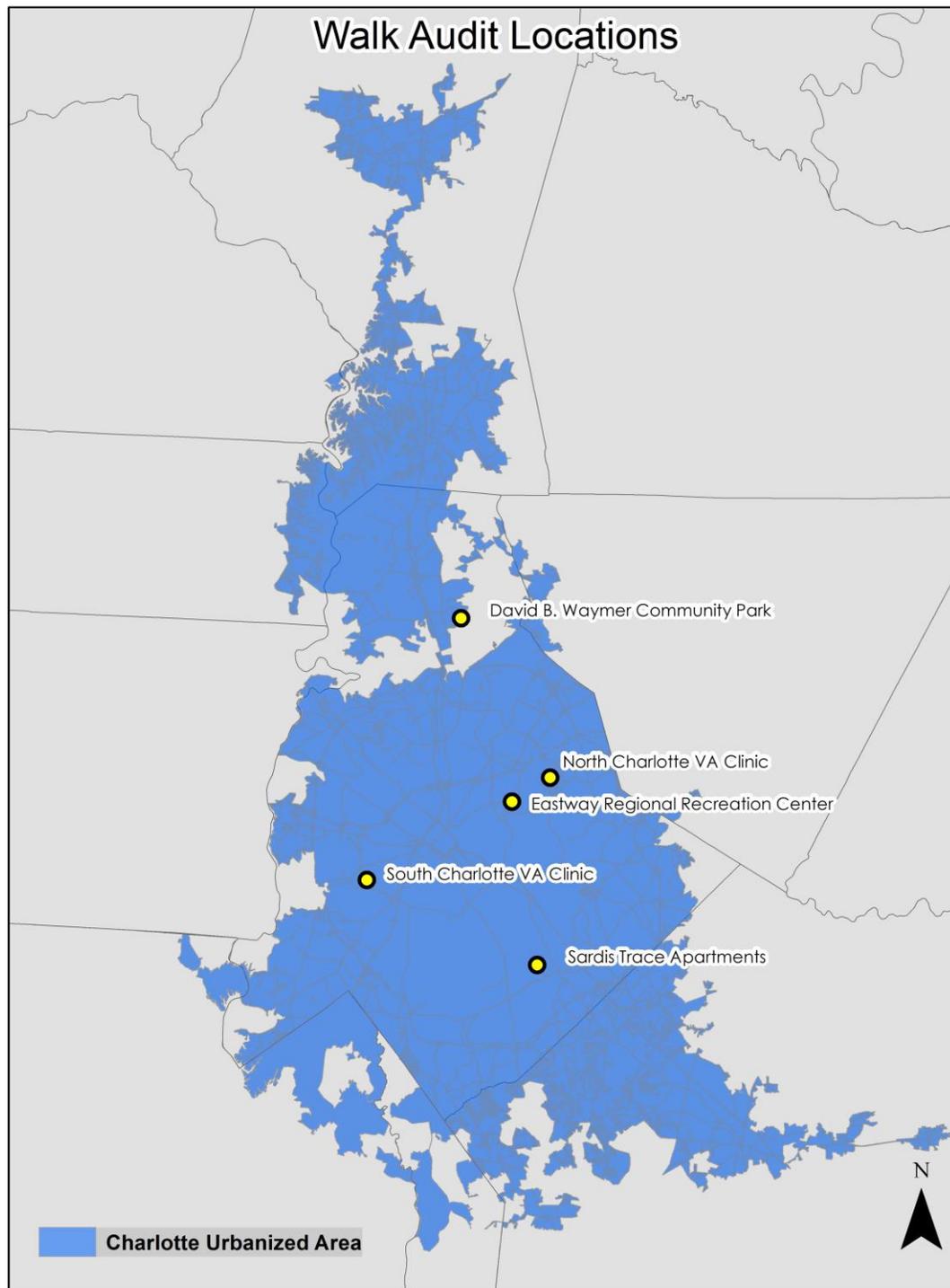
INTRODUCTION

Centralina Regional Council is a regional organization serving the nine counties of Anson, Cabarrus, Gaston, Lincoln, Iredell, Mecklenburg, Rowan, Stanly, and Union. Centralina assists local governments in coordinating for sound regional development and provides a forum to address issues best handled through regional cooperation, planning, and action. In 2015, the **CONNECT Our Future** regional growth plan identified transportation choice as a key priority for the region. By highlighting the need for increased transportation options, **CONNECT our Future** served as the catalyst to a more focused regional transit plan, **CONNECT Beyond**. An important component of this transit plan has been integrated local bus service, rural connections, and mobility hubs where walking, biking, transit, and shared mobility come together to provide real mobility transit solutions. A byproduct of regional efforts to provide equitable mobility for everyone, including older adults and people with disabilities, is the distribution of 5310 grant funding from the Charlotte Area Transit System (CATS). The purpose of these funds is to support regional efforts to enhance and improve transportation options for older adults and people with disabilities in the US Census designated Charlotte Urbanized Area. In the spring of 2021, Centralina conducted walk-audits in five locations, including nine transit stops, to gather information about accessibility near existing bus stops for CATS riders in areas with high populations of older adults and people with disabilities. Observations were made and recommendation were formed to help guide efforts to provide accessible transit facilities at all five locations.



2021 WALK AUDIT LOCATIONS

LOCATION	ASSESSMENT STOPS	ATTENDEES
Eastway Regional Recreation Center	2	Centralina Staff
David B. Waymer Community Park	2	Centralina Staff
Sardis Trace Apartments	1	Centralina Staff
North Charlotte VA Clinic	2	Centralina Staff
South Charlotte VA Clinic	2	Centralina Staff



CONTEXT

Upwards of 3 million people are expected to live in the Charlotte area by 2030. Of this figure, approximately 600,000 are expected to be older adults. Furthermore, the U.S. Census Bureau projects that by 2030 all baby boomers will be over the age of 65. Individuals with limited or declining mobility will rely on quality planning solutions to support their need for access to equitable pedestrian infrastructure.



In 2016, Centralina Regional Council conducted a transportation barriers study using an FTA Section 5310 grant from the North Carolina Department of Transportation (NCDOT). The purpose of this project was to engage with older adults and residents with disabilities, identify and analyze the barriers and issues that these populations face daily in the region, identify nationwide best practices, and provide recommendations to applicable transit and paratransit agencies for improvement. More than 1,100 older adults and people with disabilities participated in the *2016 Centralina Transportation Barriers Study*.

ASSESSMENT PURPOSE AND AUDIENCE

In prior years, Centralina conducted similar assessments in the Charlotte Urbanized Area. Findings identified deficiencies needing moderate investment such as lighting and receptacles, and deficiencies that are more costly such as severe gaps in sidewalk infrastructure. Recurring themes include bus route information being too small, lack of sheltering at bus stops, and crosswalks that are not ADA compliant.

The following walk audits are intended to be used as a tool by transportation planning organizations, municipalities and county governments, and transit agencies to help implement existing and new mobility solutions that will strengthen pedestrian infrastructure and transit connections in the study area. They will provide elected officials, technical staff, and community members additional means to champion equity through the built environment. Local and regional plans often struggle to address many of the observations documented in this report. The following walk audits may provide additional synergies among existing plans that will lead to a greater local and regional impact.

AMERICANS WITH DISABILITIES ACT (ADA) AND UNIVERSAL DESIGN

The Americans with Disabilities Act (ADA) was enacted on July 26, 1990 to provide comprehensive civil rights protections to persons with disabilities in the areas of employment, state and local government services, and access to public accommodations, transportation, and telecommunications.

Universal Design requirements precipitated ADA requirements and instead of focusing specifically on designing for the disabled, Universal Design adopted a broader approach to providing for an equitable built environment. Universal Design incorporates more aesthetics and aims toward creating design that meets needs for anyone regardless of disability, age, or stage in life. Even though Universal Design is not enforced by law, its principals overlap with ADA requirements.

Ensuring accessibility both on transit vehicles and at transit locations, such as bus stops, is crucial to serving older adults and the physically or mentally disabled who cannot drive themselves and must depend upon transit.

The challenge in meeting ADA and Universal Design requirements, aside from the cost of making and maintaining the improvements, often lies in properly determining compliance for all the circumstances which the disabled rider might encounter. The aforementioned requirements are complex; proper application of requirements and standards requires expertise that is best served by experts viewing a site directly.



2017 Centralina Walkability Study



METHODOLOGY AND SCOPE OF WORK

TRANSIT STOP SELECTION PROCESS

To determine which stops should be selected for a walkability audit, Centralina staff suggested a variety of selection criteria:

- Geographically Dispersed
 - Housing for older adults
 - Destinations of interest particularly for older adults (senior center, recreation center, library, shopping center, etc.)
- Transit Stop
 - Not a park and ride
 - A higher number of riders
 - Frequent bus service and beyond typical commuting times
 - Served by bus/vehicles equipped for wheelchairs or other mobility equipment- kneeling bus
 - Stops where if a larger bus was available it could take the pressure off van service
- Existing Pedestrian Infrastructure
 - Has been identified by transit providers, city planners, or through rider surveys of the Sustain Charlotte initiative, as a location that could be improved.
 - Location where usable right of way exists for recommended improvements and where filling in the gaps of pedestrian access would make a significant difference

COVID RESPONSE

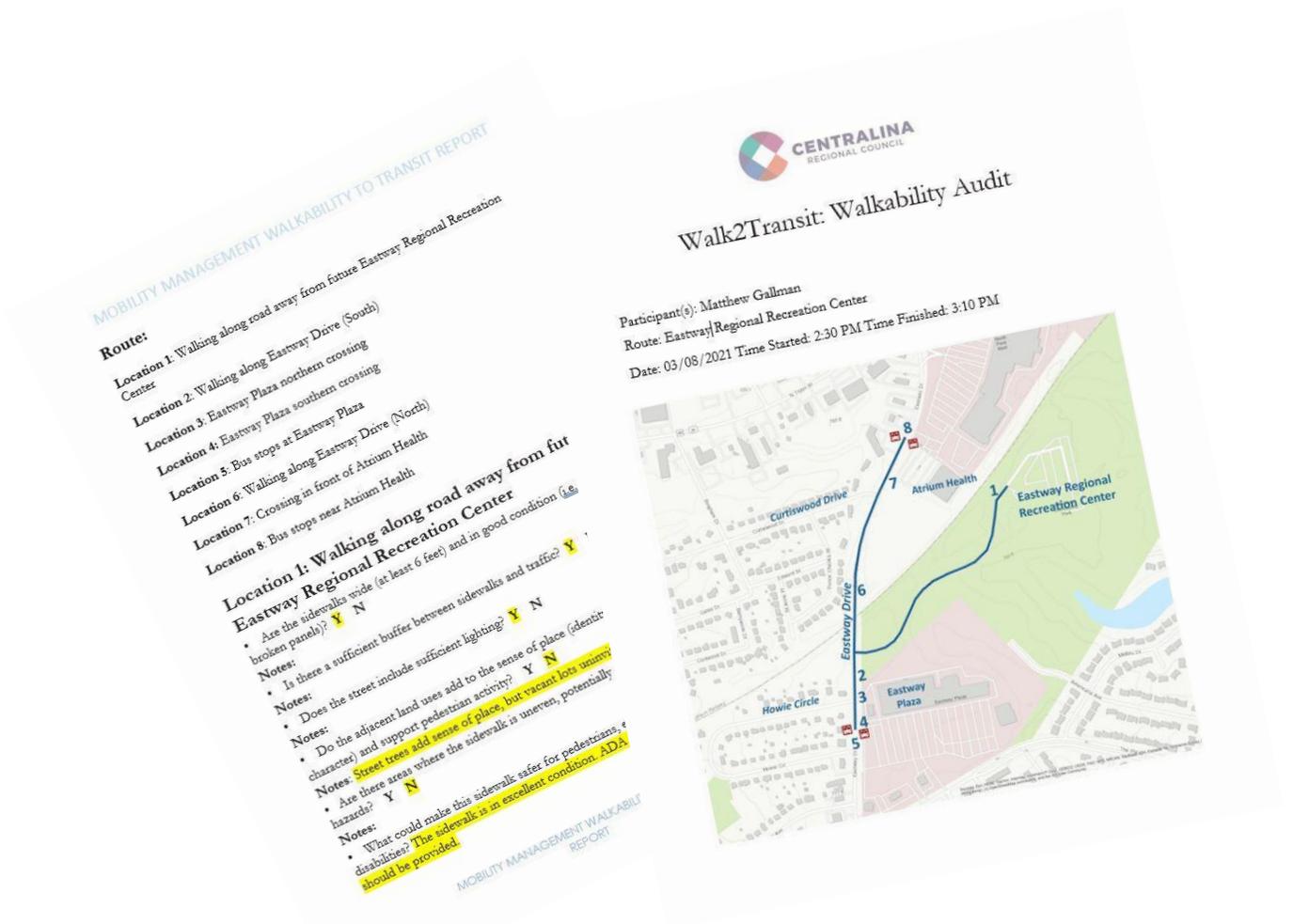
In response to COVID-19, the 2021 walkability audits were conducted exclusively by Centralina staff to mitigate any health risks that would be linked to group participation from stakeholders, aging adults, or persons with disabilities.

MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT

WALKABILITY AUDIT TOOL

Centralina utilized a revised edition of the *AARP Sidewalks and Streets Survey Tool* to help provide solutions for aging adults and those with disabilities. A component of the survey tool includes a framework developed by Easter Seals to analyze various aspects of walkability while conducting the audits. Although this report assesses the perception of accessibility for older adults and people with disabilities and is intended to encourage real improvements, it is not intended to be an ADA compliance review tool.

An Aging Nation: Projected Number of Children and Older Adults, U.S. Census Bureau, Retrieved from <https://www.census.gov/library/visualizations/2018/comm/historic-first.html>, on June 24, 2021



GENERAL FINDINGS AND RECOMMENDATIONS

SIDEWALKS

Guidance for North Carolina sidewalk design can be found in publications by NCDOT, the American Association of State Highway and Transportation Officials (AASHTO), and the Federal Highway Administration (FHA). For this report, design and remediation recommendations are based on state and national best practices. This report acknowledges that site specific conditions should be taken into consideration at each location. The walk audits revealed that sidewalks are often less than minimum width requirements, have vegetative obstructions and mild cracking, and lack adequate buffering between the sidewalks and roadways. Prioritizing remediation efforts is important to produce tangible results that will improve walkability for pedestrians. A *Prioritization Report* for remediation efforts is recommended for Charlotte Public Works or other service departments responsible for maintaining walkways.

BUS STOPS

Guidance for best practices and State requirements for bus stops can be found in publications by the NCDOT, AASHTO, and the FHA. Evaluations were recorded at each bus stop for shelter, lighting, furniture, and placement. Bus stops were often interdependent on one another to provide adequate amenities. If shelter and seating was provided at a particular transit stop, the accompanying (opposing) stop often lacked amenities. Streetlamps provided the only source of lighting in most locations while curb access did not allow riders to easily board and exit buses. A national standard backed by the U.S. Department of Transportation is that public transit providers evaluate their transit amenities and policies to ensure equitable transit access for all users. It is recommended that the uniformity of bus shelters be considered at all locations. Bus stops should not depend on neighboring facilities to provide amenities. Individuals should have access to high quality pedestrian bus stop facilities on both sides of the roadway.

CROSSWALKS

Guidance for North Carolina crosswalk design and requirements can be found in publications by NCDOT, AASHTO, and the FHA. Intersections were evaluated for location, ADA compliance, and traffic behavior patterns. The condition of crosswalks often mirrored the conditions of nearby sidewalks and bus stops. There was inconsistent use of ADA compliant curb cuts and crosswalk markings were missing at intersections where placement would calm unfavorable traffic patterns. Crosswalks were often too far from bus stops and thoroughfare crossings often caused a sense of urgency. Primary findings are that traffic calming behaviors are needed, all crosswalks should be marked with reflective thermoplastic or equivalent materials, and planning for additional midblock crossings is needed.

WALK AUDITS

Eastway Regional Recreation Center
3150 Eastway Park Drive.
Charlotte, NC
CATS Routes 39
(2 stops total)
15 minutes, 0.9 miles

Participants: Matthew Gallman
Date: 3/8/2021
Time Started: 2:30 PM
Time Finished: 3:10 PM

Location 1: Walking along road away from Eastway Regional Recreation Center

Location 2: Walking along Eastway Drive (South)

Location 3: Eastway Plaza northern crossing

Location 4: Eastway Plaza southern crossing

Location 5: Bus stops at Eastway Plaza

Location 6: Walking along Eastway Drive (North)

Location 7: Crossing in front of Atrium Health

Location 8: Bus stops near Atrium Health



On March 8, 2021, Matthew Gallman (Centralina) conducted a walkability audit to and from transit stops on Eastway Drive near Eastway Regional Recreation Center. This route was 0.9 miles or 15 minutes long one-way. The route was walked to examine the 2 transit stops.



MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT

FINDINGS		RECOMMENDATIONS
SIDEWALKS		
Width, Design, Gaps	Sidewalks along Eastway Park Drive are wide with sufficient buffering and street trees. Transitioning to Eastway Drive, sidewalks are narrow, in most cases only four feet, with minimal buffering to shield pedestrians from the street.	<ul style="list-style-type: none"> • Widen sidewalks along Eastway Drive • Plant street trees or shrubbery along Eastway Drive to promote feeling of safety and increase curb appeal • Review strategies from the Charlotte Eastway Drive Streetscape and Pedestrian Improvement Study
Obstructions, Debris, Grass, Cracking	Accumulation of grass and dirt in multiple areas of sidewalk. These areas are difficult for individuals using wheelchairs or other mobility devices to navigate. There is mild cracking in multiple locations and could present a trip hazard.	<ul style="list-style-type: none"> • Trim grass and shrubbery • Remove existing dirt along Eastway Drive • Review or develop tracking and implementation strategy(ies) for sidewalk maintenance (cracking) on Eastway Drive
BUS STOPS		
Shelter, Amenities, Design	Bus stops at Eastway plaza are missing shelter. Sidewalk buffering along the southbound Eastway plaza bus stop is barrier for individuals entering or exiting bus. Trash receptacle overflowing at southbound bus stop near Atrium Health.	<ul style="list-style-type: none"> • Provide shelter with lighting and seating at all locations • Relocate obstructing trash receptacle at Eastway Plaza bus stop • Provide benches with wheelchair cutaway at all locations • Provide surface to lean against if seating cannot be provided • Schedule frequent cleaning of trash receptacles at all locations • Provide direct passenger access to bus where grass buffer(s) exist near Eastway Plaza
CROSSWALKS		
ADA, Safety, Refuge	Crosswalks near Eastway Plaza are not ADA compliant. Center refuge adjacent to Eastway Park Drive is in great condition and has ADA compliant curb ramps. Additional traffic calming measures should be considered at refuge. Crosswalk near Atrium Health lacks ADA compliant ramps, and their placement could be a challenge to individuals with limited mobility.	<ul style="list-style-type: none"> • Install ADA compliant curb ramps at Eastway Plaza • Consider additional traffic calming measures at refuge near Eastway Park Drive. Thermoplastic Crosswalk and/or controlled crossing could be added to facility • Install ADA compliant curb ramps at crosswalk near Atrium Health. Truncated domes needed

MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT



David B. Waymer Community Park

14200 Holbrooks Road
CATS Route 99

(2 stops total)

10 minutes, 0.5 miles

Participants: Matthew Gallman

Date: 3/08/2021

Time Started: 1:30 PM

Time Finished: 2:05 PM

Location 1: Walking along Holbrooks Road away from David. B. Waymer Community Park

Location 2: Crossing Central Avenue

Location 3: Crossing S. Church Street

Location 4: Crossing Old Statesville Road (Intersection of Monteith Grove Drive/Holbrooks Road and Old Statesville Road)

Location 5: Bus stop on Old Statesville Road (north)

Location 6: Walking along Old Statesville Road (south)

Location 7: Crossing at Dr. Seay Drive

Location 8: Crossing Verhoeff Drive

Location 9: Bus stops on Old Statesville Road (south)



On March 8, 2021, Matthew Gallman (Centralina) conducted a walkability audit to and from transit stops located on Old Statesville Road near David B. Waymer Community Park. This route was 0.5 miles or 10 minutes long one-way. The route was walked to examine the 2 transit stops..



MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT

FINDINGS		RECOMMENDATIONS
SIDEWALKS		
Width, Design, Gaps	The sidewalk along Holbrooks Road is illuminated by street lighting on opposite side of road. There is a significant gap in pedestrian infrastructure beginning at the intersection of Holbrooks Road and Central Avenue. Holbrooks Road provides a sense of place for pedestrians but is lacking quality infrastructure.	<ul style="list-style-type: none"> Widen the sidewalks along Holbrooks Road Consult, document and champion the completion of sidewalk facilities along Holbrooks Road
Obstructions, Debris, Grass, Cracking	Walking along Holbrooks Road the sidewalk is narrow with upheaved pavement which creates a trip hazard.	<ul style="list-style-type: none"> Repair upheaved sidewalk plates along Holbrooks Road near David B. Waymer Park
BUS STOPS		
Shelter, Amenities, Design	The sidewalk gap along Holbrooks Road is an impediment to accessible transit. All bus stops along Old Statesville Road are missing shelter. Both stops near 12810 Old Statesville Road lack adequate lighting. Both stops near 12810 Old Statesville Road placed in grass with broken/no pedestrian seating. Trash receptacles near 12810 Old Statesville Road encroach on pedestrian waiting space.	<ul style="list-style-type: none"> Provide shelter with lighting and seating at locations along Statesville Road Provide benches with wheelchair cutaway at all stations along Statesville Road Repair/provide pedestrian seating area at both stops near 12810 Old Statesville Road. Provide paved waiting area for pedestrians using wheelchair at bus stops near 12810 Old Statesville Road.
CROSSWALKS		
ADA, Safety, Refuge	Crosswalks along Holbrooks Road are not ADA compliant. Multiple points lack ADA compliant curb cuts due to gaps in sidewalk infrastructure. Crosswalk at the intersection of Old Statesville Road and Holbrooks Road is missing curb cuts needed to cross Old Statesville Road. The crossing at the intersection of old Statesville Road and Dr. Seay Drive lacks ADA compliant curb cuts and does not provide for good visibility of pedestrians. The crossing at the intersection of Old Statesville Road and Verhoeff Drive is a controlled pedestrian crossing and brings awareness to the vehicular traffic that is approaching the intersection.	<ul style="list-style-type: none"> Install ADA compliant curb cuts along with new sidewalks to fill in gaps along Holbrooks Road Install ADA compliant curb cuts along with new sidewalks to fill in gaps along Holbrooks Road Install ADA Compliant curb ramps at the intersection of Old Statesville Road and Dr. Seay Drive. Make efforts to relocate utility boxes at the intersection of Old Statesville Road and Dr. Seay Drive to increase driver visibility. Determine best practices for sidewalk/railway intersections

MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT



Sardis Trace

Apartments,

8848 Nolley Court, Charlotte
NC

CATS Routes 27

8 minutes, 0.4 miles

Participants: Matthew Gallman

Date: 3/14/2021

Time Started: 10:00 AM

Time Finished: 10:25 AM

Location 1: Walking along Nolley Court away from Sardis Trace Apartments

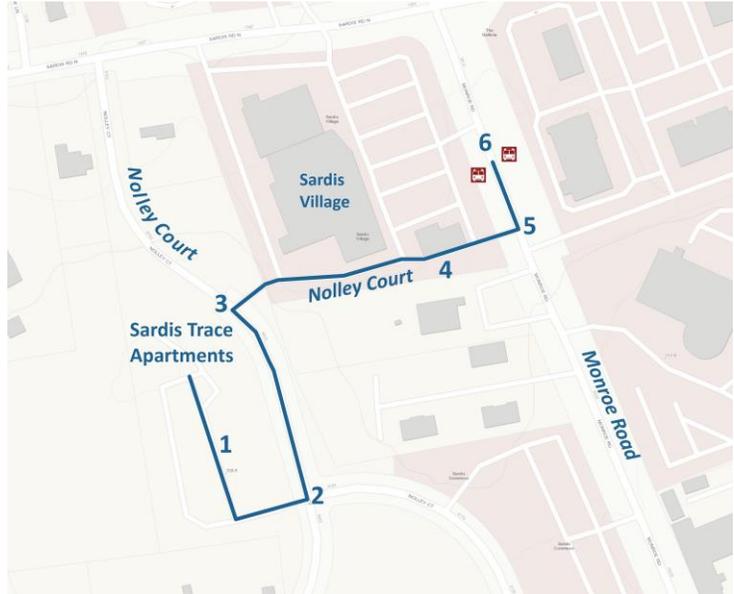
Location 2: Crossing to east side of Nolley Court (1)

Location 3: Crossing to east side of Nolley Court (2)

Location 4: Walking along Nolley Court near Sardis Village

Location 5: Crossing Monroe Road

Location 6: Bus stops on Monroe Road



On March 14, 2021 Matthew Gallman (Centralina) conducted a walkability audit to and from transit stops located near Sardis Trace Apartments. This route was 0.4 miles or 8 minutes long one-way. This walking route examined 1 bus stop located on Monroe Road.



MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT

FINDINGS		RECOMMENDATIONS
SIDEWALKS		
Width, Design, Gaps	The sidewalks along Nolley Court are in great condition (new), and sufficiently wide with no needed improvements. Buffering and lighting is provided along Nolley Court. Walking towards the bus station, sidewalks gradually narrow to four feet. Nearing Sardis Village exists a major gap in sidewalk infrastructure. Compounding the negative effect(s) of missing sidewalk is running slope which will be challenging for individuals with limited mobility to traverse.	<ul style="list-style-type: none"> • Consult, document, and champion the completion of sidewalk facilities along Nolley Court • Consider the provision of handrails that will compliment future sidewalks built on land with aggressive running slope.
Obstructions, Debris, Grass, Cracking	No cracking or obstructions were observed during walk audit.	
BUS STOPS		
Shelter, Amenities, Design	Stops along Monroe Road missing shelter. The sidewalk gap along Nolley Court is an impedes on accessible transit. Stops are dependent on street lighting which may not be sufficient for pedestrian security. The southbound stop on Monroe Road does not have seating area. Additionally, no trash receptacle is available.	<ul style="list-style-type: none"> • Provide bus shelter with lighting at both stops on Monroe Road near Nolley Court • Provide bench at southbound bus stop on Monroe Road • Provide at southbound bus stop on Monroe Road • Provide surface for pedestrians to lean against at bus stops
CROSSWALKS		
ADA, Safety, Refuge	Existing crosswalks along Nolley Court are in great condition and ADA compliant. Nolley Court encourages low traffic speeds and pedestrian awareness. Nolley Court crossings feels safe for pedestrians. The northern curb ramp at the intersection of Nolley Court and Monroe Road is missing ADA compliant truncated domes and is improperly positioned.	<ul style="list-style-type: none"> • Install ADA compliant curb ramp at intersection of Nolley Court and Monroe Road.

MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT



North Charlotte VA Clinic,

8601 University East Drive,
Charlotte NC
CATS Routes 29
6 minutes, 0.3 miles

Participants: Matthew Gallman

Date: 3/14/2021

Time Started: 1:00 PM

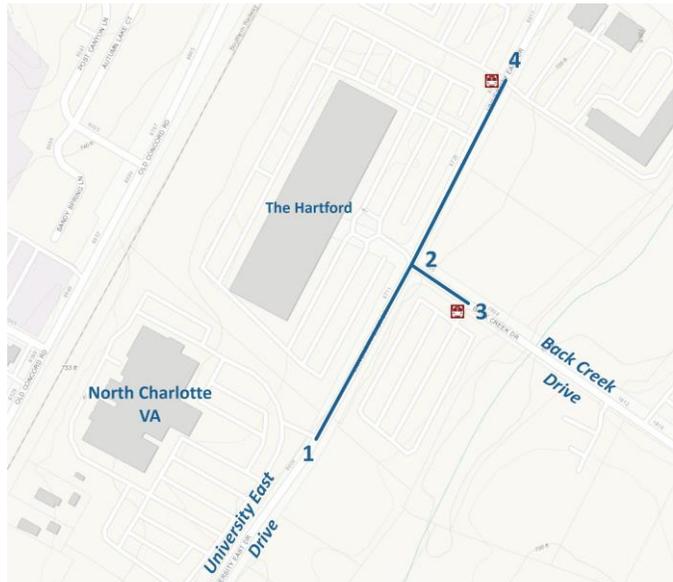
Time Finished: 1:15 PM

Location 1: Walking along
University East Drive away from
North Charlotte VA Clinic

Location 2: Crossing University
East Drive

Location 3: Bus stop on Back
Creek Drive

Location 4: Bus stop on
University East Drive



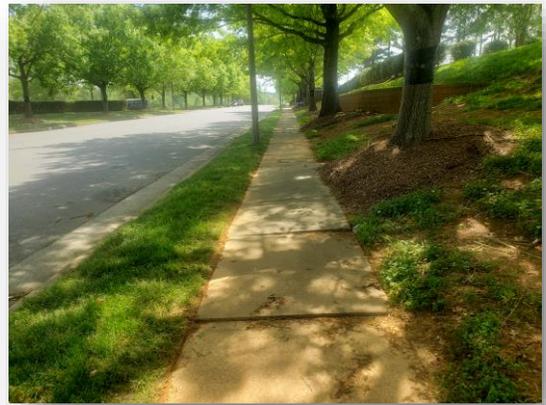
On March 14, 2021, Matthew Gallman (Centralina) conducted a walkability audit to and from transit stops located near the North Charlotte VA Clinic. This route was 0.3 miles or 6 minutes long one-way. The route was walked to examine the 2 transit stops and surrounding pedestrian infrastructure.



MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT

FINDINGS		RECOMMENDATIONS
SIDEWALKS		
Width, Design, Gaps	The sidewalks are in great condition but only four feet wide on East University Drive. Street lighting is consistent along the entire route. Individuals of varying mobility should be able to traverse this location, no major barriers exist. However, adjacent land uses are not pedestrian friendly due do empty buildings and abandoned lots.	<ul style="list-style-type: none"> Widen sidewalks to accommodate additional foot traffic along East University Drive Coordinate with owners of abandon/vacant lots to utilize for pedestrian friendly outdoor activities and amenities. Make effort to provide street trees along East University Drive
Obstructions, Debris, Grass, Cracking	Mild cracking and upheaved sidewalk plates exists along University East and Back Creek Drive.	<ul style="list-style-type: none"> Review or develop tracking and implementation strategies for sidewalk maintenance and apply to intersection of University East Drive and Back Creek Drive
BUS STOPS		
Shelter, Amenities, Design	<p>Bus stop along Back Creek Drive provides bench and shelter but is missing lighting. The bus stop is well positioned, allowing easy curb access to buses. Trash receptacles are appropriately placed beside pedestrian walkway. The bus stop location feels safe and inviting but is not located conveniently close to the Charlotte VA clinic.</p> <p>The bus stop near the intersection of University East Drive and W.T. Harris Boulevard is missing shelter, seating, and lighting on both sides of street. However, the bus stop is in an convenient and inviting location.</p>	<ul style="list-style-type: none"> Provide surface to lean against if seating cannot be provided at bus stop near W.T. Harris Boulevard Relocate stop nearest North Charlotte VA clinic for better accessibility for persons with limited mobility. Provide trash receptacles at all bus stops near North Charlotte VA.
CROSSWALKS		
ADA, Safety, Refuge	Crosswalks along University East Drive are in fair condition but not all curb ramps are ADA compliant. Multiple curb ramps along University East Drive are angled in such a way individual with wheelchairs may have trouble accessing. Multiple ramps are missing ADA compliant truncated domes. Traffic speeds our relatively high and driver negligence for pedestrians seems to be common.	<ul style="list-style-type: none"> Install ADA compliant curb ramp at intersection of University East Drive and Back Creek Drive. Consider traffic calming measures along University East Drive such as “speed humps” Reconstruct/reposition curb cuts at intersection of University East Drive and Back Creek Drive.

MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT



South Charlotte VA Clinic,

3506 West Tyvola Road,
Charlotte NC
CATS Routes 60
7 minutes, 0.6 miles

Participants: Matthew Gallman

Date: 3/14/2021

Time Started: 1:00 PM

Time Finished: 1:15 PM

Location 1: Walking along
access road away from South
Charlotte VA Clinic

Location 2: South Charlotte VA
Clinic internal crossing (north)

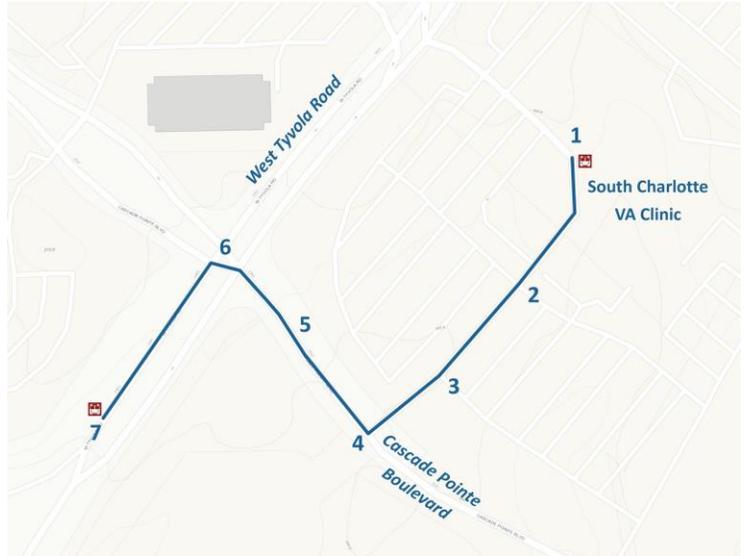
Location 3: South Charlotte VA
Clinic internal crossing (south)

Location 4: Crossing Cascade
Pointe Boulevard

Location 5: Walking along
Cascade Pointe Boulevard

Location 6: Crossing West
Tyvola Road

Location 7: Bus stop on West
Tyvola Road



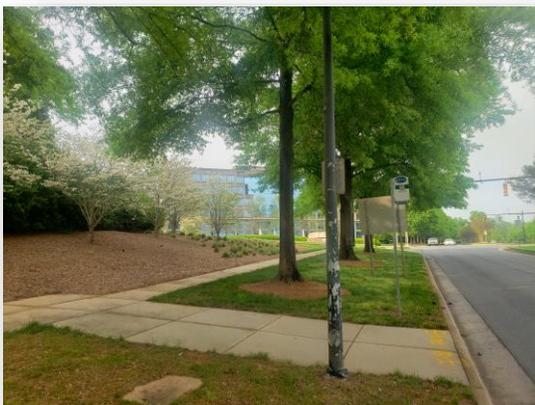
On March 14, 2021, Matthew Gallman (Centralina) conducted a walkability audit to and from transit stops located near the South Charlotte VA Clinic. This route was 0.3 miles or 7 minutes long one-way. The route was walked to examine the 2 transit stops and surrounding pedestrian infrastructure.



MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT

FINDINGS		RECOMMENDATIONS
SIDEWALKS		
Width, Design, Gaps	Sidewalks located within the South Charlotte VA Clinic parking area are in great condition and are six feet wide. This location supports individuals with varying levels of mobility. When exiting the facility, streetlights are missing along Cascade Pointe Boulevard and construction projects/open fields detract from sense of place. Additionally, the sidewalks along Cascade Point Boulevard have a running slope that may be difficult to traverse for individuals with limited mobility.	<ul style="list-style-type: none"> Consider pedestrian railing along Cascade Pointe Boulevard to offset negative impact of running slope. Consider pedestrian railing along West Tyvola Road sidewalk near bus to offset negative impacts of running slope.
Obstructions, Debris, Grass, Cracking	No cracking or obstructions were observed during walk audit	
BUS STOPS		
Shelter, Amenities, Design	Bus stop at clinic entrance provides immediate access for transit riders. Both stops are missing shelter and benches. However, both stops are placed in an inviting location. An emergency call box to the Charlotte-Mecklenburg police department is located near VA Clinic stop for added sense of security. The stop located on West Tyvola Road is placed on naturally sloped land and may prove difficult to access for some.	<ul style="list-style-type: none"> Provide shelter with lighting and seating at both VA Clinic bus stops Provide surface for pedestrians to lean against at bus stops. Wayfinding signage with large text should be placed in vicinity of North Charlotte VA Clinic to help transit riders locate West Tyvola bus stop
CROSSWALKS		
ADA, Safety, Refuge	South Charlotte VA is walkable but curb cuts are missing at vital locations which prohibit a complete micro mobility network. There are two missing crosswalks located at a primary internal crossing before reaching Cascade Point Boulevard. Vehicles do not acknowledge pedestrians due to absence of curb cuts at internal crossings. The crossing parallel to Cascade Pointe Boulevard before reaching West Tyvola feels safe, while crossing perpendicular to Cascade Point Boulevard feels too far for universal transit rider accessibility.	<ul style="list-style-type: none"> Install ADA compliant curb ramp at intersection of University East Drive and Back Creek Drive. Consider traffic calming measures along University East Drive such as "speed humps" <i>Reconstruct/position curb cuts at intersection of University East Drive and Back Creek Drive.</i>

MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT



CONCLUSIONS

The Centralina Regional Mobility Management team is committed to creating equitable environments for pedestrians from all walks of life. Many pedestrians have specific mobility needs that should be taken into consideration by planners, stakeholders, and designers of the built environment. The 2016 *Transportation Barriers Study* recommended that stakeholders “identify physical barriers that prevent access to transit stops and major destinations for seniors and people with disabilities” and to “improve pedestrian access to and from transit stops”. Walk audits continue to assess opportunities for improving access to fixed route transportation for older adults and people with disabilities in the greater Charlotte area.



NEXT STEPS:

If you know of other unsafe or problematic areas for pedestrians, cyclists, or transit riders in the greater Charlotte region, then take action! For more information or to schedule a walkability audit in your community, contact:

Katie Kutcher

kkutcher@centralina.org

Centralina Regional Council, (704)-348-2705



RESOURCES

Additional Resources for Walkability Audits



Google Maps

Google Maps is a desktop web mapping service offering satellite imagery, street maps, 360° panoramic views of streets (Street View), real-time traffic conditions (Google Traffic), and route planning for traveling by foot, car, bicycle (in beta), or public transportation.

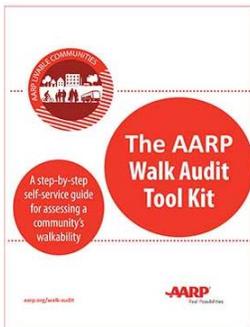
<https://maps.google.com>



MapMyWalk for iPhone or Android

MapMyWalk is a fitness tracking application that provides a built-in GPS in personal mobile devices to track fitness activities. Users can record workout details, including duration, distance, pace, speed, elevation, calories burned, and route traveled on an interactive map. It can effortlessly save and upload user workout data to *MapMyWalk* to allow viewing of route workout data, and comprehensive workout history.

<http://www.mapmywalk.com/app/>



AARP Walk Audit Tool Kit

The "AARP Walk Audit Tool Kit" has been created to help individuals, groups and local leaders assess the walkability of the sidewalks and streets in their community. The walk audit download provides step-by-step instructions and checklists for examining intersections, sidewalks, driver behavior, public safety and more. Since the survey is user-directed, the walk audit can take as little or as much time as desired by, say, spending 15 minutes at one busy corner or devoting several hours to documenting several roadways in a neighborhood.

<http://www.aarp.org/livable-communities/getting-around/info-2014/aarp-sidewalks-and-streets-survey.html>



CharMeck 311

Access city and county services, make online requests 24/7.

<http://charmeck.org/services/Pages/default.aspx>



NCDOT Complete Streets Planning & Design Guidelines

The Complete Streets policy directs the Department of Transportation to consider and incorporate several modes of transportation when building new projects or making improvements to existing infrastructure, in order to:

- Make it easier for travelers to get where they need to go;
- Encourage the use of alternative forms of transportation;
- Build more sustainable communities;
- Increase connectivity between neighborhoods, streets, and transit systems; and
- Improve safety for pedestrians, cyclists, and motorists.

http://www.completestreetsnc.org/wp-content/themes/CompleteStreets_Custom/pdfs/NCDOT-Complete-Streets-Planning-Design-Guidelines.pdf



ADA Standards for Accessible Design

Each facility or part of a facility constructed by, on behalf of, or for the use of a public entity shall be designed and constructed in such manner that the facility or part of the facility is readily accessible to and usable by individuals with disabilities, if the construction was commenced after January 26, 1992.

https://www.ada.gov/2010ADASTandards_index.htm

APPENDICES

Walk2Transit: Walkability Audit

Participant(s): Matthew Gallman

Route: Eastway Regional Recreation Center

Date: 03/08/2021 Time Started: 2:30 PM Time Finished: 3:10 PM



Route:

Location 1: Walking along road away from future Eastway Regional Recreation Center

Location 2: Walking along Eastway Drive (South)

Location 3: Eastway Plaza northern crossing

Location 4: Eastway Plaza southern crossing

Location 5: Bus stops at Eastway Plaza

Location 6: Walking along Eastway Drive (North)

Location 7: Crossing in front of Atrium Health

Location 8: Bus stops near Atrium Health

Location 1: Walking along road away from future Eastway Regional Recreation Center

- Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? **Y** **N**

Notes:

- Is there a sufficient buffer between sidewalks and traffic? **Y** **N**

Notes:

- Does the street include sufficient lighting? **Y** **N**

Notes:

- Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? **Y** **N**

Notes: Street trees add sense of place, but vacant lots uninviting and overgrown

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? **Y** **N**

Notes:

- What could make this sidewalk safer for pedestrians, especially those with disabilities? The sidewalk is in excellent condition. ADA compliant street furniture should be provided.

Circle the number that corresponds with the condition of this section of sidewalk:

- 1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult
- 2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks
- 3- fair – minor root uplifting, minor cracks or breaks
- 4- good – not perfect but no immediate repair
- 5- cosmetically excellent; new

Location 2: Walking along Eastway Drive (south)

- Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? **Y N**

Notes: Sidewalk 4 ft.

- Is there a sufficient buffer between sidewalks and traffic? **Y N**

Notes: Limited buffering on both sides of Eastway Drive.

- Does the street include sufficient lighting? **Y N**

Notes:

- Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? **Y N**

Notes: No, located near CSX overpass with overgrown shrubbery and in need of litter control.

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? **Y N**

Notes: Moving south, sidewalk slope may be a challenge to individuals with disabilities.

- What could make this sidewalk safer for pedestrians, especially those with disabilities? Increased walking width on both sides of Eastway Dr. to better align with adequate width of Eastway Park Drive.

Circle the number that corresponds with the condition of this section of sidewalk:

MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT

- 1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult
- 2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks
- 3- fair – minor root uplifting, minor cracks or breaks
- 4- good – not perfect but no immediate repair
- 5- cosmetically excellent; new

Location 3: Eastway Plaza northern crossing

- Does the crossing distance feel comfortable? **Y** N

Notes: Although the road is very wide with high rates of speed, refuge substantially boosts confidence to cross street.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? **Y** N

Notes: Refuge crossing is new, and in very good condition/ADA Compliant

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree **Agree** Neutral Disagree Strongly Disagree

- Could anything be done to make this crossing better? (Please be specific.)
Add reflective paint/thermoplastic to augment refuge. Add crosswalk signal.

Location 4: Eastway Plaza southern crossing

- Does the crossing distance feel comfortable? Y **N**

Notes: Crossing adjacent to Eastway Drive has mild cracking but crossing distance is comfortable. Crossing perpendicular to Eastway Drive is arduous with no signal/assistance. Continuous traffic flow may prove difficult for persons with disabilities.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? **Y** N

Notes: Yes, but only on one side of Eastway Drive.

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree Agree Neutral **Disagree** Strongly Disagree

- Could anything be done to make this crossing better? (Please be specific.)
ADA compliant truncated domes at ramp locations. Pedestrian crossing signs to indicate to motorists.

Location 5: Bus stops at Eastway Plaza

- Is there safe and convenient access to bus stops? **Y** N

Notes: Location is good, but only wheelchair friendly on one side of Eastway Drive. Alternate bus stop is located on opposing side of buffer, and not convenient for wheelchair/individuals with disability.

- Do transit stops offer an inviting place to wait? Y **N**

Notes: Shelters needed at transit stop. Receptacle placement is questionable.

- Are there sufficient opportunities for transit riders to cross the street near transit stop? **Y** N

Notes: Yes, but improvements needed.

- Do you agree with the following statement? “This transit stop is accessible and comfortable for people with disabilities.”

Strongly Agree Agree **Neutral** Disagree Strongly Disagree

MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT

Notes:

- Could anything be done to improve transit access, especially for people with disabilities? (Please be specific.)

Ensure that that all street furniture and other obstacles are out of the travel path of pedestrians. Provide shelter lighting.

What type of lighting is available? (circle all that apply)

- Street light
- Shelter lighting
- Outside light on adjacent building
- No lighting
- Other (specify):

Location 6: Walking along Eastway Drive (north)

- Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? Y **N**

Notes: 4 ft.

- Is there a sufficient buffer between sidewalks and traffic? Y **N**

Notes: On both sides of street, limited buffering in relation to traffic speeds.

- Does the street include sufficient lighting? **Y** N

Notes:

- Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? Y **N**

Notes: No, located near CSX overpass with overgrown shrubbery and in need of litter control.

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? Y **N**

Notes: Sidewalk is even but substantial slope due to CSX overpass

- What could make this sidewalk safer for pedestrians, especially those with disabilities? Pockets of overgrown shrubbery exist. Ensure sidewalks free of shrubbery on both sides of Eastway Drive. Consider safety rails along sidewalk due to adjacent topography/elevations

Circle the number that corresponds with the condition of this section of sidewalk:

- 1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult
- 2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks
- 3- fair – minor root uplifting, minor cracks or breaks
- 4- good – not perfect but no immediate repair
- 5- cosmetically excellent; new

Location 7: Crossing in front of Atrium Health

- Does the crossing distance feel comfortable? Y **N**

Notes: Occurs immediately after slope, may not be comfortable for individuals using wheelchair.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? Y **N**

Notes: Cross markings exist with no textured panels.

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? Y **N**

Notes: Residential fence exists in sight triangle.

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree Agree Neutral **Disagree** Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)
Provide for redesigned/repositioned ADA ramps.

Location 8: Bus stops near Atrium Health

- Is there safe and convenient access to bus stops? **Y** N

Notes:

- Do transit stops offer an inviting place to wait? **Y** N

Notes:

- Are there sufficient opportunities for transit riders to cross the street near transit stop? **Y** N

Notes: Crosswalk paint fading, but in good condition. Although bus shelter on single side of street, pedestrians should feel comfortable switching sides during inclement weather.

- Do you agree with the following statement? “This transit stop is accessible and comfortable for people with disabilities.”

Strongly Agree **Agree** Neutral Disagree Strongly Disagree

Notes:

- Could anything be done to improve transit access, especially for people with disabilities? (Please be specific.)

Ensure items such as trash receptacles properly placed and secured to provide for most equitable conditions for pedestrians.

What type of lighting is available? (circle all that apply)

- **Street light**
- Shelter lighting
- Outside light on adjacent building
- No lighting
- Other (specify):

Driver Behavior (circle one):

- Do drivers appear to be obeying the speed limit? Y **N**
- Are drivers yielding to pedestrians (especially turning drivers)? **Y** N
- Are drivers paying attention to the road (e.g. not using a cell phone)? Y **N**
- Do you agree with the following statement? “Driver behavior in this location is accommodating to pedestrians and bicyclists.”

Strongly Agree Agree Neutral **Disagree** Strongly Disagree

Recommendations

- Install ADA compliant curb ramps
- Clean sidewalks
- Provide for proper placement of trash receptacles
- Consider additional traffic calming measures

Other Comments

Location in overall decent condition with room for improvement. Pedestrians may not feel like a priority while walking along Eastway Drive.

Walk2Transit: Walkability Audit

Participant(s): Matthew Gallman

Route: David. B Waymer Community Park

Date: 03/08/2021 Time Started: 01:30 PM Time Finished: 2:05 PM



Route:

Location 1: Walking along Holbrooks Road away from David. B. Waymer Community Park

Location 2: Crossing Central Avenue

Location 3: Crossing S. Church Street

Location 4: Crossing Old Statesville Road (Intersection of Monteith Grove Drive/Holbrooks Road and Old Statesville Road)

Location 5: Bus stop on Old Statesville Road (north)

Location 6: Walking along Old Statesville Road (south)

Location 7: Crossing at Dr. Seay Drive

Location 8: Crossing Verhoeff Drive

Location 9: Bus stops on Old Statesville Road (south)

Location 1: Walking along Holbrooks Road away from David. B. Waymer Community Park

• Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? **Y** **N**

Notes: No, sidewalk 4ft. wide

• Is there a sufficient buffer between sidewalks and traffic? **Y** **N**

Notes: No buffer between sidewalk and street

• Does the street include sufficient lighting? **Y** **N**

Notes: Lighting on opposite side of street only (no sidewalk on opposite side). May or may not sufficiently illuminate both sides of street

• Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? **Y** **N**

Notes: Houses close to/intertwined with walking path adds warmth to area.

MOBILITY MANAGEMENT WALKABILITY TO TRANSIT REPORT

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? **Y** **N**

Notes: Mild cracking exists.

- What could make this sidewalk safer for pedestrians, especially those with disabilities? Clear debris from sidewalk, smoothen sidewalk areas disturbed by tree roots.

Circle the number that corresponds with the condition of this section of sidewalk:

1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult

2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks

3- fair – minor root uplifting, minor cracks or breaks

4- good – not perfect but no immediate repair

5- cosmetically excellent; new

Location 2: Crossing Central Avenue

- Does the crossing distance feel comfortable? **Y** **N**

Notes: This area does not feel designed for any form of traffic besides vehicular traffic.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? **Y** **N**

Notes: Yes, but only on single side where sidewalk exist. Sidewalk missing on all other sides.

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** **N**

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree Agree Neutral Disagree **Strongly Disagree**

- Could anything be done to make this crossing better? (Please be specific.)
Significant gaps in sidewalk begin at intersection. ADA compliant sidewalk should be added to crosswalk.

Location 3: Crossing S. Church Street

- Does the crossing distance feel comfortable? Y **N**

Notes: No crosswalks exist

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? Y **N**

Notes:

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? Y **N**

Notes: Boom barriers for oncoming trains block the site of oncoming vehicles to see pedestrians.

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree Agree Neutral Disagree **Strongly Disagree**

Could anything be done to make this crossing better? (Please be specific.)
ADA compliant sidewalks need to be installed with appropriate crossing features such as truncated ramps and crosswalk painting for pedestrians.

Location 4: Crossing Old Statesville Road (Intersection of Monteith Grove Drive/Holbrooks Road and Old Statesville Road)

- Does the crossing distance feel comfortable? Y **N**

Notes: No sidewalk leading up to crossing.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? Y **N**

Notes: Only on opposite side where sidewalks exist.

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes: Yes, but no sidewalk on one side.

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree **Agree** **Neutral** **Disagree** **Strongly Disagree**

Could anything be done to make this crossing better? (Please be specific.)

Install new sidewalk and corresponding ADA compliant crosswalk

Location 5: Bus stop on Old Statesville Road (north)

- Is there safe and convenient access to bus stops? **Y** N

Notes: Convenient, but safety is questionable due to existing sidewalk gaps.

- Do transit stops offer an inviting place to wait? **Y** N

Notes: Location is desolate, but kempt.

- Are there sufficient opportunities for transit riders to cross the street near transit stop? **Y** **N**

Notes: Crosswalk near, but insufficient

- Do you agree with the following statement? “This transit stop is accessible and comfortable for people with disabilities.”

Strongly Agree **Agree** **Neutral** **Disagree** **Strongly Disagree**

Notes:

- Could anything be done to improve transit access, especially for people with disabilities? (Please be specific.)

Add shelter, waiting pad (one side) and lighting (both sides)

What type of lighting is available? (circle all that apply)

- Street light
- Shelter lighting
- Outside light on adjacent building
- **No lighting**
- Other (specify):

Location 6: Walking along Old Statesville Road (south)

- Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? **Y** **N**

Notes: Sidewalk in good condition but only exists on one side of street.

- Is there a sufficient buffer between sidewalks and traffic? **Y** **N**

Notes: Yes, bike lane, curb and buffer strip.

- Does the street include sufficient lighting? **Y** **N**

Notes:

- Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? **Y** **N**

Notes: Desolate landscape

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? **Y** **N**

Notes: Sidewalks in very good condition

- What could make this sidewalk safer for pedestrians, especially those with disabilities?

Because of the desolate location, wayfinding signage would prove extremely helpful for pedestrian feeling of safety in this area.

Circle the number that corresponds with the condition of this section of sidewalk:

- 1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult
- 2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks
- 3- fair – minor root uplifting, minor cracks or breaks
- 4- good – not perfect but no immediate repair
- 5- cosmetically excellent; new

Location 7: Crossing at Dr. Seay Drive

- Does the crossing distance feel comfortable? Y N

Notes:

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? Y N

Notes: Sidewalk gap, no crosswalks exist at location.

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? Y N

Notes: Utility poles, signage and large bushes exist in locations that obstruct driver view.

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree Agree Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Crossing distance is fine. Site has no pedestrian infrastructure.

Location 8: Crossing at Verhoeff Drive

- Does the crossing distance feel comfortable? **Y** N

Notes: Crossing feels safe. Also has timed pedestrian crossing signal installed.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? **Y** N

Notes: Wheelchair ramp with truncated dome plates installed.

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree **Agree** Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Consider audible signals in addition to the visual signals for visually impaired pedestrians.

Location 9: Bus stop on Old Statesville Road (south)

- Is there safe and convenient access to bus stops? Y **N**

Notes: Bus stop missing shelter and

- Do transit stops offer an inviting place to wait? Y **N**

Notes: Broken bench, grass waiting area, no shelter.

- Are there sufficient opportunities for transit riders to cross the street near transit stop? Y **N**

Notes: No, sidewalk gaps between crosswalk and transit stop

- Do you agree with the following statement? “This transit stop is accessible and comfortable for people with disabilities.”

Strongly Agree Agree Neutral **Disagree** Strongly Disagree

Notes:

- Could anything be done to improve transit access, especially for people with disabilities? (Please be specific.)

Include shelter, additional lighting, install sidewalk/waiting area for wheelchairs etc.

What type of lighting is available? (circle all that apply)

- **Street light**
- Shelter lighting
- Outside light on adjacent building
- No lighting
- Other (specify):

Driver Behavior (circle one):

- Do drivers appear to be obeying the speed limit? **Y** N
- Are drivers yielding to pedestrians (especially turning drivers)? Y **N**
- Are drivers paying attention to the road (e.g. not using a cell phone)? **Y** N
- Do you agree with the following statement? “Driver behavior in this location is accommodating to pedestrians and bicyclists.”

Strongly Agree **Agree** **Neutral** **Disagree** **Strongly Disagree**

Recommendations

Repair upheaved sidewalk

Install ADA compliant crosswalks and curb cuts

Remove barriers that hinder visibility of vehicles on Dr. Seay Drive

Install new pedestrian furniture

Relocate bus stops, too close to street

Other Comments

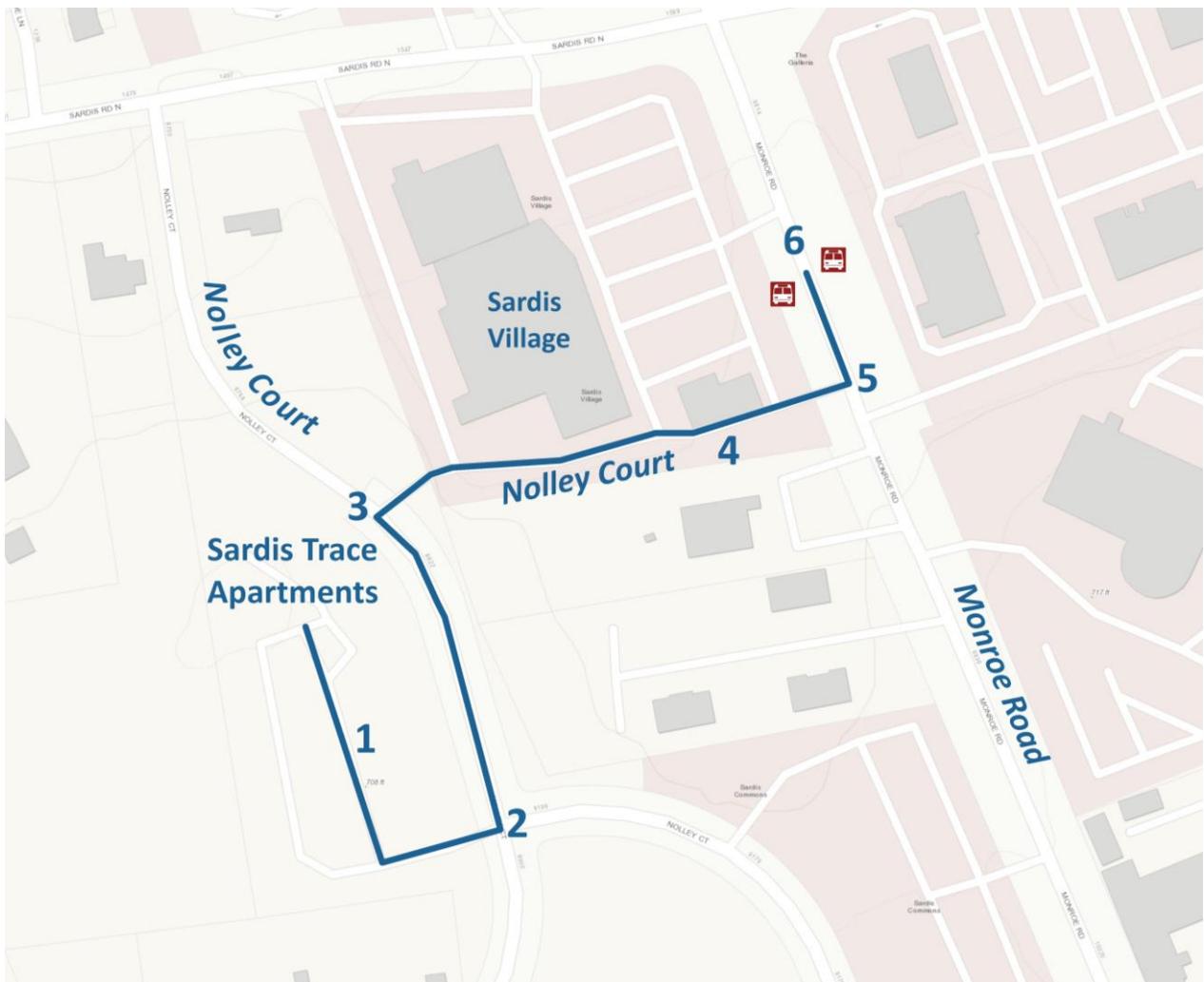
Missing crosswalks and sidewalks primary barrier to walkability

Walk2Transit: Walkability Audit

Participant(s): Matthew Gallman

Route: Sardis Trace Apartments

Date: 03/14/2021 Time Started: 10:00 AM Time Finished: 10:25 AM



Route:

Location 1: Walking along Nolley Court away from Sardis Trace Apartments

Location 2: Crossing to east side of Nolley Court (1)

Location 3: Crossing to east side of Nolley Court (2)

Location 4: Walking along Nolley Court near Sardis Village

Location 5: Crossing Monroe Road

Location 6: Bus stops on Monroe Road

Location 1: Walking along Nolley Court away from Sardis Trace Apartments

- Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? **Y** **N**

Notes: Sidewalks in great condition, no improvements needed

- Is there a sufficient buffer between sidewalks and traffic? **Y** **N**

Notes: Sidewalk Located in parking lot

- Does the street include sufficient lighting? **Y** **N**

Notes: Parking lot lighting provided

- Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? **Y** **N**

Notes:

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? **Y** **N**

Notes:

- What could make this sidewalk safer for pedestrians, especially those with disabilities?

Sidewalk in good condition

Circle the number that corresponds with the condition of this section of sidewalk:

- 1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult
- 2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks
- 3- fair – minor root uplifting, minor cracks or breaks
- 4- good – not perfect but no immediate repair
- 5- **cosmetically excellent; new**

Location 2: Crossing to east side of Nolley Court (1)

- Does the crossing distance feel comfortable? **Y** N

Notes:

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? **Y** N

Notes:

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree Agree Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Location 3: Crossing to east side of Nolley Court (2)

- Does the crossing distance feel comfortable? **Y** N

Notes:

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? **Y** N

Notes:

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree Agree Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Location 4: Walking along Nolley Court near Sardis Village

- Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? **Y** **N**

Notes: 4ft but otherwise, in great condition.

- Is there a sufficient buffer between sidewalks and traffic? **Y** **N**

Notes: No buffer exists, but low traffic speed. Extreme running slope.

- Does the street include sufficient lighting? **Y** **N**

Notes: Lighting provided behind buildings

- Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? **Y** **N**

Notes:

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? **Y** **N**

Notes: Extreme sidewalk gap(s) exist.

- What could make this sidewalk safer for pedestrians, especially those with disabilities? Install handrail along extremely sloped sidewalk area.

Circle the number that corresponds with the condition of this section of sidewalk:

- 1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult
- 2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks
- 3- fair – minor root uplifting, minor cracks or breaks
- 4- good – not perfect but no immediate repair
- 5- cosmetically excellent; new

Location 5: Crossing Monroe Road

- Does the crossing distance feel comfortable? Y N

Notes: Crossing feels comfortable parallel Monroe Rd. Perpendicular to Monroe Rd feels extremely dangerous.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? Y N

Notes:

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? Y N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree Agree Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Pedestrian ramp placement should be reconsidered, curb cuts repositioned to help individuals using wheelchairs.

Location 6: Bus stops on Monroe Road

- Is there safe and convenient access to bus stops? **Y** N

Notes: Bus stops in inviting location, but close to road.

- Do transit stops offer an inviting place to wait? **Y** N

Notes:

- Are there sufficient opportunities for transit riders to cross the street near transit stop? **Y** N

Notes: Crosswalk located approximately 250ft from stop. Should not be a problem for individuals to cross street.

- Do you agree with the following statement? “This transit stop is accessible and comfortable for people with disabilities.”

Strongly Agree **Agree** **Neutral** **Disagree** **Strongly Disagree**

Notes:

- Could anything be done to improve transit access, especially for people with disabilities? (Please be specific.)

Add shelter and trash receptacles to both sides of road.

What type of lighting is available? (circle all that apply)

- Street light
- Shelter lighting
- Outside light on adjacent building
- No lighting
- Other (specify):

Driver Behavior (circle one):

- Do drivers appear to be obeying the speed limit? Y **N**
- Are drivers yielding to pedestrians (especially turning drivers)? **Y** N
- Are drivers paying attention to the road (e.g. not using a cell phone)? Y **N**
- Do you agree with the following statement? “Driver behavior in this location is accommodating to pedestrians and bicyclists.”

Strongly Agree **Agree** **Neutral** **Disagree** **Strongly Disagree**

Recommendations

Install ADA compliant crosswalk at intersection of Monroe Road and Nolley Court

Install additional sidewalk to remedy gaps in sidewalk

Bus shelters with lighting needed on Monroe Road.

Other Comments

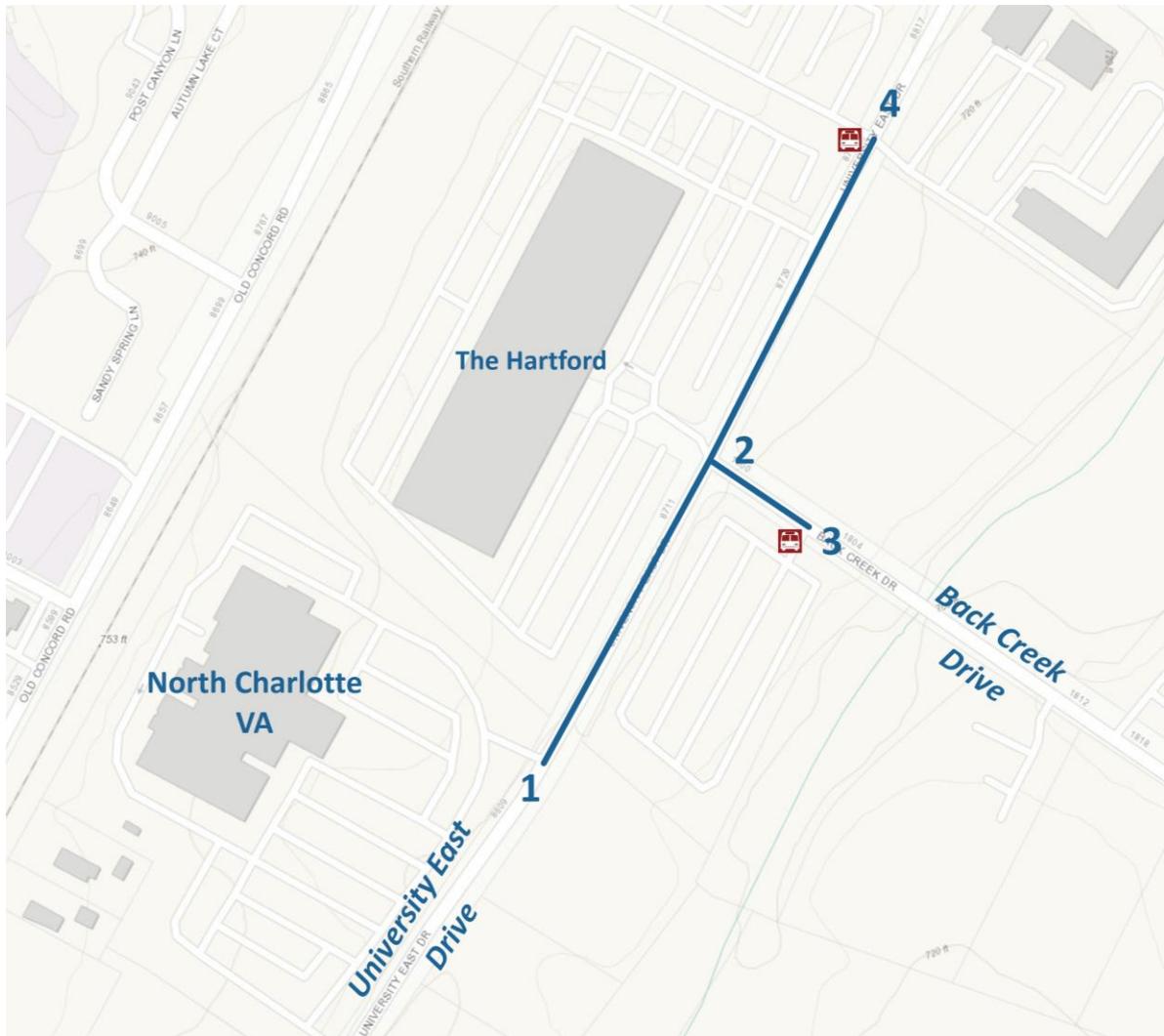
Overall great walkability. Running slope along Nolley Court could prove difficult for individuals with limited mobility.

Walk2Transit: Walkability Audit

Participant(s): Matthew Gallman

Route: North Charlotte VA Clinic

Date: 03/14/2021 Time Started: 01:00 PM Time Finished: 01:15 PM



Route:

Location 1: Walking along University East Drive away from North Charlotte VA Clinic

Location 2: Crossing University East Drive

Location 3: Bus stop on Back Creek Drive

Location 4: Bus stop on University East Drive

Location 1: Walking along University East Drive away from North Charlotte VA Clinic

- Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? **Y** **N**

Notes: 4ft. Sidewalks in great condition

- Is there a sufficient buffer between sidewalks and traffic? **Y** **N**

Notes:

- Does the street include sufficient lighting? **Y** **N**

Notes:

- Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? **Y** **N**

Notes: The adjacent land uses do not feel as if this area is pedestrian friendly. Empty buildings and seemingly abandoned lots.

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? **Y** **N**

Notes:

- What could make this sidewalk safer for pedestrians, especially those with disabilities?

Sidewalk is in good condition. Possibly traffic calming measures such as speed bumps.

Circle the number that corresponds with the condition of this section of sidewalk:

- 1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult
- 2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks
- 3- fair – minor root uplifting, minor cracks or breaks
- 4- good – not perfect but no immediate repair
- 5- cosmetically excellent; new

Location 2: Crossing University East Drive

- Does the crossing distance feel comfortable? Y **N**

Notes: North crossing is awkwardly positioned, sloped at odd angle.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? Y **N**

Notes: The crossing has wheelchair ramps but is missing textured panels on northernmost side.

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree **Agree** Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Location 3: Bus stop on Back Creek Drive

- Is there safe and convenient access to bus stops? **Y** N

Notes:

- Do transit stops offer an inviting place to wait? **Y** N

Notes:

- Are there sufficient opportunities for transit riders to cross the street near transit stop? **Y** N

Notes:

- Do you agree with the following statement? “This transit stop is accessible and comfortable for people with disabilities.”

Strongly Agree Agree Neutral Disagree Strongly Disagree

Notes:

- Could anything be done to improve transit access, especially for people with disabilities? (Please be specific.)

Provide additional lighting to shelter.

What type of lighting is available? (circle all that apply)

- **Street light**
- Shelter lighting
- Outside light on adjacent building
- No lighting
- Other (specify):

Location 4: Bus stop on University East Drive

- Is there safe and convenient access to bus stops? **Y** N

Notes: Location is safe, but convenience is questionable.

- Do transit stops offer an inviting place to wait? **Y** N

Notes: Adjacent businesses add to sense of place.

- Are there sufficient opportunities for transit riders to cross the street near transit stop? **Y** N

Notes:

- Do you agree with the following statement? “This transit stop is accessible and comfortable for people with disabilities.”

Strongly Agree **Agree** Neutral Disagree Strongly Disagree

Notes:

- Could anything be done to improve transit access, especially for people with disabilities? (Please be specific.)

Shelter should be provided with trash receptacles.

What type of lighting is available? (circle all that apply)

- **Street light**
- Shelter lighting
- Outside light on adjacent building
- No lighting
- Other (specify):

Driver Behavior (circle one):

- Do drivers appear to be obeying the speed limit? Y **N**
- Are drivers yielding to pedestrians (especially turning drivers)? Y **N**
- Are drivers paying attention to the road (e.g. not using a cell phone)? Y **N**
- Do you agree with the following statement? “Driver behavior in this location is accommodating to pedestrians and bicyclists.”

Strongly Agree Agree Neutral **Disagree** Strongly Disagree

Recommendations

Traffic calming measures are necessary

Redesign curb cuts at intersection of Back Creek Drive and East University Drive

Consider collaborating with property owners

Other Comments

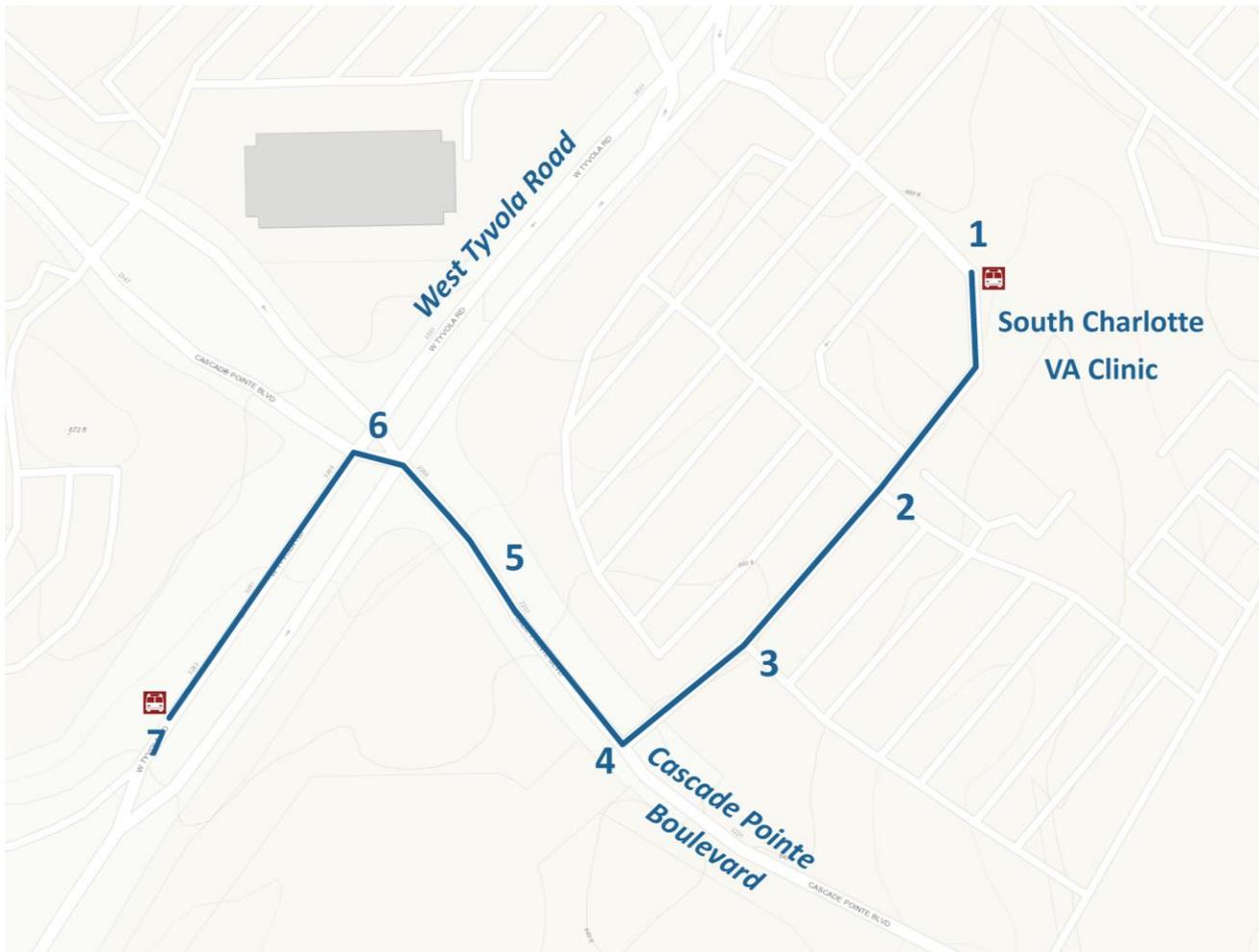
Overall, area is in good conditions with minor improvements needed to make this a pedestrian friendly community

Walk2Transit: Walkability Audit

Participant(s): Matthew Gallman

Route: South Charlotte VA Clinic

Date: 03/14/2021 Time Started: 3:00 PM Time Finished: 3:30 PM



Route:

Location 1: Walking along access road away from South Charlotte VA Clinic

Location 2: South Charlotte VA Clinic internal crossing (north)

Location 3: South Charlotte VA Clinic internal crossing (south)

Location 4: Crossing Cascade Pointe Boulevard

Location 5: Walking along Cascade Pointe Boulevard

Location 6: Crossing West Tyvola Road

Location 7: Bus stop on West Tyvola Road

Location 1: Walking along access road away from South Charlotte VA Clinic

- Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? **Y** N

Notes:

- Is there a sufficient buffer between sidewalks and traffic? **Y** N

Notes:

- Does the street include sufficient lighting? **Y** N

Notes:

- Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? **Y** N

Notes: Adjacent land uses are overshadowed by expansiveness of VA

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? **Y** **N**

Notes: **No, Sidewalk in great condition**

- What could make this sidewalk safer for pedestrians, especially those with disabilities?

Additional pedestrian furniture.

Circle the number that corresponds with the condition of this section of sidewalk:

- 1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult
- 2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks
- 3- fair – minor root uplifting, minor cracks or breaks
- 4- good – not perfect but no immediate repair
- 5- cosmetically excellent; new

Location 2: South Charlotte VA Clinic internal crossing (north)

- Does the crossing distance feel comfortable? **Y** N

Notes:

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? **Y** **N**

Notes: **Curb-cuts missing in vital location(s)**

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree **Agree** Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Resurface crosswalk

Location 3: South Charlotte VA Clinic internal crossing (south)

- Does the crossing distance feel comfortable? **Y** N

Notes:

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? Y **N**

Notes:

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree **Agree** Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Possibly install crossing sign so vehicles do not stop on crossing.

Location 4: Crossing Cascade Pointe Boulevard

- Does the crossing distance feel comfortable? Y N

Notes: Crossing parallel to Cascade Pointe feels safe. Crossing perpendicular to cascade point feels too far for persons with disabilities.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? Y N

Notes:

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? Y N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree Agree Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Location 5: Walking along Cascade Pointe Boulevard

- Are the sidewalks wide (at least 6 feet) and in good condition (i.e. no missing or broken panels)? **Y** **N**

Notes: 4ft, in great condition.

- Is there a sufficient buffer between sidewalks and traffic? **Y** **N**

Notes:

- Does the street include sufficient lighting? **Y** **N**

Notes: No street lighting along route

- Do the adjacent land uses add to the sense of place (identity, culture, and character) and support pedestrian activity? **Y** **N**

Notes: Adjacent use still under construction or vacant.

- Are there areas where the sidewalk is uneven, potentially creating trip hazards? **Y** **N**

Notes: Sidewalks in great condition, natural running slope may be difficult for persons with disabilities to navigate.

- What could make this sidewalk safer for pedestrians, especially those with disabilities?

Including measures to mitigate effects of sidewalk slope such as railing.

Circle the number that corresponds with the condition of this section of sidewalk:

1- hazardous – large breaks, cracks, root uplifting, someone could get hurt from normal use or use of a wheelchair would be difficult

2- in poor shape though not hazardous – very rough, some root uplifting, cracks, breaks

3- fair – minor root uplifting, minor cracks or breaks

4- good – not perfect but no immediate repair

5- cosmetically excellent; new

Location 6: Crossing West Tyvola Road

- Does the crossing distance feel comfortable? **Y** N

Notes: All amenities needed for accessibility. Lighting, signaling, rumble strips.

- Does the crossing have wheelchair ramps and textured panels to assist people with disabilities? **Y** N

Notes:

- Is the crossing free of visual obstructions (parked cars, utility poles, etc.) that might block the view of drivers? **Y** N

Notes:

- Do you agree with the following statement? “This crossing is comfortable and inviting for people of all ages and abilities.”

Strongly Agree **Agree** Neutral Disagree Strongly Disagree

Could anything be done to make this crossing better? (Please be specific.)

Consider increased pedestrian crossing timing at all points.

Location 7: Bus stop on West Tyvola Road

- Is there safe and convenient access to bus stops? **Y** N

Notes:

- Do transit stops offer an inviting place to wait? **Y** N

Notes:

- Are there sufficient opportunities for transit riders to cross the street near transit stop? **Y** N

Notes:

- Do you agree with the following statement? “This transit stop is accessible and comfortable for people with disabilities.”

Strongly Agree **Agree** Neutral Disagree Strongly Disagree

Notes:

- Could anything be done to improve transit access, especially for people with disabilities? (Please be specific.)

Shelter and receptacles needed. Pedestrian furniture needed.

What type of lighting is available? (circle all that apply)

- Street light
- Shelter lighting
- Outside light on adjacent building
- No lighting
- Other (specify):

Driver Behavior (circle one):

- Do drivers appear to be obeying the speed limit? Y **N**
- Are drivers yielding to pedestrians (especially turning drivers)? **Y** N
- Are drivers paying attention to the road (e.g. not using a cell phone)? **Y** N
- Do you agree with the following statement? “Driver behavior in this location is accommodating to pedestrians and bicyclists.”
Strongly Agree Agree **Neutral** Disagree Strongly Disagree

Recommendations

- Consider pedestrian hand-rail along Cascade Point Boulevard
- Install crosswalks at all pedestrian intersections
- Bus shelter amenities are needed at both stops

Other Comments

Way finding signage may be needed to help pedestrians locate bus station along West Tyvola Road

Report End

