Burlington Train Station Connectivity Study

October 2017



TABLE OF CONTENTS

E۶	Executive Summary1				
1	Intro	oduct	tion	2	
	1.1	Stud	dy Purpose	2	
	1.2	Stud	dy Process	2	
2	Exis	ting C	Conditions	2	
	2.1	Traiı	n Service	4	
	2.2	Pede	estrian Accommodations	5	
	2.3	Bicy	cle Accommodations	5	
	2.4	Tran	nsit Service	6	
	2.5	Park	king Inventory	9	
	2.6	Priva	ate Providers	9	
3	Stak	eholo	der Outreach	10	
4	Dest	tinati	on Burlington Comprehensive Plan	10	
5	Con	necti	vity strategies	11	
	5.1	Way	/finding	11	
	5.2	Pede	estrian Strategies	12	
	5.3	Bicy	cle Strategies	13	
	5.3.	1	Secured Bicycle Parking	13	
	5.3.2	2	Bicycle Share Program	14	
	5.3.3	3	Bicycle Tourism	15	
	5.4	Auto	omobile Strategies	15	
	5.5	Tran	nsit Strategies	15	
	5.6	Stra	tegies for Private Providers	16	
	5.7	Tech	hnology Strategies	16	
	5.7.	1	Electronic Signage	17	
	5.7.2	2	Smartphone Application	17	
	5.8	Mar	keting Initiatives	18	
6	Reco	omm	endations	18	
A	opendix	(A – 1	Stakeholders	21	
A	Appendix B – Poll Activity Results				



EXECUTIVE SUMMARY

What is this study focusing on?

This study focuses on improving connectivity to and from the Burlington Train Station. Utilizing the rail service at the Burlington Train Station will be more appealing to passengers if the ease of the "first mile" and "last mile" of their trip is improved. This study considers the obstacles and opportunities for the following transportation modes:



What does the terms "first mile" and "last mile" mean?

The terms "first mile" and "last mile" are phrases that are used to describe the initial and final leg of a transportation trip. The "first mile" is the way that a passenger would access the Burlington Train Station before boarding a train (i.e. as a pedestrian on foot, cyclist on bicycle, transit passenger on a bus, or driver in a personal automobile). The "last mile" is the way that a passenger accesses his or her final destination after departing the train.

Who are likely train passengers?

The Burlington Train Station is located in the heart of Downtown Burlington; therefore, the station attracts rail passengers from Alamance and Orange Counties. Potential passengers include residents traveling for work or leisure and students traveling to or from nearby universities. Passengers have the option of arriving and departing from the station using a number of different modes of transportation. Understanding who potential passengers may be and the transportation modes that those passengers may take, helps to guide solutions for connectivity.

What are the future rail initiatives?

NCDOT is working to enhance connectivity throughout the region on all modes. By enhancing connectivity, a greater catchment area will have access to multi-modal transportation opportunities.

The Charlotte to Raleigh Rail Corridor is being incrementally upgraded. NCDOT Rail is working to provide convenience and enhance rider experience. One of the recommendations in the State Rail Plan is to add trips to the Intrastate service by adding a third *Piedmont* roundtrip in 2018. The added trips will greatly improve connectivity throughout the region.



1 INTRODUCTION

1.1 Study Purpose

The NCDOT Rail Division Operations & Facilities Branch hired WSP to study how connectivity could be improved at the Burlington Train Station. It is recognized that the ease of a passenger's "first mile" and "last mile" will influence individual decisions on whether or not to utilize the Amtrak service at the Burlington Train Station. This study The terms "first mile" and "last mile" are phrases that are used to describe the initial and final leg of a trip.

identifies opportunities to improve connections to the Burlington Train Station in an effort to bolster existing and future ridership, on both passenger train and local transit, and expand the potential ridership markets. This station planning effort is the fourth along the Raleigh to Charlotte corridor.

Currently there are three roundtrip Intrastate service serving the Burlington station. Two *Piedmont* routes operating between Charlotte and Raleigh (73/74 and 75/76), as well as the *Carolinian* (79/80), which operates between Charlotte and New York City. One of the recommendations in the State Rail Plan is to add trips to the Intrastate service by adding a third *Piedmont* roundtrip in 2018. By adding four round trips between Charlotte and Raleigh, the added rail trips will greatly improve connectivity throughout the region. With increased rail frequency of service, it is key to plan for improved connectivity around stations along the rail corridor.

1.2 Study Process

The study process consists of a series of tasks, including: reviewing existing information; developing potential connectivity opportunities; and further refining alternatives. Receiving feedback from key stakeholders is an important element of the study process. A stakeholder workshop and a couple of targeted interviews were held to:

- Educate participants on NCDOT initiatives that will benefit the Burlington Train Station, including improved passenger rail service in the near future;
- Assess obstacles that may prevent individuals from choosing to ride the train from Burlington;
- Identify potential passenger markets and points of interest to enhance ridership; and
- Coordinate with local, state and private stakeholders to identify opportunities to improve connectivity.

2 EXISTING CONDITIONS

The Burlington Train Station, shown in **Figures 1** and **2**, is located at 101 North Main Street in Downtown Burlington. During the mid-19th century, the site was once a large locomotive repair shop facility for the North Carolina Railroad (NCRR). In 2003, the building was renovated for offices and the Burlington Train Station. The NCRR-owned building also houses a museum with display panels and a diorama the long history of the site and station, as shown in **Figure 3**.

The passenger waiting room is open daily from 7:00am – 9:30am; 12:00pm – 3:00pm; and 5:00pm – 8:00pm. A NCDOT station attendant is on duty one hour before the train arrives and stays until one-half hour after all train departures. As shown in **Figure 4**, the station provides ample seating. The station waiting room features an automated ticket kiosk and red phone (used to call for a reservation number)





for passengers who wish to purchase their ticket at the station. Checked baggage service is not available at the Burlington Station.



Figure 1: Study Area Map

Figure 2: Burlington Station











Figure 4: Station Waiting Room

There is one track and a side platform located at the Burlington Train Station. The station and platform are Americans with Disabilities Act (ADA) complaint and accessible.

2.1 Train Service

The station is currently served by two Amtrak passenger rail services: the *Piedmont* and the *Carolinian*. The *Piedmont* travels between Charlotte and Raleigh, while the *Carolinian* travels daily between Charlotte and New York City. At the Burlington Train Station, three daily northbound trains stop and three daily southbound trains stop. Train arrivals/departures (effective October 31, 2016) are shown in **Table 1**.

Table 1: Train Times

Northbound	Southbound
9:01 AM Carolinian Train 80	7:55 AM Piedmont Train 73
2:03 PM Piedmont Train 74	12:55 PM Piedmont Train 75
7:18 PM Piedmont Train 76	6:28 PM Carolinian Train 79

During FFY 2016, Amtrak had 23,570 boardings and alightings at the Burlington Station. As a comparison, during the same year the Charlotte Station had 178,749 boardings and alightings, Greensboro Station had 113,638 boardings and alightings, and Raleigh Station had 155,191 boardings and alightings.



2.2 Pedestrian Accommodations

The station is located in Downtown Burlington. To the south of the station there is a marked crosswalk with a median pedestrian refuge at the intersection of E. Webb Avenue and Main Street to provide connectivity to and from the station. Along Main Street, there are sidewalks leading up to the intersection, and along E. Webb Avenue, there is a wide sidewalk to connect to downtown Burlington, as shown in **Figure 5**. There are not any bicycle lanes or paths in the station area. As shown in **Figure 6**, pedestrians are present heading towards the Train Station.



Figure 6: Pedestrian walking towards Train Station



2.3 Bicycle Accommodations

Amtrak allows passengers to bring bicycles onboard Trains 73, 74, 75, 76, 79 and 80. Reservations are required because bicycle rack space onboard is limited. There are no bike charges for the *Piedmont* trains (73/74 and 75/76). However, Amtrak charges a nominal fee for bikes on the *Carolinian* (79/80) north of Selma, NC.

Currently, there are no bike racks located at the Train Station.





2.4 Transit Service

The LINK Bus Terminal is located across from the Train Station and E. Webb Avenue along S. Church Street, as shown in **Figure 7**. When passengers exit the train, they must walk along Main Street, cross E. Webb Avenue along the unsignalized crosswalk, to S. Church Street. It is approximately 5-minute walk. However, there is a transit stop for the Purple Line next to the Train Station, with signage, as shown in **Figure 8**.

LINX operates five fixed-route services that stop at this terminal, as shown in **Figure 9**. The Purple Route is the only one that directly serves the Train Station. Transit service operates Monday through Friday from 5:30 a.m. to 6:30 p.m. Currently it does not run on Saturdays, Sundays or holidays. LINK does have a real-time feature, as riders can track the buses in real time: http://linktransit.transloc.com/











Figure 9: Burlington Transit System and PART Fixed Routes

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The northbound and southbound trains' headways compared to the transit headways for Monday through Friday are shown in **Table 2**. Regular transit service ends prior to the arrival of the *Piedmont* Train 76 (7:18PM) and the *Carolinian* Train 79 (6:28PM).

Anotrok	LINK
Аттак	Purple Line
	6:06 AM
	6:35 AM
	7:49 AM
7:55 AM	
	8:05 AM
9:01 AM	9:21 AM
	9:35 AM
	10:49 AM
	11:05 AM
	12:21 PM
	12:35 PM
12:55 PM	
	1:49 PM
2:03 PM	2:05 PM
	3:16 PM
	3:35 PM
	4:49 PM
	5:05 PM
	6:16 PM
6:28 PM	
7:18 PM	

Table 2: Monda	y — Friday	Train and	Transit	Service





2.5 Parking Inventory

There are ample parking spaces, including handicap spaces, adjacent to the station for Amtrak passengers. Signage is posted that states the parking is for the train station, as shown in **Figure 10**.

Based on information provided by the NCDOT train station attendees, parking is always available. Infrequently customers of the nearby business utilize the train station parking spaces.

2.6 Private Providers

Private transportation providers (Uber, Lyft and Taxi) have the ability to complement personal automobiles, bicycles, and public transit as a convenient way to arrive and depart the Burlington Train Station. There are a few taxi companies operating in Burlington, which are licensed by the City to operate. Uber is also available in Burlington.

There is a pick-up/drop-off lane adjacent to the entrance of the station. Private providers may use this loading lane while waiting for passengers as shown in **Figure 11**.

Figure 11: Loading Lane Adjacent to Train Station

In addition to the traditional private providers, rental car companies provide another option for passengers.

Enterprise Rent-A-Car, Hertz, and Community Rental Car are rental companies located in Burlington.

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3 STAKEHOLDER OUTREACH

A workshop was held on July 12, 2017 to expedite the collaboration process for this effort. The workshop provided an opportunity to educate stakeholders about rail initiatives that will impact future ridership at the Burlington Train Station.

Data has shown that improving "first mile" and "last mile" connections is important to growing ridership. Multi-modal linkages are increasingly important, especially as rail service expands. The workshop provided an opportunity to discuss potential connectivity enhancements to the Burlington Train Station that could bolster existing and future ridership on passenger train and local transit. Representatives from various agencies reported on their future initiatives and desired wish list.

Additional meetings with stakeholders were requested during the study process. The following meetings were held:

- September 11, 2017 conversations were held with NCDOT Division of Highways regarding the intersection of Webb Ave. and Main Street. It was determined that NCDOT will conduct a traffic signal study at Webb Ave. and Main Street.
- September 13, 2017 meeting was held with the City of Burlington Transportation Planning Department to discuss LINK Transit operations and overall Burlington issues and needs.
- October 10, 2017 meeting was held with Elon University to discuss student transportation and potential marketing opportunities and point of contact. It was determined that a multi-use path will be constructed from Elon University to Downtown Burlington in the future.

4 DESTINATION BURLINGTON COMPREHENSIVE PLAN

Burlington recently completed a comprehensive plan in 2015 to shape the city's vision for the next 20 years. Transportation goals revolved around improving equitable access to community services and amenities through public transit and focus on multi-modal complete streets. These goals complement the intent of improving the first mile/last mile needs of Burlington and their Train Station. This is especially applicable per the recommendation in locating a central "hub" transit terminal in downtown to serve passenger rail, ACTA, taxis, the LINK system, and carpools. In addition, the plan identifies the need to partner with regional transportation authorities in the Triangle and Triad region, along with NCRR, to implement commuter options; such as commuter bus and commuter rail.



5 CONNECTIVITY STRATEGIES

Rail stations represent an important, but not the initial, stage in any particular trip. A station's ability to accommodate various modes of travel can improve or impair its practicality in people's minds. Strengthening the "first mile" and "last mile" makes the station more appealing to potential passengers.

The use of rail travel will normally require a short wait at a station. Within this context, the provision of certain key features (i.e. adequate designated sidewalks, secure bicycle storage points, parking facilities, ample lighting, high-quality waiting areas with bathrooms, and abundant informational signage at regional rail stations) are vital in ensuring that existing riders continue to frequent a station. Perhaps even more important is the influence that these features can have in attracting new riders to a station. This concept

is similar to what users experience at an airport. The ability to wait for an inter-city passenger rail train with amenities and the ability to connect to a destination not only enhances ridership, but economic growth.

Strategies to improve connectivity at the Burlington Train Station are in the following subsections.

5.1 Wayfinding

It is important to provide riders with information to navigate from the train station to their next destination or to connect to other modes of transportation. From a rider's perspective, either arriving or departing the train station, the ability to find their way to a taxi, bus, rental car facility, bike facility, or drop-off / pick-up location is key. Adding wayfinding signs within and surrounding the station will enhance a riders experience and provide direction on where to go. A short-term recommendation is to add wayfinding signs to guide passengers to destinations after exiting the train. **Figure 12** and **Figure 13** show examples of the recommended wayfinding signage.

Signage should be placed inside the Burlington Train Station providing the direction to parking, passenger pick-up, and the LINK bus stop on Main St.

Figure 12: Wayfinding Sign Example



Figure 13: Wayfinding Sign Example





5.2 Pedestrian Strategies

Understanding pedestrian characteristics and facilities (e.g., sidewalks, crosswalks, pedestrian signals, etc.) is an important step in providing safe access to transit systems. According to the United States Federal Highway Administration (FHWA) most people are willing to walk five to 10 minutes, or approximately a quarter-mile to a half-mile to a transit station or stop. However, recent research has shown that people may be willing to walk considerably longer distances when accessing passenger rail services. In order to encourage transit usage, safe and convenient pedestrian facilities should be provided within at least a half-mile of transit stops and stations, and rail stations.

Every community has existing pedestrian-friendly routes. Often all that's required to improve their use is providing facilities that allow pedestrians (with luggage) to comfortably encounter the vehicle traffic that crosses their path. Walking complements rail travel when pedestrian facilities provide adequate access to stations. Safe and accessible sidewalks and crosswalks are the backbone of creating a pedestrian-friendly city.

Downtown Burlington has an extensive established sidewalk network. Sidewalks leading up to the station provides handicap access and pedestrian refugee, as shown in **Figure 14** and **Figure 15**. It is recommended that the City and NCDOT Division of Highway conduct a traffic signal warrant study for the intersection of E. Webb Avenue and Main Street in order to determine if a traffic signal with pedestrian signalization can provide a safer pedestrian movement. The study is planned to occur in late 2017/early 2018 per

Figure 14: E. Webb Avenue Median Pedestrian Refugee looking southeast



Figure 15: E. Webb Avenue Median Pedestrian Refugee looking northwest



discussions with NCDOT Division 7.

Pedestrian signal heads (also referred to as pedestrian indicators) assist pedestrian activity within crosswalks by graphically indicating walk, flashing "walk" / "don't walk". Pedestrian signal heads can be added to signalized intersections with pushbuttons or passive detection devices. Push buttons are generally appropriate at locations with low or intermittent pedestrian activity. It is recommended that pedestrian signal heads with push buttons be added to the intersection of E. Webb Avenue and Main Street, if a signal is warranted.

Downtown Burlington's established sidewalks provide for ADA. However, in order to build off of this existing network and promote accessibility, it is recommended that the City ensure all sidewalk surfaces meet ADA standards and meet the needs of a variety of pedestrians, especially in the blocks surrounding the Station. Meeting or exceeding ADA standards will contribute to a better pedestrian environment for all users. ADA standards call for sidewalks to have a continuous surface that is not interrupted by steps or abrupt changes in level and have a slip resistant surface. Enhancing the sidewalk network will improve the pedestrian trip for transit and rail customers accessing the Burlington Train Station.



5.3 Bicycle Strategies

The Burlington Station can be accessed by cyclists from the surrounding neighborhoods. The following alternatives were considered to make it easier for people to access the Burlington Train Station on bicycle, and are discussed in greater detail in the subsequent subsections:

- Provide bicycle parking at the Burlington Train Station, preferably secured bicycle parking;
- Bicycle sharing for passengers who do not have a bicycle upon arrival; and
- Promote bicycle tourism in Burlington.

5.3.1 Secured Bicycle Parking

Currently the Burlington Train Station does not provide bicycle parking (i.e. bike racks). One way to encourage more people to bicycle to the Burlington Train Station is to provide safe bicycle parking.

In a 2013 Voorhees Transportation Center study of rail transit commuters, 71 percent of survey respondents said that the presence of bicycle racks were an important consideration in their decision to bicycle to rail transit stations as part of their commute. Enhancing bicycle racks at the Burlington Train Station is recommended.

The provision of bicycle parking at key destinations (stations, employment centers and commercial) can vastly improve the convenience and reliability of bicycling as a travel mode. Bicycle parking includes both short-term and long-term bicycle parking solutions. The provision of bicycle parking at stations helps expand the catchment area of stations well beyond the range of walking.

Another alternative to consider beyond racks is bicycle lids, which provide significantly greater protection. The advantages of bicycle lids include protection from weather (sun and rain) and protection from component theft. Bicycle lids are off the ground about six inches and allow police to see under with a special mirror. Bicycle lids cost roughly \$2,000 per unit. Bicycle lids provide the added benefit to NCDOT Rail and the City of Burlington from a marketing perspective. Bike lids can be wrapped with advertisements or emulate the Amtrak trains as is the case in the City of Kannapolis as they installed bike lids at the train

Figure 16: Example of Kannapolis Bicycle Lids Wrap



Figure 17: Example of Kannapolis Bicycle Lids Wrap



station, shown in **Figure 16** and **Figure 17**. As with the collaboration between the City of Kannapolis and NCDOT Rail Division, it is recommended that the City of Burlington investigate opportunities to install secure bicycle parking (i.e. bike racks, bike lids) at the station.





5.3.2 Bicycle Share Program

A bicycle library program is typically a volunteer-run community bike project with a mission of getting more people on bikes. They usually receive and repair donated bikes and offer them to the public. Bikes are rented with a deposit and checked out for a certain amount of time (per day, week or month). If a bike is returned in good condition within the checkout period, the deposit will be returned to the user. Alternately, patrons can choose to keep their bikes and forfeit their deposit.

By promoting bicycle facilities, especially for short trips or as connections to longer transit trips, cities can provide residents and visitors with a substantially less expensive alternative to driving. Users benefit from the flexibility of travel within a multimodal transportation system and consist of minimal fees to the responsible bicycle user. When bicycles are used to connect to other forms of transit, the station can better maximize ridership by making the station easily accessible by a variety of travel modes.

A bicycle share system is an automated, public, bicycle rental program comprised of a network of kiosk that house commuter bicycles. For a reasonable membership fee (charged daily, weekly, monthly or annually) users can unlock a bicycle from the kiosk, embark on a journey and return the bicycle to any station within the bicycle share system. An example of a bicycle share is B-Cycle in Charlotte, NC that is shown in Figure 18. Other bike share programs include LimeBike, DecoBikes, and Nice Ride; located at NC State University, Miami, Fl, and Minneapolis, MN; respectively. An example of a dockless bicycle share program (i.e. LimeBike) is shown in Figure 19.



Figure 19: Example of Bicycle Library



By promoting bicycle sharing, especially for short trips or as connections to longer transit trips, cities can provide residents and visitors with a substantially less expensive alternative to driving. Users benefit from the flexibility of travel within a multimodal transportation system and are free of the responsibilities of bicycle ownership and maintenance. When bicycle share programs are used to connect to other forms of transit, the station can better maximize ridership by making the station easily accessible by a variety of travel modes.





It is recommended that a bicycle library or bicycle share program be considered in Downtown Burlington to enhance connectivity. Locations for a library or kiosks could include near the LINK Transit Center, the Burlington Station, City Hall, the Depot, Burlington City Park, the downtown commercial area, and other major destinations. The price for kiosk is approximately \$40,000, including the concrete slab under the kiosk, kiosk component and bicycles; however, prices vary based on number of bicycles and number of kiosks purchased. There are opportunities to recoup costs with partnerships and/or marketing dollars, similar to what the City of Charlotte has done for the B-Cycle program.

5.3.3 Bicycle Tourism

The *Carolinian* and *Piedmont* allow bicycles to be brought onboard the train. Each train has different equipment and loading procedures that dictate what service will be offered. In addition, Burlington Transit System has bike racks on the front of their buses. It is now possible for avid cyclist to take the train to Burlington and spend the day exploring on their bicycle.

Bicycling is a method of tourism transportation that is healthy, non-invasive, environmentally responsible, and economically sustainable. It allows freedom, mobility, and sightseeing potential that is not easily made possible by other modes of transit. The increasing popularity and prominence of bicycle tourism, among both domestic and international travelers, carries great potential for economic benefit to local communities. Positioning the station as an extension of the bicycle tourism industry has the potential to capture a new sector of riders.

In Oregon, with the growing number of bicycle adventures being developed by both the public and private sector, transit providers are responding to meet a growing demand for car-free tourism. This demand is growing because for many people, having to drive a car to their riding destination is a major inconvenience, if not a deal-breaker altogether. Tour groups are offering travel packages to Mt. Hood that market train tickets, on-board bicycle storage, and/or bicycle shuttles.

Partnering with tour companies, major destinations, and local transit agencies to offer comprehensive travel packages that make vacationing without a car easy, accessible, and affordable would ensure that the Burlington Station benefits from this growing market. Train tickets that include the cost of bicycle parking or bicycle rental could be an inventive way to encourage cyclists to ride the train.

5.4 Automobile Strategies

Driving is one of the primary transportation mode choices for rail passengers arriving or departing from the Burlington Train Station. Providing safe, free parking will continue to attract motorists. There are ample parking spaces, including handicap spaces, adjacent to the station for Amtrak riders.

5.5 Transit Strategies

LINK fixed-routes serve the Burlington Train Station, though their transit center is located across E. Webb Street. Wayfinding signs are not present to guide riders to/from transit to rail.

Given that the Burlington Train Station is served by LINK, transfer agreements from the rail service to the transit system have recently been executed to encourage both rail and transit ridership. LINK has an agreement with NCDOT Rail Division and NCDOT Public Transportation Division on a transfer agreement that allows rail passenger to transfer for free to a local transit service.





5.6 Strategies for Private Providers

Tech-enabled ride-hailing services like Uber and Lyft already appear to be acting as a complement to existing transportation modes. This is evidenced by Uber data which shows over the course of a month 22 percent of trips taken near rail stations took place during rush hour (between 7:00 AM - 10:00 AM and 4:00 PM - 7:00 PM Monday through Friday). This finding shows that consumers are likely using Uber as a "last mile" and "first mile" connection.

Private transportation providers have the ability to complement personal automobiles, bicycles, and public transit as a convenient way to arrive and depart the Burlington Train Station. It is recommended that a dedicated area adjacent to the Burlington Train Station be reserved for temporary parking and specifically signed for private transit providers (Uber, Lyft and Taxi) to help with

wayfinding and to highlight service from these private providers as an option. Designating an area for private provider drop-off will reduce congestion in the parking lots. Example of wayfinding signage for private providers is shown in **Figure 19**.

Other transit systems and rail stations in the country have seen success from partnering with the private provider Uber. A new cooperative agreement has been reached with Uber and the Metropolitan Atlanta Rapid Transit Authority (MARTA). The agency did so to improve first-mile and last-mile links, particularly for guaranteed-ride home programs and late night services. MARTA passengers can link directly to Uber's site from the MARTA app while they are using the MARTA system. In turn, Uber drivers have information about when the bus or train will arrive so that the car will be waiting. The Dallas Area Regional Transportation Authority (DART) has implemented a similar model with positive reviews.

Figure 19: Example of Signage for Private Providers



NCDOT Rail Division investigated what it would take to partner with private providers. After vetting the idea with NCDOT's Legal Department, it was determined that the State would be unable to enter into such an agreement because one private provider cannot be favored over another. Since a formal agreement is not an option at this time, it is recommended that NCDOT Rail Division and the City investigate coordination opportunities that will facilitate information sharing with private providers to help market the rail service.

5.7 Technology Strategies

The evolution of technology has had major impacts on all types of transportation. New technology is shaping the quality of how people commute and move around their communities. Integrating technology with the Burlington Train Station in innovative ways enables customers to travel around Burlington more quickly, safely, and efficiently. This has the ability to build passenger confidence in the ease and accessibility of rail travel.





5.7.1 Electronic Signage

Digital signage is quickly replacing static signage in transportation stations. Digital signage displays can assist with wayfinding in and around stations, and in notifying travelers of updated departure times. This easily updated signage can alert passengers of important notifications when the station is unattended and reduces the likelihood that a passenger will miss an important announcement.

Digital signage also ensures that all kinds of people have access to real time information. While mobile phones are useful for updated trip information, not all riders have one. Digital signage shares important information



in a visual way and complements the audible sharing of information by station attendants. Real-time GPS information is currently available for Amtrak service and LINK Transit. It is recommended that screens be added to the Burlington Train Station displaying real-time information on the Amtrak service and transit service, as well as include Amtrak service on the LINK Transit real-time information board inside the transit center.

5.7.2 Smartphone Application

A smartphone application (also referred to as an app) is quickly becoming the favored new ticketing platform. While passengers still must go through Amtrak to purchase a ticket rather than using the NCDOT Rail website, there are many benefits for the passenger and NCDOT Rail to develop a rail app or partner with a company that compiles multiple transportation options into one app.

For users there are no paper tickets to keep track of. Additionally, there is no need to carry cash, count exact change or find a station attendant to purchase a ticket from. Passengers are able to store tickets on your phone for future use. Riders can pay a single ticket or multiple tickets for a group of passengers. The ease of a mobile app is likely to be a favored purchasing method, which would bypass the need for many passengers to call Amtrak directly to purchase tickets. An app is also likely to reduce lines at stations and allow station attendants to work more efficiently.

The app could also incorporate several other user benefits that would make rail a more attractive travel mode. The application could include an interface that allows the user to select their arrival station which would then display all the relevant information for that station, the surrounding area, and transit systems (e.g. LINK).

One example of new apps is DART's recent partnership with Uber to increase the capabilities of their app while addressing the last mile problem. The app prevents users from having to use both DART and Uber's apps. Passengers can now order an Uber ride using its GoPass Mobile Ticketing Application. Buying a ticket and ordering a car is now one-stop shopping.





5.8 Marketing Initiatives

Based on meetings with the stakeholders, it was learned that many groups are willing to assist with marketing initiatives. The universities and colleges were willing to provide information, promotions, and service notifications at their student centers and in student packets. It was recommended that a NCDOT Rail Division representative attend large scale student events to promote rail services, such as at Elon

University. During conversations with Elon University, staff expressed willingness to display promotions on their television screens in the student union building.

Reciprocal marketing between agencies is beneficial. Brochures and an overall service route map for LINK should continue to be displayed at the Burlington Train Station. There may be opportunities for LINK to promote the rail service at their transit centers or on their websites. If an agreement is reached with a private provider (i.e. Uber, Lyft, or a Taxi service) reciprocal marketing would be helpful to potential passengers.





6 RECOMMENDATIONS

This document presents the results of the data gathering effort, brainstorming effort, and stakeholder input. There are a number of different strategies that could improve "first mile" and "last mile" connectivity at the Burlington Train Station, many of which have been considered for the Burlington Train Station. The specific concepts that are recommended for the Burlington Train Station include the following:



Recommendation	Possible Responsible Parties	Suggested Timeframe			
On-Site Strategies	On-Site Strategies				
Add wayfinding signs inside the Train Station to guide passengers to destinations after exiting the train	City of Burlington	Short-term			
Pedestrian Strategies					
Add wayfinding signs in Downtown Burlington showing the Train Station location	City of Burlington	Short-term			
Install traffic signal with pedestrian signals at the intersection of E. Webb Avenue and Main Street, if warranted	City of Burlington; NCDOT	Immediate			
Bicycle Strategies					
Promote bicycle tourism	City of Burlington; NCDOT Highway Division; NCDOT Division of Bicycle and Pedestrian Transportation	Immediate			
Investigate opportunities to install secure bicycle parking (i.e. bike racks, bike lids)	Capital for bike lids from NCDOT Rail Division and installation by City of Burlington.	Short-term			
Evaluate need and opportunity to implement bike share programs	City of Burlington	Long-term			
Transit Strategies					
Transfer agreement between NCDOT Rail Division and local transit agencies	NCDOT Rail; LINK	Agreement executed			
Install real-time displays in Burlington Train Station for LINK Transit	City of Burlington and NCDOT Rail Division	Long-term			
Private Providers					
Create dedicated parking for private providers (e.g. Uber, Lyft, taxi) with appropriate signage	City of Burlington; NCRR	Immediate			
Technology					
Install digital displays (Public Information Display Systems or PIDS) at the train station to show real-time information for the <i>Piedmont</i> , and <i>Carolinian</i> rail service	NCDOT Rail Division	Mid-term			
Explore viability of a new app for rail service	NCDOT Rail Division	Long-term			



Recommendation	Possible Responsible Parties	Suggested Timeframe
Marketing		
Provide rail materials to Elon University on a continual basis to provide rail information, promotions, and service notifications	NCDOT Rail Division; Elon University	Immediate
Partner with Elon University to attend large scale student events to promote rail services	NCDOT Rail Division; Elon University	Immediate
Schedule information to be sent to identified markets to provide information to be utilized via on-campus display boards, websites, social media, and newsletters throughout the year	NCDOT Rail Division; City of Burlington	Immediate
Reciprocal marketing with private providers (if an agreement is reached)	NCDOT Rail Division	Short-term

The next step will be to determine which municipality or agency is the appropriate one to bring each recommendation to fruition. Some of the recommendations are able to be implemented in a quicker time period than others because they require less financial commitment (e.g. sidewalk improvements that can be rolled into other programs) or can be completed within the City or the NCDOT Rail Division with support from the project team (e.g. marketing). While others would require partnerships with multiple funding sources to become reality.



APPENDIX A – STAKEHOLDERS

Organization	Position	Contact	Email
City of Burlington	City Manager	Hardin	hwatkins@ci.burlington.nc.us
		Watkins	
City of Burlington	Engineering		Engineering@ci.burlington.nc.us
	Department		
City of Burlington	Director of Public	Rachel Kelly	rkelly@ci.burlington.nc.us
, .	Policy/PIO	,	
City of Burlington	Director of	Mike Nunn	mnunn@ci.burlington.nc.us
, 3	Transportation		
City of Burlington	Director of Planning &	Amy Nelson	anelson@ci.burlington.nc.us
, 3	Community	,	
	Development		
Alamance County	County Manager	Bryan Hagood	bryan.hagood@alamance-nc.com
Alamance County	Planning	Libby Hodges	libby.hodges@alamance-nc.com
Alamance Chamber of	President	Mac Williams	mac@alamancechamber.com
Commerce			
Burlington-Graham	Transportation	Wannetta	wmallette@ci.burlington.nc.us
Metropolitan Planning	Planning Administrator	Mallette	<u></u>
Organization			
Alamance County	Executive Director	Ralph E.	actaexec@triad.twcbc.com
Transportation Authority		Gilliam	
LINK	Transit Manager	Mike Nunn	mnunn@ci.burlington.nc.us
Piedmont Authority for	Executive Director	Scott Rhine	scottr@partnc.org
, Regional Transportation			
(PART)			
NCDOT Division of Public	Director	Debra Collins	dgcollins1@ncdot.gov
Transportation (PTD)			
NCDOT Division of Public	Assistant Director for	Phillip Vereen	plvereen@ncdot.gov
Transportation (PTD)	Mobility Development		
NCDOT Division of Bicycle	Interim Director	Ed Johnson	erjohnson2@ncdot.gov
and Pedestrian			
Transportation (DBPT)			
NCDOT Division 7	Division Planning	Ed Lewis	elewis@ncdot.gov
	Engineer		
Burlington Downtown	Director	Jessica Pasion	jessica@burlingtondowntown.com
Corporation			
Elon University	Associate Vice	Bob Shea	bshea@elon.edu
	President for Business,		
	Finance, and		
	Technology		
Alamance Community	Director of Public	Edward	Edward.Williams@alamancecc.edu
College	Information/Marketing	Williams	
NCRR	Vice President -	Jim Kessler	jimkessler@ncrr.com
	Engineering		
NCDOT Rail Division	Acting Rail Director	Allan Paul	hapaul@ncdot.gov

The following participants were invited to the July workshop:





Organization	Position	Contact	Email
NCDOT Rail Division	Customer Service	Tim McHugh	tmchugh@ncdot.gov
	Agent		
NCDOT Planning Branch	Rail Planning Manager	Neil Perry	nlperry@ncdot.gov
WSP PB	Project Manager	Scot Sibert	scot.sibert@wsp.com
WSP PB	Public Engagement	Genevieve	g.rubrecht@wsp.com
		Rubrecht	
WSP PB	Planner	Claire Brinkley	Claire.brinkley@wsp.com
Amtrak		Patricia Lusk-	plusk@amtrak.com
		Milan	
Amtrak	Principal Officer	Jay McArthur	jmcarthur@amtrak.com

Point of contact for future marketing efforts at Elon University:

Organization	Position	Contact	Email
Elon University	Director of	Elaine Durr	edurr@elon.edu
	Sustainability		



APPENDIX B – POLL ACTIVITY RESULTS

Participants of the polling activity were able to answer eight questions from their smart phones or electronic devices. The open-ended questions were free response and there were some duplicate answers. The responses were displayed and participants had the ability to vote the responses for (upvote) or against (downvote) the other participants' responses.

Who are potential train riders at the Burlington Train Station?

Responses	Upvotes	Downvotes
Elon parents, students, guest speakers, trustees, visitors	8	0
Citizens of Burlington	2	0
work, recreational, transportation need	2	0
Regional residents	2	0
Businessmen/women	4	1
Business travelers to meetings in cities along route.	2	0
NCA&T students	2	0
Leisure travelers	3	0
Cyclists (touring type)	2	0
Family travel	1	0
Shoppers	1	0
Business people, families, students, senior citizens, school groups,	1	0
Work, visiting	0	0
Prospective downtown investors	1	1
Office workers in downtown Burlington	1	1
Meetings	0	0
Visitors to Burlington	1	0
People wanting easy access and parking	0	0
Employee training and conference attendance	0	0
Athletic event/tournament attendees (softball, baseball, etc.)	0	0



Do current transit facilities meet the needs?

Response options	Count	Percentage
Yes	3	50%
Νο	3	50%

What transit initiatives are planned for Burlington?

Responses	Upvotes	Downvotes
Transit center development	1	0
Sidewalk improvements	1	0
Need more service hours.	0	0
Adding evening hours	0	0
Amenities for train and transit users	0	0
Service hours	0	0
Connectivity to graham, haw river	0	0
Expanded service hours. Better connectivity to the train station. Direct connectivity to Elon.	0	0
Need downtown merchant buy in	0	0
Don't know.	0	0



Responses	Upvotes	Downvotes
Mid block crossing- traffic signal needed	1	0
lack of protected ped access across Webb	0	0
System needed to slow traffic on Webb (i.e., roundabout, walking bridge, etc.)	0	0
Signage to Downtown Burlington (wayfinding)	0	0
No	0	0
Webb Avenue pedestrian crossing safety/ signal.	0	0
Pedestrian amenities	0	0
Need mapping inside depot for Ped info	0	0
Traffic calming	0	0
1 Conduct ada prowag audit all around station block and adjacent block faces; 3 check for ped routes / desire lines that may not coincide with vehicular ways in and out;. Use ped xing assessment tool	0	0
Lighting safety under underpasses	0	0

What are walkability concerns?

Is this station area accessible for handicapped people?

Response options	Count	Percentage
Yes	5	83%
No	1	17%



BY TRAIN

What are bike-ability concerns?

Responses	Upvotes	Downvote
Bike racks at depot	1	0
Crossing tracks & crossing Webb Avenue	0	0
Webb Ave crossing/safety	0	0
Info Signage about bike inside depot	0	0
There are two bike route plans/maps that NCDOT Bike-Ped is aware of, Burlington Park-Way Routes and Alamance Bike Routes	0	0
Crossing the railroad track between Webb and the station	0	0
Adequate and safe bike storage.	0	0
Demand for bikes? 20k annual ridership = 55/day assuming 365 day schedule. How many of those 55 are bikers. What is the target for building ridership? 5-20-50%?	0	0

What bike initiatives are planned for Burlington?

Responses	Upvotes	Downvotes
Bicycle/Greenway Plan underway	0	0
Don't know	0	0
Easy access for bikers in burlington - vs other stations	0	0
Will be building greenness and bikeways soon	0	0

Should accomodations be made for private transportation providers?

Response options	Count	Percentage
Yes	7	88%
No	1	13%

