

KANNAPOLIS STATION CONNECTIVITY STUDY

Submitted To:

**Rail Division
North Carolina Department of Transportation**

Submitted By:

WSP | Parsons Brinckerhoff

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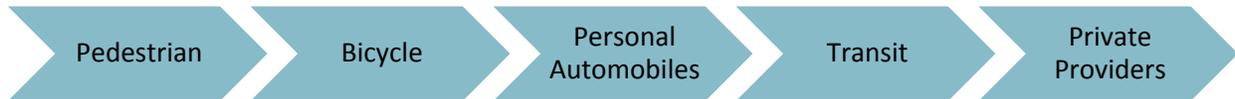
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EXECUTIVE SUMMARY

What is this study focusing on?

This study focuses on improving connectivity to and from the Kannapolis Train Station. Utilizing the rail service at the Kannapolis 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 Kannapolis Train Station before boarding a train (i.e. as a pedestrian on foot, cyclist on bicycle, transit passenger on a bus, or drive in a personal automobile). The “last mile” is the way that a passenger accesses their final destination after departing the train.

Who are likely train passengers?

The Kannapolis Train Station is located in the heart of Downtown Kannapolis; therefore, the station attracts rail passengers from Cabarrus County, northern Mecklenburg County, and southern Rowan County. Potential passengers include residents traveling for work or leisure, students traveling to or from nearby universities, and employees of the North Carolina Research Campus (NCRC). Passengers could arrive and depart 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.

| | |
|--|--|
|  <p>Residents living in the surrounding neighborhood that can access the station as a pedestrian or on a bicycle.</p> |  <p>University students driving their own automobile, asking a friend for a ride, or by contacting a private transportation provider.</p> |
|  <p>Transit riders utilizing CK Rider Brown and Blue Routes, Rowan Express Route, and CCTS demand response service.</p> |  <p>Employees of the North Carolina Research Campus (NCRC) accessing the station as a pedestrian or on a bicycle.</p> |
|  <p>Residents of Cabarrus, northern Mecklenburg, and southern Rowan Counties accessing the station by automobile.</p> |  <p>Visitors spending leisure time at the many attractions and events in the region.</p> |

What are the proposed recommendations?

There are a number of different strategies that could improve “first mile” and “last mile” connectivity at the Kannapolis Train Station, many of which have been considered for the Kannapolis Train Station. The specific concepts that are recommended for the Kannapolis Train Station include the following:

- Pedestrian Strategies:
 - Ensure all sidewalks in the vicinity of the Kannapolis Train Station meet ADA standards;
 - Add pedestrian signal with push buttons to the intersection of Main Street and B Street;
 - Construct a grade separated pedestrian connection from Ridge Avenue to the Kannapolis Train Station;
- Bicycle Strategies:
 - Install secure bicycle parking (e.g. racks or lids);
 - Install bicycle share program;
 - Paint bicycle sharrows and/or construct bicycle lanes on Main Street;
 - Promote bicycle tourism;
- Automotive Strategies:
 - Signage for parking;
 - Construct long-term parking;
- Transit Strategies:
 - Transfer agreement between NCDOT Rail Division and local transit agencies;
 - Provide service along a potential express route;
- Private Providers:
 - Create dedicated parking for private providers (e.g. Uber, Lyft, taxi) and sign to highlight as an option;
 - Investigate having an agreement between NCDOT Rail Division and a private provider;
- Technology:
 - Install digital displays at the train station and within the NCRC complex to show real-time information for the *Piedmont* and the *Carolinian* rail service and CK Rider routes;
 - Explore viability of a new app for rail service;
- Marketing:
 - Provide rail materials to universities and colleges on a continual basis to provide rail information, promotions, and service notifications;
 - Partner with universities and colleges to attend large scale student events to promote rail services;
 - Schedule information to be sent to identified markets to provide information to be utilized via websites, social media, and newsletters throughout the year;
 - Reciprocal marketing with transit entities when available (promote CK Rider in the Station and CK Rider can promote rail service); and
 - Reciprocal marketing with private provider when an agreement is reached.

1 INTRODUCTION

1.1 Study Purpose

The NCDOT Rail Division Operations & Facilities Branch hired WSP | Parsons Brinckerhoff to study how connectivity could be improved at the Kannapolis Train Station, which is depicted in **Figure 1**. 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 Kannapolis Train Station. This study identifies opportunities to improve connections to the Kannapolis 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 first along the Raleigh to Charlotte corridor.

The terms "first mile" and "last mile" are phrases that are used to describe the initial and final leg of a trip.

Figure 1: Kannapolis Train Station

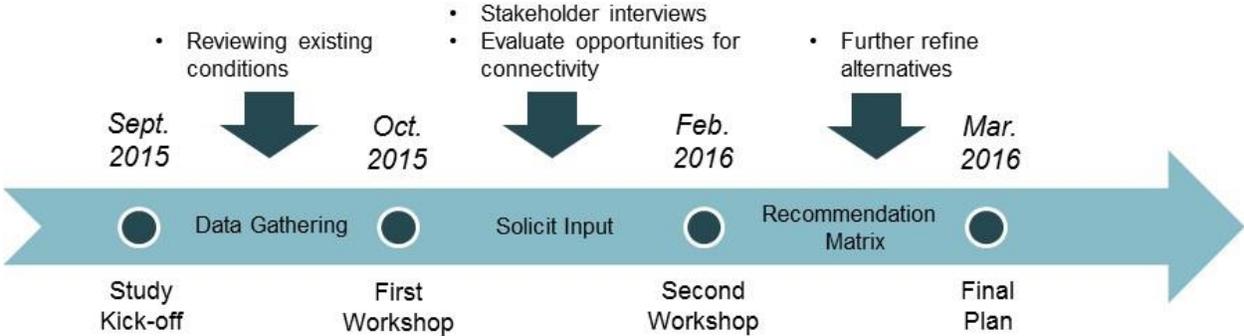


1.2 Study Process

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. Two stakeholder workshops and a number of targeted interviews were held to:

- Educate participants on NCDOT initiatives that will benefit the Kannapolis Train Station, including improved passenger rail service in the near future;
- Coordinate with local, state and private stakeholders to identify opportunities to enhance connectivity; and
- Identify and develop transportation alternatives to/from Kannapolis train station, local transit, and points of interest to enhance ridership.

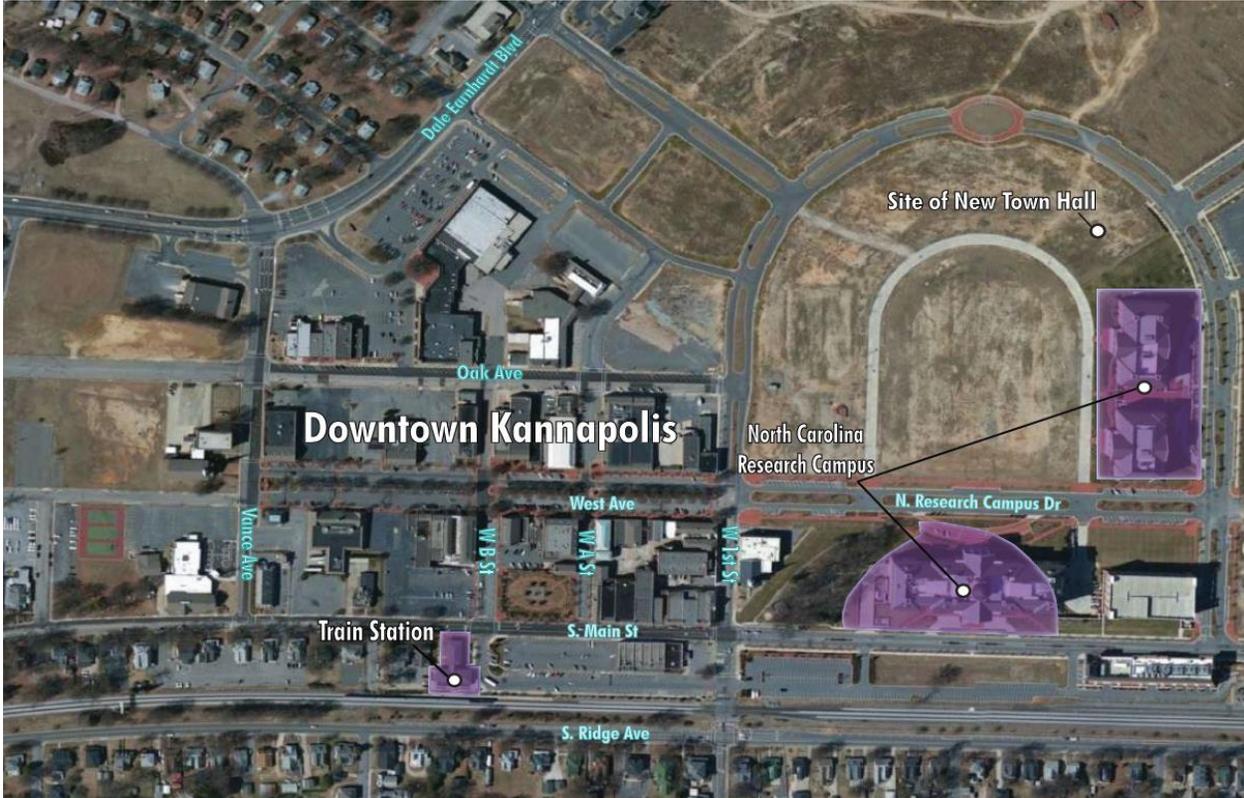
The components of each step in the study process are shown as follows:



1.3 Study Area

The Kannapolis Train Station is less than 4 miles from I-85 and is located in the heart of Downtown Kannapolis, as shown in **Figure 2**. The Station is a short walk from the North Carolina Research Campus (NCRC), Veteran’s Park, Dale Earnhardt Plaza, and the Gem Theatre.

Figure 2: Study Area



The Station opened in 2004 and is now owned by the City of Kannapolis. City Council Chambers was located within the Kannapolis Train Station, but was moved in late 2015 to the newly constructed City Hall. The City of Kannapolis recently purchased the adjacent properties to the south and parking lot to the north for economic development and revitalization purposes. The Station is ADA accessible and has access to roughly 100 parking spaces.

2 EXISTING CONDITIONS

2.1 Train Service

The station is currently served by two Amtrak passenger rail services, the *Piedmont* and the *Carolinian*. *Piedmont* travels between Charlotte and Raleigh, while the *Carolinian* extends from *Charlotte* to New York City. Daily at the Kannapolis Train Station, three northbound trains stop and three southbound trains stop. There are two tracks and one side platform at the station. Trains arrivals/departures (effective November 30, 2015) are show in **Table 1**.

Table 1: Train Times

| Northbound | | Southbound | |
|------------|----------------------------|------------|----------------------------|
| 7:25 AM | <i>Carolinian Train 80</i> | 9:31 AM | <i>Carolinian Train 73</i> |
| 12:27 PM | <i>Piedmont Train 74</i> | 2:31 PM | <i>Piedmont Train 75</i> |
| 5:42 PM | <i>Carolinian Train 76</i> | 7:41 PM | <i>Carolinian Train 79</i> |

2.2 Transit Service

The Kannapolis Train Station is served by three transit routes, including the CK Rider Blue and Brown fixed routes, and the Rowan Express deviated-fixed route. The headways of the transit routes and headways of the northbound and southbound trains are shown in **Table 2**. The transit routes in relation to the Kannapolis Train Station are show in **Figure 3**. The Kannapolis Train Station has the fourth highest average daily boarding among all of the CK Rider stops locations.

The Cabarrus County Transportation Services (CCTS) provides demand response services to the Station upon request. CCTS operates Monday through Friday from 8:00 AM – 5:00 PM.

At the Kannapolis Train Station, there is a bus shelter and signage clearly promoting the transit services, as shown in **Figure 4**.

Table 2: Train and Transit Times

| Amtrak | CK Blue Line | CK Brown Line | Rowan Express South |
|-----------------|--------------|---------------|---------------------|
| 7:25 AM | 5:48 AM | 6:02 AM | 5:55 AM |
| | 6:48 AM | 7:02 AM | 6:55 AM |
| | 7:48 AM | 8:02 AM | 7:55 AM |
| | 8:48 AM | 9:02 AM | 8:55 AM |
| 9:31 AM | 9:48 AM | 10:02 AM | 9:55 AM |
| | 10:48 AM | 11:02 AM | |
| | 11:48 AM | | |
| 12:27 PM | | 12:02 PM | |
| | 12:55 PM | 1:08 PM | |
| 2:31 PM | 2:10 PM | 2:23 PM | 2:55 PM |
| | 3:25 PM | 3:38 PM | 3:55 PM |
| | 4:40 PM | 4:53 PM | 4:55 PM |
| 5:42 PM | | | |
| | 5:48 PM | 6:02 PM | 5:55 PM |
| 7:57 PM | 6:48 PM | 7:02 PM | |
| | 7:48 PM | 8:02 PM | |

Figure 3: Existing Transit Routes

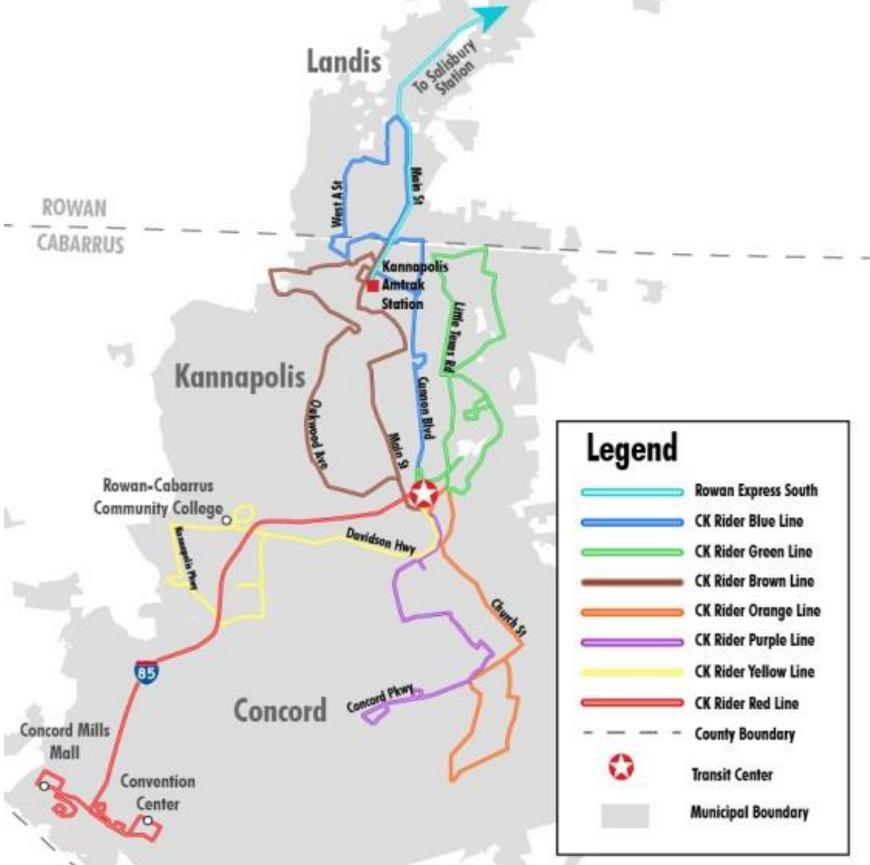


Figure 4: Transit Shelter at Kannapolis Train Station



3 CITY OF KANNAPOLIS

3.1 Kannapolis: A Short History

While the City of Kannapolis was not incorporated until 1984, its rich history dates back much farther. In 1910, the business district of Kannapolis began to emerge as a thriving commercial center. The Kannapolis Square, at the intersection of Main Street and First Street, was the hub of commercial activity in the City and played a key role in community life. With the success of area textile mills, the city grew in population. During the 1930s, the Downtown area underwent major renovation.

However, despite the improvements, suburban development in the 1950s diverted attention from Downtown. The city continued to grow and evolve in the following decades. In 2003 the textile mills closed, resulting in the largest single layoff in state history. This difficult time turned into an exciting opportunity when businessman and philanthropist, David H. Murdock purchased mill property and announced plans for a new scientific and economic redevelopment project, the North Carolina Research Campus (NCRC). While the textile mill industry will always be part of the city's history, new economic development projects associated with the research campus look to foster a bright future for the City of Kannapolis.

3.2 Local Planning Efforts

The *Kannapolis Center City Master Plan* (2011) created a vision for the Downtown that was guided by several transportation related recommendations.

The City recently acquired several Downtown properties for economic redevelopment purposes. Property purchases include parking lots, historic properties, and a row of buildings along Main Street. Planners and other city staff are working to create more residential units Downtown with the intent that businesses and jobs will follow. In addition, value added amenities and activity generators are a priority in the area.

Kannapolis City Hall is a new facility being constructed across from the NCRC. City Council chambers moved from the Kannapolis Train Station to the new City Hall in late 2015, which has left a large room within the station vacant. NCDOT Rail Division designed the station to accommodate government functions in the short-term and then have the ability to change uses (e.g. baggage storage, commercial space) in the future.

Recommendations from the *Kannapolis Center City Master Plan* include:

- Add amenities and conveniences to existing passenger services to enhance rider experience;
- Upgrade Dale Earnhardt Boulevard / Loop Road include landscaped medians, replace continuous center turn lane, upgrade pedestrian safety, install mast arm signals, revise speed limit, improve access via signals;
- Extend Oak Avenue and West Avenue;
- C Street Pedestrian Tunnel;
- Extend medians and other intersection improvements at West Avenue & W First Street;
- Improve bicycle improvement networks;
- Passenger Rail Service Enhancements;
- First Street Rail Crossing Improvements;
- Expand public transit options;
- Various streetscape upgrades;
- Railroad aesthetic improvements;
- Market Center City as a leisure destination; and
- Market the "loop" as a destination.

The City has hired a consultant to work on an updated Center City plan, which will include pedestrian and bicycle improvements and strategies for economic development and revitalization. The NCRC also has their own master plan and the City would like to complement campus efforts. Looking ahead, the City plans to update its comprehensive plan in 2016.

The City has set groundwork for creating a bicycle and pedestrian network through the *Kannapolis Walkable Community Plan* (2007) and the *Kannapolis Bicycle Plan* (2014), funded by the NCDOT's Division of Bicycle and Pedestrian Transportation (DBPT).

The Carolina Thread Trail, a regional effort creating interconnected greenways and trails, connects to Downtown Kannapolis. The Carolina Thread Trail is an attraction for Cabarrus County residents but may also be a destination for visitors. As funding becomes available, additional portions of the trail system can be built.

As the City seeks funding for bicycle and pedestrian improvements, those projects will go through the NCDOT Strategic Transportation Investment (STI) process. Bicycle and pedestrian improvements could also be included as part of roadway resurfacing project by NCDOT or the City.

4 REGIONAL AND STATE 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.

4.1 Rail Initiatives

NCDOT Rail is working to provide convenience and enhance rider experience. Locally, NCDOT is coordinating with area transit authorities to develop commuter rail services for the greater Charlotte, Triangle and Triad regions.

One of the recommendations in the State Rail Plan is to add trips to the *Piedmont Service*; a fourth roundtrip will be implemented in 2017 with a fifth roundtrip in 2019. These added trips will result in train service every three hours, and will facilitate business travel while improving connectivity throughout the region. Anticipated train times are shown in **Table 3**.

The Rail Division is planning a second platform with pedestrian connections under the existing tracks. That platform will mirror the existing

Table 3: Train and Transit Times with Expansion

| | KAN | CLT |
|---------------------------------|----------------|----------------|
| 4th Frequency | | |
| Train 80 | Departs 6:55A | Departs 6:30A |
| Train 74 | Departs 10:55A | Departs 10:30A |
| Train 76 | Departs 2:55P | Departs 2:30P |
| Train 78 | Departs 6:55P | Departs 6:30P |
| | | |
| Train 73 | Arrives 9:15A | Arrives 9:40A |
| Train 75 | Arrives 1:15P | Arrives 1:40P |
| Train 77 | Arrives 5:15P | Arrives 5:40P |
| Train 79 | Arrives 9:15P | Arrives 9:40P |
| 5th Frequency | | |
| Train 80 | Departs 6:55A | Departs 6:30A |
| Train 72 | Departs 9:55A | Departs 9:30A |
| Train 74 | Departs 12:55P | Departs 12:30P |
| Train 76 | Departs 3:55P | Departs 3:30P |
| Train 78 | Departs 6:55P | Departs 6:30P |
| | | |
| Train 71 | Arrives 9:15A | Arrives 9:40A |
| Train 73 | Arrives 12:15P | Arrives 12:40P |
| Train 75 | Arrives 3:15P | Arrives 3:40P |
| Train 77 | Arrives 6:15P | Arrives 6:40P |
| Train 79 | Arrives 9:15P | Arrives 9:40P |

platform in length and design, and will better accommodate freight and passenger service. A conceptual design for the second platform is included in **Appendix A**. This project is currently unfunded and has no associated time frame for construction.

Other recommendations in the State Rail Plan include:

- Add amenities and conveniences to existing passenger services to enhance rider experience;
- Add more frequencies to the *Piedmont* and *Carolinian* (Raleigh to Charlotte) services to enhance mobility to connect people to jobs and educational opportunities across regions;
- Improve stations and maintain and/or replace equipment;
- Pursue full implementation of the Southeast Rail Corridor, when completed may provide public-private partnership opportunity;
- Implement Amtrak Thruway Bus Service to western North Carolina; and
- Plan for future expansions of rail service to western and southeastern North Carolina.

4.2 Transit Initiatives

NCDOT Public Transportation Division (PTD) worked with CCTS to develop a Community Transportation Service Plan. The purpose of this five-year plan is to increase mobility options, efficiency, and effectiveness. Cabarrus County adopted this plan in late 2015.

Charlotte Area Transit System (CATS) plans to discontinue its express route from Uptown Charlotte to Cabarrus County (Bus 80X) when the Blue Line Extension begins operation in 2017. CATS has been in preliminary discussions with CK Rider regarding a new route that extends from the last station on the Blue Line Extension (on University of North Carolina Charlotte's campus) into Cabarrus County. CK Rider has offered to operate the potential route.

5 STAKEHOLDER OUTREACH

5.1 First Workshop

A half-day workshop was held on October 1, 2015 to expedite the collaboration process of generating ridership and increasing connectivity to the Kannapolis Train Station.

The workshop provided opportunity to gather information on growth initiatives in Kannapolis and the surrounding area, including portions of southern Cabarrus County, northern Mecklenburg County, and southern Rowan County. Recognizing that connectivity enhancements to the Kannapolis Train Station may bolster existing and future ridership on passenger train and local transit, potential ridership markets were discussed.

Within Kannapolis, several existing assets and primary destinations have been identified, such as the NCRC. The workshop provided preliminary answers to the question of "how can passenger rail service and the City of Kannapolis be marketed in a way that is mutually beneficial?" It's agreed that improved pedestrian, rail, and transit connections all have a role in the future strategy. The workshop provided a

venue for open discussion and hands-on analysis through a walking tour. The variety of attendees allowed for an interdisciplinary approach to brainstorming.

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. Construction plans on I-85 make it an ideal time to begin increasing local and regional awareness about the variety of rail and transit services available in the area. Representatives from various agencies reported on their current and future initiatives to provide context for the brainstorming session.

Figure 5: Walking Tour Photo

Following the discussion of existing initiatives, the group took a walking tour of Downtown Kannapolis and NCRC, as shown in **Figure 5**. The group was able to identify several pedestrian and bicycle deficiencies, while also observing the ongoing revitalization of Downtown Kannapolis. The walkshop also determined that the walk from the station to NCRC is less than 10 minutes at a leisurely pace.



Strategies identified during the first workshop include the following:

- NC App integrated with local transit systems;
- Continue to redevelop Kannapolis Downtown and bring more amenities and hotel near the station;
- Include family resources near or within the station (ex: child care facilities);
- Create uniformity in technology across regional transit systems;
- Vanpool/shuttle between UNCC and NCRC;
- Zip Car Program;
- Create “destination station”;
- Wayfinding signage in Downtown Kannapolis and NCRC;
- Information center and visitor center near/in station;
- Transit pamphlets for all regional transportation services in station;
- Free transit transfer agreements;
- Station attendant training about available transit services;
- Bicycle and pedestrian improvements such as increased sidewalk widths and pedestrian button at intersections;
- Market Kannapolis Train Station as regional station;
- Bicycle Share program;
- Relay Rides;
- Uber and Lyft connections; and
- Taxi Coordination.

5.2 Interviews

In addition to the valuable feedback that occurred during the first workshop, interviews were held with representatives from the following stakeholder groups: Town of Cornelius; Town of Huntersville; Davidson College; Charlotte Area Transit System (CATS); University of North Carolina at Charlotte (UNCC); North Carolina Research Campus (NCRC); and Piedmont Authority for Regional Transportation. The meetings were held to help the study team understand the potential markets and/or discuss concepts that may be a good fit to serve those potential markets. Meeting notes are included in **Appendix B**.

5.3 Second Workshop

A workshop with stakeholders was held on February 1, 2016 as a follow-up to discuss the alternatives that were evaluated during the interview phase of the study. Feedback was used to further refine the alternatives that are included in Section 7. The transit concept that was discussed and subsequently refined in **Appendix C**.

6 POTENTIAL MARKETS

The Kannapolis Train Station is located in the heart of Downtown Kannapolis; therefore, the station attracts passenger rail riders from Cabarrus County, northern Mecklenburg County, and southern Rowan County. Potential passengers include residents traveling for work or leisure, students traveling to or from nearby universities, employees of the North Carolina Research Campus (NCRC), and destinations such as Concord Mills and the Charlotte Motor Speedway. Passengers could arrive and depart from the station using a number of different modes of transportation.

| | |
|--|--|
|  <p>Residents living in the surrounding neighborhood that can access the station as a pedestrian or on a bicycle.</p> |  <p>University students driving their own automobile, asking a friend for a ride, or by contacting a private transportation provider.</p> |
|  <p>Transit riders utilizing CK Rider Brown and Blue Routes, Rowan Express Route, and CCTS demand response service.</p> |  <p>Employees of the North Carolina Research Campus (NCRC) accessing the station as a pedestrian or on a bicycle.</p> |
|  <p>Residents of Cabarrus, northern Mecklenburg, and southern Rowan Counties accessing the station by automobile.</p> |  <p>Visitors spending leisure time at the many attractions and events in the region.</p> |

Surrounding Neighborhoods

The area surrounding the station is surrounded by fairly low-density residential uses beyond the commercial and institutional land uses of Main Street and NCRC. The nearby residential setting provides opportunity, offering a significant customer base within walking distance. Potential consumer markets include people with limited transit options, people with lengthy and costly commutes, and people using rail to reach entertainment destinations in Charlotte and beyond. Within a one mile radius of the station, there are approximately 3,106 residents, eight percent of whom do not own a vehicle.

North Carolina Research Campus

NCRC is located within a 10-minute walk of the Kannapolis Train Station. The campus currently has 250 faculty / staff; many on campus daily and live in the area. However, there is a steady stream of people that travel to NCRC, due to the partnership with numerous universities in the Triad and Triangle areas.

University Students

UNCC is located in the northeast Mecklenburg County, roughly 10 miles from Uptown Charlotte. More than 1,000 full-time faculty comprise the University's academic departments and the 2015 fall enrollment exceeded 28,000 students. More than 91 percent of students are from North Carolina. It is reasonable to consider UNCC students utilize the train to travel to the Triad and Triangle areas.

Roughly 2,000 students and 900 staff; 95 percent of students live on campus. A number of these students do not have a personal automobile, and travel via rail is a viable alternative.

Residents Traveling for Work

Traveling using the rail service may be appealing for residents who live in the area and are employed in the Triad or Triangle areas or travel there occasionally for meetings. Roughly 525 people live in Cabarrus County that work in the Triad or Triangle areas based on the 2009-2013 American Community Survey. Roughly 100 people live in Cabarrus County and work in northeast cities along the *Carolinian*.

Visitors to the Region

There are a number of attractions near the Kannapolis Train Station that would be appealing for visitors to access using the rail service, if there was a reliable transportation option to get those visitors to and from their destination. Within 15 miles of the Kannapolis Train Station, a number of major attractions are clustered together, including the Charlotte Motor Speedway, zMAX Dragway, Concord Mills Mall, Greatwolf Lodge, Concord Convention Center, Rocky River Golf Club, and many hotels. The Charlotte Motor Speedway and zMAX Dragway host major racing events and other events (i.e. auto fairs, Christmas light shows, etc.) throughout the year. Concord Mills Mall boast being North Carolina's largest tourist attraction, attracting 17.6 million annually. Greatwolf Lodge is a resort with an indoor water park.

7 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" (initial and final leg of a transportation trip) 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.

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

7.1 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 quarter-mile to 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 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 to comfortably encounter the vehicle traffic that crosses their path. Walking complements rail travel when pedestrian facilities provide adequate access to station. Safe and accessible sidewalks and crosswalks are the backbone of creating a pedestrian-friendly city.

Downtown Kannapolis has an extensive established sidewalk network. However, there are instances within Downtown where portions of sidewalk are narrow and have settled due to age. 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 surround 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 Kannapolis Train Station.

Marked crosswalks indicate optimal or preferred locations for pedestrians to cross and help designate right-of-way for motorists to yield to pedestrians. Pedestrians are sensitive to out-of-the-way travel, and reasonable accommodations should be made to make crossings both convenient and safe at locations with adequate visibility. There are delineated crosswalks at all intersections along Main Street between NCRC and the Kannapolis Train Station.

Pedestrian signal heads (also referred to as pedestrian indicators) assist pedestrian activity within crosswalks by graphically indicating walk, flashing don't walk, and 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 Main Street and B Street, similar to the one at the intersection of Main Street and W. 1st Street, as shown in **Figure 6**.



A grade separated pedestrian connection from Ridge Avenue to the Kannapolis Train Station is recommended to link the neighborhood to the east. The conceptual design for a second platform,

mentioned in Section 4.1, facilitates this connection. However, this project is currently unfunded and no timeframe has been given.

Consideration should be given to alternative funding sources such as Safe Routes to School.

7.2 Bicycle Strategies

The Kannapolis Station can be accessed by cyclist from the surrounding neighborhoods or faculty / staff of NCRC. Currently, NCRC has an internal bicycle share program in which faculty can sign out one of seven bicycles on a daily basis. In addition to these identified groups of people who likely have access to bicycles, others may be interested in bicycles as a mode of transportation if bicycles were available.

The following alternatives were considered to make it easier for people to select a bicycle for the “first mile” or “last mile” leg of a trip to / from the Kannapolis Train Station:

- Infrastructure to secure an owner’s bicycle at the Kannapolis Train Station;
- Bicycle sharing for passengers who do not have a bicycle upon arrival; and
- Bicycle lanes or bicycle “sharrows” on Main Street;
- Promote bicycle tourism in Kannapolis.

7.2.1 Secure Bicycle Parking

One way to encourage more people to bicycle to the Kannapolis Train Station is to provide safe bicycle parking. At the moment, there are no bicycle racks at the Kannapolis Train Station. There is an area near the entrance of the station, shown in **Figure 7**, would be ideal for some type of secure 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. The addition of bicycle racks at the Kannapolis Train Station is recommended.

Figure 7: Potential Area for Secure Bicycle Parking



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.

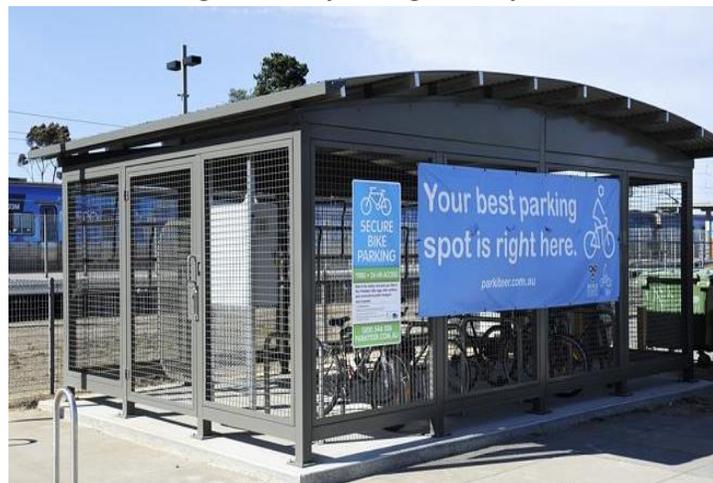
Another alternative to consider beyond racks is bicycle lockers, which provide significantly greater protection. The advantages of bicycle lockers include protection from weather (sun and rain), protection from component theft, and safe storage for other bicycle related items (helmet, special clothes or shoes). The combined advantages of bicycle lockers attract users who would not consider using racks and may not otherwise ride bicycles to stations. Bicycle lockers cost roughly \$3,500 per unit. An example of a bicycle locker is shown in **Figure 8**.

Figure 8: Bicycle Locker Example



Aside from conventional racks and lockers, bicycle cages are also becoming a popular option for cities, businesses, and stations. Unlike bicycle lockers, racks in the cages are not reserved, meaning they are used on a first-come basis. Each bicycle cage is typically capable of storing 150 bicycles. The goal of bicycle cages is to combine the advantages of standard racks, which allow many bicycles to be stored, and lockers, which provide security. Inside the enclosed cage, traditional and bi-level racks were installed, along with six cameras. Entry to the bicycle cage is controlled: riders must apply for a free bicycle smart card that allows access to the cage. Registration deters thieves from acquiring a card. An example of a bicycle locker is shown in **Figure 9**.

Figure 9: Bicycle Cage Example



While bicycle cages are a viable strategy, during the second workshop, participants stated that bicycle lockers would be more appropriate at the Kannapolis Train Station. Following the workshop, it was learned that Dallas Area Rapid Transit (DART) has removed all of their bicycle lockers in favor of bicycle lids. Based on feedback from DART, there were numerous problems with bicycle lockers: heat; melting of bicycle components and accessories; and homeland security issues. Bicycle lids, as shown in **Figure 10**, are off the ground about six inches and allow police to see under with a special mirror. DART has at least two bicycle lids for every station. Bicycle lids cost roughly \$2,000 per unit.

Figure 10: Bicycle Lids Example



All of the secure bike parking would be beneficial to cyclist, but bicycle lids provide the added benefit to NCDOT Rail and the City of Kannapolis because both can be branded with advertisements.

7.2.2 Bicycle Share Program

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 11**.

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.

Figure 11: Bicycle Kiosk



It is recommended that a bicycle share program be considered in Downtown Kannapolis to enhance connectivity. Locations for kiosks could include the Kannapolis Station, City Hall, NCRC, heart of West Avenue commercial area, Carolinas Health Care System 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.

7.2.3 Bike Lanes and Sharrows

Bicycle “sharrows” (also referred to as shared lane markings) are roadway paint / markings used to indicate a shared lane for automobiles and bicycles. The graphical representation is a bike plus arrows, similar to the example shown in **Figure 12**. Sharrows support a complete bikeway network by reinforcing the legitimacy of bicycle traffic on the street and offering directional and wayfinding guidance.

Bicycle lane are delineated travel lanes for bicycles, adjacent to automobile travel lanes. Bicycle lanes are typically four feet wide. An example of a bicycle lane is shown in **Figure 13**.

Figure 12: Sharrow Example**Figure 13: Bicycle Lane Example**

Consistent with the Kannapolis Bicycle Plan (August 2014), it is recommended that sharrows be considered on Main Street from Dale Earnhardt Boulevard to 1st Street, and bicycle lanes be considered on Main Street from 1st Street to Loop Road. These improvements will encourage cyclist to use the roadway in downtown near the Kannapolis Train Station.

7.2.4 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. It is now possible for avid cyclist to take the train to Cabarrus County 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.

Additionally, the Urban Renewal Commission in Oregon City approved a proposal by a local bicycle shop owner to develop a bicycle tourism hub inside an Amtrak station. There may be an opportunity to do something similar with the newly vacated space in the Kannapolis Train Station. These innovative approaches could be tailored to North Carolina's unique attractions that are served by Amtrak's stations, including the Kannapolis Train Station.

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 Kannapolis Station benefits from this growing market. In the Charlotte region alone, there are over 25

monthly bicycle events that draw visitors from across the state. Train tickets that include the cost of bicycle parking or bicycle rental could be an inventive way to encourage cyclists to ride the train.

7.3 Automobile Strategies

Driving is one of the primary transportation mode choices for rail passengers arriving or departing from the Kannapolis Train Station. Providing safe, affordable parking will continue to attract motorists. There are approximately 100 parking spaces in the vicinity of the Kannapolis Train Station, which was recently acquired by the City of Kannapolis. The parking spaces are in a well-lit area directly adjacent to the station. Passengers are required to get a parking permit from the station attendant by providing itinerary details and license plate information.

Signage is one way to improve parking conditions at the Kannapolis Train Station. There currently is no signage clearly marking what spots can be used by rail passengers. In fact, prior the second workshop is a sign in the vicinity of the Kannapolis Train Station said, “No Amtrak Parking”. Since that time, the sign has been removed by the City of Kannapolis. Signage clearly indicating that the parking spaces in the vicinity of the Kannapolis Train Station are intended for passenger parking would be helpful. Signage indicating passengers must first enter the station to obtain a parking permit is recommended to avoid confusion.

Ample parking will be important as ridership grows with the addition of more frequent rail service. The City recently acquired two parcels to the south of the Kannapolis Train Station. These parcels could be paved and designated as long-term parking for passengers.

7.4 Transit Strategies

The Kannapolis Train Station is served by CK Rider fixed-routes, Rowan County deviated-fixed route, and Cabarrus County Transportation System demand response service. This existing intermodal connection at the Station is valuable.

The arrival and departure time of the Amtrak service unfortunately does not align with the arrival and departure time of the fixed routes and deviated fixed-routes, which results in passengers wait times. It is not feasible to reconfigure the CK Riders system to align with train departures and arrivals, but as the system considers design changes and additional train frequencies are added, consideration should be given to better aligning local routes to serve the Kannapolis Train Station.

The transit service may not provide a direct link to a passenger’s final destination, resulting in transfers. In some cases, such as a passenger arriving on the *Carolinian* Train 79 at 7:41 PM bound for a hotel near I-85 Exit 49, it is not possible to board one of the CK Rider routes (7:48 PM and 8:02PM) and travel to the CK Rider Transit Center to transfer to a route that serves hotels, because the fixed route that serves the most hotels leaves the CK Rider Transit Center at 7:30 PM to make its final run. There is one hotel within walking distance of the CK Rider Transit Center, but this leaves train passengers with only the one option.

7.4.1 Transit Transfer Agreements

Given that the Kannapolis Train Station is served by CK Rider, Rowan Transit System and the Cabarrus County Transportation System, transfer agreements from the rail service to the transit system would be one alternative that would encourage both rail and transit ridership. CK Rider and Rowan Transit System currently have an informal agreement honoring transit transfers.

The extent of consistent operating policies is varied. One of the most common and useful methods of integrating multiple systems is through fare payments. With travel patterns increasingly requiring transferring between overlapping transit systems, there has been a growing emphasis on the development of multi-agency agreements and integrated regional payment arrangements. A number of agencies currently have some sort of joint pass arrangement with at least one other agency. For example, the Capitol Corridor service in California has been in a transit transfer agreement with at least six regional transit agencies since 1998. This agreement allows train passengers to use their train ticket to transfer on to a local bus upon arrival.

It is recommended that a formal transit transfer agreement be established between NCDOT Rail Division and CK Rider, and NCDOT Rail Division and Rowan Transit System. The agreement should allow passengers to purchase a transit pass with their rail ticket that can be used the day of travel. NCDOT Rail Division could reimburse the agencies on a monthly basis.

7.4.2 Potential New Route

Creating a new route, which directly connects the Kannapolis Train Station to several major destinations in North Mecklenburg County and Cabarrus County, will help solve the last mile problem for many potential passengers. A new route was developed at a conceptual level and presented at the second workshop. This conceptual route (included in **Appendix C**) could operate six round trips a day to mirror the existing train schedule and serve the Kannapolis Train Station, CK Rider Transit Center, attractions and hotels on Bruton Smith Blvd, and UNCC. Similar to Piedmont Authority for Regional Transportation (PART), the route could have the ability to wait up to an hour to intercept passengers if the last train of the day is delayed.

After conversations with CK Rider about their potential partnership with CATS on a new route, it became clear that their potential express route connects many of the same destinations. CATS plans to discontinue its express route from Uptown Charlotte to Cabarrus County (Bus 80X) when the Blue Line Extension begins service in 2017. CATS has been in preliminary discussions with CK Rider regarding a new route that extends from the last station on the Blue Line Extension (on University of North Carolina at Charlotte's campus) into Cabarrus County.

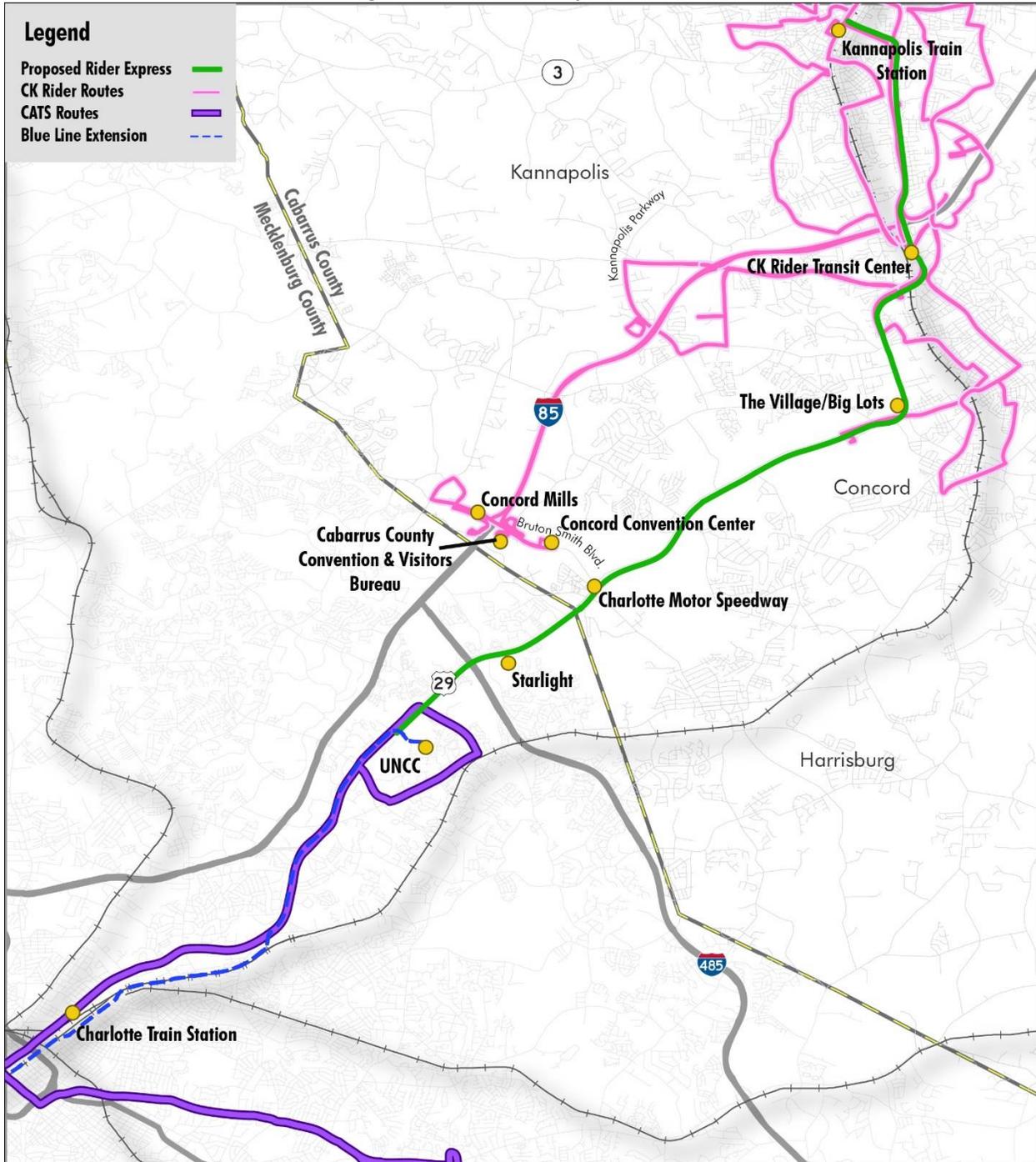
The potential express route, as currently proposed by CK Rider, would make 15 daily round trips. As shown in **Figure 14** the potential express route would serve the Kannapolis Train Station, CK Rider Transit Center, park and ride locations along US 29, and UNCC. CK Rider is willing to operate the potential express route because their operating costs (\$62.39 / hour) are lower than CATS. Based on discussions with CK Rider, the annual operating cost would be \$633,000 providing service seven days a week. CK Rider does not have spare vehicles and CK Rider would have to procure two new vehicles at an estimated capital cost of \$1.4 million.

CATS was also interviewed during the study process. Based on discussions with CATS, if CATS operated a route outside of the county, then another agency / municipality needs to provide 50 percent of costs. Currently, CATS has fleet capacity/driver capacity at this time, but has a higher operating cost. Capacity needs to be accounted for when planning new services.

The next step would be to determine which transit agency could provide this service, and if spare vehicles are available to operate this proposed express route. If not, funding for the capital expenditures would have to be secured. Funding for ongoing operation would also have to be identified. The service provides

a benefit to rail passengers, Mecklenburg County residents, Cabarrus County residents, City of Concord residents and City of Kannapolis residents. Therefore, it is reasonable to consider that a partnership among agencies or municipalities could be reached to provide this valuable new transit route.

Figure 14: Potential Express Route



7.5 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.

Despite efforts to expand routes, there will always be some neighborhoods that are not well served by local transit. In such places, ride-hailing can make a passenger rail trip more attractive than driving by offering an easy connection between home and the station.

Private transportation providers have the ability to complement personal automobiles, bicycles, and public transit as a convenient way to arrive and depart the Kannapolis Train Station. It is recommended that a dedicated area within the Kannapolis Train Station parking lot be reserved and signed for private transit providers (Uber, Lyft and Taxi) to help with wayfinding and to highlight service from these private providers is an option.

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.

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 investigate coordination opportunities that will facilitate information sharing with private providers to help market the rail service.

7.6 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 Kannapolis Train Station in innovative ways enables customers to travel around Kannapolis more quickly, safely, and efficiently and has the ability to build passenger confidence in the ease and accessibility of rail travel.

7.6.1 Electronic Signage

Digital signage is quickly replacing static signage in transportation stations. Digital signage displays can assist with wayfinding in and around stations, 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. Currently, real-time GPS information for both Amtrak service and CK Rider buses are available. It is recommended that screens be added to the Kannapolis Train Station displaying real-time information on the Amtrak service and CK Rider service. Similar electronic information could also be displayed in key locations within Downtown Kannapolis (e.g. City Hall or NCRC).

7.6.2 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 capabilities to purchase transfer tickets for other transit systems (e.g. CK Rider), local destinations and events. 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 and the surrounding area. In Kannapolis, the app might display surrounding amenity information, NCRC information, and a list of local events.

One example of new apps is DART 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.

Some transit agencies have also incorporated open loop fares, where fare cards are linked to user accounts. Riders can add money through the app, at a station, online, from a smartphone app, or in person at a third-party retailer. The money stays on an account (not on a card itself) which riders can populate using a credit card, debit card, or bank account. For example, a rider could load money to their account through the app, then use the funds to purchase a train ticket, and use the funds for fares on the local regional transit systems such as CK Rider, Rowan Express, or CATS. Better fare technology can mean a better transit experience, payment aside. Data from the app can be used to inform future rail and station decisions.

7.7 Marketing Initiatives

Based on meetings with the various 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.

Reciprocal marketing between agencies is beneficial. Brochures for CK Rider Route and Rowan Express Route are currently available at the Kannapolis Train Station. There may be opportunities for CK Rider Route and Rowan Express Route 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.

8 RECOMMENDATIONS

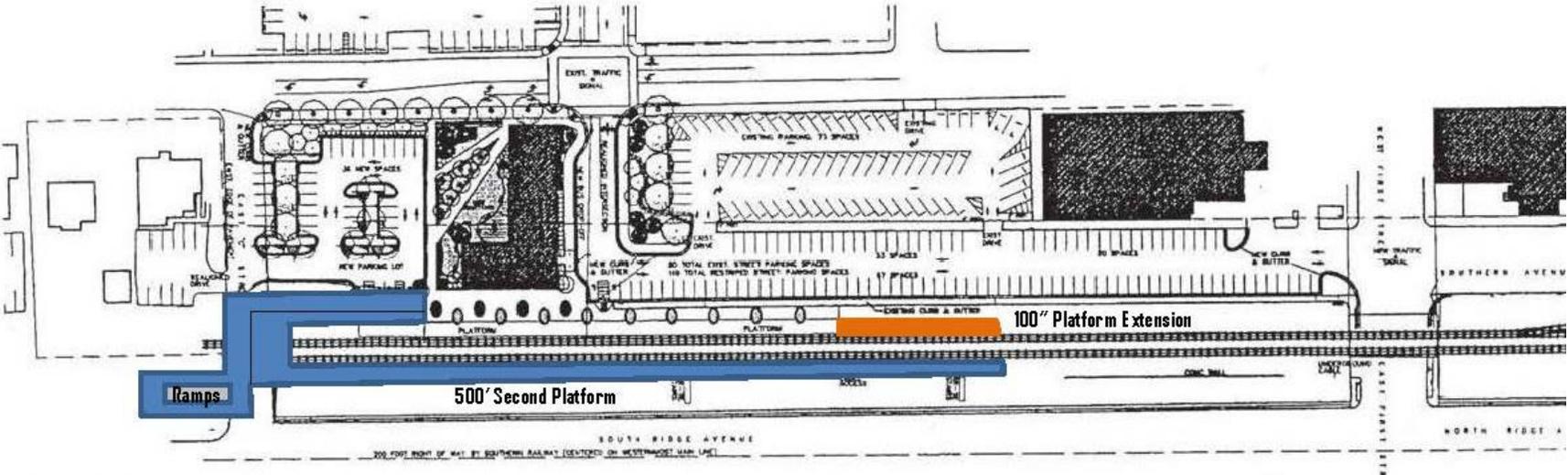
This document presents the results of the data gathering effort, brainstorming effort, and stakeholder input. There are a number of different strategies that could improve “first mile” and “last mile” connectivity at the Kannapolis Train Station, many of which have been considered for the Kannapolis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

| Recommendation | Possible Responsible Parties | Suggested Timeframe |
|---|---|---------------------|
| Pedestrian Strategies | | |
| Add pedestrian signal with push buttons to the intersection of Main Street and B Street | City of Kannapolis; NCDOT | Immediate |
| Add wayfinding signs in Downtown Kannapolis | City of Kannapolis | Short-term |
| Ensure all sidewalks in the vicinity of the Kannapolis Train Station meet ADA standards | City of Kannapolis | Short-term |
| Construct a grade separated pedestrian connection from Ridge Avenue to the Kannapolis Train Station | NCDOT Rail (included in STI 4.0) | Long-term |
| Bicycle Strategies | | |
| Paint bicycle sharrows and/or construct bicycle lanes on Main Street | City of Kannapolis; NCDOT Highway Division; NCDOT Division of Bicycle and Pedestrian Transportation | Immediate |
| Promote bicycle tourism | City of Kannapolis; NCDOT Highway Division; NCDOT Division of Bicycle and Pedestrian Transportation | Immediate |
| Install secure bicycle parking (e.g. racks, lockers and/or cages) | Capital for bike racks (\$1,000 x 2 racks) or bicycle lids (\$2,000 each x 4 lids) from City of Kannapolis, NCDOT Rail, advertisements, private partners or grants. | Short-term |
| Install bicycle share program | Capital for bicycle share program (\$40,000 x 4 kiosks) from City of Kannapolis; marketing funds, private partners or grants. | Mid-term |
| Automotive Strategies | | |
| Signage for parking | City of Kannapolis | Immediate |
| Construct long-term parking | City of Kannapolis' NCDOT (included in STI 4.0) | Long-term |

| Recommendation | Possible Responsible Parties | Suggested Timeframe |
|---|--|--------------------------|
| Transit Strategies | | |
| Transfer agreement between NCDOT Rail Division and local transit agencies | NCDOT Rail; CK Rider; Rowan Transit System | Immediate and short-term |
| Operate potential express route | Operated by CK Rider or CATS. Operating funds (approximately \$633,000) from a partnership with NCDOT Rail Division, City of Kannapolis, City of Concord, Cabarrus County and Mecklenburg County. Capital fund for new vehicles (approximately \$1.4 million) from CK Rider and NCDOT PTD. | Short-term |
| Private Providers | | |
| Create dedicated parking for private providers (e.g. Uber, Lyft, taxi) and sign to highlight as an option | City of Kannapolis | Immediate |
| Technology | | |
| Install digital displays (Public Information Display Systems or PIDS) at the train station and within the NCRC complex to show real-time information for the <i>Piedmont</i> and the <i>Carolinian</i> rail service and CK Rider routes | CK Rider; NCDOT Rail Division | Mid-term |
| Explore other ways to display real-time information within the NCRC complex | NCRC; CK Rider; NCDOT Rail Division | Mid-term |
| Explore viability of a new app for rail service | NCDOT Rail Division | Long-term |
| Marketing | | |
| Provide rail materials to universities and colleges on a continual basis to provide rail information, promotions, and service notifications | NCDOT Rail Division; UNCC; Davidson College | Immediate |
| Partner with universities and colleges to attend large scale student events to promote rail services | NCDOT Rail Division; UNCC; Davidson College | Immediate |
| Schedule information to be sent to identified markets to provide information to be utilized via websites, social media, and newsletters throughout the year | NCDOT Rail Division; Town of Huntersville; Town of Cornelius; Town of Davidson; Town of Harrisburg | Immediate |
| Reciprocal marketing with transit entities when available (promote CK Rider in the Station and CK Rider can promote rail service) | NCDOT Rail Division; CK Rider; Rowan Transit System | 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 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: CONCEPTUAL DESIGN FOR SECOND PLATFORM



PROPOSED SITE PLAN - PHASE II & III

APPENDIX B: MEETING NOTES

Town of Cornelius and NCDOT Rail Kannapolis Station Meeting – 11/30/15

Attendees: Wayne Herron (Cornelius Planning and Zoning – wherron@cornelius.org)
Scot Sibert (WSP | Parsons Brinckerhoff)
Claire Brinkley (WSP | Parsons Brinckerhoff)

- There are currently three trains daily from Charlotte to Raleigh and back; a fourth trip will be implemented in 2017, with a fifth one in 2019.
- With this increased frequency, NCDOT Rail envisions traveling via rail to be more appealing, and wants to focus on improving “first mile” and “last mile” connections. This is the first in a series of studies along the Raleigh to Charlotte rail corridor.
- Goal is to develop strategies to enhancing connectivity to the Kannapolis Train Station through marketing initiatives, transit, and other types of transportation services.
- Discussed map of potential transit routes and ask for feedback. Mr. Herron would like to encourage additional transit to Downtown Cornelius. He mentioned that a new park and ride lot for the CATS 77X would be opening near I-77.
- Mr. Herron would be willing to participate in a marketing campaign to promote the Kannapolis Station, including announcements on the Town website and weekly newsletter. All request can be sent to Mr. Herron.

Town of Huntersville and NCDOT Rail Kannapolis Station Meeting – 12/1/15

Attendees: Jack Simoneau (Town of Huntersville – jsimoneau@huntersville.org)
Claire Brinkley (WSP | Parsons Brinckerhoff)
Caché Owens (WSP | Parsons Brinckerhoff)

- The Kannapolis Train Station could become a potential transportation option for Huntersville residents in the future but would need increased on time frequency and reliability.
- The station is not likely to foster enough ridership to justify a bus route from Huntersville to the station.
- A market might exist for those trying to get to Raleigh, but obviously not a market for people trying to get to Charlotte.
- Discussed potential transit route and received feedback that a route to downtown would likely not be utilized. The park and ride with CATS 77X is west of I-77 (away from downtown).
- Largest long term project is the Red Line Commuter Rail, though the current political climate may pose challenges in the future.
- A marketing campaign might be more useful in building ridership at the Kannapolis station rather than a new bus route.
 - The Town of Huntersville does not send out regular mailers/newsletters/email blasts.
 - Information/Link to Amtrak may be possible on Town website; contact is Bobby Williams
 - Importance of marketing Kannapolis as a destination/ destination station to generate interest in the train station.

Davidson College and NCDOT Rail Kannapolis Station Meeting – 12/7/15

Attendees: David Holthouser (Davidson College – [daholthouser@davidson.edu](mailto:daholthouser@ davidson.edu))
Claire Brinkley (WSP | Parsons Brinckerhoff)
Genevieve Rubrecht (WSP | Parsons Brinckerhoff)

- UNC Charlotte receives many questions regarding Amtrak. Most students do not want to pay for a taxi or Uber to get to and from the station.
- Davidson College Facts:
 - Roughly 2,000 students and 900 staff
 - 95% of students live on campus
 - Student body shift from being a regional school to having representatives from 48 states
 - The College is more aggressively pursuing financial aid, which is changing the type of students that traditionally enroll
 - The College use to have students that all had automobiles but that is changing due to millennial trends and the shift in socioeconomics by attracting students who are pursuing financial aid
 - The College committed to staying this size, but recently did a space plan to determine that they could grow to 10,000 students at some point in the future
- Discussion on Kannapolis Rail Station:
 - Feels that Davidson College Students, while becoming less automobile-oriented, would be spotty rail customers
 - Students would likely only use the service during holidays and breaks
 - Does not see the need for a bus route
- Feels that the best way to encourage students to ride the train is to advertise the service. Suggested contacting Center for Teaching and Learning, and Dean of Students Office.

UNC Charlotte and NCDOT Rail Kannapolis Station Meeting – 12/11/15

Attendees: Doug Lape (UNC Charlotte – dlape@uncc.edu)
Helena Connors (UNC Charlotte – hconnor2@uncc.edu)
Scot Sibert (WSP | Parsons Brinckerhoff)
Genevieve Rubrecht (WSP | Parsons Brinckerhoff)

- UNC Charlotte receives many questions regarding Amtrak. Most students do not want to pay for a taxi or Uber to get to and from the station.
- The CATS routes that are on campus (#9 and #11) do not go to the Amtrak stations.
- UNC Charlotte is interested in the purple route shown on the map but thinks it would be beneficial to be open to the general public and that there should be more than just the Amtrak station as a destination.
- UNC Charlotte completed a student survey and there are students who live in the Kannapolis area who may be interested in the purple route regularly.
- UNC Charlotte has a Campus Congestion Task Force where they are re-evaluating transportations modes on campus. Their transit service will be changing because it is currently not meeting their needs.
- UNC Charlotte prefers that CATS or CK Rider funds and operates the route.
- If CATS is not interested in funding the purple route, UNC Charlotte could look at partnering with the state to help fund this effort.
- UNC Charlotte suggested reaching out to University City Partners regarding the purple route on the map to gain more support. (Darlene Heater is a supporter of transit).
- UNC Charlotte suggested creating a website that has all the various transportation options in the area so that people can put in their origin and destination and find way to get there (take x bus to x location, then get on x). Student project??
- UNC Charlotte has a zip car program for students. Might be something to look into for the Kannapolis station or a car share program so a student can drive to the station and leave the car at the station and another student can get off the train and drive back to campus - similar to a bicycle share program.
- UNC Charlotte is willing to help market Amtrak:
 - Can put materials in their parking facilities building on display for students to take.
 - Will include materials in new student and new employee orientation packs.
 - Will distribute materials at SORE (new student orientation with parents and students) – in January and starting in May.
 - They will tweet discounts prior to holiday travel times (with reminder from NCDOT)

NCRC and NCDOT Rail Kannapolis Station Meeting – 12/11/15

Attendees: Tom Sanctis (NCRC - TSanctis@castlecooke.com)
Mark Spitzer (NCRC - mospitzer@castlecooke.com)
Michael Todd (NCRC - mjtodd@northcarolina.edu)
Jennifer Woodward (NCRC - jwoodford@dhmri.org)
Scot Sibert (WSP | Parsons Brinckerhoff)
Genevieve Rubrecht (WSP | Parsons Brinckerhoff)

- NCRC has a van they are open to using to shuttle folks to and from the train station at no cost.
- They have 250 faculty/staff. Many are there daily and live in the area but there is a steady stream of people coming from the Triangle area (weekly basis). There are also some students who go back and forth. They suggested promoting student discounts for Amtrak.
- They were curious if there was a way to inform passengers of train status, outside of the Amtrak App
- They are willing to work with NCDOT Rail to install information screens within their buildings.
- They see transportation as a barrier right now for their expansion.
- The train would be a great way to get students there since there is no housing and it would be less costly than mileage reimbursement.
- They have partnerships with Salisbury Community College and Livingston College.
- They are interested in a bicycle share program and have their own but users need to sign out the bicycle inside a facility and return it that day. They have 7 bicycles.
- Carolina Health Care System has half of one of their buildings. They may be able to provide a bicycle share program like they do in CLT.
- They do have a newsletter and could periodically send out information.
- Issues with the train: junk piles in ROW and air horns. They say these two things give people a bad impression of the train. They want to know when the quiet zone study will be over.
- Overall, they were very interested in collaborating with NCDOT Rail Division on marketing service and helping NCDOT Rail

CATS and NCDOT Rail Kannapolis Station Meeting – 12/17/15

Attendees: Robert Cerrato (CATS – rcerrato@ci.charlotte.nc.us)
Jason Lawrence (CATS – JLawrence@ci.charlotte.nc.us)
Brian Horton (CATS – bhorton@ci.charlotte.nc.us)
Scot Sibert (WSP | Parsons Brinckerhoff)
Genevieve Rubrecht (WSP | Parsons Brinckerhoff)

- How would funding for the purple or green routes shown on the map be feasible from CATS perspective?
 - When you cross county lines someone needs to pay the other 50 percent. This 50 percent can come from anyone.
- CATS' current route, 80X, ends at a Park and Ride at Big Lots (US 29 & US 601 in Cabarrus County). Stops include; 3rd/4th and McDowell, Gateway on Trade, IKEA Park and Ride, Charlotte Motor Speedway, Big Lots Park and Ride. Part of this route is located near the purple route on the map.
- CATS is talking with CK Rider regarding adding the new JW Clay Blue Line Extension (LRT) Station to their transit system.
 - The Blue Line Extension (BLE) will connect to their transit system in 2017.
 - Would need to figure out what this service would look like; hourly/ 30 minutes/ all day?
- Amazon and Fedex may be good potential partners because of where they are located along the purple line.
- The green route as shown on the map would need to be an express route otherwise all of the ADA regulations would need to be applied.
- CATS would be interested in coming to the next workshop.

Questions from CATS

- CATS asked would the potential routes shown on the map go away with Gateway station.
- Has NCDOT thought about train service from SAL to CLT in the morning as a commuter rail?

Piedmont Authority for Regional Transportation (PART) and NCDOT Rail Kannapolis Station Meeting – 1/11/16

Attendees: Scott Rhine (PART – scottr@partnc.org)
Scot Sibert (WSP | Parsons Brinckerhoff)
Genevieve Rubrecht (WSP | Parsons Brinckerhoff)

History and Overview

- Route 5 Amtrak Connector started in 2005 and was covered 100% by NCDOT for eight years. The reimbursements were quarterly. PART did not make a profit but was fully reimbursed during the first five years.
- Their bus to Winston Salem is an express bus and mainly uses the interstate. Connecting point and end destinations are downtowns. Their stops are Winston Salem State and downtown.
- Their route is 15 miles long.
- PART runs 365 days a year, their schedule is based on Amtrak therefore they provide service as well.
- The bus will wait for 60 minutes if the train is late then the bus leaves. Their back-up is through the local taxi.
- Ridership is good for their overall system, about 75% of riders are choice riders.
- PART uses a contractor (National Express) for maintenance and operations, PART pays for fuel.
- National Express (contractor) has PART and Amtrak listed on their insurance.
- Disabled riders, senior citizens, and veterans receive half off their fares.
- They will get school groups from their train trip occasionally.
- There are no transfer fees on their service.
- There is a lot of connectivity where the PART bus picks up passengers; having the bus terminal next to the Amtrak station, which definitely works in their favor.

Funding

- Two years ago had to find other funding sources. They use the Federal 5307. FTA grant is good until June 2017, will need to find other funding sources at that time.
- Expenses are the taxi service (when the train is delayed more than 60 minutes) and tickets. Cost for the service comes from 5703 money.
- Federal monies only cover 50% of the cost; PART has to find the other 50%.
- PART does not receive federal funds from MPO's (GRO, HPT, BNC, or WNS)
- If they are going to maintain this service they will need additional funds.
- They are in their fourth year with this contractor. Operations rate is \$245,000. Total cost including fuel for the year is \$301,000.

Amtrak Agreement

- As of January 1, 2016 PART has a thruway agreement with Amtrak. Customers can purchase their bus ticket through the rail or use their e-ticket.
- Reimbursement for the fare is laid out in the Amtrak agreement.
- Amtrak was not directly involved until a few months ago for the thruway agreement.

- PART did not need anything special when they started their agreement with Amtrak in terms of insurance since they are covered under National Express' (contractor) umbrella for insurance.

PART is aware of the fourth rail service in 2017.

The VA Hospital in Winston Salem will be relocating to Kernersville and will be out patient only. No overnight stays.

CK Rider and NCDOT Rail Kannapolis Station Meeting – 2/18/16

Attendees: LJ Weslow(CK Rider – weslowlj@concordnc.gov)
Andy Christy (CK Rider - christya@concordnc.gov)
Claire Brinkley (WSP | Parsons Brinckerhoff)
Genevieve Rubrecht (WSP | Parsons Brinckerhoff)

How did CK Rider’s meeting with the commissioners go regarding the proposed route?

The commissioners did not shoot it down, but were more concerned with the recent announcement from FTA on the reduction in 5307 funds.

Further discussion/information regarding CATS?

No further discussions have occurred.

What would the “Potential Rider Express Route” in blue on the map cost to extend to the Kannapolis train station?

The annual operating cost would be \$633,000 for seven days a service. CK Rider’s hourly rate is about \$64 an hour, which is less than CATS’ cost.

The estimated capital cost for vehicles would be \$1.4 million. CK Rider does not have spare vehicles.

Background Information:

- CATS’ 80x route has received complaints from passengers. These include driver issues, delays, and fare box issues. They currently run 80x with 4 trips during peak morning and afternoon hours.
- CATS will terminate 80x at the Blue Line Extension’s last stop instead of continuing to Uptown Charlotte.
- George Liles Parkway has a battery tech company coming. This is expected to bring 28,000 – 32,000 employees.
- CK Rider’s “red:” route mainly serves employees.
- CK Rider is losing funding from the 5339 (Bus and Bus Facility). They found out on Tuesday that they will receive \$200,000 less this time.
- The commissioners are not opposed to a gas tax to help fund transit; however, no one has made a big enough deal yet for a gas tax to be discussed.

APPENDIX C: TRANSIT CONCEPT DISCUSSED SECOND WORKSHOP

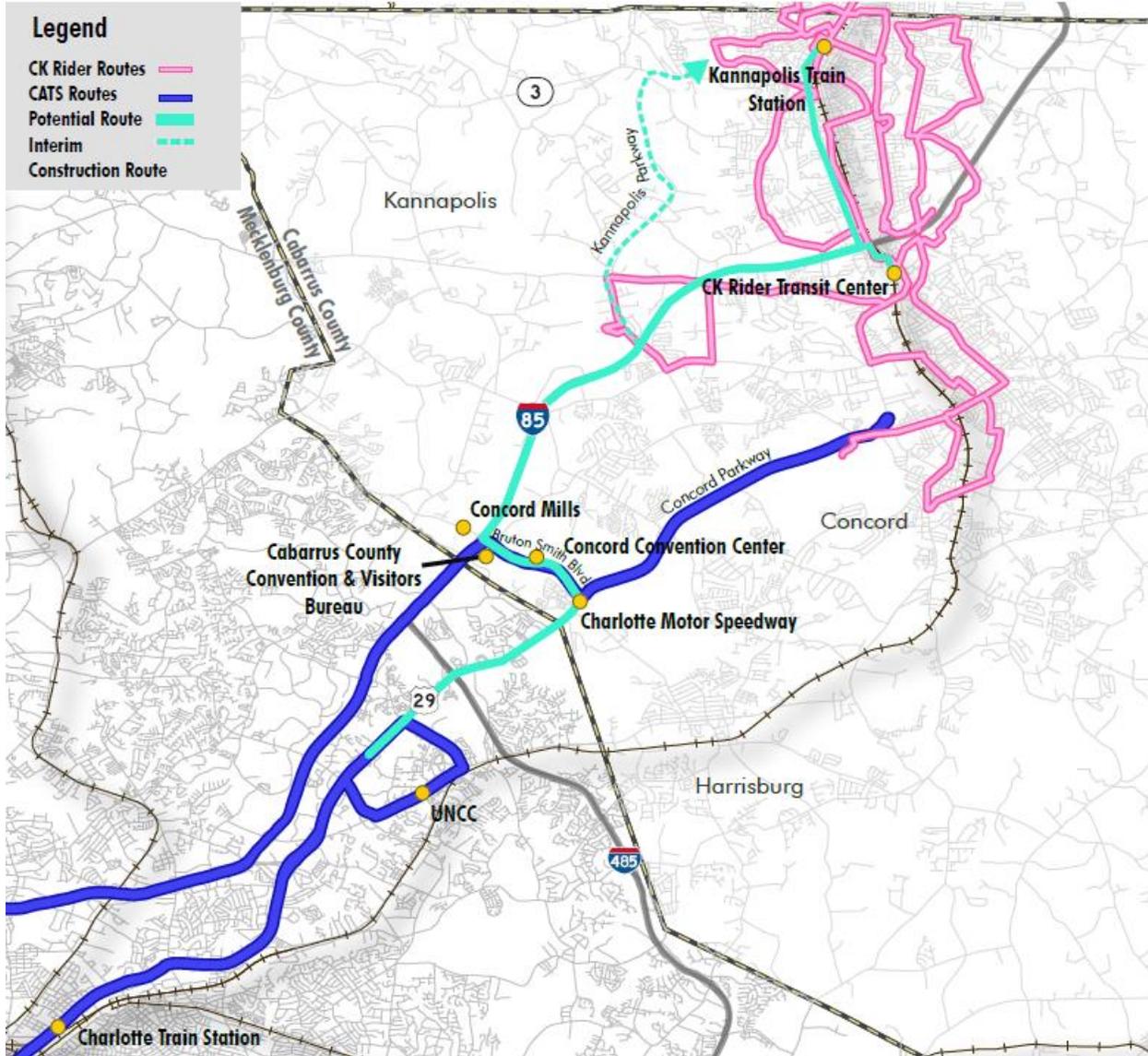


Table C1: Conceptual Route Timeframes

| UNCC | Bruton Smith Blvd | CK Rider Transit Center | Kannapolis Train Station | CK Rider Transit Center | Bruton Smith Blvd | UNCC |
|----------|-------------------|-------------------------|--------------------------|-------------------------|-------------------|----------|
| 6:20 AM | 6:40 AM | 7:00 AM | 7:25 AM Train 80 | - | - | - |
| - | - | - | 9:24 AM Train 73 | 9:44 AM | 10:04 AM | 10:24 AM |
| 11:20 AM | 11:40 AM | 12:00 PM | 12:25 PM Train 74 | - | - | - |
| - | - | - | 2:24 PM Train 75 | 2:44 PM | 3:04 PM | 3:24 PM |
| 4:35 PM | 4:55 AM | 5:15 PM | 5:40 PM Train 76 | - | - | - |
| - | - | - | 7:41 PM Train 79* | 8:01 PM | 8:21 PM | 8:41 PM |

*Note: Departing route would wait up to one hour to intercept Train 79 if the train was not on time.