

## Better Plans for a Better Community

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### Introduction

A *community* can be described as a group of people or individuals who interact with one another within a bounded geographic territory, such as a neighborhood or city who often share common values, beliefs, or behaviors (Neal, 2020). But how do these interactions correlate to a functional society or community that incorporates equality? The answer lies within *social infrastructure*, which is the physical conditions of spaces, facilities, institutions, or organizations that create the ability or opportunity for social connections (interactions) within their community. This can be mistaken for *social capital*, a common way policymakers or planners determine “what is best” based on people’s relationships and interpersonal networks (Klinenberg, 2018). If a community lacks *civic engagement*, the process of connecting individuals with one another, it will hinder *social integration*, the process that unifies a society or community which will impact a community’s ability to care about others and where they live.

The community that is being observed is Jacksonville, North Carolina. Through observing numerous issues, it has become apparent that there are various individuals or minority groups throughout the city and the greater Onslow County area affected by poor social infrastructure. This research paper is intended to explain the importance of the access, placement, and usability of public transportation within the community. This will be done by presenting and educating those who have the power to implement change for their community by identifying key social infrastructure issues, social stratification, and power. Concurrently, we will identify plans, policies, and other numerous examples regarding public transportation and how it helps or hinders the community. This will lead us to the proposed policies that, if adopted and put into action, could lead to greater civic engagement, social integration, and opportunities for those within Jacksonville and Onslow County, allowing those who depend on the local government, to make sufficient and efficient choices.

### Social Infrastructure Ethnographic Observation

Social infrastructure is what supports the growth of a community from an economic development standpoint. As mentioned previously, Klinenberg (2018), describes social infrastructure as the physical places and organizations that shape the way people interact, and, when neglected or degraded, inhibits social activity, leaving families and individuals to fend for themselves. When it comes to Jacksonville and the greater Onslow County area within North Carolina, the city is considered an Urbanized Area (50,000 or more), and the parts of the county that touch the city are considered Urban Clusters (2,500 – 49,999). The Census does not define “rural”, it encompasses all population, housing, and territory not included within an urban area which means whatever is not urban is considered rural.

It is important to understand and differentiate urbanized areas and urban clusters because there are a variety of improvements or investments that could be done to assist members of the community and bolster socioeconomic

development/infrastructure. Lack of proper or efficient public transport within the community has created additional impacts such as housing, employment, education, and/or other opportunities, that in theory could promote civic engagement and social integration between city and county lines.

As it stands, the community has two public means of transportation, the Jacksonville Transit (JT) and the Onslow United Transit System (OUTS). The JT offers a total of 5 ADA and bicycle-accessible buses, four fixed routes (Purple, Green, Orange, & Blue) within city limits, and one express route (Scarlet) for Marine Corps Bases. With that, the JT has a Park and Ride facility for those who choose to use it and the new Multimodal Transportation Center that acts as a thruway hub for Amtrak and Greyhound (limited to pick-up and drop-off times/dates). The OUTS serves primarily as a scheduled fixed route for passengers that are ADA or elderly (age 60+) for medical-related trips only (AECOM, 2018).

This brings us to the point of drop-off or pick-up locations for Jacksonville Transit. It was observed that many of the stops simply consist of a pole with a sign and zero amenities. Some have a small bench with no covering and other locations have a covering and seating. This brings us to the point of seeing citizens waiting for the bus and standing out in the cold and rain or even the hot sun. How do we expect the community to want to use public transportation if we do not accommodate them appropriately? Another issue that arises is having appropriate walkways (sidewalks) to get to and from these bus stops. \*See Appendix 1- Amenities for more information.

### **Social Stratification and Power**

Regardless of where an individual lives or where they go, social stratification and power play a role within society. *Social stratification* is the idea or concept of social order that is referred to as social hierarchy, where an individual or group is placed due to the power and resources available to them (Cole, 2019). Both Karl Marx (Marxist) and Max Weber (Weberian) explained this many years ago that power and social status play a role within society and that those with the most power have control (Griffiths et al., 2021). It has become apparent that the community of Jacksonville lacks critical social infrastructure, which can hinder civic engagement, social integration, and socioeconomic growth. According to the North Carolina Department of Commerce, it was identified that Onslow County is considered Tier 1 or economically distressed, and because the community is so dependent on a military installation, Jacksonville lacks industry diversity (NC Commerce, n.d.). This section will look to identify what demographic groups are within this community, what groups have power, how it affects the stratification of the community, and what social issues are present throughout the various news agencies.

### **Demographic Profile**

Currently, the estimated population of the City of Jacksonville is 73,000. This is made up of various demographic groups that are comprised of White/Mixed at 77.6% (56,521), Black or African American at 17.9% (13,030), Hispanic/Latino at 20% (14,544), Asian at 3.8% (2,753), Native American Indian at 5% (3,643), and Native Islander or Multiracial at 12.1% (8761) (U.S. Census Bureau, 2020). With that, the

following charts break down the demographic groups by education, income, in-poverty, and those using assistance programs.

Figure 1: Education by Race and Ethnicity

<b>Race/Ethnicity</b>	<b>HS or Higher</b>	<b>4 YR or Higher</b>
White/Mix	36,249*	10,302*
Black/African American	5,926*	1,702*
Hispanic/Latino	4,552*	945*
Asian/ Pacific Islander or Multiracial	3,448*	585*
Native American Indian	33*	N.D.*

\* Data from US Census Bureau: Education attainment ACS 5 -YR 2020

Figure 2: Income, In-Poverty, and Using Assistance by Race and Ethnicity

<b>Race/Ethnicity</b>	<b>Median Income</b>	<b>In-Poverty</b>	<b>Using Assistance Programs (SNAP)</b>
White/Mix	\$47,417*	3,647*	1265*
Black/African American	\$39,194*	2,762*	940*
Hispanic/Latino	\$51,490*	1,123*	204*
Asian/ Pacific Islander or Multiracial	\$50,000*	585*	589*
Native American Indian	N.D.*	59*	9*

\*Data from US Census Bureau: Income ACS 5 – YR 2020

As one can see in Figures 1 and 2, the gaps between races/ethnicities of the demographic groups seem to hold some type of stratification within the white demographic group and that the non-white demographic group has created a spatial division of the community. The largest employment occupations field within the community appeared to be food services, sales, and hospitality related (DataUSA, 2020). Due to the spatial division, many of the industries are operated by non-white demographic groups. Which, if there was a more robust public transportation plan or policy put forth, then those individuals would have greater opportunities.

Based on the data presented and the data from the United States Census Bureau, the previous paragraph has a significant role in various institutions and organizations that are controlled by majority demographic groups. This brings us to the topic of influential or individuals of power. Many members such as the mayor, city management, and board of directors fall into the white demographic set. While this is not a terrible thing, it can create false judgments or opinions regarding the community. Klingenberg (2018) discussed the topic of diversity and that without diversity it can create social division within a community. By having individuals of

power such as the chairman of the board of education, or even the director of community relations focus on improving and integrating cohesion through career and education programs, unconscious “segregation” may dissipate.

### **Local Media**

Using the information discussed, one can better understand how local news agencies perceive and present the issues or the division within the community. An article presented in the Jacksonville Daily titled “Lawsuit alleges Jacksonville city elections are racially biased, aiding Black voters” really shows its feelings towards minority groups (Starling, 2022). As it is understood, certain members of the community (Former Onslow County Commissioner Joe McLaughlin and team) believe that the current ward system which is based on minority-majority believes it is a form of voter suppression for non-Black voters and does not allow for “equality.” Due to the boundaries of Jacksonville and the Marine Base, the city is divided into 4 wards. It just happens that the way the wards are separated, Camp Lejeune is constructed in a larger share. As McLaughlin said, “this just happened to be carved out little goose eggs to include historically black neighborhoods” (Starling, 2022). As the ward system may need to be updated, there is one thing that the members did not talk about or consider, and that is the Census. According to the City of Jacksonville website, voting wards must be adjusted after each Census to follow the mandate of equal representation, and only the Census count is used as the basis for the creation of the wards which must be within a few percent of each other (COJNC, 2021).

Another article presented the topic of critical race theory being taught within the education system and how local members are protesting it not being taught (Dunnell, 2022). This raises concern as individuals believe it will embrace racism or simply incite that one race is better than another, which is not the case as it is intended to educate about civil rights, discourage discrimination, and spark equality (Dunnell, 2022). Issues like this bring a grave concern to local communities such as Jacksonville.

These two topics that were presented are not intended to point fingers at any one group or discuss political affiliations. They are intended to bring to light that within the community equality is lacking and minority groups are often not supported, and their best interests are not considered as race sadly plays a role in society. Thus, when it comes to public transportation, it will need backing and approval from the community to see improvements holistically. And if the community cannot see eye-to-eye, it will be hard to continue with civic engagement and social integration from a social infrastructure standpoint.

### **Literature Review**

As it has been reiterated, one of the problems within the community regarding social infrastructure is the current public transportation systems. To aid the frame of reference to the overall concept, the following literature adds more academic analysis.

### **Quantifying the economic and demographic impact of transportation infrastructure investments: A simulation study**

The following literature sought to identify how investing in transportation within a community or region can attract population migration, income, and economic growth. And focusing on key demographic sets within a community allows economic return by allowing individuals access to specific job opportunities that they may have trouble accessing. Demographic incorporation is important as access to transportation affects the ability to obtain goods and services such as healthcare. In other words, isolated areas depend on community transportation. This is also significant to local businesses as the surrounding region will have to work within the community due to the projects and materials needed for the development of transportation. The researchers of the study used a method/model coined "system dynamics" (SD) that gauged the impacts of transportation infrastructure on economic growth through data systems, which allowed both a qualitative and quantitative approach.

Diaz's et al. (2016) research questions looked for critical components of economic impacts for transportation investment, what factors and interdependencies are critical for evaluating the economic growth of a region when infrastructure projects are executed, and what factors are needed to accomplish regional competitive edge to attract business and residents to a certain region. The researchers used the quasi-experimental design by viewing previous data from both governmental and academic sources that shaped the focus of changes through implementation. The findings determined that the SD as a tool could help make an informed decision on certain locations and how it could increase economic development through transportation.

The authors of this study allowed a comprehensive review in which adding social infrastructure such as transportation can lead to social integration through economic development. Because the study was shaped by a computer model, it did not show the concept employed in a physical community in the United States. But the concept does spark a conversation that the model is feasible in modern society and that it would increase community engagement.

### **Economic impact and policy implications from urban shared transportation: The case of Pittsburgh's shared bike system**

As the title suggests, Pelechrinis et al. (2017) sought to incorporate inclusion into communities by implicating shared transportation in the form of a shared bike system. Their research identified a lack of access or use of multi-use transportation systems due to the increase in population/urbanization, which increased vehicles in/on the roadways. This shows the importance of having a system, such as shared bikes, and how it has been effective in various cities and countries, the effects it has on transportation and housing infrastructure, as well as the economic benefits to the community.

The authors used what is called the difference-in-differences (DD) method, a quasi-experimental technique that aims in identifying the effect of an intervention using observational data (Ashenfelter and Card, 1985). When it came to the research or hypothesis questions, Pelechrinis et al. (2017) wanted to know if the presence of

shared transportation impacts housing values and rental properties where these systems are provided. Using the DD method and various tools such as Zillow, they sought to see the macroscopic and microscopic effects to determine the data. It was determined that there were positive impacts on housing prices due to the mode of transportation and that it has implications that it positively affected local governments and city dwellers as it allows an increase in property taxes and gentrification within the target city mentioned. The contributions of data show transferability to other communities and cities and how they could benefit from similar shared transportation infrastructure which, in theory, could impact social-economic development, civic engagement, or social integration. The thing that could have been addressed within the literature is how crime and geographical implications may affect this concept.

### **Findings from Literature Review**

What was identified from these was that access to goods and services within a community is critical for community growth and integration, but when there is a lack of or limited access to transportation services it can affect socioeconomic and demographic development within a community. The following pieces of literature focused on how various means of transportation and what improvements could impact a community such as ours and how it can contribute to social infrastructure. Regarding our community, the issue that is seen is that there could be an improvement in civic engagement or social integration through transportation. When there is access to get to work, school, or other social gatherings, it benefits others. This was previously mentioned in the introduction, but transportation infrastructure is critical to improvements within a community, and the literature laid out concepts or ideas for shaping and informing government officials.

### **Research Brief**

Onslow County is considered economically distressed and Jacksonville lacks industry diversity (NC Commerce, n.d.). What this means is that there is either lack of employment opportunities or access to employment. And with that, one of the problems identified is the inadequate access or uses of public transportation. Although there is the city public transportation and county transportation, it either lacks access, placement, or usability and it only travels so far. This brings us to explain the importance of the access and placement of public transportation in a community through this community research project which identifies the research question, research methods, and the limitations of the project.

### **Research Question**

One of the problems regarding social infrastructure is the access and placement of public transportation within Jacksonville and Onslow County. When individuals do not have proper access to public transportation, it inhibits socioeconomic growth because of employment or other opportunities. Regarding the problem stated, there is one proposed research question to be explored: *What*

*improvements can be made to the current public transportation system to better aid disadvantaged groups?*

## **Methodology**

The research methodology behind this project will be achieved using the *Mixed Methods* approach. Mixed Methods research is an approach to a problem that leverages both qualitative and quantitative research methods to better understand the subject than any individual approach which can each contribute to various aspects of understanding a problem for a holistic methodological approach (Watkins, 2017). Currently, research has been conducted through observation and secondary data (open-source information). When mentioning observed research, data observation was conducted by driving around the local community and physically observing the access, placement, and functionalism of the current public transportation and the demographic sets. To obtain the data necessary, participants should reside or be members of the community (Jacksonville and Onslow County). Surveys and interviews would be conducted that follow research ethics and regulations to guard/protect participants' rights and welfare and that keep participants informed about what is happening by either verbal or written consent and how their contributions to this research will be used.

First, to identify primary data, surveys and interviews should be conducted with current riders to identify the cause and effect of the current public transportation model based on the research question. After every interaction, the collecting of feedback will be transcribed for future use. The survey/interview can be done in various parts. Part one of the surveys will be done using a QR code that can be scanned by riders who would be waiting for buses at various locations. If this is not an option for riders, a researcher will do a sit-and-ride survey using a smart device. Part two can be conducted using a face-to-face survey method by a researcher collector through community meetings or forms. Part three could use AdTech (advertising technology) by developing ads for the rest of the community to get involved and be able to identify further issues or concerns.

The end goal is to identify those underprivileged citizens who depend on public transportation or those who do not use public transportation due to the topics outlined. The number of participants should be no less than 500. This can be a mix between city and county as it will add to the reason for a more robust transit system. \*See Appendix (2): Jacksonville Transit Ridership Analysis, which gives the context of the number of riders that used the service.

## **Limitations**

When it comes to the limitations of the research project, there are a few considerations. First, potential bias and threats to internal validity could affect primary data collection when it comes to surveys and interviews. The goal is to identify and find solutions to the issues, not hinder collected data. Second, the adequacy of sample size and sampling validity is a concern. Although many of the surveys and interviews may be answered by riders, accessing data from others who may not use public transportation due to concerns mentioned previously. A third concern is being able to have access to additional data and information such as

identifying military and non-military citizens within the community. Additionally, ongoing research or studies may hinder research from outside agencies.

Other limitations are resources such as funding and time. Will the research have a deadline to present key issues and how will a lack of funding for materials and other equities hinder research? Is the research independent or will colleagues aid in the research? Will research be hindered by governmental agencies, not allowing research to be conducted or will approval and concurrence be needed is a concern as well.

### **Research Conclusion**

What was identified was that the current public transportation system lacks proper access, placement, or usability. This in turn can affect the individual in the community by hindering countless opportunities such as employment. With the proposed research question identified, and further research and refinement through the mixed method approach, the information collected can be used to inform and influence a novel approach to the use of public transportation to better meet community needs such as employment and housing. And with the limitations identified, this will allow future researchers to be aware of issues and how to ensure the success of further research regarding social infrastructure and community.

### **Plans and Policies**

According to the Federal Transit Administration, a Metropolitan Planning Organization (MPO) is the policy board of an organization created and designated to carry out the metropolitan transportation planning process (FTA, 2022). MPOs are required to represent localities in all urbanized areas (UZAs) with populations over 50,000, as determined by the U.S. Census. With that, city officials may not have all the tools and knowledge to develop or identify improvements to a community and may contract help from companies or organizations to achieve this.

AECOM (Architecture, Engineering, Construction, Operations, and Management) is a consulting firm dedicated to the development of projects for social infrastructure and social capital (AECOM, 2018). The city of Jacksonville, North Carolina, is the Urban Area Metropolitan Planning Organization (JUMPO) responsible for planning the improvements to streets, highways, bridges, public transit, and bicycle and pedestrian networks within Onslow County (JUMPO, 2021). The purpose of this section is to focus on three concepts. (1) Identify two policies, rules, laws, regulations, proposals, or plans regarding Public Transportation. (2) The goals of them, how they are implemented, funded, and managed, the parameters, and who it most affects within the community. And (3) A new proposed policy to improve social outcomes for public transportation.

### **JUMPO 2045 Long-Range Transportation Plan**

#### **Policy Description**

The Jacksonville Urban Area Metropolitan Planning Organization 2045 Metropolitan Transportation Plan (JUMPO 2045 MTP) is broken down into eight

chapters with three appendices that define the community's strategy for creating a regional transportation system that accommodates the current mobility needs of residents and looks to the future to anticipate where new needs may arise. JUMPO 2045 MTP is governed by the *Moving Ahead for Progress in the 21st Century Act* (MAP-21), which outlines specific goals for planning organizations to focus on certain programs for transportation improvement/streamlining, job creation/economic growth, safety, and project/innovation acceleration.

### **Goals**

JUMPO 2045 identified eight goals for the metropolitan area that aligned with MAP-21; (1) Economic vitality, (2) Increase safety, (3) Increase security, (4) Increase accessibility, (5) Protect, improve and enhance the environment, energy conservation, quality of life, and consistency between transportation, (6) Enhance integration and connectivity of the transportation systems, (7) Promote efficient systems management and operation, (8) Emphasize the preservation of the existing transportation systems. These goals were then presented at community outreach events that consisted of various local, state, or national members of appointed, elected, or employed positions, and others to include minority and low-income communities. From these interactions, six major transportation priorities were identified: congestion reduction, economic vitality, environmental sustainability, multimodal integration, safety and security, and system preservation.

### **Implementation, Funding, and Manage**

JUMPO 2045 uses the term Opportunity Band Methodology in place of implementation for the Transportation Improvement Program (TIP) and breaks it down into Short-Term Opportunity Bands (2020-2029) and Long-Term Opportunity Bands (2030-2045), projects not currently in the TIP but would be expected to receive funding by end of MTP 2045 for those projects unfunded (based on MAP-21 guidelines). In terms of the TI- Public Transportation Projects for short-term bands, it lays out FY 2020-2029 based on the project, type, and description. Of that list, it identifies facilities and additional capital to maintain operations, but only one project is to intend to "help" with access or safety which is to construct walkways for pedestrians. For the long term, only identify facility development/expansions for maintenance, dispatch, and a call center.

Because JUMPO only has two public transportation operations, Jacksonville Transit and the Onslow United Transit System, funding is split or allocated for an estimated \$25.6 million (adjusted for inflation) are currently included in the Jacksonville MPO FY 2020-2029 TIP for public transportation capital projects and operations/maintenance. However, this is spread through the whole 2045 plan. This is all managed and/or predetermined and dictated by the FTA, NCDOT, and NCMPO.

### **Parameters, Most Affected, Effectiveness, and Drawbacks**

After a close review of the JUMPO 2045 plan, it lays out many goals identified earlier and projects to meet those goals. But this plan, specifically Chapter 3: Public Transportation, has a large list of "recommendations," and not actual action.

If one took the recommendations and overlaid them with the goals, the community would see positive effects and change. With what was identified, there is a need for access, placement, and usability for public transportation for the City of Jacksonville and Onslow County.

Greater emphasis needs to be put in place to make JT and OUT one municipality service to provide regional travel opportunities. A second limit is physical access to public transportation due to the lack of pedestrian walkways/bikeways and physical infrastructure of bus stops for riders, no one wants to stand in inclement weather waiting to be taken to employment or education opportunities. A third limit is that there is not a trans-regional transportation opportunity between communities and major metropolitan areas such as Willington and other major cities that can offer high employment or education opportunities for those who consider Jacksonville their community. Those affected most by this as described by the MAP-21, are *captive riders*, those who do not have access to or the ability to use personal vehicles. Many of these riders or potential riders either live in lower-economic communities, fall into a minority group, or live just on the outskirts of city limits.

It was said that the draft 2045 MTP was posted on the Jacksonville Urban Area MPO website at [www.jumpo-nc.org](http://www.jumpo-nc.org) for a minimum of 30 days as required by the Public Participation Plan for public comments and inputs, but the plan did not receive comments. It is not clear why this was, but it seems that there is possibly a lack of exposure or knowledge. This is a major drawback or gap to not only the MPO but those of the community. How does the JUMPO expect to help the community if they are not properly informing or getting the word out about things that have an impact on an individual's livelihood? It would be in the best interest to have public announcements using various media platforms and social media platforms. Possible SMS notifications could get the information to a wider audience as we live in a technological society.

## **Jacksonville Transit System Development Plan**

### **Policy Description**

The Jacksonville Transit System Development Plan (2018) was initiated to conduct transit system travel surveys to identify a five-year operational and financial strategy to connect or reconnect fixed bus routes within the city to the new multimodal transit station (discussed in the 2045 plan). The AECOM group was contracted to perform this and identify unmet transit needs, generate ridership data, and provide service improvements. This ties into the MAP-21 that was identified in the previous policy.

### **Goals**

Outlined within this transit system development plan developed by AECOM identified that they would need to: (1) Evaluate existing service characteristics and challenges, (2) Provide updated goals for community improvements, (3) Develop a fiscally constrained 5-years operational plan for goals,

and (4) Develop fiscally constrained capital plan for implementation. Of the work identified by the group, three goals for the transit systems became known which were: (1) Provide high-quality, customer-oriented service, (2) Provide efficient, effective, and safe transit services, and (3) Promote the transit service. Within the goals proposed, it identified multiple objectives for each goal. Of these, some are valid objectives such as increasing comfort and conveniences at bus stops, increasing coordination with Onslow transit, and improving relationships/sponsorship with institutions and organizations (jobs, schools, advertising) (AECOM, 2018).

What is key to point out from this information is the data obtained from the past, present, and future that identified critical and crucial points for improvements to the transit system for the community. Of note, it laid out an extensive demographic profile derived from 2018 that has dramatically changed in the present years.

### **Implementation, Funding, and Management**

For implementation, it was identified that JT would need to focus on short-, mid-, and long-term steps for these goals. The short-term steps were to modify routes, replace vehicles, and adopt an amenities policy that was cost neutral and non-cost. It was to use automated announcement technology, hire a mobility manager, and connect rural and urban transportation. The mid-term steps were to implement an amenities policy for both cost and non-cost neutral as well as fare pass options. The long-term steps were to implement a cost neutral, regional rideshare program, and for non-cost, it was to increase service frequency/hours. The funding for this plan would require federal and state funding through FTA, NCDOT, and NCMPO programs and grants. Management would be within the city transit authority but overseen by state and federal due to funding.

### **Parameters, Most Affected, Effectiveness, and Drawbacks**

When it comes to limits, the plan identified goals earlier and projects to meet those goals; however, the issue that seems to be a concern is like that identified in the JUMPO 2045, which is to be put in place to make JT and OUT as one provider for regional travel opportunities. The second limit is the physical infrastructure of bus stops for rider comfort. The third limit was getting information from the riders. Although the plan identified key demographic groups, it only emphasized that those who are minority or lower income still struggle to use or get access to public transportation. This process of contracting out allows the company to look macro and not micro when it comes to the needs and improvements of the community for public transportation. The drawbacks are that this is merely a plan, and not every recommendation or objective can be met due to funding and red tape.

## **New Policy**

### **Policy Description**

The policy or program that is being proposed by the researcher (Jasper Rankin) is titled “Unity Public Transportation Program” (UTPP) and builds upon those described above to create a holistic approach to better serve the greater Onslow

County community by completely obtaining, absorbing, and merging the current two transit systems, becoming the Transportation Authority. Under the North Carolina Public Transportation Authorities Act, Article 25- Public Transportation Authorities states, "The jurisdiction of the authority shall extend to all local public passenger transportation operating within the municipality. Said jurisdiction shall also extend up to 30 miles outside of the corporate limits of the municipality where the municipality is a town or city, and up to five miles outside of the boundaries of the municipality where the municipality is a county or up to five miles outside of the combined boundaries of a group of counties" (NCGS, n.d). Thus, identify that the public transportation policy can be revised, updated, and relocated to better support the greater community.

Onslow County is divided into nine areas that include Richlands, Hofmann Forest, Swansboro, Camp Lejeune, Sneads Ferry, North Topsail Beach, Holly Ridge, Verona, and the greater Jacksonville area, which serves as the county seat (OCNC.gov, n.d). Currently, the City of Jacksonville is only allowed to service "city" limits and Onslow County only operates for ADA and elderly residents to get to and from medical appointments. This leaves a gap of opportunity for all residents to use public transportation. UTPP would also seek to work with greater metropolitan cities for better opportunities for employment and education needs, which would allow greater social integration, civil engagement, and social economic growth, allowing for more jobs in the community and helping those minority and lower-income families/individuals, and give them a chance to get out of poverty. The program would focus on access, placement, and usability of pick-up and drop-off locations by having the right walkways and bust-stop amenities. This tackles those issues outlined in the previous sections and plans. Additionally, the use of technology, media, social media, and other medians would be used to disseminate information.

When it came to funding, it would have to follow the same guidelines previously mentioned, federal and state funding through FTA, NCDOT, and NCMPO programs and grants. But additional funding would be sought from businesses, organizations, and institutions of those who would like to partner with the program to make it beneficial to both the rider and the transit system, and the greater community. The management of the program would lay within the Jacksonville Transit MPO, which would have oversight of the program to generate reports and adjust needed requirements.

### **Conclusion**

Individuals within a community rely heavily on those who are in positions of making policies, plans, and decisions that affect the very livelihood they have (Frieden, 2020). And when that is taken for granted, individuals tend to lose trust which can affect civil engagement, social integration, and the overall care for social infrastructure. Klinenberg (2017) states that we desperately need common places where people can come together, participate in civil society, and build stronger social bonds, and unless we invest in real social infrastructure, society will remain decidedly separated. As this research project indicated, "we" as a community, are not keeping and supporting those individuals who call Jacksonville home. By

investing the right means in social infrastructure such as public transportation, the community that is ours will not suffer.

This research project covered the social infrastructure, the social stratification and power, the research and analysis behind this project, and how future research plans or projects should be looked at. And that with the proper efforts in place, “we” as a society, and a community can be the change we want to see and achieve. By adopting and/or modifying the proposed program described, we could see meaningful change.

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## Appendix 1: Bus Stop and Amenities Procedures

CITY OF JACKSONVILLE  
TRANSPORTATION SERVICES  
DIVISION  
PROCEDURES MANUAL



### SUBJECT: BUS STOP AND AMENITIES PROCEDURES

- I. Introduction:** The City of Jacksonville provides transit services to its Citizens and seeks to continually improve upon the services it provides. Bus stops are the interface between the transit system and the public. Bus stops are areas where passengers wait for, board, and alight the bus. The quality of bus stops is an important component of the overall transit experience. A well-designed bus stop should provide a sense of safety and comfort for users while also maintaining functionality. Proper location and proper design help to ensure that a bus stop is functional for all users and does not detract from the immediate area surrounding the bus stop.

While it is desirable to provide amenities at all bus stops throughout the system, this may not be feasible. Establishing a policy and procedure that identifies criteria used in the selection and design of a bus stop is essential to determine what amenities are appropriate for each bus stop making them safe, comfortable, and functional. This will result in bus stops that are considered the best fit and a good investment for the City. Establishing such a plan ensures continuity throughout the system and provides standards with which to plan for the development of new bus stops and the enhancement of stops already in place.

- II. Background:** In the past, bus stop location decisions have primarily been based upon projected ridership as well as trip generators, such as places of employment or shopping centers. As the system has grown, and with the construction of Jacksonville Station, it has become necessary to apply a more strategic methodology in the placement and enhancement of bus stops. Jacksonville Transit has a total of 155 bus stops throughout the system. Of those, 16 stops are shared by two or more routes. There are 31 shelters installed and they are located at 25 different stops with four stops having two or more shelters installed as they are considered major transfer points. Most shelters have map cases integrated into the shelter, as well as a bench and trash receptacle. There are also 23 stops that have a bench, trash receptacle and map case. This equates to 48 bus stops, or 31%, that have amenities installed. Bus stops with amenities

also have concrete pads that provide a solid surface landing pad for mobility devices. Bus stops are currently categorized as Standard, Semi-Improved or Improved stops. A Standard bus stop consists of a single bus stop sign. A semi-Improved bus stop consists of a bench, trash receptacle and map case. An Improved bus stop consists of a shelter with a bench, trash receptacle and map case. Jacksonville Transit's bus stops, by type, are listed in Appendix A.

- III. Purpose:** This document serves as a guide to be utilized in the decision-making process for determining the placement and enhancement of transit system bus stops. The criteria outlined below, will be used to help ensure decisions are based on a strategic process that takes into account ridership, location analysis and amenities desired. This document will be used to justify placement, or non-placement, of bus stop amenities when requested by citizens or elected officials.

Jacksonville Transit strives to ensure accessibility to all who desire to utilize public transportation. Route and bus stop design will be accessible to all citizens, whenever possible. Where infrastructure improvements can be made to facilitate accessibility, Jacksonville Transit will attempt to do so depending on a variety of considerations including funding, Right of Way availability, and safety.

Section 810.2 of the DOT Standards requires that, where practicable, bus stops be located in areas that will permit construction of a boarding and alighting area that complies with Section 810.2. This section of the DOT Standards covers elements such as surface, dimensions, connection, and slope. Jacksonville Transit will review these standards before establishing any new stops in the future. There may be some limitations to meeting these established standards but, wherever practicable, Jacksonville Transit will make every effort to ensure placement of new stops allows for compliance with the DOT Standards.

**IV. Definitions:**

- A. Amenities** - Elements of a bus stop designed to enhance the comfort, convenience, safety, and security of Jacksonville Transit passengers.
- B. City Routes** – Fixed routes operating throughout City limits on a daily basis.
- C. Express Routes** – Fixed routes operating on weekends and holidays serving local military installations.
- D. Standard Bus Stop** – Bus stop that does not have any amenities such as a bench, shelter, or trash receptacle.
- E. Semi-Standard Bus Stop** – Bus stop that provides a bench, trash receptacle and map case.
- F. Improved Bus Stop** – Bus stop that provides a lit shelter, which incorporates a bench, trash receptacle and map case.
- G. Park & Ride Facilities** – This is a facility designed to provide citizens with a centralized location with which to connect to the public transportation

system. This type of facility provides a significant amount of parking and covered waiting areas for passengers. Jacksonville Transit currently has one Park & Ride Facility located at Jacksonville Commons. This facility should serve as a benchmark for any future Park & Ride Facility developments in the future.

**H. Transfer Facilities** – This is a facility designed to provide citizens with connectivity between routes. It is also a location where Transit drivers have the opportunity to take a break. These facilities will provide some parking as well as covered waiting areas.

**I. Jacksonville Station** – This is a full-fledged transportation facility that brings together several modes of transportation options. This type of facility will typically have a robust footprint with an indoor passenger waiting area, indoor rest rooms, concessions, and ticket booth or kiosk.

## **V. Bus Stop Locations & Amenities**

**1. Bus Stop Placement** - The proper location of bus stops is critical to the safety of passengers, motorists, and the proper operation of the transit system. Location considerations should include the following:

- Spacing along the route
- Proximity to expected trip generators
- Constructability
- Adequate Right of Way
- Americans with Disabilities Act (ADA) accessibility standards
- Adjacent Land Use activities
- Coordination w/ landowner
- Developer opportunities
- Conflict between buses, other vehicles, and pedestrians
- Open and visible spaces for personal security and passenger visibility
- Street illumination
- Traffic volumes
- Pedestrian accommodations
- Proximity to other transportation options
- Projected passenger activity
- Connectivity to other routes

Bus stops on each route should be placed no closer than 1/3 of a mile or 1,760 feet from another stop.

**2. Methodology** – As noted throughout this document, there are a variety of factors used to determine the best location to invest in bus stop amenities. Since ridership can vary day to day and season to season, it is extremely difficult to establish a minimum ridership level for any particular amenity. As such, it has been determined that



Jacksonville Transit's goal with regard to bus stop amenities will be an equal distribution of amenities, by category of bus stop classification. This distribution will be calculated by utilizing the average number of daily boardings at each stop along each route. Since there are three classifications of individual stops, it is suggested that one third of all stops along a route should be Improved, one third should be Semi-Improved and one third should be Standard. The placement of amenities will be evaluated on an annual basis so as to ensure placement of amenities are situated accordingly.

3. **Bus Stop Hierarchy & Amenities** - Jacksonville Transit has decided that the level of bus stop amenities is determined by the considerations listed above. Classifications of bus stops are listed below, along with the recommended criteria for projected ridership.

Classifi- cation	Criteria								
	ADA Landing Pad	Bus Stop Sign	Lighting (where feasible)	Sign w/ Route Map	Seating/ Bench	Trash Receptacle (where warranted)	Shelter	Rest Rooms	Vending/ Concessions
Standard Stop	X	X	X			X			
Semi- Improved Stop	X	X	X	X	X	X			
Improved Stop	X	X	X	X	X	X	X		
Park & Ride Facility	X	X	X	X	X	X	X		
Transfer Station	X	X	X	X	X	X	X	X	X
Jacksonville Station	X	X	X	X	X	X	X	X	X

- V. **Service Changes:** There may be occasions where service changes become necessary in order to meet demand or to mitigate a risk or hazard to include but not limited to reduction of service, route timing adjustments or implementation of a new route Jacksonville Transit will regularly evaluate the efficiency and effectiveness of the system to determine if there are any changes needed to improve the overall service to its passengers.

## Appendix 2: Ridership Analysis

<div>  <div>Jacksonville Transit Ridership Analysis</div>  </div>															
Fiscal Years 2019-2023															
City Routes															
FY	July	August	September	October	November	December	January	February	March	April	May	June	Total	Annual Increase / Decrease	Percentage
2019	8,804	10,085	5,942	8,164	9,411	9,023	9,038	8,961	9,783	9,044	8,965	7,839	105,059		
2020	8,399	8,365	7,878	9,472	8,336	8,029	8,471	7,506	6,621	6,024	7,752	9,154	96,007	(9,052)	-8.62%
2021	10,494	10,613	10,459	12,296	11,697	11,804	11,471	12,205	12,957	12,283	12,359	11,680	116,279	20,272	21.12%
2022	6,112	6,598	6,898	7,036	7,132	6,954	6,126	6,683	7,016	6,595	6,487	6,469	80,106	(36,173)	-31.11%
2023	6,007	6,050	5,656	6,478	0	0	0	0	0	0	0	0	24,191	(55,915)	-69.80%
Current FY/Last FY Monthly Change	(105)	(548)	(1,242)	(558)	(7,132)	(6,954)	(6,126)	(6,683)	(7,016)	(6,595)	(6,487)	(6,469)	(55,915)		
	-1.72%	-8.31%	-18.01%	-7.93%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-69.80%		
Express Routes															
FY	July	August	September	October	November	December	January	February	March	April	May	June	Total	Annual Increase / Decrease	Percentage
2019	754	663	496	639	1,321	2,072	1,762	1,716	2,435	1,658	1,220	1,255	15,991		
2020	1,122	1,108	945	973	1,827	1,539	1,822	1,911	1,239	1,345	2,388	2,035	18,254	2,263	14.15%
2021	2,351	2,250	2,203	3,924	4,541	3,609	6,003	7,016	5,861	5,179	5,074	3,341	51,352	33,098	181.32%
2022	1,926	1,843	1,798	3,096	4,127	2,404	4,057	3,894	2,792	2,864	3,202	2,796	34,799	(16,553)	-32.23%
2023	2,770	1,638	1,660	1,858	0	0	0	0	0	0	0	0	7,926	(26,873)	-77.22%
Current FY/Last FY Monthly Change	844	(205)	(138)	(1,238)	(4,127)	(2,404)	(4,057)	(3,894)	(2,792)	(2,864)	(3,202)	(2,796)	(26,873)		
	43.82%	-11.12%	-7.68%	-39.99%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-77.22%		
Fixed Route Totals															
FY	July	August	September	October	November	December	January	February	March	April	May	June	Total	Annual Increase / Decrease	Percentage
2019	9,558	10,748	6,483	8,803	10,732	11,095	10,800	10,677	12,218	10,702	10,185	9,094	121,095		
2020	9,521	9,473	8,823	10,445	10,163	9,568	10,308	9,417	7,860	7,369	10,140	11,189	114,276	(6,819)	-5.63%
2021	12,845	12,863	12,662	16,220	16,238	15,413	17,474	19,221	18,818	17,462	17,433	15,021	191,670	77,394	67.73%
2022	8,038	8,441	8,696	10,132	11,259	9,358	10,183	10,577	9,808	9,459	9,689	9,265	114,905	(76,765)	-40.05%
2023	8,777	7,688	7,316	8,336	0	0	0	0	0	0	0	0	32,117	(82,788)	-72.05%
Current FY/Last FY Monthly Change	739	(753)	(1,380)	(1,796)	(11,259)	(9,358)	(10,183)	(10,577)	(9,808)	(9,459)	(9,689)	(9,265)	(82,788)		
	9.19%	-8.92%	-15.87%	-17.73%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-72.05%		
ADA Paratransit															
FY	July	August	September	October	November	December	January	February	March	April	May	June	Total	Annual Increase / Decrease	Percentage
2019	338	386	137	284	239	281	261	261	275	324	353	358	3,497		
2020	383	373	321	441	292	344	399	273	229	93	207	198	3,553	56	1.60%
2021	249	281	316	286	266	295	172	173	211	248	324	298	3,119	(434)	-12.22%
2022	251	245	256	245	198	225	181	201	280	234	237	237	2,790	(329)	-10.55%
2023	234	213	254	288	0	0	0	0	0	0	0	0	989	(1,801)	-64.55%
Current FY/Last FY Monthly Change	(17)	(32)	(2)	43	(198)	(225)	(181)	(201)	(280)	(234)	(237)	(237)	(1,801)		
	93.23%	86.94%	99.22%	117.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.45%		