

# BREVARD COMMUNITY CHARACTERISTICS TECHNICAL MEMORANDUM 1

*Prepared for:*



BREVARD METROPOLITAN PLANNING ORGANIZATION

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## TABLE OF CONTENTS

I.	Introduction .....	1
II.	What is a Community Characteristics Inventory and Why Have One? .....	1
III.	The Community Characteristics Inventory .....	2
	<i>Urban Facilities</i> .....	2
	<i>Activity Centers</i> .....	2
	<i>Transportation Disadvantaged Populations</i> .....	2
	<i>Propensity to Walk Analysis</i> .....	3
	<i>Populations Concentration/ Transit Accessibility</i> .....	3
	<i>Paths to Schools Analysis</i> .....	3
	<i>Social Services</i> .....	3
	<i>Cultural Centers</i> .....	3
	<i>Parks and Recreational Facilities</i> .....	4
	<i>Population Density, Dwelling Unit Density, Unemployment, Median Age; Median Income; Spanish Speaking; Ethnicity</i> .....	4
IV.	Integrating the Inventory: .....	4
	<i>Public Outreach Tailoring</i> .....	4
	<i>Developing Scenarios to Evaluate Planning Trade-offs</i> .....	5
	<i>Crafting Locally Appropriate Programs</i> .....	5
	<i>Social and Environmental Justice</i> .....	5
	<i>Aiding in Local Economic Development Activities</i> .....	5
	<i>City Marketing</i> .....	6
V.	Next Steps .....	6



## LIST OF MAPS

Map 1 - Urban Facilities (North) .....	7
Map 2 – Urban Facilities (Central) .....	8
Map 3 – Urban Facilities (South).....	9
Map 4 – Clusters of Activity Centers (North) .....	10
Map 5 – Clusters of Activity Centers (Central) .....	11
Map 6 – Clusters of Activity Centers (South) .....	12
Map 7 – Transportation Disadvantaged Populations .....	13
Map 8 – Propensity to Walk Analysis.....	14
Map 9 – Populations Concentrations/Transit Accessibilities .....	15
Map 10 – Path Miles and Populations of Public School Facilities (North) .....	16
Map 11 - Path Miles and Populations of Public School Facilities (Central) .....	17
Map 12 - Path Miles and Populations of Public School Facilities (South) .....	18
Map 13 – Social Services (North) .....	19
Map 14 - Social Services (Central) .....	20
Map 15 - Social Services (South).....	21
Map 16 – Cultural Centers .....	22
Map 17 – Parks and Recreational Facilities (North).....	23
Map 18 - Parks and Recreational Facilities (Central).....	24
Map 19 - Parks and Recreational Facilities (South) .....	25
Map 20 – Net Persons per Square Mile (2000).....	26
Map 21 – Net Dwelling Units per Acre (2000).....	27
Map 22 – Unemployment (2000 census) .....	28
Map 23 – Median Age by Block Group (2000 census) .....	29
Map 24 – Median Household Income by Block Group (2000 census) .....	30
Map 25 – Percent Households that are Spanish Speaking (2000 census) .....	31
Map 26 – Percent Minority Population by Block Group (2000 census) .....	32



## LIST OF TABLES

Table 1 – Urban Facilities: Cemeteries .....	33
Table 2 – Urban Facilities: Fire Stations .....	34
Table 3 – Urban Facilities: Law Enforcement.....	36
Table 4 – Urban Facilities: Medical Facilities .....	37
Table 5 – Urban Facilities: Community Centers.....	47
Table 6 – Urban Facilities: Hurricane Shelters.....	48
Table 7 – Urban Facilities: Schools.....	49
Table 8 – Urban Facilities: Social Services .....	54
Table 9 – Urban Facilities: Parks and Recreation .....	56



## Introduction

The Brevard Metropolitan Planning Organization (MPO) is a regional, multi-jurisdictional agency responsible for transportation planning in Brevard County, Florida. The MPO develops long-range and short-range transportation plans, and prioritizes projects for implementation with state and federal transportation funds. Members of the MPO include elected officials from the County, cities and Port Canaveral.

Public participation in plan development and project implementation is essential for meeting the future needs of Brevard County residents. In particular, as part of the ongoing planning process, the MPO is responsible for evaluating and considering the effects of transportation plans and projects on communities and their quality of life. One important aspect of this process is ongoing and continuous information gathering on the changing characteristics of the County and its residents. As such, the MPO has embarked on creating a community characteristics inventory to serve as a repository of local planning data. This data will be maintained and used in a host of different ways to ensure more informed decision-making concerning transportation plans and policies.

## What is a Community Characteristics Inventory and Why Have One?

A community characteristics inventory is a pool of data describing the natural environment, built environment, socio-cultural and socio-economic considerations about a place or various places. Analysis of this information provides critical information to serve as background during planning and community development decision making exercises. As such, the data inventory responds to the ever present "culture of evidence" needed to justify budgetary demand and spending and helps to ensure the creation of plans and policies best suited to the needs of the community. In addition, this type of data and analysis is being used by the Florida Department of Transportation to aid in early identification of issues, and for use during consultation with resource agencies concerning potential impacts of particular transportation projects. This process is known as the Efficient Transportation Decision Making, or ETDM. The ETDM process begins with early evaluation of project impacts by reviewing all available environmental, socio-cultural and socio-economic data. At the local level, MPOs are aiding in this process through additional data gathering with a focus on socio-cultural and socio-economic characteristics unique to their particular community.

The primary purpose of the inventory is to increase available community information for use during the planning process. The inventory serves not only Brevard County's planning efforts, but can also serve as an invaluable resource to local governments and planners, as well as other agencies. The inventory will lend a vision of the "big picture" to planning efforts that are normally limited by political boundaries. The inventory integrates key issues through the linkage of social, economic and transportation-oriented factors. While the inventory covers all of Brevard County, primarily the data is most pertinent to the eastern half of the County, where the majority of the population and economic centers reside.



## The Community Characteristics Inventory

The community characteristics inventory is designed to reflect the planning needs of the Brevard MPO as well as recommendations of the statewide ETDM process, while simultaneously addressing the multi-faceted issues and forces of Brevard County. The data repository was developed in geographic information system (GIS) format so that information could be mapped and analyzed graphically. The inventory consists of several different shapefile data layers combined into various analyses using Arc9 GIS software. The following pages illustrate composite mapping reflective of multiple data layers of interest. Summary narratives accompany these maps for ease of reference.

### Urban Facilities

The urban facilities maps denote locations of various basic services and facilities found throughout the County. These include: schools, medical facilities, law enforcement, cemeteries, fire stations, hurricane shelters and community centers. These maps are intended to show which facilities are present throughout the various areas of the County. On the whole, these respective facilities are distributed fairly evenly throughout populated areas of the County. (Reference Maps 1-3)

### Activity Centers

The activity centers maps provide insight to where various economic and institutional activities are taking place. These maps denote major employers; civic and institutional; shopping; tourism and entertainment; colleges and universities; and employment clusters. The employment clusters provide an interesting view of how employment density plays out throughout the County. From a transportation planning perspective, these activity centers represent primary destinations. Understanding where these are and their relationship to centers of populations can aid in better understanding the travel patterns of Brevard County residents. In addition, this information provides insight as to where economic activity is taking place. More specifically, being able to identify areas where several types of activities are taking place may lead to enhancing these areas through joint economic development initiatives, or identifying where there are gaps in activity that might need additional focus. (Reference Maps 4-6)

### Transportation Disadvantaged Populations

Transportation disadvantaged populations are defined as those individuals for whom transportation is a challenge. This map analysis highlights where there may be concentrations of County residents that are struggling with mobility. It identifies age groups under 18 and over 65; low-income households; areas of high unemployment; and households with no car. For each of these variables, there is an associated point value, and areas which overlap with several hotspots of these variables are denoted as transportation disadvantaged populations. These concentrations of transportation disadvantaged populations are then overlaid with fixed transit bus routes. While most areas where transit disadvantaged populations are located have access within ½ mile to transit, there are several pockets throughout the County that are lacking in access. (Reference Map 7)



## Propensity to Walk Analysis

Walking is a form of transportation and provides opportunities to getting around beyond driving a car. In order to better understand what parts of the County best support walking, a propensity to walk analysis was conducted. The analysis combined eight factors: proximity to public schools, parks, transit, shopping and major employers, dwelling unit density, employment density, areas with a high percentage of population under 18 and over 65, and areas with a high number of transportation disadvantaged populations. Each one of these factors was mapped and every geographic point was rewarded with a specified point value depending on proximity (measured in miles) to each one of these factors. All of these factors were then overlaid to see where they all had the largest concentration within different geographic areas of the County. For the most part, areas with higher propensity for walking are found in downtown city centers such as Titusville, Cocoa and Melbourne. (Reference Map 8)

## Populations Concentration/ Transit Accessibility

Transit accessibility is an important part of functional communities. It is not only important from a social justice perspective, providing a needed source of mobility to people who otherwise would be homebound, but it also serves in driving local economies by linking people to opportunities for economic exchange throughout the County. Deficiencies in transit coverage are not only detrimental to individuals who desire the service, but also to the overall social and economic health of the County. Thus, this map is designed to show where high density residential areas are in relation to fixed bus route lines. A majority of the highest density areas are within a ½ mile of a fixed bus route line. However, there are some hot spot areas that have high densities with no transit coverage. (Reference Map 9)

## Paths to Schools Analysis

The ability to walk to school is often taken for granted. Walking to school not only provides health benefits to students, but also allows for more flexibility in family schedules. To determine school accessibility within individual neighborhoods a "paths to school analysis" was conducted. The point of this analysis was to determine how accessible schools are, via walking and bicycling within their given neighborhoods. The analysis measured the number of path miles within one half mile of each public school. The analysis also points out neighborhoods which are not within a half mile of any schools, of which there are several. (Reference Maps 10-12)

## Social Services

This inventory serves to show what social services are available to people throughout Brevard County. Displayed are a range of diverse services, from various disability services, to advocacy organizations to alternative schools. (Reference Maps 13-15)

## Cultural Centers

This inventory maps the locations of various places where cultural activities take place throughout Brevard County. These cultural activities include places such as performing arts centers and history museums. (Reference Map 16)



## Parks and Recreational Facilities

Included in this inventory are the locations of various park and recreational facilities located throughout Brevard County. Specifically, this inventory includes: local and County parks; state parks; rv parks; golf courses; boat ramps; beach access; and conservation areas. (Reference Maps 17-19)

## Population Density, Dwelling Unit Density, Unemployment, Median Age; Median Income; Spanish Speaking; Minority Populations

This series of single variable maps serves as the building blocks of the aforementioned analysis maps. While more simplistic in nature, they are critical to understanding basic socio-economic trends happening throughout the County. (Reference Maps 20-26)

### Integrating the Inventory:

How can the inventory be integrated and used as a tool in the planning process?

The inventory can serve as a powerful resource for informing governments and planners on local and Countywide trends. Often times, data analysis can become overly focused on narrowly defined geographies or project purposes, thus missing the "big picture" synthesis of Countywide trends or opportunities. Developing comprehensive inventories that transcend these narrow parameters creates endless potential for better information and ultimate decision-making. A few key areas are elaborated upon below.

### Public Outreach Tailoring

Public participation is a staple part of the planning process. Giving the public a voice, and providing them access to easily understandable information is critical to creating well-informed and holistic planning approaches. Reaching out to the public can be challenging, as different demographics may respond differently to various participation efforts. What is right for one community may not be right for another. Therefore, it is critical to understand the community that one is attempting to reach out to. This inventory can significantly aid in this process by empowering planners with specific information about the community at hand. Once such characteristics about the community are identified, local planners can tailor their programs accordingly. One example of this type of tailoring is the Miami-Dade Transportation and Community Mapping Website which provides extensive insight into various public involvement strategies tailored to specific demographics. For example, a website user can select a specific group to target, such as seniors, and the site will then provide information as to what kinds of public involvement activities are appropriate for such a group. To learn more, visit: <http://mpoportat.fiu.edu/>.





## Developing Scenarios to Evaluate Planning Trade-offs

The inventory can also serve as a powerful tool in identifying the tradeoffs of different policy decisions, specific project scales or locations. While a community may benefit in one regard from a proposed project, the impacts of that project may actually outweigh the benefits when all factors are considered. The community characteristics inventory can help to clarify those comparisons and aid planners in making judicious decisions. For example, there may be a transportation project proposed in an area of the County which has high unemployment, and thus the project could help to boost development and therefore alleviate unemployment. However, that same part of the County could be rural, and developing it may conflict the desires of the community to preserve its rural character. The inventory can serve as a vital resource in not only identifying those tradeoffs, but also in finding potential ways to mitigate tradeoffs.

## Crafting Locally Appropriate Programs

Socio-economic policy and program outreach needs to respond to local conditions and issues. Oftentimes the most critical issues can be overshadowed by more obvious and impending problems. The inventory serves to shed light on and give evidence to problems that people may be aware of, yet not be in complete understanding of the multi-layered dynamics of the problem; thus feel stifled as to how to go about addressing it. For example, the County has concerns regarding the safety of school children traveling to school. Gathering roadway and school inventory information and calculating the actual path miles available for children to walk or bike to school might uncover potential problem areas or opportunities not yet considered. This information can then be used to more strategically influence programs or project investments in providing safe routes to school based on the specific issues associated with a particular school or location.

## Social and Environmental Justice

Another important and powerful aspect of the community characteristic inventories is consideration of social and environmental justice. Across the U.S., road-building has had a past history of disproportionately impacting low-income and socially disadvantaged populations. During project planning, very little consideration was given to community impacts. For example, the Federal Highway Act of 1956 served to connect the various cities all over the country through investing in thousands of miles of highways; however, these same highways cut through the cities themselves, often with a lack of regard for local neighborhoods. As a result, many already disadvantaged communities were further disenfranchised by such projects. To avoid repeating history, such projects are now designed with greater sensitivity for at-risk communities. For example, the transportation disadvantaged analysis could serve as a good resource for where improved infrastructure and transit investments could be directed to aid in empowering communities whose residents have limited mobility.

## Aiding in Local Economic Development Activities

Local economic development strategies can be powerful in creating targeted efforts that allow local level governments to take ownership of the economic vitality and health of their respective communities. However, local economic development can oftentimes become too localized and lose site of larger picture influences and



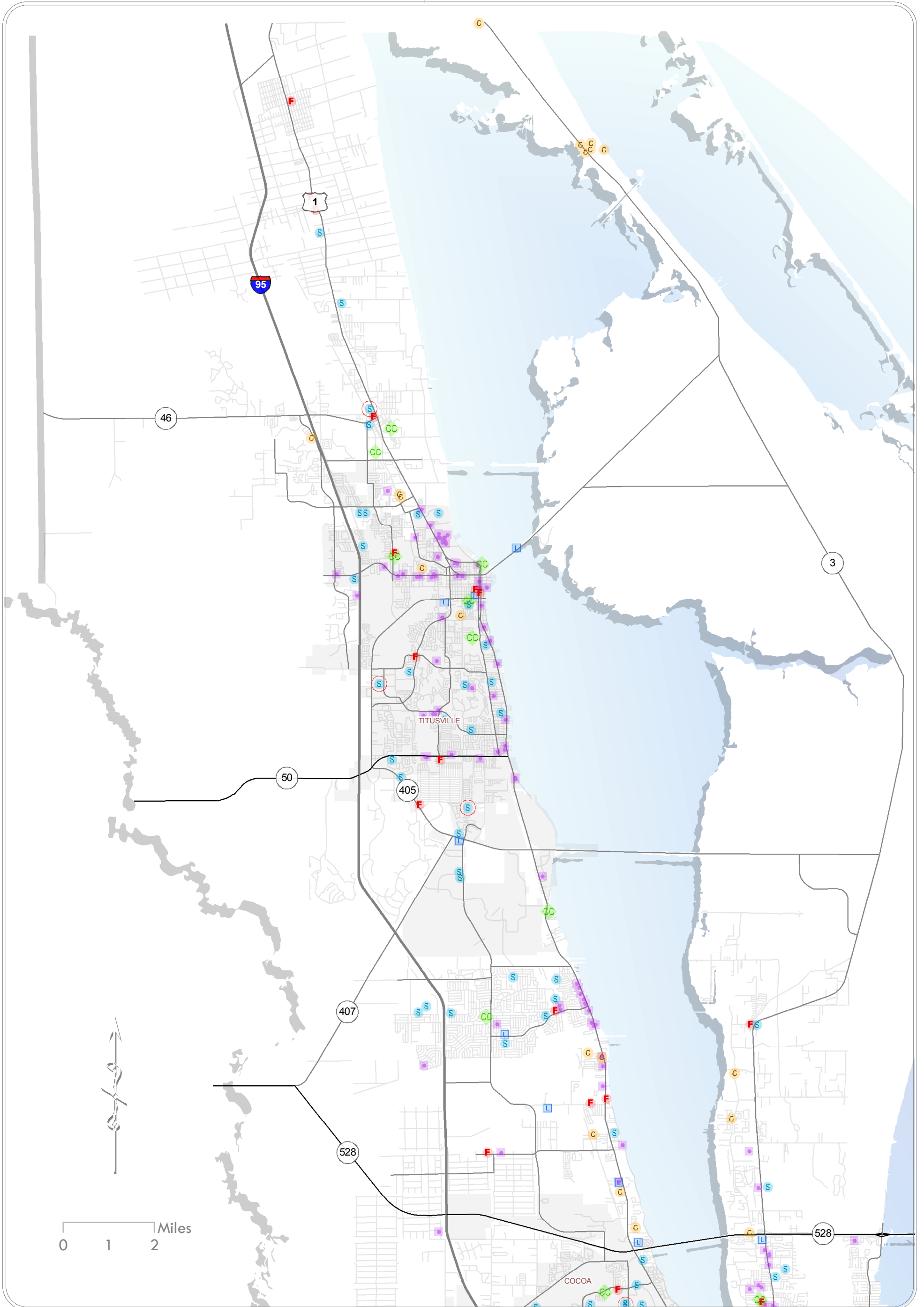
opportunities. Analysis provided in the inventory, such as the activity center(s) map, can help local governments not only to assess what economic activities are taking place in their own communities but how they interact spatially with neighboring communities. Thus, they can identify potential opportunities to capitalize on further developing existing resources.

### City Marketing

Related, yet separate from local economic development, city marketing can be a powerful tool in identifying, synthesizing and packaging resources which have the power to attract investments. For example, the inventory could shed light on something as simple as a certain age demographic to a more complex picture of a high concentration of urban facilities present within a community. Being able to easily point out these features to interested parties could aid in highlighting opportunities that were previously more veiled.

### Next Steps

With the inventories complete, a next step and future consideration is how to make the inventories accessible to the greatest number of potential users. The MPO will be making the map series available in PDF format and providing the GIS data layers on CDs. This will benefit other County and local level planners. In addition, a next step for the MPO is to explore the feasibility of creating a GIS web user interface for the community characteristic inventories. This would allow for maximum transparency and accessibility of the data to any user who wishes to apply it.



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|-------------------|------------------|
| Schools           | Law Enforcement  |
| Community Centers | Cemeteries       |
| Hurricane Shelter | Fire Stations    |
|                   | Medical Facility |

























































































































