TOWN OF CAROLINA BEACH OPERATIONS ADVISORY COMMITTEE

VISION MISSION GOALS MEASURES

Created: October 10, 2021

Updated: January 12, 2022

VISION

The Carolina Beach Operations Advisory Committee supports balancing our unique Coastal Attributes and a Healthy Ecosystem through Forward Thinking and Sustainable Services that connect Families, Businesses and Visitors.

MISSION

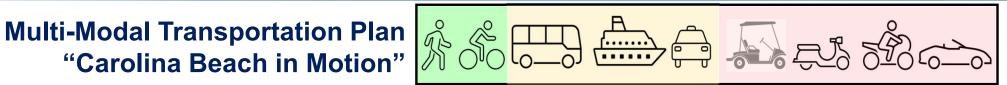
The Carolina Beach Operations Advisory Committee acts as a liaison to Town Council and collaborates with Town Staff and other local stakeholder groups to provide community perspective.

We support Public Works and Public Utilities departments to create, operate and maintain Town Infrastructure and Facilities for the benefit of Residents, Businesses and Visitors.

TOP GOALS FOR OAC

- 1. Improve Visibility of OAC role and issues.
- 2. Provide Input on Infrastructure priorities.
- 3. Unified Development Ordinance.
- 4. North End Flooding.
- 5. Paving and Maintenance Calendar.
- 6. 100% Enforcement of Ordinances.
- 7. Publish performance indicators for public works and public utilities.
- 8. Advocate to Town Council the need for a Public Information Officer.
- 9. Advocate for development of a Multi Modal Transportation Plan (MMTP).

TOWN OF CAROLINA BEACH **OPERATIONS ADVISORY COMMITTEE**



Summary

Created: October 10, 2021

Updated: January 3, 2022

TOWN OF CAROLINA BEACH

Successful communities that experience Rapid Growth and Popularity have Common Issues it must face to succeed.

Some of the issues are:

- · Neighborhoods are not Named for people to know "Where You Are" and "Where You Want to Go".
- Parking near Attractions detracts from the Natural Beach Environment people expect.
- People must use Personal Vehicles to "Drive and Park" everywhere causing congestion.
- A lack of mobility options makes it difficult to use all the Amenities and Attractions.
- Not enough Sidewalks, Shade, Bicycle Lanes and Bike Racks to safely move around town.
- The Workforce competes for Parking with "Day-Trip" Visitors, Residents & Long-Term Stay Visitors.
- Little Designated Handicap Parking to make it convenient and safe.
- Designated Vendor Parking and Service Times make it random and unorganized.

"CAROLINA BEACH IN MOTION"

A Multi-Modal Mobility Plan uses many proven Techniques to focus on Three Main Principles:

- 1. Reducing Congestion.
- 2. Increasing Safety Everywhere.
- 3. Encouraging all Types of Mobility.

Informed by a Robust Engagement of Residents & Businesses to Improve our Quality of Life.

- 1. Name Your Neighborhoods Improve the Knowledge of "Where You Are" & "Where You Want To Go".
- 2. Relieve Congestion near all Amenities & Attractions.
- 3. Establish Carolina Beach as "Easy to Live In" & "Easy to do Business".
- 4. Create a Streetscape that says, "I'm at the Beach".
- 5. Make it Easy and Safe to get to all Town Destinations.
- 6. Leverage NCDOT "Complete Streets" & "Enhancement" Programs and the WMPO to deliver.

RESEARCHED TOWNS & COMPARISONS

(CENSUS DATA)

Carolina Beach, NC

2020 Pop: 6,564 Housing Units: 5,618 2010 Pop: 5,706 Housing Units: 2,675 Growth: 15.0% 210.0%

Size: 2.5 square miles MMTP Adopted: Pending

Coral Gables, Florida

2020 Pop: 49,248 Housing Units: 21,868 2010 Pop: 46,780 Housing Units: 16,453 Growth: 15.0% 32.9%

Size: 12.9 square miles

MMTP Adopted: 2016 February

Morehead City, North Carolina

2020 Pop: 9,956 Housing Units: 5,940 2010 Pop: 8,661 Housing Units: 4,397 Growth: 14.9% 35.1%

Size: 7.4 square miles

MMTP Adopted: 2011 Ped, 2021 MMTP

Savannah, Georgia

2020 Pop: 147,780 Housing Units: 68,089 2010 Pop: 136,286 Housing Units: 52,141 Growth: 8.4% 30.5%

Size: 103.9 square miles Year MMTP Adopted: 2015

Nags Head, North Carolina

2020 Pop: 3,168 Housing Units: 5,130 2010 Pop: 2,757 Housing Units: 1,232 Growth: 14.9% 416.3%

Size: 6.6 square miles

MMTP Adopted: 2014 Dare County CTP

Pompano Beach, Florida

2020 Pop: 112,046 Housing Units: 59,742 2010 Pop: 99,845 Housing Units: 40,598 Growth: 12.2% 47.1%

Size: 24 square miles

MMTP Adopted: 2010 Pop 150k in Summer

Key West, Florida

2020 Pop: 26,444 Housing Units: 14,426 2010 Pop: 24,649 Housing Units: 9,388 Growth: 7.2% 53.6%

Size: 5.6 square miles

MMTP Adopted: 2021 (6 priorities)

M Charleston, South Carolina

2020 Pop: 150,227 Housing Units: 77,479 2010 Pop: 120,083 Housing Units: 51,818 Growth: 25.1% 49.5%

Size: 110.5 square miles MMTP Adopted: 2020 MMTP

Destin, Florida

2020 Pop: 13,931 Housing Units: 13,726 2010 Pop: 12,305 Housing Units: 5,148 Growth: 13.2% 266.6%

Size: 7.7 square miles

MMTP Adopted: 2005 MMTD (Entire Town)

Fort Lauderdale, Florida

2020 Pop: 182,760 Housing Units: 103,140 2010 Pop: 165,521 Housing Units: 72,824 Growth: 10.4% 41.6%

Size: 34.6 square miles

MMTP Adopted: 2014 MM Connectivity Plan



SUMMARY

A Multi-Modal Mobility Strategy like "Carolina Beach in Motion" will organize and enable a blueprint for Carolina Beach to meet its future challenges.

- 1. The attached "Comprehensive Multimodal Transportation Plan for Carolina Beach" document details the Scope and Approach of the Strategic Plan.
- 2. The Appendix features examples of what other Beach Communities have done to improve all forms of Mobility, Congestion, Parking, and general livability for their residents and visitors.
- 3. Some NC Dept of Transportation sets of Terminology and Program Descriptions.
- 4. Several Ideas that were gathered from Interviews & Research with over 49 Businesses and 2 Experts in the field of MMTP. They are intended to foster thought and conversation.

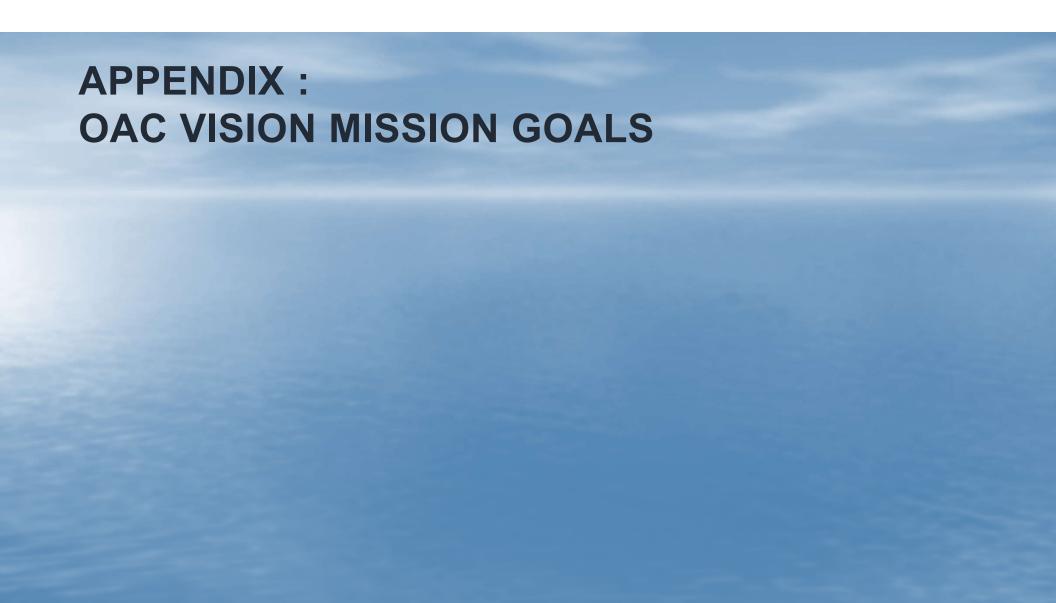
NEXT STEP



Approve Going Forward with the Creation of the Multi-Modal Mobility Plan

"Carolina Beach in Motion".





OPERATIONS ADVISORY COMMITTEE VISION MISSION GOALS

- Strategic Flow
 - Vision
 - Mission
 - Service Pillars
 - All Goals and Performance Indicators by Service Pillar Category

MISSION STATEMENT

- * Who We Are
- * What Value We Offer

VISION STATEMENT

* What We Strive to Be

STRATEGIC SERVICE PILLARS

* How We Will Achieve Our Vision

GOALS & OBJECTIVES

* How We Measure Success

EFFECTIVELY COMMUNICATE TO MAYOR, TOWN COUNCIL & THE PUBLIC

SERVICE PILLARS OF SUCCESS

Service Pillars of Success describe guiding principles we believe in and measure.

They are..

- 1. **BUILT ENVIRONMENT:** Deliver Facilities, Town Assets, Streets, Lighting, Fresh Water, Sewer and Storm Water Systems and Beach Accesses and Infrastructure Services according to the highest engineered standards.
- 2. **COMMUNITY LEADERSHIP, STAFF & COMMUNICATION:** Deliver Infrastructure and Services that promote Innovation, Creativity and Teamwork Values between Town Leadership and the Community.
- **3. ECONOMY & JOBS:** Promote Ideas of "Easy to do Business" & "Easy to Work" at Carolina Beach. Recognize and Adopt Best Practices, Superior Performance, Local Innovation and Good Governance where Projects are delivered On Time and Under Budget.
- **4. HEALTH & SAFETY:** Provide a Safe, Clean and High Quality of Life in all the activities we do.
- **5. NATURAL RESOURCES, AMENITIES & ATTRACTIONS:** Protect and Restore Natural Resources, Parks, Amenities & Attractions from which life depends.
- **6. ENERGY:** Support Solutions and Practices that are Forward Thinking and Sustainable.

BUILT ENVIRONMENT

Deliver Facilities, Town Assets, Streets, Lighting, Fresh Water, Sewer and Storm Water Systems and Beach Accesses and Infrastructure Services according to the highest engineered standards.

- A. New Infrastructure: Implement Infrastructure for the existing Land Use Plan that ensures compatibility, diversity and sustainability while promoting efforts to mitigate noise, light and ground pollution.
- B. Existing Infrastructure: Improve and maintain existing infrastructure to ensure functionality and accessibility. Commitment to High Level of Maintenance of Facilities.
- C. Future: Include placemaking strategies of public infrastructure and private projects harmonious with the Towns Identity.

COMMUNITY

Deliver Infrastructure and Services that promote Innovation, Creativity and Teamwork Values between Town Leadership and the Community. Leadership is committed to proactive and effective communication to the Town.

- A. Neighborhoods & Workforce: Promote neighborhoods that are safe, clean, green and connected to Tourist Activities, Workforce Jobs and Transit Options.
- B. Multi-Modal Mobility: Encourage alternative solutions to existing modes of Transportation and Parking which enhance connectivity between all forms of mobility like Pedestrian, Bikes, Taxis & Transits.
- C. Public Spaces: Develop and maintain active parks and public spaces to promote a high public quality of life.
- **D. Project Focus:** Actively Identify, Prioritize and Track Projects through Committee working sessions.

ECONOMY & JOBS

Promote Ideas of "Easy to do Business" & "Easy to Work" at Carolina Beach. Recognize and Adopt Best Practices, Superior Performance, Local Innovation and Good Governance where Projects are delivered On Time and Under Budget.

- A. Neighborhoods & Workforce: Promote neighborhoods that are safe, clean, green and connected to Tourist Activities, Workforce Jobs and Transit Options.
- **B. Mobility:** Encourage alternative existing modes of Transportation and Parking which enhance connectivity between all forms of mobility like Pedestrian, Bikes, Taxis & Transits.
- **C. Public Spaces:** Develop and maintain active parks and public spaces, to promote a high public quality of life.

HEALTH & SAFETY

Provide a Safe, Clean and High Quality of Life in all the activities we do.

- A. Maintain a safe Town through prompt elimination of safety issues related to Roads, Sidewalks, Intersections and Lighting.
- B. Eliminate all fatalities, serious traffic accidents and preventable injuries on our roadways.
- C. Implement strong Code Enforcement.
- D. Identify and Eliminate all fire prevention risks.
- E. Maintain a robust plan for disaster recovery, community health and other emergencies.
- F. Protect water quality and availability.
- G. Eliminate all Storm Water issues.

NATURAL RESOURCES

Protect and Restore Natural Resources from which life depends.

- A. Maximize and Protect existing natural water sources.
- B. Increase the size and diversity of the Town's shade-tree canopy.
- C. Support "green" initiatives everywhere and attain "Tree USA" designation by end of 2022.
- D. Eliminate Litter, Refuse and Bad Odors everywhere.
- E. Support ecosystems management to enhance the benefits of city-owned natural resources.
- F. Increase visibility to Beach, Sand, Inlet and Erosion Risks and Mediation Projects.

ENERGY

Support Solutions and Practices that are Forward Thinking and Sustainable.

- A. Work to mitigate the Towns vulnerability to climate conditions, resource availability, and energy issues, including sea-level rise, beach & sand erosion and improve stormwater management.
- B. Encourage "GREEN" building standards, including LEED (Leadership in Energy and Environmental Design) and WELL (a program of the WELL Building Institute) certifications for new development, including the use of renewable energy sources.
- C. Eliminate the use of fossil fuels wherever possible in the City Assets by 2025.
- D. Make the Town of Carolina Beach measurably carbon neutral by 2050.

Deliver Facilities and Infrastructure Services according to the highest engineered standards.

BUILT ENVIRONMENT	TOUCHPOINT(S)	PERFORMANCE INDICATOR
GOAL #4: Add Responsibility to OAC for Identifying and Resolving Issues related to the North End Area and Canal Drive Flooding. Include topics such as Storm Outfall Drains surrounding the Carolina Beach Harbor, Street Storm Drain Cleanouts and Monitoring Systems in order to mitigate impacts due to events such as high tide flooding and storms. Keep public informed on actions being considered and being taken.		Capture the Dates in 2022 when this is Established
Pavement Condition Index (PCI) of all paved city roads at the end of the fiscal year.	OPERATIONS	Goal: 100% % Safe & Drivable
Percent of parks and recreation facility users who rate the programs as good or excellent Economic Development Average.	PARKS & RECREATION OPERATIONS	Goal: 100% % Good + Excellent Ratings MTD
100% of New Development is Reviewed, Engineered & Confirmed that watershed/storm water impact is ZERO impact to adjacents.	PLANNING & ZONING OPERATIONS	100% of New Development is Reviewed. 100% of New Development Conforms as ZERO IMPACT by Final Inspection Approval. ZERO Adverse Impact of all Reviewed Development to Adjacent Properties AND Town Storm Water Systems.
Miles of storm water pipeline cleaned YTD / TTL.	OPERATIONS	RATIO: XX Pipeline Cleaned : XX Pipeline Total
Operations to Collaborate with the Planning & Zoning Committee to create a Property Drainage Improvement Plan and Identify Relevant Ordinances that apply.	PLANNING & ZONING OPERATIONS	Capture the Date in 2022 when this is Established
Storm Water Drains w/ Cameras YTD / TTL.	OPERATIONS	RATIO: XX Drains Monitored : XX Drains Total

BUILT ENVIRONMENT	TOUCHPOINT(S)	PERFORMANCE INDICATOR
Budget Recommendations Workshop Process" to identify items needed to be Developed, Prioritized and Funded: Capital Improvements, Infrastructure, Public Safety, Customer Service and Public Communication.	FINANCE OPERATIONS TOWN MGR. ASST TOWN MGR. TOWN COUNCIL OTHER COMMITTEES OPERATIONS	Establish "Town Committee Annual Budget Recommendations Workshop Process" Prior to Town Council/Town Staff Annual Budget Process. 1st: Oct: Committees work Independently with their liaison(s). OAC with Asst. Town Mgr., Public Utilities, Public Works. 2nd: Nov: Budget Reporting Cross-Committee Reconciliation. "Barn Dance" to Consolidate and Prioritize with Committees. 3rd: Aug: Progress Budget Plan vs Spend Report / Budget Line Item Adjustments if any. Capture the Dates in 2022 when this is Established. Publish Schedule Monthly. NOTE: All Projects will have Project Description, Owner, Estimated Start Date, Estimated End Date, Actual Start Date, Actual End Date, Notes From Staff.
Emergency Events: Improve the Towns Ability to deliver Proactive Plans & Notifications related to Weather, Infrastructure and other Emergency Events Impacting Residents, Businesses & Visitors.		# Events Experienced by Type of Event # Notifications Published/Communicated by Type of Event # Proactive Notifications Published/Communicated by Type of Event Add CODE RED to Process.
GOAL #4: Provide a Forum for Community Input on Issues and Opportunities to address North End Area Flooding Issues Including, but not limited to, Canal Drive. Include topics such as Storm Outfall Drains surrounding the Carolina Beach Harbor, Street Storm Drain Cleanouts and Monitoring Systems all to alleviate impacts due to events such as high tide flooding and storms.	OPERATIONS	Capture the Dates in 2022 when this is Established
	OPERATIONS PLANNING & ZONING	100% of Ordinance Infractions have been addresses or a Penalty has been Issued. 100% Final Disposition of Infractions has been positively resolved.

COMMUNITY LEADERSHIP, STAFF & COMMUNICATION	TOUCHPOINT(S)	PERFORMANCE INDICATOR
	OPERATIONS	Publish MONTHLY in the "OPERATIONS News Monthly"
Publish Town's Capital & Maintenance Projects to Increase Awareness to Operations Activities Published MONTHLY. (1) Consolidated YTD Open Projects Report. (1) Consolidated YTD Resolved Projects Report. (1) YTD Ordinance Related Projects.	OPERATIONS	Capture the Date in 2022 when this is Established. Publish Monthly. NOTE: All Projects will have Project Description, Owner, Estimated Start Date, Estimated End Date, Actual Start Date, Actual End Date, Notes From Staff.
GOAL #1: Raise Awareness about OAC VISION, MISSION and GOALS and Role by Increasing Visibility through Publishing to the Town Website, Soliciting Feedback and Gaining Support from Town Council, Cross-Committee, Businesses and Residents.	OPERATIONS	Conduct Meeting Between Operations Advisory Committee and all other Committee Chairs/Vice-Chairs on Dec 7th, 2021. Present all OAC Vision, Mission and Goals to Town Council by Jan 2022. Have all other Committees Present their Vision, Mission and Goals to Town Council by Feb 2022.
Build on Town Committee & Staff Team Structure and Culture to enhance the Town's Response to Solving Public Concerns.	OPERATIONS ALL COMMITTEES TOWN STAFF TOWN COUNCIL	Surveys Bi-Annual: Positive Feedback from Public on: (Good or Better, SCALE:Unacceptable, Poor, Average, Good, Excellent) - Parking - Amenities & Attractions Safe and Usable Streets - Storm Water systems that function acceptably Water systems that function acceptably with capacity Waste systems that function acceptably Public Safety is consistent with Standards.

COMMUNITY LEADERSHIP, STAFF & COMMUNICATION	TOUCHPOINT(S)	PERFORMANCE INDICATOR
Make Carolina Beach a wonderful place to Live, Visit and Do Business for future Generations.	OPERATIONS ALL OTHER COMMITTEES TOWN STAFF TOWN COUNCIL	Survey/Listen/Respond: Visitor Feedback Ratings After Stay: At Least Good, Great or Excellent. DAILY Resident Feedback Ratings: At Least Good, Great or Excellent. ANNUALLY Business Feedback Ratings: At Least Good, Great or Excellent. ANNUALLY
GOAL #8: Add a Town of Carolina Beach Public Information Officer (PIO) in early 2022.	OPERATIONS FINANCE PLANNING & ZONING PARKS & RECREATION BEAUTIFICATION TOWN DEPTS	Capture the Date in 2022 when this is Established
GOAL #9: Create Multi-Modal Transportation Plan Adhoc Committee through OAC Resolution.	OPERATIONS TOWN COUNCIL	Capture the Date(s) in 2022 when these things are Established. OAC Sub-Committee Creation Date: Dec 07, 2021. DONE.
Encourage Development of Buildings that are LEED certified.	PLANNING & ZONING OPERATIONS	RATIO: # of Commercial Development Permits : # of LEEDS Certified Developments
Percent reduction in greenhouse gas emissions for government operations.	PLANNING & ZONING OPERATIONS	# Newly Purchased GREEN Energy Town Assets : # Total Newly Purchased Town Assets
Establish a Predictable Process where the Operations Advisory Committee Identifies and Clarifies Common Topics and Issues that impact Operations, Planning & Zoning, Parks & Recreation, Bike & Pedestrian and Beautification Committees.	PLANNING & ZONING OPERATIONS PARKS & RECREATION BIKE & PEDESTRIAN BEAUTIFICATION	Establish Quarterly Chair/Vice Chair Cross-Committee Meeting.

COMMUNITY LEADERSHIP, STAFF & COMMUNICATION	TOUCHPOINT(S)	PERFORMANCE INDICATOR
GOAL #3: Establish Unified Development Ordinance by working with Town Staff & Committees	TOWN STAFF OPERATIONS All Other Committees	Capture the Date in 2022 when this is Established
Name Neighborhoods & Areas throughout Town. Categorize them as Neighborhoods, Areas, CB History, Town Parking, Private Parking, Amenities, Attractions, Safe Walking, Safe Biking, Shuttles, Water Taxis, Bicycle Racks, Handicap, Bathrooms, etc	OPERATIONS Other Committees TOWN COUNCIL PUBLIC	Capture the Date(s) in 2022 when these things are Established

Promote Ideas of "Easy to do Business" & "Easy to Work" at Carolina Beach. Recognize and Adopt Best Practices, Superior Performance, Local Innovation and Good Governance where Projects are delivered On Time and Under Budget.

ECONOMY & JOBS	TOUCHPOINT	PERFORMANCE INDICATOR
Number of newly created jobs from economic development initiatives	ECONOMIC	# New Jobs Created
Percent change in the new business licenses issued	ECONOMIC PLANNING & ZONING	# New Business Licenses issued YTD # Renewal Business Licenses issued YTD
Ensure New Development Reviews Process is consistent and Strive for all Reviews to be completed within 14 days (residential) and 30 days (commercial)	ECONOMIC	# Building Plans MTD # Building Plans Reviewed within 14 Days MTD # Building Plans Reviewed within 30 Days MTD
Overall bond rating for General Obligation Bonds and Water & Sewer Bonds	FINANCE	B+ or Greater

Provide a Safe, Clean and High Quality of Life in all the activities we do.

ENERGY	TOUCHPOINT	PERFORMANCE INDICATOR
Convert Fossil Fuel Assets to GREEN Powered (where a GREEN Alternative Exists. This would occur with New Purchases as Assets reach End of Life and are replaced.	OPERATIONS	# of Fossil Fuel Assets where GREEN Alternative Exists MONTHLY # of GREEN Assets MONTHLY % Change in Fossil Fuel Assets converted to Renewable.
Encourage LEED Certification Buildings. Post List of LEEDS Certified Buildings/Developments	PLANNING & ZONING OPERATIONS	RATIO: # of Commercial Buildings in Town # of LEEDS Certified Buildings Publish Listing of all LEEDS Certified Building.

Protect and Restore Natural Resources from which life depends.

HEALTH & SAFETY	TOUCHPOINT	PERFORMANCE INDICATOR
GOAL #6: Percent of code enforcement cases resolved within 60 days.	ECONOMIC DEVELOPMENT PLANNING & ZONING INSPECTIONS	# Code Violations # Code Violations resolved within 60 Days # Code Violations resolved with only Notification/Discussion # Code Violations resolved with some Penalty
Number of Beach Access Related Accidents Reported	POLICE FIRE OPERATIONS	# of Accidents Involving Injury
Number of Sidewalk Quality Related Accidents Reported Involving an Injury	POLICE FIRE OPERATIONS	# of Accidents Involving Injury
Number of Street Quality Related Accidents Reported Involving an Injury	POLICE FIRE OPERATIONS	# of Accidents Involving Injury
Number of Trash, Refuse or Odor Complaints Reported	POLICE FIRE OPERATIONS	# of Complaints
Number Park and Greenway Related Accidents Reported Involving an Injury	POLICE FIRE OPERATIONS	# of Accidents Involving Injury

Protect and Restore Natural Resources from which life depends.

HEALTH & SAFETY	TOUCHPOINT	PERFORMANCE INDICATOR
Number of trees distributed for canopy improvement (overall & New Dev)	BEAUTIFICATION PARKS & RECREATION OPERATIONS	# New Trees Planted MTD
Number of participants in Environmental & Natural Resources Education/Awareness Programs	BEAUTIFICATION PARKS & RECREATION ECONOMIC GROWTH OPERATIONS	# Participants in Education/Awareness of Environment & Natural Resources MTD

APPENDIX: OAC MULTI-MODAL TRANSPORTATION PLAN

"CAROLINA BEACH IN MOTION"

APPENDIX

- Multi-Modal Conceptual Information Gathering Sessions Attendee List.
- NC DOT "Complete Streets" Program.
- NC DOT Level of Service (LOS) Definitions.
- Department of Mobility Facts.
- Shuttle System Projected Revenue Scenarios.
- Researched Community Use Cases & Concepts.

PRESENTATION LIST (OVER 51 AND GAINING)

Completed Meetings:

- (1 Done): 11/15 Existing Town Council and Mayor. Shuttleworth & Pierce. (Short version). "Like"
- (4 Done): 11/15 All New Town Council and Mayor. Barbee, Benson, Hoffer, Healy. "Like"
- (2 Done): Danny Fat Pelican Owner. "Likes" with some mods on bike rack locations at Charlotte (Kate's) & Raleigh (BBT).
- (2 Done): Dave Cole Hurricane Alley Owner. "Likes" with some suggestions on 1-way streets at gazebo area.
- (2 Done): Matt Shuckin Shack Owner. "Likes" "Likes open sidewalks & bike racks, Motorcycle, Handicap & Golf Carts at Gazebo.
- (2 Done): Ryan The Dive Owner. "Likes" w/ (2) 15 Min Food Pickup Spots & add parallel spots down Raleigh Ave. For Bike Racks.
- (8 Done): CBD/Boardwalk Owners FB Michelle Alberda. "Likes" w/ 1-way Traffic, (2) Food Pickup/Delivery 15 min spots.
- (8 Done): CB Committee Chairs/Vice Chairs. "Likes" with lots of input that I believe they are sending through...
- (4 Done): Ken Coffer Secof Construction Owner. "Likes" with input on plans for Boardwalk Area Near → Long-term & Parking.
- (2 Done): Dec 10: Steve Stefanovich & Leanne (Malanos Owner) . Pleasure Island Chamber of Commerce Chair.
- (8 Done): Dec 15: CBD & Boardwalk Business and Property Owners & Island Gazette. Like 100% of plan ideas.
- (2 Done): 12/14: Patrick Boykin & Jeff Hogan @ The Spot
- (1 Done): 12/13 @El Cazadore Owner): Diego El Cazadore. For bike rack by biz & street bike parking and wide sidewalks
- (2 Done): 12/13 @kates): Kathy Weiss & Mr. Campbell Kate's Pancake House Like addn'l bike racks on Charlotte Avenue
- (1 Done): 12/10 & attending 12/15 town meeting): BBT Manager.
- (1 Done): 12/29 Gerald Taylor NCDOT Retired 12/2021 Provided advice on how to organize and insight on current DOT projects. 51 mark...

MULTI-MODAL MOBILITY PLANS



Whenever possible, utilize "NCDOT Complete Streets Program", where it's Standards address the following Mobility system elements:

- LOS (Level of Service) Speeds *
- Through lanes
- Sharrows Shared Lanes
- Sidewalks & Sidewalk buffers
- Shade (e.g., Tree Canopies, Awnings and Covers)
- Pedestrian coverings, crossings and lighting
- Bicycle lanes & Bicycle lane buffers
- On-street parking
- Medians and Buffers

Beautification Projects (separate program/projects from Complete Streets)

* For LOS Ratings see Appendix

BASICS OF TRANSPORT

Table 2 Highway Level-Of-Service (LOS) Ratings (Wikipedia)						
LOS	Description	Speed (mph)	Flow (veh./hour/lane)	Density (veh./mile)		
A	Traffic flows at or above posted speed limit. Motorists have complete mobility between lanes.	Over 60	Under 700	Under 12		
В	Slightly congested, with some impingement of maneuverability. Two motorists might be forced to drive side by side, limiting lane changes.	57-60	700-1,100	12-20		
С	Ability to pass or change lanes is not assured. Most experienced drivers are comfortable and posted speed is maintained but roads are close to capacity. This is the target LOS for most urban highways.	54-57	1,100-1,550	20-30		
D	Typical of an urban highway during commuting hours. Speeds are somewhat reduced, motorists are hemmed in by other cars and trucks.	46-54	1,550-1,850	30-42		
E	Flow becomes irregular and speed varies rapidly, but rarely reaches the posted limit. On highways this is consistent with a road over its designed capacity.	30-46	1,850-2,000	42-67		
F	Flow is forced, with frequent drops in speed to nearly zero mph. Travel time is unpredictable.	Under 30	Unstable	67- Maximum		

This table summarizes highway Level of Service (LOS) rating, an indicator of congestion intensity.

Under optimal conditions a grade separated highway can carry up to 2,200 vehicles per hour (VPH) per lane, and an arterial with intersections about half that. Table 3 indicates commonly used traffic measurement units. These are generally measured during peak hours. Speed is generally based on the 85th percentile (the speed below which 85% of vehicles travel). Traffic volumes are also sometimes measured as Annual Average Daily Traffic (AADT).

Table 3 Basic Traffic Units

Parameter	Typical Units	Reciprocal	Typical Units
Flow	Vehicles per hour (Veh/h)	Headway	Seconds per vehicle (s/veh)
Speed	Kilometers or miles per hour (Km/h)	Travel time	Seconds per km or mi (s/km)
Density	Vehicles per lane-km or mi (veh/lane-km)	Spacing	Feet or meters per vehicle (m/veh)

This table summarizes units commonly used to measure vehicle traffic.

Terms and Concepts

- Traffic congestion can be recurrent (occurs daily, weekly or annually, making it easier to manage) or non-recurrent (typically due to accidents, special events or road closures).
- Design vehicle refers to the largest vehicle a roadway is designed to accommodate. Passenger Car Equivalents (PCE) indicate a larger vehicle's traffic imapcts compared with a typical car.
- A queue is a line of waiting vehicles (for example, at an intersection). A platoon is group of vehicles
 moving together (such as after traffic signals turn green).
- Capacity refers to the number of people or vehicles that could be accommodated. Load factor refers
 to the portion of capacity that is actually used. For example, a load factor of 0.85 indicates that 85%
 of the maximum capacity is actually occupied.

Multimodal Transportation Planning

Multmodal planning refers to transportation and land use planning that considers diverse transportation options, typically including walking, cycling, public transit and automobile, and accounts for land use factors that affect accessibility. A growing body of resources are being developed for multimodal planning (Williams, Claridge and Carroll 2016).

Multimodal transportation accounts for the differing capabilities of different modes, including their availability, speed, density, costs, limitations, and therefore their most appropriate uses (Table 4).

Table 4 Mode Profiles

Mode	Availability	Availability Speed D		Density Loads	Costs	Pote	ential U	sers	Limitations
	Times and locations served	typical speeds	space needed	carrying user capacity costs	Non- Drivers	Poor	Handi- capped		
Walking	Wide (nearly universal)	2-5 mph	High	Small	Low	Yes	Yes	Varies	Requires physical ability. Limited distance and carrying capacity. May be difficult or unsafe to use.
Wheelchair	Limited (requires suitable facilities)	2-5 mph	Medium	Small	Med.	Yes	Yes	Yes	Requires suitable sidewalk or path. Limited distance and carrying capacity.
Bicycle	wide (feasible on most roads and paths)	5-15 mph	Medium	Small to medium	Med.	Yes	Yes	Varies	Requires bicycle and ability. Limited distance and carrying capacity.
Taxi	Moderate (in most urban areas)	20-60 mph	Low	Medium	High	Yes	Limite d	Yes	High costs and limited availability.
Fixed Route Transit	Limited (major urban areas)	20-40 mph	High	Small	Med.	Yes	Yes	Yes	Limited availability. Sometimes difficult to use.
Paratransit	Limited	10-30 mph	Medium	Small	High	Vec	Vas	Vac	High cost and limited service:
Auto driver	Wide (nearly universal)	20-60 mph	Low	Medium to large	High	No	Limite d	Varies	Requires driving ability and automobile. Costly.
Ridesharing (auto passenger)	Limited (only suited for some trips)	20-60 mph	High	Medium	Low	Yes	Yes	Yes	Requires cooperative motorist. Chauffeuring (special trips) require driver's time.
Carsharing (vehicle rentals)	Limited (needs nearby services)	20-60 mph	Low	Medium to large	Med.	No	Limite d	Varies	Requires convenient and affordable vehicle rentals services.
Motorcycle	Wide (nearly universal)	20-60 mph	Medium	Medium	High	No	Limite d	No	Requires motorcycle and ability. Moderate costs.
Telecommute	Wide (nearly universal)	NA	NA	NA	Med.	Yes	Varies	Varies	Requires equipment and skill.

This table summarizes the performance of various transportation modes.

BASICS OF TRANSPORT

Green Mobility Hierarchy:

- 1. Pedestrians
- Bicycles
- Shuttles
- 4. Service/Freight Vehicles
- 5. Taxis
- 6. Multiple Passenger Vehicles (carpools)
- 7. Single Passenger Vehicles

Green Transport favors more Efficient and Affordable Modes (space, energy, cost to user)

Non-Automobile Travel Demands:

- Youths 10-20 (10-30% of population).
- Seniors who do not or should not drive (5-15%).
- Adults unable to drive due to disability (3-5%).
- Lower income households burdened by vehicle expenses (15-30%).
- Community visitors who lack a vehicle or driver's license.
- People who want to walk or bike for enjoyment and health.
- Drivers who want to avoid chauffeuring burdens.
- Law-abiding drinkers, and impaired people (a small but important demand to serve).
- Residents who want reduced congestion, accidents and pollution emissions.

Percent of the Employed Population travel time to work:

i orderit or the Employed's opalation traver time to the							
1.	Work at Home	3%					
2.	Less than 15 Minutes	21%					
3.	15-30 Minutes	39%					
4.	30-59 Minutes	29%					
5.	60+ Minutes	06%					

Multi-Modal Transportation Planning Victoria Transport Policy Institute

Name	Description	Availability	Speed	Density	Costs
		Destinations served	Passenger travel speeds	Passenger volumes	Cost per trip
Heavy rail	Relatively large, higher-speed trains, operating entirely on separate rights- of-way, with infrequent stops, providing service between communities.	Limited to major corridors in large cities	High	Very high	Very high
Light Rail Transit (LRT)	Moderate size, medium-speed trains, operating mainly on separate rights-of-way, with variable distances between stations, providing service between urban neighborhoods and commercial centers.	Limited to major corridors	Medium	High	High
Streetcars (also called trams or trolleys)	Relatively small, lower-speed trains, operating primarily on urban streets, with frequent stops which provide service along major urban corridors.	Limited to major corridors	Medium	High	High
Fixed route bus transit	Buses on scheduled routes.	Widely available in urban areas	Low to medium	High	Low to medium
Bus Rapid Transit (BRT)	A bus system with features that provide a high quality of service.	Limited to major corridors	Medium to high	High	Low to medium
Express bus	Limited stop bus service designed for commuters and special events.	Limited to maior corridors	High	High	Low to medium
Ferry services	Boats used to transport people and vehicles.	Limited to major corridors	Low to medium	Low to medium	Medium to high
Paratransit	Small buses or vans that provide door- to-door, demand-response service.	Widely available	Low	Low	High
Personal Rapid Transit (PRT)	Small, automated vehicles that provide transit service, generally on tracks.	Limited to major corridors	Low to medium	Low to medium	Medium to high
Vanpool	Vans used for ridesharing.	Widely available	Medium to high	High	Low
Shared taxi.	Private taxis that carry multiple customers.	Limited to busy corridors	Medium to high	Low to medium	Medium to high
Taxi	Conventional taxi service.	Widely available	Medium to	Low	High

This table summarizes different types of public transit and their performance attributes.

SHUTTLE ESTIMATES

Assumptions:

2020 Low

- 20,000 people in Carolina Beach in the High Season.
- High Season of April September (6 months or 30 weeks).

High

• 7 days per week (for calculation purposes)

High

Season Population	Seas Popula		Season Weeks	Days Week	Tip Amount	Using Shuttle	Riders Tipping	
6,564	6,564 20,000		30	7	\$ 2.00	25%	25%	
Daily \$ 2,500	Weekly \$ 17,500	Monthly \$ 87,500	High Season \$ \$ 525,000	Daily \$ 313	Weekly \$ 1,563	Monthly	Low Season	Annual \$ 571,875
Ψ 2,300	ψ 17,300	φ 67,300	ψ ψ 323,000	φυιυ	ψ 1,505	\$ 7,813	\$ 46,875	Ψ 3/1,0/3
2020 Low	Hiç	Jh	High	Number	Average	% Pop	%	
Season	Seas	son	Season	Days	Tip	Using	Riders	
Season Population	Seas Popul	son ation	Season Weeks		Tip Amount	Using Shuttle	Riders Tipping	
Season	Seas Popul	son	Season	Days	Tip	Using	Riders Tipping	
Season Population	Seas Popul	son ation	Season Weeks	Days	Tip Amount	Using Shuttle	Riders Tipping	Annual

Number

Average

% Pop

%

MULTI-MODAL MOBILITY COMMUNITY

An 'Easy to Live In' Community offers a variety of Efficient and Fair means of Mobility.

Examples of 'Difficult to Live In' Communities are those where...

- A person has to Drive & Park at Town Destinations which they would rather walk or bicycle to.
- Inadequate Mobility options to Attractions and Amenities force people to Drive & Park wherever they go.
- Knowledge of 'Where You Are' and 'Where You Might Want to Go' is primarily Internal & Word of Mouth.

Examples of 'Easy to Live In' Communities are those where...

- Neighborhoods are Clearly Named & Connected to enable Safe and Easy Transitions between Walking & Cycling for local movement. Shuttles & Public Transit for longer trips.
- People in the Work Force and those who are Physically, Economically and Socially disadvantaged have diverse mobility options to get to Town Destinations.
- Mobility methods such as Drive & Park, Kiss & Ride, Ridesharing, Chauffeuring and Taxi Travel are used as a last resort and only when necessary.
- Wide-open Sidewalks and Streetscapes Increase Safety and Foot Traffic for Retail, Restaurant and Bar Business.

NEIGHBORHOOD ZONE & AREA CONCEPT

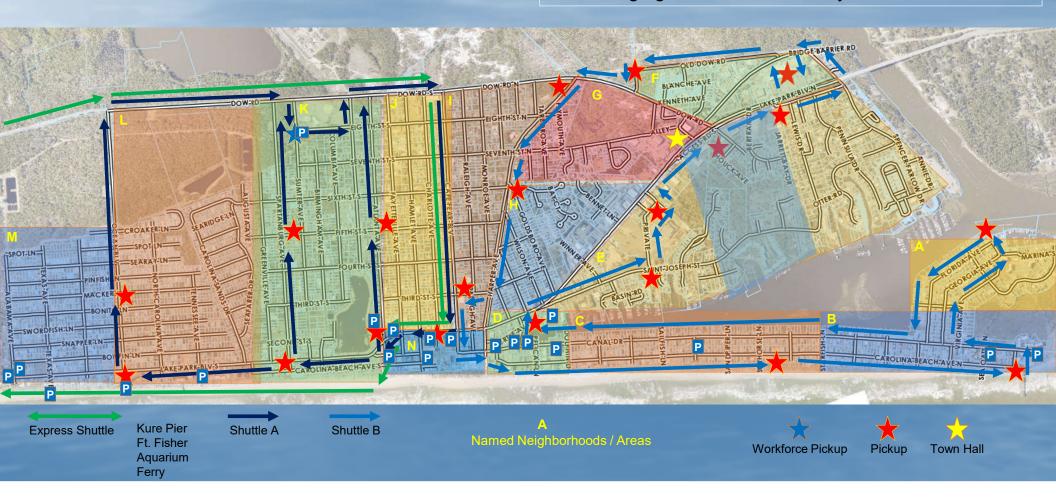


Safe Bicycle Area are Limited **BICYCLE AREAS (TODAY)** Limited Bicycle Racks at CBD & Amenities Discouraging Bicycle Mode Multi Modal Transportation Safety Program (MMTSP) Kure Pier **Express Shuttle** Shuttle A Shuttle B Named Neighborhoods / Areas Workforce Pickup Town Hall Ft. Fisher Aquarium Ferry Not as Safe as Needed Bicycle Greenway Bicycle Old Dow Bicycle Street

PARKING

Observation:

Most Parking is at the Amenities – Causing Congestion No Shade Amenities Exist, Except Boardwalk Area Discouraging Pedestrian and Bicycle Modes



CAPE FEAR & 3RD STREET PARKING LOT

Parking 1 Block from Amenity – Relieve Congestion

21 Parking Spots Currently in lot shown60+ Parking Spaces Potential

Potential to conversion Alternative:

Convert 21 Existing Straight Style Spots to → 60+ Angled Modern Style Spots.

Opportunity for Off-Season Workforce Parking 1 Block from Retail Businesses.



HAMLET → FAYETTEVILLE PASS-THRU LOT

Parking 1 Block from Amenity – Relieve Congestion

Current Lot is an Equipment/Junk use.
Convert to 26 Auto Angled Spots &
10 Parallel Golf Cart Spots
Beautify Lot to New Lot Standards for Neighbors.

Potential to conversion Alternative:

Opportunity for new parking capacity for Lake Park Restaurants and Cottage Retail Shops.



PARKING IN THE CENTRAL BUSINESS DISTRICT

Designated Parking Handicap, Bicycle, Golf Cart – Relieve Congestion Create New Amenity – Wider Sidewalks, Food Delivery

B = Bicycle Rack 1/2 Rental - 1/2 Open Bike

F = 15 Minute Food Delivery/Pickup Spot

H = Handicap Vehicle Spot

G = Golf Cart Spot Every 2 Car Spots = 3 Golf Cart Spots

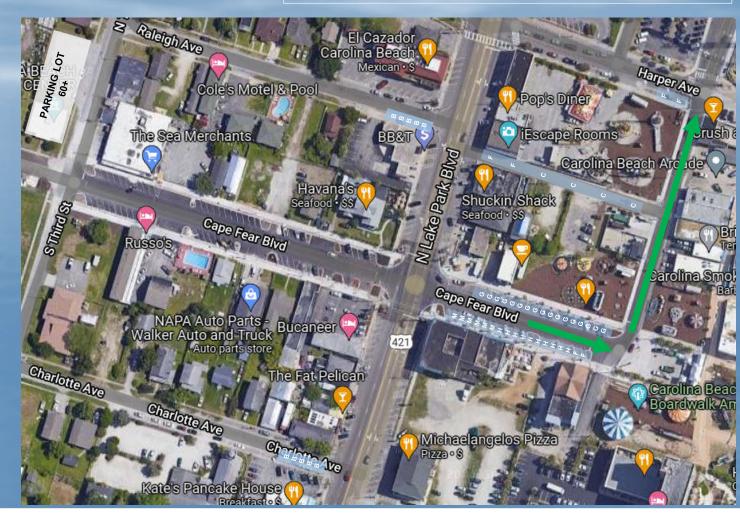
M = Motorcycle / Scooter Spot

32 Car Spots @ Cape Fear toward Gazebo Converted to Motorcycle / Scooter, Handicap and Golf Cart Spots

60 Car Spots @Old Library on 3rd & Cape Fear (21 spots exist today). 39 net new spots

26 Car Spots + **10** Parallel Golf Cart @Hamlet→ Fayetteville Equipment. *36 net new*

75 Net New Additional Spots..



HARPER AVENUE PARKING & MULTI-USE PATH

Parking 1 Block from Amenity – Relieve Congestion

C – (YELLOW) Car Parking (includes Golf Carts)

H = (GREEN) Handicap Vehicle Spot

M = (RED) Motorcycle Spot

60+ Car @ North Side of Median ONLY on Harper Avenue Only.

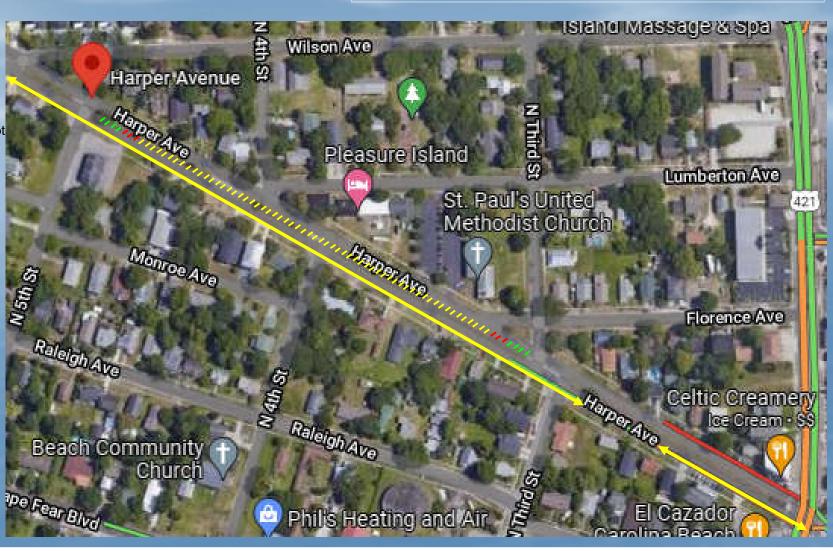
Exiting parking spots would Flow naturally to Dow Road to ease congestion.

(46)+ Car Spots

(06) Handicap Spots

(08) Motorcycle Spots

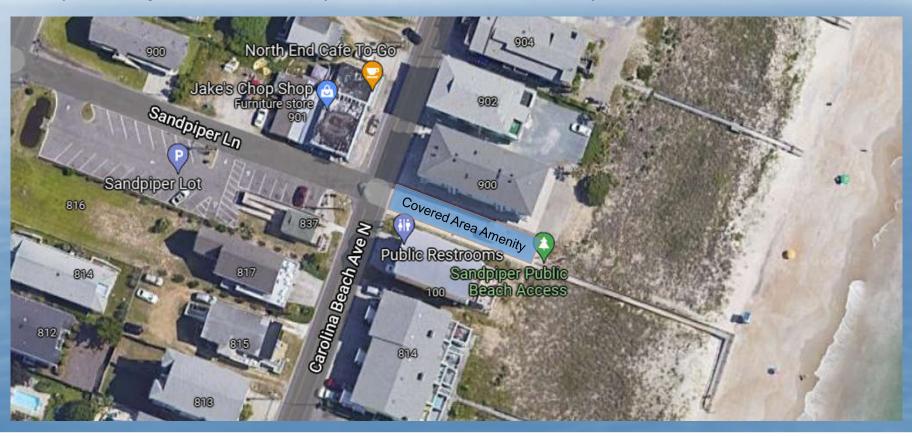
Multi-Use Path



NORTH END GROCERY

Parking 1 Block from Amenity – Relieve Congestion Create New Amenity – Food Delivery, Picnic, Shade

2 Handicap & 25 Parking Spots on Sandpiper Lane 1 Handicap & 3 Parking Spots at Beach Access Currently Potential Opportunity for Designated Food Delivery Spot & Covered Area Amenity Alternate Use



HAMLET RESTROOM AREA

Parking 1 Block from Amenity – Relieve Congestion Create New Amenity – Food Delivery, Picnic, Shade

49 Parking Spots in the Past Lot Configuration Shown.

35 Parking Spaces Probable after larger Restroom/Rinsing Station Complex is Completed.

Potential to conversion Alternative:

Convert 10 Auto → 30 Bicycle Spots.

Convert 2 Auto → 18 Golf Cart Spots

Opportunity for Designated Food Delivery

40-50 Person Covered Area Amenity



CORAL GABLES, FL



The City of Coral Gables works closely with community members and stakeholders to create plans that improve quality of life, and in February of 2016 the City launched a comprehensive Mobility planning process at the request of residents and city leadership to increase mobility options and manage traffic congestion throughout the city.

2016

Trolley service hours of operation: Monday - Saturday, 6:30 a.m. - 8 p.m. First Friday of the month ride until 10 p.m.



The City of Coral Gables is consistently seeking innovative and creative ways to alleviate traffic congestion and parking demand in our beautiful city. Similar systems in cities across the country have helped to moderate congestion and improve air quality. The Coral Gables Trolley has been conveniently moving residents and visitors around town since 2003 and currently provides service to more than 4,000 customers daily.

Trolley service is Free and runs every 10-12 minutes, weekdays and Saturdays 6:30 to 8 p.m...It allows Coral Gables' commuters to park once at the office and hop on the Trolley for lunch or meetings throughout the day. Residents are provided alternative Mobility options to access major transit hubs.

Over the years A shaded Canopy has been created for a new type of amenity.





Searching for a new home for your business?

Whether you are looking for a small space under 2,000 square feet, or a large corporate address, you'll find all the resources needed to bring your busines...

NAGS HEAD, NC



2014

Bicycles & Pedestrians

Bicyclists and pedestrians are a growing part of Nags Head Transportation working to improve mobility for both cyclists and pedestrians.

NCDOT's Bicycle Policy, updated in 1991, clarifies responsibilities regarding the provision of bicycle facilities. The policy details guidelines for planning, design, construction, maintenance, and operations pertaining to bicycle facilities and accommodations. All bicycle improvements undertaken by NCDOT are based upon this policy.

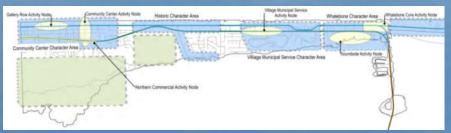
The 2000 NCDOT Pedestrian Policy Guidelines specifies that NCDOT will participate with localities in the construction of sidewalks as incidental features of highway improvement projects. At the request of a locality, state funds for improvements are made available if matched by the requesting locality, using a sliding scale based on population.

The NCDOT Complete Street Policy and Concepts were utilized in the development of the Nags Head Comprehensive Transportation Plan which proposes projects that include multimodal recommendations.













CHARLESTON, SC









Riding the DASH Trolley

Whether you plan ahead or happen to see one as you walk along the streets, you must wait at an official CARTA bus stop, denoted by the green signs.

Drivers will not make special stops to pick up or drop off passengers.

As you're waiting at your stop, make sure you note which bus line and destination is approaching so you get on the right one!

Signal to the driver that you'd like him to pick you up and you're on your way.

The CARTA DASH Trolley does not operate on Thanksgiving, Christmas, or New Years Day.

All three routes converge at the Visitors Center
You can pick up a DASH Trolley map at the Official Charleston Visitor Center.
You can also download the "Transit" app on your phone for real-time bus
locators, find nearby stops, and check notices for public Mobility.



MOREHEAD CITY, NC



2011 - 2021









The Transportation plan will make and prioritize recommendations that manage demand, address vehicular capacity, identify a connected and low-stress network for biking and walking, and recommend changes to transit services and amenities that reflect what we want our town to feel like.

Holistically, these recommendations will expand transportation options and connectivity to improve mobility and access.

"The opportunity with this plan is to conduct planning at a granular scale so that placemaking and character "projects" are identified, described and put on the action plan".

Recommendations can include visions for major roadways, streetscapes, urban form and patterns for new development and redevelopment, visual preferences, scenic view protection, and architectural and landscape aesthetics.



POMPANO BEACH, FL



2010









NEW POMPANO BEACH SHUTTLE SERVICES: The City of Pompano Beach has implemented a park-and-ride system that connects residents and visitors to various destinations in the beach area via golf carts and a trolleybus.

"Our intention is to <u>reduce congestion and traffic</u>, as well as reduce emissions on the barrier island and in Pompano Beach," said Jeff Lantz, the towns parking operation manager, who presented the plans for the project at the East Community Redevelopment Agencies (CRA) Advisory Committee meeting on Feb. 6, 2020.

The first phase was a Pompano Beach shuttle service/park-and-ride system as a free service using electric golf carts that hold 5 to 7 passengers, including the driver. The route goes up and down the barrier island at various locations along the route at regular intervals.

The first phase started with three golf carts and based on demand, more will be added and larger vehicles such as shuttle buses will be implemented. There is as stop at paid public parking lots, which has approximately 120 parking spaces.

Funding for the park-and-ride system comes from advertising on the golf carts, grants available for low- or no-emission vehicles, and parking fees. "We're hoping to be cost-neutral to the City on the golf carts," said Lantz.

The second phase will use a trolleybus, or shuttle, that is electric, or that uses propane or compressed natural gas. Based on demand, the size of the shuttle could be for 16 passengers or more. The shuttle service may or may not be free, but a monthly fee or day pass could be offered. The plan is to have multiple lots in the Atlantic Boulevard corridor where people can park and connect to the park-and-ride system. Lantz said this will provide a parking alternative for employees working on the barrier island.

DESTIN, FL



2005

Why will people be willing to leave their automobiles and use other modes of Mobility?

People are more likely to use other modes of Mobility when they are safe, convenient and affordable.



Pedestrian friendly streetscapes.





What does the term "multimodal" mean?

Multimodal means multiple types of transportation; motor vehicles, bicycles, public transit, and pedestrian activity, to name a few.



Commons Drive incorporates all multimodal components of roadway design.

What is Destin doing to provide for other means of transportation?

Over the past few years Destin constructed miles of new sidewalks, bike lanes, and multi-use pathways, and added many pedestrian safety features to intersections.



Okaloosa County Transit - www.rideoct.org

Then what constitutes a "Multimodal Transportation District" (MMTD)?

Multimodal transportation district means a specific area where facilities are available for multiple means of transportation:

- Roads for motor vehicles.
- ☐ Transit stops and shelters for people using public transit.
- ☐ Bike lanes for cyclists.
- ☐ Sidewalks for pedestrians; and
- Multi-use pathways for cyclists and pedestrians.

It also means urban design standards are in place to ensure new development helps to create a built environment that supports all modes of transportation.

SAVANNAH, GA





Savannah has adopted this approach:

Concerns among downtown stakeholders about the impacts of growth on downtown activity for congestion, parking, access and mobility options led to a 2015-16 study on how to address these issues.

Treat the most valuable spaces as just that, and price them accordingly. Most downtown on-street spaces that have high levels of use become free after 5 pm and are free throughout the weekends.

These are spaces where availability is key to business success and to parking customer satisfaction, and they should feature prices that reflect their demand.

This strategy integrates parking into an overall mobility system, so that the concepts of **parking only once for your visit** whether it is for a day or a week means parking farther away from destinations, or not driving at all to get downtown. This has proven to appeal to users, but also have an easily-understood system of options for those who make this choice.







KEY WEST, FL



Key West's Top 6 Strategic Priorities

- Affordable Housing
- Sea Level Rise
- 3. Roads and Sidewalks
- 4. Environmental Protection
- Cleanliness
- 6. Traffic & Pedestrian Friendliness

The towns strategic plan was named "**Key West Forward**". It is clear from the first 2015 survey conducted and the current 2021 survey, that the City needs to make more headway on services and amenities primarily in parking, traffic control, and promoting eco-tourism. Despite these long-term and short-term challenges, there is enthusiasm amongst community members about projects currently planned and underway in Key West. The data shows a clear set of 6 priorities.

2021

Excerpts from two resident surveys conducted in 2015 (376 respondents) and again in 2021 (3,776 respondents). Residents were frustrated then, and still are now with traffic, parking, cleanliness and pavement/street management.

Comments Regarding Businesses and the Local Economy

sic... "It would be advisable as we move forward with the strategic plan for City Leadership to confer with our business organizations (The Chamber, The Business Guild, Mom & Pops, Lodging, Etc.,) to identify specific measures the City can take to support the local economy. The business community should also be well represented when gathering input from residents on specific initiatives".







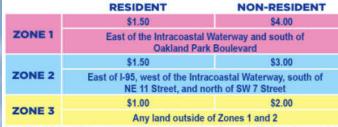
FORT LAUDERDALE, FL



The **Mobility and Mobility Department's (TAM)** was brought together to implement the vision of providing coordinated Mobility planning and engineering; utilize "Complete Streets" principles to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders.

TAM encourages sustainable practices in project design and construction; and enhance the towns multi-modes of Mobility and parking infrastructure through a comprehensive capital improvement program.

PARKING ZONES AND HOURLY RATES













CAROLINA BEACH IN MOTION

Multi-Modal Mobility Community



WHAT DOES IT LOOK LIKE?

