

CITY OF MIAMI BEACH MUNICIPAL MOBILITY PLAN

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VISION STATEMENT



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CITY OF MIAMI BEACH



OVERVIEW OF PROGRAM

GOALS AND OBJECTIVES

INTRODUCTION

The Miami Beach Municipal Mobility Plan (MMP) is the City's first "grassroots" effort to master plan for the community's transportation needs. The MMP address the issues and needs for mobility of all types, including traffic, transit, pedestrians, bicycles and other non-motorized vehicles. The MMP establishes the City's vision for transportation, makes recommendations for meeting the needs identified (the Ten-Year Plan), provides a "Project Bank" of strategies for addressing the issues, and establishes the planning tools for guiding on-going decisions related to mobility.

MIAMI BEACH'S TRANSPORTATION VISION

The following vision emerged from the MMP's extensive public involvement process and from input from elected and appointed officials as well as the staff of the City and other agencies.

The Need for Balance.

Miami Beach's unique character and community needs demand a balanced approach to transportation planning. It is vital that the City address the impacts of traffic congestion on quality-of-life, the urban environment, tourism, and growth management through a multi-modal strategy geared toward greater use and enjoyment of transit, pedestrian, non-motorized, and marine travel modes.

Quality of Life and Transportation.

The transportation network must support other elements in addition to vehicles. The impact of high traffic volumes and speeding on neighborhoods must be managed. The dual concerns of maintaining neighborhood character while fully utilizing the urban grid must be balanced by well-designed traffic management techniques.

Preserve and Enhance the Spine.

The State's program for capacity and complementary traffic calming should be focused on the traffic "spines". The "trunkline" system and complementary major collectors provide the vital functions of connecting Miami Beach to the rest of the region, while providing hurricane evacuation routes and prime circulation routes within the City.

Emphasize Quality, Not Quantity.

While Miami Beach may not be aiming to have the largest-capacity and fastest roadways in the region, those regional roadways should function at the highest levels possible in terms of their function, safety, and operational characteristics.

A "Casual" but Effective Flow.

The calming of roadway segments between intersections combined with operational improvements to the intersections themselves can result in a flow of traffic that is less intermittent, discouraging motorists from attaining high speeds between intersections. This "casual" flow of traffic encourages motorists to move smoothly, at speeds that encourage pedestrians and non-motorized vehicles, with time to visually connect with the urban environment.

Improve the Driver/Rider Experience.

The community should seek to improve the experience of its transportation system users. The experience of the driver in using well-designed intersections and calmed roadway segments can contribute to a lower level of frustration. Other aspects which apply to the quality of the driver's experience are landscaping and streetscaping, and visually pleasing and informative signage. Transit ridership, which in turn may take vehicle trips off the roadway system, can be encouraged by improved rider amenities, both on and off the transit vehicles.

Unique Needs of Residents and Visitors.

Miami Beach is becoming younger, and the typical resulting household will demand a greater number of trips and have a greater willingness to use alternative modes. In addition, visitors to the city, particularly those from Europe, Latin America, and major urban areas of the U.S., have a greater tendency to use public transit. Transportation decisions should be made with the needs of these groups in mind, as well as increasing access for all segments of the community, including the transit-dependent and persons with disabilities.

Recreation and Mobility.

It has been argued that Miami Beach, as an island community with multiple waterfront, parkland, and entertainment venues, should be viewed as an outdoor recreation area. Mobility strategies should be supportive of this view, by providing an integrated network of pedestrian and non-motorized vehicle paths and routes to interconnect and provide access to the various recreation and entertainment venues.

Sense of Place.

The City's unique sense of place should be enhanced through transportation planning efforts. The City should avoid "one size fits all" mitigation plans by creating impact reduction measures that fit the specific needs and character of the particular urban environment or neighborhood being impacted.

"Harness" Transportation.

Transportation planning decisions should be made in support of the economic development and redevelopment goals of the community, and in support of positive development patterns, as defined in the Comprehensive Plan.

TOTAL MOBILITY PLAN ACTIVITIES

Municipal Mobility Analysis

- Public Involvement Program
- Data Collection and Existing Conditions
- Needs Assessment

Ten-Year Program

- Management Plan
- Project Bank
- Financing Alternatives
- Project Rating System and Policy Methodology

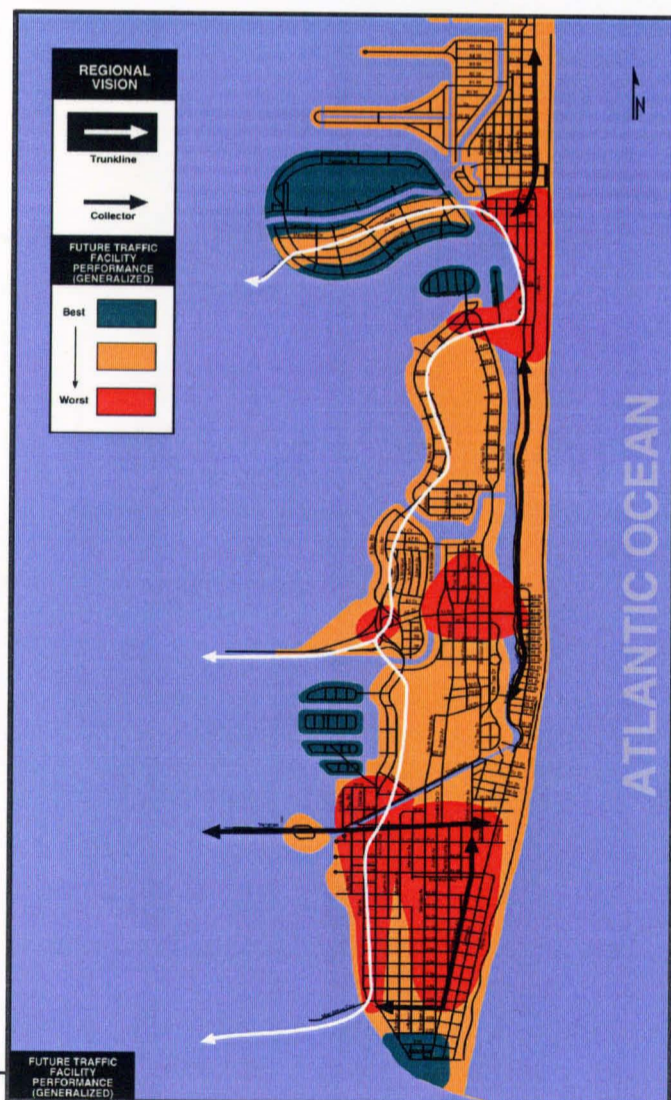
Ongoing/Future Implementation Activities

- Automated Concurrency Management System (CMS) *
- Program of Interrelated Projects (PIP) *

* Future Tasks not included in the MMP

DESCRIPTION: Figure 1

Figure 1 indicates the generalized performance of Miami Beach's roadway system 10 years from now. Also shown is the city's roadway "spine" made-up of regionally - important arteries and collectors.



FUTURE LEVEL OF SERVICE PROJECTIONS

EXISTING AND PROJECTED ROADWAY PERFORMANCE

Traffic conditions were analyzed through a methodology recommended in the 1994 edition of the *Highway Capacity Manual* (HCM). The HCM established the level of service (LOS) concept as the tool to measure traffic congestion. Level of service is a measure of the quality of traffic flow. This concept uses measures that characterize operational conditions within a traffic stream and their perception by motorists and passengers. The descriptions of individual levels of service characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

As shown in *Figure 2*, which indicates future roadway capacities with programmed improvements, the levels of service have been generalized to three categories: "At Capacity", "Sufficient Capacity", and "Under-Capacity". "Under-Capacity" represents the best operating conditions, characterized by free flow, uninterrupted conditions with small delays. "At-Capacity" can include the worst operating conditions, often characterized by heavy congestion with high delays.

In **North Beach** the following roadway segments and intersections are performing or are projected to perform below the City's adopted level of service standard (LOS D):

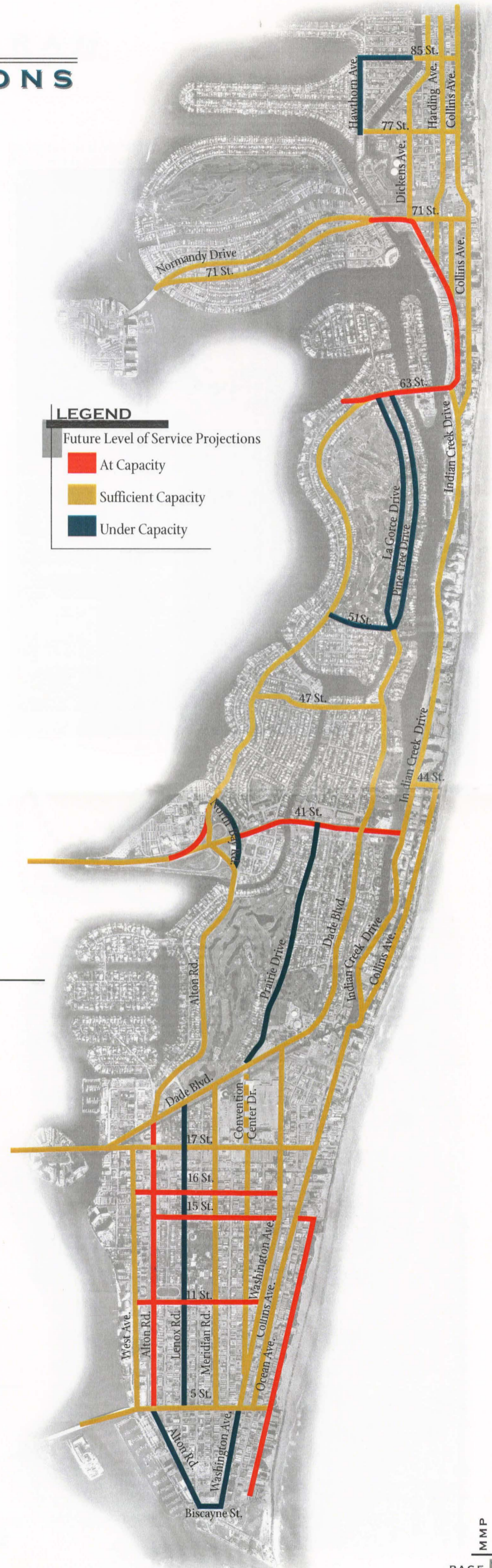
- Indian Creek Drive between 63 Street and 71 Street
- Indian Creek Drive at 63 Street
- Indian Creek Drive/Dickens Avenue at 71 Street

In **Middle Beach** the following roadway segments and intersections are performing or are projected to perform below the City's adopted level of service standard:

- Alton Road between Dade Boulevard and Michigan Avenue
- Alton Road between 41 Street and 63 Street
- 41 Street between Alton Road and Indian Creek Drive
- 63 Street between Alton Road and Indian Creek Drive
- Alton Road at 43 Street
- 41 Street at Indian Creek Drive

In **South Beach** the following roadway segments and intersections are performing or are projected to perform below the City's adopted level of service standard:

- Alton Road between 5 Street and Dade Boulevard
- Ocean Drive between 5 Street and 15 Street
- Alton Road at 5 Street
- Alton Road at 17 Street



DESCRIPTION: Figure 2

Figure 2 indicates the future (10 year) levels of service projected for the city's major roadways.



COMMUNITY ISSUES

PUBLIC MEETINGS

An exhaustive series of public meetings was held to explain the initial findings of the data collection effort and to receive input on transportation issues affecting all segments of the community.

- Community Workshop in North Miami
- Community Workshop in Middle Beach
- Community Workshop in South Beach
- City Wide Workshop
- Monthly Meetings with the MMP Steering Committee (composed of residents, City staff, and representatives of transportation-related agencies from the County and State levels).
- Workshop sessions with the City's Transportation and Parking Committee
- Workshop session with the City's Planning Board
- Workshop sessions with the City Commission

TRANSPORTATION ISSUES

The issues which emerged from the existing conditions analysis are summarized in *Figure 3*. While the full report ties specific issues to specific areas, the following are among the most important transportation issues City-wide.

Roadway System Needs:

congestion in both intersections and roadway links.

Neighborhood Impacts:

speeding and cut-through traffic; impacts of roadways (noise, visual) on residential areas.

Sense of Place:

need for landscaping, beautification, gateways.

Safety:

of pedestrians and both motorized and non-motorized vehicle users.

Hurricane Evacuation and Emergency Access Transit:

lack of connections between modes, lack of passenger amenities.

North Beach

1. Desire for Community Shuttle Service
5. Beach Access
2. Vehicular/Pedestrian Conflicts/Collins/ Harding
3. Lack of Community Cohesion
4. Biscayne Elementary Safety Operational Concerns
6. Speeding/Normandy Drive/71 Street
7. Congestion/Collins Ave

Middle Beach

8. Safety/Collins South of 63 Street
10. Congestion from 63 Street to 71 Street
11. Speeding/Lack of Pedestrian Orientation/Collins Avenue
12. Under Utilization of Indian Creek
13. Speeding/Safety/47 Street
15. Speeding / Pedestrian/ Vehicular Conflict Lack of Streetscape/41 Street
19. Speeding/Alton Road
14. Congestion /Mount Sinai Area
16. Congestion/41 Street
9. Speeding/Pine Tree/La Gorce
17. Pine Tree Speeding/ Traffic Intrusion
18. Praire Avenue/Speeding/Traffic Intrusion
20. Traffic Intrusion/North Bay Drive

South Beach

21. Poor Pedestrian/Bridge Connection/Dade Boulevard/Collins Avenue
33. Beach Access/Walk
34. No Regional Transit Connection
22. No Sense of Place/Dade Boulevard
25. No Connectivity/Dade Boulevard and 17 Street
27. No Landscape/Parking Identity/Washington Avenue
35. Lack of Pedestrian Amenities
23. Congestion/Alton Road and North Bay Drive
24. Congestion Alton Road and 17 Street
26. Congestion/16 Street
28. Lack of Pedestrian Connections/Congestion Collins Corridor
29. Congestion/Alton Road
30. Operations/Pedestrian Conflicts/Collins Corridor
32. Congestion/Alton Road/Mac Aurthur Causeway
31. Neighborhood Intrusion/Speeding

DESCRIPTION: *Figure 3*

Figure 3 indicates the range of issues which were identified during the public involvement program.



ROADWAY CLASSIFICATION

As shown in *Figure 4*, the City's roadway network has been divided into four separate categories, as follows:

1. Regional arterials provide connections for regional traffic both across the City and to points on the mainland.
2. Community arterials provide connections between major arterials and collector streets.
3. Collector streets connect local streets to the arterial network.
4. Local streets connect neighborhoods to the larger roadway network.

PROPOSED CHANGES TO ROADWAY CLASSIFICATIONS

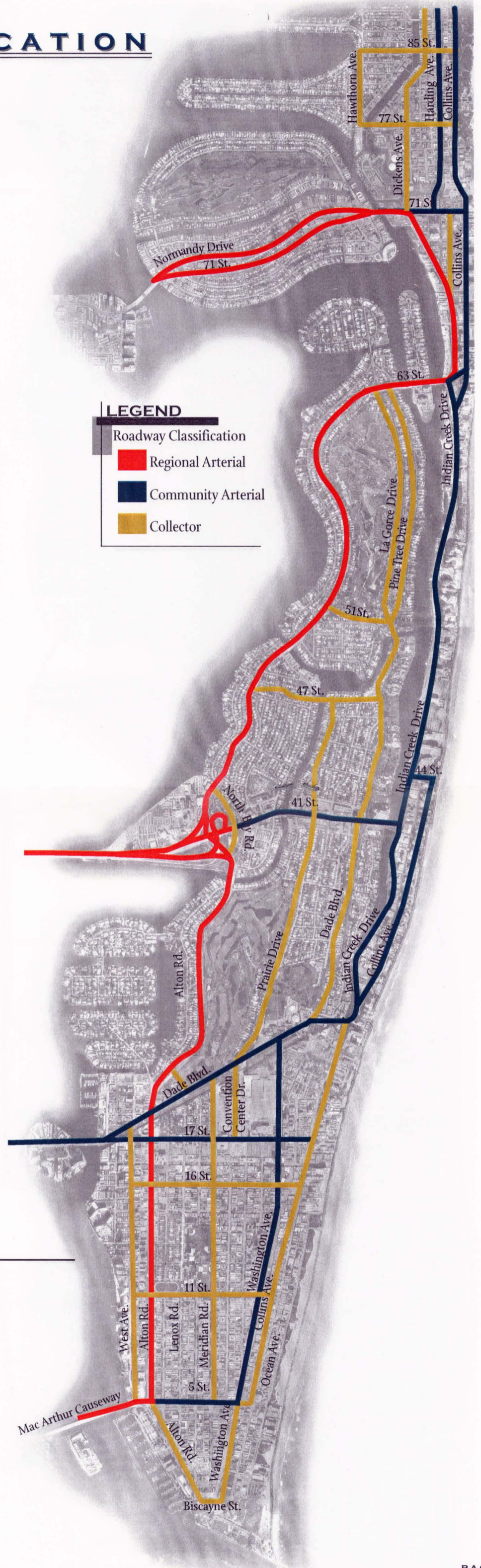
These roadway classifications define the function and general capacity of each roadway. The classification of a given roadway is important in that it does much to define the policy of the City and other jurisdictions or agencies toward the roadway. It is recommended that the functional classifications for several roadway segments be amended to better reflect their actual function and traffic characteristics. The following table summarizes the recommended amendments to the City's functional classification system and the rationale for each proposed change.

Roadway Segment	Current Classification	Proposed Classification	Reason for Change
Indian Creek Drive St. to 71st Street	Collector Street	Arterial Roadway	Existing & Projected volume; function
Dade Blvd. from Bay Road to Pine Tree Drive	Collector Street	Arterial Roadway	Existing & Projected volume; function
23rd Street from Dade Blvd. to Collins Ave.	Local Street	Arterial Roadway	Existing & Projected volume; function
17th Street from Alton Road to Dade Blvd.	Collector Street	Arterial Roadway	Existing & Projected volume; function
Washington Avenue from Biscayne Street to 5th Ave.	Local Street	Collector Street	Existing & Projected volume; function
Collins Ave. from 15th St. to 5th St.	Arterial Roadway	Collector Street	Parallel facility community character
15th St. from Alton Road to Washington Ave.	Collector Street	Local Street	Neighborhood traffic management; community character
16th St. from Alton Road to Collins Ave.	Local Street	Collector Street	Existing & Projected volumes; Neighborhood traffic management
West Ave. from 8th St. to 17th St.	Local Street	Collector Street	Existing & Projected volume; function

The segments noted of Indian Creek Drive, Dade Boulevard, 23rd Street, 17th Street, 16th Street and Washington Avenue, have in common a function and volume of traffic which exceed their current classifications as local or collector streets, and therefore require reclassification as collector or arterial facilities. The segment of Collins Avenue listed is being recommended for a functional classification that is lower than its current status. This is due to the fact that even though Collins is currently classified as an arterial for its entire length, Washington Avenue is effectively the higher capacity roadway south of 15th Street. Collins Avenue's importance in this location is similar to that of Ocean Drive: both are historically significant streets in which a certain amount of congestion is tolerated, and both facilities should remain at an appropriate scale. The reclassification of Collins Avenue is reflective of this special status. Likewise, the segment of 15th Street is recommended for reclassification to a functional status lower than its current reclassification. The reclassification reflects the residential character of 15th Street.

DESCRIPTION: *Figure 4*

Figure 4 indicates the proposed classifications of the city's roadway network.



TOOLS FOR IMPACT ANALYSIS AND MITIGATION

Automated Concurrency Management System

An important implementation tool of the MMP is the Automated Concurrency Management System (CMS). The CMS uses data from the MMP to provide a growth management tool for the City. Prior to the issuance of a development order and development permit, the concurrency management system must ensure that the adopted level of service standards required for roads, potable water, sanitary sewer, solid waste, drainage, recreation, and mass transit, if applicable, will be maintained. The CMS would serve as an effective "reality check" as to the current state of the City's transportation capacity.

As with the concurrency system currently in place, an applicant has several options to rectify any of the deficiencies that their project may have. These options may include, but are not limited to:

- A. Payment of impact fees.
- B. Contributing to the capital improvements coffer.
- C. Appeal the Concurrency Management Assessment through the official appeals process.
- D. Scrap the proposed project entirely.
- E. Do the mandatory improvements for Concurrency Management (developer).
- F. Provide to the City some type of trade-off (i.e., land, property, amenities, etc.)
- G. Scale back on the size or intensity of the project and resubmit for review.

The purpose of this diligence effort is to have in place a reliable concurrency tracking and monitoring system that ensures the City's compliance with the established levels of service, as specified in the Comprehensive Plan and the MMP.

Neighborhood Traffic Management System

While the Ten-Year Plan does make some specific recommendations for neighborhood traffic calming, it is recognized that there are many outstanding issues with traffic calming that either exist now or will emerge in the future. For this reason, the plan includes a Neighborhood Traffic Management System that establishes a process and criteria for the consideration and design of traffic calming strategies.

Transit Villages

The Ten-Year Plan also calls for the study and possible creation of one or more Transportation Concurrency Management Areas (TCMAs), or "transit villages". TCMAs/transit villages allow the

unique character of areas, such as South Beach, to be recognized, preserved, and enhanced through special planning procedures. In particular, establishment of a transit village would allow transportation concurrency to be managed on an area-wide basis, rather than on the basis of individual roadway segments. Along with this flexibility is the requirement under State law that area-specific capital improvements and service plans be adopted and implemented. It is important that transit villages have options for alternative modes of travel, including transit, since the opportunities for the expansion of roadways in these areas is, at the most, limited. In addition, the development of transit facilities can act as mitigation for new development. However, premium transit service can encourage the development of higher densities. For this reason, the use of transit as a mitigation measure in transit villages should be considered carefully in public policy decisions.



DESCRIPTION: Figure 5

Figure 5 indicates Transportation Analysis Zones and Potential Transit Villages.

RATING SYSTEM

PLANNING METHODOLOGY

Four distinct types of projects have emerged from the MMP as responses to the City's transportation needs:

1. **Capacity Improvement Projects** respond to the need to preserve and support the arterial and collector network of the City. Such projects provide for connections to the mainland, traffic traversing the island, and hurricane evacuation. These projects normally improve the capacity of intersections and roadway links.

2. **Corridor Enhancement Projects** respond to the need to mitigate the impacts of roadway impacts on neighborhoods, while at the same time providing for an efficient "casual flow" of traffic. Reinforcing the local sense of place may also be an important function of these projects. Corridor enhancement projects may entail traffic calming, beautification, and functional improvements to traffic operations.

3. **Community Sustainability Projects** respond to the impacts of the roadway system on neighborhoods. These projects aim to calm or divert traffic out of neighborhoods, or to discourage cut-through traffic through roadway reconfiguration. Modifications to parking patterns and beautification may also be important tools for community sustainability projects.

4. **Alternative Mode Projects** encourage transit usage, pedestrian activity, water taxis, or the use of non-motorized vehicles such as bicycles and skating. These projects aim not only to take trips off the roadway network, but also to increase the mobility of all residents and visitors through modes that reinforce the unique character of Miami Beach.

In order to allow the comparison of the relative importance of a given project, a matrix and criteria have been developed (Table 1). The criteria, which were derived from the public workshops and the comprehensive plan, allow projects to be rated according to the values of the community.

	Project 1	Project 2	Project 3
Capacity Improvement Project Criteria			
Satisfies LOS Standard			
Improves Safety			
Facilitates Hurricane Evacuation			
Improves Quality of Driver Experience			
Corridor Enhancement Project Criteria			
Promotes a More Casual Flow of Traffic			
Improves Facility Function/Operations			
Promotes Unique Character, Sense of Place			
Mitigates Roadway Impacts			
Community Sustainability Project Criteria			
Discourages Neighborhood Traffic Intrusion			
Promotes Positive Economic Development			
Promotes Favorable Development Pattern			
Supports Neighborhood Identity			
Alternative Mode Project Criteria			
Promotes Use of Alternate Modes			
Improves ADA Mobility			
Improves Transit-Dependent Mobility			
Promotes Transit-Related Development			

Project Comparison Matrix

This comparison system is intended to provide a method for the qualitative comparison and selection of projects based on the criteria. The scoring system is as follows:

- A project that fully meets or has a favorable relationship to a given criterion is given two points.
- A project that partially meets or has a moderately favorable relationship to a given criterion is given one point.
- A project that does not meet or has an unfavorable or "not applicable" relationship to a given criterion is given zero points, represented by the symbol.

In addition, each project is given a weighted score. The weighted score provides a double score for a project based on the criteria for the category into which the project falls. For instance, a local traffic calming project may score high in the criteria for its own category, community sustainability, but may score low in the other two categories, regional transportation and City-wide mobility.

The weighting factor is intended to counter a very low score for a project that may have considerable merit in its own right (and within its own project category) to prevent such a project from falling out of the selection process.

FUNDING ALTERNATIVES

The project rating system is intended to allow the relative merits of projects to be compared to aid in later prioritization and funding efforts. The following funding alternatives are among those potentially available for the Project Bank projects. In addition, it is recommended that the Concurrency Management System's mitigation provisions be geared toward funding the Project Bank.

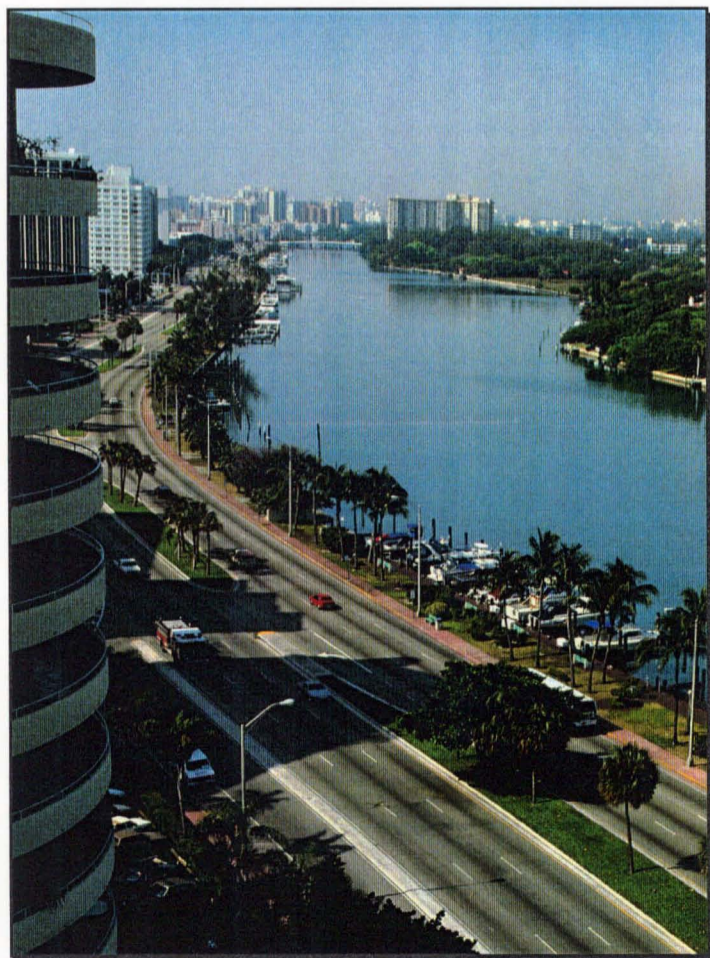
Program of Interrelated Projects.

The list of projects included in the Project Bank must be developed into a "Program of Interrelated Projects" (PIP). For each project in the Project Bank, the PIP will identify funding sources, costs, and the specific relationship of each project to other overlapping projects. This will result in an implementation plan that will meet the high standards of the City's transportation vision. Creation of the PIP will facilitate incorporation of the proposed projects into the City's Capital Improvement Plan (CIP), as well as the Transportation Improvement Programs (TIPs) at the State and County levels.

Ten-Year Plan Financing Alternatives.

A partial list of potential financing alternatives for funding the recommendations of the Ten-Year Plan is provided below.

- State Intermodal Development Fund
- 100 Percent State Funds
- State Transportation Disadvantaged Funds/Federal Transit Administration (FTA) Funds
- U.S. Department of Energy/Florida Energy Office Clean Cities Program
- Miami-Dade County Department of Public Works
- Mitigation Plans for Development Approval (private Funds)
- Miami Beach Parking System
- The Pedestrian and Bicycle Safety Program
- Florida Green ways and Trail Acquisition Program
- Florida Recreational Development Assistance Program (FRDAP)
- National Recreational Trails Funding Program (NRTFP) Office of Greenways and Trails
- Florida Inland Navigational District (FIND) Waterways Assistance Program
- Special Waterway Projects Program (SWPP)
- Special Benefit Districts



PROPOSED PROJECT BANK

TEN-YEAR PLAN

The Ten-Year Plan addresses the transportation issues and needs of the City over the next ten years. The plan makes specific recommendations for traffic, transit, pedestrian, and non-motorized vehicles on a case-by-case basis. However, no City-wide plan would be capable of addressing every mobility-related issue, especially those issues dealing with problems internal to neighborhoods. For this reason, the specific recommendations are augmented in the Ten-Year Plan by management tools to address issues as they emerge in the future.

The Project Bank

The linking of possible strategies to the transportation issues facing the City has resulted in a list of projects referred to as the "Project Bank". Each issue previously discussed has a corresponding project or projects as a response. The Project Bank projects are indicated in Figure 6.

North Beach

Alternative Mode Projects

- 1. Community Shuttle Expansion
- 8. North Beach Waterfront Access Improvements
- 10. North Beach Walk

Corridor Enhancements Projects

- 3. Harding Ave. Enhancements
- 6. 71 St./ Normandy Dr. Corridor Enhancements
- 9. Collins Ave. Improvements/Regulation Program

Capacity Improvement Projects

- 4. School Circulation Improvements
- 5. Indian Creek Dr./ 71 St./ Dickens Intersection Capacity Improvements
- 7. Indian Creek Capacity Improvements

Community Sustainability Projects

- 2. North Beach Neighborhood Calming / Streetscape Improvements

Middle Beach

Alternative Mode Projects

- 15. Middle Beach Beachwalk
- 18. Community Shuttle Expansion
- 20. Middle Beach Intermodal Facility
- 25. Indian Creek Multi-Purpose Trail

Corridor Enhancements Projects

- 12. Collins Ave. Realignment
- 14. Alton Rd. Enhancements
- 22. Alton Rd./41St. Intersection Calming
- 23. 41 St. Streetscape
- 24. Alton Rd. Enhancements
- 44. Collins Avenue/Grand Boulevard

Middle Beach

Capacity Improvement Projects

- 11. 63 St./Indian Creek Capacity Improvements
- 19. 43 St./Alton Rd. Intersection Capacity Improvements
- 21. Indiancreek Drive 41 St. Intersection Capacity Improvements

Community Sustainability Projects

- 13. La Gorce/Pine Tree Neighborhood Calming
- 16. 47 St. Traffic Calming Safety Improvements
- 17. Neighborhood Calming Project

South Beach

Alternative Mode Projects

- 39. East-West Transit Corridor
- 40. South Beach Intermodal Facility
- 41. South Beach Walk

Corridor Enhancements Projects

- 26. Dade Blvd./ 23 St. Intersection Reconfiguration
- 27. Dade Blvd./Median Enhancements Intersection
- 32. Venetian Causeway Improvements and Enhancements
- 33. 16 St. Enhancements/Operational Improvements
- 36. South Beach One-Way Pairs/Pedestrian Conflicts
- 37. Washington Ave. Enhancements/Angled Parking ConceptsCapacity

Capacity Improvement Projects

- 29. Alton Rd./Dade Blvd. Intersection Improvements
- 30. Dade Blvd./17 St./West Ave. Intersection Reconfiguration & Connection
- 31. 17 St./ Alton Rd. Intersection Improvements
- 34. Alton Rd. Capacity Improvements
- 38. 5th St. Alton Rd. Intersection Improvements
- 43. Ocean Drive Operational Improvements

Community Sustainability Projects

- 28. Sunset Dr. at 20 St. & Alton Rd. at 20 St. Intersection Reconfiguration / Improvements
- 35. Historic Neighborhood Calming Program and Intrusion Policy
- 42. South Point/Streetscape/Pedestrian Access Program



LEGEND

- Master Plan
- Capacity Improvements
- Community Sustainability
- Corridor Enhancements
- Alternative Modes

DESCRIPTION: FIGURE 6 - Project Bank

Figure 6 indicates the 10-year plan projects for North, Middle and South Beach.

ACTION ITEMS

- Reclassify Roadway System
- Preserve and Enhance "The Spine"
- Implement Corridor Enhancements and Safety Improvements
- Promote Intermodal Centers and Improved Transit Options
- Implement Bike and Pedestrian Paths (Greenways)
- Integrate Transportation and Land Use
- Plan Transportation by Zones
- Consider Creating Transit Village
- Implement an Automated Concurrency Management System
- Create a "Project Bank"
- Commit Staff and Resources to Transportation
- Develop a Capital Program

