YEAR 2005

METRO-DADE TRANSPORTATION PLAN

1984 UPDATE

VOLUME I

SEPTEMBER, 1984

METROPOLITAN PLANNING ORGANIZATION

DADE COUNTY, FLORIDA

YEAR 2005
METRO-DADE TRANSPORTATION PLAN

1984 UPDATE

VOLUME I: Transportation Needs
and
Long Range Element

METROPOLITAN PLANNING ORGANIZATION

SEPTEMBER, 1984

This document was prepared by the staff of the Metro-Dade Transportation Administration, in collaboration with the Metro-Dade County Planning Department, the Metro-Dade County Department of Public Works, and the Florida Department of Transportation.

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Raphael De Arazoza	FDOT/District VI

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

ACKNOWLEDGEMENTS

Date: September, 1984

Project Coordination: C. William Ockert
Transportation Program Planning
Metro-Dade Transportation Administration

Staff Support: Lucilla L. Ayer, Principal Planner
Stage II Project Section, Planning Division
Metro-Dade Transportation Administration

Frank F. Baron, Program Analyst
Research and Analysis Section, Planning Division
Metro-Dade Transportation Administration

Michael W. Doherty, Engineer II
Bureau of Urban Planning
Florida Department of Transportation

Frank L. McCune, Junior Planner
Metropolitan Division
Metro-Dade Planning Department

Henry E. Pelt, Regional Engineer
Bureau of Urban Planning
Florida Department of Transportation

Jose-Luis Mesa,
MPO Secretariat
Metro-Dade Transportation Administration

Melvin L. Mitchell, Principal Planner
Program Development Section, Planning Division
Metro-Dade Transportation Administration

Graphics: Claudio J. Fuente, Graphic Supervisor
Metro-Dade Planning Department

Ralph Williams, Graphic Technician II
Metro-Dade Planning Department

Secretarial Support: Mary May Brown, Clerk Steno II,
Planning Division
Metro-Dade Transportation Administration

Source of Copies: Jose-Luis Mesa
MPO Secretariat
Metro-Dade Transportation Administration
44 West Flagler Street
Miami, Florida 33130

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

EXECUTIVE SUMMARY

INTRODUCTION

This update of the Metro-Dade Transportation Plan describes investments to be made in the metropolitan area's ground transportation system required to meet existing and future transportation mobility needs. Preparation of the update began in 1982 and is expected to culminate in December of 1984 when the MPO Board is scheduled to approve the Transportation Plan. At the same time, the Metro-Dade Commission is scheduled to adopt the Transportation Plan as the transportation functional element of the Comprehensive Development Master Plan (CDMP).

This Final Draft summarizes the findings of Technical Analysis Phase of the updating process. With the release of this draft, the formal adoption process begins. Once the Transportation Plan is adopted, an Annual Review and Updating Process is to be maintained.

PURPOSE OF THE PLAN

This Transportation Plan indicates the appropriate course of action required to meet crucial transportation needs necessary for achieving personal mobility, land use, environmental, and economic development objectives of the metropolitan area. The Transportation Plan has been developed with the realization that wide-spread travel problems and traffic breakdowns have major adverse ramifications on the economy and the quality of life experienced by citizens of the metropolitan area.

To avoid this situation, an aggressive program of action will be required to correct current critical transportation problems and respond to expected growth and development of the area.

To meet this challenge, the traditional approach of merely listing required improvements in a plan was rejected. Instead, the underlying rationale for each recommended improvement and its priority are clearly presented in this Plan so that the gravity of the transportation challenge can be appreciated and the need for adequate funding is understood.

This Transportation Plan represents a major update of the Long-Range Transportation Plan adopted in 1979. It is based on an updated set of information describing transportation needs and the likely performance of proposed improvements in meeting these needs. An extensive analysis of travel demand and level-of-service has been performed and is documented in this Plan.

Consistent with the purposes of the Plan, as initially set out by the MPO Board when the updating process was initiated, a phased program of transportation improvements has been specified in the Plan. This program explicitly indicates the relative priority of the various improvements, setting out the underlying reasons for the recommended priorities. A Short-Range Element is incorporated in Volume II that describes the resources necessary to implement, operate, and maintain transportation facilities and services through the 1980's.

TRANSPORTATION GOALS AND OBJECTIVES

Chapter II presents an overall transportation goal and a set of objectives to be met by the area's transportation system. According to the objectives, improvements and services that effectively facilitate the movement of people and goods in an efficient and equitable manner are to be included in the Plan. At the same time, the need for an adequate funding base is recognized in the objectives. Other objectives concern easy transfer between different part of the system, conservation of energy, and maintenance of the quality of the environment.

NEEDS ANALYSIS

An in-depth quantitative analysis of transportation mobility needs, at the current time and over the next twenty years, has been conducted and is reported in the Needs Element. The recommendations contained in the forthcoming Short-Range Element and the Long-Range Element are directed toward satisfying the transportation needs identified in this analysis.

The initial step in the needs analysis was to inventory highway and transit facilities and services currently serving the metropolitan area. Extensive data have been collected and are summarized in this Plan indicating the function, amount of use, and level-of-service on arterial highways and transit routes. Data describing the physical characteristics, travel volumes, and degree of peak-hour congestion on each major highway segment is indicated in the graphics and data tables contained in the Plan.

The needs analysis not only indicates that severe peak- hour congestion problems are prevalent on a number of arterial highways such as Biscayne Boulevard, South Dixie Highway, and NW 36 Street, it also indicates that traffic volumes on numerous other highways are nearing their traffic-carrying capacity. Consequently, traffic growth on many of these roads will result in overloading, major congestion and delays.

Much of the travel demand and socio-economic information used in the needs analysis has been aggregated and presented in the Plan for 16 Analysis Areas, allowing an appreciation of the diversity of travel needs within the metropolitan area. More specifically, information on vehicle-miles-of travel (VMT), congested VMT, population, jobs, and bus-miles are presented for these areas.

On an average weekday, over 22 million vehicle-miles-of-travel are made on all highways in the County. Of this, 20.4 million use arterial and major collector highways specifically addressed in this Transportation Plan. Nearly 4 million of these VMT experience extremely-congested conditions in the peak hour of the day, about 18% of all traffic. The amount of extreme congestion is particularly high on highways in the southwest, west, and northwest sectors of the County.

An extensive analysis of land use, population, and employment has been carried out to fully assess the affect of urban growth on travel demand. Information on these underlying socio-economic characteristics are presented in the Needs Element by Analysis Area. This information reveals the diverse locations of the 1.7 million people living in the County. The employment information indicates that jobs are much more concentrated, with major job sites located in areas

such as downtown Miami, Coral Gables, northeast of the downtown, the Flagler Street corridor, the airport area, and along South Dixie Highway. Information on households without autos provides an indication of the unique travel needs of people who do not have an automobile. Over 110,000 households are in this category, with many of these households concentrated in Miami Beach and the near southeast, west, northeast areas of the County.

Travel projections used as a basis for the Transportation Plan rely on projections of population and employment. County-wide, population is projected to increase from 1.7 million to 2.4 million by the year 2005. Some 25,000 new people are projected to be added to the County's population each year. Likewise, employment is projected to increase from about 800,000 to 1.1 million, an increase of 12,000 jobs per year. Specific patterns of population and employment growth are presented in the Needs Element, with some areas projected to experience much higher growth rates than others.

As a result of the population and employment growth, on the average, travel is expected to increase by 50% in the next two decades from 5.2 million trips per day to 7.7 million trips per day. An analysis of the amount of trip growth in key travel corridors is presented in the last part of the Needs Element. The amount of travel growth projected to occur varies from location to location with many corridors expected to experience a doubling in the amount of trips. This increase in travel presents a major challenge in view of the very limited capacity left in the arterial highway system. This finding provides a backdrop for the improvement recommendations contained in the Long-Range Element of the Plan.

LONG-RANGE ELEMENT

The Long-Range Element defines a set of transportation policies and a phased program of transportation improvements required to meet mobility needs over the next two decades. All major improvement projects have their genesis in the Long-Range Element. The basic justification for each improvement is explained in the Long-Range Element and the consistency between the various projects is assessed. In keeping with the purposes of the Transportation Plan, as set out by the MPO Board, improvements and project priorities are specified so that they can be translated into "real" dollar needs, actual construction programs, and focused project development activities. Subsequent to their inclusion in the Plan, significant efforts will be needed to detail and evaluate recommended projects. In these project development efforts, specific alignment and design alternatives will be defined, input from affected citizens and businesses will be sought, and project designs will be tailored to avoid negative impacts. A great amount of attention has been given to defining a program for phasing-in the transportation improvements. A higher priority is given those improvements that respond to critical existing and near-term problems. Each improvement has been assigned one of four priority categories based on underlying traffic information for the years 1980, 1990, and 2005.

A sophisticated technique has been employed to estimate future traffic and transit ridership on transportation alternatives. This technique, validated against actual travel data, provides an excellent basis for determining the need for and the effectiveness of proposed capacity improvements to the system.

A combination of rapid transit, bus, and paratransit improvements are recommended in the Long-Range Transit Plan. These improvements are directed at serving selected high-demand travel markets where it has been concluded that improved transit services can attract riders and divert significant amounts of auto traffic. In view of the major increases in travel demand and the inability to add significant capacity to the highway facilities serving established corridors without incurring major community disruption, a number of rapid transit improvements are recommended.

The Long-Range Element contains an analysis of the ability of each of the rapid transit corridor improvements to attract ridership and relieve highways in the corridor. This analysis shows that significant amounts of corridor traffic will be diverted to rapid transit. As a result of the planned rapid transit investments, as many as 25% of the person trips made in the peak hour in some corridors are projected to use transit at key congestion points. For some areas, only 6% of the peak-hour trips in these corridors use transit at the current time. In many locations, traffic diversion to rapid transit is equivalent to adding several expressway lanes. The specific traffic impacts of the recommended rapid transit lines are explained in the Long-Range Element.

Even with the implementation of a major transit program, significant increases in vehicle-miles-of-travel (VMT) are projected. By the year 2005, VMT is projected to increase from about 21 million miles to over 33 million miles, a 50% increase. In some areas, where growth is higher, even a faster growth rate is projected. The Long-Range Element contains an analysis of the impacts of not adding additional highway capacity to meet this demand level. This analysis indicates that this option would result in a three-fold increase in the amount of traffic experiencing extreme congestion, with extremely-congested VMT increasing from 4 million per day to over 19 million per day. The recommended program of highway projects will result in significant benefits, with a reduction in the amount of extremely-congested VMT of 8 million vehicle-miles per day.

Detailed presentations of specific highway improvements, their priorities, and the technical rationale underlying the recommendations are contained in the Long-Range Element. The Long-Range Element concludes with a Long-Range Highway Plan Map. In addition, other maps indicating the projected level-of-service on the highway system are shown. These maps indicate that peak-hour traffic conditions in many parts of the County will deteriorate, despite the addition of major transit and highway improvements. Where extremely congested conditions persist, the need for a viable transit alternative to insure personal mobility in the corridor is emphasized.

CDMP AMENDMENTS

Chapter V of this Plan describe changes to the Comprehensive Development Plan (CDMP) that must be made before some of the recommendations of the Transportation Plan can become operable. These changes are to be considered as part of the regular CDMP amendment process scheduled to be completed in the middle of 1985.

PLAN AMENDMENTS

The last chapter defines a process to amend the Transportation Plan, once it is adopted. Three levels of Plan amendments are proposed, depending on the type of change proposed. The amount of time required to amend the Plan varies depending on the level of change. Most amendments to the Plan are to be considered as part of the Annual Review and Amendment Process to be carried out during the latter part of each year. This cycle will allow timely input from the Transportation Plan into the MPO's Transportation Improvement Program (TIP), specifying detailed schedules and funding sources for priority improvements to be made in the coming five years.

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METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

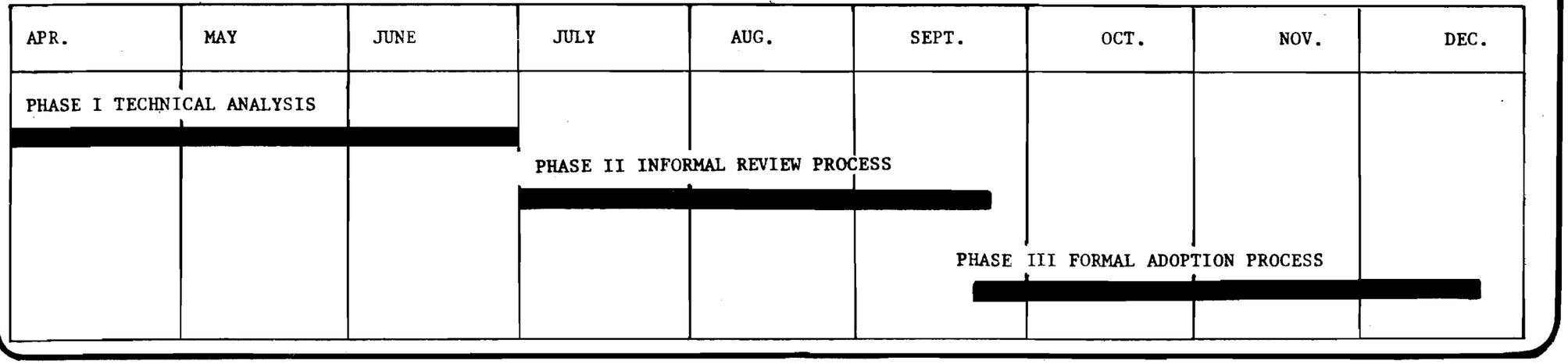
PREFACE

The Métro-Dade Transportation Plan is in need of a major update. The Transportation Plan, describing investments to be made in the metropolitan area's ground transportation system, was originally approved in 1979 by the Metropolitan Planning Organization (MPO) and the Metro-Dade Commission. While annual endorsements of the Transportation Plan have been made by the MPO since its approval in 1979, changes in population, economic, and transportation conditions occurring in the past five years have necessitated an extensive re-analysis of transportation needs and the actions required to meet these needs.

The preparation of a major update of the Metro-Dade Transportation Plan was initiated in 1982 as a cooperative effort between the various County agencies responsible for planning and implementing transportation improvements and the Florida Department of Transportation (FDOT). This Final Draft presents the findings of this effort to date.

An overall schedule for updating the Transportation Plan is presented in Figure P-1 below. A three-phase process is being followed. The first phase, involving an extensive technical analysis is complete. The second phase, nearing completion, has involved an informal review by MPO Committees and the Planning Advisory Board. The third and final phase-- the formal adoption process, is to be initiated with the release of this Review Draft. Adoption is currently scheduled for December, 1984. Once the 1984 Update is adopted, an annual updating process is to be maintained.

FIGURE P - 1
PROPOSED TRANSPORTATION PLAN ADOPTION SCHEDULE
1984



PLAN ADOPTION PROCESS

Phase I-- TECHNICAL ANALYSIS --

The first phase, initiated in October, 1982, is now complete. This Review Draft of the Transportation Plan summarizes the pertinent findings of the technical analysis. This Review Draft, containing proposals for modifying the approved Plan, has been released by the Transportation Plan Committee so that it can be presented to the Transportation Planning Council (TPC) and the Board of the Metropolitan Planning Organization.

PHASE II-- INFORMAL REVIEW PROCESS --

The second phase occured between July and October, 1984 with the presentation of the Review Draft to the TPC and MPO Board. In this second phase, the various advisory committees of the MPO informally reviewed the draft Transportation Plan and offered their comments and concerns. In the latter part of this phase, the Transportation Plan Committee prepared this Final Draft of the Transportation Plan for use in the formal adoption process. Comments received from the TPC, the MPO Board, and various advisory committees have been responded to in this Final Draft.

Phase III-- FORMAL ADOPTION PROCESS--

The formal adoption process will commence with the acceptance for public review of the Final Draft by the Transportation Planning Council in September and the TPC's decision to initiate the adoption process.

The update of the Metro-Dade Transportation Plan, to be considered by the MPO Board and Metro Commission, will replace the current approved Transportation Plan, as required by federal and State legislation. Basically, the Transportation Plan is considered to be a refinement of the transportation component of the Comprehensive Development Master Plan (CDMP). The Transportation Plan is ancillary to, but not part of the CDMP. This responds to a State requirement that the Transportation Plan be consistent with the transportation component of the CDMP. Therefore, during the third phase, a formal process will be simultaneously undertaken to update the transportation component of the CDMP in order to render the two plans consistent. It is expected that an application requesting the necessary amendments to the CDMP will be filed in October.

In the latter part the formal adoption process (anticipated in November), the MPO advisory committees (the Citizens Transportation Advisory Committee and the Intergovernmental Policy Council), as well as the Planning Advisory Board, will prepare recommendations to be considered in adopting the Plan. In addition, an extensive formal citizen involvement process is to be undertaken to insure maximum consideration of citizen desires and concerns. A number of public meetings in the community are to be held and at least one formal public hearing is to be jointly held by the Citizens Transportation Advisory Committee and the Planning Advisory Board. In addition, the MPO Board and the Metro-Dade Commission will hold public hearings before the Plan is adopted.

The input received from advisory committees and the community will be taken under advisement by the Transportation Planning Council as it prepares the Proposed Plan. This Proposed Plan is scheduled to be finalized in late November and will be the basis of the adoption process conducted by the MPO Board and the Metro-Dade Commission. The process will culminate with the adoption of the update of the Metro-Dade Transportation Plan by the MPO and County Commission.

ANNUAL UPDATING PROCESS

A formal process of annually updating the Metro-Dade Transportation Plan is to be maintained subsequent to the 1984 adoption. This process is generally described in Chapter VI.

METRO DADE TRANSPORTATION PLAN

1984 UPDATE

I. INTRODUCTION

THE NEED FOR A PLAN

Metropolitan Dade County is facing a major challenge: how to ensure the mobility necessary for economic health and personal interaction in the face of existing traffic breakdowns, growth pressures, environmental concerns, and increasing public funding restrictions. Not only are solutions to the many existing traffic problems desperately needed, increasing travel loads brought about by continuing growth and development are adding to the demands placed on the metropolitan area's transportation system. This Transportation Plan Update has been prepared to indicate the appropriate course of action required to meet crucial transportation, land use, environmental, and economic development objectives.

BACKGROUND

Wide-spread travel problems and traffic breakdowns have major adverse ramifications on the economy of both the urban area and the State of Florida. Background studies previously documented in MPO Special Reports prepared as part of this update have indicated that traffic conditions on the area's arterial highways have steadily deteriorated in the past few years. Traffic volumes have increased substantially faster than increases in the capacity of the transportation system to absorb them. For example, in the 1975 to 1980 time period, traffic overall increased by over 22 percent while highway capacity was increased by less than 10 percent. As a result, the amount of traffic experiencing extremely congested breakdown conditions increased by nearly 70 percent.

Major advances are being made by Metro-Dade County, working closely with the State of Florida, to meet the challenge. In particular, the opening of the METRORAIL system significantly improves transportation mobility in two key highly congested travel corridors. At the same time, construction has commenced on other important improvements such as the Downtown Component of METRORAIL and I-75.

A number of other vital improvements, such as widening of the Sunny Isles Causeway, construction of the HOV ramps and parking garages at I-95 near the Airport Expressway, and widening of a number of arterial highways are scheduled during the next few years in the area's Transportation Improvement Program (TIP). Altogether, some $1.3 billion in ground transportation improvements are programmed in the TIP in the five years commencing on July 1, 1984. Still, these improvements, while responding to serious transportation problems, must only be considered as the beginning of an overall integrated multi-modal transportation program designed to meet the transportation challenges of the next two decades.

PURPOSE OF THE PLAN

The Board of the Metropolitan Planning Organization, in initiating the process to update the Metro-Dade Transportation Plan established the purposes to be met by the updated Plan. The information contained in this document is directed at meeting the purposes listed in Figure I - 1.

METROPOLITAN TRANSPORTATION PLANNING GOALS

If the metropolitan area is to maintain its prominent role in the economy of the State and nation, the innovative transportation improvement programs already begun must be continued. Priority concerns are personal mobility, economic viability, energy conversation, and the quality of the environment experienced in the diverse communities of the metropolitan area. These goals, fundamental to the liveability and economic health of the area, are itemized in Chapter II of this Plan. They form the basis of the recommended improvements included in both Long-Range (Charter IV, Volume I) and Short-Range (Volume II) Elements of this Transportation Plan.

FIGURE I - 1
PURPOSE OF THE TRANSPORTATION PLAN UPDATE

IMPLEMENTATION OBJECTIVES

- Provide the underlying rationale for funding levels that are adequate to meet the most critical transportation needs.
- Provide a basis for establishing priorities for capital improvements, transportation service adjustments, and actions leading to a reduction of the dependency of commuters on the single-occupant automobile.
- Develop citizen support for planned transportation improvements.
- Establish a uniform set of policies and transportation priorities for use in communicating Dade County's transportation needs to State and federal funding officials.
- Maintain the flow of federal funds by annually updating the Transportation Plan in conformance with federal and State requirements.

PLANNING OBJECTIVES

- Maintain consistency between the Transportation Plan and the Comprehensive Development Master Plan, as it is updated.
- Eliminate the confusion caused by the proliferation of plans of the MPO by combining them into a single document based on a consistent set of policies.
- Define actions needed to respond to the transportation needs of nearly 700,000 new people through the Year 2005.
- Extend the Transportation Plan to the Year 2005 to conform with federal and State guidelines.
- Obtain input and reactions to Plan proposals from affected citizens.

TRANSPORTATION NEEDS

Merely listing required improvements in a Transportation Plan is not adequate. The underlying rationale for the improvements and their priority must be clearly explained so that citizens and decision makers appreciate the gravity of the transportation challenge and the need for adequate financing. Therefore, this Transportation Plan indicates the degree of the need and the consequences of not meeting the projected needs. The Needs Element, included in Chapter III, indicates existing and future travel demand that the improvements listed in the Transportation Plan are designed to accommodate.

LONG-RANGE ELEMENT

The updated Long-Range Element of the Transportation Plan presented in Chapter IV contains recommended highway and transit improvements required through the Year 2005. Based on the updated technical information on transportation needs and effectiveness, a number of changes to the adopted Transportation Plan are indicated. The extensive analysis of travel demand and level of service documented in this element demonstrates that the area cannot stop with the improvement commitments made to-date. The transportation mobility problems forecast in the next two decades will be substantially worse if additional funding commitments are not made.

SHORT-RANGE ELEMENT

In view of the tight financial situation facing Metro-Dade and the State, this Transportation Plan directly concerns the resources required to meet the mobility needs of the metropolitan area. To be implemented, a plan must be concerned with the funds required not only improve the system, but also to properly operate and maintain required services. In recognition that resources will always be tight and that they should be spent on only the most cost-effective improvements and services, a Short-Range Element has been included in Volume II of the Transportation Plan. This Element, indicating those improvements and services found to be most needed through the 1980's, complements the MPO's Transportation Improvement Program by providing the background support and the context for the capital improvements included in the TIP.

RELATIONSHIP TO THE CDMP

This Transportation Plan is an important functional component of the overall Comprehensive Development Master Plan (CDMP) for the metropolitan county. In most cases, the transportation recommendations contained in the CDMP are further detailed in this Transportation Plan. In a few cases, the analysis underlying this Transportation Plan Update indicates that changes should be considered for the CDMP. In these cases, the changes contained in the Transportation Plan are not effective until the CDMP is amended though a separate process to be undertaken during 1985. Chapter VI presents those situations. Once the Transportation Plan is adopted, recommended changes to the CDMP will be submitted by the County Commission for consideration as an official CDMP Plan amendment.

PLAN IMPLEMENTATION

Key to the success of any plan is the follow-through in implementing its policies and recommendations. In the Miami urbanized area, unique institutional arrangements have been established that contribute significantly to the successful implementation of the Transportation Plan. These are:

- As shown in Figure I - 2, the policy board responsible for adopting the Transportation Plan and the Transportation Improvement Program is the MPO Board. The Mayor and members of the Metro-Dade Commission are also members of the MPO Board. In their separate and distinct capacity as the Metro-Dade Commission, these same elected officials are responsible for authorizing transportation expenditures. There is therefore a high probability that recommendations contained in the Transportation Plan will be implemented.

- The Florida Department of Transportation (FDOT), responsible for many important arterial highways, as well as for providing matching funds for transit improvements, is an important participant in the cooperative MPO process. Not only has FDOT provided significant technical assistance in preparing the Transportation Plan, they are members of the Transportation Planning Council and are represented on the MPO Board as non-voting members.

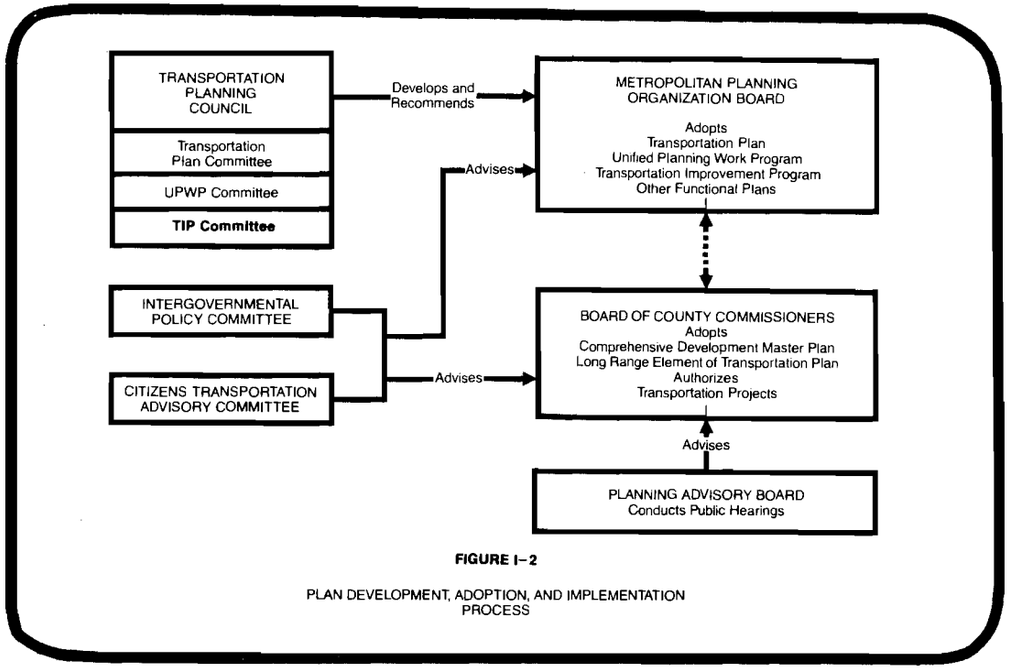


FIGURE I-2

PLAN DEVELOPMENT, ADOPTION, AND IMPLEMENTATION PROCESS

- Various County and State departments responsible for implementing transportation improvements are actively involved in preparing the Transportation Plan as members of the Transportation Plan Committee and the Transportation Planning Council. As a result, there is a strong staff-level commitment to pursue the recommendations of the Transportation Plan.

- While not directly responsible for implementing transportation improvements, elected official of the various municipalities in Dade County provide important input to the Transportation Plan because they are represented on the Intergovernmental Policy Council, an advisory committee to the MPO.

- The planning process has been established in response to federal and State requirements for a comprehensive, continuing, and cooperative (3-C) transportation planning process. Federal transportation funds cannot be used for transportation improvements unless they are included in the Transportation Plan approved by the MPO.

II. GOALS AND OBJECTIVES

TRANSPORTATION GOAL

The transportation system in the metropolitan Dade County should be operated, maintained, and improved to:

ENSURE THE PROVISION OF AN --

- o ECONOMICAL,
- o INTEGRATED, AND
- o BALANCED

SYSTEM OF TRANSPORTATION FACILITIES AND SERVICES IN A --

- o RATIONAL,
- o SENSITIVE, AND
- o EQUITABLE

MANNER AS REQUIRED TO --

- o EFFICIENTLY AND
- o EFFECTIVELY

MOVE PEOPLE AND GOODS AND
ENHANCE THE QUALITY OF LIFE
IN THE COMMUNITY.

TRANSPORTATION OBJECTIVES

The following objectives further amplify this goal:

1) Service Efficiency and Effectiveness
Provide safe, reliable, comfortable, convenient, and affordable transportation where it most effectively and efficiently facilitates the movement of people and goods.

2) Funding
Provide an adequate funding base utilizing public and private sources that will assure timely implementation and operation of the most critically needed transportation improvement projects and services. Manage these funds in a prudent manner.

3) Service Equity
Provide equitable transportation services to all groups in the metropolitan population, including elderly, handicapped, and low income citizens.

4) Integrated System
Encourage ease of transfer between modes of transport, including privately provided public transportation, where it improves the functioning of the transportation network. Coordinate public and private transportation resources.

5) Energy
Improve and operate the transportation system so as to reduce wasteful consumption of energy. Minimize the adverse effects of transportation energy shortages and higher energy prices.

6) Environmental Quality
Implement transportation projects and services that promote the attainment and maintenance of air, noise, and water quality standards.

III. NEEDS ELEMENT

NEEDS ANALYSIS

An in-depth analysis of transportation mobility needs, at the current time and over the next twenty years, has been conducted. This analysis involves a systematic assessment of population needs, travel demand, and traffic conditions, enabling the selection of the most cost-effective set of highway and transit improvements. This chapter documents the results of the needs analysis. Involved in the analysis are the steps listed in Table III - 1.

The recommendations contained in the Short-Range and Long-Range Elements of the Transportation Plan are directed toward satisfying the needs identified in this analysis. However, this does not always mean that highway widenings to meet peak-hour traffic demand levels are appropriate. In fact, in a number of situations where major congestion has been projected, it has been concluded that highway widenings would not be appropriate because they would result in unacceptable adverse impacts on important environmental and community amenities. In recognition of the vital need to maintain an adequate level of overall travel circulation and accessibility, actions that would give preferential treatment to transit vehicles and carpools are therefore recommended in these situations.

TABLE III - 1
NEEDS ANALYSIS PROCEDURES

1. ASSESS CURRENT NEEDS

- Inventory Highways--
  Facilities providing arterial highway connections between major travel generators and community centers are identified from an inventory of highways maintained by FDOT and the Metro-Dade Department of Public Works. In addition, major roads connecting neighborhoods to the arterial highway system are identified and mapped. Statistics on the physical characteristics and traffic carrying capacities of the identified highways are mapped and placed in computerized data files.

- Inventory Transit Services--
  The inventory of transit services maintained by the Metro-Dade Transportation Administration are summarized, mapped and placed in data files to allow an analysis of the level of transportation service provided to various communities.

- Analyze Travel Generation--
  Information on population, employment, and land use activities maintained by the Metro-Dade Planning Department is collected, mapped, and tabulated so as to allow an analysis of traffic generation and community need.

- Assess Travel Demand Levels and Congestion Levels --
  Information on the current and historical use of highway and transit facilities are collected, mapped, and tabulated in a computerized data format. The level of peak hour traffic congestion throughout the arterial highway system is estimated, mapped, and tabulated.

- Identify Improvement Needs--
  Critical current congestion problems are identified. Opportunities for improving the transportation system to reduce the identified problems are proposed, with particular attention given to lower-cost traffic management actions.

2. ASSESS FUTURE NEEDS

- Estimate Future Growth--
  Future changes in population and other factors affecting travel demand are estimated based on the land use patterns specified in the Comprehensive Development Master Plan.

- Forecast Future Travel Demand Level--
  Travel forecasting techniques (validated to insure that they reproduce actual traffic volumes and transit ridership levels) are used to estimate future traffic volumes and transit ridership levels. These are based on projected population, employment, and land uses.

- Assess Future Capacity Needs--
  Projected travel demand patterns are analyzed to indicate changes from current levels. The location and magnitude of future traffic problems are estimated, mapped, and tabulated.

- Evaluate Planned Improvements--
  The ability of improvements specified in the adopted Transportation Plan to correct future transportation problems is assessed by simulating future travel on the planned transportation system.

- Evaluate Improvement Alternatives--
  Modifications to the planned system are proposed, simulated, and evaluated to determine if changes should be recommended for inclusion in the update of the Transportation Plan.

HIGHWAY SYSTEM CHARACTERISTICS

HIGHWAY FUNCTIONAL CLASSIFICATION

The first step in assessing the extent of travel needs is to inventory major highways serving the metropolitan area. Data maintained by the Metro-Dade Department of Public Works and the Florida Department of Transportation have been collected and analyzed in order to define those highways carrying the longest trips and the heaviest traffic loads. These highways are differentiated from local streets and minor collector roads that primarily provide traffic circulation and property access within neighborhoods. Less than 10 percent of the vehicle-miles-of-travel occurs on these localized streets. While the importance to the various communities in the metropolitan area of maintaining a high quality local street network is recognized, only the cost of maintaining these facilities are directly addressed in this Plan because they are primarily constructed by developers. In addition, traffic demands on local streets and minor collector highways are usually not so great as to require major publicly-financed improvements.

Major highways in the metropolitan area have been classified in this Transportation Plan into three categories: Principal Arterials, Minor Arterials, and Major Collectors. These classifications generally correspond to the categories specified in Federal and State guidelines. The functional classification of existing highways is shown in Figure III - 1. The classifications shown are proposed to be used as input to the FDOT as it updates its Functional Classification System as required by State legislation.

The first category of highways- Principal Arterials, primarily serves longer-distance trips between metropolitan-scale multi-purpose centers such as the downtown Miami, Cutler Ridge, Hialeah, and the Airport area. These roads also provide major connections between Dade County and large-scale centers in adjacent counties. Access on many of these highways is only provided at grade-separated interchanges. Principal Arterials include such facilities as I-95, the Palmetto Expressway, South Dixie Highway, and 27th Avenue. Some 310 miles of highways are currently included in this category.

The second category- Minor Arterials, again primarily serves longer-distance trips. These highways connect various sub-metropolitan scale centers such as major shopping centers and industrial areas. Included in this category are such roads as SW 72 Street, NW 135 Street, Flagler Street, and Old Cutler Road. Some 380 miles of highways are included in this category. Of these, 170 miles are maintained by FDOT and 210 miles by Metro-Dade County.

The third category- Major Collectors, provides service for medium-length trips connecting neighborhoods to the arterial highway system. While these highways provide service for traffic, they also provide access to adjacent properties. Included in this category are such roads as SW 97 Avenue and Granada Boulevard. Some 250 miles of highways are currently included in this category.

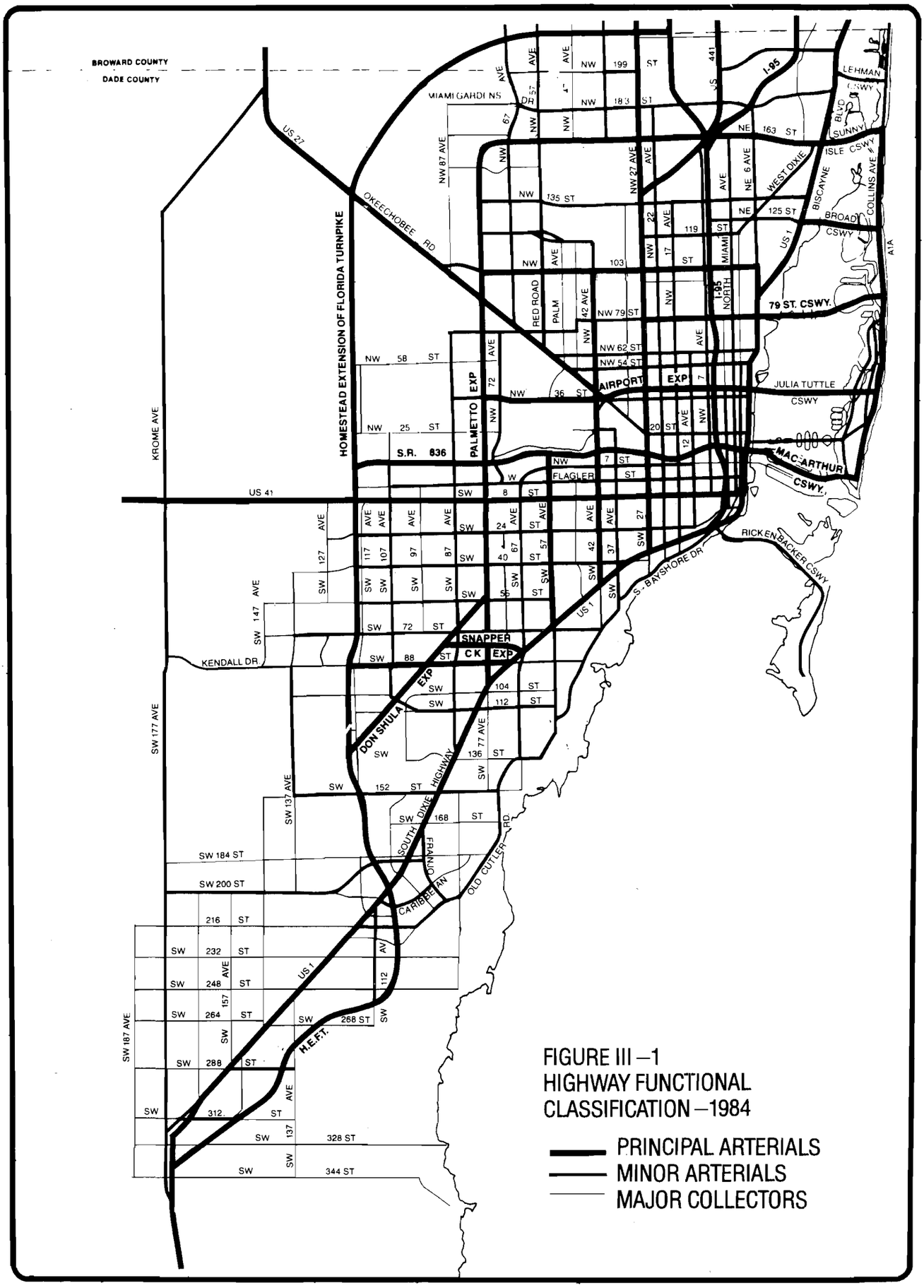


FIGURE III –1
HIGHWAY FUNCTIONAL CLASSIFICATION –1984

PRINCIPAL ARTERIALS
MINOR ARTERIALS
MAJOR COLLECTORS

III. NEEDS ELEMENT

HIGHWAY SYSTEM CHARACTERISTICS

HIGHWAY RESPONSIBILITIES

Key to the implementation of the improvements recommended in this Transportation Plan is the ability of the particular governments responsible for the facility to fund the improvement. In Dade County, responsibilities for maintaining and improving highways vary depending on the functional classification and location of the highway in question. Information on each of these systems is indicated in Table III - 2.

STATE HIGHWAY SYSTEM

The State of Florida, acting through the Florida Department of Transportation, is responsible for the most heavily travelled highways. These highways are shown in Figure III - 2. Some 480 miles of State highways are included within the urbanized area. All Principal Arterial highways and the heaviest-travelled Minor Arterial Highways are included in the State Highway System. While only 9% of the 5,600 miles of highways in the metropolitan area are on the State Highway System, over 70% of the vehicle-miles-of-travel occurs on the State Highway System.

COUNTY HIGHWAYS

Because of its unique charter reponsibilities, Metro-Dade County is responsible for all arterial highways except those on the State Highway System. In addition, all Major Collector Highways are the responsibility of Metro-Dade. Altogether, some 460 miles of arterial and major collector highways are the responsibilities of Metro-Dade County. These roads carry approximately 20% of the vehicle-miles-of-travel in the metropolitan area.

LOCAL ROADS

Local roads and Minor Collector Highways are the responsibility of the municipality in which they are located. In the unincorporated areas, Metro-Dade is responsible.

TABLE III - 2
HIGHWAY MILEAGE AND USE - 1980

CATEGORY	MILES	DAILY VEH.-MILES-OF-TRAVEL (Millions)	AVG. WKDY. TRAFFIC
STATE ARTERIAL HIGHWAYS			
PRINCIPAL ARTERIALS	310	12.2	39,000
MINOR ARTERIAL	170	4.1	24,000
TOTAL - STATE HIGHWAYS	480	16.3	-
COUNTY ARTERIAL AND MAJOR COLLECTOR HIGHWAYS			
MINOR ARTERIALS	210	2.7	13,000
MAJOR COLLECTORS	250	1.4	6,000
TOTAL - COUNTY HIGHWAYS	460	4.1	-
LOCAL ROADS	4,660	1.7	350
TOTAL	5,600	22.1	-

SOURCE: Metropolitan Highway Network

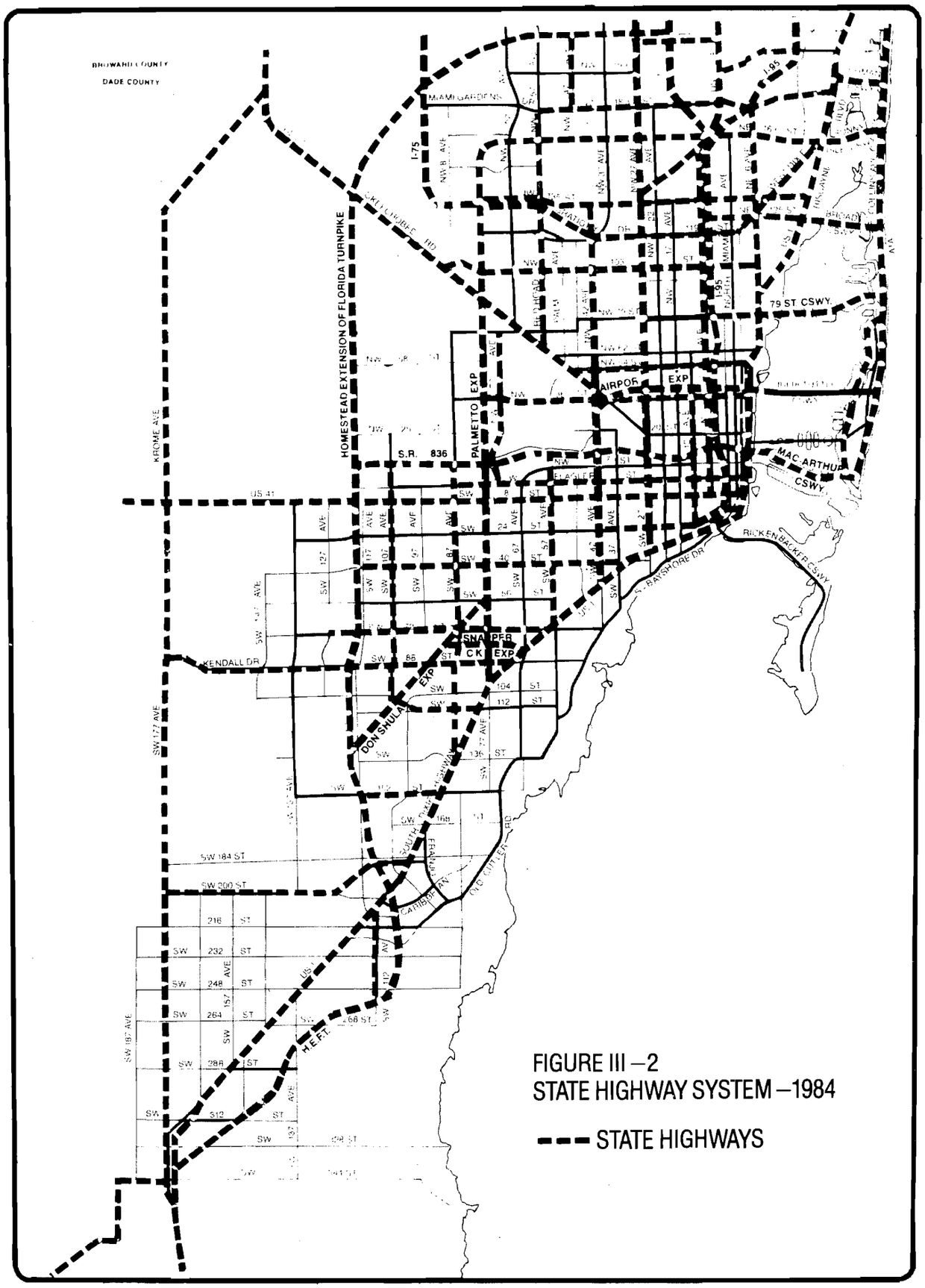


FIGURE III –2
STATE HIGHWAY SYSTEM –1984

--- STATE HIGHWAYS

III. NEEDS ELEMENT

FIGURE III –3
HIGHWAY ACCESS TO MIAMI INTERNATIONAL AIRPORT –1984

AIRPORT ACCESS

Miami International Airport is clearly one of the most important assets to the economic base of the metropolitan area. Not only is the airport the focus of the vital tourism industry in South Florida, it is an economic center for the metropolitan area.

Figure III - 3 shows the highways connecting the airport to the rest of the metropolitan area. All traffic enters the airport terminal area via NW 42 Avenue (LeJeune Rd.). Two major expressways- the Dolphin Expressway (S.R. 836) and the Airport Expressway (S.R. 112), connect the airport to downtown Miami and Miami Beach. Other industries in the airport area are connected to the Palmetto Expressway (S.R. 826) via NW 36th Street and the Dolphin Expressway (S.R. 836).

PORT ACCESS

The Port of Miami is also recognized as a vital economic asset to both the metropolitan area and the State of Florida. The Port terminal is located adjacent to downtown Miami with the only highway access being a bridge connecting to Biscayne Boulevard. As shown in Figure III - 4, access to the expressway system is indirect with connections to the Dolphin Expressway (S.R. 836) via a congested interchange at Biscayne Boulevard and to I-95 via North 5 and 6 Streets.

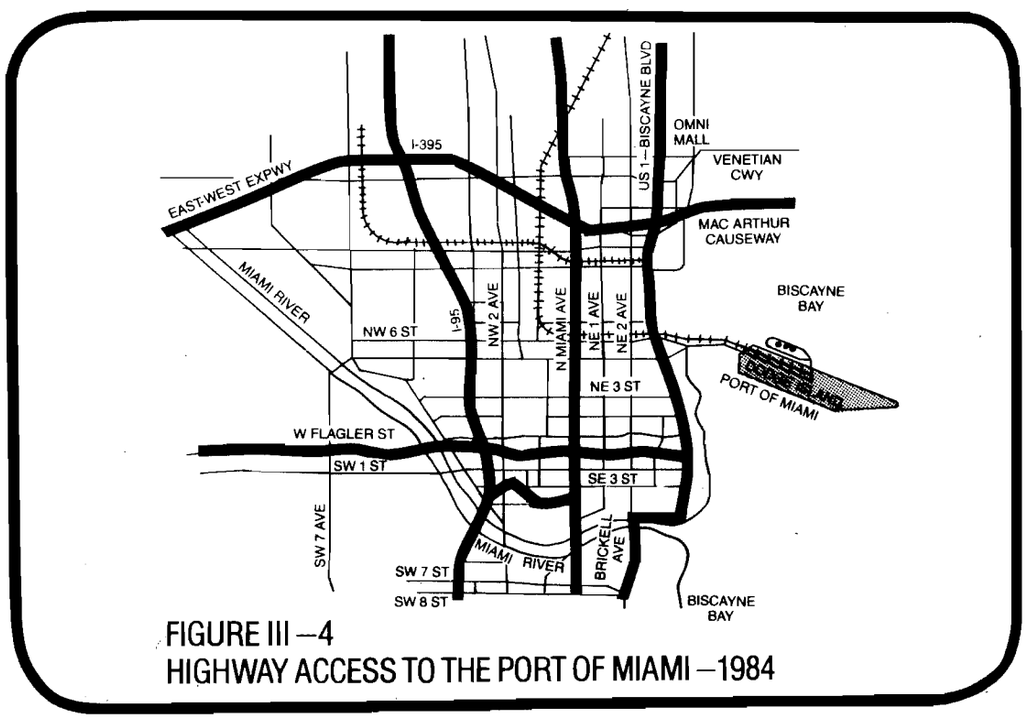


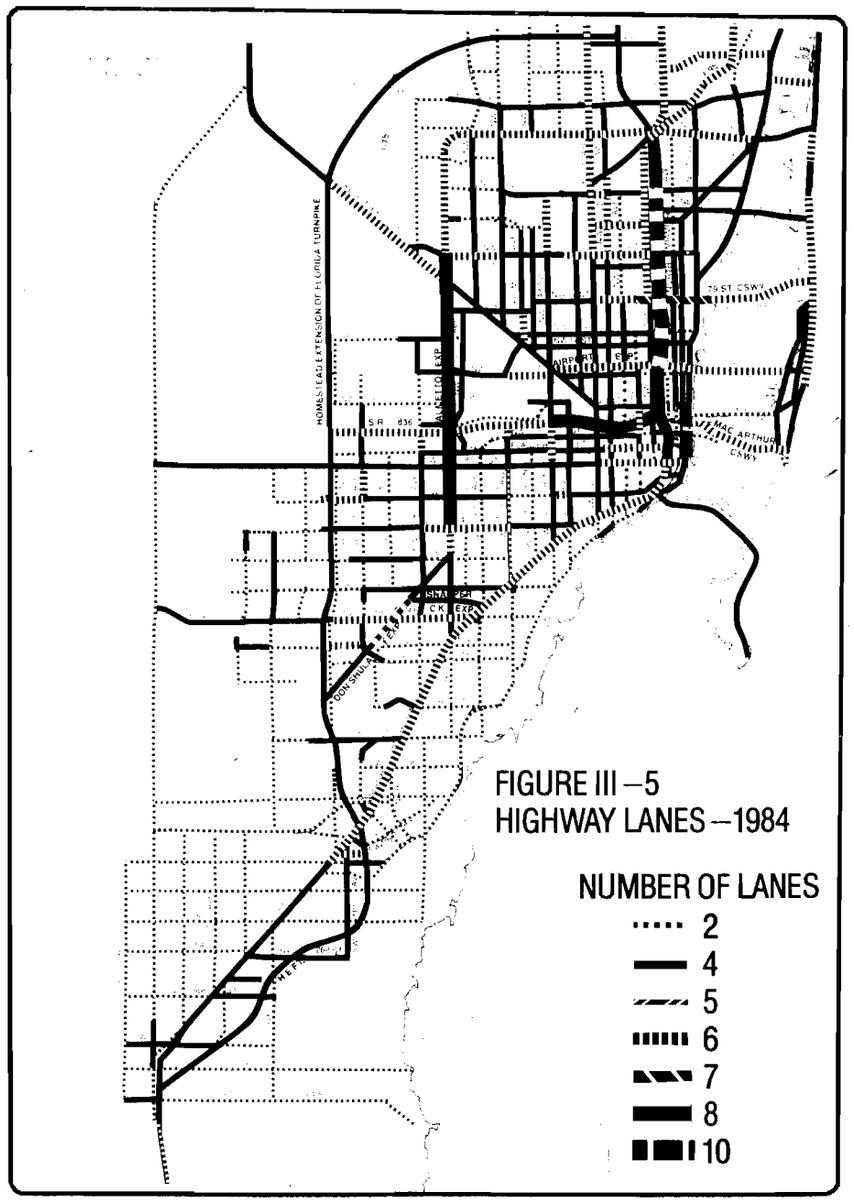
FIGURE III –4
HIGHWAY ACCESS TO THE PORT OF MIAMI –1984

HIGHWAY NETWORK CHARACTERISTICS

HIGHWAY LANES

An important statistic taken into account in determining the traffic carrying capacity and the level of congestion on various highway segments is the number of lanes provided for vehicle movement in the peak hours of the day. The number of lanes is a primary determinant of the capacity of the highway. The degree of congestion is in turn estimated by comparing the amount of traffic with the capacity of the highway.

Figure III - 5 shows the number of traffic lanes on the arterial and major collector highway system in 1984. Information on the number of lanes and estimated capacity of each highway segment is presented in Appendix A.



HIGHWAY TRAFFIC DEMAND

CURRENT TRAFFIC VOLUMES

Figures III - 6 and III - 7 graphically show traffic volumes in 1980 on Principal Arterial and Minor Arterial Highways, respectively. The information shown in these figures were obtained from 210 traffic counting stations maintained by the Florida Department of Transportation and the Metro-Dade Department of Public Works, supplemented by traffic volumes simulated for 1980. Specific traffic volumes on each highway segment are shown in Appendix A.

Probably the most stiking feature of these graphics are the very high traffic volumes on the expressway system. While there are only 111 miles of expressways in the County (2% of the highway mileage), expressways carry about 35% of the vehicle-miles-of-travel. Many of these roads carry in excess of 100,000 vehicles per day. The three highest used roads are I-95, the Palmetto Expressway, and the Dolphin Expressway. I-95 carries in excess of 145,000 vehicles per day in a section between downtown Miami and the Golden Glades Interchange. About 100,000 vehicles per day are carried on the section of I-95 between the Golden Glades Interchange and Broward County. The Palmetto Expressway carries approximately 105,000 daily vehicles and the Dolphin Expressway carries about 100,000 vehicles per day between I-95 and the Palmetto Expressway.

A number of other arterial highways also carry high traffic loads. For instance, South Dixie Highway carries over 60,000 vehicles per day, Biscayne Boulevard over 35,000 vehicles daily, and NW 36 Street north of the airport nearly 50,000 vehicles per day.

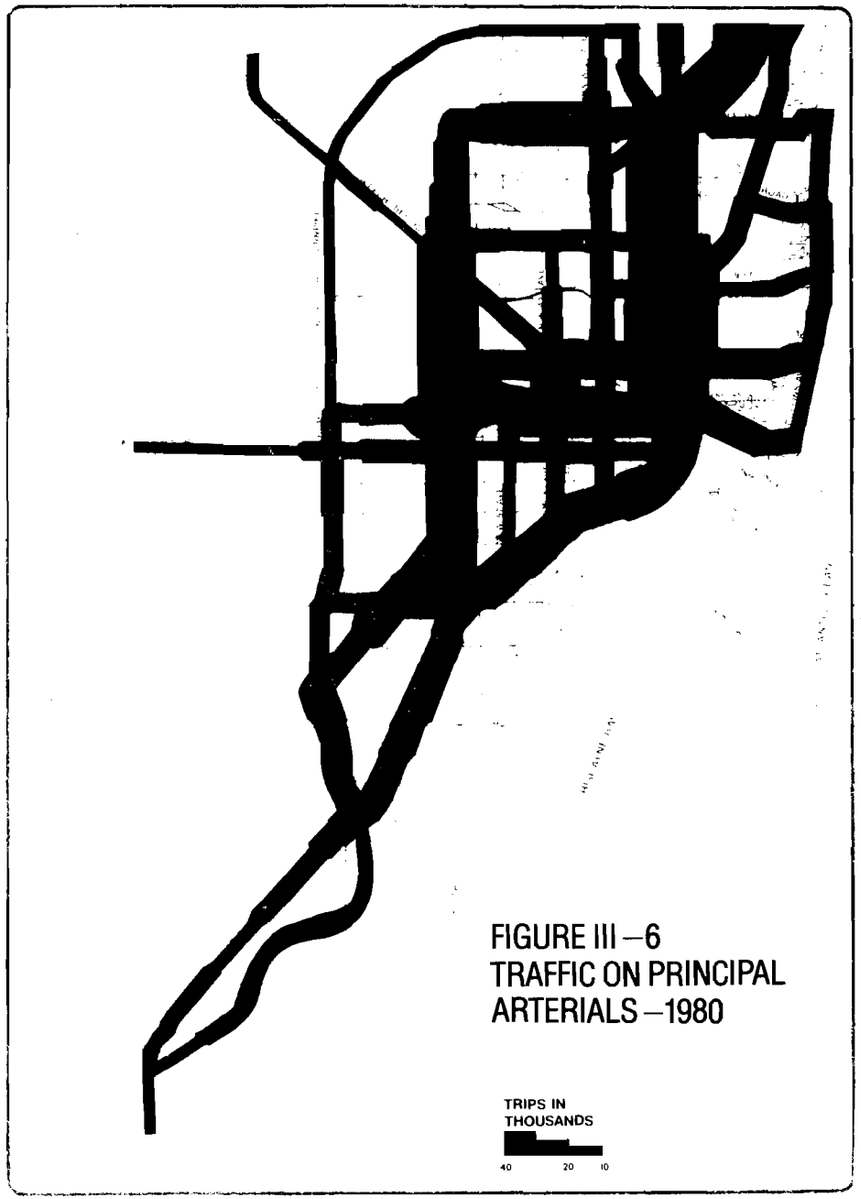


FIGURE III–6
TRAFFIC ON PRINCIPAL
ARTERIALS–1980

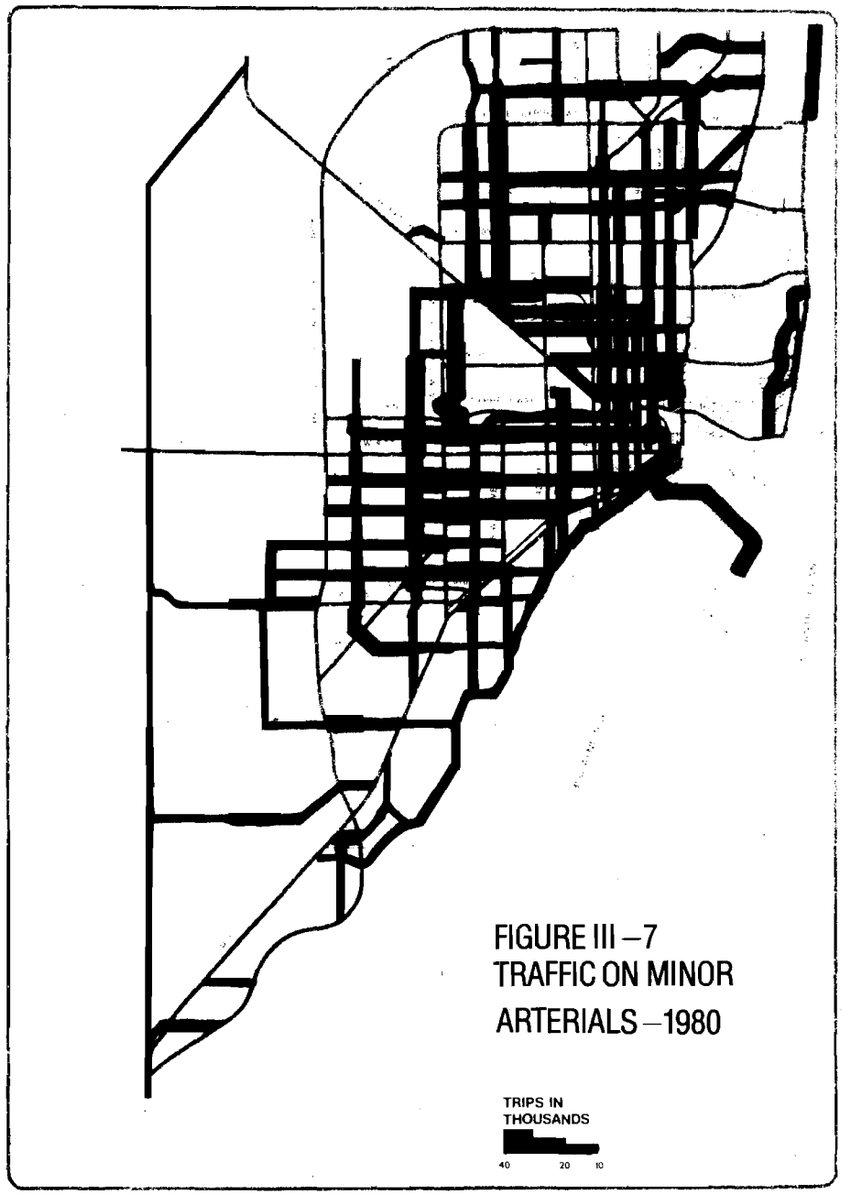


FIGURE III–7
TRAFFIC ON MINOR
ARTERIALS–1980

For the analysis underlying this Transportation Plan, four categories of congestion have been used. The four congestion categories are defined according to the volume-to-capacity (v/c) ratios as follows:

- o Uncongested- v/c ratio of 0.8 or less (Level-of-Service A, B, or C)
- o Congested- v/c ratio between 0.81 and 0.9 (Level-of-Service D)
- o Very Congested (Nearing Breakdown Conditions)- v/c ratio between 0.91 and 1.0 (Level-of-Service E)
- o Extremely Congested (Breakdown Conditions)- v/c ratio over 1.0 (Level-of-Service F)

TRAFFIC CONGESTION

Figures III - 8 and III - 9 graphically show the amount of traffic and congestion levels in 1980 using arterial highways in the metropolitan area. As in Figures III - 6 and III - 7, the width of the band on each highway is scaled to the amount of traffic on the highway. A pattern has been added indicating the degree of peak-hour congestion. Appendix B shows specific statistics for each highway segment.

Following is a summary of current congestion levels throughout the system:

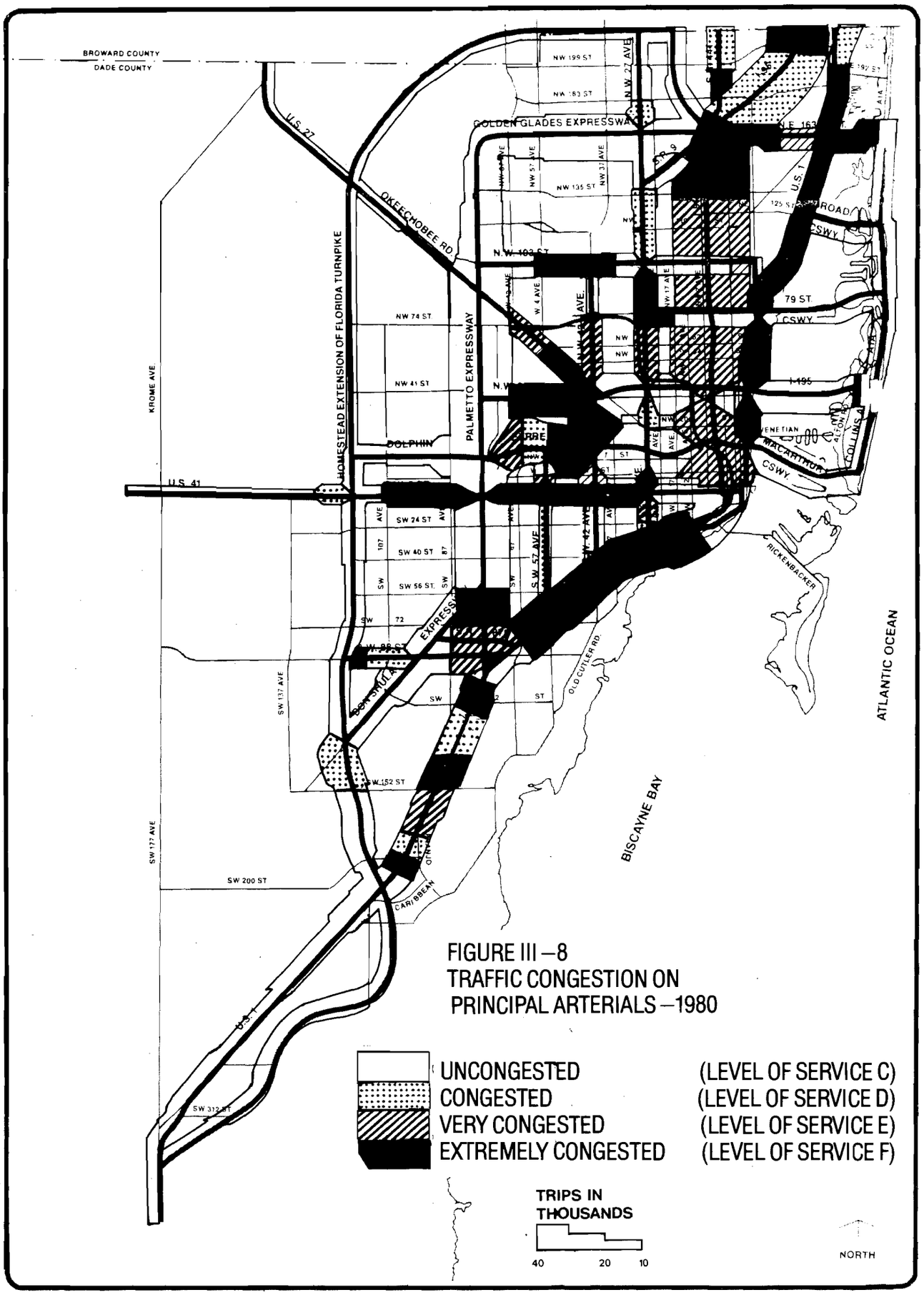
Southwest Sector--

- Principal Arterials

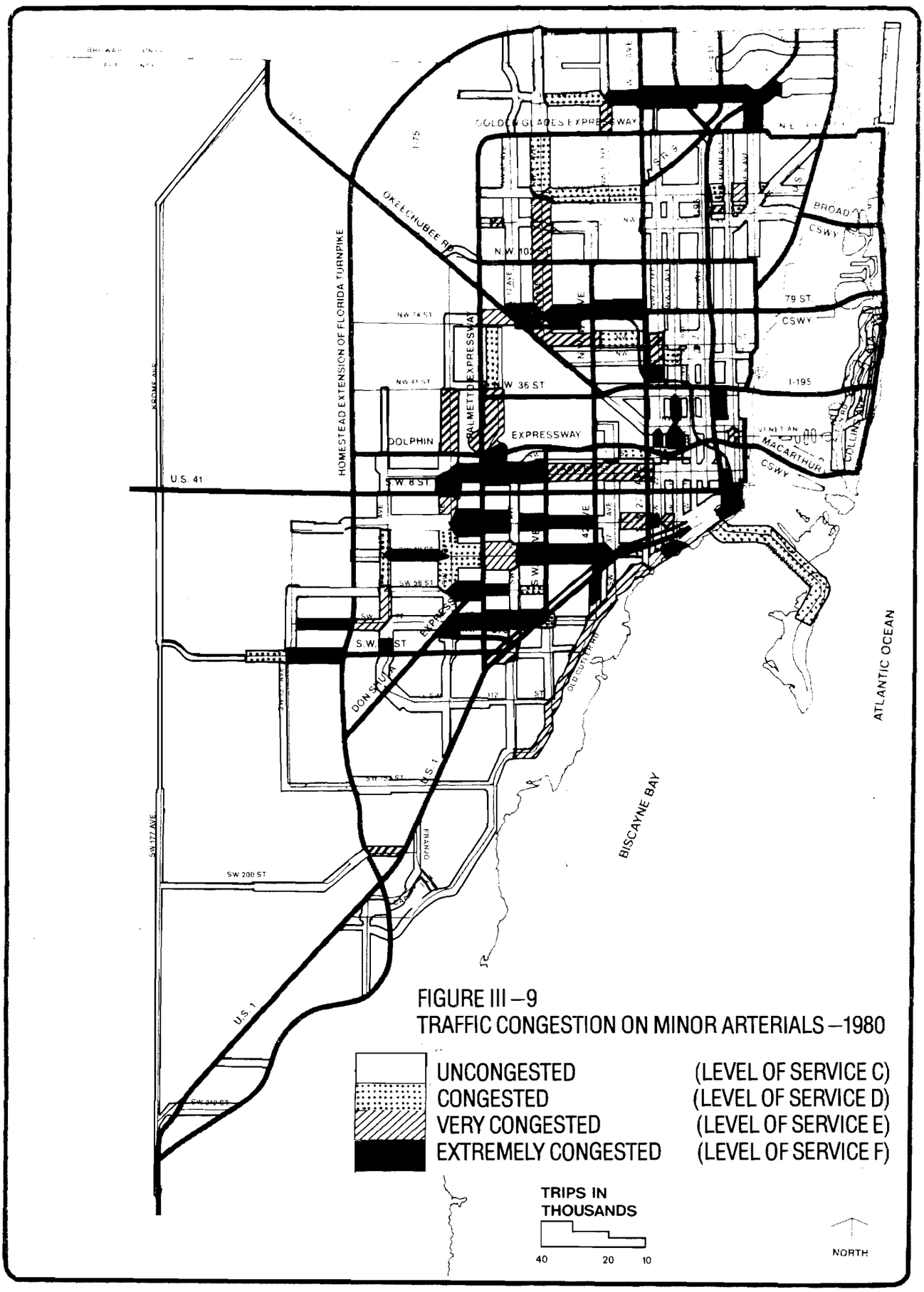
  The extremely congested conditions on US 1, particularly north of Dadeland, is very apparent. Conditions on US 1 south of Dadeland are also congested, but not nearly to the same degree. Similar congested conditions can be found on the Palmetto Expressway south of the Don Shula Expressway (S.R. 874).

- Minor Arterials

  Traffic conditions on several Minor Arterial roads in the Southwest Sector-- Old Cutler Road/Bayview (north of SW 136), SW 27 Ave. (south of US 1), and the east-west highways connecting the Kendall area such as SW 88 Street, SW 72 Street, and SW 40 Street are at or near breakdown. Congestion levels are significantly less on roads located south of SW 88 Street.



III. NEEDS ELEMENT



III. NEEDS ELEMENT

West Sector--

- Principal Arterials

  Two important highways- SW 8 Street (between SW 107 Ave. and SW 27 Ave.) and the Dolphin Expressway by the Airport- encounter extremely congested traffic conditions.

- Minor Arterials

  Most of the east-west roads between SW 87 Ave. and downtown Miami experience breakdown or near-breakdown conditions. Of particular note are SW 40 Street east of SW 67 Ave., SW 24 Street between SW 87 Ave. and Coral Gables, and NW 7 Street south of the Airport.

Northwest Corridor--

- Principal Arterials

  Nearly all of the Principal Arterials east of the Palmetto Expressway are extremely congested. Of particular significance are NW 36 Street north of the Airport, N. River Road, and NW 103 Street.

- Minor Arterials

  NW 79 Street stands out as being extremely congested. In addition, congestion on NW 183 Street west of NW 27 Ave. is particularly bad.

Northeast Sector--

- Principal Arterials

  Biscayne Boulevard is congested for nearly its entire length. Traffic conditions on I-95 and North 163 Street are also very congested.

- Minor Arterials

  Generally, traffic volumes are much less on these roads than traffic volumes on other highways in the Northeast Sector. As a result, with the exception of N. 183 Street, traffic conditions on these roads are not very congested.

Miami Beach Sector--

- Principal Arterials

  Major congestion is found on the 163 Street Causeway (Sunny Isles Causeway). The other causeways do not encounter the same degree of congestion.

- Minor Arterials

  Congestion are Minor Arterials on Miami Beach is not a problem.

ANALYSIS AREAS

Information on travel demand has been aggregated for presentation in this document into 16 Analysis Areas. This aggregation allows an appreciation of the diversity of travel needs within the metropolitan area. Figure III - 10 shows the Analysis Areas. These areas are as follows:

Central-- The central area is broken into two Analysis Areas: the greater downtown area (inside of I-95 between the Rickenbacker Causeway and North 36 Street) and Key Biscayne.

Southwest Sector -- The southwest sector is broken into five Analysis Areas, ranging from the southwest Miami / Coral Gables area out to South Dade.

West Sector -- In the west sector, three Analysis Areas are used: the area east of the Palmetto Expressway, the area between the Palmetto Expressway and the HEFT, and the area west of the HEFT.

Northwest Sector -- Two Analysis Areas are shown for the northwest sector. The Palmetto Expressway serves as the dividing line between the areas.

Northeast Sector -- Three Analysis Areas in the northeast are used. North 79 Street and North 163 Street generally divide the sector.

Miami Beach -- The area east of Biscayne Bay is identified as a separate Analysis Area.

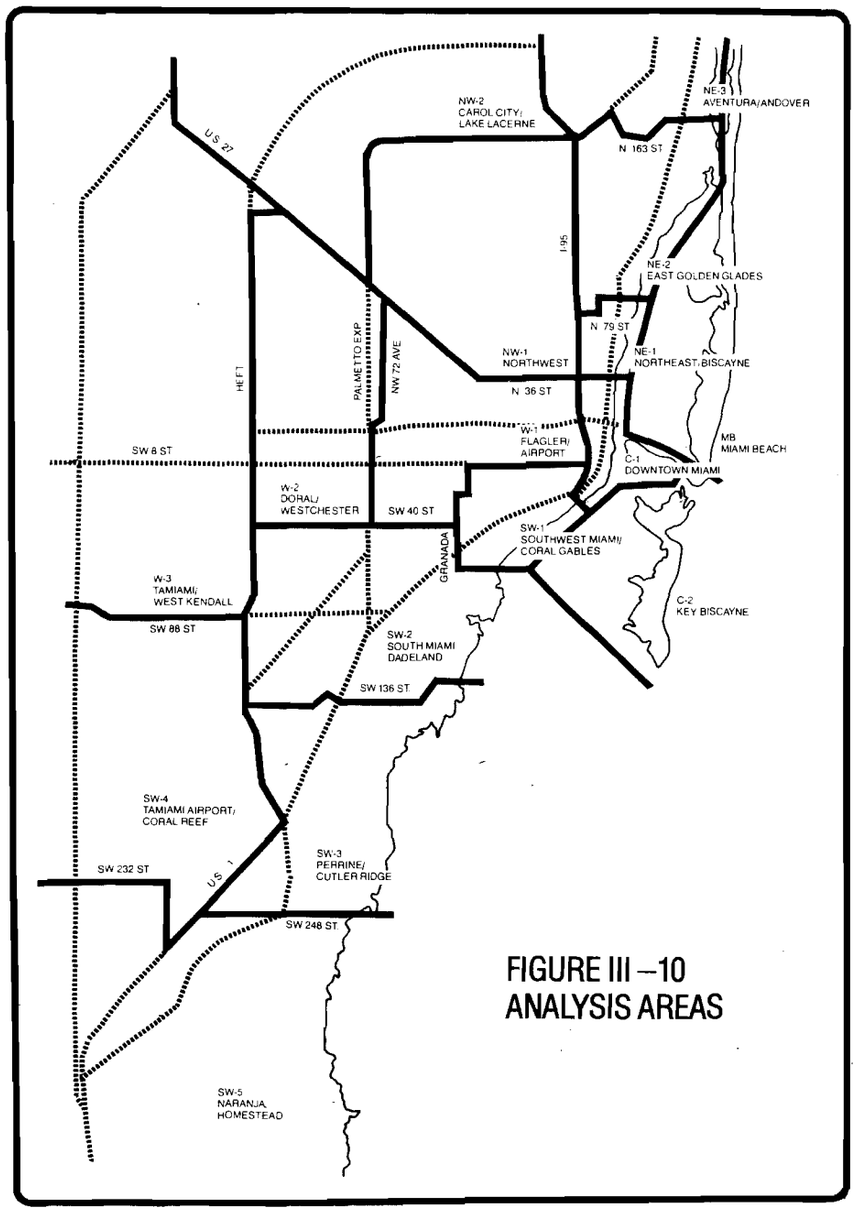


FIGURE III –10
ANALYSIS AREAS

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

HIGHWAY TRAFFIC DEMAND

VEHICLE-MILES-OF-TRAVEL

An important measure of the overall amount of traffic placed on the highway system is "vehicle-miles-of-travel". This measure, referred to as "VMT", is obtained by multiplying the amount of traffic on a highway segment by the length of the highway segment and then summing across all highway segments in a particular area. VMT provides an indication of the comparative amounts of travel made in different parts of the County. In addition, it is a good measure of traffic growth through time.

On an average weekday, 22.1 million vehicle-miles-of-travel are made on all highways in the County. Of this, 20.4 million are made on Principal Arterial, Minor Arterial, and Major Collector roads. Table III - 3 shows the amount of traffic on these highways by each Analysis Area. Of the traffic load placed on arterial and major collector highway system, 27% occurs in the Southwest, 24% in the West, 20% in the Northwest, 18% in the Northeast, and 5% on the Beach. Figure III - 11 graphically shows the amount of VMT made on highways in each Analysis Area.

TABLE III - 3
VEHICLE-MILES-OF-TRAVEL - 1980

ANALYSIS AREA	1980 WEEKDAY VMT (000)
Central	
Miami CBD	950
Key Biscayne	180
Total- Central	1,130
SOUTHWEST SECTOR --	
S.W. Miami / Coral Gables	870
South Miami / Dadeland	2,320
Perrine / Cutler Ridge	1,050
Tamiami Airport / Coral Reef	420
Naranja / Homestead	770
Total- Southeast	5,430
WEST SECTOR --	
Flagler / Airport	2,670
Doral / Westchester	2,010
Tamiami / West Kendall	310
Total- West	4,990
NORTHWEST SECTOR --	
Northwest	3,530
Coral City / Lake Lucerne	640
Total- Northwest	4,170
NORTHEAST SECTOR --	
N.E. Miami / Biscayne	820
East Golden Glades	1,710
Aventura / Andover	1,040
Total- Northeast	3,570
MIAMI BEACH --	1,100
TOTAL	20,390

SOURCE: Travel simulation adjusted by ground counts.

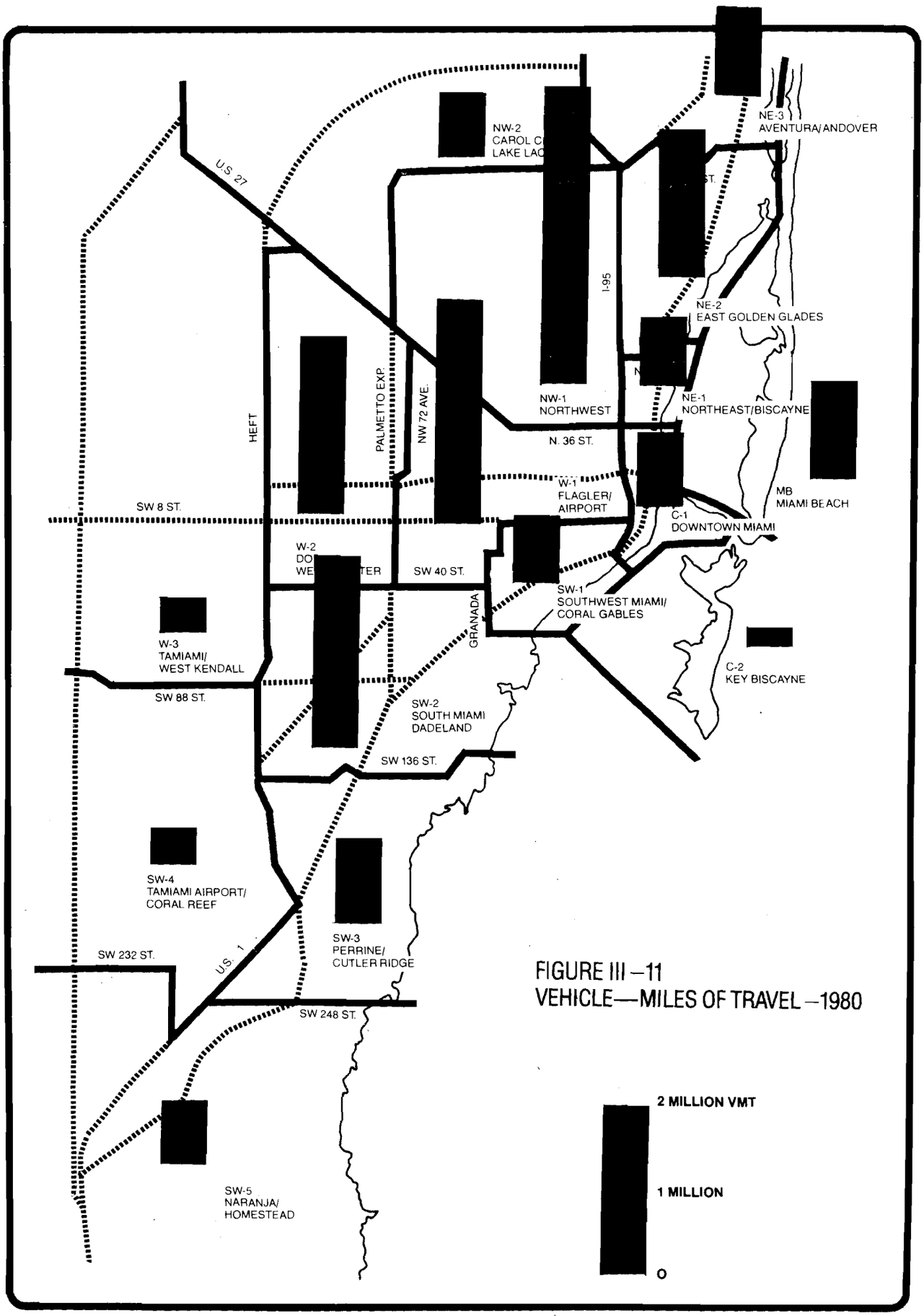


FIGURE III –11
VEHICLE—MILES OF TRAVEL –1980

III. NEEDS ELEMENT

HIGHWAY TRAFFIC DEMAND

QUANTIFICATION OF CONGESTION

The amount of traffic using roads that are experiencing extremely congested conditions (Level-Of-Service F) has been calulated. All roads in a particular Analysis Area have been grouped and the amount of extremely congested VMT summed. The amount of extremely congested VMT in each Analysis Areas, as shown in Figure III - 12 and Table III - 4, is summarized as follows:

Central-- Nearly one-fifth of the traffic on roads in the downtown area experience extreme congestion.

Southwest Sector-- Over one million VMT experience extreme congestion. Over 80% of this VMT occurs inside of SW 136 Street. The worst congestion is concentrated in the inner portion of the Southwest sector where over 50% of the VMT on roads in the SW Miami/Coral Gables is classified as extremely congested.

West Sector-- Over one million VMT encounter extremely congested conditions in the West Sector, one-third of the extremely congested VMT in the County. Two areas within this sector stand out: the Flagler/Airport area (east of the Palmetto Expressway) where 36% of the VMT encounters extreme congestion and the Tamiami/West Kendall area (west of the HEFT) with 29% of the VMT in the extreme congestion category.

Northwest Sector-- Less than 10% of the VMT on roads in this sector experiences extreme congestion.

Northeast Sector-- About three three-fourths of a million VMT on roads in the northeast encounter extreme congestion. The bulk of this congestion occurs on roads north of N. 79 Street. In the Aventura / Andover area (North of N. 163 Streets), about one-third of the VMT experiences extreme congestion.

Miami Beach-- Only 6% of the VMT on these roads experiences extreme congestion.

TABLE III - 4
EXTREMELY CONGESTED VMT - 1980

ANALYSIS AREA	1980 WEEKDAY VMT IN EXTREME CONGESTION (000)	PERCENT OF TOTAL VMT IN EXTREME CONGESTION
CENTRAL --		
Miami CBD	190	20%
Key Biscayne	0	0%
Total- Central	190	17%
SOUTHWEST SECTOR --		
S.W. Miami / Coral Gables	450	52%
South Miami / Dadeland	420	18%
Perrine / Cutler Ridge	100	9%
Tamiami Airport / Coral Reef	20	5%
Naranja / Homestead	60	8%
Total- Southeast	1,050	19%
WEST SECTOR --		
Flagler / Airport	950	36%
Doral / Westchester	320	16%
Tamiami / West Kendall	90	29%
Total- West	1,360	27%
NORTHWEST SECTOR --		
Northwest	270	8%
Coral City / Lake Lucerne	50	8%
Total- Northwest	320	8%
NORTHEAST SECTOR --		
N.E. Miami / Biscayne	100	12%
East Golden Glades	300	18%
Aventura / Andover	330	32%
Total- Northeast	730	20%
MIAMI BEACH --	70	6%
TOTAL	3,720	18%

SOURCE: Travel simulation adjusted by ground counts

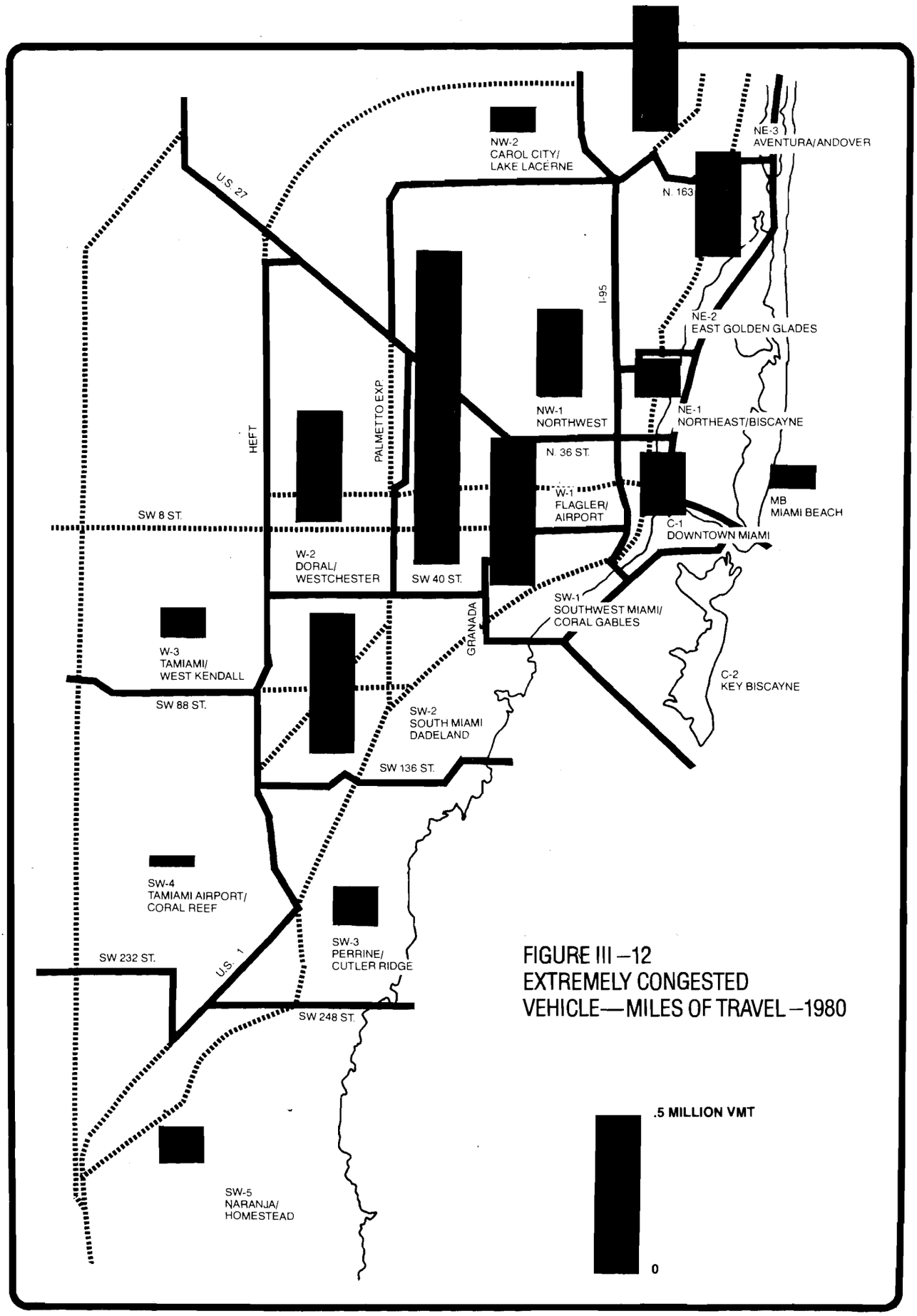


FIGURE III –12
EXTREMELY CONGESTED
VEHICLE—MILES OF TRAVEL –1980

III. NEEDS ELEMENT

TRANSIT SERVICE CHARACTERISTICS

METROBUS SERVICE

Metro-Dade County is responsible for providing all public transit services in the urbanized area. In 1983, the METROBUS public transit system offered 23 million miles of service and carried over 63 million passengers. While a number of services are tailored to meet rush-hour needs, significant resources are allocated to mid-day, evening, and week-end service. Approximately 12.3 million or 54% of the 23 million bus-miles are provided during these hours.

The current route structure, shown in Figure III - 13, indicates the extent of service provided to the community. On an average weekday, 61,500 miles of local bus service and 2,600 miles of express bus service are provided. In addition, about 1,800 spaces are provided at official Park-n-Ride facilities in remote lots.

The level of transit service in the metropolitan area is portrayed in Figure III - 14 where existing bus frequencies are shown. As can be seen, most of the urbanized area is provided service at least every 30 minutes, while outlying areas have service every 60 minutes. A significant portion of the population is served by buses that arrive at least every 15 minutes. Some 600,000 people live in the area having the most intense level of service.

As indicated in the following table, the 1983 bus fleet consisted of 682 vehicles, however, 39 of these buses were on the "inactive" list. The mean age of the entire fleet approached 8 years, or nearly two-thirds of the standard life of the standard life of a transit bus (12). Over 17% of the fleet exceeded the maximum age standard for conventional buses.

AGE OF 1983 BUS FLEET

Years	# of Vehicles	% of Total Fleet
0- 4	259	37.9
4- 8	197	28.8
8-10	105	15.4
12-16	93	13.6
16-20	29	4.3
	683	100.0

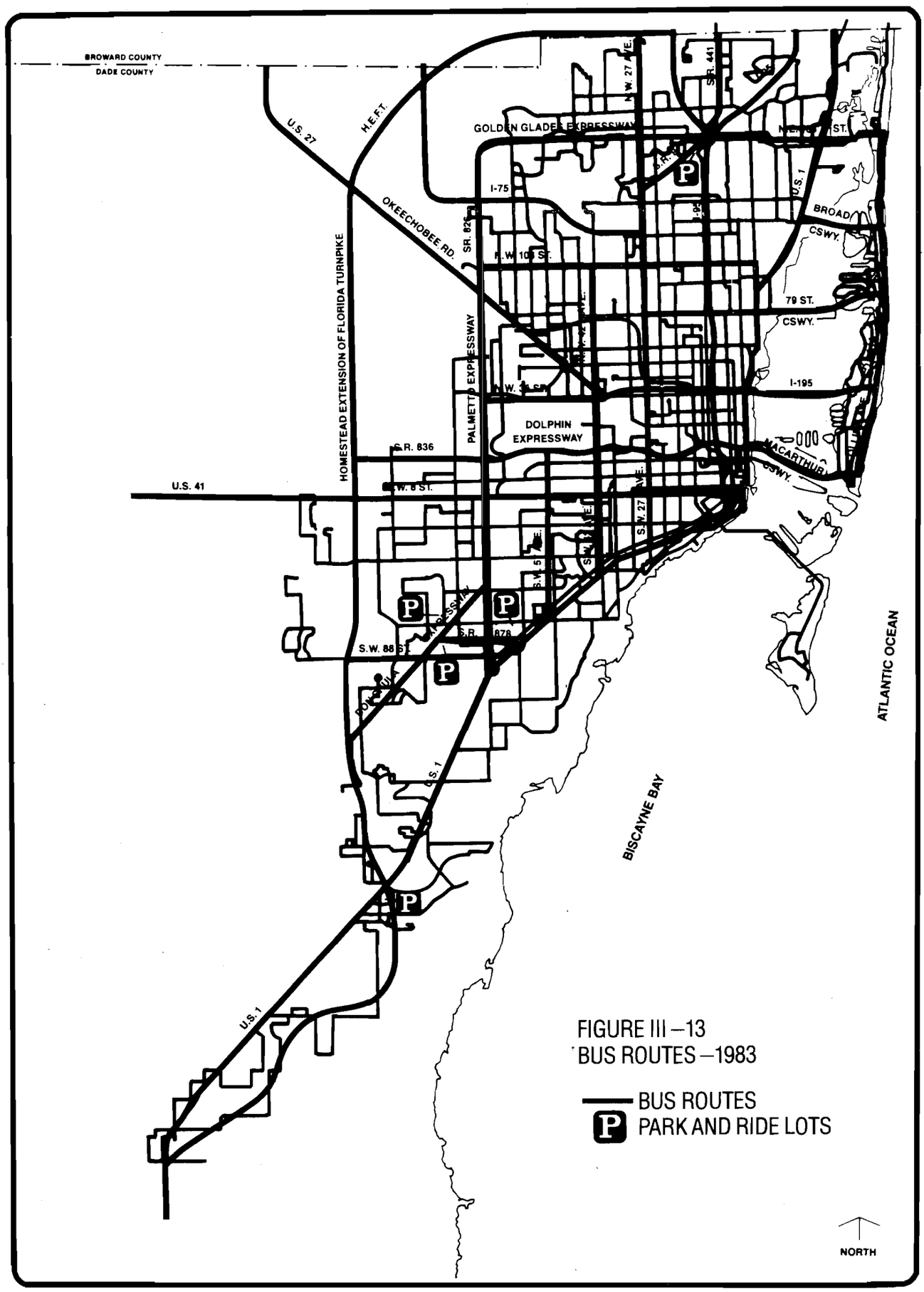


FIGURE III–13
BUS ROUTES–1983

BUS ROUTES
PARK AND RIDE LOTS

III. NEEDS ELEMENT

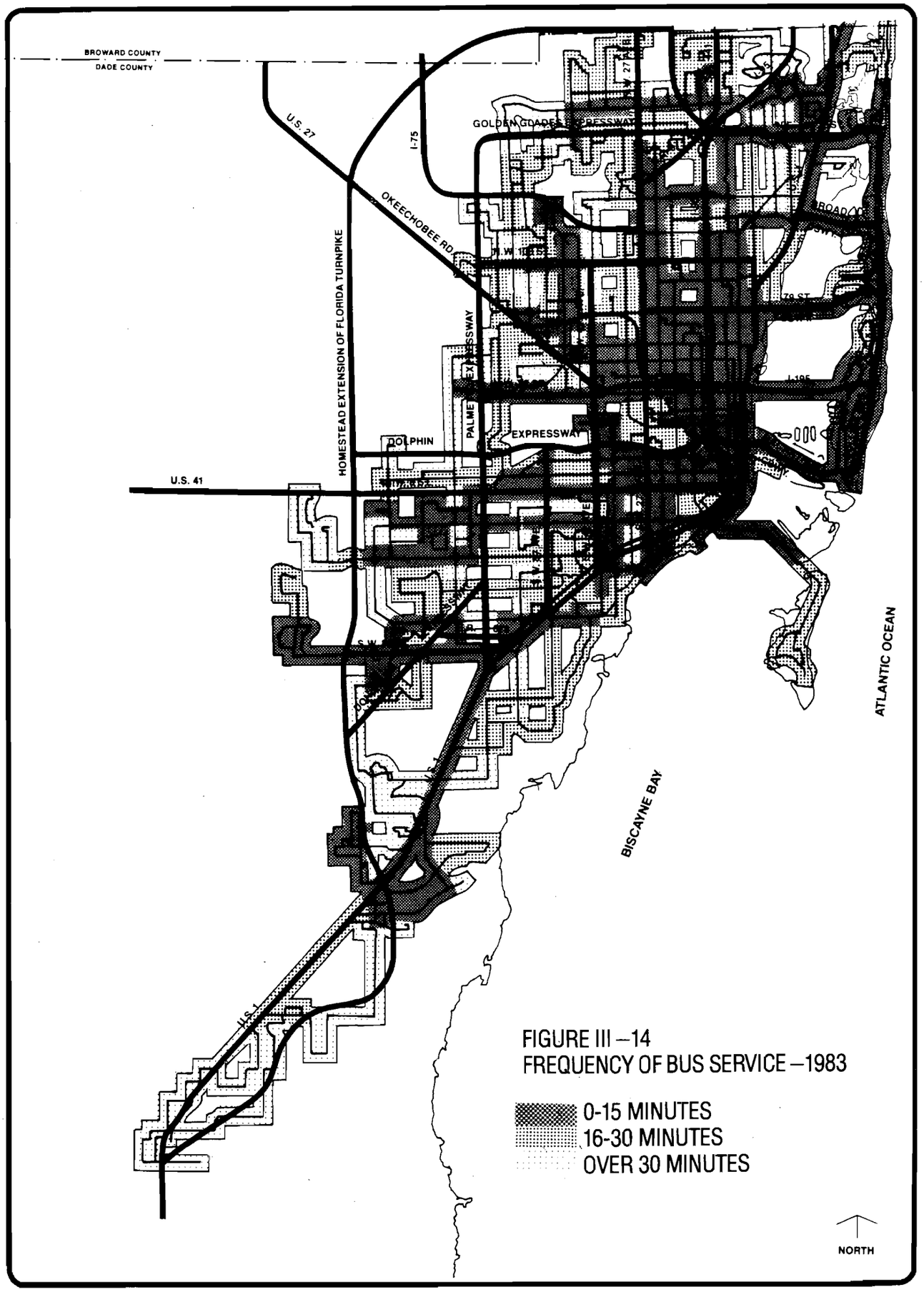


FIGURE III –14
FREQUENCY OF BUS SERVICE –1983

0-15 MINUTES
16-30 MINUTES
OVER 30 MINUTES

III. NEEDS ELEMENT

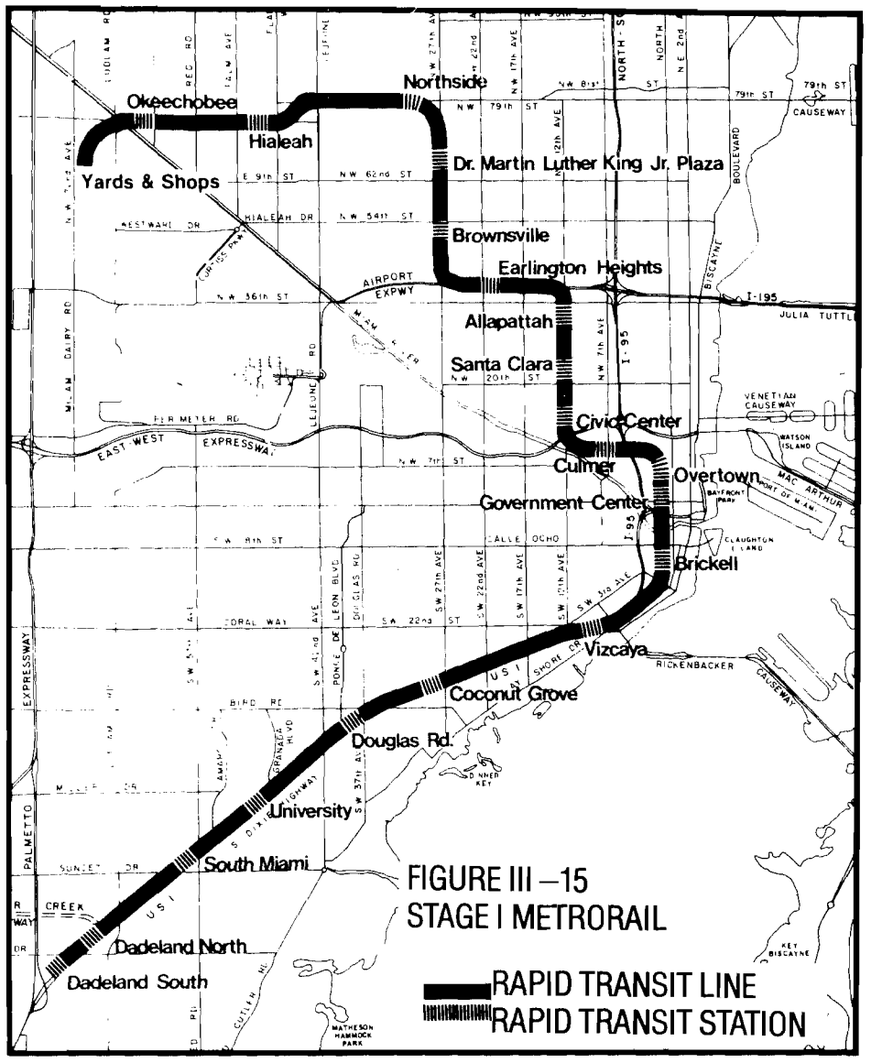


FIGURE III–15
STAGE I METRORAIL

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

TRANSIT SERVICE CHARACTERISTICS

METRORAIL SERVICE

Major improvements in transit service in two heavily travelled corridors radiating out of downtown Miami are being made with the operation of METRORAIL. Stage I of METRORAIL shown in Figure III-15 provides an important connection to downtown, as well as a number of other vital non-downtown travel generators served by the 20 stations in these two densely populated corridors. The south line of METRORAIL between Dadeland and downtown Miami, provides relief to highly congested South Dixie Highway. Construction of the northwest line between downtown Miami and Hialeah is nearing completion with opening anticipated in the near future. While initially either 4 or 6 car trains are to be run every 12 minutes on the South line between 6 a.m. and 7 p.m. more frequent service over a longer time period is planned as feeder bus service is realigned, parking garages are opened, and new equipment is tested and placed in service.

The system is designed to facilitate the access of pedestrians and commuters. Trains are capable of a top speed of 70 miles per hour, and are expected to average 30 to 35 miles per hour in actual operation. A fleet of 136 train cars will be used on the Stage I of the system, with additional vehicles acquired as demand increases.

Each METRORAIL station serves as a major transportation hub, with provisions for bus transfers, shuttle services where necessary, and park-and ride facilities. Extensive coordination of service between modes and improved transfer capabilities is exemplified by the recent changes in bus routes to directly serve the stations on the southern leg of the system.

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

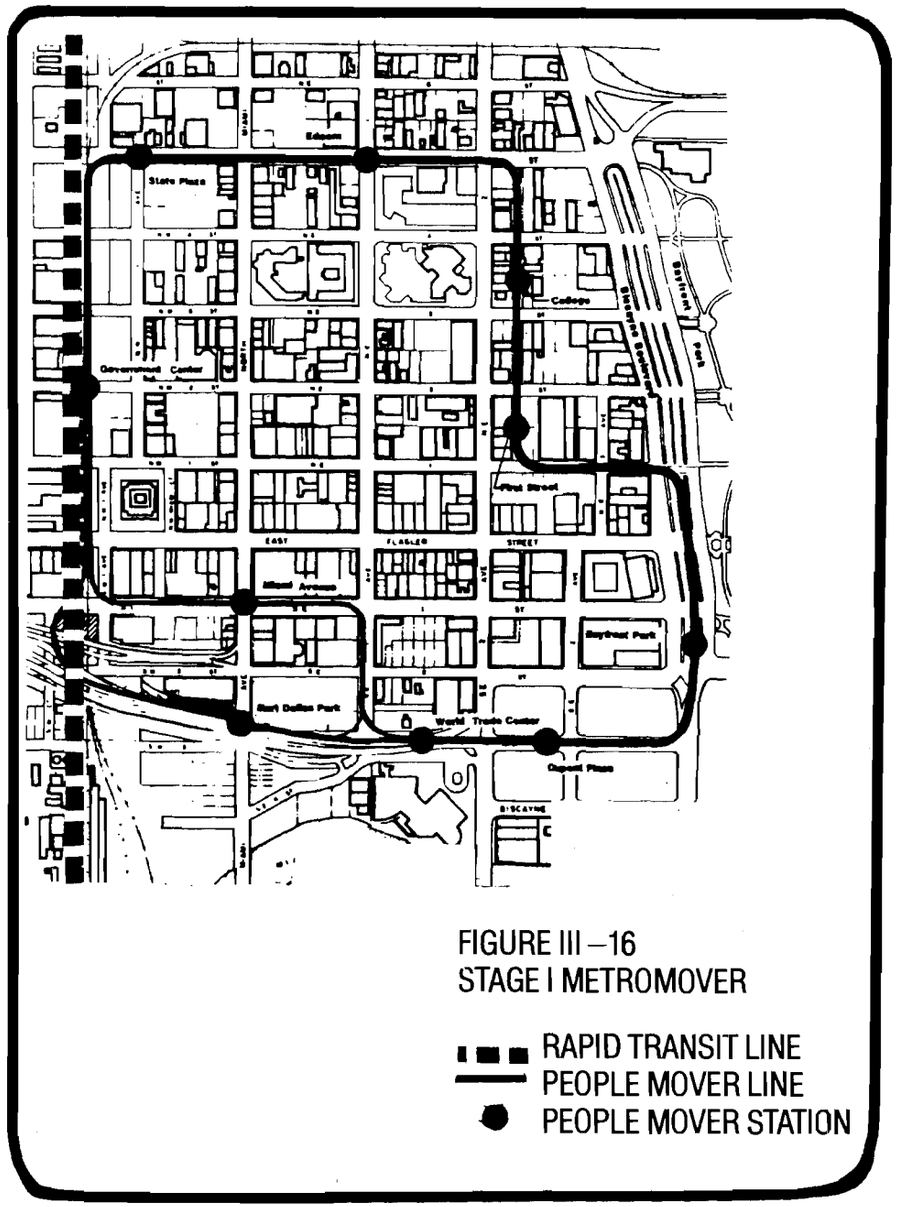
TRANSIT SERVICE CHARACTERISTICS

METROMOVER

The first phase of the Downtown Component of METRORAIL (METROMOVER) shown in Figure III - 16, has been under construction since 1982 and is scheduled for opening in 1986. It is a completely automated circulation/distribution system that will interface with METRORAIL at the Government Center station in downtown Miami. The elevated, double-track structure is designed for rubber-tire vehicles that will travel in a loop providing service between 10 stations in downtown Miami.

Major activity centers along the 1.9 mile route include Government Center, Dupont Plaza, Miami-Dade Community College, and the New World Trade Center. A fleet of 17 METROMOVER cars will be used for the initial phase of the system; each car can be operated individual or coupled together to form trains. An average speed of 10-15 miles per hour is anticipated. The proposed headways on the system will be 3-6 minutes during peak hours and 10-12 minutes in the base period.

The greatest percentage of METROMOVER ridership will be passengers who transfer from METRORAIL at the Government Center Station since it is the major transfer point in the Central Business District. In addition, the potential for bus-to-"mover" transfers has been incorporated in the design of the Bayfront Park Station on Biscayne Boulevard.



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PARATRANSIT SERVICE CHARACTERISTICS

PARATRANSIT SERVICE

Additional public transportation services is provided by the County's paratransit program and by privately-owned transportation services designed to complement the operation of the public transit system. Paratransit services are offered to those areas and population groups where transit demand is either too limited or specialized for effective provision of regular fixed-route transit service. Paratransit includes taxi, limousines, jitneys, special medical transportation, subscription and route deviated buses, car pools, van pools and other chauffeur driven high occupancy vehicles. Both existing and demonstration programs are described as follows:

- Special Transportation Service (STS) - Instituted since June, 1976, the objective of the STS project is to provide curb to curb transportation to persons of any age that cannot physically board or utilize existing METROBUS service due to permanent physical disability. Special lift-equipped vehicles, along with taxis, are used for the service. The service uses a variable fare structure depending on the length of each one-way trip directly from the pick-up location to the destination.

- The Brokerage Operation Project - Brokerage is a concept that operates through the cooperation of contributing social service agencies, private firms under contract to the County and other paratransit service users and providers. The Metro-Dade brokerage is known as the Transportation Resources Integration Program (TRIP). This program uses a Computer Assisted Routing, Scheduling, Dispatching, and Management Information System (CARSD/MIS). Under TRIP Center operation, existing social service transportation providers continue to own, operate, maintain and provide capital equipment. However, their routes and schedules are coordinated so that more people can be served for the limited public funds available to support the service.

- The Catch-A-Bus Demonstration Project - Catch-A-Bus (CAB) is a feeder service that integrates taxis and METROBUS. The taxi picks up people at their homes and takes them to the closest transfer point and will be waiting at the sme METROBUS stop on the return trip.This pilot project has been implemented as a demonstration program in three different areas: Cherry Baye/Lake Lucerne, Miami Lakes, and West Central Dade. The one-year demonstration period for this program will be completed in December of 1984.

- The LOOP - The LOOP is a neighborhood circulation and feeder system transportation service in the South Dade/Homestead area. It is a federally funded project that is serviced by vans. The LOOP makes a circular route of approximately 11 3/4 miles, transporting people to shopping and activity areas to transfer to METROBUS. The program has been scheduled to operate for a demonstration period of one year.

- South Dade Educational Transportation Component of the Metro Miami Action Plan - This project is designed to improve accessibility to higher education institutions for economically disadvantaged Black residents of south Dade by transporting students to and from Robert Morgan Vocational Technical Institute in Perrine and the Miami Dade Community College Homestead Outreach Center. Beginning in the fall of 1984, service will be extended to Florida International University and the Miami-Dade Community College South Campus.

- Transportation to Jobs and Jobs Interviews - In April 1984, Dade County was awarded a special federal grant of more than $200,000 from the Urban Mass Transit Administration (UMTA) to help needy residents with transportation to jobs or job interviews. The project's goal is to coordinate transportation including buses, METRORAIL, and special County-run car pools to help currently unemployed people from Overtown, Liberty City and other depressed communities get to jobs or jobs interviews in other parts of the County. The service will be available for a period of six months.

- Prototype Paratransit Vehicle Program - Metro-Dade County has been awarded a State/Federal grant to develop specifications for purchasing and testing in actual operation of up to 15 prototype vehicles. These vehicles are suitable for use in regular taxi service and can accommodate wheelchair riders in a regular service operating mode.

TRANSIT SERVICE CHARACTERISTICS

QUANTIFICATION OF SERVICE

The amount of transit service provided to different parts of the County in 1983 has been measured in terms of bus-miles-of-service. Table III - 5 and Figure III - 17 show the amount of bus service provided each Analysis Area. Generally, service is proportioned evenly between the five sectors with each receiving between 10 and 13 million miles of service. While more service is generally provided in the closer-in areas, corresponding to the higher number of households without autos and the proximity to downtown Miami, significant service is provided outlining areas.

TABLE III - 5
BUS-MILES OF SERVICE - 1983

ANALYSIS AREA	BUS-MILES PER WEEKDAY
CENTRAL --	
Miami CBD	7,900
Key Biscayne	300
Total- Central	8,200
SOUTHWEST SECTOR --	
S.W. Miami / Coral Gables	2,500
South Miami / Dadeland	4,000
Perrine / Cutler Ridge	1,600
Tamiami Airport / Coral Reef	200
Naranja / Homestead	1,400
Total- Southeast	9,700
WEST SECTOR --	
Flagler / Airport	7,500
Doral / Westchester	1,800
Tamiami / West Kendall	400
Total- West	9,700
NORTHWEST SECTOR --	
Northwest	11,200
Coral City / Lake Lucerne	2,000
Total- Northwest	13,200
NORTHEAST SECTOR --	
N.E. Miami / Biscayne	2,500
East Golden Glades	5,600
Aventura / Andover	2,800
Total- Northeast	10,900
MIAMI BEACH --	12,300
TOTAL	64,000

SOURCE: Metro-Dade Transportation Administration

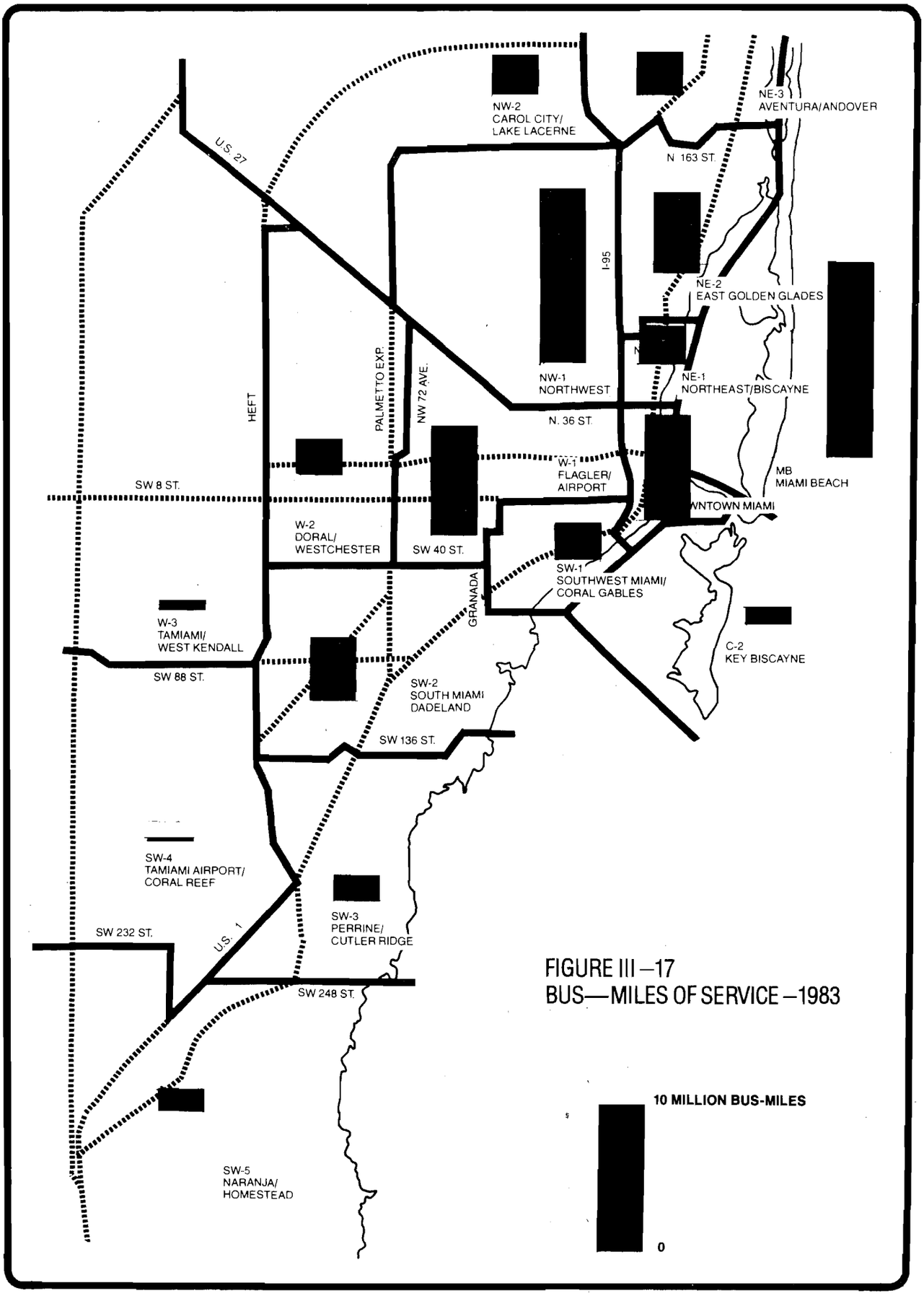


FIGURE III–17
BUS—MILES OF SERVICE–1983

III. NEEDS ELEMENT

UNDERLYING POPULATION / ECONOMIC CHARACTERISTICS

LAND USE AND TRANSPORTATION

The analysis of transportation needs documented in this Transportation Plan is based on a quantification of the mobility requirements of people and economic activities.

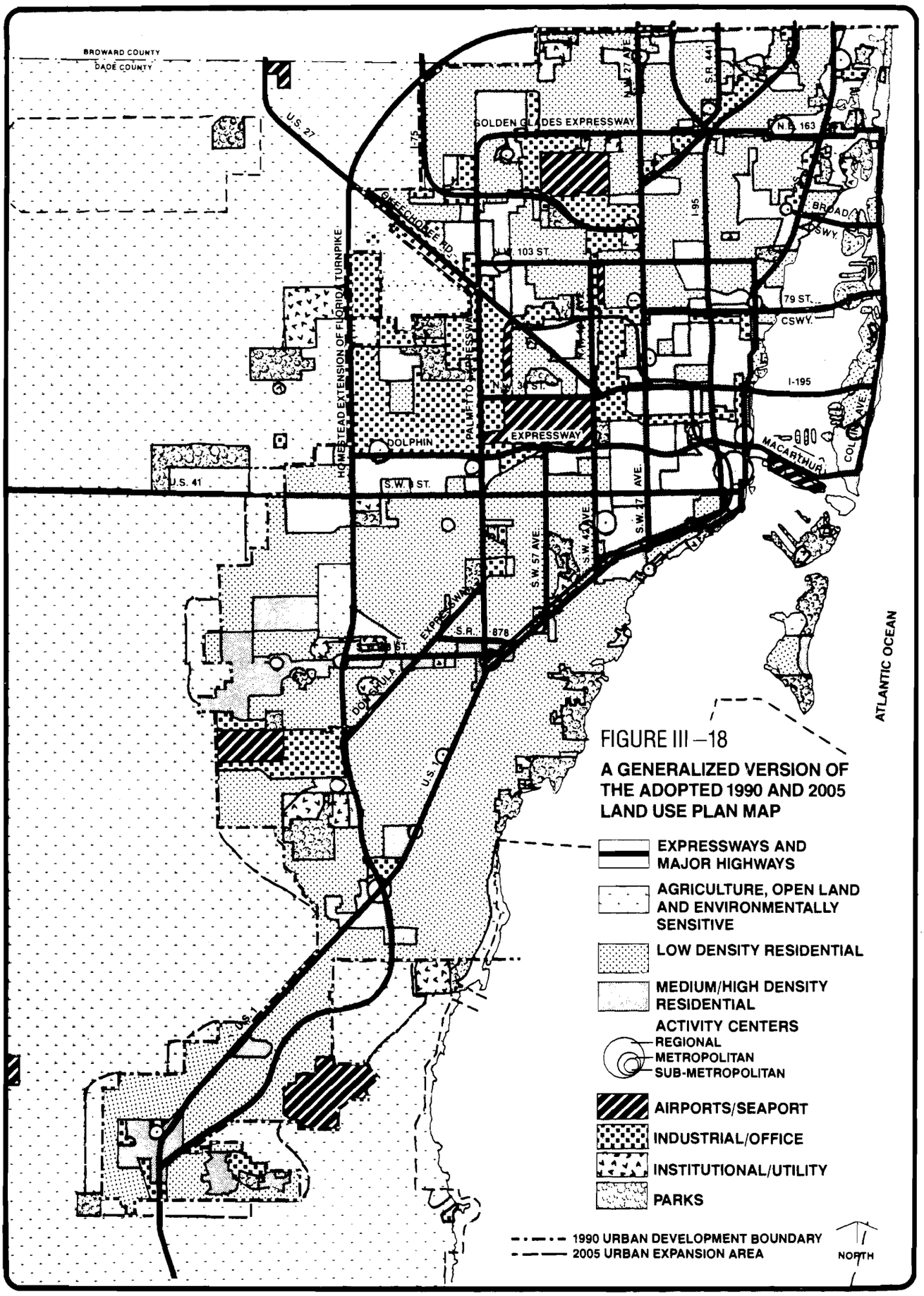
Estimates of the location and intensity of travel are based on actual traffic data and on the level of existing population and employment activities. Data describing the level of activity in 1,089 separate analysis zones were obtained by the Metro-Dade Planning Department from the 1980 Census, specialized surveys, and other secondary data sources. These data were mapped and analyzed to fully appreciate the broad spectrum of activities in the metro area. Data on activity levels were compared with estimates of actual travel generation, making it possible to estimate for the future the amount and location of trips made to and from various parts of the County.

In addition to providing information on existing activity levels, the Metro-Dade Planning Department also provides projections of future activities so that travel demand can be projected. The most important socio-economic factors affecting future transportation demand are changes in population and employment, as guided by land use plans. Once future population and employment levels are projected, other socio-economic variables such as auto ownership are projected. County-wide totals of these socio-economic indicators have been allocated to the 1,089 analysis zones so that traffic generated by these activities can be simulated on assumed transportation networks.

An important factor affecting future patterns of population and employment is the established land use plan approved by the Metro-Dade Commission based upon studies conducted by the Planning Department. This land use plan is an integral component of the Comprehensive Development Master Plan (CDMP) and is rigorously enforced through the zoning and development process maintained by Metro Dade. A generalized map indicating the intensity of land use activities recommended in the CDMP is shown in Figure III - 18. More specific information regarding planned land uses is available from the Planning Department.

An important feature of the Land Use Plan is the urban / rural line demarking the area where urban densities and services will be allowed. This line is very important to the future of the transportation system because traffic growth outside of the line will be reasonably low due to the restrictions on land uses that would generate significant amounts of travel. Generally, development on lands inside of the line require urban-type transportation services.

Figure III - 18 also indicates the level of population and employment densities to be allowed in various parts of the County. These allowed densities are important determinants of future growth, and therefore travel demand. As can be seen, higher densities are encouraged in selected corridors served by major highway facilities and rapid transit lines. In particular, high densities are shown on Miami Beach and in several corridors radiating out of downtown Miami (to the Southwest, West, Northwest, and Northeast).



III. NEEDS ELEMENT

UNDERLYING POPULATION / ECONOMIC CHARACTERISTICS

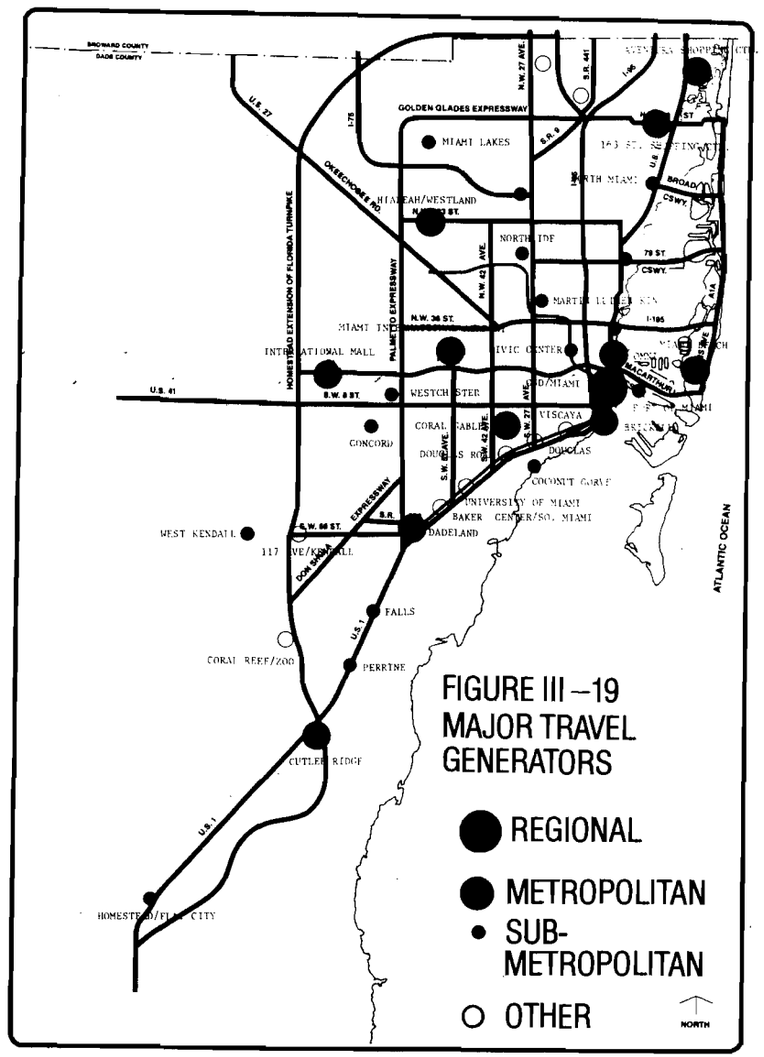
URBAN ACTIVITY CENTERS

In addition to high density corridors, the Comprehensive Development Master Plan identifies a number of high-density multi-purpose centers. as shown in Figure III - 19. Significant travel demand is expected to be generated by these centers. Because of the density of development, a relatively high proportion of the trips made to and from activities in these centers are in a position to easily access transit services.

Downtown Miami is the largest concentrated urban center in the metropolitan area. Included are not only the activities in the area bounded by the Miami River, I-95 and the Dolphin Expressway, but also the major centers in the Brickell corridor south of Miami River and in the Omni area north of the Dolphin Expressway.

A number of other large-scale multi-purpose centers are also shown. These include Cutler Ridge to the southwest, the Dadeland area, Coral Gables, Miami Beach, the Airport complex, the greater Sweetwater area, and Hialeah. Also shown is the NE 163 St. / Aventura area in the northeast corridor, serving both Dade and Broward Counties.

Figure III - 19 also shows secondary centers. Included are a number of centers along South Dixie Highway, involving both established centers plus centers planned to be developed along the South METRORAIL line. Two centers in the west corridor near the Palmetto Expressway are also shown. Several centers in the northwest corridor are also identified in the CDMP.



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UNDERLYING POPULATION / ECONOMIC CHARACTERISTICS

POPULATION PATTERNS

Figure III - 20 indicates the location of the existing population. Two important patterns are apparent. First, the overall shape of the settlement pattern is clearly impacted by the urban boundary with population concentrated within an area generally bounded by the Turnpike. Secondly, clusters of population around certain centers such as Homestead, Cutler Ridge, West Kendall, Coral Gables, Hialeah, and in Northeast Miami are apparent. The most concentrated population cluster is in south Miami Beach.

These population patterns are important determinants of travel making in the county. The clusters of population can be a significant boost to the attractiveness of transit because of the ability to serve people without excessive walking. However, in some areas, the diversity of population patterns will no doubt make it necessary to provide wide-spread feeder bus and auto connectors to make high-speed transit competitive for many trips.

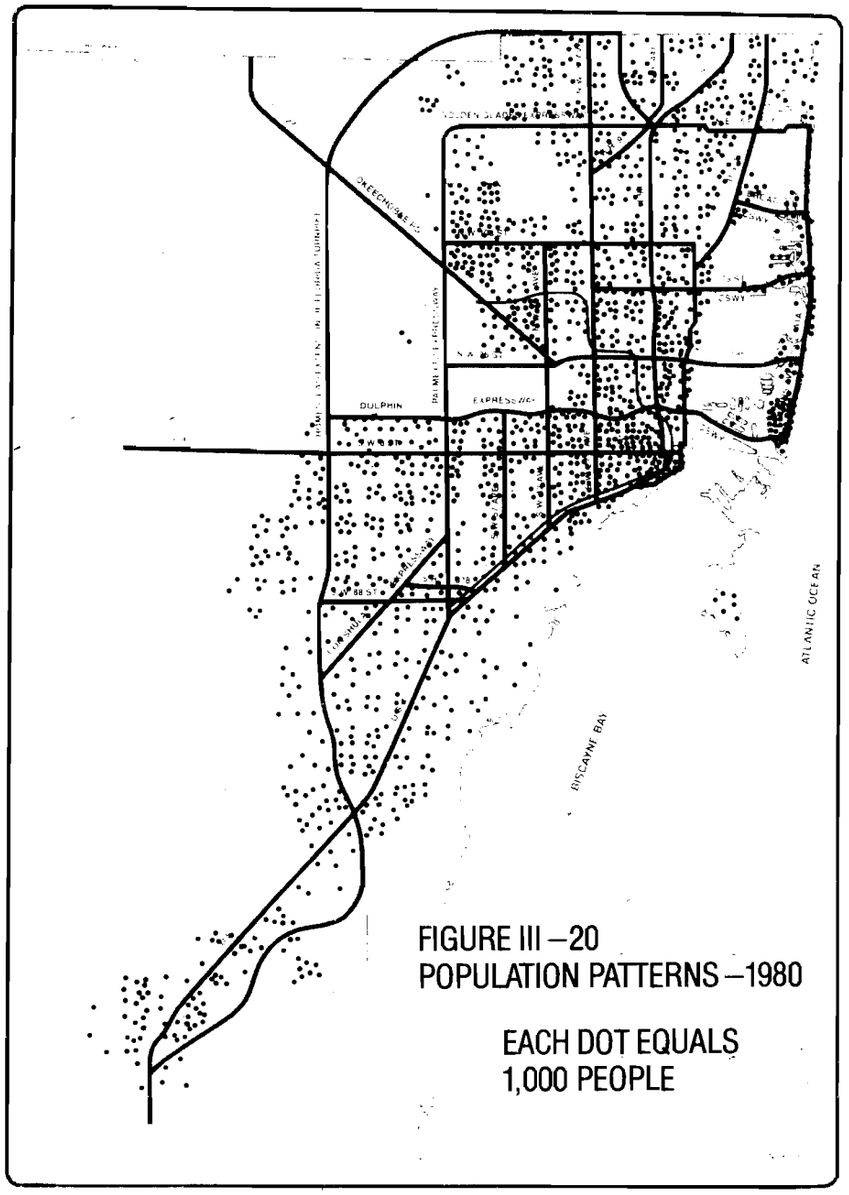


FIGURE III – 20
POPULATION PATTERNS – 1980

EACH DOT EQUALS
1,000 PEOPLE

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

UNDERLYING POPULATION / ECONOMIC CHARACTERISTICS

CURRENT POPULATION BY ANALYSIS AREAS

Figure III - 21 indicates current population levels for each Analysis Area. These population statistics, also shown in tabulor form in Table III - 6, provide a basic indication of the current activity levels and travel needs within the metropolitan area. Highlights of the information are:

Central-- At present, less that 2% of the County's population resides within the central area.

Southwest Sector-- Nearly one-half million people live in the southwest sector, about 30% of the population of the County. Over 50% of these people reside in the area north of SW 136 Street, with the highest number located in the South Miami / Dadeland area.

West Sector-- About 350,000 people live in the West Sector, over 20% of the County's population. Nearly two-thirds of the residents of this sector currently live east of the Palmetto Expressway.

Northwest Sector-- About 400,000 people live in the Northwest Sector, 25% of the metropolitan area's population. Nearly 80% of these people live east and south of the Palmetto Expressway.

Northeast Sector-- This sector currently contains almost 20% of the County's population, with over one-third of a million people. About three-fourths of the residents live south of North 163 Street.

Miami Beach-- About 70,000 people live in this sector, about 4% of the County's population.

TABLE III - 6
POPULATION - 1980

ANALYSIS AREA	POPULATION (000)
CENTRAL	
Miami CBD	22
Key Biscayne	6
Subtotal-Central	28
SOUTHWEST SECTOR	
S.W. Miami/Coral Gables	94
South Miami/Dadeland	158
Perrine/Cutler Ridge	85
Tamiami Airport/Coral Reef	45
Naranja/Homestead	85
Subtotal-Southeast	467
WEST SECTOR	
Flagler/Airport	214
Coral/Westchester	81
Tamiami/West Kendall	52
Subtotal-West	347
NORTHWEST SECTOR	
Northwest	314
Coral City/Lake Lucerne	84
Subtotal-Northwest	398
NORTHEAST SECTOR	
N.E. Miami/Biscayne	125
East Golden Glades	119
Aventura/Andover	32
Subtotal-Northeast	316
MIAMI BEACH	70
TOTAL	1,626

SOURCE: Metro-Dade Planning Department

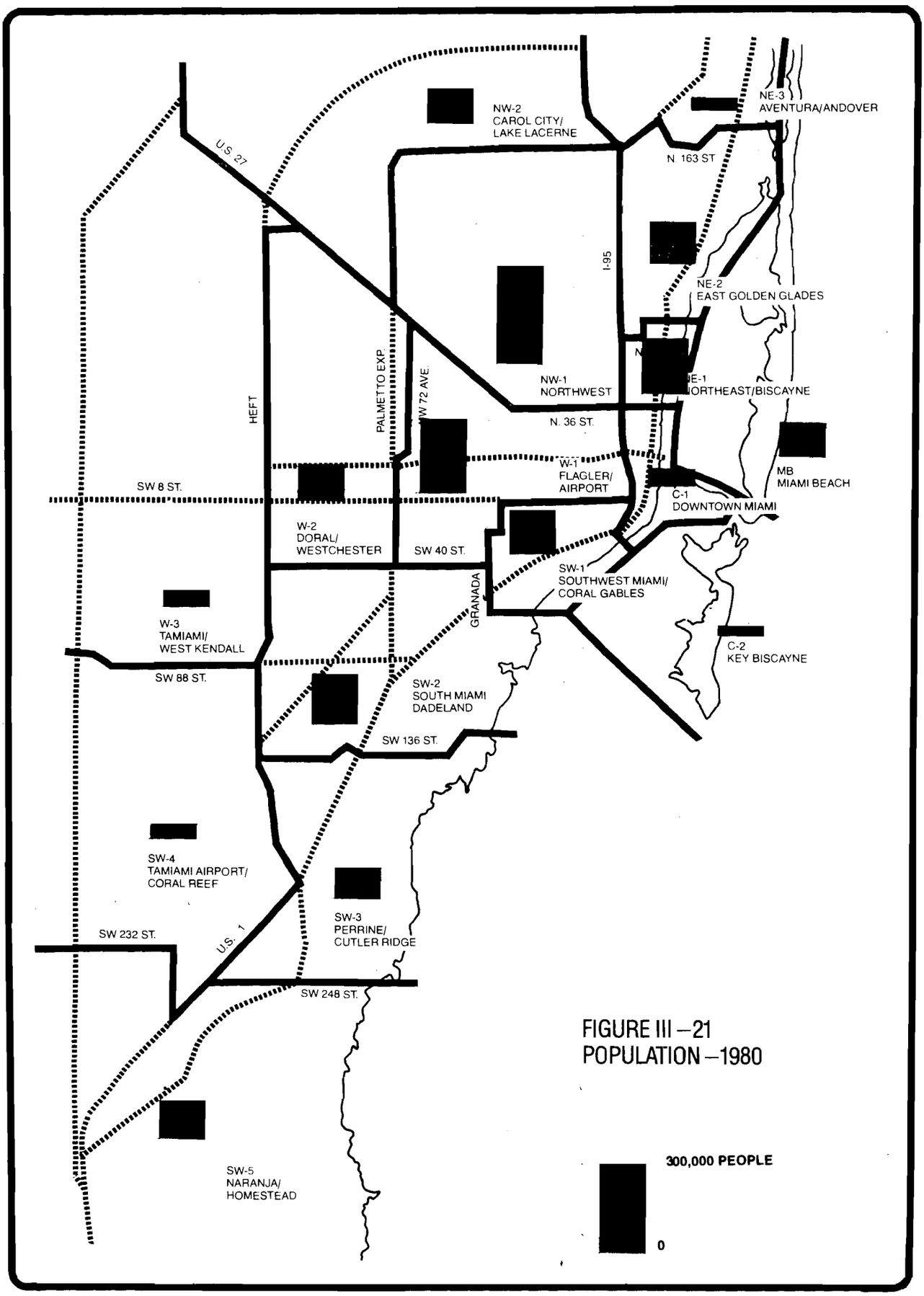


FIGURE III – 21
POPULATION – 1980

III. NEEDS ELEMENT

EMPLOYMENT PATTERNS

Figure III - 22 shows the distribution of jobs within the county. Major concentrations of jobs are located in downtown Miami, Coral Gables, the area just northeast of downtown, the Flagler Street corridor, the airport area, and along South Dixie Highway.

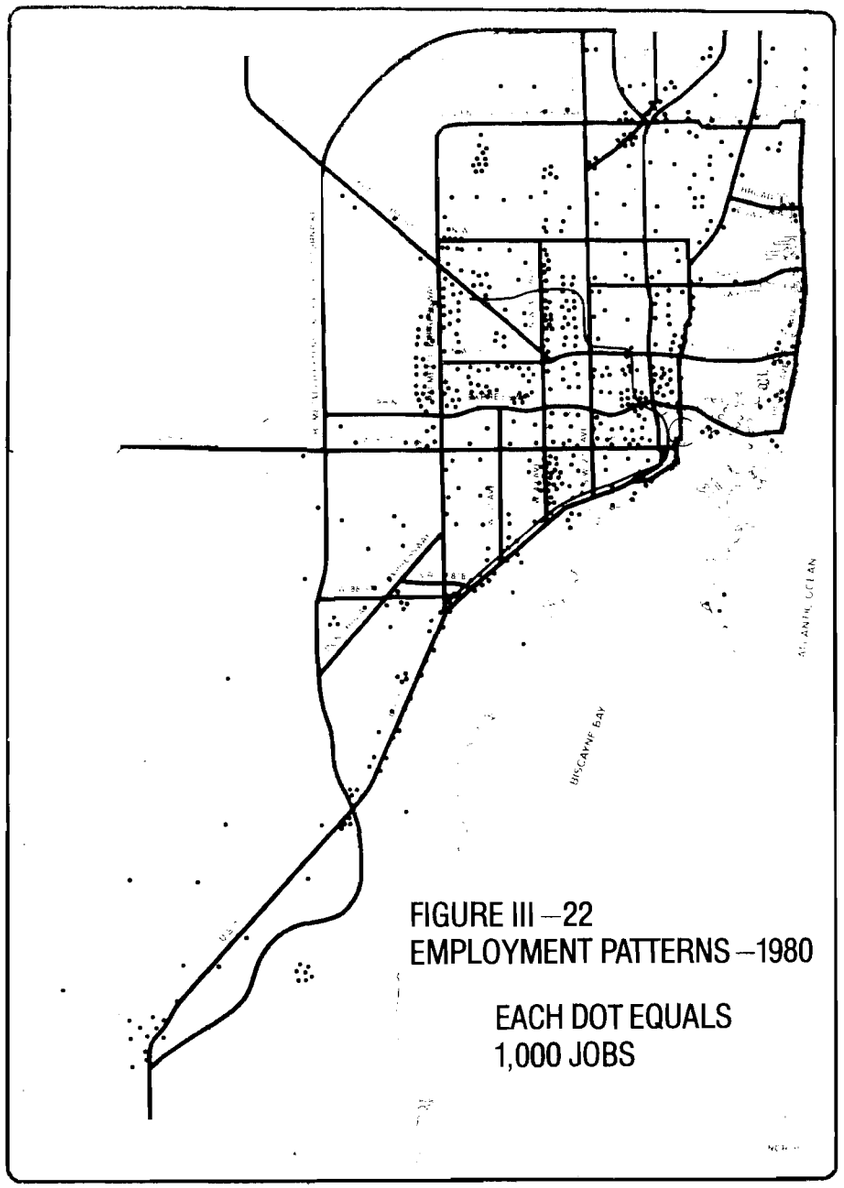


FIGURE III – 22
EMPLOYMENT PATTERNS – 1980

EACH DOT EQUALS
1,000 JOBS

UNDERLYING POPULATION/ECONOMIC CHARACTERISTICS

EMPLOYMENT BY ANALYSIS AREA

Employment levels for 1980 are indicated in Figure III - 23 for each Analysis Area. These statistics, shown in Table III - 7, are highlighted below:

Central-- The highest concentration of jobs is located in downtown Miami. Over 60,000 employees (9% of the jobs in the County) work in this area.

Southwest Sector-- Over 150,000 people work at employment sites in the Southwest sector. About two-thirds of the jobs in the southwest are located north of SW 136 Street. Of these, about 50,000 jobs are located in the S.W. Miami/Coral Gables area and nearly 60,000 jobs are located in the South Miami/Dadeland area.

West Sector-- This sector contains nearly 200,000 jobs, over one-fourth of the jobs in the County. Nearly 80% of the jobs in this sector are located east of the Palmetto Expressway, indicating the attractiveness of the Miami International Airport as an employment magnet.

Northwest Sector-- About 140,000 jobs are located in this sector, with over 90% of these jobs located south and east of the Palmetto Expressway.

Northeast Sector-- This sector has about the same number of jobs as in the northwest- 135,000 jobs. One-half of these jobs are located south of North 79 Street and the other half north of 79 Street.

Miami Beach-- Over 25,000 employees work in this sector.

TABLE III - 7
EMPLOYMENT - 1980

ANALYSIS AREA	EMPLOYEES (000)
CENTRAL	
Miami CBD	62
Key Biscayne	3
Subtotal- Central	65
SOUTHWEST SECTOR	
S.W. Miami / Coral Gables	53
South Miami / Dadeland	59
Perrine / Cutler Ridge	16
Tamiami Airport / Coral Reef	7
Naranja / Homestead	23
Subtotal- Southeast	158
WEST SECTOR	
Flagler / Airport	153
Coral / Westchester	35
Tamiami / West Kendall	6
Subtotal- West	194
NORTHWEST SECTOR	
Northwest	128
Coral City / Lake Lucerne	12
Subtotal- Northwest	140
NORTHEAST SECTOR	
N.E. Miami / Biscayne	71
East Golden Glades	47
Aventura / Andover	17
Subtotal- Northeast	135
MIAMI BEACH	26
TOTAL	718

SOURCE: Metro-Dade Planning Department

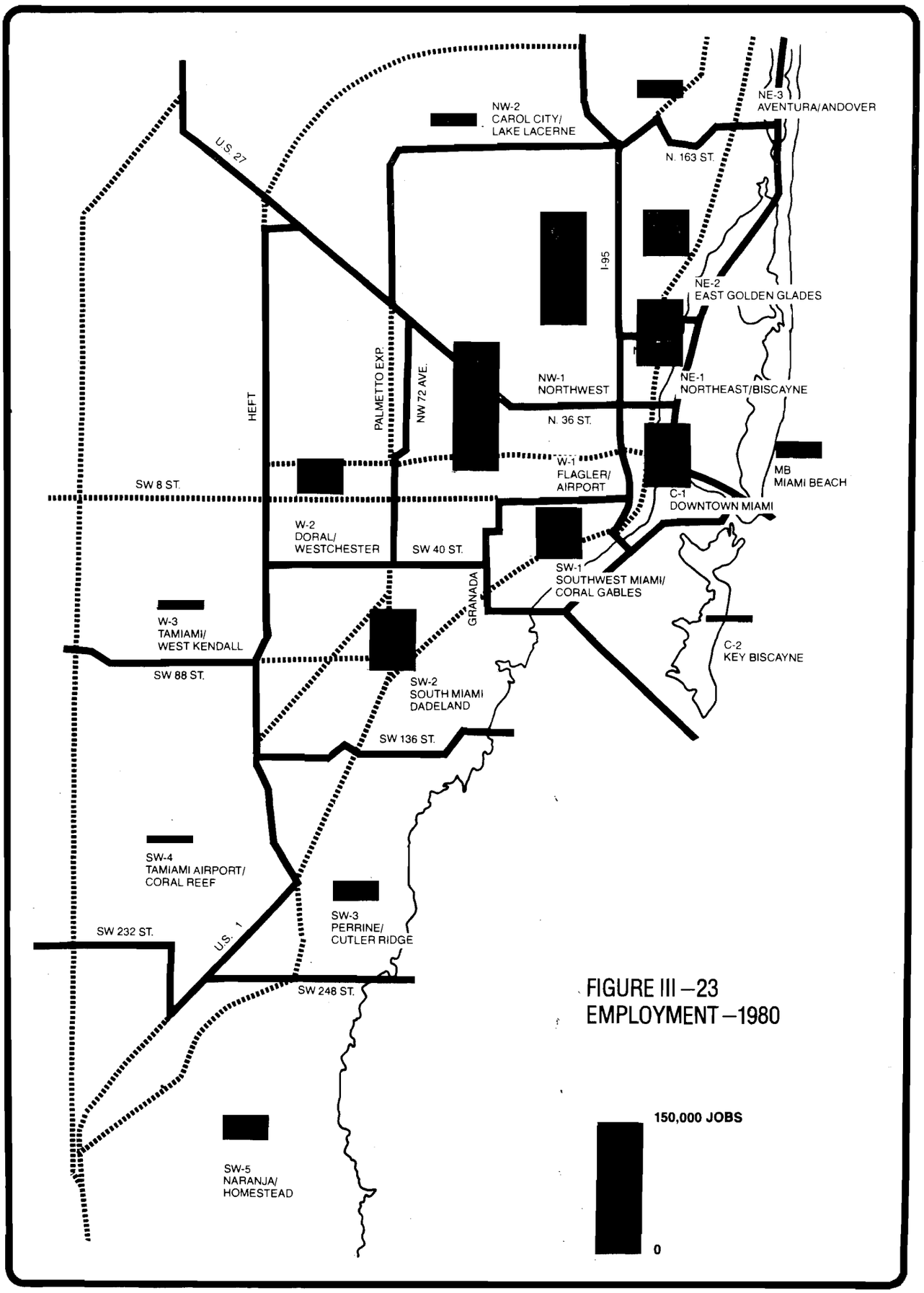


FIGURE III–23
EMPLOYMENT–1980

III. NEEDS ELEMENT

UNDERLYING POPULATION/ECONOMIC CHARACTERISTICS

HOUSEHOLDS WITHOUT AUTOS

This Transportation Plan recognizes the unique mobility difficulties experienced by people who do not have an automobile. While there are people who deliberately choose to go without an auto, most do not have a choice because of age, ill health, or low income. Generally, people without an auto must either depend on others for meeting their travel needs or use public transportation. Over 110,000 households containing about one-third of a million people in the metropolitan area do not own an automobile. Figure III - 24 shows the location of these households. The largest concentrations of households in this category are located on Miami Beach and in the area bounded on the west by the Palmetto Expressway and the north by North 103 Street.

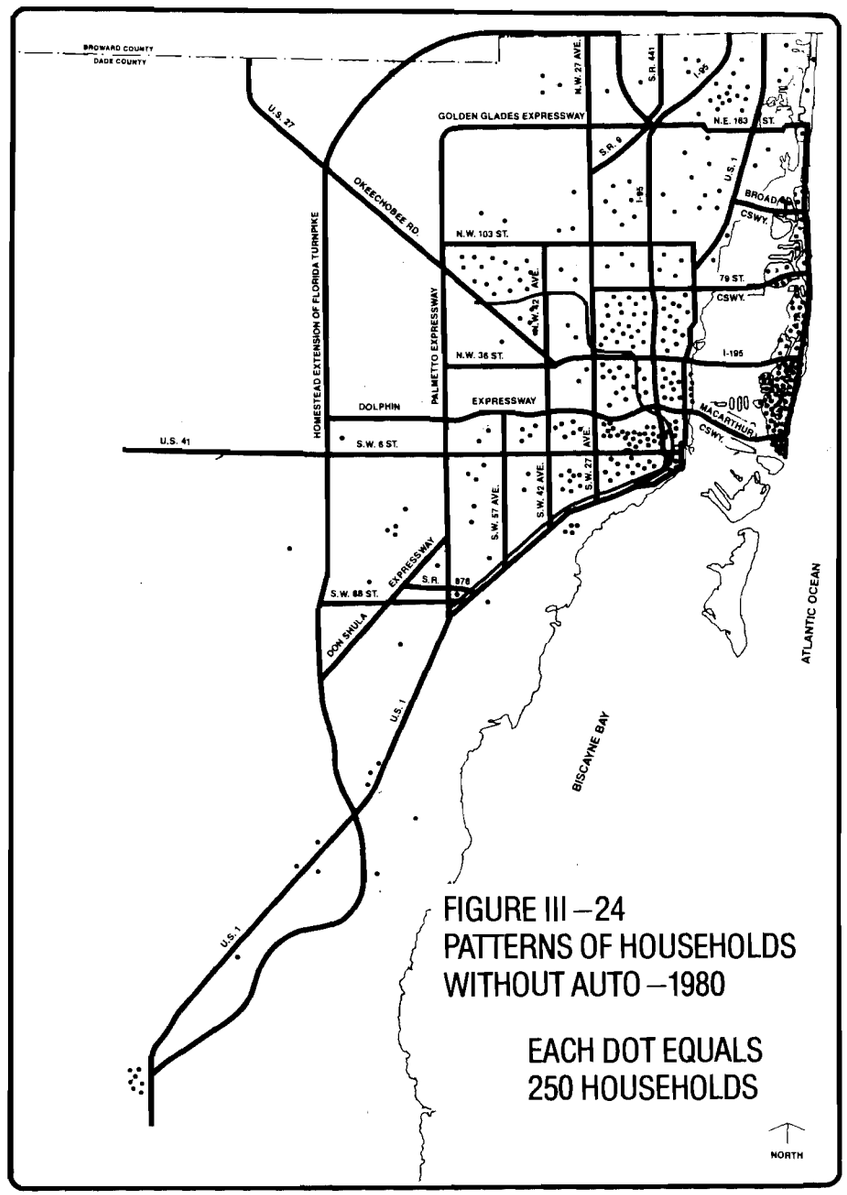


Figure III - 25 and Table 8 indicates the location of households without autos by Analysis Area. Following are highlights.

Central-- Over five thousand households located in this area do not own autos.

Southwest Sector-- This sector contains nearly 15,000 auto-less households. About two-thirds of these households are located east of Southwest 42 Avenue.

West Sector-- About 19,000 households are located in this sector that do not own an automobile. Eighty-five percent of these households are located east of the Palmetto Expressway.

Northwest Sector-- The Northeast Sector contain over 18,000 households without autos. Over 90% of these households are located south and east of the Palmetto Expressway.

Northeast Sector-- Nearly 29,000 households in this sector do not own an automobile. About 60% of these are located inside of North 79 Street.

Miami Beach-- One of the highest concentration of auto-less households is located on Miami Beach, with over 25,000 households involved.

TABLE III - 8
HOUSEHOLDS WITHOUT AUTOS - 1980

ANALYSIS AREA	1980 HOUSEHOLDS WITHOUT AUTOS
CENTRAL --	
Miami CBD	5,300
Key Biscayne	100
Total- Central	5,400
SOUTHWEST SECTOR --	
S.W. Miami/Coral Gables	7,300
South Miami/Dadeland	2,400
Perrine/Cutler Ridge	1,700
Tamiami Airport/Coral Reef	500
Naranja/Homestead	2,700
Total- Southeast	14,600
WEST SECTOR --	
Flagler/Airport	17,500
Doral/Westchester	1,200
Tamiami/West Kendall	300
Total- West	19,000
NORTHWEST SECTOR --	
Northwest	17,100
Coral City/Lake Lucerne	1,100
Total- Northwest	18,200
NORTHEAST SECTOR --	
N.E. Miami/Biscayne	17,700
East Golden Glades	6,700
Aventura/Andover	4,200
Total- Northeast	28,600
MIAMI BEACH --	25,200
TOTAL	111,000

SOURCE: Metro-Dade Planning Department

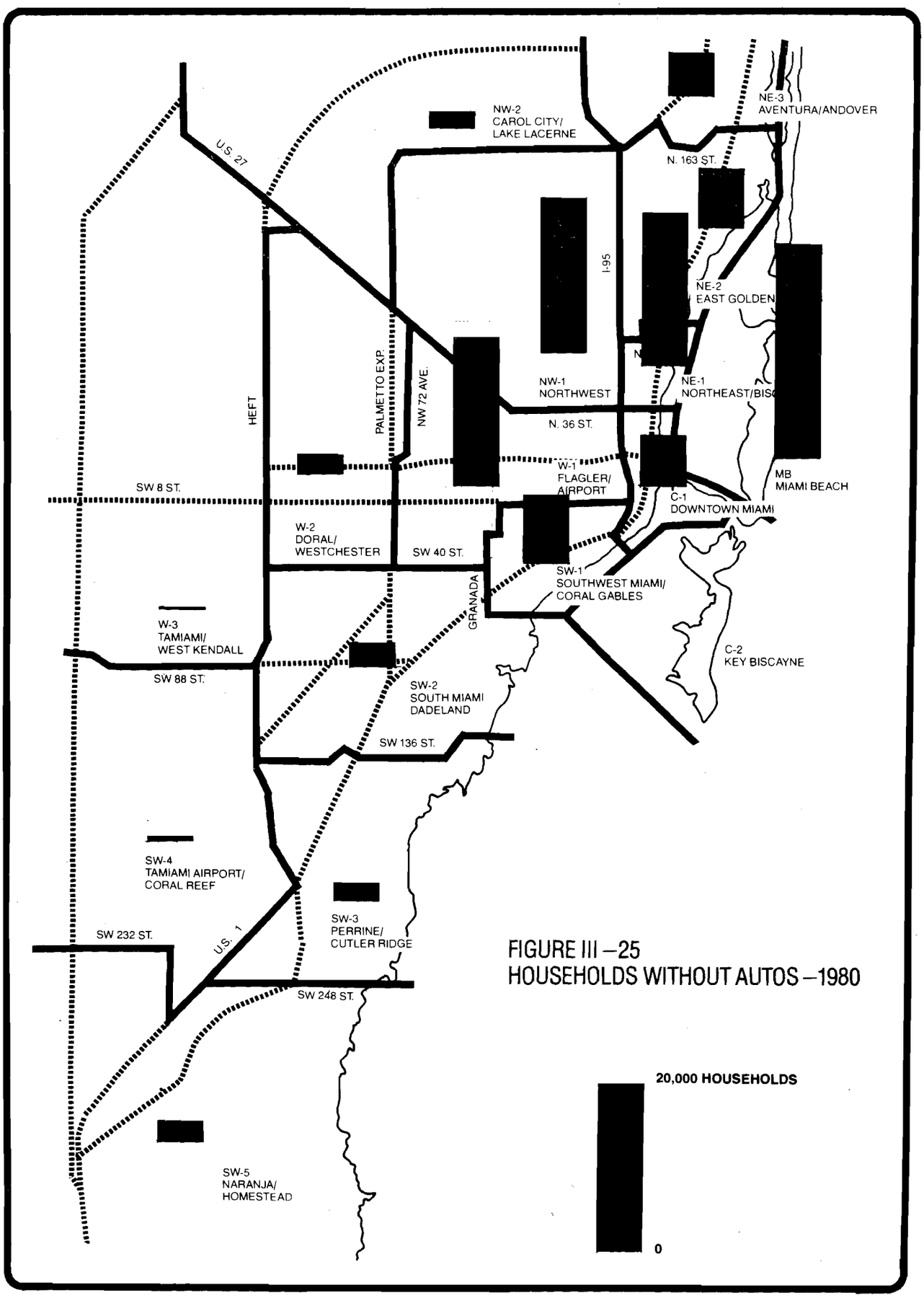


FIGURE III–25
HOUSEHOLDS WITHOUT AUTOS–1980

III. NEEDS ELEMENT

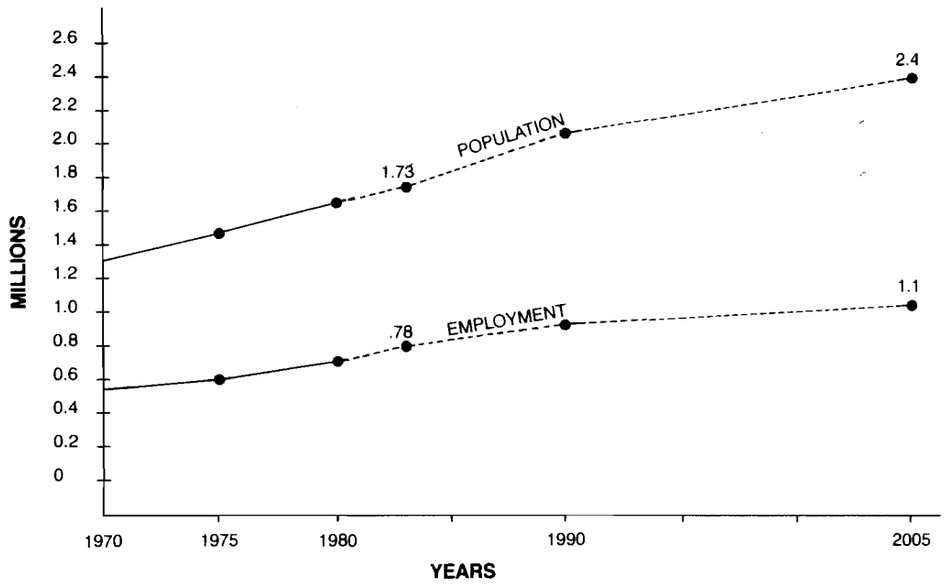
UNDERLYING POPULATION/ECONOMIC CHARACTERISTICS

FUTURE POPULATION LEVELS

Metropolitan Dade County has been one of the ten fastest growth areas in the nation. Between 1970 and 1980, population in the metropolitan area increased by about 25 percent. On the average over 30,000 people were added to the population each year. While the historical growth rates have somewhat slackened in the past two years, it is anticipated that the growth rate will again increase, although at a somewhat lower rate than in the 1970's. Figure III - 26 shows projections of population through the Year 2005 used as a basis for projecting travel demand. These projections, made by the Metro-Dade Planning Department, indicate that population will increase from the present 1.7 million people to over 2.4 million people by the Year 2005. An average of about 25,000 new residents are projected to be added each year. Without a doubt, these new residents will place significant new burdens on a transportation system that is already experiencing major overloads.

FUTURE EMPLOYMENT LEVELS

Figure III - 26 also shows projected employment levels for the metropolitan area. Increases in jobs are very important to the transportation system because of the concentration of work trips made in the rush hours. Continuing growth in the number of jobs is projected through the next two decades, with increases from 718,000 jobs to about 1.1 million jobs by the year 2005. While this is a dampening from historical growth rates, it still amounts to an average of an additional 12,000 jobs every year.



SOURCE: DADE COUNTY PLANNING DEPARTMENT

FIGURE III –26
POPULATION AND EMPLOYMENT CHANGE
1970 to 2005

UNDERLYING POPULATION/ECONOMIC CHARACTERISTICS

POPULATION GROWTH

Figure III - 27 indicates projected population growth in each of the Analysis Areas. The level of projected population growth, also tabulated in Table III - 9, varies widely from area to area. A more specific display of population growth patterns is shown in Figure III - 28. Following is a summary of key information concerning changes in population growth projected between the Years 1980 and 2005.

Southwest Sector-- About 40% of the county-wide population growth is projected to occur in the Southwest Sector, with over 300,000 new residents expected. Within the Southwest Sector, the highest growth rate is projected in the outer areas, with over 270,000 people expected south of SW 136 Street. In this southern most part of the county, 93,000 new people are projected in the Perrine/Cutler Ridge area, 82,000 in the Tamiami Airport/Coral Reef area, and 96,000 in the Homestead/South Dade area.

West Sector-- Over 150,000 new residents are projected in the West Sector, a 45% increase over 1980 levels. Nearly 90% of the new residents are projected to locate in the areas to the west of the Palmetto Expressway.

Northwest Sector-- Over 200,000 new residents are projected in the Northwest Sector. A large percentage (80%) of these new residents are expected to locate in the area west and north of the Palmetto Expressway.

Northeast Sector-- This sector is projected to experience a population increase on nearly 100,000 people, a 31% increase over the 1980 level of 316,000. Over one-half of this increase is expected to locate in the area north of North 163 Street.

Miami Beach-- Little residential growth is projected for the Beach area. Population is expected to remain stable its current level of 70,000 residents.

TABLE III - 9
POPULATION CHANGE - 1980 TO 2005

ANALYSIS AREA	CHANGE IN POPULATION (000)		
	1980	2005	1980 - 2005 CHANGE
CENTRAL --			
Miami CBD	22	26	4
Key Biscayne	6	9	3
Total- Central	28	35	7
SOUTHWEST SECTOR --			
S.W. Miami / Coral Gables	94	109	15
South Miami / Dadeland	158	184	26
Perrine / Cutler Ridge	85	178	93
Tamiami Airport / Coral Reef	45	127	82
Naranja / Homestead	85	181	96
Total- Southeast	467	779	312
WEST SECTOR --			
Flagler / Airport	214	241	27
Doral / Westchester	81	121	40
Tamiami / West Kendall	52	141	89
Total- West	347	503	156
NORTHWEST SECTOR --			
Northwest	314	355	41
Coral City / Lake Lucerne	84	246	162
Total- Northwest	398	601	203
NORTHEAST SECTOR --			
N.E. Miami / Biscayne	125	137	12
East Golden Glades	119	153	34
Aventura / Andover	72	124	52
Total- Northeast	316	414	98
MIAMI BEACH --	70	76	6
TOTAL	1,626	2,408	782

SOURCE: Metro-Dade Planning Department

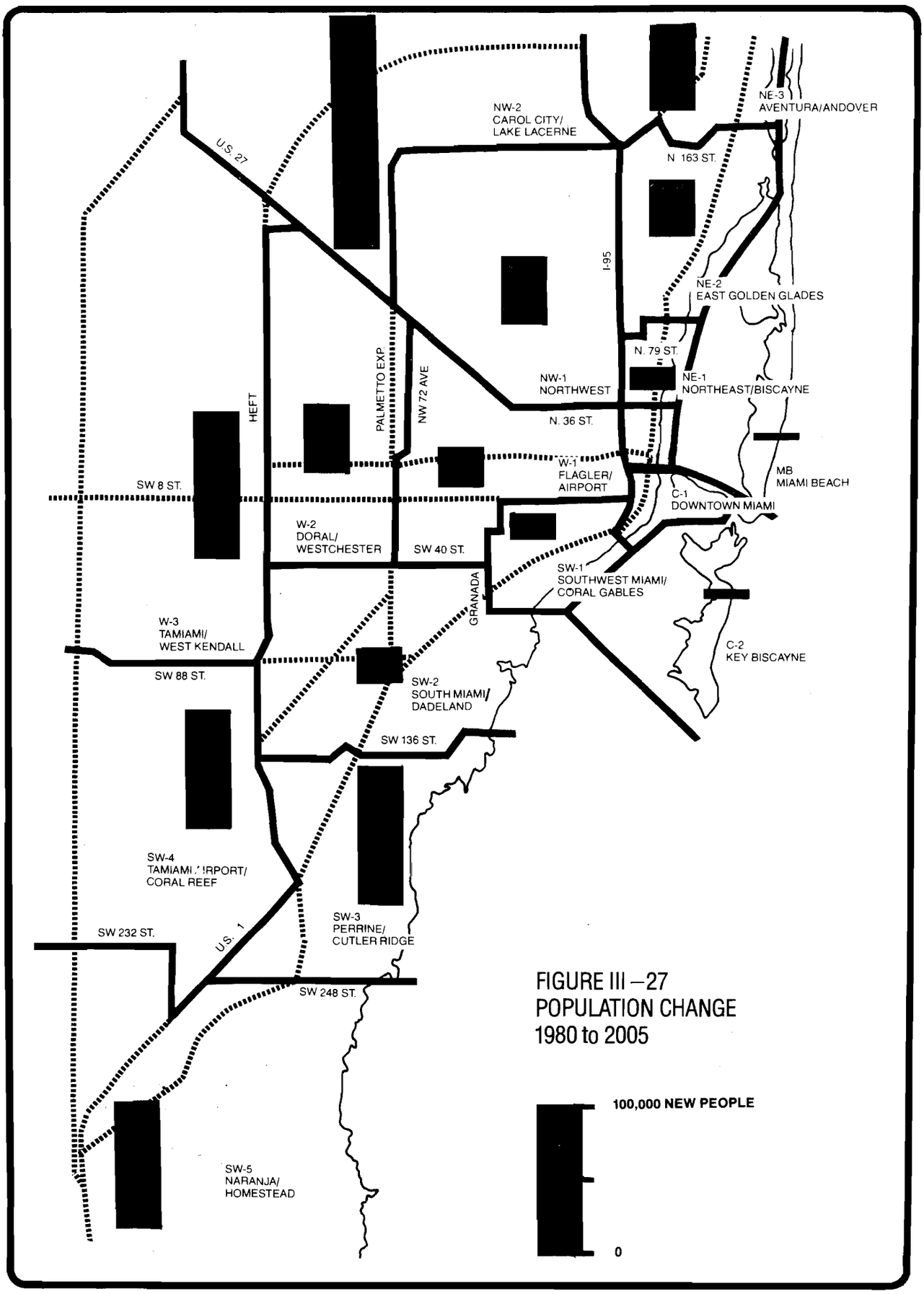


FIGURE III –27
POPULATION CHANGE
1980 to 2005

III. NEEDS ELEMENT

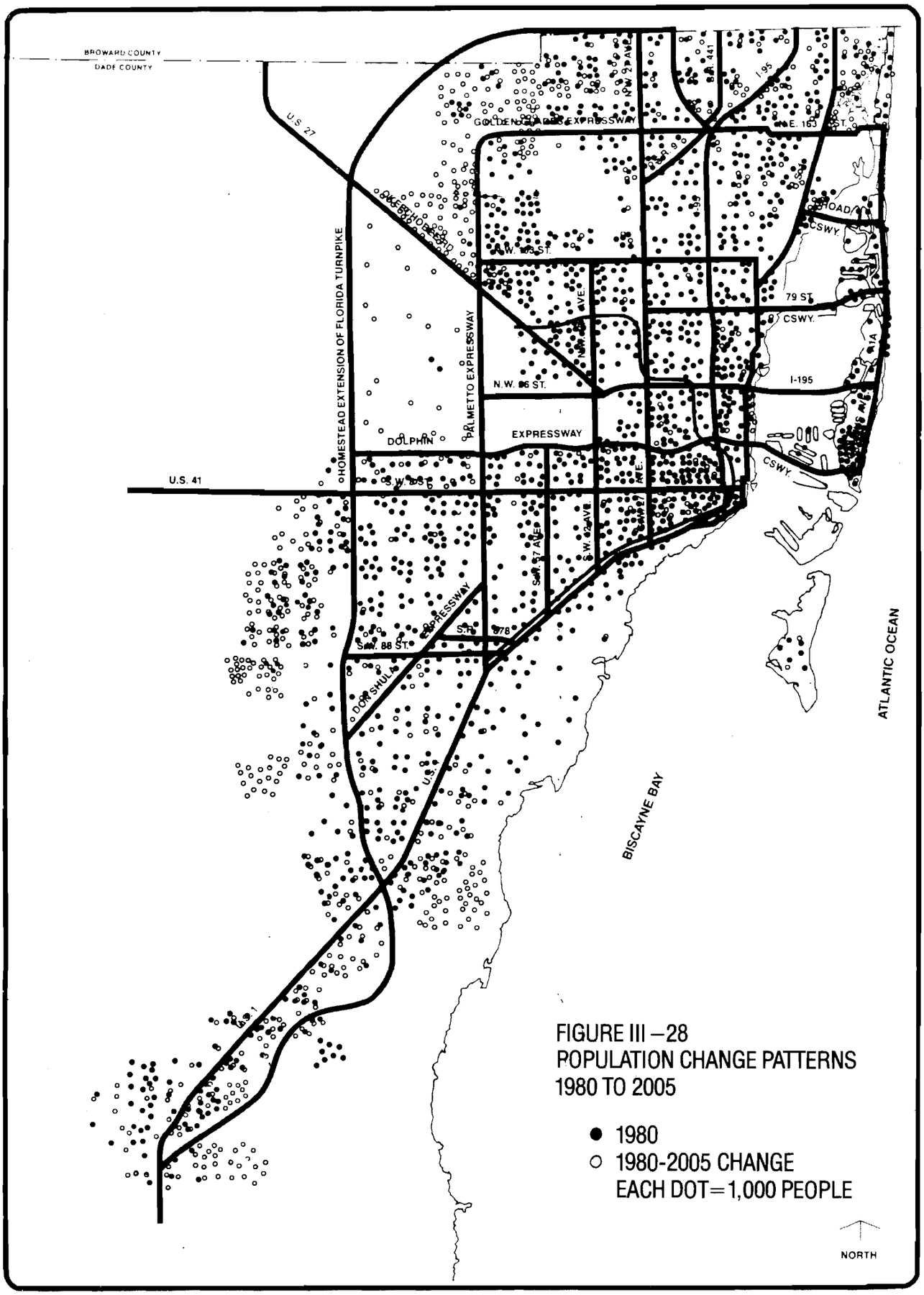


FIGURE III–28
POPULATION CHANGE PATTERNS
1980 TO 2005

- ● 1980
- ○ 1980-2005 CHANGE
  EACH DOT=1,000 PEOPLE

III. NEEDS ELEMENT

UNDERLYING POPULATION/ECONOMIC CHARACTERISTICS

EMPLOYMENT GROWTH

Figure III - 29 shows employment growth statistics by Analysis Area. Employment growth patterns are shown in Figure III - 30. These data, tabulated in Table III - 10, are summarized as follows:

Central-- Over 80,000 jobs new jobs are projected to locate in downtown Miami, about 21% of the new jobs expected in the County.

Southwest Sector-- Over 100,000 new jobs are projected in the southwest, a 67% increase over current levels. Of these new jobs, about one-half are expected south of SW 136 Street.

West Sector-- Some 90,000 new jobs are projected in this sector, with about one-half of these jobs expected to be located inside of the Palmetto Expressway.

Northwest Sector-- The number of jobs in this sector is projected to increase by about 35%, with about 50,000 new jobs expected in the twenty-five year period.

Northeast Sector-- Nearly a 35% increase in jobs is projected by the Year 2005, with nearly 50,000 new jobs projected.

Miami Beach-- Nearly a 10% increase in jobs above 1980 levels is projected.

TABLE III - 10
EMPLOYMENT CHANGE - 1980 TO 2005

ANALYSIS AREA	CHANGE IN EMPLOYMENT (000)		
	1980	2005	CHANGE
CENTRAL			
Miami CBD	62	143	81
Key Biscayne	3	5	2
Total-Central	65	148	83
SOUTHWEST SECTOR			
S.W. Miami/Coral Gables	53	72	19
South Miami/Dadeland	59	89	30
Perrine/Cutler Ridge	16	35	19
Tamiami Airport/Coral Reef	7	25	18
Naranja/Homestead	23	42	19
Total-Southeast	158	263	105
WEST SECTOR			
Flagler/Airport	153	198	45
Doral/Westchester	35	67	32
Tamiami/West Kendall	6	20	14
Total-West	194	285	91
NORTHWEST SECTOR			
Northwest	128	163	35
Coral City/Lake Lucerne	12	27	15
Total-Northwest	140	190	50
NORTHEAST SECTOR			
N.E. Miami/Biscayne	71	95	24
East Golden Glades	47	61	14
Aventura/Andover	17	27	10
Total-Northeast	135	183	48
MIAMI BEACH	26	29	3
TOTAL	718	1,098	380

SOURCE: Metro-Dade Planning Department

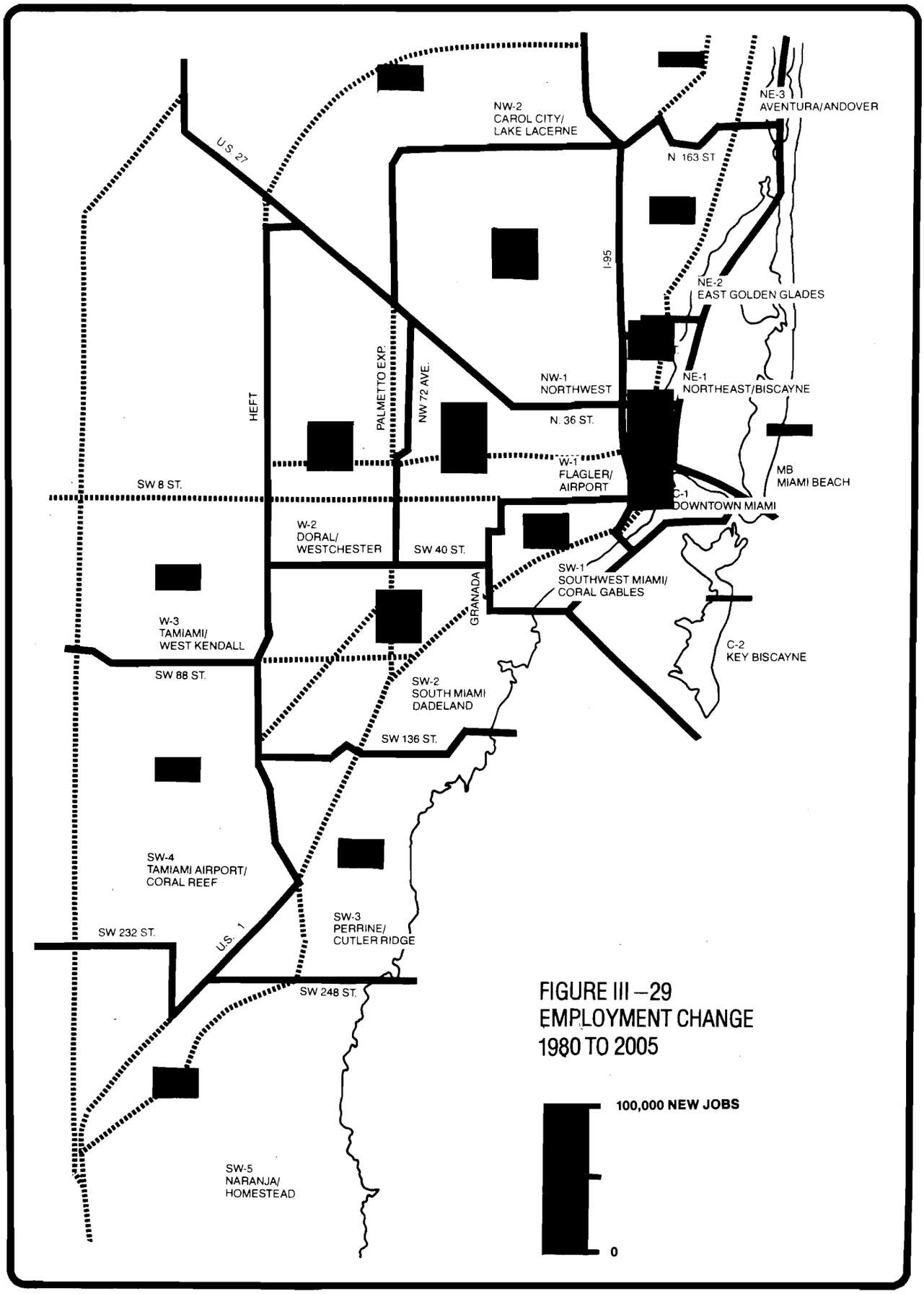


FIGURE III – 29
EMPLOYMENT CHANGE
1980 TO 2005

III. NEEDS ELEMENT

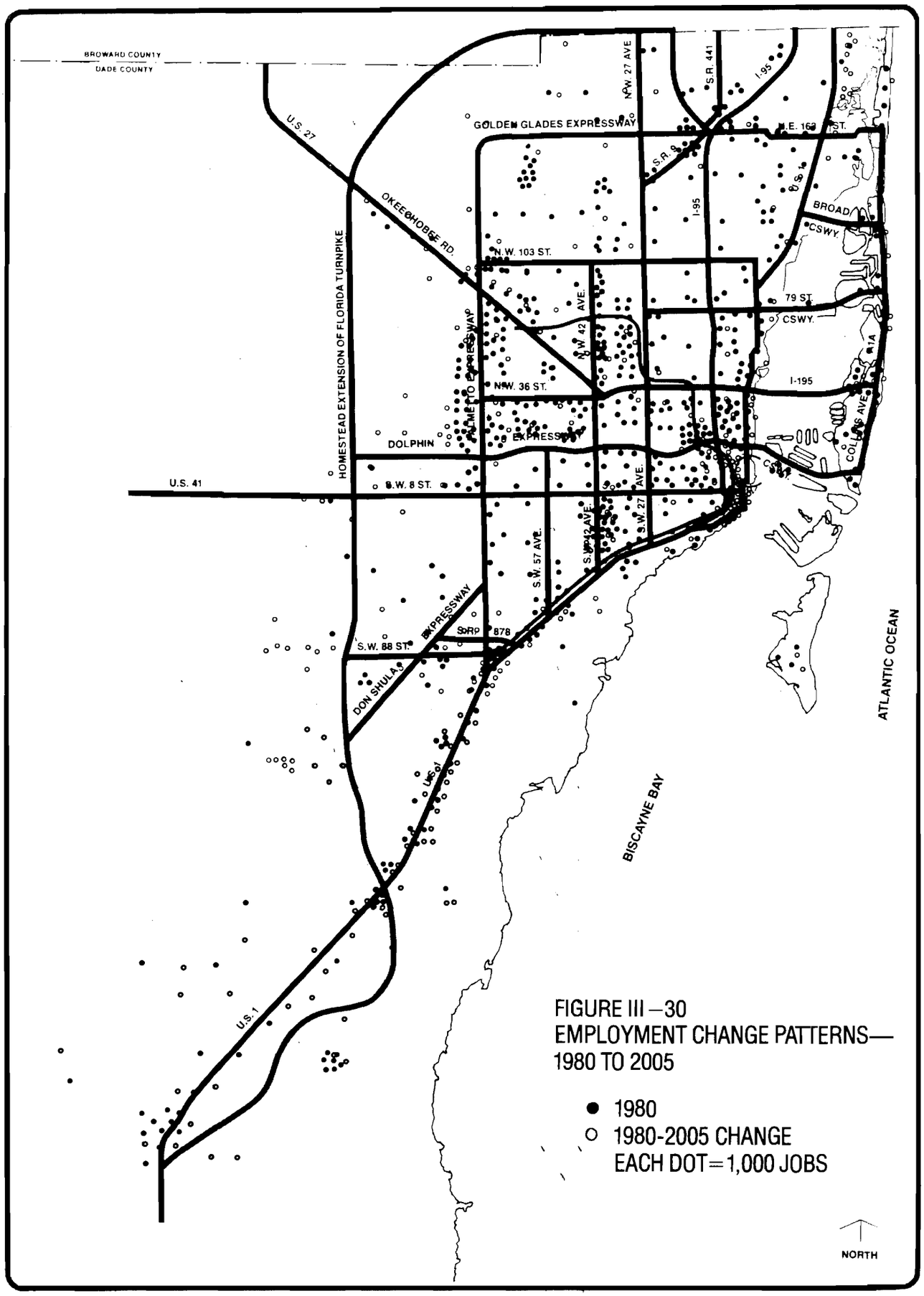


FIGURE III–30
EMPLOYMENT CHANGE PATTERNS—
1980 TO 2005

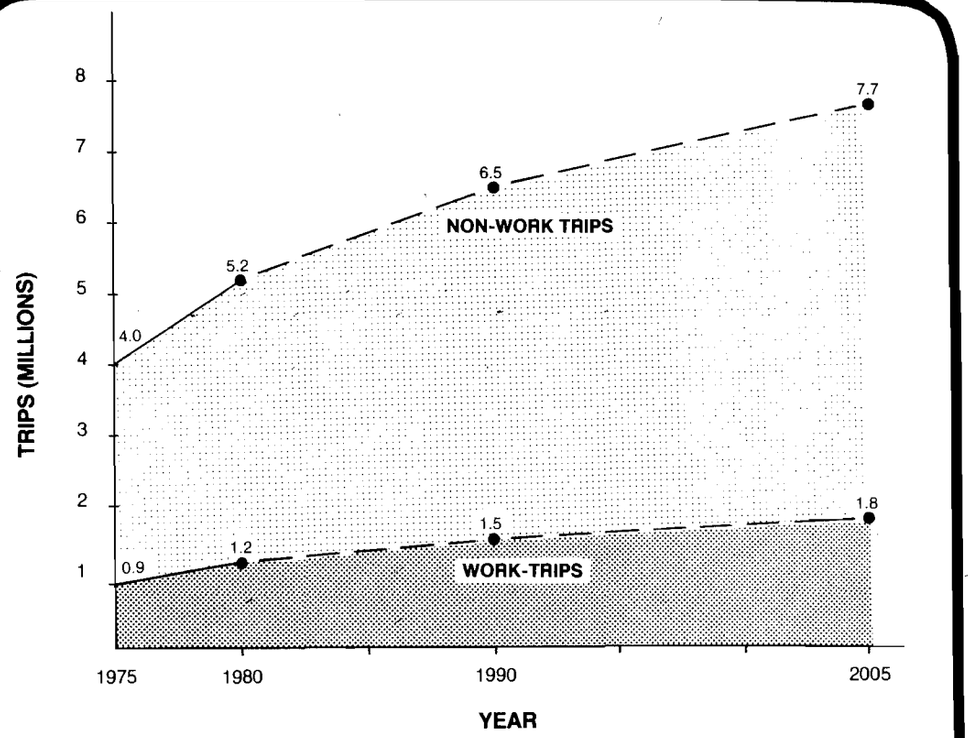
- ● 1980
- ○ 1980-2005 CHANGE
  EACH DOT=1,000 JOBS

III. NEEDS ELEMENT

PERSON TRIP GROWTH

Over 5 million trips are currently made by residents of Dade County on an average weekday. This compares with 4 million trips made in 1975. As shown in Figure III - 31, trip-making in expected to increase by about 50% to 7.7 million trips by the Year 2005. This estimate is based on the projection of population and employment previously described.

Also shown in Figure III - 31 are projected changes in work trips. Growth in the number of work trips, an important indicator of rush-hour traffic demand, is expected to be less than for non-work trips. Still, work trips are projected to increase from 1.2 million per weekday to 1.8 million, a 50% increase.



SOURCE: GANNETT FLEMING

FIGURE III –31
PERSON TRIP CHANGE—
1975 TO 2005

TRAVEL DEMAND

TRAVEL ORIENTATION

An important factor affecting travel demand on any transportation facility are the origins and destinations of the trips being made in the county. Origin-destination patterns of all trips were estimated for 1980 and for future years using the travel simulation techniques developed in the 1970's. The validity of these techniques was recently checked by comparing traffic simulated by these techniques with actual traffic volumes and transit ridership levels. These techniques were used to simulate the number of trips between each of the 1,089 analysis zones. Examples of the origin/destination patterns of the trips made by residents of selected areas in the metropolitan area are shown in Appendix C.

TRAVEL GROWTH

To understand travel demand in the various travel corridors in the metropolitan area, a technique known as a "screenline analysis" has been used. An imaginary line referred to as a screenline is drawn across a travel corridors and all trips crossing a particular screenline are determined from the travel simulation results. This technique therefore shows the number of trips moving within a corridor from origins on one side of a screenline to destinations on the other side. The following figures indicate the amount of person travel on highway and transit facilities crossing 17 different screenlines.

Southwest Sector--

Figure III - 32 shows the number of trips in the peak- hour crossing six different screenlines in the Southwest Sector. As can be seen, about 8,200 one-way trips crossed Screenline SW 1 (east of SW 27th Avenue) in 1980. The number of trips is projected to nearly double by the Year 2005 to 15,700 trips. Travel crossing the screenlines in this sector are projected as follows:

SCREENLINE	PK.-HR./PK.-DIR. PERSON TRIPS		
	1980	2005	1980-2005 Change
SW 1- East of 27 Ave.	8,200	15,700	90%
SW 2- West of 42 Ave.	8,900	16,500	85%
SW 3- West of 67 Ave.	11,200	21,700	94%
S 1- South of 88 St.	15,800	32,200	104%
S 2- South of 136 St.	10,200	22,400	120%
S 3- North of 168 St.	8,100	18,900	133%

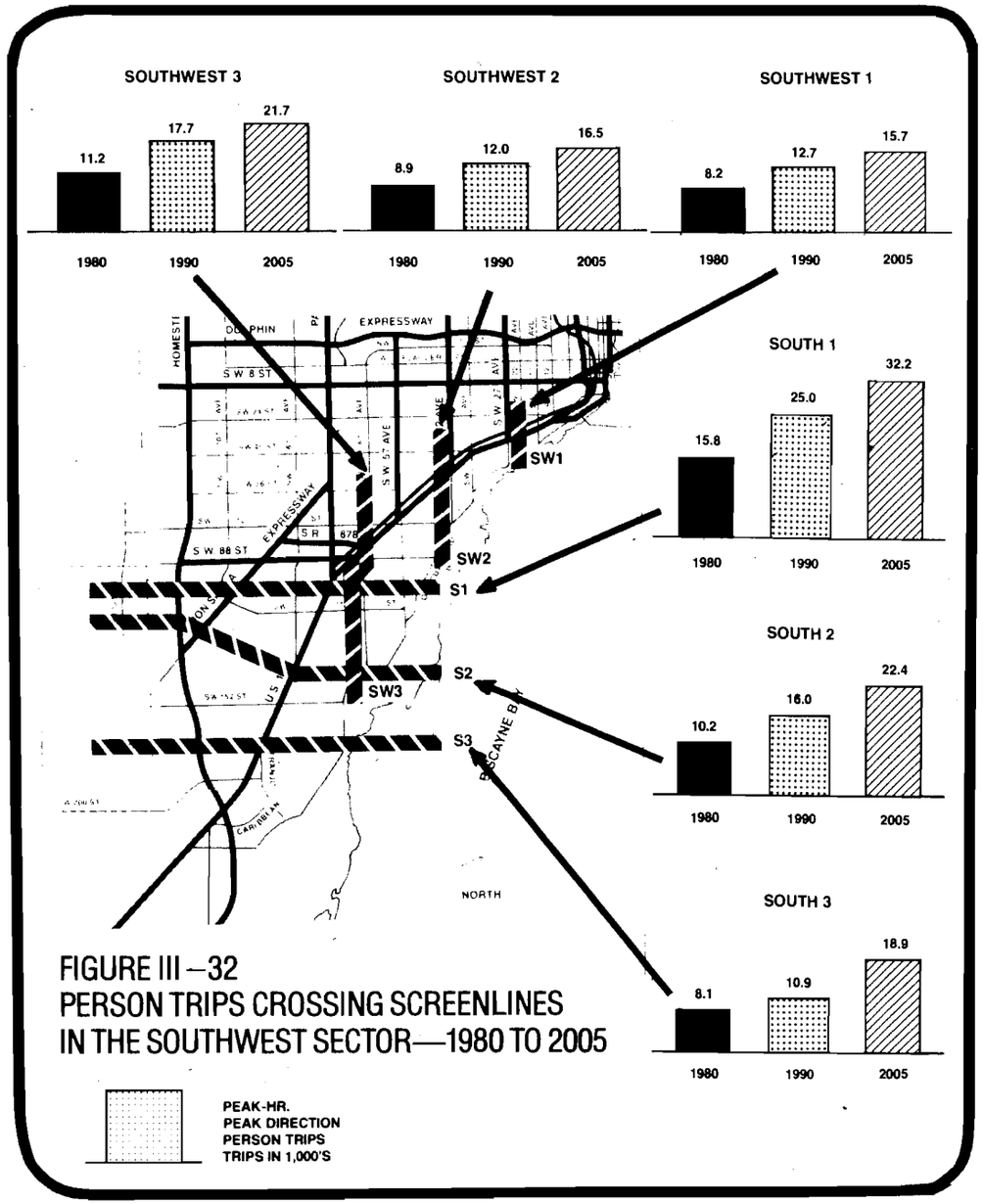


FIGURE III–32
PERSON TRIPS CROSSING SCREENLINES
IN THE SOUTHWEST SECTOR—1980 TO 2005

West Sector--

Trip making in the West Sector is projected to increase by between 50% and 70%. Figure III - 33 indicates the number of trips crossing screenlines in the western sector. Trip making in the peak hour is estimated as follows:

SCREENLINE	PK.-HR./PK.-DIR. PERSON TRIPS		
	1980	2005	1980-2005 Change
WF 1- East of 27 Ave.	14,100	22,000	56%
WF 2- West of 42 Ave.	18,000	30,300	68%
WF 3- West of 67 Ave.	21,300	33,600	58%

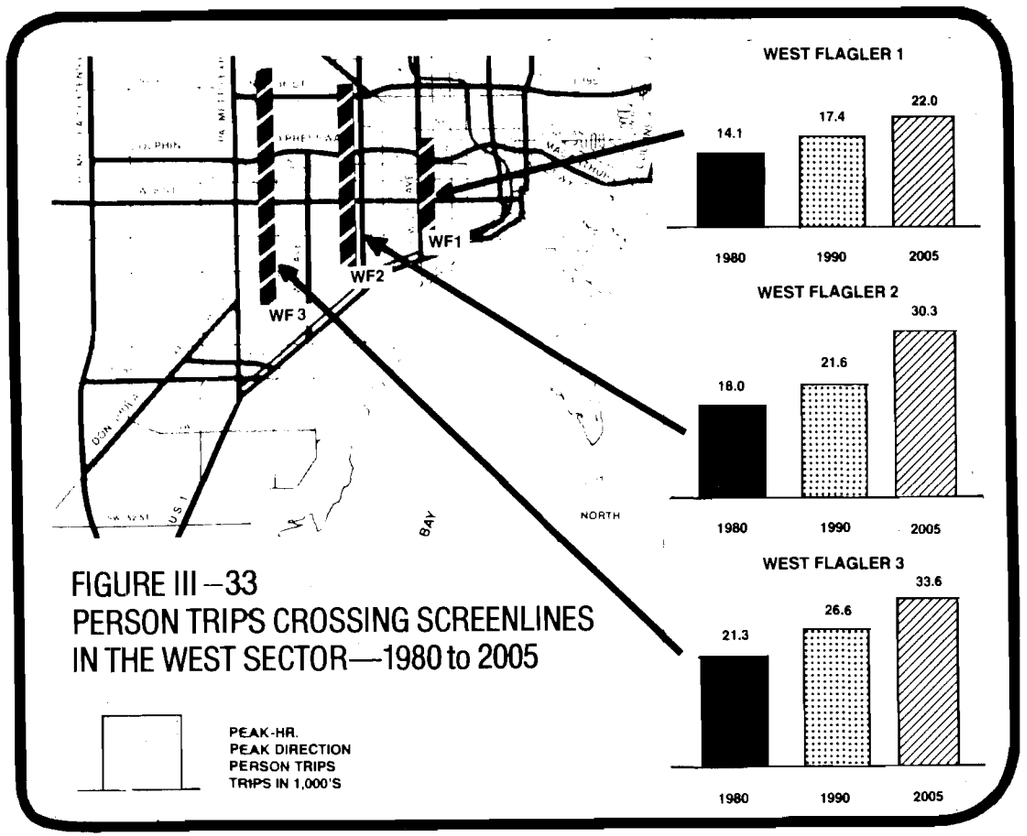


FIGURE III –33
PERSON TRIPS CROSSING SCREENLINES
IN THE WEST SECTOR—1980 to 2005

Northwest Sector

Two screenlines in the Northwest Sector are indicated in Figure III - 34. Trips crossing these screenlines are projected to increase as follows:

SCREENLINE	PK.-HR./PK.-DIR. PERSON TRIPS		
	1980	2005	1980-2005 Change
NW 1- South of N.W.135th St.	15,400	24,900	62%
NW 2- South of N.W.103rd St.	13,000	16,900	30%

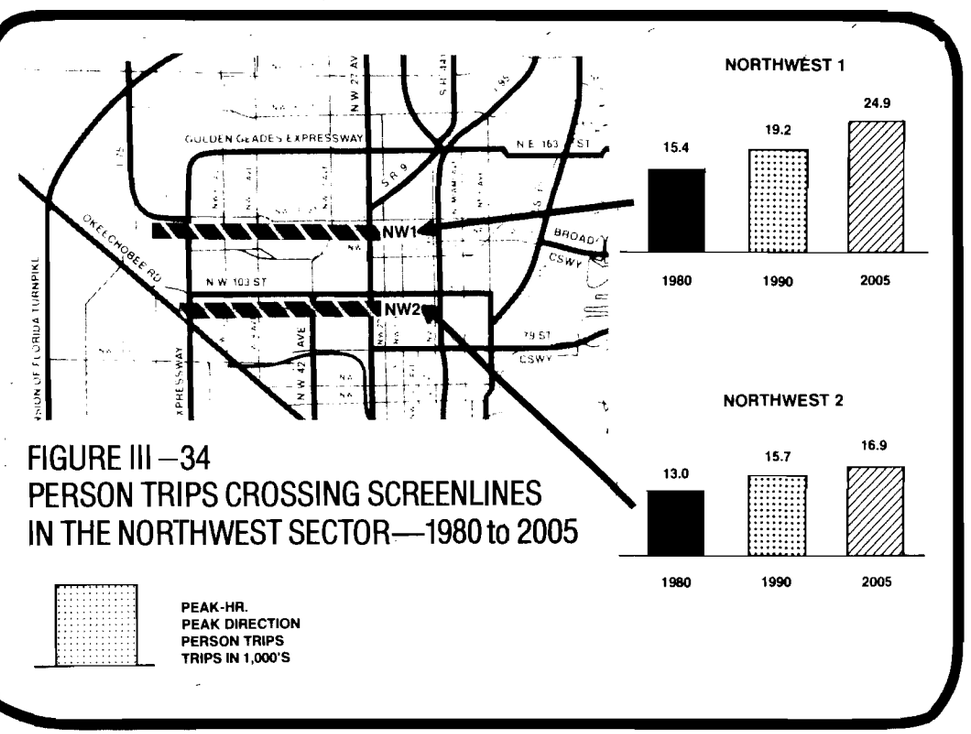


FIGURE III –34
PERSON TRIPS CROSSING SCREENLINES
IN THE NORTHWEST SECTOR—1980 to 2005

Northeast Sector--

Five screenlines have been drawn to trips making within the Northeast Sector. These are shown in Figure III - 35. Trips crossing the five screenlines are as follows:

SCREENLINE	PK.-HR./PK.-DIR. PERSON TRIPS		
	1980	2005	1980-2005 Change
NE 1- South of N. 36 St.	16,500	22,900	39%
NE 2- North of N. 36 St.	16,400	23,000	40%
NE 3- North of N. 103 St.	17,100	22,900	34%
NE 4- South of N. 163 St.	17,300	25,200	46%
NE 5- North of N. 163 St.	11,300	16,500	46%

Miami Beach Sector--

Travel crossing a screenline intercepting the southern causeways, shown in Figure III - 36, connecting the Beach to the mainline is projected to increase from 13,100 trips as follows:

SCREENLINE	PK.-HR./PK.-DIR. PERSON TRIPS		
	1980	2005	1980-2005 Change
MB 1- Causeways	13,100	15,900	21%

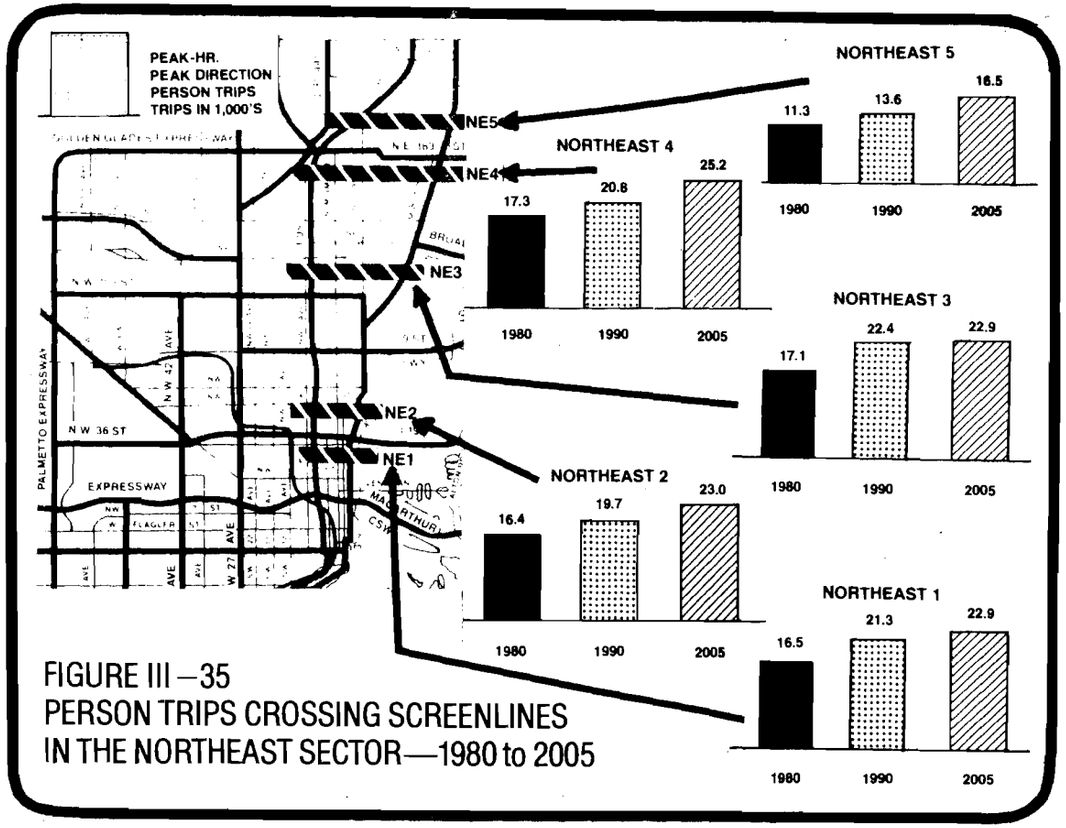


FIGURE III–35
PERSON TRIPS CROSSING SCREENLINES
IN THE NORTHEAST SECTOR—1980 to 2005

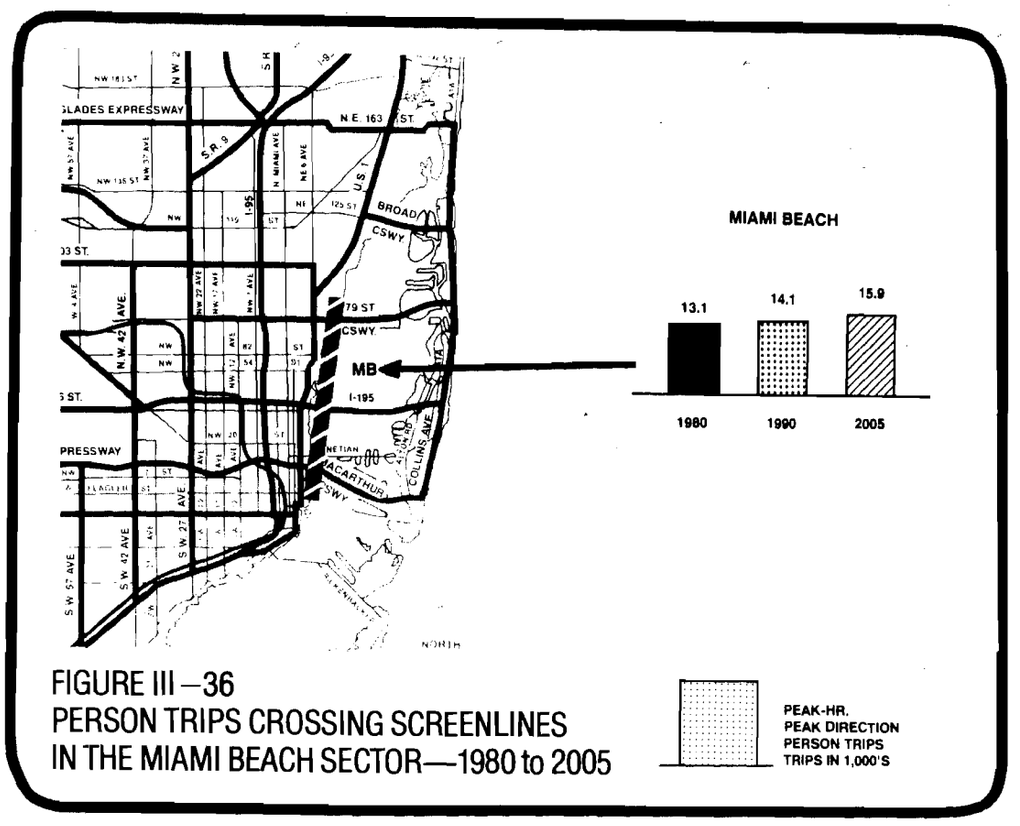


FIGURE III–36
PERSON TRIPS CROSSING SCREENLINES
IN THE MIAMI BEACH SECTOR—1980 to 2005

NEEDS ELEMENT

THE CHALLENGE

The challenge of insuring the mobility so necessary for a vibrant and economically stable community goes beyond correcting existing traffic problems. The future of the metropolitan area is an important consideration for all. While changes will occur, the challenge is to minimize the problems resulting from change with policies and improvement programs directed at correcting the most severe mobility problems in harmony with growth management policies.

A 50% increase in travel certainly presents a challenge in view of the very limited capacity left in the arterial highway system. However, as indicated already in this element, this is only the average expected growth rate. In some areas, more than a doubling of travel demand is projected in the next two decades. Clearly, an aggressive improvement program aimed at absorbing a great amount of the peak traffic load onto more efficient modes of transportation is in order.

In many highly travelled corridors, rapid transit appears to be appropriate while in others traditional bus service appears to need strengthening. In some situations, highway improvements are needed to complement transit, in recognition that much of the transit system runs on highways. Where travel patterns are not conducive to using transit, highway solutions appear to be in order and have been investigated, always with an eye to serving the particular travel market with more efficient transportation services, such as buses and vans if at all possible. The findings of these evaluation efforts are reported in the rest of this plan along with specific action programs aimed at responding in a positive manner to the transportation challenge.

IV. LONG-RANGE ELEMENT

THE SIGNIFICANCE OF THE LONG-RANGE ELEMENT

Consistent with important community and economic development objectives, this Long-Range Element defines a set of transportation policies and a phased program of transportation improvements required to meet mobility needs of the metropolitan area over the next two decades.

While major efforts will subsequently be needed to obtain funding commitments, establish specific schedules for making the improvements, and refine project designs that reflect community concerns and desires, the importance of the Long-Range Element should not be under-estimated. All major improvement projects have their genesis in the Long-Range Element. The Long-Range Element is the place where planned projects are inter-related and consistency between projects is assured. The Long-Range Element is the document that descibes the degree to which a project helps or hinders the achievement of overriding transportation and growth management policies.

In keeping with the purposes of the Transportation Plan listed in the Introduction, as previously approved by the MPO Board, improvements and priorities are specified and translated into "real" dollar needs, actual construction programs, as well as focused project development activities. The analysis on which the recommended projects is based is documented in this Transportation Plan so that the context and objectives served by each improvement is clear.

NATURE OF PROJECT RECOMMENDATIONS

Despite the specific nature of the recommended improvements, they still should be recognized as general "corridor" recommendations. Before any project is implemented, it will be subjected to a great amount of review and evaluation as it is detailed in subsequent project planning studies. In these detailed project development studies, localized benefits, costs, and impacts associated with the project will be investigated. In most cases, specific alignment and design alternatives will be defined and evaluated in detail. As projects are further refined, input from affected citizens and businesses will be sought and project designs will be tailored to avoid negative impacts. In some cases, it may be necessary to reiterate and consider changes to the Transportation Plan that result in more effective and acceptable solutions.

A few of the proposed roadway and transit improvements presented in this Plan are inconsistent with the Transportation Component of the CDMP for Metro-Dade County. These proposals become operable only after the CDMP is amended to render the two plans consistent with one another. Chapter V contains an itemized list of needed CDMP amendments.

The primary purpose of the Long-Range Element is to specify major capital improvements. This focus is necessary because these types of improvements require significant lead time to develop and implement. The analysis underlying these improvements is based on a policy of continuing current efforts to strengthen mass transportation services provided by both public and private operators in such a way as to increase the productivity and effectiveness of the overall system. The impacts and benefits of these types of service adjustments will be measured and evaluated as they are attempted and actual experiences in changing travel behavior and transit productivity will be taken into account in updating the Long-Range Element in the annual review and updating process. As a result, further detailing of long-range transit objectivess and service concepts will be included in updates of the Long-Range Element.

LONG-RANGE ELEMENT

OVERALL IMPROVEMENT STRATEGY

The set of transit and highway improvements considered necessary to meet quantified mobility needs through the next twenty years are contained in this Transportation Plan. While the Long-Range Element emphasizes improvements that will increase the capacity of the transportation system, continuing efforts will be required to maintain and operate the transportation system and to implement minor traffic management improvements (such as intersection widenings, bus route realignments, and traffic signal modifications) directed at expediting travel movements through the system. Further detailing of maintenance and traffic management projects is contained in the Short-Range Element.

In assessing the long-range need for major capital improvements, the improvements recommended in the current Transportation Plan, as adopted in 1979, were initially assumed and future travel demand was simulated on this planned system for the year 2005. This travel estimate was based on the projected population, employment, and person travel growth described in the Needs Element of this document. The degree of need for each of the improvements included in the 1979 Plan was determined by comparing projected travel demand on each link in the overall system with the capacity of the links. Based on this evaluation, recommendations for a number of planned improvements have been modified to insure a correspondence between the capacity of the system and projected travel demand.

In order to improve the efficiency of the transportation system as well as to provide capacity increases of sufficient magnitude to accommodate projected travel growth in critical travel corridors, an emphasis has been given to the continuing development of the rapid transit system. Extensive restructuring and service additions to the bus system will also be necessary to provide required access to the rapid transit system and to enhance transit service within various communities. In addition, certain travel markets will be appropriately served by paratransit services such as vans, jitneys, and taxis. These markets are generally defined in the Short-Range Element.

Transit improvements found to be effective in reducing peak-period traffic demand are recommended. The evaluation of improvements to the highway system has been performed under the assumption that the long-range transit improvement program will be implemented. Highway improvements included in the Plan therefore are those that are required to meet travel demand that cannot be met by the transit program. In accordance with this approach, transit recommendations are described before describing highway improvements.

PHASING STRATEGY

A great amount of attention has been given to defining a program for phasing-in transportation improvements in order to achieve the purposes of the Plan, as set out by the MPO Board. This phasing program recognizes that a degree of need already exists for each of the planned improvements. However, in the near future, the degree of need for a some of these improvements is less than for other improvements. In recognition of the restricted funding picture, a higher priority is given those improvements that respond to critical existing and near-term problems.

In order to assess the relative priority of long-range improvements, travel demand and conditions were simulated for the year 1990 so that the degree of need at the end of the current decade can be compared with indicators of current and long-range need. Each long-range improvement has been evaluated against 1980, 1990, and 2005 travel projections to allow an assignment of a relative priority.

It should be pointed out that the assigned priority category indicates the relative need for public investment for each of the planned improvements. In most cases, the priority of a project can be advanced by securing private funding sources that will enable an acceleration of the project.

A combination of rapid transit, bus, and paratransit improvements are recommended as the major components of a complementary system that effectively responds to the identified travel problems. Each component of this system has been selected to serve specific travel markets making up the problem.

Rapid Transit

The travel projections already presented in the Needs Element clearly indicate that major increases in the people-moving capacity of the transportation system are required in key travel corridors. It is not possible to add significant capacity to the highway facilities serving a number of established corridors without major community disruption, residential and non-residential relocations, and high capital cost. Transit studies conducted over the past few years have indicated that substantial diversion of trips from automobiles to transit will occur in selected corridors if the movement of transit vehicles is expedited by operating them on separated right-of-way rather than having them negotiate congested highways. In these cases, avoidance of the travel delays caused by congestion will make transit more attractive resulting in increased ridership. In addition, a large number of people living in each of the corridors and especially those who must rely on transit because of a lack of an automobile, will benefit significantly from improved travel conditions for many of their trips.

Figure IV - 1 indicates the corridors where rapid transit improvements are required in the next two decades. Rapid transit improvements are planned in five corridors-- in the southwest corridor to Cutler Ridge, to the west with a connection to the airport, to the northwest, to the northeast, and to Miami Beach. The system is to be implemented in three major stages. Stage I serves the inner areas of the Southwest and Northwest Sectors. The southern half of Stage I METRORAIL opened in May of 1984 while construction of the northern half continues. Stage II, serving the West and Northeast Sectors, will soon be subjected to a detailed analysis involving an evaluation of alternative ways of serving the two priority areas. The objective of this analysis is to establish alignments, station locations, technology, costs, and a specific program for implementing the project in realistic and effective phases. The three other rapid transit corridors are identified as future stages to the full system. The underlying justification for each of the rapid transit improvements is presented later in the document.

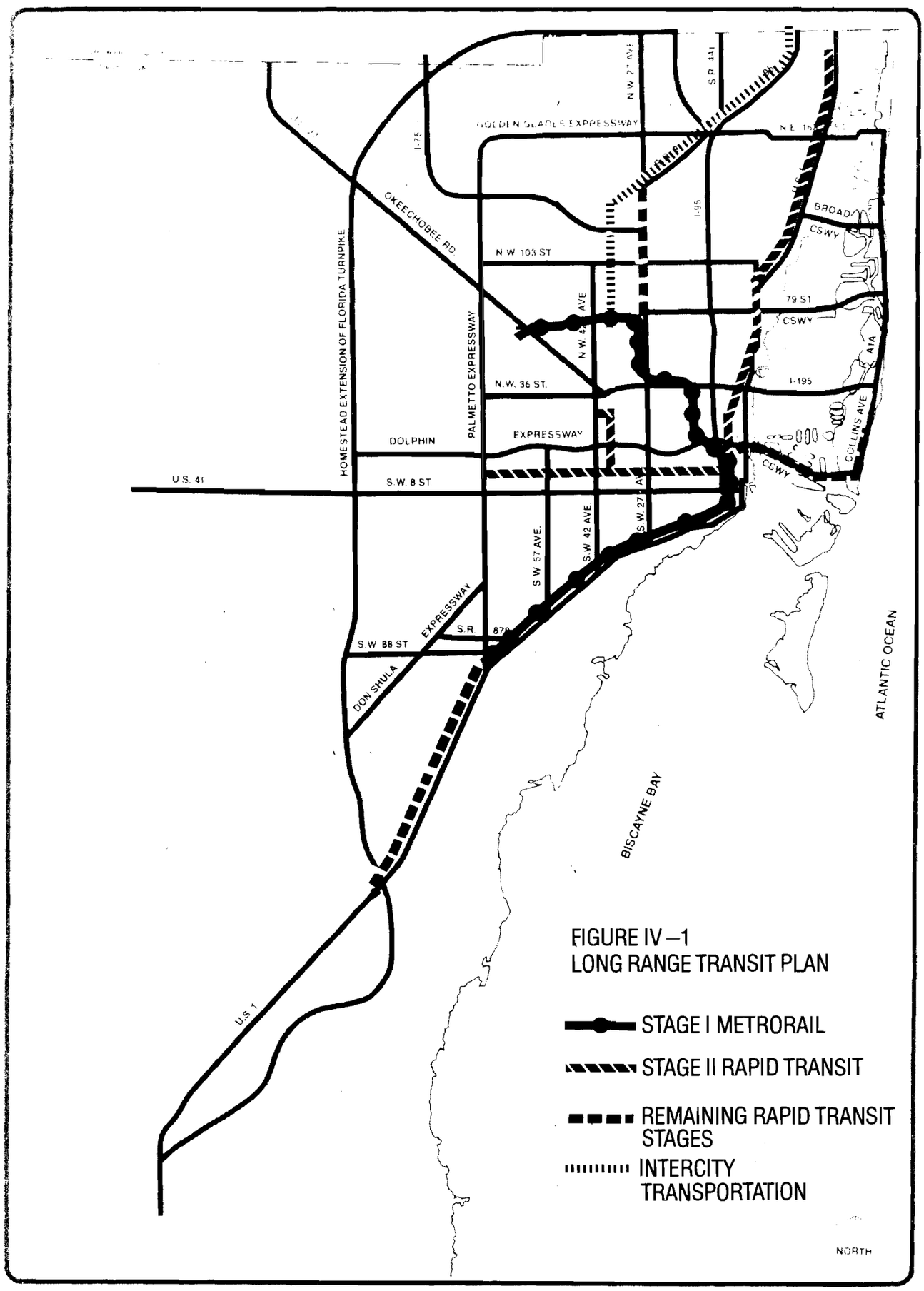


FIGURE IV–1
LONG RANGE TRANSIT PLAN

STAGE I METRORAIL

STAGE II RAPID TRANSIT

REMAINING RAPID TRANSIT STAGES

INTERCITY TRANSPORTATION

IV. LONG-RANGE ELEMENT

People Mover

As shown in Figure IV - 2, extensions of the METROMOVER project in downtown Miami to the north to serve the Omni area and to the south to serve the Brickell corridor is planned. These extensions will allow improved circulation within the greater downtown area, connect these high-density corridors to the core of the downtown, and provide improved access from METRORAIL to the diverse destinations in the downtown area.

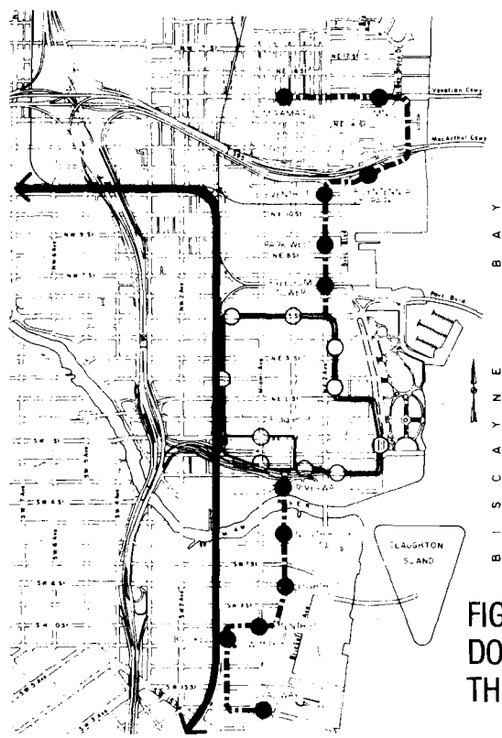


FIGURE IV–2
DOWNTOWN COMPONENT OF
THE LONG-RANGE TRANSIT PLANT

STAGE I METROMOVER
STAGE II METROMOVER
METROMOVER STATION
STAGE I METRORAIL

Paratransit Services

Innovative ways for: 1) attracting riders in travel markets where traditional transit services may not be the most optimal or cost effective way to deliver services or cannot be economically provided and 2) for meeting the specialized travel needs of elderly and handicapped people physically unable to use public transportation are currently being demonstrated by Metro-Dade. These programs are more fully described in the Short-Range Element. As these programs are attempted, those techniques found to be cost- effective will be integrated into the overall transit system and extended into the future.

Intercity Transportation

The Florida Department of Transportation is taking the lead in evaluating transportation alternatives that address intercity travel markets within the three county area of Dade, Broward, and Palm Beach as well as the Dade/Orlando/Tampa corridor. While final conclusions have not been reached, connections to the METRORAIL system at NW 79 Street, as shown in Figure IV - 1, appear to represent the most cost-effective way of tying these intercity transit services into the many and diverse destination in the metropolitan area.

Bus Transit

Bus transit will continue to be important in meeting mobility needs. With the development of a full-scale rapid transit system, a major restructuring and productivity improvements of the bus system becomes a necessity. The primary orientation of the bus system will be shifted from providing services in highly congested corridors radiating out of downtown Miami where bus speeds are severely reduced, to a multi-destination system providing connections to the rapid transit stations and enhanced services within the community. These types of changes, directed at improving the productivity of transit while providing better service within various communities, are in the process of being developed in the Stage I METRORAIL corridors. This type of service can be extended to other corridors as rapid transit service is implemented. While it would be premature to detail specific bus service changes for the longer-range future, generalized service adjustments proposed in the coming five years are described in the Short-Range Element.

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

SOUTHWEST CORRIDOR RAPID TRANSIT IMPROVEMENTS

The communities to the south and west of the Dadeland area will experience major enhancements in transit accessibility with the introduction of a full-scale feeder bus system connecting these areas to the southern leg of the Stage I METRORAIL system. The corridor to Cutler Ridge is experiencing tremendous growth, with a 135% population increase projected by the year 2005. As this population growth occurs, combinating with the emergence of the Cutler Ridge area as a metropolitan-scale employment center, major congestion is projected on South Dixie Highway as well as other roads serving the corridor. This congestion will have detrimental effects on feeder bus connections to METRORAIL, with an eventual loss in ridership likely to result.

A long-range extension of METRORAIL is planned to overcome these emerging congestion problems. In the meantime, interim transit improvements to Cutler Ridge are being investigated to determine if less-costly improvements can be made prior to the implementation of a full rapid transit extension. Likewise, a project in the SW 88 Street corridor between the HEFT and the Snapper Creek Expressway is to be evaluated to ascertain the implications of connecting this growth area to METRORAIL with special lanes for buses.

The benefit of a rapid transit extension to Cutler Ridge is illustrated by examining travel conditions on selected roads crossing Screenline S - 1 (south of SW 88 Street). Included in the corridor presented in figure IV - 3 are Old Cutler Road, SW 57 Avenue, SW 67 Avenue, South Dixie Highway, and SW 87 Avenue.

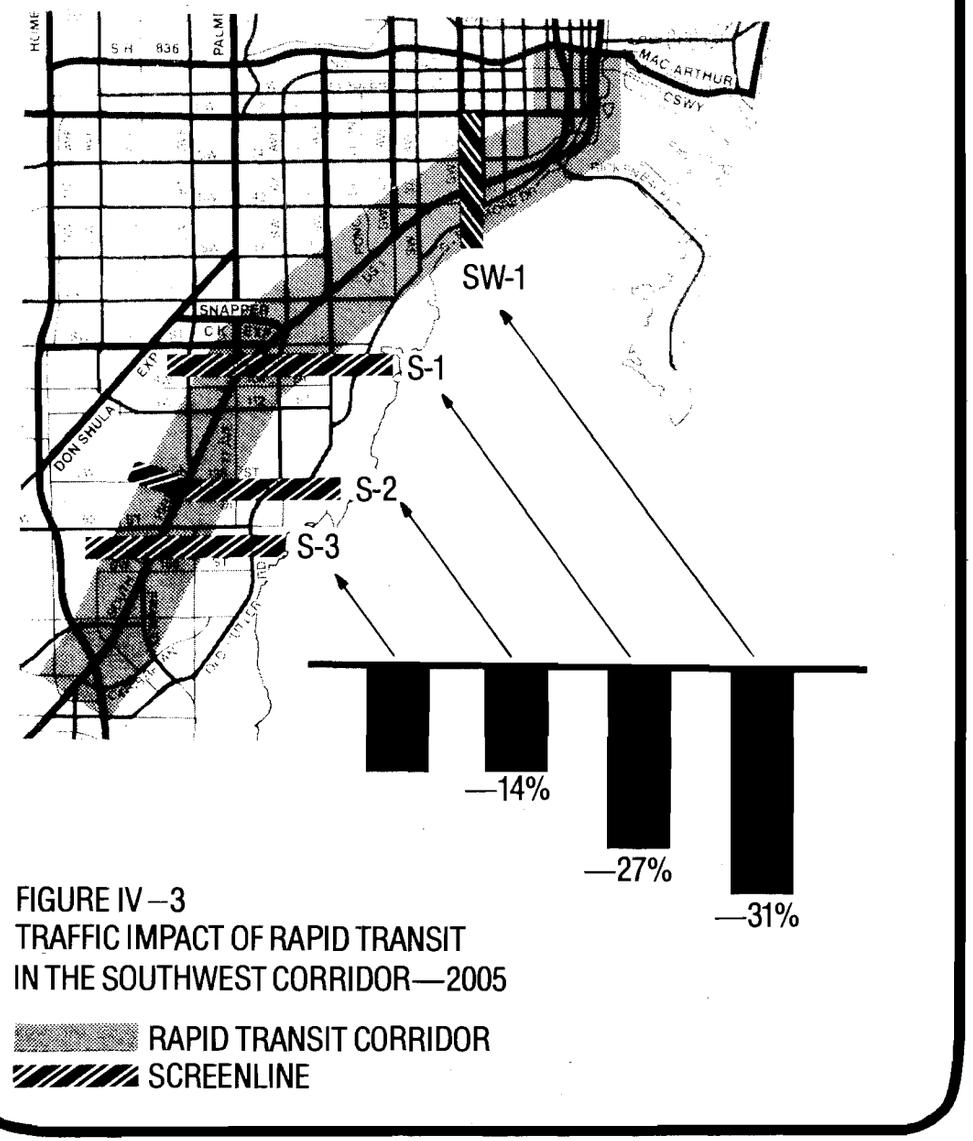


FIGURE IV–3
TRAFFIC IMPACT OF RAPID TRANSIT
IN THE SOUTHWEST CORRIDOR—2005

SOUTHWEST CORRIDOR RAPID TRANSIT IMPROVEMENTS

As shown in Table IV - 1, 8% of the person trips currently using these roads use transit in the peak hour. If this capture rate is maintained into the future, auto trips will increase at the same rate as person trips. This means that through time auto trips will more than double, increasing from 6,500 in 1980 to 14,400 in the year 2005. The extension of the rapid transit line to Cutler Ridge is projected to result in a significant change in the transit capture rate in the peak hour on these roads. The travel simulation assuming the full planned transit system indicates that the peak-hour transit capture rate in this corridor will increase from 8% at the present time to 28%. This level of transit ridership means that 11,300 auto trips will cross the screenline rather than the 14,400 auto trips predicted without rapid transit. In effect, construction of the rapid transit line therefore means that auto trips would be reduced by 27% (11,300 vs 14,400) from what they would be without rapid transit. A 27% reduction in auto trips is equivalent to 3,100 fewer person trips by auto, or about 2,600 fewer vehicles, in the peak hour. This is equivalent to the carrying capacity of two expressway lanes or three and one-half arterial highway lanes.

TABLE IV - 1
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE SOUTHWEST CORRIDOR SERVICE AREA

SCREENLINE S - 1 SOUTH OF SW 88 STREET

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	7,100		15,600		15,600		
TRANSIT TRIPS	600	8%	1,200	8%	4,300	28%	+350%
AUTO TRIPS	6,500	92%	14,400	92%	11,300	72%	-27%

Similar benefits are projected on highways north of the Dadeland area with the full operation of the Stage I METRORAIL system. At the point where travel is greatest, the peak-hour transit capture rate is projected to change from 10% in 1980 to 38% by the year 2005. As shown in Table IV - 2, this would mean that auto trips crossing the screenline west of SW 22 Avenue (cutting across Bayshore Drive, South Dixie Highway, and SW 24 Street) will increase to 9,700 trips in the peak hour with the METRORAIL project. This compares with 14,000 auto trips that would have been made if METRORAIL had not been built. This amounts to a 31% reduction in auto trips from what they would have been (9,700 trips vs 14,000 trips) or a drop of 4,300 auto trips (3,600 vehicle trips). This 3,600 vehicle trip reduction is equivalent to two and one-half expressway lanes or four arterial highway lanes).

TABLE IV - 2
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE SOUTHWEST CORRIDOR SERVICE AREA

SCREENLINE SW - 1 WEST OF SW 22 AVENUE

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	8,700		15,600		15,600		
TRANSIT TRIPS	900	10%	1,600	10%	5,900	38%	+369%
AUTO TRIPS	7,800	90%	14,000	90%	9,700	62%	-31%

SOUTHWEST CORRIDOR RAPID TRANSIT IMPROVEMENTS

The rapid transit extension to Cutler Ridge will result in less benefits south of SW 136 Street, as shown by data for the other southwest screenlines (see Tables IV - 3 and IV - 4). The percentage of transit trips is projected to change from 11% and 9% in 1980 at the two screenlines respectively to 23% and 22% in the year 2005. As a result, growth in auto trips will be 14% below projections without the extension. This translates into about 1,100 auto person trips in the peak hour or 900 vehicle trips, the equivalent of adding another lane to South Dixie Highway.

TABLE IV - 3
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE SOUTHWEST CORRIDOR SERVICE AREA

SCREENLINE S - 2 SOUTH OF SW 136 STREET

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	4,800		19,800		19,800		
TRANSIT TRIPS	500	11%	1,100	11%	2,300	23%	+200%
AUTO TRIPS	4,300	89%	18,700	89%	17,500	77%	-14%

TABLE IV - 4
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE SOUTHWEST CORRIDOR SERVICE AREA

SCREENLINE S - 3 NORTH OF SW 168 STREET

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	4,400		9,000		9,000		
TRANSIT TRIPS	400	9%	800	9%	2,000	22%	+250%
AUTO TRIPS	4,000	91%	18,100	91%	17,000	78%	-14%

WEST CORRIDOR RAPID TRANSIT IMPROVEMENTS

The second stage of the rapid transit system will serve both the west and northeast sectors. As shown in the Needs Element, travel demand in the west corridor is very high at present. As a result, significant congestion is already experienced on roads serving the corridor. As shown in the western screenlines, major growth in travel demand is projected in this corridor. As previously shown, a 47% increase in the number of jobs and a 45% increase in population above 1980 levels is projected for the overall sector through the year 2005. As a result, a serious deterioration in traffic conditions is projected to occur on all of the roads serving this corridor.

Development of a west corridor rapid transit line will result in major increases in transit use in the corridor. As shown in Figure IV - 4, the impact of the transit line between downtown Miami and the West 42 Avenue / Airport area is particularly impressive. Table IV - 5 shows that the number of transit trips crossing Screenline WF - 1 (east of 27 Avenue) will increase from 6% of peak-hour person trips at present to 21% in the future with the implementation of a west rapid transit leg, a 350% increase. Correspondingly, the percentage of auto trips will be lowered from 94% to 79%, a 26% reduction. This means that 3,100 person trips (2,600 auto vehicle trips) will be taken off the roads in this corridor during the peak hour. This is equivalent to the capacity of one and one-half expressway lanes.

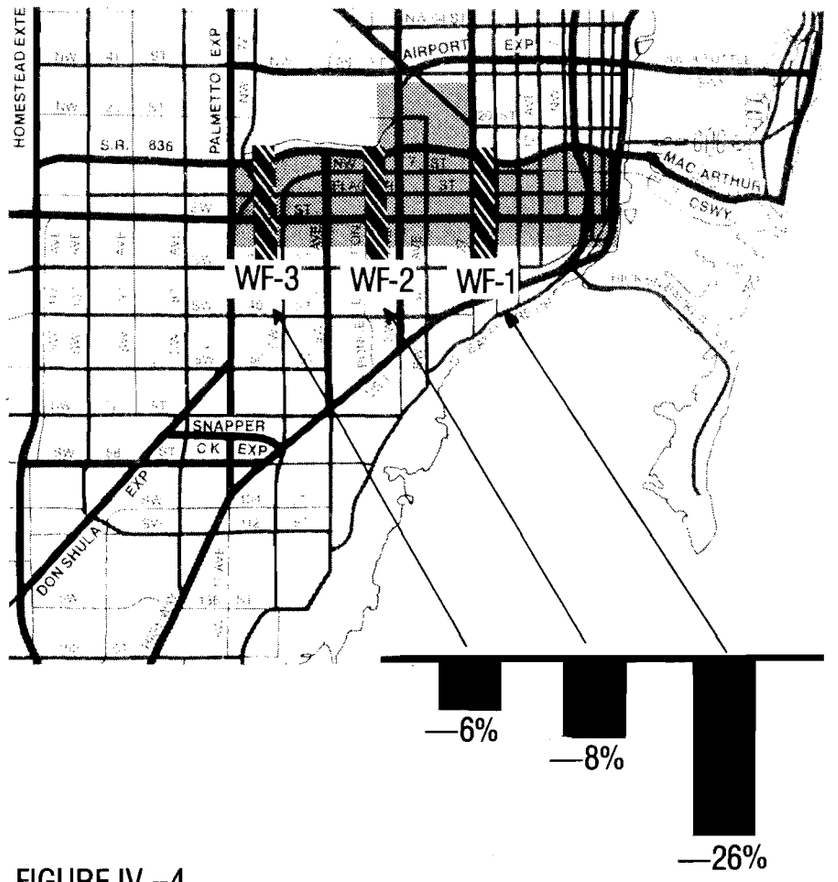


FIGURE IV–4
TRAFFIC IMPACT OF RAPID TRANSIT
IN THE WEST CORRIDOR—2005

RAPID TRANSIT CORRIDOR
SCREENLINE

WEST CORRIDOR RAPID TRANSIT IMPROVEMENTS

TABLE IV - 5
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE WEST CORRIDOR SERVICE AREA

SCREENLINE WF - 1 EAST OF WEST 27 AVENUE

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	12,300		21,100		21,100		
TRANSIT TRIPS	700	6%	1,300	6%	4,500	21%	+350%
AUTO TRIPS	11,600	94%	19,800	94%	16,600	79%	-26%

TABLE IV - 6
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE WEST CORRIDOR SERVICE AREA

SCREENLINE WF - 2 WEST OF WEST 42 AVENUE

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	15,700		26,500		26,500		
TRANSIT TRIPS	600	4%	1,100	4%	3,100	12%	+280%
AUTO TRIPS	15,100	96%	25,400	96%	23,400	88%	-8%

The impact of the west corridor rapid transit line west of West 42 Avenue is projected to be much less than inside of West 42 Avenue. As shown in Table IV - 6, the number of transit trips crossing Screenline WF - 2 (west of West 42 Avenue) is projected to increase from 600 trips per hour (4% of the person trips) in 1980 to 3,100 trips per hour with construction of the rapid transit line (12% of the person trips). Correspondingly, auto trips will be 8% less than what they would have been without rapid transit (23,400 vs 25,400).

As shown in Table IV - 7, as the Palmetto Expressway is approached, rapid transit become less effective in diverting auto trips into transit. While the number of person trips crossing Screenline WF - 3 (east of the Palmetto Expressway) will increase at about the same rate as at other screenlines, the change in the transit capture rate is projected to be less. It is projected to change from 3% in 1980 to 8% in the year 2005 with the rapid transit extension. The reduction in auto trips due to the rapid transit line is projected to be about 6% (30,800 vs 32,600).

TABLE IV - 7
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE WEST CORRIDOR SERVICE AREA

SCREENLINE WF - 3 WEST OF WEST 67 AVENUE

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	20,800		33,600		33,600		
TRANSIT TRIPS	700	3%	1,000	3%	2,800	8%	+280%
AUTO TRIPS	20,100	97%	32,600	97%	30,800	92%	-6%

NORTHWEST CORRIDOR RAPID TRANSIT IMPROVEMENTS

In the long-run, an extension of the northwest METRORAIL line in the NW 27 Avenue corridor is planned. As with the southwest corridor, the Stage I METRORAIL project will result in significant accessibility increases to the communities lying beyond its stations. In addition, this line will affort an excellent opportunity for tying the metropolitan area into intercity transit projects. As the area grows, roads in the corridor such as NW 27 Avenue will become more congested. As a result, a deterioration of feeder bus service will occur. Because of the difference in traffic growth, this deterioration in this corridor will not occur at as fast a pace as projected in the southwest sector.

Table IV - 8 and figure IV - 5 indicate the impact of the northwest rapid transit extension on traffic. The number of person trips crossing Screenline NW - 1 (south of NW 135 Street) is projected to increase 85% by the year 2005. With the advent of rapid transit, the percent of person trips in the corridor using transit is projected to increase from 3% at present to 22%. As a result, auto trips will be reduced by 20% (13,700 vs 17,100) from what it would be without rapid transit.

TABLE IV - 8
TRAFFI IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE NORTHWEST CORRIDOR SERVICE AREA

SCREENLINE NW - 1 SOUTH OF NW 103 STREET

	1980		2005				
	TRIPS	MODE SPLIT	NO-BUILD TRIPS	NO-BUILD MODE SPLIT	BUILD TRIPS	BUILD MODE SPLIT	IMPACT OF BUILD ALT.
PERSON TRIPS	9,500		17,600		17,600		
TRANSIT TRIPS	200	3%	500	3%	3,900	22%	+730%
AUTO TRIPS	9,300	97%	17,100	97%	13,700	78%	-20%

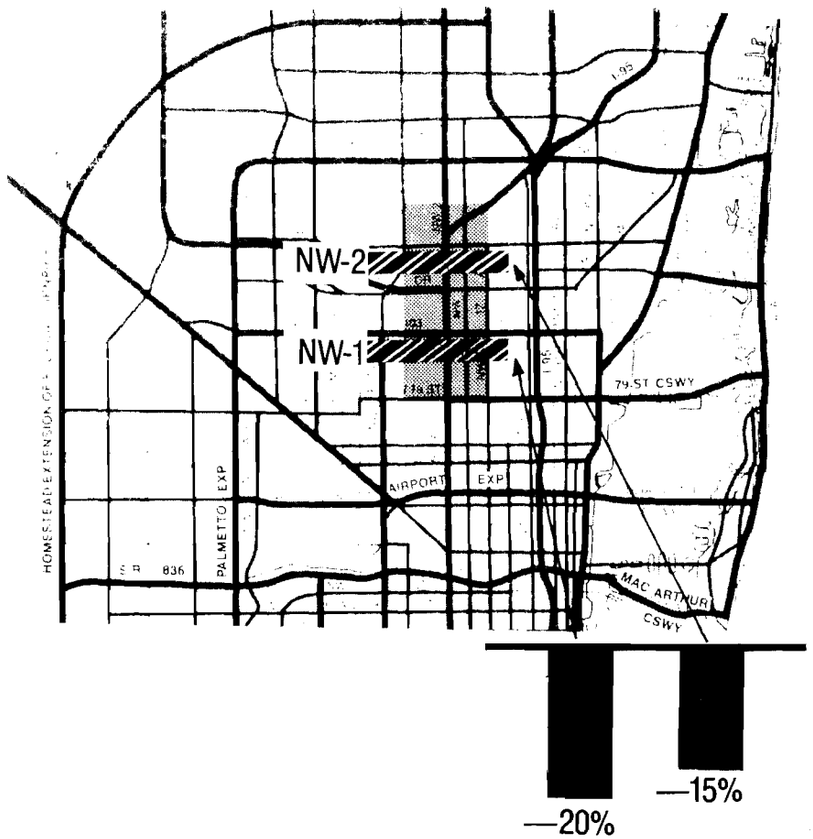


FIGURE IV–5
TRAFFIC IMPACT OF RAPID TRANSIT
IN THE NORTHWEST CORRIDOR—2005

RAPID TRANSIT CORRIDOR
SCREENLINE

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

NORTHWEST CORRIDOR RAPID TRANSIT IMPROVEMENTS

The impact of rapid transit at Screenline NW - 2 (south of NW 103 Street) will be somewhat lower. As shown in Table IV - 9, the transit capture rate in the peak hour is projected to increase from 3% in 1980 to 17% in the year 2005 with the provision of rapid transit. The number of auto trips will be 15% below what it would have been (8,800 vs 10,300) without rapid transit.

TABLE IV - 9
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE NORTHWEST CORRIDOR SERVICE AREA

SCREENLINE NW - 2 SOUTH OF NW 135 STREET

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	7,300		10,600		10,600		
TRANSIT TRIPS	200	3%	300	3%	1,800	17%	+600%
AUTO TRIPS	7,100	97%	10,300	97%	8,800	83%	-15%

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

NORTHEAST CORRIDOR RAPID TRANSIT IMPROVEMENTS

A rapid transit line in the northeast corridor has been assigned a priority, along with the west corridor, as part of the Stage II improvement package. This line will serve a very heterogeneous population. The segment between the downtown and North 79 Street has a high concentration of minorities (55% black and 31% hispanics). With a mean household income of $11,650, 45% of the households do not have an automobile available. Further north, the population makeup changes drastically. A high concentration of elderly (approximately 30%) reside in the northern half of the corridor. The corridor has an high potential for growth, especially toward the northern part of the county. Population is expected to double in parts of the corridor by the year 2005. The need to explore alternative improvements in the northeast corridor is based on a combination of factors. In addition to the high transit dependency created by the minority and elderly residents and predicted new growth, traffic problems on Biscayne Boulevard and I-95 are very serious and projected to become more intense development in the corridor occurs. In addition, there is a great potential for redevelopment toward the downtown area. An analysis of transit alternatives is a priority need to define solutions to the problems involved in serving the corridor with buses operating on highly-congested local roads.

Traffic benefits resulting from construction of a rapid transit line in the northeast corridor have been examined at five screenlines. While the number of person trips projected to cross these screenlines by the year 2005 are projected to increase by about the same degree (between 35% and 47% over 1980 levels), the amount of traffic reduction brought about by the rapid transit line varies significantly depending on the location. Following is a description of the traffic reductions projected throughout the corridor as shown in Figure IV - 6.

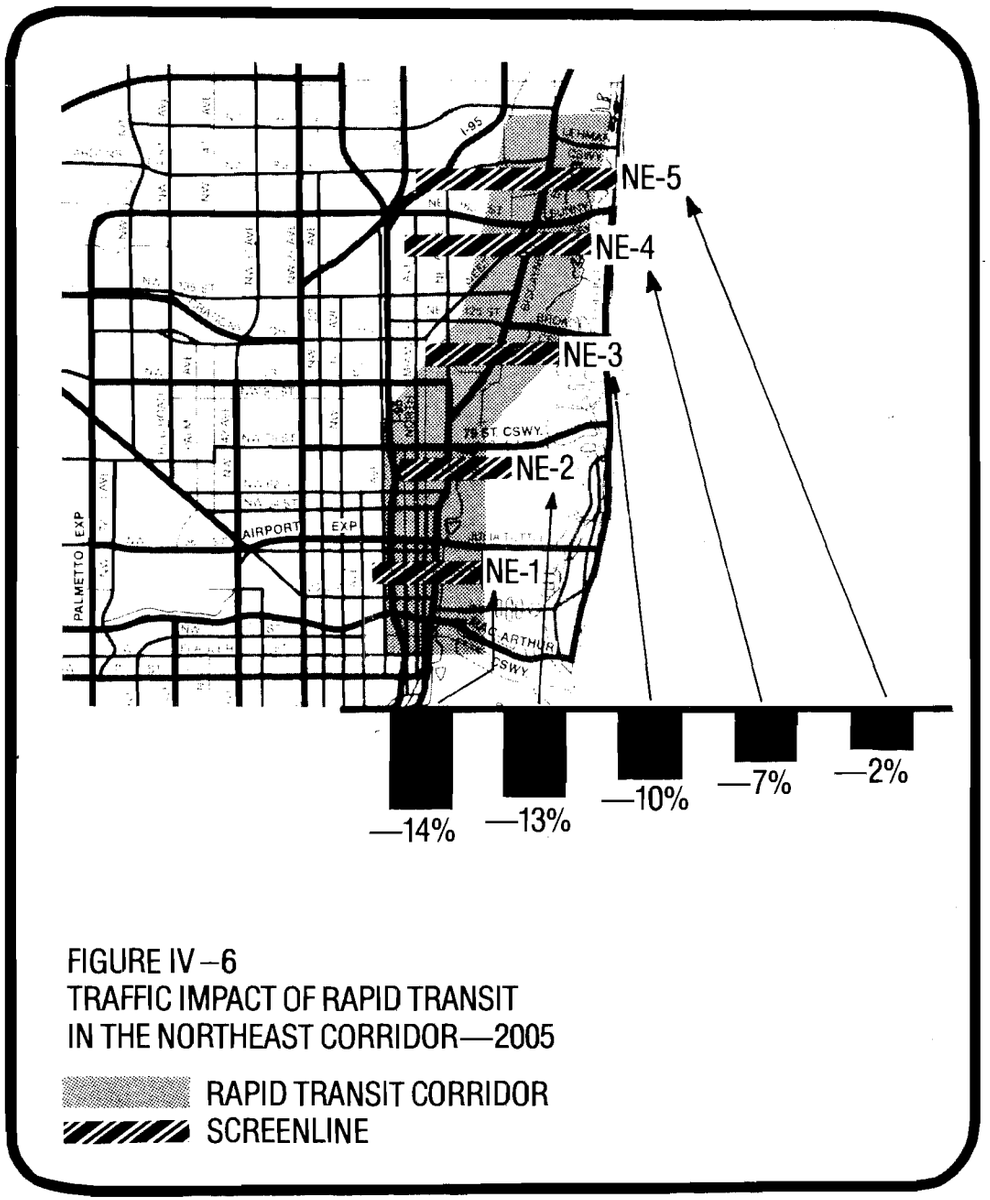


FIGURE IV–6
TRAFFIC IMPACT OF RAPID TRANSIT
IN THE NORTHEAST CORRIDOR—2005

NORTHEAST CORRIDOR RAPID TRANSIT IMPROVEMENTS

As shown in Table IV - 10 at present 1,300 peak-hour trips currently cross Screenline NE - 1 on transit vehicles. The resulting modal split is 8% of the person trips by transit and 92% by auto. If this mode split is maintained into the future, the number of person trips crossing the screenline by auto would increase from 15,200 to 21,100 in the year 2005. The travel simulation assuming the full rapid transit system indicates that 21% of the trips in the corridor will use transit if the rapid transit line is constructed. As a result, 4,800 trips would be made by transit. This represents a dramatic 270% increase in the number of transit trips. With this mode split, 18,100 auto trips are projected to cross the screenline in the peak hour. This compares with the projection 21,100 auto trips without the rapid transit line, a 14% reduction. Based on an auto occupancy of 1.2 people per vehicle, it is estimated that 2,400 fewer vehicles will use highways in the corridor due to the rapid transit project. This is equivalent to the capacity of one and one-half expressway lanes or two and one-half arterial highway lanes.

TABLE IV - 10
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE NORTHEAST CORRIDOR SERVICE AREA

SCREENLINE NE - 1 SOUTH OF NORTH 36 STREET

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	16,500		22,900		22,900		
TRANSIT TRIPS	1,300	8%	1,800	8%	4,800	21%	+270%
AUTO TRIPS	15,200	92%	21,100	92%	18,100	79%	-14%

Table IV - 11 indicates the impact of transit on traffic crossing Screenline NE - 2. At present, 11% of the person trips crossing the screenline in the peak hour use transit and 89% use the automobile. With rapid transit, the modal split is projected to change to 23% and 77% for transit and auto, respectively. The number of auto trips will be reduced by 2,700 peak-hour trips (20,500 vs 17,800) from what it would be without rapid transit.

TABLE IV - 11
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE NORTHEAST CORRIDOR SERVICE AREA

SCREENLINE NE - 2 NORTH OF NORTH 36 STREET

	1980		2005				
			NO-BUILD		BUILD		IMPACT
	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	TRIPS	MODE SPLIT	OF BUILD ALT.
PERSON TRIPS	16,400		23,000		23,000		
TRANSIT TRIPS	1,800	11%	2,500	11%	5,200	23%	+260%
AUTO TRIPS	14,600	89%	20,500	89%	17,800	77%	-13%

NORTHEAST CORRIDOR RAPID TRANSIT IMPROVEMENTS

The impact of rapid transit in the northeast corridor is less dramatic north of North 79 Street (Screenline NE - 3). As shown in Table IV -12, the modal split is currently 7% transit and 93% auto. With rapid transit, the mode split is projected to change to 16% transit, with 19,500 trips projected to use the automobile. This compares with 21,500 trips that would use the automobile if the rapid transit line is not built. The net benefit is therefore a reduction of 2,000 autos (equivalent to the carrying capacity of two arterial highway lanes).

TABLE IV - 12
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE NORTHEAST CORRIDOR SERVICE AREA

SCREENLINE NE - 3 NORTH OF NORTH 103 STREET

	1980		2005				
	TRIPS	MODE SPLIT	NO-BUILD TRIPS	NO-BUILD MODE SPLIT	BUILD TRIPS	BUILD MODE SPLIT	IMPACT OF BUILD ALT.
PERSON TRIPS	17,100		23,100		23,100		
TRANSIT TRIPS	1,200	7%	1,600	7%	3,600	16%	+225%
AUTO TRIPS	15,900	93%	21,500	93%	19,500	84%	-10%

With rapid transit, 22,300 auto trips are projected to cross Screenline NE - 4 compared with 23,900 auto trips without rapid transit. Table IV - 13 shows the findings for this screenline. The net reduction of auto trips crossing this screenline is 1,600 trips or a 7% reduction.

TABLE IV - 13
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE NORTHEAST CORRIDOR SERVICE AREA

SCREENLINE NE - 4 SOUTH OF NORTH 163 STREET

	1980		2005				
	TRIPS	MODE SPLIT	NO-BUILD TRIPS	NO-BUILD MODE SPLIT	BUILD TRIPS	BUILD MODE SPLIT	IMPACT OF BUILD ALT.
PERSON TRIPS	17,300		25,400		25,400		
TRANSIT TRIPS	1,000	6%	1,500	6%	3,100	12%	+280%
AUTO TRIPS	16,300	94%	23,900	94%	22,300	88%	-7%

The percent of peak-hour trips crossing Screenline NE - 5, as shown in Table IV - 14, is projected to increase from 4% in 1980 to 6% in the year 2005 with the introduction of rapid transit. The net impact of rapid transit is 300 auto trips or a 2% reduction in traffic.

TABLE IV - 14
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE NORTHEAST CORRIDOR SERVICE AREA

SCREENLINE NE - 5 NORTH OF NORTH 163 STREET

	1980		2005				
	TRIPS	MODE SPLIT	NO-BUILD TRIPS	NO-BUILD MODE SPLIT	BUILD TRIPS	BUILD MODE SPLIT	IMPACT OF BUILD ALT.
PERSON TRIPS	11,300		16,500		16,500		
TRANSIT TRIPS	400	4%	700	6%	1,000	6%	+40%
AUTO TRIPS	10,900	96%	15,800	94%	15,500	94%	-2%

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

MIAMI BEACH CORRIDOR RAPID TRANSIT IMPROVEMENTS

A rapid transit connection to Miami Beach is considered a long-range prospect. Population and economic trends for the Miami Beach have been stable for quite some time. Highway traffic on the southern causeways is expected to increase by 21% from 13,100 to 15,900 trips per hour by the year 2005.

Due to the substantial bus services currently provided Miami Beach, transit useage is reasonably high, with 15% of the peak-hour trips going to and from the Beach on transit. If this mode split is maintained into the future, the number of auto trips will increase from 11,200 to 13,100 in the peak hour. As can be seen in Table IV - 15 and Figure IV - 7, a rapid transit line connecting the Beach is projected to result in a mode split by the year 2005 of 28%. The number of transit trips will be increased from 2,400 to 4,400. As a result, the number of peak-hour auto trips on the causeways will be 11,500 auto trips, about the same number as at present. This is 12% less than would have occurred without rapid transit. The net auto reduction is 1,600 auto trips is equivalent to the addition of an arterial highway lane.

TABLE IV - 15
TRAFFIC IMPACT OF RAPID TRANSIT IMPROVEMENTS
IN THE MIAMI BEACH CORRIDOR SERVICE AREA

SCREENLINE ME - 1 SOUTHERN CAUSEWAYS

	1980		2005				
	TRIPS	MODE SPLIT	NO-BUILD TRIPS	NO-BUILD MODE SPLIT	BUILD TRIPS	BUILD MODE SPLIT	IMPACT OF BUILD ALT.
PERSON TRIPS	13,100		15,900		15,900		
TRANSIT TRIPS	1,900	15%	2,400	15%	4,400	28%	+80%
AUTO TRIPS	11,200	85%	13,100	85%	11,500	72%	-12%

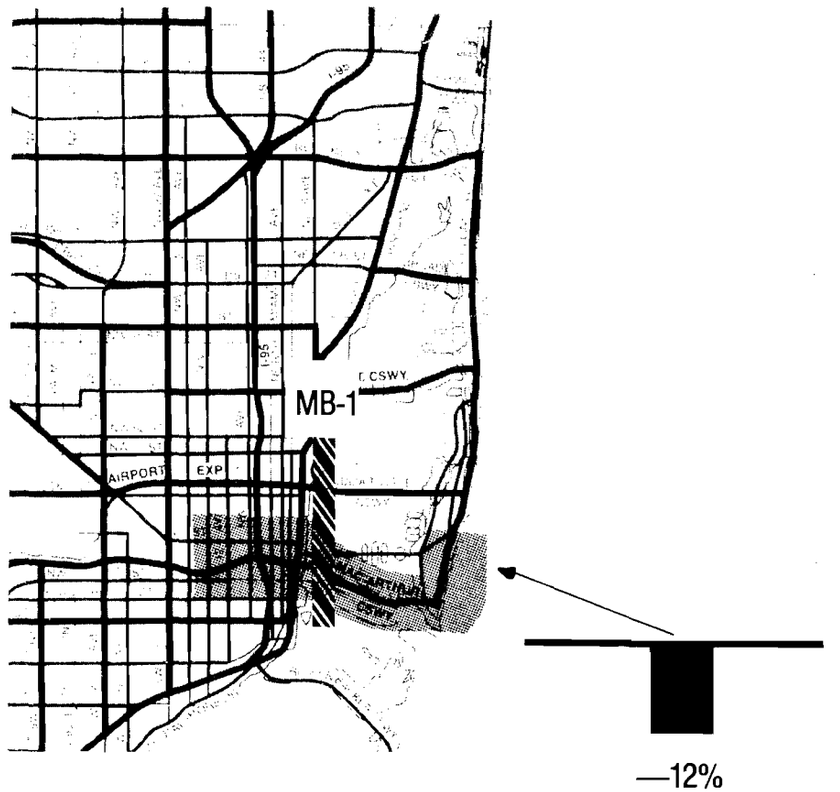


FIGURE IV—7
TRAFFIC IMPACT OF RAPID TRANSIT
IN THE MIAMI BEACH CORRIDOR—2005

RAPID TRANSIT CORRIDOR
SCREENLINE

RATIONALE FOR HIGHWAY CAPACITY IMPROVEMENTS

To the degree feasible, highway improvements have been scaled to maintain at least a level-of-service "D" in the peak hour. In many situations, the highway capacity improvements currently contained in the adopted Transportation Plan have been confirmed as the way to meet specific corridor travel needs at the target level-of-service. However, in a number of cases, previously-recommended highway improvements have been scaled-back or expanded to correspond to the projected need.

The "D" level-of-service criterion is used as a target. While this level-of-service involves substantial congestion in the peak hours, it is recognized as the appropriate level of service in a large metropolitan area due to constraints encountered in increasing the capacity of the highway system. In many corridors, highway improvements required to provide this service level have been found to result in unacceptable community and environmental impacts. In a number of cases, even with the assumption of high-frequency bus service and an extensive rapid transit system, highway widenings to six, eight, or ten lanes are needed to provide a "D" level-of-service. In developed communities where right-of-way is restricted, widenings involving this number of lanes impose major community impacts. In these cases, a judgment has been made to not recommend additional widenings but instead pursue actions that would emphasize the attractiveness of transit. Additional work is needed in these situations to define actions that would improve the attractiveness of transit and carpools in the face of the major congestion projected on these highways.

THE ROLE OF TRANSIT

In view of the need to improve the efficiency of the transportation system to respond to major increases in travel demand, an extensive rapid transit system, complemented by a network of feeder buses, has been assumed. This system, described in the transit component of this Long-Range Element, responds to concentrated travel markets in the peak travel period. As previously described, significant traffic diversion is projected as a result of the assumed transit improvements with transit ridership in these corridors projected to greatly increase above today's levels. As many as 25% of the person trips made in the peak hour are projected to use transit at key congestion points as a result of the planned transit investments. For some screenlines, this compares with less than 6% of the peak-hour trips at the current time. The resulting traffic demand placed on the highway system indicated in this document therefore represents person trips that would use their autos despite the high level of transit service assumed and the projected highway congestion. In addition, a significant amount of truck traffic is projected to use the highway system (about 15% of the VMT).

SYSTEMS MANAGEMENT

Before undertaking major highway widenings or building new highways, improvements to the highway system need to be considered that would maximize the utility of the existing system. Therefore, improvements such as the upgrading of the traffic signal system, intersection improvements, and actions that would give preferential treatment to transit and other high-occupancy vehicles are to be given priority. Major improvements to the capacity of the highway system are included in this Transportation Plan only after less-costly traffic management techniques are exhausted and transit has been given its full chance to attract riders and meet the travel need.

TRAFFIC GROWTH

Table IV - 16 and Figure IV - 8 show projected traffic growth expected after the diversion of trips to transit. Overall, traffic levels on arterial highways and major collector roads, measured in vehicle-miles-of- travel (VMT), are expected to increase from 20.8 million in 1980 to 32.2 million by the Year 2005. Despite the fact that the percentage of trips using autos is projected to fall (due to increases in transit usage), increases in VMT exceeding 50% are forecast. While a portion of this VMT increase is due to a larger travel market, the increase is also due to longer trips. This phenomenom occurs in nearly all high-growth urban areas when new residents locate in suburban and outlying areas and find it necessary to make longer trips to satisfy their needs. The following is a summary of the VMT statistics by analysis area:

Central-- Despite the more than doubling of jobs in the downtown area, VMT on downtown highways is projected to increase by about 30%.

Southwest Sector-- Primarily due to the dynamic growth expected in the outer suburbs, VMT on roads in the Southwest Sector is projected to increase by about 80% above 1980 levels. The value of the METRORAIL project is seen where VMT in the closer-in areas is projected to increase at a much lower rate. The most pronounced increases are projected on highways in the Perrine / Cutler Ridge and Tamiami Airport / Coral Reef areas.

West Sector -- Traffic growth in this sector is projected to increase by about 70%, with a much higher rate of increase projected in the area outside of the Palmetto Expressway. Partly as a result of the assumed rail project in the West Sector, VMT is only projected to increase by about 38% on highways east of the Palmetto Expressway.

Northwest Sector -- Again due to the dynamic growth taking place in the outer areas, VMT growth is projected to be very high, with a 70% increase forecast. VMT growth on roads south and east of the Palmetto Expressway is projected to be about 50%.

Northeast -- Only a 41% VMT growth rate in this corridor is projected, reflecting the assumption of the I-95 HOV improvements and the northeast extension of METRORAIL.

Miami Beach-- VMT growth on roads on the Beach is projected to increase by about 24%, reflecting the lower growth rate of this area.

TABLE IV - 16
VEHICLE-MILES-OF-TRAVEL CHANGE - 1980 to 2005

ANALYSIS AREA	VEHICLE-MILES-OF-TRAVEL(000)		
	1980	2005	1980-2005 CHANGE
CENTRAL --			
Miami CBD	950	1,230	280
Key Biscayne	180	260	80
Total- Central	1,130	1,490	360
SOUTHWEST SECTOR --			
S.W. Miami / Coral Gables	870	1,100	230
South Miami / Dadeland	2,320	4,110	1,790
Perrine / Cutler Ridge	1,050	2,090	1,040
Tamiami Airport / Coral Reef	420	1,160	740
Naranja / Homestead	770	1,400	630
Total- Southeast	5,430	9,860	4,430
WEST SECTOR --			
Flagler / Airport	2,670	3,680	1,010
Doral / Westchester	2,010	3,800	1,790
Tamiami / West Kendall	310	880	570
Total- West	4,990	8,360	3,370
NORTHWEST SECTOR --			
Northwest	3,530	5,410	1,880
Coral City / Lake Lucerne	640	1,780	1,140
Total- Northwest	4,170	7,190	3,020
NORTHEAST SECTOR --			
N.E. Miami / Biscayne	820	1,090	270
East Golden Glades	1,710	2,340	630
Aventura / Andover	1,040	1,600	560
Total- Northeast	3,570	5,030	1,460
MIAMI BEACH --	1,100	1,360	260
TOTAL	20,390	33,290	12,900

SOURCE: Gannett Fleming

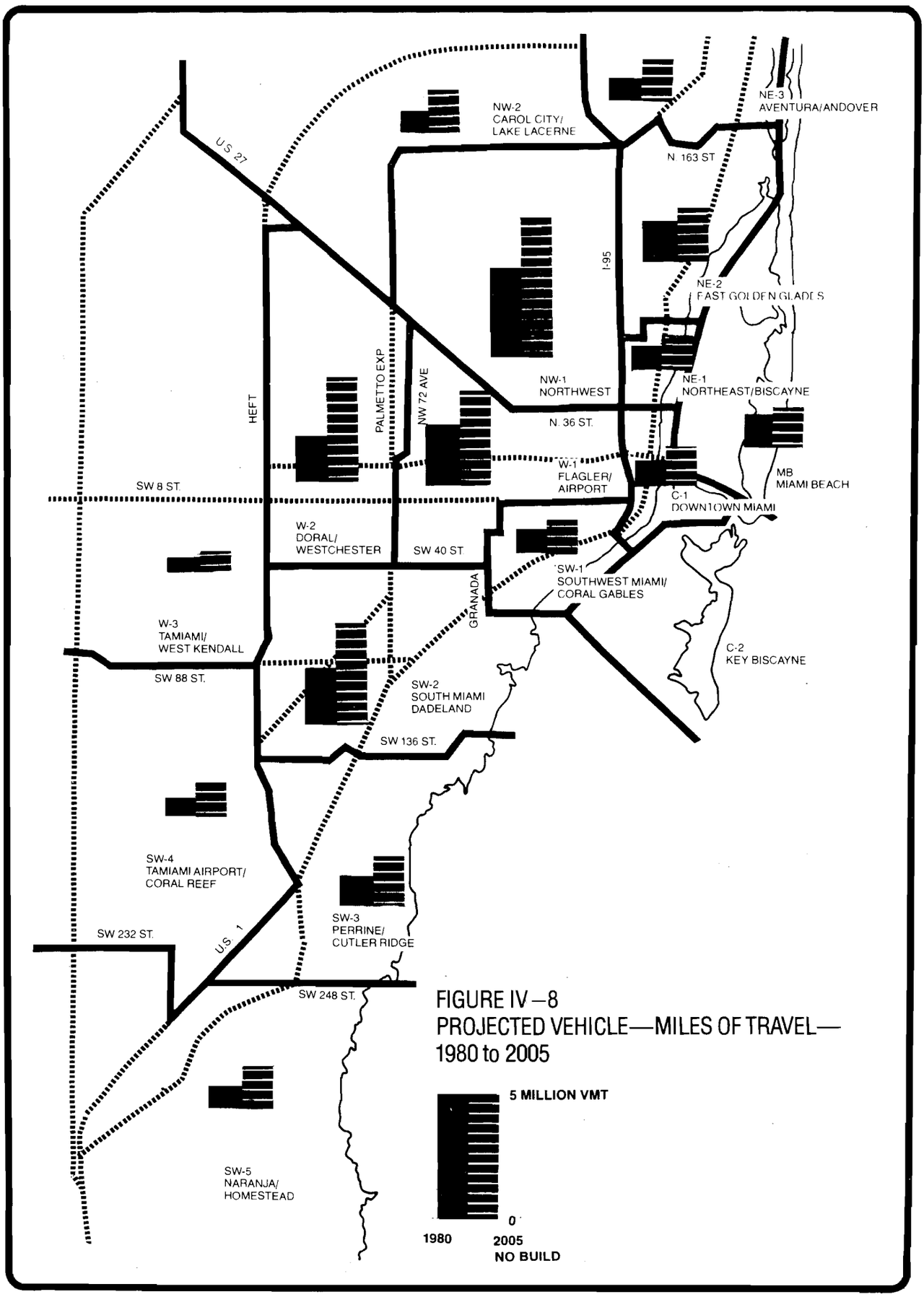


FIGURE IV–8
PROJECTED VEHICLE—MILES OF TRAVEL—
1980 to 2005

IV. LONG-RANGE ELEMENT

LONG-RANGE HIGHWAY PLAN

IMPLICATIONS OF THE "NO-BUILD" SCENARIO

In order to quantify the need for, and the priority of a large-scale highway improvement program, a scenario of only completing the highway improvements currently under construction was evaluated. An indication of the benefits resulting from the recommended improvement program is available by comparing the resulting travel conditions under this scenario with the traffic conditions resulting with the recommended improvements.

Figure IV - 9 and IV - 10 indicate the level of congestion encountered on the highway system. As can be seen, traffic congestion is prevalent throughout much of the system, with congestion particularly bad in the outer areas.

Table IV - 17 and Figure IV - 11 indicate the amount of VMT encountering extremely congested conditions under the "No-Build" highway scenario. Overall, the amount of traffic experiencing these conditions is projected to nearly triple to nearly 20 million per weekday. Major increases are projected in nearly every area, with some areas projected to experience more than a 10-fold increase. Particularly affected by such a scenario would be areas in the southwest, northwest, and northeast where major deterioration in highway service levels are projected.

TABLE IV - 17
PROJECTED CHANGE IN VMT ENCOUNTERING
EXTREMELY CONGESTED CONDITIONS ASSUMING
NO NEW HIGHWAY IMPROVEMENTS

ANALYSIS AREA	1980	2005	1990-2005 CHANGE
CENTRAL --			
Miami CBD	190	380	2.0
Key Biscayne	0	260	Inf.
Total- Central	190	640	3.4
SOUTHWEST SECTOR --			
S.W. Miami / Coral Gables	450	870	1.9
South Miami / Dadeland	420	2,750	6.5
Perrine / Cutler Ridge	100	1,520	15.2
Tamiami Airport / Coral Reef	20	500	25.0
Naranja / Homestead	60	60	1.0
Total- Southeast	1,050	5,700	5.4
WEST SECTOR --			
Flagler / Airport	950	2,280	2.4
Doral / Westchester	320	2,180	6.8
Tamiami / West Kendall	90	430	4.8
Total- West	1,360	4,890	3.6
NORTHWEST SECTOR --			
Northwest	270	3,610	13.4
Coral City / Lake Lucerne	50	760	15.2
Total- Northwest	320	4,370	13.7
NORTHEAST SECTOR --			
N.E. Miami / Biscayne	100	780	7.8
East Golden Glades	300	1,790	6.0
Aventura / Andover	330	1,230	3.7
Total- Northeast	730	3,800	5.2
MIAMI BEACH --	70	200	2.9
TOTAL	3,720	19,600	5.3

SOURCE: Gannett Fleming

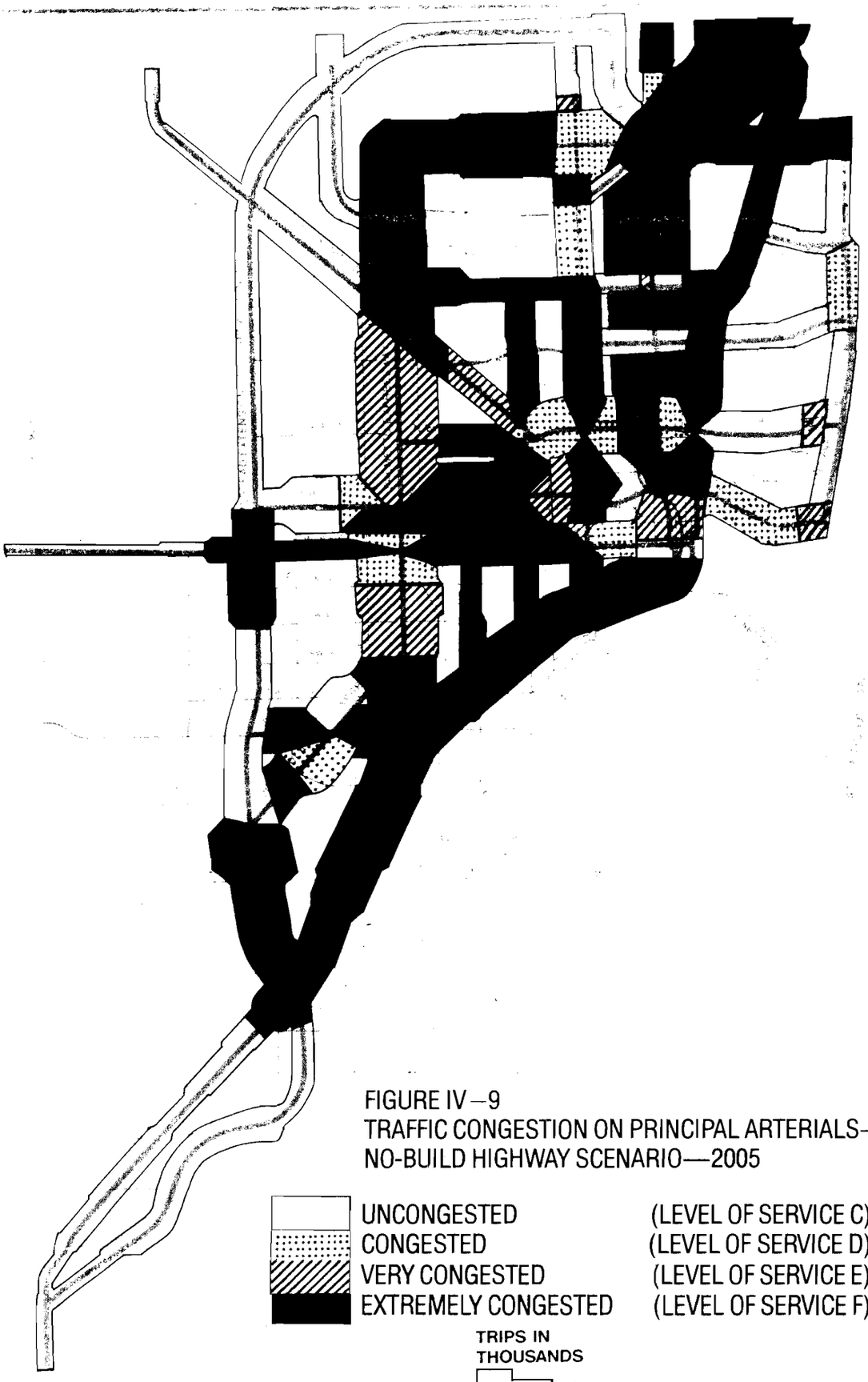


FIGURE IV–9
TRAFFIC CONGESTION ON PRINCIPAL ARTERIALS—
NO-BUILD HIGHWAY SCENARIO—2005

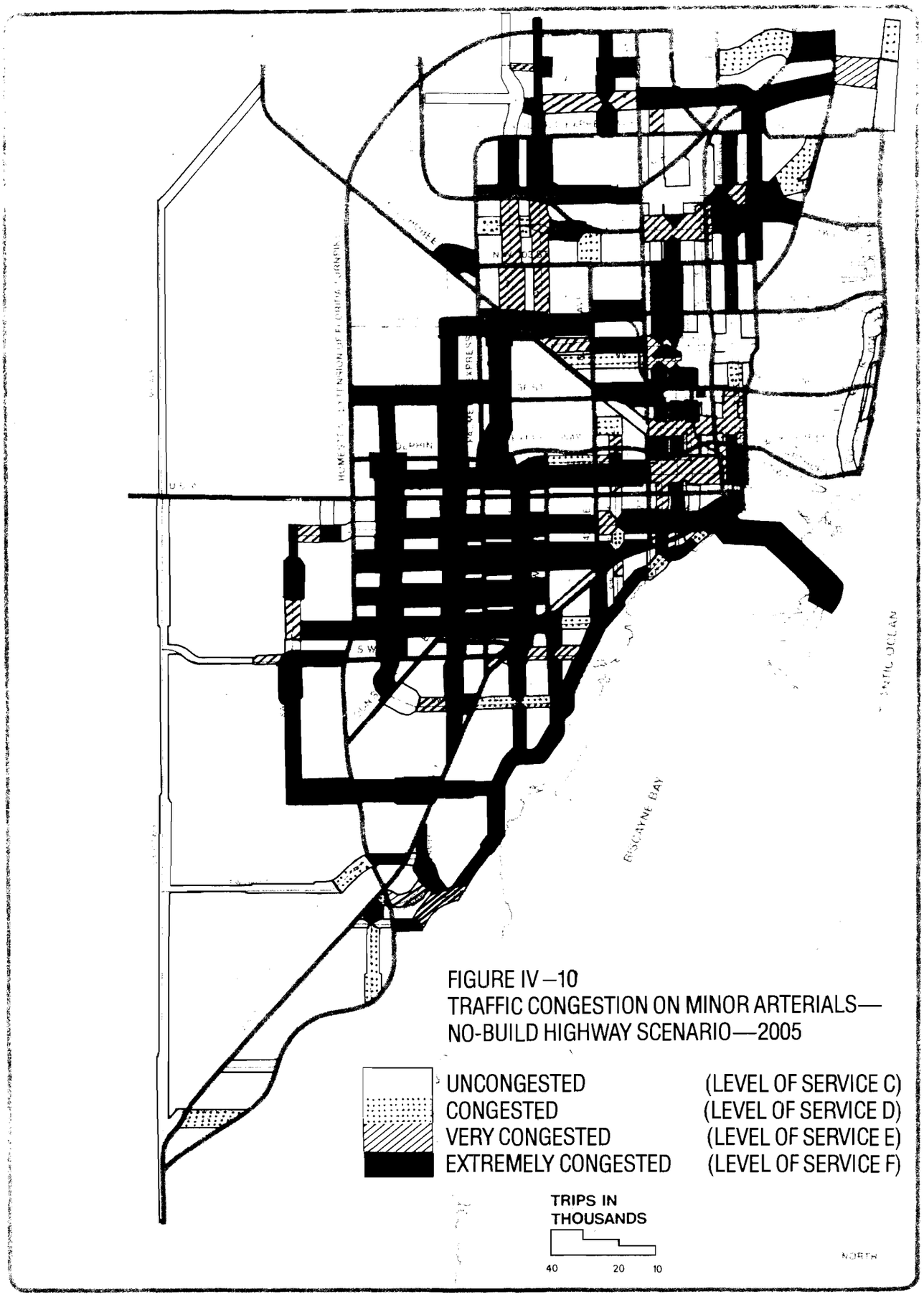


FIGURE IV–10
TRAFFIC CONGESTION ON MINOR ARTERIALS—
NO-BUILD HIGHWAY SCENARIO—2005

IV. LONG-RANGE ELEMENT

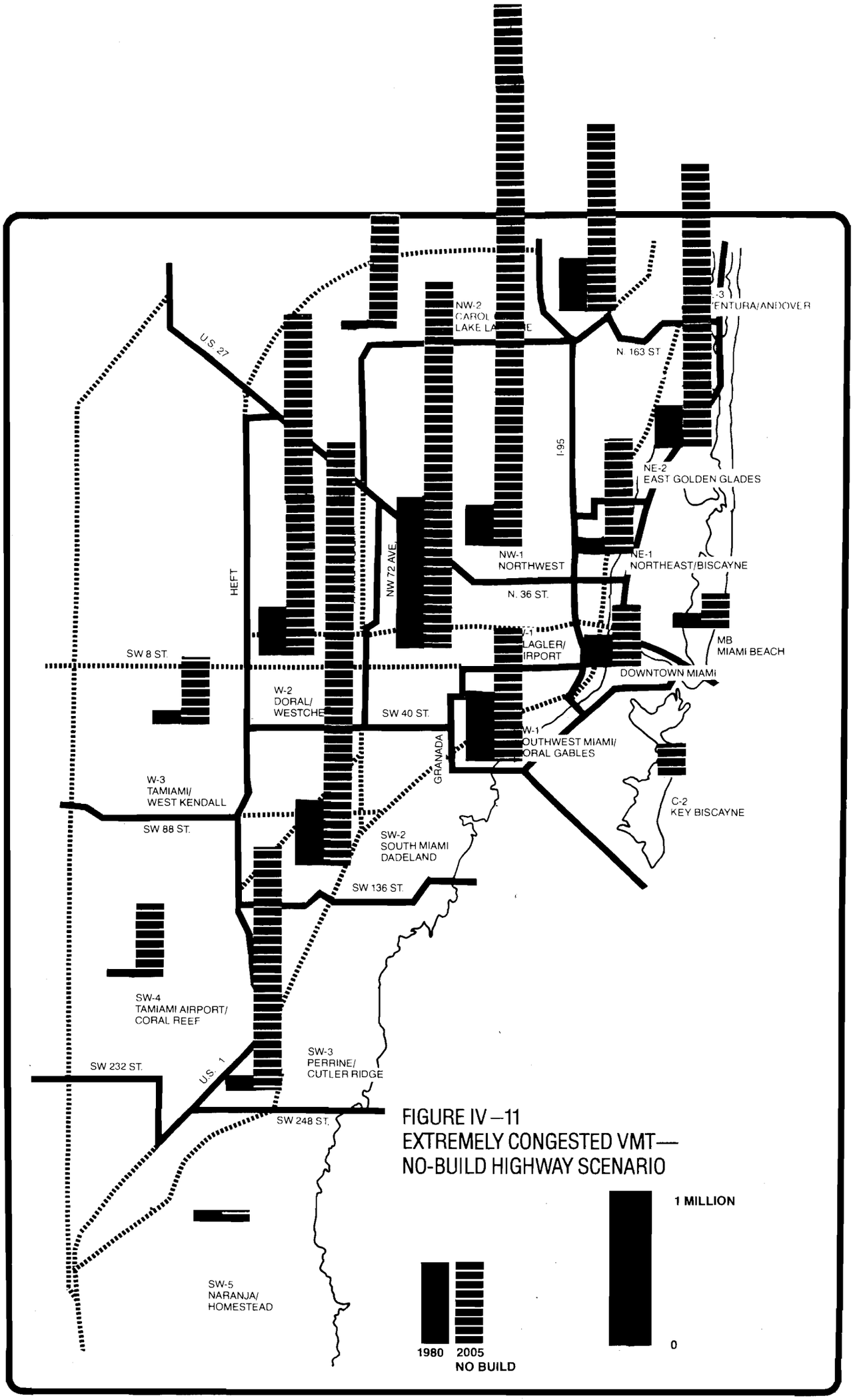


FIGURE IV–11
EXTREMELY CONGESTED VMT—
NO-BUILD HIGHWAY SCENARIO

IV. LONG-RANGE ELEMENT

THE BUILD SCENARIO

A set of recommended highway improvements were next identified to correct the most critical problems. While most of these improvements are included in the adopted Transportation Plan, some changes from the adopted Plan are identified that respond to the most recent information of traffic need.

The traffic implications in the Year 2005 of the highway improvements have been estimated to determine the degree of benefit that would result with the recommended programTable IV - 18 and Figure IV - 12 indicates reductions in the amount of traffic experiencing extreme congestion as a result of the highway improvements. As a result of the highway improvement program, the amount of VMT experiencing extremely congested conditions would fall by over 8 million per day.

VMT experiencing this level of congestion would be 60% of what it would be under the "No-Build" scenario. All areas are projected to benefit from the program, with extremely congested VMT reduced by 1.6 million in the Southwest Sector, 2.5 million in the West Sector, 2.9 million in the Northwest Sector, and one million in the Northeast. The benefits of the highway recommendations are clearly indicated by this analysis.

TABLE IV - 18
EXTREMELY CONGESTED VMT COMPARISON--
NO-BUILD VS BUILD HIGHWAY SCENARIOS

ANALYSIS AREA	VEHICLE-MILES-OF-TRAVEL (000)		
	NO-BUILD	BUILD	DIFF.
CENTRAL --			
Miami CBD	380	360	-20
Key Biscayne	260	0	-260
Total- Central	640	360	-280
SOUTHWEST SECTOR --			
S.W. Miami / Coral Gables	870	760	-110
South Miami / Dadeland	2,750	2,370	-380
Perrine / Cutler Ridge	1,520	760	-760
Tamiami Airport / Coral Reef	500	230	-270
Naranja / Homestead	60	10	-50
Total- Southeast	5,700	4,130	-1,570
WEST SECTOR --			
Flagler / Airport	2,280	1,760	-520
Doral / Westchester	2,180	560	-1,620
Tamiami / West Kendall	430	150	-280
Total- West	4,890	2,470	-2,420
NORTHWEST SECTOR --			
Northwest	3,610	1,260	-2,350
Coral City / Lake Lucerne	760	250	-510
Total- Northwest	4,370	1,510	-2,860
NORTHEAST SECTOR --			
N.E. Miami / Biscayne	780	770	-10
East Golden Glades	1,790	1,340	-450
Aventura / Andover	1,230	730	-500
Total- Northeast	3,800	2,840	-960
MIAMI BEACH --	200	70	-130
TOTAL	19,600	11,380	-8,220

SOURCE: Gannett Fleming

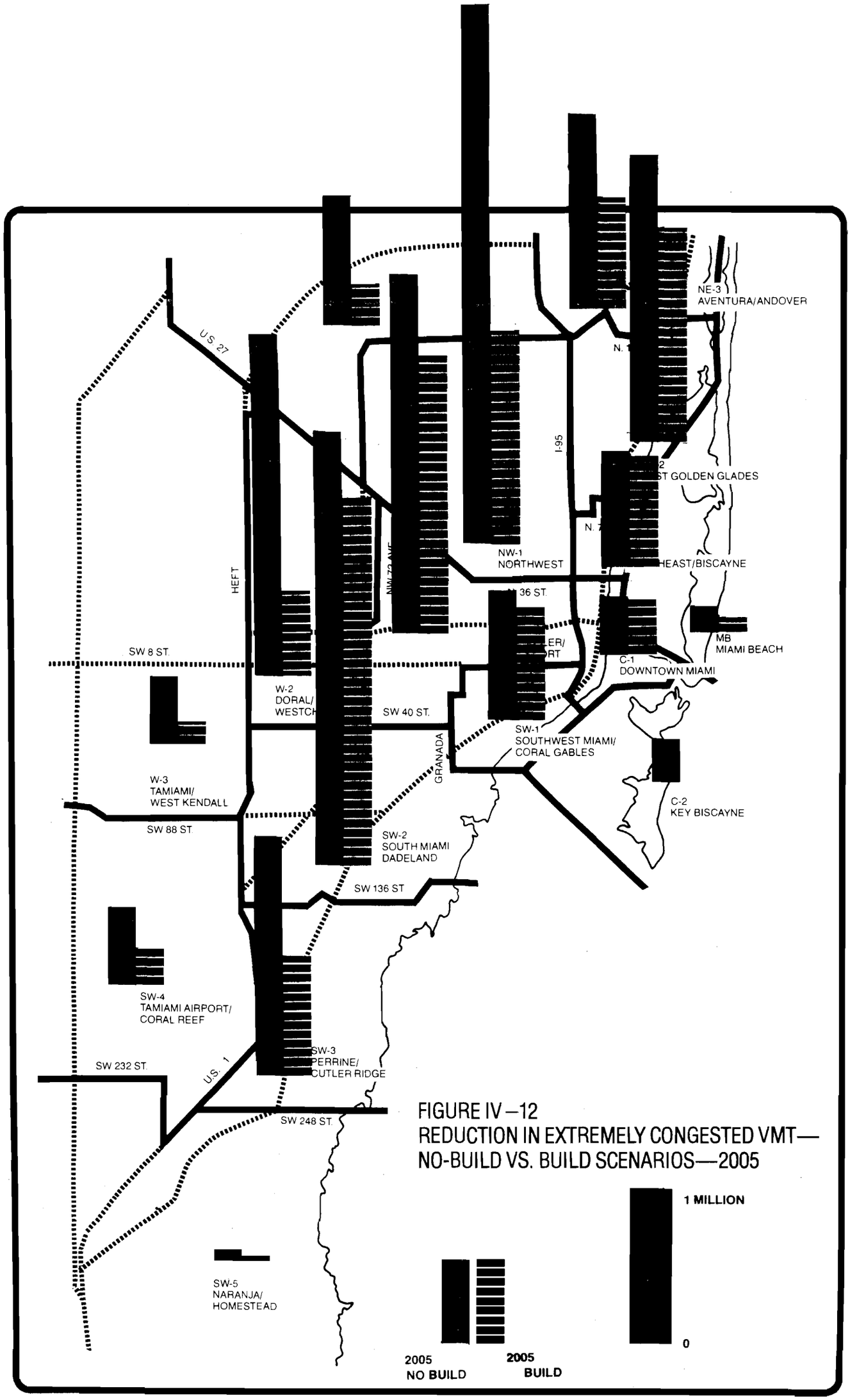


FIGURE IV–12
REDUCTION IN EXTREMELY CONGESTED VMT—
NO-BUILD VS. BUILD SCENARIOS—2005

IV. LONG-RANGE ELEMENT

RECOMMENDED HIGHWAY CAPACITY IMPROVEMENTS

Recommended highway capacity improvements, classified according to the number of resulting lanes, are shown in Figure IV - 13. Detailed information on traffic and changes in the number of lanes for each of the highway improvements is included in Appendix B.

HIGHWAY PHASING PLAN

The analysis of highway improvements not only concerned the long-range need for a project, but also the timing and staging of the project. This staging analysis involved an evaluation of traffic for projected for three target years: 1980, 1990, and 2005. Improvements primarily responding to existing and near-term traffic deficiencies have been assigned a higher priority than those projects responding to problems that do not exist at the present time but are forecast to occur in the longer-range future as growth occurs. Specific time-tables for many of the recommended improvements have not been established as yet. Because of the uncertainties of funding availability and time required to develop a detailed project, the time-frames set out for the various improvements listed in the Plan should be considered as guidelines. Recommended phasing for the highway capacity improvements are mapped in Figure IV - 14.

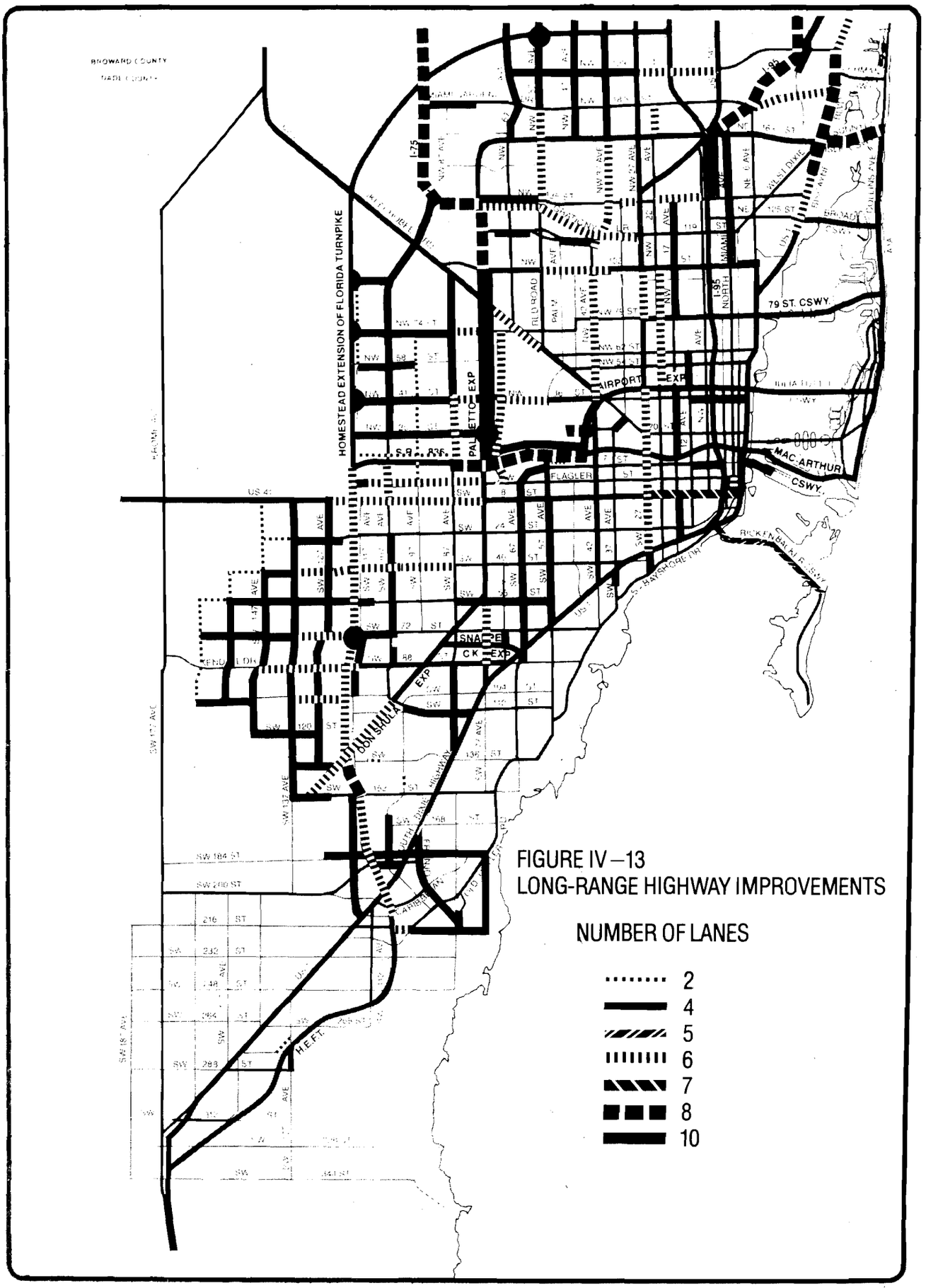
Improvements are classified into four priority categories:

- Priority 1-- Priority improvements to be constructed and opened to traffic by the Year 1990. Includes those projects needed to respond to existing traffic problems. Funds for most of these improvements are already programmed in the MPO's Transportation Improvement Program.

- Priority 2-- Improvements where project development efforts should commence in the next five years, with construction of the project projected to take place between the year 1990 and 1995. Includes projects required to respond to traffic problems projected for the Year 1990 and shortly thereafter.

- Priority 3-- Improvements to be made between the year 1995 and 2000. In many cases, project development activities would need to commence in the 1990 to 1995 time-frame due to the amount of lead time required to plan and implement a project. Includes projects responding to problems that will emerge after the year 1990.

- Priority 4-- Improvements to be made in the latter part of the plan horizon. Includes projects responding to long-range traffic needs.



IV. LONG-RANGE ELEMENT

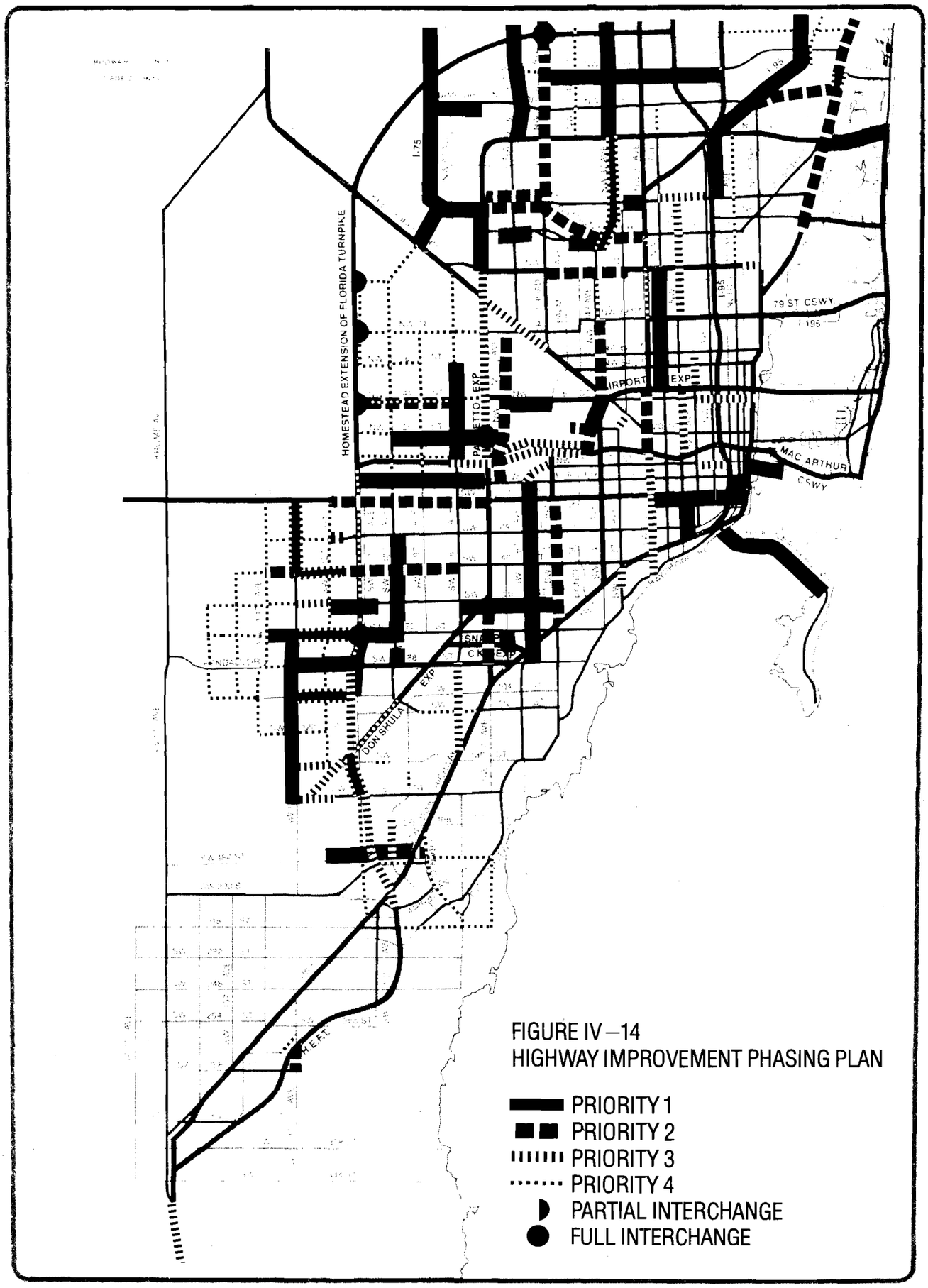


FIGURE IV–14
HIGHWAY IMPROVEMENT PHASING PLAN

IV. LONG-RANGE ELEMENT

HIGHWAY IMPROVEMENTS IN THE CENTRAL AREA

A number of important highway and transit improvements are recommended in the central area in recognition of its significance to the future economic vitality of the County. As described in the transit component and illustrated in Figure IV - 15, major transit improvements are planned that will provide significantly improved access to the downtown. Still, in order to provide adequate auto and truck access to activities in the downtown that depend on highway access such as the Port of Miami, several important highway improvements are recommended. These are:

Priority 1

- o Port Access-- A new bridge over Biscayne Bay serving the Port of Miami facilities at Dodge Island is a critical priority in view of existing access problems. In the longer-range, a tunnel to the Interstate system should be considered.

- o I-95 Bifurcation-- This priority project connects I-95 to the major developments planned in the DuPont Plaza area.

- o Miami Ave. Bridge-- Construction of a new bridge over the Miami River has already commenced allowing needed circulation within the downtown.

- o Rickenbacker Causeway-- Upgrading this Causeway to five lanes is a critical need in view of the magnitude of existing traffic problems.

- o SW 2 Avenue -- Replacement of the bridge over the Miami river to four lanes is needed to alleviate the existing bottleneck and avoid serious mechanical problems with the existing structure.

Priority 4

- Port Tunnel-- The long-range need for better access between the Port of Miami and the Interstate system is recognized. Therefore, a tunnel connecting the Port to the Dolphin Expressway is considered as a long-range improvement.

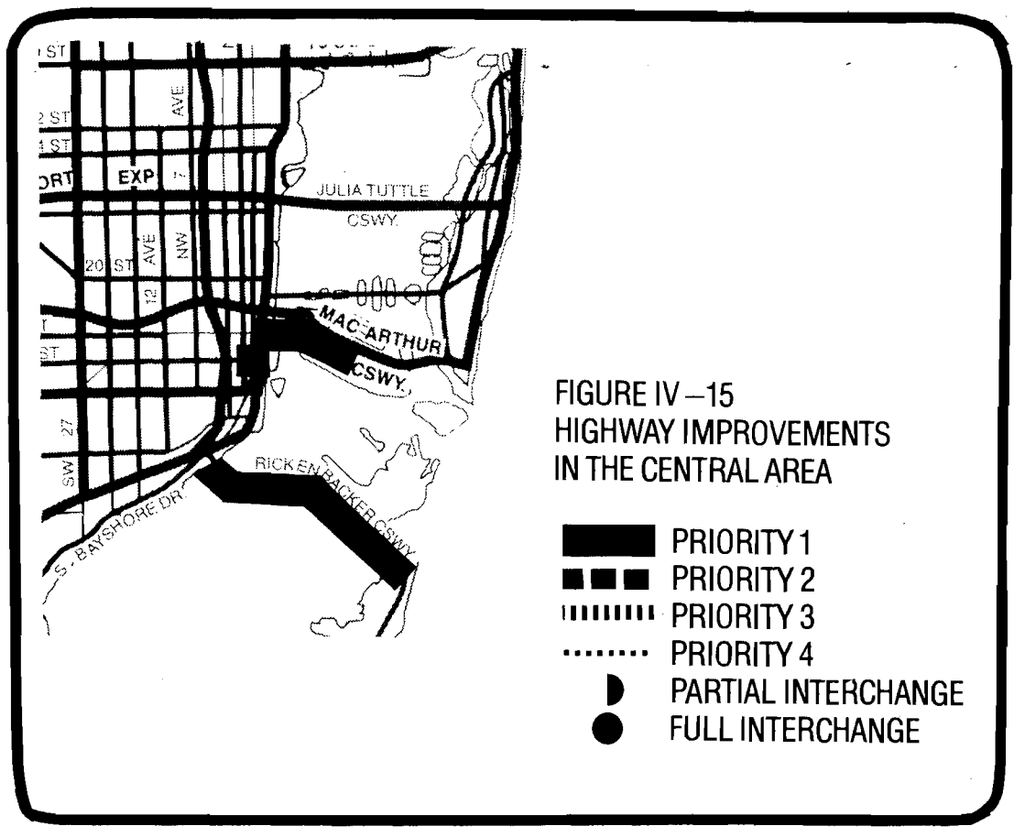


FIGURE IV–15
HIGHWAY IMPROVEMENTS
IN THE CENTRAL AREA

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

HIGHWAY IMPROVEMENTS

IMPROVEMENTS IN THE SOUTHWEST SECTOR

The introduction of the METRORAIL system to Dadeland, as well as a realignment of the METROBUS system to provide rail feeder and cross-town service, significantly improves transportation access and circulation in this sector. Extensions of METRORAIL into the Cutler Ridge area, in recognition of the dynamic growth taking place in this area, will further increase the attractiveness of transit. Generally, the improvements to the highway system in this sector are those required to provide access to METRORAIL and improve local circulation within the community. Improvements as shown in Figure IV - 16 are:

Priority 1

- HEFT-- Widening to six lanes of the section of the HEFT between SW 152 Street and the Don Shula Expressway is needed to accommodate higher traffic volumes than on other sections of the HEFT. In the long-run, this section will need to be widened to eight lanes.

- SW 17 Avenue-- Widening to four lanes of the two-lane section of SW 17 Avenue north of US 1 to correct existing traffic problems is a top priority.

- SW 56 Street-- East of the Palmetto Expressway, SW 56 Street currently carries up to 24,000 vehicles per day, making a widening to four lanes of the remaining two-lane segments a priority.

- SW 67 Avenue-- Four-laning of SW 67 Avenue north of SW 88 Street is needed to accommodate high traffic growth.

- SW 72 Avenue-- Improvement of SW 72 Avenue between SW 80 Street and SW 72 Street as a four-lane road is a priority in order to provide access to METRORAIL.

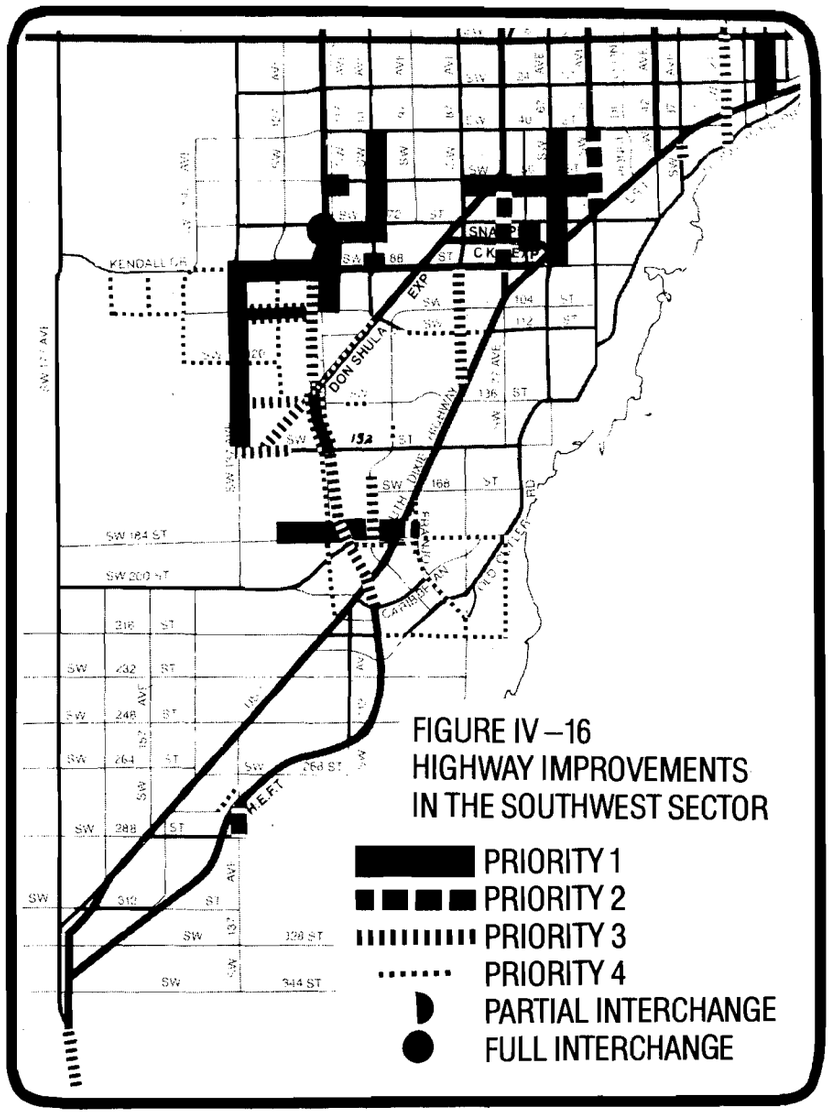


FIGURE IV-16
HIGHWAY IMPROVEMENTS
IN THE SOUTHWEST SECTOR

- SW 72 Street-- Widening of SW 72 Street between the HEFT and SW 107 Avenue from two to four lanes is a priority need to meet traffic demand exceeding 15,000 vehicles per day. More than a doubling of traffic is projected in the next twenty years.

- SW 88 Street-- Traffic problems caused by the more than 30,000 vehicles per day using SW 88 Street require that a priority be given to six-laning the section between SW 137 Avenue and SW 117 Avenue. A doubling of traffic volumes is projected in the next 20 years. Currently, a six-laning of the section east of SW 127 Avenue is programmed in the MPO's Transportation Improvement Program. Every effort should be made to accelerate the six-laning of the segment between SW 137 Avenue and SW 127 Avenue.

- SW 104 Street-- Widening to four lanes of SW 104 Street between SW 127 Avenue and SW 117 Avenue is a critical need in view of the dynamic growth in the surrounding area. In the long-range future, this highway segment will need to be further widened to six lanes.

- SW 107 Avenue-- Widening to four lanes for the two-lane portions of this road north of SW 88 Street is required to accommodate approximately 20,000 vehicles per day currently using this highway.

- SW 117 Avenue-- Widening to four lanes of the section of SW 117 Avenue between SW 104 Street and SW 72 Street is to be undertaken in conjunction with the proposed development in this area.

- SW 137 Avenue-- SW 137 Avenue between SW 88 Street and SW 152 Street is to be widened to four lanes to accommodate expected short-term traffic growth.

- SW 184 Street-- A project is currently under construction between SW 127 Avenue and US 1 involving the widening of SW 184 Street to four lanes and an extension to US 1 to provide continuity of this collector road.

Priority 2

- Palmetto Expressway-- Widening to six lanes of the Palmetto Expressway between SW 88th Street and SW 56 Street is needed to accommodate the more than 70,000 vehicles per day using this vital expressway.

- SW 57 Avenue-- Widening to four lanes of this important highway north of US 1 is needed to respond to projected traffic, thereby providing access to METRORAIL and satisfying growing north-south traffic demand.

- SW 137 Avenue-- The segment south of the HEFT to SW 288th Street near the Homestead Air Force Base is recommended to be widened to four lanes to accommodate existing and future traffic.

- SW 184 Street-- Widening to four lanes of the section of SW 184 Street east of US 1 to Franjo Road is recommended to provide for near-term growth.

Priority 3

- HEFT-- Traffic growth on the HEFT will require widening to six lanes for the sections between Cutler Ridge and SW 152 Street, and between the Don Shula Expressway and SW 88 St. A new interchange at SW 72 Street is required to provide access to the growth areas west of the HEFT.

- Don Shula Extension-- An extension of the Don Shula Expressway southwest of the HEFT to SW 152 Street as a six-lane arterial highway is needed to accommodate community growth.

- US 1-- While not needed to accommodate peak traffic demand, widening to four lanes of the two-lane section of US 1 south of Florida City to Monroe County should be considered to correct safety problems.

- SW 27 Avenue-- Widening of SW 27 Avenue to six lanes north of US1 and to four lanes south of US 1 is recommended to provide access to METRORAIL and to serve major north-south traffic movements.

- SW 37 Avenue-- Widening from the current two lanes to four lanes from US 1 to Grand Avenue is recommended to provide METRORAIL access.

- SW 87 Avenue-- A doubling of traffic on SW 87 Avenue in the next 20 years will require widening to four lanes of the section of SW 87 Avenue between US 1 and SW 88 Street.

- SW 107 Avenue-- Widening to four lanes of the two-lane section of SW 107 Avenue north of SW 184 Street is needed to accommodate existing and future traffic, expected to be more than doubled over current levels.

- SW 136 Street-- The need for a new four-lane road connecting the fast-growing area west of the HEFT to the Shula Extension is recognized.

- SW 152 Street-- Widening to four lanes of the two-lane section of SW 152 Street between SW 122 Avenue and SW 137 Avenue is needed in view of the significant projected traffic.

Priority 4

- HEFT-- Long-term traffic growth will require a widening to eight lanes of the HEFT in the section between the Don Shula Expressway and SW 152 Street and six lanes for the section of the HEFT north of SW 88 Street.

- Don Shula Expressway-- Due to projected growth in the area to the south and southwest of this expressway, there is long-range need to widen to six lanes the Don Shula Expressway between the HEFT and SW 112 Street.

- Quail Roost Road (SW 186 Street)-- Widening to four lanes of SW 186 Street east of the HEFT should be considered in the long-range future, although the widening of SW 184 Street currently under construction will forestall this need for some time.

- Franjo Road-- Franjo Road provides a major connection between the developing Old Cutler Road area and Perrine. It will also provide an important connection to the METRORAIL extension. Significant traffic growth will require a four-laning of this highway. A four-lane extension southeast of Old Cutler Road is also planned.

- SW 77 Avenue-- A new four-lane road between Old Cutler Road and SW 216 Street is a long-range need as development occurs in the Old Cutler Road area.

- SW 87 Avenue-- Widening to four lanes of the section of SW 87 Avenue south of Old Cutler Road to the extension of SW 216 Street is a long-range need in view of the major developments occurring in the Old Cutler Road area.

- SW 88 Street-- The section of SW 88 Street between SW 137 Avenue and SW 147 Avenue should be widened to six lanes in the long-range future to respond to growth.

- SW 102 Avenue-- The long-range need for a bridge over the canal north of SW 152 Street to allow traffic circulation is recognized.

- SW 104 Street-- An extension of SW 104 Street as a two-lane facility between SW 147 Avenue and SW 167 Avenue is a long-range need to accommodate growth in the future. In addition, the segment of SW 104 Street between SW 137 Avenue and SW 117 Avenue should be widened to six lanes.

- SW 112 Street-- In the long-range future, traffic growth will require a widening to four lanes of SW 112 Street west of US 1.

- SW 117 Avenue-- A new four-lane connection to eliminate the existing gap between SW 184 Street and SW 152 Street is a long-range need. Widening of SW 117 Avenue between US 1 and SW 184 Street should also be considered in view of the expected growth in the area.

- SW 120 Street-- Widening of this roadway to four lanes between 127 Avenue and 137 Avenue is a long-range need to respond to future growth.

- SW 127 Avenue-- A new four-lane road between SW 88 Street and the proposed SW 136 Street is recognized as a long-range need.

- SW 136 Street-- Bridging the canal east of SW 117 Avenue is a long-range need to provide continuity to SW 117 Avenue.

- SW 147 Avenue-- A four-lane extension of SW 147 Avenue from SW 88 Street to SW 104 Street is recommended. In addition, the section of SW 147 Avenue between SW 104 Street and SW 120 Street should be widened to four lanes

- SW 157 Avenue-- A new four-lane road between SW 88 Street and SW 104 Street serving this growth area will be needed in the long-range future.

- SW 167 Avenue-- As this outlying area is developed, a new two-lane road between SW 88 Street and SW 104 Street will be needed.

- SW 184 Street-- There appears to be a long-range need to widen SW 184 Street between Franjo Road and Old Cutler Road to provide access to the developing Old Cutler Road area. This accessibility need will primarily be met by improvements on Franjo Road and SW 216 Street with the SW 184 Street widening project providing a small amount of traffic relief.

- SW 216 Street-- Widening to six lanes of SW 216 Street east of the HEFT and a four-lane extension east of Old Cutler Road to SW 77 Avenue Extension is a long- range need in view of the significant residential growth expected in the Old Cutler Road area.

- SW 280 Street-- The existing four-lane segment of SW 280 Street should be extended as a two-lane road to SW 137 Avenue in the long-range future.

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

HIGHWAY IMPROVEMENTS

IMPROVEMENTS IN THE WEST SECTOR

Proposed highway improvements in the West Sector are depicted in Figure IV - 17.

Priority 1

- Flagler Street-- Widening of the two-lane Flagler Street to six lanes between the Palmetto Expressway and West 116 Avenue to four lanes west to the HEFT is currently programmed to respond to the dynamic traffic growth experienced in the Sweetwater area.

- NW 25 Street-- A new interchange with the Palmetto Expressway and a four-laning of NW 25 Street between the NW 107 Avenue and NW 72 Avenue is recognized as a priority treatment to improve access to the industrial area in the west portion of the Airport as well as relieve traffic problems on NW 36 Street and NW 72 Avenue.

- NW 36 Street-- This four-lane roadway between NW 72 Avenue and NW 57 Avenue is one of the most congested in the County with nearly 50,000 vehicles using it per day. Widening of this section to six lanes is therefore a crucial need.

- NW 42 Avenue-- Construction of a new four-lane expressway connector between the Airport and the Airport Expressway is recognized as a priority in view of the significance of the airport to the economy of the County.

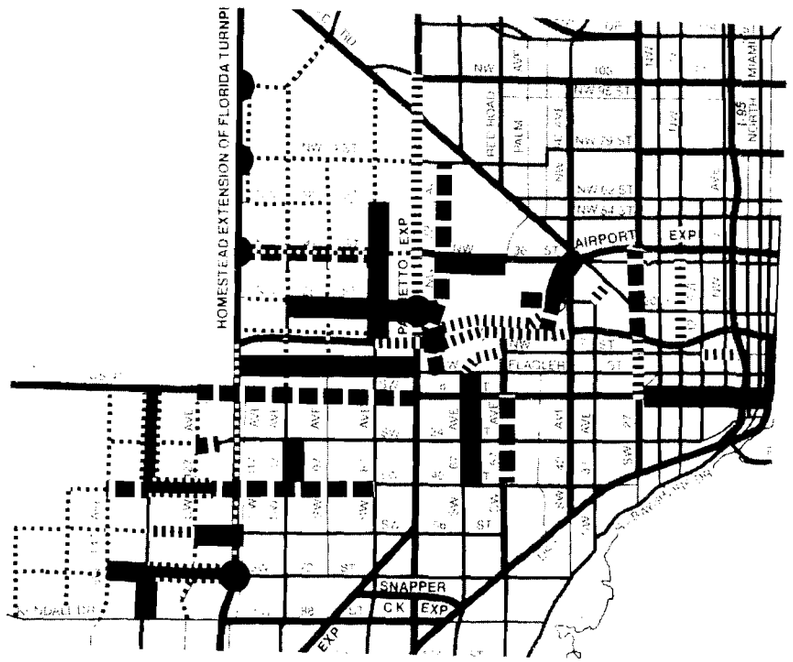


FIGURE IV–17
HIGHWAY IMPROVEMENTS
IN THE WEST SECTOR

- SW 42 Street-- Widening to four lanes of SW 42 Street between SW 137 Avenue and SW 122 Avenue is a high priority to respond to the high amount of traffic using this highway segment. Six-laning of this section will be later needed.

- SW 56 Street-- Widening of SW 56 Street and an extension under the HEFT west to SW 127 Avenue is required to serve the developing area west of the HEFT. Widening to four lanes for the sections west of SW 127 Avenue is designated as a Priority 3 and 4.

- SW 67 Avenue-- Widening to four lanes of the two-lane roadway south of Flagler Street is programmed for construction in view of the nearly 15,000 vehicles per day using this north-south road, as well as the significant traffic growth expected in the future.

- NW 72 Avenue-- A six-lane extension of NW 72 Avenue from NW 12 Street to NW 7 Street overpassing the Dolphin Expressway is presently programmed.

- SW 72 Street-- Currently, the four-laning is programmed between 107 Avenue and 127 Avenue. However, every effort should be attempted to extend the program to 137 Avenue.

- NW 87 Avenue-- Widening of the section of NW 87 Avenue from the Dolphin Expressway north to NW 58 Street is currently programmed to respond to high traffic growth rates resulting from dynamic growth in this quadrant.

- SW 107 Avenue-- A four-lane widening project on SW 107 Avenue south of SW 24 Street is a priority in view of the high traffic growth projected on SW 107 Avenue.

- SW 137 Avenue-- A priority needs to be given to constructing a two-lane SW 137 Avenue north of SW 24 Street to SW 8 Street. In the long run, this road will need to be four laned.

Priority 2

- Airport Road-- The access highway connecting to the airport terminal is to be widened in accordance with the airport expansion plans.

- SW 8 Street-- Widening to six lanes of the section of SW 8 Street between SW 127 Avenue and the Palmetto Expressway is a priority in view of the more than 30,000 vehicles per day using the highway. Connections to the westside transit project should be insured.

- SW 24 Street-- Widening to four lanes of SW 24 Street between SW 127 Avenue and SW 122 Avenue is a high priority in light of the high traffic growth expected in the near future.

- NW 27 Avenue-- Traffic conditions on NW 27 Avenue between the Dolphin Expressway and the Airport Expressway are nearing break-down conditions. A widening to six lanes of this section is needed to serve the many jobs in the area as well as to provide access to transit improvements in the west corridor.

- SW 40 Street-- Completion of the widening to six lanes of SW 40 Street east of the HEFT from SW 87 Avenue is an important need to respond to approximately 28,000 vehicles per day using the highway.

- NW 41 Street-- An extension of NW 41 Street and a new interchange with the HEFT is a priority to respond to the growth taking place in this area.

- SW 42 Street-- A six-laning of the section of SW 42 Street between SW 137 Avenue and the HEFT is required to handle the more than 39,000 vehicles expected to use this highway. In addition, SW 42 Street should be extended as a four-lane road between SW 147 Avenue and SW 137 Avenue.

- NW 42 Avenue-- An extension of the new roadway connecting the Airport Expressway south of the Airport to the Dolphin Expressway is important to meeting critical accessibility requirements of the Airport. Connections to the westside transit facility should be designed into this project.

- SW 57 Avenue-- Continuation of the widening project to four lanes described in the Southwest Sector south of SW 8 Street is a priority to respond to growth in north-south traffic.

- NW 72 Avenue-- Widening to six lanes on NW 72 Avenue between Flagler Street Street and NW 74 Street is needed in view of the expanding industrial base served by this highway.

Priority 3

- Dolphin Expressway-- Widening to eight lanes of the Dolphin Expressway (S.R. 836) between NW 87 Avenue and NW 42 Avenue along the Airport should be considered. However, the exact nature of this project and its relationship to a rapid transit project in the west corridor should be further evaluated.

- Perimeter Road-- Widening Perimeter Road to four lanes is part of the airport expansion program.

- Palmetto Expressway-- It will be necessary to widen the Palmetto Expressway between the Dolphin Expressway and NW 103 Street to ten lanes to prevent breakdown conditions on this important travel artery. The exact nature of this improvement needs to further studied.

- Tamiami Canal Road-- Widening this two-lane road to four lanes between NW 67 Avenue and NW 57 Avenue to provide traffic continuity is required.

- NW 7 Street-- Widening to four lanes of the two-lane section of NW 7 Street between I-95 and NW 12 Avenue is needed in view of the high traffic volumes on this road. The project, however, should be planned to harmonize with the westside transit improvement.

- NW 17 Avenue-- High traffic volumes and congestion on the section of NW 17 Avenue between the Dolphin and the Airport Expressways indicate a need for a widening project to four lanes.

- NW 27 Avenue-- Widening to six lanes of the four-lane NW 27 Avenue south of the Dolphin Expressway to SW 8 Street is needed to accommodate the more than 30,000 vehicles using this important north-south roadway. This project would also provide improved access to METRORAIL.

- NW 32 Avenue-- A new four-lane bridge and roadway connecting NW 20 Street and NW 32 Avenue is recommended as a Priority 3 to connect the airport industrial area to activities in the rest of the northwest sector.

- SW 56 Street-- Urban development in this area will result in traffic volumes requiring a four-laning of the section of SW 56 Street between SW 137 Avenue and SW 127 Avenue.

- SW 72 Street-- The section of SW 72 Street between the HEFT and SW 137 Avenue should be widened to six lanes. In addition, an interchange with the HEFT should be added.

Priority 4

- HEFT-- Widening the HEFT south of the Dolphin Expressway to six lanes is required in the long-range future.

- NW 12 Street-- Extending NW 12 Street from NW 87 Avenue west to NW 117 Avenue is a long-range need.

- SW 24 Street-- Widening to four lanes the section of SW 24 Street between SW 147 Avenue and SW 127 Avenue is contemplated by the Year 2005.

- NW 25 Street-- The section of NW 25 Street between NW 107 Avenue and NW 117 Avenue will need to be widened to four lanes as development occurs in this area.

- NW 41 Street-- Widening to four lanes the section of NW 41 Street east of the HEFT to four lanes to NW 87 Avenue and to six lanes for the section between NW 87 Avenue and the Palmetto Expressway is recognized as a long-range improvement in this developing area.

- SW 42 Street-- Extending SW 42 Street from SW 157 Avenue to SW 147 Avenue is a long-range need.

- SW 56 Street-- Four-laning of the section of SW 56 Street between SW 137 Avenue and SW 167 Avenue is a long-range need as development occurs in the area.

- NW 58 Street-- As development occurs, NW 58 Street between NW 117 Avenue and 97 Avenue needs to be widened to four lanes.

- NW 87 Avenue-- In the long-range, an extension of a four-lane road on NW 87 Avenue north of NW 58 Street to US 27 will be required.

- NW 97 Avenue-- The need for an extension of NW 97 Avenue as a two- lane road to NW 74 Street is recognized as a long-range need as this area develops.

- NW 106 Street-- A possible four-lane connection to the HEFT in the vicinity of NW 106 Street with a new interchange to the HEFT is considered a long-range project.

- NW 107 Avenue-- Widening to six lanes of the section of NW 107 Avenue south of the Dolphin Expressway is a long-range need in view of the high growth rate experience in this part of the County. Construction of a four-lane road north of the Dolphin Expressway to US 27 is also recognized as a long-range need to respond to future growth.

- NW 117 Avenue-- An extension of NW 117 Avenue north from NW 58 Street to NW 106 Street as a two-lane roadway is a long-range target.

- SW 127 Avenue-- As this area develops, SW 127 Avenue between SW 8 Street and SW 88 Street will need to be widened to four lanes.

- SW 137 Avenue-- Four-laning of SW 137 Avenue north of SW 24 Street to SW 8 Street is a long-range need.

- SW 147 Avenue-- SW 147 Avenue will need to be four-laned between SW 88 Street and SW 42 Street. A two-lane extension of SW 147 Avenue to SW 8 Street is also planned.

- SW 157 Avenue-- As the area develops, a two-lane road between SW 42 Street and SW 56 Street and a four-lane road between SW 56 Street and SW 88 Street is planned.

- SW 167 Avenue-- A two-lane road between SW 88 Street and SW 56 Street is proposed to respond to development.

HIGHWAY IMPROVEMENTS

IMPROVEMENTS IN THE NORTHWEST SECTOR

All major highway improvements are shown in Figure IV - 18 and are described below:

Priority 1

- I-75-- Construction of I-75 from Broward County to the Palmetto Expressway is currently underway.
- Palmetto Expressway-- Widening to eight lanes of the section of the Palmetto Expressway between I-75 and NW 103 Street is needed to accommodate traffic coming into the metropolitan area on I-75.
- NW 22 Avenue-- Use of the parking lane on NW 22 Avenue between NW 103 and the Airport Expressway for peak-traffic requirements should be considered.
- NW 37 Avenue-- Construction of a four-lane highway between the Palmetto Expressway and Broward County is a priority need.
- NW 37/42 Avenue-- Construction of a new four-lane connection between NW 42 Avenue at NW 115 Street on the south to NW 37 Street at and the Palmetto Expressway on the north is needed to meet the projected 24,000 vehicles per day by 1990 and nearly 30,000 vehicles per day by the Year 2005. Long-range plans call for this road to be widened to six lanes.
- NW 67 Avenue-- Widening to four lanes of NW 67 Avenue between the Palmetto expressway and Broward County is included in the MPO's Transportation Improvement Program.
- NW 97 Avenue-- A priority connection from I-75 to US 27 is recommended to adequately distribute inter-county traffic to various county destinations.

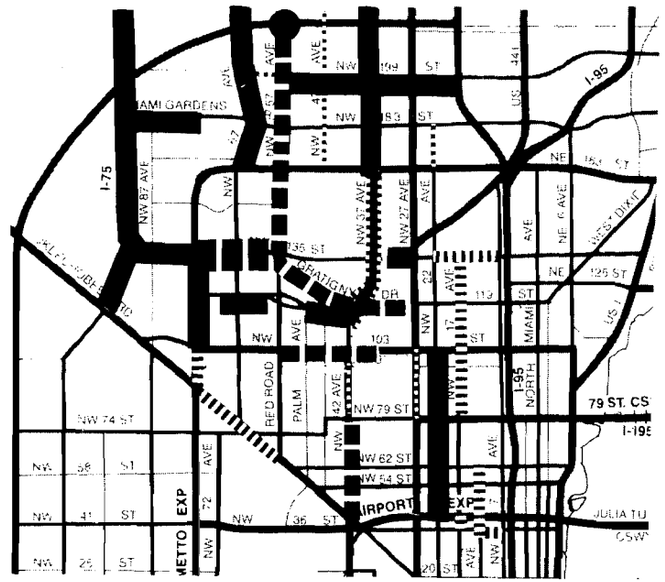


FIGURE IV–18
HIGHWAY IMPROVEMENTS
IN THE NORTHWEST SECTOR

PRIORITY 1
PRIORITY 2
PRIORITY 3
PRIORITY 4
PARTIAL INTERCHANGE
FULL INTERCHANGE

- NW 119 Street-- Widening to four lanes of the section of NW 119 Street between NW 72 Avenue and NW 42 Avenue is programmed.

- NW 135 Street-- An extension of the the one-way pair on NW 135 Street west of NW 27 Avenue to NW 32 Avenue is recognized as a priority to correct traffic operational problems.

- NW 183 Street-- A four-lane westward extension of NW 183 Street to provide distribution of traffic from I-75 to destinations north of the Palmetto Expressway is considered a priority. Also included is a widening to four lanes of the two-lane section between NW 87 Avenue and NW 77 Avenue to achieve continuity of this important east-west highway.

- NW 199 Street-- Construction of the missing segments on NW 199 Street is required to provide continuous traffic service in this developing area.

Priority 2

- Gratigny Parkway-- Contruction of this important cross-county connection is recognized as a priority in view of the major congestion on roads in this area and the need to redistribute traffic to and from the Interstate System.

- NW 42 Avenue-- Widening to six lanes of the four-lane section of NW 42 Avenue between the Airport Expressway and NW 79 Street is required to handle more than 27,000 vehicles per day using this road.

- NW 57 Avenue-- Widening to six lanes of the portion of NW 57 Avenue north of NW 138 Street to NW 183 Street is required to accommodate the more than 24,000 vehicles using this road on an average weekday. A doubling of traffic volumes is projected in the next 20 years. A widening to four lanes on NW 57 Avenue north of NW 183 Street is also proposed to tie into a major project in Broward County.

- NW 103 Street-- Over 30,000 vehicles per day use this cross-town highway, creating a need to complete six-laning of the remaining gap between NW 57th Avenue and NW 37 Ave.

- NW 138 Street-- Four-laning of the portion of NW 138 Street between the Palmetto Expressway and NW 57 Avenue is recognized as necessary to provide adequate access to this area.

Priority 3

- Palmetto Expressway-- Widening to ten lanes of the Palmetto Expressway between of NW 103 Street and the Dolphin Expressway is proposed. The exact nature of the improvement is to be determined.

- US 27-- In the long-range, widening of US 27 between the Palmetto Expressway and NW 57 Avenue is an apparent need to accommodate the 50% traffic increase.

- NW 12 Avenue-- Widening to four lanes of the two-lane section of NW 12 Avenue south of NW 62 Street is needed in view of the projected tripling in traffic in the next 20 years.

- NW 17 Avenue-- Traffic growth on this road will necessitate widening this road to four lanes north of NW 79 Street to NW 135 Street.

- NW 36 Street-- Widening to four lanes of the two-lane section of NW 36 Street east of NW 12 Avenue is required to meet eastward traffic needs that cannot be handled by the Airport Expressway.

- NW 135 Street-- Widening to three lanes each of the section of NW 135 Street east of NW 22 Avenue is required in view of the projected traffic growth to about 30,000 vehicles per day.

Priority 4

- NW 22 Avenue-- The section of NW 22 Avenue north of the Palmetto Expressway to NW 183 Street will eventually need to be widened to six lanes to accommodate traffic growth.

- NW 27 Avenue-- Widening to six lanes of the four-lane section of NW 27 Avenue north of NW 79 Street to NW 103 Steet is recognized as a long-range need to provide for high north-south traffic levels, provided that it is found to be consistent with a northward extension of METRORAIL.

- NW 37/42 Avenue-- In the long-range future, this new connection will need to be widened to six lanes.

- NW 42 Avenue-- Widening to six lanes of the section of NW 42 Avenue north of NW 79 Street is a long-range need in view of the nearly doubling of traffic expected in the next 20 years.

- NW 47 Avenue-- A widening to four lanes of the section of NW 47 Avenue north of the Palmetto Expressway to Broward County will be necessary to handle the nearly doubling of traffic.

- NW 199 Street-- Widening to four lanes the remaining two-lane section of NW 199 Street between NW 67 Avenue and NW 57 Avenue is a long-range need.

HIGHWAY IMPROVEMENTS

IMPROVEMENTS IN THE NORTHEAST SECTOR

Highway improvements in the Northeast Sector are illustrated in Figure IV - 19.

Priority 1

- I-95-- Completion of the HOV lane project by adding two additional lanes north of NW 135 Street into Broward County is recognized as a priority project to respond to the more than 145,000 vehicles using I-95. At the southern terminus, construction of a HOV flyover and parking garages to connect into METRORAIL is a priority to provide a logical transfer facility from the HOV lanes.

- Biscayne Boulevard-- An interim six-lane improvement between NW 183 Street and NW 192 Street is under construction.

- NW 199 Street-- Completion of the missing segment on NW 199 Street is a priority need.

Priority 2

- Biscayne Boulevard-- Widening of Biscayne Blvd. to six lanes south of NW 151 Street to NW 125 Street is considered a priority need in view of the more than 32,000 vehicles using this highway every day. Between NW 151 Street and NW 203 Street, an eight-lane section is planned. Six lanes is needed north of NW 203 Street to Broward County.

- NW 36 Street-- Widening this two-lane roadway to four lanes from NW 12 Avenue to US 1 is needed to accommodate cross-town traffic.

- NW 183 Street-- Traffic volumes on NW 183 Street exceeding 30,000 vehicles per day require widening to six lanes for the section of NW 183 Street east of I-95 to Biscayne Blvd.

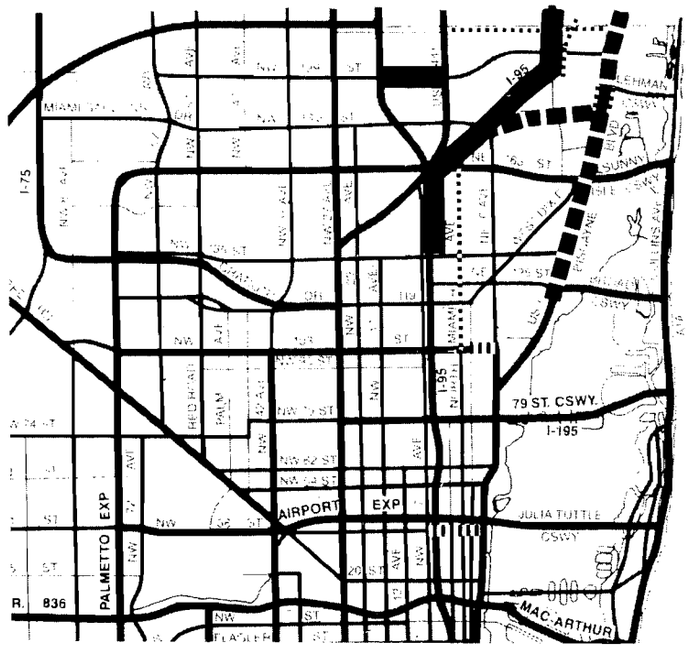


FIGURE IV–19
HIGHWAY IMPROVEMENTS
IN THE NORTHEAST SECTOR

PRIORITY 1
PRIORITY 2
PRIORITY 3
PRIORITY 4
PARTIAL INTERCHANGE
FULL INTERCHANGE

Priority 3

- NW 36 Street-- The section of NW 36 Street east of Biscayne Blvd. will need to be widened to four lanes.

- NW 103 Street-- The two-lane section of NW 103 Street east of NE 2 Avenue to NE 6 Avenue needs to be widened four-lanes to provide east-west continuity.

Priority 4

- Miami Avenue-- Widening to four lanes the section of Miami Avenue north of North 103 Street to North 163 Street is required to respond to the more than doubling in traffic demand.

- NE 18 Avenue-- In the long-range future, a widening to four lanes of the section of NE 18 Avenue to Broward County from Country Club Lane is proposed.

- N. 215 Street-- A four-lane extension of NW 215 Street east of US 441 West Dixie Highway is a long-range need.

HIGHWAY IMPROVEMENTS

IMPROVEMENTS ON MIAMI BEACH

The only major capacity improvement recommended on Miami Beach is the widening of the NE 163rd Street Causeway (Sunny Isles Causeway). This priority project, classified as a Priority 1 improvement, involves the development of an eight lane causeway and approached between Biscayne Boulevard and Highway A1A on the Beach. While some traffic relief is being provided by the opening of the 192nd Causeway (Lehman Causeway), traffic levels on the 163rd Causeway are projected to increase above today's levels, necessitating the construction of an eight-lane causeway. (See Figure IV - 20)

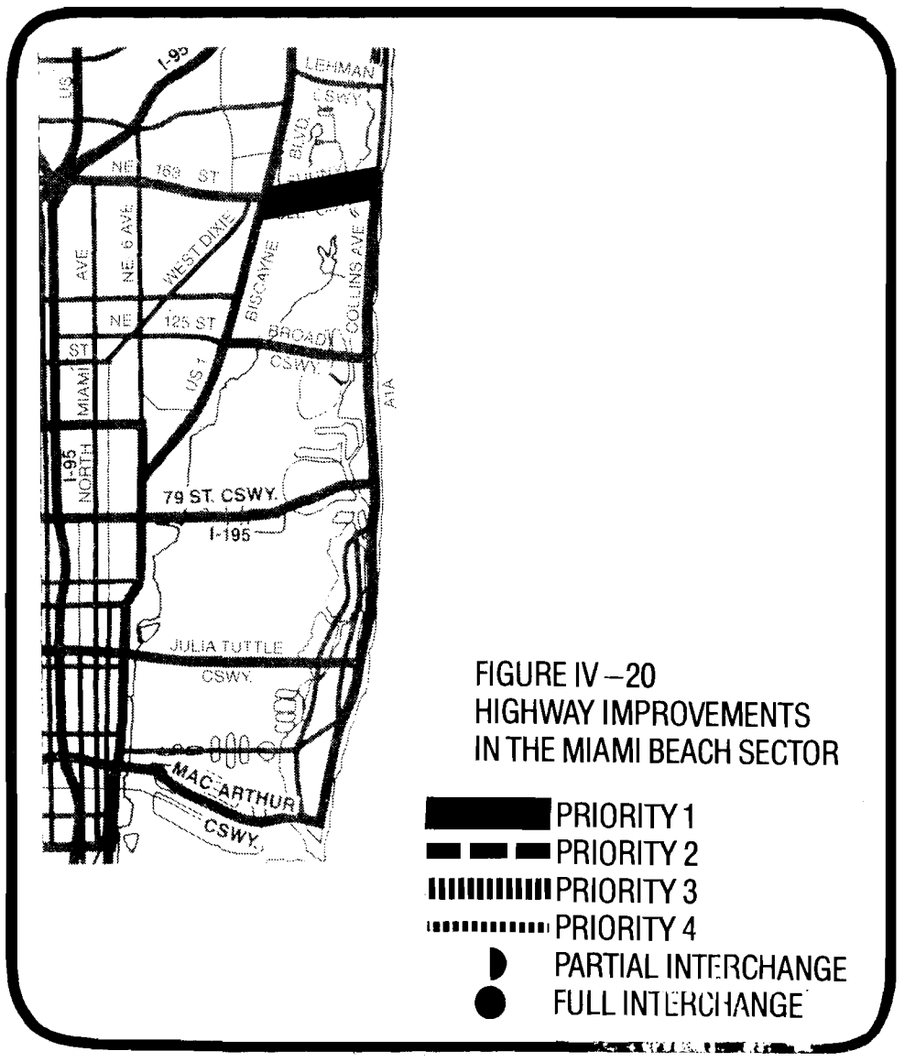


FIGURE IV–20
HIGHWAY IMPROVEMENTS
IN THE MIAMI BEACH SECTOR

LONG-RANGE HIGHWAY PLAN

HIGHWAY PLAN MAP

Figure IV - 21 indicates the number of resulting traffic lanes for the year 2005. This map, known as the "Long-Range Plan Map", represents the 20-year "target" system for highways in the metropolitan area.

HIGHWAY FUNCTIONAL CLASSIFICATION

Figure IV - 22 presents future-year functional classification for the planned highway system. As described in the Needs Element, the functional classification of each highway in the system indicates the role of the highway in meeting mobility needs and serving land uses. The functional classification of most highways is not projected to change through time. However, in some cases where significant growth and community change is planned, changes in the highway functions are indicated.

FUTURE USE AND CONGESTION LEVELS

Figures IV - 23 and IV - 24 show projected traffic and congestion levels on the planned highway system. As with the 1980 traffic information shown in the Needs Element, traffic volumes have been scaled to the amount of traffic projected to use each highway segment and traffic conditions have been categorized according to the four congestion categories. Specific information for each highway segment is detailed in Appendix B.

In a number of important corridors, at least a level-of-service "D" is projected. However, the level of traffic service in several important corridors is projected to be below this level, indicating the need to continue efforts to develop transit solutions that will be even more attractive to peak-hour trips. Even cases where extremely congested conditions persist, the need for a viable transit alternative to insure personal mobility in the corridor is emphasized.

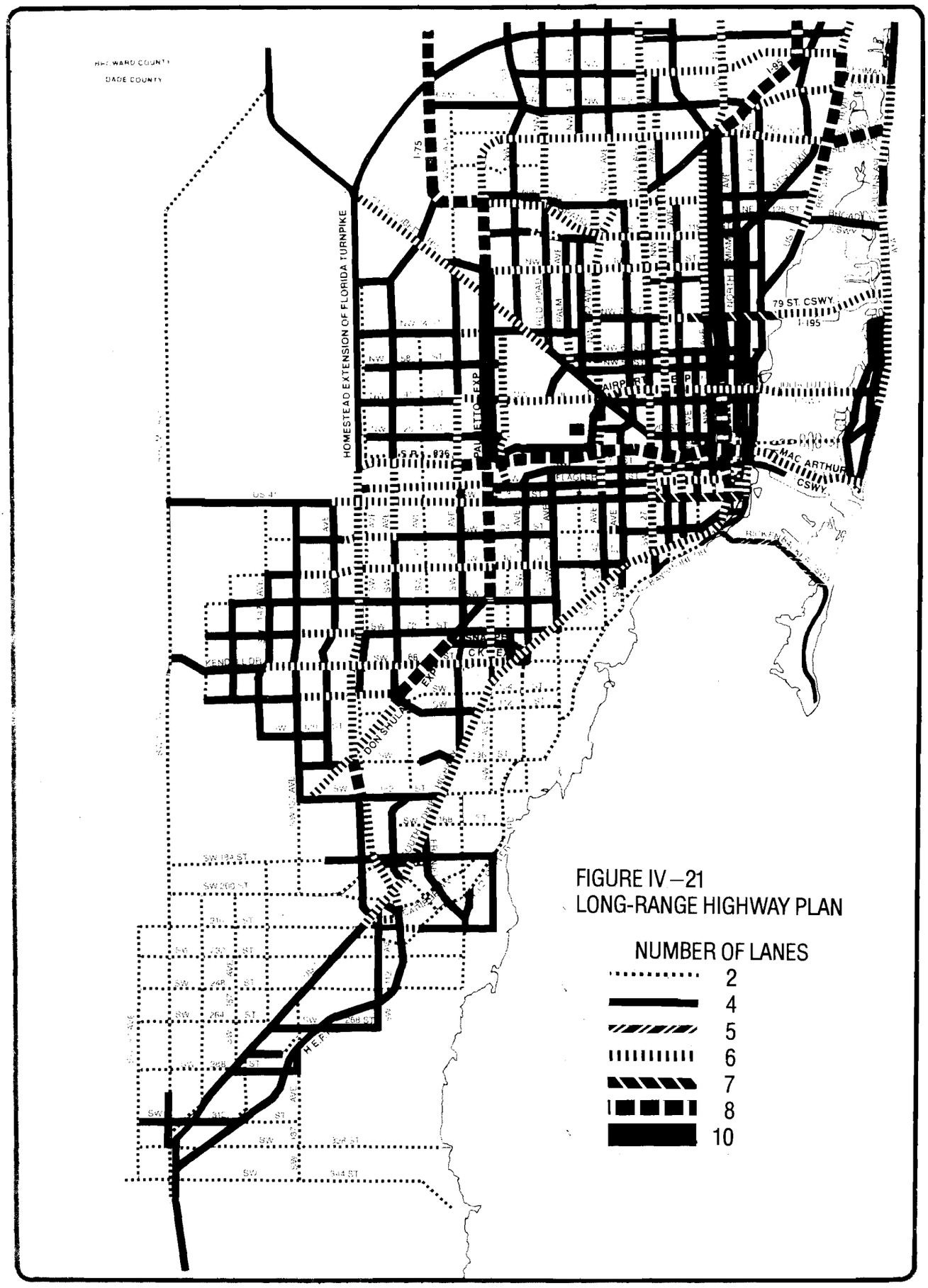


FIGURE IV–21
LONG-RANGE HIGHWAY PLAN

IV. LONG-RANGE ELEMENT

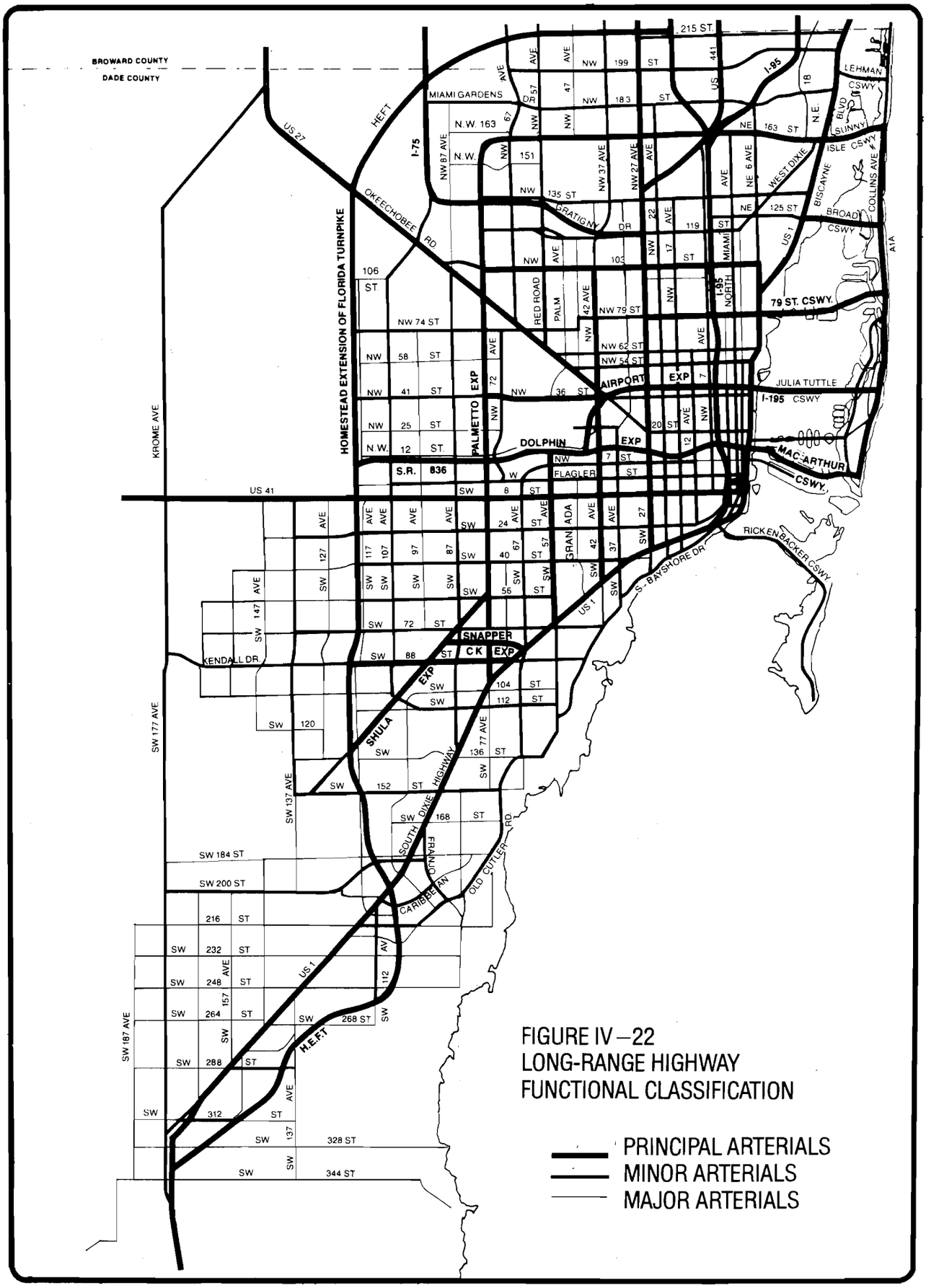


FIGURE IV–22
LONG-RANGE HIGHWAY
FUNCTIONAL CLASSIFICATION

PRINCIPAL ARTERIALS
MINOR ARTERIALS
MAJOR ARTERIALS

IV. LONG-RANGE ELEMENT

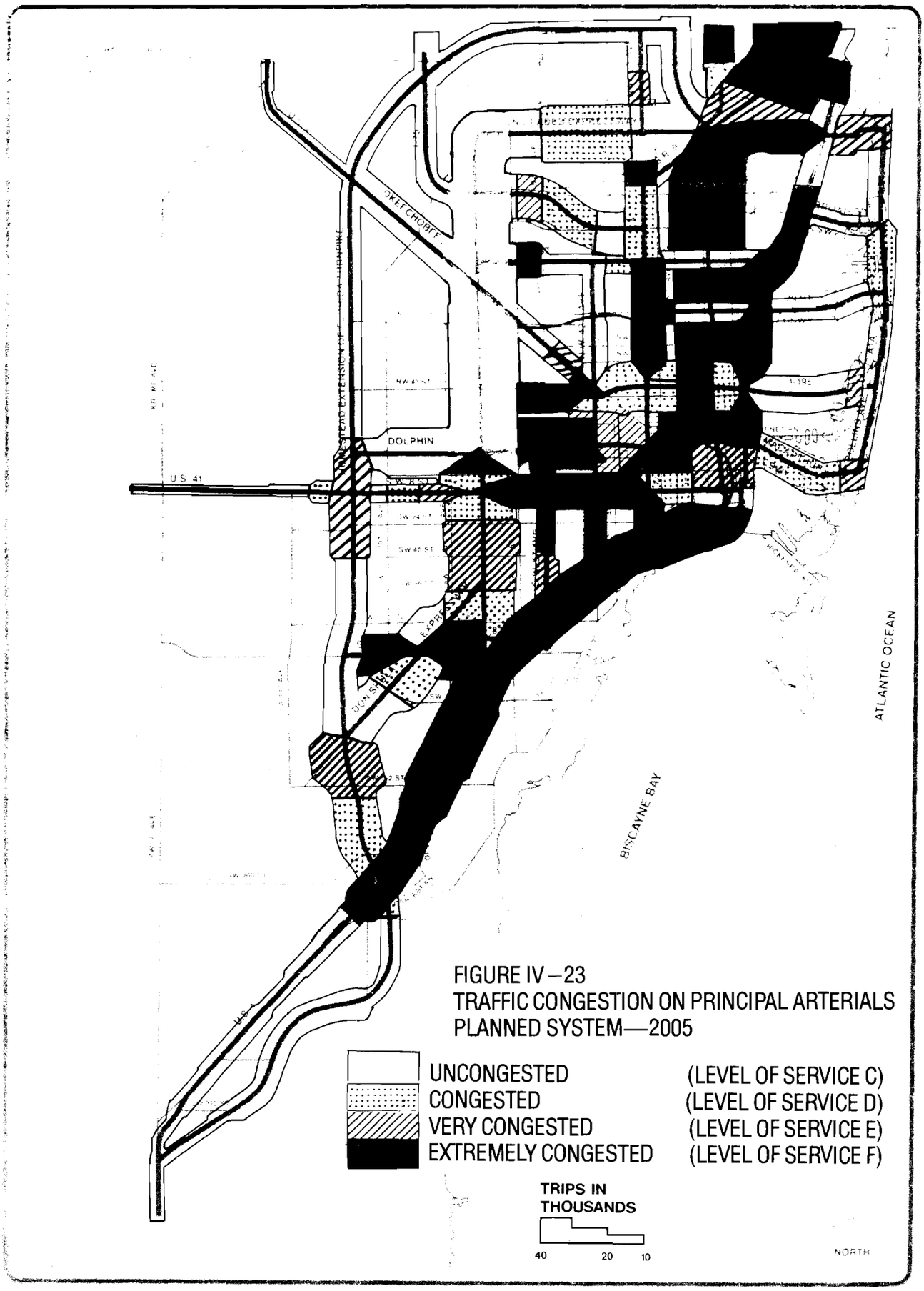


FIGURE IV – 23
TRAFFIC CONGESTION ON PRINCIPAL ARTERIALS
PLANNED SYSTEM—2005

IV. LONG-RANGE ELEMENT

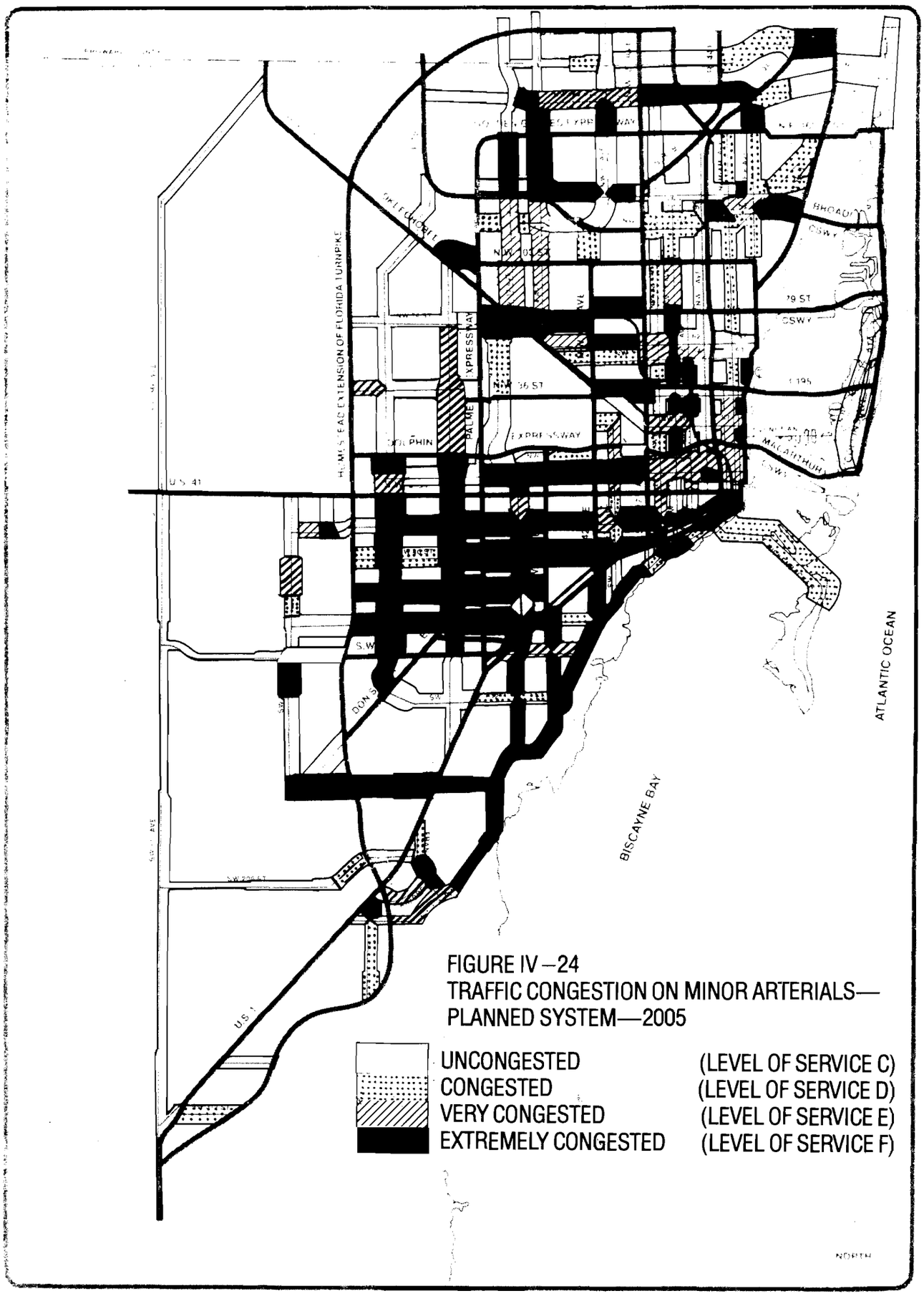


FIGURE IV–24
TRAFFIC CONGESTION ON MINOR ARTERIALS—
PLANNED SYSTEM—2005

IV. LONG-RANGE ELEMENT

METRO-DADE TRANSPORTATION PLAN
1984 UPDATE

V. AMENDMENTS TO COMPREHENSIVE DEVELOPMENT MASTER PLAN

The Metro-Dade Transportation Plan is a refinement of the Dade County Comprehensive Development Master Plan (CDMP). The CDMP is at the top of the planning hierarchy in Dade County. The CDMP countywide in coverage and deals generally with a broad array of matters including land use, environmental protection and the provision of governmental services. The CDMP was adopted with the legal status of law and in compliance with the local Government Comprehensive Planning Act (LGCPA). Both the County Code and the LGCPA requires that actions of government and private interests be consistent with the CDMP. All functional plans for public services and environmental protection plus neighborhood plans must be consistent with the CDMP. The functional plans and neighborhood plans contain much more detail than the CDMP. When adopted, they are considered to be refinements to the CDMP. Section 2-114 of the Dade County Code addresses the relationship between the CDMP and the Metro-Dade Transportation Plan directly. It states that "all master plan elements, including ...transportation ... shall be coordinated and rendered consistent with the Comprehensive Development Master Plan."

This Metro-Dade Transportation Plan Update is substantially in conformance with the CDMP. However, there are a few proposed roadways in the Transportation Plan that are inconsistent with the CDMP. Therefore, before these particular proposals can be implemented, it will be necessary to amend the CDMP. To accomplish this, a CDMP amendment will be initiated by staff by October 31, 1984. Prior to amending the CDMP, the only way the County can implement a roadway proposal that is inconsistent with the CDMP is for the County Commission to officially determine that the construction of the proposed improvement constitutes an overriding public need or that the CDMP is in error.

Figures V - 1 and Table V - 1 depict the proposed roadways that will have to be added to the 1990 and 2005 Land Use Plan map, a major component of the CDMP, to render the two plans consistent.

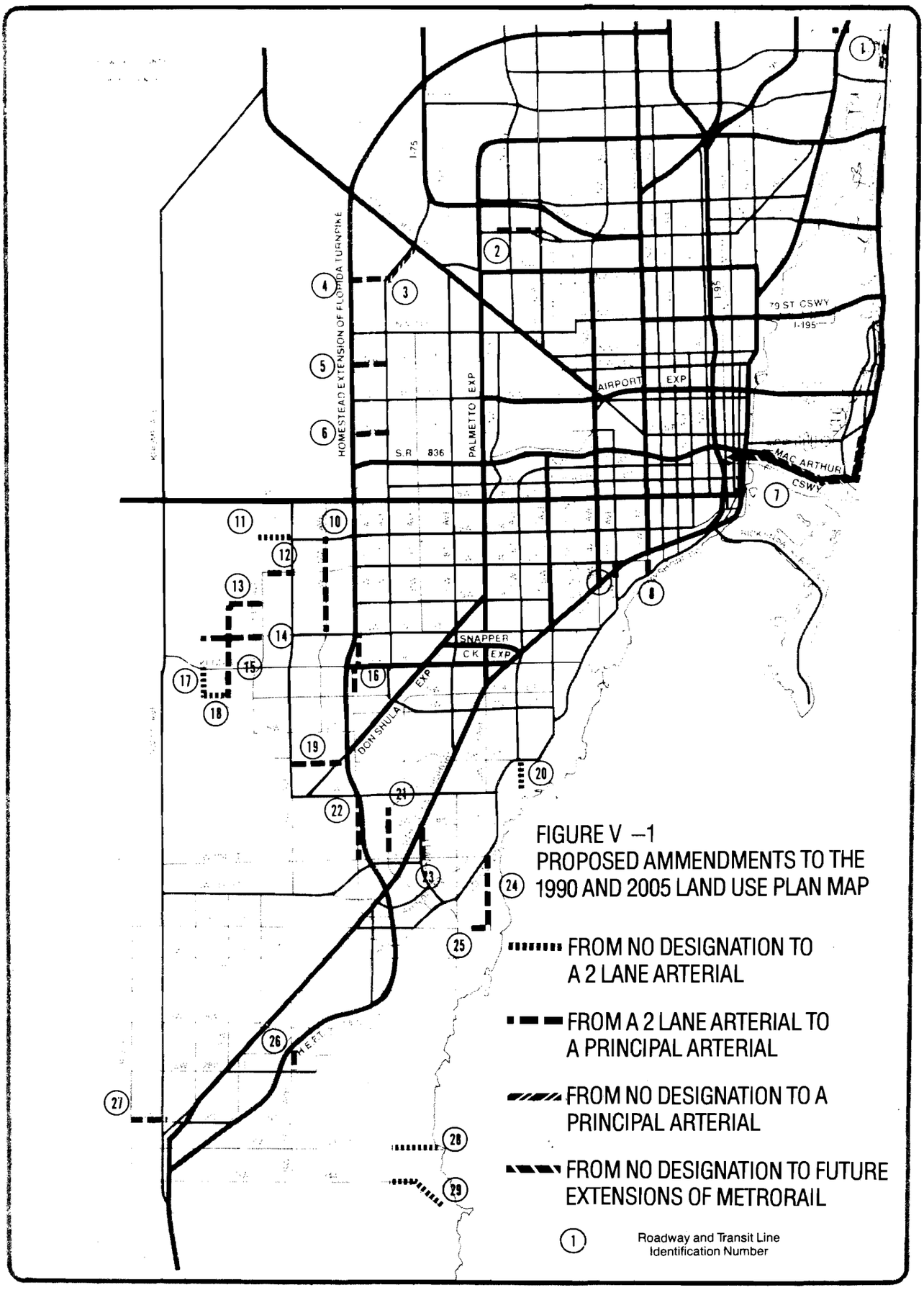


FIGURE V –1
PROPOSED AMMENDMENTS TO THE
1990 AND 2005 LAND USE PLAN MAP

FROM NO DESIGNATION TO A 2 LANE ARTERIAL

FROM A 2 LANE ARTERIAL TO A PRINCIPAL ARTERIAL

FROM NO DESIGNATION TO A PRINCIPAL ARTERIAL

FROM NO DESIGNATION TO FUTURE EXTENSIONS OF METRORAIL

(1) Roadway and Transit Line Identification Number

V. CDMP CHANGES

TABLE V - 1

PROPOSED CHANGES TO THE TRANSPORTATION COMPONENT
OF THE 1990 AND 2005 LAND USE PLAN MAP

Link Number	Link Name	Termini of Link	Proposed Change to CDMP From	To
1	NE 215 Street	W. Dixie/U.S.1	2 Lane	4 or more Lanes
2	NW 122 Street	NW 62 Ave/NW 72 Ave	2 Lane	"
3	NW 97/107 Ave	NW 103 St./Okeechoee	0	"
4	NW 103 Street	NW 107-117 Ave.	2 Lane	"
5	NW 58 Street	NW 107 Ave/117 Ave	2 Lane6	
6	NW 25 Street	NW 107/117 Ave	2 Lane	"
7	MacArthur Cswy.	NW 1 Ave/Dade Blvd.	No Desig.	Future
8	SW 27 Ave	U.S.1/SW 42 Street	2 Lane	4 or more Lanes
9	SW 37 Ave	U.S.1/SW 42 Street	2 Lane	"
10	SW127 Ave	SW 26-72 Street	2 Lane	"
11	SW 24 Street	SW 137/147 Ave	0	2 Lanes
12	SW 42 Street	SW 137/147 Ave	2 Lane	4 or more Lanes
13	SW 56 Street	SW 147/157 Ave	2 Lane	"
14	SW 72 Street	SW 147/167 Ave	2 Lane	"
15	SW 157 Ave	SW 57 St/104 St.	2 Lane	"
16	SW 117 Ave	SW 72-104 Street	2 Lane	"
17	SW 167 Ave	SW 88-104 Street	0	2 Lanes
18	SW 104 Street	SW 157/167 Ave	0	2 Lanes
19	SW 136 Street	SW 122-137 Ave	2	4 or more Lanes
20	SW 67 Ave	SW 136-152 Street	0	2 Lanes
21	SW 107 Ave	SW 164-184 Street	2 Lane	4 or more Lanes
22	SW 117 Ave	SW 152-184 Street	2 Lane	"
23	Franjo Road	U.S.1/SW 184 Street	2 Lane	"
24	SW 77 Ave	SW 184/216 Street	2 Lane	"
25	SW 216 Street	SW 77/82 Ave	2 Lane	"
26	SW 137 Ave	SW 280-288 Street	2 Lane	"
27	SW 312 Street	SW 177-187 Ave	2	"
28	SW 328 Street	SW 97-107 Ave	0	2 Lanes
29	SW 344 Street	SW 92-107 Ave	0	2 Lanes

VI. PLAN AMENDMENT PROCESS

This chapter explains the process for amending the Transportation Plan, once it is adopted. While the set of improvements and their priorities included in this Transportation Plan are founded on a sound analytical assessment of transportation needs, it is recognized that adjustments to the Plan may be necessary through time to reflect actual changes in transportation demand, and conditions, as well as findings of detailed project studies. Therefore, a regular amendment process is required involving a systematic evaluative analysis and citizen involvement process. The primary concern of this amendment process is the Plan's recommendations and the data upon which the recommendations are based. In addition, amendments of the Transportation Plan to correct errors or other oversights may be necessary.

General Amendment Process

Three steps are involved in amending the Plan: 1) technical review and analysis, 2) citizen involvement, and 3) policy decision. All proposed amendments are to be initially subjected to a technical analysis whereby the proposal(s) will be compared with the current Transportation Plan and the technical implications of the change are assessed and documented. The direct local impact of the change as well as the impact on other projects in the Plan will be evaluated. Because of the limited nature of transportation funding resources these impacts are particularly relevant when the priority for a project is proposed to be moved up. The level of citizen involvement will vary depending on the degree of potential impact resulting from the change.

Timing of Amendments

Generally, most amendments are to be considered as part of an annual review and amendment process culminating in December of each year. This timing is ideal for ensuring up-to-date planning input into the preparation of the Transportation Improvement Program, adopted by the MPO Board in May of each year.

If emergency situations occur in mid-year, special Plan amendments will be possible. The amount of technical review, citizen involvement, and policy deliberation is the same for amendments made as part of the annual cycle as for special amendments.

Initiation of Amendments

Amendments to the Transportation Plan are initially to be considered by the Transportation Planning Council following a technical review by its Transportation Plan Committee.

Amendments can be officially proposed by the County Manager, any county department, the Florida Department of Transportation, or individual members of the MPO Board. Official requests will often respond to concerns and requests made by the Citizen Transportation Advisory Committee, the Intergovernmental Policy Council, citizen groups, or individual citizens.

VI. PLAN AMENDMENT PROCESS

Types of Amendments

Three types of amendments are possible, each requiring a different amount of analysis, citizen involvement, and time:

Level 1. This type of amendment requires the most extensive amount of review because it involves direct changes to the official Comprehensive Development Master Plan (CDMP). Examples of these types of changes are major revisions in transit improvement corridors, the addition of major facilities not included in the CDMP, and the substitution of multi-lane highways for two-lane highways included in the CDMP. The traditional CDMP amendment process is to be followed in making these revisions. Generally, this process, established in accordance with State legislation, involves a series of technical analysis and citizen involvement procedures including the holding of three to four public hearings. This process takes approximately nine months from the time amendment proposals are made. The specific schedule for amending the CDMP will be established in the County Code. In addition to an extensive citizen involvement process, comments on the CDMP amendments are to sought from the Citizen Transportation Advisory Committee, the Intergovernmental Policy Council, and the Planning Advisory Board. Amendments of the Transportation Element of the CDMP are adopted by the Board of County Commissioners. At the same meeting, the MPO Board will amend the Transportation Plan. Actions will be taken following a joint public hearing held by the two boards.

Level 2. These types of amendments involve a change to the Long-Range Plan Maps included in the Transportation Plan as adopted by the Board of County Commissioners as a functional element of the CDMP and the MPO Board as part of the Transportation Plan. Generally, this category includes changes to the goals and objectives, changes in the number of highway lanes, changes in interchange designations, and major realignments of the long-range transit facilities. Normally, the annual review and amendment process will involve a Level 2 Process.

In most cases, a three-month process is to be followed in considering these amendments, subsequent to the initial technical analysis by staff and the Transportation Plan Committee. The first month involves an informal involvement process where citizen groups in the area affected by the proposed change are informed about the proposal and its underlying justification. In addition, the Citizen Advisory Committee (CTAC) and the Planning Advisory Board (PAB) are informed of the proposal and the technical merits and disadvantages are explained.

In the second month, the CTAC and the PAB will jointly hold at least one joint public hearing concerning the change. During the third month, the Board of County Commissioners and the MPO Board will simultaneously consider the amendment based upon advice from the Transportation Planning Council, the Citizens Transportation Advisory Committee, the Intergovernmental Policy Council, and the Planning Advisory Board. Before acting, a joint public hearing will be held by the Board of County Commissioners and MPO Board.

Level 3. This process concerns changes to the Transportation Plan that do not affect the CDMP. As a result, only the MPO Board is the responsible decision body. Changes included in this category involve revisions to the improvement phasing plan, the Needs Element, and the Short-Range Element. Normally, a one to two month process is involved. Subsequent to the technical review by staff and recommendations by the Transportation Plan Committee and the Planning Council, the MPO Board will consider an amendment. Before the MPO Board acts, comments will be solicited from the Citizens Transportation Advisory Committee, the Intergovernmental Policy Council, and affected citizens before the MPO Board. In addition, the MPO Board will hold a formal public hearing on the proposed change.