



U.S. Department
of Transportation

**Urban Mass
Transportation
Administration**

Report on Funding Levels and Allocations of Funds

Report of the Secretary of
Transportation to the
United States Congress
Pursuant to Section 3(j) of the
Urban Mass Transportation Act
of 1964, as amended

June 1990



THE SECRETARY OF TRANSPORTATION

WASHINGTON, D.C. 20590

June 28, 1990

The Honorable Donald W. Riegle, Jr.
Chairman
Committee on Banking, Housing and
Urban Affairs
United States Senate
Washington, D.C. 20510-2201

Dear Mr. Chairman:

I am pleased to submit the enclosed "Report on Funding Levels and Allocations of Funds" in response to the requirements of Section 3(j) of the Urban Mass Transportation Act of 1964, as amended.

As required by Section 3(j), the report recommends that, for Fiscal Year 1991, virtually all of the ten percent of the Section 3 funds otherwise not allocated by law be used for the Bus and Related Facilities category. In addition, as required by Section 3(j), the report makes recommendations on the allocation of New Fixed Guideway Systems and Extensions funds for FY 1991.

We look forward to working with the Congress as the appropriations process moves forward.

Sincerely,


Samuel K. Skinner

Enclosure



THE SECRETARY OF TRANSPORTATION

WASHINGTON, D.C. 20590

June 28, 1990

The Honorable Jake Garn
Committee on Banking, Housing and Urban Affairs
United States Senate
Washington, D. C. 20510-4401

Dear Senator Garn:

I am pleased to submit the enclosed "Report of Funding Levels and Allocations of Funds" in response to the requirements of Section 3(j) of the Urban Mass Transportation Act of 1964, as amended.

As required by Section 3(j), the report recommends that, for Fiscal Year 1991, virtually all of the ten percent of the Section 3 funds otherwise not allocated by law be used for the Bus and Related Facilities category. In addition, as required by Section 3(j), the report makes recommendations on the allocation of New Fixed Guideway Systems and Extensions funds for FY 1991.

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Samuel K. Skinner

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THE SECRETARY OF TRANSPORTATION

WASHINGTON, D.C. 20590

June 28, 1990

The Honorable Glenn M. Anderson
Chairman
Committee on Public Works and Transportation
House of Representatives
Washington, D.C. 20515-3518

Dear Mr. Chairman:

I am pleased to submit the enclosed "Report of Funding Levels and Allocations of Funds" in response to the requirements of Section 3(j) of the Urban Mass Transportation Act of 1964, as amended.

As required by Section 3(j), the report recommends that, for Fiscal Year 1991, virtually all of the ten percent of the Section 3 funds otherwise not allocated by law be used for the Bus and Related Facilities category. In addition, as required by Section 3(j), the report makes recommendations on the allocation of New Fixed Guideway Systems and Extensions funds for FY 1991.

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THE SECRETARY OF TRANSPORTATION

WASHINGTON, D.C. 20590

June 28, 1990

The Honorable John Paul Hammerschmidt
Ranking Minority Member
Committee on Public Works and Transportation
House of Representatives
Washington, D. C. 20515-0403

Dear Mr. Hammerschmidt:

I am pleased to submit the enclosed "Report of Funding Levels and Allocations of Funds" in response to the requirements of Section 3(j) of the Urban Mass Transportation Act of 1964, as amended.

As required by Section 3(j), the report recommends that, for Fiscal Year 1991, virtually all of the ten percent of the Section 3 funds otherwise not allocated by law be used for the Bus and Related Facilities category. In addition, as required by Section 3(j), the report makes recommendations on the allocation of New Fixed Guideway Systems and Extensions funds for FY 1991.

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Samuel K. Skinner

Enclosure

REPORT ON FUNDING LEVELS AND ALLOCATIONS OF FUNDS

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REPORT ON FUNDING LEVELS AND ALLOCATION OF FUNDS

As required by Section 3(j) of the Urban Mass Transportation Act of 1964, as amended (The Act)

Introduction

This is the annual report called for under Section 304 of the Federal Mass Transportation Act of 1987. This provision added to Section 3 of the Urban Mass Transportation Act a new subsection (j) entitled "Report on Funding Levels and Allocations of Funds." Section 3 is the discretionary capital grant program of the Urban Mass Transportation Administration (UMTA). Section (j) requires that the report contain:

(1) a proposal of the total amount of funds which should be made available in accordance with subsection (k)(1)(D) of this section to finance for the fiscal year beginning on October 1 of such year grants and loans for each of the following:

(A) the replacement, rehabilitation, and purchase of buses and related equipment and the construction of bus-related facilities,

(B) rail modernization, and

(C) construction of new fixed guideway systems and extensions to fixed guideway systems; and

(2) a proposal for the allocation of the funds to be made available to finance grants and loans for the construction of new fixed guideway systems and extensions to fixed guideway systems among applicants for such assistance." (Urban Mass Transportation Act of 1964, as amended; Section 3(j).)

With respect to allocation of Section 3 funds, the 1987 Act also added a new subsection 3(k) which specifies that of the amounts available for fiscal years 1987, 1988, 1989, 1990 and 1991 --

"(A) 40 percent shall be available for rail modernization;

(B) 40 percent shall be available for construction of new fixed guideway systems and extensions to fixed guideway systems;

(C) 10 percent shall be available for the replacement, rehabilitation, and purchase of buses and related equipment and the construction of bus-related facilities; and

(D) 10 percent shall be available for the purposes described in subparagraphs (A) through (C), as determined by the Secretary."

This report proposes an allocation of the unspecified 10 percent in subparagraph (D) among the activities described in subparagraphs (B) and (C)-- new systems and bus.

The report is a collateral document to the proposed Fiscal Year 1991 Federal Budget as submitted by the President. It is meant to be a constructive element in the administration of the urban mass

transportation program, enriching the information exchange between the executive and legislative branches at the beginning of the appropriations cycle for the next succeeding fiscal year.

I. FY 1991 SECTION 3(j)(1) BUDGET PROPOSAL

For FY 1991, an overall budget level for Section 3 of \$985 million is being proposed. Of this amount, \$394 million or 40 percent would be allocated to Rail Modernization projects, \$398 million or 40.4 percent would be allocated to New Starts and \$193 million or 19.6 percent would be allocated to the Bus and Related Facilities category.

The amounts provided for Rail Modernization and New Starts are those mandated by statute. Virtually all of the unspecified 10 percent is being proposed for allocation to the bus category.

A. RAIL MODERNIZATION

The \$394 million proposed for this activity from Section 3 funds is precisely the 40 percent prescribed in the law, without any enhancement from the unspecified 10 percent. This \$394 million, coupled with the funding available for rail modernization under the Formula Grants program provides a total of slightly over \$1 billion. This funding level is sufficient to meet rail infrastructure needs during the coming fiscal year.

The FY 1991 proposal would replicate funding trends of previous years. For the past several years, the level of Federal funding allocated to rail modernization from Section 3 discretionary and Section 9 formula funds combined has averaged approximately \$1.0 billion annually. This, in addition to the local share has provided a funding level of almost \$1.3 billion per year. Further, it has been supplemented by Interstate Transfer Grants and significant expenditures of State and local funds, particularly in New York which accounts for more than half the backlog of investment requirements.

Reasonable approximation of the current Federal investment level, combined with required levels of local match, Interstate Transfer Grants and supplementary State and local funding (e.g., New York) would, assuming moderate inflation, ensure accommodation of the most cost-effective rail modernization projects in a reasonable time-frame.

B. BUS SYSTEMS

The \$193 million recommended for bus systems includes virtually all of the 10 percent of Section 3 funds not allocated by law. Compared to FY 1990, this would increase the Section 3 bus system activity level by approximately \$60 million, from \$132.1 million to \$193 million. These additional funds will provide assistance needed for carrying out important programmatic initiatives associated with developing and implementing new alternative fuel

technologies and making bus and bus facilities accessible to individuals with disabilities. In addition, funds from this category will be used to respond to urgent capital needs of all systems.

II. SECTION 3(j)(2) ALLOCATIONS AND RECOMMENDATIONS

New fixed guideway systems and extensions (e.g., a light rail line, a subway line or a busway/high occupancy vehicle facility) are referred to in this document as "New Starts" and are considered to be major capital investments.

The \$398 million funding level proposed for this activity is 40.4 percent of the Section 3 budget authority. This funding level and its proposed allocation are premised on certain goals:

- o First and foremost, existing full funding contract commitments should be honored by in fact fully funding the projects, to the maximum extent feasible, in FY 1991, the final year of the existing program authorization.
- o Second, funds should be allocated to projects which meet the criteria of Section 3(i) and would result in operable facilities. (Section 3(i) criteria are fully discussed in Section II B 1 of this report).
- o Finally, by adhering to the first two goals the Department and Congress would be able to retain complete flexibility in shaping the reauthorization legislation for the urban mass transportation program post FY 1991.

Based on these principles, it is recommended that the following allocations be made:

St. Louis (Airport LRT)	\$71.2 million
Miami (DPM Extension)	22.6
Denver (I-25 Busway)	17.5
Los Angles (MOS-2)	286.7

Total	\$398.0 million

These projects have existing full funding contract commitments.

The rest of this report provides more detail on the issues involved allocating funds for new starts and details on the specific projects. The next section, Section A, addresses the individual projects considered for FY 1991 funding and the reasons why they were recommended or rejected.

Section B, provides more details on the overall new start program. It describes the project development process and the requirements of Section 3(i). The section also discusses the issue of earmarking projects for funding before completion of the project development process.

Section C briefly restates the Department's recommendations.

The appendices include the tables referred to in the text and the project profiles for all projects in the project development process.

A. RECOMMENDATIONS

1. Full Funding Contracts

Currently, the Department has agreed to Full Funding Contracts (FFC's) with local agencies for projects in St. Louis, Miami, Los Angeles and Denver. The authorization for this program expires at the end of FY 1991. Therefore, it is the Department's intent to meet its commitments to these projects, to the maximum extent feasible, by funding them out of FY 1991 Section 3 funds. It should be understood that the FFC's do not commit Federal funds beyond those available under the current authorization. Local agencies are responsible, under the terms of the contracts, for the completion of the projects if Federal funds are not available. However, we recommend that these commitments be honored, to the extent funds are available. Moreover, diverting funds from these projects to other projects without full funding contracts may delay the completion of the projects under contract, which would ultimately increase project cost. Cost increases due to funding delays may have to be absorbed by the local agencies, under the terms of the FFC.

The remaining Federal share of the Full Funding Contracts for St. Louis is \$72 million, for Miami it is \$23 million, for Los Angeles it is \$338 million and for Denver it is \$18 million. These figures include the project management oversight set-aside of 0.5 percent of the cost. It is recommended that the full amount of the Federal funds recommended for New Starts in FY 1991, \$398 million, be provided to St. Louis, Miami, Los Angeles and Denver in order to fulfill these commitments. The full funding contracts with Miami and St. Louis have been in place for some time and a substantial portion of the funds has been obligated. The St. Louis and the Miami projects have had problems in meeting UMTA's cost-effectiveness and local financial commitment standards. However, funding for these projects is proposed in FY 1991 because they were grandfathered from the requirements of Section 3(i).

The Department has recently signed full funding contracts with Denver and Los Angeles, after they met the criteria of Section 3(i). Due to the unavailability of uncommitted authorized funds, proposed FY 1991 funding for the Los Angeles project falls short by \$53.3 million.

The following table summarizes the status of the new starts program (funds in millions of dollars):

Funds requested in the FY 1991 budget\$398.0
 Less: Project Management Oversight Set-Aside.....(2.0)
 Funds remaining.....396.0

Less: Full Funding Contracts:

Miami.....(22.6)
 St. Louis.....(71.2)
 Denver.....(17.5)
 Los Angeles.....(338.0)
 Total Full Funding Contracts:.....(449.3)
 Total Deficit.....(\$53.3)

2. Recent Full Funding Contracts Decisions

As previously discussed, the primary criteria employed by the Department to decide which projects should receive FY 1991 funding was whether they had existing full funding contracts. This criteria was premised on the Department's intent to honor full funding contracts to the extent possible, with funding available under the current authorization. Under this criteria, the St. Louis, Miami, Los Angeles and Denver projects qualify for funding.

The second criteria was to allocate funds to projects that met section 3(i) requirements and would result in operable facilities. Although both the Los Angeles and the Jacksonville projects were considered for full funding contracts, only the Los Angeles project meet the cost-effective and local financial commitment standards established under Section 3(i) of the UMT Act. Consequently, a full funding contract was agreed to with Los Angeles and the project is proposed for funding.

Los Angeles - MOS-2

The Congress directed the Department to enter into a FFC with Los Angeles for the MOS-2 project. The Department recently agreed to a full funding contract with Los Angeles and therefore recommends that the \$285 million remaining after meeting the commitments to the other three cities, should be provided to Los Angeles.

The Department finds that this project complies with Section 3(i) in that it is both cost-effective and has an acceptable degree of local financial commitment.

Section 338 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 requires a Federal share for this project of \$667 million. The Department recommends that Los Angeles receive \$285 million from the FY 1991 funds as well as the \$329 million previously earmarked. The remaining Federal share is \$53 million.

Jacksonville - Phase 2: Automated Skyway Express

The FY 1989 Appropriations Act directed that a FFC for the second phase of the Automated Skyway Express be negotiated based on currently available discretionary funds. However, current earmarks for Jacksonville are not sufficient and Jacksonville is requesting additional Federal discretionary funds.

While the Jacksonville project is not covered by Section 3(i), having been grandfathered because the project was in preliminary engineering at the time Section 3(i) was enacted, the legality of funding it should not be confused with the desirability of funding it. The impacts of the Jacksonville project have not been reviewed since the FEIS was completed in February 1983. Since that time, the starter line has been opened. This line has attracted only about 1,000 riders a day serving as a shuttle from a large parking lot to downtown. Most of these are free rides. The low ridership compared to the 10,000 riders forecast and the nearly six years since the issue was studied indicate the need for a closer look at this project.

The absence of a recent study of the costs and impacts of the project precludes a firm estimate of the cost per new rider. People mover projects such as this one have been among the least cost-effective projects constructed in recent years. Table 3 shows that similar projects in Detroit and Miami have attracted few riders and cost much more to operate than estimated. Jacksonville has estimated that 42,000 people a day will ride the project's total 2.5 miles. Another \$130 million is needed to complete the project. By contrast, Miami's project is 2 miles long and Detroit's is 2.9 miles. These projects, in much larger cities, with significantly larger investments, attract about 11,000 riders a day. They were forecast to have carried 40,000 and 70,000 people a day, respectively.

This project was originally estimated to cover its operating costs from the farebox. This now seems very unlikely and a funding source for operation needs to be identified. The starter line operation is now subsidized by a grant from the Florida Department of Transportation. The source of operating assistance after the Florida Department of Transportation funds run out has not been identified. The expanded line will probably require substantial additional operating subsidy which, if no new funding source is found, would undoubtedly come from reductions in existing bus service and/or fare increases, thus potentially costing more riders than the new extension gains.

Miami's people mover system costs \$5 million a year to operate and Detroit's costs \$11 million. Farebox revenues from the two systems, less than \$1 million in both cases, cover only a small portion of operating costs. Multi-million dollar subsidies are required in both cities to operate the peplemover systems. The total cost of operating the entire Jacksonville Transit Authority is only about \$14 million a year, about 10 percent of the cost of

total transit operations in the two larger cities. If the operating deficit for the Jacksonville peoplemover system were to approach the levels of Detroit and Miami, the project could place the entire Jacksonville transit system in financial jeopardy.

The Department's recommendation is that no funding be made available to Jacksonville at this time.

One of the chief purposes of this report is to provide Congress with information on proposed new starts projects. Therefore, information is provided on the status of all of the projects felt to be of interest to Congress. Table 4, in Appendix A, contains information on the cost-effectiveness, local financial commitment and stage in the project development process for these projects. In Appendix B, New Start Project Profiles are also provided for all projects in the process, from alternatives analysis to final design. Profiles are also provided for three other projects, Baltimore Hopkins which is under construction but needs additional Interstate Transfer funds, Newark Airport, and Portland Hillsboro which may be applying to enter alternatives analysis in the near future.

The Administration is still deliberating on the contents of its Federal mass transit program reauthorization proposal. Therefore, the provision of information on projects not proposed for funding in the 1991 President's Budget should not be interpreted as tacit endorsement by the Administration of a New Starts funding category in the post-1991 Federal mass transit program.

B. THE NEW STARTS PROGRAM

1. Requirements of Section 3(i) the UMT Act

According to the provisions of Section 3(i) of the Urban Mass Transportation Act of 1964, as amended, before a new start project can be considered for funding under Section 3, there are certain criteria that must be met, and the Secretary must make affirmative findings that they have been met.

Section 3(i) requires that funding of projects under Section 3 be limited to those that are based on the results of alternatives analysis and preliminary engineering, that are determined to be cost-effective and that have a satisfactory degree of local financial commitment. The project development process and the evaluation criteria required by Section 3(i) are explained in more detail in the UMTA Policy on Major Capital Investments issued in 1984. A Notice of Proposed Rulemaking (NPRM) issued on April 25, 1989 in response to statutory requirement provides further technical details about this process.

The NPRM set forth UMTA's specific approach for implementing Section 3(i). The NPRM is based on the UMTA Major Capital Investment Policy issued in May, 1984. However, language in the FY 1990 Appropriations Act restricts UMTA's ability to proceed with the

rulemaking, despite the requirement of Section 3(i) that UMTA issue guidelines setting forth how findings will be made under Section 3(i).

Congress's decision to stall Section 3 (i) rulemaking is of concern since this regulation provides for the most objective determination of the merits of the projects under consideration. The requirements of Section 3(i) allow for the prudent management of limited Federal resources. To assure that Federal funds are used to their best advantage, it is vital that projects for which Federal funds are contemplated be developed carefully, complying with all the environmental requirements and other tenets of good planning.

Such projects should be shown to generate substantial benefits compared to the costs and other impacts of the projects. Benefits can best be measured in terms of additional riders attracted to transit and in time savings for existing riders. While there are other benefits from improving transit, the number of new riders attracted is the best proxy for these other benefits. Clearly, the more riders attracted, the greater the impact on congestion and pollution, for example. Costs include both operating and capital costs. The cost per new rider is an excellent "cost-benefit" measure for assessing the Federal investment worthiness of transit projects. It has been used in rating the projects under consideration since the 1984 Major Capital Investment Policy.

Local funding should be sufficient to assure that the projects will be completed in a timely manner and will be operated as planned. Further, local financial commitment should be more than sufficient to assure that other transportation programs will not have to be reduced to allow adequate funding for the new project's operation. Local financial resources should be robust enough to fund the system in the event the projections for fare and tax revenues or costs are not realized. UMTA evaluates projects in terms of the size of local match, the soundness of the capital financing plan, and the stability and reliability of local operating resources.

A key component of the Section 3(i) criteria is the requirement that Federal funding decisions be based on the results of alternatives analysis and preliminary engineering. These two stages are part of the overall project development process. This process is critical to assuring the effective use of Federal funds.

- o The process begins with system planning, where the most pressing transportation problems are identified. Based on the results of systems planning, a corridor is selected for further study in alternatives analysis.
- o Alternatives analysis includes preparation of a Draft Environmental Impact Statement. The alternatives analysis explores options for serving the transportation demand in the

region's highest priority corridor by estimating the costs, ridership and other impacts of a range of possible alternatives. At the end of alternatives analysis, the environmental impacts, potential benefits and estimated costs are available for making a decision to enter preliminary engineering.

- o Promising projects would then be advanced to preliminary engineering. At the end of this stage, the Final Environmental Impact Statement is completed, firm cost estimates are available, financial commitments should be in place and a decision on building the project can be made.
- o If a project appears to be worthy of a Federal investment at the completion of preliminary engineering, UMTA may, after notifying Congress of its plans, issue a Letter of Intent to obligate funds for the project under Section 3 and indicating the proposed level of future Federal funding to the project.
- o If a Letter of Intent is issued, final design would begin on the project. It is at the completion of this stage that a final Federal determination can be made on whether the project meets the requirements of 3(i) and the environmental impact assessment process is complete. If these findings are favorable, it is at this stage that UMTA would enter into a full funding contract for the project, if funds are available.

2. Earmarked New Start Projects

One of the major issues associated with the New Starts program involves the status of projects for which funds have been earmarked by Congress in past appropriations, but have not completed the project development process mandated by Section 3(i) of the UMT Act. A complete list of projects in the development process is included in Appendix A, Table 1. The list in Appendix A, Table 2 is limited to projects for which funds have been earmarked.

As indicated in Table 2, 15 cities have earmarks for New Start projects. The table shows that \$750 million in funds have been earmarked but not obligated for these projects. Four of the projects have full funding contracts and earmarked funds totalling \$497 million will be obligated as the projects advance.

Ten of the projects in Table 2 have received a total of \$245 million in earmarks, despite not having completed alternatives analysis. The \$238 million in unobligated funds cannot be expended until the projects complete alternatives analysis and preliminary engineering. Even when the projects reach final design, only relatively modest levels of funding are required. Full funding contracts cannot be awarded for construction until the projects enter the final design stage and earmarks cannot be expended until the projects have attained such contracts.

The premature earmarking of funds is problematic for several reasons. First, funds are tied up in projects that are not construction ready. Second, sufficient funds are not available in the current authorization to allow the completion of the legally required "minimum operable segments" for all projects that have received earmarks. Third, funds are set aside without the benefit of adequate information on the merits and flaws of the project.

UMTA and local officials are unable to make rational funding determinations until information on cost, environmental and transportation impacts are known. The National Environmental Policy Act of 1969 precludes any Federal funding commitment until the Environmental Impact Statement (EIS) is completed. If funding decisions are made prior to the completion of environmental evaluations, doubts may be raised about the objectivity of the assessment. There is a substantial risk in making funding decisions before the costs and transportation impacts of projects are known. In particular, increases in project cost or decreases in transportation benefits may reveal that the project is not cost-effective.

There is a well-documented tendency to understate project costs and overstate project benefits in the earliest stages of project planning. A recent study by the Transportation Systems Center entitled "Urban Rail Transit Projects: Forecast Versus Actual Ridership and Costs" documents recent experience in this regard. The report found that construction costs were usually substantially underestimated, while ridership was usually overestimated in the early stages of project planning. The report points out the need for more attention to objective forecasting for use at the point where decisions are made on proceeding with major capital investments.

Decisions based on these preliminary estimates can prove embarrassing to local and Federal officials when more accurate information becomes available. Revisions in cost estimates are inevitable in major undertakings such as these. Decisions to build such projects should not have been made before preliminary engineering had more accurately determined all costs and impacts.

Only those projects that met the criteria set forth in Section 3(i) should have been considered for funding. The purpose of these criteria is to identify projects that merit Congress's consideration for funding. The UMTA new start ratings process separates projects into groups based on cost-effectiveness and financial criteria. By selecting the best projects for funding only from those that meet or exceed these criteria, the benefits of the Federal investment in transit could have been maximized.

C. CONCLUSION

The Department's recommendations for allocating Section 3 New Start funds can be briefly summarized as follows:

- o Complete funding for the three projects for which adequate funding and full funding contracts exist - St. Louis, Miami and Denver.
- o Provide the Los Angeles MOS-2 project with the remaining FY 1991 funding.

APPENDIX A

TABLES

Table 1. New Start Projects

Table 2. Earmarked New Start Projects

Table 3. Jacksonville

Table 4. Summary of New Start Ratings

Table 1

NEW START PROJECTS
(in millions of dollars)

PHASE	PROJECT	TOTAL COST (FEDERAL & LOCAL)	TOTAL FEDERAL COMMITMENTS		STATE/ LOCAL SHARE
			UMTA SEC 3 ^a (Through 1991)	OTHER FEDERAL	
UNDER CONSTRUCTION	1 ATLANTA-EAST	\$192	\$135	\$0	\$57
	2 ATLANTA-NORTHEAST	126	81	17	28
	3 BALTIMORE-HOPKINS	326	0	276	50
	4 CHICAGO-SOUTHWEST	410	0	349	61
	5 HOUSTON-NORTH I-45	\$78	47	0	31
	6 HOUSTON-NORTHWEST	105	40	27	38
	7 HOUSTON-SOUTHWEST	102	62	0	40
	8 JACKSONVILLE-ASE(0.7)	36	20	7	9
	9 LOS ANGELES - MOS-1	1,350	605	91	654
	10 SAN DIEGO-EAST URBAN	105	20	43	42
	11 SANTA CLARA-GUADELUPE	510	206	52	252
	12 SEATTLE-BUS TUNNEL	394	197	0	197
		SUBTOTAL	\$3,734	\$1,413	\$862
FINAL DESIGN	1 DENVER-NORTH I-25	\$200	\$70	\$64	\$66
	2 JACKSONVILLE EXT (1.8)	133	0	0	33
	3 LOS ANGELES - MOS-2	1,446	614	0	779
	4 MIAMI-DPM EXTENSIONS	248	186	0	62
	5 ST. LOUIS-AIRPORT LRT	384	288	2	94
		SUBTOTAL	\$2,411	\$1,158	\$66
PRELIMINARY ENGINEERING	1 LOS ANGELES - MOS-3	\$1,087	\$0	\$0	
	2 PORTLAND-WESTSIDE	640	0	0	
	3 SAN FRANCISCO-COLMA	101	0	4	
	4 WASHINGTON-LAST 14 MILES	2,700	0	0	
		SUBTOTAL	\$4,528	\$0	\$4

(Continued)

Table 1 (Continued)

PHASE	PROJECT	TOTAL COST (FEDERAL & LOCAL)	TOTAL FEDERAL COMMITMENTS		STATE/ LOCAL SHARE
			UMTA SEC 3*	OTHER FEDERAL (Through 1991)	
ALTERNATIVES ANALYSIS	1 ATLANTA-NORTH	\$528	\$0	\$0	
	2 AUSTIN-NORTH CENTRAL	300	0	0	
	3 BALTIMORE-CENTRAL EXT.	60	0	0	
	4 BUFFALO-AMHERST	400	0	0	
	5 CLEVELAND-DUAL HUB	550	0	0	
	6 DALLAS-SOUTH OAK CLIFF	250	0	0	
	7 HONOLULU	1,300	0	0	
	8 HOUSTON-CONNECTOR	1,000	0	0	
	9 MINNEAPOLIS-CENTRAL(HEN)	100	0	0	
	10 MINNEAPOLIS-CENTRAL(RAM)	250	0	0	
	11 NEW JERSEY-WATERFRONT	950	0	0	
	12 NEW YORK-QUEENS	450	0	0	
	13 ORANGE CO.(CA)-CENTRAL	120	0	0	
	14 PITTSBURGH-SPINE LINE	500	0	0	
	15 SALT LAKE CITY-SOUTH I-15	200	0	0	
	16 SAN DIEGO-MID COAST	500	0	0	
	17 SAN FRANCISCO-AIRPORT	560	0	0	
	18 SAN JOSE-TASMAN	350	0	0	
	19 CHICAGO-CENTRAL CONNECTOR	325	0	0	
	SUBTOTAL	\$8,693	\$0	\$0	
TOTAL: FOUR PHASES		\$19,366	\$2,571	\$932	\$2,493
OTHER EARMARKED PROJECTS	1 NEWARK-AIRPORT	\$400	\$0	\$0	
	2 PORTLAND-BREAKEVEN	19	0	0	
	SUBTOTAL	\$419	\$0	\$0	

PLUS 28 OTHER PROJECTS IN SYSTEMS PLANNING

* Section 3 Funding Commitments Represented by Full Funding Contracts

Total Cost is the total cost to construct the project

Other Federal refers to the non-Section 3 Federal funds made available through 1991 including Interstate Transfer and Section 9

State/Local Share is the total state and local funding proposed to complete projects which are at least at the final design stage. Up to this stage, the state/local share may be subject to change.

Table 2

**EARMARKED NEW START PROJECTS
(in Millions of Dollars)**

Project	Total** Earmarks (Through 1990)	Unobligated** Earmarks
---------	---------------------------------------	---------------------------

PROJECTS WITH FULL FUNDING CONTRACTS

St. Louis-Airport LRT	\$218	\$67
Miami-DPM Extensions	164	48
Denver-North I-25	53	53
SUBTOTAL	\$435	\$168

PROJECTS WITH RECENT FULL FUNDING CONTRACT DECISIONS

Los Angeles-MOS-2	\$329	\$329
Jacksonville-ASE Extension	26	15
SUBTOTAL	\$355	\$344

PROJECTS NOT READY FOR FULL FUNDING CONTRACTS

Atlanta-North Extension	\$53	\$ 53
Baltimore-Central Exten.	12	10
Chicago-Circulator	1	0
Cleveland-Dual Hub	2	2
Houston-Connector	115	115
Newark-Airport	7	5
Portland-Break Even	14	14
Salt Lake City-South I-15	12	10
San Francisco-Colma	29	29
San Jose-Tasman	*	*
SUBTOTAL	\$245	\$238

TOTAL	\$1,035	\$750
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* Colma and Tasman are earmarked \$29 million jointly, with the allocation to be determined locally.

** Does not include the FY 1991 New Starts recommendations contained in this report.

Table 3

JACKSONVILLE'S AUTOMATED SKYWAY EXPRESS AND OTHER PEOPLEMOVERS

	Jacksonville	Miami	Detroit
Population (PMSA's)	878,000	1,791,000	4,362,000
Downtown Employment	51,200	50,200	108,900
System Length (miles) (Phase 1)*	2.5 (0.7)	2.0	2.9
Projected Ridership (Phase 1)	42,000 (10,000)	41,000	67,700
Actual Ridership (Phase 1)	-- (1,000)	10,800	11,300
	(Costs in millions)		
Capital Cost (Phase 1)	\$130** (\$35)	\$175	\$215
Operating Cost (Phase 1)	-- (\$0.62)	\$4.6	\$10.9

* Figures for the completed Phase 1 of the Jacksonville Automated Skyway Express

** Estimated

Table 4

SUMMARY OF NEW START RATINGS

City (Project)	Capital Cost (million \$) (a)	COST- EFFECTIVENESS (b) Total Cost per New Trip Index (\$/new trip)	LOCAL FINANCIAL COMMITMENT (c)		
			Expected Capital Match/ Overmatch (d)	Capital Financing Plan	Stability & Reliability of Operating Assistance
<u>Final Design:</u>					
Los Angeles (MOS-2)	\$1446	\$4.20 (1985\$) (e)	54%	Acceptable	Acceptable
Jacksonville	\$133	Unavailable (e)	25%	Deficient	Deficient
<u>Preliminary Engineering:</u>					
Los Angeles (MOS-3)	\$1100	\$5.60 (1985\$) (e)	50%	Deficient	Acceptable
San Francisco (Colma)	\$101	\$5.00 (1987\$)	30% (f)	Superior	Acceptable
Portland (Westside)	\$500-\$750	Unavailable (e)	25%	Unacceptable	Unacceptable
<u>Alternatives Analysis:</u>					
Orange Co. (CA)	\$120 (1989\$)	\$3.75 (1989\$) (j)	25% (f)	Deficient	Acceptable
Honolulu (Central)	\$800-\$1300	\$3.50-\$9.50 (1988\$) (k)	50%	Unavailable	Unacceptable
Atlanta (North)	\$528	\$7.85-\$9.00 (1988\$)	25%	Unavailable	Unacceptable
Salt Lake City (I-15)	\$200	\$7.00-\$55.00 (1987\$) (g)	50%	Unavailable	Unacceptable
San Jose (Tasman)	\$150-\$350	\$6.60-\$11.50 (1987\$) (h)	50%	Unavailable	Acceptable
Austin (N. Central)	\$300	\$21.00	25%	Unavailable	Unacceptable
Buffalo (Amherst)	\$367 (1985\$)	\$46.00-\$67.00 (1985\$)	25%	Unavailable	Unacceptable

SUMMARY OF NEW START RATINGS (Continued)

City (Project)	Capital Cost (million \$) (a)	COST- EFFECTIVENESS (b) Total Cost per New Trip Index (\$/new trip)	LOCAL FINANCIAL COMMITMENT (c)		
			Expected Capital Match/ Overmatch (d)	Capital Financing Plan	Stability & Reliability of Operating Assistance
<u>Alternatives Analysis (Cont.):</u>					
Baltimore (Central)	\$60	Unavailable	25% (f)	Unavailable	Acceptable
Chicago (Connector)	\$325	Unavailable	67%	Unavailable	Unavailable
Cleveland (Dual Hub)	\$570	Unavailable	50%	Unavailable	Acceptable
Dallas (Oak Cliff)	\$250	Unavailable	50% (f)	Unavailable	Acceptable
Houston (Connector)	\$1000	Unavailable	46%	Deficient	Unacceptable
Minneapolis (Henn.)	\$100	Unavailable	75% (f)	Unavailable	Acceptable
Minneapolis (Ramsey)	\$250	Unavailable	25%	Unavailable	Acceptable
New Jersey (Waterft)	\$950	Unavailable	25%	Unavailable	Acceptable
New York (Queens)	\$450 (1988\$)	Unavailable	50% (f)	Unavailable	Acceptable
Pittsburgh (Spine)	\$500	Unavailable	25%	Unavailable	Acceptable
San Diego (Midcoast)	\$500	Unavailable	25% (f)	Superior	Acceptable
San Francisco (Arpt)	\$560	Unavailable	25% (f)	Unacceptable	Deficient

System Planning:

Newark (Airport)	\$400	Unavailable	—	Unavailable	Unavailable
Portland (Hillsboro)	\$102 (1988\$)	Unavailable (i)	25%	Unavailable	Unacceptable

(a) Unless otherwise noted, costs are shown in escalated (year of construction) dollars.

(b) Projects with a total cost per new trip of \$6 or less are considered to be cost-effective for the purposes of Section 3(i).

(c) See pages v and vi of Appendix B, New Start Project Profiles, for definitions of the criteria used to evaluate the capital financing plan and the stability and reliability of operating assistance.

(d) "Expected capital match/overmatch" refers to the percentage of the capital cost that is expected to be met through non-Federal sources (State, local, and/or private). The percentages are based on full funding contracts or locally adopted financial plans, where available, and are subject to change as a project moves into more advanced stages of development.

(e) The Congress has grandfathered this project from the requirements of Section 3(i) of STURAA, and thus it need not meet cost-effectiveness thresholds to be eligible for Section 3 funding. Nevertheless, in view of limited Federal funding, the project should compete with other eligible projects on the basis of cost-effectiveness, financial commitment, and other factors.

(f) The capital match/overmatch shown here is for the specific project or undertaking proposed for UMIA funding. This metropolitan area is also undertaking other transit projects without UMIA funding such that it qualifies for preferential treatment under the Section 3 overmatch initiative.

(g) Twelve highway and transit alternatives are under study, of which two include HOV lanes and six include light rail. Several alignment options exist for light rail. Local officials are expected to select one of the alternatives with light rail on the Union Pacific right-of-way and downtown distribution. These alternatives have indices of \$7 to \$8 per new trip.

(h) The Metropolitan Transportation Commission is studying five fixed guideway alternatives for the Tasman corridor. The shortest of these has an index of \$6.60 per new trip. The other four have indices of \$9.00 or more per new trip.

(i) Based on preliminary estimates developed by the Metropolitan Service District, the cost-effectiveness index is likely to fall in the \$15 to \$20 per new trip range.

(j) This represents a preliminary cost-effectiveness index prepared by Orange County. The estimate of costs and ridership is subject to change as a result of UMIA review and further local analyses.

(k) Honolulu is studying six fixed guideway alternatives. The shortest two alternatives, with preliminary indices of \$3.35 and \$4.27 per new rider, fall well below UMIA's \$6 cost-effectiveness threshold. Alternatives that extend west of Middle Street exceed the \$6 threshold and would be of questionable cost-effectiveness.

APPENDIX B

NEW START PROJECT PROFILES

NEW START PROJECT PROFILES

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PREFACE

These profiles provide background information supporting the Department of Transportation's new start funding recommendations for FY 1991. The Department's funding recommendations are being provided to the Congress pursuant to Section 3(j) of the Urban Mass Transportation Act of 1964, as amended. The funding recommendations are based in part on the decision criteria defined in Section 3(i) of the UMT Act.

Under Section 3(i), discretionary capital grants and loans for the construction of a new fixed guideway system or the extension of an existing system may be made only if the Secretary determines that the project is:

- (1) Based on the results of alternatives analysis and preliminary engineering;
- (2) Cost-effective; and
- (3) Supported by an acceptable degree of local financial commitment, including evidence of stable and dependable funding sources to construct, maintain, and operate the system or extension. (a)

These statutory requirements are first used to identify new start projects that are eligible for Federal discretionary funding. The Section 3(i) criteria also provide a rational basis for selecting, from among the eligible projects, those which are the most worthy of scarce Federal funds. To this end, the new start project profiles describe the fixed guideway projects that are most advanced and evaluate them in terms of the Section 3(i) requirements.

Profiles have been prepared for each project or study undergoing final design, preliminary engineering, and alternatives analysis. In addition, profiles have been prepared for projects that are under construction if additional funds are needed in FY 1991 to fulfill full funding contract commitments. A few system planning studies, particularly those where congressional interest has been demonstrated, are also covered.

Each profile contains a map and four sections:

- (1) Description. The description section briefly describes a project's physical characteristics and provides the latest estimates of cost and ridership.
- (2) Status. This section identifies where the project is in the major investment planning and project development process. It indicates, for example, whether alternatives analysis and

(a) Section 3(i) does not apply to projects which were in preliminary engineering or final design on January 1, 1987. While such projects need not satisfy 3(i) to be eligible for funding, they must compete for funds with other eligible projects.

preliminary engineering have been completed. If not, it indicates when current studies are expected to be completed.

- (3) Cost-effectiveness. This section indicates how well the project addresses the corridor's transportation problems and presents the latest cost-effectiveness index. The calculation and use of the cost-effectiveness index is further described below.
- (4) Local financial commitment. This section notes the size of the local match and/or overmatch, and provides UMTA's rating on the soundness of the capital finance plan and the stability and reliability of local operating revenues. The financial ratings process is further described below.

In some cases, where additional information may help distinguish between projects with similar degrees of cost-effectiveness and financial commitment, the profiles include a fifth section on other rating factors.

How the Ratings were Developed.

As part of the normal project development process, local agencies develop the information that UMTA needs to rate projects in terms of cost-effectiveness and local financial commitment. The specific information used for these evaluations is outlined below.

Cost-Effectiveness

Within UMTA's rating system, cost-effectiveness is defined as the extent to which a project returns benefits relative to its costs. The cost-effectiveness of a proposed major investment is measured in terms of its added benefits and added costs when compared to a transportation system management (TSM) alternative. The TSM alternative includes such low cost actions as traffic engineering, transit operational changes, and modest capital improvements. It is designed to address specific transportation problems in the corridor and to demonstrate the extent to which these problems can be solved without a major investment in new facilities. The TSM alternative is designed within real world limits -- street capacity to accommodate bus movements, financial resources to fund operating deficits, and so forth -- and is therefore a realistic option that represents a true alternative to major new transit facilities. The TSM alternative provides a baseline beyond which it is possible to isolate the added costs and added benefits of a proposed major investment and to compare potential investments in different cities.

For the purpose of the FY 1991 ratings, cost-effectiveness was measured using the cost per new trip index which was introduced in UMTA's 1984 Major Capital Investment Policy. To compute the new trip index, benefits are measured in terms of new riders, travel time savings for existing riders, and operating cost savings. Additional ridership is a measure of how well a transit facility improves transit service, and is also a useful proxy for many of transit's potential secondary benefits, such as the structuring of

urban development patterns and reductions in congestion, pollutant emissions, and energy consumption. The travel time savings measure reflects improved travel conditions for existing transit users, and is a good indicator of improved mobility for the transit dependent. In the new trip index, these travel time savings are converted to their monetary equivalent using an average value of time, and included in the calculations as an offset to costs. Changes in operating and maintenance costs are included to reflect the potential for improvements in efficiency introduced by new transit facilities. The index takes the form of cost per added rider; the lower the index, the more cost-effective the project.

The 1984 policy statement established threshold tests to guide decisions on which guideway proposals should progress from one phase to the next in the new start project development process. Projects should satisfy two thresholds in order to pass from alternatives analysis into preliminary engineering and to qualify for consideration for discretionary funding at the end of preliminary engineering:

- (1) The alternative must produce a gain in transit ridership, compared to the TSM alternative. This threshold is designed to ensure that potential major Federal capital investments provide transportation benefits above and beyond those that can be achieved through lower cost (TSM) improvements.
- (2) The alternative must not have an excessive cost-effectiveness index. The threshold value for the total cost-effectiveness index is currently \$6 per new daily transit trip. (b)

Data used to compute the indices were provided by the transit agencies and/or metropolitan planning organizations currently serving as lead local agency for project planning. Cost, ridership, and travel time savings estimates are produced as a routine part of the alternatives analysis and preliminary engineering phases. As guidance, UMTA supplied each city with a manual: Procedures and Technical Methods for Transit Project Planning (September 1986 draft). As each city develops the input data needed to compute the cost-effectiveness indices, UMTA reviews and concurs in the TSM alternative, the methods and assumptions it proposed to use to estimate costs and benefits, and the reasonableness of the results.

(b) The threshold value is based on a 1984 study which found that a new transit trip would produce, on average, about \$2.80 in direct user benefits. The calculation of direct user benefits in this study was based on a generous estimate of potential savings in parking costs, travel time, and auto operating cost for the average commuter who shifts from auto to transit. UMTA factored the estimate from this study upward to \$6 recognizing that fixed guideways may also produce indirect benefits such as reduced emissions of air pollutants and support for desirable urban development. The \$6 threshold is presently under review to make sure it reflects the current cost of owning and operating an automobile and current wage rates.

Local Financial Commitment

The local financial commitment to a proposed project, including the stability and reliability of local sources of operating funds, is a factor used to order projects that rate similarly in terms of cost-effectiveness. The assessment of local fiscal effort focuses on three principal elements: the proposed local share of project costs, the strength of the proposed capital financing plan, and the stability and reliability of sources of operating deficit funding. The assessment of operating deficit funding takes into account the cost of the supporting bus service assumed in determining cost-effectiveness.

Local share refers to the percentage of capital costs to be met with non-Federal funding, and includes both the local match required by Federal law and any capital "overmatch." Overmatch is accounted for in the rating process because it reduces the required Federal commitment, thus leveraging limited Federal funds, and because it is evidence of a strong local commitment to the project. However, the local overmatch does not become final until preliminary engineering is completed.

The evaluation of each property's proposed capital financing plan takes two principal forms. First, the plan (where available) is reviewed in detail to determine the stability and reliability of each proposed source of local match. This includes a review of inter-governmental grants, tax sources and debt obligations. Each revenue source is reviewed for availability within the project timetable. Second, the financing plan is evaluated to determine if adequate provisions had been made to cover unanticipated cost overruns. Four rating categories are used to rate the strength of a local area's capital financing plan: superior, acceptable, deficient, and unacceptable (see Table 1). A fifth category, unavailable, is used if projects are in the early stages of development (system planning and alternatives analysis) and a financing plan has not yet been adopted.

The third component of the financial rating is an assessment of the ability of the local transit agency to run the system as planned once the guideway project is built. The existence of stable and reliable revenues to cover operating costs reduces the risk that, after a large Federal capital investment, local resources will not be available to maintain and operate the transit system (including essential feeder bus and other ancillary services necessary to achieve projected ridership levels). This rating focuses on the operating revenue base and its ability to expend to meet the incremental operating costs associated with a new fixed guideway investment and any other new services and facilities. Again, projects are placed into five categories reflecting the stability and reliability of operating funds (see Table 2).

Table 1

FINANCIAL RATINGS: CAPITAL FINANCING COMMITMENTS

<u>Category</u>	<u>Indicators</u>
Superior	The applicant's adopted finance plan is considered to be more than adequate to cover projected non-Federal capital costs and to allow for cost overruns. All necessary State, local, and private revenues are committed or dedicated to the project, subject in no case to legislative action or popular referendum.
Acceptable	The adopted finance plan is considered to be adequate to cover projected non-Federal capital costs. The capital financing plan makes minimal (less than 10 percent) provision for contingent cost overruns. All necessary State, local, and private revenues are committed or dedicated to the project, subject in no case to legislative action or popular referendum.
Deficient	The applicant has adopted a capital finance plan that would be acceptable, except that all non-Federal funding commitments are not yet in place. Significant subsequent events must occur before the plan can be considered acceptable. Examples might include the renewal of expiring authorizing legislation, satisfactory resolution of conditions imposed by funding entities, passage of new legislation or a referendum. Since non-Federal funding commitments do not need to be in place until the end of preliminary engineering, it would not be unusual for projects to have a deficient rating until that time.
Unacceptable	The adopted finance plan is deemed to be inadequate or infeasible. Also, an unacceptable rating is given when projects have reached the preliminary engineering phase and a finance plan has not yet been adopted by local officials. Under UMTA's Major Capital Investment Policy, a financial plan is expected to be adopted at the end of alternatives analysis.
Unavailable	The project is in the early stages of development (alternatives analysis or system planning) and a local finance plan has not yet been adopted.

Table 2

FINANCIAL RATINGS: STABLE AND RELIABLE OPERATING REVENUE

<u>Category</u>	<u>Indicators</u>
Superior	<p>Ample dedicated funding sources are in place, or there has been a clear pattern of general appropriations from State or local governments, which regularly provide a balanced budget. Existing capital facilities have been adequately maintained and improved through continuing reinvestment in the system.</p> <p>Financial projections show that the applicant has more than adequate financial capacity to operate the proposed project, to undertake other programmed improvements, and to operate, maintain, and reinvest in its existing transit system with a margin of safety for cost overruns or funding shortfalls.</p>
Acceptable	<p>The region has a history of providing adequate financial support for transit on a year-to-year basis. There may have been a continuing need to increase fares, reduce costs, and/or pursue legislative efforts to increase subsidies. Service cuts may have been undertaken to enhance efficiency and productivity.</p> <p>Financial projections show that the applicant is likely to be able to operate the proposed project and to operate and maintain other elements of its existing transit system, but there is little margin of safety for cost overruns or revenue shortfalls.</p>
Deficient	<p>There are one or more pending issues that need to be satisfactorily resolved before an acceptable rating can be given. Examples might include the renewal of expiring authorizing legislation, satisfactory resolution of conditions imposed by funding entities, or passage of new legislation or a referendum.</p>
Unacceptable	<p>Sources of local funding have not kept pace with costs. Financial conditions have led to a pattern of service level cuts to reduce operating costs. The applicant has a history of deferring capital replacement and/or routine maintenance.</p> <p>An unacceptable rating is also given where (1) financial projections show that the applicant does not currently have the financial capacity to operate the proposed project and other elements of its transit system under reasonably conservative assumptions, and (2) the finance plan is deemed to be inadequate or infeasible.</p>
Unavailable	<p>The operator has not yet been identified, and thus its financial condition cannot be assessed at this time.</p>

New Start Project Profile
(January 1990)

- Project** Atlanta - North Line Extension
- Description**
- o The Metropolitan Atlanta Regional Transit Authority (MARTA) is proposing a 3.1 mile, 3 station extension of the North Line of its heavy rail rapid transit system from Medical Center to North Springs. The initial segment of the North Line from just south of the Lenox Station to Medical Center (5.7 miles) is currently in final design. It will be built by MARTA (without Federal Funds) in the median of GA 400 which is under construction by Georgia DOT.
 - o The 3.1 mile extension is estimated to cost \$528 million (escalated \$) with a Federal share of \$396 million.
 - o Ridership for the year 2005 is estimated at 19,000 riders per day.
- Status**
- o The request to conduct an Alternative Analysis (AA) was approved in January 1988. The project is nearing completion of the AA phase and the AA/DEIS should be circulated for review and comment in early 1990.
 - o The project is not ready to receive final design and construction funding, although Congress earmarked \$52.1 million in FY 1990 for the project. The costs, benefits, and impacts of the project will not be known with any certainty until the AA is completed. The environmental process will probably be completed in late 1990 at the earliest.
- Cost-Effectiveness**
- o The North Atlanta Corridor is the fastest growing portion of the Atlanta area. The North Line and its extension will connect this area with the rest of the region and provide high quality transit service for inner city residents to expanding job opportunities in the suburbs as well as service from the North to downtown.
 - o During the AA, the capital cost estimate for the project has increased without commensurate increases in project benefits. As presently configured, the project would attract new ridership at \$8-\$9 per trip. The UMTA threshold for cost-effectiveness is \$6 per new transit trip.

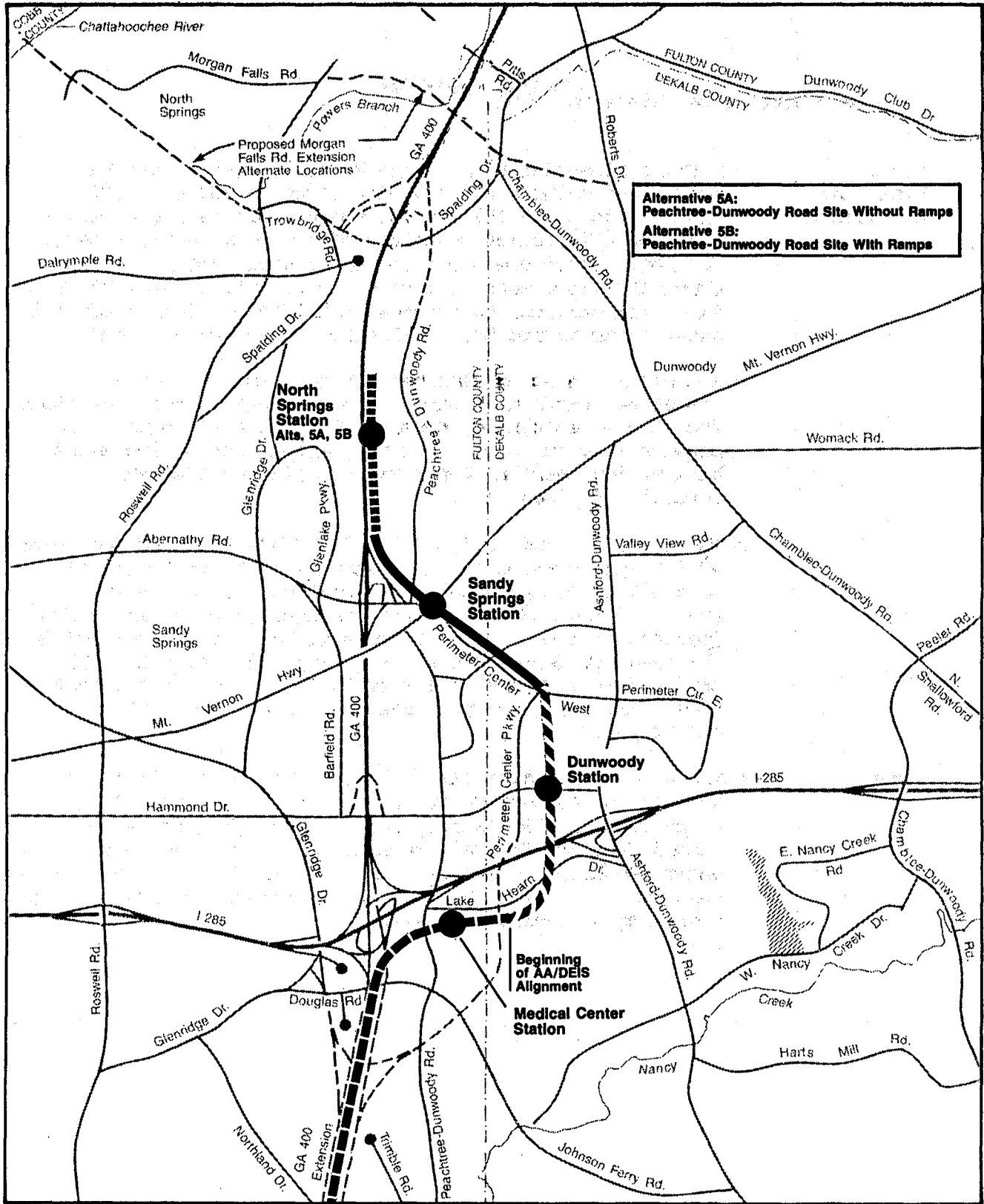
Atlanta - North Line Extension (Cont.)

Local
Financial
Commitment

- o MARTA's Financial Feasibility Report suggests several possible funding scenarios with either a 75% or a 50% Federal share. A 75% Federal share would be inconsistent with the UMTA policy objective of 50% or more non-Federal funding. Under one scenario, MARTA would establish Community Improvement Districts around the three North Line extension stations to provide up to \$60 million in benefit assessments toward the local share of the project cost.
- o A capital financing plan has not been adopted and is, therefore, rated as "unavailable." MARTA projects revenues from the sales tax to increase at about a 9% annual rate between 1990 and 2005. However, actual annual increases have varied between 1% and 9% from 1984 to 1988 and actually declined in FY89.
- o The stability and reliability of MARTA's proposed operating assistance is rated as "unacceptable." Their Financial Feasibility Report assumes a significant increase in average fares and a resultant increase in operating ratio (percent of operating costs covered by fares). The current (FY 1988) system-wide operating ratio is 32%, but MARTA projects an increase to 48% by 2005. While, at the same time, sales tax receipts have been relatively flat in recent years.

Other

- o MARTA has a 1% sales tax which it uses to subsidize its operations and support its construction program. To date, 47 percent of MARTA's rail construction program has been funded from non-Federal sources. Three rail extensions are under construction and two are in final design. When these segments, totally 14.9 miles, are completed, MARTA will be operating a 44-mile rail system.

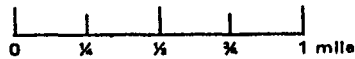


Alternative 5A:
Peachtree-Dunwoody Road Site Without Ramps

Alternative 5B:
Peachtree-Dunwoody Road Site With Ramps

Legend

- ==== Planned GA 400 Extension
- Planned Roadway Improvements
- ■ ■ ■ MARTA Rail Service
- ▨ ▨ ▨ ▨ Aerial Rail Extension
- ● ● ● At-Grade Rail Extension
- — — — Subway Rail Extension
- Rail Station

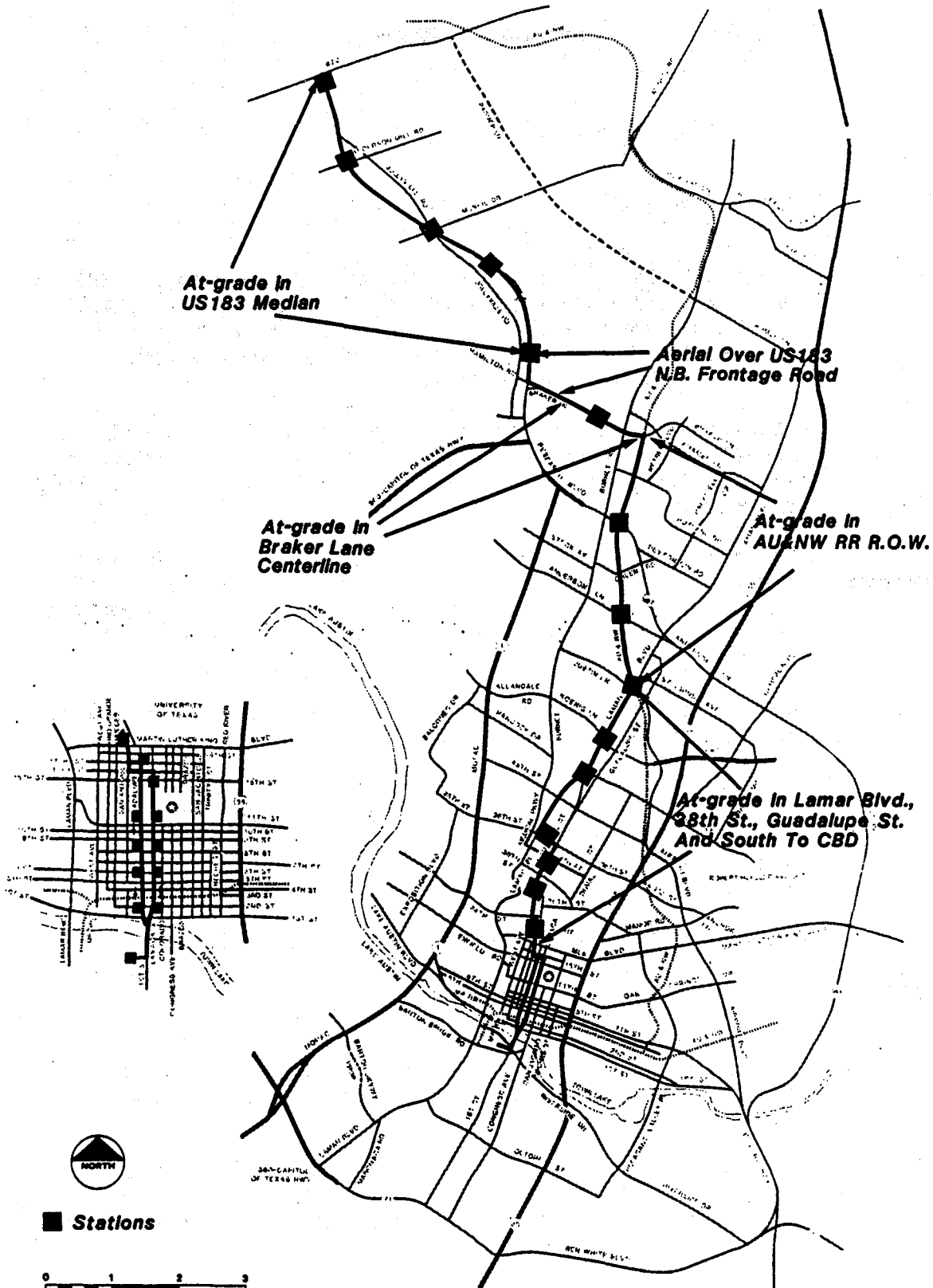


**North Atlanta Corridor Project
Alternatives Analysis/
Draft Environmental Impact Statement**

New Start Project Profile

- Project** Austin - North Central/Northwest Corridor
- Description** ○ Capitol Metro initiated an Alternatives Analysis in 1987 to examine busway and LRT alternatives in the North Central/Northwest corridor of Austin. The LRT and busway alternatives are about 15 miles long and have a capital cost of \$300 million or less.
- Status** ○ The Capitol Metro Board has decided that it cannot afford an LRT system at this time, but has not formally notified UMTA to terminate or suspend the AA/DEIS effort. The study is currently inactive.
- Cost-Effectiveness** ○ The North Central/Northwest corridor connects suburban residential and office park areas with the University of Texas, the State Capital area and the CBD, all in downtown. This is the corridor with the highest existing transit ridership in Austin.
- An Alternatives Analysis was undertaken in Austin despite the fact that none of the "build" alternatives were potentially cost-effective because of both Congressional interest and the fact that no Federal Funds were to be used for the study. Since then, the capital cost estimate has risen substantially without any commensurate increase in estimated ridership. Thus, light rail in Austin appears even less cost-effective than first thought.
- Local Financial Commitment** ○ Austin originally proposed to fund a large share of this project locally, but now Capital Metro cannot afford any share of the proposed LRT system.
- The downturn in the Austin economy and the Board's decision to give one quarter of Capitol Metro's 1% sales tax for street improvements has resulted in a rating of unacceptable for the LRT capital financing plan.
- Even before giving up a quarter of their sales taxes, the AA revealed that Austin could not afford even a modest increase in operations, therefore making their operations financing plan unacceptable.

Austin North



■ Stations

0 1 2 3
miles

February 15, 1988

TRANSITWAY CORRIDOR ANALYSIS PROJECT	
ALTERNATIVES ANALYSIS AND ENVIRONMENTAL STUDY	
ALTERNATIVE D - LRT(Subalignment # 2)	

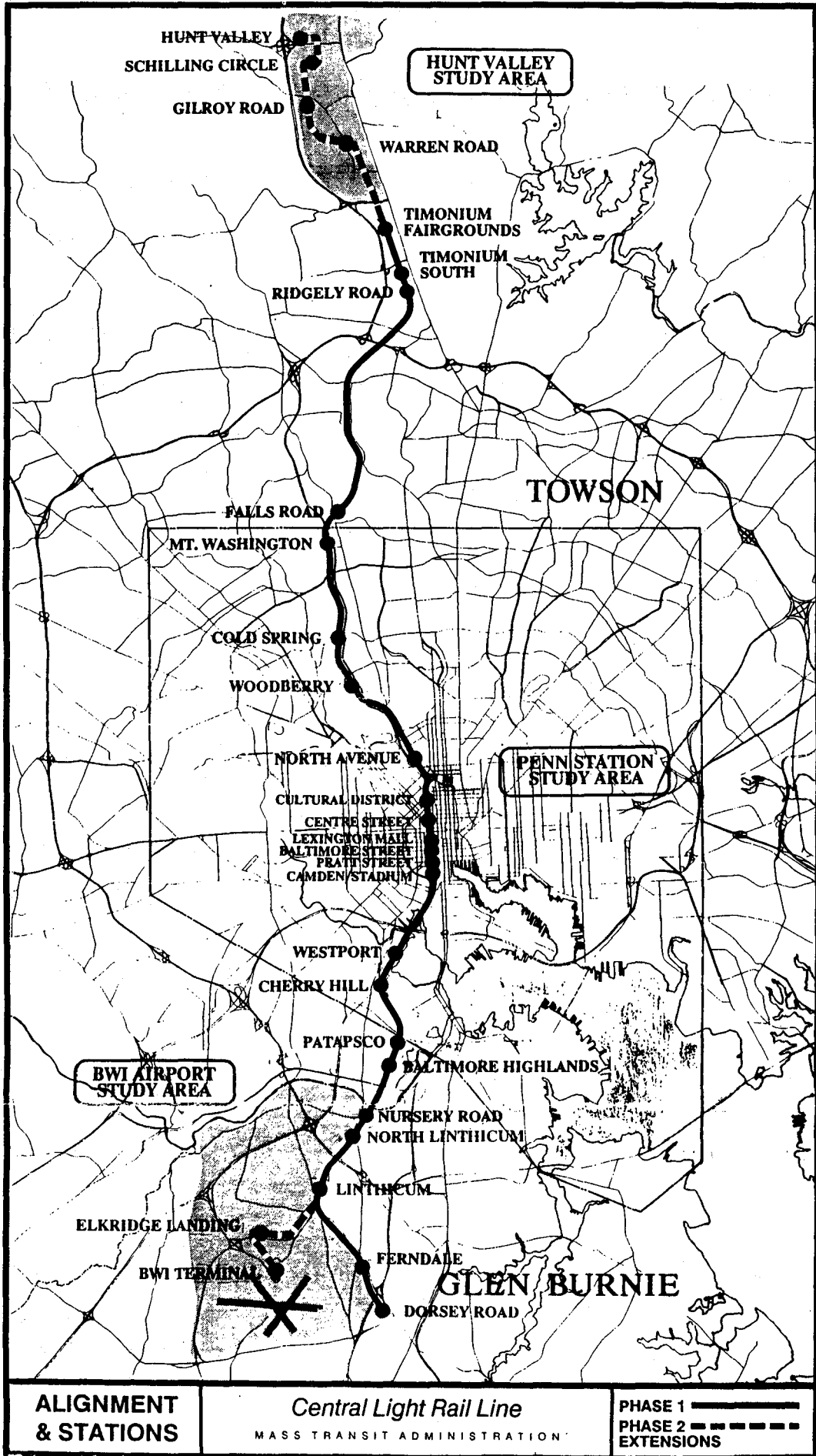
New Start Project Profile
(January 1990)

- Project Baltimore - Central LRT Extensions
- Description
- o The Mass Transportation Administration (MTA) of Maryland is proposing to construct, using State and local funds, a 22.5-mile light rail transit (LRT) line primarily along existing RR right-of-way from Glen Burnie in the south through the Baltimore CBD to Timonium in the north.
 - o The possible Federal project, or rather three projects, consists of a 4-mile extension of the LRT from Timonium to Hunt Valley and two spurs off the LRT main line to BWI Airport (1 mile) and to Penn Station (0.5 mile) in downtown Baltimore.
 - o The entire project was originally estimated to cost \$290 million but revised estimates by the State in January 1989 put the cost at \$446 million. Preliminary estimates put the total cost of the extensions at about \$60 million with a Federal share of \$45 million.
 - o Patronage data has not been developed for the extensions, but the main line is estimated to carry 20,000 daily trips by the year 2000.
- Status
- o The Federal projects are in the Alternatives Analysis (AA) phase of UMTA's project development process. A notice of intent to prepare an EIS for the extension to Hunt Valley was published in the Federal Register in October 1989. Notices for the two spurs are being prepared.
 - o Although the projects' costs and benefits will not be known until completion of the AA, Congress has earmarked \$11.7 million for the project, of which \$2.5 million has been obligated for AA/DEIS work.

Baltimore - Central LRT Extensions (Cont.)

- Cost-
Effectiveness
- o No recent cost-effectiveness analysis has been done. A 1982 AA/DEIS for the North Corridor indicated that a double-track LRT line (the current proposal is largely single-track) would attract 40,000 riders per day with 17,000 new riders at a cost of \$6 to \$7 per new rider relative to a No Build alternative. Comparing the proposed single track operation to a TSM alternative would result in a higher cost per new rider.
- Local
Financial
Commitment
- o The project is a candidate for funding under the Secretary's overmatch initiative. The State has pledged \$205 million from its Transportation Trust Fund and three local counties have committed \$15 million each to build the 22.5-mile main line. However, no additional funding has been identified for the \$160 million cost overrun. As originally proposed, a Federal share of \$45 million would constitute 75% of the Federal projects, but only 16% of the entire line.
 - o A financial analysis of capital cost requirements will be performed as a part of the AA. Hence the capital financial plan is rated as "unavailable" at this time.
 - o MTA has a history of adequate funding of transit operations which includes contributions from the State Transportation Trust Fund. Hence, future operating assistance is rated "acceptable."

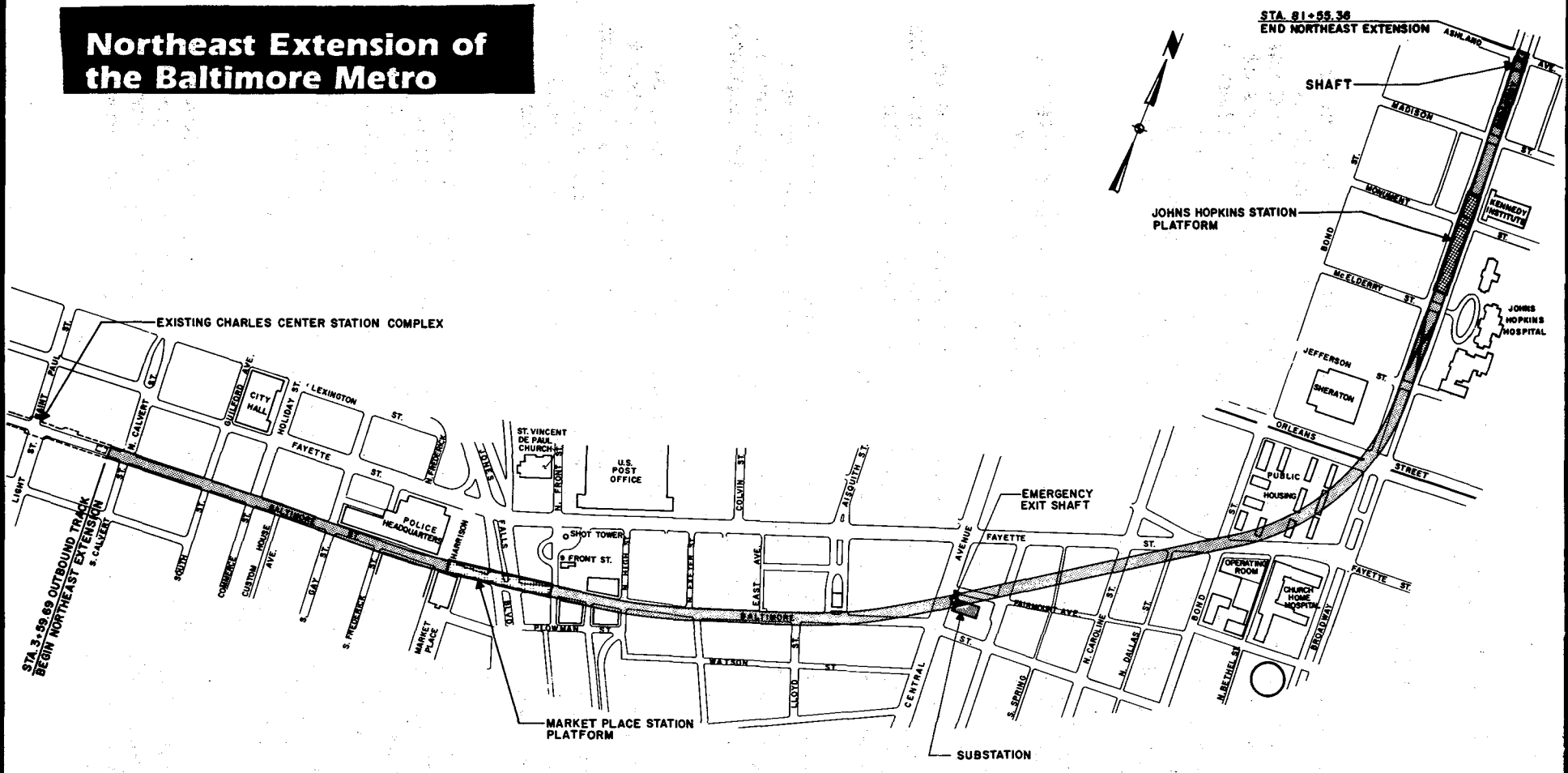
Baltimore: Central Light Rail Line



New Start Project Profile
(January 1990)

- Project Baltimore - Northeast Extension to Johns Hopkins Hospital
- Description
- o The Mass Transit Administration (MTA) of Maryland is constructing a 1.5-mile extension of their heavy rail transit line with two stations in downtown Baltimore. The subway alignment would run in deep tunnel east from the existing Charles Center Station under Baltimore Street in the downtown to a Shot Tower Station underneath Jones Falls Way, and then turn northward on Broadway to a terminal station at Johns Hopkins Hospital. A bus transfer facility will be constructed as part of the Johns Hopkins Hospital Station.
 - o MTA will use \$273.4 million in Federal Interstate Transfer funds and \$48.2 million from the State Transportation Trust Fund to construct the \$321.6 million project.
 - o By 2005, the extension is expected to carry 42,000 daily riders of whom 4,600 will be new riders on the region's transit system. No additional rail vehicles will be purchased for the extension.
- Status
- o MTA is currently operating a 14-mile heavy rail line (Sections A and B) from Charles Center to Owings Mills. The project (Section C) extends the line northeast of downtown to Johns Hopkins Medical Complex.
 - o A full funding contract for final design and construction was signed in December 1988. Through FY89, \$110 million in Interstate Transfer funds have been obligated. An additional \$54.8 million was appropriated for FY90.
 - o Construction of Section C started in early 1989. Revenue service is scheduled to begin by July 1994. UMTA has assigned a PMO contractor to monitor construction.
- Cost-Effectiveness
- o The project, at \$13.71 per trip and with a user benefit index of \$23.84 per hour, exceeds UMTA's tests of cost-effectiveness. It does not meet UMTA's cost-effectiveness tests because of high construction costs, little travel time savings for existing riders, and few new riders. MTA has agreed to build the project entirely with Interstate Transfer funds and not to seek any Section 3 funds.
- Local Financial Commitment
- o MTA projects an operating cost increase of \$3.1 million by 1994 when the Hopkins extension is expected to be in service. Farebox revenues are expected to cover over 50 percent of these expenses, and the deficit will be funded with proceeds from the State Transportation Trust Fund.

Northeast Extension of the Baltimore Metro



STA. 81-55.34
END NORTHEAST EXTENSION

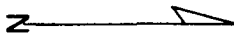
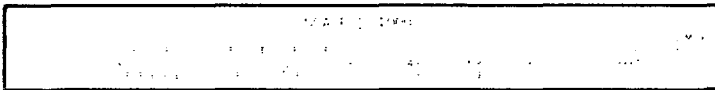
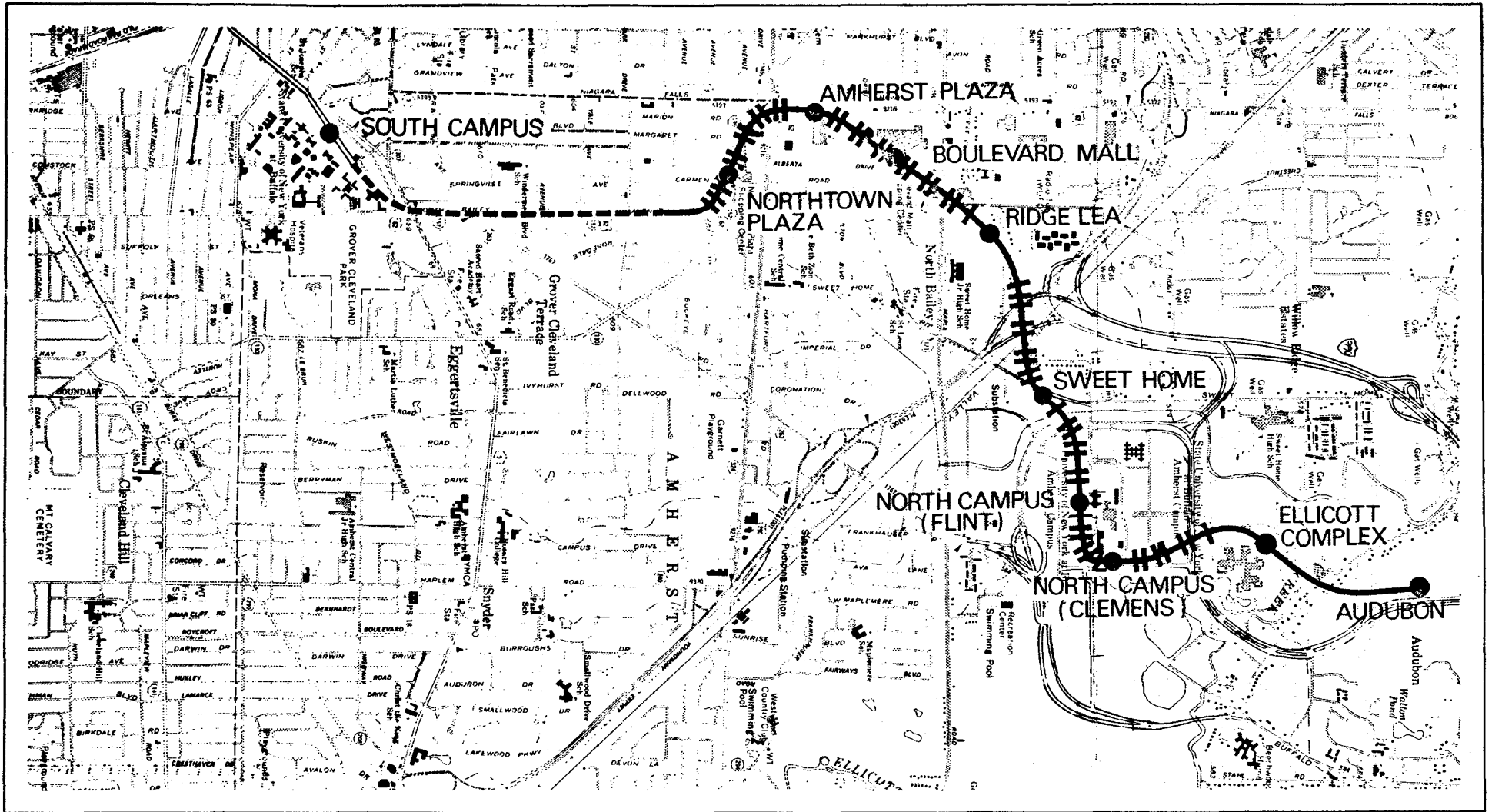
STA. 3-59
BEGIN NORTHEAST EXTENSION

New Start Project Profile
(January 1990)





- | | |
|-----------------------------------|--|
| Project | Buffalo - Amherst Corridor |
| Description | <ul style="list-style-type: none"> o The Amherst Corridor extends some 6 miles from the north end of the Niagara Frontier Transportation Authority's (NFTA) light rail rapid transit line. An extension of the existing line, connecting the north and south campuses of the University of New York at Buffalo (SUNYAB), has been a part of local plans since the early 1970's. Several alignment and termini options have been proposed. A continuation or expansion of existing bus service is another alternative. o The NFTA's capital cost estimate for a 6.1-mile LRT extension to Amherst and Audubon is \$367 million (1985\$). A shorter (2.6-mile) extension to Boulevard Mall is estimated to cost \$144 million. |
| Status | <ul style="list-style-type: none"> o UMTA approved the initiation of alternatives analysis in 1982, subject to the selection of a priority corridor. The NFTA's Northern Corridors Refinement Study led to the selection of the Amherst Corridor in 1986. o Since 1986, the NFTA has been performing an Economic Development/Value Capture Study to estimate the economic benefits of an LRT extension. Unless substantial economic benefits are identified, the NFTA may elect not to complete the alternatives analysis. |
| Cost-Effectiveness | <ul style="list-style-type: none"> o According to the Northern Corridors Refinement Study, an LRT extension would have little impact on regional transit ridership and traffic congestion. Compared with a low cost all-bus alternative, LRT would attract only 3300 more daily transit riders. The NFTA's operating costs would increase by several million dollars per year with the LRT extension. o The Northern Corridors Refinement Study yielded cost-effectiveness indices of \$46 to \$67 per new regional transit trip (1985\$). It is highly unlikely that further study will show a LRT extension to be cost-effective. |
| Local Financial Commitment | <ul style="list-style-type: none"> o UMTA assumes that the NFTA would seek 75 percent funding from Section 3. The assumed funding plan would be inconsistent with the Federal policy objective of 50 percent or more non-Federal funding. o The NFTA's only regular source of capital funding has been State appropriations. The State is now insisting upon a greater financial effort by local governments. No capital financing plan has been adopted for this project, leading to an "unavailable" capital finance rating. |

Buffalo - Amherst Corridor (Cont.)

- o The stability and reliability of NFTA operating revenues is rated "unacceptable." The NFTA does not have a dedicated source of revenues and relies on local and State appropriations for its operating revenues. In recent years, the NFTA has been forced to rely on emergency appropriations by the State and other stop-gap measures to avoid major service cuts. In mid-December 1989, the system faced a possible shut-down due to a lack of operating funds.



LEGEND

-  underground (tunnel or cut-and-cover subway)
-  at grade (including cuts, fills, and transitions)
-  aerial structure and viaducts
-  station locations

Buffalo

Amherst Full Extension

New Start Project Profile
(January 1990)

Project: Chicago - "Central Area Circulator" Light Rail Loop

- Description**
- o The Chicago Central Area Circulator (CAC) project (as it has been conceived in preliminary planning work to date) would be a multi-legged light rail system within Chicago's central area, which is the second largest central business district (CBD) in the Nation with 650,000+ jobs.
 - o The current rapid transit system, including both the "loop" and two subways, does not directly connect the newly developing areas on the CBD's east side (e.g., in the northeast along North Michigan Avenue) with the rest of the CBD, particularly the commuter rail terminals which have an aggregate ridership of about 250,000 trips per day.
 - o During preliminary planning, the cost of constructing the 5.2 mile first phase of the system was estimated to be about \$325 million, and ridership was estimated to be 75,000 trips per day, the majority of which would either be existing transit users or people who formerly walked.
 - o Most of the planned first phase of the system would be on its own right-of-way, either in the median or at the side of wide avenues or on unused rights-of-way.

Status

- o Preliminary planning for a CBD circulator project has been completed after two years of work by local agencies, using UMTA, State and private funds. A range of options was examined, including LRT, a busway, an automated guideway system (AGT) and transportation system management (TSM) improvements, with the LRT and TSM options selected for further consideration.
- o A formal application to begin an alternatives analysis and Draft Environmental Impact Statement was made by the City of Chicago in December 1989, and approval was given by UMTA in early January, 1990. The Congress had earmarked \$1 million in FY1990 Section 3 funds for planning and preliminary engineering and directed UMTA to complete the alternatives analysis/DEIS by May 1st.

Chicago - "Central Area Circulator" Light Rail Loop (Cont.)

Cost- Effectiveness

- o The major transportation benefit of the circulator is the provision of better access to and egress from the commuter rail stations in the Chicago CBD, connecting them to the high growth areas on the opposite side of the core.

- o The information produced by preliminary planning indicated that the project warranted initiating an alternatives analysis/DEIS. Phase I of the CBD LRT circulator system would attract additional ridership at a cost of about \$9.90 per trip, just under UMTA's maximum threshold of \$10.00 per trip for entry into alternatives analysis/DEIS.

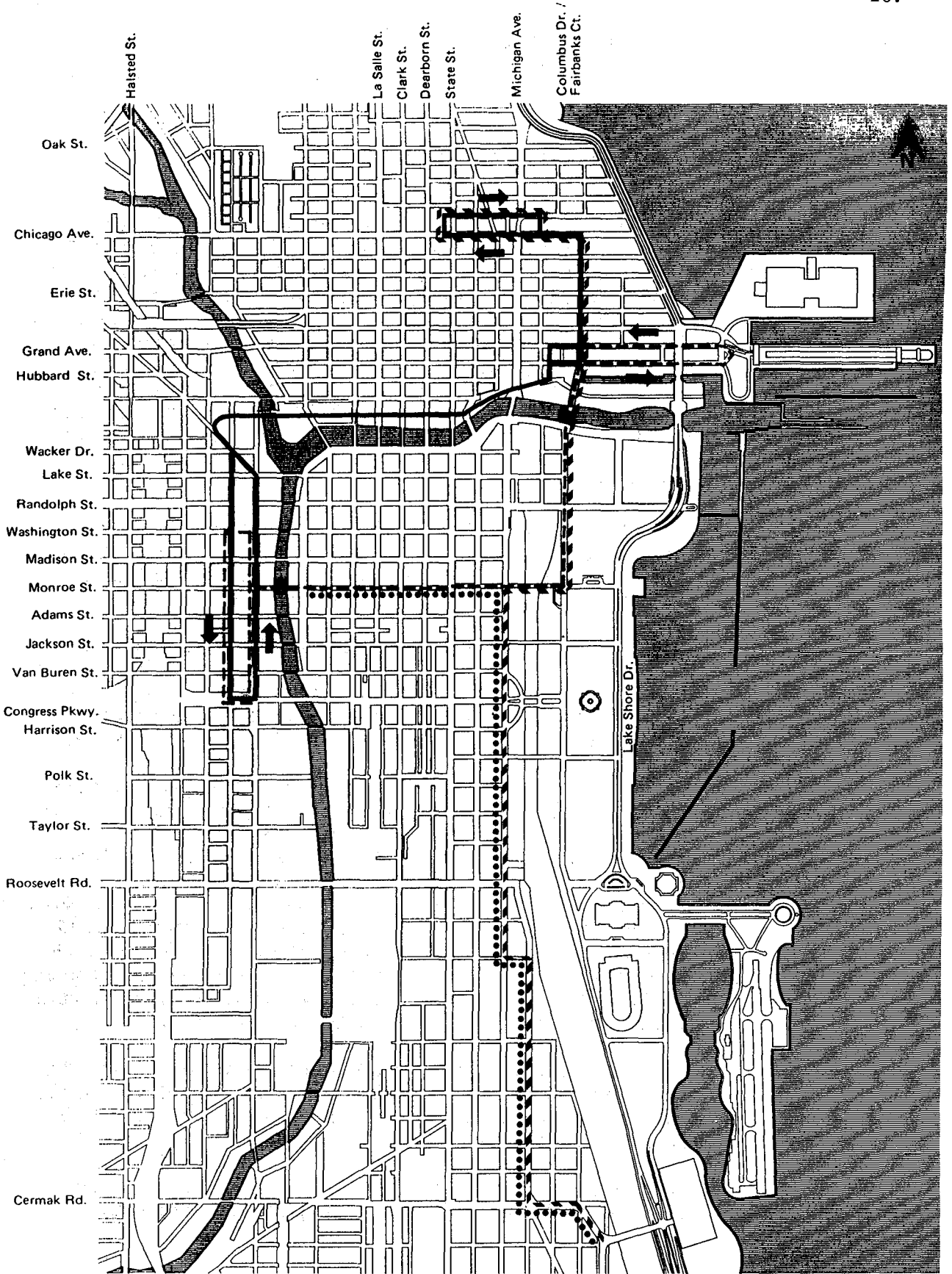
Local Financial Commitment

- o One third of the total cost of the first phase of the system is proposed to come from the Federal government, one third from the State and one third from the private sector (and the City) by means of a tax on commercial property within a special benefits assessment district.

- o A final financing plan for the CAC project is unavailable. However, the State legislature recently passed a new funding package for transit which will make \$820 million available statewide for transit capital improvements over the next five years in addition to an existing \$1.5 billion funding base. This package, a combination of direct funding and an increase in bonding authority, includes \$20 million specifically earmarked for engineering and other "up front" costs for the CAC project. In addition, State legislation authorizing the City to establish a special benefits assessment district to fund the local/private one third share of the project is already in place.

- o The stability and reliability of local operating and maintenance funding is acceptable; However, operating deficits are rising faster than dedicated sources of revenue are growing, and reductions in both bus and rail service and the closing of rail transit stations are being proposed for next year's budget. The deficit associated with the CAC project would be relatively small both in dollar terms and as a percentage of the region's total transit deficit.

Chicago: Central Area Circulator



LRT ROUTES— SYSTEM ALTERNATIVE I

- ROUTE A
- - - ROUTE B
- ROUTE C
- / - / - / ROUTE D

New Start Project Profile
(January 1990)

- Project Cleveland - Dual Hub Corridor
- Description
- o This corridor contains two major employment centers, downtown Cleveland and University Circle, which are 5.6 miles apart. In 1988, there were 134,000 daily bus riders in this corridor. Cleveland's heavy rail line presently follows a circuitous route on the eastside that just touches the edge of downtown and then bypasses the busiest transit corridor on the eastside. The rail system has only one station in downtown, Tower City, which the City is currently rehabilitating with an UMTA grant. This proposal is to realign the eastside tracks through downtown and along the busy eastside corridor to University Circle.
 - o The alternative considered most likely to be selected as the locally preferred alternative follows Euclid Avenue in subway downtown and on surface streets outside of downtown. It has a capital cost of \$568 million.
 - o System-wide ridership peaked in the early 1980s at over 120 million annual passengers, but has declined steadily since. In 1988 ridership was under 70 million riders. The drop in ridership has been most dramatic on the heavy rail line.
- Status
- o This project has been in alternatives analysis since 1983. It has progressed slowly partly because it is a joint effort of the City of Cleveland Planning Commission, the Northeast Ohio Areawide Coordinating Agency (NOACA), and the Greater Cleveland Regional Transit Authority (GCRTA). Also GCRTA apparently showed little interest in the project because of significant managerial, safety and other problems. It is now progressing. The alternatives being examined are the No-Build, a TSM alternative, and several rail re-alignments that range in cost from \$292 to \$774 million.
 - o The City of Cleveland and NOACA (the MPO) have already endorsed the Euclid rail alternative. The GCRTA Board will not take any formal action until after the public hearing on the AA/DEIS.
 - o The Congress earmarked \$2 million of FY 1990 Section 3 funds for preliminary engineering for the project.

Cleveland - Dual Hub Corridor (Cont.)

Cost-
Effectiveness

- o It is not yet known whether the relocation of the rail line will attract sufficient new riders to justify the major expense. A much lower cost bus alternative may accomplish the same objective.
- o The impetus for the project is from several sources: 1) the rail system does not penetrate downtown, 2) the eastside alignment misses the best transit corridor on that side of town, and 3) dwindling ridership has left the rail system underutilized. However, because the realigned trains would operate on surface streets, existing riders to the Tower City area of downtown would be subject to longer travel times. The eastside corridor is now well served by buses and not so congested that a train operating on the same streets would improve travel times appreciably.
- o A cost-effectiveness index for the proposed action has not been determined since UMTA and the City have not agreed on the TSM baseline.

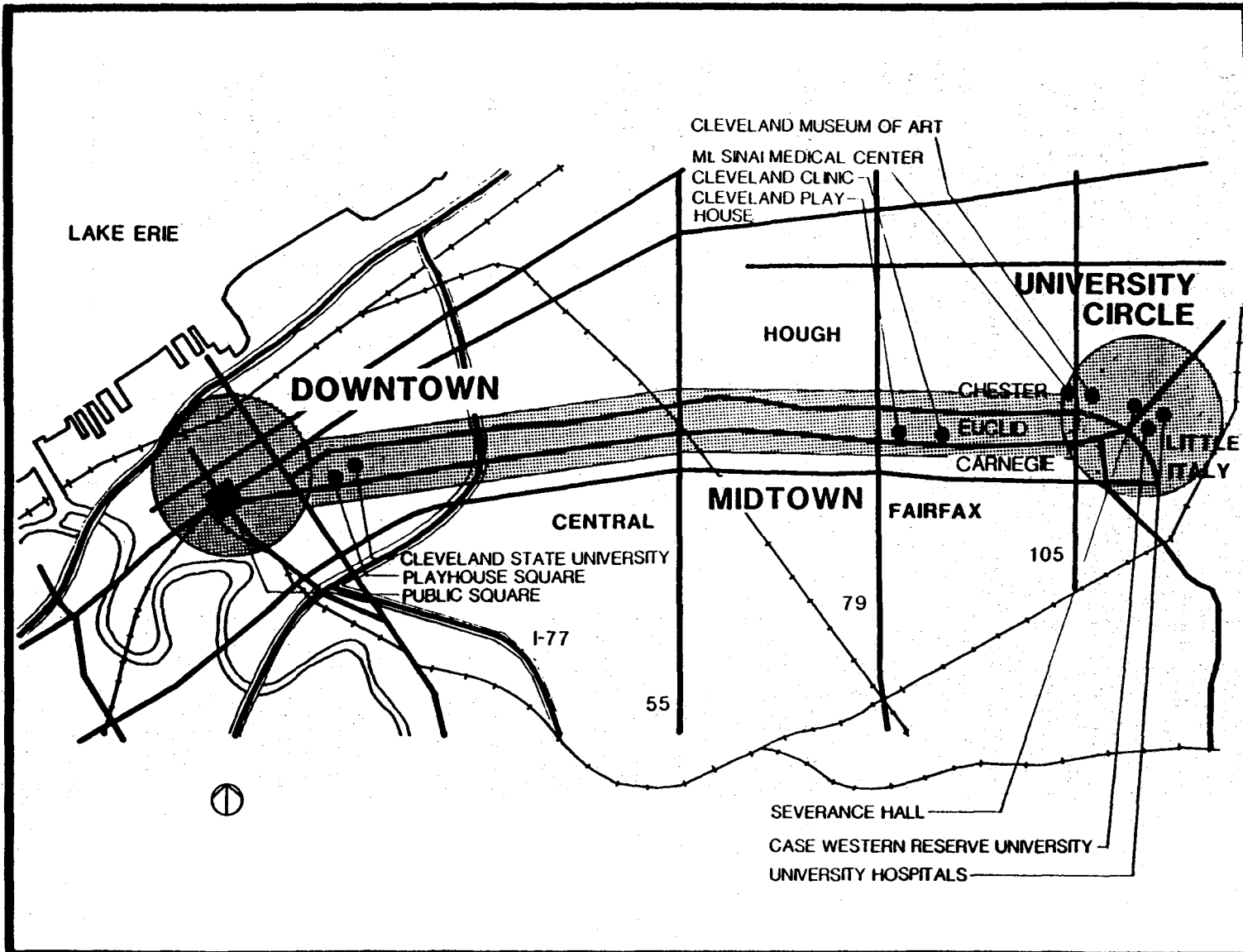
Local
Financial
Commitment

- o GCRITA's preliminary financial plan calls for funding from UMTA (50%), the State of Ohio (10%-12%), the City of Cleveland (5%), GCRITA (25%-35%), and the private sector (10%-20%). No commitments have been made by any funding source, and state legislation is not in place to impose a special benefits assessment to facilitate private contribution to the project.
- o A Capital Financing Plan for the project has not been adopted and is "unavailable." The draft plan lacks specific commitments.
- o GCRITA's capital and operating expenses are supported by a 1% sales tax in Cuyahoga County. Fare-box revenues cover 26% of operating expenses. The remainder is provided by UMTA (7%), the State of Ohio (5%), and GCRITA (62%). There is a modest capital program which is 100% local, but it is clear that the sales tax revenue is committed to operating and maintaining the existing system for the most part, with little left over for new initiatives. GCRITA's operating assistance plan is considered "acceptable."

Other

- o There has been strong support from certain sectors of the business community for the project.

Cleveland: Dual Hub



DUAL HUB
CORRIDOR
ALTERNATIVES
ANALYSIS

DUAL HUB CORRIDOR

CITY
PLANNING
COMMISSION



New Start Project Profile
(January 1990)

Project	Dallas - South Oak Cliff
Description	<ul style="list-style-type: none"> o The Dallas Area Rapid Transit (DART) proposes to build an initial 20-mile LRT system for about \$600 million. Federal participation has been requested for a \$250 million, eight mile segment from downtown to South Oak Cliff, with potential Federal funding limited to \$125 million.
Status	<ul style="list-style-type: none"> o Initiation of the South Oak Cliff Alternatives Analysis was approved by UMTA in November 1988, and in September 1989, the AA was granted expedited treatment under the Secretary's Overmatch Initiative. In October 1989, scoping meetings were held. Under the expedited treatment DART hopes to be able to circulate the Draft EIS in April 1990. o DART has survived recall elections in all but two small suburbs and seems to have a sound political and financial future. o Intense opposition from elements of the downtown business and historic community is likely to generate legal challenges to the AA/DEIS unless a bored tunnel is selected as the preferred alternative for the downtown segment. Currently DART favors an at-grade alignment in the CBD because of the additional cost of a tunnel.
Cost-Effectiveness	<ul style="list-style-type: none"> o The proposed project serves one of the most transit-dependent areas of Dallas which also does not have direct freeway access to the downtown. o Very preliminary cost-effectiveness numbers indicate that the project, even with a mall CBD alignment, may not meet UMTA's cost-effectiveness threshold of \$6 per new trip.
Local Financial Commitment	<ul style="list-style-type: none"> o DART is proposing a 20-mile, \$600 million system which would be locally funded except for about eight miles of the South Oak Cliff Line where \$10 million from Section 9 and \$115 million from Section 3 is expected. DART would therefore contribute about 79% of the cost of a 20-mile system, which is 50% of the cost of the Federal portion. o DART, with a 1% sales tax, is in very good financial condition. However, the capital proposal is rated as "unavailable" until a specific, comprehensive financial plan is developed.

Dallas - South Oak Cliff (Cont.)

- o DART with it's one percent sales tax revenue has an "acceptable" history of obtaining operating assistance.

SOUTH OAK CLIFF CORRIDOR SECTIONS

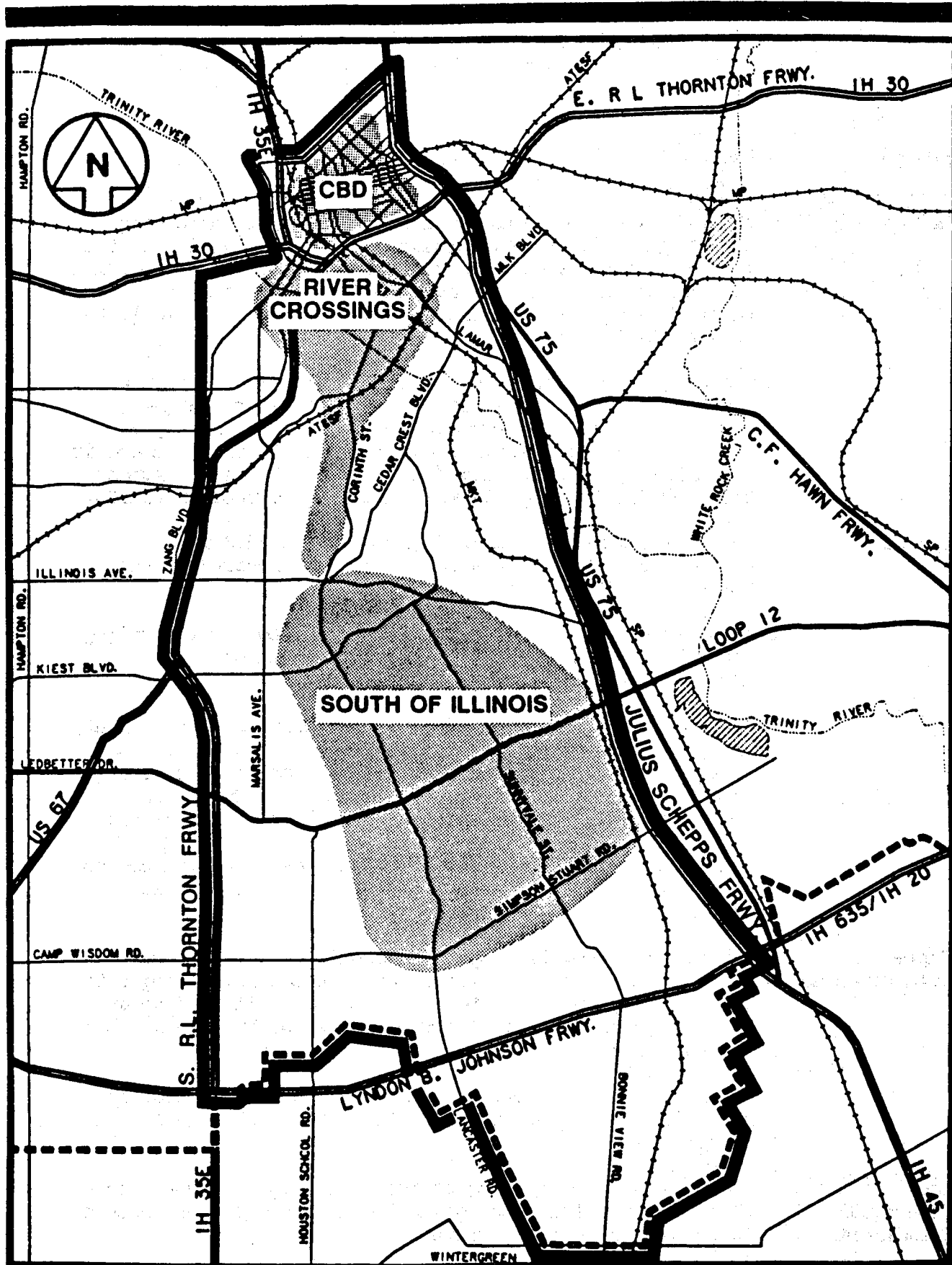


Figure 2.1

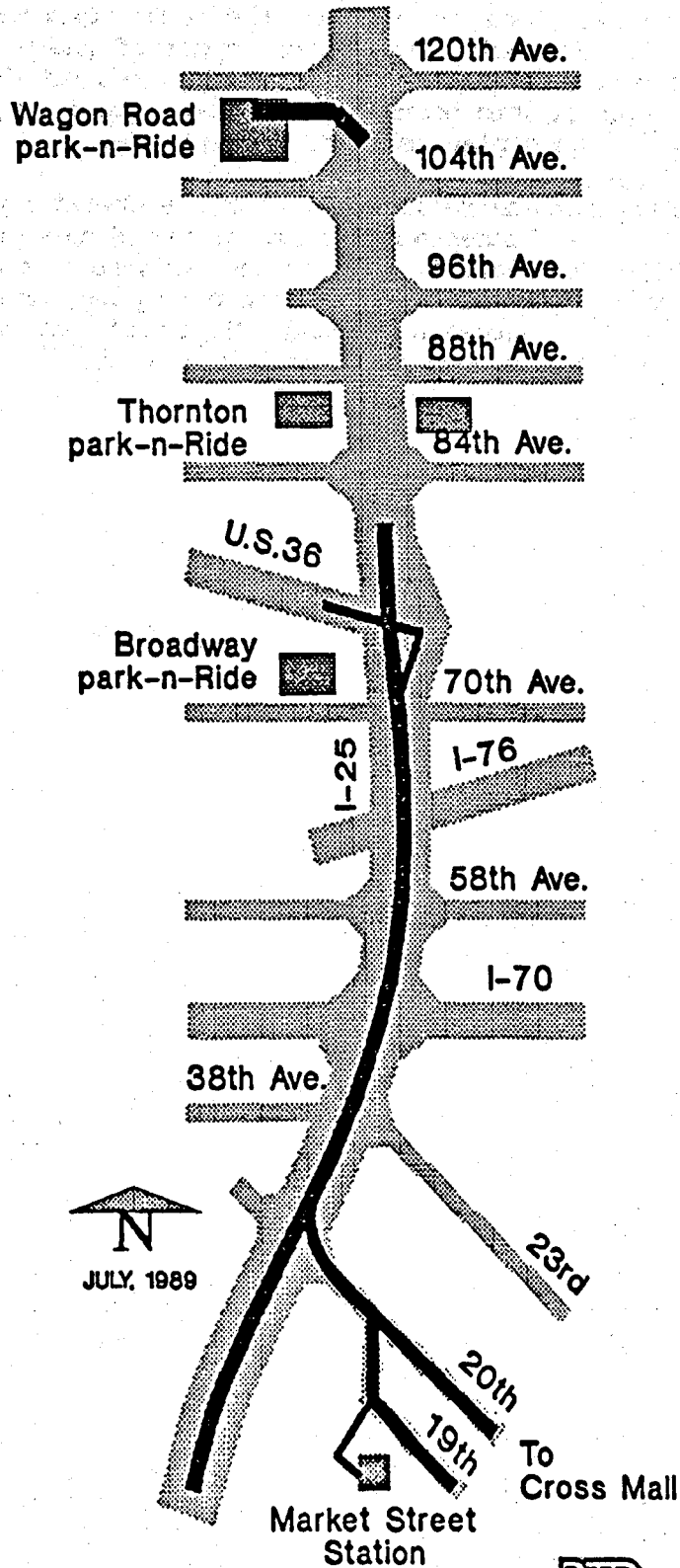
New Start Project Profile
(January 1990)

- Project** Denver - North I-25 Bus/HOV Lanes
- Description**
- o The Regional Transportation District (RTD) is proposing a two-lane reversible HOV facility in the median of I-25 from 20th Street to US-36. The project also includes rebuilding 20th Street from I-25 to downtown Denver to include reversible HOV lanes. In total, the HOV facility would be 6 miles in length.
 - o The project is estimated to cost \$200 million, with the cost to be divided among RTD, UMTA, the Federal Highway Administration, the Colorado Department of Highways, and the City and County of Denver. The UMTA Section 3 share is \$70 million, the RTD share \$46 million. Section 3 funds totaling \$52.4 million have been earmarked through FY1990.
- Status**
- o The environmental assessment process concluded with approval of a "Finding of No Significant Impact" in the Spring of 1989.
 - o In December 1989, UMTA and RTD entered into a full funding contract. Final design had previously been proceeding under a Letter of No Prejudice.
 - o One unresolved issue pertains to the design of 20th Street, the connection into the Denver CBD for the HOV-way. The current design assumes that AMTRAK service will be removed from the Denver Union Terminal so that 20th Street can enter downtown at grade with no interference from Amtrak trains which currently cross the street. If the AMTRAK relocation does not come to pass, the design would need to be revisited and, possibly, the environmental process reopened.
- Cost-Effectiveness**
- o The bus/HOV lanes are expected to significantly reduce travel time for transit riders and carpoolers, saving 8 to 9 minutes on average. This time savings will lead to an increase in the number of commuters using buses and other high occupancy vehicles.
 - o With a cost-effectiveness index of \$4.40 per new transit/HOV trip, the project passed UMTA cost-effectiveness threshold.
- Local Financial Commitment**
- o The transit share of project costs is \$116 million. The \$46 million in RTD funds going to the project represents a 40 percent non-Federal share.

Denver - North I-25 Bus/HOV Lanes (Cont.)

- o RID is supported by a 0.6 percent dedicated sales tax and has built up capital reserves of some \$40 million. The financial analysis showed that the local agencies will be capable of financing the capital costs of the project with no increase in taxes, assessments, or fees provided certain optimistic economic assumptions come to pass. The capital finance plan is rated "acceptable."
- o The stability and reliability of RID's operating revenues is also rated "acceptable" based on the financial analysis. However, if some of the economic assumptions underlying the analysis do not come to pass, and if no additional resources are found, RID could have difficulty providing the assumed level of bus service.

Denver North I-25 Bus/HOV



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JULY, 1989



New Start Project Profile
(January 1990)

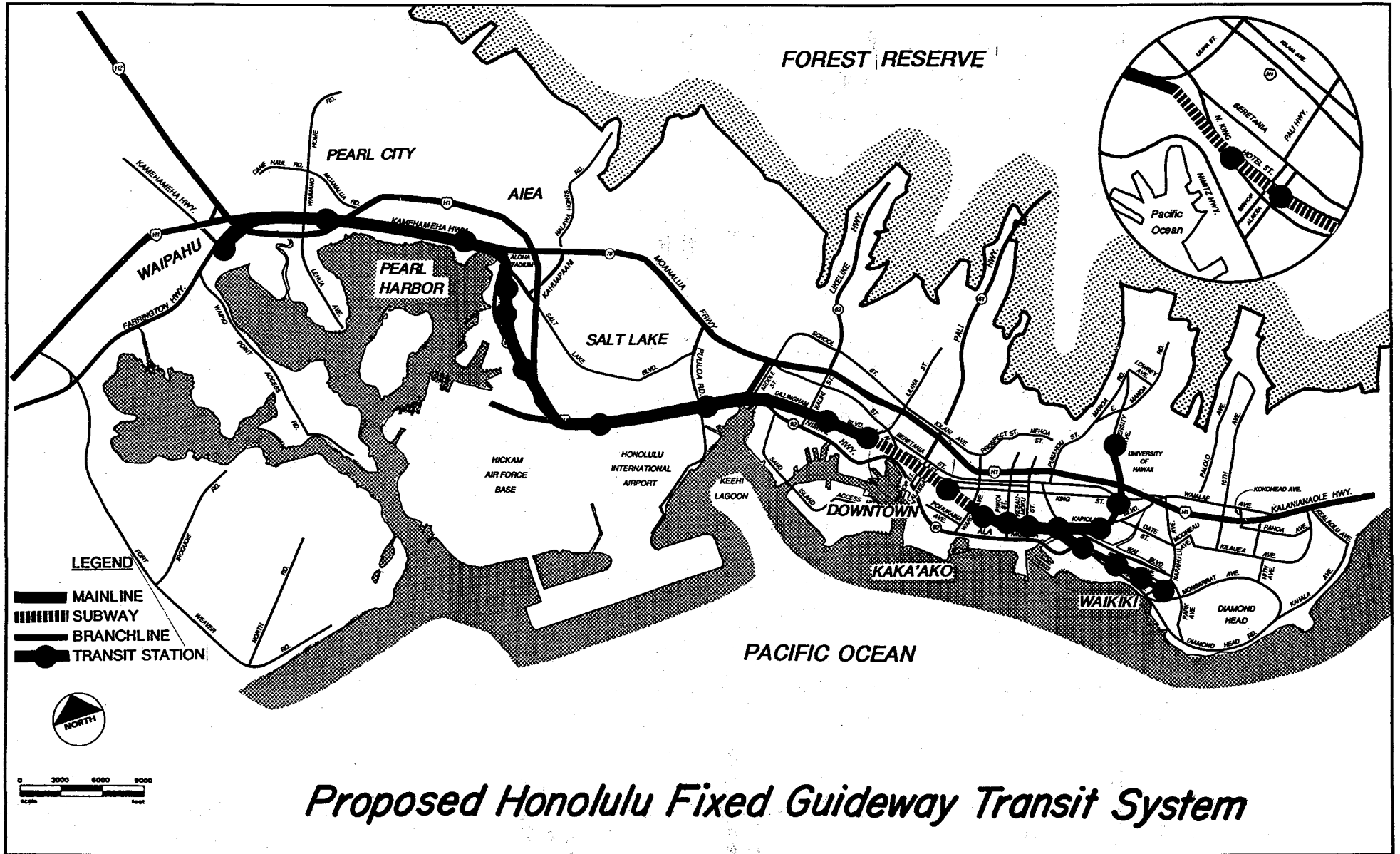
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|------------------------|---|
| Project | Honolulu-Central |
| Description | <ul style="list-style-type: none"> o The City and County of Honolulu is examining nine fixed guideway alternatives for its central corridor stretching from Eva on the west, through downtown, to Waikiki and the University of Hawaii on the east. An all-bus alternative relying on a system of HOV lanes and a downtown bus street is also being considered. The corridor is approximately 15 miles in length. o All of the fixed guideway alternatives would rely on fully automated driverless vehicle technology. The guideway would be elevated on structure. Some alternatives include a tunnel downtown. o The capital cost of the guideway alternatives range from \$1.12 to \$1.86 billion (escalated dollars), depending upon the length of the guideway and the inclusion of the tunnel. The estimate includes the cost of additional buses to feed the guideway system. Guideway construction plus vehicles would cost \$0.8 to \$1.3 billion. |
| Status | <ul style="list-style-type: none"> o The alternatives analysis phase is nearing completion. UMTA is currently reviewing the City's technical analysis results. The draft environmental document is also under review. o A locally preferred mode and alignment alternative will be selected following approval and circulation of the draft EIS. If a fixed guideway alternative is chosen, a request to proceed with preliminary engineering would be anticipated. |
| Cost-
Effectiveness | <ul style="list-style-type: none"> o Given Honolulu's topography, development patterns, and the large transit patronage already present in the corridor, a fixed guideway system in the corridor would carry a large number of riders. A transit guideway would have substantial transportation benefits in terms of generating new transit riders and saving travel time for existing riders. However, the project is one of the most costly in the new start pipeline. o UMTA and the City have not yet agreed on cost-effectiveness indices. Preliminary estimates provided by the City show indices ranging from \$3.35 to \$4.27 per new trip for the shortest, least costly alternatives which terminate at Middle Street. These alternatives are likely to be cost-effective. Alternatives that extend west of Middle Street |

Honolulu-Central (Cont.)

appear at this time to have questionable cost-effectiveness. Since an HOV lane already exists along that part of the corridor, the substantially higher cost of the longer guideway alternatives is not matched with significantly higher benefits. The indices for the longest, most costly alternatives range between \$6.40 and \$9.50 per new trip.

Local
Financial
Commitment

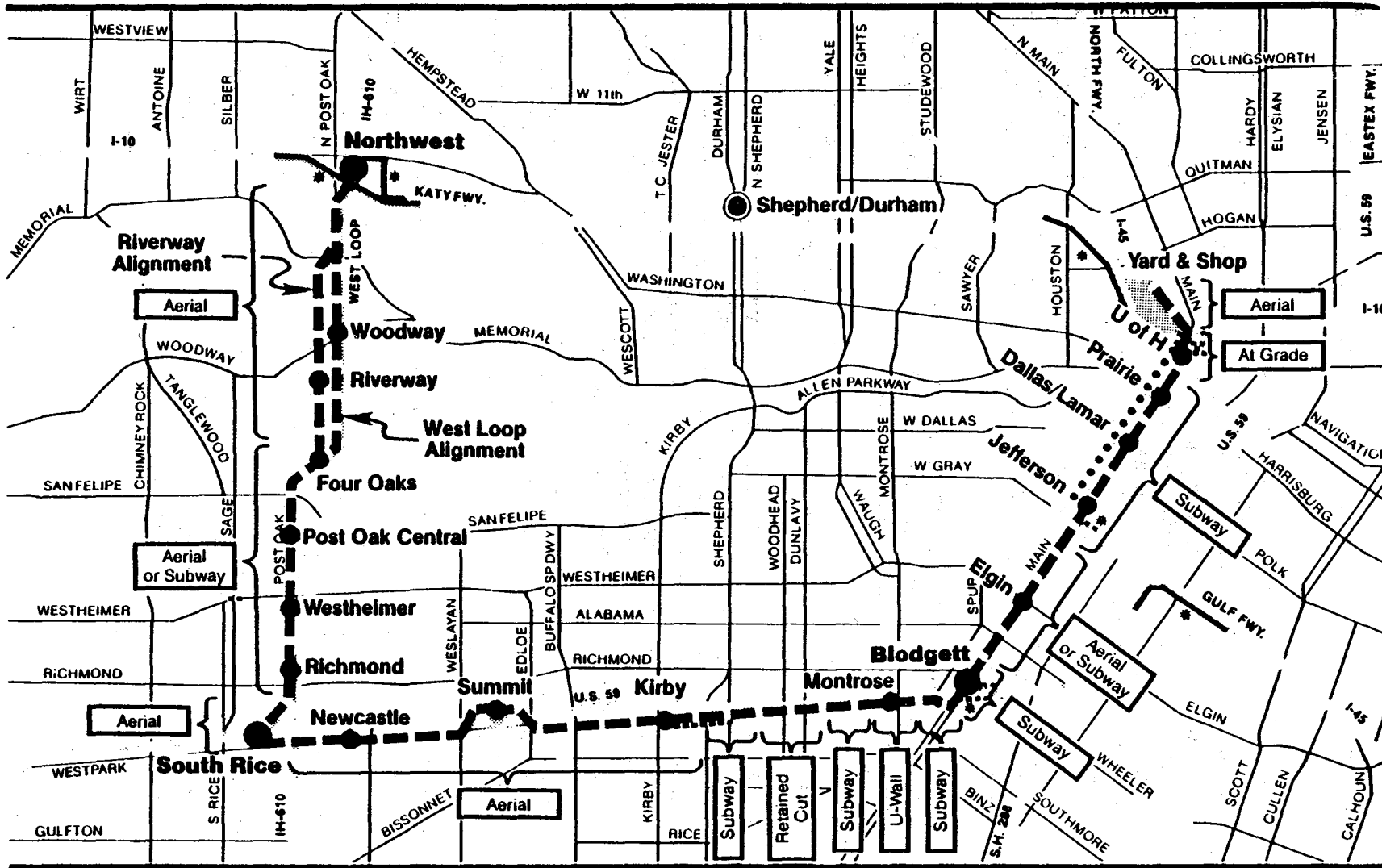
- o A local match of 50 percent or more has been discussed. However, Honolulu has not yet committed itself to any particular level of capital match or overmatch.
- o Honolulu has been given an "unavailable" financial rating because a financing plan has not yet been adopted by local officials. There is no existing revenue source that would cover the capital and/or operating costs of the proposed system. Two possible sources of revenues are proposed by the city: (1) funds from the State's budget surplus and/or (2) a new 1 percent local excise tax. These proposals are expected to be considered by the State legislature in its 1990 session.
- o Because historic revenue sources are not adequate to cover future operating costs, the stability and reliability of operating assistance is rated "unacceptable."



New Start Project Profile
(January 1990)

- Project** Houston - System Connector
- Description** o The System Connector is a proposed 15-mile guideway system costing about one billion dollars, connecting downtown Houston with Greenway Plaza and Post Oak.
- Status** o In November 1989, the Metro Board voted not to construct the project, but has voted to pursue the possibility of a privately financed system if one can be shown to have more benefits or less cost than the project rejected by the Board. Expressions of interest in the project or a modification thereof have been requested by January 1990.
- o FY 1989 and 1990 unobligated earmarks for this project are \$49.8 and \$65 million respectively, although the costs, benefits and impacts will not be known until the AA is completed.
- Cost Effectiveness** o The project is designed to connect Houston's major activity centers as well as several HOV facilities.
- Metro has never released the cost-effectiveness numbers to UMTA, but an analysis of the Board-rejected alternative revealed that it would attract virtually the same number of riders as a good bus system.
- Local Financial Commitment** o Houston Metro, which is supported by a 1% sales tax, has proposed that UMTA pay about 55% of the cost of the System Connector Project.
- o The Houston capital financing plan is "deficient." It contains several unsupported assumptions including a very large increase in the operating ratio (percent of operating costs covered by fares) of the bus system. Furthermore, the private sector contribution of \$130 million is not well defined.
- o The stability and reliability of future financing for operations is "unacceptable" because the financing plan currently being proposed would require large increases in the operating ratio for which no supporting documentation is available.

Houston System Connector



- Regional Transit Center
- Local Transit Center
- On-Line Station
- Rail
- Bus Ramp
- Transit Street Improvement
- Main Street Mall
- NOTE: Westpark: Restripe for Diamond Bus Lane, South Rice to Kirby
- * No Action Project



Figure 9
Corridor Facilities
Grade Separated Rail Alternative
Final Definition of Alternatives

METRO

New Start Project Profile
(January 1990)

- Project** Jacksonville - Automated Skyway Express (ASE) Extension
- Description**
- o This project (phase 1-B) is an 1.8 mile extension by the Jacksonville Transportation Authority (JTA) of the 0.7 mile phase 1-A starter line of the Automated Skyway Express. The extension would consist of an elevated, double track guideway, with 6 stations, 12 vehicles and a maintenance yard. The extension consists of two segments. The northern segment extends 0.6 miles from the Central CBD Station to Florida Community College and has two stations. The southern segment extends 1.2 miles across the St. Johns River through the South Bank Business District to St. Johns Place and would include a permanent central maintenance and storage facility and four new stations.
 - o The estimated cost to complete the extension is \$133 million (1991 \$) which includes \$46 million for the northern leg and \$87 million for the southern leg.
 - o There are no current ridership projections for phase 1-B. The latest projections were done in 1983 and are outdated.
- Status**
- o The starter line opened for revenue service in June 1989. It is averaging about 1,000 riders per day who are primarily Park-and-ride patrons and don't actually pay to use the facility. Because of the low ridership, JTA has eliminated Sunday service and changed weekday closing time to 7:30 p.m. from 9:00 p.m. The current ridership is considerably less than the initial (1990) forecast of 10,000.
 - o The final EIS for the 1.8 mile extension was completed in February 1983 and an environmental reassessment is being prepared. JTA has selected a consultant to do the final design work for phase 1-B.
 - o The Conference Report 100-957 accompanying the FY 1989 DOT Appropriation Act directed the Secretary to revise the existing full funding contract to include the 1.8 mile project. UMTA and JTA are negotiating on a contract amendment for construction funding of the north leg of the extension. Congress earmarked \$14.9 million in FY 1990 for the project.
 - o UMTA, pursuant to Congressional direction, has transferred \$7 million to FHWA for the widening of the Acosta bridge to accommodate the future construction of the Skyway Express across the St. Johns River.

Jacksonville - Automated Skyway Express (ASE) Extension (Cont.)

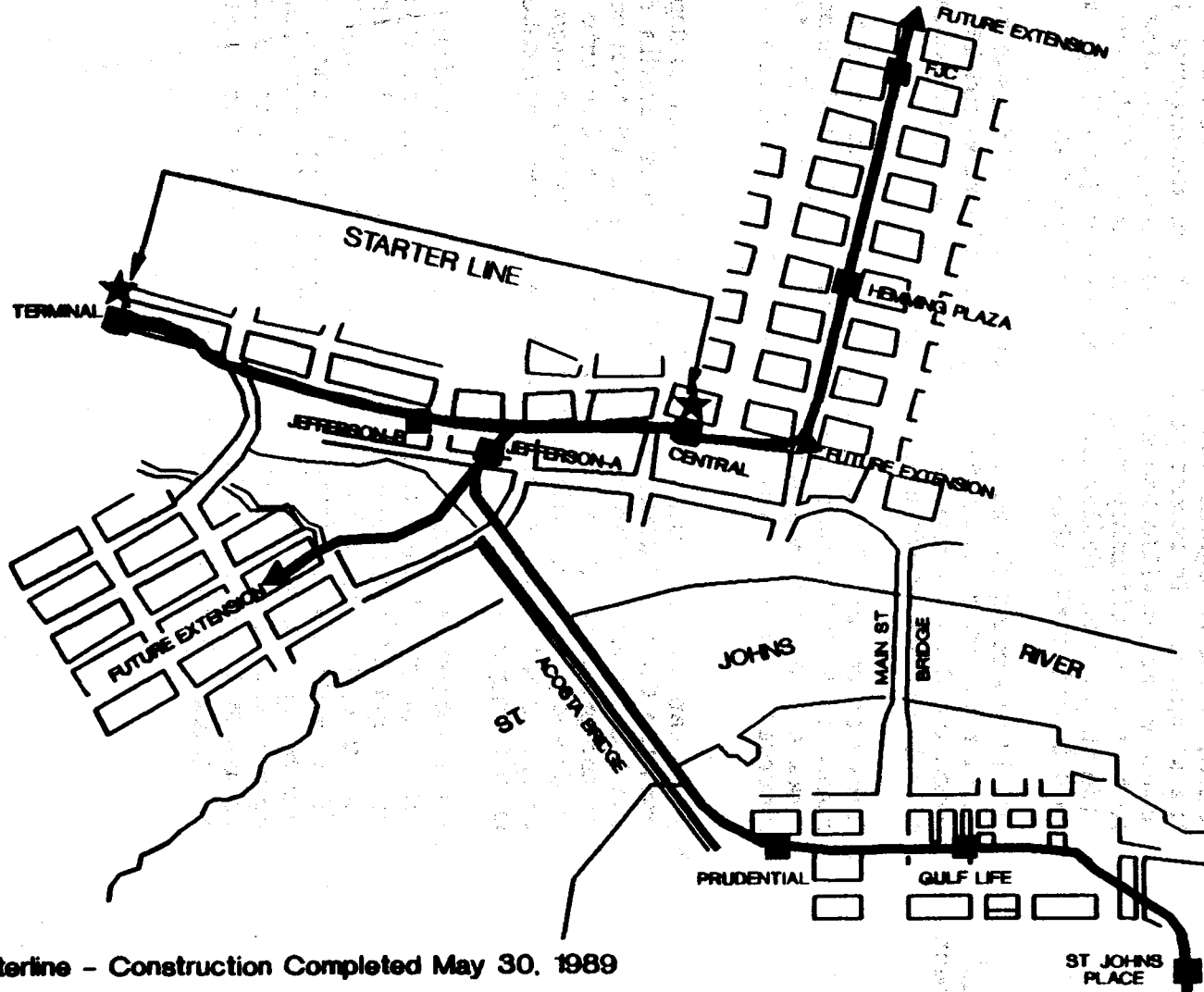
Cost-
Effectiveness

- o The project predates UMTA's issuance of its Major Capital Investment Policy. No comprehensive cost effectiveness analysis has been done for the project.
- o In 1983 JTA estimated that 1995 ridership for the 2.5 mile system would be 42,000 per day. The estimate was based on the assumption that significant new development will occur along the alignment. In recent years growth and development in downtown Jacksonville has slowed considerably. In view of this fact, the low ridership on the starter line and the low ridership on the similar Miami Metro Mover (11,000 actual vs. 40,000 projected), this estimate is unsupported.

Local
Financial
Commitment

- o JTA is proposing the maximum Federal share (75%) resulting in a Section 3 cost of about \$100 million. The proposed 25% local match would be inconsistent with the Federal policy objective of 50% or more non-Federal funding.
- o The existing fare for the starter line is 25 cents with free rides for Park & Ride patrons. Originally JTA had expected to cover operating expenses from the fare box. Now, low fare revenues are being subsidized by a \$500,000 grant from FLADOT.
- o JTA's Capital Financing Plan is "deficient." JTA is dependent upon the City of Jacksonville and the State of Florida for the 25% local match. Adequate local funding has not been committed to the project. JTA's 1/2 % sales tax, which when into effect in January 1989, is dedicated to retiring existing highway toll bonds. JTA has no revenue base or taxing power dedicated to transit capital.
- o The existing fare for the stater line is 25 cents with free rides for Park & Ride patrons. Originally, JTA had expected to cover operating expenses from the fare box. The low fare is now being subsidized by a \$500,000 grant from the FLADOT. JTA's operating assistance plan is "deficient," since they are depending on a one time only grant from the State to cover the operating deficient of the Starter line. The availability of future State subsidies is uncertain. A longer term operating assistance plan has not been developed.

JACKSONVILLE AUTOMATED SKYWAY EXPRESS 2.5 MILE ASE SYSTEM



★ Starterline - Construction Completed May 30, 1989

New Start Project Profile
(January 1990)

- Project Los Angeles - Minimum Operable Segment-2 (MOS-2)
- Description
- o The 17-mile, \$3.8-billion Los Angeles Metro Rail Project (now called the Red Line) has been broken into "minimum operable segments" for funding purposes. The second minimum operable segment (MOS-2) consists of seven miles of heavy rail with eight stations, all in subway from MacArthur Park to Hollywood. MOS-2 extends a 4-mile, 5-station segment known as MOS-1, which is now under construction in downtown Los Angeles and is scheduled to open in late 1993. From the western terminus of MOS-1, MOS-2 proceeds west along Wilshire Boulevard to Vermont Avenue where it branches. One branch continues along Wilshire to Western Avenue; the other turns northwest to Hollywood.
 - o The estimated total cost of MOS-2 is \$1.45 billion. The total cost of MOS-1 is \$1.3 billion.
 - o The full 17-mile Red Line is expected to attract 300,000 daily riders. The portion of those riders attributable to MOS-2 by itself is not known.
- Status
- o In September 1989, UMIA issued an environmental Record of Decision stating its resolve to provide financial assistance for MOS-2 in accordance with section 338 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (the STURA Act). The STURA Act authorized \$667 million in Section 3 funds for MOS-2. Of this, \$330 million has been earmarked, but none has yet been obligated.
 - o UMIA is negotiating a Full Funding Grant Agreement (FFGA) for final design and construction of MOS-2 with the Los Angeles County Transportation Commission (LACTC), the major local funding partner. Local decisions on project management and control must be resolved before the FFGA for MOS-2 can be finalized.
- Cost-
Effectiveness
- o Los Angeles has the highest bus ridership of any bus-only system in the country, and has the third highest transit ridership over-all. Its freeways are notoriously congested. The Wilshire Avenue corridor carries SCRID's busiest bus lines.

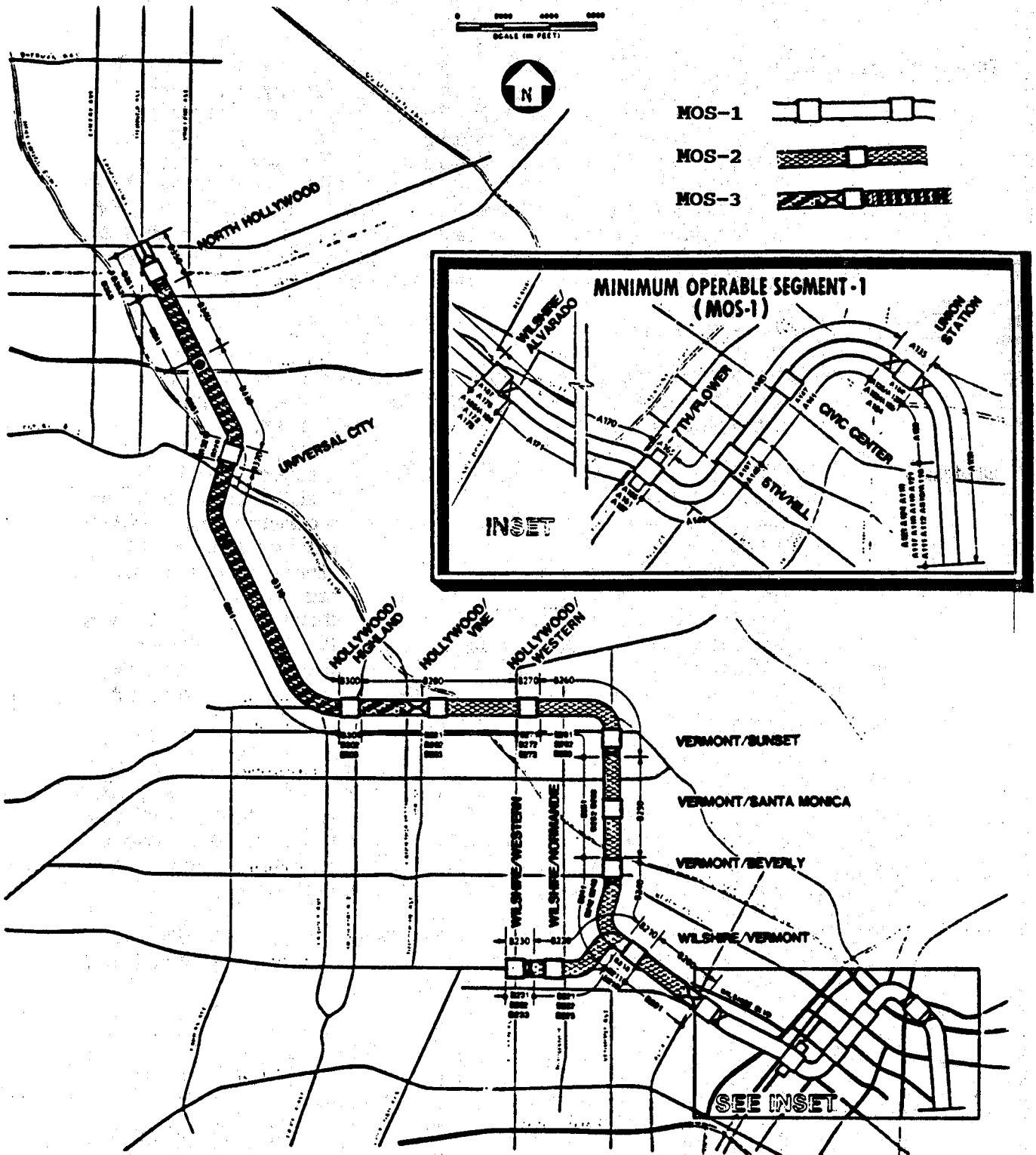
Los Angeles - Minimum Operable Segment-2 (MOS-2) (Cont.)

- o The STURA Act exempted Metro Rail from its cost-effectiveness requirement, so definitive information is unavailable. However, earlier studies suggested that the Wilshire branch is highly cost-effective. The cost-effectiveness index for MOS-2, which includes part of the Wilshire branch and the Hollywood branch, has been roughly estimated at \$6, suggesting that it meets UMTA's cost-effectiveness threshold.

Local
Financial
Commitment

- o The Federal share for MOS-1 and MOS-2 together is 50 percent. In addition, LACTC is constructing an \$880 million light rail line from downtown Los Angeles to Long Beach without any Federal funds.
- o California Proposition A provided a 0.5 percent sales tax in Los Angeles County dedicated to transit and reserved half of the revenue for construction of a county-wide rail system. This tax revenue is adequate to support Los Angeles' immediate rail construction plans. LACTC's financial plan for MOS-2 is "acceptable."
- o The tax revenue from Proposition A is adequate to finance the operating deficits of the bus and rail systems without a deterioration in transit service. Therefore, the stability and reliability of SCRID's operating funds is "acceptable."

Los Angeles: MOS-2



New Start Project Profile
(January 1990)

Project Los Angeles - Minimum Operable Segment-3 (MOS-3)

Description

- o The 17-mile, \$3.8-billion Los Angeles Metro Rail Project has been broken into "minimum operable segments" for funding purposes. The third minimum operable segment (MOS-3) consists of approximately six miles of rail rapid transit line with three stations, all in subway. It proceeds from the last MOS-2 station near the intersection of Hollywood Boulevard and Vine Street, through the Santa Monica mountains and into North Hollywood. It includes a station in Hollywood south of the mountains, and two in North Hollywood north of the mountains.

- o The estimated cost of MOS-3 is \$1.1 billion.

- o The 17-mile Metro Rail System is expected to attract 300,000 daily riders. The portion of those riders attributable to MOS-3 by itself is not known.

Status

- o MOS-3 was originally part of a larger project which included MOS-2, and they progressed on the same time line. They were recently split up by funding constraints. While MOS-3 was on that time line, SCRID completed all of its environmental work, most of its preliminary engineering, and some final design. It is considered to be in preliminary engineering only because there has as yet been no commitment of Federal funding for its final design or construction. MOS-1 is under construction, and MOS-2 is in final design. A Project Management Oversight Contractor has been assigned to the Metro Rail projects.

- o Federal funds have not been authorized for MOS-3, and it is not the subject of any negotiations at this time. Any UMTA Section 3 funds earmarked for Metro Rail over the next few years are expected to fund MOS-2 which is now the subject of grant-agreement negotiations between UMTA and the Los Angeles County Transportation Commission (LACTC).

- o Various committee reports (House Reports 100-202 and 101-183) have directed UMTA to evaluate additional eastern and western extensions of Metro Rail.

Los Angeles - Minimum Operable Segment-3 (MOS-3)

Cost-
Effectiveness

- o The STURA Act exempted MOS-3 from its cost-effectiveness requirement. An estimate of the cost-effectiveness index for MOS-3 based on partial information is roughly \$6, which meets UMIA's cost-effectiveness threshold.

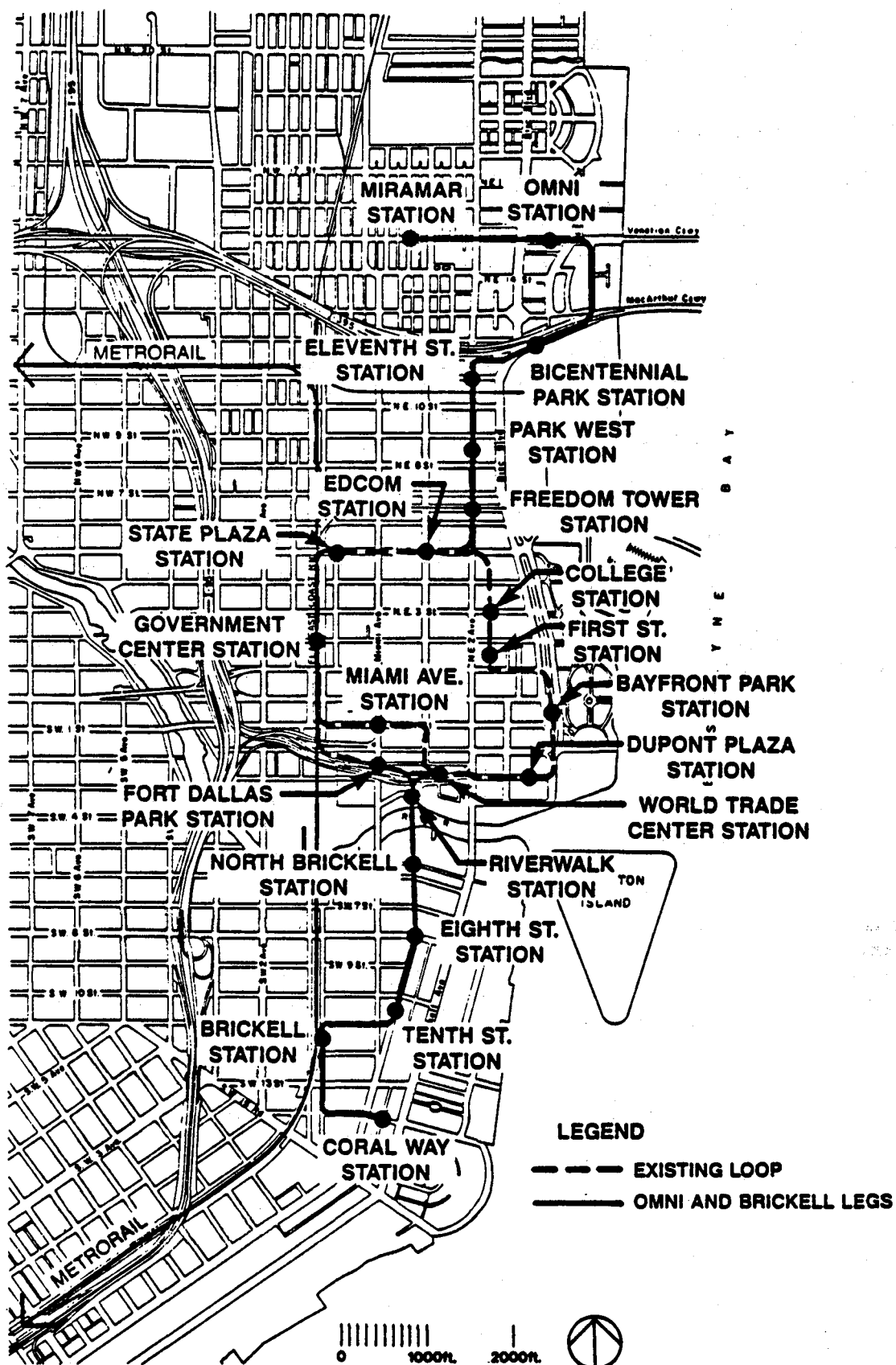
Local
Financial
Commitment

- o Non-Federal funding sources account for about 50% of the \$2.7 billion being spent on MOS-1 and MOS-2, and 100% of the \$880 million Long Beach light rail project. The local share for MOS-3 has not been established.
- o California Proposition A provides a 0.5 percent sales tax in Los Angeles County dedicated to transit and reserves half of the revenue for construction of a county-wide rail system. However, LACTC has not yet identified sources of local capital funding for MOS-3. Furthermore, the cost of the Los Angeles to Long Beach LRT project has increased by 88% from \$470 million to \$880 million, the Norwalk to El Segundo LRT project has experienced unanticipated costs in excess of \$200 million, and MOS-1 has had a 5 to 10 percent cost increase. The existing plan does not take these increased costs into account and is considered "deficient." Revisions of the capital financing plan to reflect these new costs is needed.
- o The tax revenue from Proposition A is adequate to finance the operating deficits of the bus and rail systems without a deterioration in transit service. Therefore, the stability and reliability of operating assistance is rated "acceptable."

New Start Project Profile
(January 1990)

Project	Miami - Metromover Legs
Description	<ul style="list-style-type: none"> o The Metro-Dade Transit Agency will be adding two extensions to its automated guideway system, the Metromover, which circles downtown Miami. The north extension, 1.4 miles in length, would connect downtown to hotels and a shopping mall in the Omni area. The 1.1 mile south extension will connect office developments in the Brickell area with downtown. o The two legs are estimated to cost \$248 million, of which \$186 million (75 percent) is to be from Section 3. Prior year earmarks (thru 1990) total \$163 million, of which \$115 million has been obligated.
Status	<ul style="list-style-type: none"> o At the direction of Congress, UMTA signed a full funding contract with the MDTA in 1989. o Final design is underway. Several alignment changes are being contemplated, including one involving the use of parkland. Supplemental environmental studies are underway for these alignment changes.
Cost- Effectiveness	<ul style="list-style-type: none"> o The MDTA projects that the Metromover legs will increase transit ridership by 5200 trips per day. Some 72 percent of the new riders will be taking short trips within the downtown. Existing Metrorail riders will save, on average, 2.8 minutes per trip, while existing bus riders would experience a 0.6 minute increase in travel time. o The cost-effectiveness index for the legs is \$15.20 per new transit rider which is much higher than other new starts. Most of the new riders will be taking very short trips.
Local Financial Commitment	<ul style="list-style-type: none"> o State and local funding provides 25 percent of the project's capital costs. The local share is being provided by the State (\$30 million), a benefit assessment district (\$23 million), and the City of Miami (\$7 million). o The capital finance plan is rated "acceptable" as all capital funding is in place. o Miami has not established a stable and reliable funding source for transit. In recent years, the area has scaled back its bus system to reduce subsidy requirements. This is one reason why ridership on the Metrorail system is no more than 20 percent of projections. The Metromover legs will increase transit subsidy requirements by \$1.8 million per year.

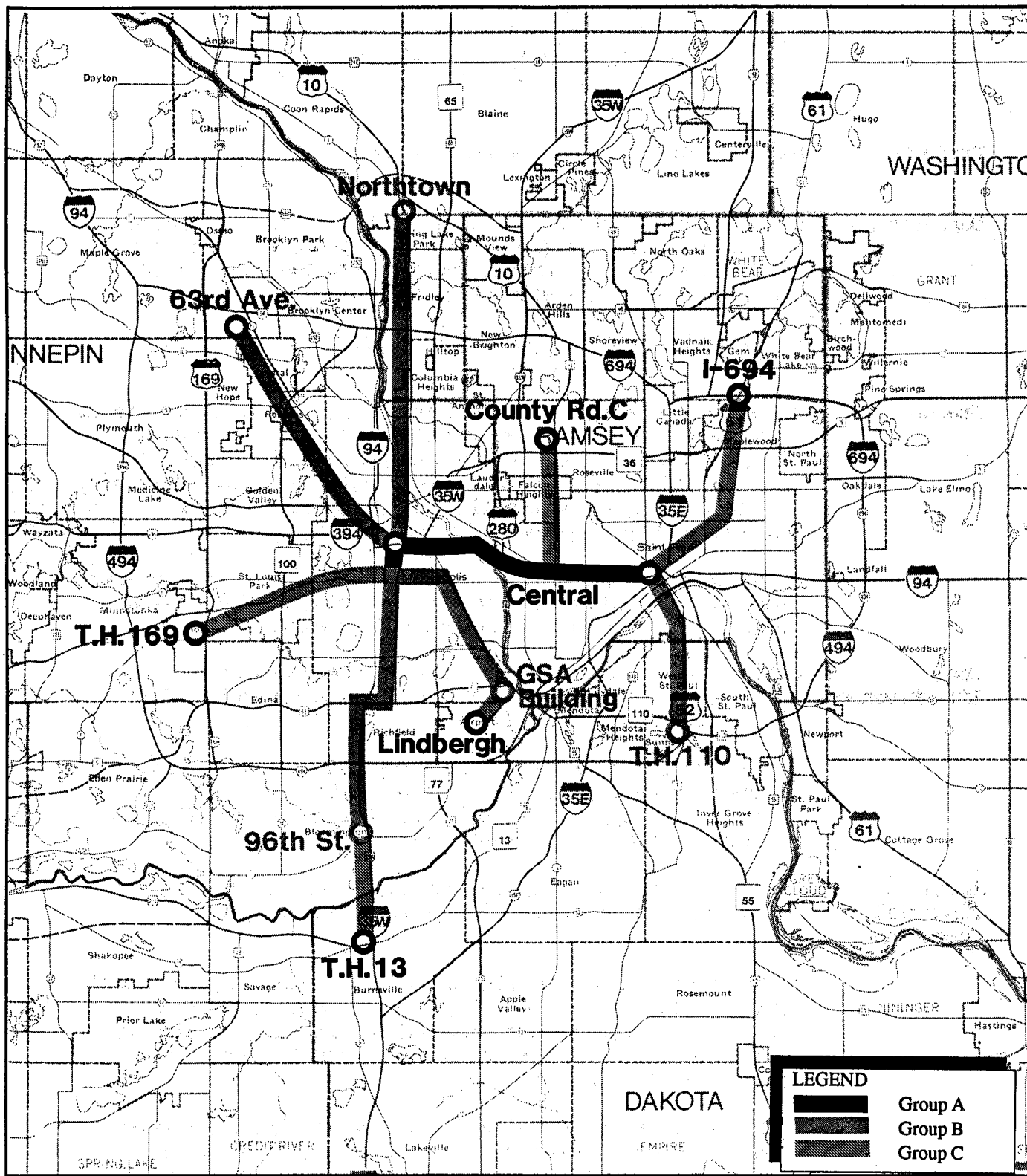
Miami: Metromover Legs



PROPOSED METROMOVER ALIGNMENT

New Start Project Profile
(January 1990)

- | | |
|----------------------------------|---|
| Project | Minneapolis - Central Hennepin |
| Description | <ul style="list-style-type: none"> o The Hennepin County Railroad Authority is studying surface light rail from downtown Minneapolis to the University of Minneapolis. This project is part of a 29-mile "starter" system of light rail, the rest of which would be locally funded. |
| Status | <ul style="list-style-type: none"> o The Hennepin County Railroad Authority has received UMTA's approval to be included in the Secretary's overmatch initiative. The initial understanding was that no more than \$25 million of Federal funds would be sought in conjunction with the 29-mile system. o Hennepin County is waiting until a regional funding and LRT plan is agreed to before it makes its formal submission to UMTA describing the portion of the proposed system it wishes UMTA to fund. This regional agreement is expected in early 1990. |
| Cost-
Effectiveness | <ul style="list-style-type: none"> o The proposed project would serve the large transit market between downtown Minneapolis and the University of Minnesota and also connect to St. Paul if the Ramsey County LRT line were built. o No cost-effectiveness indices have been produced for any component of the planned system; however, an earlier alternatives analysis suggested that an LRT alignment between Minneapolis and St. Paul might be cost-effective. |
| Local
Financial
Commitment | <ul style="list-style-type: none"> o UMTA's \$24 million contribution would only be about 5% of the \$500 million cost of the 29-mile system. o Hennepin County has identified funding sources for less than 70% of the 29-mile system, making the capital plan "unacceptable" at this time. o The State and metropolitan region have historically found enough money to operate a good transit system, so the local fiscal effort for operations has been rated "acceptable." |



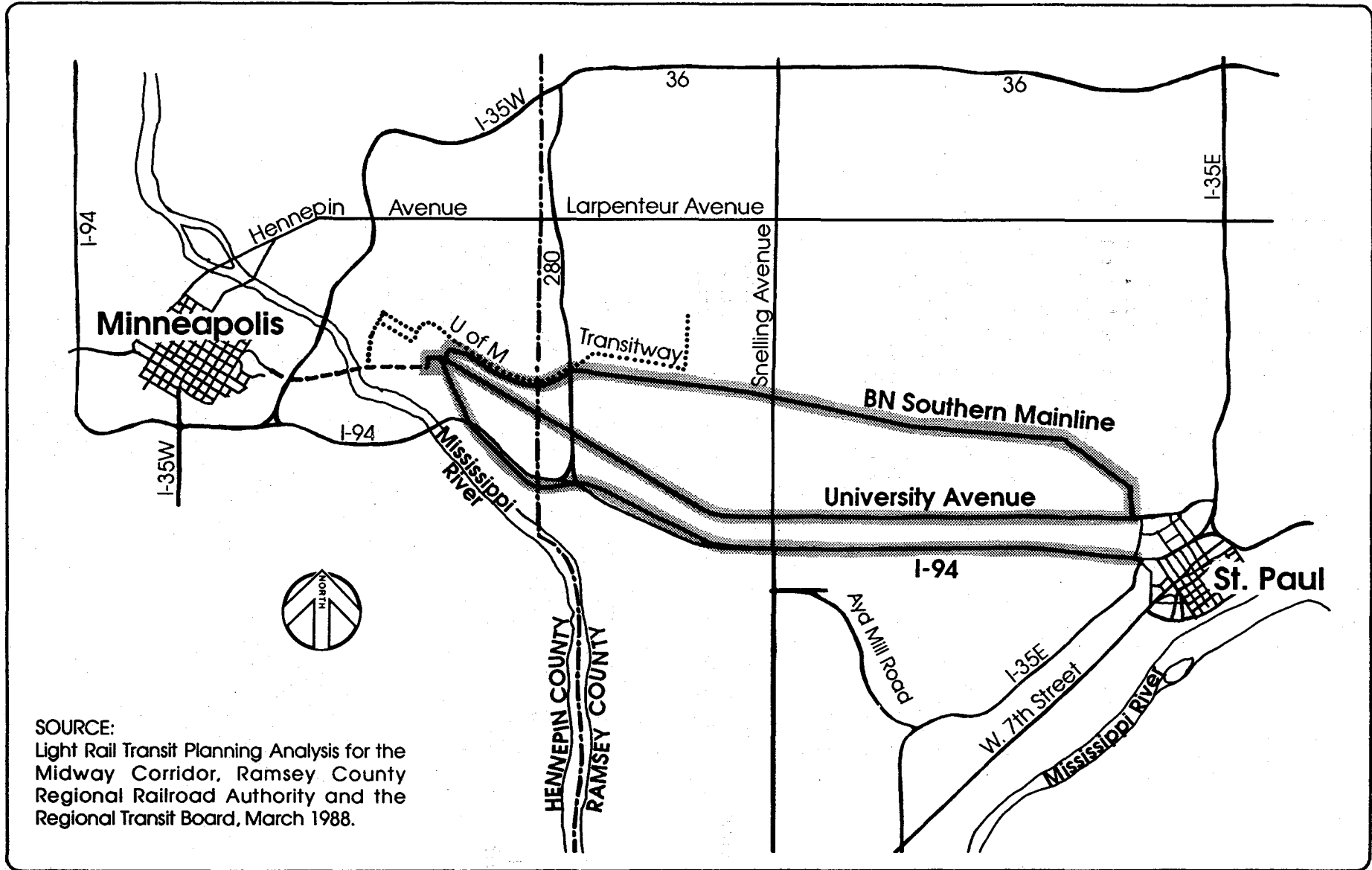
Source: Final Light Rail Transit Regional Development and Financial Plan, Regional Transit Board, February 1990.

Proposed Maximum 10 Year Regional LRT Plan



New Start Project Profile
(January 1990)

- Project** Minneapolis-St. Paul - Central Ramsey
- Description**
- o The Ramsey County Railroad Authority is studying surface light rail transit (LRT) and bus alternatives along three alignments in the Central corridor between downtown St. Paul and the University of Minnesota.
 - o The capital cost of the LRT line is estimated at \$250 million.
- Status**
- o A study begun in 1983 considered an alignment on University Avenue between the downtowns of St. Paul and Minneapolis. This study has since been broadened to include two additional alignments which now terminate at the University of Minnesota, where the line would connect with the Hennepin County System, if both are built.
 - o The study of the Central Ramsey line awaits local agreement on the regional system and the financing of the system. The regional agreement is expected in early 1990.
- Cost-Effectiveness**
- o The proposed project would connect the CBD's of Minneapolis and St. Paul and also serve several smaller activity centers in between.
- The cost-effectiveness of the proposed rail alignments cannot be determined at this time do to the lack of data. However, an earlier AA indicated that a similar LRT alignment might be cost-effective.
- Local Financial Commitment**
- o The local financial share cannot be determined until a regional financing plan is agreed to in early 1990.
 - o The region has not adopted a capital financing plan and it is not clear that enough local money is available to finance the large LRT system which has been proposed for the region. Therefore the capital plan is rated as "unavailable" at this time.
 - o The State and metropolitan area have historically found enough money to operate a good transit system, so the financial plan for operations is rated as "acceptable."



SOURCE:
Light Rail Transit Planning Analysis for the
Midway Corridor, Ramsey County
Regional Railroad Authority and the
Regional Transit Board, March 1988.



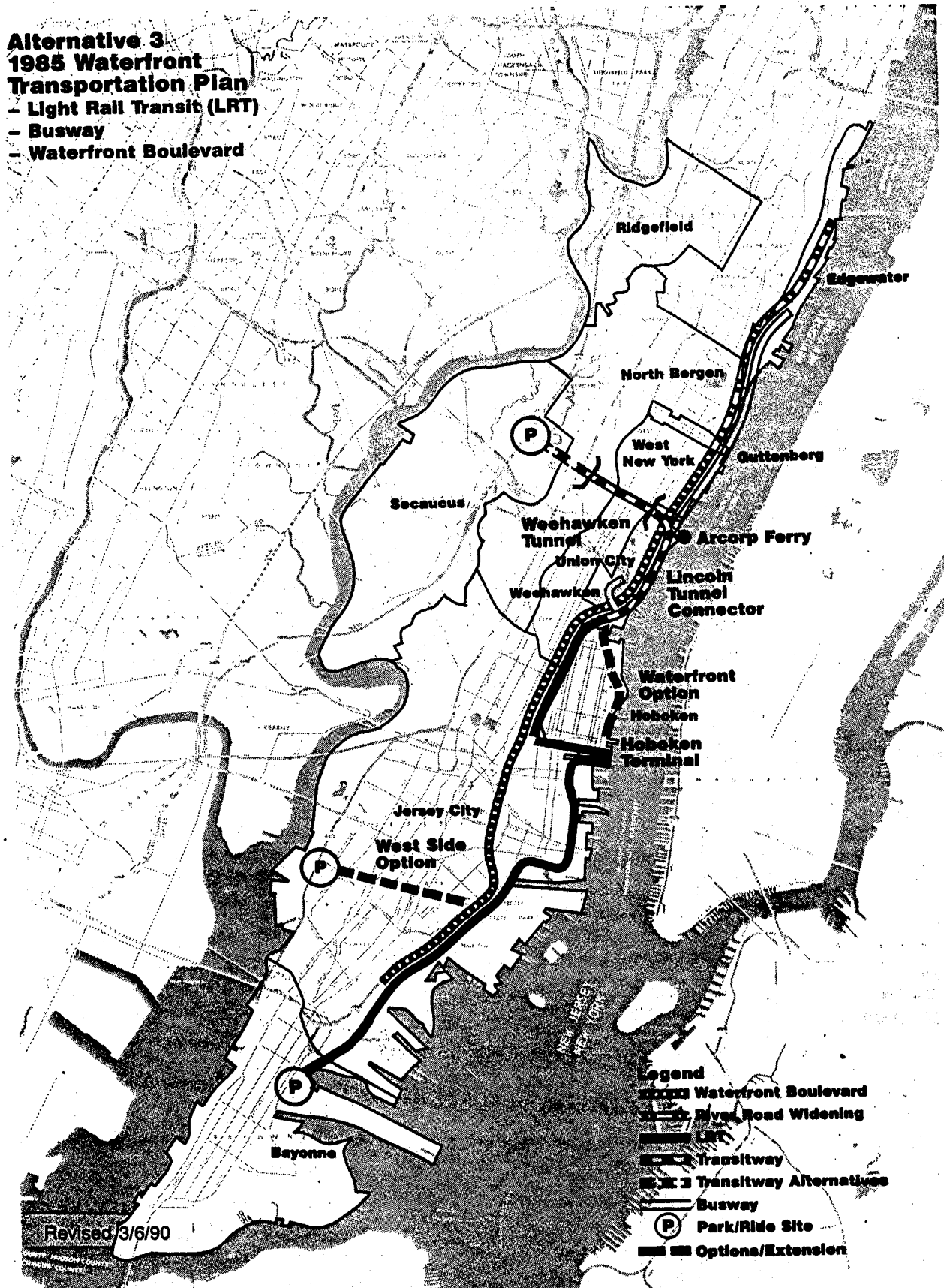
Midway Corridor Alignments

New Start Project Profile
(January 1990)

- Project** Northern New Jersey - Hudson River Waterfront
- Description**
- o New Jersey Transit has proposed several busway and LRT alternatives from a park-and-ride lot on the New Jersey Turnpike to Jersey City, including one consisting of 9.5 miles of busway and 9 miles of LRT (with 6.5 miles of joint LRT/busway operation). It will serve the rapidly developing and redeveloping Hudson River Waterfront across from Manhattan.
 - o The capital cost of this proposal is about \$1 billion.
- Status**
- o In November 1988, the initiation of Alternatives Analysis was approved by UMTA. UMTA and NJ Transit have agreed on the initial alternatives and an initial work plan. Scoping meetings were held in November 1989. The study will probably not be complete until 1991.
 - o NJ Transit has reached an agreement with Conrail to purchase a railroad right-of-way for this project.
- Cost-Effectiveness**
- o The proposed project would provide guideway transit service to the Waterfront which currently has very limited highway access, and would provide internal transit service.
 - o Preliminary and conservative calculations indicate that the proposed project would meet UMTA's cost-effectiveness threshold of \$6.
- Local Financial Commitment**
- o Originally the project was proposed for private sector funding. It now seem possible that NJ Transit will try to maximize Federal financial participation, though significant private sector participation in this project is possible in the form of special tax assessment districts and right-of-way donations. A proposed local match of only 25% would be inconsistent with the Federal policy objective of 50% or more non-Federal funding.
 - o New Jersey Transit is having difficulty finding the local money to operate the existing system and fund the construction of previously committed major projects. New sources of funds will be required in order to implement the proposed Waterfront project. The capital plan for the construction of the project is "unavailable" at this time.
 - o Local financing for operating an expanded system is rated "acceptable" because of NJ Transit's history of funding transit service.

Northern New Jersey Hudson River Waterfront

**Alternative 3
1985 Waterfront
Transportation Plan**
 - Light Rail Transit (LRT)
 - Busway
 - Waterfront Boulevard

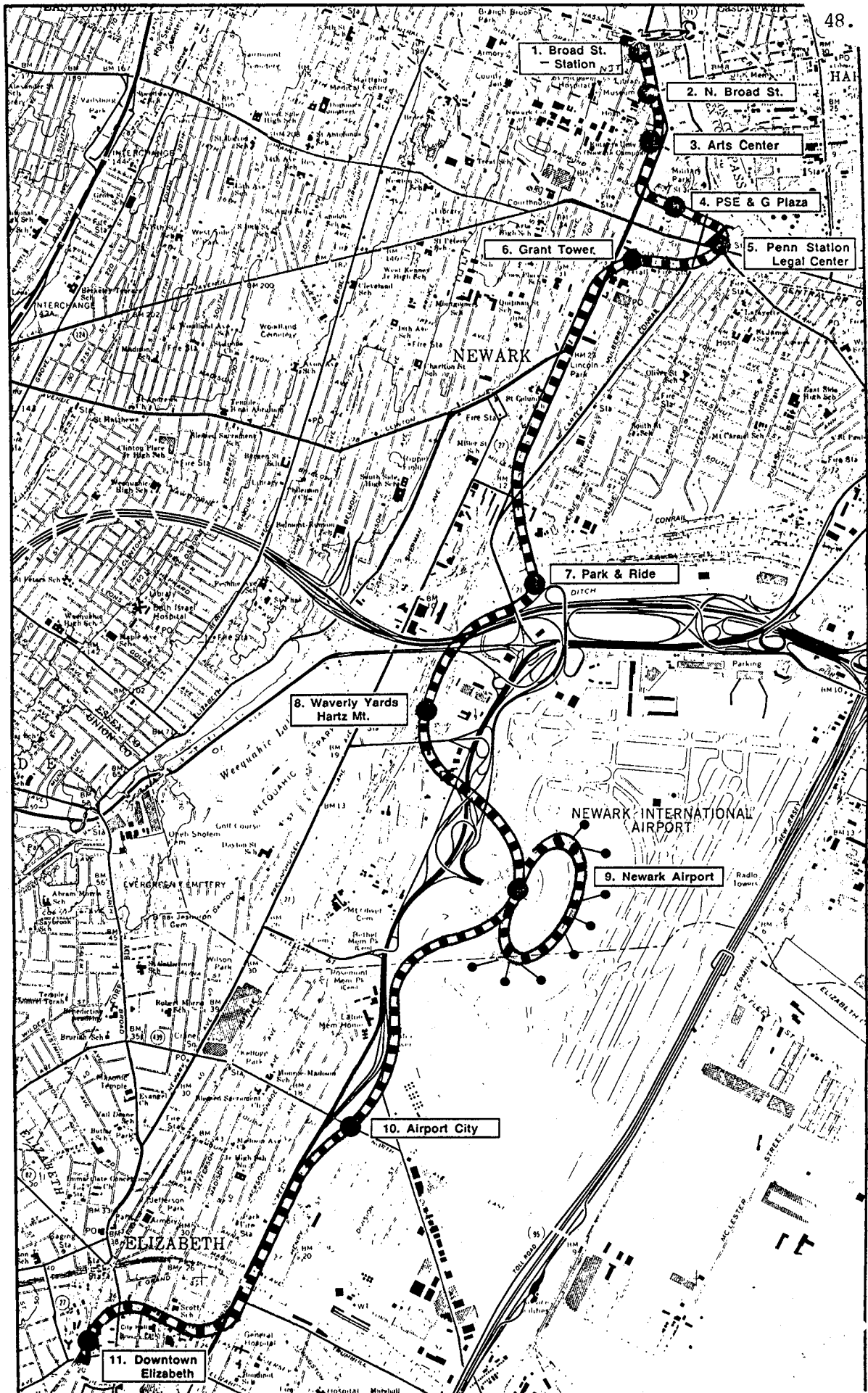


Revised 3/6/90

New Start Project Profile
(January 1990)

Project	Northern New Jersey - Newark Air Link
Description	<ul style="list-style-type: none"> o The Cities of Newark and Elizabeth have proposed an eight mile long Automated Guideway Transit (AGT) system connecting the downtowns of those two cities by way of Newark International Airport. Preliminary capital costs are about \$400 million including an airport circulator. o The original proposal assumed significant private sector financing of the project and no Federal construction funding.
Status	<ul style="list-style-type: none"> o In December 1989, UMTA made a two million dollar grant to support further planning work on the proposed project. The work will be divided into two phases. The first phase will consist of a detailed exploration of private sector financing possibilities and related planning and engineering. If it is found that the available private, State and local funding is not sufficient to construct and operate the proposed system, and if UMTA concurs, the second phase will be an Alternatives Analysis to support a request for Federal funding. o In FY89 and FY90, \$2 million and \$5 million have been earmarked, respectively.
Cost-Effectiveness	<ul style="list-style-type: none"> o The primary goal of the proposed project is to attract new development to the area. It has not yet been demonstrated to the satisfaction of potential investors that this new development will occur. o Cost-effectiveness data have not yet been developed, though earlier planning work by the NY-NJ Port Authority suggested that the project would provide little transportation benefit.
Local Financial Commitment	<ul style="list-style-type: none"> o The project was originally proposed to be non-Federally funded. It is not clear at this time how much Federal money will be requested. There is private sector interest in this proposed project, and some private sector funding can be expected. o It is not clear how this project will be funded, since New Jersey Transit is having difficulty funding other major projects. A capital financing plan is "unavailable." o New Jersey Transit is having difficulty finding sufficient local funds to operate their existing systems and may not be the operator of the proposed system. Therefore information on the stability and reliability of operating assistance is "unavailable."

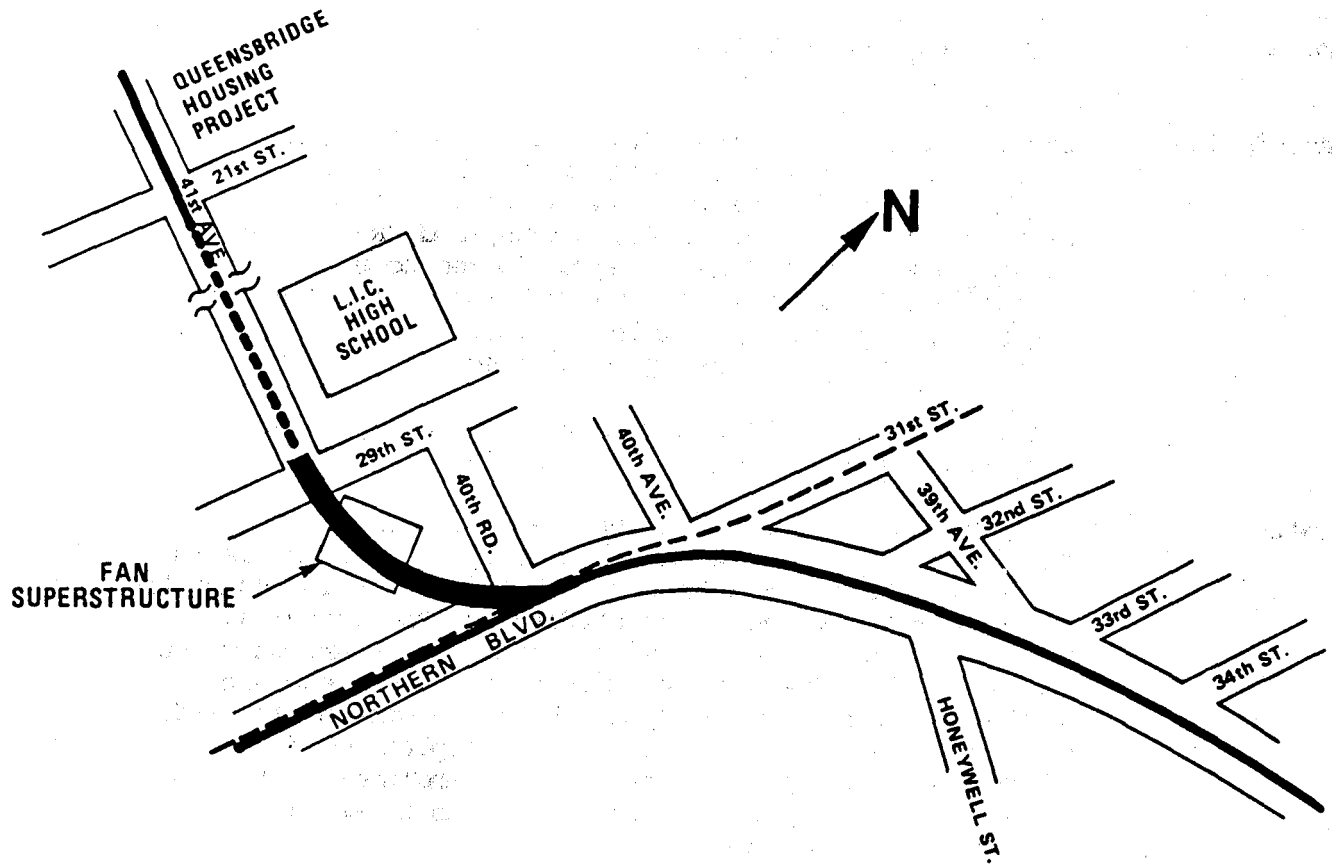
Northern New Jersey Newark Air Link





New Start Project Profile
(January 1990)

- Project** New York City - Queens Local/Express Connection
- Description**
- o The Queens Local/Express Connection would relieve overcrowding on the Queens Boulevard subway lines by connecting it to the recently opened 63rd Street Tunnel.
 - o Construction would consist of about one-quarter mile of new tunnel at a cost of \$456 million (\$ 1988). The cost of rolling stock is not included in this capital cost estimate.
- Status**
- o The NYC TA expects to complete a Supplemental Draft EIS and Alternatives Analysis in the Spring of 1990.
 - o The \$456 million cost estimate has just been developed and represents a \$200 million increase from the original estimate in the 1984 AA/DEIS.
- Cost-Effectiveness**
- o The project would relieve severe overcrowding on the Queens Boulevard Line by improving utilization of the local tracks and offering improved access to Manhattan.
 - o Updated cost-effectiveness data (reflecting the large increase in capital costs) has not been developed; however, the old AA/DEIS indicated that the proposed project was one of the most cost-effective in the country.
- Local Financial Commitment**
- o The MTA is expected to ask UMTA for about 50% of the project's cost. This is consistent with the Federal policy objective of 50% or more non-Federal funding.
 - o The capital plan has not been updated for this project since 1984. The large increase in the capital cost estimate will require more local funds for this project, probably resulting in delays for other locally funded improvements to the system. Therefore, the capital plan is rated "unavailable" at this time.
 - o The City and State have an array of dedicated taxes supporting both an extensive capital program and operating deficits. This project will not have an appreciative impact on their operating budget. The local fiscal effort for operations is therefore rated as "acceptable."

New York Queens Local Connection



EXISTING  SUBWAY
 ELEVATED

EXISTING TUNNEL NOT UTILIZED  SUBWAY

PROPOSED CONNECTION  SUBWAY

(SKETCH NOT DRAWN TO SCALE.)

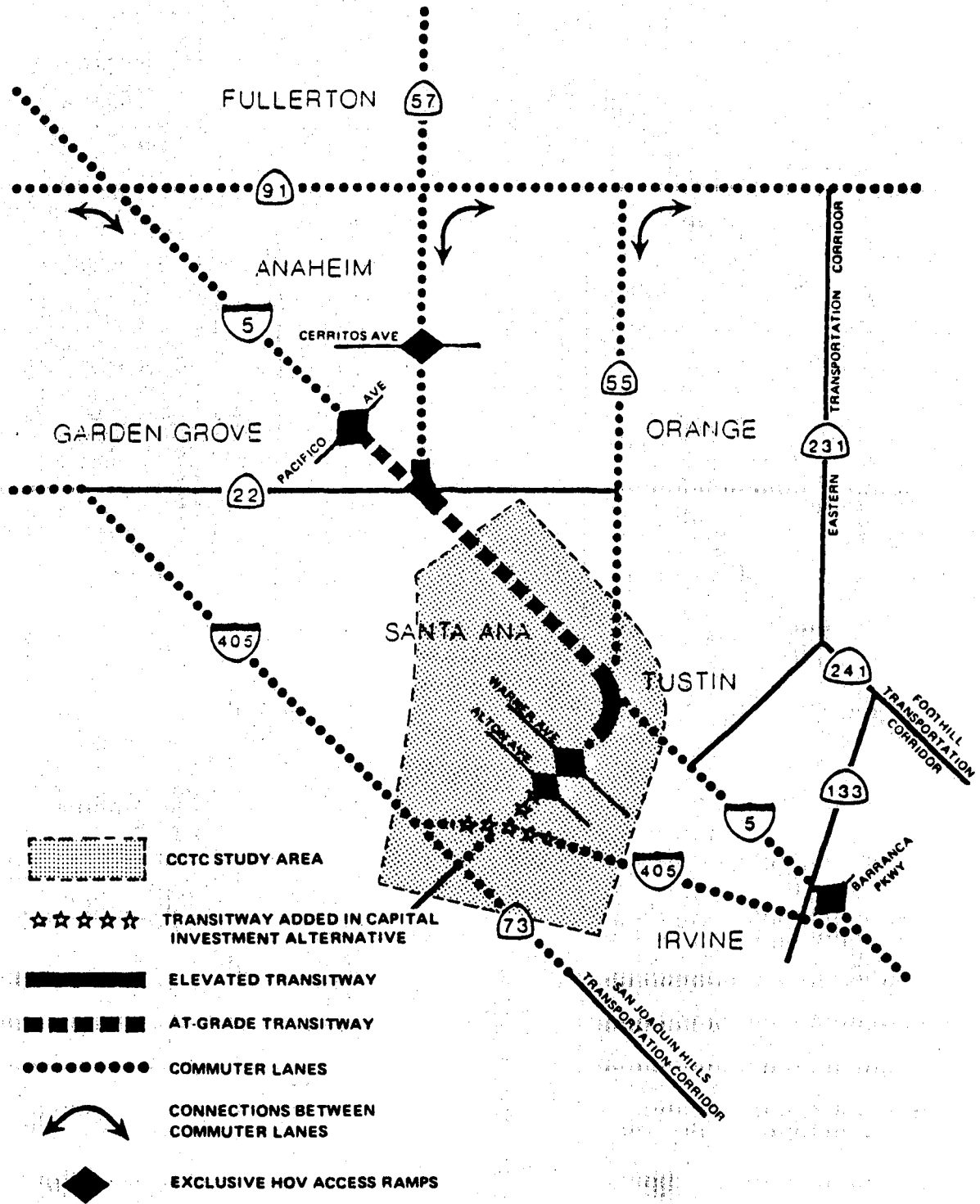
NEW YORK CITY TRANSIT AUTHORITY QUEENS BOULEVARD SUBWAY LINE CONNECTION SUPPLEMENTAL DRAFT EIS	
PROJECT AREA	
MAY 1990	

New Start Project Profile
(January 1990)

- Project** Orange County, CA - Central Corridor
- Description**
- o The Orange County Transit District (OCTD) and the California Department of Transportation (Caltrans) are constructing HOV lanes on a number of Orange County highways including I-5, I-405, SR-55, and SR-57. An alternatives analysis is being performed to evaluate exclusive HOV ramps between the HOV lanes on I-405 and SR-55 and at three other interchanges. TSM and No Build alternatives are also being considered.
 - o The capital cost of the exclusive HOV ramps has been estimated to be about \$117 million (1989\$).
- Status**
- o The OCTD is performing alternatives analysis and preliminary engineering simultaneously. The study is in the early stages, as UMTA and OCTD are still discussing the range of alternatives to be studied and the technical methods to be applied. However, since there are only two build alternatives under consideration, and these are limited in scope, the analysis should be straightforward. The OCTD's schedule anticipates the completion of alternatives analysis and preliminary engineering by the summer of 1990, following which it plans to submit a capital grant application.
- Cost-Effectiveness**
- o The ramps are designed to save travel time and increase safety for buses and other high-occupancy vehicles. Without the ramps, buses and other high occupancy vehicles must weave across the congested general traffic lanes to enter and leave the HOV lanes.
 - o The OCTD has calculated a preliminary cost-effectiveness index of \$3.75 per new trip. The underlying estimates of costs and ridership are subject to change as a result of UMTA review and further local analyses. Nevertheless, UMTA expects that the project will prove to be cost-effective.
- Local Financial Commitment**
- o A 75 percent Federal share is being discussed for this particular project. If the project is viewed as part of a larger local/State effort to build HOV facilities on Orange County freeways, however, the Federal share is only 28 percent. Orange County has not sought preferential treatment under the Section 3 overmatch initiative, but would qualify.

Orange County, CA - Central Corridor (Cont.)

- o In 1989, county voters defeated "Measure M" which would have dedicated a 1/2 cent local sales tax to highways and transit. A new financial plan is being developed for adoption in the Spring. An OCID financial feasibility analysis shows that an acceptable funding plan can be developed without reliance on new revenues sources. A "deficient" rating has been given pending adoption of a new plan.
- o In terms of the stability and reliability of operating revenues, an "acceptable" rating has been given. The OCID's operations are supported by a 1/4 cent sales tax, local property taxes, and other sources. The preliminary assessment of financial feasibility found that revenues are more than sufficient to fund O&M costs, including the costs attendant to system expansion, through 2010.



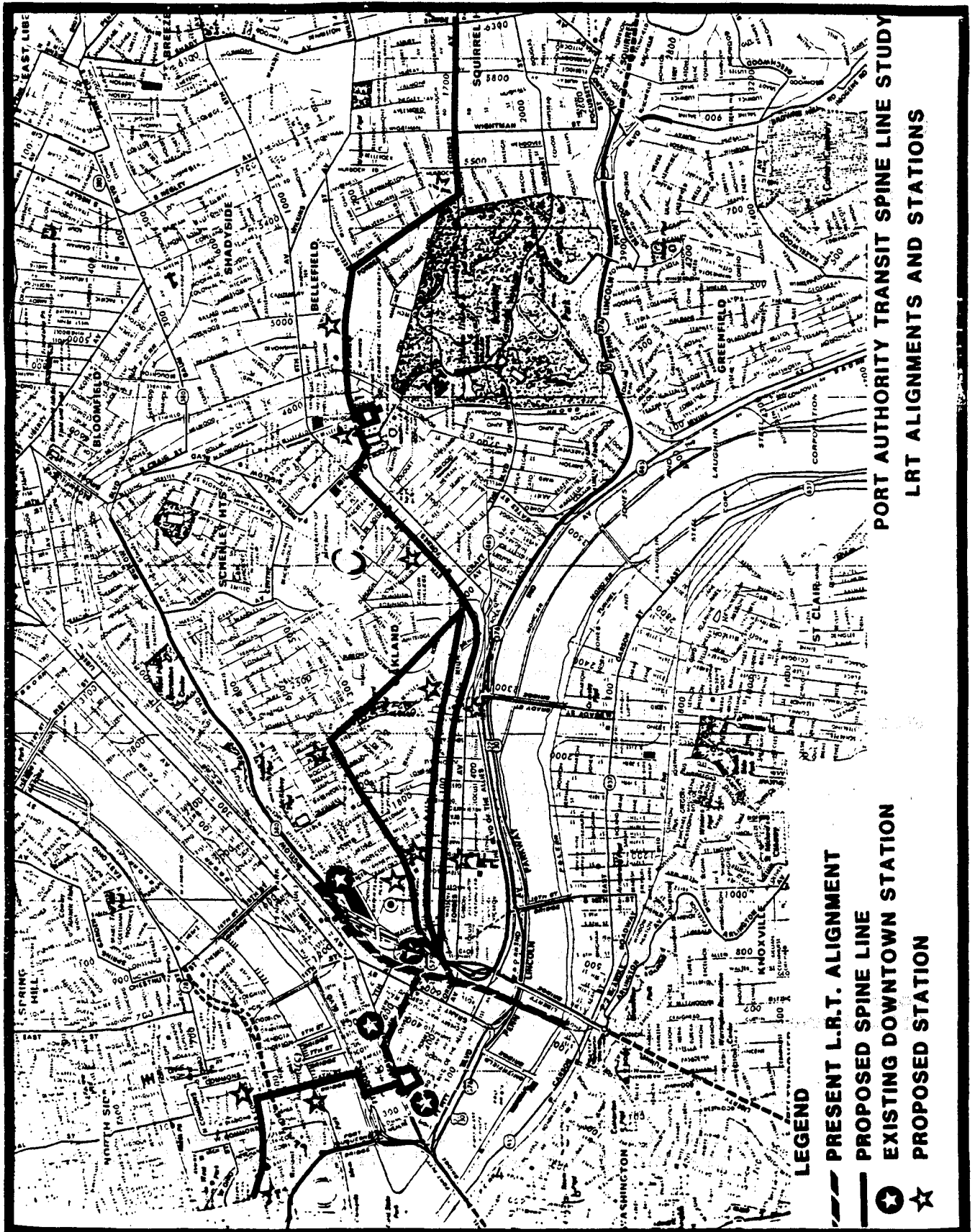
**TRANSITWAYS AND COMMUTER LANES
IN CAPITAL INVESTMENT ALTERNATIVE**

New Start Project Profile
(January 1990)

- Project Pittsburgh -- Spine Line
- Description ○ This corridor is approximately 5 miles connecting the Northside, Downtown Pittsburgh, Oakland and Squirrel Hill. The eastern segment of the Spine Line project would be constructed primarily in subway with possibly 8 stations, connecting to the existing LRT line near the Steel Plaza Station. The western segment runs from the existing Gateway LRT Station across the Allegheny River to the three Rivers Stadium.
- Preliminary estimates put the cost of the project at over \$500 million.
- By the year 2000 the Spine Line is estimated to carry 3 to 4 million annual transit trips.
- Status ○ An Alternatives Analysis for the corridor began in March 1987. The scoping meeting was held in April 1988. Study progress has been slow.
- Cost-
Effectiveness ○ The Spine Line corridor is the most populated and highly urbanized area of Pittsburgh. Over 100,000 of the systems 300,000 daily riders have an origin or destination in the corridor. There are a number of contraflow transit lanes in the corridor, but street capacity is inadequate to handle existing travel demand at a good level of service. Traffic improvements are limited by narrow streets and typography. CBD employment is projected to increase from 140,000 to 180,000.
- The preliminary cost effectiveness for the range of alternatives to be studied vary from \$7.80 to \$9.00/per new trip.
- Local
Financial
Commitment ○ In recent years, the Port Authority of Allegheny County (PAT) has suffered from financial difficulties and has had to reduce service. Because PAT wants to modernize its existing light rail system, extend its East Busway, build a busway to the airport and build a rail project in the Spine Line corridor, UMTA required a financial capability analysis as the first part of the AA. The "Preliminary Local Financial Analysis" was issued in March 1988 and will be completed during the AA. As the study indicated, PAT does not have a dedicated source of revenue for transit and relies on general revenues and annual appropriations from the State.

Pittsburgh -- Spine Line (Cont.)

- o No committed sources of funds have been identified to provide for the local share of the capital cost of the project. PAT's capital financing plan is currently "unavailable." The proposed Federal share of 75% is not supportive of the Department's policy to encourage the grantee to provide at least 50% of the estimated capital cost of the project.
- o PAT's operating assistance plan is considered "acceptable" because of PAT's history of obtaining needed funds to operate new services and to operate and maintain it's existing system.



LEGEND

— PRESENT L.R.T. ALIGNMENT

— PROPOSED SPINE LINE

☆ EXISTING DOWNTOWN STATION

☆ PROPOSED STATION

PORT AUTHORITY TRANSIT SPINE LINE STUDY

LRT ALIGNMENTS AND STATIONS

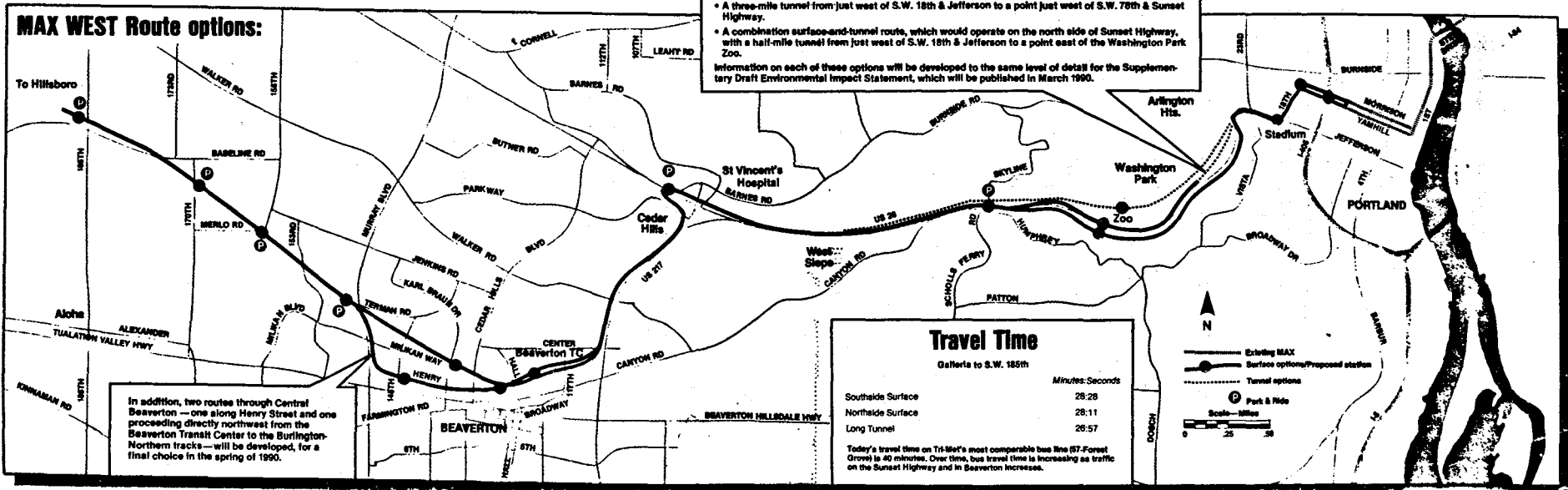
New Start Project Profile
(January 1990)

- | | |
|------------------------|---|
| Project | Portland - Westside LRT |
| Description | <ul style="list-style-type: none"> o The Tri-County Metropolitan Transportation District (Tri-Met) is engineering a 12-mile LRT line from downtown Portland, through the West Hills, to Beaverton and suburban Washington County. In downtown, the line would connect with the Banfield LRT line ("MAX") that operates between Portland and Gresham. Several alignment alternatives, including short and long tunnels through the West Hills, are being considered as part of preliminary engineering. Two "minimum operable segment" alternatives (5.7 and 9.3 miles long) and an all-bus alternative are also being considered. o The capital cost of the 12-mile facility is currently estimated to range between \$500 and \$750 million (escalated dollars) depending upon the final alignment chosen. At the end of alternatives analysis, when LRT was selected as the locally preferred alternative, the estimate was \$230 million (1980\$). o The latest ridership forecast is 30,000 trips per day in 2005. At the end of alternatives analysis, the forecast was 51,400 per day in 1995. |
| Status | <ul style="list-style-type: none"> o The project is in the preliminary engineering phase of project development. Tri-Met hopes to complete a supplemental draft EIS (SDEIS) in the Spring of 1990. Following the SDEIS circulation period, a locally preferred alignment alternative will be chosen and a final EIS will be prepared. Preliminary engineering is not expected to be completed until the Fall of 1990 at the earliest. o House Report 101-183 directs the Secretary to issue a letter of intent and enter into a full funding contract for the Westside project. |
| Cost-
Effectiveness | <ul style="list-style-type: none"> o Early analysis results indicate that a Westside LRT line would improve transit service for at least a part of the corridor, resulting in a few thousand more transit trips per weekday. However, there would be no real difference in traffic congestion between LRT and an all-bus alternative. o Cost-effectiveness indices are being developed as part of preliminary engineering and will be included in the SDEIS. |

Portland - Westside LRT (Cont.)

- o Given the project's high cost, a substantial number of new riders and/or time savings for existing riders would be needed to make the project pass UMTA's cost-effectiveness tests. This seems unlikely. The project is grandfathered from the requirements of section 3(i) but still must compete with other candidates for section 3 funding.
- Local
Financial
Commitment
- o Portland is hoping to receive 75 percent of the capital cost from Section 3. This funding plan is inconsistent with the Federal policy objective of 50 percent or more non-Federal funding.
 - o Although the project is in preliminary engineering, local officials have not yet adopted a capital financing plan identifying the source of the 25 percent local share. As a result, the Westside project currently receives an "unacceptable" financial rating. One potential source of local capital funding is an auto registration fee. This source would require a statewide vote to amend the State constitution (planned for May 1990) and a local referendum to impose the fee. The area also expects a State match of about 12.5 percent. State funds could not be committed to the project until the legislature meets again in 1991.
 - o The stability and reliability of Tri-Met's operating revenues is also rated "unacceptable" at this time. No financial plan has been adopted for the project. With new funding authority granted by the State, Tri-Met should have no difficulty operating its existing system, but Tri-Met's fiscal capacity to undertake a major service expansion on the Westside and continue operating its existing system has not yet been demonstrated.
- Other Rating
Factors
- o The Portland area has undertaken a number of initiatives to link transit with urban development. One noteworthy example is a cap on the number of parking spaces to be provided in downtown Portland. The effect of the cap is to increase the cost of commuting by private auto, thus promoting transit ridership. A goal of local land use plans is to focus development near transit stations. On the Westside, Tri-Met has worked closely with a developer of land adjacent to the Sunset Transit Center. This should eventually lead to somewhat higher transit ridership and farebox revenues. Tri-Met's ridership forecasts and cost-effectiveness indices will take these parking policies and higher station area densities into account.

Portland: Westside to 185th



Preliminary engineering studies presently underway will develop information on the operating characteristic, environmental impacts, costs and benefits of the proposed 12-mile MAX extension, including an evaluation of three MAX routes through the West Hills:

- A surface route on the south side of Sunset Highway between Jefferson St. and Sylvan, then along the north side of the Sunset to Highway 217.
- A three-mile tunnel from just west of S.W. 18th & Jefferson to a point just west of S.W. 78th & Sunset Highway.
- A combination surface-and-tunnel route, which would operate on the north side of Sunset Highway, with a half-mile tunnel from just west of S.W. 18th & Jefferson to a point east of the Washington Park Zoo.

Information on each of these options will be developed to the same level of detail for the Supplementary Draft Environmental Impact Statement, which will be published in March 1990.

MAX WEST Route options:

In addition, two routes through Central Beaverton — one along Henry Street and one proceeding directly northwest from the Beaverton Transit Center to the Burlington-Northern tracks — will be developed, for a final choice in the spring of 1990.

Travel Time
Galleria to S.W. 185th

	Minutes:Seconds
Southside Surface	28:28
Northside Surface	28:11
Long Tunnel	28:57

Today's travel time on Tri-Met's most comparable bus line (St-Forest Grove) is 40 minutes. Over time, bus travel time is increasing as traffic on the Sunset Highway and in Beaverton increases.

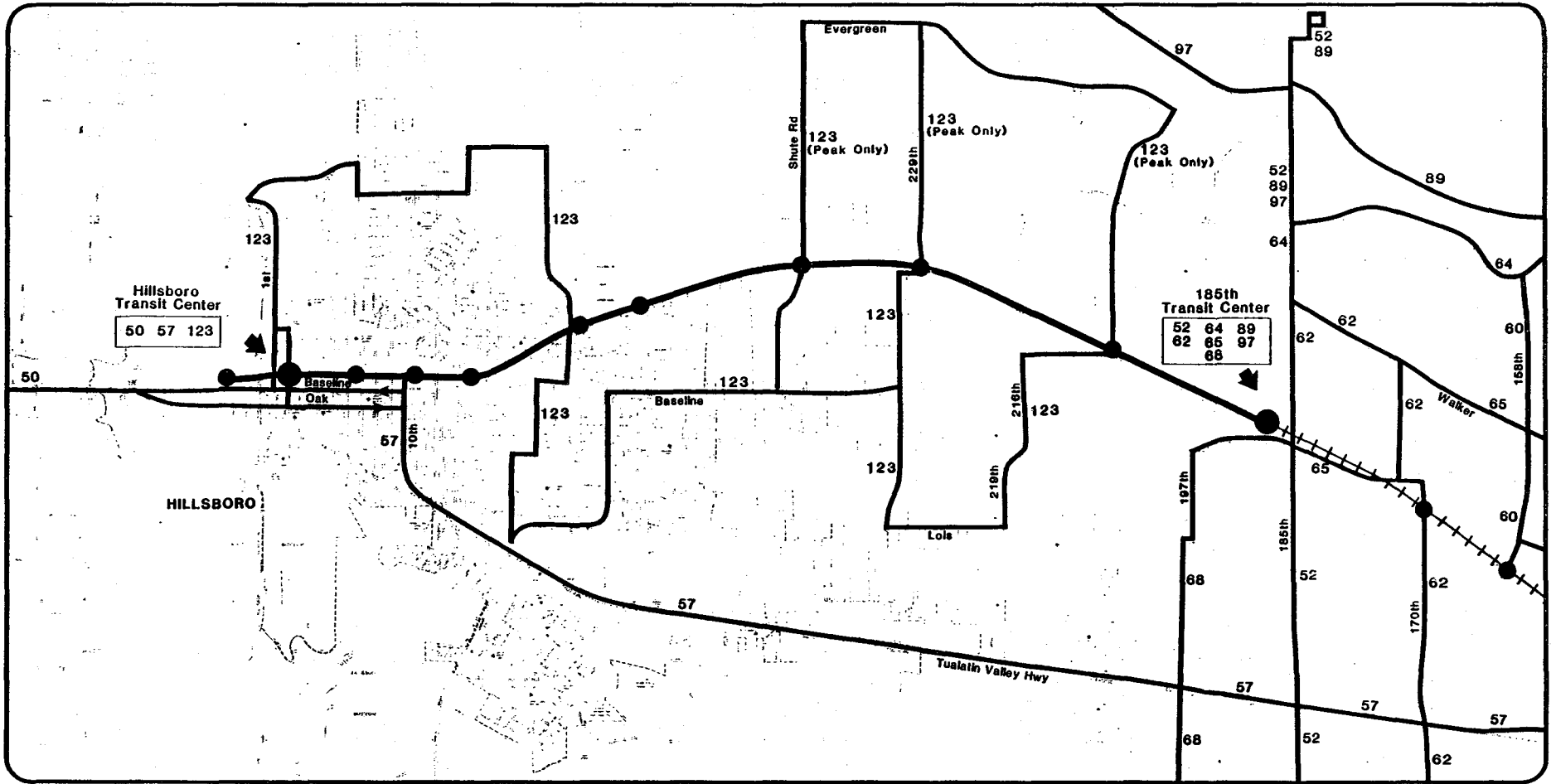
New Start Project Profile
(January 1990)

- Project** Portland - Hillsboro
- Description**
- o The Metropolitan Service District (Metro) is proposing to study bus and light rail alternatives in the Hillsboro Corridor. The corridor extends from 185th Street on the east to the town of Hillsboro on the west, a distance of about 6 miles. The eastern terminus at 185th Street corresponds to the westernmost terminus of the Westside LRT project, now in preliminary engineering.
 - o Metro's preliminary capital cost estimate for a LRT extension to Hillsboro is \$106 million.
- Status**
- o An application to undertake alternatives analysis is presently under review at UMTA.
 - o House Report 101-315 directs UMTA to initiate alternatives analysis and preliminary engineering for the Hillsboro corridor. The report further states that, upon the completion of preliminary engineering, a Hillsboro extension may be added to the full funding contract for the Westside LRT project.
- Cost-Effectiveness**
- o UMTA has been provided very little information on the potential benefits of a Hillsboro extension. Metro estimates that a Hillsboro extension would attract about 1920 new transit trips per day in 2005. In total, Metro projects that the extension would carry 5000 to 6000 riders. UMTA has not reviewed the technical support for these forecasts.
 - o The Hillsboro corridor fails to meet UMTA's cost-effectiveness thresholds for entry into alternatives analysis. In 1987, there were 3200 daily transit trips west of 185th on four bus routes. UMTA's threshold is 15,000 existing riders. Based on Metro's projections, the cost per new transit trip would be close to \$20, compared with UMTA's threshold of \$10. There is very little likelihood that, for the foreseeable future, an LRT extension to Hillsboro would meet the cost-effectiveness requirements of Section 3(i) of the UMT Act.
- Local Financial Commitment**
- o Portland is hoping to receive 75 percent of the capital cost from Section 3. This funding plan is inconsistent with the Federal policy objective of 50 percent or more non-Federal funding.

Portland - Hillsboro (Cont.)

- o Local officials have not yet adopted a capital financing plan identifying the source of the 25 percent local share. As a result, the Hillsboro corridor currently receives an "unavailable" financial rating. One potential source of local capital funding is an auto registration fee. This source would require a statewide vote to amend the State constitution (planned for May 1990) and a local referendum to impose the fee.
- o The stability and reliability of Tri-Met's operating revenues is rated "unacceptable" at this time. No financial plan has been adopted for the project. With new funding authority granted by the State, Tri-Met should have no difficulty operating its existing system, but Tri-Met's fiscal capacity to undertake a major service expansion on the Westside and continue operating its existing system has not yet been demonstrated.

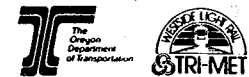
Portland: 185th to Hillsboro



Legend

- +++++ LRT
- LRT Extension To Hillsboro
- Bus Line
- LRT Station
- ◻ Transit Center

**Westside Corridor Project
Hillsboro Extension
YEAR 2005 TRANSIT NETWORK
LRT ALTERNATIVE
CENTRAL HILLSBORO TERMINUS**



New Start Project Profile
(January 1990)

- | | |
|------------------------|---|
| Project | St. Louis: "Metrolink" LRT to Airport |
| Description | <ul style="list-style-type: none"> o The project called Metrolink is an 18 mile doubletrack LRT line with 20 stations and 31 vehicles. The line runs from East St. Louis across the Eads Bridge, through an existing railroad tunnel, under the St. Louis CBD along 11 miles of existing railroad track and the I-70 right of way to the Airport. An old railroad facility will be modified to serve as the yard and maintenance facility. o The estimated total cost of this project is \$384 million of which \$288 million is Section 3 funds. The local share was provided through in-kind donations of the Eads Bridge, tunnel and railroad land. o Opening year (1993) ridership was estimated in the FEIS to be 17,000 per day which is projected to increase to 37,000 by the year 2000 and includes 8000 new riders. |
| Status | <ul style="list-style-type: none"> o A full funding grant agreement (FFGA) was executed in October 1988 between UMTA and the Bi-State Development Agency, the transit operator for the St. Louis Region. At that time Bi-State took over responsibility for the project for East West Gateway Coordinating Council (EWGCC), the regional Metropolitan Planning Organization (MPO), which had advanced the project through alternatives analysis and preliminary engineering phases of UMTA's project development process. The agreement provides for final design and construction of the project and identifies a federal funding schedule. As of September 30, 1989, UMTA has provided \$152 million to Bi-State. Congress has appropriated \$67 for FY 1990 leaving a Federal balance due under the FFGA of \$69 million. o The project is currently in final design. Alignment changes are being considered in East St. Louis and near the airport along with modifications to the yard site. Rail car bids have been received but award has been delayed pending the outcome of a bid protest. Actual construction on some portions of the line should start in the Spring of 1990. o UMTA has assigned a PMO contractor to monitor project performance and attend quarterly review meetings. |
| Cost-
Effectiveness | <ul style="list-style-type: none"> o With a cost-effectiveness index of \$8.95 (1986\$), the project did not meet UMTA's \$6.00 threshold. The project was grandfathered from the requirements of Section 3(i). A FFGA was executed in 1988 in accordance with Congressional direction. |

St. Louis: "Metrolink" LRT to Airport (Cont.)

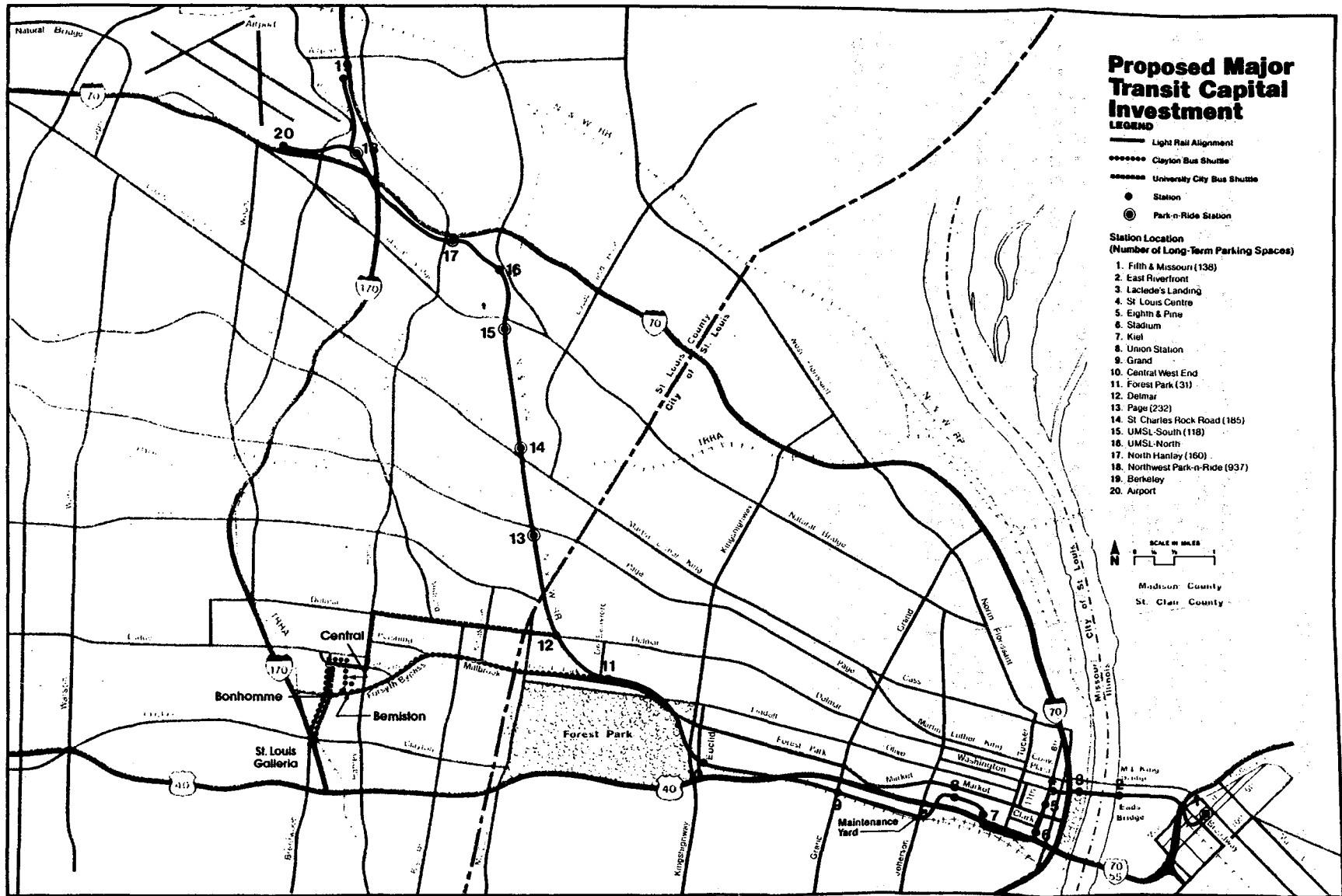
Local
Financial
Commitment

- o The project's capital financing plan is marginally acceptable. The local matching share (25%) consisted of donated assets (railroad rights-of-way and land). There was no cash match. Bi-State does not have sufficient financial reserves to meet unexpected cost overruns.
- o The project operating assistance plan is marginally acceptable. Operation and routine capital purchases are supported by a 1/2% State Transportation Sales Tax. There is a concern that when the system opens in 1993, cut backs in bus service will be needed to pay for the operating deficit of the rail line. Currently fare box revenues only fund about 26% of Bi-State's operating budget.

Other

- o EWGCC expects total system wide ridership (bus and rail) to increase from 112,000 in 1985 to 160,000 in the year 2000, but UMTA considers this increase to be highly optimistic.

St. Louis: "Metrolink" LRT, CBD to Airport



New Start Project Profile
(January 1990)

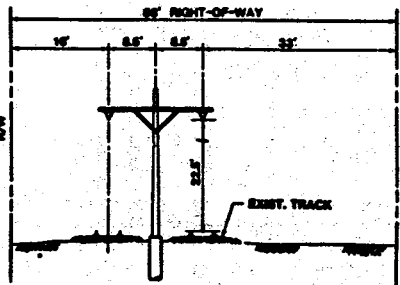
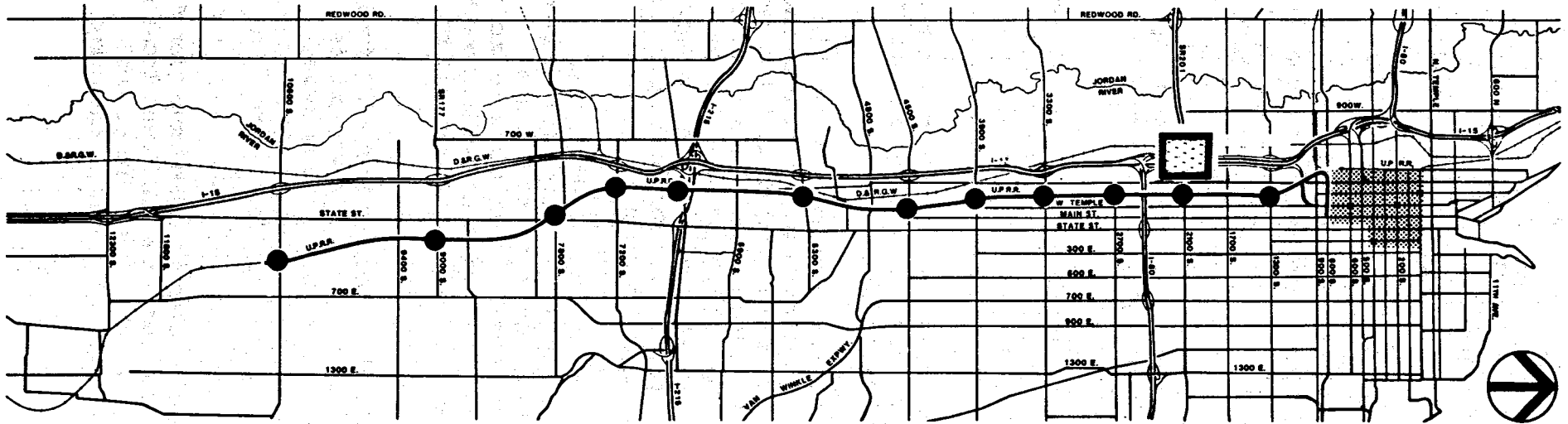
- Project:** Salt Lake City - I-15/State Street Corridor
- Description**
- o The Wasatch Front Regional Council is studying a dozen highway and transit alternatives for reducing traffic congestion between downtown Salt Lake City and suburban areas to the south. The alternatives consist of various combinations of four kinds of improvements: widening I-15, addition of bus/HOV lanes to I-15, expanded bus service, and the construction of an at-grade light rail line along either the Union Pacific Railroad or State and Main Streets. The study corridor is approximately 20 miles in length and contains a large percentage of the region's residential, office, and retail development.
 - o Local officials are expected to select light rail and I-15 widening as the locally preferred alternative. The LRT alternative is estimated to cost \$150 to 200 million.
- Status**
- o The alternatives analysis phase is nearing completion. The technical work has been completed and UMTA, WFRC, and FHWA staff are working out the final wording for the draft EIS. Once the draft EIS has been approved and circulated for public comment, a locally preferred alternative can be selected.
- Cost-Effectiveness**
- o LRT would provide much the same level of transit service as an expanded bus system. Some parts of the corridor would benefit from a slight reduction in transit travel time, other areas would experience increased transit travel time due to the need to transfer from bus to rail. Compared with the all-bus alternative, LRT is projected to increase transit ridership by about 4200 trips per day. LRT would not have a noticeable effect on traffic congestion.
 - o None of the fixed guideway alternatives meet UMTA's current cost-effectiveness threshold of \$6 per new transit trip. With an index of \$7 per new trip, the Union Pacific LRT alternative comes closest to the threshold.
 - o The \$7 index is reflective of a very low cost project, not one that is particularly effective. The LRT alternative assumes a bare bones design with a cost-per-mile lower than any other LRT system in North America. The cost estimate (and the cost-effectiveness index) could well increase if and when preliminary engineering is performed.

Salt Lake City - I-15/State Street Corridor (Cont.)








Local
Financial
Commitment

- o A 50 percent local match is being assumed for any transit improvements emanating from the alternatives analysis. Such a funding plan would be consistent with the Federal policy objective of 50 percent or more non-Federal funding. At this time, however, the UTA has made no formal commitment to a 50 percent local share.
- o The capital financing plan is currently "unavailable." Local officials have not yet adopted a financing plan and existing local funding sources (a 1/4 cent sales tax dedicated to transit) cannot provide sufficient funds for a major investment. Early in 1990, the UTA is expected to ask the Utah legislature for authority to increase the dedicated sales tax to 1/2 cent.
- o An "unacceptable" rating has been given to the stability and reliability of local operating funds. While the UTA's 1/4 cent sales tax is adequate for its current system, the major service expansion envisioned under the bus and LRT alternatives would require a substantial increase in operating funds. A financing plan has not been adopted, although it appears that a 1/2 cent sales tax, if sought and authorized, would meet both capital and operating needs for a LRT line and supporting bus system.

Salt Lake City



Typical Section for Alternative 7
Applies between 10600 So. and 800 So.

- Light Rail Transit (LRT):**
-  Addition of LRT on existing UPRR** tracks between 10600 So. and 800 So.
 -  Construction of 12 transit stations along LRT alignment.
 -  Continuation of LRT system around/into Salt Lake City Central Business District utilizing 4-8 curbside stations. See Fig. 2.16 for details.
- System Improvements:**
-  Relocation and/or expansion of existing bus routes.
 -  Optimization of existing transit facilities and services.
 -  Area of moderate changes in geometries between 2700 So. and 1700 So. See Fig. 2.22 for details.
 -  Rehabilitation of all I-15 pavement and bridges between 12300 So. and 600 No.

**UPRR - Union Pacific Railroad

I-15 / State Street Corridor Alternatives Analysis & Environmental Study

ALTERNATIVE 7 LRT - UPRR & TSM IMPROVEMENTS

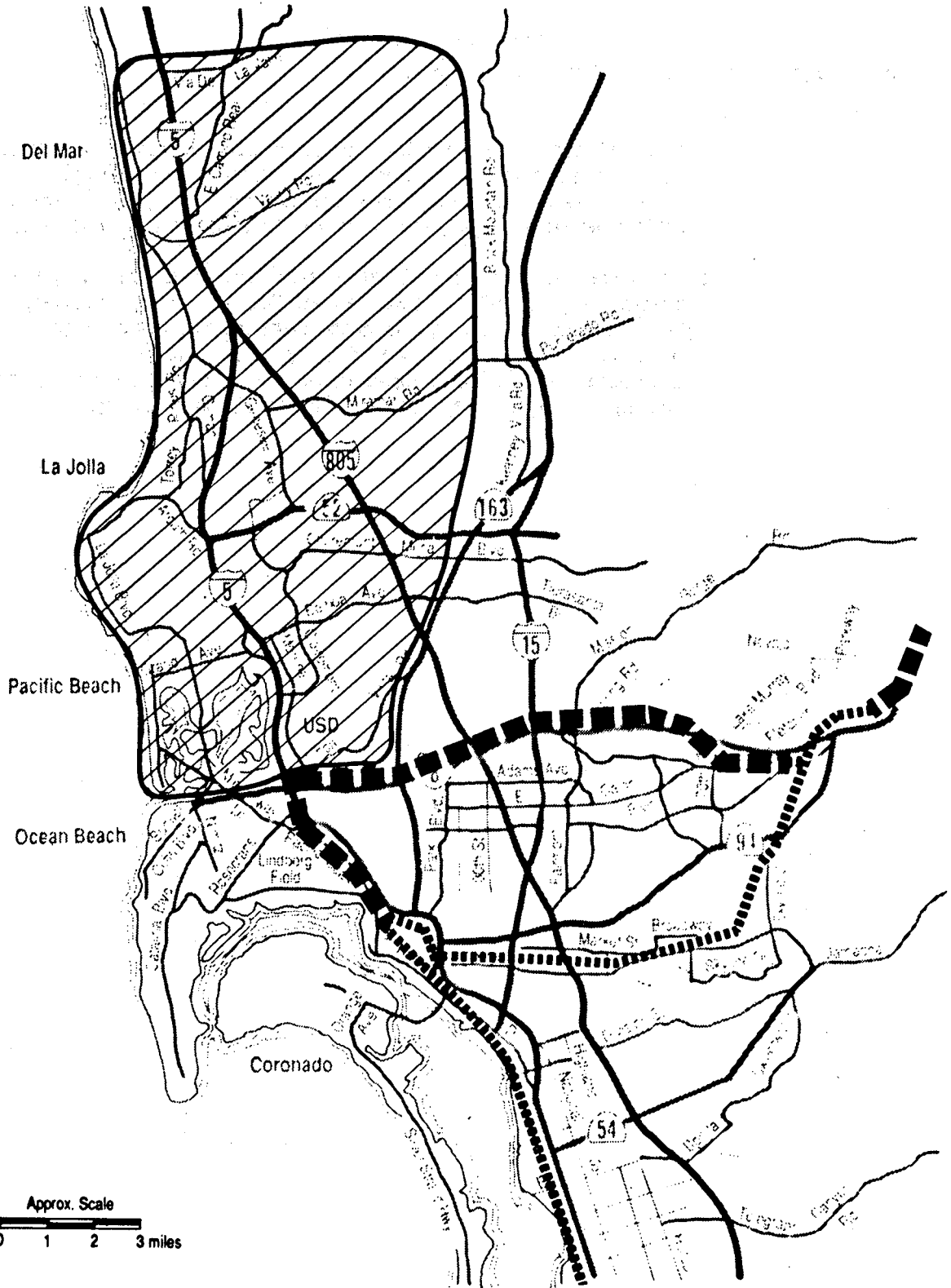
New Start Project Profile
(January 1990)

- Project** San Diego - Mid Coast Corridor
- Description**
- o The Mid-Coast corridor extends about 16 miles along the Pacific Ocean from I-8 near Old Town to the vicinity of Del Mar. The Metropolitan Transit Development Board (MTDB) plans to study several alignments and termini within this corridor for a possible LRT extension. A transportation system management (TSM) alternative consisting of express bus improvements and high occupancy vehicle lanes on I-5 are other possible alternatives.
 - o According to system planning estimates, the capital cost of the alternatives ranges from \$12 million for the TSM alternative to \$337 million for a 19.9-mile LRT alternative (costs in 1988\$).
- Status**
- o UMTA approved the initiation of alternatives in October, 1989. The study is in the initial stages and a draft EIS is not expected to be completed until 1991.
- Cost-Effectiveness**
- o Freeways and arterial streets in the corridor are highly congested, due to rapid growth and the lack of alternative routes. Existing bus service must contend with the same highway congestion as the private auto. The MTDB estimates that, for an average transit trip, the 19.9-mile LRT alternative would reduce travel time by 3 minutes (compared with an expanded bus alternative). Transit ridership is projected to increase by 12,000 trips per day.
 - o Preliminary cost-effectiveness indices for the LRT alternatives, developed in system planning, fall between \$7.50 and \$24 per new trip. These system planning estimates do not take into account State plans to build HOV lanes on a portion of I-5. The impact of the planned HOV lanes on LRT ridership and cost-effectiveness will be addressed in alternatives analysis.
- Local Financial Commitment**
- o The MTDB is expected to seek 75 percent Section 3 funding for a Mid-Coast Corridor project. If the project is viewed as part of the MTDB's overall fixed guideway construction program, however, the Federal share is only 30 percent. San Diego is seeking preferential treatment under the Section 3 overmatch initiative.
 - o The MTDB's capital financing plan is rated "superior." In 1987, San Diego voters approved a one-half cent local sales tax dedicated to transportation. One-third of the revenues, or \$750 million over 20 years, is earmarked for

San Diego - Mid Coast Corridor (Cont.)

capital improvements to public transit, and a major share of this is for LRT extensions. Thus, the transit agency is in reasonably sound financial condition and is capable of undertaking the proposed major transit alternatives.

- o In terms of the stability and reliability of operating revenues, the MTD receives an "acceptable" rating. While the agency is likely to have sufficient resources to operate a fixed guideway facility in the Mid-Coast Corridor, additional operating revenues will be needed if the entire guideway system is built as planned.



MID-COAST CORRIDOR

AA/DEIS

Corridor Study Area

 REGIONAL LOCATION

 Planned LRT Lines

 Open/Under Construction LRT Lines

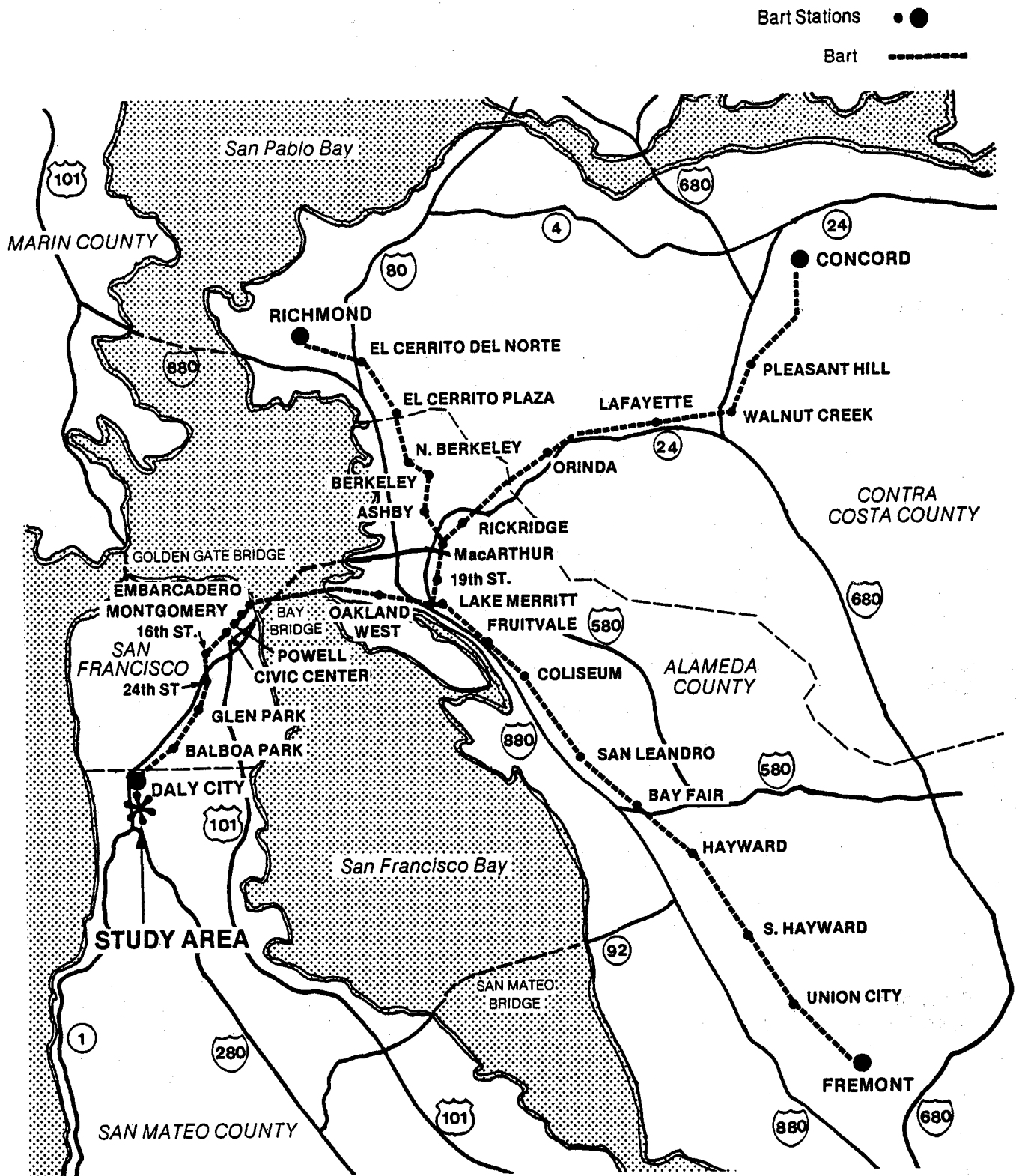
New Start Project Profile
(January 1990)

Project	San Francisco - Colma Station
Description	<ul style="list-style-type: none"> o SamTrans proposes to build a new BART station and parking structure with 2000 spaces about 0.3 miles from the Daly City station. The Colma station would be the first BART station in San Mateo County and would relieve the parking congestion at the Daly City Station. o The project is estimated to cost about \$101 million.
Status	<ul style="list-style-type: none"> o In the past year the Colma AA/DEIS was completed and in November 1989, UMTA, BART and SamTrans agreed to the scope of work for Preliminary Engineering and preparation of the final EIS. Because of the modest scope of the project and the minor changes in project description between the Draft and Final EIS, the FEIS is expected to be completed quickly. o The local funding for the Colma project has been assured by a regional agreement and the approval of all local tax increases needed to implement the financing plan. The plan calls for San Mateo County to pay \$200 million to East Bay Counties to buy into BART and partially fund BART extensions in those counties in exchange for San Mateo County's fixed guideway projects getting local priority in the competition for Federal funding. o Congress has earmarked \$28.3 million in FY 1990 toward construction of the project. However, per Congressional direction MITC is expected to allocate a portion of the funds (about \$2 million) toward the Tasman corridor study.
Cost- Effectiveness	<ul style="list-style-type: none"> o The Colma project is designed to capture additional auto trips coming north to the San Francisco CBD and to relieve the parking congestion at the Daly City Station which is currently the end of the BART line. o The Colma project has been determined to meet UMTA's cost-effectiveness test with a cost per new rider of less than \$6.00.
Local Financial Commitment	<ul style="list-style-type: none"> o A regional financing agreement has tied this project to other fixed guideway projects in San Francisco, Alameda and Contra Costa Counties. The regional plan calls for 100% local funding of East Bay projects and 75% UMTA funding of this project, resulting in a 30% Federal funding share of the entire region's fixed guideway projects.

San Francisco - Colma Station (Cont.)

- o The local capital financing plan is "superior" since local funding is in place to easily generate enough capital to cover the local share of construction cost of this modest project.
- o BART and SamTrans have a 1% dedicated sales tax which generates adequate revenues to operate their systems (including the modest expansion associated with the Colma Station project). The stability and reliability of operating assistance is therefore "acceptable."

REGIONAL SETTING



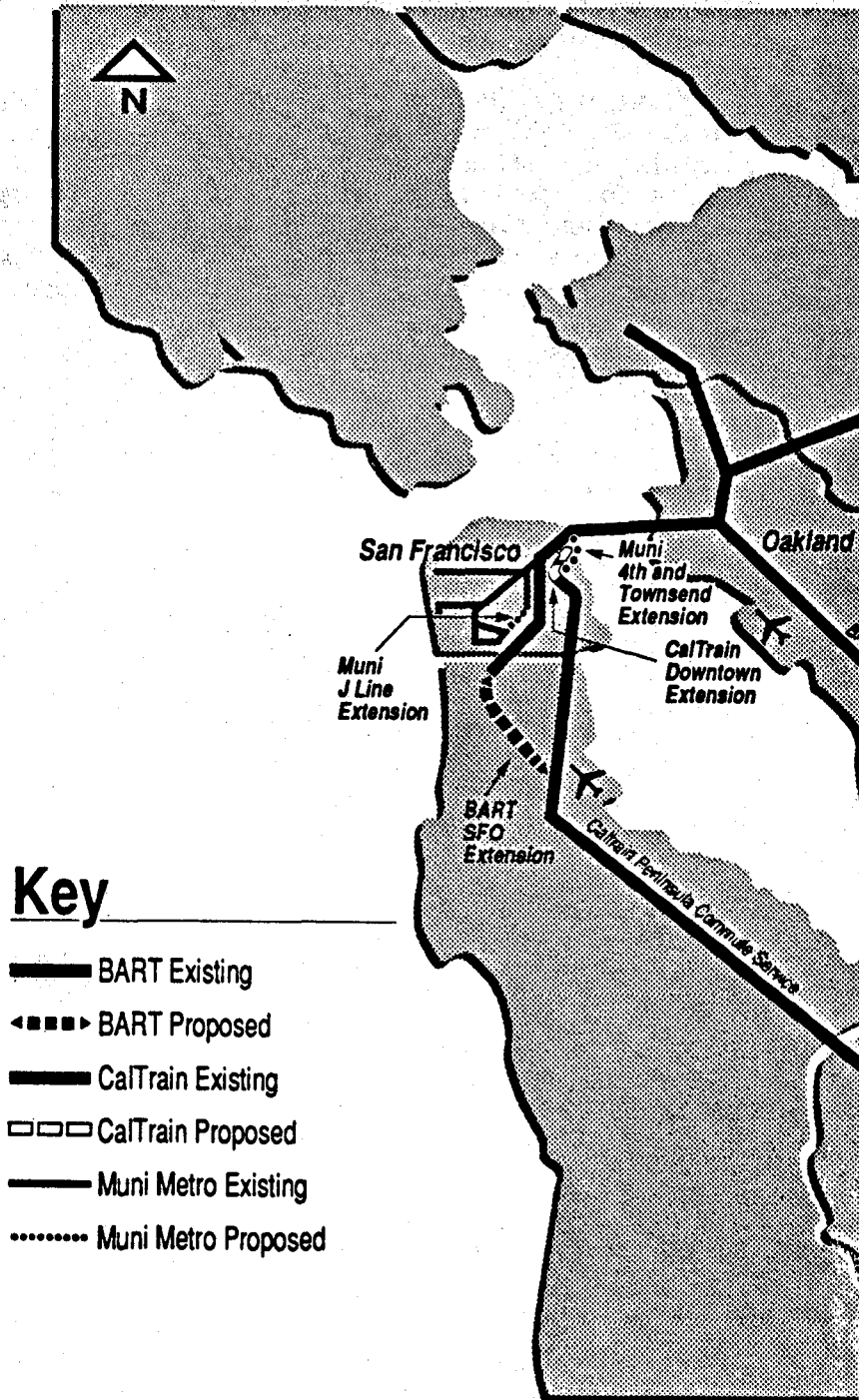
New Start Project Profile
(January 1990)

- Project** San Francisco-Colma to the Airport
- Description** ○ This study is investigating a 6 mile extension of BART from Colma to the airport along with relocation of the CalTrain downtown station and other improvements in the CalTrain corridor. The specific location of the CalTrain station is being determined in a separate study, the results of which will be incorporated into this study.
- Status** ○ Over a year ago a Bay Area regional agreement was reached on financing two billion dollars of rail projects. All of the financing elements are in place except about \$550 million which is being sought from UMTA. Most of those funds are to be applied to the BART extension to the airport. In recognition of this significant local funding share, UMTA approved the alternative analysis request, but required a screening step for a number of alternatives before detailed work could begin. The purpose of the screening was to consider alternatives which may have been unfairly eliminated in systems planning. It is also possible that the results may show that locally favored alternatives do not meet UMTA's thresholds for entering alternatives analysis.
- Cost-Effectiveness** ○ The extension of BART is expected to help ease the traffic congestion along the freeways in Northern San Mateo County into San Francisco as well as providing direct BART service to San Francisco Airport.
- Although the analysis of the cost-effectiveness of simultaneously extending BART to the Airport and relocating the CalTrain downtown terminal has not been done, the lack of cost-effectiveness of the airport extension alone (at \$13.50 per new rider) indicates that the two projects together, serving the same market, would not be cost effective in UMTA's terms.
- Local Financial Commitment** ○ A regional financing agreement has tied this project to other fixed guideway projects in San Francisco, Alameda and Contra Costa Counties. The regional plan calls for 100% local funding of East Bay projects and 75% UMTA funding of this project, resulting in a 30% Federal funding share of the entire region's fixed guideway projects.

San Francisco - Colma to the Airport (Cont.)

- o Although all of the funding mechanisms are in place for the regional capital financing plan, this proposed project has been rated "unacceptable" because it is so closely tied by local agreements to the construction of East Bay BART extensions whose costs have escalated dramatically without commensurate increases in local funding.
- o Though existing dedicated sales taxes should support a modest BART system expansion, the local fiscal effort for operating assistance has been judged "deficient" not only because the capital shortfall may negatively impact on operating assistance in the out years of the financial plan, but also because of the existing precarious financial condition of several of the Bay Area operators.

San Francisco: Colma to Airport



Key

- BART Existing
- - - - - BART Proposed
- CalTrain Existing
- - - - - CalTrain Proposed
- Muni Metro Existing
- Muni Metro Proposed

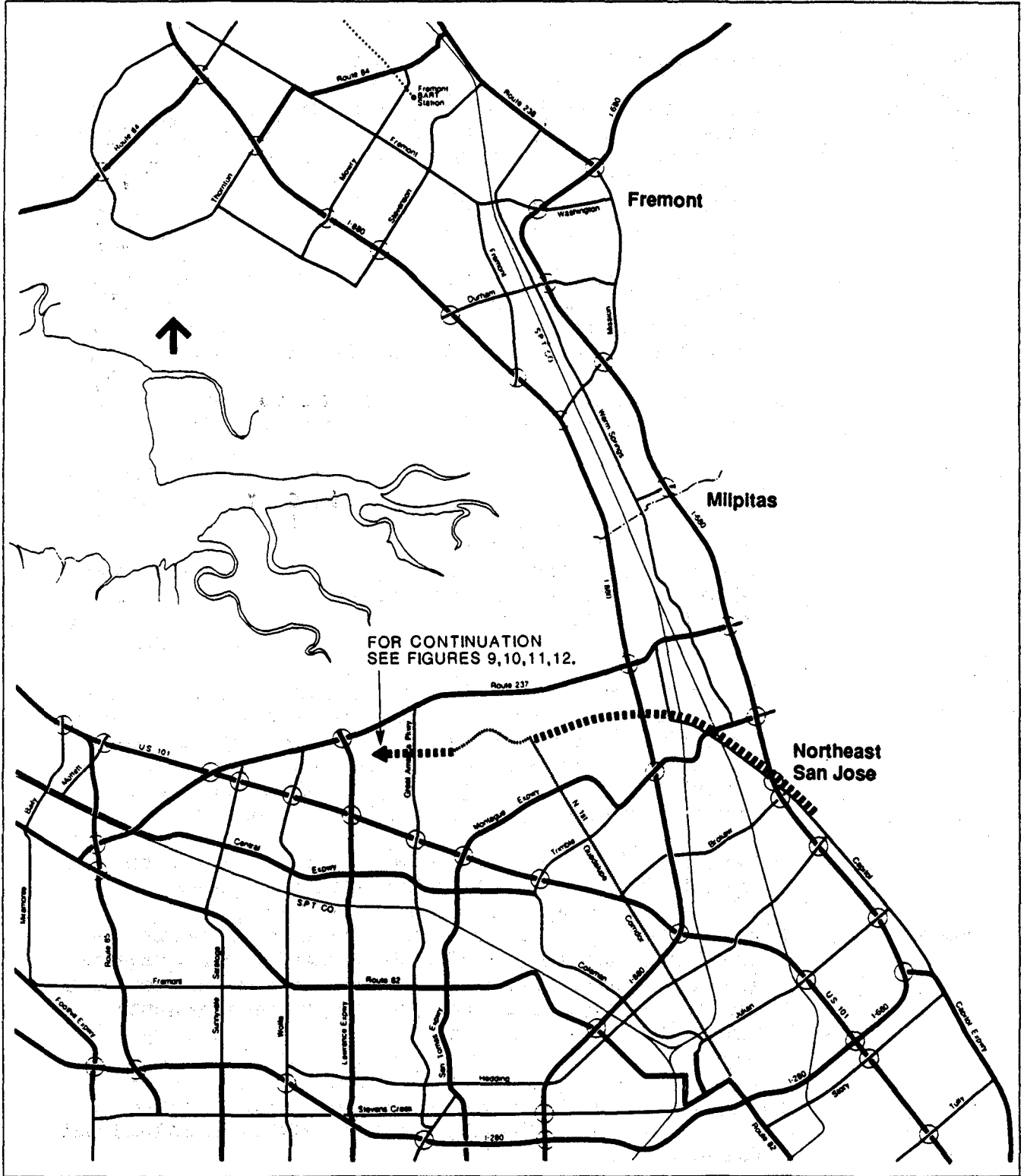
New Start Project Profile
(January 1990)

- | | |
|----------------------------------|---|
| Project | San Jose - Tasman |
| Description | <ul style="list-style-type: none"> o Santa Clara County is studying a surface light rail transit (LRT) line from Milpitas to Sunnyvale or Mountain View by way of a portion of the Guadalupe LRT. The LRT alternatives range from 5.4 to 12.7 miles of construction. o Capital costs range from \$150 to \$350 million. |
| Status | <ul style="list-style-type: none"> o The alternatives have recently been reconsidered, and the BART-extension alternatives included in the original study will no longer be examined as part of this Alternatives Analysis (AA). However, the State is continuing to study BART extensions to San Jose, and can be expected to seek Federal Funds in the future. Santa Clara County expects to circulate an AA/DEIS in the spring of 1990. o The rescoping meetings have been held and many of the methodology reports have been approved, which should allow this AA to move along quickly, if a cost-effective alternative can be developed and agreed to. o Congress has earmarked FY 1990 funds for the project, although its costs, benefits and impacts will not be known until the AA is completed. The exact amount, estimated at around \$2 million, is to be determined by the Metropolitan Transportation Commission per Congressional direction. |
| Cost-
Effectiveness | <ul style="list-style-type: none"> o The proposed project serves the work trip market between Southern Alameda County and Silicon Valley where high levels of freeway congestion currently exist. o The rescoped alternatives barely met UMTA's cost-effectiveness threshold for entering AA, which is \$10 per new transit trip. Since that analysis was based on detailed data, not much if any improvement in the cost-effectiveness indices can be expected during AA. Therefore, it is unlikely that rail alternative which meet's UMTA's \$6 threshold will result from this analysis. |
| Local
Financial
Commitment | <ul style="list-style-type: none"> o The Federal Government is expected to pay about 50% of the capital cost of the project. By comparison, the sponsors of other projects in the Bay Area are expected to request about 30% Federal funding of their projects, primarily BART extensions. o Although the County has a sales tax for transit it is unknown at this time if sufficient resources will be available for this project. A financing plan has not yet been submitted to UMTA, making the their capital financing plan "unavailable." |

San Jose - Tasman (Cont.)

- o Santa Clara Transit currently covers less than 15 percent of operating costs out of the farebox. Adding more light rail will probably reduce the operating ratio further. However, since local agencies have historically provided adequate finances for expanded operations, the operating stability and reliability is rated "acceptable."

San Jose: Tasman



LIGHT RAIL ALTERNATIVE AT GRADE

New Start Project Profile

(January 1990)

Project Washington, D.C. - Completion of Metrorail

Description

- o The Washington Metropolitan Area Transit Authority (WMATA) plans to build 14 miles of heavy rail transit beyond the system funded by the Stark-Harris Act. The unfunded segments are: a 2.9-mile inner connection of the Green Line between U Street and Fort Totten in the District; a 6.4-mile southern extension of the Green Line from Anacostia in the District to Branch Avenue in Prince George's County, Maryland; a 1.3-mile extension of the Red Line from Wheaton to Glenmont in Montgomery County, Maryland; and a 3.3-mile extension of the Yellow Line from Van Dorn Street to Franconia-Springfield in Fairfax County, Virginia.

- o The total capital cost of the four unfunded segments is estimated to be \$2.7 billion, broken down as follows:

<u>Segment</u>	<u>No. of Stations</u>	<u>Cost in millions</u>
Red: Wheaton-Glenmont	1	\$ 338.4
Green: Anacostia-Branch Ave.	5	1,175.7
Green: U Street-Fort Totten	2	748.0
Yellow: Van Dorn-Franc./Springfield	1	149.5
Other System Improvements		<u>260.8</u>
	Total:	\$2,672.5

If the 80-percent Federal share is continued, the Federal cost of the last 14 miles will be \$2.14 billion. However, other cities now typically provide 50 percent or more of project cost from non-Federal funding sources. If a 50-percent Federal share is assumed for these Metrorail segments, the Federal cost will be \$1.34 billion.

- o The ridership on the four segments has not been estimated separately from the rest of the Metrorail system.

Status

- o The environmental documents covering these segments are generally old and may need to be updated. The mode and alignment decisions have been made, and some usable design work has been performed on portions of these segments. Hence, they are considered to be in the preliminary engineering phase of project development.
- o UMTA believes that WMATA should compete with the other cities across the nation vying for limited Federal transit funds.

Washington, D.C. - Completion of Metrorail (Cont.)

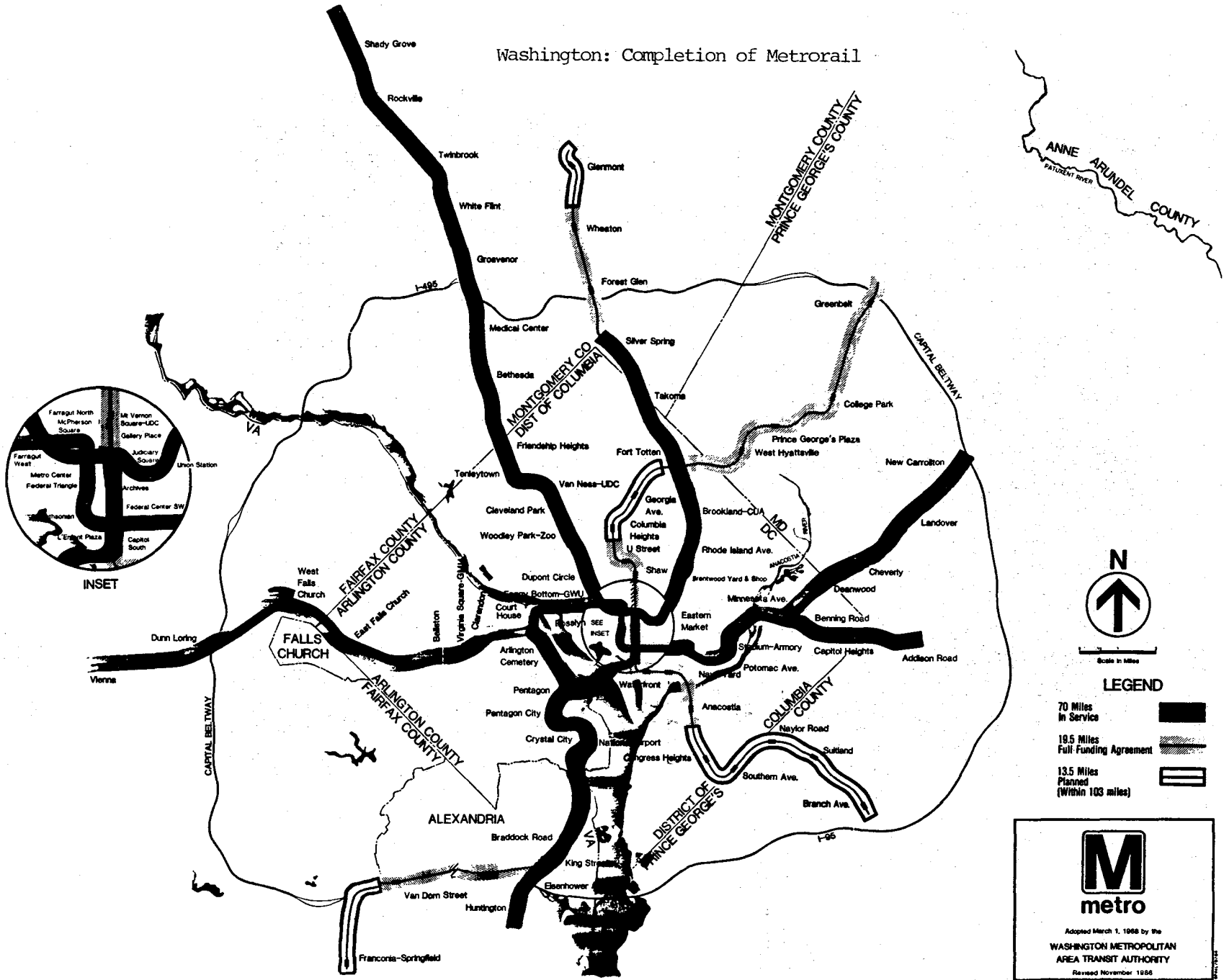
Cost-
Effectiveness

- o The inner Green Line segment would provide service in a highly transit-dependent neighborhood and connect the northern Green Line directly to downtown. The southern Green Line also would serve transit-dependent neighborhoods, but of lower density. The Red Line extension would serve a relatively affluent area, but one with poor auto access to downtown because of a lack of freeways. The Yellow Line extension would compete with the highly successful transit service on the Shirley HOVway, and offer a lower level of service for core-oriented trips.
- o The cost-effectiveness indices for the four segments have not been determined.

Local
Financial
Commitment

- o The Federal share of Metrorail construction under the Stark-Harris Act has been 80 percent.
- o A capital financing plan for completion of the 103-mile plan was presented by local officials in 1987 at congressional direction. It called for a special authorization for WMATA and the continuation of the 80% Federal share, both of which are contrary to Department policy.
- o Implementation of other major major transit projects (i.e., the Silver Spring-to-Bethesda light rail in Maryland and the Fredericksburg commuter rail in Virginia), funded for the most part with State money, is proceeding despite the lack of an agreement with the Federal Government on how to finance completion of the 103-mile Metrorail System.
- o In 1986, a study by the Federal City Council found that WMATA will require \$150 million annually by the year 2000 for the maintenance, rehabilitation and reconstruction of its transit infrastructure. WMATA's own study subsequently confirmed that need, and WMATA is seeking a commitment to a major program from its constituent local governments. A stable and reliable source of funds for this purpose and for funding simultaneously increasing deficits has not been identified.


Washington: Completion of Metrorail



Scale in Miles

LEGEND

- 70 Miles in Service
- 19.5 Miles Full-Funding Agreement
- 13.5 Miles Planned (Within 103 miles)



Adopted March 1, 1968 by the
**WASHINGTON METROPOLITAN
 AREA TRANSIT AUTHORITY**
 Revised November 1986