## METRO NOBILITY

## FINAL REPORT TO THE LEGISLATURE

Prepared by The Minusota Department of Transportation February, 1981

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### EXECUTIVE SUMMARY

#### INTRODUCTION

Metro Mobility is a door-to-door transportation service for persons who, because of handicap, are unable to use, or find it difficult to use regular route transit service. This demonstration project was mandated by the Minnese State Legislature in early 1979, and coordinates both public and private transportation providers in an integrated transportation system. Although Nn/DOT has been given primary responsibility for the establishment and implementation of the project, the MTC and the Metropolitan Council have worked cooperatively in its development and implementation.

### DESCRIPTION OF SERVICE

Metro Mobility consists of three major components. Project Mobility, which is operated by the MTC, consists of thirty-four lift equipped vehicles, and serves all of Minneapolis and St. Paul and portions of some first ring suburbs. The Shared-Ride Taxi Program serves handicapped persons who can get in and out of a taxi and who are traveling within the City of Minneapolis. The Handicapped and Senior Citizen Transportation Service (HSCTS) a private nonprofit agency, operates one standard and four accessible vehicles in certain northern and southern Minneapolis subarbs. All three of these components are coordinated through the Metro Mobility Transportation Center (MMTC) which is responsible for certifying cligible individuals, processing trip requests, and maintaining records for reimbursement and evaluation purposes.

To schedule a ride, individuals must call the Transportation Center at least two hours before the ride is needed. Service is provided nineteen hours per day on weekdays, and seventeen hours per day on weekends and holidays. The fare for Metro Mobility service is equal to the regular route service fare of fifty cents.

#### SYSTEM BENEFITS

During 1980, Metro Mobility provided about 372,000 trips to over 14,000 individuals certified to use the service. Approximately 22 percent of those certified are in wheelchairs, 37 percent use another type of mobility aid, and 41 percent of those certified use no mobility aid. Proportionately, those individuals requiring accessible vehicles, especially those in wheelchairs, are more frequent users of the service. Standing orders comprise about one-third of the daily ridership and constitute the bulk of the work and school trips. Trip samplings show that work and medical are the predominant trip purposes.

### SYSTEM COSTS

Metro Mobility utilizes funds from two program sources. The NTC receives a direct appropriation for Project Mobility. All other components of the demonstration program are funded through the Paratransit Grant Program. Since the demonstration began in April, 1979, \$4,923,000.00 has been expended for Project Mobility services, while costs for the other project elements totaled approximately \$2,749,000.00. Private and public transportation providers, using a mix of vehicle types, have been coordinated through a central control center to promote cost effectiveness. The shared-ride taxi project has been particularly useful in reducing system costs. During the third quarter of 1980, trip costs including Transportation Center administrative charges, were: Project Mobility - \$14.22, Shared-Ride Taxis - \$5.82, and Private Non-Prefit Providers - \$9.52. Cost differences are related to numerous factors including drivers' wages, trip length, demand densities, and service area.

### ISSUES AND RECOMMENDATIONS

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The Department of Transportation strongly recommends that Metro Mobility be continued. The increase in transportation opportunities for handicapped people in the Metropolitan Area has been dramatic, from 77,000 trips in 1978 to 372,000 trips in 1980. Metro Mobility has been largely successful in meeting the original goals and objectives of the project. It is also recommended that service be expanded to include the entire Netropolitan Transit Taxing District. There are portions of the Metro Area in which little or no specialized transportation is available. Where services do exist, they are often fragmented or provided only for specific purposes such as medical needs. System expansion is important to the coordination effort and to increased effectiveness of the total system. The Metro Mebility Management Policy Committee has endorsed an expansion plan for the bensive provision of handicapped transportation throughout the NTTD recommends implementation of the plan. Total cost of continuation and expansion of Metro Mobility is projected at \$12,900,000.00 for the bienniom. Approximately, 1,212,000 trips would be provided.

### I. REVIEW OF LEGISLATION

Metro Mobility is a unique and innovative demonstration project mandated by the MN Legislature in 1979 to coordinate special transportation service in the metropolitan area. The development of the project centered around the principal objectives outlined in the legislation as follows:

- A. To provide greater access to transportation for the elderly, handicapped and others with special transportation needs in the metropolitan area and particularly to fill all unmet needs for that transportation in the transit taxing district, and
- B. To develop an integrated system of special transportation service providing transportation tailored to meet special individual needs in the most cost-effective manner using existing public and private providers of service.

Responsibility for establishment and implementation of the demonstration was given to the Commissioner of Transportation, with the understanding that the Department of Transportation would not operate the project directly, but contract for all necessary services. The project was operated pursuant to the rules governing and funded with money available under the Paratransit Grant Program. Daties of the Commissioner as they appear in the legislation are listed below:

- A. Encourage participation in the project by public and private providers of special transportation service currently pecelving capital or operating assistance from a public agency;
- B. Contract with public and private providers that have demonstrated their ability to effectively provide service at a reasonable cost;
- C. Encourage individuals using service provided through the project to use the type of service most appropriate to their particular needs;
- D. Insure that all persons providing service through the project receive equitable treatment in the allocation of the ridership;
- E. Encourage shared rides to the greatest extent practicable;
- F. Insure that a full range of service is made available through the project to all parts of the metropolitan transit taxing district;
- C. Encourage public agencies that provide transportation to eligible individuals as a component of human services and educational programs to coordinate with the project and to allow reimbursement for services provided through the project at rates that reflect the public cost of providing those services.

The Commissioner was directed to establish a committee, including representatives of the community, involved agencies, and providers, to set management policies for the project. Additionally, an Advisory Task Force composed of users of the service, was established to advise the Management Policy Committee. This document is intended to meet a final requirement of the legislation that the Commissioner evaluate the project and submit a report to the Legislature to include the following information:

- A. All amounts of money spent or obligated for the project by the Commissioner and the persons receiving those amounts;
- B. The types of service provided, number of individuals served and areas covered;
- C. A comparison of the cost of providing different types of service;
- D. A review of the achievements or failures of the project, problems encountered in implementation and conclusions and recommendations concerning future action.

### **II. DESCRIPTION OF SERVICES**

Metro Mobility is the name given to a coordinated system of transportation elements designed to provide effective and cost-efficient transportation for handicapped individuals within the Twin Cities Metropolitan Area. A number of provents are or have been involved in the project, including the Metropolican Transit Commission operating Project Mobility, three Minneapolis taxi companies, and two private non-profit providers. All trips are coordinated through the Metro Mobility Transportation Center (MMTC) which functions as a clearinghouse for ride requests. One of the original goals of the project was to eliminate duplication and fragmentation of services. Coordination of the above providers through the MMTC has created a standardized public transportation system which provides comprehensive geographic coverage of service and eliminates disparities in fares, service tours and eligibility requirements. A more detailed description of the service elements follows.

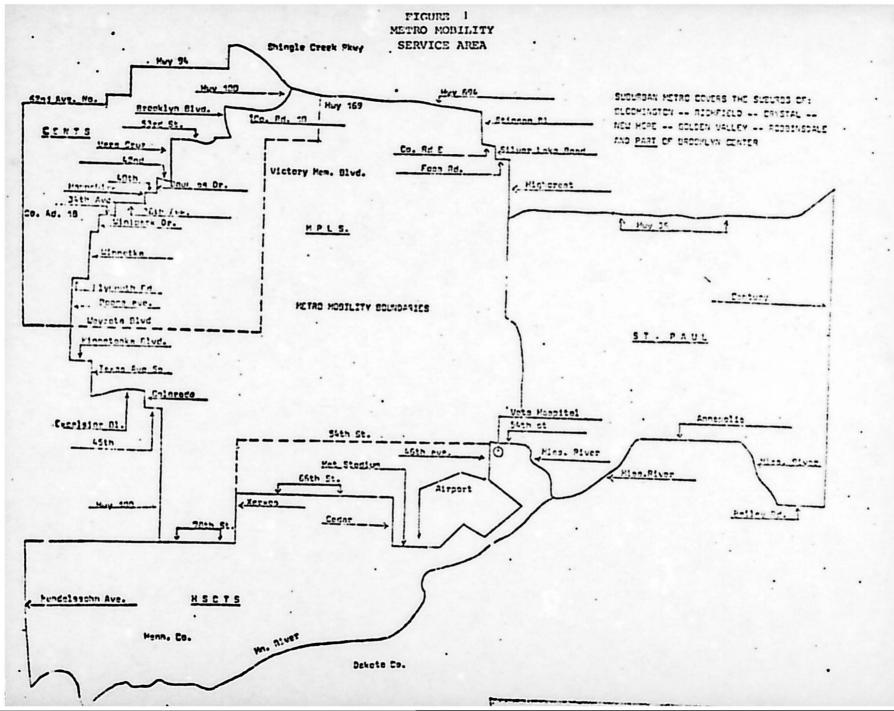
<u>Transportation Center</u> -- The first and major focus of the demonstration is the Metro Mobility Transportation Center (MMTC). Developed as the main coordinating mechanism, it has three principle functions:

- A. The MMTC certifies eligible handicapped persons to use the service. Eligible individuals are those who by nature of a disability are unable to use or have great difficulty using the régular route buses. The MMTC distributes and processes applications for certification.
- B. Trip requests are received by the MITC and matched with the appropriate participating transportation providers. All requests for service must be made to the MMTC at least two hours before the desired trip time. Passenger tours (more than one passenger per trip) are developed to promote cost-efficiency.
- C. Records for purposes of reimbursement evaluation, and future plans and improvements are also kept by the MMTC.

The MMTC operates between the hours of 6:00 a.m. and 1:00 a.m. on weekdays and 8:00 a.m. and 1:00 a.m. on weekends. These service hours are common to all providers participating in the project. Passenger fares are also standardized. Since the inception of the project, the fare for a one way trip has been 35 cents; however, a fare increase has been approved and will be implemented during February, 1981. The Metro Mobility fare will then be 50 cents, equal to that the MTC regular route service, and subject to the same periodic increases. The Metro Mobility service area is shown in Figure 1.

The MMTC opened on April 2, 1979, and is located at 1276 University Avenue, in the Midway area of St. Paul. Mn/DOT currently contracts with the Metropolitan Transit Commission for the operation of the MMTC.

Project Mobility -- Project Mobility, a NTC operated fleet of lift equipped accessible bases was initiated by the NTC in November, 1976. Originally, Project Mobility served a relatively small demonstration area of Minneapolis



with 12 yehicles. Today, Project Mobility serves handicapped persons in the cities of Minneapolis and St. Paul, as well as some first ring suburbs with a fleet of 29 small, accessible vehicles and five-40-foot transit coaches retrofitted with wheelchair lifts. The first major Project Mobility expansion occurred on July 14, 1979, when Project Mobility service was expanded to the City of St. Paul and nearby suburbs. In August, service was expanded to the remaining Minneapolis area.

Shared Ride Taxis -- Another component of Metro Mobility is the Shared-Ride Taxi Program. This demonstration project is designed to serve handicapped persons who have difficulty using the scheduled bus system, but do not require a lift equipped vehicle. The project is also designed to demonstrate:

- A. The introduction of economic efficiencies through public sector contracts with private transportation providers;
- B. The coordination and cooperation of different taxicab companies; and
- C. The coordination of private taxi companies with a component of a public transit system, including integration of control systems.

Eligible persons traveling within the city limits of Minneapolis, making a trip no longer than six miles, and not requiring a lift equipped vehicle, may use the taxi service. Taxi trips are limited to a trip length of no more than 6 miles from the pick-up point, to the destination point.

The Transportation Center is responsible for processing applications, handling trip requests and scheduling cabs for pick-ups. The Transportation Center attempts to group passengers with similar pick-up and destination points, and departure times, together in a tour which is transmitted to the cab companies.

<u>Private Providers</u> -- Private non-profit providers of handicapped transportation have also been encouraged to coordinate their services through Metro Mobility. Starting November 1, 1979, two providers -- Center for Education of Non-Traditional Students (CENTS) and Handicapped and Senior Citizens Transportation Service (HSCTS) began to operate as part of Metro Mobility in two western suburban areas.

CENTS is a private non-profit agency which coordinates services and provides support for non-traditional students, including disabled persons. CENTS helps persons with disabilities attend accredited colleges throughout the state by assisting with registration, application, financial aid, transportation and emotional support. As more and more disabled students wanted to participate in this program, CENTS became more heavily involved in providing transportation. The organization has operated as many as seven wheelchair accessible vehicles, two of which were used to provide services associated with Metro Mobility. The CENTS service area included New Hope, Crystal, Robbinsdale, and parts of Golden Valley and Brooklyn Center. CENTS participated in the project until November, 1980 at which time an internal decision by CENTS was made to discontinue the provision of all transportation services. Subsequently, Handicapped and Senior Citizens Transportation Service (HSCTS) assumed responsibility for the CENTS service area.

HSCTS is a private non-profit organization which has as it sole purpose the transportation of elderly and handicapped individuals. The original Metro Mobility service area covered by HSCTS was comprised of Bloomington and Richfield where HSCTS operated two wheelchair accessible vans. Currently, HSCTS operates three vehicles in its service area and, as mentioned above, also serves the original CENTS service area.

All calls for this service are handled through the NMTC, and all fares, hours of service, eligibility and other policies are compatible with other Metro Mobility components.

#### **III. SYSTEM BENEFITS**

Certification and ridership data are good indicators of the level of service provided to handicapped residents of the Metropolitan Area. In the 15-month period between September, 1979 and December, 1980, certification grew by 105% (from 7,257 to 14,868) and ridership by 45% (from 71,895 trips in the last quarter of 1979 to 103,982 trips in the last quarter of 1980). Even though Project Mobility operations started as a demonstration in 1976, the substantial expansion of service which took place in 1979 makes a comparison with previous years scarcely meaningful.

<u>Certification</u> -- In order to be eligible for Metro Mobility, a transportation handicapped person must complete a certification form and return it to the Metro Mobility Transportation Center. In some cases a doctor's signature is required. As of December, 1980, approximately 1% of the total population living in the service area had requested certification. Of the 14,868 certified, approximately 53% lived within the city limits of Minneapolis; 25% within those of St. Paul, and the remaining 22% in served suburban communities or outside of the current service area. The incidence of certification we: higher in the central cities (2.07% of the population in Minneapolis, 1.34% in St. Paul), most likely a result of both a higher concentration of transportation handicapped population and a greater availability of service.

Certified users are classified into 11 different categories, on the basis of their mobility limitations as shown in Figure 2. The purpose of this classification is to provide the vehicles which are best suited for the transportation needs of the individual user when a ride request is made. As of September, 1980, 22% of the certified persons were in wheelchairs, 37% used orthopedic devices, and 41% had handicaps which did not require the use of aids. A comparison with data from September, 1979 shows a slight relative decline in each of the first two categories, and a growth in the percentage of certified persons with no aids (from 34 to 41% of total certified users). The same data can be rearranged to show that 18% of those certified require an accessible vehicle, and 29% needed an escort. Both these percentages were slightly lower in September, 1980 than in September, 1979.

In summary, a large number of transportation handicapped persons have registered for Metro Mobility service. There is a higher concentration of certified population in the two central cities, both because of demographic factors and availability of service. A variety of mobility limitations is represented, suggesting that a continuing mix of transportation modes is required.

<u>Ridership</u> -- As a systemwide average, the trip rate in September, 1980 was 2.3 one-way trips per certified person per month. After the large expansion which took place in 1979 and brought the system to its present dimension and service area, quarterly ridership grew by about 42 each quarter during 1980, with the exception of the period October-December - 8 -Figure 2

# Handicap Classification Scheme

				The second second second
Classification	Vehicle Type	Ambulance	Vehicles With <sup>1:</sup> Lifts or Ramps	Autos, Vans and Taxis
Persons requiring an ambulance type vehicle with life support equipment and operators trained to administer this equipment or offer personal assistance which is necessary		10 *		
Persons using a wheelchair, require an accessible type vehicle and do not need an escort			21	
Persons using a wheelchair, require an accessible type vehicle and require an escort			22	
Persons using an orthopedic device, require an accessible type vehicle but do not need an escort			23	
Persons using an orthopedic device, require an accessible type vehicle and require an escort			24	
Persons using a wheelchair, are able to use an auto, van or taxi (with or without driver assistance getting in and out of the vehicle) and do not require an escort				31
Persons using a wheelchair, are able to use an auto, van or taxi and require an escort				32
Persons using an orthopedic device, are able to use an auto, van or taxi (with or without driver assistance getting in and out of the vehicle) and do not require an escort			•	33
Persons using an orthopedic device, are able to use an auto, van or taxi and require an escort	T			34
Persons who do not require an orthopedic device, are able to use an auto, van or taxi and do not require an escort				35
Persons who do not require an orthopedic device, are able to use an auto, van or taxi and require an escort				36
Nonhandicapped elderly residing more than 1/4 mile from fixed route transit				37 •
fiderly persons that are unable to wilk to a bur stop close than 2/4 mile	r			38

Persons in this category are not being certified

• Persons in this category are no longer being certified

which saw a 12% increase over the previous period. In the last quarter of 1980, ridership stood at 103,982 one-way trips, an average of 1,130 trips per day.

The various components of the system had different roles in this increase. Between December, 1979 and December, 1980, Minneapolis taxi service grew by 72%, suburban service by 29%, Project Mobility in St. Paul by 12% and Project Mobility in Minneapolis by 1%. As a result, at the end of 1980 the total number of trips provided was divided as follows: Minneapolis Taxi 52%; Project Mobility 40%; and private non-profit providers 8%. The rapid growth of taxi service can be explained by both the growth in certification of persons not requiring accessible vehicles, and especially the lack of vehicle capacity constraints in the provision of taxi trips. The limited increase in Project Mobility service is due to limited capacity of the system in terms of the number of drivers and vehicles, rather than the lack of demand.

The breakdown of ridership by handicap category and the comparison with certification data points out several interesting characteristics of the system, Figure 3.

- A comparison of the percentage of system users with the percentage of persons registered for the service (last two columns) indicates that the heavier users are those who need accessible vehicles, and in particular those in wheelchairs (only 22% of certified persons, but 31% of the trips). Therefore, the system seems to be effective in responding to their mobility needs.
- . The analysis of travel patterns confirms that a minority (26%) of the users need accessible vehicles, and that the use of different types of vehicles is advisable.
- The comparison of travel data between St. Paul (where only Project Mobility vehicles are currently used for all trips) and Minneapolis (with both Project Mobility and taxi) shows the effectiveness of the combined use of the two modes. Sixty-nine percent of Minneapolis Project Mobility riders were in wheelchairs, as opposed to 33% in St. Paul. Only 34% of Minneapolis Project Mobility trips involved passengers who could use non-accessible vehicles, as opposed to 74% of Project Mobility trips in St. Paul.

### Ridership and Certification, Percentage by Handicap Category August, 1980

### RIDERSHIP

		Mpls. Taxi	Mpls. PM	St. Paul PN	Total	Certification
	sing heelchair	8	69	33	31	22
	sing thopedic Devices	48	22	46	40	37
Us	sing No Aid	<u>44</u> 100	<u>9</u> 100	$\frac{21}{100}$	$\frac{29}{100}$	$\frac{41}{100}$
	eeding ccessible Vehicle	2	66	26	26	18
Ne	eding Escort	19	18	19	19	29

Approximately 430 regularly scheduled trips or standing orders are provided each weekday by Metro Mobility. They are almost equally divided between taxis and Project Mobility vehicles, and together they represent about one-third of daily ridership. They constitute the bulk of the work and school trips. Data on trip purpose show that work and medical reasons are predeminant in the travel needs currently being served, while a fairly large part of the trips remain unidentified, Figure 4.

### Figure 4

## Trip Purpose, September, 1980

	Work	School	Medical	Recreation	Other
Taxis	32%	3%	26%	7%	327
Project Mobility	41%	57	172	5%	327

In summary, ridership shows a steady increase during the last year (45% between the last quarters of 1979 and 1980). Most of the growth has taken place through taxi service and the private suburban providers, due to Project Mobility capacity constraints. The trips currently provided satisfy a number of different purposes. Approximately, one third of the trips represent standing orders. Finally, the more severely transportation handicapped individual (persons requiring accessible vehicles, and in particular wheelchair users) are making a proportionally greater use of the system than other certified people.

### IV. SYSTEM COSTS

The total cost of providing Metro Mobility can be broken down into four basic components: 1) operating costs of Project Mobility; 2) reimbursement to the taxi companies for the operation of shared-ride service; 3) reimbursement to the non-profit providers; and 4) cost of Transportation Center operations (administration).

The MTC receives funding specifically appropriated by the Legislature for the operation of Project Mobility. During the course of the demonstration, some of these monies have also been utilized for Transportation Center costs related to Project Mobility. All other elements of the demonstration are funded through the Mn/DOT Paratransit Grant Program. In each case, Mn/DOT contracts with the operator on a cost reimbursement basis. One-hundred percent of deficit costs are reimbursed. <u>Figure 5</u> shows contract periods and grant amounts for Metro Mobility components.

Over the course of the demonstration, beginning with the opening of the Transportation Center on April 2, 1979, approximately \$4,923,000.00 has been expended or committed to the operation of Project Mobility. In addition, approximately \$2,750,000.00 in Paratransit Grant Program funds has been committed to operation costs for the remaining elements of the demonstration.

Metro Mobility represents a unique approach to achieving cost-efficiency and maximum trip making opportunity through centralized control. The Transportation Center which receives all service requests and schedules trips, is the key element, making possible a greater degree of coordination than exists in most specialized systems. The added level of centralized control introduces the opportunity for potentially greater service coordination and flexibility, however, it also creates an additional level of administration with attendant costs. Transportation Center costs as found in Figure 6, represent administrative charges to the project by quarter. Transportation Center staff salaries, office space, phones, office supplies, and marketing are included.

### Figure 6

#### Transportation Center Costs

		1979	1			1980	
Quarter	1	2	3	4	1	2	3
	\$18,249	\$75.624	\$90, 356	\$131.005	\$174.324	\$159.528	\$195, 388

## Finds Expended or Committed for the Operation of Metro Mobility Through June 30, 1981

Project	Contract Period	Funding Source	Program	Contract Amount
Project Mobility	(7-1-77) 4-1-79 - 6-30-79 7-1-79 - 6-30-80 7-1-80 - 6-30-81	State	Project Mobility	\$ 194,000.00* 2,150,600.00 2,379,000.00
Shared-Ride Taxi	2-1-79 - 5-31-80 6-1-80 - 5-31-81 6-1-80 - 6-30-81	State	Mn/DOT Paratransit	\$ 485,000.00 815,000.00 70,000.00(est.)
CENTS	10-1-79 - 11-30-80	State	Mn/DOT Paratransit	\$ 163,345.00
HSCTS	10-1-79 - 9-30-30 10-1-79 - 6-30-81 12-1-80 - 6-30-81**	State	Nn/DOT Paratransit	\$ 114,264.00 149,812.00 125,000.00(est.)
Transportation Center	$\begin{array}{r} 1-15-79 - 2-29-80\\ 3-1-80 - 2-28-81\\ 3-1-80 - 6-30-81 \end{array}$	State	Mn/DOT Paratransit	<pre>\$ 316,880.00 379,400.00 130,000.00(est.)</pre>
TOTAL				\$7,671,701.00

\* Represents only those PM costs incurred from the time the Transportation Center was opened (April 2, 1979) to the beginning of the new contract period.

\*\* For operation in previous CENTS service area.

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Figure 7 provides cost, revenue and subsidy information for the operation of Project Mobility. Similar breakdowns for taxi and private costs are shown in Figures 8 and 9 respectively.

In order to arrive at the true costs of providing services, administrative charges associated with the Transportation Center are also included. These costs are allocated to the various providers in relationship to the number of passengers each transports and also the amount of service provided to each by the Transportation Center. For example, the private providers receive the least assistance from the Center. For the first few months of operation, Transportation Center charges were allocated evenly over the total passengers. In March, 1980, at the beginning of a new contract period, a system was developed to more accurately reflect the value of service provided by the Center. The result was a significant reduction in the allocation to the private providers.

In examining cost figures for the three service types, it is readily apparent that trip costs differ widely. During the third quarter of 1980, the average total trip subsidy for PM was \$14.22 while the taxis subsidy was \$5.82, and the private providers' average was \$9.52. In general, special transportation services designed for severely handicapped individuals are more costly than general purpose paratransit services. This can be attributed to a number of factors some of which are longer time necessary to assist passengers on and off the vehicle and lower demand densities. Project Mobility continues to require the largest per passenger subsidy.

The shared-ride taxi was introduced into the demonstration as a means of reducing the average system trip cost. As originally conceived, it has provided transportation for a specific segment of the handicapped population - those not requiring a specially equipped vehicle. Cost differences between the taxis and the other providers are possible for several reasons. Taxis are utilized on an as-needed basis. The providers are reimbursed only for the trips provided. Additionally, the shared-ride taxi project has a trip limitation of six miles, and in fact shows an average trip length of only 3 miles. The average PM trip, by comparison, is approximately 7.5 miles.

Costs for the private providers and PM differ as well. In both cases, drivers' wages represent the largest cost category, accounting for approximately 40% of the total. Maintenance expenses are also significant budget items for both providers. Drivers' wages and maintenance costs are the primary factors influencing the trip cost differences between PM and the private providers. Also, the private providers operate in smaller geographic areas. A preliminary sampling indicates that the average trip length within these service areas is considerably shorter than that experienced by Project Mobility. To summarize, Metro Mobility has coordinated and integrated various public and private special transportation providers to achieve increased cost efficiencies. The shared ride taxi project has contributed significantly to this effort. While system average trip costs may appear high, they are not unreasonable when compared to similar systems across the country. The administration and operation of Metro Mobility have shown improvement over time, and it is anticipated that additional streamlining of procedures will result in further cost efficiencies.

Project	Mobil	ity	Costs
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Quarter	Passenger	Total Operational Cost	Passenger Revenue	Total Operational Subsidy	Cost/ Pascenger	Revenue/ Passenger	Subsidy/ Passenger	MMTC Subsidy/ Passenger	Total Subsidy/ Passenger
1979 1	19,357	\$ 189,952	\$ 6,807	\$ 183,145	- \$ 9.81	\$.35	s 9.46	N/A	S/A
2	17,650	188,845	6,059	182,786	10.70	. 34	10.36	52.29	\$12.65
3	27,445	359,161	9,692	349,469	13.09	.35	12.74	1.71	14.45
4	39,421	476,168	11,085	465,083	12.08	.28	11.80	1.82	13.62
1980 1	41,407	435,867	14,469	421,398	10.53	.35	10.13	2.07	12.25
2	40,432	446,324	14,089	432,235	11.04	.35	10.69	1.91	. 12.60
3	39,939	491,211	13,941	477,270	12.30	.35	11.95	2.27	14.22
Total*	225,651	\$2,587,528	\$76,142	\$2,511,386					

\* January 1, 1979 - September 30, 1980

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Quarter	Passenger	Total Operational Cost	Passenge <b>r</b> Revenue	Total Operational Subsidy	Cost/ Passenger	Revenue/ Passenger	Subsidy/ Passenger	MMTC Subsidy/ Passenger	Total Subsidy/ Passenger
1979 2	15,416	\$ 45,402	\$ 5,386	\$ 40,016	\$2.95	\$.35	\$2.60	\$2.29	\$4.89
3	25,319	86,915	8,901	78,014	3.43	.35	3.08	1.71	4.79
4	30,332	104,703	10,677	94,026	3.45	.35	3.10	1.82	4.92
1980 1	37,973	135,259	13,242	122,107	3.56	.35	3.21	2.07	5.28
2	41,678	149,537	14,485	135,052	3.59	.25	3.24	1.91	. 5.15
3	44,892	174,972	15,578	159,394	3.90	.35	3.55	2.27	5.82
Total*	195,610	\$696,788	\$68,269	\$628,519					

\* April 2, 1979 - September 30, 1980

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Quarter	Passenger	Total Operational Costs	Passenger Revenue	Total Operational Subsidy	Cost/ Passenger	Revenue/ Passenger	Subsidy/ Passenger	MMIC Subsidy/ Passenger	Total Subsidy/ Passenger
1979				-					
4	2,205	\$ 47,199	\$ 1,653	\$ 45,546	\$21.41	\$.75	\$20.66	\$1.82	\$22.48
1980									
1	7,037	63,992	3,546	60,446	9.09	. 50	8.59	1.60	10.19
2	7,409	68,641	2,904	65,737	9.26	.39	8.87	.34	9.21
3	8,120	77,470	2,836	74,634	9.54	.35	9.19	.33	9.52
Total*	24,771	\$257,302	\$10,939	\$246,363					

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## Private Providers' Costs

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### V. ISSUES AND RECOMMENDATIONS

The Minnesota Department of Transportation strongly recommends the continuation of Metro Mobility. The increase in transportation opportunities for handicapped people within the Twin Cities Metropolitan Area, as a result of Metro Mobility has been dramatic. In 1978, Project Mobility provided approximately 73,000 trips; in 1979, Metro Mobility trips totaled in excess of 77,000; and by the end of 1980, the total number of trips per year had grown to well over 372,000. In terms of both volume and level of service, Metro Mobility has become one of the most effective transportation systems for handicapped people in the country. As evidenced by the overwhelming demand for service, the project has demonstrated a need beyond the expectations of many who were initially involved in its planning and implementation. Nevertheless, Metro Mobility has been successful to a large degree in meeting the original goals and objectives.

Implicit in the recommendation that Metro Mobility be continued, is the recommendation that expansion of the service also be continued. Due primarily to funding constraints, it has been impossible to fully realize the objective of providing service to the entire Metropolitan Transit Taxing District (MTTD). There are areas within the MTTD where there is little or no specialized transportation available. Existing providers, such as the counties, often provide only limited trips for specified purposes. This situation makes travel difficult or impossible for many handicapped people living outside the current service area, but within the MTTD, and also limits the travel opportunities of those individuals living within the service area who wish to travel to unserved areas. The issue of system expansion is critical to the coordination effort and to increased effectiveness of the total Metro Mobility system. Details related to expansion planning are included in this section of the report under Expansionary Issues.

Other issues are grouped into two additional categories - <u>Institutional</u> <u>Issues and Operational Issues</u>. As may be expected, with a major demonstration of this type administrative and operational difficulties have developed. Some of the issues arising out of these difficulties have been identified and are discussed herein. Conclusions and recommendations follow each discussion.

A. Institutional Issues -- There are numerous participants involved in the provision of Metro Mobility services. The Metro Mobility Management Policy Committee, comprised of representatives from Mn/DOT, MTC and the Metro Council, as well as representatives of Metro Mobility providers and users, has been assigned responsibility for developing management policies for the project. An Advisory Task Force, made up of Metro Mobility consumers and their representatives, has been formed to advise the MPC. Mn/DOT, the MTC and the Metropolitan Council also play a major role in the development and implementation of Metro Mobility services as part of their collective responsibilities in funding, planning, operating and evaluating transit services. Frequently, the handicapped community and representatives of a variety of social service agencies and other service groups also participate in the decision-caking process for Metro Mobility.

Participation from this wide variety of groups ensures that all points of view are expressed. However, it has been suggested by providers, consumers and agency representatives that the process should be streamlined so that a clear chain of accountability is established and so that decisions and actions can be made more quickly. Some of the issues related to this structure are discussed in this section.

 Is the Metro Mobility Policy-Making Structure Effective? --The Metro Mobility Management Policy Committee (MPC) was set up as part of the special demonstration project legislation. As stated in that legislation:

> The commissioner shall establish a committee to set management policies for the project. The Management Policy Committee shall include the commissioner or his designee, representatives of persons contracting to provide services for the project, a representative of the Metropolitan Council, a representative of the Metropolitan Transit Commission and at least two representatives of the Task Force established to advise the committee.

The legislation also provides that:

The Commissioner shall establish an Advisory Task Force for individuals representing the elderly, handicapped and other users of service provided by the project to advise the Mangement Policy Committee.

The extent of the MPC's responsibilities in managing Metro Mobility has frequently been unclear. Although the Committee has been directed "to set management policies" for the project, the meaning of "management policies" has not been adequately understood. It has not been clear what role the MPC was to play in the management and establishment of policy for each particular component of Metro Mobility, for example, is it the MPC or the MTC who has the authority to determine how Project Mobility bus runs are allocated between Minneapolis and St. Paul? Furthermore, because Mn/DOT holds the authority for the budget development and moaitering of Metro Mobility and because the MPC can only advise Mn/DOT on these matters, the MPC's ability to set policy is, in fact, subject to Mn/DOT's final approval. The Advisory Task Force, established to advise the MPC, has not actively participated in Metro Mobility matters. The twentyfive members who make up the Task Force, were selected in early 1980, through the state appointments process. Attendance at meetings and response to requests for review and comment on proposed actions and plans has been low even though the chairperson has actively sought members' participation.

It is recommended at this time that the Management Policy Committee continue as the primary forum for discussion and resolution of Metro Mobility issues. It is also recommended that an inter-organizational agreement be developed for Mn/DOT, the MTC, the Metropolitan Council, the MPC, and the Advisory Task Force that clearly delineates roles and responsibilities for each of these groups.

2. Is the MTC the appropriate agency to operate the Metro Mobility <u>Transportation Center?</u> -- The MTC is under contract with Mn/DOT to operate the Metro Mobility Transportation Center. In this capacity, the MTC's responsibilities include certifying eligible individuals, processing trip requests for the shared-ride taxi service and Project Mobility, handling consumer inquiries and complaints, and tabulating and presenting appropriate statistical data. Over the course of the project, there has been discussion related to whether or not the MTC was the appropriate provider to perform this function. Specifically, there appears to be some concern that the Metro Mobility Transportation Center might be operated more cost-effectively by another operator.

The MTC was awarded the contract for the Metro Mobility Transportation Center primarily because of its experience in providing a variety of transit services and its capability in providing related support services. Furthermore, Mn/DOT recognized that according to federal regulations, the MTC as recipient of federal transit funds, has a responsibility to ensure that handicapped transportation is provided in the metropolitan area.

The MTC has a demonstrated ability to operate the Transportation Center. While it has been suggested that private sector operation of the Transportation Center might result in cost savings, it is questionable whether a private organization could reduce costs if required to provide the auxiliary services currently supplied by the MTC. It is important to note that these services often exceed the usual descriptions of Transportation Center functions, but are nevertheless important to the project. The MTC has, for example, provided significant staff support for the Management Policy Committee and the Advisory Task Force. In attempting to resolve operational problems, the MTC has been able to draw upon the expertise of specialists within its organization.

No change in contract operator of the Metro Mobility Transportation Center is recommended at this time.

3. How should Metro Mobility be funded in the future? -- All Metro Mobility services, except for Project Mobility, which is funded directly by the Legislature, are funded through the Mn/DOT Paratransit Grant Program. Other specialized transportation programs operating in Anoka, Carver, Dakota, Scott and Washington counties are also funded under this program with matching funds provided by each county. Although Metro Mobility provides a relatively high level of service to major portions of Hennepin and Ramsey counties, local funding for the service has not been provided primarily because the project has been demonstrational in nature. Now that Mn/DOT is recommending continuation and expansion of Metro Mobility service, it seems an appropriate time to investigate other possible sources of funding to supplement the state appropriation. Local funds, as well as reimbursement from medical assistance, which is theoretically available for operations such as Metro Mobility, are two areas that sould be reviewed.

It is recommended that Ma/DOT continue to investigate possible supplemental funding sources and mechanisms for Metro Mobility. Recommendations on this matter will be made to the Legislature in January, 1982.

B. Operational Issues -- Metro Mobility is a highly personalized service that, in many cases, is the only transportation alternative available to handicapped individuals. Recognizing the importance of the service to its users, unusually high service standards, such as two hour advance request period, late service hours, etc., have been set for the project in an attempt to provide its users with a system that closely parallels or exceeds the benefits of regular route transit service. Unfortunately, in some cases, Metro Mobility is not providing its users with a reliable transit service. As the Metro Mobility system has continued to grow, it has sometimes been suggested that hours could be reduced, that the minimum call ahead time for trips could be increased, etc., to either reduce costs, and/or improve efficiency. Discussion of some of these operational issues follows.

- Are handicapped individuals able to depend on Metro Mobility for a ride? -- At the present time, about 5% of the trip requests made for Metro Mobility service have to be denied. This is especially true during peak hours when the system is at or near capacity. There are several reasons why this occurs:
  - There is no shared-ride taxi service in St. Paul to supplement the service offered by Project Mobility, thereby
    limiting Metro Mobility capacity in a major portion of the
    service area;
  - The mechanical reliability of the Project Mobility vehicles has been poor, thereby limiting the number of vehicles available for service;
  - Other miscellaneous factors also impact the number of trip denials. Requests for particularly long trips, the inexperience of new employees, the relatively short time frame to make up tours, etc., will continue to result in trip denials although it is hoped that resolution of the St. Paul taxi situation and Project Mobility vehicle maintenance problems would help to decrease the percentage of denials.

In recent months, the MTC has taken major steps to improve the Project Mobility maintenance situation such that no more than 1.2% of daily scheduled hours have been lost since December 31, 1980. Because the nature of small vehicle technology is generally poor, the reliability of these vehicles will likely continue to be an issue in the future. The MTC is presently looking into the purchase of other types of vehicles for replacement of these existing buses.

In the case of the shared-ride taxi service, Mn/DOT has continued its attempts to negotiate a contract with the St. Paul taxi companies. Because of some legal problems between one of the companies and the city, this negotiation process, however, has been delayed. Mn/DOT expects that supplemental service in St. Paul will be implemented no later than April 1, 1981.

The same factors that cause trip denials also impact the ontime performance of Metro Mobility vehicles. In the case of Project Mobility, the schedulers make a determined effort to reassign individuals to other buses when a breakdown occurs. In doing this, however, the schedules are altered such that the vehicles are often late. Being "on-time" for all components of Metro Mobility is defined as being within the range of ten minutes early and fifteen minutes late, in acknowledgement of the many factors that may impact the on-time performance of a demand-responsive service. Sample data has indicated that 91% of Project Mobility trips were "on-time" according to this definition and that vehicles tended to arrive late more frequently during the winter months than during other periods of the year.

Comparable data for the private providers and the shared-ride taxi does not presently exist. However, a review of passenger complaints indicates that passengers most often complain about the taxis and that specifically, their concerns are most often focused on the lateness of the cab or no cab showing up at all.

The nature of passenger complaints has been a good indicator of user satisfaction with Metro Mobility, although it is realized that complaints alone are not sufficient to make a final conclusion on this subject. Other areas of concern most frequently expressed by users includ. late Project Mobility vehicles, taxis and Project Mobility vehicles not showing up at all, and trip denials.

These types of complaints differ from those most frequently expressed a year ago when the passengers' most significant concern was that the Transportation Center telephones were always busy or never seemed to be answered. In response to this problem, the MITC altered the work shifts of its employees to coincide with peak call-in periods and installed a new telephone system with an automatic call sequencer. The results of these changes has been significant - the number of busy signals, alone, has decreased 89% between January, 1980 and September, 1980.

It is recommended that the NMTC continue its practice of tabulating complaints and using them as a measure of user satisfaction and system reliability. It is also recommended that the MTC conduct a user survey to determine the satisfaction of Metro Mobility users with the system to specifically identify areas of concern, and that the MTC continue their efforts in the area of improved maintenance and new bus purchases to improve Project Mobility perimance. Furthermore, a contract with either the St. Paul taxi companies or an alternative provider(s) must be awarded immediately.

2. Should Service Hours be Reduced? -- At the present time, Metro Mobility offers service from 6:00 a.m. to 1:00 a.m. Monday through Friday, and 8:00 a.m. to 1:00 a.m. weekends and holidays. These hours of service are similar to those available for using regular route transit. If service hours in the existing service area were reduced, some cost savings could be experienced although transportation opportunities for handicapped individuals would also be reduced.

There appears to be a variety of options available to deal with the question of making Metro Mobility services more costeffective as related to service hours. For example, the MMTC might not take trip requests after a certain time of day although actual services would still continue to be provided or service hours could be reduced during the least productive periods of the day. It is recommended that the MTC, as operator of the Transportation Center, conduct a study to determine the costeffectiveness of the Metro Mobility system related to service hours, and report to the MPC in July, 1981.

3. Should the Call-Ahead Time for Trip Requests be Extended? -- At the present time, Netro Mobility riders may place their trip requests as much as 24 hours in advance of their desired pickup time by calling in at noon the preceding day. The riders also have the option of placing the trip request as little as two hours before their desired pick-up time, although when requesting a Project Mobility vehicle, such short notice is not usually adequate.

The minimum two hour call ahead time is a relatively unique feature of Metro Mobility. Most similar transportation services require that users call at least 24 to 48 hours in advance of their desired pick-up time. Some systems require significantly longer lead time.

The primary advantage of having such a short minimum call thead time is that handicapped persons can, theoretically, make relatively spontaneous travel decisions as do other transit riders. Unfortunately, however, when a ride is requested only two hours in advance, space is rarely available on Project Mobility, and unless the individual can take a taxi, the trip must be denied. It can also be argued that requiring users to request their trip 24 or more hours before the ride is needed would allow Metro Mobility personnel to better plan vehicle tours and thereby, improve system productivity, and allow users to arrange alternative transportation if their Metro Mobility request is denied.

It is recommended that the two-hour advance request period for trip requests not be changed at the present time. A majority of Metro Mobility requests can still be honored with two-hour notice and as long as users are adequately notified that they may not get a ride when they only call two hours in advance, it does not seem particularly valuable to change this time. However, it is suggested that this subject be made part of the study described in the preceding recommendation. 4. Should the Eligibility Criteria to Ride Metro Mobility be Changed? -- Anyone who is unable to use regular route transit or who can only use regular route transit with great difficulty is eligible to use Metro Mobility. To determine eligibility, an individual submits an application form to the Metro Mobility Transportation Center. A doctor's signature is required only to determine eligibility when the applicant has a non-visible disability, such as emphysema or heart trouble.

As noted earlier, over 14,000 persons are currently certified to use the service. About 70% of these individuals are able to use non-accessible vehicles whereas the remaining 30% of those certified can travel only in accessible vehicles.

It has been suggested by several agencies, providers and users that the Metro Mobility certification procedure as it presently exists may allow some individuals who could otherwise utilize the regular transit system, to take advantage of Metro Mobility, and thereby decrease travel possibilities for those individuals having few or no alternatives. In order to provide adequate service to those individuals with the greatest need, it may be necessary to refine the process by which all riders are certified.

Additionally, a change in certification criteria has been implied by the Metropolitan Council in the 504 Transit Transition Plan. In that document, the conceptual service framework for Metro Mobility was developed, whereby, during the next ten years, many of the transportation needs of handicapped persons would increasingly be met by accessible regular route transit rather than exclusively through special services.

This change in the way in which transportation service would be provided to handicapped individuals would, in fact, necessitate a change in the certification process. Since special services, in the future, are envisioned to be provided to only the most severely disabled persons, the level of special services will be greatly reduced.

It is suggested that a variety of options for certifying eligible individuals for Metro Mobility services be reviewed, and that a specific recommendation be developed by the MPC no later than August, 1981.

5. Is Metro Mobility a Productive Transportation Service? -- The productivity of demand-responsive transportation is normally measured in terms of passengers per hour. Data for 1980 show that Project Mobility vehicles averaged approximately 2.4 passengers per vehicle hour, while the private non-profit providers averaged an estimated 1.8 passengers per vehicle hour. Data on vehicle hours are not available for shared-ride taxis, since these vehicles are not dedicated exclusively to Metro Mobility. The effectiveness of the ridesharing concept, however, can be measured in terms of passengers per vehicle tour. During 1980, this figure approached 1.5 passengers per tour.

The rather large service area, and the fairly low incidence of standing orders (about one-third of total trips) explain the moderate productivity of Project Mobility. Higher productivities are usually achieved by systems which combine demand-responsive service with subscription trips, often involving groups having common origins and/or destinations. Productivity of the taxi service in terms of ride-sharing has been growing slowly. This increase must continue if the additional cost of ride-matching is to be justified in economic terms by the savings realized through ride-sharing.

The large number of requests for long trips has had a major impact on the productivity of Project Mobility. Trip samplings indicate that the average PM trip now runs approximately 7.5 miles. While vehicles are assigned to either Minneapolis or St. Paul, they are not restricted to specific geographic locations. An additional contributing factor to the long trip length involves trips made between the two cities. An analysis of the existing travel patterns, and consequent assignment of vehicles to limited geographic zones, might help in reducing the amount of deadhead vehicle travel, if indeed subregional trips were shown to prevail.

Some restructuring of the present order-taking and orderfilling system could also result in higher productivities as a consequence of better ride-matching. Although manual scheduling is fairly common in systems of this type, it is unusual to find no computer assistance when the service has reached the size of Metro Mobility, with a weekday average of approximately 1,500 trips and over 800 telephone calls.

With the recommended expansion of service to other areas of the Metropolitan Transit Taxing District, and the consequent increase in the volume of trips handled through the Transportation Center, computer-assisted scheduling could afford significant time savings, and possibly improve the productivity of the system. The amount of manual handling of orders would be greatly reduced, giving the order-fillers more time to dedicate to ride-matching, which would most likely result in more accurate and productive routing and scheduling and/or limited additional staff requirements. It is recommended that the MTC determine the feasibility and the accompanying costs and benefits of the computer-assist scheduling system for improving the productivity of Metro Mobility. It is further recommended that the MTC explore the possibility of assigning Project Mobility vehicles to specific areas, or zones, in an effort to decrease the trip length.

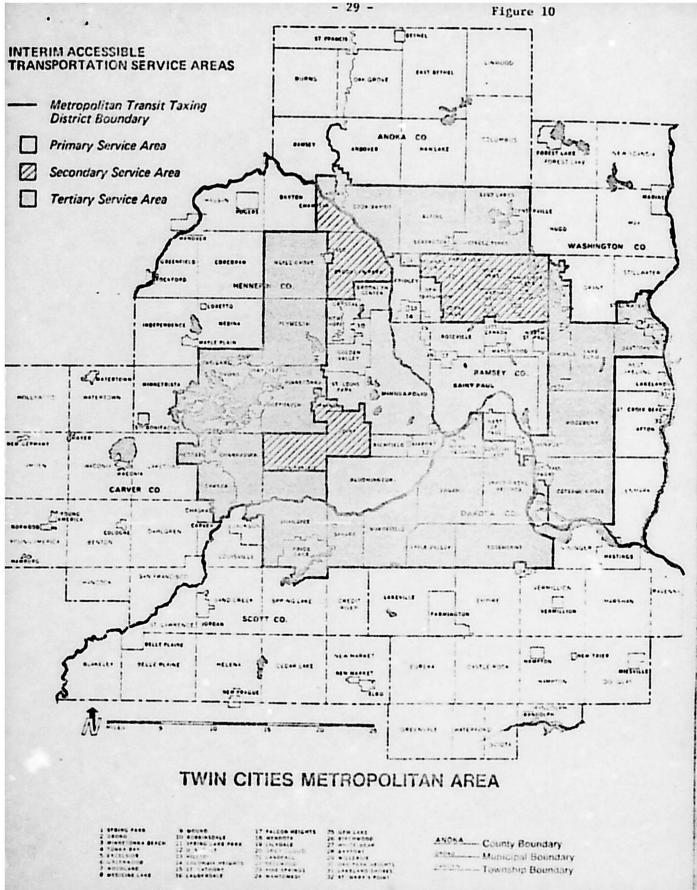
- C. Expansionary Issues -- Although Metro Mobility provides nearly 400,000 annual trips to handicapped persons in portions of the Twin Cities metropolitan area, and approximately 200,000 additional trips are provided by other existing providers, there remain areas in the metropolitan region that have no specialized service available. It is estimated that a large number of trips are yet unserved in areas without these specialized transportation services, and that, even within existing service areas, many trips requests are not being met. The need to continue and expand these types of specialized services is necessary to meet both the unmet and existing demand of the handicapped population in the metropolitan area, as well as to meet the requirements of the United States Department of Transportation Section 504 regulations. A discussion of these expansion needs and plans follows.
  - 1. Should Metro Mobility Service be expanded? -- Currently, about five percent of all requests for Project Mobility service cannot be honored because of capacity limitations. Trip denials are higher in St. Paul than in Minneapolis because no shared-ride taxi program is available to supplement Project Mobility. Portions of the metro area are not presently being served by a public specialized transportation system, and specialized transportation offered by some counties is not sufficient to meet the needs of disabled residents. This is especially true in Anoka County, for example, where accessible service is not available. Requests for service in these areas are frequently received and denied due to limited capacity or system capability. Disabled persons wishing to live in newly constructed accessible housing units are often hampered by lack of accessible transportation.

The need to provide transportation opportunities for handicapped persons has also been recognized on a national level. Federal regulations issued on May 31, 1979, require that any recipient of federal funding, such as the MTC, make its facilities and programs accessible to handicapped persons. These regulations require that by 1989, fifty percent of all regular route service during peak hours be accessible. The regulations further require that, until this level of service accessibility is reached, an "interim accessible service", such as that offered by Metro Mobility, be provided. Interim service must be in place by July 1, 1982, throughout the entire MTTD during normal service hours. Subject to expenditure limitations, the interim accessible service must also be compatible with regular route service in terms of fares, travel time, transfer frequency, availability of service, etc. The Metro Mobility Management Policy Committee has recently endorsed a plan for comprehensive provision of handicapped transportation throughout the MTTD. The implementation plan not only provides a framework for future provision of these services, but also allows for compliance with the Section 504 Regulations.

It is recommended that Metro Mobility services be expanded throughout the MTTD.

Should the Same Level of Specialized Transportation Services be 2. Provided Throughout the Metropolitan Area? -- Although the Section 504 Regulations require that handicapped transportation be similar in service characteristics to the regular route service, it has been argued by some individuals that scarce resources and funding should be evenly distributed throughout the metropolitan area based solely on population on the premise that the percentage of handicapped persons in the total population is equal throughout the metropolitan area. Although precise data on the percentage of transportation handicapped persons in each community is not available, evidence supports the premise that the percentage of handicapped persons declines in areas further away from the central cities. First, national studies indicate that fifty percent of handicapped persons are 65 years of age or older and that a greater proportion of elderly and handicapped persons live wihtin the central cities. Further, fifty percent of the Twin Cities elderly live within the two central cities, twenty-five percent in the inner suburbs, and the rest throughout the remainder of the metropolitan area. Also, current Metro Mobility certification statistics indicate that the certification rate tends to decline in areas away from the central cities. (Only statistics from communities receiving an adequate level of Metro Mobility service were considered). Thus, the plan for expansion assumes a higher density of handicapped persons in the central cities, which declines in areas further away from the central city.

In order to comply with the Section 504 Regulations, an assessment of the service provided throughout the metropolitan area was conducted. A primary, secondary and tertiary service area were identified, to distinguish the different levels of regular route service available, Figure 10. Service standards for the specialized service to be provided were established for each of these service areas. The plan for implementation and expansion of specialized services was based on these standards.



Source: 504 Transit Transition Plan for the Elderly and Handlcapped.

The primary service area, including the communities of Minneapolis, St. Faul and some first ring suburbs will receive service nineteen hours per day during the week, with service also available on weekends. The MMTC will coordinate the services as it currently does. In the secondary service area, comprised of second ring suburbs, the service orientation will focus primarily on local service, with connection capabilities with the primary service area. It is proposed that service will be provided approximately twelve hours per day, including peak hours. The MMTC will also coordinate these services. Finally, in the tertiary service area, including the outlying suburbs, service is expected to be integrated with existing county programs and focus on local coverage. Service is proposed to be provided during the midday, with peak hour service provided only on deman'. It is anticipated that the counties will coordinate these services, rather than the MMTC.

The extent and level of service proposed by the MPC would meet the requirements of the 504 regulations and also provide Twin Cities handicapped residents with a reasonably high level of service. It is estimated that if this system was implemented, over 600,000 annual rides would be provided at a cost of about \$12,930,000.00 for the biennium.

Information on the assumptions employed in developing both the ridership and cost projections can be found in the Appendix.

It is recommended that Metro Mobility expansion be implemented according to the "Implementation Plan for Handicapped Transportation Services in the Metropolitan Area".

# APPENDIX

Excerpts from Implementation Plan for

Handicapped Services in the Metropolitan Area

# V. SERVICES TO BE PROVIDED IN THE CURRENT METRO MOBILITY SERVICE AREA

The current Metro Mobility service area includes the following communities:

- Minneapolis
- St. Paul
- Southern Minneapolis suburbs (Bloomington and Richfield);
- Northern Minneapolis suburbs (Crystal, New Hope, Golden Valley, Robbins-
- dale, Hilltop, St. Anthony and Columbia Heights).

(See Figure 5 for portions of additional suburbs included in the Metro Mobility service area.)

### A. General Assumptions

It is proposed that Metro Mobility service will continue to operate nineteen hours per day on weekdays, and seventeen hours per day on weekends and holidays. Metro Mobility passengers who do not require accessible service will generally be served by non-accessible vehicles and lift equipped vehicles will be more readily available to those who require accessible service. Expansion of service in the existing service area is proposed to occur only through the addition of a shared-ride taxi service in St. Paul, similar to the program presently operating in Minneapolis. If the St. Paul taxi companies are not able to provide this service, another provider is expected to deliver the service. It is anticipated that the shared-ride taxi service in St. Faul will reduce many of the service deficiencies in the current Metro Mobility service areh.

## B. Demand for Service

Project Mobility ridership is expected to remain at its present level of 168,000 rides per year.' Taxi ridership in Minneapolis is also expected to remain relatively constant at about 216,000 rides per year. Suburban service (HSCTS) ridership is expected to increase slightly from its present level to 37,400 rides per year with the addition of one vehicle.

Demand for St. Paul shared-ride service was estimated at about 139,500 trips per year once fully implemented.

These demand estimates generally assume that on the average, each certified person will take 2.5 trips per month, or, in the case of shared-ride taxi, 2.4 trips per month. These rates are slightly higher than the current trip making monthly averages.

In estimating the demand for the St. Paul shared-ride taxi service, the average trip making rate is assumed to be less than the overall shared-ride taxi average immediately following the introduction of the service. It is, then, expected to increase to 2.4 trips per month by the second half of the biennium (See Figure 6).

This growth in trip-making is based on the experience in Minneapolis where fifty percent of the system's trips were provided during the first six months of operation, eighty percent in the following six months, and one hundred percent thereafter. The actual number of certified riders was also based on certification experience in Minneapolis. It is estimated that certified users in St. Paul will increase gradually from the current level of 1.4% of the population, to 2.0% by the end of the biennium, as is the case in Minneapolis.

### C. Cost Estimates

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Cost estimates for services to be provided in the existing Metro Mobility service area were based on 1980 cost data, and inflated annually by 12%. Approximate - current subsidy per trip for each system component are as follows:

- Project Mobility \$12.00
- Shared-ride taxi = \$4.00
- HSCTS suburban service \$10.68

Total subsidies for continuing existing Metro Mobility services and adding St. Paul shared-ride taxi service are shown below:

Project Mobility	\$4,795,560	
HSCTS	945,472	
Minneapolis Shared-Ride Taxi	1,883,520	
St. Paul Shared-Ride Taxi	957,945	
	\$8,582,497	

Estimated expenses associated with the Metro Mobility Transportation center are discussed later.

### VI. SERVICE EXPANSION FRAMEWORK

### A. General Assumptions

It is proposed that handicapped transportation in the expansion areas will be similar to the current Metro Mobility system in several respects. Certification criteria is not expected to change nor are restrictions on frequency of travel or on trip length expected to be instituted. Furthermore, it is assumed that priority service will not be given based on the nature of the disability or the purpose of travel. Hours of service, however, are expected to vary as with regular route transit service.

It is important to note that the assumptions used to develop costs for the provision of expanded handicapped transportation described in this section were developed only for use during the 1981 - 1983 biennium. Data relating to the number of eligible handicapped persons, travel frequency, trip length, etc., in portions of the metro area currently receiving little or no handicapped transportation are not available. Therefore, the assumptions were based on experience gained from the existing operation of Metro Mobility and the five county programs during the past two years. Many of these assumptions will probably have to be changed, over time, to accurately reflect the actual need for and cost of providing specialized transportation in the expansion areas.

### B. Selection of Service Providers

A variety of providers, including public, private-for-profit and private-nonprofit, are expected to deliver service in the expansion areas. All efforts will be made to work cooperatively with current service providers, and to utilize existing vehicles and staff whenever possible. It is assumed that Project Mobility service will not be expanded beyond its present service area unless no other provider is available to deliver the service.

Selection of additional service providers for expanded handicapped transportation \_\_will be based on the following criteria:

- Related experience and performance in providing special services.
- Possession of equipment needed to provide service or ability to obtain necessary equipment.
- Technical and managerial qualifications.
- Ability to fulfill all contractual obligations.
- Personnel availability
- Cost/effectiveness of providing service.

## C. Primary Service Area Expansion (3)

The primary service area for expansion outlined in the Transition Plan includes the following communities:

- West St. Paul and South St. Paul
- New Brighton and Fridley
- Little Canada, North St. Paul, Roseville and Maplewood
- Brooklyn Center and St. Louis Park

Service in the primary expansion area is proposed to operate nineteen hours per day during the week, and will also be available on weekends. The Metro Mobility Transportation Center is expected to coordinate the service as is done currently. Expanded service in the primary service area is scheduled for operation by October 1, 1981.

## D. Secondary Service Area Expansion

The secondary service area, as identified in the Transition Plan, includes the following communities:

- Northern Suburbs of Ramsey County (Moundsview, Arden Hills, Shoreview, North Oaks, Vadnais Heights, White Bear Lake, White Bear Township and Gem Lake).
- Western Suburbs of Hennepin County (Edina, Hopkins and Eden Prairie).
- Northern Suburbs of Hennepin County (Brooklyn Park and Champlain).

<sup>3/</sup> A list of the communities in each expansion area and the population of each area is shown in Figure 8.

In the secondary service area, service orientation will focus primarily on local service, with connection capabilities with the primary service area. It is proposed that service will be provided approximately twelve hours per day, including peak hours. The MMTC is expected to coordinate transportation in this area in a manner similar to that of the primary area. Service in the secondary expansion area is scheduled to begin by July 1, 1982.

### E. Tertiary Service Area

Expansion in the tertiary service area will include the following areas:

- Northern Area, Anoka County
- Southern Area, Dakota and Scott Counties
- Eastern Area, Washington County
- Western Area, Hennepin and Carver Counties

Expansion in the tertiary service area is also expected to focus on local service and will be integrated with the existing county programs. Service is assumed to be provided during the midday, with peak hour service provided on demand. This service is also scheduled to commence on July 1, 1982, and is proposed to be coordinated by the county, rather than NMTC.

#### F. Estimated Demand for Service

Demand for specialized transportation service in each service area was determined in the following manner:

1) The number of potential certified users was estimated on the basis of the total population in each area. Current certification data for suburban areas currently receiving Metro Mobility service show a decline in certification in areas further away from the central city. Based on this data, it was estimated that certified individuals would represent one percent of total population in the primary service area, 0.75 percent in the secondary service area, and 0.5 percent in the tertiary service area.

2) It was further assumed that each person would make an average of 2.5 trips per month. This figure represents a ten percent increase in usage over the current trip rate of 2.27. This increase is expected since the expanded system will offer additional destination opportunities for users. This trip rate was then multiplied by the estimated number of certified users in each area to determine the total number of trips per month to be provided.

3) The number of trips was distributed for various types of mobility limitations according to the current system averages (seventy percent ambulatory and thirty percent non-ambulatory) to estimate the vehicle needs of the new users of the system.

4) Finally, it was assumed that it would take some time before all of the potential passengers would use the service. Therefore, the number of trips provided would increase over the first year of operation, such that sixty percent of the systems potential trips would be provided each month during the first six months of operation, 85 percent during the second six months of operation, and one hundred percent of potential trips thereafter.

When the transportation services in the secondary and tertiary areas are serving all of the potential users, it is expected that approximately 9,000 trips per month will be provided. During the biennium, as these new services are added, nearly 79,000 trips are expected to be made.

### G. Cost Estimates

The costs estimated to meet these transportation demands in the secondary and tertiary areas were developed as follows:

1) An average cost per trip of \$10.60 was assumed for service in all expansion areas (1981 dollars). This figure is based on contracts with current Metro Mobility providers, estimated charges of other carriers of \$7.50 per trip for non-accessible service and \$14.00 per trip for accessible service and the experience of other specialized transportation systems across the country. This average cost per trip is somewhat higher than the current system average because of an anticipated higher trip length and lower rate of shared rides in less densely populated areas.

2) A twelve percent inflation rate was applied to this cost to determine expenses for 1982 and 1983. Since the expansion plan includes only the first six months of 1983, one half of the yearly inflation rate was used.

The base one way fare for service was assumed to be sixty cents throughout the biennium. The total expected revenue from fares has been subtracted from the estimated costs to obtain total subsidy figures. Figures 11, 12 and 13 show the estimated annual subsidies for providing expanded handicapped transportation services in the primary, secondary and tertiary service areas. During the biennium, the total estimated subsidies for providing service in the primary, secondary and tertiary service areas are \$852,983, \$354,083 and \$562,067 respectively.

### H. Metro Mobility Transportation Center Cost

The Metro Mobility Transportation Center (MMTC) is expected to coordinate transportation only in the primary and secondary service areas. The MMTC cost per trip is estimated to be \$2.07 per passenger in 1981, \$2.14 in 1982 and \$2.28 in 1983. The total estimated biennial MMTC cost (Figures 14 and 15) is about \$2,500,000.

The total estimated annual ridership and cost of implementing the continuation and expansion of handicapped transportation in the metropolitan area are shown in Figures 14 and 15. The entire cost of implementing the handicapped transportation system during the bicnnium will be approximately \$12,875,310.

## FIGURE 15-SUMMARY OF SPECIALIZED TRANSPORTATION SUBSIDY 1981-1983 BIENNIUM

	1981 JUNE-DEC.	1982	1983 JAN-JUNE	TOTAL
Project Mobility	\$1,078,560	\$2,427,600	\$1,289,400	\$4,795,560
Private Providers	212,432	478,720	254,320	945,472
Minneapolis Taxi	419,040	954,720	509,760	1,883,520 .
St. Paul Taxi	113,862	514,806	329,277	. 957,945
Expansion Areas	76,370	840,292	852,471	1,769,133
митс	514,920	1,268,860	739,900	2,523,680
TOTAL	\$2,415,184	\$6,484,998	\$3,975,128	\$12,875,310

	1981	1982		1983	
	July-Dec	Jan-June	July-Dec	Jan-June	Total
Project Mobility	84,000	84,000	84,000	84,000	336,000
Private Providers	18,700	18,700	18,700	18,700	74,800
Mpls. Taxi	108,000	108,000	108,000	108,000	432,000
St. Faul Taxi	29,346	46,710	69,762	69,762	215,580
Primary + Secondary Expansion Area	7,637	18,457	36,131	43,282	105,507
Tertiary Expansion Area	-	-	19,972	28,294	48,266
Total Under MMTC Coordination	247,683	275,867	316,593	323,744	1,163,887
TOTAL	247,683	275,867	336,565	352,038	1,212,153

# Figure 14 - Summary of Expected System Ridership, 1981-83 Biennium

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