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Interim Report on Service to the
Elderly and Handicapped

RTD

Southern California Rapid Transit District

1060 So. Broadway, Los Angeles, California 90015

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Interim Report on Service to the
Elderly and Handicapped

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SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

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JACK R. GILSTRAP
GENERAL MANAGER

October 18, 1974

TO: Members of the Board of Directors

FROM: George W. Heinle, General Manager Pro Tempore

SUBJECT: Interim Report on Service to the Elderly and Handicapped

BACKGROUND

The particular mobility needs of the elderly and physically handicapped have never been fully addressed by the transit industry. Individual properties have made attempts of varying magnitude and varying effectiveness in the area of providing service to this segment of our population, but it has only been in very recent time, through enabling legislation, availability of financial assistance and an increasing public industry awareness, that we now have the opportunity to be truly responsive to the elderly and physically handicapped.

GENERAL

Implementation of this response, and assuring that such response takes the best possible form, obviously involves direction and decisions which must be based on the most recent and comprehensive data available. Due to the size of RTD, the large population served and the wide area over which we operate, it is particularly important that we have access to all of the facts bearing on the achievement of mobility for the elderly and handicapped which might contribute to the goal of eliminating travel barriers.

To accomplish this Staff is moving forward on three main fronts of communication, soliciting input which will ultimately provide guidelines for taking those actions which will make public transportation accessible to all our citizens. These three primary sources of input are, other transit properties which have either taken steps to meet the needs of their elderly and handicapped ridership or have steps in the planning stages, the specialized equipment and transit bus manufacturers, and organizations representing the handicapped throughout the Southern California area. Supplementing these are the findings of several very fine studies by both government and private agencies, and information assistance from such sources as the American Public Transit Association and the National Safety Council.

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Concurrent with the gathering of this data-base, Staff is in the final stages of developing the pilot project designed to test the Dial-A-Ride for Handicapped Program. District will thus be prepared to inaugurate this test service upon receipt of the six modified Minibuses previously approved by the Board.

DISCUSSION

Legislation and Legal Ramifications: (Annex "A") Recent legislation has given the power of law to the national intent that mass transportation for the elderly and physically handicapped should be a reality. This is contained in Section 154, Title 23, United States Code which declares the elderly and physically handicapped to have the same right as other persons to utilize mass transportation service. The law goes further in stating that Federal programs offering assistance in the field of mass transportation should contain provisions implementing this policy. However, it also permits any governor or local public body the authority to satisfy the requirements of the law by providing alternative service for the elderly and physically handicapped so long as the service provided meets standards which will be set forth by the Secretary of Transportation.

State legislation also addresses the transportation problems of handicapped persons and provides in the California Government Code, Chapter 8, Section 4500, that all contracts of governmental agencies for equipment or structures shall specify that they be so built that a handicapped person shall have ready access to, from and in all rapid transit structures and equipment. The Code further states that contracts for equipment and structures incidental to the operation of an urban mass transit system are exempt from this requirement until such equipment shall be available from not less than two manufacturers.

The California Legislature and the Los Angeles City Council have likewise adopted resolutions favorable to the cause of barrier free transportation for the aged and handicapped.

District welcomes these developments, not only because they delineate an obvious commitment to the aged and handicapped persons who require transportation, but also because this legislation will elicit response from major equipment manufacturers and provides the basis for funding to meet the specialized architectural and equipment designs necessary for compliance.

Overview; Handicapped Conditions Related to Transit (Annex "B") The population of elderly and physically handicapped is increasing at a greater rate than the general population in the United States, and, due to public awareness and enlightenment, favorable legislation at all levels and the increase in job opportunities,

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social and community involvement by elderly and handicapped persons, their need for public transportation has likewise increased in recent years.

An estimated 3.2% of the population use some special aid to personal mobility and nearly one-half million Americans are confined to wheelchairs. As an example of the aforementioned growing number of persons living with mobility handicaps, during the 10 year period 1959-1969 United States wheelchair population grew from 253,000 persons or 1.5 per 1000 population to 409,000 persons or 2.1 per 1000 population. This same trend is reflected in all areas of mobility handicaps and it is estimated by the U.S. Department of Transportation that, as of one year ago, 13,390,000 Americans experienced difficulties in utilizing existing transit systems, due to various physical handicaps.

Barrier removal is being examined by Staff in five general categories, those of physical barriers, institutional or operational barriers, economic barriers, and informational and service barriers. Certain recommendations will be simply a matter of driver training and awareness, while others will require changes in bus specifications and service.

Status of Response by Other Properties : (Annex "C") Except for the new fixed rail systems in San Francisco (BART) and Washington D.C. (WAMATA), at this time there is no large community which has effected a barrier-free system. Some efforts have been made in various cities to remove the more obvious travel barriers, with the most common action being the removal of economic barriers to the aged through reduced fares.

Some properties have initiated programs whereby they enter lease arrangements with social service agencies for use of buses during off-peak periods. This has only limited application, however, since the equipment is the same as used in regular service and thus presents the same physical barriers.

Of more than a dozen properties contacted, seven have no programs and have not yet taken positive steps in planning, six are in various stages of planning systems for the handicapped, and one, Denver, has progressed to the point where they are ready to test a pre-subscription service using twelve specially designed buses which they have on order and expect to receive in early December. Only Baltimore (MTAM) has adopted a written policy statement on the matter, a copy of which is contained as an enclosure to Annex "C" of this report. It has been the consensus of those properties thus far contacted that to serve the aged and handicapped with existing service is not the best answer to their needs, and to retrofit existing fleets appears even less appealing since, among other reasons, the design of coaches presently in service prevents removal of all barriers. Staff will

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continue to monitor the actions of other properties as we progress in our own program.

Involvement of Organizations Representing the Elderly and Handicapped: (Annex "D") Dozens of organizations and agencies representing the elderly and handicapped have been contacted to solicit input to our planning. The involvement and counsel of the elderly and handicapped themselves is considered of crucial importance by Staff in determining courses of action in initiating a system responsive to their travel needs. Without exception, these organizations are enthusiastic about what we are trying to do and want to be heard and be involved. Many ideas and much information has already been received through this dialogue.

Many organizations have strong opinions on the type of service which should be provided. Some have stated that a large segment of the handicapped population do not want to be singled out for special services on existing buses which point up their handicaps. On the other side of the coin, however, several pointed out that there are also handicapped individuals who do not want to be treated differently than non-handicapped persons and would resent a special service which segregated them as handicapped.

Contacts with interested agencies, organizations and individuals will be continued as a part of the problem-solving process which will guide the actions of District in formulating a tangible response to the mobility needs of the elderly and handicapped.

Status of Plan for Pilot Demand-Response Program: (Annex "E") The demand-response pilot program is intended to test the viability of such a service in filling the travel needs of those handicapped in the test area whose mobility is so impaired that a special means must be provided to transport them. The purchase of six specially fitted Mini-Bus vehicles for use in the program has been negotiated and delivery of these is expected within three months.

It is planned to commit these six buses to a single area, the size and location of which will be determined from handicapped population densities and travel patterns. Phase I of the test will measure a pre-subscription type service, with the possibility of a Phase II Dial-A-Ride test. Included with this service, planning are considerations of dispatch procedures, maintenance program for the special equipment, operator training and safety.

Staff anticipates gaining considerable information from this program which will be essential to evaluating alternatives for District's long-range response to the travel needs of our handicapped citizens.

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Availability of Transit Equipment Designed for Handicapped: (Annex "F")

There is no manufacturer presently producing a full-size transit coach specifically designed for handicapped persons. However, nearly all manufacturers are able to make modifications to production buses which make them less barrier-ridden. One manufacturer, FMC Corporation of Santa Clara has designed a medium-size coach for use by the handicapped and production is expected to begin in December of this year.

The UMTA funded Transbus project is in the dynamic testing phase of the nine prototype vehicles presently in existence. Three of these are designed for the handicapped. Under optimum conditions, it will be late 1977 or early 1978 before production models of Transbus will be available.

It is our hope to have these buses demonstrated in Los Angeles in approximately six months when they have completed their field testing.

Comparative cost figures between a demand-response system, and a policy of future purchase of only buses designed and equipped for the handicapped, is not presently available. However, District representatives met with the Transbus group just this past week, and, from information provided at that meeting, it is possible to advance fiscal projections for purchases of Transbus models equipped for the handicapped, were these models available.

All three manufacturers indicated that, in order to achieve a lower floor on Transbus, it is necessary to reduce passenger seating capacity from 51 to 41 or 43. In addition, to accept one wheelchair, two more seats will be removed.

The net result is, for every four buses currently purchased, we will have to buy five in the future to realize equivalent passenger carrying capacity, or a 25% increase to our fleet. In addition, the low-floor model will cost a minimum of 10% more.

With the success of Rapid Transit in Los Angeles, our present FY 1976 plans are for an expansion of the fleet by 300 buses, plus the replacement of about 150. The reduced capacity of buses equipped to handle the handicapped would require the purchase of an additional 112 units to offset the lost capacity.

This equates to \$9,500,000 for additional capital expense and approximately \$4,500,000 additional expense in FY 1976 alone. FY 1977 would reflect a \$10,600,000 capital increase and more than \$10,000,000 increase in operational expenses, with subsequent years rapidly escalating as more of these buses were introduced into service.

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Rohr Industries, located in San Diego, is the nearest to Los Angeles of the participating Transbus manufacturers, and has agreed to have a representative at the October 22 Board Meeting to answer questions relative to the "state of the art".

CONCLUSION

The mandate to the transit industry is clear: Legislation has provided the basic guidance for response by manufacturers and the funding necessary to meet the obligations we have to the mobility needs of the aged and handicapped in our society. The goal has been set and it remains for us to determine the best means for achieving that goal, and to move with all prudent haste to make transportation within the Southern California Rapid Transit District service area a reality for our aged and handicapped citizens.

Respectfully,



George W. Heinle,
General Manager Pro Tempore

ANNEX "A"

LEGISLATION AND LEGAL RAMIFICATIONS

LEGISLATION AND LEGAL RAMIFICATIONS

The basic legislation which spells out national policy, and clearly announces the national intent to make mass transportation for the elderly and handicapped a reality, is Section 154, Title 23, United States Code. This section reads as follows:

"(a) It is hereby declared to be the national policy that elderly and physically handicapped persons have the same right as other persons to utilize mass transportation facilities and services; that special efforts shall be made in the planning and design of mass transportation facilities and services so that the availability to elderly and physically handicapped persons of mass transportation which they can practically utilize will be assured; and that all Federal programs offering assistance in the field of mass transportation should contain provisions implementing this policy.

"(b) In order to further this policy, the Secretary shall require that any bus or other mass transportation rolling stock acquired, or any mass transportation station, terminal, or other passenger loading facility improved or constructed after June 30, 1974, with Federal financial assistance under sections 104(e)(4) and 142 of this title, and the Urban Mass Transportation Act of 1964, as amended, and after June 30, 1977, chapter 5 of this title, be designed with practical and reasonable features which allow their utilization by physically handicapped persons and elderly persons with limited mobility.

"(c) Any governor or local public body may satisfy the requirement of subsection (b) by providing alternative transportation service for physically handicapped persons and elderly persons with limited mobility. The alternative service provided shall be sufficient to assure that handicapped persons and elderly persons with limited mobility have available transportation service meeting standards which shall be promulgated by the Secretary. Funds apportioned under 104(b)(6) of this title and under Title 11 of the Urban Mass Transportation Act of 1964, as amended, shall be available for the Federal share of the cost of the alternative services authorized by this section.

"(d) Section 165(b) of the Federal Aid Highway Act of 1973 is hereby repealed.

"(e) The analysis of Chapter 1 of Title 23, United States Code, is amended by adding at the end thereof the following:

"154. Mass Transportation for the elderly and handicapped"

This law was received with satisfaction by the District, not only because it gave a sweeping mandate of responsibility toward a deserving segment of citizens, but also because it provided basis for the additional funding to meet the specialized architectural and equipment designs necessary for compliance. It should be noted that, in anticipation of the availability of Transbus-type buses, our new busway and all of its stations were planned and built so that they allow for free access by persons confined to wheelchairs.

Additionally, Section 16(d) of the Urban Mass Transportation Act of 1964, which was added to the Act by Section 8 of Public Law 91-453, defines the term "handicapped person" for us insofar as the intent of the Act is concerned. Section 16(d) states: "For purposes of this Act, the term handicapped person" means any individual who, by reason of illness, injury, age, congenital malfunction, or other permanent or temporary incapacity or disability, is unable without special facilities or special planning or design to utilize mass transportation facilities and services as effectively as persons who are not so affected".

The state has passed legislation affecting the purchase of new equipment and contracting for the building of new structures. This legislation, contained in the California Government Code, Chapter 8, Section 4500, states that, "Notwithstanding the provisions of any statute, rule, regulation, decision or pronouncement to the contrary, every local governmental subdivision, every district, every public and quasi-public corporation, every local public agency and public service corporation, and every city, county, city and county and municipal corporation, whether incorporated or not and whether chartered or not, in awarding contracts for equipment or structures shall be obligated to require that all rapid transit equipment and structures shall be so built that a handicapped person shall have ready access to, from and in such equipment and structures; provided, however, that contracts for equipment and structures incidental to the operation of an urban transit system shall be exempt from this requirement until such equipment shall be available from not less than two manufacturers."

District is, of course, complying with this law in its purchasing and contracting procedures. The problem which arises is that, although there are several manufacturers of small vehicles which incorporate equipment features designed to remove mobility barriers to the handicapped, there is no heavy duty, full sized transit bus in production which meets these criteria.

All three of the major bus manufacturers participating in the UMTA funded Transbus Project have completed prototype vehicles designed for physically handicapped patronage, and these are in the dynamic testing phase of the program now. However, the earliest that we could expect a production

model to be available, under optimum conditions, is estimated to be late 1977.

In addition to the Federal and State laws mentioned, both the California Legislature and the Los Angeles City Council have adopted resolutions favorable to the cause of providing the aged and handicapped access to travel means and the elimination of the barriers to their mobility.

Insofar as District's responsibility toward assisting the aged and handicapped who wish to use our planned Dial-A-Ride test service, and liability toward these individuals, Staff Counsel advises that, under the California Civil Code, a carrier for hire must use the utmost care and diligence for the safety of passengers and must provide everything necessary for that purpose (C.C. §2100). The District is, of course, a carrier for hire and comes within the purview of this law. Handicapped persons, or persons generally under a disability are entitled to be given the necessary assistance in boarding or alighting from buses, or, for that matter, any vehicle for public transportation. McBride vs. Atchison, Topeka and Santa Fe RR (1955), 279 P.2d 966, 44C.2d 113.

It is, accordingly, the opinion of Counsel that handicapped passengers must be assisted with respect to boarding and alighting from District buses. Further, the assistance must be rendered with a high degree of care to assure the safety of the passengers. Even a slight degree of carelessness or poor judgment on the part of the operator which results in injury to the passenger would render the District liable.

It is not felt that this would be an unusual burden since, for all intents and purposes, the District presently is required to carry persons who have a disability and, if assistance is required, must help them in boarding and alighting. This rule is, of course, tempered with reasonableness in that extraordinary assistance is not expected.

As previously indicated, all of the legislative developments merely put the power of law behind what has always been a moral obligation of the industry. And the industry has not intentionally avoided the responsibility, but has been subject to budgetary considerations and a highly independent group of equipment manufacturers. However, with the assistance of the Federal Government and the obvious commitment delineated in the law which will elicit response from the major manufacturers, the industry will now be able to move toward making transportation available to the aged and physically handicapped in a way it has never before been able. District thus intends to move with all prudent haste to meet this obligation.

ANNEX "B"

OVERVIEW OF HANDICAPPED CONDITIONS RELATING TO TRANSIT

AN OVERVIEW OF HANDICAPPED CONDITIONS RELATED TO TRANSIT

According to the U.S. National Center for Health Statistics, there are seven million Americans using artificial limbs, braces, crutches, canes, special shoes, wheelchairs, walkers and other special aids to mobility. An estimated 3.2% of the population uses one or more of these types of special aids. Nearly one-half million persons are confined to wheelchairs, and this number is growing larger. During the 10 year period 1959-1969 for example, the number of Americans confined to wheelchairs grew from 253,000 persons or 1.5 per 1000 population, to 409,000 persons or 2.1 per 1000 population.

The U.S. Department of Transportation, through a national health survey conducted in July, 1973, flatly stated in their study entitled "The Handicapped and Elderly Market for Urban Mass Transit", that there are over 9,640,000 non-institutionalized persons of all ages who have chronic mobility conditions, and 13,390,000 handicapped Americans who would experience difficulties in utilizing existing mass transit systems.

By applying these figures to the 10 million population area served by the RTD, it can be seen that although the number of persons having serious mobility limitations is a relatively small segment of our total population, it is, nevertheless, a large number of individuals. The actual number becomes more significant when other factors are considered, such as income level, dependency on outside sources for transportation, residence patterns as related to accessibility to transit routes, and travel needs of the group.

In addition to limiting employment, social, educational, and recreational opportunities, physical limitations restrict the extent to which these persons are able to use public services that other citizens enjoy routinely. Transit ranks highly in importance as one of these public services because it is often the only means by which other necessary services become available to urban residents.

Physical limitations often prohibit an individual from owning or operating an automobile and force reliance upon mass transit or vehicles operated by others. Additionally, many handicapped persons have severe problems that obstruct and restrain their use of mass transit because they are unable to perform simple physical operations essential to transit usage.

Specialized bus service for the handicapped exists in the Los Angeles area already. Many schools, rehabilitation centers and other programs provide transportation for the handicapped as the only way to include them in the programs and activities intended for them, but this specialized service can only partially fill the need, and transportation continues to be considered one of the most difficult problems for the handicapped.

The conditions which reduce mobility and are likely to affect transit usage fall primarily into the categories of ambulatory, vision, hearing, motor and mental.

The largest known group of transit handicapped persons contains those whose limitations reduce ambulatory capabilities. The range of ailments and impairments that reduce the capacity for ambulation is broad and includes limb impairments as well as less obvious heart conditions and respiratory problems. Arthritis and rheumatism are the leading conditions, but all such maladies, including hypertension without heart involvement, asthma and diabetes are potentially restrictive because they cause people to walk insecurely, to stand with difficulty or to use mechanical aids to achieve mobility. In addition to the nearly one-half million Americans confined to wheelchairs which were previously mentioned, there are approximately 140,000 who have artificial limbs. It is this group of people, and particularly those who must rely on wheelchairs, for whom architectural and bus design barriers present the greatest problem; and it is, conversely, provision of true mobility to this group which presents the greatest challenge to our planning.

The frequency with which visual impairments are translated into mobility problems is suggested by a National Health Survey Report on visually impaired persons. Of the over 895,000 estimated to have visual impairments, 452,000 use a cane; 247,000 are able to use a cane without assistance, and 196,000 require the aid of another person to achieve mobility. According to the authorities, over the next decade more than one-half million persons in the United States will become blind. This is obviously of important consideration for transportation planners, and, since beginning our RTD Aid to the Blind Program with the Braille Institute three months ago, we have learned much in this area which will be of assistance in responding to the travel needs of the blind.

Again using the National Center for Health statistics, 4,000,000 persons have some degree of binaural hearing impairment. These individuals may have difficulty hearing instructions about service over loudspeakers, perceiving other audio signals, or communicating with the bus driver and other passengers. Although many of this number can be assisted by hearing aids, the source study disclosed that 70% of persons with binaural impairments had never used such a device.

Another substantial number of people have problems related to poor coordination which diminish their capacity to perform one or more of the physical movements necessary to mass transit use. Inability to walk, grasp poles or handrails, pull signal cords or climb steps are among the difficulties encountered by these persons. Nationally it is estimated that 400,000 persons

suffer from epilepsy and there are 60,000 paraplegics between the ages of 18 and 64 according to statistics provided by the President's Commission on Employment of the Handicapped. In addition the National Multiple Sclerosis Society states that 200,000 persons of working age suffer from cerebral palsy and 500,000 have multiple sclerosis. The estimated total of persons with coordination problems which can limit transit usage is 1,160,000.

Mental disabilities are serious barriers to the use of our buses and to general functioning in public settings. These problems are responsible for the institutionalization of millions of persons and significantly influence the lives of others who, while not institutionalized, are unable to travel alone. An estimated 5,600,000 mentally retarded persons are likely to experience some form of difficulty in utilizing transit buses.

In a National Urban League survey sponsored by UMTA in 1973, the physical limitations of the handicapped were examined in seven categories of activity or usage normally associated with using the bus as a means of transportation. These were: waiting for the bus, boarding the bus, finding a seat, maintaining balance, carrying packages, communicating with the driver and visual problems. In summary, it was found that 62.6% of the handicapped who were interviewed in the survey reported that they possess a limitation that makes it difficult for them to use the bus. Over one-half reported that it is difficult for them to move quickly enough to board and to leave the bus. The most difficult operation seems to be climbing the first step which is considered too high by most handicapped persons.

Some of the problems require architectural changes to stations and waiting areas, others require design changes to the vehicle itself, such as lowering of steps, or other entrance changes which would permit persons with wheelchairs to enter. Some problems can be alleviated through operational changes. Among the operational changes proposed by handicapped persons themselves are:

Understanding and assistance especially on the part of the driver.

Pulling the bus close to the curb to facilitate boarding.

Establishing a policy of priority seating for handicapped persons near the front of the bus, particularly when the vehicle is crowded.

Starting the bus in motion only after the handicapped have been seated.

Barrier removal is being examined by Staff in five general categories; physical barriers, economic barriers, informational barriers and service barriers. Certain recommendations will be simply a matter of operational policy change or a matter of driver training and awareness, while others will require changes in bus specifications and service.

In any case, it is the intent that the District should respond in the best manner possible as it accumulates the necessary knowledge of the problem, and takes those logical and prudent sequential actions most appropriate to overcome it.

ANNEX "C"

STATUS OF RESPONSE BY OTHER PROPERTIES

STATUS OF RESPONSE BY OTHER PROPERTIES

The activities of transit systems in foreign countries in meeting the needs of elderly and handicapped patrons ranges from model demand-response systems which have been successfully operated in Sweden for a decade, to the other end of the response spectrum which might be represented by London, where persons confined to wheelchairs are arbitrarily prohibited entry to the subway system. Contacts made with transit properties in the United States, and with organizations such as the American Public Transit Association, which counts every major and most minor properties in the United States in its membership, reveal almost as extreme a variance in response to the handicapped needs as is found in the European examples cited.

With the exception of the Bay Area Rapid Transit (BART) system, and to a lesser extent the Washington Metropolitan Transit Authority (WMATA), at this time there is no large community which has effected a comprehensive barrier-free transit system. Yet some efforts have been made to remove the more obvious travel barriers which are detrimental to the elderly and handicapped. Unfortunately only limited information exists on the preferences of the handicapped themselves in the direction that removal of travel barriers should take. It is for this reason that Staff is soliciting assistance from agencies and organizations representing the handicapped in the Los Angeles and Southern California area, so that when crucial decisions are made in response to their transportation needs, a true cross-section of opinions and suggestions of those to whom we are attempting to respond are evaluated in the decision-making process. A discussion of the preliminary contacts with such representative organizations is contained at Annex "D" to the cover report of which this annex is a part.

Probably the most widely implemented special service is the removal of economic barriers through reduced fares for the elderly. Fully sixty-eight domestic and twelve Canadian urban Transit systems have reduced senior citizen fares. These reductions of 33 to 70% have sparked an increase in elderly ridership in every reported community. Elderly patronage has increased 20 to 50% following fare reductions, but no specific correlation has been established between the size of the fare reduction and the size of the patronage increase, and a Transportation Systems Center analysis shows that, although resultant increases in elderly ridership have been substantial, they have not been sufficiently large to prevent revenue losses from the reduced fares.

Some systems have undertaken to coordinate the work of social service agencies and transit agencies through bus lease arrangements. The benefits of this coordination are basically economic and accrue from better utilization of existing equipment. Specifically, social service organizations benefit from not having a large capital investment in transit equipment and not being faced with direct operating and maintenance expenses. The transit companies benefit from

finding additional use for equipment which might otherwise stand idle during off-peak hours. The great disadvantage, and the reason this approach has limited application, is that the leased equipment is the same as used in regular service, and as such presents all the physical barriers that make the regular service inappropriate to the transit needs of the elderly and handicapped. This type of arrangement thus can only eliminate some of the operational barriers normally encountered in public transit.

Insofar as other established systems are concerned, very few have taken positive steps or have actions in the planning stages at this time. A sampling of properties is as follows :

WASHINGTON: Washington Metropolitan Transit Authority (WAMATA) changed the design of their new fixed guideway system, midway in the construction phase of the project, at an estimated cost of 85-90 million dollars, so that it would meet federal legislation relative to the handicapped. This resulted in what they describe as an "elaborately equipped rail system", and is, in fact, one of the only two barrier-free fixed rail transit systems in the United States; the other being BART in San Francisco.

The bus fleet was not made a part of the WAMATA until January 14, 1973, and at the time that changes in the construction of their fixed rail system were being suggested, WAMATA countered with a proposal to either have the bus fleet modified for the handicapped or to augment the service by providing a Dial-A-Ride system. They also took a survey of 5000 handicapped persons in their service area to determine their transit needs. But the reaction at that time was a rejection by the handicapped of any program to provide bus service of any kind. In the interim, with the fixed rail system redesigned so that it is barrier-free, the handicapped population of the Washington area are voicing a desire for the buses to provide service to the handicapped.

WAMATA does not, however, have any definitive plans for the 2000 vehicle bus fleet, nor is there an elderly and physically handicapped program presently in effect.

ATLANTA: The Metropolitan Atlanta Rapid Transit Authority (MARTA) is quite aware of the elderly and handicapped in their planning. At the present time they have no special facilities installed in their bus fleet, and while they are anticipating the possible need for such facilities in the future, they have not begun to evaluate existing hardware or draft specifications.

Atlanta says that with the implementation of their rail and bus line trunk system which is being developed, they will provide for accessibility within the system through design substitutions in stations, such as ramps and elevators.

They are also considering what they call a Special Feeder bus services within route structures designed for the trip patterns of the elderly and handicapped. The vehicles used on these lines will probably have special design features, although the type of treatment has not yet been determined. Rail car designs will have provisions for patrons in wheelchairs.

Atlanta is currently undertaking a study of the travel patterns of the handicapped and elderly in their service area, based on data from a home interview study performed for the Regional Transportation Planning Process. From this study they intend to establish Short Range policies for accommodating current "manifest" demand. They are also participating with the regional planning body in the design and conduct of longer range, more comprehensive planning study for the needs of the handicapped and elderly within the entire region. Specifications of equipment requirements and special facilities necessary will result from the current study, with modifications being made as necessary following completion of the Longer Range Study.

BALTIMORE: The Metropolitan Transit Authority of Maryland (MTAM) have no special service for the elderly and handicapped other than a reduced fare for the elderly, and do not, at this time, have any firm plans for initiating such service. They are, however, in the preliminary planning stages of formulating a program which will be in keeping with current legislation. At this point in time MTAM has no comprehensive statistics on the handicapped in their service area but are attempting to gather such data from organizations and agencies whose functions are primarily with the handicapped population.

On September 24 of this year, less than one month ago, they did adopt a policy and position statement, a copy of which is attached to this annex as Enclosure 1.

MTAM is presently the target of legal action brought by a Baltimore based organization representing the handicapped and, by order of the court, a stay-order has been placed on the transaction to purchase over two hundred new buses. The reason stated for issuance of the stay-order is that the specifications for the buses do not provide for the needs of the aged and handicapped. The matter is scheduled for hearing this week, and should be helpful in determining specific interpretation of the law.

DENVER: The Regional Transportation District of Denver began six months ago to develop a Special Transportation Needs program aimed at providing transportation for the elderly and handicapped. The District hired a coordinator to work solely on the development and implementation of this program, and appointed a committee of appropriate staff members. They then went directly to the elderly and handicapped people in the District and told each of the groups to appoint representatives to work with the District in determining the needs of the groups they represented. The District Committee then studied their recommendations and developed a program, which is essentially a demand-response service, which was brought to their Board of Directors.

The Board approved the program and requested that bus manufacturers be contacted who could build a medium sized bus suitable for the handicapped in a demand-response service. Twelve bus manufacturers were contacted and only three responded. A bidders briefing was held at which the respondents were told what was wanted in the elderly and handicapped bus. Only FMC could build such a bus and the District immediately placed an order for twelve units.

The committee then devised a Special Transportation Needs form, a copy of which was distributed last week to every elderly and handicapped person in the service area. The input from these forms will aid in setting up special routes.

Delivery of the 12 FMC buses is scheduled for December 1, and it is the intention of the Denver District to begin their special service immediately upon receipt of the buses.

The program status of the above four properties represents a random cross-section sampling of the information thus far determined. It is apparent that a totally barrier free transit bus system would require sizeable expenditures for new equipment, even if such equipment were available. Additionally, the impact on schedules and ridership is a yet unknown quantity in the formula but one which deserves close consideration.

Although the viewpoints of other properties have primarily been conveyed to Staff verbally, and therefore are not yet fully documented, it appears to be the consensus that to integrate service to the elderly and handicapped into existing general service through the use of buses which are specially equipped to accept handicapped patrons, to include wheelchairs, is not the best answer to the travel needs of these individuals. The idea of going so far as to retrofit existing fleets so that barriers are eliminated appears even less appealing since, among other reasons, the original design of our existing transit coaches defeats from the beginning any attempt to remove other than superficial travel barriers.

These opinions tend to be substantiated by the responses being received from preliminary contacts we have made with various organizations and agencies representing the handicapped in our own service area, in that they have voiced a desire for door-to-door service as the most convenient and appropriate for the handicapped.

In a study prepared for UMTA by the National Technical Information Service, U.S. Department of Commerce, published in July, 1973, (Report No. UMTA-DC-06-0020-73-3, Contract No. DC-06-0020), entitled "Transportation for the Elderly and Handicapped", it is flatly stated in the recommendations section of the study, "Because many elderly and handicapped are unable to wait at bus stops or are unable to reach the routes, door-to-door transit service should be provided by barrier-free vehicles. Such transportation should have reduced fares and would supplement transportation available through existing systems".

In the findings of a research program sponsored by the Office of the Secretary, U.S. Department of Transportation, published in a report entitled "Travel Barriers", these impressions are further substantiated in their findings and stated as follows: "One alternative to modifying existing transit modes is the creation of a specialized system to serve the needs of all aging and handicapped travelers - even those handicapped by the circumstance of their traveling. The specialized system appears to be desirable for a number of different reasons. First, the most important travel barriers to the handicapped are concentrated at access and transfer points rather than in or at the vehicle itself. A specially equipped, dynamically routed system with door-to-door service has

Annex "C"

Page 6

the greatest potential for minimizing this problem for the largest number of handicapped."

"...Preliminary analyses indicate that cities ... can profitably operate a specialized mini-bus system for all the handicapped until such time as greatly modified buses or entirely new systems are tested and available."

M.T.A. OF MARYLAND
POLICY STATEMENT
Adopted 9/24/74

Transportation for the handicapped. The MTA is fully aware of the barriers which impede the use of public transportation for some elderly and handicapped. We further recognize the need to minimize these barriers and to provide an improved service accessible to most persons including many of the physically disabled.

The MTA is attacking these problems on two fronts. 1) In the design of Baltimore's rapid transit system, we have coordinated all rapid transit systems stations and vehicle designs with handicapped citizens groups. Provisions to service greater numbers of aged and handicapped have been incorporated into the MTA's design and construction program. This information is available on request.

Secondly, in the existing mode bus the MTA is working directly through the National Transportation Industry and the Federal Government on the development of a new transit vehicle which will meet national standards and which will be designed to reduce the barriers to travel by many elderly and handicapped.

This vehicle called Transbus is presently in the development stages. It will incorporate improved design aspects enabling the industry to better serve the physically disabled persons from the visually handicapped to the neuromuscular handicapped. Transbus prototypes are now being field tested.

In the meantime, the MTA is attempting to provide transportation services to all Baltimore area residents insofar as it is possible and feasible. While the buses in our existing fleet and those about to be purchased are not equipped with special devices to assist all passengers with sight and mobility handicaps they do meet existing Federal Design Guidelines and Regulations.

It is important to remember that the present vehicle was developed by the industry 16 years ago and was designed without full consideration to the elderly and the handicapped. To attempt to modify this vehicle to meet all the special concerns of the elderly and handicapped would not be technically feasible.

Among the specific problems to be considered in accommodating the handicapped are the movement of the vehicle, movement in the vehicle by the passenger, level change, entry and exit, seats and related equipment, information and fare transfers. These are but some of the problems related to the vehicle itself. Also important to the consideration to the handicapped are the barriers outside of the vehicle, barriers at the bus stop and barriers getting to and from the bus stop.

Encl. 1 to ANNEX "C"

Most of these problems and more are being addressed in the design of Transbus and in the design of the rapid transit program. The MTA has long supported efforts to aid the handicapped in the use of the services we provide. These efforts will continue and it is hoped that within a relatively short time these goals will be achieved.

ANNEX "D"

INVOLVEMENT OF ORGANIZATIONS REPRESENTING THE
ELDERLY AND THE HANDICAPPED

INVOLVEMENT OF ORGANIZATIONS REPRESENTING THE ELDERLY
AND HANDICAPPED

Of crucial importance in determining courses of action, planning, and initiation of a transit system responsive to the needs of the elderly and handicapped is the involvement and counsel of the elderly and handicapped themselves. Eventually, as District progresses in its actions, this may take the form of direct contact, either through resident survey techniques or possibly mail contacts such as is being used in Denver with their novel "Special Transit Needs" forms. For the present, however, input is being solicited from a broad range of organizations who represent the handicapped within the RTD service area, and who are prepared to speak from a position of first-hand knowledge for the persons they represent or serve.

Staff has contacted numerous such organizations, and without exception, found them to be both enthusiastic about the prospect of answering the transportation needs of the handicapped and anxious to be heard and be involved. Initial contacts have been made by telephone, with requests for written positions, suggestions, descriptions of services rendered by the organization and purpose or involvement with the elderly and handicapped.

When speaking with organization personnel, it is requested that any data available be submitted to us which addresses two basic questions; 1. How many physically handicapped persons do you represent who would need special attention in order to avail themselves of public transportation, such as lifts, wheelchair ramps, tie downs, grab bars, low steps, wider doors or any other aid, and 2. If these physically handicapped persons would prefer a dial-a-ride system using a number of specially equipped buses on a demand-response door to door type service, or if use of the regular bus system, if the buses were fitted with specialized equipment designed to accommodate handicapped persons, would better meet their needs.

As a representative sampling of contacts which have been made, the following are record extracts of persons and organizations contacted in a two day period earlier this month.

United Jewish Welfare Fund, Mrs. Polon, Social Service Representative, was helpful with general information and referred us to Cedars of Lebanon Rehabilitation Center.

Cedars of Lebanon Rehabilitation Center (662-9111), Mrs. Anita Robinson, Social Service Director, indicated that Cedars handles approximately 18,000 outpatient trips per year which are made by persons who cannot use public transportation in its present form. She was very excited at the prospect of RTD initiating a

service which would help these persons. Detailed letter was received from Mrs. Robinson October 14.

Human Resources Development, Employment Development Department (744-2121), Bob Foulie, gave us figures of 24,216 handicapped persons registered for work in an area from Lancaster to Santa Monica, as of June 1974. These are not specified by type of handicap, but include physical, emotional and mental categories, and reflect only employable handicapped persons.

Crippled Children's Society, (874-3300), Mrs. Graves, Assistant Executive Vice President for Programs, indicated that in Los Angeles County alone the Society works with 12,000 handicapped children who are unable to use RTD services but would use public transportation if they could. She feels this is the most worthwhile project RTD could undertake and recommended hydraulic lifts, tie-downs for wheelchairs and special seats on our buses. A follow up letter was received from Mrs. Graves October 14.

Public Health Department, Program Analysis and Statistics Section, (State Line 485-8921), Mr. Frank Norris, has available statistics which he will forward to us. Stated that several inquiries have been made by other persons in the transportation industry.

City of Beverly Hills, Office of the Mayor, (276-6181), Mr. Justin Farmer, Staff Assistant, was very receptive and offered to contact agencies in the Beverly Hills area for us and provide all information possible.

Rancho Los Amigos (922-7111) Dr. Edward Workman, Clinical Psychologist, was very enthusiastic about RTD's efforts and knowledgeable of mobility barriers of the handicapped. As an example of their transportation problems, he stated that, through the State Department of Rehabilitation, they used the service of the Pinetree Bus Co. of Long Beach, at a cost of \$1,400 per month to transport only six patients daily to their hospital; and this subsidy was discontinued due to the expense. All six could use public transportation if it were equipped for the handicapped. Very helpful letter received from Dr. Workman, written October 11.

Community Hospital of San Gabriel (289-5454), Mr. Wilbur Liggett, Member of West San Gabriel Valley Mayor's Committee for Employment of the Handicapped, very aware of handicapped mobility problems and anxious to assist RTD in any way. Will contact San Gabriel Valley organizations and provide us input for our data-base.

State Department of Rehabilitation (485-9690), Dr. Paul Mueller, Chief-Research and Statistics, will send us breakdown by county, in zip code areas, numbers of total handicapped, legally blind, lower extremity impairments, and other information he feels will be helpful in setting up transportation service. Referred us for further assistance to Dick Wooten (445-2432) Removal of Barriers Specialist, and Dr. Frederick T. Schlemper (445-0475) Demographer.

State Department of Rehabilitation, contacted us, Isabel Gonthier, Administrative Assistant to Dr. Carolyn Vash, Chief Deputy Director, is most interested in what RTD is trying to do and will send us as much specific data as is available. Offered the Department's assistance in whatever way they can be of help.

Pasadena City College (793-9656) Ms. Francisco Baldwin, Teacher-Coordinator for the Handicapped, is very concerned about the mobility needs of the handicapped and also was excited about our project and promised a letter citing specifics. Ms. Baldwin gave us three suggested contacts, Mr. Dick Wooten, who had already been suggested to us by Dr. Mueller as a specialist in barrier removal, Mr. Jim Kay HRD Sacramento, and Mr. Ken Blackwelder, Valley Vocational School. Letter was received from Ms. Baldwin October 15.

National Multiple Sclerosis Society (842-5278) Dewayne Howell, Director of Services stated that the particular needs of the persons the Society represents could only be met through an all-out effort to remove transportation barriers and that the Society has, for many years, worked to get these needs recognized. He wishes also to help RTD and will send a letter. Letter received October 4.

These excerpts from our contacts log are a random representation of literally dozens of organizations and agencies with whom Staff has established dialogue. The response, cooperation and sincere interest on the part of every

contact was obvious and without exception. Staff recognizes that there is a wealth of information, ideas and sincere interest on the part of these contacts and intends to solicit involvement from them as our program progresses.

Particularly impressive in the conversations held thus far and the letters which have been received is the absence of any ill feeling that the transportation needs of the elderly and handicapped have not been sufficiently met in the past, but rather a positive attitude of "now that the problem is being recognized, let's get on with the job in the best manner possible".

Preliminary assessment of service opinions which have been expressed coincide with the impressions received by Staff from other transit properties, these opinions being that a special demand-response system totally designed for exclusive use by the handicapped, is the most complete answer to their transportation needs, and the most desirable.

In a letter to the District dated October 11, 1974, signed by Anita Robinson, M.S.W., representing Cedars - Sinai Medical Center, Department of Rehabilitation, she states, "In our opinion, dial-a-ride for special buses equipped to handle patients who cannot get to buses or make transfers would be the most effective and economical way to solve this problem. We would be glad to have you call to elicit our suggestions on methods of providing safer and more effective means of transportation for this group of patients".

Another example of this opinion was expressed by Dr. E.L. Workman, Clinical Psychologist Coordinator, Work Prep Center of Rancho Los Amigos Hospital, in a very informative letter also dated October 11, 1974, in which he entitles his last paragraph "IV. Recommendations" and says "Our transportation needs for physically disabled patients would best be served by the Dial-a-bus concept involving a specially equipped mini-bus for a twenty mile area around Rancho. Anything other than this would only partly answer the needs of the disabled we serve. This system has been established in various areas to meet the 1) Work, 2) Medical, 3) Social, 4) Shopping and 5) Recreation needs of the disabled".

In conversation with Ms. Isabel Gonthier, Assistant to Dr. Carolyn Vash, Chief Deputy Director of the State Department of Rehabilitation, she expressed concern, and stated that it had been their experience in the Department, that a large segment of our handicapped population do not want to be singled out for special services on existing buses which point up their handicaps.

On the other side of the coin, however, several statements were made which pointed out that there are also handicapped individuals who do not want to be treated differently than non-handicapped persons and would resent a special service which segregated them as handicapped, irrespective of good intentions or the fact that separate service is the only answer for many of their fellows.

District had an interesting experience in initiating its free ride for the blind policy, which parallels the expected divergence of opinion over a program which, on the surface, would appear universally accepted. An organization representing a large constituency of blind persons contacted the District demanding to know why the blind were being singled out for free transportation, and objecting to the free fare as implying that the blind were somehow second-class citizens unable to pay their way. This was the only such contact, but it points up the fact that, in any program, no matter how well-intended, it is difficult to fully satisfy the opinions of all concerned.

Staff is cognizant of the emotionalism involved in this issue and that there are strong opinions and logical arguments in favor of the various approaches which may be taken in meeting the travel needs of elderly and handicapped. Evidence at this time is mounting in favor of some form of demand-response service but before making any recommendations for such far-reaching decisions, much work, research, coordination with appropriate parties, and testing remains to be accomplished.

Contacts with interested agencies, organizations and individuals are expected to be continued as an indispensable part of this problem-solving process which will guide the actions of the District in formulating a tangible response to the mobility needs of the elderly and handicapped.

ANNEX "E"

STATUS OF PLAN FOR PILOT DEMAND-RESPONSE PROGRAM

STATUS OF PLAN FOR PILOT DEMAND-RESPONSE PROGRAM

Staff is in the process of developing a pilot program for testing a demand-response system and its potential for answering the travel needs of the physically handicapped in the District service area. The term "Physically handicapped", as referred to in this annex, describes those persons whose handicap is such that it would exclude them from the use of existing District service, or would permit use of the service only with the assistance of another person, or through the use of special boarding and alighting equipment and facilities designed for their safety and well-being during the term of the trip.

There is a large segment of persons who, by broader definitions, are described as "handicapped" but who otherwise could, with minimum assistance, use District service without encountering major difficulties. This group encompasses even a larger segment of the overall handicapped in light of such equipment innovations as the "kneeling bus", and simple modifications such as a special step which lowers to provide a more gradual entrance to the bus.

The demand-response pilot program is intended to test the viability of such a service in filling the needs of those of the handicapped in the test area whose mobility is so impaired, that a special means must be provided to transport them. Persons confined to wheelchairs or who, for some other reason, are unable to negotiate steps, are expected to make up the largest part of this group.

The purchase of six specially fitted Mini-Bus vehicles, as approved by the Board, has been negotiated. These buses will be equipped with a hydraulic lift device designed for use by wheelchairs. There will be tie-down accommodations on board for six wheelchairs and seats for six ambulatory passengers. Delivery of these buses is expected in approximately three months.

With the cooperation of the State of California, Department of Rehabilitation in providing data, and using information provided through contacts with local organizations, a study is underway by Staff Planners to determine locations and travel patterns of the handicapped in the RTD service area.

Initially it was envisioned that upon delivery of the specially equipped Mini-buses, they should be assigned to six geographic areas within Los Angeles County, with one bus to serve each area. However, as we accumulate data, it is becoming apparent that attempting to spread the service in this manner will probably invalidate the test in that six buses will not be sufficient to respond in such a configuration. If the trip times are very long and the usage factor is greater than can be accommodated then we will have defeated the purpose of the pilot program. We must be able to respond if the test measurements are to be viable.

For these reasons, we have revised our planning and are working toward a concept of concentrating the six buses be committed to a single area, the size

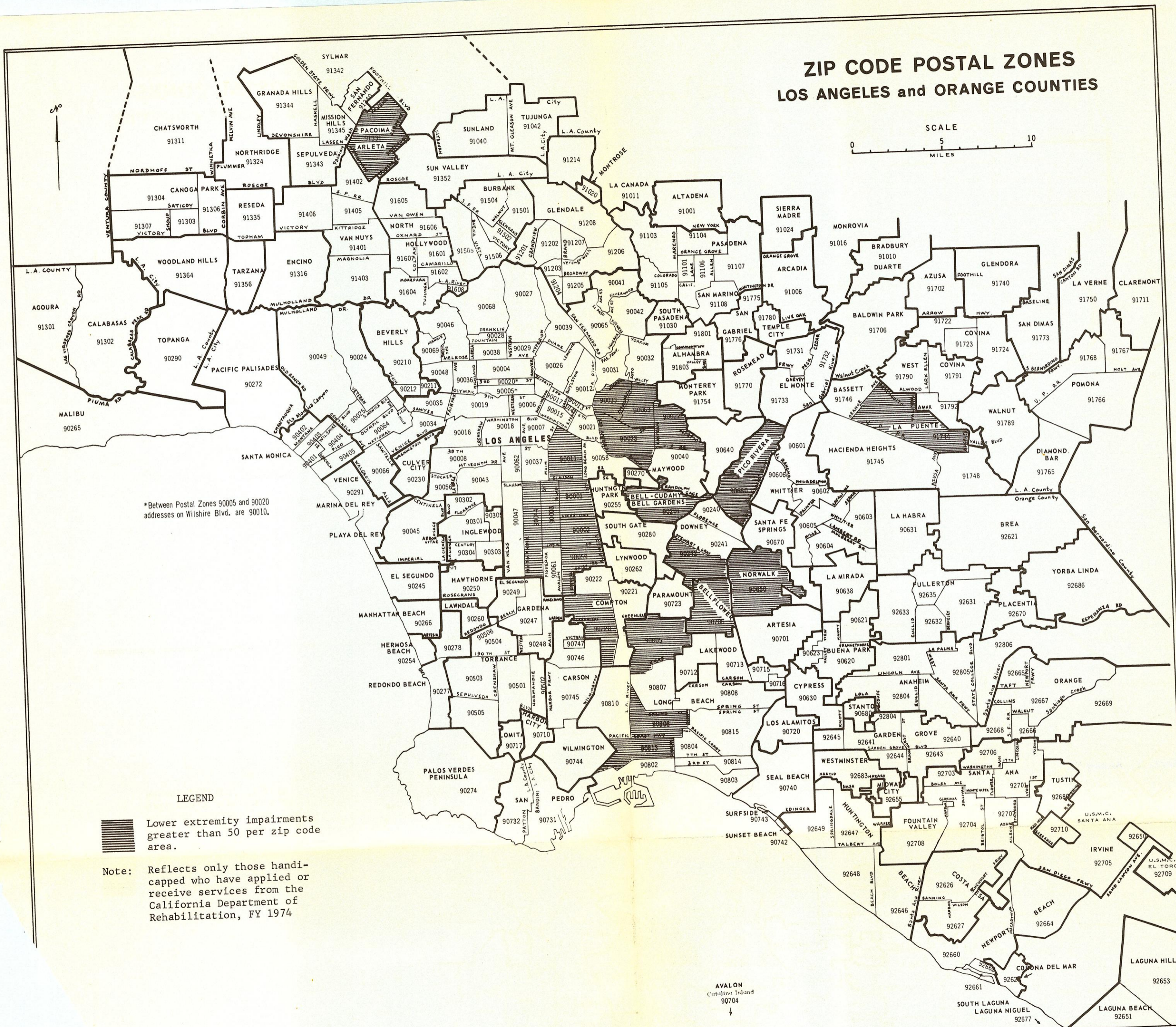
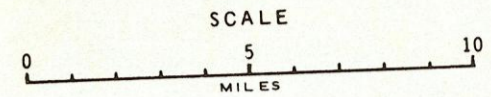
and location of this area to be determined from handicapped population densities and travel patterns. It is also envisioned that the operation will be a pre-subscription type during phase I of the test with the possibility of a phase II period in which the Dial-A-Ride concept can be tested.

Integral with the service planning are considerations for dispatch procedures, maintenance program for the special equipment, operator training and safety procedures.

Staff anticipates gaining considerable experience from this pilot program which will be essential in evaluating alternatives for District's long-range response to the travel needs of our handicapped citizens.

Attached as Enclosures 1 and 2 are representations of the Los Angeles area with information provided as to handicapped population densities. Both are useful in contributing planning information and will be used for that purpose until better information is developed from actual experience with the system.

ZIP CODE POSTAL ZONES LOS ANGELES and ORANGE COUNTIES



*Between Postal Zones 90005 and 90020 addresses on Wilshire Blvd. are 90010.

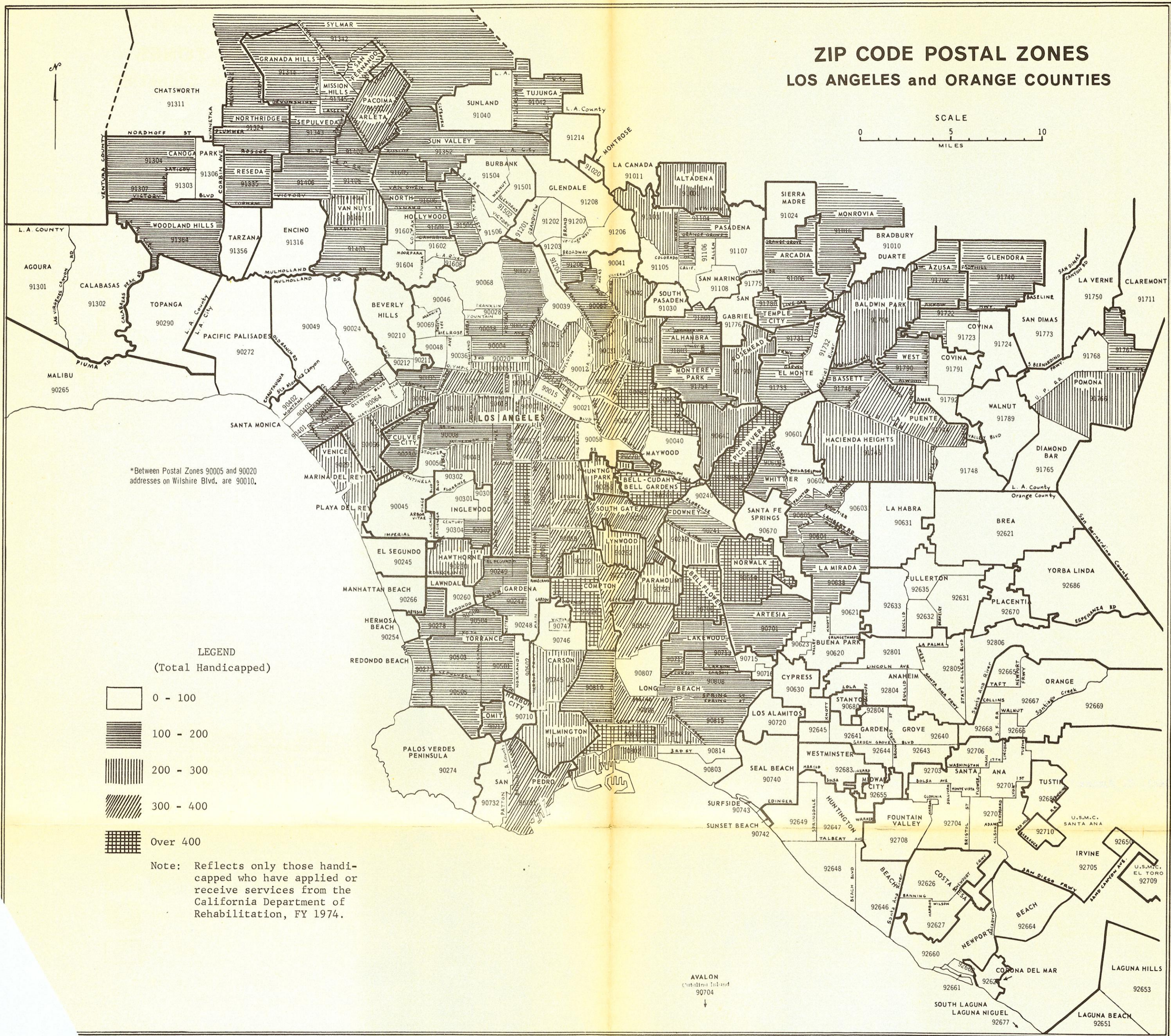
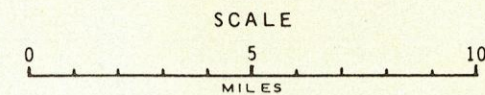
LEGEND

Lower extremity impairments greater than 50 per zip code area.

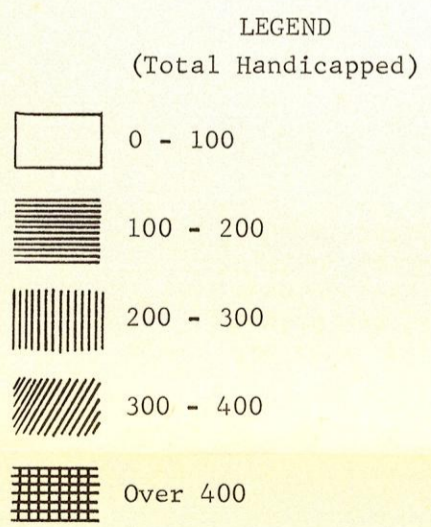
Note: Reflects only those hand-capped who have applied or receive services from the California Department of Rehabilitation, FY 1974

AVALON
Catalina Island
90704

ZIP CODE POSTAL ZONES LOS ANGELES and ORANGE COUNTIES



*Between Postal Zones 90005 and 90020 addresses on Wilshire Blvd. are 90010.



Note: Reflects only those handicapped who have applied or receive services from the California Department of Rehabilitation, FY 1974.

AVALON
Catalina Island
90704

ANNEX "F"

AVAILABILITY OF TRANSIT EQUIPMENT DESIGNED FOR
HANDICAPPED

AVAILABILITY OF TRANSIT EQUIPMENT DESIGNED FOR HANDICAPPED

There appears to be no company presently producing transit coaches which are specifically designed for use by handicapped persons. However, nearly all bus builders are able to install lift equipment and make other modifications to their production buses. One manufacturer will have a new model on the market in December with a forty-eight inch door width, which is ideal for wheelchair entry and exit. A company by company survey of capabilities reveals the following:

AM General Detroit; has built no units with lifts or other equipment for handicapped but claim they could adapt existing models to ramps or lifts on special order. This company is participating in the Transbus project under UMTA, and one of the three Transbus engineering models is designed for use by the handicapped.

Blitz Body Company Chicago; has made modifications to existing transit coach models manufactured by other companies. They were able to modify a GMC 5308-A coach, which is equivalent to RTD's 5400 series 50 passenger coaches, without modifying the exterior of the coach. This bus is presently in service at the Long Beach Veterans Administration Hospital and was examined in September by RTD Operations personnel.

Flxible Company Loudonville, Ohio; has installed lifts on its small Flxette model. This particular configuration requires control at the lift, which means the driver must get out of the bus to operate the lift. A demonstration of this bus was observed by RTD Operations personnel who found it to be very small and not suitable for standard transit operations. This company is also a participant in the UMTA sponsored Transbus Project, and one of their engineering models for this project is designed for use by the handicapped.

General Motors Corporation Pontiac, Michigan; presently has no production models equipped with facilities for the handicapped. GM is also participating in the Transbus Program and has designed and built one model designed for handicapped patrons.

Minibus Santa Fe Springs, California; produce a small bus (six wheelchair passengers and six seated passengers) for the transportation of the handicapped. They have various configurations of lifts and/or ramps, folding seats and other features. They have been producing these units on a special order basis for some time.

Eagle International Brownsville, Texas; expect to have a diesel transit coach pilot model for demonstration in December 1974. The doorway width will be forty-eight inches and a driver-controlled ramp will be included. This will be a standard size transit coach.

Twin Coach Company Kent, Ohio; do not have a production model designed for handicapped use, but lifts and ramps have been installed on their buses in the past. They have available a lift which can be operated from the driver's seat. The ramp is a manual type which requires the driver to leave his seat to put the device in position for use.

FMC Corporation Santa Clara, California; has designed a medium capacity vehicle specifically for the handicapped. A prototype vehicle was displayed at the American Transit Association meeting in New York during the week of October 14. They are sending us detailed specifications. This is the company which is supplying twelve of these buses to Denver for use in their handicapped program.

Discussion with the Los Angeles Office of the California Highway Patrol, Motor Carrier Safety Operations, on September 11, 1974, revealed that requirements for handling the wheelchair handicapped in buses has been formulated and should be released for distribution in November of this year. These requirements will be added to the Code and are expected to be effective January 1, 1975. Any bus equipped for use by the handicapped will be expected to comply.

Some of the general requirements are:

1. Meet the general conditions of the California Administrative Code, Title 13, Section 1227, such as:
 - a. Lift door to be interlocked with the brakes and accelerator.
 - b. Door shall be substantially constructed in accordance with acceptable standards and shall be satisfactorily maintained in good working order to permit the safe entrance and exit of passengers.
2. Lift doors are to be operable from both the interior and exterior.
3. Aircraft type freight tie downs are to be provided.
4. Someone must assist the handicapped on and off the equipment.

Beside the above, it was also commented that, in the opinion of the supervisor of motor carrier safety operations, the lift equipment should be located on the right side of the bus, near the rear, to prevent interference with other passengers, and that aisle space will not be permitted to be blocked.

Further, there is no standard wheelchair, the widths vary from 21" to 36" and some electrically powered units weigh up to 400 pounds.

Transbus Insofar as the Transbus project is concerned, a review of the status of this effort is appropriate. The project was initiated by UMTA in FY 1972 to make available new designs of standard-length urban transit buses with improved comfort, safety, ease of maintenance, operating performance and provisions for the elderly and handicapped. The basic transit bus now being purchased with UMTA capital grant assistance was designed over fifteen years ago and does not take advantage of the technological developments which have been made in the interim. Transbus project will provide three different designs, each thoroughly tested and evaluated, as a basis for decisions needed to bring about a new standard of urban bus travel.

The Transbus project is being conducted through a prime contract with the firm of Booz Allen and Hamilton, of Bethesda, Maryland, with prototype development sub-contracted to General Motors, AM General and Rohr Flexible. Each sub-contractor has completed three transbus prototypes, has also completed manufacturer's tests and have made delivery to the prime contractor for a program of intensive testing and evaluation which is underway. These buses will be field tested in New York during the month of January, 1975, in Kansas City during February and in Seattle during the month of March. Three of them, one from each manufacturer, are specifically designed and equipped for the elderly and handicapped.

It is our hope to have these buses demonstrated in Los Angeles sometime after the Seattle field tests are completed, but prior to the delivery of the final design package to UMTA which is scheduled after mid-year 1975.

As a matter of interest, in FY 1975, an estimated \$890,000 will be used for Transbus. This compares with \$9,403,000 in FY 1974 and \$14,858,000 in FY 1973.

Under optimum conditions, the first production models of Transbus will not be available to the industry until late 1977 or early 1978.

Since Rohr Industries, located in San Diego, is the nearest to Los Angeles of the Transbus sub-contractors, they have been asked to have a representative appear at the Board meeting scheduled for October 22, to make a presentation both on the "state of the art" from the manufacturers point of view, and also to discuss Transbus.