

## MAIN CONCLUSIONS AND RECOMMENDATIONS

1. Owing to the narrow streets and the scarcity of parking facilities in the central business district of Miami a substantial part of the relief from traffic congestion that is greatly needed must come from a greater use of mass transportation for access to this district. Approximately 45 per cent of the persons entering this district at the present time use this means of transportation. A recent survey indicated that 30 to 35 per cent of the persons now entering by private passenger cars can be expected to change to bus transportation under favorable conditions.
2. Such increase in the use of mass transportation can be expected only from voluntary choice by the potential riders in anticipation of service well adapted to their needs and comfort. More convenient and more comfortable service is imperative to safeguard Miami against undue decentralization and serious depreciation of the central business district.
3. Better supervision and control of bus operation are needed to provide more dependable service from present schedules or any others that may be established. Better maintenance of scheduled headways is essential to efficient use of mass transportation equipment and to comfortable and satisfactory service. Running ahead of schedule at any point should be prevented and running late should be discouraged.
4. Buses on the same or different routes making passenger stops in the same block or using the same street should be so scheduled as to spread their departure times and avoid simultaneous departures. The present plan of scheduling several buses for departure at the same time adds to traffic congestion in the central business district and to confusion on the streets farther out.
5. To reduce the number of transfers that must now be made between bus routes in the central business district it is recommended that a special route be established from Biscayne Boulevard along 36th Street and 27th Avenue to the Coconut Grove business district. Express service should be provided on this line, with

buses stopping only at transfer points to receive or discharge passengers. It is estimated that by encouragement of liberal use of this route for transferring between other lines the number of downtown transfers can be reduced by at least 6,000 per day.

6. To provide direct service for passengers between the four major negro residential districts and to expedite travel from these districts to other routes leading to working places, it is recommended that a special route be established between Liberty City and the Coconut Grove negro district, passing through the Railroad Shops Addition and the central negro area. The bus stops should be local within these four areas but should be limited only to transfer points elsewhere.

7. Express service with limited stops should be established along sections of major routes between the central business district and points where inbound buses normally become filled. This express service should be operated during peak hours. Local tripper service should be inaugurated between such points and the central business district to accommodate local passengers at such times.

8. More frequent service is essential on routes with high load factors (ratios of loads carried to seating capacity) to stimulate the use of mass transportation that is now so essential to the solution of Miami's traffic problem. This will be especially important during the tourist season to encourage much greater use of buses by non-residents for access to all major points of business or recreational interest. Such service should be periodically adjusted to changing conditions and trends, particularly those that are seasonal.

9. The skip stop plan, increasing the distance between bus stops, was first established as a war measure to expedite bus service. Because it does decrease the running time and reduce the interference with other traffic, it is recommended that skip stops be retained with stops generally no less than 400 feet and no more than 800 feet apart. It is estimated that the elimination of the present skip stops would add about 10 per cent to the running time and reduce the average running speed proportionately.



10. The loading of passengers in the central business district is now appreciably delayed by bus operators having to sell tokens and make change at these terminal points. It is recommended that at the major points in this district personnel be provided to sell tokens and make change to enable passengers to board buses promptly and proceed immediately to their seats.

11. Postwar building is already establishing new residential areas which will shortly require bus service. Existing lines should be extended and/or new ones established as such new sources of passengers develop. Every effort should be made to anticipate the potential needs of such areas and facilitate their development by providing transportation in step with the requirements.

12. The City of Miami should provide personnel and facilities for making periodic observations of bus service. Observers should be especially alert for dangerous operating conditions and for any tendency to depart unduly from schedules. Reports should be made periodically to the City on the adequacy of mass transportation and recommendations for its improvement.

## DETAILED DISCUSSION OF CONCLUSIONS AND RECOMMENDATIONS

### Buses Should Be Used More

The seriousness of the traffic problem in the central business district of Miami is well known to all in the City. Until important changes are made in the general pattern of street use this area will fast approach a condition of more potential business capacity than the traffic and parking facilities will support. The main source of possible relief from this condition is substantial increase in the number of persons transported into this area per unit of traffic.

Buses provide much more passenger capacity per unit of street area than do private passenger cars. Although an individual bus requires not more than double the street space for operation that is needed for a private passenger car, its average load is several times as great. Furthermore, the space required along the curb for passenger stops is almost negligible compared with the parking space that passenger cars occupy while their drivers are working or shopping, or are otherwise engaged in the central business district. Hence, buses should be used for access to the central business district by a much larger portion of the public.

In the recent survey of parking practices made for the Parking and Traffic Improvement Committee of Miami by Maurice H. Connell and Associates with the cooperation of the City Traffic Engineering Division, 894 patrons of seven restaurants told how they came into the central business district on April 15. Of these 34.1 per cent came by bus, 53.3 per cent in their own cars, 8.0 per cent as passengers in other cars, and 4.6 per cent on foot. At the same time the employees of three large business offices, totalling 1,273, reported that 57.6 per cent came by bus, 23.0 per cent in their own cars, 11.8 per cent as passengers in other cars, and 7.6 per cent on foot.

Both of these surveys revealed much smaller use of buses than in most other large cities. The usual pattern is for 65 to 80 per cent to go to the central business district by mass transportation.



That the number of persons now using buses can be greatly increased was revealed by the answers of 1,604 persons to the question "If bus schedules were more frequent would you still drive?". Almost exactly 30 per cent said that they would not drive if bus service were more favorable. The restaurant questionnaires showed 28 per cent willing to change while those to employees showed 42 per cent. It seems obvious then that substantial increases are possible in the use of buses if conditions are made favorable.

#### Use Must Be Increased Voluntarily

Now that World War II is over and greater freedom in the choice of modes of transportation is made possible by less restraint, the public cannot be required by regulations to ride on mass transportation. The choice must be voluntary. It will only come from mass transportation service that will compete favorably with other types from the combined standpoints of convenience to destinations, dependability of service, total time required for the trip, and general comfort.

The following are the conditions which will make such service appeal to potential riders:

1. Smaller load factors that will reduce the number of standees at any time of day.
2. Dependability of service which will reduce the uncertainty of arrivals and the waiting period and thus distribute the load evenly upon the buses that are operated.
3. Directness of service which will take passengers between their destinations with greatest dispatch.

The recommendations of this report have been developed with these objectives in mind. They were not developed through choice for any mode of transportation but, rather, to aid in preserving the characteristics of Miami's pattern of development and avoid the blighting of important areas through inadequate means of access.

If steps are not taken to divert to mass transportation a much larger percentage of the persons who are now



entering the central business district by other means, serious decentralization is bound to occur. While private passenger cars make it possible for shoppers and clients to go long distances to favorable markets and professional and recreational centers, they also make it possible for the same persons to go other places where the conditions are more favorable if congestion, hazard, inconvenience, discomfort, or uncertainty make access to such districts difficult. Miami faces such danger with serious threats of decentralization unless greater use is made of mass transportation in response to improved and more inviting service.

#### Better Supervision and Control Are Required

Observations were made of how nearly buses conformed with schedules during typical six hour periods at three key points in the Miami Transit System. These points were Biscayne Boulevard and 36th Street, West Flagler Street and 22nd Avenue, and Main Highway and Grand Avenue. The arrival and departure times of all buses on routes Nos. 1, 2, 3, 6, 11, 14, 15, 16, 22, and 33 were observed and recorded. These observations are summarized in Table I.

In this Table under "Scheduled Headway" are shown the time intervals in minutes at which buses are scheduled to depart at the points and in the directions indicated on the different routes. These show the theoretical performance. Under "Actual Headway Range" are shown the shortest and longest intervals between successive buses as they actually ran during the times that the observations were taken. "0" in this column indicates that at least two buses left at the same time. The larger figure in each case shows the greatest interval between successive buses during the period of observations.

Under the general heading "Conformance With Scheduled Bus Performance" are shown the details of the actual headway range - the number of buses that were on time, the number ahead of schedule, and the number behind schedule. This does not relate individual buses to their scheduled departures from the observation points, but it shows the extent to which the departures of successive buses on the individual lines conformed

TABLE I  
SUMMARY OF BUS SERVICE ON SELECTED ROUTES  
OBSERVATIONS TAKEN APRIL 8, 9, & 10, 1946 BETWEEN 12 NOON AND 6 PM

DATE	ROUTE	DIRECTION	OBSERVATION POINT	SCHEDULED ACTUAL CONFORMANCE WITH SCHEDULED BUS PERFORMANCE		WAITING TIME AFTER DUE								
				BEADWAY MINUTES	HEADWAY MINUTES	MIN.	MIN.							
4/10	1	Inbound	Grand & Main	20	14-47	5	1	2	2	11	1-28	6.0	0-28	4.3
4/10	1	Outbound	" "	20	14-48	2	2	2-3	2.5	12	1-30	6.7	0-30	6.5
4/9	2	Inbound	Flagler & 22	20	16-24	0	16	1-5	2.0	2	2	2	2-22	16.3
4/10	3	Outbound	Grand & Main	20	0-51	4	3	1-2	1.7	10	1-42	11.6	0-42	7.9
4/8	6	Inbound	Blvd. & 36 St.	8	0-17	2	19	1-50	21.0	24	1-15	8.3	0-15	4.2
4/8	6	Outbound	" "	8	0-24	0	39	1-22	9.9	4	2-6	4.0	0-21	5.7
4/8	11	Inbound	" "	15	8-21	7	4	1-5	2.0	6	1-5	3.1	0-20	4.3
4/8	11	Outbound	" "	15	2-26	1	4	1-3	2.5	13	1-23	12.0	0-23	10.8
4/8	11	Inbound	" "	7 $\frac{1}{2}$	0-15	0	15	1-10	5.5	1	1	1.0	0-12	4.6
4/8	11	Outbound	" "	7 $\frac{1}{2}$	1-17	0	0	0	0	11	6-17	11.6	0-15	6.4
4/10	14	Inbound	Grand & Main	15	4-26	6	4	1-2	1.1	7	1-11	3.3	0-16	4.5
4/10	14	Inbound	" "	7 $\frac{1}{2}$	0-16	1	0	0	0	11	7-19	12.0	0-11	3.8
4/9	14	Inbound	Flagler & 22	15	10-32	1	0	0	0	16	12-21	16.0	0-18	5.3
4/9	14	Inbound	" "	7 $\frac{1}{2}$	1-18	0	0	0	0	12	9-24	17.0	0-12	3.4
4/9	14	Outbound	" "	15	11-20	2	15	1-5	3.5	0	0	0	0-15	10.3
4/9	14	Outbound	" "	7 $\frac{1}{2}$	2-11	3	7	1-5	2.1	4	1-5	2.5	0-8	4.0
4/9	15	Inbound	" "	15	5-26	0	12	2-14	4.8	3	1-5	2.3	1-20	9.6
4/9	15	Inbound	" "	7 $\frac{1}{2}$	2-21	0	6	1-4	2.5	11	4-15	6.9	0-17	6.1
4/9	15	Outbound	" "	15	3-26	0	14	2-5	3.3	3	1-8	4.1	1-23	11.5
4/9	15	Outbound	" "	7 $\frac{1}{2}$	0-19	1	3	2-3	2.7	9	1-13	8.1	0-12	4.8
4/9	16	Inbound	" "	15	8-32	0	18	1-9	3.8	5	2-16	9.6	1-31	11.5
4/9	16	Outbound	" "	15	8-33	1	17	1-5	3.1	5	1-19	8.4	1-19	10.5
4/8	22	Inbound	Blvd. & 36 St.	20	12-36	5	1	1	1.0	14	1-22	10.5	0-27	5.3
4/8	22	Inbound	" "	10	0-19	0	0	0	0	7	9-20	13.3	0-10	5.0
4/8	22	Outbound	" "	20	14-25	0	10	1-8	2.7	5	1-4	2.0	1-22	13.3
4/8	22	Outbound	" "	10	1-24	0	1	2	2.0	5	3-12	7.0	2-22	9.1
4/10	33	Inbound	Grand & Main	20	8-49	0	6	24-66	46.6	0	0	0	3-27	12.8
4/10	33	Outbound	" "	20	14-62	0	5	31-37	33.8	1	5	5.0	3-45	19.0
4/9	Tripper	Inbound	Flagler & 22	10	6-18	3	1	1	1.0	31	7-13	10.0	0-12	3.8



with the scheduled times at which passengers at these stops could expect them to depart. For example, observations for route No. 11 outbound at Biscayne Boulevard and 36th Street showed that out of 17 buses departing during the period that the scheduled headway was 15 minutes, 1 was on time, 4 were 1 to 3 minutes ahead of schedule, averaging 2.5 minutes, and 12 were from 1 to 23 minutes late, averaging 12 minutes.

The effect of this performance on the length of time that passengers had to wait for buses after scheduled departures is shown under the general heading "Waiting Time After Due". Under "Range" are shown the minimum and the maximum lengths of time that passengers who were at the stops when buses were due, had to wait before buses departed. Under "Average" is shown the average time that passengers had to wait for buses after they were scheduled to depart. Referring again to route No. 11 outbound, opposite the 15 minute scheduled headway it is shown that passengers had to wait 0 to 23 minutes after buses were scheduled to leave before corresponding departures. Their average waiting time was 10.8 minutes.

It will be seen that the information in this Table is presented from the standpoint of the riding public rather than from that of the operation of individual buses. Substitution of one bus for another would not affect this Table except so far as a departure from scheduled service resulted.

Three important deviations from good operating practices were revealed by these observations. They are -

1. Serious irregularity of time spacings between buses.
2. Some buses running ahead of schedule and others running late.
3. Considerable variation in the loads carried by successive buses.

Running ahead of schedule is a source of serious inconvenience to passengers because they are unable to plan their arrival at bus stops in accordance with the schedules. Furthermore, this is apt seriously



to increase the load of the bus following which must receive not only its own passengers but those who miss the earlier bus because it was ahead of schedule.

More thorough supervision by the operating company is obviously necessary to keep buses running on schedule. Two important operating policies should be established and closely followed.

1. Buses should never be permitted to run ahead of schedule.
2. Lateness should be tolerated only when it results from unavoidable delays in traffic or at railway crossings.

Such improvements will make whatever schedules are established from time to time much more satisfactory and the service much more convenient and comfortable.

#### Bus Departures Should Be Staggered

The present bus schedules include several cases of two or more buses scheduled to leave the same stop in the central business district simultaneously. There are cases in which as many as four are so scheduled. This has serious disadvantages from the standpoint of bus loading and operation and it also interferes with other traffic.

Such scheduling means that several buses may have to stand in line at the curb in one block. This tends to confuse persons waiting to board them and it necessitates large groups waiting for buses to arrive.

This practice often groups buses at stops outside of the central business district, many of which are of sufficient length to accommodate only one bus at a time. This requires occasional stopping of the second bus farther out in the street or actually within the intersection. At points where only one of two or more buses needs to stop, the others will have to pass or wait in line. In the one case this results in interference with other traffic and in the other it results in unnecessary bus delays.

Staggering bus departures from downtown stops should reduce these conflicts, expedite bus operation, and improve general traffic movement, all of which are essentials of the solution of Miami's serious traffic problems. Bus departures from stops in the central business district should be re-scheduled to avoid more than one departure from the same stop at one time and to reduce the number of buses that will be at any one stop simultaneously.

#### Intercepting Loop Proposed

Nearly all bus routes in the City converge into the central business district. There is now little opportunity for transfers between lines outside of this district, excepting those that cross each other or traverse the same street. There are no other convenient and expeditious means of transferring between lines that are rather widely separated as they leave this central area.

To relieve this condition an intercepting route is recommended extending between Biscayne Boulevard and N. W. 27th Avenue along 36th Street and between N. W. 36th Street and the Coconut Grove business district along 27th Avenue. This route will provide direct transfers with 23 other routes leading in all of the different directions from the central business district.

By operating this as an express route with stops limited to the 15 transfer points, this will serve as an expeditious by-pass for the central business district. Located mainly on wide, straight thoroughfares with faster moving traffic and less chance for interruption by bridge openings and train crossings, this route should result in appreciable saving of time although an extra transfer may be necessary where two other routes are involved.

Table II shows the routes that would be intercepted by this proposed loop. Calculations based on a study of the 24,000 transfers that were made between all routes on April 12, 1946 indicate that more than 6,000 can be shifted from the central business district to the 15 outlying transfer points by the inauguration of this loop.



TABLE II

Transfer Points Along Proposed Intercepting Loop

<u>Routes</u>	<u>Transfer Points</u>
1	S. W. Grand Avenue and Main Highway
3	S. W. 27th Avenue and 8th Street
4	S. W. 27th Avenue and Coral Way
5	S. W. 27th Avenue and 8th Street
6	N. W. 27th Avenue and 36th Street
7	N. Miami Avenue and 36th Street
8	N. W. 13th Avenue and 36th Street
10	N. E. 2nd Avenue and 36th Street
11	N. E. Biscayne Boulevard and 36th Street
12	N. E. 2nd Avenue and 36th Street
13	N. W. 2nd Avenue and 36th Street
14	27th Avenue and W. Flagler Street
15	27th Avenue and W. Flagler Street
16	27th Avenue and W. Flagler Street
19	N. W. 27th Avenue and 7th Street
21	N. W. 10th Avenue and 36th Street
22	N. E. 2nd Avenue and 36th Street
23	N. W. 22nd Avenue and 36th Street
25	N. W. 17th Avenue and 36th Street
26	N. W. 7th Avenue and 36th Street
28	S. W. 27th Avenue and 8th Street
29	N. W. 10th Avenue and 36th Street
33	S. W. Grand Avenue and Main Highway

Special Route Between Negro Districts Recommended

Where practicable direct routes should be established between sections with common interests and characteristics to expedite the service and make transfers unnecessary. One outstanding example of the desirability of this is the need for direct bus service between the four negro residential districts. To provide this a route is recommended extending from the Coconut Grove negro district to Liberty City by way of the Central negro district and the Railroad Shop Addition (46th Street). The following routing is proposed:

Douglas Road, Grand Avenue to S. W. 22nd Street  
S. W. 22nd Street, Douglas Road to 12th Avenue  
S. W. 12th Avenue, 22nd Street to 9th Avenue  
S. W. 9th Avenue, 12th Avenue to 8th Avenue  
8th Avenue, S. W. 9th Avenue to 5th Street Bridge  
N. W. 5th Street, Bridge to 3rd Avenue  
N. W. 3rd Avenue, 5th Street to 20th Street  
N. W. 20th Street, 3rd Avenue to 10th Avenue  
N. W. 10th Avenue, 20th Street to 46th Street  
N. W. 46th Street, 10th Avenue to 17th Avenue  
N. W. 17th Avenue, 46th Street to Liberty Square

In addition to direct connection between these four residential districts, this provides negroes easy access to working places in Coral Gables and other areas and to the bathing facilities at Virginia Key Beach.

The service on this route should be local within the four negro residential districts, but express between the transfer points with other routes throughout the remainder of the line. The frequency of the service should, of course, depend upon the potential passenger requirements.

#### Express Service Needed On Certain Routes

The purpose of express bus service is generally to concentrate the loading of certain buses within limited areas and then run them without passenger stops for some distance, except possibly at transfer points. Thus, on a route leading to the central business district local stops would be made between the outer terminal and the point at which buses normally became loaded to capacity. From that point on to the central business district they would make no stops. Outbound, buses would run express to the same point, where they would start to make local stops. The local service on the express portion of such routes is provided by either special tripper buses or, possibly under unusual circumstances, by the buses on other lines using the same street.

The points at which buses should change from local to express operation must be determined by observation of the rates of loading and the points at which they become filled to the acceptable load factor when



inbound. For example, if buses on route No. 5 operating eastbound on S. W. 8th Street should normally become filled at 27th Avenue, it would be practicable to have them operate as express buses from there to the central business district. This would materially expedite the operation after the bus became loaded, particularly if the streets were wide and traffic in general moved rapidly.

Several factors are involved in the decision as to whether any individual route should have express service. Prominent among these are the following:

1. The load factor (the ratio of the total number of passengers to the seating capacity) is an important consideration. A high load factor, particularly at peak hours, generally means that additional service is needed.
2. If individual buses on a long route load rather quickly at one end of the line and these passengers usually go to the far end or to intermediate transfer points other stops are generally unnecessary.
3. Wide streets with fast traffic are particularly favorable to express service, while slow movement with frequent stops for signals or other traffic delays defeats its purpose.

Considering these factors, express service at the peak hours is recommended between the central business district and the points indicated on the routes shown in Table III. The load factors shown in this Table are based on approximately 18 hours of operation on all lines of the Miami Transit Company on Friday, April 12, 1946.

At off-peak hours when buses are not so promptly filled after starting from their outer destinations local service should be adequate, as fewer stops will be necessary all along the route and the number of delays will thus be greatly reduced.

TABLE III

RECOMMENDED EXPRESS SERVICE

<u>ROUTE</u>	<u>BETWEEN CENTRAL BUSINESS DISTRICT &amp;</u>	<u>LOAD FACTOR</u>	<u>CONDITIONS</u>
5	27th Avenue	146	Wide street; progressive control
6	36th Street	201	Wide street; progressive control; fast traffic
10	36th Street	155	Wide street; moderate speed
11	36th Street	122	Progressive control; wide street; fast traffic
12	36th Street	174	Wide street; moderate speed
14	27th Avenue	141	Wide street; fast traffic
15	27th Avenue	167	Wide street; fast traffic
26	36th Street	147	Wide street; moderate speed

More Frequent Service Needed

The frequency of bus service required to handle the potential load is a matter needing constant study and observation. In an area with seasonal fluctuations in traffic as great as those in Miami schedule adjustments must be sufficiently elastic to meet the changing needs.

The load factor is an important consideration in determining the need for additional service. Ordinance No. 2356, the Bus Franchise provides that the number of



standing passengers in any individual bus shall never exceed 75 per cent of the seating capacity. This means that the load factor on any bus at any time should never exceed 175 per cent. It also means that for the 18 hours of normal operation in a typical day the overall load factor should fall far below 175 per cent.

Table IV shows the load factors on all routes for approximately 18 hours of normal operation on Friday, April 12, 1946. These are arranged in order from high to low. Fifteen had load factors above 120 and twenty-three above 100. This shows an outstanding need for substantial improvement in the capacity and frequency of service rendered on many of the routes.

Such relief may be provided in either of two ways, depending on the local conditions and the possible effect of other measures recommended in this report. Buses may be run more frequently on the route in question, particularly at peak hours. Or, the entire operation may be changed, with complete re-routing of portions and/or the substitution of portions of other routes. These are operating problems the details of which should be worked out by the operating company. The objectives should be to reduce the load factors and produce safer and more comfortable operation.

TABLE IV  
LOAD FACTORS ON BUS LINES  
FRIDAY, APRIL 12, 1946

These load factors are based on approximately 18 hours of operation, omitting the so-called "Owl Service".

<u>ROUTE</u>	<u>LOAD FACTOR</u>	<u>ROUTE</u>	<u>LOAD FACTOR</u>
6	201	8	117
12	174	2	115
15	167	33	112
10	155	28	104
22	154	9	103
29	153	19	102
26	147	27	102
23	146	20	93
5	146	1	92
14	141	17	88
13	138	7	78
4	134	24	77
25	129	18	75
3	129	21	67
11	122	31	43
16	120		

Skip Stops Should Be Retained

Confronted during the war with the necessity for obtaining maximum service from all passengers carrying vehicles, the Office of Defense Transportation required transit companies to cease stopping at every intersection along routes regardless of spacing and to space stops from 500 to 1,000 feet apart.

With many short blocks and with irregular spacings of intersections, Miami faces the need for continuing measures which will provide more regular spacing of stops and reduce the number to those required for prompt and regular service. A study has been made of the effect of changing from the present skip stop plan of operation to one of designating stops at every intersection. This was based on observed stops and the number of persons boarding and alighting during the peak hour on a typical day.



Changing from the present plan of stops averaging 500 feet apart to one in which they would average 300 feet would increase the number of actual stopping points by approximate 65 per cent. Considering the probable number of stops that would be made, the reduction in the number of persons that would board and/or alight at each stop, and the time lost in more frequent stopping, it is estimated that the running time would be increased at least 10 per cent.

Since the distance between no two adjacent stops exceed 600 feet and the average is now 500 feet, little more than a long city block, it is felt that the present system presents no hardship, whereas the increased running time that would result from increasing the number of stops would make the service less comfortable and convenient. Hence, it is recommended that the skip stop plan be retained.

#### Change and Tokens Before Boarding

When bus operators have to make change or sell tokens at the major loading points in the central business district serious delays result. The passengers must be served one by one and the buses cannot start until all have boarded.

If all facilities were available for obtaining the proper change and purchasing tokens before boarding the buses at these points, all passengers could load quickly and the waiting time could be materially reduced. This would not only expedite the service but would also reduce the number of buses that would tend to accumulate at such points at any one time.

#### New Areas Must Be Served

Owing to the scarcity of materials and the restrictions on building during the war the construction of homes was retarded. Now, however, new building is starting and with further lifting of restrictions and more materials available, many sections of the City should experience extensive development. This will greatly increase the potential number of passengers and will create a rapidly growing demand for new transit service.

One of the sections in which rapid growth is now being experienced is in the vicinity of N. W. 7th Street. Another is in the western portion of the north end of the City.

Readjustment through new routes or extensions of present ones to serve these and other similar areas, are essential. These readjustments may at times have to develop more rapidly than the actual demand, in anticipation of such changes and to avoid long periods without essential mass transportation service.

#### The City Should Inspect Operations and Conditions

There is need for periodic official checking of the adequacy of bus operation and service to meet the changing requirements of the City of Miami. One example of this is the checking of the conformance of buses with schedules that was done during this survey. Other needed observations would deal with determining the need for changes and extensions in service, the designation of bus stops, and the revision of routings to meet changing requirements.

The City should establish appropriate facilities and personnel for continuing studies of this type. This should not be intended to engage in the planning of operations, which is the function of the transit company. It should, however, check the adequacy of such operations and recommend types of improvement that will make the service that is rendered meet the needs of the City more effectively.



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