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# EVALUATION

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CORALVILLE TRANSIT ROUTE STUDY

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IMPLEMENTED RECOMMENDATIONS

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FY 85

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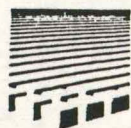
Johnson County Council of Governments



EVALUATION: THE FY85 CORALVILLE TRANSIT ROUTE STUDY  
IMPLEMENTED RECOMMENDATIONS

Prepared by: Johnson County Council of Governments  
Transportation Planning Division

March 1986



Johnson County Council of Governments

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## Introduction

The purpose of this report is to update the Coralville Transit Route Study which JCCOG and a consultant prepared in June, 1984. As a result of the 1984 study, several route changes were implemented in FY85. This report will attempt to examine the effectiveness of the FY85 service changes as well as provide an overall statistical update of Coralville Transit.

During 1983 and 1984 Coralville Transit was experiencing severe overcrowding during peak periods, which led to other problems such as poor schedule adherence and lack of driver breaks. In October 1983 the City contracted with Mr. Al Baker, a transit consultant and former Coralville Transit Manager, to develop a set of interim measures to relieve the overcrowding. As a result of his recommendations, the Special and Express routes were modified to better serve the Lantern Park area as well as provide new service to the Boston Way area. Mr. Baker also recommended that an overall, in-depth route study be undertaken which resulted in the 1984 JCCOG study.

At the direction of the City Council, the 1984 report recommended several service changes while still staying within the established transit budget. In other words staff was told to provide a better service level but to stay within the existing resources. In order to accomplish this, the Council made a decision to provide a higher service level to the most dense areas of the community at the expense of the less dense, outlying areas.

Several problems were identified which the 1984 study attempted to mitigate. These included overcrowding during peak periods, poor on-time performance, lack of transit service to newly developing areas, and funding constraints.

After reviewing several alternatives, one set of recommended service changes was adopted by the City Council and subsequently implemented. The changes were as follows:

**1. Tenth Street/Lantern Park Route (Figure 1)**

Remove the "LeChateau loop" from the Tenth Street route and eliminate the loop around City Hall from both routes. Both routes were shifted from Tenth Avenue to Twelfth Avenue between Seventh and Eighth streets. Finally, one additional trip for each route was added between 2:00 and 2:30 p.m. and a 6:45 p.m. trip was added to the Lantern Park route.

**2. Express Route (Figure 2)**

The Express route was modified so that certain trips serve Western Hills and other trips serve Knollridge Gardens. This resulted in several additional trips being added to the schedule. Also the newly constructed portion of Tenth Street was used to provide service into Boston Way. These changes provided additional service to the Lantern Park area as well.

# CORALVILLE

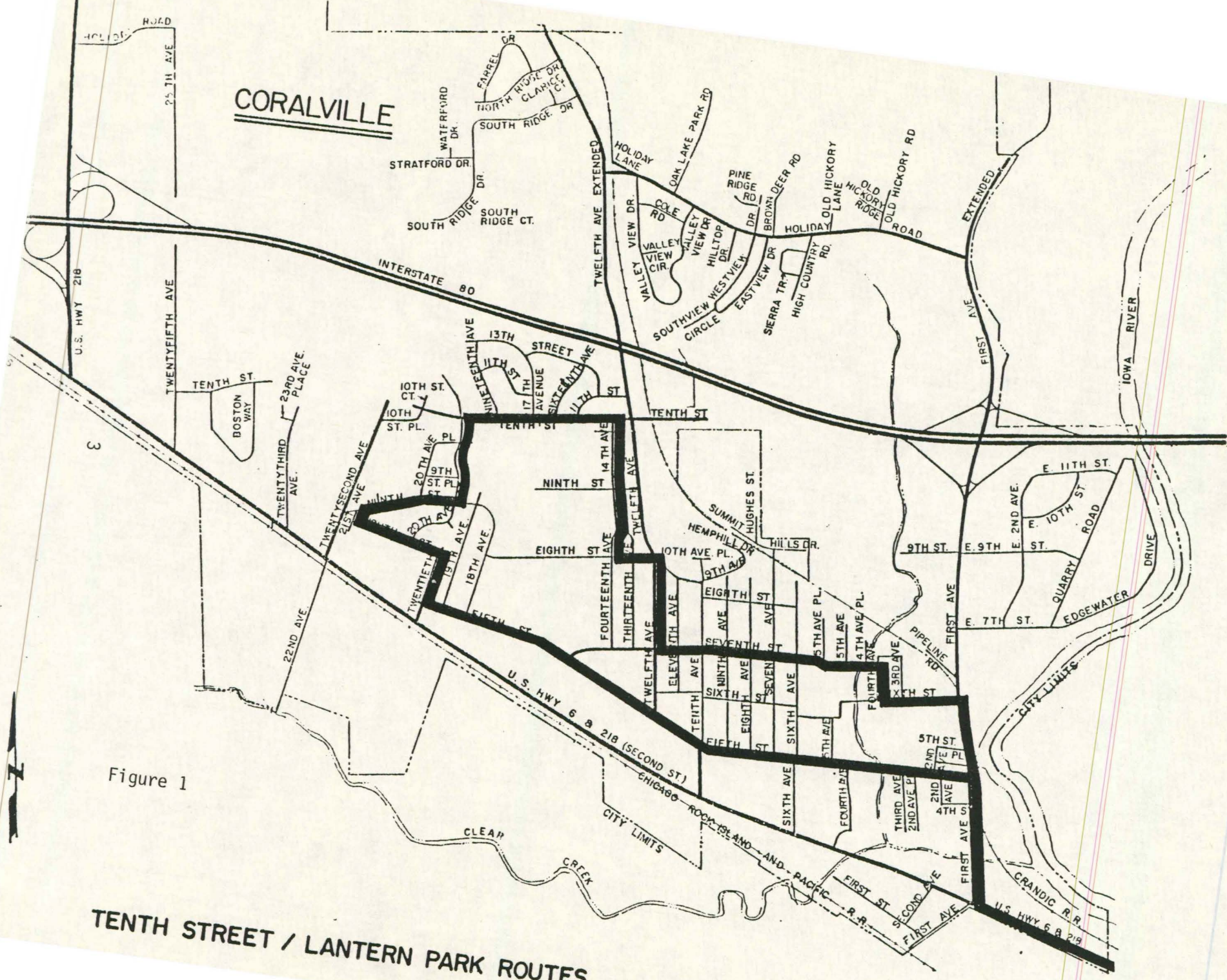
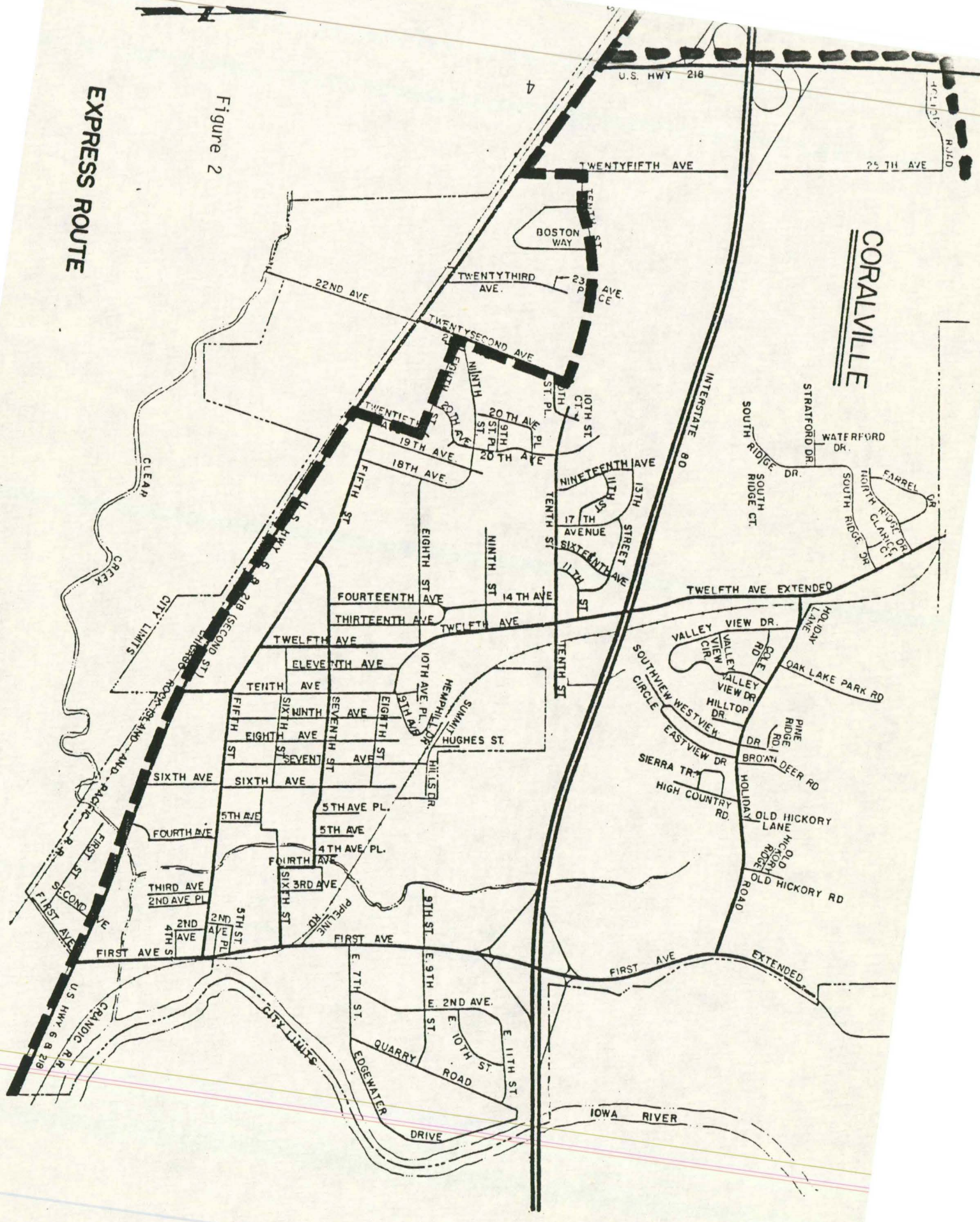


Figure 1

TENTH STREET / LANTERN PARK ROUTES

**EXPRESS ROUTE**

Figure 2



**CORALVILLE**

### 3. First Avenue Route (Figure 3)

The most significant changes were made to this route. Rather than going out on First Avenue across Holiday Road and back in on Twelfth Avenue-Highway 6, the route was converted into an "out and back" arrangement. The bus now turns around at Northridge and continues back in on Holiday Road and First Avenue. In both directions this route provides front door service to the Scotch Pine/Scotsdale apartment complexes, thus providing relief to the Tenth Street/Lantern Park routes.

### 4. Special Route (Figure 4)

The Special route was changed to provide front door service to LeChateau Apartments followed by a loop around City Hall and adjoining apartment complexes.

### 5. Saturday and Night Routes (Figure 5)

Minor changes were made in the 12th and 14th Avenue areas.



# CORALVILLE

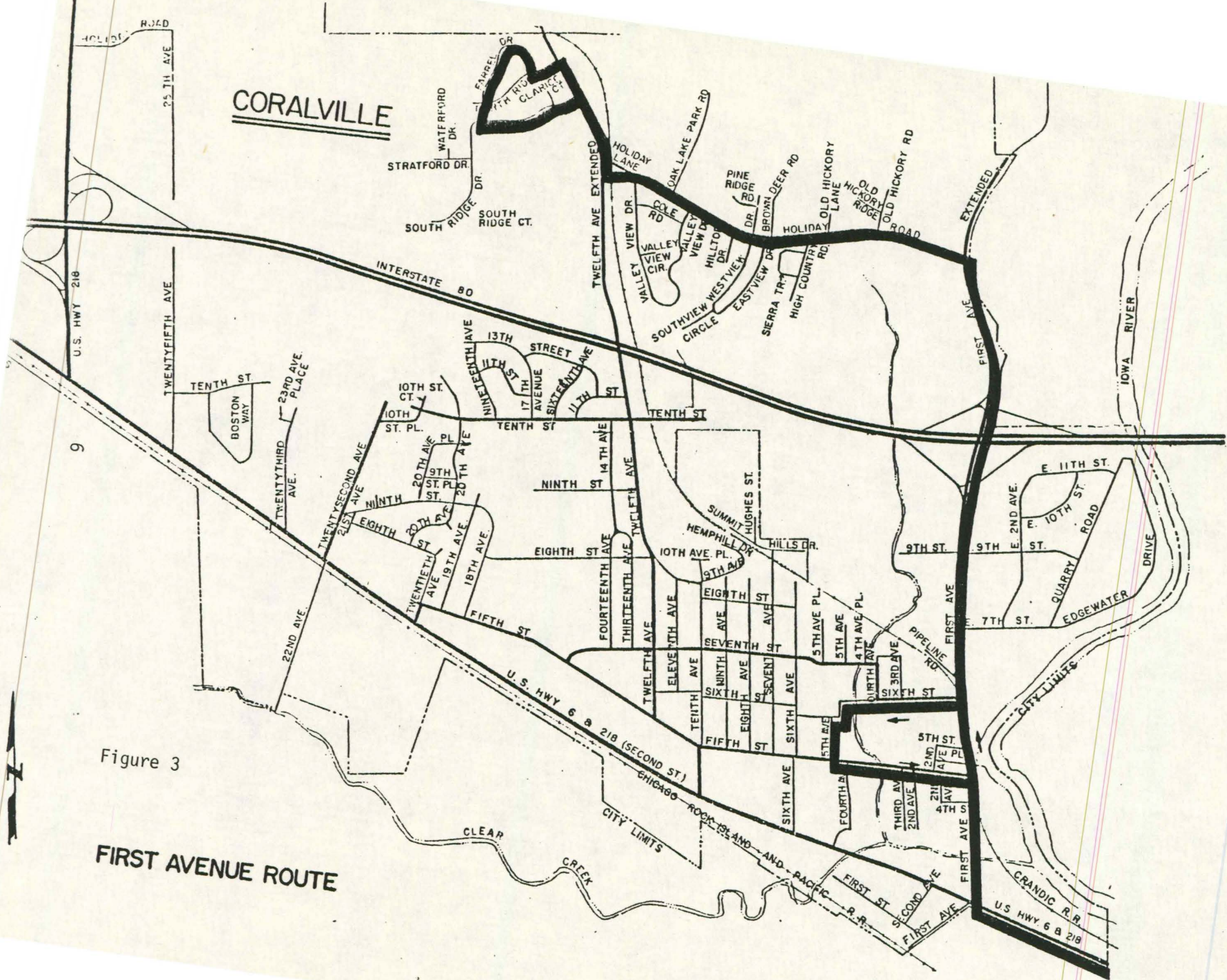


Figure 3

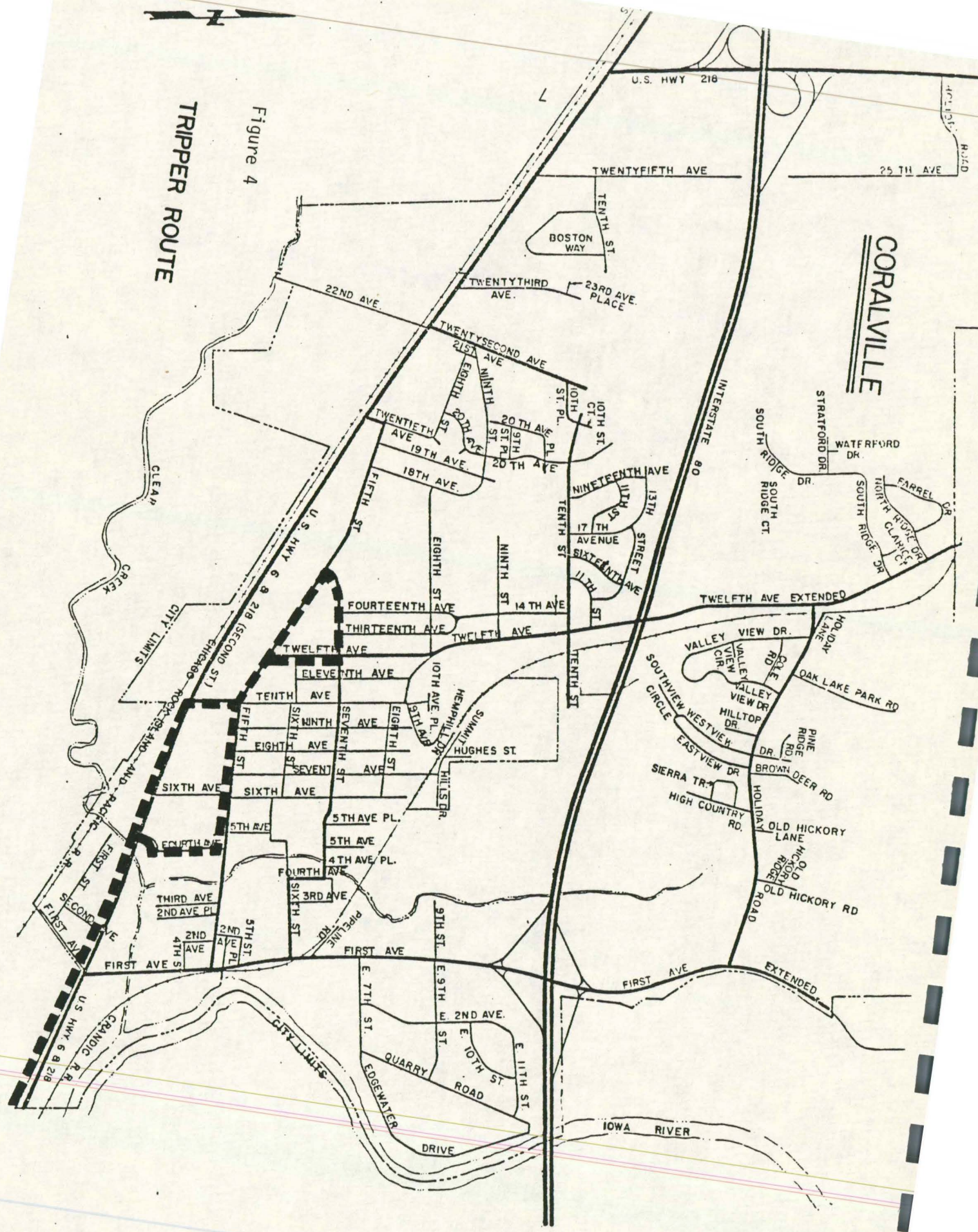
FIRST AVENUE ROUTE



TRIPPER ROUTE

Figure 4

# CORALVILLE



U.S. HWY 218

25 TH AVE

TWENTYFIFTH AVE

BOSTON WAY

TWENTYTHIRD AVE.

22ND AVE

TWENTYSECOND AVE

TWENTIETH AVE

19TH AVE.

18TH AVE.

FOURTEENTH AVE

THIRTEENTH AVE

TWELFTH AVE

TENTH AVE

ELEVENTH AVE

SIXTH AVE

SIXTH AVE

SIXTH AVE

FOURTH AVE

THIRD AVE

2ND AVE PL

4TH AVE

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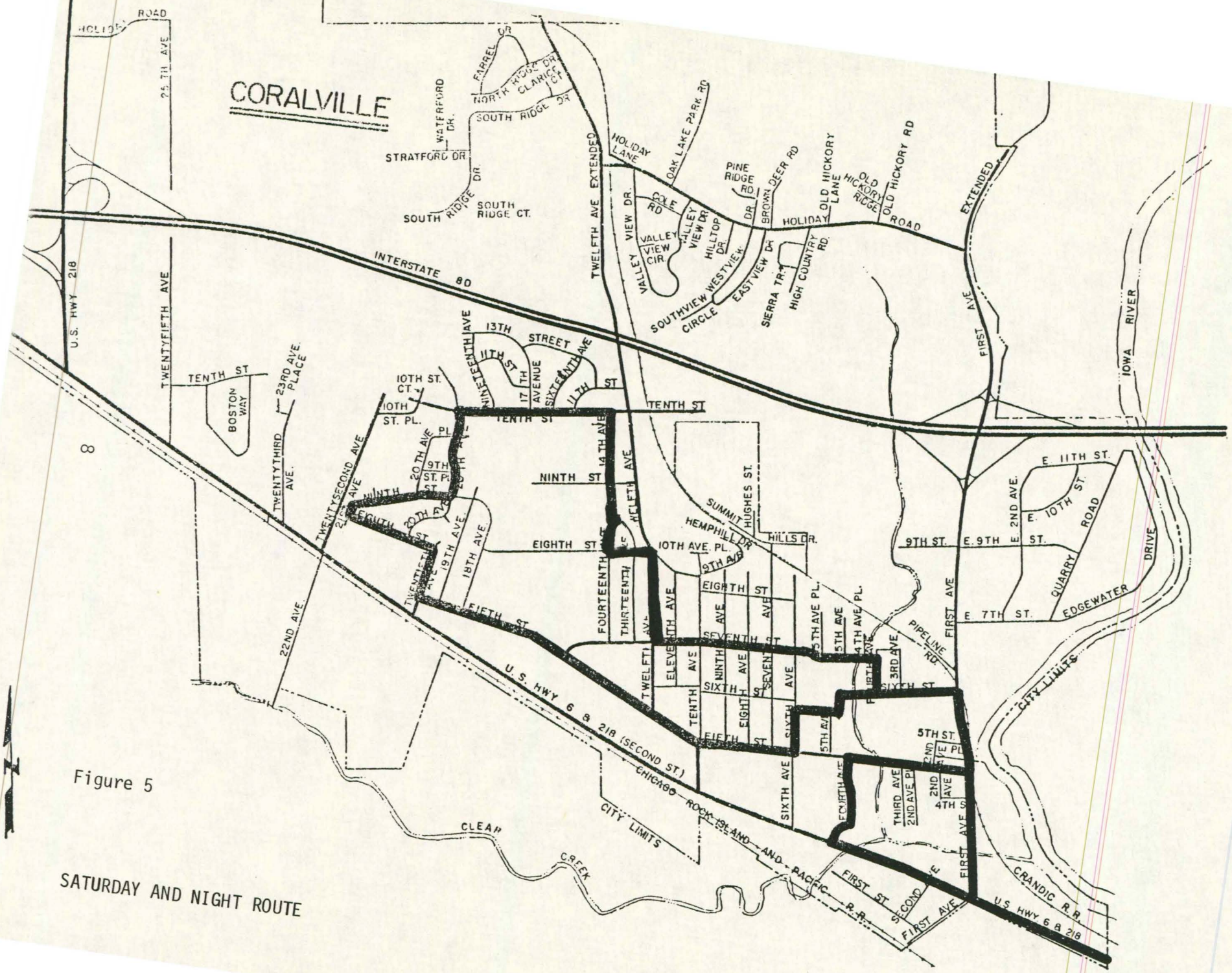


Figure 5

SATURDAY AND NIGHT ROUTE

## Statistical Information Update

Table 1 displays total Coralville Transit ridership for fiscal years 80-85. A slight decrease in ridership was experienced in FY82 which is probably due to the effects of the fare increase from 35 cents to 50 cents on April 1, 1981. However, ridership once again continued to rise each year until FY85 when it dropped 11.8% compared to FY84. While it is difficult to identify specific causes for this decline, the JCCOG Transportation Planning staff feels it is due to a combination of factors. First is the stabilization and slight decrease in the cost of gasoline; the public has grown used to paying over a dollar per gallon for gasoline and thus it is no longer a strong incentive to use mass transit. Second, the large increase in the number of apartments adjacent to downtown Iowa City and the UI campus has created a shift toward University students living closer in. Third, University enrollment has tapered off and stabilized. Fourth, the high ridership in FY83 and FY84 led numerous transit patrons to experience severe overcrowding on the bus which caused them to use alternative transportation means. And, finally, the winters have been less severe which has decreased the public's propensity to use mass transit. This decrease in Coralville Transit ridership is consistent with the ridership trends of Iowa City Transit and University of Iowa CAMBUS during this same period.

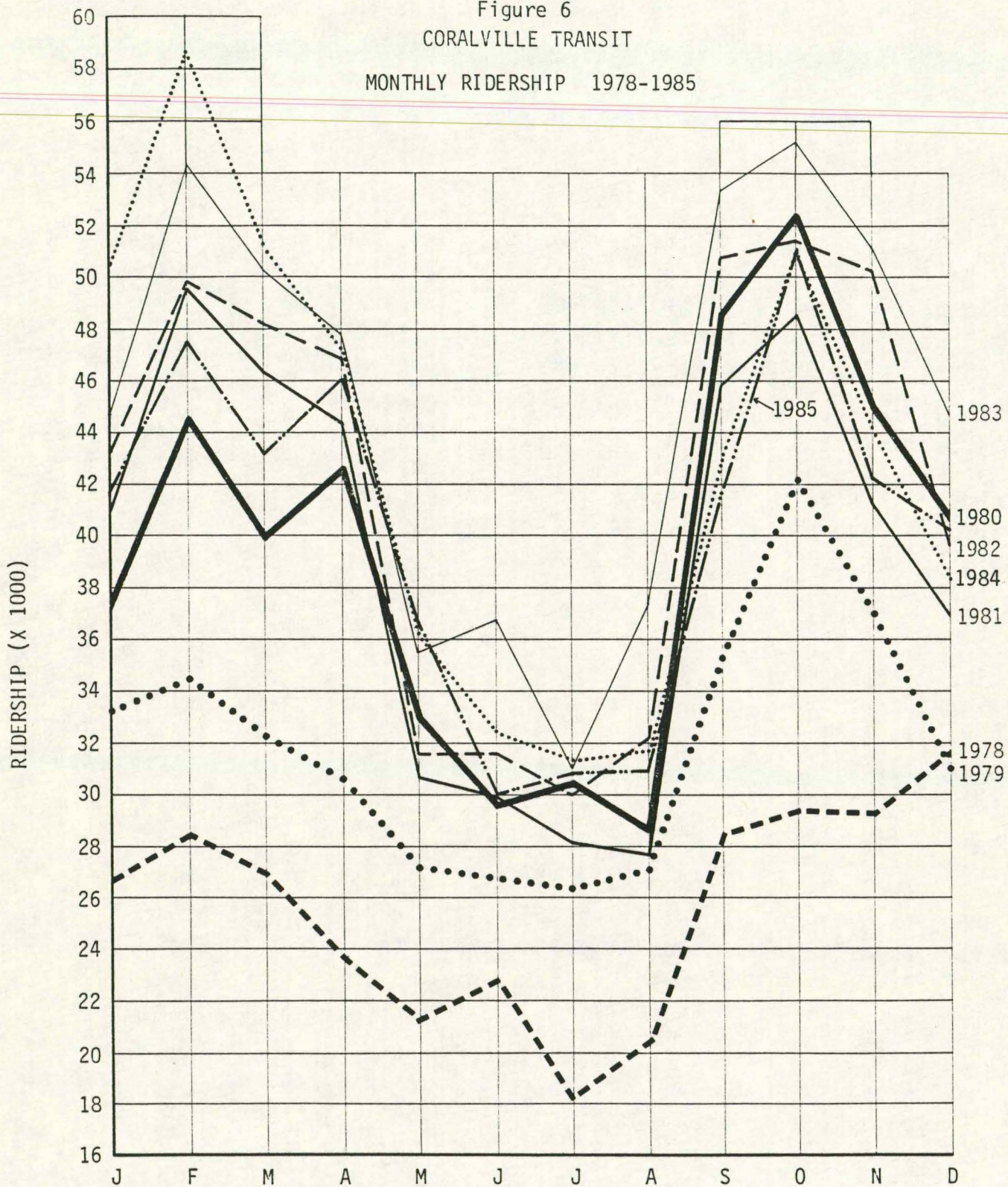
Figure 6 displays the monthly ridership for Coralville Transit from 1978 to 1985. Ridership in 1984 was on the increase during the spring semester and then began to taper off during the summer and fall semesters. The first quarter of 1985 experienced significant decrease in ridership. Most

Table 1  
CORALVILLE TRANSIT

Total Ridership  
FY80 - FY85

	<u>Total Ridership</u>	<u>% Change from Previous Year</u>
FY80	426,039	-
FY81	486,976	+14.3%
FY82	481,541	(1.1%)
FY83	524,364	+8.9%
FY84	547,487	+4.4%
FY85	483,123	(11.8%)

Figure 6  
CORALVILLE TRANSIT  
MONTHLY RIDERSHIP 1978-1985



likely this can best be explained by the mild winter not encouraging more persons to use transit. The remainder of 1985 continued at approximately the 1984 ridership level.

Table 2 indicates the average monthly ridership for the years 1983-1985 and the percentage change between years. All routes experienced ridership declines during this period except for the Express route which increased 27.2 percent. This significant increase can be explained by the improved service to the Lantern Park and Boston Way areas. This indicates that the changes made to the Express route are achieving their intended purpose of relieving ridership congestion on the Tenth Street/Lantern Park routes. The other routes declined by percentages similar to the overall system ridership decline. The large percentage decline in the Special route is misleading due to the low numbers involved: the 28% decline is only a decrease of 558 riders. A portion of this decrease can be explained by the fact that the number of Special trips in the afternoon peak was cut from three to two in the late summer of 1985. A portion of the decrease in the Night route can be explained by the addition of the 6:45 p.m. Lantern Park trip.

Table 3 indicates the percentage of total ridership for each route during 1983-1985. Except for the decrease in the Lantern Park/Tenth Street routes and an increase in the Express route, the percentages remained stable. Again, this can be explained by the Express and First Avenue routes providing relief to the Lantern Park/Tenth Street routes. The fact that the First Avenue route remained constant over this period appears to indicate that the number of new riders from the Scotsdale/Scotch Pine area

Table 2  
CORALVILLE TRANSIT  
Ridership by Route  
1983 - 1985

Average Monthly Ridership

<u>Route</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>% Change 83 - 85</u>
Lantern Park-Tenth St.	27,272	24,298	23,135	(15.2%)
Express	4,970	6,908	6,322	+27.2%
First Avenue	4,234	3,939	3,719	(12.2%)
Night	5,118	4,596	4,031	(21.2%)
Saturday	1,934	1,900	1,780	(8.6%)
Special	1,962	1,604	1,404	(28.4%)
	<u>45,490</u>	<u>43,245</u>	<u>40,391</u>	<u>(11.2%)</u>

Table 3  
CORALVILLE TRANSIT  
Percent of Total Ridership By Route  
1983 - 1985

<u>Route</u>	<u>Percent of Total Ridership</u>		
	<u>1983</u>	<u>1984</u>	<u>1985</u>
Lantern Park/Tenth Street	61	56	57
Express	11	16	16
First Avenue	9	9	9
Night	11	11	10
Saturday	4	4	4
Special	4	4	4
	<u>100%</u>	<u>100%</u>	<u>100%</u>



using the First Avenue route is approximately equal to the number of riders using the deleted portion of the previous route structure (Twelfth Avenue). Previous riders along the deleted portion of the First Avenue Route can now take advantage of other routes.

Table 4 indicates the average weekday boardings for the entire system by time period. These figures are averages for the month of October, 1984 and 1985. Approximately 72 percent of the Coralville Transit ridership is during the morning and afternoon peak periods. Twenty percent is during the mid-day and eight percent is at night.

Table 5 displays the average fare for Coralville Transit during fiscal years 1980-1985. The fare increase on April 1, 1981, from 35 cents to 50 cents caused an approximate 12 cent increase in average fare. The average fare is always less than the actual fare due to persons using monthly bus passes and transfers as well as elderly and handicapped persons riding for free.

Table 4  
CORALVILLE TRANSIT  
Average Boardings By Time of Day  
1984 - 1985

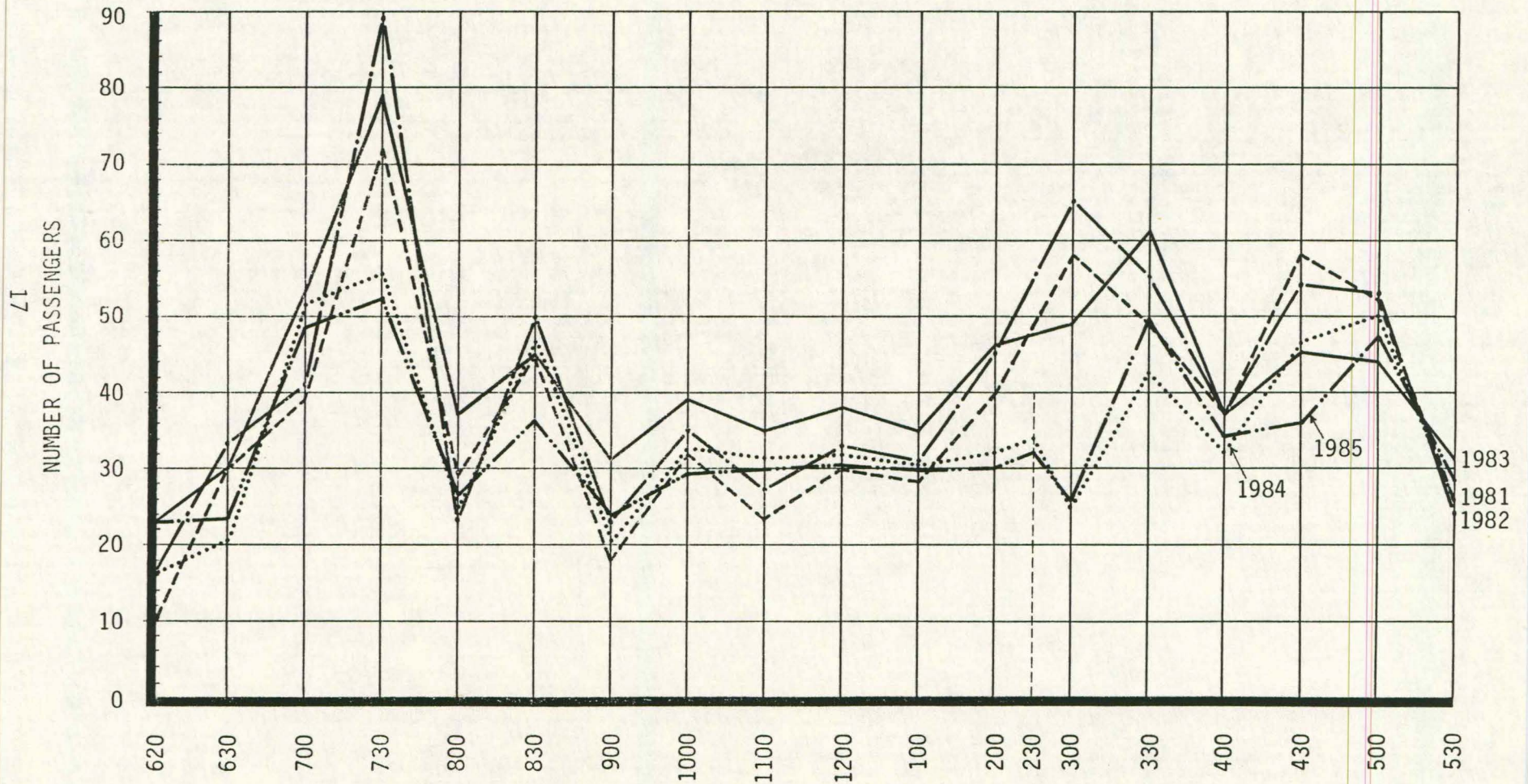
<u>Time Period</u>	<u>Average Number of Boardings</u>	
	<u>1984</u>	<u>1985</u>
Start Up - 9:05 A.M.	736 (34.7%)	714 (34.7%)
9:30 - 2:15 P.M.	432 (20.4%)	414 (20.1%)
2:30 - 6:45 P.M.	779 (36.8%)	769 (37.3%)
7:10 - end of service	173 ( 8.1%)	163 ( 7.9%)
	<u>2,120 (100%)</u>	<u>2,060 (100%)</u>

Table 5  
CORALVILLE TRANSIT  
Average Fare  
FY80 - FY85

<u>Year</u>	<u>Fare Revenue</u>	<u>Ridership</u>	<u>Average Fare</u>
FY80	\$126,737	426,039	\$.2975
FY81	\$151,823	486,976	\$.3118
FY82	\$199,078	481,541	\$.4134
FY83	\$213,250	524,364	\$.4067
FY84	\$218,954	547,487	\$.3999
FY85	\$198,423	483,123	\$.4107

Figures 7 through 12 display the average number of passenger boardings by time of day for each route during 1981 through 1985. These averages are for the month of October of each year. Two trends are obvious from these graphs. First, the overall ridership decline is evident over the course of the entire day on all routes except the Express. Second, the sharp peaks in ridership on the Lantern Park and Tenth Street routes have been decreased by the 1984 service changes. For instance, the 7:30 a.m. Tenth Street ridership significantly decreased in 1984 and 1985 indicating the impact of the improved Express and First Avenue service. Similarly, the 2:30 and 3:00 p.m. Lantern Park and Tenth Street peaks have been decreased by the added afternoon trips.

Figure 7  
 AVERAGE DAILY BOARDINGS  
 TENTH STREET ROUTE (OCTOBER)



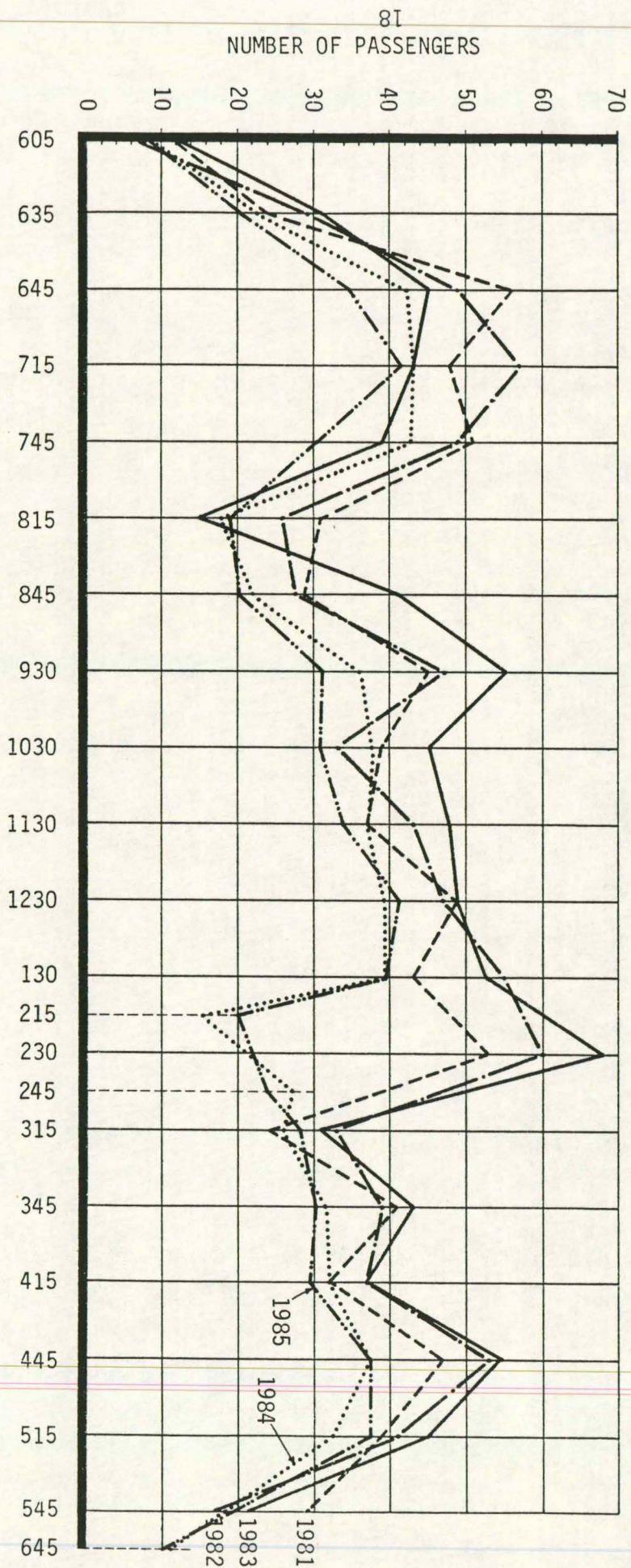


Figure 8  
AVERAGE DAILY BOARDINGS  
LANTERN PARK ROUTE (OCTOBER)

Figure 9  
AVERAGE DAILY BOARDINGS  
FIRST AVENUE ROUTE (OCTOBER)

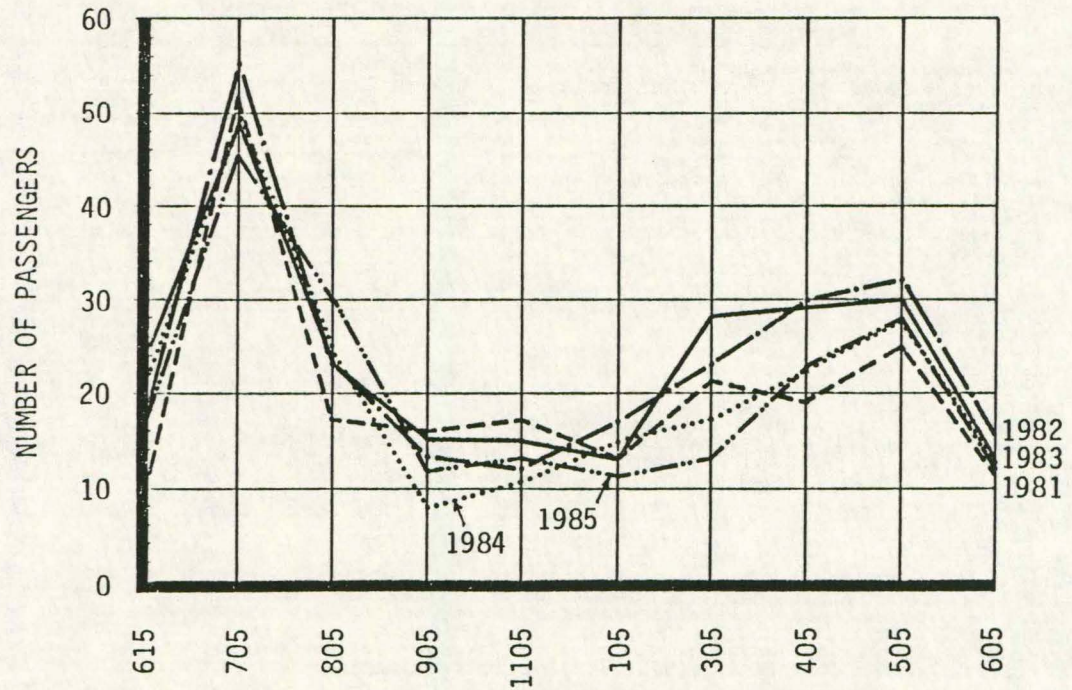
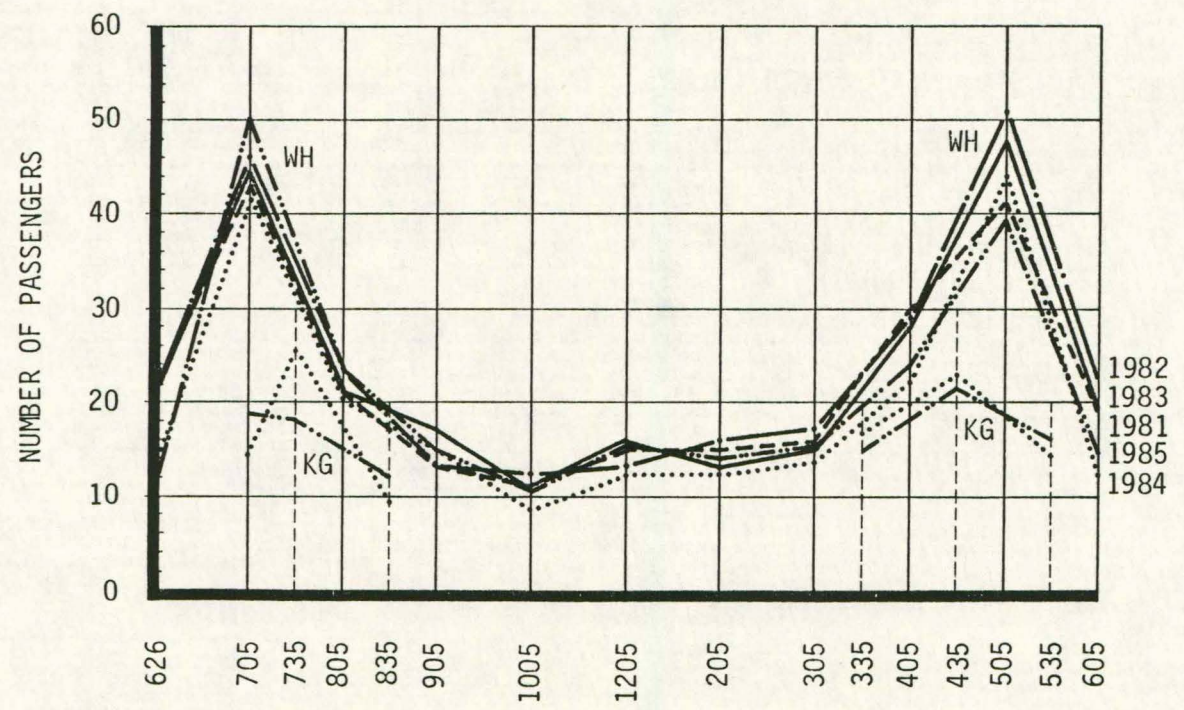


Figure 10  
 AVERAGE DAILY BOARDINGS  
 EXPRESS ROUTE (OCTOBER)



WH: Western Hills Express  
 KG: Knollridge Gardens Express

Figure 11  
AVERAGE DAILY BOARDINGS  
EVENING SERVICE (OCTOBER)

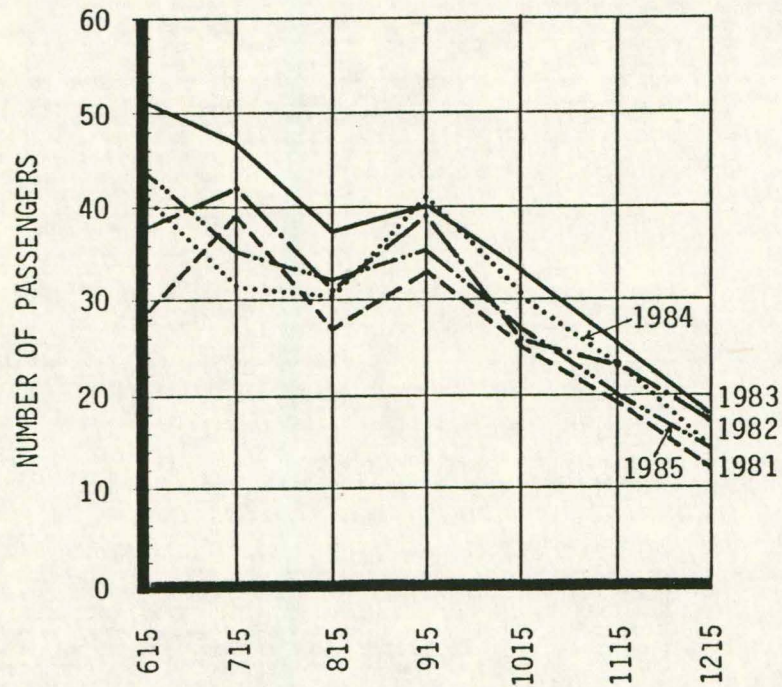
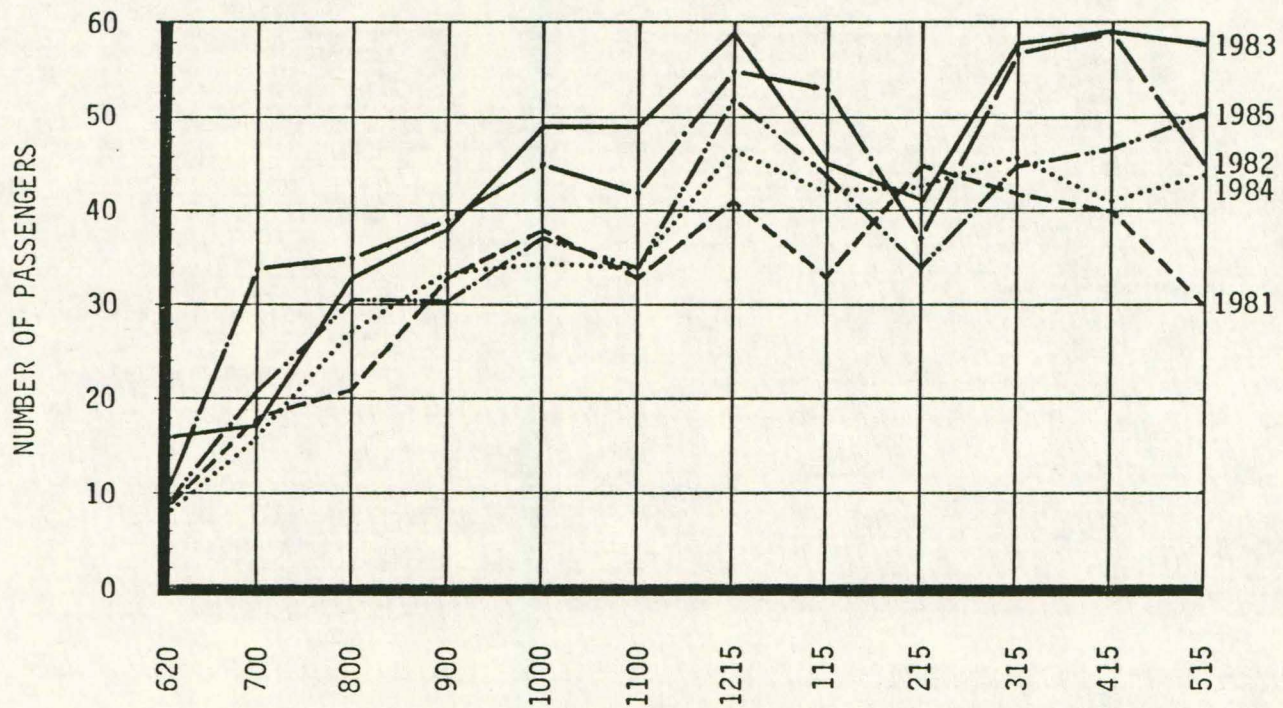




Figure 12  
AVERAGE DAILY BOARDINGS  
SATURDAY SERVICE (OCTOBER)



Summary: Effectiveness of the FY85 Service Changes

The decrease in overall Coralville Transit ridership should not be construed as indicating the FY85 service changes were not effective. It is the opinion of the Transportation Planning staff that these decreases are due to outside factors as demonstrated by the fact that Iowa City Transit and CAMBUS also are experiencing ridership decreases.

It appears that the intent of the FY85 service changes were achieved. Clearly the Express and First Avenue Routes are relieving ridership overcrowding on the Lantern Park/Tenth Street routes. A regular user of the Lantern Park/Tenth Street routes has observed that in the morning peak period the First Avenue route is successful in providing relief to the Scotsdale/Scotch Pine area.

The overcrowding previously experienced on the 2:30 and 3:00 p.m. Lantern Park/Tenth Street route has been diminished by the added trip on each route during this period. Similarly, the added 6:45 p.m. Lantern Park trip has decreased the overcrowding on the 6:15 p.m. Night bus.

Service was eliminated in these areas as part of the FY85 service changes: The LeChateau loop on the Tenth Street Route, the City Hall loop on the Lantern Park and Tenth Street Routes, and the Industrial Park loop on the First Avenue Route. There has been no adverse reaction to these changes from the public.

Overall, the on-time performance of Coralville Transit has increased from 52% on-time arrivals before the changes to 69% on-time after the changes. This percentage should continue to improve when the bridge construction over the Iowa River in Iowa City is completed. The Transit Manager indicates that the drivers are now able to take more of their scheduled breaks than before the changes.

Coralville Transit appears to be currently operating in a satisfactory manner. On-time performance is acceptable and relatively few trips are missed. The declining ridership trend is a serious concern which must be continually monitored. However, it is the opinion of the Transportation Planning staff that the most significant reasons for this decline are beyond the control of local officials. Until there is a substantial increase in motor fuel costs, it will be difficult to attract persons away from the convenience of their automobiles. A base level of marketing is currently being initiated by Iowa City Transit to promote the public's awareness and improve the image of transit. Coralville officials may wish to consider participating in this program.

The full occupancy of the Rockwell International facility in Coralville may provide an opportunity for Coralville Transit to boost its ridership. This should be further examined with Rockwell officials at the appropriate time. The extension of Old Highway 6 may also present some new routing opportunities.

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