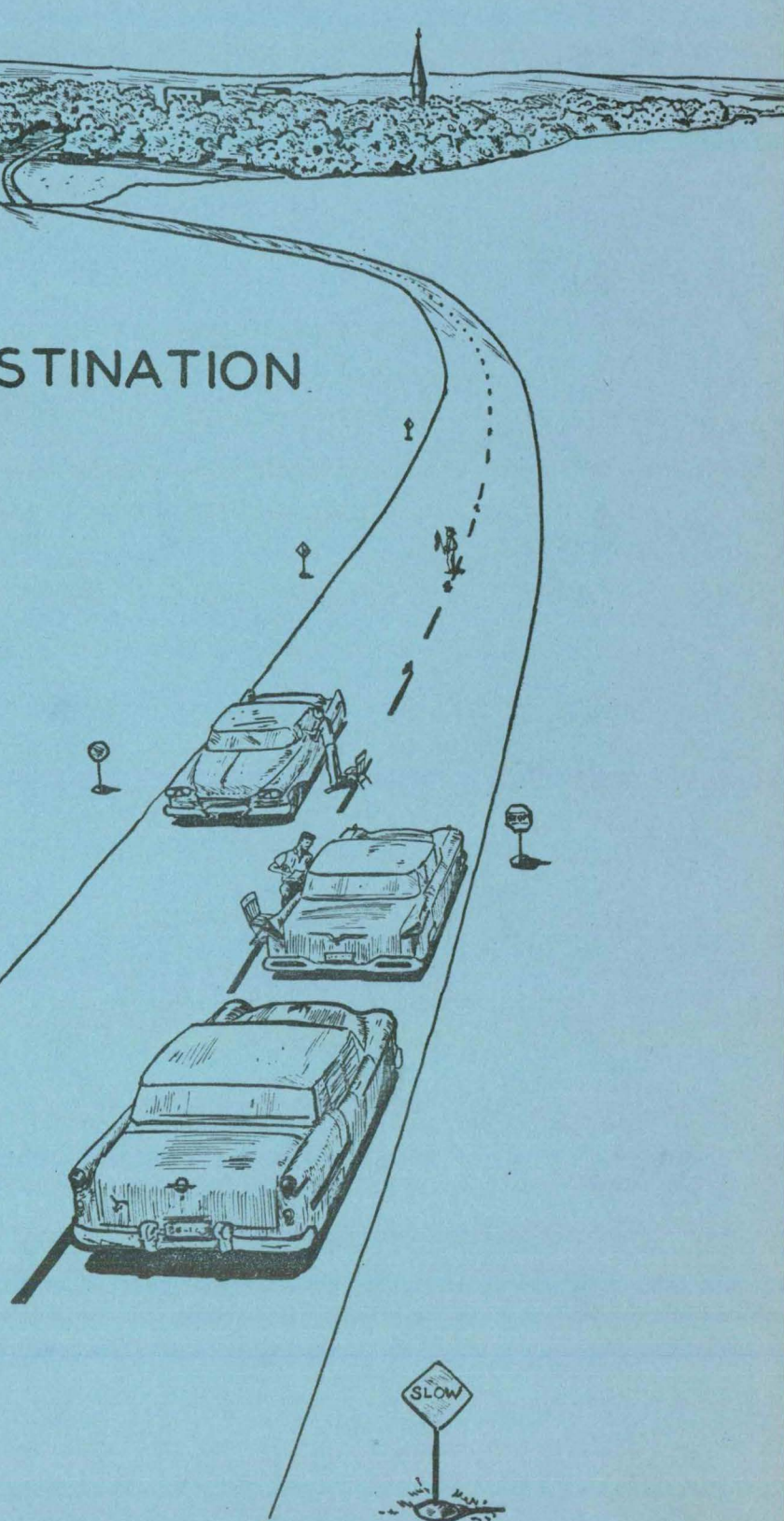


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# BLOOMFIELD

## ORIGIN AND DESTINATION STUDY

INTERVIEW  
STATION





Bloomfield Corporate Area  
Origin and Destination  
Traffic Survey

April 1959

Prepared By  
Highway Planning Section  
Safety and Traffic Department  
Iowa State Highway Commission  
In Cooperation With the  
United States Bureau of Public Roads

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## DEFINITIONS

### Urban Area

An area including and adjacent to a municipality or other urban place of 5,000 or more population as shown by the latest available census.

### Corporation Line

A hypothetical line delimiting the municipal area and often called the City Limits.

### Urban or Corporate Area Traffic Survey

A survey of highway travel designed to collect detailed information concerning trip origins and destinations within a selected urban or corporate area.

### External Survey

A study in which trip data is obtained by interviewing motor vehicle operators intercepted at external stations.

### External Station

An interview point located on a principal rural highway which crosses the corporation or urban area line. It is always set up outside of the urban or corporate area, but as close as is practical and possible to the line delimiting this area.

### Tract

One of the several homogeneous sections into which the study area is divided.

### Central Business District (CBD)

The section containing the concentrated commercial and retail business center, in most cases, tract 001.



Trip

A one-way journey between a point of origin and a point of destination.

Origin

The stated beginning point of a single trip.

Destination

The stated terminating point of a single trip.

External Local Trip

A trip with either the point of origin or the point of destination located within the corporate limits, the performance of which trip involves travel through an external interview station.

External Through Trip

A trip with both points of origin and destination located outside the corporate limits, the performance of which trip involves travel through an external interview station and into, through, and out of the corporate or urban area.

Duplicated Through Trips (Duplicates)

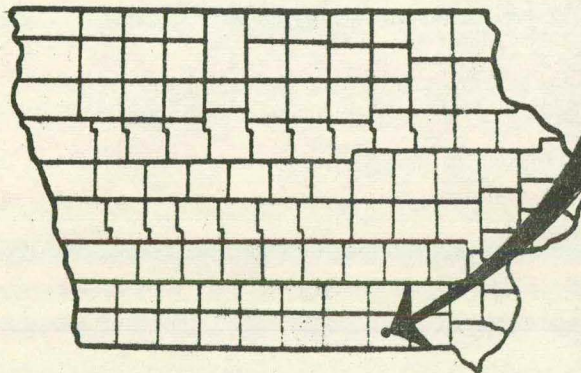
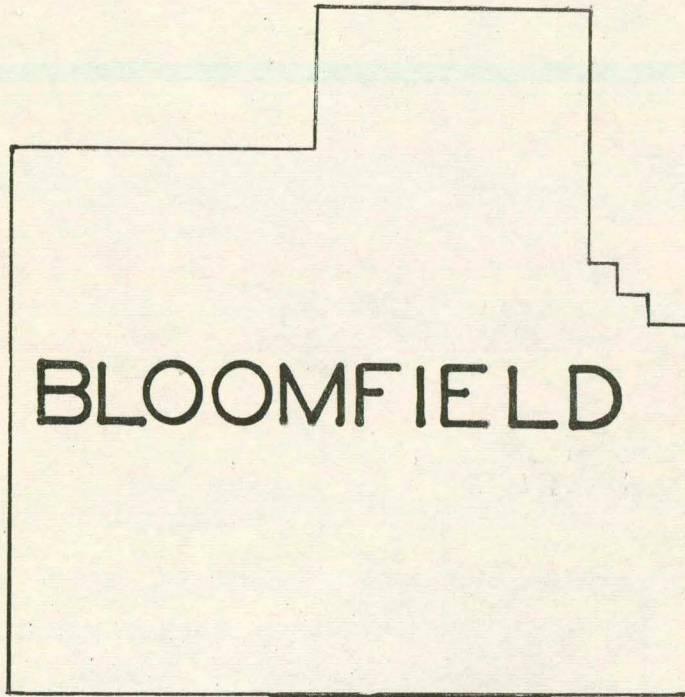
Trips traveling completely across the urban or corporate area, and thereby passing through two interview stations.

Average Weekday

This includes Monday through Friday inclusive.



PART I  
SUMMARY





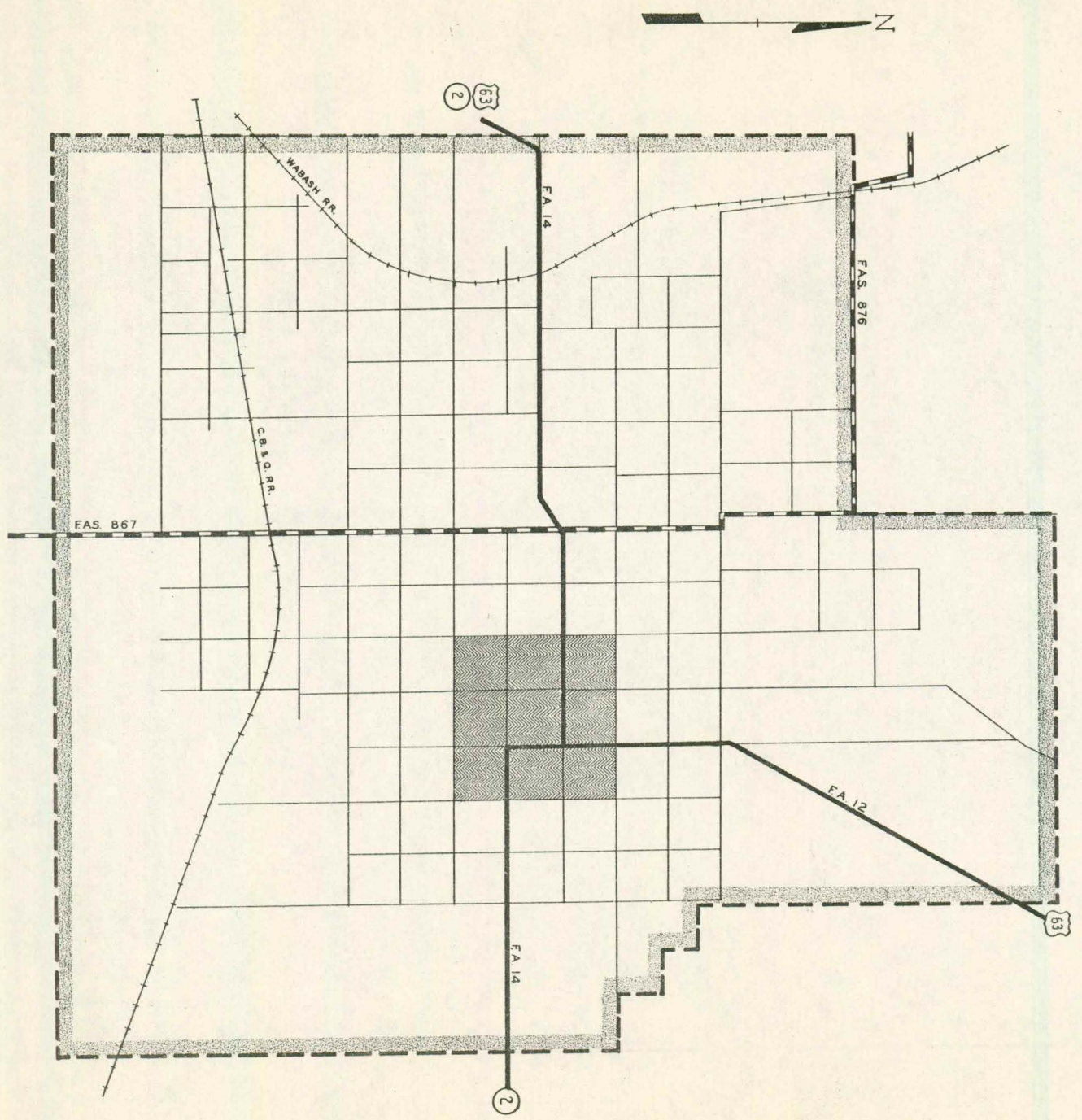
This report of the Bloomfield Corporate Area Traffic Survey describes briefly the characteristics of the corporate area pertinent to the local problem of highway transportation and presents and analyzes the data gathered in the survey. All trip data obtained in the survey are presented in terms of the number of trips per day. They are classified by the origins and destinations of these trips and by the areas within the city, to which and from which they were made. The only information obtained was from those trips crossing the city limits, and this was done by maintaining roadside interview stations at the entrances of the principal rural highways into the city. These trips, for which the data were obtained, may be defined as "rural trips." Knowledge of the number of "urban trips" or "intra-city trips" is not available in this external type survey.

For this particular study, information was gathered by interviewing 76.95 per cent of the average weekday traffic. After the expansion of this information it was found that for an average weekday in June 1958, a total of 5,313 trips crossed the Bloomfield city limits. Out of this total 37.95 per cent were external through trips which traveled via the central business district.

Of all trips passing through the interview stations 32.86 per cent had termini in the central business district. However, another 13.44 per cent of the total had termini in the residential and intermediate areas between the station and the central business district. In addition to this, the final consideration is given to 837 trips, or 15.75 per cent of the total number of trips passing through all interview stations, with routes via and termini beyond the central business district.



PART II  
HISTORY AND CHARACTERISTICS  
CITY OF BLOOMFIELD





A. HISTORY

The Davis County limits were defined in 1843 and the town of Bloomfield was platted April 29, 1844. The county was nicknamed the "Hairy Nation" by people passing through the area because many of the early settlers were unshaven. John Lucas, the town's first merchant, arrived in 1844. Carpenter and Davis, and Samuel Steele and Company opened mercantile firms during the same year. Three names, Bloomfield, Davis, and Jefferson were placed in a hat and Bloomfield was selected as the community's name in 1846.

Mrs. Reverend Gibson, the town's first teacher, opened a school in a private home west of the northwest corner of the public square. Also that year the post office was moved from Lewiston to Bloomfield.

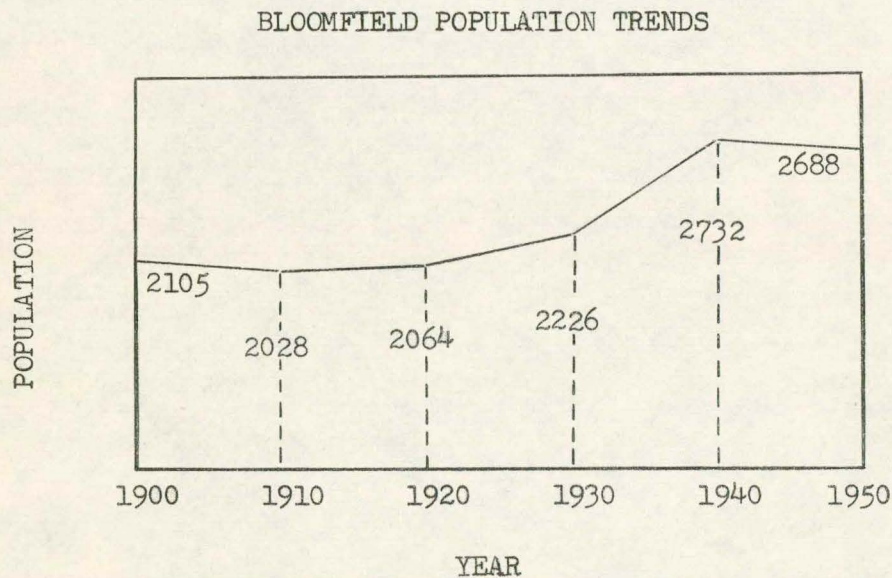
In 1849 Captain Hosea B. Horn erected the first frame dwelling. All homes previously constructed in Bloomfield were log cabins. The town of 300 inhabitants was incorporated in 1852, and William L. Oliver was elected the first Mayor in 1855.

Bloomfield's first newspaper, the Davis County Republican, was established in 1863. In 1868 the Board of Supervisors began searching for an upper story of a building to house county offices. Courts are still held in the structure they originally selected on the north side of the park. A second newspaper, The Bloomfield Democrat, was first printed September 16, 1869. The following year it was enlarged to an eight column paper. The Commonwealth, a Republican weekly, was established by Moore and Van Benthussen in 1873 and is still operated by the same firm.

General James B. Weaver made his home in Bloomfield and served three



terms as a Congressman. He was nominated for President of the United States in 1880 by the Greenback Party and by the People's Party in 1892. There were 2,105 residents in the town in 1900 and its largest population growth occurred in the thirties. The changes in the town's population is illustrated below.



B. CHARACTERISTICS

Bloomfield is located in the third county west of the Mississippi River on the Iowa-Missouri border. It is the county seat of Davis County and is situated in gently rolling terrain.

The corporate boundaries fit roughly in a rectangular outline with the longer axis running north and south. Bloomfield's central business district is located east of the center of the corporate area. Two industries located in the city are the Barker Manufacturing Company and Nockonwood, Inc. They manufacture poultry processing equipment



and baby playpens respectively.

Transportation facilities serving the community include two railroads. The Chicago, Burlington, and Quincy crosses the southern half of the city, and the Wabash Railroad passes through the west part of Bloomfield. Two primary highways cross the city. Combined Ia. 2 and U.S. 63 crosses the west corporation line and continues easterly to an intersection in the central business district. At this point U.S. 63 turns north and continues north and northeasterly out of the city. Ia. 2 continues on one block south of the intersection and then turns east and runs easterly out of Bloomfield.



**SURVEY PRESENTATION**  
**PART III**

Municipal  
 Traffic Surveys  
 Origin and Destination Operations  
 Information to Field Personnel  
**Section 1. Procedures for collection of data**

- 1. Purpose and Scope**  
 The origin and destination of traffic entering the survey area is to be determined by observation in selected areas of the survey area. The origin and destination of traffic entering the survey area is to be determined by observation in selected areas of the survey area.
- 2. Location of Station**  
 The origin and destination of traffic entering the survey area is to be determined by observation in selected areas of the survey area.
- 3. General Instructions**  
 Each station will be operated by the field supervisor in person or by a trained operator.
- 4. Signage**  
 A portable sign will be used to direct traffic to the station.

Form QO-14-504-4-57-11078  
PS 22700-19

IOWA STATE HIGHWAY COMMISSION  
 DEPARTMENT OF SAFETY AND TRAFFIC  
**QUESTIONNAIRE AND CODING SHEET FOR EXTERNAL ORIGIN AND DESTINATION DATA**  
 URBAN AREA TRAFFIC SURVEYS

STATION NO. \_\_\_\_\_ CITY \_\_\_\_\_

DATE \_\_\_\_\_ HOUR \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_

INTERVIEWER \_\_\_\_\_

Serial Number	Type of Vehicle	REGISTRATION		Number of Occupants	ORIGIN Address or City and State	DESTINATION Address or City and State	O-D Class and Direction	Type Purpose	ROUTE USED	
		State	County						Entering City	Leaving City

**FINAL REPORT**  
 Urban Area  
 Origin and Destination  
 Traffic Survey

March 1959

Prepared by Division  
 Highway Planning and Traffic Construction  
 Iowa State Highway Commission  
 Iowa State Department of Public Works  
 United States Bureau of Public Roads



A. INTRODUCTION

Part III of this report describes briefly the purposes and objectives, procedures, and findings of the Bloomfield Corporate Area Traffic Survey. Summaries and illustrations of the significant data classifications are included. All information was collected during the period of June 12 to 19, 1958. It is reported in terms of the number of trips daily on an average June weekday in 1958 and classified by trip origins and destinations.

B. PURPOSES AND OBJECTIVES

The purposes of this survey were to determine the origin, destination, and number of daily trips into, out of, and through the corporate area. Ultimate objectives were to assemble and present, as clearly as possible, the traffic patterns and volumes as they exist. This presentation reveals the amount of street congestion which may be attributed to through highway travelers, and the exact routes by which these travelers enter and exit the corporate area. It will also assist city officials and highway administrators in determining the location and type of street or highway improvements necessary to alleviate particular traffic problems.

C. PROCEDURES

The data for the determination of the origin and destination of all trips were gathered through roadside interviews of motor vehicle operators. These interviews were obtained at the external stations located on each rural road entrance to the city. All vehicles were stopped as they passed through the station and the motor vehicle



operator was asked the purpose, origin, and destination of this particular trip. The interviewers also recorded for each vehicle, from visual inspection, other data such as the type, the place of registration, and the number of passengers.

Each interview station was operated for 16 hours starting at 6 AM and ending at 10 PM. This scheme of operation provided for coverage of all but a small portion of the trips passing through each station in the twenty-four hour day. This small portion of traffic was accounted for by portable automatic traffic recorders which were operated continuously at each station for the entire period of the survey. Factors obtained by using these recorder tapes provided means for converting all of the data to average twenty-four hour weekday values. The information gathered was then coded and punched on I.B.M. cards to expedite tabulation.

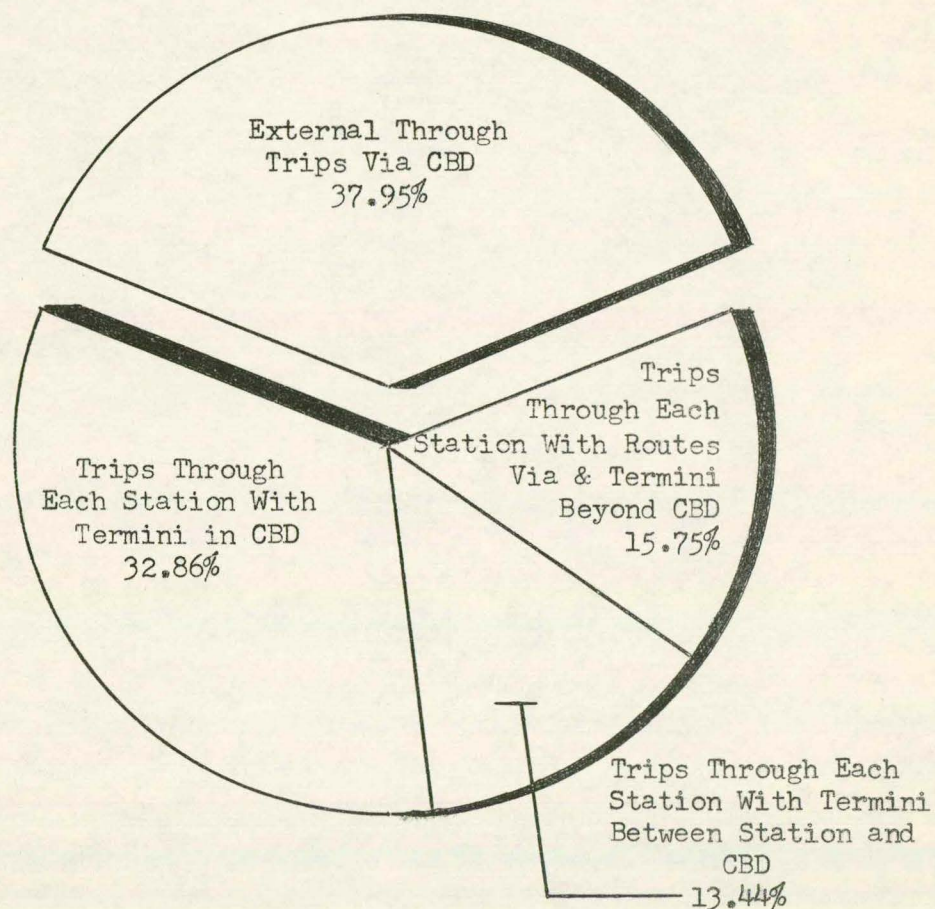
#### D. FINDINGS

Most of the significant findings of this survey have been summarized in the ensuing tables and charts. Any other combinations of related material may be found by referring to the trip tabulation sheet in the appendix.

Three traffic flow diagrams will be found in appropriate locations throughout the presentation of the findings. The first one encountered merely gives a pictorial view of the entire traffic pattern within the area. A traffic flow map depicting all external through trips will be found next, immediately following the external through trip table. The third and final flow diagram is found following the group of tables relating all of the external local trips to their termini.



The following illustration represents a net total trip summarization and percentage distribution of the termini for all trips passing through the external interview stations on an average weekday in June 1958. It should be noted that the few external through trips having termini on non-primary rural roads, as listed on the trip tabulation sheet in the appendix, are all included with the external local trips.



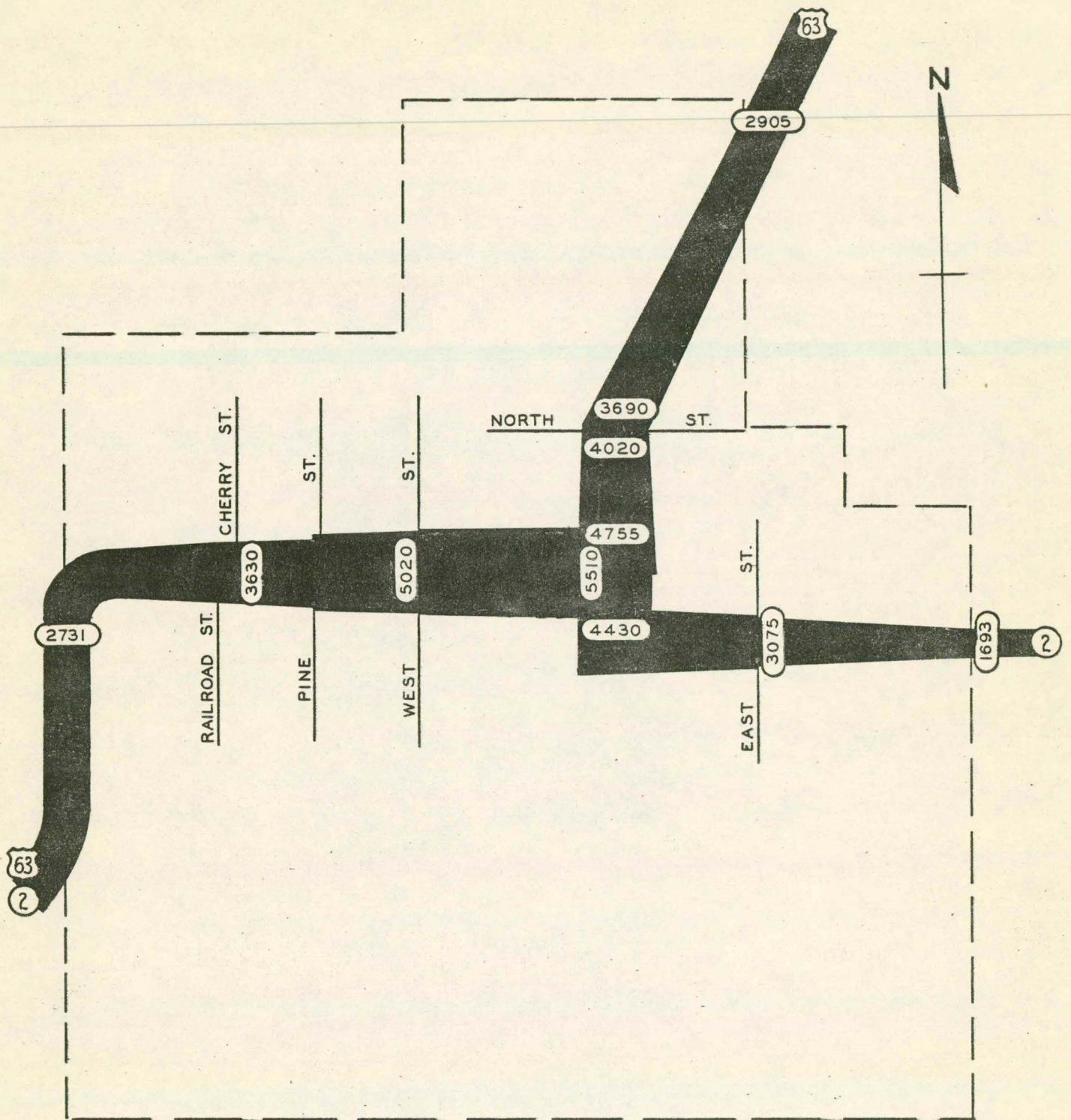


1. Traffic and Interview Summary:

By using the previously explained procedures, the information in the following table was obtained. The external stations are listed with the total traffic passing each station, the total number of interviews taken at each station, and the per cent that this interview figure is of the total traffic figure. This information is all based on the flow of traffic for an average weekday in June 1958.

Table 1 Traffic Entering or Leaving the Bloomfield Corporate Area by Way of the Principal Rural Road Entrances						
External Station Locations	Average Weekday Traffic-June 1958				No. of Inter- views Taken	Per Cent Inter- viewed
	Passenger Cars and Pick-Ups	Single Unit Trucks	Truck Combi- nations	Total		
US 63 N	2,519	268	118	2,905	2,254	77.59
Ia 2 E	1,467	135	91	1,623	1,367	80.74
US 63 & Ia 2 SW	2,336	213	182	2,731	2,019	73.93
Total	6,322	616	391	7,329	5,640	76.95





TRAFFIC FLOW MAP  
 CITY OF BLOOMFIELD  
 DAVIS COUNTY  
 AVERAGE WEEKDAY TRAFFIC JUNE 1958



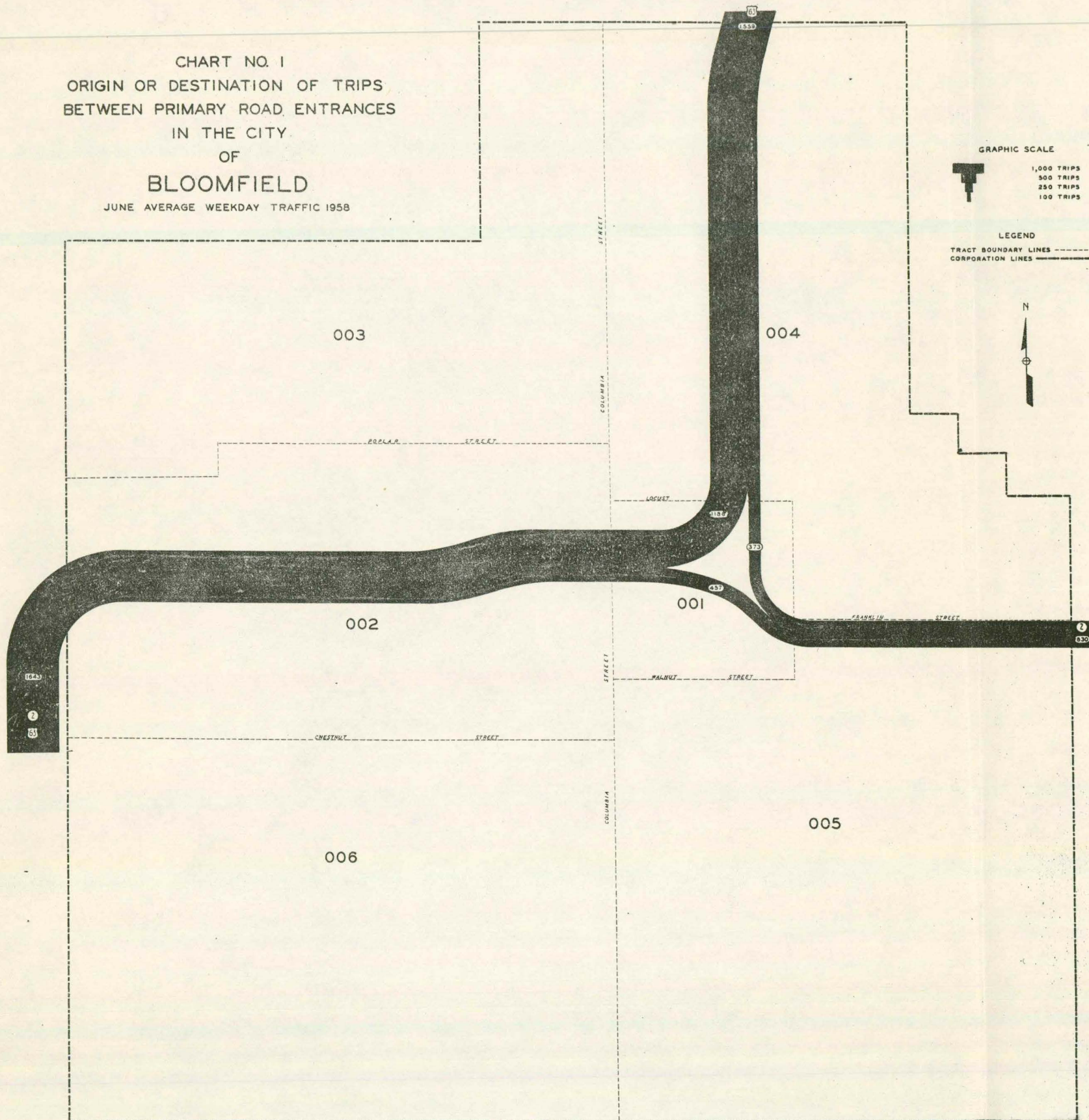
2. External Through Trips Via  
the Central Business District:

Table 2 presents a very good comparison between the total trips passing through each external station and the number or per cent of these trips which pass directly through the corporate area via the central business district. This same relationship is again presented both numerically and on a percentage basis for the summation of all trips through all stations. From this presentation it is shown in the following table that 2,016 trips, or 37.95 per cent of the total trips passing through all external stations, were external through trips traveling via the central business district.

Table 2 External Through Trips Via the Central Business District on an Average Weekday in July 1958			
External Station Location	Total Trips Through Station	Through Trips Via the CBD	
		Number	Per Cent of Total
US 63 N	2,905	1,559	53.67
Ia 2 E	1,693	830	49.02
US 63 & Ia 2 SW	2,731	1,643	60.16
Less Duplicates	2,016	2,016	100.00
Total	5,313	2,016	37.95



CHART NO. 1  
 ORIGIN OR DESTINATION OF TRIPS  
 BETWEEN PRIMARY ROAD ENTRANCES  
 IN THE CITY  
 OF  
**BLOOMFIELD**  
 JUNE AVERAGE WEEKDAY TRAFFIC 1958





3. Trips Through Each Station With  
Termini in the Central Business District:

Table 3 compares the total trips passing through each station with the percentage of these respective trips having termini in the central business district. It also relates the total of all trips passing through all of the stations to the number of these same trips having termini in the central business district. On this comparative basis 32.86 per cent of the total trips passing through all external stations fall into the above explained category.

Table 3 Trips Through Each Station With Termini in The Central Business District on an Average Weekday in June 1958			
External Station Location	Total Trips Through Station	Termini in the CBD	
		Number	Per Cent of Total
US 63 N	2,905	677	23.30
Ia 2 E	1,693	505	29.83
US 63 & Ia 2 SW	2,731	564	20.65
Less Duplicates	2,016		
Total	5,313	1,746	32.86



4. Trips Through Each Station With Termini  
Between the Station and the Central Business District:

The information contained in Table 4 reveals a comparison of the total trips passing through each station and the percentage of these trips having termini in the residential and intermediate areas between that station and the central business district. In addition to this, the summation of the total trips passing through all of the external stations is compared to the percentage of these total trips having termini as explained above. These comparisons are pointed out both numerically and on a percentage basis. As can be seen from the table, 714 trips, or 13.44 per cent of the total trips passing through all of the external stations, had termini in the residential and intermediate areas between the stations and the central business district.

External Station Location	Total Trips Through Station	Termini Between Station and CBD	
		Number	Per Cent of Total
US 63 N	2,905	314	10.81
Ia 2 E	1,693	79	4.67
US 63 & Ia 2 SW	2,731	321	11.75
Less Duplicates	2,016	----	-----
Total	5,313	714	13.44



5. Trips Through Each Station With Routes Via  
and Termini Beyond the Central Business District:

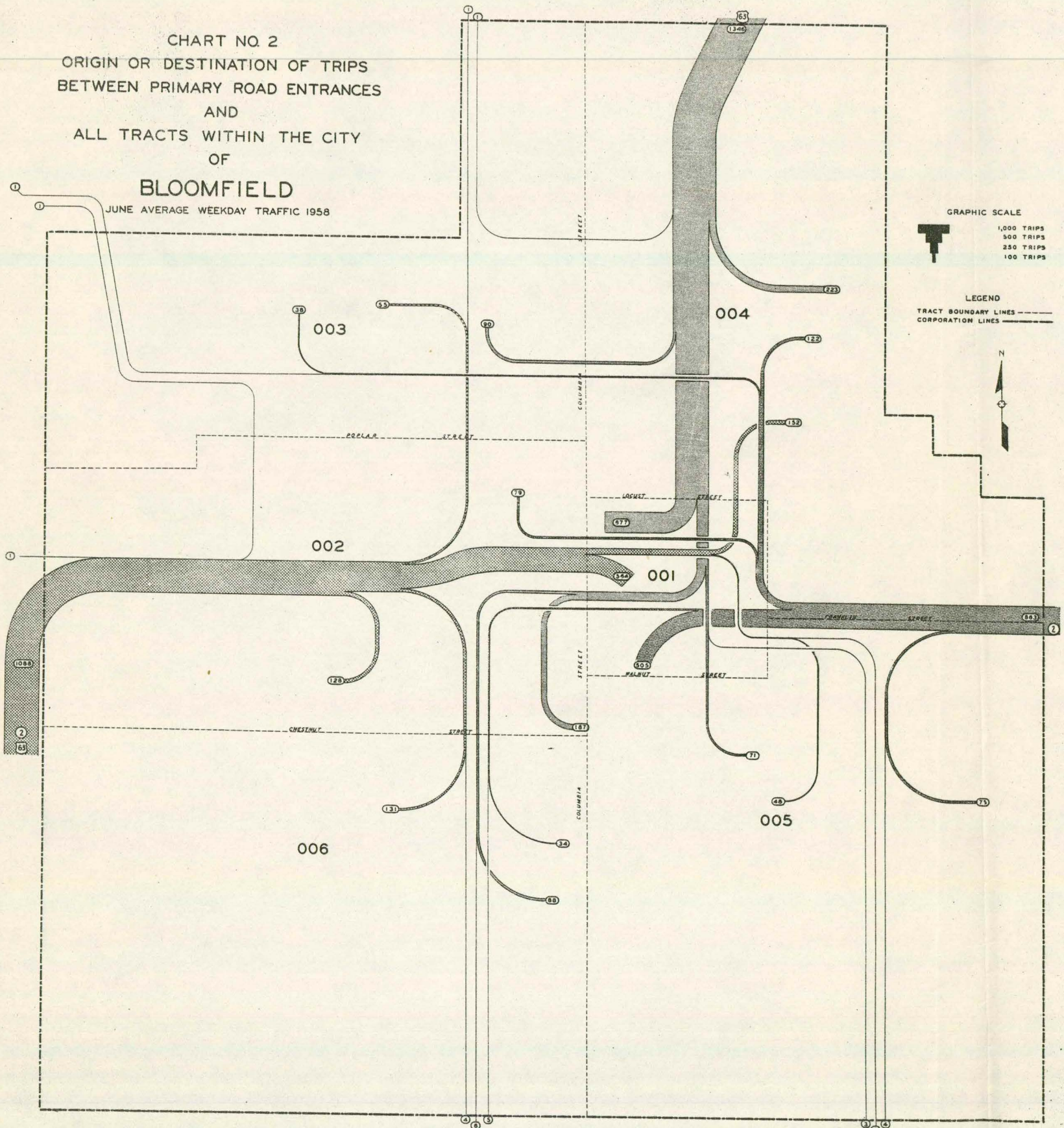
In Table 5 a comparison is made between the total trips passing through each external station, and the number and percentage of these trips which pass directly via and have their termini beyond the central business district. It can also be seen from the following table that 837 trips, or 15.75 per cent of all trips passing through all stations, travel directly via the central business district and have their termini beyond it. These comparisons are made both numerically and on a percentage basis for all of the routes listed.

Table 5 Trips Through Each Station With Routes Via and Termini Beyond the Central Business District on an Average Weekday in June 1958			
External Station Location	Total Trips Through Station	Routes Via-Termini Beyond CBD	
		Number	Per Cent of Total
US 63 N	2,905	355	12.22
Ia 2 E	1,693	279	16.48
US 63 & Ia 2 SW	2,731	203	7.44
Less Duplicates	2,016	---	-----
Total	5,313	837	15.75



CHART NO. 2  
 ORIGIN OR DESTINATION OF TRIPS  
 BETWEEN PRIMARY ROAD ENTRANCES  
 AND  
 ALL TRACTS WITHIN THE CITY  
 OF  
**BLOOMFIELD**

JUNE AVERAGE WEEKDAY TRAFFIC 1958





A P P E N D I X



TRACT MAP  
OF  
CITY OF BLOOMFIELD  
WITH  
EXTERNAL STATIONS

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723

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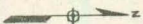
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LEGEND  
TRACT BOUNDARY LINES  
CORPORATION LINES  
EXTERNAL STATIONS  
CENTRAL BUSINESS DISTRICT

721

723  
39

737  
7

722

721

CHERRY STREET

FIELD STREET

COLUMBIA STREET

COLUMBIA STREET

COLUMBIA STREET

COLUMBIA STREET

WALNUT STREET

WALNUT STREET

PARSONS STREET



1958 Bloomfield Origin and Destination  
 Total Trips Through Stations Located on Primary's  
 U.S. 63N., Ia. 2 E., U.S. 63 and Ia. 2S.W. Average Weekday Traffic in June

		Bloomfield Urban Area							External Area							GRAND TOTAL		
		Central Business District	West	Northwest	Northeast	Southeast	Southwest	Bloomfield Total	U.S. 63 North	Ia. 2 East	U.S. 63 and Ia. 2 S.W.	Loc. Rd. S.E.	FAS 867 South	Loc. Rd. West	FAS 876 N.W.		Loc. Rd. North	External Total
		TRACT	001	002	003	004	005	006	736	737	738	721	722	723	724	725	External Total	
		TRACT	Trip Origin							Trip Destination								
Bloomfield Urban Area	001	Central Business District							320	240	295						855	855
	002	West							93	44	54						191	191
	003	Northwest							42	25	21						88	88
	004	Northeast							108	56	79						243	243
	005	Southeast							39	40	23						102	102
	006	Southwest							44	20	57						121	121
			Bloomfield Total							646	425	529						1,600
External Area	736	U.S. 63N.	357	94	48	115	32	44	690								798	1,488
	737	Ia. 2 E.	265	35	13	66	35	14	428	188	185	606	2	5			396	824
	738	U.S. 63 and Ia. 2 S.W.	269	74	34	73	25	74	549	580	256	201	3	3	1	1	838	1,387
	721	Local Road Southeast								1	1	3					5	5
	722	F.A.S. 867 S.								1	2	3					6	6
	723	Local Road West																
	724	F.A.S. 876 N.W.										1					1	1
	725	Local Road North								1		1					2	2
		External Total	891	203	95	254	92	132	1,667	771	444	815	5	9	1	1	2,046	3,713
		GRAND TOTAL	891	203	95	254	92	132	1,667	1,417	869	1,344	5	9	1	1	3,646	5,313



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