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ALBIA

Origin and Destination TRAFFIC REPORT



AUGUST

1959

State of Iowa

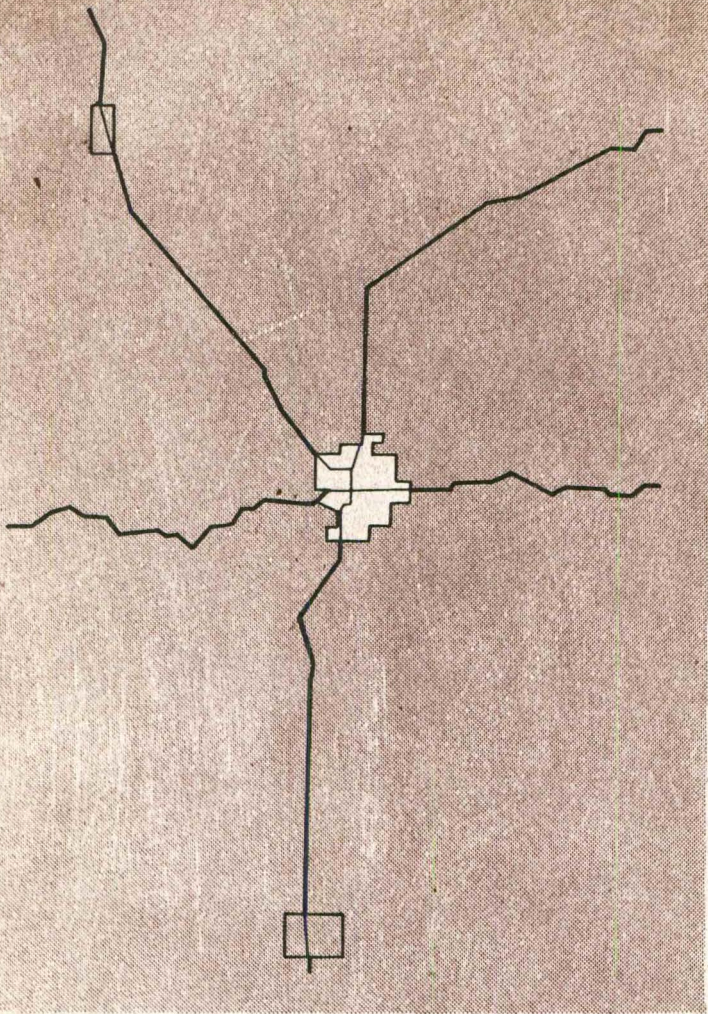
Origin and Destination

Traffic Study

Of

ALBIA

DECEMBER 1961



PREPARED BY

TRAFFIC AND HIGHWAY PLANNING DEPARTMENT

DIVISION OF PLANNING

IOWA STATE HIGHWAY COMMISSION

IN COOPERATION WITH THE

UNITED STATES BUREAU OF PUBLIC ROADS

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DEFINITIONS OF TECHNICAL TERMS

Central Business District (C.B.D.)	The major business district of a city or town.
Cordon Line	The boundary of the area being studied.
Desire Line	A straight line between the point of origin and point of destination without regard to physical routes of travel.
Destination	The place where a trip ends.
External Trip	A movement having origin, destination, or both outside the study area.
Origin	The location from which the driver started the trip.
Study area	The area within the external cordon line and usually coinciding with the corporation lines of the city or town under study.
Through Trip	A movement with neither origin nor destination within the area under study.
Tract	An area containing one or more city blocks and usually consisting of a more or less homogeneous development.
Trip	The one-way travel between origin and destination.

FOREWORD

The purpose of this report is to present data relative to the origin, destination, and number of trips per day passing through the five primary road entrances to Albia. It is not within the scope of this report to make recommendations concerning the revision or construction of routes, but rather to organize and present the findings of the survey in a manner which will be helpful to local officials in determining traffic needs.

A detailed study of individual trips was undertaken to determine the actual travel desires of the public. To obtain this information, it was necessary to interview vehicle drivers.

Interview stations were established on each of the five primary highways entering Albia. The town was divided into ten internal tracts, using major streets and highways, in most cases as the dividing lines between tracts.

Vehicles passing through the interview stations were stopped and drivers were asked the origin, destination and purpose of their trip. In addition, the interviewer also noted and recorded the type of vehicle, number of occupants, registration of vehicle and direction of travel.

The Albia origin-destination survey was conducted on the 27th and 28th of August in 1959. Interviews were taken at each station from 6 A.M. to 10 P.M. In addition to the information gathered by means of interviews, portable recorders were in operation at each station for a period of five weekdays. Manual vehicle classification counts were taken at a later date to supplement the information already gathered.

The data obtained from interviews was later coded and punched on tabulating cards. The information gathered by means of manual vehicle classification counts and portable recorders was used to derive expansion factors which were then applied to each card. The resultant data was then tabulated to show traffic movements and volumes for August average weekday traffic 1959.

For this study, traffic movements are divided into two groups or types which provide material for analysis. These groups are as follows:

- (1) External station to station movements or through trips. The vehicles comprising this group enter through one station, pass through the study area, and leave by way of another external station. In Albia, 35.47 percent of all trips come under this category.

- (2) External station to tract movements, or external trips. The vehicles making these trips have one terminus within the study area and the other outside the study area. These trips must pass through only one of the stations in the external cordon line while enroute to their destination. In Albia, these trips comprised 64.53 percent of all traffic.

Traffic flow charts illustrating the above movements are included in this report. These charts show traffic volumes between external stations and tracts within Albia.

Desire line charts showing the volume of traffic between external stations and tracts within Albia are also included in the report. These charts illustrate travel desires in straight lines between points of origin and destination without regard to existing streets or highways. These charts are especially useful in pointing out the needs for revision or improvement of routes.

It is hoped that this report will be of significant value in determining the location and type of street or highway improvement needed to alleviate local traffic problems.

HISTORY

The town of Albia, county seat of Monroe County, was officially incorporated on March 26, 1859. The original survey of the site on which the town is now located was made in 1845 by John M. Massey. The settlement which first began here was called Princeton, but this name was discontinued in 1848. History does not indicate how or why the settlement first came to be called Albia. However, the name Albia is of Celtin origin and means "high flat plateau."

Monroe county was first named Kish-Ke-Kosh county after a Mesquakie Indian Chief. The name was later changed to Monroe County by an act of the territorial legislature on January 19, 1846.

John B. Gray, the first permanent settler in Monroe County, established his residence in Pleasant township on May 1, 1843, the day on which the land was legally opened for settlement. Gray's log cabin was perhaps the first building to be erected by a white man in Monroe County. Later, in 1844, the first public school in the county was built on Gray's farm.

In 1847 the population of Albia consisted of four families. Thirteen years later, in 1860, the population had grown to 620. On February 15, 1876, Albia became a city of the 2nd class with a population in excess of 2,000.

The first store in Albia was established by John Webb with a limited stock of merchandise to supply only bare necessities.

Wareham G. Clark of Clarksville was the first person in Monroe County to be authorized to carry mail. Clark was also the first justice of the peace in the county.

A log court house constructed on the east side of the town square in 1846 was the first public building to be erected in Albia. It was twenty feet square, fourteen feet high, and was built at a cost of \$75. A log jail was built in 1848 which was sixteen feet square and cost \$174. In 1850 a Methodist church, the first in town, was completed.

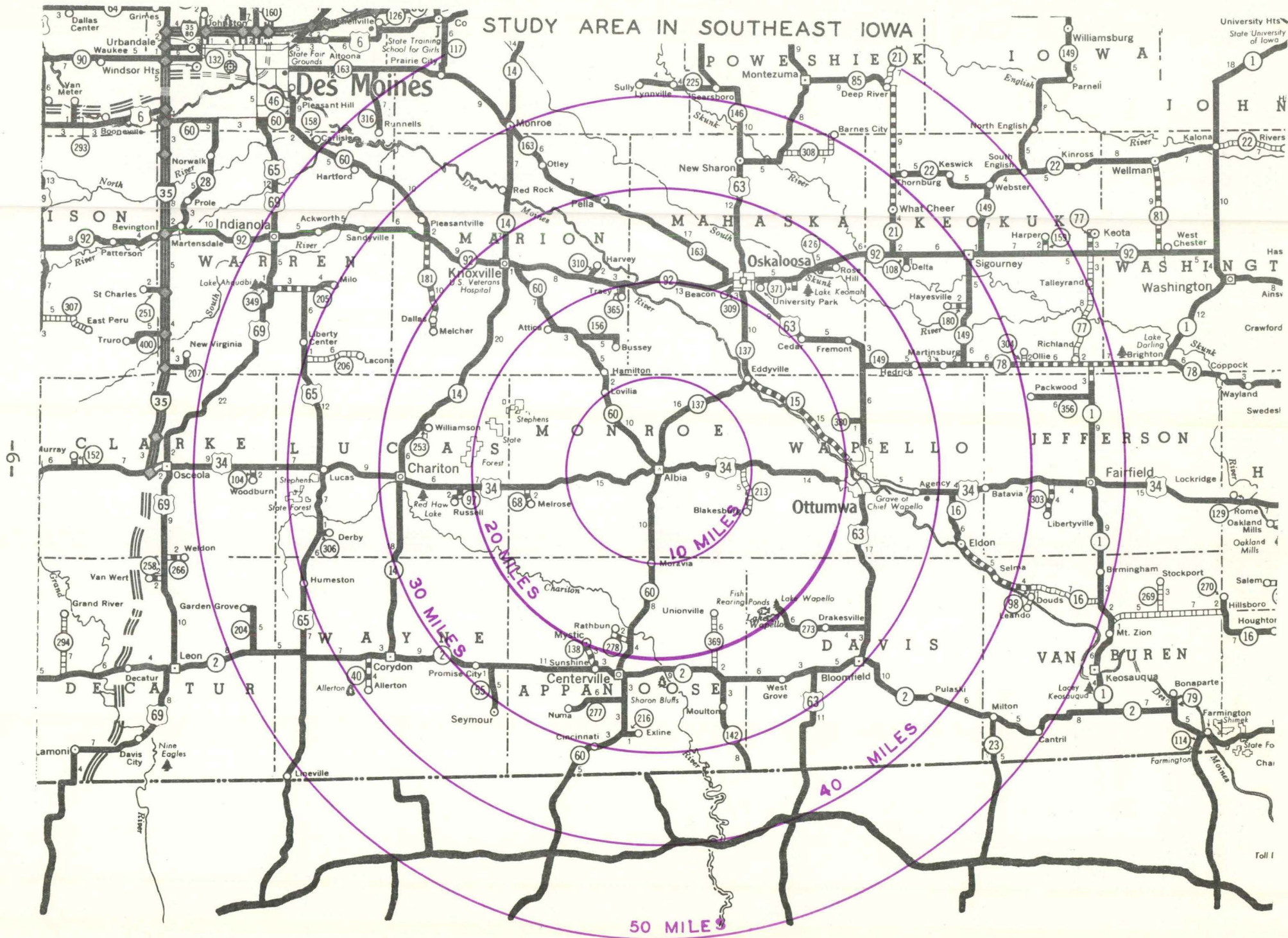
Coal was discovered on Avery Creek in Monroe County in 1861 and mining soon became an important factor in the economy of the county. In 1906, Monroe County was producing more coal than any other county in Iowa. Coal production reached its peak in 1917 and then declined as other sources of power became available.

The Albia Public Library was built in 1906 with the aid of a 10,000 grant from Andrew Carnagie and later, in 1930, was enlarged to its present size.

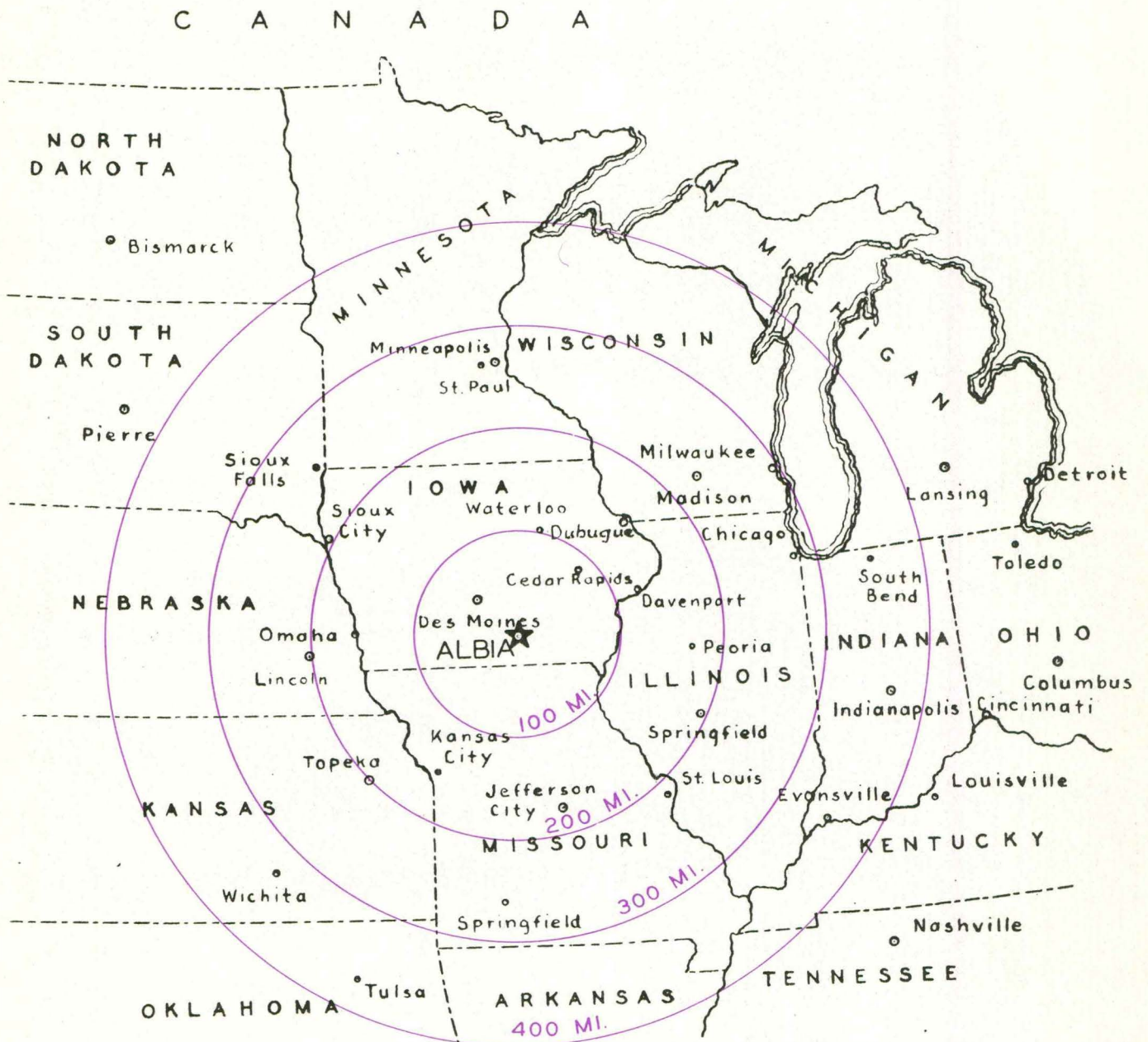
Manufacturing has long been an important part of Albia's economy. At the present time, Albia firms manufacture or produce concrete blocks, archery equipment, aluminum doors, automatic mouse traps, feeds, fryers, soft drinks, sheet metal products, burial vaults, etc.

Albia's transportation needs are served by three railroads: The Chicago, Northwestern; Wabash; and Chicago, Burlington and Quincy. One federal and two state highways pass through the town. Iowa 60 connects Albia with Centerville to the south and Knoxville and Des Moines to the North. Iowa 137 connects Albia with Eddyville and Oskaloosa. U.S. 34, the principal highway, provides access to points in eastern and western Iowa.

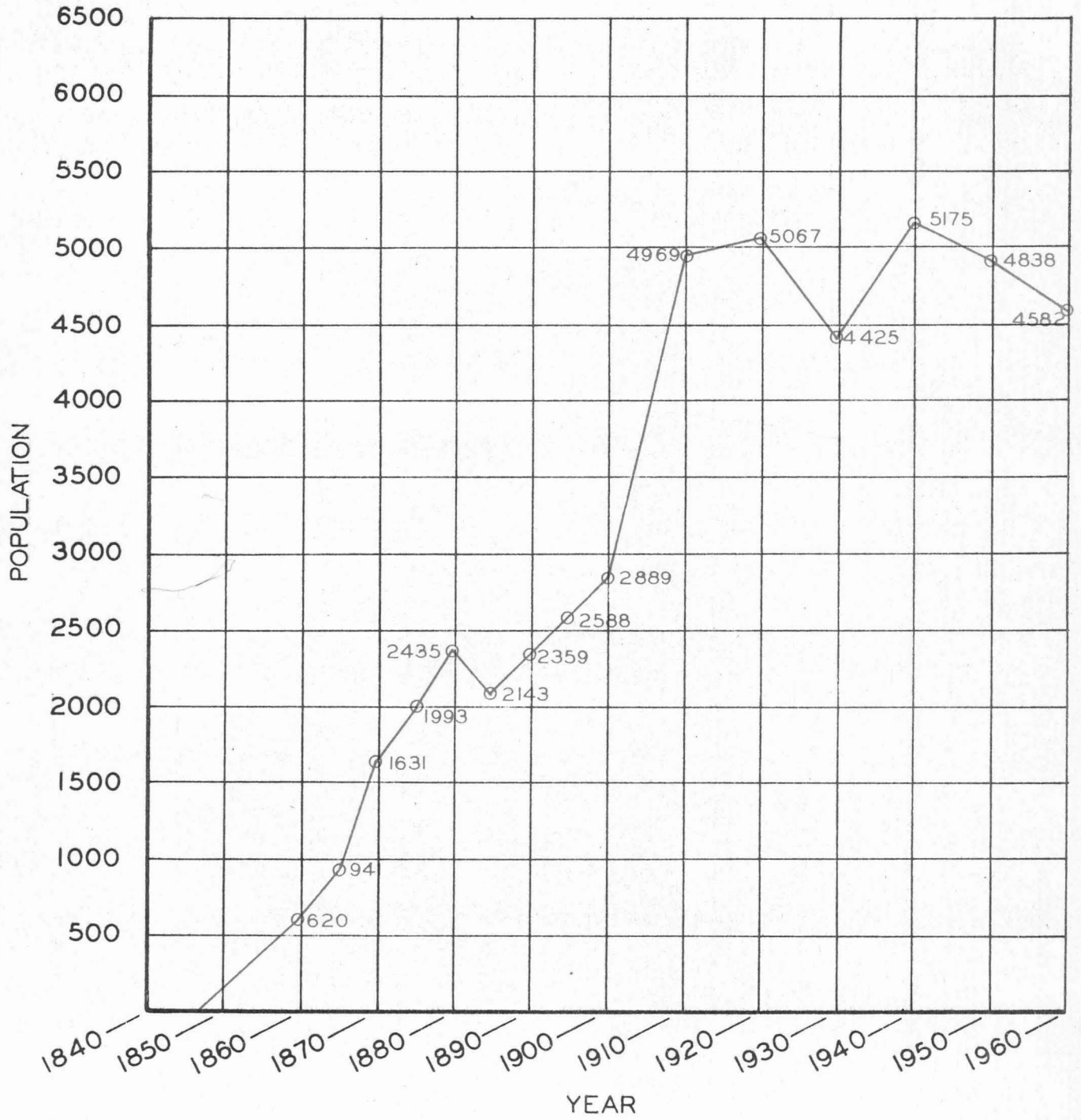
STUDY AREA IN SOUTHEAST IOWA



STUDY AREA POSITION IN MIDWEST

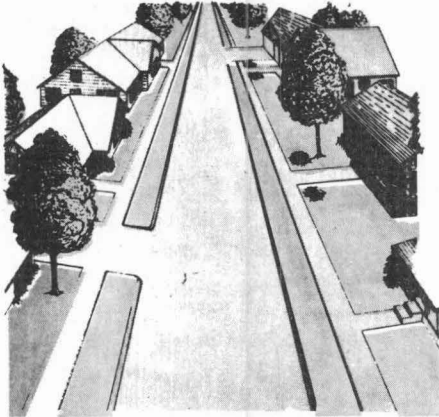


POPULATION TRENDS IN ALBIA SINCE 1847



DISTRIBUTION OF TRIPS

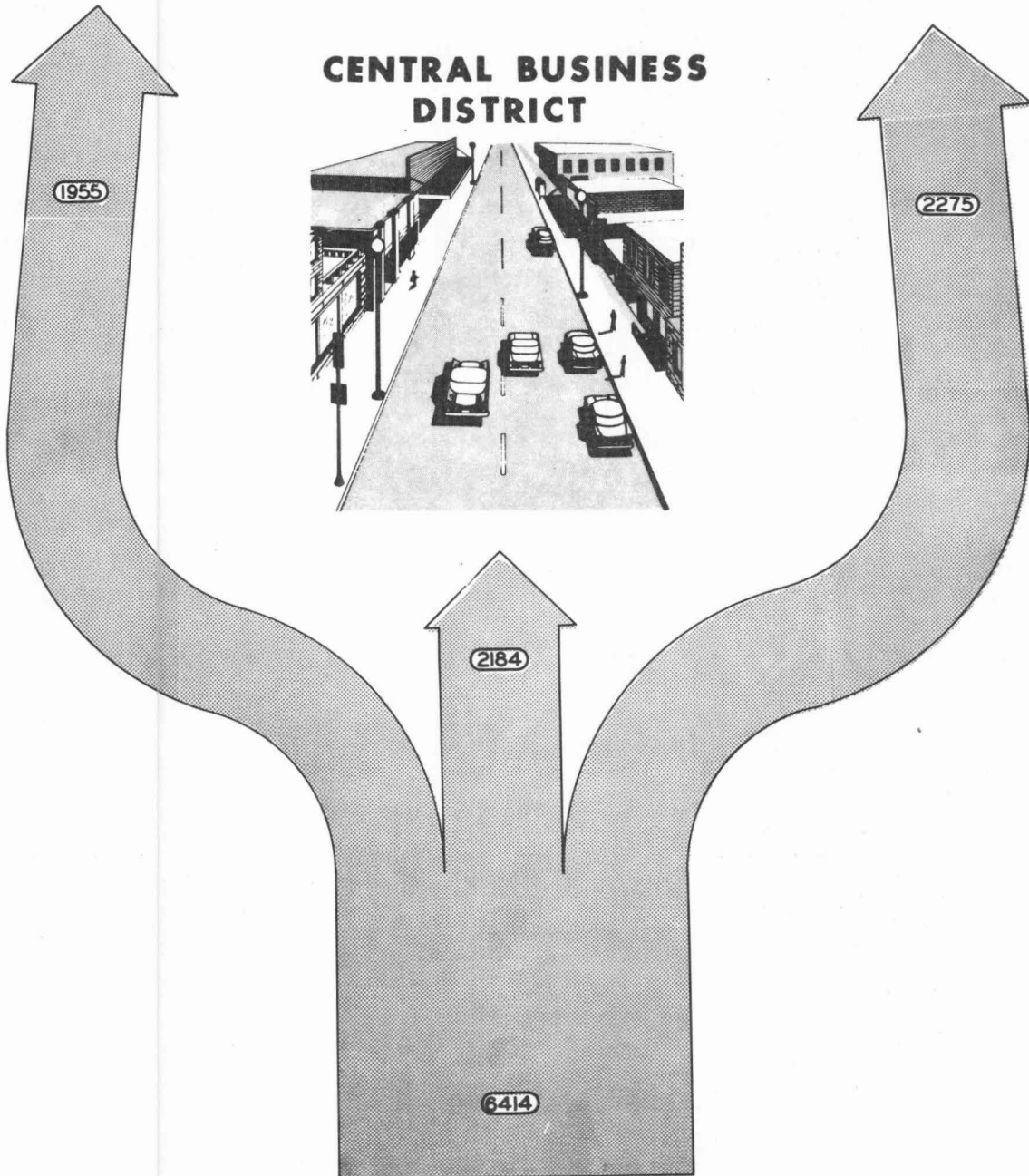
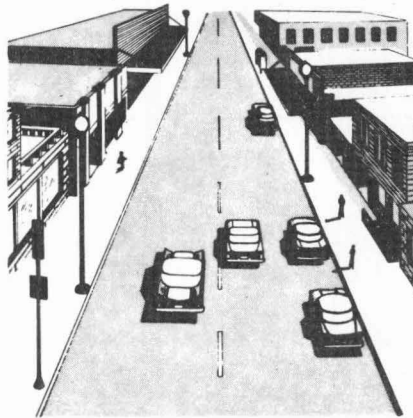
INTERNAL TRACTS



THROUGH TRIPS



CENTRAL BUSINESS DISTRICT



EXTERNAL

SUMMARY OF TRIP DISTRIBUTION

The chart at left graphically illustrates some of the more significant traffic volumes derived from the Albia origin-destination survey. An average of 6414 trips per day passed through the five primary road entrances of Albia during an average August weekday in 1959.

2184 trips or 34.05 percent of the total number of trips were between external areas and the C.B.D.

1955 trips or 30.48 percent of the total number of trips were between external and internal areas.

2275 trips or 35.47 percent of the total number of trips were through trips which passed through Albia enroute to another destination

TEXT TABLE 1
 VEHICLE TYPE AND TOTAL NUMBER OF
 TRIPS PASSING THROUGH EXTERNAL CORDON LINE STATIONS

August Average Weekday Traffic 1959

External Station Location	Passenger Cars and Pick-ups	Single Unit Trucks	Truck Combinations	Total	No. of Interviews	Per Cent Interviewed
Ia. 137 N.	1088	133	26	1247	1157	92.78
U.S. 34 E.	1726	91	73	1890	1626	96.61
Ia. 60 S.	1671	265	70	2006	1640	81.75
U.S. 34 W.	1278	115	61	1454	1216	83.63
Ia. 60 N.W.	1913	153	26	2092	2015	96.32
Total	7676	757	256	8689	7654	88.09

Text table 1 above shows the total number of trips passing through the five primary road entrances of Albia along with the total number and type of vehicles passing through each primary road entrance.

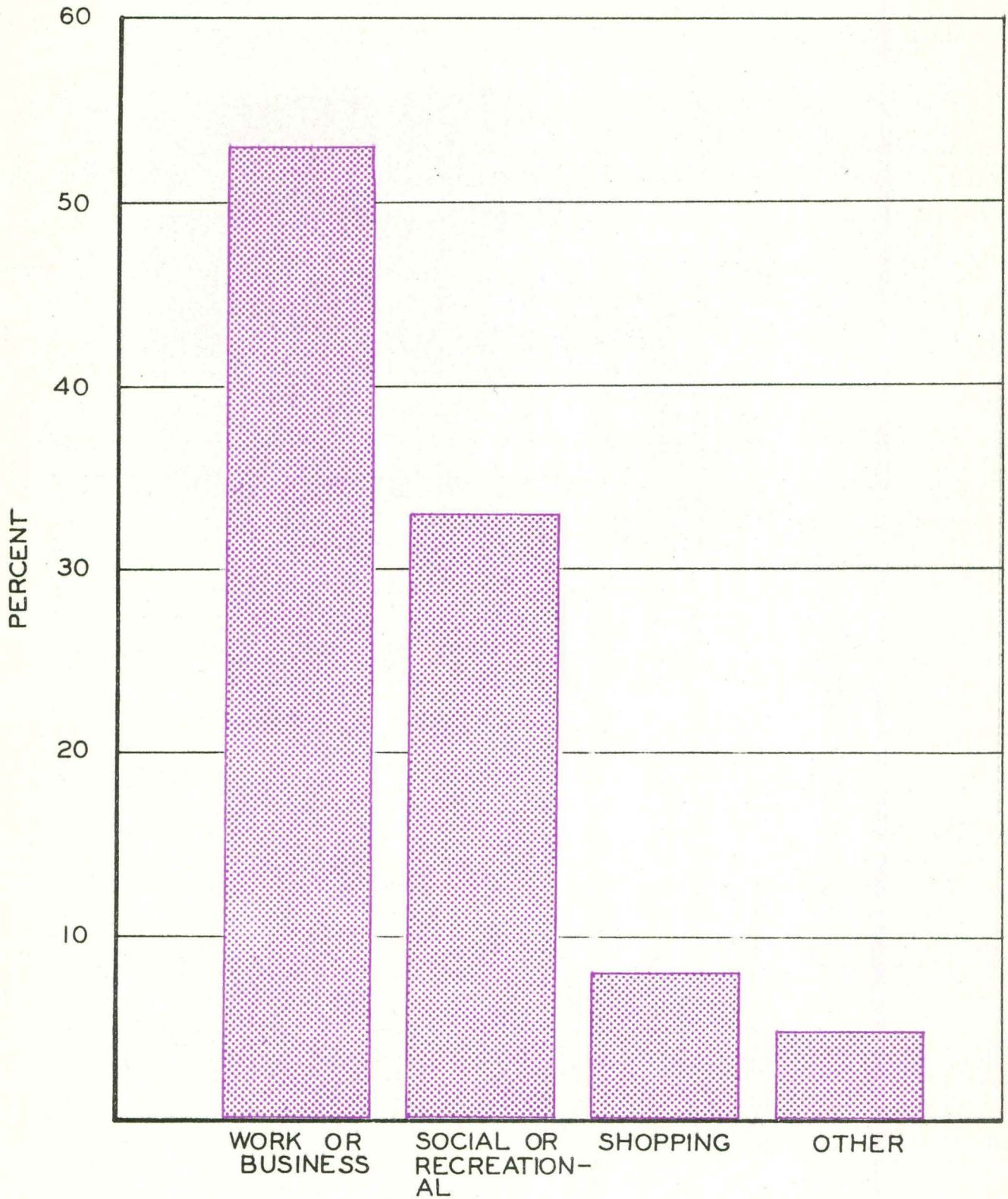
TEXT TABLE 2
 TRIP PURPOSE OF VEHICLE DRIVERS PASSING THROUGH
 EXTERNAL CORDON LINE STATIONS

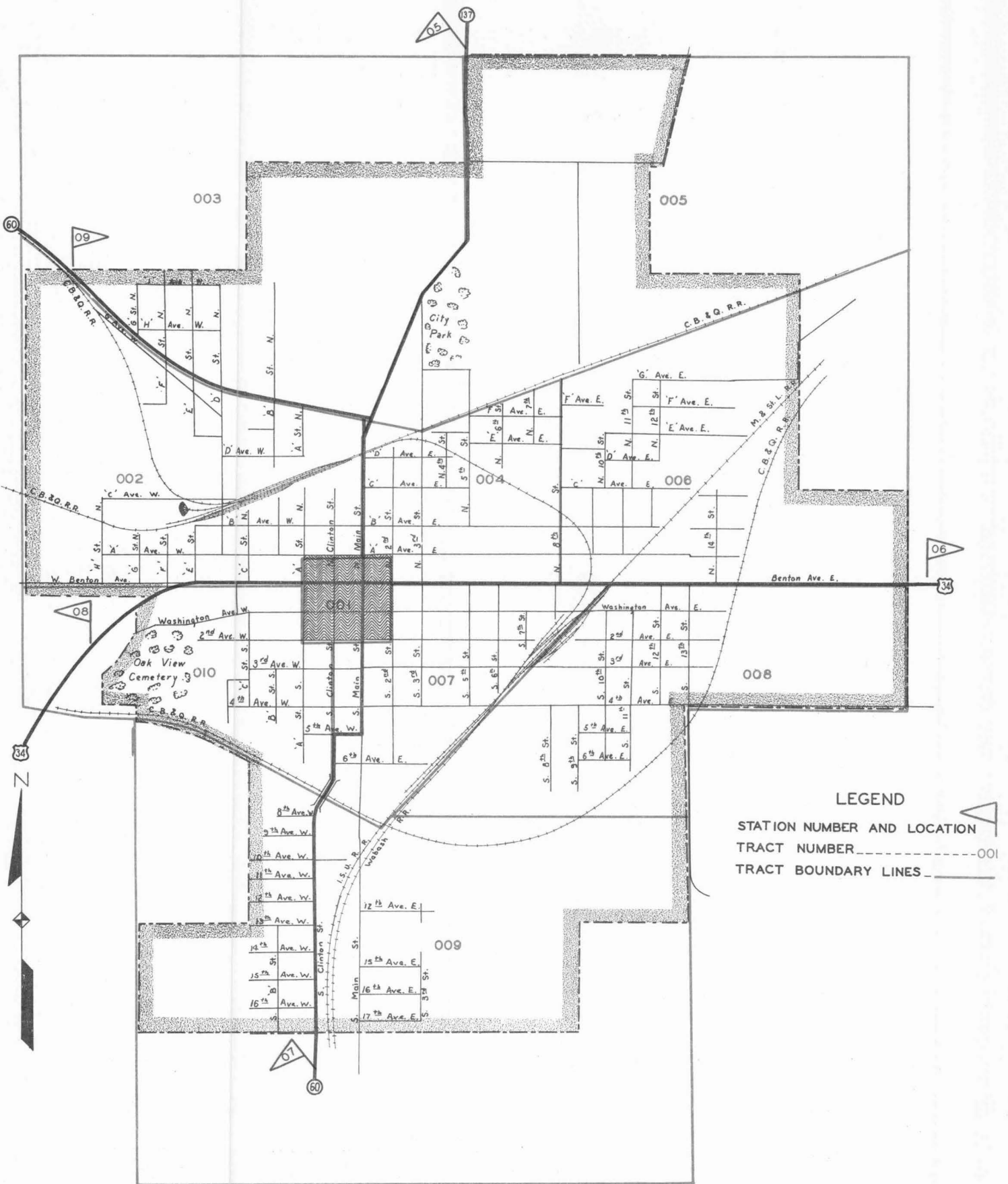
August Average Weekday Traffic 1959




Station Location	Work		Social		Shopping		Other		Total
	No.	%	No.	%	No.	%	No.	%	
Ia. 137 N.	776	62.2	276	22.2	165	13.2	30	2.4	1247
U.S. 34 E.	834	44.1	855	45.2	122	6.5	79	4.2	1890
Ia. 60 S.	1168	58.2	561	28.0	122	6.1	155	7.7	2006
U.S. 34 W.	696	47.9	595	40.9	78	5.4	85	5.8	1454
Ia. 60 N.W.	1198	57.3	587	28.0	240	11.5	67	3.2	2092
Total	4672	53.8	2874	33.1	727	8.3	416	4.8	8689

Text table 2 above shows the total number of trips passing through each primary road entrance along with the trip purpose of vehicle drivers and the percent of trips in each category.

TRIP PURPOSE OF VEHICLES
PASSING THROUGH
EXTERNAL CORDON LINE STATIONS





LEGEND
 STATION NUMBER AND LOCATION 
 TRACT NUMBER -001
 TRACT BOUNDARY LINES 

TRACT MAP OF
ALBIA
 WITH EXTERNAL STATION LOCATIONS

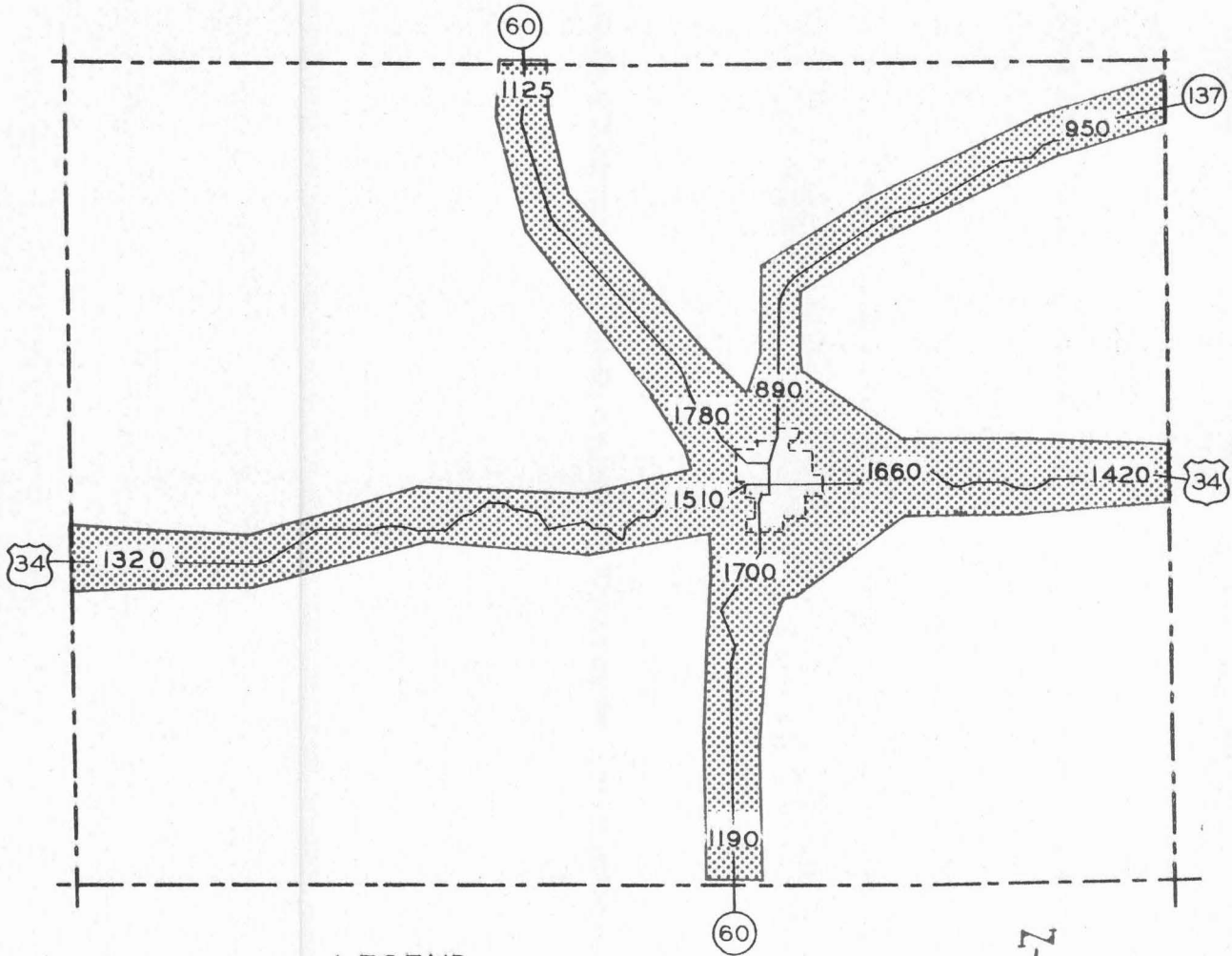
TRAFFIC VOLUMES ON PRIMARY HIGHWAYS
IN AND NEAR ALBIA

The following charts illustrate the average annual daily traffic on rural primary highways entering or leaving Albia and on primary extensions within the study area.

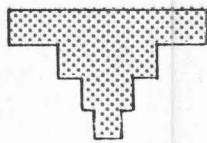
The chart on page 16 illustrates the 1959 average annual daily traffic on rural primary highways entering or leaving Albia. Iowa 137 North carried the least amount of traffic.

The chart on page 17 shows the 1961 average annual daily traffic on primary extensions within Albia.

TRAFFIC VOLUMES
ON RURAL PRIMARY HIGHWAYS ENTERING
ALBIA
AVERAGE ANNUAL DAILY TRAFFIC 1959

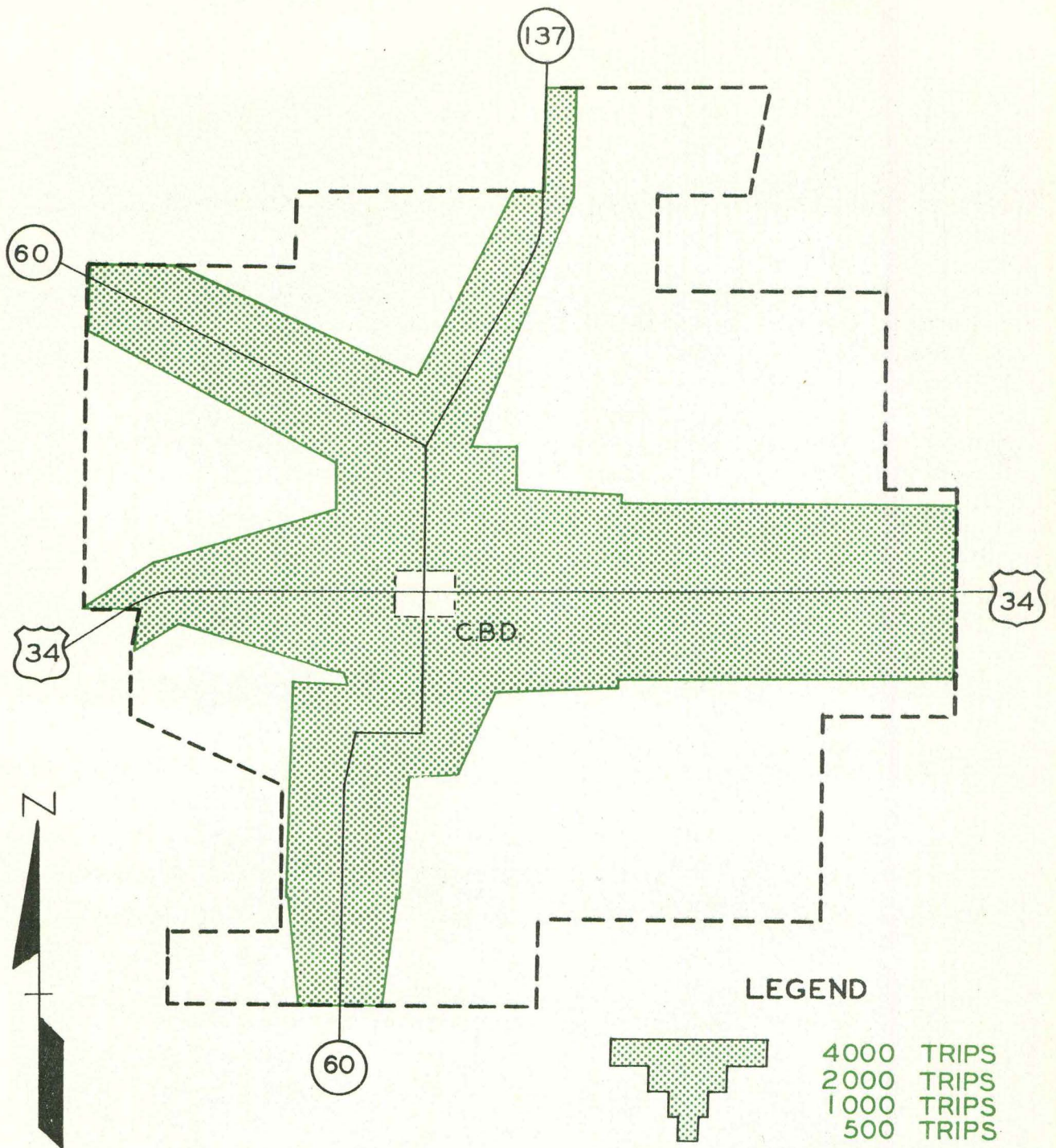


LEGEND



4000	TRIPS
2000	TRIPS
1000	TRIPS
500	TRIPS





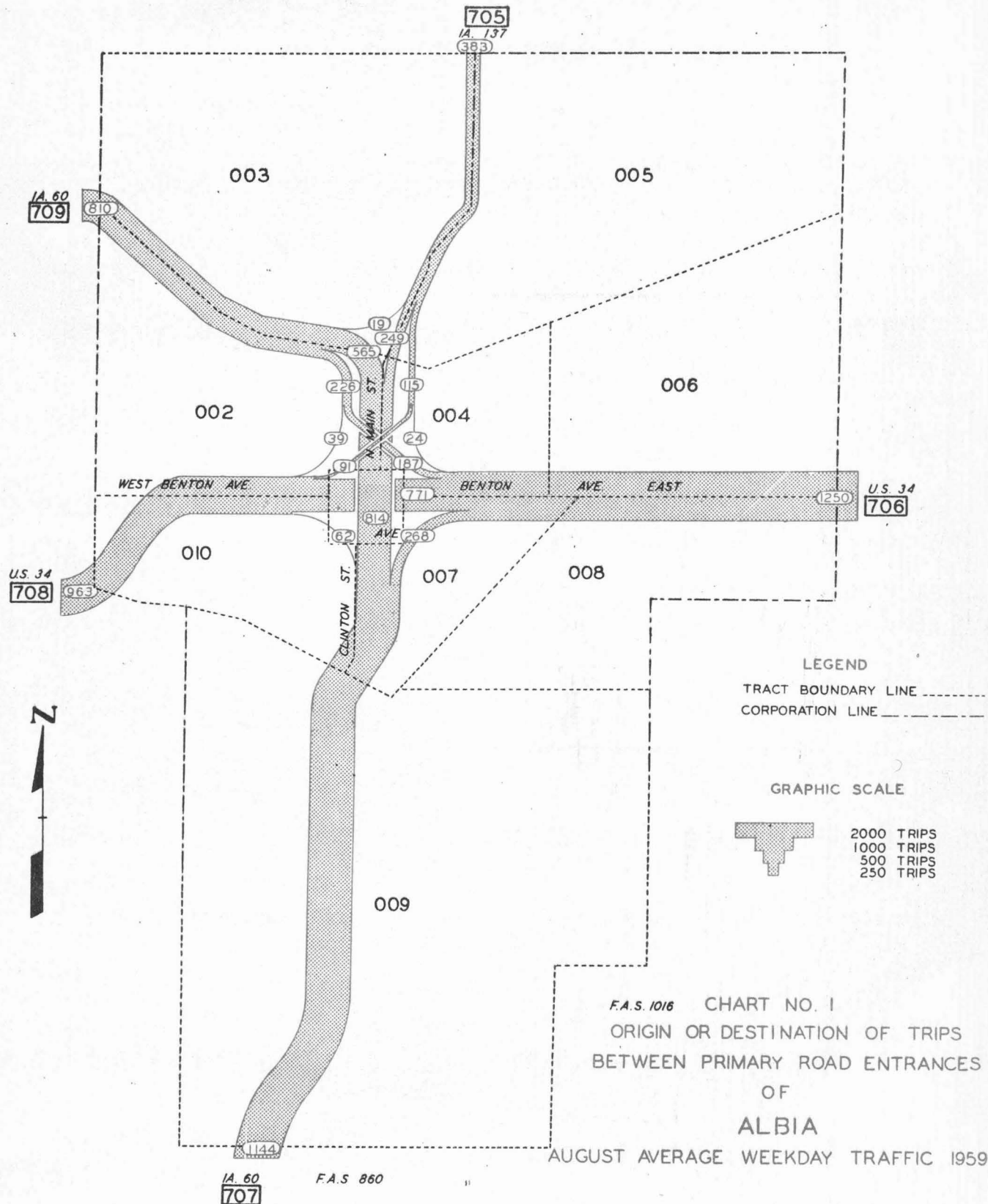
TRAFFIC VOLUMES ON PRIMARY ROAD EXTENSIONS
 IN
ALBIA
 AVERAGE ANNUAL DAILY TRAFFIC
 1961

TRAFFIC FLOW CHARTS

The following traffic flow charts illustrate the dispersion of traffic between points of origin and/or destination through the stations indicated. These charts are not intended to show exact routes, but rather to show approximate routes and the cumulative volume of traffic as it approaches or leaves the station location. Trip origins and destinations are not differentiated and the tract or station totals shown may be considered as either origin or destination.

Chart Number 1 illustrates the movement of through trips between all primary road entrances, whereas charts 2 through 6 illustrate the external and internal dispersion of traffic through individual stations.

The adjoining page of statistics across from charts 2 through 6 shows the number of external trips to or from each primary road entrance and tracts within the study area along with the percent of the total number of trips to each area.



DISPERSION OF TRAFFIC TO OR FROM IOWA 137 NORTH

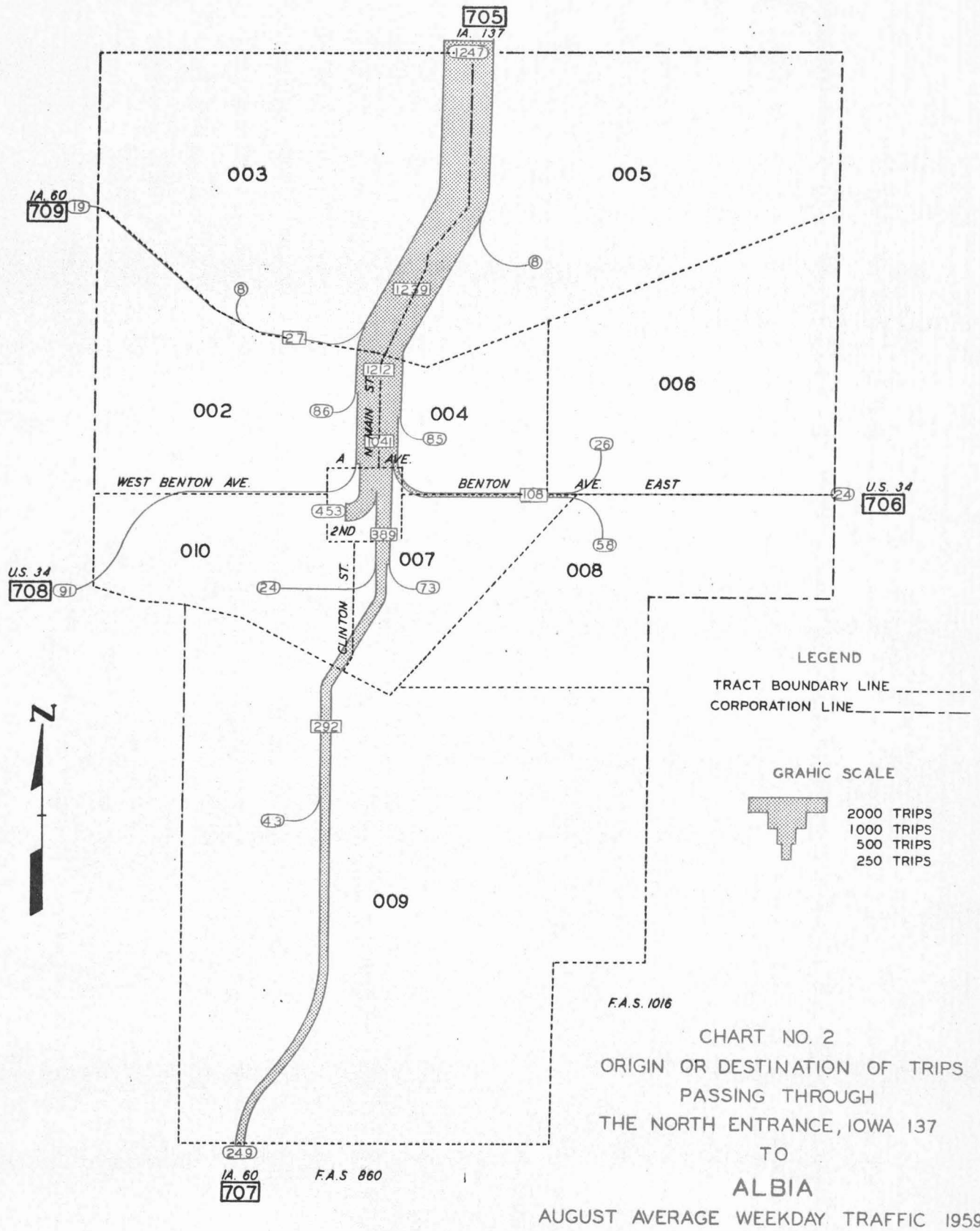
	VEHICLES	PERCENT
Trips with internal origin or destination	864	69.29
Trips with external origin and destination	383	30.71
Grand total of all trips through station 05	1247	100.00
Trips with origin or destination in C.B.D.	453	36.33
Number of interviews (16 hours)	1157	92.78
Percent of total traffic through all primary road entrances		14.35

INTERNAL DISPERSION

TRACT	VOLUME	PERCENT	TRACT	VOLUME	PERCENT
001	453	36.33	006	26	2.08
002	86	6.90	007	73	5.85
003	8	.64	008	58	4.65
004	85	6.82	009	43	3.45
005	8	.64	010	24	1.93
			TOTAL	864	69.29

EXTERNAL DISPERSION

STATION	VOLUME	PERCENT	STATION	VOLUME	PERCENT
05			08	91	7.30
06	24	1.92	09	19	1.52
07	249	19.97	TOTAL	383	30.71



DISPERSION OF TRAFFIC TO OR FROM U.S. 34 EAST

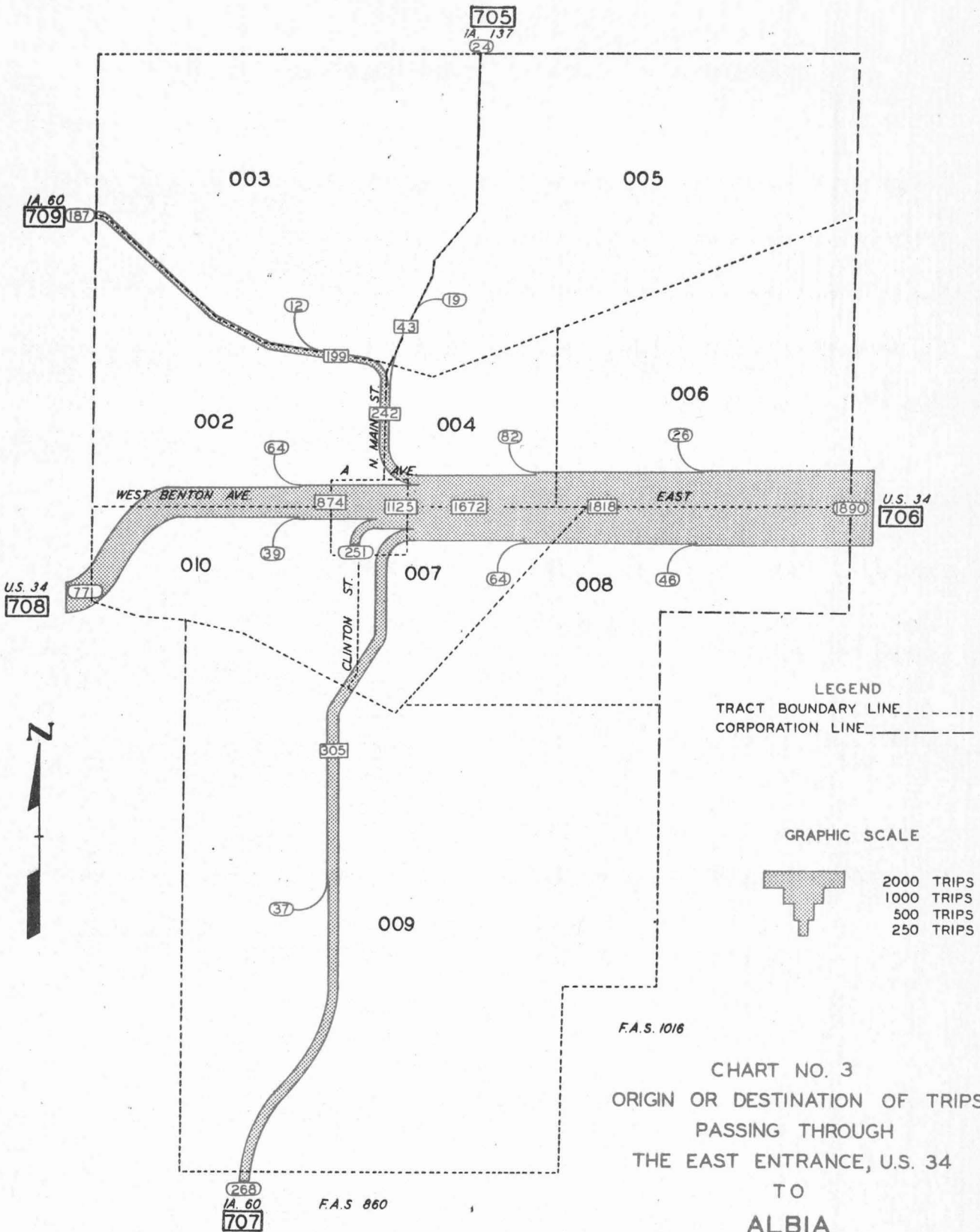
	VEHICLES	PERCENT
Trips with internal origin or destination	640	33.86
Trips with external origin and destination	1250	16.14
Grand total of all trips through station 706	1890	100.00
Trips with origin or destination in C.B.D.	251	13.28
Number of interviews (16 hours)	1626	96.61
Percent of total traffic through all primary road entrances		21.75

INTERNAL DISPERSION

TRACT	VOLUME	PERCENT	TRACT	VOLUME	PERCENT
001	251	13.28	006	26	1.38
002	64	3.39	007	64	3.39
003	12	.63	008	46	2.43
004	82	4.34	009	37	1.96
005	19	1.00	010	39	2.06
			TOTAL	640	33.86

EXTERNAL DISPERSION

STATION	VOLUME	PERCENT	STATION	VOLUME	PERCENT
05	24	1.27	08	771	40.79
06			09	187	9.90
07	268	14.18	TOTAL	1250	66.14



F.A.S. 1016

CHART NO. 3
 ORIGIN OR DESTINATION OF TRIPS
 PASSING THROUGH
 THE EAST ENTRANCE, U.S. 34
 TO
 ALBIA
 AUGUST AVERAGE WEEKDAY TRAFFIC 1959

DISPERSION OF TRAFFIC TO OR FROM IOWA 60 SOUTH

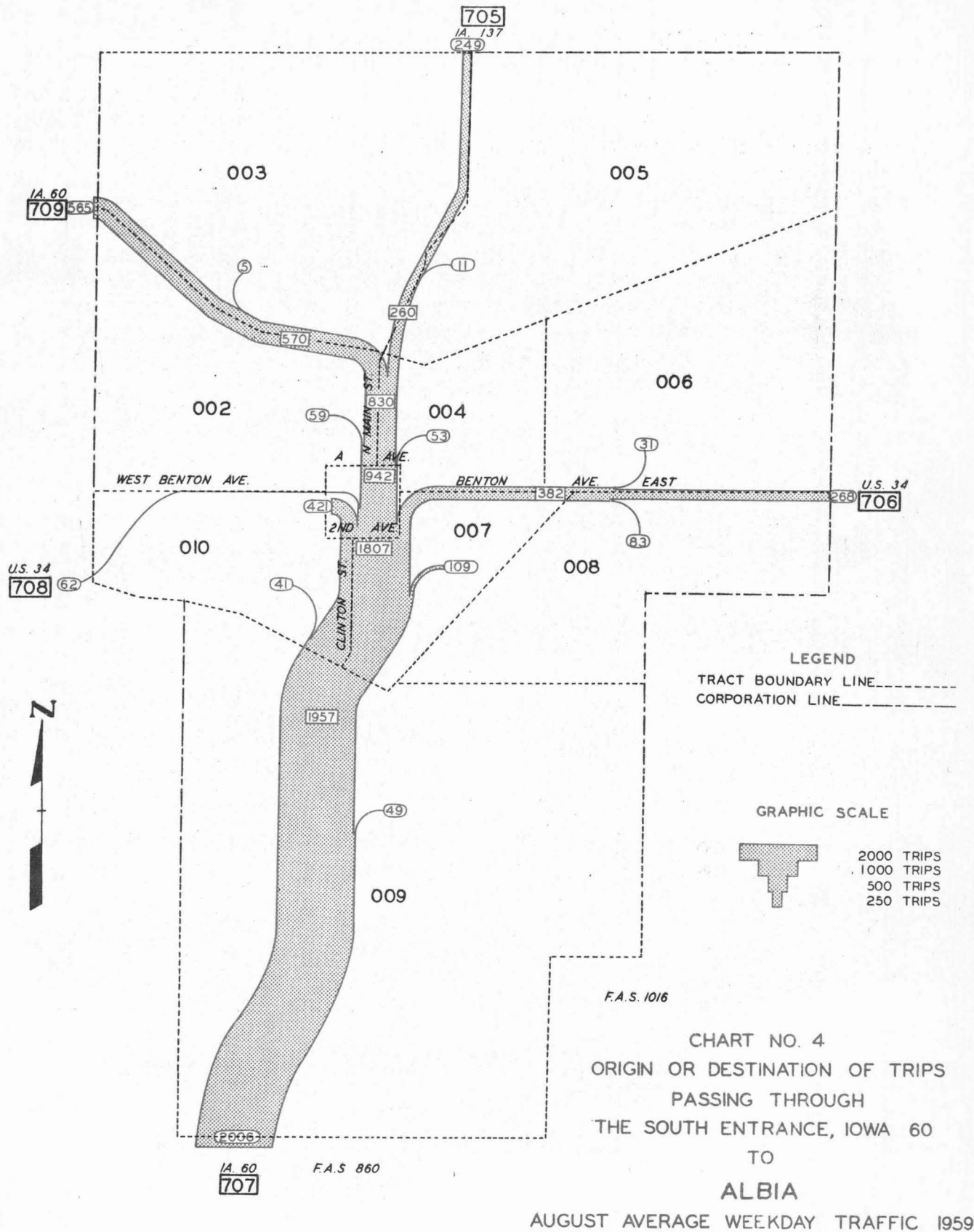
	VEHICLES	PERCENT
Trips with internal origin or destination	862	42.97
Trips with external origin and destination	1144	57.03
Grand total of all trips through station 07	2006	100.00
Trips with origin or destination in C.B.D.	421	20.99
Percent of total traffic through all primary road entrances		23.09

INTERNAL DISPERSION

TRACT	VOLUME	PERCENT	TRACT	VOLUME	PERCENT
001	421	20.99	006	31	1.55
002	59	2.94	007	109	5.43
003	5	.25	008	83	4.14
004	53	2.64	009	49	2.44
005	11	.55	010	41	2.04
			TOTAL	862	42.97

EXTERNAL DISPERSION

STATION	VOLUME	PERCENT	STATION	VOLUME	PERCENT
05	249	12.41	08	62	3.09
06	268	13.36	09	565	28.17
07			TOTAL	1144	57.03



DISPERSION OF TRAFFIC TO OR FROM U.S. 34 WEST

	VEHICLES	PERCENT
Trips with internal origin or destination	491	33.77
Trips with external origin and destination	963	66.23
Grand total of all trips through station 08	1454	100.00
Trips with origin or destination in C.B.D.	256	17.61
Percent of total traffic through all primary road entrances		16.73

INTERNAL DISPERSION

TRACT	VOLUME	PERCENT	TRACT	VOLUME	PERCENT
001	256	17.61	006	41	2.82
002	46	3.16	007	35	2.41
003	4	.28	008	20	1.38
004	54	3.71	009	13	.89
005	10	.69	010	12	.83
			TOTAL	491	33.77

EXTERNAL DISPERSION

STATION	VOLUME	PERCENT	STATION	VOLUME	PERCENT
05	91	6.26	08		
06	771	53.03	09	39	2.68
07	62	4.26			
			TOTAL	963	66.23

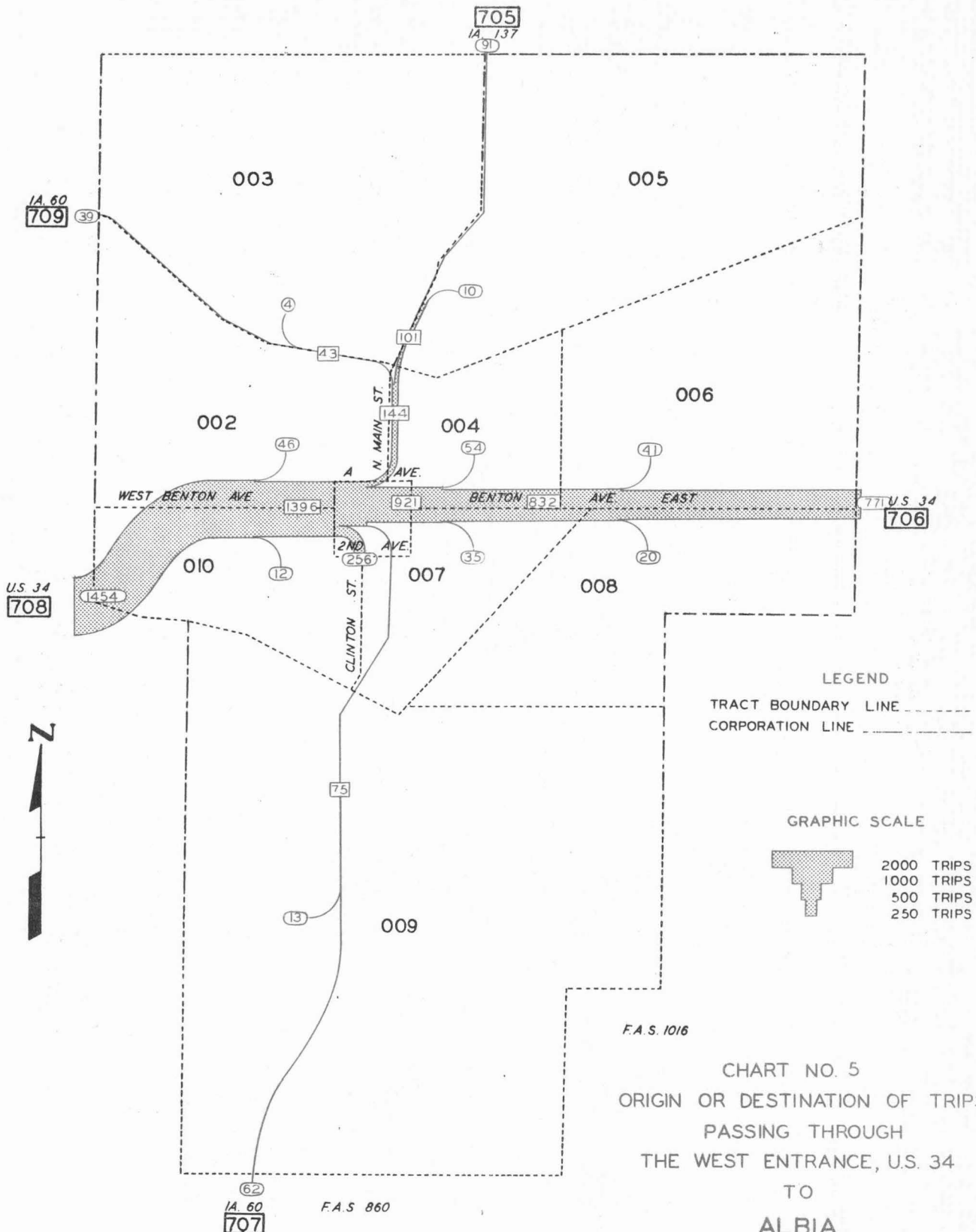


CHART NO. 5
 ORIGIN OR DESTINATION OF TRIPS
 PASSING THROUGH
 THE WEST ENTRANCE, U.S. 34
 TO
 ALBIA
 AUGUST AVERAGE WEEKDAY TRAFFIC 1959

DISPERSION OF TRAFFIC TO OR FROM IOWA 60 N.W.

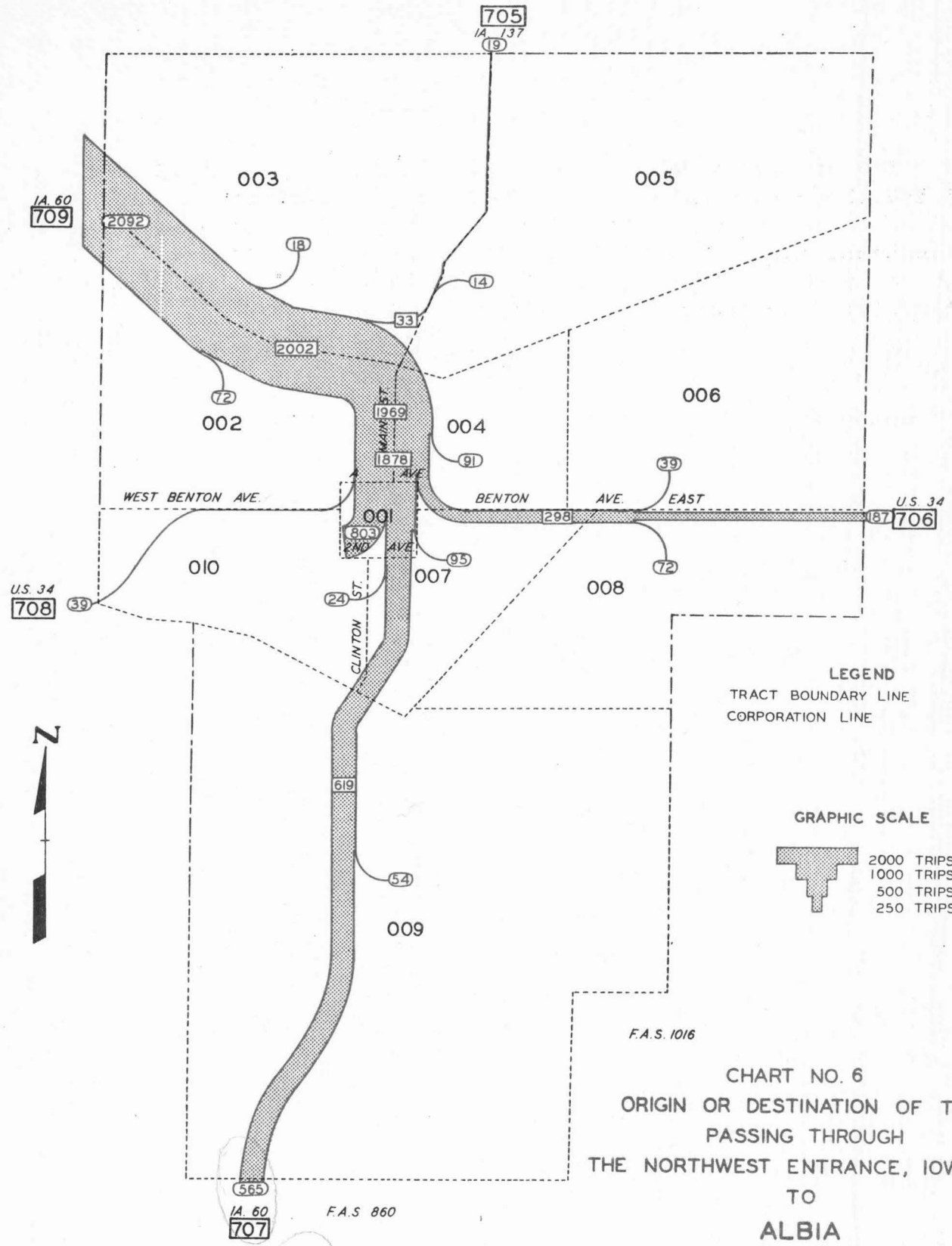
	VEHICLES	PERCENT
Trips with internal origin or destination	1282	61.28
Trips with external origin and destination	810	38.72
Grand total of all trips through station 09	2092	100.00
Trips with origin or destination in C.B.D.	803	38.38
Percent of total traffic through all primary road entrances		24.08

INTERNAL DISPERSION

TRACT	VOLUME	PERCENT	TRACT	VOLUME	PERCENT
001	803	38.38	006	39	1.87
002	72	3.44	007	95	4.54
003	18	.86	008	72	3.44
004	91	4.35	009	54	2.58
005	14	.67	010	24	1.15
			TOTAL	1282	61.28

EXTERNAL DISPERSION

STATION	VOLUME	PERCENT	STATION	VOLUME	PERCENT
05	19	.91	08	39	1.86
06	187	8.94	09		
07	565	27.01			
			Total	810	38.72



F.A.S. 1016

CHART NO. 6
 ORIGIN OR DESTINATION OF TRIPS
 PASSING THROUGH
 THE NORTHWEST ENTRANCE, IOWA 60
 TO
 ALBIA
 AUGUST AVERAGE WEEKDAY TRAFFIC 1959

1100

DESIRE LINE CHARTS

The following desire line charts illustrate desired routes of travel between external stations and internal tracts without regard to existing streets or highways. These charts graphically illustrate the travel desires of motorists and frequently point out the need for improvement of existing routes or construction of new ones to satisfy the demands of traffic.

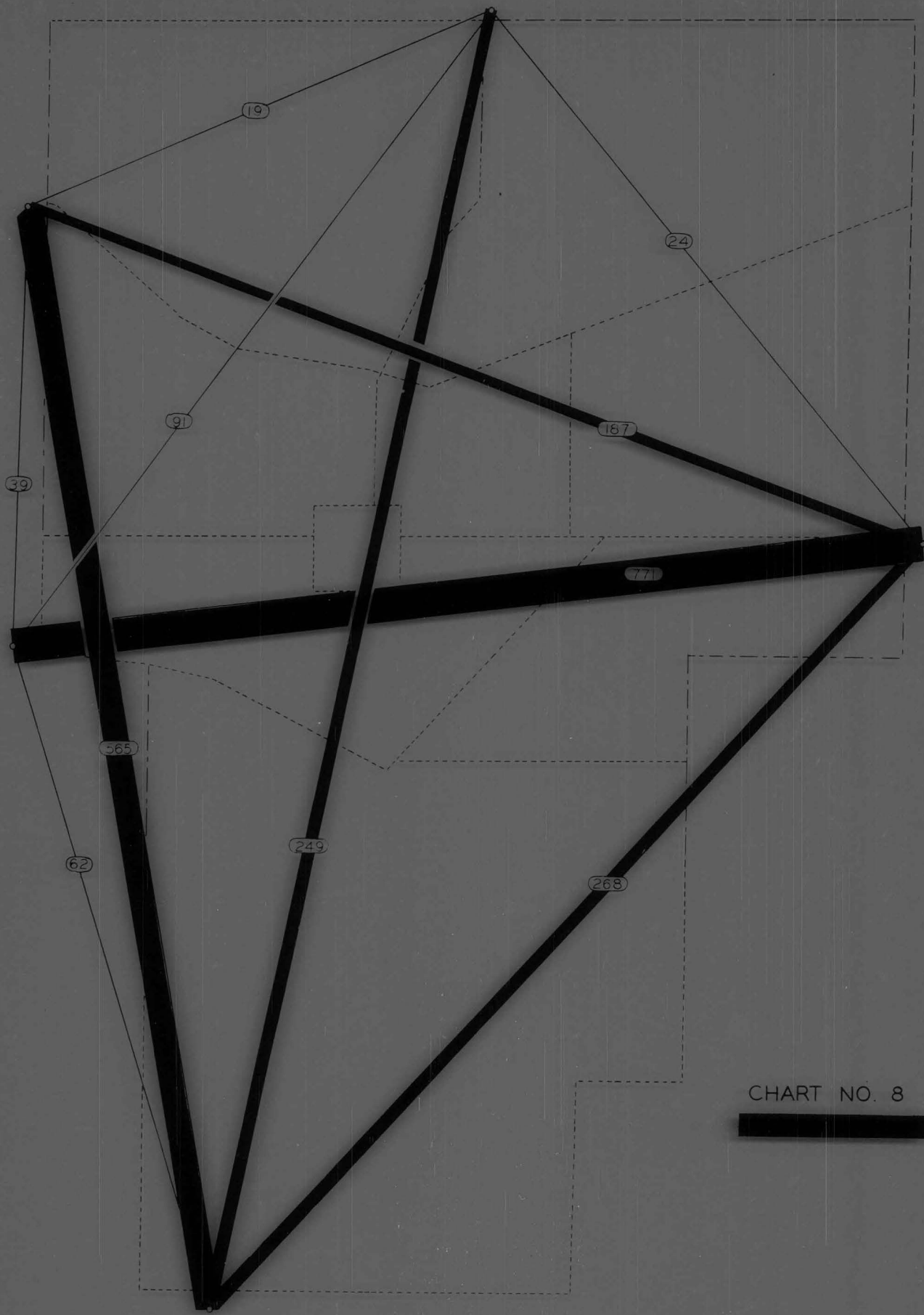
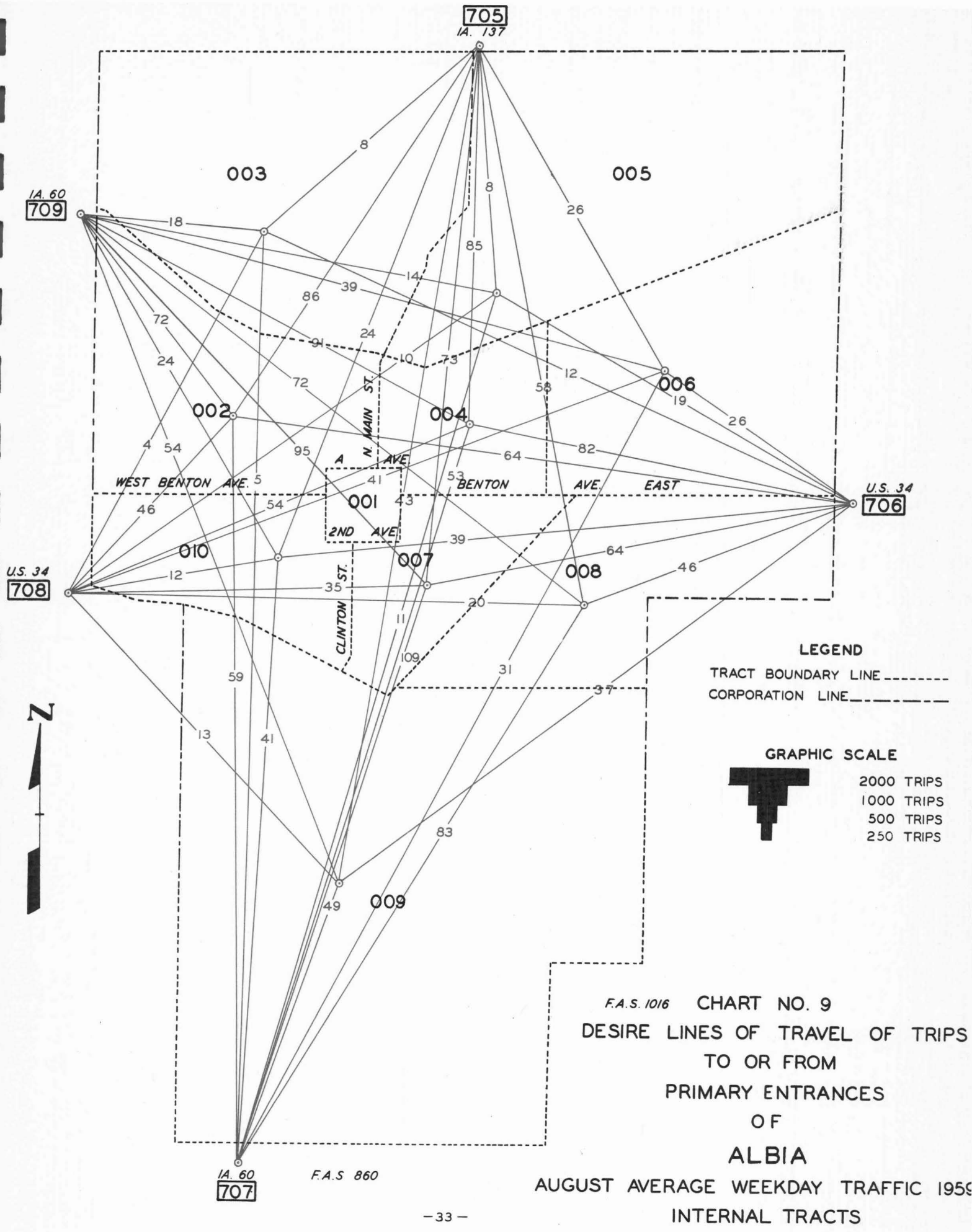


CHART NO. 8



OTHER EXTERNAL ENTRANCES





F.A.S. 1016 CHART NO. 9
 DESIRE LINES OF TRAVEL OF TRIPS
 TO OR FROM
 PRIMARY ENTRANCES
 OF
ALBIA
 AUGUST AVERAGE WEEKDAY TRAFFIC 1956
 INTERNAL TRACTS

ORIGIN AND/OR DESTINATION OF EXTERNAL TRIPS
PASSING THROUGH PRIMARY ROAD ENTRANCES OF ALBIA

Chart 10A shows the origin and/or destination of all external trips passing through the five primary road entrances of Albia to or from primary roads entering Iowa and other counties within the state. Routes shown are approximate rather than exact and should be interpreted as such.

Chart 10B is a continuation of chart 10A and shows the origin and/or destination of external trips to or from primary roads entering Monroe County, communities, within the county, and rural areas adjacent to Albia.

ORIGIN AND/OR DESTINATION OF EXTERNAL TRIPS PASSING THROUGH
PRIMARY ROAD ENTRANCES OF
ALBIA




AUGUST AVERAGE WEEKDAY TRAFFIC 1959

GRAPHIC SCALE



4000 TRIPS
2000 TRIPS
1000 TRIPS
500 TRIPS

LEGEND

-  U.S. HIGHWAY NO. 34
-  IOWA HIGHWAY NO. 60
-  IOWA HIGHWAY NO. 137

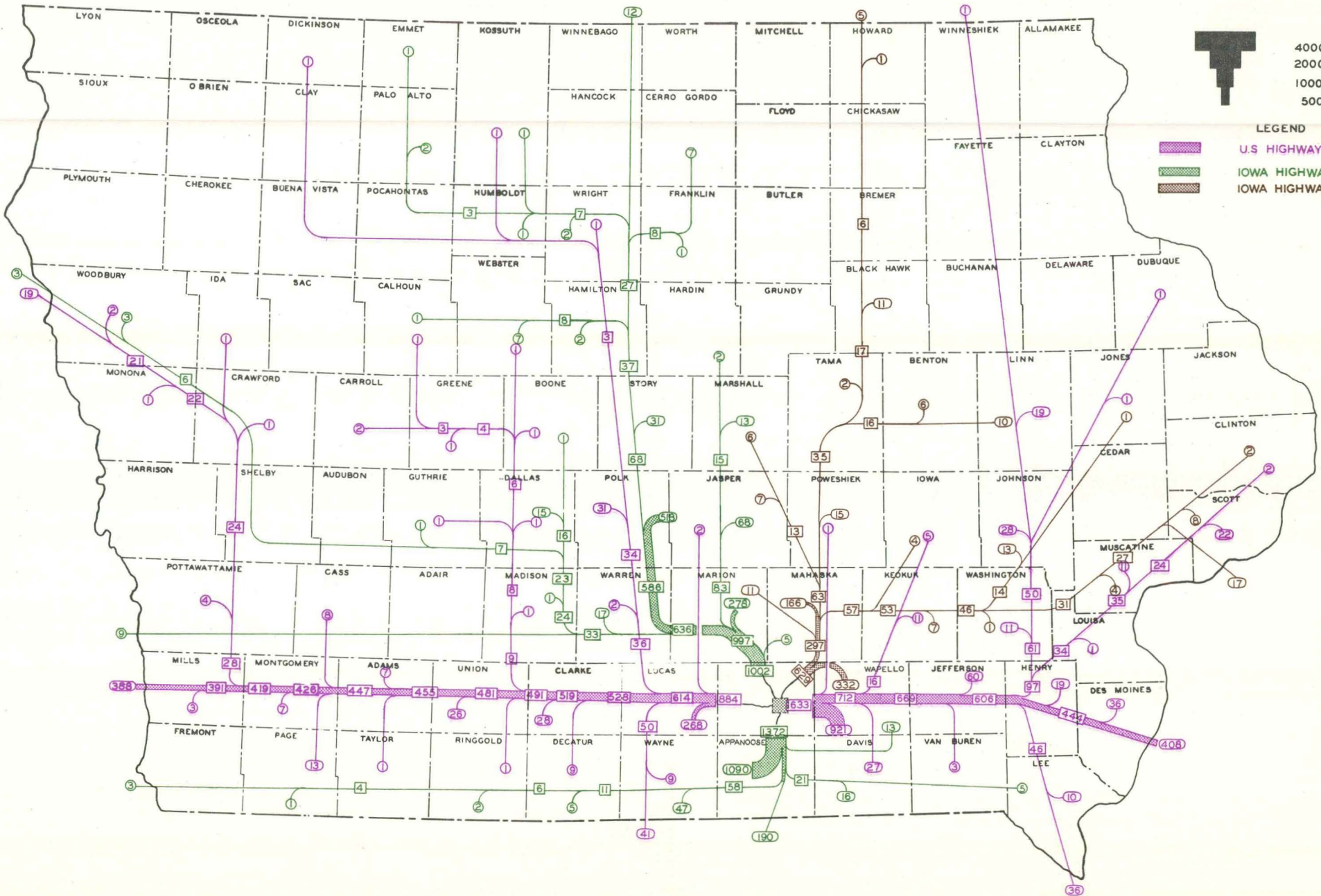
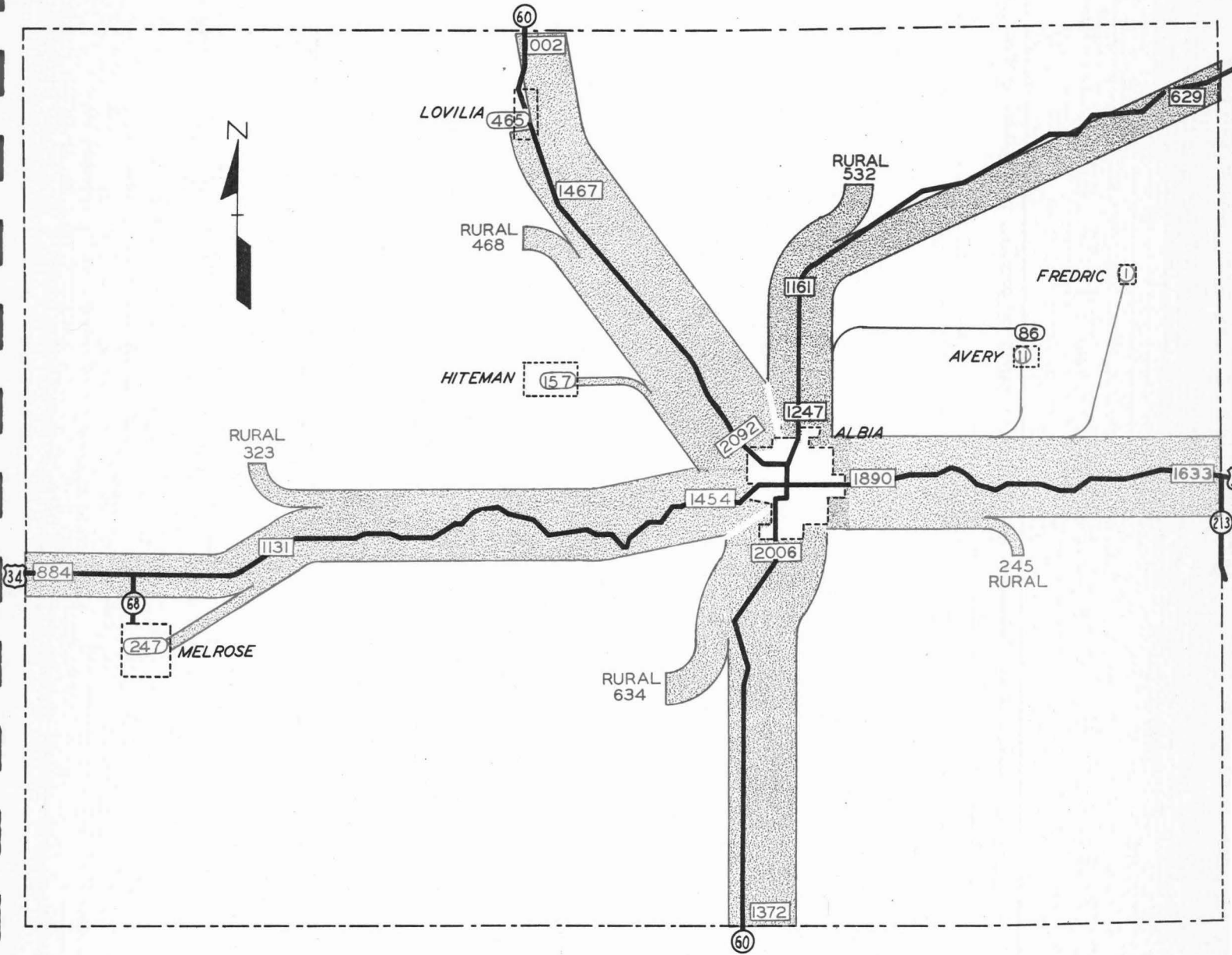


CHART NO. 10 B
 ORIGIN AND/OR DESTINATION OF EXTERNAL TRIPS
 PASSING THROUGH PRIMARY ROAD ENTRANCES
 TO OR FROM
 COMMUNITIES WITHIN MONROE CO.
 AUGUST AVERAGE WEEKDAY TRAFFIC 1959

LEGEND



2000 TRIPS
 1000 TRIPS
 500 TRIPS
 250 TRIPS



DISPERSION OF EXTERNAL TRIPS
PASSING THROUGH PRIMARY ROAD ENTRANCES OF ALBIA

Origin or Destination	Ia. 137 North		U.S. 34 East		Ia. 60 South		U.S. 34 West		Ia. 60 N.W.	
	05		06		07		08		09	
	No.	%	No.	%	No.	%	No.	%	No.	%
Avery	86	6.90	11	.58						
Frederick			1	.05						
Hiteman									157	7.50
Lovilia									465	22.23
Melrose							247	16.99		
Total to towns	86	6.90	12	.63			247	16.99	622	29.73
Rural Monroe Co.	532	42.66	245	12.96	634	31.61	323	22.21	468	22.37
Other Counties	607	48.68	1188	62.86	1179	58.77	436	29.99	978	46.75
Out-of-State	22	1.76	445	23.55	193	9.62	448	30.81	24	1.15
Grand Total	1247	100.00	1890	100.00	2006	100.00	1454	100.00	2092	100.00

The above chart shows the dispersion of 1959 August Average weekday traffic which passed through the five primary road entrances of Albia.

INTERPRETATION OF TABLE 1

The following table shows a compilation of 1959 August average weekday traffic for Albia.

Table number 1 shows the directional movement of external trips to, from, and through Albia. Tract or station origin may be found in the vertical columns along either side of the sheet. Tract or station destination may be found in the horizontal columns across the top or bottom of the sheet. In table 1, it will be necessary to add origins to destinations in order to determine the number of trips between two points.

ORIGIN AND DESTINATION OF TRIPS
ENTERING OR LEAVING ALBIA
August Average Weekday Traffic 1959

Table 1

Tract	001	002	003	004	005	006	007	008	009	010	Destination External								
											Albia Total	Iowa 137 N.	U.S. 34 E.	Iowa 60 S.	U.S. 34 W.	Iowa 60 N.W.	Ext. Total	Grand Total	
												705	706	707	708	709			
001												223	118	208	121	398	1068	1068	001
002												44	29	32	29	40	174	174	002
003												4	6	2	1	12	25	25	003
004												45	37	34	28	45	189	189	004
005												4	8	4	5	8	29	29	005
006												17	14	16	32	19	98	98	006
007												39	27	62	19	48	195	195	007
008												35	19	40	6	40	140	140	008
009												24	19	30	9	35	117	117	009
010												12	17	24	2	13	68	68	010
Albia Total												447	294	452	252	658	2103	2103	Albia Total
Ia. 137 N. 705	230	42	4	40	4	9	34	23	19	12	417		10	130	44	13	197	614	705
U.S. 34 E. 706	133	35	6	45	11	12	37	27	18	22	346	14	161	352	111		638	984	706
Ia. 60 S. 707	213	27	3	19	7	15	47	43	19	17	410	119	107		29	286	541	951	707
U.S. 34 W. 708	135	17	3	26	5	9	16	14	4	10	239	47	419	33		18	517	756	708
Ia. 60 N.W. 709	405	32	6	46	6	20	47	32	19	11	624	6	76	279	21		382	1006	709
Ext. Total	1116	153	22	176	33	65	181	139	79	72	2036	186	612	603	446	428	2275	4311	Ext. Total
Grand Total	1116	153	22	176	33	65	181	139	79	72	2036	635	906	1055	698	1086	4378	6414	Grand Total
	001	002	003	004	0050	006	007	008	009	010	Albia Total	705	706	707	708	709	Ext. Total	Grand Total	

Origin External -41-

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