# THE VILLAGE OF TOLONO

An application of urban planning techniques

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### INTRODUCTION

This report is filed as part of a course excercise undertaken in partial fulfillment of requirements for Urban Planning 376: Planning Analysis. The report is the final product of the work performed throughout the Spring Semester 1976 by a team of nine students. It includes a land use survey, questionnaire research, and a five-part planning analysis for the development of the Village of Tolono.

The land use survey and questionnaire research were carried out in February 1976 by the team of students. The data collected by each student were compiled into a complete set of materials which each team member, in turn, used in his/her individual analyses.

It must be stated that the following report is not a comprehensive plan, but rather a collection of individual reports.

No attempt has been made to address policy issues, nor have any goals and objectives been formulated. This report should be considered a learning excercise through which students were familiarized with methods of collecting planning data and became acquainted with the development of a logic which allows responses to be rationally used.

In short, this report seeks to identify and understand the problems which exist in the Village of Tolono and, by doing so, should be a useful tool to elected officials and the electorate within Tolono.

The analyses in this report include:

Population Estimation and Projection Land Use Analysis Housing Analysis Commercial Development Feasibility Traffic Analysis

### Population Estimation and Projection

This chapter examines the historical population trends in the Village of Tolono in order to help determine what the most suitable technique would be in judging future population sizes. Cohort survival with migration modification was chosen as the most suitable technique and has been applied to the historical data to produce estimates of the current and future populations. The population analysis indicates that the population of Tolono has increased at a quick pace for the past 35 years. It will continue to increase, though the projected rate of increase will be somewhat less than the previous trend.

According to the projection, the population in the Village will be 2,400 in 1980 and 2,900 in 1985. Current Village population is listed at 2,000. During the next ten years, the number of young adults and young families will increase, though smaller proportions of middle-aged adults and children are to be expected. With increasing time, this last group will increase. Current societal trends towards smaller families indicates the reduction in family size within Tolono and the proportion of individuals under 20 years of age will never again match current numbers. The number of elderly residents will continue to increase, though percentage-wise, the number of individuals aged 60 years and above will never be a majority of the Village's population. These changes in population indicate the kinds of change in services which must be accounted for in the future

### Land Use Analysis

The land use analysis considers the patterns of development and changes which have occurred in land use within Tolono. Problem identification, with respect to residential, commercial, and open parcels is discussed.

The analysis indicates that there are opportunities for the development of housing and local service businesses, since a sizeable portion of land is available within the Village and it is thought that such services will be compatible with the present course of the Village. However, the substantial costs of land development and improvement, including sewers and supplied water systems will undoubtedly set parameters on the number of parcels which can be developed. Since Tolono is primarily residential, the outlook for the development of industry within the Village is unlikely, both now and in the future.

# Housing Analysis

Housing stock and characteristics are discussed in this chapter. Present residents of Tolono seem genuinely satisfied with their current housing and there appears little need for additional types of units. Additionally, apartments have been built in the southeastern portion of the Village, increasing the oppportunities for renters to enter into the Village's life. Since most of the newcomers to Tolono are young families with children, housing has been built, seemingly, with this group in mind. The net density of new residential development is relatively higher than that of the older residential areas.

This section also addresses housing condition and finds that most of the structures within the Village are of excellent condition, with the next largest group needing only minor, weekend-type repairs. Abandoned and unsightly housing units are not found in the Village.

### Commercial Development Feasibility

The chapter describes existing businesses and carries out a commercial needs analysis. It was found that some types of local services should and can be developed with substantial economic feasibility. Residents did express a demand for new services, among them a pharmacy, auto service garage, and family restaurant. These additions are considered as are suggestions for improvements within existing businesses.

### Traffic Analysis

The analysis considers the types of traffic generators, including automobiles, bicycles, and pedestrians, and views the expected increased traffic caused by the new residential and commercial developments. The analysis has found that traffic problems will not be significant in Tolono. However, traffic problems have been observed with respect to U.S. Route 45 and these do need to be solved. One underpass connecting the eastern and western portions of the Village and another connecting the northeastern and southeastern sections are recommended. The first underpass has been deemed most crucial as a safety problem has been identified with respect to children crossing the highway.

Yet another concern is the problem presented by the lack of sidewalks within the Village. Due to this situation, pedestrians must often use roadways in order to travel about Tolono. Construction of walkways would alleviate this inconvenience.

### POPULATION ESTIMATION AND PROJECTION

### Summary

Although population and estimation does not involve planning in itself, this technique is the starting point for most planning projects. The numbers and pyramids arrived at in the population projection are used in every facet of planning -- from land use to housing; from commercial development feasibility to traffic analysis. Formulation of realistic and meaningful goals in any city or town depend, to a large measure, on future populations. This chapter addresses, then, the numbers of persons and the ages of individuals that can be expected to reside in Tolono in future decades.

Four projection techniques are available to the planning analyst: The linear model, the modified exponential curve, the Gompertz curve, and the cohort-survival model. For the purposes of our report, the cohort-survival model has been chosen to depict the future composition of Tolono's residents. By way of this model, it can be assumed that any population increase is caused by natural increase and migration which allow many growth factors to be accounted for separately. In addition, this method also provides breakdowns by age and sex, charts which will be helpful in future analyses.

# Data Base

Secondary and primary data sources were used in the compilation of this chapter. The United States Census, collected by the United States Bureau of the Census and published by the United State Department of Commerce was the main secondary data source used in this report.

In addition to the Census, other secondary sources used included the <u>Vital Statistics in Illinois 1970</u>, collected by the State of Illinois Department of Public Health. The data includes the historical growth of the State of Illinois, Champaign County, and the Village of Tolono; the age-sex pyramids of the population and the birth and death rates of the State of Illinois.

The primary data used in this chapter was obtained from the demographic part of the questionnaire which was distributed in the households within the team's sample of Tolono. Information requested in this section included characteristics of households in Tolono and characteristics of mobility and reasons for it.

The entire range of data previously described has been incorporated into the four basic population techniques described on the preceding page.

# Historical Population Trends

Since 1940, the population of the Village of Tolono has increased at a rate which exceeds that of the entire state. A 30 per cent increase was noted in Tolono between 1960 and 1970, while Illinois had a 10.2 per cent increase and Champaign County experienced a 23.3 per cent increase. Similar population increases were experienced by towns within a 15-mile radiues of Champaign-Urbana -- 33 per cent in Sidney, 28 per cent in St. Joseph, and 38 per cent in Philo -- during the same period of time.

# Current Population Estimate and Composition

The current population of Tolono and an estimate are derived from the 1/3 sample questionnaire research by appropriately weighting the data on sex and age of members of housholds from the sample.

The estimate for the population of 1975 is 2123. Of this number, about 43.3 per cent are under 20 years old; 52.4 per cent are between 20 and 63 years old; and 4.2 per cent are 65 years of age and older. In comparison with Champaign County, Tolono has a larger proportion of the population which is under 20 years of age. (See Population Pyramid 1975 - Figure 1 and Comparison of Population Composition Table 1).

Based on the same average household size in Tolono in 1970, there are now about 640 households, 29 more than in 1970. Among these households, about 30 per cent of the residents have always lived in Tolono; 19 per cent moved to the Village before 1960; 25 per cent moved to Tolono between 1960 and 1970; and 26 per cent came to the Village since 1970. Consequently, one-half of the population are "new" residents, with less than 15 years of residency.

The majority of the new residents came from urban areas.

About 38 per cent of the residents came from towns with populations

less than 2,500. Only 14 per cent had lived on a farm. Tolono appears

to be attractive to these residents due to its small town atmosphere.

Access to nearby towns and educational reasons also influenced individuals
to move to Tolono (See Table 2).

# Population Projections

Alternative Projection Techniques

Four methods can be used to estimate future populations.

They are the linear model, the modified exponential curve, the

Gompertz curve, and the cohort-survival model with migration

modification. In the first three techniques, it is assumed that

future populations in a community will caused by past growth in

the same locale. With respect to Tolono, the techniques are based

on the following historical data:

Year	# Of Population	# Of Change	% Change
1940	876		
1950	1,065	189	21
1960	1,539	474	30.7
1970	2,027	488	31.7

The linear model, which assumes that the Village of Tolono has grown by nearly equal absolute increments of growth per a certain period of time, has estimates based on the average number of population change for five-year intervals, during the period from 1940 to 1970. These intervals relate rather closely with the current population estimate and the 1980 estimate from the cohort-survival model.

It should be noted that linear model estimations tend to be lower than those of other techniques, the further in the future one goes. (See Table 3).

The growth rate in Tolono between 1950 and 1970 was very high. The average growth rate which was used to determine the modified exponential and the Gompertz curve techniques has caused higher results than would be expected in the future. Consequently, the population in the modified curve with the capcity (K) of 6,000 reaches 2,900 in 1975 (the current estimate from the questionnaire research is 2,123) and almost doubles itself in 25 years. The Gompertz growth curve with a population limit of 20,802 also rises somewhat astronomically, (See Table 3). The smaller figure arrived at by the cohort survival method is much more realistic.

As was mentioned previously, emphasis has been given in this report to the cohort-survival method with migration modification technique. The other techniques should merely stand as figures against which to compare the results from the cohort-survival method.

The cohort-survival method was chosen as it gives a useful breakdown by age and sex and because its causal structure is more valid that the other techniques. The basis of this method's logic is that natural increase and migration are the true causes of population change. With respect to the Village of Tolono, no breakdown by age and sex of the past populations was available, so the data collected in the questionnaires were used to establish the current population estimate and its breakdown by age and sex. These breakdowns, then, have become the basis for the cohort-survival projection. Additionally, State of Illinois birth and death rates for 1970 have been applied

In addition to this data, migration rates by age and sex were acquired by applying the residual technique with Champaign County's historical growth. It is to be remembered that Champaign County's historical growth has a breakdown by age and sex, while Tolono's does not. Since Tolono has grown at a higher rate than the county as a whole, during the past 30 years, it might be concluded that the rates acquired in such a way must be lower than the true migration rates in Tolono. It must be added that the limited economic base within the Village and the utility capacity limits dictate that the growth rate of Tolono will inevitably go down.

# Results of Projections and Interpretations

Figures 2 through 6 show the estimates for the future population, which were arrived at by the cohort-survival technique. According to the projection, Tolono will continue to grow rapidly in the next 10 years and reach almost 3,000 in 1985. A decline in the growth rate should be expected after that point, so much so that even the absolute increments of growth per five-year intervals will become fewer. (See Table 4).

Between the present and 1990, the proportion of people in the 0-19 year age group will decline, while the numbers of people between 20-39 will increase. In fact, by 1990, persons within the 20-39 age group will constitute 65 per cent of the 20-65 age group.

An interpretation of these figures might be that in the future, Tolono will be comprised of more young people and young families with few children, rather than middle-aged households with many children. After 1990, the number of middle-aged people increases and so does the number of persons aged 0-19 years. Persons in the 20-39 age group still constitute a large portion of the population. In regards to persons aged 65 years and older, they will increase in number, though they will constitute relatively the same proportion of the population as they do currently.

Percent of Change from Preceding Period

1941-1950	1951-1960	1961-1970	1971-1980	Year
10.3	15.7	10.2	1	Illinois
		23.2	ı	Champaign County
21	30.7	31.7	21 (estimated)	Tolono
69.8	25.3	14	1	Champaign Urbana
62	19	20	•	Urbana

(8)

Table 2: Population Composition by Age; Tolono Vs Champaign County

Total	65 and above	40 - 64	20 - 39	0 - 19	Age group
100.0%(163,281)	6.0%	18.1%	37.3%	38.6%	Champaign County 1970
100.0%(2,123)	4.2%	20.9%	31.5%	24.54	Tolono 1975

Table 3: Why Tolono?

	No Influence	No Strongly Influence Influenced Influenced	Strongly Influenced	Total
Employment Opportunities	73%	12%	15%	100%(244)
Access to Nearby Town	53%	28%	19%	100%
Family Ties	64%	16%	20%	100%(2)
Small Town Environment	29%	34%	37%	100%
Educational Reasons	60%	21%	19%	100%

Table 4: Linear, Modified Exponential and Gompertz VS Cohort-Survival in Tolono

				Cohor	t-Survival	
Year	Linear	Modified	Gompertz	#51-+:	#Change	%Change
		Exponential		#Population	5 years 5 years	5 yea
1970	2,027	2,027	2,027	2,027	0	n S
1975	2,240	2,800	2,027	2,123	ა ი ა	7 1.00
1980	2,400	3,300	3,200	2,421	101	0 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
1985	2,640	3,850	5,400	2,912	876	
1990	2,880	4,300	7,800	3,280	) ) () () () () () () () () () () () ()	
1995	3,100	4,650	10,000	3,505	101	18 C
2000	3,200	4,882	12,080	3,626	2 +	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2005	1	ŧ	i s	3,779	700	1/6

1975 2005 2000 1980 1985 1990 1995 33.4%
29.8%
29.7%
31.4%
32.0% 30.4% 43.4% 0-19 37.4% 45.6% 48.6% 49.84 36.1% 20-39 32.5% Age Groups 26.7% 24.2% 19.6% 16.1% 15.0% 17.7% 20.9% 40-64 6.4% 5.5% 65+ 100% (2,421) 100% (2,912) 100% (3,280) 100% (3,505) 100% (3,626) 100%(3,779) 100%(2,123) Total

Table 5: Population Composition of Tolono; Now and the Future

# +++++++ COHORT SURVIVAL PROJECTION +++++++ >>>>>>>> HISTORICAL BASE YEAR 1978 <<<<<<<<

A REAL PROPERTY OF THE PROPERT	entre en				the second distance of the second sec
COHOKT	MALES	LEVEL	POPULATION PYRAMID	LEVEL	FEMALES
05 5 <del>+</del>	5.00	1.0	ZT.	1.0	₽. 80°
80-84	5.00	1.0		1.0	8
75-79	Ø. Ø	1.0	: <del>7</del> 3	1.0	
70-74	7.00	1.0	ट <u>उ</u> द्र ⊒ इ.च.च		5 60
45=69	35,00	5.0	2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	4.0	28.00
79-74	42.00	6.0	ه اداد . و اعد : د اعد اد	υ. •	37.00
55-59	16.00	5.0	23.2 23.3 24.1 14.1 14.1 14.1 14.1 14.1 14.1 14.1	7.0	49.00
50-54	35.00	5.	12.22 12.22 12.22 13.22 14.40 14	5.0	34.00
05=00	44.00	6.0		5.0	38.00
46-44	75.00	10.0		10.0	74.00
35=39	82.00	11.0		10.0	79.00
30-34	72.00	9.0		8.0	64.00
62=53	80.00	10.0		12.0	91,60
20-24	93,00	12,0		14.0	108.00
15-19	162,00	20.0		15.0	119,00
18-14	114.00	15.0	KARAKAKAKAKAN TITU TITU TITU TITU TITU TITU TITU TIT	13.0	101.00
5= 9	131.00	17.0	ASAK MARAKANANAN TERRETARA PERSENTAN	12.0	00.16
5	112.00	14.0		12.0	92.00
TOTALS	1104.00				1019,00
PULATION FOR	1978 2	123,00			

Figure 2

++++++

CCHORT SURVIVAL PROJECTION

+++++++

>>>>>>>>>>> PROJECTED YEAR 1980 <<<<<<<<

			0401 gA		DIN ATTON FOR
1169,50				1251.56	TUTALS
114,51	10.0	MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	11.0	119,18	8 - 4
73,56	7.0	33 33 33 33 33 33 33 31 31 31 31 31 31 3	8	90.37	5 2 9
85,23	8.0		11.0	123,11	هسي
95.10	9.0		10.0	106.89	15-19
150.91	13.0		20.0	235,75	20-24
175,32	15.0		15.0	170.63	25-29
95.30	9.0	233 333 333 333 331 331 331 331 331 331	6.0	68.90	30-34
55,60	5.6	23 33 33 33 33 33 31 31 31 31 31 31 31 31	5.0	48,91	35-39
69.83	6.6		6.0	67.64	45-44
69,46	6.0	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	6.0	65,12	45-49
36.07	4.0	A. A.	4.0	39,96	
32.86	W.S	33 33 11 11 11 11	3.0	31.80	55-59
46.81	4.0	3 3 3 3 3 3 3 3 3 3	₽•Ø	14,44	58-64
34,36	3.0	E 71	4.0	35,59	65-69
24.31	3.0	33 33 77	3.0	26.70	70-14
4.13	1.0	3 3: 1: 1::	1.0	4.83	15-19
5,33	1.0	3 3	1.0	8.0	80-84
0.80	1.0	<u> </u>	1.0	1,74	65+
FEMALES	LEVEL	TOTOLATION PYRAMIO	רניאני	246.00	20 27 27 27 27 27 27 27 27 27 27 27 27 27

Figure 3

161.	8.0	22 22 22 22 27 27 27 27 27 27 27 27 27 2	8.0	168,04	6
922	U. 60		-	4 6 6 7	1
	1 .	MMMMTT	1	1 '	0
*A 90	4 2	EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE	4.0	84,93	19114
80,25	4.0		6.0	115,43	15-19
120.60	5	ANAMANA MANAMANA MANAMANA MANAMANA MANAMANA	8.9	155,56	50=24
244.9	12.0	XXXXXXXX XXXXXXX TT	200		€ 50 100 100 100 100 100 100 100 100 100 1
183	9.0	***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  **	7.0	9	. 1
82.	4.6	33 33 11 11 11 11 11 11 11 11 11 11 11 1	9	46,80	35=39
49	3.0		-	2	
65.	4.0	75 77	W 9	8.7	45=49
65,	4.0	11 11 11 11 11 11 11 11 11 11 11 11 11	3.0	9.1	50=54
34.	8.5	3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	ານ •	36,31	20.00
31.	N. S	333 111 111	n.	00	- 1
43.	້ອ	XX TIT		S. C.	65169
29.	₽ •	Z33:	ຄ		. 8
95	1.0	3 3 3 1 7 1	1 . 0	18,45	U:
3.	1.0	<b>₹ ₹</b>	1.0	2.82	89-84
W.	1.0	3.3 T. TI	1.0	0.61	ာ (၄) +
FEMAL	FEVEL	POPULATION PYRAMID	LEVEL	MALES	СОНОЯТ

OPULATION FOR 1985

2912.16

Figure 4

	-		85.08	)R 1980 3280	OPULATION FOR
1572,56				.1707.72	TOTALS
190.33	11.0	MAMMAMMAMMAMATTTTTTTTTTTTTTTTTTTTTTTTTT	11.0	198.10	P= 4
129,09	7.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 . 0	135,59	5.
85.75	5.0	33 33 77 77 77 77 77	£ €	90.37	10-14
64.87	4.0	333 333 333 333 777 777 777	ກ <b>ູ</b> 0	79.63	15-19
101.77	6.0		9.0	167.98	12-05
195.78	11.0		16.0	285,41	25-29
256,56	14.0		20.00	372,52	30=34
159,51	9.0	14 14 14 14 14 14 14 14 14 15 14 15	6.0	99.82	35=30
73,19	. 4.0	د <b>اده</b> . زار د ادهد زاید	2.0	38,69	44-44
46,13	3.0	را <u>ما او</u> داها او	8	35.03	45=49
62,23	4.0	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0	53.34	50-54
63,73	4.0	1 11 13	3.0	53,74	55-59
33.31	N.	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	v • 2	30,77	60-64
29,16	0 °C	333	₽ •	24,32	65-69
37.75	₽.0	Z Z:	1.0	9,33	70-70
24,65	<b>N</b>	ड <u>ड</u>	1.0	18,74	75-79
15.29	1.0	₹ <b>₹</b>	1.0	10.76	82-84
3,48	1.0	3 3 N	1 , 0	1.68	<del>2</del> 22 +
FEMALES	LEVEL	POPULATION PYRAMID	LEVEL	MALES	COHORT
*	**************************************	+++++ COHORT SURVIVAL PROJECTION >>>>>>>> PROJECTED YEAR 1990 <<<<<	*		

Figure 5

	And the same of th		>>>>>>> PROJECTED YEAR 1998 <<<<<<	^^^^	
COHORT	MALES	LEVEL	POPULATION PYRAMID	LEVEL	FEMALES
85 +	6.18	1.0		1.0	11.10
80-84	10,94	1.0	\$ 3.33 T. T. T.	1.5	©:
75-79	r. 44	1 . 0	1		31,19
70-74	18,55	1.0	1	rv . 0	25,31
65=69	27,76	₽ •	233	S. 6	30,93
00-04	48,50	3.0		4.0	60.88
55-59	48,47	3.0		4.0	60.14
いいい	31.81	50		3.0	43.80
60-54	33,52	w w	2 2 2 7 7 7 7 7 7 7 7 7	5.0	68.70
42-44	82,33	6.0		9.8	141.00
35=38	253,03	17.0		15.0	68,222
30-30	245,80	16.0		14.0	205.03
62°52	12.80%	0.0S		11.0	165,21
20-24	115,89	8.0	AZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ	6.0	82.27
15-19	84.74	6.0	22 22 22 22 22 22 22 22 22 21 21 21 21 2	5.0	80.74
10=14	127,42	9.0		8 . 0	120.91
5= 9	159,84	11.0		10.0	152,18
6- 4	190.89	13,0	333 333 333 333 333 333 333 333 333 33	12.0	183,41
TOTALS	1800,31				1704.45

PUPULATION FOR 1998

3504.77

Figure 6

			3626,46	2000	PUPULATION FOR
1793,32				1833,13	TUTALS
164.42	13.0	MMMMMMMMMETETTT	13.0	171.13	P= 4
146.65	11.0	**************************************	12°0	154.03	5 9
U	11.0	MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	12.0	150,21	10-14
113,84	9.0	333 333 333 333 333 333 333 333 333 33	9 0	119,47	15-19
102.40	8.0	333 333 333 333 333 333 333 333 333 33	10.0	123,32	20-24
133,55	10.0	33333333333333333333333333333333333333	16.0	212,62	62-53
W . 0	13.0		20.0	265,43	30-34
8	14.0		13.0	166.96	6£=5x
97.0	•	MAMMAN TO THE TOTAL TOTA	16.0	208.71	40-44
130,35	10.0	**************************************	6.0	71.49	45=49
N	5,0	12 12 12 13 12 13 13 14	W .	30.44	50-54
42.33	3.0	(12. 12. 12. 12.	₽ 0	28,91	55-59
57.46	5.0	333 333 333 333 333 333 333 333 333 33	4.0	43.74	62-64
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### LAND USE ANALYSIS

### Summary

Land use analysis is one of the essential steps needed to be taken in planning for development. Integral to this process is the examination of the patterns of development and change taking place in the Village, current land use inventory and use, and characteristics of vacant land. Land use problems and opportunities for future development are also included in this analysis. Primary data collected from the land use survey and secondary data made available by the Village of Tolono Board were used in this analysis.

It is clear that Tolono has grown rapidly during the past year. It is increasingly likely that Tolono will continue to grow in residential use. New supporting facilities and services will have to be developed and old ones should be improved. Available vacant land in various parts of the Village can offer adequate land areas and suitable locations for both housing and commercial developments. The lack or inadequacy of some basic utilities and amenities and the high cost of new provision and improvement of such utilities and amenities proves to be a drawback. The problem cannot be dealt with competently in this paper; a further and more extensive study should be sought if specific development programs are to be planned.

### Data Base

Primary data collected from the land use survey and the questionnaire reserach performed by nine students in the team serve as the basis for this analysis. In the land use survey, all land, both in use and vacant, were identified on a parcel basis. Each parcel of land was recorded in terms of its location, use, and the number of buildings situated on it. Each building was, in turn, recorded in terms of its use, number of floors, condition, age, number of dwelling units, number of vacant units, and the number of establishments. Finally, each establishment was recorded in terms of its kinds as classified by the Standard Industrial Classification and the number of persons employed.

Floor area of each building and space used by each establishment were not recorded in this study. However, since most buildings within the Village are two or less stories high and hold at most one establishment, the unavailability of this data in the report is not crucial. To compensate for this lack of information, questionnaire research was conducted whereby approximately 40 per cent of all households within the Village were sampled. The data from this survey yields information on the current land use and spatial opportunities for future development.

Secondary data, such as the history of development in Tolono, was made available by the Village Poard. Complete information on building permits, registration of business establishments, and assessor's records, to which the team did not have access, would certainly have made for a more technically accurate report. It is advisable that this information be gathered prior to any large development within the Village.

# Patterns of Development and Change

Tolono began as a railroad town. The first structure in the Village was a hotel-station house built in 1855 by the railroads and the town grew up around this point. The Illinois Central and the Norfolk and Western lines cross each other here and divide Tolono into four parts. The first developments and construction occurred in the northeastern section (Block groups 300 and 400C in figure 1), where business establishments, churches, and the easiest residences were located. In this section, approximately one-half of the houses were built prior to 1940. The latest development within the Village seems to be in Block groups 200B and 400A, where most of the homes (97 and 100 per cent, respectively) were built after 1940.

In general, older houses are found in all sections of the Village, indicating that the present outline of the Village was well designed prior to 1940. Developments since that period have been more filling the interior of the Village, rather than expanding existing boundaries.

# Current Land Inventory and Use

Tolono has about 1,200 acres of land bounded by the Village limits, 40 per cent of which has been used for agricultural purposes. The major parcel of agricultural land within the Village covers one-half of the northwestern section, the rest generally surrounds the Village's built-up areas.

Of the developed land area, 45 per cent has been used for railroads and public streets. Streets were laid out essentially in a grid pattern, though most now take a meandering quality. With the exception of Washington and Main S<sup>†</sup>reets, streets are two-land, of eighty-foot right-of-way and without walks. Small ditches are dug to both sides of the street to serve as storm sewers.

Another 37 per cent has been taken for residential use, predominantly single-family units, with an average net density of 2.75 households per acre. Recently-constructed multi-family housing units of eight or more units per building are located on Washington Street, just north of the tracks. These have a net density of seven households per acre.

Commercial and miscellaneous services cover three per cent of developed land area and occupy areas along Long Street (US 45) and those surrounded by Reynolds, Elizabeth, and the railroad tracks. Grain elevators, seed and fertilizer wholesale companies, and other agricultural supply houses are concentrated on East Holden Street and Main Street. The public library and bowling lanes, the only two forms of recreation, are also located on Main Street. Most of the taverns line US 45. Other commercial services found adjacent to the highway include gas stations, a tractor company, a motor sale company, a car wash, a laundromat, and a pizza parlor.

Westside Park, the Village's park, includes 16 acres of land, and provides the community with open space and outdoor recreation facilities. It also includes a cabin and pavillion for use by youth groups.

Among the platted parcels, some have been left vacant.

Taken as an aggregate, they constitute about 10 per cent of all developed land. These vacant parcels are either located on land which has never been fully developed, or has never had a structure on it.

All vacant parcels are located in built-up areas, consequently, the cost of land development should not be very high.

### Land Use Problems and Opportunities for Future Development

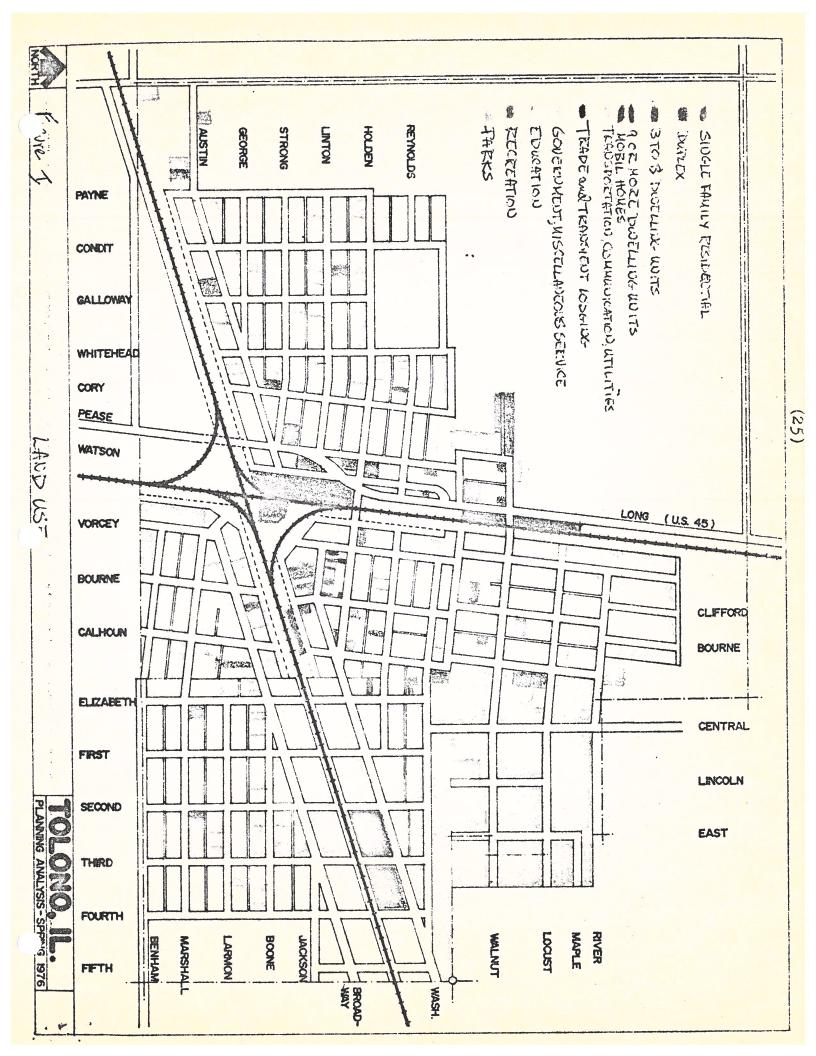
Railroads and US 45 do have a strong impact on the Village and its structure. They, in effect, divide the Village into east and west sides. With the presence of the track and the fast traffic on the highway connecting roads between the two have to be limited. Should the need to present to provide more and better connections for growing traffic, construction will be costly.

Tolono has never experienced a major flood, but since it is located on rather flat land without the advantages of natural slope, man-made drainage is essential to alleivate minor flooding, which comes with each rainstorm. A sufficient system will substantially raise the cost of land development, thus partially negate the amount of future development in the near future. Other elements concerning public utilities and amenities, such as sidewalks and street lights, which are still lacking in the major portion of the Village, and water storage and water treatment, will have to be carefully studied before any decision concerning major development can be made.

In regards to spatial needs, about 200 new dwelling units can be developed on the vacant platted parcels available, without increasing the Village's present net residential density. Vacant parcels on Vorcey and Washington Street which have been zoned as commercial can readily provide space for commercial development.

No industry has been established in Tolono up to the present.

Since the community is primarily residential, Tolono does not seem able to provide the large expanse of land needed to build and maintain an industrial base which is compatible with its residential character.



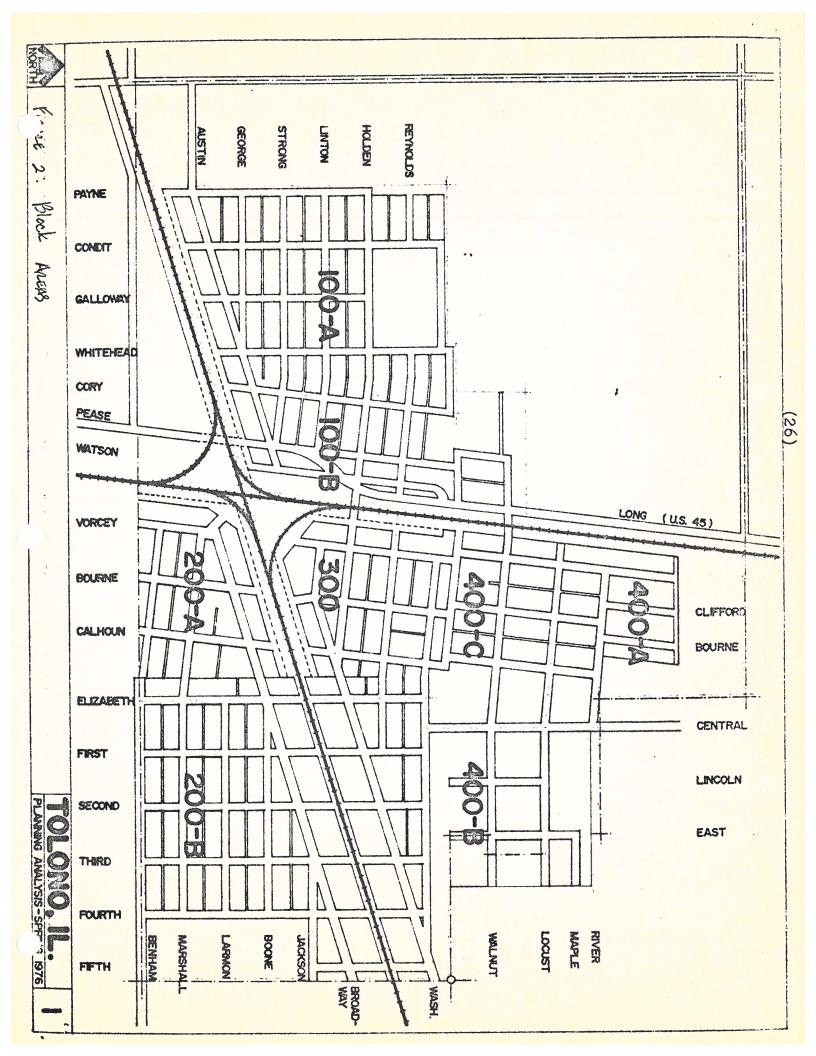


Table 1: The Village Grows Outward

P	Age of Residential Structures	ial Structures	
Block Group #	Post 1940	Pre 1940	Total
Inner Block Groups			
200-A	42%	58%	100% (74)
300	204	514%	100% (43)
400-C	53%	47%	100% (104)
Outer Block Groups			
100-A	87%	13%	100% (92)
100-B	72%	28%	100% (72)
200-B	100%	0%	100% (93)
400-A	97%	3%	100% (78)
400-B	Po	SA.	100% ( )
Total	39	86	100%

asee block groups' location in figure 2.

### HOUSING ANALYSIS

### Summary

Tolono is, essentially, a community of homes. However, not one major architectural style nor mode of maintenance can be selected as the general trend throughout the Village. Older homes, some of which date from the mid-nineteenth century meet modern twentieth-century houses in many areas of Tolono.

In many ways, the quality and appearance of the housing stock directly influences the impression visitors and residents hold about their community. Well-maintained homes speak of occupant pride and respect for the community. Housing units in less-thangood condition might reflect a number of reasons, including owner neglect, owner inability to care for the structure, or poor quality construction of the unit.

This chapter addresses the housing stock available in the Village of Tolono. It reviews a housing survey conducted by the student team members and also refers to the questionnaires distributed throughout the community. It seeks not only to accurately portray the exterior quality of the housing stock, but also delve into the levels of satisfaction which Tolono residents have about their homes.

### Data Base

Primary data concerning structure condition, age of structure, number of dwelling units, number of vacant dwelling units, and the location of these structures were collected as part of the land use survey. Demographic data from the questionnaires, including tenure of each household, number and age of persons in each unit, income of households, and levels of satisfaction and dissatisfaction were crosstabulated among themselves and with those of physical elements.

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In addition to this data collection, figures were also obtained on the vacancy rate in the housing market and how the private market has performed to meet the demands of the consumers. These factors were then correlated with future population composition in order to arrive at a statement regarding the future viable of the current housing pattern in Tolono.

### Description of Housing Stock

At present, there are 634 residential structures in Tolono, providing 727 dwelling units. Four categories of housing are found in the Village: Single-family, duplex, multi-family, and mobile homes.

Single-family housing is the largest portion of housing stock found in Tolono. Additionally, these units take up most of the land used for residential purposes. Characteristics of these dwelling units are that a majority of them (66.23 per cent) were built after 1940 and most are in good condition. Very few have been abandoned or are now vacant. Recent single-family houses have been built in block groups 100B, 400B, and 200B (These block groups conform to the areas bounded by River, Fourth, Washington, and Central Streets, and Elizabeth, Benham, Fourth and Broadway).

Duplex houses constitute only a small share of the total housing stock. There are only 26 units of this type in the Village, comprising about four per cent of available dwelling units.

Multi-family units consist of two types, sizeable older homes which have been divided into three or more units, and new apartment buildings of eight to 10 units. Units in this last type have been newly introduced into the Village. One apartment building is a one-story motel on US 45 which has been converted into a sevenunit building. Yet another apartment building is found on Pease and Strong Streets. This structure is relatively new, of two-story

Another significant apartment building is that located on Washington Street, between Third and Elizabeth. When this project is completed, there will be 56 dwelling units -- almost eight per cent of the total housing market.

Mobile homes are another type of housing provided in Tolono. Though only one mobile home part of 13 units is found within the Village boundaries, many single mobile homes have been erected on lots throughout the Village. In most cases, these mobile homes are in good condition, though several are in poor condition and are not aesthetically appealling.

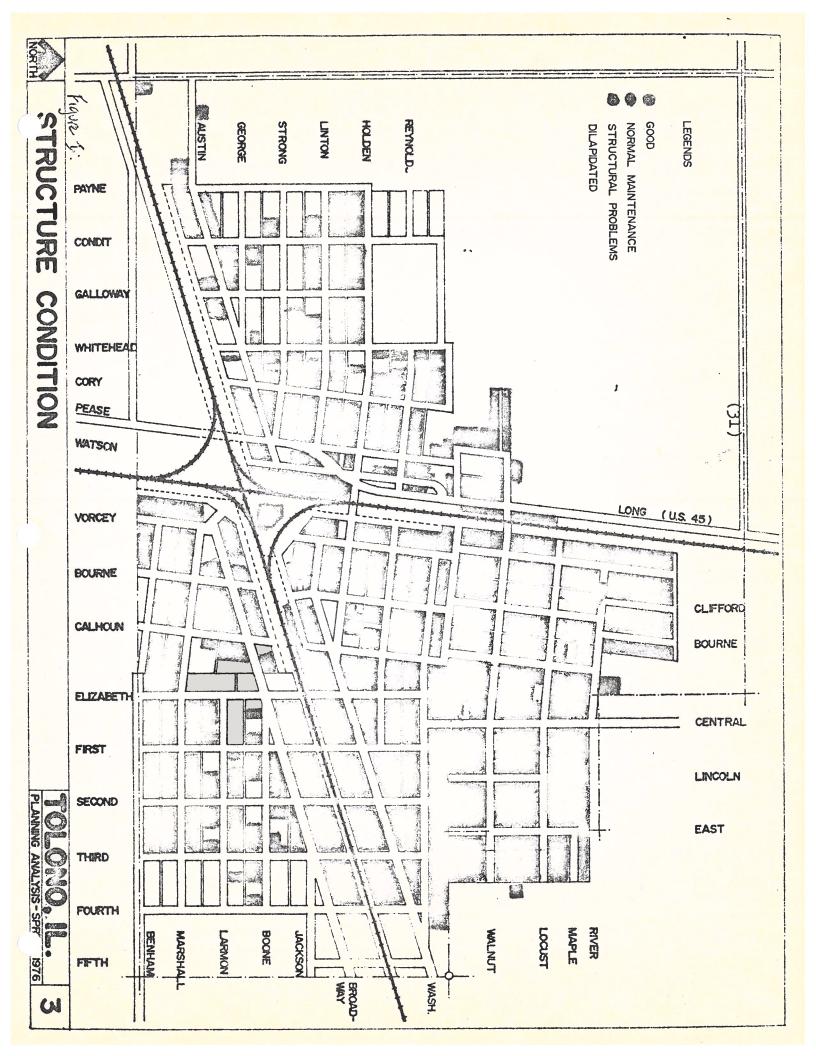
In general, housing in Tolono is in satisfactory condition.

Map 1 in this chapter shows that most (73 per cent) of all residential structures are in excellent condition, with another 20 per cent in need of normal maintenance. Major repairs are needed in six per cent of all housing units and only one per cent of all housing in Tolono was found to be in dilapidated condition. At present, most of the houses in the last category are unoccupied.

excluding apartments, the average vacancy rate is 2.3 per cent and of the vacant units, about one-half are apparently abandoned and not on the market.

# Housing Needs and Problems

In the questionnaires distributed to the sample population, questions were asked concerning residents' satisfaction with their housing units. Generally, Tolono residents are happy with their homes, as 80 per cent of our 245 respondents declared satisfaction with their present home environment (See Table 1, this chapter).



# Satisfied with current housing

Percentages	Numbers	
80	196	Yes
17.1	42	No

Skipped quastion: 9 No answer: 1

Table 2: For (Almost) Everyone A Garden In Tolono

# of Dwelling Units 584 26 97 20 727	# of Structures 584 13 14 20 631 % 93% 2% 2% 3% 100%	Type of Dwelling Unit  Single Duplex 3 or more Mobile Total
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Note: Figures need to be revised.

Table 3: Most Houses In Tolono Are Standing And Doing Well

		Structur	Structure Condition		
Block Group #	Good	Normal Maintenance	Structural Unsound	Dilapidated	Total
100-A	67	17	7	ъ	92
100-B	53	10	9	0	72
200-A	53	15	, Cr	Н	74
200-B	82	7	w	Н	93
300	32	11	0	0	43
400-A	40	32	6	0	78
400-B	,	4	H	0	
400-C	60	37	7	0	104
Total	ı	1	1	)	
%	l	1	)	١	100%

of the 17.1 per cent who were dissatified with their housing. most reported that the smallness of their homes were the reasons for this unhappiness. Approximately 80 per cent of those who were not satisfied with their housing blamed it on the smallness of their present housing unit. Other factors, such as poor location or lack amenities were reported only negligibly.

# Recent Development in Housing and Trends

With the construction of 56 new apartment units and several single-family houses, substantial new dwelling units have been added to the housing stock in the Village of Tolono. During the past year alone, almost 40 residential structures were built. This number is extremely significant, given the size of the Village.

What can be said of the housing stock in light of recent trends and in view of the populations projected in earlier chapters? Firstly, Tolono seems in no danger of becoming a vacant or dilapidated Village, as far as housing is concerned. The general trand has been that residences are well-maintained and it appears that this pattern will be maintained. Secondly, more apartment buildings in the area will increase the number of lifestyles which can be accommodated in the Village. As the present housing market prices rise, fewer young homeowners can be expected to enter the market. This problem is alleviated by the presence of apartment buildings.

In conclusion, Tolono should be proud of its housing stock, both in terms of its maintenance and variety. Community viability rests on the input from a number of different household types.

This appears to be the case in Tolono.

# COMMERCIAL DEVELOPMENT FEASIBILITY

### Summary

Among other things, this chapter examines existing businesses and support services in the Village of Tolono. This examination becomes useful when a commercial needs analysis is undertaken later in the report. Additionally, residents' suggestions on improvements and additions to existing businesses within Tolono are also included as they are used to determine the potential for the development of particular kinds of businesses.

The analysis found that a pharmacy, variety store, clothing store, fast food eatery, and family restaurant might be developed in Tolono with substantial economic feasibility. From the questionnaires, it was discovered that residents' demand for such facilities is quite strong. New businesses might be expected to be supported by the increased growth described in the population estimation and projection chapter.

Within the existing commercial area, land is available for new development. Since this is true, needless demolition and destruction of existing facilities is not necessary. Additionally, since the services requested are local in nature, no additional traffic can be expected, due to their opening in Tolono. It must be noted, however, that a traffic problem might be anticipated for any store opening in the area directly adjacent to US 45. This presents a special problem, due to the relative high speed and high volume traffic along US 45.

Table 1: Commercial Establishments in Tolono

Block_#	Type of Establishment	Square Ft. Parcel Area	Structural Condition
130	Truck garage	14,000	3
134	Garage	4,000	2
	Tavern	2,200	1
	Tavern	3,100	1
	Fertilizer sales	7,400	1
136	Tractor sale	13,000	2
	Tavern	10,200	1
137	Car wash	6,300	2
	Laundromat	8,000	1
	Tractor sale lot	16,000	-
139	Motor sale	12,200	1
	Gas station	9,100	2
	Pizza parlor	11,200	1
140	Car wash (vacant)	5,400	3
142	Ice cream stand	7,000	3
	Fertilizer storage	95,200	1
143	Gas station	15,800	2
144	Seed storage	15,800	1
203	Trucking,	1000	
210	Grain elevator		
301	Supermarket - Eisner	28,200	1
302	Grain storage warehouse	6,700	1
303	Bowling	21,000	1
	Cocktail lounge	3,300	1
	Supermarket IGA	7,500	1
	U.S. Post Office	7,100	1
	Garage	9,300	2
	Cafe	5,200	2
	Print shop	3,200	1
	Garage	8,200	1

Block #	Type of Establishment	Square Ft. Parcel Area	Structural Condition
304	Law office Southside Journal (newspaper office)	4,000	1
	TV-Radio Service	5,900	1
	Book store	1,400	2
	Doctor's office	4,900	1
	Savings and Loan	2,300	1
	Hardware	5,200	1
	Barber's shop	2,500	2
	Tavern	2,300	1
	Beauty shop	2,800	1
305	Bank	17,190	1
	Insurance	14,630	1
308	Dentist's office	10,300	1
	Laundromat	4,400	1
401	Beauty shop	1,100	1
407	Funeral home	30,500	1
408	Beauty shop	11,500	1
412	Real estate office	4,000	1
415	Income tax consultant	5,800	1
414	Beauty shop	23,000	1

### Data Base

The land use survey and questionnaires which were distributed to Tolono residents form the basis of this data analysis. From the land use survey, information was gathered on existing businesses and land availability for future development. In the commercial needs analysis portion of this chapter, residents' suggestions for improvements and additions to the current commercial structure of Tolono, are used to make estimations and possible avenues of incorporation.

### Existing Businesses

Generally, the variety of businesses in Tolono, including the wholesale, retail, and miscellaneous services, are located in block groups 100B, 200A, and 300 -- or, the internal downtown area found on Washington Street, between Vorcey and Calhoun Streets.

These commercial districts cover less than 20 per cent of land, or about three per cent of all developed land in the Village of Tolono.

Grain elevators, seed and fertilizer wholesale companies, and shops catering to agricultural goods, are located by the railroads on US 45 and Western Street, while retail shops and other commercial services are clustered in the four blocks surrounded by Bourne and Reynolds Streets and the two railroad tracks in the eastern section of the Village, and along US 45 and Pease Streets in the western section. Table 1 lists the conditions of each establishment, the parcel area, and the type of service provided.

At present, there are approximately 50 structures in Tolono which are used for commercial purposes. Of these, about 37 are in good condition, nine are in need of normal and minor repairs, and three have structural problems. There also exist vacant structures in the downtown area on Main and Holden Streets. These vacant structures are in relatively poor condition. Coupled with vacant lots, they make the downtown area quite unattractive.

Businesses within the Village can grouped as follows.

The areas shown here are the approximate floor area of each business group unless indicated otherwise.

TABLE 2

Number	Types of Goods and Services	Floor Area
2	Grain storage and wholesale	22,500
1		102,600
1	Tractor and equipment sale	2,900
2	Grocery	15,000
-	Drug	-
	Clothing	-
7	Purchased meals and beverages	25,100
ì	Hardware and appliances	5,200
-	Variety store	-
1	Book store	1,400
1	TV and Radio	5,900
5	Personal care (barber, beautician)	10,400
1 5 2 2	Medical (doctor, dentist)	8,000
2	Household services (laundromats)	8,000
2 8	Banks and insurance companies	34,000
8	Auto services, including gas	64,900
1	Recreation (bowling)	21,000
16	Others (paper, real estate, etc.)	
	The second of th	2),000

Among the basic local services, some do not exist in Tolono. These include a pharmacy, variety, and clothing store. The residents of the Village buy general drug and variety items from the two supermarkets. Prescription drugs and clothing are purchased usually in Champaign-Urbana.

# Commercial Needs Analysis

By applying the dollar sale/square footage technique for particular businesses and modifying the resultant areas by the capture rate percentage, the approximate space areas required for the particular businesses for a town the size of Tolono with similar economic circumstances can be established.

Some data is critical to the commercial needs analysis. This includes:

14 44

1. Households' incomes in Tolono collected from the questionnaries distributed in February. They provide base data for calculating the amount of disposable income and the amount of money spent on certain goods and services;

2. Per capita income and personal expenditure from the U.S. Abstract 1975. The proportion of personal expenditure to the total income and the proportion on each item of goods and services to the total expenditure derived from the data which are national averages;

3. The dollar sale/square footage index from the Dollars and Cents of Shopping Centers: A Study of Receipts and Expenses, by the Urban Land Institute, 1966.

4. The data concerning the residents' shopping patterns from the questionnaire. This data determines the per cent of capture rate of each kind of business.

The areas acquired through such techniques are listed in comparison with those in Tolono. For those businesses which have not been established in Tolono, a 100 per cent capture rate has been assumed, though this certainly is not always the case. The technique has been used only to provide a general idea of what the needs might be in terms of the kinds of establishments and the required areas.

One should note that businesses are grouped together in categories, some of which include several kinds of goods and services that are likely to be available at different levels of the hierarchy of service. Some of the businesses which do not exist in Tolono at present are of a higher level of hierarchy and require a larger number of patrons than can be found in Tolono. The comparison of areas in Table 3 is not intended to imply that they should match in order to result in a desirable outcome for business and the residents of Tolono. Each category will be discussed separately in terms of the needs for it and the potential for future development.

Table 3: Commercial Space -- National Standards v. Tolono

Types of Goods and Services	Required sq. ft. with 100 per cent capture	Required sq. ft. with present capture rate	Existing sq. ft. in Tolono (2)
Purchased Meals and Beverages	4,000	*	25,100
Grocery, Beverage, and Tobacco	15,600	13,480	15,000
Clothing	15,800	15,800	none
Personal Care	3,600	*	10,400
Medical Care and Drugs	8,900	6,500	8,000
Transportation	<b>t</b> .	1	64,900
Household operation	3,000	*	5,200
Recreation	38,300	n)t	21,000

<sup>(1)</sup> Use the average of the sale/sq.ft. indices of various types of businesses that can be put under particular categories, some of which are presently in Tolono, and others which are not but have been judged suitable for the Village.

<sup>(2)</sup> Parcel areas

<sup>\*</sup> Per cent of capture is unknown

# Purchased Meals and Beverages

Table 3 appears to indicate that Tolono has more than its share of businesses in this category. However, when the group is broken down, it is apparent that most of the businesses fall into the beverage side, accounting for the taverns in Tolono. Of the eight drinking and eating establishments in the Village, five are taverns; 1 is a cocktail lounge; and two are regular restaurants. The pizza parlor on Holden and Long and the cafe on Bourne Street account for the two businesses with the regular eatery classification. Respondents to our questionnaire frequently asked for fast food and family restaurants.

### Grocery, Beverage, and Tobacco

Two supermarkets are located in the Tolono downtown area. Together, they have a business area close to the standard required area with a 100 per cent capture rate. It is estimated that 80 per cent of the households in Tolono buy groceries in these two locations, while 19 per cent buy theirs in Champaign-Urbana. Reponses to our questionnaire frequently included requests for lower prices in these two supermarkets, as well as a wider choice. However, these suggestions did come from patrons of these two groceries, indicating that individuals would continue to shop at either of these supermarkets. This "captive audience", however, should not be interpreted to mean that improvements should not be made. Indeed, increased sales and customer satisfaction might result from taking these suggestions to heart.

### Clothing

Though there is no clothing store presently in Tolono, residents responding to the survey expressed a strong desire for one. Taking into consideration the size of the Village and its economic level, a clothing store of 15,800 square feet can be supported and expected to do well. However, the ultimate per cent of the capture rate will depend, to a large measure, on the selection available. It should be remembered that specialty clothing shops or designer apparel stores are found in Champaign-Urbana, so that a clothing store opening in Tolono should supply ordinary, moderately-priced clothing. A variety store might be incorporated into the facility, thereby increasing capture.

### Personal Care

Respondents to our questionnaire frequently asked for longer hours in the existing barber shop and even a new facility. No mention was made of the beauty shops in the area, as there is apparently a sufficient number.

# Medical Care

The Village of Tolono currently has one doctor's office and one dentist's office. These services take care of approximately 34 per cent of the residents. The remaining 66 per cent travel to Champaign-Urbana for their medical care. A pharmacy ranked as the most frequently-asked for facility in town and since none does exist in the area, it would be well to investigate the establishing of such a service.

### Transportation

According to the questionnaire results, there are about 964 cars, 250 trucks, and 114 motorcycles owned by the residents of Tolono. However, only four garages with mechanics and four other auto-related businesses are located in town. Suggestions from the respondents to this matter included longer hours, greater availability of parts, and lower prices.

### Hardware

The hardware store, located in downtown Tolono, received more suggestions for improvements than any other business in the Village. Both patrons and non-patrons offered suggestions, indicating that the satisfaction level could be increased. Improvements which are desired include the availability of more "hardware" and "hardware items." Lower prices and better service were also suggested.

### Recreation

Commercial recreation in Tolono is limited to bowling.

However, most residents are not pleased with the cadition of the lanes or the building. From the questionnaires, 37 per cent asked for cleaner facilities; 25 per cent complained about the prices; and 25 per cent were dissatisfied with the service.

Suggestions for new recreation facilities were scattered. Some suggested a theatre/movie house; others a swimming pool and community center. None of these suggestions captured a strong majority of the sample. With regard to these facilities, it should be noted that Tolono's close proximity to Champaign-Urbana increases the scope of recreational facilities for all persons who have access to a car. From the survey, only six per cent of all Tolono households do not own cars.

If recreation or entertainment facilities should be built in Tolono, care should be excercised so that they appeal to the elderly and small children, or persons in general who have no access to an automobile.

This analysis has shown that the development of a pharmacy, fast food and family restaurant, and auto service center, appears to be economically feasible and should be intiated. Of interest is the fact that vacant lots do exist in the downtown area and in the US 45 commercial strip, located near Pease Street. However, increased high speed traffic on US 45 is not recommended, as it presents both a planning and safety problem.

It is suggested that the vacant lots within the downtown district be used for the new services. Existing structures need not be demolished and the general attractiveness of the area can be improved. If done with architectural consideration and economic foresight, commercial development feasibility in Tolono is promising.

### TRAFFIC ANALYSIS

### Summary

If the previous chapters in this report, which cover land use, housing analysis, population projection, and commercial development, show the inner workings of the Village, this study of traffic trends and patterns should be viewed as a discussion of the lifeline of Tolono. Through the system of streets and highways which wind though the Village and touch it tangentally, the residents of Tolono not only move about locally, but also intersect with all of Champaign County and beyond. This section of our report shall serve as a discussion of the highway system found in Tolono and the interal organization of the Village's streets.

# US 45 and Internal Traffic

US Route 45 (hereafter referred to as US45) is the main artery through the Village. This two-lane, paved highway is the extension of Neil Street in Champaign and divides the Village of Tolono into eastern and western portions. Motorists enter Tolono from US 45 by way of one of two major streets, Holden and Walnut. No traffic lights are provided at either of these two entrances, though east-west traffic is checked by the presence of stop signs.

US 45 is generally well-maintained, with a smooth surface throughout the length of Tolono. Approximately 200 feet from the southern and northern limits of the Village, the maximum highway speed of 55 miles per hour (mph) is reduced to 40 mph, thereby slightly reducing the high speed and high volume traffic through the Village.

To a great extenet, US 45 has shaped the commercial development of Tolono. Relatively high speed and high volume traffic has dictated the types of stores which are located in the strips adjacent to the highway. Consequently, motorists travelling northbound and southbound on US 45 through Tolono view stores which cater primarily to motor traffic, including three service stations and two agricultural good suppliers.

As part of the team investigation of planning analysis techniques, a study of traffic patterns on US 45 was conducted. It was decided that the hour between 5 and 6 p.m. would be studied, as the large numbers of individuals returning home from work would be indicative of the heaviest traffic pattern. Team members stationed themselves at the corner of Holden Street and US 45 and recorded the pattern of each vehicle which entered or passed the intersection.

Vehicles had a number of options. They could proceed east and west; turn south and north on US 45; or proceed north and south on the highway. Two days, Monday and Thursday, were selected for the study.

The Monday study found 358 cars passing though the intersection.

Of this number, 308 were travelling through the Village on US 45;

15 came down Holden and proceeded southbound on US 45; 20 proceeded northbound on US 45 from Holden; and 15 travelled east-west along Holden. Vehicles in the last group were usually comprised of school children who were evidently being picked up by their guardians after extra-curricular activities.

On Thursday, 373 cars were counted as part of the study.

Once again, the largest number fell into the group which bypassed

Tolono and proceeded either north or southbound on US 45. This major
group included 314 cars. The other groups included 21 cars which
turned northbound from Holden onto US 45; 29 cars which proceeded

Parking presents little problem in Tolono. Most residences are equipped with driveways and garages, thus reducing the number of automobiles that are parked on the streets. Where cars are kers on the streets, parallel parking is observed. On-street parking appears predominant only in the western section of the Village, as this neighborhood has few driveways and garage spaces.

Within the downtown area, there are 33 parking spaces.

Both angular and parallel parking patterns are observed. Maggio's

IGA grocery, located at the southwestern end of the downtown block

has its own parking lot, providing spaces for another six cars.

Use of this lot, however, is limited to customers of the grocery.

There are four "no parking" areas located within the downtown area,

at the northwest, southwest, northeast, and southeast corners of the

street. A "no parking" space is also maintained in front of the U.S.

Post Office, which is located in the middle of the downtown block.

This space is used as a drop-off point for mail.

A parking check of the downtown area was conducted as part of this report. Parking habits were observed at ten-minute intervals for one hour (noon to 1 p.m.) on a Tuesday and Thursday. Within these two hours, there appeared to be no parking space problem. Many spaces remained available and no illegal parking was observed.

### Conclusions

During the one week in which traffic and parking patterns were observed, there was little evidence of any problem in either of these two areas. The streets seem to be in good repair, with few depressions and potholes. The winding character of the streets, however, does present a safety problem.

Unfortunately, there are no warning or traffic lights located within the Village. This is especially important to note around the two grade schools (located at Bourne and Reynolds Streets and Pease and Holden Streets). Traffic around the schools is heavy in the late afternoon and crossing is complicated. This problem might be alleviated by hiring a traffic guard.

The traffic light problem is particularly crucial on US 45.

The only substantial recreation area in the Village, Westside Park,
located between Whitehead, Condit, Washington, and Holden Streets,
is separated from the majority of the Village and both grammar schools
by US 45. Crossing is difficult and is complicated by the high speed
traffic. If small children want to use the park's varied recreational
facilities, it is necessary for their guardians to transport them to
the part. A pedestrian-activated traffic signal or an underpass
might alleviate this problem.

Above all, Tolono seems to have a healthy traffic-feeder system. In addition, there is ample train service to the Village and the tracks are located in such a fashion that fire protection or emergency vehicles are not hampered.

In conclusion, the Village of Tolono can be said to have little traffic congestion. Improvements might be made in the fixing of blind corners and by helping pedestrians cross US 45 more safely.

### CONCLUSION

In the preceding report, five individual analyses were used to investigate the workings of the Village of Tolono. As was stated in the Introduction, this report was not begun as a community development report. Nevertheless, some conclusions and implications for the Village can be drawn from the study.

# Population Estimation and Projection

Using the cohort survival method with migration modification, it appears that Tolono will experience sound, rapid growth during the next ten years. The number of individuals under 20 years of age will decrease after that and the future composition of Tolono is likely to be of young families with few or no young children. This trend should be in keeping with national norms. Additionally, the number of elderly is likely to increase, though the proportion of person 65 years of age and older will not increase to any great measure.

# Land Use Analysis

Though Tolono is primarily residential in character, commercial and recreational sections of the Village are present.

Vacant land still exists for development of commercial enterprises, implying that little costly destruction of existing structures needs to be undertaken. However, limited utility capacity and the high cost of street development might hamper efforts to change the present land use plan.

# Housing Analysis

The Village of Tolono should be proud of its residential character. As was shown in the housing condition map, most residences are in excellent condition, indicating the pride of residents in their Village. Additionally, increased construction of apartment units in the Village makes for a good mixture of housing types and for the incorporation of different lifestyles into the Village.

Tolono residents also seemed geneuinely satisfied with their present housing and indicated little interest in any low-cost housing or federally-subsidized homes or units.

# Commercial Development Feasibility

Given the projected increase in the Village's population within the next decade, thought should be given to the development and improvement of the commercial district of Tolono. Economic feasibility studies have indicated that residents desire and would probably support a pharmacy, auto service garage, and family restaurant. Of other concern is the residents' interest in a clothing store and variety store. Careful selection of merchandise in either of these two stores would determine the economic feasibility of the project.

Vacant land still exists in downtown Tolono for this type of development. It has been suggested that little new commercial development be undertaken on US 45, since more traffic might exacerbate the traffic flow and safety problems there. It has been thought that additional businesses within the downtown might not only add to aesthetic appeal, but would also increase residents' satisfaction with Tolono.

# Traffic Analysis

No internal traffic problem was seen in Tolono. However, US 45 continues to be a source of concern, given the high speed and high volume traffic on the highway. Since recreational facilities are concentrated in the western section of the Village, young people on foot travelling from the eastern section of the Village must cross US 45 without the aid of any traffic signal. It has been suggested that either pedestrian-activated traffic lights be installed at some intersections or an underpass be constructed to ease the safety problem.

Within the Village, the lack of siddwalks makes travelling difficult for pedestrians. Currently, the choice in the Village is whether to walk in the street or across residents' lawns. It is believed that sidewalks would not only improve the aethetic appeal of the Village, but would also alleviate an internal pedestrian safety problem.

### Final Remarks

From the team study of Tolono, information gathered revealed that the Village is a viable community of residents who, for the most part, taken pride in their community. Planning analysis techniques indicate that Tolono can look forward to decades of meaningful growth and the team trusts elected officials and the electorate of the Village of Tolono will continue to work for a successful community, modeled on the existing one.

It should be noted that most of the traffic on US 45 was from the north, indicating that most could be residents of rural Champaign County who are employed in Champaign-Urbana. Sports activities on the Thursday of our study accounted for the increase in east-west traffic on Holden.

# Internal Traffic

Two-land streets are found within the Village of Tolono.

Stop signs are provided on most east-west streets, and where these are absent, yield-right-of-way signs are found. Stop signs are most predominant in the area near the downtown shopping district, which is identified as Washington Street between Vorcey and Calhoun Streets (Main Street in the internal downtown area).

Since the general layout of the Village is meandering, the streets of Tolono are similar in kind, being more picturesque and aesthetic, than plainly utilitarian. This winding characteristic is most evident in the area bounded by Holden, Strong, Calhoun, and Vorcey Streets. Within this area, three blind corners are found. The intersection of Bourne and Washington Streets is particularly dangerous.

Though the streets within the Village are paved, there are no curbs or sidewalks. Pedestrians are thus forced to travel either in the street ar across residents' lawns. Normally, a four-foot strip of stone fronts residences and serves as a buffer between lawns and the roadway. A ten-mile-per hour speed limit is posted within the Village.