

SELECTED RURAL INTERSTATE INTERCHANGES  
AND ADJACENT LAND VALUES

by

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SELECTED RURAL INTERSTATE INTERCHANGES  
AND ADJACENT LAND VALUES

ABSTRACT: Land value appreciation and its relation to three interchanges on Interstate 5 were studied. Lots within a two mile (3.2 km.) radius and in existence in 1965 and 1975 were included. The interchanges were selected on the basis of form, setting, type of crossroad, and distance from urban areas. Lots adjacent the interchange have been found to have increased in value considerably. Statistical analysis has shown that the relationship between distance from the interchange and the rate of land value appreciation is not statistically significant.

INTRODUCTION

An interstate interchange constitutes more than just a means of access to the freeway. It represents a market place as a result of the economic attraction of the freeway. Thousands of potential consumers pass by the interchange each day and many exit in need of various services. Highway related businesses such as service stations, motels, and restaurants appear as soon as the construction of the interchange is complete. As time progresses, other commercial developments also locate near the interchange. The land then comes under an increased demand as a result of its economic utility. This demand is reflected in the land values, though the areal extent of the effect if it exists is unknown.

## STATEMENT OF THE PROBLEM AND OBJECTIVE

Would a land parcel (lot) appreciate in market value at a greater rate because of its proximity to an interstate interchange than a parcel located farther away from the interchange?

The objective was to determine if there is a relationship between market value appreciation and distance from the interchange. Should this relationship have existed, the areal extent of the effect would have been determined.

## REVIEW OF THE LITERATURE

Research involving interstate interchanges may be classified into two groups, real property sales and land use patterns. The most direct study of the interchange and real property (which is land plus all improvements) was undertaken in Texas by William Franklin, who examined the sales of real property that occurred within one-half mile (.80 km.) of the interchange complex.<sup>1</sup> The complex was defined to consist of the interchange itself plus the ingress and egress ramps and the adjacent frontage roads. The author did not have any limits on the type of interchange included or on its location. The relationship between land values and distance from a central point (in this case a city was used in place of an interchange) was studied by Steven Wilson in 1969.<sup>2</sup> Lots were randomly selected, though only on one side of the city. Lots outside the county where the city is located were totally ignored and this hurt the overall effectiveness of the study. However the methodology used in this study can easily be

applied to the examination of interchanges.

Most interchange research projects involve a study of the land use pattern surrounding the interchange. William Pendleton used aerial photographs to delineate the before and after changes in land use concerning the construction of interchanges in rural areas.<sup>3</sup> He categorized those changes and found many to be related to the interchanges. All commercial and industrial activity occurred within a two mile (3.2 km.) radius from the interchange. Martin Stein focused his attention on the specific pattern of user-related facilities adjacent the interchange.<sup>4</sup> Of special interest is the fact that all the identified user-related facilities existed inside a one-half (.80 km.) radius.

In determining the potential economic attraction of an interchange, developers were surveyed by Mason and Moore in order to ascertain their locational preferences.<sup>5</sup> The responses indicated that the diamond form construction was preferred to the cloverleaf of limited direction type. The amount of cross flow traffic was also considered important because a large amount of local traffic would cushion a slack in interstate motorist business. The most valued crossroad to developers was the state route. Another land use study concerning the Ohio Turnpike showed that the changes attributed to interchanges occurred within a radius of one and one-half miles (2.4 km.).<sup>6</sup>

None of the previously mentioned studies agreed on the distance to which an interchange affects the land use changes

(which is related to land values). Most of the studies did not discriminate between different types of interchanges or other certain features that might enhance the economic attraction of interchanges. All of the studies are relatively recent, because in some parts of the United States freeways have just been constructed. Not enough time has passed to assess the regional impact of these new highways and their interchanges; only one study on interchanges and their effect upon property values has been done.

## METHODOLOGY

The past land use and property value studies regarding interstate interchanges had few selective controls on the study sites. In order to provide for a more comparable analysis, the interchanges in the sample should have several aspects in common. A random selection would have possibly provided misleading results.

### Site Selection

Several factors were taken into account in selecting the interchanges and these were: the type of interchange, the physical setting of the interchange, and to a lesser degree the type of crossroad on the interchange. These qualifications instilled uniformity in the sample.

The interchanges in this study were the diamond shaped type. The reasoning was that this type of interchange is under a greater demand by developers (Mason and Morre's study) and that this demand would accentuate the effect between land values and interchanges more than the other forms of interchanges.

In order to negate the effect of the urban land demand pressures on the interchange land values, the interchanges had to occur in a rural area, or at least four miles from a city of 5000 population. This was a random decision.

Another similarity between the interchanges was the topographic setting. The best setting is in a flat area, because in a hilly or mountainous region, the topography would have distorted the spatial extent of demand and accordingly the

land values.

The type and shape of the crossroad was also considered. A heavily traveled crossroad such as a state highway allows more consumers to pass by the interchange than less important roads. This increases the economic importance of the interchange and consequently the land values. No interchanges were included in the study that had a crossroad abnormality, such as a crossroad that parallels the freeway on one side of the interchange. This disrupts the spatial pattern of development around the interchange.

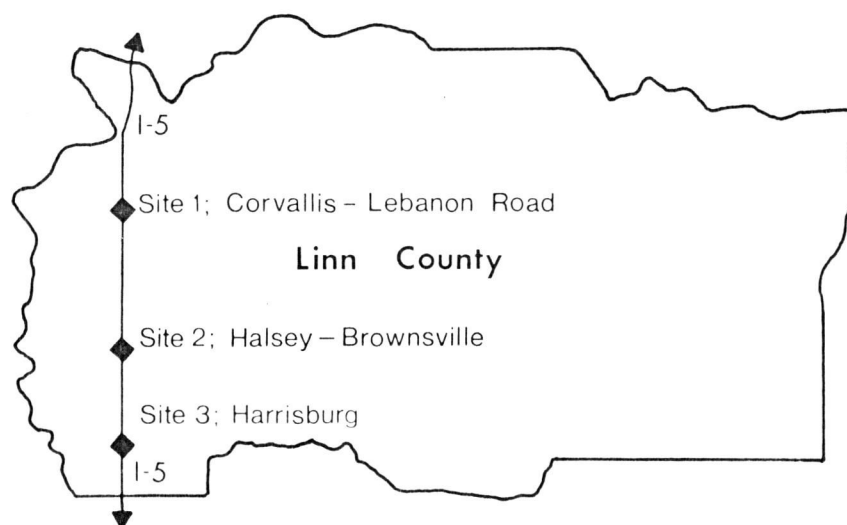
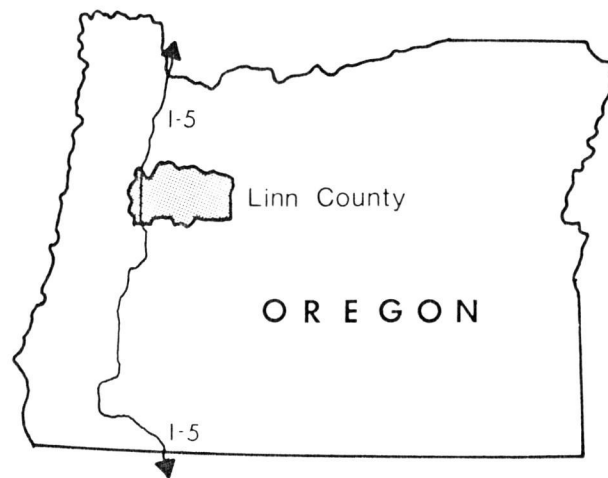
In summary, the type of interchange and the setting were deemed to be important in the selection of interchanges, because if the relationship between interchanges and land values existed, it would then be strongest and most apparent on these sample study sites.

#### The Selected Interchanges

Three interchanges on Interstate 5 in Linn County were included in this study. The interchanges that met the selective qualifications are: Site 1; the Corvallis-Lebanon Road interchange, Site 2; the Halsey-Brownsville interchange, and Site 3; the Harrisburg interchange. The other interchanges on Interstate 5 were not included because of the wrong type, proximity to a city (especially north of Albany), and a poor physical setting (southern Oregon).

#### Site 1

Site 1 was created when the section of Interstate 5 from



**FIG. 1 LOCATION OF THE INTERCHANGES**

Source: All maps adapted from plat maps at  
the Linn County Assessors Office.



the North Albany interchange to Route 34 (Corvallis-Lebanon Road) was paved. The contract on this project was approved in September, 1958 and officially finished in July, 1960. Presently this interchange is the most commercially developed of the three, having seven service stations, VIP'S restaurant, a small cafe, and a retail trailer business adjacent the interchange.

#### Site 2

Site 2 was built as the construction of the freeway moved southward. This contract was also awarded in 1958, this time in December, and was completed in August, 1960. At present, two service stations, Stuckeys restaurant, and the Pioneer Room restaurant are located on this interchange.

#### Site 3

Site 3 was completed in August, 1961, after being approved three years earlier in May, 1958. Existing at the interchange are three service stations, a small diner, and a small airstrip on the southwest side.

#### Study Years

Two years, 1965 and 1975, were randomly selected for the comparison of land values. The first occurs approximately five years after the interchanges opened and the latter fifteen years. In each of these years, the Linn County Assessors Office assessed the lots in the area (Appendix A).

### Study Area Size

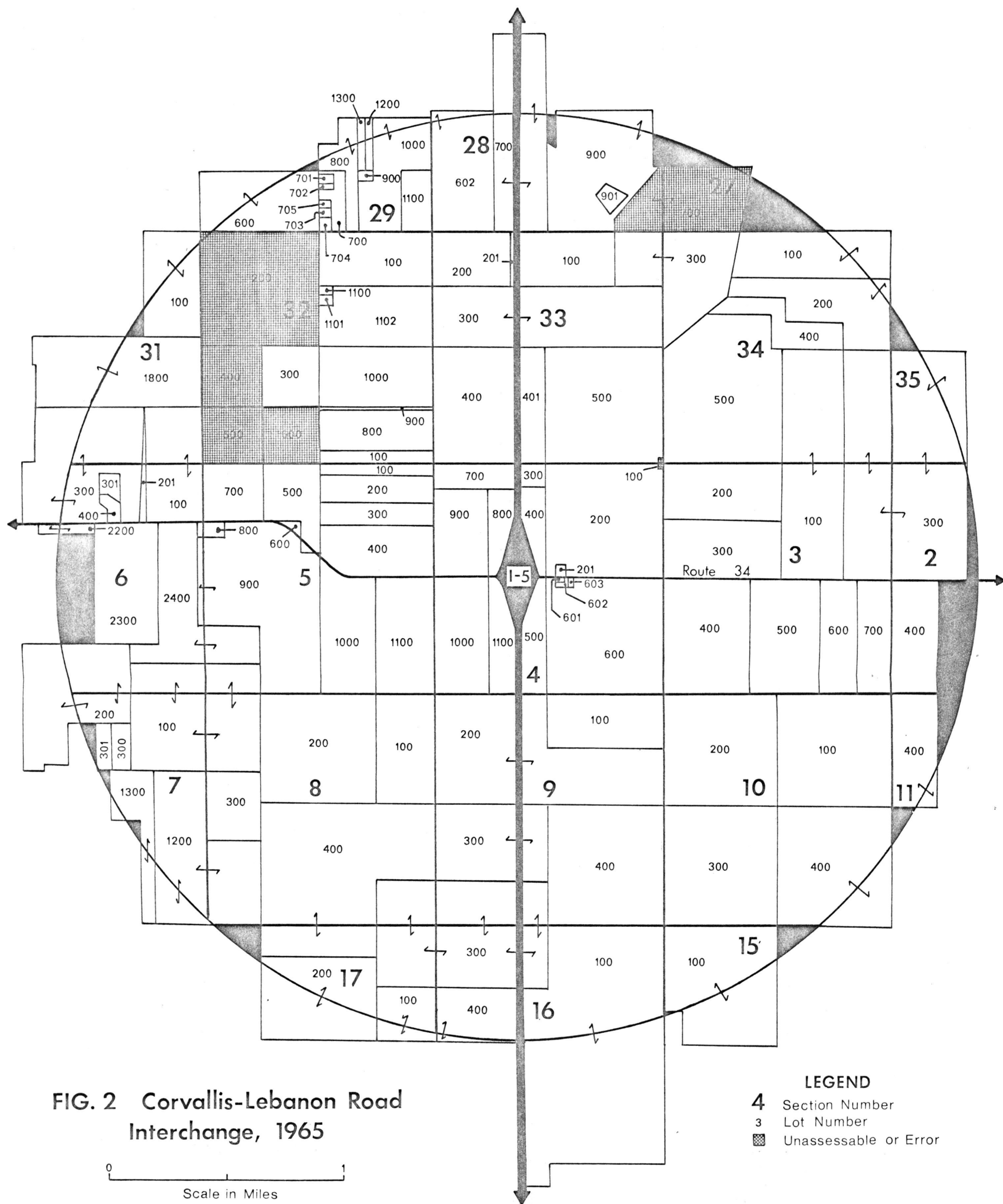
A two mile (3.2 km.) radius from the center of the interchange was the limit of land value analysis. This figure encompasses all the land use change limits used in previous studies. The distance between the lots and the interchange was measured from the center of the interchange to the nearest edge of the lot.

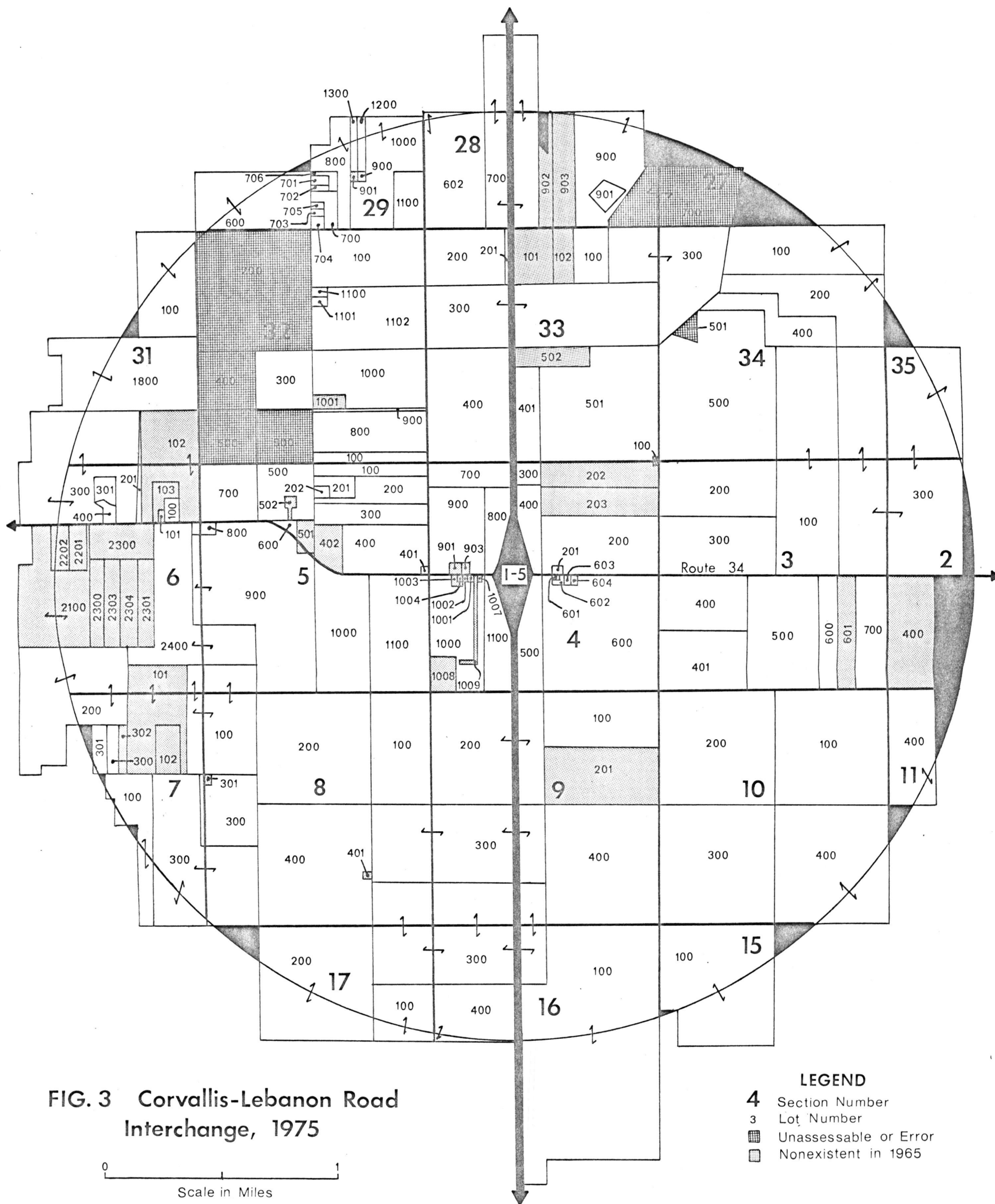
### Map Compilation

To determine the distance between lots and the interchange the location of all the lots was mapped. For each interchange one map shows the ownership pattern for 1965 and the other portrays the same area as it appeared in November, 1975. The maps for 1965 were created from the 1975 maps, by using the acreage figures listed in the assessment records. For example, in 1975 there may have been a lot numbered 100 adjacent to lot 101 in the same section. The 1975 records would indicate that lot 100 was one hundred acres, and lot 101 was 50 acres in size. In the 1965 records, however, lot 100 was 150 acres in size and no lot 101 was in existence. Thus lot 101 must have been created at a date between 1965 and 1975. Further checks were made by examining the deed records; though if there was a discrepancy in the acreage figures, these were of no use.

### Lot Inclusions and Omissions

A lot was included in the study and shown on the maps if at least one third of its total area was within the two mile





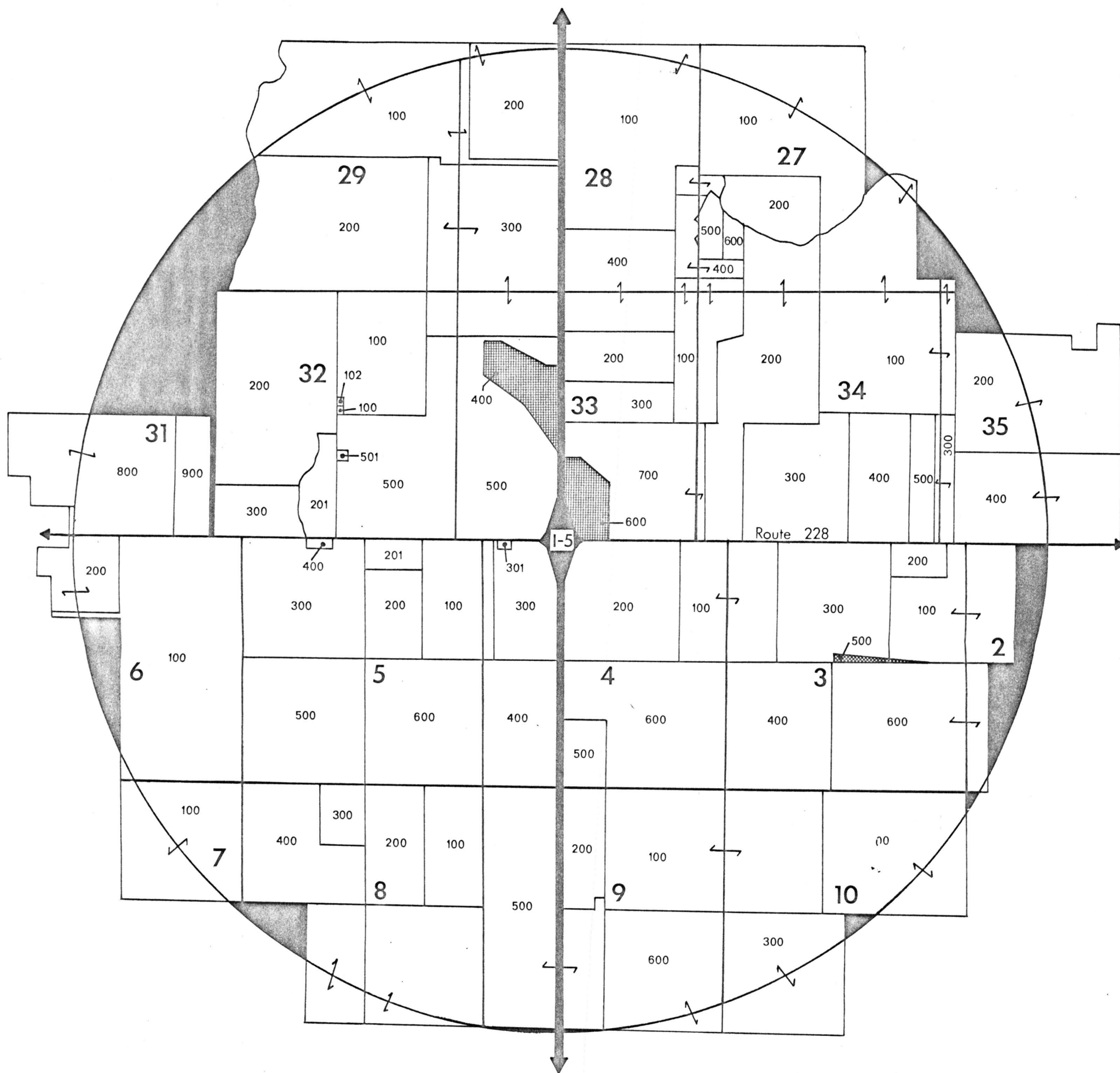
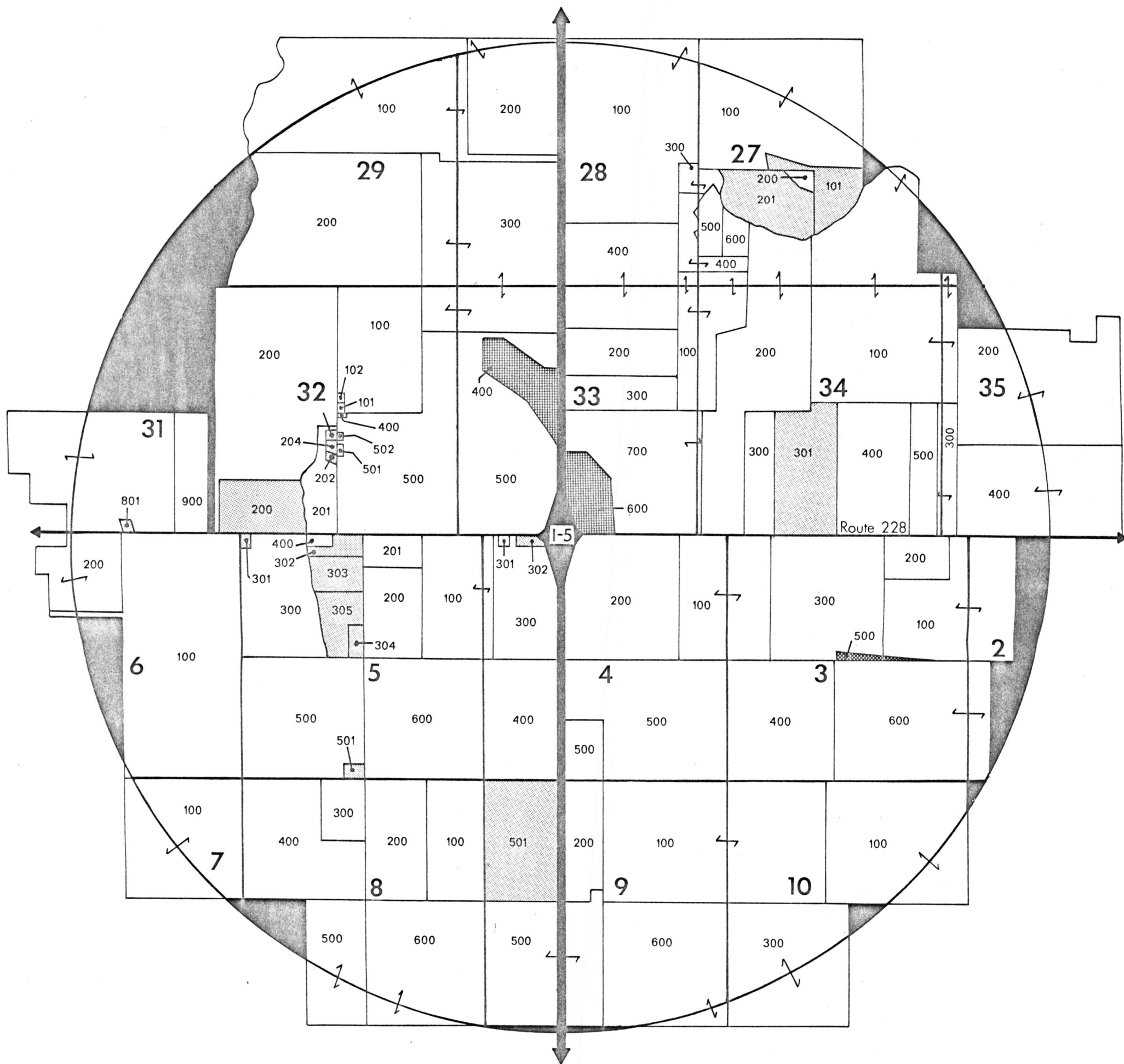


FIG. 4 Halsey-Brownsville Interchange, 1965

Scale in Miles

- LEGEND**
- 4 Section Number
  - 3 Lot Number
  - Unassessable or Error



**FIG. 5 Halsey-Brownsville  
Interchange, 1975**

0 1  
Scale in Miles

**LEGEND**

- 4** Section Number
- 3** Lot Number
- Unassessable or Error
- Nonexistent in 1965



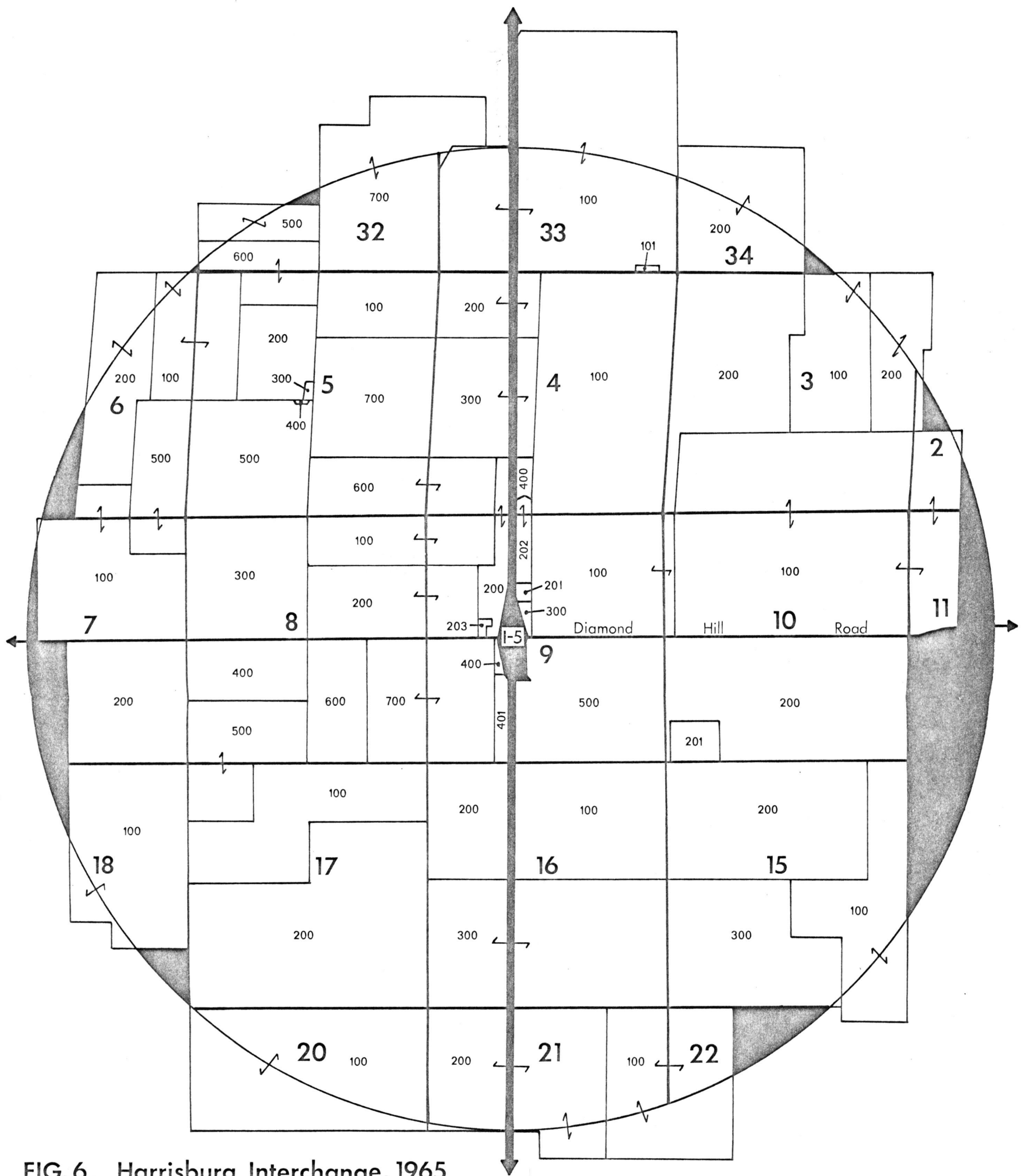


FIG. 6 Harrisburg Interchange, 1965

0 1  
Scale in Miles

LEGEND

4 Section Number  
3 Lot Number

Unassessable or Error

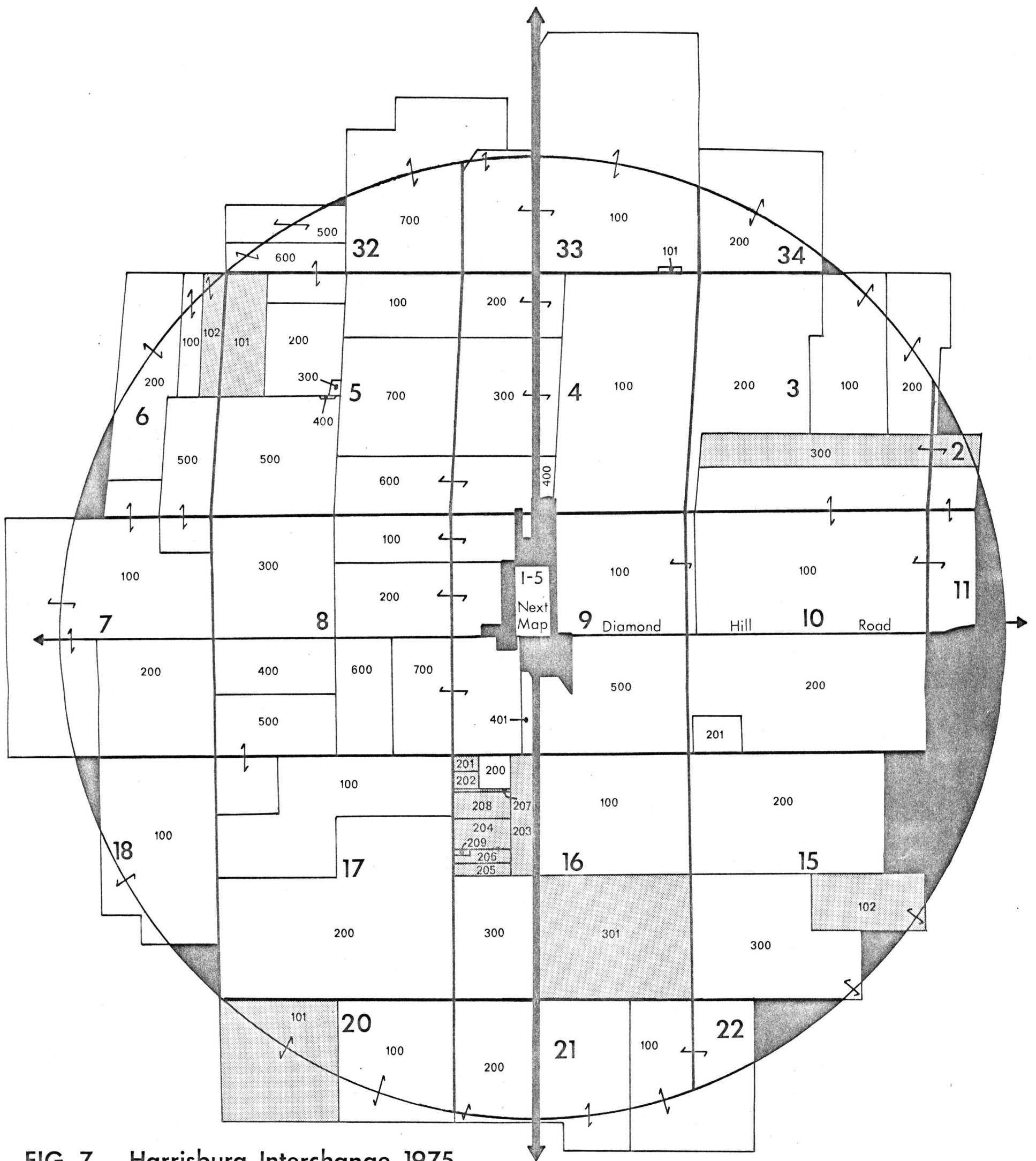


FIG. 7 Harrisburg Interchange, 1975

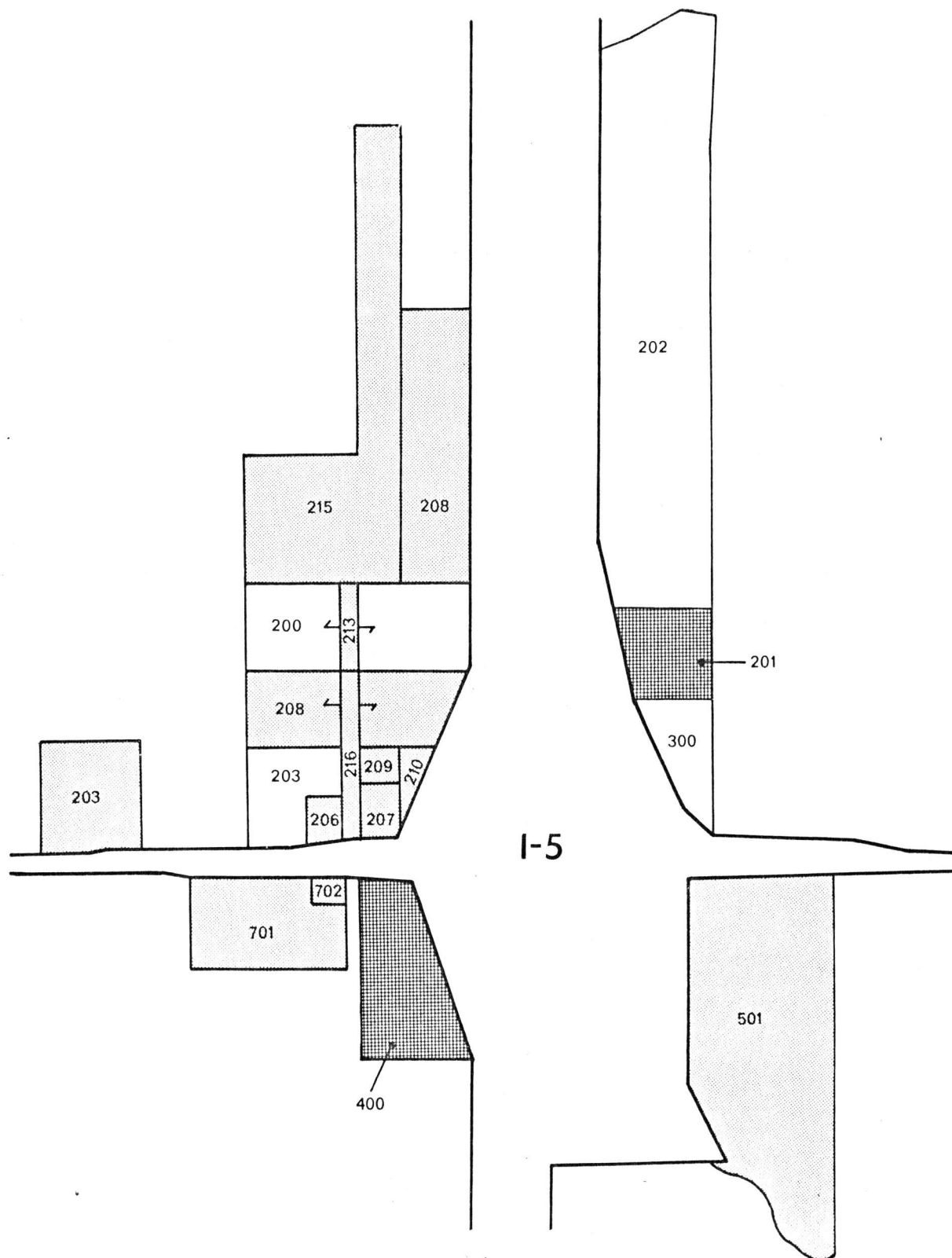
0 1  
Scale in Miles

4 Section Number  
3 Lot Number

LEGEND

Unassessable or Error  
Nonexistent in 1965





**FIG. 8 Harrisburg Interchange, 1975**

□ Nonexistent in 1965      ▨ Unassessable or Error      3 Lot Number  
 0      500      1000  
 Scale in Feet

(3.2 km.) radius limit. Areas not included are shown in heavy black on the maps (Figs. 2-7). Also lots nonexistent in 1965 were omitted as there was no assessment available for comparison. No attempt was made at reaggregation as this would have been innaccurate. Nonassessable lots were also not included. These were mainly state wildlife refuges and school property. There are a group of lots where recording errors concerning the acreages were found and these were omitted (Figs. 2 and 3, section 32, lots 200, 400, 500, and 600).

#### Land Value Computation

Market value of the lots is defined as the price the Linn County Assessor estimates they would sell for. In calculating the market value for the two study years, some adjustments were made to bring the assessed values up to an equitable level. In reality market value is somewhat ambiguous, as the actual sales price usually differs.

#### 1965 Value

Prior to 1968, Linn County assessed land at 25% of its market value. To represent market value, the value per acre was multiplied by four as follows:

$$\frac{1965 \text{ Assessed Value}}{\text{Lot Acreage}} \times 4 = 1965 \text{ Market Value}$$

#### 1975 Value

Land was assessed at market value in 1975, except for land zoned under Exclusive Farm Use. This classification,

generally referred to as farm deferral, assesses land at a level below market value. This is done to ease taxes on farm operations. Personnel at the Assessors Office indicated that farms were assessed at approximately one-half of market value. Lots under farm deferral are indicated in Appendix B by an asterisk. The value per acre was multiplied by two as follows:

$$\frac{1975 \text{ Assessed Value}}{\text{Lot Acreage}} \times 2 = 1975 \text{ Market Value}$$

Lots not under the farm deferral program had their values determined by dividing the assessed value by the acreage, using no equalization factor.

## LOT PATTERN ANALYSIS

Because the maps are very comprehensive, some explanation and clarification is necessary. The three maps are similar in that all have lots adjacent the interchange that are related to motorist business, but the similarity ends there.

Site 1

Figures 2 and 3 portray the 110 lots studied at this interchange. Of these, there are twelve lots directly related to the interchange. Seven service stations, a small cafe, and VIP'S restaurant are located here, though most of these businesses were built after 1965 and were not included in the study. Several small areas with houses or other improvements (not zoned under Exclusive Farm Use) exist about 1.50 miles (2.4 km.) from the interchange in sections six and and twenty-nine (Fig. 3). Lot 201, section six is the result of a survey error, as is lot 1009, section four. The latter appears to have been intended to reach 1008. The construction of the freeway split five lots; however this topic of parcel fragmentation by Interstate 5 is better covered elsewhere.<sup>7</sup>

Site 2

Sixty-two lots were included in the Halsey-Brownsville study area. This is barely more than one-half the number of lots in Site 1. Only one lot appeared to be directly related to the interchange in 1965, lot 301 in section four (Fig. 4). By 1975 only one more lot adjacent the interchange was

created. Presently there are three service stations, and a Stuckeys restaurant adjacent the interchange. Two large unassessable lots belonging to the Oregon Wildlife Commission are also next to the interchange, preventing any development in those areas. A small strip of houses exists approximately one mile (1.6 km.) west of the interchange in section thirty-two. Only one lot was split by the freeway; lot 500, sections eight and nine. The strangest looking lot is lot 500, section three. This triangular piece of land is owned by the Oregon and California Railroad.

### Site 3

The Harrisburg interchange has the least number of lots that were included in the study. Only fifty-two were analyzed. Even though very few others were omitted, this low number shows that there are many large lots in the area. In comparing the patterns for the years 1965 and 1975, lots over one mile (1.6 km.) changed very little. In contrast, fourteen new lots were created adjacent the interchange. However these are mostly undeveloped and appear to be held for speculation. Lot 200, section sixteen had a interesting evolution from 1965 to 1975 (Figs. 6 and 7). In that ten year period nine new lots were carved out of the original lot.

## VALUE ANALYSIS

Value analysis is provided by scattergrams (Figs. 9,10, and 11). Distance is represented by the horizontal axis and the percentage change in land values is shown by the vertical axis.

Site 1

The average increase of the 110 lots was +325.8% between the years 1965 and 1975. Much of this increase is attributed to lot 201, section four, which increased +11608% (Fig. 3 and 9). This was by far the greatest increase of any lot included in the three interchange study areas. Excluding this abnormal increase, the average would then be +222.3%. The second largest increase in land value was +1430.5%, which occurred on lot 100, section six (Fig. 3). This lot is situated one and one-half miles (2.4 km.) from the interchange. The lowest increase was +21.1%, which occurred on lot 602, section six (Fig. 3). This can be attributed to the fact that in 1965 the value per acre, \$20,235.29, was already quite high.

From the scattergram it appears that the majority of the lots are in the +190% range (Fig. 9). Lots within .21 mile (.32 km.) had higher increases than lots farther away, which probably reflects the locational demand. Approximately 1.25 to 1.80 miles (2.0 to 2.88 km.) from the interchange many above average increases occur (Fig. 9). These correspond to lots not under the farm deferral classification in sections six, seven and twenty-nine (Fig. 3). Most of the lots directly adjacent the interchange were not included in this study.

### Site 2

Although it appears that the majority of the lots are in the +200% range, the actual average is +296.8%. This high average is the result of four very large increases. The largest of these is +1812%. This 9.84 acre lot had a very low value per acre in 1965, which was only \$32.52. In 1975 the market value was \$621.95, an amount comparable to other lots in the area. Other high increases were +684.5% +595.6% and 572.8%. A small increase, +7.1%, occurred on lot 301 adjacent the interchange, however the 1965 price was already high at \$15,555.55 (Fig. 10).

### Site 3

A wide range of increases is evident (Fig. 11). The actual average increase was +317.4%, higher than the averages from the other two sites. The highest increase was +2410.6% which corresponded to lot 203 in section nine (Fig. 8). Other large increases were +1230.6%, +895.8%, +681.2%, and +632.2%. There are also numerous large increases in the +375% to +600% range. The lowest was +54.3%. The large amount of lots adjacent the interchange were not included in the study.

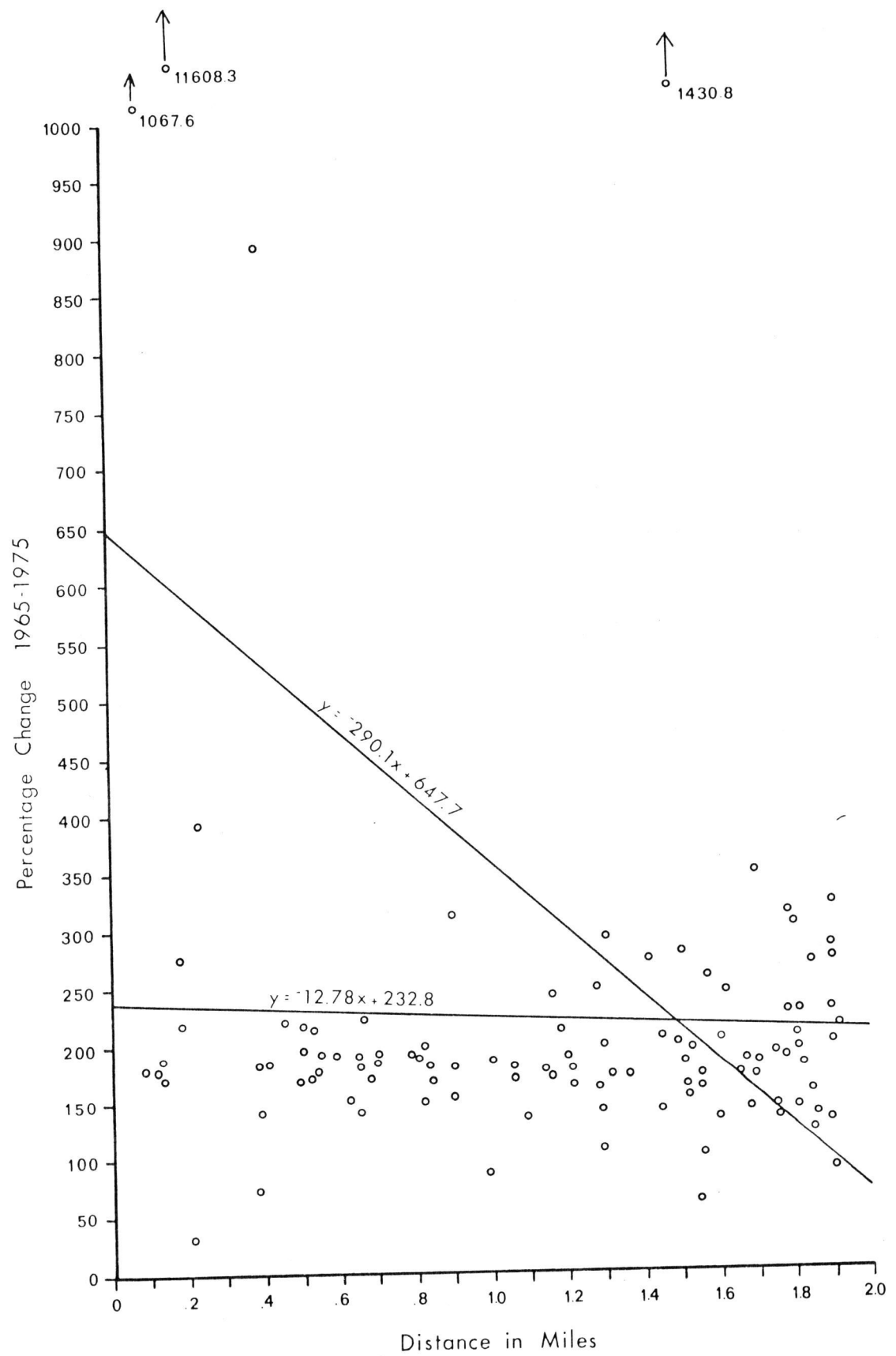


FIG. 9 SITE 1 SCATTERGRAM



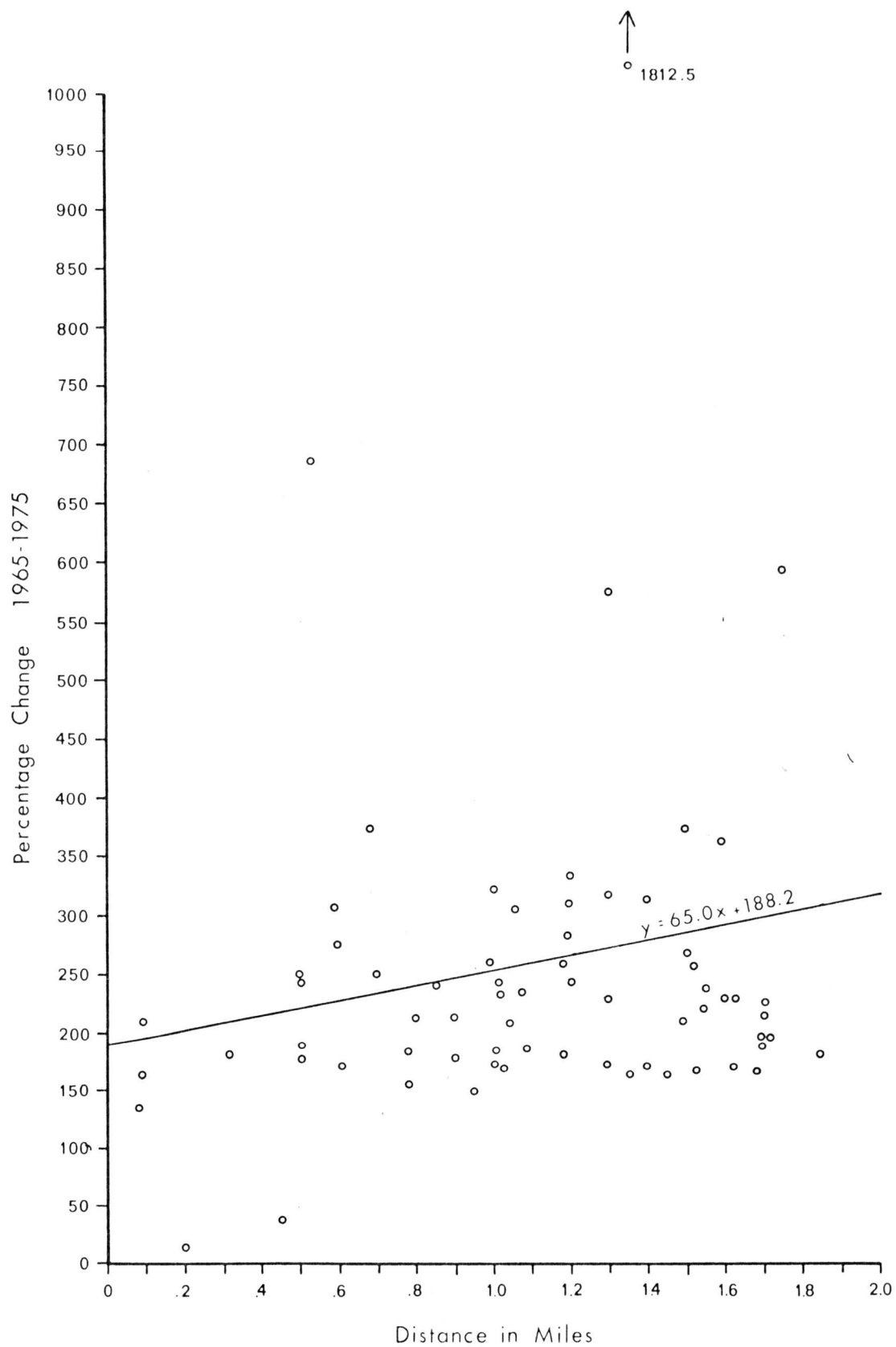


FIG. 10 SITE 2 SCATTERGRAM

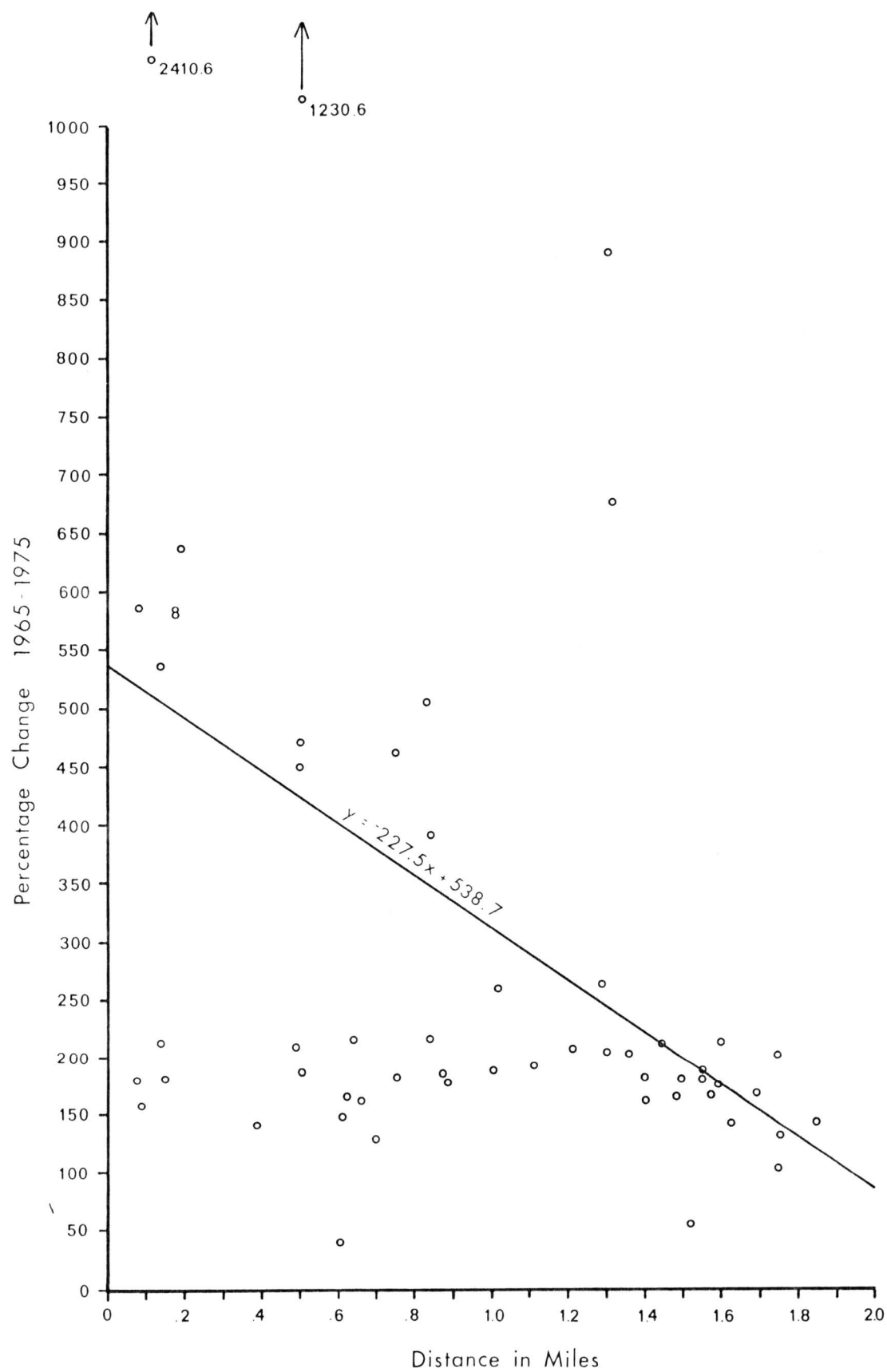


FIG. 11 SITE 3 SCATTERGRAM

## REGRESSION ANALYSIS

A regression analysis was performed using the SPSS computer system at Oregon State University. The results of the analysis are expressed by the regression equation, the correlation coefficient, and the coefficient of determination.

### Site 1

The regression analysis of the 110 lots provided the following data:

- 1 Regression equation:  $y = -290.14x + 64.77$
- 2 Correlation coefficient:  $-0.15766020$
- 3 Coefficient of determination:  $.02485674$

The regression line is negatively sloped and quite steep due to the tremendous effect of the +11608.3% increase (Fig. 9). This line represents the line of best fit with respect to the points on the scattergram. More important is the correlation coefficient, which expresses the interaction between the variables, and this was too low to be of statistical significance. The coefficient of determination shows that only 2.48% of the increase in land values is attributed to the distance from the interchange.

Disregarding the +11608.3% increase, the regression analysis provided more indicative data:

- 1 Regression equation:  $y = -12.78x + 232.8$
- 2 Correlation coefficient:  $-0.04326928$
- 3 Coefficient of determination:  $.00187223$

The regression line shows the dramatic change in slope, though it is still negative (Fig. 9). The correlation

coefficient is much smaller and the coefficient of determination shows that only .18% of the change in land value appreciation is a result of the distance factor.

### Site 2

Site 2 had the only positive regression line, indicating that an inverse relationship occurs, and land increases as distance from the interchange increases (Fig. 10). However this may be misleading as the data are not statistically significant. The data are as follows:

- 1 Regression equation:  $y = 64.97x + 188.22$
- 2 Correlation coefficient: .13682436
- 3 Coefficient of determination: .01872091

The results are again too small to be statistically significant. Only 1.87% of the increases in land values is a direct effect of the distance factor.

### Site 3

There is a larger degree of relationship in the variables of Site 3 than in the other sites, though still statistically insignificant. The data are as follows:

- 1 Regression equation:  $y = -227.5x + 538.7$
- 2 Correlation coefficient: -0.34034756
- 3 Coefficient of determination: .11583646

The regression line is negative, and though less steep than the original line in Site 1, has a greater variable correlation, though not of statistical significance (Fig. 11). The correlation coefficient indicates a greater degree of

interaction than the other sites and 11.58% of the increases in land values is attributable to the distance factor. Site 3 had the strongest correlation of distance and land values of all the sites, but because this is still a low correlation, no statistical relationship exists.

## CONCLUSION AND COMMENTS

The regression analysis showed the relationship between interstate interchanges and adjacent land values does not statistically exist. The majority of the largest land value appreciation rates do, however, occur on lots close to the interchange. Lots classified under Exclusive Farm Use appreciated at the fairly similar rate of 200%.

This study examined only land values and disregarded the value of buildings and other property improvements. The results might have differed had these been examined too. There are several weaknesses in this study. One is the use of market value as the method of comparison because of its ambiguity. Another is that farm deferral lots are only approximately assessed at one-half of their market value. The size of the study area also affects the amount of lots (and land values) that are included in the analysis.

## FOOTNOTES

- 1 William D. Franklin, "The Highway Interchange Complex and Economic Development", Traffic Quarterly, January (1970), pp. 77-90.
- 2 Steven A. Wilson, Spatial Aspects of Property Value Appreciation, (a Masters research paper, Department of Geography, Oregon State University, 1969).
- 3 William Pendleton, "An Empirical Study of Changes in Land Use at Freeway Interchanges", Traffic Quarterly, January (1965) pp. 89-100.
- 4 Martin M. Stein, "Highway Interchange Area Development-Some Recent Findings", Public Roads, December (1969), pp. 241-250.
- 5 Joseph Mason and Charles T. Moore, "Commercial Site Selection at Interstate Interchanges", Traffic Quarterly, January (1973), pp. 19-34.
- 6 Thomas Corsi, "Development at Interchanges; the Ohio Turnpike", Traffic Quarterly, January (1975), p. 66.
- 7 A more complete discussion was done by Robert Howard Schmidt Jr., The Impact of Limited Access Highways on Agricultural Land; National Interstate Route 5, Linn County, a Case Study, (a Masters research paper, Department of Geography, Oregon State University, 1964).

## APPENDIX A DATA COMPILATION

The necessary data for analyzing the land value changes were obtained from the Linn County Assessors Office. The data may be reviewed by the public at any time.

### The Linn County Assessors Office

The Linn County Assessors Office assesses land every five years. This procedure occurs at the beginning and middle of each decade. The data that is stored there is in several forms and worthy of explanation.

#### Assessment Records

All assessment records prior to 1970 are presently stored on microfilm reels. Any given lot record may be found by using the township and range section, the school district, and the lot number. Each card on microfilm lists the past and present addresses of the owners, the acreage, assessed values of land and improvements, and notes on delinquent taxes.

In 1970, the Office adapted the microfiche system, which consists of data printed microscopically on plastic cards. Lot data may be found by using the tax lot number available in the plat map book.

#### Plat Books

Each section of a town and range is represented by a map outlining the location and size of various lots. The maps are constantly updated as new lots are created.

The lots are numbered in a logical fashion. The oldest



lots will have designations in multiples of one hundred, such as 100, 200, and 300. Lots having the same first digit were created out of the older lot. For example, lot 101 was created when a portion of lot 100 was sold to a new owner. This is an important fact to consider when researching lot changes over a period of time.

## APPENDIX B SITE 1 LAND VALUE DATA

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
2-300	\$203.66	\$597.04*	1.66	+193.2
3-100	\$243.37	\$513.30*	1.29	+110.9
3-200	\$260.22	\$728.34*	.70	+179.9
3-300	\$233.27	\$662.46*	.65	+184.0
3-400	\$304.38	\$739.08*	.65	+142.8
3-500	\$246.81	\$670.44*	1.16	+171.6
3-600	\$258.38	\$710.36*	1.36	+174.9
3-700	\$249.21	\$657.52*	1.53	+163.8
4-200	\$255.33	\$729.00*	.13	+185.5
4-201	\$279.07	\$32674.42	.18	+11608.3
4-300	\$239.36	\$2382.98*	.40	+895.6
4-400	\$264.55	\$753.44*	.55	+184.8
4-500	\$260.56	\$730.98*	.09	+180.5
4-600	\$251.60	\$677.42*	.13	+169.2
4-601	\$20347.83	\$65217.39	.18	+220.5
4-602	\$20235.29	\$24509.80	.21	+21.1
4-603	\$5263.16	\$26131.58	.22	+396.5
4-700	\$256.22	\$697.66*	.38	+172.3
4-800	\$261.55	\$3053.00	.08	+1067.6
4-900	\$262.63	\$727.42*	.12	+177.0
4-1000	\$268.74	\$1009.34*	.18	+275.6
4-1100	\$262.60	\$1783.92*	.08	+579.3
5-100	\$260.40	\$756.70*	.58	+190.6

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
5-200	\$266.97	\$794.12*	.50	+197.5
5-201	\$226.62	\$657.80*	.79	+190.3
5-202	\$1023.26	\$4220.93	.90	+312.5
5-300	\$259.17	\$836.28*	.44	+222.7
5-400	\$259.87	\$709.34*	.39	+173.0
5-401	\$6000.00	\$9800.00	.38	+63.3
5-500	\$230.73	\$589.92*	.91	+155.7
5-600	\$1500.00	\$2750.00	.99	+83.3
5-700	\$297.96	\$938.32*	1.18	+214.9
5-800	\$370.68	\$1479.94*	1.31	+299.3
5-900	\$254.63	\$701.06*	.89	+175.3
5-1000	\$268.85	\$866.84*	.63	+222.4
5-1100	\$260.39	\$739.22*	.38	+183.9
6-100	\$255.61	\$3912.77*	1.51	+1430.8
6-300	\$252.13	\$729.02*	1.70	+189.1
6-301	\$271.75	\$1101.31	1.80	+305.3
6-400	\$549.83	\$2250.86	1.79	+309.4
6-2400	\$246.40	\$882.18*	1.16	+258.0
7-100	\$258.29	\$580.00*	1.84	+124.6
7-200	\$275.36	\$825.48*	1.80	+199.8
7-300	\$405.80	\$1794.69	1.89	+342.3
7-301	\$445.05	\$1508.24*	1.92	+238.9
7-302	\$509.55	\$1980.89	1.85	+288.8
7-1300/100	\$203.93	\$500.36*	1.84	+145.4
7-1200/300	\$238.03	\$658.22*	1.65	+176.5

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
8-100	\$260.46	\$752.12*	.64	+188.8
8-200	\$265.54	\$781.14*	.81	+194.2
8-300	\$239.26	\$582.78*	1.44	+143.6
8-400	\$260.78	\$755.46*	1.20	+189.7
9-100	\$260.46	\$734.10	.53	+181.8
9-200	\$256.15	\$741.12*	.52	+189.3
9-300	\$263.35	\$748.08*	1.03	+184.1
9-400	\$263.87	\$711.66*	1.03	+169.7
10-100	\$249.08	\$674.04*	1.28	+170.6
10-200	\$252.24	\$677.42*	.83	+168.6
10-300	\$245.59	\$635.08*	1.21	+158.6
10-400	\$239.66	\$585.40*	1.55	+153.5
11-400	\$239.66	\$595.72*	1.75	+149.6
15-100	\$233.76	\$582.06*	1.67	+149.0
16-100	\$255.41	\$529.28*	1.56	+107.2
16-300	\$240.80	\$678.30*	1.56	+181.7
16-400	\$139.14	\$469.42*	1.81	+237.4
17-100	\$240.16	\$608.44*	1.85	+153.3
17-200	\$244.20	\$610.32*	1.80	+149.9
28-602	\$247.08	\$644.04*	1.53	+160.7
28-700	\$251.02	\$750.04*	1.52	+198.8
28-900	\$219.83	\$574.34*	1.55	+161.3
28-901	\$412.30	\$1473.94*	1.56	+257.5
29-600	\$279.50	\$826.96*	1.78	+195.9
29-700	\$327.14	\$1520.45	1.70	+364.8

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
29-701	\$585.33	\$1791.66	1.91	+206.1
29-702	\$1240.00	\$4240.00	1.88	+241.9
29-703	\$1240.00	\$3870.00	1.80	+212.1
29-704	\$820.00	\$2420.00	1.75	+195.1
29-705	\$1305.00	\$3821.10	1.82	+192.8
29-706	\$608.36	\$2357.40	1.86	+287.5
29-800	\$325.42	\$919.66*	1.69	+182.6
29-900	\$712.04	\$2754.55	1.87	+286.9
29-1000	\$250.03	\$596.27*	1.60	+138.5
29-1100	\$302.72	\$1140.26*	1.58	+276.7
29-1200	\$241.94	\$596.77*	1.90	+146.7
29-1300	\$306.45	\$596.77*	1.90	+94.7
31-100	\$240.00	\$588.75*	1.75	+145.3
31-1800	\$257.52	\$779.44*	1.59	+202.7
32-100	\$261.98	\$727.02*	1.32	+177.5
32-300	\$277.87	\$752.88*	1.16	+170.9
32-700	\$223.64	\$561.24*	.62	+151.0
32-800	\$251.52	\$670.26*	.68	+166.5
32-900	\$200.00	\$600.00*	.82	+200.0
32-1000	\$265.52	\$665.98*	.82	+150.8
32-1100	\$2000.00	\$6060.00	1.49	+203.0
32-1101	\$2000.00	\$6060.00	1.45	+203.0
32-1102	\$260.90	\$605.44*	1.08	+132.1
33-100	\$255.71	\$768.34*	1.31	+200.5
33-200	\$240.15	\$595.60*	1.28	+148.0

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
33-201	\$171.43	\$600.00*	1.28	+250.0
33-300	\$248.13	\$712.64*	1.00	+187.2
33-400	\$259.74	\$814.98*	.50	+213.8
33-401	\$253.28	\$665.88*	.50	+162.9
33-501/500	\$267.73	\$841.24*	.52	+214.2
34-100	\$224.72	\$817.08*	1.62	+263.6
34-101	\$1123.60	\$3821.05	1.78	+240.1
34-200	\$241.56	\$385.04*	1.54	+59.4
34-300	\$236.16	\$680.29*	1.20	+188.1
34-400	\$291.12	\$1088.74*	1.43	+274.0
34-500	\$262.35	\$742.38*	.82	+183.0

Source: Linn County Assessors Office

## SITE 2 LAND VALUE DATA

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
27-100	\$96.61	\$320.78*	1.62	+232.0
27-200	\$143.76	\$1000.00	1.75	+595.6
27-300	\$130.29	\$621.50*	1.50	+377.0
27-400	\$150.82	\$621.64*	1.20	+312.2
27-500	\$92.35	\$621.37*	1.29	+572.8
27-600	\$32.52	\$621.95*	1.34	+1812.5
28-100	\$178.27	\$729.22*	1.30	+309.1
28-200	\$178.31	\$604.95*	1.58	+239.3
28-300	\$179.37	\$607.54*	.83	+238.7
28-400	\$227.08	\$600.51*	1.02	+164.4
29-100	\$203.48	\$652.50*	1.55	+220.7
29-200	\$154.06	\$590.61*	1.18	+283.4
31-800	\$246.37	\$681.87*	1.62	+176.8
31-900	\$251.62	\$778.57*	1.48	+209.4
32-100	\$221.25	\$635.06*	.78	+187.0
32-101	\$1295.77	\$5211.27	1.04	+302.2
32-102	\$1158.88	\$3925.23	1.07	+238.7
32-200	\$179.67	\$574.93*	1.04	+220.0
32-201	\$280.00	\$700.40*	.95	+150.1
32-500	\$243.00	\$321.44	.44	+32.3
32-501	\$875.91	\$3111.84	.96	+255.3
33-100	\$168.34	\$589.68*	.70	+250.3
33-200	\$129.33	\$606.51*	.66	+369.0
33-300	\$78.89	\$618.91*	.52	+684.5

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
33-500	\$234.23	\$604.74*	.09	+158.2
33-700	\$172.71	\$601.56*	1.20	+248.3
34-100	\$159.66	\$687.76*	1.20	+330.8
34-200	\$144.73	\$582.96*	.58	+302.8
34-300	\$204.78	\$519.18*	.78	+153.5
34-400	\$189.27	\$673.38*	1.17	+255.8
34-500	\$220.14	\$811.82*	1.46	+268.8
35-200	\$199.13	\$640.32*	1.70	+221.6
35-300	\$154.43	\$707.04*	1.58	+356.5
35-400	\$201.66	\$587.90*	1.68	+191.5
3-100	\$205.37	\$557.48*	1.38	+171.4
3-200	\$212.54	\$870.07*	1.36	+309.4
3-300	\$172.01	\$549.35*	.90	+219.4
3-400	\$203.16	\$558.68*	.87	+175.0
3-600	\$175.63	\$496.55*	1.27	+182.7
4-100	\$177.93	\$496.79*	.51	+179.2
4-200	\$507.02	\$1202.50*	.07	+137.2
4-300	\$203.31	\$618.98*	.08	+204.5
4-301	\$15555.55	\$16666.66	.21	+7.1
4-400	\$202.85	\$701.29*	.51	+245.7
4-500	\$201.50	\$618.65*	.78	+207.0
4-600	\$177.16	\$618.44*	.51	+249.1
5-100	\$249.76	\$672.62*	.32	+170.9
5-200	\$240.06	\$619.03*	.50	+157.9
5-201	\$242.24	\$908.80*	.60	+272.7
5-300	\$259.24	\$740.47*	1.08	+185.6



Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
5-400	\$609.42	\$2576.18*	.96	+322.7
5-500	\$248.15	\$659.60*	.98	+165.8
5-600	\$246.35	\$674.72*	.61	+173.9
6-100	\$240.26	\$637.56*	1.35	+165.4
6-200	\$254.31	\$716.10*	1.86	+181.6
7-100	\$244.29	\$660.56*	1.68	+170.4
8-100	\$246.81	\$694.65*	1.07	+181.4
8-200	\$253.70	\$714.66*	1.18	+181.7
8-300	\$282.45	\$930.61*	1.30	+229.5
8-400	\$241.92	\$618.97*	1.44	+155.9
8-500	\$247.06	\$696.21*	1.72	+181.6
8-600	\$245.09	\$666.37*	1.67	+171.9
9-100	\$179.17	\$579.84*	1.02	+233.7
9-200	\$180.30	\$618.88*	1.01	+243.3
9-500	\$188.24	\$662.58*	1.52	+252.0
9-600	\$201.84	\$652.34*	1.54	+223.2
10-100	\$204.23	\$535.90*	1.52	+162.4
10-300	\$199.8	\$619.04*	1.69	+209.8

Source: Linn County Assessors Office

## SITE 3 LAND VALUE DATA

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
32-500	\$225.8	\$557.38*	1.85	+146.8
32-600	\$231.03	\$572.15*	1.62	+147.6
32-700	\$196.87	\$515.94*	1.56	+162.1
33-100	\$315.03	\$486.24*	1.53	+54.3
34-200	\$202.87	\$544.00*	1.67	+168.2
2-200	\$171.42	\$441.04*	1.75	+157.3
3-100	\$166.01	\$446.07*	1.47	+168.7
3-200	\$96.17	\$477.93*	.83	+397.0
4-100	\$88.24	\$485.94*	.51	+450.7
4-200	\$139.77	\$519.06*	1.26	+271.4
4-300	\$98.48	\$555.13*	.75	+463.7
4-400	\$79.91	\$1063.26*	.51	+1230.6
5-100	\$195.48	\$595.26*	1.29	+204.5
5-200	\$222.81	\$671.38*	1.35	+201.3
5-300	\$233.01	\$2320.39	1.31	+895.8
5-400	\$516.13	\$4032.26	1.31	+681.2
5-500	\$215.28	\$634.88*	1.00	+194.9
5-600	\$221.68	\$572.51*	.62	+158.3
5-700	\$88.05	\$531.69*	.83	+503.9
6-100	\$215.12	\$505.23*	1.76	+134.9
6-200	\$211.29	\$639.33*	1.74	+202.6
6-500	\$245.07	\$785.37*	1.44	+220.5
7-100	\$241.26	\$617.70*	1.39	+156.0
7-200	\$218.64	\$615.57*	1.39	+182.4

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
8-100	\$236.30	\$731.25*	.49	+209.4
8-200	\$259.35	\$637.39*	.37	+145.8
8-300	\$229.72	\$641.38*	.87	+179.2
8-400	\$227.81	\$669.59*	.87	+193.9
8-500	\$229.63	\$685.32*	1.10	+198.4
8-600	\$239.67	\$598.68*	.61	+149.8
8-700	\$227.20	\$576.43*	.08	+153.7
9-100	\$91.58	\$248.00*	.07	+170.8
9-200	\$234.37	\$1510.06	.14	+544.3
9-202	\$242.00	\$1772.00*	.20	+632.2
9-203	\$285.71	\$7172.99	.11	+2410.6
9-300	\$307.69	\$2117.95	.07	+588.3
9-401	\$242.02	\$750.28*	.14	+210.0
9-500	\$175.58	\$481.27*	.15	+174.1
10-100	\$270.66	\$615.60*	.70	+127.4
10-200	\$190.14	\$496.02*	.65	+160.9
10-201	\$132.80	\$388.00*	.75	+192.2
15-200	\$168.44	\$491.26*	1.55	+191.7
15-300	\$157.93	\$495.98*	1.21	+214.1
16-100	\$159.96	\$462.60*	.51	+189.2
16-200	\$87.35	\$500.00	.52	+472.4
16-300	\$185.27	\$672.14*	1.02	+262.8
17-100	\$217.49	\$677.86*	.63	+211.7
17-200	\$210.55	\$650.93*	.85	+209.2
18-100	\$217.83	\$609.75*	1.48	+179.9
20-100	\$232.51	\$740.85*	1.58	+218.6

Section And Lot Number	1965 Value Per Acre	1975 Value Per Acre	Distance In Miles	Percentage Change
21-100	\$185.20	\$498.98*	1.58	+169.4
21-200	\$190.34	\$553.06*	1.55	+190.6

Source: Linn County Assessors Office

## BIBLIOGRAPHY

- 1 Corsi, Thomas, "Development at Interchanges; the Ohio Turnpike", Traffic Quarterly, January (1975).
- 2 Franklin, William D., "The Highway Interchange Complex and Economic Development", Traffic Quarterly, January (1970).
- 3 Greenbie, Barrie Barstow, "Interchange Planning in a Rural Area", Traffic Quarterly, April (1975).
- 4 Mason, Joseph and Charles T. Moore, "Commercial Site Selection at Interstate Interchanges", Traffic Quarterly, January (1973).
- 5 Pendleton, William, "An Empirical Study of Changes in Land Use at Freeway Interchanges", Traffic Quarterly, January (1965).
- 6 Pendleton, William, "Land Use at Freeway Interchanges", Traffic Quarterly, October (1961).
- 7 Schmidt, Robert Howard Jr., The Impact of Limited Access Highways on Agricultural Land; National Interstate Route 5, Linn County, a Case Study, (a Masters research paper, Department of Geography, OSU, 1964)
- 8 Smith, Brooks E., and Joseph Mason, "Service Station Development at Interchanges in Alabama", Traffic Quarterly, July (1975).
- 9 Stein, Martin M., "Highway Interchange Area Development- Some Recent Findings", Public Roads, December (1969).
- 10 Wilson, Steven A., Spatial Aspects of Property Value Appreciation, (a Masters research paper, Department of Geography, OSU, 1969).