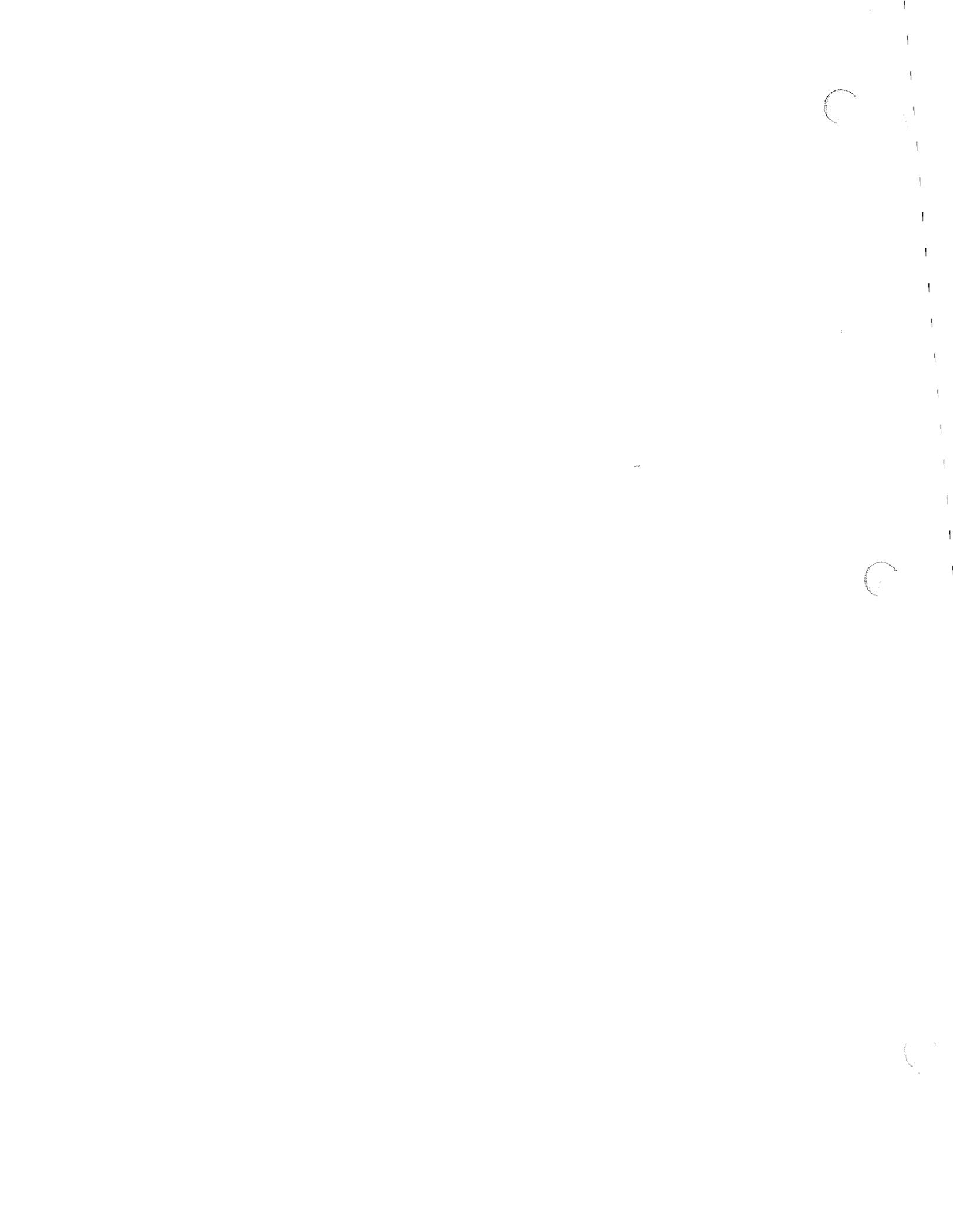


**THE  
THOROUGHFARE  
PLAN**

**VOLUME 4  
THE COMPREHENSIVE PLAN FOR  
TIPPECANOE COUNTY**



THE COMPREHENSIVE PLAN  
FOR TIPPECANOE COUNTY

VOLUME 4:

THE THOROUGHFARE PLAN

TIPPECANOE COUNTY AREA PLAN COMMISSION  
County Office Building  
20 North Third Street  
Lafayette, Indiana 47901  
317-423-9242

May 1981

Adopted by the TIPPECANOE COUNTY AREA PLAN COMMISSION on September 16, 1981, by the COMMON COUNCILS OF THE CITIES OF LAFAYETTE and WEST LAFAYETTE and the TOWN BOARDS OF DAYTON and BATTLE GROUND on October 5, 1981, and by the BOARD OF COMMISSIONERS, COUNTY OF TIPPECANOE, on October 19, 1981. Certified to and recorded by the Tippecanoe County Recorder on October 23, 1981.

THE TIPPECANOE COUNTY AREA PLAN COMMISSION, 1981

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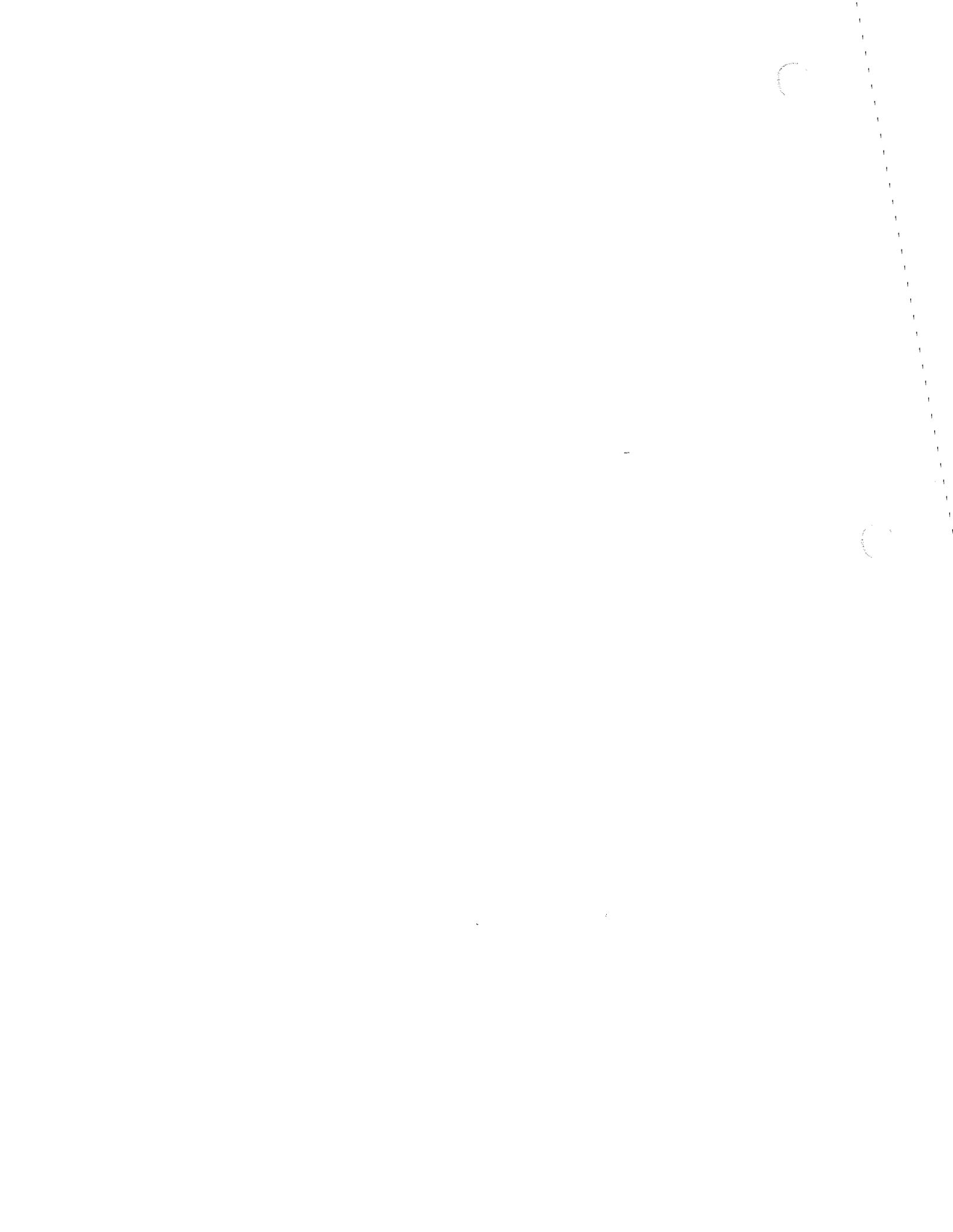
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## I. INTRODUCTION

The Thoroughfare Plan is an essential element in the development of a working Comprehensive Plan. It is an attempt to provide Lafayette, West Lafayette and Tippecanoe County with a working traffic plan designed to meet current and future roadway needs with respect to land use development patterns.

A major concern of citizens is the elimination of traffic congestion. Busy roads attract certain land uses and those certain land uses increase the volume of traffic on adjacent streets. With the additional usage congestion is increased.

The cost of roadway improvements is the major deterrent to needed improvements of the roadway system. The Thoroughfare Plan is designed to provide a comprehensive basis for ensuring the functioning of road systems at acceptable levels of service and for a sharing of the costs of roadway improvements with the private sector whenever it proposes a development which causes an impact on the adjacent roadway system.

Since the Thoroughfare Plan anticipates development and the need for expanded facilities, local governments can program the capital investments necessary to meet those needs, incrementally.

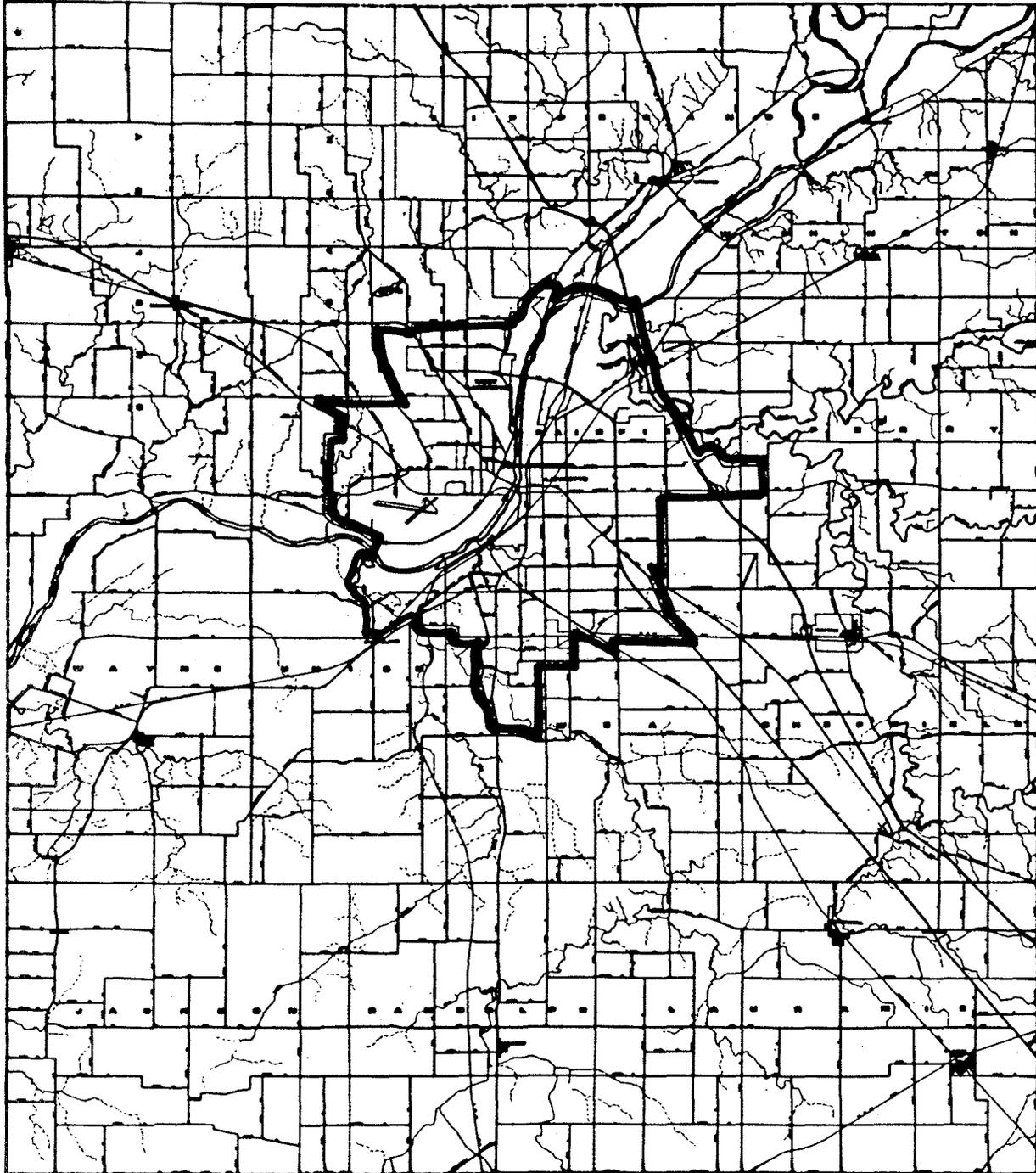
## II. THE URBAN AND RURAL BOUNDARIES

The Thoroughfare Plan divides Tippecanoe County into two areas: urban and rural. The line that distinguishes between these two areas is the Urbanized Area Boundary Line as mapped and defined by the United States Bureau of the Census (Figure 1). The Urbanized Area Boundary changes somewhat after each decennial census based on the increase and fluctuation of the population.

The purpose of the distinction between urban and rural for the Thoroughfare Plan will be discussed in Section V of this report.

Figure 1

# TIPPECANOE COUNTY URBANIZED AREA BOUNDARY



### III. DEFINITIONS

Collector Road - A road intended to move traffic from local roads to secondary arterials. A collector road serves the needs of a neighborhood or large subdivision.

Cul-de-sac (Turn-around) - A local street with only one (1) outlet and having an appropriate terminal for the safe and convenient reversal of traffic movement.

Level of Service - A qualitative measure of the effect of a number of factors that may occur on a given lane or roadway when it is accommodating various traffic volumes.

Local Government Engineer - The licensed engineer designated by the participating jurisdictions to furnish engineering assistance for the administration of the ordinances.

Local Road - A road intended to provide primary access to other roads from individual property.

Primary Arterial - A road intended to move through traffic to and from such major attractors as central business districts, regional shopping centers, colleges and/or universities, military installations, major industrial areas, and similar traffic generators within a participating jurisdiction; and/or as a route for traffic between communities or large developed areas. This term is equivalent to the term "major arterial" as used in Part IV of the Thoroughfare Plan of the Tippecanoe County Area Plan Commission.<sup>1</sup>

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<sup>1</sup>The predecessor to this Plan

Right-of-Way - A strip of land occupied or intended to be occupied by a street, sidewalk, railroad, electrical transmission line, oil or gas pipeline, water main, sanitary sewer or storm sewer main, shade trees, or other special use.

Road Right-of-Way Width - The distance between property lines measured configuratively or radially to the center line of the street.

Secondary Arterial - A road intended to collect and distribute traffic in a manner similar to primary arterials, except that these roads service minor traffic-generating areas such as community/commercial areas, primary and secondary educational facilities, hospitals, major recreational areas, churches and offices, and/or are designated to carry traffic from collector streets to the system of primary arterials. This term is equivalent to the term "collector street/minor arterial" as used in Part IV of the Thoroughfare Plan of the Tippecanoe County Area Plan Commission.<sup>1</sup>

Urbanized Area Boundary - The area so mapped and defined by the United States Bureau of the Census (see Figure 1).

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<sup>1</sup>The predecessor to this Plan

#### IV. DERIVATION OF THE PLAN

The Thoroughfare Plan has derived from three major sources. The Greater Lafayette Area Transportation and Development Study (GLATDS)<sup>1</sup> is one key source. This study represents a summary of the goals and objectives, major surveys, analyses, alternatives, and a plan for transportation facilities within Lafayette, West Lafayette, Dayton, Battle Ground and surrounding portions of unincorporated Tippecanoe County. Published in September 1978, the report was a result of a comprehensive study that directly related the planning of transportation facilities to land use planning. The Transportation Plan described in the GLATDS report consists of recommendations that have been officially adopted by the Area Plan Commission on the advice of its Citizen Participation Committee, the Administrative Committee and the Technical Highway Committee which, together, represent all participating agencies and citizens groups. As indicated in the report, the plan presented is only the beginning of a continuing process designed to guide future growth of the transportation system.

The Functional Classification<sup>2</sup> of Roadways is the product or final plan of the Greater Lafayette Area Transportation and Development Study. It consists of an integrated system of freeways, arterial roads and collector streets designed to provide substantial benefits to the community by reducing delay costs, enhancing accessibility and improving travel safety.

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<sup>1</sup>"Greater Lafayette Area Transportation and Development Study;" prepared for the Tippecanoe County Area Plan Commission by Vogt, Sage and Pflum Consultants; September 1978.

<sup>2</sup>"Greater Lafayette Area Transportation and Development Study;" Figures i-3A and i-3B, pages i-10 and i-11.

A second source is the Unified Subdivision Ordinance of Tippecanoe County (USO)<sup>3</sup> which went into effect on May 23, 1980. This Ordinance is part of the Comprehensive Plan for Tippecanoe County, the City of Lafayette, the City of West Lafayette, the Town of Battle Ground and the Town of Dayton. The Unified Subdivision Ordinance contains provisions for the control of land subdivision, and the approval of plats and replats within the jurisdictional area of the Tippecanoe County Area Plan Commission. Among the stated purposes of the Unified Subdivision Ordinance are the following: to provide adequate and efficient transportation; to provide the most beneficial relationship between the uses of land and buildings and the circulation of traffic throughout the participating jurisdictions, having particular regard to the avoidance of congestion in the streets and highways, and the pedestrian traffic movement proximate to the various uses of land and buildings; and, to provide for the proper location and width of streets and building lines.

The Unified Subdivision Ordinance establishes general requirements and design standards for all roads in Tippecanoe County based on the classification (i.e. primary arterial, secondary arterial, etc.) of the road. Minimum right-of-way, minimum pavement width, curb and gutter requirements, etc. are established and listed in Section 5.3(2) of the Unified Subdivision Ordinance (see Table 1). These standards were developed by the Area Plan Commission staff with approval from the Tippecanoe County Highway Engineer and the Lafayette and West Lafayette City Engineers. Construction standards for roadways, such as pavement thickness, drainage improvements, etc., are approved by the applicable local unit of government

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<sup>3</sup>"Unified Subdivision Ordinance of Tippecanoe County;" an ordinance for the County of Tippecanoe (Ordinance No. 79-31), the City of Lafayette (Ordinance No. 79-47), the City of West Lafayette (Ordinance No. 20-79), the Town of Battle Ground (Ordinance No. 169), and the Town of Dayton (Ordinance No. 79-9).

TABLE 1. DESIGN STANDARDS FOR ROADS

ROADWAY TYPE		MIN. WIDTH R-O-W	MIN. PVMNT. WIDTH (1)	MIN. SIDE DITCH WIDTH	MIN. SHOULDER WIDTH	MAX. GRADE	MIN. RADIUS OF CURVE	MIN. LENGTH OF TANGENT (3)	MIN. SIGHT DISTANCE	MIN. CORNER RADIUS (4)	MIN. TURN-AROUND (5)
URBAN CROSS SECTION ARTERIAL NON-RES. RESIDENT. (6)	1. PLACE	40 ft.	18 ft.			7.5%		100 ft.	200 ft.	20 ft.	80 ft./ 60 ft.
	2. LOCAL ROAD	50 ft.	26 ft.	N/A	N/A	7.5%	100 ft.	100 ft.	200 ft.	20 ft.	100 ft./ 80 ft.
	3. COLLECTOR	60 ft.	33 ft.			7.0%		150 ft.	240 ft.	25 ft.	N/A
	1. LOCAL ROAD	60 ft.	30 ft.	N/A	N/A	6.0%	200 ft.	200 ft.	200 ft.	40 ft.	160 ft./ 140 ft.
	2. COLLECTOR	70 ft.	40 ft.						240 ft.		N/A
	1. SECONDARY	70 ft.	44 ft.								
	2. PRIMARY	80 ft.	54 ft.	N/A	N/A	(2)	(2)	(2)	(2)	(2)	N/A
	3. DIVIDED PRIM.	100 ft.	2-25 ft.								
RURAL CROSS-SECTION ARTERIAL NON-RES. RESIDENT. (6)	1. PLACE	50 ft.	18 ft.			7.5%		100 ft.	200 ft.	20 ft.	100 ft./ 76 ft.
	2. LOCAL ROAD	60 ft.	26 ft.	10 ft.	6 ft.	7.5%	100 ft.	100 ft.	200 ft.	20 ft.	100 ft./ 76 ft.
	3. COLLECTOR	65 ft.	33 ft.			7.0%		150 ft.	240 ft.	25 ft.	N/A
	1. LOCAL ROAD	65 ft.	30 ft.	10 ft.	6 ft.	6.0%	200 ft.	200 ft.	200 ft.	40 ft.	160 ft./ 140 ft.
	2. COLLECTOR	75 ft.	40 ft.						240 ft.		N/A
	1. SECONDARY	80 ft.	24 ft.	22 ft.	6 ft.						
	2. PRIMARY	120 ft.	48 ft.	28 ft.	8 ft.	(2)	(2)	(2)	(2)	(2)	N/A
	3. DIVIDED PRIM.	150 ft.	2-24 ft.	31 ft.	10 ft.						

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TABLE 1. DESIGN STANDARDS FOR ROADS (CONT'D)

<u>STANDARDS APPLIED TO ALL ROADWAYS</u>	
MINIMUM GRADE:.....	0.5%
MINIMUM BLOCK LENGTH: 400 ft. (1000 ft. between collectors along arterials)	
MAXIMUM BLOCK LENGTH:.....	2600 ft.
MAXIMUM CUL-DE-SAC LENGTH:.....	800 ft.
MAXIMUM LENGTH OF TEMPORARY DEAD-END ROAD:.....	1000 ft.
MINIMUM LENGTH OF VERTICAL CURVES: 100 ft., but not less than 20 ft. for each percent of algebraic difference in grade.	

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<u>FOOTNOTES:</u>	
(1)	Curb and gutter is in addition on Urban Cross Sections (combined 2 ft. minimum on each side).
(2)	As required by the Local Government Engineer and/or Indiana State Highway Commission.
(3)	Between reverse curves.
(4)	Measured at curb on Urban Cross Sections, at pavement edge on Rural Cross Sections. Transitional curve into the turnaround within cul-de-sacs: Residential - 50 ft. Non-residential - 100 ft.
(5)	Diameter, measured at edge of right-of-way/edge of pavement, or back to back of curb on urban cross sections.
(6)	Includes subdivisions for uses permitted in residential districts as a matter of right or through Special Exception.
N/A	Not applicable

through its Board of Works, Town Board or Board of County Commissioners, with approval from the local engineers through the Construction Plan process as prescribed in the Unified Subdivision Ordinance.

The third source, the previous Thoroughfare Plan, Part IV, was adopted in 1962 (revised in 1966 upon recommendation of the Technical Highway Committee of Greater Lafayette), as a part of the Comprehensive Thoroughfare Plan for Tippecanoe County. Its purpose was to establish the general engineering description and other specific or recommended construction data concerning all streets, roads and highways, both urban and rural, for Lafayette, West Lafayette and Tippecanoe County.

## V. THE THOROUGHFARE PLAN

The Thoroughfare Plan, in essence, is an amalgamation of the three sources described in the previous section. Its purpose is to replace the existing Thoroughfare Plan, Part IV with a plan that incorporates not only the existing Thoroughfare Plan, but the year 2000 Transportation Plan and its Functional Classification System as well, and to update design standards for the roads to meet current and future needs based on the total Comprehensive Plan.

The Thoroughfare Plan imposes road width standards which vary depending on the type of road involved and the intensity of use located on the road. The Plan should work to the mutual advantage of the developer and the public in general. It ensures adequate road width for safe vehicular movement, yet does not demand excessive and costly rights-of-way and pavement widths for roads which have low traffic volumes.

The Thoroughfare Plan classifies roadways into two major categories: urban and rural. Roads classified as urban roads are those that lie within the Urbanized Area Boundary as defined by the Bureau of the Census (Figure 1). Rural road classifications are those roads that lie outside the Urbanized Area Boundary.

Within each of these two major categories roads are classified as one of the following: divided primary arterial, primary arterial, secondary arterial, collector road, local road or place (Table 1). The Thoroughfare Plan deals with the arterials, existing or proposed, and classifies all other public roads and streets as local roads unless otherwise designated as a collector specifically by the Area Plan Commission, or unless the road can meet the requirements of a place when originally platted.

A primary arterial in the Thoroughfare Plan is synonymous with a major arterial in the previous Thoroughfare Plan, Part IV. A secondary arterial is synonymous with a minor arterial.

The Thoroughfare Plan being proposed is shown in Figures 2 and 3.

The most important function of a Primary Arterial is to move vehicles rapidly to a designated location. This movement is in large volumes and usually, implies longer trips from one part of the community to another. Land access should be a secondary function of arterials; it is, however, a legal right of the adjoining property owner to demand access to an arterial way unless access is available from another point, or access rights have been purchased.

A Secondary Arterial is primarily designed to drain traffic off local streets and channel this traffic to Primary Arterials or to local generators such as schools, shopping centers, or major employment generators.

Arterials are generally designed without parking since it takes excessive right-of-way and is expensive to provide. The function of an arterial is to move vehicles and parked vehicles impede traffic flow.

All urban arterial routes should connect areas of heavy traffic generation and important rural highways entering the city. The continuity of routes is an absolute necessity.

General design standards for each of the arterials as defined in Table 1 are shown as cross sections in Figures 4, 5 and 6.

As a result of comments and discussions, the Area Plan Commission on September 16, 1981 made the following adjustments to the Thoroughfare Plan, as originally proposed:

On the Rural Area Thoroughfare Plan:

To add 725W as a Rural Secondary Arterial between Kerber Road and Division Road including a new location for the Granville Bridge slightly west of its existing location;

To add 500N as a Rural Secondary Arterial between the Benton County line and SR43;

To change SR43N from a Rural Secondary to a Rural Primary Arterial from 600N to SR225;

To add a proposed extension of 900E due north to connect with SR25; and,

On the Urban Area Thoroughfare Plan:

To change SR26 to a Divided Primary from US52 to the Urbanized Area Boundary;

To add 3rd Street between Canal Road and Ferry Street as a Primary Arterial;

To add Grant Street, south of State Street and its proposed connection to the South River Road, as an Urban Primary Arterial;

To add SR526, known as Airport Road, south from State Street to the Airport as an Urban Secondary Arterial; and,

To adjust the location of the Cumberland Avenue extension to the west and southwest, between US52 and Cherry Lane (SR126).

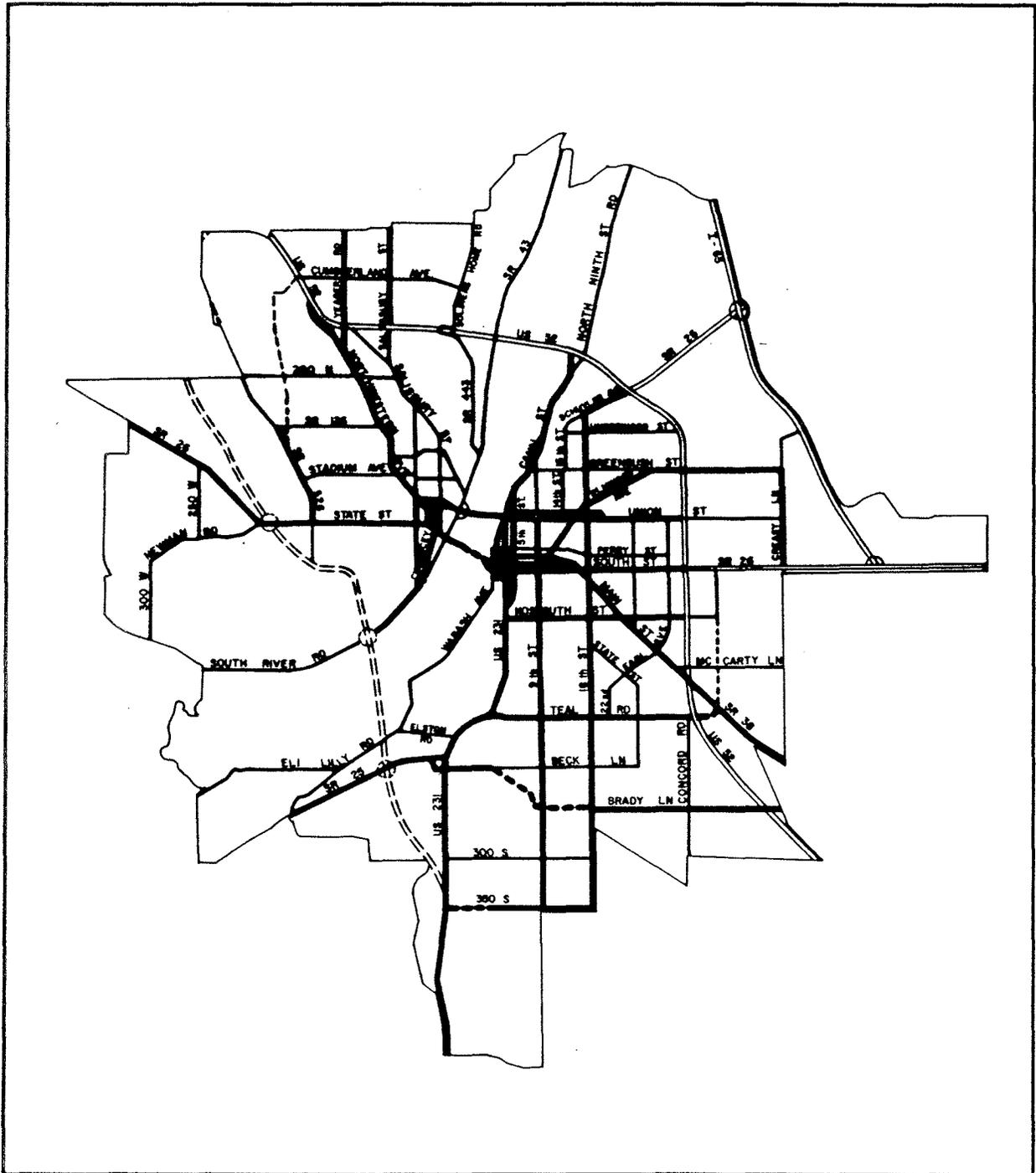


Figure 3

TIPPECANOE COUNTY AREA PLAN COMMISSION

THOROUGHFARE PLAN  
URBANIZED AREA

URBAN ARTERIALS		
	EXISTING	PROPOSED
DIVIDED PRIMARY		
PRIMARY		
SECONDARY		
INTERCHANGE		



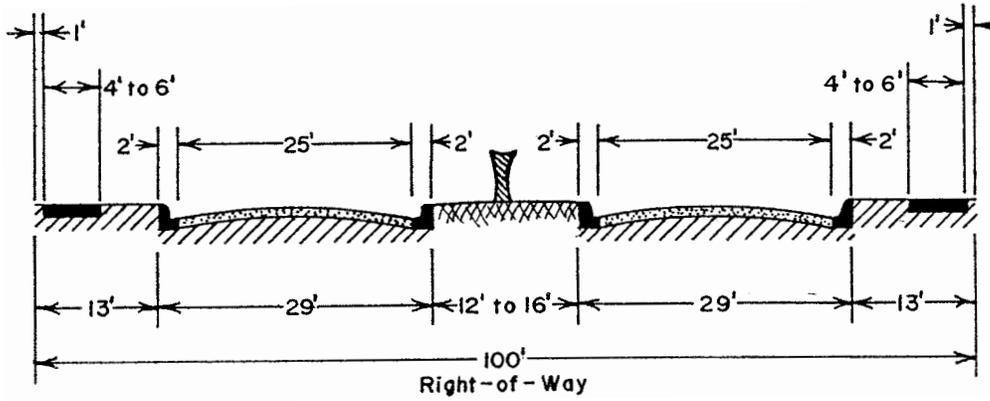
Revised August 1981



Figure 4

# DIVIDED PRIMARY ARTERIAL

## URBAN



## RURAL

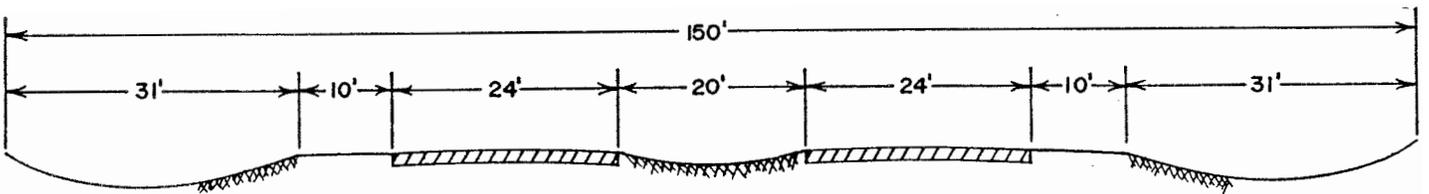
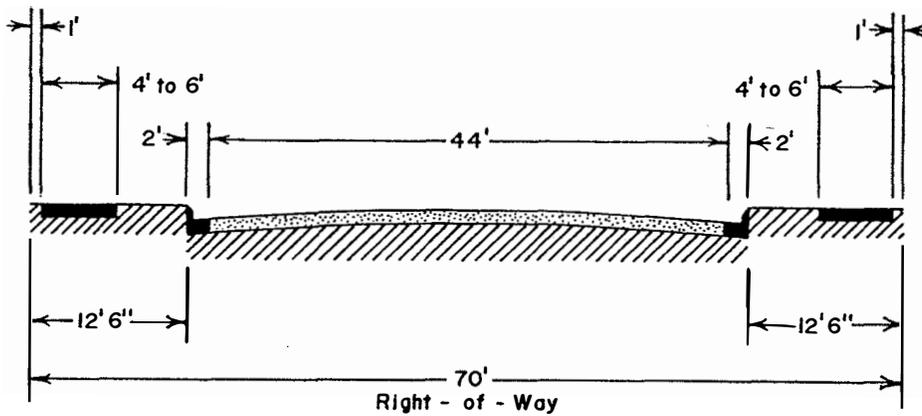


Figure 5

# TYPICAL URBAN CROSS SECTIONS

## SECONDARY ARTERIAL



## PRIMARY ARTERIAL

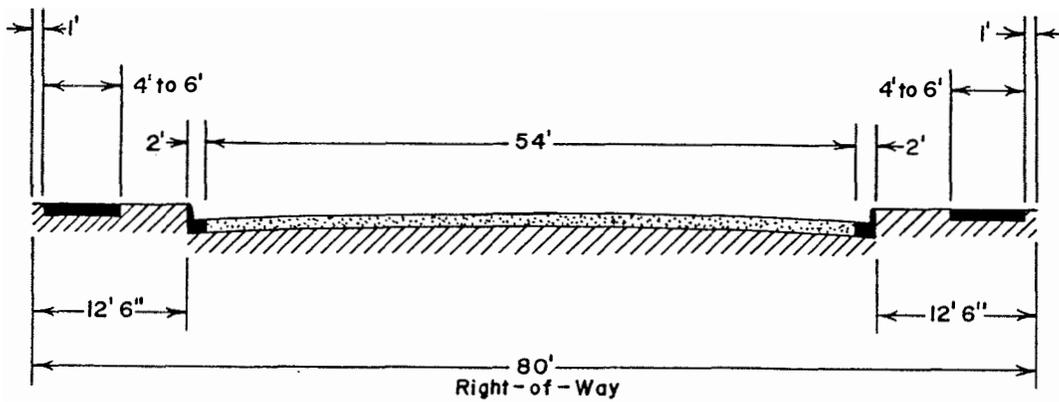
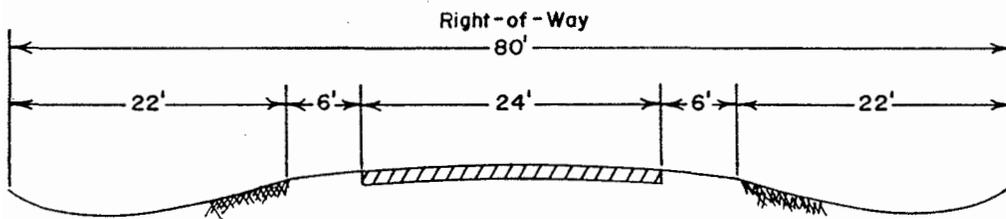


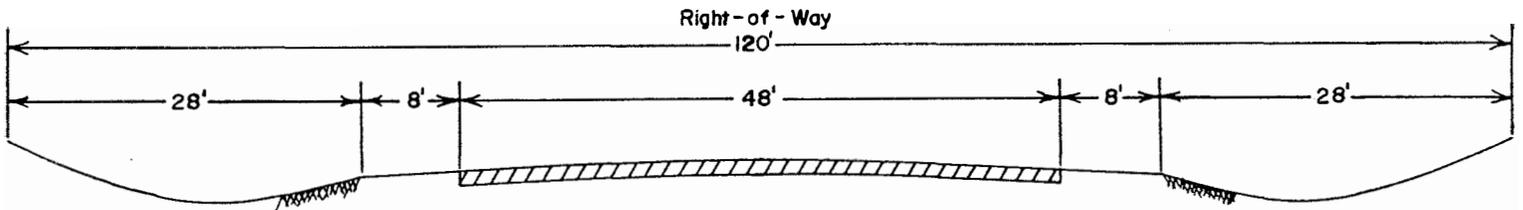
Figure 6

# TYPICAL RURAL CROSS SECTIONS

## SECONDARY ARTERIAL



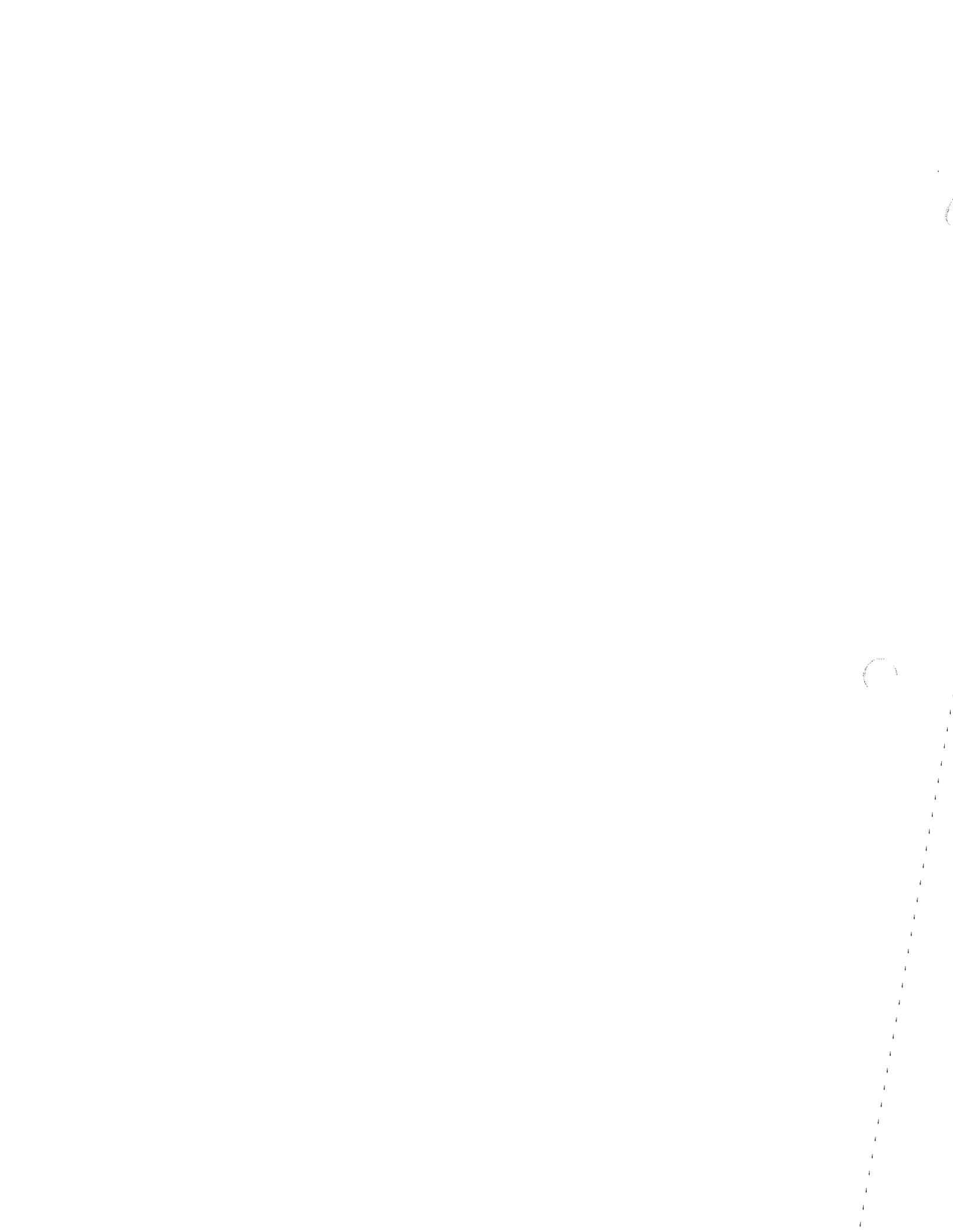
## PRIMARY ARTERIAL



It should be noted that it may be necessary periodically to update or revise the design standards and/or roadway classifications defined herein as part of the routine planning process.

In the urban area, shown in the Transportation Plan, a staged, phased Capital Improvement Program has been developed. If this Capital Improvement Program is followed, the development of the arterial street pattern will meet the needs of the community as development occurs.

Selected improvements from the program can be implemented if funding proves inadequate for the entire program. These improvements should concentrate on alleviating congestion and enhancing traffic flow.



THOROUGHFARE PLAN AMENDMENTS  
 AREA PLAN COMMISSION OF TIPPECANOE COUNTY  
 July 2001

Amendment Date	New Classification	Road	Location
April 15, 1987	Urban Primary Arterial	Creasy Lane Extension	SR 38 to US 52
	Note: this amendment replaces the Creasy Lane and Brady Lane extensions (N-S & E-W) to a single diagonal corridor		
April 15, 1987	Change Alignment and Intersection Location	Haggerty Lane	Haggerty Lane & SR 38 Intersection
April 15, 1987	Adjust Urban Area Boundary		Cinergy power line from SR 26 south to the NS railroad, then west to the west side of Concord Road, then south to the north boundary of CR 350S
December 21, 1988	Urban Primary Arterial	Twyckenham (existing & proposed)	Relocated US 231 to 9th Street
December 21, 1988	Urban Primary Arterial	Old Romney Road	SR 25 to Twyckenham
December 21, 1988	Urban Secondary Arterial	Beck Lane	Old US 231 to CR 50E
December 21, 1988	Local Road	Beck Lane	SR 25 to Old US 231
February 15, 1989	Urban Primary Arterial	River Road	Extension of Grant Street to SR 443 (Happy Hollow Road)
April 17, 1991	Urban/Rural Divided Primary (Limited Access)	US 231	South of SR 25 to a 1/2 mile south of CR 500S
April 17, 1991	Urban/Rural Primary	CR 350S	Old US 231 to New US 231
January 8, 1995	Delete Road Section	Farabee Drive Extension	SR 38 to McCarty Lane
February 21, 1996	Rural Divided Primary Arterial (Limited Access)	Hoosier Heartland Corridor (New SR 25)	North of CR 300N to the County Line
February 21, 1996	Rural Secondary Arterial	Existing SR 25	North of CR 300N to the County Line
February 21, 1996	Rural Secondary Arterial	CR 500E	CR 300N to CR 450N
June 19, 1996	Delete Proposed Road Section	Twyckenham Boulevard (alternative extension)	Old Romney Road to New US 231
January 19, 2000	Rural Primary Arterial	SR 26	Urban Area Boundary to McCarty Lane Extension
January 19, 2000	Rural Primary Arterial	McCarty Lane Extension	CR 500E to SR 26 (Vicinity of CR 675E)
January 19, 2000	Rural Primary Arterial	CR 500E / CR475E	SR 26 to SR 38
January 19, 2000	Change Alignment	CR 350S	US 52 to SR 38 (Adjust the route location)

